# Phase II Emerging Contaminants Site Investigation Report
# Former Nepera Plant Site
# Harriman, New York
# EPA ID# NYD002014595

Prepared for

ELT Harriman, LLC, and Nepera, Inc. & Warner-Lambert Company Corporate Defendants

July 2023

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# Certification Statement

I, Jeffrey Caputi, certify that I am currently a NYS registered professional engineer, that this Site Investigation Report, as to soil aspects, was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10), and that all activities were performed in full accordance with the DER approved work plan and any DER approved modifications.

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7-18-2023
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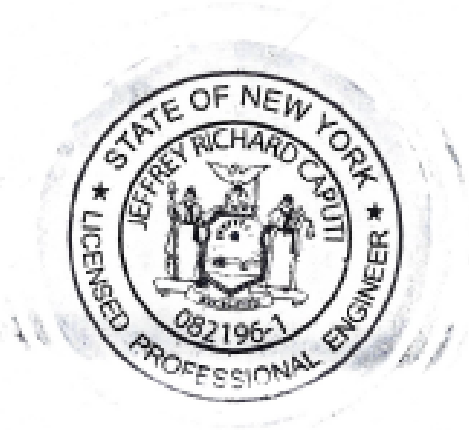

# Certification Statement

I, Timothy R. Roeper, certify that I am currently a NYS registered professional geologist, and that this Site Investigation Report, as to groundwater aspects, was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and any DER-approved modifications.

Timothy R. Roeper, PG
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7/18/2023
Date

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# List of Abbreviations

| | |
|---|---|
| BC | Brown and Caldwell |
| DUSR | Data Usability Summary Report |
| COC | Contaminant of Concern |
| Cornerstone | Cornerstone, PLLC |
| CSM | Conceptual Site Model |
| EC | Emerging Contaminants |
| EDD | Electronic Data Deliverable |
| ELT | ELT Harriman, LLC |
| EPA | U.S. Environmental Protection Agency |
| EQuIS | Environmental Quality Information System |
| gpm | gallons per minute |
| HASP | Health and Safety Plan |
| HDPE | High-Density Polyethylene |
| IRM | Interim Remedial Measures |
| MCL | Maximum Contaminant Level |
| mg/kg | milligrams per kilogram |
| ml | milliliters |
| ng/L | nanograms per liter |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| NYS | New York State |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PFBA | Perfluorobutanoic Acid |
| PFBS | Perfluorobutane Sulfonic Acid |
| PFHpA | Perfluoroheptanoic Acid |
| PFHpS | Perfluoroheptanesulfonic Acid |
| PFHxA | Perfluorohexanoic Acid |
| PFHxS | Perfluorohexanesulfonic Acid |
| PFOA | Perfluorooctanoic Acid |
| PFOS | Perfluorooctanesulfonate |
| PID | Photoionization Detector |
| ppb | parts per billion |
| ppm | parts per million |
| PVC | Polyvinyl Chloride |
| QA/QC | Quality Assurance/Quality Control |
| RCRA | Resource Conservation and Recovery Act |
| ROD | Record of Decision |

| | |
|---|---|
| SCG | Standards, Criteria, and Guidance |
| SCSR | Site-Wide Characterization Summary Report |
| SIR | Site Investigation Report |
| Site | Former Nepera Plant Site |
| SPLP | Synthetic Precipitation Leaching procedure |
| SRI | Site Remedial Investigation |
| µg/kg | micrograms per kilogram |
| µg/L | micrograms per liter |
| VOC | Volatile Organic Compound |

# Executive Summary

This report presents the results and analysis associated with the Emerging Contaminants (EC) Investigation at the former Nepera plant in Harriman, New York (the "Site") with additional soil and groundwater investigation work proposed based upon the findings to date. The EC investigation addresses the nature and extent of emerging contaminants consisting of 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). This investigation was conducted in phases, with results from early phases of work guiding subsequent phases of work following review and approval from the New York State Department of Environmental Conservation (NYSDEC).

Phase I consisted of the advancement of 34 soil borings for the collection of soil samples, the installation and sampling of five temporary groundwater monitoring wells, the installation of four new permanent monitoring wells and the collection of groundwater samples from 25 new and existing permanent monitoring wells. The Phase I report was submitted to NYSDEC in April 2021 and included a proposal for additional monitoring well installations and groundwater sampling.

Phase II consisted of the installation of 20 new monitoring wells (both on and off Site), the collection of 38 groundwater samples from both new and existing permanent monitoring wells, and an assessment of the influence on groundwater flow associated with operation of the Village of Harriman water supply well MH-1A located approximately 1,100 feet northwest of the Site in Mary Harriman Park.

The groundwater data from this phase of the investigation is generally consistent with historical data and the Conceptual Site Model (CSM). Data confirm that there is a groundwater "ridge" in the vicinity of MW-33 and MW-34 within the central portion of the Site. As such, groundwater generally moves from southwest to northeast in all units. Groundwater contours also indicate that groundwater flow underlying Mary Harriman Park, northeast of locations MH-104 and MH-105, is cross-gradient to the Site. Because MH-1A is a water supply well, zones of influence and capture were evaluated. These data suggest the pumping of MH-1A does not influence the groundwater at the Site, and vice versa.

Both the soil and groundwater investigation results yielded only sporadic detections of 1,4-dioxane. Throughout both phases of investigation, analytical results only returned one groundwater and one soil exceedance of 1,4-dioxane (12 micrograms per liter [µg/L] and 140 milligrams per kilogram [mg/kg], respectively).[1] Therefore, further sampling for 1,4-dioxane is not recommended and is only briefly discussed. Aside from evaluating groundwater flow, this report focuses on the distribution of PFAS and the relationship of that distribution to the existing CSM.

Results of PFAS groundwater sampling within wells at the Site and within Mary Harriman Park indicate (1) perfluorohexanesulfonic acid (PFHxS) was detected in generally the same spatial distribution and concentration ranges as perfluorooctanesulfonate (PFOS) on Site, (2) five potential separate source areas exist on Site, and (3) separate, non-Site source(s) of PFAS compounds are impacting Mary Harriman Park.

[1] New York Drinking Water Maximum Contaminant Level = 1 µg/L and New York Unrestricted Use Soil Cleanup Criteria = 100 mg/kg.

Based on these results, this report provides recommendations for additional soil sampling to further define the nature and extent of impacted soils in five potential source areas. This report also recommends the installation and sampling of additional downgradient groundwater monitoring wells adjacent to the West Branch of the Ramapo River to further define the nature and extent of impacted groundwater in the aquitard and aquifers identified during the Phase II groundwater investigation.

Section 1

# Introduction

## 1.1 Overview

In May 2017, the New York State Department of Health (NYSDOH) (in collaboration with the Orange County Health Department) sampled the public water supply wells in Mary Harriman Park. This initial sampling resulted in detections of perfluorooctanoic acid (PFOA) and PFOS in public water supply well MH-1A. In addition, to evaluate the presence of PFOS and PFOA in the vicinity of Mary Harriman Park, the NYSDEC conducted sampling during June 2017 to evaluate on-Site (Nepera) groundwater, as well as surface water from Mary Harriman Park Lake and the West Branch of the Ramapo River. This investigation also confirmed the presence of PFOA and PFOS.[2] The purpose of this EC Site Investigation Report is to evaluate emerging contaminants at the Nepera-Harriman Site and nearby Mary Harriman Park.

The investigation contained in this report was proposed in the final *Emerging Contaminants Site Investigation Work Plan*, dated October 2019.[3] The investigation was completed in response to a request from the NYSDEC to conduct an investigation of PFAS and 1,4-dioxane (EC) in soils and groundwater at the Nepera-Harriman Site, also referred to as the Former Nepera Plant Site (the "Site").

## 1.2 Site Description

The Nepera-Harriman Site is located on NY Route 17 in the Village of Harriman, Orange County, approximately one mile west of Exit 16 of the New York State Thruway (Figure 1-1). The Site is bounded to the northwest by New York State (NYS) Route 17, to the northeast by the West Branch of the Ramapo River, to the southeast by undeveloped land currently owned by ELT Harriman, LLC (ELT) (commonly referred to as the "Avon parcel") and to the southwest by the Erie Lackawanna Railroad. The Site occupies approximately 28 acres and can generally be divided into two areas: (1) approximately 10 acres located to the northeast of Arden House Road on which the former administrative offices were located, and a parking lot and stormwater lagoon are located, and (2) approximately 18 acres to the southwest of Arden House Road on which the former manufacturing facilities were located. The Site was previously used for the manufacture of pharmaceutical and specialty chemicals from 1942 to 2005 and was acquired by ELT in 2007. In 2015, the buildings, tank farms, distilling operations, and other manufacturing areas were decommissioned and demolished according to NYSDEC standards. The primary features of the Site as of 2005, prior to demolition activities, is presented in Figure 1-2. Also visible in Figure 1-2 are the location of industrial and sanitary sewer lines underlying the Site.

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[2] New York State Department of Environmental Conservation letter to Corporate Defendants, September 12, 2017.

[3] The *Emerging Contaminants Site Work Plan*, dated October 2019, was revised after subsequent initial sampling. The additions to the work plan are detailed in the *Revised Emerging Contaminants Site Investigation Work Plan Addendum* (dated June 19, 2020), the proposed additional investigation work included with the *Emerging Contaminants Site Investigation Report* (EC SIR) (dated April 2021), and the approval for installation of pressure transducers in Mary Harriman Park wells by agreement with the Village of Harriman (dated March 9, 2022).

Previously completed and approved remedial actions at the Site have included, but are not limited to, drum and contaminated soil removal (Area F, Area K, Building 53), groundwater extraction and treatment, biosparging, interim remedial measures (IRM) along the stream bank, Resource Conservation and Recovery Act (RCRA) Corrective Action, and other actions as required by the Record of Decision (ROD), RCRA Corrective Action, and subsequent agreements with the NYSDEC. A discussion of the various remedial investigations is presented in the *Sitewide Characterization Summary Report* (SCSR).[4] Additionally, the SCSR contains: (1) a detailed description of the regional and Site setting including physiography, geology, hydrogeology, and hydrology, (2) the CSM as developed under the ROD, (3) exposure and ecological assessments, and (4) significant Site events.

Subsequent Site investigation reports include:

- *Supplemental Remedial Investigation Report, Former Nepera Plant Site, Brown and Caldwell Associates*, October 2014, May 2014, revised May 2015
- *Supplemental Remedial Investigation Report, Former Nepera Harriman Site, Cornerstone Engineering & Land Surveying, PLLC*, November 2014, revised August 2016
- *Emerging Contaminants Site Investigation Report, Former Nepera Harriman Site, Brown and Caldwell Associates and Cornerstone Engineering and Geology, PLLC*, April 2021

This report has been generated in response to a request from the NYSDEC to evaluate PFAS and 1,4-dioxane (EC) in soils and groundwater at the Nepera-Harriman Site. 1,4-Dioxane, which is generally associated with chlorinated solvents, was not used as a raw material or manufactured at the Site. Based upon prior investigations, the other contaminants of concern (COCs) at this Site are benzene, toluene, xylene, pyridine, alpha-picoline, 2-aminopyridene, and mercury, none of which are chlorinated solvents. Chlorinated solvents (specifically chlorobenzene) have only been detected sporadically in groundwater and at low levels.[4] Similarly, PFAS compounds (which are the focus of this report) were not used as raw materials or manufactured at the Site.

## 1.3 Conceptual Site Model

The CSM was initially presented in the *Conceptual Site Model and Supplemental Remedial Action Work Plan* and was summarized again in the March 2011 SCSR[3]. The additional data collected to date, inclusive of soil descriptions obtained at new monitoring well locations and the spatial distribution of PFAS compounds, continues to support the CSM with further refinement of off-Site conditions to the southeast and northwest. The CSM informs the assessment and understanding of data collected as part of this investigation and is visually illustrated in the cross-section provided in Figure 1-3. The heterogeneous geology (shown in the cross section) changes gradationally across the study area and causes groundwater travel times to vary depending on the grain size and associated permeability of the soils. Soils principally comprised of fine sands, silt and clay represent an aquitard, as compared to soils comprised of fine and/or coarse sand which represent an aquifer. In general, groundwater underlying the central portion of the former Nepera Site is first present within low permeability soils identified as an aquitard. Groundwater flow through the aquitard in this area is impeded by the comparatively low permeability soils and moves both horizontally and vertically with discharge to the underlying coarser-grained soils identified as an aquifer. Groundwater flow through the aquifer (glacial outwash) underlying the central portion of the Site is generally to the northeast. Within the southeast corner of the Site and off-Site to the southeast, the aquitard is not present. In this portion of the Site, soils consist of fine sand and silt with lenses of fine to medium sand. While groundwater generally flows from southwest to northeast across the

[4] *Sitewide Characterization Summary Report*, Brown and Caldwell Associates and Cornerstone Engineering and Land Surveying, PLLC, March 2011.

Site, groundwater flow in the southeast corner has a localized shift and flows to the southeast. In these deposits, the rate of flow is limited such that degradable Site COCs such as benzene, are degraded before reaching downgradient monitoring wells (e.g., MW-4S). However, Site COCs which are not readily degraded, such as PFAS compounds, are detected in downgradient monitoring wells. Finally, as shown on Figure 1-3, the coarse-grained soils comprising the aquifer underlying the central portion of the Site gradually become thinner and finer grained to the northwest of the Site, across NY Route 17 and underlying Mary Harriman Park, such that aquifer materials are no longer present and the low permeability soils represent an aquitard. As noted above, and as shown on Figure 1-3, lateral changes in the grain size of the soils, and the associated change from aquitard to aquifer, occur gradually with no distinct boundaries.

Section 2

# Scope of Investigation

This section presents the scope of the investigation, as well as any modifications that were necessary as the result of field conditions. Field work was completed in compliance with the approved work plans and addenda, Part 375 regulations, and NYSDEC guidance for emerging contaminants sampling. Notification of mobilization for sampling activities was provided to the NYSDEC at least seven days in advance. Field work was completed in compliance with a Health and Safety Plan (HASP).

## 2.1 Site Investigation Objectives

The investigation objectives are as follows:

- Investigate the distribution of 1,4-dioxane and PFAS compounds in the soil across the Site.
- Investigate the distribution of 1,4-dioxane and PFAS compounds in groundwater across the Site and in Mary Harriman Park.
- Refine the CSM by gathering additional groundwater data from locations to the southeast and northwest of the Site.
- Define the zones of influence, and capture, associated with water supply well MH-1A to evaluate the extent, if any, of hydraulic connection between the Site and Mary Harriman Park.
- Investigate potential sources of groundwater impacts, on-Site and in the vicinity.

## 2.2 Soil Investigation

The initial Supplemental Remedial Investigation (SRI) soil investigation was conducted between January 8 and 10, 2020. Seventeen borings were completed in the vicinity of Building 2A, Building 26, Building 52, and Building 72, as well as near monitoring wells where PFAS compounds had been detected in prior sampling.

Following review of the initial round of soil sampling results, a second mobilization was conducted between August 10 and 11, 2020.[5] The second mobilization included 17 additional borings to further delineate potential PFAS sources within the vadose zone identified in January 2020. The saturated soils which exhibited characteristics of an aquitard were further investigated and delineated under the groundwater sampling portion of the investigation.

The sample locations are presented on Figure 2-1 and summarized in Table 2-1. Samples were analyzed for the following analyte groups, using the following methods:

- PFAS Target Analyte List (NYSDEC, April 2018) – U.S. Environmental Protection Agency (EPA) Method 537, revision 1.1 (modified)
- 1,4-Dioxane – SW-846 Method 8270 SIM with Isotope Dilution
- PFAS Synthetic Precipitation Leaching Procedure (SPLP) – Method 1312 – Contingent analysis for samples where PFOA or PFOS concentrations exceeded 1 part per billion (ppb).

[5] The scope was established in the *Emerging Contaminants Site Investigation Work Plan Addendum*, dated June 19, 2020.

Cascade Technical Services completed the borings, and the soils were logged by Brown and Caldwell (BC).

Prior to completing the soil borings, each sample location was identified in the field by a NYS licensed surveyor, MJ Engineering and Land Surveying, P.C. Subsequently, all sample locations were cleared for underground structures and other potential obstructions by a geophysical contractor (Enviroprobe Service, Inc. and Subsurface Environmental Technologies for the January 2020 and August 2020 sampling events, respectively). Oversight of field sampling activities was provided by NYSDEC representatives Parag Amin on January 8, and David Herman on January 9.

## 2.3 Groundwater Investigation

The initial phase of groundwater investigation began in August 2020.[6] For this evaluation, Cascade Drilling installed five temporary wells and four permanent monitoring wells (two individual locations and one couplet location). Both the temporary and permanent wells were subsequently sampled by a representative of Cornerstone PLLC (Cornerstone). In addition, Cornerstone completed a Site-wide measurement of groundwater levels for use in refinement of the CSM.

The scope of the second groundwater investigation phase began in September 2021.[7] This phase of work included the installation of 11 shallow on-Site monitoring wells screened at the water-table and within the low-permeability aquitard soils (where present and as discussed above in the soil investigation section), seven off-Site monitoring wells screened in the most permeable overburden deposits at each location, and two off-Site monitoring wells in the upper 15 feet of bedrock. Note that soils characteristic of aquifer materials were not identified during well installation within Mary Harriman Park. Therefore, the completed wells represent aquitard wells.

Permanent and temporary monitoring well locations are shown on Figure 2-2 and summarized in Table 2-2. All groundwater samples were analyzed for the PFAS Target Analyte List and 1,4-dioxane, consistent with the soil samples described above (i.e., PFAS Target Analyte List (NYSDEC, April 2018) –EPA Method 537, revision 1.1 (modified) and 1,4-dioxane – SW-846 Method 8270 SIM with Isotope Dilution).

Following completion of the off-Site wells referenced above the Village of Harriman approved the installation of pressure transducers in monitoring wells within the Mary Harriman Park. After approval, Cornerstone installed pressure transducers in 20 monitoring wells to assess the MH-1A's zone of influence, and zone of capture, for a period of two weeks beginning on March 18, 2022. Sixteen of these monitoring wells are within Mary Harriman Park and four monitoring wells are located on the Site. The NYSDEC agreed with this recommendation and further study was completed as described below.

## 2.4 Work Plan Modifications

Modifications to the approved Site investigation scope were necessary in response to conditions encountered in the field. Changes to the initially proposed scope of work, and the significance of those changes are described below.

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[6] *Work Plan Addendum, Emerging Contaminants Site Investigation Work Plan, Former Nepera Plant Site, Cornerstone Engineering, Geology and Land Surveying PLLC and Brown and Caldwell Associates*, March 9, 2020, Revised June 19, 2020.

[7] *Emerging Contaminants Site Investigation Report, Former Nepera Plant Site, Brown and Caldwell Associates and Cornerstone Engineering and Land Surveying, PLLC*, April 2021

### 2.4.1 Soil Investigation

Soil sampling was conducted in accordance with the approved work plan with the exception of the depth intervals. The work plan specified target intervals of 0-2 inches below any debris, slab, pavement, or vegetative cover for surficial soil samples and the one-foot interval above soil saturation, unless evidence of potential impact was apparent at a different depth interval. Due to field conditions (extensive debris) and the large volume of soil required for SPLP analysis, surficial samples were collected from a depth interval of 0-1 foot below ground surface. In some instances, a sample interval of larger than one foot was required for deeper samples. This change in sampling intervals does not impact data usability or the evaluation of the main objective: to investigate potential source areas related to groundwater impacts.

### 2.4.2 Groundwater Investigation

Groundwater sampling was completed in accordance with the approved work plan with two exceptions. First, the work plan specified that samples would be taken through a retractable screen attached to the Geoprobe® rods. Instead, temporary polyvinyl chloride (PVC) well points were used to collect groundwater samples. This change was necessary because, at many locations, Site soils had generally low permeability which required extended time for sample collection. Second, a few of the proposed on-Site wells were shifted slightly from their proposed locations due to obstructions in the field. These shifts in location were minimal and did not affect the intent of the originally proposed location.

Section 3

# Field Sampling Methodology

## 3.1 Soil Investigation

Soil samples were collected using Geoprobe® (macro core) direct-push technology, with new acetate liners used for each sample interval. Soil boring logs are provided in Appendix A.

Soil sampling was conducted in accordance with the standard operating procedures in the October 2019 *Emerging Contaminants Site Investigation Work Plan*. Each soil sample was field screened for volatile organic compounds (VOCs) using a photoionization detector (PID), calibrated daily in accordance with the manufacturer specifications. During sampling with the macro core, the sample was screened immediately upon opening the sampling device. The PID was utilized to monitor for VOCs within "pockets" of the soil burrowed with a gloved hand of the sampler. The PID sampling tip was placed within the pocket and then enclosed by the cupped hand of the sampler. Conditions were allowed to stabilize, and a reading was taken and recorded. This process was repeated at each observed change in material or evidence of impact. The portion of the soil cores sampled for analysis was biased toward the portion demonstrating the highest PID readings.

VOC samples were collected directly from the non-homogenized core and containerized. Soil samples for PFAS analysis were removed from the split-spoon or acetate liner and placed in high-density polyethylene (HDPE), glass, or polypropylene sample bottles with Teflon®-free caps, provided by the laboratory.

After the completion of sample collection, excess soil was placed back in the borehole. No investigation-derived waste was generated as part of the soil investigation.

In addition to the 34 soil samples described above, continuous soil samples were collected from ground surface to 25 feet below ground surface at each temporary well location. These soil logs are located within Appendix B and were used to refine the understanding of Site geology.

## 3.2 Groundwater Investigation

The groundwater investigation consisted of the installation of temporary and permanent monitoring wells, collection of water levels, collection of groundwater quality samples, the collection of information related to the Village of Harriman water supply wells, and assessment of the influence on groundwater flow associated with operation of water supply well MH-1A pursuant to the scope of work outlined within the April 2021 EC SIR (BC/Cornerstone 2021) approved by the NYSDEC.

### 3.2.1 Temporary Monitoring Well Installation and Sampling

From August 5 to August 7, 2020, five temporary monitoring wells were installed using a Geoprobe® owned and operated by Cascade Drilling and sampled by Cornerstone. The locations were surveyed in the field using a Trimble R10 GNSS Receiver with real-corrections from NYSNet Real Time Network. Soil samples were collected from each boring, screened with a PID, and logged by Cornerstone. The soil logs were subsequently used to select the most permeable interval for well completion.

The temporary wells were purged using a peristaltic pump and one representative groundwater sample was collected from each location through temporary one-inch diameter PVC pipe attached to a five-foot long well screen. Purging was completed at a low flow rate to reduce turbidity and the temporary wells were evacuated multiple times to reduce turbidity until there was no visible improvement. In some cases, Cornerstone completed multiple evacuations of the temporary wells, but the groundwater remained cloudy and/or had a brown tint. Once a visible improvement in turbidity was no longer observed, the discharge tubing was connected to a flow through cell attached to a Horiba U22 multiparameter meter that was calibrated daily. Field parameters were monitored until stabilization in accordance with the EPA Low Flow Sampling Procedures.[8] As noted above, the turbidity in some of the temporary wells remained high, but at stabilized levels. Turbidity in the collected groundwater samples can exaggerate the PFAS results if the compounds are adsorbed on suspended particulates. However, there does not appear to be a correlation between elevated turbidity levels and PFAS concentration in these results. Collection of groundwater samples occurred directly through HDPE tubing dedicated to each well into laboratory provided bottles (unpreserved polypropylene 250 milliliters (ml) with non-Teflon screw on cap for PFAS and amber glass 250 ml preserved with hydrochloric acid for 1,4-dioxane). At location F-GW-01, the yield was sufficiently low that the temporary well was evacuated three times followed by sample collection. As noted above, HDPE tubing was dedicated to each well and the silicon tubing used in the peristaltic pump was replaced between each location. The collected samples were labeled with the temporary well location ID, sampling date and time and samplers initials, and immediately placed on ice. The samples were sent under chain-of-custody, via lab courier, to Eurofins-Test America Laboratory for analysis of 1,4-dioxane and PFAS compounds.

Following sample collection, the temporary PVC wells were removed, and cuttings were used to backfill the borehole to the original grade. Any remaining cuttings and purge water generated during sampling were containerized in 55-gallon steel, DOT-approved drums, labeled and staged for subsequent disposal.

### 3.2.2 Monitoring Well Installation (Phase I)

In Phase I, four monitoring wells were installed to preliminarily assess the distribution of emerging contaminants and the refinement of the CSM. Three aquifer monitoring wells were installed using a Geoprobe® equipped with hollow-stem augers (MW-201, MW-202, and MW-203). The hollow-stem auger met refusal at the top of the bedrock, therefore, mobilization of a sonic rig was necessary for the installation of one bedrock well (MW-202D). Drilling was completed by Cascade Drilling from August 5 through 19, 2020.

Soil samples were collected from each boring, screened with a PID, and logged by Cornerstone. The soil logs were subsequently used to select the most permeable interval for completion of four monitoring wells. All wells were constructed with two inch diameter PVC riser pipe, PVC wire-wrap screens, sand pack around the screens and cement-bentonite grout to ground surface. The aquifer wells were constructed with 20-foot screens. The bedrock well was constructed with a 10-foot screen, consistent with pre-existing wells on Site. Well construction logs are provided in Appendix C. Following completion, the wells were developed until the development water was visually clear and then completed with a locking protective casing. Drill cuttings and development water were contained in 55-gallon drums for subsequent disposal. Locations and elevations were surveyed by licensed NY surveyor Kennedy and Associates.

[8] Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures, EPA/540/S-95/504, April 1996.

### 3.2.3 Monitoring Well Installation (Phase II)

In Phase II, 20 monitoring wells were installed between September 23 and October 7, 2022 using a sonic drilling rig owned and operated by Aquifer Drilling and Testing (AMW-1 through AMW-11, MH-101 through MH-105, MH-103D, MH-105D, AP-101, and BP-101). Soil samples were collected from each boring and screened with a PID using methodology described previously. PID readings above 1 part per million (ppm) were recorded at location MH-102, AMW-1, AMW-2, and AMW-4 (see Appendix C) with the highest values (maximum value of 74.4 ppm) and a strong odor observed at AMW-9. Following PID screening, the soils from each boring were logged by Cornerstone. For the AMW locations, the soil logs were subsequently used to identify the depth of saturation and construct wells within the upper 10 feet of the saturated zone. For MH-101 through MH-105, AP-101, and BP-101, the borehole at each location was advanced to refusal on bedrock and the soil descriptions were reviewed to identify the interval with the most permeable soils (in which, the wells were screened). The length of the screened interval was based upon the geology at each location and were constructed to be between 5 feet and 20 feet in length. MH-103D and MH-105D were constructed in the upper 15 feet of bedrock adjacent to the shallow wells at these locations. All wells were constructed with two-inch diameter PVC riser pipe, PVC wire-wrap screens, sand pack around the screens and cement-bentonite grout to ground surface. Well construction logs, which include soil descriptions, are provided in Appendix C. Following completion, the wells were developed until the development water was visually clear and then completed with a locking protective casing. Drill cuttings and development water were contained in 55-gallon drums for subsequent disposal. Locations and elevations were surveyed by NY licensed surveyor Kennedy and Associates.

### 3.2.4 Groundwater Elevations and Sampling

Depth to groundwater measurements were obtained with a Solinst electronic water level meter from monitoring wells and piezometers across the Site on September 8, 2020, October 25, 2021, and March 18, 2022. These data are summarized in Table 3-1 and also include surface water measurements taken from staff gauges at the Mary Harriman Park Pond, the bridges over the West Branch of the Ramapo River at NY Route 17 and Arden House Road. Table 3-1 also summarizes the water-bearing unit (i.e., aquitard, aquifer, or bedrock) assigned to each location. Potentiometric surface maps were drawn for the aquitard wells, aquifer wells, and top of bedrock wells, as discussed in Section 4.

Note that some well locations (e.g., MH-101, MH-102, MH-105S) are assigned as aquitard wells although the general description of the soils adjacent to the screened interval consists of a mix of sand and sub-angular gravel with minimal amounts of silt. The presence of the sub-angular gravel indicates that these soils represent ice contact kame deposits as opposed to glacial melt-water deposits. While the large percentage of sand and gravel suggests high permeability, and the RI Report (Conestoga-Rovers Associates, July 1995) groups these deposits with aquifer wells, the RI Report further elaborates stating:

> "The various types of kame deposits are highly variable in texture and sorting. Additionally, kame deposits may contain a large fraction of calcareous cement which reduces the permeability. The succession of different deposits at any location causes considerable variability in the aquifer thickness and transmissivity"

The above description is consistent with the soils observed in the field at the above referenced locations, with some sand and sub-angular gravel intervals described as saturated (suggesting aquifer materials) and other intervals described as "damp" indicating the soils are sufficiently dense and/or cemented such that they are generally low permeability. In addition to the variability

observed at any given location, there is also variability between locations within the same general area, suggesting that the more permeable intervals are not laterally extensive. Collectively, this resulted in grouping the above referenced locations as aquitard wells, even though there are some more permeable layers observed at individual locations.

Grouping these locations as aquitard wells, however, does not imply that there is no lateral groundwater flow through this area. Rather, the grouping of these wells as aquitard or aquifer wells simply reflects the rate of groundwater flow through the area. In fact, if these locations were re-grouped as aquifer wells and the water levels were plotted on the aquifer potentiometric surface maps presented in Section 4.0, the contours would be virtually identical to those currently shown and the interpolated groundwater flow directions shown on Figure 4-4 and Figure 4-9 would not change. In other words, re-grouping of these locations would not change the conclusions presented in the report in any way.

#### 3.2.4.1 Groundwater Sampling

Groundwater samples were collected from 63 new and existing monitoring wells during the period September 9–11, 2020 and October 25-29, 2021. Each location was sampled with a peristaltic pump equipped with dedicated silicone and HDPE tubing. Purging and sampling was conducted in accordance with low-flow methodology.[8] Field sampling forms are provided in Appendix D. The collected samples, as well as the associated blind duplicate and field blank quality assurance/quality control (QA/QC) samples, were labeled with the well location ID, sampling date and time and samplers initials, and immediately placed on ice. The samples were sent under chain-of-custody, via lab courier, to Eurofins-Test America Laboratory for analysis of 1,4-dioxane and PFAS compounds as described above. Purge water was collected in five-gallon buckets and transferred to 55-gallon drums for subsequent off-Site disposal.

As also noted above with regard to the temporary wells, some of the wells stabilized with elevated turbidity levels and elevated turbidity can potentially exaggerate the reported PFAS concentrations. However, there does not appear to be a correlation between elevated turbidity levels and PFAS concentration in these results.

### 3.2.5 Village of Harriman Water Supply Wells

To address the NYSDEC request to identify water supply wells within a half-mile radius of the Site, the Village of Harriman was contacted regarding known potable wells within the Village. According to a July 31, 2020 email from the Village's attorney, no private potable wells are allowed within the Village, and therefore, none are within the half-mile radius of interest for this investigation. Historically, wells were located northeast of the Site along NY Route 17, at the former Automotive City, Tom Sullivan Chevrolet, and Motel. However, these wells have reportedly been abandoned. The motel has been demolished and verbal communications with the Village of Harriman Water Superintendent indicate that the current business is connected to municipal water.

Figure 3-1 illustrates the location of the Village's active water supply wells in relation to the Site. The available permitted capacities for the identified water supply wells, as obtained from the Village's Water Withdrawal Permit, and aquifer unit, were provided previously and are not repeated herein.

#### 3.2.5.1 MH-1A Zone of Influence

As presented in Section 1 of this report, sampling of the Village of Harriman public water supply wells by the NYSDOH in Mary Harriman Park identified PFOA and PFOS in water supply well MH-1A above the EPA Health Advisory Level of 70 nanograms per liter (ng/L). In accordance with the approved work plan, and as reported herein, monitoring wells were installed within Mary Harriman Park and groundwater obtained from both new and existing monitoring wells were sampled for PFAS

compounds. PFAS compounds were identified in Mary Harriman Park groundwater (discussed in Section 4) and during monthly coordination calls with NYSDEC, Cornerstone recommended further study to assess the zone of influence and zone of capture attributable to operation (pumping) of MH-1A.

MH-1A is located approximately 1,100 feet northwest of NY State Route 17 and the Site. The well is operated on an "on demand" basis and the well pump is turned on and off automatically as required by the Village's water supply needs, pumping at a rate of approximately 68 gallons per minute (gpm). In order to assess the zone of influence and zone of capture associated with MH-1A, Solinst Levellogger® pressure transducers were installed in 20 wells (Table 3-2). Each pressure transducer was programed to record the total pressure at one-minute intervals for a period of two weeks (March 18 – April 1, 2022). In addition, a "Baralogger" was also set to record barometric pressure at the same sampling intervals so that the raw data could be corrected for changes associated with barometric pressure using software provided by Solinst. The barometrically-corrected data at each location were then uploaded to a Microsoft Excel file where the data were converted from feet of water over the transducer to feet above mean sea level (i.e., elevation) and presented in graphical format (Appendix E). In addition to the groundwater elevation at each location, the graph was annotated to indicate when the pump at MH-1A was on or off, based upon the observed drawdown in MH-1A.

Section 4

# Investigation Results

## 4.1 Soil Investigation Results

The soil investigation work completed to date (i.e., Phase 1 soil sampling) was conducted in January and August 2020, was presented previously in the April 2021 EC SIR and is reiterated here for completeness. It should again be noted that saturated soil results above the intermittent clay layer are addressed through the groundwater investigation protocols.

The 2020 soil investigation consisted of a total of 34 soil borings conducted across the Site, 17 in January 2020 and another 17 in July 2020. Soil samples were collected continuously during the drilling of each of the soil borings resulting in the collection of 60 analytical samples. The soils were scanned for VOCs with a PID and general observations of soil type, moisture and/or any evidence of impacts were also made. Boring logs are provided in Appendix A. Borings were logged as the top of the soil representing ground surface and ground coverings such as pavement or concrete were noted in the logs.

Generally, the soils encountered were a mix of fill and medium-fine sand with varying amounts of silt. The deeper borings generally ended within a sandy silt or clay unit. Wet soils were encountered at varying depths across the Site depending on the elevation of the boring location. Wet soils were as shallow as 1 foot below ground surface along the center of the Site (in the vicinity of SWMU Buildings 2, 5, 20, and 28), and as deep as 5.4 feet below ground surface along the north-northwestern boundary of the Site (in the vicinity of Building 1).

### 4.1.1 PFOS/PFOA Results

The soil sample analytical results for PFOS and PFOA are presented in Table 4-1 and Figure 4-1. The following discussion compares these results to the NYSDEC 2020 Guidance Values (NYSDEC, January 2020) as called for in the approved work plan. However, the NYSDEC subsequently updated the guidance in June 2021 with guidance values for protection of groundwater of 1.1 micrograms per kilogram (µg/kg) for PFOA and 3.7 µg/kg for PFOS (NYSDEC, June 2021).

PFOS was detected in samples from 32 of 34 boring locations. PFOS exceedances of the 1 µg/kg benchmark were detected in 30 samples collected from 21 boring locations. The highest concentration of PFOS, 1,100 µg/kg, was detected at sample location 72-B-010 at a depth of 0-1 feet below ground surface.

PFOA was detected in samples from 16 of 34 boring locations. PFOA exceedances of the 1 µg/kg benchmark were detected in five samples collected from five boring locations. The highest concentration of PFOA, 6.0 µg/kg, was detected at sample location 72-B-009 at a depth of 0-1 feet below ground surface. Both PFOA exceedances of the benchmark were detected in samples with an exceedance for PFOS.

PFHxS, along with PFOS, was detected most frequently and at the highest concentrations, however there is currently no compound-specific standard for PFHxS for comparison.

### 4.1.2 Synthetic Precipitation Leaching Procedure PFAS Results

SPLP analysis results for PFOS and PFOA are presented in Table 4-2 and on Figure 4-2. As established in the work plan prior to the soil investigation, PFOS and PFOA results from the Total PFOS/PFOA analysis were compared to a benchmark of 1 µg/kg. Samples that exceeded that threshold were submitted for further analysis by SPLP.

SPLP sample results are compared to the 10 ng/L maximum contaminant level (MCL) for drinking water established by the NYSDOH. Exceedances of the 10 ng/L MCL for PFOS were detected in 29 samples collected from 17 boring locations. The highest detected SPLP concentration of PFOS was 40,000 ng/L at location 72-B-010 at a depth of 0-1 feet. Exceedances of the 10 ng/L MCL for PFOA were detected in eight samples collected from five boring locations. The highest detected SPLP concentration of PFOA was 85 ng/L at location 72-B-010 at a depth of 0-1 feet.

The SPLP testing revealed the presence of both PFOS and PFOA in the samples with PFOS at a greater concentration than PFOA. PFOS/PFOA concentrations greater than 10 ng/L were detected in a majority of the 72-B series borings. The ratio of PFOS/PFOA in these samples ranged from 10 to as high as 470 (72-B-010).

The analytical results also show detectable levels of PFHxS, perfluorohexanoic acid (PFHxA), perfluorobutane sulfonic acid (PFBS), perfluorobutanoic acid (PFBA), perfluoroheptanesulfonic acid (PFHpS), and perfluoroheptanoic acid (PFHpA) which are included in the discussion of total PFAS.

Among the additional PFAS compounds, PFHxS was detected at a concentration close to PFOS levels, such that PFHxS, along with PFOS, are the two PFAS compounds detected at the highest concentrations and most frequently.

### 4.1.3 Total 1,4-Dioxane Results

The soil sample analytical results for 1,4-dioxane are presented in Table 4-1.

1,4-Dioxane was detected in samples from 4 of 17 boring locations. The highest concentration of 1,4 dioxane, 140 µg/kg was detected at sample location G-B-105 at a depth of 8-10 feet. This was the only detection that exceeds the Part 375 unrestricted use soil cleanup standard of 100 µg/kg, which also is the standard for protection of groundwater.

Because the 1,4-dioxane results only had one detection that exceeded the unrestricted use and protection of groundwater soil cleanup criterion, these data are not summarized on a figure, nor are they discussed further.

## 4.2 Groundwater Investigation Results

The groundwater investigation summarized in this report has three primary goals:

1. Refine the potentiometric surface presented in the CSM and extend mapping of the potentiometric surface to the northeast (i.e., under Route 17 and Mary Harriman Park) to further assess potentiometric heads (groundwater elevations) and groundwater flow direction, including potential influence of pumping at MH-1A on groundwater flow at the Site.
2. Define the zones of influence, and capture, associated with the pumping of water supply well MH-1A to evaluate the extent, if any, of hydraulic connection between the Site and Mary Harriman Park.
3. Evaluate the distribution of PFAS compounds on Site and in Mary Harriman Park to determine potential source areas.

### 4.2.1 Groundwater Potentiometric Surface Mapping

Groundwater potentiometric surface maps representing water levels collected on March 18, 2022 are provided on Figures 4-3 through 4-5. These maps illustrate data from three hydrogeologic units: the aquitard, the aquifer, and the top of bedrock. The March data were selected for mapping because they represent the most comprehensive data set that include off-Site wells in Mary Harriman Park and adjacent properties and the March 18, 2022, water levels and flow paths are consistent with those observed during other times of the year.

Monitoring wells assigned to the aquitard are shown as black symbols and represent locations where the surrounding soils are generally low permeability silt or fine sand and silt. Note that historically, MW-33 was assigned as an aquifer well because it screens both clay and sand and gravel deposits (see Figure 1-3). However, the groundwater elevation in this well is consistently similar to surrounding aquitard wells, as opposed to aquifer wells. Therefore, MW-33 has been mapped as an aquitard well for this analysis.

Monitoring wells associated with the aquifer are shown as blue symbols. These wells are screened at depths where the soils are higher permeability sand and gravel deposits or fine sand and silt deposits with lenses of fine to medium sand.

Finally, wells shown as green symbols are completed within the upper 15 to 20 feet of bedrock.

The mapped potentiometric surfaces are generally consistent with historical data and the CSM. Overall, the maps illustrate a groundwater high in the vicinity of MW-33 and MW-34 within the central portion of the Site. As a consequence, groundwater generally moves away from the groundwater high in the aquitard, aquifer and bedrock units. However, groundwater flow in the aquitard unit is impeded (i.e., is slower) as compared to the aquifer unit and also flows vertically downward into the underlying aquifer. The contours associated with the aquitard and aquifer groundwater high have been refined, based on the additional data from this sampling program, to illustrate a “ridge” of higher groundwater elevation as opposed to closed contours representing a localized “mound.” Despite this refinement, the overall flow paths illustrated in Figures 4-3, and 4-4 remain consistent with prior mapping and do not alter the overall conclusion that groundwater, in all geologic zones, moves away from the groundwater high at the center of the Site.

The aquifer map (Figure 4-4) illustrates more widely spaced contours underlying the east-central portion of the Site, which is representative of a lower hydraulic gradient in this area. Geologically, this lower gradient is associated with the thicker, coarse grained outwash deposits that are specific to this area. The potentiometric contours presented in this report are fully consistent with the CSM (HydroQual, 2008) and Site geology. The Ramapo River adjacent to the Site has previously been identified as a losing stream due to the wastewater treatment plant discharge upstream of the Site. However, the March 2022 groundwater contour maps suggest that the stream potentially represents a local discharge point. The March 2022 results represent a single data set and may represent seasonal conditions which are not representative of average conditions throughout the year.

The groundwater contours, throughout time, also illustrate that groundwater flow underlying Mary Harriman Park northeast of locations MH-104 and MH-105 is cross-gradient to the Site. This illustrates that there is no influence by the Site on groundwater flow in this area as documented by the investigation to evaluate water supply well MH-1A’s zone of influence and zone of capture (see Section 4.2.2 below).

### 4.2.2 MH-1A Influence on Groundwater Flow

The zone of influence associated with a pumping well represents the radial distance from the pumping well at which a change (depression) in water levels is observed when the pump is operated. However, an observed change in water level at a given location does not indicate that the location is within the zone of capture. The zone of capture, defined as the radial distance at which groundwater will flow to the pumping well, is smaller than the zone of influence. The zone of capture will extend to a larger distance in the upgradient direction and to a much smaller distance in the downgradient direction. Additionally, the zone of influence will extend further downgradient than the zone of capture.

Well construction summaries for the well locations referenced in the discussion below are provided in Table 4-3. Representative pressure transducer data are presented in graphical form for pumping well MH-1A and monitoring wells MHP-MW-5, MHP-MW-3S, MHP-MW-3D, MHP-MW-4S, and MH-104 in Figures 4-6 through 4-8. Similar graphs for the remaining wells in which pressure transducers were installed are provided in Appendix E along with a graph representing barometric pressure changes and precipitation over the period of record. The graphs illustrate change in water levels in the monitoring wells attributable to regional fluctuations, and where present, changes in water levels associated with operation of pumping well MH-1A. Blue and orange symbols on each graph represent the time at which the pump at MH-1A went on and off and the groundwater elevation at each location at that time. Regional (background) changes in groundwater elevations (i.e., rise and fall of water levels unrelated to pumping) were on the order of 0.4 feet over the two-week data collection period, with the most rapid change observed overnight from March 31 to April 1 in response to over one inch of rain.

As shown on Figure 4-6, pumping of well MH-1A results in rapid drawdown of the water elevation in MH-1A with total drawdown on the order of 10.5 feet, followed by a rapid recovery when the well pump shuts off. A similar rapid response is observed in monitoring wells immediately surrounding MH-1A with drawdown of approximately 8 feet observed in MHP-MW-7 located approximately 30 feet northeast of MH-1A and drawdown of approximately 4 feet in MHP-MW-5 approximately 140 feet east of MH-1A (Figure 4-7). As expected, the magnitude of the drawdown diminishes with distance from MH-1A. For example, at the MHP-MW-3S/D cluster (approximately 400 feet away from MH-1A) the response is on the order of 0.10 to 0.20 feet, while at MH-104 (approximately 840 feet away from MH-1A) a minimal response of generally less than 0.10 feet is observed (Figure 4-8). Note that the graphs representing the monitoring wells in Figures 4-6 to 4-8 are plotted using the same vertical scale (ranging from 521 – 526 feet) so that the graphs consistently illustrate the magnitude of the changes in water level from one location to the next.

At several times during the monitoring period, the water levels at MH-104 stabilized or rose while MH-1A is pumping or began to decline while MH-1A was not pumping. This is not readily visible on Figure 4-8, because as noted above, the vertical scale on Figures 4-6 through 4-8 are presented with a consistent “Y” axis to show the relative changes between locations, and there was very little change at location MH-104. However, such changes are readily visible in the graph of the pressure transducer data for MH-104 provided in Appendix E, where the scale of the Y axis is from 523.6 to 524. As observed in the graph of MH-104 in Appendix E, the regional groundwater trends are far more dominant than those observed in response to pumping. For example, overall declining water levels are observed from approximately March 20, 2022 through March 23, 2022, then increasing to March 25, 2022, decreasing to March 31, 2022 and then a sharp increase to the end of the monitoring period on April 1, 2022. An example of when water levels in MH-104 stabilized and then rose while MH-1A was pumping is observed the morning of March 24, 2022, when the water level in MH-104 began to stabilize and then increases that evening while MH-1A was still pumping. The

water level continued to rise through the evening of March 24, 2022 and continue to rise after MH-1A shut down at 12:56 am on March 25, 2022 with no visible change in the rate of recovery. In addition, examples of declining water levels at MH-104, even when MH-1A is off (i.e., the pump is not operating) are observed the evenings of March 26 and 27, 2022 and the morning of March 29, 2022. There are other periods of time when similar conditions are present, although these are the most prominent examples. The above behavior further demonstrates the minimal effects of pumping at this distance from the pumping well and suggests the zone of influence does not extend onto the former Nepera property.

As also shown in the hydrographs presented in Appendix E, the remaining monitoring wells southeast of MH-104 exhibit fluctuations in water levels on the order of 0.05 feet or less, with no influence from pumping observed that is discernable from background fluctuations in monitoring wells MW-9S, MW-201, MW-202, and MW-24S located to the southeast of NYS Route 17 on the former Nepera Site. Therefore, the zone of influence attributable to operation of MH-1A extends only to approximately MH-104, or approximately 850 feet from the pumping well. As noted, this represents the approximate zone of influence.

To evaluate the zone of capture for MH-1A, the transducer data collected over the two-week period were reviewed to determine the longest pumping cycle during this period, which was approximately 19 hours from March 24 at 5:49 am to March 25 at 12:56 am. Groundwater elevations recorded by the transducers at each monitored location immediately before the pump shut off at 12:56 am are plotted on Figure 4-9, which represents a groundwater contour map of the aquifer as influenced by 19 hours of pumping. The groundwater elevation measurements indicate that water supply well MH-1A is located cross-gradient to the Site, confirming the CSM. Further, these data indicate that the zone of capture associated with MH-1A is limited to the area adjacent to well cluster MHP-MW-3S/3D and does not extend to the former Nepera Site (see Figure 4-9). In combination, these data indicate that MH-1A does not influence the groundwater flow direction at the Site. These data also suggest that groundwater at the Site does not mix with groundwater pumped by MH-1A. Collectively these lines of evidence support the conclusion that the Site is not the source of PFAS identified within MH-1A.

### 4.2.3 Groundwater Quality Discussion

In addition to the groundwater flow, the geographic distributions of 1,4-dioxane, PFOS, PFOA, and total PFAS across the Site and Mary Harriman Park were evaluated. Laboratory analytical data reports are provided in Appendix F.

#### 4.2.3.1 1,4-Dioxane Analytical Results

As shown in Table 4-4, groundwater sampling conducted in August and September 2020 and October 2021 identified only one location, G-GW-01 at a concentration of 12 µg/L, where 1,4-dioxane was detected above its MCL of 1 µg/L. Therefore, 1,4-dioxane is not discussed further.

#### 4.2.3.2 PFAS Results

Table 4-4 also summarizes the PFAS results from both the Phase I and Phase II sampling events for both temporary and permanent monitoring wells.[9] PFOS and PFOA results exceeding their respective MCLs are highlighted as are individual PFAS compounds other than PFOS and PFOA at concentrations greater than 100 ng/L. In addition, total PFAS concentrations greater than 500 ng/L are identified as called for by current NYSDEC Guidance for assessment of emerging contaminants.

[9] Phase I analytical data for sampling completed prior to October 2021 have been reported previously under separate cover.

Review of the data indicate PFOS and PFHxS are detected at the highest relative concentrations and most frequently, followed by PFOA and PFBA at typically lower concentrations. The prevalence of PFOS and PFHxS is consistent with the soil SPLP results discussed above in Section 4.1. The data from the various sampling locations can be further divided into subgroups within which PFOS/PFHxS are the dominant PFAS compounds, followed by those where the dominant PFAS compounds are PFOS/PFOA, PFOA/PFBA, and PFOA/PFHxS.

#### 4.2.3.2.1 PFOS and PFOA Mapping

Figures 4-10 through 4-15 show the distribution of PFOS and PFOA, across the Site and Mary Harriman Park for the aquitard, aquifer, and upper bedrock wells. The PFOS figures are also representative of the distribution of PFHxS across the study area and illustrate analytical results for all available sampling completed to date. Concentrations are listed adjacent to each monitoring well/sampling point along with a colored "bubble" that is representative of the concentration at that location.

The breaks in concentration values are based on current NYSDEC guidance. Green represents concentrations of 10 ng/L or less (i.e., the current MCL for PFOA and PFOS), yellow represents concentrations of 10 ng/L to 100 ng/L (i.e., the current guidance of 100 ng/L for PFAS compounds other than PFOA or PFOS), orange represents concentrations between 100 ng/L and 500 ng/L (i.e., current guidance of 500 ng/L for total PFAS) and red represents concentrations greater than 500 ng/L. These colors are applied regardless of compound and are meant to provide a contextual background for the plotted concentrations.[10]

### PFOS

Within the aquitard wells (Figure 4-10), the highest concentrations of PFOS were detected in:

- MH-104 (Mary Harriman Park): 451 ng/L
- AMW-8 (on Site): 833 ng/L
- G-GW-01 (on Site; temporary well location): 426 ng/L
- AMW-9 (on Site): 214 ng/L
- AMW-10 (on Site): 485 ng/L

Within the aquifer wells (Figure 4-11), the highest concentrations of PFOS were detected in:

- MHP-MW-3S (Mary Harriman Park): 839 ng/L,
- MW-37S (on Site): 309 ng/L
- OW-6 (on Site): 1790 ng/L,
- AP-101 (on Site): 840 ng/L..

The highest PFOS concentration observed in bedrock wells (Figure 4-12) was 32.8 ng/L at MW-20D (on Site). Measured PFOS concentrations drop off rapidly in the surrounding area.

PFOS was not detected in off-Site well BP-01 located on the north side of the Ramapo River across from the Site lagoon.

As stated above, the spatial distribution of PFOS is also representative of the PFHxS distribution. See Table 4-4 for individual concentrations.

[10] Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs, NYSDEC, January 2021.

## PFOA

Within the aquitard wells (Figure 4-13), the highest concentrations of PFOA were detected in:

- G-GW-01 (on Site; temporary well location): 127 ng/L
- MW-34 (on Site): 43.1 ng/L
- AMW-8 (on Site): 48.8 ng/L

Within the aquifer wells (Figure 4-14), the highest concentrations of PFOA were detected in:

- OW-6 (on Site): 99.6 ng/L
- AP-101 (off Site): 36.5 ng/L

The highest PFOA concentration observed in bedrock wells (Figure 4-15) was 34.8 ng/L at MW-20D, followed by 12.3 ng/L in MH-103D (Mary Harriman Park).

No PFOA was detected in off-Site well BP-01 located on the north side of the Ramapo River across from the Site lagoon.

For off-Site wells in Mary Harriman Park, the concentrations of both PFOS and PFHxS in MHP-MW-3S (839 ng/L and 97.1 ng/L, respectively) are both an order of magnitude higher than their respective concentrations in MHP-MW-3D (18.3 ng/L and 3.30 ng/L, respectively). In addition, the high PFOS and PFHxS concentrations at MHP-MW-3S (839 ng/L and 97.1 ng/L, respectively) and MH-104 (451 ng/L and 142 ng/L, respectively) are separated by lower concentrations at MHP-MW-4S (12.7 ng/L and 2.54 ng/L, respectively. These differences, as well as the PFOA concentration in MH-103D, are indicative of separate, non-Site source(s) of PFAS compounds impacting Mary Harriman Park.

Observations with respect to PFAS concentrations in on Site wells identified above include:

### OW-6

OW-6 is located at the south-southeast corner of the Site outside the main plant area and represents the well with the highest concentrations of PFOS, PFHxS, and PFOA (1790 ng/L, 832 ng/L and 99.6 ng/L, respectively). As shown on cross section Figure 1-3, the low permeability aquitard soils consisting of clay to clayey silt are not present in this area and the soils consist of fine sand and silt with lenses of fine to medium sand. The OW-6 results represent the highest PFAS concentrations on Site and the area is also characterized by elevated concentrations of benzene. Consistent with the investigation of this area related to benzene, it is anticipated that the silt lenses referenced above will serve to attenuate PFAS, but like with benzene, will also serve as a long-term source to groundwater. However, unlike benzene, the PFAS compounds do not degrade and, as a consequence, PFAS is detected in downgradient monitoring wells while benzene is not.

### AMW-8

AMW-8 is an aquitard well located northeast of the main plant area south of Arden House Road and the lagoon and represents the highest reported concentrations of PFOS and PFHxS within the aquitard. Notably, the concentrations observed in the underlying aquifer immediately downgradient of AMW-8, at well MW-8S, are nearly two orders of magnitude lower. MW-8S is within the coarse-grained outwash aquifer channel and the large difference in concentration between the aquitard and the aquifer is consistent with the attenuation of PFAS compounds within the low permeability aquitard soils and the greater volume of groundwater flow within the underlying high permeability outwash aquifer, as described by the CSM.

### Temporary Well Location G-GW-01

Temporary well G-GW-01 is located northeast of the main plant area, south of AMW-8, and is completed within the aquitard. PFOS concentrations are similar to those observed in upgradient aquitard well AMW-10 (426 ng/L as compared to 486 ng/L) while PFHxS concentrations are roughly twice the PFHxS concentrations observed at AMW-10 (451 ng/L as compared to 200 ng/L). In addition, nearby aquitard PFOS and PFHxS concentrations at MW-53S and F-GW-01 range from 75 to 13 ng/L and PFOS and PFHxS concentrations within the underlying aquifer just upgradient of temporary location G-GW-01 range from 181 ng/L and 55 ng/L at MW-53D. Finally, location G-GW-01 is located downgradient of prior soil sampling in the Building 72 area that indicate concentrations of PFOS above the 70 ng/L SPLP screening level established by NYSDEC (see Figure 4-2). Collectively, and consistent with the CSM, the distribution of PFAS suggests a localized source in the vicinity of location G-GW-01 that is attenuated, at least to some extent, within the aquitard and/or impacts associated with the Building 72 area.

### AMW-9/AMW-10

AMW-9 and AMW-10 are within the central portion of the main plant area with PFOS and PFHxS concentrations ranging from 485 ng/L to 200 ng/L. In addition, AMW-10 is located near the Building 72 soil sampling locations that document SPLP PFOS concentrations above the 70 ng/L NYSDEC screening levels (see Figure 4-2). PFOS aquifer concentrations down and slightly cross-gradient of this area range from 278 ng/L to 181 ng/L at wells MW-12S, MW-16S and MW-53D while those for PFHxS in the same wells range from 124 ng/L to 55 ng/L. AMW-9/AMW-10 are completed within the aquitard and, consistent with the CSM, attenuation of the PFAS constituents would be anticipated. Likewise, significantly lower concentrations within the underlying aquifer would also be anticipated. The underlying aquifer concentrations, however, show mixed results, with PFOS concentrations lower than those in the overlying aquitard, but still generally above 200 ng/L. Collectively, the data indicate that the Building 72 area is a likely source of the downgradient PFAS concentrations, but that the areal extent of the Building 72 source area may be more extensive than currently defined. Therefore, additional soil sampling within the AMW-9/ AMW-10 area is needed to build upon the Building 72 data and evaluate the potential extent of PFAS in soils within this area.

### MW-37S

The MW-37AQ/MW-37S well cluster is located north of Arden House Road near the southwest corner of the lagoon. PFAS concentrations at this location are higher in the aquifer (MW-37S) than they are in the overlying aquitard (MW-37AQ) and PFOS concentrations are present in downgradient aquifer well MW-1S. A flow path from the main plant area toward MW-1S, as indicated by the PFAS data, is consistent with the observed groundwater flow direction and historical data associated with benzene at MW-1S, although benzene is no longer above groundwater standards at MW-1S due to past remedial actions and degradation. The aquifer results are thus indicative of an upgradient source within the main plant area. However, the PFAS concentrations within aquitard well MW-37AQ are indicative of either a localized surficial source, or lateral groundwater flow within the aquitard to this area. Additional soil sampling would be required to evaluate the potential extent of PFAS in this area.

## 4.3 Data Usability Review

The Category B analytical reports for the October 2021 groundwater samples are presented in Appendix F. The Data Usability Summary Reports (DUSRs) are presented in Appendix G. Laboratory reports and DUSRs for samples collected in 2020 were provided previously in the April 2021 EC SIR.

Data reviews were conducted in accordance with the NYSDEC *Guidance for the Development of Data Usability Summary Reports*. The DUSRs provide detail where data qualification was necessary and applied. The following laboratory reports were reviewed:

- Laboratory Report NEP01
  - No data were rejected as a result of the data review.
- Laboratory Report NEP02
  - No data were rejected as a result of the data review.
- Laboratory Report 410-10389-1
  - No data were rejected as a result of the data review.
- Laboratory Report 460-215550-1
  - No data were rejected as a result of the data review.
- Laboratory Report 460-21804-17
  - No data were rejected as a result of the data review.
- Laboratory Report 460-218179-1
  - No data were rejected as a result of the data review.
- Laboratory Report J246027-1
  - No data were rejected as a result of the data review.
- Laboratory Report J246277-1
  - No data were rejected as a result of the data review.

Electronic Data Deliverable (EDD) files in EQuIS format were uploaded to the Department's Environmental Quality Information System (EQuIS) database for the soil sampling results in March. Water quality data will be uploaded to the Department's EQuIS Site following submittal of this report.

Section 5

# Conclusions

The EC Site Investigation confirmed the presence of PFAS compounds in on-Site soils and on- and off-Site groundwater at concentrations above standards, criteria, and guidance (SCGs). Conclusions are presented below for soil and groundwater. Proposed additional investigation activities to address remaining data gaps are presented in Section 6.

## 5.1 Soil Investigation

The soils investigation completed to date was focused on suspected source areas and indicates that PFOS and PFHxS, for which there is currently no SCG, are detected at the highest concentrations and most frequently. PFAS compounds, particularly PFOS, are present above SCGs in surface and subsurface soil in several areas. PFOS was documented with concentrations greater than 1 µg/kg in several samples collected in the vicinity of Building 72. Exceedances of the 1 µg/kg benchmark for conducting SPLP analysis were found in both surficial and subsurface samples adjacent to Building 72. SPLP testing conducted on these samples indicate concentrations greater than the 70 ng/L threshold identified in NYSDEC guidance.

The highest concentration of PFOS away from Building 72 was 8.8 µg/kg, found at location G-B-105. This sample location is adjacent to well MW-16S, which is located hydraulically downgradient of Building 72.

Several surficial samples collected from the open field north of Building 67 and adjacent to Building 26 also slightly exceeded the 1 µg/kg benchmark for conducting SPLP analysis. However, results of the subsurface samples were below the 1 µg/kg benchmark. SPLP results were below 70 ng/L with one exception; the 0-1-foot sample at F-B-010 had a total PFOS/PFOA result of 88.5 ng/L.

1,4-Dioxane was detected in samples from 4 of 17 boring locations during the initial round of soil sampling. Only one sample exhibited a concentration above SCGs. 1,4-Dioxane was detected at 140 µg/kg in the 8-10-foot interval at sample location G-B-105. The unrestricted use soil cleanup criterion for 1,4-dioxane is 100 µg/kg, which also is the standard for protection of groundwater. Based on these results, no further soil sampling was conducted for 1,4-dioxane.

## 5.2 Groundwater Investigation

### 5.2.1 MH-1A Influence on Groundwater Flow

The investigation confirms that Mary Harriman Park is cross-gradient to the Site, that the soils underlying the eastern portion of the park are low permeability aquitard soils and that operation of water supply well MH-1A does not influence groundwater flow underlying the eastern portion of the Mary Harriman Park or under the Site. Therefore, COCs associated with the Site do not impact the MH-1A water quality.

The elevated concentrations of PFAS present in Mary Harriman Park wells MH-104 and MHP-MW-3S are indicative of a localized shallow source(s) within Mary Harriman Park or possibly impacts from upgradient sources that are unrelated to and independent of PFAS compounds on the Site.

### 5.2.2 Relationship of Site PFAS Concentrations to the CSM

As detailed above, the distribution of PFAS is consistent with the CSM. PFAS analytical results demonstrate the attenuation of PFAS under the central portion of the Site where the aquitard soils are present. In this area, there are lower concentrations within the underlying aquifer materials directly underlying the aquitard and downgradient, consistent with groundwater flow patterns, in both the aquitard and aquifer. In addition, PFAS concentrations downgradient of the main plant area within the coarse-grained outwash channel underlying the central portion of the Site are generally low in concentration, as compared to the overlying aquitard concentrations, suggesting that the flux of PFAS through the overlying aquitard is limited in comparison to the flow rate in the underlying aquifer, which is also consistent with the CSM.

In the southeast area of the Site, where the aquitard is not present, elevated PFAS concentrations are observed within the aquifer materials in the vicinity of monitoring well OW-6, with evidence of migration downgradient to the east, consistent with the hydraulic gradients. As described previously, the rate of groundwater flow to the east is limited in comparison to flow to the northeast, within the above-referenced outwash channel, such that historically, degradable compounds such as benzene have not been present in downgradient wells. However, non-degradable compounds, such as PFAS, are migrating with groundwater to the east.

### 5.2.3 Comparison to Regulatory Criteria

PFAS compounds at the Site are present at concentrations above the NYS MCL for PFOA and PFOS of 10 ng/L. In addition, individual compounds are present at concentrations greater than 100 ng/L and nine locations had reported concentrations for total PFAS above 500 ng/L. This includes two locations within the Mary Harriman Park (MHP-MW-3S and MH-104), one location off Site to the east-southeast (AP-101), three aquitard well locations (AMW-8, AMW-9, and AMW-10), one temporary well location within the central portion of the Site (G-GW-01), and two locations on the southeast side of the Site (OW-6 and MW-12S). Perimeter Site wells that exceed the PFOA and/or PFOS MCL of 10 ng/L include:

- Along the northeastern, downgradient boundary – MW-1S, MW-102, and MW-26S
- Along the southeastern down/cross gradient boundary – MW-3S, MW-4S, and MW-5S
- Along the northwestern down/cross gradient boundary – MW 201, MW-202, MW-202D, MW-24S, AMW-1, and AMW-2

Only one location, G-GW-01 had a reported concentration of 1,4-dioxane above the MCL of 1 µg/L for this compound.

The Mary Harriman Park wells that exceed the PFOA and/or PFOS MCL of 10 ng/L include: MH-101, MH-102, MH-103S, MH-103D, MH-104, MHP-MW-4S, MHP-MW-3S, and MHP-MW-3D. The concentrations and distribution of PFAS compounds within the Mary Harriman Park wells are indicative of a discrete shallow source(s) within the park at locations MH-104 and MHP-MW-3S.

The groundwater investigation indicates that additional soil sampling is needed within the Site to further characterize potential areas of PFOS/PFOA that could be impacting groundwater. These areas include the five locations discussed in Section 4.2.3.2.1.

In addition, the groundwater investigation also indicates that the extent of PFAS impacts may not be fully delineated in the southeast portion of the Site. An additional monitoring well couplet is recommended downgradient of location AP-101 to further investigate the extent of groundwater PFAS impacts in this location.

This groundwater investigation further indicates that additional investigation by others may be helpful to identify source areas within and/or upgradient of Mary Harriman Park that are unrelated to the Site.

Section 6

# Proposed Additional Investigation

Based on the EC results presented above, additional investigation is proposed to identify potential additional source areas in soil and further evaluate groundwater quality downgradient of AMW-8, MW-37 and off-Site monitoring well AP-101. Four additional monitoring wells will also be installed within Mary Harriman Park, as requested by NYSDEC, to provide additional groundwater data within the vicinity of monitoring wells MH-101, MH-102, MH-103, and MH-104. The proposed additional work is briefly described below with a proposed work plan included as Appendix H.

## 6.1 Additional Soil Investigation

Additional soil sampling and analysis will be conducted to further investigate potential sources of PFAS at the Site.

The proposed investigation is detailed in the work plan addendum that is being submitted as Appendix H of this report. As detailed in the work plan addendum, an analysis of the groundwater flow lines that lead to monitoring wells impacted by PFAS points to broader on-Site areas that might be origins of the PFAS-impacted groundwater. Some of the potential source areas suggested by groundwater flow lines can already be ruled out on the basis of previous soil sampling (Brown and Caldwell Associates/Cornerstone Engineering, April 2021). Soil analytical results for some of the previous sampling demonstrate that PFOS/PFOA concentrations are below their respective Soil Cleanup Objectives for Protection of Groundwater. The work plan addendum also includes proposed sampling and analysis to investigate potential sources of volatile organic compounds, specifically benzene and alpha-picoline, in soil which may be contributing to groundwater contamination on Site.

Based on the soil and water quality sampling results, no further investigation is recommended for 1,4-dioxane.

## 6.2 Additional Groundwater Investigation

The supplemental groundwater investigation will include the installation and sampling of additional monitoring wells. These include a new aquitard well (designated AMW-12) downgradient of well AMW-8, an aquitard/aquifer monitoring well couplet designated AP-102S and AP-102D downgradient of well AP-101, and four additional monitoring wells within Mary Harriman Park designated MHP-106 through MHP-109. Groundwater samples will be collected from these new monitoring well locations as well as existing monitoring well locations MW-35AQ, MW-36AQ, MHP-MW-4S, MH-101, MH-102, MH-103S, MH-104S, MH-105S, MW-9S, MW-201, MW-202, MW-24S, AMW-1, and AMW-2.

The proposed additional groundwater investigation is detailed in the work plan addendum that is being submitted as Appendix H of this report.

## Section 7

# References


Brown and Caldwell Associates and Cornerstone Engineering and Land Surveying, PLLC, Site-Wide Characterization Summary Report (SCSR), *Former Nepera Facility, Harriman, New York,* March 2011.

Brown and Caldwell Associates and Cornerstone Engineering, Geology, and Land Surveying, PLLC, *Emerging Contaminants Site Investigation Work Plan, Former Nepera Plant Site, Harriman, New York, Site #3-36-006,* October 2, 2019.

Brown and Caldwell Associates and Cornerstone Engineering, Geology, and Land Surveying, PLLC, *Work Plan Addendum*, *Emerging Contaminants Site Investigation Work Plan, Former Nepera Plant Site, Harriman, New York, Site #3 36 006,* June 19, 2020.

Brown and Caldwell Associates and Cornerstone Engineering, Geology, and Land Surveying, PLLC, *Emerging Contaminants Site Investigation Report Former Nepera Plant Site*, *Harriman, New York, EPA ID# NYD002014595,* April 2021.

New York State Department of Environmental Conservation, *DER-10 Technical Guidance for Site Investigation and Remediation,* May 3, 2010.

New York State Department of Environmental Conservation, *Sampling for 1,4-Dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DEC's Part 375 Remedial Programs,* June 2019.

New York State Department of Environmental Conservation, *Guidelines for sampling and Analysis of PFAS Under DEC's Part 375 Remedial Programs,* January 2020.

New York State Department of Environmental Conservation, *Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*, June 2021.

# Tables

**TABLE 2-1**
**SOIL SAMPLING AND ANALYSIS SUMMARY**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample ID | Sample Date | Rationale | Sample Depth | Analytes (see notes) |
|---|---|---|---|---|---|---|
| **Soil Samples** | | | | | | |
| Building 2A | 2A-B-001 | 2A-B-001-0-1 | 1/9/2020 | Former Storage Building | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 2A | 2A-B-001 | 2A-B-001-8-10 | 1/9/2020 | Former Storage Building | 8-10 ft | PFAS, 1,4-Dioxane |
| Building 2A | 2A-B-002 | 2A-B-002-0-1 | 1/9/2020 | Former Storage Building | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 2A | 2A-B-002 | 2A-B-001-7-9 | 1/9/2020 | Former Storage Building | 7-9 ft | PFAS, 1,4-Dioxane |
| Building 26 | 26-B-002 | 26-B-002-0-1 | 1/8/2020 | Fire Pump House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 26 | 26-B-002 | 26-B-002-4-6 | 1/8/2020 | Fire Pump House | 4-6 ft | PFAS, 1,4-Dioxane |
| Building 26 | 26-B-003 | 26-B-003-0-1 | 1/8/2020 | Fire Pump House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 26 | 26-B-003 | 26-B-003-3-5 | 1/8/2020 | Fire Pump House | 3-5 ft | PFAS, 1,4-Dioxane |
| Building 52 | 52-B-002 | 52-B-002-0-1 | 1/8/2020 | Fire Equipment Storage | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 52 | 52-B-002 | 52-B-002-4-6 | 1/8/2020 | Fire Equipment Storage | 4-6 ft | PFAS, 1,4-Dioxane |
| Building 52 | 52-B-003 | 52-B-003-0-1 | 1/8/2020 | Fire Equipment Storage | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 52 | 52-B-003 | 52-B-003-4-6 | 1/8/2020 | Fire Equipment Storage | 4-6 ft | PFAS, 1,4-Dioxane |
| Building 64 | 64-B-002 | 64-B-002-0-1 | 1/10/2020 | Tank Farm Upgradient of MW-16S | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 64 | 64-B-002 | 64-B-002-4-5 | 1/10/2020 | Tank Farm Upgradient of MW-16S | 4-5 ft | PFAS, 1,4-Dioxane |
| Building 64 | 64-B-002 | DUP-20200110 | 1/10/2020 | Tank Farm Upgradient of MW-16S | 4-5 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-002 | 72-B-002-0-1 | 1/10/2020 | Foam House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-002 | 72-B-002-3-5 | 1/10/2020 | Foam House | 3-5 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-003 | 72-B-003-0-1 | 1/10/2020 | Foam House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-003 | 72-B-003-3-5 | 1/10/2020 | Foam House | 3-5 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-004 | 72-B-004-0-1 | 1/10/2020 | Foam House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-004 | 72-B-004-4-5 | 1/10/2020 | Foam House | 4-5 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-005 | 72-B-005-0-1 | 1/10/2020 | Foam House | 0-1 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-005 | 72-B-005-2-4 | 1/10/2020 | Foam House | 2-4 ft | PFAS, 1,4-Dioxane |
| Building 72 | 72-B-006 | 72-B-006-0-1 | 8/11/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-006 | 72-B-006-4-6 | 8/11/2020 | Foam House | 4-6 ft | PFAS |
| Building 72 | 72-B-007 | 72-B-007-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-007 | 72-B-007-3-5 | 8/10/2020 | Foam House | 3-5 ft | PFAS |
| Building 72 | 72-B-008 | 72-B-008-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-008 | 72-B-008-6-8 | 8/10/2020 | Foam House | 6-8 ft | PFAS |
| Building 72 | 72-B-009 | 72-B-009-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-009 | 72-B-009-4-6 | 8/10/2020 | Foam House | 4-6 ft | PFAS |
| Building 72 | 72-B-010 | 72-B-010-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-010 | 72-B-010-3-5 | 8/10/2020 | Foam House | 3-5 ft | PFAS |
| Building 72 | 72-B-011 | 72-B-011-0-1 | 8/11/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-011 | 72-B-011-4-6 | 8/11/2020 | Foam House | 4-6 ft | PFAS |
| Building 72 | 72-B-012 | 72-B-012-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-012 | 72-B-012-3-5 | 8/10/2020 | Foam House | 3-5 ft | PFAS |
| Building 72 | 72-B-013 | 72-B-013-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-013 | 72-B-013-4-6 | 8/10/2020 | Foam House | 4-6 ft | PFAS |
| Building 72 | 72-B-014 | 72-B-014-0-1 | 8/10/2020 | Foam House | 0-1 ft | PFAS |
| Building 72 | 72-B-014 | 72-B-014-4-6 | 8/10/2020 | Foam House | 4-6 ft | PFAS |
| Area B | B-B-105 | B-B-105-0-1 | 1/10/2020 | Vicinity of MW-24S | 0-1 ft | PFAS, 1,4-Dioxane |
| Area B | B-B-105 | B-B-105-4-5 | 1/10/2020 | Vicinity of MW-24S | 4-5 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-008 | F-B-008-0-1 | 1/9/2020 | Fire Training Area | 0-1 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-008 | F-B-008-4-6 | 1/9/2020 | Fire Training Area | 4-6 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-009 | F-B-009-0-1 | 1/9/2020 | Fire Training Area | 0-1 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-009 | F-B-009-5-7 | 1/9/2020 | Fire Training Area | 5-7 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-010 | F-B-010-0-1 | 1/9/2020 | Fire Training Area | 0-1 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-010 | F-B-010-4-6 | 1/9/2020 | Fire Training Area | 4-6 ft | PFAS, 1,4-Dioxane |

**TABLE 2-1**
**SOIL SAMPLING AND ANALYSIS SUMMARY**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample ID | Sample Date | Rationale | Sample Depth | Analytes (see notes) |
|---|---|---|---|---|---|---|
| Area F | F-B-011 | F-B-011-0-1 | 1/9/2020 | Fire Training Area | 0-1 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-011 | F-B-011-8-10 | 1/9/2020 | Fire Training Area | 8-10 ft | PFAS, 1,4-Dioxane |
| Area F | F-B-012 | F-B-012-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-013 | F-B-013-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-014 | F-B-014-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-015 | F-B-015-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-016 | F-B-016-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-017 | F-B-017-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-018 | F-B-018-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area F | F-B-019 | F-B-019-0-1 | 8/11/2020 | Fire Training Area | 0-1 ft | PFAS |
| Area G | G-B-105 | G-B-105-0-1 | 1/9/2020 | Vicinity of MW-16S | 0-1 ft | PFAS, 1,4-Dioxane |
| Area G | G-B-105 | DUP-20200109 | 1/9/2020 | Vicinity of MW-16S | 0-1 ft | PFAS, 1,4-Dioxane |
| Area G | G-B-105 | G-B-105-8-10 | 1/9/2020 | Vicinity of MW-16S | 8-10 ft | PFAS, 1,4-Dioxane |

Notes:
ft - feet
PFAS compounds to be analyzed by Modified Method 537 for PFAS Target Analyte List per DEC guidance titled *Sampling for 1,4-Dioxane and Per- and Polyfluoroalkyl Substances (PFAS)* dated June 2019.

TABLE 2-2
GROUNDWATER SAMPLING LOCATIONS
FORMER NEPERA PLANT SITE
HARRIMAN, NEW YORK

| MW Location | | Sample Date(s) |
|---|---|---|
| **Off-Site Wells** | | |
| MH-101 | | October 2021 |
| MH-102 | | October 2021 |
| MH-103D | | October 2021 |
| MH-103S | | October 2021 |
| MH-104 | | October 2021 |
| MH-105D | | October 2021 |
| MH-105S | | October 2021 |
| MHP-MW-3D | | October 2021 |
| MHP-MW-3S | | October 2021 |
| MHP-MW-4S | | October 2021 |
| AP-101 | | October 2021 |
| BP-101 | | October 2021 |
| **Site Wells** | | |
| AMW-1 | | October 2021 |
| AMW-2 | | October 2021 |
| AMW-3 | | October 2021 |
| AMW-4 | | October 2021 |
| AMW-5 | | October 2021 |
| AMW-6 | | October 2021 |
| AMW-7 | | October 2021 |
| AMW-8 | | October 2021 |
| AMW-9 | | October 2021 |
| AMW-10 | | October 2021 |
| AMW-11 | | October 2021 |
| F-GW-01 | Temporary Well Location | August 2020 |
| F-GW-02 | Temporary Well Location | August 2020 |
| F-GW-03 | Temporary Well Location | August 2020 |
| F-GW-04 | Temporary Well Location | August 2020 |
| MW-101 | | September 2020 |
| MW-102 | | September 2020, October 2021 |
| MW-103 | | September 2020 |
| MW-106 | | September 2020 |
| MW-11S | | September 2020 |
| MW-12S | | September 2020 |
| MW-16S | | September 2020 |
| MW-1S | | September 2020 |
| MW-1S | | October 2021 |
| MW-201 | | September 2020, October 2021 |
| MW-202D | | September 2020, October 2021 |
| MW-202S | | October 2021 |

TABLE 2-2
GROUNDWATER SAMPLING LOCATIONS
FORMER NEPERA PLANT SITE
HARRIMAN, NEW YORK

| MW Location | Sample Date(s) |
|---|---|
| MW-203 | September 2020 |
| MW-20D | September 2020 |
| MW-20S | September 2020 |
| MW-21S | September 2020 |
| MW-23D | September 2020 |
| MW-23S | October 2021 |
| MW-24S | September 2020, October 2021 |
| MW-26D | September 2020 |
| MW-26S | October 2021 |
| MW-33 | September 2020 |
| MW-34 | October 2021 |
| MW-37AQ | October 2021 |
| MW-37S | September 2020 |
| MW-3S | October 2021 |
| MW-4S | October 2021 |
| MW-53D | September 2020 |
| MW-53S | October 2021 |
| MW-5S | September 2020 |
| MW-5S | October 2021 |
| MW-7S | October 2021 |
| MW-8S | September 2020 |
| MW-9S | September 2020, October 2021 |
| OW-6 | September 2020 |

**TABLE 3-1**
**GROUNDWATER ELEVATIONS SEPTEMBER 8, 2020, OCTOBER 25, 2021 AND MARCH 18, 2022**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Well | Water-Bearing Unit | Groundwater Elevation | | |
|---|---|---|---|---|
| | | 9/8/2020 | 10/25/2021 | 3/18/2022 |
| AMW-1 | Aquitard | **** | 523.48 | 524.42 |
| AMW-10 | Aquitard | **** | 529.29 | 530.7 |
| AMW-11 | Aquifer | **** | 527.18 | 529.39 |
| AMW-2 | Aquitard | **** | 522.05 | 522.46 |
| AMW-3 | Aquitard | **** | 525.24 | 526.52 |
| AMW-4 | Aquifer | **** | 525.66 | 527.09 |
| AMW-5 | Aquifer | **** | 525.28 | 526.71 |
| AMW-6 | Aquitard | **** | 526.18 | 527.94 |
| AMW-7 | Aquifer | **** | 525.94 | 527.72 |
| AMW-8 | Aquitard | **** | 523.86 | 524.49 |
| AMW-9 | Aquitard | **** | 528.67 | 530.08 |
| AP-101 | Aquifer | **** | 517.48 | 518.11 |
| BP-101 | Aquitard | **** | 517.66 | 518.62 |
| MH-1 | Aquifer | NM | NM | 525.41 |
| MH-101 | Aquitard | **** | 523.89 | 524.48 |
| MH-102 | Aquifer | **** | 522.35 | 522.77 |
| MH-103D | Bedrock | **** | 522.93 | 523.4 |
| MH-103S | Aquitard | **** | 522.93 | 523.34 |
| MH-104 | Aquitard | **** | 523.48 | 523.98 |
| MH-105D | Bedrock | **** | 524.86 | 525.55 |
| MH-105S | Aquitard | **** | 524.43 | 525.58 |
| MH-1A | Aquifer | NM | NM | 525.16 |
| MH-3R | Bedrock | NM | NM | 532.04 |
| MHP-MW-1S | Aquifer | NM | NM | 525.55 |
| MHP-MW-2D | Aquifer | NM | NM | 525.6 |
| MHP-MW-2S | Aquifer | NM | NM | 525.49 |
| MHP-MW-3S | Aquifer | NM | 524.02 | 524.35 |
| MHP-MW-3D | Aquifer | NM | 524.32 | 524.83 |
| MHP-MW-4S | Aquifer | NM | 524.12 | 524.61 |
| MHP-MW-5 | Aquifer | NM | NM | 525.01 |
| MHP-MW-6 | Aquifer | NM | NM | 518.61 |
| MHP-MW-7 | Aquifer | NM | NM | 525.17 |
| MHP-MW-8 | Aquifer | NM | NM | 525.8 |
| MHP-MW-9 | Aquifer | NM | NM | 523.91 |
| MW-101 | Aquifer | 519.88 | NM | 521.29 |
| MW-102 | Aquifer | 516.88 | 517.65 | 518.33 |
| MW-103 | Aquifer | 521.72 | 524.41 | 526.24 |
| MW-104 | Aquifer | 520.88 | 523.27 | 524.72 |
| MW-105 | Aquitard | 521.15 | 523.3 | 524.46 |
| MW-106 | Aquifer | 519.62 | 521.42 | 521.42 |
| MW-10D | Bedrock | 524.73 | 525.96 | 526.95 |
| MW-11S | Aquifer | 521.01 | 523.9 | 525.17 |
| MW-12S | Aquifer | 522.14 | 524.49 | 525.06 |
| MW-13S | Aquifer | 521.39 | 523.67 | 525.23 |
| MW-16S | Aquifer | 522.53 | 525.13 | 526.71 |
| MW-17S | Aquitard | 528.17 | 529.21 | 530.66 |
| MW-18D | Bedrock | 522.12 | 524.56 | 526.07 |
| MW-1S | Aquifer | 515.43 | 515.79 | 516.18 |
| MW-201 | Aquitard | **** | 525.07 | 526.08 |
| MW-202D | Bedrock | **** | 522.76 | 523.27 |
| MW-202S | Aquifer | **** | 522.18 | 522.55 |

**TABLE 3-1**
**GROUNDWATER ELEVATIONS SEPTEMBER 8, 2020, OCTOBER 25, 2021 AND MARCH 18, 2022**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Well | Water-Bearing Unit | Groundwater Elevation | | |
|---|---|---|---|---|
| | | 9/8/2020 | 10/25/2021 | 3/18/2022 |
| MW-203 | Aquifer | **** | 525.68 | 527.15 |
| MW-20D | Bedrock | 528.1 | 526.18 | NM |
| MW-20S | Aquifer | 523.78 | 525.35 | 525.35 |
| MW-21D | Bedrock | 527.41 | 527.61 | 527.84 |
| MW-21S | Aquifer | 524.89 | 527.53 | 527.53 |
| MW-22S | Aquitard | 516.99 | 518.08 | 522.09 |
| MW-23D | Bedrock | 518.05 | 518.9 | 520.14 |
| MW-23S | Aquitard | 520.17 | 520.59 | 521.98 |
| MW-24S | Aquifer | 519.78 | 520.08 | 520.55 |
| MW-25D | Bedrock | 524.79 | 525.31 | 528.4 |
| MW-25S | Aquifer | 523.44 | 525.54 | 528.67 |
| MW-26D | Bedrock | 513.86 | 513.8 | 515.47 |
| MW-26S | Aquitard | 514.82 | 515.15 | 515.68 |
| MW-27D | Bedrock | 520.92 | 523.12 | 524.25 |
| MW-27S | Aquifer | 521.03 | 523.27 | 524.68 |
| MW-28S | Aquitard | 515.86 | 515.42 | 515.65 |
| MW-29S | Aquitard | 514.17 | 514.47 | 515.08 |
| MW-2S | Aquitard | 523 | 526.43 | 528.46 |
| MW-33S | Aquitard | 529.18 | 531.05 | 531.68 |
| MW-34 | Aquitard | NM | 529.9 | 531.77 |
| MW-35AQ | Aquitard | 510.43 | 520.96 | 521.76 |
| MW-35S | Aquifer | 520.93 | 521.49 | 521.87 |
| MW-36AQ | Aquitard | 521.06 | 522 | 522.38 |
| MW-36S | Aquifer | 520.51 | 521.39 | 522.03 |
| MW-37AQ | Aquitard | 522.16 | 524.45 | 523.71 |
| MW-37S | Aquifer | 522 | 523.12 | 523.94 |
| MW-3S | Aquifer | 519.74 | 522.39 | 523.72 |
| MW-4S | Aquifer | 519.94 | 522.22 | 523.47 |
| MW-53D | Aquifer | 523.06 | 516.92 | 527.35 |
| MW-53S | Aquitard | 527.79 | 528.5 | 529.58 |
| MW-5S | Aquifer | 520.9 | 523.24 | 524.66 |
| MW-6D | Bedrock | 512.04 | 513.61 | 515.63 |
| MW-7S | Aquifer | 517.63 | 518.96 | 520.03 |
| MW-8S | Aquifer | 520.79 | 523.12 | 524.54 |
| MW-9S | Aquifer | 523.67 | 524.86 | 525.82 |
| OW-6 | Aquifer | 523.79 | 527 | 529.24 |
| OW-7 | Aquifer | 523.58 | 526.79 | 529.17 |
| PZ-1 | Aquifer | 524.8 | 527.82 | 530.45 |
| PZ-3 | Aquifer | 520.33 | 524.9858333 | 521.9 |
| PZ-4 | Aquitard | 520.3 | 521.93 | 522.4 |
| SG-01 | Surface Water | **** | 523.4 | 523.38 |
| SG-02 | Surface Water | **** | 517 | 516.98 |
| SG-03 | Surface Water | **** | 511.33 | 511.59 |

Notes:
**** = Wells were not installed
NM = Not measured/could not locate

**TABLE 3-2**
**WELLS WITH PRESSURE TRANSDUCERS (DATA LOGGERS)**
**INSTALLED MARCH 18 THROUGH APRIL 1, 2022**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Well ID | Approximate Distance (Feet) from Pumping Well MH-1A |
|---|---|
| **Mary Harriman Park Wells** | |
| MH-1A (Pumping Well) | NA |
| MHP-MW-1S | 110 |
| MHP-MW-2D | 55 |
| MHP-MW-2S | 55 |
| MHP-MW-5 | 140 |
| MHP-MW-7 | 30 |
| MHP-MW-9 | 30 |
| MH-101 | 1060 |
| MH-102 | 1015 |
| MH-103S | 990 |
| MH-104 | 835 |
| MH-105D | 820 |
| MH-105S | 820 |
| MHP-MW-3D | 395 |
| MHP-MW-3S | 395 |
| MHP-MW-4S | 585 |
| **Nepera Site Monitoring Wells** | |
| MW-24S | 1185 |
| MW-9S | 1160 |
| MW-201 | 1150 |
| MW-202 | 1135 |

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: 26-B-002 / Sample Date: 01/08/20 / Depth Interval (ft., bgs): 0 - 1 | 26-B-002 01/08/20 4 - 6 | 26-B-003 01/08/20 0 - 1 | 26-B-003 01/08/20 3 - 5 | 2A-B-001 01/09/20 0 - 1 | 2A-B-001 01/09/20 8 - 10 | 2A-B-002 01/09/20 0 - 1 | 2A-B-002 01/09/20 7 - 9 | 52-B-002 01/08/20 0 - 1 | 52-B-002 01/08/20 4 - 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 14.9 | 15.3 | 8.5 | 9.5 | 17 | 21.6 | 12.3 | 17.9 | 14.4 | 16.5 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.69 U | 0.69 U | 0.63 U | 0.6 U | 0.68 U | 0.7 U | 0.66 U | 0.67 U | 0.69 U | 0.68 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.69 U | 0.69 U | 0.63 U | 0.6 U | 0.68 U | 0.7 U | 0.66 U | 0.67 U | 0.69 U | 0.68 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.46 U | 0.46 U | 0.42 U | 0.4 U | 0.45 U | 0.46 U | 0.44 U | 0.45 U | 0.46 U | 0.46 U |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.92 U | 0.92 U | 0.84 U | 0.8 U | 0.91 U | 0.93 J | 0.89 U | 0.89 U | 0.93 U | 0.91 U |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 1.3 | 1.000 | 1.2 J | 0.35 J | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.73 | 0.3 J |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.4 J | 0.35 J | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.23 U | 0.21 U | 0.2 U | 0.23 U | 0.23 U | 0.22 U | 0.22 U | 0.23 U | 0.23 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | 4 U | 0.8 U | 4 U | 4 U | 3 | 0.8 U | 4 U | 0.8 U | 4 U | 4 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: 52-B-003 / Sample Date: 01/08/20 / Depth Interval (ft., bgs): 0 - 1 | 52-B-003 01/08/20 4 - 6 | 64-B-002 01/10/20 0 - 1 | 64-B-002 01/10/20 4 - 5 | 64-B-002 (Dup) 01/10/20 4 - 5 | 72-B-002 01/10/20 0 - 1 | 72-B-002 01/10/20 3 - 5 | 72-B-003 01/10/20 0 - 1 | 72-B-003 01/10/20 3 - 5 | 72-B-004 01/10/20 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 9.5 | 14.6 | 5.6 | 9.2 | 9 | 7.4 | 14.9 | 11.1 | 13.8 | 10.1 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.61 U | 0.7 U | 0.63 U | 0.64 U | 0.64 U | 0.61 U | 0.7 U | 0.62 U | 0.7 U | 0.65 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.61 U | 0.7 U | 0.63 U | 0.64 U | 0.64 U | 0.61 U | 0.7 U | 0.62 U | 0.7 U | 0.65 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.41 U | 0.46 U | 0.42 U | 0.43 U | 0.43 U | 0.4 U | 0.47 U | 0.42 U | 0.46 U | 0.43 U |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.82 U | 0.93 U | 0.84 UJ | 0.86 UJ | 0.85 UJ | 0.81 UJ | 0.93 UJ | 0.83 UJ | 0.93 U | 0.86 UJ |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.33 J | 0.34 J | 2.1 | 1.6 |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.27 J | 0.21 U | 0.36 J | 0.22 U |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.87 | 7.3 | 0.97 | 4.4 | 3.6 |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.64 J | 0.21 U | 0.5 J | 0.22 U |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.99 | 0.22 U |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 0.63 | 0.41 J | 0.29 J | 0.41 J | 0.4 J | 19 | 22 | 8.3 | 79 | 2.9 |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.39 J | 0.21 U | 0.44 J | 0.25 J |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.34 J | 0.21 U | 0.28 J | 0.22 U |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.2 U | 0.23 U | 0.21 U | 0.21 U | 0.21 U | 0.2 U | 0.23 U | 0.21 U | 0.23 U | 0.22 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | 0.7 U | 4 U | 0.7 U | 0.7 U | 0.7 U | 0.7 U | 0.8 U | 4 U | 3 | 4 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: 72-B-004 / Sample Date: 01/10/20 / Depth Interval (ft., bgs): 4 - 5 | 72-B-005 / 01/10/20 / 0 - 1 | 72-B-005 / 01/10/20 / 2 - 4 | 72-B-006 / 08/11/20 / 0 - 1 | 72-B-006 / 08/11/20 / 4 - 6 | 72-B-007 / 08/10/20 / 0 - 1 | 72-B-007 / 08/10/20 / 3 - 5 | 72-B-008 / 08/10/20 / 0 - 1 | 72-B-008 / 08/10/20 / 6 - 8 | 72-B-009 / 08/10/20 / 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 14.9 | 7 | 20 | 5.8 | 10.7 | 6.9 | 7.1 | 4.8 | 11.6 | 8.6 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.68 U | 0.61 U | 0.69 U | 2 U | 2.1 U | 2 U | 2.2 U | 2 U | 2.1 U | 2 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.68 U | 0.61 U | 0.69 U | 3 U | 3.2 U | 3 U | 3.2 U | 3 U | 3.2 U | 3.1 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 2 U | 2.1 U | 2 U | 2.2 U | 2 U | 2.1 U | 2 UJ |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 2 U | 2.1 U | 2 U | 2.2 U | 2 U | 2.1 U | 2 UJ |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.45 U | 0.41 U | 0.46 U | 2 U | 2.1 U | 2 U | 2.2 U | 2 U | 2.1 U | 19 |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.9 UJ | 0.82 UJ | 0.92 UJ | 2 U | 2.1 U | 2 U | 2.2 U | 2 U | 2.1 U | 3.3 |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.64 | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.71 | 0.42 J |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.44 J | 2.4 | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 4.2 |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 3.4 |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.6 | 5.7 | 30 | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 1.6 | 1.2 | 120 |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.35 J | 0.31 J | 0.26 J | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.35 J | 0.63 U | 26 |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 4.3 | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.22 J | 0.61 |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 3.8 | 130 | 45 | 0.65 | 0.71 | 1.3 | 0.77 | 7 | 78 | 320 |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.23 J | 0.9 | 1.2 | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 6 |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 4.1 |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.23 U | 0.2 U | 0.23 U | 0.61 U | 0.64 U | 0.59 U | 0.65 U | 0.59 U | 0.63 U | 0.61 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | 4 U | 0.7 U | 4 U | -- | -- | -- | -- | -- | -- | -- |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: 72-B-009 / Sample Date: 08/10/20 / Depth Interval (ft., bgs): 4 - 6 | 72-B-010 / 08/10/20 / 0 - 1 | 72-B-010 / 08/10/20 / 3 - 5 | 72-B-011 / 08/11/20 / 0 - 1 | 72-B-011 / 08/11/20 / 4 - 6 | 72-B-012 / 08/10/20 / 0 - 1 | 72-B-012 / 08/10/20 / 3 - 5 | 72-B-013 / 08/10/20 / 0 - 1 | 72-B-013 / 08/10/20 / 4 - 6 | 72-B-014 / 08/10/20 / 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 11.6 | 6.9 | 11.9 | 14.4 | 14.1 | 2.3 | 12.9 | 3.9 | 7.4 | 3.6 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.1 U | 2.1 U | 2.1 U | 2.3 U | 2.2 U | 1.9 U | 2.2 U | 1.9 U | 2.1 U | 1.9 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 3.2 U | 3.1 U | 3.1 U | 3.4 U | 3.3 U | 2.8 U | 3.3 U | 2.9 U | 3.2 U | 2.9 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.1 U | 2.1 U | 2.1 U | 2.3 U | 2.2 U | 1.9 U | 2.2 U | 1.9 U | 2.1 U | 1.9 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.1 U | 2.1 U | 2.1 U | 2.3 U | 2.2 U | 1.9 U | 2.2 U | 1.9 U | 2.1 U | 1.9 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.1 U | 5.3 J | 2.1 U | 2.3 U | 2.2 U | 1.9 U | 2.2 U | 1.9 U | 2.1 U | 11 |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 2.1 U | 2.1 U | 2.1 U | 2.3 U | 2.2 U | 1.9 U | 2.2 U | 1.9 U | 2.1 U | 1.8 J |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.3 J | 1.7 | 1.2 | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 1.5 |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 5 | 0.56 J | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 11 |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 1.2 | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 1.4 |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.27 J | 68 J | 4.4 | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 130 |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 9.9 J | 0.38 J | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 11 |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 1.3 | 0.44 J | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.29 J |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 8.5 | 1100 | 97 | 3 | 0.64 J | 0.45 J | 4.8 | 0.19 J | 8.4 | 740 |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.64 U | 2.1 | 0.26 J | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 2.9 |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 1.2 J | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 2.2 |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.64 U | 0.63 U | 0.62 U | 0.69 U | 0.66 U | 0.57 U | 0.67 U | 0.58 U | 0.64 U | 0.58 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: 72-B-014 / Sample Date: 08/10/20 / Depth Interval (ft., bgs): 4 - 6 | B-B-105 / 01/10/20 / 0 - 1 | B-B-105 / 01/10/20 / 4 - 5 | F-B-008 / 01/09/20 / 0 - 1 | F-B-008 / 01/09/20 / 4 - 6 | F-B-009 / 01/09/20 / 0 - 1 | F-B-009 / 01/09/20 / 5 - 7 | F-B-010 / 01/09/20 / 0 - 1 | F-B-010 / 01/09/20 / 4 - 6 | F-B-011 / 01/09/20 / 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 21.1 | 7.8 | 7 | 14.8 | 6.6 | 11.5 | 12 | 10.2 | 6.6 | 11.1 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.4 U | 0.6 U | 0.6 U | 0.66 U | 0.63 U | 0.67 U | 0.63 U | 0.65 U | 0.61 U | 0.66 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 3.6 U | 0.6 U | 0.6 U | 0.66 U | 0.63 U | 0.67 U | 0.63 U | 0.65 U | 0.61 U | 0.66 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.4 UJ | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.4 UJ | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.4 U | 0.4 U | 0.4 U | 0.44 U | 0.42 U | 0.45 U | 0.42 U | 0.43 U | 0.4 U | 0.44 U |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 2.4 U | 0.8 UJ | 0.8 UJ | 0.89 U | 0.84 U | 2.2 J | 2.1 J | 0.86 U | 0.81 U | 0.87 U |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.51 J | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.67 J | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 5.2 | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.3 J | 0.2 U | 0.22 U |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.45 J | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 30 | 0.57 J | 0.2 U | 1.6 | 0.21 U | 0.23 J | 0.21 U | 3.1 | 0.2 U | 0.61 J |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.36 J | 0.41 J | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.24 J |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.72 U | 0.2 U | 0.2 U | 0.22 U | 0.21 U | 0.22 U | 0.21 U | 0.22 U | 0.2 U | 0.22 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | -- | 0.7 U | 0.7 U | 0.8 U | 0.7 U | 4 U | 4 U | 4 U | 35 U | 4 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: F-B-011 / Sample Date: 01/09/20 / Depth Interval (ft., bgs): 8 - 10 | F-B-012 / 08/11/20 / 0 - 1 | F-B-013 / 08/11/20 / 0 - 1 | F-B-014 / 08/11/20 / 0 - 1 | F-B-014 (Dup) / 08/11/20 / 0 - 1 | F-B-015 / 08/11/20 / 0 - 1 | F-B-015 (Dup) / 08/11/20 / 0 - 1 | F-B-016 / 08/11/20 / 0 - 1 | F-B-017 / 08/11/20 / 0 - 1 | F-B-018 / 08/11/20 / 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 15.7 | 7.7 | 8.3 | 12.9 | 13 | 10.6 | 8.5 | 12.2 | 10.6 | 12.3 |
| **PFAS** | | | | | | | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.67 U | 2.1 U | 2 U | 2.3 U | 2.3 U | 2.1 U | 2.2 U | 2.1 U | 2.2 U | 2.3 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.67 U | 3.2 U | 3 U | 3.4 U | 3.4 U | 3.1 U | 3.3 U | 3.2 U | 3.2 U | 3.4 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 2.1 U | 2 U | 2.3 U | 2.3 U | 2.1 U | 2.2 U | 2.1 U | 2.2 U | 2.3 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 2.1 U | 2 U | 2.3 U | 2.3 U | 2.1 U | 2.2 U | 2.1 U | 2.2 U | 2.3 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.44 U | 2.1 U | 2 U | 2.3 U | 2.3 U | 2.1 U | 2.2 U | 2.1 U | 2.2 U | 2.3 U |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.89 U | 2.1 U | 2 U | 2.3 U | 2.3 U | 2.1 U | 2.2 U | 2.1 U | 2.2 U | 2.3 U |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.24 J | 0.68 U | 0.68 U | 0.26 J | 0.66 U | 0.63 U | 0.23 J | 0.68 U |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 0.22 U | 0.76 | 1.5 | 0.33 J | 0.3 J | 1.1 J | 0.56 J | 0.54 J | 0.73 | 0.45 J |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.22 U | 0.26 J | 0.61 U | 0.68 U | 0.68 U | 0.23 J | 0.39 J | 0.63 U | 0.28 J | 0.68 U |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.22 U | 0.64 U | 0.61 U | 0.68 U | 0.68 U | 0.62 U | 0.66 U | 0.63 U | 0.65 U | 0.68 U |
| **SVOCs** | | | | | | | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | 1 J | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-1**
**EMERGING CONTAMINANTS IN SOIL - TOTAL RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | NYS Proposed Soil Cleanup Objectives: Unrestricted Use | Residential | Restricted Residential | Commercial | Industrial | GW Protection | Units | Sample Location: F-B-019<br>Sample Date: 08/11/20<br>Depth Interval (ft., bgs): 0 - 1 | G-B-105<br>01/09/20<br>0 - 1 | G-B-105 (Dup)<br>01/09/20<br>0 - 1 | G-B-105<br>01/09/20<br>8 - 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | | | | | |
| Moisture | -- | -- | -- | -- | -- | -- | PERCENT | 12.6 | 6 | 7 | 22.1 |
| **PFAS** | | | | | | | | | | | |
| 6:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.2 U | 0.6 U | 0.63 U | 0.72 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 3.3 U | 0.6 U | 0.63 U | 0.72 U |
| NETFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.2 U | 0.2 U | 0.21 U | 0.24 U |
| NMEFOSAA | -- | -- | -- | -- | -- | -- | ug/kg | 2.2 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROBUTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 2.2 U | 0.4 U | 0.42 U | 3.1 |
| PERFLUOROBUTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 2.2 U | 0.8 UJ | 0.84 U | 1.3 J |
| PERFLUORODECANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUORODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUORODODECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROHEPTANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROHEPTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROHEXANESULFONATE | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 1.1 J | 0.37 J | 6.6 |
| PERFLUOROHEXANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 8.7 |
| PERFLUORONONANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROOCTANESULFONAMIDE | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROOCTANESULFONIC ACID | 0.88 | 8.8 | 44 | 440 | 440 | 1 | ug/kg | 0.38 J | 8.8 J | 3.1 J | 4.3 |
| PERFLUOROOCTANOIC ACID | 0.66 | 6.6 | 33 | 500 | 600 | 0.8 | ug/kg | 0.65 U | 0.2 U | 0.21 U | 5.6 |
| PERFLUOROPENTANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 2.6 |
| PERFLUOROTETRADECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROTRIDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| PERFLUOROUNDECANOIC ACID | -- | -- | -- | -- | -- | -- | ug/kg | 0.65 U | 0.2 U | 0.21 U | 0.24 U |
| **SVOCs** | | | | | | | | | | | |
| 1,4-Dioxane | 100 | 9800 | 13000 | 130000 | 250000 | 100 | ug/kg | -- | 4 U | 4 U | 140 |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
Samples with PFOS/PFOA >1 ug/kg were analyzed by SPLP; exceedances are highlighted.
The 1,4-Dioxane Part 375 standard for unrestricted use is 100 ug/kg.

**TABLE 4-2**
**EMERGING CONTAMINANTS IN SOIL - SPLP RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Maximum Contaminant Level (ng/L) | Units | Sample Location: 26-B-002 Sample Date: 01/08/20 Depth Interval (ft., bgs): 0 - 1 | 26-B-002 01/08/20 4 - 6 | 26-B-003 01/08/20 0 - 1 | 72-B-002 01/10/20 0 - 1 | 72-B-002 01/10/20 3 - 5 | 72-B-003 01/10/20 0 - 1 | 72-B-003 01/10/20 3 - 5 | 72-B-004 01/10/20 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 6:2 FLUOROTELOMERSULFONATE | -- | ng/L | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | ng/L | 10 U | 9.8 U | 9.9 U | 10 U | 9.9 U | 10 U | 9.9 U | 9.9 U |
| NETFOSAA | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| NMEFOSAA | -- | ng/L | 6 U | 5.9 U | 5.9 U | 6 U | 5.9 U | 6 U | 5.9 U | 5.9 U |
| PERFLUOROBUTANESULFONATE | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROBUTANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| PERFLUORODECANESULFONATE | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUORODECANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUORODODECANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROHEPTANESULFONATE | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROHEPTANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROHEXANESULFONATE | -- | ng/L | 5 U | 5.6 J | 4.9 U | 16 J | 110 | 10 J | 39 | 100 |
| PERFLUOROHEXANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 9.8 J | 5 U | 10 J | 6.7 J |
| PERFLUORONONANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROOCTANESULFONAMIDE | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 9 J | 4.9 U |
| PERFLUOROOCTANESULFONIC ACID | 10 | ng/L | 19 J | 15 J | 26 | 210 | 200 | 59 | 560 | 27 |
| PERFLUOROOCTANOIC ACID | 10 | ng/L | 8.6 J | 20 | 6.8 J | 6.5 J | 9.8 J | 5 U | 8.9 J | 11 J |
| PERFLUOROPENTANOIC ACID | -- | ng/L | 5 U | 5.5 J | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROTETRADECANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROTRIDECANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |
| PERFLUOROUNDECANOIC ACID | -- | ng/L | 5 U | 4.9 U | 4.9 U | 5 U | 4.9 U | 5 U | 4.9 U | 4.9 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ng/L - nanogram per liter
ft bgs - feet below ground surface
The NYSDEC Maximum Contaminant Level for PFOS and PFOA is 10 ng/L; exceedances are highlighted.

**TABLE 4-2**
**EMERGING CONTAMINANTS IN SOIL - SPLP RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Maximum Contaminant Level (ng/L) | Units | Sample Location: | 72-B-004 | 72-B-005 | 72-B-005 | 72-B-006 | 72-B-006 | 72-B-007 | 72-B-007 | 72-B-008 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 01/10/20 | 01/10/20 | 01/10/20 | 08/11/20 | 08/11/20 | 08/10/20 | 08/10/20 | 08/10/20 |
| | | | Depth Interval (ft., bgs): | 4 - 5 | 0 - 1 | 2 - 4 | 0 - 1 | 4 - 6 | 0 - 1 | 3 - 5 | 0 - 1 |
| 6:2 FLUOROTELOMERSULFONATE | -- | ng/L | | 20 U | 20 U | 20 U | 50 U | 49 U | 5.7 U | 48 U | 50 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | ng/L | | 9.9 U | 9.9 U | 9.9 U | 30 U | 30 U | 3.4 U | 29 U | 30 U |
| NETFOSAA | -- | ng/L | | 5 U | 5 U | 4.9 U | 30 U | 30 U | 3.4 U | 29 U | 30 U |
| NMEFOSAA | -- | ng/L | | 6 U | 6 U | 5.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROBUTANESULFONATE | -- | ng/L | | 7.8 J | 5 U | 5.2 J | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROBUTANOIC ACID | -- | ng/L | | 20 U | 20 U | 20 U | 50 U | 49 U | 5.7 U | 48 U | 50 U |
| PERFLUORODECANESULFONATE | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUORODECANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUORODODECANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROHEPTANESULFONATE | -- | ng/L | | 5 U | 6.4 J | 41 | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROHEPTANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROHEXANESULFONATE | -- | ng/L | | 110 | 120 | 720 | 20 U | 20 U | 2.4 | 8.3 J | 14 J |
| PERFLUOROHEXANOIC ACID | -- | ng/L | | 14 J | 7.6 J | 6.9 J | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUORONONANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROOCTANESULFONAMIDE | -- | ng/L | | 5 U | 81 | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROOCTANESULFONIC ACID | 10 | ng/L | | 110 | 1600 | 380 J | 23 | 17 J | 27 | 22 | 28 |
| PERFLUOROOCTANOIC ACID | 10 | ng/L | | 11 J | 26 | 30 | 20 U | 20 U | 0.78 J | 19 U | 20 U |
| PERFLUOROPENTANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 1.2 J | 19 U | 20 U |
| PERFLUOROTETRADECANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROTRIDECANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |
| PERFLUOROUNDECANOIC ACID | -- | ng/L | | 5 U | 5 U | 4.9 U | 20 U | 20 U | 2.3 U | 19 U | 20 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ng/L - nanogram per liter
ft bgs - feet below ground surface
The NYSDEC Maximum Contaminant Level for PFOS and PFOA is 10 ng/L; exceedances are highlighted.

**TABLE 4-2**
**EMERGING CONTAMINANTS IN SOIL - SPLP RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Maximum Contaminant Level (ng/L) | Units | Sample Location: | 72-B-008 | 72-B-009 | 72-B-009 | 72-B-010 | 72-B-010 | 72-B-011 | 72-B-012 | 72-B-013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 08/10/20 | 08/10/20 | 08/10/20 | 08/10/20 | 08/10/20 | 08/11/20 | 08/10/20 | 08/10/20 |
| | | | Depth Interval (ft., bgs): | 6 - 8 | 0 - 1 | 4 - 6 | 0 - 1 | 3 - 5 | 0 - 1 | 3 - 5 | 4 - 6 |
| 6:2 FLUOROTELOMERSULFONATE | -- | ng/L | | 48 U | 5.6 U | 49 U | 48 U | 49 U | 48 U | 49 U | 49 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | ng/L | | 29 U | 3.4 U | 29 U | 29 U | 30 U | 29 U | 29 U | 30 U |
| NETFOSAA | -- | ng/L | | 29 U | 3.4 U | 29 U | 29 U | 30 U | 29 U | 29 U | 30 U |
| NMEFOSAA | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROBUTANESULFONATE | -- | ng/L | | 19 U | 390 | 20 U | 300 J | 8.7 J | 19 U | 19 U | 20 U |
| PERFLUOROBUTANOIC ACID | -- | ng/L | | 48 U | 75 J | 49 U | 65 J | 49 U | 48 U | 49 U | 49 U |
| PERFLUORODECANESULFONATE | -- | ng/L | | 19 U | 2.3 U | 20 U | 13 J | 14 J | 19 U | 19 U | 20 U |
| PERFLUORODECANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUORODODECANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROHEPTANESULFONATE | -- | ng/L | | 19 U | 58 | 20 U | 180 J | 15 J | 19 U | 19 U | 20 U |
| PERFLUOROHEPTANOIC ACID | -- | ng/L | | 19 U | 51 | 20 U | 41 | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROHEXANESULFONATE | -- | ng/L | | 37 | 1900 | 17 J | 1900 | 150 | 19 U | 6.2 J | 20 U |
| PERFLUOROHEXANOIC ACID | -- | ng/L | | 5.7 J | 420 | 20 U | 400 J | 12 J | 19 U | 19 U | 20 U |
| PERFLUORONONANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROOCTANESULFONAMIDE | -- | ng/L | | 5 J | 5.6 | 20 U | 41 | 14 J | 19 U | 19 U | 20 U |
| PERFLUOROOCTANESULFONIC ACID | 10 | ng/L | | 1600 | 3000 | 340 | 40000 | 3200 | 29 | 340 | 200 |
| PERFLUOROOCTANOIC ACID | 10 | ng/L | | 19 U | 78 | 20 U | 85 | 9.7 J | 19 U | 19 U | 20 U |
| PERFLUOROPENTANOIC ACID | -- | ng/L | | 19 U | 93 | 20 U | 92 J | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROTETRADECANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROTRIDECANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |
| PERFLUOROUNDECANOIC ACID | -- | ng/L | | 19 U | 2.3 U | 20 U | 19 U | 20 U | 19 U | 19 U | 20 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
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U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ng/L - nanogram per liter
ft bgs - feet below ground surface
The NYSDEC Maximum Contaminant Level for PFOS and PFOA is 10 ng/L; exceedances are highlighted.

**TABLE 4-2**
**EMERGING CONTAMINANTS IN SOIL - SPLP RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Maximum Contaminant Level (ng/L) | Units | Sample Location: 72-B-014 Sample Date: 08/10/20 Depth Interval (ft., bgs): 0 - 1 | 72-B-014 08/10/20 4 - 6 | F-B-008 01/09/20 0 - 1 | F-B-010 01/09/20 0 - 1 | F-B-012 08/11/20 0 - 1 | F-B-013 08/11/20 0 - 1 | F-B-014 08/11/20 0 - 1 | F-B-014 (Dup) 08/11/20 0 - 1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 6:2 FLUOROTELOMERSULFONATE | -- | ng/L | 49 U | 50 U | 20 U | 20 U | 49 U | 49 U | 49 U | 49 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | ng/L | 29 U | 30 U | 9.9 U | 9.9 U | 29 U | 30 U | 30 U | 30 U |
| NETFOSAA | -- | ng/L | 29 U | 30 U | 5 U | 4.9 U | 29 U | 30 U | 30 U | 30 U |
| NMEFOSAA | -- | ng/L | 19 U | 20 U | 6 U | 5.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROBUTANESULFONATE | -- | ng/L | 560 | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROBUTANOIC ACID | -- | ng/L | 130 | 50 U | 20 U | 20 U | 49 U | 49 U | 49 U | 49 U |
| PERFLUORODECANESULFONATE | -- | ng/L | 19 U | 6.2 J | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUORODECANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUORODODECANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROHEPTANESULFONATE | -- | ng/L | 31 | 17 J | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROHEPTANOIC ACID | -- | ng/L | 38 | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROHEXANESULFONATE | -- | ng/L | 2000 | 140 | 5 U | 6 J | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROHEXANOIC ACID | -- | ng/L | 480 | 9.4 J | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUORONONANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROOCTANESULFONAMIDE | -- | ng/L | 6.2 J | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROOCTANESULFONIC ACID | 10 | ng/L | 620 | 1000 | 7.8 J | 81 | 6.4 J | 12 J | 20 U | 20 U |
| PERFLUOROOCTANOIC ACID | 10 | ng/L | 46 | 8.7 J | 5 J | 7.5 J | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROPENTANOIC ACID | -- | ng/L | 140 | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROTETRADECANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROTRIDECANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |
| PERFLUOROUNDECANOIC ACID | -- | ng/L | 19 U | 20 U | 5 U | 4.9 U | 19 U | 20 U | 20 U | 20 U |

Notes:
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U - constituent not detected above the associated detection limit
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**TABLE 4-2**
**EMERGING CONTAMINANTS IN SOIL - SPLP RESULTS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Maximum Contaminant Level (ng/L) | Units | Sample Location: F-B-015 / Sample Date: 08/11/20 / Depth Interval (ft., bgs): 0 - 1 | F-B-015 (Dup) 08/11/20 0 - 1 | F-B-017 08/11/20 0 - 1 | G-B-105 01/09/20 0 - 1 | G-B-105 (Dup) 01/09/20 0 - 1 | G-B-105 01/09/20 8 - 10 |
|---|---|---|---|---|---|---|---|---|
| 6:2 FLUOROTELOMERSULFONATE | -- | ng/L | 50 U | 50 U | 49 U | 20 U | 20 U | 20 U |
| 8:2 FLUOROTELOMERSULFONATE | -- | ng/L | 30 U | 30 U | 29 U | 9.9 U | 10 U | 10 U |
| NETFOSAA | -- | ng/L | 30 U | 30 U | 29 U | 4.9 U | 5 U | 5 U |
| NMEFOSAA | -- | ng/L | 20 U | 20 U | 20 U | 5.9 U | 6 U | 6 U |
| PERFLUOROBUTANESULFONATE | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5.9 J |
| PERFLUOROBUTANOIC ACID | -- | ng/L | 50 U | 50 U | 49 U | 20 U | 20 U | 67 |
| PERFLUORODECANESULFONATE | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUORODECANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUORODODECANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROHEPTANESULFONATE | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROHEPTANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROHEXANESULFONATE | -- | ng/L | 6.5 J | 20 U | 20 U | 6.2 J | 13 J | 5 U |
| PERFLUOROHEXANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 5.6 J | 5 U | 47 |
| PERFLUORONONANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROOCTANESULFONAMIDE | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROOCTANESULFONIC ACID | 10 | ng/L | 9.3 J | 5.6 J | 20 U | 56 J | 95 J | 6.4 J |
| PERFLUOROOCTANOIC ACID | 10 | ng/L | 5.9 J | 6.8 J | 5.2 J | 4.9 U | 5 U | 8.9 J |
| PERFLUOROPENTANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 16 J |
| PERFLUOROTETRADECANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROTRIDECANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |
| PERFLUOROUNDECANOIC ACID | -- | ng/L | 20 U | 20 U | 20 U | 4.9 U | 5 U | 5 U |

Notes:
(Dup) - as part of the sample location, indicate a duplicate
J - result is estimated
U - constituent not detected above the associated detection limit
UJ - constituent not detected, associated detection limit is estimated
ng/L - nanogram per liter
ft bgs - feet below ground surface
The NYSDEC Maximum Contaminant Level for PFOS and PFOA is 10 ng/L; exceedances are highlighted.

**TABLE 4-3**
**WELL CONSTRUCTION INTERVALS FOR WELLS REFERENCED IN REPORT SECTION 4.2.2**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Well ID | Well Depth (FBGS)^ | Screened Interval (FBGS)^ | Stratigraphic Unit |
|---|---|---|---|
| **Mary Harriman Park Wells** | | | |
| MH-1A (Pumping Well)* | 64 | 39 - 64 | Aquifer |
| MHP-MW-3S | 14 | 4 - 14 | Aquifer |
| MHP-MW-3D | 35 | 25 - 35 | Aquifer |
| MHP-MW-4S | 15.5 | 5.5 - 15.5 | Aquifer |
| MHP-MW-5** | 50 | 45-50 | Aquifer |
| MHP-MW-7** | 44 | Unknown | Aquifer |
| MH-104 | 27 | 17 - 27 | Aquitard |
| **Nepera Site Monitoring Wells** | | | |
| MW-9S | 21 | 14 - 21 | Aquifer |
| MW-24S | 17.5 | 7.5 - 17.5 | Aquifer |
| MW-201 | 30 | 10 - 30 | Aquitard |
| MW-202S | 32 | 12 - 32 | Aquitard |

Notes:
^ FBGS - Feet Below Ground Surface
*Depth and screened interval obtained from "Well Redevelopment Report Village of Harriman, Harriman, New York" Leggette, Brashears & Grahm, January 1996. A stratigraphic well log is not available.
** Wells are owned by the Village of Harriman and well logs are not available. Depths and screened interval, where reported, were obtained from a Leggette, Brashears & Graham (LBG) Letter dated February 14, 2017. Stratigraphic unit is assigned based on observed response to pumping MH-1A. A location screened across both low and high permeability soils is assigned as an aquifer well.

**TABLE 4-4**
**EMERGING CONTAMINANTS IN GROUNDWATER**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Units | NY DW MCL* | MH-101 20211027 | MH-102 20211027 | MH-103D 20211027 | MH-103S 20211027 | MH-104 20211027 | MH-105D 20211027 | MH-105S 20211027 | MHP- MW-3D 20211025 | MHP- MW-3S 20211027 | DUP-01 MHP- MW-3S 20211027 | MHP- MW-4S 20211025 | AP-101 20211027 | BP-101 20211028 | AMW-1 20211027 | AMW-2 20211027 | AMW-3 20211028 | DUP-02 AMW-3 20211028 | AMW-4 20211028 | AMW-5 20211028 | AMW-6 20211028 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-DIOXANE (P-DIOXANE) | ug/L | 1 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.15 J | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U |
| 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) | ng/L | | 0.35 U | 0.35 U | 0.33 U | 0.38 U | 0.35 U | 0.40 U | 0.37 U | 0.54 J | 0.36 U | 0.36 U | 0.36 U | 0.36 U | 0.35 U | 0.36 U | 0.36 U | 0.36 U | 0.36 U | 0.36 U | 0.35 U | 0.35 U |
| 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) | ng/L | | 0.98 U | 1.0 U | 0.93 U | 1.06 U | 0.98 U | 1.14 U | 1.05 U | 0.99 U | 1.17 J | 1.31 J | 1.00 U | 1.02 U | 0.98 U | 3.15 J | 1.02 U | 1.01 U | 1.00 U | 1.00 U | 0.98 U | 0.99 U |
| 2-(N-methyl perfluorooctanesulfonamido) acetic acid | ng/L | | 0.81 U | 0.82 U | 0.76 U | 0.87 U | 0.81 U | 0.94 U | 0.86 U | 0.81 U | 0.83 U | 0.84 U | 0.83 U | 0.84 U | 0.81 U | 0.82 U | 0.84 U | 0.83 U | 0.83 U | 0.82 U | 0.80 U | 0.81 U |
| N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine | ng/L | | 0.66 U | 0.67 U | 1.05 J | 0.72 U | 0.67 U | 0.77 U | 0.71 U | 0.67 U | 0.69 U | 0.69 U | 0.68 U | 0.69 U | 0.66 U | 0.79 BJ | 0.69 U | 0.68 U | 0.79 BJ | 0.68 U | 0.66 U | 0.67 U |
| PERFLUOROBUTANESULFONIC ACID | ng/L | | 3.12 | 3.98 | 1.63 J | 2.44 | 8.38 | 1.18 J | 0.24 U | 8.08 | 4.84 | 4.86 | 4.59 | 45.9 | 0.22 U | 12.1 | 5.6 | 3.25 B | 3.28 B | 3.48 B | 3.98 | 5.62 B |
| PERFLUOROBUTYRIC ACID (PFBA) | ng/L | | 2.53 J | 3.67 J | 12.1 | 1.40 J | 4.73 | 3.98 J | 2.11 J | 4.57 | 8.41 | 8.45 | 3.46 J | 14.2 | 0.80 U | 13.9 | 7.16 | 9.59 | 9.17 | 4.20 J | 4.8 | 4.92 |
| PERFLUORODECANE SULFONIC ACID | ng/L | | 0.27 U | 0.28 U | 0.26 U | 0.29 U | 0.27 U | 0.32 U | 0.29 U | 0.28 U | 0.28 U | 0.29 U | 0.28 U | 0.28 U | 0.27 U | 0.28 U | 0.29 U | 0.28 U | 0.28 U | 0.28 U | 0.27 U | 0.28 U |
| PERFLUORODECANOIC ACID (PFDA) | ng/L | | 0.27 U | 0.28 U | 0.33 J | 0.29 U | 0.27 U | 0.32 U | 0.29 U | 0.27 U | 0.28 U | 0.28 U | 0.28 U | 0.28 U | 0.27 U | 0.78 J | 0.28 U | 0.89 J | 1.03 J | 0.48 J | 0.27 U | 0.28 J |
| PERFLUORODODECANOIC ACID (PFDoA) | ng/L | | 0.34 U | 0.35 U | 0.33 U | 0.37 U | 0.35 U | 0.40 U | 0.37 U | 0.35 U | 0.36 U | 0.36 U | 0.35 U | 0.36 U | 0.34 U | 0.35 U | 0.36 U | 0.35 U | 0.35 U | 0.35 U | 0.34 U | 0.35 U |
| PERFLUOROHEPTANE SULFONATE (PFHpS) | ng/L | | 0.38 J | 1.07 J | 0.20 U | 0.81 J | 4.91 | 0.24 U | 0.22 U | 0.21 J | 1.64 J | 1.64 J | 0.21 J | 36.4 | 0.21 U | 1.05 J | 0.34 J | 1.68 J | 1.57 J | 1.70 J | 0.91 J | 1.45 J |
| Perfluoroheptanoic Acid (PFHpA) | ng/L | | 1.06 J | 0.85 J | 5.92 | 0.42 J | 2.01 | 0.77 J | 0.41 J | 3.04 | 6.34 | 6.77 | 1.75 J | 9.62 | 0.21 U | 6.31 | 2.13 | 2.51 | 2.88 | 2.65 | 2.57 | 1.8 |
| PERFLUOROHEXANESULFONIC ACID (PFHxS) | ng/L | | 8.8 | 33.7 | 1.31 J | 25.4 | 142 | 1.61 J | 0.29 U | 3.39 | 97.1 | 89.8 | 2.54 | 474 D | 0.27 U | 81.5 | 23.1 | 22.1 | 22.8 | 31.2 | 24.6 | 46.4 |
| PERFLUOROHEXANOIC ACID (PFHxA) | ng/L | | 1.38 J | 2.58 | 6.52 | 1.32 J | 8.13 | 1.43 J | 0.48 J | 4.91 | 23.1 | 22.8 | 2.2 | 95.9 | 0.40 U | 14.4 | 3.52 | 5.57 | 5.51 | 4.17 | 5.17 | 3.62 |
| PERFLUORONONANOIC ACID | ng/L | | 0.25 U | 0.26 U | 2.15 | 0.27 U | 0.25 U | 0.29 U | 0.27 U | 0.29 J | 1.55 J | 1.49 J | 0.36 J | 0.48 J | 0.25 U | 1.59 J | 0.49 J | 1.67 J | 1.49 J | 1.29 J | 0.66 J | 1.72 J |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | | 0.52 U | 0.52 U | 0.49 U | 0.56 U | 0.52 U | 0.60 U | 0.55 U | 0.52 U | 0.53 U | 0.54 U | 0.53 U | 0.54 U | 0.52 U | 0.53 U | 0.54 U | 0.53 U | 0.53 U | 0.53 U | 0.51 U | 0.52 U |
| PERFLUOROOCTANE SULFONIC ACID (PFOS) | ng/L | 10 | 14 | 69.5 | 3.89 | 53.4 | 451 D | 1.29 J | 0.43 J | 18.3 | 839 D | 838 D | 12.7 | 840 D | 0.26 U | 25 | 11.7 | 63.5 | 62.9 | 110 | 17.6 | 44.3 |
| Perfluorooctanoic acid (PFOA) | ng/L | 10 | 4.71 | 3.57 | 12.3 | 1.89 J | 7.08 | 2.35 | 1.10 J | 9.82 | 9.06 | 8.7 | 5.77 | 36.5 | 0.38 U | 30.7 | 13.4 | 15.9 | 15.6 | 18.4 | 18.3 | 14.3 |
| PERFLUOROPENTANOIC ACID (PFPeA) | ng/L | | 1.08 J | 1.92 | 6.6 | 0.72 J | 3.94 | 1.62 J | 0.80 J | 5.3 | 15.2 | 15.9 | 2.43 | 23.4 | 0.42 U | 11.7 | 3.13 | 6.99 | 7.3 | 3.46 | 3.62 | 2.56 |
| PERFLUOROTETRADECANOIC ACID (PFTeA) | ng/L | | 0.57 U | 0.57 U | 0.54 U | 0.61 U | 0.57 U | 0.66 U | 0.60 U | 0.57 U | 0.58 U | 0.59 U | 0.58 U | 0.59 U | 0.57 U | 0.58 U | 0.59 U | 0.58 U | 0.58 U | 0.58 U | 0.56 U | 0.57 U |
| PERFLUOROTRIDECANOIC ACID (PFTriA) | ng/L | | 0.39 U | 0.39 U | 0.37 U | 0.42 U | 0.39 U | 0.45 U | 0.41 U | 0.39 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.39 U | 0.40 U | 0.41 U | 0.40 U | 0.40 U | 0.40 U | 0.39 U | 0.39 U |
| PERFLUOROUNDECANOIC ACID (PFUnA) | ng/L | | 0.31 U | 0.31 U | 0.29 U | 0.33 U | 0.31 U | 0.36 U | 0.33 U | 0.31 U | 0.32 U | 0.32 U | 0.31 U | 0.32 U | 0.31 U | 0.37 J | 0.32 U | 0.32 U | 0.36 J | 0.31 U | 0.31 U | 0.31 U |
| TOTAL PFAS | ng/L | | 37.06 | 120.84 | 53.8 | 87.8 | 632.18 | 14.23 | 5.33 | 58.45 | 1007.41 | 999.72 | 36.01 | 1576.4 | 0 | 203.34 | 70.57 | 133.65 | 134.68 | 181.03 | 82.21 | 126.97 |

*New York Drinking Water Maximum Contaminant Level
Other PFAS (not PFOA or PFOS) 100 ng/L or greater
Total PFAS > 500 ng/L
Exceed Pre-4/23 NYSDEC Guidance
Green shaded locations represent off-site wells

Notes:
ng/L - nanograms per liter
ug/L - micrograms per liter
J - Estimated concentration. Value is > Method Detection Limit but < Reporting Limit
U - Not Detected. Value represents the Method Detection Limit
D - Diluted sample
B - Compound detected in blank and sample.

**TABLE 4-4**
**EMERGING CONTAMINANTS IN GROUNDWATER**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Units | NY DW MCL* | AMW-7 20211029 | AMW-8 20211029 | AMW-9 20211029 | AMW-10 20211029 | AMW-11 20211028 | F-GW-01-10 15 20200807 | F-GW-02-10 15 20200806 | DUP-01 F-GW-02-10-15 20200806 | F-GW-03-15 20 20200806 | F-GW-04-10 15 20200805 | G-GW-01-10-15 20200807 | MW-101 20200910 | MW-102 20200910 | MW-102 20211028 | MW-103 20200911 | MW-106 20200910 | MW-11S 20200910 | MW-12S 20200911 | MW-16S 20200911 | Dup-02 MW-16S 20200911 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-DIOXANE (P-DIOXANE) | ug/L | 1 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 12 | 0.37 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.85 | 0.47 |
| 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) | ng/L | | 0.32 U | 0.33 U | 0.32 U | 0.36 U | 0.35 U | 2.39 U | 2.68 U | 2.59 U | 2.72 U | 2.60 U | 2.72 U | 0.56 U | 0.56 U | 0.32 U | 0.59 U | 0.55 U | 0.58 U | 0.57 U | 0.56 U | 0.56 U |
| 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) | ng/L | | 0.90 U | 0.93 J | 0.90 U | 1.01 U | 0.98 U | 4.52 U | 5.08 U | 4.91 U | 5.15 U | 4.93 U | 5.16 U | 0.62 U | 0.61 U | 0.91 U | 0.65 U | 0.60 U | 0.63 U | 0.62 U | 0.61 U | 0.61 U |
| 2-(N-methyl perfluorooctanesulfonamido) acetic acid | ng/L | | 0.74 U | 0.77 U | 0.74 U | 0.83 U | 0.81 U | 1.40 U | 1.57 U | 1.52 U | 1.59 U | 1.52 U | 1.59 U | 0.68 U | 0.66 U | 0.75 U | 0.71 U | 0.66 U | 0.69 U | 0.68 U | 0.67 U | 0.67 U |
| N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine | ng/L | | 0.61 U | 0.63 U | 0.61 U | 0.68 U | 0.67 U | 1.23 U | 1.39 U | 1.34 U | 1.41 U | 1.35 U | 1.41 U | 0.80 U | 0.78 U | 0.62 U | 0.83 U | 0.78 U | 0.82 U | 0.80 U | 0.79 U | 0.78 U |
| PERFLUOROBUTANESULFONIC ACID | ng/L | | 7.60 B | 25.4 B | 41.0 B | 22.6 B | 3.07 B | 9.8 | 2.57 | 2.09 | 2.46 | 12.3 | 60.7 | 2.57 | 5.36 | 5.11 | 5.28 | 5.26 | 2.28 | 19.9 | 19.3 | 18.4 |
| PERFLUOROBUTYRIC ACID (PFBA) | ng/L | | 8.21 | 25.8 | 36.2 | 11.2 | 5.32 | 3.93 | 7.38 | 6.42 | 4.38 | 10.2 | 20.9 | 3.39 J | 3.59 J | 4.42 | 12.6 | 4.22 | 3.62 J | 9.75 | 9.51 | 7.58 |
| PERFLUORODECANE SULFONIC ACID | ng/L | | 0.25 U | 0.26 U | 0.25 U | 0.28 U | 0.27 U | 0.74 U | 0.83 U | 0.80 U | 0.84 U | 0.81 U | 0.84 U | 0.41 U | 0.40 U | 0.25 U | 0.43 U | 0.40 U | 0.42 U | 0.42 U | 0.41 U | 0.40 U |
| PERFLUORODECANOIC ACID (PFDA) | ng/L | | 0.33 J | 0.26 U | 0.46 J | 1.55 J | 0.27 U | 0.63 U | 0.71 U | 0.69 U | 0.72 U | 0.69 U | 2.25 | 0.39 U | 0.39 U | 0.25 U | 0.41 U | 0.39 U | 0.40 U | 0.40 U | 0.39 U | 0.39 U |
| PERFLUORODODECANOIC ACID (PFDoA) | ng/L | | 0.32 U | 0.33 U | 0.32 U | 0.35 U | 0.35 U | 0.49 U | 0.55 U | 0.53 U | 0.55 U | 0.53 U | 0.55 U | 0.39 U | 0.39 U | 0.32 U | 0.41 U | 0.39 U | 0.40 U | 0.40 U | 0.39 U | 0.39 U |
| PERFLUOROHEPTANE SULFONATE (PFHpS) | ng/L | | 2.04 | 29.6 | 8.68 | 12.3 | 0.41 J | 0.78 U | 0.88 U | 0.85 U | 0.89 U | 2.32 | 16.7 | 0.33 U | 0.46 J | 0.46 J | 0.53 J | 0.33 U | 0.34 U | 3.99 | 7.84 | 6.73 |
| Perfluoroheptanoic Acid (PFHpA) | ng/L | | 4.93 | 8.84 | 6.89 | 5.93 | 1.09 J | 2.46 | 2.51 | 2.69 | 2.19 | 4.42 | 18.5 | 0.56 J | 1.27 J | 1.22 J | 6.17 | 0.93 J | 0.55 J | 4.79 | 4.43 | 5.26 |
| PERFLUOROHEXANESULFONIC ACID (PFHxS) | ng/L | | 54 | 920 D | 240 | 200 | 10.2 | 28.4 | 9.51 | 8.48 | 9.35 | 116 | 451 | 6.04 | 14.1 | 13.8 | 13.3 | 14.4 | 3.39 | 124 | 87.1 | 83.4 |
| PERFLUOROHEXANOIC ACID (PFHxA) | ng/L | | 12 | 33.1 | 32 | 28.5 | 1.88 | 8.27 | 4.75 | 4.77 | 2.86 | 15.3 | 86.1 | 2.08 | 3.94 | 4.85 | 10.1 | 3.62 | 1.15 J | 49.6 | 27.9 | 27.5 |
| PERFLUORONONANOIC ACID | ng/L | | 2.01 | 1.42 J | 1.79 | 2.25 | 0.60 J | 0.56 BJ | 0.25 U | 0.53 BJ | 3.36 B | 0.85 BJ | 4.51 B | 0.50 U | 0.49 U | 0.23 U | 0.52 U | 0.49 U | 0.51 U | 1.07 J | 0.77 J | 0.79 J |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | | 0.47 U | 0.49 U | 0.47 U | 0.53 U | 0.52 U | 8.23 U | 9.24 U | 8.93 U | 9.37 U | 8.97 U | 9.38 U | 0.49 U | 0.48 U | 0.48 U | 0.51 U | 0.48 U | 0.50 U | 0.78 J | 0.49 U | 0.48 U |
| PERFLUOROOCTANE SULFONIC ACID (PFOS) | ng/L | 10 | 60.9 | 833 D | 214 | 485 D | 11.2 | 13.1 | 3.89 | 3.31 | 34.3 | 101 | 426 T | 2.27 | 14 | 13.1 | 20.8 | 9.43 | 1.75 J | 278 | 259 | 239 |
| Perfluorooctanoic acid (PFOA) | ng/L | 10 | 33.1 | 48.8 | 30.9 | 21.9 | 7.7 | 8.51 | 8.54 | 8.43 | 7.02 | 16 | 127 | 2.72 | 4.68 | 4.5 | 15.4 | 3.04 | 2.22 | 12.6 | 14.8 | 15.1 |
| PERFLUOROPENTANOIC ACID (PFPeA) | ng/L | | 7.12 | 18.1 | 9.3 | 9.08 | 2.24 | 5.58 | 3.39 | 3.41 | 3.46 | 19.5 | 26.7 | 1.74 | 1.8 | 1.98 | 8.62 | 1.68 | 1.07 J | 15 | 7.88 | 8.2 |
| PERFLUOROTETRADECANOIC ACID (PFTeA) | ng/L | | 0.52 U | 0.54 U | 0.52 U | 0.58 U | 0.57 U | 0.76 U | 0.85 U | 0.82 U | 0.86 U | 0.82 U | 0.86 U | 0.50 U | 0.50 U | 0.53 U | 0.53 U | 0.49 U | 0.52 U | 0.51 U | 0.50 U | 0.50 U |
| PERFLUOROTRIDECANOIC ACID (PFTriA) | ng/L | | 0.36 U | 0.37 U | 0.36 U | 0.40 U | 0.39 U | 0.49 U | 0.55 U | 0.54 U | 0.56 U | 0.54 U | 0.56 U | 0.37 U | 0.36 U | 0.36 U | 0.39 U | 0.36 U | 0.38 U | 0.37 U | 0.37 U | 0.36 U |
| PERFLUOROUNDECANOIC ACID (PFUnA) | ng/L | | 0.28 U | 0.29 U | 0.28 U | 0.32 U | 0.31 U | 0.64 U | 0.72 U | 0.70 U | 0.73 U | 0.70 U | 0.73 U | 0.62 U | 0.61 U | 0.29 U | 0.66 U | 0.61 U | 0.64 U | 0.63 U | 0.62 U | 0.62 U |
| TOTAL PFAS | ng/L | | 192.24 | 1944.99 | 621.22 | 800.31 | 43.71 | 80.61 | 42.54 | 40.13 | 69.38 | 297.89 | 1240.36 | 21.37 | 49.2 | 49.44 | 92.8 | 42.58 | 16.03 | 519.48 | 438.53 | 411.96 |

*New York Drinking Water Maximum Contaminant Level
Other PFAS (not PFOA or PFOS) 100 ng/L or greater
Total PFAS > 500 ng/L
Exceed Pre-4/23 NYSDEC Guidance
Green shaded locations represent off-site wells

Notes:
ng/L - nanograms per liter
ug/L - micrograms per liter
J - Estimated concentration. Value is > Method Detection Limit but < Reporting Limit
U - Not Detected. Value represents the Method Detection Limit
D - Diluted sample
B - Compound detected in blank and sample.

**TABLE 4-4**
**EMERGING CONTAMINANTS IN GROUNDWATER**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Units | NY DW MCL* | MW-1S 20200910 | MW-1S 20211028 | MW-201 20200909 | MW-201 20211028 | MW-202 20200909 | MW-202D 20200909 | MW-202D 20211027 | MW-202S 20211027 | MW-203 20200909 | MW-20D 20200909 | MW-20S 20200909 | MW-21S 20200909 | MW-23D 20200910 | MW-23S 20211028 | MW-24S 20200909 | Dup-01 MW-24S 20200909 | MW-24S 20211027 | MW-26D 20200910 | MW-26S 20211028 | MW-33 20200909 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-DIOXANE (P-DIOXANE) | ug/L | 1 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.14 J | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.21 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.51 | 0.58 | 0.43 T | 0.016 U | 0.016 U | 0.016 U |
| 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) | ng/L | | 0.55 U | 0.35 U | 0.57 U | 0.36 U | 0.57 U | 0.56 U | 0.36 U | 0.38 U | 0.59 U | 0.55 U | 0.61 U | 0.61 U | 0.59 U | 0.37 U | 0.56 U | 0.56 U | 0.33 U | 0.57 U | 0.34 U | 0.55 U |
| 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) | ng/L | | 0.60 U | 0.99 U | 0.62 U | 1.01 U | 0.62 U | 0.61 U | 1.00 U | 1.06 U | 0.64 U | 9.19 | 0.66 U | 0.66 U | 0.64 U | 1.03 U | 0.61 U | 0.61 U | 0.94 U | 0.62 U | 0.95 U | 0.61 U |
| 2-(N-methyl perfluorooctanesulfonamido) acetic acid | ng/L | | 0.66 U | 0.81 U | 0.68 U | 0.83 U | 0.68 U | 0.67 U | 0.82 U | 0.88 U | 0.70 U | 0.66 U | 0.73 U | 0.72 U | 0.71 U | 0.85 U | 0.67 U | 0.67 U | 0.77 U | 0.68 U | 0.78 U | 0.66 U |
| N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine | ng/L | | 0.78 U | 0.67 U | 0.80 U | 0.70 BJ | 0.81 U | 0.79 U | 0.68 U | 0.72 U | 0.83 U | 0.84 J | 0.86 U | 0.85 U | 0.83 U | 0.70 U | 0.79 U | 0.79 U | 0.64 U | 0.80 U | 0.64 U | 6.79 |
| PERFLUOROBUTANESULFONIC ACID | ng/L | | 8.74 | 8.46 | 9.66 | 4.39 B | 8.06 | 3.36 | 3.09 | 7.19 | 3.06 | 3.86 | 3.52 | 1.20 J | 0.56 U | 1.39 J | 7.95 | 8.55 | 8.46 | 0.56 J | 8.59 | 2.24 |
| PERFLUOROBUTYRIC ACID (PFBA) | ng/L | | 5.23 | 6.97 | 8.3 | 9.54 | 20.7 | 4.8 | 4.44 J | 10.2 | 4.01 J | 39.2 | 11.4 | 2.07 J | 1.37 J | 6.35 | 7.96 | 7.8 | 9.47 | 2.56 J | 8.28 | 3.26 J |
| PERFLUORODECANE SULFONIC ACID | ng/L | | 0.40 U | 0.28 U | 0.42 U | 0.28 U | 0.42 U | 0.41 U | 0.28 U | 0.30 U | 0.43 U | 0.40 U | 0.44 U | 0.44 U | 0.43 U | 0.29 U | 0.41 U | 0.41 U | 0.26 U | 0.41 U | 0.27 U | 0.40 U |
| PERFLUORODECANOIC ACID (PFDA) | ng/L | | 0.39 U | 0.27 U | 1.02 J | 0.69 J | 0.95 J | 0.39 U | 0.28 U | 0.66 J | 0.41 U | 0.82 J | 0.52 J | 0.42 U | 0.41 U | 0.78 J | 1.10 J | 1.02 J | 1.14 J | 0.40 U | 0.50 J | 0.59 J |
| PERFLUORODODECANOIC ACID (PFDoA) | ng/L | | 0.39 U | 0.35 U | 0.40 U | 0.35 U | 0.40 U | 0.39 U | 0.35 U | 0.37 U | 0.41 U | 0.39 U | 0.42 U | 0.42 U | 0.41 U | 0.36 U | 0.39 U | 0.39 U | 0.33 U | 0.40 U | 0.33 U | 0.39 U |
| PERFLUOROHEPTANE SULFONATE (PFHpS) | ng/L | | 5.31 | 3.71 | 3.52 | 1.46 J | 1.02 J | 0.40 J | 0.36 J | 0.69 J | 0.38 J | 0.57 J | 0.51 J | 0.36 U | 0.35 U | 0.22 U | 1.32 J | 1.38 J | 1.29 J | 0.34 U | 5.03 | 1.8 |
| Perfluoroheptanoic Acid (PFHpA) | ng/L | | 2.14 | 3 | 4.73 | 2.88 | 17.7 | 1.97 | 1.65 J | 3.59 | 2.84 | 9.43 | 5.61 | 0.42 U | 0.45 J | 1.81 J | 6.56 | 6.64 | 7.05 | 0.40 U | 5.29 | 3.44 |
| PERFLUOROHEXANESULFONIC ACID (PFHxS) | ng/L | | 53.9 | 67 | 87.9 | 32.2 | 32.7 | 13.9 | 13.9 | 33.8 | 17.2 | 25.3 | 19.4 | 1.33 J | 0.60 U | 0.64 J | 46.7 | 44.5 | 41.2 | 0.80 J | 111 | 33.5 |
| PERFLUOROHEXANOIC ACID (PFHxA) | ng/L | | 10.6 | 15.2 | 10.9 | 5.3 | 22.1 | 2.96 | 2.36 | 7.57 | 4.59 | 24.7 | 7.8 | 0.76 U | 0.74 U | 2.01 | 10.3 | 9.91 | 12.6 | 0.82 J | 15.3 | 7.43 |
| PERFLUORONONANOIC ACID | ng/L | | 0.49 U | 0.29 J | 2.76 | 1.63 J | 9.44 | 0.49 U | 0.35 J | 1.92 J | 0.52 U | 2.12 | 1.12 J | 0.53 U | 0.52 U | 1.16 J | 2.73 | 2.4 | 3.31 | 0.50 U | 1.61 J | 1.28 J |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | | 0.48 U | 0.52 U | 0.49 U | 0.53 U | 0.49 U | 0.48 U | 0.53 U | 0.56 U | 0.51 U | 0.48 U | 0.52 U | 0.52 U | 0.51 U | 0.54 U | 0.48 U | 0.48 U | 0.49 U | 0.49 U | 0.50 U | 0.48 U |
| PERFLUOROOCTANE SULFONIC ACID (PFOS) | ng/L | 10 | 280 | 220 | 127 | 57.3 | 28.3 | 12.9 | 9.57 | 23.5 | 8.83 | 32.8 | 31.1 | 3.95 | 1.26 J | 3.09 | 45.8 | 41.8 | 45.2 | 2.78 | 286 | 52.7 |
| Perfluorooctanoic acid (PFOA) | ng/L | 10 | 11 | 12.4 | 25.9 | 14 | 87.6 | 8.96 | 9.48 | 22 | 13.2 | 34.8 | 14.6 | 2.75 | 0.88 U | 9.36 | 29.4 | 28.1 | 31.6 | 2.6 | 14.7 | 25.5 |
| PERFLUOROPENTANOIC ACID (PFPeA) | ng/L | | 3.45 | 4.4 | 6.4 | 6.51 | 18.2 | 2.6 | 1.79 J | 4.5 | 4.07 | 33.8 | 12 | 0.99 U | 1.07 J | 2.48 | 6.96 | 6.67 | 9.6 | 1.9 | 11 | 4.4 |
| PERFLUOROTETRADECANOIC ACID (PFTeA) | ng/L | | 0.49 U | 0.57 U | 0.51 U | 0.58 U | 0.51 U | 0.50 U | 0.58 U | 0.61 U | 0.53 U | 0.50 U | 0.54 U | 0.54 U | 0.53 U | 0.59 U | 0.50 U | 0.50 U | 0.54 U | 0.51 U | 0.55 U | 0.50 U |
| PERFLUOROTRIDECANOIC ACID (PFTriA) | ng/L | | 0.36 U | 0.39 U | 0.37 U | 0.40 U | 0.37 U | 0.37 U | 0.40 U | 0.42 U | 0.38 U | 0.36 U | 0.40 U | 0.39 U | 0.38 U | 0.41 U | 0.36 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.36 U |
| PERFLUOROUNDECANOIC ACID (PFUnA) | ng/L | | 0.61 U | 0.31 U | 0.63 U | 0.32 U | 0.63 U | 0.62 U | 0.31 U | 0.33 U | 0.65 U | 0.61 U | 0.67 U | 0.67 U | 0.65 U | 0.32 U | 0.62 U | 0.62 U | 0.29 U | 0.63 U | 0.30 U | 0.61 U |
| TOTAL PFAS | ng/L | | 380.37 | 341.43 | 288.09 | 136.6 | 246.77 | 51.85 | 46.99 | 115.62 | 58.18 | 217.43 | 107.58 | 11.3 | 4.15 | 29.07 | 166.78 | 158.77 | 170.92 | 12.02 | 467.3 | 142.93 |

*New York Drinking Water Maximum Contaminant Level
Other PFAS (not PFOA or PFOS) 100 ng/L or greater
Total PFAS > 500 ng/L
Exceed Pre-4/23 NYSDEC Guidance
Green shaded locations represent off-site wells

Notes:
ng/L - nanograms per liter
ug/L - micrograms per liter
J - Estimated concentration. Value is > Method Detection Limit but < Reporting Limit
U - Not Detected. Value represents the Method Detection Limit
D - Diluted sample
B - Compound detected in blank and sample.

**TABLE 4-4**
**EMERGING CONTAMINANTS IN GROUNDWATER**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Constituent | Units | NY DW MCL* | MW-34 20211028 | MW-37AQ 20211028 | MW-37S 20200910 | MW-3S 20211029 | MW-4S 20211029 | MW-53D 20200911 | MW-53S 20211029 | MW-5S 20200910 | MW-5S 20211028 | MW-7S 20211028 | MW-8S 20200910 | MW-9S 20200909 | MW-9S 20211027 | OW-6 20200911 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-DIOXANE (P-DIOXANE) | ug/L | 1 | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.016 U | 0.98 |
| 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) | ng/L | | 0.34 U | 0.35 U | 0.60 U | 0.36 U | 0.34 U | 0.60 U | 0.38 U | 0.62 U | 0.37 U | 0.32 U | 0.63 U | 0.58 U | 0.32 U | 0.59 U |
| 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) | ng/L | | 2.59 J | 0.99 U | 0.65 U | 1.02 U | 0.96 U | 0.65 U | 1.07 U | 0.67 U | 1.05 U | 0.89 U | 0.69 U | 0.63 U | 0.89 U | 0.65 U |
| 2-(N-methyl perfluorooctanesulfonamido) acetic acid | ng/L | | 0.79 U | 0.81 U | 0.72 U | 0.92 J | 0.79 U | 0.71 U | 0.88 U | 0.74 U | 0.87 U | 0.74 U | 0.76 U | 0.69 U | 0.74 U | 0.71 U |
| N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine | ng/L | | 1.06 BJ | 0.67 U | 0.84 U | 0.87 BJ | 0.65 U | 0.84 U | 0.73 U | 0.87 U | 0.71 U | 0.61 U | 0.89 U | 0.82 U | 0.61 U | 0.84 U |
| PERFLUOROBUTANESULFONIC ACID | ng/L | | 12.3 | 6.43 | 9.39 | 5.05 B | 19.0 B | 10.1 | 2.77 B | 5.71 | 4.34 | 0.98 BJ | 3 | 1.62 J | 1.51 J | 551 D |
| PERFLUOROBUTYRIC ACID (PFBA) | ng/L | | 9.55 | 6.52 | 9.62 | 3.95 J | 7.01 | 8.41 | 5.64 | 5.69 | 5.49 | 3.00 J | 3.58 J | 3.13 J | 3.93 J | 84.1 |
| PERFLUORODECANE SULFONIC ACID | ng/L | | 0.27 U | 0.28 U | 0.44 U | 0.29 U | 0.27 U | 0.43 U | 0.30 U | 0.45 U | 0.29 U | 0.25 U | 0.46 U | 0.42 U | 0.25 U | 0.43 U |
| PERFLUORODECANOIC ACID (PFDA) | ng/L | | 0.49 J | 0.72 J | 0.84 J | 0.28 U | 0.27 U | 0.42 U | 0.89 J | 0.43 U | 0.29 U | 0.25 U | 0.44 U | 0.40 U | 0.25 U | 0.53 J |
| PERFLUORODODECANOIC ACID (PFDoA) | ng/L | | 0.34 U | 0.35 U | 0.42 U | 0.36 U | 0.34 U | 0.42 U | 0.38 U | 0.43 U | 0.37 U | 0.31 U | 0.44 U | 0.40 U | 0.31 U | 0.41 U |
| PERFLUOROHEPTANE SULFONATE (PFHpS) | ng/L | | 2.19 | 2.86 | 5.18 | 0.60 J | 4.06 | 3.47 | 1.33 J | 1.59 J | 0.76 J | 0.32 J | 0.37 U | 0.34 U | 0.20 J | 33.3 |
| Perfluoroheptanoic Acid (PFHpA) | ng/L | | 5.26 | 4.04 | 5.86 | 1.96 | 4.47 | 4.72 | 2.64 | 1.46 J | 0.85 J | 0.19 U | 1.66 J | 0.46 J | 0.60 J | 90.3 |
| PERFLUOROHEXANESULFONIC ACID (PFHxS) | ng/L | | 63.4 | 73.2 | 103 | 16.1 | 97.7 | 55 | 26.5 | 28.3 | 14.5 | 8.86 | 12 | 3.48 | 3.86 | 832 D |
| PERFLUOROHEXANOIC ACID (PFHxA) | ng/L | | 17.4 | 12.4 | 23.5 | 3.47 | 21.7 | 17.7 | 6.07 | 5.03 | 1.65 J | 0.43 J | 3.07 | 0.73 U | 0.75 J | 551 D |
| PERFLUORONONANOIC ACID | ng/L | | 1.61 J | 1.31 J | 1.98 | 0.26 U | 0.33 J | 0.62 J | 1.49 J | 0.54 U | 0.27 U | 0.23 U | 0.56 U | 0.51 U | 0.23 U | 1.22 J |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | | 0.51 U | 0.52 U | 0.52 U | 0.54 U | 0.50 U | 0.52 U | 0.57 U | 0.53 U | 0.55 U | 0.47 U | 0.55 U | 0.50 U | 0.47 U | 1.01 J |
| PERFLUOROOCTANE SULFONIC ACID (PFOS) | ng/L | 10 | 56.2 | 194 | 309 | 26 | 247 | 181 | 75 | 76.6 | 28.9 | 7.87 | 14.9 | 5.72 | 5.28 | 1790 D |
| Perfluorooctanoic acid (PFOA) | ng/L | 10 | 43.1 | 15.1 | 17.4 | 6.19 | 11.7 | 18.1 | 13.9 | 6.69 | 5.84 | 0.45 J | 6.46 | 5 | 6 | 99.6 |
| PERFLUOROPENTANOIC ACID (PFPeA) | ng/L | | 6.83 | 7.06 | 11.4 | 2.64 | 8.28 | 6.1 | 4.07 | 1.95 | 1.59 J | 0.54 J | 2.39 | 0.95 U | 0.92 J | 127 |
| PERFLUOROTETRADECANOIC ACID (PFTeA) | ng/L | | 0.55 U | 0.57 U | 0.54 U | 0.59 U | 0.55 U | 0.53 U | 0.62 U | 0.55 U | 0.61 U | 0.51 U | 0.57 U | 0.52 U | 0.52 U | 0.53 U |
| PERFLUOROTRIDECANOIC ACID (PFTriA) | ng/L | | 0.38 U | 0.39 U | 0.39 U | 0.40 U | 0.38 U | 0.39 U | 0.43 U | 0.40 U | 0.42 U | 0.35 U | 0.41 U | 0.38 U | 0.35 U | 0.39 U |
| PERFLUOROUNDECANOIC ACID (PFUnA) | ng/L | | 0.30 U | 0.31 U | 0.66 U | 0.32 U | 0.30 U | 0.66 U | 0.34 U | 0.68 U | 0.33 U | 0.28 U | 0.70 U | 0.64 U | 0.28 U | 0.66 U |
| TOTAL PFAS | ng/L | | 221.98 | 323.64 | 497.17 | 67.75 | 421.25 | 305.22 | 140.3 | 133.02 | 63.92 | 22.45 | 47.06 | 19.41 | 23.05 | 4161.06 |

*New York Drinking Water Maximum Contaminant Level
Other PFAS (not PFOA or PFOS) 100 ng/L or greater
Total PFAS > 500 ng/L
Exceed Pre-4/23 NYSDEC Guidance
Green shaded locations represent off-site wells

Notes:
ng/L - nanograms per liter
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J - Estimated concentration. Value is > Method Detection Limit but < Reporting Limit
U - Not Detected. Value represents the Method Detection Limit
D - Diluted sample
B - Compound detected in blank and sample.

# Figures

12/16/2013

Author: PThorn Path: P:\GIS\Nepera\Supp_RFI_WP\Site_Location.mxd

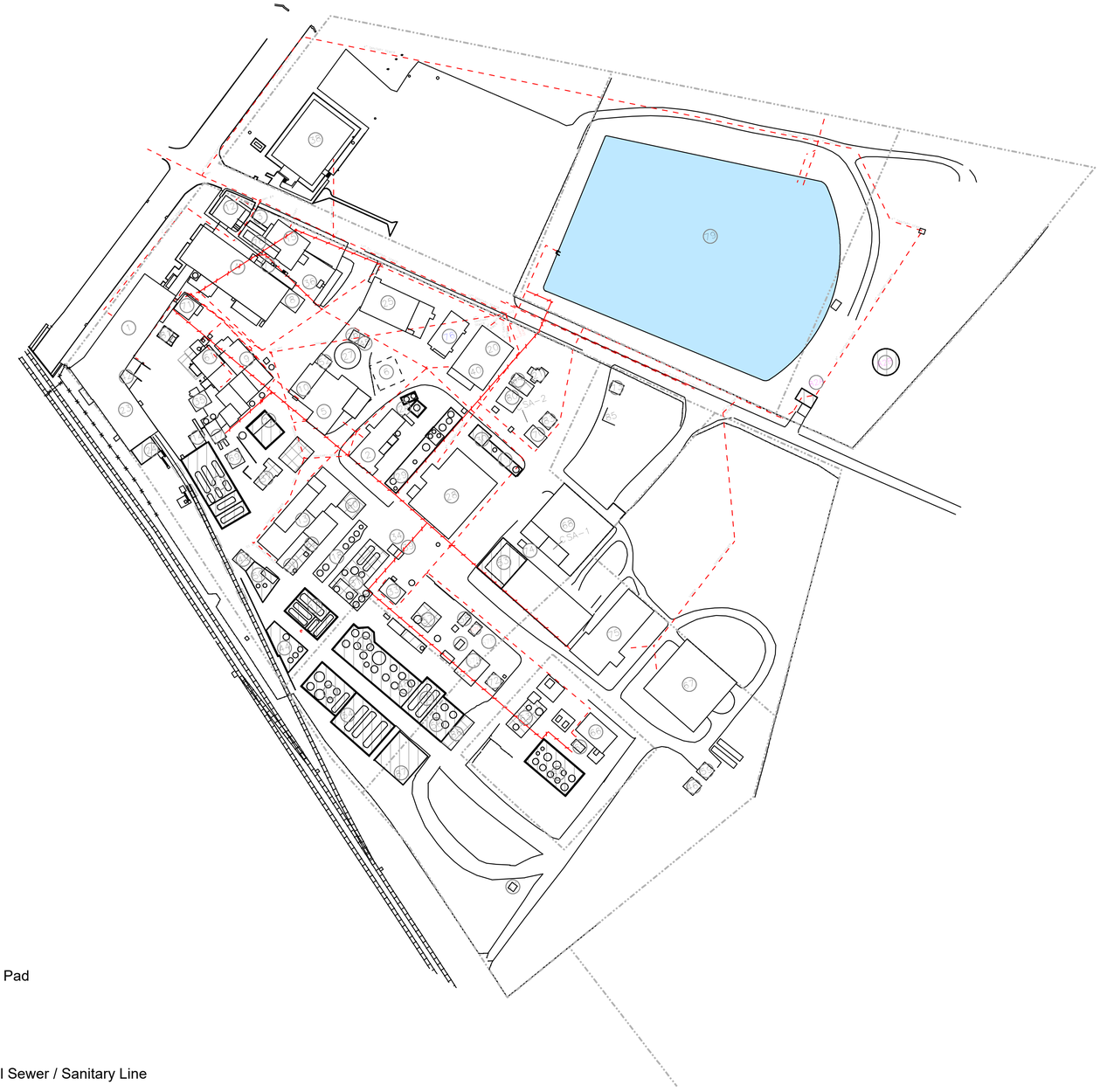
Brown AND Caldwell

**FIGURE 1-1**
**SITE LOCATION**
**FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK**

0 1,000 2,000
Feet

6/25/2019

N




**FORMER BUILDING INDEX**

1 WAREHOUSE
2 MFG DEPT A (2AP)
2A TANK FARM - BLDG 2
3 SUBSTATION
4 MFG/WAREHOUSE
5 STOCKROOM
6 PYRIDIUM STORAGE (REMOVED)
7 SUBSTATION #2
8 ENGINEERING OFFICES
9 BOILER HOUSE
10 SHIP/REC, PROD/MAINT, STOCKROOM
11 TANK FARM
12 MATERIALS MGMT OFFICES/ PURCHASING
13 MFG - AMIDE/ CONTROL ROOM
14 OLD PUMP HOUSE
15 OPERATIONS/ENVIRON/SAFETY OFFICES
17 #1 COOLING TOWER
18 TANK FARM -WASTE WATER
19 TANK FARM
20 LABORATORY
21 HIGH PRESSURE LAB
22 TANK FARM - FUEL OIL
23 WAREHOUSE/ WATER FILTRATION
24 WAREHOUSE
25 LOCKER-LUNCH ROOM/SECURITY
26 ELECTRIC FIRE PUMP
27 WATER TANK - FIRE SYSTEM
28 MFG - AMIDE/BATCH
29 TANK FARM
30 SUBSTATION #3
31 CRUDE BASE - DISTILLATION
32N TANK FARM
32S TANK FARM
33 #2 COOLING TOWER
34 VALVE HOUSE - FIRE SYSTEM
35 COOLING TOWER
36 TRUCK SCALE
37 OLD CYANO REACTOR
38 ADMINISTRATION OFFICES
39 YARD EQUIPMENT STG
40 PILOT PLANT
41 SUBSTATION #3
42 FREIGHT ELEVATOR
44 TANK FARM
45 #1 DIESEL PUMP
46 STG BLDG
47 SOUTH WELL PUMP
48 TANK FARM
49 DISTILLATION
50 TANK FARM/PROCESS
51 ORGANIC INCINERATOR
52 EMERGENCY CENTER
53 HYDROGEN TUBE TRUCK AREA
54 TANK FARM
55 TANK FARM
56 TANK FARM
57 CRUDE BASES REACTOR AREA
58 #4 & 5 COOLING TOWERS
59 STORAGE BLDG
60 DISTILLATION PAD
61 INCINERATOR
62 SUBSTATION #5
63 CYANO REACTOR PAD
64 TANK FARM
65 #6 COOLING TOWER
66E MCC
66W HYDROGEL STG
67 MAINTENANCE SHOP
68 DRUMMING STATION/ DRUM WAREHOUSE
69 AIR COMPRESSOR BLDG
70 FIRE TRUCK GARAGE
71 EMERGENCY GENERATORS
72 FOAM HOUSE
73 #2 DIESEL PUMP
74 MCC -BLDG 68
75 HYDROGEL BLDG
76 HYDROGEL OFFICES
77 ENGINEERING TRAILER
78 TRAINING CENTER
79 LAGOON
80 VAPOR PHASE R&D
81 TANK FARM - FUELS
82A DELUGE PUMP
82B DELUGE COLLECTION
83 ERT GARAGE
84 LAB CYLINDER STORAGE
85 IRM BLDG
86 TRUCK LOADING STATION
87 ACS PYRIDINE TANK FARM

**Legend**

- Site Area Boundary
- Former Building
- Former Containment Pad
- Former Tank Farm
- Lagoon
- Abandoned Industrial Sewer / Sanitary Line
- Industrial Sewer / Sanitary Line

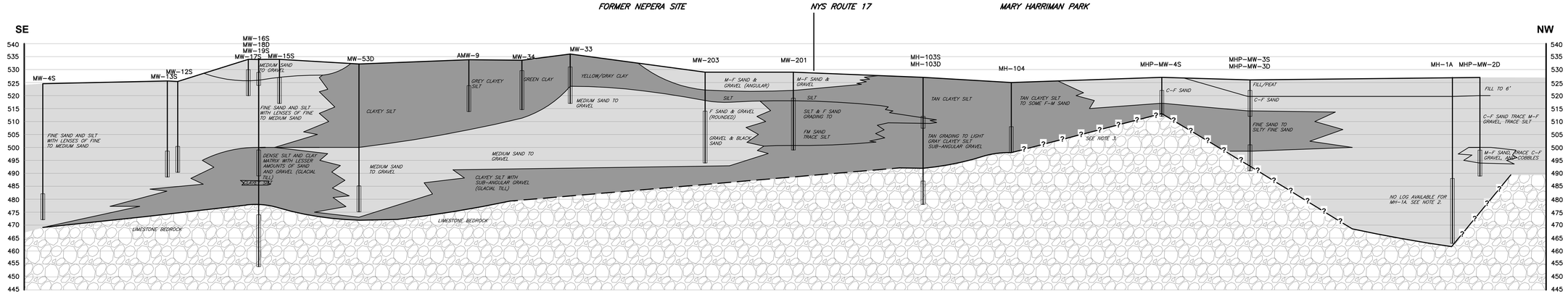
**Note:**
**Former plant buildings demolished in 2015**

Author: PThorn Path: P:\GIS\Nepera\PFAS_RIWP\Site_Plan.mxd

Brown AND Caldwell

# FIGURE 1-2
# SITE PLAN
# FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK

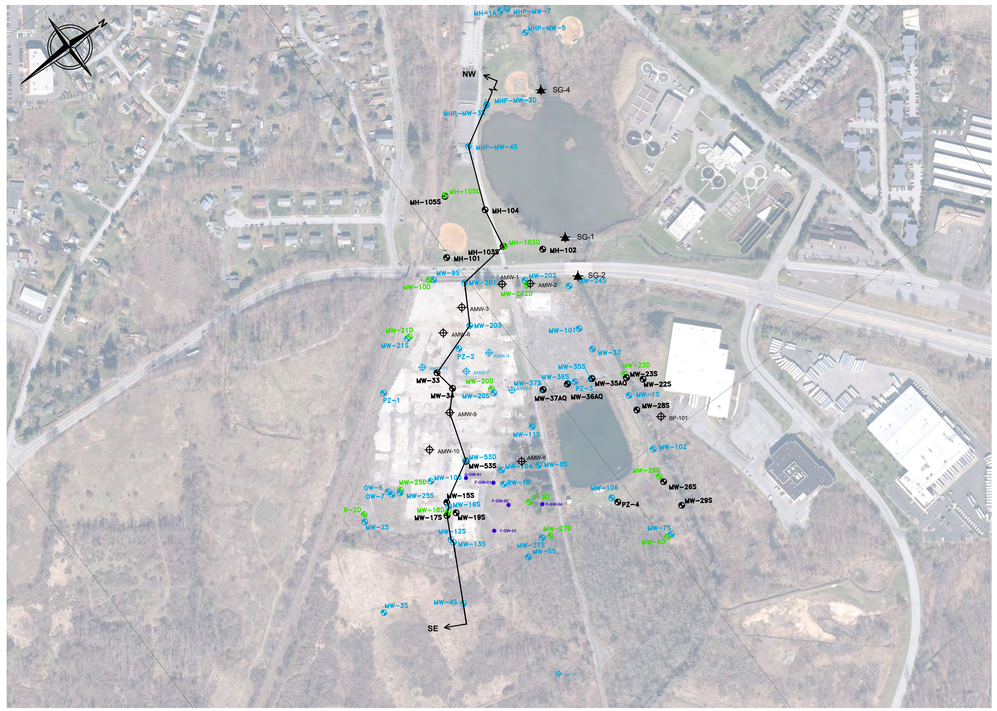
0 100 200
Feet




## CROSS SECTION SE - NW

SCALE: H: 1" = 100'
V: 1" = 20'

0 100 200
SCALE IN FEET




0 300 600
SCALE IN FEET

## CROSS SECTION SE - NW PLAN VIEW

SCALE: 1" = 300'

**LEGEND:**

- MW-36AQ / AMW-9 — MONITORING WELL IN OVERBURDEN AQUITARD
- MW-37S / AMW-7 — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL)
- MW-23D — MONITORING WELL IN BEDROCK
- F-GW-01 — TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT
- SE–NW CROSS SECTION ORIENTATION – CROSS SECTION EXTENDS NORTHEAST TO MH–1A AND MHP–MW–2
- AQUIFER MATERIALS
- AQUITARD MATERIALS
- BEDROCK

NOTES:

1. SOIL DESCRIPTIONS WERE NOT AVAILABLE FOR MW–12S, 13S AND 15S.
2. NO LOG IS AVAILABLE FOR MH–1A AND REPORTED DEPTHS RANGE FROM 52' IN TABLE 4 OF THE GROUNDWATER SUPPLY ASSESSMENT, VILLAGE OF HARRIMAN, APRIL 1989 TO 64' AND 67' 3" IN THE JULY 1996 WELL REDEVELOPMENT REPORT AND FEBRUARY 2020 HARRIMAN MH–1A SURGE RESULTS, RESPECTIVELY. MH–1A MAY BE PARTIALLY COMPLETED IN BEDROCK.
3. "2' BOULDER" IN LOG FOR MHP–MW–4S AND "POSSIBLE LIMESTONE BOULDER" FROM 33' TO 38' IN LOG FOR MHMW– 3D LIKELY REPRESENT BEDROCK.
4. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.

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| REV | DATE | DESCRIPTION | DWN BY | DES BY | CHK BY | APP BY |
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FORMER NEPARA PLANT SITE
TOWN OF HARRIMAN, ORANGE COUNTY, NEW YORK

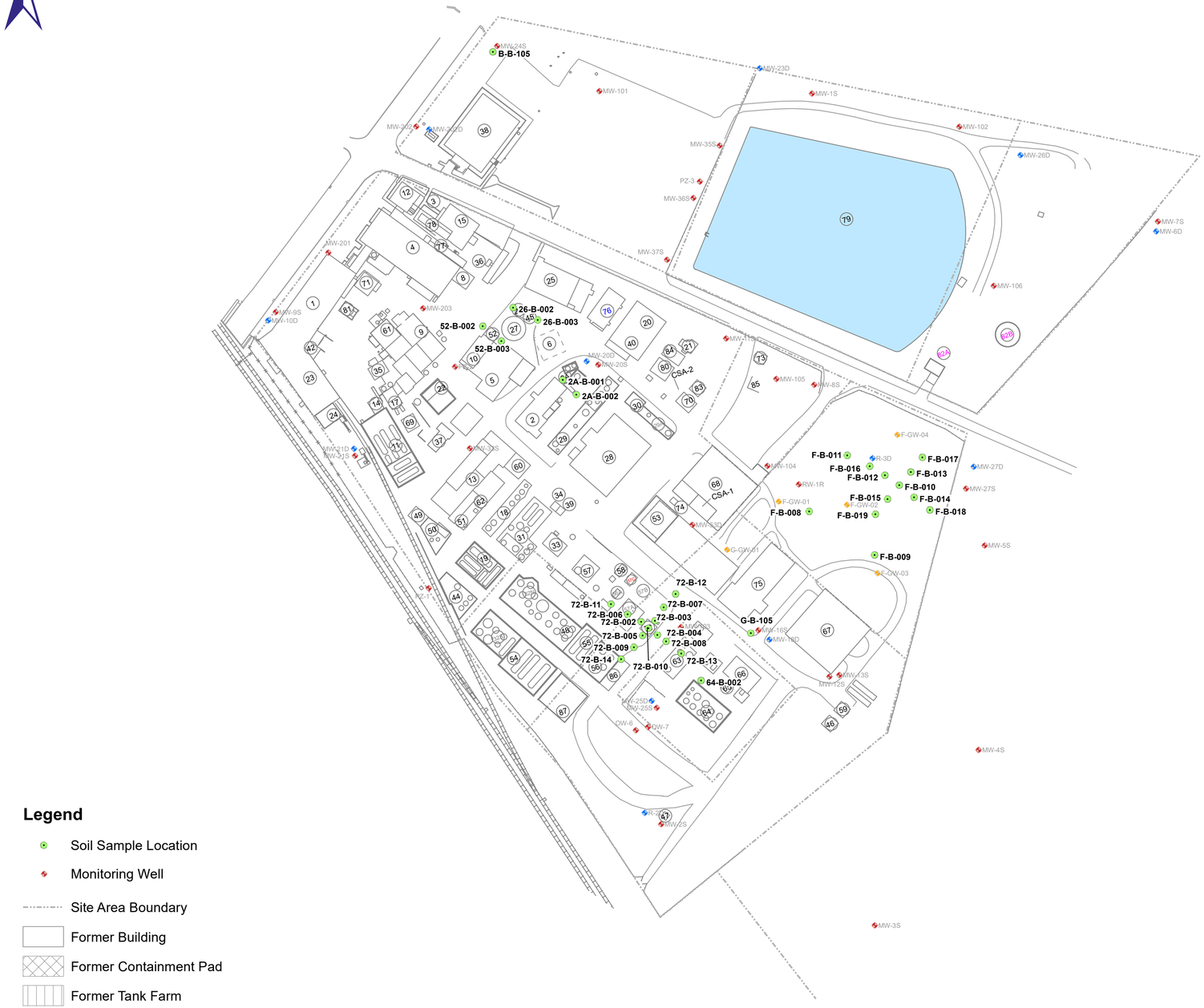
**SE-NW CROSS SECTION THROUGH STUDY AREA**

SHEET NO. **1-3**
PROJECT NO. 4213584

File: X:\PROJECTS\WARBROOK HARRIMAN TRUST\4213724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\4213724-F-XX-AQUITARD Cross Section Plan View.dwg Layout: FIGURE 2-2 User: JESS.PHELP Sep 22, 2022 - 3:18pm

1" 1/2" 0" 1"

11/19/2020




## Legend

- Soil Sample Location
- Monitoring Well
- Site Area Boundary
- Former Building
- Former Containment Pad
- Former Tank Farm
- Lagoon

## FORMER BUILDING INDEX

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54 TANK FARM
55 TANK FARM
56 TANK FARM
57 CRUDE BASES REACTOR AREA
58 #4 & 5 COOLING TOWERS
59 STORAGE BLDG
60 DISTILLATION PAD
61 INCINERATOR
62 SUBSTATION #5
63 CYANO REACTOR PAD
64 TANK FARM
65 #6 COOLING TOWER
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84 LAB CYLINDER STORAGE
85 IRM BLDG
86 TRUCK LOADING STATION
87 ACS PYRIDINE TANK FARM

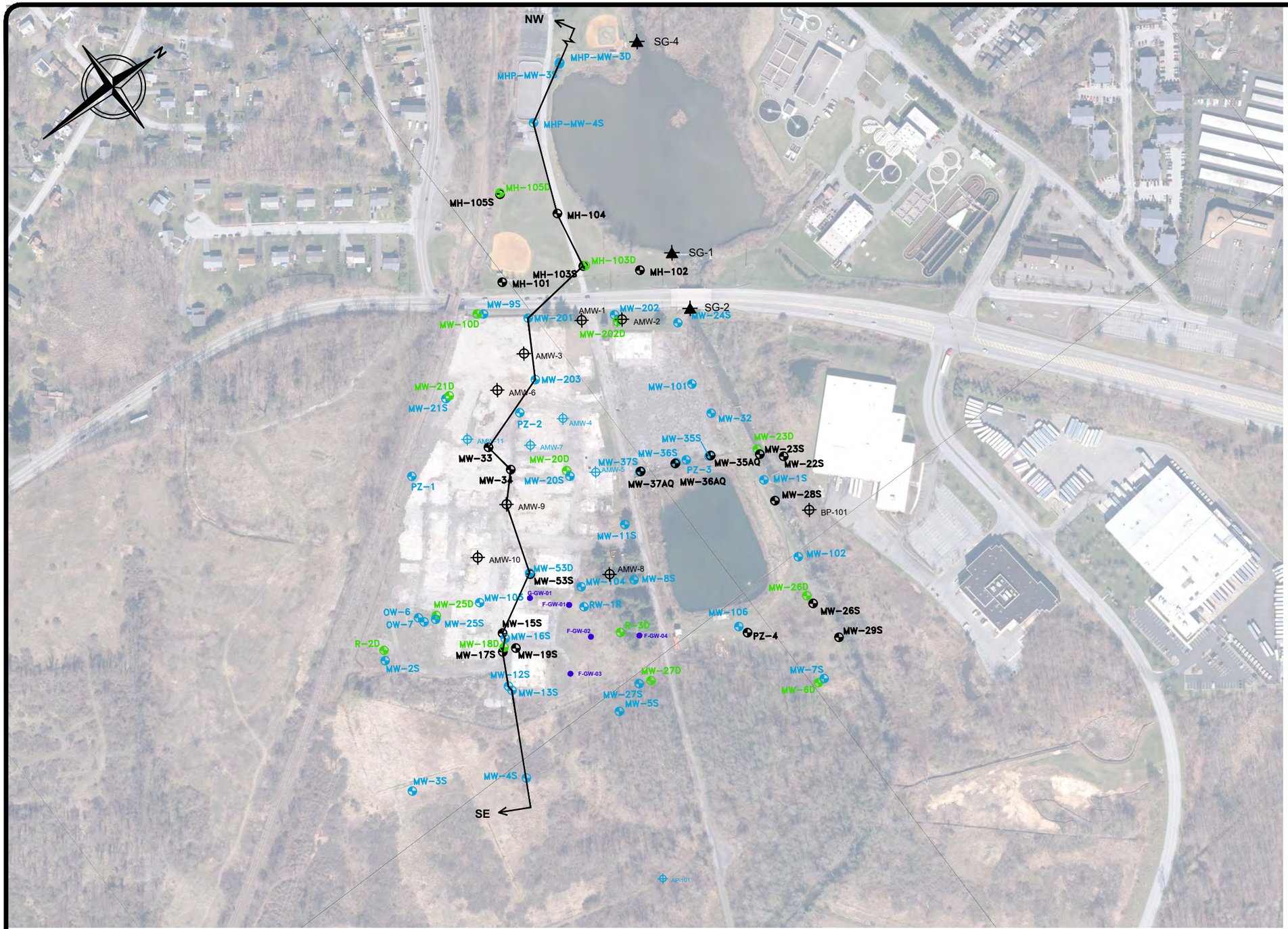
**Note:**
**Former plant buildings demolished in 2015**

Author: PThorn Path: V:\Ramsey\Nepera\PFAS_SI\Sample_Locations.mxd

Brown AND Caldwell

# FIGURE 2-1
# SOIL SAMPLE LOCATIONS
# FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK

DRAFT
0 100 200
Feet




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| | SE–NW CROSS SECTION ORIENTATION – CROSS SECTION EXTENDS NORTHEAST TO MH-1A AND MHP-MW-2 |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.

0 300 600

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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**MONITORING WELLS AND TEMPORARY GROUNDWATER SAMPLING LOCATIONS**

FIGURE NO.
**2-2**

PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-XX-AQUITARD VALUES.dwg Layout: FIGURE 2-2 User: JISS.PHILIP Sep 22, 2022 – 4:27pm

## LEGEND:

OR-7 — EXISTING SUPPLY WELL

WELL SEARCH RADIUS

## NOTE:

1. BACKGROUND IMAGE TAKEN FROM ORTHOIMAGERY DOWNLOADED FROM THE NEW YORK STATE GIS CLEARINGHOUSE, DATED 2016.

0 1000 2000

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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

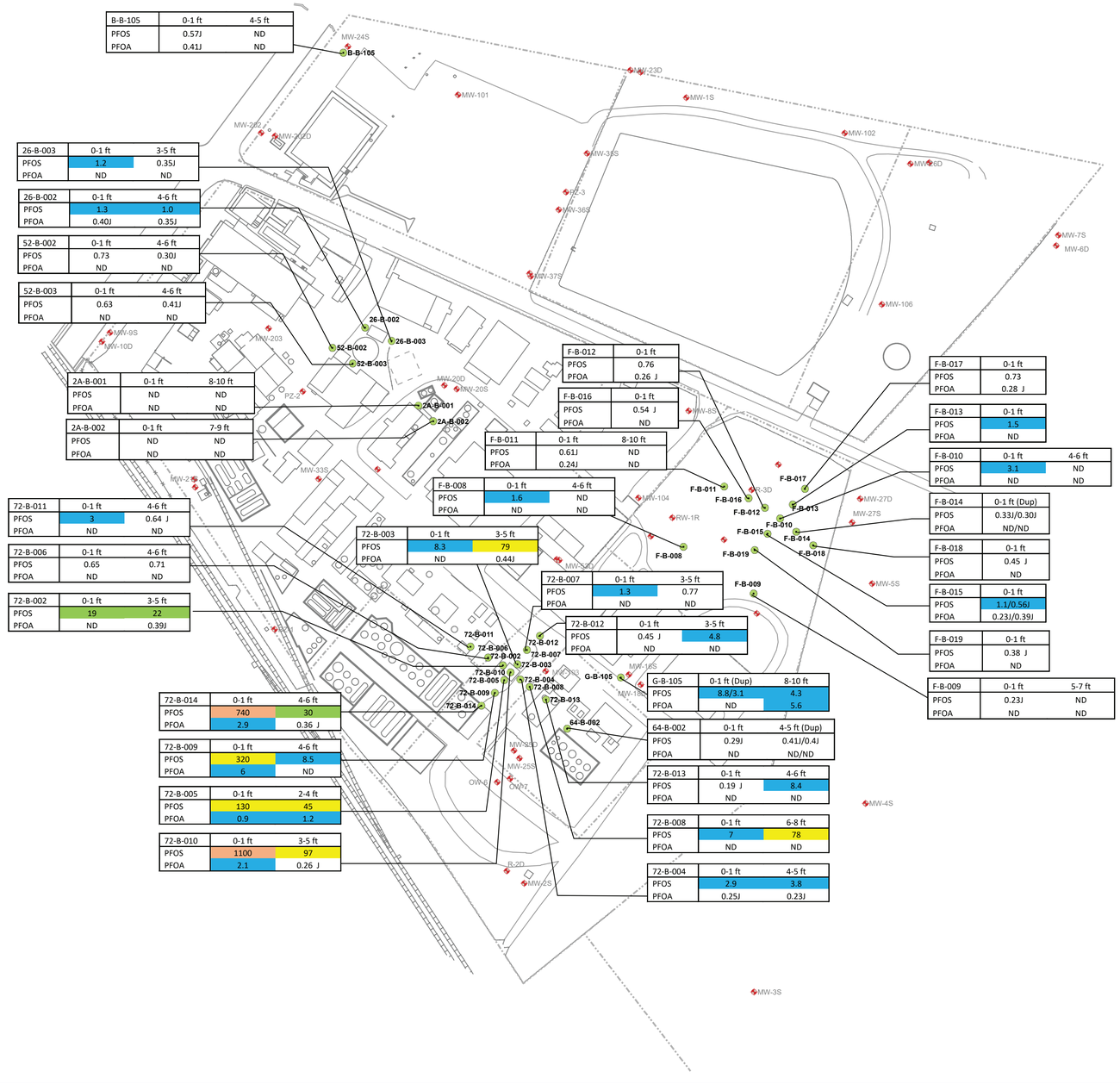
**VILLAGE OF HARRIMAN WATER SUPPLY WELLS WITHIN 1/2 MILE OF THE NEPERA SITE**

FIGURE NO.
**3-1**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-31-WATER SUPPLY WELLS.dwg Layout: FIGURE 3-1 User: SAM.WAIZENEGGER Dec 02, 2020 - 4:22pm

3/9/2023

Author: pthorn Path: Q:\157841 - ELT Harriman - 2021-2022 PFAS\GIS\PFAS_SI\Soil_Rd2_Total_PFAS.mxd




## Legend

- Emerging Contaminants Investigation Boring Locations
- Monitoring Well
- Site Area Boundary
- Former Building
- Former Containment Pad
- Former Tank Farm
- Lagoon

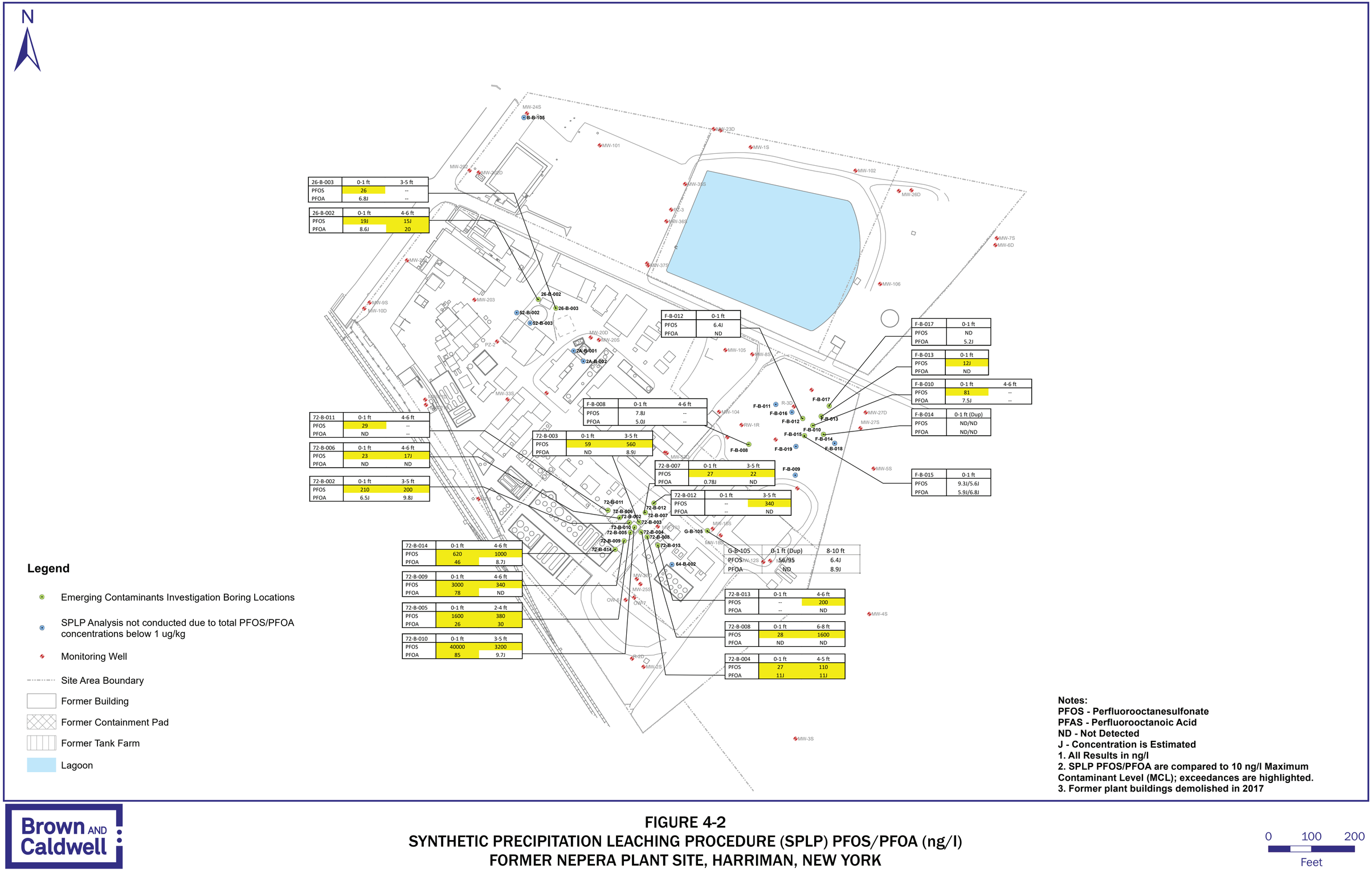
**Notes:**
**PFOS - Perfluorooctanesulfonate**
**PFAS - Perfluorooctanoic Acid**
**ND - Not Detected**
**J - Concentration is Estimated**
**1. All Results in ug/kg**
**2. PFOS/PFOA Soil Cleanup Objectives are as follows with exccedances highlighted respectively:**

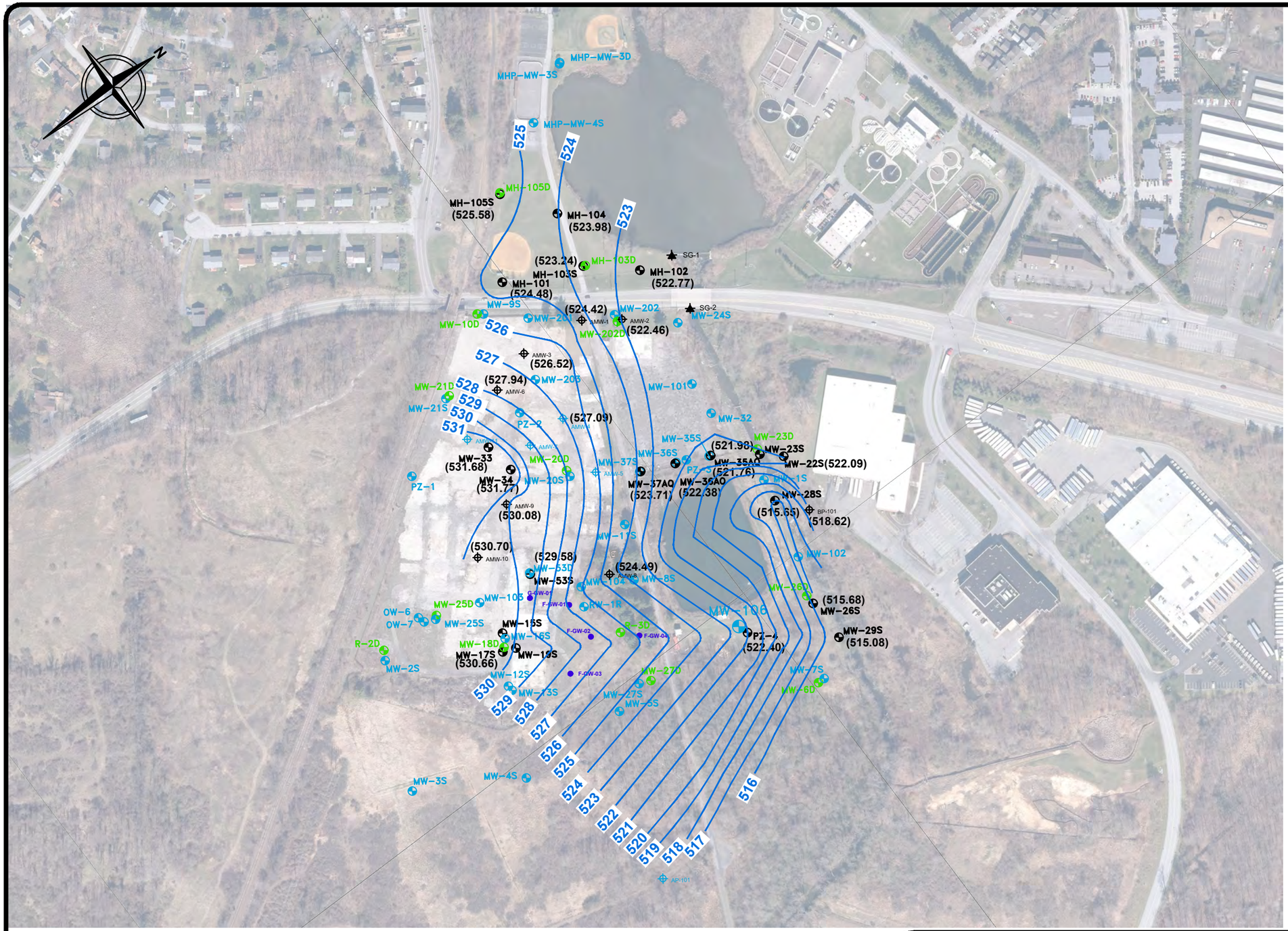
| SCOs (ug/kg) | PFOS | PFOA |
|---|---|---|
| Unrestricted | 0.88 | 0.66 |
| Residential | 8.8 | 6.6 |
| Restricted Residential | 44 | 33 |
| Commercial | 440 | 500 |
| Industrial | 440 | 600 |

Brown AND Caldwell

# FIGURE 4-1
# TOTAL PFOS/PFOA IN SOIL (ug/kg)
# FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK

0 100 200
Feet


N
MW-24S
B-B-105
MW-23D
MW-101
MW-1S
MW-102
MW-26D
MW-36S
PZ-3
MW-37D
MW-37S
MW-7S
MW-6D
MW-106
MW-20S
MW-20D
MW-9S
MW-10D
MW-203
26-B-002
26-B-003
52-B-002
52-B-003
MW-20D
MW-20S
PZ-2
2A-B-001
2A-B-002
MW-105
MW-8S
MW-33S
MW-104
RW-1R
MW-27D
MW-27S
F-B-011
R-3D
F-B-016
F-B-012
F-B-017
F-B-013
F-B-010
F-B-015
F-B-014
F-B-019
F-B-018
F-B-008
MW-5D
MW-5S
F-B-009
72-B-011
72-B-006
72-B-002
72-B-012
72-B-007
72-B-003
72-B-010
72-B-005
72-B-004
72-B-008
72-B-009
72-B-014
72-B-013
G-B-105
MW-18S
MW-18D
MW-12S
64-B-002
MW-39D
MW-2SS
OW-6
OW-7
MW-4S
R-2D
MW-2S
MW-3S
F-B-012 | 0-1 ft
PFOS | 6.4J
PFOA | ND
F-B-017 | 0-1 ft
PFOS | ND
PFOA | 5.2J
F-B-013 | 0-1 ft
PFOS | 12J
PFOA | ND
F-B-010 | 0-1 ft | 4-6 ft
PFOS | 81 | --
PFOA | 7.5J | --
F-B-014 | 0-1 ft (Dup)
PFOS | ND/ND
PFOA | ND/ND
F-B-015 | 0-1 ft
PFOS | 9.3J/5.6J
PFOA | 5.9J/6.8J
F-B-008 | 0-1 ft | 4-6 ft
PFOS | 7.8J | --
PFOA | 5.0J | --
72-B-003 | 0-1 ft | 3-5 ft
PFOS | 59 | 560
PFOA | ND | 8.9J
72-B-007 | 0-1 ft | 3-5 ft
PFOS | 27 | 22
PFOA | 0.78J | ND
72-B-012 | 0-1 ft | 3-5 ft
PFOS | -- | 340
PFOA | -- | ND
G-B-105 | 0-1 ft (Dup) | 8-10 ft
PFOS | 56/95 | 6.4J
PFOA | ND | 8.9J
72-B-013 | 0-1 ft | 4-6 ft
PFOS | -- | 200
PFOA | -- | ND
72-B-008 | 0-1 ft | 6-8 ft
PFOS | 28 | 1600
PFOA | ND | ND
72-B-004 | 0-1 ft | 4-5 ft
PFOS | 27 | 110
PFOA | 11J | 11J
26-B-003 | 0-1 ft | 3-5 ft
PFOS | 26 | --
PFOA | 6.8J | --
26-B-002 | 0-1 ft | 4-6 ft
PFOS | 19J | 15J
PFOA | 8.6J | 20
72-B-011 | 0-1 ft | 4-6 ft
PFOS | 29 | --
PFOA | ND | --
72-B-006 | 0-1 ft | 4-6 ft
PFOS | 23 | 17J
PFOA | ND | ND
72-B-002 | 0-1 ft | 3-5 ft
PFOS | 210 | 200
PFOA | 6.5J | 9.8J
72-B-014 | 0-1 ft | 4-6 ft
PFOS | 620 | 1000
PFOA | 46 | 8.7J
72-B-009 | 0-1 ft | 4-6 ft
PFOS | 3000 | 340
PFOA | 78 | ND
72-B-005 | 0-1 ft | 2-4 ft
PFOS | 1600 | 380
PFOA | 26 | 30
72-B-010 | 0-1 ft | 3-5 ft
PFOS | 40000 | 3200
PFOA | 85 | 9.7J
Legend
Emerging Contaminants Investigation Boring Locations
SPLP Analysis not conducted due to total PFOS/PFOA concentrations below 1 ug/kg
Monitoring Well
Site Area Boundary
Former Building
Former Containment Pad
Former Tank Farm
Lagoon
Notes:
PFOS - Perfluorooctanesulfonate
PFAS - Perfluorooctanoic Acid
ND - Not Detected
J - Concentration is Estimated
1. All Results in ng/l
2. SPLP PFOS/PFOA are compared to 10 ng/l Maximum Contaminant Level (MCL); exceedances are highlighted.
3. Former plant buildings demolished in 2017
Brown AND Caldwell
FIGURE 4-2
SYNTHETIC PRECIPITATION LEACHING PROCEDURE (SPLP) PFOS/PFOA (ng/l)
FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK
0 100 200
Feet
1/6/2023
Author: pthorn Path: Q:\157841 - ELT Harriman - 2021-2022 PFAS\GIS\PFAS_SI\Soil_Rd2_SPLP_PFAS.mxd




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| 520 | GROUNDWATER ELEVATION CONTOUR |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.

0 300 600

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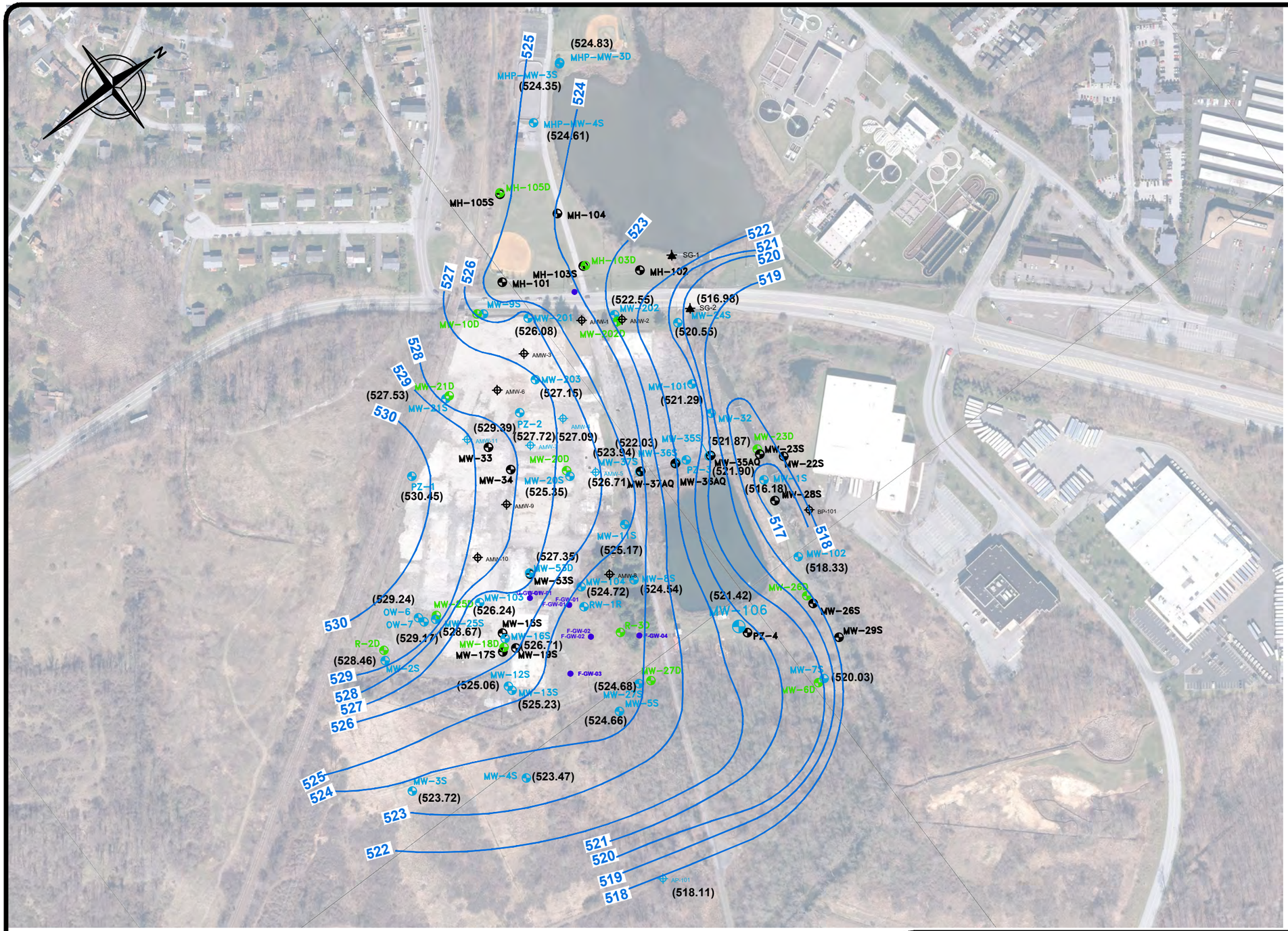
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUITARD GROUNDWATER ELEVATION CONTOURS**
**MARCH 18, 2022**

FIGURE NO.
**4-3**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-XX-AQUITARD GROUNDWATER CONTOURS-MARCH.dwg Layout: FIGURE XX User: JISS.PHILIP Sep 22, 2022 – 3:58p




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| 520 | GROUNDWATER ELEVATION CONTOUR |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. THE AQUIFER UNIT IS NOT PRESENT AT MARY HARRIMAN PARK LOCATIONS MH–101 THROUGH MH–105.
3. * MEASUREMENT ERROR DATA NOT USED FOR CONTOURS.

0 300 600

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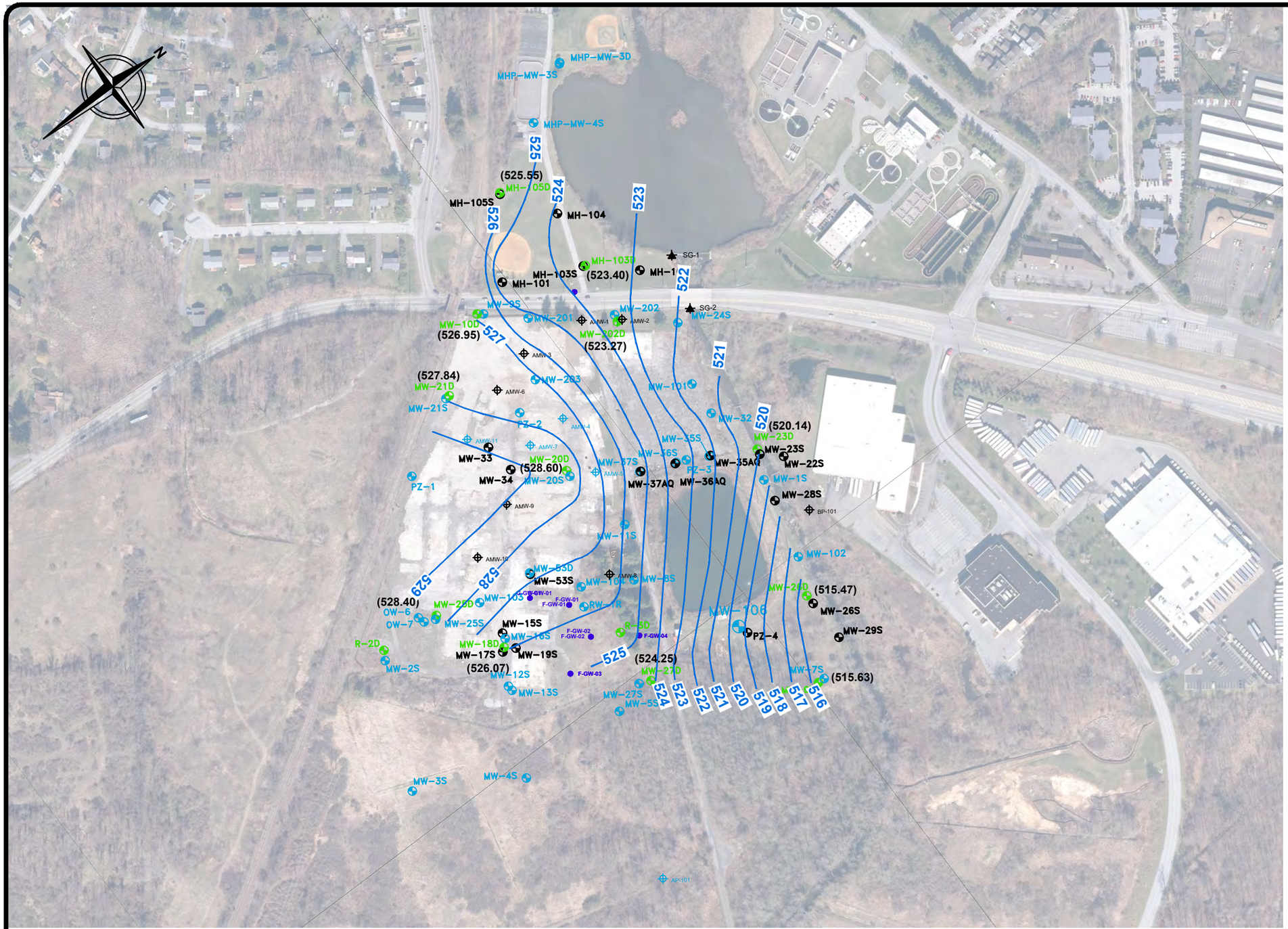
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUIFER GROUNDWATER ELEVATION CONTOURS**
**MARCH 18, 2022**

FIGURE NO.
**4-4**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-XX-AQUIFER GROUNDWATER CONTOURS-MARCH.dwg Layout: FIGURE 01 User: JISS.PHILIP Sep 22, 2022 – 3:46pm

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-XX-BEDROCK GROUNDWATER CONTOURS-MARCH.dwg Layout: FIGURE 01 User: JISS.PHILIP Sep 22, 2022 - 3:52p




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| 520 | GROUNDWATER ELEVATION CONTOUR |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.

0 300 600

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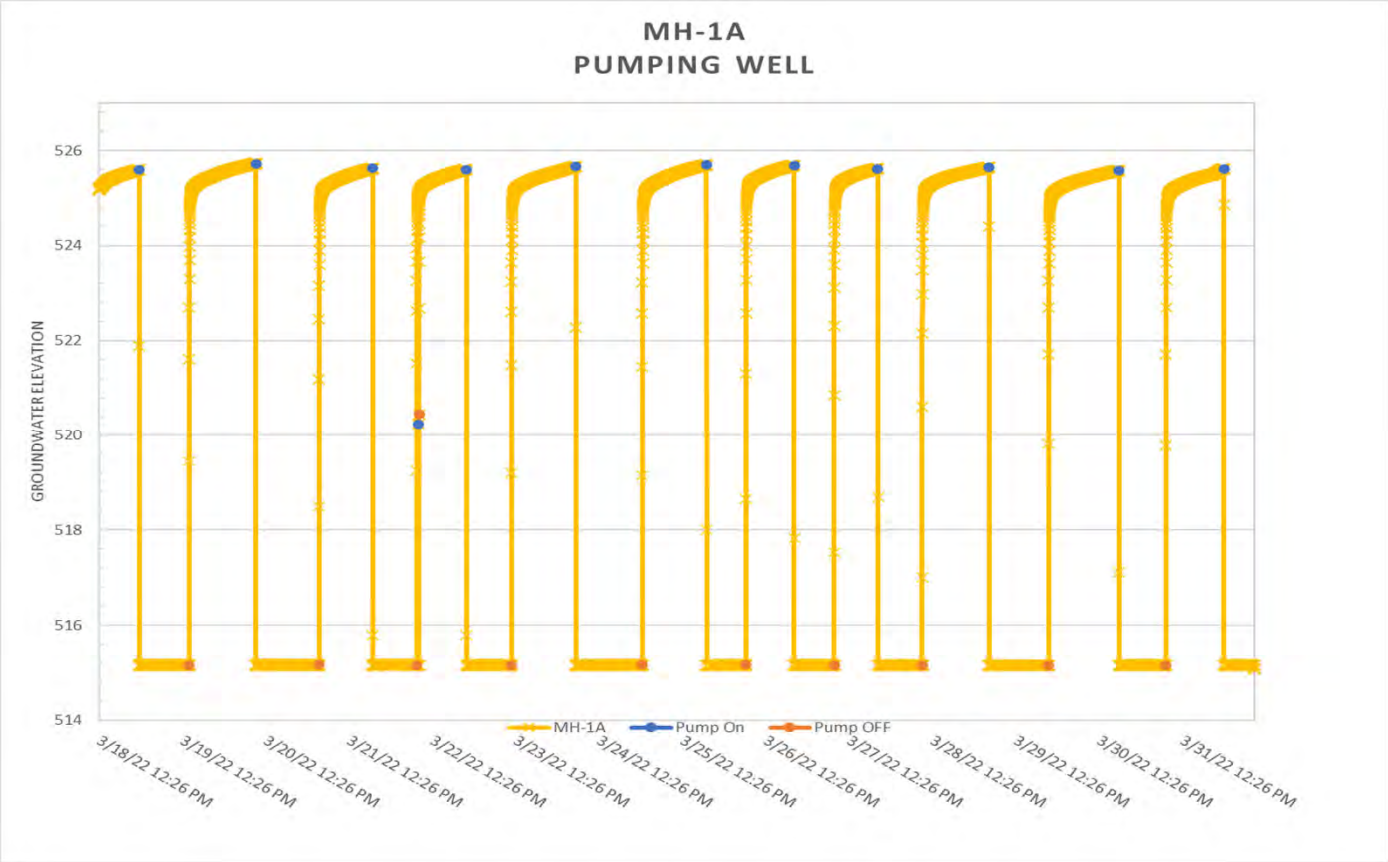
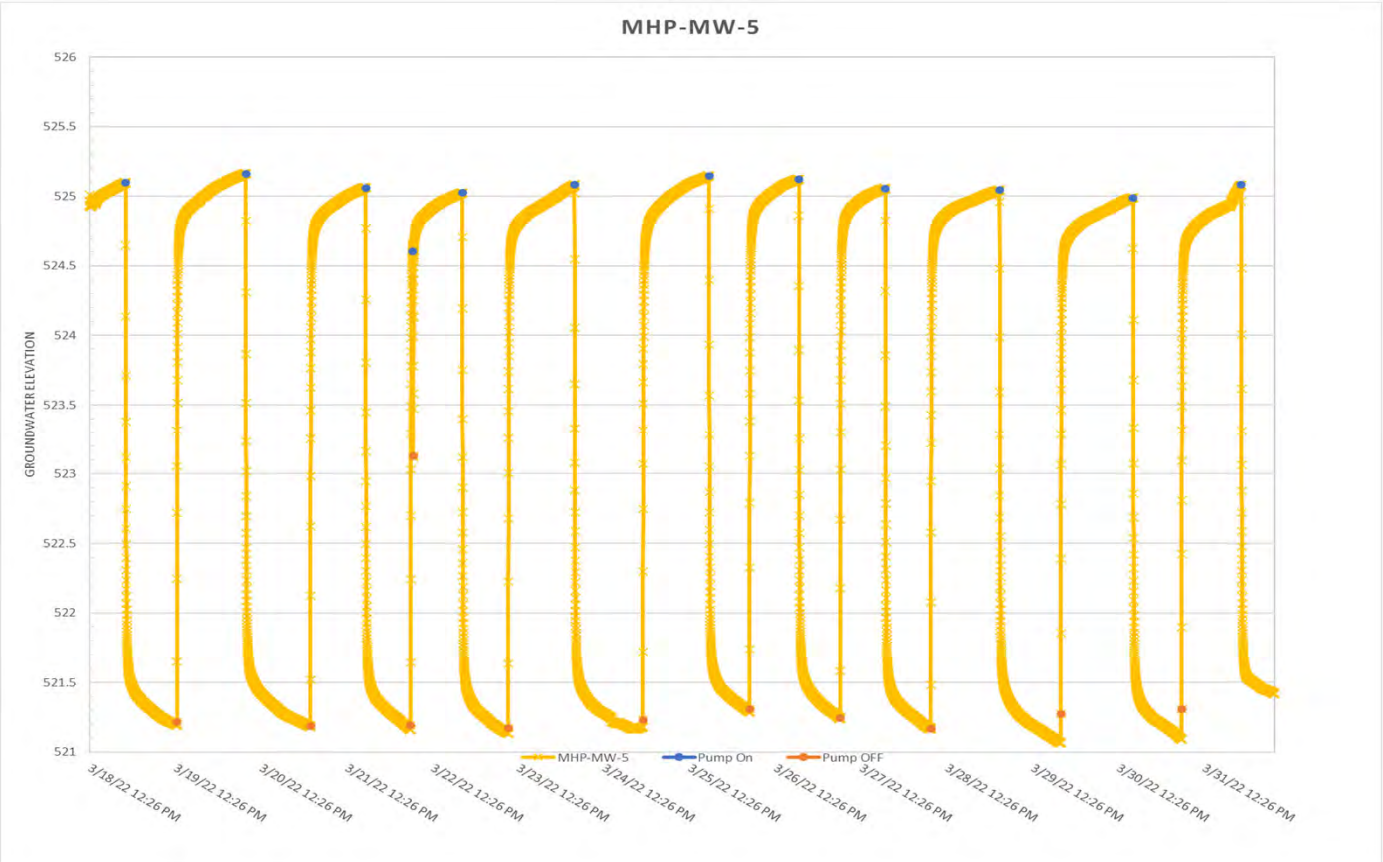
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**BEDROCK GROUNDWATER ELEVATION CONTOURS**
**MARCH 18, 2022**

FIGURE NO.
**4-5**
PROJECT NO.
4203724

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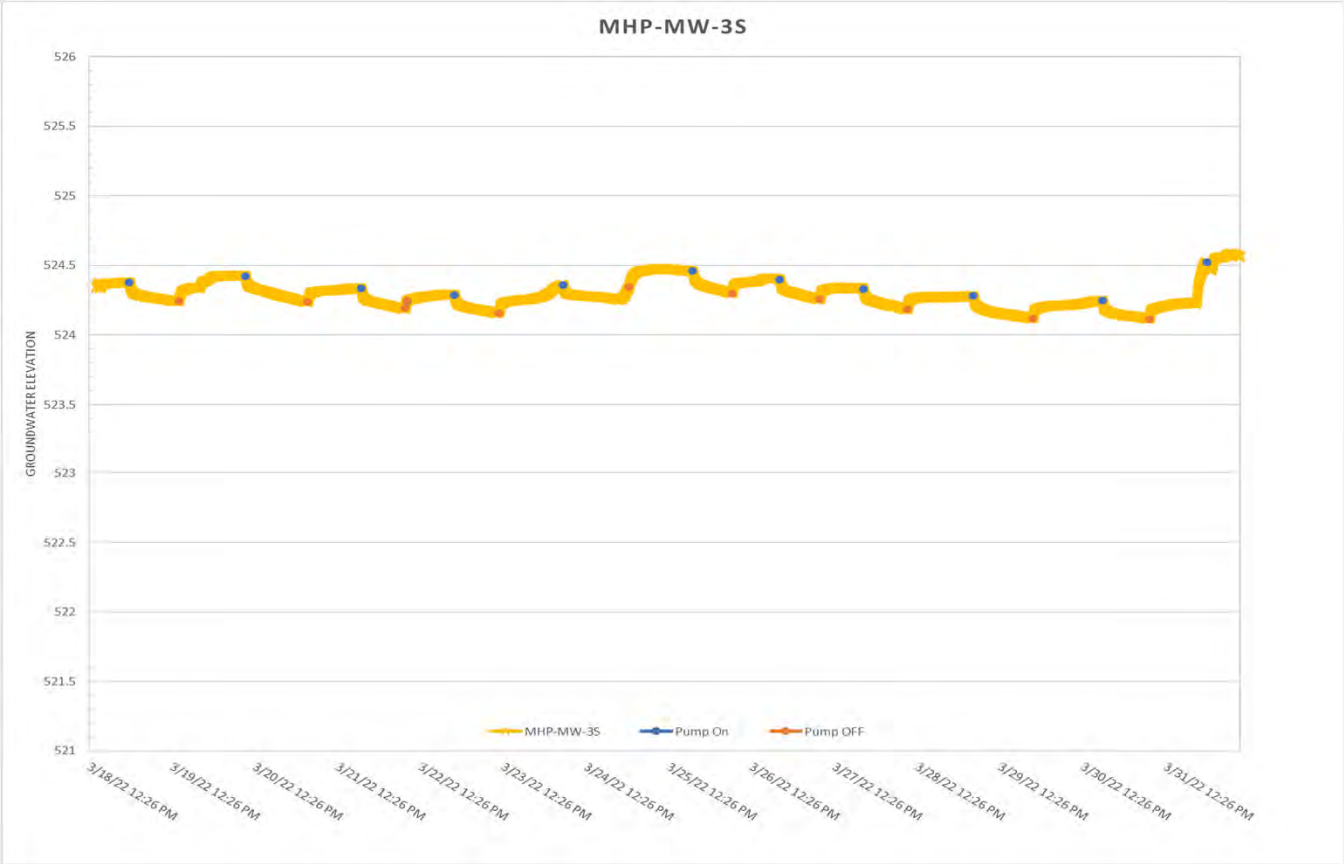
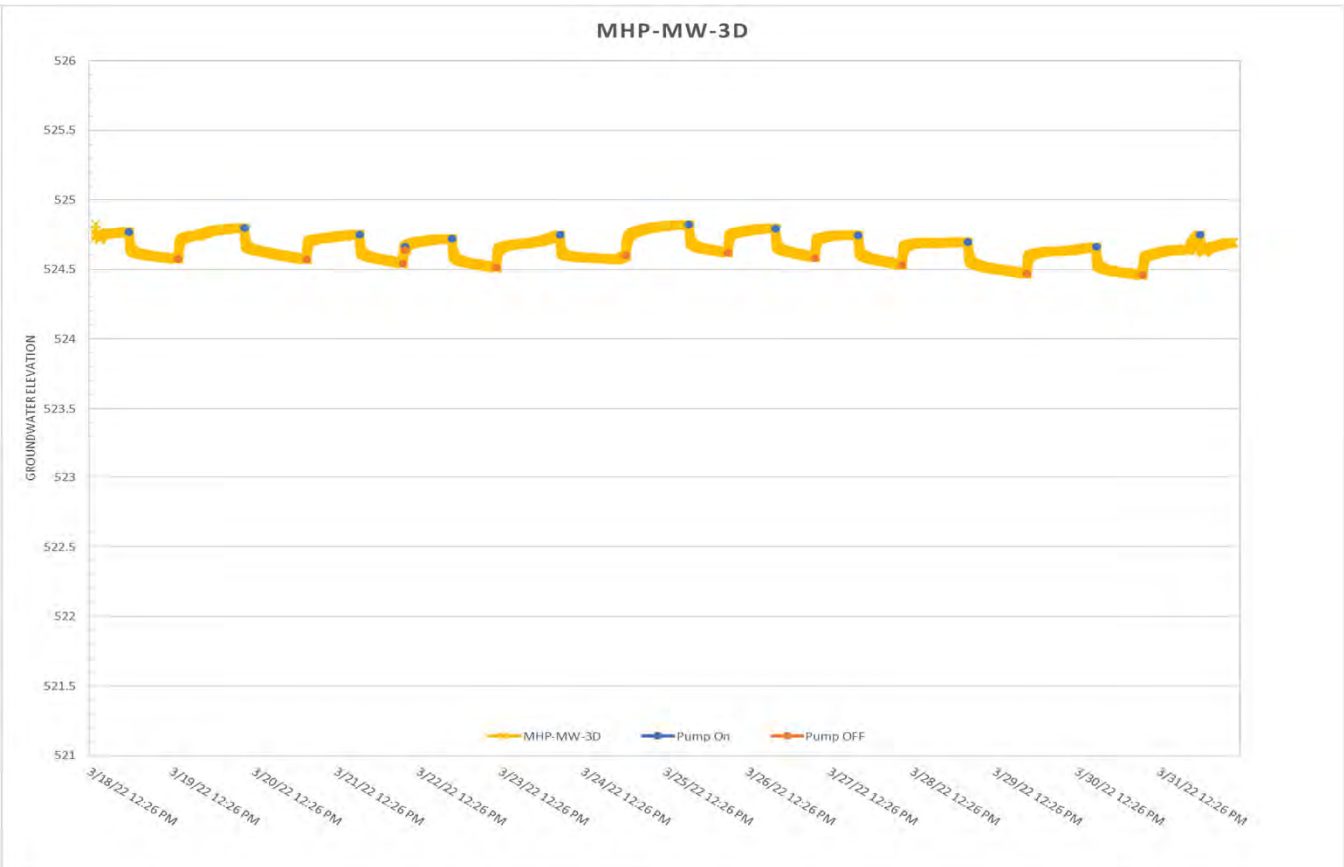
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

HYDROGRAPH – PUMPING WELL MH-1A AND MONITORING WELL MHP-MW-5 MARCH 31 THROUGH APRIL 1, 2022

FIGURE NO.
4-6
PROJECT NO.

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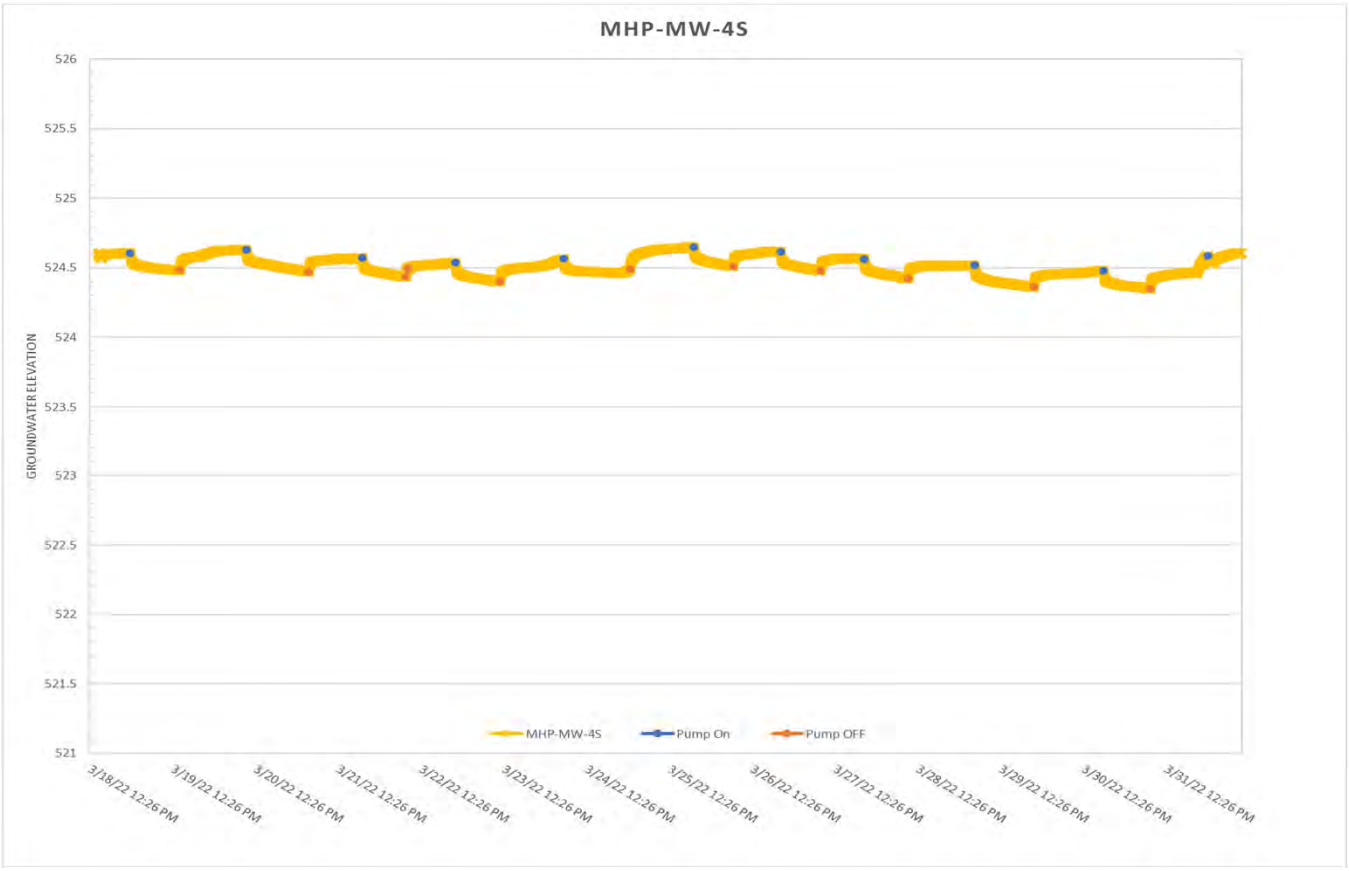
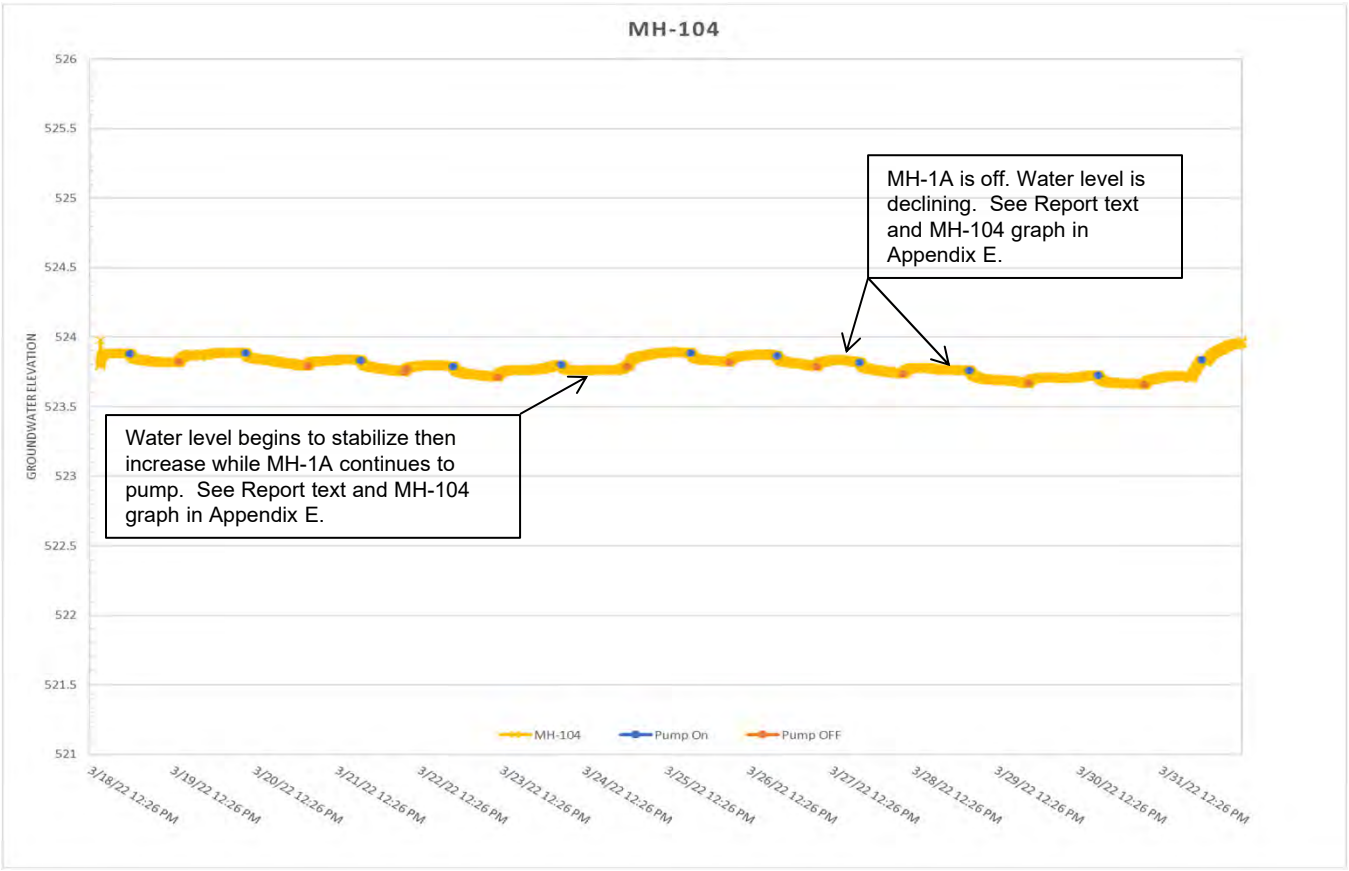
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

HYDROGRAPH – MONITORING WELLS MHP-MW-3S AND MHP-MW-3D MARCH 31 THROUGH APRIL 1, 2022

FIGURE NO.
4-7
PROJECT NO.

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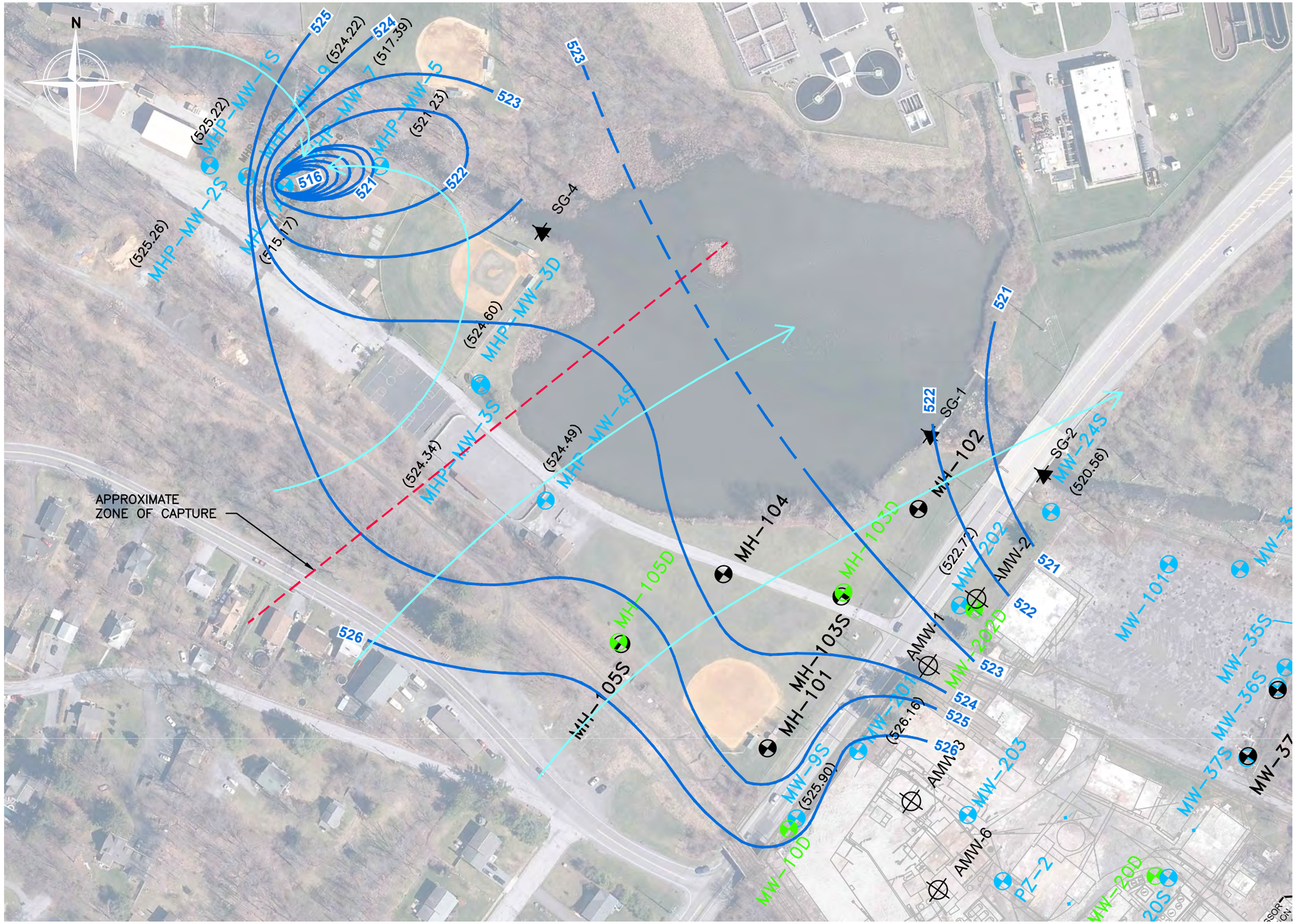
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

HYDROGRAPH – MONITORING WELLS MHP-MW-4S AND MH-104 MARCH 31 THROUGH APRIL 1, 2022

FIGURE NO.
4-8
PROJECT NO.




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| (524.56) | GROUNDWATER ELEVATION MARCH 24, 2022 @ 5:48am |
| | GENERALIZED GROUNDWATER FLOW DIRECTION |
| | APPROXIMATE ZONE OF CAPTURE |
| | GROUNDWATER ELEVATION CONTOUR |

## NOTE:

1. BACKGROUND IMAGE TAKEN FROM ORTHOIMAGERY DOWNLOADED FROM THE NEW YORK STATE GIS CLEARINGHOUSE, DATED 2016.

0 150 300
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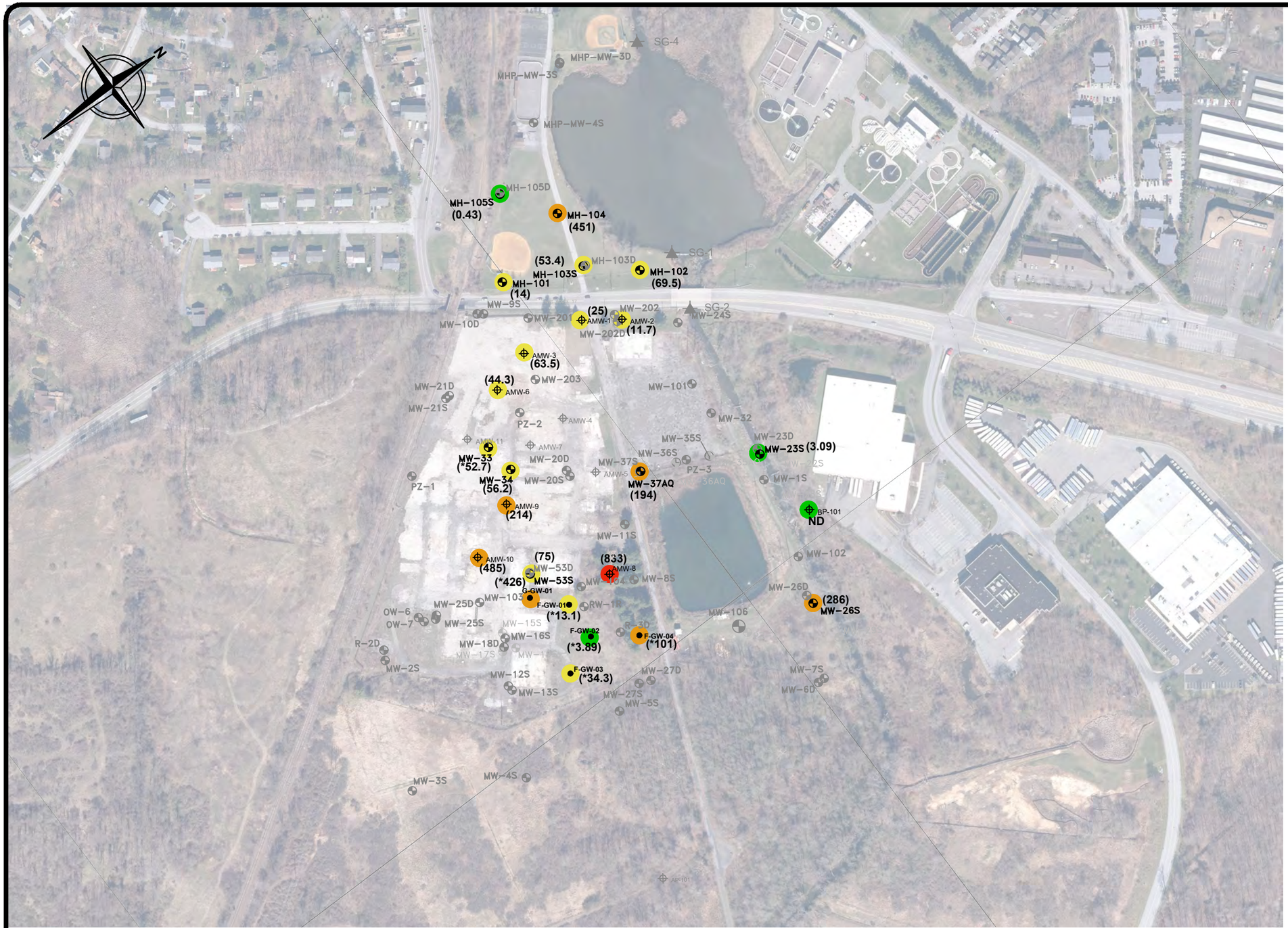
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUIFER ELEVATION CONTOURS - MARY HARRIMAN PARK**
**MARCH 25, 2022 12:56 AM**

FIGURE NO.
**4-9**
PROJECT NO.
4203724




## LEGEND:

- MW-36AQ / AMW-9 — MONITORING WELL IN OVERBURDEN AQUITARD
- MW-37S / AMW-7 — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL)
- MW-23D — MONITORING WELL IN BEDROCK
- MW-37AQ (194) / AMW-6 (44.3) — MONITORING WELL IN OVERBURDEN AQUITARD PFOS CONCENTRATION
- F-GW-01 (*13.1) — TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT PFOS CONCENTRATION
- PFOS CONCENTRATION LESS THAN 10 NG/L
- PFOS CONCENTRATION 10–100 NG/L
- PFOS CONCENTRATION 100–500 NG/L
- PFOS CONCENTRATION GREATER THAN 500 NG/L

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS

0 300 600

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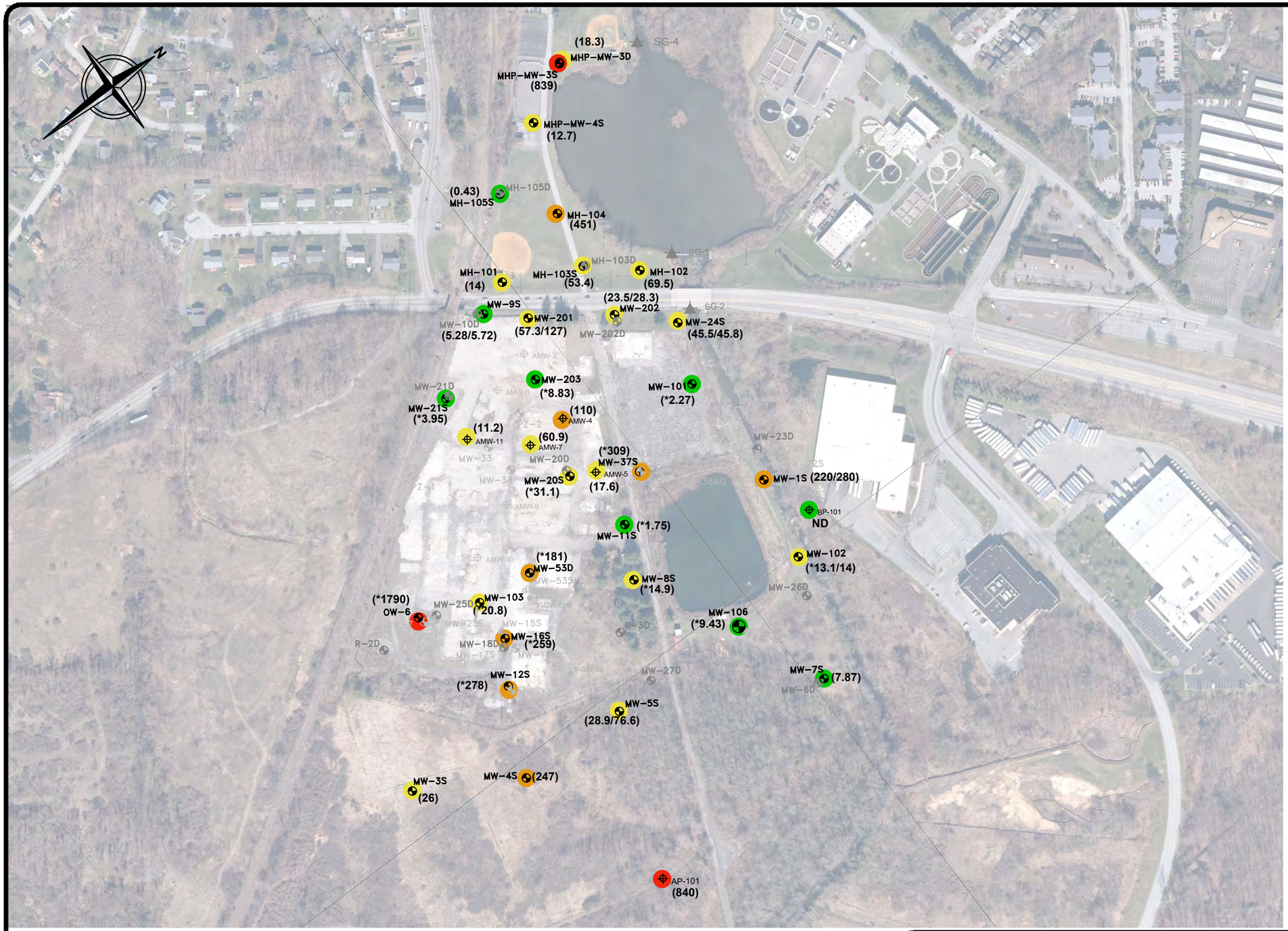
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUITARD PFOS CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-10**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-17-AQUITARD PFOS GW.dwg Layout: FIGURE 4-17 User: JISS.PHILLP Sep 22, 2022 – 2:51pm




## LEGEND:

- MW-36AQ / AMW-9 — MONITORING WELL IN OVERBURDEN AQUITARD
- MW-23S / AMW-1 — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL)
- F-GW-01 — TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT
- MW-23D — MONITORING WELL IN BEDROCK
- MW-37S (*309) / AMW-11 (11.2) — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) PFOS CONCENTRATION
- PFOS CONCENTRATION LESS THAN 10 NG/L
- PFOS CONCENTRATION 10–100 NG/L
- PFOS CONCENTRATION 100–500 NG/L
- PFOS CONCENTRATION GREATER THAN 500 NG/L

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS.
4. THE AQUIFER UNIT IS NOT PRESENT AT MARY HARRIMAN PARK LOCATIONS MH–101 THROUGH MH–105. AQUITARD RESULTS ARE PLOTTED TO SHOW RELATIONSHIP BETWEEN THE GROUNDWATER CONCENTRATIONS IN THE AQUITARD DEPOSITS AND THE GROUNDWATER CONCENTRATIONS IN THE AQUIFER DEPOSITS TO THE NORTHWEST AND EAST SOUTHEAST.

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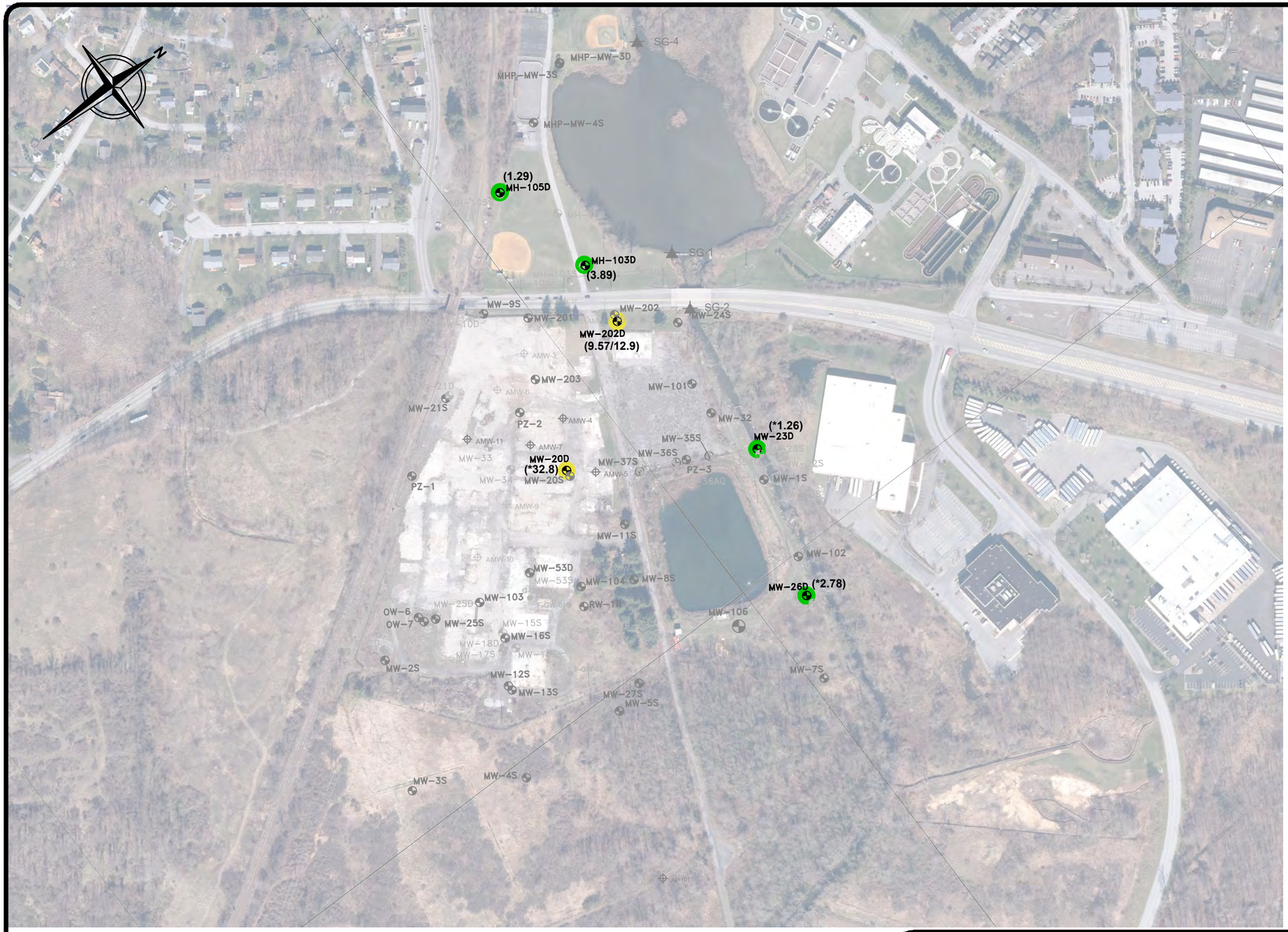
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUIFER PFOS CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-11**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-18-AQUIFER PFOS GW.dwg Layout: FIGURE 18 User: JISS.PHILIP Sep 22, 2022 – 1:53pm




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-10D | MONITORING WELL IN BEDROCK |
| MW-105D (1.29) | MONITORING WELL IN BEDROCK PFOS CONCENTRATION |
| | PFOS CONCENTRATION LESS THAN 10 NG/L |
| | PFOS CONCENTRATION 10–100 NG/L |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS

0 300 600

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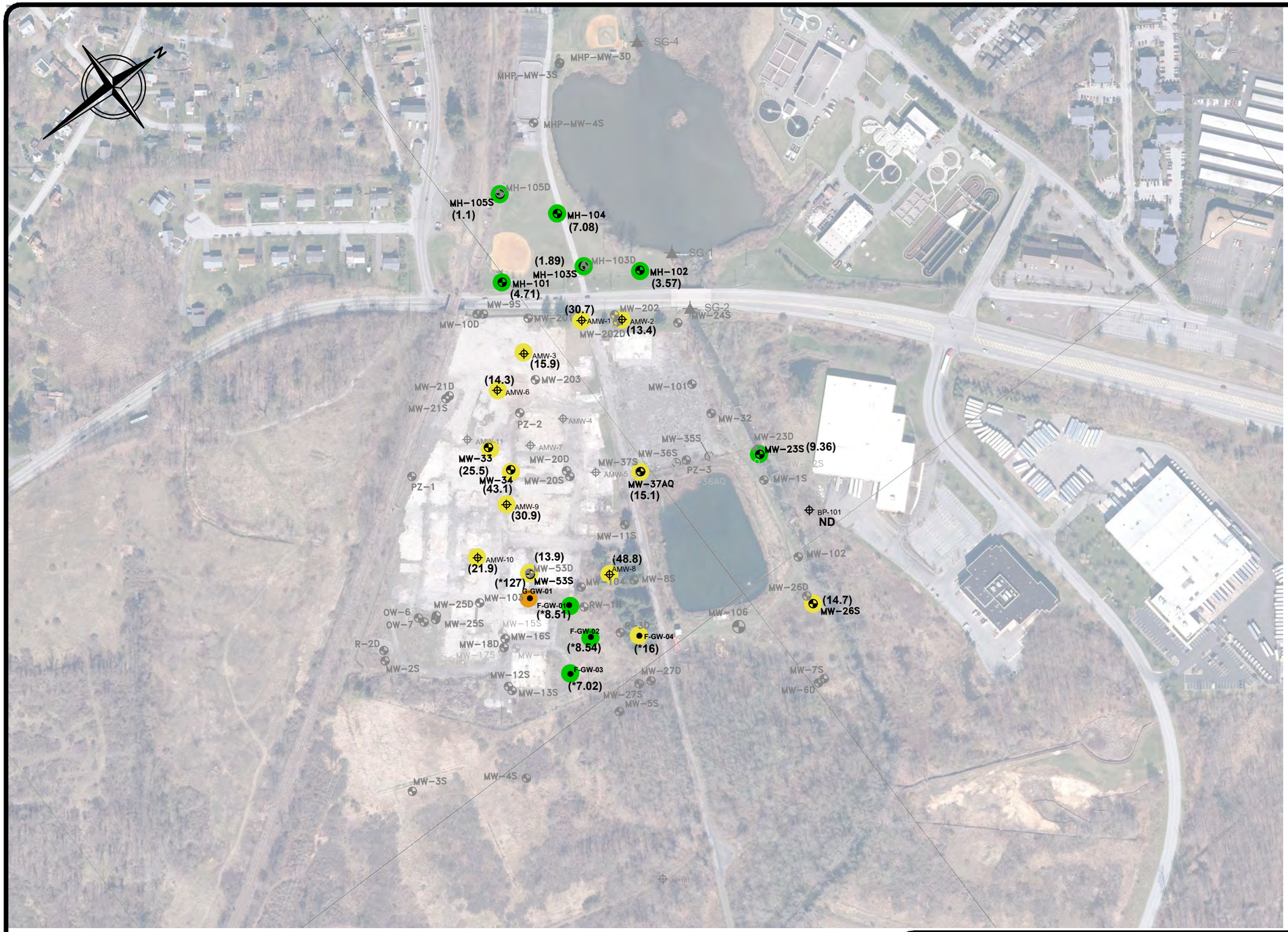
HARRIMAN, ORANGE COUNTY, NEW YORK

**BEDROCK PFOS CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-12**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-19-BEDROCK PFOS GW.dwg Layout: FIGURE 4-19 User: JISS.PHILLP Sep 22, 2022 – 1:31pm




## LEGEND:

- MW-36AQ / AMW-9 — MONITORING WELL IN OVERBURDEN AQUITARD
- MW-37S / AMW-7 — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL)
- MW-23D — MONITORING WELL IN BEDROCK
- MW-37AQ (15.1) — MONITORING WELL IN OVERBURDEN AQUITARD PFOA CONCENTRATION
- AMW-6 (14.3) — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) PFOA CONCENTRATION
- F-GW-01 (*8.51) — TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT PFOA CONCENTRATION
- PFOA CONCENTRATION LESS THAN 10 NG/L
- PFOA CONCENTRATION 10–100 NG/L
- PFOA CONCENTRATION 100–500 NG/L

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS

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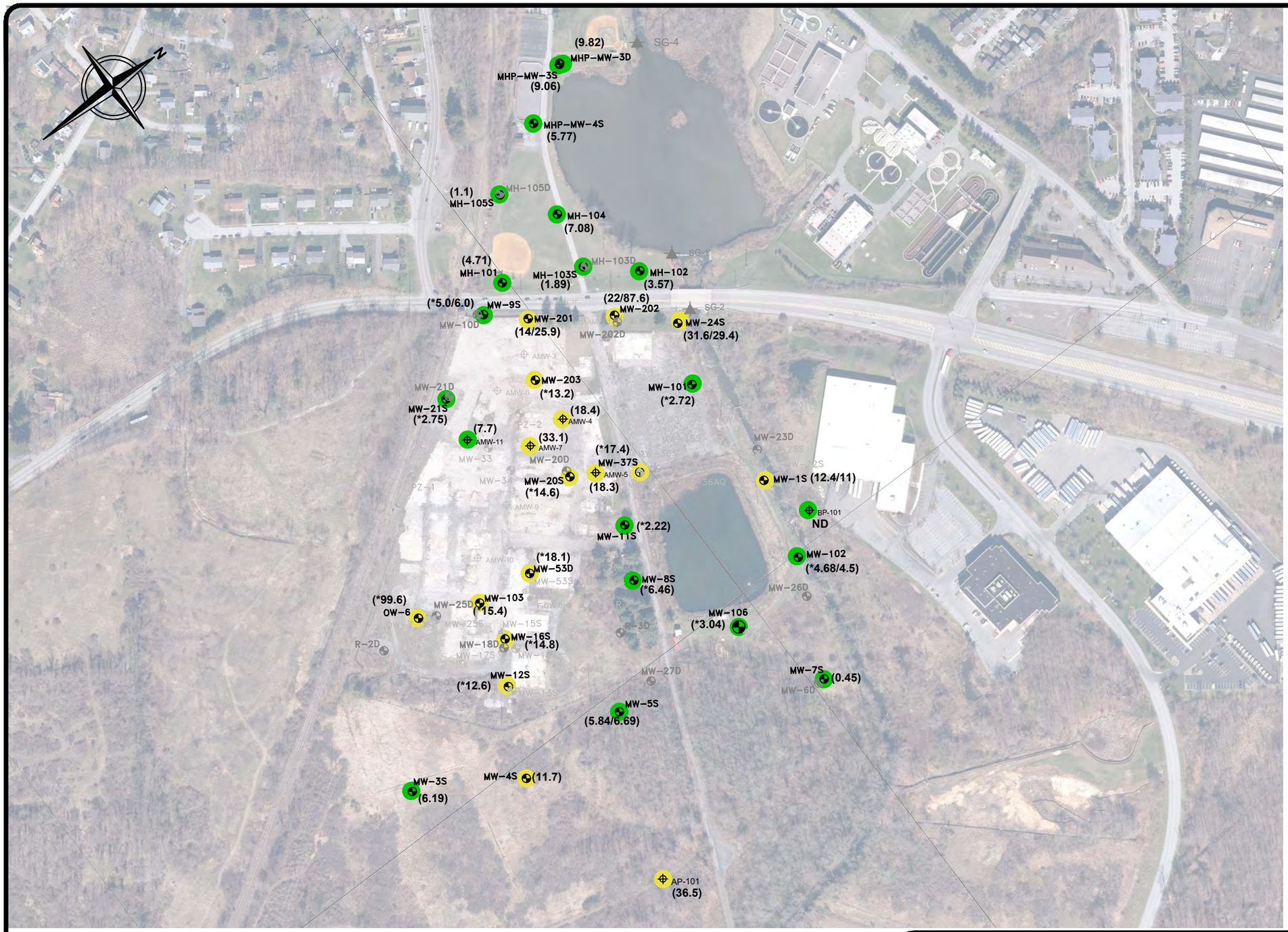
FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**AQUITARD PFOA CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-13**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-23-AQUITARD PFOA GW.dwg Layout: FIGURE 23 User: JISS.PHILIP Sep 22, 2022 – 2:57pm




## LEGEND:

- MW-36AQ / AMW-9 — MONITORING WELL IN OVERBURDEN AQUITARD
- MW-23S / AMW-1 — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL)
- F-GW-01 — TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT
- MW-23D — MONITORING WELL IN BEDROCK
- MW-37S (*17.4) / AMW-11 (7.7) — MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) PFOA CONCENTRATION
- PFOA CONCENTRATION LESS THAN 10 NG/L
- PFOA CONCENTRATION 10–100 NG/L

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS
4. THE AQUIFER UNIT IS NOT PRESENT AT MARY HARRIMAN PARK LOCATIONS MH–101 THROUGH MH–105. AQUITARD RESULTS ARE PLOTTED TO SHOW RELATIONSHIP BETWEEN THE GROUNDWATER CONCENTRATIONS IN THE AQUITARD DEPOSITS AND THE GROUNDWATER CONCENTRATIONS IN THE AQUIFER DEPOSITS TO THE NORTHWEST AND EAST SOUTHEAST.

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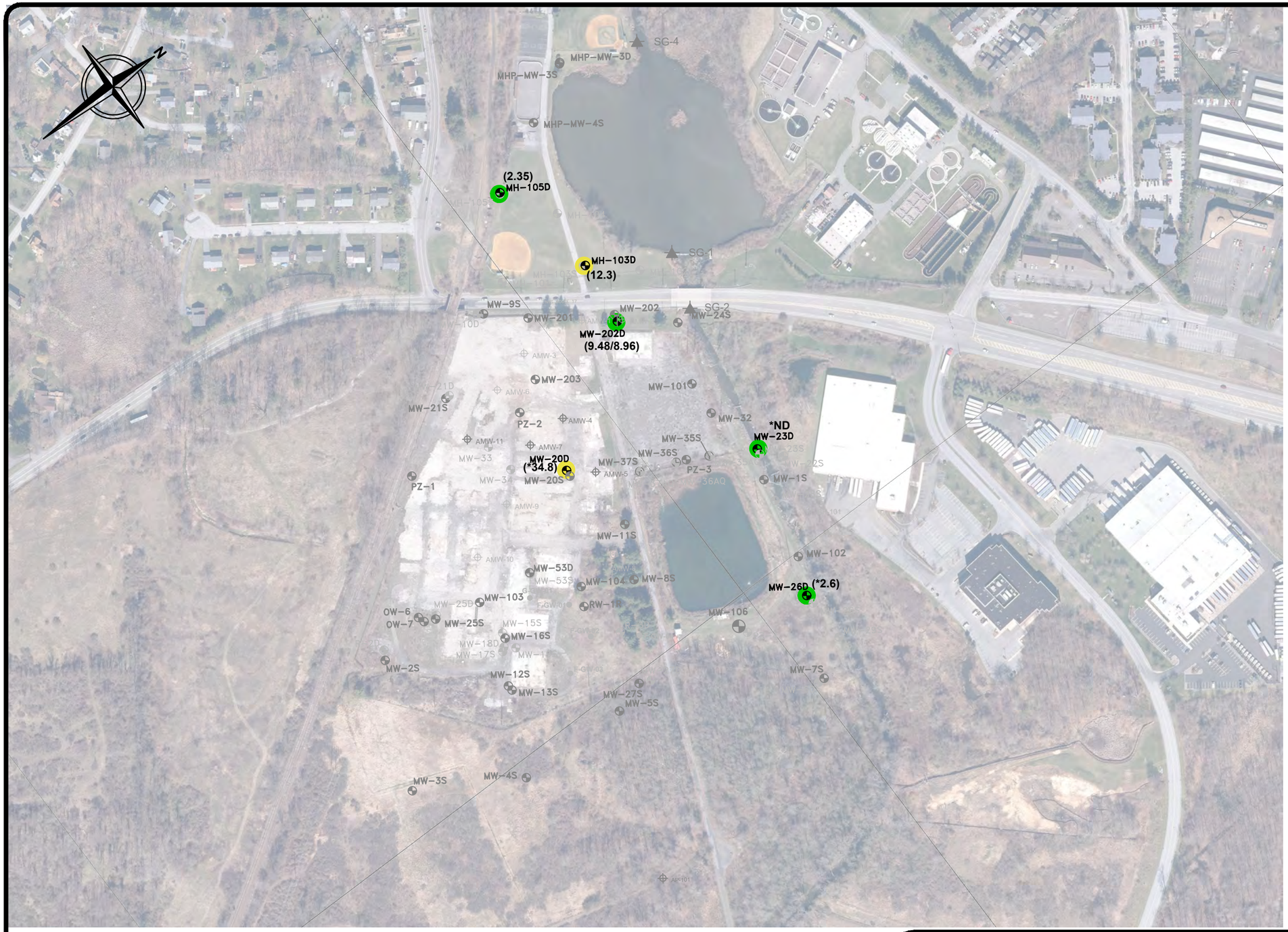
**AQUIFER PFOA CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-14**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-24-AQUIFER PFOA GW.dwg Layout: FIGURE 15 User: JISS.PHILIP Sep 22, 2022 – 1:55pm




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| MW-10D | MONITORING WELL IN BEDROCK |
| MW-105D (2.35) | MONITORING WELL IN BEDROCK PFOA CONCENTRATION |
| ● | PFOA CONCENTRATION LESS THAN 10 NG/L |
| ● | PFOA CONCENTRATION 10–100 NG/L |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.
2. * WELLS WITH RESULTS ONLY FROM SEPT. 2020.
3. 8.46/8.74 NOV. 2021/SEPT. 2020 RESULTS

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**BEDROCK PFOA CONCENTRATION**
**OCTOBER 2021**

FIGURE NO.
**4-15**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 – REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-4-25-BEDROCK PFOA GW.dwg Layout: FIGURE 25 User: JISS.PHILIP Sep 22, 2022 – 1:33pm

# Appendix A: Soil Investigation Boring Logs

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 26-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590281.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901892.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Dark brown cmf SAND, little Gravel, little Silt. Dry. | | 1 | | | | | 0.1 | Collect 26-B-002-0-1-20200108 |
| 5 | | ML | Brown SILT, little mf Sand, little Gravel. Saturated. | | 2 | | | | | 0.2 | Collect 26-B-002-4-6-20200108 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 26-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590322.0 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901871.7 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Dark brown cmf SAND, little mf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | SW | Brown cmf SAND, some mf Gravel. Moist. | | | | | | | | Collect 26-B-003-0-1-20200108 |
| 5 | | GP | Grey mf GRAVEL, some mf Sand. Saturated. | | 2 | | | | | 0.0 | Collect 26-B-003-3-5-20200108 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 2A-B-001<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590363.3 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901772.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Concrete. | | 1 | | | | | 0.2 | |
| | | CL | Dark Grey CLAY. Medium density. Saturated. | | | | | | | | Collect 2A-B-001-0-1-20200109 |
| 5 | | CL | Grey CLAY. Very dense. Sheen noticable. Saturated. | | 2 | | | | | 0.0 | |
| | | | | | | | | | | | Collect 2A-B-001-8-10-20200109 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 2A-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590385.8 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901748.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.6 | |
| | | ML/CL | Black Clayey-SILT, little (-) Sand. Dry. | | | | | | | | Collect 2A-B-002-0-1-20200109 |
| 5 | | ML/CL | Same as above. | | 2 | | | | | 0.0 | |
| | | CL | Brown CLAY. Very dense. Wet. | | | | | | | | Collect 2A-B-002-7-9-20200109 |
| 10 | | CL | Grey CLAY. Wet. | | 3 | | | | | 0.1 | |
| | | ML/CL | Black Clayey-SILT, little (-) Sand. Saturated. | | | | | | | | |
| | | CL | Grey CLAY, little Silt. Sheen noticable. Chemical odor. Saturated. | | | | | | | | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 52-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590231.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901861.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW<br>SP | Brown cmf SAND and cmf GRAVEL. Dry.<br>White mf SAND (concrete-like material). | | 1 | | | | | 0.0 | Collect 52-B-002-0-1-20200108 |
| | | SW | Dark brown/black cmf SAND, little mf Gravel. Dry. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, some (+) Silt, little(-) cmf Gravel. | | 2 | | | | | 0.0 | Collect 52-B-4-6-20200108 |
| | | CL/ML | Brown Clayey-SILT, little (-) Sand, trace (+) Gravel, Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 52-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590262.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901837.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GP | Grey cm GRAVEL. Dry. | | 1 | | | | | 0.0 | |
| | | SP | Brown mf SAND, trace Silt. Dry. | | | | | | | | Collect 52-B-003-0-1-20200108 |
| 5 | | SP | Brown mf SAND, little mf Gravel, trace Silt. | | 2 | | | | | 0.0 | Collect 52-B-003-4-6-20200108 |
| | | ML/CL | Clayey-SILT, little mf Gravel, trace (+) Sand. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 64-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590590.9 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901227.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SP | Brown mf SAND, some mf Gravel, little (-) Silt. Wet. | | 1 | | | | | 0.0 | Collect 64-B-002-0-1-20200110 |
| 5 | | GW | Brown cmf Gravel. | | 2 | | | | | 0.0 | Collect 64-B-002-4-5-20200110 + DUP-20200110 |
| | | GP | Orange/Brown mf GRAVEL and SAND. Saturated. | | | | | | | | |
| | | SW | Grey cmf SAND, some (-) Silt, little (-) mf Gravel. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590492.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901374.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GW | Brown cmf GRAVEL, some mf Sand. Dry. | | 1 | | | | | 0.0 | Collect 72-B-002-0-1-20200110 |
| | | CL/ML | Brown Clayey-SILT, little mf Gravel, little (-) mf Sand, trace Organics (roots). Wet. | | | | | | | | |
| 5 | | GW | Orange/Brown cmf GRAVEL, some Silt, little Sand. Wet. | | 2 | | | | | 0.0 | Collect 72-B-3-5-20200110 |
| | | SP | Brown mf SAND, some f Gravel. | | | | | | | | |
| | | CL/ML | Grey Silty-CLAY. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590514.9 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901376.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GW | Brown cmf GRAVEL, some cmf Sand, little (-) Silt. Dry. | | 1 | | | | | 0.0 | Collect 72-B-003-0-1-20200110 |
| | | CL/ML | Brown/Orange Clayey-SILT, little cmf Gravel. Wet. | | | | | | | | |
| 5 | | CL/ML | Orange/Brown Clayey-SILT, some (+) f Sand, little mf Gravel. | | 2 | | | | | 0.0 | Collect 72-B-003-3-5-20200110 |
| | | CL/ML | Grey Silty-CLAY, little (+) f Gravel. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-004<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590519.1 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901352.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some (+) cmf Gravel. | | 1 | | | | | 0.0 | |
| | | GW | Black cmf GRAVEL. | | | | | | | | Collect 72-B-004-0-1-20200110 |
| | | GW | Brown/Grey cmf GRAVEL and SAND. | | | | | | | | |
| | | SW | Dry. | | | | | | | | |
| | | ML | Brown SILT, some mf Sand, little mf Gravel. | | | | | | | | |
| | | CL/ML | Grey Clayey-SILT, little (-) Sand. Wet. | | | | | | | | |
| 5 | | CL/ML | Grey Clayey-SILT, some mf Sand, trace f Gravel. | | 2 | | | | | 0.0 | Collect 72-B-004-4-5-20200110 |
| | | GP | Grey mf GRAVEL, some Clayey-Silt. | | | | | | | | |
| | | CL/ML | Grey Silty-CLAY. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-005<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590494.5 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901351.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | GW | Grey/Black cmf GRAVEL. | | | | | | | | Collect 72-B-005-0-1-20200110 |
| | | ML | Brown SILT, little (-) mf Sand. Wet. | | | | | | | | |
| | | CL/ML | Grey Clayey-SILT, little mf Sand. | | | | | | | | |
| | | CL/ML | Orange/Brown Clayey-SILT, little (-) mf Sand. Wet. | | | | | | | | Collect 72-B-005-2-4-20200110 |
| 5 | | CL/ML | Same as above. Saturated. | | 2 | | | | | 0.0 | |
| | | CL/ML | Grey Silty-CLAY. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** B-B-105<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590248.2 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 902313.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel, little (-) Silt, trace Organics (roots). Wet. | | 1 | | | | | 0.0 | Collect B-B-105-0-1-20200110 +MS/MSD |
| 5 | | GW | Brown cmf GRAVEL, some cmf Sand. Saturated. | | 2 | | | | | 0.1 | Collect B-B-105-4-5-20200110 |
| | | GW | Greyish Black cmf GRAVEL, some cmf Sand, little (-) Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-008<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590769.1 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901556.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, little mf Gravel. | | 1 | | | | | 0.0 | Collect F-B-008-0-1-20200109 + MS/MSD |
| | | CL/ML | Brown Clayey-SILT, trace Sand. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, little Silt. | | 2 | | | | | 0.0 | Collect F-B-008-4-6-20200109 |
| | | CL/ML | Brown Clayey-SILT. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-009<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590876.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901484.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | ML | Brown SILT, some mf Sand, trace mf Gravel. | | | | | | | | Collect F-B-009-0-1-20200109 |
| 5 | | ML \ CL | Same as above. \ Grey CLAY, trace Silt. Wet. | | 2 | | | | | 0.0 | Collect F-B-009-5-7-20200109 |
| 10 | | ML/CL | Grey Clayey-SILT. Saturated. | | 3 | | | | | 0.0 | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-010<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590917.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901599.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, little gravel, trace Organics (roots). | | 1 | | | | | 0.0 | Collect F-B-10-0-1-20200109 |
| | | GW | Brown cmf GRAVEL. | | | | | | | | |
| | | SW | Black cmf SAND, little Gravel. | | | | | | | | |
| | | SW | Dark brown cmf SAND, little (-) mf Gravel. Dry. | | | | | | | | |
| | | | Black cmf SAND, little mf Gravel, trace Silt. Wet. | | | | | | | | Collect F-B-10-4-6-20200109 |
| 5 | | SW | Same as above. | | 2 | | | | | 0.0 | |
| | | ML/CL | Grey Clayey-SILT, little (-) Sand. Wet. | | | | | | | | |
| | | CL | Brown CLAY. Very dense. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-011<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590831.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901648.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel, trace Silt. | | 1 | | | | | 0.0 | Collect F-B-011-0-1-20200109 |
| | | SP | Brown mf SAND, little Silt. | | | | | | | | |
| 5 | | SP | Same as above. | | 2 | | | | | 0.0 | |
| | | CL/ML | Brown Clayey-SILT, little Sand. | | | | | | | | |
| | | CL/ML | Black Clayey-SILT. | | | | | | | | Collect F-B-011-8-10-20200109 |
| 10 | | CL/ML | Brown Silty-CLAY. | | 3 | | | | | 0.0 | |
| | | CL/ML | Grey Silty-CLAY. Saturated. Chemical odor. | | | | | | | | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** G-B-105<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590673.2 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901356.0 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SP | Brown mf SAND, some mf Gravel. | | 1 | | | | | 0.0 | |
| | | ML | Black SILT, little Sand, little Organics (wood fragments). | | | | | | | | Collect G-B-105-0-1-20200109 + DUP-20200109 |
| 5 | | GW | Black cmf GRAVEL, little Sand. Saturated. | | 2 | | | | | 0.0 | |
| | | GW | Black cmf GRAVEL. Chemical odor. | | | | | | | | Collect G-B-105-8-10-20200109 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 26-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590281.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901892.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Dark brown cmf SAND, little Gravel, little Silt. Dry. | | 1 | | | | | 0.1 | Collect 26-B-002-0-1-20200108 |
| 5 | | ML | Brown SILT, little mf Sand, little Gravel. Saturated. | | 2 | | | | | 0.2 | Collect 26-B-002-4-6-20200108 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 26-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590322.0 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901871.7 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Dark brown cmf SAND, little mf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | SW | Brown cmf SAND, some mf Gravel. Moist. | | | | | | | | Collect 26-B-003-0-1-20200108 |
| 5 | | GP | Grey mf GRAVEL, some mf Sand. Saturated. | | 2 | | | | | 0.0 | Collect 26-B-003-3-5-20200108 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 2A-B-001<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590363.3 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901772.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Concrete. | | 1 | | | | | 0.2 | |
| | | CL | Dark Grey CLAY. Medium density. Saturated. | | | | | | | | Collect 2A-B-001-0-1-20200109 |
| 5 | | CL | Grey CLAY. Very dense. Sheen noticable. Saturated. | | 2 | | | | | 0.0 | |
| | | | | | | | | | | | Collect 2A-B-001-8-10-20200109 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 2A-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: NA | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590385.8 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901748.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.6 | |
| | | ML/CL | Black Clayey-SILT, little (-) Sand. Dry. | | | | | | | | Collect 2A-B-002-0-1-20200109 |
| 5 | | ML/CL | Same as above. | | 2 | | | | | 0.0 | |
| | | CL | Brown CLAY. Very dense. Wet. | | | | | | | | Collect 2A-B-002-7-9-20200109 |
| 10 | | CL | Grey CLAY. Wet. | | 3 | | | | | 0.1 | |
| | | ML/CL | Black Clayey-SILT, little (-) Sand. Saturated. | | | | | | | | |
| | | CL | Grey CLAY, little Silt. Sheen noticable. Chemical odor. Saturated. | | | | | | | | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 52-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590231.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901861.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW<br>SP | Brown cmf SAND and cmf GRAVEL. Dry.<br>White mf SAND (concrete-like material). | | 1 | | | | | 0.0 | Collect 52-B-002-0-1-20200108 |
| | | SW | Dark brown/black cmf SAND, little mf Gravel. Dry. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, some (+) Silt, little(-) cmf Gravel. | | 2 | | | | | 0.0 | Collect 52-B-4-6-20200108 |
| | | CL/ML | Brown Clayey-SILT, little (-) Sand, trace (+) Gravel, Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 52-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/8/20 - 1/8/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590262.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901837.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GP | Grey cm GRAVEL. Dry. | | 1 | | | | | 0.0 | |
| | | SP | Brown mf SAND, trace Silt. Dry. | | | | | | | | Collect 52-B-003-0-1-20200108 |
| 5 | | SP | Brown mf SAND, little mf Gravel, trace Silt. | | 2 | | | | | 0.0 | Collect 52-B-003-4-6-20200108 |
| | | ML/CL | Clayey-SILT, little mf Gravel, trace (+) Sand. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 64-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590590.9 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901227.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SP | Brown mf SAND, some mf Gravel, little (-) Silt. Wet. | | 1 | | | | | 0.0 | Collect 64-B-002-0-1-20200110 |
| 5 | | GW | Brown cmf Gravel. | | 2 | | | | | 0.0 | Collect 64-B-002-4-5-20200110 + DUP-20200110 |
| | | GP | Orange/Brown mf GRAVEL and SAND. Saturated. | | | | | | | | |
| | | SW | Grey cmf SAND, some (-) Silt, little (-) mf Gravel. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-002<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590492.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901374.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GW | Brown cmf GRAVEL, some mf Sand. Dry. | | 1 | | | | | 0.0 | Collect 72-B-002-0-1-20200110 |
| | | CL/ML | Brown Clayey-SILT, little mf Gravel, little (-) mf Sand, trace Organics (roots). Wet. | | | | | | | | |
| 5 | | GW | Orange/Brown cmf GRAVEL, some Silt, little Sand. Wet. | | 2 | | | | | 0.0 | Collect 72-B-3-5-20200110 |
| | | SP | Brown mf SAND, some f Gravel. | | | | | | | | |
| | | CL/ML | Grey Silty-CLAY. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-003<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590514.9 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901376.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int / Recovery / Lithology / Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | GW | Brown cmf GRAVEL, some cmf Sand, little (-) Silt. Dry. | | 1 | | 0.0 | Collect 72-B-003-0-1-20200110 |
| | | CL/ML | Brown/Orange Clayey-SILT, little cmf Gravel. Wet. | | | | | |
| 5 | | CL/ML | Orange/Brown Clayey-SILT, some (+) f Sand, little mf Gravel. | | 2 | | 0.0 | Collect 72-B-003-3-5-20200110 |
| | | CL/ML | Grey Silty-CLAY, little (+) f Gravel. Saturated. | | | | | |
| 10 | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-004<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590519.1 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901352.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some (+) cmf Gravel. | | 1 | | | | | 0.0 | |
| | | GW | Black cmf GRAVEL. | | | | | | | | Collect 72-B-004-0-1-20200110 |
| | | GW | Brown/Grey cmf GRAVEL and SAND. Dry. | | | | | | | | |
| | | SW | | | | | | | | | |
| | | ML | | | | | | | | | |
| | | CL/ML | Brown SILT, some mf Sand, little mf Gravel. | | | | | | | | |
| | | | Grey Clayey-SILT, little (-) Sand. Wet. | | | | | | | | Collect 72-B-004-4-5-20200110 |
| 5 | | CL/ML | Grey Clayey-SILT, some mf Sand, trace f Gravel. | | 2 | | | | | 0.0 | |
| | | GP | Grey mf GRAVEL, some Clayey-Silt. | | | | | | | | |
| | | CL/ML | Grey Silty-CLAY. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-005<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590494.5 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901351.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | GW | Grey/Black cmf GRAVEL. | | | | | | | | Collect 72-B-005-0-1-20200110 |
| | | ML | Brown SILT, little (-) mf Sand. Wet. | | | | | | | | |
| | | CL/ML | Grey Clayey-SILT, little mf Sand. | | | | | | | | |
| | | CL/ML | Orange/Brown Clayey-SILT, little (-) mf Sand. Wet. | | | | | | | | Collect 72-B-005-2-4-20200110 |
| 5 | | CL/ML | Same as above. Saturated. | | 2 | | | | | 0.0 | |
| | | CL/ML | Grey Silty-CLAY. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-006<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590469.9 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901386.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND (concrete like material). Dry. | | 1 | | | | | 0.0 | |
| | | SW | Brown/white cmf SAND, trace Gravel (angular). | | | | | | | | Collect 72-B-006-0-1-20200811 |
| | | SW | Brown cmf SAND, trace Gravel (rounded). Dry. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, little Gravel (rounded). Saturated. | | 2 | | | | | 0.0 | Collect 72-B-006-4-6-20200811 |
| | | SP SW | Transition into black C SAND, trace Gravel. | | | | | | | | |
| | | | Brown mf SAND, trace Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-007<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590529.3 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901398.4 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int / Recovery / Lithology / Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND. Dry. | | 1 | | 0.0 | |
| | | SW | Brown cmf SAND, little (-) Gravel. Moist. | | | | | Collect 72-B-007-0-1-20200810 |
| | | SW | Brown cmf SAND, trace Gravel. Wet. | | | | | Collect 72-B-007-3-5-20200810 |
| 5 | | SW | Brown cmf SAND, little Gravel. Saturated. | | 2 | | 0.0 | |
| | | SP | Grey/black c SAND. Saturated. | | | | | |
| | | SW | Grey/black cmf SAND, little Silt. | | | | | |
| 10 | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-008<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590533.5 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901342.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND, little Gravel (concrete like material). Dry. | | 1 | | | | | 0.475 | |
| | | SW | Brown cmf SAND, little Gravel. @ 1.60 a 1" Black Sticky Substance, sheen visable. | | | | | | | | Collect 72-B-008-0-1-20200810 |
| | | SW | White cmf SAND, some Black Sticky Substance. Odor present. | | | | | | | | |
| | | SW | Brown cmf SAND. Moist. | | | | | | | | |
| 5 | | SW | Same As Above | | 2 | | | | | 0.137 | |
| | | SW | White cmf SAND | | | | | | | | |
| | | SW | Brown cmf SAND, trace Gravel. Saturated. | | | | | | | | Collect 72-B-008-6-8-20200810 |
| | | SP | Grey C SAND, some Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-009<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590480.3 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901332.7 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND, some Gravel (angular). | | 1 | | | | | 17.4 | |
| | | SW | Grey cmf SAND, little Gravel. | | | | | | | | Collect 72-B-009-0-1-20200810 |
| | | SP | Black mf SAND. @ 2.0 Odor present | | | | | | | | |
| 5 | | SW | Cmf SAND, some Gravel. Wet. | | 2 | | | | | 0.257 | Collect 72-B-009-4-6-20200810 |
| | | SW | Mf SAND, little Silt. Saturated. | | | | | | | | |
| | | SW | Brown mf SAND, little Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-010<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590504.3 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901364.0 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND, little Gravel (Angular). | | 1 | | | | | 0.0 | |
| | | SW | Dry. | | | | | | | | Collect 72-B-010-0-1-20200810 + MS/MSD |
| | | | Brown cmf SAND, little Gravel (Angular). Dry. | | | | | | | | Collect 72-B-010-3-5-20200810 |
| 5 | | SW | Same As Above. | | 2 | | | | | 0.0 | |
| | | SP | Brown C Sand. Saturated. | | | | | | | | |
| | | SW | Grey cmf SAND. Saturated. | | | | | | | | |
| | | ML | Grey SILT, some mf Sand. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-011<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590442.8 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901403.5 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown/white cmf SAND, little (-) Gravel (angular). | | 1 | | | | | 0.0 | |
| | | SW | Brown fmc SAND, trace Gravel (angular). | | | | | | | | Collect 72-B-011-0-1-20200811 |
| | | SW | Dark Brown/black cmf Sand, little Gravel. Wet. | | | | | | | | Collect 72-B-011-4-6-20200811 |
| 5 | | SW | Brown/white cmf SAND, trace Gravel. Wet. | | 2 | | | | | 0.0 | |
| | | SW | Brown/black cmf SAND, trace Gravel (angular). Saturated. | | | | | | | | |
| | | SW | Black cmf SAND, trace Gravel. | | | | | | | | |
| | | SW | Transition into mf SAND. | | | | | | | | |
| | | | Transition into Grey/brown mf SAND, trace Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-012<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590549.1 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901420.2 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND, some Gravel (concrete like material), little (-) Silt. Dry. | | 1 | | | | | 0.0 | |
| | | SW | Brown cmf SAND, trace Gravel. Dry. | | | | | | | | Collect 72-B-012-0-1-20200810 |
| | | SW | Brown cmf SAND. Wet. | | | | | | | | Collect 72-B-012-3-5-20200810 |
| 5 | | SW | Grey cmf SAND, trace Gravel. Saturated. | | 2 | | | | | 0.0 | |
| | | SW | Cmf SAND, little Silt. | | | | | | | | |
| | | SW | Tan/green cmf SAND, little Silt. Saturated. | | | | | | | | |
| | | SW | Mf SAND, little (-) Silt. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-013<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590558.4 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901322.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | White cmf SAND and GRAVEL (angular). Dry. | | 1 | | | | | 0.151 | Collect 72-B-013-0-1-20200810 |
| | | SW | Brown cmf SAND. Moist. | | | | | | | | |
| | | SW | Brown cmf SAND, some Gravel (angular). Wet. | | | | | | | | |
| 5 | | SW | Same As Above. | | 2 | | | | | 0.0 | Collect 72-B-013-4-6-20200810 |
| | | SW | Brown cmf SAND, trace Gravel (rounded). Wet. | | | | | | | | |
| | | SW | Same As Above. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** 72-B-014<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/10/20 - 8/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590459.5 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901312.9 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Grey cmf SAND and GRAVEL (Angular). | | 1 | | | | | 8.17 | |
| | | SW | Brown cmf SAND, some Gravel. Wet. | | | | | | | | Collect 72-B-014-0-1-20200810 |
| | | SW | Brown mf SAND. Wet. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, some Gravel. Saturated. | | 2 | | | | | 0.0 | Collect 72-B-014-4-6-20200810 |
| | | SW | Mf Brown SAND. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** B-B-105<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 4" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/10/20 - 1/10/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590248.2 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 902313.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel, little (-) Silt, trace Organics (roots). Wet. | | 1 | | | | | 0.0 | Collect B-B-105-0-1-20200110 +MS/MSD |
| 5 | | GW | Brown cmf GRAVEL, some cmf Sand. Saturated. | | 2 | | | | | 0.1 | Collect B-B-105-4-5-20200110 |
| | | GW | Greyish Black cmf GRAVEL, some cmf Sand, little (-) Silt. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-008<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590769.1 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901556.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, little mf Gravel. | | 1 | | | | | 0.0 | Collect F-B-008-0-1-20200109 + MS/MSD |
| | | CL/ML | Brown Clayey-SILT, trace Sand. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, little Silt. | | 2 | | | | | 0.0 | Collect F-B-008-4-6-20200109 |
| | | CL/ML | Brown Clayey-SILT. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-009<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590876.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901484.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel. Dry. | | 1 | | | | | 0.0 | |
| | | ML | Brown SILT, some mf Sand, trace mf Gravel. | | | | | | | | Collect F-B-009-0-1-20200109 |
| 5 | | ML | Same as above. | | 2 | | | | | 0.0 | Collect F-B-009-5-7-20200109 |
| | | CL | Grey CLAY, trace Silt. Wet. | | | | | | | | |
| 10 | | ML/CL | Grey Clayey-SILT. Saturated. | | 3 | | | | | 0.0 | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-010<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590917.4 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901599.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, little gravel, trace | | 1 | | | | | 0.0 | |
| | | GW | Organics (roots). | | | | | | | | Collect F-B-10-0-1-20200109 |
| | | SW | Brown cmf GRAVEL. | | | | | | | | |
| | | SW | Black cmf SAND, little Gravel. | | | | | | | | |
| | | SW | Dark brown cmf SAND, little (-) mf Gravel. Dry. | | | | | | | | |
| | | | Black cmf SAND, little mf Gravel, trace Silt. Wet. | | | | | | | | Collect F-B-10-4-6-20200109 |
| 5 | | SW | Same as above. | | 2 | | | | | 0.0 | |
| | | ML/CL | Grey Clayey-SILT, little (-) Sand. Wet. | | | | | | | | |
| | | CL | Brown CLAY. Very dense. Saturated. | | | | | | | | |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-011<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 15.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590831.6 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901648.8 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, some cmf Gravel, trace Silt. | | 1 | | | | | 0.0 | Collect F-B-011-0-1-20200109 |
| | | SP | Brown mf SAND, little Silt. | | | | | | | | |
| 5 | | SP | Same as above. | | 2 | | | | | 0.0 | |
| | | CL/ML | Brown Clayey-SILT, little Sand. | | | | | | | | |
| | | CL/ML | Black Clayey-SILT. | | | | | | | | Collect F-B-011-8-10-20200109 |
| 10 | | CL/ML | Brown Silty-CLAY. | | 3 | | | | | 0.0 | |
| | | CL/ML | Grey Silty-CLAY. Saturated. Chemical odor. | | | | | | | | |
| 15 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-012<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590893.8 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901616.1 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, trace Organics (woodchips). | | 1 | | | | | 0.0 | Collect F-B-012-0-1-20200811 |
| 2 | | SW | Brown cmf SAND, trace Gravel (angular). | | | | | | | | |
| 3 | | SW | Brown/white cmf SAND, trace Silt, trace Gravel (angular). | | | | | | | | |
| 4 | | SW | Black cmf SAND, trace Gravel. Wet. | | | | | | | | |
| 5 | | SW | Brown cmf SAND, trace Gravel. Wet. | | | | | | | | |
| | | | Black cmf SAND, trace Gravel. Wet. | | | | | | | | *Bottom of borehole.* |
| | | | Brown cmf SAND, little Organics (wood), trace red Gravel (Brick?). | | | | | | | | |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-013<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590936.5 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901621.3 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Organics (woodschips). | | 1 | | | | | 0.0 | |
| 1 | | SW | Brown cmf SAND, trace Organics. | | | | | | | | Collect F-B-013-0-1-20200811 +MS/MSD |
| 2 | | SW | Brown cmf SAND, little Gravel (angular). | | | | | | | | |
| 3 | | SW | Brown cmf SAND, little Gravel (angular), trace Sticky Black Substance. | | | | | | | | |
| 4 | | | Brown cmf SAND, little white Gravel (angular). | | | | | | | | |
| 5 | | | Black Sitcky Substance sheen visable. | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-014<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590941.8 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901579.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, trace Silt, trace Organics (roots). | | | | | | | 0.0 | |
| 2 | | SW | White cmf SAND, little Gravel. | | | | | | | | Collect F-B-014-0-1-20200811 + Dup |
| 3 | | SW | Black/brown/white cmf SAND, trace Gravel. Black material has sheen | | | | | | | | |
| 4 | | SW | Brown cmf SAND, trace Gravel. Wet. | | | | | | | | |
| 5 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-015<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590898.0 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901576.5 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, trace Organics (roots), | | 1 | | | | | 0.0 | |
| | | SW | trace Silt. | | | | | | | | Collect F-B-015-0-1-20200811 +Dup |
| 2 | | SW | Dark brown cmf SAND, trace Gravel (rounded and angular). | | | | | | | | |
| 3 | | SW | White/grey cmf SAND, trace Gravel. | | | | | | | | |
| 4 | | SW | Cmf SAND, trace Gravel, trace Black Sticky Substance. | | | | | | | | |
| 5 | | | Brown cmf SAND, trace Gravel (rounded). Wet. | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-016<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590868.9 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901630.6 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, little (+) Organics (roots). | | 1 | | | | | 0.0 | Collect F-B-016-0-1-20200811 |
| 2 | | SW | Brown cmf SAND, trace Gravel (rounded). @ 2.4' Black Plastic Piece. | | | | | | | | |
| 3 | | SW | White/brown/black cmf SAND, trace Gravel (angular). | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-017<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590955.3 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901645.2 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, trace Gravel, trave Organics (roots). | | 1 | | | | | 0.0 | |
| | | SW | Brown cmf SAND, trace Gravel. | | | | | | | | Collect F-B-017-0-1-20200811 |
| 2 | | | | | | | | | | | |
| 3 | | SW | Brown/white cmf SAND, trace Gravel. Dry. | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-018<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590967.8 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901558.7 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | SW | Brown cmf SAND, trace Gravel (angular), trace Organics (roots). | | 1 | | | | | 0.0 | Collect F-B-018-0-1-20200811 |
| 2 | | SW | Brown cmf SAND, trace Gravel (angular), trace Silt, tace Organics (roots). | | | | | | | | |
| 3 | | GW | Gravel (rounded) and cmf SAND. | | | | | | | | |
| 4 | | SW | Brown/White cmf Sand, trace Gravel. Dry. | | | | | | | | |
| 5 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** F-B-019<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| MHM/Ramsey, NJ | | 2" | NA | N/A" | 5.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 8/11/20 - 8/11/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590878.2 ft. |
|---|---|---|---|---|
| Pat Sawes | Direct Push | Geoprobe | Vert Datum: | Northing: 901551.5 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SW | Brown cmf SAND, trace Organics. | | 1 | | | | | 0.0 | |
| 1 | | SW | Brown cmf SAND, trace Gravel (rounded). | | | | | | | | Collect F-B-019-0-1-20200811 |
| 2 | | SW | Brown cmf SAND, trace Silt. | | | | | | | | |
| 3 | | SW | Brown cmf SAND, trace Silt. Saturated. | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | *Bottom of borehole.* |

# BORING LOG

| | | | |
|---|---|---|---|
| Brown AND Caldwell | **Project Name:** ELT Nepera<br>**Project Number:** 154292<br>**Project Location:** Harriman, NY | **Permit Number:** | **Boring No.** G-B-105<br>**Page** 1 **of** 1 |

| Inspector/Office | Checked By: | Borehole Diameter: | Screen Diameter and Type: | Slot Size: | Total Boring Depth (ft) |
|---|---|---|---|---|---|
| AFV/Ramsey, NJ | TMB | 2" | NA | N/A" | 10.0 ft. |

| Start/Finish Date | Drilling Contractor: | Sampling: Continuous Core | Development Method: |
|---|---|---|---|
| 1/9/20 - 1/9/20 | Cascade | Hammer Type: N/A | N/A |

| Driller: | Drilling Method: | Drilling Equipment: | Horiz Datum/Proj: | Easting: 590673.2 ft. |
|---|---|---|---|---|
| Jan Cmil | Direct Push | Geoprobe | Vert Datum: | Northing: 901356.0 ft. |
| | | | Ground Surface Elev: -- | TOC Elev: -- |

| Depth (feet) | Elevation (feet) | USC Soil Type | Description | Blow Counts | Sample No. | Graphic Log: Sample Int | Graphic Log: Recovery | Graphic Log: Lithology | Graphic Log: Backfill | ppm Readings (ppm) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SP | Brown mf SAND, some mf Gravel. | | 1 | | | | | 0.0 | |
| | | ML | Black SILT, little Sand, little Organics (wood fragments). | | | | | | | | Collect G-B-105-0-1-20200109 + DUP-20200109 |
| 5 | | GW | Black cmf GRAVEL, little Sand. Saturated. | | 2 | | | | | 0.0 | |
| | | GW | Black cmf GRAVEL. Chemical odor. | | | | | | | | Collect G-B-105-8-10-20200109 |
| 10 | | | | | | | | | | | *Bottom of borehole.* |

# Appendix B: Groundwater Investigation Temporary Well Boring Logs

**F-GW--01**
**F-GW-02**
**F-GW-03**
**F-GW-04**
**G-GW-01**

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

**Client** Maybrook-Harriman Trust **Well ID** F-GW--01 Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2020 | Northing | 901573.000 |
| Drilled by | Nick | Completion Date | 08/05/2020 | Easting | 590719.000 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 25.00 | Surface Elev. (ft) | 530.00 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 2 | TOC Elev. (ft) | |
| Drilling Method | Direct Push | | | Water (ft. btoc) | |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

Well Depth (ft bgs) 15.00
Casing Type
Casing Dia. (in) 1
Screen Type
Slot Size
Development

Notes: Temporary 1" pvc well installed for collection of groundwater sample and removed following sampling.

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | 0.0 | | | ML | Orange and Tan SILT | | |
| | 0.0 | | | ML | Light Tan SILT, some f Sand, dry | | |
| 5 | 0.0 | | 1in | N/A | No Recovery | | |
| | 0.0 | | | SW | Brown f SAND | | |
| | 0.0 | | | ML | Gray SILT, saturated | | |
| 10 | 0.0 | | | | | | |
| | 0.0 | | 1in | ML | Light gray SILT, trace f Sand, saturated | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | ML | Gray SILT, saturated | | |
| | | | | ML | Light gray SILT, trace f Sand, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 20 | 0.0 | | | ML | Light gray SILT, trace f Sand, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | | | | | |

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

**Client** Maybrook-Harriman Trust **Well ID** F-GW-02

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2020 | Northing | 901567.000 |
| Drilled by | Nick | Completion Date | 08/05/2020 | Easting | 590831.000 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 25.00 | Surface Elev. (ft) | 533.00 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 2 | TOC Elev. (ft) | |
| Drilling Method | Direct Push | | | Water (ft. btoc) | |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | | |
|---|---|---|
| Well Depth (ft bgs) | 15.00 | Notes: Temporary 1" pvc well installed for collection of groundwater sample and removed following sampling. |
| Casing Type | | |
| Casing Dia. (in) | 1 | |
| Screen Type | | |
| Slot Size | | |
| Development | | |

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | 0.0 | | | ML | Brown SILT, trace f Brown Sand | | |
| | 0.0 | | | SW | Tan m-f SAND, dry | | |
| 5 | 0.0 | | 1in | N/A | No Recovery | | |
| | | | | SW | Brown f SAND, damp | | |
| | 0.0 | | | | | | |
| | 0.0 | | | ML | Gray SILT, damp | | |
| 10 | 0.0 | | | ML | Brown SILT, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | 1in | ML | Light gray SILT, trace f Sand, saturated | | |
| 15 | 0.0 | | | ML | Light Gray SILT, trace f Sand, saturated | | |
| | 0.0 | | | | | | |
| 20 | 0.0 | | | ML | Light Gray SILT, trace f Sand, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | | | | | |

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

**Client** Maybrook-Harriman Trust **Well ID** F-GW-03

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2029 | Northing | 901455.000 |
| Drilled by | Nick | Completion Date | 08/05/2020 | Easting | 590882.000 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 25.00 | Surface Elev. (ft) | 533.00 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 2 | TOC Elev. (ft) | |
| Drilling Method | Direct Push | | | Water (ft. btoc) | |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 20.00 |
| Casing Type | |
| Casing Dia. (in) | 1 |
| Screen Type | |
| Slot Size | |
| Development | |

Notes: Temporary 1" pvc well installed for collection of groundwater sample and removed following sampling.

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | 0.0 | | | SW | Brown and black m-c SAND, some m-c angular Gravel | | |
| | 0.0 | | | ML | Tan SILT | | |
| 5 | 0.0 | | | ML | Tan SILT, damp | | |
| | 0.0 | | | | | | |
| | 0.0 | | 1in | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 10 | 0.0 | | | ML | Tan SILT, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | ML | Light gray SILT, saturated | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | N/A | No Recovery | | |
| | | | 1in | | | | |
| | | | | ML | Light gray SILT, saturated | | |
| | 0.0 | | | | | | |
| 20 | 0.0 | | | N/A | No Recovery | | |
| | | | | | | | |
| | 0.0 | | | SM | Light gray f SAND, some gray Silt, saturated | | |
| 25 | 0.0 | | | | | | |

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Client** Maybrook-Harriman Trust **Well ID** F-GW-04

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

Drilling Contractor: Cascade
Drilled by: Nick
Logged by: Daniel Wheeler
Drill Rig: Track mounted
Drilling Method: Direct Push

Start Date: 08/05/2020
Completion Date: 08/05/2020
Borehole Depth (ft bgs): 25.00
Borehole Dia. (in): 2

Northing: 901683.000
Easting: 590915.000
Surface Elev. (ft): 531.00
TOC Elev. (ft):
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method: Direct push

**Well**

Well Depth (ft bgs): 15.00
Casing Type:
Casing Dia. (in): 1
Screen Type:
Slot Size:
Development:

Notes: Temporary 1" pvc well installed for collection of groundwater sample and removed following sampling.

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | 0.0 | | | SW | Brown m-f SAND, trace Silt, some f round Gravel | | |
| 5 | 0.0 | | 1in | SW | Brown m-f SAND, some Silt, some f round Gravel | | |
| | 0.0 | | | OL | Brown SILT and organic material | | |
| | 0.0 | | | ML | Gray SILT, saturated | | |
| 10 | 0.0 | | | ML | Light Gray SILT, saturated | | |
| | 0.0 | | 1in | | | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | N/A | No Recovery | | |
| | 0.0 | | | SM | Gray SILT and m-f gray SAND, saturated | | |
| 20 | 0.0 | | | N/A | No Recovery | | |
| | | | | SM | Gray SILT and f-m gray SAND, saturated | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | | | | | |

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

**Client** Maybrook-Harriman Trust **Well ID** G-GW-01 Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2020 | Northing | 901493.000 |
| Drilled by | Nick | Completion Date | 08/05/2020 | Easting | 590634.000 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 25.00 | Surface Elev. (ft) | 533.00 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 2 | TOC Elev. (ft) | |
| Drilling Method | Direct Push | | | Water (ft. btoc) | |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 15.00 |
| Casing Type | |
| Casing Dia. (in) | 1 |
| Screen Type | |
| Slot Size | |
| Development | |

Notes: Temporary 1" pvc well installed for collection of groundwater sample and removed following sampling.

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | 0.0 | | | SM | Brown SILT and m-f SAND, some m-f sub round Gravel | | |
| | 0.0 | | | | | | |
| 5 | 0.0 | | 1in | N/A | No Recovery | | |
| | 0.0 | | | SM | Brown m-f SAND, some Silt, trace m-f round Gravel | | |
| | 0.0 | | | | | | |
| | 0.0 | | | ML | Brown SILT, some brown f Sand, damp | | |
| | 0.0 | | | | | | |
| 10 | 0.0 | | | ML | Brown SILT, some f Sand, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | 1in | ML | Gray SILT, saturated | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | ML | Gray SILT, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 20 | 0.0 | | | N/A | No Recovery | | |
| | | | | ML | Gray Silt, saturated | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | | | | | |

# Appendix C: Monitoring Well Construction Logs

**MW-201**
**MW-202S**
**MW-202D**
**MW-203**

# Well Completion Log

cornerstone
A TETRA TECH COMPANY

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Client** Maybrook-Harriman Trust **Well ID** MW-201

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/07/2020 | Northing | 901981.500 |
| Drilled by | Nick | Completion Date | 08/07/2020 | Easting | 589980.300 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 30.00 | Surface Elev. (ft) | 529.39 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 6 | TOC Elev. (ft) | 531.60 |
| Drilling Method | Hollow Stem Auger | | | Water (ft. btoc) | 7.44 |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 30.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | 4in Protective Casing | N/A | No Recovery | | |
| | | | 6in Cement | | | | |
| | | | 6in Filter Pack - 00N | GW | Brown m-f SAND, some c angular Gravel, trace Silt | | |
| | 0.0 | | 6in Bentonite 2in | | | | |
| 5 | 0.0 | | 6in Filter Pack - 00N | SW | Brown m-f-c SAND, little f round Gravel. trace Silt | | |
| | 0.0 | | | ML | Gray SILT, dry | | |
| | | | | ML | Tan SILT, trace f tan sand, damp | | |
| 10 | 0.0 | | | ML | Light Brown SILT and brown f SAND, trace angular gravel, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | N/A | No Recovery | | |
| | | | 6in Filter Pack - 0 | | | | |
| | | | 2in | | | | |
| 20 | | | | SW | dark gray f-m SAND, trace gray Silt | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | | N/A | No Recovery | | |
| | | | | | | | |
| | 0.0 | | | ML | Dark gray SILT, some f Gray Sand, saturated | | |
| 30 | 0.0 | | | | | | |

# Well Completion Log

**Client** Maybrook-Harriman Trust **Well ID** MW- 202S

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2020 | Northing | 902191.200 |
| Drilled by | Nick | Completion Date | 08/07/2020 | Easting | 590123.000 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 32.00 | Surface Elev. (ft) | 525.70 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 6 | TOC Elev. (ft) | 528.01 |
| Drilling Method | Hollow Stem Auger | | | Water (ft. btoc) | 6.24 |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 32.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | 4in Protective Casing | N/A | No Recovery | | |
| | | | 6in Bentonite/Grout | SM | Brown m-f SAND and SILT | | |
| | 0.0 | | | SW | Light gray f SAND | | |
| | 0.0 | | 6in Filter Pack - 00N | | | | |
| 5 | 0.0 | | 2in | N/A | No Recovery | | |
| | | | 6in Bentonite | | | | |
| | | | 6in Filter Pack - 00N | GM | tan and gray SILT and f GRAVEL, trace Sand | | |
| | 0.0 | | | GW | Dark gray c SAND and m GRAVEL | | |
| | 0.0 | | | SW | Gray f SAND, trace Silt, saturated | | |
| 10 | 0.0 | | | | | | |
| | 0.0 | | | ML | Gray SILT, saturated | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | N/A | No Recovery | | |
| | | | | GW | Gray m-f SAND and f round GRAVEL | | |
| | 0.0 | | | ML | Gray SILT | | |
| | 0.0 | | | ML | Tan SILT, trace f Sand | | |
| 20 | 0.0 | | 6in Filter Pack - 0 | SM | Gray SILT and f gray SAND, trace f angular Gravel | | |
| | 0.0 | | 2in | | | | |
| | 0.0 | | | ML | Light Brown SILT | | |
| 25 | 0.0 | | | N/A | No Recovery | | |
| | | | | SM | Gray m-f SAND and gray SILT | | |
| 30 | 0.0 | | | SW | Tan m-f SAND, trace f round Gravel, some Silt | | |
| | 0.0 | | | | | | |

# Well Completion Log

**Client** Maybrook-Harriman Trust **Well ID** MW-202D

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/19/2020 | Northing | 902207.400 |
| Drilled by | Dave Moon | Completion Date | 08/19/2020 | Easting | 590136.200 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 65.00 | Surface Elev. (ft) | 526.12 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 6 | TOC Elev. (ft) | 528.57 |
| Drilling Method | Sonic | | | Water (ft. btoc) | 6.10 |
| Sample Method | Direct push | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 65.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | 4in Protective Casing | | GROUND SURFACE | | |
| 0 | | | | N/A | No Recovery | | |
| | | | | SW | Brown m-f SAND, some c round Gravel, trace Silt | | |
| | 0.0 | | | | | | |
| 5 | 0.0 | | | N/A | No Recovery | | |
| | 0.0 | | | SM | Gray SILT and m-f Gray SAND and m-c round GRAVEL | | |
| | 0.0 | | | | | | |
| 10 | 0.0 | | | SM | Gray SILT and m-f Gray SAND and m-c-f angular GRAVEL | | |
| | 0.0 | | | ML | Tan SILT | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | ML | Tan and Gray SILT, trace f Sand | | |
| | 0.0 | | 6in | | | | |
| | 0.0 | | | | | | |
| 20 | 0.0 | | | SM | Tan and Gray SILT, some f Sand | | |
| | 0.0 | | | | | | |
| | 0.0 | | Bentonite/Grout | | | | |
| | 0.0 | | | GP | Broken pieces of sandstone boulder | | |
| 25 | 0.0 | | 2in | N/A | No Recovery | | |
| | 0.0 | | | SW | Brown m-f Brown SAND, some m-f Gravel | | |
| 30 | 0.0 | | | N/A | No Recovery | | |
| | | | | SW | Brown m-f SAND and m-c angular GRAVEL | | |
| | 0.0 | | | SW | Gray m-f-c SAND and f angular GRAVEL | | |
| | | | | N/A | | | |

# Well Completion Log

**Client** Maybrook-Harriman Trust **Well ID** MW-202D

Cornerstone Engineering, Geology, and Land Surveying, PLLC

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | 0.0 | | | N/A | No Recovery | | |
| | 0.0 | | | SW | Brown m-f-c SAND and m-c angular GRAVEL, trace Silt | | |
| 40 | 0.0 | | 6in | SW | Brown m-c SAND and c-m-f angular GRAVEL, trace Silt | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 45 | 0.0 | | | SW | Brown m-f SAND, some f angular Gravel | | |
| | 0.0 | | | | | | |
| | 0.0 | | 6in Filter Pack - 00N | | | | |
| | 0.0 | | 6in Bentonite | SW | Gray m-f SAND, trace f Gravel, some Silt | | |
| 50 | | | 6in Filter Pack - 00N | Rock | Bedrock limestone | | |
| 55 | | | | Rock | Bedrock limestone | | |
| | | | 6in Filter Pack - 0 | | | | |
| 60 | | | 2in | Rock | Bedrock limestone | | |
| 65 | | | | | | | |
| 70 | | | | | | | |
| 75 | | | | | | | |
| 80 | | | | | | | |
| 85 | | | | | | | |

# Well Completion Log

cornerstone
A TETRA TECH COMPANY
Cornerstone Environmental Group

**Client** Maybrook-Harriman Trust **Well ID** MW-203

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4203724

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Cascade | Start Date | 08/05/2020 | Northing | 901893.000 |
| Drilled by | Nick | Completion Date | 08/07/2020 | Easting | 590135.700 |
| Logged by | Daniel Wheeler | Borehole Depth (ft bgs) | 35.00 | Surface Elev. (ft) | 529.33 |
| Drill Rig | Track mounted | Borehole Dia. (in) | 6 | TOC Elev. (ft) | 531.91 |
| Drilling Method | Hollow Stem Auger | | | Water (ft. btoc) | 7.12 |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 35.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | GROUND SURFACE | | |
| 0 | | | 4in Protective Casing | N/A | No Recovery | | |
| | | | | Asphalt | Black m-f SAND and m-c angular GRAVEL, dry | | |
| | | | 6in Bentonite/Grout | SW | Brown m-f SAND and m-c sub round GRAVEL, dry | | |
| | 0.0 | | | | | | |
| 5 | 0.0 | | | SW | Black m-c SAND and m-c angular GRAVEL | | |
| | 0.0 | | 2in | | | | |
| | | | 6in Filter Pack - 00N | | | | |
| | 0.0 | | | ML | Grey SILT, damp | | |
| | 0.0 | | 6in Bentonite | | | | |
| 10 | | | | N/A | No Recovery | | |
| | | | 6in Filter Pack - 00N | SW | Black m-c SAND and m-c angular GRAVEL | | |
| | 0.0 | | | ML | Tan SILT, saturated | | |
| | 0.0 | | | SM | Gray f SAND and SILT, saturated | | |
| 15 | 0.0 | | | N/A | No Recovery | | |
| | 0.0 | | | SW | Black f SAND and m-c sub round GRAVEL, saturated | | |
| 20 | 0.0 | | | N/A | No recovery | | |
| | | | | GW | f-m-c round GRAVEL and m-f Black SAND, trace gray Silt | | |
| | | | 6in Filter Pack - 0 | | | | |
| | 0.0 | | | | | | |
| 25 | 0.0 | | 2in | GW | f-m round GRAVEL and m-f-c black/gray SAND, trace gray Silt, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 30 | 0.0 | | | GW | f-m-c round GRAVEL and m-c black SAND, saturated | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |

AMW-1
AMW-2
AMW-3
AMW-4
AMW-5
AMW-6
AMW-7
AMW-8
AMW-9
AMW-10
AMW-11
AP-101
BP-101
MH-101
MH-102
MH-103D
MH-103S
MH-104
MH-105D
MH-105S

# Well Completion Log

**Client** NEPERA **Well ID** AMW-1

**Project** NEPERA **Location** Harriman, NY

TETRA TECH
Cornerstone Engineering and Geology, PLLC
**Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/07/2021
Completion Date: 10/07/2021
Borehole Depth (ft bgs): 20.00
Borehole Dia. (in): 6 in

Northing: 902104.000
Easting: 590077.000
Surface Elev. (ft): 527.75
TOC Elev. (ft): 530.29
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 20.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | SP | Topsoil, Brown FM SAND and SILT, some FM round Gravel | | |
| | | | | SM | Brown FM SAND and Brown Clayey SILT | | |
| | 0.0 | | 6in Bentonite/Grout | | | | |
| 5 | | | 2in | | | | |
| | 5.9 | | 6in Choker Sand-00 | ML | Brown Clayey SILT | | |
| | 7.4 | | 6in Bentonite | | | | |
| | 8.5 | | 6in Choker Sand-00 | | | | |
| | 8.9 | | | ML | Grey Clayey SILT (damp), trace MC Gravel | | |
| 10 | 2.2 | | | | | | |
| | 2.0 | | | ML | Grey Clayey SILT (saturated) | | |
| | 3.1 | | | | | | |
| | 3.5 | | 6in Packer Sand- 2 | | | | |
| 15 | | | 2in | | | | |
| | 0.8 | | | ML | Tan Clayey SILT (damp) | | |
| | 0.5 | | | | | | |
| | 0.4 | | | | | | |
| | 0.6 | | | | | | |
| 20 | 0.6 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-2

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/07/2021 | Northing | 901887.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/07/2021 | Easting | 590273.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 25.00 | Surface Elev. (ft) | 526.10 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 528.68 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 25.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | 0.0 | | | GM | Brown FM SAND and Brown SILT, much MC Gravel | | |
| 5 | 1.4 | | | | | | |
| | 3.4 | | | SP | Black FMC SAND with hydrocarbon staining; High odor | | |
| | 0.2 | | | GW | | | |
| | 0.2 | | 6in Bentonite/Grout | GW | Grey to Light Grey FM SAND and FM angular GRAVEL, trace Silt | | |
| | 0.2 | | 2in | | Dark Grey FM angular GRAVEL and MC Grey SAND | | |
| 10 | 0.3 | | | SW | | | |
| | 0.8 | | | | Grey FMC SAND, trace C round Gravel (damp) | | |
| | 0.7 | | | ML | | | |
| | 0.6 | | | | Tan Clayey SILT (damp) | | |
| | 0.6 | | | | | | |
| 15 | 0.5 | | | SW | Grey FMC SAND, some C round Gravel | | |
| | 0.6 | | 6in Choker Sand-00 | | | | |
| | 0.7 | | 6in Bentonite | ML | Tan Clayey SILT | | |
| | 0.7 | | | | | | |
| | 0.5 | | 6in Choker Sand-00 | SM | Brown MF SAND, some Silt, some MC round Gravel | | |
| 20 | 0.5 | | | GW | | | |
| | | | 6in Packer Sand- 2 | | FMC sub angular GRAVEL, some Cobbles, trace FM Brown Sand (saturated) | | |
| | | | 2in | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

**Client** NEPERA **Well ID** AMW-3

**Project** NEPERA **Location** Harriman, NY

TETRA TECH
Cornerstone Engineering and Geology, PLLC
**Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/04/2021 | Northing | 901912.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/01/2021 | Easting | 590065.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 20.00 | Surface Elev. (ft) | 529.90 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 532.24 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 14.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | Asphalt | Asphalt, Black FM SAND and FMC angular GRAVEL | | |
| | | | 6in Bentonite/Grout | GM | Grey Clayey SILT and FM sub angular GRAVEL | | |
| | 0.0 | | 2in | | | | |
| 5 | 0.1 | | 6in Choker Sand-00 | | | | |
| | 0.1 | | 6in Bentonite | | | | |
| | 0.1 | | 6in Choker Sand-00 | ML | Light Grey Clayey SILT | | |
| | 0.1 | | | | | | |
| 10 | 0.0 | | 6in Packer Sand- 2 | ML | Light Grey Clayey SILT, trace F Sand lens | | |
| | | | 2in | | | | |
| 15 | 0.0 | | | SW | Black MFC SAND, trace M sub round Gravel | | |
| | | | 6in Bentonite | | | | |
| 20 | 0.0 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-4

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/04/2021
Completion Date: 10/04/2021
Borehole Depth (ft bgs): 25.00
Borehole Dia. (in): 6 in

Northing: 901887.000
Easting: 590273.000
Surface Elev. (ft): 528.99
TOC Elev. (ft): 531.30
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 24.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | Fill | Brown MFC SAND, some FM angular Gravel, Cement | | |
| | | | | GW | Brown FM SAND and FMC sub round GRAVEL, trace Silt | | |
| 5 | 0.0 | | 6in Bentonite/Grout | SM | Brown FM SAND and Brown SILT, some MC sub angular Gravel, trace F Sand lens | | |
| | 0.0 | | 2in | | | | |
| | 0.1 | | 6in Choker Sand-00 | | | | |
| 10 | | | 6in Bentonite | GP | FMC angular GRAVEL and FMC SAND, trace Silt | | |
| | 0.1 | | 6in Choker Sand-00 | SW | Brown FMC SAND | | |
| | 0.1 | | | GW | Brown FM SAND and MC sub angular GRAVEL | | |
| | 0.1 | | | GP | FMC sub round GRAVEL, trace F Sand, trace Silt | | |
| 15 | 0.1 | | | SW | Brown FMC SAND, some FMC sub angular Gravel | | |
| | 0.1 | | 6in Packer Sand- 2 | SM | Brown SILT and FM SAND, some MC angular Gravel | | |
| | 0.1 | | 2in | SP | Brown FM SAND, some C sub round Gravel, trace Silt | | |
| 20 | 0.0 | | | | | | |
| | | | 6in Bentonite | SM | Grey FM SAND, some Grey Silt, trace Cobbles | | |
| 25 | 0.0 | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-5

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/06/2021
Completion Date: 10/06/2021
Borehole Depth (ft bgs): 20.00
Borehole Dia. (in): 6 in

Northing: 901869.000
Easting: 590456.000
Surface Elev. (ft): 527.20
TOC Elev. (ft): 529.80
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 18.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing; 6in Bentonite/Grout; 6in Choker Sand-00; 2in; 6in Bentonite; 6in Choker Sand-00 | | GROUND SURFACE | | |
| | 0.0 | | | SW | Brown FMC SAND and MC sub round GRAVEL, trace Silt | | |
| 5 | 0.1 | | | | | | |
| | 0.1 | | | GW | Brown FMC SAND and FMC GRAVEL, trace Silt | | |
| | 0.0 | | | | | | |
| | 0.0 | | | SW | Dark Grey FM SAND and FMC sub angular GRAVEL, some Silt | | |
| 10 | 0.0 | | | | | | |
| | | | 6in Packer Sand- 2; 2in | SW | Grey FMC SAND and FMC sub angular GRAVEL | | |
| 15 | 0.0 | | | | | | |
| | | | 6in Bentonite | SM | Light Grey F SAND, some Grey Silt | | |
| 20 | 0.0 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-6

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/04/2021 | Northing | 901784.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/05/2021 | Easting | 590091.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 20.00 | Surface Elev. (ft) | 533.16 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 535.91 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 20.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing; 6in Bentonite/Grout; 2in; 6in Choker Sand-00; 6in Bentonite; 6in Choker Sand-00; 6in Packer Sand- 2; 2in | | GROUND SURFACE | | |
| | | | | Concrete | Cement, some metal | | |
| | | | | SC | Brown Clayey SILT and F Brown Sand, trace F angular Gravel | | |
| 5 | 0.0 | | | SW | Brown FMC SAND (damp) | | |
| 10 | 0.0 | | | SM | Dark Grey Clayey SILT and FM SAND, trace FMC sub rounded Gravel | | |
| 15 | 0.0 | | | | | | |
| 20 | 0.0 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-7

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/04/2021 | Northing | 901764.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/05/2021 | Easting | 590278.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 20.00 | Surface Elev. (ft) | 532.34 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 535.05 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 20.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | Concrete | Broken concrete, metal, some FMC | | |
| | | | 6in Bentonite/Grout | ML | Brown Sand<br>Tan Clayey SILT | | |
| 5 | 0.0 | | 2in<br>6in Choker Sand-00 | | | | |
| | 0.1 | | 6in Bentonite | | | | |
| | 0.1 | | 6in Choker Sand-00 | SM | Grey FM SAND, Grey Clayey Silt lens | | |
| 10 | 0.0 | | | SM | Light Grey-Tan FM SAND, some Tan Clayey Silt (damp) | | |
| | 0.0 | | | | | | |
| | 0.2 | | | SW | Black FMC SAND, trace F sub round Gravel | | |
| | 0.3 | | 6in Packer Sand- 2 | | | | |
| 15 | 0.1 | | 2in | | | | |
| | 0.1 | | | | | | |
| | 0.1 | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-8

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/06/2021 | Northing | 901721.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/06/2021 | Easting | 590719.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 20.00 | Surface Elev. (ft) | 527.12 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 529.49 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 20.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | SW | Brown FMC SAND and FM ground Gravel, some fine Silt | | |
| | | | 6in Bentonite/Grout | ML | Light Grey Clayey SILT with White streaks of gypsum | | |
| 5 | 0.0 | | 2in 6in Choker Sand-00 | | | | |
| | | | 6in Bentonite | | | | |
| | | | 6in Choker Sand-00 | ML | Black SILT, some root material | | |
| | | | | CL | Dark Grey-Light Grey slightly silty CLAY | | |
| 10 | 0.0 | | | ML | Light Grey Clayey SILT, some MC angular Gravel | | |
| | | | | ML | Light Grey Clayey SILT (damp to wet) | | |
| 15 | 0.0 | | 6in Packer Sand- 2 2in | | | | |
| 20 | 0.0 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-9

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/06/2021
Completion Date: 10/06/2021
Borehole Depth (ft bgs): 20.00
Borehole Dia. (in): 6 in

Northing: 901604.000
Easting: 590374.000
Surface Elev. (ft): 532.01
TOC Elev. (ft): 534.31
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 20.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | Asphalt | Asphalt, Brown FM SAND, some FM angular Gravel | | |
| | | | 6in Bentonite/Grout | ML | Grey Clayey SILT (odor) | | |
| | 0.0 | | 2in | | | | |
| 5 | 0.0 | | 6in Choker Sand-00 | | | | |
| | 0.1 | | 6in Bentonite | ML | Grey Clayey SILT (saturated) (odor) | | |
| | 0.2 | | 6in Choker Sand-00 | | | | |
| | 0.2 | | | | | | |
| | 0.2 | | | | | | |
| 10 | 0.5 | | | | | | |
| | 0.6 | | | ML | Grey Clayey SILT (saturated) (strong odor) | | |
| | 0.4 | | | | | | |
| | 6.1 | | | | | | |
| | 25.3 | | 6in Packer Sand- 2 | | | | |
| 15 | 74.4 | | 2in | | | | |
| | 45.9 | | | ML | Grey Clayey SILT (saturated) (strong odor) | | |
| | 24.5 | | | | | | |
| | 20.0 | | | | | | |
| | 15.8 | | | | | | |
| 20 | 21.8 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-10

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/06/2021
Completion Date: 10/06/2021
Borehole Depth (ft bgs): 20.00
Borehole Dia. (in): 6 in

Northing: 901443.000
Easting: 590447.000
Surface Elev. (ft): 534.81
TOC Elev. (ft): 537.23
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 20.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | Concrete | Concrete, metal, rebar | | |
| | | | 6in Bentonite/Grout | ML | Light Brown Clayey SILT, some FM Sand, trace FM angular Gravel | | |
| 5 | 0.0 | | 2in<br>6in Choker Sand-00<br>6in Bentonite | ML | Tan Clayey SILT (damp) | | |
| | | | 6in Choker Sand-00 | ML | Tan/Grey Clayey SILT (saturated) | | |
| 10 | 0.0 | | | ML | Grey Clayey SILT (saturated) | | |
| 15 | 0.0 | | 6in Packer Sand- 2<br>2in | | | | |
| 20 | 0.0 | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AMW-11

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/06/2021
Completion Date: 10/06/2021
Borehole Depth (ft bgs): 20.00
Borehole Dia. (in): 6 in

Northing: 901627.000
Easting: 590153.000
Surface Elev. (ft): 538.36
TOC Elev. (ft): 540.96
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 20.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | GP | Brown FM SAND and MC angular Gravel | | |
| | | | 6in Bentonite/Grout | ML | Tan Clayey SILT | | |
| | 0.0 | | 2in | | | | |
| 5 | 0.0 | | 6in Choker Sand-00 | SP | Brown FM SAND, trace Brown Silt, trace Cobbles | | |
| | 0.3 | | 6in Bentonite | | | | |
| | 0.3 | | 6in Choker Sand-00 | ML | Grey-Tan Clayey SILT | | |
| | 0.3 | | | SM | Black FM SAND, some Brown SILT, trace Cobbles | | |
| 10 | 0.2 | | | N/A | No recovery | | |
| | 0.3 | | 6in Packer Sand- 2 | SP | Black FM SAND, trace MC round Gravel | | |
| 15 | 0.2 | | 2in | SP | (wet) | | |
| | 0.1 | | | | Black FM SAND (wet) | | |
| | 0.1 | | | | | | |
| | 0.2 | | | | | | |
| | 0.2 | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** AP-101

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 09/23/2021
Completion Date: 09/23/2021
Borehole Depth (ft bgs): 52.00
Borehole Dia. (in): 6 in

Northing: 901309.000
Easting: 591523.000
Surface Elev. (ft): 524.92
TOC Elev. (ft): 527.42
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 50.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 4in Protective Casing | | GROUND SURFACE | | |
| | | | | SM | Topsoil, F Black SAND and SILT, organic material | | |
| | | | | ML | Tan Clayey SILT | | |
| 5 | 0.0 | | | | | | |
| 10 | 0.0 | | | ML | Light Grey Clayey SILT | | |
| | | | 6in Bentonite/Grout | ML | Light Grey Clayey SILT | | |
| | | | 2in | | | | |
| 15 | 0.0 | | | | | | |
| 20 | 0.0 | | | | | | |
| | | | 6in Choker Sand-00 | SW | Black FMC SAND, some FM sub round Gravel | | |
| | | | 6in Bentonite | | | | |
| 25 | 0.0 | | 6in Choker Sand-00 | SW | Black FMC SAND, some FMC sub round Gravel, trace Cobbles | | |
| 30 | 0.0 | | | SW | Black FMC sand, some m-f-c sub round gravel, trace m-f tan sand | | |
| 35 | 0.0 | | | SW | Black m-f-c sand, trace m-c-f sub round gravel, some grey silt | | |
| | | | 6in Packer Sand- 2 | | | | |
| 40 | 0.0 | | 2in | | | | |
| 45 | 0.0 | | | SW | Black m-f-c sand, some m-f-c sub round gravel Top of bedrock (Dolomite) 52 ft | | |
| 50 | 0.0 | | 6in Bentonite | | | | |

# Well Completion Log

TETRA TECH
Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** BP-101
**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

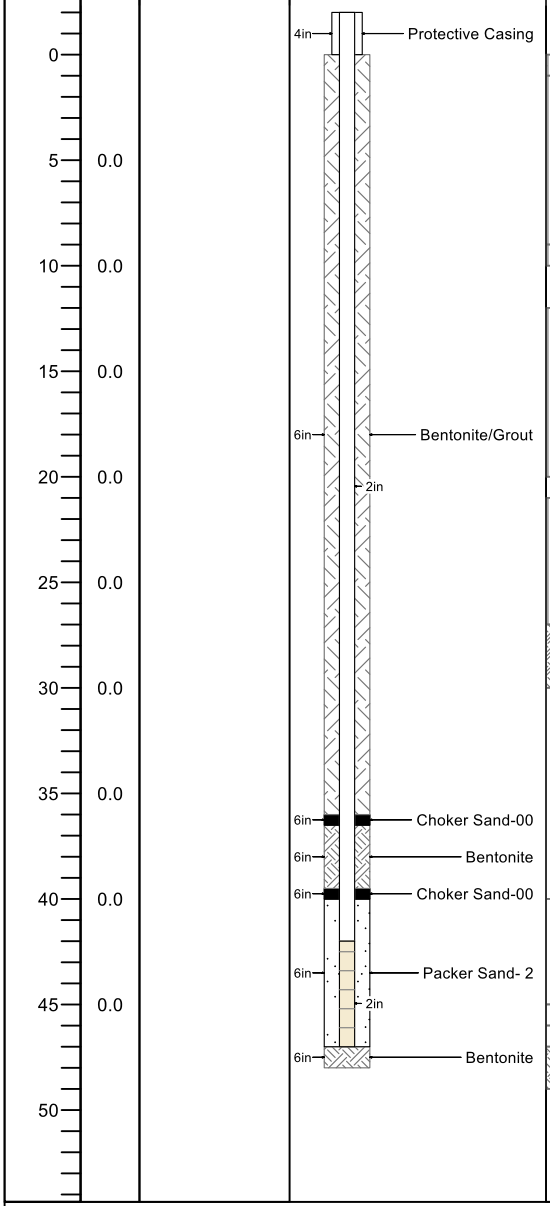
**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 09/23/2021 | Northing | 902301.000 |
| Drilled by | Tony Palomeque | Completion Date | 09/24/2021 | Easting | 590921.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 49.00 | Surface Elev. (ft) | 521.07 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 523.71 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 47.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:



# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-101

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 09/28/2021
Completion Date: 09/28/2021
Borehole Depth (ft bgs): 16.00
Borehole Dia. (in): 6 in

Northing: 901986.000
Easting: 589848.000
Surface Elev. (ft): 530.60
TOC Elev. (ft): 530.01
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 16.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Brown FM SAND and SILT (topsoil) | | |
| | | | 6in Bentonite/Grout | ML | Light Tan Clayey SILT, some FMC angular Gravel | | |
| 5 | 0.0 | | 2in | GM | Light Tan Clayey SILT and MF SAND, much MC sub angular Gravel | | |
| | | | 6in Choker Sand-00 | | | | |
| | | | 6in Bentonite | | | | |
| 10 | 0.0 | | 6in Choker Sand-00 | SM | Light Brown FM SAND and SILT (saturated) | | |
| | | | | SW | Brown FMC SAND, much MC sub angular Gravel | | |
| | | | 6in Packer Sand- 2 | | | | |
| 15 | 0.0 | | 2in | SP | Brown CM SAND and MC sub angular GRAVEL BEDROCK (dolomite) at 16ft | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH
Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-102
**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/05/2021 | Northing | 902328.000 |
| Drilled by | Tony Palomegue | Completion Date | 10/05/2021 | Easting | 590063.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 46.00 | Surface Elev. (ft) | 524.93 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 524.58 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 38.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Black MF SAND, some Silt, trace F Gravel (topsoil) | | |
| | | | | GM | Tan Clayey SILT, much MC angular Gravel (damp) | | |
| 5 | 0.6 | | | GP | Brown MC SAND and MC angular GRAVEL, trace SILT | | |
| | 0.6 | | | | | | |
| | 0.6 | | | GP | Grey MC sand and MCc angular GRAVEL, trace Silt | | |
| 10 | 0.7 | | | SW | Dark Grey FM SAND, some MC angular Gravel, trace Silt | | |
| | 0.7 | | 6in Bentonite/Grout | ML | Grey Clayey SILT, trace F Sand lens (damp) | | |
| | 0.8 | | 2in | | | | |
| | 0.8 | | | | | | |
| 15 | 0.2 | | | | | | |
| | 0.2 | | | | | | |
| 20 | 0.2 | | | ML | Brown Clayey SILT (damp) | | |
| | 0.0 | | 6in Choker Sand-00 | SP | Brown F SAND, some MC angular Gravel, trace Cobbles (saturated) | | |
| | | | 6in Bentonite | | | | |
| 25 | 0.0 | | 6in Choker Sand-00 | GW | FMC sub angular GRAVEL, some Cobbles, trace MC Sand (saturated) | | |
| 30 | 0.0 | | 6in Packer Sand- 2 | SP | Tan FMC SAND, much MC angular Gravel, some Silt (saturated) | | |
| | | | 2in | | | | |
| 35 | 0.0 | | | GM | Grey Clayey SILT and MC SAND, much MC sub round Gravel | | |
| | | | | ML | Grey Clayey SILT (damp) BEDROCK at 46 ft | | |
| 40 | 2.0 | | | | | | |
| | 1.9 | | 6in Bentonite | | | | |
| | 1.8 | | | | | | |
| 45 | 1.6 | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-103D

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 09/27/2021
Completion Date: 09/28/2021
Borehole Depth (ft bgs): 49.00
Borehole Dia. (in): 6 in

Northing: 902209.000
Easting: 589956.000
Surface Elev. (ft): 527.25
TOC Elev. (ft): 526.50
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 49.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Brown FM SAND and SILT, organic materials | | |
| | | | | ML | Light Tan Clayey SILT | | |
| 5 | 0.0 | | | ML | Tan Clayey SILT, trace FMC Gravel | | |
| 10 | 0.0 | | | ML | Tan Clayey SILT, some FMC sub angular Gravel | | |
| 15 | 0.0 | | 6in Bentonite/Grout | | | | |
| 20 | 0.0 | | 2in | ML | Tan Clayey SILT | | |
| | | | | ML | Light Grey Clayey SILT with FMC sub angular Gravel | | |
| 25 | 0.0 | | | GM | Light Grey Clayey SILT, much FMC angular Gravel, trace sub angular Cobbles | | |
| 30 | 0.0 | | | ML | Light Grey Clayey SILT and MFC angular GRAVEL | | |
| | 0.0 | | 6in Choker Sand-00 | | | | |
| 35 | | | 6in Bentonite | Rock | Dolomite BEDROCK | | |
| | | | 6in Choker Sand-00 | | | | |
| 40 | | | 6in Packer Sand- 2 | | | | |
| 45 | | | 2in | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-103S

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

| | | | | | |
|---|---|---|---|---|---|
| Drilling Contractor | Aquifer Drilling and Testing Inc. | Start Date | 10/05/2021 | Northing | 902203.000 |
| Drilled by | Tony Palomeque | Completion Date | 10/05/2021 | Easting | 589953.000 |
| Logged by | Dan Wheeler | Borehole Depth (ft bgs) | 32.00 | Surface Elev. (ft) | 527.22 |
| Drill Rig | Track Mounted | Borehole Dia. (in) | 6 in | TOC Elev. (ft) | 526.92 |
| Drilling Method | Sonic | | | Water (ft. btoc) | |
| Sample Method | | | | Horizontal Datum | |
| | | | | Vertical Datum | |

**Well**

| | |
|---|---|
| Well Depth (ft bgs) | 20.00 |
| Casing Type | PVC |
| Casing Dia. (in) | 2 in |
| Screen Type | PVC |
| Slot Size | 10 |
| Development | Over Pumping |

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Topsoil, roots, Black FM SAND and SILT | | |
| | | | | GM | Tan Clayey SILT, MF angular Gravel, some MF Tan Sand | | |
| 5 | 0.0 | | 6in Bentonite/Grout; 2in | | | | |
| 10 | 0.0 | | 6in Choker Sand-00; 6in Bentonite; 6in Choker Sand-00 | GW | Brown FMC SAND, FMC sub round Gravel | | |
| 15 | 0.0 | | | ML | Tan Clayey SILT, trace F Gravel | | |
| | | | 6in Packer Sand- 2; 2in | ML | Tan Clayey SILT and FM Brown SAND lens, trace FM Gravel | | |
| 20 | 0.0 | | | ML | Grey Clayey SILT, some MC angular Gravel | | |
| | | | | SW | Grey FMC SAND and FM sub round GRAVEL | | |
| 25 | 0.0 | | 6in Bentonite | ML | Grey Clayey SILT | | |
| | | | | GM | Grey Clayey SILT and MC angular GRAVEL | | |
| 30 | 0.0 | | | SP | Black FM SAND, some FM sub round Gravel | | |
| | | | | ML | Grey Clayey SILT BEDROCK at 32ft | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-104

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 10/01/2021
Completion Date: 10/01/2021
Borehole Depth (ft bgs): 27.00
Borehole Dia. (in): 6 in

Northing: 902235.000
Easting: 589785.000
Surface Elev. (ft): 524.76
TOC Elev. (ft): 527.00
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 27.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | FM SAND and SILT, some FM sub round Gravel (topsoil) | | |
| | | | | Fill | Light Tan Clayey SILT and MC angular GRAVEL, some F Sand | | |
| 5 | 0.0 | | 6in Bentonite/Grout | | | | |
| | | | 2in | | | | |
| 10 | 0.0 | | | ML | Tan Clayey SILT | | |
| | | | | ML | Tan Clayey SILT, some FM Sand (damp) | | |
| | | | 6in Choker Sand-00 | | | | |
| | | | 6in Bentonite | | | | |
| 15 | 0.0 | | 6in Choker Sand-00 | | | | |
| 20 | 0.0 | | 6in Packer Sand- 2 | ML | Tan Clayey SILT and FM sand (saturated) | | |
| | | | 2in | | | | |
| 25 | 0.0 | | | ML | Tan Clayey SILT, some MC Gravel (saturated) | | |
| | 0.0 | | | ML | | | |
| | | | | | Light Grey Clayey SILT, some FM angular Gravel, trace F Sand (damp) Dolomite BEDROCK at 27 ft | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

TETRA TECH

Cornerstone Engineering and Geology, PLLC

**Client** NEPERA **Well ID** MH-105D

**Project** NEPERA **Location** Harriman, NY **Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 09/30/2021
Completion Date: 09/30/2021
Borehole Depth (ft bgs): 34.00
Borehole Dia. (in): 6 in

Northing: 902138.000
Easting: 589635.000
Surface Elev. (ft): 530.50
TOC Elev. (ft): 530.15
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 34.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Topsoil; Brown FM SAND and SILT, some FM sub angular Gravel | | |
| | | | | Fill | Light Tan Clayey SILT and MF angular GRAVEL, much MF Sand, trace Cobbles | | |
| 5 | 0.0 | | | | | | |
| 10 | 0.0 | | 6in Bentonite/Grout; 2in | SW | Light Grey FMC SAND and FMC angular GRAVEL, trace Grey Silt | | |
| 15 | 0.0 | | | SW | Brown FMC SAND and MC angular GRAVEL, trace Silt | | |
| 20 | 0.0 | | 6in Choker Sand-00; 6in Bentonite; 6in Choker Sand-00 | SW | Grey FMC SAND, trace FMC angular Gravel | | |
| | | | | Rock | Dolomite BEDROCK | | |
| 25 | | | | | | | |
| | | | 6in Packer Sand- 2; 2in | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

# Well Completion Log

**Client** NEPERA **Well ID** MH-105S

**Project** NEPERA **Location** Harriman, NY

TETRA TECH
Cornerstone Engineering and Geology, PLLC
**Project No.** 209-4213584

**Drilling**

Drilling Contractor: Aquifer Drilling and Testing Inc.
Drilled by: Tony Palomeque
Logged by: Dan Wheeler
Drill Rig: Track Mounted
Drilling Method: Sonic

Start Date: 09/30/2021
Completion Date: 09/30/2021
Borehole Depth (ft bgs): 19.00
Borehole Dia. (in): 6 in

Northing: 902135.000
Easting: 589639.000
Surface Elev. (ft): 530.78
TOC Elev. (ft): 530.18
Water (ft. btoc):
Horizontal Datum:
Vertical Datum:

Sample Method:

**Well**

Well Depth (ft bgs): 18.00
Casing Type: PVC
Casing Dia. (in): 2 in
Screen Type: PVC
Slot Size: 10
Development: Over Pumping

Notes:

| DEPTH (FT) | PID (PPM) | LAB SAMPLE | WELL DETAILS | USCS SOIL TYPE | SOIL / ROCK DESCRIPTION | STRATA | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | 6in Cement | | GROUND SURFACE | | |
| | | | | SM | Brown FM SAND and SILT, some FM sub round Gravel, roots | | |
| | | | | SM | Tan Clayey SILT and FM SAND, some FMC angular Gravel | | |
| 5 | 0.0 | | 6in Bentonite/Grout | GM | Brown Clayey SILT and FMC angular GRAVEL, some FMC Brown Sand; damp | | |
| | | | 2in | | | | |
| 10 | 0.0 | | 6in Choker Sand-00 | | | | |
| | | | 6in Bentonite | | | | |
| | | | 6in Choker Sand-00 | | | | |
| | | | | GW | Grey MC SAND and FM sub angular GRAVEL, trace Silt | | |
| 15 | 0.0 | | 6in Packer Sand- 2 | SW | Brown FM SAND and MC angular GRAVEL, trace Silt (saturated) | | |
| | | | 2in | | | | |
| | | | | SW | Grey FMC SAND and FMC GRAVEL, trace Silt (damp) BEDROCK at 19ft | | |
| 20 | 0.0 | | 6in Bentonite | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |
| 35 | | | | | | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | | | | | | | |

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|---|---|
| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 1S** |
| | **Location of Boring: staked** |
| **Client**: LBG Tom Cusack | **Date Started: 2/2/07** |
| **Remarks**: *= samples taken with 300 lb. hammer | **Date Finished: 2/2/07** |

| Casing Hammer | Sample Hammer | Ground Water Observations | | | |
|---|---|---|---|---|---|
| Wt. 300 | Wt. 140 | Date | Time | Depth | Casing at |
| Fall 24 | Fall 30 | | | | |
| Ground Elev. | O.D. Spoon 2" | | | | |
| | I.D. Casing 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | 1 | 4*-4* | 0-6" | topsoil |
| | | | 8*-11* | 6"-3' | Light brown sand with concrete |
| | | | | 3'-5' | Dark brown coarse to fine sand, trace of gravel (fill) |
| | | 2 | 4*-3* | | |
| 5 | | | 2*-1* | 5'-7' | Light brown coarse to fine sand with coarse to fine gravel |
| | | 3 | 3*-6* | | |
| | | | 9*-7* | 7'-21' | Brown coarse to fine sand, little coarse to fine gravel |
| | | 4 | 5*-7* | | |
| | | | 7*-14* | | |
| 10 | | 5 | 10*-5* | | |
| | | | 4*-5* | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 15 | | 6 | 5*-4* | | |
| | | | 2*-4* | | |
| | | | | | |
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| | | | | | |
| 20 | | | | | |
| | | | | | EOB 21' |
| | | | | | Note: Installed 2" PVC Screen 21'-11' |
| | | | | | Sand to 8' |
| | | | | | Benonite seal 8'-2' |
| 25 | | | | | 4" protective casing cap & lock |
| | | | | | |

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| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 2S** |
| | **Location of Boring: staked** |
| **Client**: LBG Tom Cusack | **Date Started: 2/2/07** |
| **Remarks**: *= samples taken with 300 lb. hammer | **Date Finished: 2/2/07** |

| Casing Hammer | Sample Hammer | Ground Water Observations | | | |
|---|---|---|---|---|---|
| Wt. 300 | Wt. 140 | Date | Time | Depth | Casing at |
| Fall 24 | Fall 30 | | | | |
| Ground Elev. | O.D. Spoon 2" | | | | |
| | I.D. Casing 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | | FIELD IDENTIFICATION OF SOIL & REMARKS |
|---|---|---|---|---|---|
| | | | | | No samples |
| | | | | | Installed 10' of 2" PVC Screen from 21'-11' |
| | | | | | Sand pack to 8' |
| | | | | | Benonite seal 8'-2' |
| 5 | | | | | 4" Protective casing cap & lock |
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| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 2D** |
| | **Location of Boring: staked** |
| **Client**: LBG Tom Cusack | **Date Started: 2/1/07** |
| **Remarks**: *= samples taken with 300 lb. hammer | **Date Finished: 2/2/07** |

| Casing Hammer | Sample Hammer | Ground Water Observations | | | |
|---|---|---|---|---|---|
| Wt. 300 | Wt. 140 | Date | Time | Depth | Casing at |
| Fall 24 | Fall 30 | | | | |
| Ground Elev. | O.D. Spoon 2" | | | | |
| | I.D. Casing 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | 1 | 4*-4* | 0-6" | Topsoil |
| | | | 3*-3* | 6"-3' | Brown medium to fine sand, some dark sand, trace of fill |
| | | | | 3'-5' | Brown coarse to fine sand, trace of coarse to fine gravel, |
| | | 2 | 5*-6* | | Probable fill |
| 5 | | | 8*-10* | 5'-37' | Brown coarse to fine sand, trace of silt trace of medium to fine |
| | | 3 | 10*-8* | | gravel |
| | | | 3*-3* | | Dry to 11' |
| | | 4 | 3*-3* | | |
| | | | 4*-4* | | |
| 10 | | 5 | 4*-4* | | |
| | | | 4*-4* | | |
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| 15 | | 6 | 5*-5* | | |
| | | | 6*-6* | | |
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| 20 | | 7 | 5*-5* | | |
| | | | 6*-5* | | |
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| 25 | | 8 | 5*-4* | | |
| | | | 4*-5* | | |

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**KENDRICK ENTERPRISES, LTD.**



**JOB # 3053-07** **BORING # 2D**

| Depth below gnd. Surf. | Casing blows per ft. | Sample no. | Blows on Sample Spoon per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| 30 | | 9 | 5*-6* | | |
| | | | 6*-6* | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 35 | | 10 | 4*-6* | | |
| | | | 6*-5* | | |
| | | | | 37'-40'6" | Compact light brown medium to fine sand, trace of coarse to |
| | | | | | Fine gravel and cobbles |
| | | | | | |
| 40 | | 11 | 15*-15* | 40'6"-44'6" | Roller bit, very hard drilling, boulder or rock? |
| | | | 18*-50* | | |
| | | | | | |
| | | | | | |
| | | | | | EOB 44'6" |
| 45 | | | | | Note: installed 2" PVC screen from 38'-28' |
| | | | | | Riser to surface sand pack to 25', benonite seal |
| | | | | | 25'-22' protective casing cap & lock |
| | | | | | |
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| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 3S** |
| | **Location of Boring: staked** |
| **Client**: LBG Tom Cusack | **Date Started: 2/12/07** |
| **Remarks**: | **Date Finished: 2/13/07** |

| Casing Hammer | | Sample Hammer | | Ground Water Observations | | | |
|---|---|---|---|---|---|---|---|
| Wt. | 300 | Wt. | 140 | Date | Time | Depth | Casing at |
| Fall | 24 | Fall | 30 | | | | |
| Ground Elev. | | O.D. Spoon | 2" | | | | |
| | | I.D. Casing | 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS |
|---|---|---|---|---|
| | | | | No samples |
| | | | | Installed 2" PVC Screen 14'-4' |
| | | | | Sand pack to 3' |
| | | | | Benonite seal 3'-1' |
| 5 | | | | 4" protective casing cap & lock |
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| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 3D** |
| | **Location of Boring: staked** |
| **Client**: LBG Tom Cusack | **Date Started: 2/12/07** |
| **Remarks**: * = 300lb hammer used for samples | **Date Finished: 2/12/07** |

| Casing Hammer | | Sample Hammer | | Ground Water Observations | | | |
|---|---|---|---|---|---|---|---|
| Wt. | 300 | Wt. | 140 | Date | Time | Depth | Casing at |
| Fall | 24 | Fall | 30 | | | | |
| Ground Elev. | | O.D. Spoon | 2" | | | | |
| | | I.D. Casing | 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | 1 | 1-4 | 0-5' | Misc. fill |
| | | | 3-3 | 5'-6' | Gray coarse to fine sand some clay |
| | | | | | |
| | | 2 | 3-3 | | |
| 5 | | | 2-3 | | |
| | | 3 | PU | 6'-7' | Brown peat |
| | | | SH | 7'-12' | Brown coarse to fine sand, trace of coarse to fine gravel, |
| | | 4 | PU | | Trace of silt |
| | | | SH | | |
| 10 | | 5 | PU | | |
| | | | SH | | |
| | | | | 12'-16' | Brown fine sand, trace of silt, trace of lenses of clay |
| | | | | | |
| | | | | | |
| 15 | | 6 | PU | | |
| | | | SH | 16'-28' | Brown silty fine sand with pockets of brown medium to fine |
| | | | | | Sand. |
| | | | | | |
| | | | | | |
| 20 | | 7 | PU | | |
| | | | SH | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 25 | | 8 | PU | | |
| | | | SH | | |

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|---|---|---|---|---|---|
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**KENDRICK ENTERPRISES, LTD.**



**JOB #3053-07** **BORING # 3D**

| Depth below gnd. Surf. | Casing blows per ft. | Sample no. | Blows on Sample Spoon per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | | | 28'-33' | Brown coarse to fine sand, little coarse to fine gravel, trace |
| | | | | | Of silt |
| 30 | | 9 | 10*-9* | | |
| | | | 8*-10* | | |
| | | | | | |
| | | | | 33'-38' | Probable limestone boulders |
| | | | | | |
| 35 | | 10 | 29*-100* | | |
| | | | | | |
| | | | | | |
| | | | | | EOB 38' |
| | | | | | Note: installed 2" PVC Screen 35'-25' |
| 40 | | | | | Sand to 20' |
| | | | | | Seal 20'-15' |
| | | | | | 4" Pro casing |
| | | | | | |
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| **Kendrick Enterprises, Ltd.**<br>63 Black Meadow Road<br>Chester, New York 10918 | 845-469-2266<br>845-469-2443 FAX **JOB # 3053-07** |
| **Project: Harriman Park** | **Borings # 4** |
| | **Location of Boring:** |
| **Client**: LBG Tom Cusack | **Date Started: 2/1/07** |
| **Remarks**: *= samples taken with 300 lb. hammer | **Date Finished: 2/1/07** |

| Casing Hammer | Sample Hammer | Ground Water Observations | | | |
|---|---|---|---|---|---|
| Wt. 300 | Wt. 140 | Date | Time | Depth | Casing at |
| Fall 24 | Fall 30 | | | | |
| Ground Elev. | O.D. Spoon 2" | | | | |
| | I.D. Casing 4" | Driller: TJ Kendrick | | | |

| Depth below gnd. Surf | Casing blows per ft. | Sample no. | Blows on Sample Spoon Per 6" | FIELD IDENTIFICATION OF SOIL & REMARKS | |
|---|---|---|---|---|---|
| | | 1 | 1-4 | 0-1' | Topsoil |
| | | | 5-3 | 1'-7' | Brown coarse to fine sand, trace of fine gravel, trace of silt |
| | | | | | |
| | | 2 | 2-1 | | |
| 5 | | | 1-1 | | Wet around 5'-6' |
| | | 3 | 1-1 no | | |
| | | | 1-1 rec. | 7'-9' | Gray silt and clay with coarse to fine sand |
| | | 4 | 1-1 | | |
| | | | 1-3 | 9'-10' | Brown organic silt |
| 10 | | 5 | 3-3 | 10'-10'3" | Gray silty clay |
| | | | 2-1 | 10'3"-10'6" | Gray coarse to fine sand |
| | | | | 10'6"-13'6" | Brown coarse to fine sand, trace of medium to fine gravel |
| | | | | 13'6"-15'6" | Lime stone boulder |
| | | | | | |
| 15 | | | | | EOB 15'6" |
| | | | | | Note: installed 2" PVC well 10' screen |
| | | | | | 5' Riser & 2' 4" stickup, protective casing installed |
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# Appendix D: Groundwater Investigation Field Data Sheets

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 08/05/20
WEATHER: Mostly SUNNY, Warm, 85°F

CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DAW

MONITOR WELL #: F-GW-04
WELL PERMIT #: —
WELL DEPTH: 15
WELL DIAMETER: 1" inches
SCREENED/OPEN INTERVAL: 10-15
Horiba SIN WY106NXB

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —

Tubing ~~PUMP~~ INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.55 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1535 | X | | 6.83 | NA | 3.48 | NA | -241 | NA | 4.85 | NA | 77.2 | NA | 13.04 | NA | 500 | |
| 1540 | X | | 6.83 | | 3.50 | | -245 | | 4.62 | | 60.3 | | 13.00 | | 500 | |
| 1545 | X | | 6.82 | | 3.55 | | -249 | | 4.35 | | 45.5 | | 12.91 | | 500 | |
| 1550 | X | | 6.84 | | 3.60 | | -251 | | 4.31 | | 44.0 | | 12.93 | | 500 | |
| 1555 | X | | 6.86 | | 3.58 | | -253 | | 4.34 | | 41.5 | | 12.92 | | 500 | |
| 1600 | X | | 6.88 | | 3.58 | | -258 | | 4.31 | | 40.1 | | 12.90 | | 500 | |
| 1605 | X | | 6.90 | | 3.58 | | -260 | | 4.29 | | 38.9 | | 12.88 | | 500 | |
| 1610 | X | | 6.90 | | 3.56 | | -260 | | 4.24 | | 39.5 | | 12.85 | | 500 | |
| 1615 | | X | 6.89 | | 3.54 | | -262 | | 4.20 | | 40.7 | | 12.83 | | 500 | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

Sampled F-GW-04-10-15 at 1615

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 08/06/20
WEATHER: cloudy, overcast, 74°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DAW

MONITOR WELL #: F-GW-03
WELL PERMIT #: –
WELL DEPTH: 20
WELL DIAMETER: 1" inches
SCREENED/OPEN INTERVAL: 15-20
Horiba S/N WY106NXR

PID/FID READINGS (ppm):
BACKGROUND: –
BENEATH OUTER CAP: –
BENEATH INNER CAP: –
Tubing ~~PUMP~~ INTAKE DEPTH: 19 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.80 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1045 | X | | 7.36 | NA | 0.448 | NA | 77 | NA | 8.28 | NA | 42.9 | NA | 17.91 | NA | 400 | – |
| 1050 | X | | 7.03 | | 0.426 | | 78 | | 6.55 | | 43.5 | | 16.21 | | 400 | – |
| 1055 | X | | 6.99 | | 0.418 | | 78 | | 6.01 | | 44.9 | | 16.57 | | 400 | – |
| 1100 | X | | 6.97 | | 0.405 | | 78 | | 5.50 | | 45.1 | | 16.90 | | 400 | – |
| 1105 | X | | 7.03 | | 0.412 | | 80 | | 4.95 | | 44.5 | | 17.00 | | 400 | – |
| 1110 | X | | 7.06 | | 0.418 | | 83 | | 5.01 | | 43.0 | | 17.03 | | 400 | – |
| 1115 | X | | 7.11 | | 0.421 | | 80 | | 5.13 | | 43.8 | | 17.10 | | 400 | – |
| 1120 | X | | 7.15 | | 0.420 | | 80 | | 5.09 | | 44.2 | | 17.12 | | 400 | – |
| 1125 | | X | 7.18 | | 0.420 | | 81 | | 5.00 | | 45.6 | | 17.16 | | 400 | – |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

Sampled F-GW-03 – 15-20 at 1125

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 08/08/20
WEATHER: mostly cloudy, warm 77°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DAW

MONITOR WELL #: F-GW-02
WELL PERMIT #: —
WELL DEPTH: 15
WELL DIAMETER: 1" inches
SCREENED/OPEN INTERVAL: 10-15
Horiba S/N WY106NXB

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
Tubing ~~PUMP~~ INTAKE DEPTH: 14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.65 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1625 | X | | 7.81 | NA | 0.852 | NA | -74 | NA | 5.04 | NA | 98.1 | NA | 15.96 | NA | 400 | — |
| 1630 | X | | 7.78 | | 0.838 | | -89 | | 4.19 | | 87.5 | | 16.10 | | 400 | — |
| 1635 | X | | 7.72 | | 0.822 | | -100 | | 3.95 | | 80.3 | | 16.23 | | 400 | — |
| 1640 | X | | 7.66 | | 0.800 | | -118 | | 3.05 | | 77.1 | | 16.28 | | 400 | — |
| 1645 | X | | 7.64 | | 0.797 | | -134 | | 2.63 | | 63.5 | | 16.35 | | 400 | — |
| 1650 | X | | 7.68 | | 0.800 | | -120 | | 2.50 | | 50.1 | | 16.40 | | 400 | — |
| 1655 | X | | 7.73 | | 0.807 | | -119 | | 2.48 | | 47.8 | | 16.38 | | 400 | — |
| 1700 | X | | 7.74 | | 0.810 | | -121 | | 2.41 | | 49.3 | | 16.35 | | 400 | — |
| 1705 | X | | 7.75 | | 0.812 | | -121 | | 2.34 | | 48.5 | | 16.40 | | 400 | — |
| 1710 | | X | 7.74 | | 0.815 | | -120 | | 2.28 | | 47.3 | | 16.38 | | 400 | — |
| | | | | | | | | | | | | | | | | |

COMMENTS:

Dup-01 / Sampled F-GW-02-10-15 at 1710

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
CONSULTING FIRM: CEG / TE
DATE: 08/08/20
FIELD PERSONNEL: DAW
WEATHER: Mostly Sunny, warm, 85°F

MONITOR WELL #: F-GW-01
WELL DEPTH: 15
SCREENED/OPEN INTERVAL: 10-15
WELL PERMIT #: —
WELL DIAMETER: 1" inches
Horiba S/N WYI06NXB

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
Tubing ~~PUMP~~ INTAKE DEPTH: 14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.51 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0645 | X | X | 7.86 | NA | 0.433 | NA | 46 | NA | 5.95 | NA | 145 | NA | 16.30 | NA | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | X | | | | | | | | | | | | | | ~~360~~ | — |
| | | X | | | | | | | | | | | | | ~~360~~ | — |
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COMMENTS: 3 volume purge * High Turbidity / Low Volume of GW
Sampled F-GW-01-10-15 at 0635

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 08/07/20
WEATHER: overcast, muggy, 70°F

CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DAW

MONITOR WELL #: G-GW-01
WELL PERMIT #: —
WELL DEPTH: 15
WELL DIAMETER: 1" inches
SCREENED/OPEN INTERVAL: 10-15
Horiba S/N WY106NXB

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —

Tubing ~~PUMP~~ INTAKE DEPTH: 14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.95 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0720 | | X | 7.23 | NA | 1.06 | NA | 67 | NA | 3.32 | NA | 225 | NA | 16.21 | NA | — | — |
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COMMENTS: 3 volume purge / Low volume of GW / High turbidity
Sampled G-GW-01-10-15 at 0715

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 09/09/20
WEATHER: Mostly cloudy, warm, 79°F
CONSULTING FIRM: CEG / TT
FIELD PERSONNEL: RBL / DAW

MONITOR WELL #: MW-203
WELL PERMIT #: -
WELL DEPTH: 35
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 25-35
Horiba SN 16H5H3NW

PID/FID READINGS (ppm): BACKGROUND: -
BENEATH OUTER CAP: -
BENEATH INNER CAP: -
PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.18 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1015 | X | | 7.75 | NA | 1.00 | NA | -37 | NA | 10.99 | NA | 489 | NA | 14.61 | NA | 480 | 8.35 |
| 1020 | X | | 7.40 | | 0.996 | | -35 | | 9.62 | | 554 | | 14.52 | | 480 | 8.32 |
| 1025 | X | | 6.99 | | 0.986 | | -31 | | 7.80 | | 404 | | 14.63 | | 480 | 8.33 |
| 1030 | X | | 6.90 | | 0.983 | | -30 | | 7.00 | | 205 | | 14.51 | | 480 | 8.32 |
| 1035 | X | | 6.83 | | 0.980 | | -30 | | 6.62 | | 167 | | 14.39 | | 480 | 8.32 |
| 1040 | X | | 6.78 | | 0.974 | | -29 | | 5.79 | | 104 | | 14.31 | | 480 | 8.32 |
| 1045 | X | | 6.72 | | 0.970 | | -27 | | 5.32 | | 55.3 | | 14.26 | | 480 | 8.32 |
| 1050 | X | | 6.69 | | 0.966 | | -25 | | 5.12 | | 36.1 | | 14.22 | | 480 | 8.32 |
| 1055 | X | | 6.64 | | 0.965 | | -23 | | 5.00 | | 36.5 | | 14.17 | | 480 | 8.32 |
| 1100 | X | | 6.57 | | 0.960 | | -20 | | 4.85 | | 37.0 | | 14.08 | | 480 | 8.32 |
| 1105 | | X | 6.55 | | 0.959 | | -20 | | 4.72 | | 36.5 | | 14.09 | | 480 | 8.32 |

COMMENTS:

Sampled MW-203-MS/MSD at 1105

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ___ OF ___

SITE: NEPERA
DATE: 09/09/20
WEATHER: mostly sunny, warm 78°F
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-9S
WELL PERMIT #: –
WELL DEPTH: 21.5
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 11.5 - 21.5
Horiba SN 16H5H3NW

PID/FID READINGS (ppm):
BACKGROUND: –
BENEATH OUTER CAP: –
BENEATH INNER CAP: –
PUMP INTAKE DEPTH: 16.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.92 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1140 | X | | 7.08 | NA | 0.943 | NA | 83 | NA | 0.00 | NA | 113 | NA | 16.14 | NA | 480 | 6.14 |
| 1145 | X | | 7.08 | | 0.943 | | 83 | | 0.00 | | 99.5 | | 16.15 | | 480 | 6.14 |
| 1150 | X | | 7.07 | | 0.943 | | 84 | | 0.00 | | 81.3 | | 16.18 | | 480 | 6.15 |
| 1155 | X | | 7.07 | | 0.943 | | 85 | | 0.00 | | 72.8 | | 16.21 | | 480 | 6.15 |
| 1200 | X | | 7.02 | | 0.930 | | 96 | | 0.00 | | 60.5 | | 16.15 | | 480 | 6.15 |
| 1205 | X | | 7.07 | | 0.931 | | 120 | | 0.00 | | 51.9 | | 16.10 | | 480 | 6.15 |
| 1210 | X | | 7.07 | | 0.931 | | 121 | | 0.00 | | 38.1 | | 16.08 | | 480 | 6.15 |
| 1215 | X | | 7.10 | | 0.930 | | 121 | | 0.00 | | 31.3 | | 16.12 | | 480 | 6.15 |
| 1220 | X | | 7.11 | | 0.932 | | 122 | | 0.00 | | 25.8 | | 16.10 | | 480 | 6.15 |
| 1225 | X | | 7.10 | | 0.933 | | 122 | | 0.00 | | 24.9 | | 16.12 | | 480 | 6.15 |
| 1230 | X | | 7.10 | | 0.934 | | 123 | | 0.00 | | 23.8 | | 16.11 | | 480 | 6.15 |
| COMMENTS: 1235 | | X | 7.10 | | 0.933 | | 123 | | 0.00 | | 24.0 | | 16.11 | | 480 | 6.15 |

MW-9S sampled at 1235

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

| | | | |
|---|---|---|---|
| **SITE:** | NEPERA | **CONSULTING FIRM:** | CEG |
| **DATE:** | 09/09/20 | **FIELD PERSONNEL:** | DAW / RSL |
| **WEATHER:** | SUNNY, WARM 80°F | | |

**MONITOR WELL #:** MW-202 **WELL DEPTH:** 30 **SCREENED/OPEN INTERVAL:** 20-30
**WELL PERMIT #:** — **WELL DIAMETER:** 2" inches Horiba SN 16H5AJNW

**PID/FID READINGS (ppm):** **BACKGROUND:** — **BENEATH OUTER CAP:** — **BENEATH INNER CAP:** —

**PUMP INTAKE DEPTH:** 25 ft below TOC
**DEPTH TO WATER BEFORE PUMP INSTALLATION :** 6.66 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1300 | X | | 7.26 | NA | 3.63 | NA | 15 | NA | 0.25 | NA | 64.3 | NA | 18.93 | NA | 480 | 8.01 |
| 1305 | X | | 7.25 | | 3.65 | | 11 | | 0.00 | | 53.1 | | 18.05 | | 480 | 8.21 |
| 1310 | X | | 7.25 | | 3.69 | | 9 | | 0.00 | | 49.7 | | 17.87 | | 480 | 8.35 |
| 1315 | X | | 7.25 | | 3.70 | | 5 | | 0.54 | | 38.9 | | 18.00 | | 480 | 8.91 |
| 1320 | X | | 7.25 | | 3.70 | | 3 | | 0.05 | | 31.4 | | 17.92 | | 480 | 9.50 |
| 1325 | X | | 7.25 | | 3.73 | | 2 | | 0.00 | | 32.9 | | 17.57 | | 480 | 9.65 |
| 1330 | X | | 7.25 | | 3.73 | | 1 | | 0.00 | | 31.3 | | 17.57 | | 480 | 9.69 |
| 1335 | X | | 7.24 | | 3.70 | | 1 | | 0.00 | | 30.9 | | 17.54 | | 480 | 9.71 |
| 1340 | X | | 7.24 | | 3.70 | | -1 | | 0.00 | | 30.5 | | 17.50 | | 480 | 9.73 |
| 1345 | X | | 7.25 | | 3.71 | | -1 | | 0.00 | | 29.1 | | 17.45 | | 480 | 9.75 |
| 1350 | | X | 7.24 | | 3.70 | | 0 | | 0.00 | | 28.0 | | 17.40 | | 480 | 9.78 |

**COMMENTS:**

MW-202 sampled at 1350

***INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 09/09/20
WEATHER: mostly & cloudy, warm 80°F

CONSULTING FIRM: CEG
FIELD PERSONNEL: DAW / RJL

MONITOR WELL #: MW-21S
WELL PERMIT #: —
WELL DEPTH: 25
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 15-25

PID/FID READINGS (ppm): Horiba BN 16H 5H 3NW
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —

PUMP INTAKE DEPTH: 20 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 19.78 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1415 | X | | 7.74 | NA | 0.993 | NA | 154 | NA | 7.01 | NA | 76.5 | NA | 13.31 | NA | 480 | 20.19 |
| 1420 | X | | 7.43 | | 0.995 | | 171 | | 6.88 | | 21.2 | | 12.76 | | 480 | 20.21 |
| 1425 | X | | 7.20 | | 0.996 | | 184 | | 5.51 | | 18.8 | | 12.71 | | 480 | 20.20 |
| 1430 | X | | 7.05 | | 0.998 | | 192 | | 3.94 | | 15.1 | | 12.66 | | 480 | 20.19 |
| 1435 | X | | 7.03 | | 0.995 | | 201 | | 3.00 | | 14.3 | | 12.65 | | 480 | 20.18 |
| 1440 | X | | 7.00 | | 0.995 | | 203 | | 2.81 | | 13.8 | | 12.65 | | 480 | 20.18 |
| 1445 | X | | 6.98 | | 0.994 | | 204 | | 2.63 | | 12.6 | | 12.65 | | 480 | 20.18 |
| 1450 | X | | 6.95 | | 0.996 | | 207 | | 2.65 | | 11.9 | | 12.67 | | 480 | 20.18 |
| 1455 | | X | 6.95 | | 0.998 | | 208 | | 2.60 | | 11.7 | | 12.71 | | 480 | 20.19 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

MW-21S sampled at 1455

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 2

SITE: NEPERA
DATE: 09/09/20
WEATHER: Mostly cloudy, 80°F
CONSULTING FIRM: CEC
FIELD PERSONNEL: DAW / RJL

MONITOR WELL #: MW-20S
WELL PERMIT #: —
WELL DEPTH: 27
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 17-27
Horiba SN 16H5TA3NW

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 22 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.83 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1520 | X | | 7.32 | NA | 0.811 | NA | -64 | NA | 8.32 | NA | 19.0 | NA | 14.45 | NA | 480 | 7.10 |
| 1525 | X | | 7.33 | | 0.800 | | -64 | | 8.00 | | 14.3 | | 14.63 | | 480 | 8.45 |
| 1530 | X | | 7.38 | | 0.771 | | -65 | | 7.75 | | 10.1 | | 14.75 | | 480 | 9.61 |
| 1535 | X | | 7.38 | | 0.756 | | -66 | | 7.41 | | 8.2 | | 14.82 | | 480 | 10.55 |
| 1540 | X | | 7.38 | | 0.780 | | -69 | | 7.38 | | 8.3 | | 14.64 | | 480 | 11.80 |
| 1545 | X | | 7.38 | | 0.780 | | -69 | | 7.38 | | 6.1 | | 14.83 | | 480 | 12.33 |
| 1550 | X | | 7.38 | | 0.775 | | -68 | | 7.38 | | 3.0 | | 14.96 | | 480 | 12.81 |
| 1555 | X | | 7.38 | | 0.781 | | -68 | | 7.38 | | 4.0 | | 14.94 | | 480 | 13.20 |
| 1600 | X | | 7.36 | | 0.789 | | -69 | | 7.35 | | 3.9 | | 14.92 | | 480 | 13.85 |
| 1605 | X | | 7.37 | | 0.780 | | -68 | | 7.35 | | 4.1 | | 14.94 | | 480 | 14.00 |
| 1610 | X | | 7.38 | | 0.800 | | -58 | | 6.21 | | 4.2 | | 15.00 | | 480 | 14.09 |

COMMENTS:

MW-20S Sampled at 1635

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET 2 OF 2

SITE: NEPERA
DATE: 09/09/20
WEATHER: mostly cloudy, 80°F, humid
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-20S
WELL PERMIT #: —
WELL DEPTH: 27
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 17-27
Horiba SN 16H5HJNW

PID/FID READINGS (ppm):
BACKGROUND: 0
BENEATH OUTER CAP: 0
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 22 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.83 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1610 | X | | 7.38 | NA | 0.800 | NA | -58 | NA | 6.21 | NA | 4.2 | NA | 15.00 | NA | 480 | 14.09 |
| 1615 | X | | 7.38 | | 0.810 | | -56 | | 5.00 | | 4.3 | | 15.05 | | 480 | 14.11 |
| 1620 | X | | 7.38 | | 0.814 | | -56 | | 4.20 | | 4.4 | | 1506 | | 480 | 14.12 |
| 1625 | X | | 7.38 | | 0.818 | | -54 | | 3.96 | | 4.3 | | 15.03 | | 480 | 14.13 |
| 1630 | X | | 7.39 | | 0.821 | | -55 | | 3.80 | | 4.2 | | 15.02 | | 480 | 14.14 |
| 1635 | | X | 7.41 | | 0.825 | | -54 | | 3.72 | | 4.1 | | 15.00 | | 480 | 14.15 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

MW-20S Sampled at 1635

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 2

SITE: NEPERA
DATE: 09/10/20
WEATHER: light rain, cloudy, 78°F
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-230
WELL PERMIT #: —
WELL DEPTH: 102
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 77-102
Horiba SN 16H5HJNW

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 89.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.23 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0910 | X | | 8.67 | NA | 0.409 | NA | 157 | NA | 11.42 | NA | 11.5 | NA | 14.53 | NA | 460 | 7.97 |
| 0915 | X | | 8.02 | | 0.483 | | 51 | | 8.08 | | 9.1 | | 14.01 | | 460 | 10.31 |
| 0920 | X | | 7.87 | | 0.515 | | 9 | | 1.77 | | 1.9 | | 13.30 | | 460 | 12.20 |
| 0925 | X | | 7.86 | | 0.560 | | 25 | | 0.00 | | 2.1 | | 13.33 | | 460 | 12.67 |
| 0930 | X | | 7.87 | | 0.500 | | 13 | | 0.00 | | 18.1 | | 13.42 | | 460 | 13.89 |
| 0935 | X | | 7.90 | | 0.485 | | -12 | | 0.00 | | 13.7 | | 13.34 | | 460 | 15.25 |
| 0940 | X | | 7.98 | | 0.480 | | -58 | | 0.00 | | 0.3 | | 13.40 | | 460 | 16.48 |
| 0945 | X | | 8.00 | | 0.475 | | -64 | | 0.00 | | 0.0 | | 13.39 | | 460 | 17.40 |
| 0950 | X | | 8.02 | | 0.470 | | -46 | | 0.00 | | 0.0 | | 13.52 | | 460 | 17.94 |
| 0955 | X | | 8.03 | | 0.466 | | -3 | | 0.00 | | 0.0 | | 13.60 | | 460 | 18.60 |
| 1000 | X | | 8.09 | | 0.463 | | 18 | | 0.00 | | 0.0 | | 14.03 | | 460 | 19.55 |

COMMENTS:

MW-230 sampled at 1030

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 2 OF 2

SITE: NEPERA
DATE: 09/10/20
WEATHER: light rain, cloudy, 70°F
CONSULTING FIRM: LEG
FIELD PERSONNEL: DAW / RJL

MONITOR WELL #: MW-23D
WELL PERMIT #: -
WELL DEPTH: 102
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 72-102

PID/FID READINGS (ppm): Horiba SN 16H5H3NW
BACKGROUND: -
BENEATH OUTER CAP: -
BENEATH INNER CAP: -
PUMP INTAKE DEPTH: 89.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.23 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | X | | 8.09 | NA | 0.463 | NA | 18 | NA | 0.00 | NA | 0.0 | NA | 14.03 | NA | 460 | 19.55 |
| 1005 | X | | 8.11 | | 0.461 | | 29 | | 0.00 | | 0.0 | | 14.20 | | 460 | 20.41 |
| 1010 | X | | 8.07 | | 0.465 | | 28 | | 0.00 | | 0.0 | | 14.28 | | 460 | 20.85 |
| 1015 | X | | 8.09 | | 0.462 | | 25 | | 0.00 | | 0.0 | | 14.30 | | 460 | 21.18 |
| 1020 | X | | 8.11 | | 0.459 | | 23 | | 0.00 | | 0.0 | | 14.35 | | 460 | 21.35 |
| 1025 | X | | 8.12 | | 0.460 | | 20 | | 0.00 | | 0.0 | | 14.34 | | 460 | 21.48 |
| 1030 | | X | 8.13 | | 0.459 | | 18 | | 0.00 | | 0.0 | | 14.36 | | 460 | 21.60 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

MW-23D sampled at 1030

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: NEPERA
DATE: 09/10/20
WEATHER: light rain, cloudy,
CONSULTING FIRM: CEG
FIELD PERSONNEL: RSZ / DAW

MONITOR WELL #: MW-37S
WELL PERMIT #: -
WELL DEPTH: 24
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 14-24

PID/FID READINGS (ppm): BACKGROUND: -
BENEATH OUTER CAP: -
BENEATH INNER CAP: -
Horiba SN 16H514JNW0
PUMP INTAKE DEPTH: 19 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 2.99 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1050 | X | | 7.32 | NA | 1.20 | NA | -55 | NA | 0.51 | NA | 0.0 | NA | 15.99 | NA | 460 | 3.89 |
| 1055 | X | | 7.30 | | 1.17 | | -57 | | 0.32 | | 0.0 | | 16.04 | | 460 | 4.11 |
| 1100 | X | | 7.27 | | 1.08 | | -60 | | 0.26 | | 0.0 | | 16.08 | | 460 | 4.12 |
| 1105 | X | | 7.22 | | 1.22 | | -62 | | 0.27 | | 0.0 | | 16.04 | | 460 | 4.14 |
| 1110 | X | | 7.21 | | 1.50 | | -61 | | 0.00 | | 0.0 | | 16.07 | | 460 | 4.16 |
| 1115 | X | | 7.21 | | 1.54 | | -60 | | 0.00 | | 0.0 | | 16.06 | | 460 | 4.17 |
| 1120 | X | | 7.21 | | 1.54 | | -60 | | 0.00 | | 0.0 | | 16.05 | | 460 | 4.18 |
| 1125 | X | | 7.20 | | 1.55 | | -60 | | 0.00 | | 0.0 | | 16.08 | | 460 | 4.17 |
| 1130 | X | | 7.21 | | 1.56 | | -54 | | 0.00 | | 0.0 | | 16.10 | | 460 | 4.16 |
| 1135 | | X | 7.19 | | 1.56 | | -59 | | 0.00 | | 0.0 | | 16.11 | | 460 | 4.16 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MW-37S sampled at 1135

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: NEPERA
DATE: 09/10/20
WEATHER: light rain, 78°F, cloudy
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-11S
WELL PERMIT #: –
WELL DEPTH: 50
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 45-50

PID/FID READINGS (ppm): BACKGROUND: –
BENEATH OUTER CAP: –
BENEATH INNER CAP: –
Horiba SN 16H5HJNW
PUMP INTAKE DEPTH: 47.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.43 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1215 | X | | 7.84 | NA | 0.972 | NA | 5 | NA | 0.68 | NA | 36.1 | NA | 15.16 | NA | 460 | 5.84 |
| 1220 | X | | 7.51 | | 0979 | | 3 | | 0.33 | | 35.2 | | 14.75 | | 460 | 5.89 |
| 1225 | X | | 7.36 | | 0.985 | | 1 | | 0.00 | | 32.7 | | 14.54 | | 460 | 5.95 |
| 1230 | X | | 7.34 | | 0.991 | | 1 | | 0.00 | | 27.3 | | 14.31 | | 460 | 5.94 |
| 1235 | X | | 7.32 | | 0.993 | | 2 | | 0.00 | | 24.1 | | 14.18 | | 460 | 5.93 |
| 1240 | X | | 7.31 | | 0.997 | | 2 | | 0.00 | | 21.3 | | 13.97 | | 460 | 5.91 |
| 1245 | X | | 7.31 | | 1.00 | | 2 | | 0.00 | | 22.0 | | 14.01 | | 460 | 5.90 |
| 1250 | X | | 7.28 | | 1.01 | | 1 | | 0.00 | | 22.4 | | 14.05 | | 460 | 5.90 |
| 1255 | X | | 7.30 | | 1.00 | | 0 | | 0.00 | | 22.8 | | 14.00 | | 460 | 5.89 |
| 1300 | | X | 7.30 | | 1.01 | | 0 | | 0.00 | | 23.0 | | 14.02 | | 460 | 5.88 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MW-11S sampled at 1300

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 09/ /20
WEATHER: light rain, cloudy,
CONSULTING FIRM: C&G
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-8S
WELL PERMIT #: —
WELL DEPTH: 70
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 65-70
Horiba SN 16H5H5NW

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 67.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.45 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1315 | X | | 7.55 | NA | 0.940 | NA | 6 | NA | 0.00 | NA | 188 | NA | 13.60 | NA | 460 | 5.60 |
| 1320 | X | | 7.53 | | 0.941 | | 4 | | 0.00 | | 156 | | 13.57 | | 460 | 5.60 |
| 1325 | X | | 7.50 | | 0.947 | | 2 | | 0.00 | | 163 | | 13.36 | | 460 | 5.61 |
| 1330 | X | | 7.48 | | 0.955 | | -8 | | 0.00 | | 49.4 | | 12.99 | | 460 | 5.61 |
| 1335 | X | | 7.48 | | 0.958 | | -11 | | 0.00 | | 48.0 | | 12.90 | | 460 | 5.61 |
| 1340 | X | | 7.45 | | 0.960 | | -15 | | 0.00 | | 49.2 | | 12.89 | | 460 | 5.60 |
| 1345 | X | | 7.44 | | 0.964 | | -20 | | 0.00 | | 48.3 | | 12.72 | | 460 | 5.61 |
| 1350 | X | | 7.44 | | 0.962 | | -22 | | 0.00 | | 47.3 | | 12.63 | | 460 | 5.61 |
| 1355 | X | | 7.45 | | 0.960 | | -23 | | 0.00 | | 46.0 | | 12.65 | | 460 | 5.61 |
| 1400 | | X | 7.44 | | 0.963 | | -25 | | 0.00 | | 45.2 | | 12.70 | | 460 | 5.61 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA
DATE: 09/11/20
WEATHER: Cloudy, light wind, cool 69°F
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-53D
WELL PERMIT #: ~
WELL DEPTH: 57
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 47-57

PID/FID READINGS (ppm): BACKGROUND: ~
BENEATH OUTER CAP: ~
BENEATH INNER CAP: ~
Horiba SN 16H5HJNW
PUMP INTAKE DEPTH: 52 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.25 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0845 | X | | 7.71 | NA | 0.663 | NA | -45 | NA | 6.38 | NA | 19.4 | NA | 16.85 | NA | 460 | 9.67 |
| 0850 | X | | 7.56 | | 0.840 | | -81 | | 1.44 | | 11.8 | | 14.81 | | 460 | 10.04 |
| 0855 | X | | 7.49 | | 0.846 | | -79 | | 1.85 | | 14.0 | | 14.36 | | 460 | 10.16 |
| 0900 | X | | 7.45 | | 0.847 | | -78 | | 1.53 | | 18.9 | | 13.91 | | 460 | 10.27 |
| 0905 | X | | 7.41 | | 0.868 | | -78 | | 1.53 | | 18.5 | | 13.63 | | 460 | 10.31 |
| 0910 | X | | 7.40 | | 0.870 | | -78 | | 1.60 | | 18.0 | | 13.55 | | 460 | 10.28 |
| 0915 | X | | 7.45 | | 0.865 | | -75 | | 1.52 | | 17.8 | | 13.56 | | 460 | 10.27 |
| 0920 | X | | 7.42 | | 0.863 | | -74 | | 1.49 | | 17.2 | | 13.52 | | 460 | 10.25 |
| 0925 | X | | 7.40 | | 0.865 | | -74 | | 1.51 | | 17.0 | | 13.48 | | 460 | 10.26 |
| 0930 | | X | 7.39 | | 0.869 | | -73 | | 1.54 | | 16.8 | | 13.49 | | 460 | 10.26 |
| | | | | | | | | | | | | | | | | |

COMMENTS: MW-53D-MS/MSD sampled at 0930

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 2

SITE: NEPERA
DATE: 09/11/20
WEATHER: Cloudy, cool, 69°F
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: OW-6
WELL PERMIT #: -
WELL DEPTH: 30
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 20-30
Horiba SN 16H5HJNW

PID/FID READINGS (ppm): BACKGROUND: 0
BENEATH OUTER CAP: 0
BENEATH INNER CAP: 0
PUMP INTAKE DEPTH: 25 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 10.72 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 1000 | X | | 7.42 | NA | 0.554 | NA | -42 | NA | 0.46 | NA | 108 | NA | 12.94 | NA | 480 | 13.65 |
| 1005 | X | | 7.35 | | 0.589 | | -50 | | 0.42 | | 85.3 | | 13.00 | | 460 | 14.15 |
| 1010 | X | | 7.21 | | 0.616 | | -58 | | 0.39 | | 67.3 | | 13.14 | | 460 | 14.62 |
| 1015 | X | | 7.24 | | 0.646 | | -74 | | 0.68 | | 127 | | 12.60 | | 460 | 14.83 |
| 1020 | X | | 7.29 | | 0.659 | | -82 | | 0.78 | | 130 | | 12.49 | | 460 | 14.92 |
| 1025 | X | | 7.33 | | 0.657 | | -81 | | 0.73 | | 127 | | 12.68 | | 460 | 14.92 |
| 1030 | X | | 7.36 | | 0.655 | | -81 | | 0.67 | | 126 | | 12.99 | | 460 | 14.92 |
| 1035 | X | | 7.30 | | 0.667 | | -82 | | 7.90 | | 92.2 | | 12.45 | | 460 | 14.98 |
| 1040 | X | | 7.30 | | 0.670 | | -88 | | 6.00 | | 75.1 | | 12.46 | | 460 | 14.92 |
| 1045 | X | | 7.29 | | 0.669 | | -91 | | 5.01 | | 57.7 | | 12.44 | | 460 | 14.89 |
| 1050 | X | | 7.31 | | 0.669 | | -95 | | 4.27 | | 55.7 | | 12.46 | | 460 | 14.85 |

COMMENTS:

OW-6 sampled at 1130

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET 2 OF 2

SITE: NEPERA
DATE: 09/11/20
WEATHER: Cloudy, cool, 69°F
CONSULTING FIRM: C&G
FIELD PERSONNEL: DAW / RSL

MONITOR WELL #: OW-6
WELL PERMIT #: —
WELL DEPTH: 30
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 20-30
Horiba SN 16H5HJNW

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 25 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 10.72 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1050 | X | | 7.31 | NA | 0.669 | NA | -95 | NA | 4.27 | NA | 55.7 | NA | 12.46 | NA | 460 | 14.85 |
| 1055 | X | | 7.32 | | 0.673 | | -98 | | 4.00 | | 51.2 | | 12.49 | | 450 | 14.80 |
| 1100 | X | | 7.32 | | 0.676 | | -99 | | 3.92 | | 54.3 | | 12.43 | | 450 | 14.60 |
| 1105 | X | | 7.34 | | 0.676 | | -101 | | 3.84 | | 51.3 | | 12.45 | | 450 | 14.58 |
| 1110 | X | | 7.35 | | 0.686 | | -103 | | 2.01 | | 50.1 | | 12.49 | | 450 | 14.55 |
| 1115 | X | | 7.35 | | 0.685 | | -105 | | 1.97 | | 48.3 | | 12.52 | | 450 | 14.58 |
| 1120 | X | | 7.35 | | 0.685 | | -106 | | 1.88 | | 49.0 | | 12.57 | | 450 | 14.60 |
| 1125 | X | | 7.35 | | 0.684 | | -106 | | 1.76 | | 48.5 | | 12.62 | | 450 | 14.61 |
| 1130 | | X | 7.35 | | 0.684 | | -105 | | 1.81 | | 47.1 | | 12.63 | | 450 | 14.60 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

OW-6 Sampled at 1130

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: NEPERA
DATE: 09/11/20
WEATHER: Cloudy, cool, 69°F
CONSULTING FIRM: CEG
FIELD PERSONNEL: RSL / DMW

MONITOR WELL #: MW-103
WELL PERMIT #: —
WELL DEPTH: 59.5
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 49.5 - 59.5

PID/FID READINGS (ppm): Horiba SN 16H514JNW
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 55 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 12.00 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1145 | X | | 7.90 | NA | 0.996 | NA | 60 | NA | 11.18 | NA | 264 | NA | 13.33 | NA | 460 | 12.08 |
| 1150 | X | | 7.71 | | 0.999 | | 78 | | 10.59 | | 202 | | 13.00 | | 460 | 12.07 |
| 1155 | X | | 7.41 | | 1.02 | | 93 | | 8.93 | | 160 | | 12.68 | | 460 | 12.06 |
| 1200 | X | | 7.37 | | 1.02 | | 97 | | 2.15 | | 121 | | 12.48 | | 460 | 12.06 |
| 1205 | X | | 7.33 | | 1.02 | | 101 | | 1.01 | | 102 | | 12.36 | | 460 | 12.07 |
| 1210 | X | | 7.31 | | 1.03 | | 111 | | 0.00 | | 66.9 | | 12.36 | | 460 | 12.07 |
| 1215 | X | | 7.31 | | 1.03 | | 115 | | 0.00 | | 64.9 | | 12.37 | | 460 | 12.07 |
| 1220 | X | | 7.29 | | 1.03 | | 114 | | 0.00 | | 49.7 | | 12.44 | | 460 | 12.07 |
| 1225 | X | | 7.29 | | 1.03 | | 115 | | 0.00 | | 48.7 | | 12.46 | | 460 | 12.07 |
| 1230 | X | | 7.28 | | 1.03 | | 117 | | 0.00 | | 47.5 | | 12.40 | | 460 | 12.07 |
| 1235 | | X | 7.28 | | 1.03 | | 118 | | 0.00 | | 46.0 | | 12.38 | | 460 | 12.07 |

COMMENTS:

MW-103 sampled at 1235

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Nepera
DATE: 9/10/20
WEATHER: 80°F Partly Sunny
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-102
WELL PERMIT #:
WELL DEPTH: 22.1
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 16 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.65 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:15 | ✓ | | 7.80 | NA | 1.44 | NA | -43 | NA | 7.05 | NA | 0.10 | NA | 21.16 | NA | 480 | 5.71 |
| 12:20 | ✓ | | 7.69 | | 1.43 | | -62 | | 0.00 | | 465 | | 17.86 | | 480 | 5.77 |
| 12:25 | ✓ | | 7.67 | | 1.43 | | -65 | | 0.00 | | 323 | | 17.64 | | 480 | 5.80 |
| 12:30 | ✓ | | 7.62 | | 1.43 | | -66 | | 0.00 | | 206 | | 17.51 | | 480 | 5.81 |
| 12:35 | ✓ | | 7.61 | | 1.42 | | -66 | | 0.00 | | 139 | | 17.43 | | 480 | 5.82 |
| 12:40 | ✓ | | 7.60 | | 1.42 | | -66 | | 0.00 | | 84.7 | | 17.41 | | 480 | 5.82 |
| 12:45 | ✓ | | 7.60 | | 1.42 | | -67 | | 0.00 | | 51.4 | | 17.39 | | 480 | 5.83 |
| 12:50 | ✓ | | 7.59 | | 1.41 | | -66 | | 0.00 | | 33.5 | | 17.32 | | 480 | 5.83 |
| 12:55 | ✓ | | 7.59 | | 1.41 | | -66 | | 0.00 | | 19.7 | | 17.28 | | 480 | 5.83 |
| 13:00 | ✓ | | 7.59 | | 1.41 | | -66 | | 0.00 | | 18.3 | | 17.38 | | 480 | 5.84 |
| 13:05 | ✓ | | 7.59 | | 1.41 | | -66 | | 0.00 | | 17.9 | | 17.28 | | 480 | 5.84 |
| COMMENTS: 13:10 | ✓ | | 7.59 | | 1.41 | | -66 | | 0.00 | | 17.2 | | 17.43 | | 480 | |

Sampled MW-102 @ 13:10

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Nepera
DATE: 9/10/20
WEATHER: 75°F, Cloudy

CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Harbor S/W UJRL68L1

MONITOR WELL #: MW-15
WELL PERMIT #:
WELL DEPTH: 25
WELL DIAMETER: 6 inches
SCREENED/OPEN INTERVAL: 15-25

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 20 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.33 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11:00 | ✓ | | 7.84 | NA | 1.55 | NA | -74 | NA | 3.73 | NA | 87.0 | NA | 21.06 | NA | 480 | 7.46 |
| 11:05 | ✓ | | 7.73 | | 1.55 | | -85 | | 0.00 | | 65.2 | | 16.92 | | 470 | 7.52 |
| 11:10 | ✓ | | 7.67 | | 1.54 | | -82 | | 0.00 | | 38.6 | | 17.04 | | 470 | 7.55 |
| 11:15 | ✓ | | 7.64 | | 1.54 | | -78 | | 0.00 | | 24.8 | | 16.87 | | 470 | 7.57 |
| 11:20 | ✓ | | 7.64 | | 1.54 | | -75 | | 0.00 | | 18.4 | | 17.11 | | 470 | 7.58 |
| 11:25 | ✓ | | 7.63 | | 1.55 | | -73 | | 0.00 | | 18.8 | | 17.15 | | 470 | 7.59 |
| 11:30 | | ✓ | 7.64 | | 1.54 | | -72 | | 0.00 | | 18.6 | | 17.07 | | 470 | 7.60 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS: Sampled MW-15 @ 11:30

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 9/10/20
WEATHER: 75°F, Cloudy, intermittent light rain
CONSULTING FIRM: Geosyntec
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-101
WELL PERMIT #:
WELL DEPTH: 32.64
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 26 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.15 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY* (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09:15 | ✓ | | 7.94 | NA | 0.181 | NA | 23 | NA | 5.32 | NA | 302 | NA | 21.17 | NA | 470 | 6.21 |
| 09:20 | ✓ | | 7.46 | | 2.08 | | -20 | | 0.00 | | 919 | | 19.17 | | 470 | 6.24 |
| 09:25 | ✓ | | 7.44 | | 2.09 | | -20 | | 0.00 | | 154 | | 19.11 | | 470 | 6.24 |
| 09:30 | ✓ | | 7.43 | | 2.08 | | -18 | | 0.00 | | 46.3 | | 19.07 | | 470 | 6.24 |
| 09:35 | ✓ | | 7.43 | | 2.06 | | -17 | | 0.00 | | 24.6 | | 19.04 | | 470 | 6.24 |
| 09:40 | ✓ | | 7.44 | | 2.05 | | -17 | | 0.00 | | 14.2 | | 18.93 | | 470 | 6.24 |
| 09:45 | ✓ | | 7.44 | | 2.04 | | -17 | | 0.00 | | 13.7 | | 19.00 | | 470 | 6.24 |
| 09:50 | | ✓ | 7.44 | | 2.04 | | -17 | | 0.00 | | 14.0 | | 18.88 | | 470 | 6.24 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:
* Milky discharge initially. Sampled MW-101 @ 09:50

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Nepera
DATE: 9/11/20
WEATHER: 70°F, Cloudy
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-16S
WELL PERMIT #:
WELL DEPTH: ~~45~~ 21.8 bottom of obstruction
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 35-45

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ~~42~~ 24 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 12.31 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11:15 | ✓ | | 7.92 | NA | 0.949 | NA | -124 | NA | 9.70 | NA | 143 | NA | 22.51 | NA | 470 | 12.63 |
| 11:20 | ✓ | | 8.10 | | 0.928 | | -155 | | 0.00 | | 92.1 | | 17.20 | | 440 | 12.63 |
| 11:25 | ✓ | | 8.11 | | 0.926 | | -162 | | 0.00 | | 37.3 | | 16.58 | | 480 | 12.67 |
| 11:30 | ✓ | | 8.10 | | 0.928 | | -163 | | 0.00 | | 17.7 | | 16.37 | | 480 | 12.67 |
| 11:35 | ✓ | | 8.09 | | 0.929 | | -162 | | 0.00 | | 15.8 | | 16.17 | | 480 | 12.67 |
| 11:40 | ✓ | | 8.08 | | 0.929 | | -162 | | 0.00 | | 13.1 | | 16.09 | | 480 | 12.68 |
| 11:45 | ✓ | | 8.08 | | 0.932 | | -161 | | 0.00 | | 12.3 | | 15.91 | | 480 | 12.68 |
| 11:50 | ✓ | | 8.08 | | 0.931 | | -160 | | 0.00 | | 10.1 | | 15.93 | | 480 | 12.68 |
| 11:55 | ✓ | | 8.07 | | 0.933 | | -159 | | 0.00 | | 10.4 | | 15.84 | | 480 | 12.68 |
| 12:00 | | ✓ | 8.07 | | 0.932 | | -158 | | 0.00 | | 10.2 | | 15.79 | | 480 | 12.68 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

Sampled MW-16S @ 12:00 + Dup-02 (12:00)

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 9/11/20
WEATHER: 70°F, Cloudy
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N VJRL681

MONITOR WELL #: MW-12S
WELL PERMIT #:
WELL DEPTH: 35
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 25-35

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.25 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 08:55 | ✓ | | 8.10 | NA | 0.782 | NA | -122 | NA | 4.44 | NA | 29.6 | NA | 18.41 | NA | 420 | 9.17 |
| 09:00 | ✓ | | 7.89 | | 0.797 | | -157 | | 0.00 | | 17.6 | | 15.90 | | 420 | 11.84 |
| 09:05 | ✓ | | 7.55 | | 0.800 | | -128 | | 0.00 | | 16.3 | | 16.37 | | 360 | 15.45 |
| 09:10 | ✓ | | 7.39 | | 0.787 | | -113 | | 0.00 | | 17.6 | | 16.79 | | 240 | 18.44 |
| 09:15 | ✓ | | 7.25 | | 0.792 | | -102 | | 0.00 | | 19.2 | | 17.26 | | 220 | 19.81 |
| 09:20 | ✓ | | 7.11 | | 0.794 | | -78 | | 0.00 | | 20.5 | | 17.79 | | 140 | 20.65 |
| 09:25 | ✓ | | 7.02 | | 0.782 | | -53 | | 0.00 | | 19.4 | | 18.30 | | 100 | 21.42 |
| 09:30 | ✓ | | 6.94 | | 0.782 | | -48 | | 0.00 | | 19.0 | | 18.81 | | 100 | 21.88 |
| 09:35 | ✓ | | 6.91 | | 0.781 | | -47 | | 0.00 | | 19.7 | | 19.04 | | 80 | 22.06 |
| 09:40 | | ✓ | 6.90 | | 0.799 | | -47 | | 0.00 | | 19.5 | | 19.07 | | 80 | 22.19 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

Sampled MW-12S @ 09:40

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 9/16/20
WEATHER: 80oF, Cloudy intermittent light rain
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-106
WELL PERMIT #:
WELL DEPTH: 49.80
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 45 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 14.03 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:05 | ✓ | | 8.27 | NA | 1.20 | NA | 35 | NA | 3.84 | NA | 159 | NA | 17.25 | NA | 470 | 14.22 |
| 16:10 | ✓ | | 7.60 | | 1.19 | | 5 | | 0.00 | | 54.2 | | 16.52 | | 470 | 14.25 |
| 16:15 | ✓ | | 7.48 | | 1.36 | | 6 | | 0.00 | | 35.0 | | 16.18 | | 470 | 14.26 |
| 16:20 | ✓ | | 7.36 | | 1.37 | | 10 | | 0.00 | | 20.9 | | 16.08 | | 470 | 14.26 |
| 16:25 | ✓ | | 7.35 | | 1.37 | | 10 | | 0.00 | | 18.6 | | 16.21 | | 470 | 14.26 |
| 16:30 | ✓ | | 7.35 | | 1.37 | | 10 | | 0.00 | | 17.4 | | 16.18 | | 470 | 14.26 |
| 16:35 | ✓ | | 7.35 | | 1.36 | | 11 | | 0.00 | | 18.3 | | 16.15 | | 470 | 14.26 |
| 16:40 | | ✓ | 7.36 | | 1.36 | | 11 | | 0.00 | | 17.6 | | 15.81 | | 470 | 14.26 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS: Sampled MW-106 @ 16:40

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Negra
DATE: 9/9/20
WEATHER: 80°F, Partly Sunny
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-201
WELL PERMIT #:
WELL DEPTH: 33.24
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 10'

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 28 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.19 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:10 | ✓ | | 7.79 | NA | 0.908 | NA | -28 | NA | 9.96 | NA | 0.0 | NA | 20.63 | NA | 430 | 8.18 |
| 10:15 | ✓ | | 7.32 | | 0.878 | | -18 | | 0.08 | | >1000 | | 21.16 | | 460 | 8.38 |
| restart 10:30 | ✓ | | 7.18 | | 0.941 | | -8 | | 0.09 | | >1000 | | 20.70 | | 470 | 8.47 |
| 10:35 | ✓ | | 7.07 | | 0.915 | | 0 | | 1.24 | | 768 | | 18.17 | | | |
| 10:40 | ✓ | | 6.98 | | 0.943 | | -7 | | 0.00 | | 583 | | 19.26 | | 460 | 8.63 |
| 10:45 | ✓ | | 6.95 | | 0.944 | | -15 | | 0.00 | | 310 | | 17.27 | | 460 | 8.68 |
| 10:50 | ✓ | | 6.94 | | 0.981 | | -24 | | 0.00 | | 96.2 | | 17.23 | | 460 | 8.73 |
| 10:55 | ✓ | | 6.95 | | 0.976 | | -24 | | 0.00 | | 45.4 | | 17.24 | | 460 | 8.75 |
| 11:00 | ✓ | | 6.96 | | 0.982 | | -24 | | 0.00 | | 36.7 | | 17.29 | | 460 | 8.76 |
| 11:05 | ✓ | | 6.97 | | 0.978 | | -23 | | 0.00 | | 31.4 | | 17.32 | | 460 | 8.77 |
| 11:10 | ✓ | | 6.96 | | 0.976 | | -24 | | 0.00 | | 29.8 | | 17.29 | | 460 | 8.77 |
| 11:15 | ✓ | | 6.96 | | 0.977 | | -24 | | 0.00 | | 28.4 | | 17.30 | | 460 | 8.78 |

COMMENTS: * Milky color discharge initially
Sampled MW-201 @ 11:15

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 5/9/20
WEATHER: 80°F, Mostly Sunny
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-24S
WELL PERMIT #:
WELL DEPTH: 17.5
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 7.5-17.5

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 12.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.11 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:10 | ✓ | | 7.52 | NA | 3.08 | NA | 62 | NA | 4.31 | NA | 145 | NA | 26.30 | NA | 470 | 8.42 |
| 12:15 | ✓ | | 7.34 | | 3.08 | | 59 | | 0.00 | | 8.2 | | 21.08 | | 470 | 8.61 |
| 12:20 | ✓ | | 7.29 | | 3.08 | | 63 | | 0.00 | | 6.2 | | 21.33 | | 470 | 8.75 |
| 12:25 | ✓ | | 7.31 | | 3.12 | | 64 | | 0.00 | | 3.2 | | 21.18 | | 470 | 8.82 |
| 12:30 | ✓ | | 7.39 | | 3.08 | | 50 | | 0.00 | | 3.7 | | 21.24 | | 470 | 8.86 |
| 12:35 | ✓ | | 7.46 | | 3.04 | | 28 | | 0.00 | | 3.2 | | 21.23 | | 460 | 8.87 |
| 12:40 | ✓ | | 7.44 | | 3.06 | | 48 | | 0.00 | | 3.5 | | 20.71 | | 460 | 8.87 |
| 12:45 | ✓ | | 7.42 | | 3.06 | | 50 | | 0.00 | | 3.7 | | 20.60 | | 460 | 8.87 |
| 12:5 | | ✓ | 7.42 | | 3.07 | | 51 | | 0.00 | | 3.8 | | 20.72 | | 460 | 8.87 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:
Sampled MW-24S @ 12:50 + Dup-01 (12:00)

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF 1

SITE: Nepera
DATE: 7/9/20
WEATHER: 80°F, Partly Sunny
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-202D
WELL PERMIT #:
WELL DEPTH: 67.03
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 62 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.77 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13:20 | ✓ | | 8.37 | NA | 1.21 | NA | 41 | NA | 5.04 | NA | 86.3 | NA | 22.47 | NA | 480 | 7.16 |
| 13:25 | ✓ | | 7.31 | | 1.30 | | 78 | | 0.00 | | 15.9 | | 18.22 | | 480 | 7.24 |
| 13:30 | ✓ | | 7.07 | | 1.30 | | 108 | | 0.00 | | 6.8 | | 18.08 | | 480 | 7.28 |
| 13:35 | ✓ | | 6.99 | | 1.29 | | 115 | | 0.00 | | 1.4 | | 18.20 | | 480 | 7.22 |
| 13:40 | ✓ | | 6.98 | | 1.29 | | 113 | | 0.00 | | 2.1 | | 18.16 | | 480 | 7.20 |
| 13:45 | ✓ | | 6.98 | | 1.29 | | 109 | | 0.00 | | 3.1 | | 18.16 | | 480 | 7.20 |
| 13:50 | ✓ | | 6.98 | | 1.29 | | 106 | | 0.00 | | 3.3 | | 17.91 | | 480 | 7.20 |
| 13:55 | | ✓ | 6.98 | | 1.29 | | 105 | | 0.00 | | 3.6 | | 17.93 | | 480 | 7.20 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

Sampled MW-202D @ 13:55

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Nepera
DATE: 9/9/20
WEATHER: 80°F Mostly cloudy
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RSL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-33
WELL PERMIT #:
WELL DEPTH: 19.65
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 4-19

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 11.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.80 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:30 | ✓ | | 7.74 | NA | 3.14 | NA | -70 | NA | 3.20 | NA | >1000 | NA | 22.46 | NA | 470 | 7.36 |
| 14:35 | ✓ | | WL dropped to tubing intake w/ flow rate set as low as possible - | | | | | | | | | | | | | |
| 14:40 | | | purged complete well volume to dryness (lowered tubing intake to | | | | | | | | | | | | | |
| 14:45 | | | bottom - allowed recharge & purged to dryness two more times, Allowed | | | | | | | | | | | | | |
| | | | recharge prior to sample collection - Collected sample @ 17:05 & | | | | | | | | | | | | | |
| | | | measured field parameters | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 17:05 | ✓ | | 7.98 | | 1.73 | | -41 | | 4.63 | | 43.4 | | 21.56 | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS: Well vol. = 1.28 gals, 3 vol = 3.84
Sampled MW-33 @ 17:05

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 9/9/20
WEATHER: 80°F mostly cloudy
CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68L1

MONITOR WELL #: MW-20D
WELL PERMIT #:
WELL DEPTH: 82.7
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 65-85

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 75 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 1.48 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15:40 | ✓ | | 8.57 | NA | 1.27 | NA | -64 | NA | 2.97 | NA | 88.4 | NA | 23.41 | NA | 480 | 2.17 |
| 15:45 | ✓ | | 9.21 | | 1.75 | | -134 | | 0.00 | | 3.0 | | 16.93 | | 480 | 3.39 |
| 15:50 | ✓ | | 8.91 | | 1.76 | | -121 | | 0.00 | | 6.1 | | 17.07 | | 480 | 3.62 |
| 15:55 | ✓ | | 8.74 | | 1.75 | | -110 | | 0.00 | | 2.8 | | 17.02 | | 480 | 3.85 |
| 16:00 | ✓ | | 8.69 | | 1.74 | | -109 | | 0.00 | | 3.3 | | 17.06 | | 480 | 4.11 |
| 16:05 | ✓ | | 8.70 | | 1.74 | | -107 | | 0.00 | | 3.5 | | 17.18 | | 480 | 4.26 |
| 16:10 | | ✓ | 8.68 | | 1.73 | | -105 | | 0.00 | | 3.3 | | 17.37 | | 480 | 4.51 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS: Sampled MW-20D @ 16:10

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ___ OF ___

SITE: Nepera
DATE: 9/10/20
WEATHER: 80°F Mostly Cloudy
CONSULTING FIRM: Groundtech
FIELD PERSONNEL: RJL DAW
Horiba S/N UJRL68LI

MONITOR WELL #: MW-26D
WELL PERMIT #:
WELL DEPTH: 145
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 135-145

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 140 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 790 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:00 | ✓ | | 10,32 | NA | 0.396 | NA | 92 | NA | 5,04 | NA | 28,1 | NA | 20,32 | NA | 480 | 8,58 |
| 14:05 | ✓ | | 11,25 | | 0,392 | | 53 | | 0,00 | | 16,3 | | 17,64 | | 430 | 12,61 |
| 14:10 | ✓ | | 11,21 | | 0,400 | | 50 | | 0,00 | | 10,6 | | 18,16 | | 420 | 16,18 |
| 14:15 | ✓ | | 11,13 | | 0,404 | | 46 | | 0.00 | | 15,6 | | 20,30 | | 180 | 21,07 |
| 14:20 | ✓ | | 11,10 | | 0,405 | | 46 | | 0,35 | | 22,8 | | 22,02 | | 150 | 23,61 |
| 14:25 | ✓ | | 16,03 | | 0,409 | | 50 | | 0,63 | | 24,4 | | 22,56 | | 100 | 24,36 |
| 14:30 | ✓ | | 11,01 | | 0,410 | | 53 | | 0,55 | | 25,3 | | 24,20 | | 100 | 24,46 |
| 14:35 | ✓ | | 11,00 | | 0,413 | | 54 | | 0,61 | | 23,1 | | 24,43 | | 100 | 24,70 |
| 14:40 | ✓ | | 10,99 | | 0,412 | | 54 | | 0,63 | | 20,5 | | 24,79 | | 100 | 24,70 |
| 14:45 | ✓ | | 10,98 | | 0,413 | | 55 | | 0,60 | | 19,4 | | 25,12 | | 100 | 24,74 |
| 15:00 | | ✓ | 10,98 | | 0,413 | | 56 | | 0,57 | | 19,5 | | 25,26 | | 100 | 24,70 |

COMMENTS: Flow rate subsided as WL dropped below 20', air + agitation of influent to Horiba affecting D.O. & turbidity measurements
Sampled MW-26D @ 15:00

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: NEPERA
DATE: 09/10/20
WEATHER: Light rain, cloudy,
CONSULTING FIRM: CEG
FIELD PERSONNEL: RJL / DAW

MONITOR WELL #: MW-55
WELL PERMIT #: —
WELL DEPTH: 45
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 35-45
Horiba SN 16H5H5NW

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 40 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 14.36 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1550 | X | | 8.04 | NA | 0.987 | NA | 9 | NA | 10.24 | NA | 18.4 | NA | 13.63 | NA | 460 | 14.50 |
| 1555 | X | | 7.69 | | 0.989 | | 8 | | 8.48 | | 18.1 | | 13.95 | | 460 | 14.49 |
| 1600 | X | | 7.50 | | 0.990 | | 12 | | 7.50 | | 18.2 | | 13.56 | | 460 | 14.48 |
| 1605 | X | | 7.44 | | 0.995 | | 14 | | 8.00 | | 18.2 | | 13.50 | | 460 | 14.48 |
| 1610 | X | | 7.40 | | 0.990 | | 16 | | 7.15 | | 18.4 | | 14.07 | | 460 | 14.47 |
| 1615 | X | | 7.38 | | 0.987 | | 18 | | 7.00 | | 18.4 | | 14.15 | | 460 | 14.47 |
| 1620 | X | | 7.41 | | 0.988 | | 19 | | 6.91 | | 17.9 | | 14.07 | | 460 | 14.47 |
| 1625 | X | | 7.40 | | 0.995 | | 18 | | 7.05 | | 17.6 | | 14.00 | | 460 | 14.48 |
| 1630 | X | | 7.39 | | 1.00 | | 19 | | 7.10 | | 17.5 | | 13.98 | | 460 | 14.48 |
| 1635 | | | 7.37 | | 0.995 | | 18 | | 6.93 | | 17.2 | | 13.93 | | 460 | 14.47 |
| 1640 | | X | 7.37 | | 0.993 | | 18 | | | | 17.0 | | 13.90 | | 460 | 14.48 |

COMMENTS:

MW-55 sampled at 1640

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/29/21
WEATHER: 50 Cloudy

CONSULTING FIRM: CEG/TT
FIELD PERSONNEL: ERB

MONITOR WELL #: AMW-9
WELL PERMIT #: ____
WELL DEPTH: 20
WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 10-20
XLHTWDJP

PID/FID READINGS (ppm): BACKGROUND: ____
BENEATH OUTER CAP: ____
BENEATH INNER CAP: ____

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.64 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8:05 | X | | 7.17 | NA | 1.57 | NA | -131 | NA | 3.30 | NA | 71000 | NA | 16.40 | NA | 300 | 5.70 |
| 8:10 | X | | 7.24 | | 1.59 | | -143 | | 0.0 | | 71000 | | 16.49 | | 300 | 5.75 |
| 8:15 | X | | 7.24 | | 1.60 | | -144 | | 0.0 | | 71000 | | 16.47 | | 300 | 5.79 |
| 8:20 | X | | 7.25 | | 1.61 | | -148 | | 0.0 | | 71000 | | 16.38 | | 300 | 5.83 |
| 8:25 | X | | 7.24 | | 1.62 | | -149 | | 0.0 | | 71000 | | 16.42 | | 300 | 5.85 |
| 8:30 | X | | 7.25 | | 1.62 | | -151 | | 0.0 | | 71000 | | 16.50 | | 300 | 5.89 |
| 8:35 | X | | 7.24 | | 1.62 | | -150 | | 0.0 | | 71000 | | 16.55 | | 300 | 5.91 |
| 8:40 | X | | 7.23 | | 1.63 | | -151 | | 0.0 | | 71000 | | 16.53 | | 300 | 5.93 |
| 8:45 | X | | 7.22 | | 1.63 | | -152 | | 0.0 | | 71000 | | 16.51 | | 300 | 5.94 |
| 8:50 | | X | 7.22 | | 1.63 | | -152 | | 0.0 | | 71000 | | 16.50 | | 300 | 5.96 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

*AMW-9-20211029 sampled @ 8:50

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/29/21
WEATHER: 60 cloudy
CONSULTING FIRM: CEG/TT
FIELD PERSONNEL: ERB

MONITOR WELL #: AMW-8
WELL PERMIT #: _____
WELL DEPTH: 20
WELL DIAMETER: _____ inches
SCREENED/OPEN INTERVAL: 10-20
XLH7WDJP

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.63 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:00 | X | | 7.12 | NA | 2.65 | NA | -80 | NA | 0.58 | NA | 71000 | NA | 13.45 | NA | 300 | 5.69 |
| 10:05 | X | | 7.04 | | 2.71 | | -78 | | 0.0 | | 71000 | | 13.42 | | 300 | 5.71 |
| 10:10 | X | | 6.99 | | 2.79 | | -77 | | 0.0 | | >1000 | | 13.55 | | 300 | 5.75 |
| 10:15 | X | | 7.00 | | 2.78 | | -80 | | 0.0 | | >1000 | | 13.52 | | 300 | 5.79 |
| 10:20 | X | | 7.01 | | 2.78 | | -81 | | 0.0 | | 71000 | | 13.50 | | 300 | 5.82 |
| 10:25 | X | | 7.00 | | 2.79 | | -81 | | 0.0 | | >1000 | | 13.52 | | 300 | 5.85 |
| 10:30 | X | | 7.00 | | 2.80 | | -82 | | 0.0 | | >1000 | | 13.54 | | 300 | 5.87 |
| 10:35 | X | | 6.99 | | 2.80 | | -82 | | 0.0 | | >1000 | | 13.55 | | 300 | 5.90 |
| 10:40 | | X | 6.99 | | 2.80 | | -82 | | 0.0 | | >1000 | | 13.56 | | 300 | 5.91 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

*AMW-8-20211028 Sampled @ 10:40

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/29/21
WEATHER: Clear, 40°
CONSULTING FIRM: TE/CEG
FIELD PERSONNEL: AK
NUH3UARF

MONITOR WELL #: MW-535
WELL PERMIT #:
WELL DEPTH: 9
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 4-9

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 7 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.58 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 8:25 | X | | 6.27 | NA | 0.475 | NA | 91 | NA | 5.43 | NA | 290 | NA | 14.34 | NA | 300 | 3.62 |
| 8:30 | X | | 6.65 | | 0.456 | | 52 | | 1.39 | | 152 | | 15.22 | | 300 | 3.65 |
| 8:35 | X | | 6.85 | | 0.447 | | 22 | | 0.91 | | 124 | | 15.31 | | 300 | 3.67 |
| 8:40 | X | | 6.87 | | 0.441 | | -3 | | 0.87 | | 120 | | 15.32 | | 300 | 3.70 |
| 8:45 | X | | 6.85 | | 0.443 | | -14 | | 0.80 | | 105 | | 15.35 | | 300 | 3.72 |
| 8:50 | X | | 6.87 | | 0.447 | | -25 | | 0.75 | | 96.8 | | 15.36 | | 300 | 3.73 |
| 8:55 | X | | 6.86 | | 0.448 | | -34 | | 0.69 | | 92.2 | | 15.35 | | 300 | 3.74 |
| 9:00 | X | | 6.83 | | 0.448 | | -41 | | 0.65 | | 87.0 | | 15.39 | | 300 | 3.74 |
| 9:05 | X | | 6.85 | | 0.450 | | -46 | | 0.61 | | 86.8 | | 15.37 | | 300 | 3.75 |
| 9:10 | X | | 6.87 | | 0.447 | | -48 | | 0.59 | | 87.6 | | 15.39 | | 300 | 3.76 |
| 9:15 | | X | 6.84 | | 0.449 | | -52 | | 0.58 | | 86.9 | | 15.41 | | 300 | 3.77 |

COMMENTS:
MW-535 20211029 sampled @ 9:15

**INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

**SITE:** NEPERA - Harriman
**DATE:** 10/29/21
**WEATHER:** cloudy, 45°
**CONSULTING FIRM:** T+/CEG
**FIELD PERSONNEL:** AK
NUH3UARF

**MONITOR WELL #:** AMW-10
**WELL PERMIT #:**
**WELL DEPTH:** 20'
**WELL DIAMETER:** 2 inches
**SCREENED/OPEN INTERVAL:** 10-20'

**PID/FID READINGS (ppm):**
**BACKGROUND:**
**BENEATH OUTER CAP:**
**BENEATH INNER CAP:**
**PUMP INTAKE DEPTH:** 17 ft below TOC
**DEPTH TO WATER BEFORE PUMP INSTALLATION :** 7.94 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 10:10 | X | | 7.28 | NA | 0.732 | NA | -117 | NA | 12.02 | NA | 474 | NA | 14.69 | NA | 250 | 7.97 |
| 10:15 | X | | 7.14 | | 0.741 | | -121 | | 8.23 | | 432 | | 15.06 | | 250 | 7.99 |
| 10:20 | X | | 7.10 | | 0.735 | | -121 | | 7.58 | | 404 | | 15.27 | | 250 | 8.03 |
| 10:25 | X | | 7.11 | | 0.742 | | -124 | | 7.14 | | 331 | | 15.34 | | 250 | 8.06 |
| 10:30 | X | | 7.15 | | 0.749 | | -127 | | 0.60 | | 262 | | 15.47 | | 250 | 8.08 |
| 10:35 | X | | 7.15 | | 0.748 | | -126 | | 0.39 | | 219 | | 15.59 | | 250 | 8.09 |
| 10:40 | X | | 7.14 | | 0.750 | | -125 | | 0.34 | | 191 | | 15.68 | | 250 | 8.09 |
| 10:45 | X | | 7.11 | | 0.747 | | -123 | | 0.35 | | 194 | | 15.74 | | 250 | 8.10 |
| 10:50 | X | | 7.13 | | 0.746 | | -125 | | 0.34 | | 189 | | 15.77 | | 250 | 8.11 |
| 10:55 | X | | 7.14 | | 0.749 | | -124 | | 0.36 | | 192 | | 15.79 | | 250 | 8.11 |
| | | | | | | | | | | | | | | | | |

**COMMENTS:**
AMW-10 20211029 sampled @ 10:55

**INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPERA
DATE: 10/29/2021
WEATHER: cloudy, cool, crisp,
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EB / AK
SHEET ___ of ___
MONITOR WELL #: MW-3S
WELL PERMIT #: —
WELL DEPTH: 25
WELL DIAMETER: 4" Inches
Horiba Serial Number: TS1SDFKD
SCREENED/OPEN INTERVAL: 15-25
PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 20 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 1.40 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH WATE (ft bel TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1010 | X | | 7.50 | NA | 1.34 | NA | 149 | NA | 3.73 | NA | 0.0 | NA | 10.91 | NA | 280 | 1.47 |
| 1015 | X | | 7.40 | | 1.34 | | 152 | | 2.00 | | 0.0 | | 10.87 | | 280 | 1.48 |
| 1020 | X | | 7.35 | | 1.34 | | 151 | | 1.33 | | 0.0 | | 10.94 | | 280 | 1.48 |
| 1025 | X | | 7.34 | | 1.34 | | 149 | | 1.05 | | 0.0 | | 10.96 | | 280 | 1.48 |
| 1030 | X | | 7.34 | | 1.34 | | 148 | | 1.02 | | 0.0 | | 10.96 | | 280 | 1.48 |
| 1035 | X | | 7.34 | | 1.34 | | 147 | | 0.99 | | 0.0 | | 10.98 | | 280 | 1.48 |
| 1040 | X | | 7.34 | | 1.34 | | 147 | | 0.95 | | 0.0 | | 11.01 | | 280 | 1.48 |
| 1045 | X | | 7.35 | | 1.34 | | 147 | | 0.90 | | 0.0 | | 11.02 | | 280 | 1.48 |
| 1050 | | X | 7.35 | | 1.35 | | 146 | | 0.85 | | 0.0 | | 11.04 | | 280 | 1.48 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MW-3S-20211029 Sampled at 1050

*PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH, ± 3% for Sp. Cond., ± 10 mV for ORP, ± 10% for DO, ± 10% for Turbidity, ± 0.2 degrees C for Temperature

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPERA
DATE: 10/29/2021
WEATHER: Mostly Sunny, cold, crisp, 40°F
CONSULTING FIRM: CEG/TC
FIELD PERSONNEL: DW/EB/AK
Horiba Serial Number: TSISDFKD
SHEET [illegible]

MONITOR WELL #: MW-45
WELL PERMIT #:
WELL DEPTH: 52.5
WELL DIAMETER: 4" inches
SCREENED/OPEN INTERVAL: 42.5 - 52.5

PID/FID READINGS (ppm):
BACKGROUND: –
BENEATH OUTER CAP: –
BENEATH INNER CAP: –
PUMP INTAKE DEPTH: 48 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : _____ ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH WATE (ft bel TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0840 | X | | 7.59 | NA | 1.44 | NA | 150 | NA | 6.22 | NA | 0.0 | NA | 8.77 | NA | 320 | 0.5 |
| 0845 | X | | 7.25 | | 1.37 | | 162 | | 2.76 | | 0.0 | | 10.16 | | 280 | 0.5 |
| 0850 | X | | 7.22 | | 1.37 | | 161 | | 1.86 | | 0.0 | | 10.62 | | 240 | 0.5 |
| 0855 | X | | 7.35 | | 1.37 | | 155 | | 2.00 | | 0.0 | | 10.55 | | 200 | 0.5 |
| 0900 | X | | 7.23 | | 1.37 | | 159 | | 1.29 | | 0.0 | | 10.89 | | 200 | 0.5 |
| 0905 | X | | 7.22 | | 1.37 | | 157 | | 1.25 | | 0.0 | | 10.91 | | 200 | 0.5 |
| 0910 | X | | 7.22 | | 1.36 | | 157 | | 1.22 | | 0.0 | | 10.93 | | 200 | 0.5 |
| 0915 | X | | 7.22 | | 1.37 | | 155 | | 1.19 | | 0.0 | | 10.93 | | 200 | 0.5 |
| 0920 | | X | 7.22 | | 1.37 | | 155 | | 1.15 | | 0.0 | | 10.90 | | 200 | 0.5 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MW-45-20211029 sampled at 0920

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

1 of 2

SITE: NEPERA
DATE: 10/27/2021
WEATHER: Overcast, cloudy, cool, 58°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EG / AK
Horiba Serial Number: TSIJDFKD
SHEET ... OF ...

MONITOR WELL #: AP-101
WELL PERMIT #: —
WELL DEPTH: 50
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 30-50

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 40 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 9.94 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH WATE (ft belo TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1620 | X | | 8.58 | NA | 1.15 | NA | 90 | NA | 10.45 | NA | 995 | NA | 13.85 | NA | 360 | 8.32 |
| 1625 | X | | 8.53 | | 1.28 | | 120 | | 9.86 | | 955 | | 13.59 | | 360 | 8.31 |
| 1630 | X | | 7.60 | | 1.31 | | 134 | | 2.25 | | 950 | | 13.11 | | 360 | 8.32 |
| 1635 | X | | 7.55 | | 1.30 | | 130 | | 1.35 | | 891 | | 12.72 | | 360 | 8.34 |
| 1640 | X | | 7.50 | | 1.36 | | 113 | | 1.30 | | 900 | | 12.52 | | 360 | 8.34 |
| 1645 | X | | 7.50 | | 1.36 | | 111 | | 1.03 | | 775 | | 12.42 | | 360 | 8.32 |
| 1650 | X | | 7.52 | | 1.37 | | 100 | | 1.13 | | 733 | | 12.40 | | 360 | 8.32 |
| 1655 | X | | 7.54 | | 1.37 | | 93 | | 1.21 | | 695 | | 12.38 | | 360 | 8.32 |
| 1700 | X | | 7.52 | | 1.38 | | 81 | | 1.25 | | 683 | | 12.35 | | 360 | 8.31 |
| 1705 | X | | 7.52 | | 1.38 | | 75 | | 1.30 | | 645 | | 12.30 | | 360 | 8.31 |
| 1710 | X | | 7.52 | | 1.38 | | 63 | | 1.38 | | 581 | | 12.30 | | 360 | 8.32 |

COMMENTS:

AP-101-20211027 sampled at 1750

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen

# LOW FLOW SAMPLING DATA SHEET

2 of 2

SHEET ___ OF

SITE: NEPERA
DATE: 10/27/2021
WEATHER: Overcast, cloudy, cool, 58°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: TS1 3DFKD
MONITOR WELL #: AP-101
WELL PERMIT #: —
WELL DEPTH: 50
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 30-50
PID/FID READINGS (ppm): BACKGROUND: ___ BENEATH OUTER CAP: ___ BENEATH INNER CAP: ___
PUMP INTAKE DEPTH: 40 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 9.94 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1715 | X | | 7.52 | NA | 1.38 | NA | 67 | NA | 1.31 | NA | 500 | NA | 12.01 | NA | 360 | 8.32 |
| 1720 | X | | 7.50 | | 1.38 | | 55 | | 1.19 | | 495 | | 11.96 | | 360 | 8.32 |
| 1725 | X | | 7.50 | | 1.38 | | 55 | | 0.90 | | 489 | | 11.96 | | 360 | 8.31 |
| 1730 | X | | 7.50 | | 1.35 | | 82 | | 0.84 | | 484 | | 12.31 | | 360 | 8.32 |
| 1735 | X | | 7.45 | | 1.36 | | 76 | | 0.75 | | 474 | | 12.28 | | 360 | 8.31 |
| 1740 | X | | 7.45 | | 1.37 | | 74 | | 0.73 | | 467 | | 12.22 | | 360 | 8.31 |
| 1745 | X | | 7.46 | | 1.37 | | 71 | | 0.70 | | 458 | | 12.17 | | 360 | 8.31 |
| 1750 | | X | 7.46 | | 1.37 | | 69 | | 0.67 | | 453 | | 12.13 | | 360 | 8.32 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

AP-101-20211027 sampled at 1750

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and T[illegible]
± 10 mv for Redox Potential; and ± 10% [illegible]

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/27/21
WEATHER: cloudy, 50°
CONSULTING FIRM: Tt/CEG
FIELD PERSONNEL: AK
Horiba S#: NUHB1ARF

MONITOR WELL #: MH-105D
WELL PERMIT #:
WELL DEPTH: 34'
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 24-34'

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.29 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 10:55 | X | | 7.35 | NA | 2.08 | NA | -135 | NA | 2.16 | NA | 69.1 | NA | 14.80 | NA | 300 | 2.72 |
| 11:00 | X | | 7.26 | | 2.10 | | -157 | | 1.40 | | 89.2 | | 14.68 | | 300 | 2.75 |
| 11:05 | X | | 7.25 | | 2.11 | | -175 | | 0.91 | | 101 | | 14.62 | | 300 | 2.79 |
| 11:10 | X | | 7.23 | | 2.12 | | -173 | | 0.68 | | 97.2 | | 14.57 | | 300 | 2.82 |
| 11:15 | X | | 7.23 | | 2.12 | | -173 | | 0.56 | | 91.4 | | 14.57 | | 300 | 2.85 |
| 11:20 | X | | 7.22 | | 2.11 | | -169 | | 0.51 | | 91.5 | | 14.57 | | 300 | 2.86 |
| 11:25 | X | | 7.21 | | 2.12 | | -177 | | 0.57 | | 90.8 | | 14.56 | | 300 | 2.86 |
| 11:30 | X | | 7.22 | | 2.11 | | -172 | | 0.45 | | 94.7 | | 14.54 | | 300 | 2.87 |
| 11:35 | X | | 7.22 | | 2.11 | | -181 | | 0.43 | | 88.6 | | 14.53 | | 300 | 2.90 |
| 11:40 | | X | 7.21 | | 2.11 | | -178 | | 0.41 | | 91.3 | | 14.52 | | 300 | 2.91 |
| | | | | | | | | | | | | | | | | |

COMMENTS: MH-105D - 20211027 sampled @ 11:40

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 2

SITE: NEPERA - Harriman
DATE: 10/27/21
WEATHER: cloudy, 50°
CONSULTING FIRM: TetraTech/CEG
FIELD PERSONNEL: AK
NUH3UARF

MONITOR WELL #: MH-1055
WELL PERMIT #:
WELL DEPTH: 18 ft
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 13-18

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.75 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 8:40 | X | | 7.69 | NA | 1.08 | NA | 206 | NA | 8.22 | NA | 71.9 | NA | 14.36 | NA | 350 | 5.38 |
| 8:45 | X | | 7.62 | | 1.08 | | 170 | | 3.71 | | 60.4 | | 14.61 | | 350 | 5.46 |
| 8:50 | X | | 7.62 | | 1.08 | | 100 | | 2.14 | | 43.0 | | 14.68 | | 350 | 5.50 |
| 8:55 | X | | 7.62 | | 1.09 | | 54 | | 1.67 | | 37.5 | | 14.52 | | 350 | 5.56 |
| 9:00 | X | | 7.63 | | 1.09 | | 2 | | 1.17 | | 27.9 | | 14.45 | | 350 | 5.59 |
| 9:05 | X | | 7.63 | | 1.09 | | -64 | | 0.90 | | 30.0 | | 14.43 | | 350 | 5.63 |
| 9:10 | X | | 7.60 | | 1.09 | | -102 | | 082 | | 28.0 | | 14.40 | | 350 | 5.68 |
| 9:15 | X | | 7.60 | | 1.08 | | -174 | | 0.73 | | 31.4 | | 14.43 | | 350 | 5.72 |
| 9:20 | X | | 7.61 | | 1.07 | | -204 | | 0.71 | | 28.7 | | 14.40 | | 350 | 5.77 |
| 9:25 | X | | 7.63 | | 1.06 | | -233 | | 0.67 | | 29.4 | | 14.42 | | 350 | 5.80 |
| 9:30 | X | | 7.61 | | 1.06 | | -232 | | 0.67 | | 29.8 | | 14.44 | | 350 | 5.84 |

COMMENTS:
20211027
MH-1055 sampled @ 9:40

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 2 OF 2

SITE: NEPERA - Harriman
DATE: 10/27/21
WEATHER: cloudy, 60°
CONSULTING FIRM: Tt/CEG
FIELD PERSONNEL: AK
NUH3UARF

MONITOR WELL #: MH-1055
WELL PERMIT #:
WELL DEPTH: 18
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 13-18

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ~~15~~ 5.75 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:35 | X | | 7.59 | NA | 1.06 | NA | -233 | NA | 0.65 | NA | 28.7 | NA | 14.44 | NA | 350 | 5.91 |
| 9:40 | | X | 7.59 | | 1.06 | | -234 | | 0.64 | | 27.7 | | 14.45 | | 350 | 5.95 |
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COMMENTS:
~~MW~~ MH-1055 20211027 sampled @ 9:40

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/25/21
WEATHER: cloudy, 70°
CONSULTING FIRM: Tetra Tech / CEG
FIELD PERSONNEL: AK
NUH3UARF

MONITOR WELL #: MHP-MW-4S
WELL PERMIT #:
WELL DEPTH: 17
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 7-17 (?)

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.38 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 15:35 | X | | 7.07 | NA | 1.54 | NA | 159 | NA | 5.04 | NA | 365 | NA | 16.22 | NA | 350 | 4.43 |
| 15:40 | X | | 7.03 | | 1.54 | | 157 | | 4.35 | | 345 | | 15.63 | | 350 | 4.49 |
| 15:45 | X | | 7.04 | | 1.52 | | 159 | | 5.39 | | 236 | | 15.53 | | 350 | 4.51 |
| 15:50 | X | ✓ | 7.03 | | 1.52 | | 167 | | 4.16 | | 200 | | 15.47 | | 350 | 4.52 |
| 15:55 | X | | 7.01 | | 1.52 | | 170 | | 3.87 | | 130 | | 15.40 | | 350 | 4.54 |
| 16:00 | X | | 6.98 | | 1.51 | | 174 | | 3.79 | | 132 | | 15.43 | | 350 | 4.57 |
| 16:05 | X | | 6.98 | | 1.51 | | 175 | | 3.80 | | 98.9 | | 15.52 | | 350 | 4.55 |
| 16:10 | | X | 6.97 | | 1.52 | | 171 | | 3.74 | | 87.4 | | 15.24 | | 350 | 4.56 |
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COMMENTS:
MHP-MW-4S 20211025 sampled @ 16:10

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

ITE: Nepera
ATE: 10/27/21
EATHER: 55 Cloudy

CONSULTING FIRM: Cornerstone / Tetra Tech
FIELD PERSONNEL: ERB

ONITOR WELL #: MH-1035
ELL PERMIT #:

WELL DEPTH: 20
WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 15-20
XLH 7WOJP

ID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 17.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.99 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11:30 | X | | 7.17 | NA | 0.784 | NA | 165 | NA | 2.33 | NA | 274 | NA | 17.18 | NA | 300 | 3.99 |
| 11:35 | X | | 7.20 | | 0.785 | | 173 | | 2.01 | | 189 | | 17.27 | | 300 | 3.99 |
| 11:40 | X | | 7.23 | | 0.786 | | 180 | | 1.79 | | 150 | | 17.39 | | 300 | 3.99 |
| 11:45 | X | | 7.23 | | 0.786 | | 186 | | 1.63 | | 123 | | 17.40 | | 300 | 3.99 |
| 11:50 | X | | 7.24 | | 0.786 | | 186 | | 1.65 | | 117 | | 17.39 | | 300 | 3.99 |
| 12:00 | X | | 7.22 | | 0.786 | | 187 | | 1.53 | | 124 | | 17.40 | | 300 | 3.99 |
| 12:05 | X | | 7.23 | | 0.786 | | 188 | | 1.49 | | 121 | | 17.37 | | 300 | 3.99 |
| 12:10 | | X | 7.22 | | 0.786 | | 187 | | 1.50 | | 119 | | 17.39 | | 300 | 3.99 |
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COMMENTS:

MH-1035-20211027 Sampled @ 12:10

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET 2 OF 7

ITE: Nepera
ATE: 10/27/21
EATHER: 60 Sunny
CONSULTING FIRM: Tetra tech / cornerstone
FIELD PERSONNEL: ERB

ONITOR WELL #: MW-103D
ELL PERMIT #:
WELL DEPTH: 49
WELL DIAMETER: inches
SCREENED/OPEN INTERVAL: 39-49
XLH7WDTP

ID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 44 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.57 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:35 | X | | 8.77 | NA | 0.382 | NA | 3 | NA | 6.86 | NA | 212 | NA | 14.29 | NA | 308 | 3.57 |
| 7:40 | X | | 8.75 | | 0.384 | | 3 | | 6.82 | | 210 | | 14.32 | | 300 | 3.57 |
| 7:45 | X | | 8.70 | | 0.379 | | 4 | | 6.84 | | 207 | | 14.36 | | 300 | 3.57 |
| 9:50 | | X | 8.69 | | 0.377 | | 3 | | 6.86 | | 205 | | 14.39 | | 300 | 3.57 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

☆ MW-103D sampled @ 9:50 ☆

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;
: 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET 1 OF 2

ITE: Nepera
ATE: 10/27/21
/EATHER: 60 Cloudy

CONSULTING FIRM: Tetra Tech
FIELD PERSONNEL: ERB
XLH7WDJP

IONITOR WELL #: MH-1030
/ELL PERMIT #:
WELL DEPTH: 49
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 39-49

ID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 44 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.57 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8:40 | X | | 9.59 | NA | 0.909 | NA | -222 | NA | 1.06 | NA | 356 | NA | 14.85 | NA | 300 | 3.57 |
| 8:45 | X | | 10.13 | | 0.862 | | -201 | | 2.77 | | 262 | | 14.98 | | 300 | 3.57 |
| 8:50 | X | | 9.93 | | 0.759 | | -135 | | 2.97 | | 268 | | 14.99 | | 300 | 3.57 |
| 8:55 | X | | 9.63 | | 0.623 | | -67 | | 4.53 | | 265 | | 15.00 | | 300 | 3.57 |
| 9:00 | X | | 9.58 | | 0.597 | | -64 | | 4.74 | | 263 | | 15.00 | | 300 | 3.57 |
| 9:05 | X | | 9.21 | | 0.452 | | -30 | | 6.59 | | 230 | | 14.91 | | 300 | 3.57 |
| 9:10 | X | | 8.83 | | 0.391 | | 2 | | 6.82 | | 230 | | 14.77 | | 300 | 3.57 |
| 9:15 | X | | 8.84 | | 0.389 | | 2 | | 6.71 | | 229 | | 14.52 | | 300 | 3.57 |
| 9:20 | X | | 8.84 | | 0.387 | | 2 | | 6.73 | | 226 | | 14.46 | | 300 | 3.57 |
| 9:25 | X | | 8.80 | | 0.380 | | 3 | | 6.56 | | 220 | | 14.23 | | 300 | 3.57 |
| 9:30 | X | | 8.79 | | 0.381 | | 2 | | 6.90 | | 214 | | 14.26 | | 300 | 3.57 |

OMMENTS:

* MH-1030 Sampled @ 9:50

NDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/25/21
WEATHER: 65 Cloudy

CONSULTING FIRM: Cornerstone
FIELD PERSONNEL: ERB

MONITOR WELL #: MHP-MW-3D
WELL PERMIT #:
WELL DEPTH: 36
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 26-36

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 31 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.34 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 15:25 | X | | 7.24 | NA | 1.58 | NA | 172 | NA | 25.11 | NA | 115 | NA | 17.30 | NA | 250 | 3.43 |
| 15:30 | X | | 7.04 | | 1.58 | | 182 | | 16.80 | | 69.2 | | 16.85 | | 250 | 3.46 |
| 15:35 | X | | 7.08 | | 1.58 | | 181 | | 16.80 | | 55.7 | | 16.82 | | 250 | 3.48 |
| 15:40 | X | | 7.07 | | 1.58 | | 185 | | 15.64 | | 48.2 | | 16.69 | | 250 | 3.50 |
| 15:45 | X | | 7.10 | | 1.57 | | 187 | | 15.19 | | 46.1 | | 16.54 | | 250 | 3.50 |
| 15:50 | X | | 7.08 | | 1.57 | | 187 | | 15.23 | | 45.8 | | 16.49 | | 250 | 3.50 |
| 15:55 | X | | 7.10 | | 1.57 | | 189 | | 15.19 | | 44.5 | | 16.49 | | 250 | 3.50 |
| 16:00 | | X | 7.08 | | 1.57 | | 187 | | 15.11 | | 43.9 | | 16.54 | | 250 | 3.50 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

★ MHP-MW-3D-20211025 sampled @ 16:00

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SITE: NEPERA
DATE: 10/27/2021
WEATHER: Mostly cloudy, cool, 55°F
SHEET ___ OF
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: EB / AK / DW
Horiba Serial Number: TSI JDFKD
MONITOR WELL #: MHP-MW-35
WELL PERMIT #:
WELL DEPTH: 16
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 6-16
PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.07 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0850 | X | | 6.85 | NA | 1.04 | NA | 108 | NA | 3.59 | NA | 28.6 | NA | 16.20 | NA | 400 | 2.89 |
| 0855 | X | | 6.85 | | 1.04 | | 109 | | 3.16 | | 26.0 | | 16.23 | | 400 | 2.89 |
| 0900 | X | | 6.85 | | 1.05 | | 110 | | 3.11 | | 21.5 | | 16.17 | | 400 | 2.90 |
| 0905 | X | | 6.84 | | 1.05 | | 110 | | 3.04 | | 21.1 | | 16.21 | | 400 | 2.88 |
| 0910 | X | | 6.85 | | 1.05 | | 110 | | 3.00 | | 19.8 | | 16.23 | | 400 | 2.88 |
| 0915 | X | | 6.85 | | 1.05 | | 110 | | 3.00 | | 18.9 | | 16.23 | | 400 | 2.89 |
| 0920 | X | | 6.85 | | 1.05 | | 111 | | 2.98 | | 18.5 | | 16.23 | | 400 | 2.88 |
| 0925 | X | | 6.85 | | 1.05 | | 111 | | 2.94 | | 18.4 | | 16.23 | | 400 | 2.88 |
| 0930 | | X | 6.85 | | 1.05 | | 112 | | 2.91 | | 18.3 | | 16.21 | | 400 | 2.88 |
| | | | | | | | | | | | | | | | | |
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COMMENTS: DUP-01-20211027 @ 1200
MHP-MW-35-20211027 Sampled @ 0930

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved O2

# LOW FLOW SAMPLING
# DATA SHEET

SITE: NEPERA
DATE: 10/27/2021
WEATHER: Mostly cloudy, cool, windy, 58°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: EB / DW / AK
Horiba Serial Number:
SHEET ___ OF ___

MONITOR WELL #: MH-101
WELL PERMIT #: —
WELL DEPTH: 16
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 11-16

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.12 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1255 | X | | 7.34 | NA | 1.17 | NA | 157 | NA | 9.89 | NA | 90.5 | NA | 16.23 | NA | 360 | 5.93 |
| 1300 | X | | 7.28 | | 1.32 | | 158 | | 8.72 | | 90.1 | | 16.24 | | 360 | 5.94 |
| 1305 | X | | 7.28 | | 1.30 | | 155 | | 8.15 | | 83.5 | | 16.24 | | 360 | 5.94 |
| 1310 | X | | 7.27 | | 1.29 | | 153 | | 7.70 | | 72.0 | | 16.25 | | 360 | 5.95 |
| 1315 | X | | 7.27 | | 1.29 | | 151 | | 6.98 | | 49.6 | | 16.26 | | 360 | 5.96 |
| 1320 | X | | 7.28 | | 1.29 | | 150 | | 6.95 | | 35.0 | | 16.25 | | 360 | 5.96 |
| 1325 | X | | 7.27 | | 1.29 | | 148 | | 6.45 | | 34.4 | | 16.26 | | 360 | 5.96 |
| 1330 | X | | 7.27 | | 1.29 | | 147 | | 6.37 | | 33.8 | | 16.26 | | 360 | 5.97 |
| 1335 | X | | 7.27 | | 1.29 | | 146 | | 6.28 | | 31.5 | | 16.27 | | 360 | 5.96 |
| 1340 | | X | 7.26 | | 1.29 | | 146 | | 6.20 | | 30.1 | | 16.27 | | 360 | 5.96 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MH-101-20211027 Sampled at 1340

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPPER
DATE: 10/27/2021
WEATHER: cloudy, cool, windy, 58°F
SHEET ___ OF ___
CONSULTING FIRM: CEG ITE
FIELD PERSONNEL: EB / DW / AK
Horiba Serial Number: TS13D FKD
MONITOR WELL #: MH-104
WELL PERMIT #: —
WELL DEPTH: 27
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 17-27
PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 22 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.52 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1140 | X | | 7.65 | NA | 0.835 | NA | 133 | NA | 6.17 | NA | 399 | NA | 15.20 | NA | 360 | 1.56 |
| 1145 | X | | 7.48 | | 0.849 | | 136 | | 5.86 | | 346 | | 15.20 | | 360 | 1.57 |
| 1150 | X | | 7.46 | | 0.851 | | 136 | | 5.92 | | 320 | | 15.23 | | 360 | 1.57 |
| 1155 | X | | 7.45 | | 0.858 | | 136 | | 6.00 | | 315 | | 15.21 | | 360 | 1.57 |
| 1200 | X | | 7.45 | | 0.855 | | 137 | | 6.05 | | 319 | | 15.23 | | 360 | 1.56 |
| 1205 | X | | 7.44 | | 0.858 | | 138 | | 6.07 | | 318 | | 15.23 | | 360 | 1.57 |
| 1210 | X | | 7.44 | | 0.862 | | 140 | | 6.05 | | 315 | | 15.22 | | 360 | 1.57 |
| 1215 | X | | 7.43 | | 0.865 | | 142 | | 5.95 | | 310 | | 15.21 | | 360 | 1.56 |
| 1220 | X | | 7.43 | | 0.869 | | 1.40 | | 5.90 | | 305 | | 15.19 | | 360 | 1.56 |
| 1225 | | X | 7.43 | | 0.872 | | 1.39 | | 5.85 | | 300 | | 15.20 | | 360 | 1.56 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MH-104-20211027 sampled at 1225

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SITE: NEPERA
DATE: 10/27/2021
WEATHER: mostly cloudy, cool, 59°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: TS1SDFKD
SHEET ___ OF ___

MONITOR WELL #: MH-102
WELL PERMIT #: —
WELL DEPTH: 38
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 28-38

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 33 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 2.23 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1445 | X | | 8.10 | NA | 1.26 | NA | 115 | NA | 3.74 | NA | 201 | NA | 15.03 | NA | 360 | 0.90 |
| 1450 | X | | 7.34 | | 1.28 | | 83 | | 2.74 | | 190 | | 14.85 | | 360 | 0.89 |
| 1455 | X | | 7.35 | | 1.29 | | 85 | | 2.05 | | 185 | | 14.73 | | 360 | 0.90 |
| 1500 | X | | 7.33 | | 1.29 | | 74 | | 1.84 | | 188 | | 14.64 | | 360 | 0.90 |
| 1505 | X | | 7.40 | | 1.30 | | 61 | | 1.83 | | 184 | | 14.61 | | 360 | 0.91 |
| 1510 | X | | 7.36 | | 1.30 | | 55 | | 1.80 | | 181 | | 14.59 | | 360 | 0.91 |
| 1515 | X | | 7.34 | | 1.30 | | 52 | | 1.76 | | 180 | | 14.59 | | 360 | 0.90 |
| 1520 | X | | 7.32 | | 1.30 | | 48 | | 1.72 | | 176 | | 14.57 | | 360 | 0.91 |
| 1525 | X | | 7.31 | | 1.30 | | 45 | | 1.68 | | 172 | | 14.56 | | 360 | 0.91 |
| 1530 | X | | 7.31 | | 1.30 | | 43 | | 1.63 | | 169 | | 14.55 | | 360 | 0.92 |
| 1535 | | X | 7.32 | | 1.30 | | 42 | | 1.58 | | 165 | | 14.55 | | 360 | 0.90 |

COMMENTS:

MH-102-20211027 sampled at 1535

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

ITE: Nepera
ATE: 10/27/21
EATHER: 60 Sunny
CONSULTING FIRM: CEG/ITT
FIELD PERSONNEL: ERB

ONITOR WELL #: AMW-2
ELL PERMIT #:
WELL DEPTH: 25
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 20-25
XLH7WDJP

ID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 22.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.63 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15:05 | X | | 7.17 | NA | 1.41 | NA | 33 | NA | 0.0 | NA | 363 | NA | 14.96 | NA | 300 | 6.63 |
| 15:10 | X | | 7.15 | | 1.41 | | 21 | | 0.0 | | 239 | | 14.89 | | 300 | 6.63 |
| 15:15 | X | | 7.16 | | 1.41 | | 20 | | 0.0 | | 174 | | 14.86 | | 300 | 6.63 |
| 15:20 | X | | 7.17 | | 1.41 | | 21 | | 0.0 | | 121 | | 14.81 | | 300 | 6.63 |
| 15:25 | X | | 7.17 | | 1.40 | | 21 | | 0.0 | | 103 | | 14.79 | | 300 | 6.63 |
| 15:30 | X | | 7.23 | | 1.40 | | 22 | | 0.0 | | 70.4 | | 14.91 | | 300 | 6.63 |
| 15:35 | X | | 7.28 | | 1.39 | | 22 | | 0.0 | | 50.1 | | 14.93 | | 300 | 6.63 |
| 15:40 | X | | 7.28 | | 1.39 | | 22 | | 0.0 | | 49.8 | | 14.92 | | 300 | 6.63 |
| 15:45 | X | | 7.27 | | 1.39 | | 22 | | 0.0 | | 49.3 | | 14.93 | | 300 | 6.63 |
| 15:50 | X | | 7.27 | | 1.39 | | 22 | | 0.0 | | 49.1 | | 14.94 | | 300 | 6.63 |
| 15:55 | | X | 7.27 | | 1.39 | | 22 | | 0.0 | | 49.0 | | 14.94 | | 300 | 6.63 |

COMMENTS:

☆AMW-2-20211027 sampled @ 15:55

NDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; : 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA-Harriman
DATE: 10/27/21
WEATHER: cloudy, 55°
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: AK
NUH3U4RF

MONITOR WELL #: AMW-1
WELL PERMIT #:
WELL DEPTH: 20
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 10-20

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.81 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 17:05 | X | | 7.43 | NA | 1.94 | NA | 26 | NA | 3.80 | NA | >999 | NA | 15.11 | NA | 250 | 6.88 |
| 17:10 | X | | 7.36 | | 1.91 | | -16 | | 3.78 | | >999 | | 15.01 | | 250 | 6.93 |
| 17:15 | X | | 7.37 | | 1.90 | | -29 | | 5.63 | | >999 | | 14.91 | | 250 | 6.97 |
| 17:20 | X | | 7.38 | | 1.88 | | -42 | | 6.18 | | >999 | | 14.86 | | 250 | 7.02 |
| 17:25 | X | | 7.36 | | 1.88 | | -45 | | 5.90 | | >999 | | 14.84 | | 250 | 7.04 |
| 17:30 | X | | 7.36 | | 1.91 | | -46 | | 5.63 | | >999 | | 14.82 | | 250 | 7.07 |
| 17:35 | X | | 7.38 | | 1.91 | | -50 | | 5.80 | | >999 | | 14.79 | | 250 | 7.12 |
| 17:40 | X | | 7.38 | | 1.91 | | -52 | | 5.72 | | >999 | | 14.76 | | 250 | 7.15 |
| 17:45 | X | | 7.38 | | 1.92 | | -56 | | 5.78 | | >999 | | 14.73 | | 250 | 7.17 |
| 17:50 | | X | 7.39 | | 1.92 | | -58 | | 5.71 | | >999 | | 14.70 | | 250 | 7.20 |
| | | | | | | | | | | | | | | | | |

COMMENTS:
AMW-1 20211027 sampled @ 17:50

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/27/21
WEATHER: 55°, cloudy
CONSULTING FIRM: CFG/Tt
FIELD PERSONNEL: AK
NUHSUARF

MONITOR WELL #: MW-202S
WELL PERMIT #: _____
WELL DEPTH: ~32 ft
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 22-32 (?)

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____

PUMP INTAKE DEPTH: 28 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ~~6.15~~ ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 15:10 | X | | 7.22 | NA | 3.01 | NA | -46 | NA | 4.61 | NA | 458 | NA | 16.68 | NA | 300 | 6.18 |
| 15:15 | X | | 7.21 | | 3.04 | | -73 | | 0.96 | | 501 | | 16.39 | | 300 | 6.19 |
| 15:20 | X | | 7.17 | | 3.04 | | -82 | | 0.55 | | 486 | | 16.28 | | 300 | 6.19 |
| 15:25 | X | | 7.15 | | 3.03 | | -88 | | 0.46 | | 494 | | 16.25 | | 300 | 6.21 |
| 15:30 | X | | 7.17 | | 3.03 | | -90 | | 0.43 | | 507 | | 16.25 | | 300 | 6.22 |
| 15:35 | X | | 7.19 | | 3.05 | | -84 | | 0.47 | | 493 | | 16.29 | | 300 | 6.23 |
| 15:40 | X | X | 7.18 | | 3.05 | | -82 | | 0.41 | | 515 | | 16.29 | | 300 | 6.23 |
| 15:45 | ~~X~~ | ~~X~~ | 7.20 | | 3.05 | | -86 | | 0.38 | | 504 | | 16.28 | | 300 | 6.24 |
| ~~15:50~~ | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:
MW-202S 20211027 sampled @ 15:45

**INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA-Harriman
DATE: 10/27/21
WEATHER: 55°, cloudy
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: AK
NMH3UARF

MONITOR WELL #: MW-202D
WELL PERMIT #:
WELL DEPTH: ~67
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: ~57-67(?)

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 62 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.15 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 13:25 | X | | 7.08 | NA | 1.30 | NA | 269 | NA | 5.08 | NA | 285 | NA | 15.34 | NA | 350 | 4.85 |
| 13:30 | X | | 7.05 | | 1.32 | | -41 | | 0.88 | | 169 | | 15.09 | | 350 | 4.86 |
| 13:35 | X | | 7.01 | | 1.31 | | -45 | | 0.62 | | 152 | | 14.99 | | 350 | 4.86 |
| 13:40 | X | | 7.00 | | 1.31 | | -47 | | 0.45 | | 31.4 | | 14.91 | | 350 | 4.87 |
| 13:45 | X | | 7.00 | | 1.30 | | -47 | | 0.39 | | 22.1 | | 14.88 | | 350 | 4.88 |
| 13:50 | X | | 6.94 | | 1.29 | | -49 | | 0.37 | | 17.2 | | 14.84 | | 350 | 4.88 |
| 13:55 | X | | 7.00 | | 1.28 | | -50 | | 0.38 | | 16.4 | | 14.79 | | 350 | 4.88 |
| 14:00 | | X | 7.01 | | 1.28 | | -48 | | 0.36 | | 14.4 | | 14.76 | | 350 | 4.89 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:
MW-202D20211027 sampled @ 14:00

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/27/21
WEATHER: 60 Cloudy

CONSULTING FIRM: CEG/TT
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-95
WELL PERMIT #:
WELL DEPTH: 21
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 14-21
XL47WDJD

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 17.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.73 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:50 | X | | 7.02 | NA | 1.30 | NA | 102 | NA | 4.54 | NA | 88.0 | NA | 14.59 | NA | 300 | 4.73 |
| 16:55 | X | | 6.92 | | 1.30 | | 106 | | 0.0 | | 39.2 | | 14.35 | | 300 | 4.75 |
| 17:00 | X | | 6.93 | | 1.30 | | 106 | | 0.0 | | 28.3 | | 14.33 | | 300 | 4.78 |
| 17:05 | X | | 6.94 | | 1.30 | | 106 | | 0.0 | | 23.1 | | 14.29 | | 300 | 4.79 |
| 17:10 | X | | 6.96 | | 1.30 | | 105 | | 0.0 | | 22.0 | | 14.28 | | 300 | 4.80 |
| 17:15 | X | | 6.95 | | 1.30 | | 105 | | 0.0 | | 18.2 | | 14.21 | | 300 | 4.81 |
| 17:20 | X | | 6.96 | | 1.30 | | 106 | | 0.0 | | 15.6 | | 14.18 | | 300 | 4.81 |
| 17:25 | | X | 6.96 | | 1.30 | | 107 | | 0.0 | | 14.2 | | 14.16 | | 300 | 4.81 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

☆ MW-95-20211027 Sampled @ 17:25

INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/27/21
WEATHER: 60 Cloudy

CONSULTING FIRM: CEG / TT
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-245
WELL PERMIT #: _____
WELL DEPTH: 17.5
WELL DIAMETER: _____ inches

SCREENED/OPEN INTERVAL: 7.5 - 17.5
XLH7WDJP

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____

PUMP INTAKE DEPTH: 12.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.78 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13:25 | X | | 7.15 | NA | 2.82 | NA | -11 | NA | 3.14 | NA | 0.0 | NA | 16.10 | NA | 300 | 7.79 |
| 13:30 | X | | 7.21 | | 2.82 | | -36 | | 0.10 | | 0.0 | | 16.13 | | 300 | 7.80 |
| 13:35 | X | | 7.23 | | 2.82 | | -60 | | 0.00 | | 0.0 | | 16.16 | | 300 | 7.80 |
| 13:40 | X | | 7.23 | | 2.82 | | -64 | | 0.00 | | 0.0 | | 16.18 | | 300 | 7.80 |
| 13:45 | X | | 7.25 | | 2.81 | | -68 | | 0.00 | | 0.0 | | 16.15 | | 300 | 7.80 |
| 13:50 | X | | 7.25 | | 2.81 | | -71 | | 0.00 | | 0.0 | | 16.13 | | 300 | 7.80 |
| 13:55 | X | | 7.25 | | 2.81 | | -74 | | 0.0 | | 0.0 | | 16.13 | | 300 | 7.80 |
| 14:00 | | X | 7.26 | | 2.81 | | -76 | | 0.0 | | 0.0 | | 16.14 | | 300 | 7.80 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

* MW-245-20211027 MS/MSD Sampled @ 14:00

**NDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPERA
DATE: 10/28/2021
WEATHER: Sunny, Cool, 57°F
CONSULTING FIRM: CEG/TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: TSIJDFKD
SHEET ___ OF

MONITOR WELL #: BP-101
WELL PERMIT #: —
WELL DEPTH: 47
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 42-47

PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 45 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.05 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1005 | X | | 7.97 | NA | 0.938 | NA | -139 | NA | 0.69 | NA | 124 | NA | 13.05 | NA | 360 | 7.45 |
| 1010 | X | | 7.96 | | 0.948 | | -137 | | 0.65 | | 114 | | 13.02 | | 360 | 7.48 |
| 1015 | X | | 7.96 | | 0.938 | | -137 | | 0.63 | | 117 | | 13.02 | | 360 | 7.52 |
| 1020 | X | | 7.95 | | 0.951 | | -137 | | 0.60 | | 118 | | 13.03 | | 360 | 7.54 |
| 1025 | X | | 7.95 | | 0.968 | | -137 | | 0.58 | | 118 | | 13.03 | | 360 | 7.57 |
| 1030 | X | | 7.94 | | 0.979 | | -137 | | 0.56 | | 119 | | 13.04 | | 360 | 7.60 |
| 1035 | X | | 7.94 | | 0.998 | | -136 | | 0.57 | | 117 | | 13.03 | | 360 | 7.60 |
| 1040 | X | | 7.93 | | 1.01 | | -135 | | 0.56 | | 115 | | 13.02 | | 360 | 7.62 |
| 1045 | X | | 7.91 | | 1.03 | | -134 | | 0.54 | | 114 | | 13.02 | | 360 | 7.64 |
| 1050 | X | | 7.90 | | 1.04 | | -133 | | 0.54 | | 115 | | 13.01 | | 360 | 7.65 |
| 1055 | | X | 7.90 | | 1.04 | | -132 | | 0.54 | | 115 | | 13.00 | | 360 | 7.65 |

COMMENTS:

BP-101-20211028 sampled at 1055

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPERA
DATE: 10/28/2021
WEATHER: SUNNY, COOL, 62°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: T51SDFKD
SHEET ___

MONITOR WELL #: AMW-5
WELL PERMIT #:
WELL DEPTH: 18
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 8-18

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.52 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH WATER (ft bel TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 1500 | X | | 7.07 | NA | 1.36 | NA | -54 | NA | 0.51 | NA | 85.1 | NA | 15.32 | NA | 360 | 2.58 |
| 1505 | X | | 7.07 | | 1.36 | | -54 | | 0.49 | | 82.1 | | 15.37 | | 360 | 2.56 |
| 1510 | X | | 7.06 | | 1.36 | | -54 | | 0.47 | | 62.9 | | 15.31 | | 360 | 2.55 |
| 1515 | X | | 7.06 | | 1.36 | | -54 | | 0.46 | | 52.7 | | 15.31 | | 360 | 2.5 |
| 1520 | X | | 7.06 | | 1.36 | | -55 | | 0.45 | | 48.9 | | 15.32 | | 360 | 2.57 |
| 1525 | X | | 7.06 | | 1.36 | | -56 | | 0.44 | | 47.5 | | 15.33 | | 360 | 2.57 |
| 1530 | X | | 7.06 | | 1.36 | | -56 | | 0.43 | | 46.0 | | 15.35 | | 360 | 2.57 |
| 1535 | X | | 7.06 | | 1.36 | | -56 | | 0.43 | | 44.8 | | 15.34 | | 360 | 2.57 |
| 1540 | | X | 7.06 | | 1.37 | | -56 | | 0.42 | | 43.1 | | 15.35 | | 360 | 2.57 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

AMW-5 - 20211028 sampled at 1540

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SITE: MEPERA
DATE: 10/28/2021
WEATHER: Sunny, clear, cool, 61°F
CONSULTING FIRM: CDG / TT
FIELD PERSONNEL: EB / DW / AK
Horiba Serial Number: T515D PKD
SHEET ___

MONITOR WELL #: MW-5S
WELL PERMIT #: —
WELL DEPTH: 45
WELL DIAMETER: 6 inches
SCREENED/OPEN INTERVAL: 35-45

PID/FID READINGS (ppm): BACKGROUND: ___ BENEATH OUTER CAP: ___ BENEATH INNER CAP: ___
PUMP INTAKE DEPTH: 40 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 12.02 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEP WA (ft T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1630 | X | | 8.26 | NA | 1.18 | NA | 34 | NA | 7.08 | NA | 21.0 | NA | 13.52 | NA | 320 | 9.60 |
| 1635 | X | | 7.39 | | 1.43 | | 27 | | 3.03 | | 14.2 | | 12.66 | | 320 | 9.61 |
| 1640 | X | | 7.40 | | 1.44 | | 25 | | 3.07 | | 14.0 | | 12.63 | | 320 | 9.6 |
| 1645 | X | | 7.38 | | 1.43 | | 18 | | 3.00 | | 13.9 | | 12.60 | | 320 | 9.6 |
| 1650 | X | | 7.37 | | 1.43 | | 17 | | 2.91 | | 13.7 | | 12.58 | | 320 | 9.6 |
| 1655 | X | | 7.37 | | 1.44 | | 18 | | 2.83 | | 13.5 | | 12.54 | | 320 | 9.6 |
| 1700 | X | | 7.37 | | 1.44 | | 15 | | 2.75 | | 13.4 | | 12.50 | | 320 | 9.6 |
| 1705 | | X | 7.36 | | 1.45 | | 13 | | 2.68 | | 13.5 | | 12.51 | | 320 | 9.62 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

MW-5S-20211028 sampled at 1705

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for [illegible]
± 10 mv for Redox Potential; and ± 10% [illegible]

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Negera
DATE: 10/28/21
WEATHER: 60 Sunny
CONSULTING FIRM: CEG / TT
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-34
WELL PERMIT #:
WELL DEPTH: 19
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 4-19
XL H7 W DJP

PID/FID READINGS (ppm): BACKGROUND: ____ BENEATH OUTER CAP: ____ BENEATH INNER CAP: ____
PUMP INTAKE DEPTH: 11.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.89 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17:05 | X | | 7.10 | NA | 1.88 | NA | -158 | NA | 0.06 | NA | 20.5 | NA | 17.01 | NA | 300 | 3.91 |
| 17:10 | X | | 7.13 | | 1.90 | | -166 | | 0.0 | | 45.5 | | 17.01 | | 300 | 3.96 |
| 17:15 | X | | 7.15 | | 1.94 | | -168 | | 0.0 | | 42.6 | | 16.98 | | 300 | 4.00 |
| 17:20 | X | | 7.26 | | 2.20 | | -182 | | 0.0 | | 42.9 | | 16.88 | | 300 | 4.05 |
| 17:25 | X | | 7.37 | | 2.48 | | -193 | | 0.0 | | 41.7 | | 16.83 | | 300 | 4.10 |
| 17:30 | X | | 7.40 | | 3.18 | | -209 | | 0.0 | | 40.9 | | 16.80 | | 300 | 4.12 |
| 17:35 | X | | 7.45 | | 3.20 | | -217 | | 0.0 | | 39.8 | | 16.77 | | 300 | 4.15 |
| 17:40 | X | | 7.47 | | 3.22 | | -219 | | 0.0 | | 38.4 | | 16.75 | | 300 | 4.20 |
| 17:45 | | X | | | | | | | | | | | | | | |
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COMMENTS:

☆ MW-34-20211028 Sampled at 1745

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/28/21
WEATHER: 60 Sunny
CONSULTING FIRM: Cornerstone / T.T.
FIELD PERSONNEL: ERD

MONITOR WELL #: MW-15
WELL PERMIT #:
WELL DEPTH: 25
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 15-25
XLH7WDJD

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 20 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.98 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15:30 | X | | 7.12 | NA | 1.50 | NA | -84 | NA | 0.74 | NA | 46.6 | NA | 15.41 | NA | 300 | 6.99 |
| 15:35 | X | | 7.19 | | 1.51 | | -95 | | 0.0 | | 39.5 | | 15.27 | | 300 | 7.01 |
| 15:40 | X | | 7.20 | | 1.51 | | -105 | | 0.0 | | 34.6 | | 15.15 | | 300 | 7.03 |
| 15:45 | X | | 7.20 | | 1.51 | | -107 | | 0.0 | | 30.6 | | 15.12 | | 300 | 7.04 |
| 15:50 | X | | 7.20 | | 1.52 | | -113 | | 0.0 | | 26.7 | | 15.13 | | 300 | 7.05 |
| 15:55 | X | | 7.20 | | 1.52 | | -113 | | 0.0 | | 27.3 | | 15.12 | | 300 | 7.05 |
| 16:00 | X | | 7.19 | | 1.52 | | -115 | | 0.0 | | 25.6 | | 15.07 | | 300 | 7.05 |
| 16:05 | | X | 7.21 | | 1.52 | | -116 | | 0.0 | | 22.7 | | 15.01 | | 300 | 7.05 |
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COMMENTS:

☆ MW-15-20211028 sampled @ 16:05

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/28/21
WEATHER: 60 & Sunny
CONSULTING FIRM: CEG / T.T.
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-28S
WELL PERMIT #:
WELL DEPTH: 13
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 3-13

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.47 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| | | | | NA | | NA | | NA | | NA | | NA | | NA | | |
| | | | | | | | | | | | | | | | | |
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COMMENTS:
☆ Well clogged w/ roots, couldnt get pump down to sample ☆

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/28/21
WEATHER: 60 Sunny

CONSULTING FIRM: CEG / TT
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-102
WELL PERMIT #:
WELL DEPTH: 22
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 12 - 22 ?
XLH7WPJP

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 18 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.88 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:25 | X | | 7.13 | NA | 1.48 | NA | -117 | NA | 0.80 | NA | 14.1 | NA | 14.47 | NA | 300 | 4.89 |
| 12:30 | X | | 7.11 | | 1.48 | | -120 | | 0.0 | | 92.4 | | 14.48 | | 300 | 4.90 |
| 12:35 | X | | 7.12 | | 1.48 | | -121 | | 0.0 | | 73.2 | | 14.55 | | 300 | 4.91 |
| 12:40 | X | | 7.13 | | 1.48 | | -122 | | 0.0 | | 46.7 | | 14.53 | | 300 | 4.92 |
| 12:45 | X | | 7.11 | | 1.45 | | -103 | | 0.0 | | 39.7 | | 14.99 | | 300 | 4.92 |
| 12:50 | X | | 7.10 | | 1.45 | | -111 | | 0.0 | | 38.9 | | 14.97 | | 300 | 4.92 |
| 12:55 | X | | 7.13 | | 1.45 | | -114 | | 0.0 | | 36.8 | | 14.97 | | 300 | 4.92 |
| 13:00 | X | | 7.13 | | 1.45 | | -115 | | 0.0 | | 35.7 | | 14.98 | | 300 | |
| 13:05 | | X | 7.13 | | 1.45 | | -116 | | 0.0 | | 34.3 | | 14.98 | | 300 | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

☆ MW-102-20211028 sampled @ 13:05

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/28/21
WEATHER: 60 sunny

CONSULTING FIRM: CEG
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-26S
WELL PERMIT #:
WELL DEPTH: 11
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 6-11
XLH7NDJP

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 9 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.53 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:15 | X | | 6.88 | NA | 1.58 | NA | 119 | NA | 11.72 | NA | 19.9 | NA | 12.77 | NA | 300 | 7.53 |
| 10:20 | X | | 7.02 | | 1.56 | | 103 | | 14.98 | | 11.3 | | 13.10 | | 300 | 7.54 |
| 10:25 | X | | 7.33 | | 1.55 | | 92 | | 17.77 | | 4.8 | | 13.29 | | 300 | 7.55 |
| 10:30 | X | | 7.58 | | 1.54 | | 90 | | 17.62 | | 3.5 | | 13.30 | | 300 | 7.56 |
| 10:35 | X | | 7.60 | | 1.53 | | 98 | | 17.71 | | 3.1 | | 13.29 | | 300 | 7.57 |
| 10:40 | X | | 7.57 | | 1.55 | | 108 | | 17.74 | | 2.9 | | 13.28 | | 300 | 7.58 |
| 10:45 | X | | 7.57 | | 1.55 | | 110 | | 17.78 | | 2.0 | | 13.30 | | 300 | 7.60 |
| 10:50 | X | | 7.57 | | 1.55 | | 116 | | 17.80 | | 1.9 | | 13.33 | | 300 | 7.60 |
| 10:55 | | X | 7.58 | | 1.56 | | 118 | | 17.81 | | 2.0 | | 13.35 | | 300 | 7.60 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:
MS/MSD
* MW-26S-20211028 sampled @ 10:55

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/29/21
WEATHER: 50 Sunny

CONSULTING FIRM: Cornerstone / TT
FIELD PERSONNEL: ERB

MONITOR WELL #: MW-75
WELL PERMIT #: _____
WELL DEPTH: 36
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 26-36
XLH7WOJP

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____

PUMP INTAKE DEPTH: 31 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.73 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8:45 | X | | 7.39 | NA | 0.495 | NA | 162 | NA | 0.01 | NA | 68.5 | NA | 11.46 | NA | 300 | 5.74 |
| 8:50 | X | | 7.40 | | 0.499 | | 156 | | 0.0 | | 60.1 | | 11.39 | | 300 | 5.75 |
| 8:55 | X | | 7.40 | | 0.502 | | 150 | | 0.0 | | 50.0 | | 11.39 | | 300 | 5.77 |
| 9:00 | X | | 7.38 | | 0.515 | | 142 | | 0.0 | | 35.8 | | 11.37 | | 300 | 5.78 |
| 9:05 | X | | 7.38 | | 0.520 | | 135 | | 0.0 | | 24.2 | | 11.37 | | 300 | 5.78 |
| 9:10 | X | | 7.37 | | 0.525 | | 131 | | 0.0 | | 22.6 | | 11.38 | | 300 | 5.79 |
| 9:15 | X | X | 7.36 | | 0.527 | | 129 | | 0.0 | | 21.3 | | 11.38 | | 300 | 5.79 |
| | | | | | | | | | | | | | | | | |
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COMMENTS:

☆ MW-75-20211028 Sampled @ 9:15

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA-Harriman
DATE: 10/28/21
WEATHER: sunny, 60°
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: AK
NJH3UARF

MONITOR WELL #: AMW-4
WELL PERMIT #:
WELL DEPTH: 24'
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 14-24'

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 21 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.64 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:05 | X | | 7.19 | NA | 0.734 | NA | 72 | NA | 4.42 | NA | 536 | NA | 17.52 | NA | 350 | 5.67 |
| 16:10 | X | | 7.06 | | 0.719 | | 71 | | 0.81 | | 386 | | 17.02 | | 350 | 5.69 |
| 16:15 | X | | 7.04 | | 0.707 | | 69 | | 0.51 | | 313 | | 16.98 | | 350 | 5.69 |
| 16:20 | X | | 6.99 | | 0.702 | | 70 | | 0.41 | | 221 | | 16.89 | | 350 | 5.70 |
| 16:25 | X | | 7.01 | | 0.698 | | 68 | | 0.36 | | 187 | | 16.88 | | 350 | 5.72 |
| 16:30 | X | | 6.99 | | ~~0.698~~ | 0.688 | 70 | | 0.27 | | 162 | | | | | |
| pump stopped | | | | | 0 | | | | | | | | | | | |
| 17:00 | X | | 7.01 | | 0.696 | | 73 | | 0.33 | | 151 | | 16.84 | | 350 | 5.72 |
| 17:05 | X | | 7.02 | | 0.691 | | 71 | | 0.34 | | 155 | | 16.87 | | 350 | 5.73 |
| 17:10 | | X | 7.02 | | 0.693 | | 70 | | 0.30 | | 146 | | 16.92 | | 350 | 5.74 |
| | | | | | | | | | | | | | | | | |

COMMENTS: AMW-4 20211028 sampled @ 17:10

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NJDEPEA-Harriman
DATE: 10/28/21
WEATHER: sunny, 55°
CONSULTING FIRM: Tt/CEG
FIELD PERSONNEL: AK
NJH34ARF

MONITOR WELL #: AMW-11
WELL PERMIT #: _____
WELL DEPTH: 20
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 10-20

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 17 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 13.78 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:05 | X | | 7.16 | NA | 1.07 | NA | -108 | NA | 6.90 | NA | 344 | NA | 16.17 | NA | 300 | ~~13.75~~ 13.81 |
| 14:10 | X | | 6.99 | | 1.06 | | -115 | | 0.83 | | 213 | | 15.36 | | 300 | 13.83 |
| 14:15 | X | | 6.98 | | 1.06 | | -119 | | 0.53 | | 130 | | 15.09 | | 300 | 13.84 |
| 14:20 | X | | 6.98 | | 1.05 | | -121 | | 0.43 | | 97.4 | | 15.14 | | 300 | 13.84 |
| 14:25 | X | | 6.98 | | 1.05 | | -124 | | 0.36 | | 81.9 | | 15.16 | | 300 | 13.85 |
| 14:30 | X | | 6.98 | | 1.05 | | -126 | | 0.33 | | 68.4 | | 15.19 | | 300 | 13.87 |
| 14:35 | X | | 6.97 | | 1.05 | | -128 | | 0.33 | | 64.7 | | 15.13 | | 300 | 13.88 |
| 14:40 | X | | 6.98 | | 1.05 | | -129 | | 0.31 | | 54.1 | | 15.16 | | 300 | 13.88 |
| 14:45 | X | | 6.97 | | 1.05 | | -129 | | 0.29 | | 53.8 | | 15.17 | | 300 | 13.89 |
| 14:50 | | X | 6.97 | | 1.04 | | -130 | | 0.28 | | 54.2 | | 15.20 | | 300 | 13.90 |
| | | | | | | | | | | | | | | | | |

COMMENTS:
AMW-11 20211028 sampled @ 14:50

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/28/21
WEATHER: sunny, 50°
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: AK
NUHUBARF

MONITOR WELL #: AMW-6
WELL PERMIT #: _____
WELL DEPTH: 20
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 10-20

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 17 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.73 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 12:15 | X | | 7.02 | NA | 0.975 | NA | -77 | NA | 7.27 | NA | >1000 | NA | 16.72 | NA | 300 | 9.76 |
| 12:20 | X | | 6.88 | | 0.977 | | -92 | | 0.77 | | 848 | | 15.97 | | 300 | 9.79 |
| 12:25 | X | | 6.85 | | 0.994 | | -94 | | 0.55 | | 358 | | 15.87 | | 300 | 9.81 |
| 12:30 | X | | 6.83 | | 1.01 | | -94 | | 0.43 | | 267 | | 15.89 | | 300 | 9.81 |
| 12:35 | X | | 6.80 | | 1.01 | | -95 | | 0.39 | | 164 | | 15.88 | | 300 | 9.82 |
| 12:40 | X | | 6.86 | | 1.00 | | -101 | | 0.35 | | 122 | | 15.84 | | 300 | 9.83 |
| 12:45 | X | | 6.89 | | 0.998 | | -104 | | 0.33 | | 117 | | 15.92 | | 300 | 9.83 |
| 12:50 | X | | 6.90 | | 0.997 | | -103 | | 0.33 | | 100 | | 15.95 | | 300 | 9.83 |
| 12:55 | X | | 6.90 | | 0.997 | | -104 | | 0.32 | | 97.1 | | 15.95 | | 300 | 9.83 |
| 13:00 | | X | 6.89 | | 0.997 | | -104 | | 0.31 | | 102 | | 15.89 | | 300 | 9.83 |
| | | | | | | | | | | | | | | | | |

COMMENTS:
AMW-6 20211028 sampled @ 13:00
slight odor

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: NEPERA - Harriman
DATE: 10/28/21
WEATHER: sunny, 50°
CONSULTING FIRM: TT/CEG
FIELD PERSONNEL: AK
NUHUBARF

MONITOR WELL #: AMW-3
WELL PERMIT #: _____
WELL DEPTH: 14
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 9-14

PID/FID READINGS (ppm):
BACKGROUND: _____
BENEATH OUTER CAP: _____
BENEATH INNER CAP: _____
PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.00 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:50 | X | | 7.50 | NA | 0.978 | NA | -166 | NA | 9.13 | NA | 372 | NA | 17.15 | NA | 300 | 7.03 |
| 10:55 | X | | 7.39 | | 0.999 | | -170 | | 0.64 | | 219 | | 17.64 | | 300 | 7.04 |
| 11:00 | X | | 7.37 | | 0.984 | | -167 | | 0.43 | | 166 | | 17.74 | | 300 | 7.04 |
| 11:05 | X | | 7.36 | | 0.975 | | -166 | | 0.38 | | 141 | | 17.78 | | 300 | 7.04 |
| 11:10 | X | | 7.35 | | 0.970 | | -163 | | 0.40 | | 116 | | 17.83 | | 300 | 7.05 |
| 11:15 | X | | 7.33 | | 0.967 | | -163 | | 0.38 | | 107 | | 17.85 | | 300 | 7.05 |
| 11:20 | | X | 7.34 | | 0.971 | | -161 | | 0.39 | | 109 | | 17.94 | | 300 | 7.06 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS: AMW-3 20211028 sampled @ 11:20 * Dup-02 odor

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET 2 OF 2

SITE: NEPERA-Harriman
DATE: 10/28/21
WEATHER: clear, 40°
CONSULTING FIRM: Tt/CEG
FIELD PERSONNEL: AK
NMHW3ARF

MONITOR WELL #: MW-201
WELL PERMIT #:
WELL DEPTH: ~33 ft
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: ~22-33

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 29 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.88 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) | | SPECIFIC CONDUCTIVITY (mS/cm) | | REDOX POTENTIAL (mv) | | DISSOLVED OXYGEN (mg/l) | | TURBIDITY (NTU) | | TEMPERATURE (degrees C) | | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | READING | CHANGE* | | |
| 9:15 | X | | 7.23 | NA | 0.960 | NA | -125 | NA | 0.49 | NA | 325 | NA | 14.17 | NA | 300 | 7.01 |
| 9:20 | X | | 7.23 | | 0.963 | | -127 | | 0.50 | | 299 | | 14.25 | | 300 | 7.01 |
| 9:25 | X | | 7.23 | | 0.959 | | -128 | | 0.47 | | 294 | | 14.31 | | 300 | 7.02 |
| 9:30 | & | X | 7.23 | | 0.961 | | -125 | | 0.48 | | 288 | | 14.33 | | 300 | 7.02 |
| | | | | | | | | | | | | | | | | |
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COMMENTS: MW-201-20211028 sampled @ 9:30 *odor

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 2

SITE: NEPERA - Harriman
DATE: 10/28/21
WEATHER: clear, 40°
CONSULTING FIRM: TE/CEG
FIELD PERSONNEL: AK
Horiba SN: NUHU3UARF

MONITOR WELL #: MW-201
WELL PERMIT #:
WELL DEPTH: ~33 ft
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: ~23-33 (?)

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 29 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.88 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8:20 | X | | 7.25 | NA | 1.01 | NA | -111 | NA | 4.58 | NA | >1000 | NA | 12.82 | NA | 300 | 6.91 |
| 8:25 | X | | 7.25 | | 1.01 | | -128 | | 1.33 | | >1000 | | 13.49 | | 300 | 6.95 |
| 8:30 | X | | 7.25 | | 1.00 | | -134 | | 0.80 | | >1000 | | 13.80 | | 300 | 6.97 |
| 8:35 | X | | 7.23 | | 0.987 | | -133 | | 0.65 | | >1000 | | 13.93 | | 300 | 6.98 |
| 8:40 | X | | 7.26 | | 0.982 | | -137 | | 0.57 | | >1000 | | 14.03 | | 300 | 6.98 |
| 8:45 | X | | 7.25 | | 0.960 | | -138 | | 0.82 | | >1000 | | 14.08 | | 300 | 6.99 |
| 8:50 | X | | 7.26 | | 0.955 | | -138 | | 0.81 | | 860 | | 14.15 | | 300 | 6.99 |
| 8:55 | X | | 7.26 | | 0.947 | | -124 | | 0.77 | | 699 | | 14.18 | | 300 | 6.99 |
| 9:00 | X | | 7.26 | | 0.950 | | -120 | | 0.55 | | 509 | | 14.15 | | 300 | 7.00 |
| 9:05 | X | | 7.24 | | 0.956 | | -121 | | 0.51 | | 421 | | 14.19 | | 300 | 7.00 |
| 9:10 | X | | 7.25 | | 0.958 | | -124 | | 0.48 | | 358 | | 14.18 | | 300 | 7.01 |

COMMENTS:
MW-201-20211028 sampled @ 9:30
*odor

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SHEET ____ OF ____

SITE: Nepera
DATE: 10/29/21
WEATHER: 60 Cloudy

CONSULTING FIRM: CEG / TT
FIELD PERSONNEL: ERB

MONITOR WELL #: AMW-7
WELL PERMIT #:
WELL DEPTH: 20
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL: 10-20
XLH7WOJP

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.11 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11:45 | X | | 7.30 | NA | 1.47 | NA | -150 | NA | 0.0 | NA | 421 | NA | 15.876 | NA | 300 | 9.13 |
| 11:50 | X | | 7.22 | | 1.39 | | -163 | | 0.0 | | 311 | | 15.83 | | 300 | 9.15 |
| 11:55 | X | | 7.20 | | 1.39 | | -165 | | 0.0 | | 226 | | 15.90 | | 300 | 9.16 |
| 12:00 | X | | 7.18 | | 1.39 | | -166 | | 0.0 | | 163 | | 15.95 | | 300 | 9.17 |
| 12:05 | X | | 7.20 | | 1.39 | | -168 | | 0.0 | | 102 | | 15.89 | | 300 | 9.19 |
| 12:10 | X | | 7.19 | | 1.39 | | -170 | | 0.0 | | 64.3 | | 15.84 | | 300 | 9.20 |
| 12:15 | X | | 7.19 | | 1.39 | | -169 | | 0.0 | | 50.2 | | 15.79 | | 300 | 9.20 |
| 12:20 | X | | 7.19 | | 1.39 | | -169 | | 0.0 | | 49.7 | | 15.79 | | 300 | 9.21 |
| 12:25 | | X | 7.18 | | 1.39 | | -169 | | 0.0 | | 48.5 | | 15.76 | | 300 | 9.21 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

COMMENTS:

☆AMW-7-20211029 sampled @ 12:25

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING
# DATA SHEET

SITE: NEPERA
DATE: 10/28/2021
WEATHER: Sunny, Clear, 62°F
CONSULTING FIRM: CEG / TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: TS1 JDFKD
SHEET ___ OF ___

MONITOR WELL #: MW-37AQ
WELL PERMIT #: —
WELL DEPTH: 10.9
WELL DIAMETER: 2" inches
SCREENED/OPEN INTERVAL: 7.9 - 10.9

PID/FID READINGS (ppm):
BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 9.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 0.58 ft below TOC

| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH TO WATER (ft below TOC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1300 | X | | 7.16 | NA | 1.21 | NA | -38 | NA | 4.81 | NA | 88.5 | NA | 15.36 | NA | 360 | 6.79 |
| 1305 | X | | 7.16 | | 1.26 | | -41 | | 4.80 | | 66.0 | | 15.38 | | 360 | 6.77 |
| 1310 | X | | 7.17 | | 1.33 | | -48 | | 4.78 | | 42.5 | | 15.39 | | 360 | 6.74 |
| 1315 | X | | 7.17 | | 1.36 | | -55 | | 4.83 | | 30.2 | | 15.39 | | 360 | 6.70 |
| 1320 | X | | 7.17 | | 1.37 | | -58 | | 5.84 | | 19.4 | | 15.39 | | 360 | 6.65 |
| 1325 | X | | 7.17 | | 1.38 | | -60 | | 6.12 | | 18.5 | | 15.40 | | 360 | 6.62 |
| 1330 | X | | 7.17 | | 1.38 | | -62 | | 6.00 | | 19.1 | | 15.41 | | 360 | 6.60 |
| 1335 | X | | 7.17 | | 1.39 | | -62 | | 5.89 | | 18.8 | | 15.44 | | 360 | 6.55 |
| 1340 | X | | 7.17 | | 1.39 | | -64 | | 5.84 | | 18.3 | | 15.47 | | 360 | 6.53 |
| 1345 | | X | 7.17 | | 1.39 | | -66 | | 5.73 | | 17.8 | | 15.51 | | 360 | 6.50 |
| | | | | | | | | | | | | | | | | |

COMMENTS:

MW-37AQ - 20211028 sampled at 1345

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

# LOW FLOW SAMPLING DATA SHEET

SITE: NEPERA
DATE: 10/28/2021
WEATHER: Mostly sunny, cool, 55°F
CONSULTING FIRM: CEG/TE
FIELD PERSONNEL: DW / EB / AK
Horiba Serial Number: T5IJDFKD
SHEET ___

MONITOR WELL #: MW-23S
WELL PERMIT #: —
WELL DEPTH: 15
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 5-15

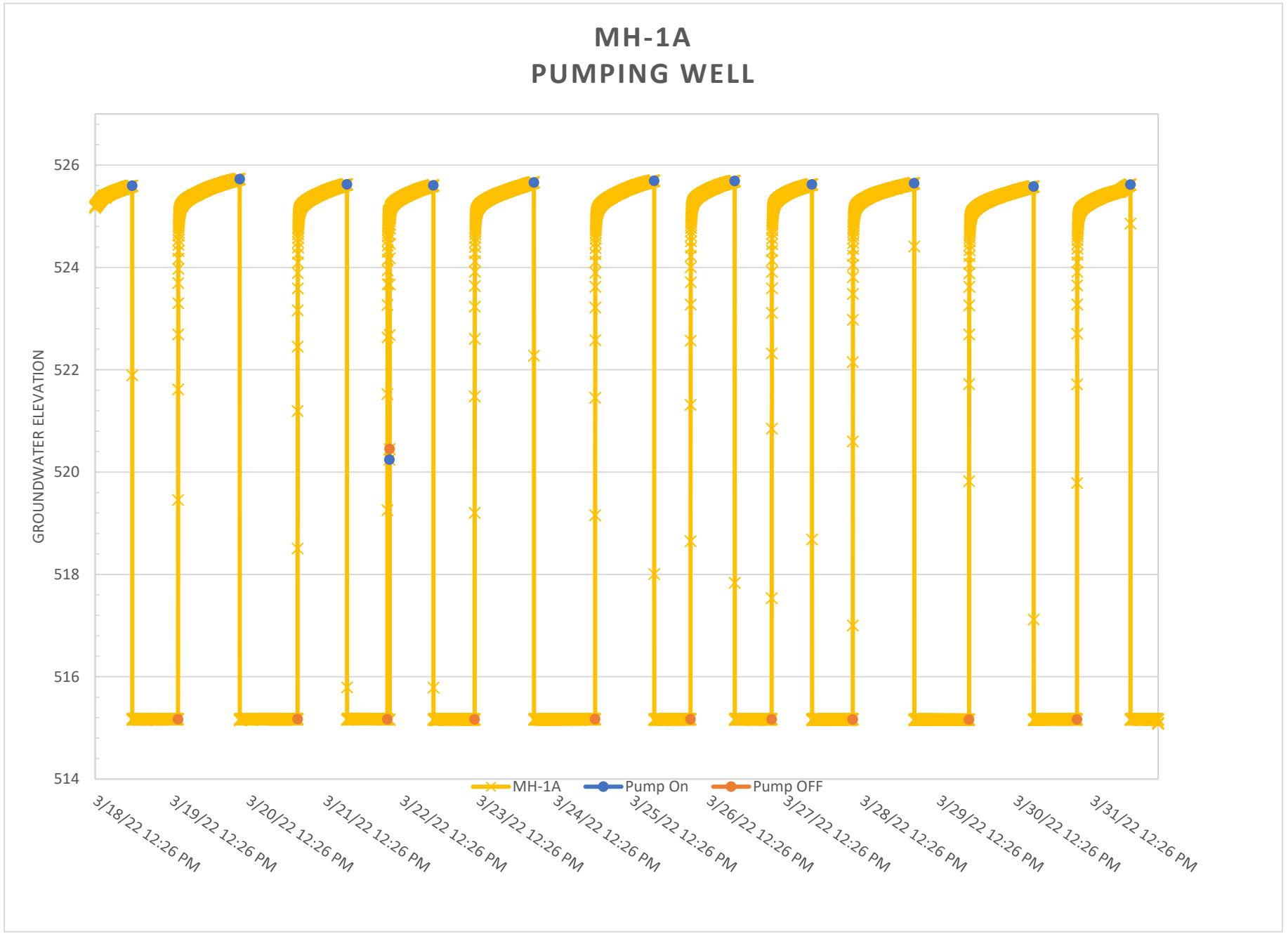
PID/FID READINGS (ppm): BACKGROUND: —
BENEATH OUTER CAP: —
BENEATH INNER CAP: —
PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.62 ft below TOC

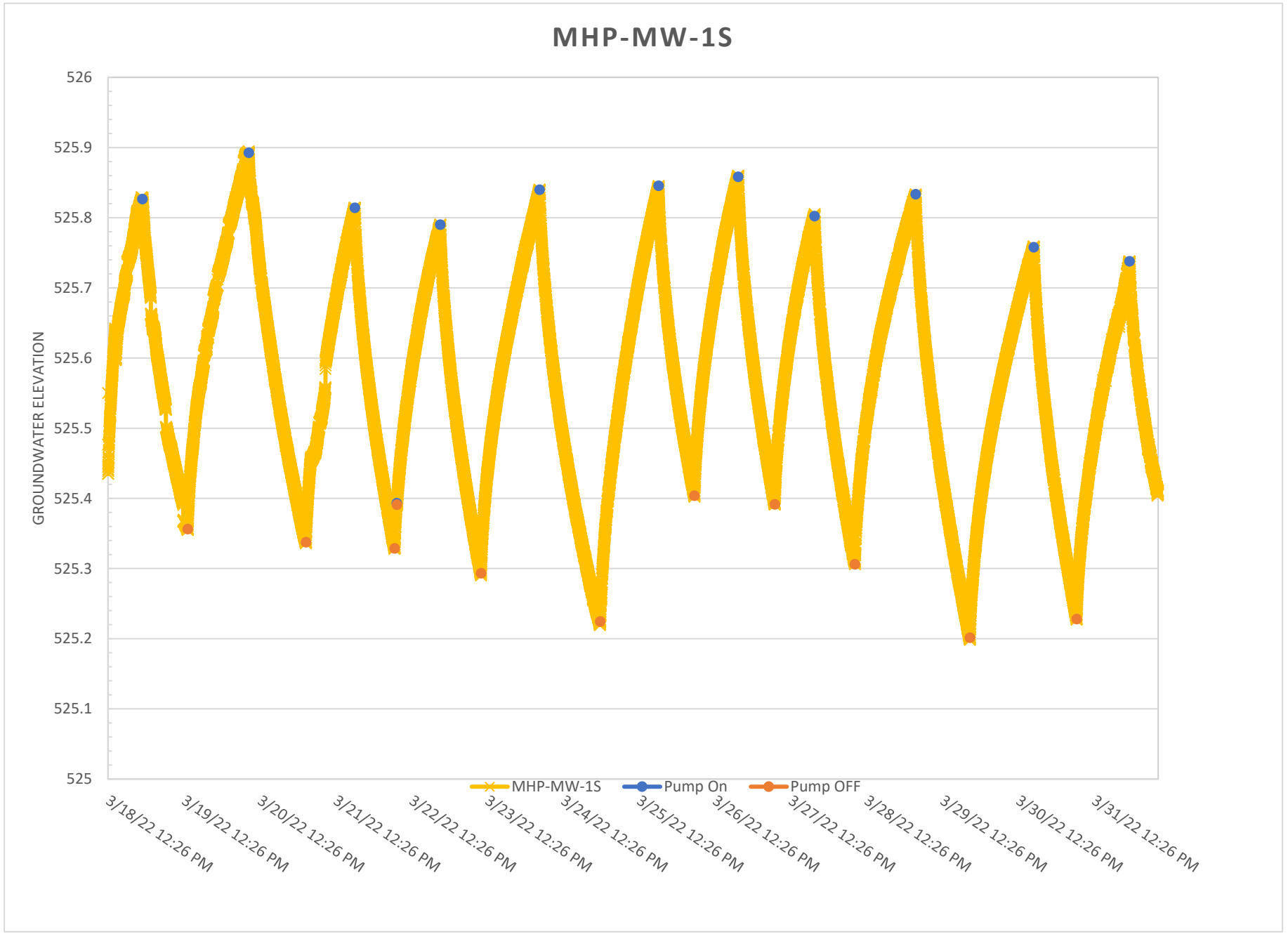
| TIME | PURGING | SAMPLING | pH (pH units) READING | pH CHANGE* | SPECIFIC CONDUCTIVITY (mS/cm) READING | SPECIFIC CONDUCTIVITY CHANGE* | REDOX POTENTIAL (mv) READING | REDOX POTENTIAL CHANGE* | DISSOLVED OXYGEN (mg/l) READING | DISSOLVED OXYGEN CHANGE* | TURBIDITY (NTU) READING | TURBIDITY CHANGE* | TEMPERATURE (degrees C) READING | TEMPERATURE CHANGE* | PUMPING RATE (ml/min) | DEPTH WAT (ft be TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0815 | X | | 6.73 | NA | 2.08 | NA | 54 | NA | 3.20 | NA | 73.2 | NA | 12.42 | NA | 360 | 2.2 |
| 0820 | X | | 6.70 | | 2.10 | | 18 | | 2.26 | | 43.3 | | 12.91 | | 360 | 2.1 |
| 0825 | X | | 6.70 | | 2.10 | | 04 | | 1.69 | | 29.5 | | 13.22 | | 360 | 2.16 |
| 0830 | X | | 6.70 | | 2.10 | | -05 | | 1.28 | | 15.7 | | 13.54 | | 360 | 2.16 |
| 0835 | X | | 6.70 | | 2.10 | | -09 | | 1.18 | | 15.5 | | 13.62 | | 360 | 2.17 |
| 0840 | X | | 6.71 | | 2.10 | | -12 | | 1.00 | | 15.7 | | 13.68 | | 360 | 2.17 |
| 0845 | X | | 6.71 | | 2.09 | | -14 | | 0.98 | | 15.8 | | 13.70 | | 360 | 2.17 |
| 0850 | X | | 6.72 | | 2.09 | | -15 | | 0.97 | | 15.7 | | 13.74 | | 360 | 2.17 |
| 0855 | | X | 6.72 | | 2.09 | | -16 | | 0.95 | | 15.8 | | 13.78 | | 360 | 2.17 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

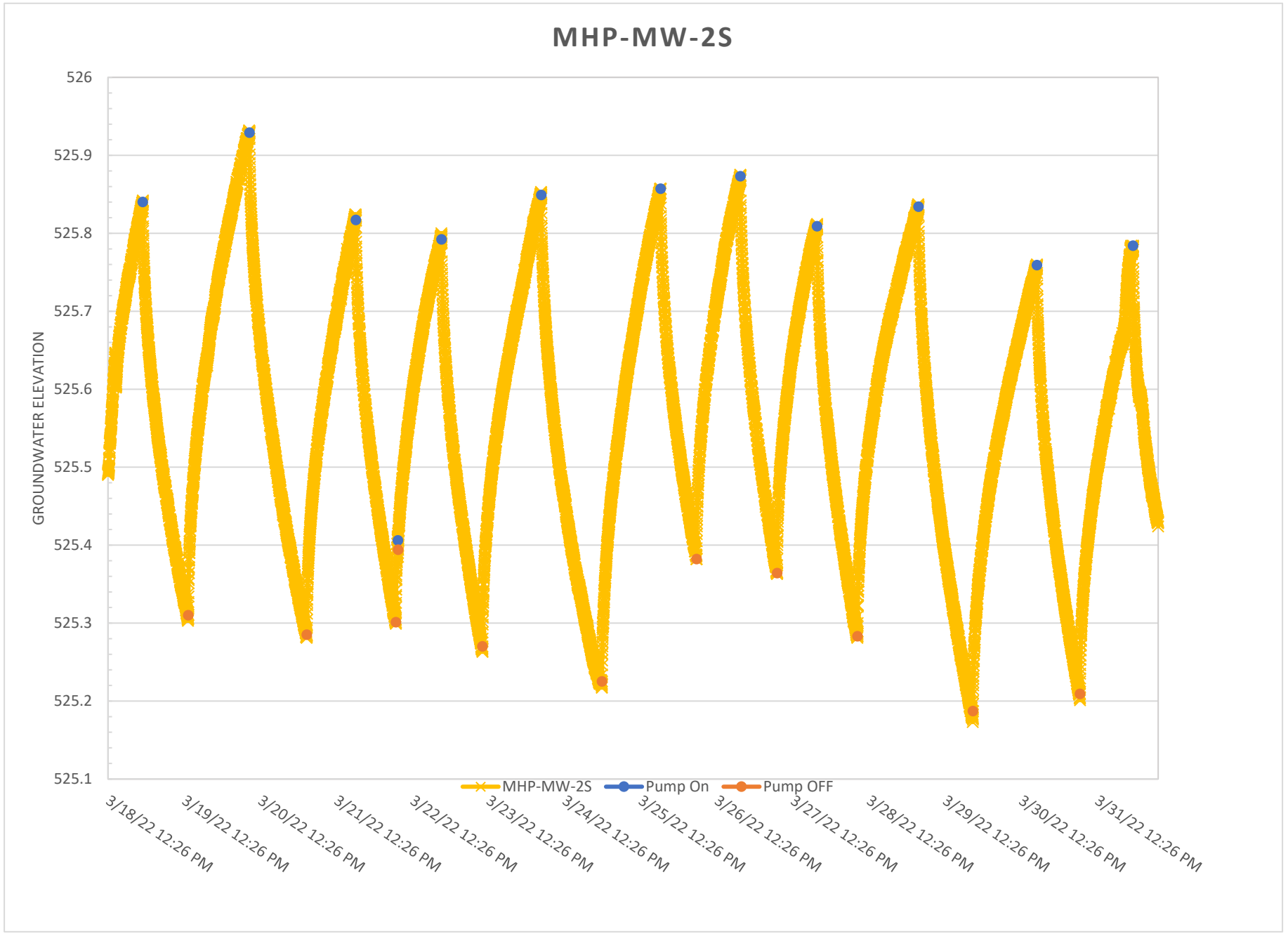
COMMENTS:
EB-02-20211028 @ 0800
MW-23S-20211028 Sampled at 0855

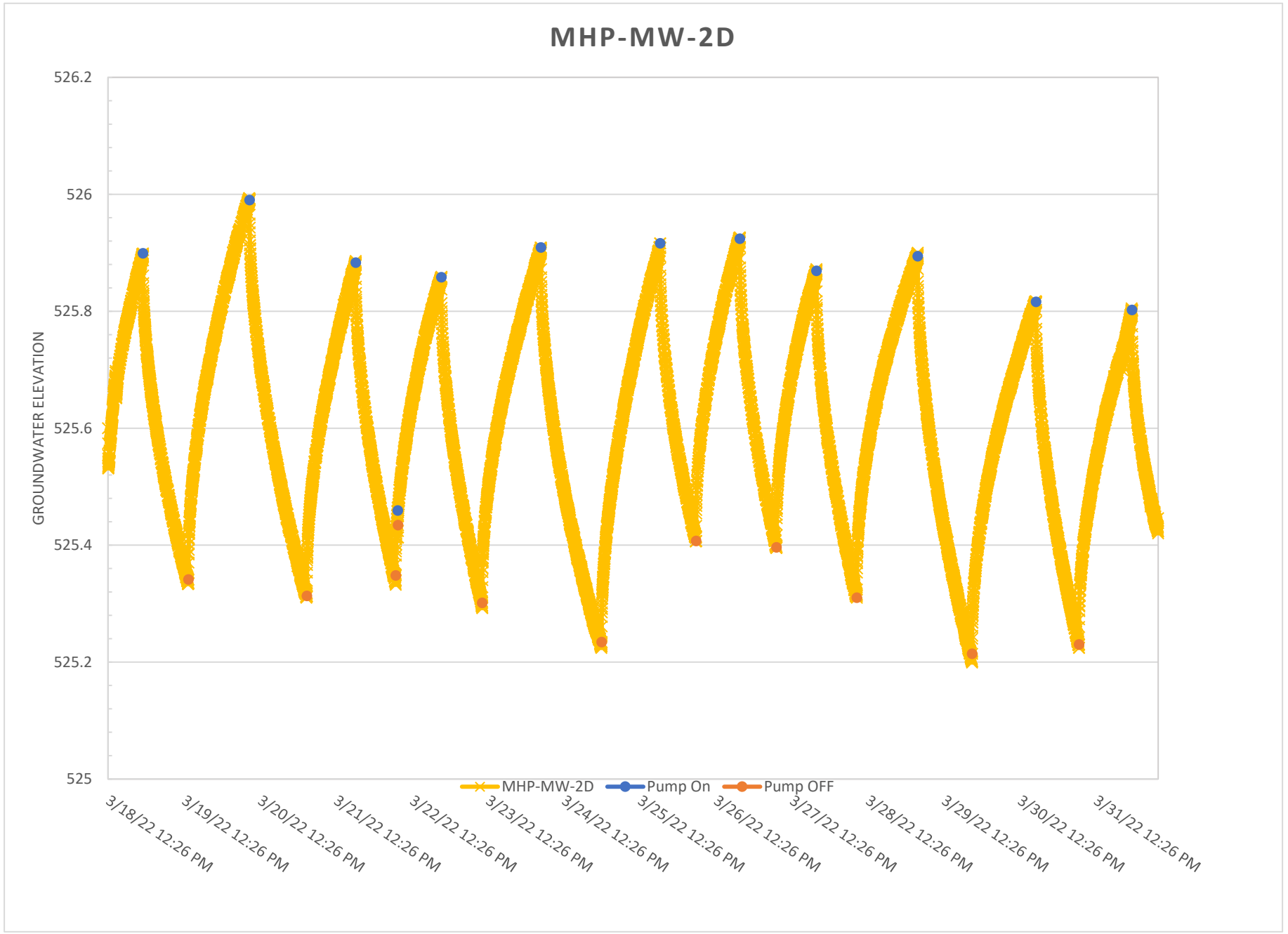
*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and T
± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

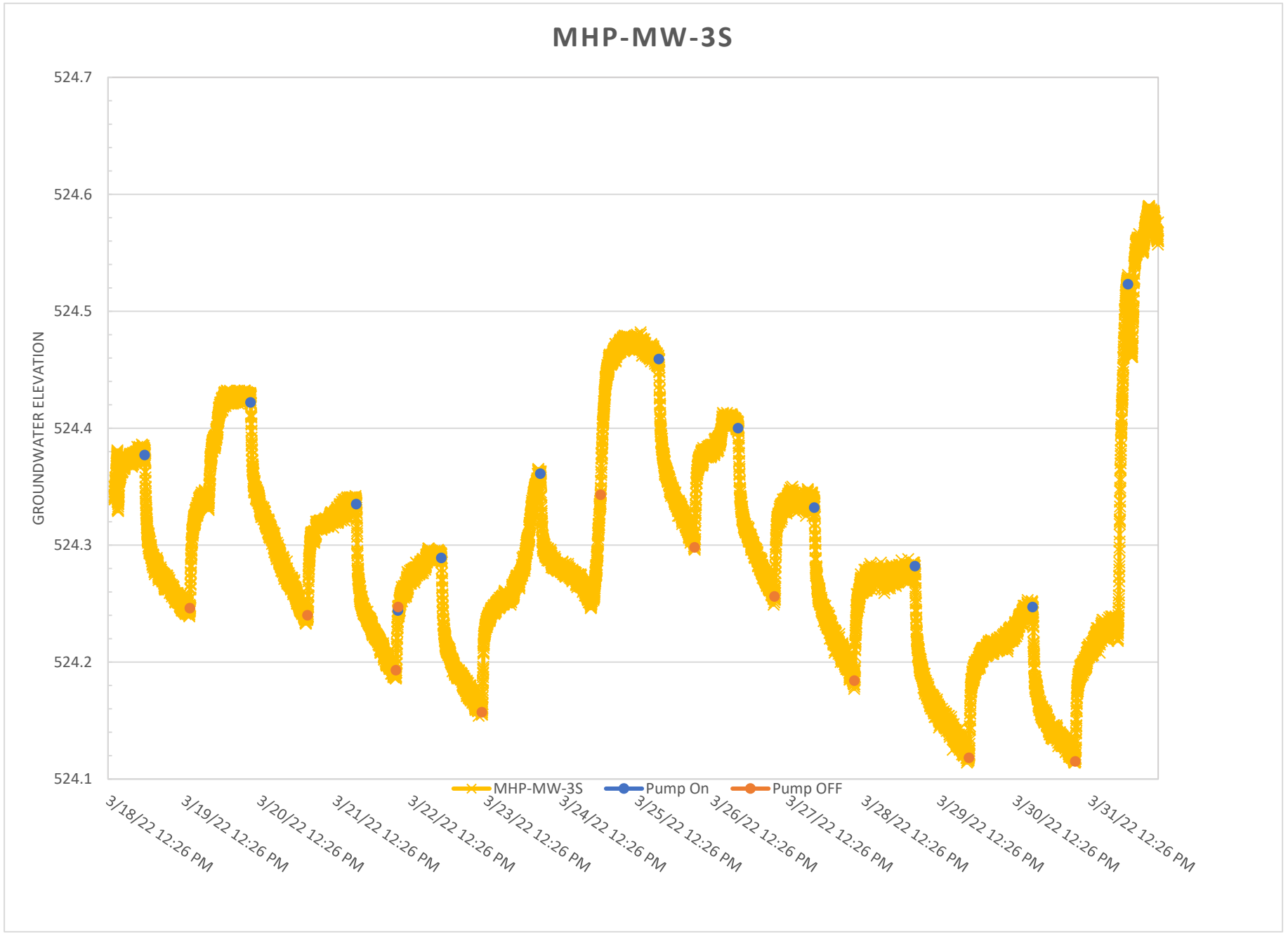
# Appendix E: Pressure Transducer Graphs

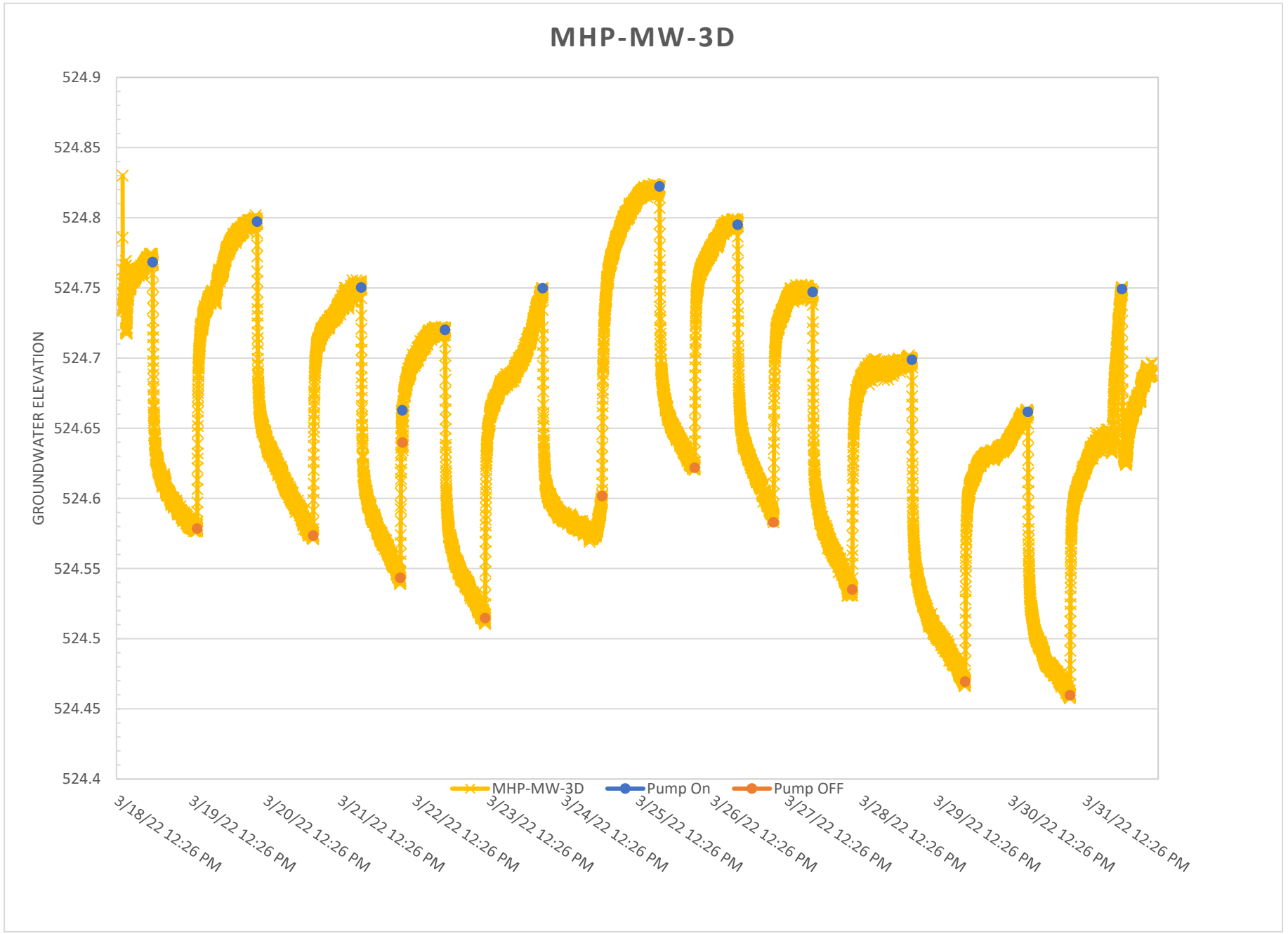

MH-1A
PUMPING WELL
GROUNDWATER ELEVATION
526
524
522
520
518
516
514
MH-1A
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-1S
GROUNDWATER ELEVATION
526
525.9
525.8
525.7
525.6
525.5
525.4
525.3
525.2
525.1
525
MHP-MW-1S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-2S
GROUNDWATER ELEVATION
526
525.9
525.8
525.7
525.6
525.5
525.4
525.3
525.2
525.1
MHP-MW-2S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-2D
GROUNDWATER ELEVATION
526.2
526
525.8
525.6
525.4
525.2
525
MHP-MW-2D
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-3S
GROUNDWATER ELEVATION
524.7
524.6
524.5
524.4
524.3
524.2
524.1
MHP-MW-3S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-3D
GROUNDWATER ELEVATION
524.9
524.85
524.8
524.75
524.7
524.65
524.6
524.55
524.5
524.45
524.4
MHP-MW-3D
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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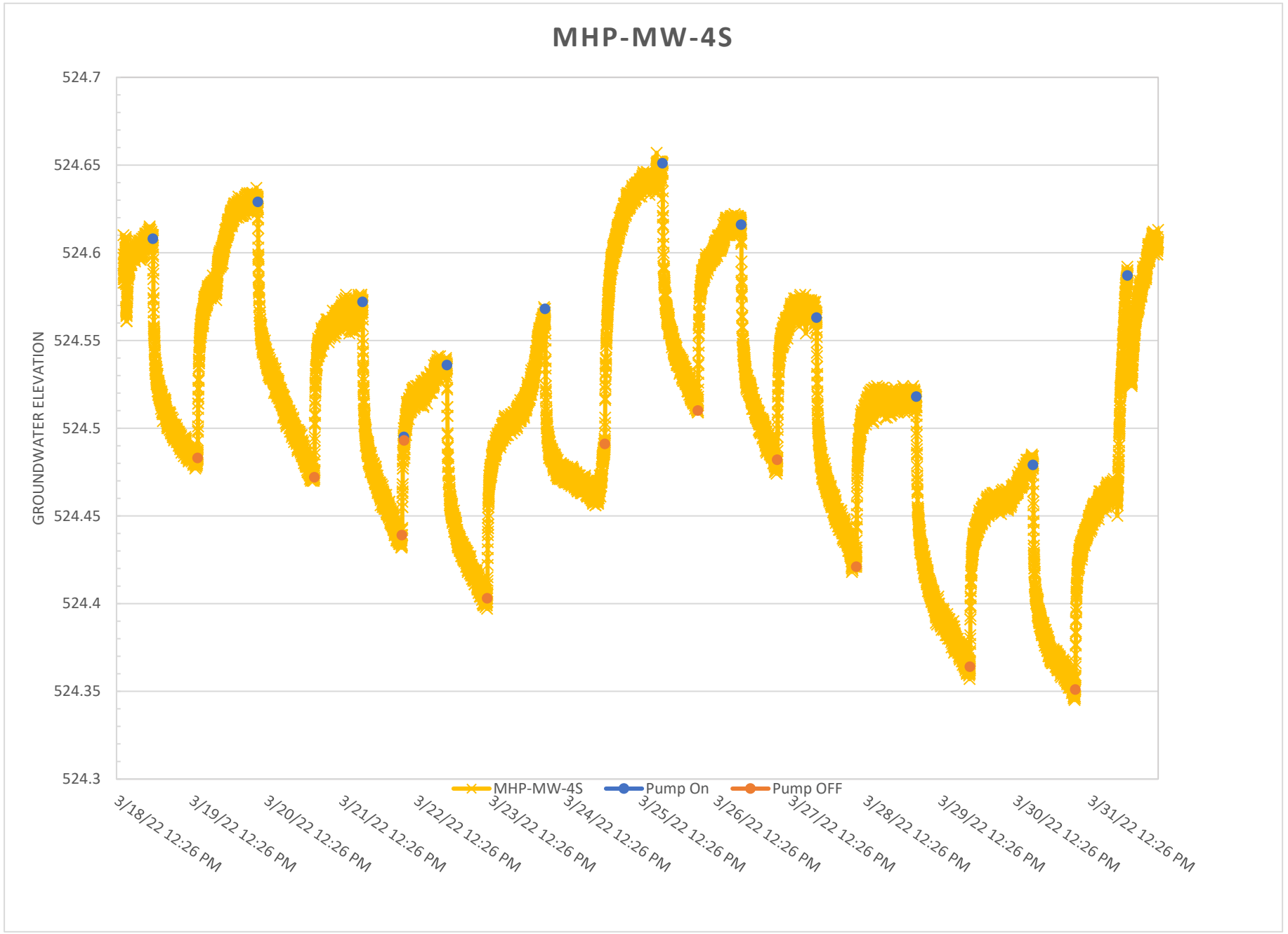
3/30/22 12:26 PM
3/31/22 12:26 PM


MHP-MW-4S
GROUNDWATER ELEVATION
524.7
524.65
524.6
524.55
524.5
524.45
524.4
524.35
524.3
MHP-MW-4S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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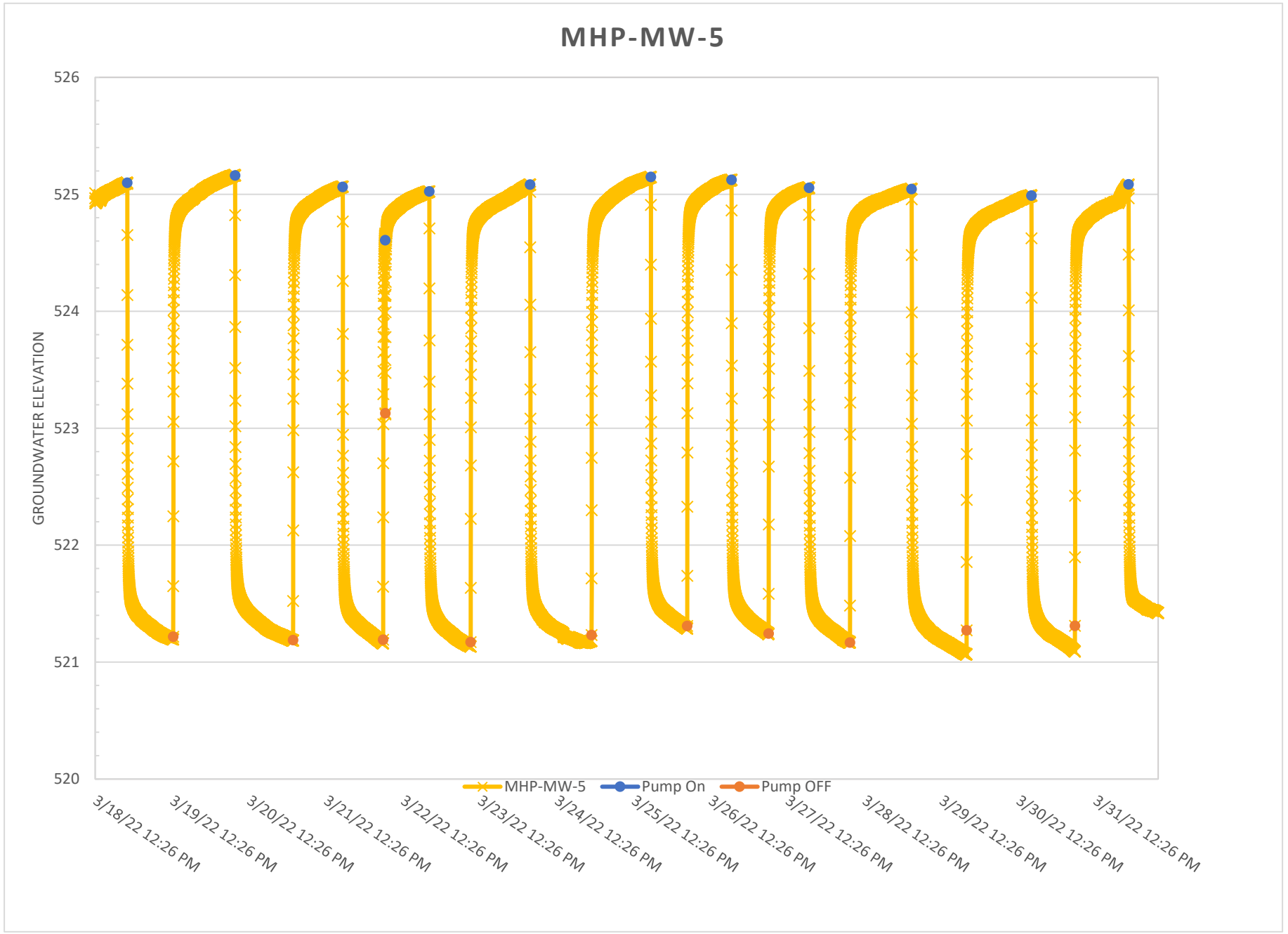
3/31/22 12:26 PM


MHP-MW-5
GROUNDWATER ELEVATION
526
525
524
523
522
521
520
MHP-MW-5
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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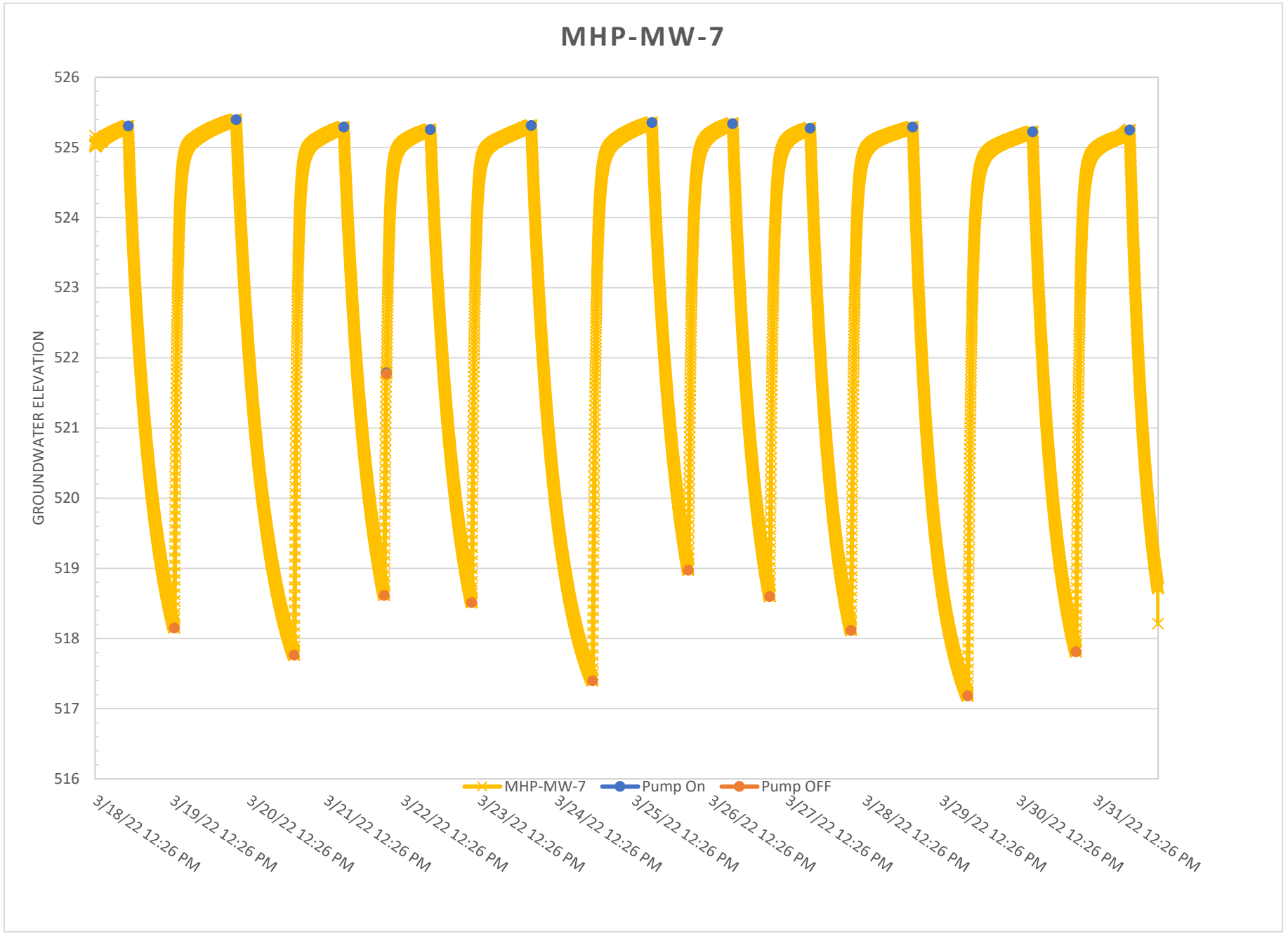
3/31/22 12:26 PM


MHP-MW-7
GROUNDWATER ELEVATION
526
525
524
523
522
521
520
519
518
517
516
MHP-MW-7
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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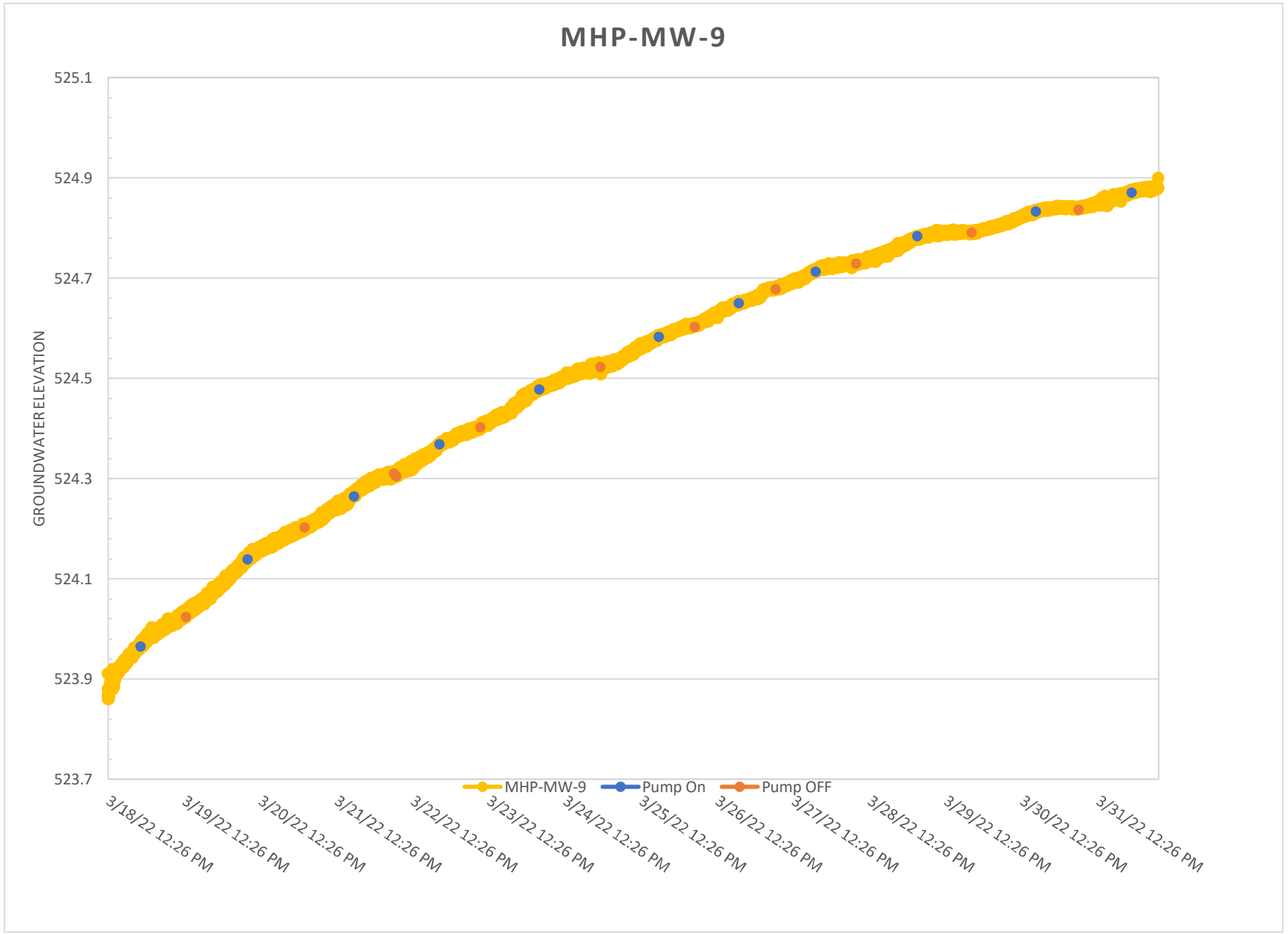
3/31/22 12:26 PM


MHP-MW-9
GROUNDWATER ELEVATION
525.1
524.9
524.7
524.5
524.3
524.1
523.9
523.7
MHP-MW-9
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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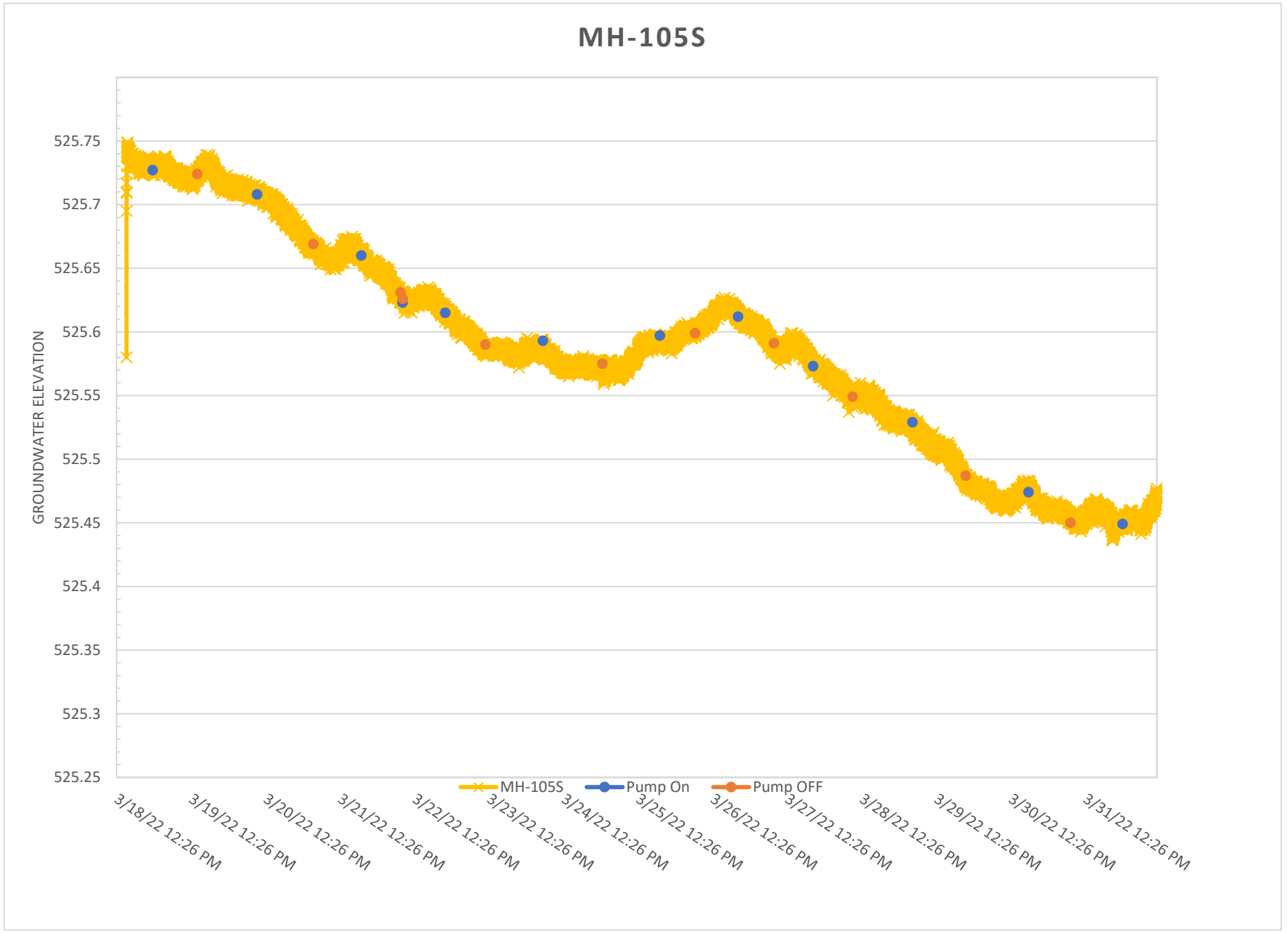
3/31/22 12:26 PM


MH-105S
GROUNDWATER ELEVATION
525.75
525.7
525.65
525.6
525.55
525.5
525.45
525.4
525.35
525.3
525.25
MH-105S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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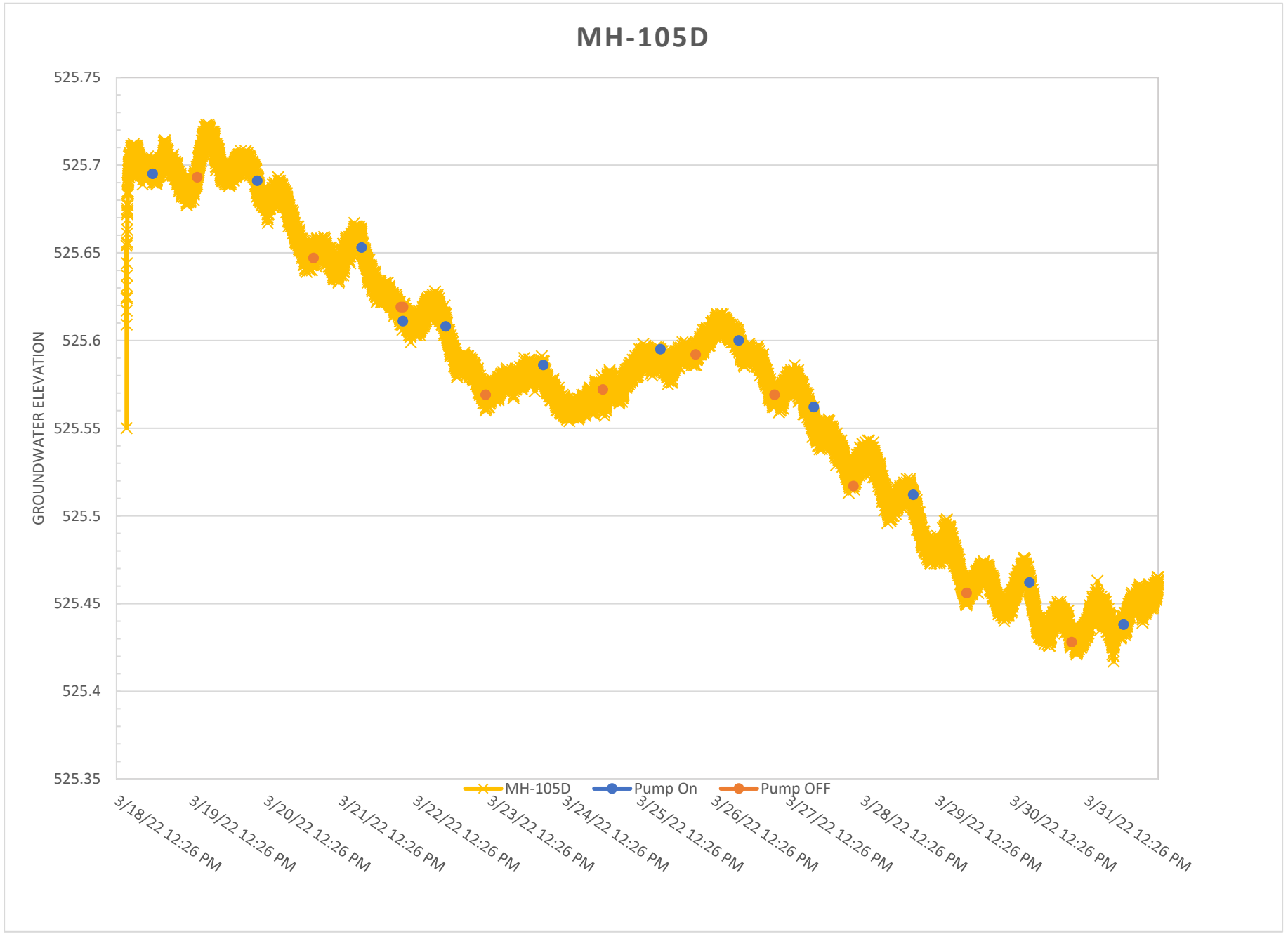
3/31/22 12:26 PM


MH-105D
GROUNDWATER ELEVATION
525.75
525.7
525.65
525.6
525.55
525.5
525.45
525.4
525.35
MH-105D
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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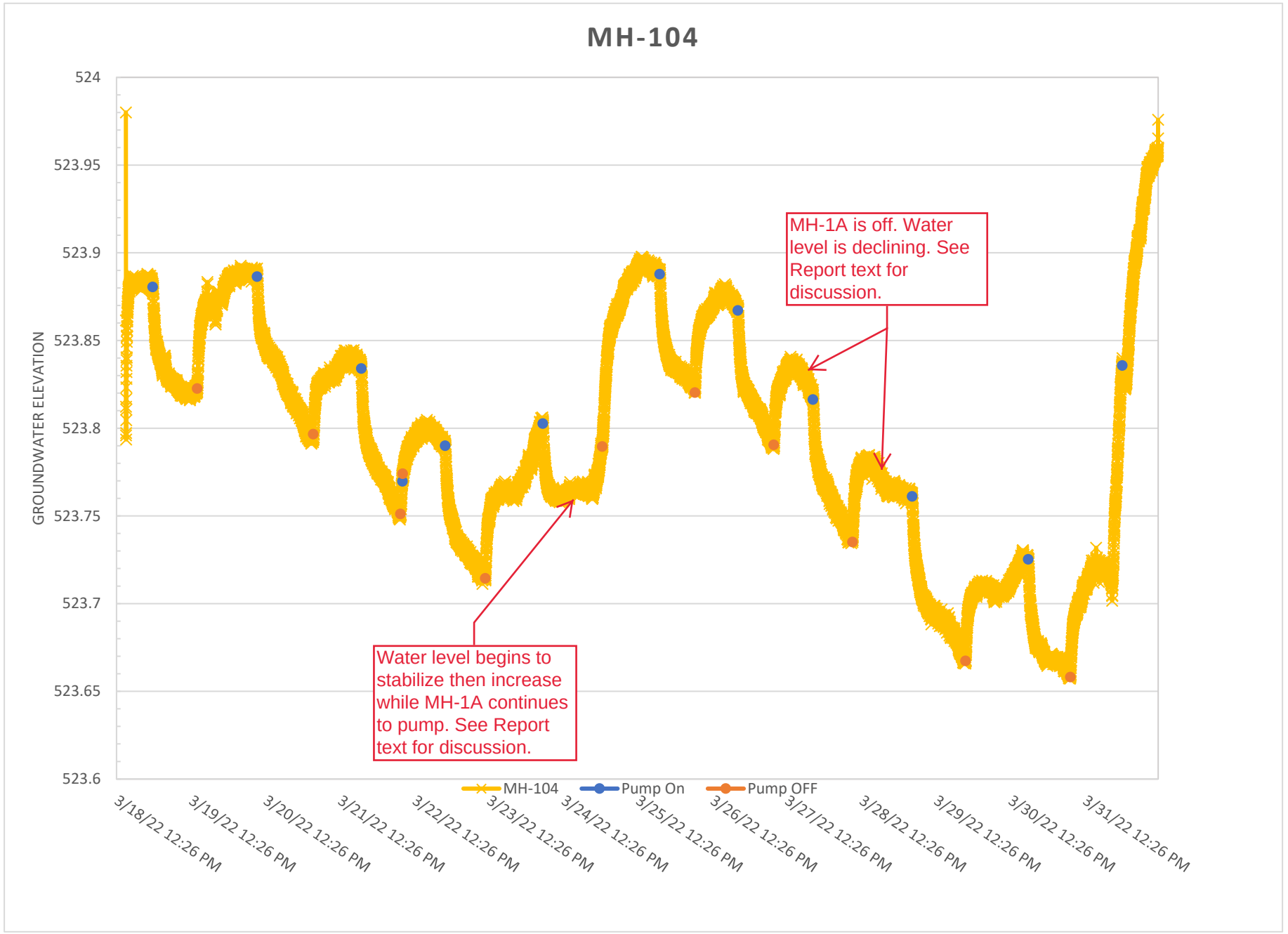
3/31/22 12:26 PM


MH-104
GROUNDWATER ELEVATION
524
523.95
523.9
523.85
523.8
523.75
523.7
523.65
523.6
MH-1A is off. Water level is declining. See Report text for discussion.
Water level begins to stabilize then increase while MH-1A continues to pump. See Report text for discussion.
MH-104
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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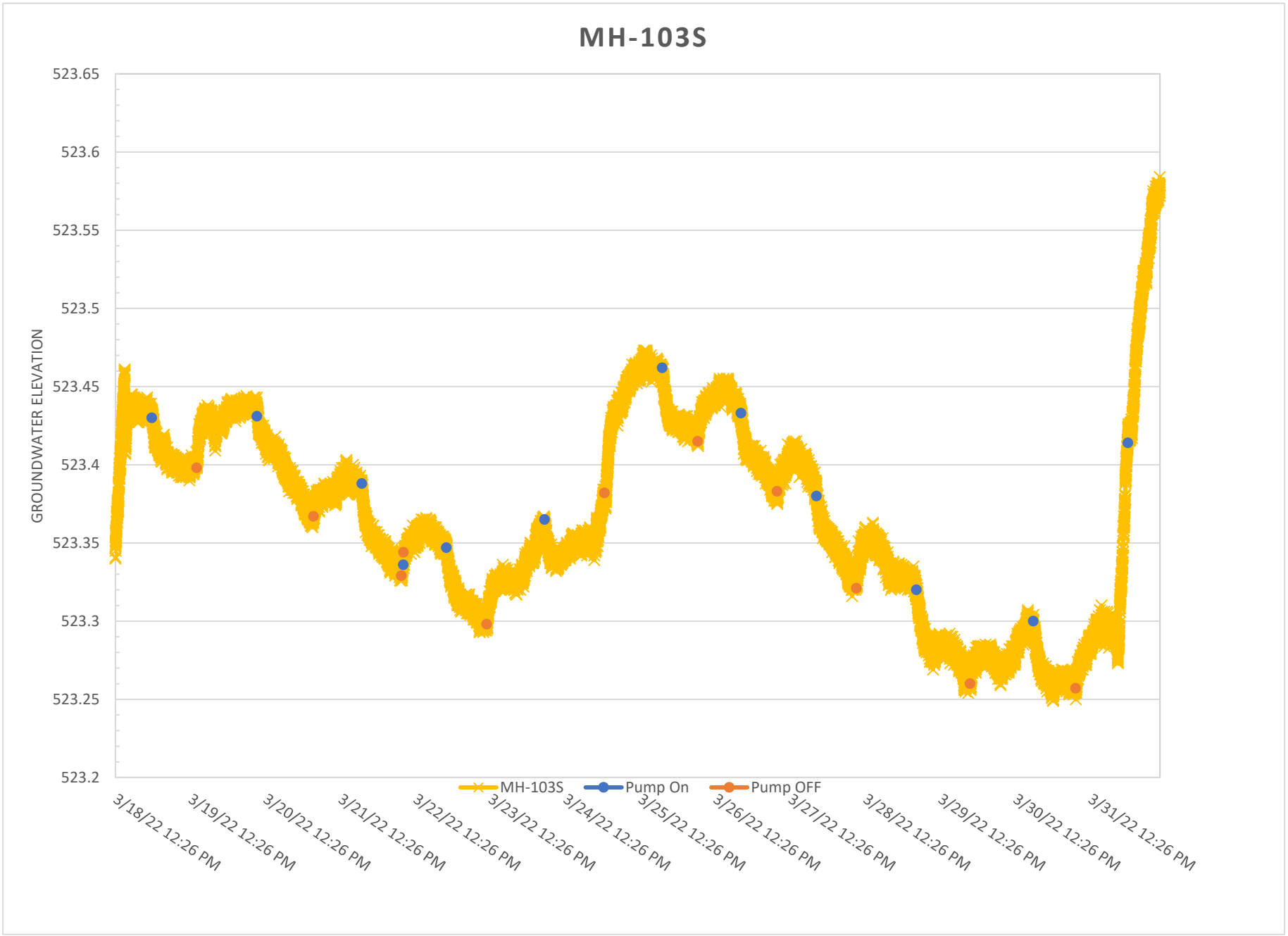
3/31/22 12:26 PM


MH-103S
GROUNDWATER ELEVATION
523.65
523.6
523.55
523.5
523.45
523.4
523.35
523.3
523.25
523.2
MH-103S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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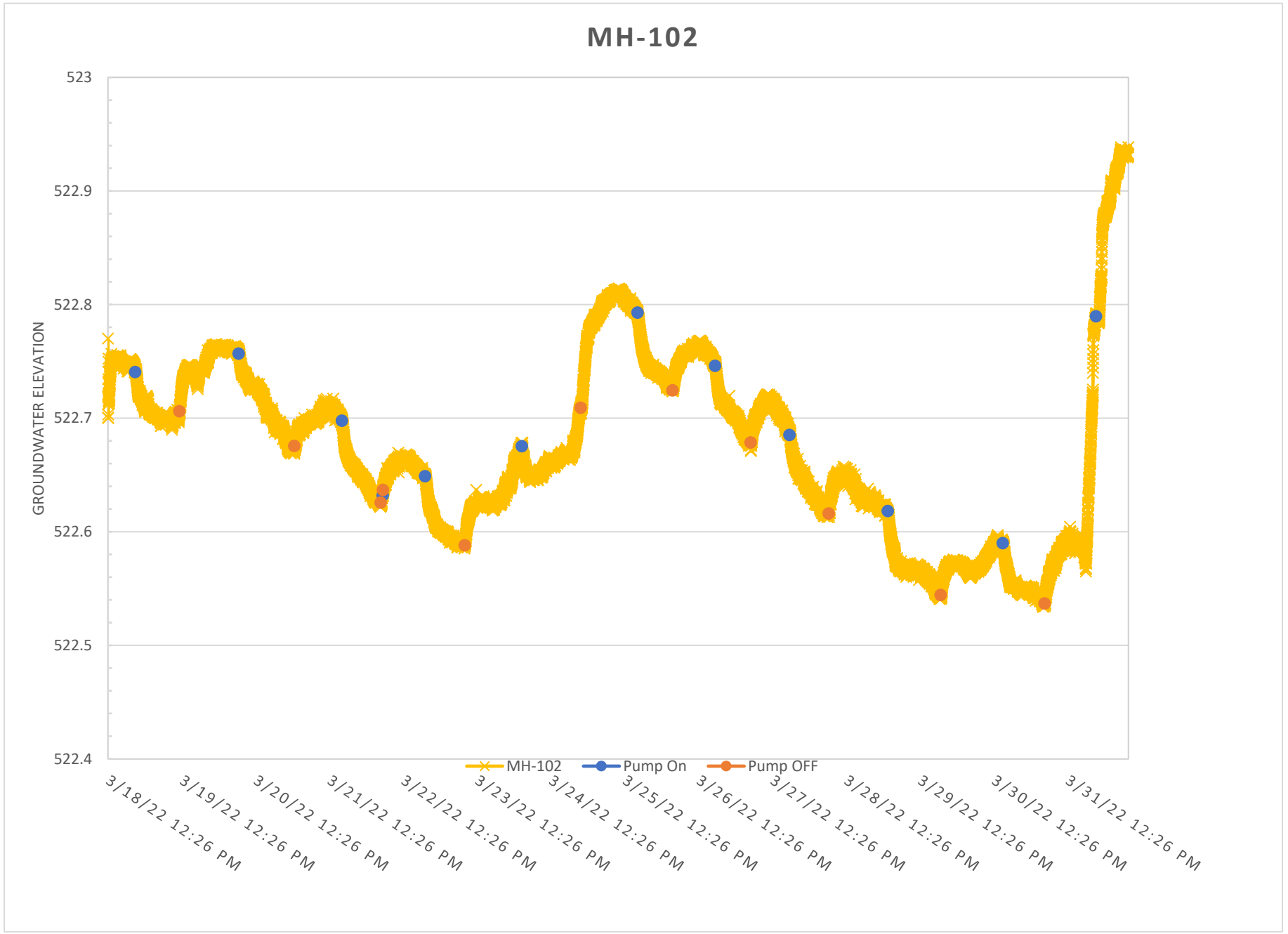
3/31/22 12:26 PM


MH-102
GROUNDWATER ELEVATION
523
522.9
522.8
522.7
522.6
522.5
522.4
MH-102
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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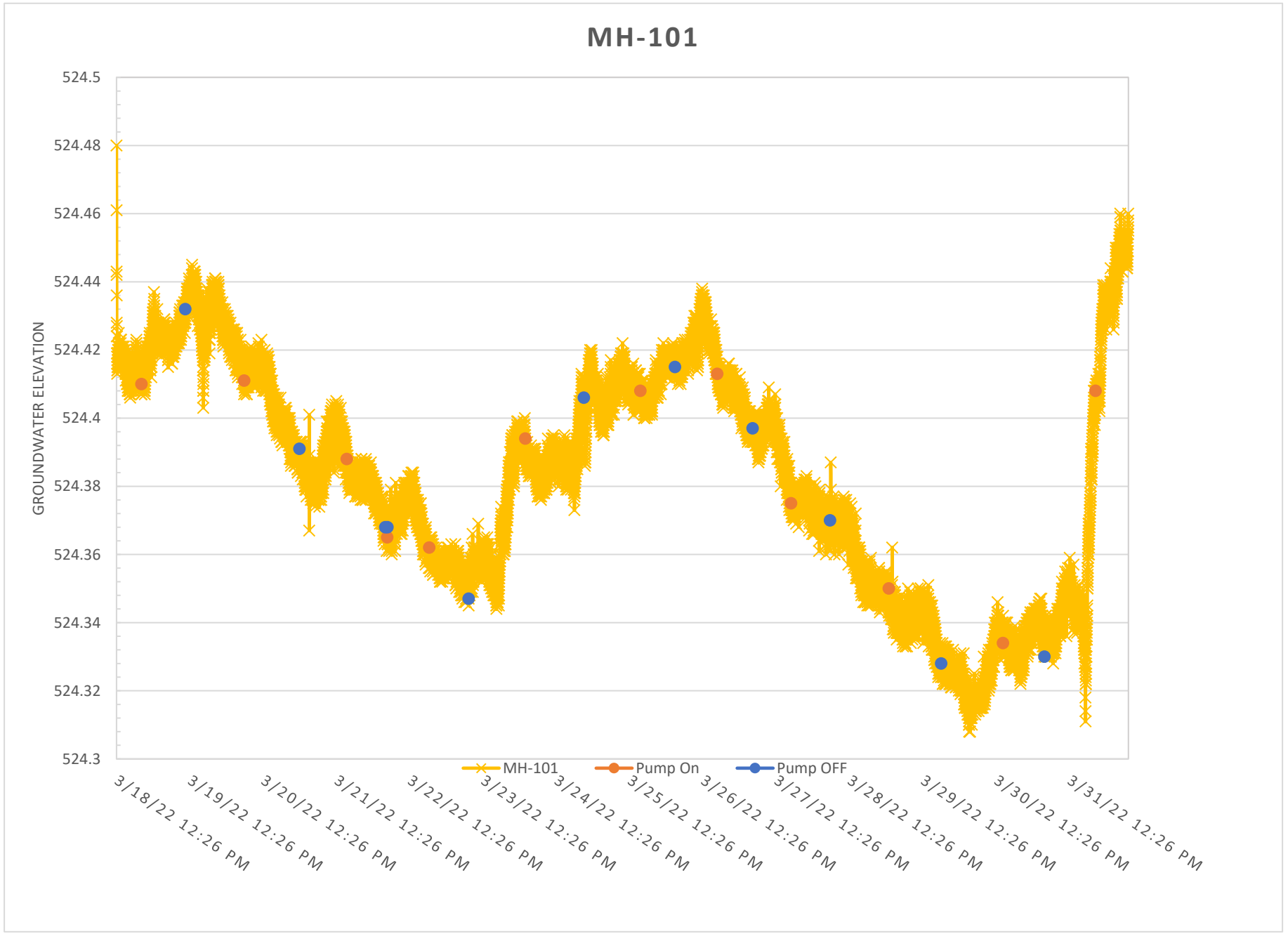
3/31/22 12:26 PM


MH-101
GROUNDWATER ELEVATION
524.5
524.48
524.46
524.44
524.42
524.4
524.38
524.36
524.34
524.32
524.3
MH-101
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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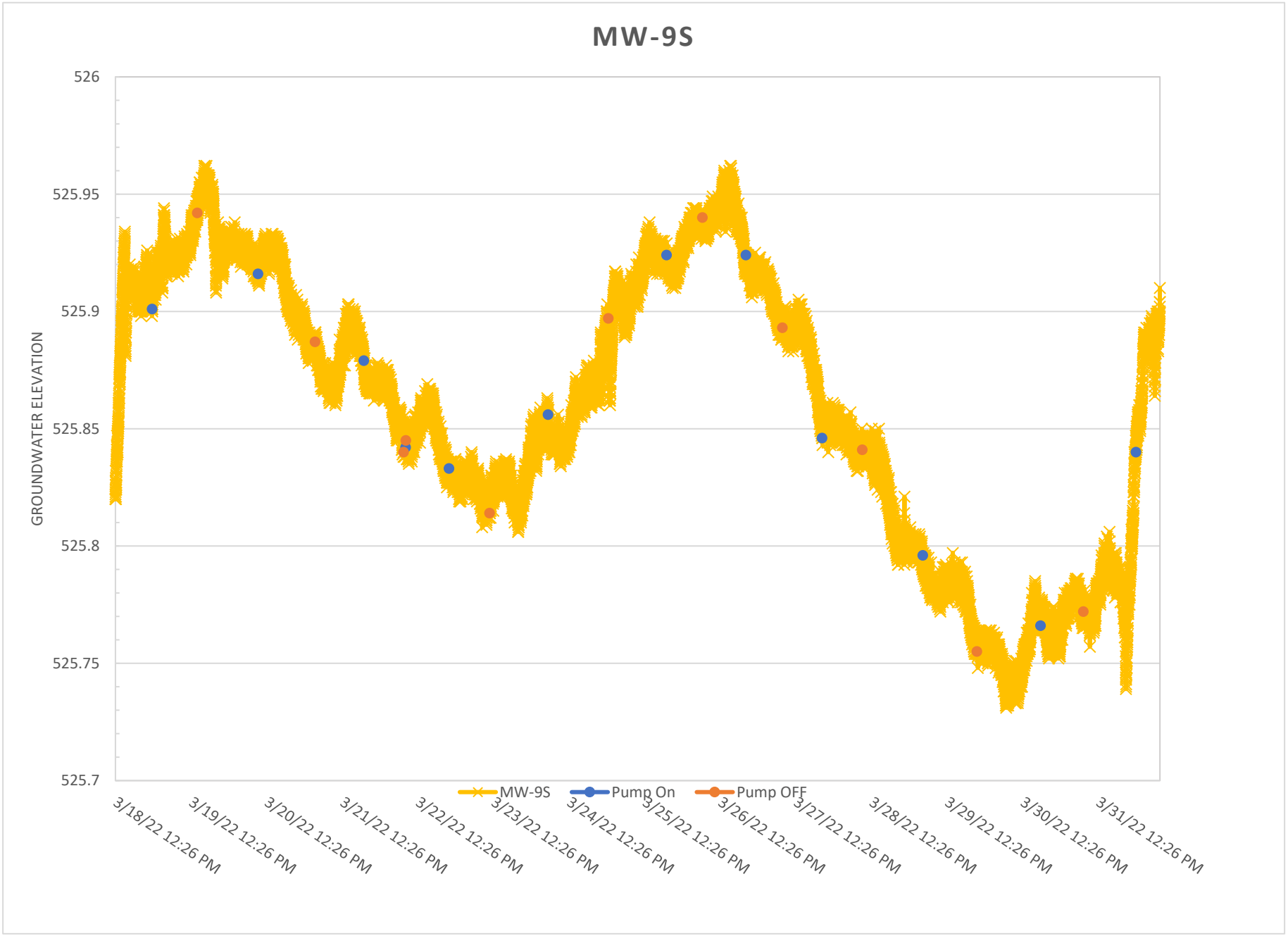
3/31/22 12:26 PM


MW-9S
GROUNDWATER ELEVATION
526
525.95
525.9
525.85
525.8
525.75
525.7
MW-9S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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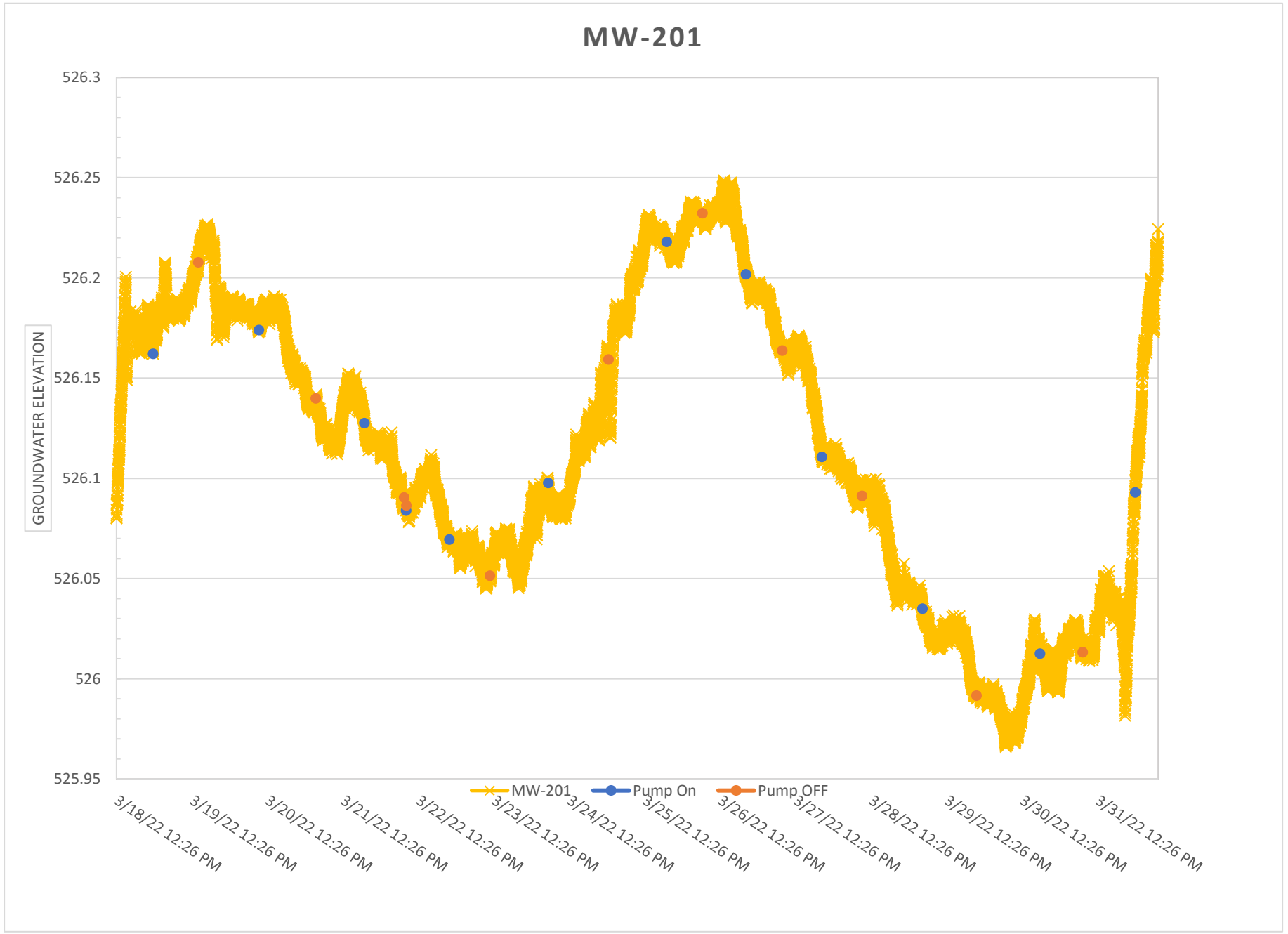
3/31/22 12:26 PM


MW-201
GROUNDWATER ELEVATION
526.3
526.25
526.2
526.15
526.1
526.05
526
525.95
MW-201
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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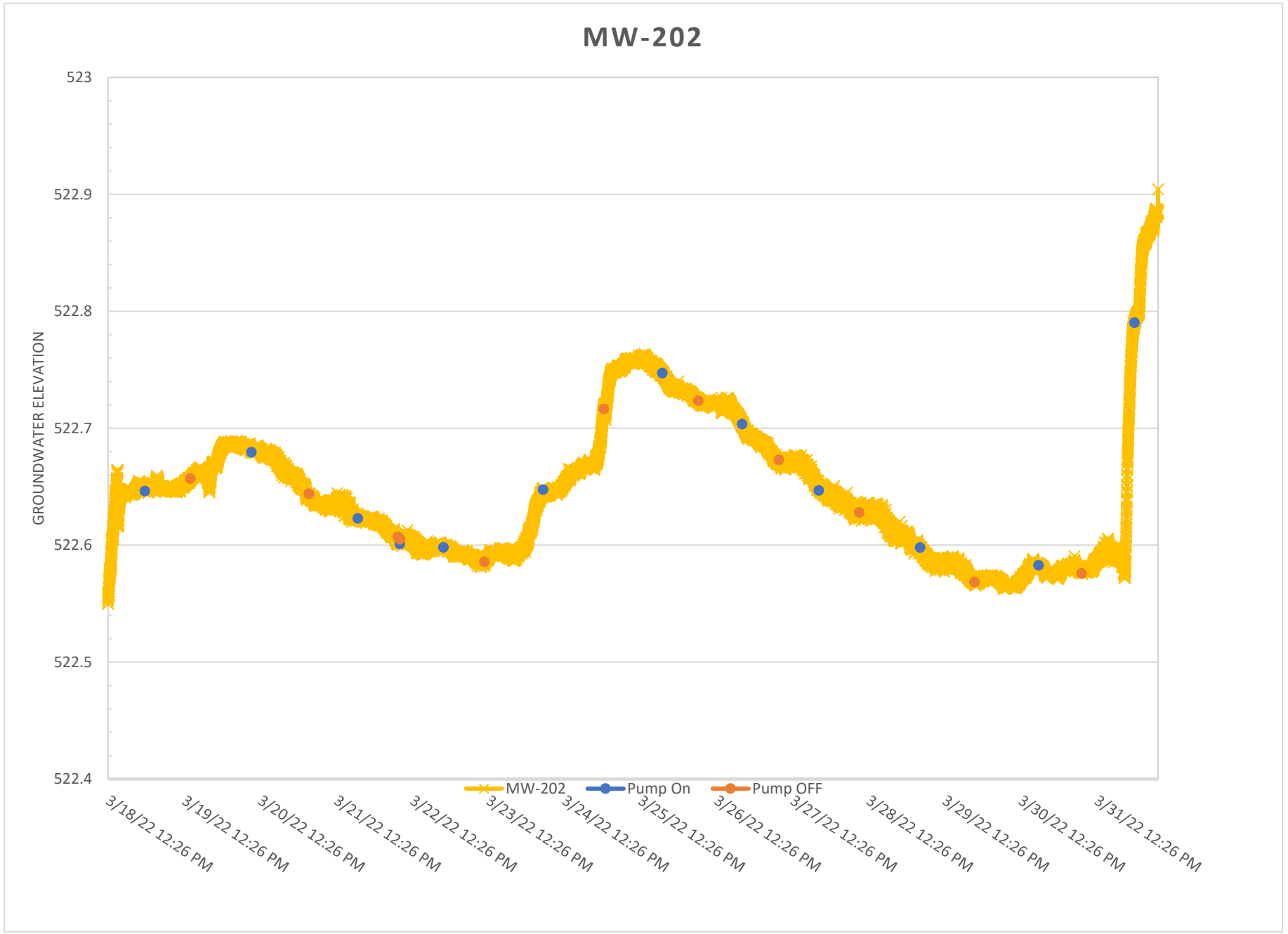
3/30/22 12:26 PM
3/31/22 12:26 PM


MW-202
523
522.9
522.8
522.7
522.6
522.5
522.4
GROUNDWATER ELEVATION
MW-202
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
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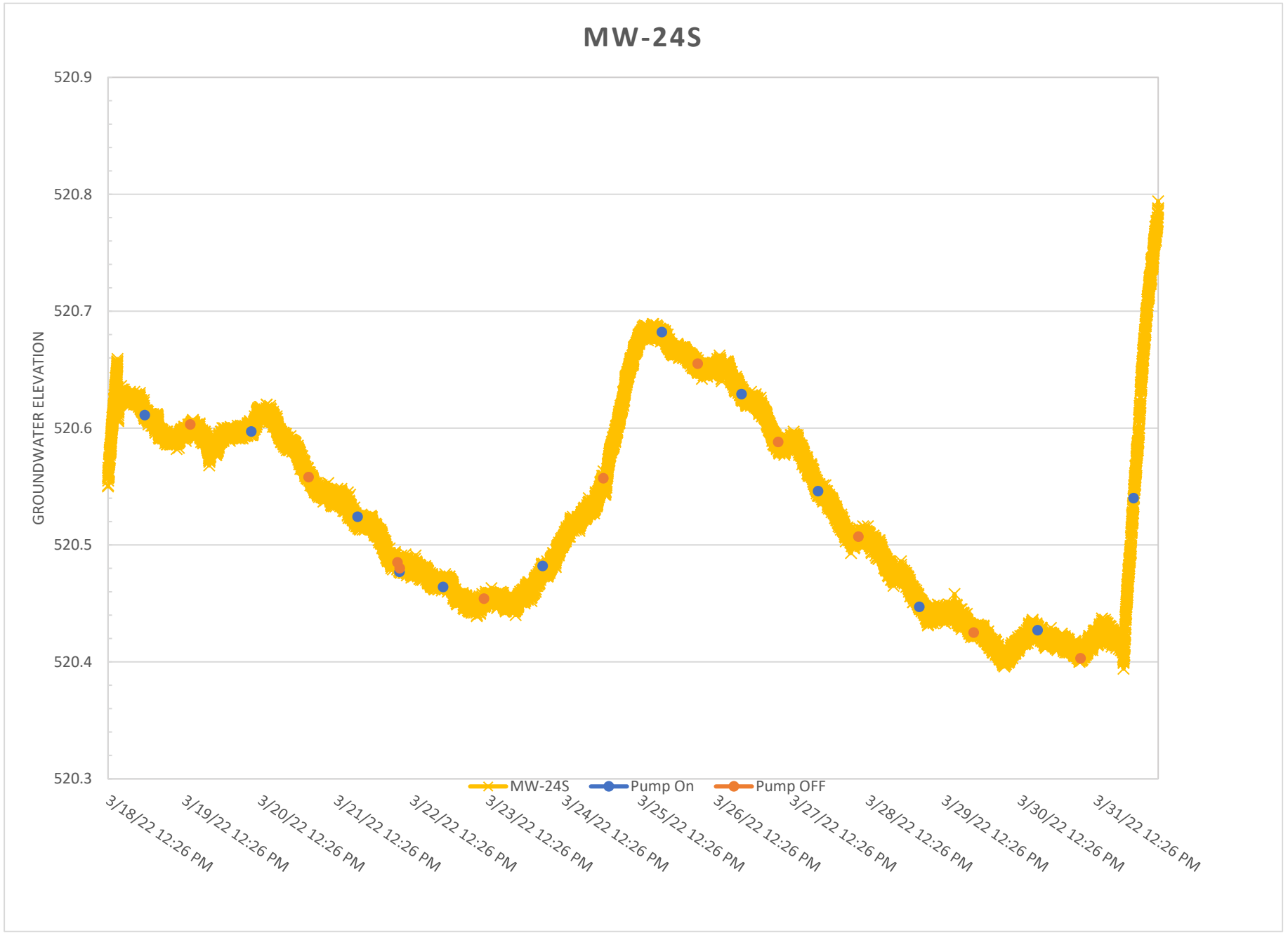
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM


MW-24S
GROUNDWATER ELEVATION
520.9
520.8
520.7
520.6
520.5
520.4
520.3
MW-24S
Pump On
Pump OFF
3/18/22 12:26 PM
3/19/22 12:26 PM
3/20/22 12:26 PM
3/21/22 12:26 PM
3/22/22 12:26 PM
3/23/22 12:26 PM
3/24/22 12:26 PM
3/25/22 12:26 PM
3/26/22 12:26 PM
3/27/22 12:26 PM
3/28/22 12:26 PM
3/29/22 12:26 PM
3/30/22 12:26 PM
3/31/22 12:26 PM

# Appendix F: Analytical Laboratory Reports

# ANALYTICAL REPORT

Job Number: 460-246027-1

Job Description: NEPERA - Harriman, NY

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, NY 10941

Attention: Dr. Tim Roeper

Approved for release.
Maria Luisa Cruz
Project Manager II
11/9/2021 3:50 PM

Maria Luisa Cruz, Project Manager II
777 New Durham Road, Edison, NJ, 08817
(732)549-3900
luisa.cruz@testamericainc.com
11/09/2021

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Edison Project Manager.

Eurofins TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

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

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

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Method PFC IDA ICAL Data . . . . . 656

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Raw QC Data . . . . . 1270

Method PFC IDA Blank Data . . . . . 1270

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# CASE NARRATIVE

## Client: Cornerstone Environmental Group, LLC

## Project: NEPERA - Harriman, NY

## Report Number: 460-246027-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**

The samples were received on 10/27/2021 7:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 1.5º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

**SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE**

Samples EB-01-20211025 (460-246027-1), MHP-MW-3D-20211025 (460-246027-2), MHP-MW-4S-20211025 (460-246027-3), MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5), MH-103D-20211027 (460-246027-6), MH-105S-20211027 (460-246027-7), MH-105D-20211027 (460-246027-8), MH-103S-20211027 (460-246027-9), MH-104-20211027 (460-246027-10) and MH-101-20211027 (460-246027-11) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared and analyzed on 10/30/2021.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

Samples EB-01-20211025 (460-246027-1), MHP-MW-3D-20211025 (460-246027-2), MHP-MW-4S-20211025 (460-246027-3), MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5), MH-103D-20211027 (460-246027-6), MH-105S-20211027 (460-246027-7), MH-105D-20211027 (460-246027-8), MH-103S-20211027 (460-246027-9), MH-104-20211027 (460-246027-10) and MH-101-20211027 (460-246027-11) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/02/2021 and analyzed on 11/03/2021 and 11/04/2021.

13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: MH-103D-20211027 (460-246027-6). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

The “I” qualifier associated with samples MH-105S-20211027 (460-246027-7) and MH-105D-20211027 (460-246027-8) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Results for samples MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5) and MH-104-20211027 (460-246027-10) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

No other difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

# Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: NEPERA - Harriman, NY

Job ID: 460-246027-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 460-246027-1 | EB-01-20211025 | Water | 10/25/21 15:40 | 10/27/21 19:30 |
| 460-246027-2 | MHP-MW-3D-20211025 | Water | 10/25/21 16:00 | 10/27/21 19:30 |
| 460-246027-3 | MHP-MW-4S-20211025 | Water | 10/25/21 16:10 | 10/27/21 19:30 |
| 460-246027-4 | MHP-MW-3S-20211027 | Water | 10/27/21 09:30 | 10/27/21 19:30 |
| 460-246027-5 | DUP-01-20211027 | Water | 10/27/21 12:00 | 10/27/21 19:30 |
| 460-246027-6 | MH-103D-20211027 | Water | 10/27/21 09:50 | 10/27/21 19:30 |
| 460-246027-7 | MH-105S-20211027 | Water | 10/27/21 09:40 | 10/27/21 19:30 |
| 460-246027-8 | MH-105D-20211027 | Water | 10/27/21 11:40 | 10/27/21 19:30 |
| 460-246027-9 | MH-103S-20211027 | Water | 10/27/21 12:10 | 10/27/21 19:30 |
| 460-246027-10 | MH-104-20211027 | Water | 10/27/21 12:25 | 10/27/21 19:30 |
| 460-246027-11 | MH-101-20211027 | Water | 10/27/21 13:40 | 10/27/21 19:30 |

# Detection Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

## Client Sample ID: EB-01-20211025 — Lab Sample ID: 460-246027-1

No Detections.

## Client Sample ID: MHP-MW-3D-20211025 — Lab Sample ID: 460-246027-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.57 | | 4.51 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 5.30 | | 1.81 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 4.91 | | 1.81 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 3.04 | | 1.81 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 9.82 | | 1.81 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.29 | J | 1.81 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 8.08 | | 1.81 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 3.39 | | 1.81 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | J | 1.81 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 18.3 | | 1.81 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.54 | J | 1.81 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MHP-MW-4S-20211025 — Lab Sample ID: 460-246027-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.46 | J | 4.57 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.43 | | 1.83 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 2.20 | | 1.83 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.75 | J | 1.83 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 5.77 | | 1.83 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.36 | J | 1.83 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 4.59 | | 1.83 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 2.54 | | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | J | 1.83 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 12.7 | | 1.83 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MHP-MW-3S-20211027 — Lab Sample ID: 460-246027-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.41 | | 4.62 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 15.2 | | 1.85 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 23.1 | | 1.85 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 6.34 | | 1.85 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 9.06 | | 1.85 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.55 | J | 1.85 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 4.84 | | 1.85 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 97.1 | | 1.85 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.64 | J | 1.85 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.17 | J | 4.62 | 1.01 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 839 | D | 9.23 | 1.34 | ng/L | 5 | | 537 (modified) | Total/NA |

## Client Sample ID: DUP-01-20211027 — Lab Sample ID: 460-246027-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.45 | | 4.66 | 0.83 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: DUP-01-20211027 (Continued)
## Lab Sample ID: 460-246027-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoropentanoic acid (PFPeA) | 15.9 | | 1.87 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 22.8 | | 1.87 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 6.77 | | 1.87 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 8.70 | | 1.87 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.49 | J | 1.87 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 4.86 | | 1.87 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 89.8 | | 1.87 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.64 | J | 1.87 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.31 | J | 4.66 | 1.02 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 838 | D | 9.33 | 1.36 | ng/L | 5 | | 537 (modified) | Total/NA |

## Client Sample ID: MH-103D-20211027
## Lab Sample ID: 460-246027-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 12.1 | | 4.23 | 0.76 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 6.60 | | 1.69 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 6.52 | | 1.69 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 5.92 | | 1.69 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 12.3 | | 1.69 | 0.36 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 2.15 | | 1.69 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.33 | J | 1.69 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 1.63 | J | 1.69 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 1.31 | J | 1.69 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 3.89 | | 1.69 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.05 | J | 4.23 | 0.63 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MH-105S-20211027
## Lab Sample ID: 460-246027-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 2.11 | J | 4.77 | 0.85 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 0.80 | J | 1.91 | 0.45 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 0.48 | J | 1.91 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.41 | J | 1.91 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 1.10 | J | 1.91 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 0.43 | J I | 1.91 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MH-105D-20211027
## Lab Sample ID: 460-246027-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.98 | J | 5.19 | 0.93 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.62 | J | 2.08 | 0.49 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 1.43 | J | 2.08 | 0.47 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.77 | J | 2.08 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 2.35 | | 2.08 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 1.18 | J | 2.08 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 1.61 | J | 2.08 | 0.31 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 1.29 | J I | 2.08 | 0.30 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MH-103S-20211027 — Lab Sample ID: 460-246027-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 1.40 | J | 4.82 | 0.86 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 0.72 | J | 1.93 | 0.46 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 1.32 | J | 1.93 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.42 | J | 1.93 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 1.89 | J | 1.93 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 2.44 | | 1.93 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 25.4 | | 1.93 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.81 | J | 1.93 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 53.4 | | 1.93 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MH-104-20211027 — Lab Sample ID: 460-246027-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.73 | | 4.49 | 0.80 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 3.94 | | 1.79 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 8.13 | | 1.79 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.01 | | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 7.08 | | 1.79 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 8.38 | | 1.79 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 142 | | 1.79 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 4.91 | | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 451 | D | 3.59 | 0.52 | ng/L | 2 | | 537 (modified) | Total/NA |

## Client Sample ID: MH-101-20211027 — Lab Sample ID: 460-246027-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 2.53 | J | 4.47 | 0.80 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.08 | J | 1.79 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 1.38 | J | 1.79 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.06 | J | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 4.71 | | 1.79 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.12 | | 1.79 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 8.80 | | 1.79 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.38 | J | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 14.0 | | 1.79 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

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

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

## Client Sample ID: EB-01-20211025
**Lab Sample ID: 460-246027-1**

**Date Collected: 10/25/21 15:40**
**Matrix: Water**

**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 15:13 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *45* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 15:13* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.80 | U | 4.47 | 0.80 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.42 | U | 1.79 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.40 | U | 1.79 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.21 | U | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.38 | U | 1.79 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.56 | U | 1.79 | 0.56 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.22 | U | 1.79 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.79 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 14:23 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C4 PFOS* | *101* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C5 PFNA* | *104* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C4 PFBA* | *109* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C2 PFHxA* | *104* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C2 PFDA* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C2 PFUnA* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C2 PFDoA* | *104* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C8 FOSA* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C5 PFPeA* | *105* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *13C2 PFTeDA* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *d3-NMeFOSAA* | *122* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *d5-NEtFOSAA* | *112* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |
| *M2-8:2 FTS* | *108* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:23* | *1* |

## Client Sample ID: EB-01-20211025
**Lab Sample ID: 460-246027-1**
**Date Collected: 10/25/21 15:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 13C3 PFBS | 94 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:23 | 1 |

## Client Sample ID: MHP-MW-3D-20211025
**Lab Sample ID: 460-246027-2**
**Date Collected: 10/25/21 16:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 15:29 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 43 | | 10 - 150 | 10/30/21 07:00 | 10/30/21 15:29 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.57** | | 4.51 | 0.81 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **5.30** | | 1.81 | 0.43 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **4.91** | | 1.81 | 0.41 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **3.04** | | 1.81 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **9.82** | | 1.81 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.29** | **J** | 1.81 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.81 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.81 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.81 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.81 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.81 | 0.57 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.08** | | 1.81 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **3.39** | | 1.81 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.21** | **J** | 1.81 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **18.3** | | 1.81 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.81 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.81 | 0.52 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| **1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)** | **0.54** | **J** | 1.81 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 14:32 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 89 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C4 PFHpA | 95 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C4 PFOA | 93 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C4 PFOS | 94 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C5 PFNA | 97 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C4 PFBA | 89 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C2 PFHxA | 97 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |
| 13C2 PFDA | 96 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:32 | 1 |

## Client Sample ID: MHP-MW-3D-20211025
**Lab Sample ID: 460-246027-2**

**Date Collected: 10/25/21 16:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C2 PFUnA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *13C2 PFDoA* | *86* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *13C8 FOSA* | *93* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *13C5 PFPeA* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *13C2 PFTeDA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *d3-NMeFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *d5-NEtFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *M2-6:2 FTS* | *97* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *M2-8:2 FTS* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |
| *13C3 PFBS* | *86* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:32* | *1* |

## Client Sample ID: MHP-MW-4S-20211025
**Lab Sample ID: 460-246027-3**

**Date Collected: 10/25/21 16:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 15:45 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *44* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 15:45* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.46** | **J** | 4.57 | 0.82 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **2.43** | | 1.83 | 0.43 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **2.20** | | 1.83 | 0.41 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.75** | **J** | 1.83 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **5.77** | | 1.83 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.36** | **J** | 1.83 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.83 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **4.59** | | 1.83 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **2.54** | | 1.83 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.21** | **J** | 1.83 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **12.7** | | 1.83 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.57 | 0.83 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.57 | 0.68 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.57 | 1.00 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 14:40 | 1 |

## Client Sample ID: MHP-MW-4S-20211025
**Lab Sample ID: 460-246027-3**

**Date Collected: 10/25/21 16:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 93 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C4 PFHpA | 93 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C4 PFOA | 92 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C4 PFOS | 91 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C5 PFNA | 99 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C4 PFBA | 94 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C2 PFHxA | 107 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C2 PFDA | 82 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C2 PFUnA | 82 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C2 PFDoA | 77 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C8 FOSA | 90 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C5 PFPeA | 98 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C2 PFTeDA | 83 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| d3-NMeFOSAA | 96 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| d5-NEtFOSAA | 98 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| M2-6:2 FTS | 99 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| M2-8:2 FTS | 101 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |
| 13C3 PFBS | 93 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 14:40 | 1 |

## Client Sample ID: MHP-MW-3S-20211027
**Lab Sample ID: 460-246027-4**

**Date Collected: 10/27/21 09:30**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 16:01 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 45 | | 10 - 150 | 10/30/21 07:00 | 10/30/21 16:01 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **8.41** | | 4.62 | 0.82 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **15.2** | | 1.85 | 0.44 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **23.1** | | 1.85 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **6.34** | | 1.85 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **9.06** | | 1.85 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.55** | **J** | 1.85 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.85 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.85 | 0.32 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.85 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.85 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.85 | 0.58 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **4.84** | | 1.85 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **97.1** | | 1.85 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.64** | **J** | 1.85 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.85 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.85 | 0.53 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.62 | 0.83 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |

## Client Sample ID: MHP-MW-3S-20211027
**Lab Sample ID: 460-246027-4**
**Date Collected: 10/27/21 09:30**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.62 | 0.69 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| **1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)** | **1.17** | **J** | 4.62 | 1.01 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.85 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 14:48 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *108* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C4 PFHpA* | *110* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C4 PFOA* | *102* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C4 PFOS* | *101* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C5 PFNA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C4 PFBA* | *108* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C2 PFHxA* | *104* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C2 PFDA* | *107* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C2 PFUnA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C2 PFDoA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C8 FOSA* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C5 PFPeA* | *109* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C2 PFTeDA* | *87* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *d3-NMeFOSAA* | *110* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *d5-NEtFOSAA* | *107* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *M2-6:2 FTS* | *111* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *M2-8:2 FTS* | *113* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |
| *13C3 PFBS* | *110* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:48* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **839** | **D** | 9.23 | 1.34 | ng/L | | 11/02/21 14:20 | 11/04/21 14:17 | 5 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFOS* | *93* | | *50 - 150* | *11/02/21 14:20* | *11/04/21 14:17* | *5* |

## Client Sample ID: DUP-01-20211027
**Lab Sample ID: 460-246027-5**
**Date Collected: 10/27/21 12:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 16:17 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *43* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 16:17* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **8.45** | | 4.66 | 0.83 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **15.9** | | 1.87 | 0.44 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **22.8** | | 1.87 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **6.77** | | 1.87 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **8.70** | | 1.87 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.49** | **J** | 1.87 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |

## Client Sample ID: DUP-01-20211027
**Lab Sample ID: 460-246027-5**

**Date Collected: 10/27/21 12:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.87 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.87 | 0.32 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.87 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.87 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.87 | 0.59 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **4.86** | | 1.87 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **89.8** | | 1.87 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.64** | **J** | 1.87 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.87 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.87 | 0.54 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.66 | 0.84 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.66 | 0.69 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| **1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)** | **1.31** | **J** | 4.66 | 1.02 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.87 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 14:57 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C4 PFHpA* | *88* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C4 PFOS* | *85* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C5 PFNA* | *82* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C4 PFBA* | *89* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C2 PFHxA* | *94* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C2 PFUnA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C2 PFDoA* | *77* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C5 PFPeA* | *90* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *d3-NMeFOSAA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *d5-NEtFOSAA* | *103* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *M2-6:2 FTS* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *M2-8:2 FTS* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |
| *13C3 PFBS* | *84* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 14:57* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **838** | **D** | 9.33 | 1.36 | ng/L | | 11/02/21 14:20 | 11/04/21 14:25 | 5 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFOS* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/04/21 14:25* | *5* |

## Client Sample ID: MH-103D-20211027
**Lab Sample ID: 460-246027-6**

**Date Collected: 10/27/21 09:50**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 16:33 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *42* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 16:33* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **12.1** | | 4.23 | 0.76 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.60** | | 1.69 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **6.52** | | 1.69 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.92** | | 1.69 | 0.20 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **12.3** | | 1.69 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorononanoic acid (PFNA)** | **2.15** | | 1.69 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.33** | **J** | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.69 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.69 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.69 | 0.37 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.69 | 0.54 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **1.63** | **J** | 1.69 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **1.31** | **J** | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.20 | U | 1.69 | 0.20 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **3.89** | | 1.69 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.69 | 0.49 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.76 | U | 4.23 | 0.76 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **1.05** | **J** | 4.23 | 0.63 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.93 | U | 4.23 | 0.93 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.69 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFHpA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFOA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFOS* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C5 PFNA* | *107* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFBA* | *103* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFHxA* | *101* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFUnA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFDoA* | *79* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C8 FOSA* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C5 PFPeA* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFTeDA* | *48* | *5- | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *d3-NMeFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *d5-NEtFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |

## Client Sample ID: MH-103D-20211027
**Lab Sample ID: 460-246027-6**

**Date Collected: 10/27/21 09:50**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *107* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *M2-8:2 FTS* | *110* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C3 PFBS* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |

## Client Sample ID: MH-105S-20211027
**Lab Sample ID: 460-246027-7**

**Date Collected: 10/27/21 09:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 16:49 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *44* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 16:49* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **2.11** | **J** | 4.77 | 0.85 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **0.80** | **J** | 1.91 | 0.45 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **0.48** | **J** | 1.91 | 0.43 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.41** | **J** | 1.91 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **1.10** | **J** | 1.91 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorononanoic acid (PFNA) | 0.27 | U | 1.91 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.91 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.91 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.91 | 0.37 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.91 | 0.41 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.60 | U | 1.91 | 0.60 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.24 | U | 1.91 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.29 | U | 1.91 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.22 | U | 1.91 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **0.43** | **J I** | 1.91 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.91 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.55 | U | 1.91 | 0.55 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.86 | U | 4.77 | 0.86 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.71 | U | 4.77 | 0.71 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.05 | U | 4.77 | 1.05 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.91 | 0.37 | ng/L | | 11/02/21 14:20 | 11/03/21 15:21 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *93* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C4 PFHpA* | *93* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C4 PFOS* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C5 PFNA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C4 PFBA* | *96* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C2 PFHxA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |

## Client Sample ID: MH-105S-20211027
**Lab Sample ID: 460-246027-7**
**Date Collected: 10/27/21 09:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C2 PFDA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C2 PFUnA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C2 PFDoA* | *87* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C8 FOSA* | *92* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C5 PFPeA* | *103* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *d3-NMeFOSAA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *d5-NEtFOSAA* | *101* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *M2-6:2 FTS* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *M2-8:2 FTS* | *105* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |
| *13C3 PFBS* | *94* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:21* | *1* |

## Client Sample ID: MH-105D-20211027
**Lab Sample ID: 460-246027-8**
**Date Collected: 10/27/21 11:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 17:05 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *37* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 17:05* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.98** | **J** | 5.19 | 0.93 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.62** | **J** | 2.08 | 0.49 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **1.43** | **J** | 2.08 | 0.47 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.77** | **J** | 2.08 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **2.35** | | 2.08 | 0.44 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorononanoic acid (PFNA) | 0.29 | U | 2.08 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.32 | U | 2.08 | 0.32 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.36 | U | 2.08 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.40 | U | 2.08 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.45 | U | 2.08 | 0.45 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.66 | U | 2.08 | 0.66 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **1.18** | **J** | 2.08 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **1.61** | **J** | 2.08 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.24 | U | 2.08 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **1.29** | **J I** | 2.08 | 0.30 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.32 | U | 2.08 | 0.32 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.60 | U | 2.08 | 0.60 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.94 | U | 5.19 | 0.94 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.77 | U | 5.19 | 0.77 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.14 | U | 5.19 | 1.14 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |

## Client Sample ID: MH-105D-20211027
**Lab Sample ID: 460-246027-8**

**Date Collected: 10/27/21 11:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.40 | U | 2.08 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:30 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C4 PFOS* | *102* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C5 PFNA* | *107* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C4 PFBA* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C2 PFDA* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C2 PFUnA* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C2 PFDoA* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C8 FOSA* | *98* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C5 PFPeA* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C2 PFTeDA* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *d3-NMeFOSAA* | *110* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *d5-NEtFOSAA* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *M2-6:2 FTS* | *105* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *M2-8:2 FTS* | *109* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |
| *13C3 PFBS* | *102* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:30* | *1* |

## Client Sample ID: MH-103S-20211027
**Lab Sample ID: 460-246027-9**

**Date Collected: 10/27/21 12:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 17:21 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *46* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 17:21* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **1.40** | **J** | 4.82 | 0.86 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **0.72** | **J** | 1.93 | 0.46 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **1.32** | **J** | 1.93 | 0.44 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.42** | **J** | 1.93 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **1.89** | **J** | 1.93 | 0.41 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorononanoic acid (PFNA) | 0.27 | U | 1.93 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.93 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.93 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.93 | 0.37 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.93 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.93 | 0.61 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **2.44** | | 1.93 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **25.4** | | 1.93 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.81** | **J** | 1.93 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |

## Client Sample ID: MH-103S-20211027
**Lab Sample ID: 460-246027-9**

**Date Collected: 10/27/21 12:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **53.4** | | 1.93 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.93 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.56 | U | 1.93 | 0.56 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.87 | U | 4.82 | 0.87 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.72 | U | 4.82 | 0.72 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.06 | U | 4.82 | 1.06 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.93 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 15:38 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C4 PFHpA* | *102* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C4 PFOS* | *94* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C5 PFNA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C4 PFBA* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C2 PFHxA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C2 PFDA* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C2 PFUnA* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C2 PFDoA* | *83* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C8 FOSA* | *90* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C5 PFPeA* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C2 PFTeDA* | *86* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *d3-NMeFOSAA* | *110* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *d5-NEtFOSAA* | *114* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *M2-6:2 FTS* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *M2-8:2 FTS* | *110* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |
| *13C3 PFBS* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:38* | *1* |

## Client Sample ID: MH-104-20211027
**Lab Sample ID: 460-246027-10**

**Date Collected: 10/27/21 12:25**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 17:37 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *42* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 17:37* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.73** | | 4.49 | 0.80 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **3.94** | | 1.79 | 0.43 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **8.13** | | 1.79 | 0.41 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.01** | | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **7.08** | | 1.79 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |

## Client Sample ID: MH-104-20211027
**Lab Sample ID: 460-246027-10**

**Date Collected: 10/27/21 12:25**
**Matrix: Water**

**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.38** | | 1.79 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **142** | | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **4.91** | | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.49 | 0.98 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 15:46 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C4 PFHpA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C4 PFOS* | *85* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C5 PFNA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C4 PFBA* | *99* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C2 PFHxA* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C2 PFUnA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C2 PFDoA* | *74* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C5 PFPeA* | *98* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C2 PFTeDA* | *84* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *d5-NEtFOSAA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *M2-6:2 FTS* | *107* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *M2-8:2 FTS* | *96* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |
| *13C3 PFBS* | *91* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:46* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **451** | **D** | 3.59 | 0.52 | ng/L | | 11/02/21 14:20 | 11/04/21 14:34 | 2 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFOS* | *92* | | *50 - 150* | *11/02/21 14:20* | *11/04/21 14:34* | *2* |

## Client Sample ID: MH-101-20211027
**Lab Sample ID: 460-246027-11**

**Date Collected: 10/27/21 13:40**
**Matrix: Water**

**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 17:53 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *45* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 17:53* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **2.53** | **J** | 4.47 | 0.80 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.08** | **J** | 1.79 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **1.38** | **J** | 1.79 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.06** | **J** | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **4.71** | | 1.79 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.12** | | 1.79 | 0.22 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **8.80** | | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.38** | **J** | 1.79 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **14.0** | | 1.79 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/02/21 14:20 | 11/03/21 15:55 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C4 PFOA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C5 PFNA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C4 PFBA* | *96* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C2 PFHxA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C2 PFDA* | *91* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C2 PFUnA* | *85* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C2 PFDoA* | *80* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C8 FOSA* | *99* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C5 PFPeA* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *13C2 PFTeDA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *d3-NMeFOSAA* | *104* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |
| *d5-NEtFOSAA* | *98* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:55* | *1* |

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

**Client Sample ID: MH-101-20211027**
**Lab Sample ID: 460-246027-11**
**Date Collected: 10/27/21 13:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| M2-6:2 FTS | 101 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| M2-8:2 FTS | 104 | | 25 - 150 | 11/02/21 14:20 | 11/03/21 15:55 | 1 |
| 13C3 PFBS | 92 | | 50 - 150 | 11/02/21 14:20 | 11/03/21 15:55 | 1 |

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) |
|---|---|---|
| | | DXE |
| Lab Sample ID | Client Sample ID | (10-150) |
| 460-246027-1 | EB-01-20211025 | 45 |
| 460-246027-2 | MHP-MW-3D-20211025 | 43 |
| 460-246027-3 | MHP-MW-4S-20211025 | 44 |
| 460-246027-4 | MHP-MW-3S-20211027 | 45 |
| 460-246027-5 | DUP-01-20211027 | 43 |
| 460-246027-6 | MH-103D-20211027 | 42 |
| 460-246027-7 | MH-105S-20211027 | 44 |
| 460-246027-8 | MH-105D-20211027 | 37 |
| 460-246027-9 | MH-103S-20211027 | 46 |
| 460-246027-10 | MH-104-20211027 | 42 |
| 460-246027-11 | MH-101-20211027 | 45 |
| LCS 460-810092/2-A | Lab Control Sample | 39 |
| LCSD 460-810092/3-A | Lab Control Sample Dup | 38 |
| MB 460-810092/1-A | Method Blank | 36 |

**Surrogate Legend**

DXE = 1,4-Dioxane-d8

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

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PFHxS | C4PFHA | PFOA | PFOS | PFNA | PFBA | PFHxA | PFDA |
| Lab Sample ID | Client Sample ID | (50-150) | (50-150) | (50-150) | (50-150) | (50-150) | (25-150) | (50-150) | (50-150) |
| 460-246027-1 | EB-01-20211025 | 99 | 97 | 96 | 101 | 104 | 109 | 104 | 95 |
| 460-246027-2 | MHP-MW-3D-20211025 | 89 | 95 | 93 | 94 | 97 | 89 | 97 | 96 |
| 460-246027-3 | MHP-MW-4S-20211025 | 93 | 93 | 92 | 91 | 99 | 94 | 107 | 82 |
| 460-246027-4 | MHP-MW-3S-20211027 | 108 | 110 | 102 | 101 | 97 | 108 | 104 | 107 |
| 460-246027-4 - DL | MHP-MW-3S-20211027 | | | | 93 | | | | |
| 460-246027-5 | DUP-01-20211027 | 92 | 88 | 96 | 85 | 82 | 89 | 94 | 89 |
| 460-246027-5 - DL | DUP-01-20211027 | | | | 95 | | | | |
| 460-246027-6 | MH-103D-20211027 | 106 | 99 | 100 | 106 | 107 | 103 | 101 | 89 |
| 460-246027-7 | MH-105S-20211027 | 93 | 93 | 97 | 98 | 97 | 96 | 97 | 90 |
| 460-246027-8 | MH-105D-20211027 | 98 | 97 | 96 | 102 | 107 | 101 | 99 | 98 |
| 460-246027-9 | MH-103S-20211027 | 97 | 102 | 96 | 94 | 99 | 95 | 90 | 92 |
| 460-246027-10 | MH-104-20211027 | 98 | 100 | 97 | 85 | 89 | 99 | 98 | 87 |
| 460-246027-10 - DL | MH-104-20211027 | | | | 92 | | | | |
| 460-246027-11 | MH-101-20211027 | 95 | 97 | 100 | 96 | 99 | 96 | 90 | 91 |
| LCS 200-173414/2-A | Lab Control Sample | 93 | 96 | 96 | 92 | 88 | 99 | 103 | 89 |
| LCSD 200-173414/3-A | Lab Control Sample Dup | 90 | 89 | 94 | 93 | 90 | 101 | 94 | 88 |
| MB 200-173414/1-A | Method Blank | 91 | 96 | 100 | 100 | 95 | 98 | 100 | 93 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PFUnA | PFDoA | PFOSA | PFPeA | PFTDA | d3NMFOS | d5NEFOS | M262FTS |
| Lab Sample ID | Client Sample ID | (50-150) | (50-150) | (25-150) | (25-150) | (50-150) | (50-150) | (50-150) | (25-150) |
| 460-246027-1 | EB-01-20211025 | 106 | 104 | 102 | 105 | 92 | 122 | 112 | 110 |
| 460-246027-2 | MHP-MW-3D-20211025 | 96 | 86 | 93 | 102 | 89 | 109 | 109 | 97 |
| 460-246027-3 | MHP-MW-4S-20211025 | 82 | 77 | 90 | 98 | 83 | 96 | 98 | 99 |
| 460-246027-4 | MHP-MW-3S-20211027 | 99 | 90 | 102 | 109 | 87 | 110 | 107 | 111 |
| 460-246027-4 - DL | MHP-MW-3S-20211027 | | | | | | | | |
| 460-246027-5 | DUP-01-20211027 | 89 | 77 | 91 | 90 | 82 | 99 | 103 | 95 |

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water**
**Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PFUnA | PFDoA | PFOSA | PFPeA | PFTDA | d3NMFOS | d5NEFOS | M262FTS |
| Lab Sample ID | Client Sample ID | (50-150) | (50-150) | (25-150) | (25-150) | (50-150) | (50-150) | (50-150) | (25-150) |
| 460-246027-5 - DL | DUP-01-20211027 | | | | | | | | |
| 460-246027-6 | MH-103D-20211027 | 90 | 79 | 95 | 101 | 48 *5- | 109 | 109 | 107 |
| 460-246027-7 | MH-105S-20211027 | 89 | 87 | 92 | 103 | 82 | 100 | 101 | 101 |
| 460-246027-8 | MH-105D-20211027 | 95 | 92 | 98 | 101 | 92 | 110 | 106 | 105 |
| 460-246027-9 | MH-103S-20211027 | 95 | 83 | 90 | 95 | 86 | 110 | 114 | 101 |
| 460-246027-10 | MH-104-20211027 | 89 | 74 | 91 | 98 | 84 | 94 | 100 | 107 |
| 460-246027-10 - DL | MH-104-20211027 | | | | | | | | |
| 460-246027-11 | MH-101-20211027 | 85 | 80 | 99 | 95 | 90 | 104 | 98 | 101 |
| LCS 200-173414/2-A | Lab Control Sample | 88 | 82 | 87 | 100 | 90 | 108 | 104 | 102 |
| LCSD 200-173414/3-A | Lab Control Sample Dup | 78 | 80 | 83 | 97 | 84 | 104 | 92 | 98 |
| MB 200-173414/1-A | Method Blank | 83 | 87 | 84 | 96 | 84 | 100 | 96 | 104 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M282FTS | C3PFBS | | | | | | |
| Lab Sample ID | Client Sample ID | (25-150) | (50-150) | | | | | | |
| 460-246027-1 | EB-01-20211025 | 108 | 94 | | | | | | |
| 460-246027-2 | MHP-MW-3D-20211025 | 102 | 86 | | | | | | |
| 460-246027-3 | MHP-MW-4S-20211025 | 101 | 93 | | | | | | |
| 460-246027-4 | MHP-MW-3S-20211027 | 113 | 110 | | | | | | |
| 460-246027-4 - DL | MHP-MW-3S-20211027 | | | | | | | | |
| 460-246027-5 | DUP-01-20211027 | 102 | 84 | | | | | | |
| 460-246027-5 - DL | DUP-01-20211027 | | | | | | | | |
| 460-246027-6 | MH-103D-20211027 | 110 | 100 | | | | | | |
| 460-246027-7 | MH-105S-20211027 | 105 | 94 | | | | | | |
| 460-246027-8 | MH-105D-20211027 | 109 | 102 | | | | | | |
| 460-246027-9 | MH-103S-20211027 | 110 | 95 | | | | | | |
| 460-246027-10 | MH-104-20211027 | 96 | 91 | | | | | | |
| 460-246027-10 - DL | MH-104-20211027 | | | | | | | | |
| 460-246027-11 | MH-101-20211027 | 104 | 92 | | | | | | |
| LCS 200-173414/2-A | Lab Control Sample | 104 | 89 | | | | | | |
| LCSD 200-173414/3-A | Lab Control Sample Dup | 102 | 93 | | | | | | |
| MB 200-173414/1-A | Method Blank | 102 | 86 | | | | | | |

**Surrogate Legend**

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

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

C3PFBS = 13C3 PFBS

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

**Lab Sample ID: MB 460-810092/1-A**
**Matrix: Water**
**Analysis Batch: 810369**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 810092**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/29/21 08:12 | 10/30/21 13:21 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *36* | | *10 - 150* | *10/29/21 08:12* | *10/30/21 13:21* | *1* |

**Lab Sample ID: LCS 460-810092/2-A**
**Matrix: Water**
**Analysis Batch: 810369**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 810092**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 1.60 | 1.44 | | ug/L | | 90 | 50 - 142 | | |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *39* | | *10 - 150* |

**Lab Sample ID: LCSD 460-810092/3-A**
**Matrix: Water**
**Analysis Batch: 810369**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 810092**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 1.60 | 1.43 | | ug/L | | 90 | 50 - 142 | 0 | 20 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *38* | | *10 - 150* |

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

**Lab Sample ID: MB 200-173414/1-A**
**Matrix: Water**
**Analysis Batch: 173453**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 173414**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.25 | U | 2.00 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |

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

**Lab Sample ID: MB 200-173414/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173453**
**Prep Batch: 173414**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.74 | U | 5.00 | 0.74 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/02/21 14:20 | 11/03/21 13:59 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *91* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C4 PFHpA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C4 PFOA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C4 PFOS* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C5 PFNA* | *95* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C4 PFBA* | *98* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C2 PFHxA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C2 PFDA* | *93* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C2 PFUnA* | *83* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C2 PFDoA* | *87* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C8 FOSA* | *84* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C5 PFPeA* | *96* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C2 PFTeDA* | *84* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *d3-NMeFOSAA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *d5-NEtFOSAA* | *96* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *M2-6:2 FTS* | *104* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *M2-8:2 FTS* | *102* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |
| *13C3 PFBS* | *86* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 13:59* | *1* |

**Lab Sample ID: LCS 200-173414/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173453**
**Prep Batch: 173414**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 44.19 | | ng/L | | 110 | 70 - 130 |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 44.23 | | ng/L | | 111 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 41.40 | | ng/L | | 103 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 41.47 | | ng/L | | 104 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | 40.0 | 41.29 | | ng/L | | 103 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | 40.0 | 46.49 | | ng/L | | 116 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | 40.0 | 46.44 | | ng/L | | 116 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 43.43 | | ng/L | | 109 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 47.54 | | ng/L | | 119 | 70 - 130 |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 46.15 | | ng/L | | 115 | 70 - 130 |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 43.14 | | ng/L | | 108 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 41.16 | | ng/L | | 116 | 70 - 130 |

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

**Lab Sample ID: LCS 200-173414/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173453**
**Prep Batch: 173414**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | | | 36.4 | 40.11 | | ng/L | | 110 | 70 - 130 | | |
| Perfluoroheptanesulfonic Acid (PFHpS) | | | 38.1 | 43.81 | | ng/L | | 115 | 70 - 130 | | |
| Perfluorooctanesulfonic acid (PFOS) | | | 37.1 | 38.92 | | ng/L | | 105 | 70 - 130 | | |
| Perfluorodecanesulfonic acid (PFDS) | | | 38.6 | 39.52 | | ng/L | | 102 | 70 - 130 | | |
| Perfluorooctanesulfonamide (PFOSA) | | | 40.0 | 44.57 | | ng/L | | 111 | 70 - 130 | | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | | 40.0 | 45.50 | | ng/L | | 114 | 70 - 130 | | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | | 40.0 | 42.38 | | ng/L | | 106 | 70 - 130 | | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | | 37.9 | 40.62 | | ng/L | | 107 | 60 - 140 | | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | | 38.3 | 38.67 | | ng/L | | 101 | 70 - 130 | | |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *93* | | *50 - 150* |
| *13C4 PFHpA* | *96* | | *50 - 150* |
| *13C4 PFOA* | *96* | | *50 - 150* |
| *13C4 PFOS* | *92* | | *50 - 150* |
| *13C5 PFNA* | *88* | | *50 - 150* |
| *13C4 PFBA* | *99* | | *25 - 150* |
| *13C2 PFHxA* | *103* | | *50 - 150* |
| *13C2 PFDA* | *89* | | *50 - 150* |
| *13C2 PFUnA* | *88* | | *50 - 150* |
| *13C2 PFDoA* | *82* | | *50 - 150* |
| *13C8 FOSA* | *87* | | *25 - 150* |
| *13C5 PFPeA* | *100* | | *25 - 150* |
| *13C2 PFTeDA* | *90* | | *50 - 150* |
| *d3-NMeFOSAA* | *108* | | *50 - 150* |
| *d5-NEtFOSAA* | *104* | | *50 - 150* |
| *M2-6:2 FTS* | *102* | | *25 - 150* |
| *M2-8:2 FTS* | *104* | | *25 - 150* |
| *13C3 PFBS* | *89* | | *50 - 150* |

**Lab Sample ID: LCSD 200-173414/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173453**
**Prep Batch: 173414**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | | | 40.0 | 42.56 | | ng/L | | 106 | 70 - 130 | 4 | 30 |
| Perfluoropentanoic acid (PFPeA) | | | 40.0 | 46.03 | | ng/L | | 115 | 70 - 130 | 4 | 30 |
| Perfluorohexanoic acid (PFHxA) | | | 40.0 | 43.85 | | ng/L | | 110 | 70 - 130 | 6 | 30 |
| Perfluoroheptanoic acid (PFHpA) | | | 40.0 | 42.27 | | ng/L | | 106 | 70 - 130 | 2 | 30 |
| Perfluorooctanoic acid (PFOA) | | | 40.0 | 43.64 | | ng/L | | 109 | 70 - 130 | 6 | 30 |
| Perfluorononanoic acid (PFNA) | | | 40.0 | 45.20 | | ng/L | | 113 | 70 - 130 | 3 | 30 |
| Perfluorodecanoic acid (PFDA) | | | 40.0 | 47.07 | | ng/L | | 118 | 70 - 130 | 1 | 30 |

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

**Lab Sample ID: LCSD 200-173414/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173453**
**Prep Batch: 173414**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | | | 40.0 | 46.30 | | ng/L | | 116 | 70 - 130 | 6 | 30 |
| Perfluorododecanoic acid (PFDoA) | | | 40.0 | 48.19 | | ng/L | | 120 | 70 - 130 | 1 | 30 |
| Perfluorotridecanoic acid (PFTriA) | | | 40.0 | 45.33 | | ng/L | | 113 | 70 - 130 | 2 | 30 |
| Perfluorotetradecanoic acid (PFTeA) | | | 40.0 | 48.29 | | ng/L | | 121 | 70 - 130 | 11 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | | | 35.4 | 40.49 | | ng/L | | 115 | 70 - 130 | 2 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | | | 36.4 | 39.53 | | ng/L | | 109 | 70 - 130 | 1 | 30 |
| Perfluoroheptanesulfonic Acid (PFHpS) | | | 38.1 | 43.07 | | ng/L | | 113 | 70 - 130 | 2 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | | | 37.1 | 39.45 | | ng/L | | 106 | 70 - 130 | 1 | 30 |
| Perfluorodecanesulfonic acid (PFDS) | | | 38.6 | 38.80 | | ng/L | | 101 | 70 - 130 | 2 | 30 |
| Perfluorooctanesulfonamide (PFOSA) | | | 40.0 | 43.00 | | ng/L | | 108 | 70 - 130 | 4 | 30 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | | 40.0 | 45.87 | | ng/L | | 115 | 70 - 130 | 1 | 30 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | | 40.0 | 46.00 | | ng/L | | 115 | 70 - 130 | 8 | 30 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | | 37.9 | 43.94 | | ng/L | | 116 | 60 - 140 | 8 | 30 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | | 38.3 | 42.23 | | ng/L | | 110 | 70 - 130 | 9 | 30 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *90* | | *50 - 150* |
| *13C4 PFHpA* | *89* | | *50 - 150* |
| *13C4 PFOA* | *94* | | *50 - 150* |
| *13C4 PFOS* | *93* | | *50 - 150* |
| *13C5 PFNA* | *90* | | *50 - 150* |
| *13C4 PFBA* | *101* | | *25 - 150* |
| *13C2 PFHxA* | *94* | | *50 - 150* |
| *13C2 PFDA* | *88* | | *50 - 150* |
| *13C2 PFUnA* | *78* | | *50 - 150* |
| *13C2 PFDoA* | *80* | | *50 - 150* |
| *13C8 FOSA* | *83* | | *25 - 150* |
| *13C5 PFPeA* | *97* | | *25 - 150* |
| *13C2 PFTeDA* | *84* | | *50 - 150* |
| *d3-NMeFOSAA* | *104* | | *50 - 150* |
| *d5-NEtFOSAA* | *92* | | *50 - 150* |
| *M2-6:2 FTS* | *98* | | *25 - 150* |
| *M2-8:2 FTS* | *102* | | *25 - 150* |
| *13C3 PFBS* | *93* | | *50 - 150* |

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

### LCMS

| Qualifier | Qualifier Description |
|---|---|
| *5- | Isotope dilution analyte is outside acceptance limits, low biased. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| I | Value is EMPC (estimated maximum possible concentration). |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

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

## GC/MS Semi VOA

### Prep Batch: 810092

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246027-1 | EB-01-20211025 | Total/NA | Water | 3510C | |
| 460-246027-2 | MHP-MW-3D-20211025 | Total/NA | Water | 3510C | |
| 460-246027-3 | MHP-MW-4S-20211025 | Total/NA | Water | 3510C | |
| 460-246027-4 | MHP-MW-3S-20211027 | Total/NA | Water | 3510C | |
| 460-246027-5 | DUP-01-20211027 | Total/NA | Water | 3510C | |
| 460-246027-6 | MH-103D-20211027 | Total/NA | Water | 3510C | |
| 460-246027-7 | MH-105S-20211027 | Total/NA | Water | 3510C | |
| 460-246027-8 | MH-105D-20211027 | Total/NA | Water | 3510C | |
| 460-246027-9 | MH-103S-20211027 | Total/NA | Water | 3510C | |
| 460-246027-10 | MH-104-20211027 | Total/NA | Water | 3510C | |
| 460-246027-11 | MH-101-20211027 | Total/NA | Water | 3510C | |
| MB 460-810092/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 460-810092/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 460-810092/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |

### Analysis Batch: 810369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246027-1 | EB-01-20211025 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-2 | MHP-MW-3D-20211025 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-3 | MHP-MW-4S-20211025 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-4 | MHP-MW-3S-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-5 | DUP-01-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-6 | MH-103D-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-7 | MH-105S-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-8 | MH-105D-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-9 | MH-103S-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-10 | MH-104-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| 460-246027-11 | MH-101-20211027 | Total/NA | Water | 8270E SIM ID | 810092 |
| MB 460-810092/1-A | Method Blank | Total/NA | Water | 8270E SIM ID | 810092 |
| LCS 460-810092/2-A | Lab Control Sample | Total/NA | Water | 8270E SIM ID | 810092 |
| LCSD 460-810092/3-A | Lab Control Sample Dup | Total/NA | Water | 8270E SIM ID | 810092 |

## LCMS

### Prep Batch: 173414

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246027-1 | EB-01-20211025 | Total/NA | Water | 3535 | |
| 460-246027-2 | MHP-MW-3D-20211025 | Total/NA | Water | 3535 | |
| 460-246027-3 | MHP-MW-4S-20211025 | Total/NA | Water | 3535 | |
| 460-246027-4 - DL | MHP-MW-3S-20211027 | Total/NA | Water | 3535 | |
| 460-246027-4 | MHP-MW-3S-20211027 | Total/NA | Water | 3535 | |
| 460-246027-5 | DUP-01-20211027 | Total/NA | Water | 3535 | |
| 460-246027-5 - DL | DUP-01-20211027 | Total/NA | Water | 3535 | |
| 460-246027-6 | MH-103D-20211027 | Total/NA | Water | 3535 | |
| 460-246027-7 | MH-105S-20211027 | Total/NA | Water | 3535 | |
| 460-246027-8 | MH-105D-20211027 | Total/NA | Water | 3535 | |
| 460-246027-9 | MH-103S-20211027 | Total/NA | Water | 3535 | |
| 460-246027-10 | MH-104-20211027 | Total/NA | Water | 3535 | |
| 460-246027-10 - DL | MH-104-20211027 | Total/NA | Water | 3535 | |
| 460-246027-11 | MH-101-20211027 | Total/NA | Water | 3535 | |
| MB 200-173414/1-A | Method Blank | Total/NA | Water | 3535 | |

## LCMS (Continued)

### Prep Batch: 173414 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 200-173414/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCSD 200-173414/3-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |

### Analysis Batch: 173453

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246027-1 | EB-01-20211025 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-2 | MHP-MW-3D-20211025 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-3 | MHP-MW-4S-20211025 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-4 | MHP-MW-3S-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-5 | DUP-01-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-6 | MH-103D-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-7 | MH-105S-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-8 | MH-105D-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-9 | MH-103S-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-10 | MH-104-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-11 | MH-101-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| MB 200-173414/1-A | Method Blank | Total/NA | Water | 537 (modified) | 173414 |
| LCS 200-173414/2-A | Lab Control Sample | Total/NA | Water | 537 (modified) | 173414 |
| LCSD 200-173414/3-A | Lab Control Sample Dup | Total/NA | Water | 537 (modified) | 173414 |

### Analysis Batch: 173511

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246027-4 - DL | MHP-MW-3S-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-5 - DL | DUP-01-20211027 | Total/NA | Water | 537 (modified) | 173414 |
| 460-246027-10 - DL | MH-104-20211027 | Total/NA | Water | 537 (modified) | 173414 |

## Client Sample ID: EB-01-20211025
**Lab Sample ID: 460-246027-1**
**Date Collected: 10/25/21 15:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 15:13 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 14:23 | ND | TAL BUR |

## Client Sample ID: MHP-MW-3D-20211025
**Lab Sample ID: 460-246027-2**
**Date Collected: 10/25/21 16:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 15:29 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 14:32 | ND | TAL BUR |

## Client Sample ID: MHP-MW-4S-20211025
**Lab Sample ID: 460-246027-3**
**Date Collected: 10/25/21 16:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 15:45 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 14:40 | ND | TAL BUR |

## Client Sample ID: MHP-MW-3S-20211027
**Lab Sample ID: 460-246027-4**
**Date Collected: 10/27/21 09:30**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 16:01 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 14:48 | ND | TAL BUR |
| Total/NA | Prep | 3535 | DL | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 5 | 173511 | 11/04/21 14:17 | ND | TAL BUR |

## Client Sample ID: DUP-01-20211027
**Lab Sample ID: 460-246027-5**
**Date Collected: 10/27/21 12:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 16:17 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 14:57 | ND | TAL BUR |

## Client Sample ID: DUP-01-20211027
**Lab Sample ID: 460-246027-5**
**Date Collected: 10/27/21 12:00**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3535 | DL | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 5 | 173511 | 11/04/21 14:25 | ND | TAL BUR |

## Client Sample ID: MH-103D-20211027
**Lab Sample ID: 460-246027-6**
**Date Collected: 10/27/21 09:50**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 16:33 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:13 | ND | TAL BUR |

## Client Sample ID: MH-105S-20211027
**Lab Sample ID: 460-246027-7**
**Date Collected: 10/27/21 09:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 16:49 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:21 | ND | TAL BUR |

## Client Sample ID: MH-105D-20211027
**Lab Sample ID: 460-246027-8**
**Date Collected: 10/27/21 11:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 17:05 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:30 | ND | TAL BUR |

## Client Sample ID: MH-103S-20211027
**Lab Sample ID: 460-246027-9**
**Date Collected: 10/27/21 12:10**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 17:21 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:38 | ND | TAL BUR |

## Client Sample ID: MH-104-20211027
## Lab Sample ID: 460-246027-10

**Date Collected: 10/27/21 12:25**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 17:37 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:46 | ND | TAL BUR |
| Total/NA | Prep | 3535 | DL | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 2 | 173511 | 11/04/21 14:34 | ND | TAL BUR |

## Client Sample ID: MH-101-20211027
## Lab Sample ID: 460-246027-11

**Date Collected: 10/27/21 13:40**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 810092 | 10/30/21 07:00 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 810369 | 10/30/21 17:53 | YAH | TAL EDI |
| Total/NA | Prep | 3535 | | | 173414 | 11/02/21 14:20 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173453 | 11/03/21 15:55 | ND | TAL BUR |

**Laboratory References:**

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

# Accreditation/Certification Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

## Laboratory: Eurofins TestAmerica, Edison

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| New Jersey | NELAP | 12028 | 06-30-22 |

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| ANAB | Dept. of Defense ELAP | L2336 | 02-25-23 |
| Connecticut | State | PH-0751 | 09-30-21 * |
| DE Haz. Subst. Cleanup Act (HSCA) | State | N/A | 05-17-22 |
| Florida | NELAP | E87467 | 06-30-22 |
| Minnesota | NELAP | 050-999-436 | 12-31-21 |
| New Hampshire | NELAP | 2006 | 12-18-21 |
| New Jersey | NELAP | VT972 | 06-30-22 |
| New York | NELAP | 10391 | 04-01-22 |
| Pennsylvania | NELAP | 68-00489 | 04-30-22 |
| Rhode Island | State | LAO00298 | 12-30-21 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-22 |
| USDA | US Federal Programs | P330-17-00272 | 10-30-23 |
| Vermont | State | VT4000 | 02-10-22 |
| Virginia | NELAP | 460209 | 12-14-21 |
| Wisconsin | State | 399133350 | 08-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# 8270E_SIM_MS_ID

## Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rtxi-5Sil M ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DXE # |
|---|---|---|
| EB-01-20211025 | 460-246027-1 | 45 |
| MHP-MW-3D-20211025 | 460-246027-2 | 43 |
| MHP-MW-4S-20211025 | 460-246027-3 | 44 |
| MHP-MW-3S-20211027 | 460-246027-4 | 45 |
| DUP-01-20211027 | 460-246027-5 | 43 |
| MH-103D-20211027 | 460-246027-6 | 42 |
| MH-105S-20211027 | 460-246027-7 | 44 |
| MH-105D-20211027 | 460-246027-8 | 37 |
| MH-103S-20211027 | 460-246027-9 | 46 |
| MH-104-20211027 | 460-246027-10 | 42 |
| MH-101-20211027 | 460-246027-11 | 45 |
| | MB 460-810092/1-A | 36 |
| | LCS 460-810092/2-A | 39 |
| | LCSD 460-810092/3-A | 38 |

| | QC LIMITS |
|---|---|
| DXE = 1,4-Dioxane-d8 | 10-150 |

# Column to be used to flag recovery values

FORM II 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268666.d

Lab ID: LCS 460-810092/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.44 | 90 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 12.4 | 39 | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: h268667.d

Lab ID: LCSD 460-810092/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.43 | 90 | 0 | 20 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 12.3 | 38 | | | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Lab File ID: h268665.d  Lab Sample ID: MB 460-810092/1-A

Matrix: Water  Date Extracted: 10/29/2021 08:12

Instrument ID: CBNAMS9  Date Analyzed: 10/30/2021 13:21

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 460-810092/2-A | h268666.d | 10/30/2021 13:37 |
| | LCSD 460-810092/3-A | h268667.d | 10/30/2021 13:53 |
| EB-01-20211025 | 460-246027-1 | h268672.d | 10/30/2021 15:13 |
| MHP-MW-3D-20211025 | 460-246027-2 | h268673.d | 10/30/2021 15:29 |
| MHP-MW-4S-20211025 | 460-246027-3 | h268674.d | 10/30/2021 15:45 |
| MHP-MW-3S-20211027 | 460-246027-4 | h268675.d | 10/30/2021 16:01 |
| DUP-01-20211027 | 460-246027-5 | h268676.d | 10/30/2021 16:17 |
| MH-103D-20211027 | 460-246027-6 | h268677.d | 10/30/2021 16:33 |
| MH-105S-20211027 | 460-246027-7 | h268678.d | 10/30/2021 16:49 |
| MH-105D-20211027 | 460-246027-8 | h268679.d | 10/30/2021 17:05 |
| MH-103S-20211027 | 460-246027-9 | h268680.d | 10/30/2021 17:21 |
| MH-104-20211027 | 460-246027-10 | h268681.d | 10/30/2021 17:37 |
| MH-101-20211027 | 460-246027-11 | h268682.d | 10/30/2021 17:53 |

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Lab File ID: h266841.d  DFTPP Injection Date: 07/13/2021

Instrument ID: CBNAMS9  DFTPP Injection Time: 13:30

Analysis Batch No.: 790012

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 68 | Less than 2% of m/z 69 | 0.0 | (0.0) 1 |
| 69 | Present | 35.6 | |
| 70 | Less than 2% of m/z 69 | 0.1 | (0.3) 1 |
| 197 | Less than 2% of m/z 198 | 0.0 | |
| 198 | Base Peak | 100.0 | |
| 199 | 5-9% of m/z 198 | 7.0 | |
| 365 | Greater than 1% of Base Peak | 2.8 | |
| 441 | Less than 150% of m/z 443 | 13.0 | (73.5) 3 |
| 442 | Present | 88.4 | |
| 443 | 15-24% of m/z 442 | 17.7 | (20.1) 2 |

1-Value is % mass 69  2-Value is % mass 442  3-Value is % mass 443

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

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | ICIS 460-790012/2 | h266842.d | 07/13/2021 | 13:46 |
| | STD9 460-790012/3 | h266843.d | 07/13/2021 | 14:01 |
| | STD8 460-790012/4 | h266844.d | 07/13/2021 | 14:17 |
| | STD7 460-790012/5 | h266845.d | 07/13/2021 | 14:33 |
| | STD6 460-790012/6 | h266846.d | 07/13/2021 | 14:49 |
| | STD4 460-790012/7 | h266847.d | 07/13/2021 | 15:05 |
| | STD3 460-790012/8 | h266848.d | 07/13/2021 | 15:21 |
| | STD2 460-790012/9 | h266849.d | 07/13/2021 | 15:37 |
| | STD1 460-790012/10 | h266850.d | 07/13/2021 | 15:53 |
| | ICV 460-790012/11 | h266851.d | 07/13/2021 | 16:09 |

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Sample No.: ICIS 460-790012/2  Date Analyzed: 07/13/2021 13:46

Instrument ID: CBNAMS9  GC Column: Rtxi-5Sil MS  ID: 0.25(mm)

Lab File ID (Standard): h266842.d  Heated Purge: (Y/N) N

Calibration ID: 86285

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| INITIAL CALIBRATION MID-POINT | | 14777 | 5.37 | | | | |
| UPPER LIMIT | | 29554 | 5.87 | | | | |
| LOWER LIMIT | | 7389 | 4.87 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 460-790012/11 | | 18820 | 5.37 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270E SIM ID

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Sample No.: CCVIS 460-810369/2  Date Analyzed: 10/30/2021 13:01

Instrument ID: CBNAMS9  GC Column: Rtxi-5Sil MS  ID: 0.25(mm)

Lab File ID (Standard): h268664.d  Heated Purge: (Y/N) N

Calibration ID: 86285

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 7675 | 5.74 | | | | |
| UPPER LIMIT | | 15350 | 6.24 | | | | |
| LOWER LIMIT | | 3838 | 5.24 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 460-810092/1-A | | 10498 | 5.73 | | | | |
| LCS 460-810092/2-A | | 8442 | 5.74 | | | | |
| LCSD 460-810092/3-A | | 11565 | 5.73 | | | | |
| 460-246027-1 | EB-01-20211025 | 8965 | 5.73 | | | | |
| 460-246027-2 | MHP-MW-3D-20211025 | 9479 | 5.73 | | | | |
| 460-246027-3 | MHP-MW-4S-20211025 | 9357 | 5.73 | | | | |
| 460-246027-4 | MHP-MW-3S-20211027 | 8216 | 5.73 | | | | |
| 460-246027-5 | DUP-01-20211027 | 9960 | 5.73 | | | | |
| 460-246027-6 | MH-103D-20211027 | 9076 | 5.73 | | | | |
| 460-246027-7 | MH-105S-20211027 | 8816 | 5.73 | | | | |
| 460-246027-8 | MH-105D-20211027 | 7078 | 5.73 | | | | |
| 460-246027-9 | MH-103S-20211027 | 7655 | 5.73 | | | | |
| 460-246027-10 | MH-104-20211027 | 8134 | 5.73 | | | | |
| 460-246027-11 | MH-101-20211027 | 8068 | 5.73 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270E SIM ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: EB-01-20211025  Lab Sample ID: 460-246027-1

Matrix: Water  Lab File ID: h268672.d

Analysis Method: 8270E SIM ID  Date Collected: 10/25/2021 15:40

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 15:13

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 45 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268672.d | | | | |
| Lims ID: | 460-246027-C-1-A | | | | |
| Client ID: | EB-01-20211025 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 15:13:30 | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-010 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:16:49 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:16:55 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 11 | 19235 | 1.78 | 44.6 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 8965 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

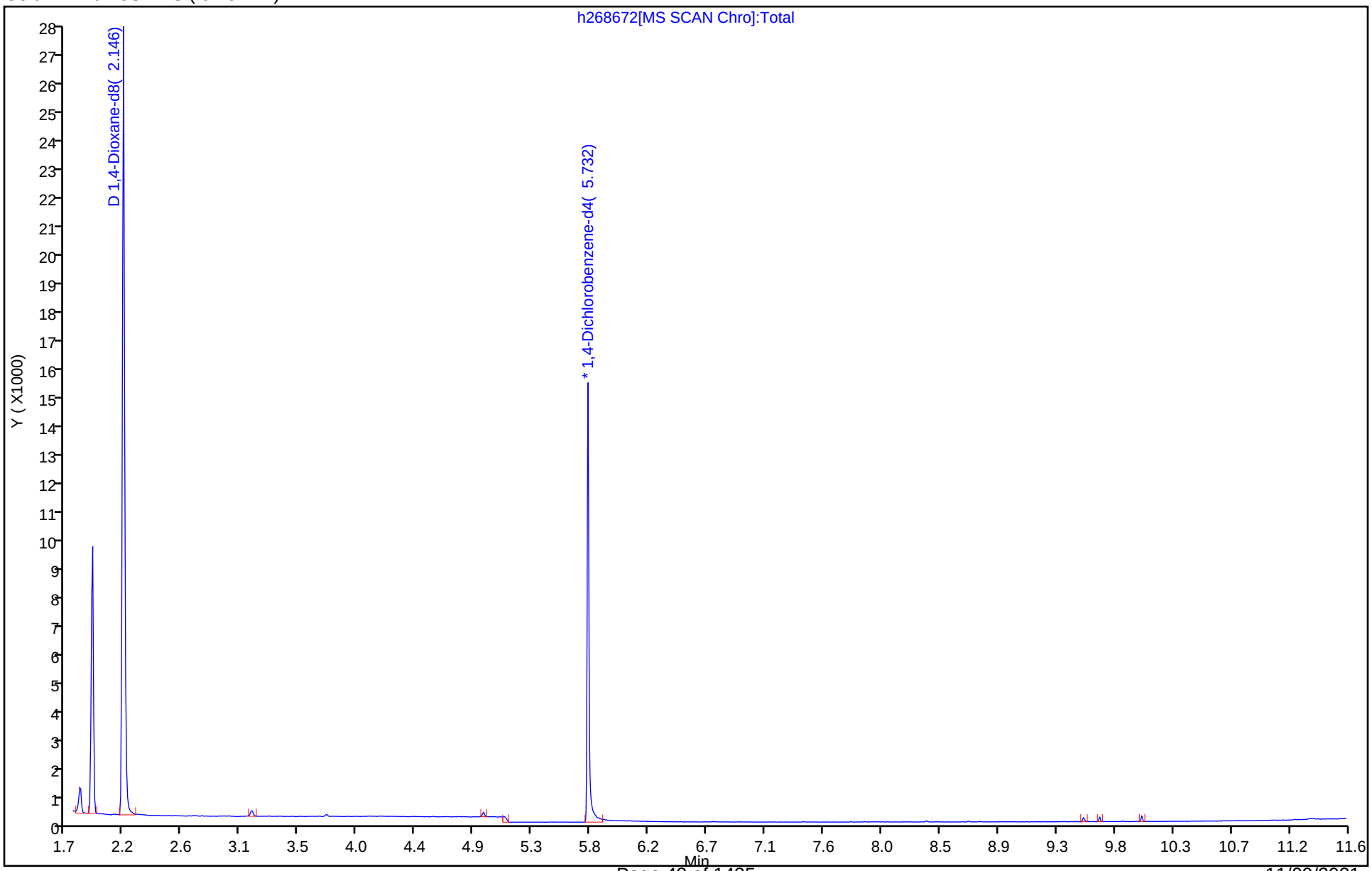
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:16:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268672.d | | | | |
| Injection Date: | 30-Oct-2021 15:13:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-C-1-A | Lab Sample ID: | 460-246027-1 | Worklist Smp#: | 10 |
| Client ID: | EB-01-20211025 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

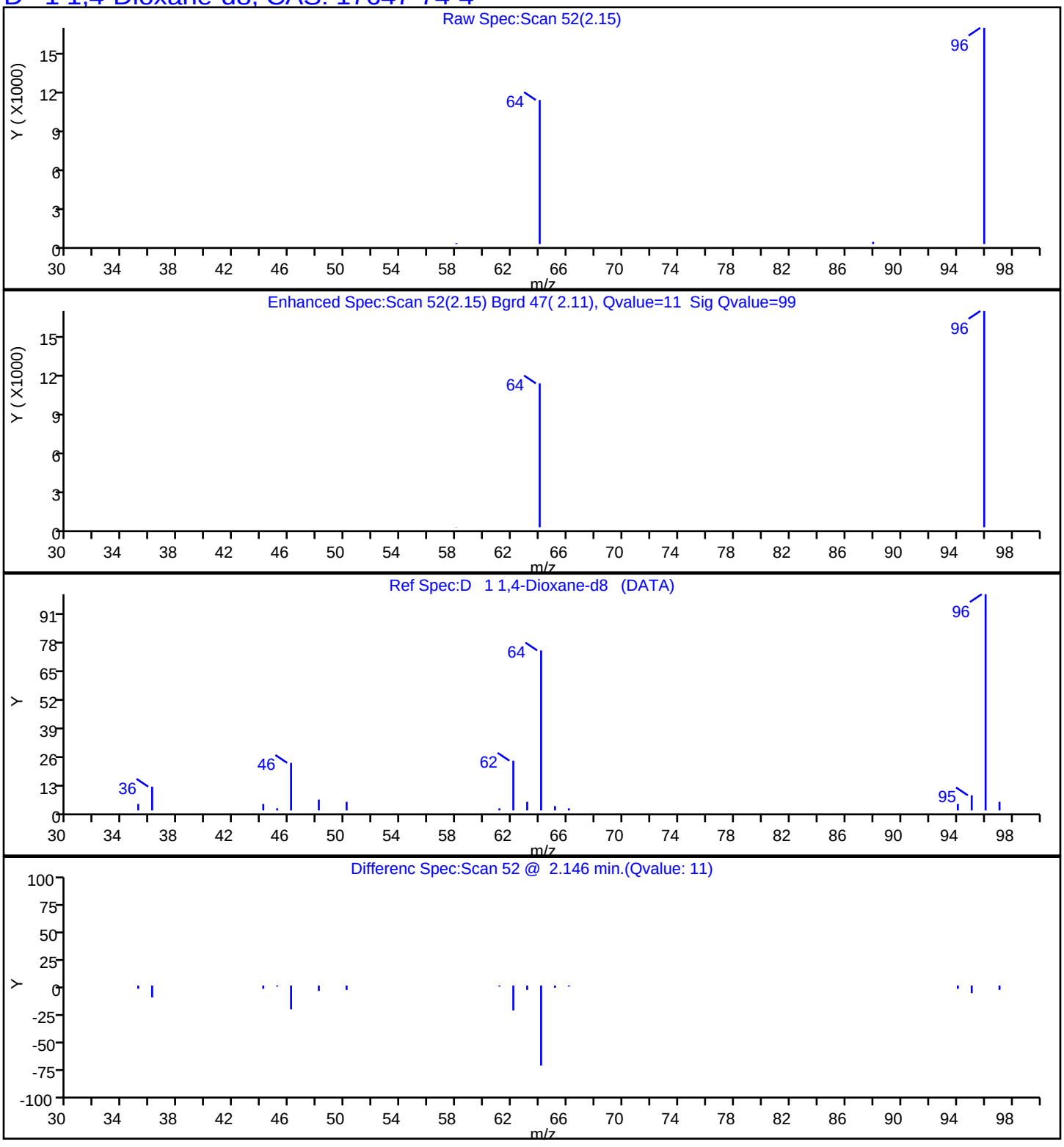
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268672.d | | | | |
| Injection Date: | 30-Oct-2021 15:13:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-C-1-A | Lab Sample ID: | 460-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



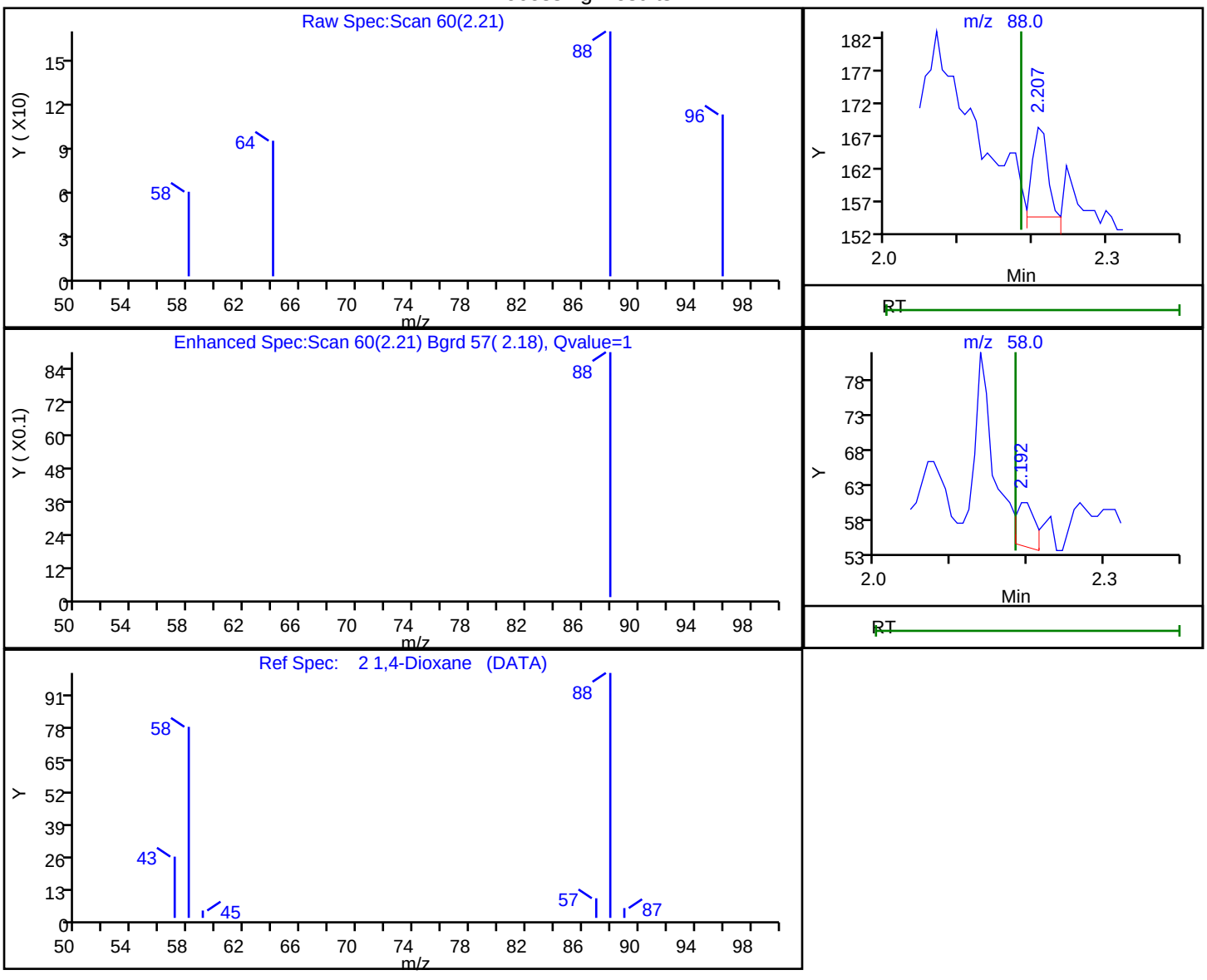
User Disabled Compound Report

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268672.d | | | | |
| Injection Date: | 30-Oct-2021 15:13:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-C-1-A | Lab Sample ID: | 460-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

## 2 1,4-Dioxane, CAS: 123-91-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.21 | 88.00 | 20 | 0.003515 |
| 2.19 | 58.00 | 11 | |

Reviewer: khlungprakhons, 01-Nov-2021 07:15:59

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3D-20211025  Lab Sample ID: 460-246027-2

Matrix: Water  Lab File ID: h268673.d

Analysis Method: 8270E SIM ID  Date Collected: 10/25/2021 16:00

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 15:29

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 43 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268673.d
Lims ID: 460-246027-D-2-A
Client ID: MHP-MW-3D-20211025
Sample Type: Client
Inject. Date: 30-Oct-2021 15:29:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-011
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:16:49 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:17:04

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.145 | 2.145 | 0.000 | 11 | 19557 | 1.71 | 42.9 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 9479 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

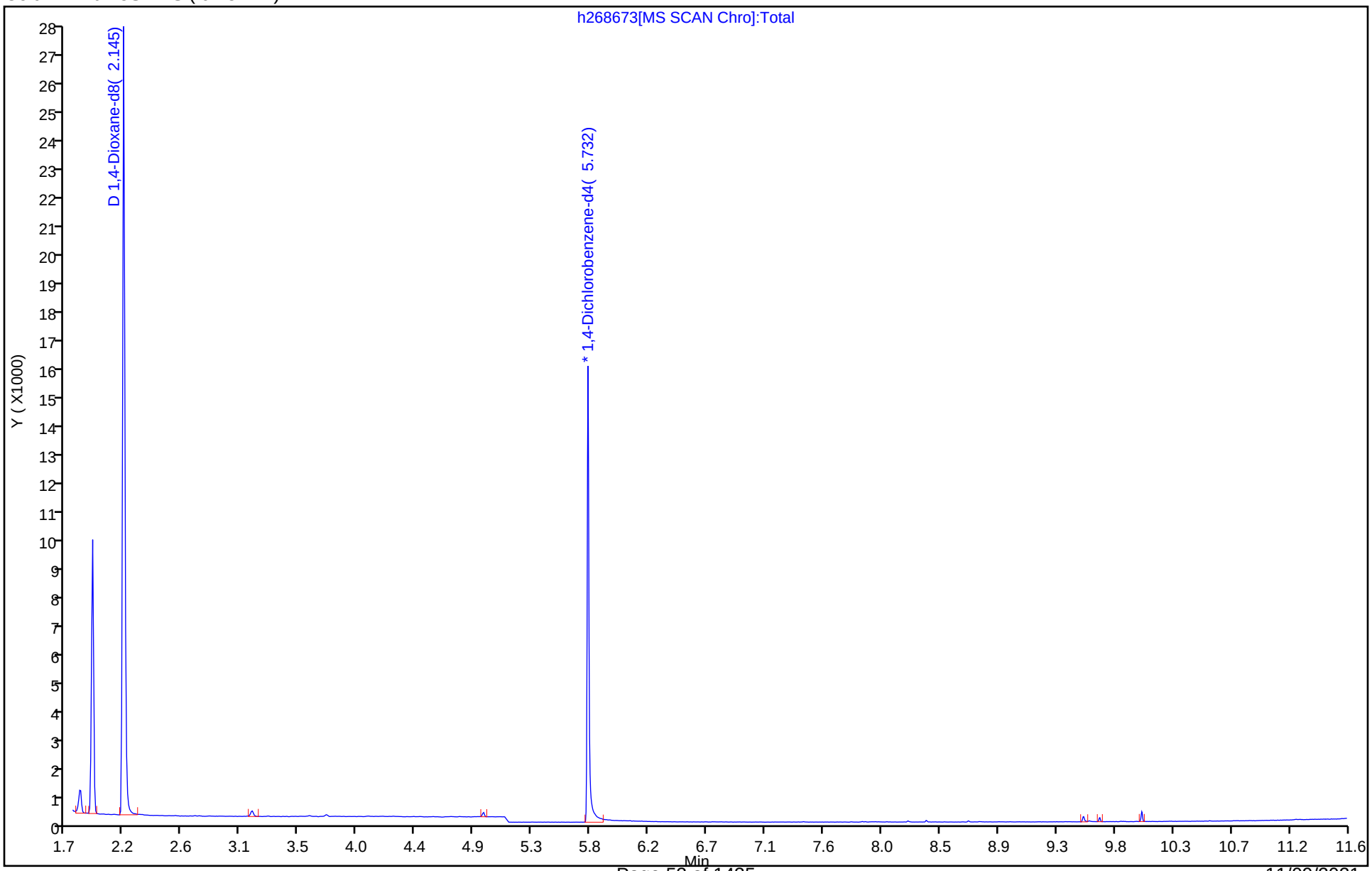
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:17:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268673.d | | | | |
| Injection Date: | 30-Oct-2021 15:29:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-2-A | Lab Sample ID: | 460-246027-2 | Worklist Smp#: | 11 |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

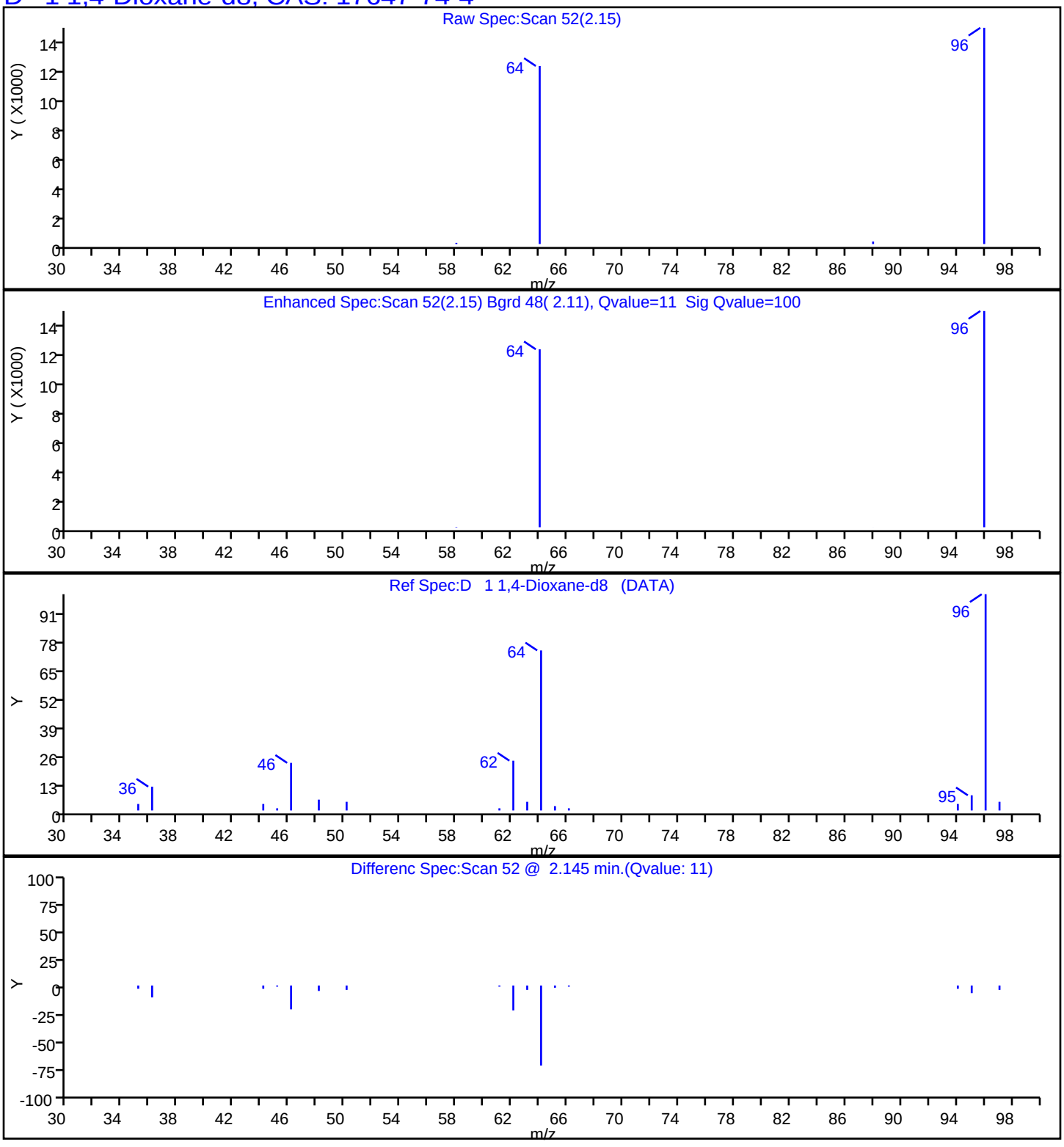
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268673.d | | | | |
| Injection Date: | 30-Oct-2021 15:29:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-2-A | Lab Sample ID: | 460-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-4S-20211025  Lab Sample ID: 460-246027-3

Matrix: Water  Lab File ID: h268674.d

Analysis Method: 8270E SIM ID  Date Collected: 10/25/2021 16:10

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 15:45

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 44 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268674.d | | | | |
| Lims ID: | 460-246027-D-3-A | | | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 15:45:30 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-012 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:09 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:17:16 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 12 | 19710 | 1.75 | 43.8 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 9357 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

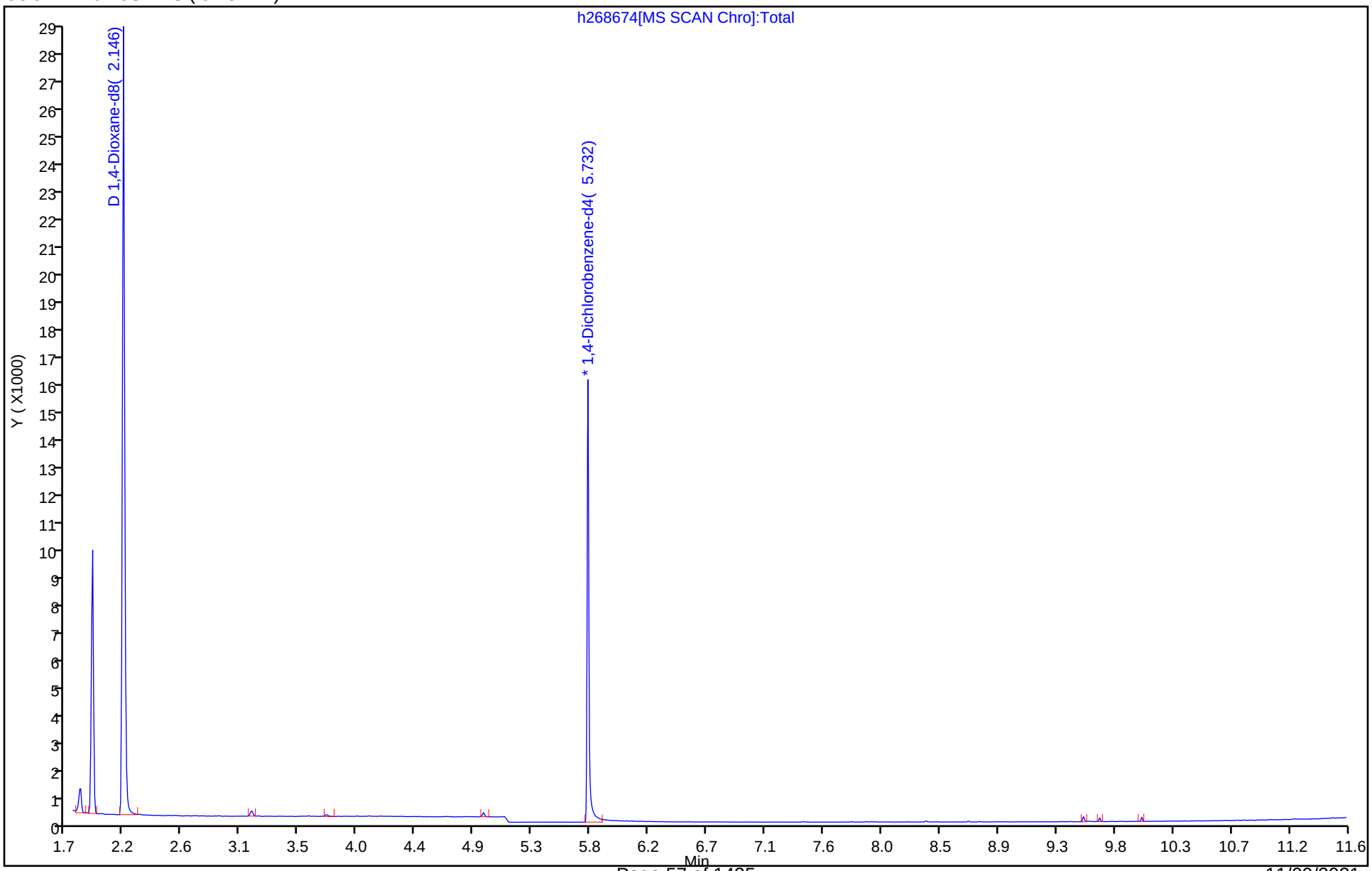
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:17:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268674.d | | | | |
| Injection Date: | 30-Oct-2021 15:45:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-3-A | Lab Sample ID: | 460-246027-3 | Worklist Smp#: | 12 |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

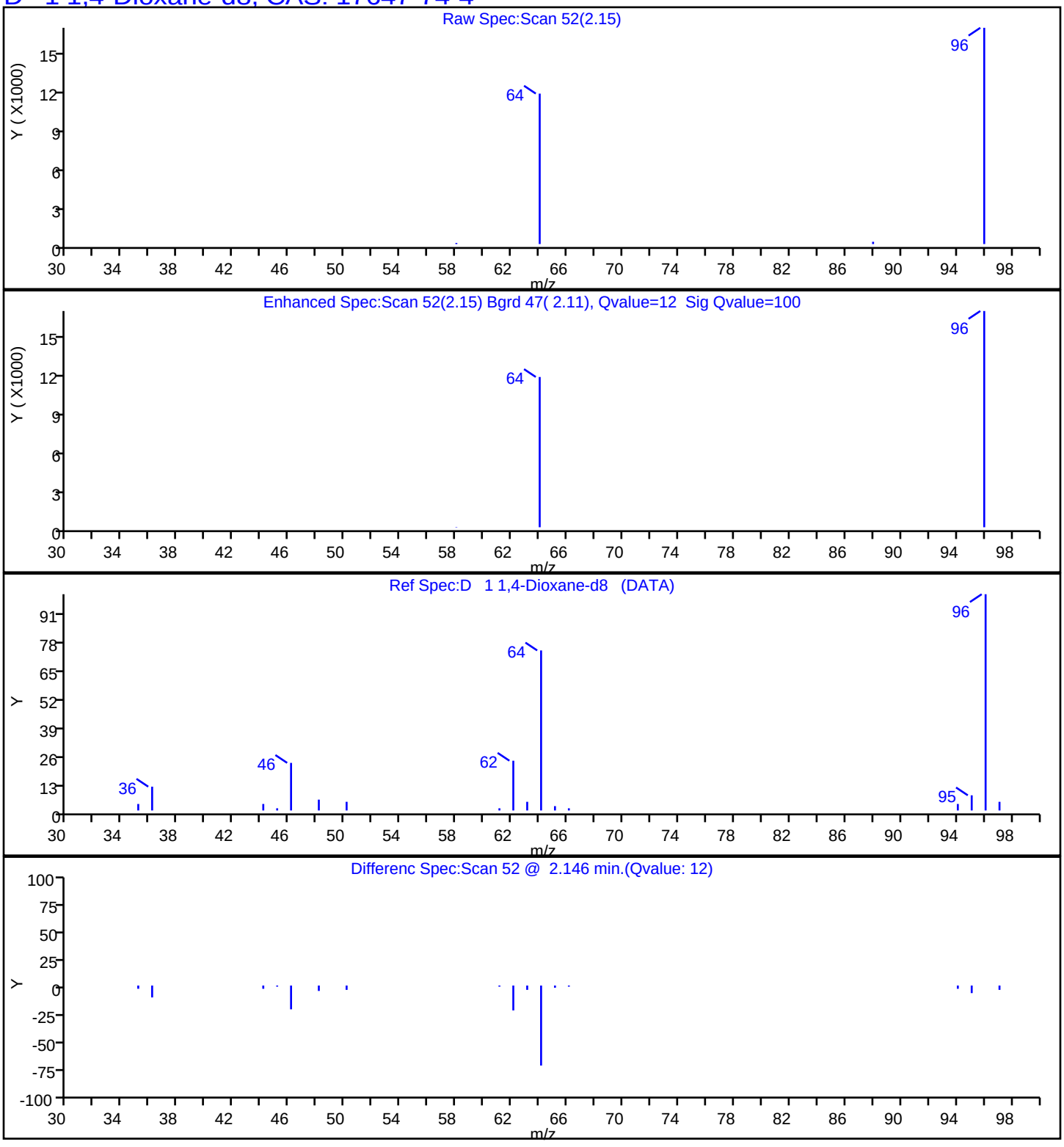
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268674.d | | | | |
| Injection Date: | 30-Oct-2021 15:45:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-3-A | Lab Sample ID: | 460-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



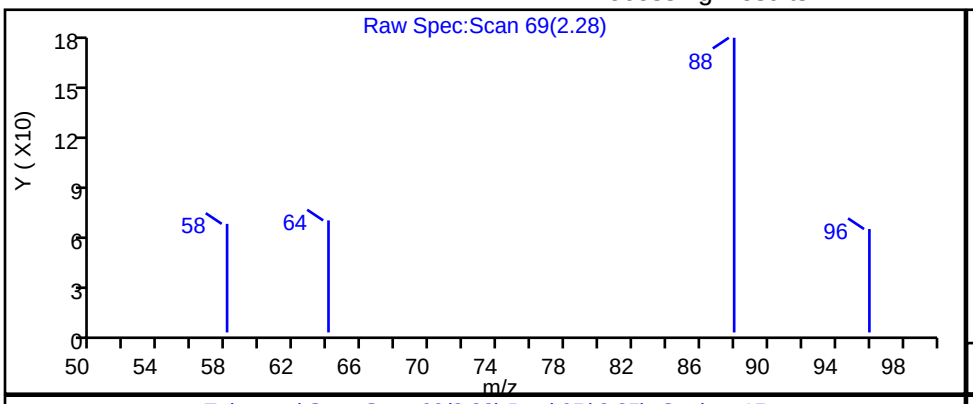
User Disabled Compound Report

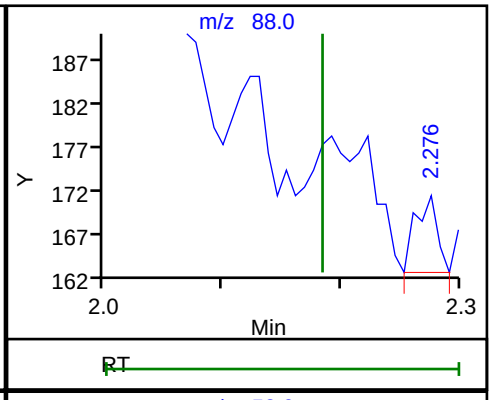
Eurofins TestAmerica, Edison

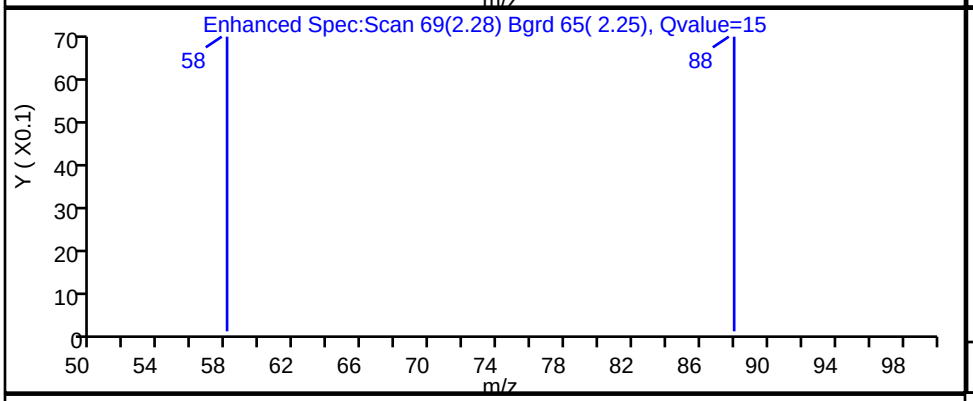
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268674.d | | |
| Injection Date: | 30-Oct-2021 15:45:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246027-D-3-A | Lab Sample ID: | 460-246027-3 |
| Client ID: | MHP-MW-4S-20211025 | | |
| Operator ID: | | ALS Bottle#: | 12 Worklist Smp#: 12 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

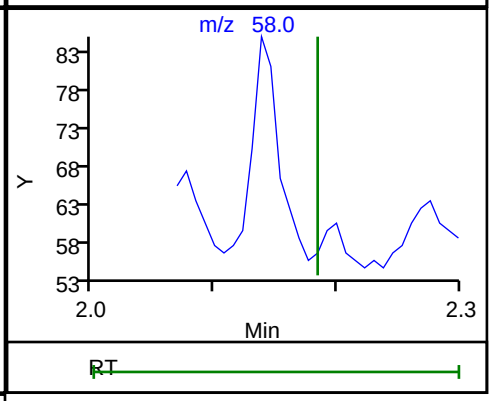
## 2 1,4-Dioxane, CAS: 123-91-1

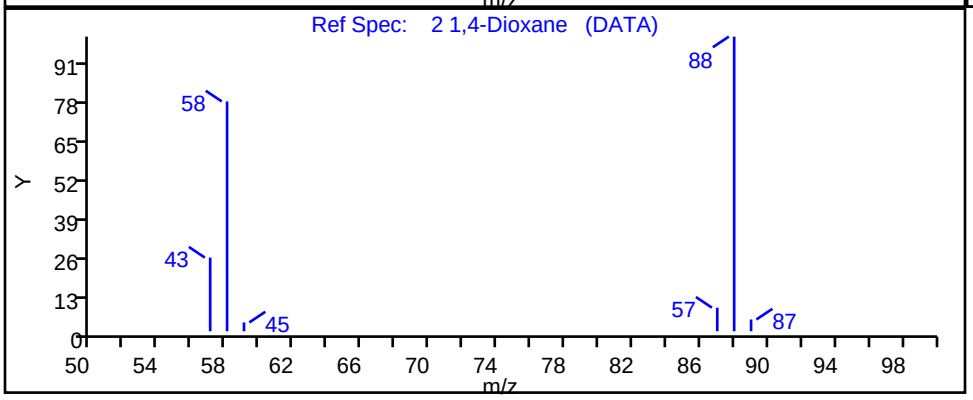
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.28 | 88.00 | 12 | 0.002058 |
| 2.28 | 58.00 | 25 | |

Reviewer: khlungprakhons, 01-Nov-2021 07:17:08

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3S-20211027  Lab Sample ID: 460-246027-4

Matrix: Water  Lab File ID: h268675.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 09:30

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 16:01

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 45 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268675.d | | | | |
| Lims ID: | 460-246027-D-4-A | | | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 16:01:30 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-013 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:09 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:17:29 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 12 | 17612 | 1.78 | 44.5 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 8216 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

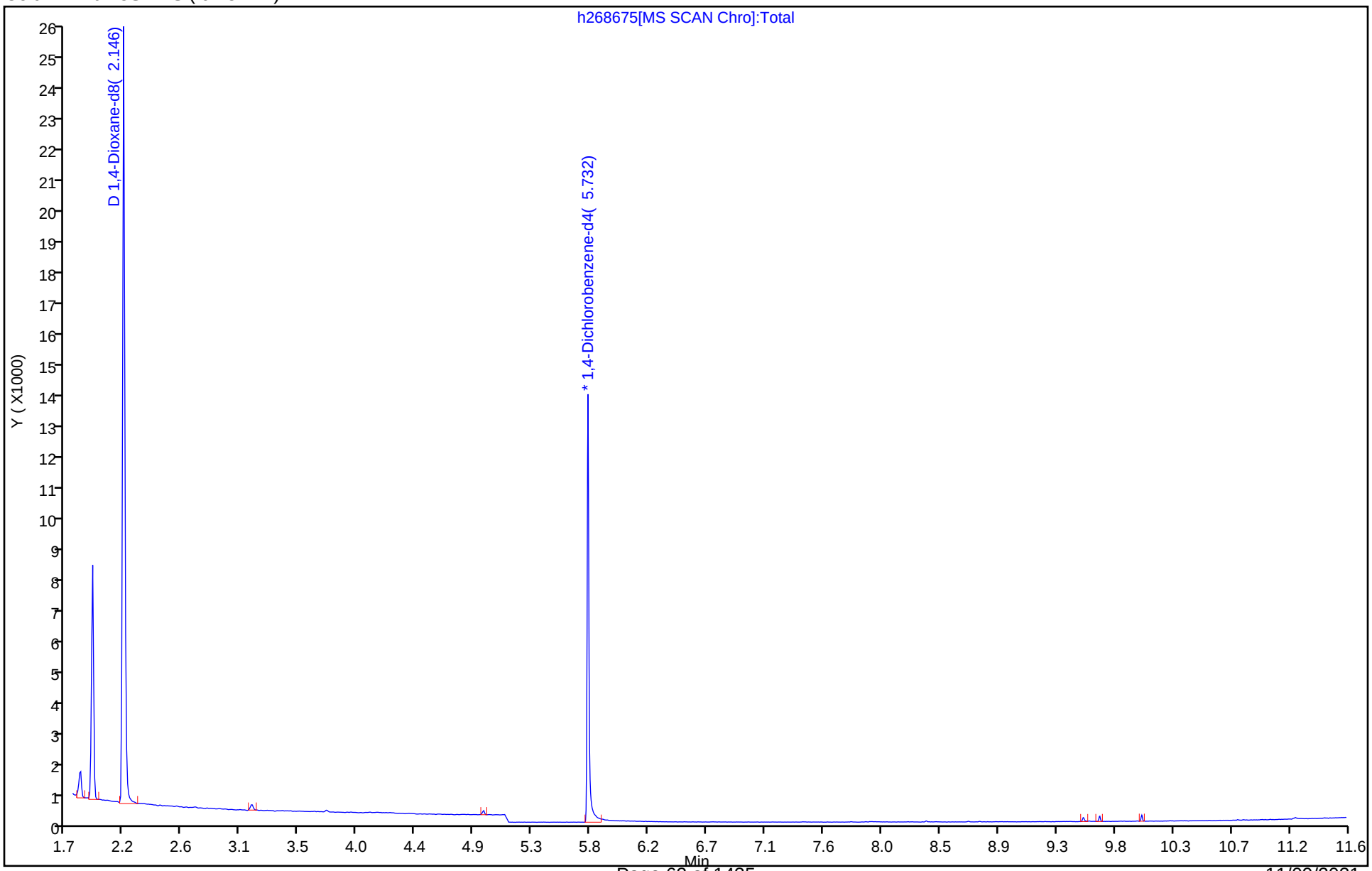
Report Date: 01-Nov-2021 07:17:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268675.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 16:01:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-4-A | Lab Sample ID: | 460-246027-4 | Worklist Smp#: | 13 |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

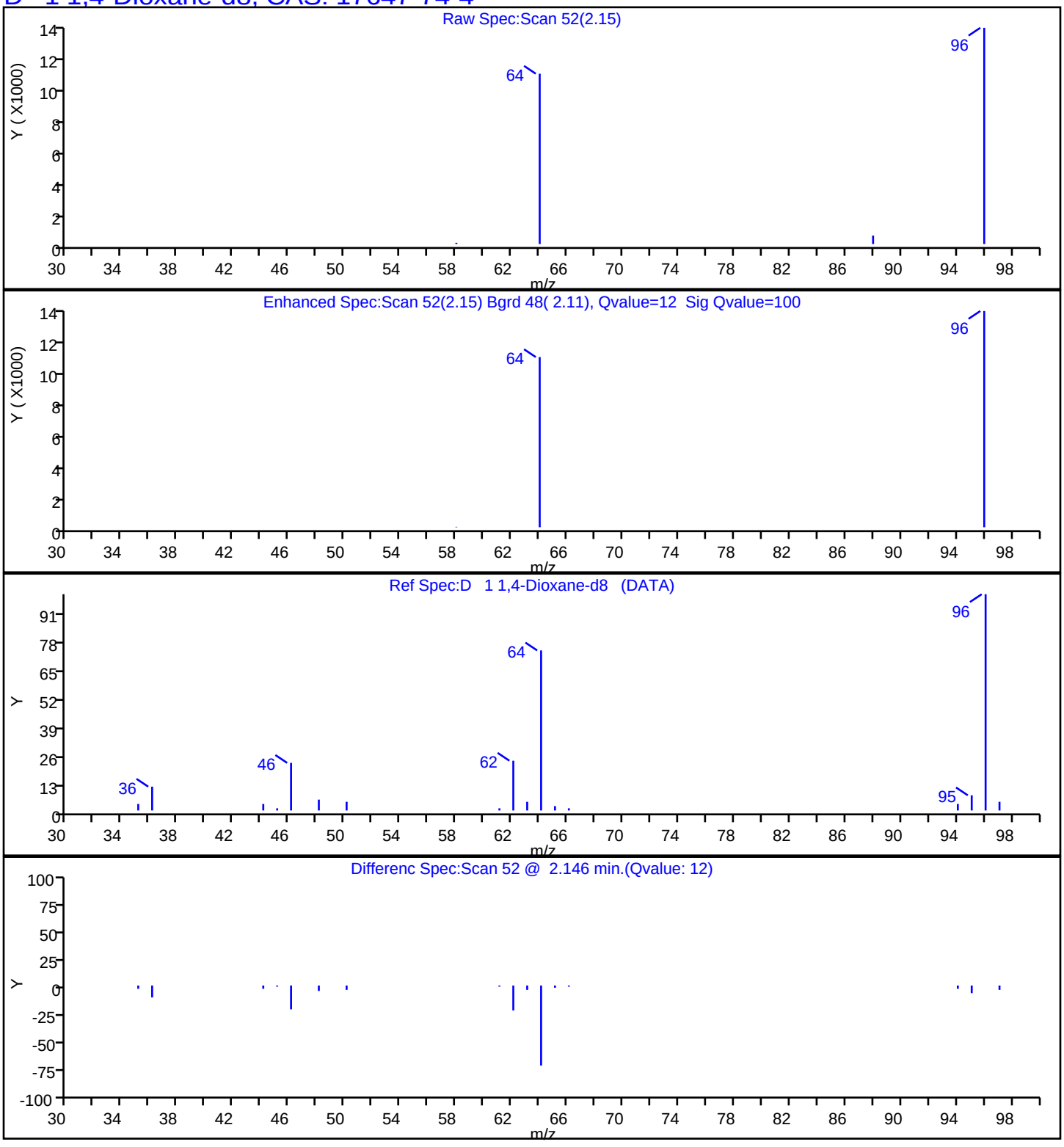
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268675.d | | | | |
| Injection Date: | 30-Oct-2021 16:01:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-4-A | Lab Sample ID: | 460-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: DUP-01-20211027  Lab Sample ID: 460-246027-5

Matrix: Water  Lab File ID: h268676.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 12:00

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 16:17

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 43 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268676.d | | | | |
| Lims ID: | 460-246027-D-5-A | | | | |
| Client ID: | DUP-01-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 16:17:30 | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-014 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:33 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:17:40 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.145 | 2.145 | 0.000 | 12 | 20706 | 1.73 | 43.2 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 9960 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

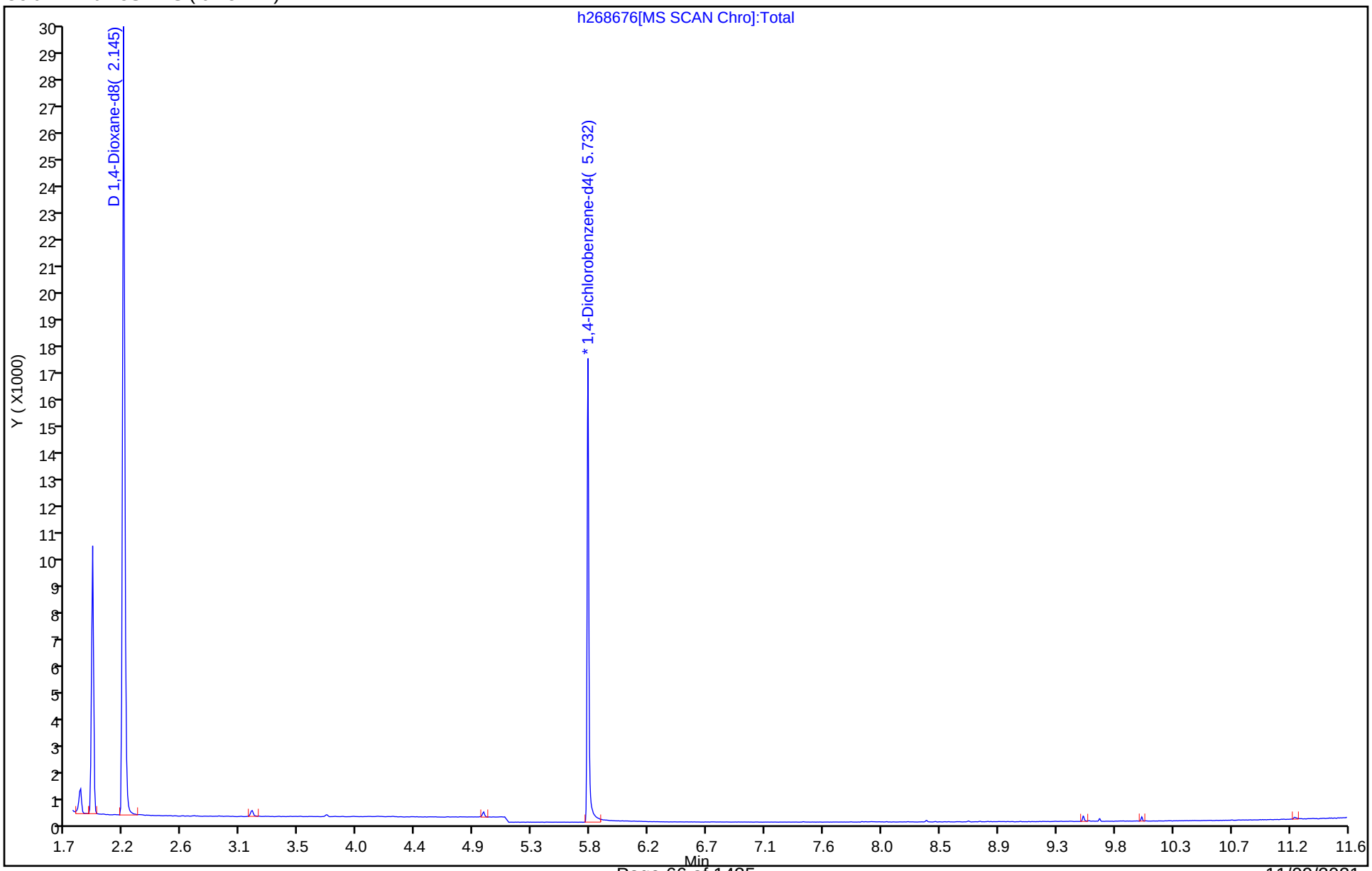
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:17:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268676.d | | | | |
| Injection Date: | 30-Oct-2021 16:17:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-5-A | Lab Sample ID: | 460-246027-5 | Worklist Smp#: | 14 |
| Client ID: | DUP-01-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

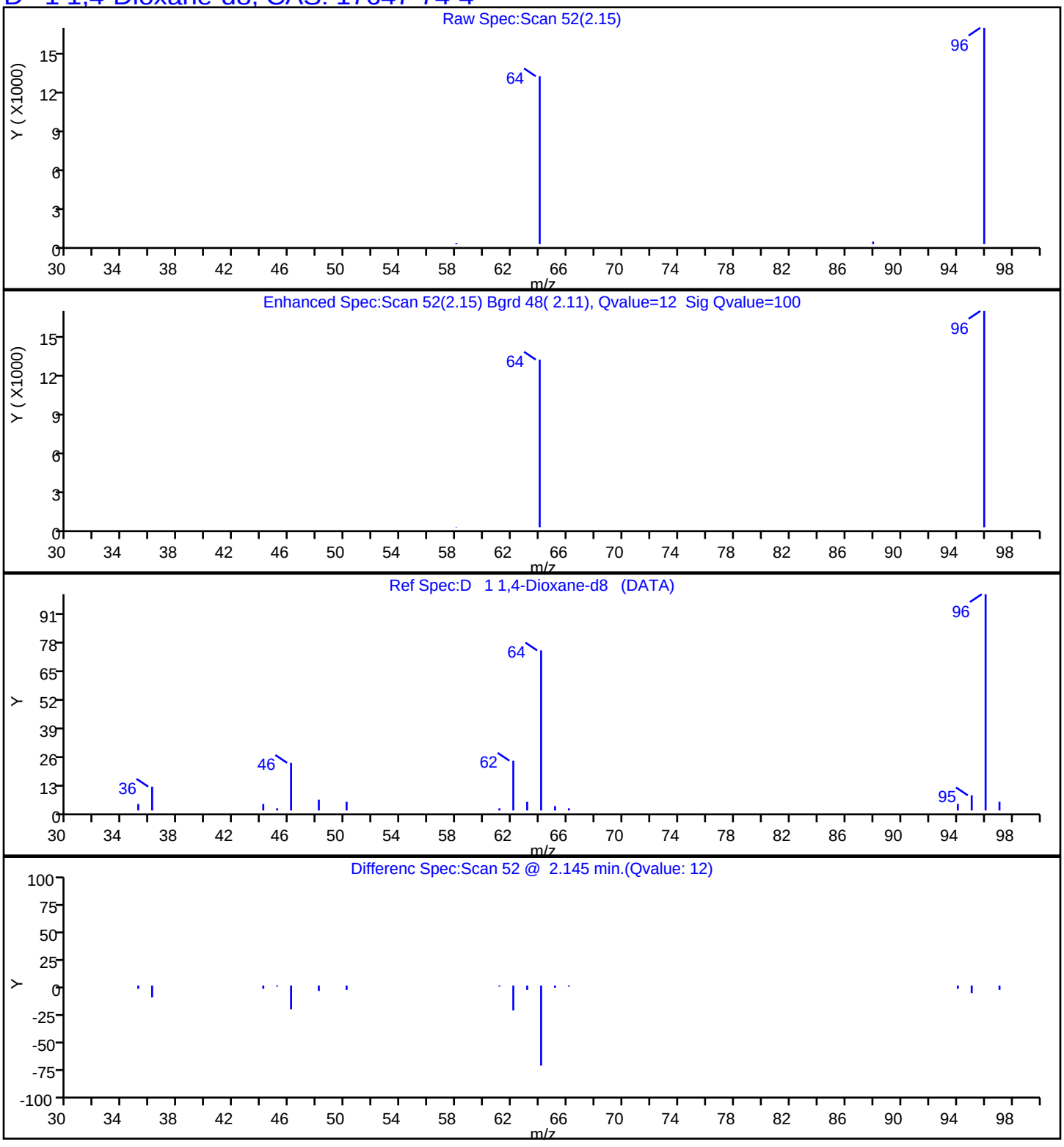
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268676.d | | | | |
| Injection Date: | 30-Oct-2021 16:17:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-5-A | Lab Sample ID: | 460-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



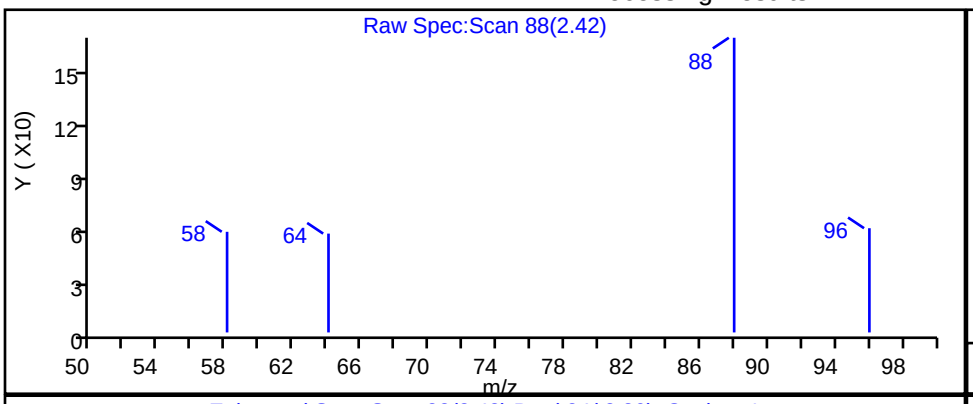
User Disabled Compound Report

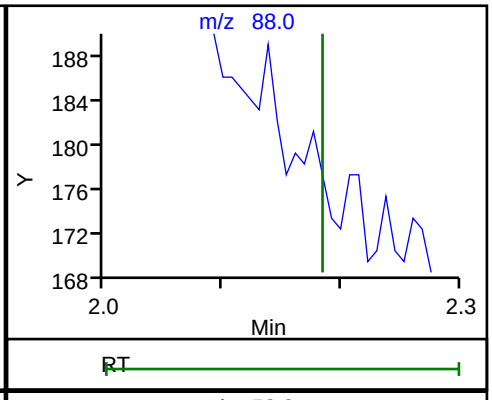
Eurofins TestAmerica, Edison

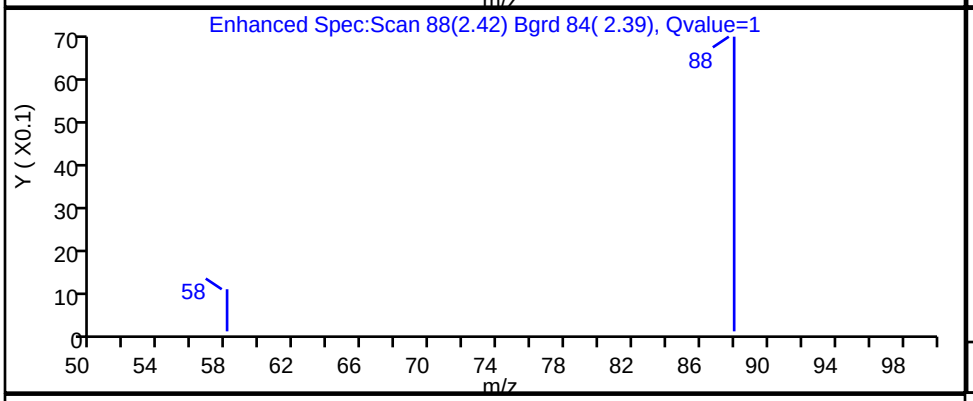
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268676.d | | | | |
| Injection Date: | 30-Oct-2021 16:17:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-5-A | Lab Sample ID: | 460-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

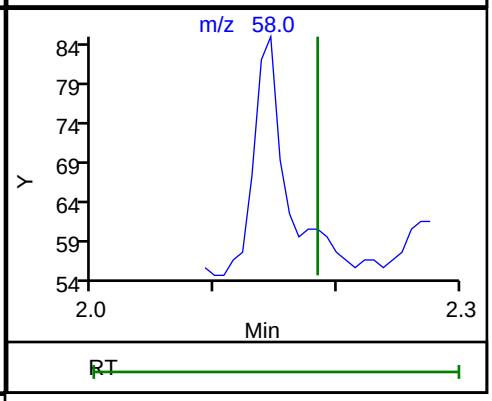
## 2 1,4-Dioxane, CAS: 123-91-1

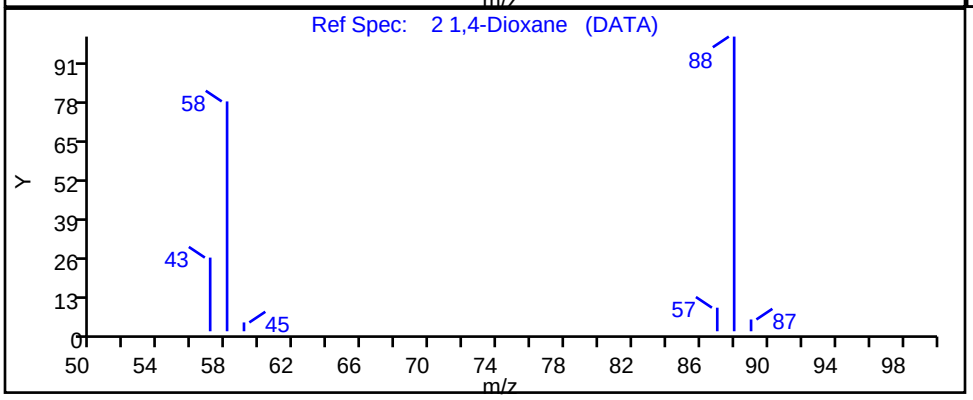
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.42 | 88.00 | 14 | 0.002285 |
| 2.42 | 58.00 | 11 | |

Reviewer: khlungprakhons, 01-Nov-2021 07:17:32

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103D-20211027  Lab Sample ID: 460-246027-6

Matrix: Water  Lab File ID: h268677.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 09:50

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 16:33

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 42 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268677.d | | | | |
| Lims ID: | 460-246027-C-6-A | | | | |
| Client ID: | MH-103D-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 16:33:30 | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-015 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:33 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:17:56 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 9 | 18422 | 1.69 | 42.2 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.728 | 5.736 | -0.008 | 1 | 9076 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

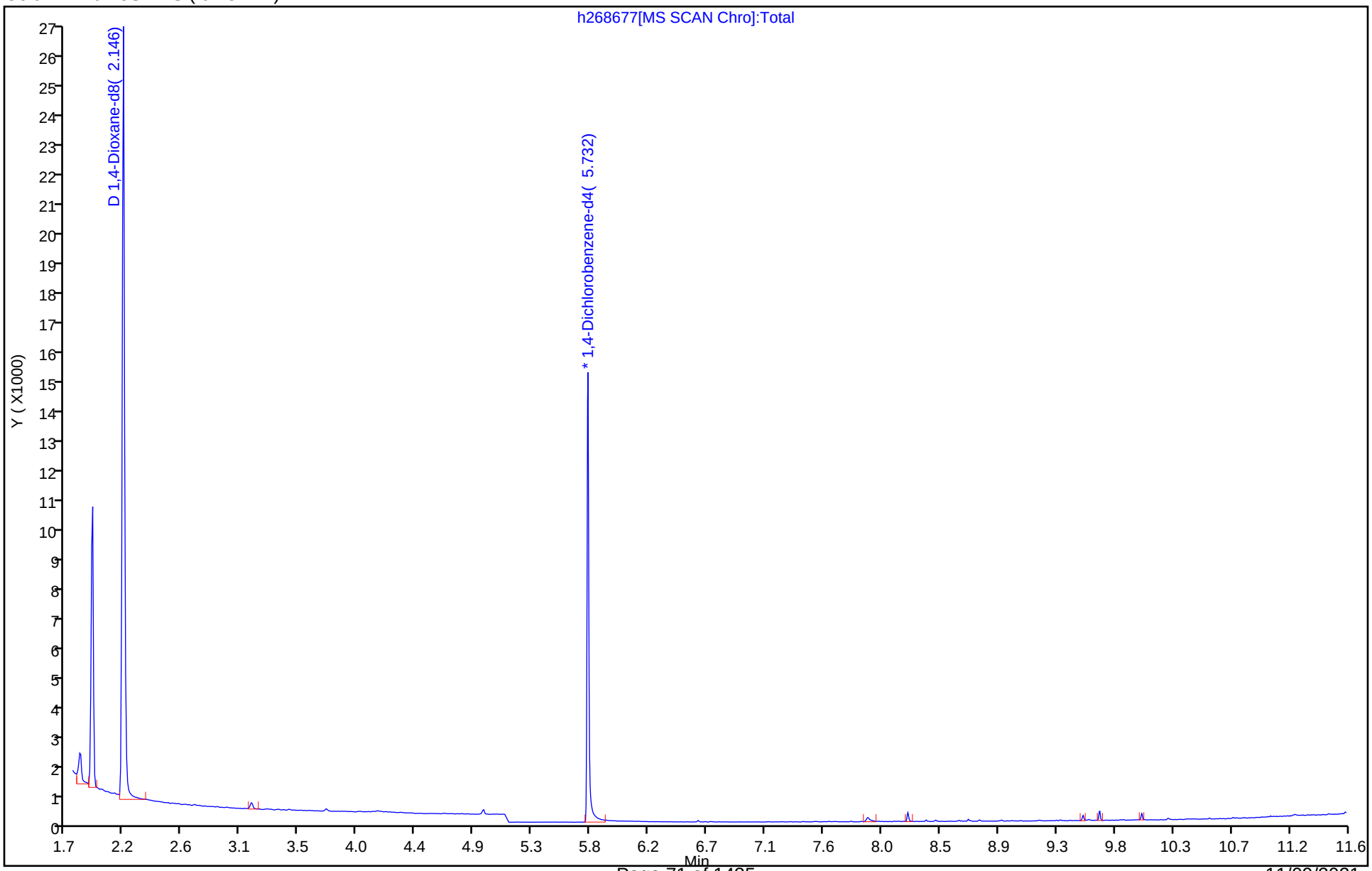
Report Date: 01-Nov-2021 07:17:56 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268677.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 16:33:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-C-6-A | Lab Sample ID: | 460-246027-6 | Worklist Smp#: | 15 |
| Client ID: | MH-103D-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

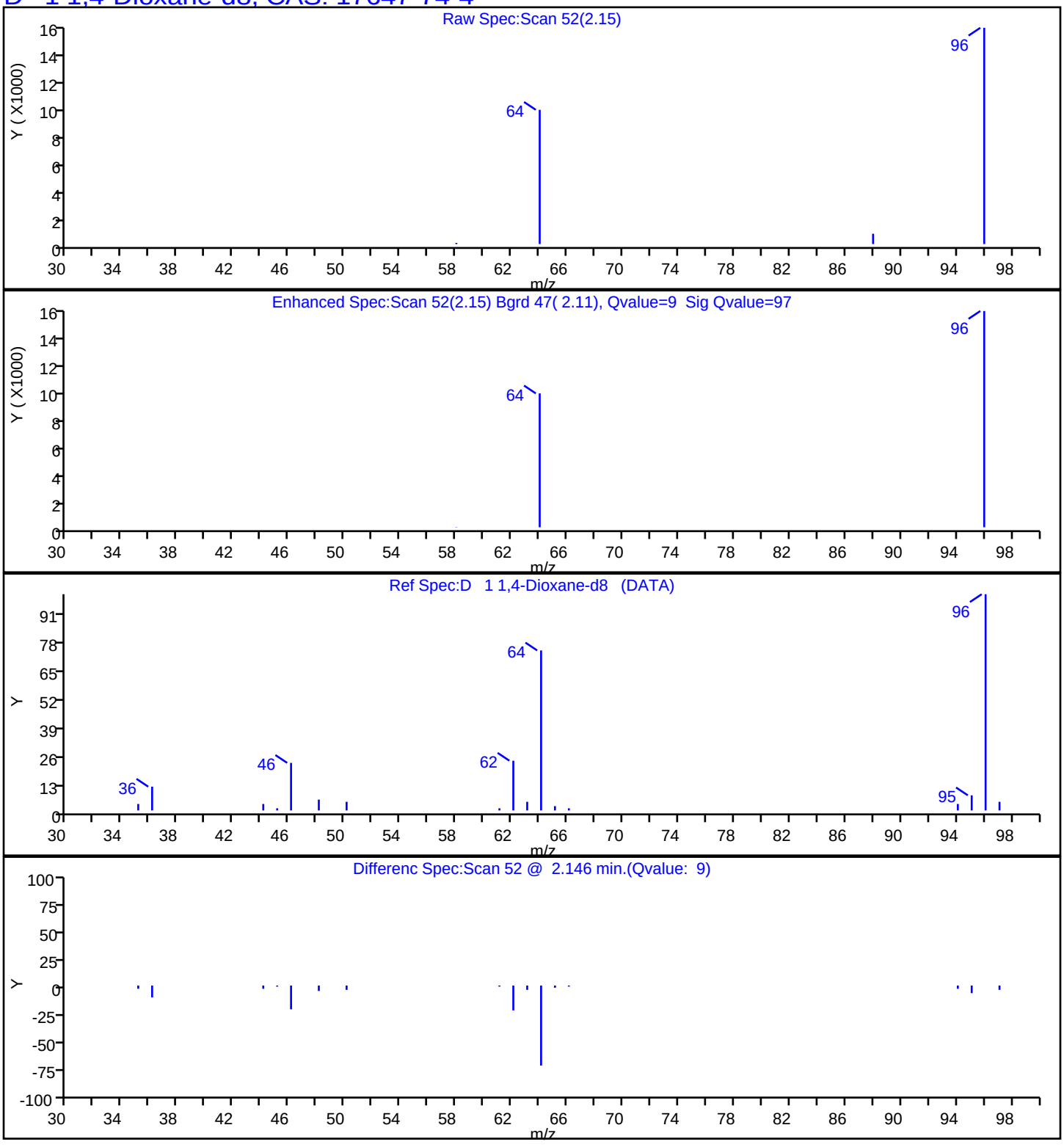
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268677.d | | | | |
| Injection Date: | 30-Oct-2021 16:33:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-C-6-A | Lab Sample ID: | 460-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105S-20211027  Lab Sample ID: 460-246027-7

Matrix: Water  Lab File ID: h268678.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 09:40

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 16:49

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 44 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268678.d
Lims ID: 460-246027-C-7-A
Client ID: MH-105S-20211027
Sample Type: Client
Inject. Date: 30-Oct-2021 16:49:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-016
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:17:33 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:18:07

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.153 | 2.145 | 0.008 | 7 | 18551 | 1.75 | 43.7 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.728 | 5.736 | -0.008 | 1 | 8816 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

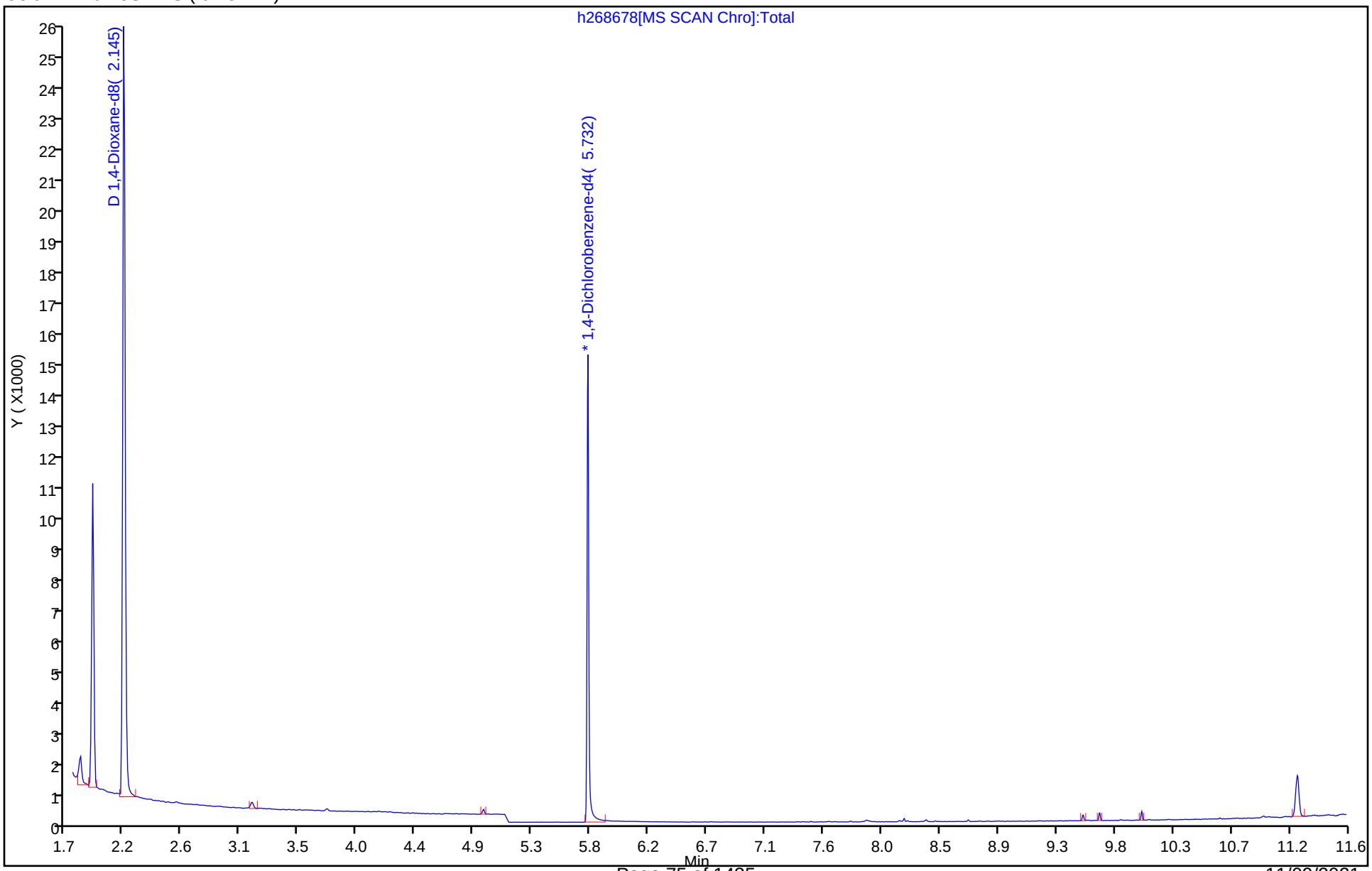
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:18:07 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268678.d | | | | |
| Injection Date: | 30-Oct-2021 16:49:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-C-7-A | Lab Sample ID: | 460-246027-7 | Worklist Smp#: | 16 |
| Client ID: | MH-105S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

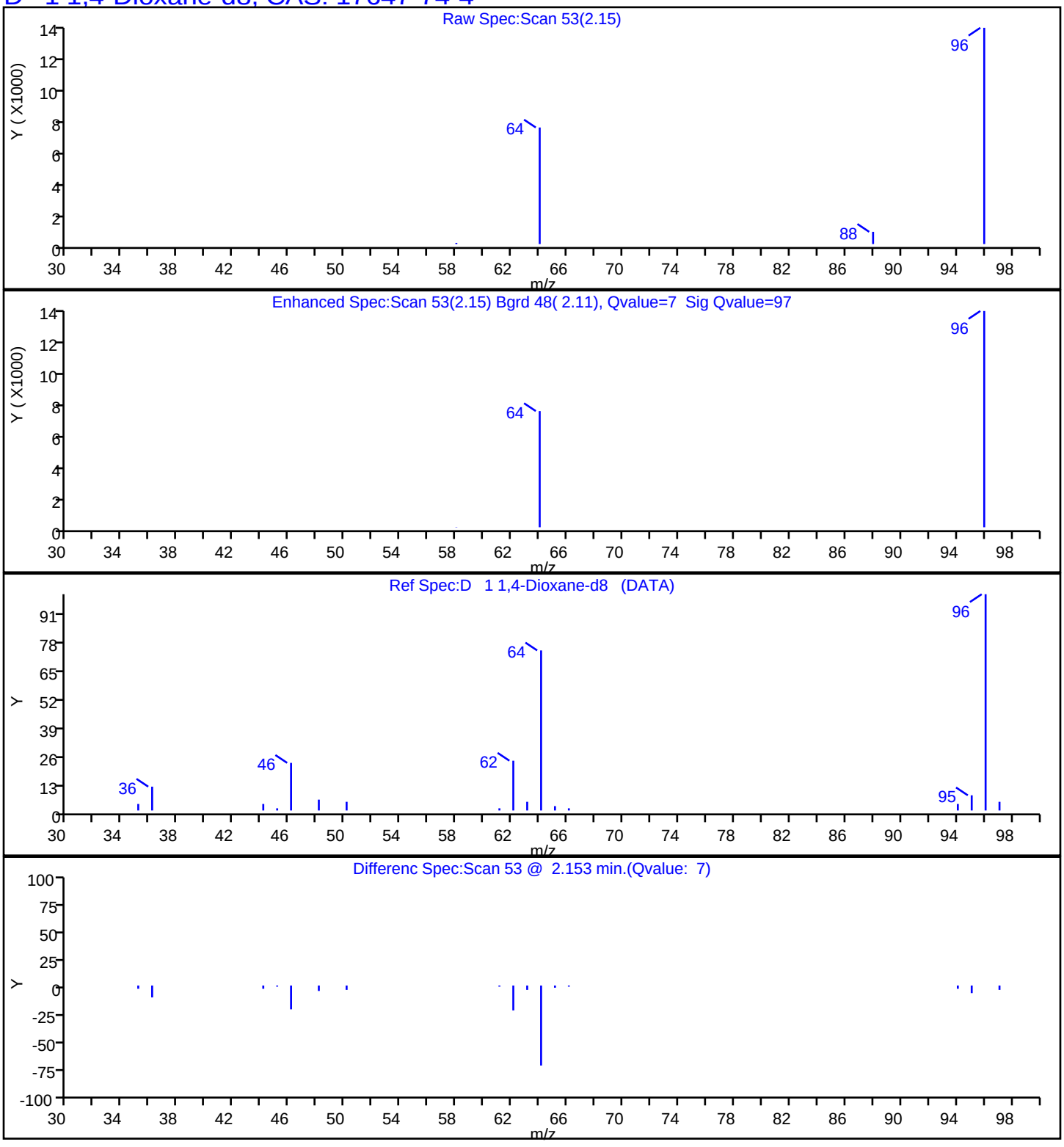
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268678.d | | | | |
| Injection Date: | 30-Oct-2021 16:49:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-C-7-A | Lab Sample ID: | 460-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105D-20211027  Lab Sample ID: 460-246027-8

Matrix: Water  Lab File ID: h268679.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 11:40

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 17:05

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 37 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268679.d | | | | |
| Lims ID: | 460-246027-D-8-A | | | | |
| Client ID: | MH-105D-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 17:05:30 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-017 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:33 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:18:18 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.153 | 2.145 | 0.008 | 7 | 12658 | 1.49 | 37.1 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 7078 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

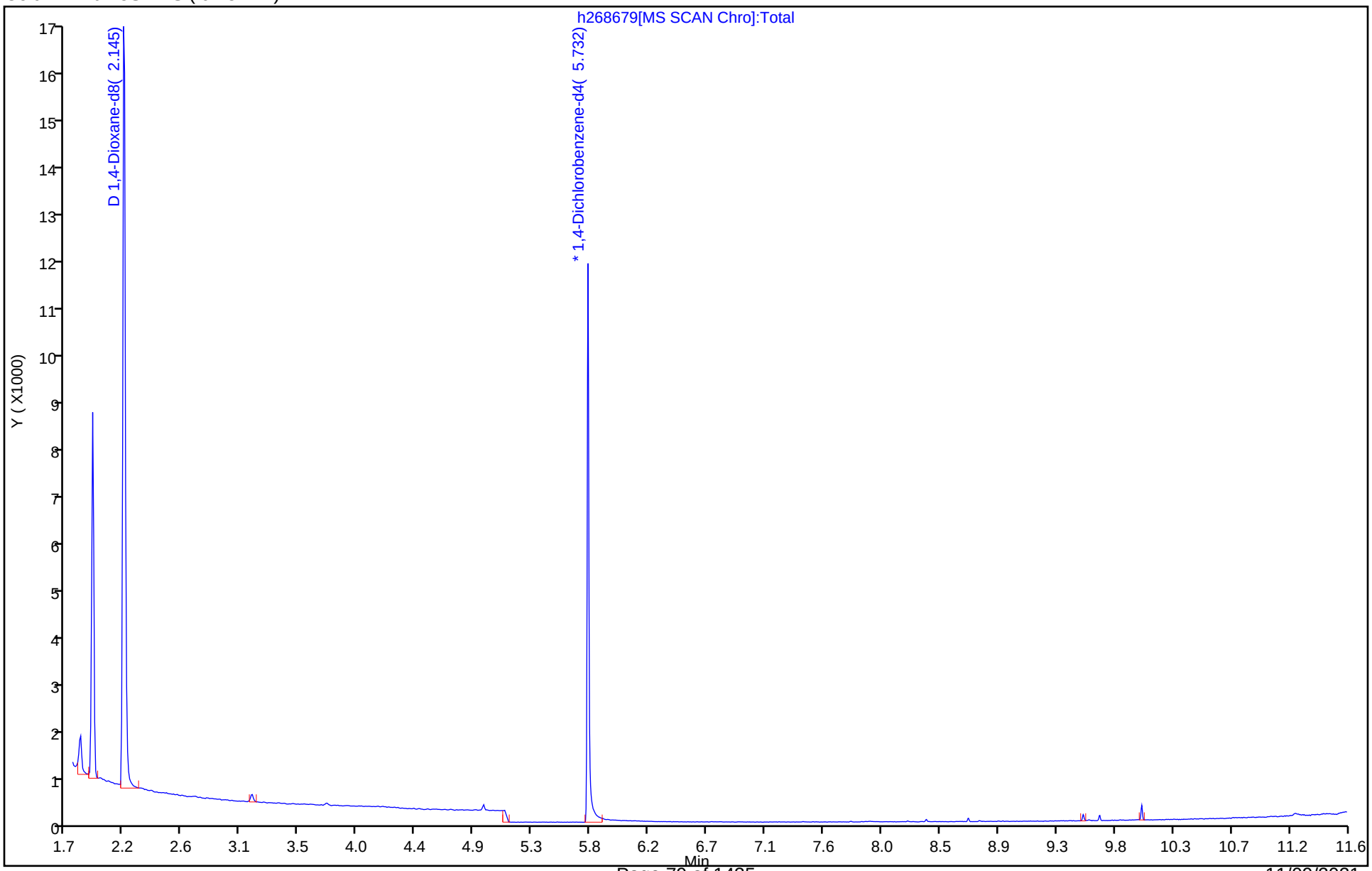
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:18:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268679.d | | | | |
| Injection Date: | 30-Oct-2021 17:05:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-8-A | Lab Sample ID: | 460-246027-8 | Worklist Smp#: | 17 |
| Client ID: | MH-105D-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

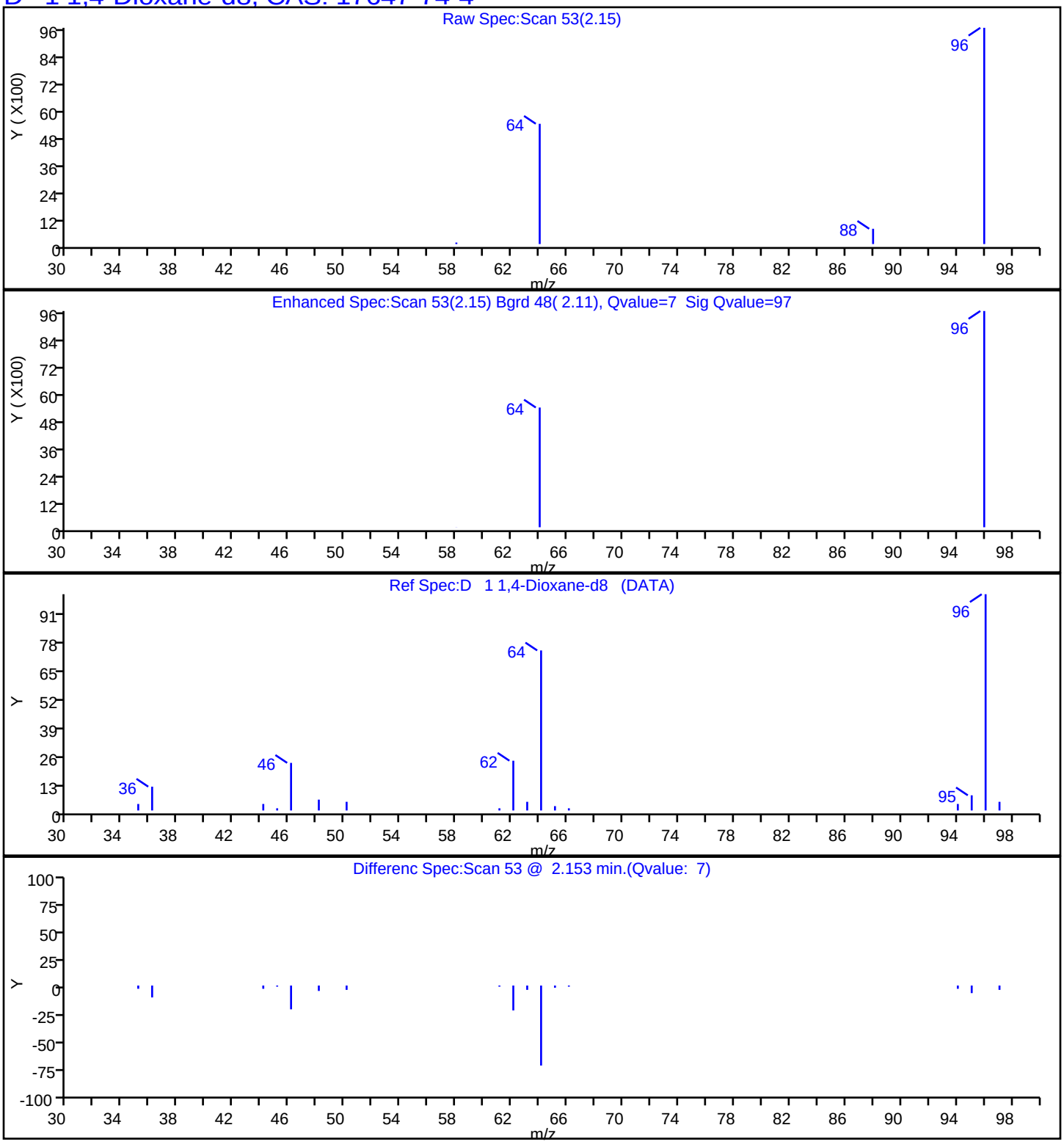
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268679.d | | | | |
| Injection Date: | 30-Oct-2021 17:05:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-8-A | Lab Sample ID: | 460-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103S-20211027  Lab Sample ID: 460-246027-9

Matrix: Water  Lab File ID: h268680.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 12:10

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 17:21

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 46 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268680.d | | | | |
| Lims ID: | 460-246027-C-9-A | | | | |
| Client ID: | MH-103S-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 17:21:30 | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-018 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:33 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:18:30 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.145 | 2.145 | 0.000 | 12 | 16937 | 1.84 | 46.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 7655 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

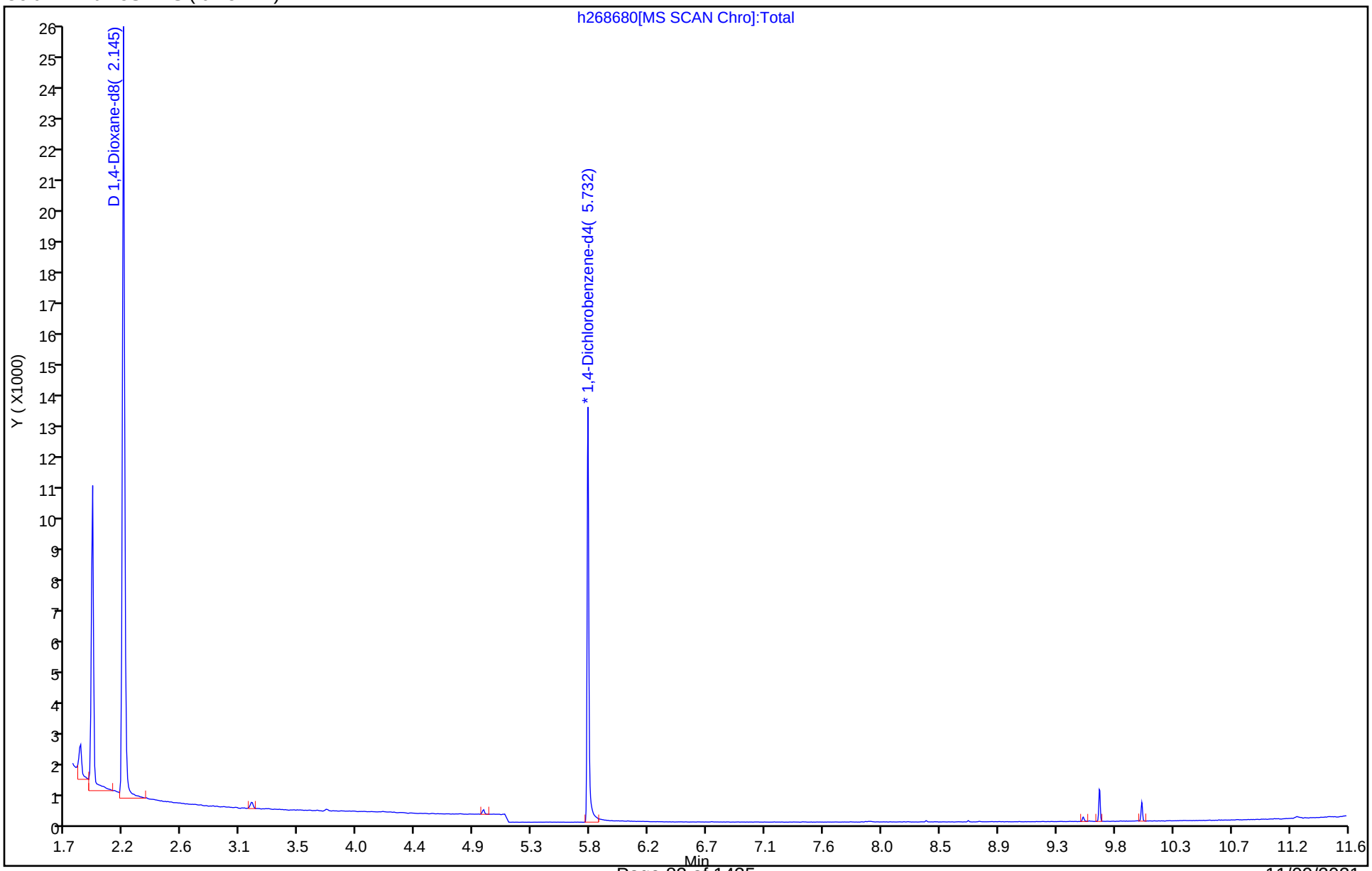
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 01-Nov-2021 07:18:30 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268680.d | | | | |
| Injection Date: | 30-Oct-2021 17:21:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-C-9-A | Lab Sample ID: | 460-246027-9 | Worklist Smp#: | 18 |
| Client ID: | MH-103S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

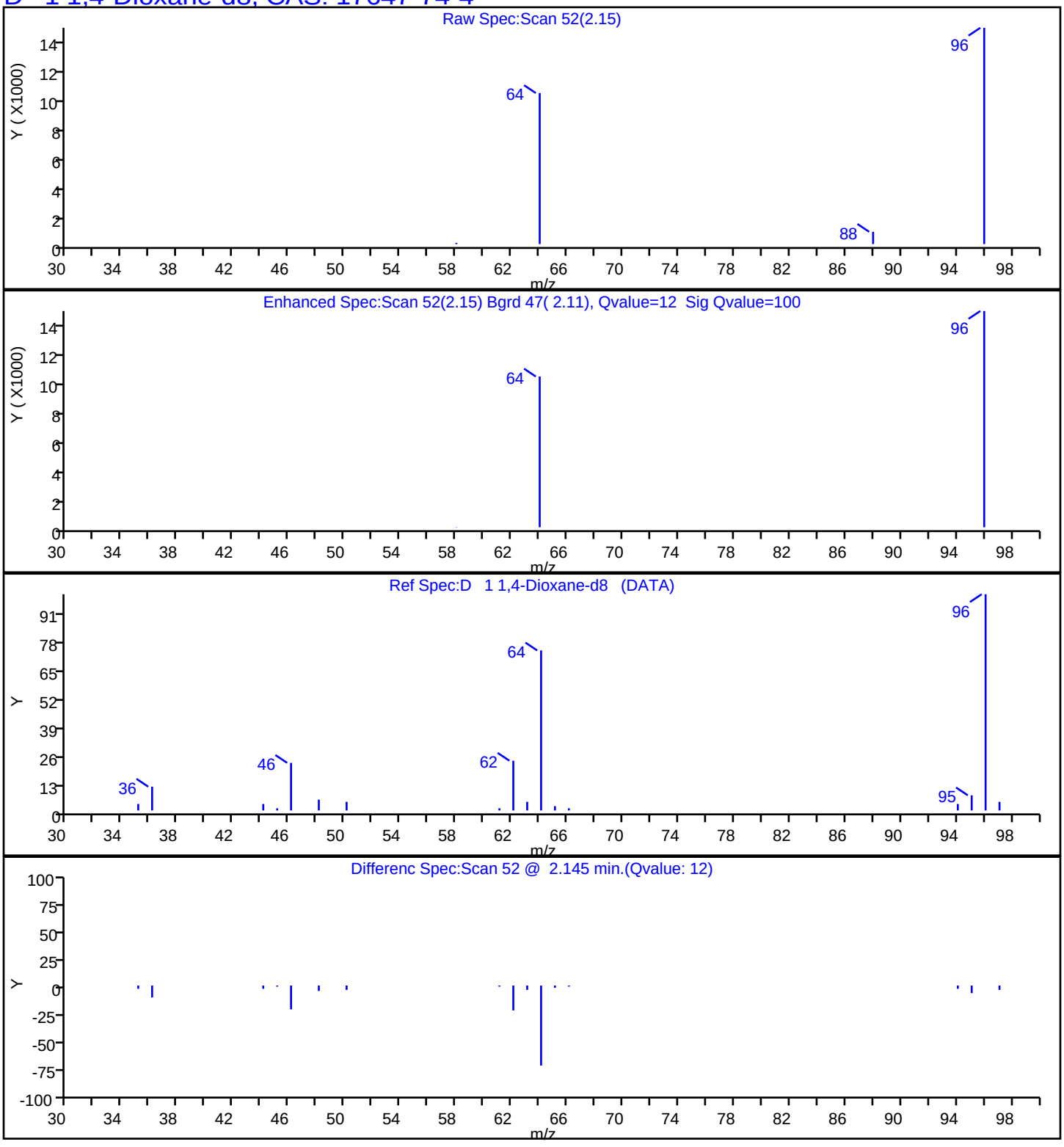
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268680.d | | | | |
| Injection Date: | 30-Oct-2021 17:21:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-C-9-A | Lab Sample ID: | 460-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-104-20211027  Lab Sample ID: 460-246027-10

Matrix: Water  Lab File ID: h268681.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 12:25

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 17:37

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 42 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268681.d | | | | |
| Lims ID: | 460-246027-D-10-A | | | | |
| Client ID: | MH-104-20211027 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2021 17:37:30 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0136847-019 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 01-Nov-2021 07:17:33 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1611 | | | | |
| First Level Reviewer: khlungprakhons | | Date: | 01-Nov-2021 07:18:41 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 9 | 16391 | 1.67 | 41.9 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.728 | 5.736 | -0.008 | 1 | 8134 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

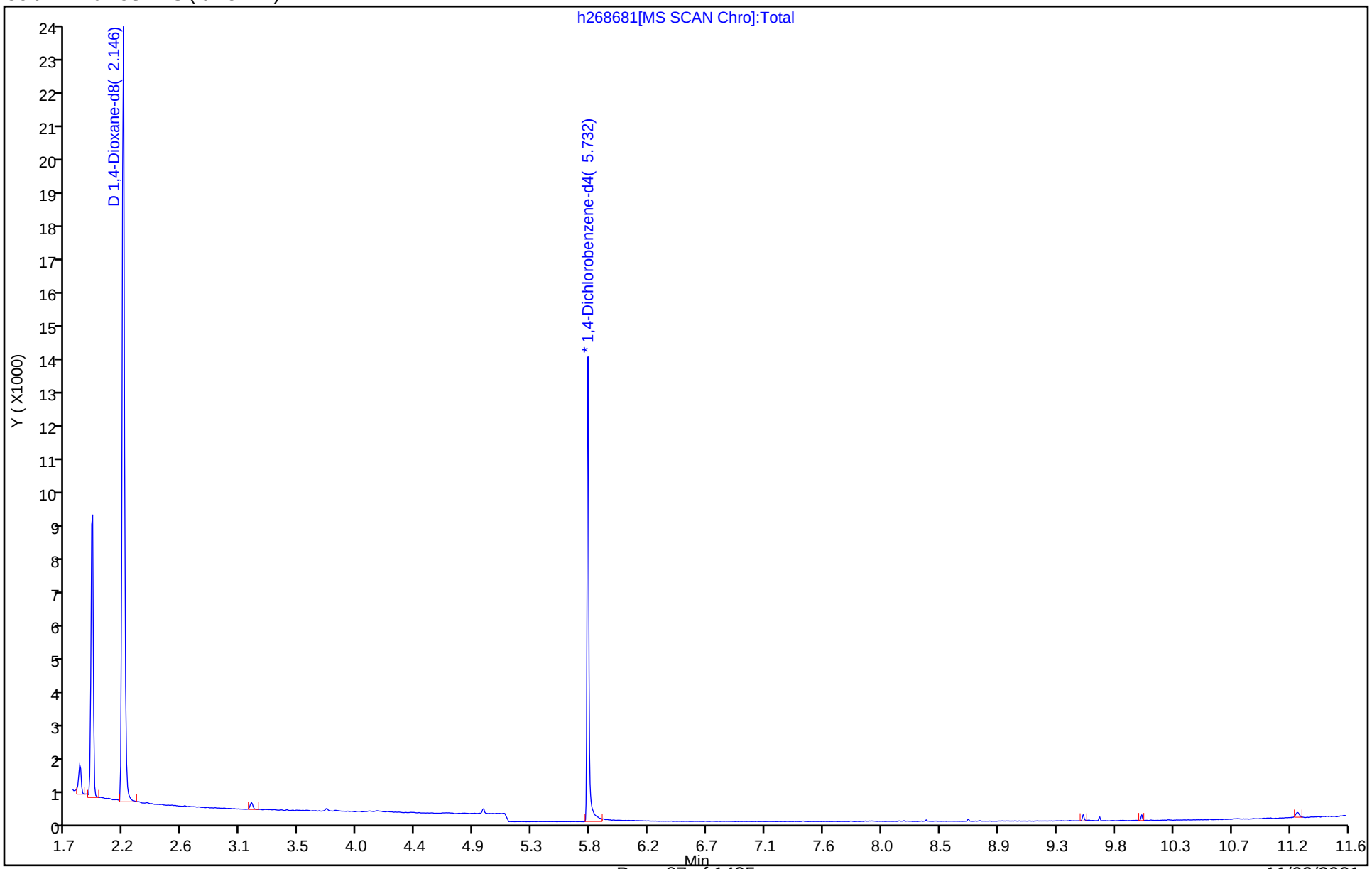
Report Date: 01-Nov-2021 07:18:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268681.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 17:37:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-10-A | Lab Sample ID: | 460-246027-10 | Worklist Smp#: | 19 |
| Client ID: | MH-104-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

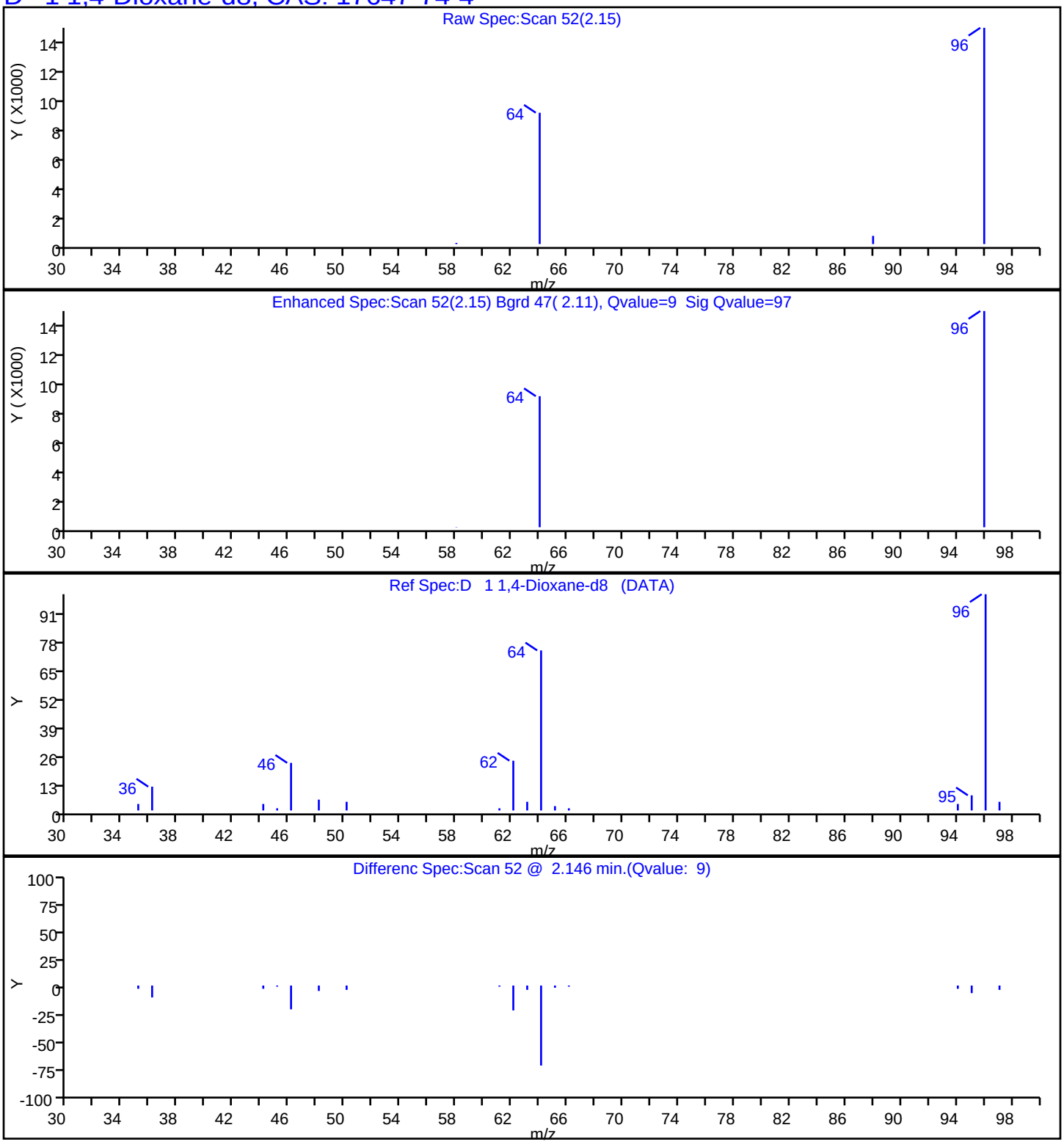
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268681.d | | | | |
| Injection Date: | 30-Oct-2021 17:37:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-10-A | Lab Sample ID: | 460-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-101-20211027  Lab Sample ID: 460-246027-11

Matrix: Water  Lab File ID: h268682.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 13:40

Extract. Method: 3510C  Date Extracted: 10/30/2021 07:00

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 17:53

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 45 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268682.d
Lims ID: 460-246027-D-11-A
Client ID: MH-101-20211027
Sample Type: Client
Inject. Date: 30-Oct-2021 17:53:30 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-020
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:17:33 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:18:50

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.153 | 2.145 | 0.008 | 7 | 17399 | 1.79 | 44.8 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.728 | 5.736 | -0.008 | 1 | 8068 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

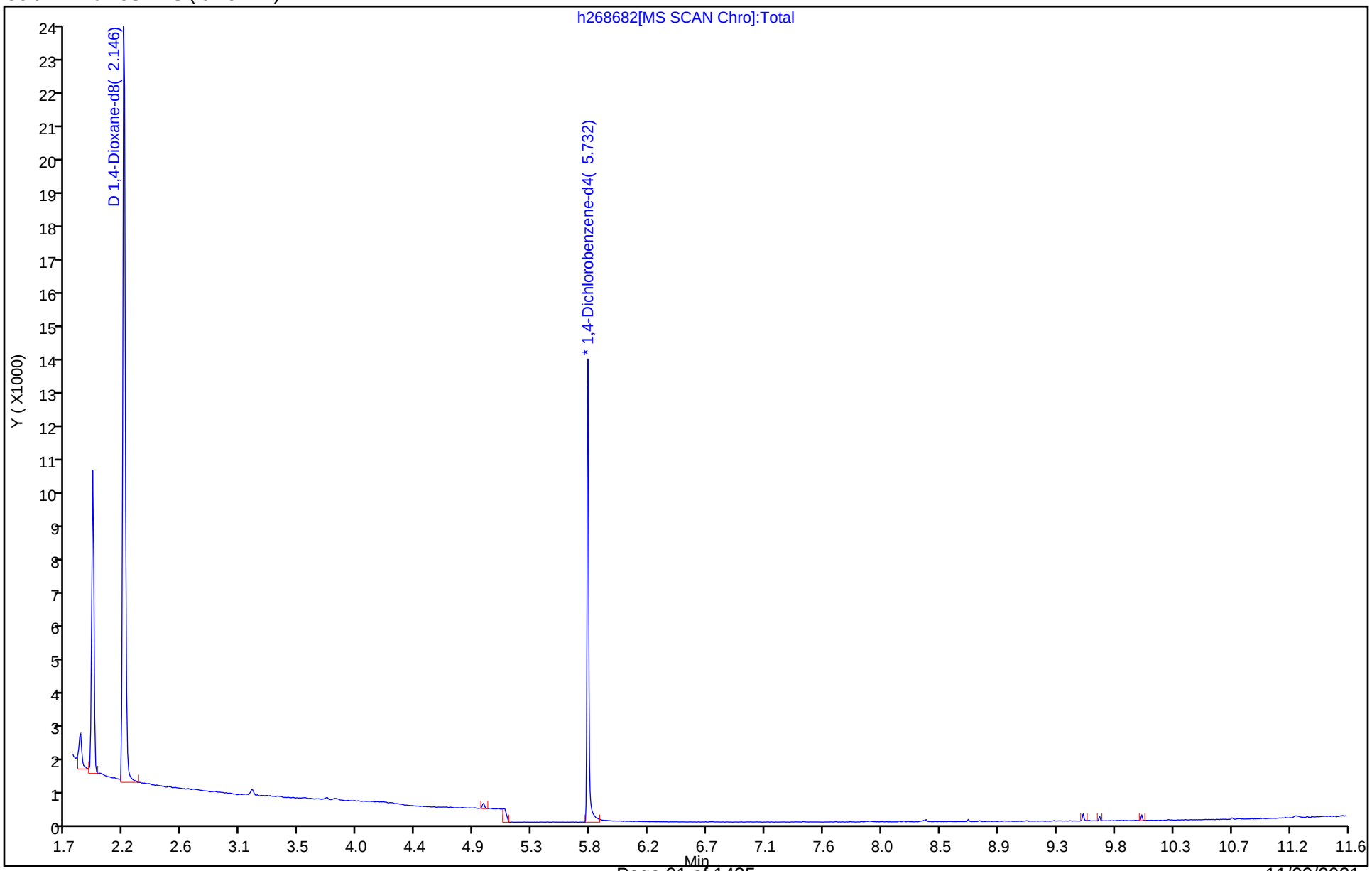
Report Date: 01-Nov-2021 07:18:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268682.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 17:53:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246027-D-11-A | Lab Sample ID: | 460-246027-11 | Worklist Smp#: | 20 |
| Client ID: | MH-101-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

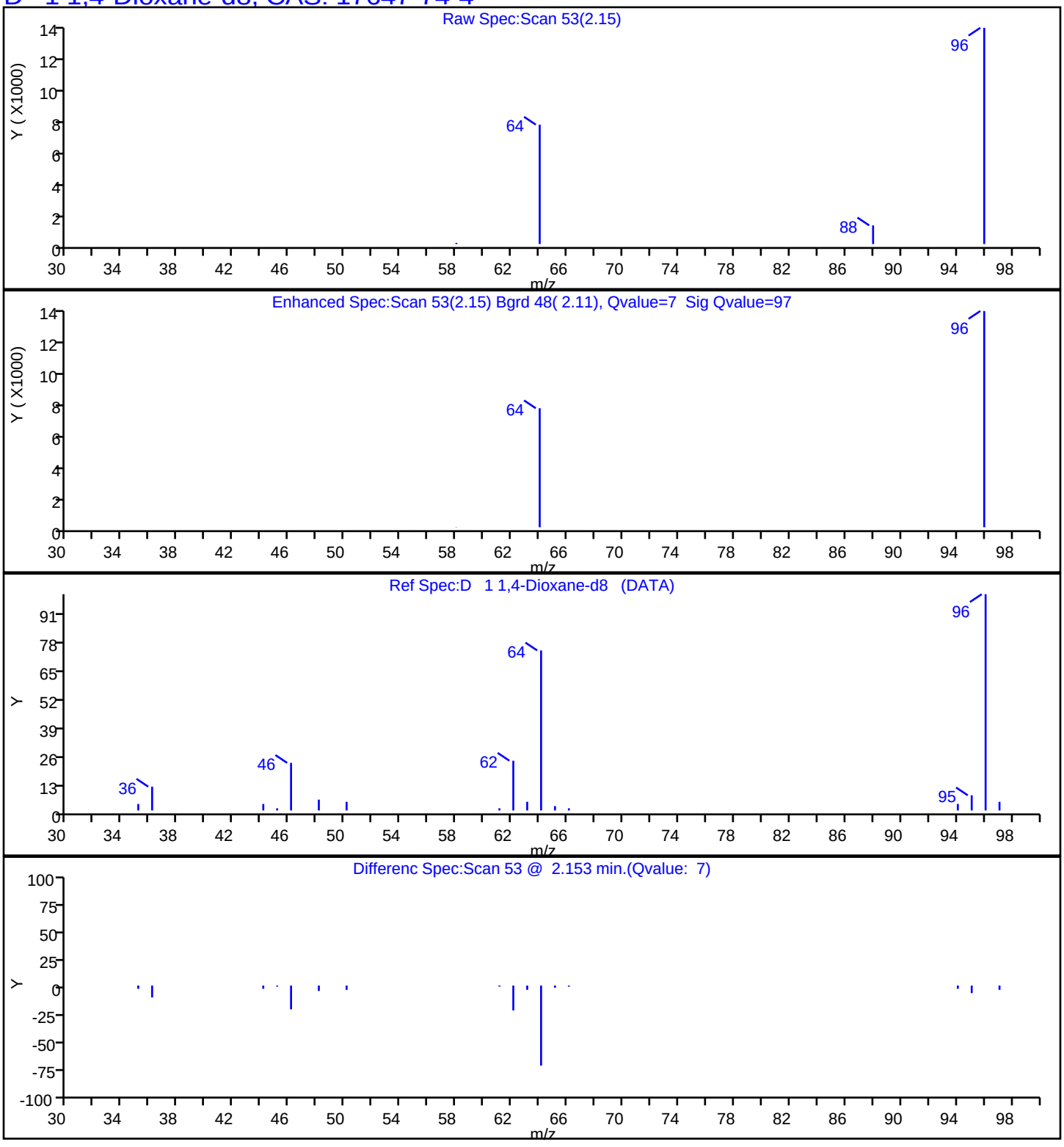
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268682.d | | | | |
| Injection Date: | 30-Oct-2021 17:53:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246027-D-11-A | Lab Sample ID: | 460-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



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

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1 Analy Batch No.: 790012

SDG No.:

Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2021 13:46 Calibration End Date: 07/13/2021 15:53 Calibration ID: 86285

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 460-790012/10 | h266850.d |
| Level 2 | STD2 460-790012/9 | h266849.d |
| Level 3 | STD3 460-790012/8 | h266848.d |
| Level 4 | STD4 460-790012/7 | h266847.d |
| Level 5 | ICIS 460-790012/2 | h266842.d |
| Level 6 | STD6 460-790012/6 | h266846.d |
| Level 7 | STD7 460-790012/5 | h266845.d |
| Level 8 | STD8 460-790012/4 | h266844.d |
| Level 9 | STD9 460-790012/3 | h266843.d |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 1,4-Dioxane | 1.0636 1.1160 | 1.3124 1.1683 | 1.1308 1.2235 | 1.1332 1.2067 | 1.2959 | AveID | | 1.1834 | | | | 7.1 | | 50.0 | | | |
| 1,4-Dioxane-d8 | 0.2815 0.2497 | 0.2534 0.2519 | 0.2791 0.2140 | 0.2421 0.1881 | 0.2065 | Ave | | 0.2407 | | | | 13.3 | | | | | |

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

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

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1 Analy Batch No.: 790012

SDG No.:

Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2021 13:46 Calibration End Date: 07/13/2021 15:53 Calibration ID: 86285

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 460-790012/10 | h266850.d |
| Level 2 | STD2 460-790012/9 | h266849.d |
| Level 3 | STD3 460-790012/8 | h266848.d |
| Level 4 | STD4 460-790012/7 | h266847.d |
| Level 5 | ICIS 460-790012/2 | h266842.d |
| Level 6 | STD6 460-790012/6 | h266846.d |
| Level 7 | STD7 460-790012/5 | h266845.d |
| Level 8 | STD8 460-790012/4 | h266844.d |
| Level 9 | STD9 460-790012/3 | h266843.d |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 |
| 1,4-Dioxane | | AveID | 361 | 909 | 1918 | 4126 | 9885 | 0.0200 | 0.0400 | 0.100 | 0.200 | 0.500 |
| | | | 19299 | 39264 | 211101 | 1706791 | | 1.00 | 2.00 | 10.0 | 100 | |
| 1,4-Dioxane-d8 | DCBd4 | Ave | 67882 | 69262 | 67848 | 72823 | 61022 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| | | | 69170 | 67214 | 69015 | 56577 | | 4.00 | 4.00 | 4.00 | 4.00 | |

Curve Type Legend

Ave = Average ISTD
AveID = Average isotope dilution

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266842.d
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 13-Jul-2021 13:46:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-002
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:57 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: zhaoc Date: 13-Jul-2021 14:05:15

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 5 | 61022 | 4.00 | 3.43 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.742 | 0.000 | 21 | 9885 | 0.5000 | 0.5476 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 14777 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_ISOTOPL5_00008 Amount Added: 1.00 Units: mL

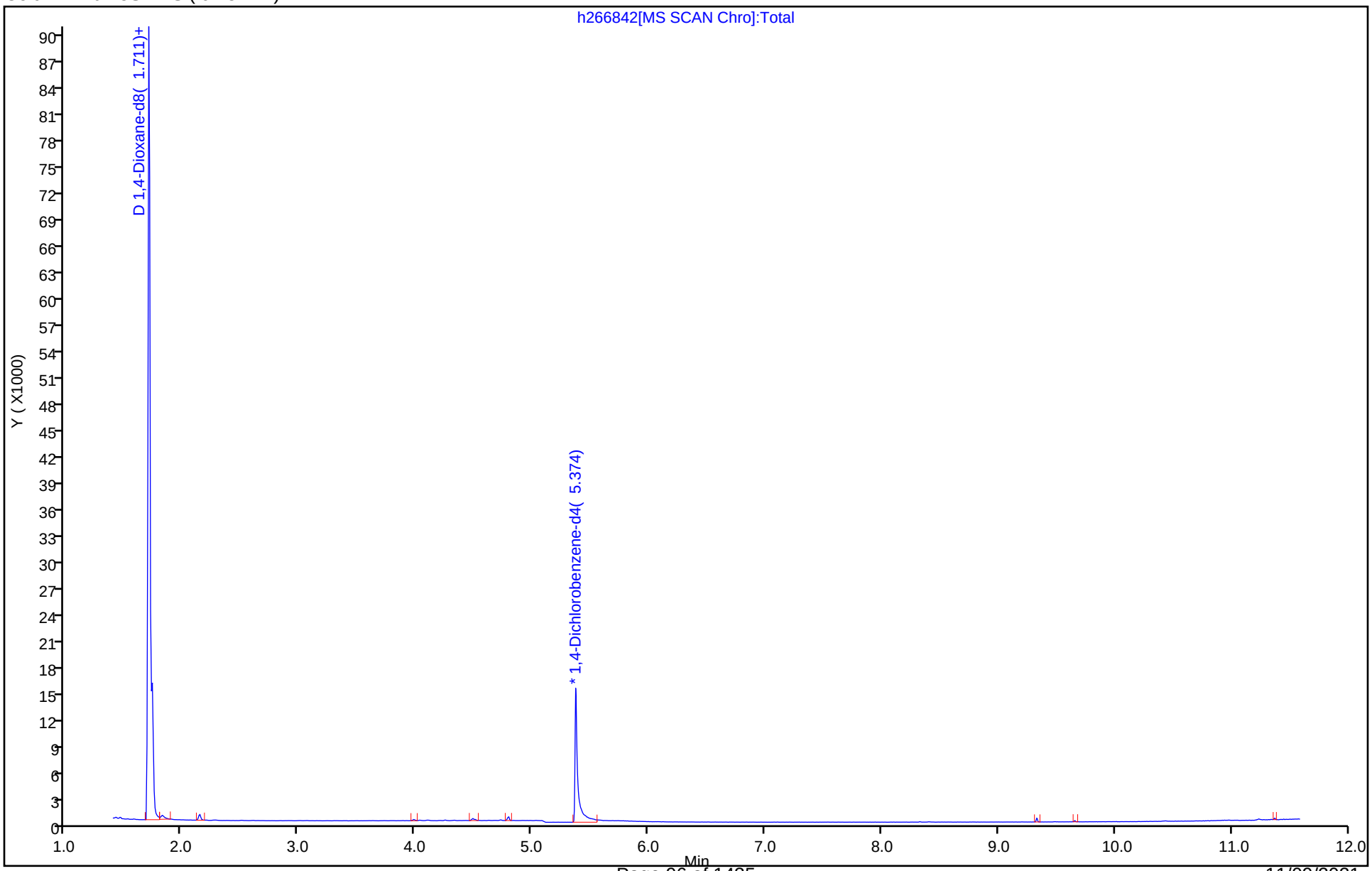
Report Date: 14-Jul-2021 10:34:57 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266842.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 13:46:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | icis | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 13-Jul-2021 14:01:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-003
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:02:37

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.703 | 1.719 | -0.016 | 1 | 56577 | 4.00 | 3.13 | a |
| | 2 1,4-Dioxane | 88 | 1.726 | 1.742 | -0.016 | 16 | 1706791 | 100.0 | 102.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 15040 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

## Reagents:

SM_ISOTOPL9_00002 Amount Added: 1.00 Units: mL

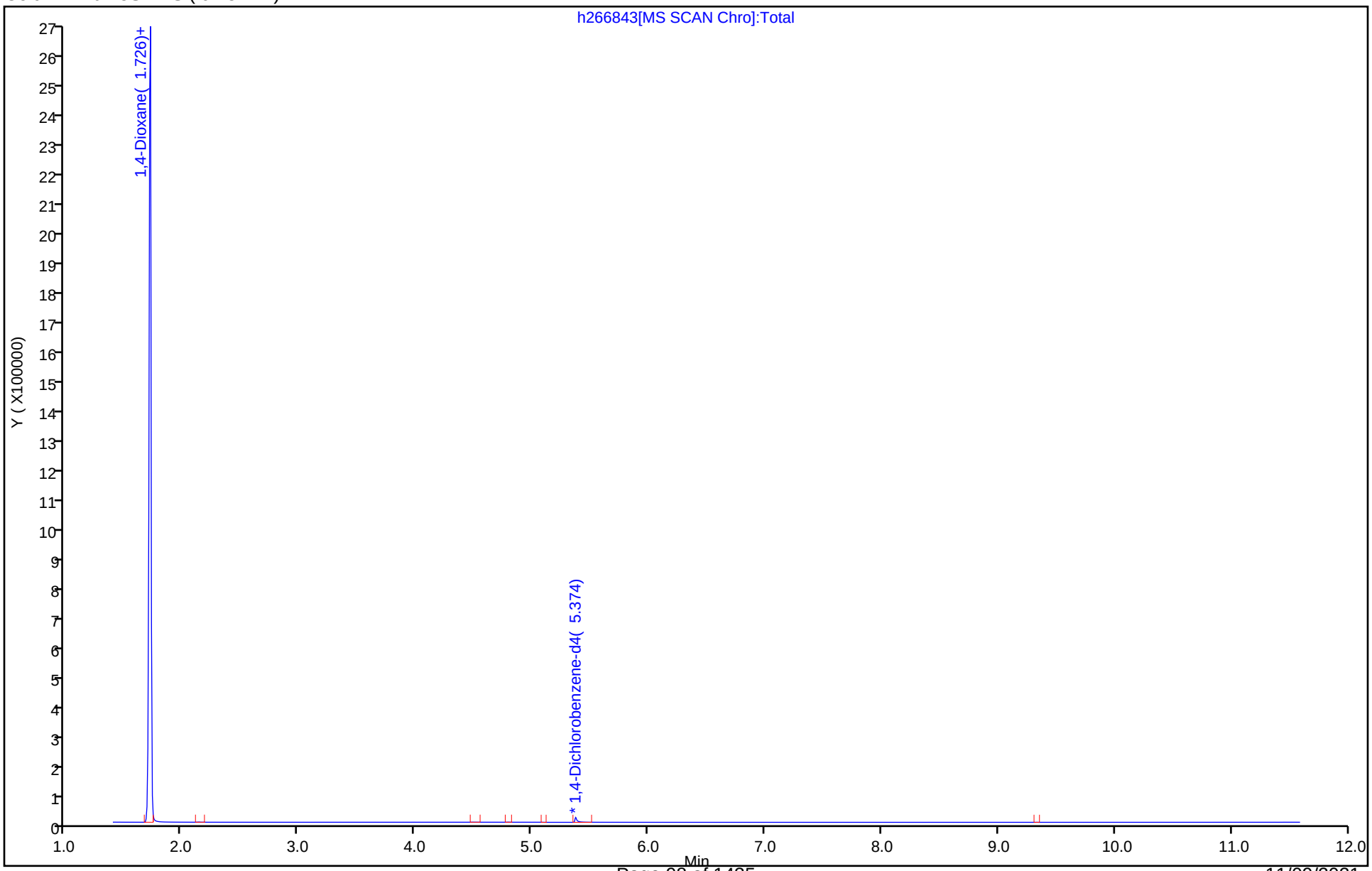
Report Date: 14-Jul-2021 10:34:58 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:01:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD9 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Edison

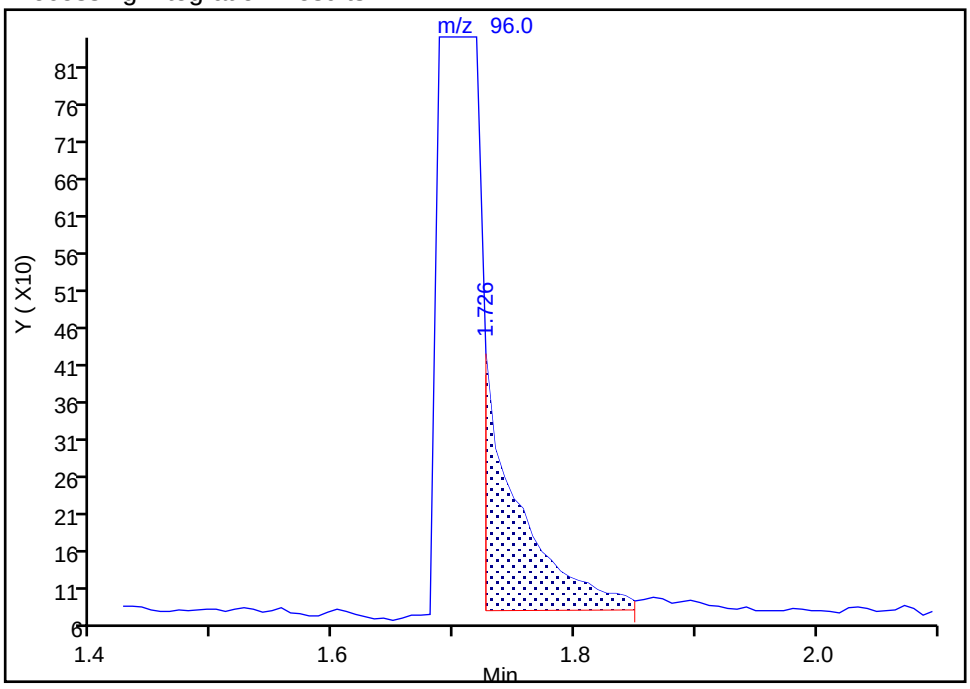
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d | | | | |
| Injection Date: | 13-Jul-2021 14:01:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | STD9 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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

Signal: 1

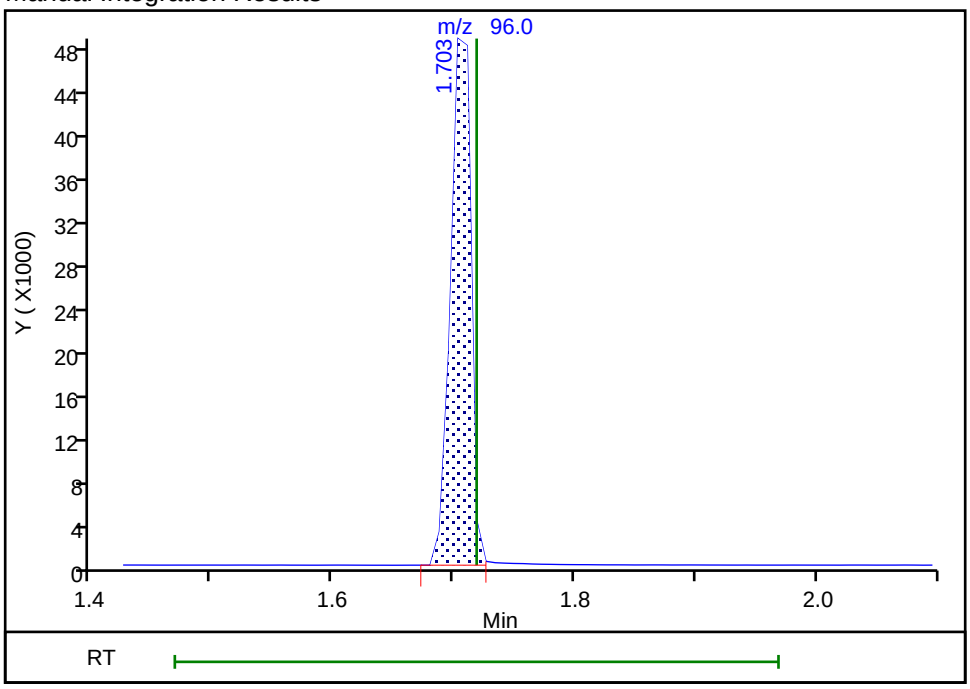
Processing Integration Results

RT: 1.73
Area: 716
Amount: 0.043116
Amount Units: ug/ml




Manual Integration Results

RT: 1.70
Area: 56577
Amount: 3.125605
Amount Units: ug/ml




Reviewer: nimerd, 13-Jul-2021 17:02:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266844.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Jul-2021 14:17:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-004
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 5 | 69015 | 4.00 | 3.56 | |
| | 2 1,4-Dioxane | 88 | 1.734 | 1.742 | -0.008 | 14 | 211101 | 10.0 | 10.3 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 16123 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL8_00007 Amount Added: 1.00 Units: mL

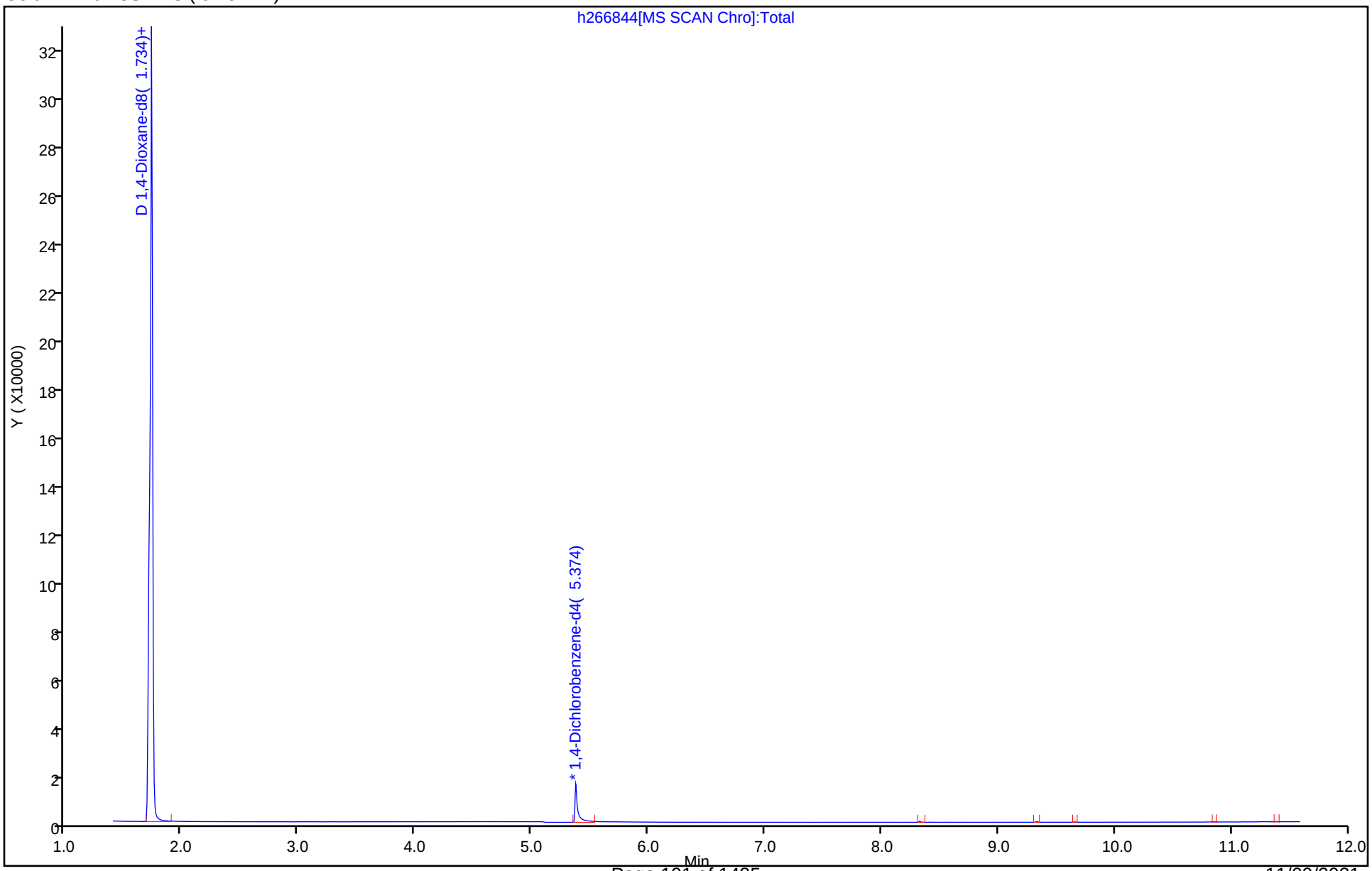
Report Date: 14-Jul-2021 10:34:58 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266844.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:17:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD8 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266845.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Jul-2021 14:33:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-005
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 8 | 67214 | 4.00 | 4.19 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.742 | 0.000 | 21 | 39264 | 2.00 | 1.97 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 13340 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL7_00007 Amount Added: 1.00 Units: mL

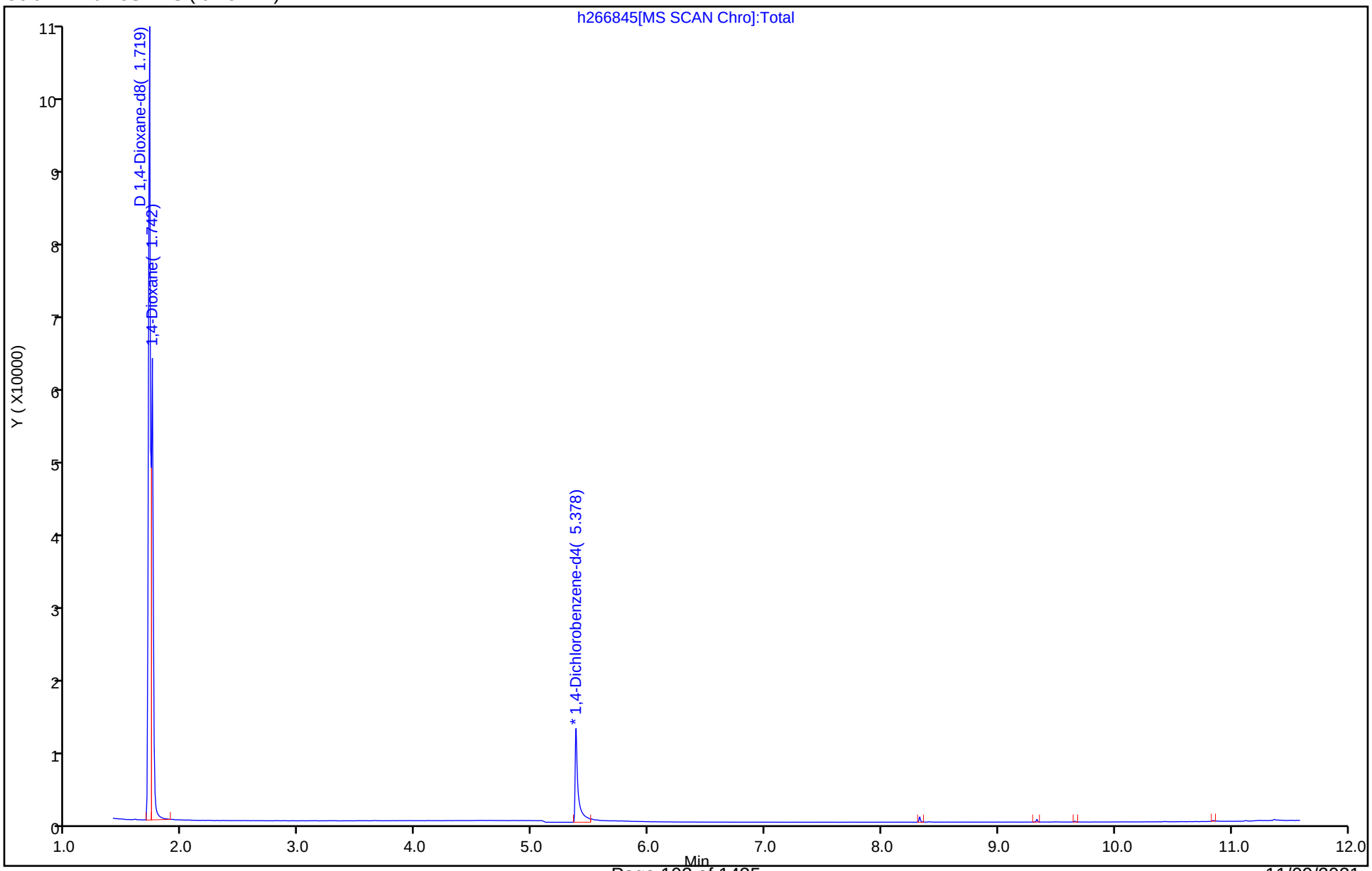
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266845.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:33:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD7 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266846.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Jul-2021 14:49:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-006
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:59 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:02:46

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 10 | 69170 | 4.00 | 4.15 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.742 | 0.007 | 15 | 19299 | 1.00 | 0.9431 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 13850 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_ISOTOPL6_00008 Amount Added: 1.00 Units: mL

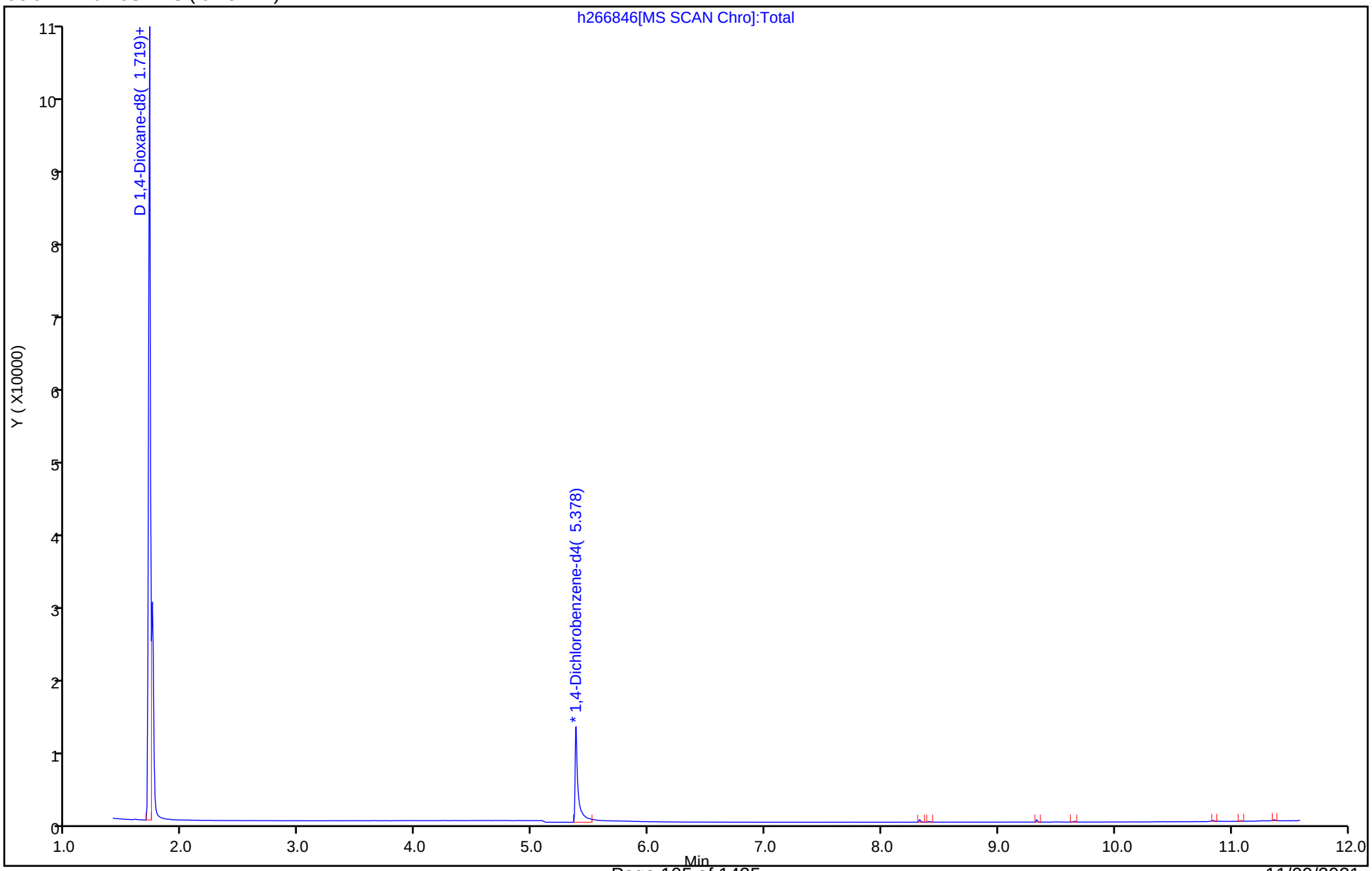
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266846.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:49:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD6 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266847.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Jul-2021 15:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-007
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:59 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 13 | 72823 | 4.00 | 4.02 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.742 | 0.007 | 22 | 4126 | 0.2000 | 0.1915 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 15038 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL4_00007 Amount Added: 1.00 Units: mL

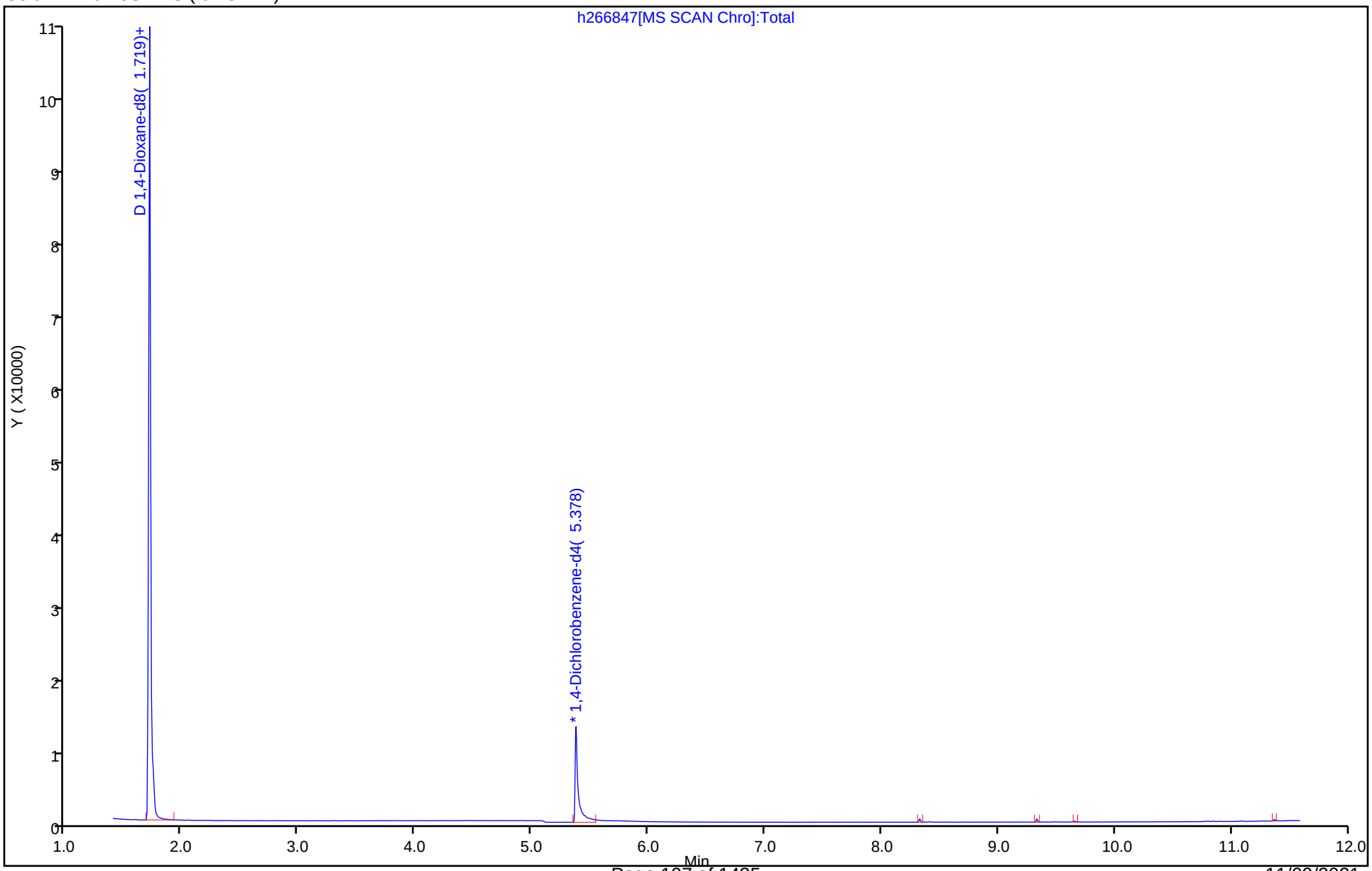
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266847.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:05:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD4 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266848.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Jul-2021 15:21:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-008
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:00 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 12 | 67848 | 4.00 | 4.64 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 21 | 1918 | 0.1000 | 0.0956 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 12156 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL3_00007 Amount Added: 1.00 Units: mL

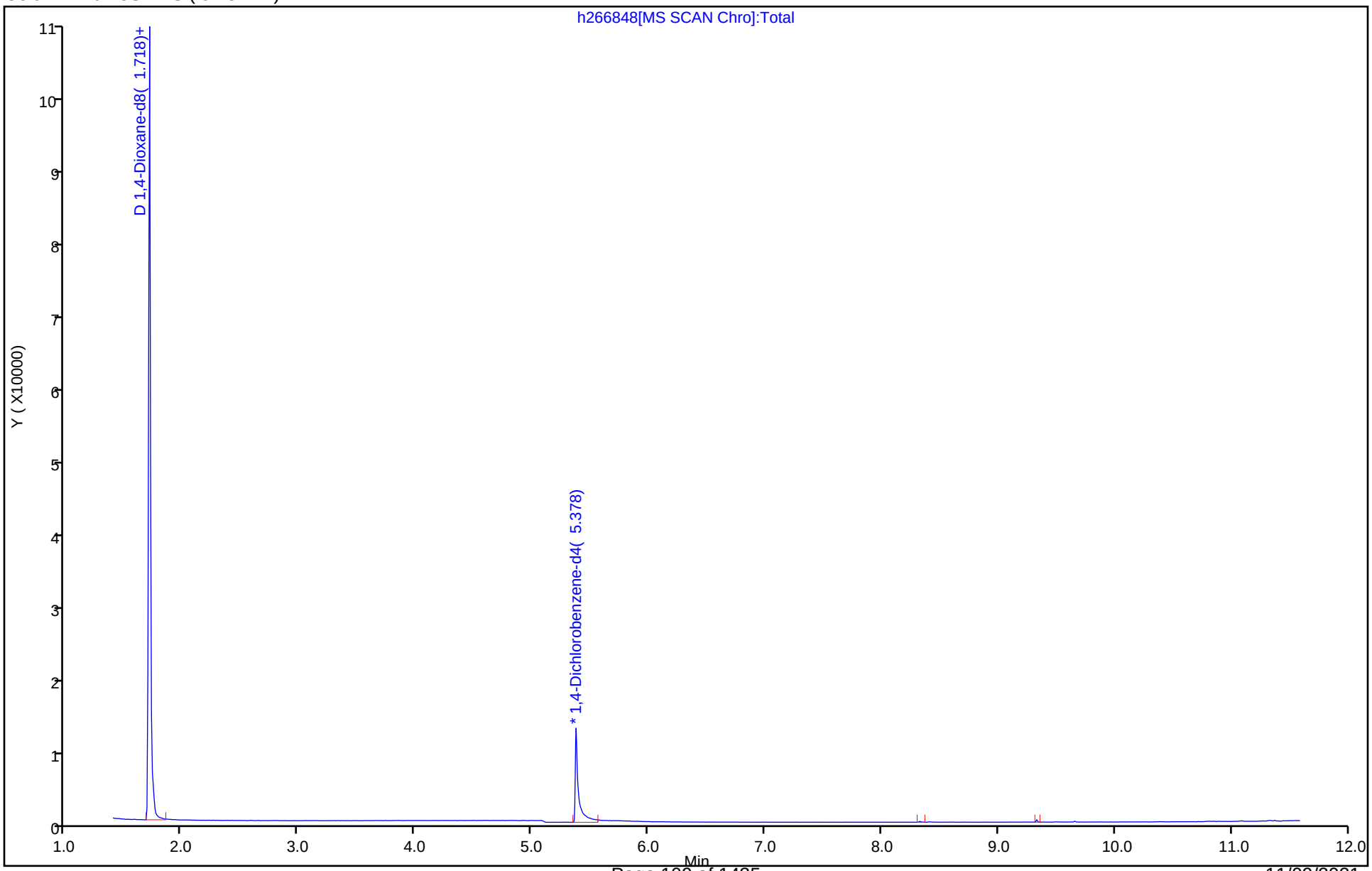
Report Date: 14-Jul-2021 10:35:00 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266848.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:21:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD3 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266849.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Jul-2021 15:37:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-009
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:00 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 7 | 69262 | 4.00 | 4.21 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 20 | 909 | 0.0400 | 0.0444 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 13664 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL2_00007 Amount Added: 1.00 Units: mL

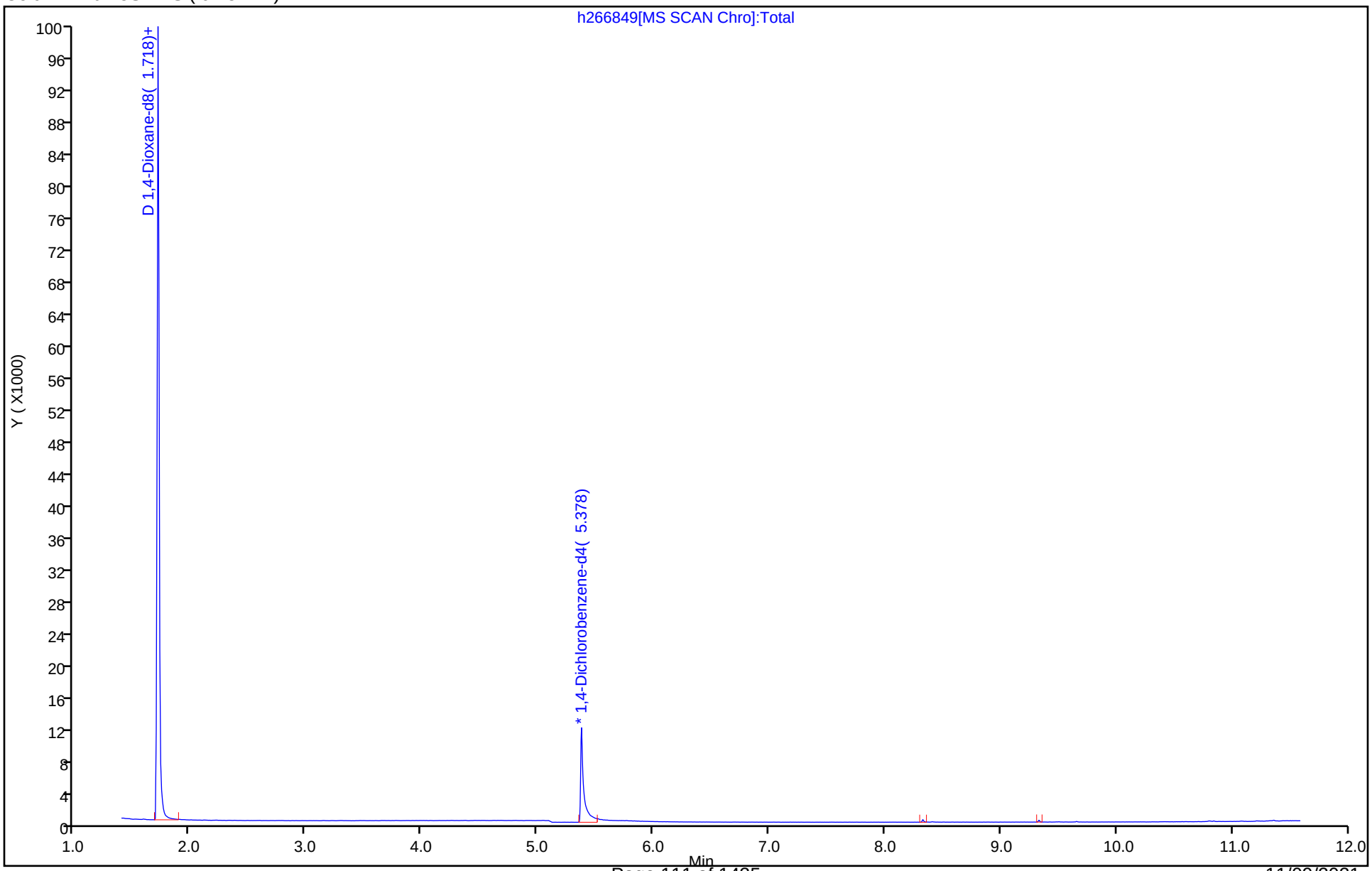
Report Date: 14-Jul-2021 10:35:00 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266849.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:37:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD2 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Jul-2021 15:53:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-010
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:01 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:03:01

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 11 | 67882 | 4.00 | 4.68 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 13 | 361 | 0.0200 | 0.0180 | M |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 12058 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

SM_ISOTOPL1_00008 Amount Added: 1.00 Units: mL

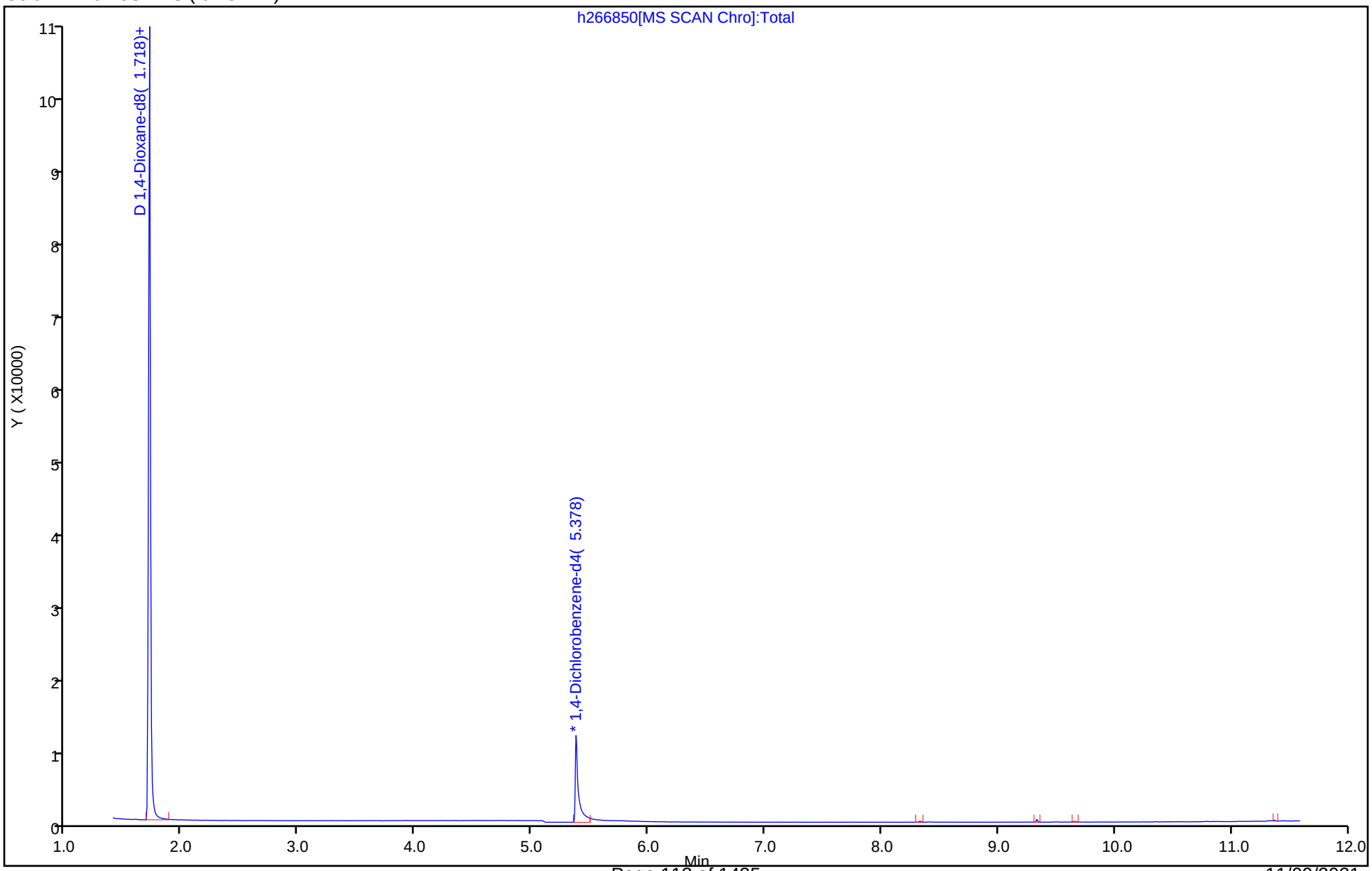
Report Date: 14-Jul-2021 10:35:01 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:53:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD1 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

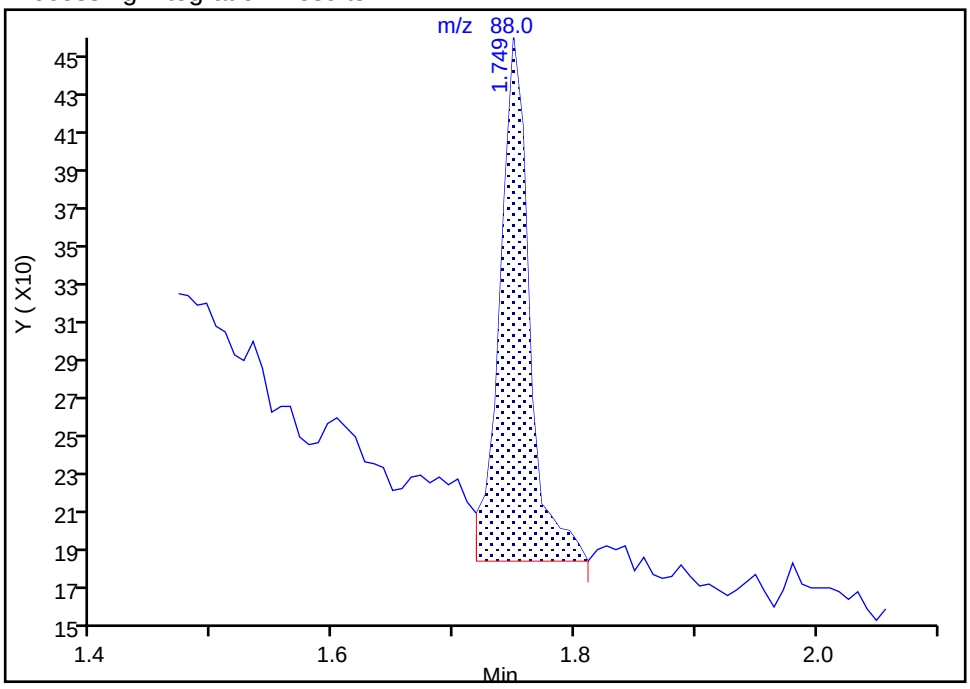
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Injection Date: | 13-Jul-2021 15:53:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | STD1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

## 2 1,4-Dioxane, CAS: 123-91-1

Signal: 1

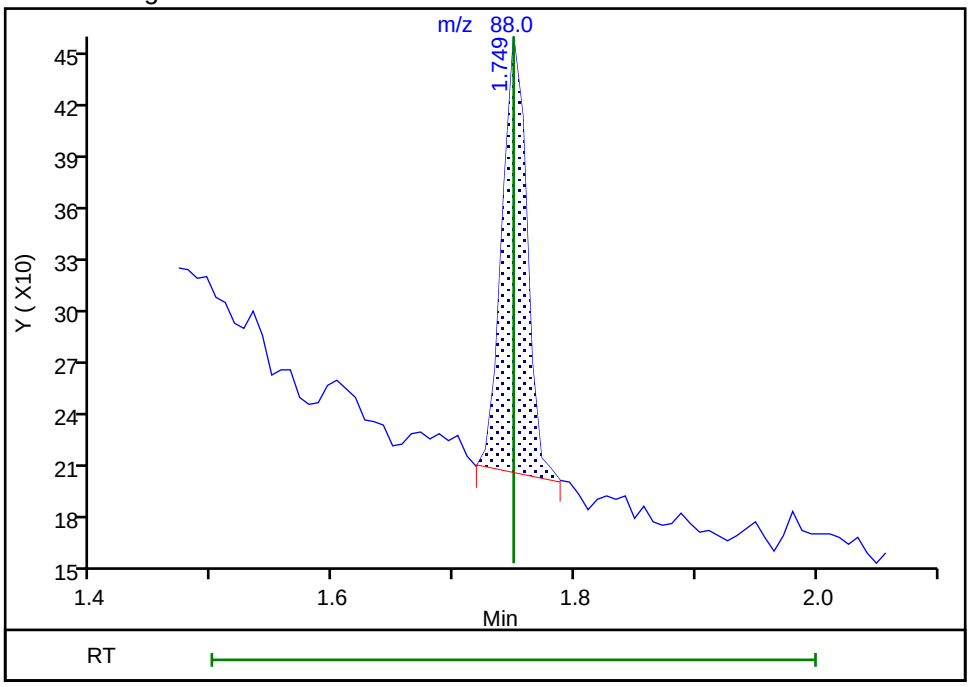
Processing Integration Results

RT: 1.75
Area: 469
Amount: 0.022687
Amount Units: ug/ml




Manual Integration Results

RT: 1.75
Area: 361
Amount: 0.017976
Amount Units: ug/ml




Reviewer: nimerd, 13-Jul-2021 17:02:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

## Calibration / 1,4-Dioxane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

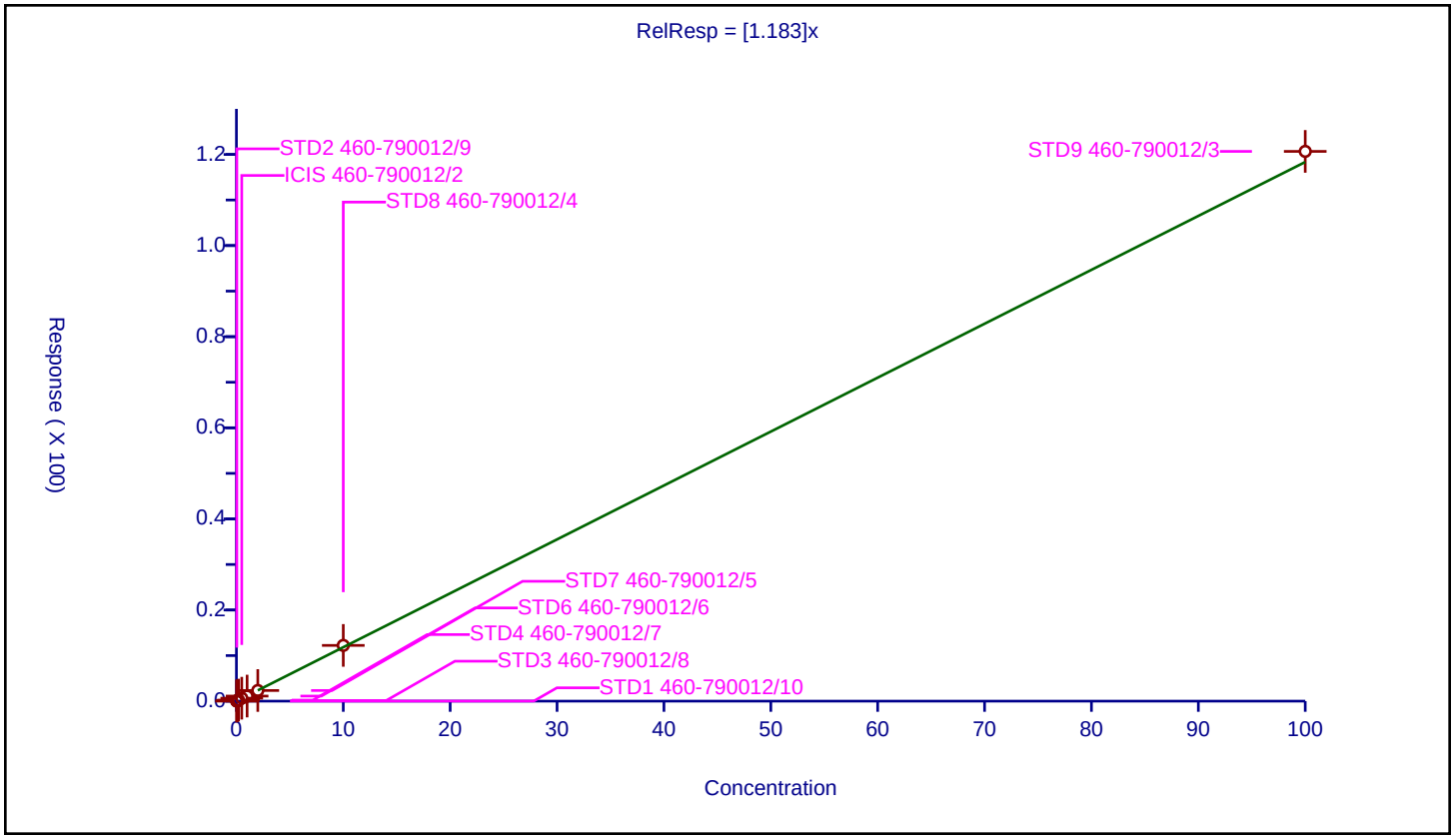
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.183 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 608000 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | STD1 460-790012/10 | 0.02 | 0.021272 | 4.0 | 67882.0 | 1.06361 | Y |
| 2 | STD2 460-790012/9 | 0.04 | 0.052496 | 4.0 | 69262.0 | 1.312408 | Y |
| 3 | STD3 460-790012/8 | 0.1 | 0.113076 | 4.0 | 67848.0 | 1.130763 | Y |
| 4 | STD4 460-790012/7 | 0.2 | 0.226632 | 4.0 | 72823.0 | 1.133158 | Y |
| 5 | ICIS 460-790012/2 | 0.5 | 0.647963 | 4.0 | 61022.0 | 1.295926 | Y |
| 6 | STD6 460-790012/6 | 1.0 | 1.116033 | 4.0 | 69170.0 | 1.116033 | Y |
| 7 | STD7 460-790012/5 | 2.0 | 2.336656 | 4.0 | 67214.0 | 1.168328 | Y |
| 8 | STD8 460-790012/4 | 10.0 | 12.235079 | 4.0 | 69015.0 | 1.223508 | Y |
| 9 | STD9 460-790012/3 | 100.0 | 120.670308 | 4.0 | 56577.0 | 1.206703 | Y |



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: ICV 460-790012/11  Calibration Date: 07/13/2021 16:09

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h266851.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.053 | | 178 | 200 | -11.0 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.2274 | | 3780 | 4000 | -5.5 | 50.0 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266851.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 13-Jul-2021 16:09:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-011
Operator ID: Instrument ID: CBNAMS9
Sublist:

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 15-Jul-2021 05:30:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1685

First Level Reviewer: kluseys Date: 13-Jul-2021 17:52:49

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 3 | 85612 | 4.00 | 3.78 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.749 | -0.007 | 18 | 4507 | 0.2000 | 0.1779 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.378 | -0.004 | 1 | 18820 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_SIMICV_LVI_00033 Amount Added: 1.00 Units: mL

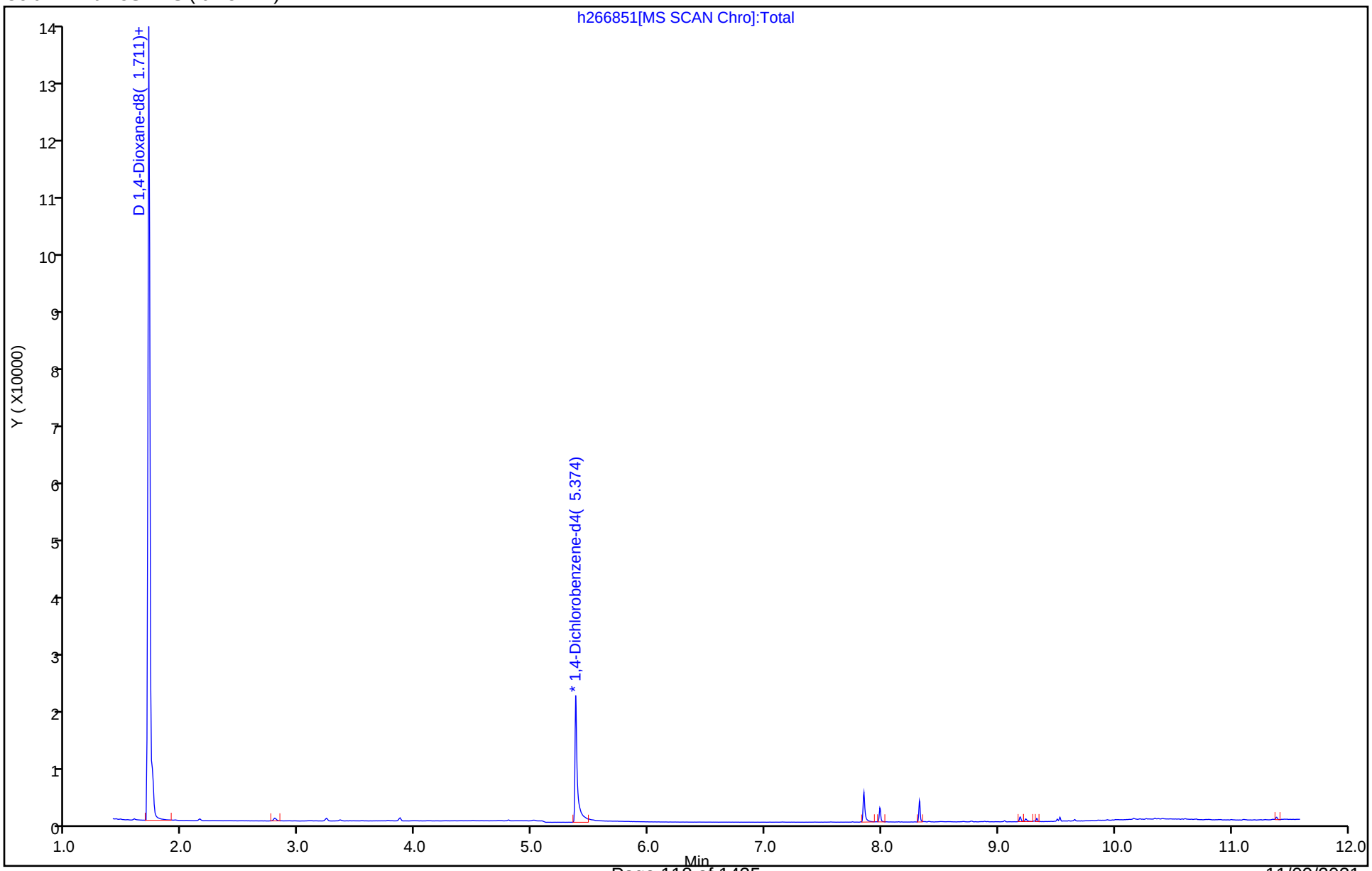
Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266851.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 16:09:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | icv | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVIS 460-810369/2  Calibration Date: 10/30/2021 13:01

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h268664.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.307 | | 552 | 500 | 10.4 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.2198 | | 3650 | 4000 | -8.7 | 50.0 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268664.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 30-Oct-2021 13:01:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-002
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:14:16 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:14:16

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.145 | 2.145 | 0.000 | 7 | 33740 | 4.00 | 3.65 | |
| | 2 1,4-Dioxane | 88 | 2.184 | 2.184 | 0.000 | 18 | 5511 | 0.5000 | 0.5521 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.736 | 5.736 | 0.000 | 1 | 7675 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_ISOTOPL5_00008 Amount Added: 1.00 Units: mL

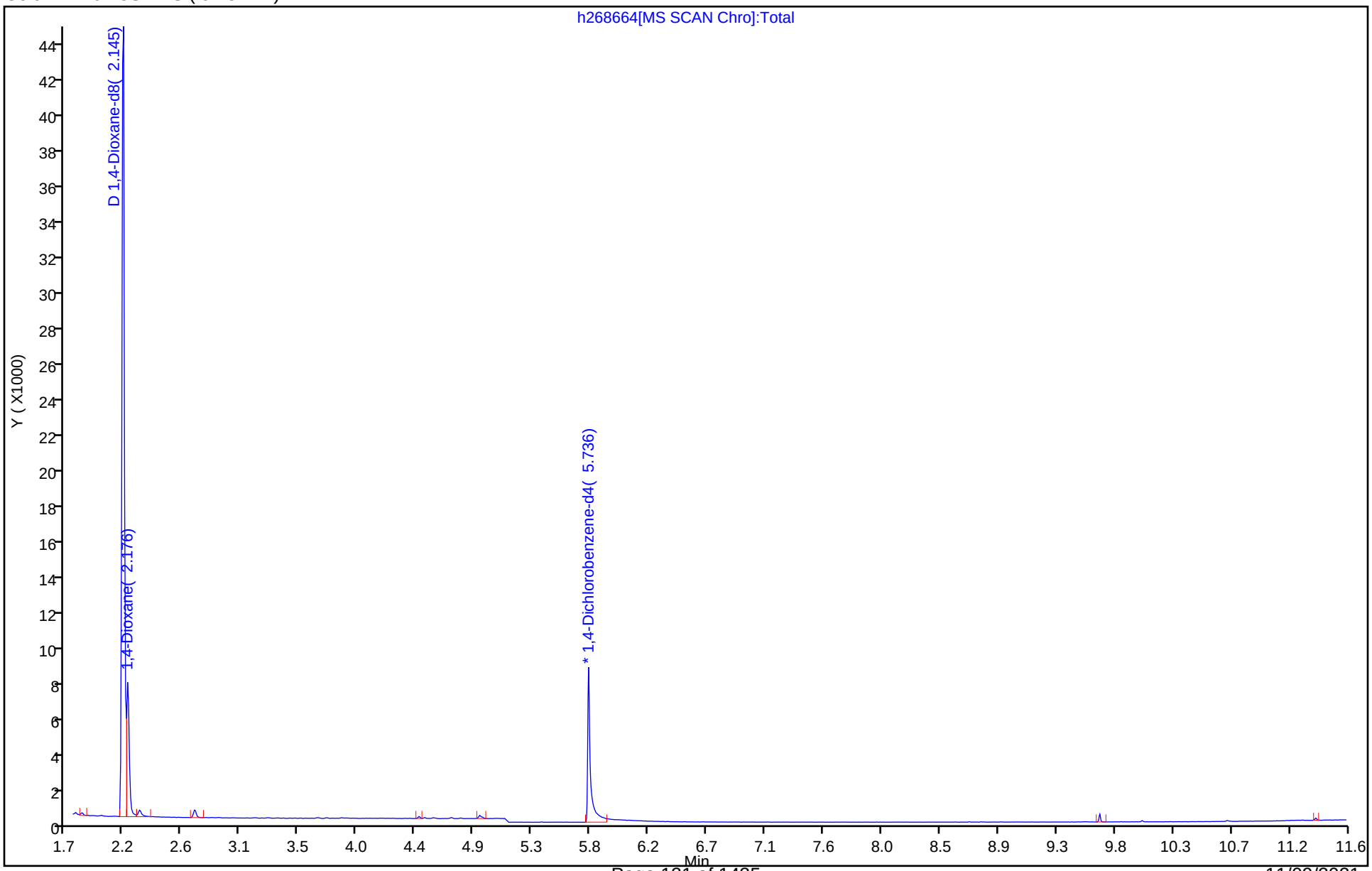
Report Date: 01-Nov-2021 07:14:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268664.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 13:01:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | ccvis | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d | | | | |
| Lims ID: | DFTPP | | | | |
| Client ID: | | | | | |
| Sample Type: | DFTPP | | | | |
| Inject. Date: | 13-Jul-2021 13:30:30 | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0131740-001 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 15-Jul-2021 05:30:12 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1685 | | | | |
| First Level Reviewer: nimerd | | Date: | 13-Jul-2021 17:19:31 | | |

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|

3 DFTPP

## QC Flag Legend

Processing Flags

## Reagents:

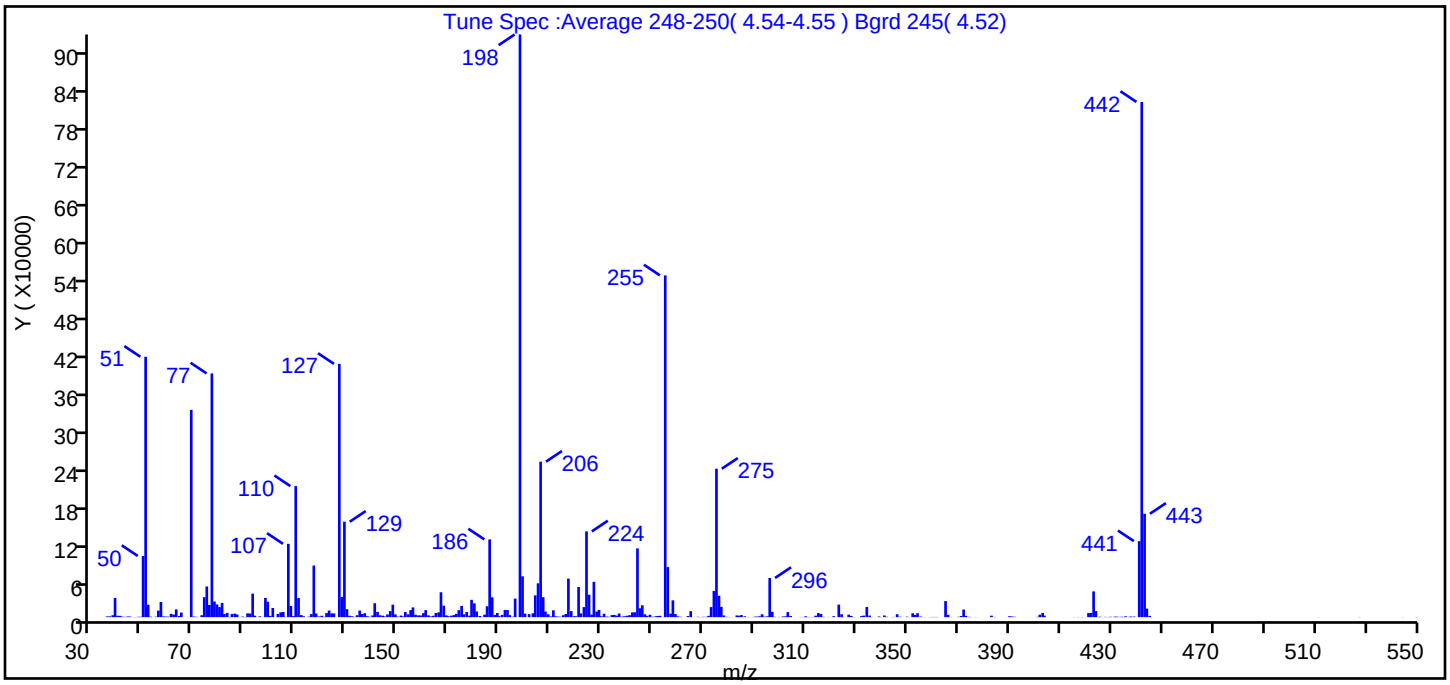
SMDFTP_CH_00032 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d
Injection Date: 13-Jul-2021 13:30:30 Instrument ID: CBNAMS9
Lims ID: DFTPP
Client ID:
Operator ID: ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270_Iso Limit Group: MSS 8270 Isotope Dilution IS
Tune Method: DFTPP Method 8270E, BP 198

3 DFTPP




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 198 | Base peak or present | 100.0 |
| 68 | <2% of m/z 69 | 0.0 (0.0) |
| 69 | Present | 35.6 |
| 70 | <2% of m/z 69 | 0.1 (0.3) |
| 197 | <2% of m/z 198 | 0.0 |
| 199 | 5-9% of m/z 198 | 7.0 |
| 365 | >1% of m/z 198 | 2.8 |
| 441 | <150% of m/z 443 | 13.0 (73.5) |
| 442 | Present | 88.4 |
| 443 | 15-24% of m/z 442 | 17.7 (20.1) |

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1173 | 131.00 | 2199 | 217.00 | 61144 | 314.00 | 2284 |
| 37.00 | 1292 | 132.00 | 1420 | 218.00 | 9604 | 315.00 | 6513 |
| 38.00 | 3018 | 133.00 | 444 | 219.00 | 1526 | 316.00 | 5030 |
| 39.00 | 30536 | 134.00 | 2985 | 220.00 | 1353 | 317.00 | 475 |
| 40.00 | 2254 | 135.00 | 10452 | 221.00 | 47872 | 319.00 | 280 |
| 41.00 | 2072 | 136.00 | 4870 | 222.00 | 5941 | 321.00 | 1550 |
| 42.00 | 749 | 137.00 | 6217 | 223.00 | 15962 | 323.00 | 19880 |
| 43.00 | 401 | 138.00 | 1494 | 224.00 | 136192 | 324.00 | 4561 |
| 44.00 | 1037 | 139.00 | 731 | 225.00 | 35584 | 325.00 | 237 |
| 45.00 | 936 | 140.00 | 2672 | 226.00 | 4066 | 327.00 | 3945 |
| 47.00 | 273 | 141.00 | 22112 | 227.00 | 56144 | 328.00 | 1920 |
| 48.00 | 500 | 142.00 | 8325 | 228.00 | 8925 | 329.00 | 212 |
| 49.00 | 669 | 143.00 | 2946 | 229.00 | 11545 | 331.00 | 185 |
| 50.00 | 97128 | 144.00 | 2283 | 230.00 | 1474 | 332.00 | 1664 |
| 51.00 | 413568 | 145.00 | 1268 | 231.00 | 5355 | 333.00 | 2430 |
| 52.00 | 19664 | 146.00 | 4309 | 232.00 | 855 | 334.00 | 16105 |
| 53.00 | 772 | 147.00 | 9563 | 233.00 | 628 | 335.00 | 2486 |
| 55.00 | 722 | 148.00 | 19768 | 234.00 | 3312 | 336.00 | 202 |
| 56.00 | 10379 | 149.00 | 4316 | 235.00 | 3548 | 339.00 | 1051 |
| 57.00 | 24040 | 150.00 | 851 | 236.00 | 2442 | 340.00 | 197 |
| 58.00 | 1221 | 151.00 | 2462 | 237.00 | 5802 | 341.00 | 2657 |
| 59.00 | 882 | 152.00 | 1143 | 238.00 | 919 | 342.00 | 593 |
| 60.00 | 781 | 153.00 | 8092 | 239.00 | 1450 | 344.00 | 317 |
| 61.00 | 5209 | 154.00 | 4402 | 240.00 | 2218 | 346.00 | 4638 |
| 62.00 | 4013 | 155.00 | 11219 | 241.00 | 3124 | 347.00 | 755 |
| 63.00 | 12335 | 156.00 | 15470 | 242.00 | 7609 | 350.00 | 732 |
| 64.00 | 1814 | 157.00 | 3806 | 243.00 | 7741 | 352.00 | 6138 |
| 65.00 | 7259 | 158.00 | 2809 | 244.00 | 109200 | 353.00 | 3537 |
| 67.00 | 25 | 159.00 | 2649 | 245.00 | 14080 | 354.00 | 6258 |
| 69.00 | 329216 | 160.00 | 6344 | 246.00 | 18848 | 355.00 | 981 |
| 70.00 | 1024 | 161.00 | 11166 | 247.00 | 4479 | 357.00 | 193 |
| 71.00 | 522 | 162.00 | 2827 | 248.00 | 2042 | 359.00 | 212 |
| 73.00 | 2996 | 163.00 | 1219 | 249.00 | 3791 | 360.00 | 358 |

Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40
Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 74.00 | 31672 | 164.00 | 2196 | 250.00 | 690 | 361.00 | 303 |
| 75.00 | 48728 | 165.00 | 6561 | 251.00 | 1476 | 362.00 | 233 |
| 76.00 | 19360 | 166.00 | 7546 | 252.00 | 1830 | 365.00 | 25544 |
| 77.00 | 387072 | 167.00 | 39528 | 253.00 | 2105 | 366.00 | 3717 |
| 78.00 | 24888 | 168.00 | 18208 | 255.00 | 542784 | 367.00 | 220 |
| 79.00 | 20200 | 169.00 | 2809 | 256.00 | 79504 | 370.00 | 463 |
| 80.00 | 15930 | 170.00 | 1558 | 257.00 | 5629 | 371.00 | 1808 |
| 81.00 | 22688 | 171.00 | 2405 | 258.00 | 26688 | 372.00 | 12032 |
| 82.00 | 4942 | 172.00 | 3236 | 259.00 | 4894 | 373.00 | 1935 |
| 83.00 | 6758 | 173.00 | 5184 | 260.00 | 1314 | 374.00 | 482 |
| 84.00 | 428 | 174.00 | 11142 | 261.00 | 583 | 375.00 | 259 |
| 85.00 | 5125 | 175.00 | 17808 | 264.00 | 1710 | 377.00 | 195 |
| 86.00 | 5695 | 176.00 | 4477 | 265.00 | 9486 | 383.00 | 2329 |
| 87.00 | 4143 | 177.00 | 8133 | 268.00 | 583 | 384.00 | 407 |
| 88.00 | 196 | 178.00 | 2312 | 269.00 | 211 | 390.00 | 1473 |
| 89.00 | 868 | 179.00 | 27456 | 270.00 | 547 | 391.00 | 1102 |
| 90.00 | 289 | 180.00 | 21888 | 271.00 | 499 | 392.00 | 545 |
| 91.00 | 6057 | 181.00 | 9014 | 272.00 | 2071 | 401.00 | 484 |
| 92.00 | 5725 | 182.00 | 1768 | 273.00 | 15974 | 402.00 | 3855 |
| 93.00 | 37328 | 183.00 | 747 | 274.00 | 41584 | 403.00 | 6596 |
| 94.00 | 2337 | 184.00 | 3966 | 275.00 | 235712 | 404.00 | 2378 |
| 96.00 | 1302 | 185.00 | 17272 | 276.00 | 33984 | 416.00 | 207 |
| 98.00 | 30536 | 186.00 | 123464 | 277.00 | 16260 | 417.00 | 258 |
| 99.00 | 24496 | 187.00 | 31416 | 278.00 | 2666 | 419.00 | 275 |
| 100.00 | 1973 | 188.00 | 3337 | 279.00 | 515 | 421.00 | 6525 |
| 101.00 | 14544 | 189.00 | 6556 | 280.00 | 220 | 422.00 | 6695 |
| 103.00 | 5192 | 190.00 | 1729 | 283.00 | 2699 | 423.00 | 40928 |
| 104.00 | 7604 | 191.00 | 3659 | 284.00 | 2273 | 424.00 | 9595 |
| 105.00 | 8184 | 192.00 | 11444 | 285.00 | 3288 | 425.00 | 335 |
| 106.00 | 456 | 193.00 | 11313 | 286.00 | 1324 | 426.00 | 645 |
| 107.00 | 116440 | 194.00 | 3202 | 288.00 | 305 | 428.00 | 402 |
| 108.00 | 17720 | 195.00 | 690 | 289.00 | 259 | 428.00 | 190 |
| 109.00 | 1698 | 196.00 | 29424 | 290.00 | 731 | 429.00 | 367 |
| 110.00 | 208064 | 198.00 | 925376 | 291.00 | 860 | 430.00 | 541 |

Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40
Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 111.00 | 30280 | 199.00 | 64832 | 292.00 | 1371 | 431.00 | 713 |
| 112.00 | 3189 | 200.00 | 5576 | 293.00 | 4533 | 432.00 | 667 |
| 113.00 | 1402 | 202.00 | 4787 | 294.00 | 874 | 433.00 | 494 |
| 115.00 | 755 | 202.00 | 129 | 295.00 | 1314 | 434.00 | 548 |
| 116.00 | 4745 | 203.00 | 6161 | 296.00 | 62216 | 435.00 | 425 |
| 117.00 | 81960 | 204.00 | 34576 | 297.00 | 8449 | 436.00 | 1373 |
| 118.00 | 5843 | 205.00 | 53776 | 298.00 | 480 | 437.00 | 453 |
| 119.00 | 1126 | 206.00 | 246912 | 300.00 | 309 | 438.00 | 941 |
| 120.00 | 2177 | 207.00 | 31672 | 301.00 | 1082 | 439.00 | 898 |
| 121.00 | 525 | 208.00 | 8905 | 302.00 | 1334 | 441.00 | 120648 |
| 122.00 | 6457 | 209.00 | 4506 | 303.00 | 8019 | 442.00 | 818240 |
| 123.00 | 10505 | 210.00 | 1193 | 304.00 | 1883 | 443.00 | 164160 |
| 124.00 | 6046 | 211.00 | 10931 | 308.00 | 291 | 444.00 | 13512 |
| 125.00 | 5820 | 212.00 | 1251 | 309.00 | 192 | 445.00 | 1953 |
| 127.00 | 402240 | 213.00 | 911 | 310.00 | 1392 | 511.00 | 206 |
| 128.00 | 32104 | 214.00 | 587 | 311.00 | 355 | 527.00 | 251 |
| 129.00 | 151552 | 215.00 | 3053 | 312.00 | 221 | 544.00 | 186 |
| 130.00 | 12587 | 216.00 | 5089 | 313.00 | 273 | 550.00 | 242 |

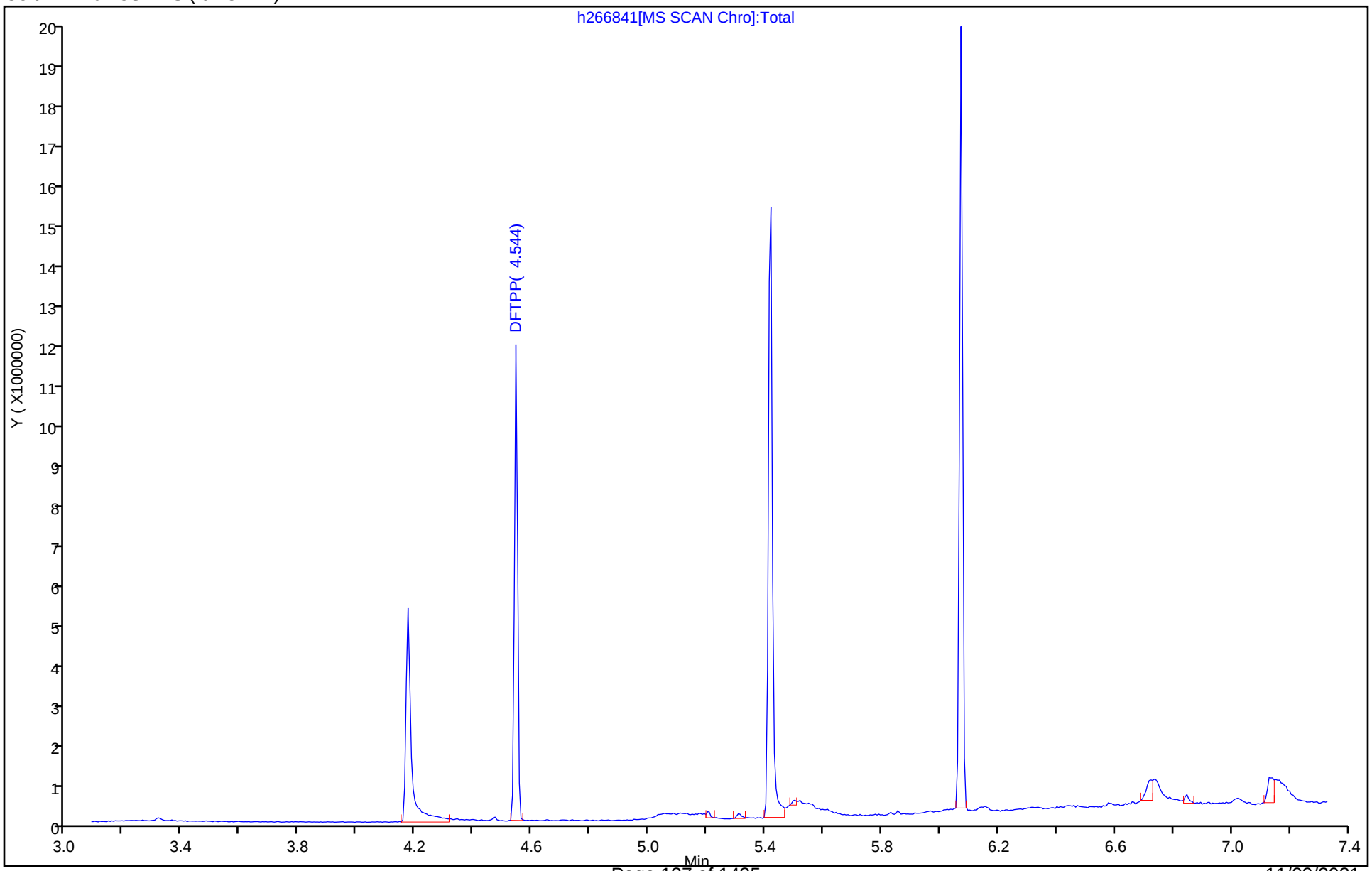
Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 13:30:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | DFTPP | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 460-810092/1-A

Matrix: Water  Lab File ID: h268665.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 10/29/2021 08:12

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 13:21

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 36 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268665.d
Lims ID: MB 460-810092/1-A
Client ID:
Sample Type: MB
Inject. Date: 30-Oct-2021 13:21:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-003
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:14:21 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:14:28

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.145 | 2.145 | 0.000 | 11 | 18193 | 4.00 | 1.44 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 10498 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

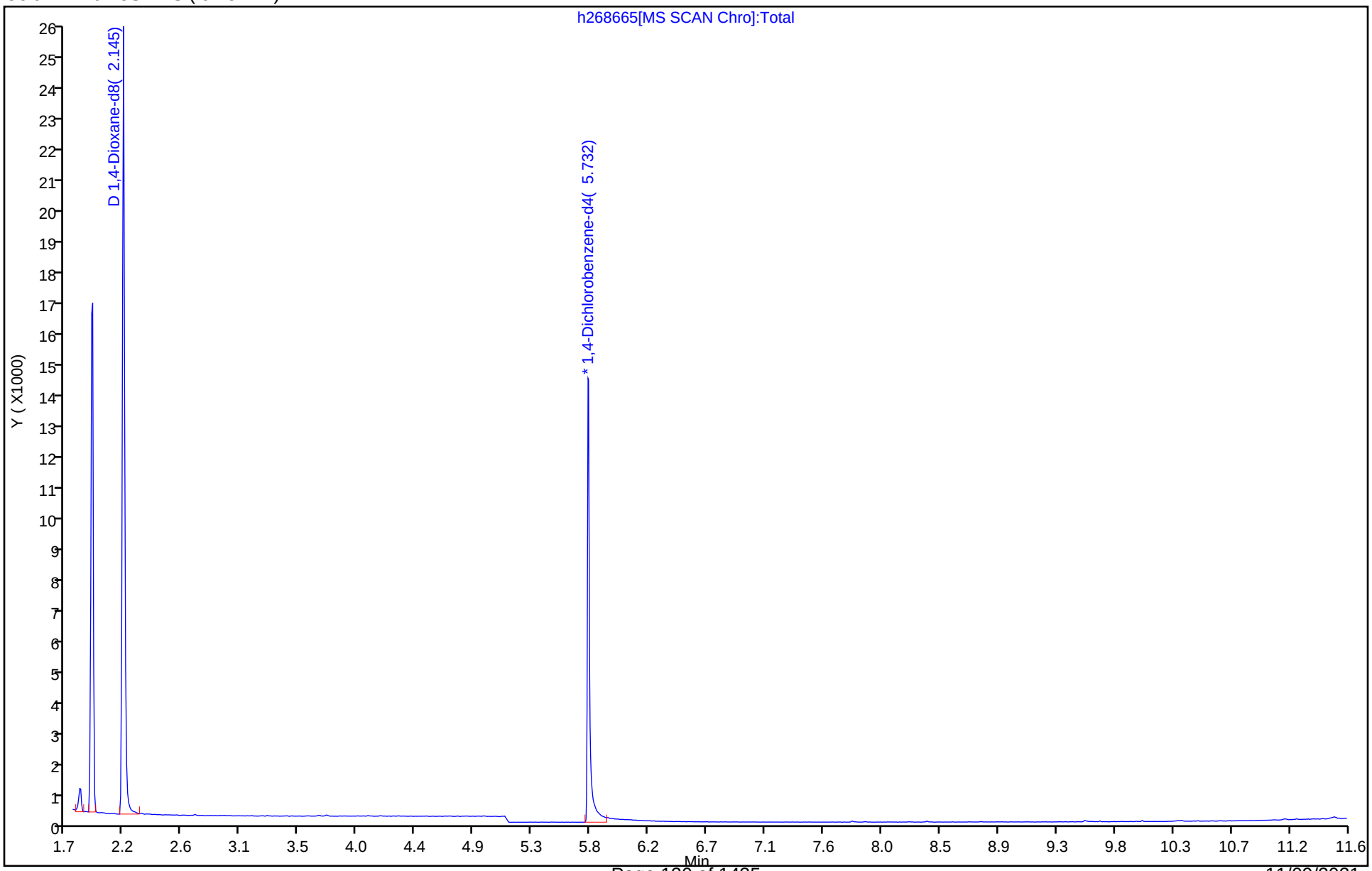
Report Date: 01-Nov-2021 07:14:28 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268665.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 13:21:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | MB 460-810092/1-A | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

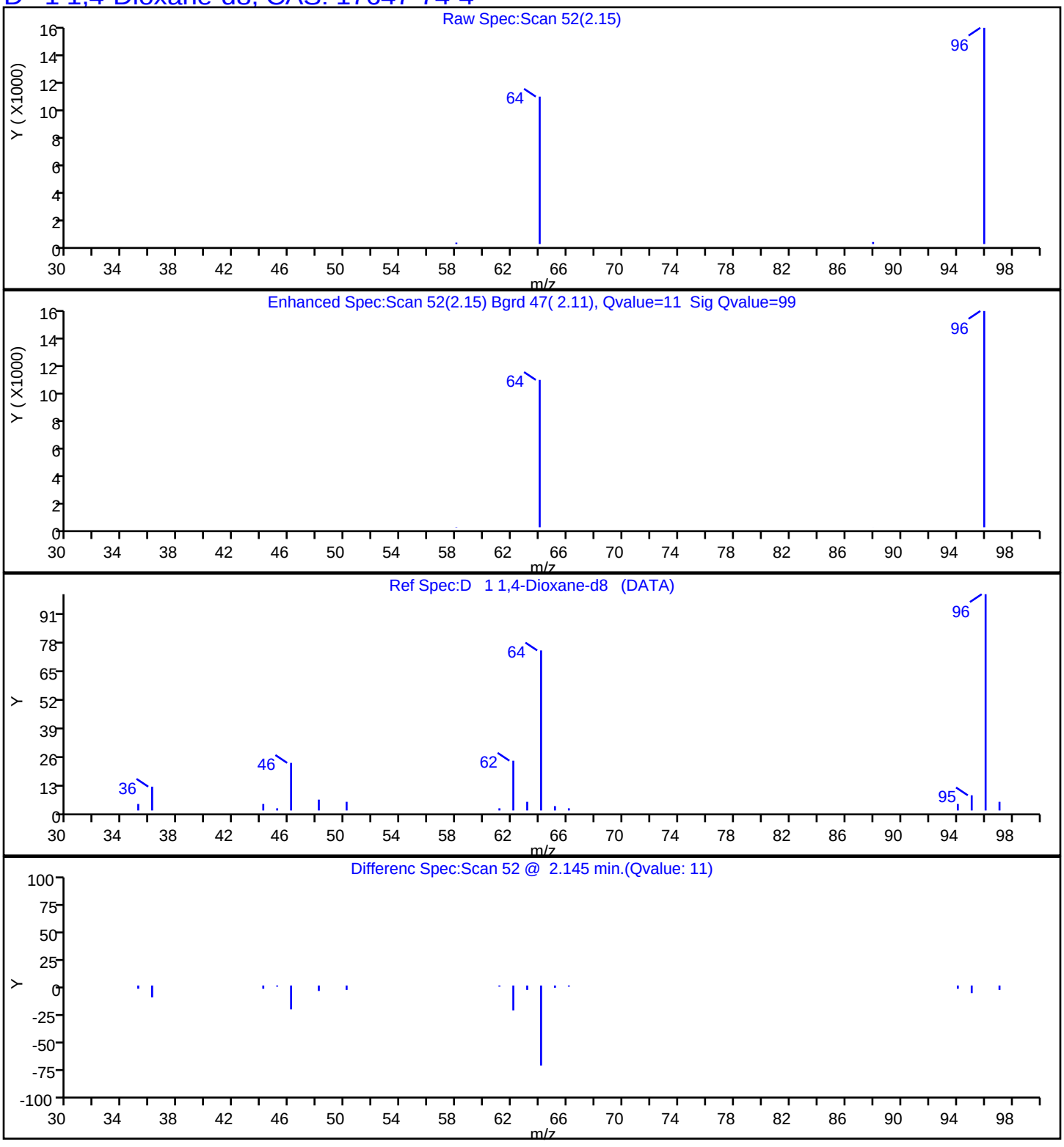
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268665.d | | | | |
| Injection Date: | 30-Oct-2021 13:21:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | MB 460-810092/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



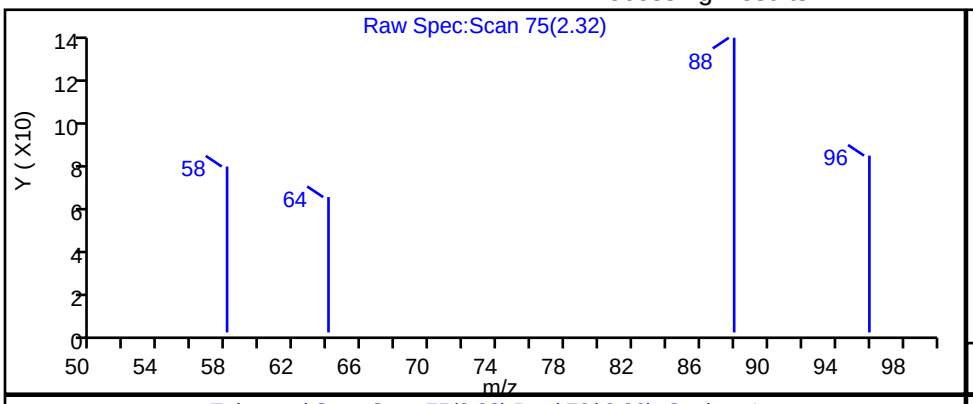
User Disabled Compound Report

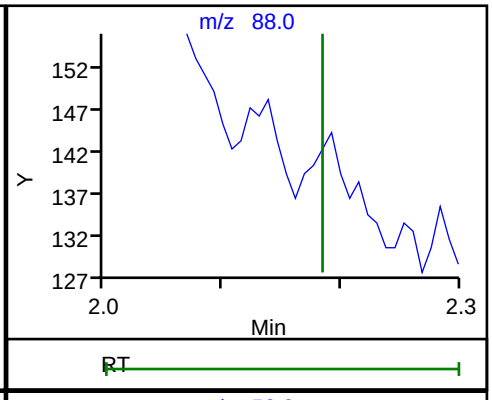
Eurofins TestAmerica, Edison

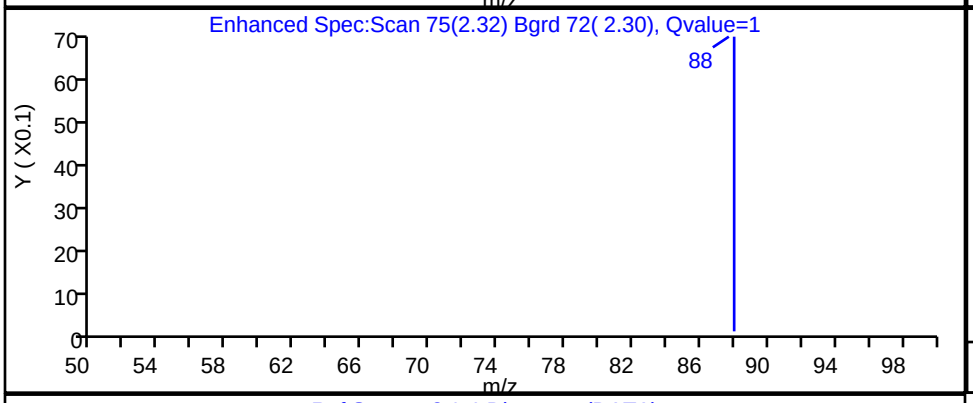
Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268665.d
Injection Date: 30-Oct-2021 13:21:30 Instrument ID: CBNAMS9
Lims ID: MB 460-810092/1-A
Client ID:
Operator ID: ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270_Iso Limit Group: MSS 8270 Isotope Dilution IS
Column: Rtxi-5Sil MS ( 0.25 mm) Detector MS SCAN

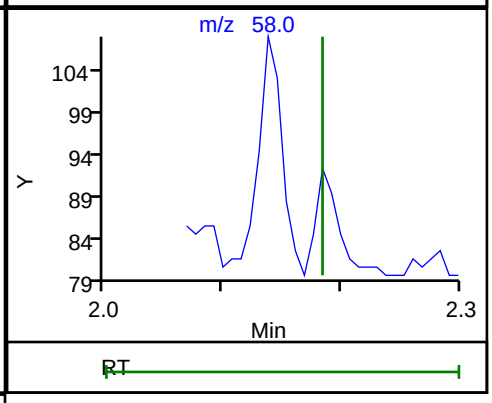
## 2 1,4-Dioxane, CAS: 123-91-1

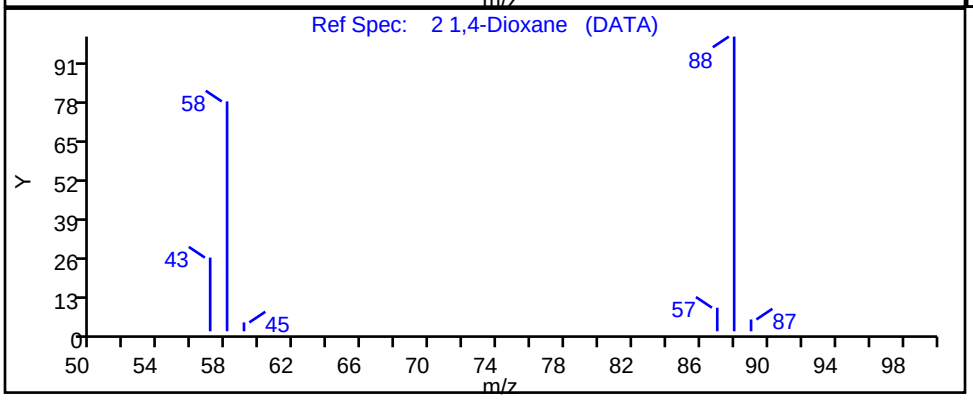
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.32 | 88.00 | 16 | 0.002973 |
| 2.33 | 58.00 | 16 | |

Reviewer: khlungprakhons, 01-Nov-2021 07:14:20
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 460-810092/2-A

Matrix: Water  Lab File ID: h268666.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 10/29/2021 08:12

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 13:37

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.44 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 39 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268666.d
Lims ID: LCS 460-810092/2-A
Client ID:
Sample Type: LCS
Inject. Date: 30-Oct-2021 13:37:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-004
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:14:40 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:14:40

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.153 | 2.145 | 0.008 | 7 | 15765 | 4.00 | 1.55 | |
| | 2 1,4-Dioxane | 88 | 2.192 | 2.184 | 0.008 | 20 | 838 | 0.2000 | 0.1797 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.736 | 5.736 | 0.000 | 1 | 8442 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

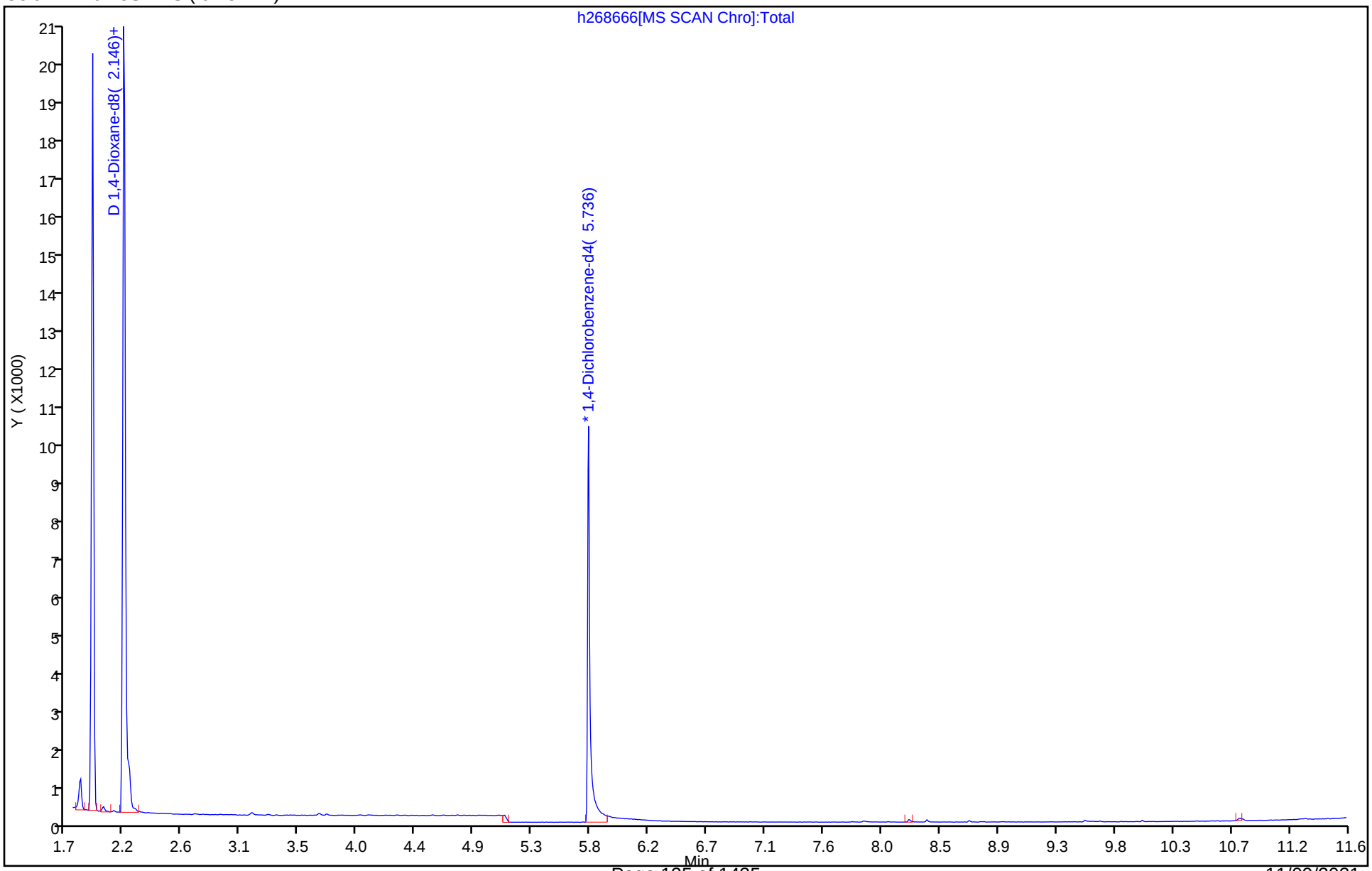
Report Date: 01-Nov-2021 07:14:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268666.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 13:37:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCS 460-810092/2-A | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 460-810092/3-A

Matrix: Water  Lab File ID: h268667.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 10/29/2021 08:12

Sample wt/vol: 250(mL)  Date Analyzed: 10/30/2021 13:53

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 810369  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.43 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 38 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268667.d
Lims ID: LCSD 460-810092/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 30-Oct-2021 13:53:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0136847-005
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 01-Nov-2021 07:14:51 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1611

First Level Reviewer: khlungprakhons Date: 01-Nov-2021 07:14:51

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.146 | 2.145 | 0.001 | 12 | 21392 | 4.00 | 1.54 | |
| | 2 1,4-Dioxane | 88 | 2.184 | 2.184 | 0.000 | 18 | 1135 | 0.2000 | 0.1793 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.732 | 5.736 | -0.004 | 1 | 11565 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

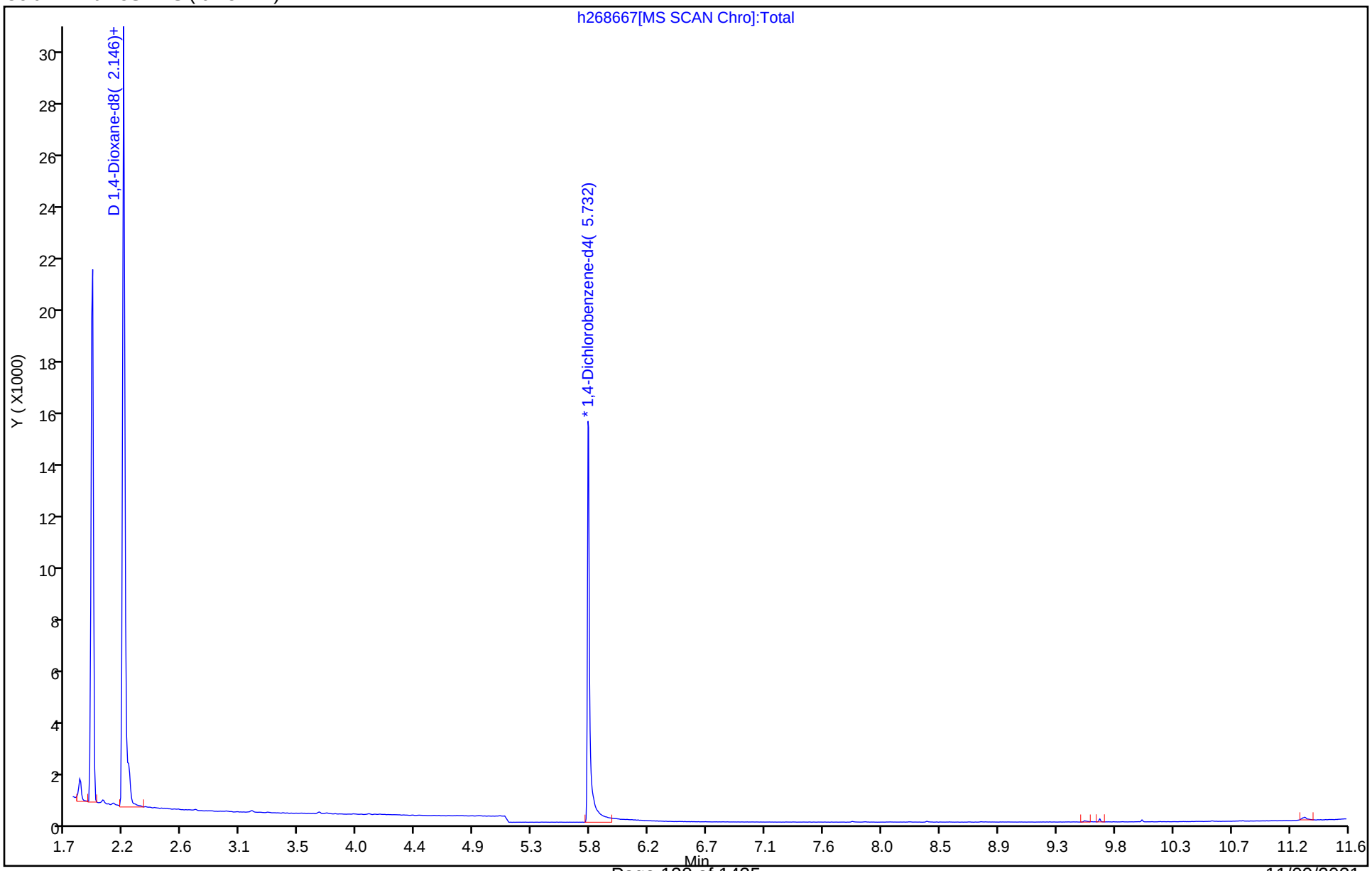
Report Date: 01-Nov-2021 07:14:52 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211030-136847.b\h268667.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2021 13:53:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCSD 460-810092/3-A | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1

SDG No.:

Instrument ID: CBNAMS9 Start Date: 07/13/2021 13:30

Analysis Batch Number: 790012 End Date: 07/13/2021 16:09

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| DFTPP 460-790012/1 | | 07/13/2021 13:30 | 1 | h266841.d | Rtxi-5Sil MS 0.25(mm) |
| ICIS 460-790012/2 | | 07/13/2021 13:46 | 1 | h266842.d | Rtxi-5Sil MS 0.25(mm) |
| STD9 460-790012/3 IC | | 07/13/2021 14:01 | 1 | h266843.d | Rtxi-5Sil MS 0.25(mm) |
| STD8 460-790012/4 IC | | 07/13/2021 14:17 | 1 | h266844.d | Rtxi-5Sil MS 0.25(mm) |
| STD7 460-790012/5 IC | | 07/13/2021 14:33 | 1 | h266845.d | Rtxi-5Sil MS 0.25(mm) |
| STD6 460-790012/6 IC | | 07/13/2021 14:49 | 1 | h266846.d | Rtxi-5Sil MS 0.25(mm) |
| STD4 460-790012/7 IC | | 07/13/2021 15:05 | 1 | h266847.d | Rtxi-5Sil MS 0.25(mm) |
| STD3 460-790012/8 IC | | 07/13/2021 15:21 | 1 | h266848.d | Rtxi-5Sil MS 0.25(mm) |
| STD2 460-790012/9 IC | | 07/13/2021 15:37 | 1 | h266849.d | Rtxi-5Sil MS 0.25(mm) |
| STD1 460-790012/10 IC | | 07/13/2021 15:53 | 1 | h266850.d | Rtxi-5Sil MS 0.25(mm) |
| ICV 460-790012/11 | | 07/13/2021 16:09 | 1 | h266851.d | Rtxi-5Sil MS 0.25(mm) |

8270E SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1

SDG No.:

Instrument ID: CBNAMS9 Start Date: 10/30/2021 13:01

Analysis Batch Number: 810369 End Date: 10/30/2021 18:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVIS 460-810369/2 | | 10/30/2021 13:01 | 1 | h268664.d | Rtxi-5Sil MS 0.25(mm) |
| MB 460-810092/1-A | | 10/30/2021 13:21 | 1 | h268665.d | Rtxi-5Sil MS 0.25(mm) |
| LCS 460-810092/2-A | | 10/30/2021 13:37 | 1 | h268666.d | Rtxi-5Sil MS 0.25(mm) |
| LCSD 460-810092/3-A | | 10/30/2021 13:53 | 1 | h268667.d | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 14:09 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 14:41 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 14:57 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-1 | EB-01-20211025 | 10/30/2021 15:13 | 1 | h268672.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-2 | MHP-MW-3D-20211025 | 10/30/2021 15:29 | 1 | h268673.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-3 | MHP-MW-4S-20211025 | 10/30/2021 15:45 | 1 | h268674.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-4 | MHP-MW-3S-20211027 | 10/30/2021 16:01 | 1 | h268675.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-5 | DUP-01-20211027 | 10/30/2021 16:17 | 1 | h268676.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-6 | MH-103D-20211027 | 10/30/2021 16:33 | 1 | h268677.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-7 | MH-105S-20211027 | 10/30/2021 16:49 | 1 | h268678.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-8 | MH-105D-20211027 | 10/30/2021 17:05 | 1 | h268679.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-9 | MH-103S-20211027 | 10/30/2021 17:21 | 1 | h268680.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-10 | MH-104-20211027 | 10/30/2021 17:37 | 1 | h268681.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246027-11 | MH-101-20211027 | 10/30/2021 17:53 | 1 | h268682.d | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 18:09 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 18:25 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 18:41 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 10/30/2021 18:57 | 1 | | Rtxi-5Sil MS 0.25(mm) |

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Batch Number: 810092  Batch Start Date: 10/29/21 08:12  Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | ReceivedpH | FirstAdjustpH | SecondAdjustpH | OP_1,4-DX_SP 00006 |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-810092/1 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| LCS 460-810092/2 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| LCSD 460-810092/3 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246027-C-1 | EB-01-20211025 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 5 SU | <2 SU | >12 SU | |
| 460-246027-D-2 | MHP-MW-3D-20211025 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-3 | MHP-MW-4S-20211025 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-4 | MHP-MW-3S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-5 | DUP-01-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-C-6 | MH-103D-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-C-7 | MH-105S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-8 | MH-105D-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-C-9 | MH-103S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-10 | MH-104-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246027-D-11 | MH-101-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-810092/1 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| LCS 460-810092/2 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| LCSD 460-810092/3 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| 460-246027-C-1 | EB-01-20211025 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-2 | MHP-MW-3D-20211025 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246027-1

SDG No.:

Batch Number: 810092 Batch Start Date: 10/29/21 08:12 Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 460-246027-D-3 | MHP-MW-4S-20211025 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-4 | MHP-MW-3S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-5 | DUP-01-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-C-6 | MH-103D-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-C-7 | MH-105S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-8 | MH-105D-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-C-9 | MH-103S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-10 | MH-104-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246027-D-11 | MH-101-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246027-1

SDG No.:

Batch Number: 810092  Batch Start Date: 10/29/21 08:12  Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C  Batch End Date:

| Batch Notes | |
|---|---|
| Method/Fraction | 3510C LVI / 8270E ISOTOPE |
| pH Indicator ID | HC-022887 |
| Analyst ID - Extraction | dD |
| Analyst ID - Spike Analyst | dD |
| Analyst ID - Spike Witness Analyst | OS |
| Sufficient Volume for Batch QC | Yes |
| Acid Used for pH Adjustment ID | 257458 |
| Base Used to Adjust pH ID | OP3015 |
| Prep Solvent ID | Methylene Chloride: 288389 |
| Prep Solvent Volume Used | 180 mL |
| Na2SO4 ID | 204081 |
| Analyst ID - Concentration | dD |
| Equipment ID - Concentration 1 | 31869 |
| Thermometer ID - Concentration 1 | 31869 |
| Concentration 1 Uncorrected Temperature | 35 Degrees C |
| Concentration 1 Corrected Temperature | 35 Degrees C |
| Vial Lot Number | 20046103 |
| Batch Comment | BNA ISOTOPE |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# Method PFC IDA

## Fluorinated Hydrocarbons by Method PFAS IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFBA # | PFPeA # | C3PFBS # | PFHxA # | C4PFHA # | PFHxS # | M262FTS # | PFOA # |
|---|---|---|---|---|---|---|---|---|---|
| EB-01-20211025 | 460-246027-1 | 109 | 105 | 94 | 104 | 97 | 99 | 110 | 96 |
| MHP-MW-3D-20211025 | 460-246027-2 | 89 | 102 | 86 | 97 | 95 | 89 | 97 | 93 |
| MHP-MW-4S-20211025 | 460-246027-3 | 94 | 98 | 93 | 107 | 93 | 93 | 99 | 92 |
| MHP-MW-3S-20211027 | 460-246027-4 | 108 | 109 | 110 | 104 | 110 | 108 | 111 | 102 |
| DUP-01-20211027 | 460-246027-5 | 89 | 90 | 84 | 94 | 88 | 92 | 95 | 96 |
| MH-103D-20211027 | 460-246027-6 | 103 | 101 | 100 | 101 | 99 | 106 | 107 | 100 |
| MH-105S-20211027 | 460-246027-7 | 96 | 103 | 94 | 97 | 93 | 93 | 101 | 97 |
| MH-105D-20211027 | 460-246027-8 | 101 | 101 | 102 | 99 | 97 | 98 | 105 | 96 |
| MH-103S-20211027 | 460-246027-9 | 95 | 95 | 95 | 90 | 102 | 97 | 101 | 96 |
| MH-104-20211027 | 460-246027-10 | 99 | 98 | 91 | 98 | 100 | 98 | 107 | 97 |
| MH-101-20211027 | 460-246027-11 | 96 | 95 | 92 | 90 | 97 | 95 | 101 | 100 |
|  | MB 200-173414/1-A | 98 | 96 | 86 | 100 | 96 | 91 | 104 | 100 |
|  | LCS 200-173414/2-A | 99 | 100 | 89 | 103 | 96 | 93 | 102 | 96 |
|  | LCSD 200-173414/3-A | 101 | 97 | 93 | 94 | 89 | 90 | 98 | 94 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFOS # | PFNA # | PFDA # | M282FTS # | PFOSA # | d3NMFOS # | PFUnA # | d5NEFOS # |
|---|---|---|---|---|---|---|---|---|---|
| EB-01-20211025 | 460-246027-1 | 101 | 104 | 95 | 108 | 102 | 122 | 106 | 112 |
| MHP-MW-3D-20211025 | 460-246027-2 | 94 | 97 | 96 | 102 | 93 | 109 | 96 | 109 |
| MHP-MW-4S-20211025 | 460-246027-3 | 91 | 99 | 82 | 101 | 90 | 96 | 82 | 98 |
| MHP-MW-3S-20211027 | 460-246027-4 | 101 | 97 | 107 | 113 | 102 | 110 | 99 | 107 |
| DUP-01-20211027 | 460-246027-5 | 85 | 82 | 89 | 102 | 91 | 99 | 89 | 103 |
| MH-103D-20211027 | 460-246027-6 | 106 | 107 | 89 | 110 | 95 | 109 | 90 | 109 |
| MH-105S-20211027 | 460-246027-7 | 98 | 97 | 90 | 105 | 92 | 100 | 89 | 101 |
| MH-105D-20211027 | 460-246027-8 | 102 | 107 | 98 | 109 | 98 | 110 | 95 | 106 |
| MH-103S-20211027 | 460-246027-9 | 94 | 99 | 92 | 110 | 90 | 110 | 95 | 114 |
| MH-104-20211027 | 460-246027-10 | 85 | 89 | 87 | 96 | 91 | 94 | 89 | 100 |
| MH-101-20211027 | 460-246027-11 | 96 | 99 | 91 | 104 | 99 | 104 | 85 | 98 |
|  | MB 200-173414/1-A | 100 | 95 | 93 | 102 | 84 | 100 | 83 | 96 |
|  | LCS 200-173414/2-A | 92 | 88 | 89 | 104 | 87 | 108 | 88 | 104 |
|  | LCSD 200-173414/3-A | 93 | 90 | 88 | 102 | 83 | 104 | 78 | 92 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFDoA # | PFTDA # |
|---|---|---|---|
| EB-01-20211025 | 460-246027-1 | 104 | 92 |
| MHP-MW-3D-20211025 | 460-246027-2 | 86 | 89 |
| MHP-MW-4S-20211025 | 460-246027-3 | 77 | 83 |
| MHP-MW-3S-20211027 | 460-246027-4 | 90 | 87 |
| DUP-01-20211027 | 460-246027-5 | 77 | 82 |
| MH-103D-20211027 | 460-246027-6 | 79 | 48 *5- |
| MH-105S-20211027 | 460-246027-7 | 87 | 82 |
| MH-105D-20211027 | 460-246027-8 | 92 | 92 |
| MH-103S-20211027 | 460-246027-9 | 83 | 86 |
| MH-104-20211027 | 460-246027-10 | 74 | 84 |
| MH-101-20211027 | 460-246027-11 | 80 | 90 |
|  | MB 200-173414/1-A | 87 | 84 |
|  | LCS 200-173414/2-A | 82 | 90 |
|  | LCSD 200-173414/3-A | 80 | 84 |

| | QC LIMITS |
|---|---|
| PFDoA = 13C2 PFDoA | 50-150 |
| PFTDA = 13C2 PFTeDA | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFOS # |
|---|---|---|
| MHP-MW-3S-20211027 DL | 460-246027-4 DL | 93 |
| DUP-01-20211027 DL | 460-246027-5 DL | 95 |
| MH-104-20211027 DL | 460-246027-10 DL | 92 |

| | QC LIMITS |
|---|---|
| PFOS = 13C4 PFOS | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211103A11.d

Lab ID: LCS 200-173414/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 44.19 | 110 | 70-130 | |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 44.23 | 111 | 70-130 | |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 41.40 | 103 | 70-130 | |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 41.47 | 104 | 70-130 | |
| Perfluorooctanoic acid (PFOA) | 40.0 | 41.29 | 103 | 70-130 | |
| Perfluorononanoic acid (PFNA) | 40.0 | 46.49 | 116 | 70-130 | |
| Perfluorodecanoic acid (PFDA) | 40.0 | 46.44 | 116 | 70-130 | |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 43.43 | 109 | 70-130 | |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 47.54 | 119 | 70-130 | |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 46.15 | 115 | 70-130 | |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 43.14 | 108 | 70-130 | |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 41.16 | 116 | 70-130 | |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 40.11 | 110 | 70-130 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 43.81 | 115 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 38.92 | 105 | 70-130 | |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 39.52 | 102 | 70-130 | |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 44.57 | 111 | 70-130 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 45.50 | 114 | 70-130 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 42.38 | 106 | 70-130 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 40.62 | 107 | 60-140 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 38.67 | 101 | 70-130 | |
| 18O2 PFHxS | 47.3 | 43.80 | 93 | 50-150 | |
| 13C4 PFHpA | 50.0 | 48.09 | 96 | 50-150 | |
| 13C4 PFOA | 50.0 | 47.95 | 96 | 50-150 | |
| 13C4 PFOS | 47.8 | 44.12 | 92 | 50-150 | |
| 13C5 PFNA | 50.0 | 44.08 | 88 | 50-150 | |
| 13C4 PFBA | 50.0 | 49.33 | 99 | 25-150 | |
| 13C2 PFHxA | 50.0 | 51.30 | 103 | 50-150 | |
| 13C2 PFDA | 50.0 | 44.68 | 89 | 50-150 | |
| 13C2 PFUnA | 50.0 | 44.18 | 88 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211103A11.d

Lab ID: LCS 200-173414/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 13C2 PFDoA | 50.0 | 40.92 | 82 | 50-150 | |
| 13C8 FOSA | 50.0 | 43.44 | 87 | 25-150 | |
| 13C5 PFPeA | 50.0 | 49.76 | 100 | 25-150 | |
| 13C2 PFTeDA | 50.0 | 45.21 | 90 | 50-150 | |
| d3-NMeFOSAA | 50.0 | 53.87 | 108 | 50-150 | |
| d5-NEtFOSAA | 50.0 | 52.11 | 104 | 50-150 | |
| M2-6:2 FTS | 47.5 | 48.24 | 102 | 25-150 | |
| M2-8:2 FTS | 47.9 | 49.61 | 104 | 25-150 | |
| 13C3 PFBS | 46.5 | 41.33 | 89 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211103A12.d

Lab ID: LCSD 200-173414/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCSD CONCENTRATION (ng/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 42.56 | 106 | 4 | 30 | 70-130 | |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 46.03 | 115 | 4 | 30 | 70-130 | |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 43.85 | 110 | 6 | 30 | 70-130 | |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 42.27 | 106 | 2 | 30 | 70-130 | |
| Perfluorooctanoic acid (PFOA) | 40.0 | 43.64 | 109 | 6 | 30 | 70-130 | |
| Perfluorononanoic acid (PFNA) | 40.0 | 45.20 | 113 | 3 | 30 | 70-130 | |
| Perfluorodecanoic acid (PFDA) | 40.0 | 47.07 | 118 | 1 | 30 | 70-130 | |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 46.30 | 116 | 6 | 30 | 70-130 | |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 48.19 | 120 | 1 | 30 | 70-130 | |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 45.33 | 113 | 2 | 30 | 70-130 | |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 48.29 | 121 | 11 | 30 | 70-130 | |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 40.49 | 115 | 2 | 30 | 70-130 | |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 39.53 | 109 | 1 | 30 | 70-130 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 43.07 | 113 | 2 | 30 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 39.45 | 106 | 1 | 30 | 70-130 | |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 38.80 | 101 | 2 | 30 | 70-130 | |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 43.00 | 108 | 4 | 30 | 70-130 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 45.87 | 115 | 1 | 30 | 70-130 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 46.00 | 115 | 8 | 30 | 70-130 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 43.94 | 116 | 8 | 30 | 60-140 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 42.23 | 110 | 9 | 30 | 70-130 | |
| 18O2 PFHxS | 47.3 | 42.59 | 90 | | | 50-150 | |
| 13C4 PFHpA | 50.0 | 44.60 | 89 | | | 50-150 | |
| 13C4 PFOA | 50.0 | 46.78 | 94 | | | 50-150 | |
| 13C4 PFOS | 47.8 | 44.57 | 93 | | | 50-150 | |
| 13C5 PFNA | 50.0 | 44.79 | 90 | | | 50-150 | |
| 13C4 PFBA | 50.0 | 50.26 | 101 | | | 25-150 | |
| 13C2 PFHxA | 50.0 | 46.85 | 94 | | | 50-150 | |
| 13C2 PFDA | 50.0 | 43.77 | 88 | | | 50-150 | |
| 13C2 PFUnA | 50.0 | 39.01 | 78 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211103A12.d

Lab ID: LCSD 200-173414/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCSD CONCENTRATION (ng/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 13C2 PFDoA | 50.0 | 39.84 | 80 | | | 50-150 | |
| 13C8 FOSA | 50.0 | 41.74 | 83 | | | 25-150 | |
| 13C5 PFPeA | 50.0 | 48.45 | 97 | | | 25-150 | |
| 13C2 PFTeDA | 50.0 | 41.80 | 84 | | | 50-150 | |
| d3-NMeFOSAA | 50.0 | 52.22 | 104 | | | 50-150 | |
| d5-NEtFOSAA | 50.0 | 46.20 | 92 | | | 50-150 | |
| M2-6:2 FTS | 47.5 | 46.51 | 98 | | | 25-150 | |
| M2-8:2 FTS | 47.9 | 48.84 | 102 | | | 25-150 | |
| 13C3 PFBS | 46.5 | 43.22 | 93 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab File ID: PA211103A10.d  Lab Sample ID: MB 200-173414/1-A

Matrix: Water  Date Extracted: 11/02/2021 14:20

Instrument ID: LC812  Date Analyzed: 11/03/2021 13:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 200-173414/2-A | PA211103A11.d | 11/03/2021 14:07 |
| | LCSD 200-173414/3-A | PA211103A12.d | 11/03/2021 14:15 |
| EB-01-20211025 | 460-246027-1 | PA211103A13.d | 11/03/2021 14:23 |
| MHP-MW-3D-20211025 | 460-246027-2 | PA211103A14.d | 11/03/2021 14:32 |
| MHP-MW-4S-20211025 | 460-246027-3 | PA211103A15.d | 11/03/2021 14:40 |
| MHP-MW-3S-20211027 | 460-246027-4 | PA211103A16.d | 11/03/2021 14:48 |
| DUP-01-20211027 | 460-246027-5 | PA211103A17.d | 11/03/2021 14:57 |
| MH-103D-20211027 | 460-246027-6 | PA211103A19.d | 11/03/2021 15:13 |
| MH-105S-20211027 | 460-246027-7 | PA211103A20.d | 11/03/2021 15:21 |
| MH-105D-20211027 | 460-246027-8 | PA211103A21.d | 11/03/2021 15:30 |
| MH-103S-20211027 | 460-246027-9 | PA211103A22.d | 11/03/2021 15:38 |
| MH-104-20211027 | 460-246027-10 | PA211103A23.d | 11/03/2021 15:46 |
| MH-101-20211027 | 460-246027-11 | PA211103A24.d | 11/03/2021 15:55 |
| MHP-MW-3S-20211027 DL | 460-246027-4 DL | PA211104A07.d | 11/04/2021 14:17 |
| DUP-01-20211027 DL | 460-246027-5 DL | PA211104A08.d | 11/04/2021 14:25 |
| MH-104-20211027 DL | 460-246027-10 DL | PA211104A09.d | 11/04/2021 14:34 |

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Sample No.: ICIS 200-173158/5  Date Analyzed: 10/27/2021 14:11

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211027ICAL05.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| INITIAL CALIBRATION MID-POINT | | 2078811 | 3.48 | | | | |
| UPPER LIMIT | | 3118217 | 3.68 | | | | |
| LOWER LIMIT | | 1039406 | 3.28 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICB 200-173158/8 | | 1973814 | 3.48 | | | | |
| ICV 200-173158/9 | | 2588794 | 3.48 | | | | |
| CCVL 200-173453/5 | | 1830434 | 3.46 | | | | |
| CCVIS 200-173453/6 | | 1830853 | 3.46 | | | | |
| CCVL 200-173511/5 | | 1813903 | 3.49 | | | | |
| CCVIS 200-173511/6 | | 1832341 | 3.49 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Sample No.: CCVIS 200-173453/6  Date Analyzed: 11/03/2021 13:25

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211103A06.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1830853 | 3.46 | | | | |
| UPPER LIMIT | | 2746280 | 3.66 | | | | |
| LOWER LIMIT | | 915427 | 3.26 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 200-173414/1-A | | 1731176 | 3.47 | | | | |
| LCS 200-173414/2-A | | 1731652 | 3.46 | | | | |
| LCSD 200-173414/3-A | | 1824139 | 3.47 | | | | |
| 460-246027-1 | EB-01-20211025 | 1626608 | 3.46 | | | | |
| 460-246027-2 | MHP-MW-3D-20211025 | 1723202 | 3.46 | | | | |
| 460-246027-3 | MHP-MW-4S-20211025 | 1368714 | 3.47 | | | | |
| 460-246027-4 | MHP-MW-3S-20211027 | 1503397 | 3.46 | | | | |
| 460-246027-5 | DUP-01-20211027 | 1764979 | 3.46 | | | | |
| CCV 200-173453/18 | | 1715992 | 3.47 | | | | |
| 460-246027-6 | MH-103D-20211027 | 1248926 | 3.47 | | | | |
| 460-246027-7 | MH-105S-20211027 | 1714277 | 3.47 | | | | |
| 460-246027-8 | MH-105D-20211027 | 1664596 | 3.47 | | | | |
| 460-246027-9 | MH-103S-20211027 | 1721627 | 3.47 | | | | |
| 460-246027-10 | MH-104-20211027 | 1688974 | 3.46 | | | | |
| 460-246027-11 | MH-101-20211027 | 1670785 | 3.47 | | | | |
| CCV 200-173453/25 | | 1600189 | 3.47 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Sample No.: CCVIS 200-173511/6  Date Analyzed: 11/04/2021 14:09

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211104A06.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1832341 | 3.49 | | | | |
| UPPER LIMIT | | 2748512 | 3.69 | | | | |
| LOWER LIMIT | | 916171 | 3.29 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| 460-246027-4 DL | MHP-MW-3S-20211027 DL | 347756*3 | 3.50 | | | | |
| 460-246027-5 DL | DUP-01-20211027 DL | 359949*3 | 3.49 | | | | |
| 460-246027-10 DL | MH-104-20211027 DL | 866244*3 | 3.49 | | | | |
| CCV 200-173511/18 | | 1729025 | 3.50 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: EB-01-20211025  Lab Sample ID: 460-246027-1

Matrix: Water  Lab File ID: PA211103A13.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 15:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 279.8(mL)  Date Analyzed: 11/03/2021 14:23

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.80 | U | 4.47 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.42 | U | 1.79 | 0.42 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.40 | U | 1.79 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.21 | U | 1.79 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.38 | U | 1.79 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.56 | U | 1.79 | 0.56 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.22 | U | 1.79 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.79 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.79 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.79 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: EB-01-20211025  Lab Sample ID: 460-246027-1

Matrix: Water  Lab File ID: PA211103A13.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 15:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 279.8(mL)  Date Analyzed: 11/03/2021 14:23

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 99 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |
| STL00995 | 13C5 PFNA | 104 | | 50-150 |
| STL00992 | 13C4 PFBA | 109 | | 25-150 |
| STL00993 | 13C2 PFHxA | 104 | | 50-150 |
| STL00996 | 13C2 PFDA | 95 | | 50-150 |
| STL00997 | 13C2 PFUnA | 106 | | 50-150 |
| STL00998 | 13C2 PFDoA | 104 | | 50-150 |
| STL01056 | 13C8 FOSA | 102 | | 25-150 |
| STL01893 | 13C5 PFPeA | 105 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 92 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 122 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 112 | | 50-150 |
| STL02279 | M2-6:2 FTS | 110 | | 25-150 |
| STL02280 | M2-8:2 FTS | 108 | | 25-150 |
| STL02337 | 13C3 PFBS | 94 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d
Lims ID: 460-246027-A-1-A
Client ID: EB-01-20211025
Sample Type: Client
Inject. Date: 03-Nov-2021 14:23:54 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-1-A
Misc. Info.: 200-0048270-013 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 09:30:07
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.056 | 2.065 | -0.009 | 0.595 | 1801439 | 1.37 | | 109 | 8627 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.056 | 2.065 | -0.009 | 1.000 | 4985 | 0.003658 | | | 0.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.374 | 2.375 | -0.001 | 0.687 | 1451980 | 1.31 | | 105 | 2532 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.374 | 2.375 | -0.001 | 1.000 | 1910 | 0.001641 | | | 0.1 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.694 | 1642002 | 1.09 | | 94.1 | 71748 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 6528 | 0.004327 | Target=2.32 | | 2.1 | |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.000 | 1885 | | 3.46(1.16-3.48) | | 0.7 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.722 | 2.735 | -0.013 | 0.996 | 2858 | 0.002323 | Target=12.09 | | 0.3 | M |
| 313.00 > 119.00 | 2.722 | 2.735 | -0.013 | 0.996 | 276 | | 10.36(6.04-18.13) | | 0.3 | M |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.791 | 1516099 | 1.30 | | 104 | 1091 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1272416 | 1.17 | | 98.6 | 219 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 1.000 | 3917 | 0.003311 | Target=3.55 | | 1.1 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.003 | 2018 | | 1.94(1.77-5.32) | | 1.0 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | RM |
| 363.00 > 319.00 | 3.100 | 3.101 | -0.001 | 1.000 | 1352 | 0.001103 | Target=3.69 | | 0.3 | RM |
| 363.00 > 169.00 | 3.089 | 3.101 | -0.012 | 0.997 | 866 | | 1.56(1.84-5.53) | | 0.8 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1483139 | 1.21 | | 96.8 | 2262 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 1661 | 0.006914 | | | 2.4 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.448 | 0.017 | 0.920 | 503 | 0.000505 | Target=4.88 | | 0.3 | M |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.915 | 142 | | 3.54(2.44-7.32) | | 0.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 224971 | 1.31 | | 110 | 561 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1600708 | 1.20 | | 95.6 | 980 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1626608 | 1.25 | | | 286 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 3484 | 0.002558 | Target=2.68 | | 0.5 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.003 | 1405 | | 2.48(1.34-4.02) | | 0.9 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 954111 | 1.21 | | 101 | 415 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | RM |
| 499.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.000 | 2260 | 0.002609 | Target=4.69 | | 0.9 | RM |
| 499.00 > 99.00 | 3.588 | 3.767 | -0.179 | 0.953 | 3091 | | 0.73(2.35-7.04) | | 1.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.095 | 1737592 | 1.30 | | 104 | 2589 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.181 | 1590763 | 1.18 | | 94.5 | 62.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 253248 | 1.30 | | 108 | 148 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.084 | 0.020 | 1.003 | 623 | 0.003521 | | | 0.7 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.205 | 4.207 | -0.002 | 1.217 | 1656337 | 1.28 | | 102 | 723 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.002 | 1096 | 0.000871 | | | 2.0 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.215 | 4.217 | -0.002 | 1.219 | 201367 | 1.52 | | 122 | 235 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.002 | 562 | 0.004441 | | | 1.0 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.336 | 4.339 | -0.003 | 1.254 | 1392141 | 1.33 | | 106 | 892 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.358 | 4.339 | 0.019 | 1.005 | 1818 | 0.001531 | Target=9.24 | | 0.6 | RM |
| 563.00 > 169.00 | 4.325 | 4.339 | -0.014 | 0.997 | 41 | | 44.34(4.62-13.86) | | 0.3 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.258 | 174189 | 1.40 | | 112 | 826 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.003 | 694 | 0.005812 | | | 2.2 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.556 | 4.562 | -0.006 | 1.318 | 1464409 | 1.30 | | 104 | 366 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.003 | 1522 | 0.001327 | Target=7.04 | | 0.4 | M |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.003 | 251 | | 6.06(3.52-10.56) | | 1.5 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.766 | 4.761 | 0.005 | 1.046 | 1821 | 0.001841 | Target=4.68 | | 0.6 | RM |
| 663.00 > 169.00 | 4.748 | 4.761 | -0.013 | 1.042 | 171 | | 10.65(2.34-7.02) | | 2.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.937 | 4.940 | -0.003 | 1.429 | 1004446 | 1.15 | | 91.8 | 1224 | M |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.947 | 4.940 | 0.007 | 1.002 | 348 | 0.002744 | Target=1.01 | | 7.0 | M |
| 713.00 > 219.00 | 4.928 | 4.940 | -0.012 | 0.998 | 412 | | 0.84(0.51-1.52) | | 12.5 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:47 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d

Injection Date: 03-Nov-2021 14:23:54 Instrument ID: LC812

Lims ID: 460-246027-A-1-A Lab Sample ID: 200-246027-1

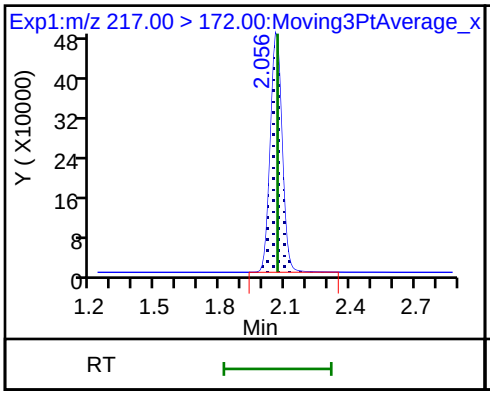
Client ID: EB-01-20211025

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13

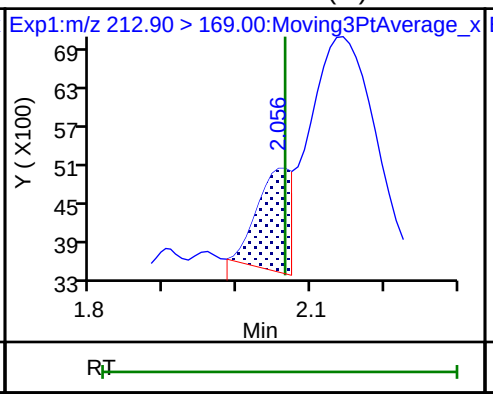
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

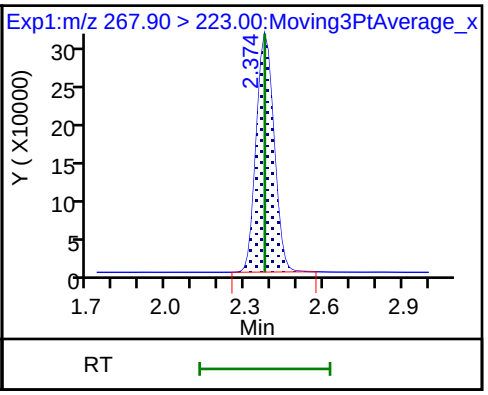
D 1 13C4 PFBA



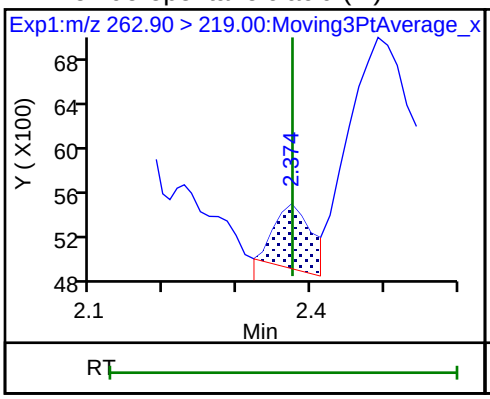

2 Perfluorobutanoic acid (M)



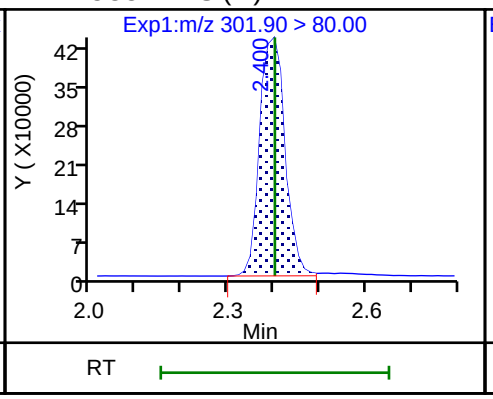

D 3 13C5 PFPeA



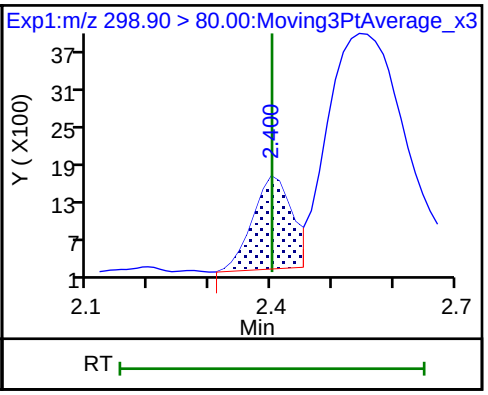

4 Perfluoropentanoic acid (M)



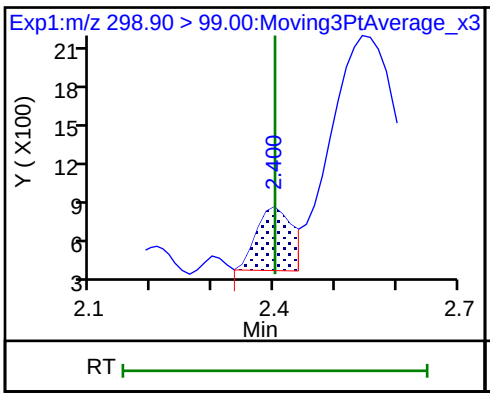

D 47 13C3 PFBS (M)



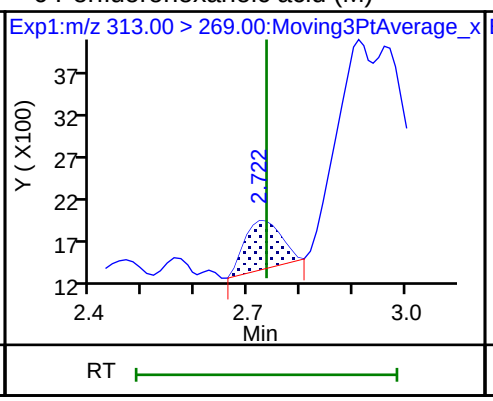

5 Perfluorobutanesulfonic acid



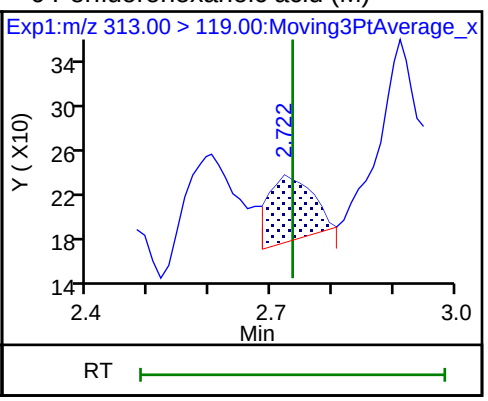

5 Perfluorobutanesulfonic acid



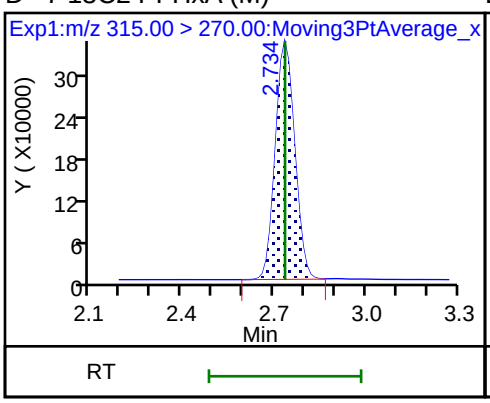

6 Perfluorohexanoic acid (M)



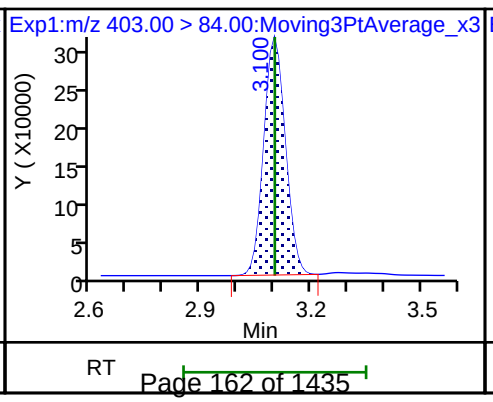

6 Perfluorohexanoic acid (M)



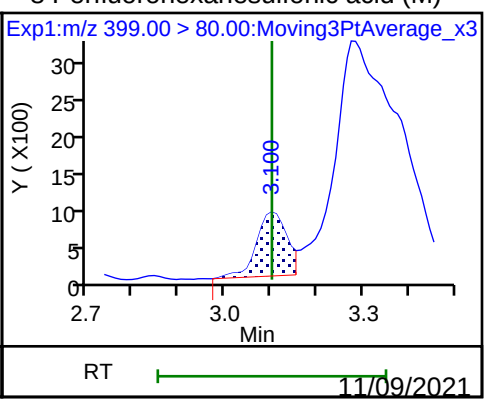

D 7 13C2 PFHxA (M)



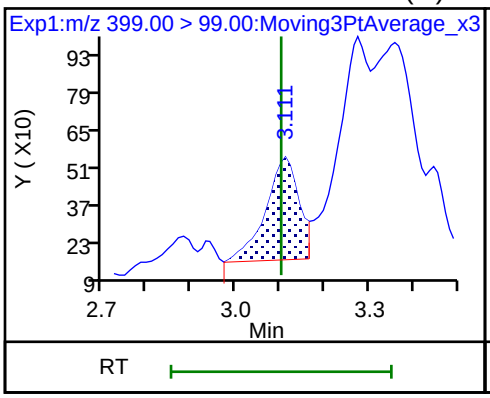

D 11 18O2 PFHxS



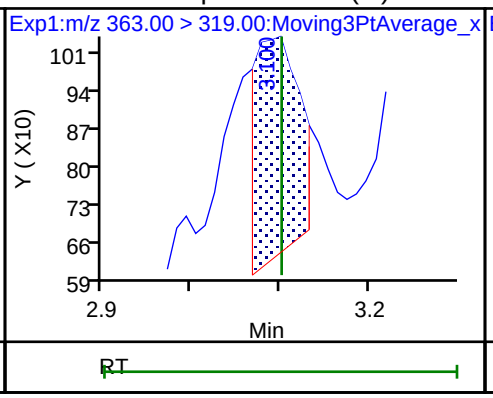

8 Perfluorohexanesulfonic acid (M)



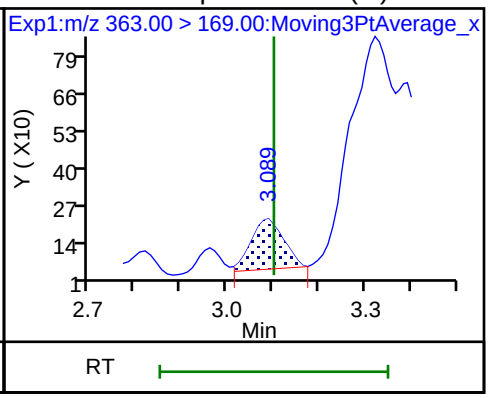
8 Perfluorohexanesulfonic acid (M)



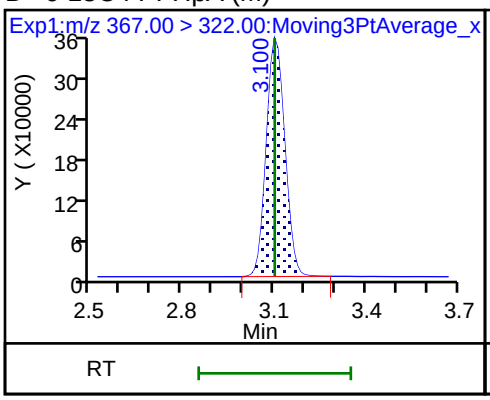

10 Perfluoroheptanoic acid (M)



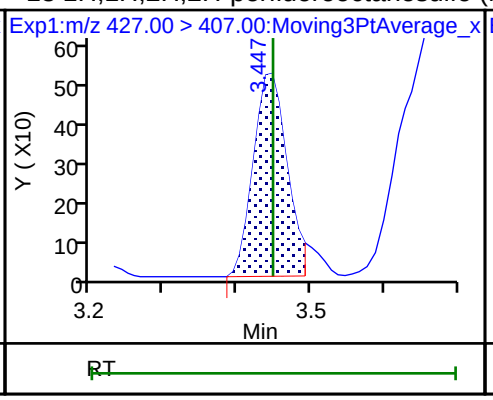

10 Perfluoroheptanoic acid (M)



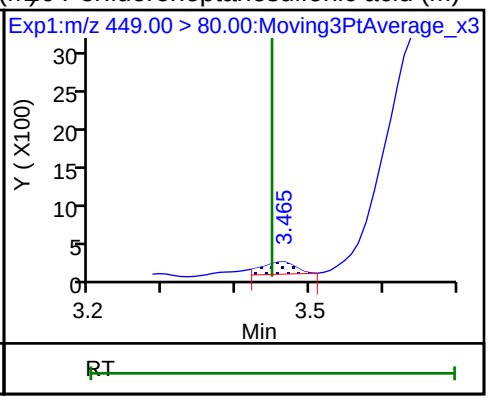

D 9 13C4 PFHpA (M)



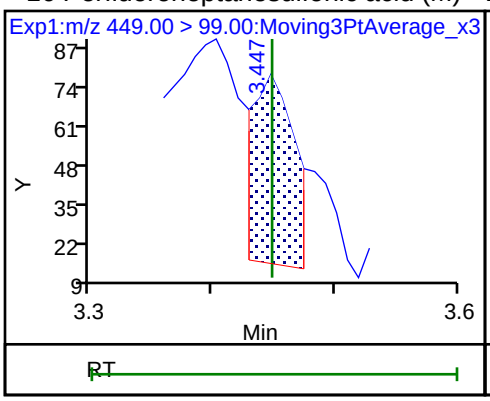

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



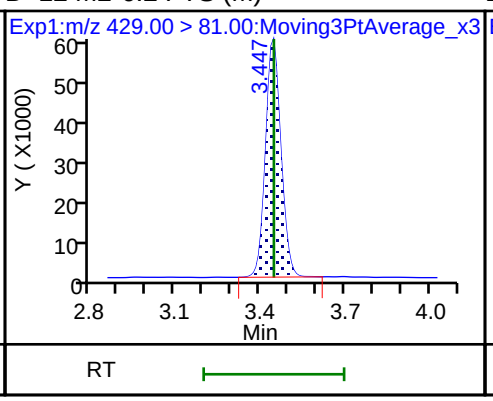

16 Perfluoroheptanesulfonic acid (M)



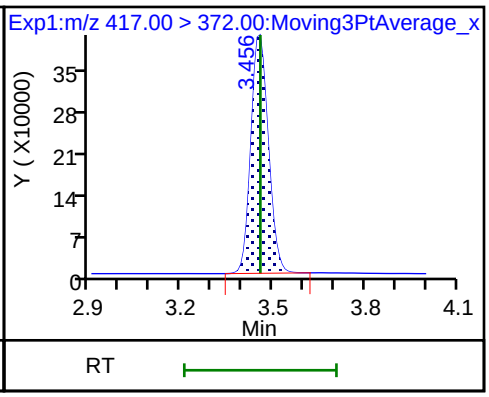

16 Perfluoroheptanesulfonic acid (M)



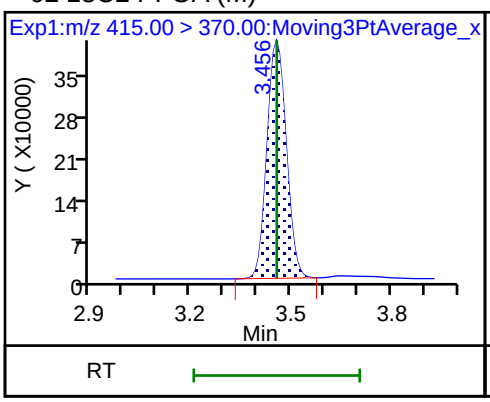

D 12 M2-6:2 FTS (M)



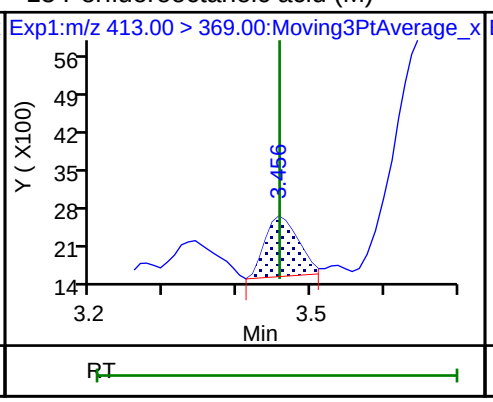

D 14 13C4 PFOA



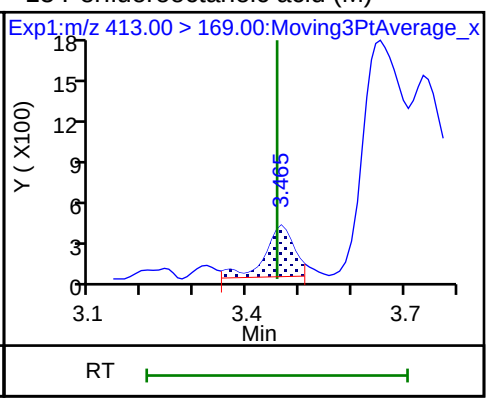

* 62 13C2 PFOA (M)



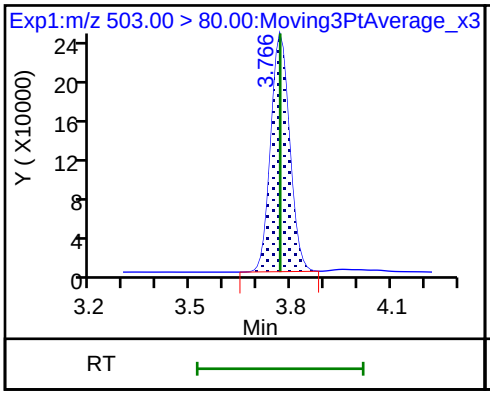

15 Perfluorooctanoic acid (M)



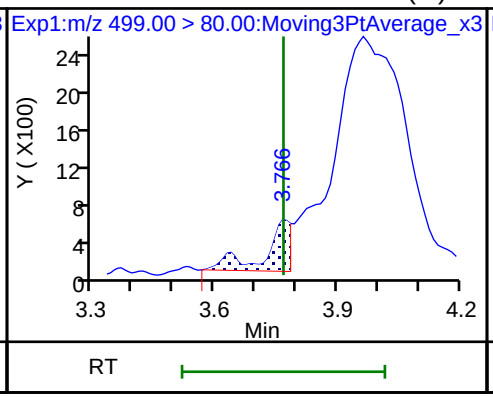

15 Perfluorooctanoic acid (M)



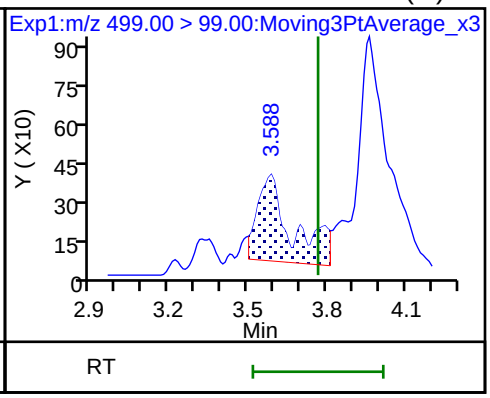
D 18 13C4 PFOS



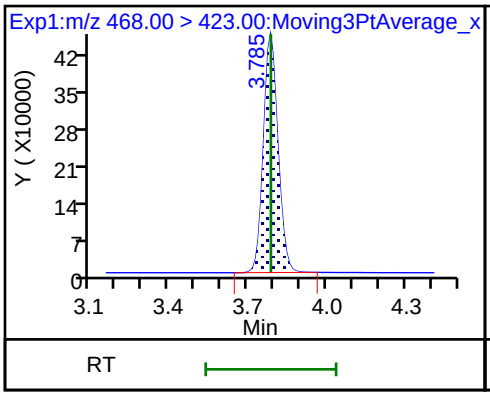

17 Perfluorooctanesulfonic acid (M)



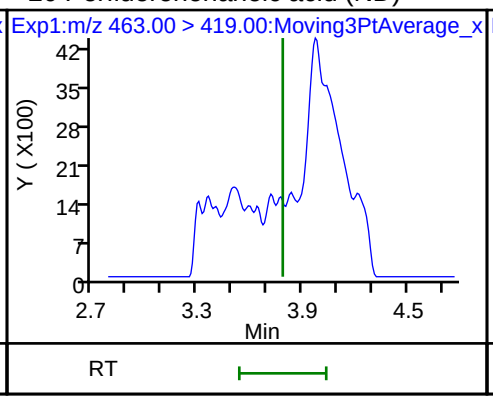

17 Perfluorooctanesulfonic acid (M)



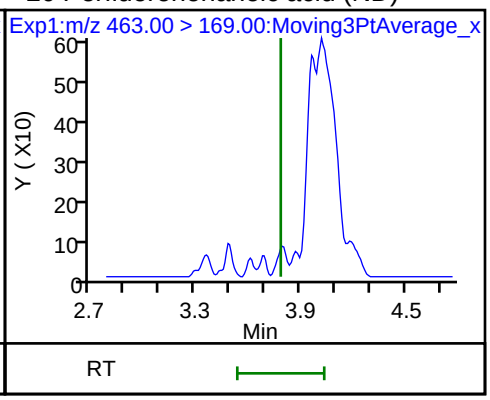

D 19 13C5 PFNA



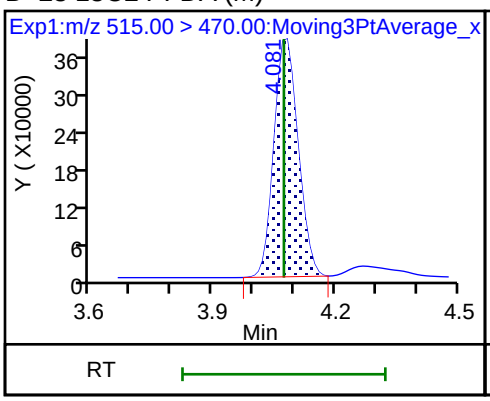

20 Perfluorononanoic acid (ND)



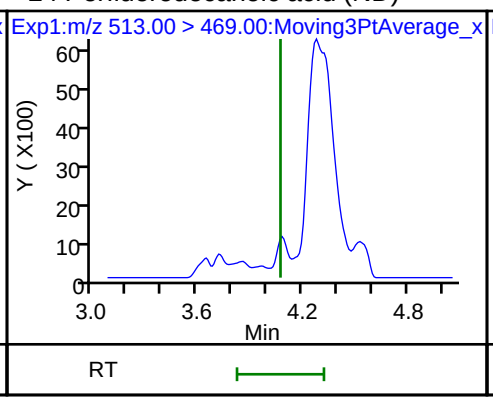

20 Perfluorononanoic acid (ND)



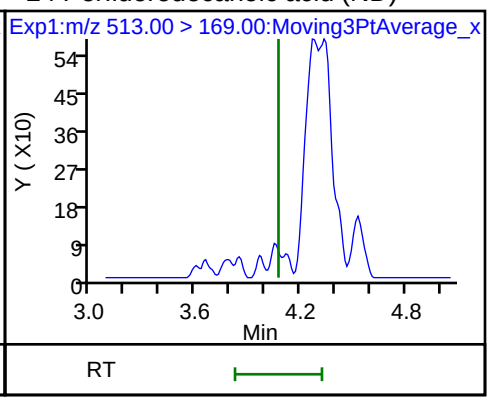

D 23 13C2 PFDA (M)



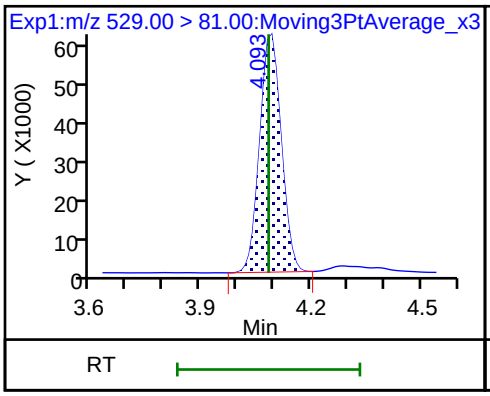

24 Perfluorodecanoic acid (ND)



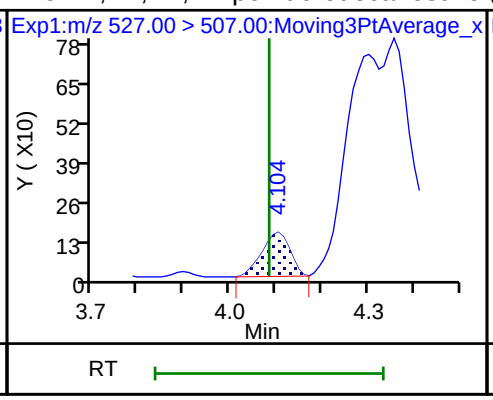

24 Perfluorodecanoic acid (ND)



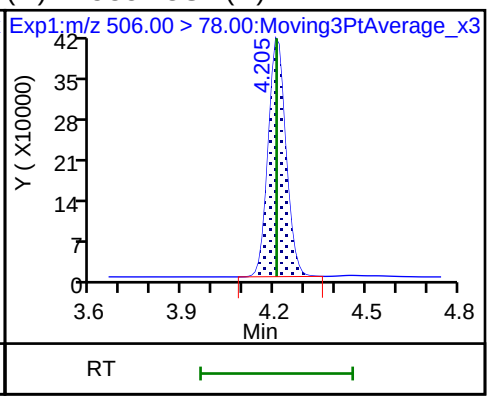

D 26 M2-8:2 FTS



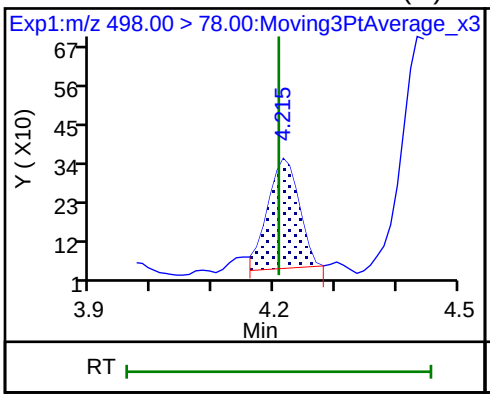

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



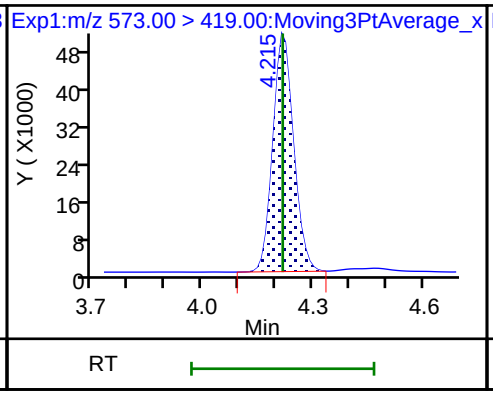

D 21 13C8 FOSA (M)



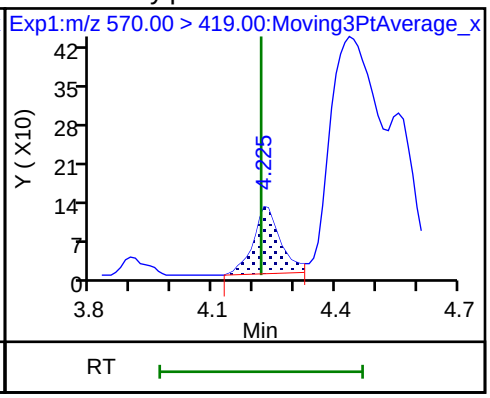
22 Perfluorooctanesulfonamide (M)



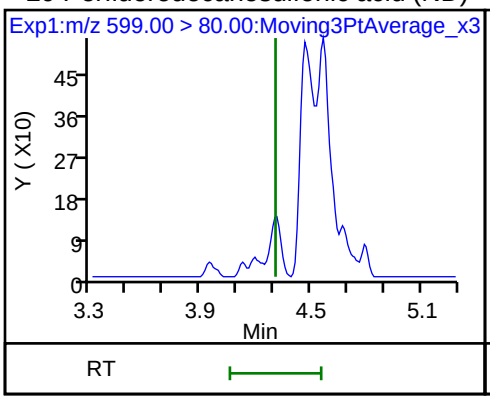

D 27 d3-NMeFOSAA



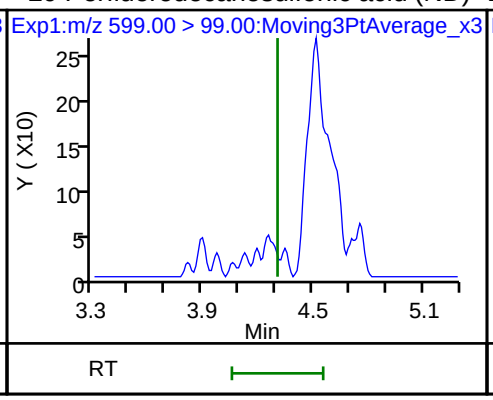

28 N-methylperfluorooctanesulfonami



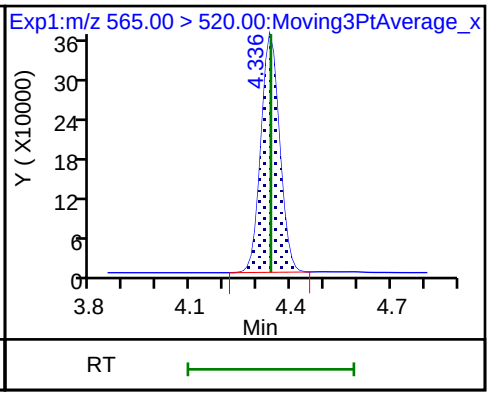

29 Perfluorodecanesulfonic acid (ND)



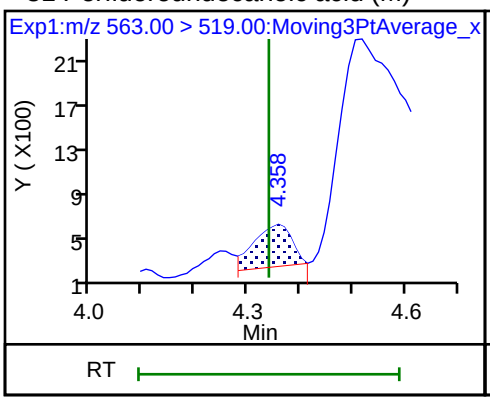

29 Perfluorodecanesulfonic acid (ND)



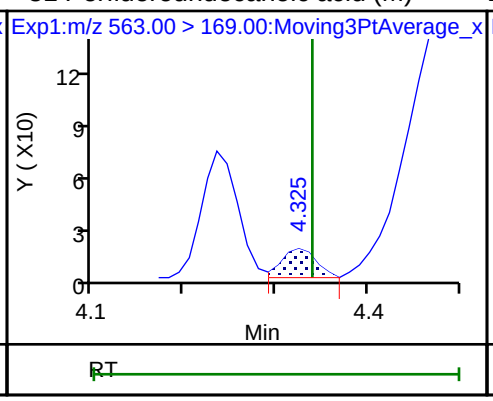

D 30 13C2 PFUnA



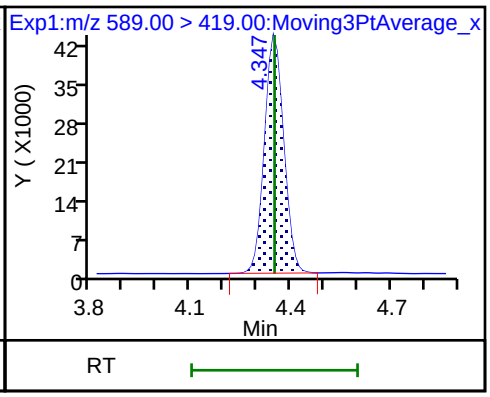

31 Perfluoroundecanoic acid (M)



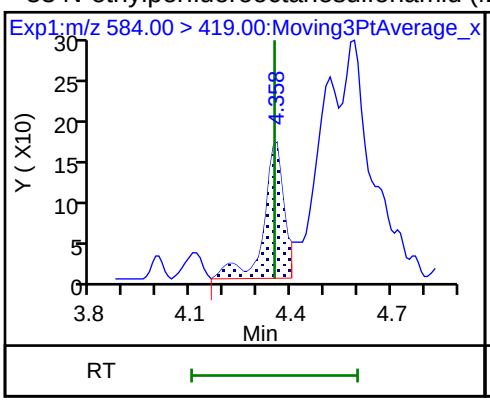

31 Perfluoroundecanoic acid (M)



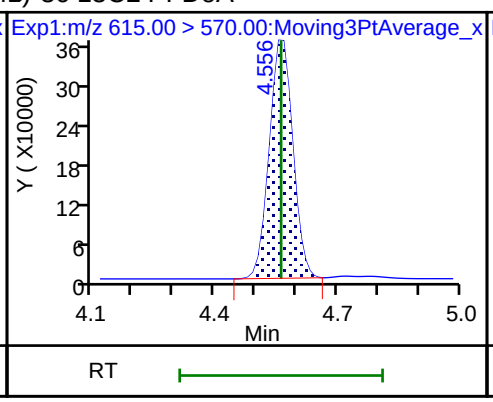

D 32 d5-NEtFOSAA



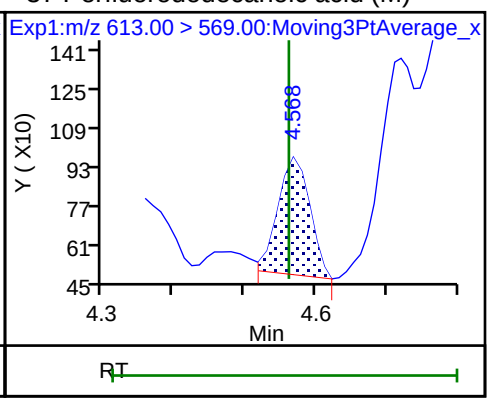

33 N-ethylperfluorooctanesulfonamid (ND)



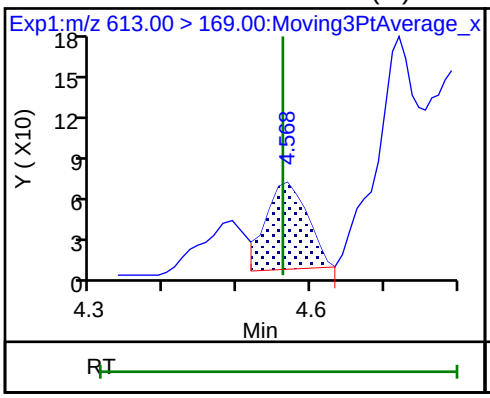

D 36 13C2 PFDoA



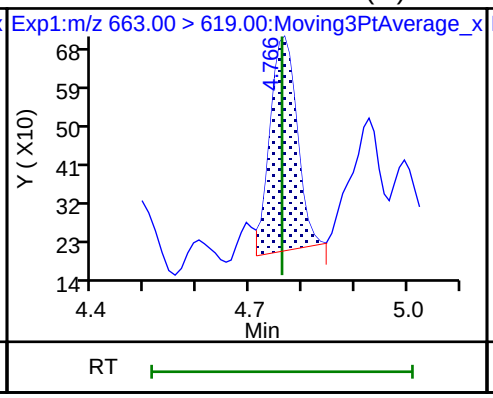

37 Perfluorododecanoic acid (M)



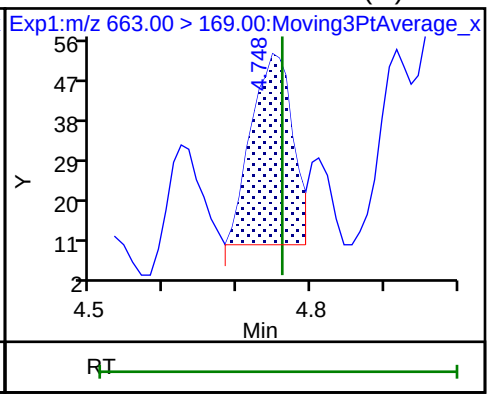
37 Perfluorododecanoic acid (M)



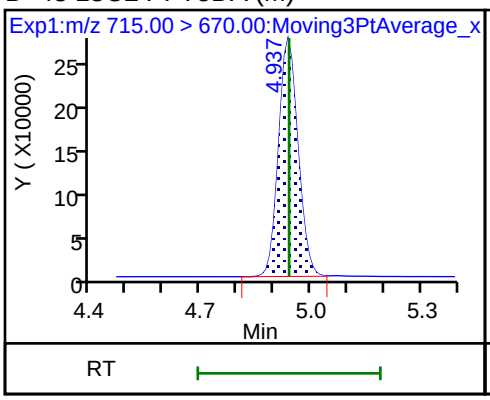

41 Perfluorotridecanoic acid (M)



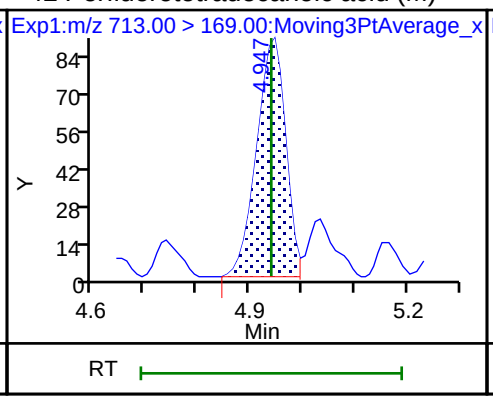

41 Perfluorotridecanoic acid (M)



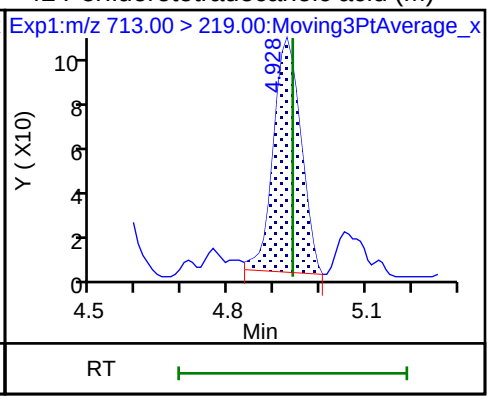

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

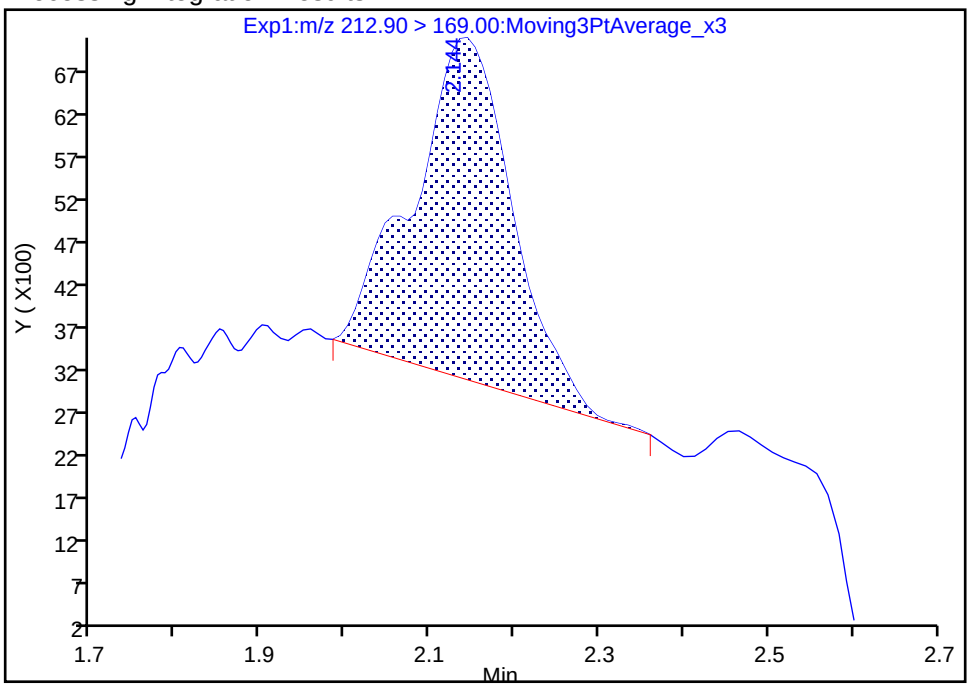
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

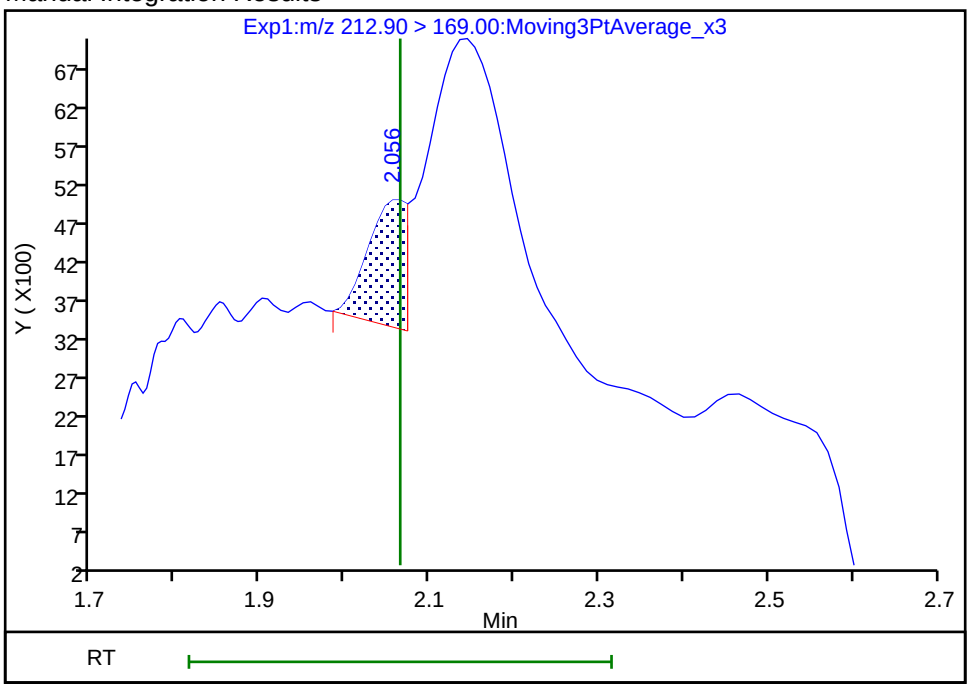
Processing Integration Results

RT: 2.14
Area: 32569
Amount: 0.023900
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 4985
Amount: 0.003658
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:24:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

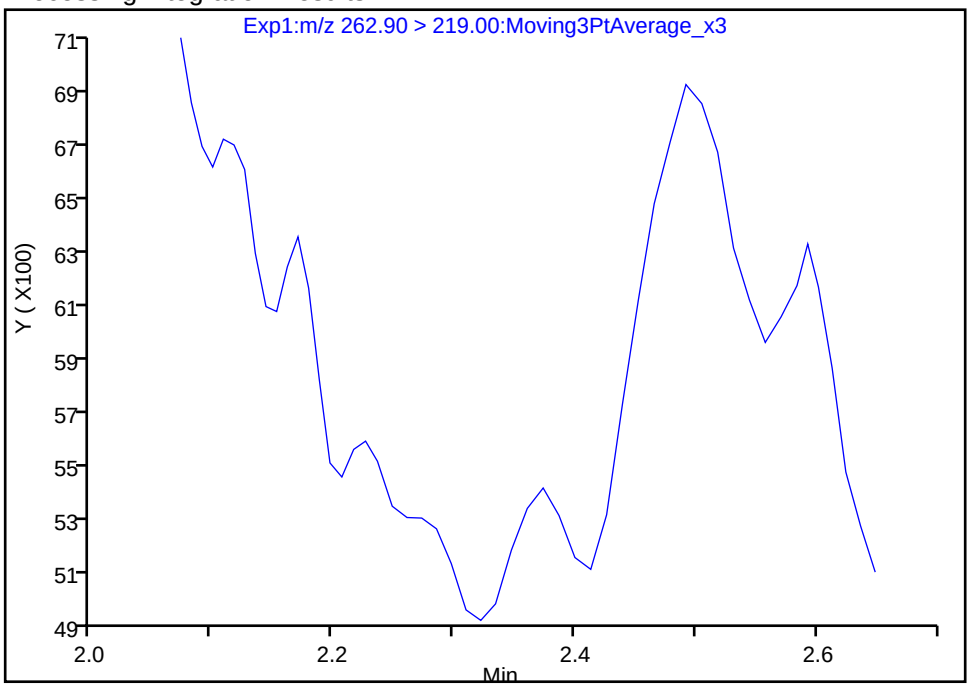
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

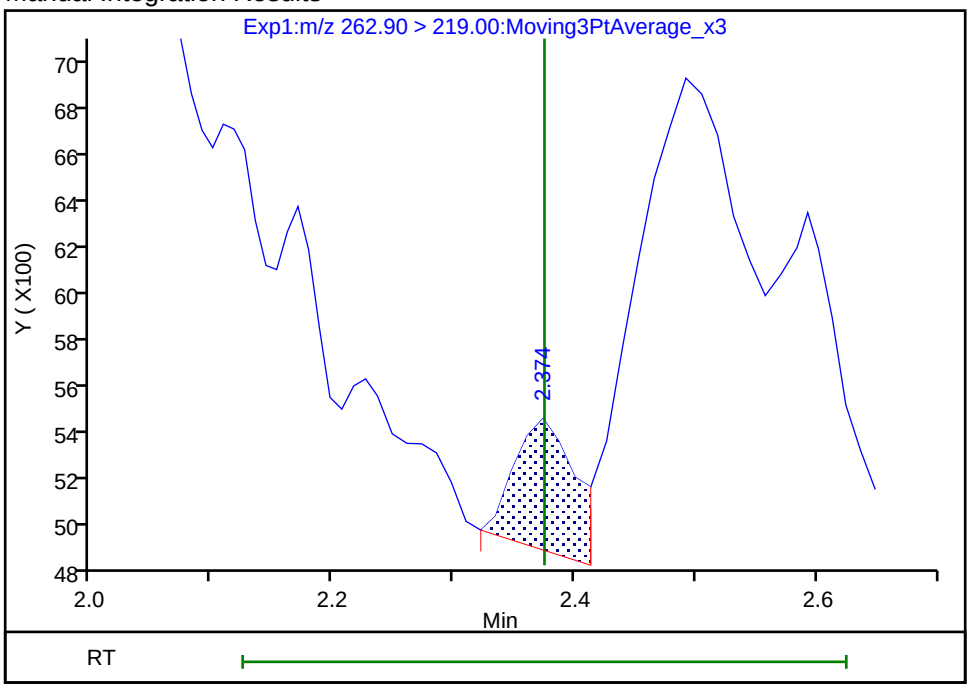
Not Detected
Expected RT: 2.37

Processing Integration Results




Manual Integration Results

RT: 2.37
Area: 1910
Amount: 0.001641
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:24:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

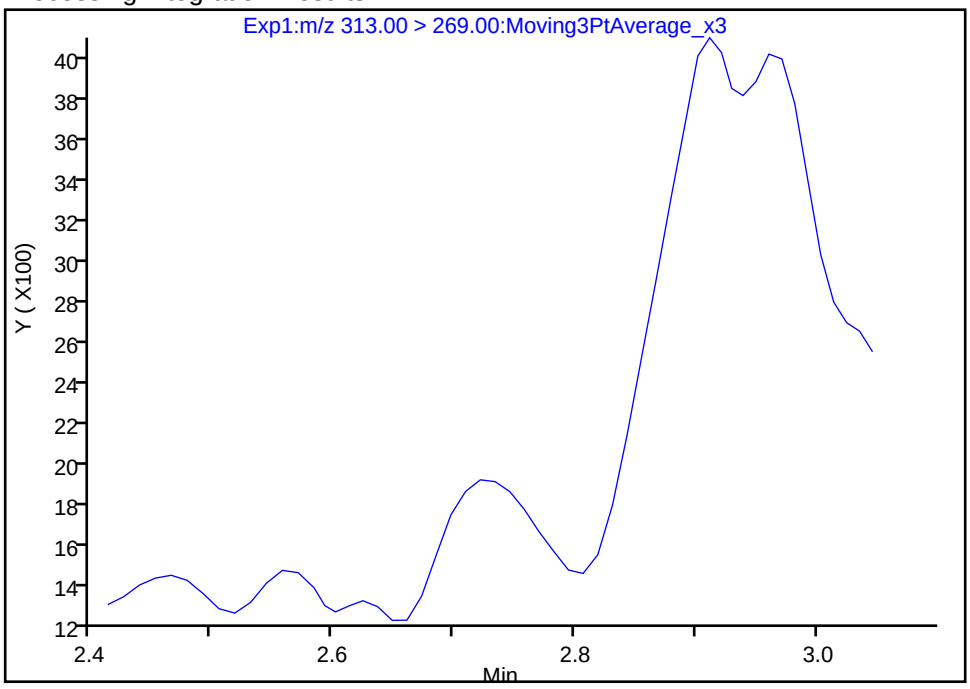
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

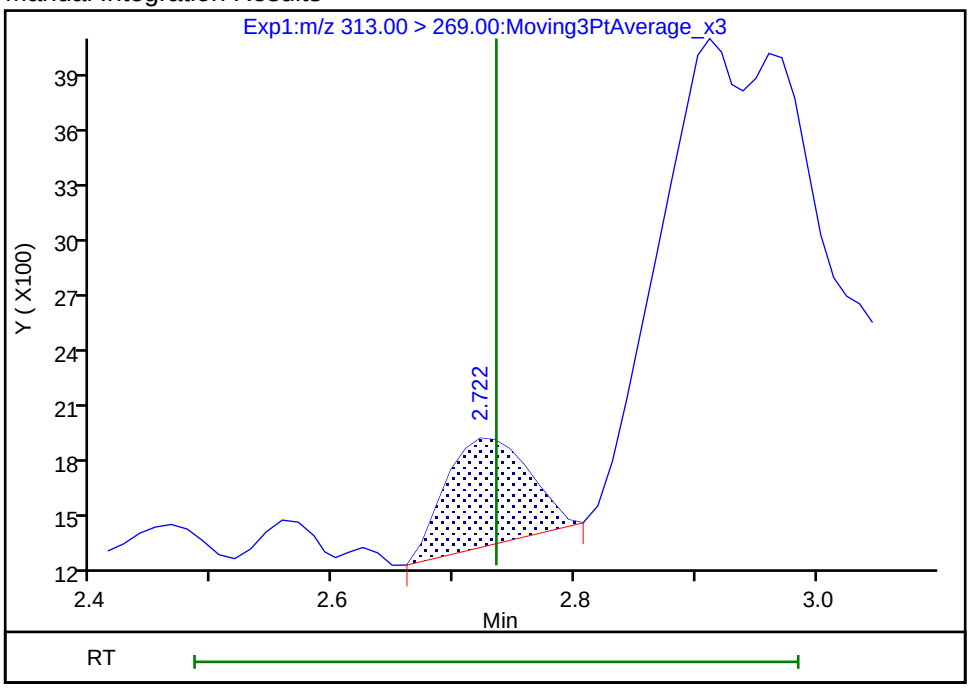
Not Detected
Expected RT: 2.73

Processing Integration Results




Manual Integration Results

RT: 2.72
Area: 2858
Amount: 0.002323
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:24:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

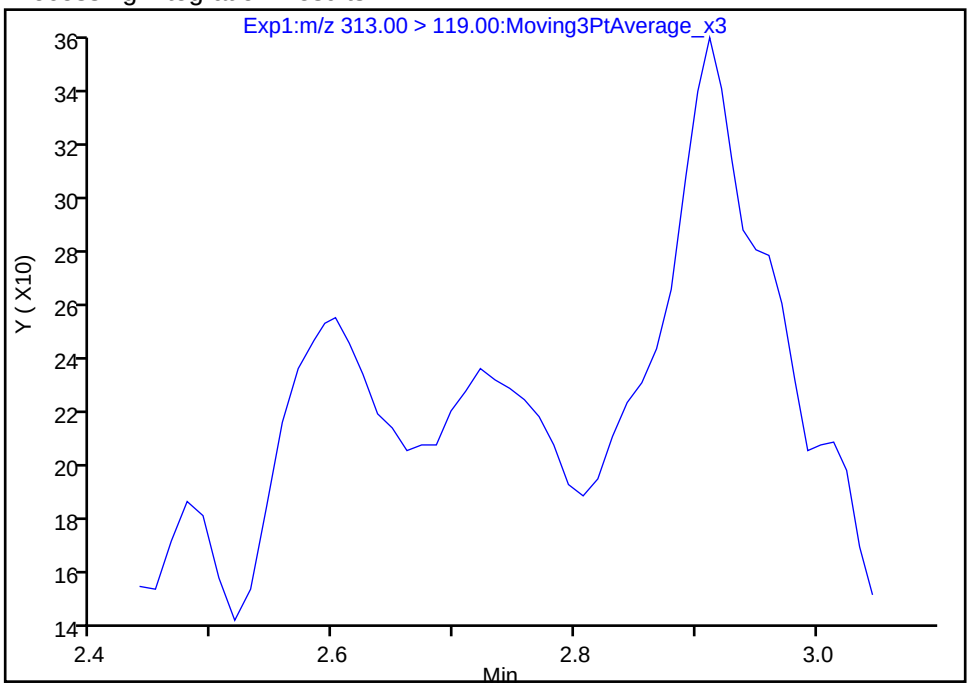
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

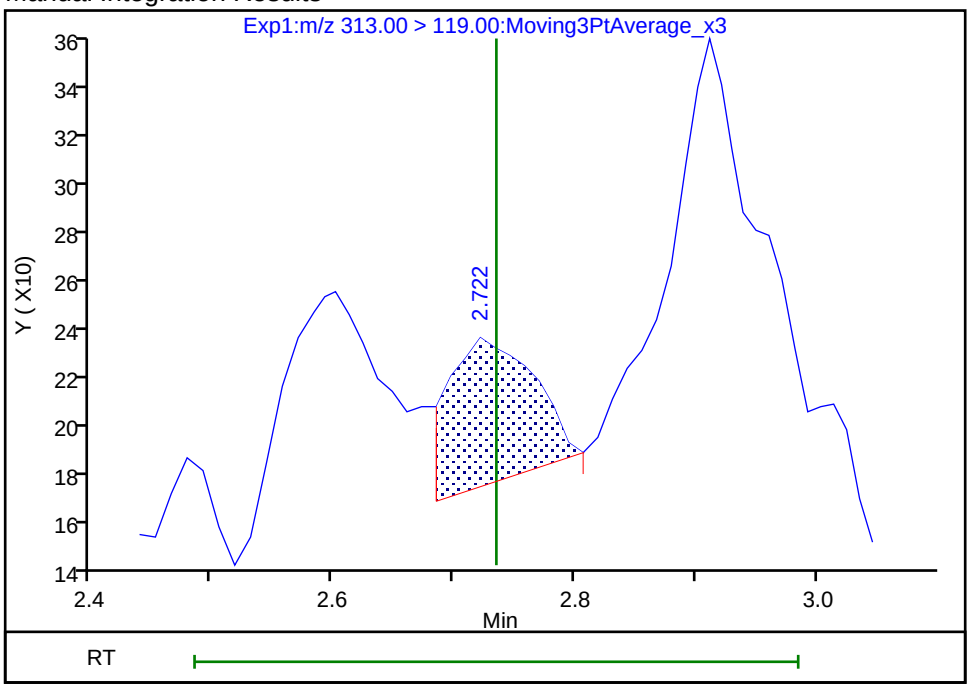
Not Detected
Expected RT: 2.73

Processing Integration Results




Manual Integration Results

RT: 2.72
Area: 276
Amount: 0.002323
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:25:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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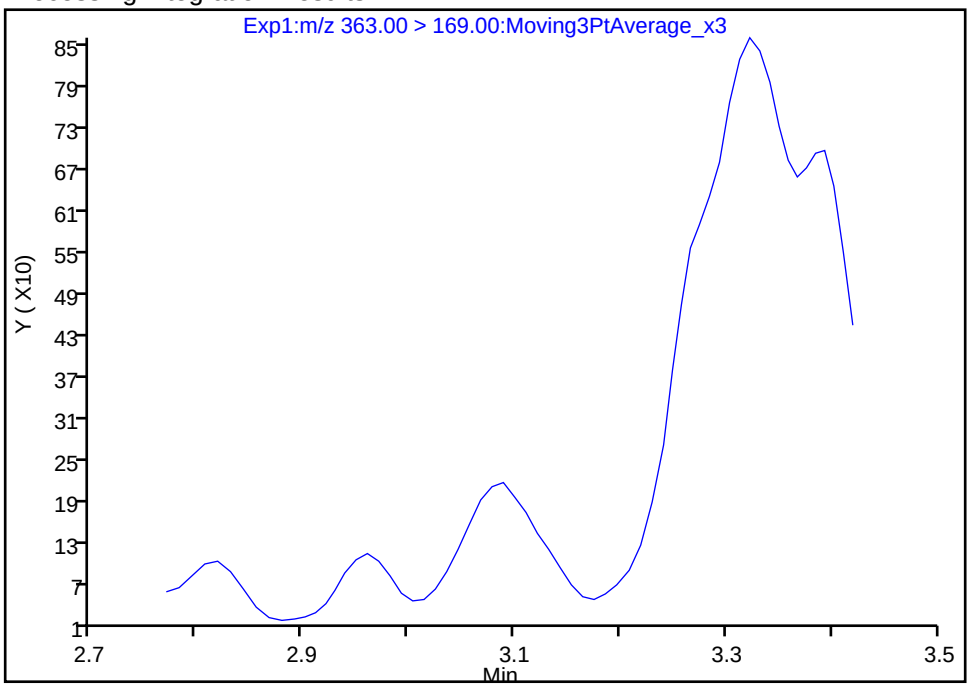
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

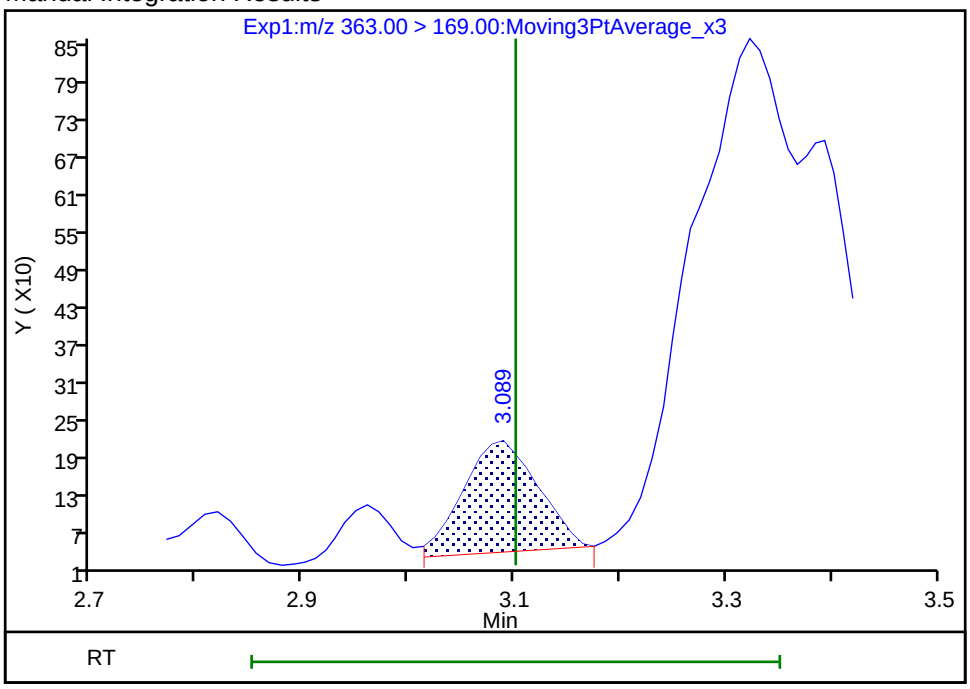
Not Detected
Expected RT: 3.10

Processing Integration Results




Manual Integration Results

RT: 3.09
Area: 866
Amount: 0.001103
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:25:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

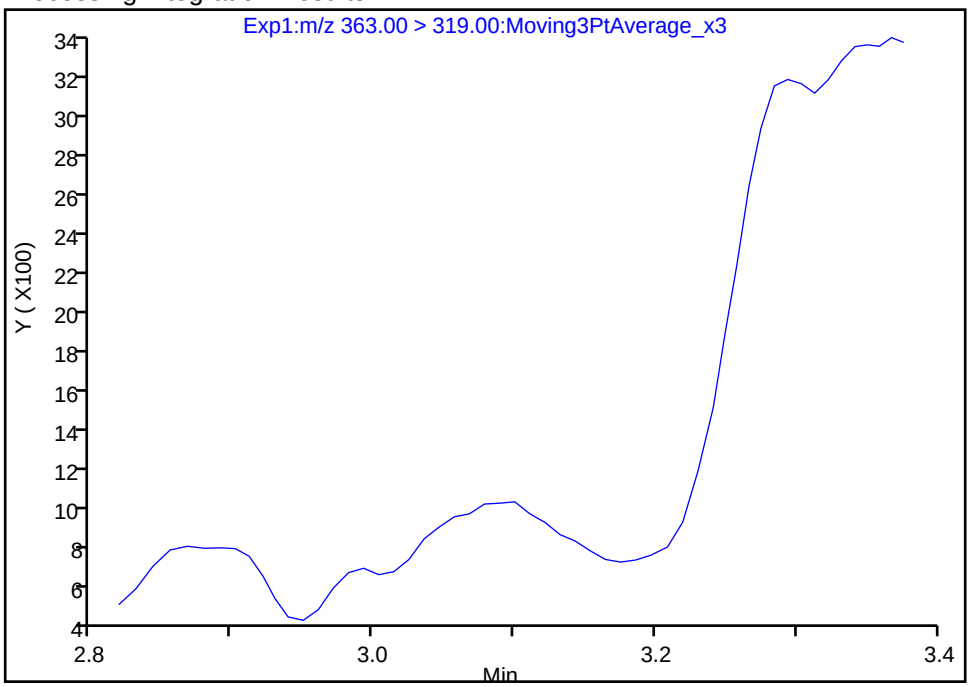
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

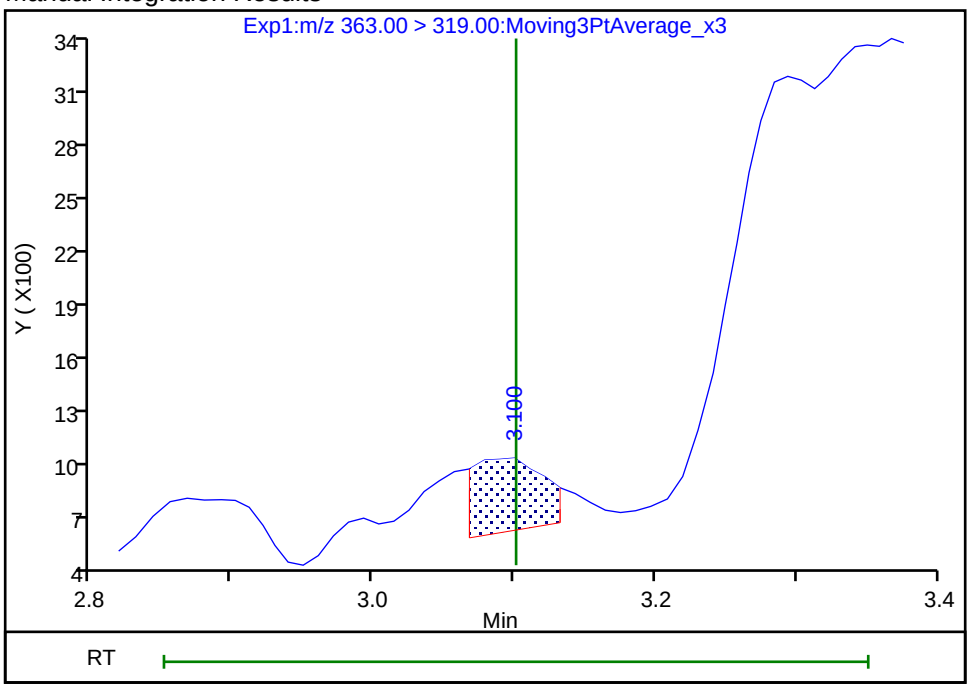
Not Detected
Expected RT: 3.10

Processing Integration Results




Manual Integration Results

RT: 3.10
Area: 1352
Amount: 0.001103
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:26:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

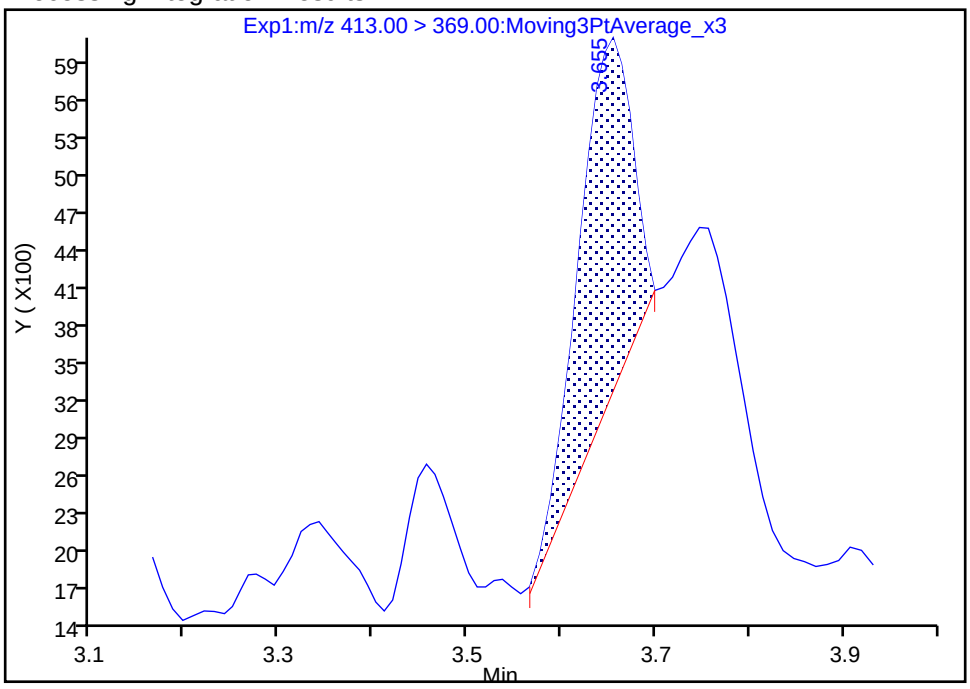
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

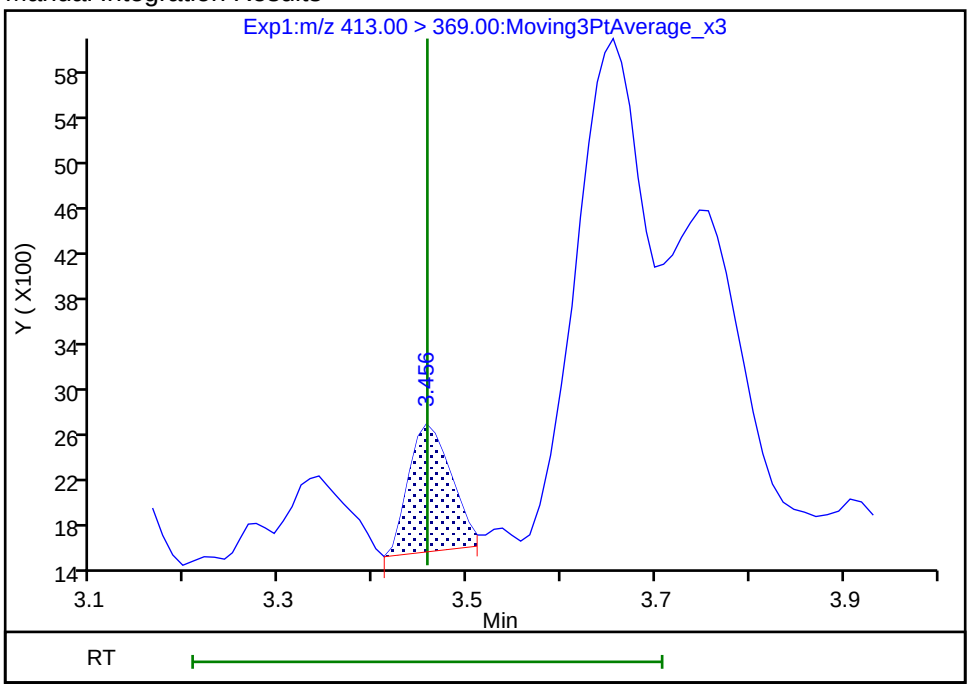
Processing Integration Results

RT: 3.65
Area: 11256
Amount: 0.008266
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 3484
Amount: 0.002558
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:27:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

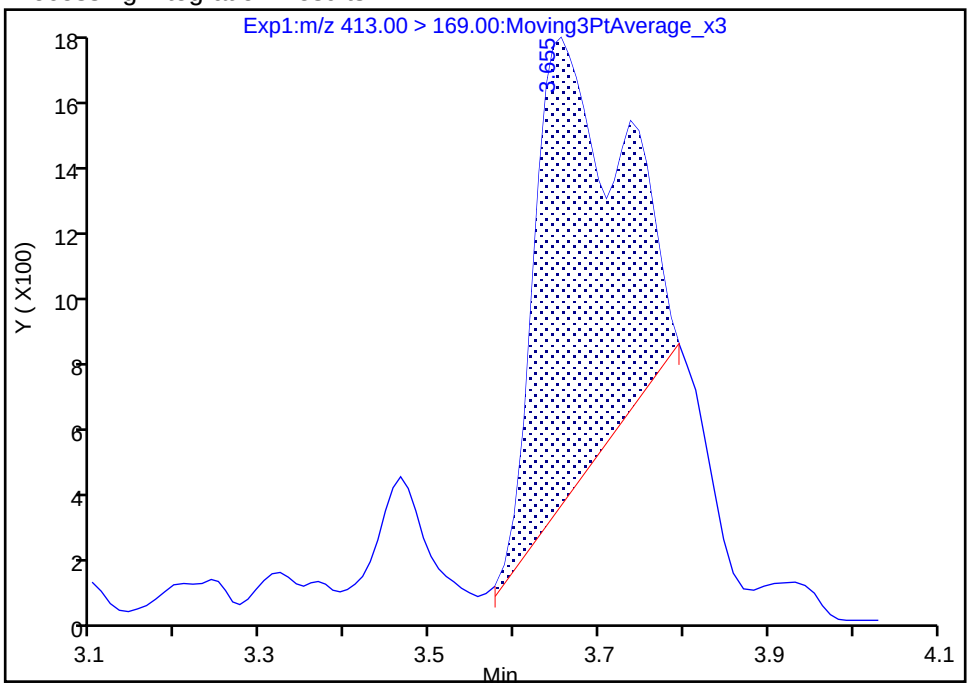
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

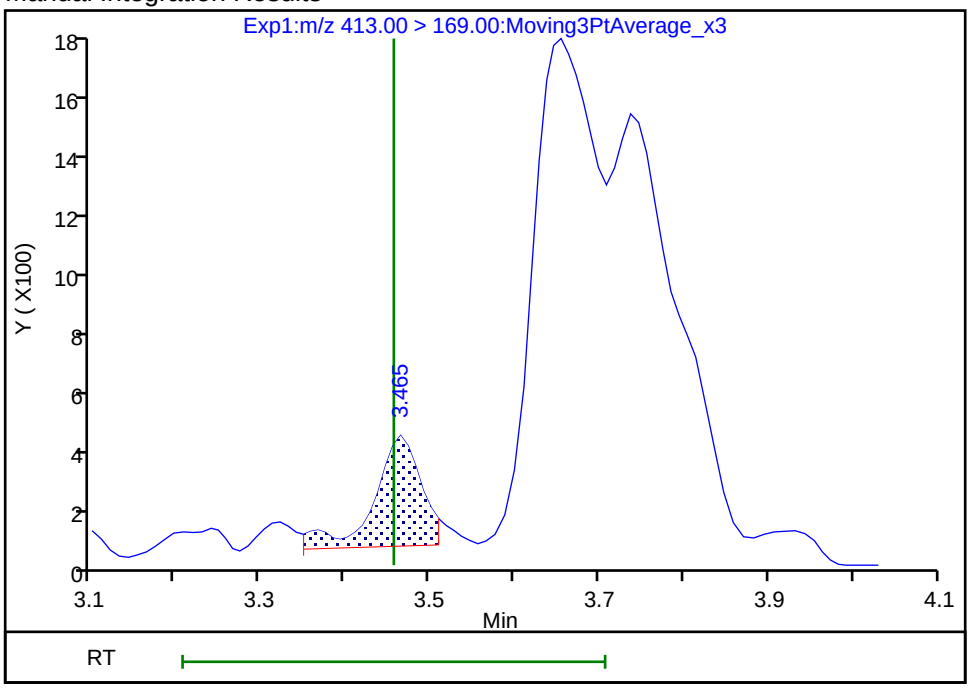
Processing Integration Results

RT: 3.65
Area: 9553
Amount: 0.008266
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1405
Amount: 0.002558
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:27:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

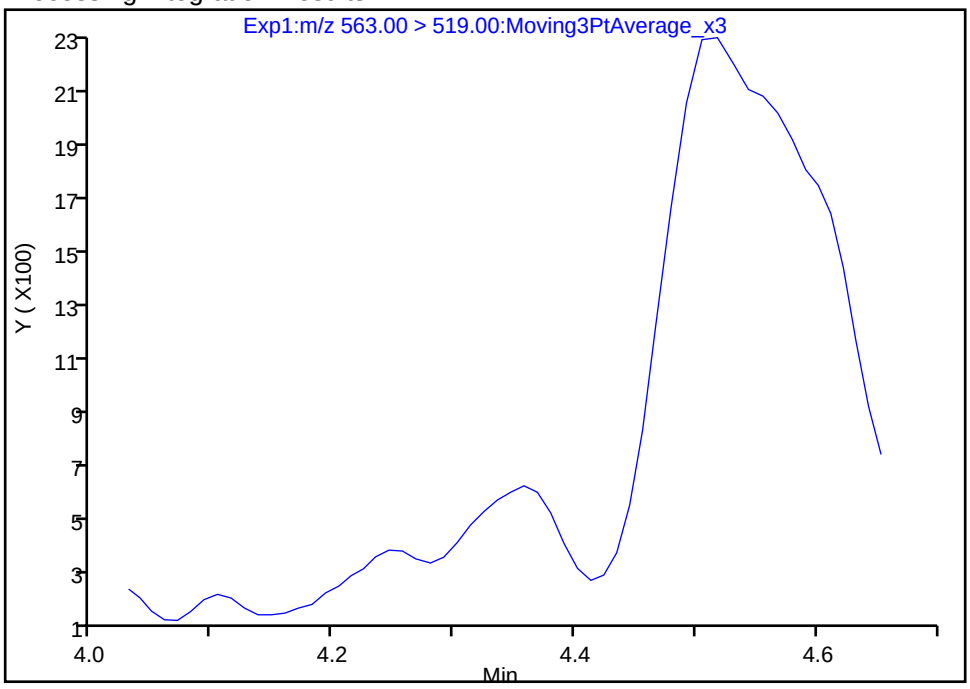
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

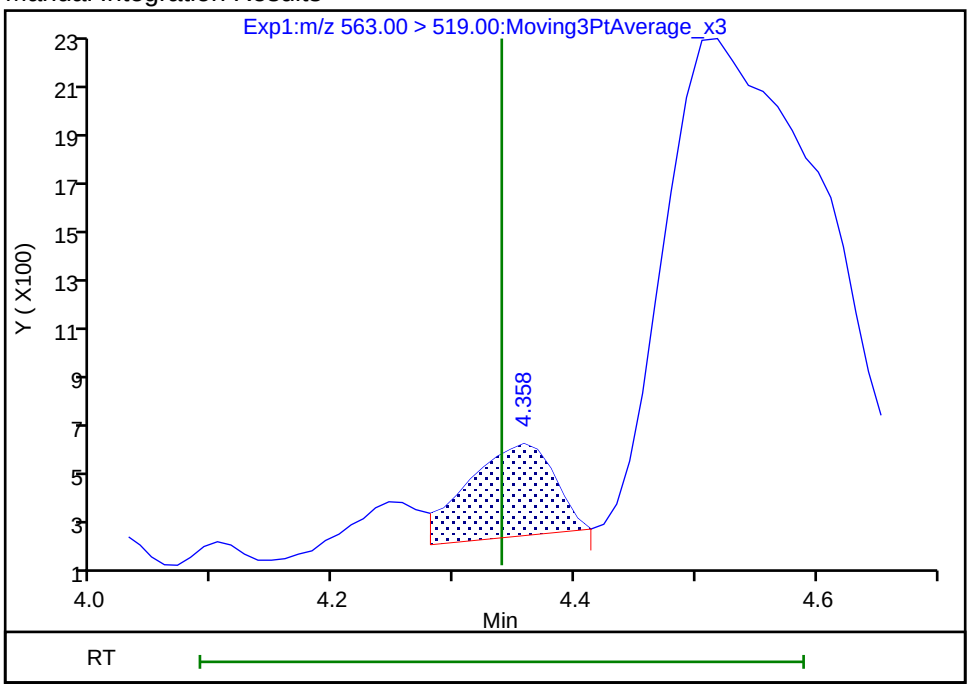
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 1818
Amount: 0.001531
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:28:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

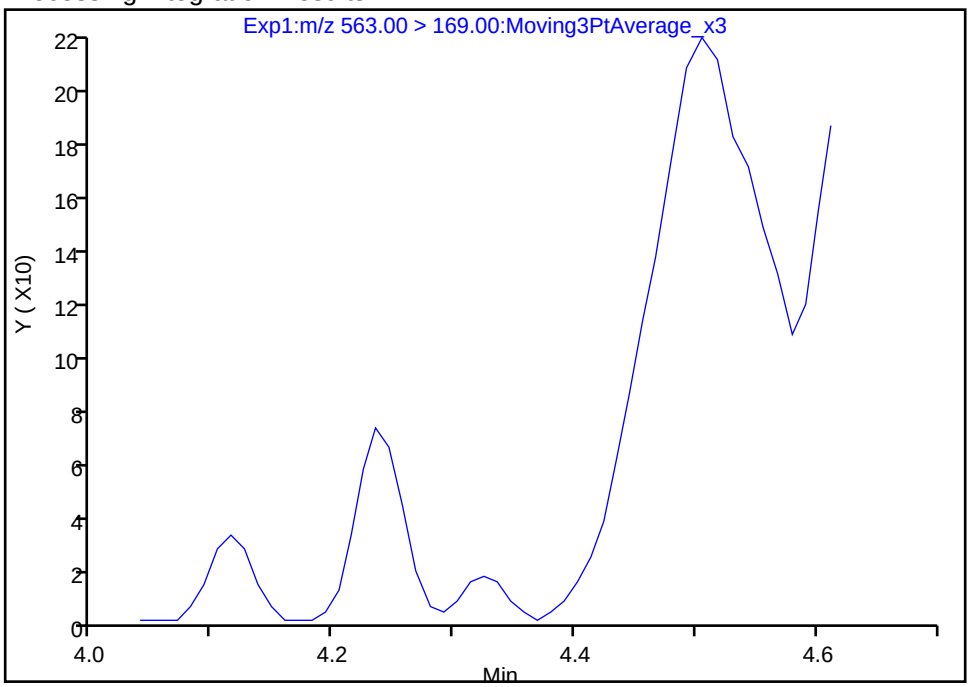
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

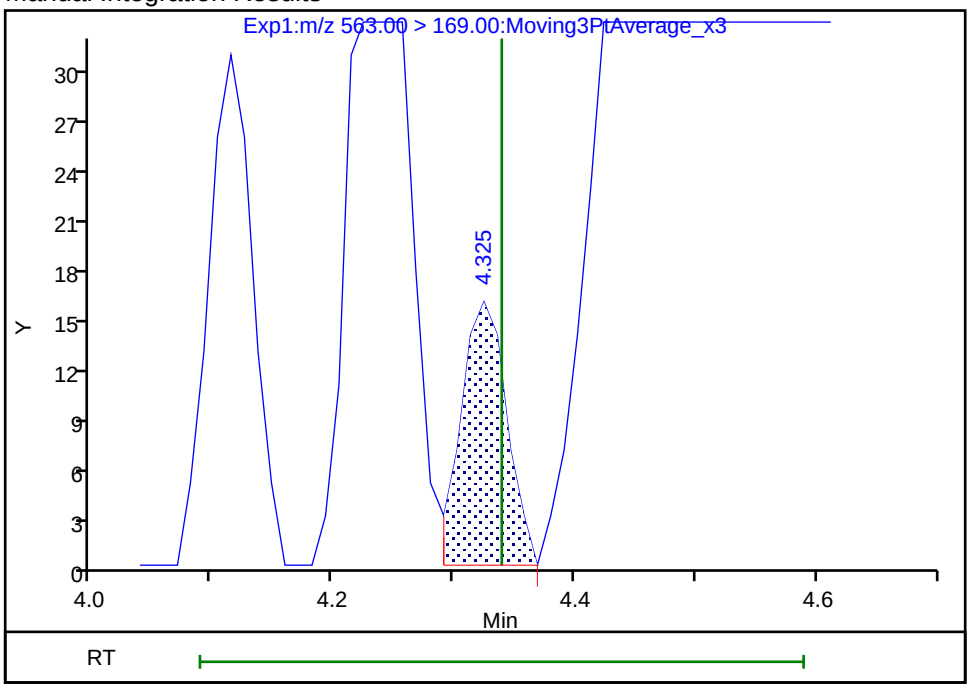
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 41
Amount: 0.001531
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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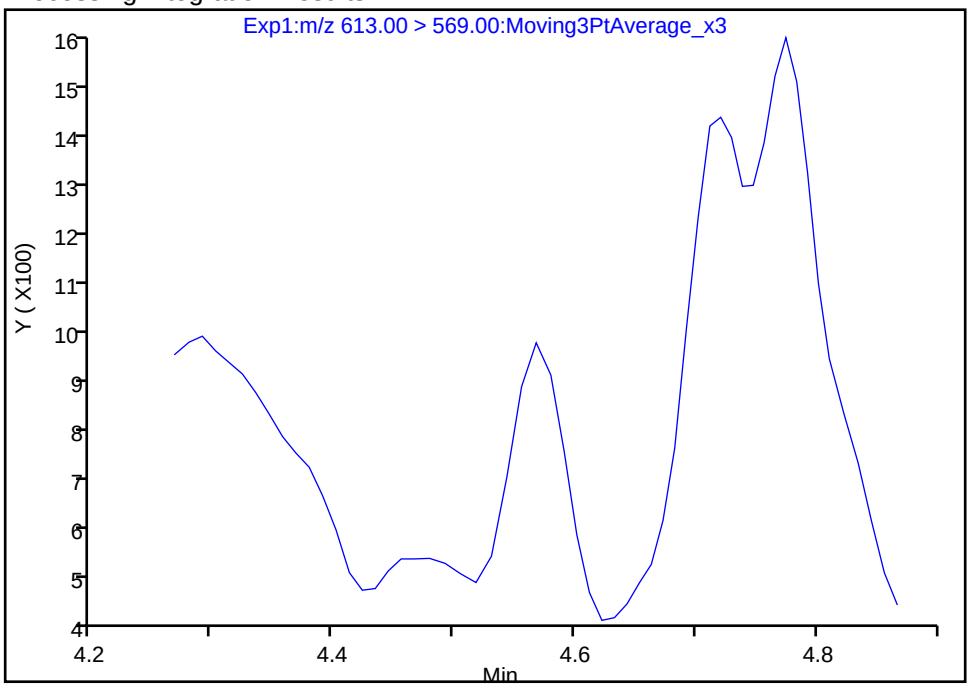
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

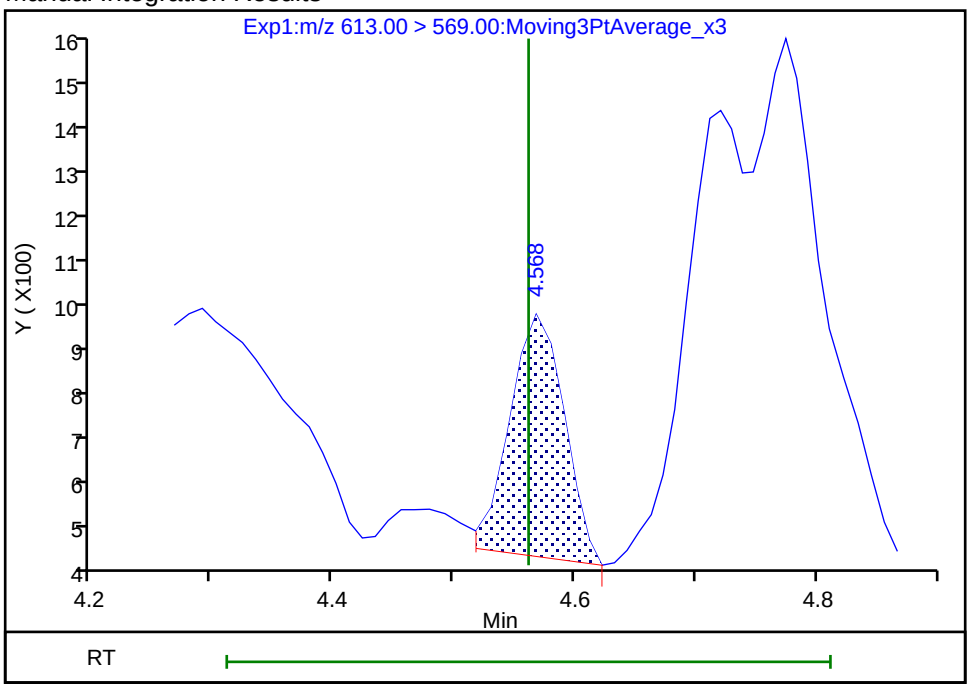
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 1522
Amount: 0.001327
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

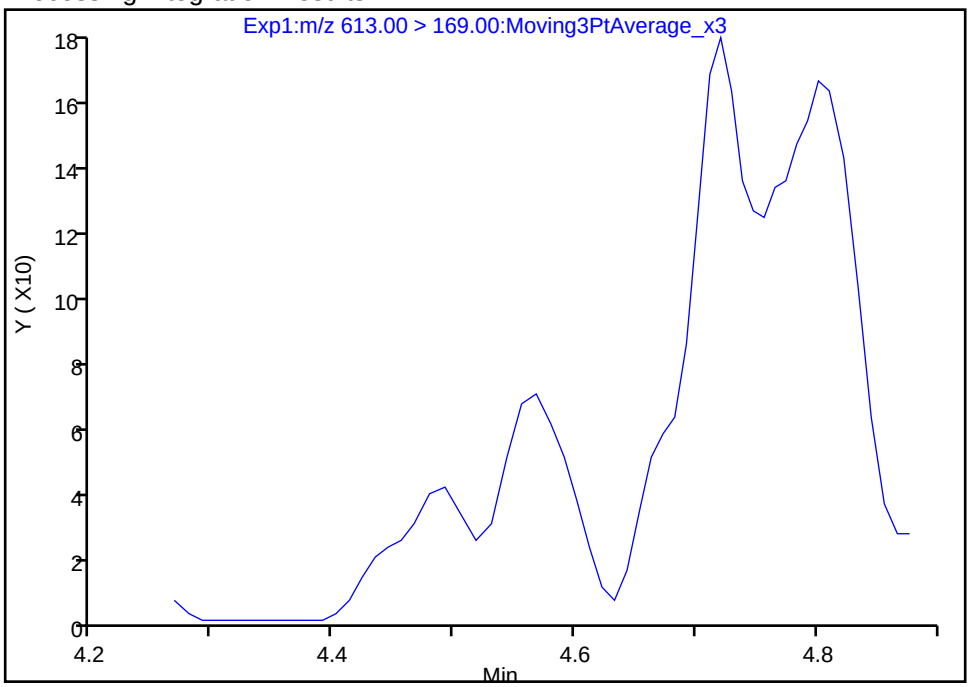
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

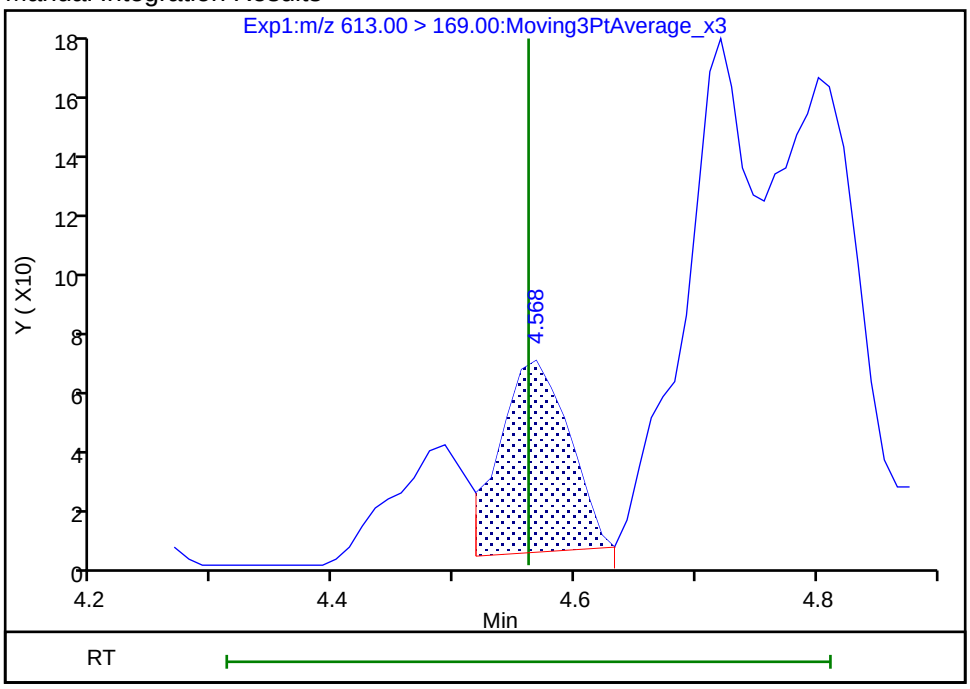
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 251
Amount: 0.001327
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

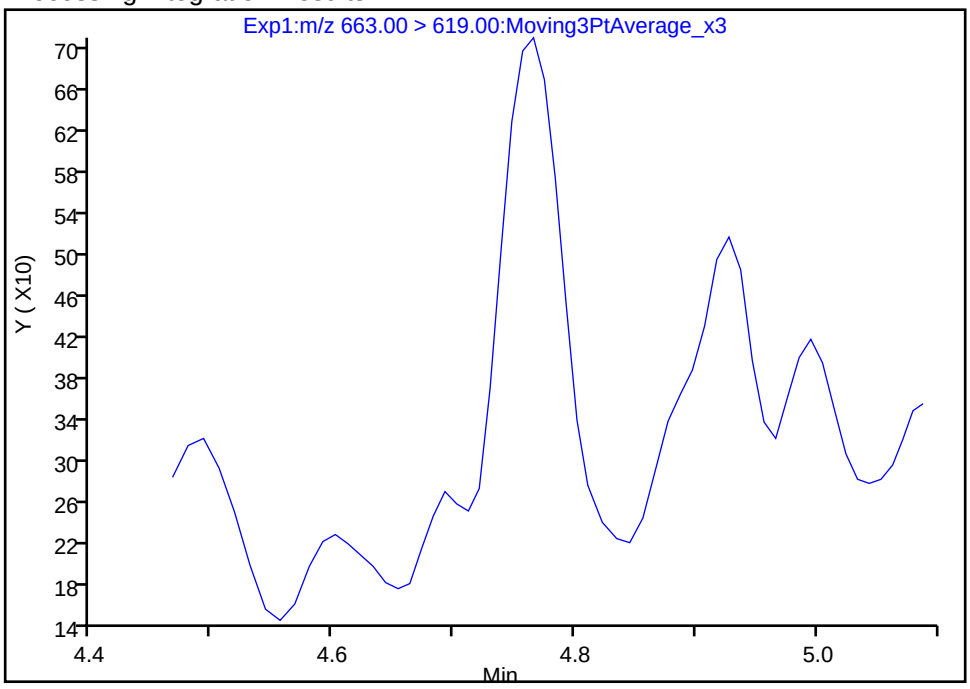
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

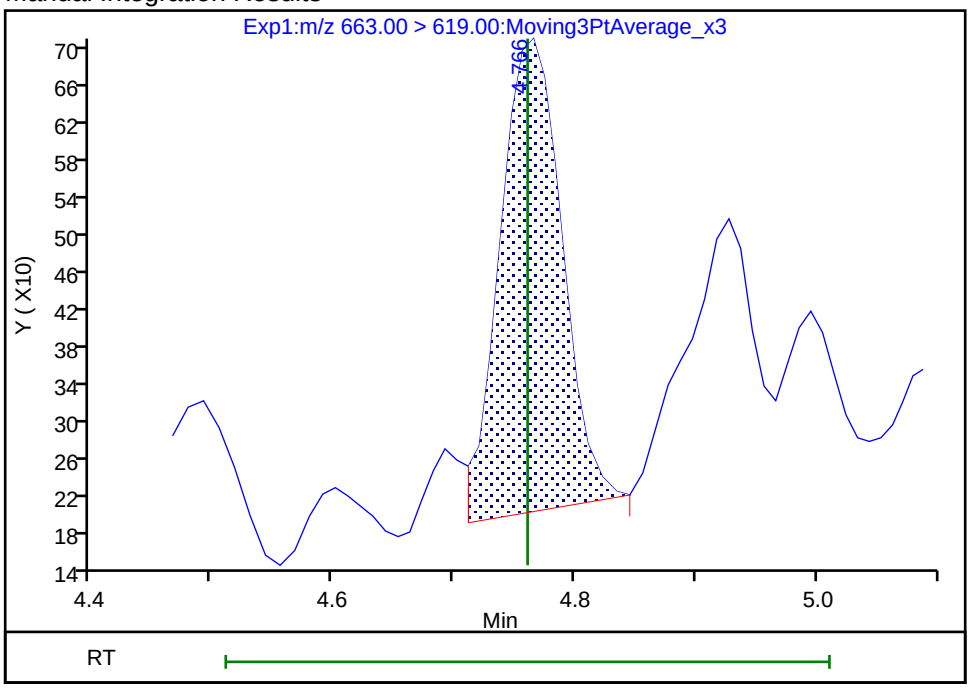
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 1821
Amount: 0.001841
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

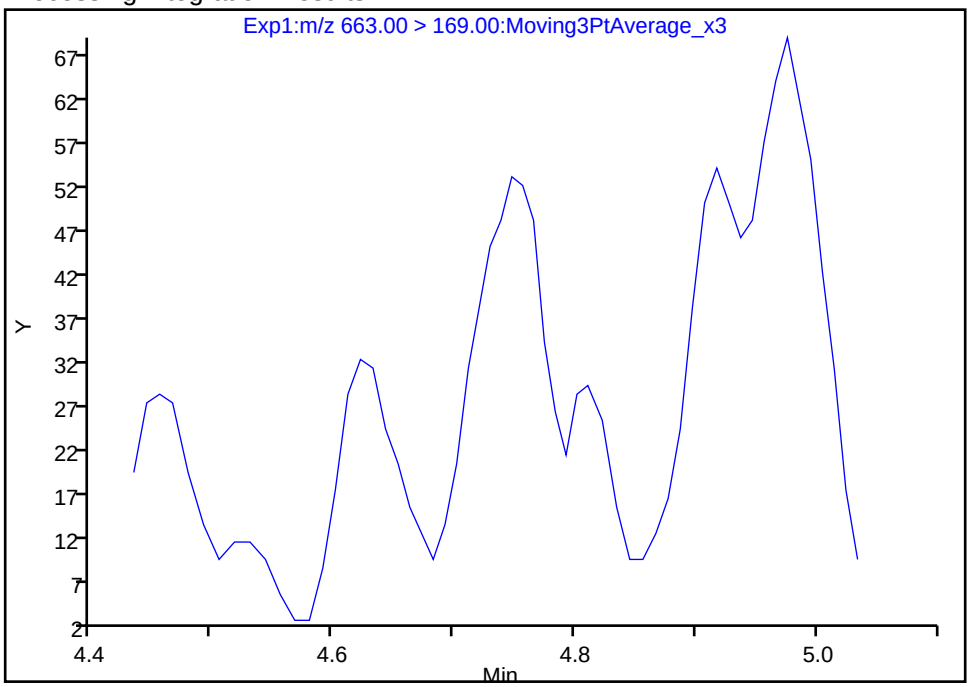
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

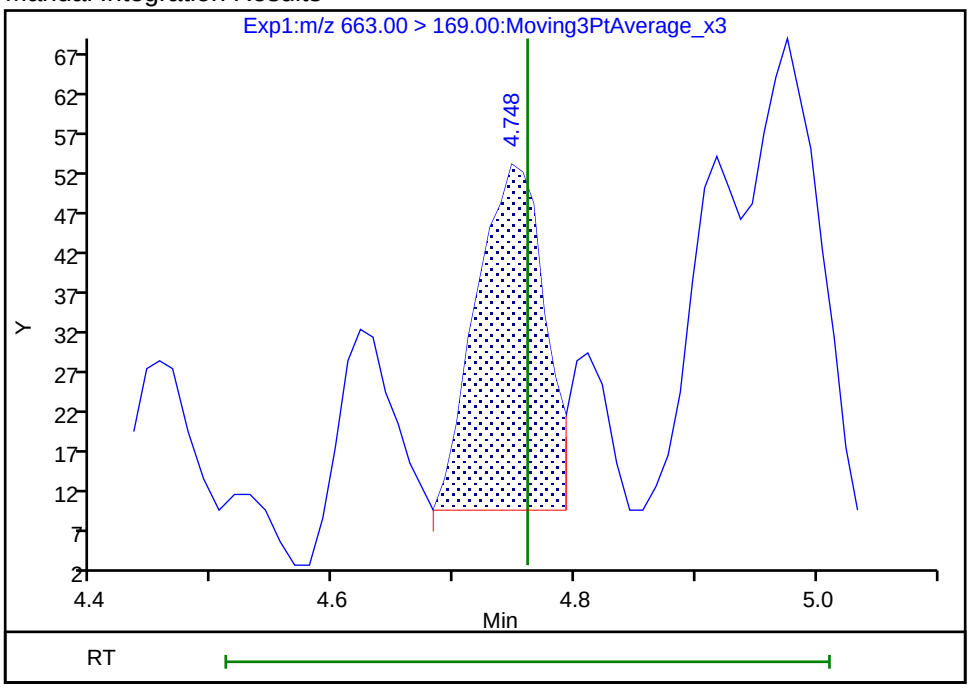
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.75
Area: 171
Amount: 0.001841
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

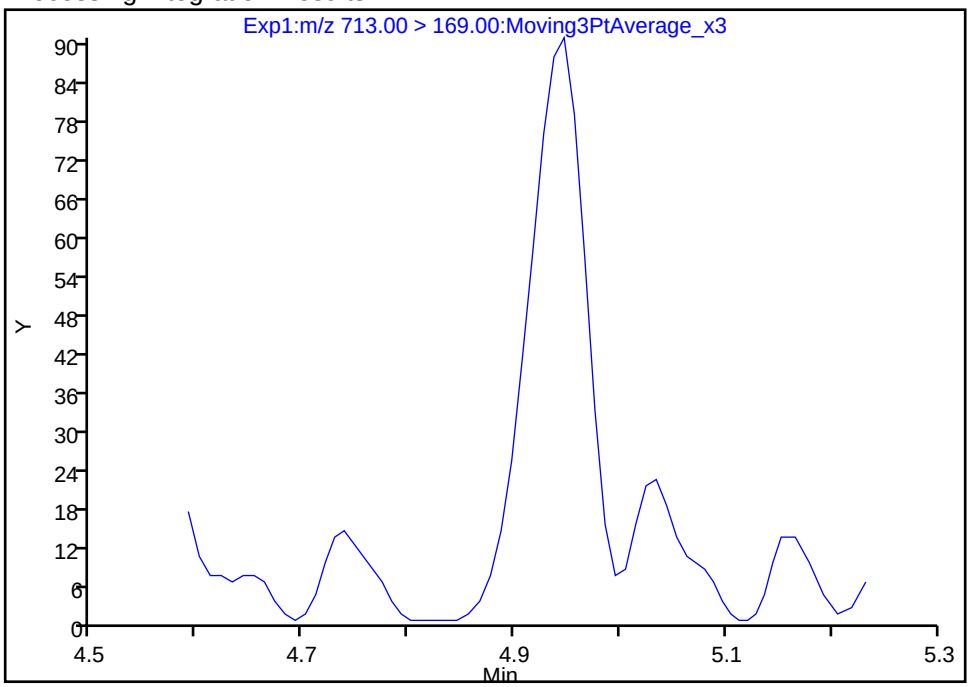
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

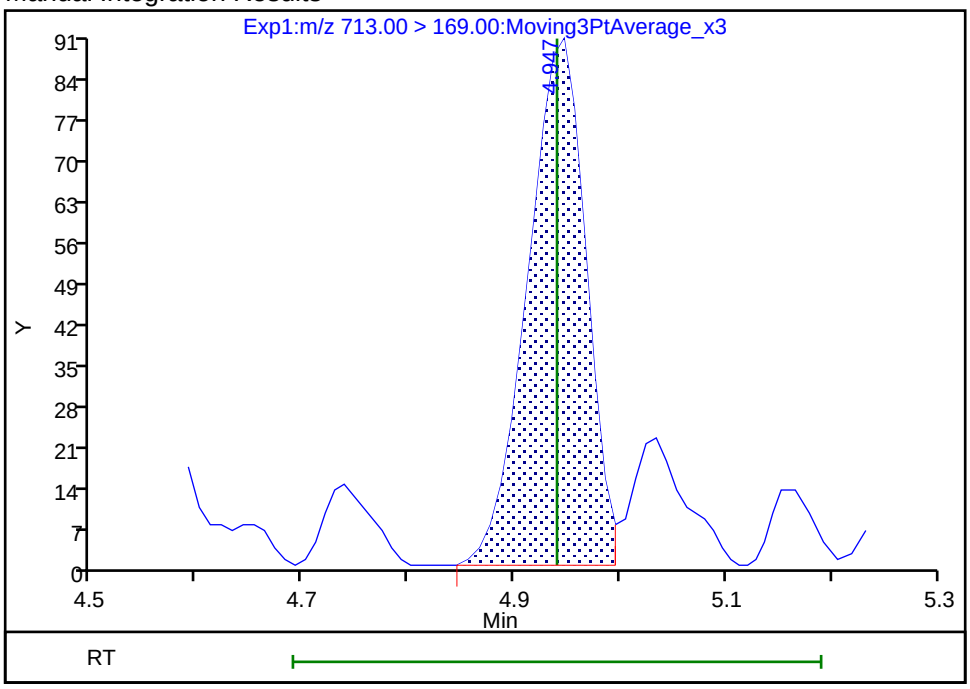
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 348
Amount: 0.002744
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

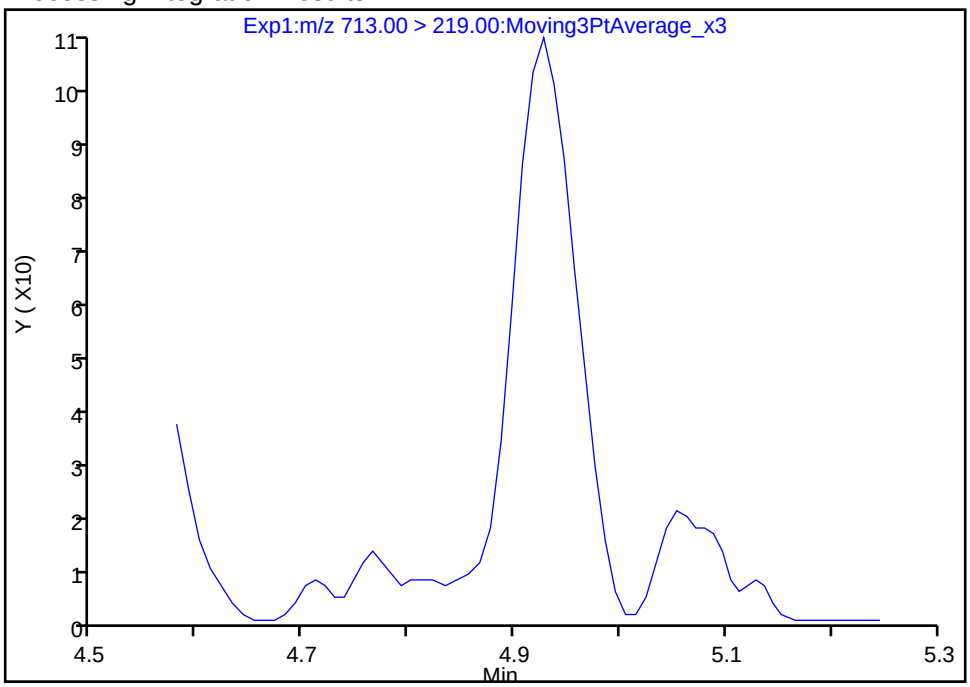
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

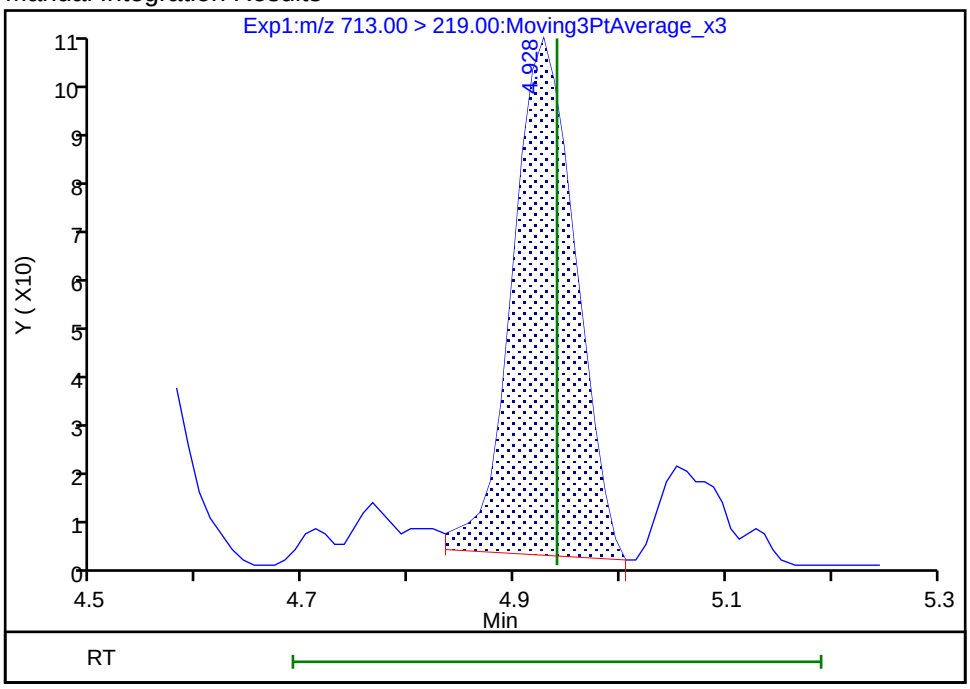
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.93
Area: 412
Amount: 0.002744
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:30:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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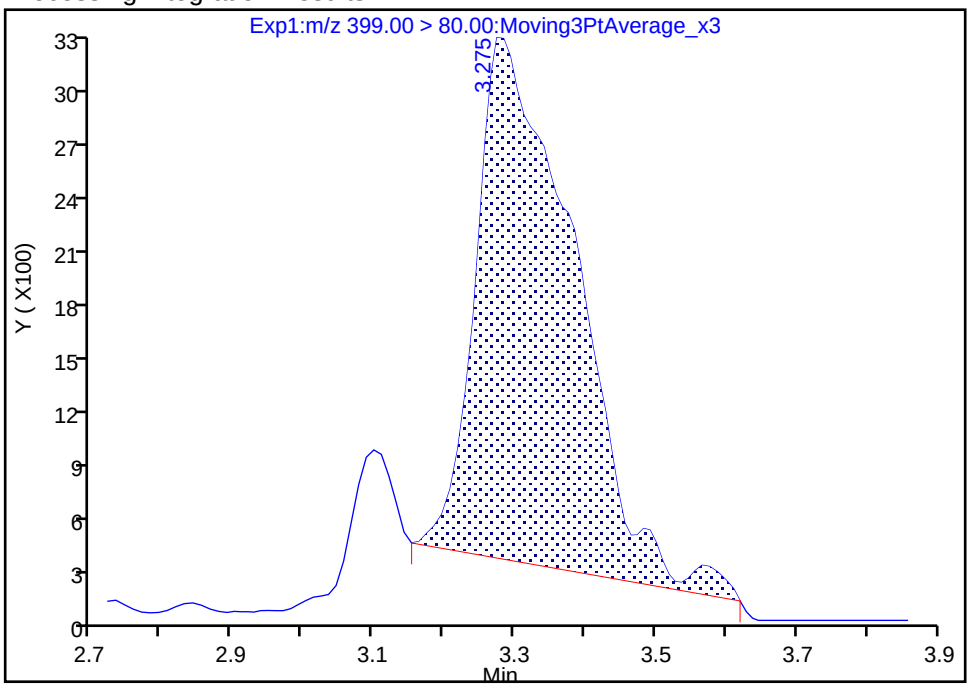
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

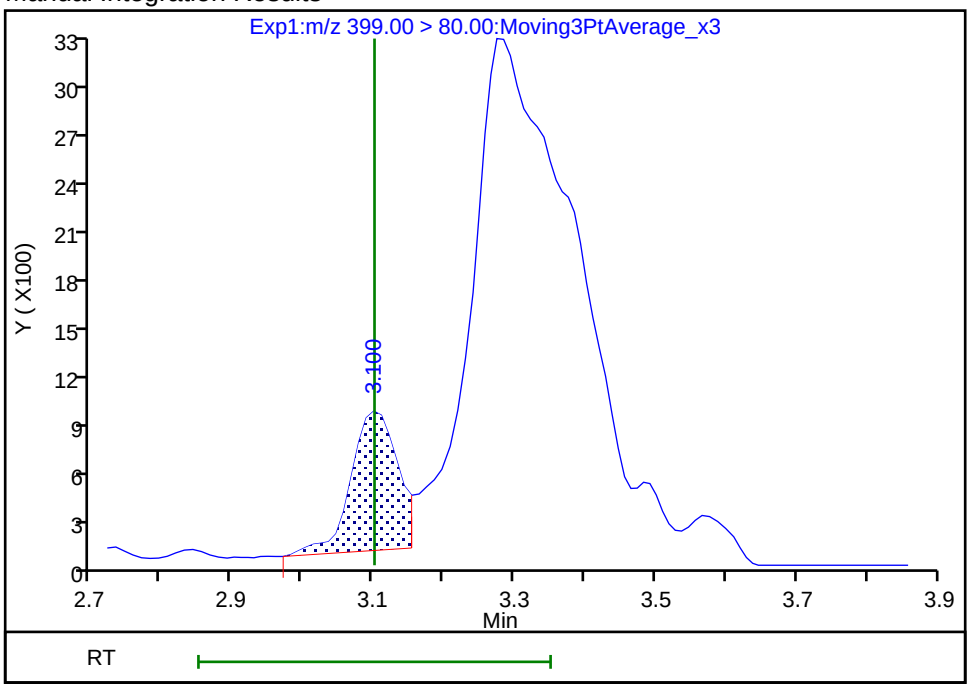
Processing Integration Results

RT: 3.27
Area: 28364
Amount: 0.023976
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 3917
Amount: 0.003311
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:25:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

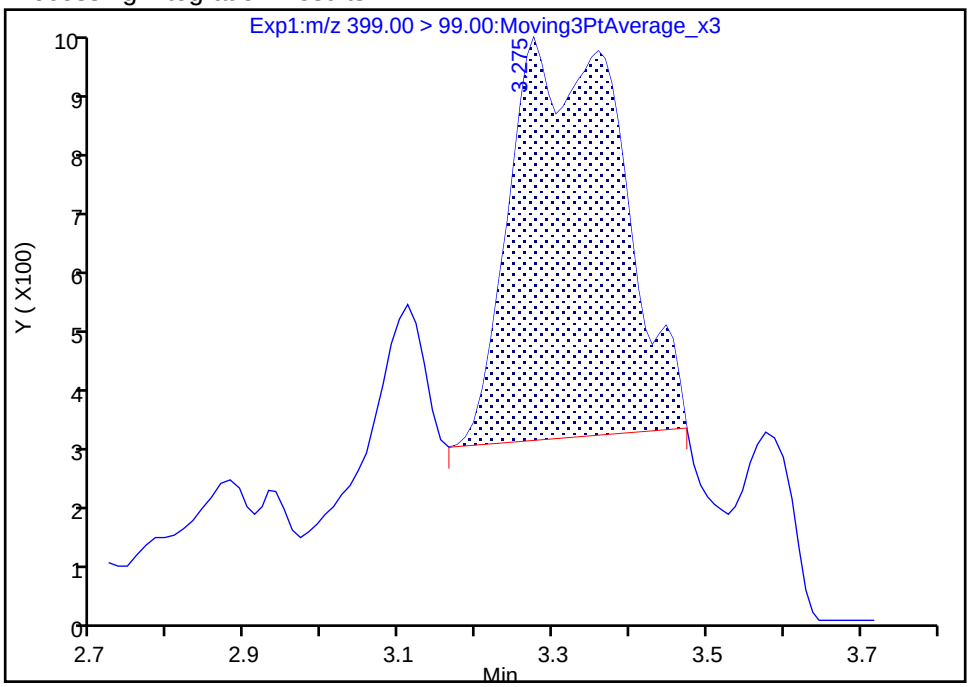
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

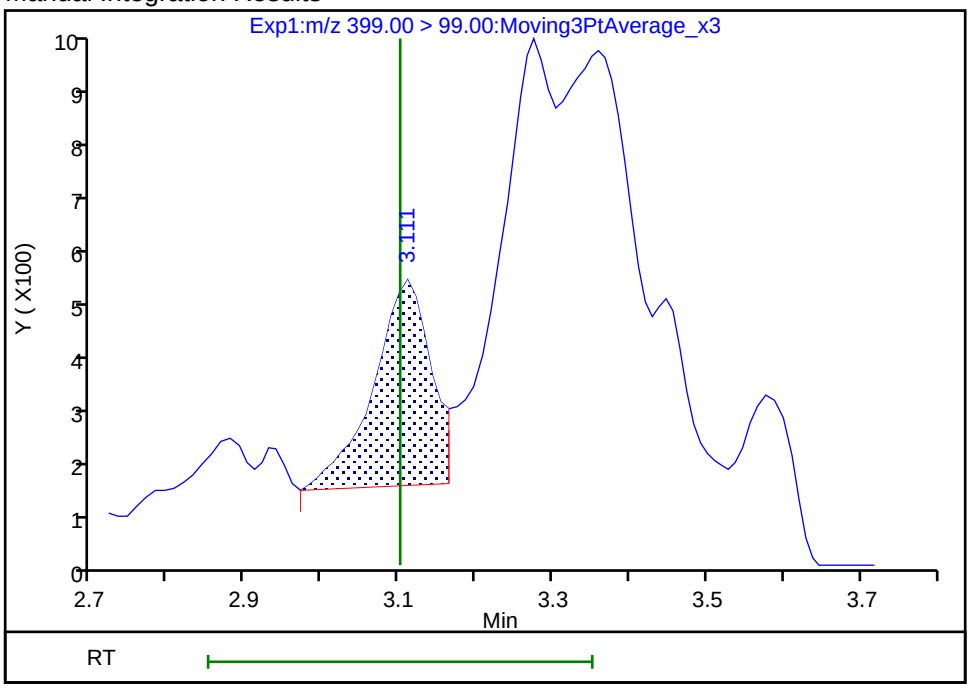
Processing Integration Results

RT: 3.27
Area: 6899
Amount: 0.023976
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 2018
Amount: 0.003311
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:25:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

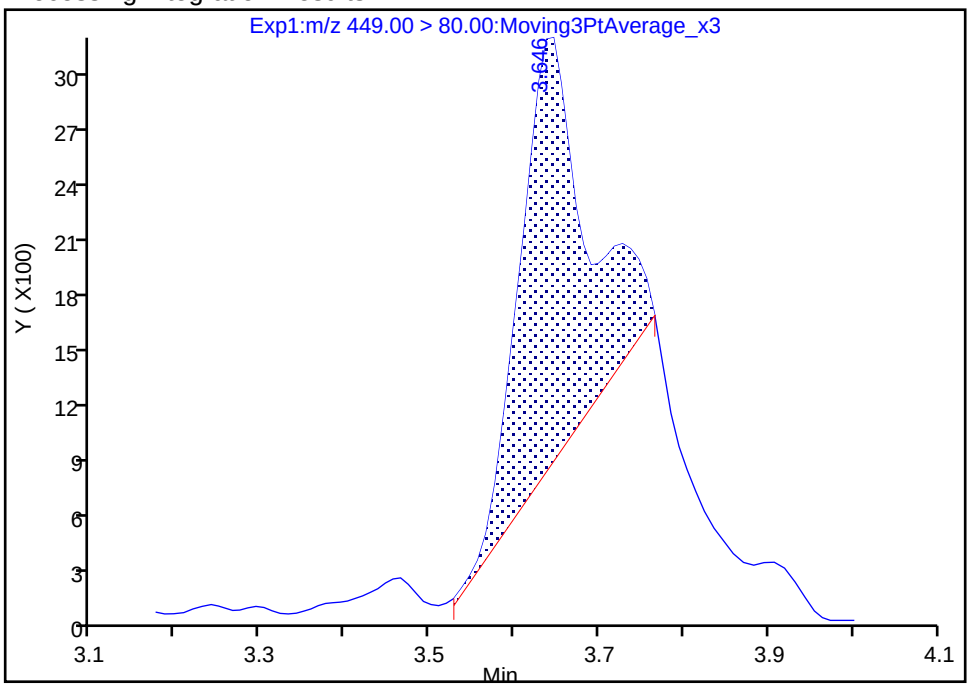
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

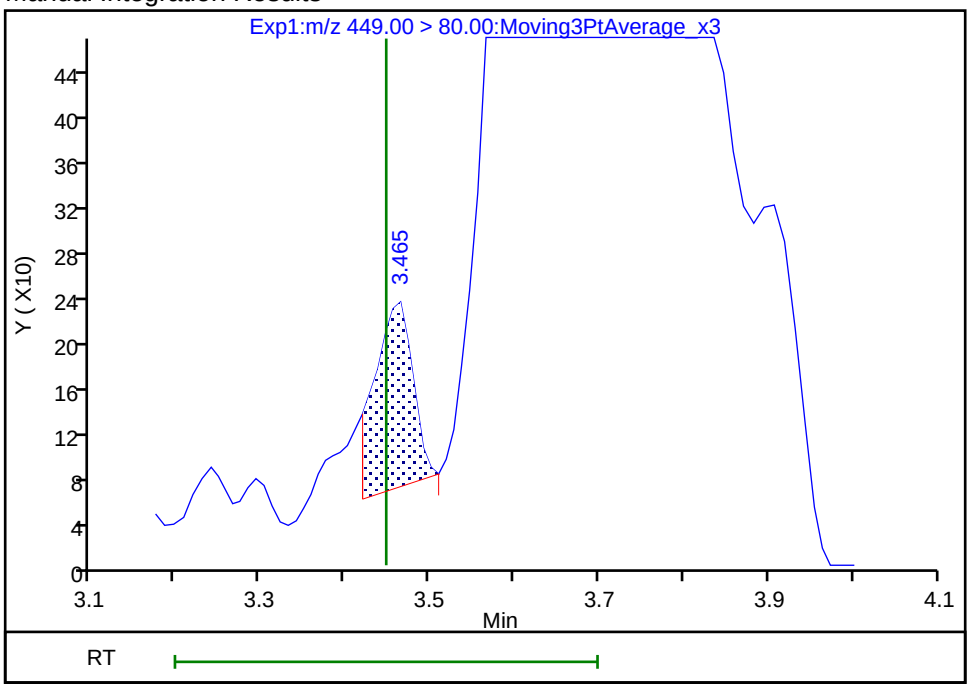
Processing Integration Results

RT: 3.65
Area: 12803
Amount: 0.012863
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 503
Amount: 0.000505
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:26:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

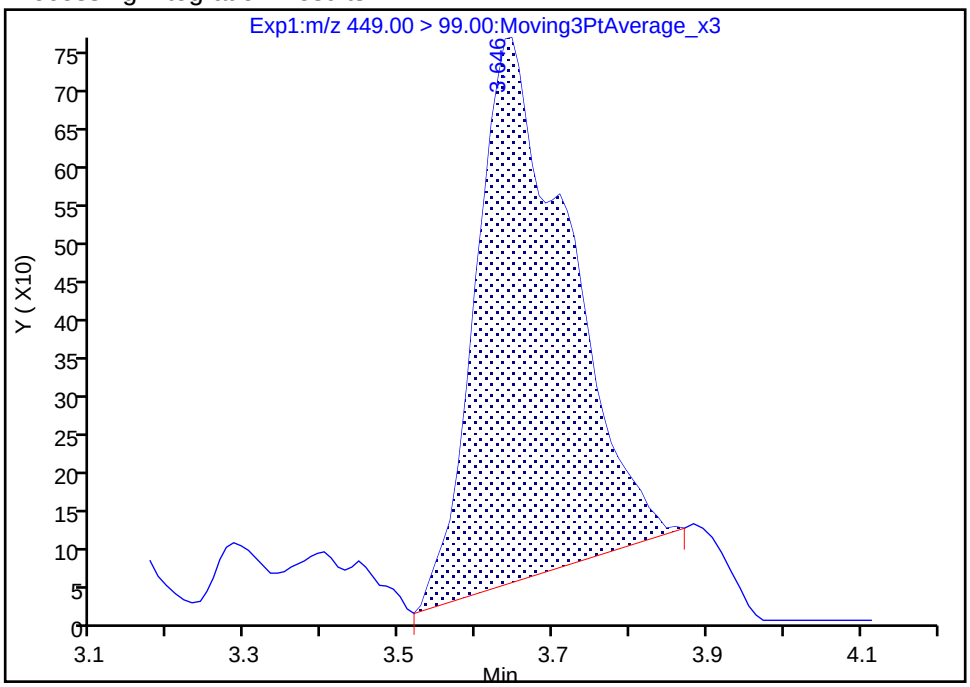
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

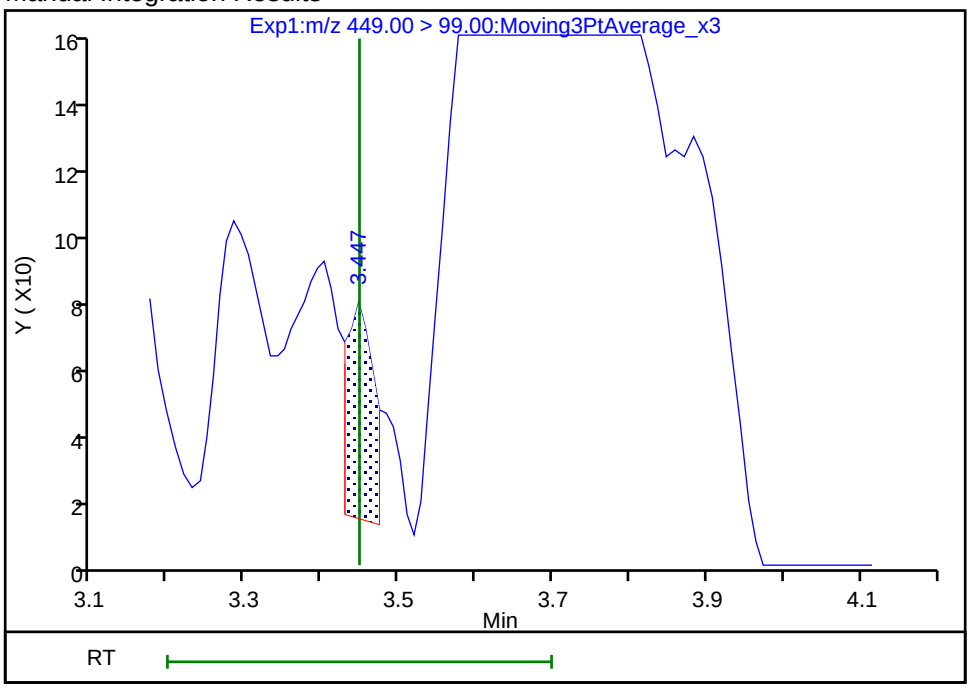
Processing Integration Results

RT: 3.65
Area: 6005
Amount: 0.012863
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 142
Amount: 0.000505
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:26:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

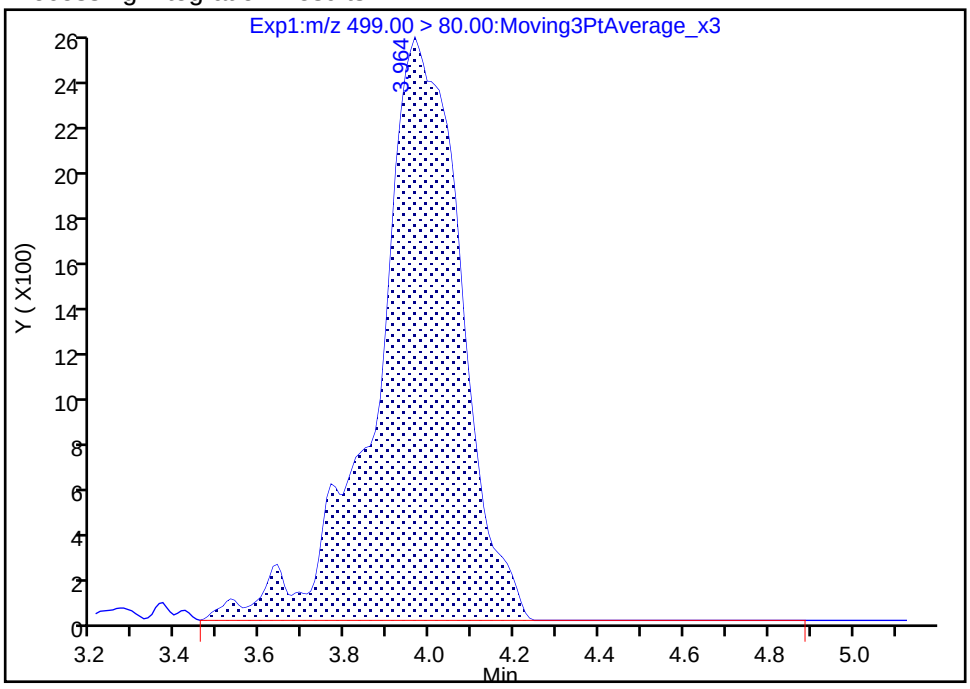
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

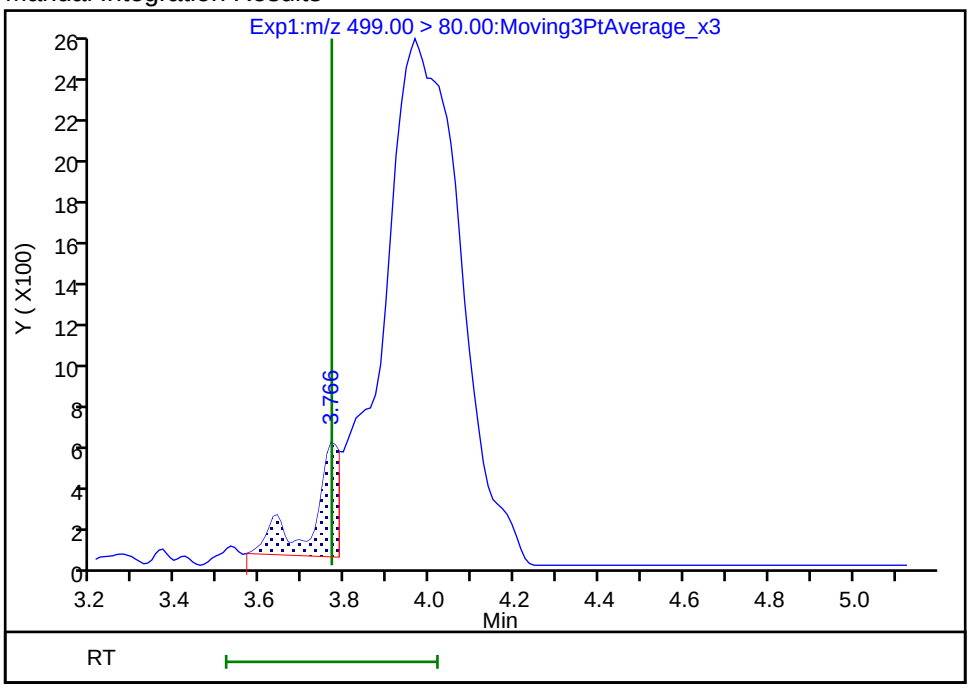
Processing Integration Results

RT: 3.96
Area: 35945
Amount: 0.041491
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 2260
Amount: 0.002609
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:27:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

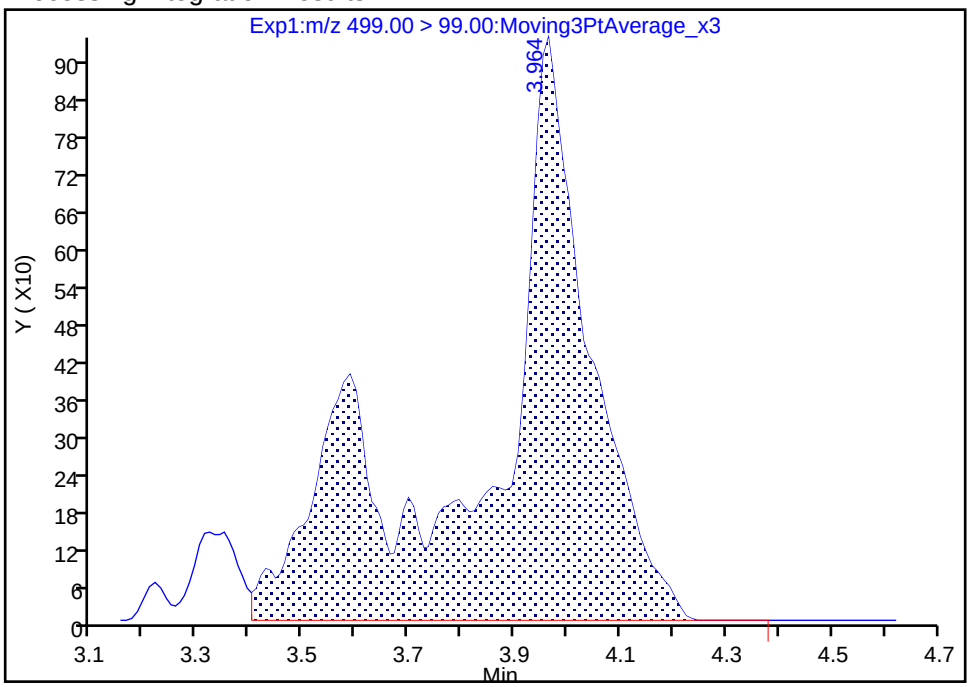
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

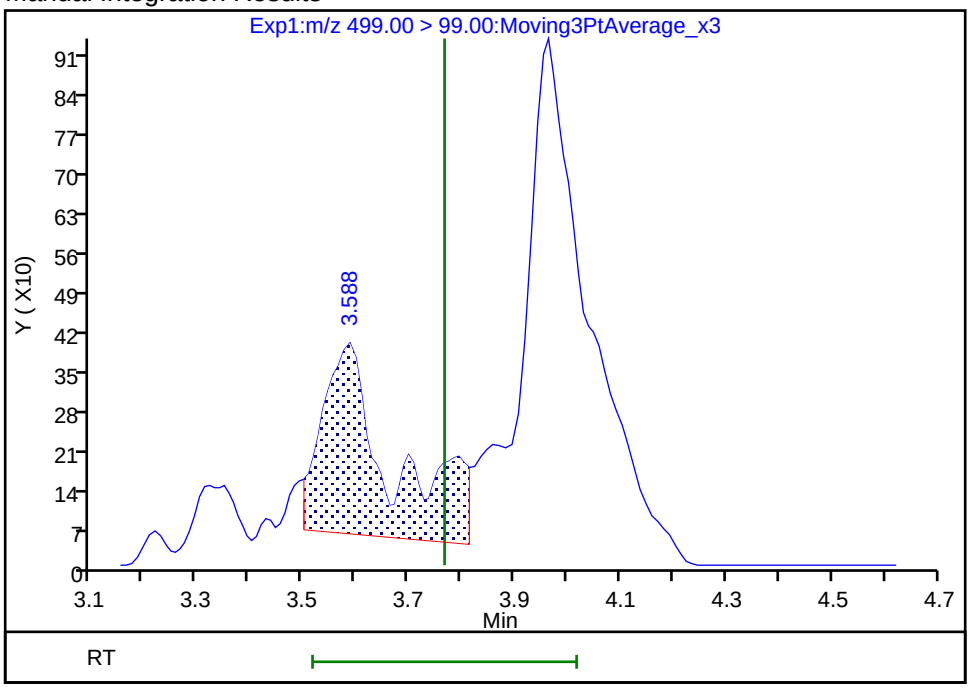
Processing Integration Results

RT: 3.96
Area: 13018
Amount: 0.041491
Amount Units: ng/ml




Manual Integration Results

RT: 3.59
Area: 3091
Amount: 0.002609
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:27:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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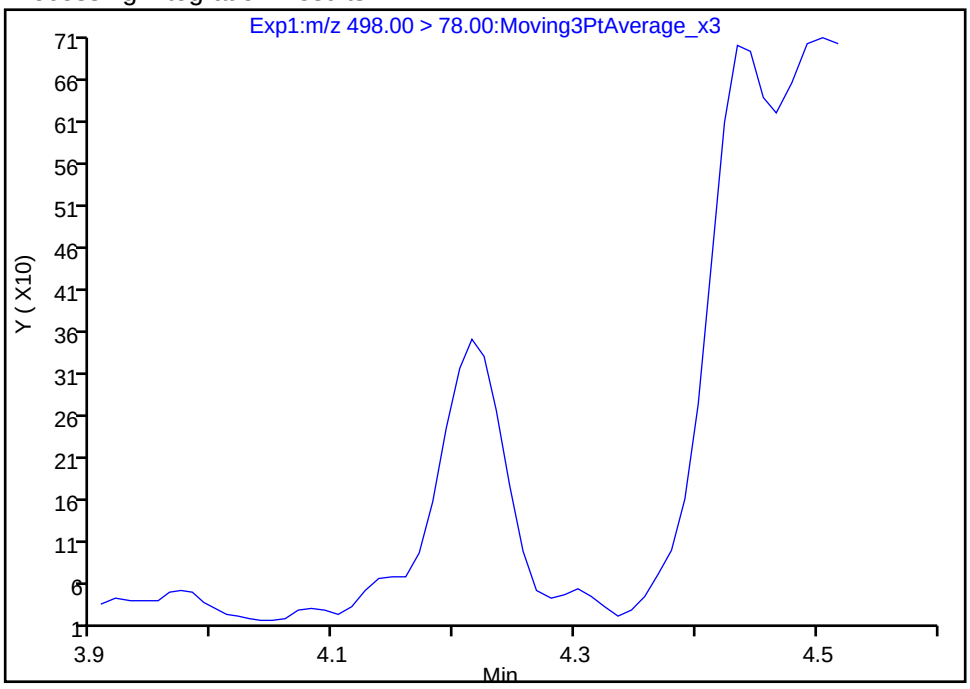
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

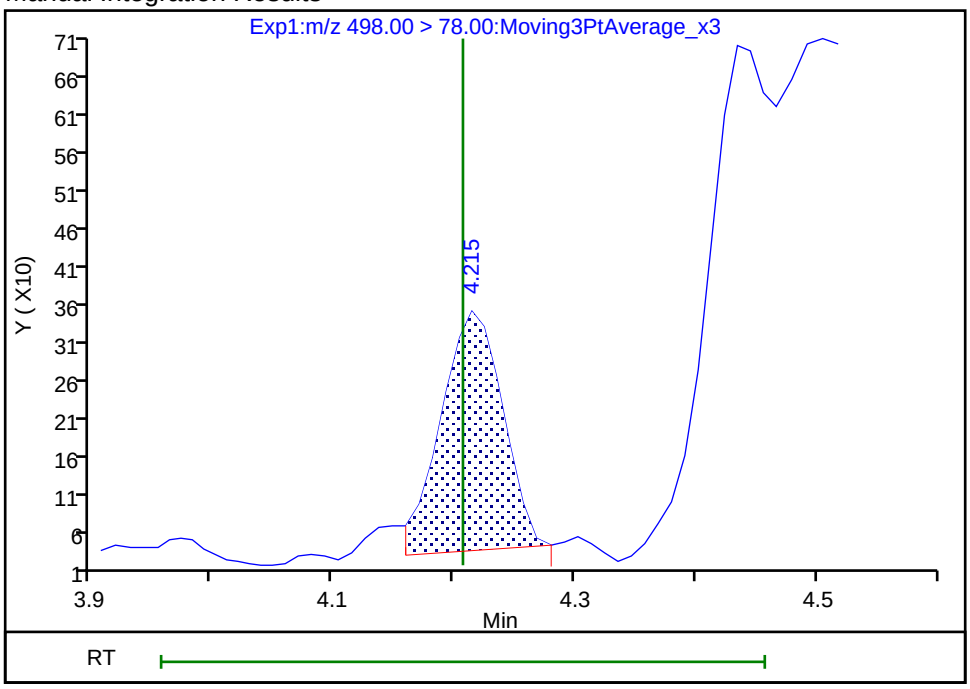
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 1096
Amount: 0.000871
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:28:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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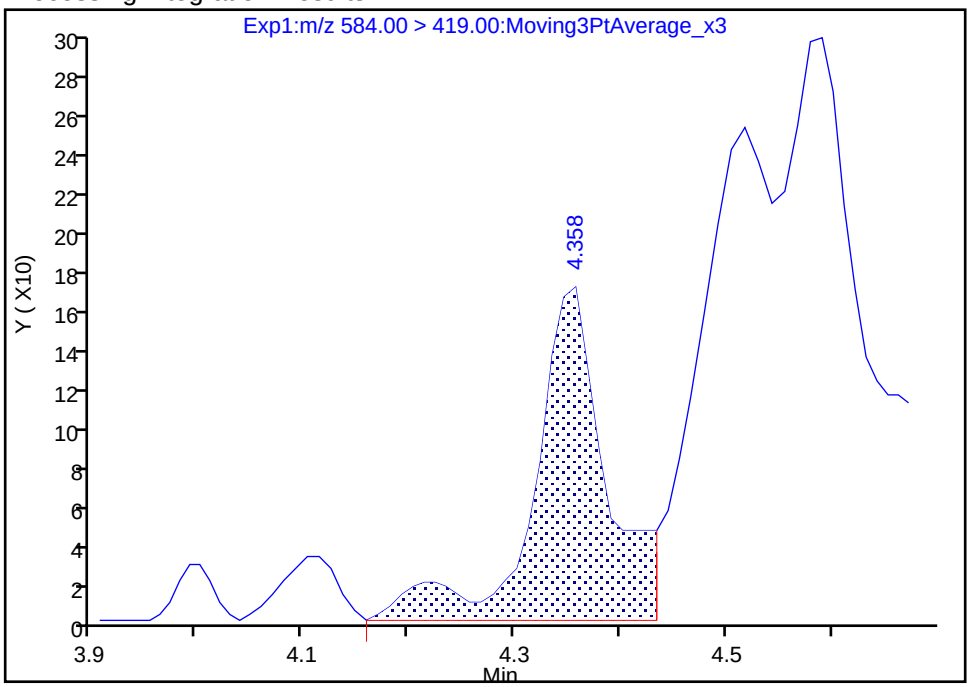
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

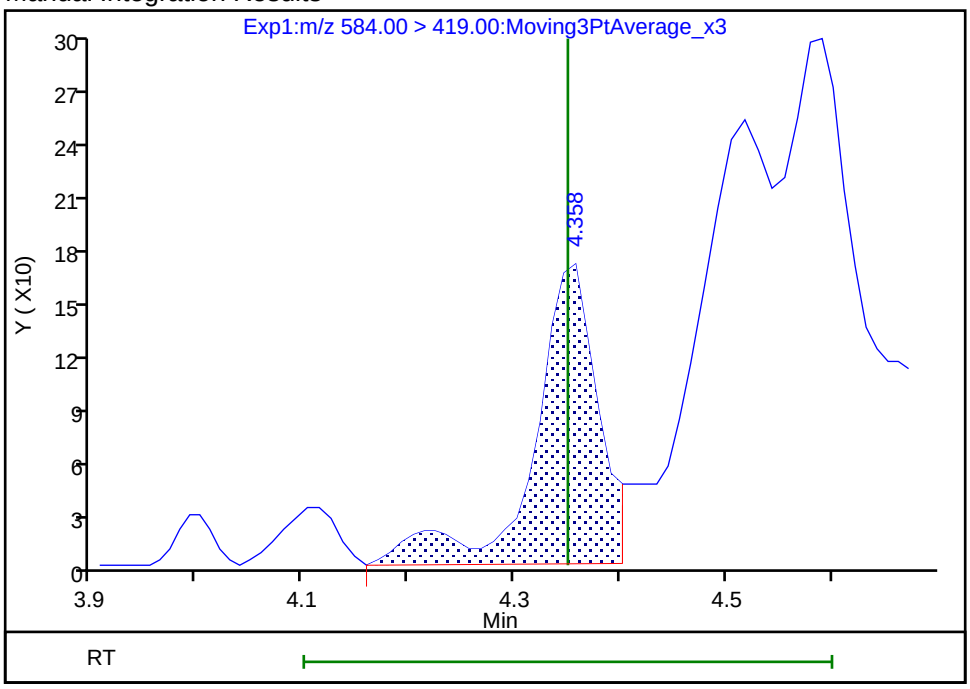
Processing Integration Results

RT: 4.36
Area: 789
Amount: 0.006608
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 694
Amount: 0.005812
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:29:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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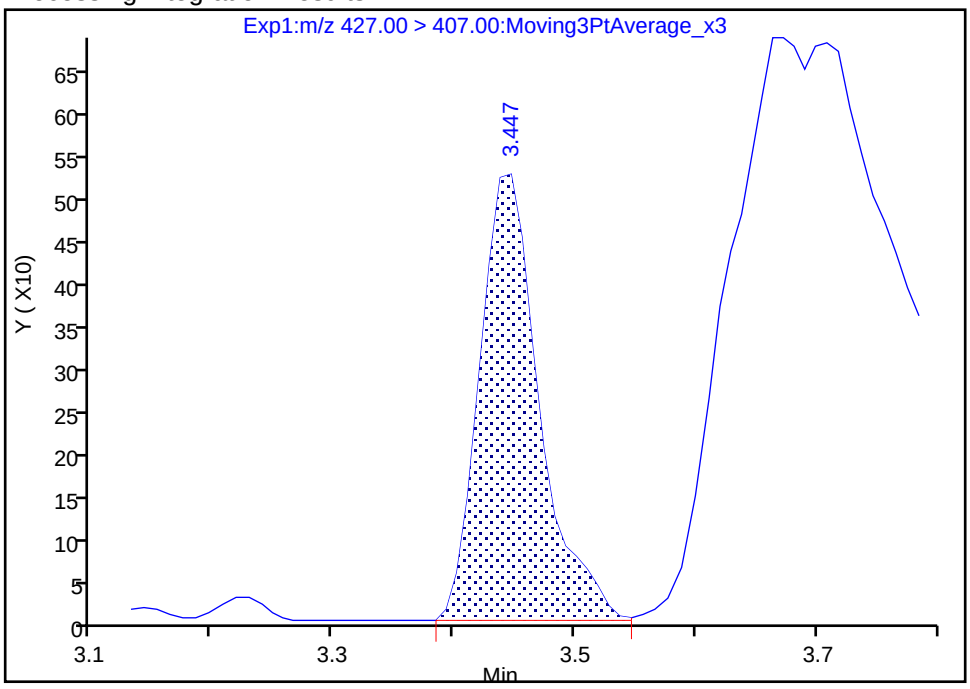
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

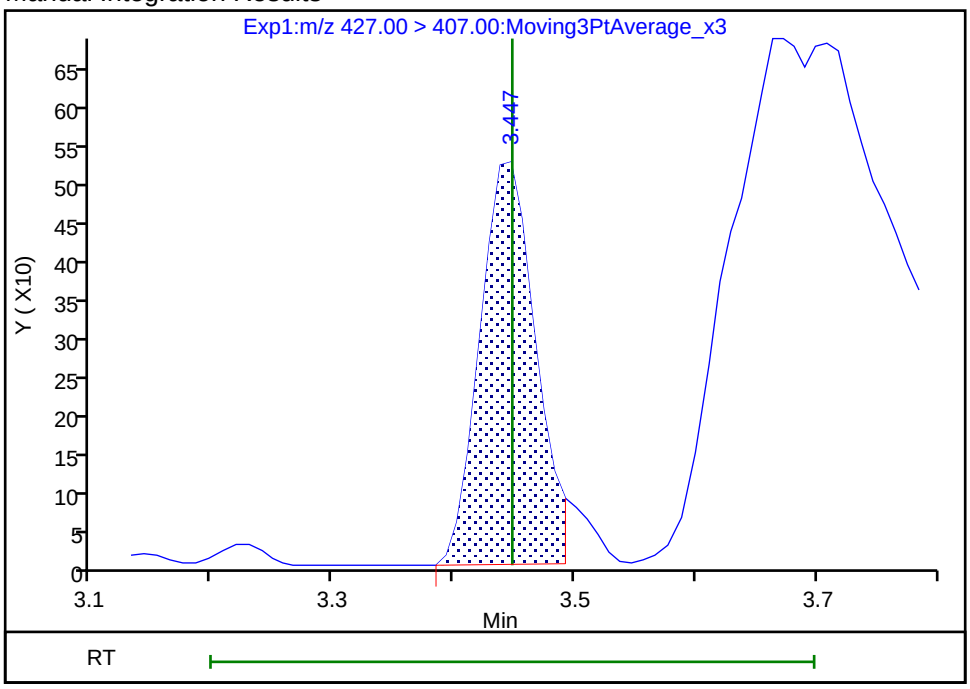
Processing Integration Results

RT: 3.45
Area: 1799
Amount: 0.007488
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 1661
Amount: 0.006914
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:26:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

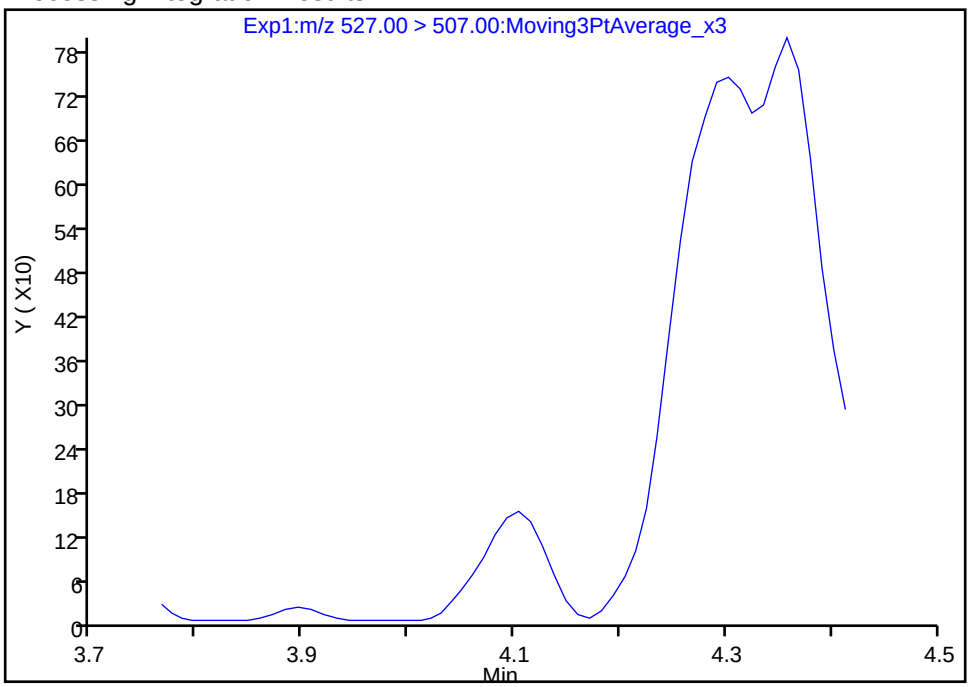
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

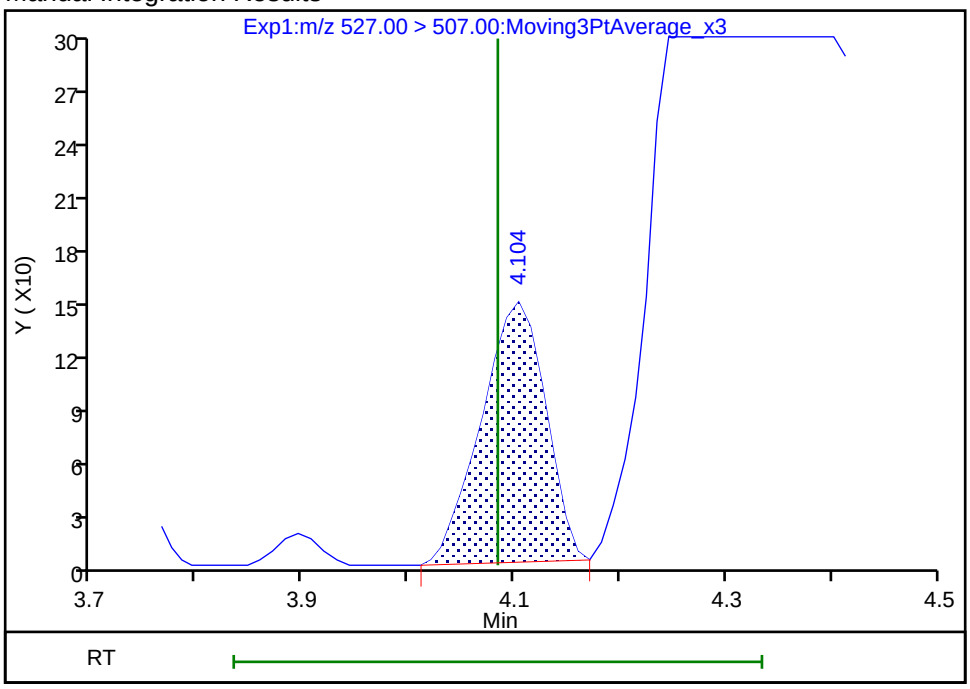
Not Detected
Expected RT: 4.08

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 623
Amount: 0.003521
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:28:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

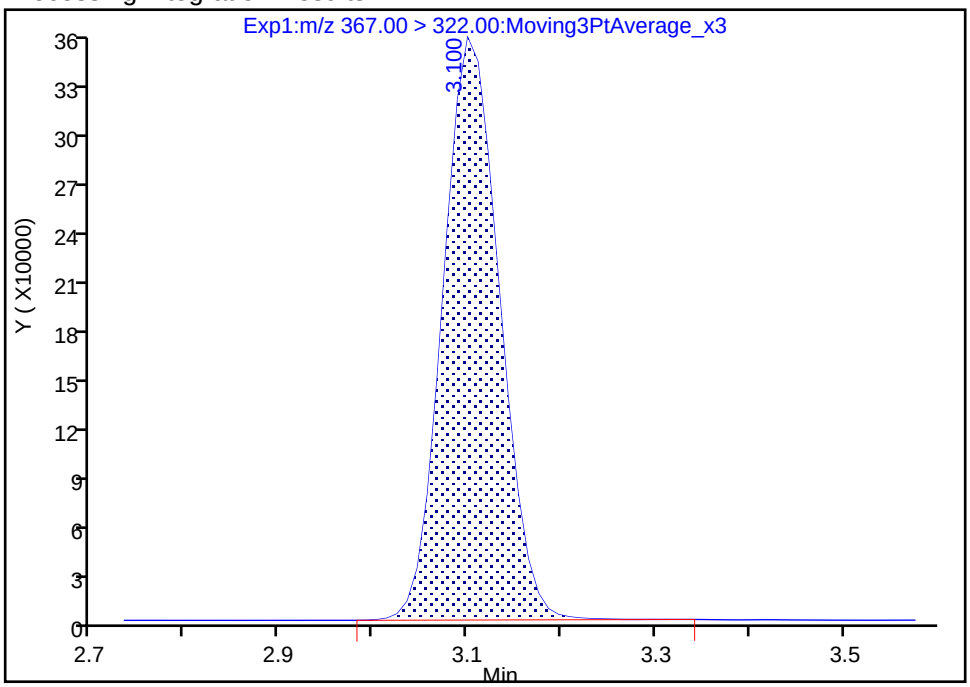
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

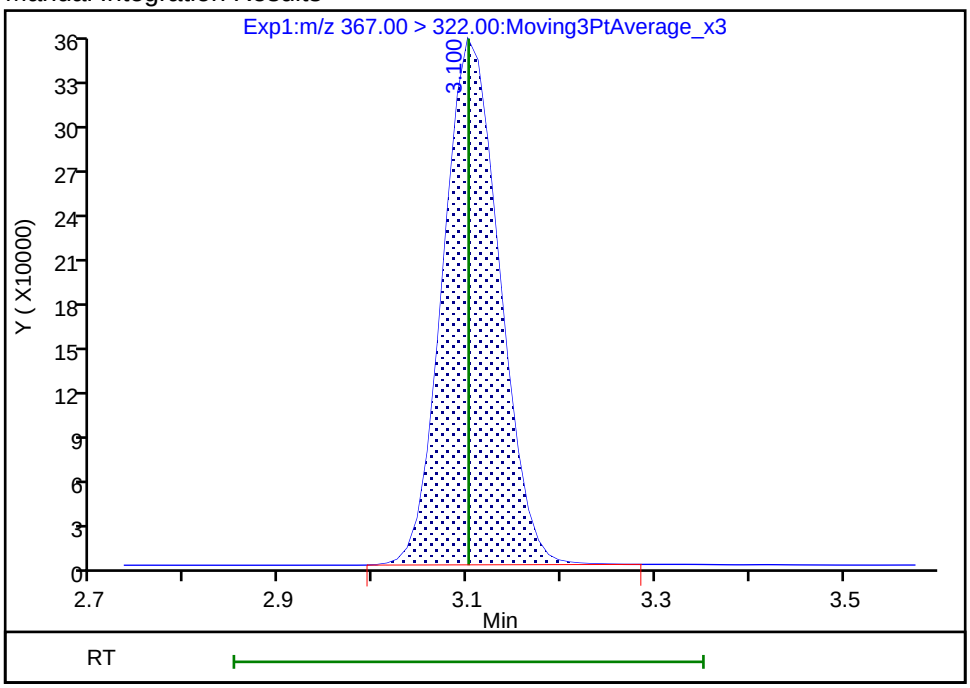
Processing Integration Results

RT: 3.10
Area: 1484634
Amount: 1.201644
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1483139
Amount: 1.210288
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:23:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

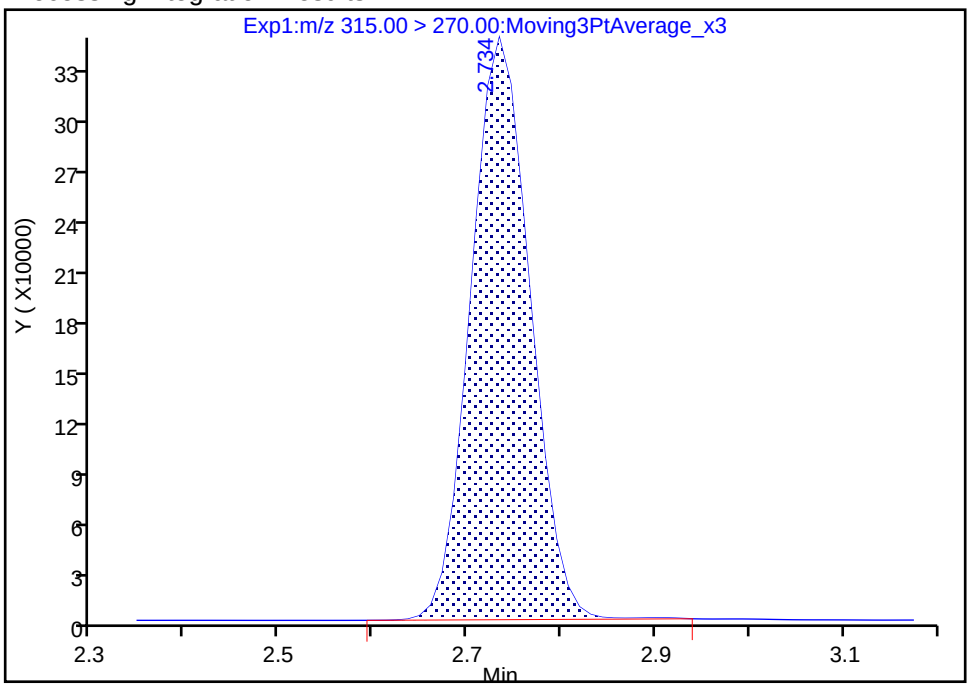
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

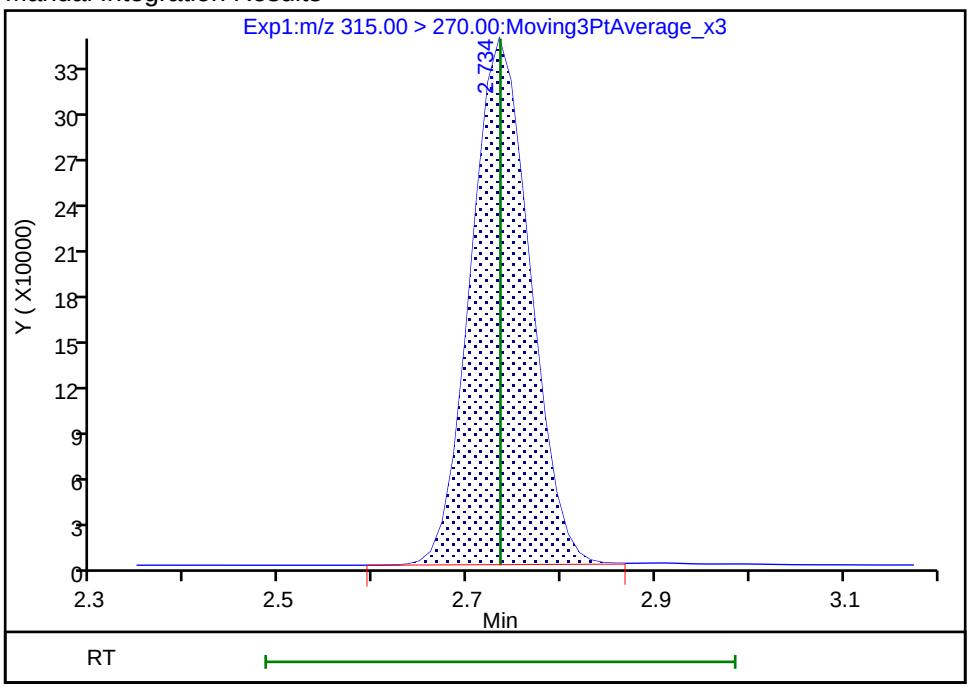
Processing Integration Results

RT: 2.73
Area: 1518119
Amount: 1.293527
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 1516099
Amount: 1.302411
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:23:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

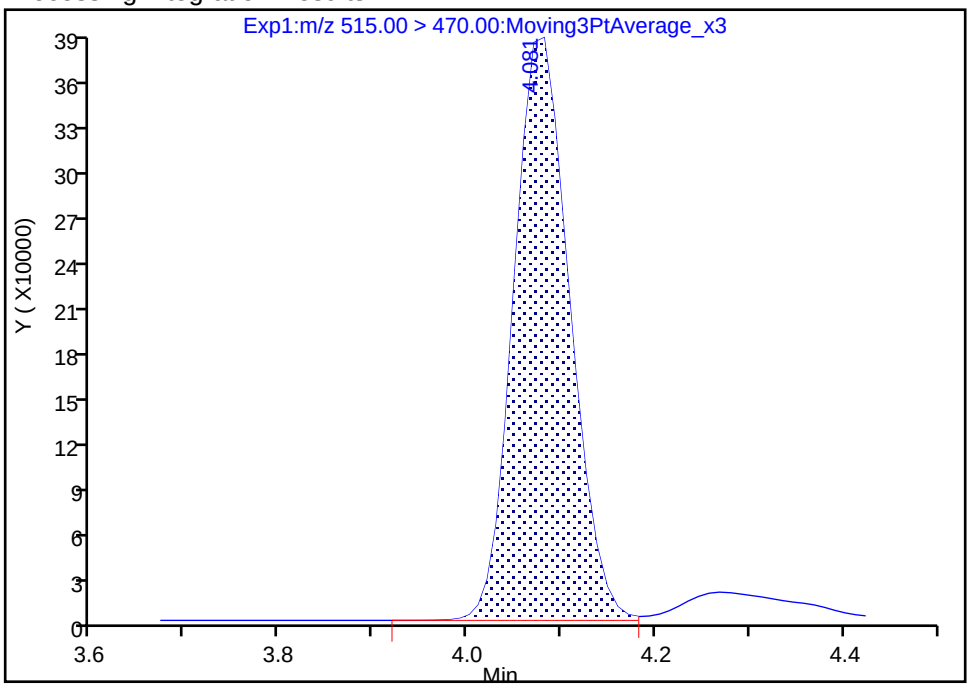
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

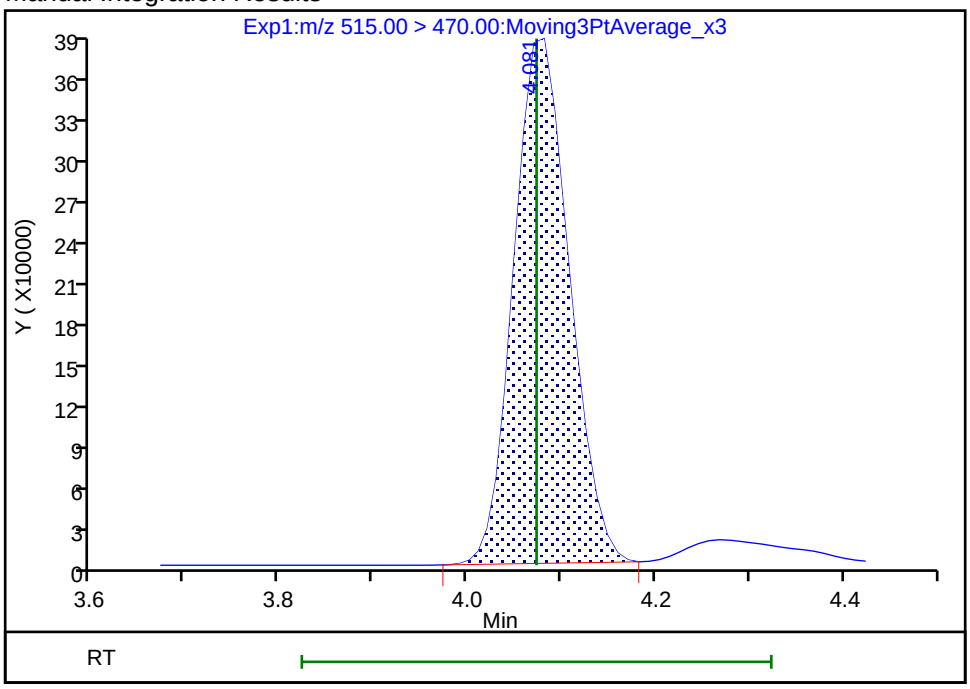
Processing Integration Results

RT: 4.08
Area: 1608202
Amount: 1.185099
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1590763
Amount: 1.181871
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:37:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

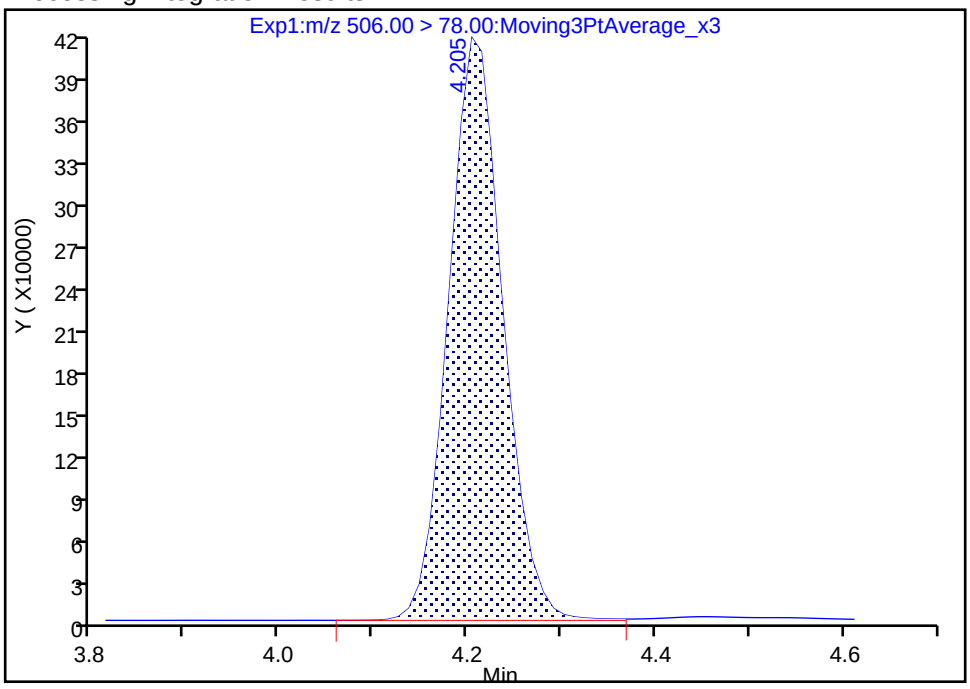
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

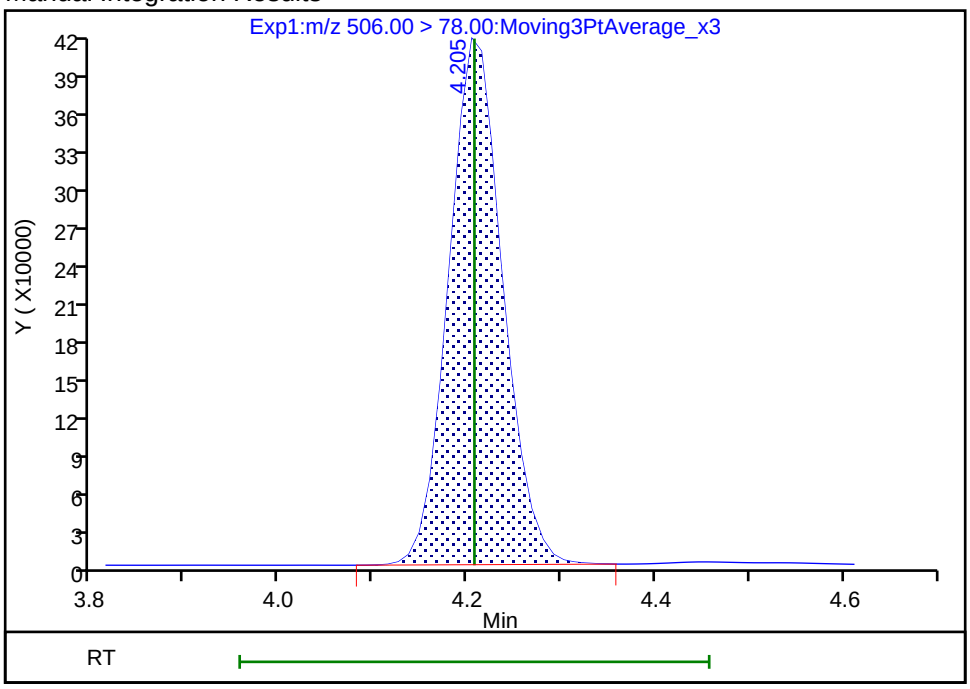
Processing Integration Results

RT: 4.20
Area: 1664655
Amount: 1.271794
Amount Units: ng/ml




Manual Integration Results

RT: 4.20
Area: 1656337
Amount: 1.275827
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:38:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

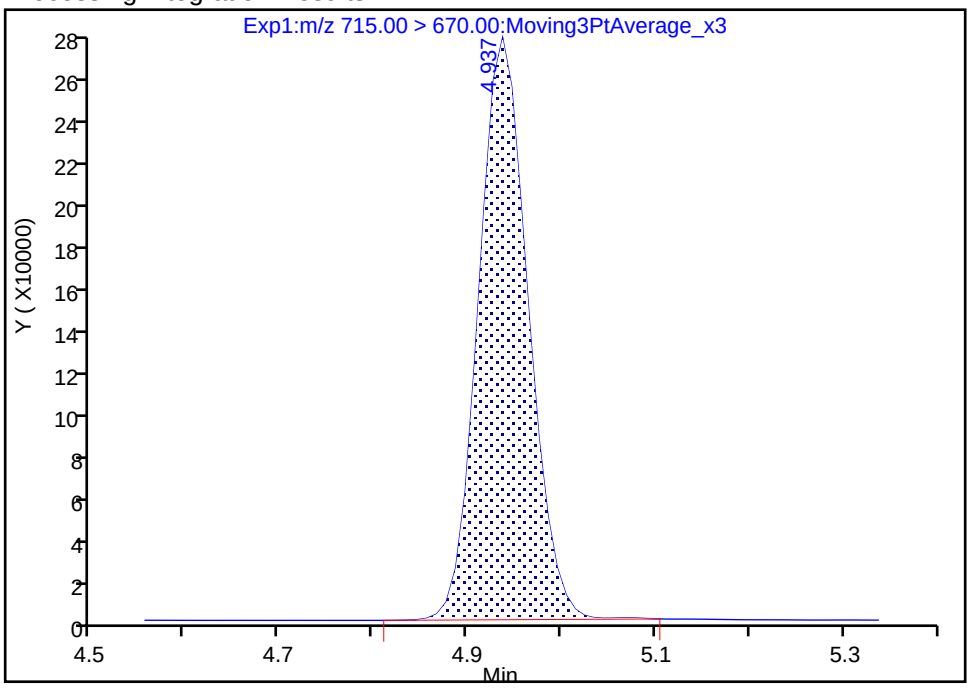
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

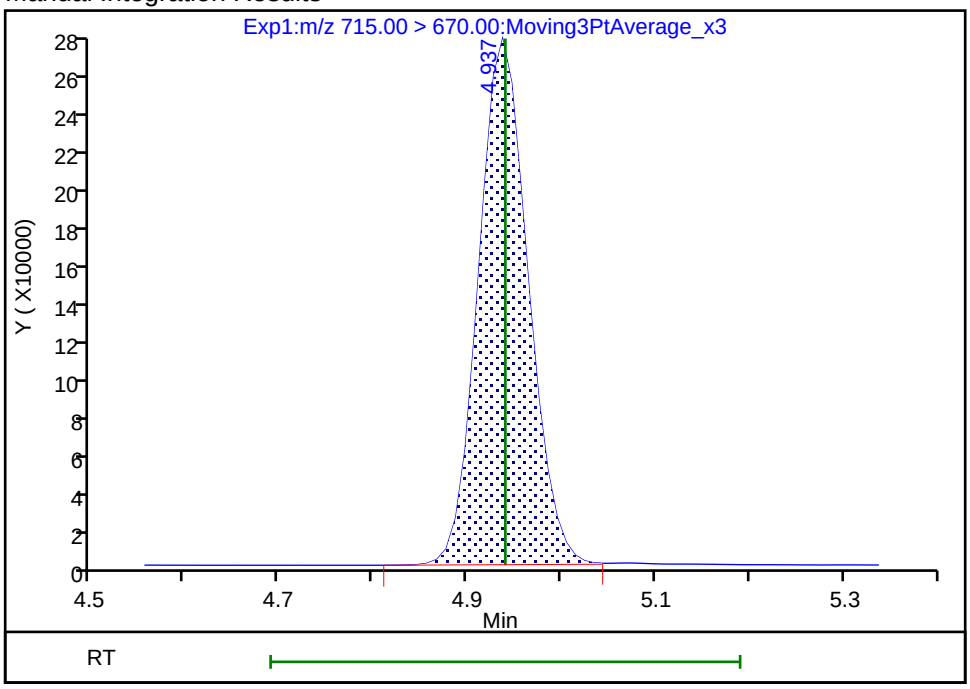
Processing Integration Results

RT: 4.94
Area: 1005988
Amount: 1.140099
Amount Units: ng/ml




Manual Integration Results

RT: 4.94
Area: 1004446
Amount: 1.147696
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:23:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

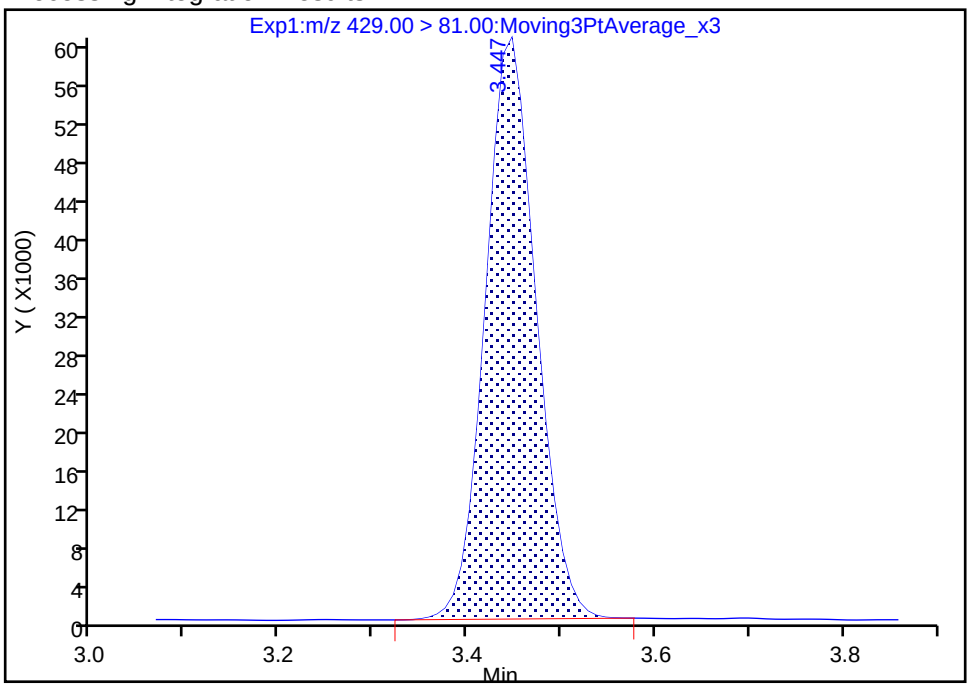
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

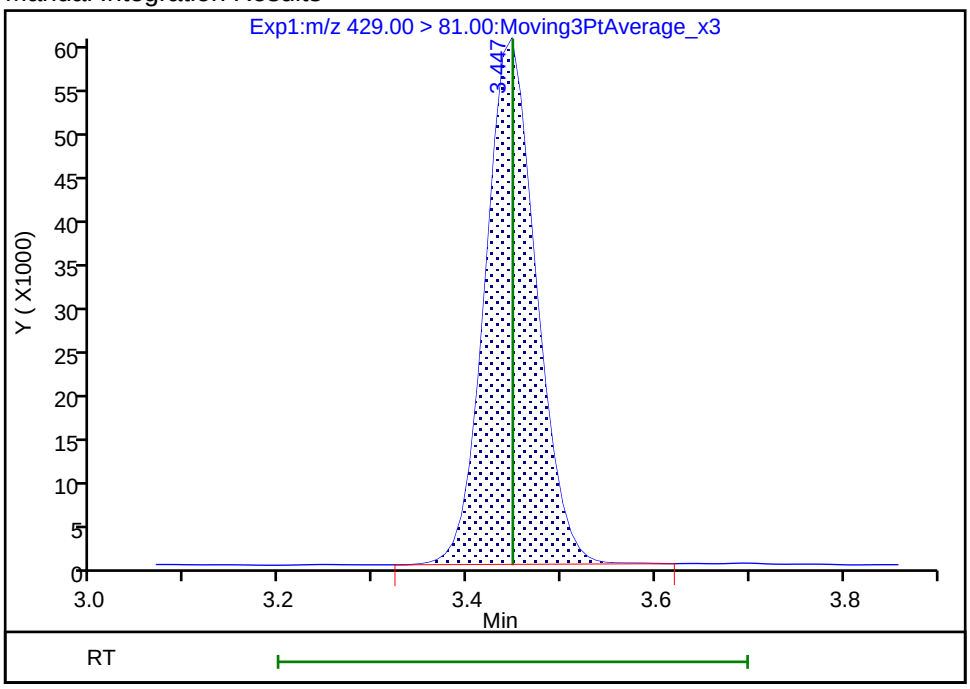
Processing Integration Results

RT: 3.45
Area: 224312
Amount: 1.293349
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 224971
Amount: 1.307797
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:23:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

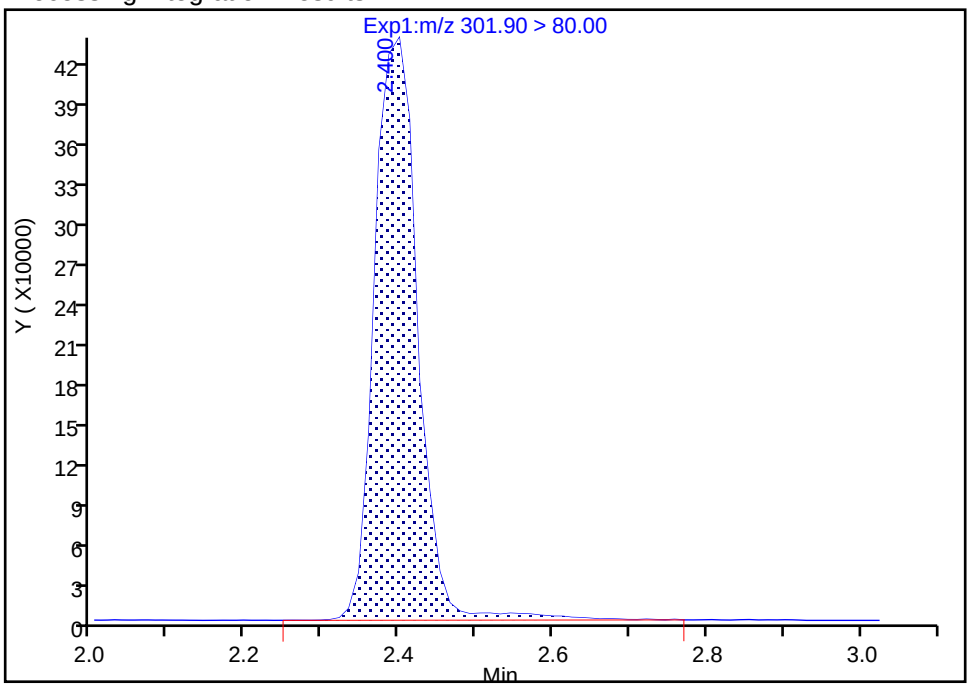
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

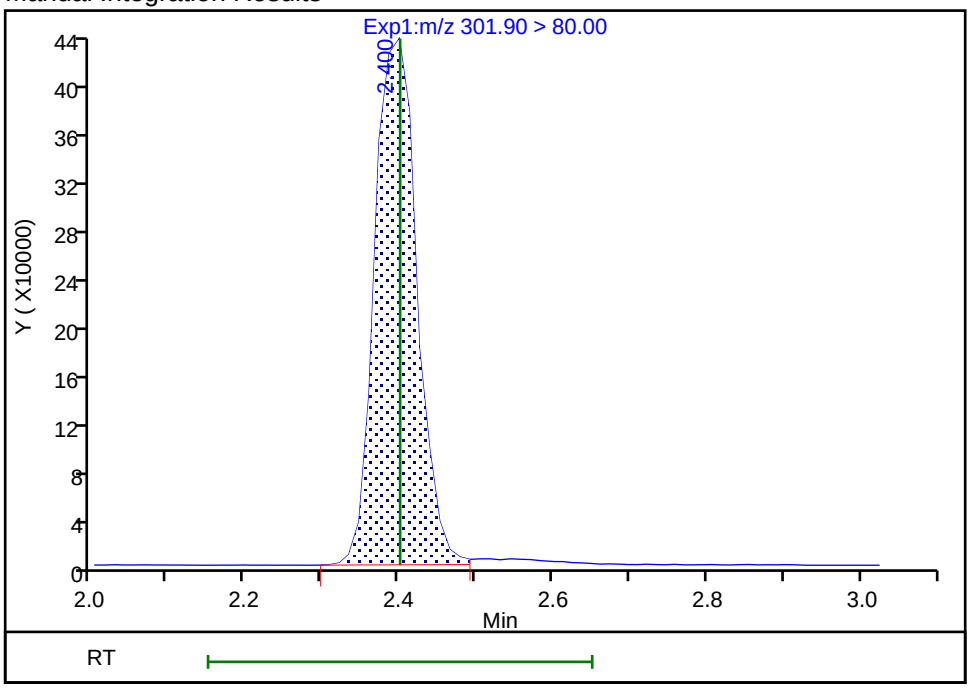
Processing Integration Results

RT: 2.40
Area: 1683027
Amount: 1.111813
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1642002
Amount: 1.093616
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:22:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

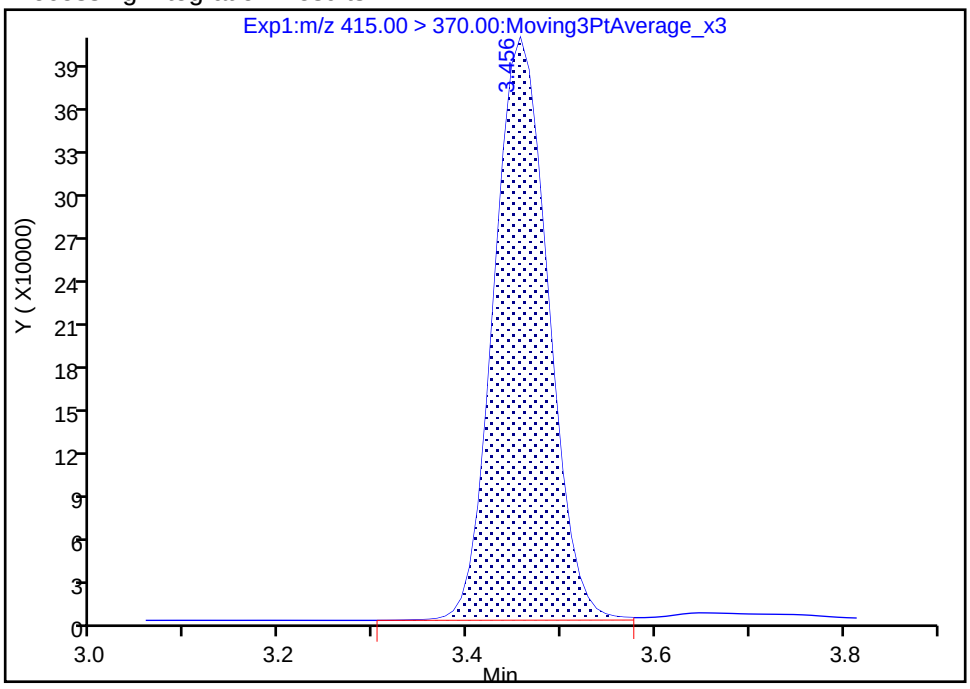
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A13.d | | | | |
| Injection Date: | 03-Nov-2021 14:23:54 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-1-A | Lab Sample ID: | 200-246027-1 | | |
| Client ID: | EB-01-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

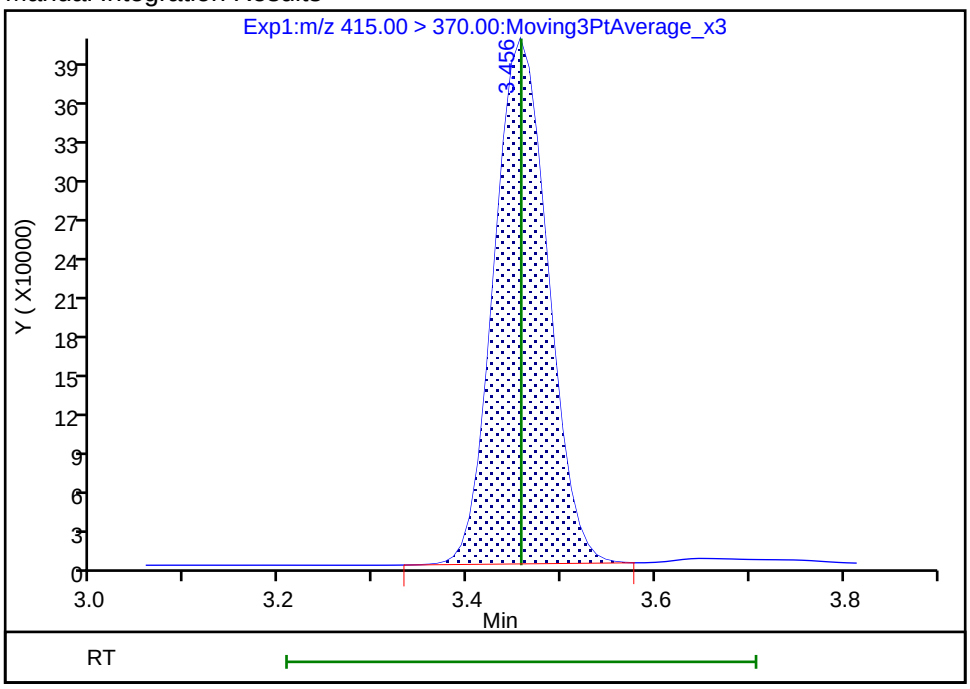
Processing Integration Results

RT: 3.46
Area: 1639961
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1626608
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:37:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3D-20211025  Lab Sample ID: 460-246027-2

Matrix: Water  Lab File ID: PA211103A14.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 16:00

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 277(mL)  Date Analyzed: 11/03/2021 14:32

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.57 | | 4.51 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 5.30 | | 1.81 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 4.91 | | 1.81 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 3.04 | | 1.81 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 9.82 | | 1.81 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.29 | J | 1.81 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.81 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.81 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.81 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.81 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.81 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 8.08 | | 1.81 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 3.39 | | 1.81 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | J | 1.81 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 18.3 | | 1.81 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.81 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.81 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.54 | J | 1.81 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3D-20211025  Lab Sample ID: 460-246027-2

Matrix: Water  Lab File ID: PA211103A14.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 16:00

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 277(mL)  Date Analyzed: 11/03/2021 14:32

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 89 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 94 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 89 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 96 | | 50-150 |
| STL00997 | 13C2 PFUnA | 96 | | 50-150 |
| STL00998 | 13C2 PFDoA | 86 | | 50-150 |
| STL01056 | 13C8 FOSA | 93 | | 25-150 |
| STL01893 | 13C5 PFPeA | 102 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 89 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 109 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 109 | | 50-150 |
| STL02279 | M2-6:2 FTS | 97 | | 25-150 |
| STL02280 | M2-8:2 FTS | 102 | | 25-150 |
| STL02337 | 13C3 PFBS | 86 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d
Lims ID: 460-246027-A-2-A
Client ID: MHP-MW-3D-20211025
Sample Type: Client
Inject. Date: 03-Nov-2021 14:32:11 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-2-A
Misc. Info.: 200-0048270-014 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 09:35:35
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.062 | 2.065 | -0.003 | 0.597 | 1547862 | 1.11 | | 88.7 | 7628 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.062 | 2.065 | -0.003 | 1.000 | 148348 | 0.1267 | | | 16.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.690 | 1503390 | 1.28 | | 102 | 2571 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 176941 | 0.1469 | | | 7.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.398 | 2.401 | -0.003 | 0.694 | 1593932 | 1.00 | | 86.2 | 53290 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.398 | 2.401 | -0.003 | 1.000 | 327676 | 0.2238 | Target=2.32 | | 41.3 | |
| 298.90 > 99.00 | 2.398 | 2.401 | -0.003 | 1.000 | 149665 | | 2.19(1.16-3.48) | | 44.3 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.732 | 2.735 | -0.003 | 1.000 | 164279 | 0.1360 | Target=12.09 | | 16.4 | |
| 313.00 > 119.00 | 2.744 | 2.735 | 0.009 | 1.004 | 13428 | | 12.23(6.04-18.13) | | 19.4 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.732 | 2.735 | -0.003 | 0.790 | 1488551 | 1.21 | | 96.6 | 1330 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1218331 | 1.05 | | 89.2 | 290 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 1.000 | 106394 | 0.0939 | Target=3.55 | | 21.6 | M |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 1.000 | 31194 | | 3.41(1.77-5.32) | | 16.7 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 107575 | 0.0843 | Target=3.69 | | 15.9 | M |
| 363.00 > 169.00 | 3.100 | 3.101 | -0.001 | 0.997 | 28936 | | 3.72(1.84-5.53) | | 26.8 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.900 | 1544603 | 1.19 | | 95.2 | 2328 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.456 | 3.448 | 0.008 | 1.003 | 5561 | 0.0248 | | | 6.6 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.915 | 5681 | 0.005832 | Target=4.88 | | 2.0 | M |
| 449.00 > 99.00 | 3.456 | 3.448 | 0.008 | 0.918 | 1455 | | 3.90(2.44-7.32) | | 1.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 209821 | 1.15 | | 97.0 | 224 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1653661 | 1.17 | | 93.3 | 1030 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1723202 | 1.25 | | | 282 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 382616 | 0.2720 | Target=2.68 | | 32.9 | M |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 1.000 | 145393 | | 2.63(1.34-4.02) | | 62.8 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 933744 | 1.12 | | 93.6 | 366 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.000 | 430876 | 0.5082 | Target=4.69 | | 74.9 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 1.000 | 77469 | | 5.56(2.35-7.04) | | 61.3 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.095 | 1716339 | 1.21 | | 97.2 | 2635 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.795 | 3.786 | 0.009 | 1.003 | 10724 | 0.007983 | Target=7.29 | | 1.4 | M |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 1.000 | 1103 | | 9.72(3.64-10.93) | | 2.1 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.082 | 4.073 | 0.009 | 1.181 | 1711098 | 1.20 | | 96.0 | 104 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 251838 | 1.22 | | 102 | 129 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 2631 | 0.0150 | | | 2.5 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.205 | 4.207 | -0.002 | 1.217 | 1599457 | 1.16 | | 93.0 | 568 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.205 | 4.207 | -0.002 | 1.000 | 524 | 0.000431 | | | 0.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.215 | 4.217 | -0.002 | 1.219 | 190817 | 1.36 | | 109 | 226 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.217 | 0.029 | 1.007 | 113 | 0.000942 | | | 0.2 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.302 | 4.306 | -0.004 | 1.142 | 108 | 0.000210 | Target=2.47 | | 0.3 | RM |
| 599.00 > 99.00 | 4.314 | 4.306 | 0.008 | 1.145 | 187 | | 0.58(1.23-3.70) | | 0.9 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.336 | 4.339 | -0.003 | 1.254 | 1340160 | 1.21 | | 96.5 | 823 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.258 | 179782 | 1.37 | | 109 | 695 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.000 | 223 | 0.001809 | | | 1.1 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.556 | 4.562 | -0.006 | 1.318 | 1283451 | 1.07 | | 85.9 | 285 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.774 | 4.761 | 0.013 | 1.048 | 769 | 0.000887 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.765 | 4.761 | 0.004 | 1.046 | 125 | | 6.15(2.34-7.02) | | 2.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.937 | 4.940 | -0.003 | 1.428 | 1026386 | 1.11 | | 88.6 | 1327 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d

Injection Date: 03-Nov-2021 14:32:11 Instrument ID: LC812

Lims ID: 460-246027-A-2-A Lab Sample ID: 200-246027-2

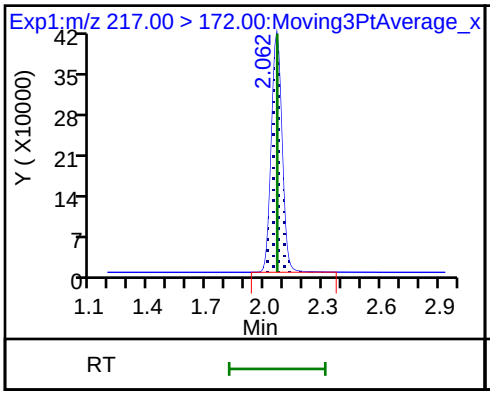
Client ID: MHP-MW-3D-20211025

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 14

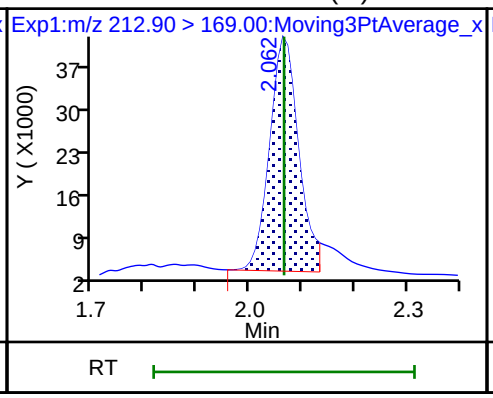
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

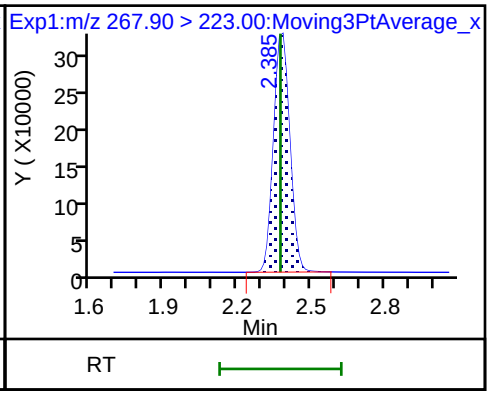
D 1 13C4 PFBA



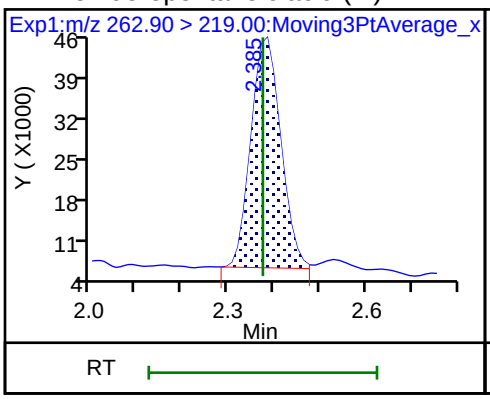

2 Perfluorobutanoic acid (M)



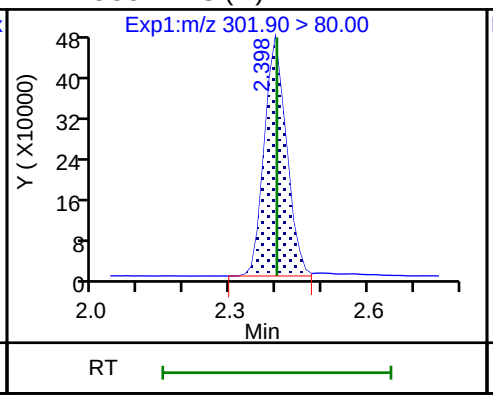

D 3 13C5 PFPeA



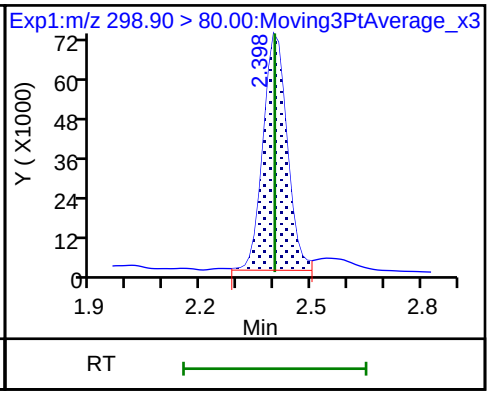

4 Perfluoropentanoic acid (M)



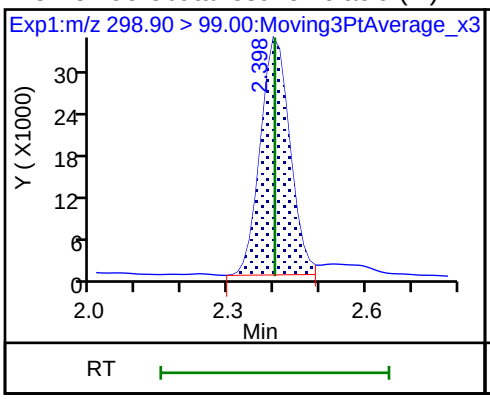

D 47 13C3 PFBS (M)



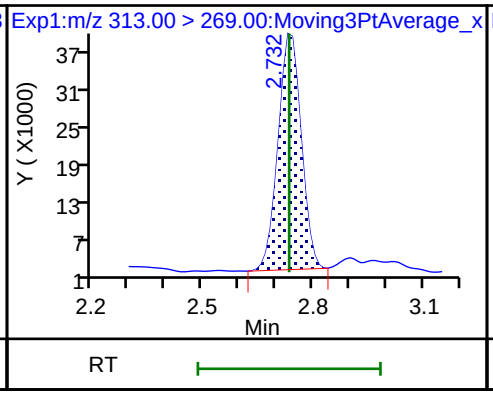

5 Perfluorobutanesulfonic acid



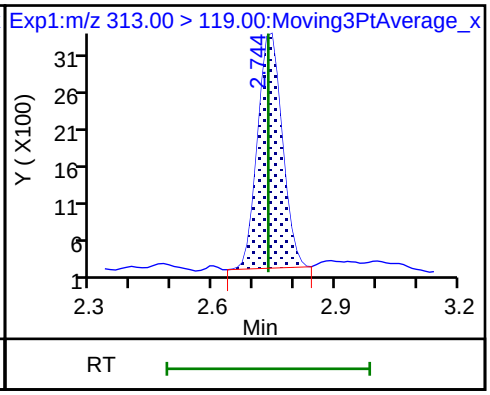

5 Perfluorobutanesulfonic acid (M)



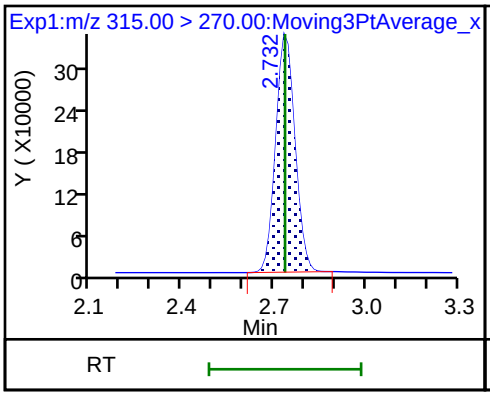

6 Perfluorohexanoic acid



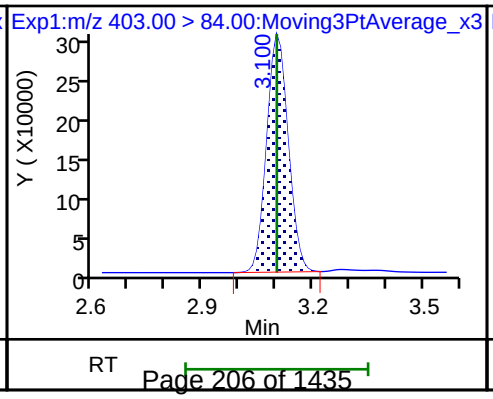

6 Perfluorohexanoic acid



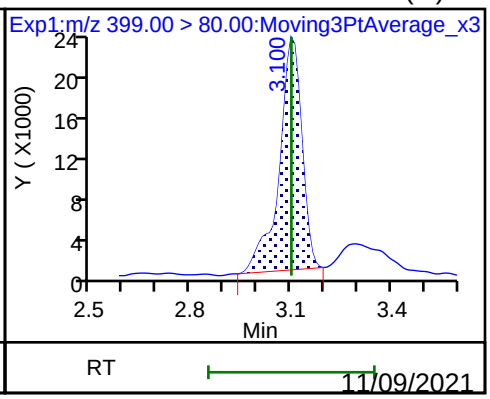

D 7 13C2 PFHxA



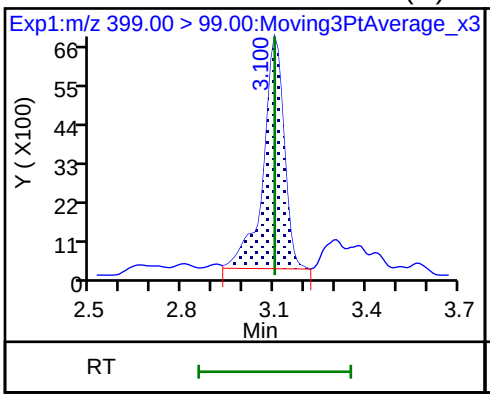

D 11 18O2 PFHxS



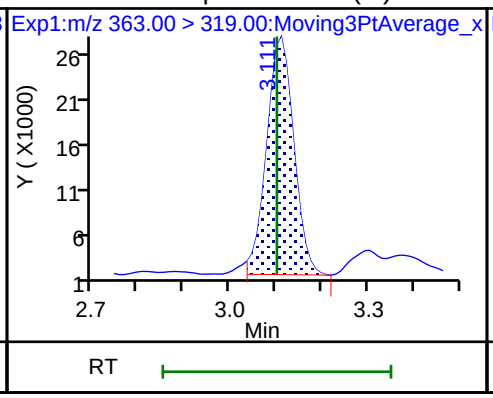

8 Perfluorohexanesulfonic acid (M)



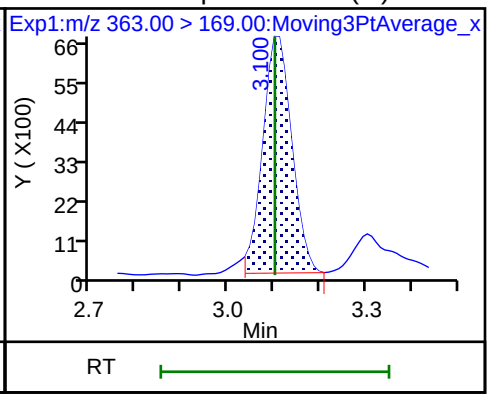
8 Perfluorohexanesulfonic acid (M)



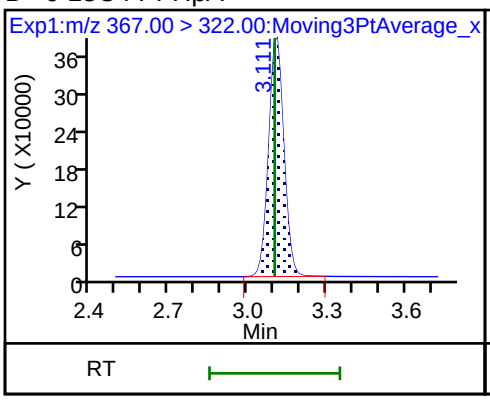

10 Perfluoroheptanoic acid (M)



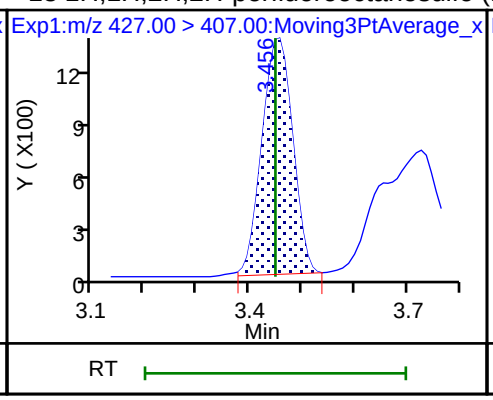

10 Perfluoroheptanoic acid (M)



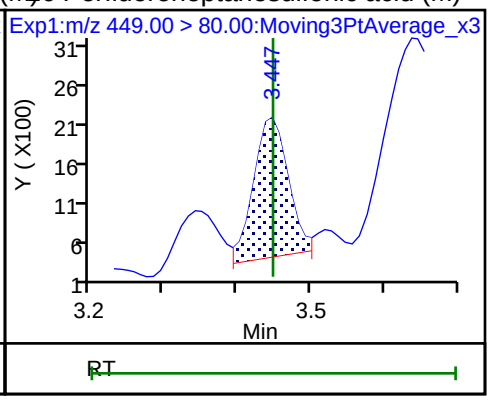

D 9 13C4 PFHpA



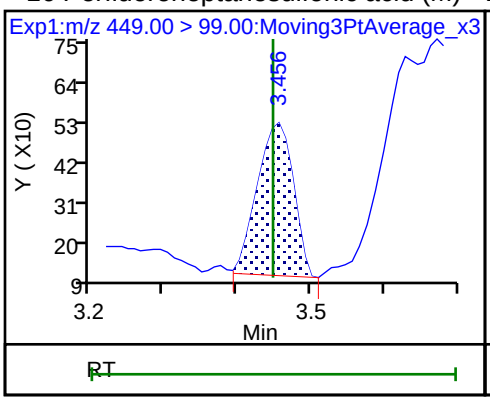

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



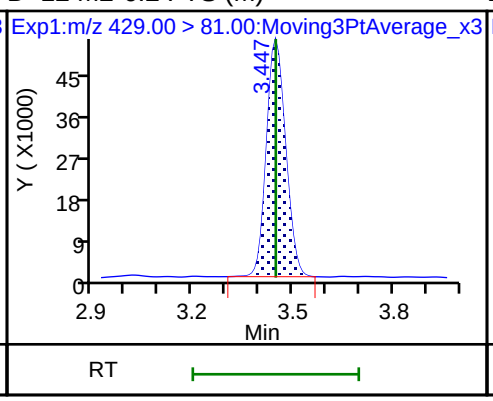

16 Perfluoroheptanesulfonic acid (M)




16 Perfluoroheptanesulfonic acid (M)




D 12 M2-6:2 FTS (M)

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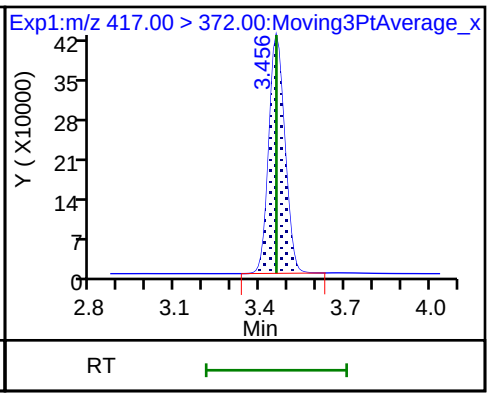
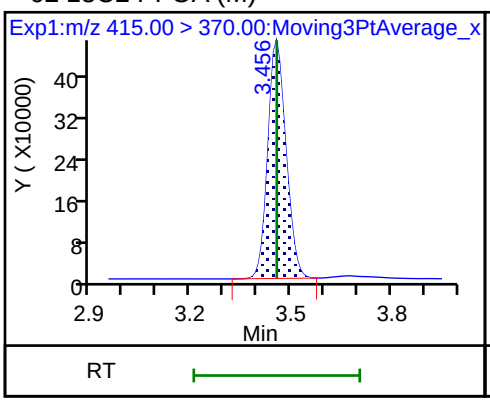
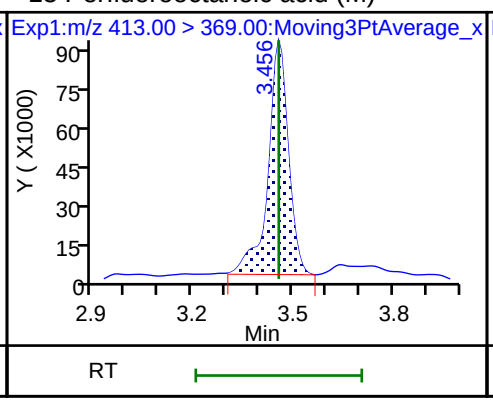


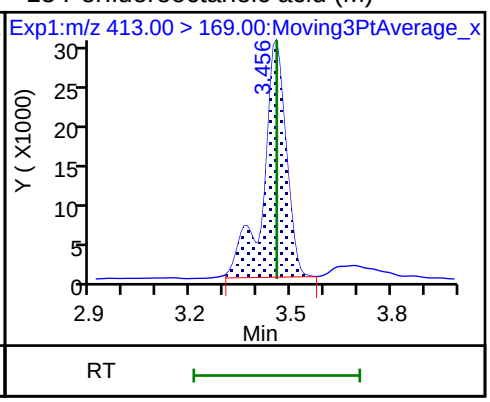

* 62 13C2 PFOA (M)



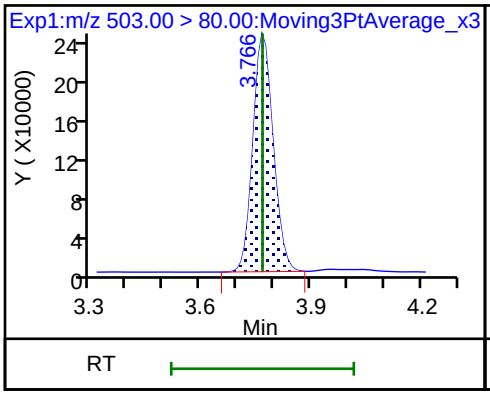

15 Perfluorooctanoic acid (M)



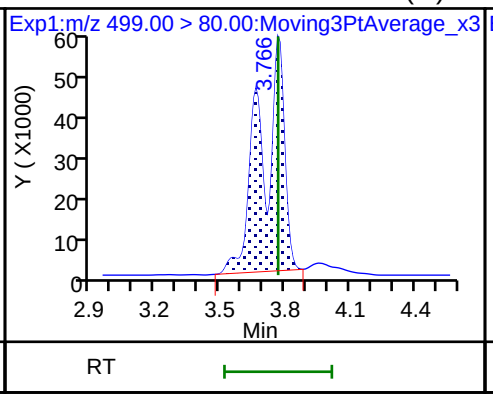

15 Perfluorooctanoic acid (M)



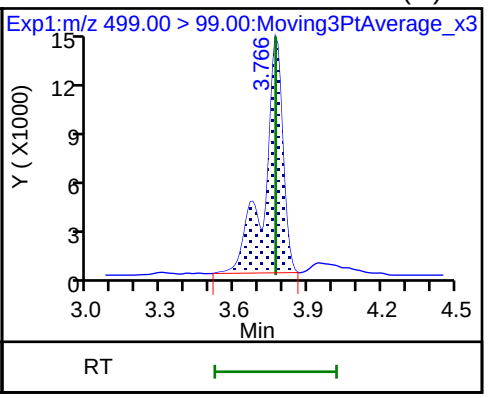
D 18 13C4 PFOS



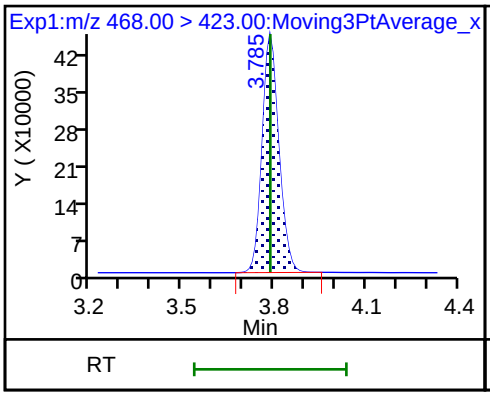

17 Perfluorooctanesulfonic acid (M)



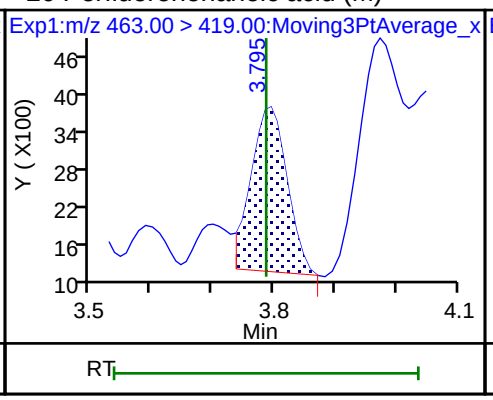

17 Perfluorooctanesulfonic acid (M)



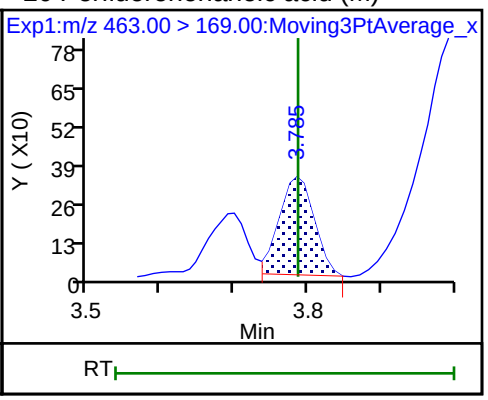

D 19 13C5 PFNA



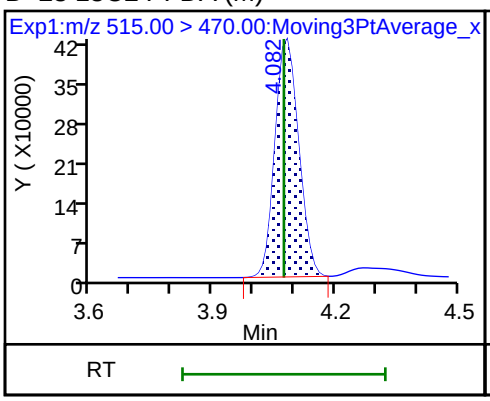

20 Perfluorononanoic acid (M)



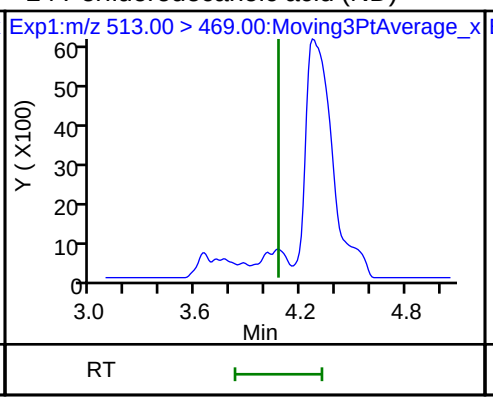

20 Perfluorononanoic acid (M)



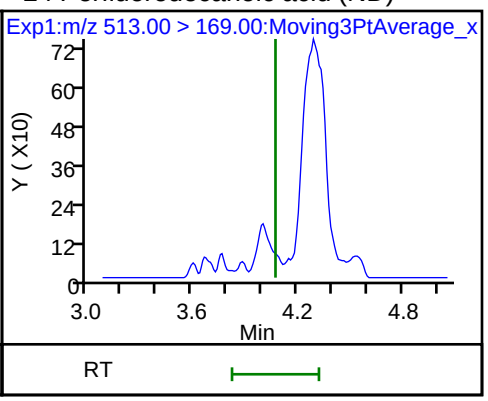

D 23 13C2 PFDA (M)



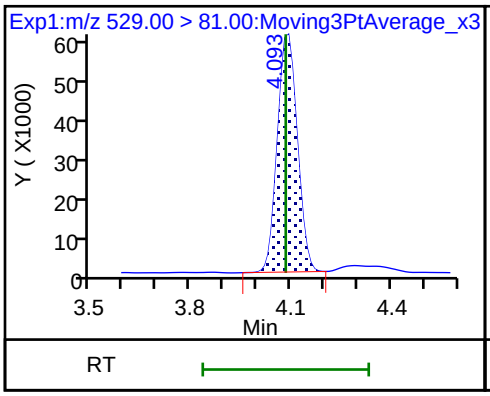

24 Perfluorodecanoic acid (ND)



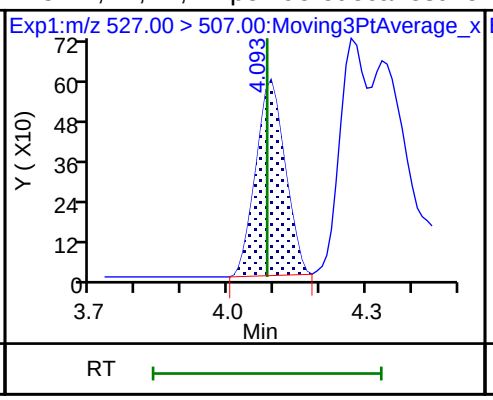

24 Perfluorodecanoic acid (ND)




D 26 M2-8:2 FTS




25 1H,1H,2H,2H-perfluorodecanesulfo

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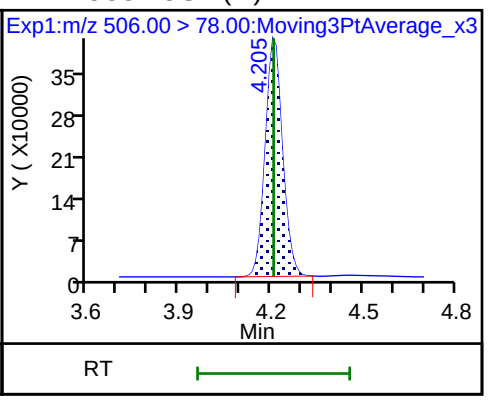
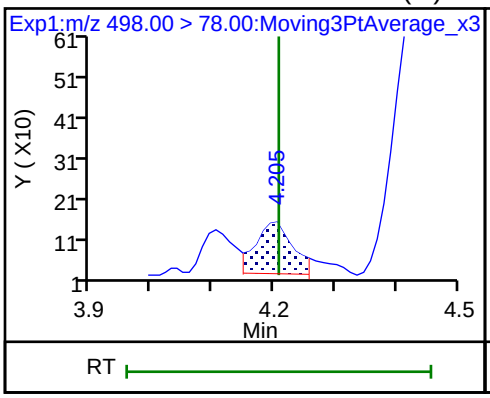
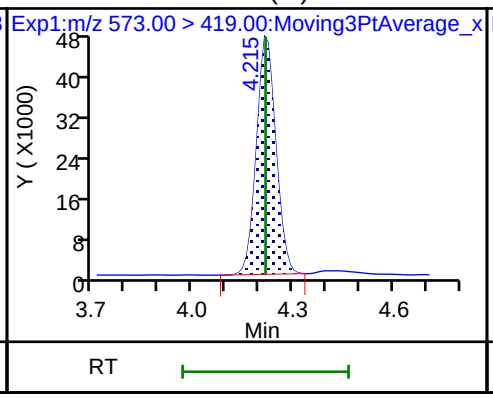


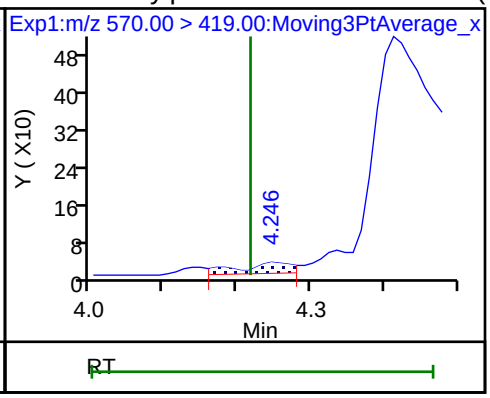
22 Perfluorooctanesulfonamide (M)



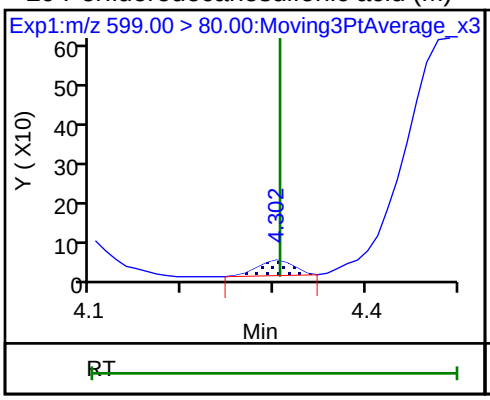

D 27 d3-NMeFOSAA (M)



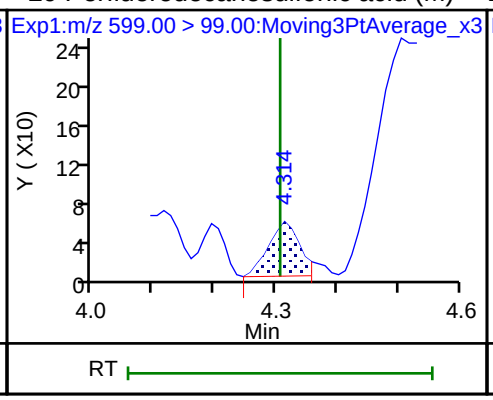

28 N-methylperfluorooctanesulfonami (M)



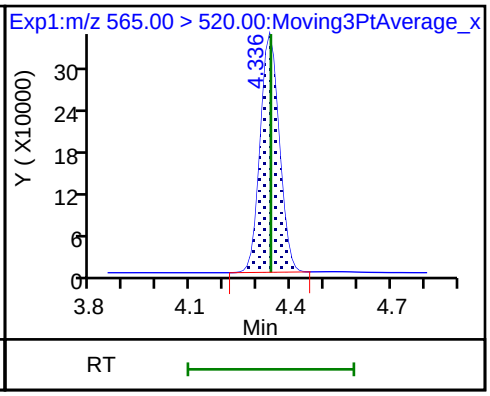

29 Perfluorodecanesulfonic acid (M)



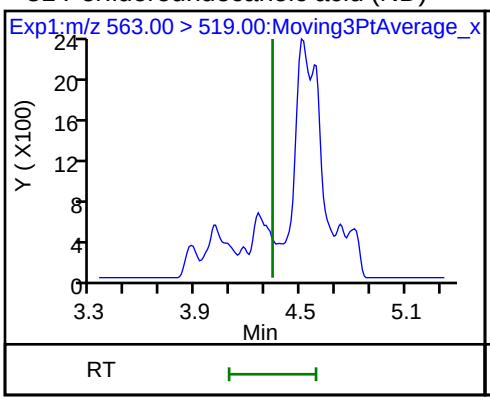

29 Perfluorodecanesulfonic acid (M)



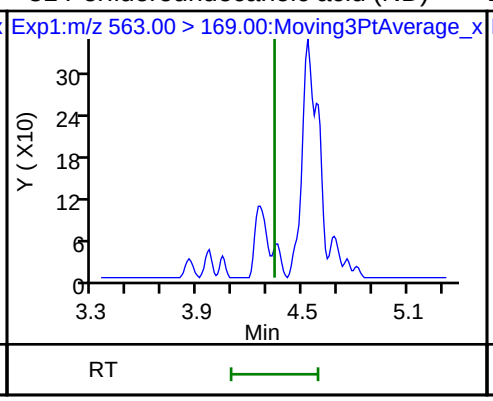

D 30 13C2 PFUnA



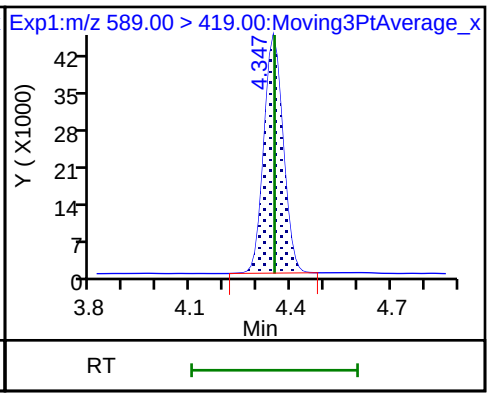

31 Perfluoroundecanoic acid (ND)



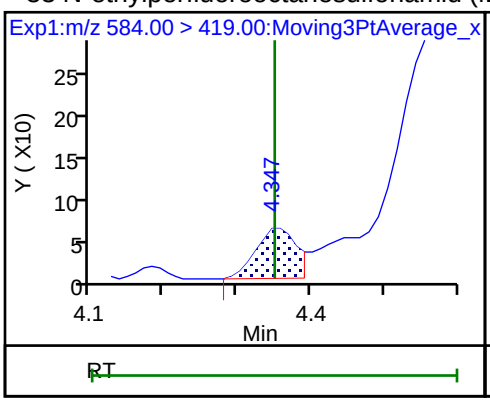

31 Perfluoroundecanoic acid (ND)



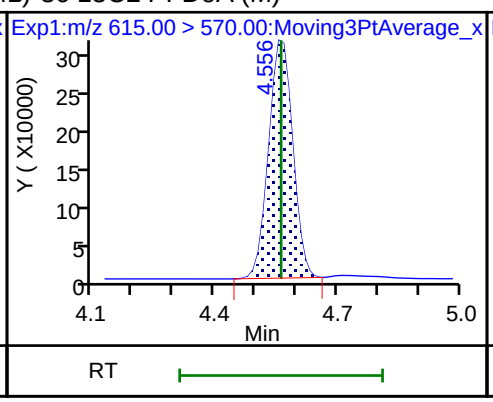

D 32 d5-NEtFOSAA



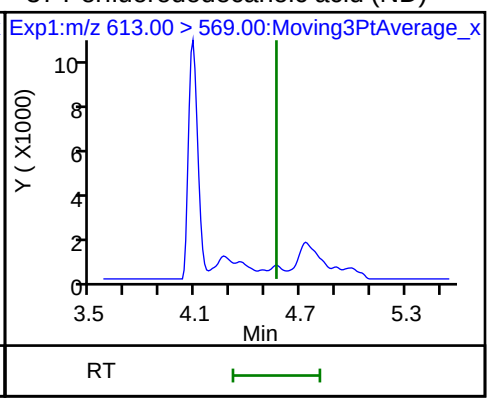

33 N-ethylperfluorooctanesulfonamid (ND)



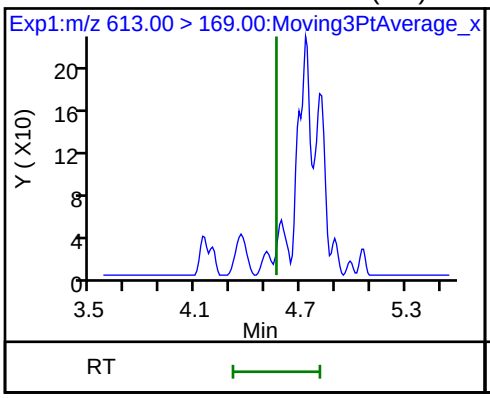

D 36 13C2 PFDoA (M)



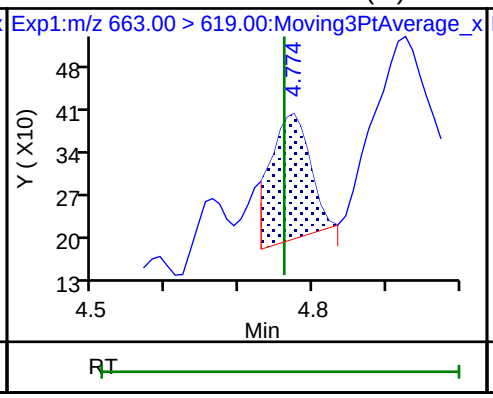

37 Perfluorododecanoic acid (ND)



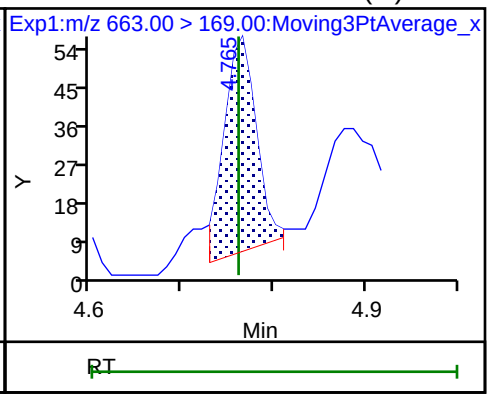
37 Perfluorododecanoic acid (ND)



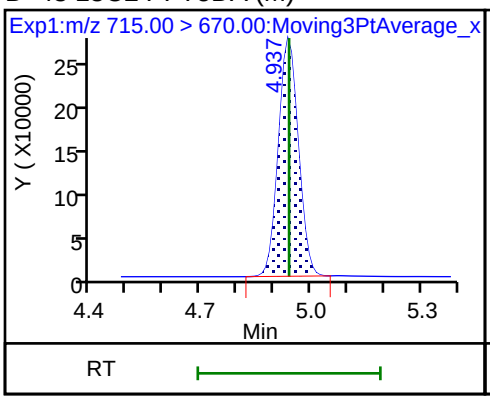

41 Perfluorotridecanoic acid (M)



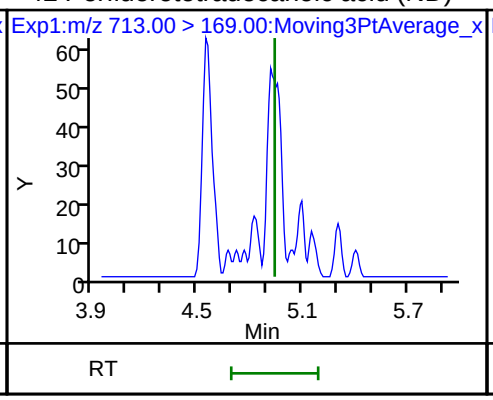

41 Perfluorotridecanoic acid (M)



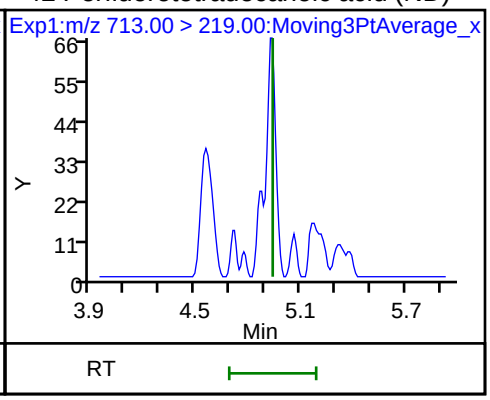

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

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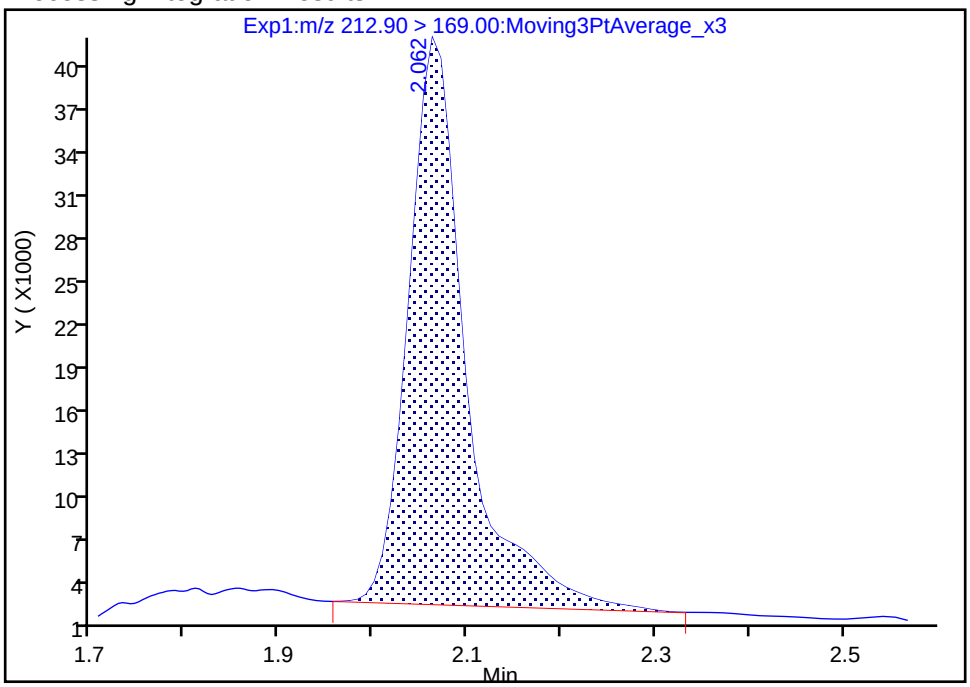
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

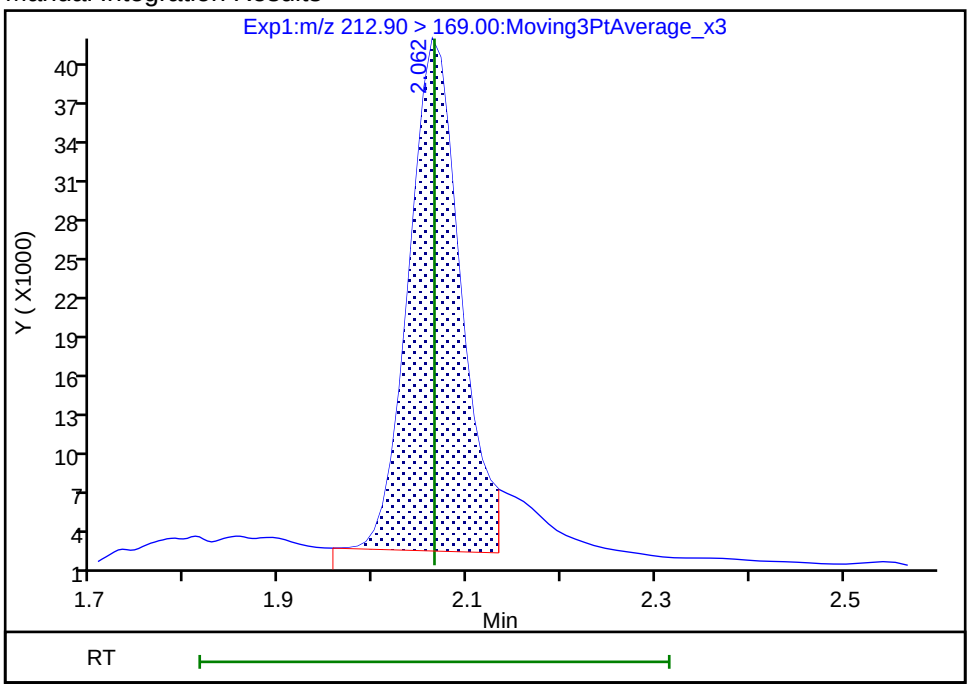
Processing Integration Results

RT: 2.06
Area: 166203
Amount: 0.141948
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 148348
Amount: 0.126698
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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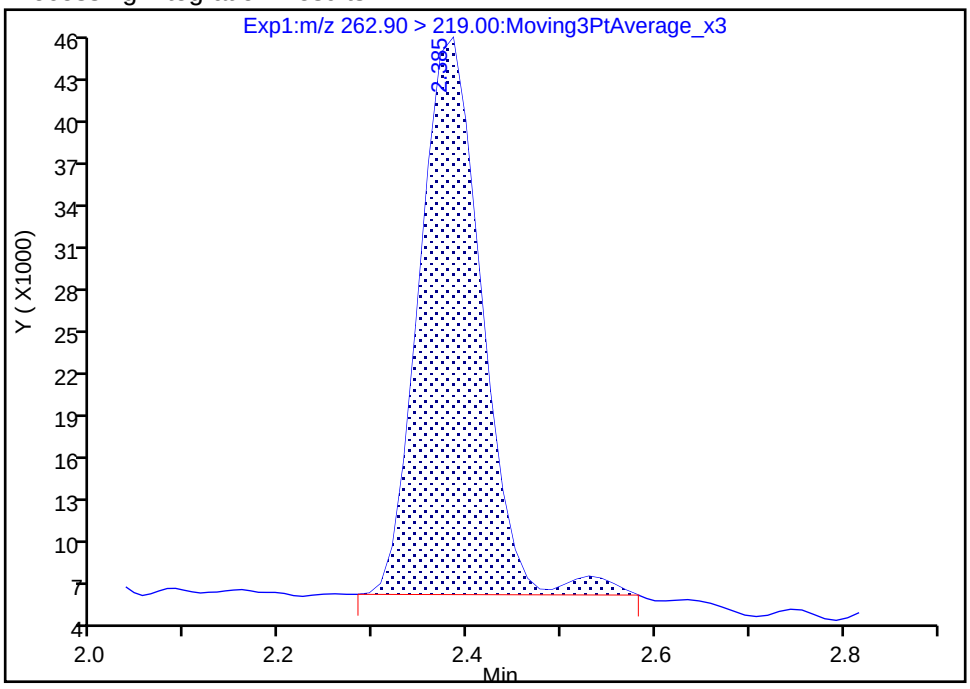
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

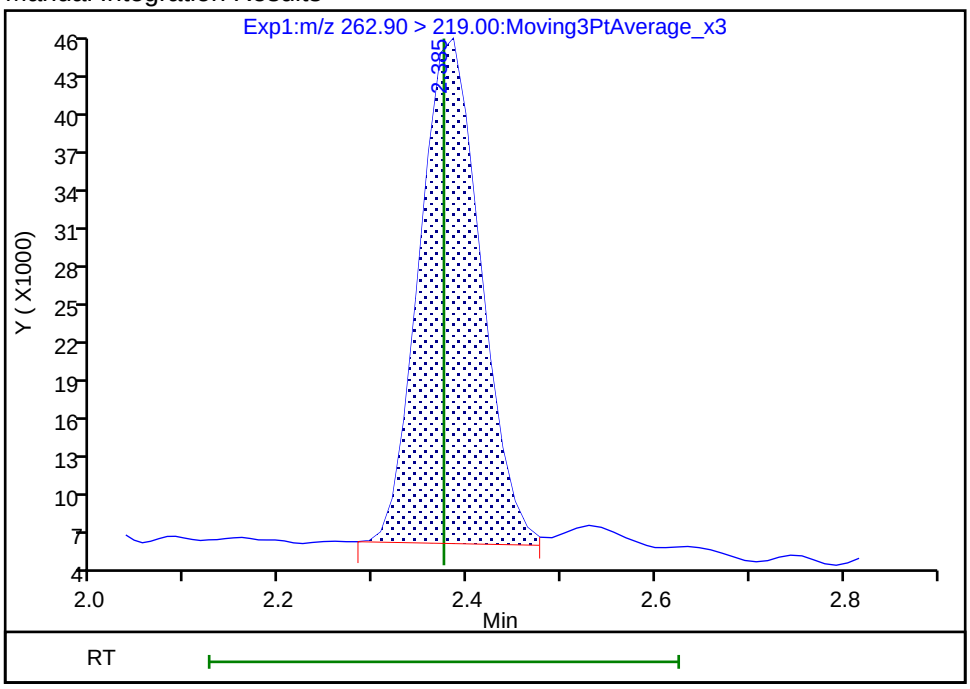
Processing Integration Results

RT: 2.38
Area: 180226
Amount: 0.149591
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 176941
Amount: 0.146865
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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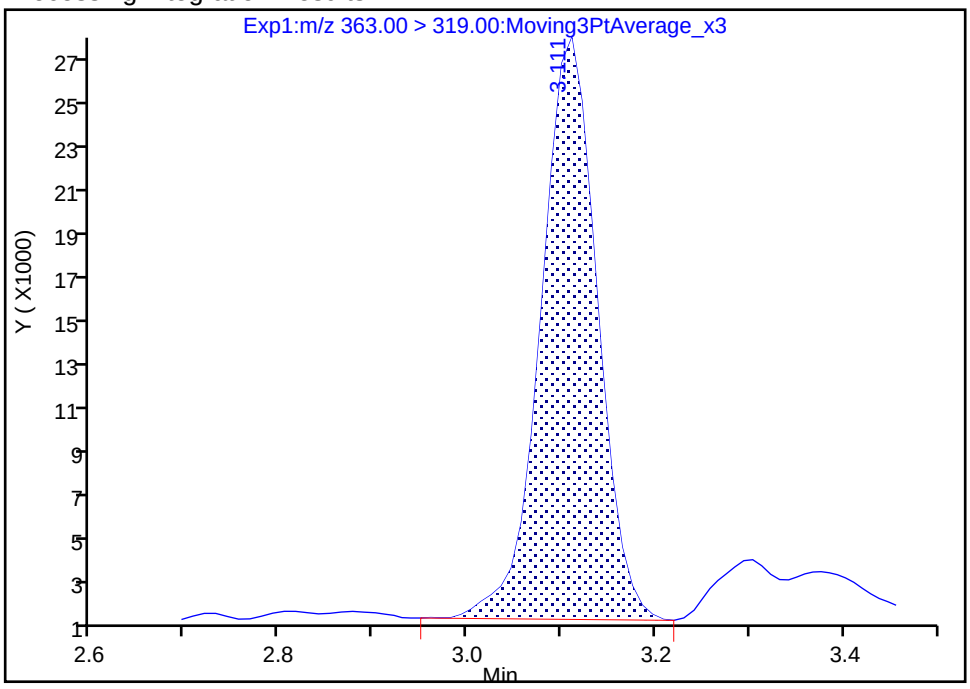
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

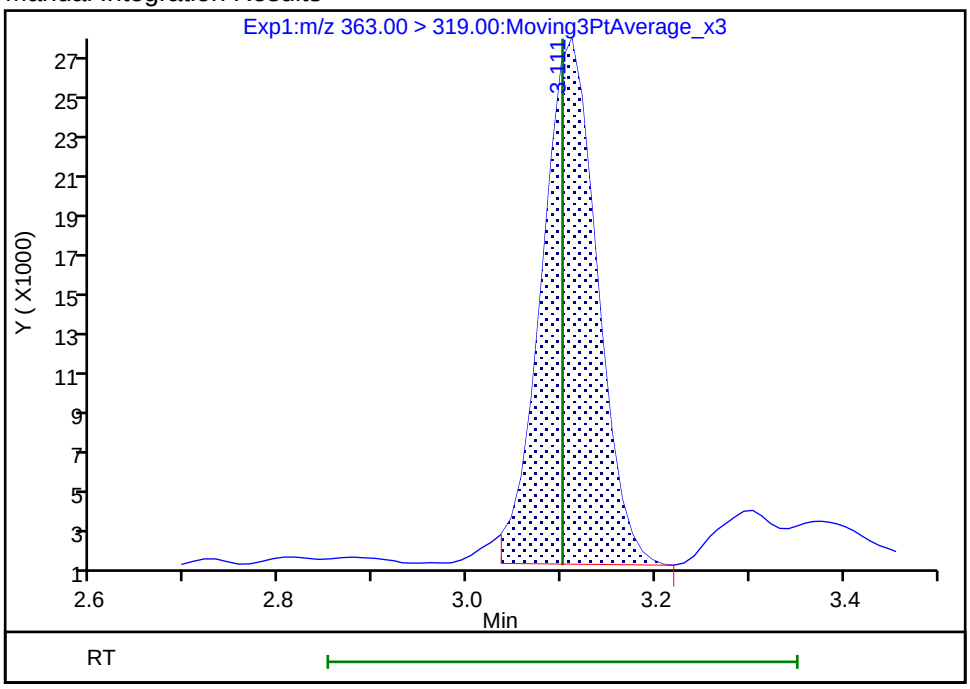
Processing Integration Results

RT: 3.11
Area: 109749
Amount: 0.085961
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 107575
Amount: 0.084258
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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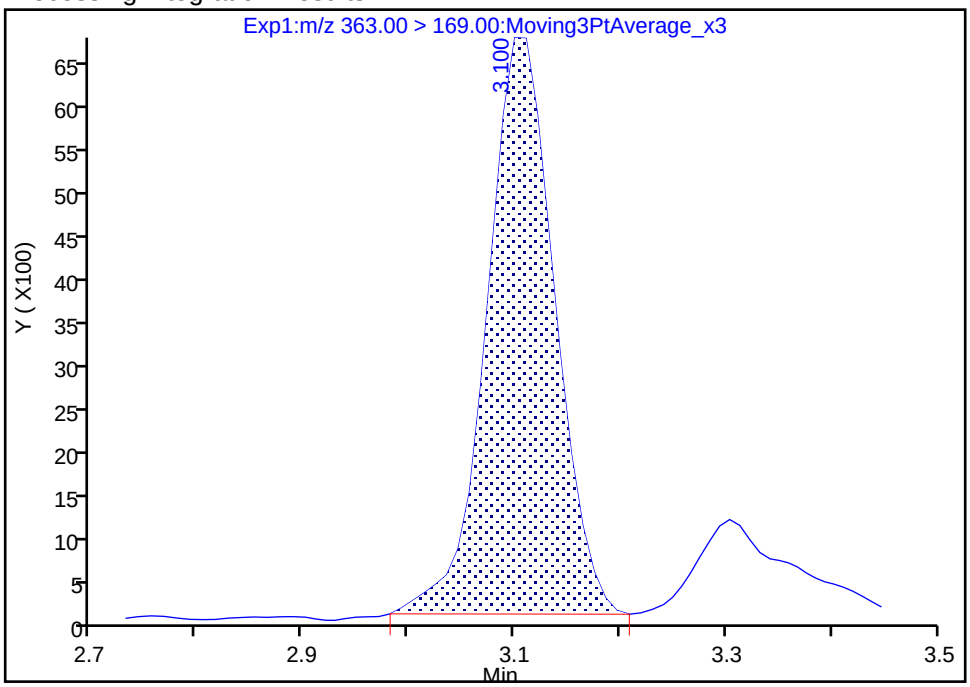
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

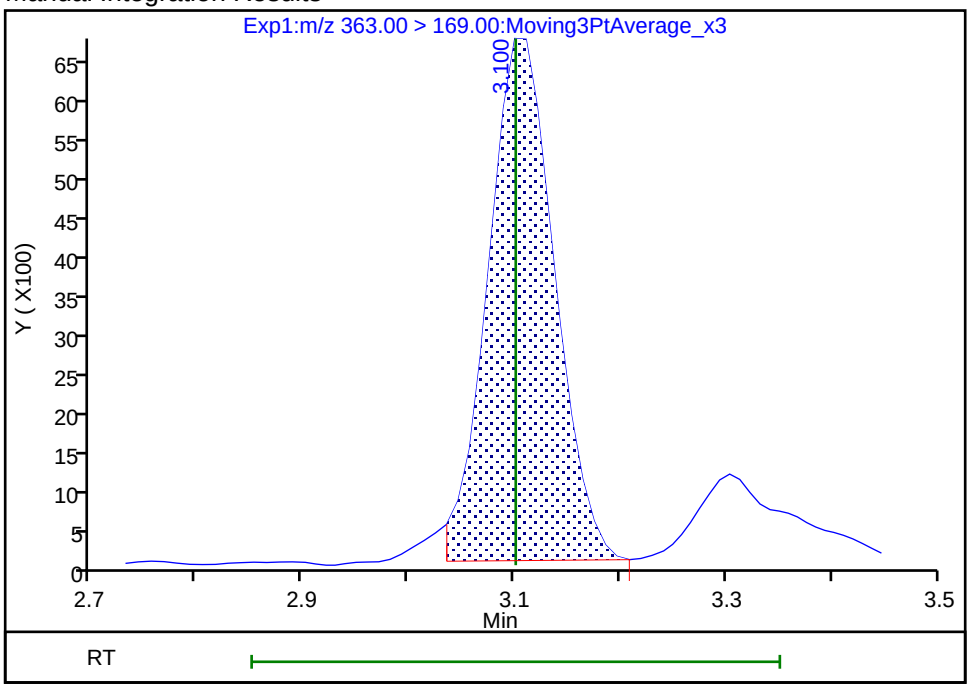
Processing Integration Results

RT: 3.10
Area: 29472
Amount: 0.085961
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 28936
Amount: 0.084258
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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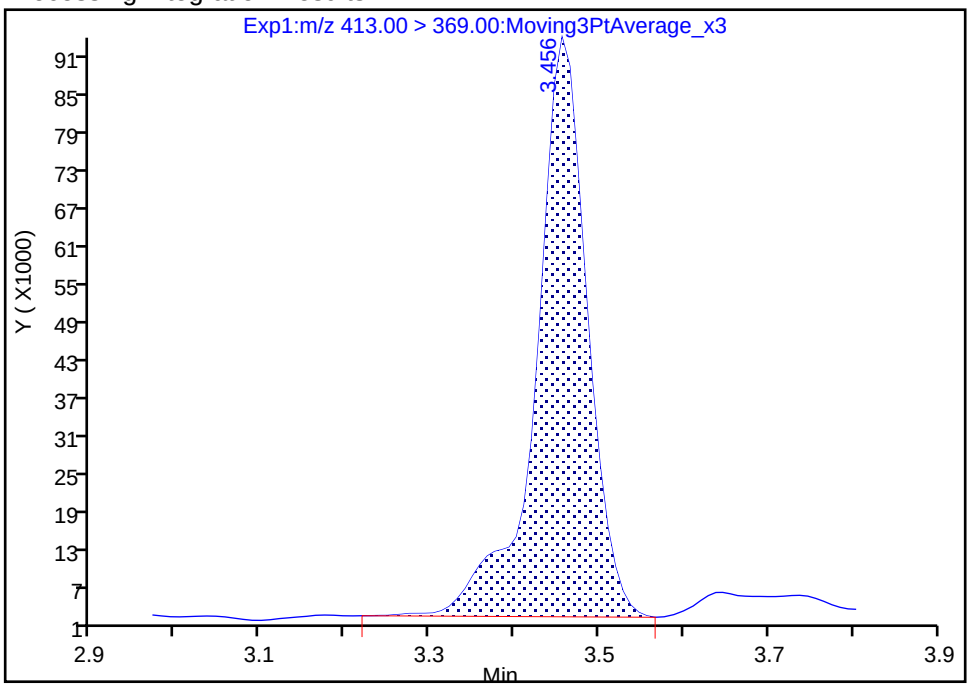
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

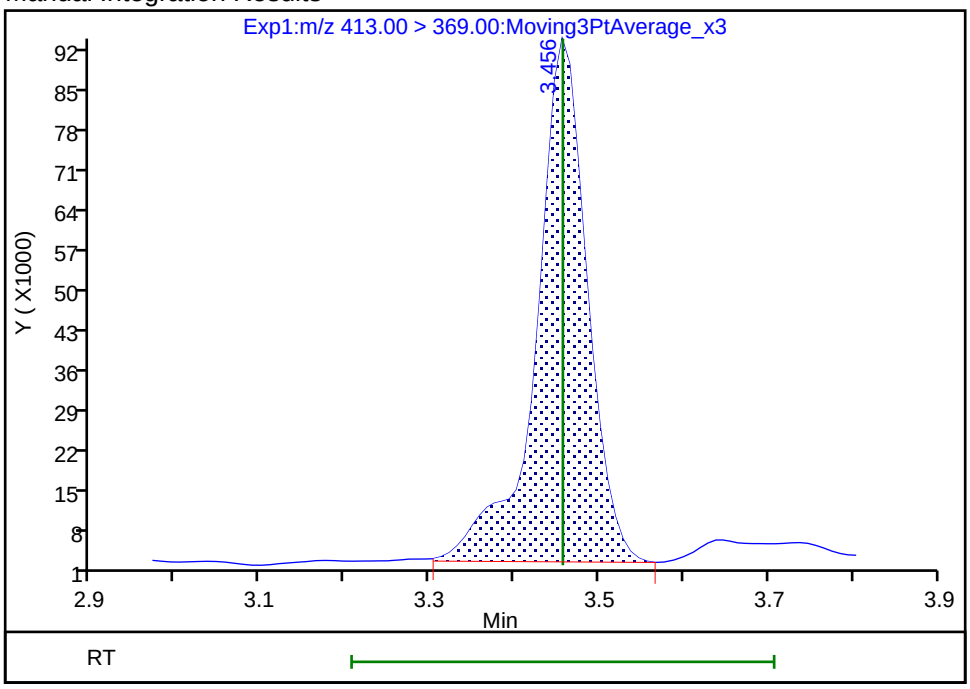
Processing Integration Results

RT: 3.46
Area: 384110
Amount: 0.273028
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 382616
Amount: 0.271966
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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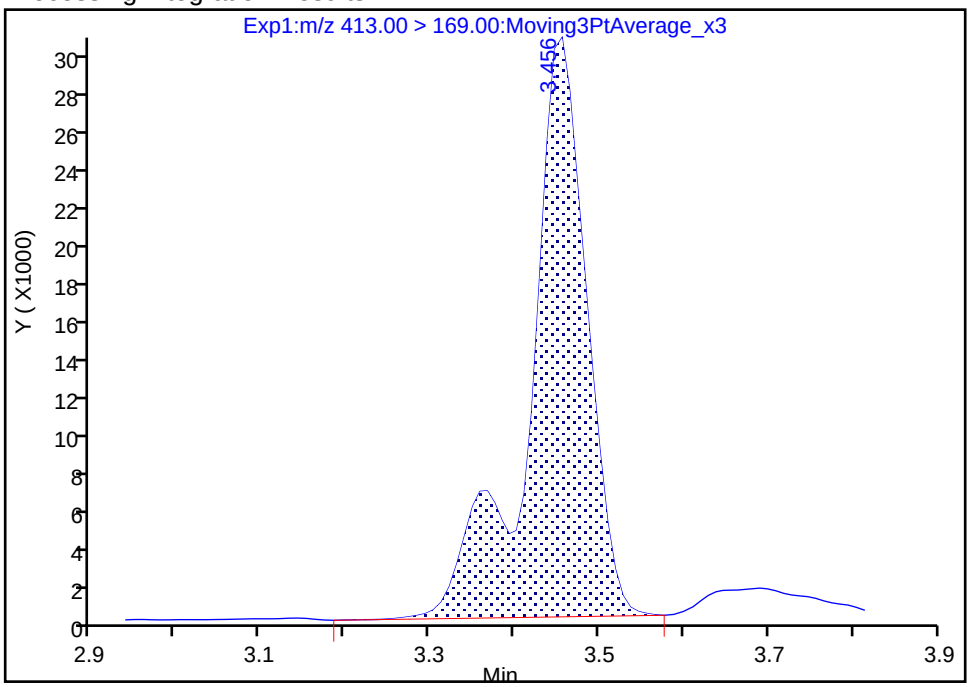
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

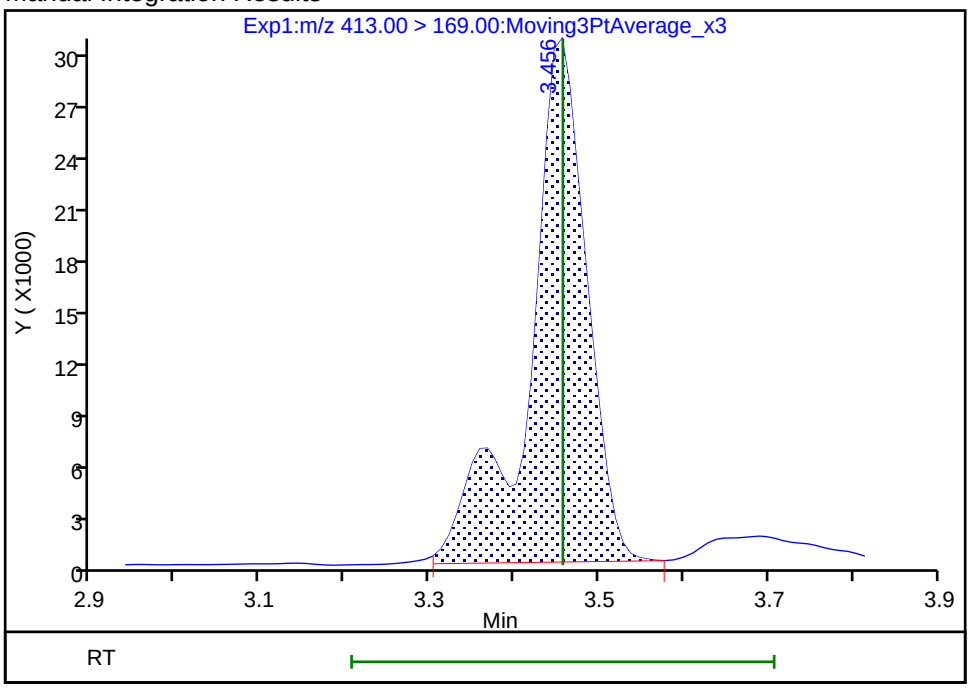
Processing Integration Results

RT: 3.46
Area: 145997
Amount: 0.273028
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 145393
Amount: 0.271966
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:39:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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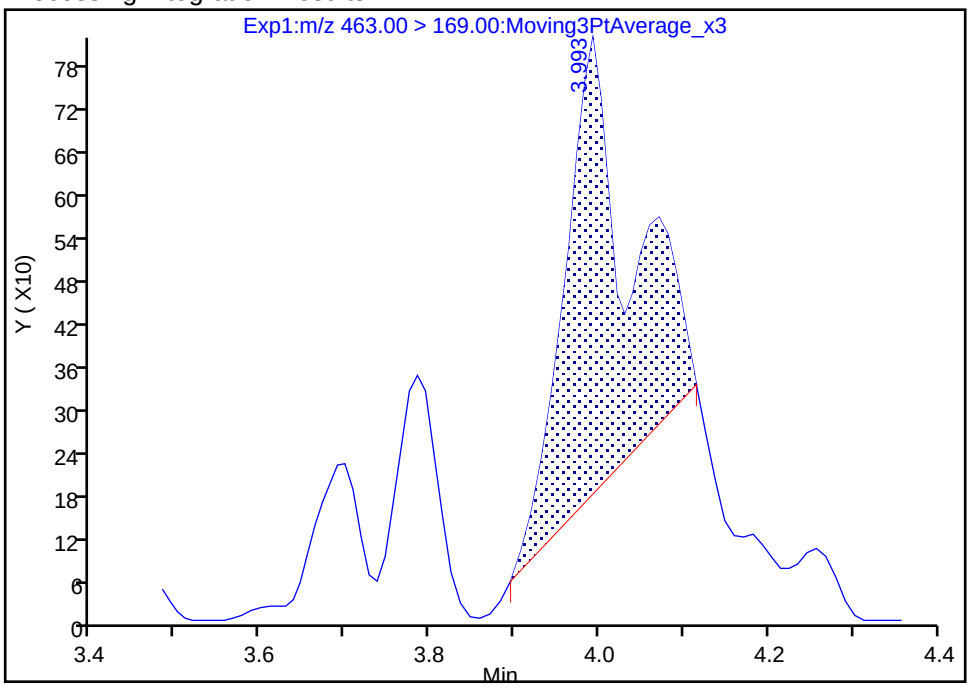
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

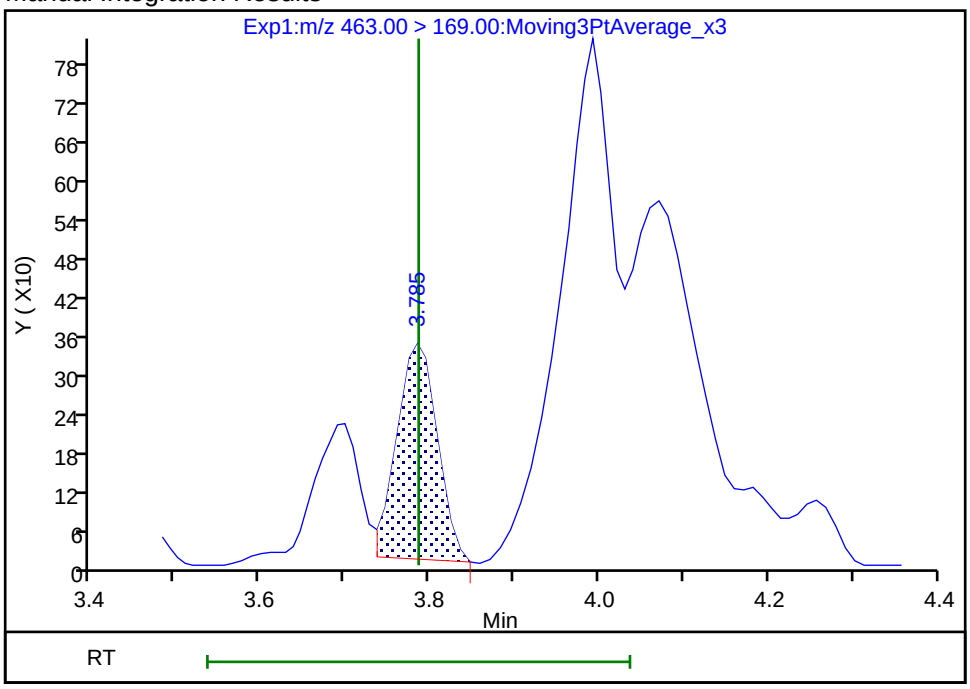
Processing Integration Results

RT: 3.99
Area: 3480
Amount: 0.012221
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1103
Amount: 0.007983
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:33:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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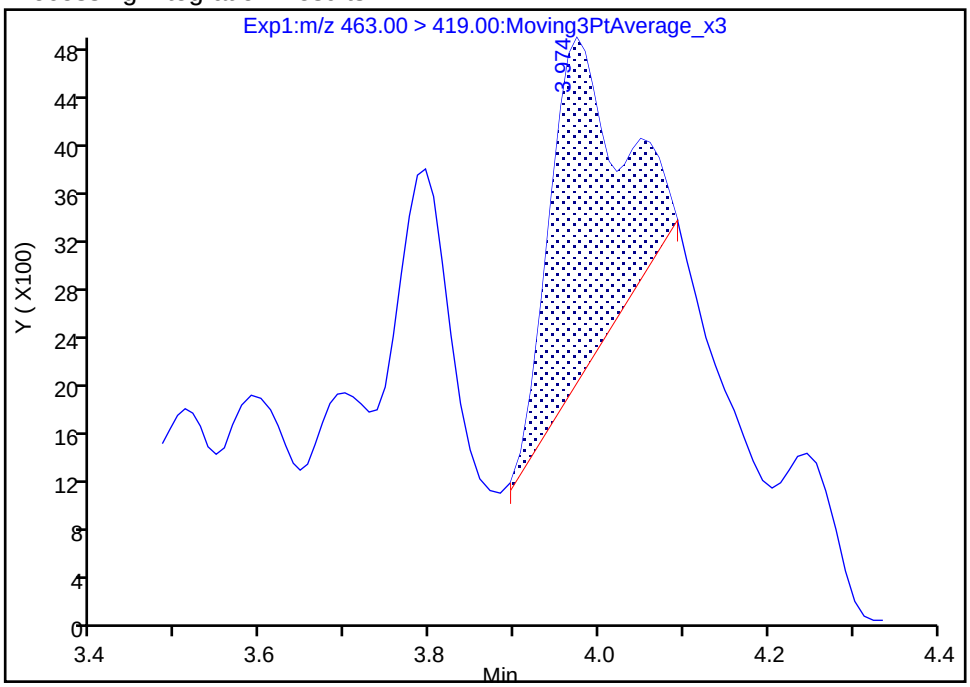
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

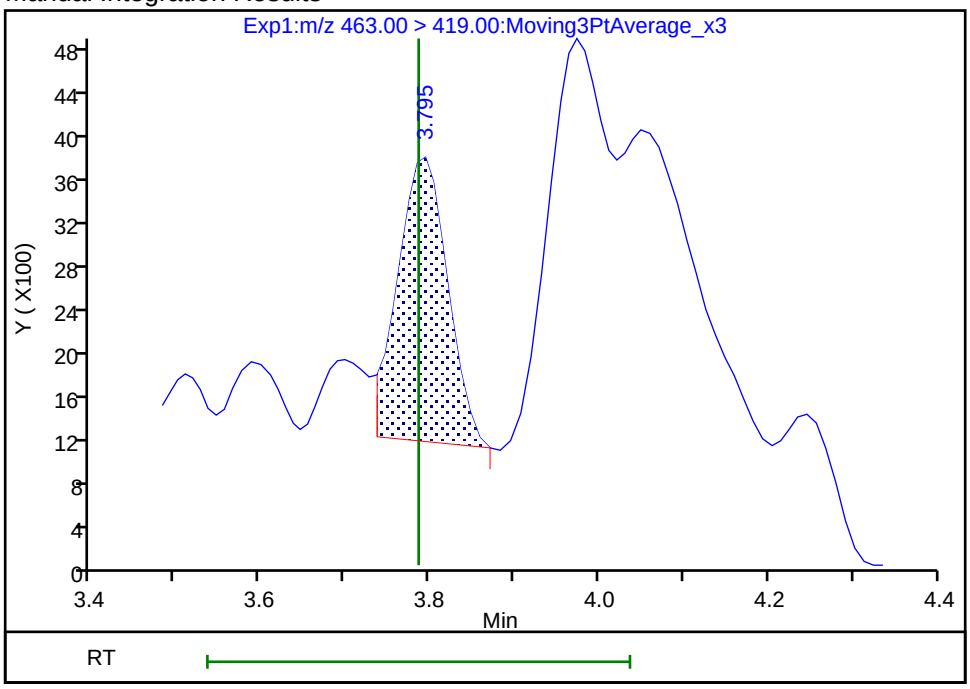
Processing Integration Results

RT: 3.97
Area: 16417
Amount: 0.012221
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 10724
Amount: 0.007983
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:33:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

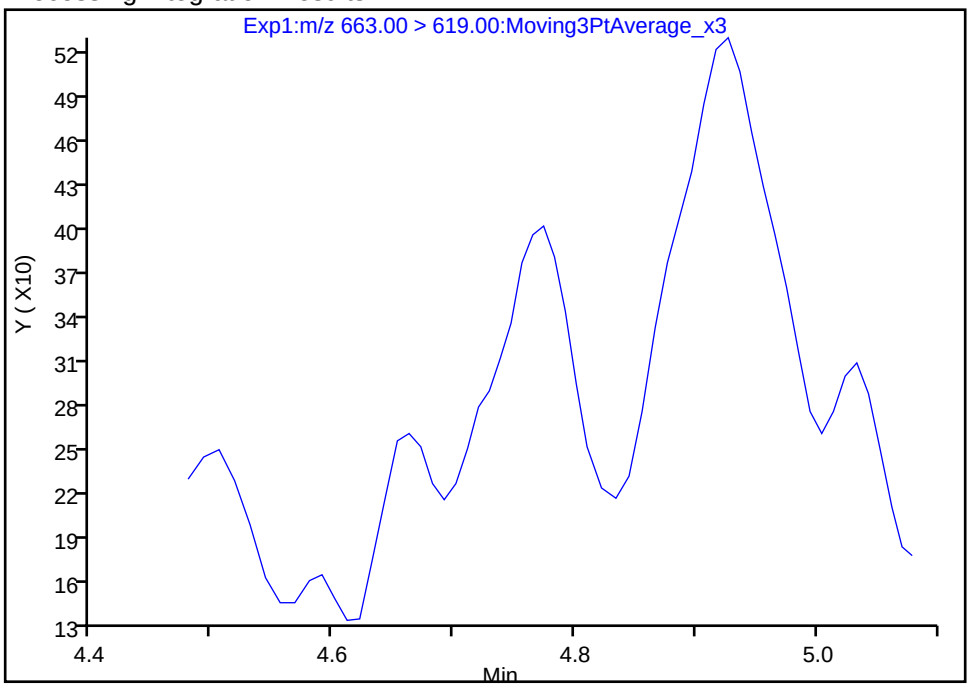
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

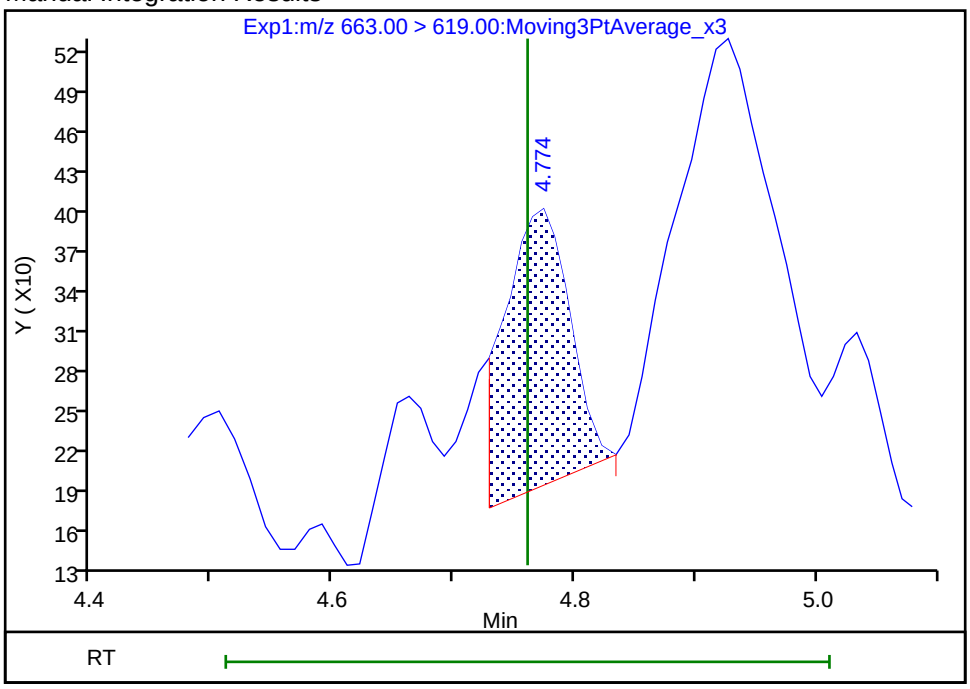
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 769
Amount: 0.000887
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:35:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

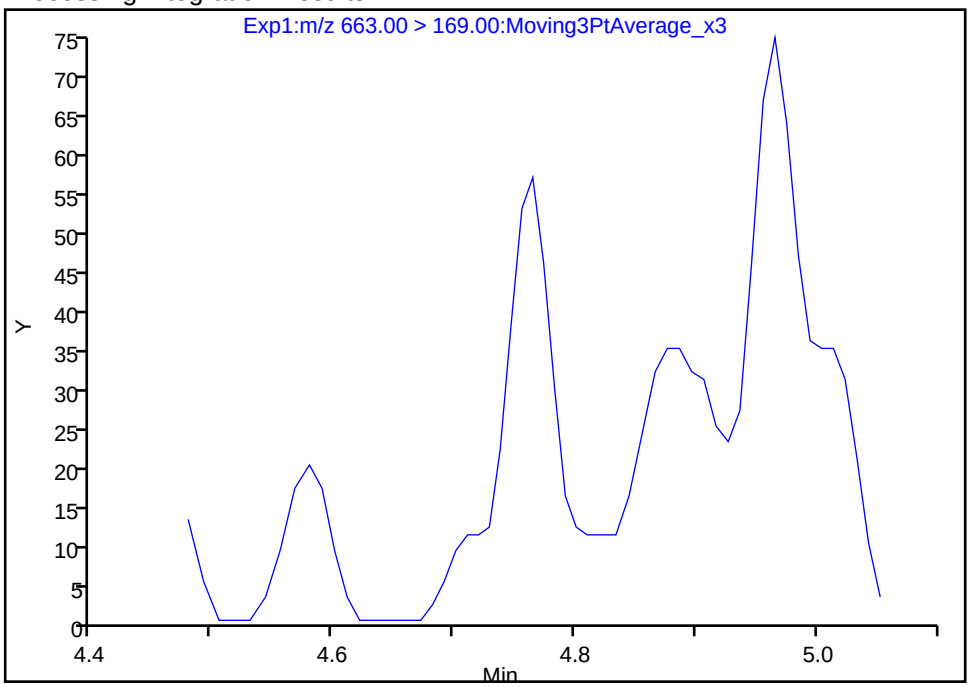
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

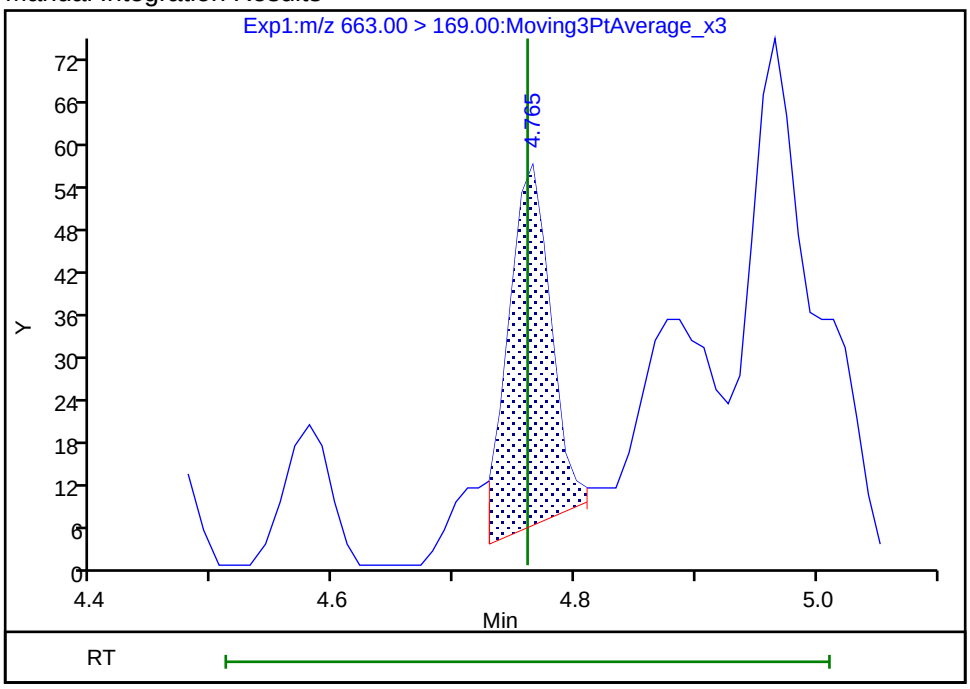
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 125
Amount: 0.000887
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:35:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

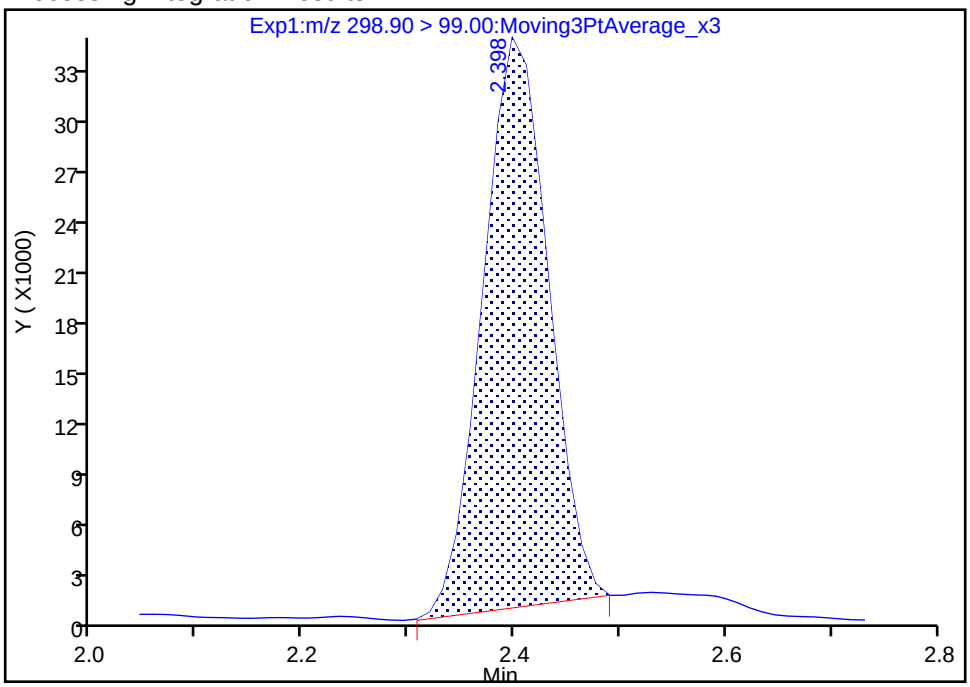
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

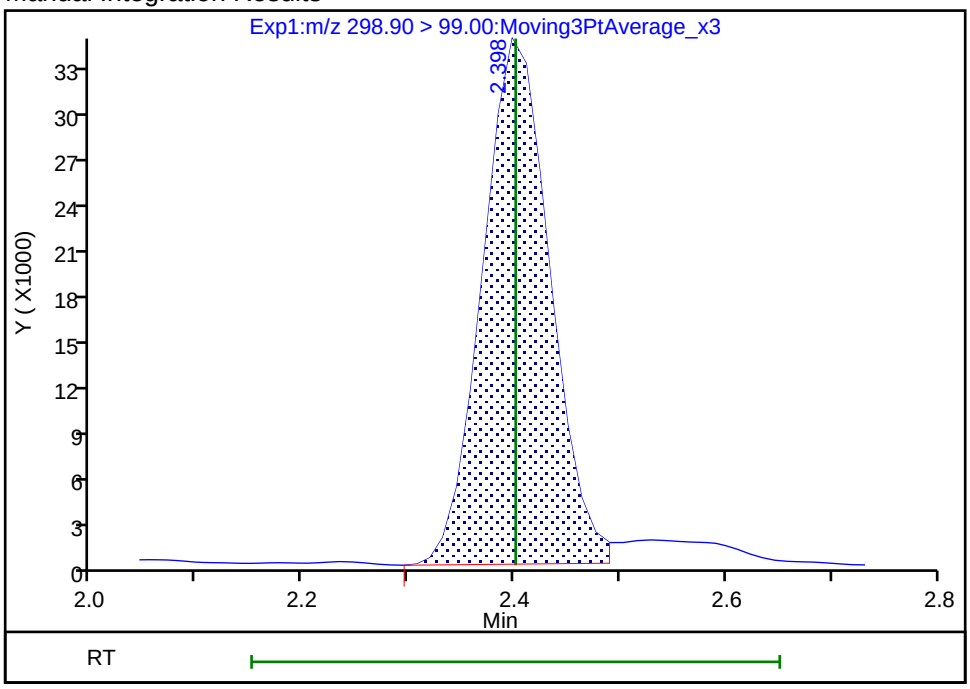
Processing Integration Results

RT: 2.40
Area: 142472
Amount: 0.223754
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 149665
Amount: 0.223754
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

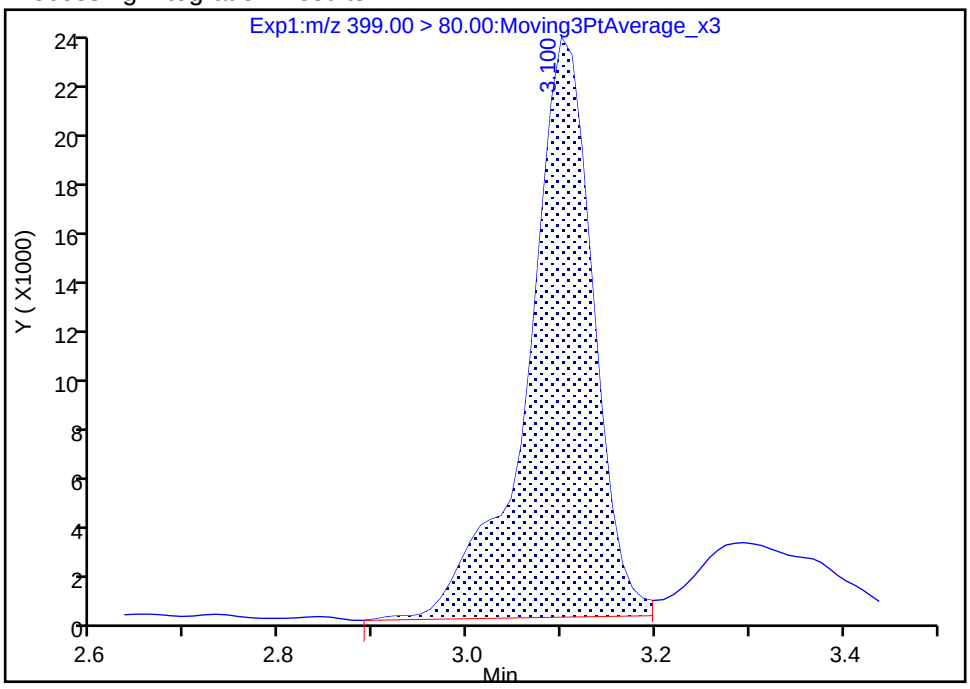
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

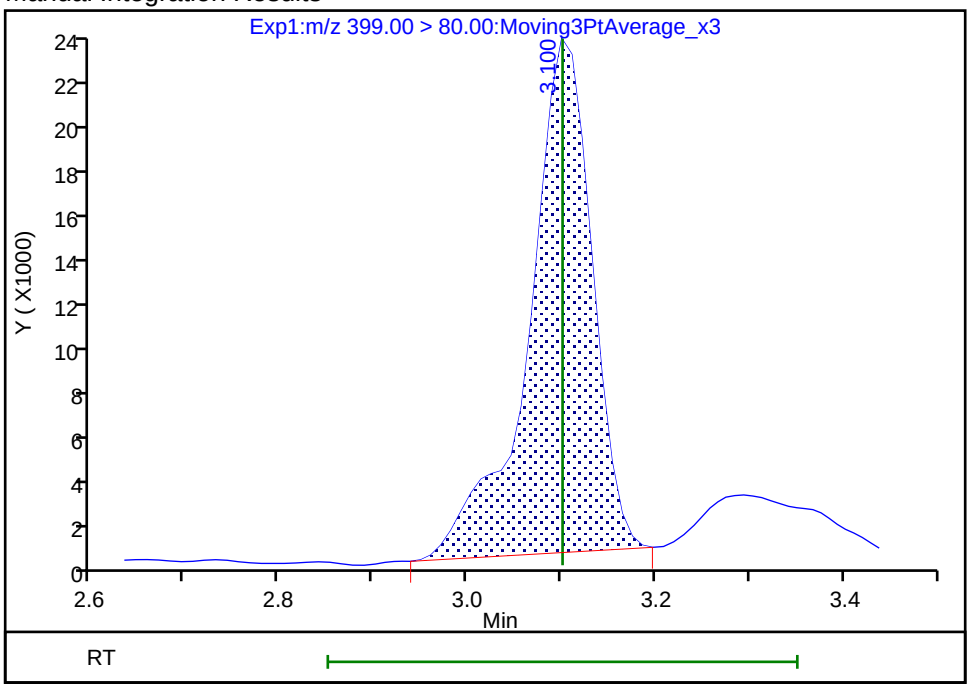
Processing Integration Results

RT: 3.10
Area: 112480
Amount: 0.099298
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 106394
Amount: 0.093926
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

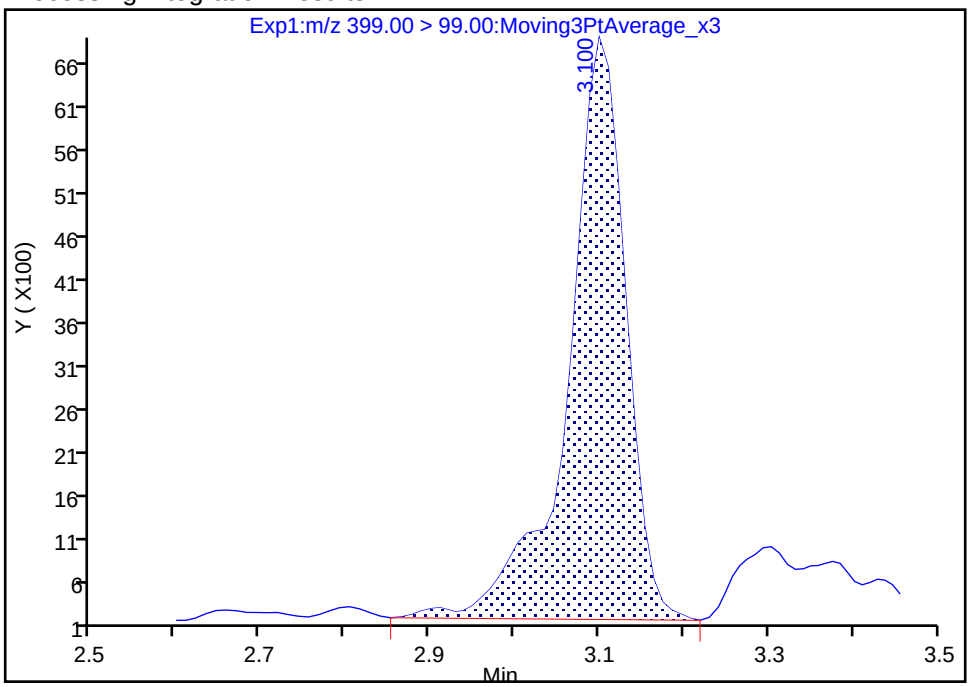
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

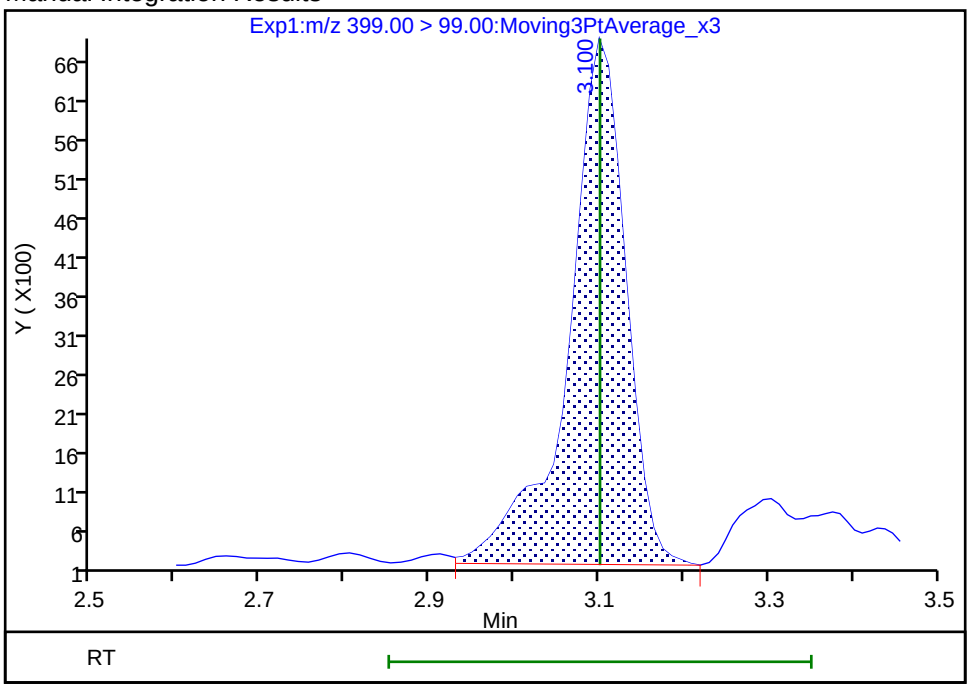
Processing Integration Results

RT: 3.10
Area: 31500
Amount: 0.099298
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 31194
Amount: 0.093926
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

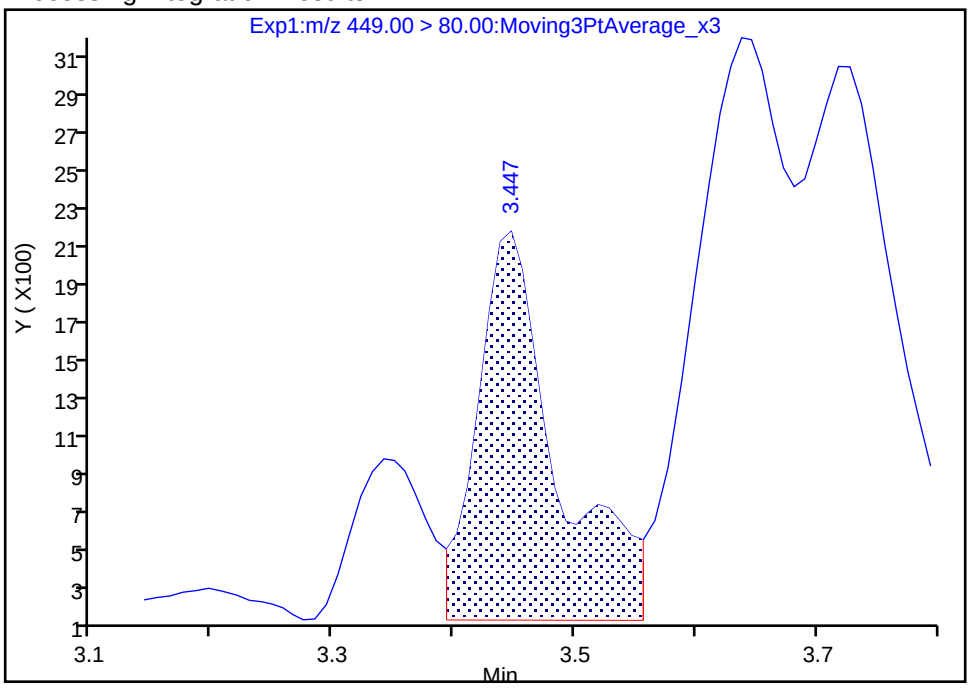
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

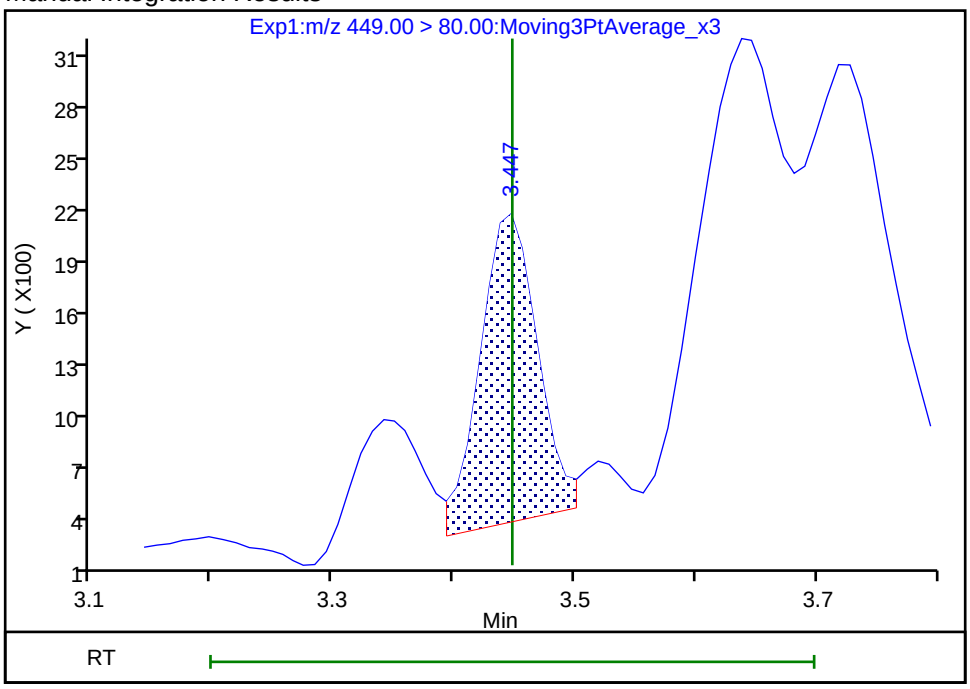
Processing Integration Results

RT: 3.45
Area: 8959
Amount: 0.009197
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 5681
Amount: 0.005832
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

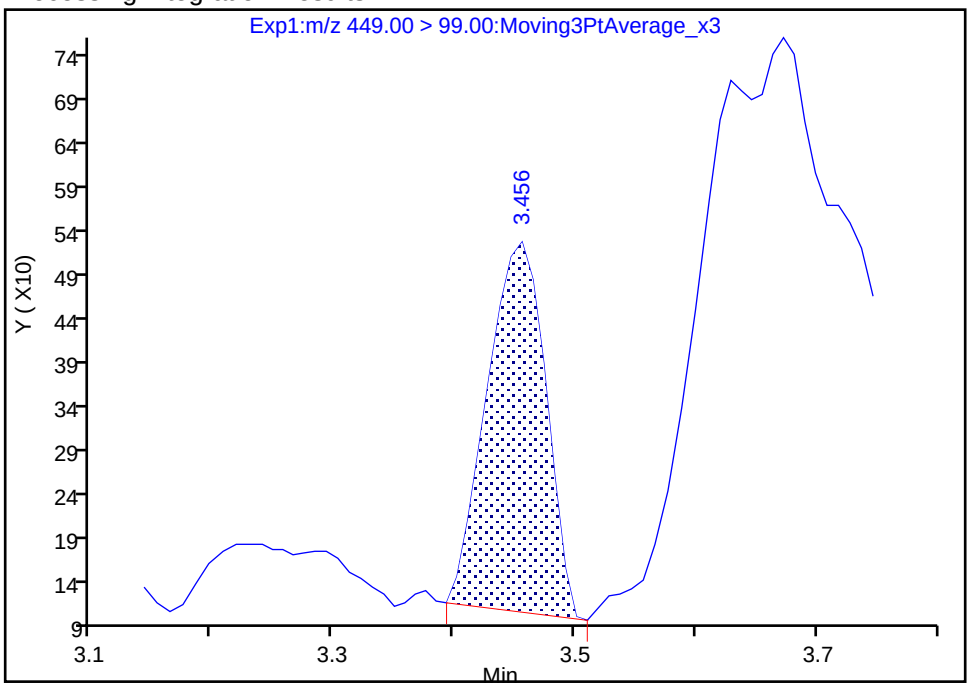
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

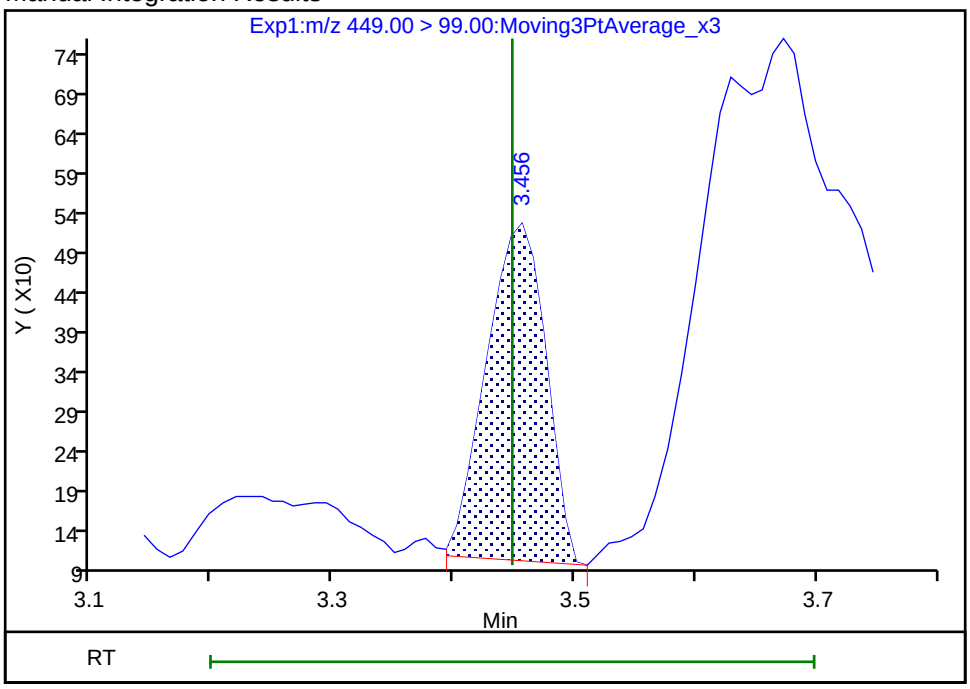
Processing Integration Results

RT: 3.46
Area: 1427
Amount: 0.009197
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1455
Amount: 0.005832
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

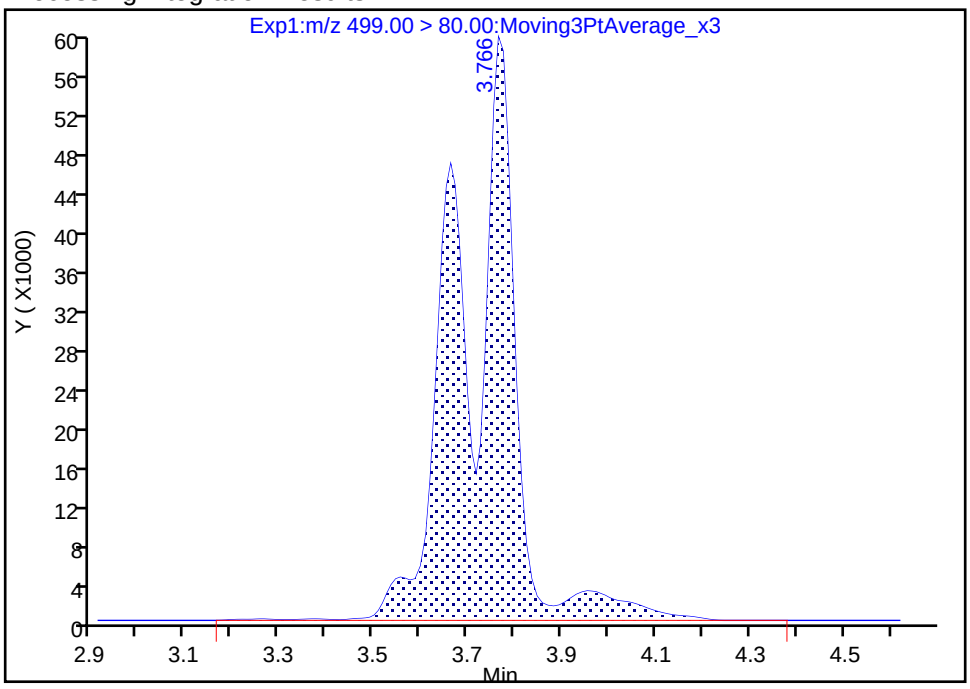
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

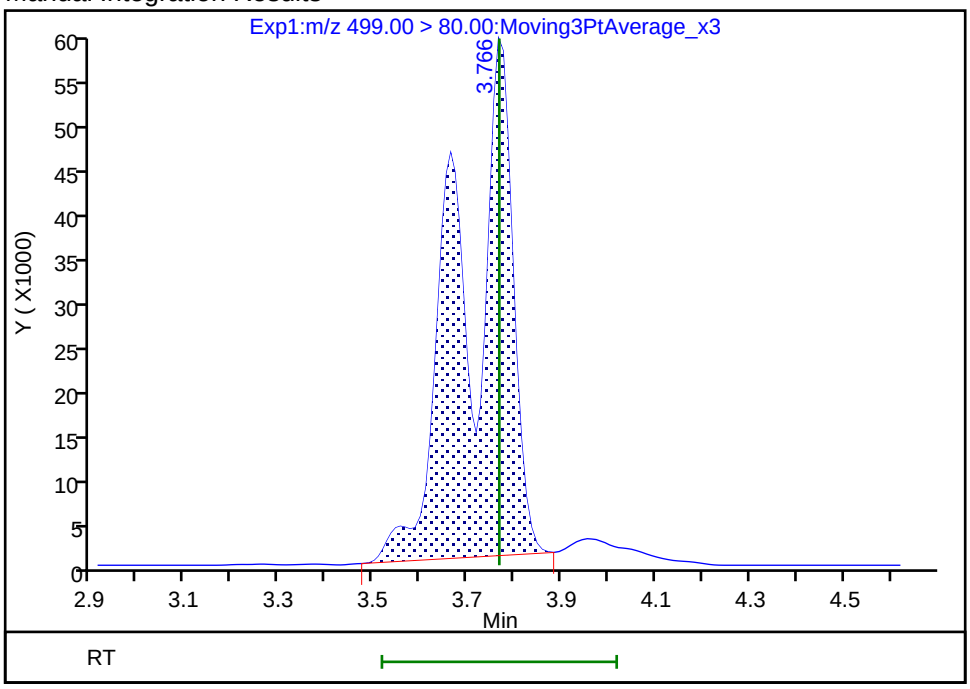
Processing Integration Results

RT: 3.77
Area: 482831
Amount: 0.569486
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 430876
Amount: 0.508207
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:33:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

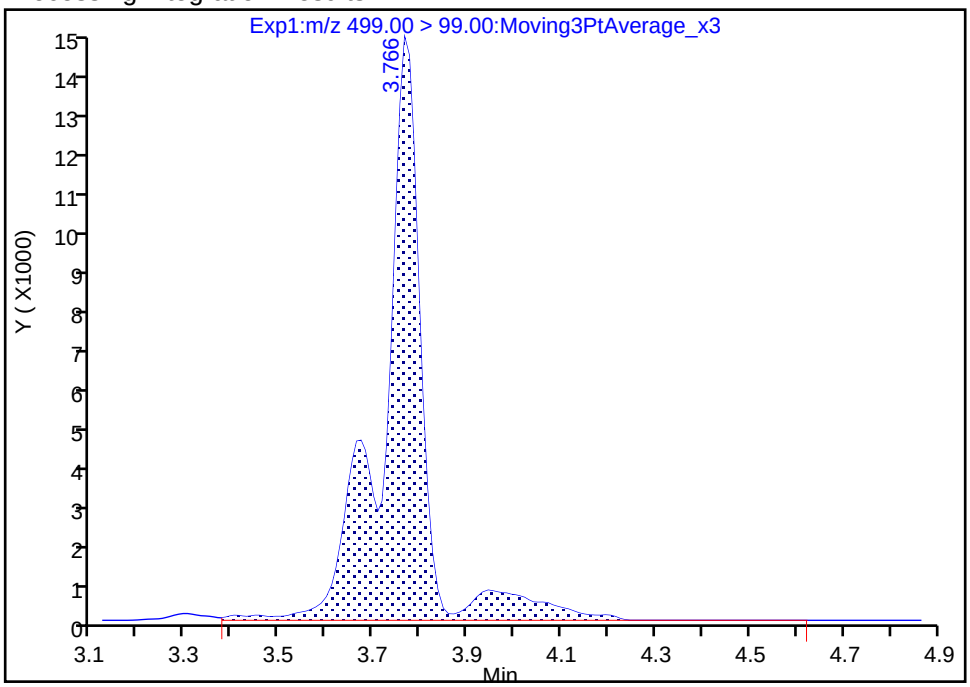
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

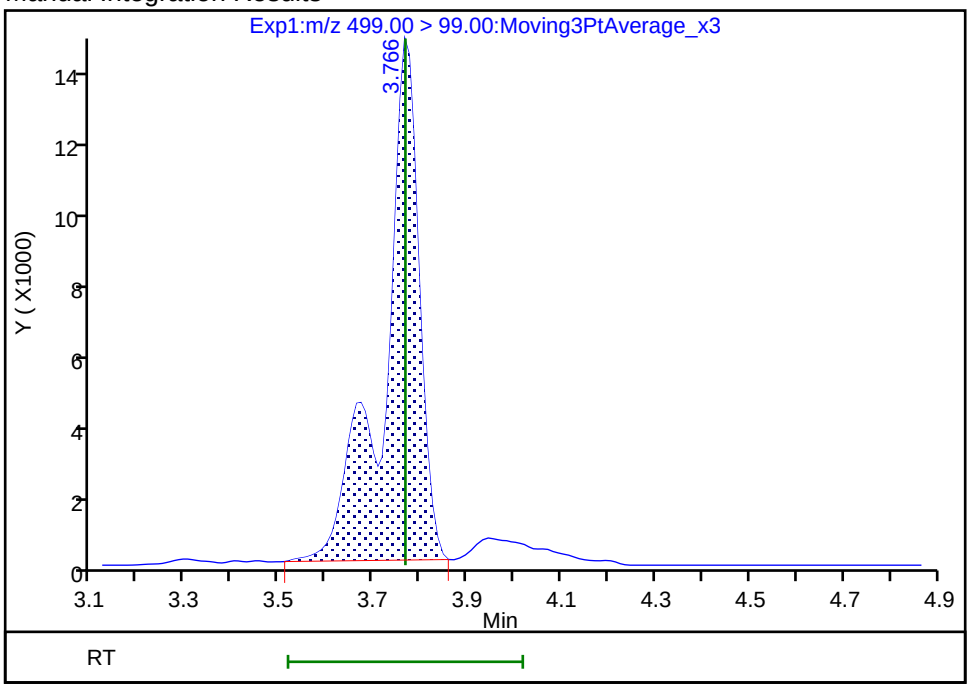
Processing Integration Results

RT: 3.77
Area: 89723
Amount: 0.569486
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 77469
Amount: 0.508207
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:39:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

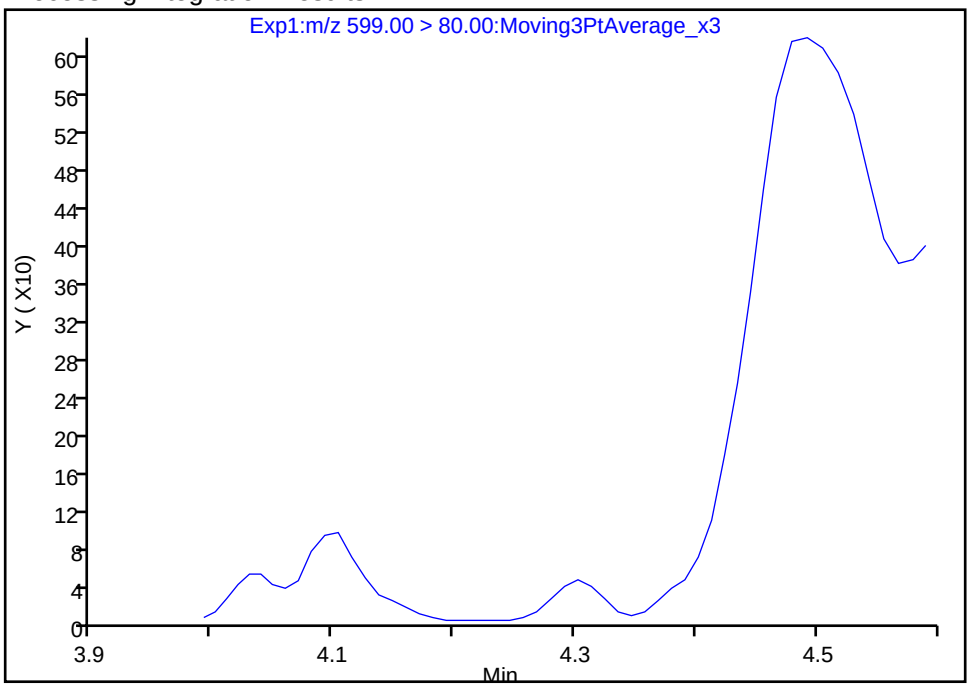
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

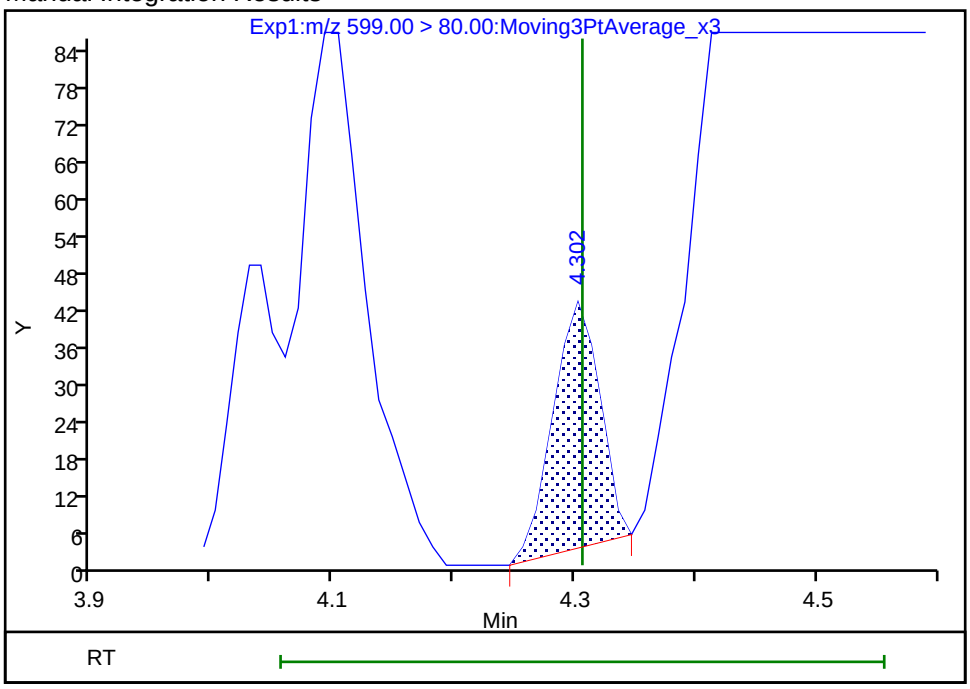
Not Detected
Expected RT: 4.31

Processing Integration Results




Manual Integration Results

RT: 4.30
Area: 108
Amount: 0.000210
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:34:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

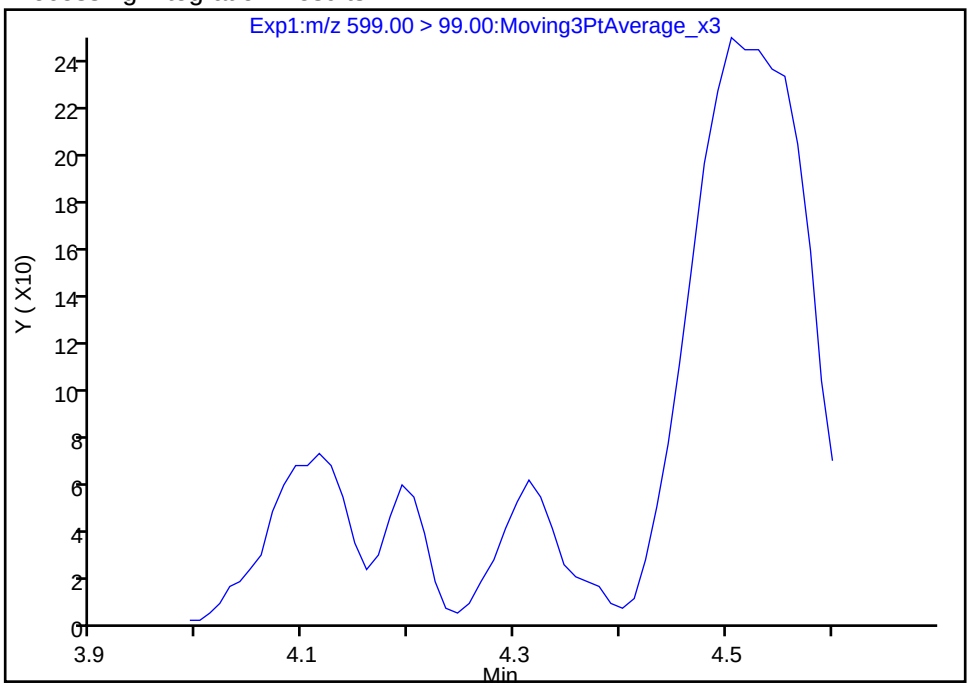
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

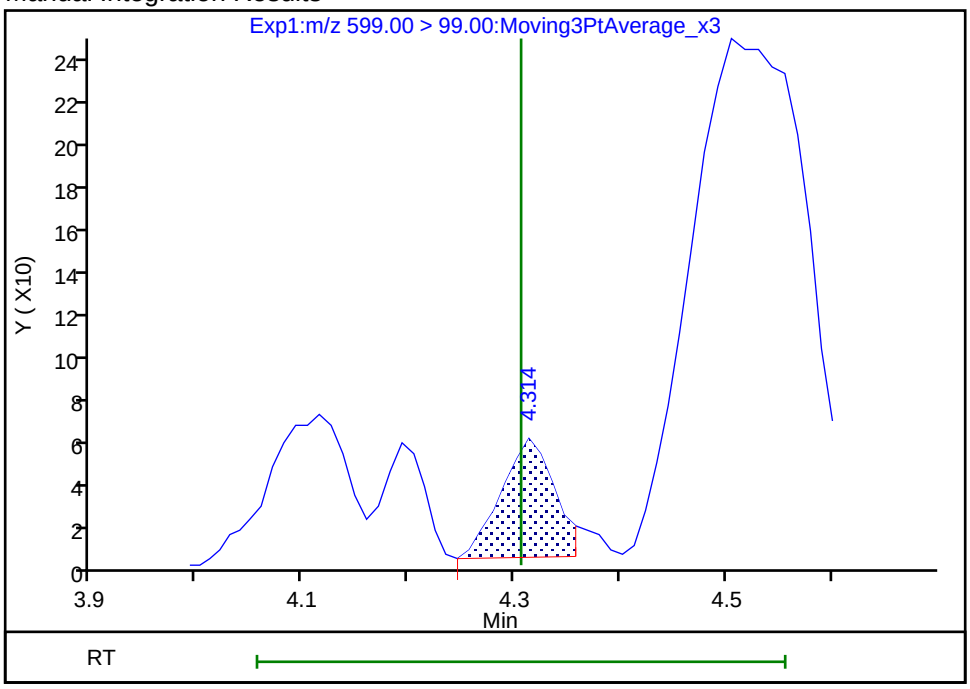
Not Detected
Expected RT: 4.31

Processing Integration Results




Manual Integration Results

RT: 4.31
Area: 187
Amount: 0.000210
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:34:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

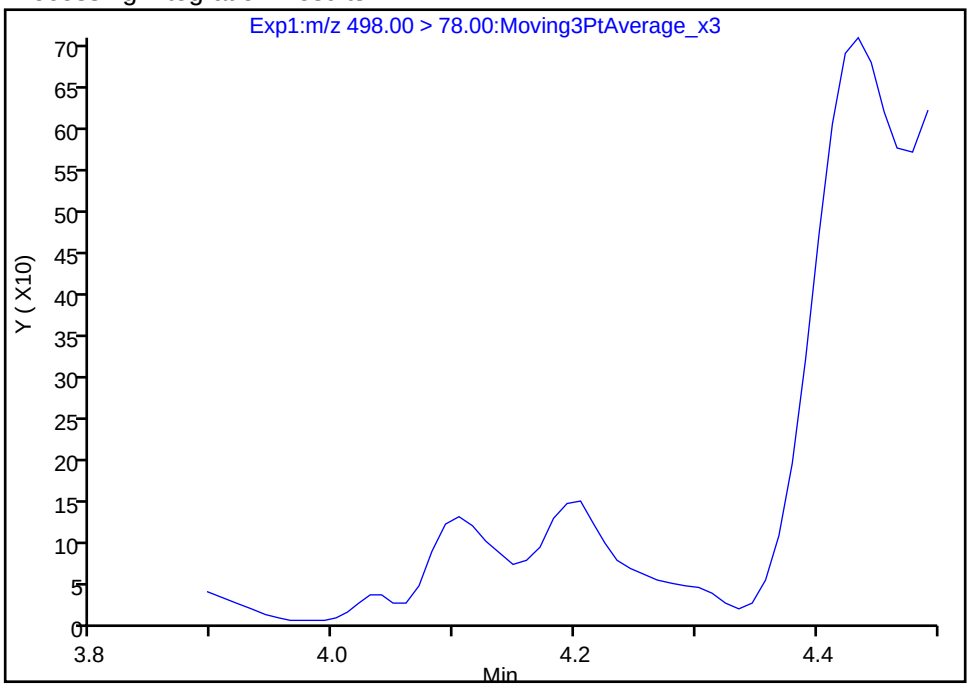
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

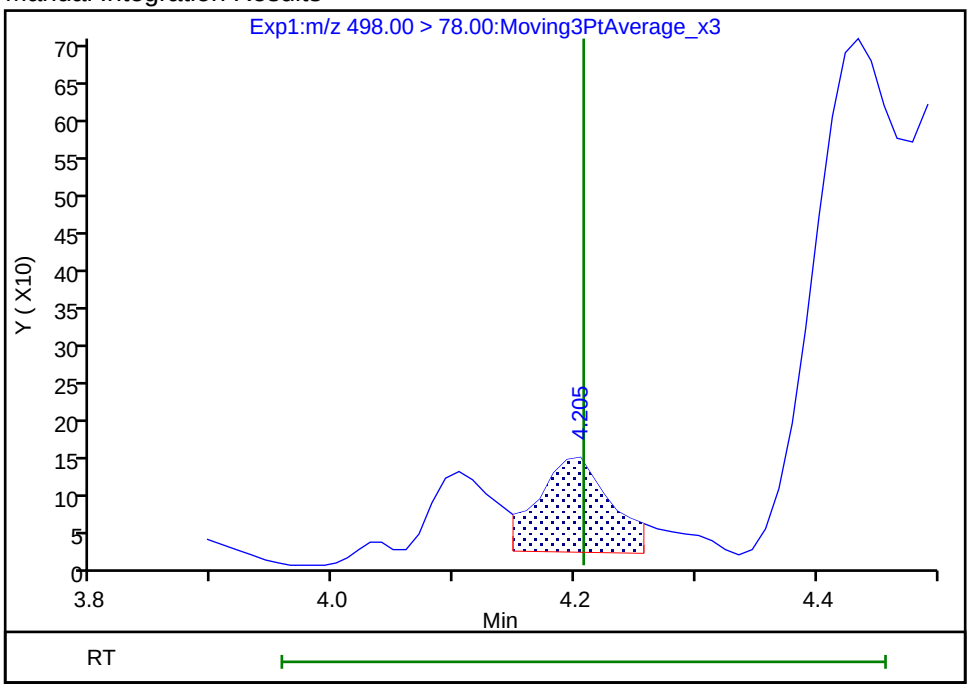
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.20
Area: 524
Amount: 0.000431
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:34:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

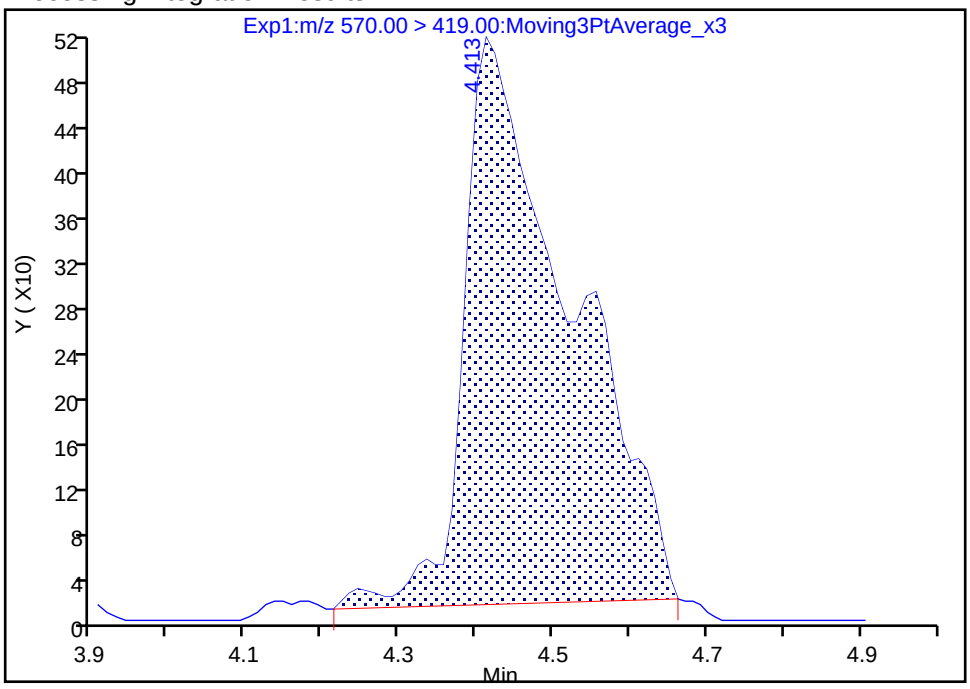
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

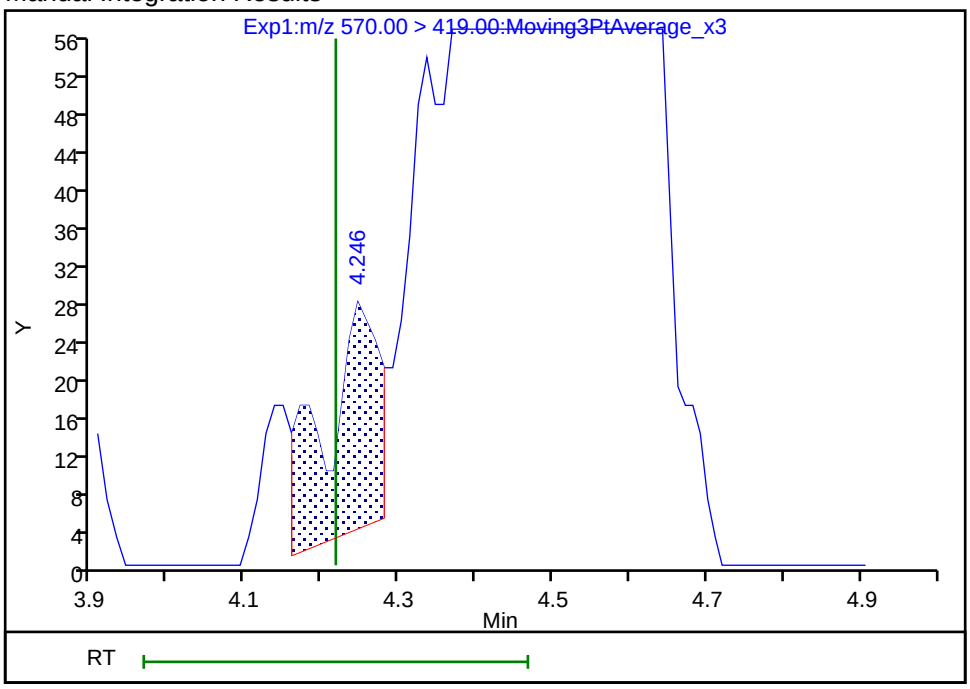
Processing Integration Results

RT: 4.41
Area: 4836
Amount: 0.039824
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 113
Amount: 0.000942
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:34:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

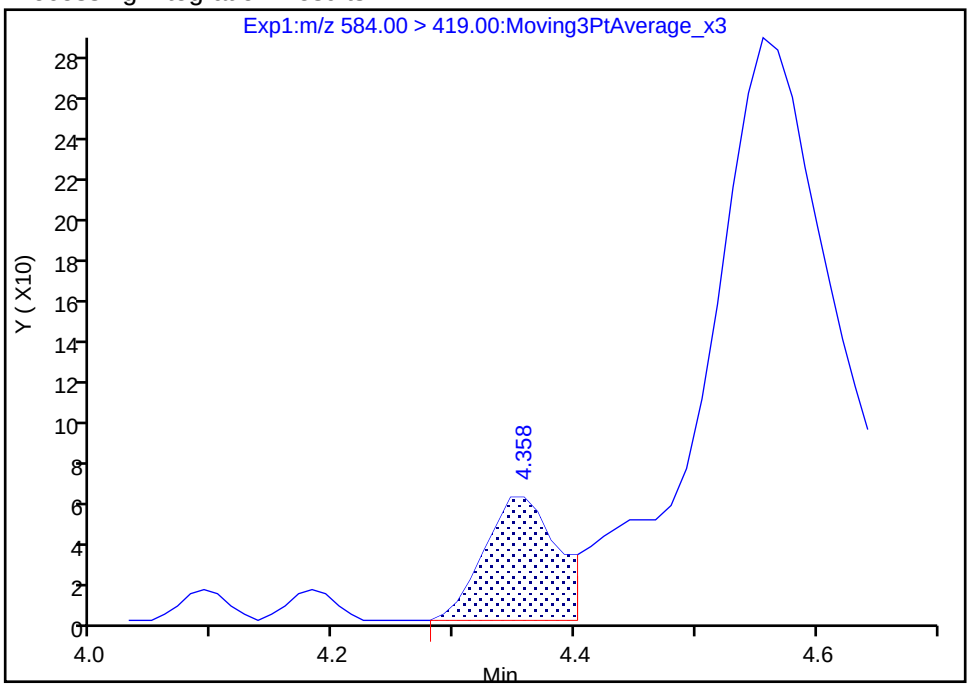
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

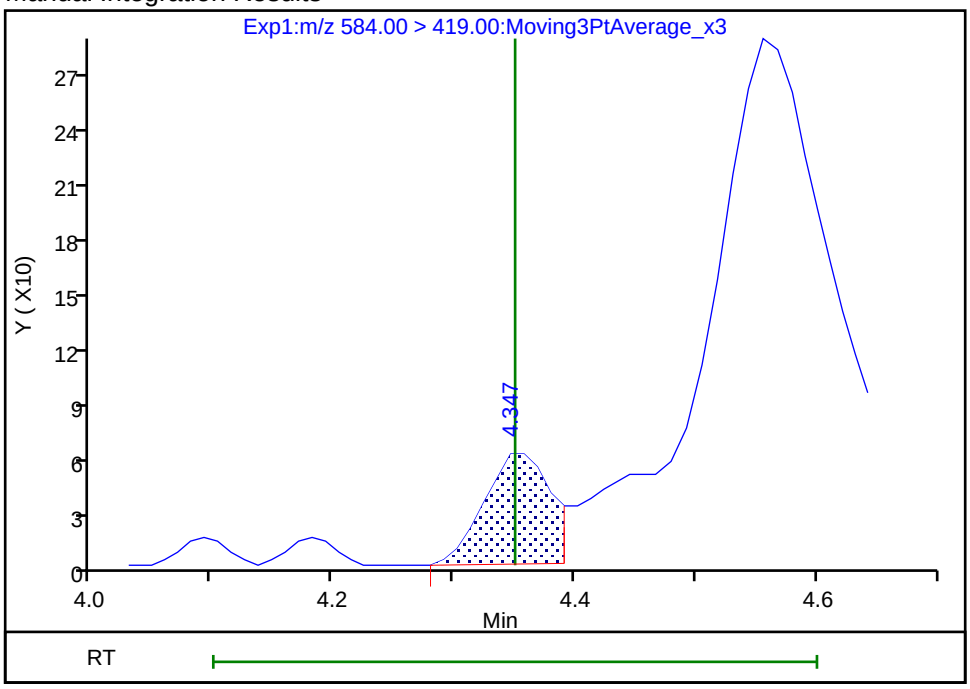
Processing Integration Results

RT: 4.36
Area: 247
Amount: 0.002004
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 223
Amount: 0.001809
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:35:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

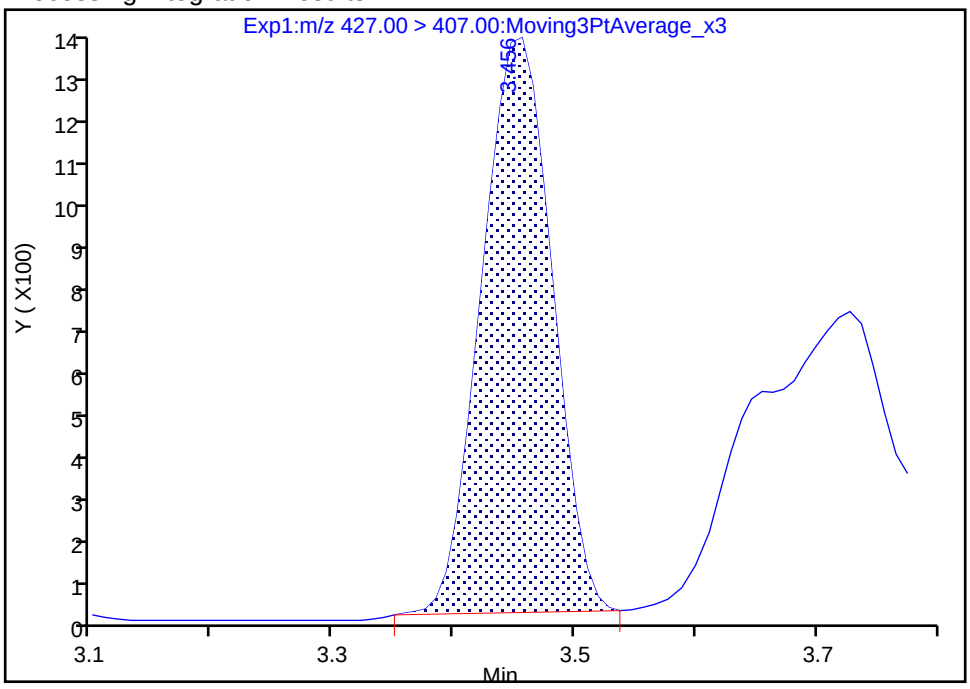
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

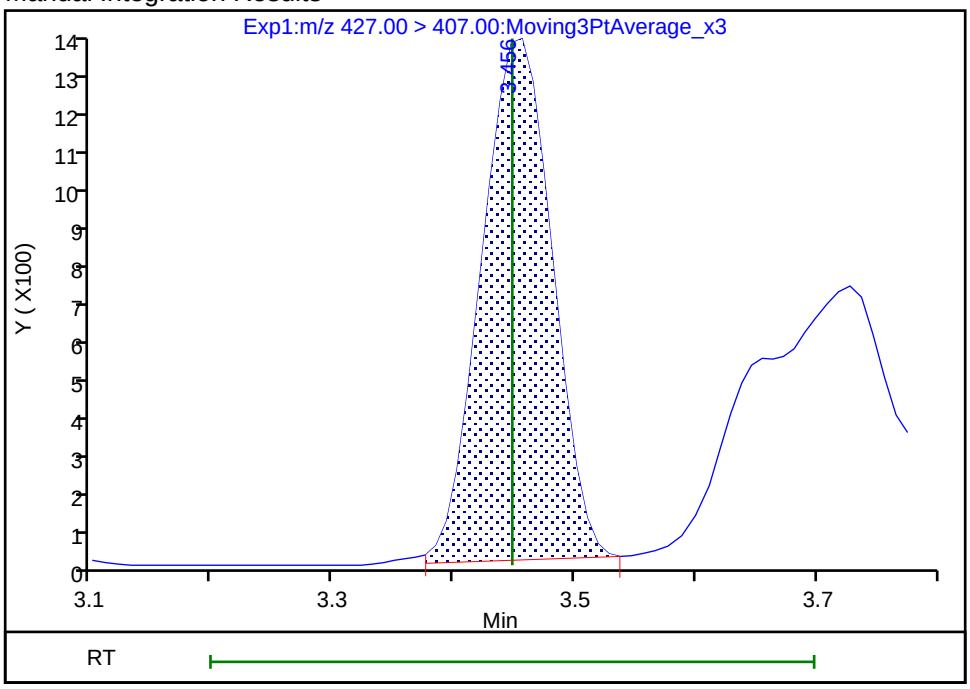
Processing Integration Results

RT: 3.46
Area: 5524
Amount: 0.024654
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 5561
Amount: 0.024819
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:32:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

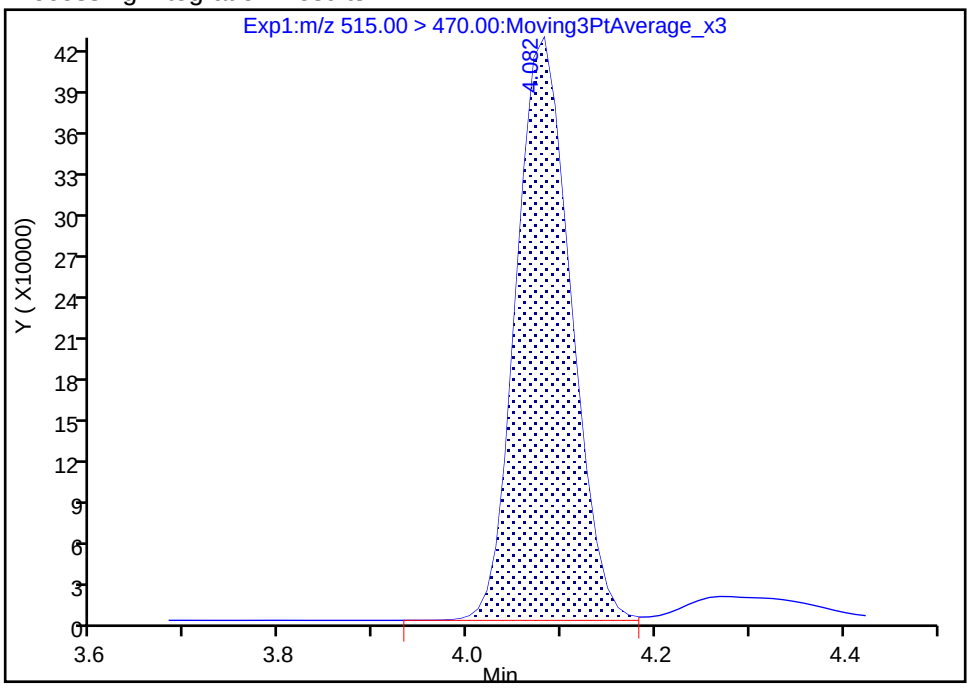
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

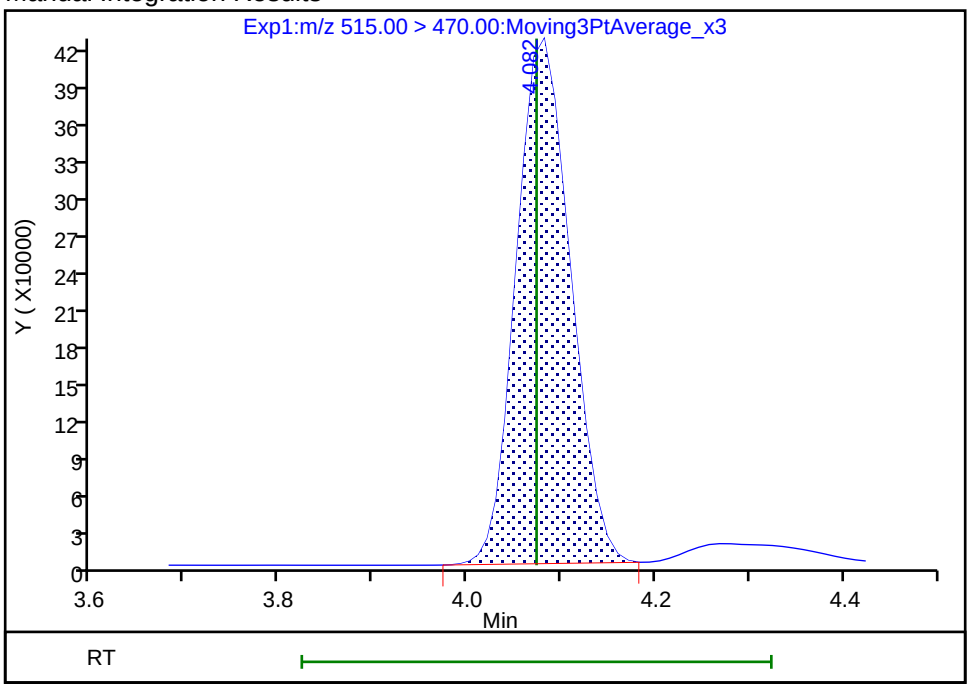
Processing Integration Results

RT: 4.08
Area: 1726950
Amount: 1.211131
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1711098
Amount: 1.200013
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:39:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

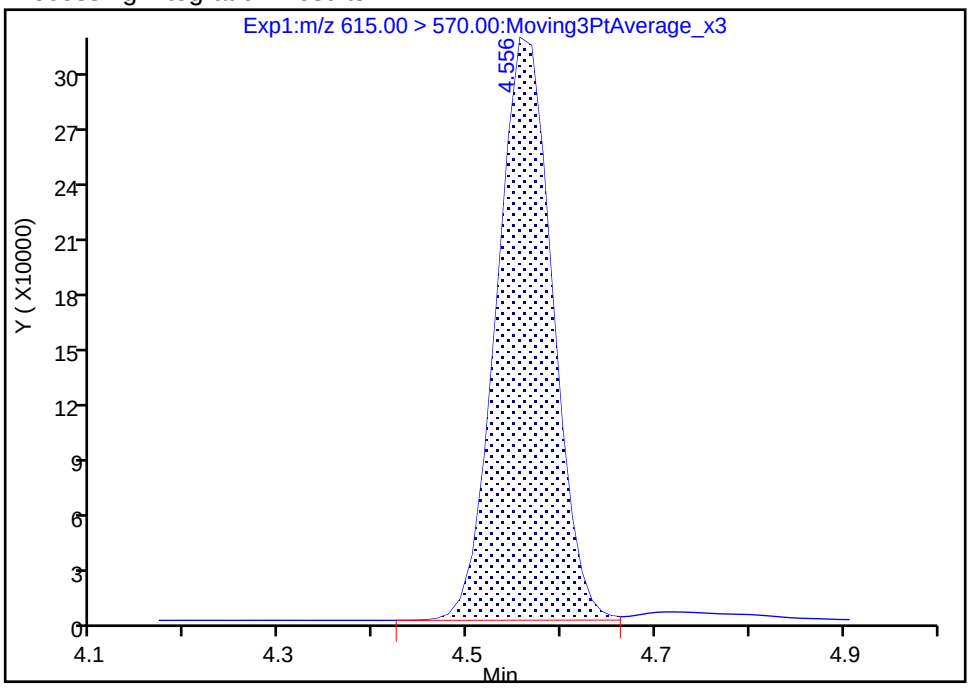
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

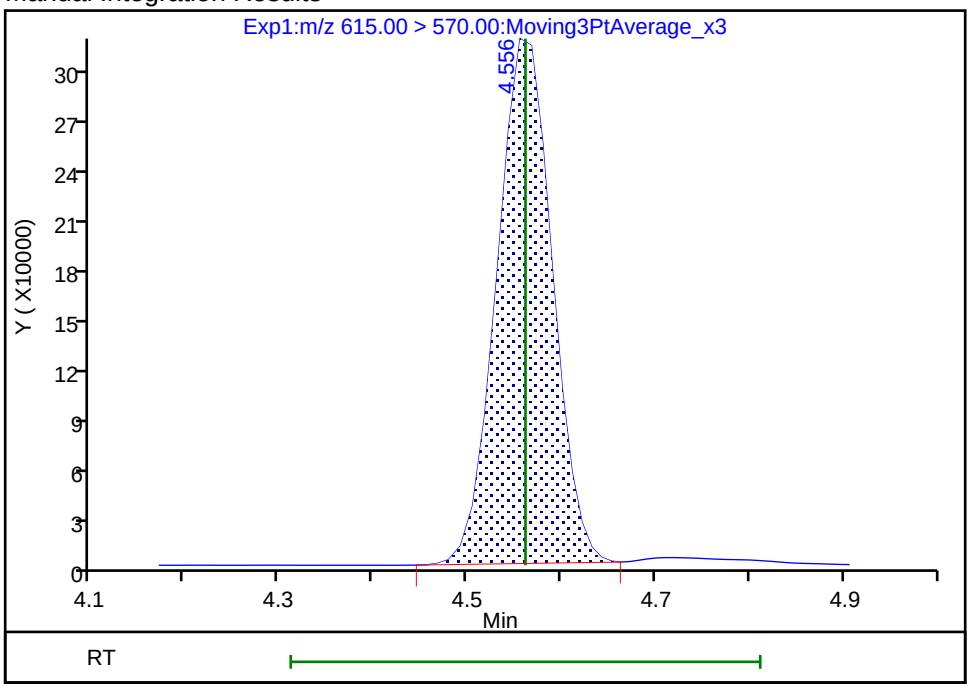
Processing Integration Results

RT: 4.56
Area: 1295178
Amount: 1.083432
Amount Units: ng/ml




Manual Integration Results

RT: 4.56
Area: 1283451
Amount: 1.073622
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:40:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

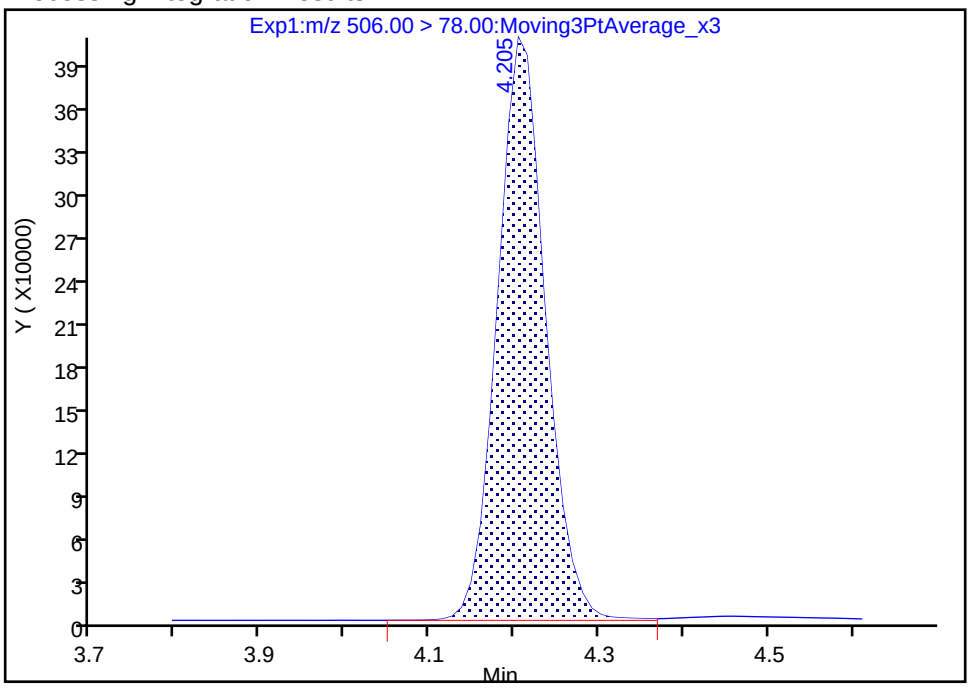
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

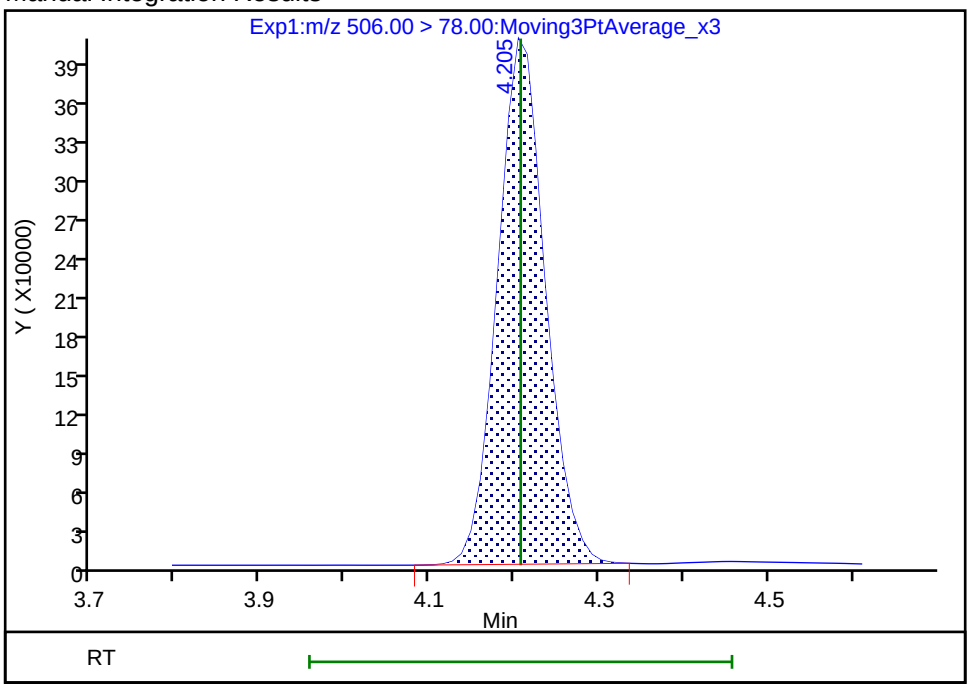
Processing Integration Results

RT: 4.20
Area: 1613503
Amount: 1.173167
Amount Units: ng/ml




Manual Integration Results

RT: 4.20
Area: 1599457
Amount: 1.162954
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:40:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

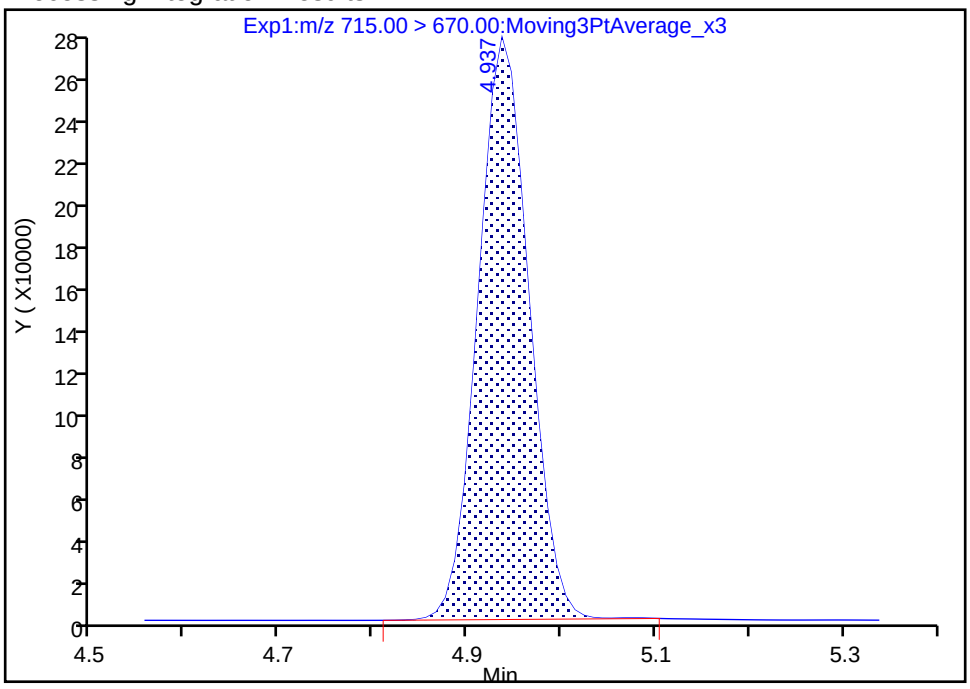
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

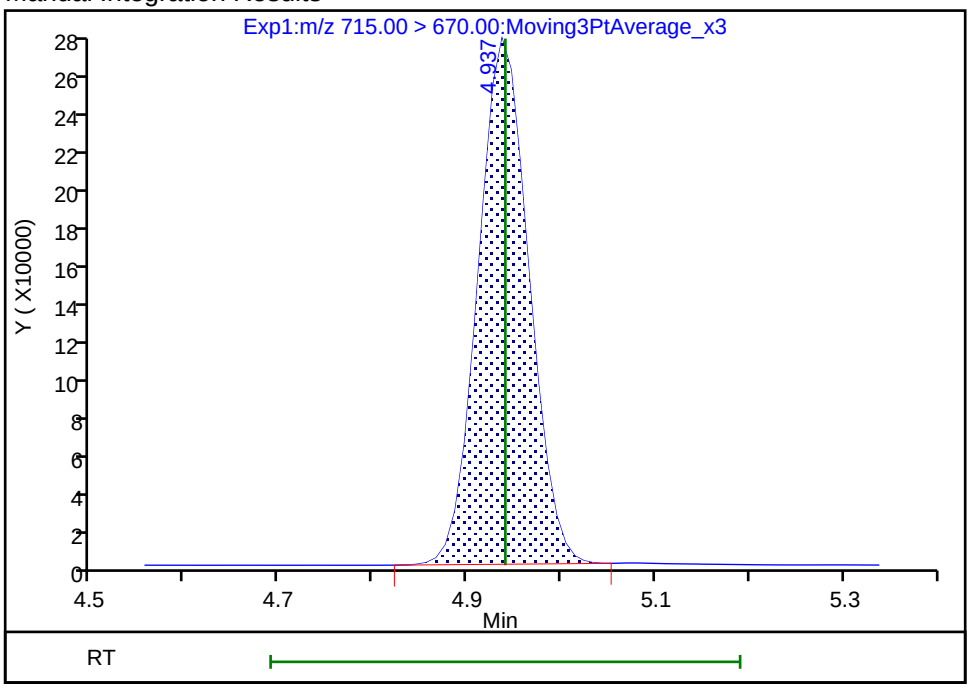
Processing Integration Results

RT: 4.94
Area: 1028863
Amount: 1.101641
Amount Units: ng/ml




Manual Integration Results

RT: 4.94
Area: 1026386
Amount: 1.107026
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:31:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

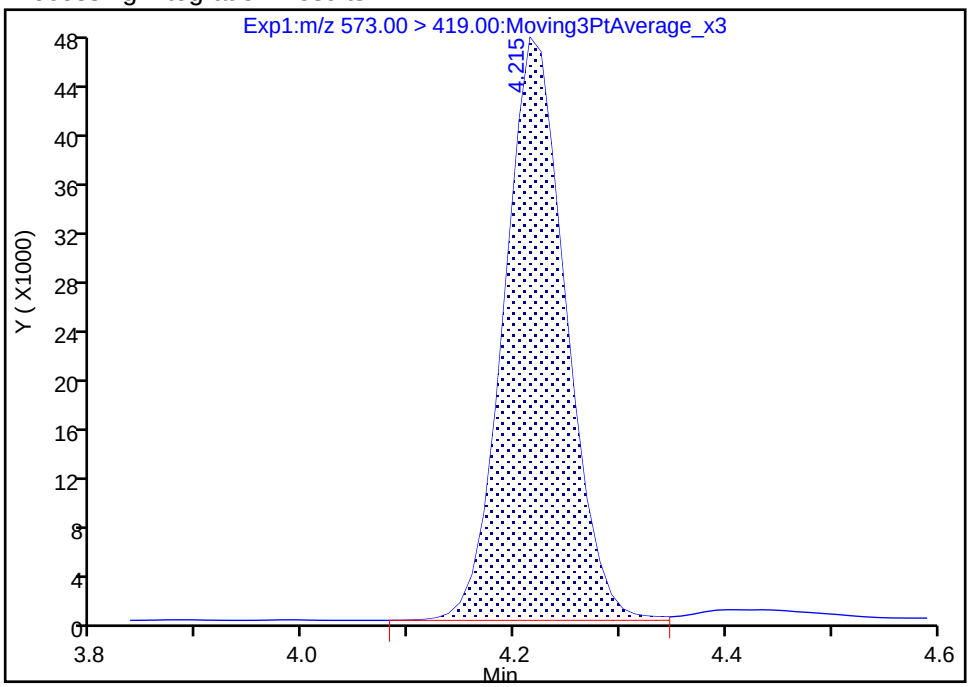
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

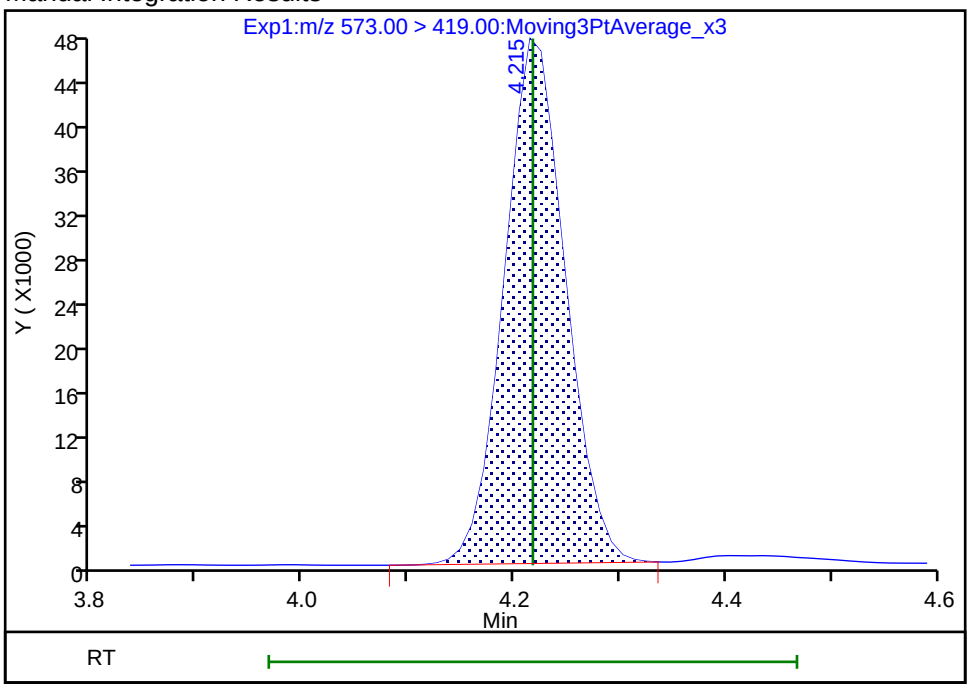
Processing Integration Results

RT: 4.21
Area: 193219
Amount: 1.377623
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 190817
Amount: 1.360497
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:40:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

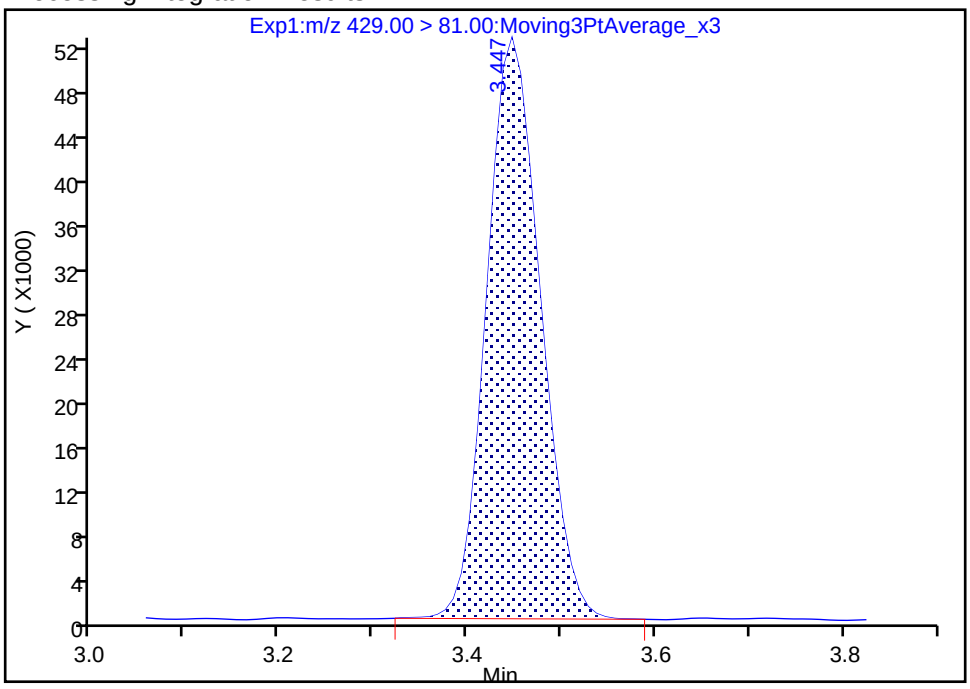
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

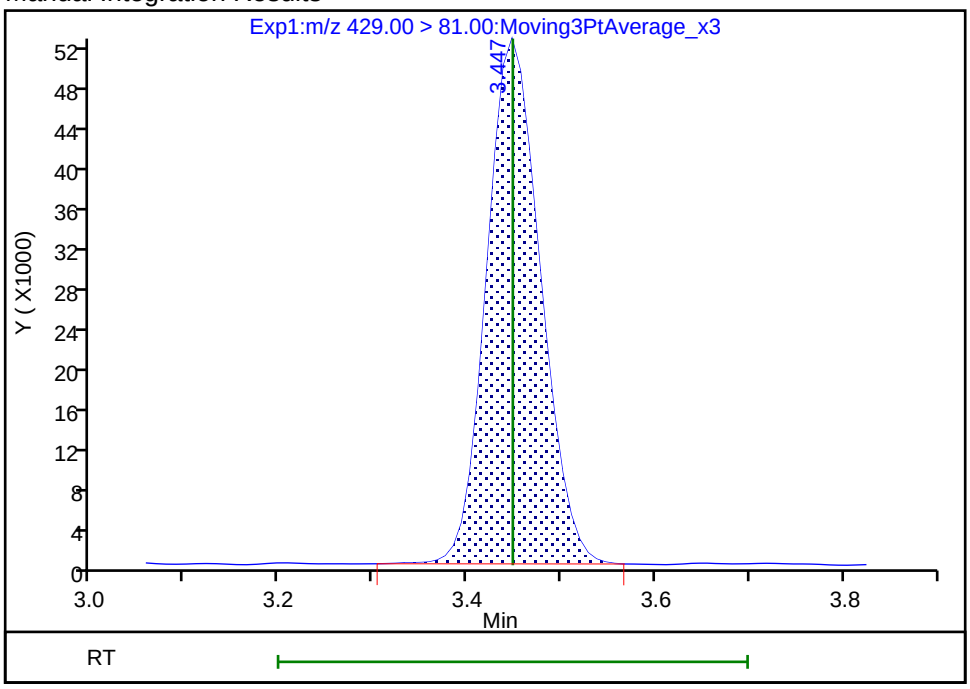
Processing Integration Results

RT: 3.45
Area: 209669
Amount: 1.142170
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 209821
Amount: 1.151356
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:30:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

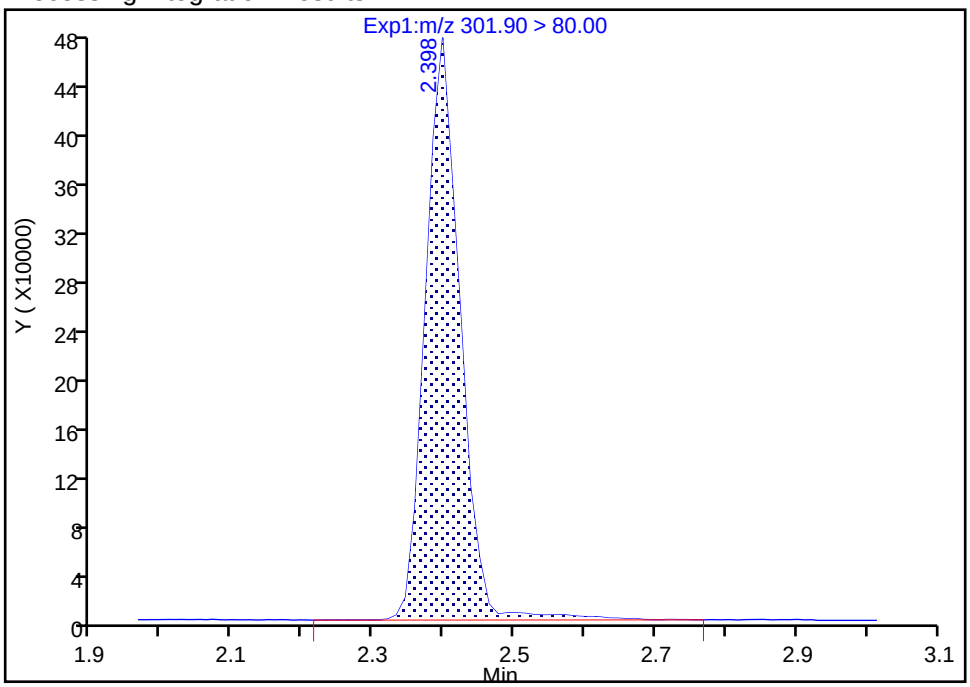
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

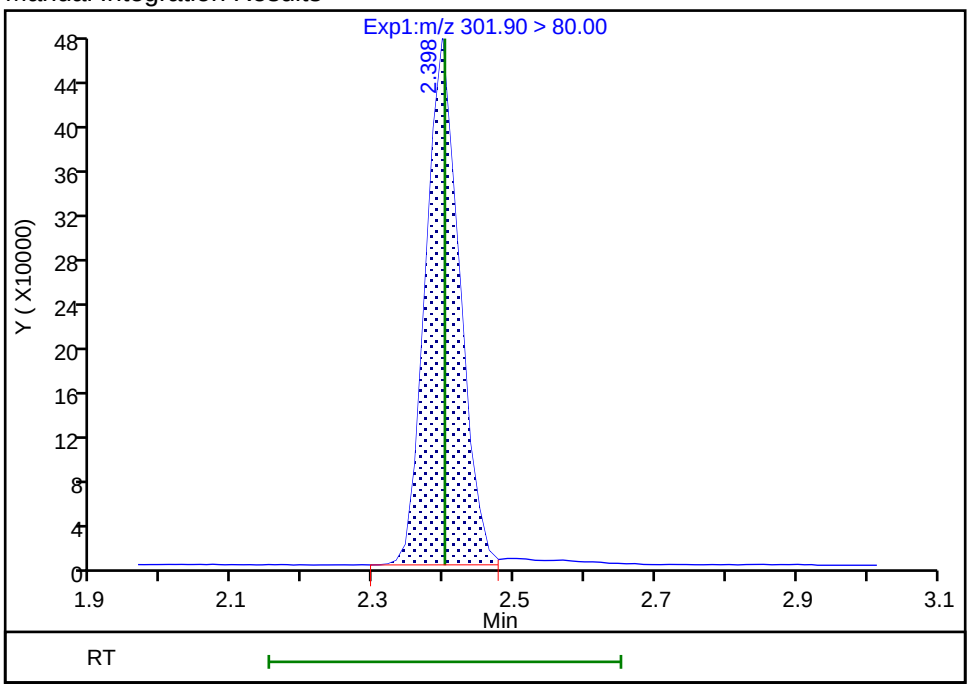
Processing Integration Results

RT: 2.40
Area: 1637514
Amount: 1.022018
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1593932
Amount: 1.002092
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:30:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

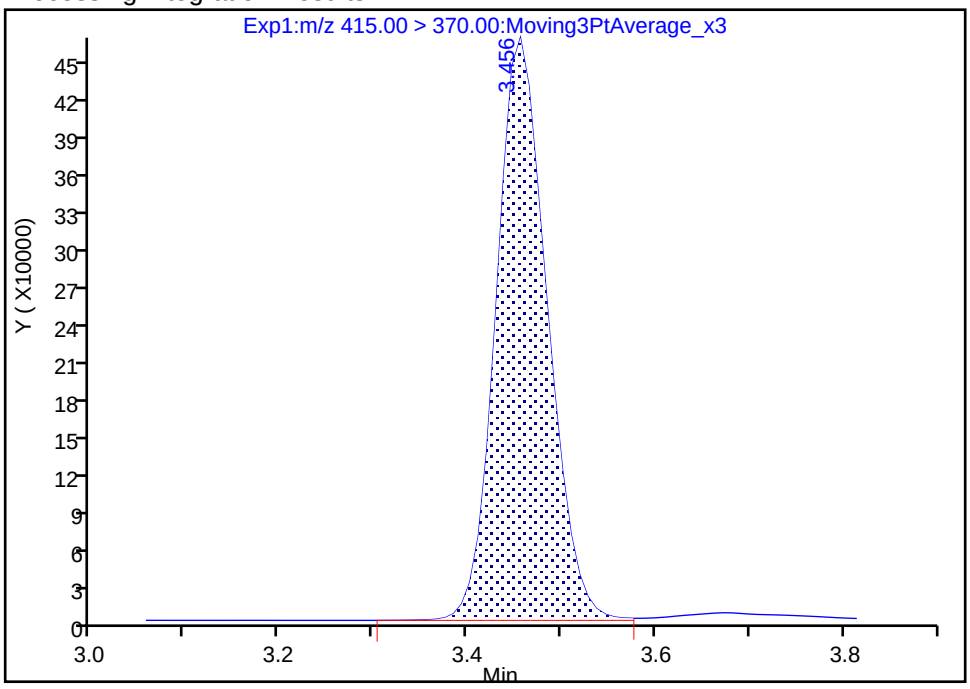
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A14.d | | | | |
| Injection Date: | 03-Nov-2021 14:32:11 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-2-A | Lab Sample ID: | 200-246027-2 | | |
| Client ID: | MHP-MW-3D-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

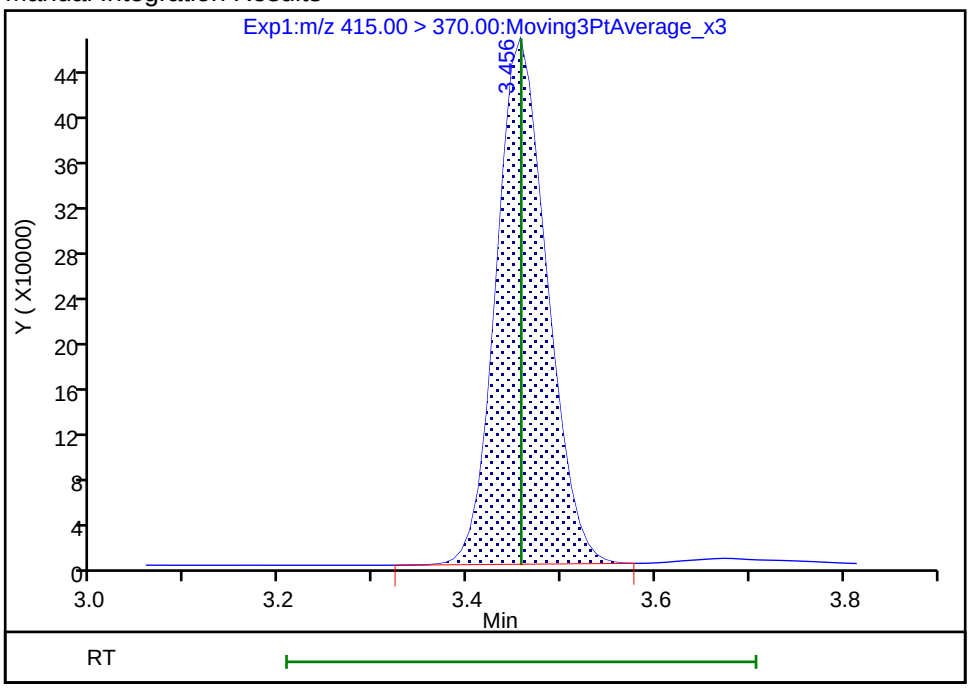
Processing Integration Results

RT: 3.46
Area: 1735803
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1723202
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:39:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-4S-20211025  Lab Sample ID: 460-246027-3

Matrix: Water  Lab File ID: PA211103A15.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 16:10

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 273.3(mL)  Date Analyzed: 11/03/2021 14:40

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.46 | J | 4.57 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 2.43 | | 1.83 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 2.20 | | 1.83 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.75 | J | 1.83 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 5.77 | | 1.83 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.36 | J | 1.83 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.83 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.83 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 4.59 | | 1.83 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 2.54 | | 1.83 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | J | 1.83 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 12.7 | | 1.83 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.57 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.57 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.57 | 1.00 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-4S-20211025  Lab Sample ID: 460-246027-3

Matrix: Water  Lab File ID: PA211103A15.d

Analysis Method: 537 (modified)  Date Collected: 10/25/2021 16:10

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 273.3(mL)  Date Analyzed: 11/03/2021 14:40

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 93 | | 50-150 |
| STL00990 | 13C4 PFOA | 92 | | 50-150 |
| STL00991 | 13C4 PFOS | 91 | | 50-150 |
| STL00995 | 13C5 PFNA | 99 | | 50-150 |
| STL00992 | 13C4 PFBA | 94 | | 25-150 |
| STL00993 | 13C2 PFHxA | 107 | | 50-150 |
| STL00996 | 13C2 PFDA | 82 | | 50-150 |
| STL00997 | 13C2 PFUnA | 82 | | 50-150 |
| STL00998 | 13C2 PFDoA | 77 | | 50-150 |
| STL01056 | 13C8 FOSA | 90 | | 25-150 |
| STL01893 | 13C5 PFPeA | 98 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 83 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 96 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 98 | | 50-150 |
| STL02279 | M2-6:2 FTS | 99 | | 25-150 |
| STL02280 | M2-8:2 FTS | 101 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d
Lims ID: 460-246027-A-3-A
Client ID: MHP-MW-4S-20211025
Sample Type: Client
Inject. Date: 03-Nov-2021 14:40:28 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-3-A
Misc. Info.: 200-0048270-015 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 09:42:01
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.073 | 2.065 | 0.008 | 0.598 | 1306331 | 1.18 | | 94.3 | 7529 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.073 | 2.065 | 0.008 | 1.000 | 93545 | 0.0947 | | | 11.1 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1140391 | 1.22 | | 97.7 | 1904 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.000 | 60656 | 0.0664 | | | 2.1 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.693 | 1369302 | 1.08 | | 93.2 | 39014 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.413 | 2.401 | 0.012 | 1.005 | 157673 | 0.1253 | Target=2.32 | | 16.0 | M |
| 298.90 > 99.00 | 2.413 | 2.401 | 0.012 | 1.005 | 77126 | | 2.04(1.16-3.48) | | 17.2 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.746 | 2.735 | 0.011 | 1.000 | 63677 | 0.0601 | Target=12.09 | | 4.6 | M |
| 313.00 > 119.00 | 2.746 | 2.735 | 0.011 | 1.000 | 4713 | | 13.51(6.04-18.13) | | 5.6 | M |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.746 | 2.735 | 0.011 | 0.792 | 1304881 | 1.33 | | 107 | 1069 | M |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1008136 | 1.10 | | 92.9 | 261 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 65009 | 0.0694 | Target=3.55 | | 12.0 | M |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 0.997 | 18412 | | 3.53(1.77-5.32) | | 10.5 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 47250 | 0.0478 | Target=3.69 | | 5.5 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 12249 | | 3.86(1.84-5.53) | | 11.2 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1195866 | 1.16 | | 92.8 | 1803 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 4331 | 0.005780 | Target=4.88 | | 1.1 | M |
| 449.00 > 99.00 | 3.438 | 3.448 | -0.010 | 0.911 | 1506 | | 2.88(2.44-7.32) | | 1.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.995 | 169559 | 1.17 | | 98.6 | 108 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 0.997 | 1291142 | 1.15 | | 91.7 | 821 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1368714 | 1.25 | | | 262 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.003 | 173304 | 0.1578 | Target=2.68 | | 12.6 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.003 | 70598 | | 2.45(1.34-4.02) | | 30.9 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 718233 | 1.08 | | 90.6 | 258 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.673 | 3.767 | -0.094 | 0.973 | 227100 | 0.3482 | Target=4.69 | | 32.0 | M |
| 499.00 > 99.00 | 3.775 | 3.767 | 0.008 | 1.000 | 37052 | | 6.13(2.35-7.04) | | 24.8 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.095 | 1385935 | 1.23 | | 98.8 | 2298 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.785 | 3.786 | -0.001 | 0.997 | 10635 | 0.009804 | Target=7.29 | | 1.4 | M |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 0.997 | 1186 | | 8.97(3.64-10.93) | | 2.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1154416 | 1.02 | | 81.5 | 74.3 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 197638 | 1.20 | | 101 | 105 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1223132 | 1.12 | | 89.6 | 481 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.207 | 0.018 | 1.002 | 188 | 0.000202 | | | 0.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 133715 | 1.20 | | 96.0 | 132 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.204 | 4.217 | -0.013 | 0.995 | 73 | 0.000869 | | | 0.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 905413 | 1.03 | | 82.1 | 799 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 127503 | 1.22 | | 97.7 | 510 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 198 | 0.002265 | | | 0.5 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 910345 | 0.9587 | | 76.7 | 220 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.562 | 0.018 | 1.003 | 1025 | 0.001438 | Target=7.04 | | 0.2 | M |
| 613.00 > 169.00 | 4.580 | 4.562 | 0.018 | 1.003 | 139 | | 7.37(3.52-10.56) | | 1.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.428 | 767170 | 1.04 | | 83.3 | 1402 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:53 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d

Injection Date: 03-Nov-2021 14:40:28 Instrument ID: LC812

Lims ID: 460-246027-A-3-A Lab Sample ID: 200-246027-3

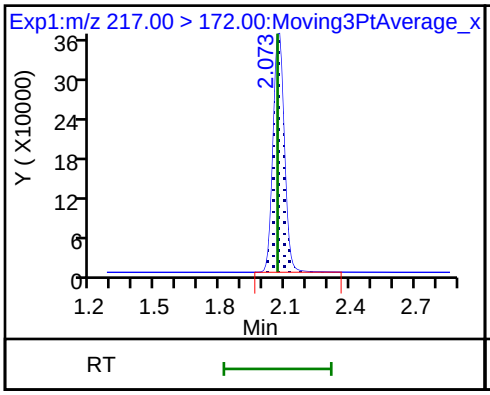
Client ID: MHP-MW-4S-20211025

Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15

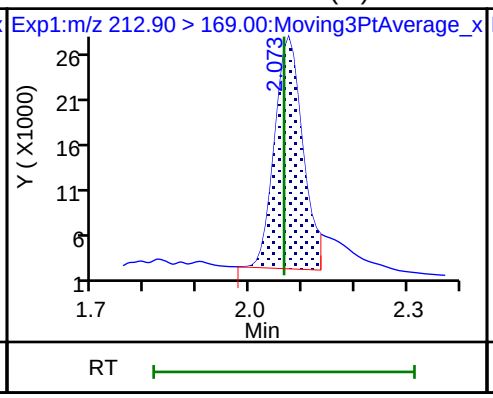
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

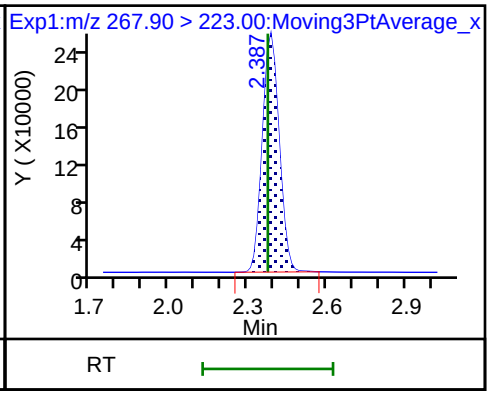
D 1 13C4 PFBA



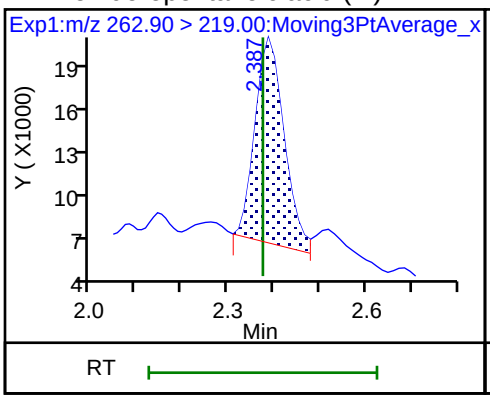

2 Perfluorobutanoic acid (M)



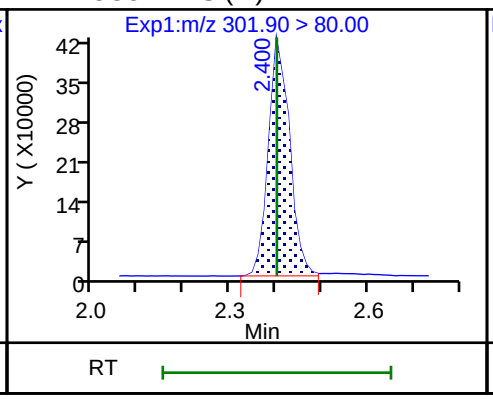

D 3 13C5 PFPeA



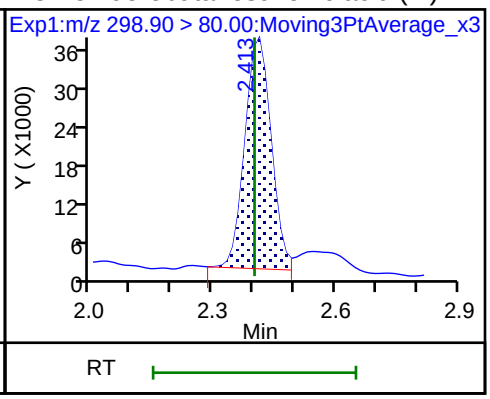

4 Perfluoropentanoic acid (M)



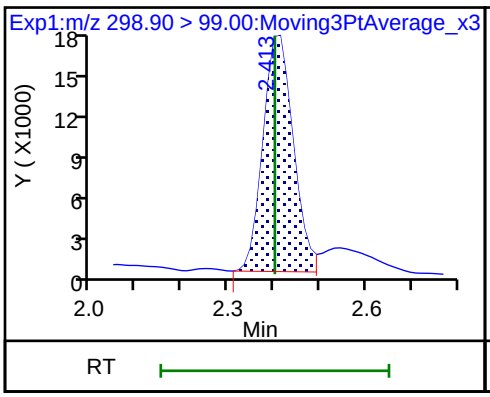

D 47 13C3 PFBS (M)



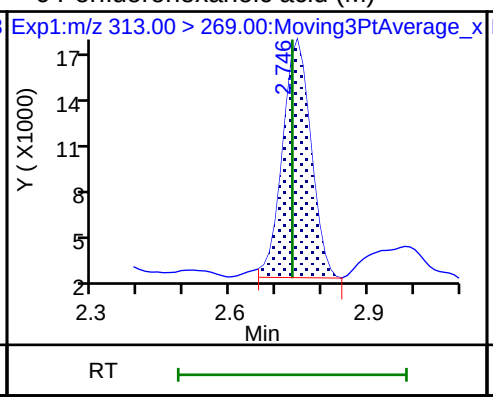

5 Perfluorobutanesulfonic acid (M)



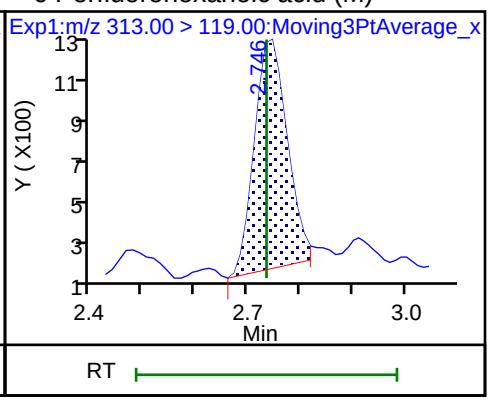

5 Perfluorobutanesulfonic acid



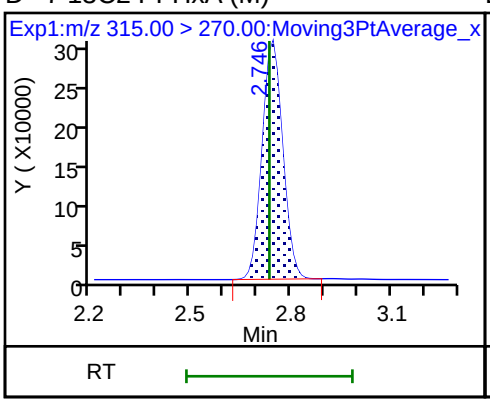

6 Perfluorohexanoic acid (M)



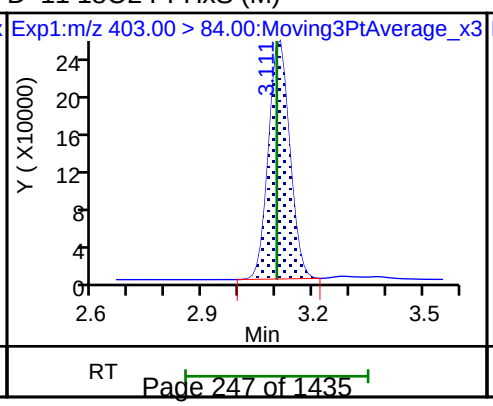

6 Perfluorohexanoic acid (M)



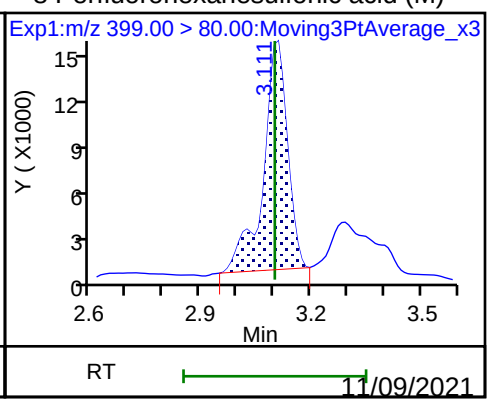

D 7 13C2 PFHxA (M)



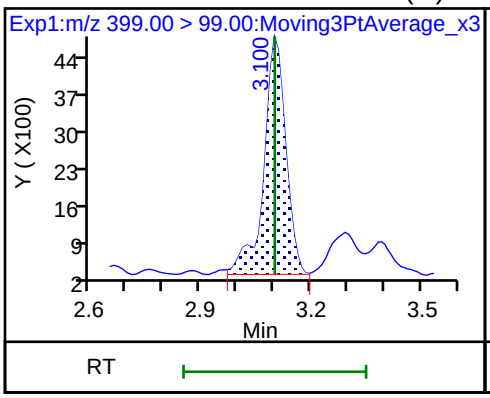

D 11 18O2 PFHxS (M)



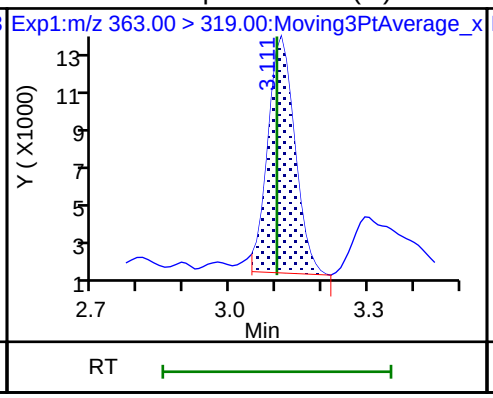

8 Perfluorohexanesulfonic acid (M)



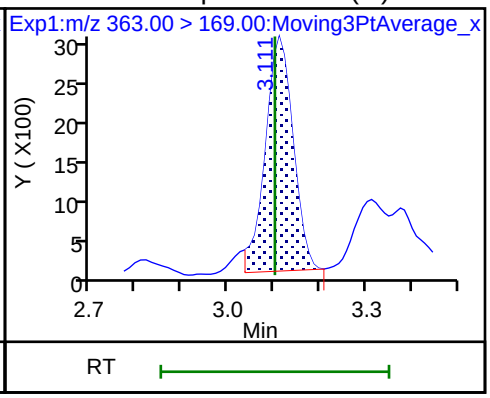
8 Perfluorohexanesulfonic acid (M)



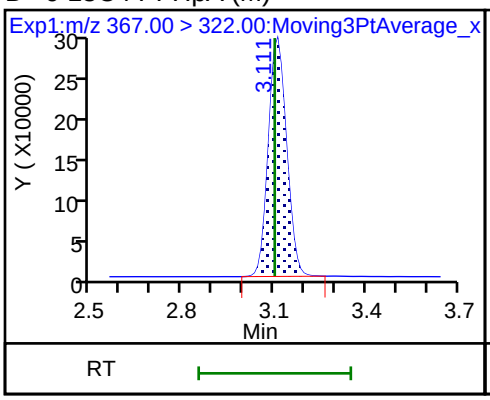

10 Perfluoroheptanoic acid (M)



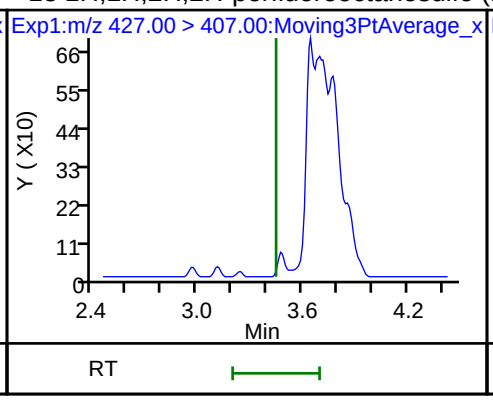

10 Perfluoroheptanoic acid (M)



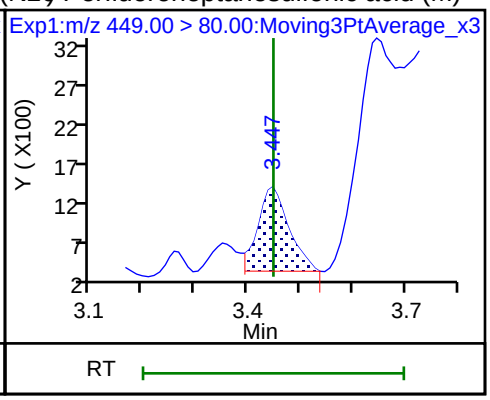

D 9 13C4 PFHpA (M)



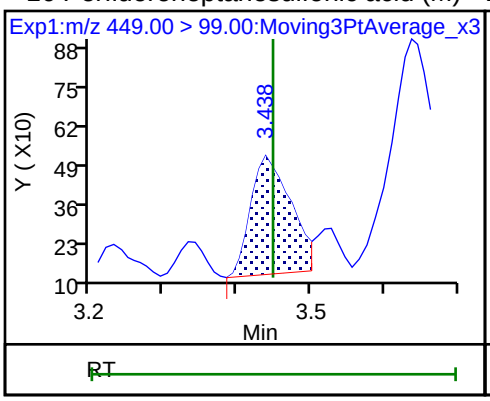

13 1H,1H,2H,2H-perfluorooctanesulfo (ND)



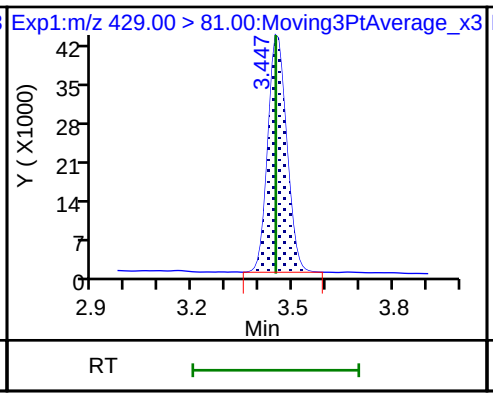

D 6 Perfluoroheptanesulfonic acid (M)



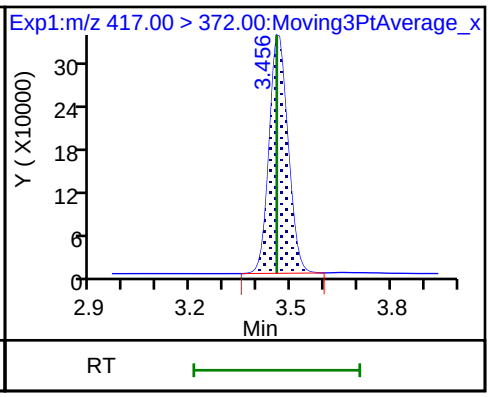

16 Perfluoroheptanesulfonic acid (M)



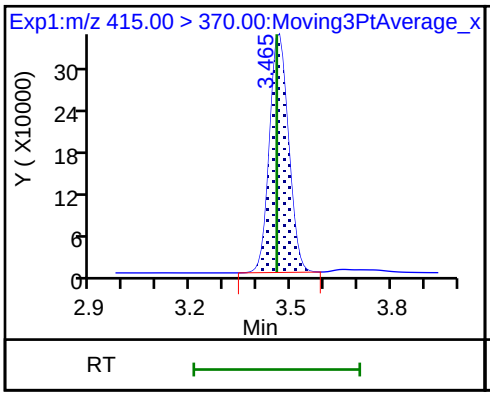

D 12 M2-6:2 FTS



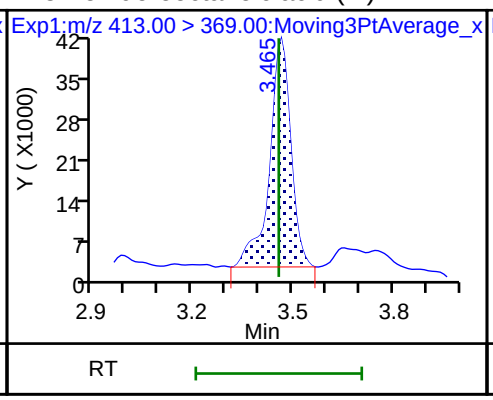

D 14 13C4 PFOA



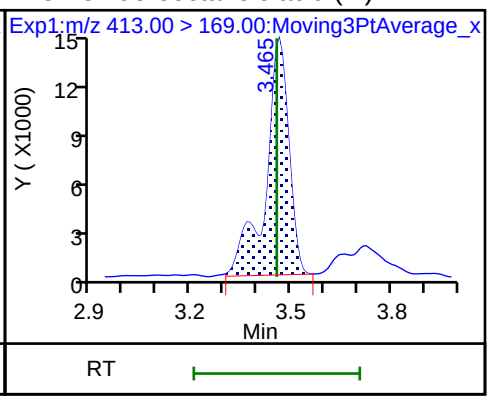

* 62 13C2 PFOA



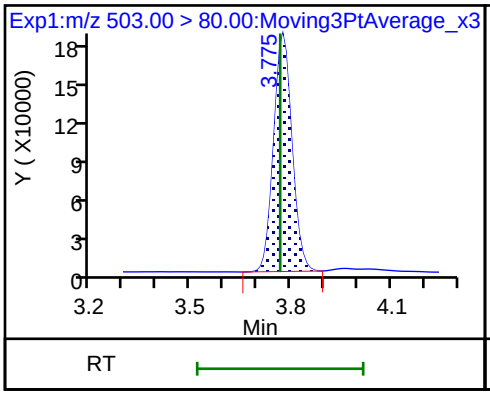

15 Perfluorooctanoic acid (M)



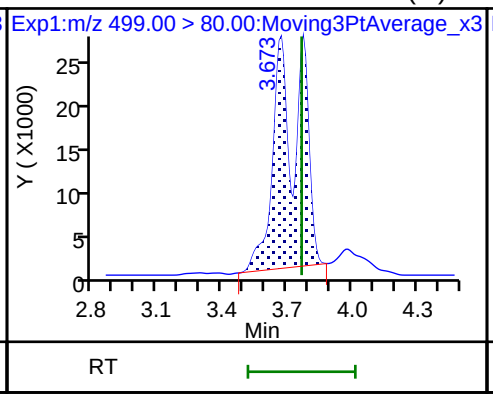

15 Perfluorooctanoic acid (M)



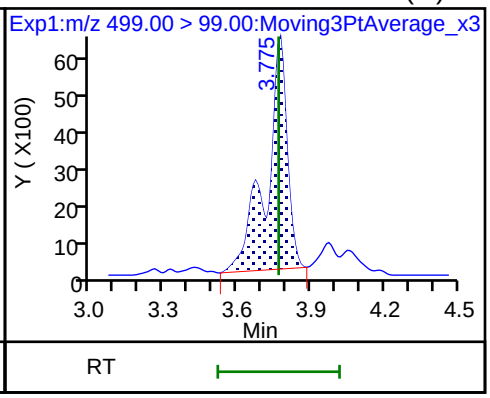
D 18 13C4 PFOS



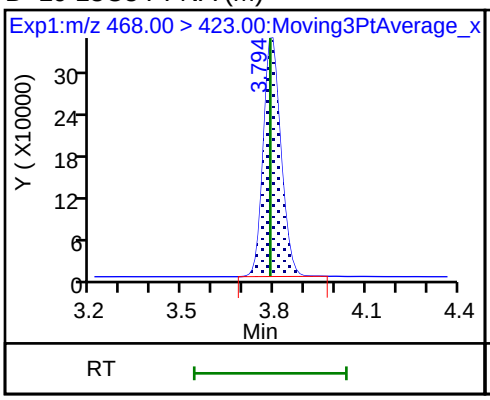

17 Perfluorooctanesulfonic acid (M)



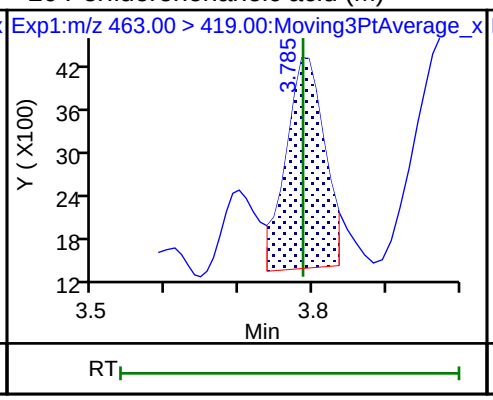

17 Perfluorooctanesulfonic acid (M)



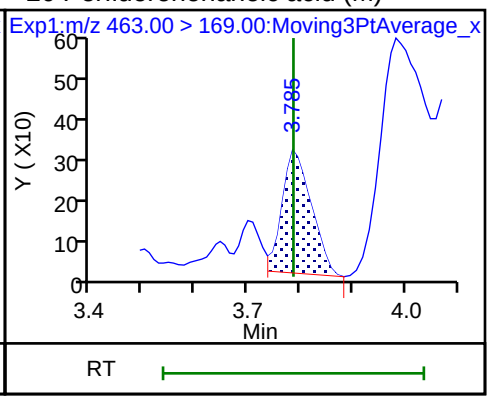

D 19 13C5 PFNA (M)



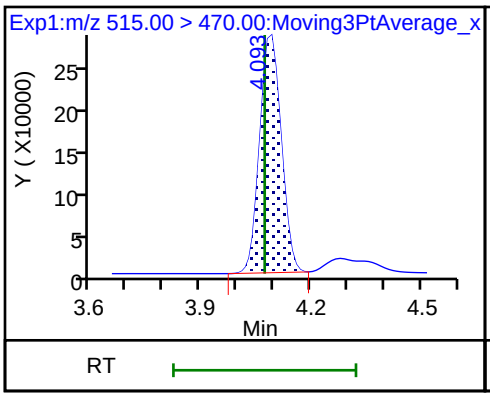

20 Perfluorononanoic acid (M)



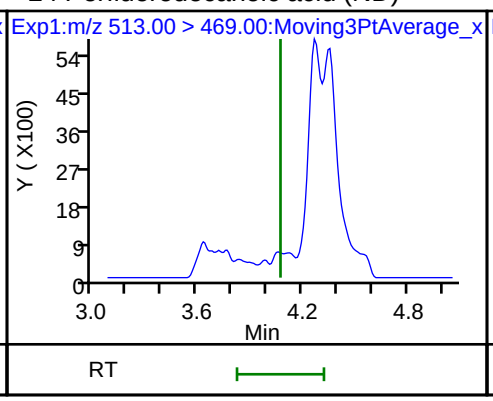

20 Perfluorononanoic acid (M)



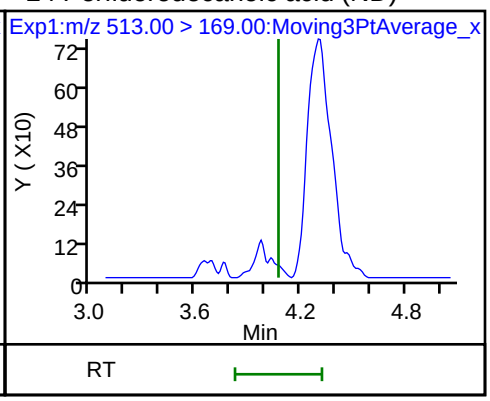

D 23 13C2 PFDA



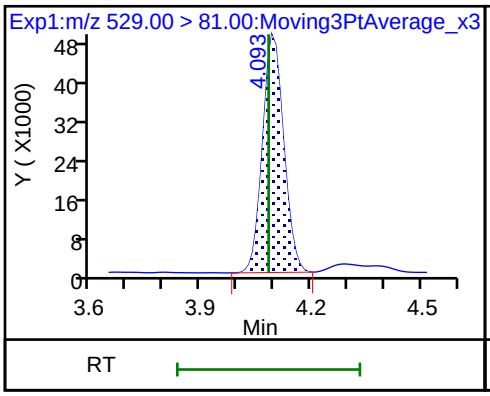

24 Perfluorodecanoic acid (ND)



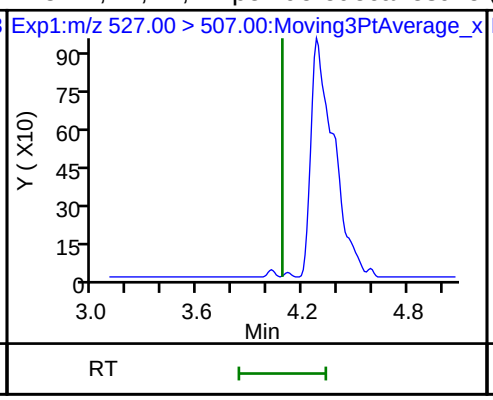

24 Perfluorodecanoic acid (ND)



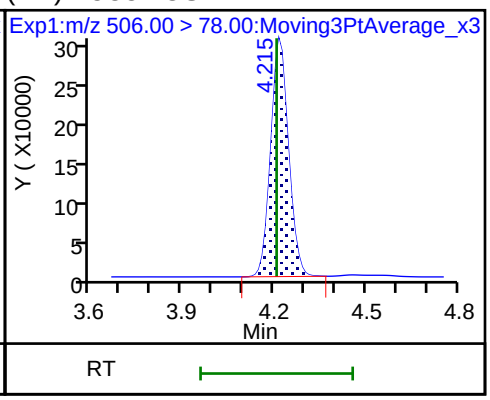

D 26 M2-8:2 FTS



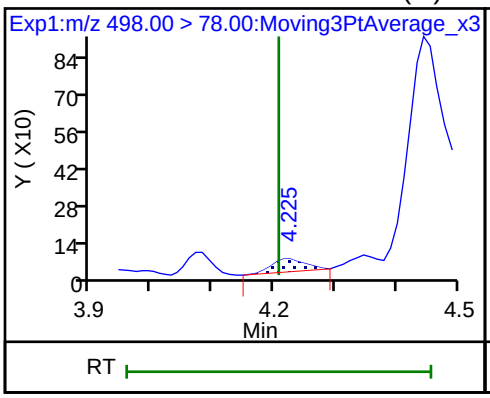

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



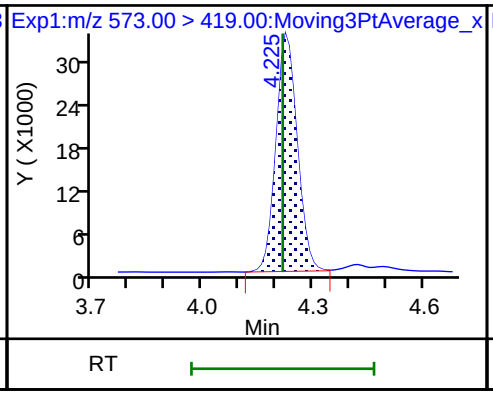

D 21 13C8 FOSA



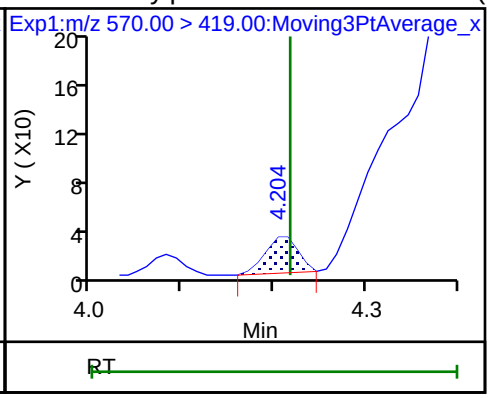
22 Perfluorooctanesulfonamide (M)



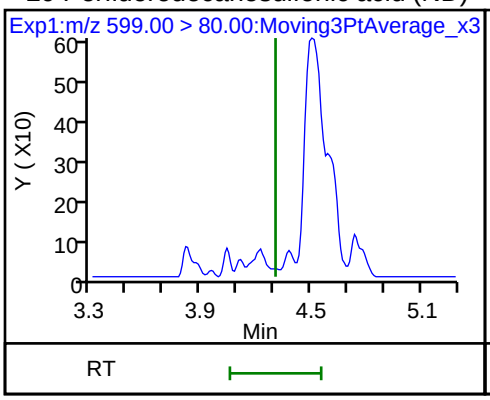

D 27 d3-NMeFOSAA



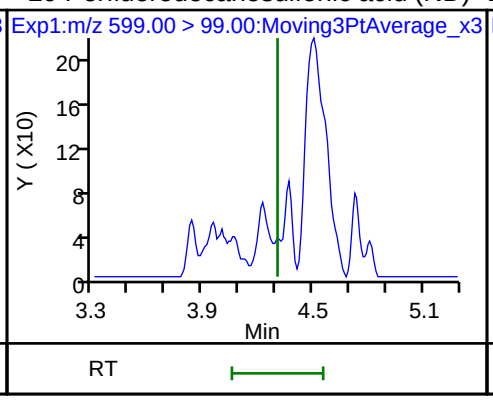

28 N-methylperfluorooctanesulfonami (M)



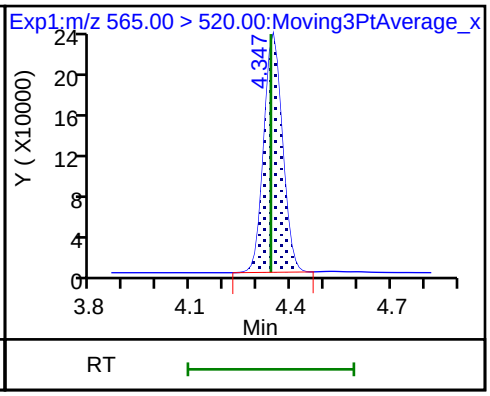

29 Perfluorodecanesulfonic acid (ND)



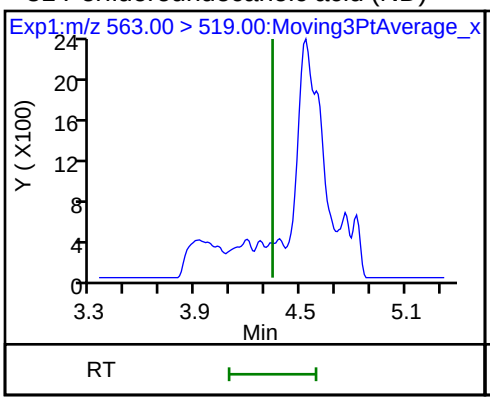

29 Perfluorodecanesulfonic acid (ND)



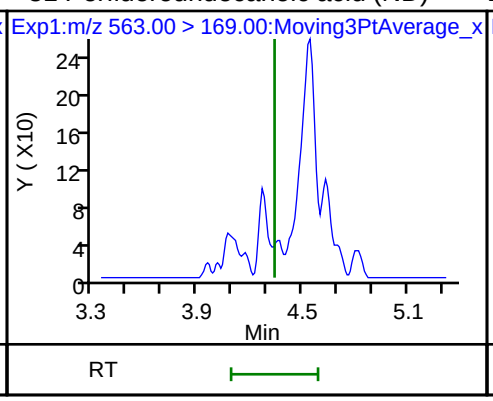

D 30 13C2 PFUnA



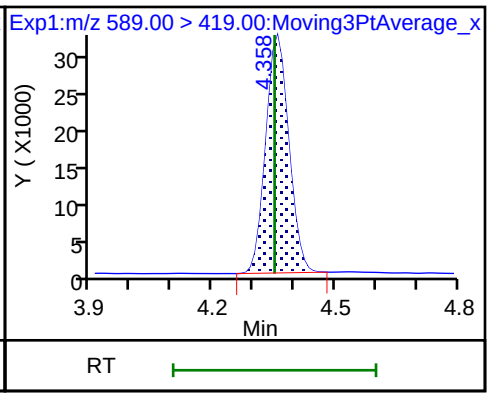

31 Perfluoroundecanoic acid (ND)



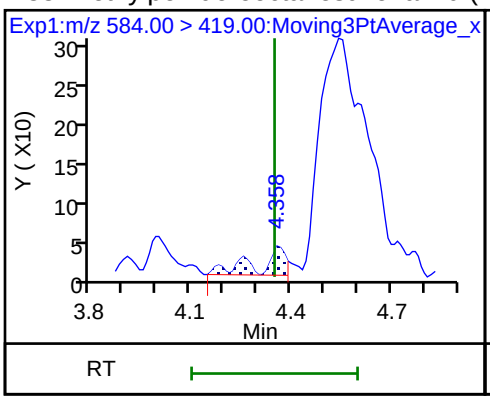

31 Perfluoroundecanoic acid (ND)



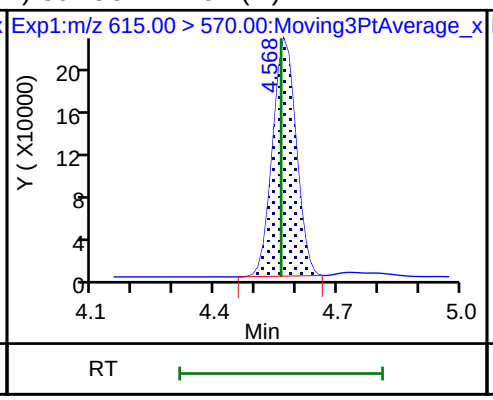

D 32 d5-NEtFOSAA



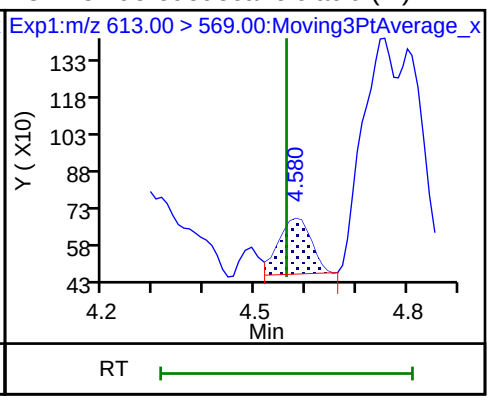

33 N-ethylperfluorooctanesulfonamid (ND)



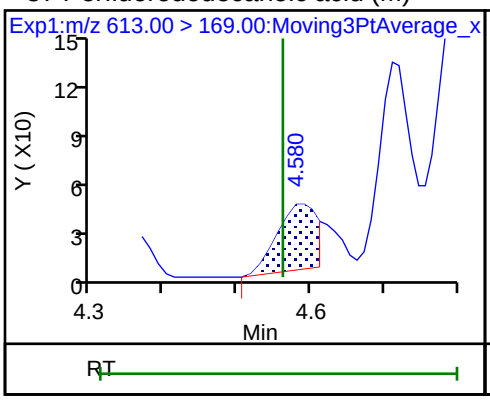

D 36 13C2 PFDoA (M)



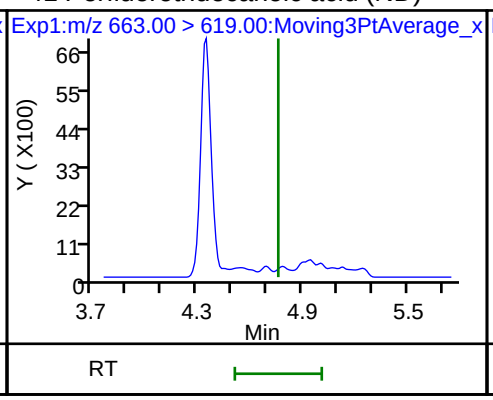

37 Perfluorododecanoic acid (M)



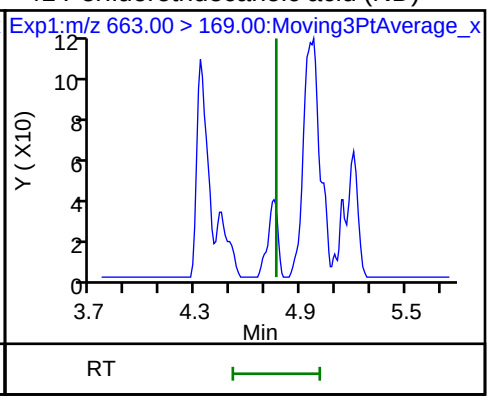
37 Perfluorododecanoic acid (M)



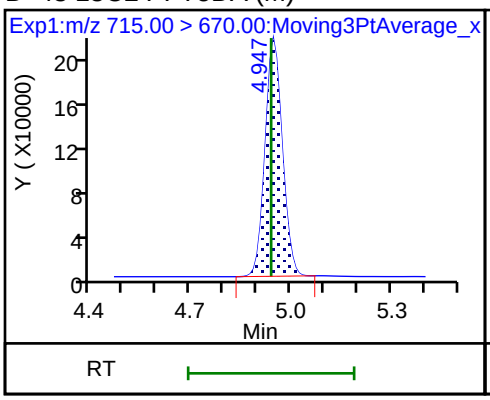

41 Perfluorotridecanoic acid (ND)



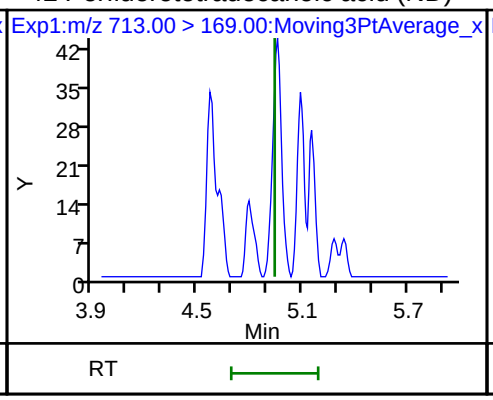

41 Perfluorotridecanoic acid (ND)



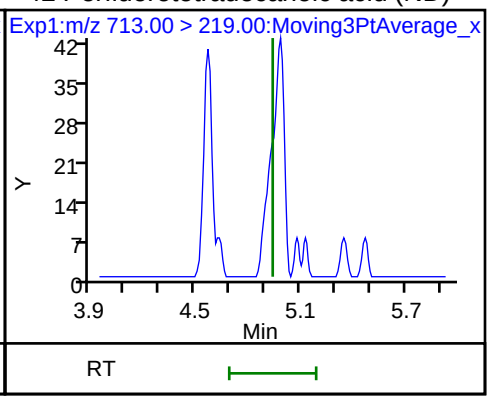

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

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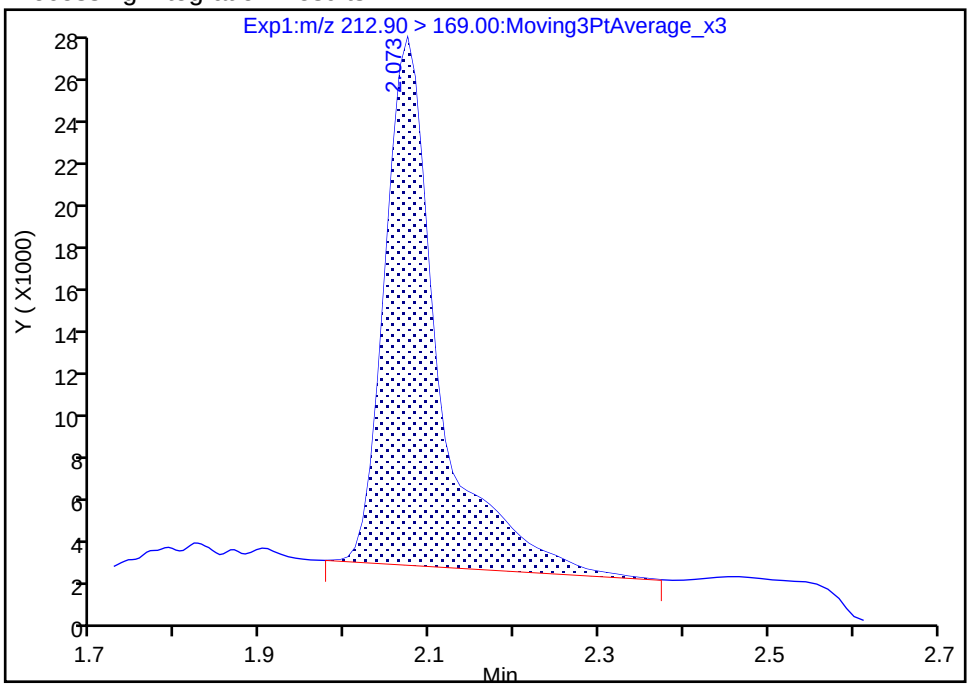
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

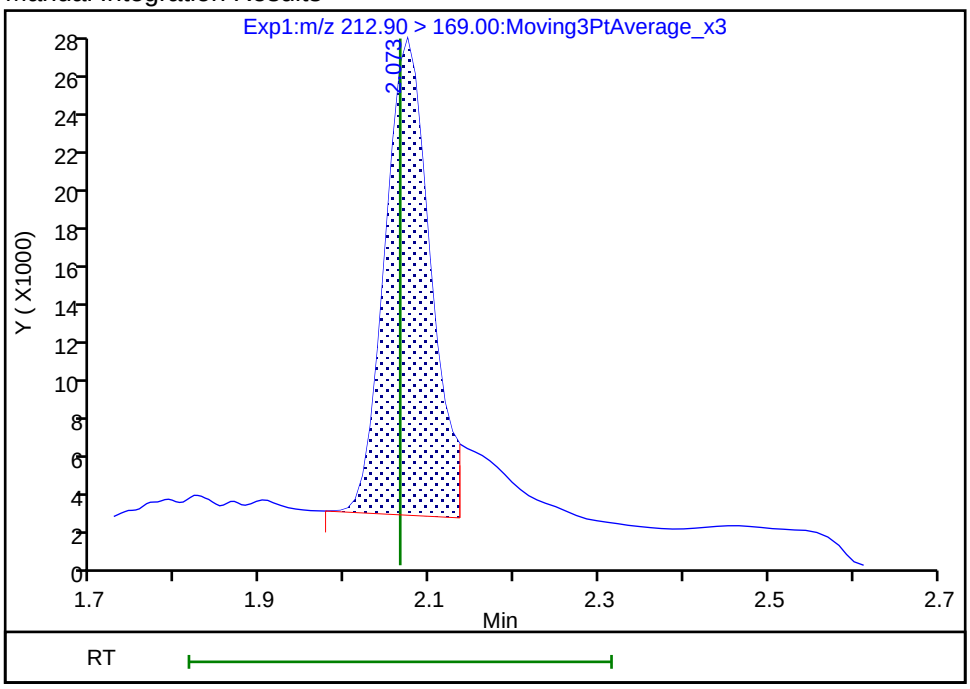
Processing Integration Results

RT: 2.07
Area: 111470
Amount: 0.112804
Amount Units: ng/ml




Manual Integration Results

RT: 2.07
Area: 93545
Amount: 0.094665
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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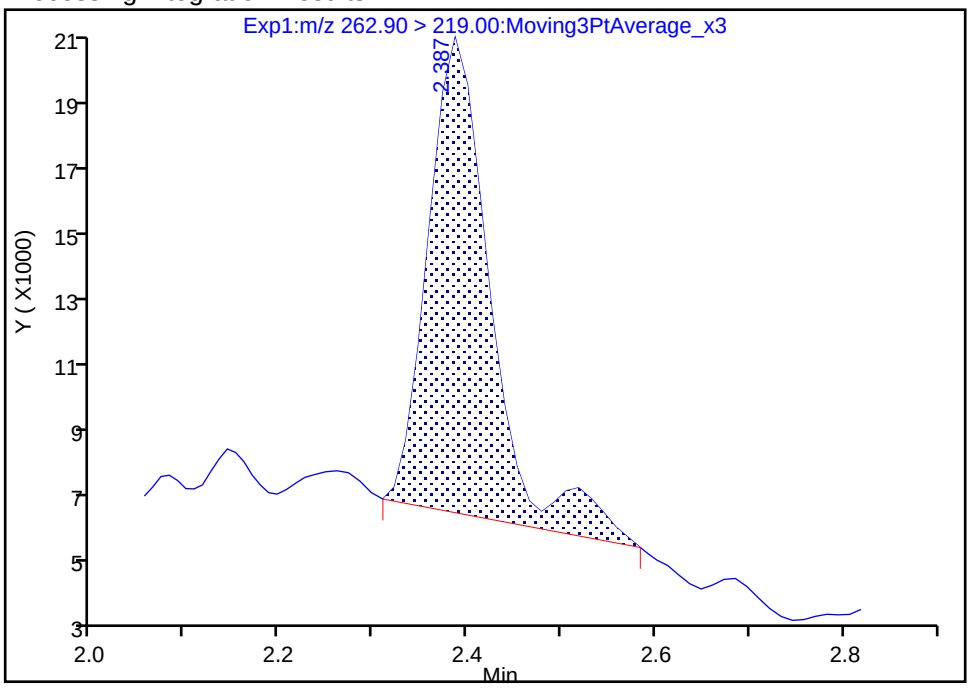
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

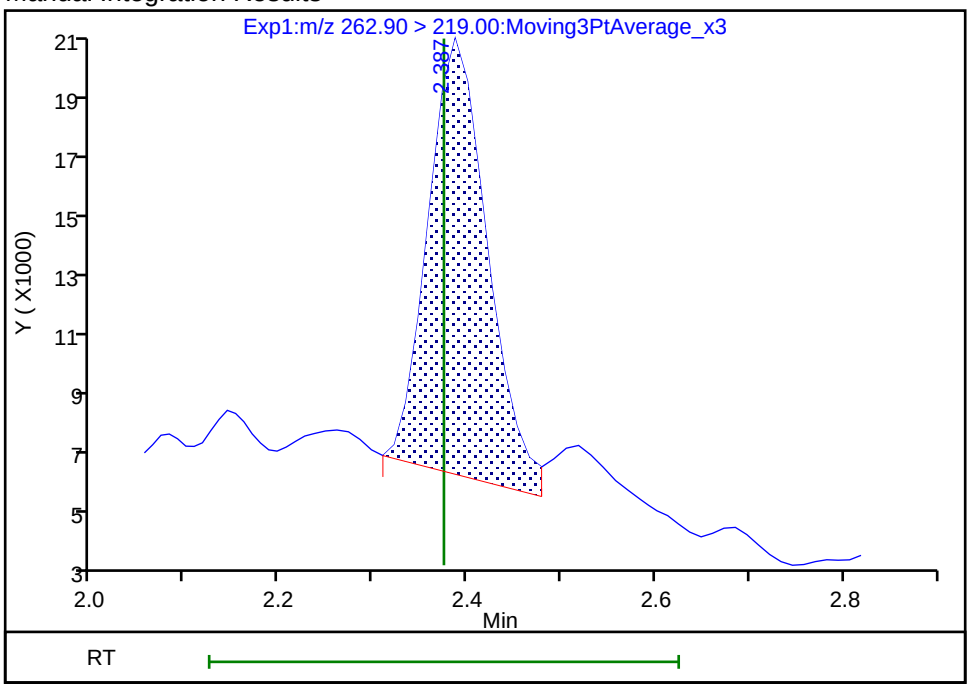
Processing Integration Results

RT: 2.39
Area: 63388
Amount: 0.069361
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 60656
Amount: 0.066371
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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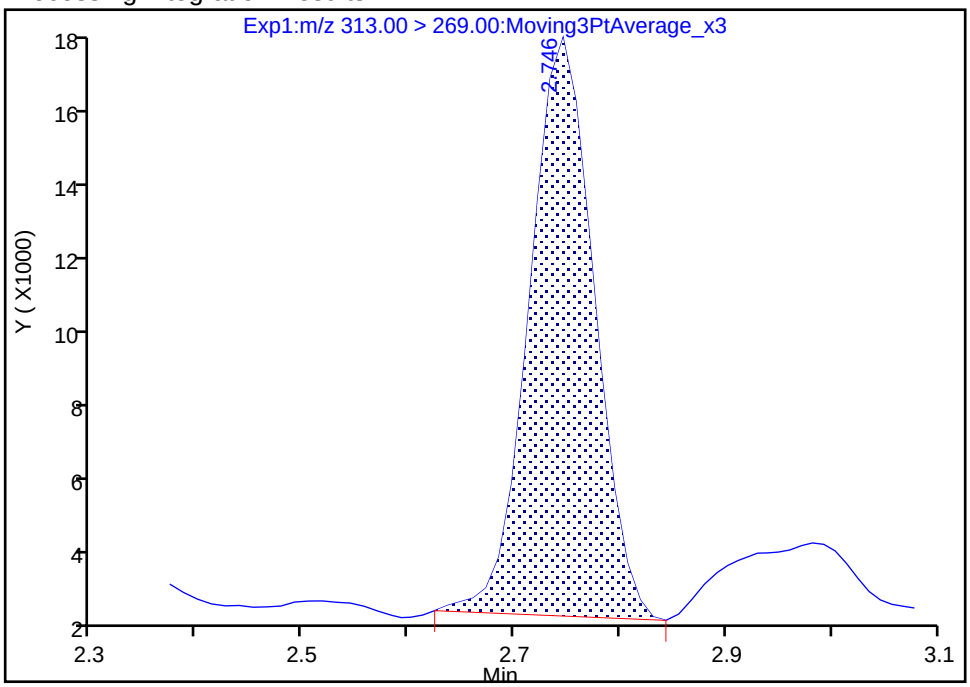
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

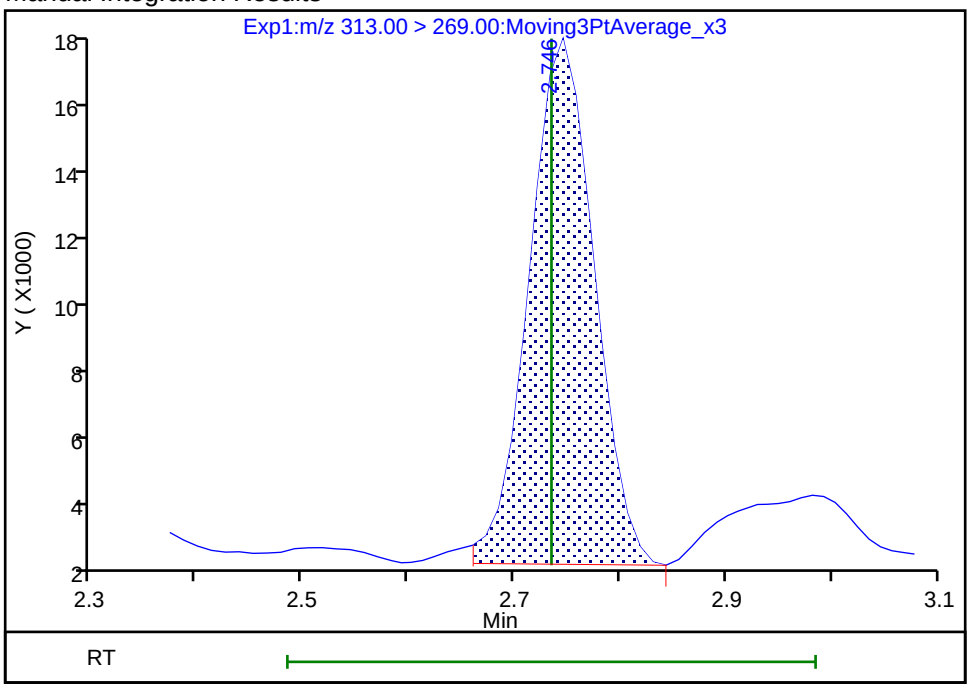
Processing Integration Results

RT: 2.75
Area: 63245
Amount: 0.059738
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 63677
Amount: 0.060146
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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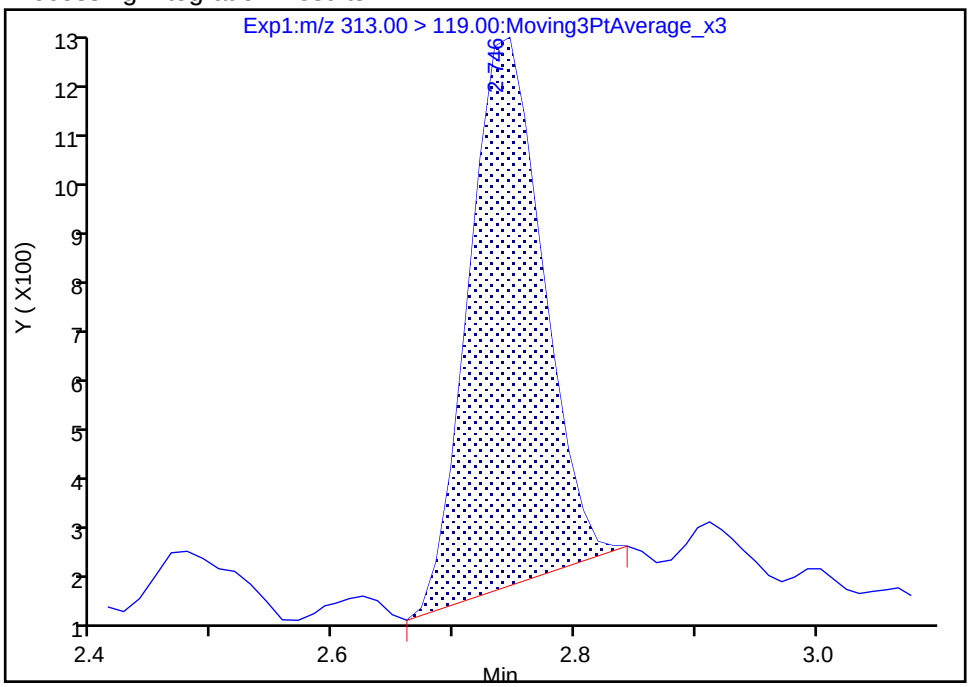
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

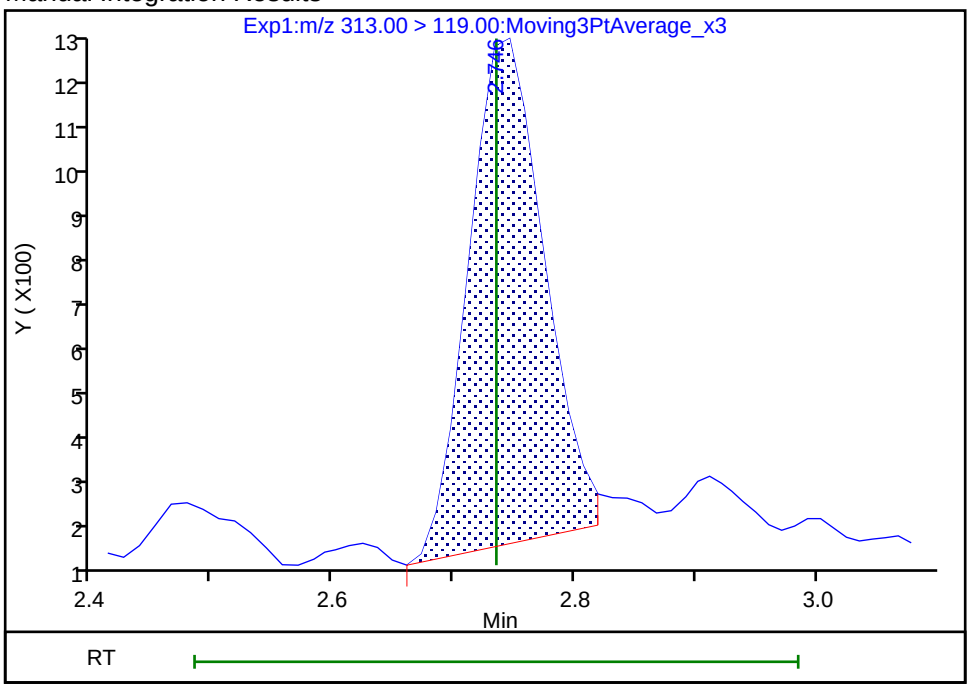
Processing Integration Results

RT: 2.75
Area: 4547
Amount: 0.059738
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 4713
Amount: 0.060146
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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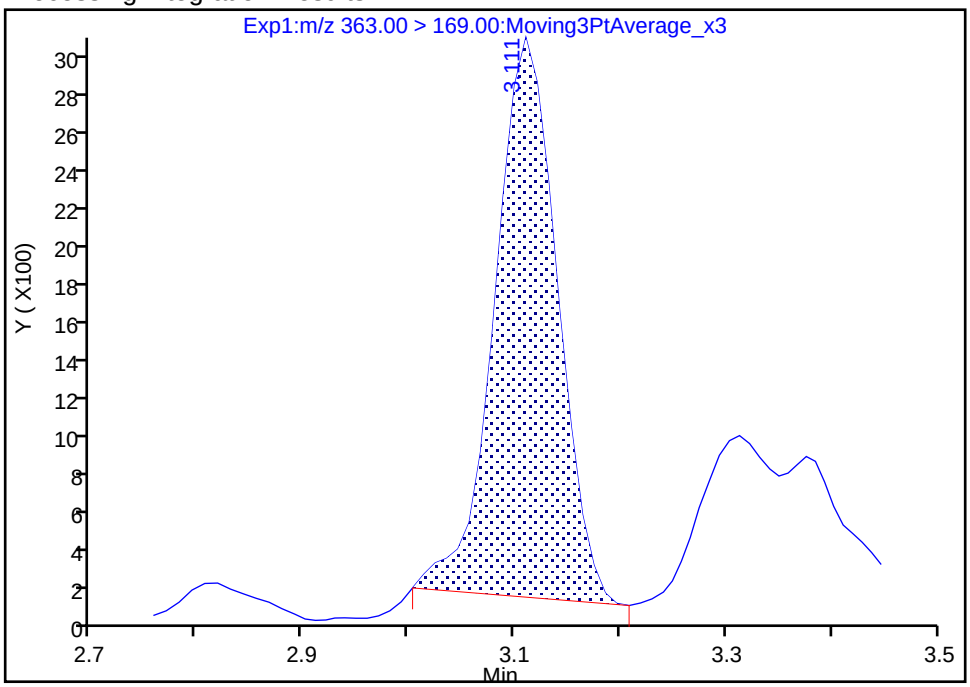
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

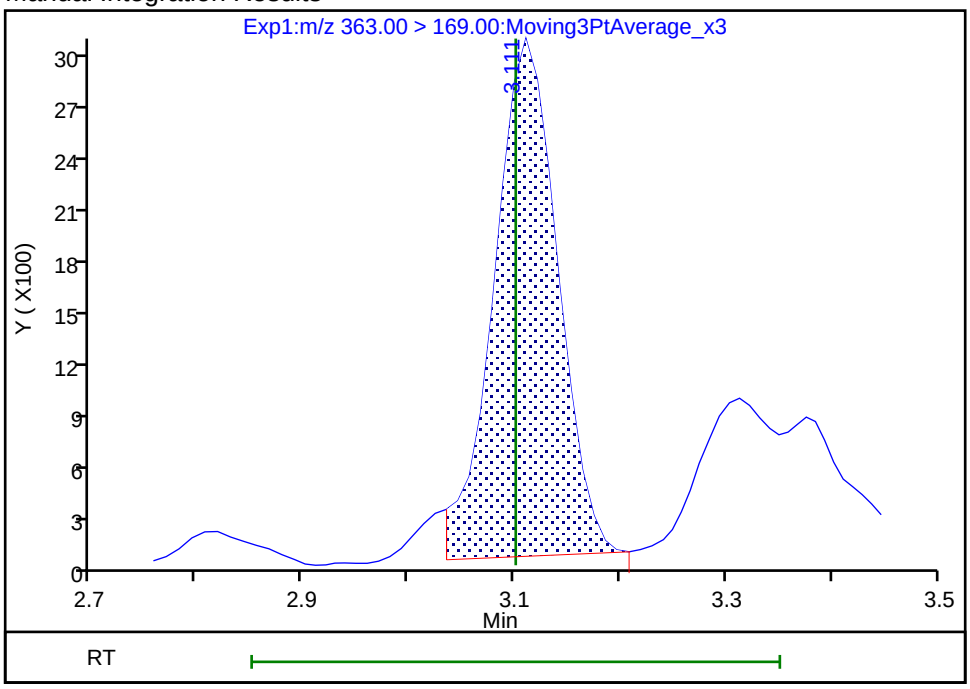
Processing Integration Results

RT: 3.11
Area: 11812
Amount: 0.047455
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 12249
Amount: 0.047801
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:38:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

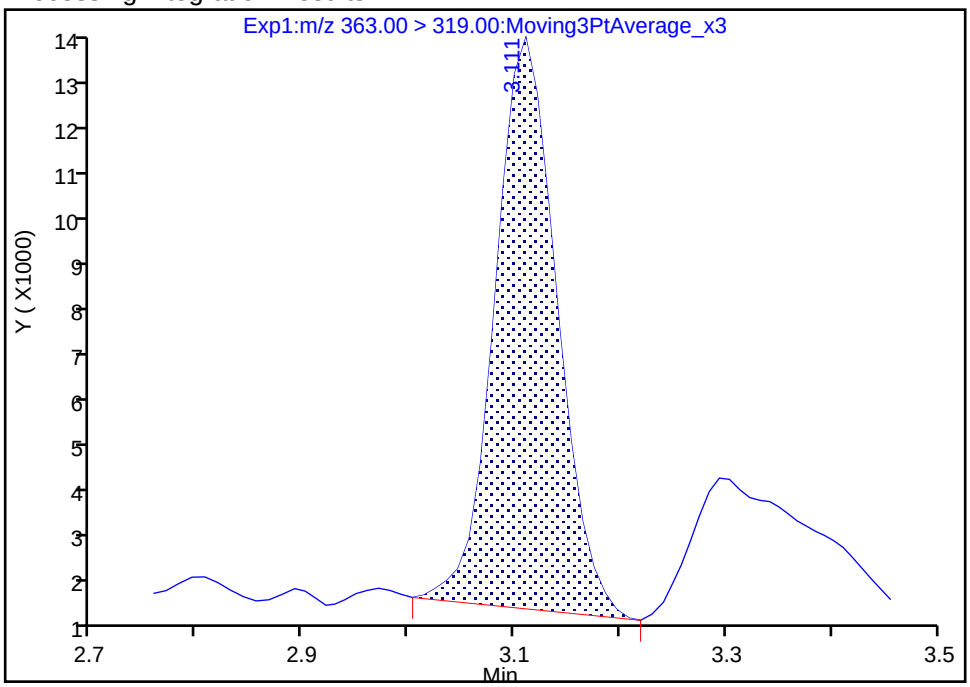
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

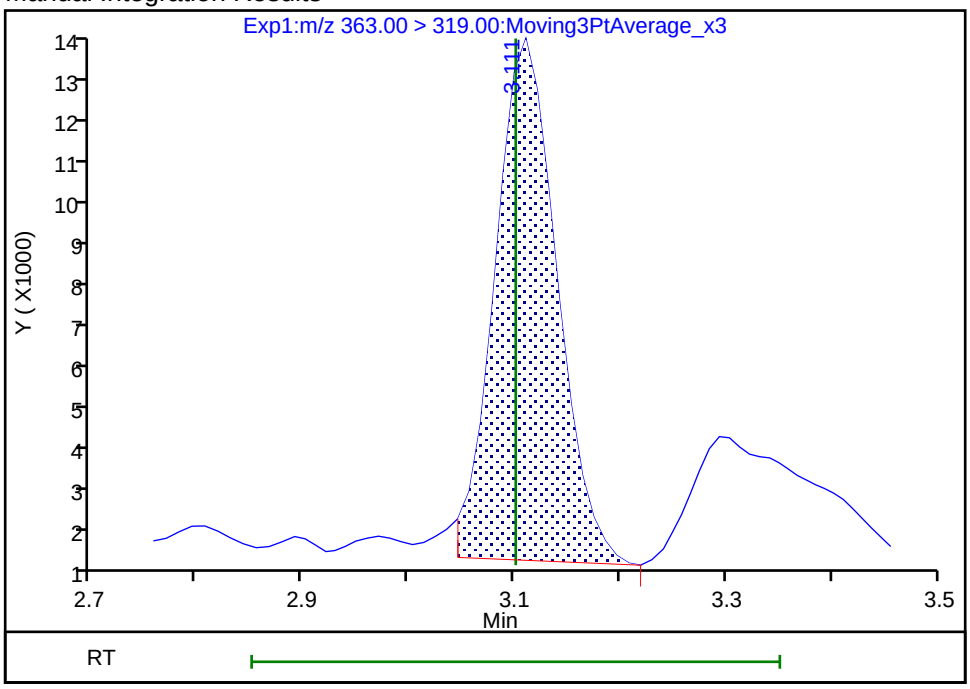
Processing Integration Results

RT: 3.11
Area: 46908
Amount: 0.047455
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 47250
Amount: 0.047801
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:41:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

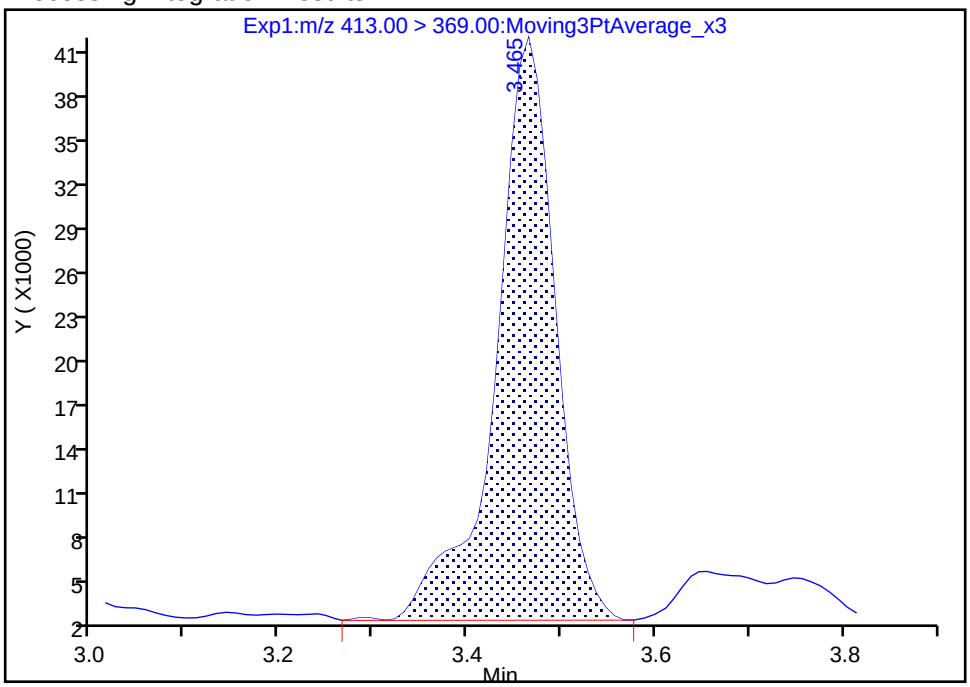
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

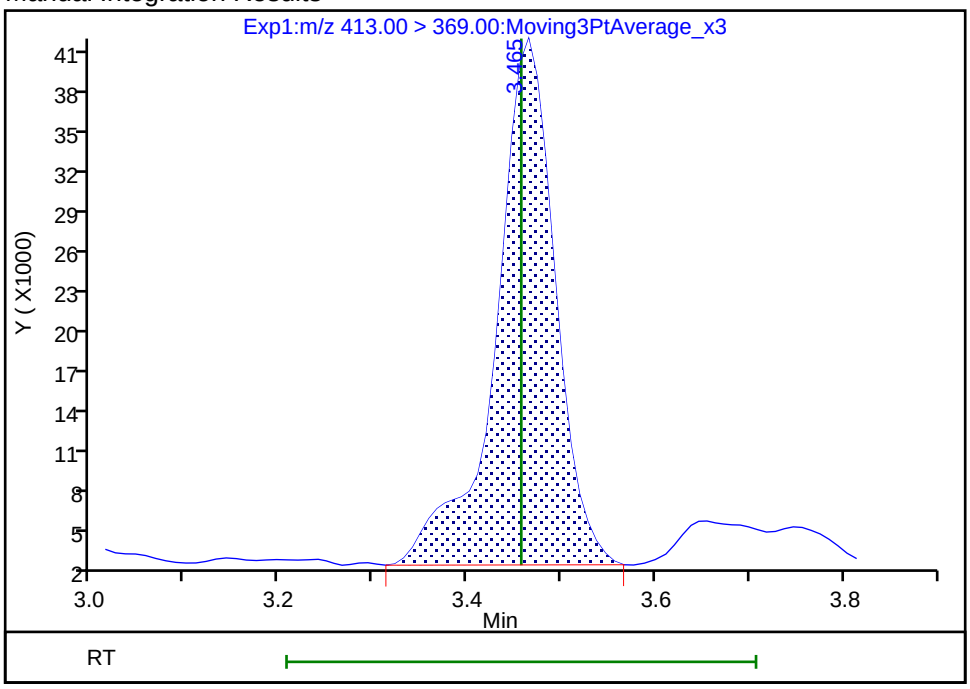
Processing Integration Results

RT: 3.46
Area: 173747
Amount: 0.158176
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 173304
Amount: 0.157773
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:39:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

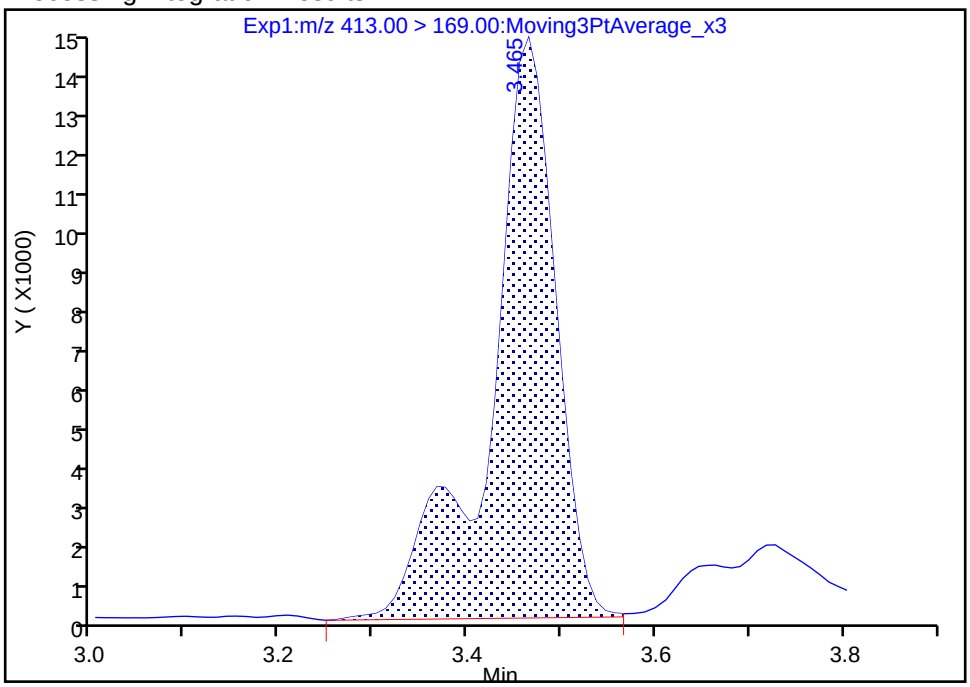
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

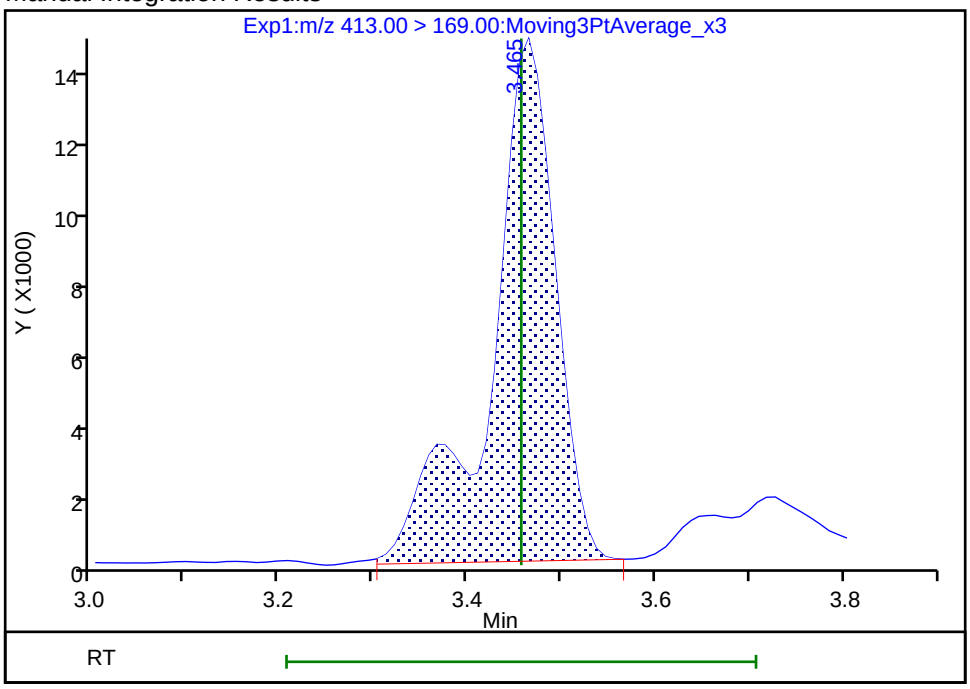
Processing Integration Results

RT: 3.46
Area: 71578
Amount: 0.158176
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 70598
Amount: 0.157773
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:41:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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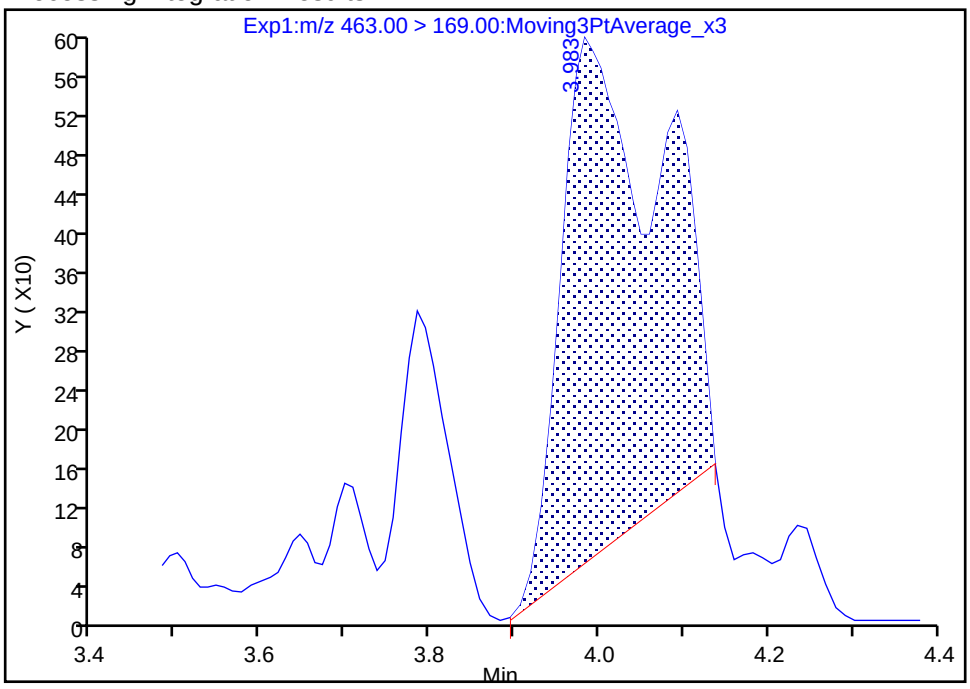
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

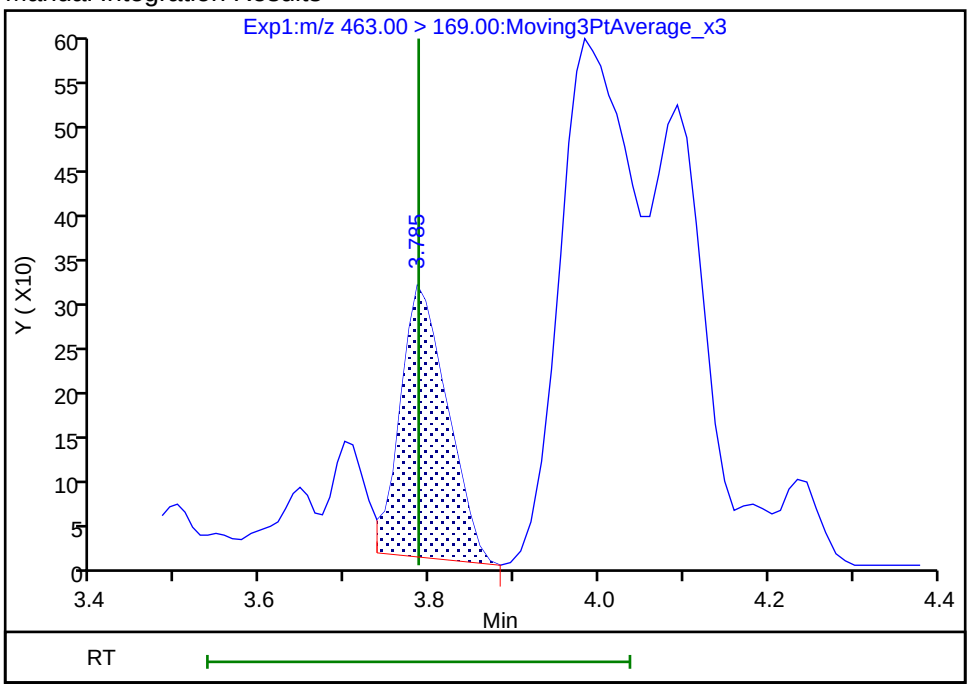
Processing Integration Results

RT: 3.98
Area: 4288
Amount: 0.018969
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1186
Amount: 0.009804
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:40:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

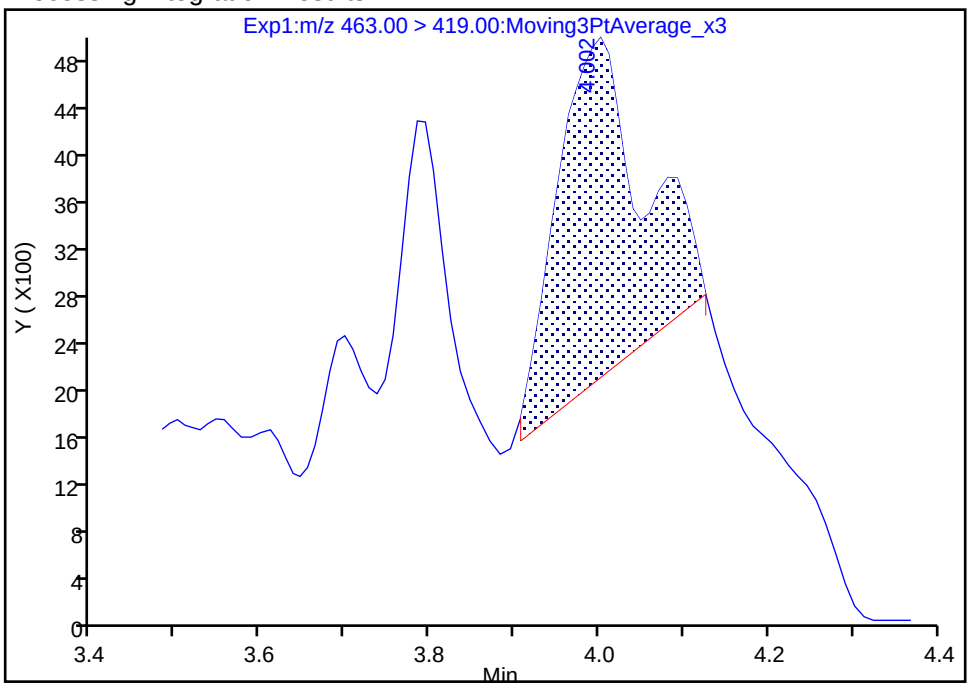
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

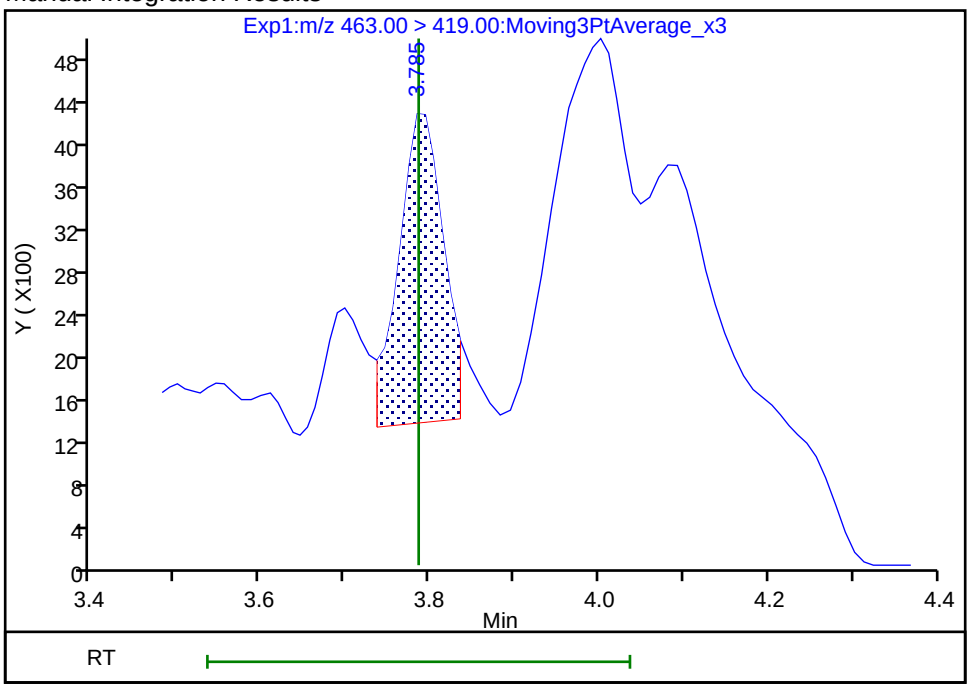
Processing Integration Results

RT: 4.00
Area: 20576
Amount: 0.018969
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 10635
Amount: 0.009804
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:40:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

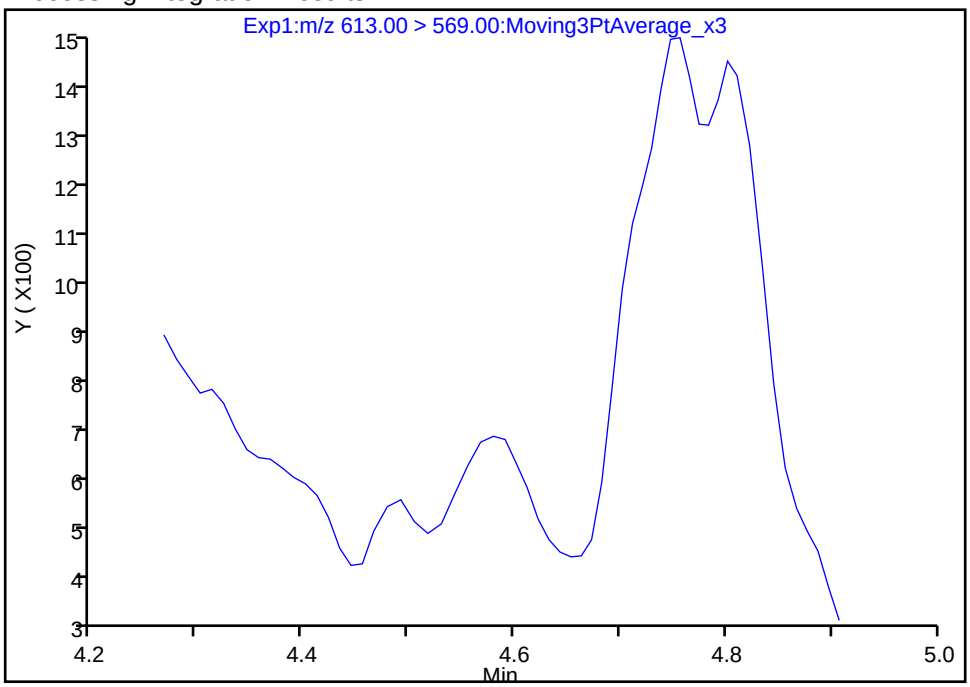
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

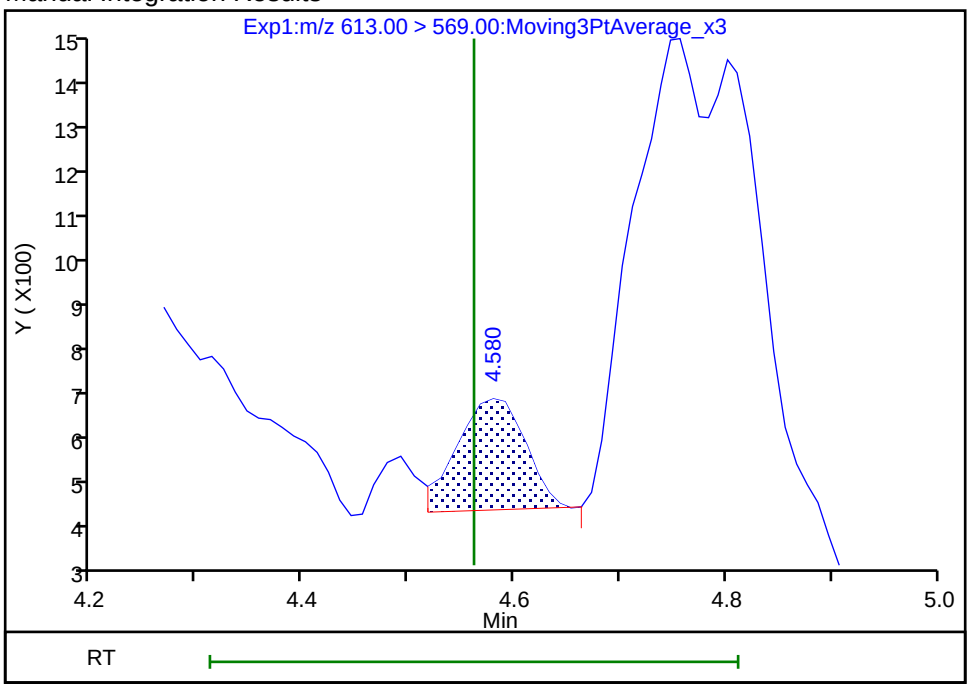
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 1025
Amount: 0.001438
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:41:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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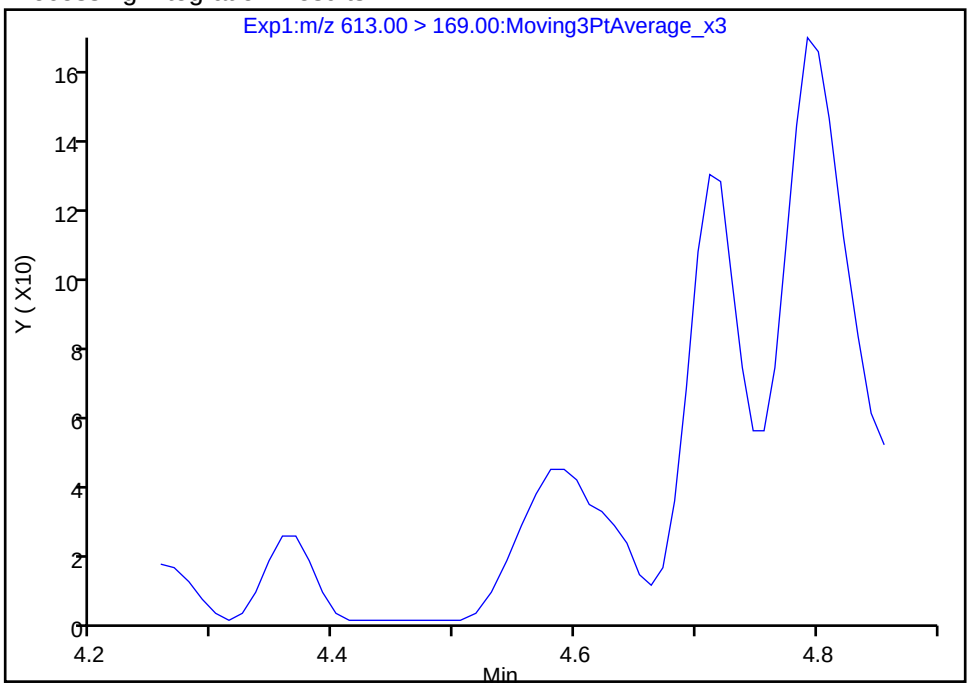
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

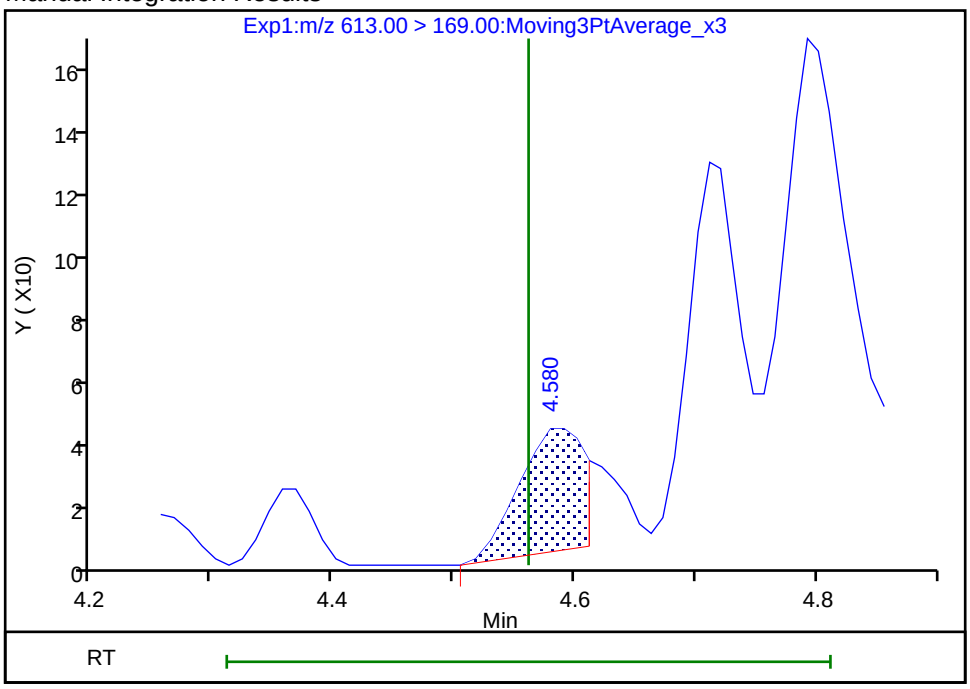
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 139
Amount: 0.001438
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:41:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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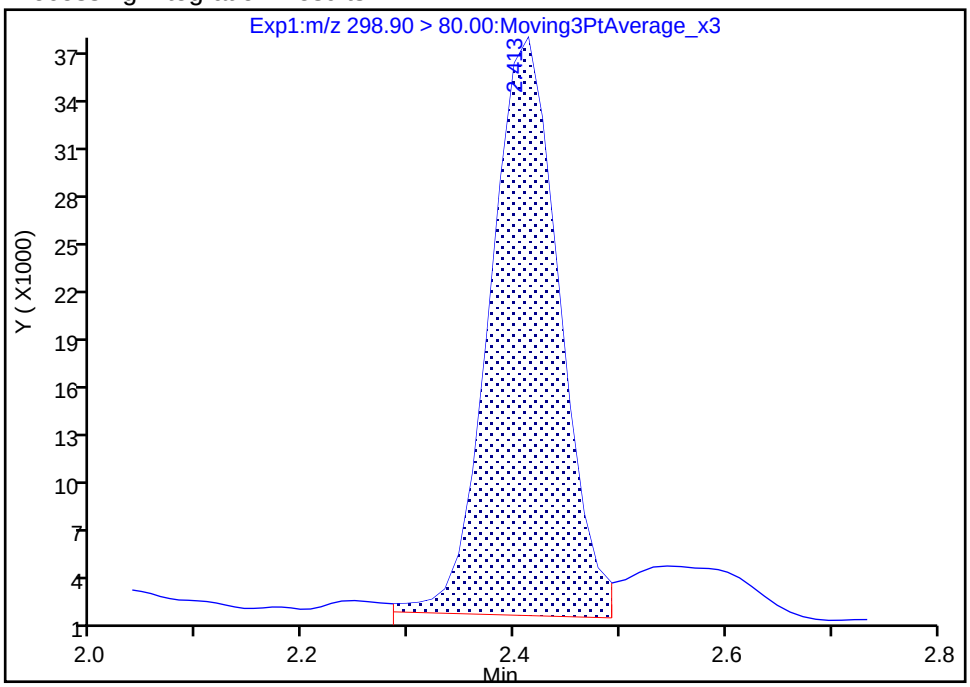
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

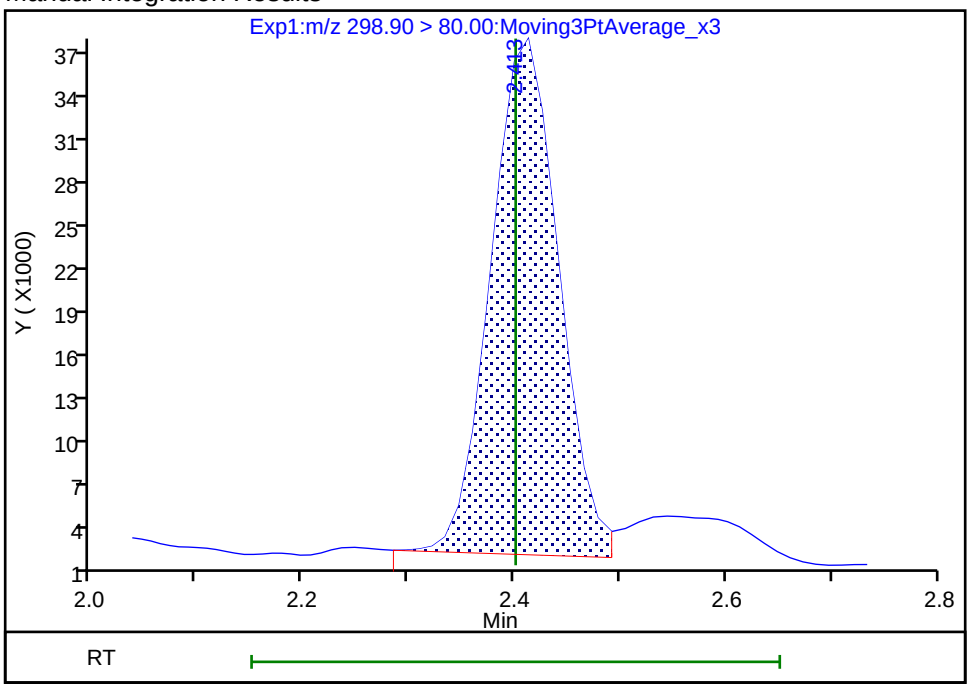
Processing Integration Results

RT: 2.41
Area: 163059
Amount: 0.129611
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 157673
Amount: 0.125330
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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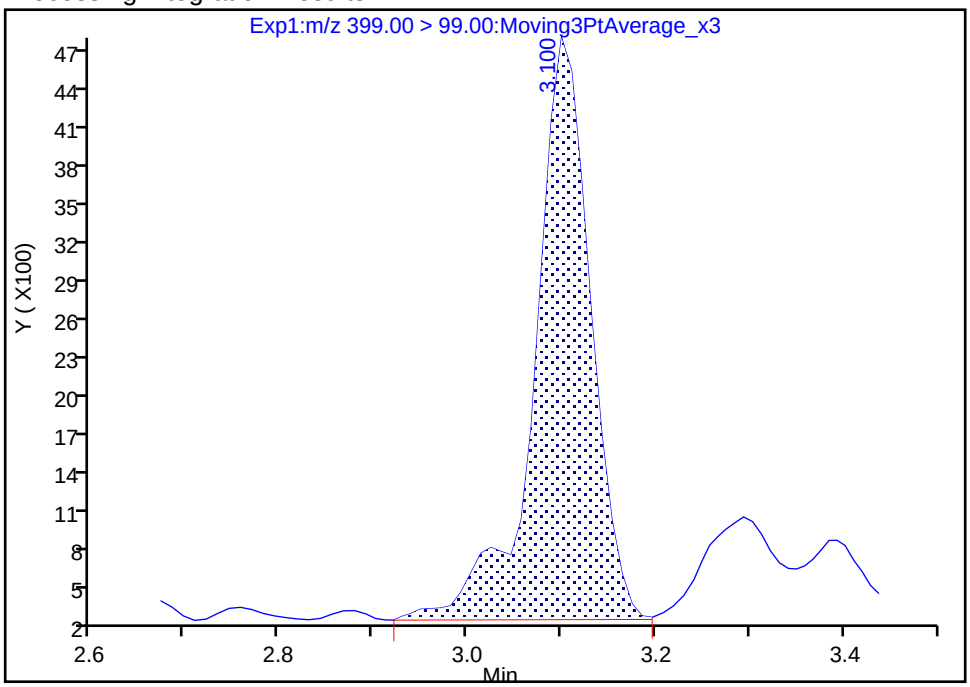
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

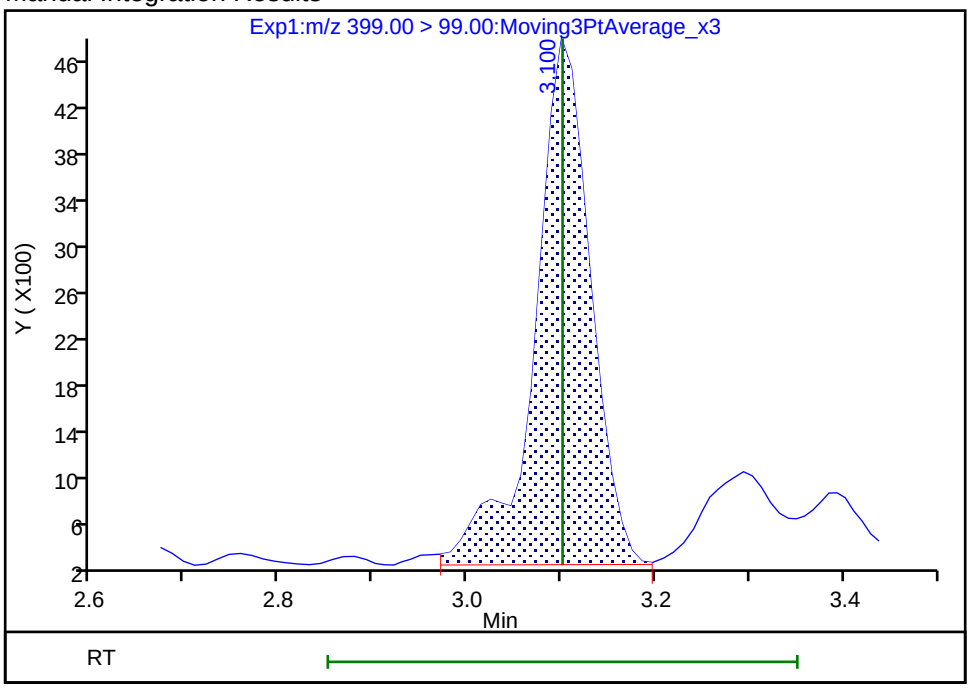
Processing Integration Results

RT: 3.10
Area: 18587
Amount: 0.074272
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 18412
Amount: 0.069356
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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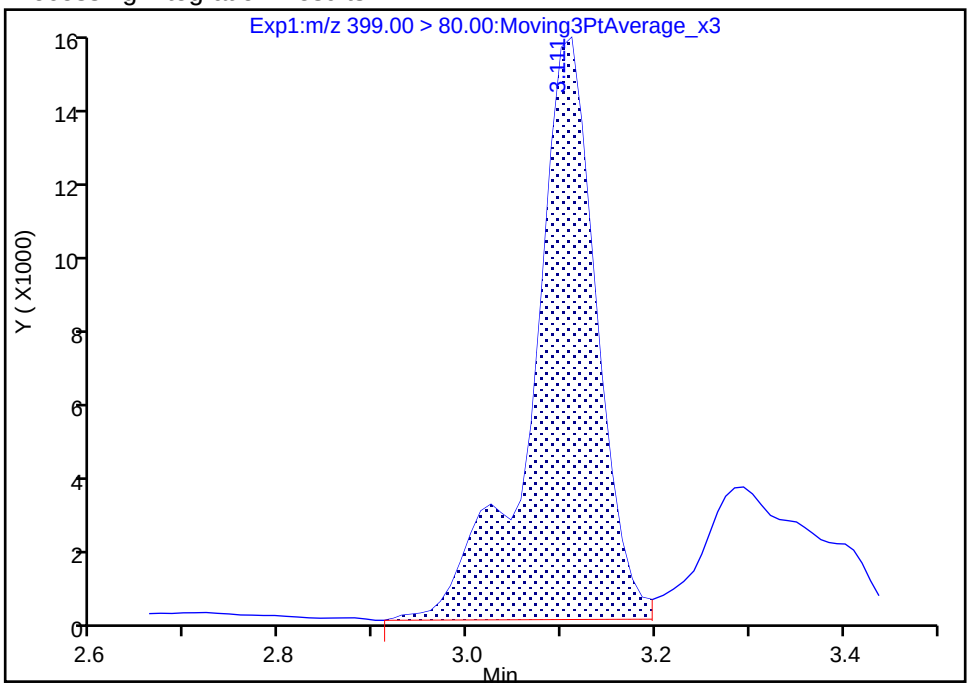
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

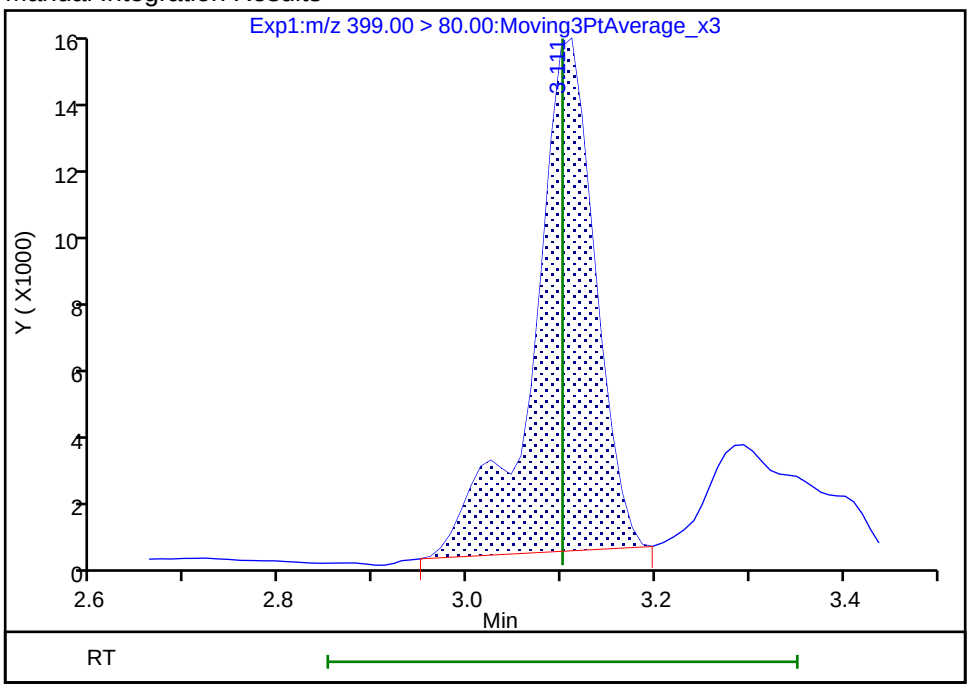
Processing Integration Results

RT: 3.11
Area: 70159
Amount: 0.074272
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 65009
Amount: 0.069356
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:37:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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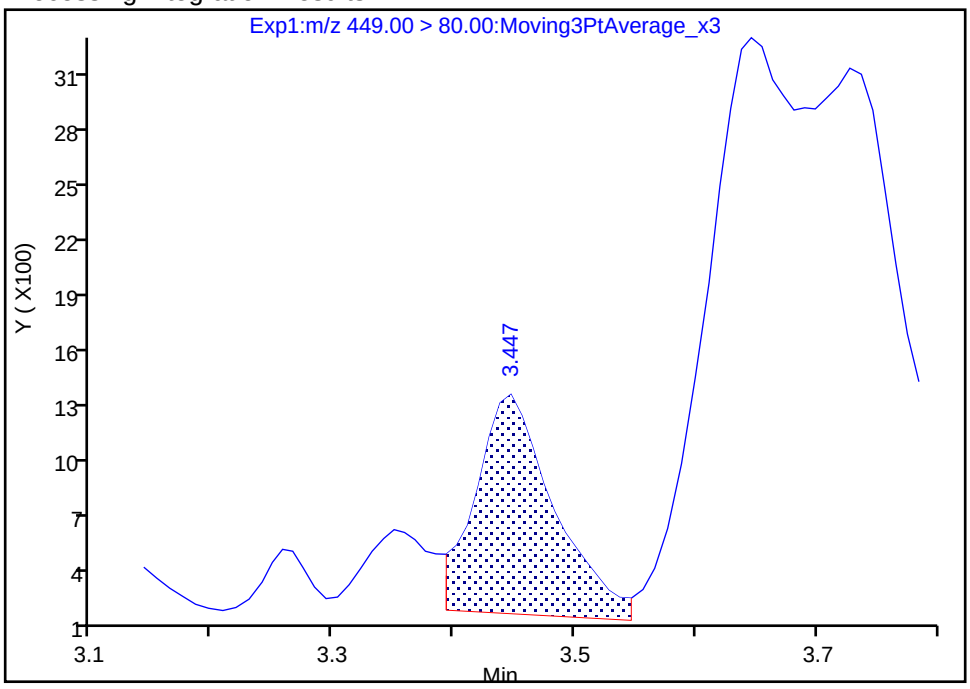
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

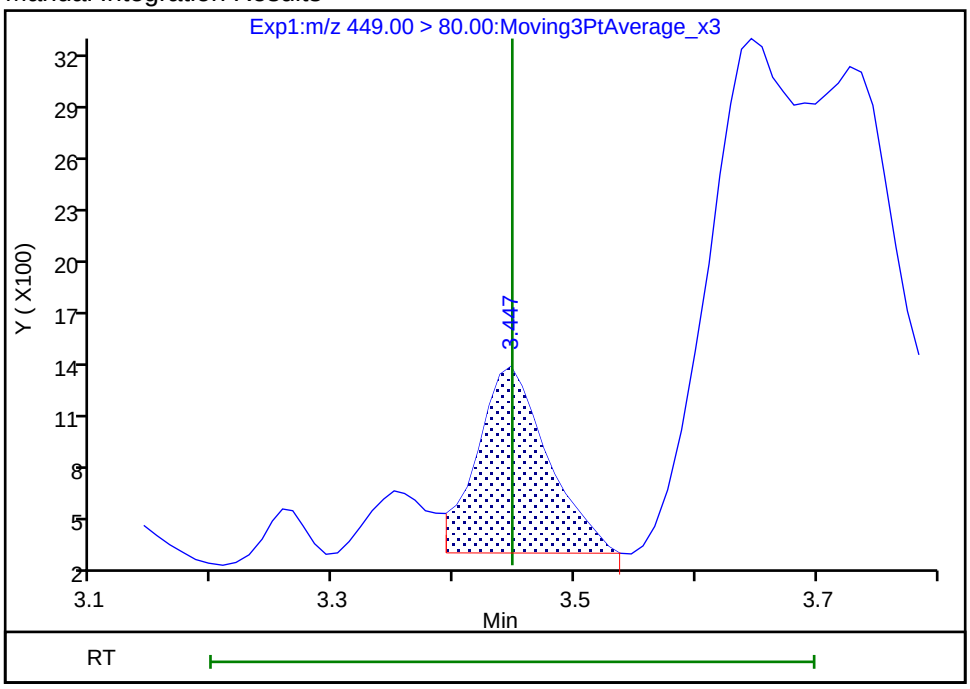
Processing Integration Results

RT: 3.45
Area: 5203
Amount: 0.006944
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 4331
Amount: 0.005780
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:39:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

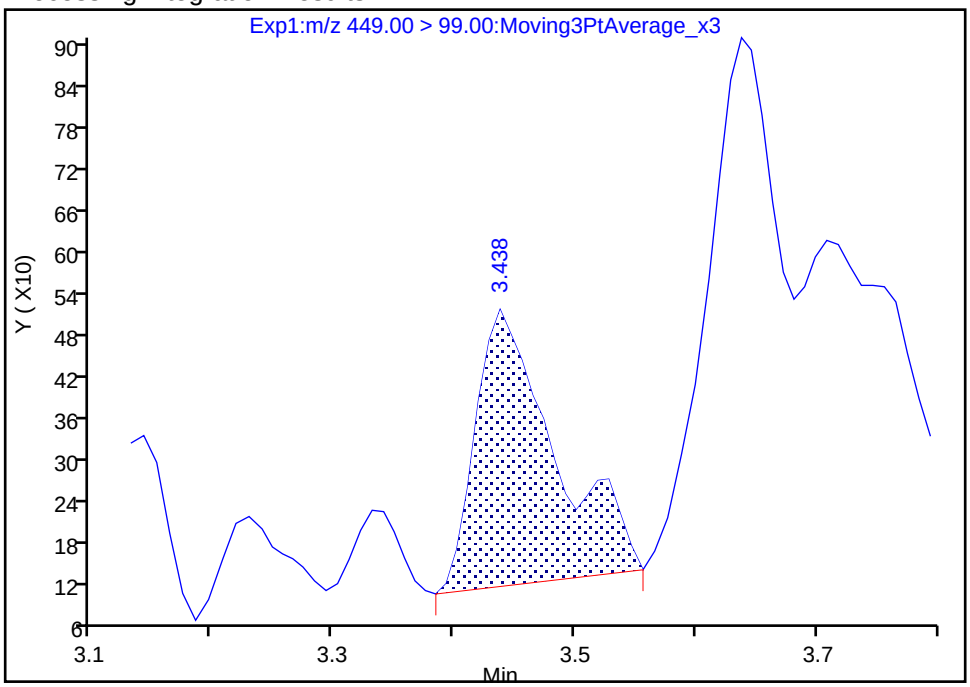
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

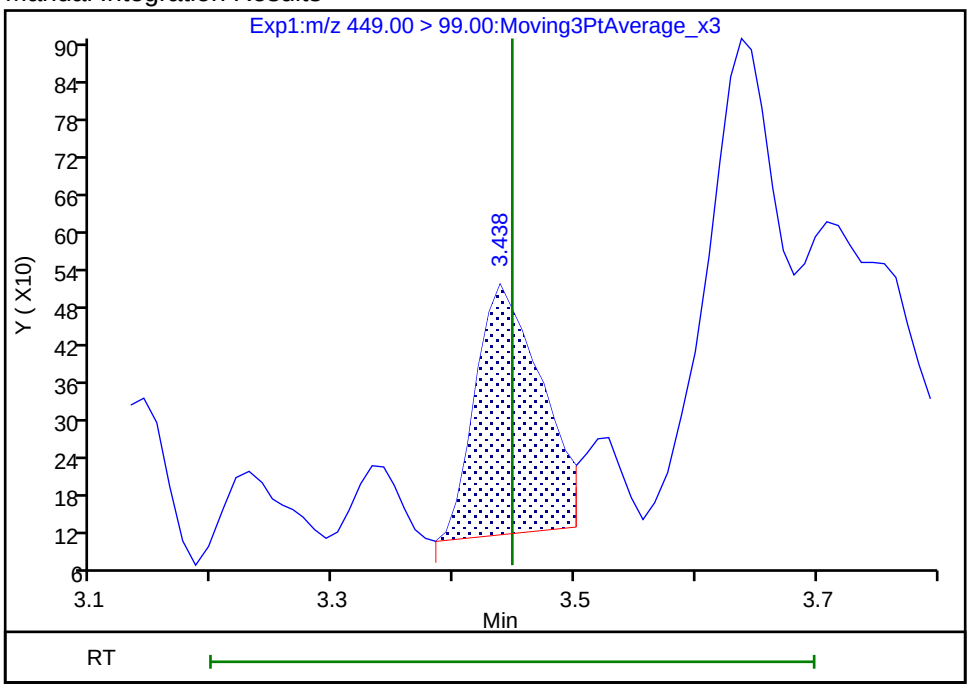
Processing Integration Results

RT: 3.44
Area: 1810
Amount: 0.006944
Amount Units: ng/ml




Manual Integration Results

RT: 3.44
Area: 1506
Amount: 0.005780
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:39:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

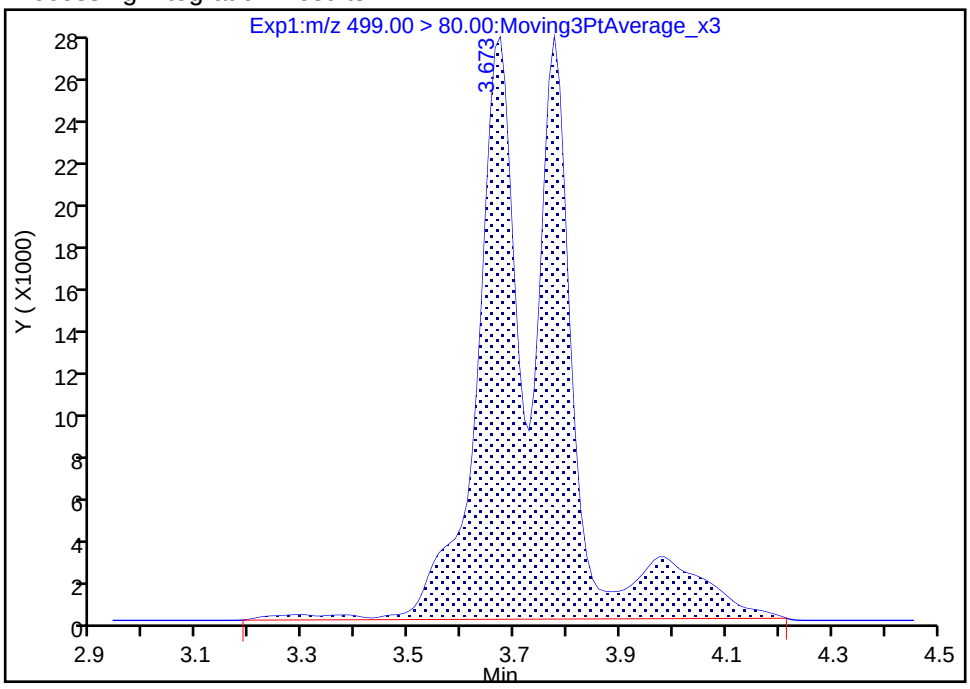
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

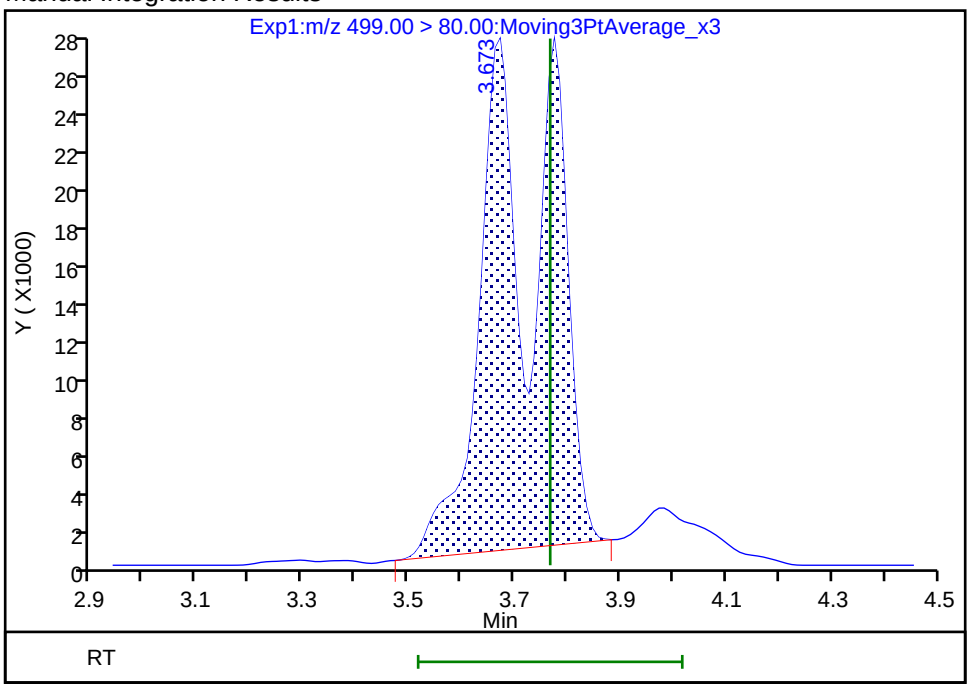
Processing Integration Results

RT: 3.67
Area: 276911
Amount: 0.424611
Amount Units: ng/ml




Manual Integration Results

RT: 3.67
Area: 227100
Amount: 0.348231
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:39:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

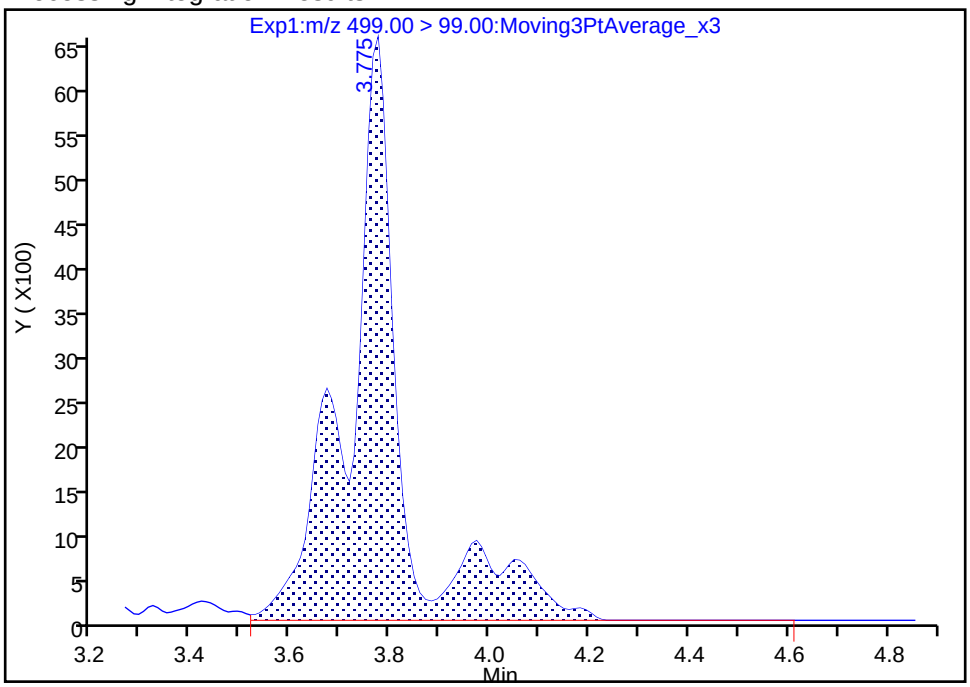
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

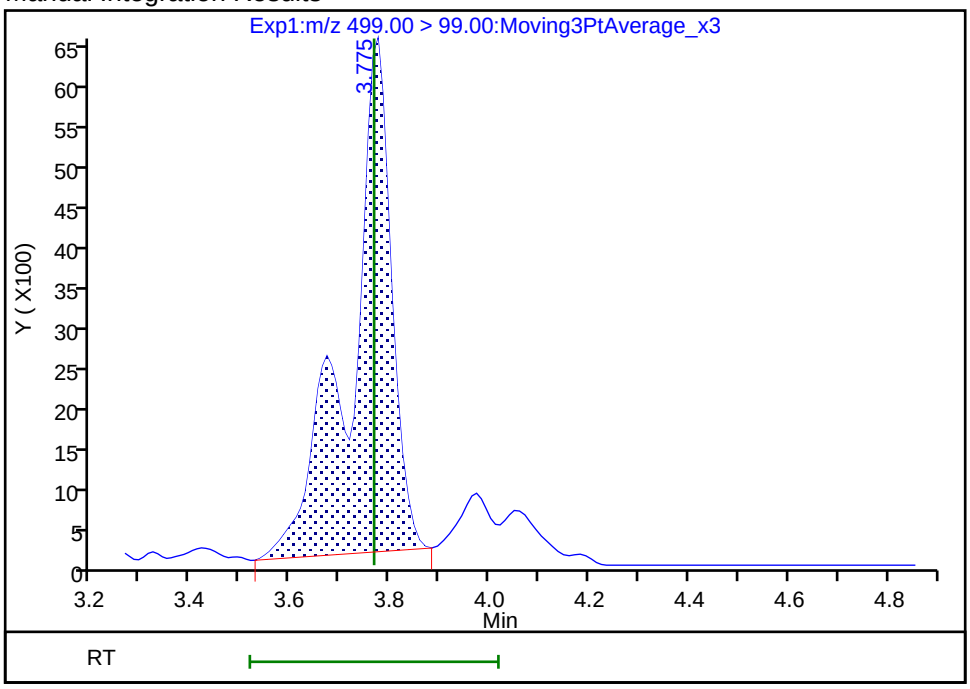
Processing Integration Results

RT: 3.78
Area: 48500
Amount: 0.424611
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 37052
Amount: 0.348231
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:39:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

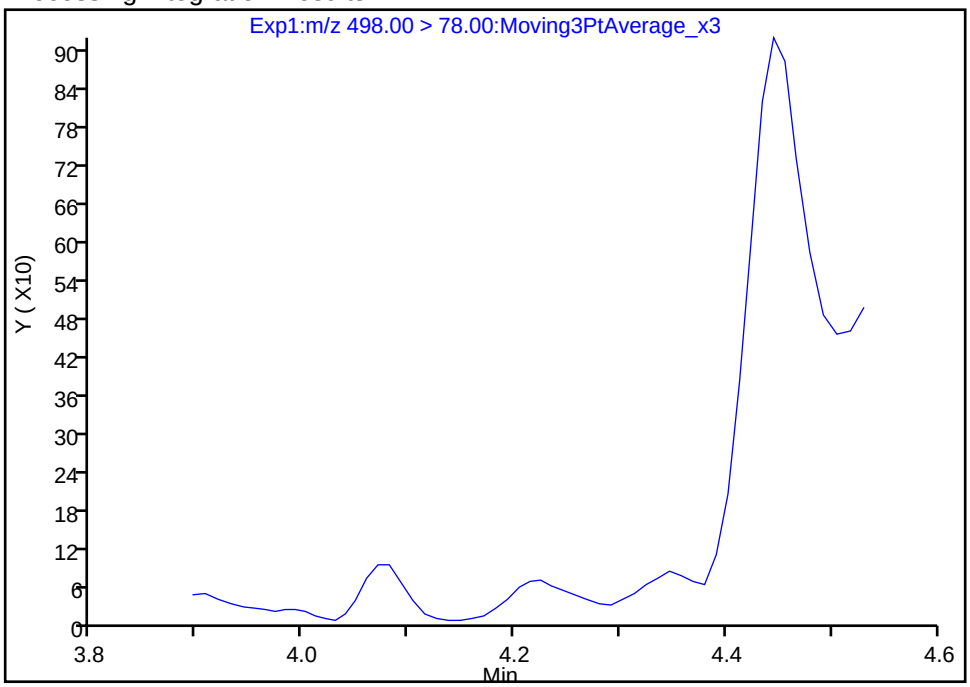
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

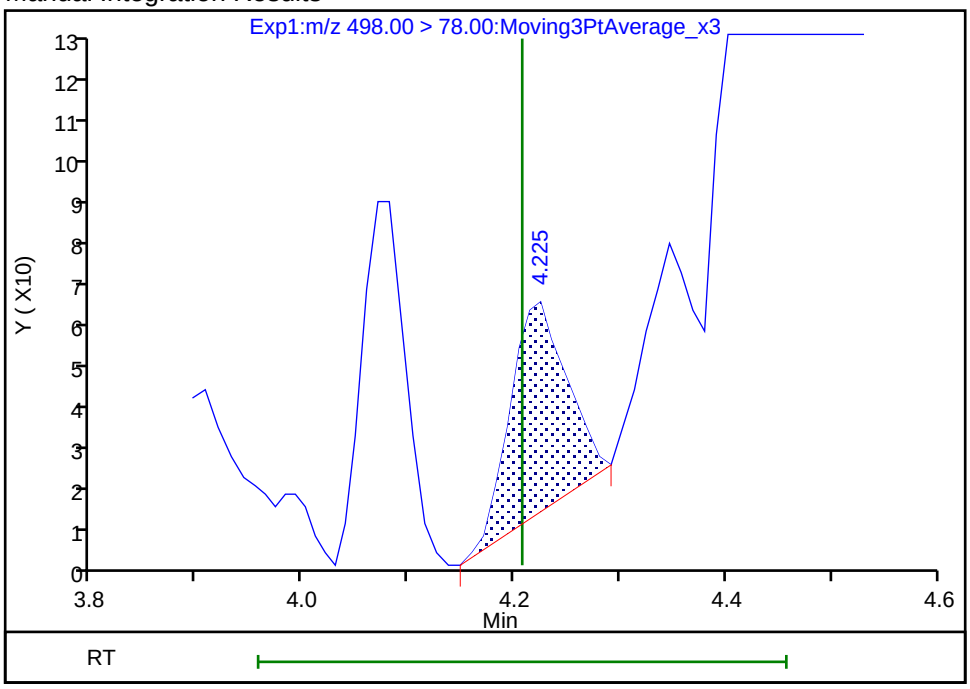
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 188
Amount: 0.000202
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:40:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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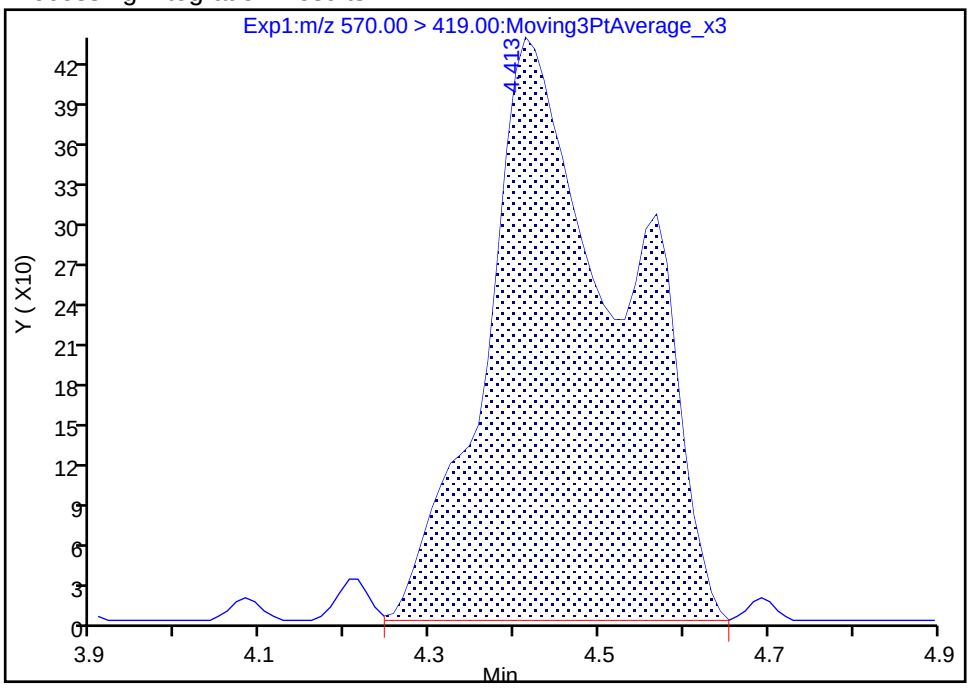
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

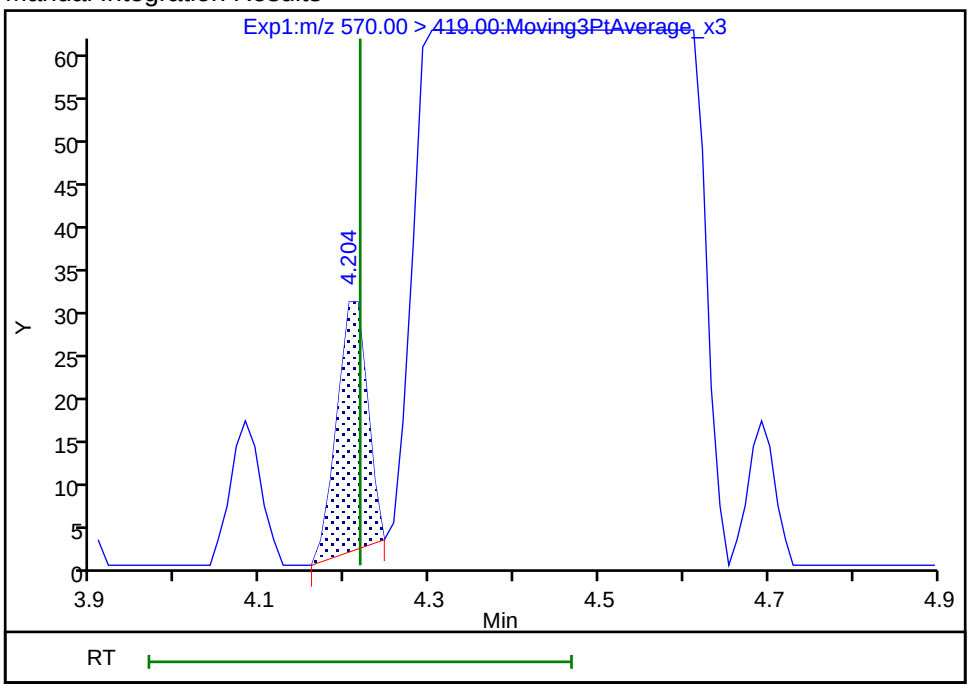
Processing Integration Results

RT: 4.41
Area: 4944
Amount: 0.058832
Amount Units: ng/ml




Manual Integration Results

RT: 4.20
Area: 73
Amount: 0.000869
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:40:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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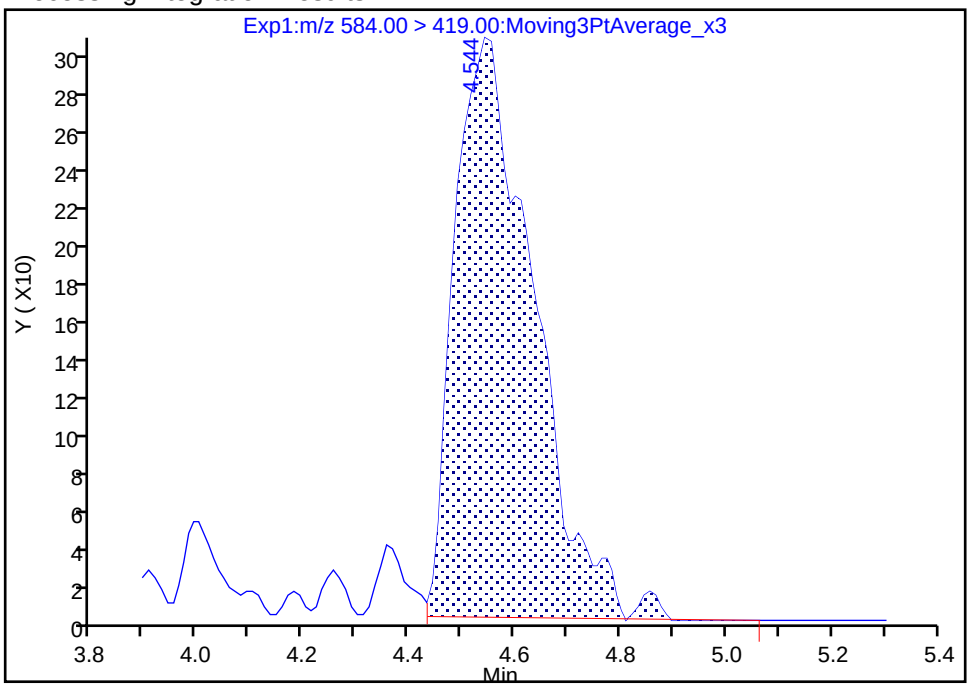
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

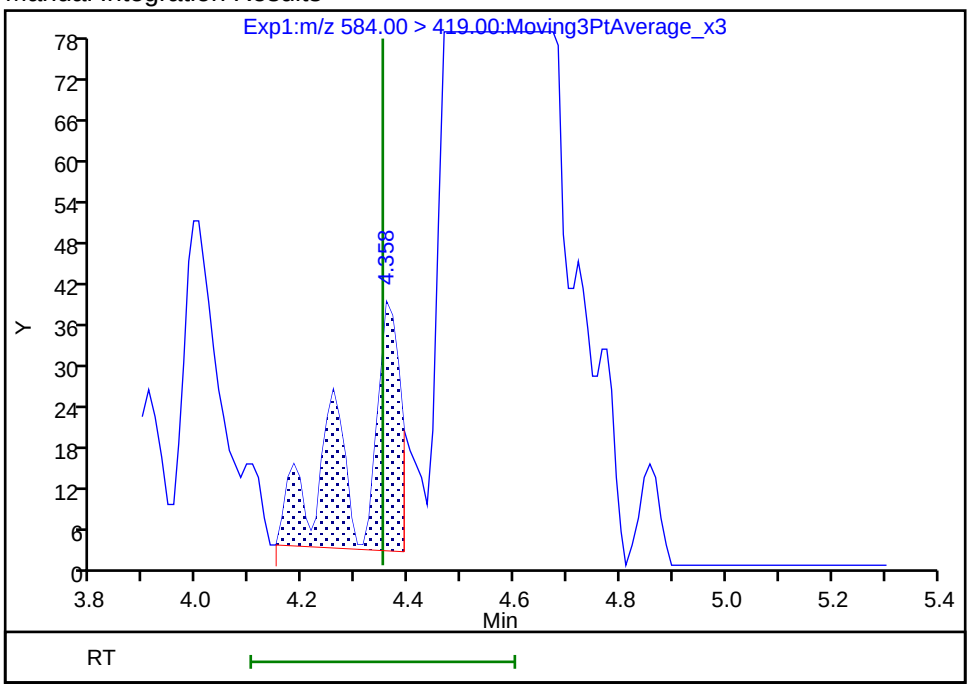
Processing Integration Results

RT: 4.54
Area: 3108
Amount: 0.035559
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 198
Amount: 0.002265
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:41:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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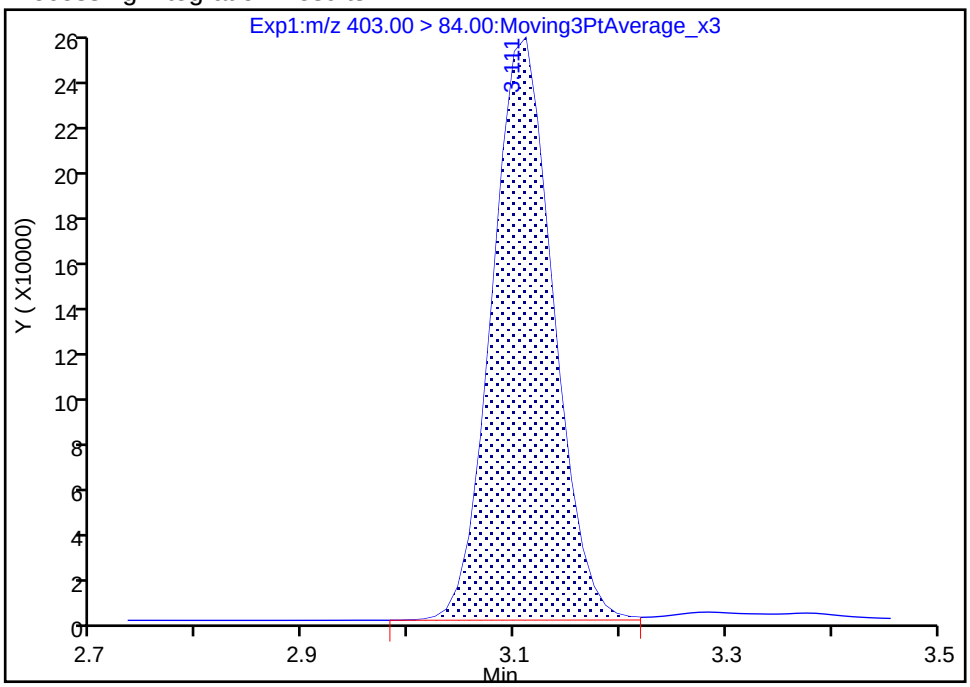
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

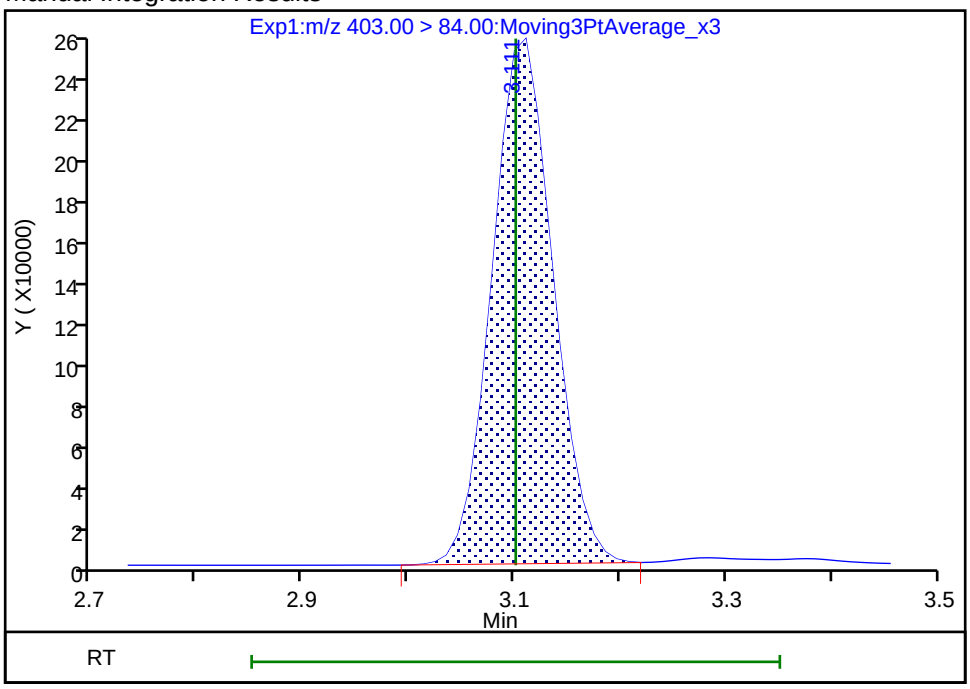
Processing Integration Results

RT: 3.11
Area: 1015996
Amount: 1.106928
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1008136
Amount: 1.098364
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:40:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

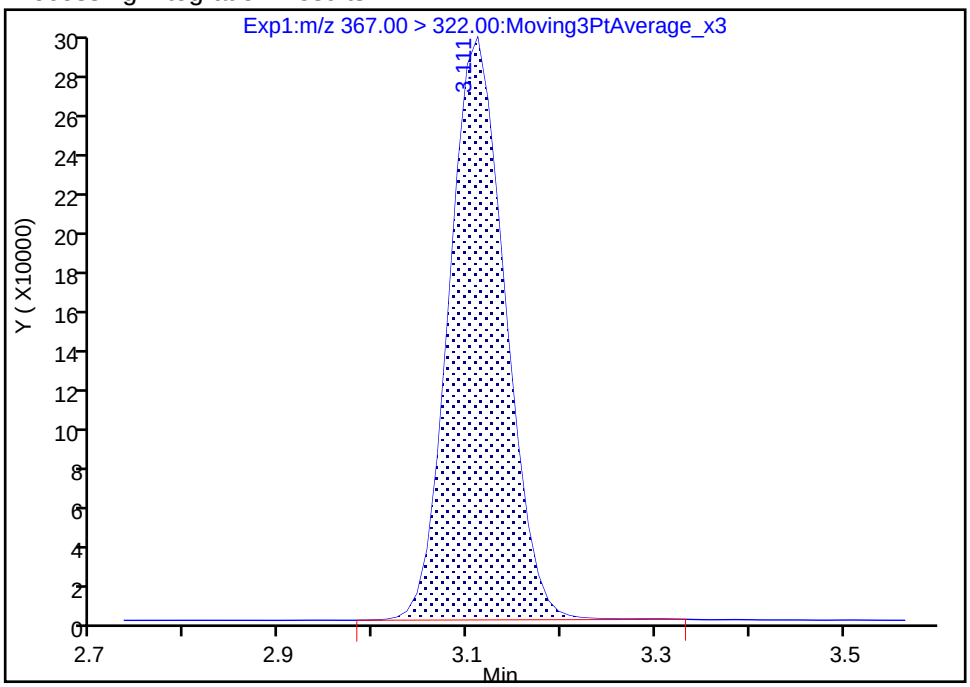
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

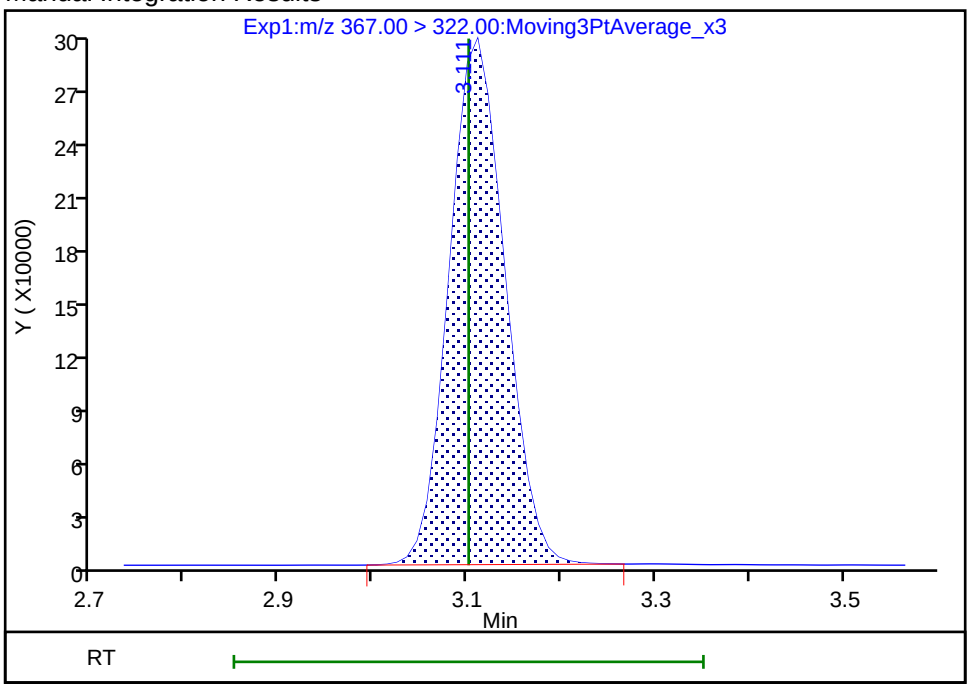
Processing Integration Results

RT: 3.11
Area: 1198668
Amount: 1.162455
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1195866
Amount: 1.159738
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:36:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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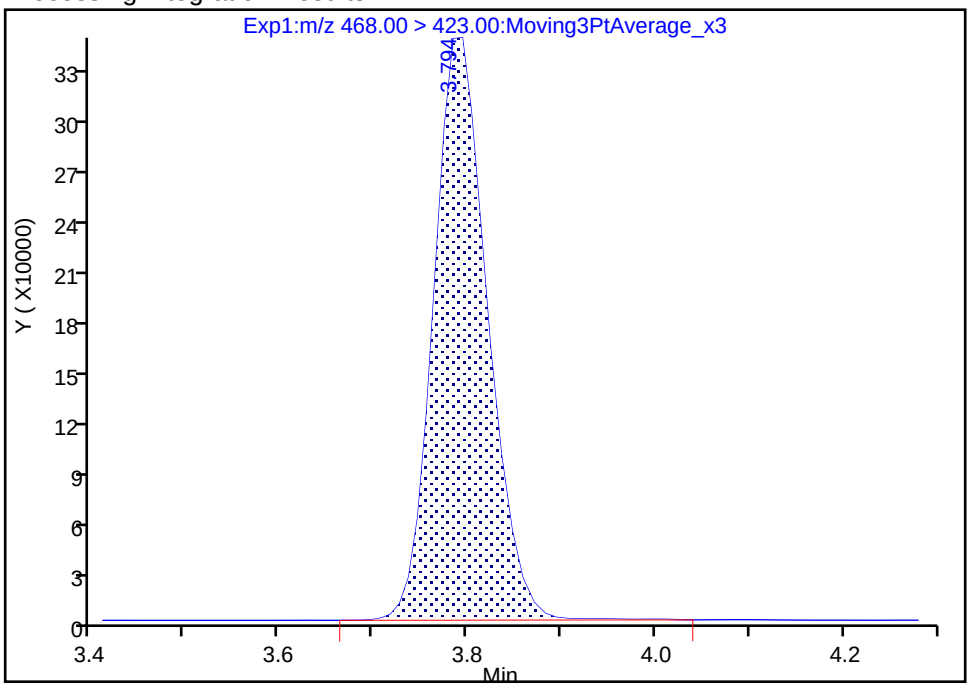
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

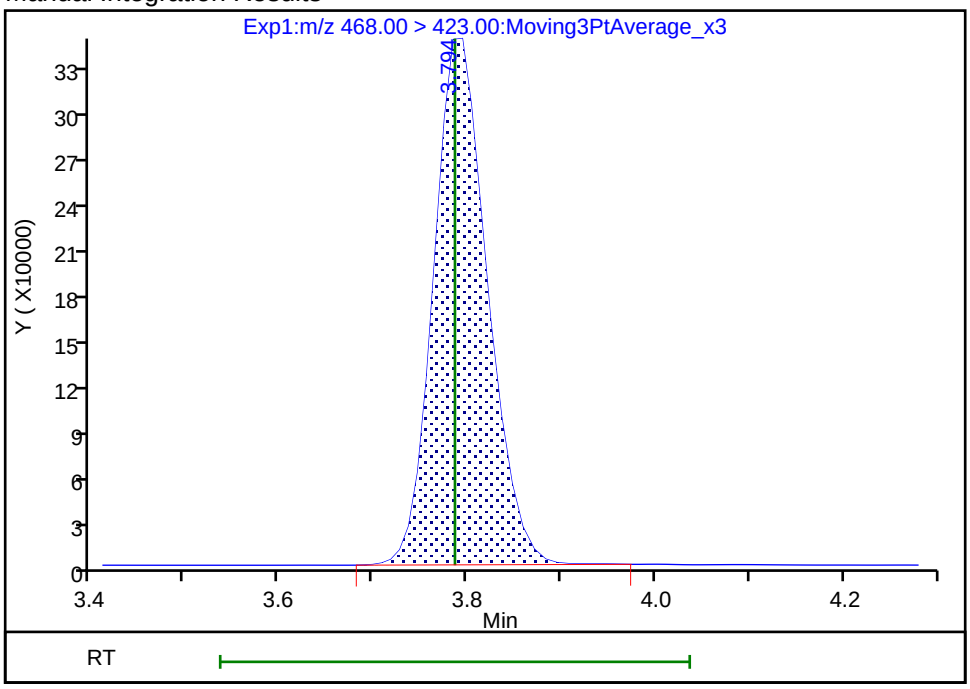
Processing Integration Results

RT: 3.79
Area: 1390122
Amount: 1.238716
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1385935
Amount: 1.234985
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:36:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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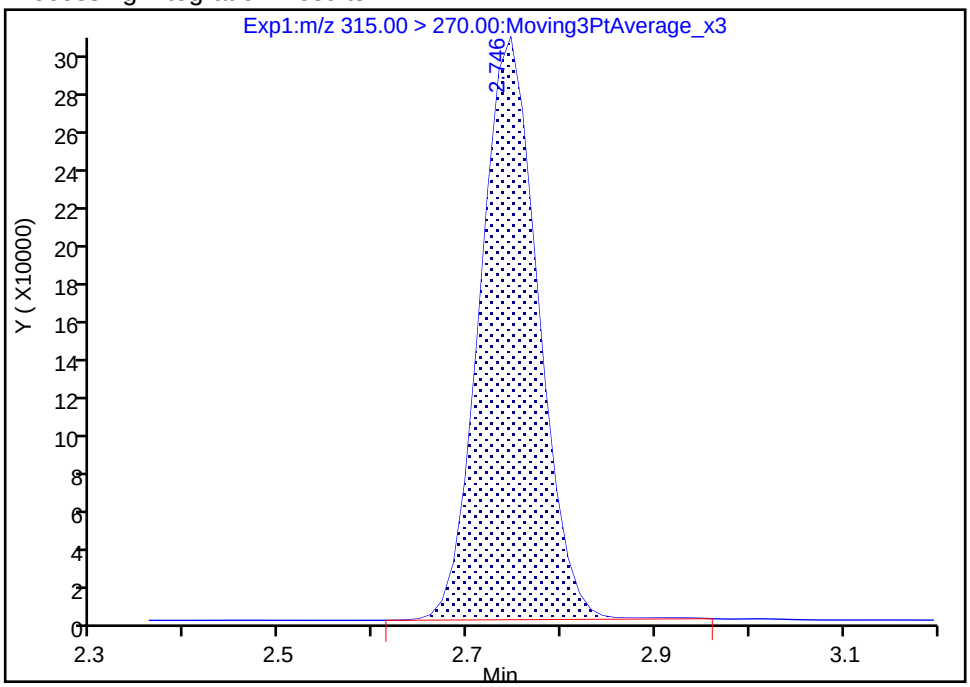
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

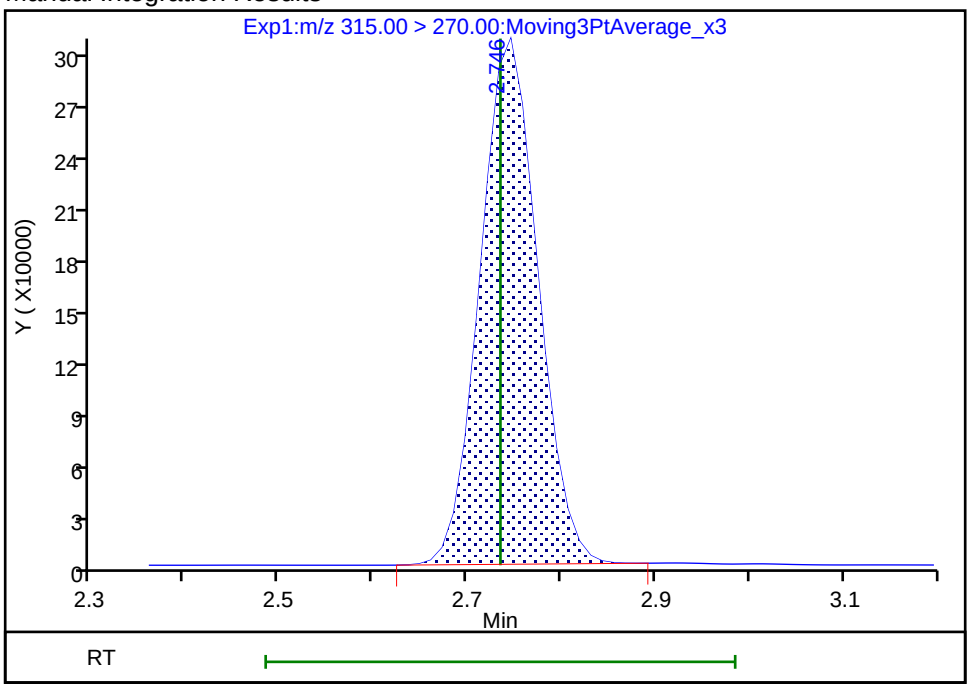
Processing Integration Results

RT: 2.75
Area: 1310518
Amount: 1.337930
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 1304881
Amount: 1.332175
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:36:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

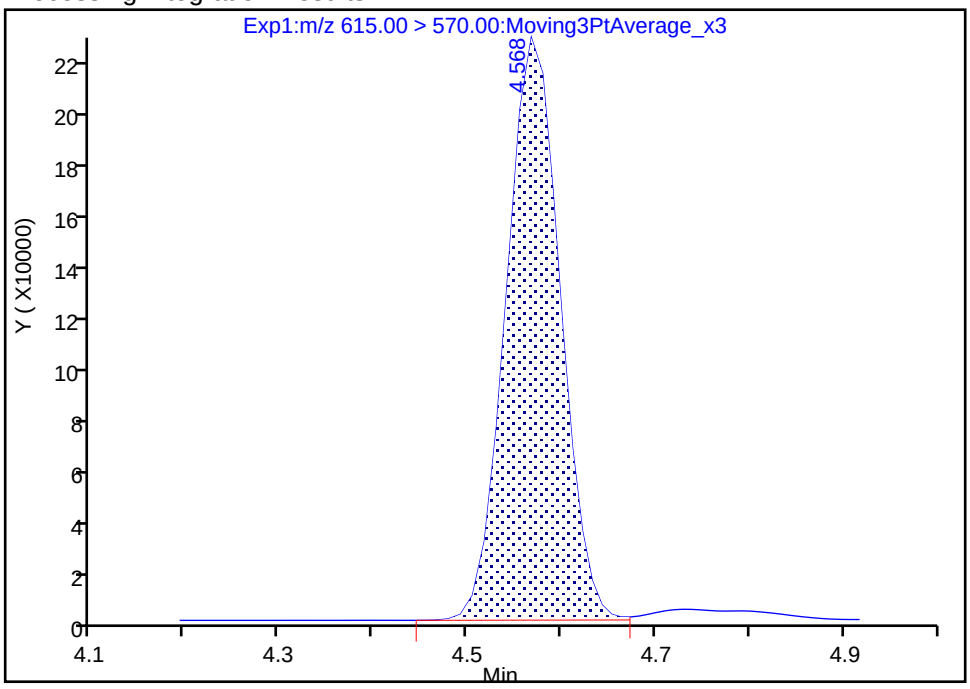
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A15.d | | | | |
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

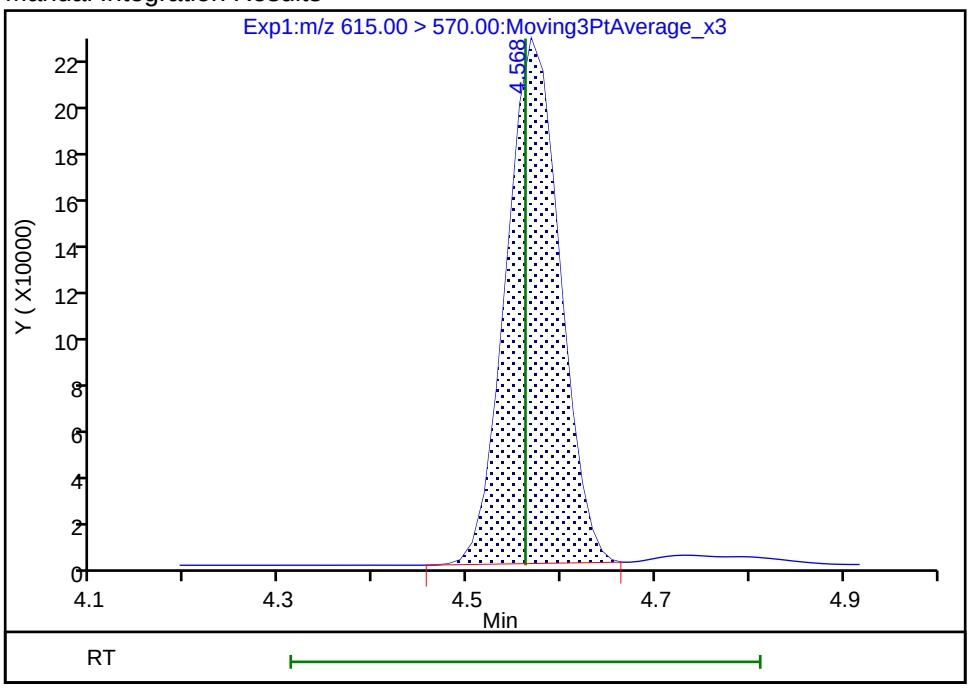
Processing Integration Results

RT: 4.57
Area: 918448
Amount: 0.967275
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 910345
Amount: 0.958742
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:42:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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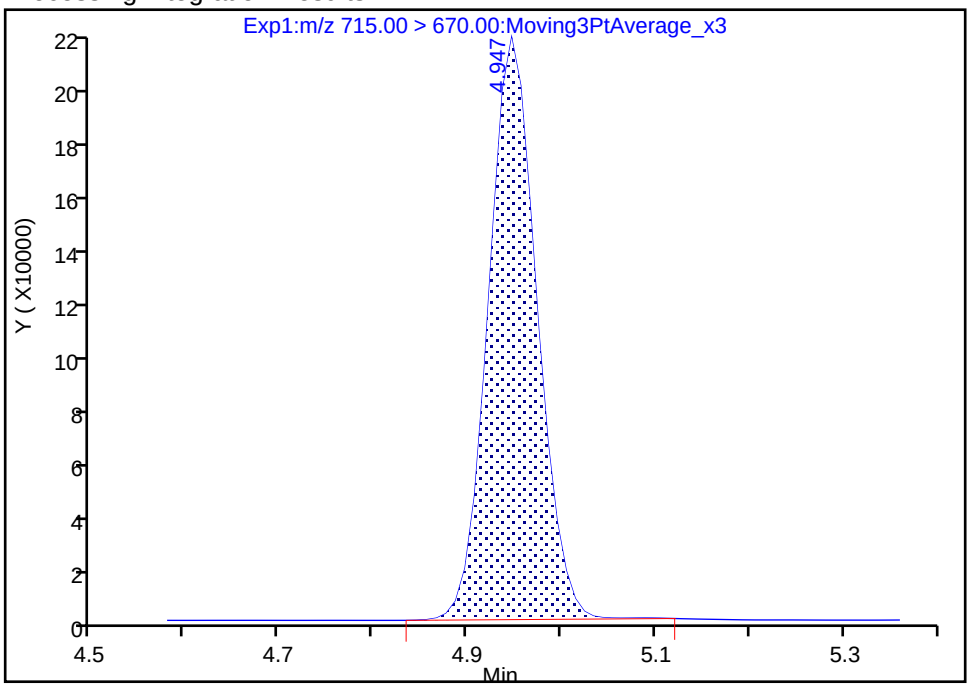
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

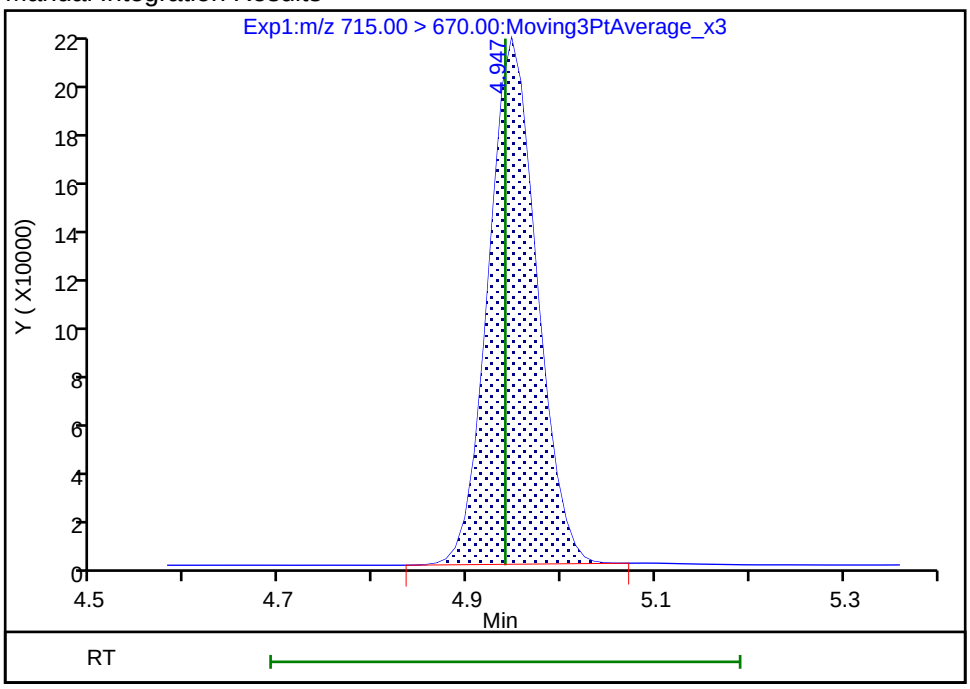
Processing Integration Results

RT: 4.95
Area: 769672
Amount: 1.045144
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 767170
Amount: 1.041746
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:36:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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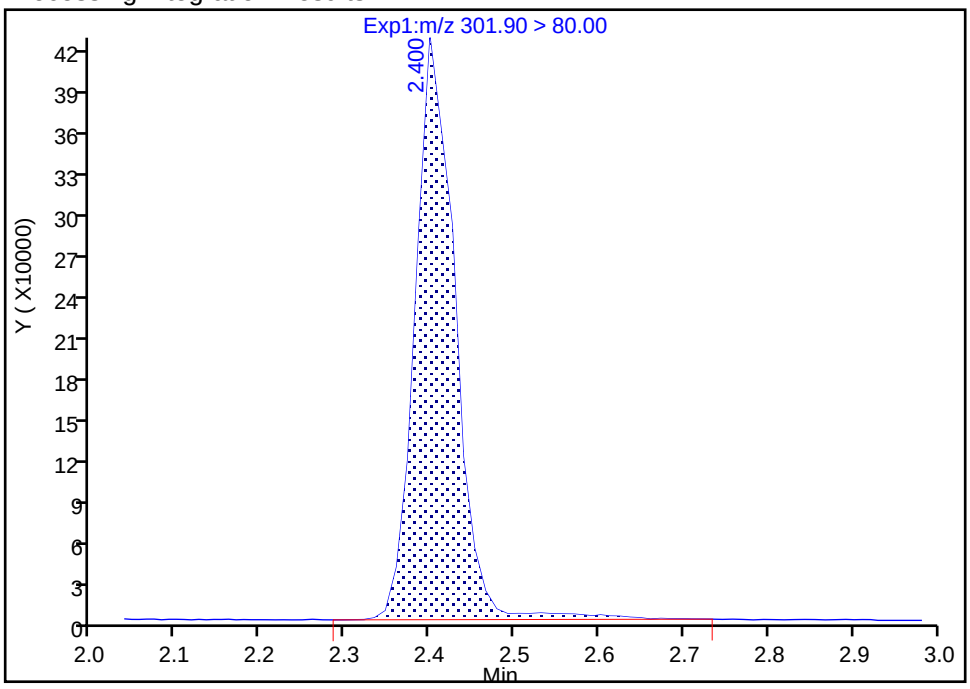
| Injection Date: | 03-Nov-2021 14:40:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-3-A | Lab Sample ID: | 200-246027-3 | | |
| Client ID: | MHP-MW-4S-20211025 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

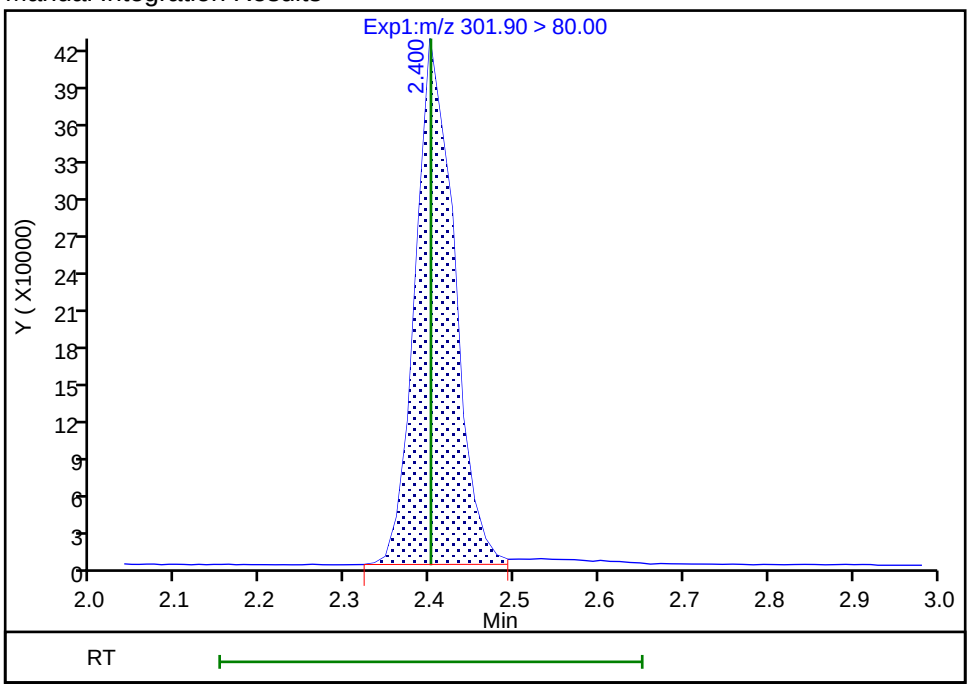
Processing Integration Results

RT: 2.40
Area: 1404449
Amount: 1.111648
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1369302
Amount: 1.083828
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:36:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3S-20211027  Lab Sample ID: 460-246027-4

Matrix: Water  Lab File ID: PA211103A16.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:30

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 270.8(mL)  Date Analyzed: 11/03/2021 14:48

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 8.41 | | 4.62 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 15.2 | | 1.85 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 23.1 | | 1.85 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 6.34 | | 1.85 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 9.06 | | 1.85 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.55 | J | 1.85 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.85 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.85 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.85 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.85 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.85 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 4.84 | | 1.85 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 97.1 | | 1.85 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.64 | J | 1.85 | 0.22 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.85 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.85 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.62 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.62 | 0.69 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.17 | J | 4.62 | 1.01 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.85 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3S-20211027  Lab Sample ID: 460-246027-4

Matrix: Water  Lab File ID: PA211103A16.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:30

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 270.8(mL)  Date Analyzed: 11/03/2021 14:48

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 108 | | 50-150 |
| STL01892 | 13C4 PFHpA | 110 | | 50-150 |
| STL00990 | 13C4 PFOA | 102 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 108 | | 25-150 |
| STL00993 | 13C2 PFHxA | 104 | | 50-150 |
| STL00996 | 13C2 PFDA | 107 | | 50-150 |
| STL00997 | 13C2 PFUnA | 99 | | 50-150 |
| STL00998 | 13C2 PFDoA | 90 | | 50-150 |
| STL01056 | 13C8 FOSA | 102 | | 25-150 |
| STL01893 | 13C5 PFPeA | 109 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 87 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 110 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 107 | | 50-150 |
| STL02279 | M2-6:2 FTS | 111 | | 25-150 |
| STL02280 | M2-8:2 FTS | 113 | | 25-150 |
| STL02337 | 13C3 PFBS | 110 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d
Lims ID: 460-246027-A-4-A
Client ID: MHP-MW-3S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 14:48:45 ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-4-A
Misc. Info.: 200-0048270-016 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 09:48:51
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.597 | 1647555 | 1.35 | | 108 | 7658 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 283829 | 0.2277 | | | 32.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.374 | 2.375 | -0.001 | 0.687 | 1393394 | 1.36 | | 109 | 2101 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.006 | 458260 | 0.4104 | | | 15.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.387 | 2.401 | -0.014 | 0.691 | 1771793 | 1.28 | | 110 | 57860 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.006 | 213327 | 0.1310 | Target=2.32 | | 28.4 | M |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.006 | 95227 | | 2.24(1.16-3.48) | | 24.4 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.734 | 2.735 | -0.001 | 1.000 | 708334 | 0.6253 | Target=12.09 | | 55.1 | M |
| 313.00 > 119.00 | 2.734 | 2.735 | -0.001 | 1.000 | 48945 | | 14.47(6.04-18.13) | | 54.5 | |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.791 | 1396271 | 1.30 | | 104 | 1528 | M |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1285570 | 1.28 | | 108 | 317 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 1.000 | 3142643 | 2.63 | Target=3.55 | | 518 | M |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 1.000 | 812554 | | 3.87(1.77-5.32) | | 378 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 221444 | 0.1718 | Target=3.69 | | 28.6 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 55923 | | 3.96(1.84-5.53) | | 52.7 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.900 | 1559575 | 1.38 | | 110 | 2239 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 7071 | 0.0316 | | | 9.4 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.915 | 40683 | 0.0445 | Target=4.88 | | 11.2 | |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.915 | 7236 | | 5.62(2.44-7.32) | | 7.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 209644 | 1.32 | | 111 | 235 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1575771 | 1.27 | | 102 | 961 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1503397 | 1.25 | | | 289 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 328873 | 0.2453 | Target=2.68 | | 25.4 | |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 1.000 | 137036 | | 2.40(1.34-4.02) | | 49.6 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 875861 | 1.20 | | 101 | 328 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.003 | 17342383 | 21.8 | Target=4.69 | | 1959 | EM |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 1.000 | 4253438 | | 4.08(2.35-7.04) | | 2618 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.098 | 1490782 | 1.21 | | 96.8 | 2593 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.785 | 3.786 | -0.001 | 0.997 | 48936 | 0.0419 | Target=7.29 | | 6.3 | |
| 463.00 > 169.00 | 3.794 | 3.786 | 0.008 | 1.000 | 7566 | | 6.47(3.64-10.93) | | 12.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.181 | 1662741 | 1.34 | | 107 | 85.4 | M |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.081 | 4.073 | 0.008 | 1.000 | 3816 | 0.002855 | Target=8.95 | | 0.7 | M |
| 513.00 > 169.00 | 4.081 | 4.073 | 0.008 | 1.000 | 328 | | 11.63(4.47-13.42) | | 0.8 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 244009 | 1.35 | | 113 | 142 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.219 | 1526812 | 1.27 | | 102 | 572 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.193 | 4.207 | -0.014 | 0.995 | 4467 | 0.003851 | | | 1.7 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.222 | 168498 | 1.38 | | 110 | 221 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.171 | 4.217 | -0.046 | 0.987 | 191 | 0.001804 | | | 0.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.258 | 1205743 | 1.24 | | 99.5 | 668 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.258 | 153980 | 1.34 | | 107 | 509 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.291 | 4.350 | -0.059 | 0.987 | 118 | 0.001118 | | | 0.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.322 | 1178236 | 1.13 | | 90.4 | 276 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.757 | 4.761 | -0.004 | 1.041 | 678 | 0.000852 | Target=4.68 | | 0.3 | M |
| 663.00 > 169.00 | 4.766 | 4.761 | 0.005 | 1.043 | 211 | | 3.21(2.34-7.02) | | 4.4 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.937 | 4.940 | -0.003 | 1.429 | 876247 | 1.08 | | 86.7 | 1374 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.947 | 4.940 | 0.007 | 1.002 | 195 | 0.001763 | Target=1.01 | | 4.4 | M |
| 713.00 > 219.00 | 4.927 | 4.940 | -0.013 | 0.998 | 159 | | 1.23(0.51-1.52) | | 3.1 | M |

## QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d

Injection Date: 03-Nov-2021 14:48:45 Instrument ID: LC812

Lims ID: 460-246027-A-4-A Lab Sample ID: 200-246027-4

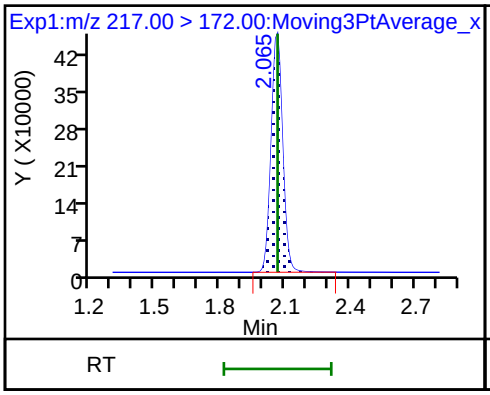
Client ID: MHP-MW-3S-20211027

Operator ID: lc812tech ALS Bottle#: 13 Worklist Smp#: 16

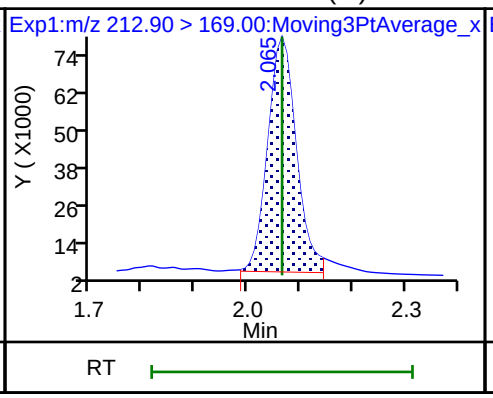
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

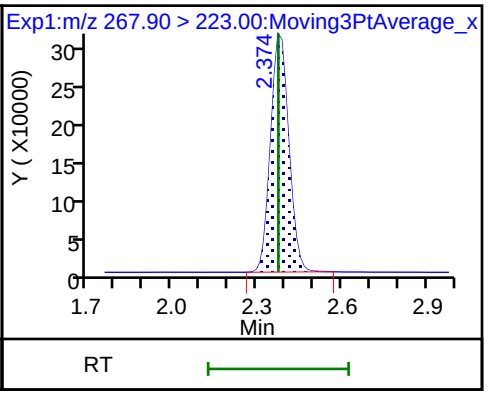
D 1 13C4 PFBA



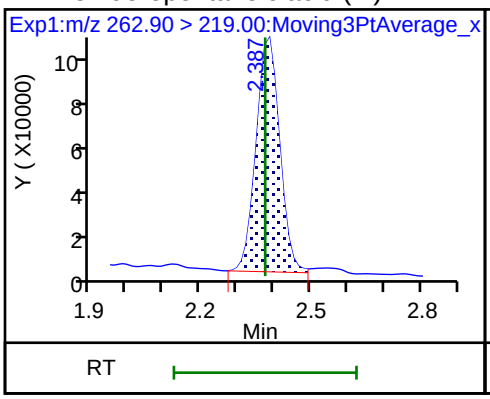

2 Perfluorobutanoic acid (M)



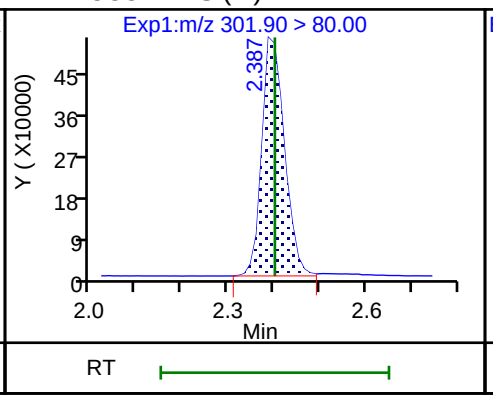

D 3 13C5 PFPeA



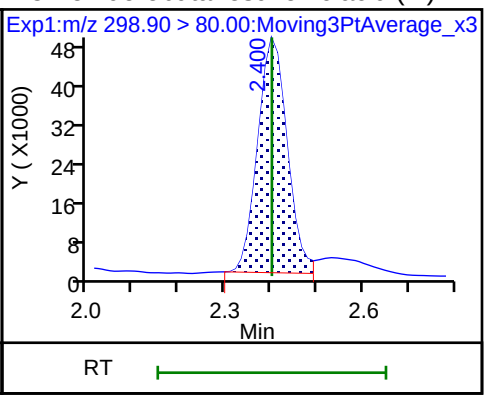

4 Perfluoropentanoic acid (M)



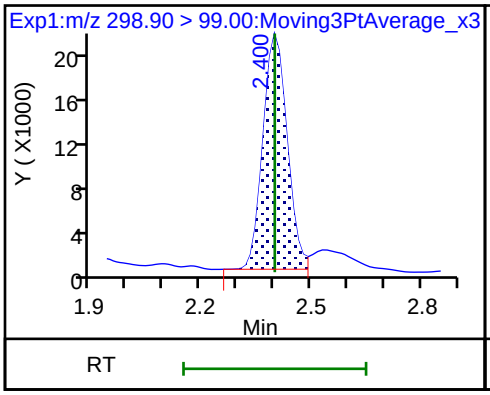

D 47 13C3 PFBS (M)



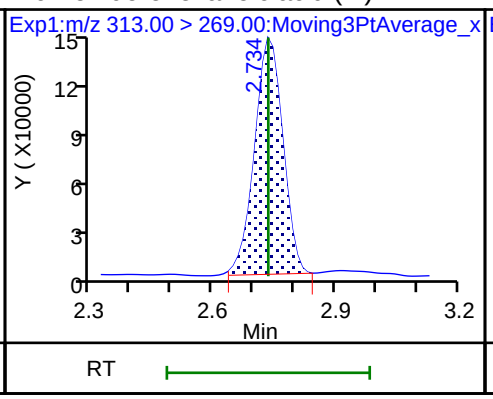

5 Perfluorobutanesulfonic acid (M)



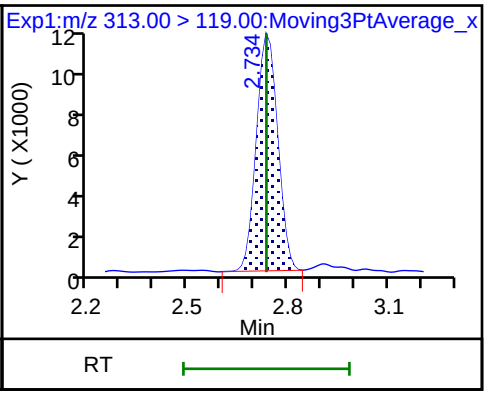

5 Perfluorobutanesulfonic acid



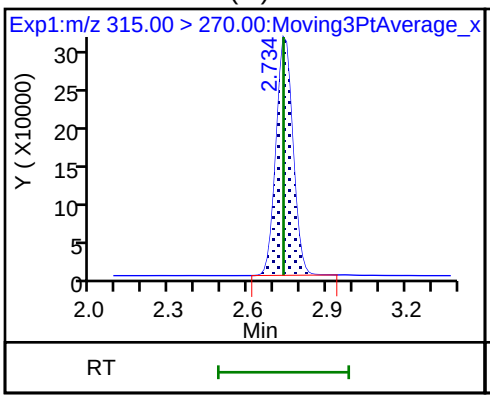

6 Perfluorohexanoic acid (M)



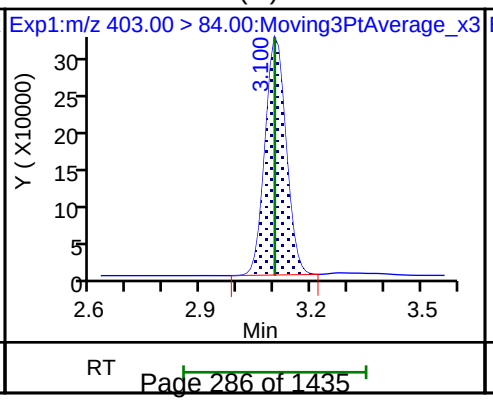

6 Perfluorohexanoic acid



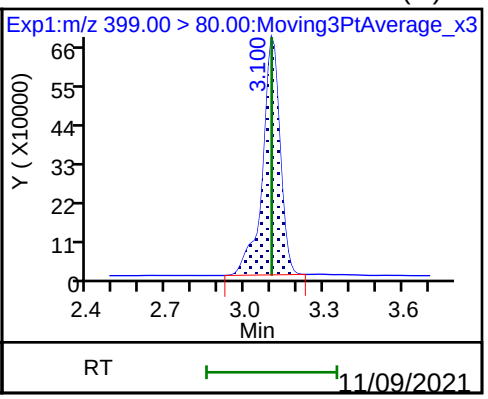

D 7 13C2 PFHxA (M)



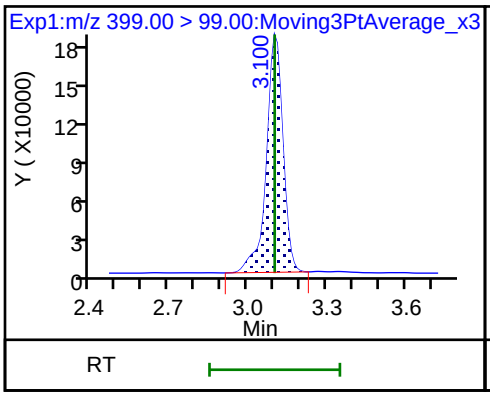

D 11 18O2 PFHxS (M)



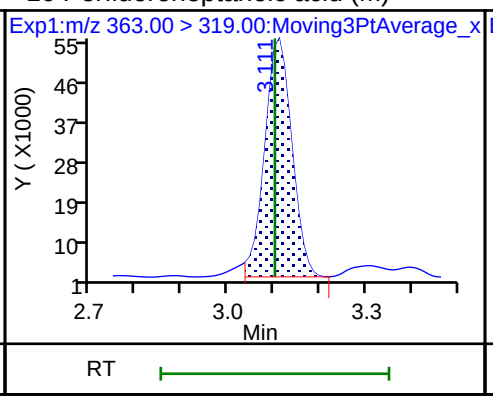

8 Perfluorohexanesulfonic acid (M)



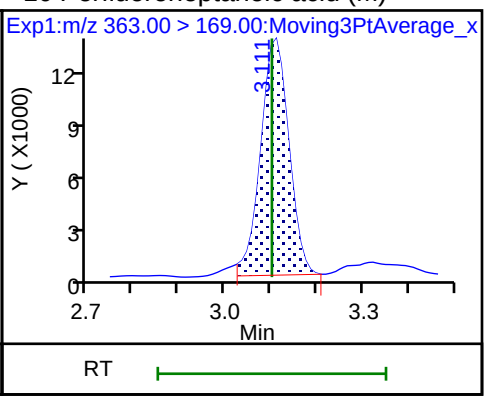
8 Perfluorohexanesulfonic acid



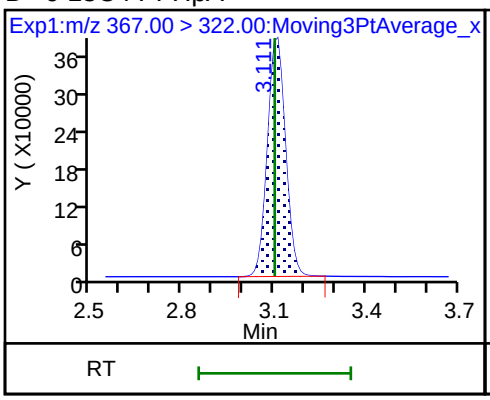

10 Perfluoroheptanoic acid (M)



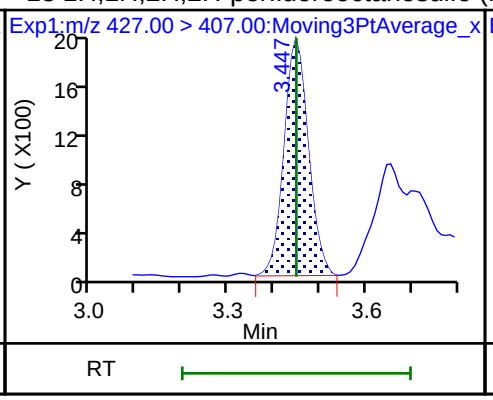

10 Perfluoroheptanoic acid (M)



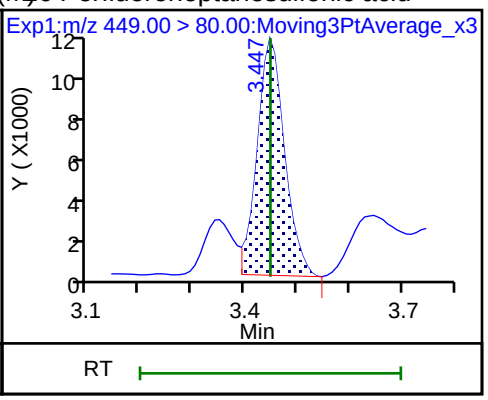

D 9 13C4 PFHpA



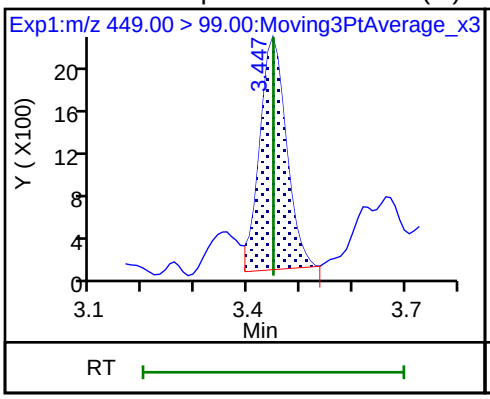

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



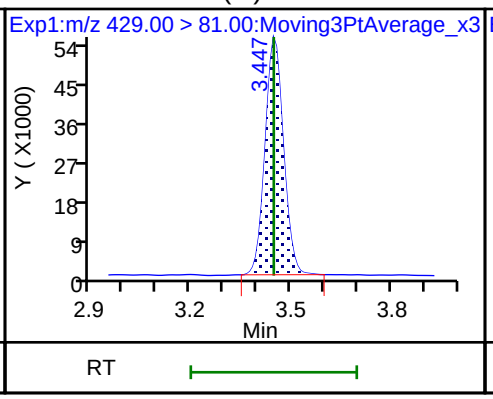

16 Perfluoroheptanesulfonic acid



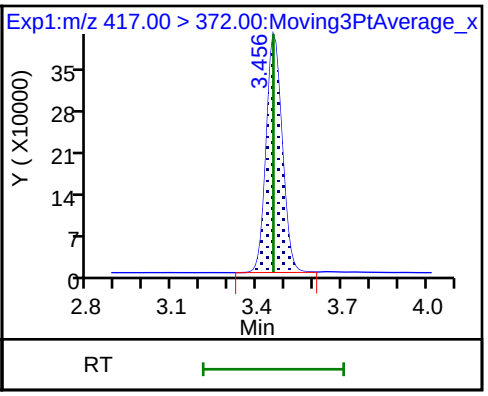

16 Perfluoroheptanesulfonic acid (M)



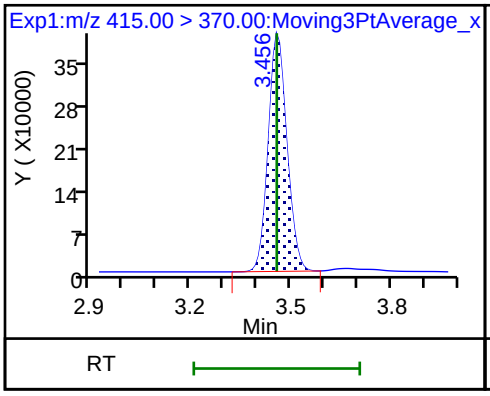

D 12 M2-6:2 FTS (M)



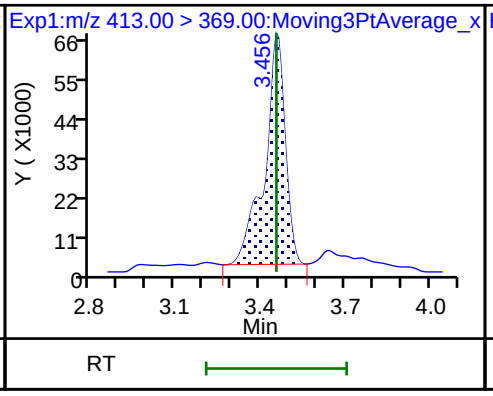

D 14 13C4 PFOA



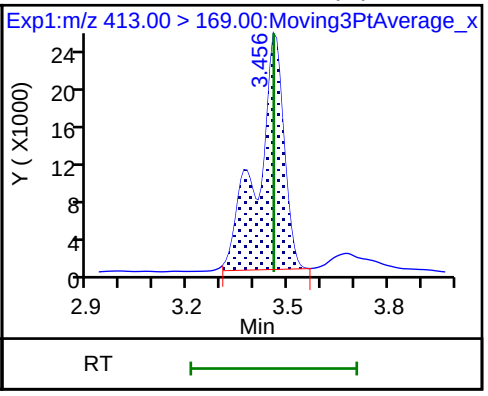

* 62 13C2 PFOA



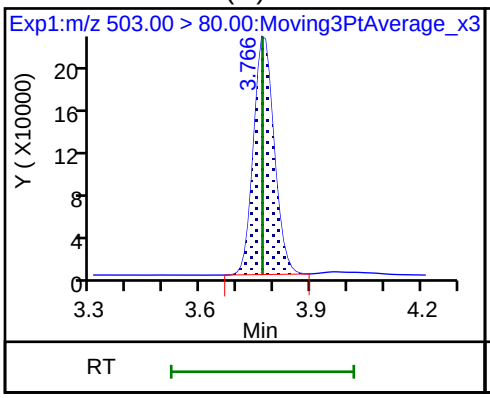

15 Perfluorooctanoic acid



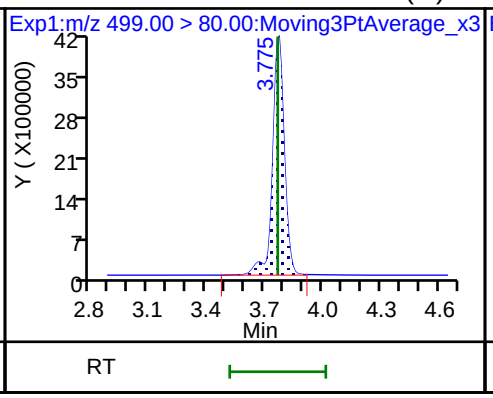

15 Perfluorooctanoic acid (M)



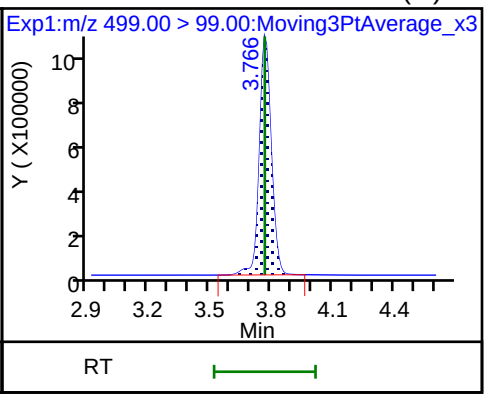
D 18 13C4 PFOS (M)



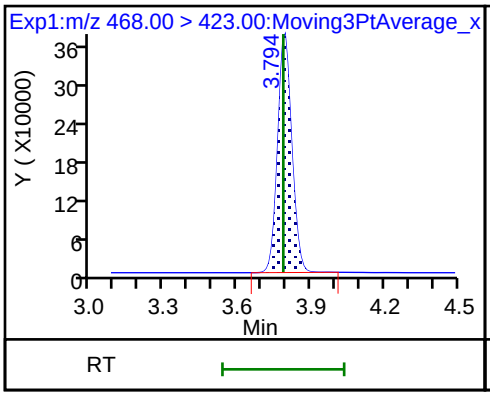

17 Perfluorooctanesulfonic acid (M)



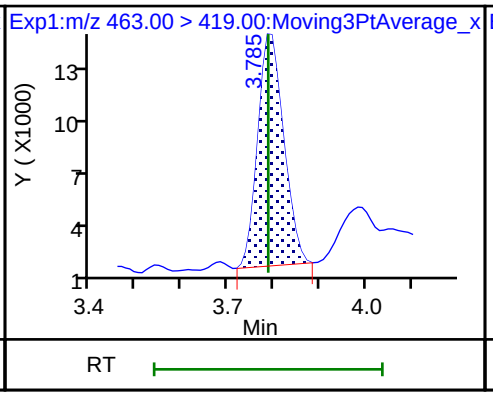

17 Perfluorooctanesulfonic acid (M)



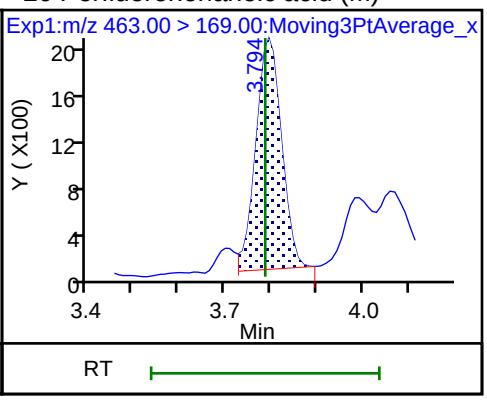

D 19 13C5 PFNA



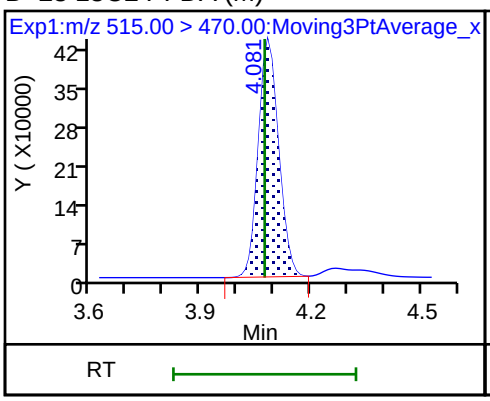

20 Perfluorononanoic acid



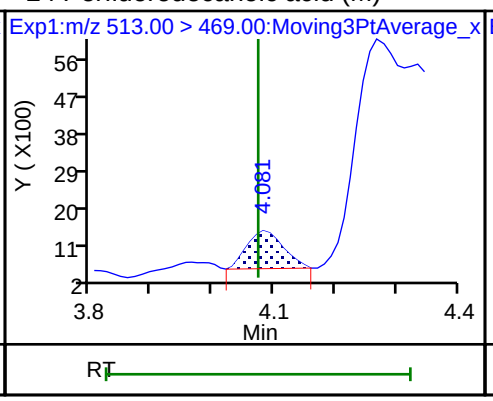

20 Perfluorononanoic acid (M)



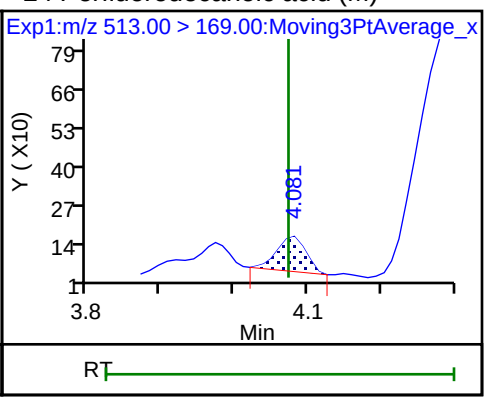

D 23 13C2 PFDA (M)



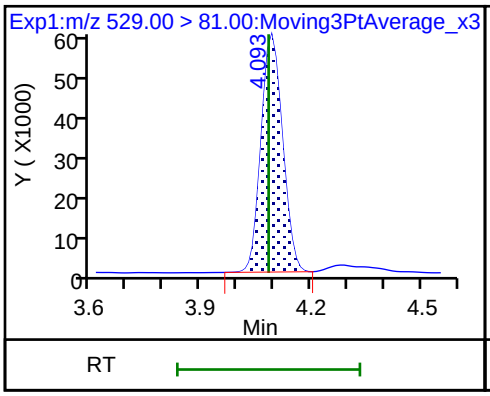

24 Perfluorodecanoic acid (M)



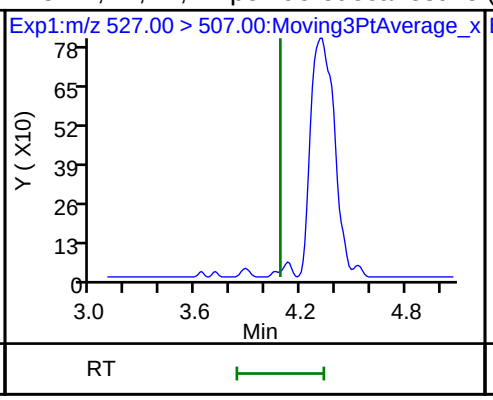

24 Perfluorodecanoic acid (M)



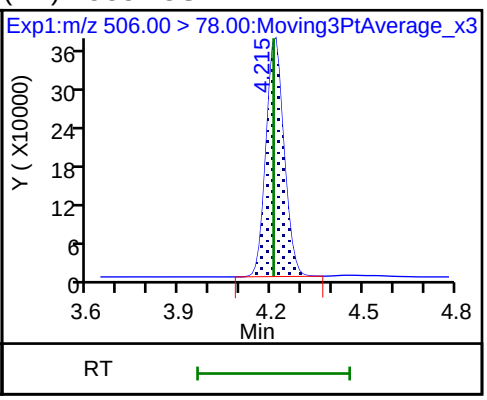

D 26 M2-8:2 FTS



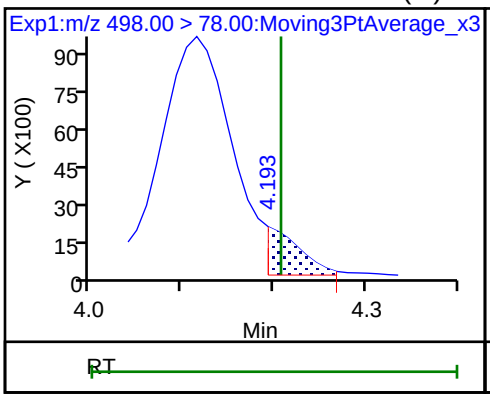

25 1H,1H,2H,2H-perfluorodecanesulfo (M2)



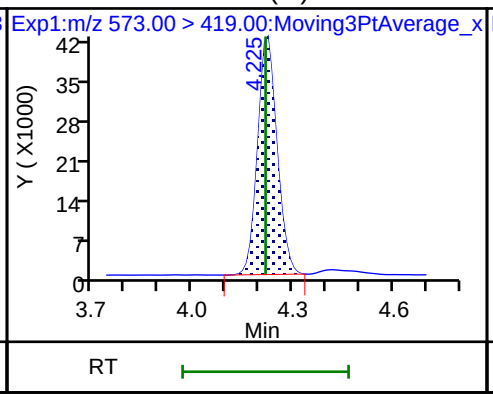

D 21 13C8 FOSA



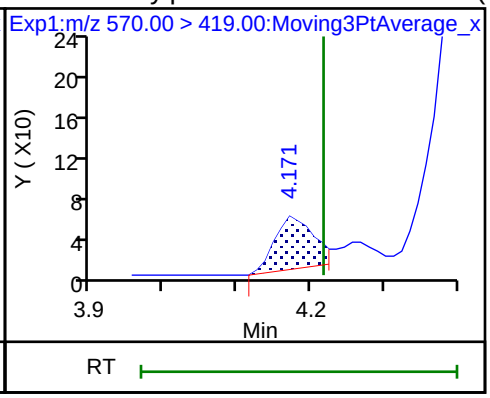
22 Perfluorooctanesulfonamide (M)



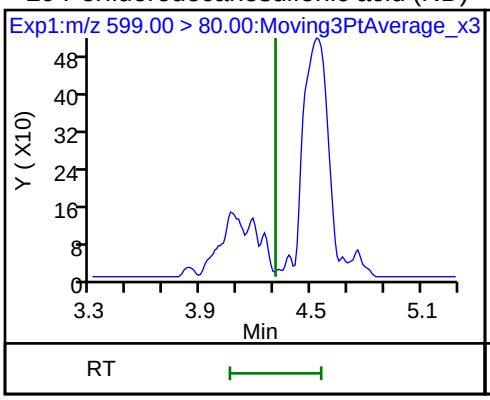

D 27 d3-NMeFOSAA (M)



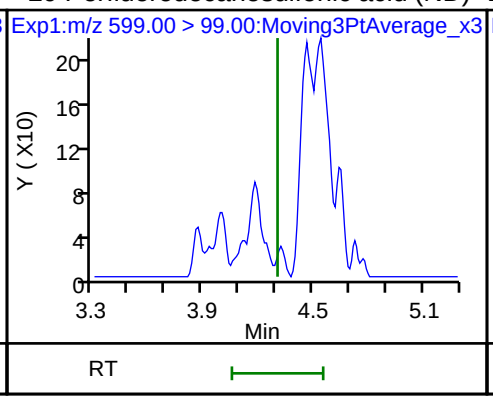

28 N-methylperfluorooctanesulfonami (M)



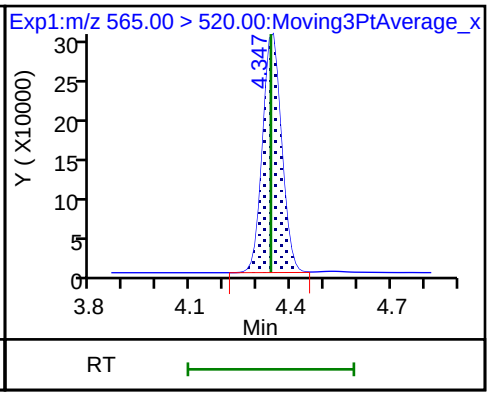

29 Perfluorodecanesulfonic acid (ND)



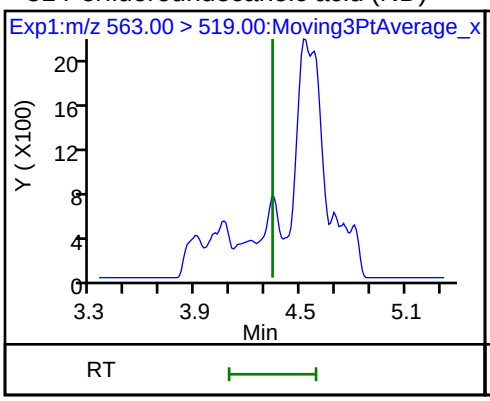

29 Perfluorodecanesulfonic acid (ND)



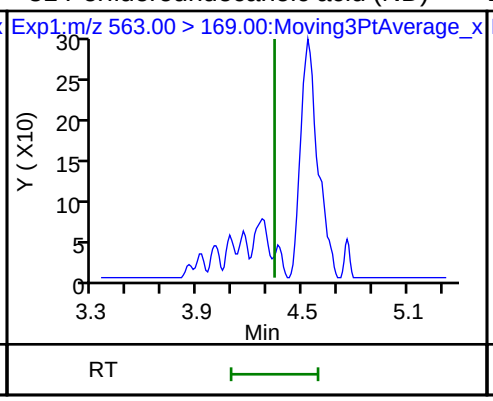

D 30 13C2 PFUnA



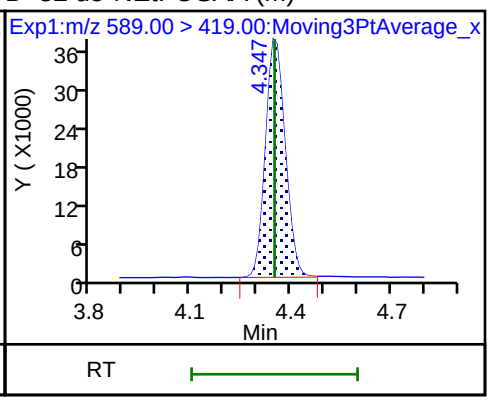

31 Perfluoroundecanoic acid (ND)



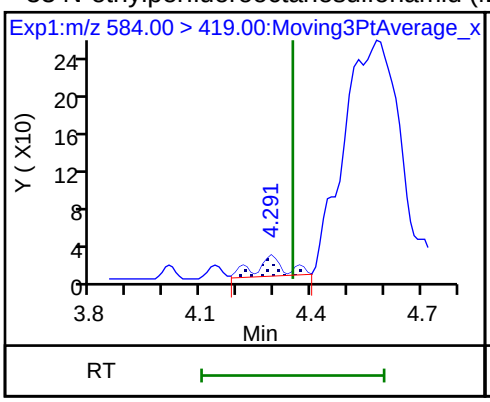

31 Perfluoroundecanoic acid (ND)



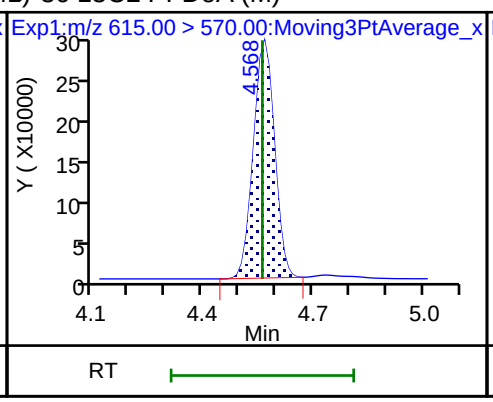

D 32 d5-NEtFOSAA (M)



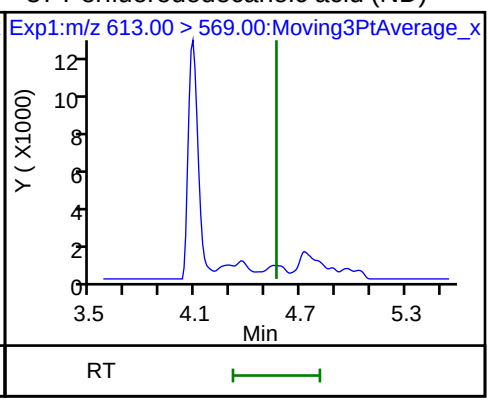

33 N-ethylperfluorooctanesulfonamid (ND)



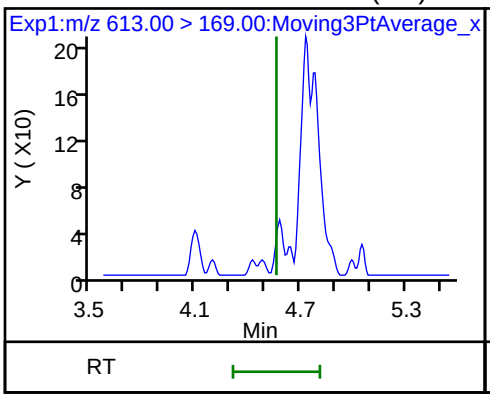

D 36 13C2 PFDoA (M)



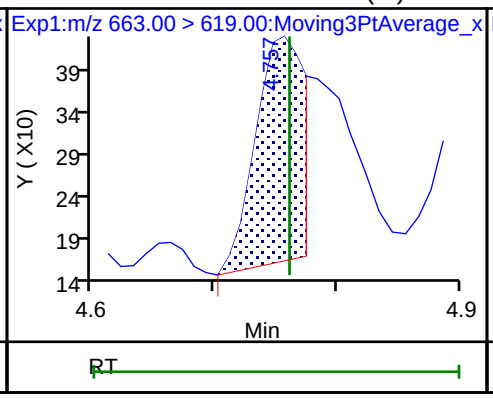

37 Perfluorododecanoic acid (ND)



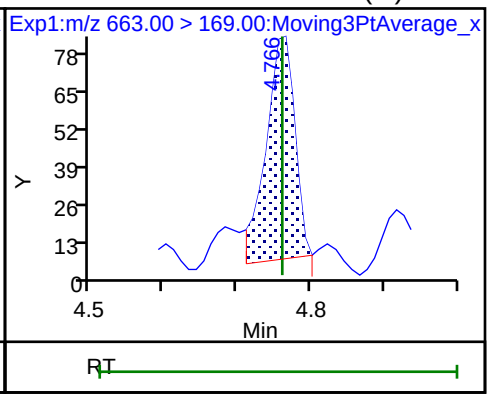
37 Perfluorododecanoic acid (ND)



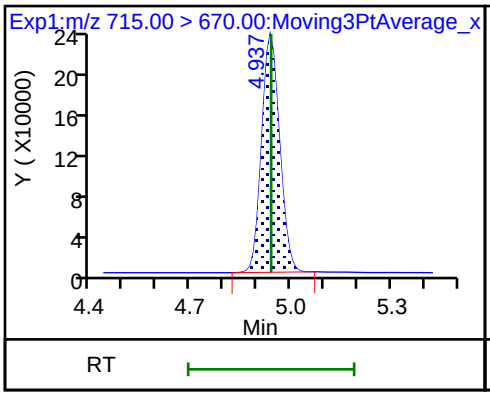

41 Perfluorotridecanoic acid (M)



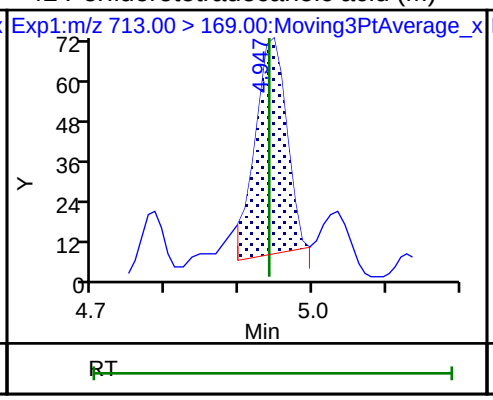

41 Perfluorotridecanoic acid (M)



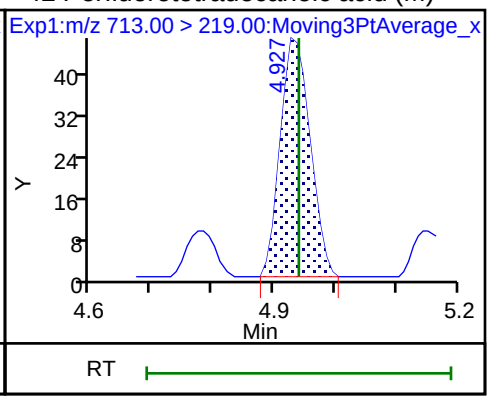

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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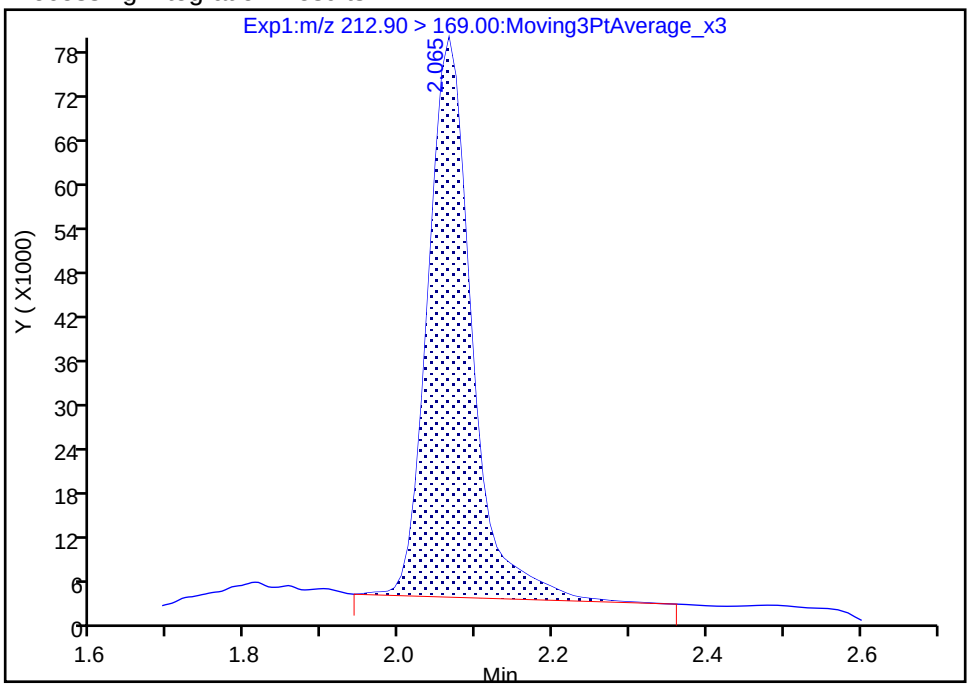
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

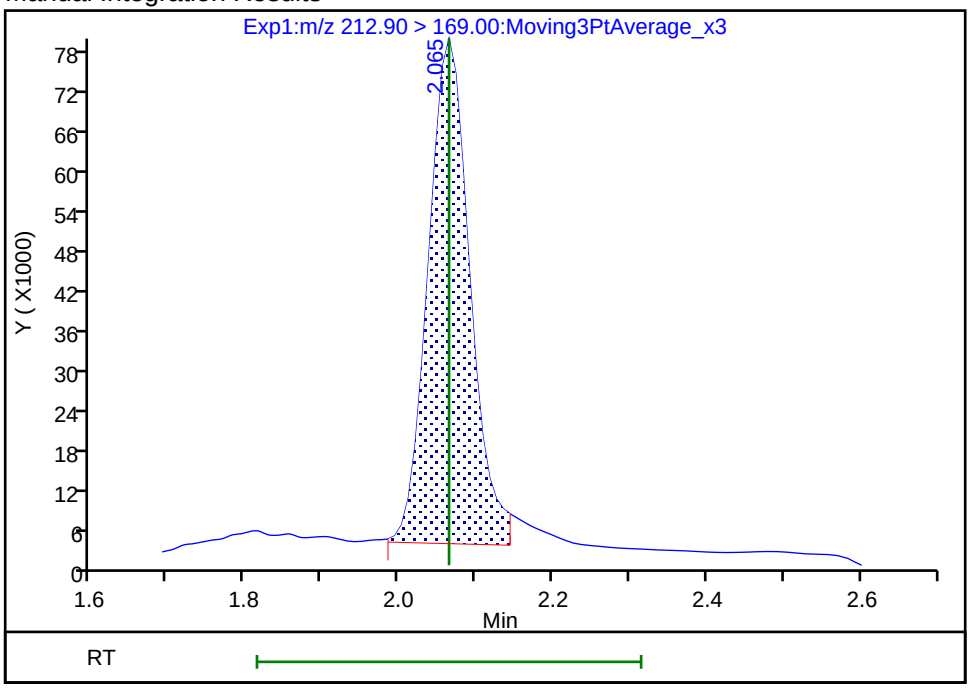
Processing Integration Results

RT: 2.06
Area: 299338
Amount: 0.240184
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 283829
Amount: 0.227739
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:44:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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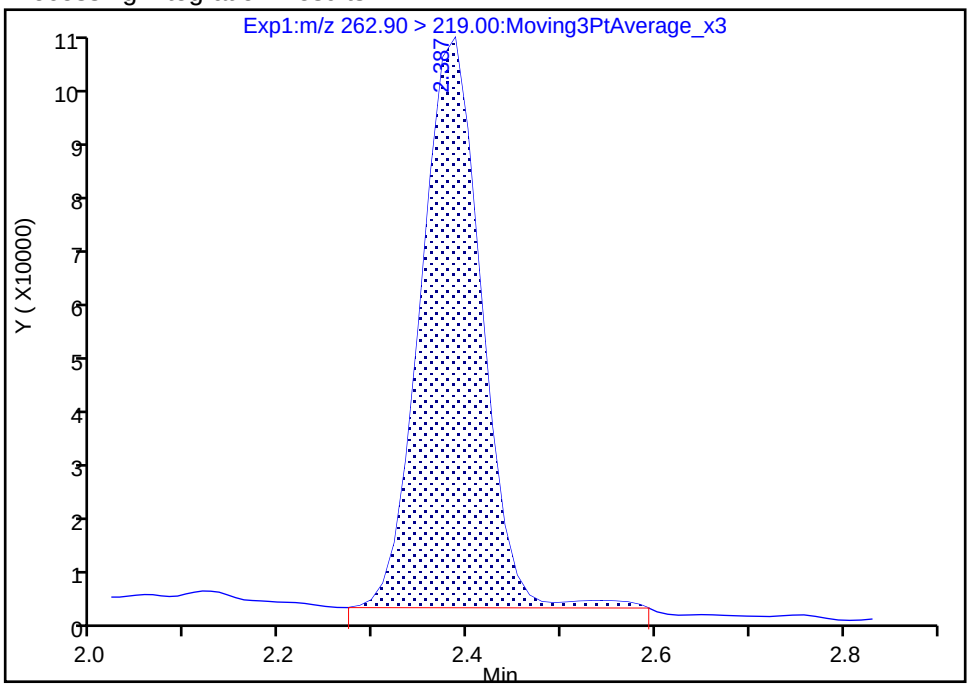
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

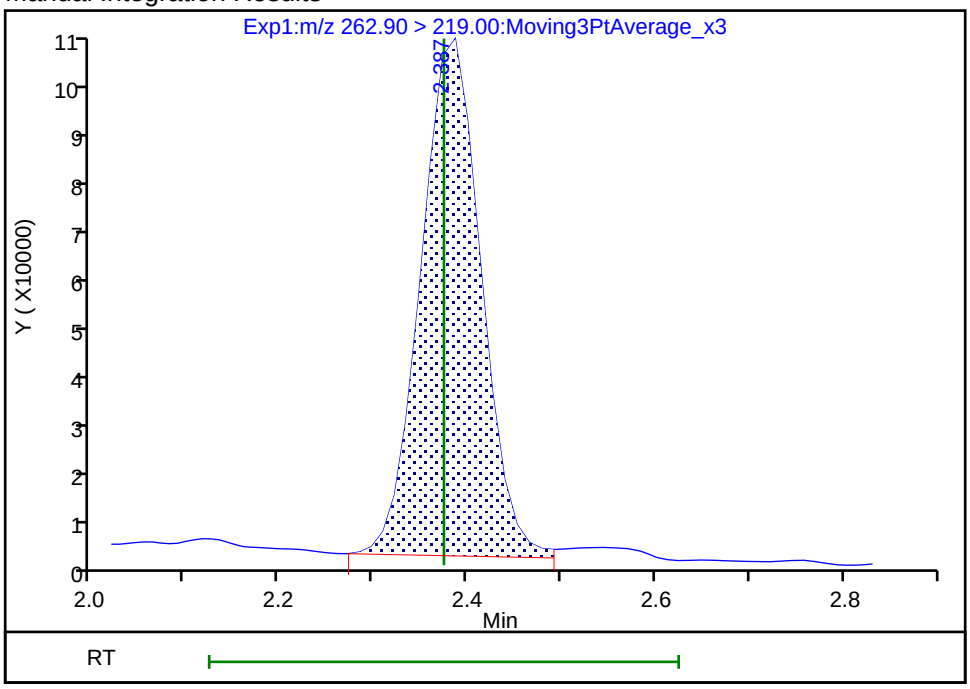
Processing Integration Results

RT: 2.39
Area: 459374
Amount: 0.411389
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 458260
Amount: 0.410392
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:44:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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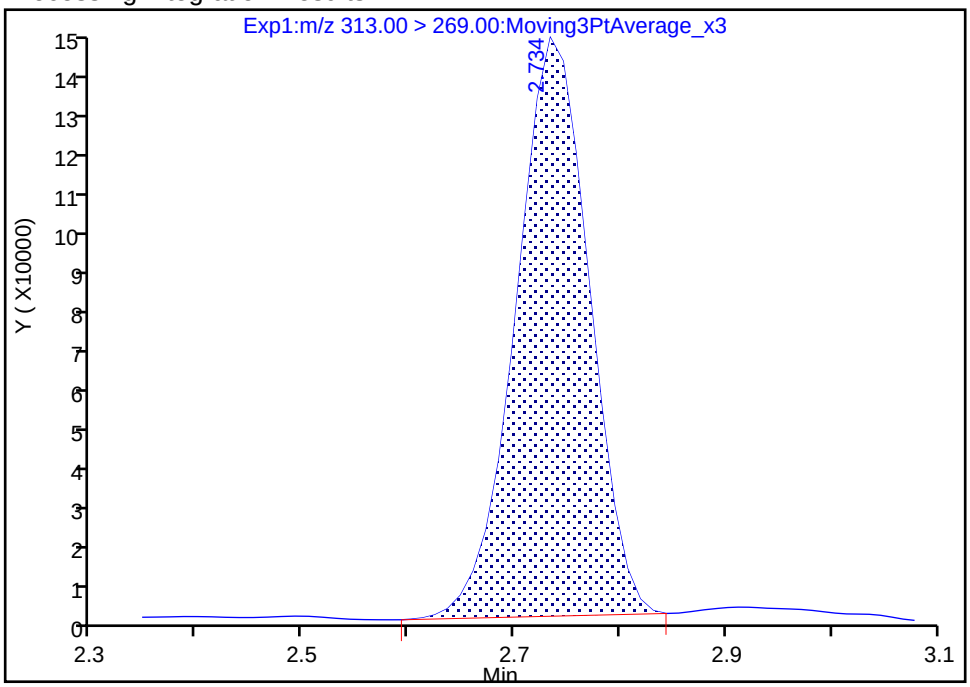
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

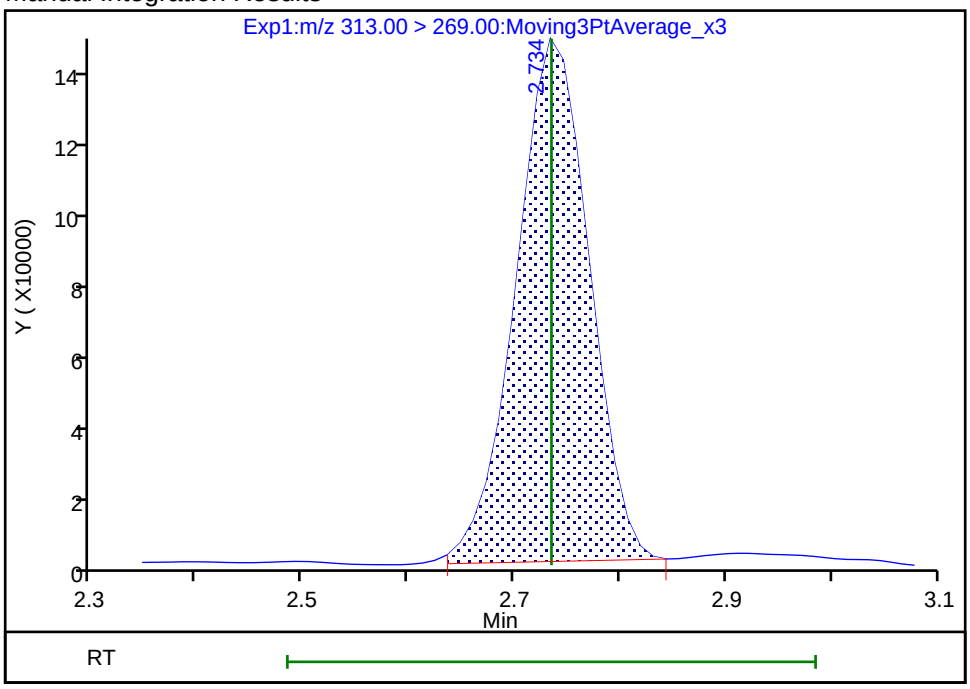
Processing Integration Results

RT: 2.73
Area: 710272
Amount: 0.626978
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 708334
Amount: 0.625267
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:44:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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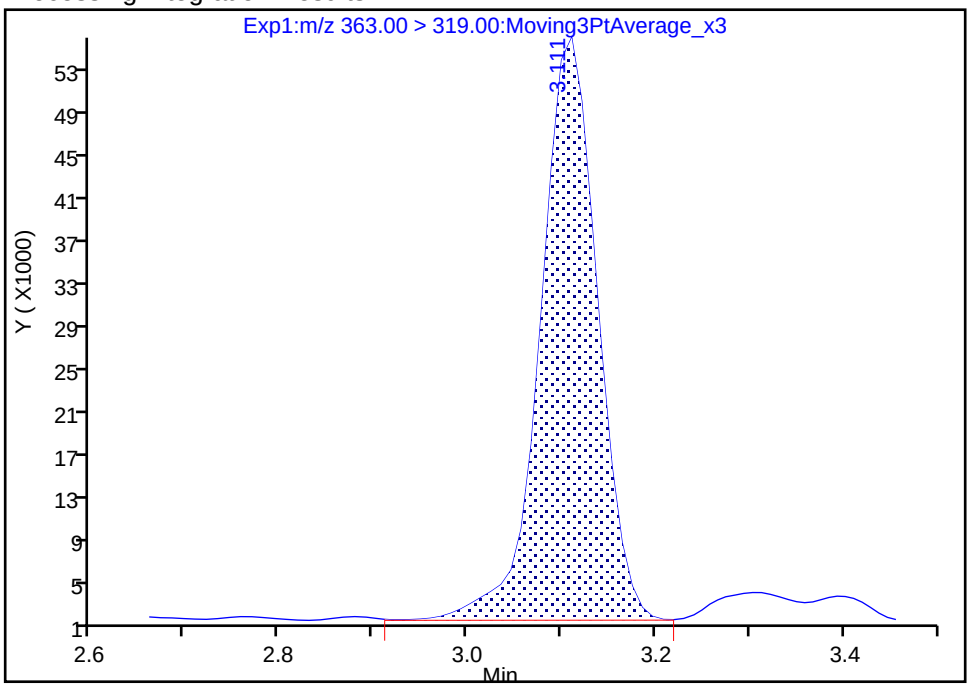
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

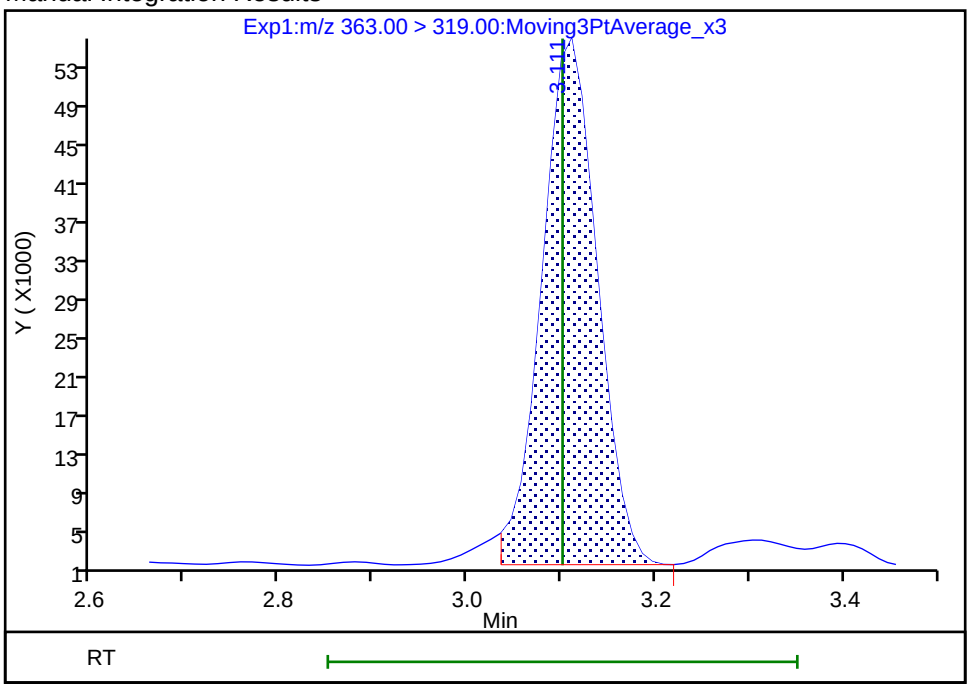
Processing Integration Results

RT: 3.11
Area: 228651
Amount: 0.177372
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 221444
Amount: 0.171781
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:45:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

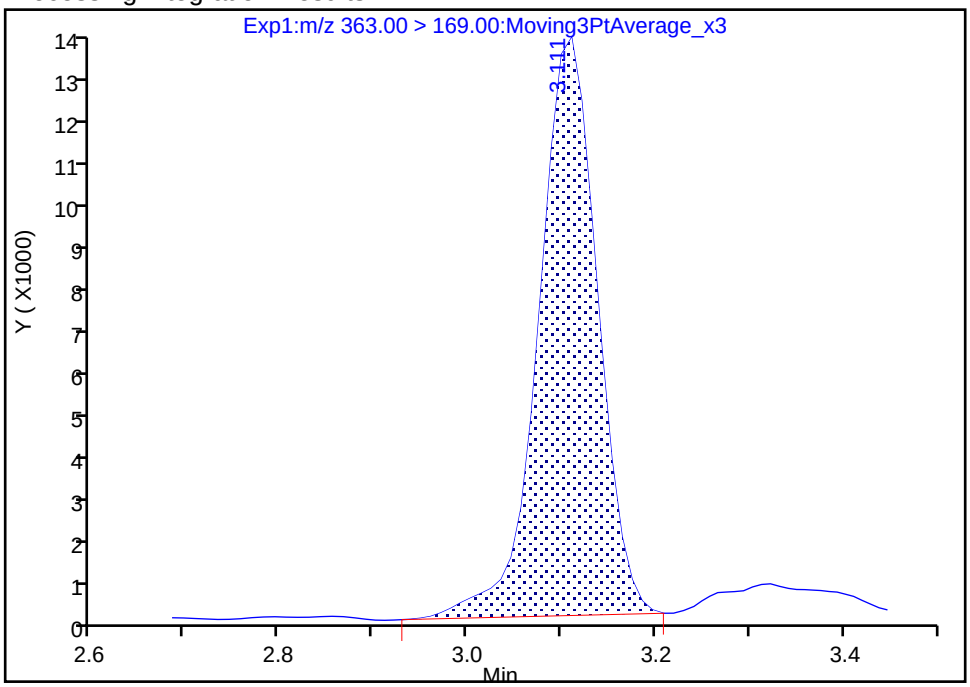
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

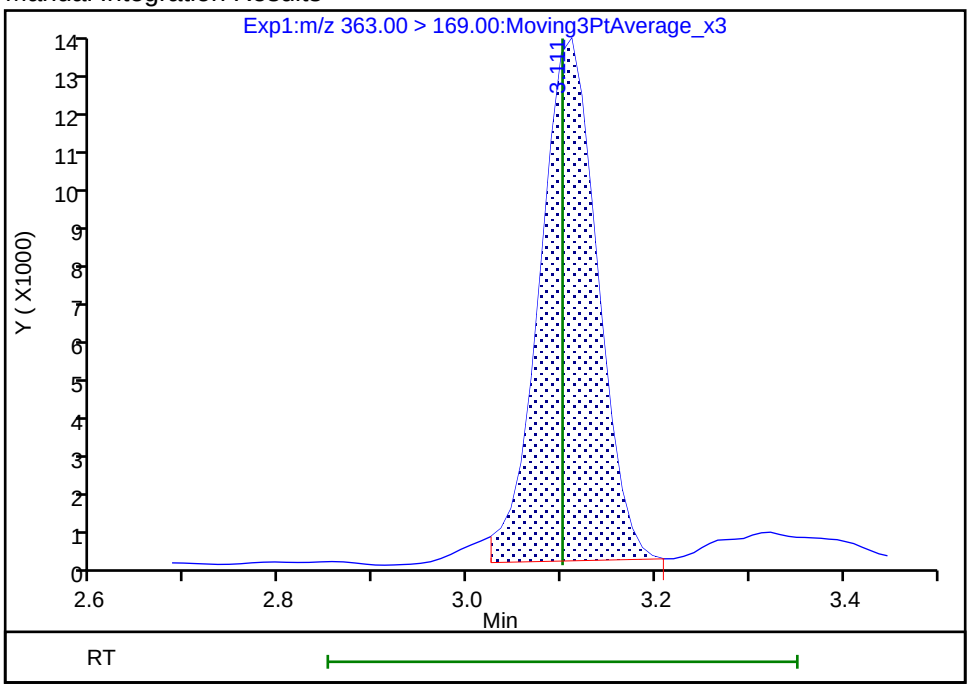
Processing Integration Results

RT: 3.11
Area: 57292
Amount: 0.177372
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 55923
Amount: 0.171781
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:45:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

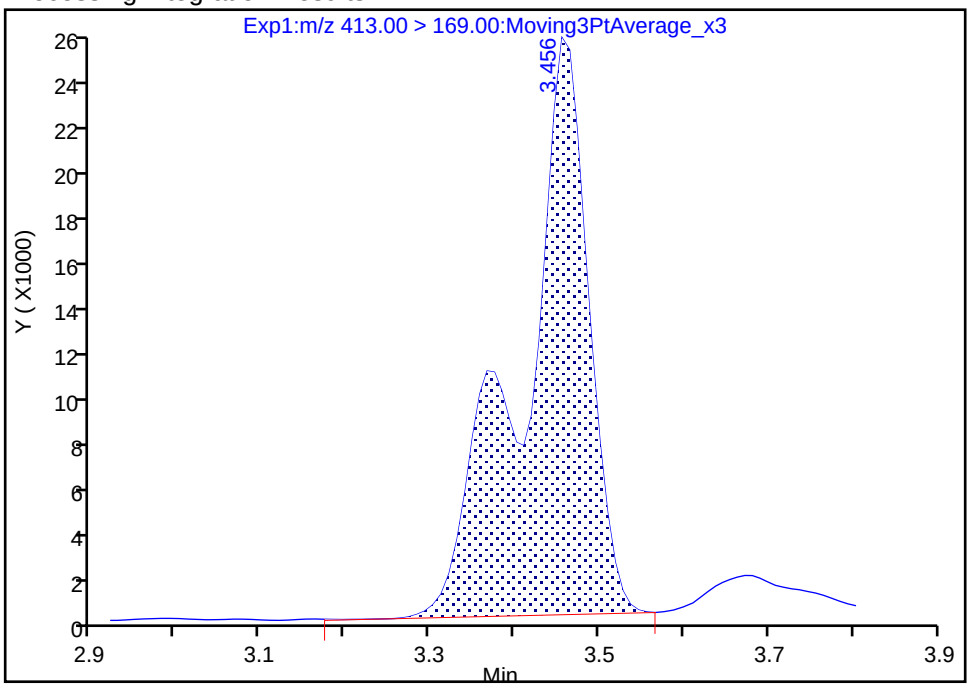
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

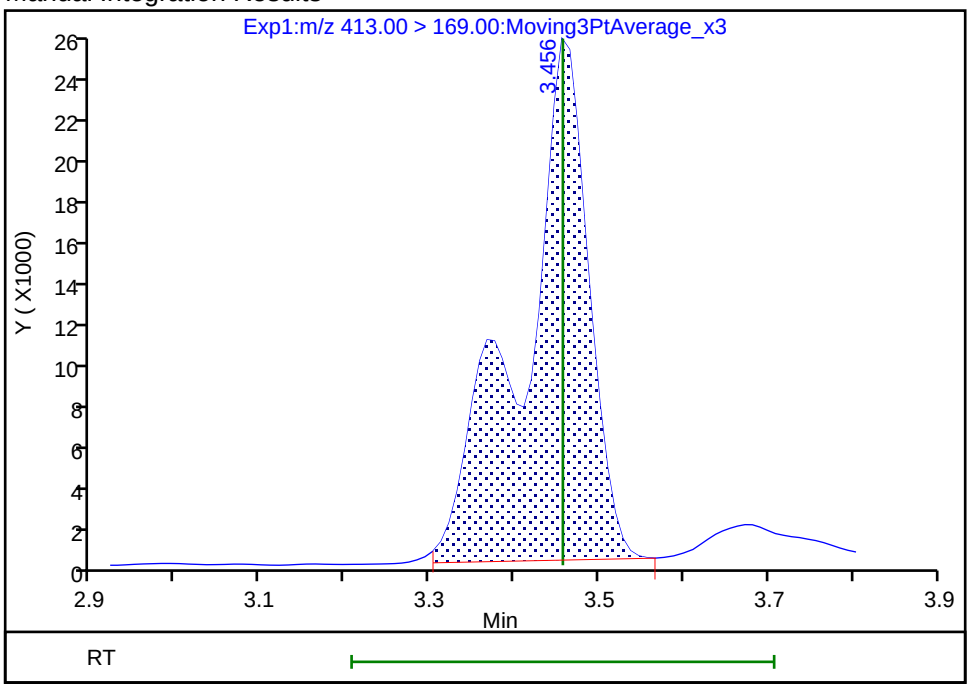
Processing Integration Results

RT: 3.46
Area: 137612
Amount: 0.245320
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 137036
Amount: 0.245320
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:45:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

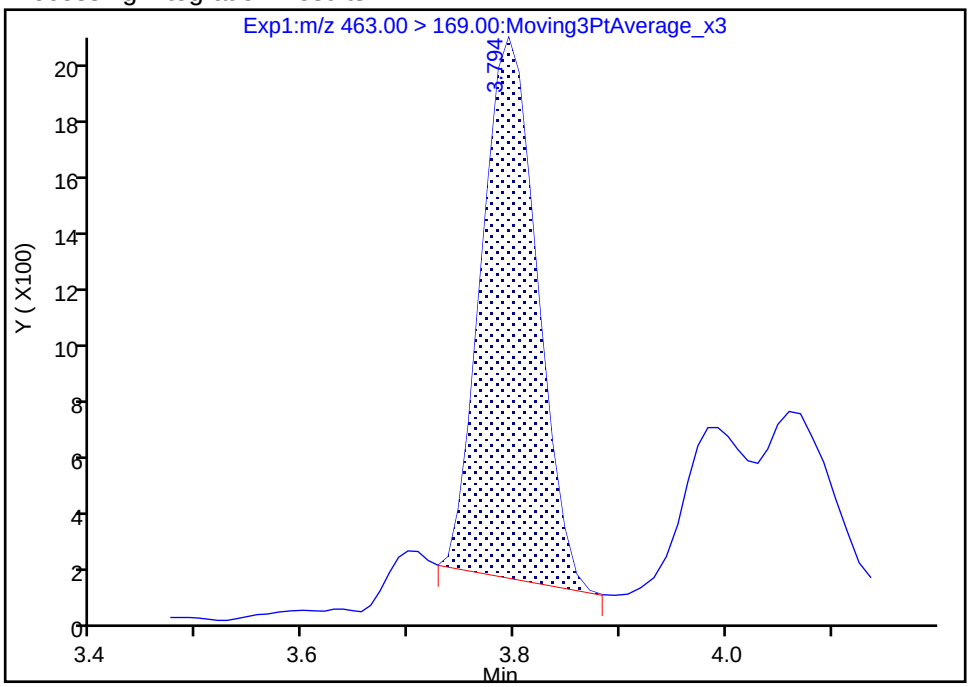
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

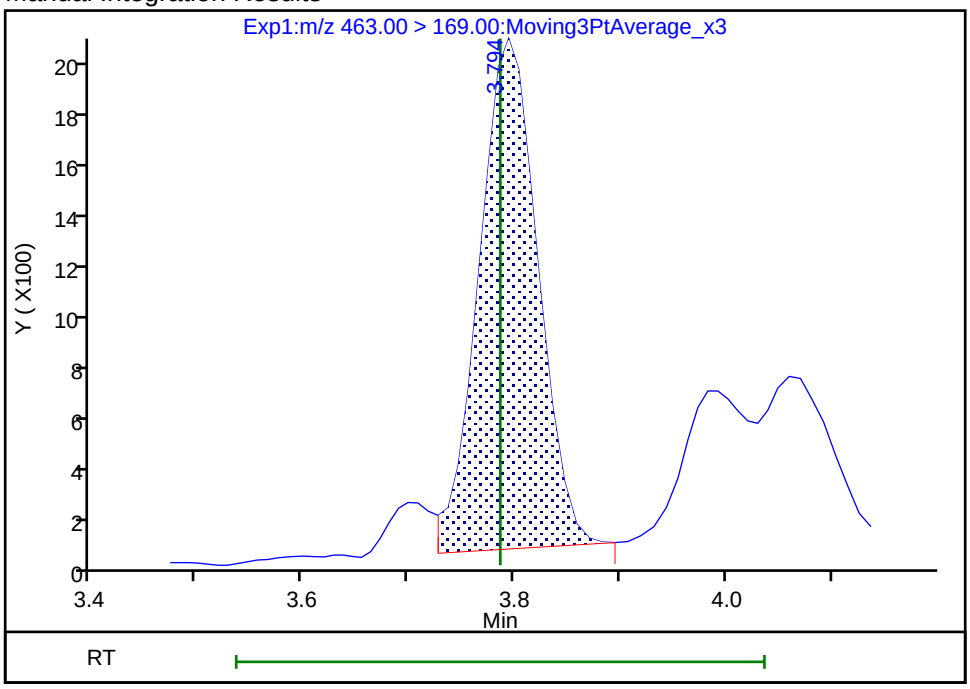
Processing Integration Results

RT: 3.79
Area: 6875
Amount: 0.041941
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 7566
Amount: 0.041941
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:47:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

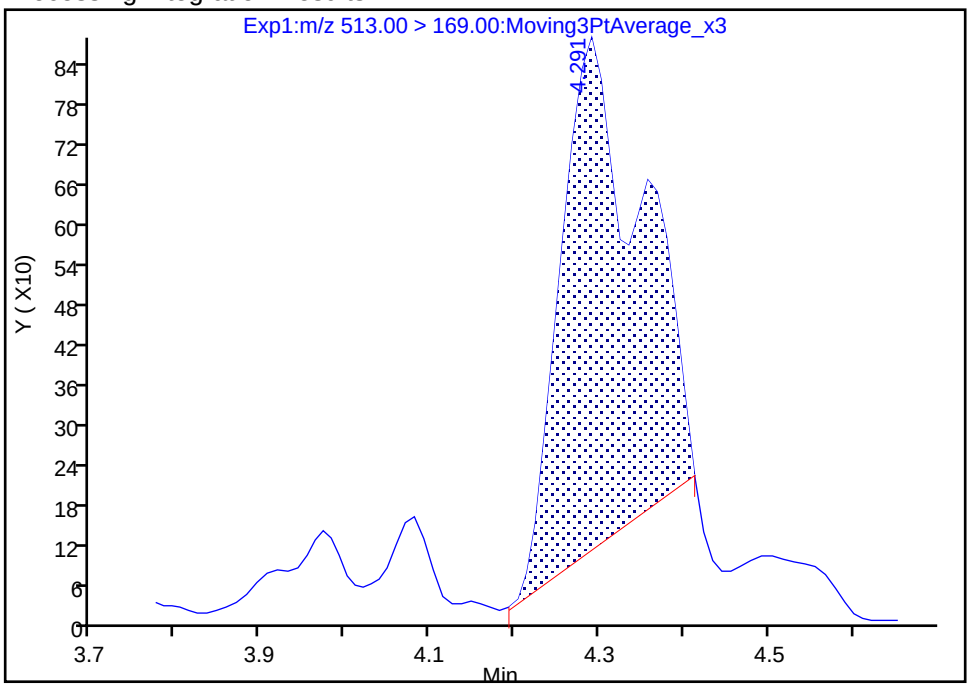
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

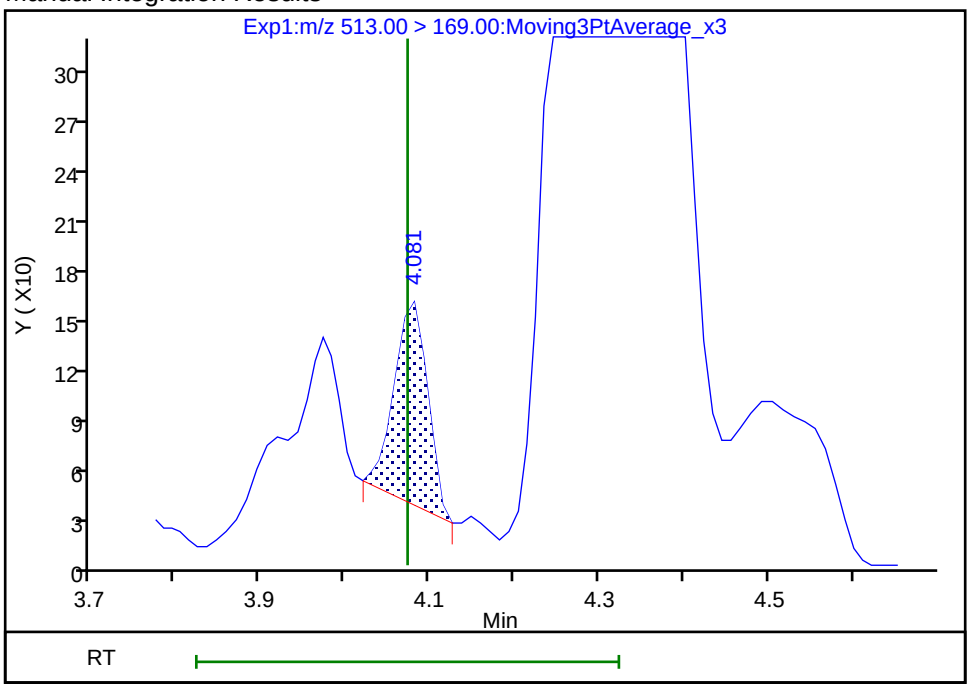
Processing Integration Results

RT: 4.29
Area: 5133
Amount: 0.023059
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 328
Amount: 0.002855
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:47:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

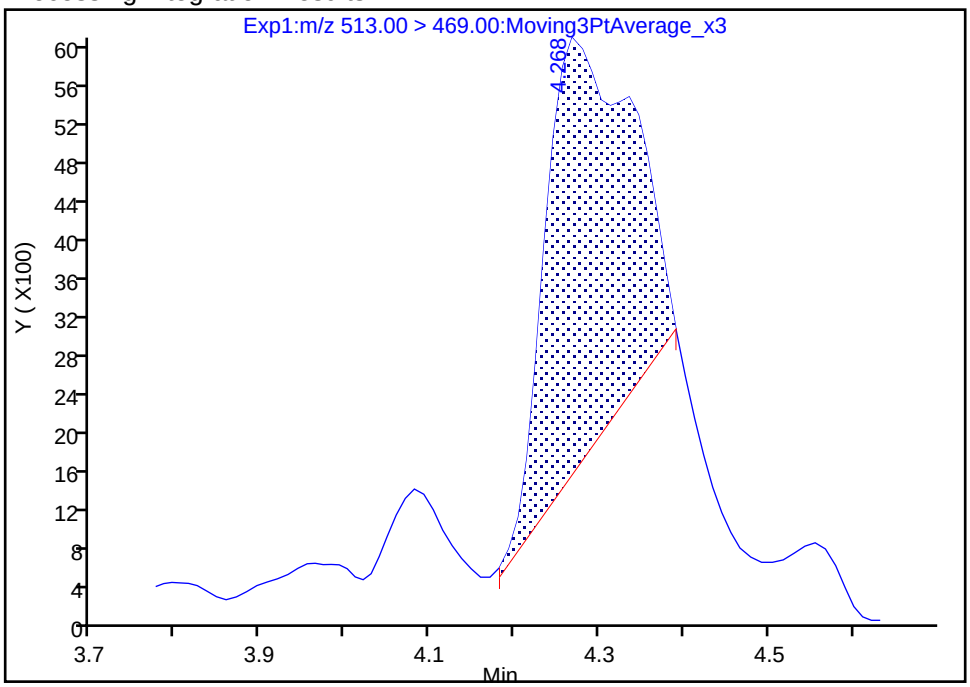
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

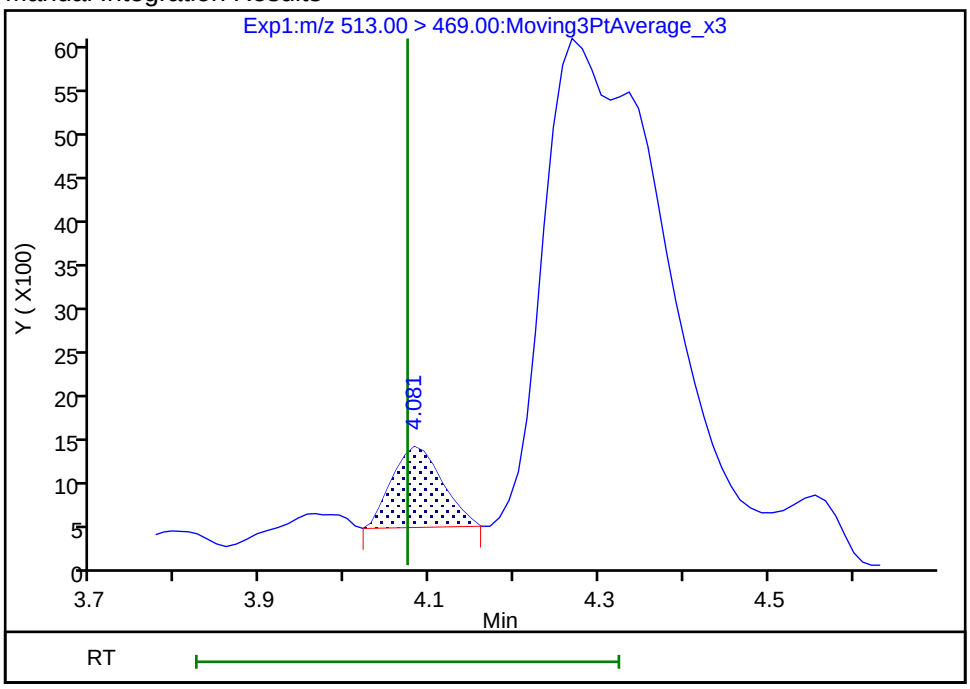
Processing Integration Results

RT: 4.27
Area: 31111
Amount: 0.023059
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 3816
Amount: 0.002855
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:47:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

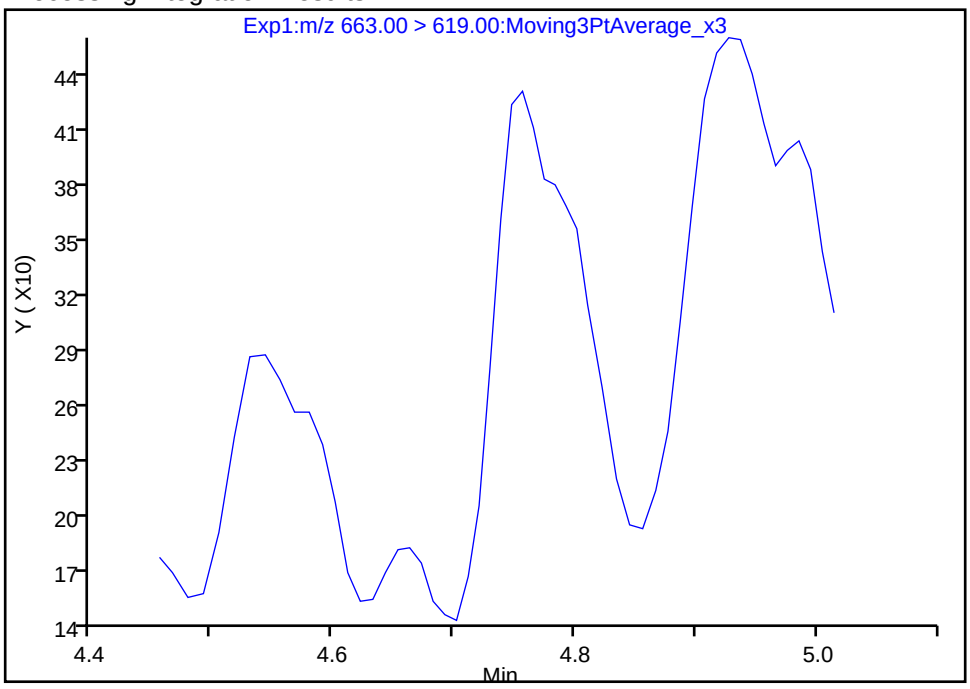
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

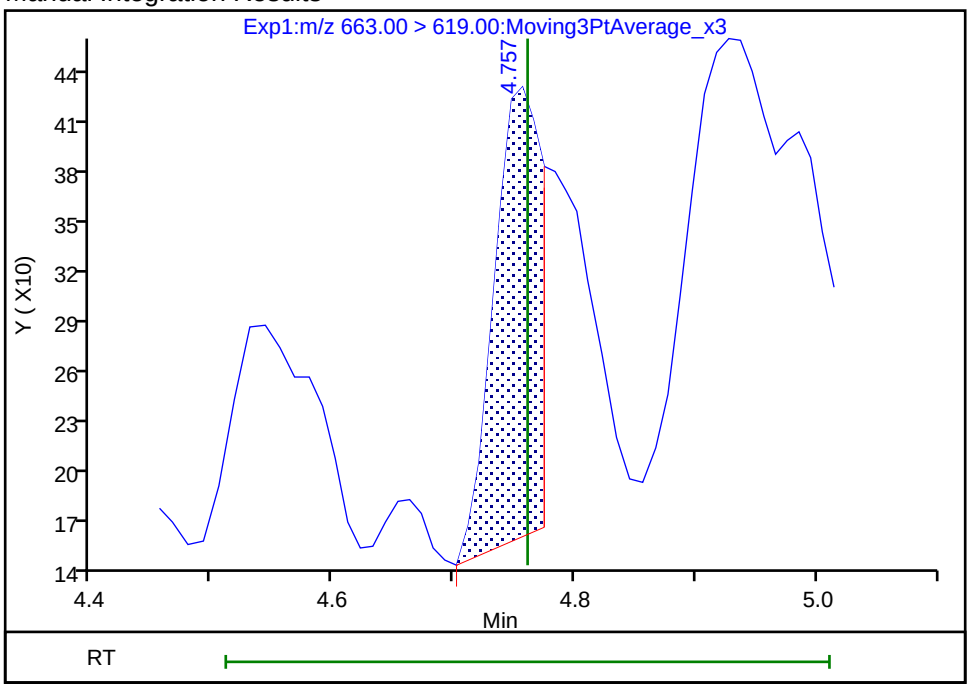
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.76
Area: 678
Amount: 0.000852
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:48:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

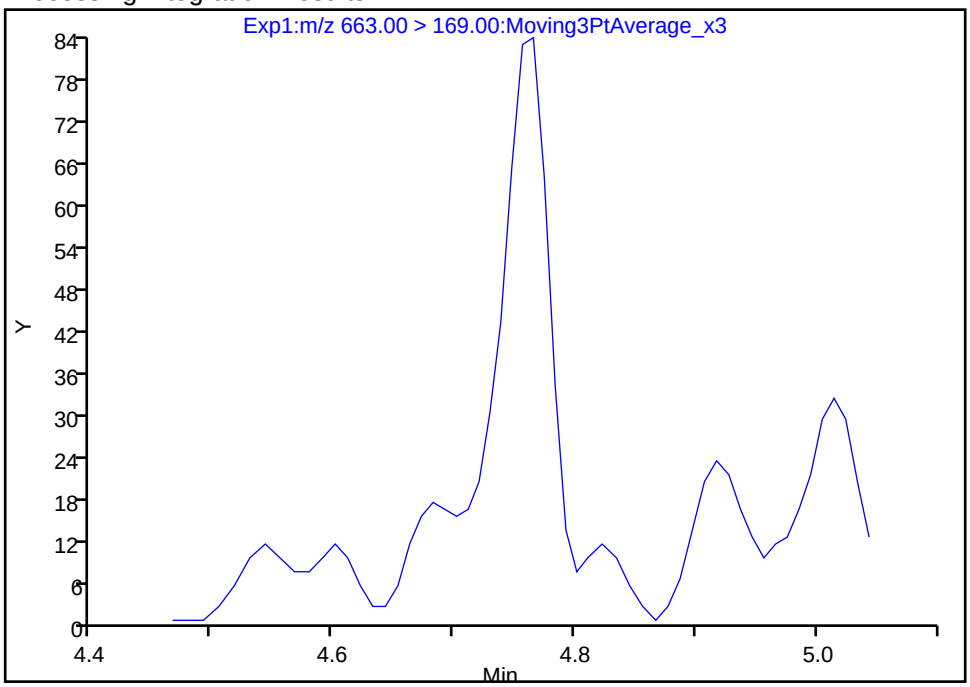
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

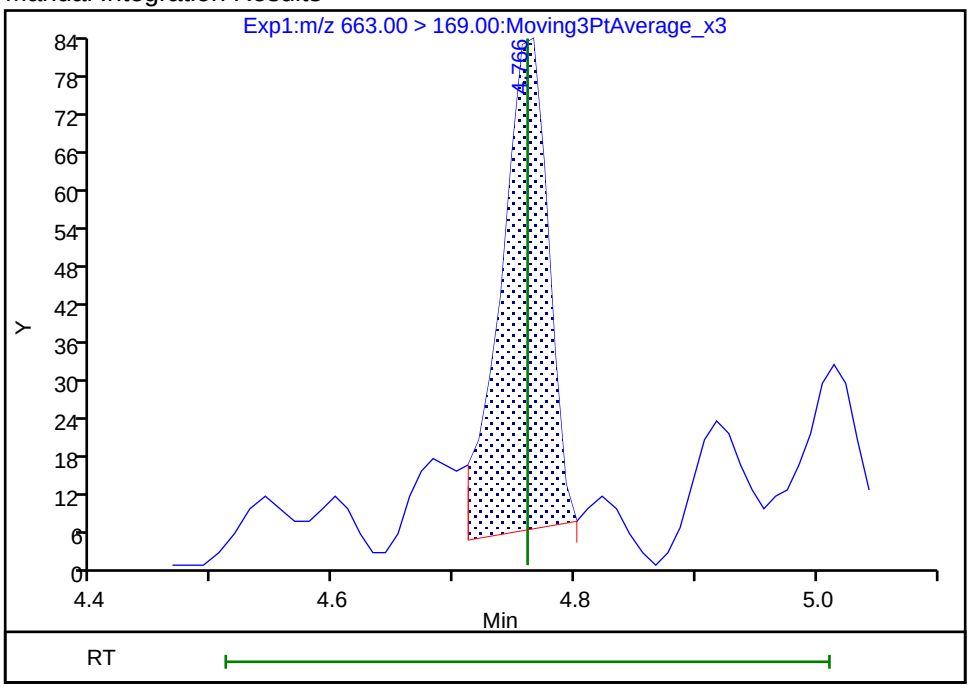
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 211
Amount: 0.000852
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:48:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

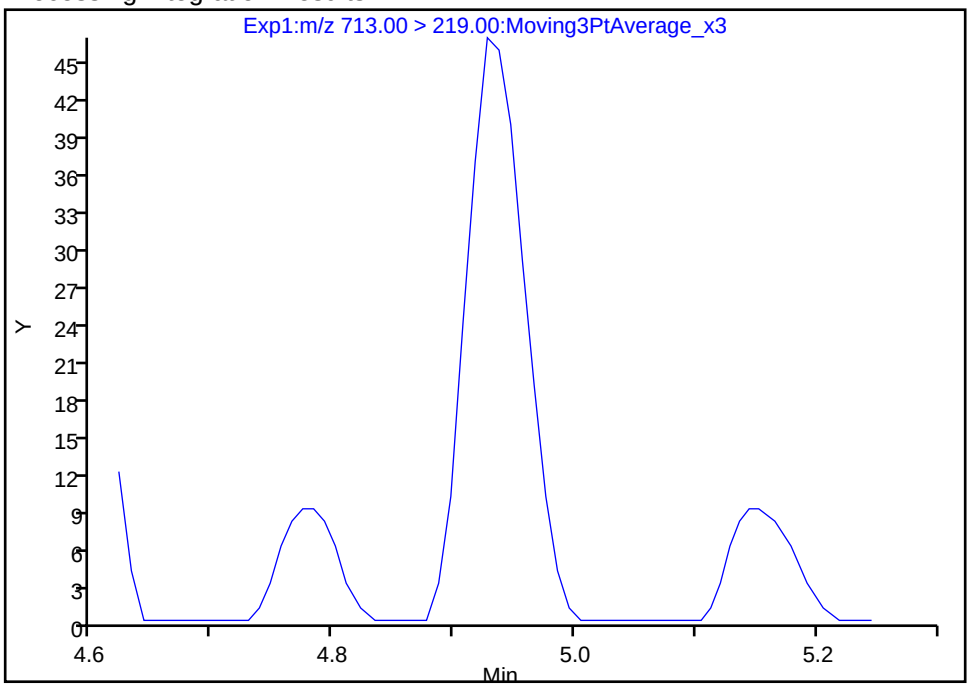
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

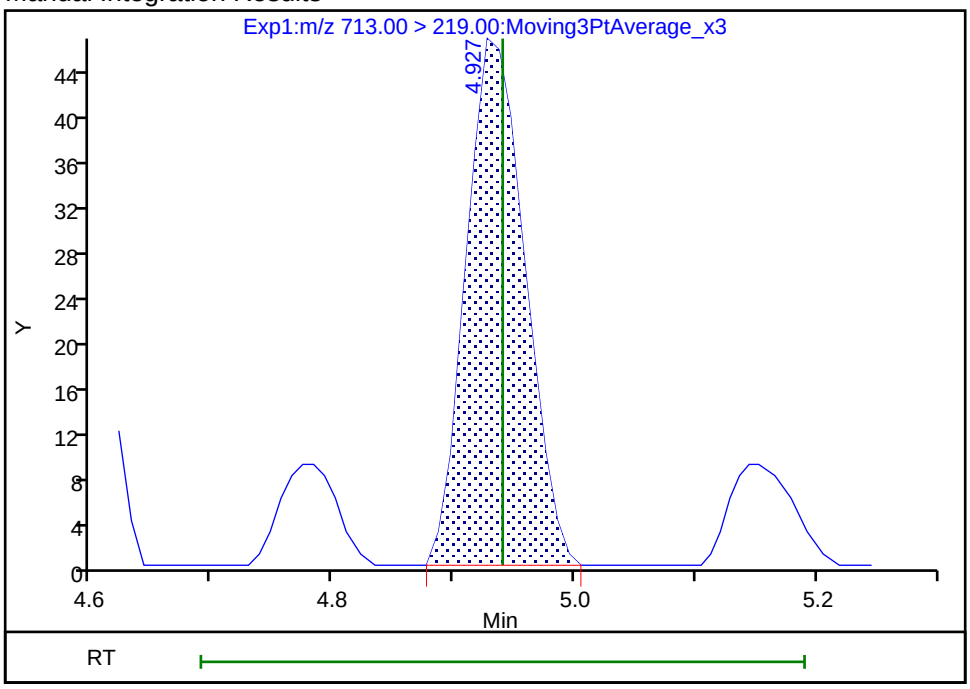
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.93
Area: 159
Amount: 0.001763
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:48:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

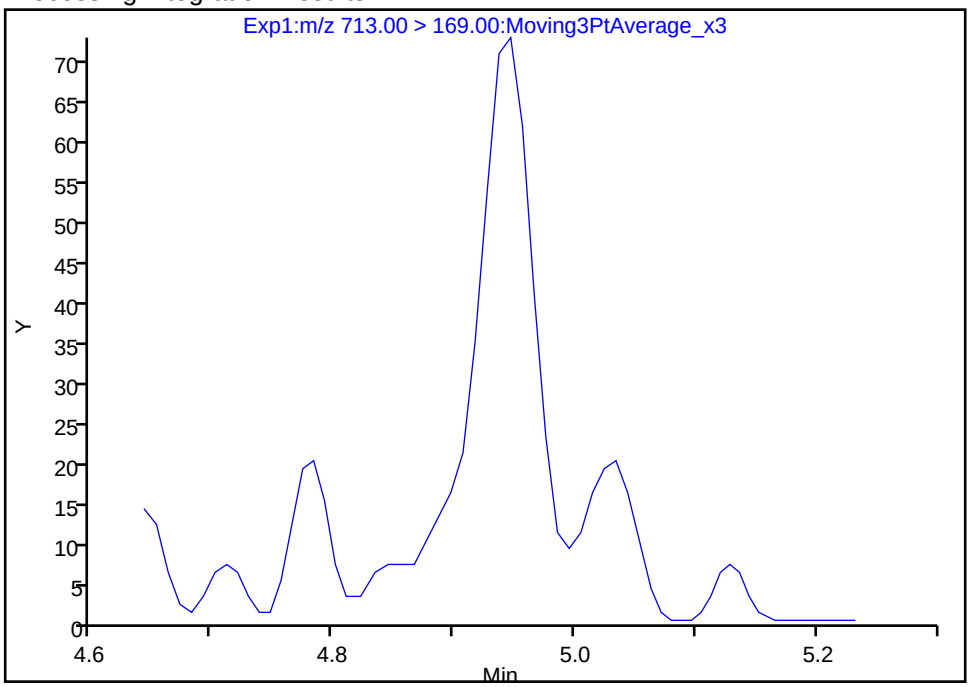
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

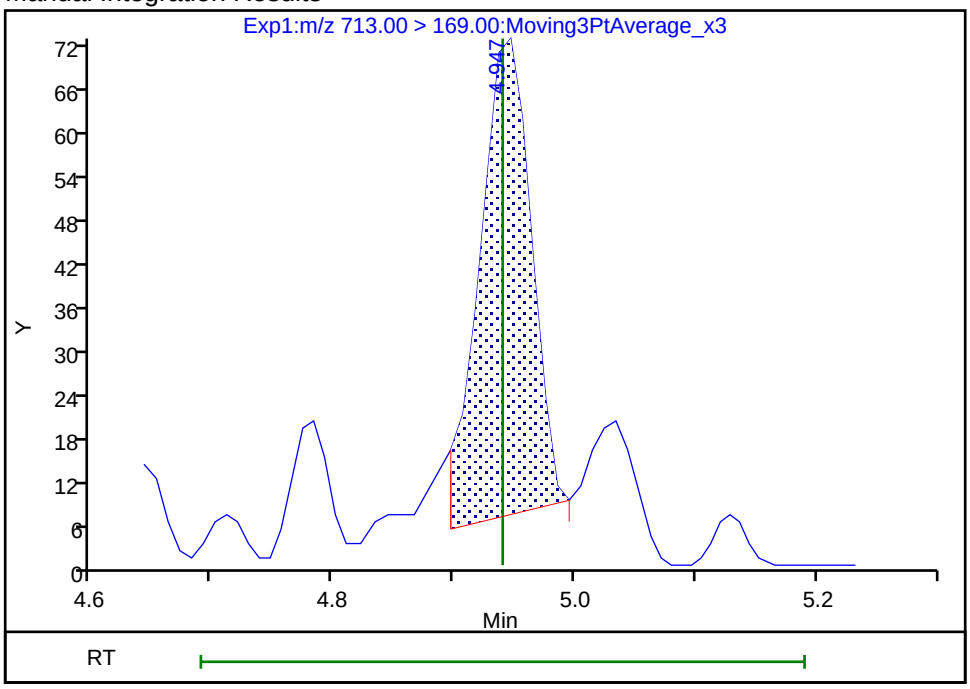
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 195
Amount: 0.001763
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:48:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

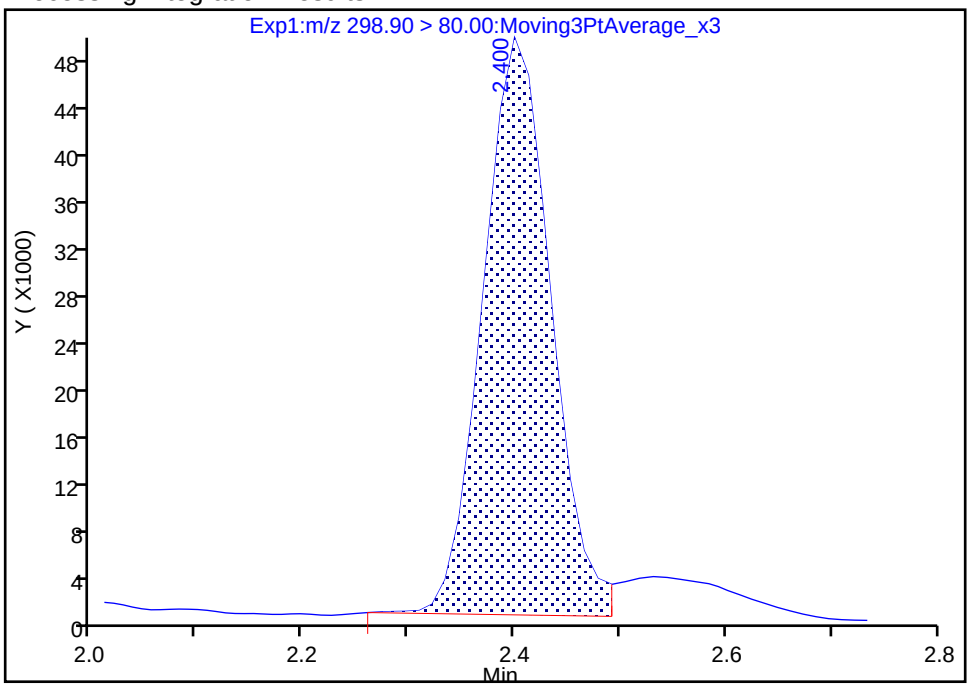
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

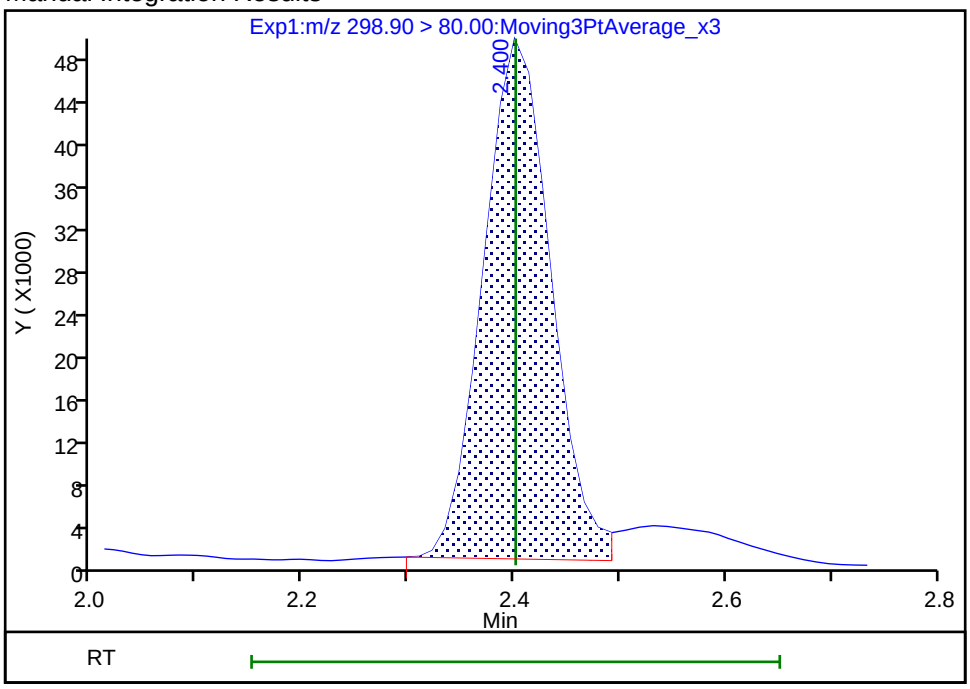
Processing Integration Results

RT: 2.40
Area: 214987
Amount: 0.132067
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 213327
Amount: 0.131048
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:45:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

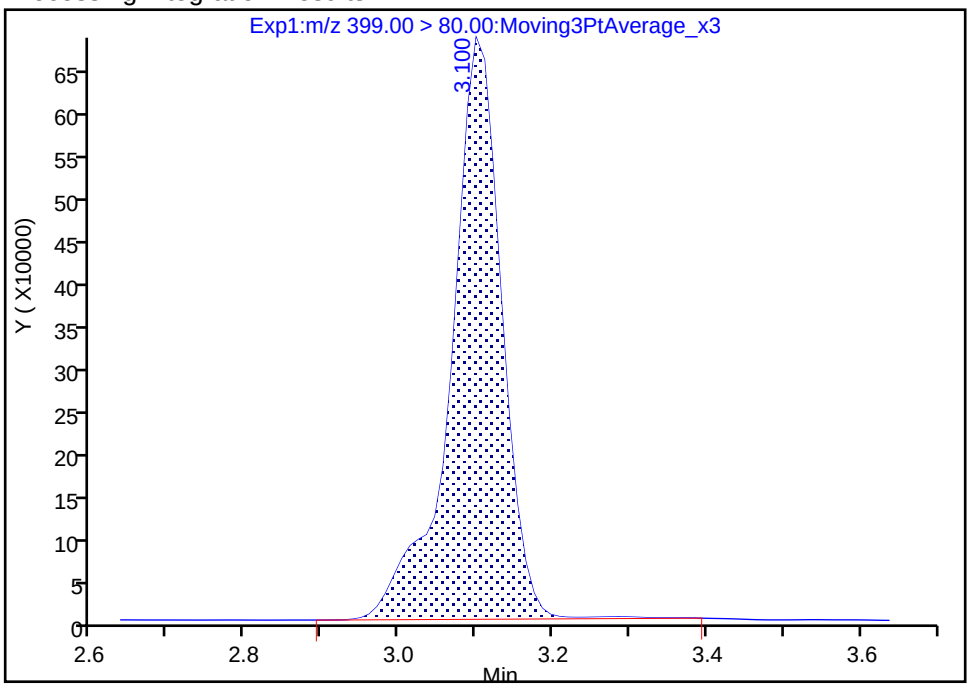
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

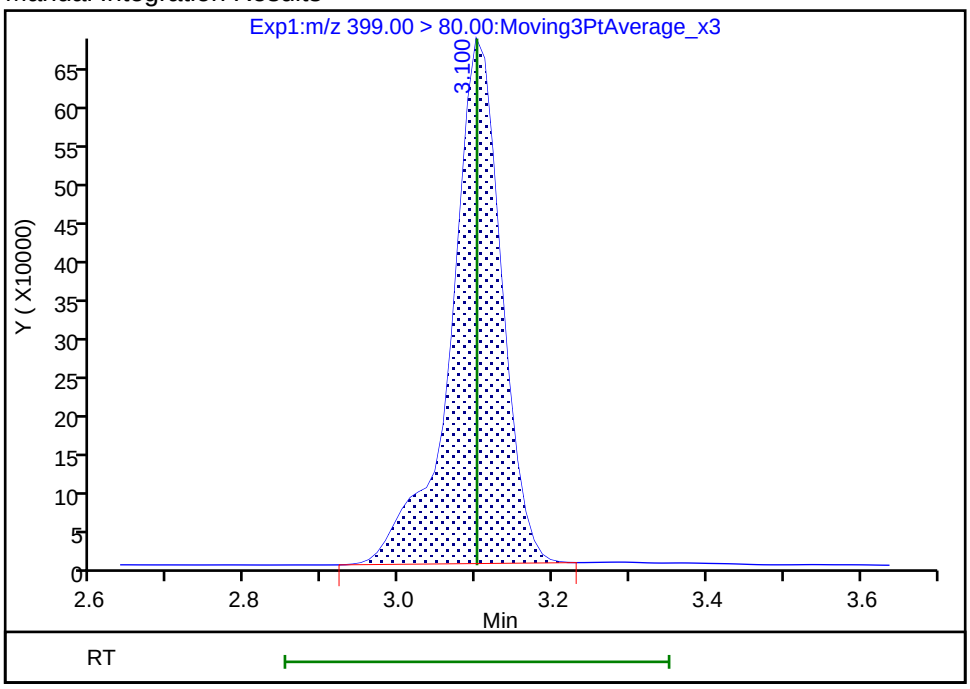
Processing Integration Results

RT: 3.10
Area: 3169091
Amount: 2.628881
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 3142643
Amount: 2.629246
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:45:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

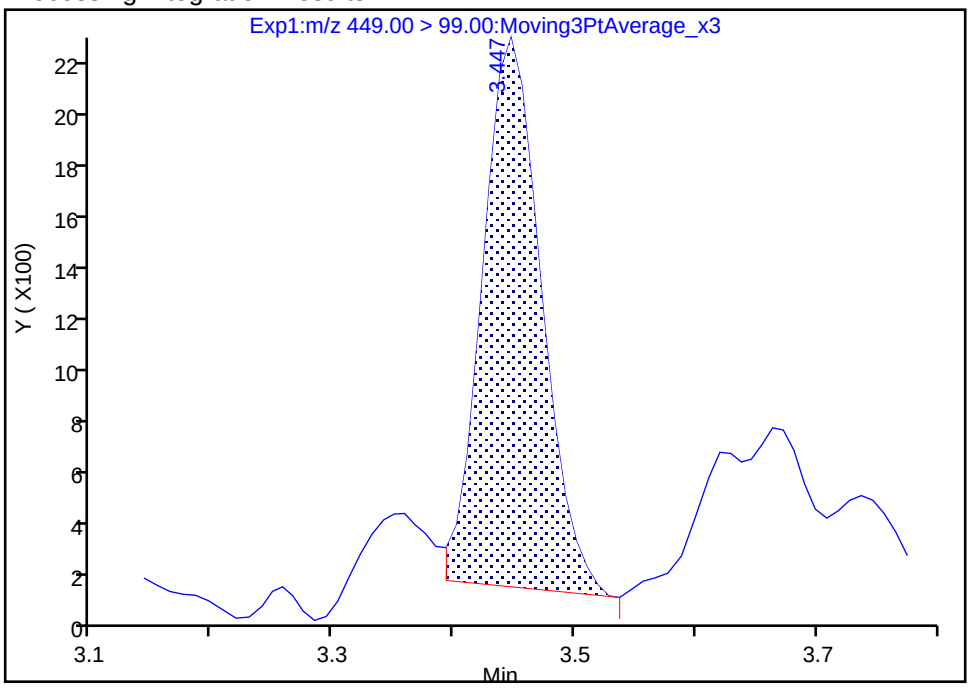
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

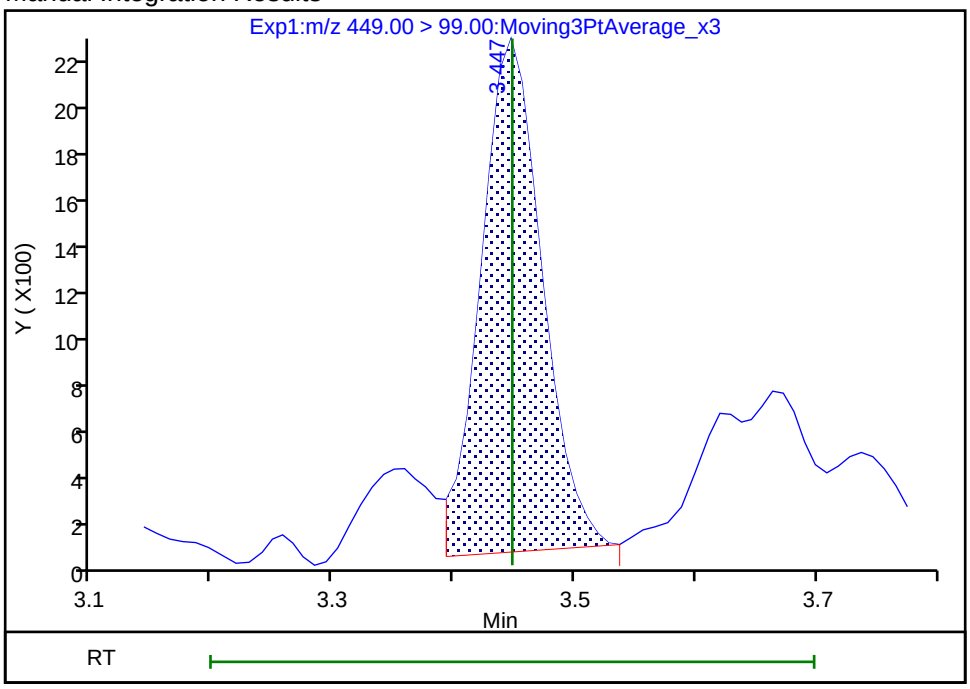
Processing Integration Results

RT: 3.45
Area: 6762
Amount: 0.044124
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 7236
Amount: 0.044526
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:46:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

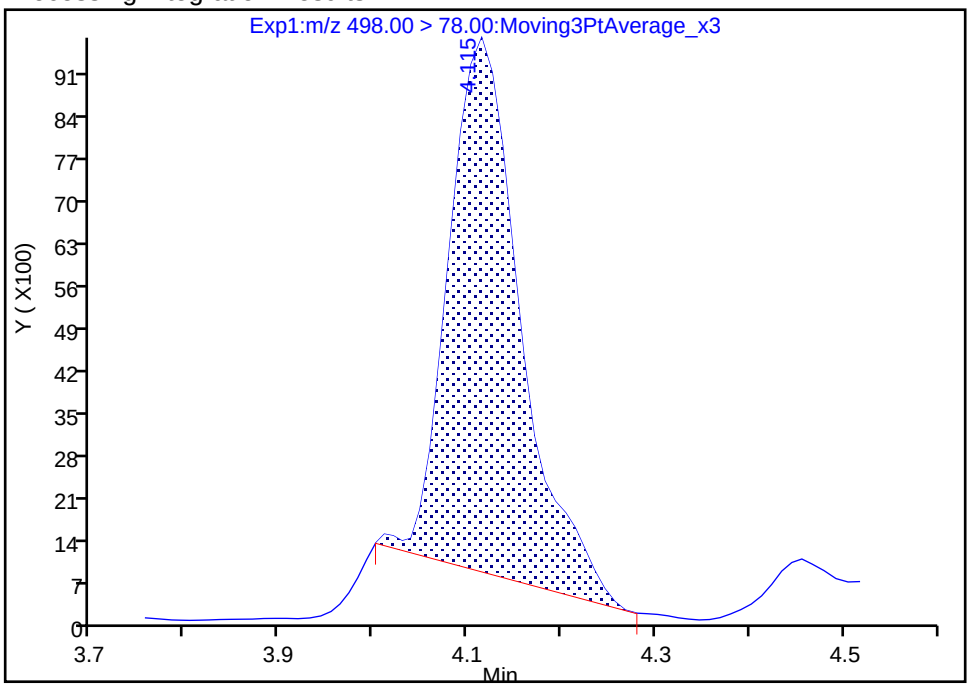
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

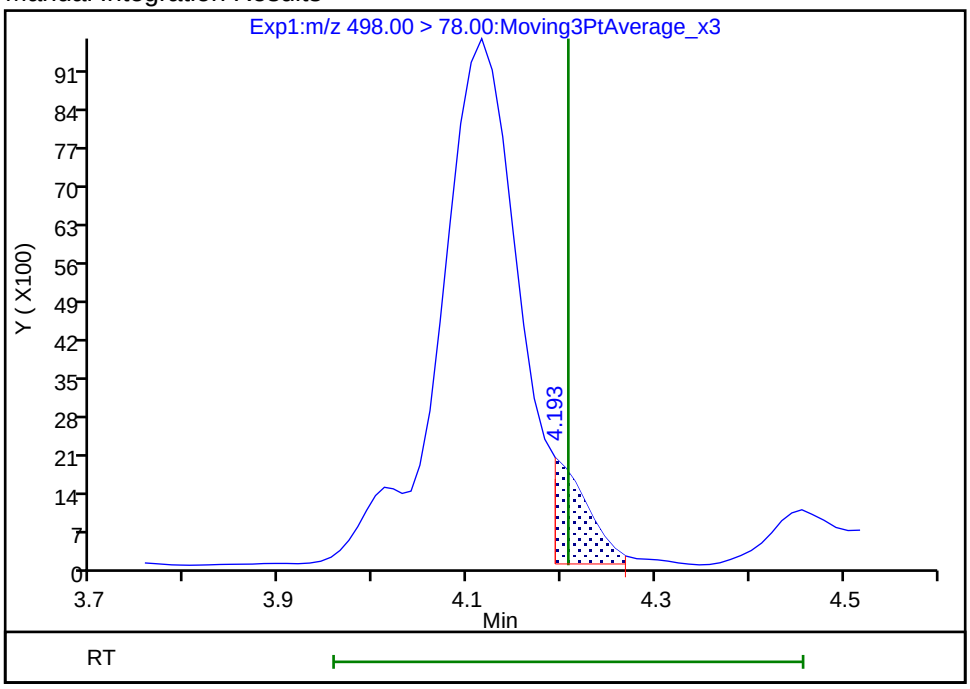
Processing Integration Results

RT: 4.11
Area: 47107
Amount: 0.040610
Amount Units: ng/ml




Manual Integration Results

RT: 4.19
Area: 4467
Amount: 0.003851
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:46:31

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

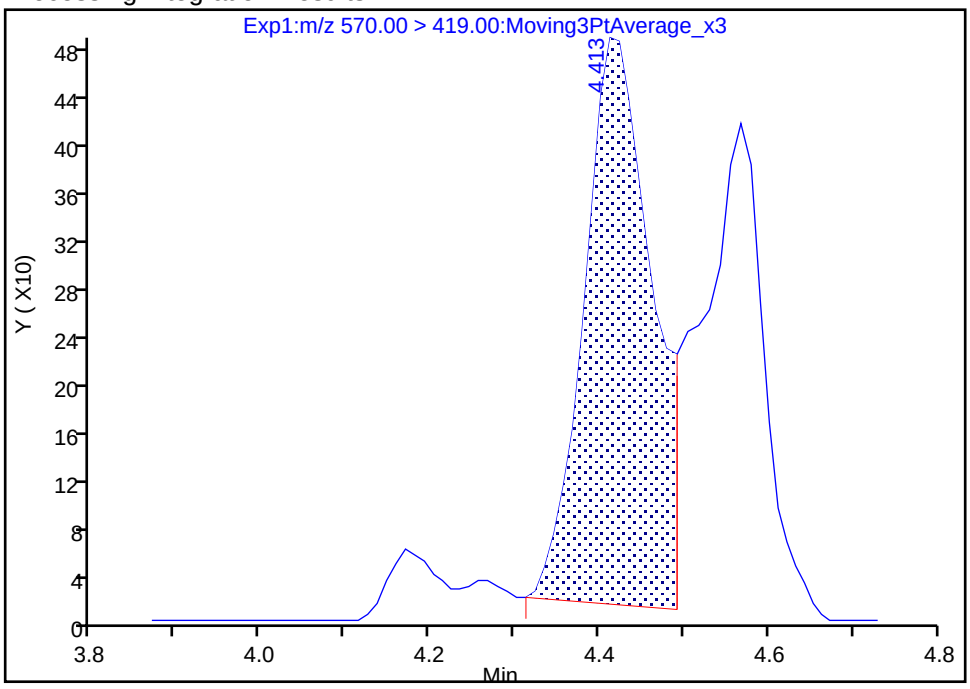
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

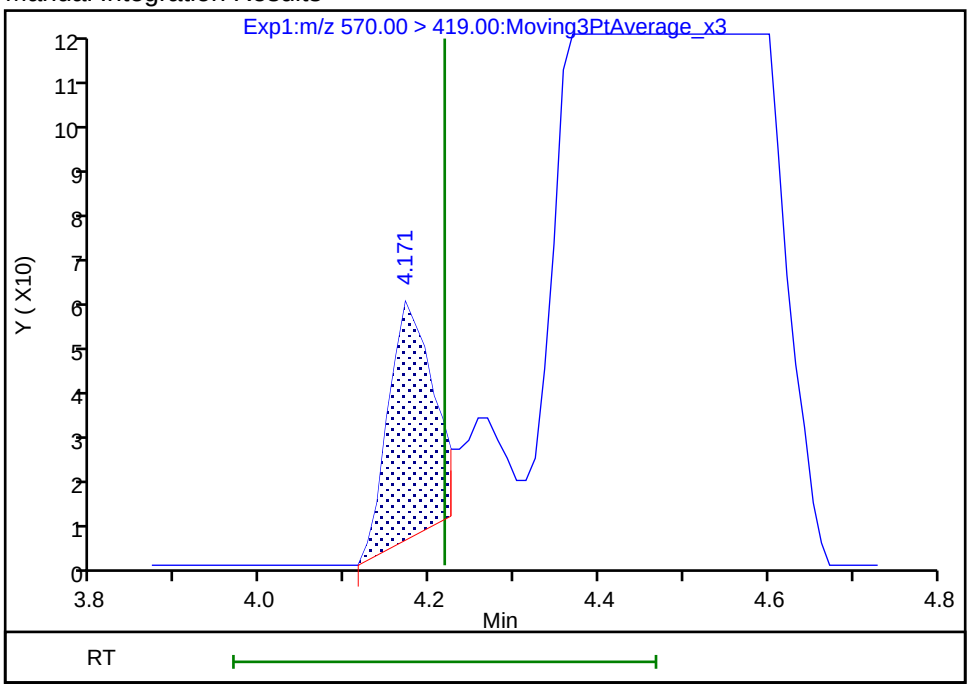
Processing Integration Results

RT: 4.41
Area: 2580
Amount: 0.024154
Amount Units: ng/ml




Manual Integration Results

RT: 4.17
Area: 191
Amount: 0.001804
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:47:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

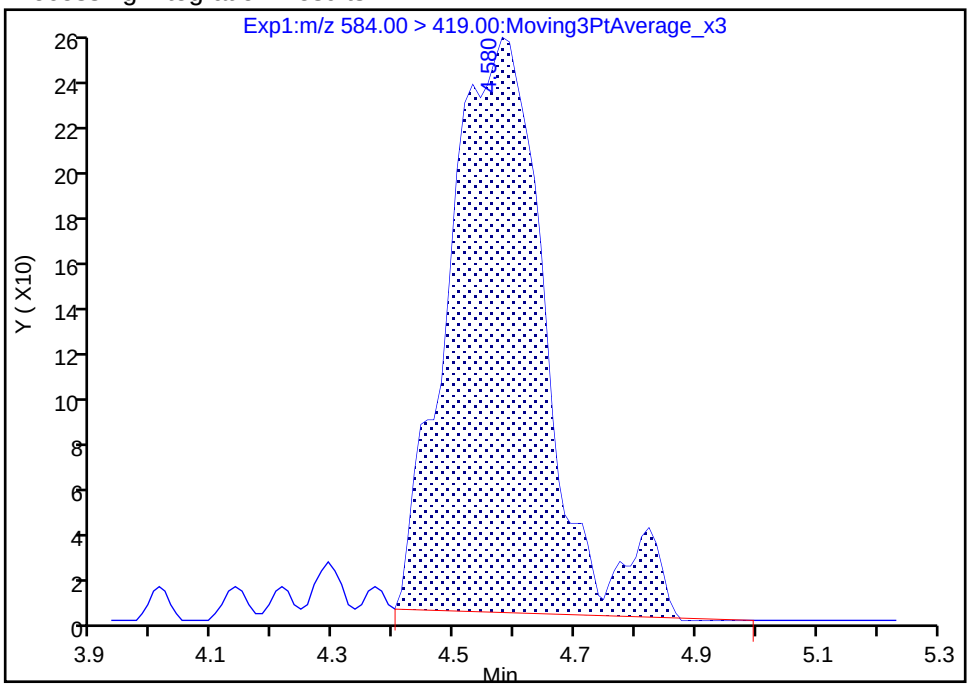
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

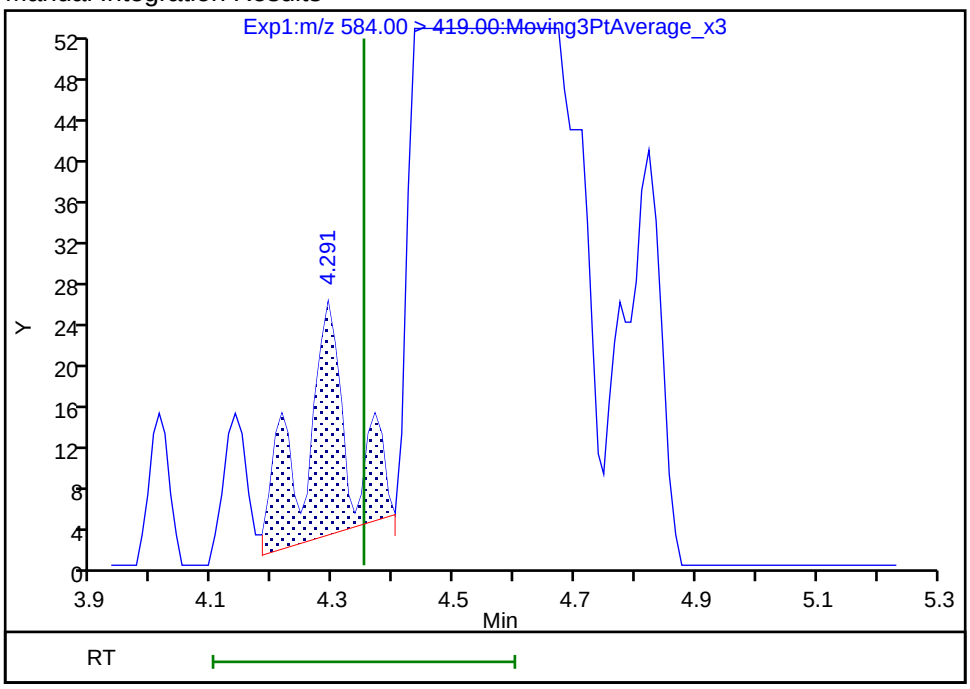
Processing Integration Results

RT: 4.58
Area: 2881
Amount: 0.027294
Amount Units: ng/ml




Manual Integration Results

RT: 4.29
Area: 118
Amount: 0.001118
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:48:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

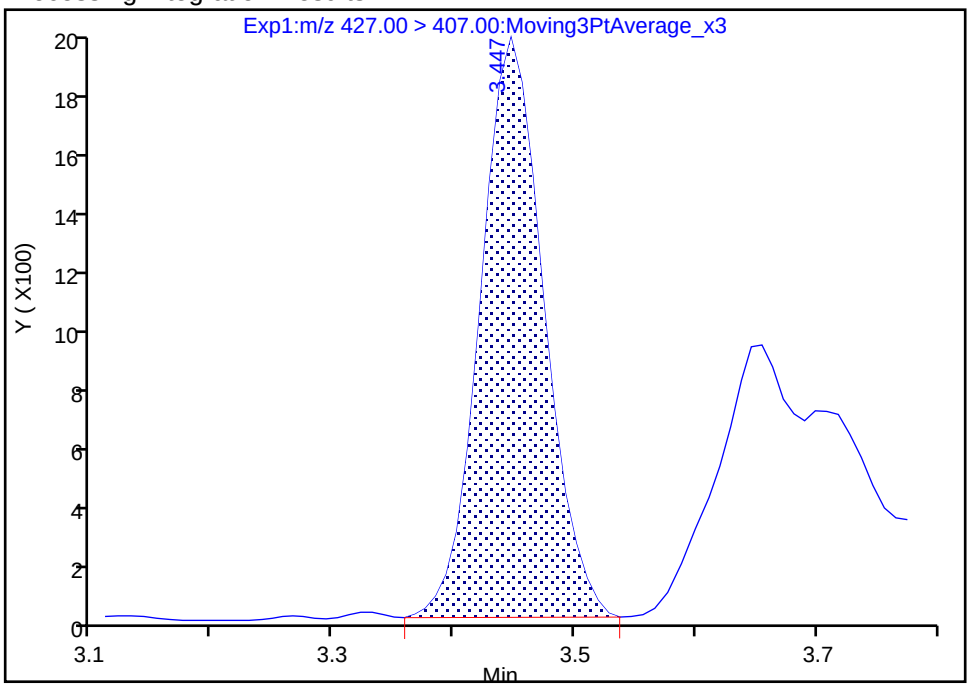
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

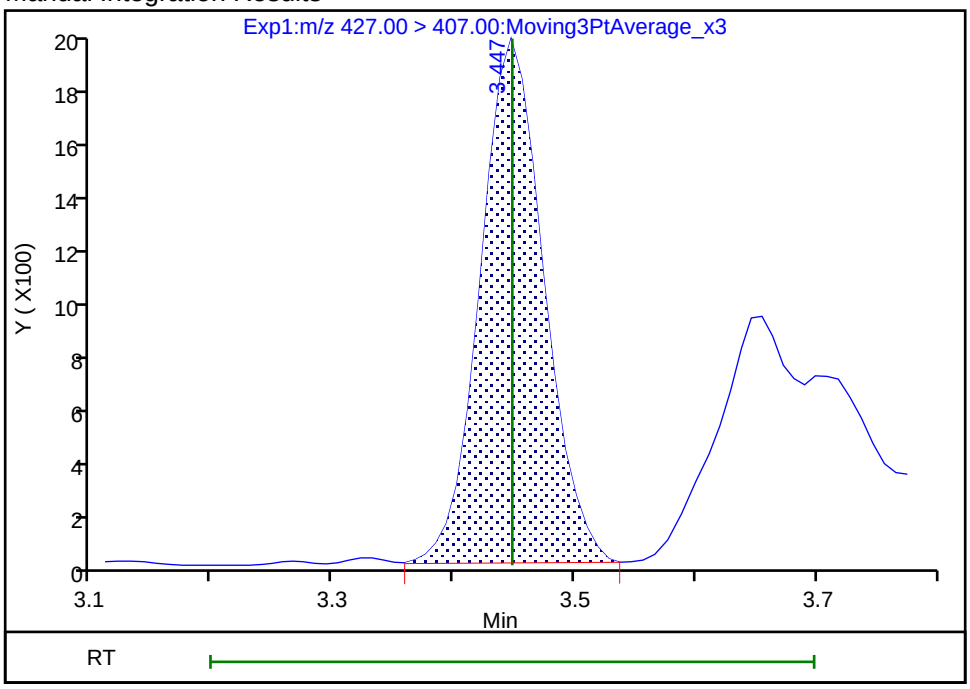
Processing Integration Results

RT: 3.45
Area: 7055
Amount: 0.031513
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 7071
Amount: 0.031585
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:45:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

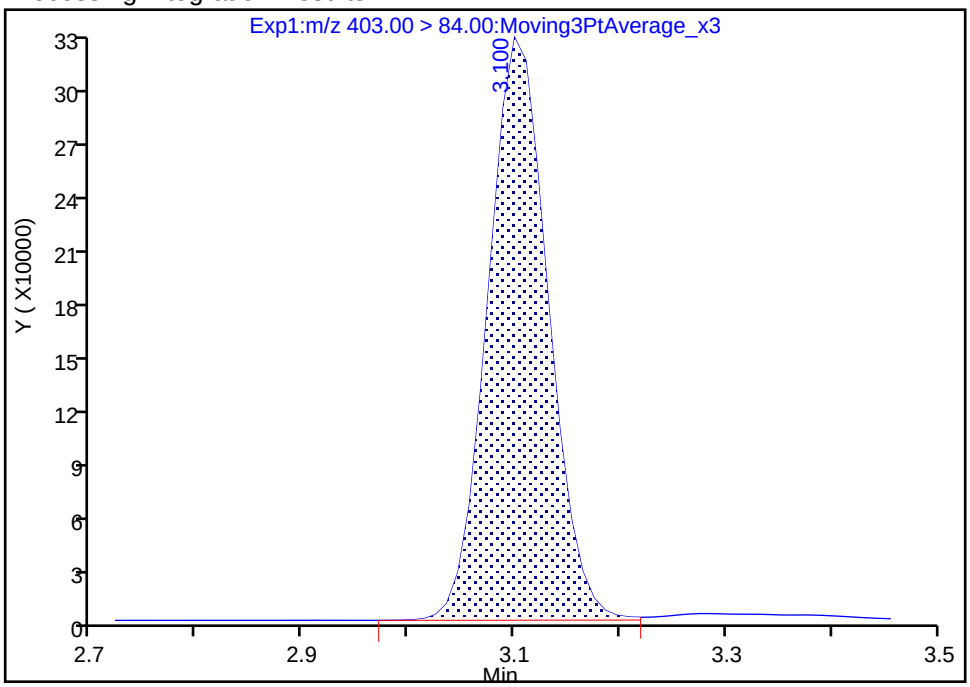
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

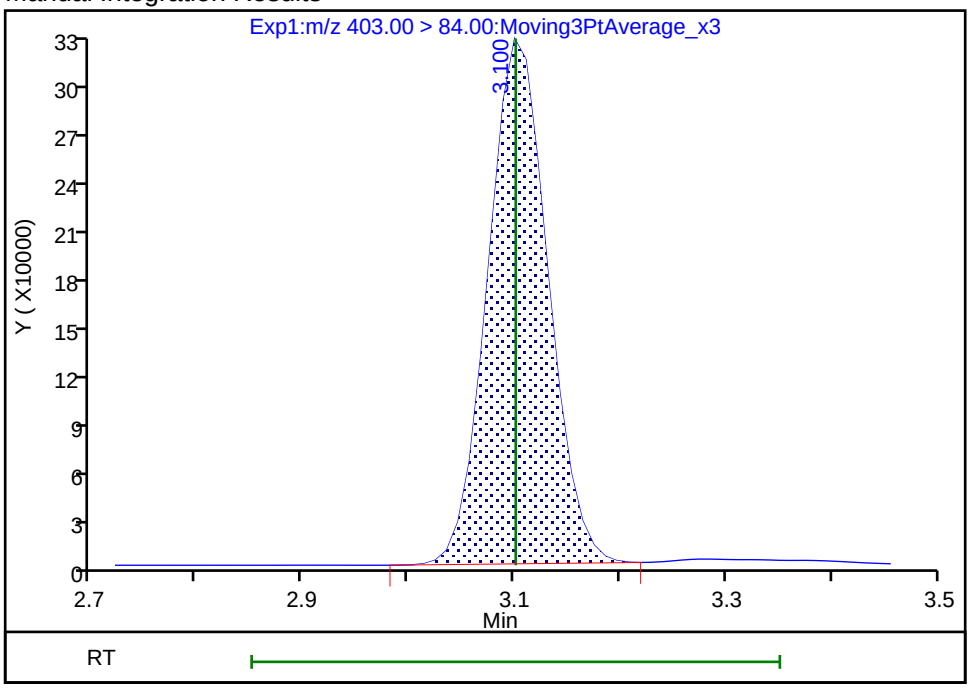
Processing Integration Results

RT: 3.10
Area: 1296569
Amount: 1.286062
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1285570
Amount: 1.275152
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:44:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

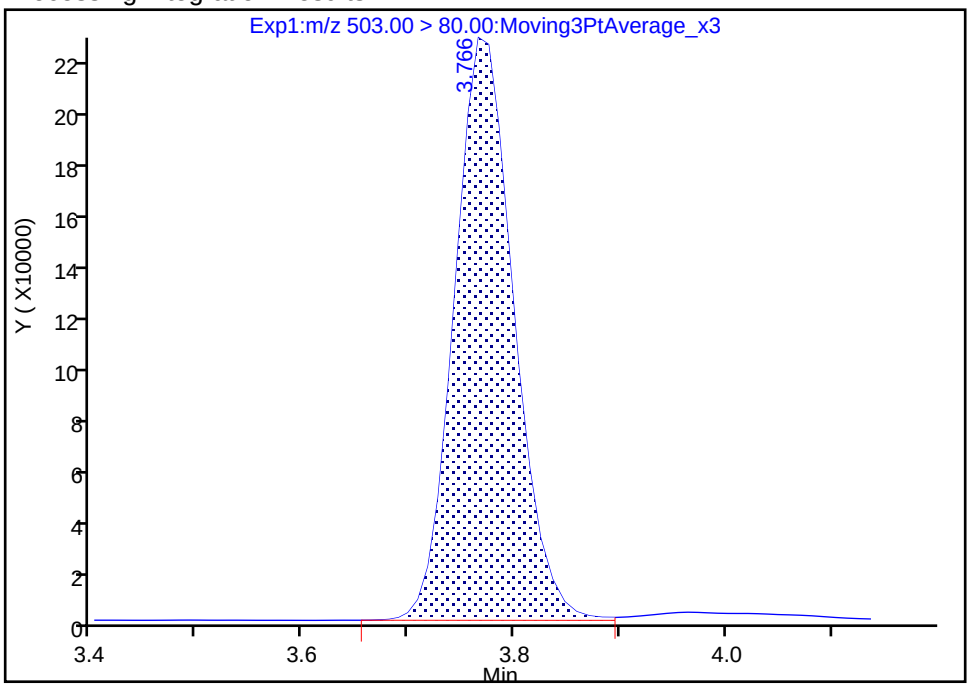
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

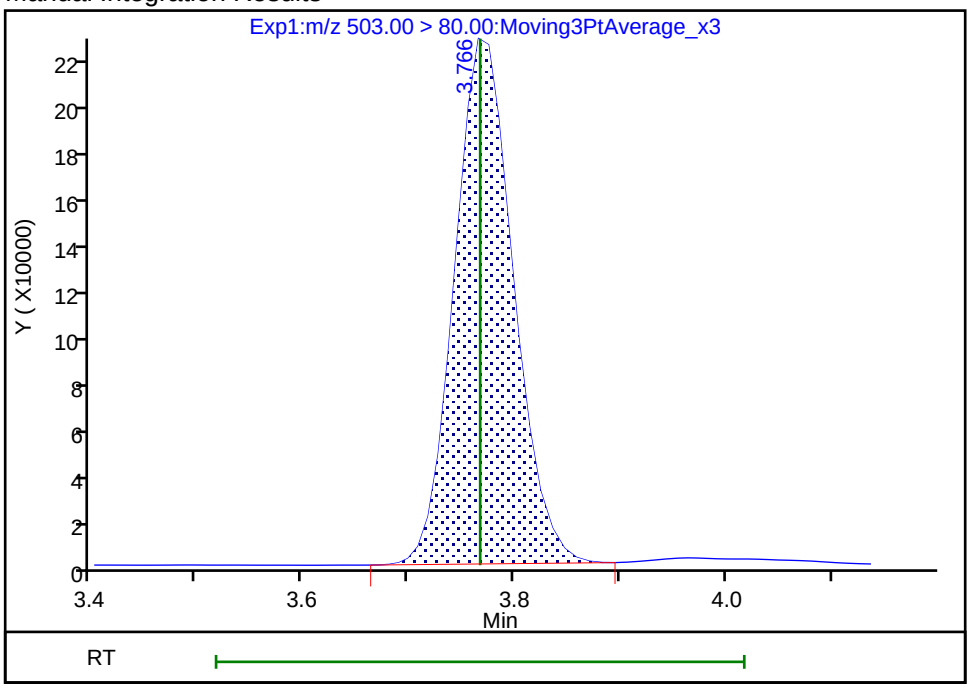
Processing Integration Results

RT: 3.77
Area: 883838
Amount: 1.213113
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 875861
Amount: 1.202164
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:45:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

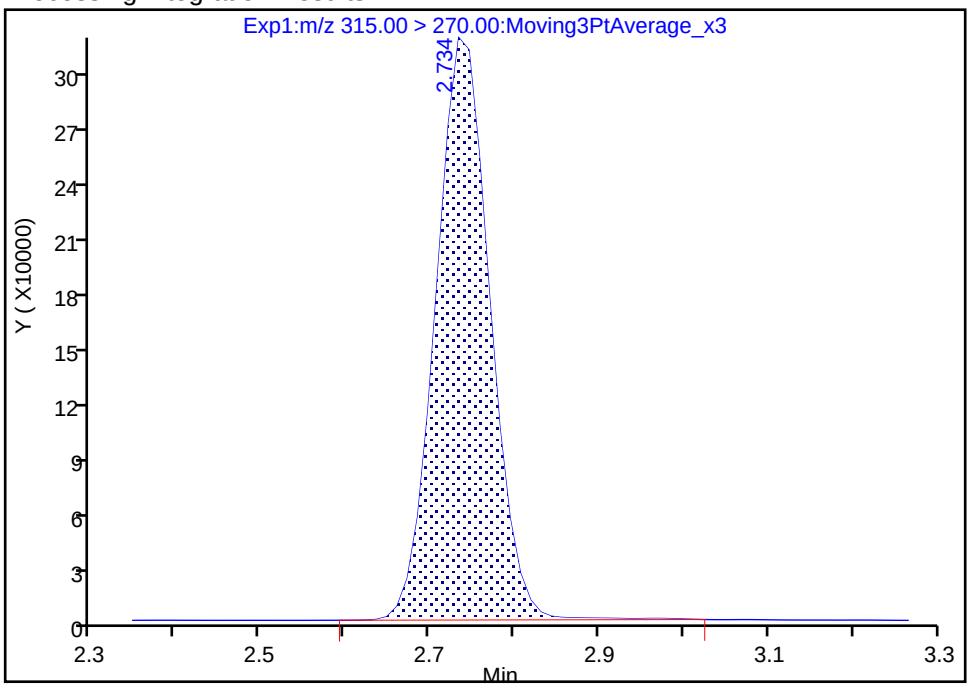
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

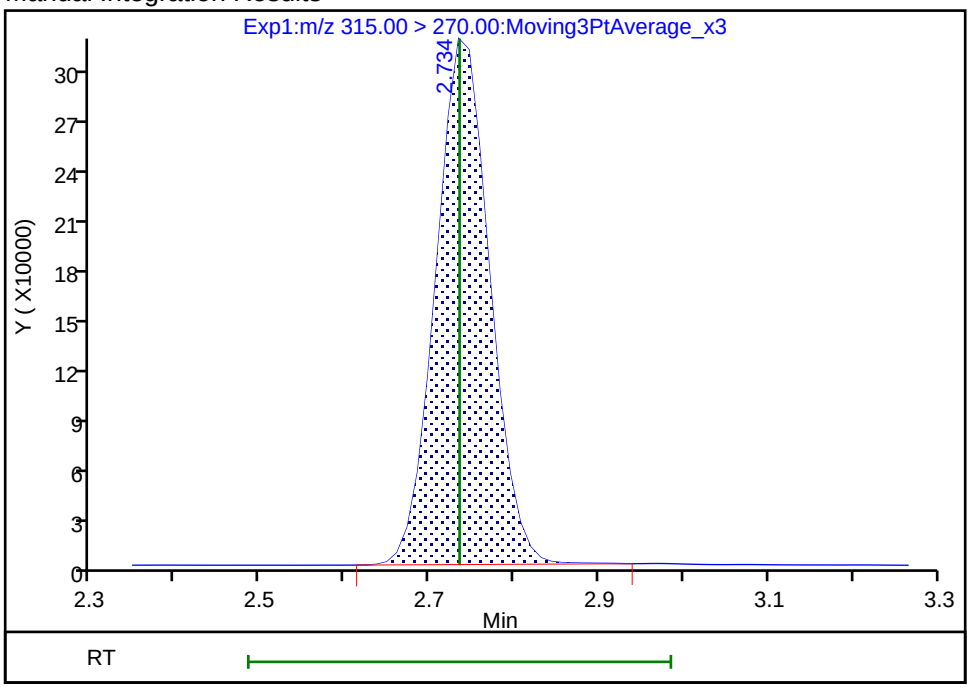
Processing Integration Results

RT: 2.73
Area: 1403996
Amount: 1.304955
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 1396271
Amount: 1.297775
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:43:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

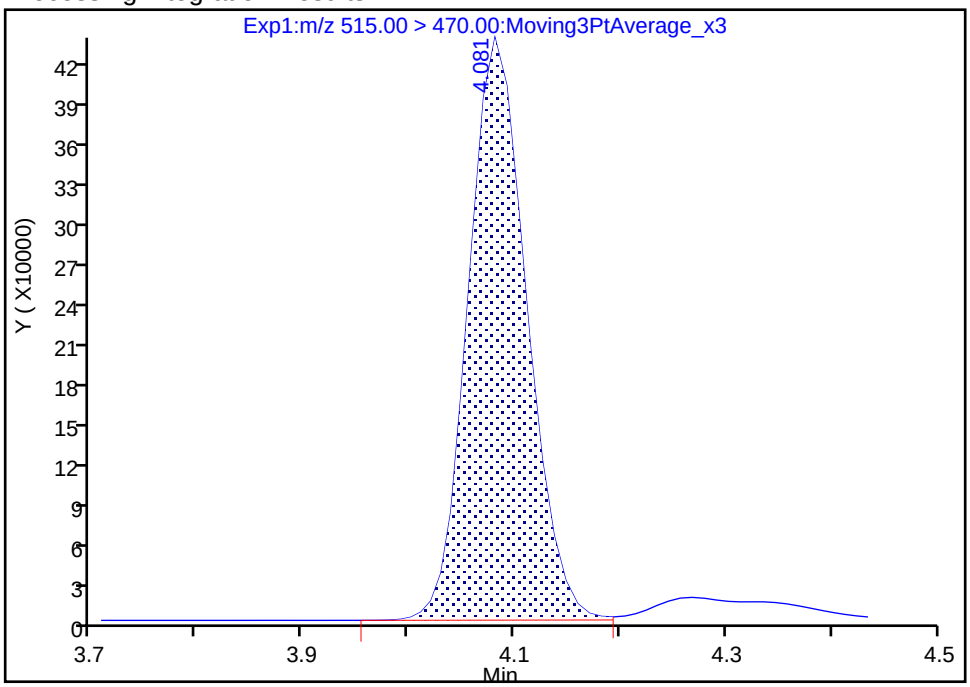
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

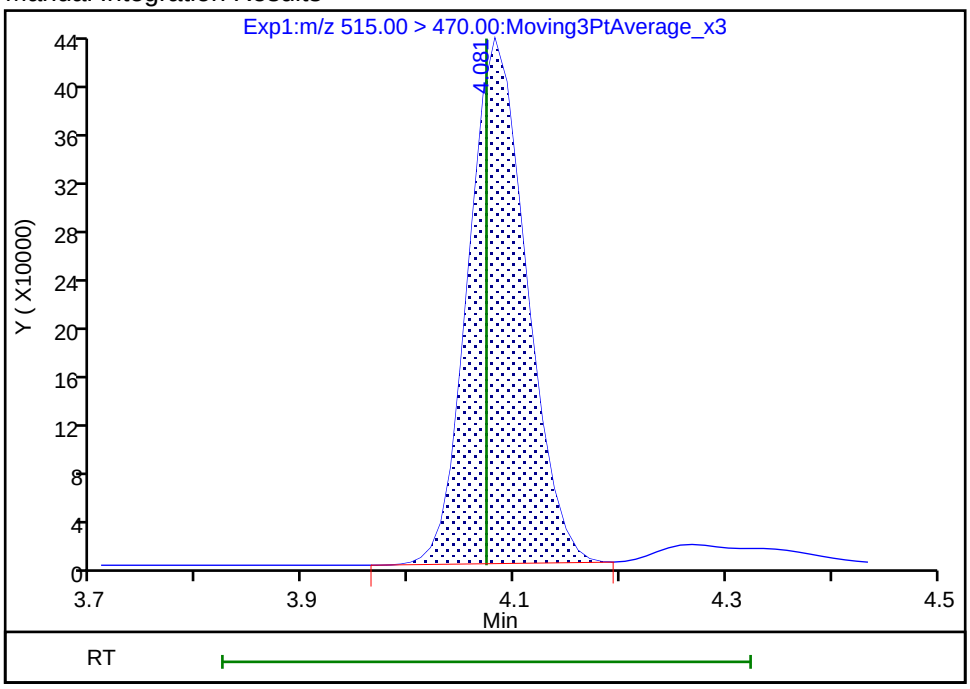
Processing Integration Results

RT: 4.08
Area: 1678408
Amount: 1.349184
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1662741
Amount: 1.336590
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:46:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

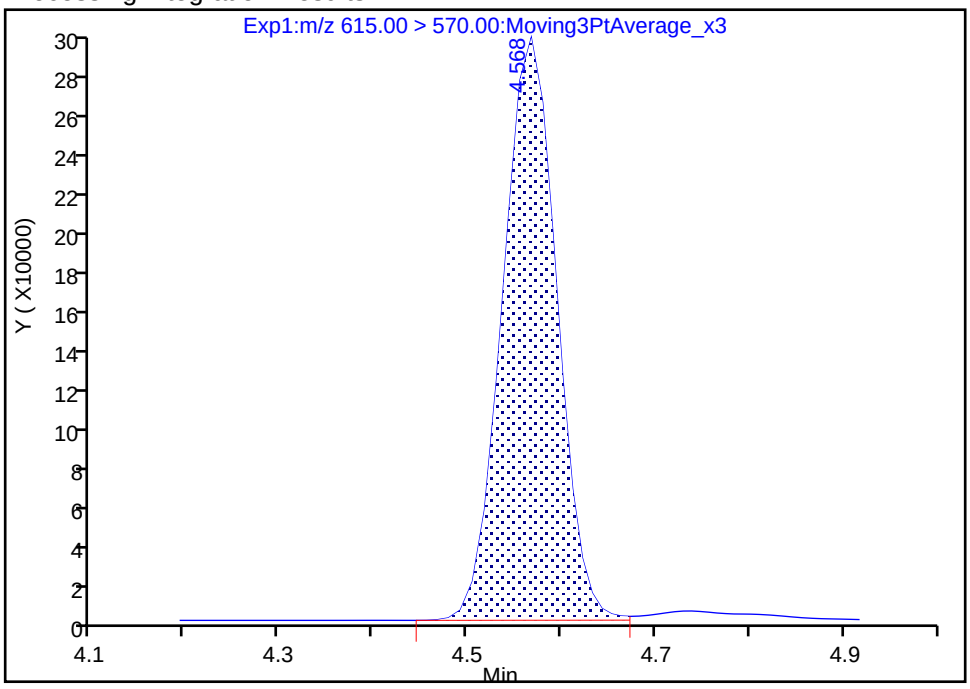
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

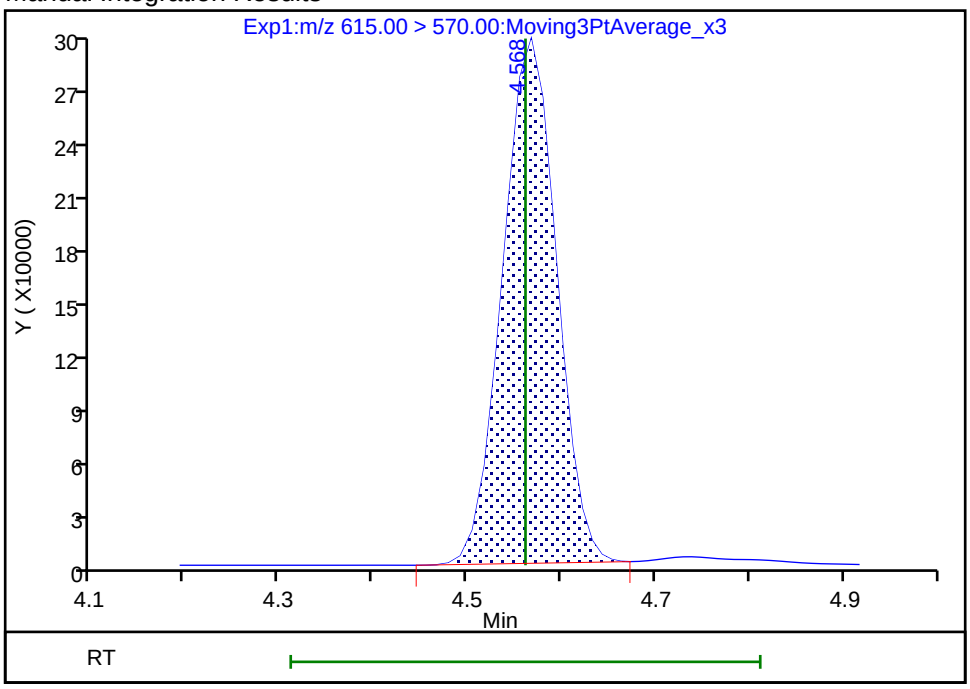
Processing Integration Results

RT: 4.57
Area: 1191285
Amount: 1.142221
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 1178236
Amount: 1.129710
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:47:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

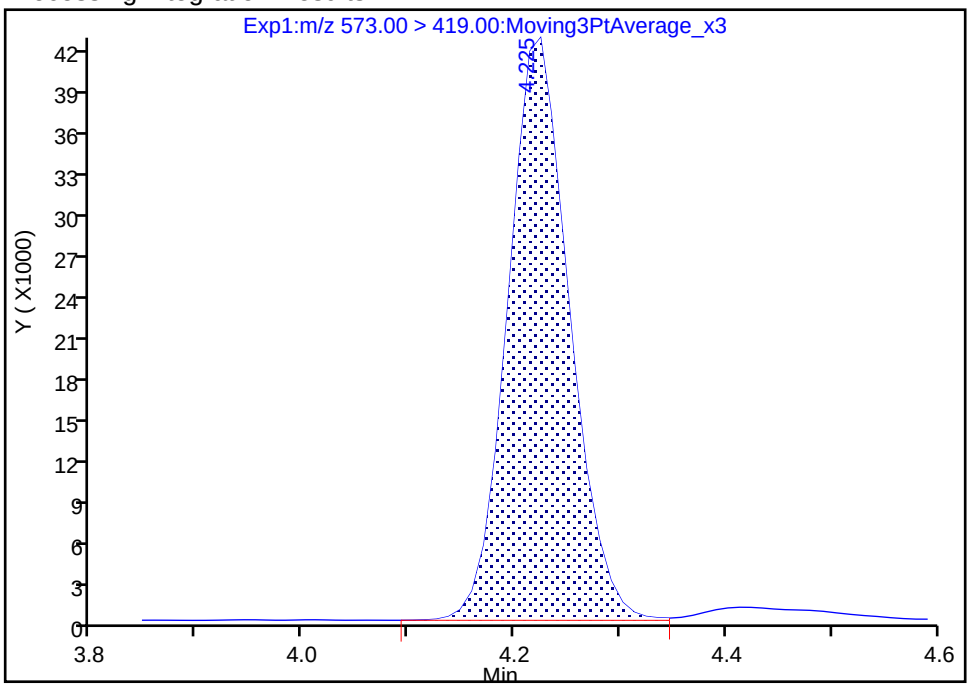
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

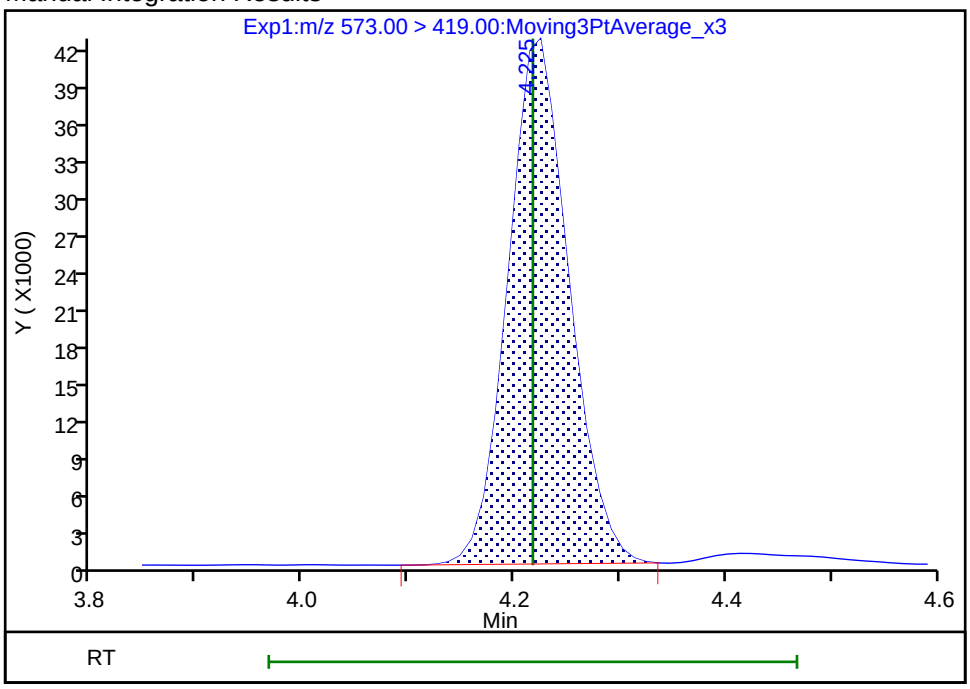
Processing Integration Results

RT: 4.22
Area: 169959
Amount: 1.388952
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 168498
Amount: 1.377012
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:46:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

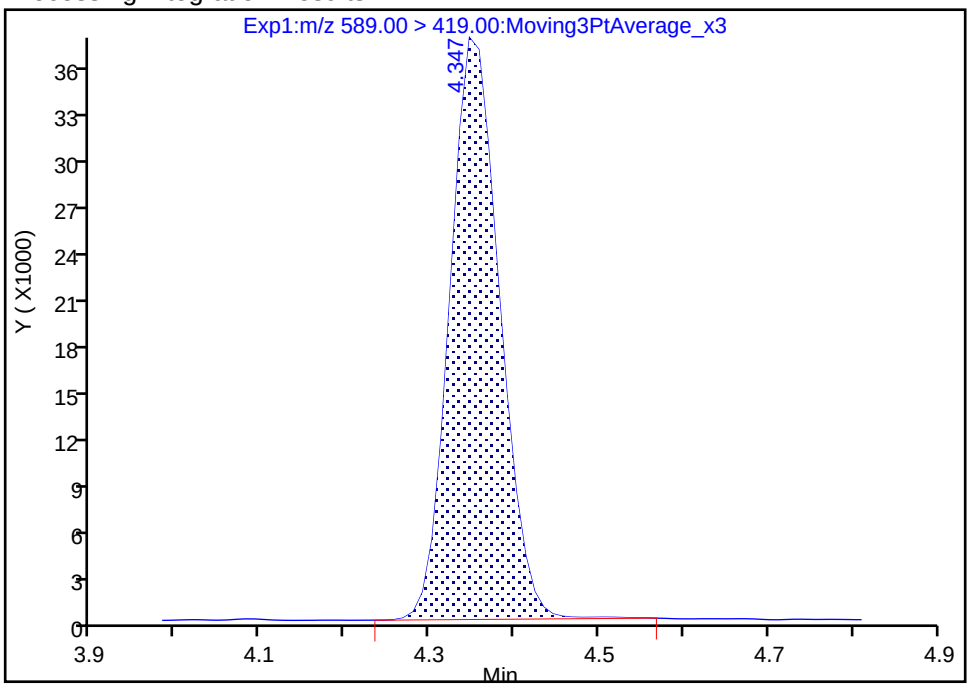
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

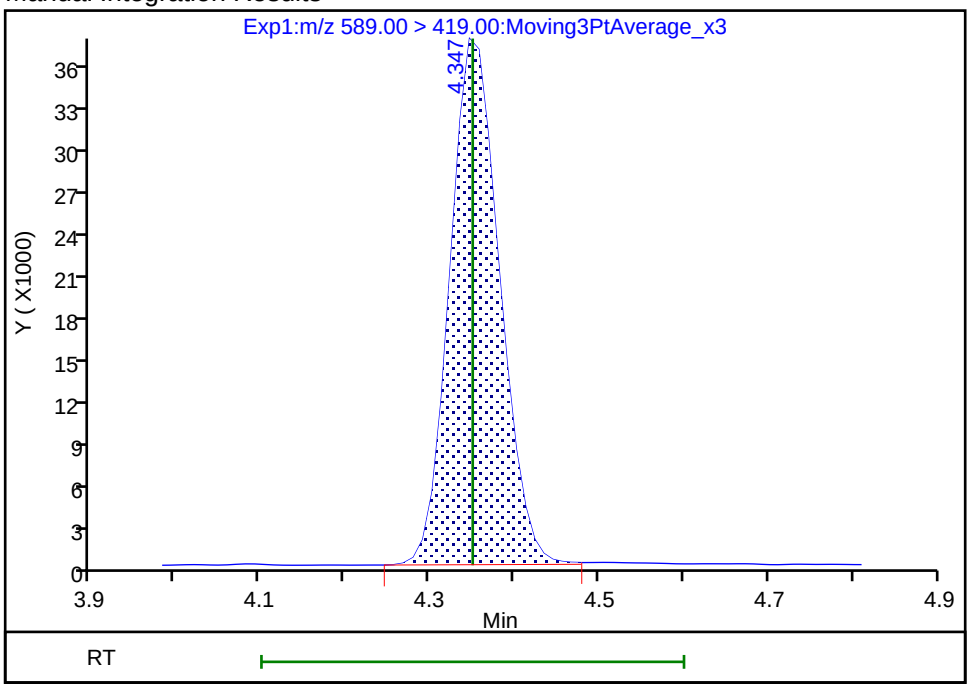
Processing Integration Results

RT: 4.35
Area: 153995
Amount: 1.343531
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 153980
Amount: 1.343400
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:44:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

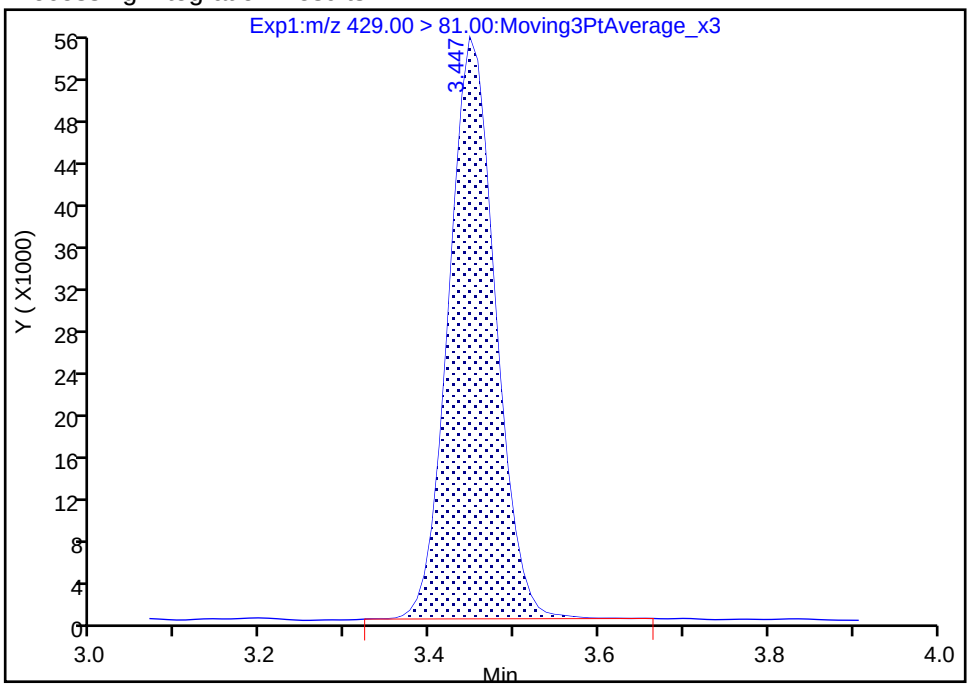
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

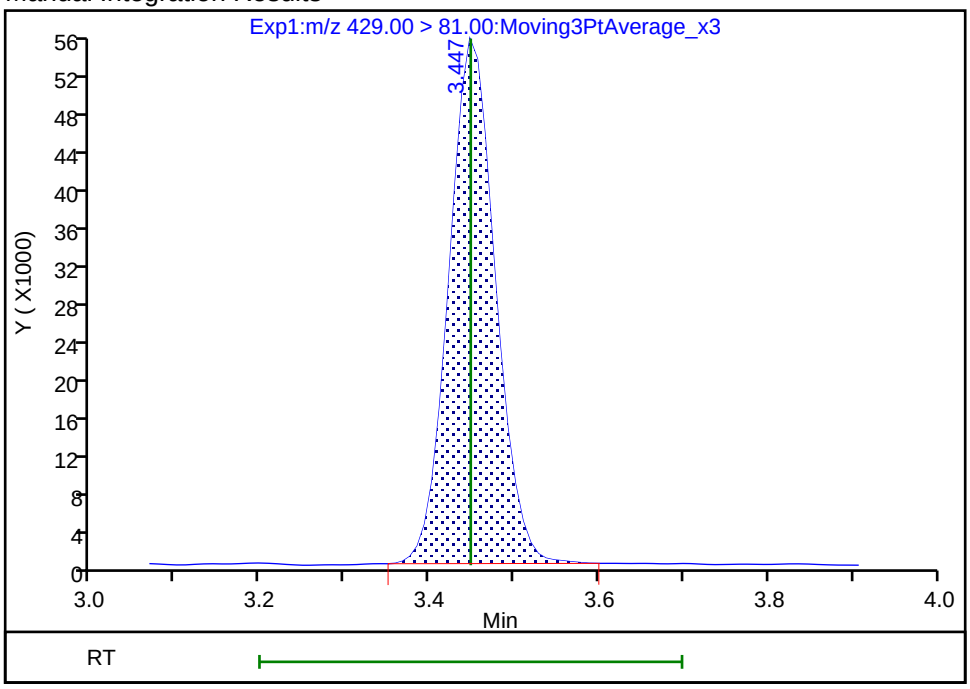
Processing Integration Results

RT: 3.45
Area: 210203
Amount: 1.322093
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 209644
Amount: 1.318577
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:43:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

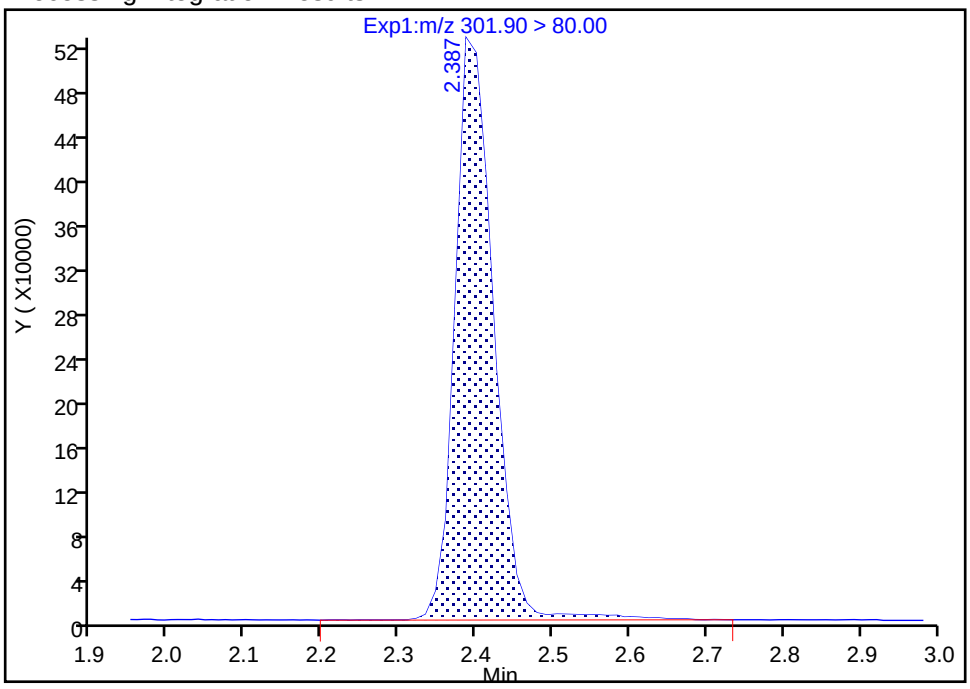
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A16.d | | | | |
| Injection Date: | 03-Nov-2021 14:48:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

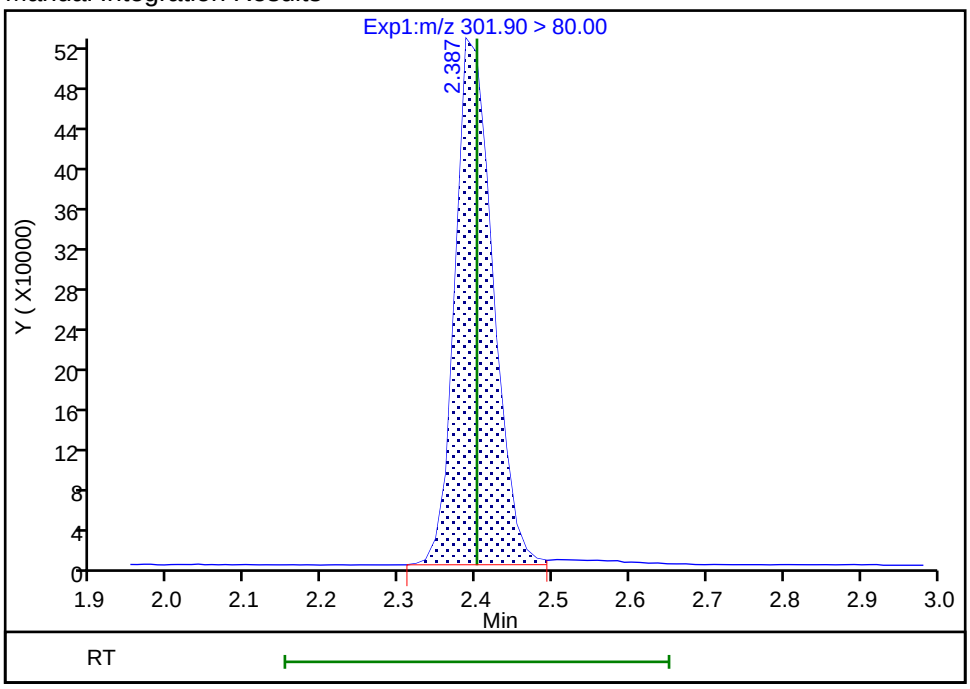
Processing Integration Results

RT: 2.39
Area: 1810659
Amount: 1.304779
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 1771793
Amount: 1.276772
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:43:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MHP-MW-3S-20211027 DL  Lab Sample ID: 460-246027-4 DL

Matrix: Water  Lab File ID: PA211104A07.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:30

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 270.8(mL)  Date Analyzed: 11/04/2021 14:17

Con. Extract Vol.: 10(mL)  Dilution Factor: 5

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

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

Analysis Batch No.: 173511  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 839 | D | 9.23 | 1.34 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00991 | 13C4 PFOS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A07.d
Lims ID: 460-246027-A-4-A
Client ID: MHP-MW-3S-20211027
Sample Type: Client
Inject. Date: 04-Nov-2021 14:17:26 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 5.0000
Sample Info: 460-246027-A-4-A
Misc. Info.: 200-0048291-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: khanphomeea Date: 05-Nov-2021 11:52:36
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.089 | 2.082 | 0.007 | 0.597 | 370797 | 0.2633 | | 105 | 2212 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.089 | 2.082 | 0.007 | 1.000 | 88942 | 0.0634 | | | 10.1 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.411 | 2.401 | 0.010 | 0.689 | 303662 | 0.2560 | | 102 | 772 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.411 | 2.401 | 0.010 | 1.000 | 100019 | 0.0822 | | | 3.8 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.424 | 2.427 | -0.003 | 0.692 | 341758 | 0.2129 | | 91.6 | 20716 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.437 | 2.427 | 0.010 | 1.005 | 50113 | 0.0319 | Target=2.32 | | 17.3 | |
| 298.90 > 99.00 | 2.424 | 2.427 | -0.003 | 1.000 | 21467 | | 2.33(1.16-3.48) | | 7.1 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.768 | 2.759 | 0.009 | 0.791 | 332570 | 0.2673 | | 107 | 777 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.768 | 2.771 | -0.003 | 1.000 | 168712 | 0.1251 | Target=12.09 | | 16.5 | |
| 313.00 > 119.00 | 2.768 | 2.771 | -0.003 | 1.000 | 10811 | | 15.61(6.04-18.13) | | 18.4 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.133 | 0.010 | 0.898 | 268443 | 0.2302 | | 97.3 | 184 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.143 | 3.133 | 0.010 | 1.000 | 621944 | 0.4984 | Target=3.55 | | 284 | |
| 399.00 > 99.00 | 3.143 | 3.133 | 0.010 | 1.000 | 171336 | | 3.63(1.77-5.32) | | 183 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.898 | 349153 | 0.2665 | | 107 | 1316 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.144 | -0.001 | 1.000 | 52225 | 0.0362 | Target=3.69 | | 11.8 | |
| 363.00 > 169.00 | 3.143 | 3.144 | -0.001 | 1.000 | 12936 | | 4.04(1.84-5.53) | | 21.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1915 | 0.007058 | | | 2.5 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.492 | 3.484 | 0.008 | 0.916 | 9096 | 0.009356 | Target=4.88 | | 5.5 | |
| 449.00 > 99.00 | 3.492 | 3.484 | 0.008 | 0.916 | 2389 | | 3.81(2.44-7.32) | | 5.0 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.492 | 3.484 | 0.008 | 0.997 | 50813 | 0.2763 | | 116 | 36.4 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.501 | 3.493 | 0.008 | 1.000 | 368338 | 0.2574 | | 103 | 658 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.501 | 3.493 | 0.008 | | 347756 | 0.2500 | | | 149 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.501 | 3.493 | 0.008 | 1.000 | 74839 | 0.0478 | Target=2.68 | | 8.0 | |
| 413.00 > 169.00 | 3.501 | 3.493 | 0.008 | 1.000 | 33407 | | 2.24(1.34-4.02) | | 21.7 | |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.814 | 3.806 | 0.008 | 1.089 | 186394 | 0.2212 | | 92.6 | 132 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.814 | 3.806 | 0.008 | 1.000 | 3844570 | 4.54 | Target=4.69 | | 1322 | M |
| 499.00 > 99.00 | 3.814 | 3.806 | 0.008 | 1.000 | 921113 | | 4.17(2.35-7.04) | | 1371 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.836 | 3.826 | 0.010 | 1.096 | 356811 | 0.2503 | | 100 | 1333 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.118 | 0.008 | 1.179 | 309406 | 0.2150 | | 86.0 | 28.9 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.358 | 4.118 | 0.240 | 1.056 | 35404 | 0.0285 | Target=8.95 | | 10.9 | |
| 513.00 > 169.00 | 4.347 | 4.118 | 0.229 | 1.053 | 4475 | | 7.91(4.47-13.42) | | 9.0 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.138 | 4.129 | 0.009 | 1.182 | 80416 | 0.3858 | | 161 | 39.8 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.227 | 0.008 | 1.210 | 298371 | 0.2150 | | 86.0 | 246 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.138 | 4.227 | -0.089 | 0.977 | 10160 | 0.008964 | | | 15.4 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.268 | 4.260 | 0.008 | 1.219 | 47821 | 0.3379 | | 135 | 62.9 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.268 | 4.260 | 0.008 | 1.000 | 2150 | 0.0143 | | | 3.1 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.373 | 0.007 | 1.251 | 230389 | 0.2055 | | 82.2 | 180 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.384 | 0.007 | 1.254 | 45176 | 0.3408 | | 136 | 227 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.402 | 4.395 | 0.007 | 1.003 | 5185 | 0.0335 | | | 17.3 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.611 | 4.595 | 0.016 | 1.317 | 250636 | 0.2078 | | 83.1 | 87.4 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.810 | 4.797 | 0.013 | 1.043 | 2245 | 0.002653 | Target=4.68 | | 1.7 | |
| 663.00 > 169.00 | 4.810 | 4.797 | 0.013 | 1.043 | 744 | | 3.02(2.34-7.02) | | 10.1 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.979 | 0.006 | 1.424 | 211157 | 0.2257 | | 90.3 | 601 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | R |
| 713.00 > 169.00 | 4.985 | 4.979 | 0.006 | 1.000 | 493 | 0.003698 | Target=1.01 | | 20.4 | R |
| 713.00 > 219.00 | 4.975 | 4.979 | -0.004 | 0.998 | 250 | | 1.97(0.51-1.52) | | 6.4 | |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 08-Nov-2021 11:22:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A07.d

Injection Date: 04-Nov-2021 14:17:26 Instrument ID: LC812

Lims ID: 460-246027-A-4-A Lab Sample ID: 200-246027-4

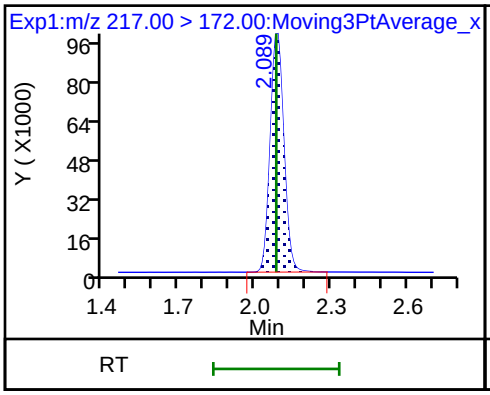
Client ID: MHP-MW-3S-20211027

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7

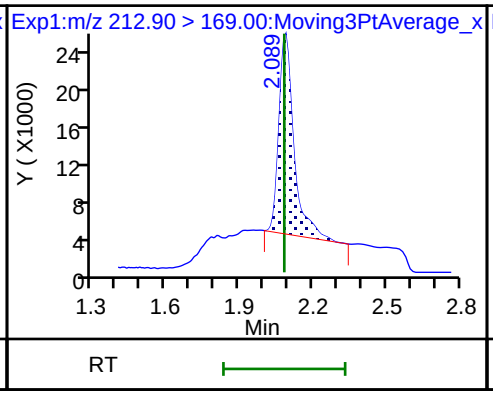
Injection Vol: 20.0 ul Dil. Factor: 5.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

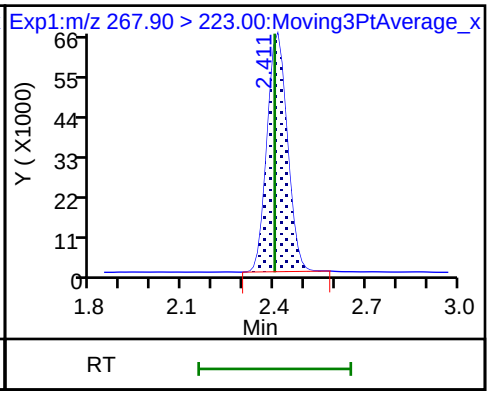
D 1 13C4 PFBA



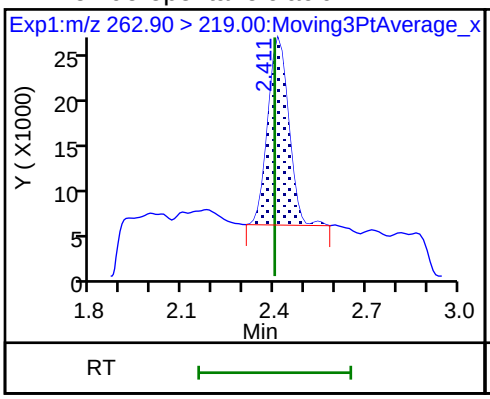

2 Perfluorobutanoic acid



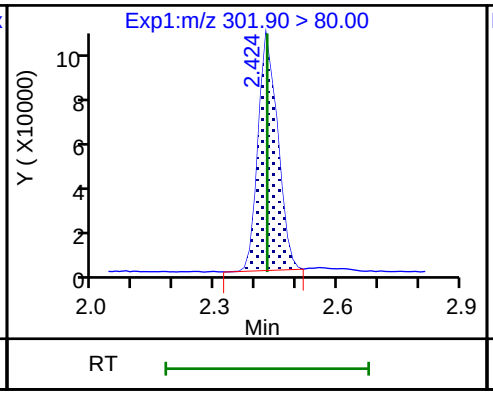

D 3 13C5 PFPeA



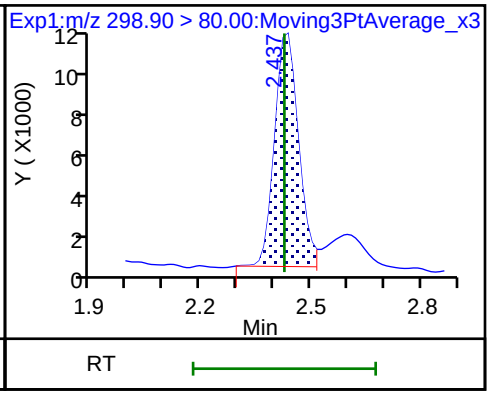

4 Perfluoropentanoic acid



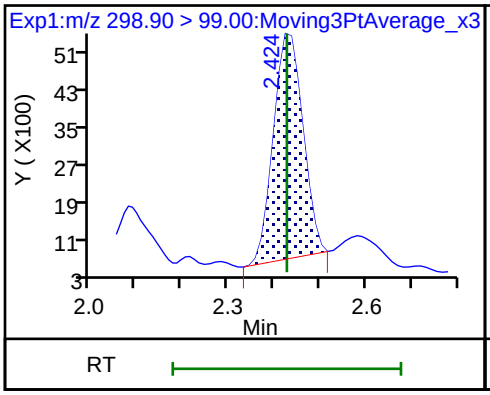

D 47 13C3 PFBS



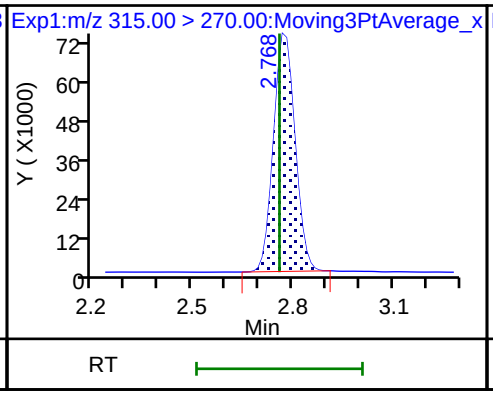

5 Perfluorobutanesulfonic acid



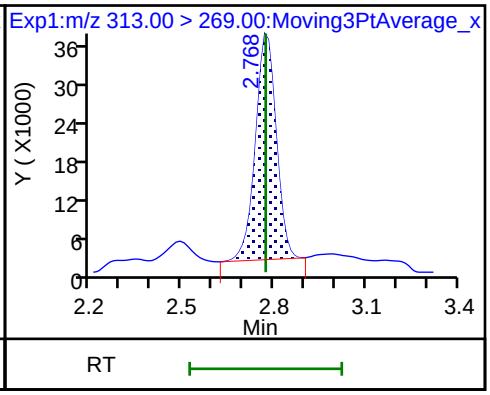

5 Perfluorobutanesulfonic acid



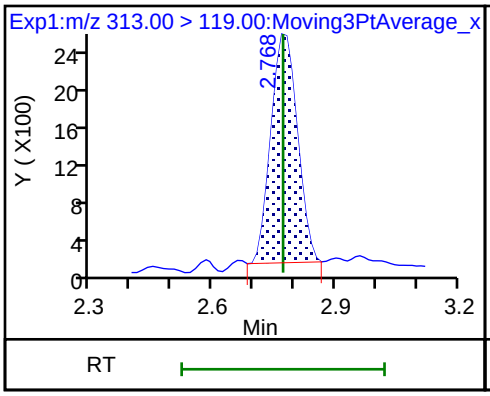

D 7 13C2 PFHxA



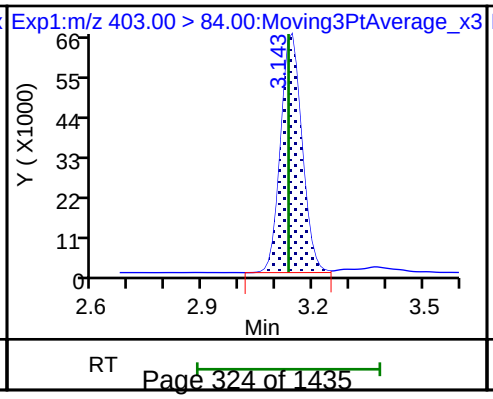

6 Perfluorohexanoic acid



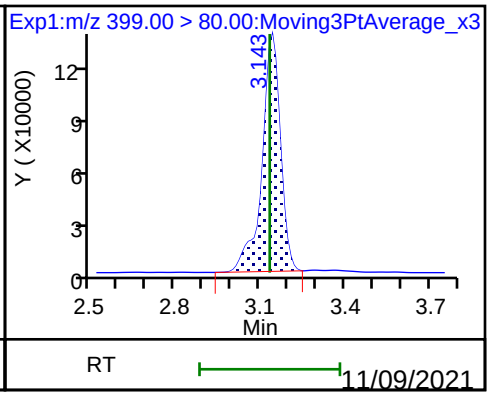

6 Perfluorohexanoic acid



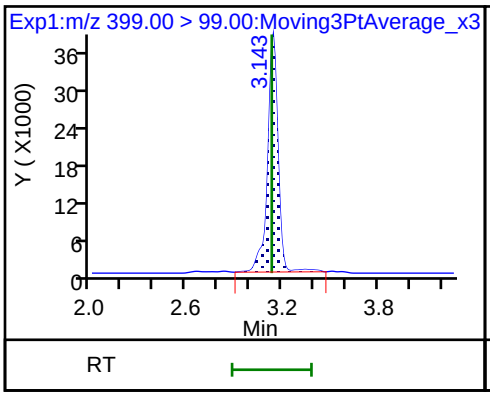

D 11 18O2 PFHxS



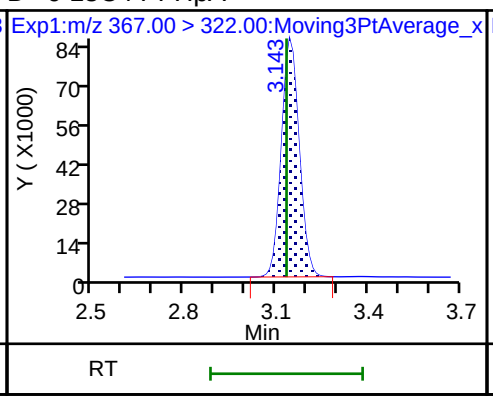

8 Perfluorohexanesulfonic acid



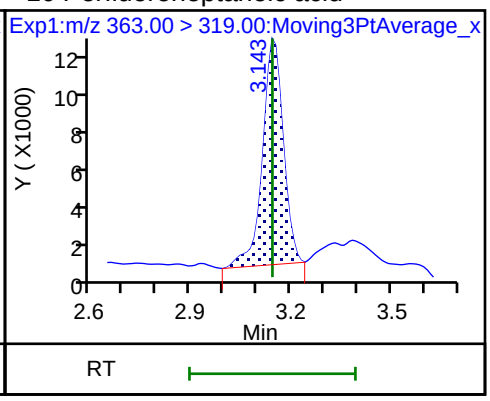
8 Perfluorohexanesulfonic acid



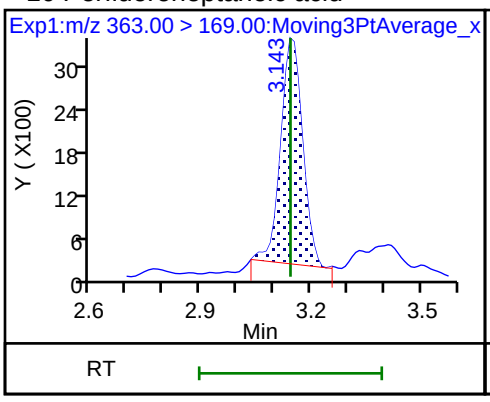

D 9 13C4 PFHpA



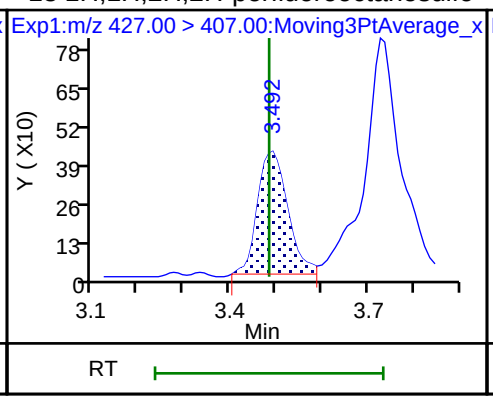

10 Perfluoroheptanoic acid



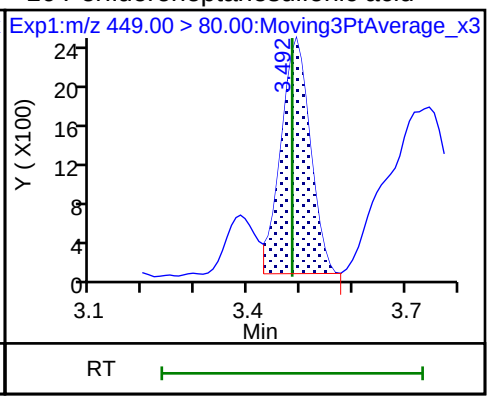

10 Perfluoroheptanoic acid



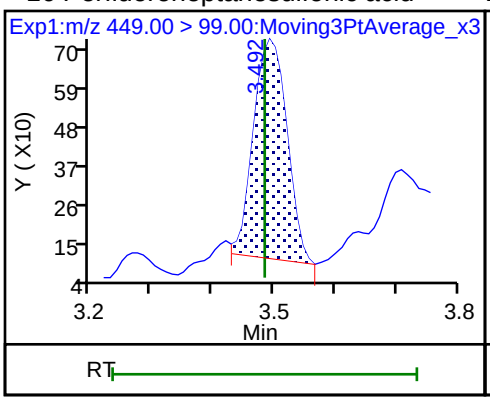

13 1H,1H,2H,2H-perfluorooctanesulfo



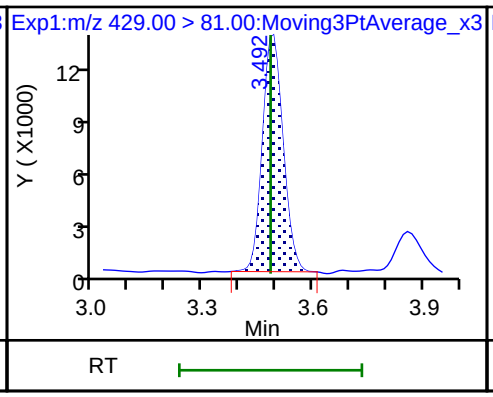

16 Perfluoroheptanesulfonic acid



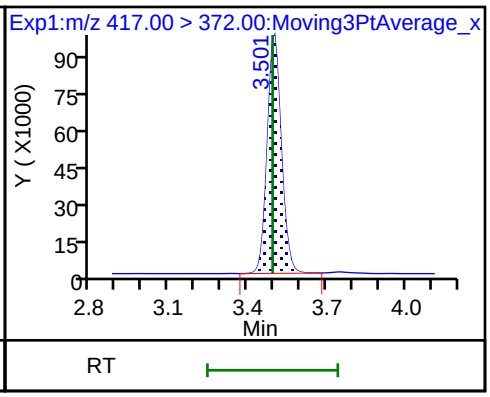

16 Perfluoroheptanesulfonic acid



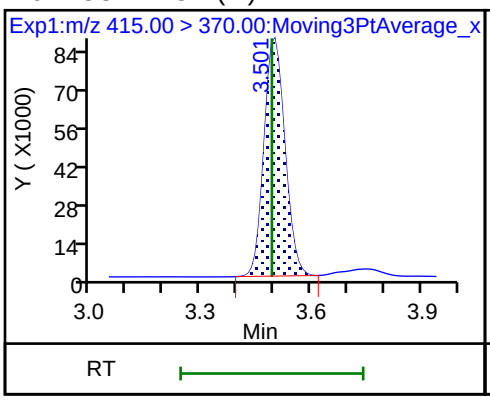

D 12 M2-6:2 FTS



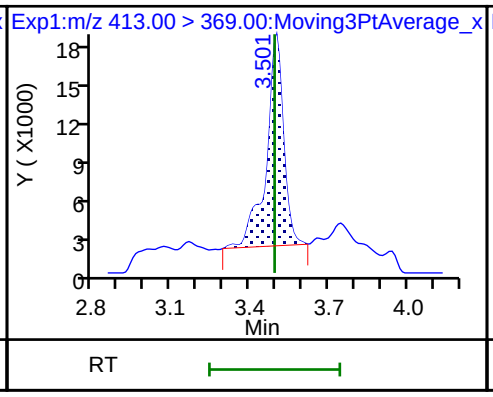

D 14 13C4 PFOA



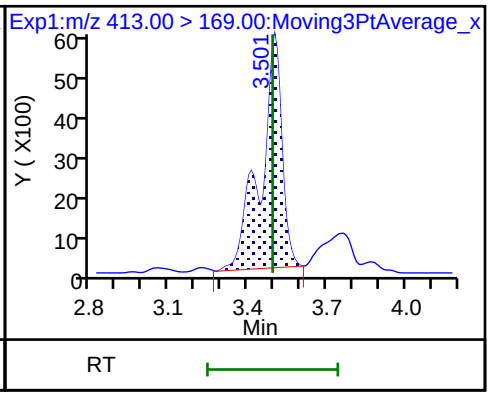

* 62 13C2 PFOA (M)



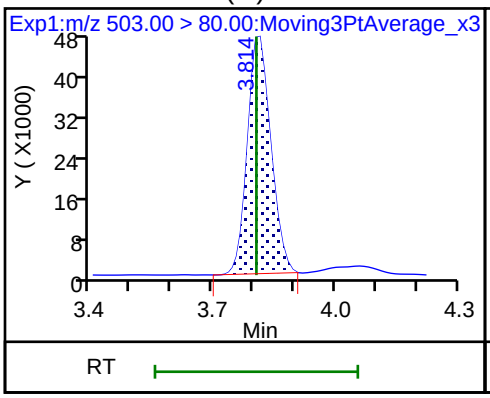

15 Perfluorooctanoic acid



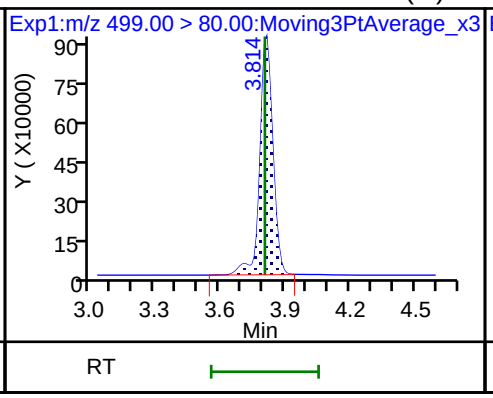

15 Perfluorooctanoic acid



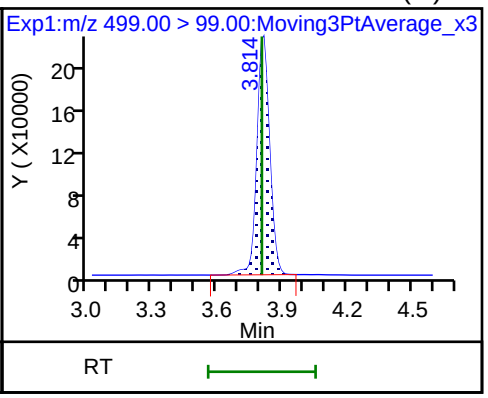
D 18 13C4 PFOS (M)



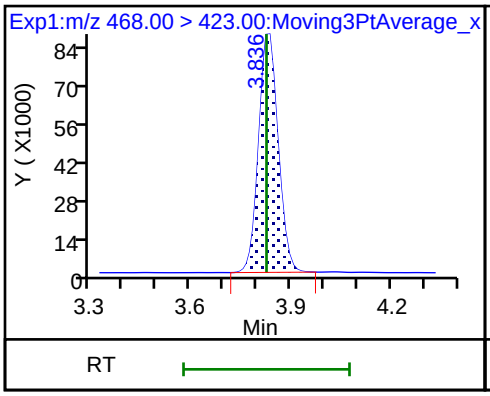

17 Perfluorooctanesulfonic acid (M)



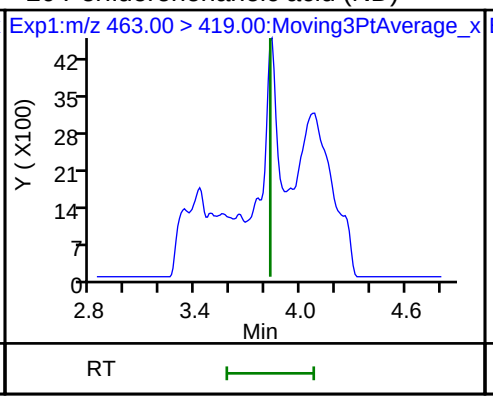

17 Perfluorooctanesulfonic acid (M)



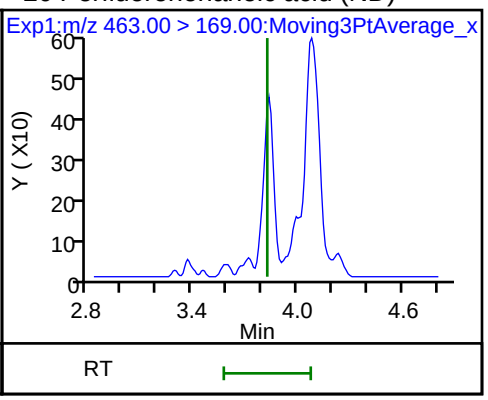

D 19 13C5 PFNA



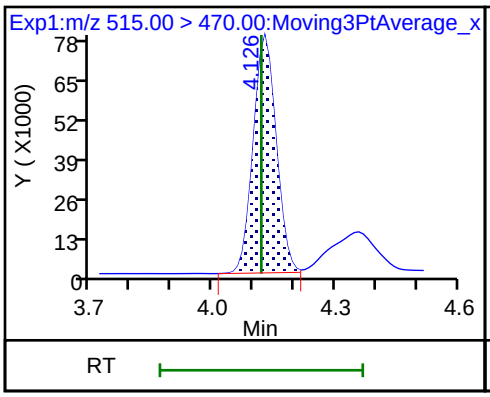

20 Perfluorononanoic acid (ND)



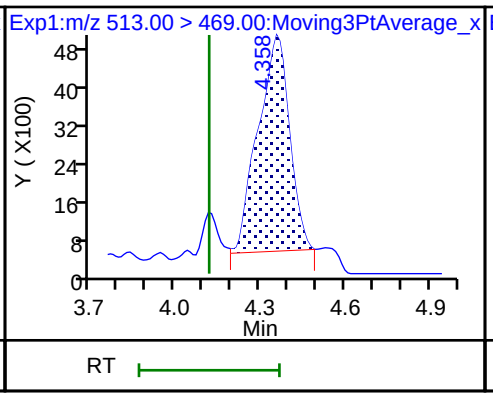

20 Perfluorononanoic acid (ND)



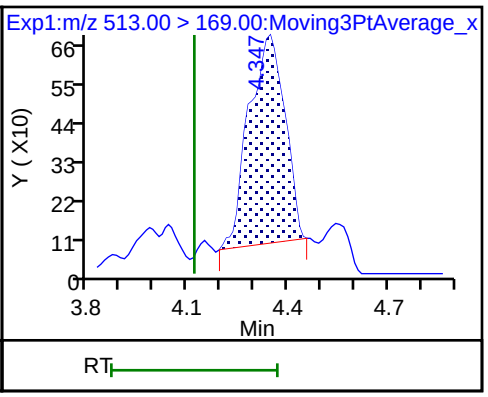

D 23 13C2 PFDA



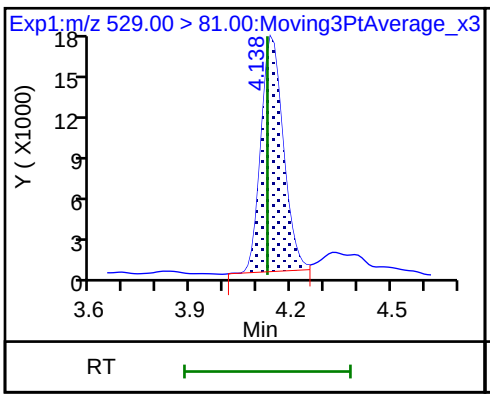

24 Perfluorodecanoic acid



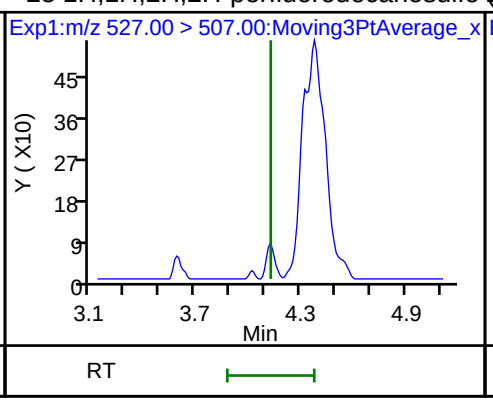

24 Perfluorodecanoic acid



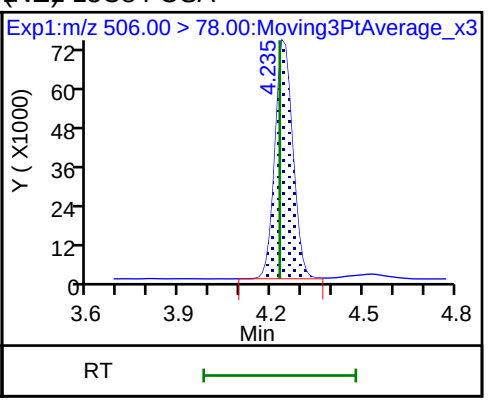

D 26 M2-8:2 FTS



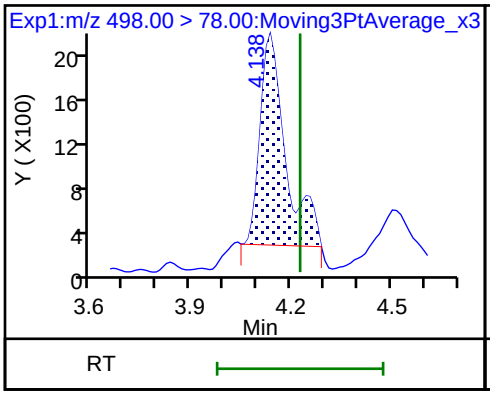

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



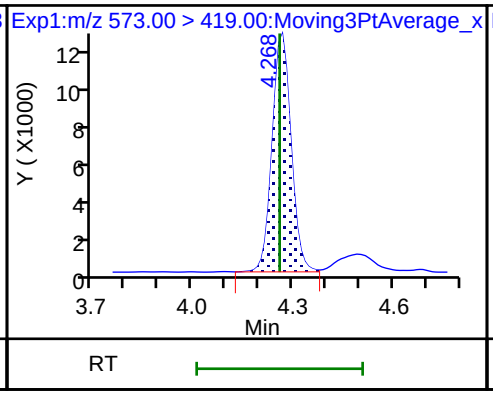

D 21 13C8 FOSA



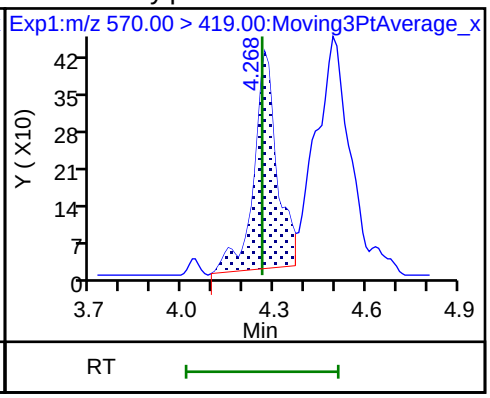
22 Perfluorooctanesulfonamide



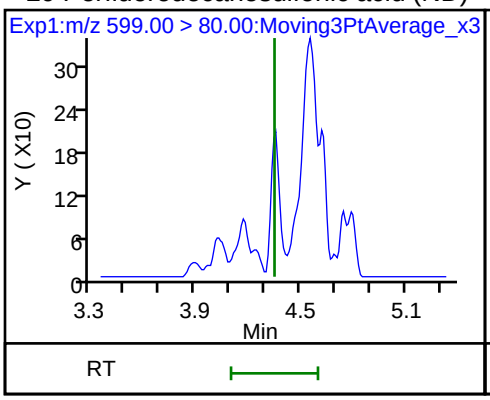

D 27 d3-NMeFOSAA



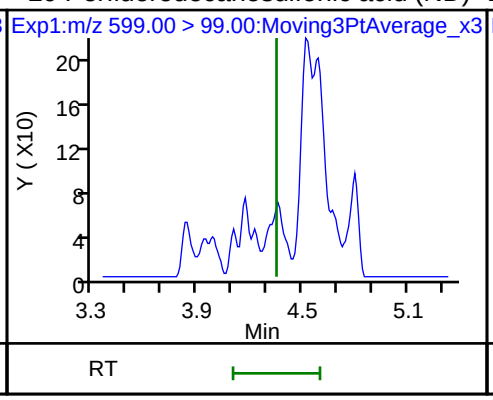

28 N-methylperfluorooctanesulfonami



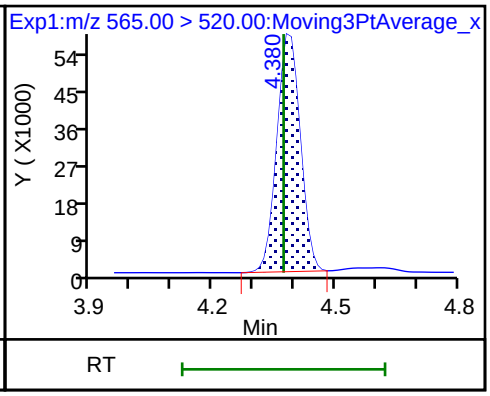

29 Perfluorodecanesulfonic acid (ND)



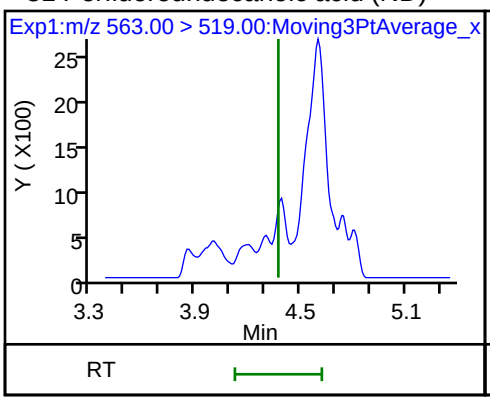

29 Perfluorodecanesulfonic acid (ND)



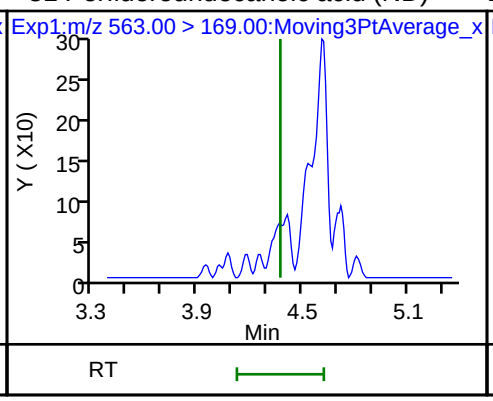

D 30 13C2 PFUnA



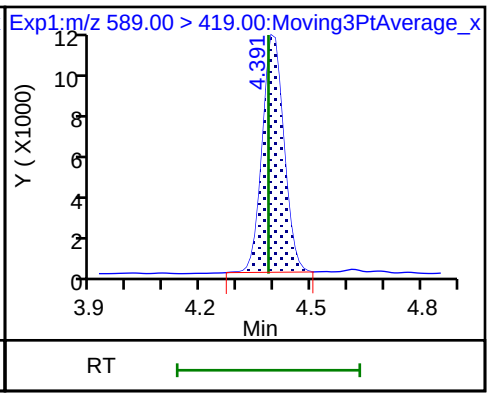

31 Perfluoroundecanoic acid (ND)



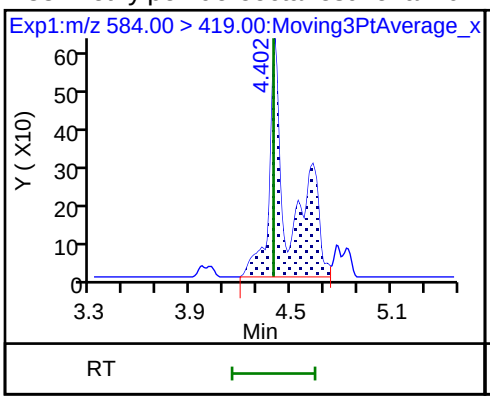

31 Perfluoroundecanoic acid (ND)



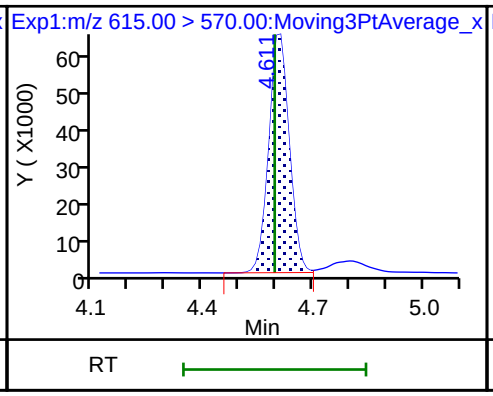

D 32 d5-NEtFOSAA



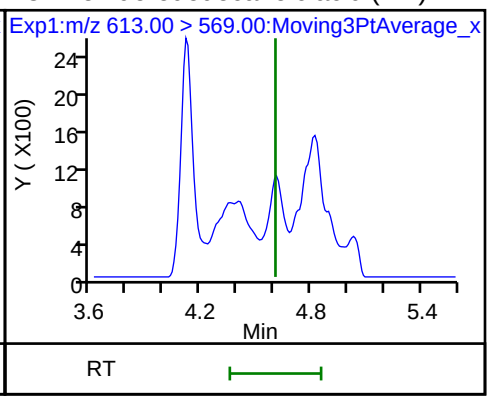

33 N-ethylperfluorooctanesulfonamid



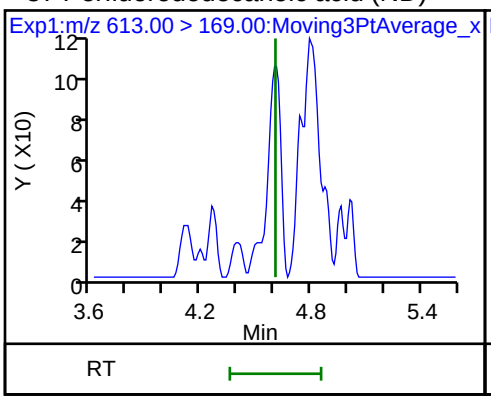

D 36 13C2 PFDoA



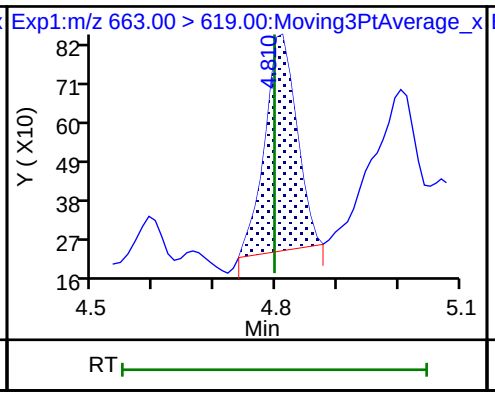

37 Perfluorododecanoic acid (ND)



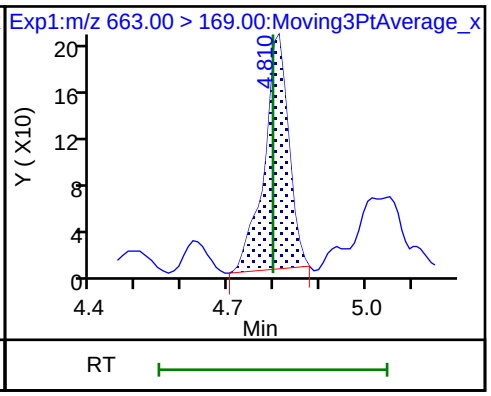
37 Perfluorododecanoic acid (ND)



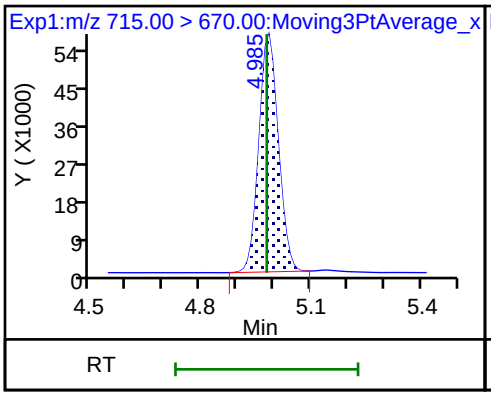

41 Perfluorotridecanoic acid



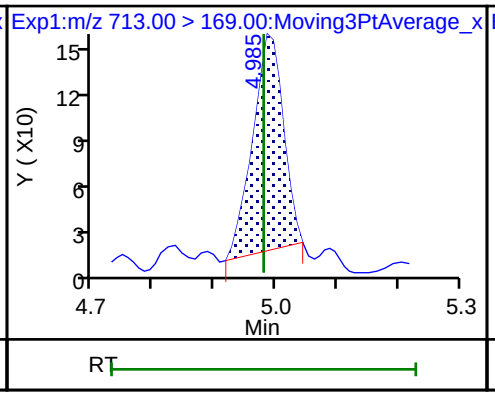

41 Perfluorotridecanoic acid



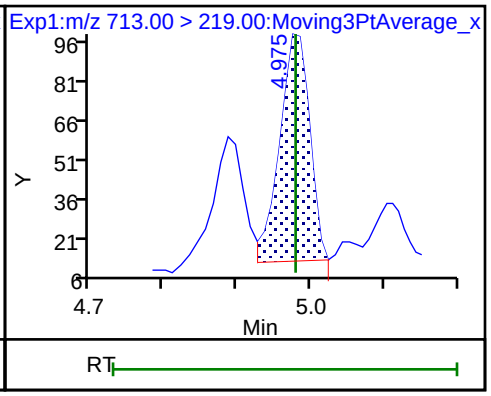

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid




42 Perfluorotetradecanoic acid



Eurofins TestAmerica, Burlington

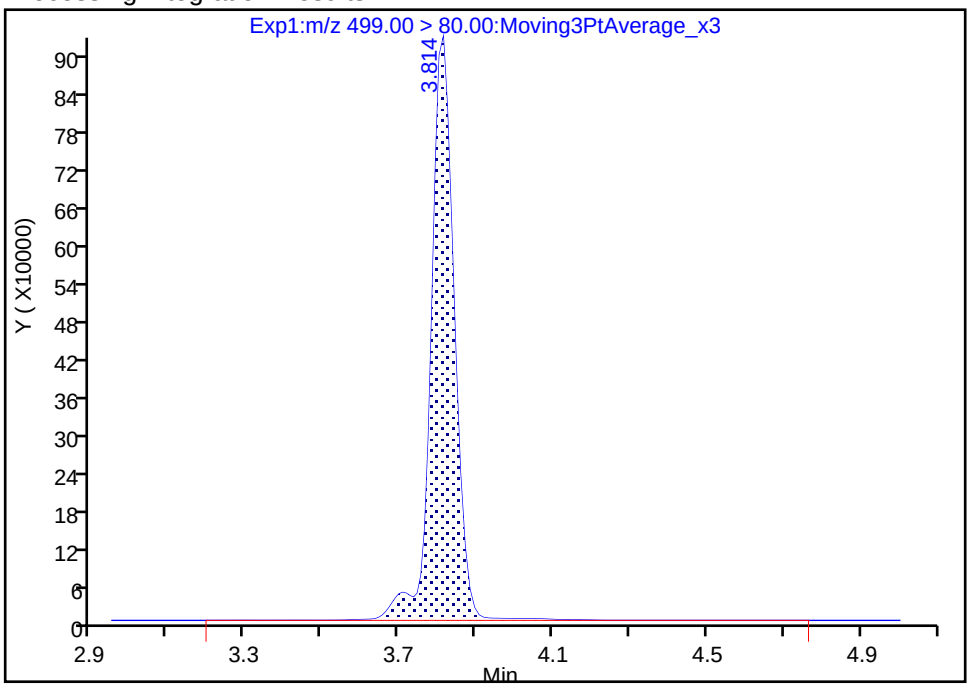
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A07.d | | | | |
| Injection Date: | 04-Nov-2021 14:17:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

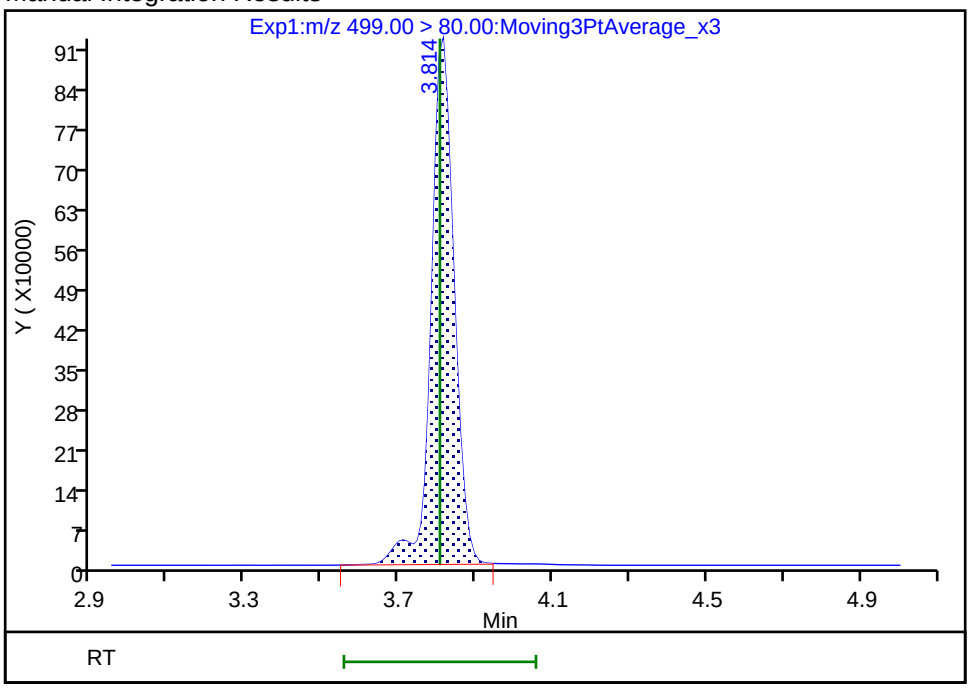
Processing Integration Results

RT: 3.81
Area: 3899472
Amount: 4.540504
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 3844570
Amount: 4.543199
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 11:52:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

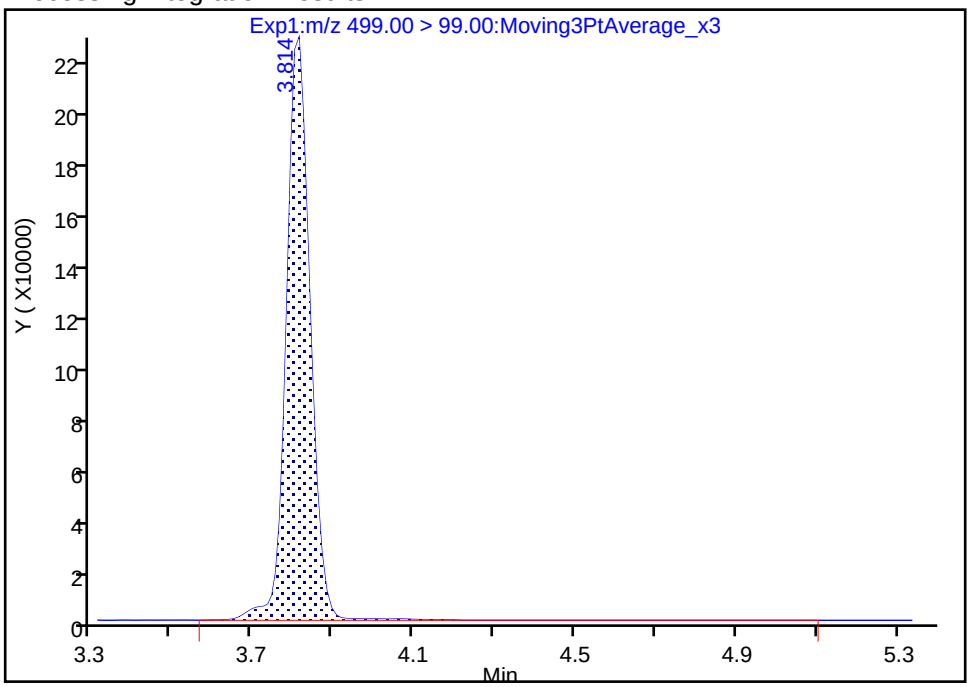
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A07.d | | | | |
| Injection Date: | 04-Nov-2021 14:17:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

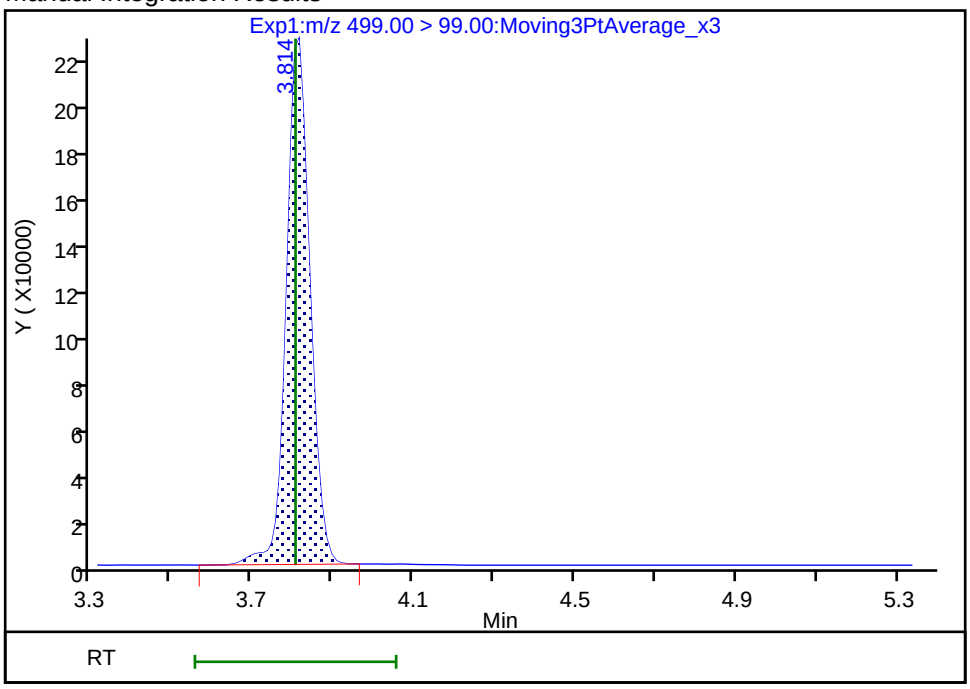
Processing Integration Results

RT: 3.81
Area: 933357
Amount: 4.540504
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 921113
Amount: 4.543199
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:44:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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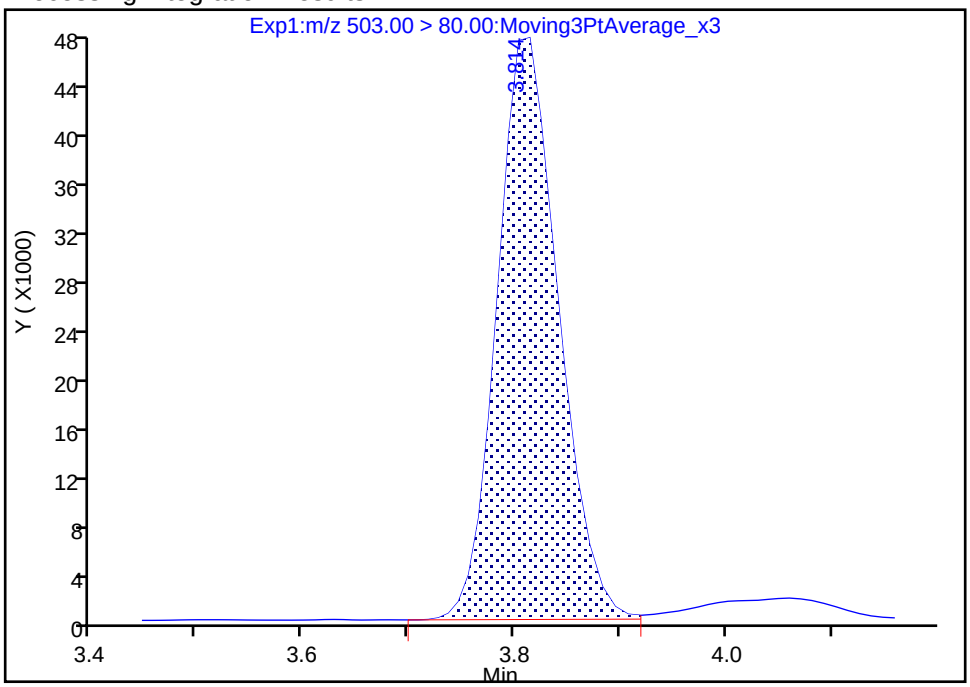
| Injection Date: | 04-Nov-2021 14:17:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

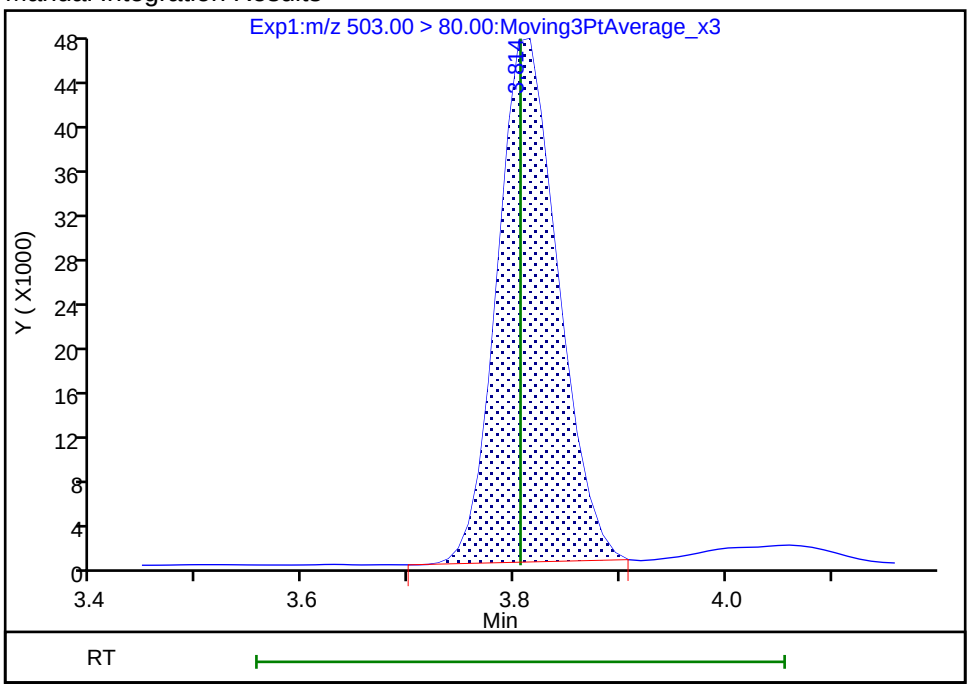
Processing Integration Results

RT: 3.81
Area: 189168
Amount: 0.224494
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 186394
Amount: 0.221202
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:44:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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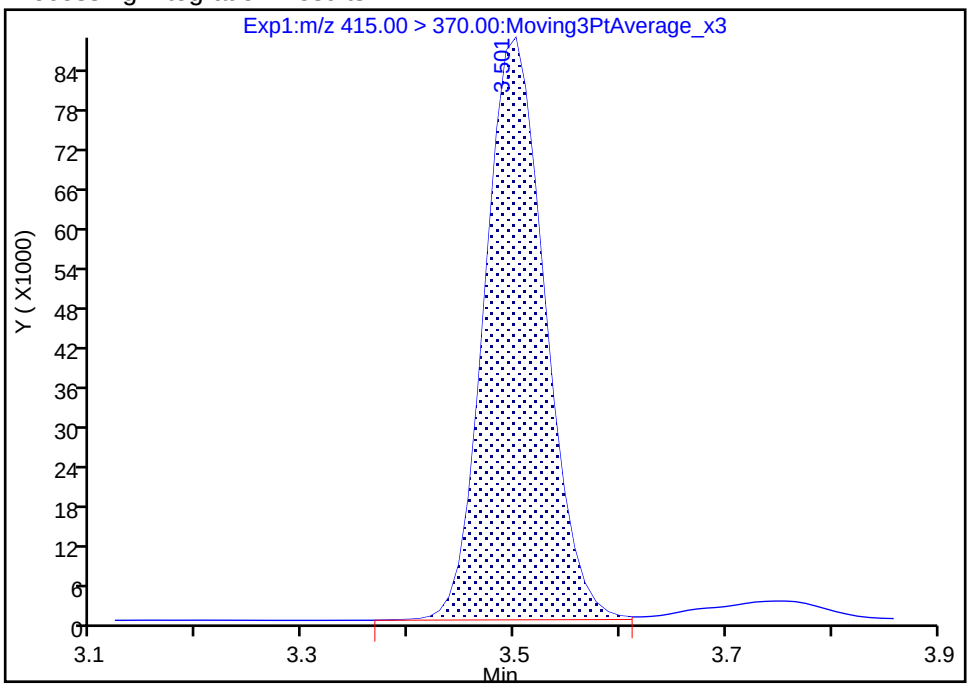
| Injection Date: | 04-Nov-2021 14:17:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-4-A | Lab Sample ID: | 200-246027-4 | | |
| Client ID: | MHP-MW-3S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

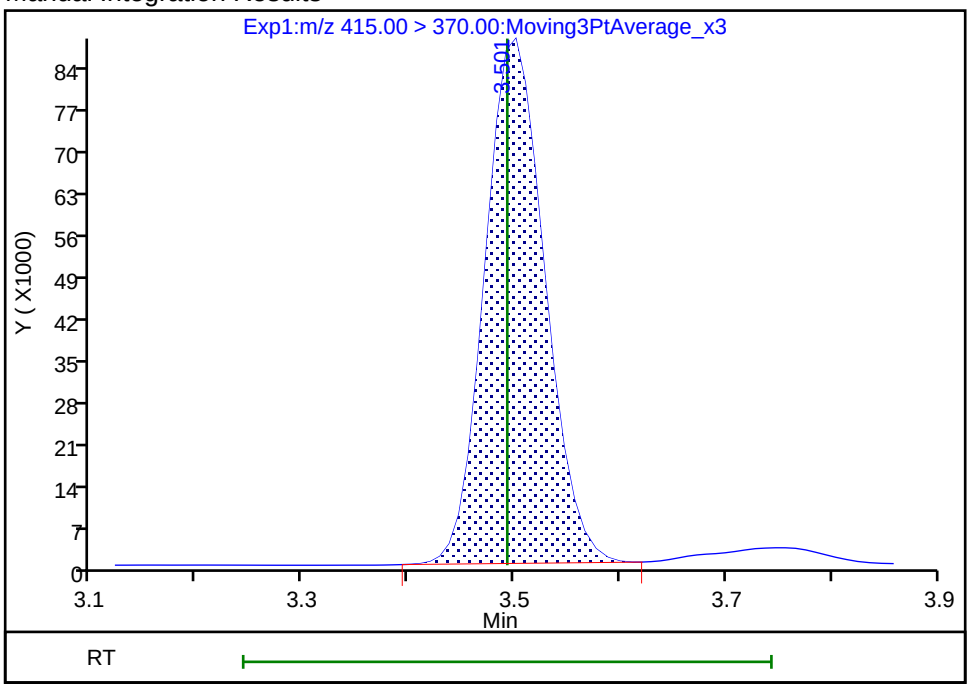
Processing Integration Results

RT: 3.50
Area: 350792
Amount: 0.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 347756
Amount: 0.250000
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:44:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: DUP-01-20211027  Lab Sample ID: 460-246027-5

Matrix: Water  Lab File ID: PA211103A17.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:00

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 268(mL)  Date Analyzed: 11/03/2021 14:57

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 8.45 | | 4.66 | 0.83 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 15.9 | | 1.87 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 22.8 | | 1.87 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 6.77 | | 1.87 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 8.70 | | 1.87 | 0.40 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.49 | J | 1.87 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.87 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.87 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.87 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.87 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.87 | 0.59 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 4.86 | | 1.87 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 89.8 | | 1.87 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.64 | J | 1.87 | 0.22 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.87 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.87 | 0.54 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.66 | 0.84 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.66 | 0.69 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.31 | J | 4.66 | 1.02 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.87 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: DUP-01-20211027  Lab Sample ID: 460-246027-5

Matrix: Water  Lab File ID: PA211103A17.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:00

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 268(mL)  Date Analyzed: 11/03/2021 14:57

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 92 | | 50-150 |
| STL01892 | 13C4 PFHpA | 88 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 85 | | 50-150 |
| STL00995 | 13C5 PFNA | 82 | | 50-150 |
| STL00992 | 13C4 PFBA | 89 | | 25-150 |
| STL00993 | 13C2 PFHxA | 94 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 89 | | 50-150 |
| STL00998 | 13C2 PFDoA | 77 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 90 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 99 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 103 | | 50-150 |
| STL02279 | M2-6:2 FTS | 95 | | 25-150 |
| STL02280 | M2-8:2 FTS | 102 | | 25-150 |
| STL02337 | 13C3 PFBS | 84 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d
Lims ID: 460-246027-A-5-A
Client ID: DUP-01-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 14:57:03 ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-5-A
Misc. Info.: 200-0048270-017 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 09:57:40
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.597 | 1596189 | 1.12 | | 89.3 | 8094 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 273431 | 0.2265 | | | 31.8 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.374 | 2.375 | -0.001 | 0.687 | 1360081 | 1.13 | | 90.4 | 2110 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.374 | 2.375 | -0.001 | 1.000 | 464737 | 0.4264 | | | 14.8 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.387 | 2.401 | -0.014 | 0.691 | 1587375 | 0.9743 | | 83.8 | 41399 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.006 | 190091 | 0.1303 | Target=2.32 | | 25.2 | |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.006 | 89525 | | 2.12(1.16-3.48) | | 22.7 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.734 | 2.735 | -0.001 | 1.000 | 739963 | 0.6117 | Target=12.09 | | 65.7 | M |
| 313.00 > 119.00 | 2.734 | 2.735 | -0.001 | 1.000 | 59493 | | 12.44(6.04-18.13) | | 81.8 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.791 | 1490893 | 1.18 | | 94.4 | 1598 | |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1280818 | 1.08 | | 91.5 | 331 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 1.000 | 2865721 | 2.41 | Target=3.55 | | 476 | M |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 1.000 | 785932 | | 3.65(1.77-5.32) | | 381 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.100 | 3.101 | -0.001 | 1.000 | 220302 | 0.1813 | Target=3.69 | | 28.4 | M |
| 363.00 > 169.00 | 3.100 | 3.101 | -0.001 | 1.000 | 57950 | | 3.80(1.84-5.53) | | 48.0 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1470046 | 1.11 | | 88.4 | 1681 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 7894 | 0.0352 | | | 8.1 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.915 | 39647 | 0.0439 | Target=4.88 | | 10.1 | |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.915 | 8832 | | 4.49(2.44-7.32) | | 7.8 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 209998 | 1.13 | | 94.7 | 238 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1740509 | 1.20 | | 95.8 | 1047 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1764979 | 1.25 | | | 311 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 345248 | 0.2332 | Target=2.68 | | 27.6 | M |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 1.000 | 147153 | | 2.35(1.34-4.02) | | 52.5 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 866345 | 1.01 | | 84.8 | 349 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.003 | 17354665 | 22.1 | Target=4.69 | | 2114 | EM |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 1.000 | 4265538 | | 4.07(2.35-7.04) | | 2076 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.095 | 1484752 | 1.03 | | 82.1 | 1639 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.785 | 3.786 | -0.001 | 1.000 | 46313 | 0.0399 | Target=7.29 | | 5.9 | |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 1.000 | 6961 | | 6.65(3.64-10.93) | | 12.4 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.181 | 1622229 | 1.11 | | 88.9 | 101 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 259240 | 1.23 | | 102 | 158 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.071 | 4.084 | -0.013 | 0.995 | 144 | 0.000795 | | | 0.4 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.219 | 1599949 | 1.14 | | 90.9 | 575 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.204 | 4.207 | -0.003 | 0.998 | 4219 | 0.003471 | | | 1.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.222 | 177071 | 1.23 | | 98.6 | 204 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.000 | 111 | 0.000997 | | | 0.2 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.336 | 4.339 | -0.003 | 1.254 | 1269027 | 1.11 | | 89.2 | 890 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.261 | 173033 | 1.29 | | 103 | 789 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.350 | 0.019 | 1.003 | 331 | 0.002791 | | | 1.4 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.322 | 1175265 | 0.9599 | | 76.8 | 295 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 637 | 0.000692 | Target=7.04 | | 0.1 | M |
| 613.00 > 169.00 | 4.580 | 4.562 | 0.018 | 1.003 | 135 | | 4.72(3.52-10.56) | | 1.0 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.766 | 4.761 | 0.005 | 1.043 | 846 | 0.001066 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.766 | 4.761 | 0.005 | 1.043 | 286 | | 2.96(2.34-7.02) | | 4.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.431 | 975755 | 1.03 | | 82.2 | 1517 | M |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.937 | 4.940 | -0.003 | 0.998 | 192 | 0.001558 | Target=1.01 | | 7.9 | M |
| 713.00 > 219.00 | 4.947 | 4.940 | 0.007 | 1.000 | 238 | | 0.81(0.51-1.52) | | 7.4 | M |

## QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:58 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d

Injection Date: 03-Nov-2021 14:57:03 Instrument ID: LC812

Lims ID: 460-246027-A-5-A Lab Sample ID: 200-246027-5

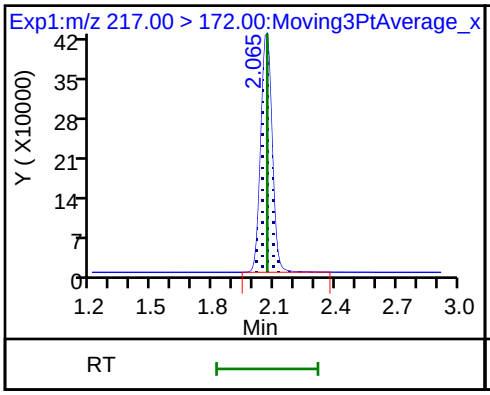
Client ID: DUP-01-20211027

Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17

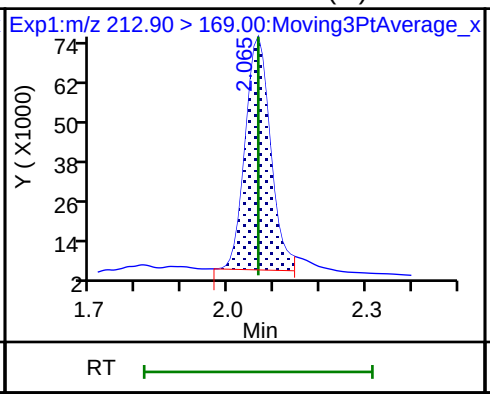
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

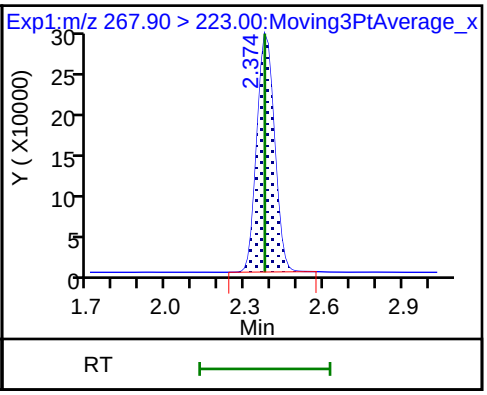
D 1 13C4 PFBA



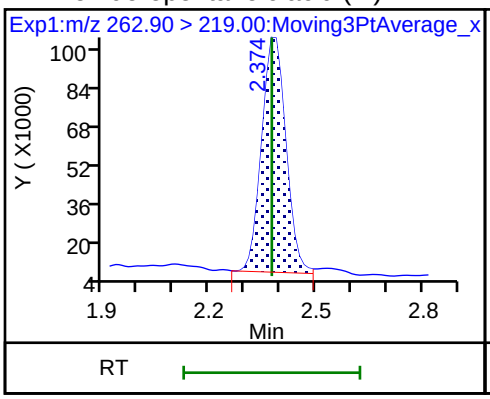

2 Perfluorobutanoic acid (M)



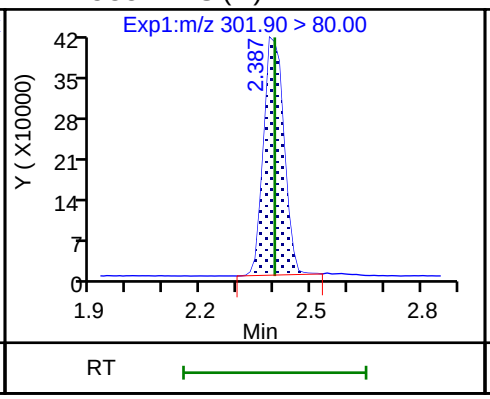

D 3 13C5 PFPeA



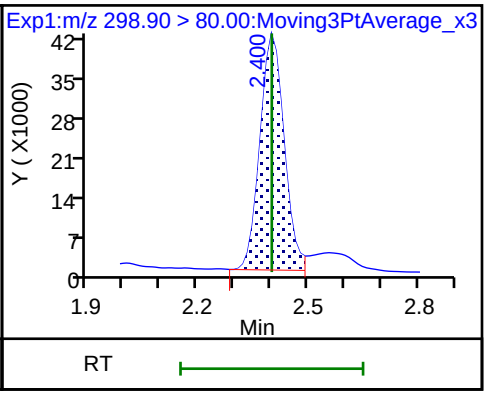

4 Perfluoropentanoic acid (M)



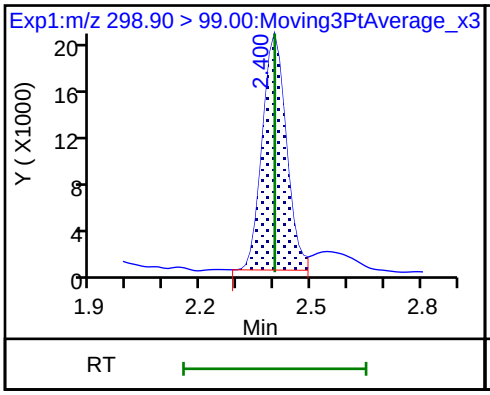

D 47 13C3 PFBS (M)



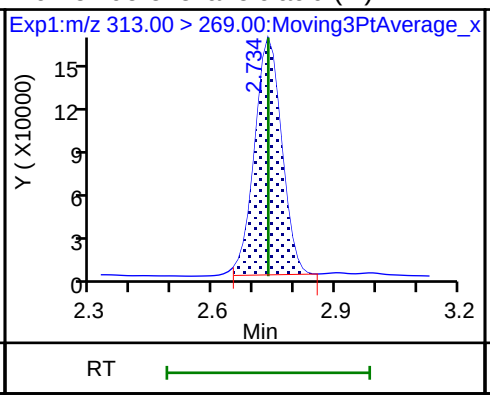

5 Perfluorobutanesulfonic acid



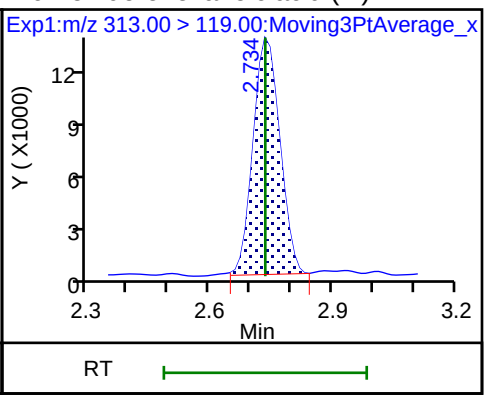

5 Perfluorobutanesulfonic acid



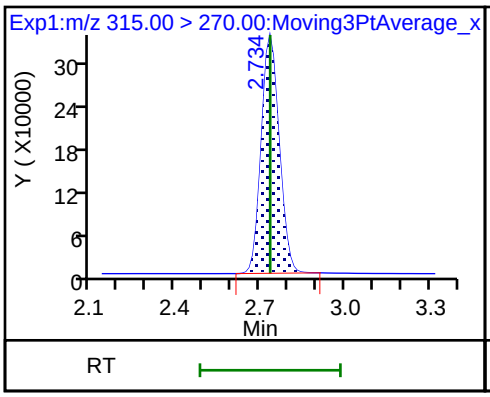

6 Perfluorohexanoic acid (M)



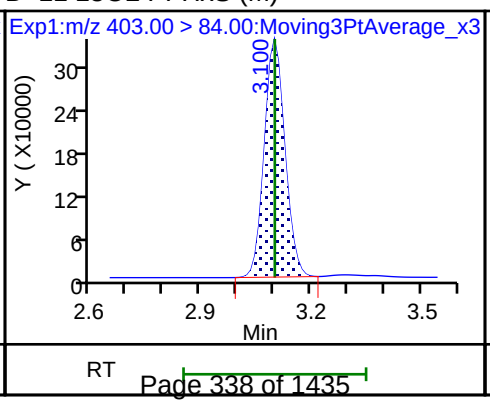

6 Perfluorohexanoic acid (M)



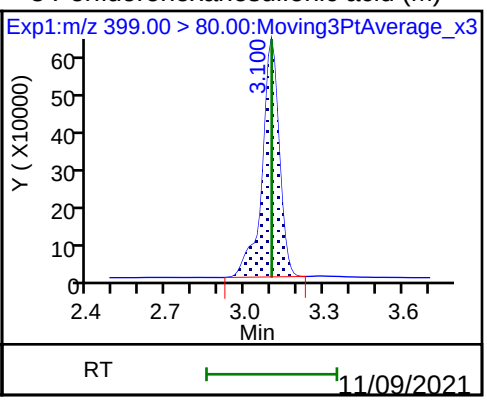

D 7 13C2 PFHxA



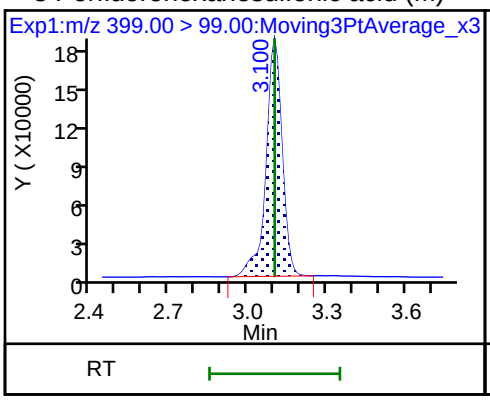

D 11 18O2 PFHxS (M)



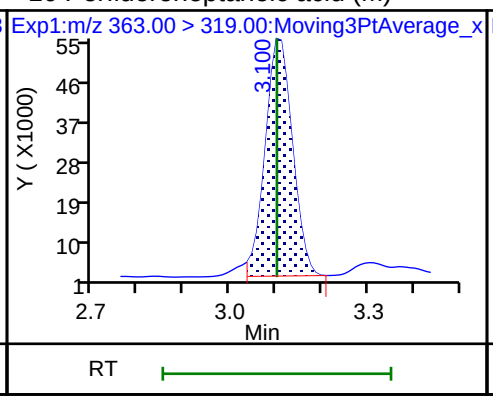

8 Perfluorohexanesulfonic acid (M)



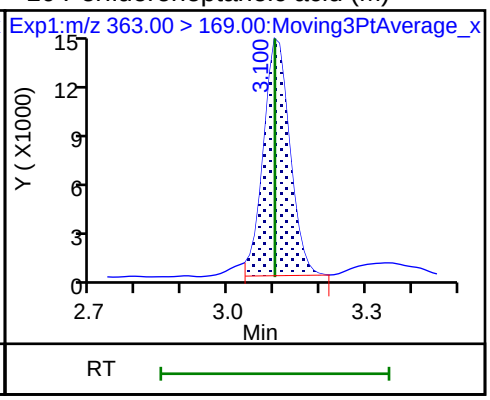
8 Perfluorohexanesulfonic acid (M)



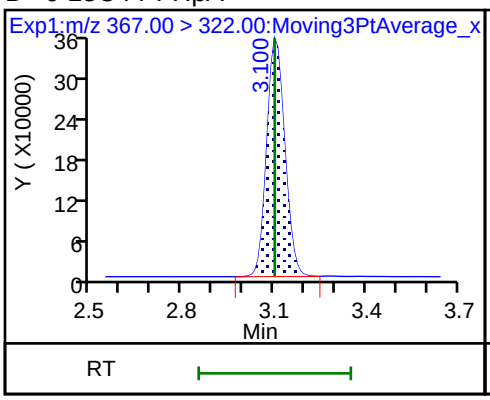

10 Perfluoroheptanoic acid (M)



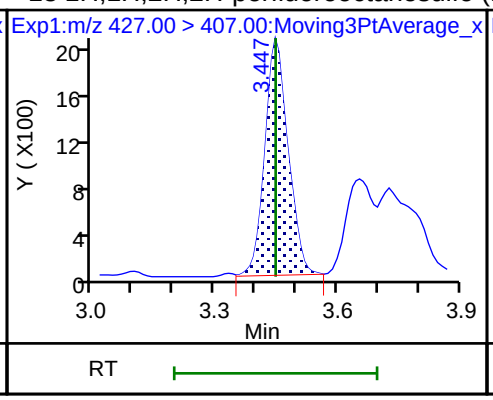

10 Perfluoroheptanoic acid (M)



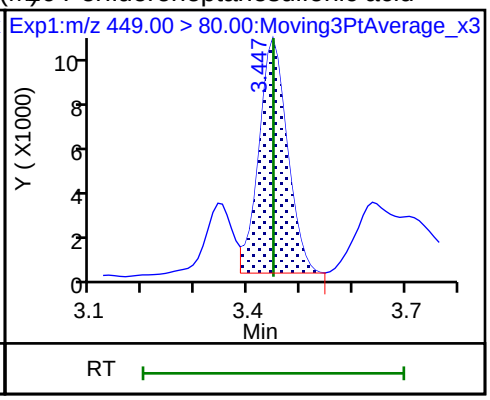

D 9 13C4 PFHpA



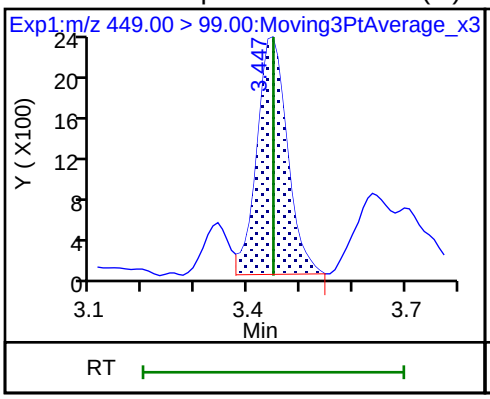

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



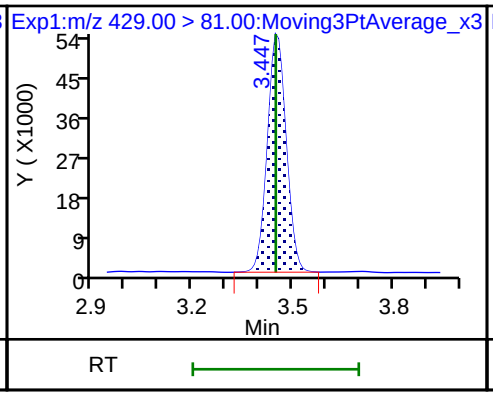

16 Perfluoroheptanesulfonic acid



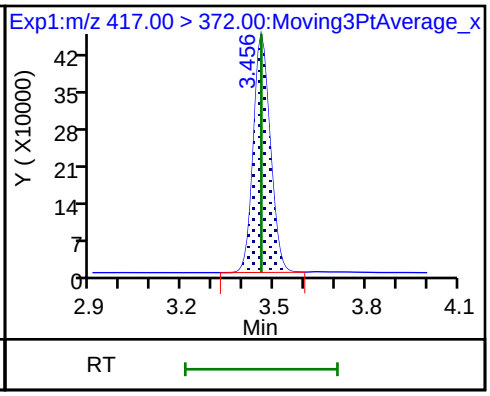

16 Perfluoroheptanesulfonic acid (M)



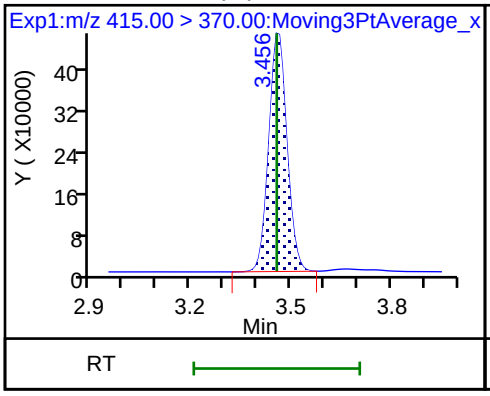

D 12 M2-6:2 FTS



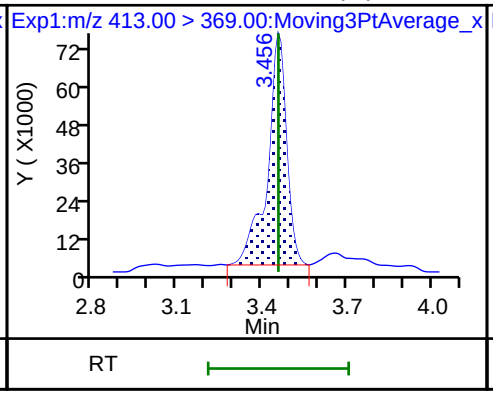

D 14 13C4 PFOA



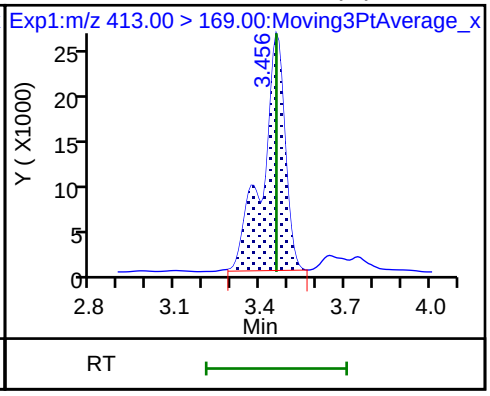

* 62 13C2 PFOA (M)



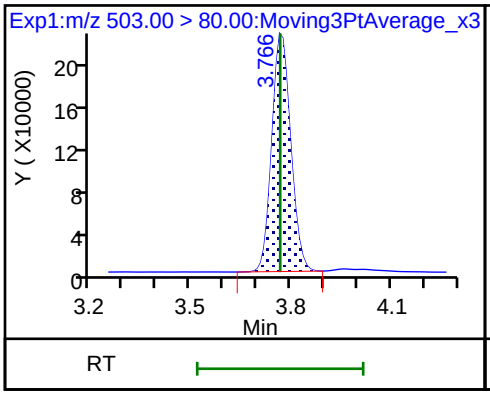

15 Perfluorooctanoic acid (M)



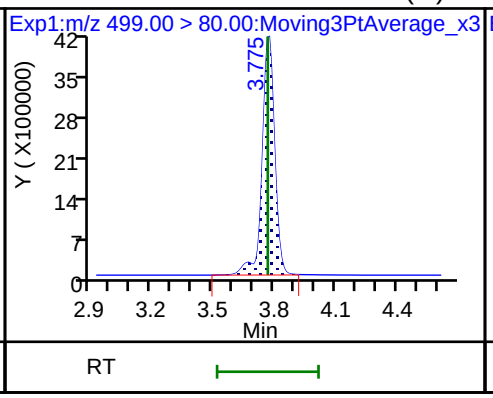

15 Perfluorooctanoic acid (M)



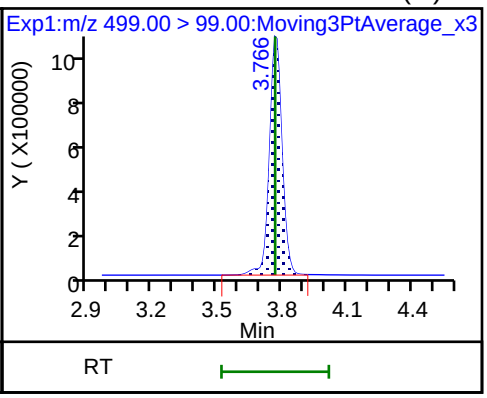
D 18 13C4 PFOS



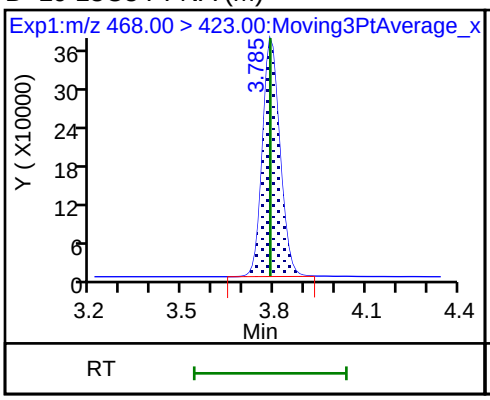

17 Perfluorooctanesulfonic acid (M)



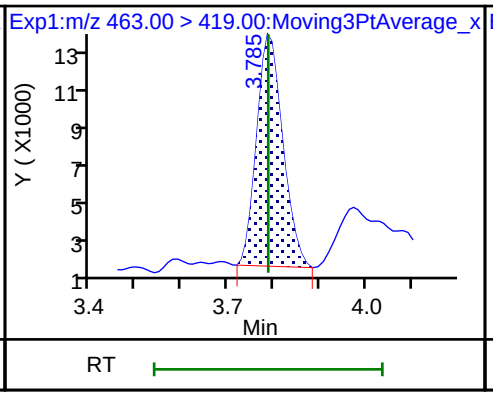

17 Perfluorooctanesulfonic acid (M)



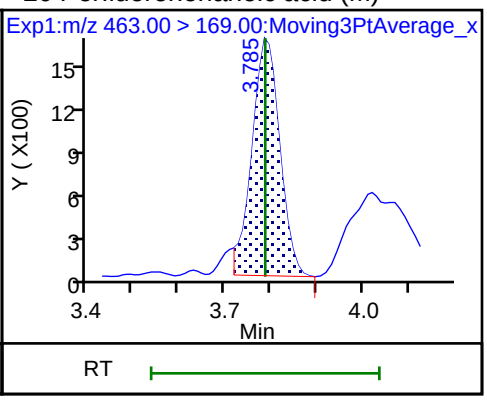

D 19 13C5 PFNA (M)



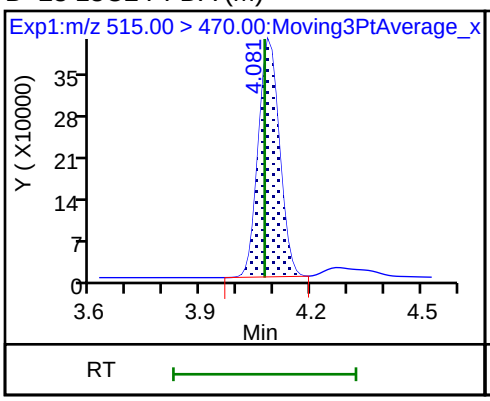

20 Perfluorononanoic acid



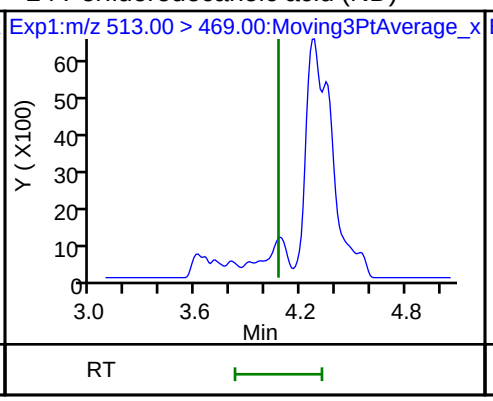

20 Perfluorononanoic acid (M)



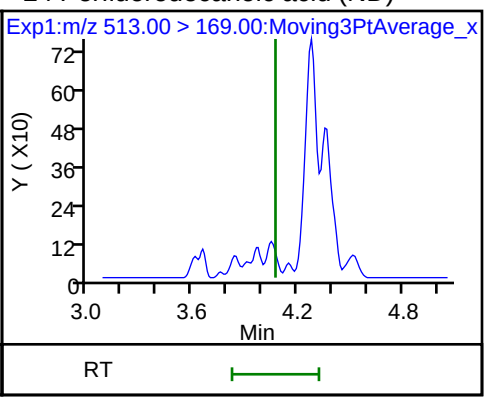

D 23 13C2 PFDA (M)



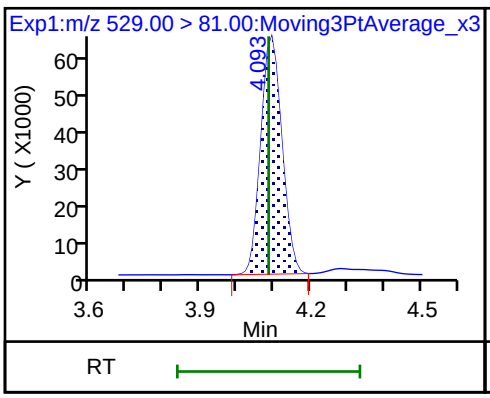

24 Perfluorodecanoic acid (ND)



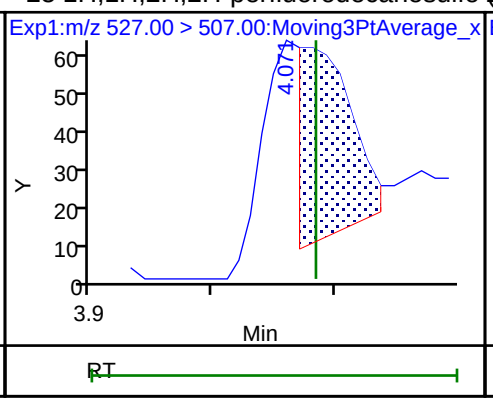

24 Perfluorodecanoic acid (ND)



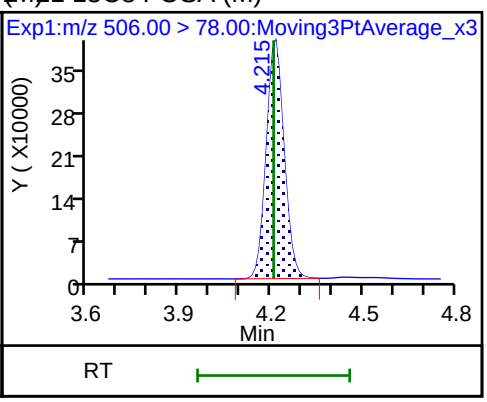

D 26 M2-8:2 FTS



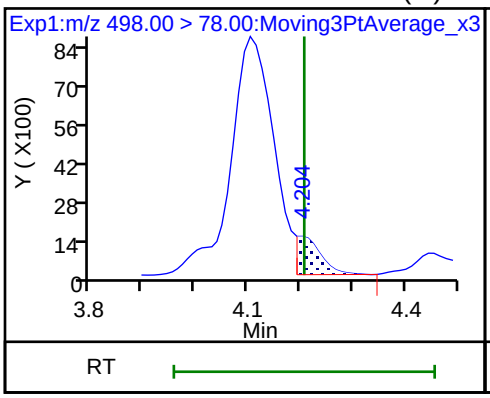

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



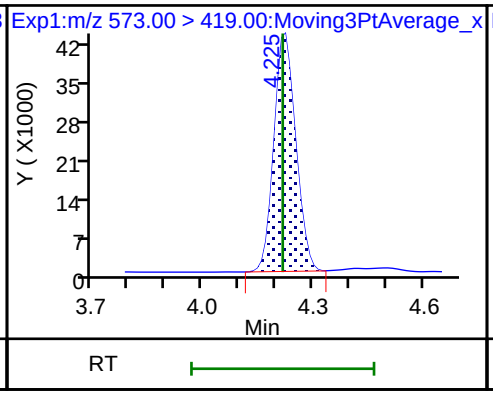

21 13C8 FOSA (M)



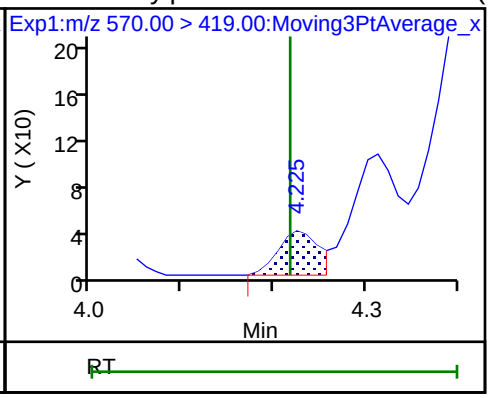
22 Perfluorooctanesulfonamide (M)



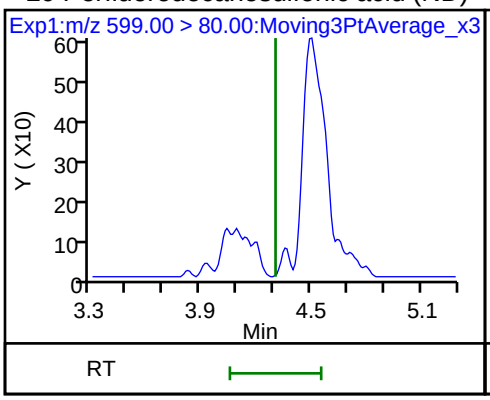

D 27 d3-NMeFOSAA



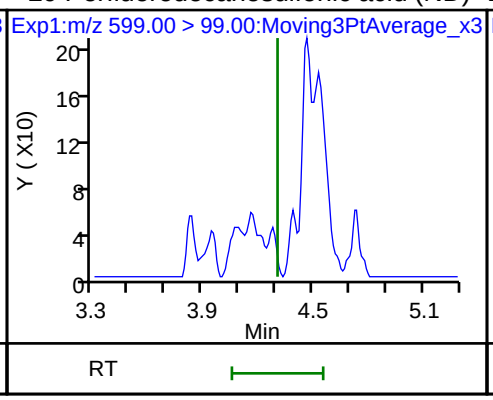

28 N-methylperfluorooctanesulfonami (M)



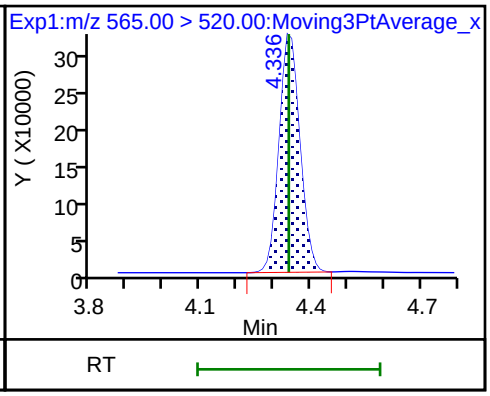

29 Perfluorodecanesulfonic acid (ND)



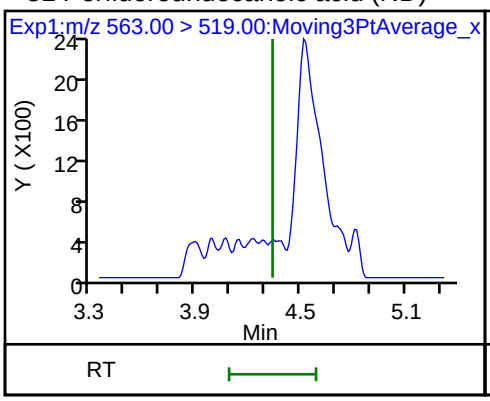

29 Perfluorodecanesulfonic acid (ND)



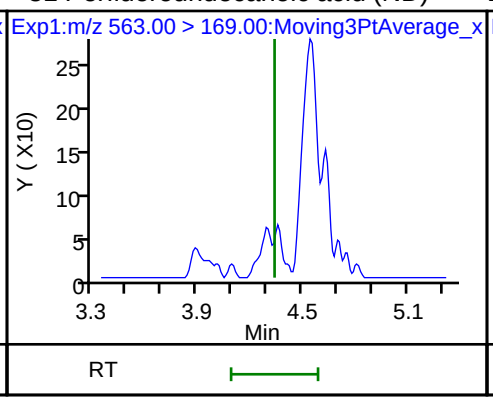

D 30 13C2 PFUnA



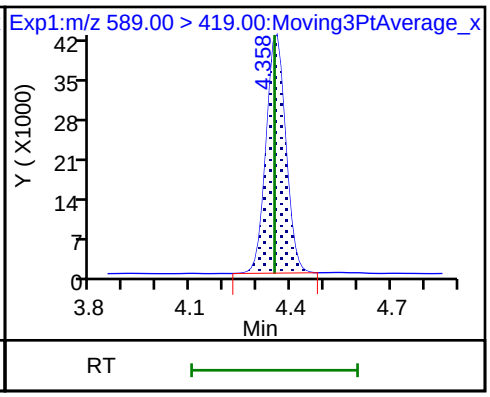

31 Perfluoroundecanoic acid (ND)



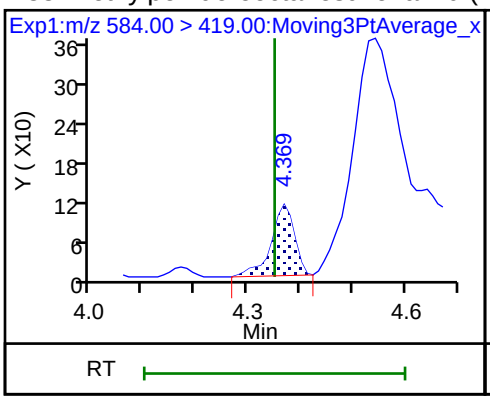

31 Perfluoroundecanoic acid (ND)



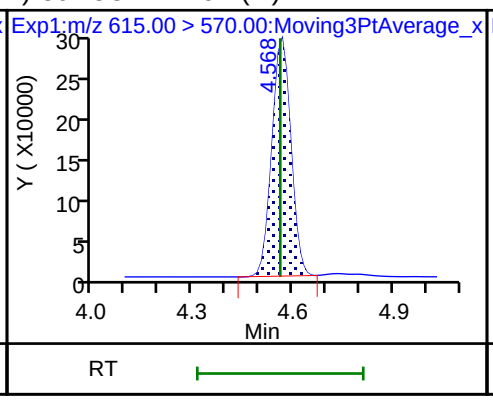

D 32 d5-NEtFOSAA



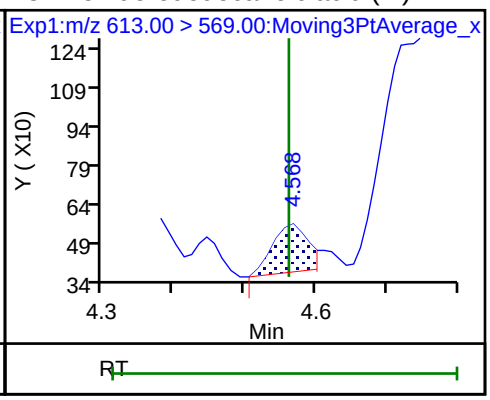

33 N-ethylperfluorooctanesulfonamid (ND)



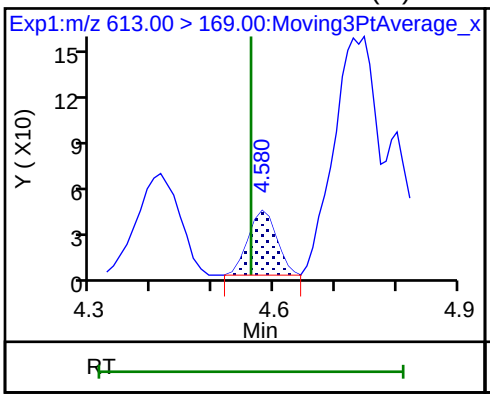

D 36 13C2 PFDoA (M)



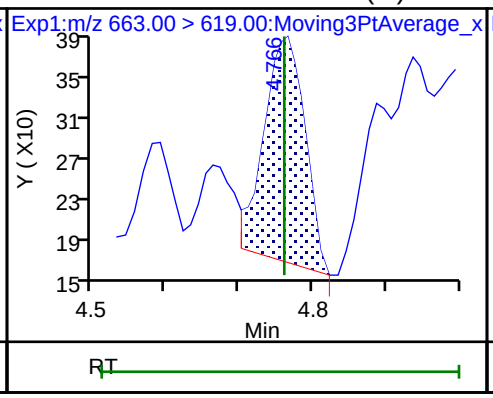

37 Perfluorododecanoic acid (M)



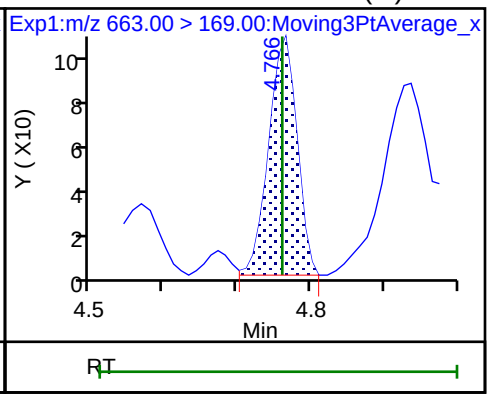
37 Perfluorododecanoic acid (M)



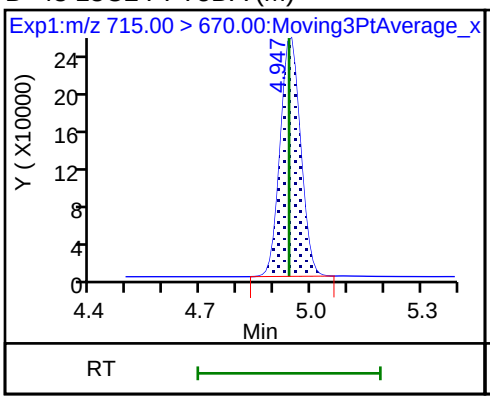

41 Perfluorotridecanoic acid (M)



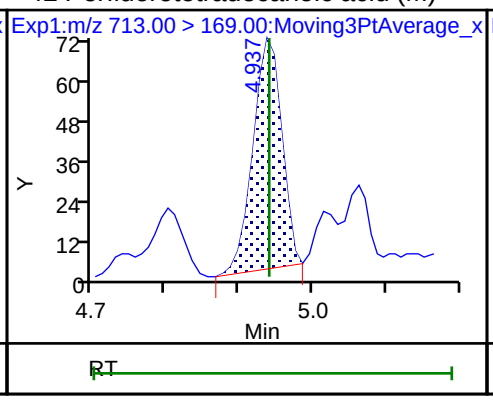

41 Perfluorotridecanoic acid (M)



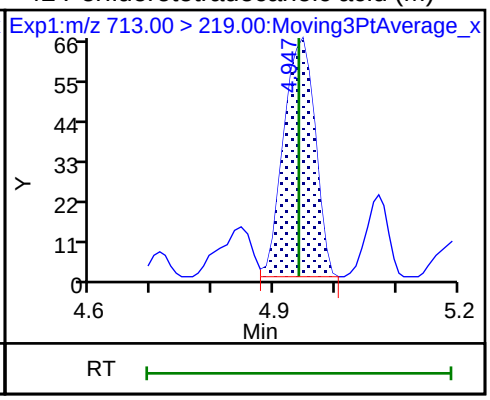

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

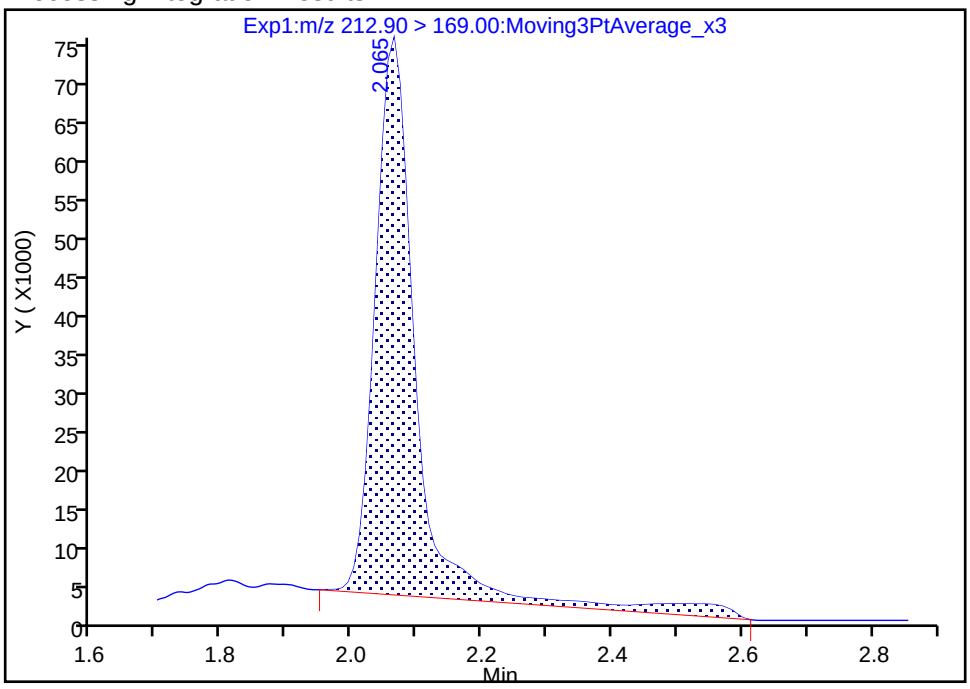
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

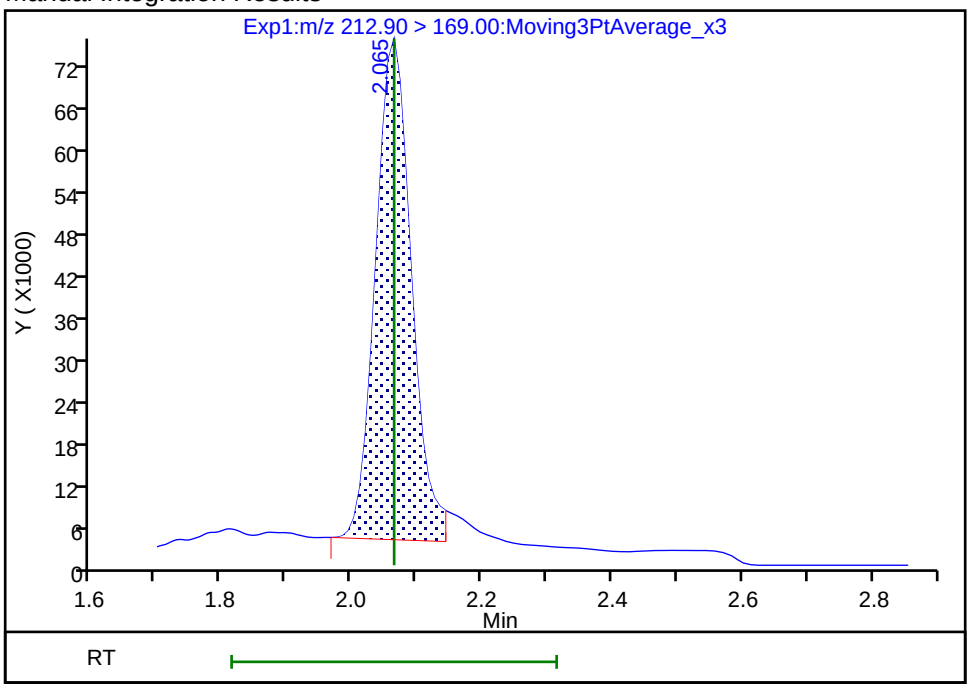
Processing Integration Results

RT: 2.06
Area: 315378
Amount: 0.261197
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 273431
Amount: 0.226457
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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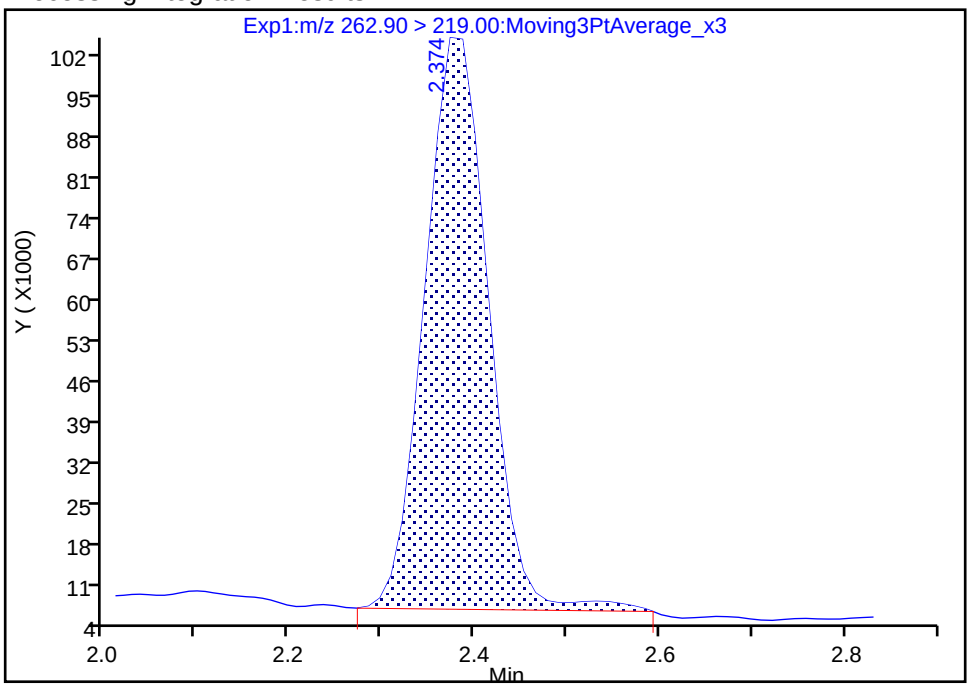
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

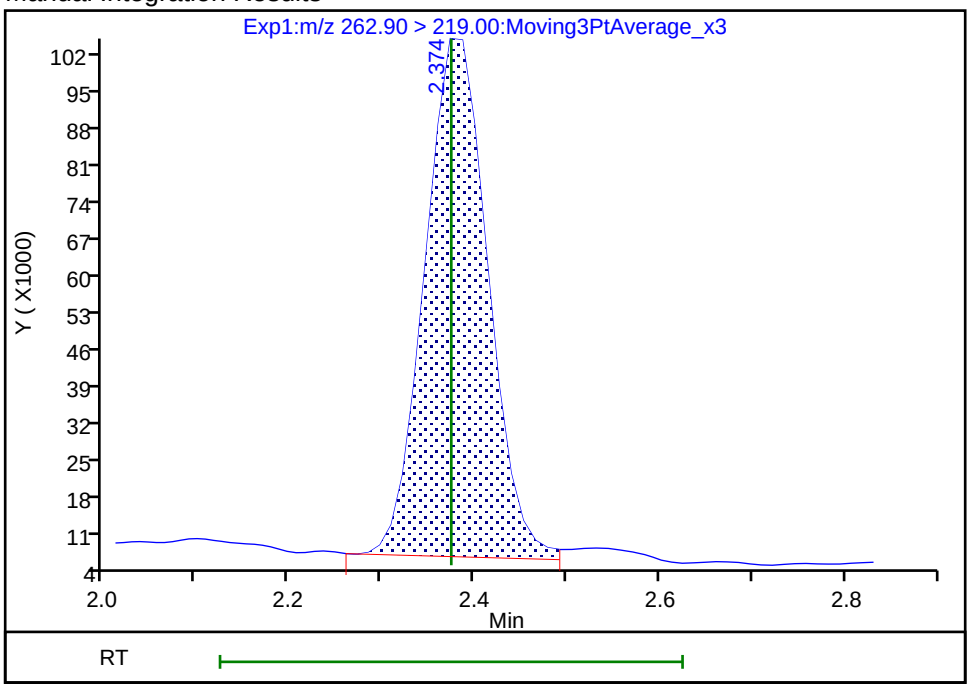
Processing Integration Results

RT: 2.37
Area: 468153
Amount: 0.429520
Amount Units: ng/ml




Manual Integration Results

RT: 2.37
Area: 464737
Amount: 0.426386
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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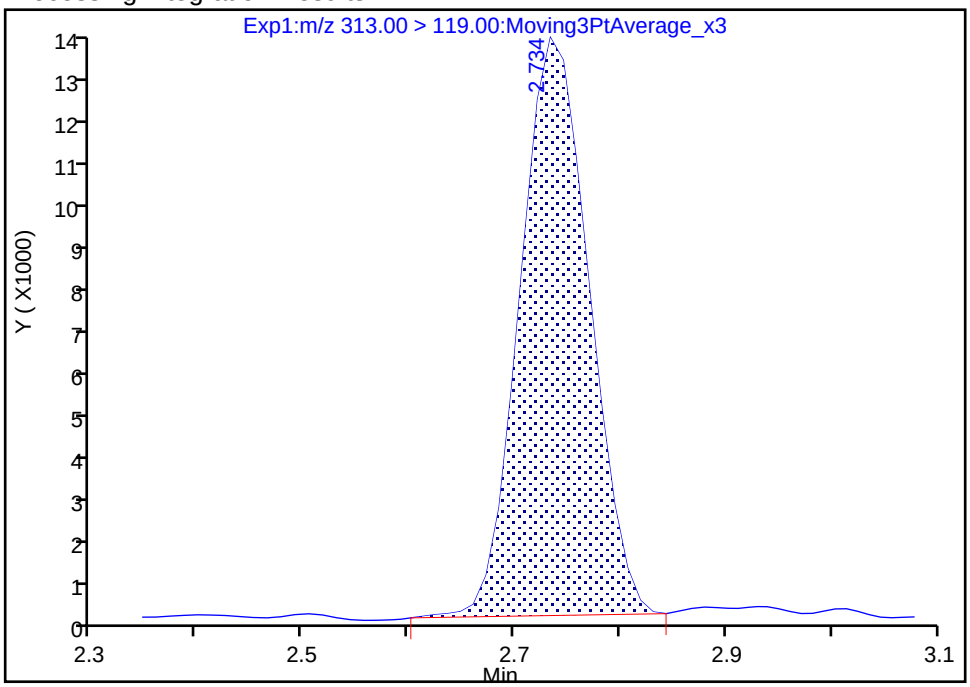
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

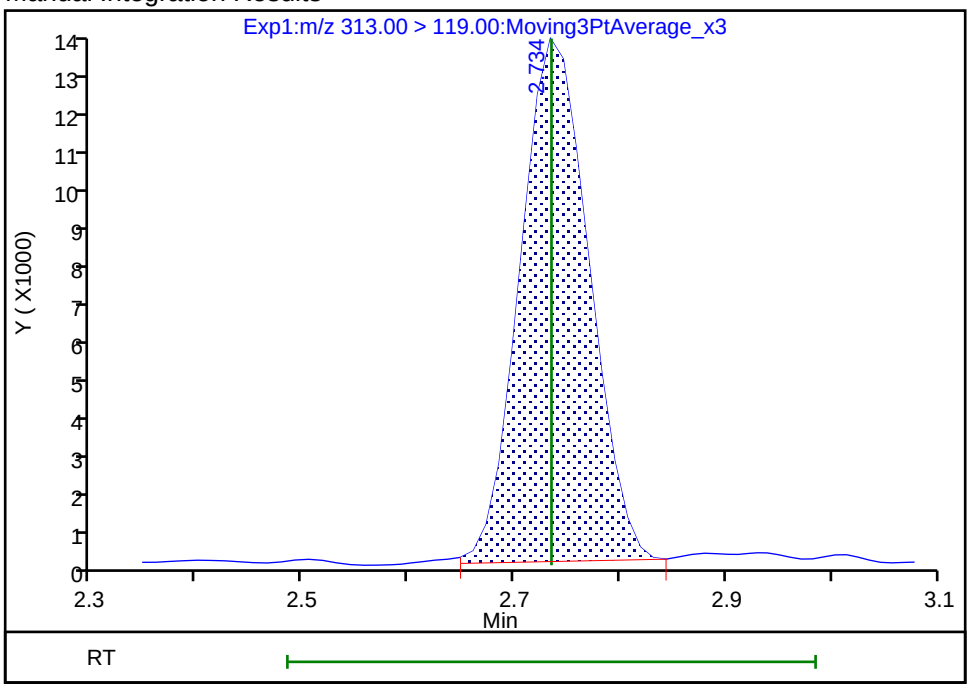
Processing Integration Results

RT: 2.73
Area: 59481
Amount: 0.616969
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 59493
Amount: 0.611731
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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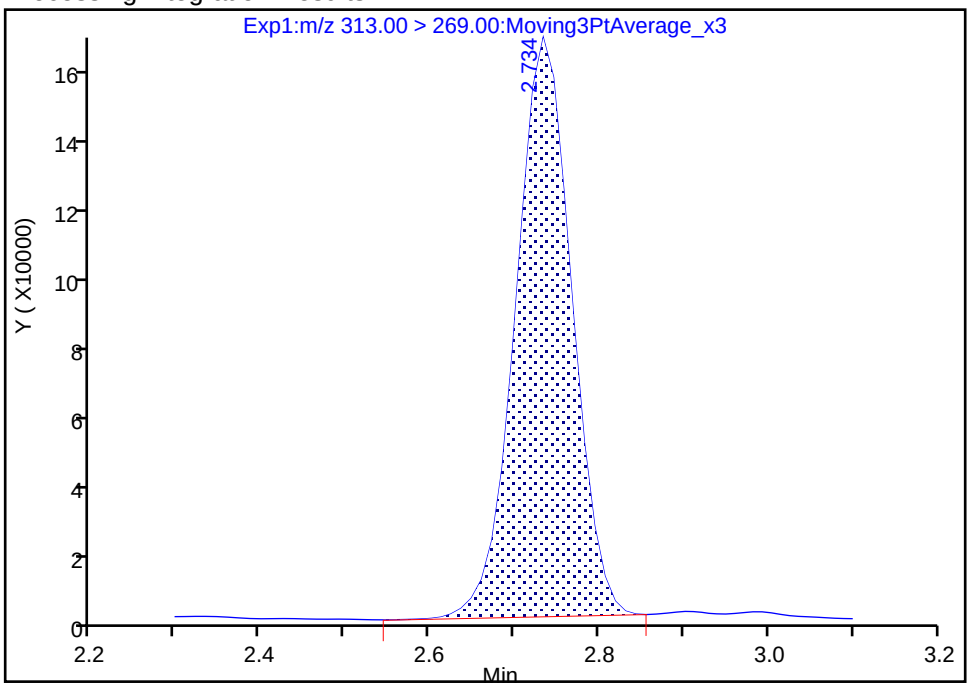
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

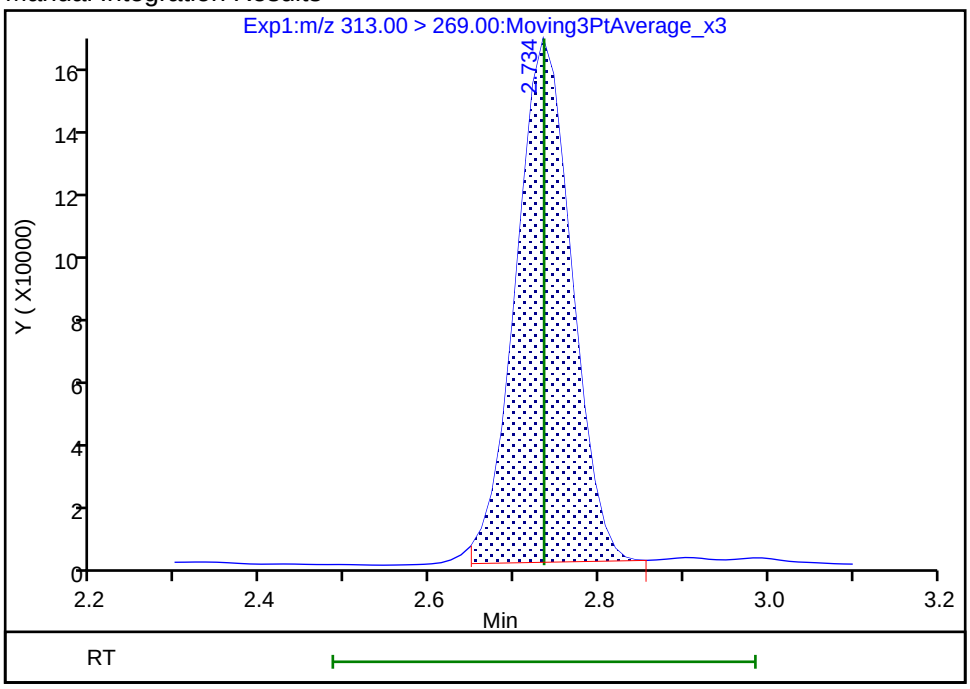
Processing Integration Results

RT: 2.73
Area: 746299
Amount: 0.616969
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 739963
Amount: 0.611731
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:47:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

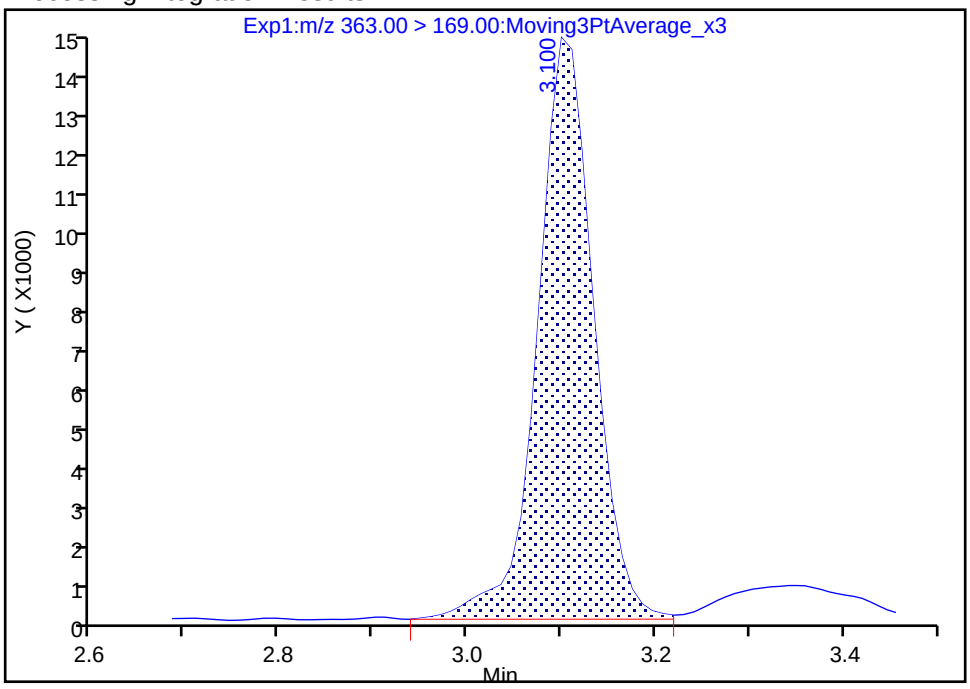
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

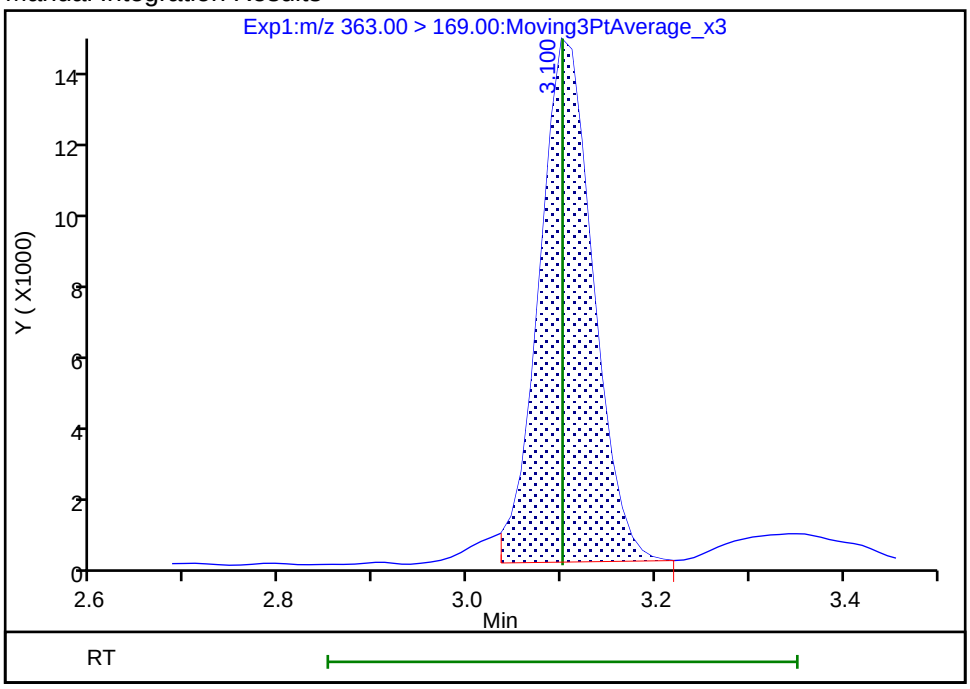
Processing Integration Results

RT: 3.10
Area: 60628
Amount: 0.186281
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 57950
Amount: 0.181303
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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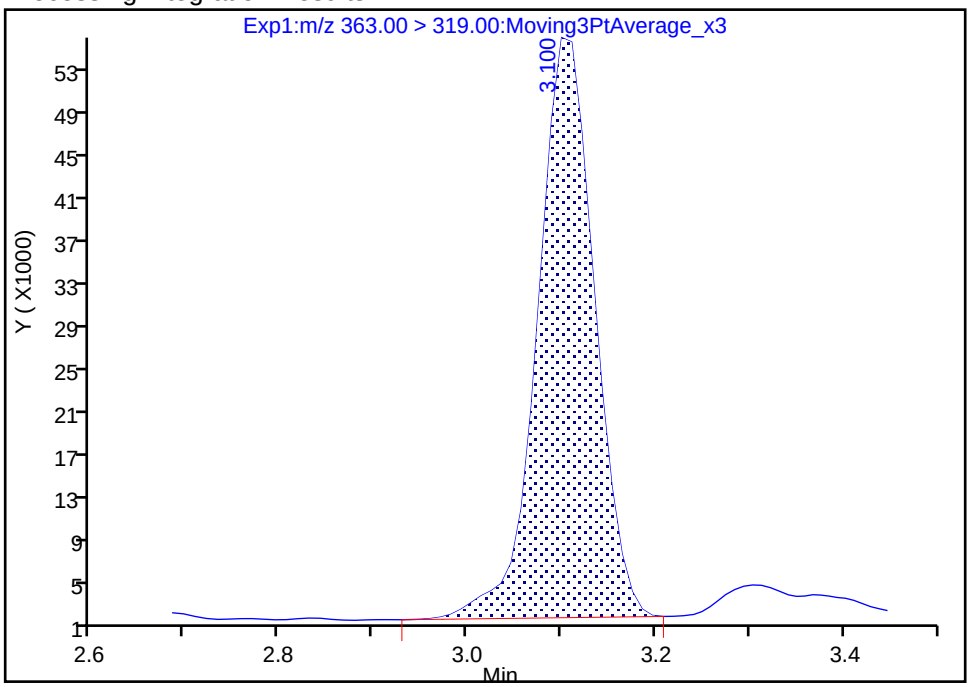
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

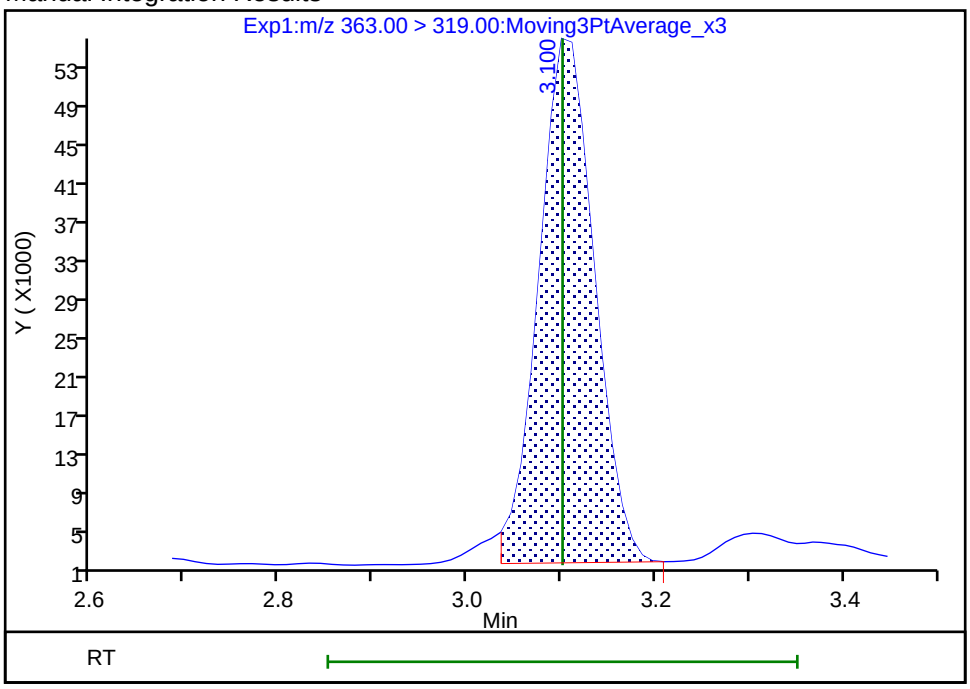
Processing Integration Results

RT: 3.10
Area: 226350
Amount: 0.186281
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 220302
Amount: 0.181303
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

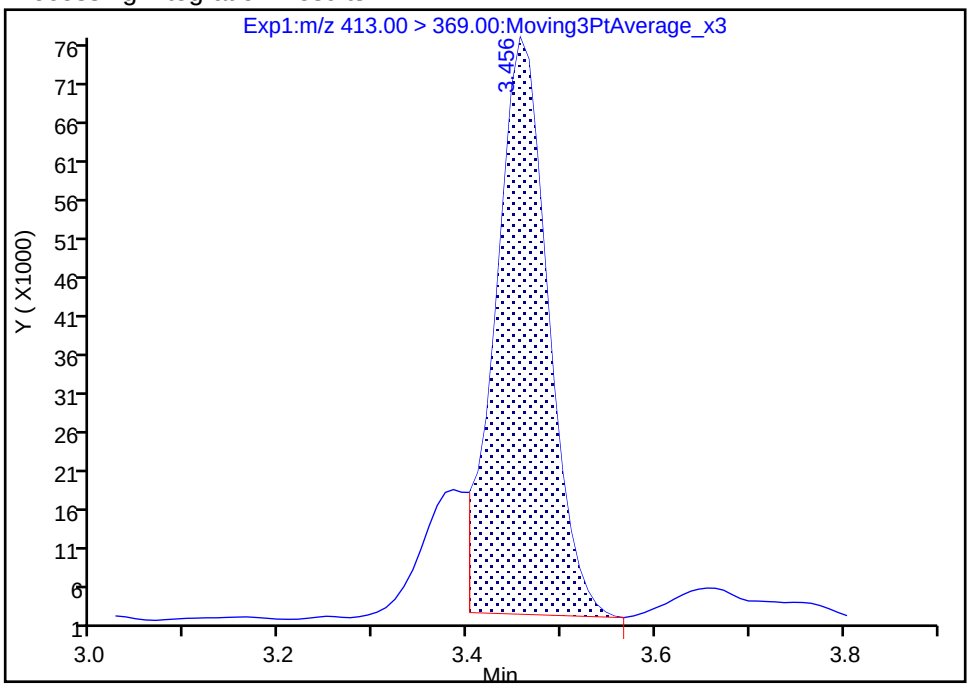
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

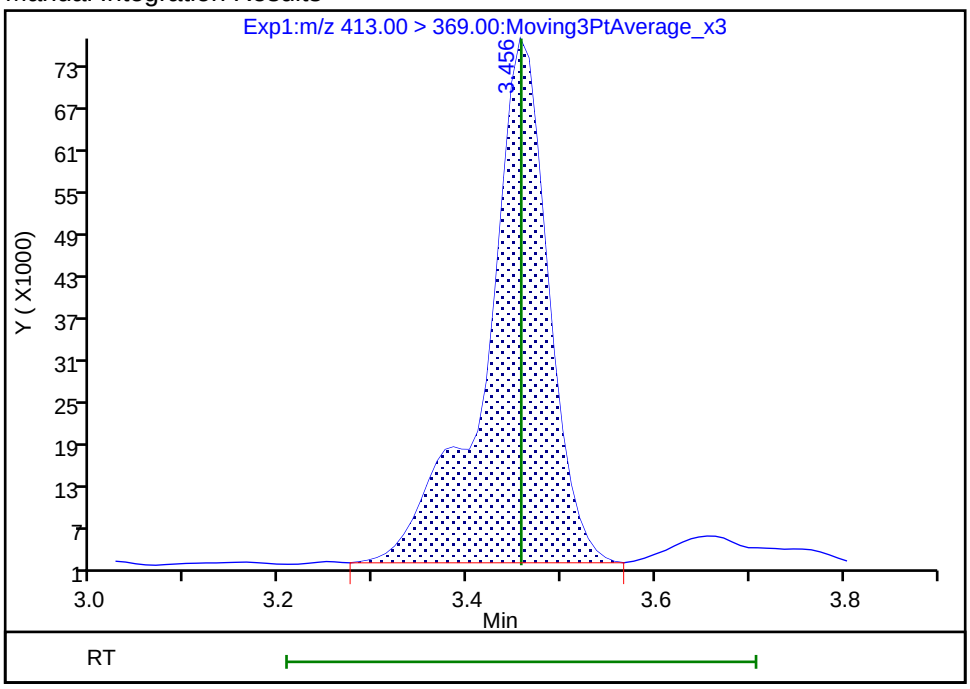
Processing Integration Results

RT: 3.46
Area: 285988
Amount: 0.193139
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 345248
Amount: 0.233159
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:55:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

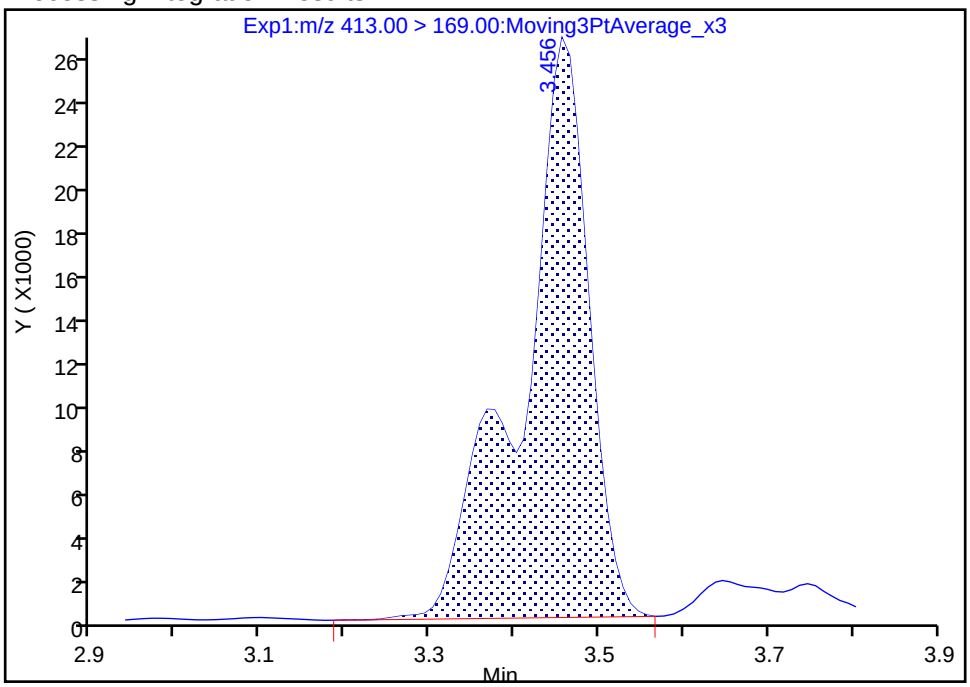
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

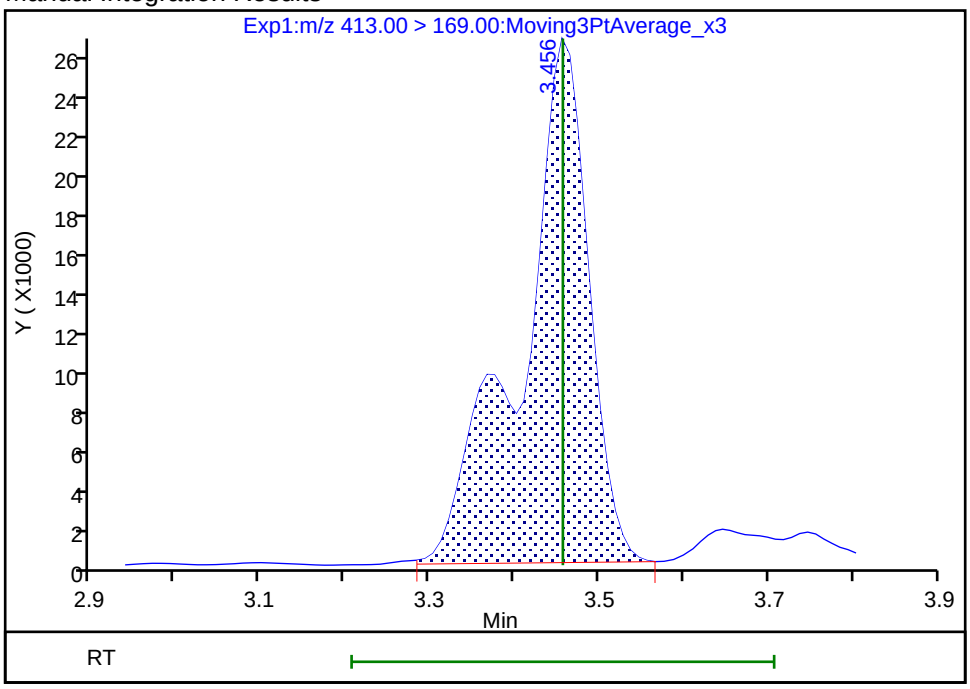
Processing Integration Results

RT: 3.46
Area: 147588
Amount: 0.193139
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 147153
Amount: 0.233159
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:55:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

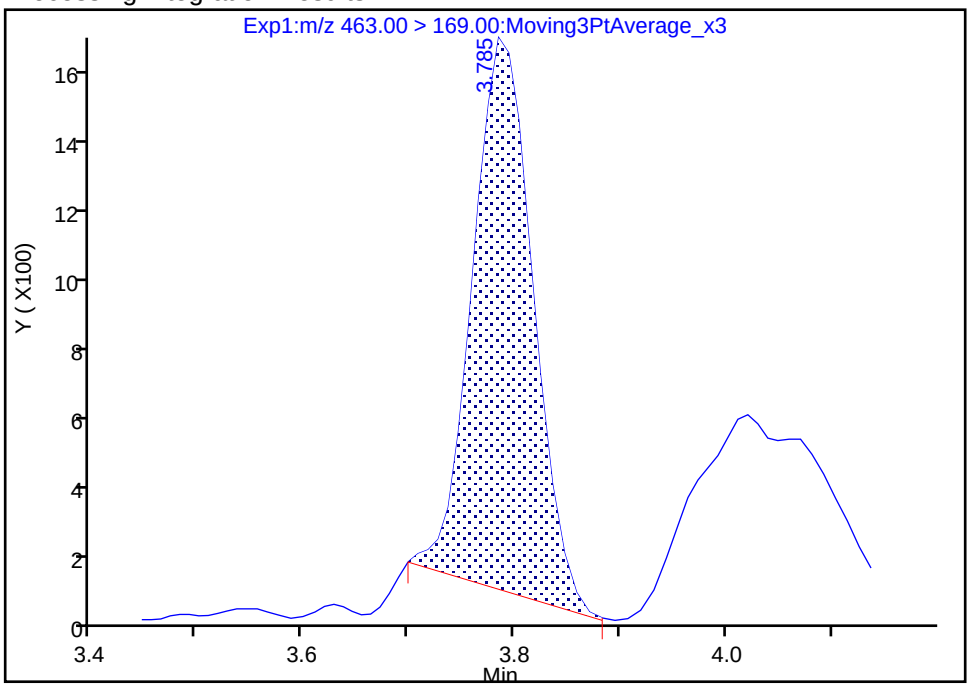
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

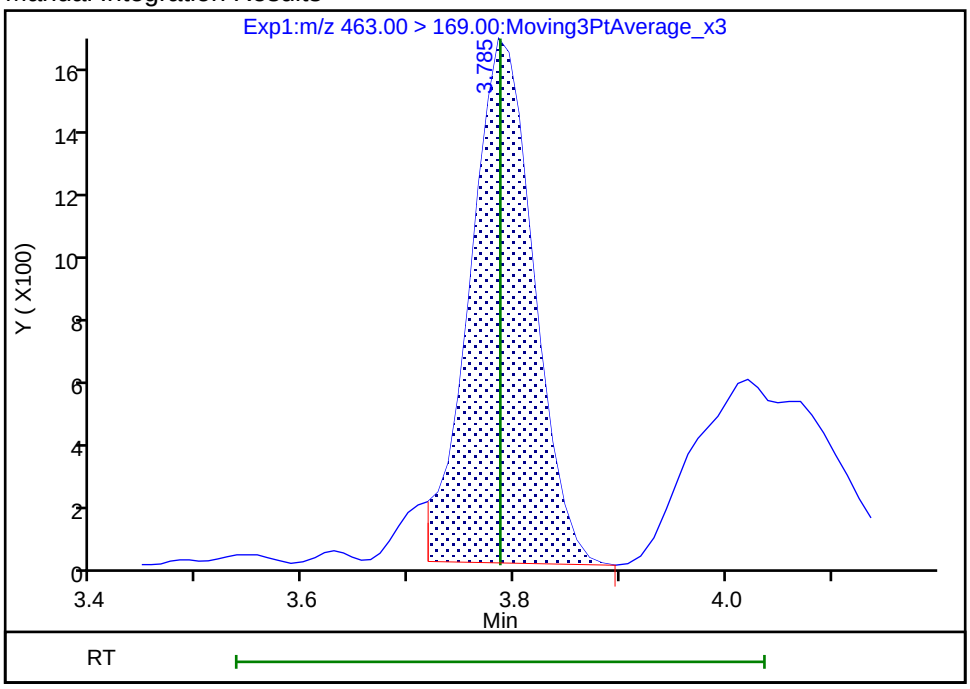
Processing Integration Results

RT: 3.78
Area: 6315
Amount: 0.039854
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 6961
Amount: 0.039854
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:55:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

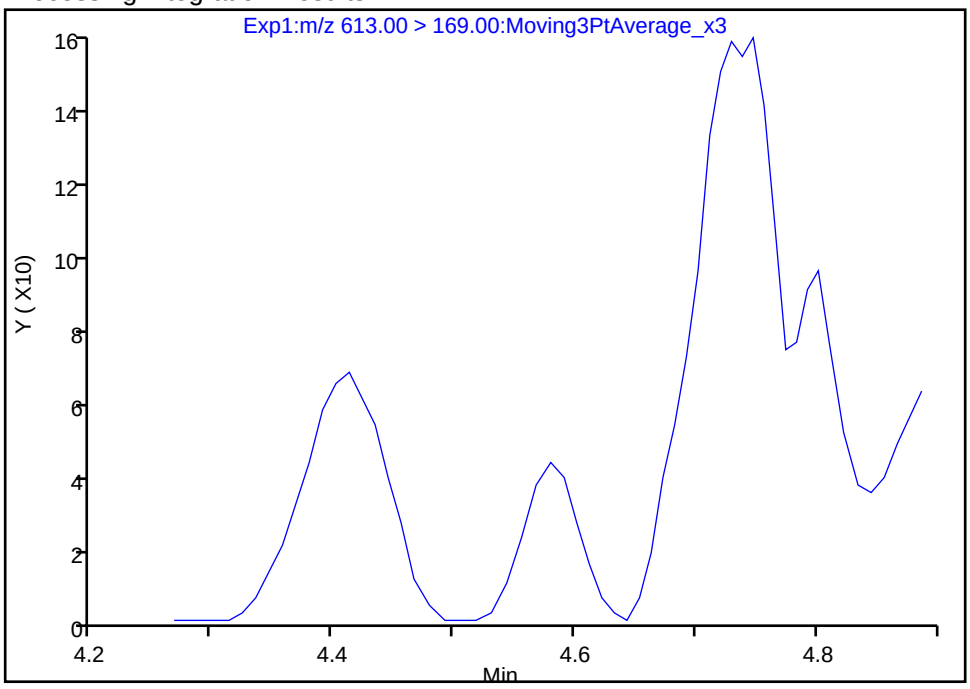
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

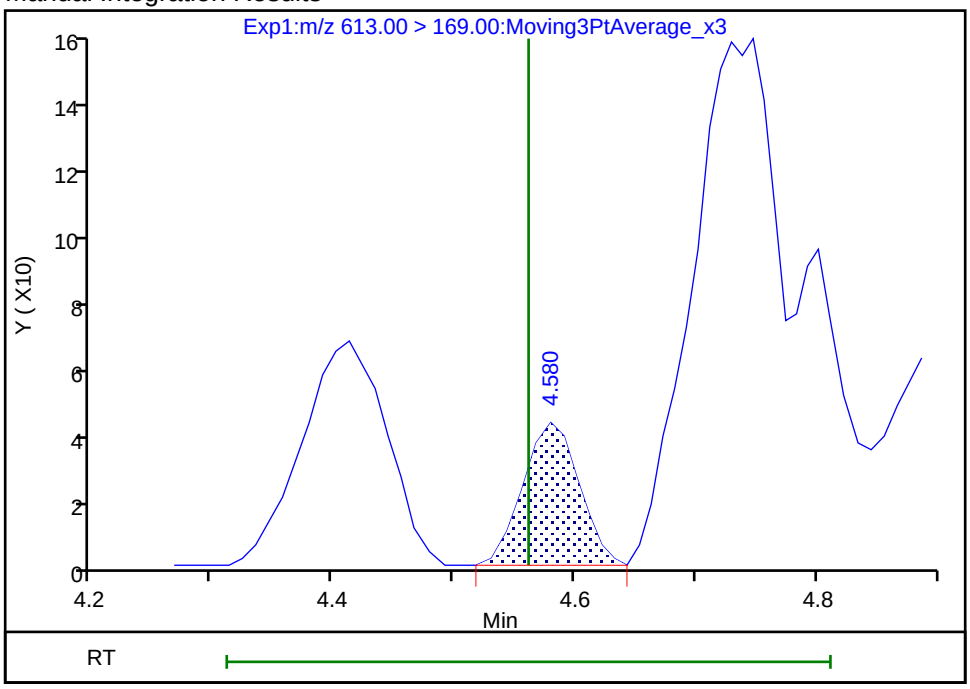
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 135
Amount: 0.000692
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

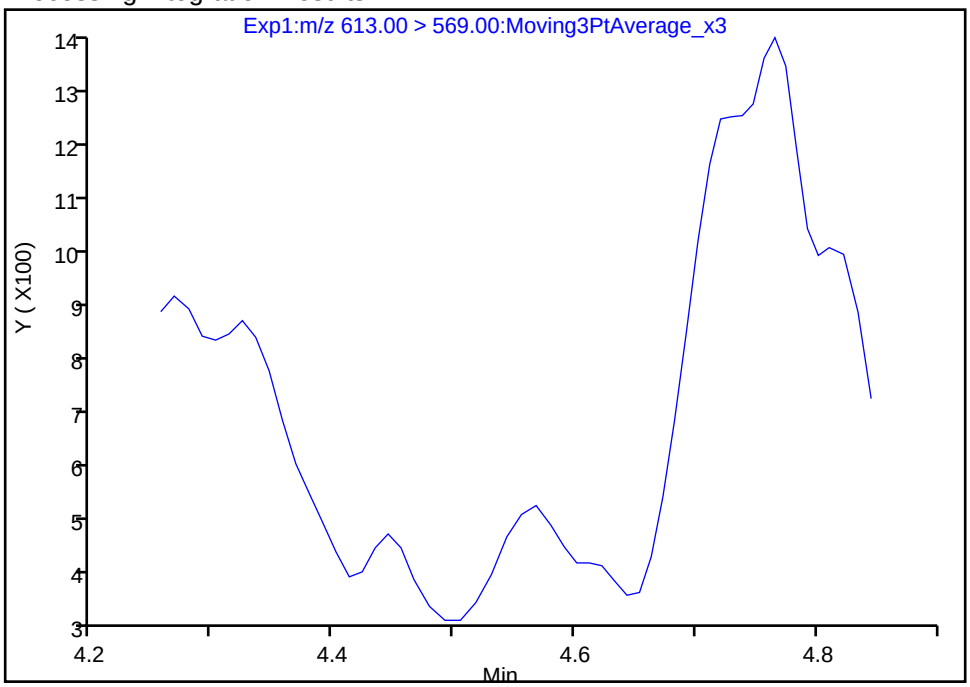
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

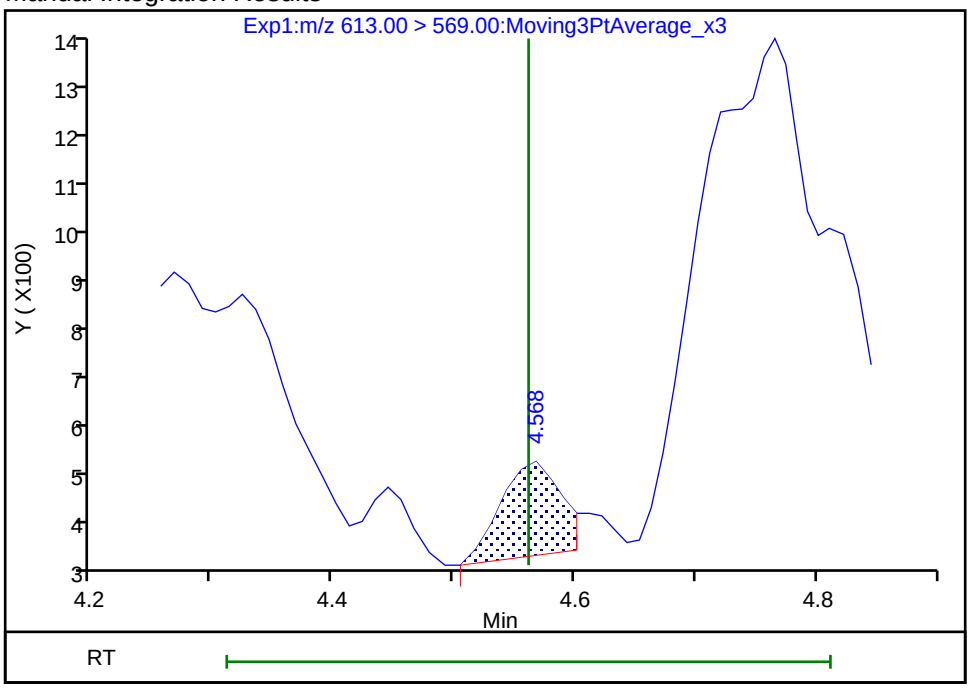
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 637
Amount: 0.000692
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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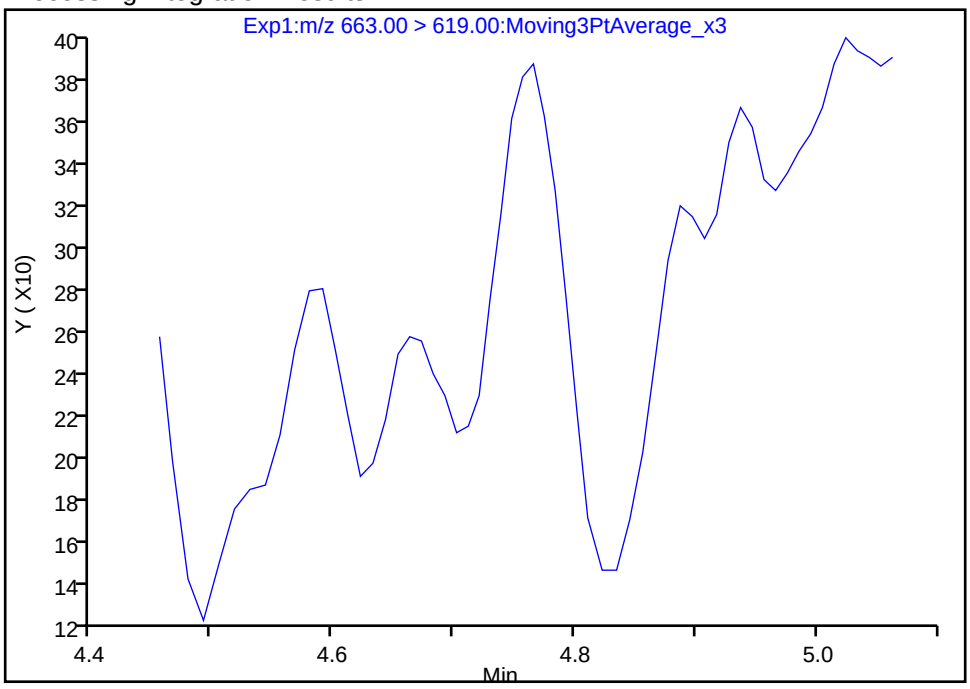
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

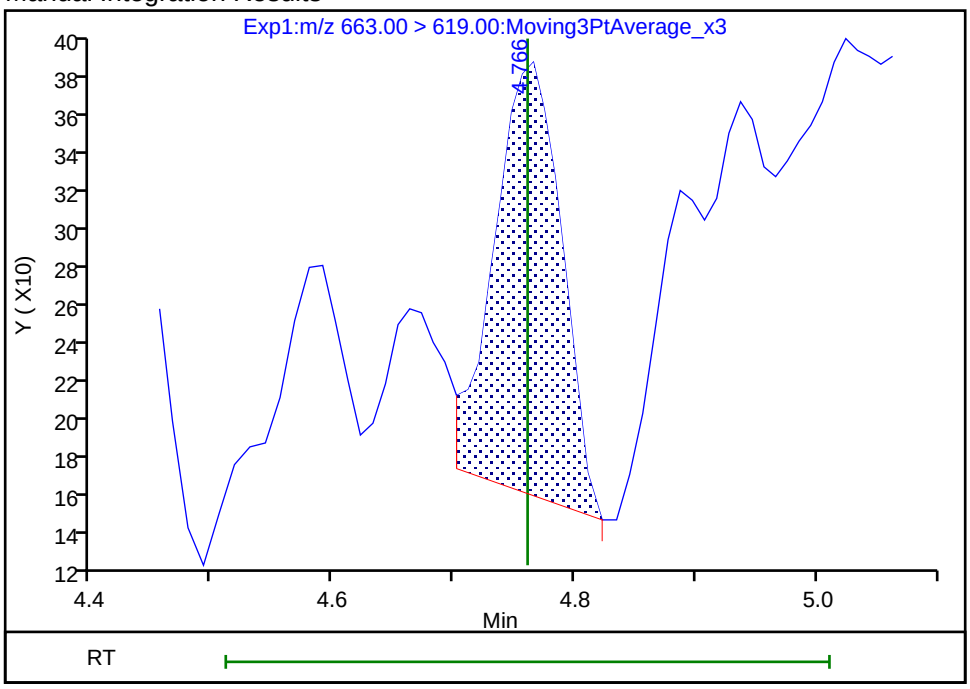
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 846
Amount: 0.001066
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:57:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

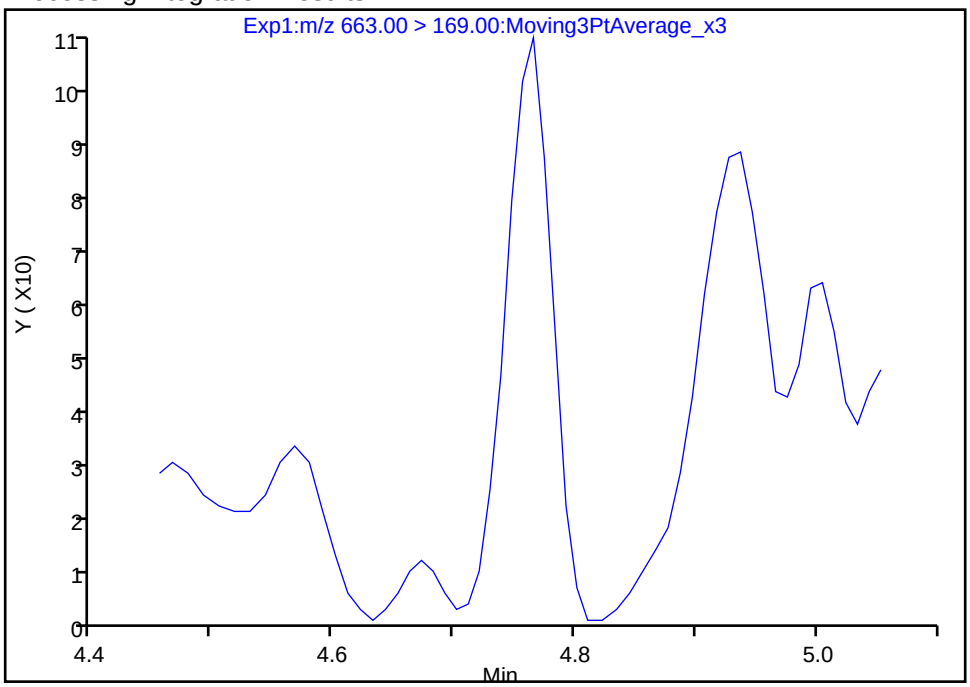
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

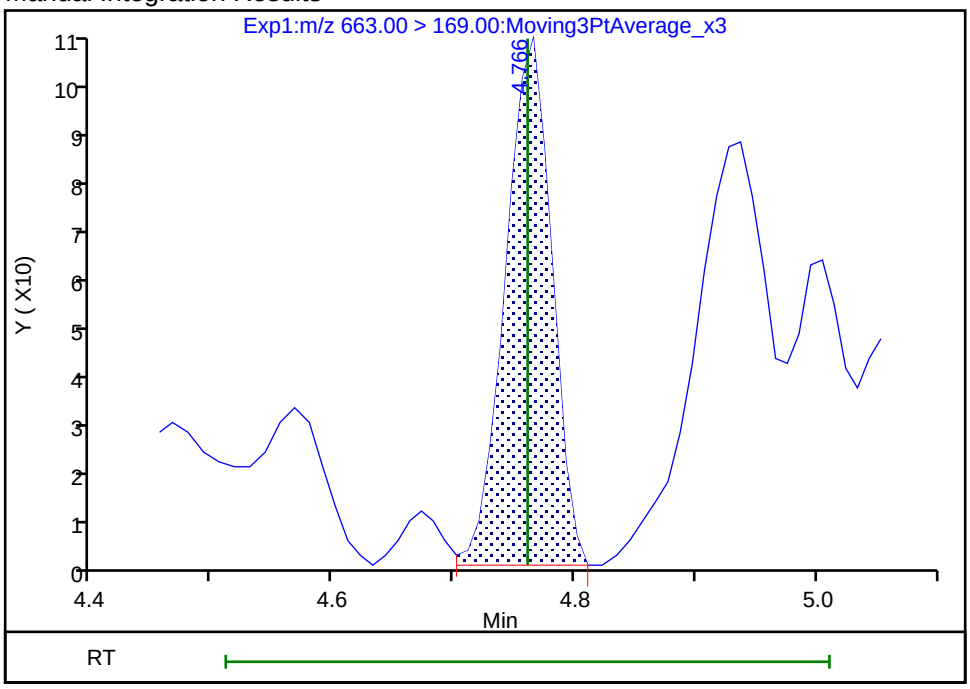
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 286
Amount: 0.001066
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:57:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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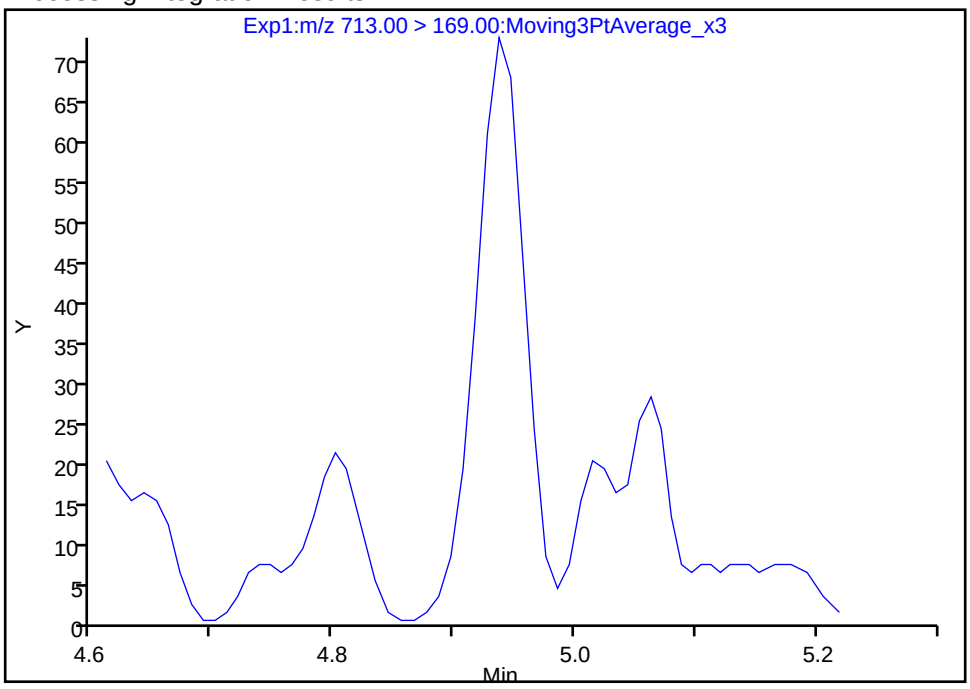
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

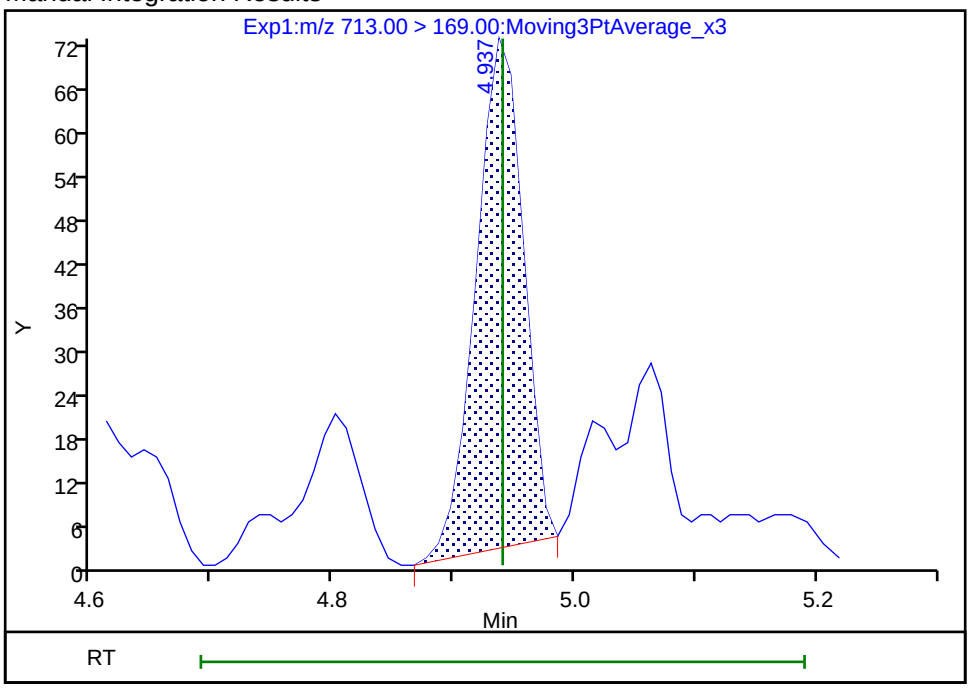
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.94
Area: 192
Amount: 0.001558
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:57:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

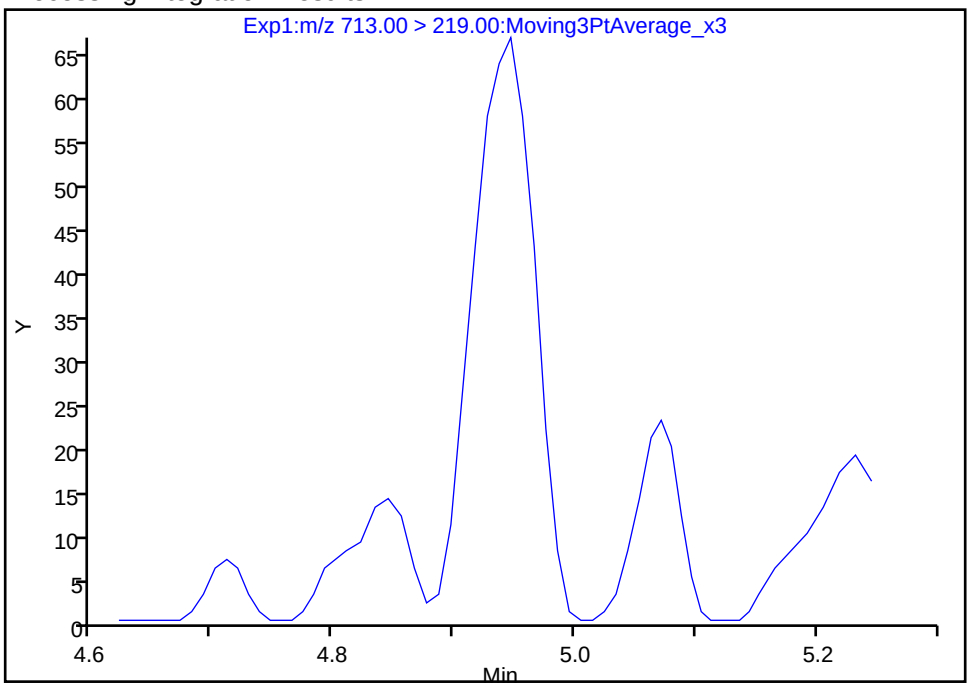
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

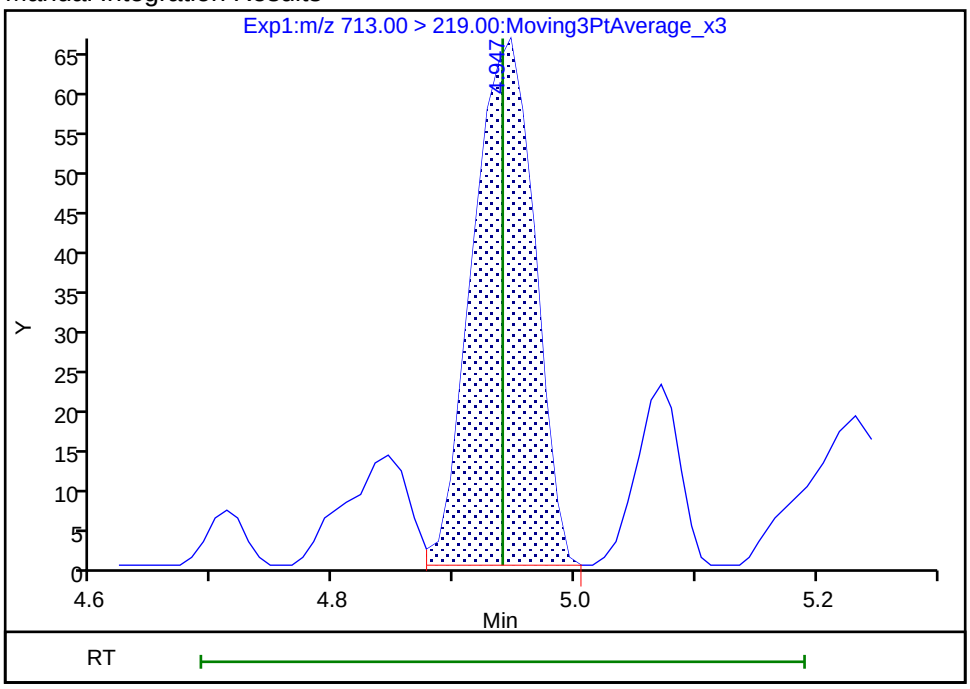
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 238
Amount: 0.001558
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:57:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

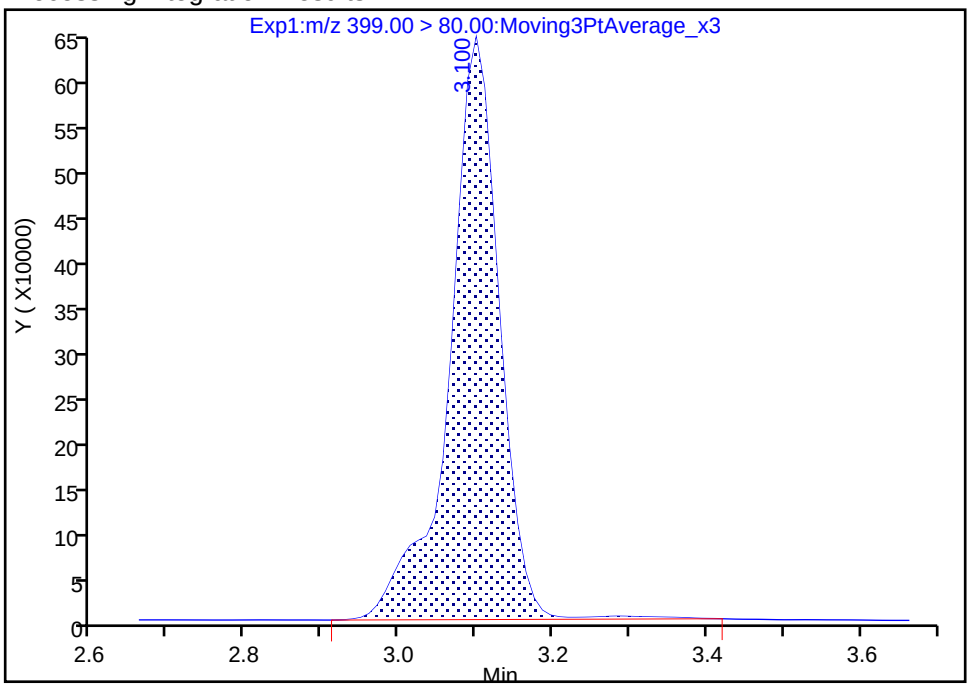
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

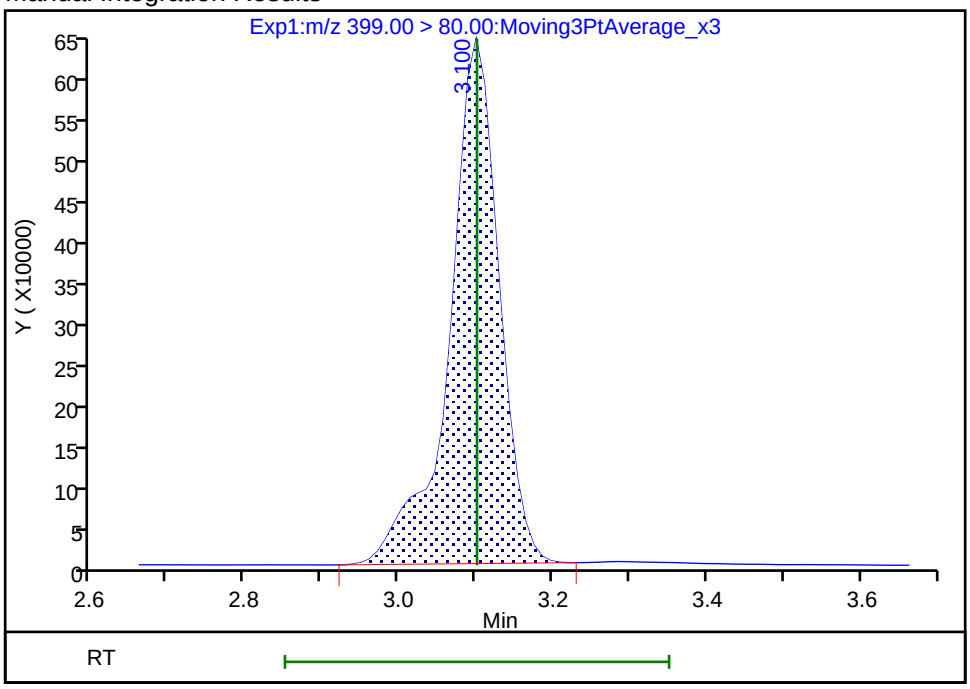
Processing Integration Results

RT: 3.10
Area: 2904905
Amount: 2.439363
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 2865721
Amount: 2.406459
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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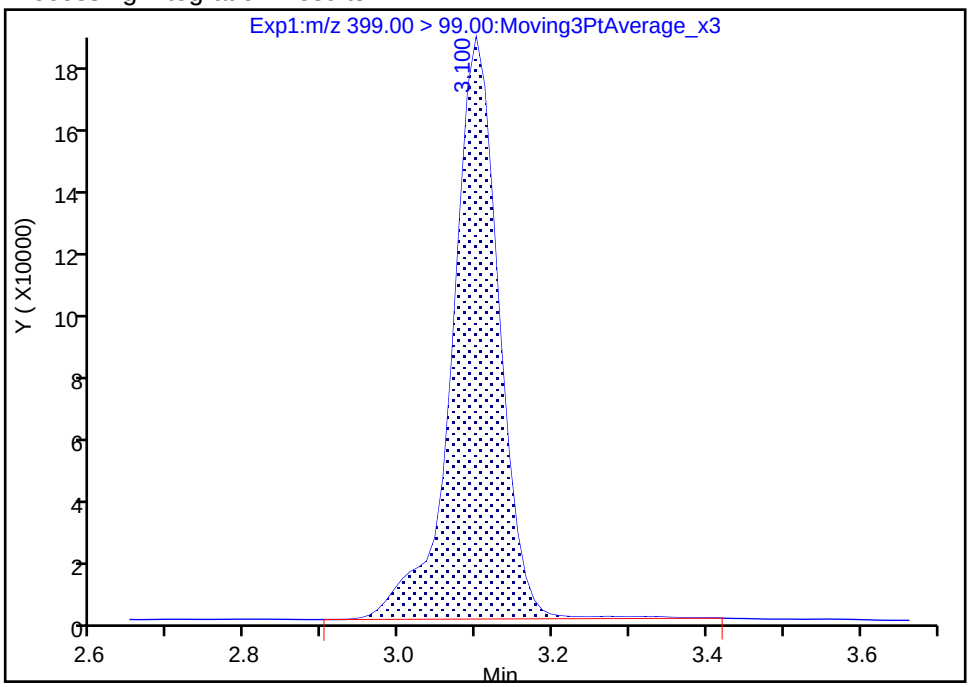
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

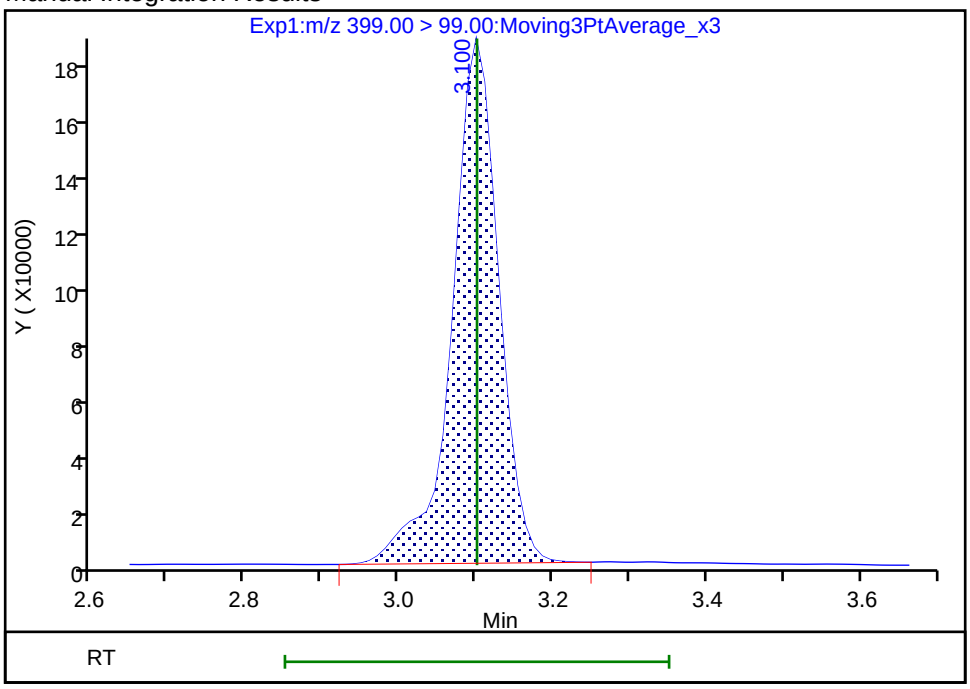
Processing Integration Results

RT: 3.10
Area: 794936
Amount: 2.439363
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 785932
Amount: 2.406459
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:54:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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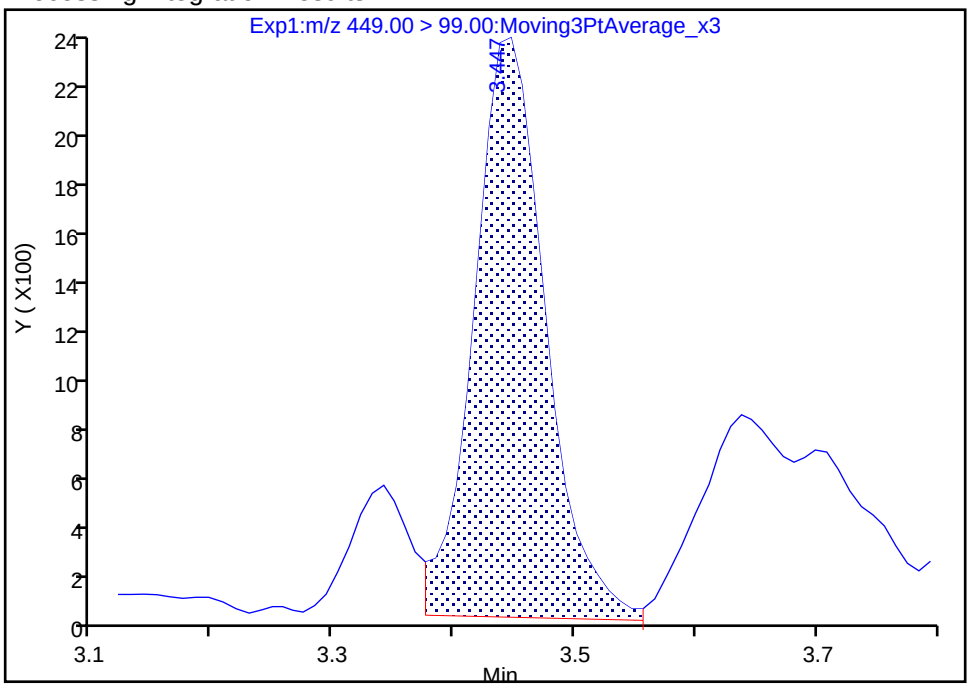
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

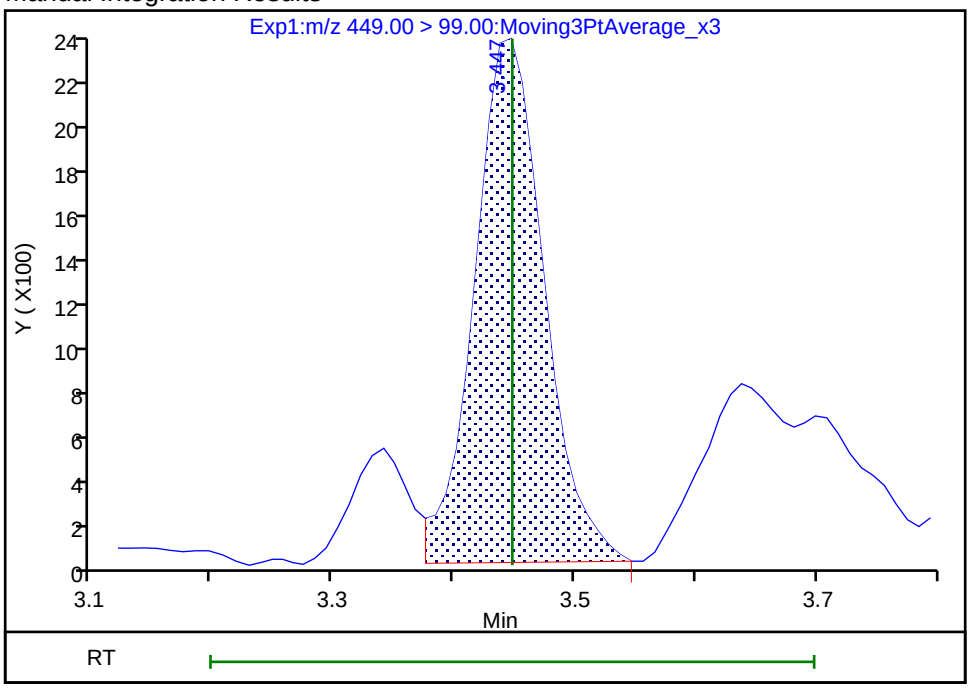
Processing Integration Results

RT: 3.45
Area: 9164
Amount: 0.043868
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 8832
Amount: 0.043868
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:55:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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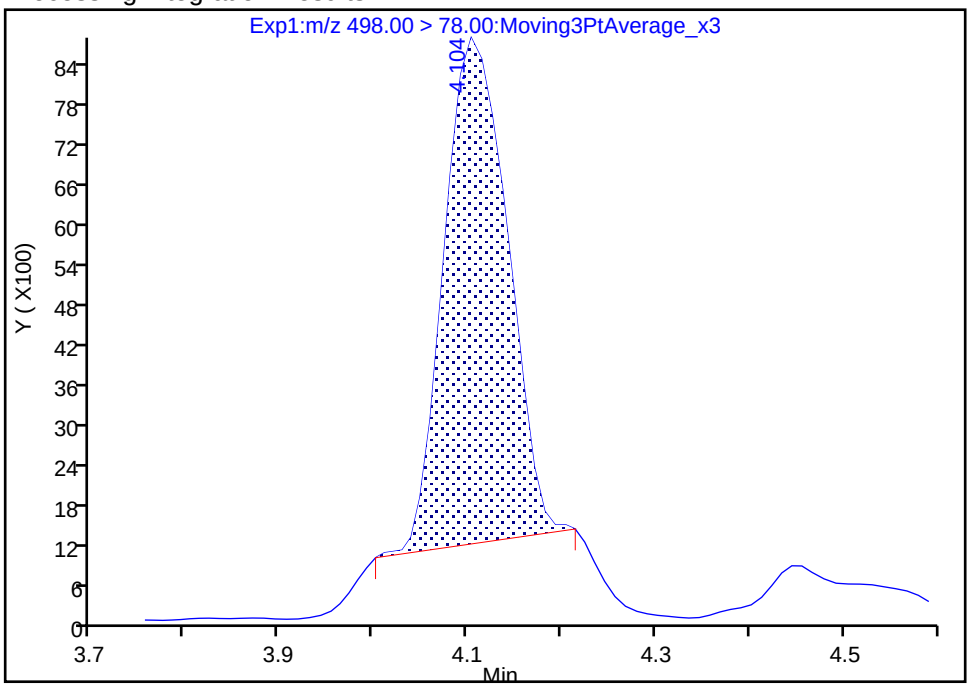
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

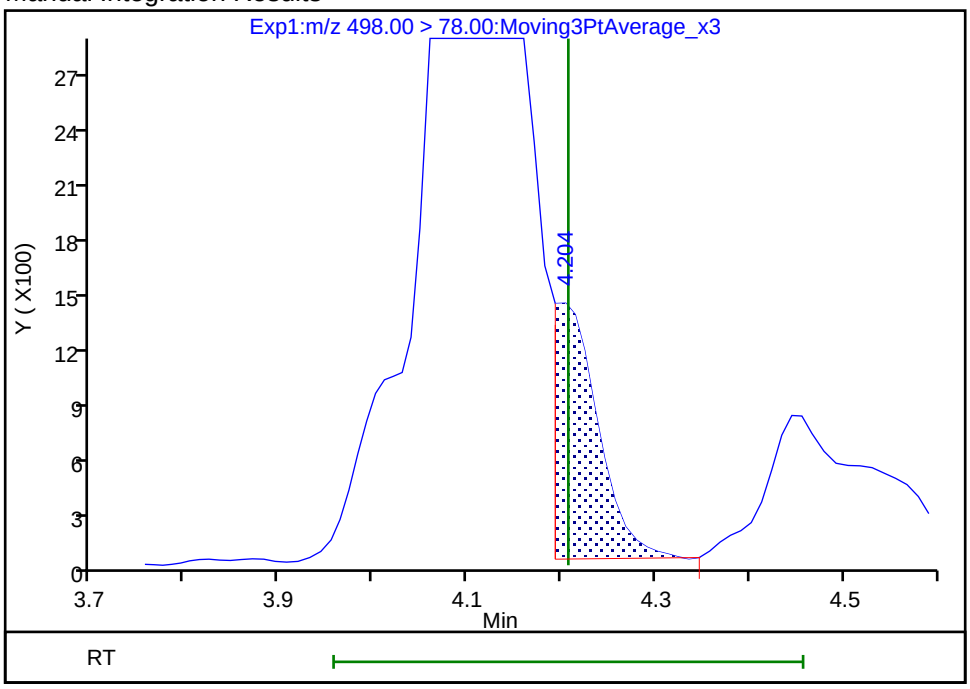
Processing Integration Results

RT: 4.10
Area: 35504
Amount: 0.029153
Amount Units: ng/ml




Manual Integration Results

RT: 4.20
Area: 4219
Amount: 0.003471
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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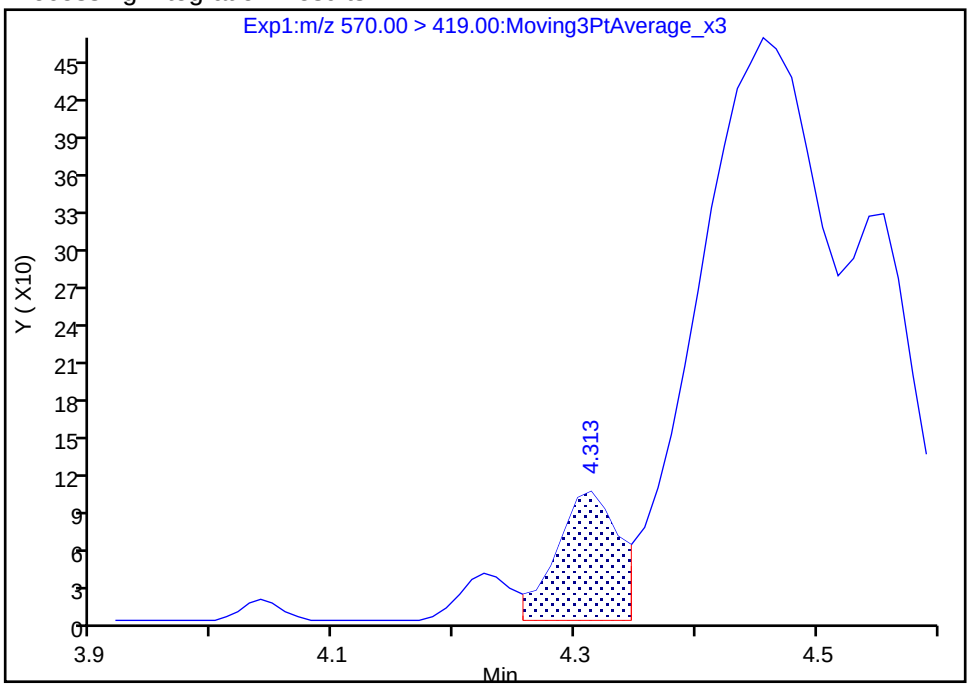
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

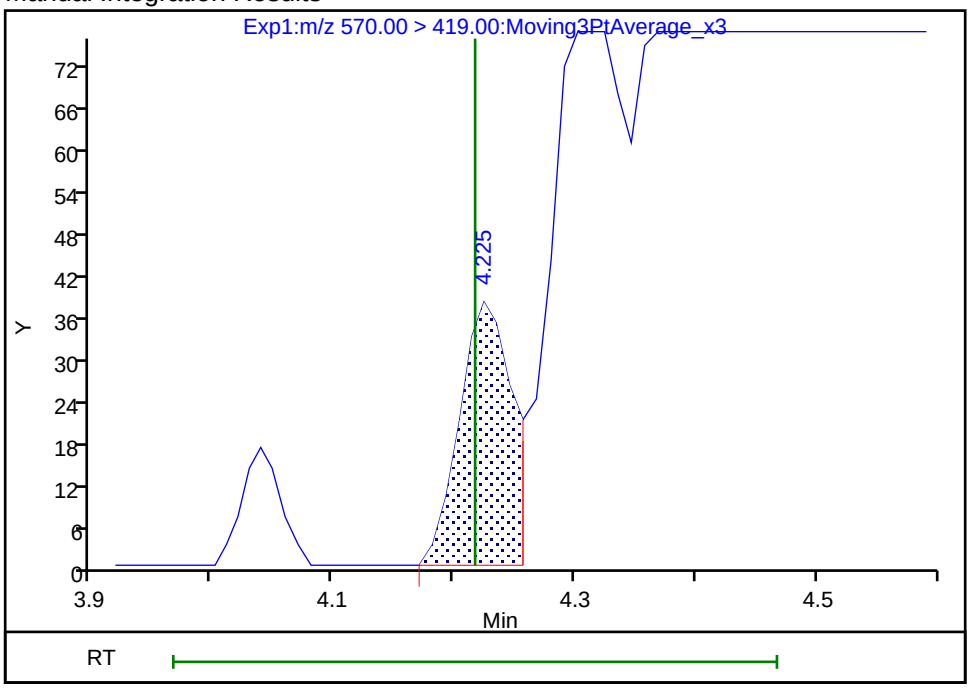
Processing Integration Results

RT: 4.31
Area: 362
Amount: 0.003253
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 111
Amount: 0.000997
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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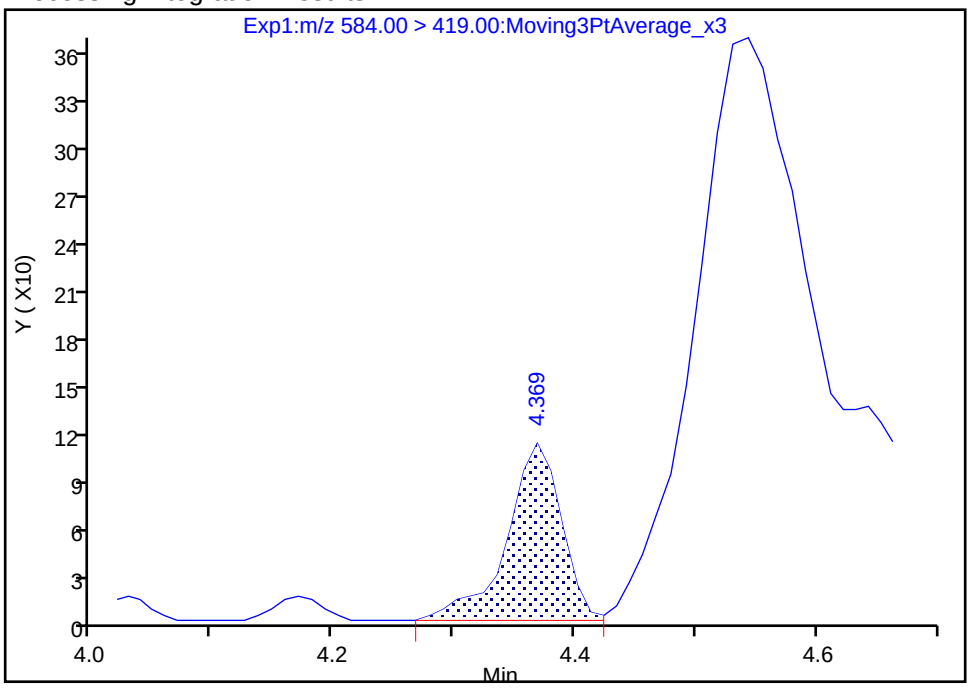
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

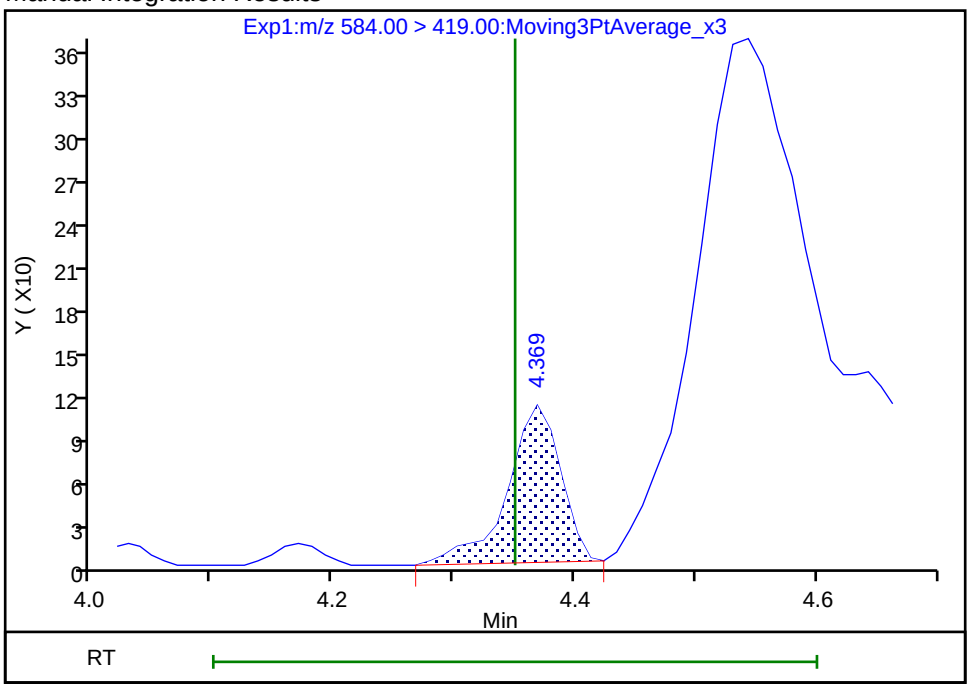
Processing Integration Results

RT: 4.37
Area: 345
Amount: 0.002909
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 331
Amount: 0.002791
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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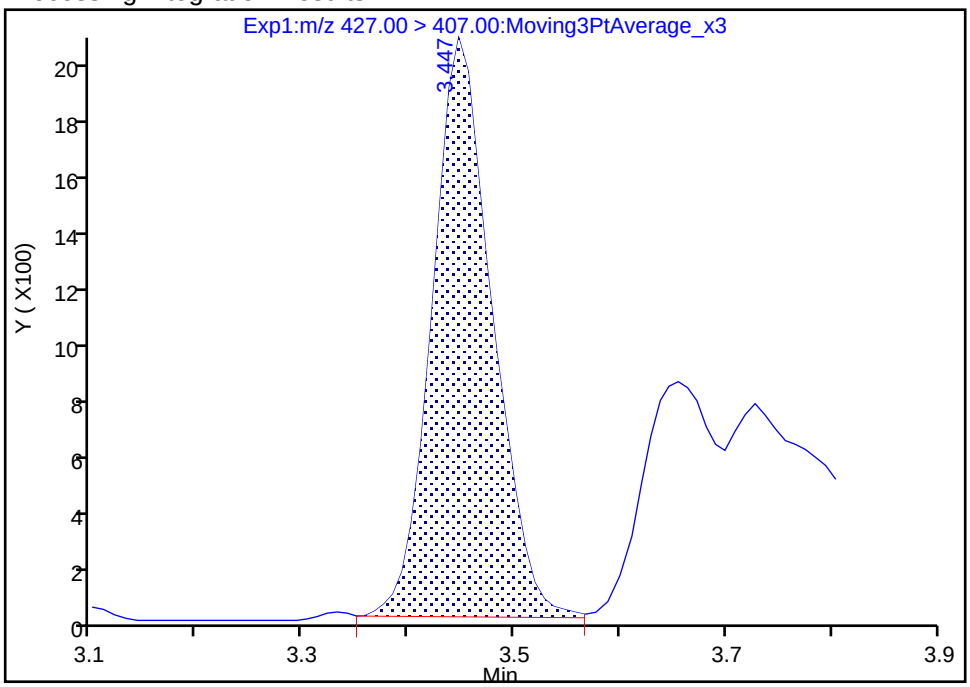
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

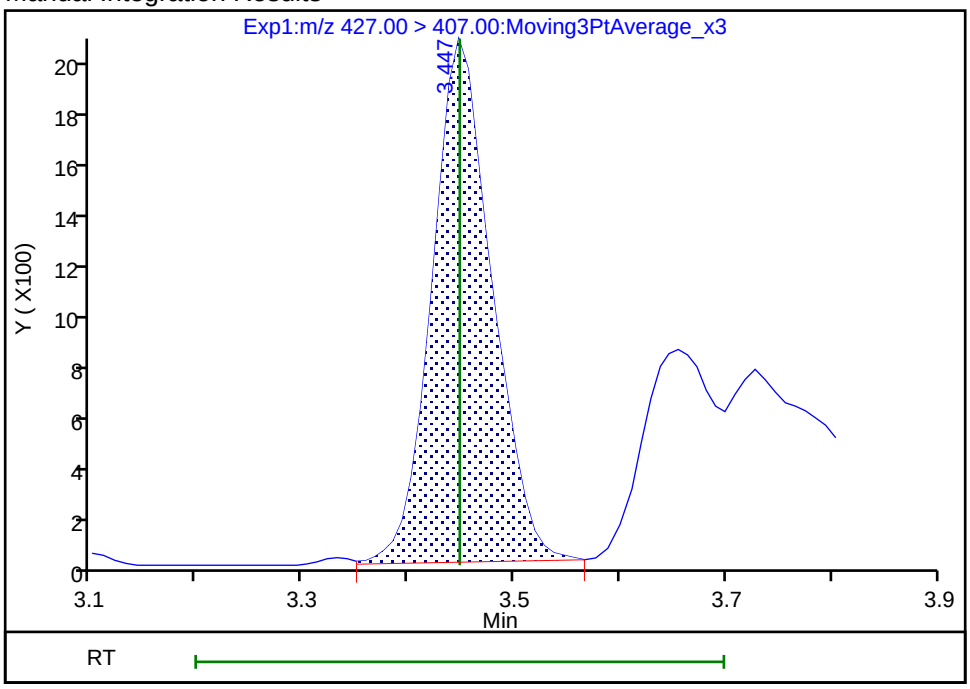
Processing Integration Results

RT: 3.45
Area: 7900
Amount: 0.035228
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 7894
Amount: 0.035201
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:55:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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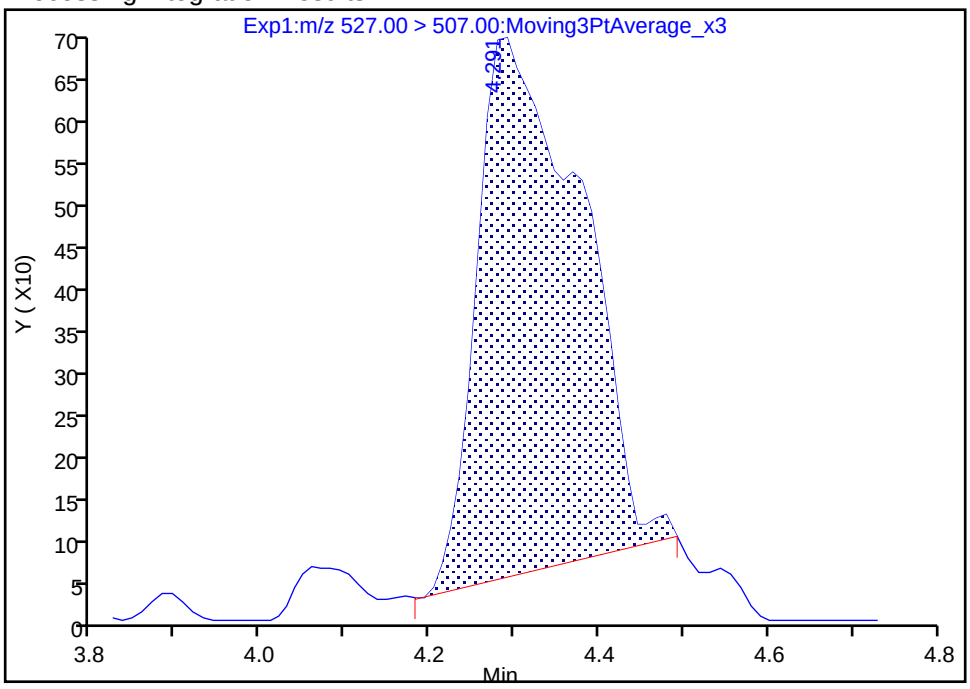
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

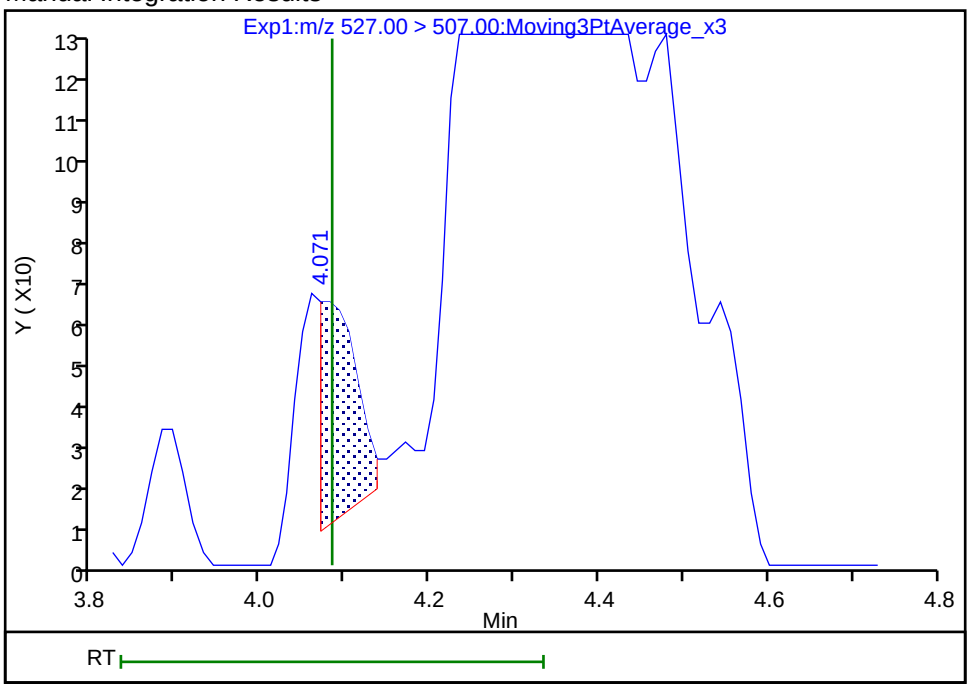
Processing Integration Results

RT: 4.29
Area: 5437
Amount: 0.030022
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 144
Amount: 0.000795
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:56:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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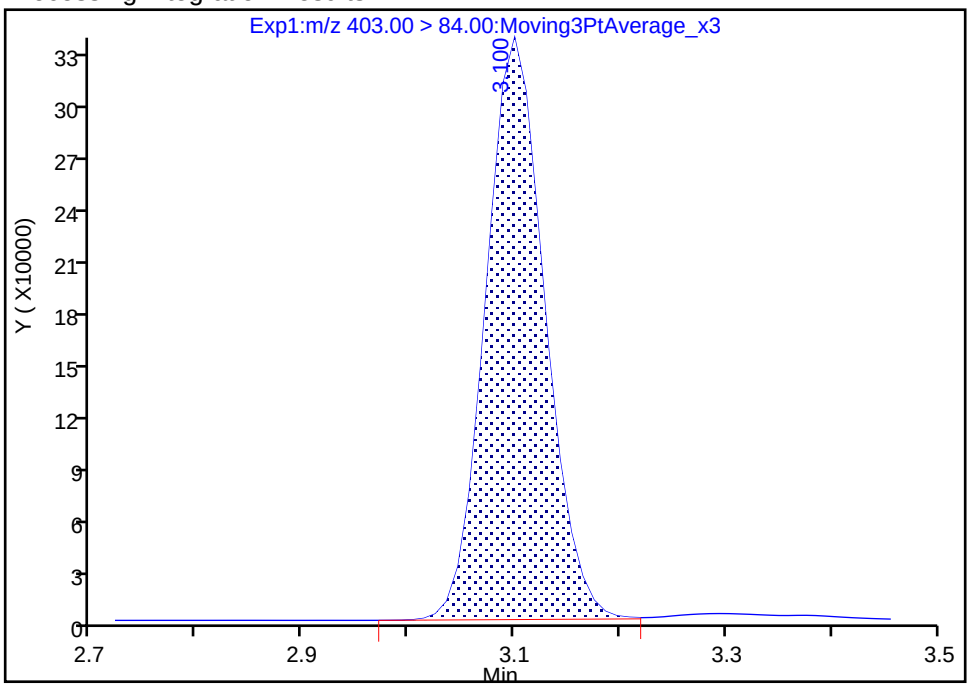
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

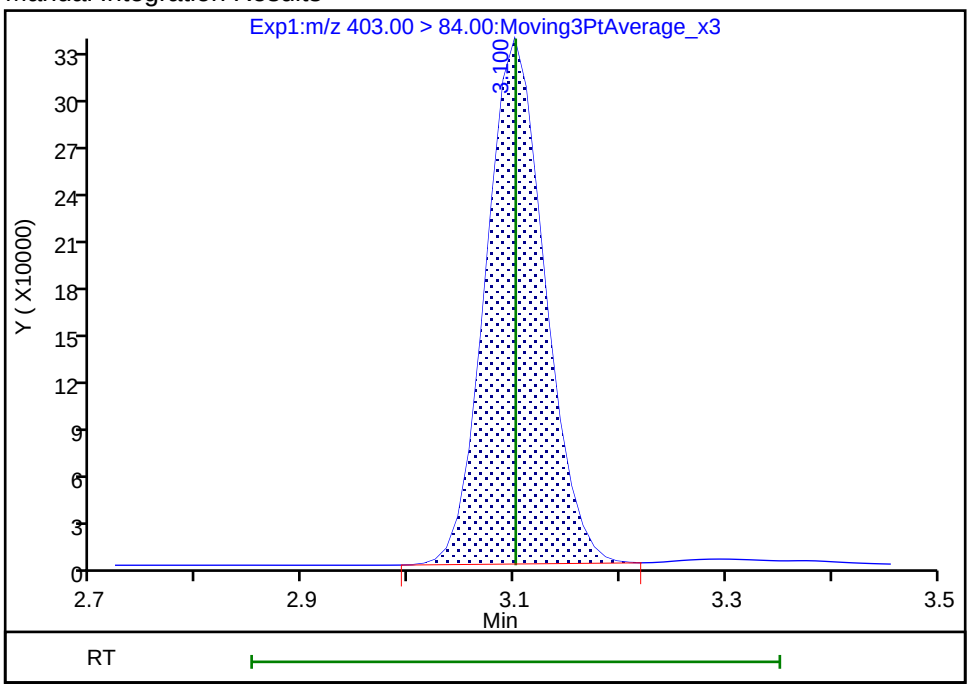
Processing Integration Results

RT: 3.10
Area: 1285415
Amount: 1.081112
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1280818
Amount: 1.082151
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:53:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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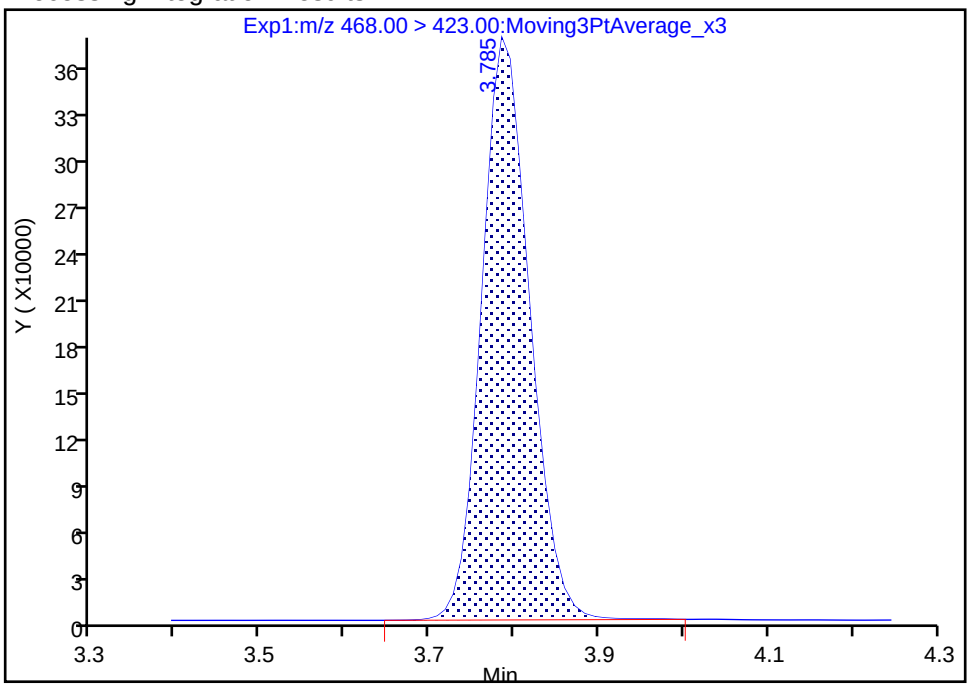
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

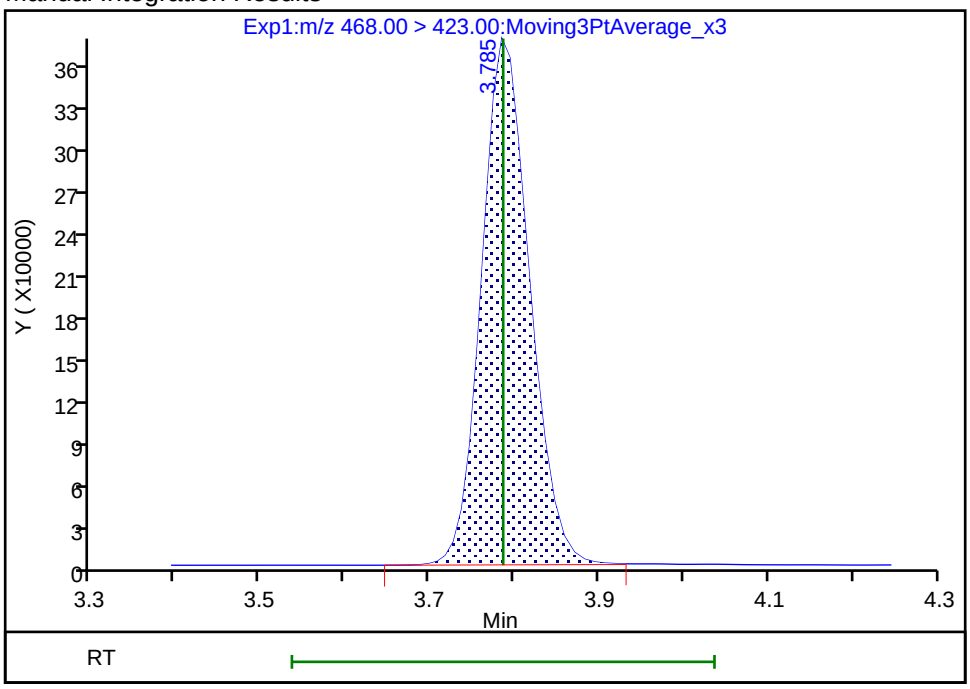
Processing Integration Results

RT: 3.78
Area: 1486097
Amount: 1.022271
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1484752
Amount: 1.025996
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:53:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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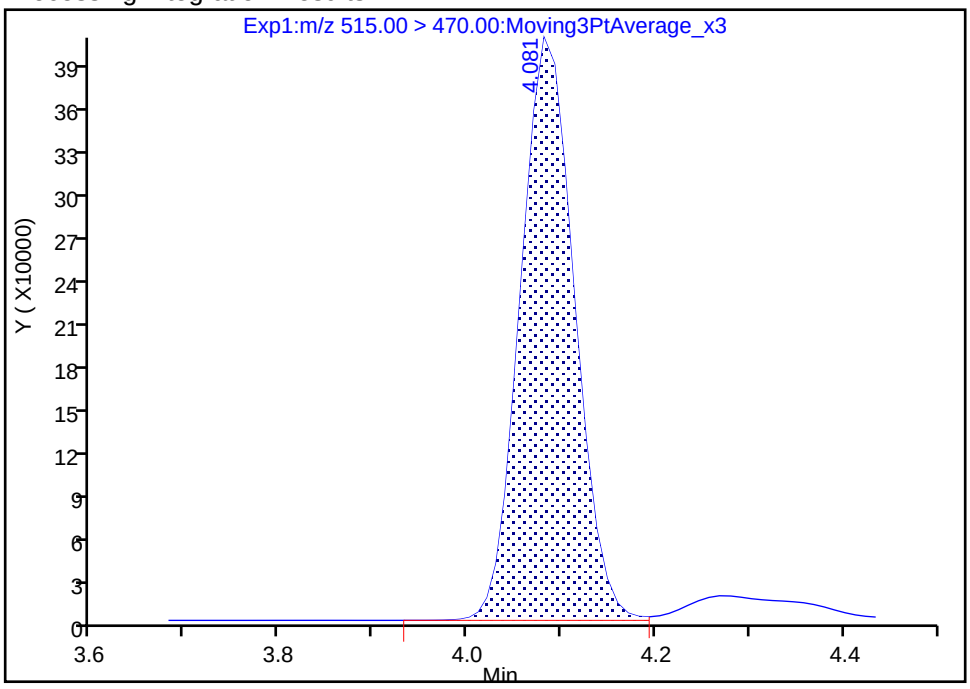
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

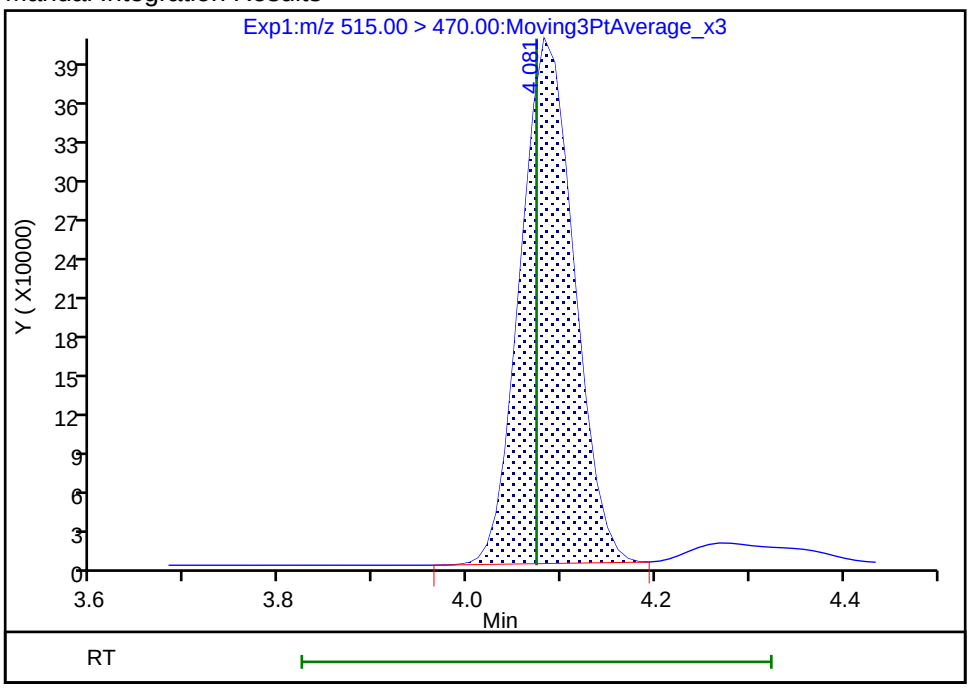
Processing Integration Results

RT: 4.08
Area: 1639536
Amount: 1.122610
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1622229
Amount: 1.110759
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:48:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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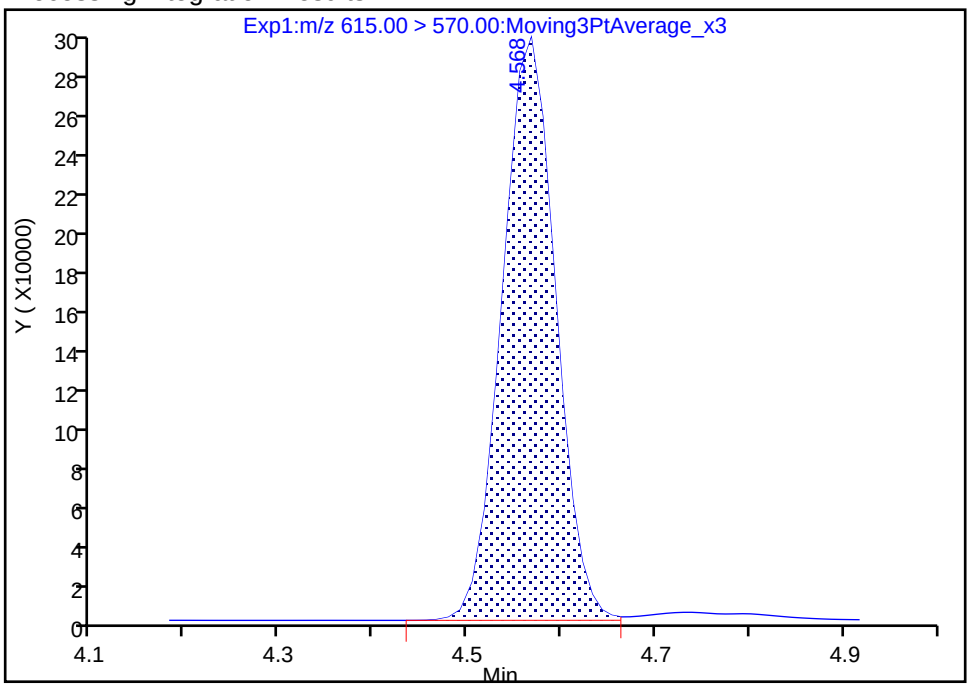
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

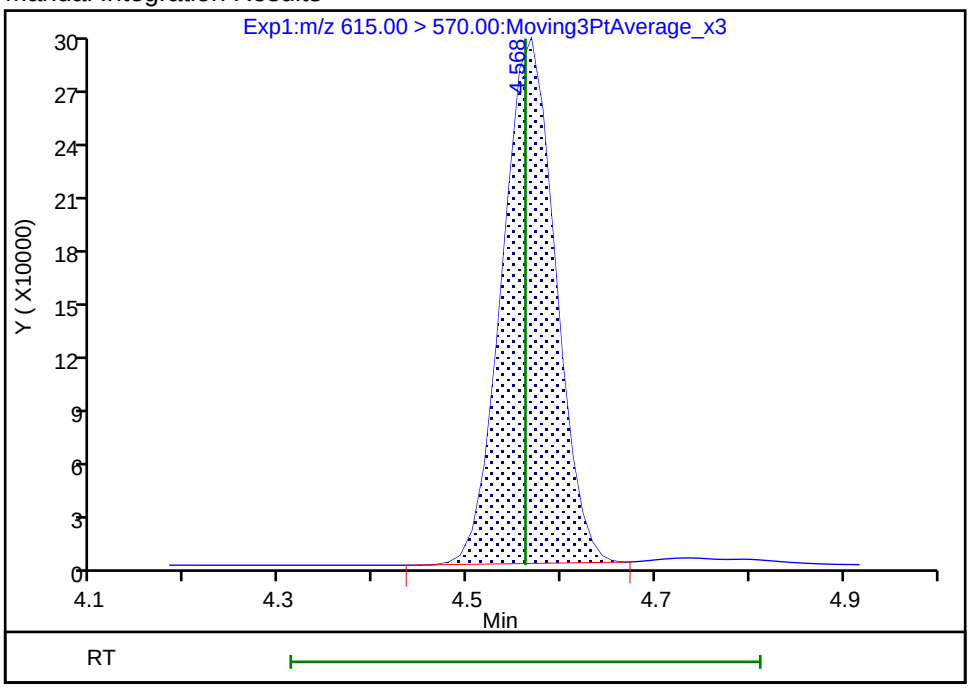
Processing Integration Results

RT: 4.57
Area: 1186939
Amount: 0.969387
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 1175265
Amount: 0.959853
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:49:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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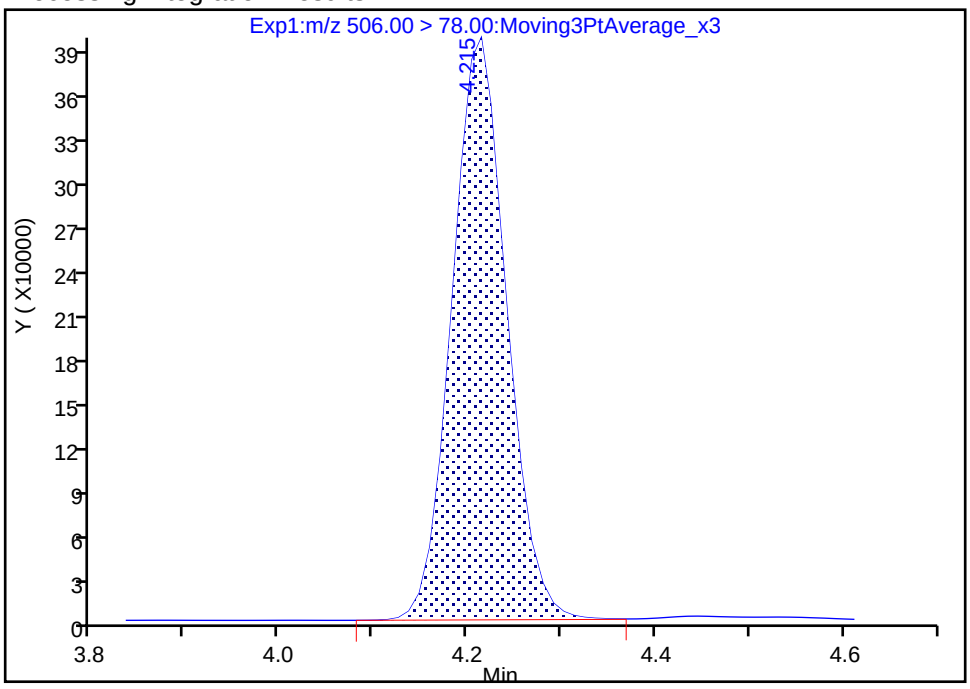
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

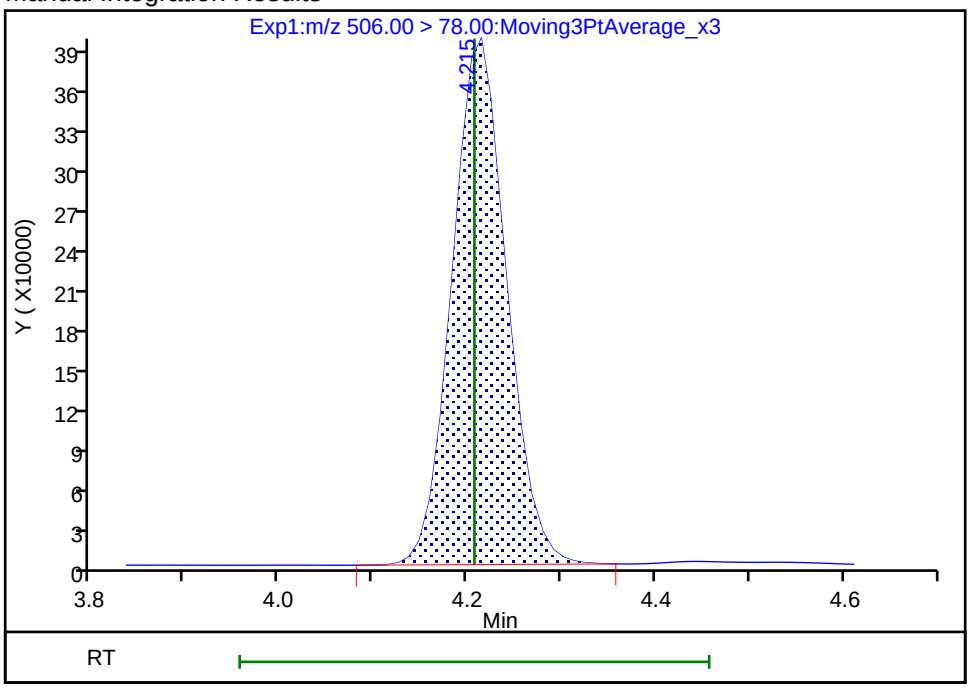
Processing Integration Results

RT: 4.21
Area: 1602972
Amount: 1.137922
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1599949
Amount: 1.135776
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:48:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

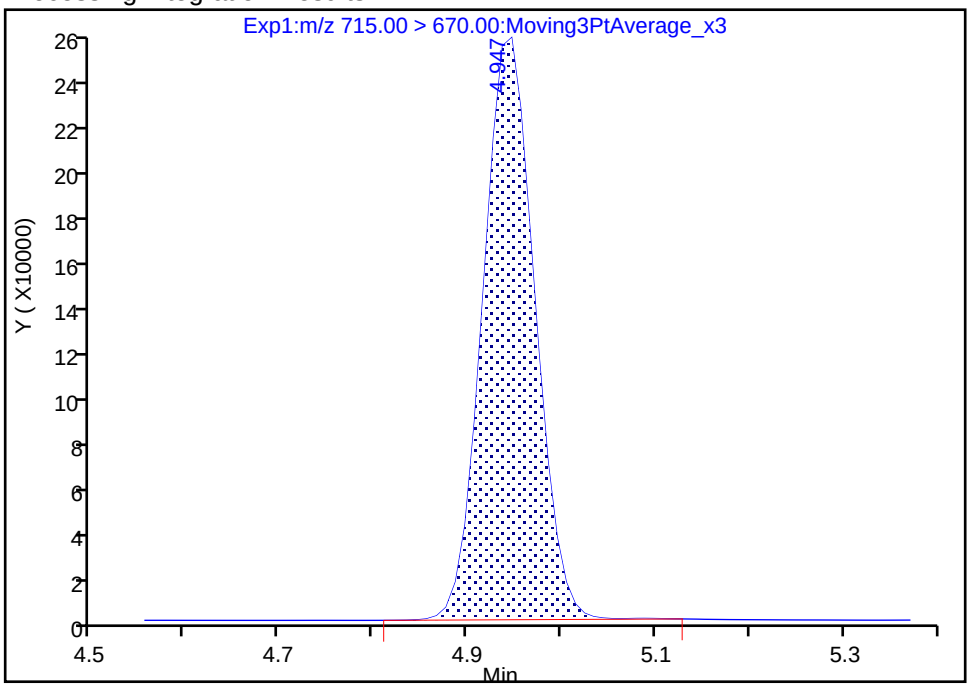
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

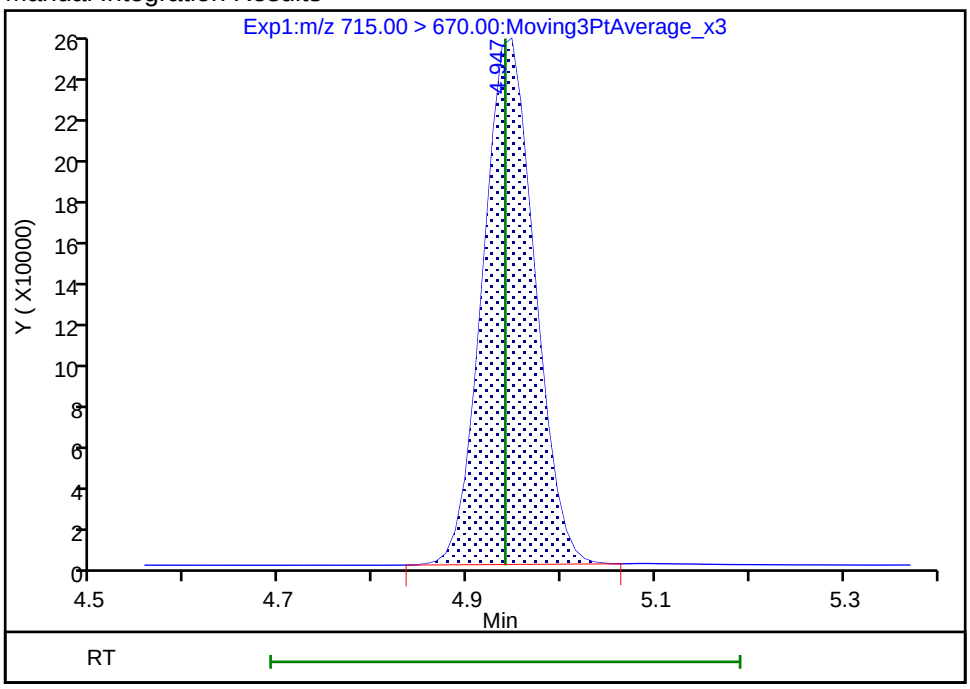
Processing Integration Results

RT: 4.95
Area: 978033
Amount: 1.025237
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 975755
Amount: 1.027506
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:53:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

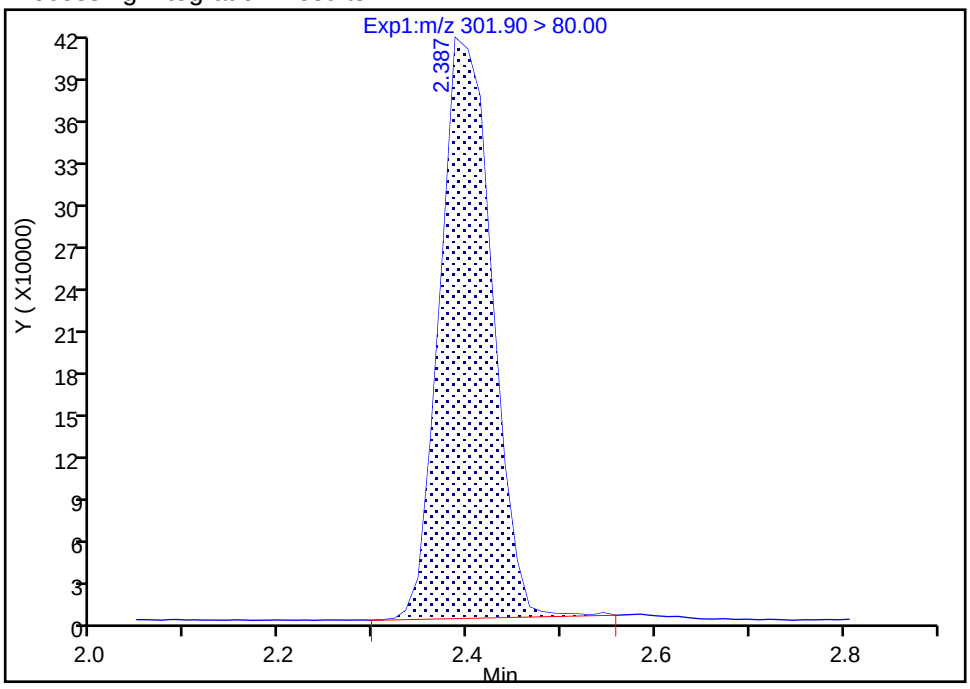
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

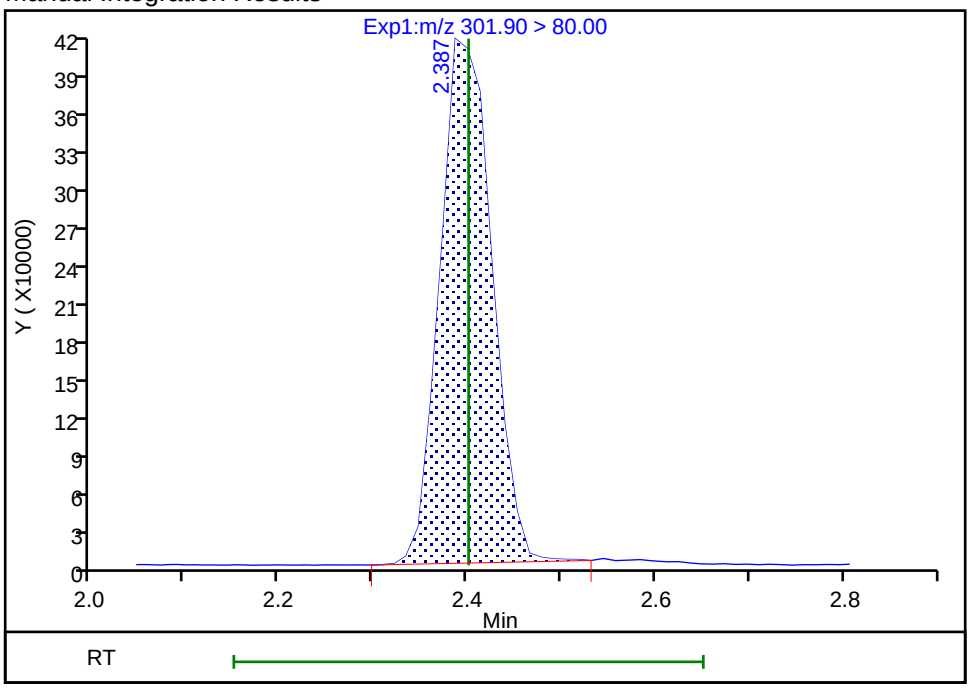
Processing Integration Results

RT: 2.39
Area: 1593425
Amount: 0.973628
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 1587375
Amount: 0.974348
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:53:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

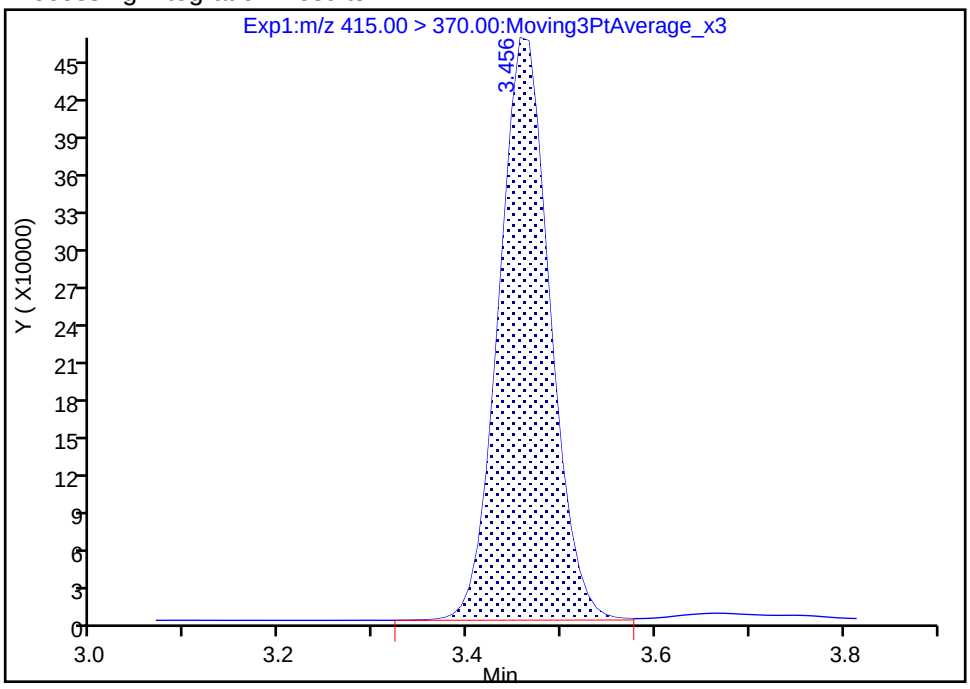
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A17.d | | | | |
| Injection Date: | 03-Nov-2021 14:57:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

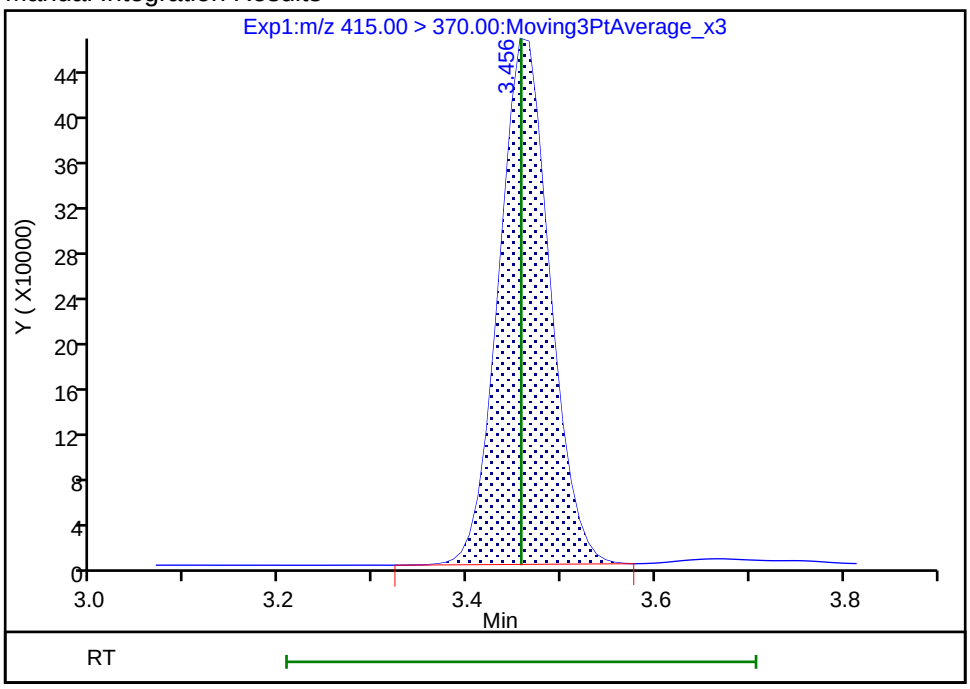
Processing Integration Results

RT: 3.46
Area: 1773015
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1764979
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:48:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: DUP-01-20211027 DL  Lab Sample ID: 460-246027-5 DL

Matrix: Water  Lab File ID: PA211104A08.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:00

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 268(mL)  Date Analyzed: 11/04/2021 14:25

Con. Extract Vol.: 10(mL)  Dilution Factor: 5

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

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

Analysis Batch No.: 173511  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 838 | D | 9.33 | 1.36 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00991 | 13C4 PFOS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A08.d
Lims ID: 460-246027-A-5-A
Client ID: DUP-01-20211027
Sample Type: Client
Inject. Date: 04-Nov-2021 14:25:44 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 5.0000
Sample Info: 460-246027-A-5-A
Misc. Info.: 200-0048291-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: khanphomeea Date: 05-Nov-2021 11:53:24
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.082 | 0.0 | 0.596 | 363402 | 0.2493 | | 99.7 | 2084 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.082 | 2.082 | 0.0 | 1.000 | 81377 | 0.0592 | | | 9.4 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.401 | -0.001 | 0.687 | 295463 | 0.2407 | | 96.3 | 849 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.401 | -0.001 | 1.000 | 92298 | 0.0780 | | | 3.5 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.427 | -0.014 | 0.691 | 353950 | 0.2131 | | 91.6 | 24460 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.005 | 41719 | 0.0257 | Target=2.32 | | 14.7 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.005 | 16246 | | 2.57(1.16-3.48) | | 6.1 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 332303 | 0.2580 | | 103 | 759 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 163857 | 0.1216 | Target=12.09 | | 17.3 | |
| 313.00 > 119.00 | 2.758 | 2.771 | -0.013 | 0.996 | 12697 | | 12.91(6.04-18.13) | | 19.3 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 262476 | 0.2175 | | 92.0 | 179 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 609048 | 0.4991 | Target=3.55 | | 286 | |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 165609 | | 3.68(1.77-5.32) | | 138 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 336081 | 0.2479 | | 99.1 | 1291 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.144 | -0.001 | 1.000 | 49829 | 0.0359 | Target=3.69 | | 11.9 | |
| 363.00 > 169.00 | 3.132 | 3.144 | -0.012 | 0.997 | 11543 | | 4.32(1.84-5.53) | | 17.9 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.484 | -0.001 | 1.000 | 1757 | 0.006156 | | | 5.9 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.483 | 3.484 | -0.001 | 0.916 | 8080 | 0.007793 | Target=4.88 | | 5.6 | |
| 449.00 > 99.00 | 3.474 | 3.484 | -0.010 | 0.913 | 2522 | | 3.20(2.44-7.32) | | 4.6 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.484 | -0.001 | 0.997 | 53452 | 0.2808 | | 118 | 45.5 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.493 | -0.001 | 1.000 | 341599 | 0.2306 | | 92.2 | 459 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.492 | 3.493 | -0.001 | | 359949 | 0.2500 | | | 173 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.493 | -0.001 | 1.000 | 64841 | 0.0446 | Target=2.68 | | 6.7 | |
| 413.00 > 169.00 | 3.492 | 3.493 | -0.001 | 1.000 | 29904 | | 2.17(1.34-4.02) | | 20.0 | |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.089 | 198784 | 0.2279 | | 95.4 | 133 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.000 | 4052650 | 4.49 | Target=4.69 | | 1184 | M |
| 499.00 > 99.00 | 3.804 | 3.806 | -0.002 | 1.000 | 945327 | | 4.29(2.35-7.04) | | 1074 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.826 | -0.002 | 1.095 | 360983 | 0.2446 | | 97.9 | 1056 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.118 | -0.003 | 1.178 | 323966 | 0.2175 | | 87.0 | 28.9 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | R |
| 513.00 > 469.00 | 4.347 | 4.118 | 0.229 | 1.056 | 36903 | 0.0283 | Target=8.95 | | 14.2 | R |
| 513.00 > 169.00 | 4.347 | 4.118 | 0.229 | 1.056 | 1188 | | 31.06(4.47-13.42) | | 4.0 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.129 | -0.003 | 1.182 | 73813 | 0.3421 | | 143 | 39.7 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.369 | 4.129 | 0.240 | 1.059 | 4738 | 0.0184 | | | 36.1 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.227 | 0.008 | 1.213 | 310881 | 0.2164 | | 86.6 | 260 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.126 | 4.227 | -0.101 | 0.974 | 7295 | 0.006177 | | | 11.5 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.260 | -0.003 | 1.219 | 44647 | 0.3048 | | 122 | 56.0 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.260 | -0.003 | 1.000 | 598 | 0.004262 | | | 1.4 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.373 | 0.007 | 1.254 | 243306 | 0.2096 | | 83.8 | 238 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.384 | 0.007 | 1.257 | 44797 | 0.3265 | | 131 | 263 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.391 | 4.395 | -0.004 | 1.000 | 890 | 0.005796 | | | 3.0 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.595 | 0.006 | 1.318 | 266933 | 0.2138 | | 85.5 | 86.3 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.979 | -0.003 | 1.425 | 218606 | 0.2258 | | 90.3 | 628 | |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 08-Nov-2021 11:22:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A08.d

Injection Date: 04-Nov-2021 14:25:44 Instrument ID: LC812

Lims ID: 460-246027-A-5-A Lab Sample ID: 200-246027-5

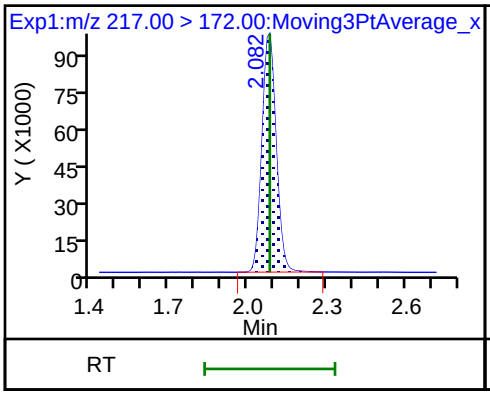
Client ID: DUP-01-20211027

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8

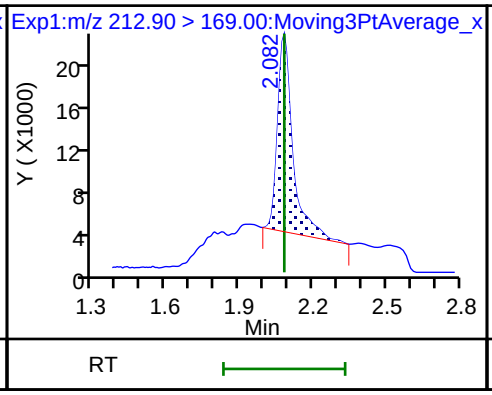
Injection Vol: 20.0 ul Dil. Factor: 5.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

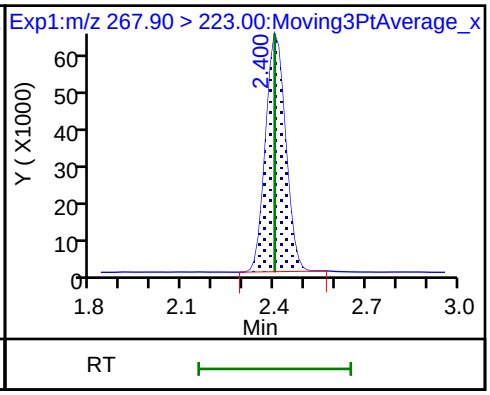
D 1 13C4 PFBA



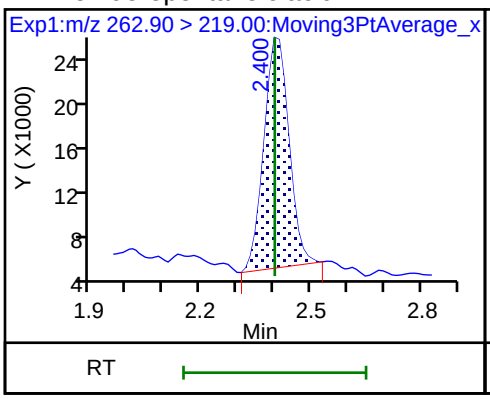

2 Perfluorobutanoic acid



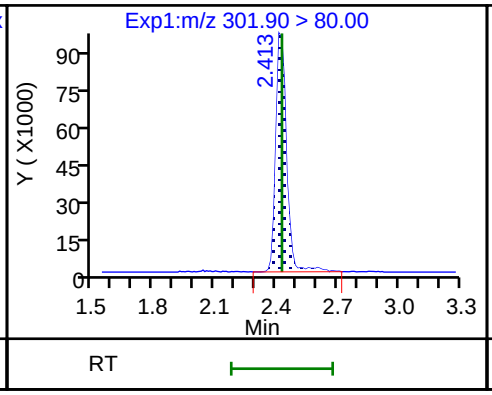

D 3 13C5 PFPeA



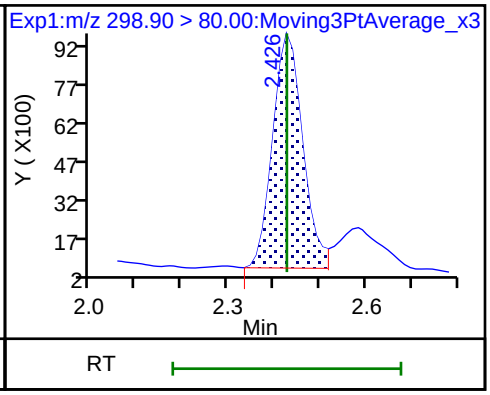

4 Perfluoropentanoic acid



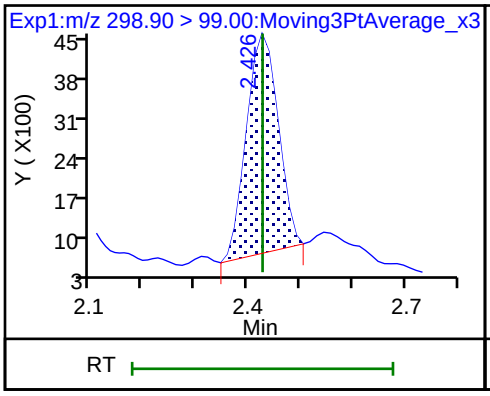

D 47 13C3 PFBS



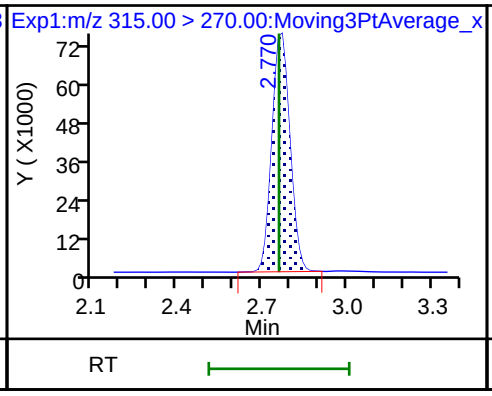

5 Perfluorobutanesulfonic acid



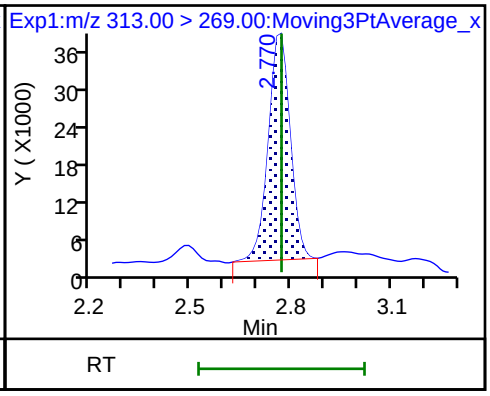

5 Perfluorobutanesulfonic acid



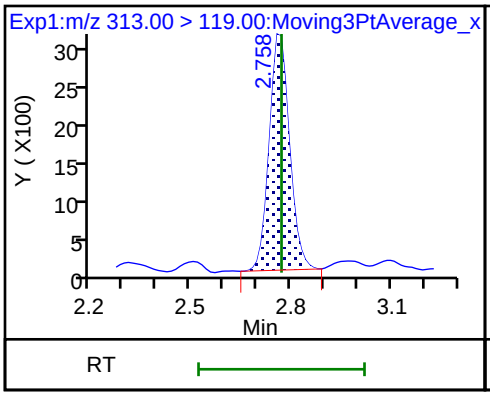

D 7 13C2 PFHxA



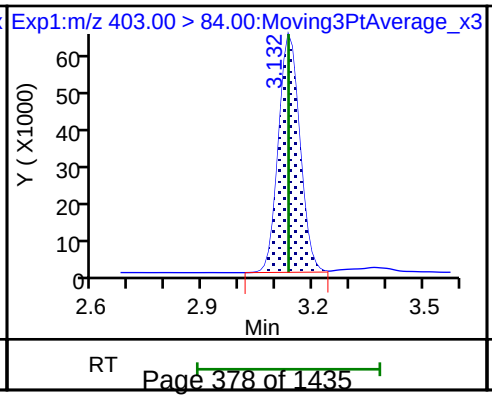

6 Perfluorohexanoic acid



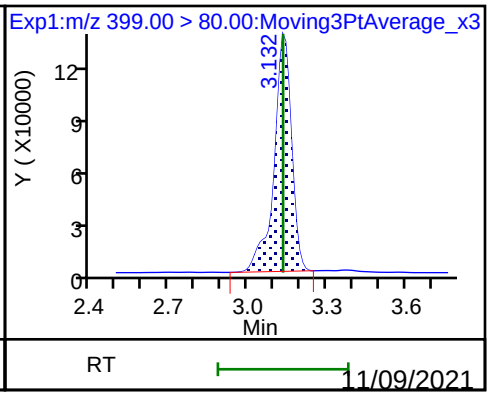

6 Perfluorohexanoic acid



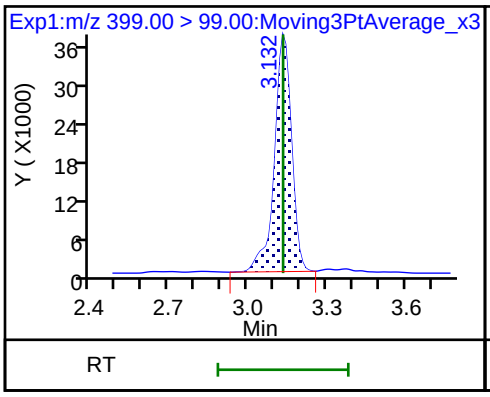

D 11 18O2 PFHxS



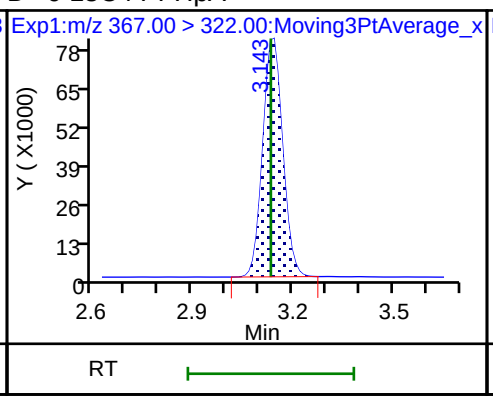

8 Perfluorohexanesulfonic acid



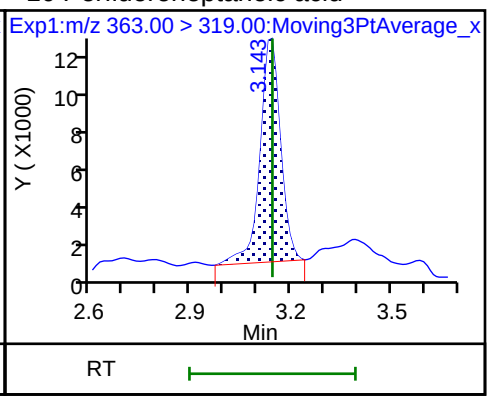
8 Perfluorohexanesulfonic acid



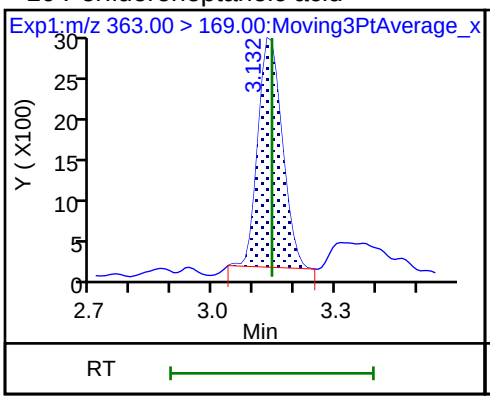

D 9 13C4 PFHpA



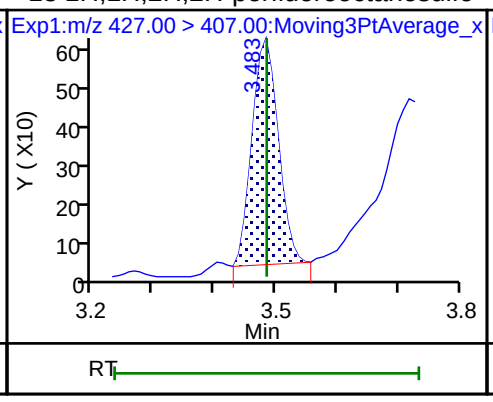

10 Perfluoroheptanoic acid



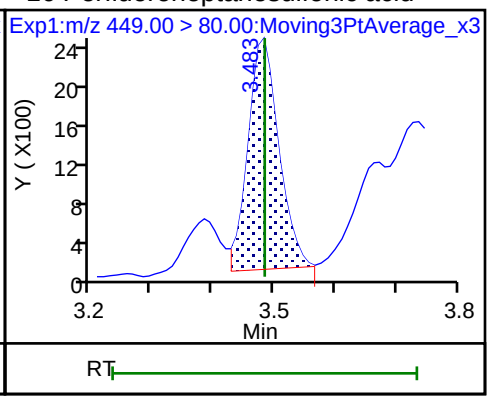

10 Perfluoroheptanoic acid



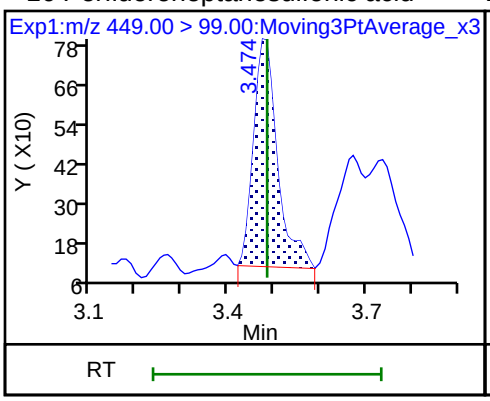

13 1H,1H,2H,2H-perfluorooctanesulfo



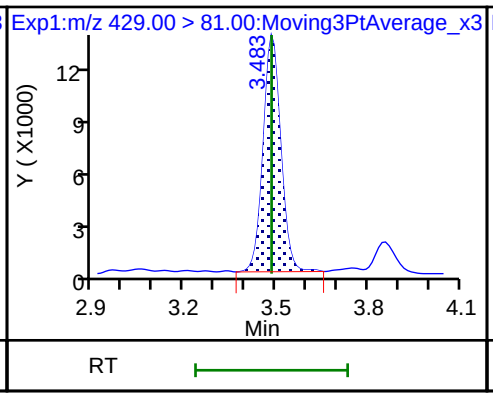

16 Perfluoroheptanesulfonic acid



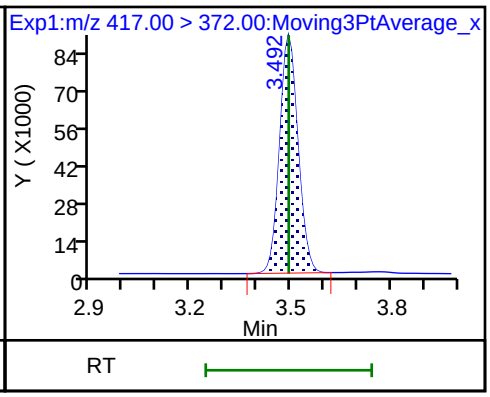

16 Perfluoroheptanesulfonic acid



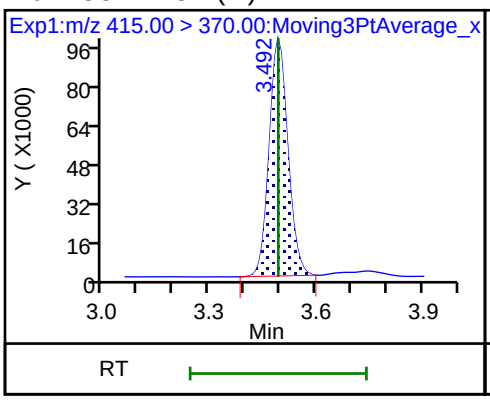

D 12 M2-6:2 FTS



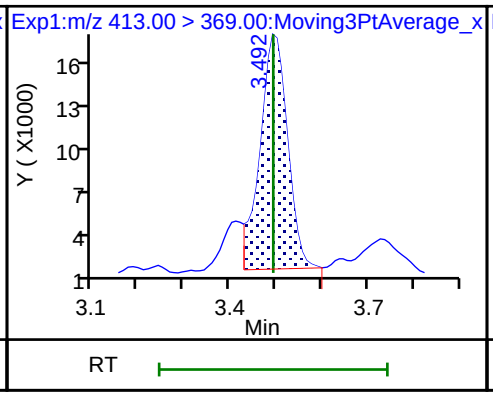

D 14 13C4 PFOA



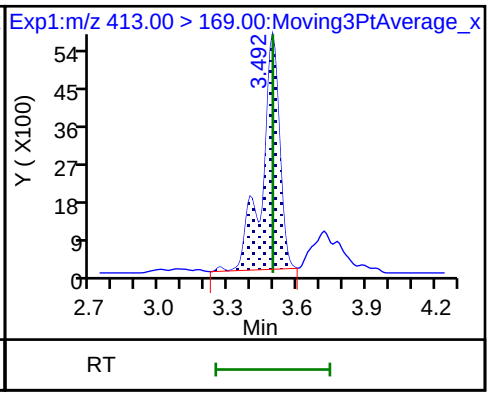

* 62 13C2 PFOA (M)



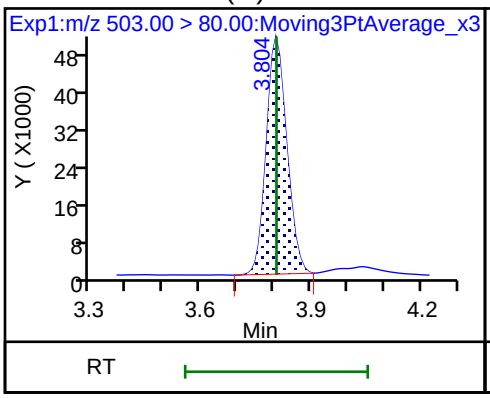

15 Perfluorooctanoic acid



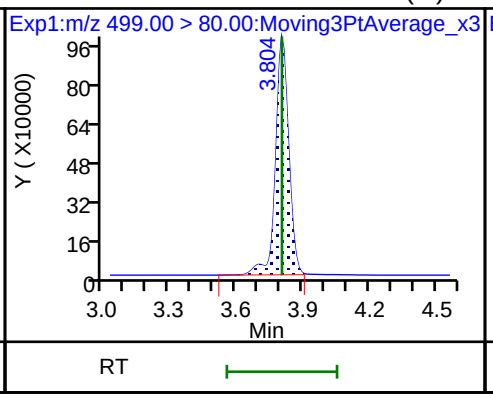

15 Perfluorooctanoic acid



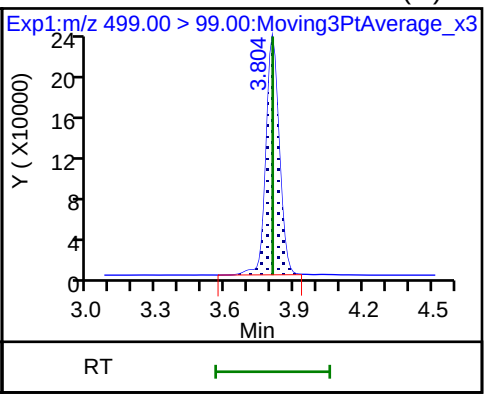
D 18 13C4 PFOS (M)



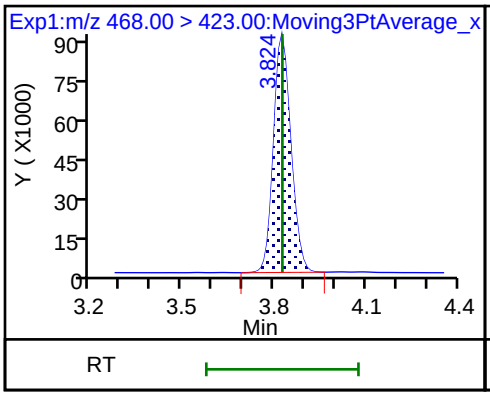

17 Perfluorooctanesulfonic acid (M)



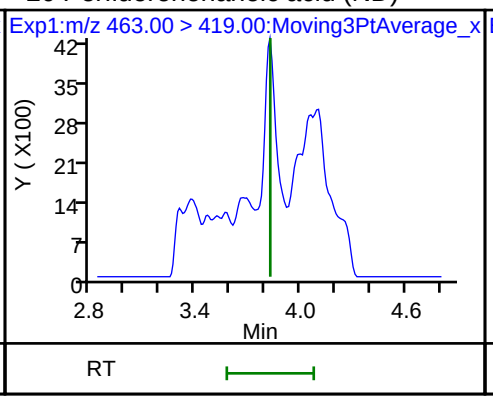

17 Perfluorooctanesulfonic acid (M)



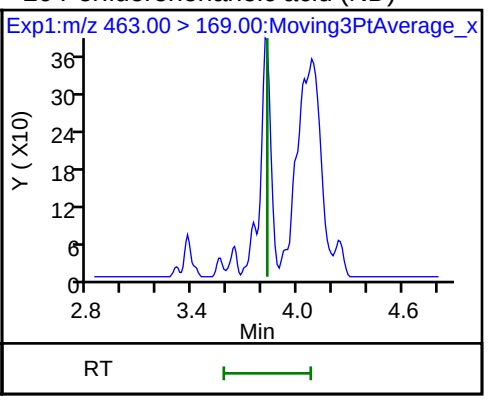

D 19 13C5 PFNA



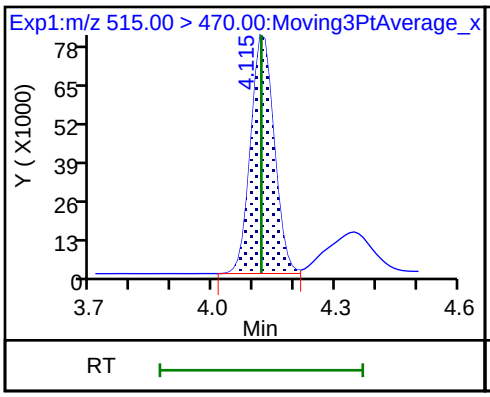

20 Perfluorononanoic acid (ND)



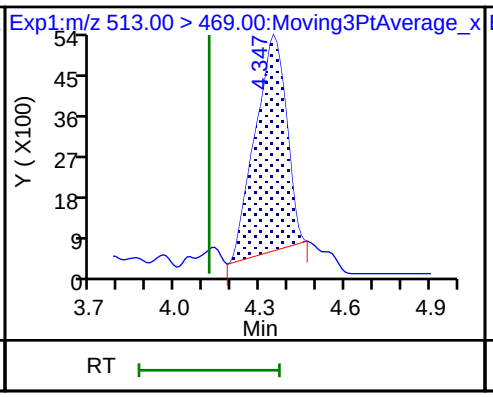

20 Perfluorononanoic acid (ND)



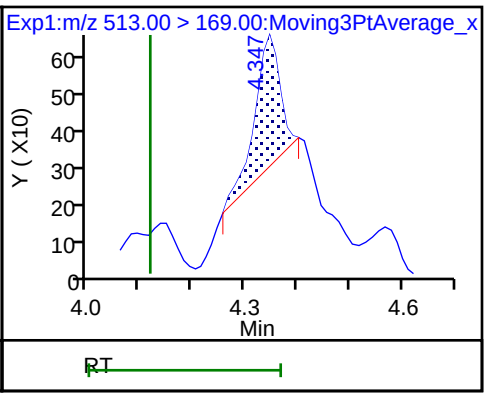

D 23 13C2 PFDA



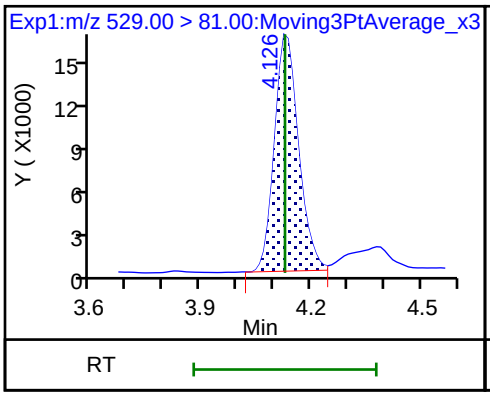

24 Perfluorodecanoic acid



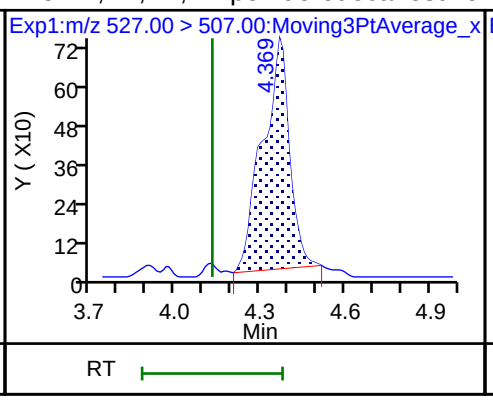

24 Perfluorodecanoic acid



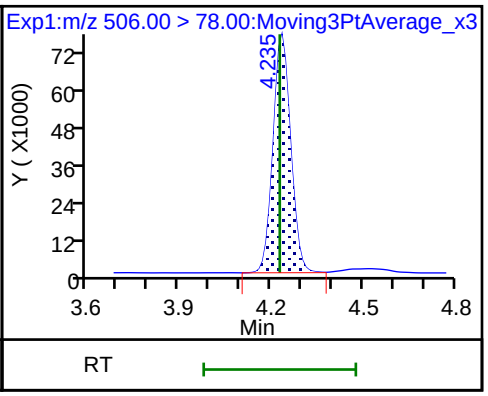

D 26 M2-8:2 FTS



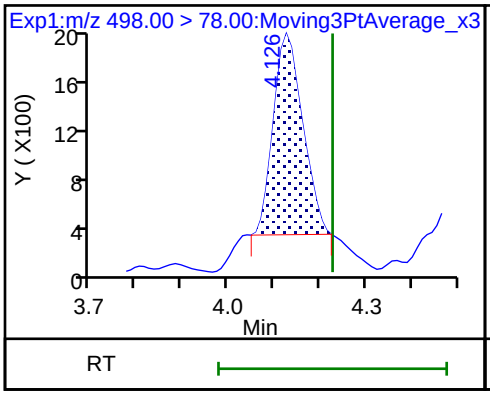

25 1H,1H,2H,2H-perfluorodecanesulfo



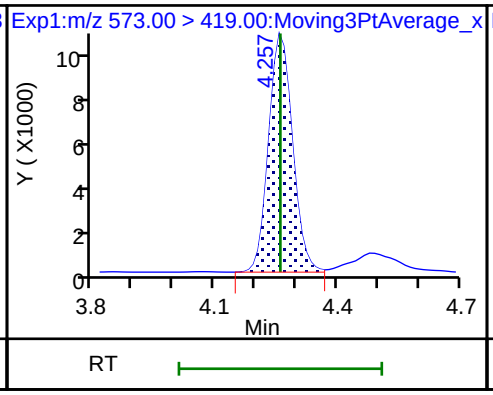

D 21 13C8 FOSA



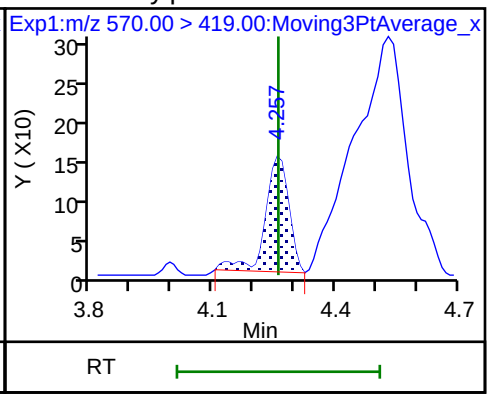
22 Perfluorooctanesulfonamide



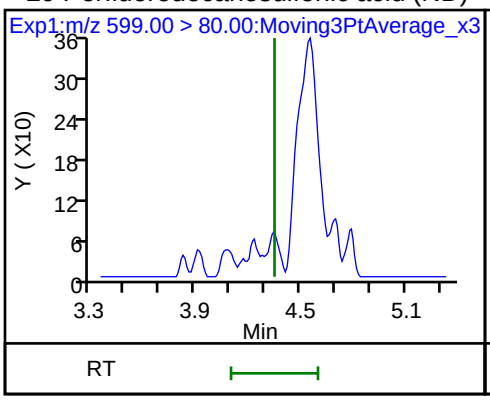

D 27 d3-NMeFOSAA



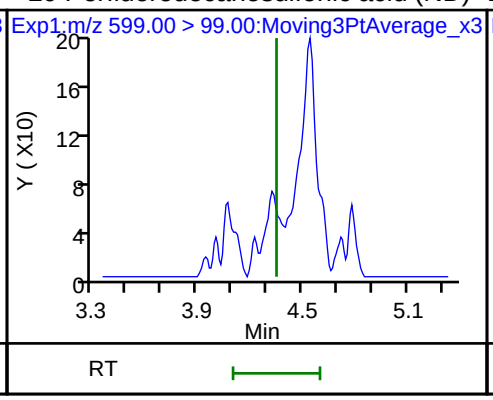

28 N-methylperfluorooctanesulfonami



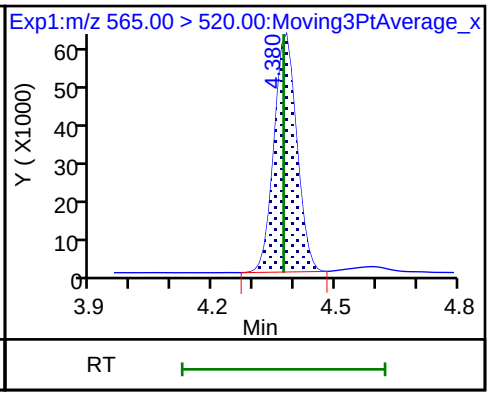

29 Perfluorodecanesulfonic acid (ND)



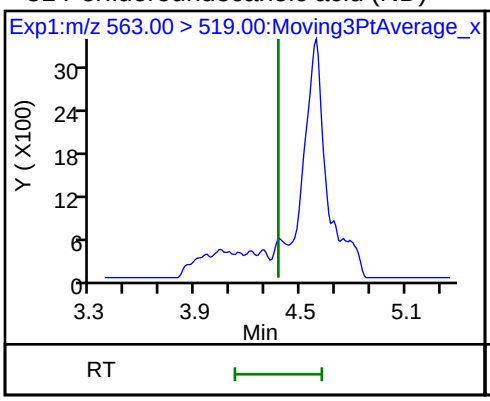

29 Perfluorodecanesulfonic acid (ND)



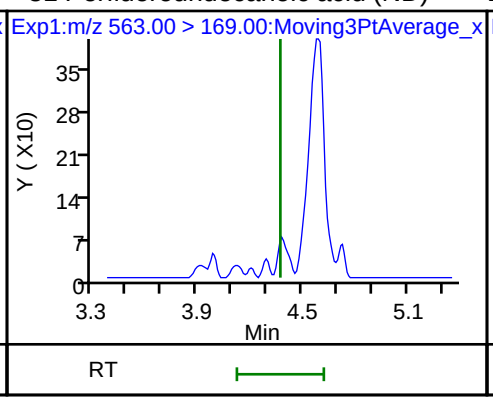

D 30 13C2 PFUnA



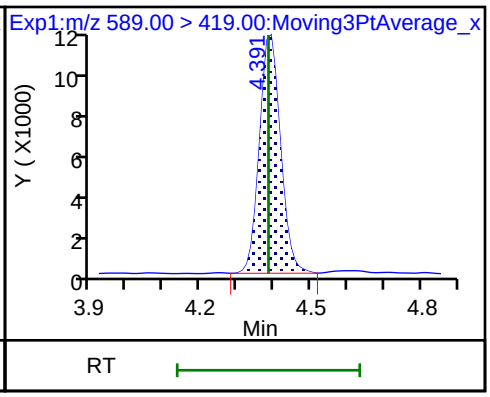

31 Perfluoroundecanoic acid (ND)



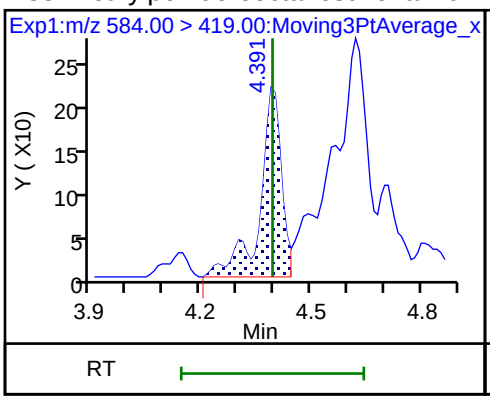

31 Perfluoroundecanoic acid (ND)



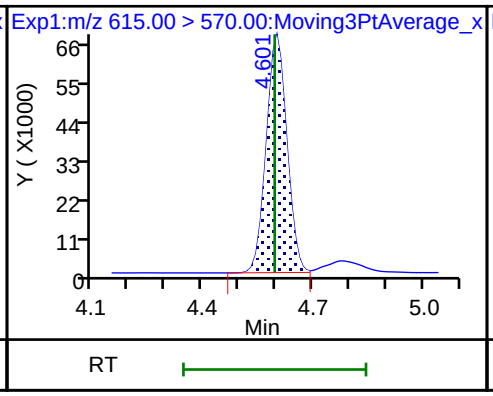

D 32 d5-NEtFOSAA



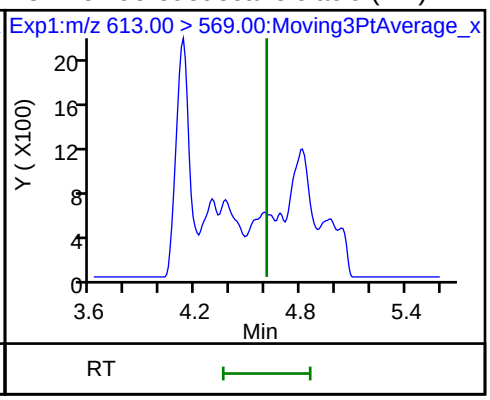

33 N-ethylperfluorooctanesulfonamid



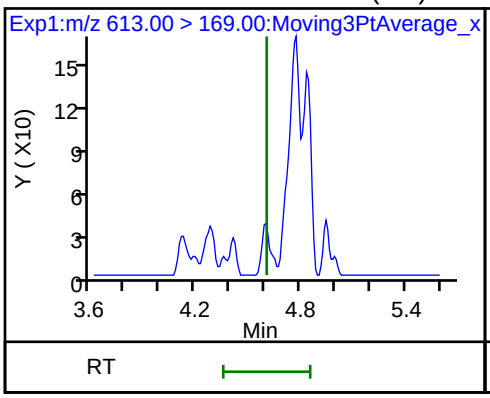

D 36 13C2 PFDoA



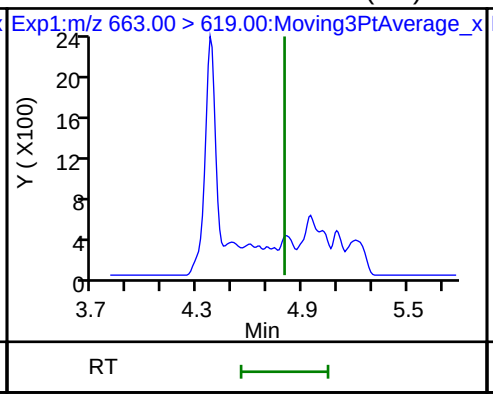

37 Perfluorododecanoic acid (ND)



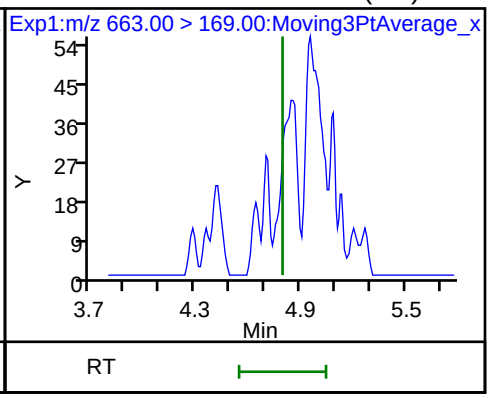
37 Perfluorododecanoic acid (ND)



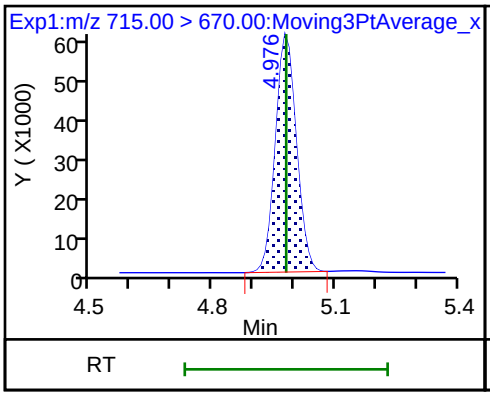

41 Perfluorotridecanoic acid (ND)



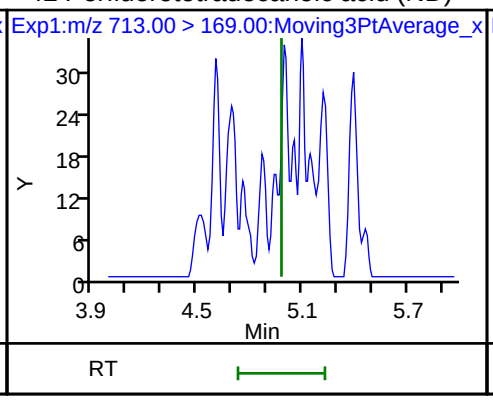

41 Perfluorotridecanoic acid (ND)



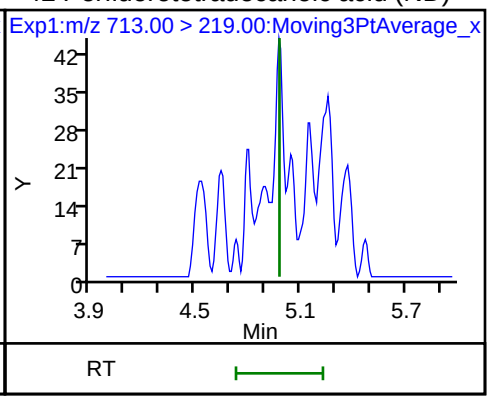

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

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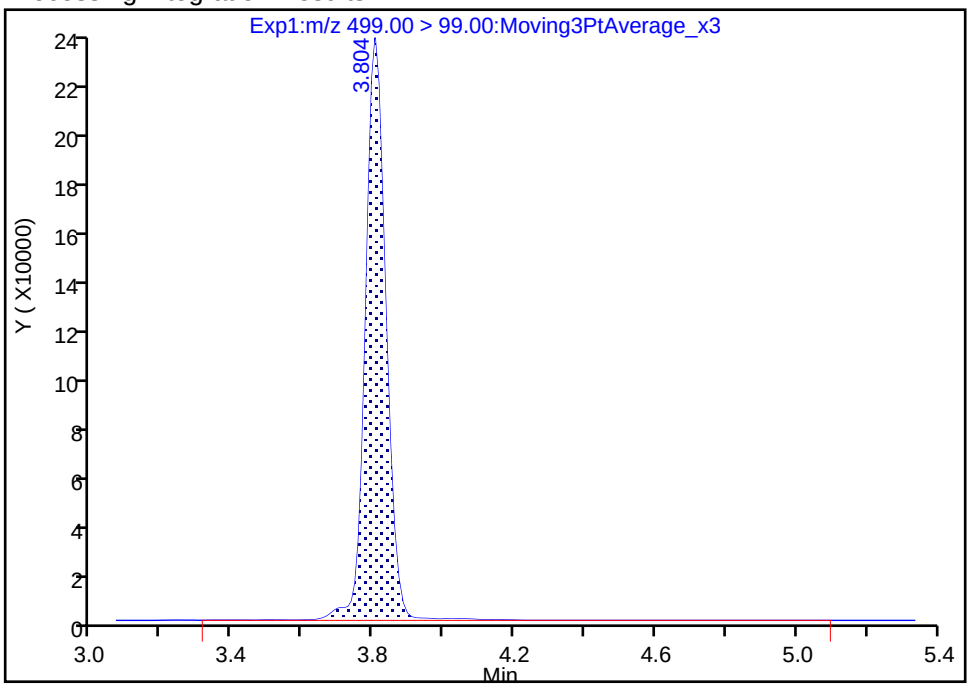
| Injection Date: | 04-Nov-2021 14:25:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

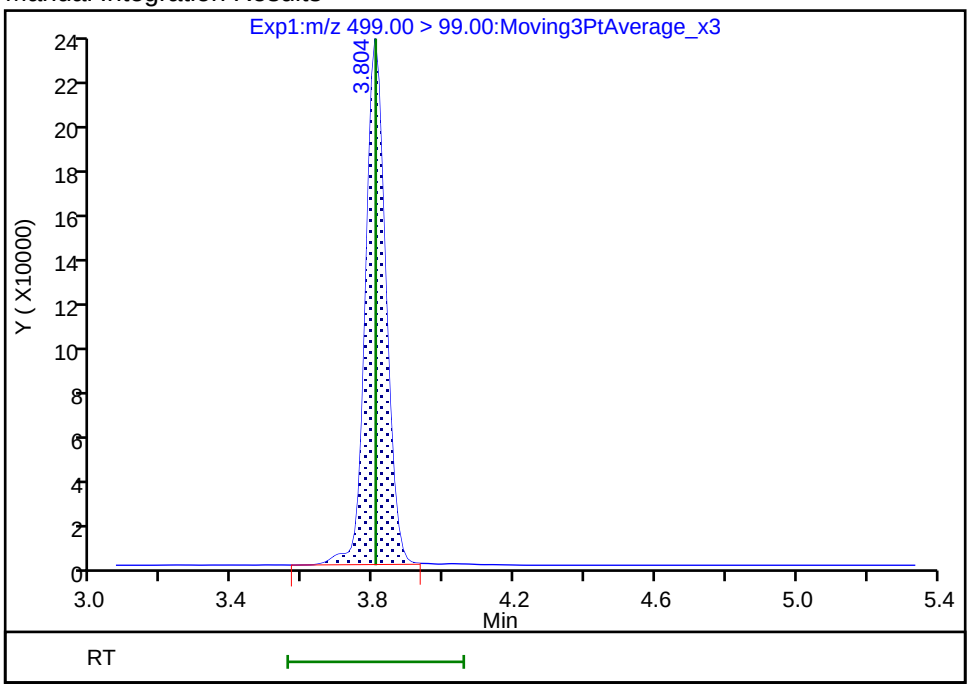
Processing Integration Results

RT: 3.80
Area: 960210
Amount: 4.491636
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 945327
Amount: 4.490592
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 11:53:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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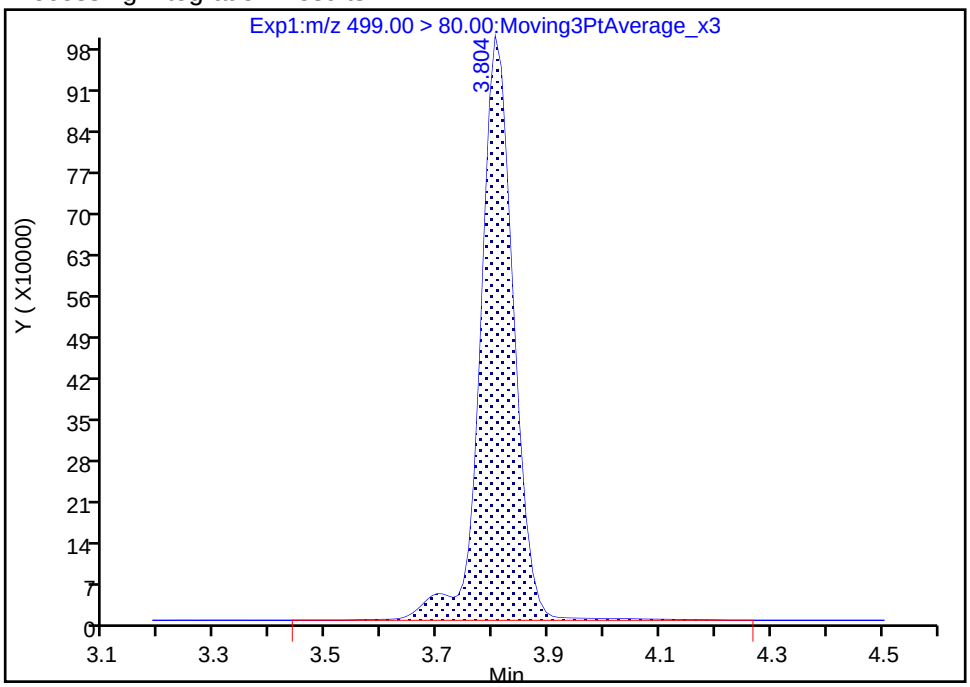
| Injection Date: | 04-Nov-2021 14:25:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

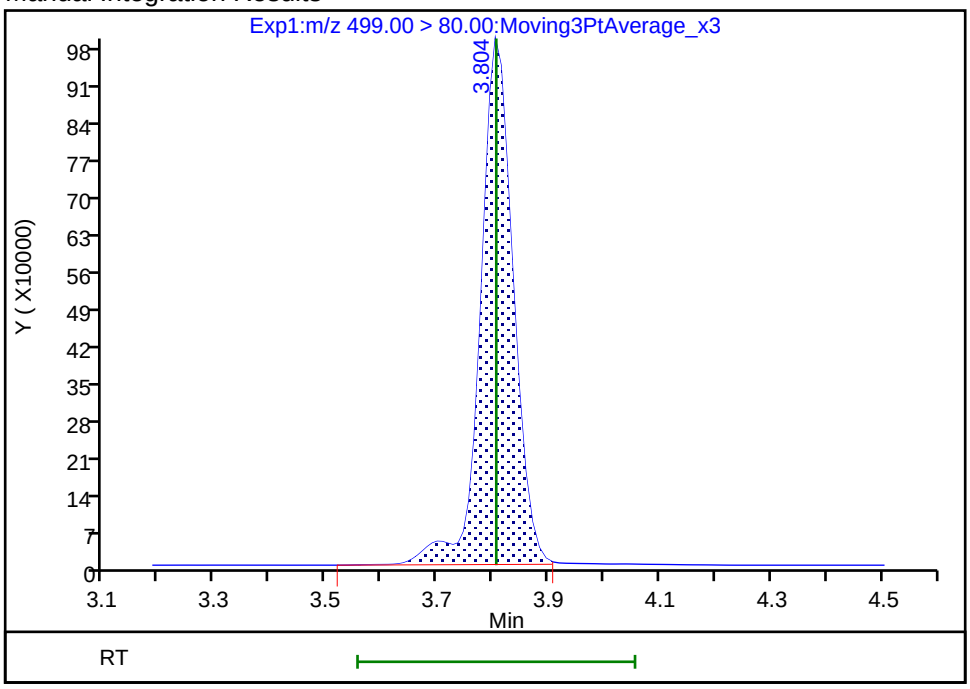
Processing Integration Results

RT: 3.80
Area: 4109201
Amount: 4.491636
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 4052650
Amount: 4.490592
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 11:53:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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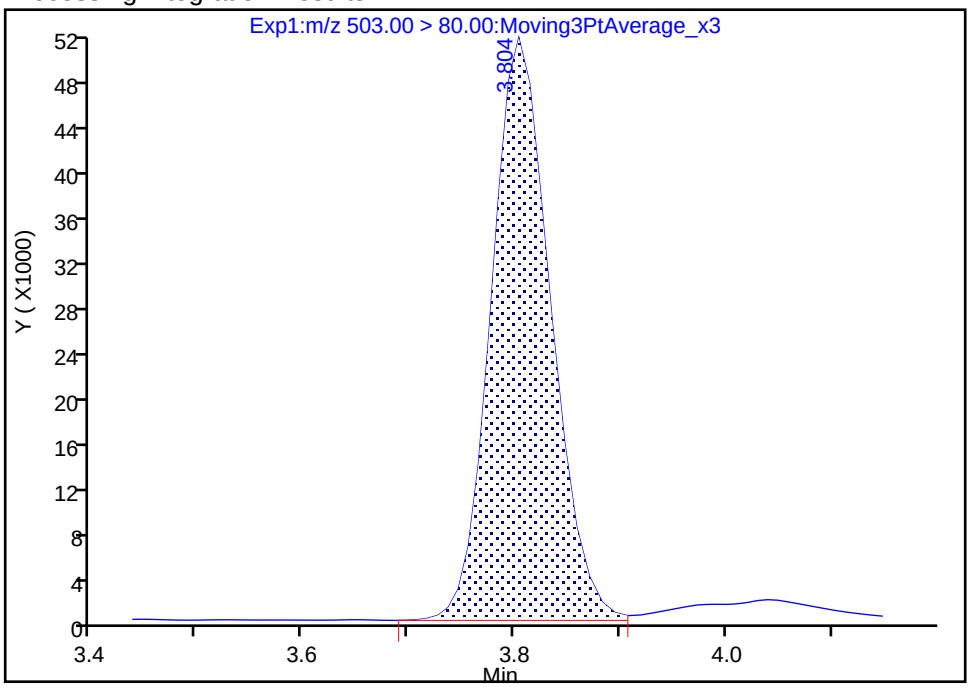
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

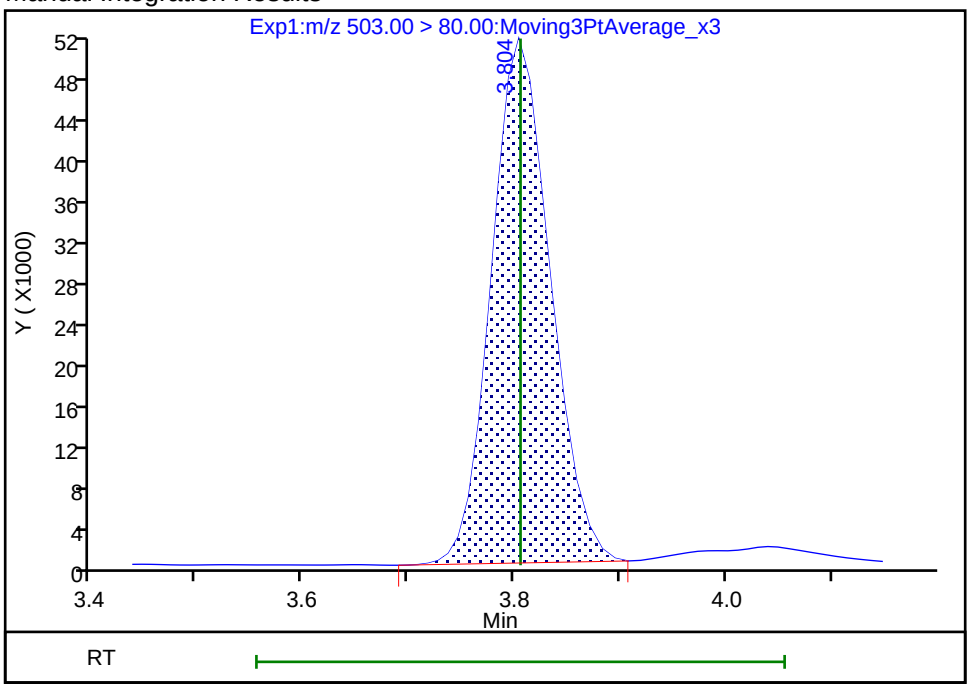
Processing Integration Results

RT: 3.80
Area: 201511
Amount: 0.228000
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 198784
Amount: 0.227915
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:45:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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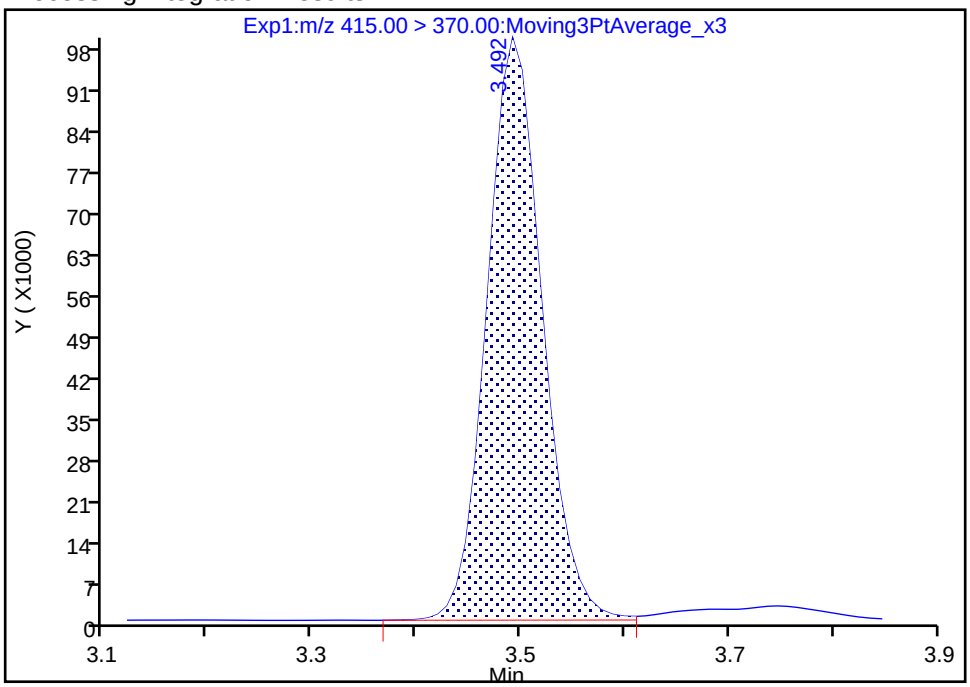
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A08.d | | | | |
| Injection Date: | 04-Nov-2021 14:25:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-5-A | Lab Sample ID: | 200-246027-5 | | |
| Client ID: | DUP-01-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

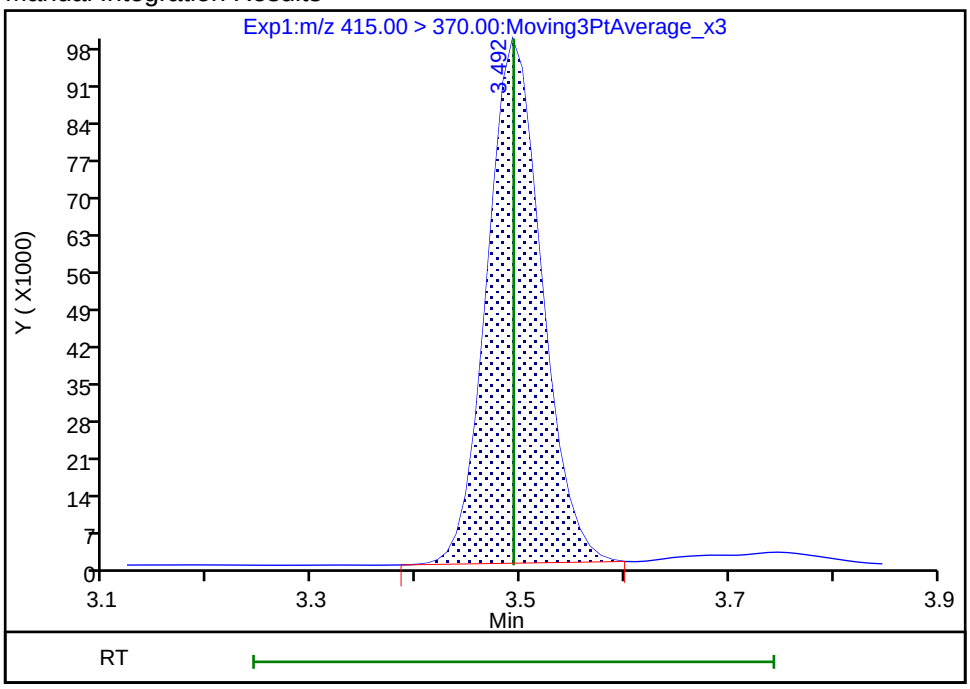
Processing Integration Results

RT: 3.49
Area: 364750
Amount: 0.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 359949
Amount: 0.250000
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:45:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103D-20211027  Lab Sample ID: 460-246027-6

Matrix: Water  Lab File ID: PA211103A19.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:50

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 295.2(mL)  Date Analyzed: 11/03/2021 15:13

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 12.1 | | 4.23 | 0.76 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 6.60 | | 1.69 | 0.40 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 6.52 | | 1.69 | 0.38 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 5.92 | | 1.69 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 12.3 | | 1.69 | 0.36 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 2.15 | | 1.69 | 0.24 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.33 | J | 1.69 | 0.26 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.69 | 0.29 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.69 | 0.33 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.69 | 0.37 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.69 | 0.54 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 1.63 | J | 1.69 | 0.21 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 1.31 | J | 1.69 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.20 | U | 1.69 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 3.89 | | 1.69 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.69 | 0.26 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.69 | 0.49 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.76 | U | 4.23 | 0.76 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.05 | J | 4.23 | 0.63 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.93 | U | 4.23 | 0.93 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.69 | 0.33 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103D-20211027  Lab Sample ID: 460-246027-6

Matrix: Water  Lab File ID: PA211103A19.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:50

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 295.2(mL)  Date Analyzed: 11/03/2021 15:13

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 106 | | 50-150 |
| STL01892 | 13C4 PFHpA | 99 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 106 | | 50-150 |
| STL00995 | 13C5 PFNA | 107 | | 50-150 |
| STL00992 | 13C4 PFBA | 103 | | 25-150 |
| STL00993 | 13C2 PFHxA | 101 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 90 | | 50-150 |
| STL00998 | 13C2 PFDoA | 79 | | 50-150 |
| STL01056 | 13C8 FOSA | 95 | | 25-150 |
| STL01893 | 13C5 PFPeA | 101 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 48 | *5- | 50-150 |
| STL02118 | d3-NMeFOSAA | 109 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 109 | | 50-150 |
| STL02279 | M2-6:2 FTS | 107 | | 25-150 |
| STL02280 | M2-8:2 FTS | 110 | | 25-150 |
| STL02337 | 13C3 PFBS | 100 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d
Lims ID: 460-246027-A-6-A
Client ID: MH-103D-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:13:36 ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-6-A
Misc. Info.: 200-0048270-019 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:09:48
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.596 | 1301782 | 1.29 | | 103 | 5112 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 351014 | 0.3565 | | | 27.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1079975 | 1.27 | | 101 | 1412 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.000 | 168731 | 0.1950 | | | 3.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.693 | 1339299 | 1.16 | | 99.9 | 43819 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 59034 | 0.0480 | Target=2.32 | | 5.5 | M |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.000 | 26245 | | 2.25(1.16-3.48) | | 5.3 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.734 | 2.735 | -0.001 | 1.000 | 177078 | 0.1925 | Target=12.09 | | 12.1 | |
| 313.00 > 119.00 | 2.734 | 2.735 | -0.001 | 1.000 | 13624 | | 13.00(6.04-18.13) | | 14.8 | M |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.789 | 1133590 | 1.27 | | 101 | 1009 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.895 | 1048546 | 1.25 | | 106 | 270 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.003 | 37781 | 0.0388 | Target=3.55 | | 5.9 | M |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 1.000 | 11429 | | 3.31(1.77-5.32) | | 4.7 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 167431 | 0.1747 | Target=3.69 | | 18.1 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 41272 | | 4.06(1.84-5.53) | | 33.3 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1159786 | 1.23 | | 98.6 | 1810 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.456 | 3.448 | 0.008 | 1.003 | 1899 | 0.0106 | | | 2.7 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 3699 | 0.004644 | Target=4.88 | | 1.3 | M |
| 449.00 > 99.00 | 3.456 | 3.448 | 0.008 | 0.915 | 674 | | 5.49(2.44-7.32) | | 0.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.995 | 167252 | 1.27 | | 107 | 155 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1290391 | 1.26 | | 100 | 928 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1248926 | 1.25 | | | 237 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 397167 | 0.3618 | Target=2.68 | | 32.0 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 148869 | | 2.67(1.34-4.02) | | 76.2 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 763556 | 1.26 | | 106 | 297 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.000 | 79693 | 0.1149 | Target=4.69 | | 14.0 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 0.997 | 16677 | | 4.78(2.35-7.04) | | 10.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.092 | 1364756 | 1.33 | | 107 | 2483 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.794 | 3.786 | 0.008 | 1.003 | 67688 | 0.0634 | Target=7.29 | | 9.0 | M |
| 463.00 > 169.00 | 3.794 | 3.786 | 0.008 | 1.003 | 7583 | | 8.93(3.64-10.93) | | 15.1 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.178 | 1154982 | 1.12 | | 89.4 | 77.3 | M |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.003 | 8939 | 0.009628 | Target=8.95 | | 1.3 | M |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.003 | 847 | | 10.55(4.47-13.42) | | 1.3 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 196785 | 1.31 | | 110 | 100 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 641 | 0.004663 | | | 1.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.007 | 1.216 | 1178397 | 1.18 | | 94.6 | 488 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.007 | 1.000 | 2664 | 0.002976 | | | 4.4 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 138858 | 1.37 | | 109 | 174 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.000 | 1742 | 0.0200 | | | 4.2 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.313 | 4.306 | 0.007 | 1.143 | 323 | 0.000769 | Target=2.47 | | 0.7 | M |
| 599.00 > 99.00 | 4.313 | 4.306 | 0.007 | 1.143 | 105 | | 3.08(1.23-3.70) | | 0.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 910108 | 1.13 | | 90.4 | 530 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 129583 | 1.36 | | 109 | 482 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 2758 | 0.0310 | | | 6.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 850631 | 0.9818 | | 78.5 | 205 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 2622 | 0.003935 | Target=7.04 | | 0.7 | |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.000 | 385 | | 6.81(3.52-10.56) | | 2.7 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.757 | 4.761 | -0.004 | 1.041 | 2231 | 0.003884 | Target=4.68 | | 0.7 | M |
| 663.00 > 169.00 | 4.757 | 4.761 | -0.004 | 1.041 | 375 | | 5.95(2.34-7.02) | | 4.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.428 | 402034 | 0.5983 | | 47.9 | 880 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.947 | 4.940 | 0.007 | 1.000 | 259 | 0.005102 | Target=1.01 | | 6.0 | M |
| 713.00 > 219.00 | 4.937 | 4.940 | -0.003 | 0.998 | 223 | | 1.16(0.51-1.52) | | 6.6 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:15:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d

Injection Date: 03-Nov-2021 15:13:36 Instrument ID: LC812

Lims ID: 460-246027-A-6-A Lab Sample ID: 200-246027-6

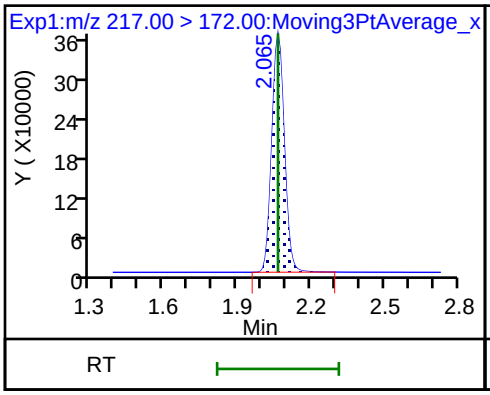
Client ID: MH-103D-20211027

Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19

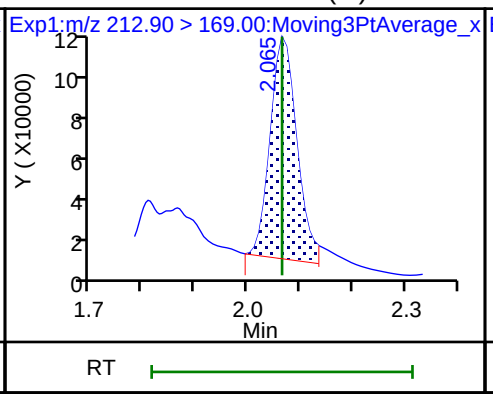
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

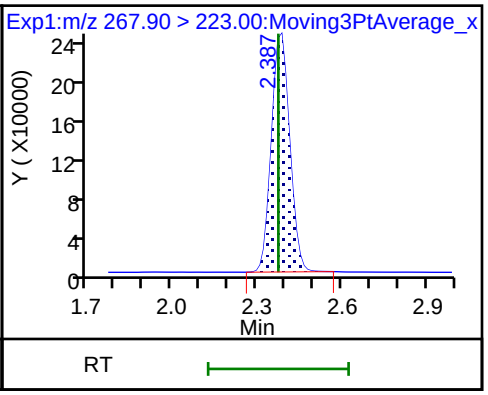
D 1 13C4 PFBA



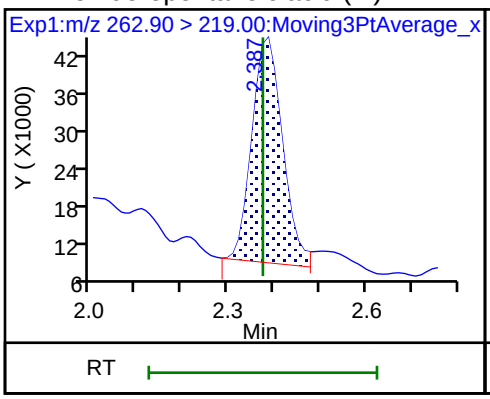

2 Perfluorobutanoic acid (M)



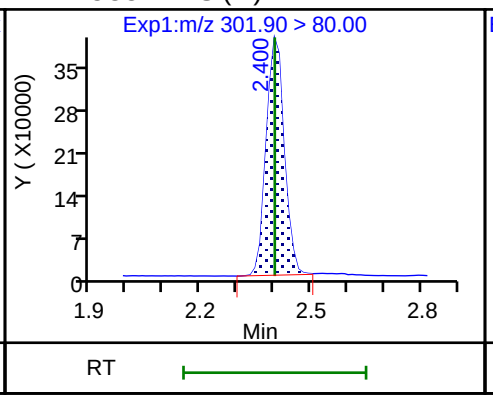

D 3 13C5 PFPeA



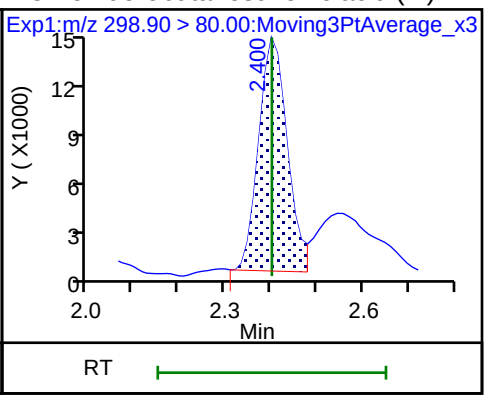

4 Perfluoropentanoic acid (M)



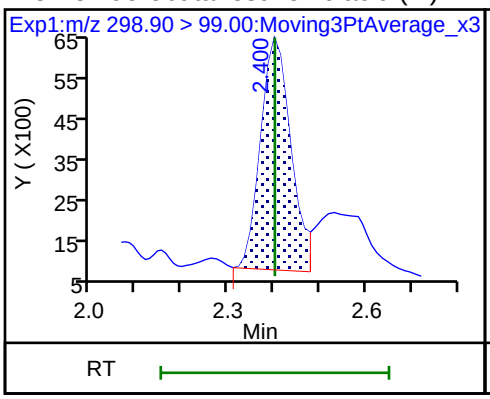

D 47 13C3 PFBS (M)



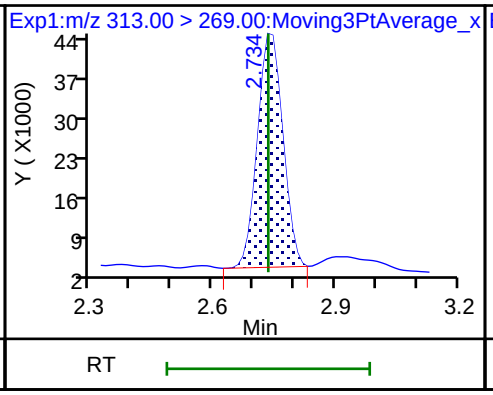

5 Perfluorobutanesulfonic acid (M)



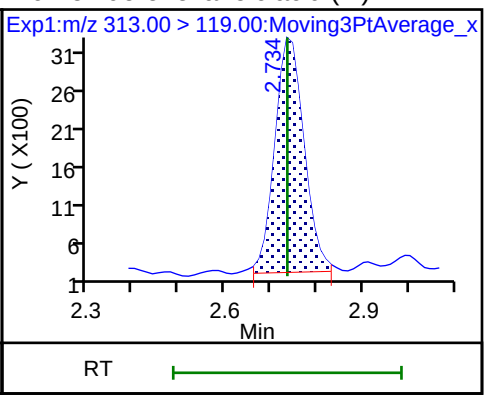

5 Perfluorobutanesulfonic acid (M)



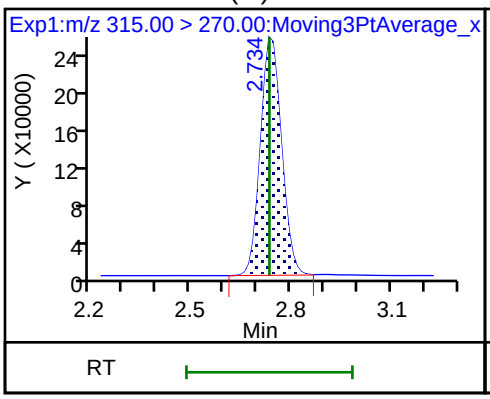

6 Perfluorohexanoic acid



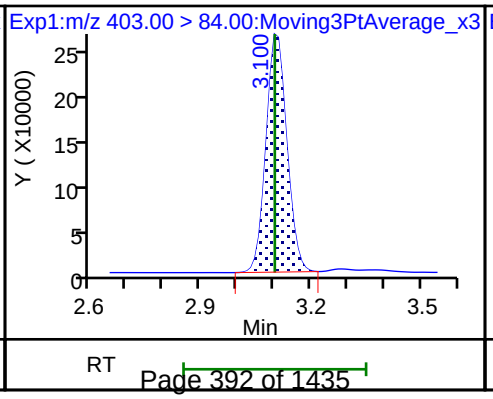

6 Perfluorohexanoic acid (M)



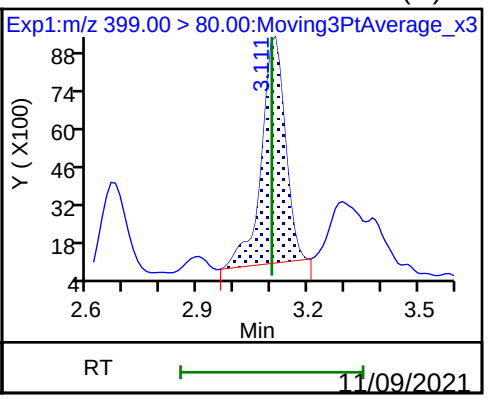

D 7 13C2 PFHxA (M)



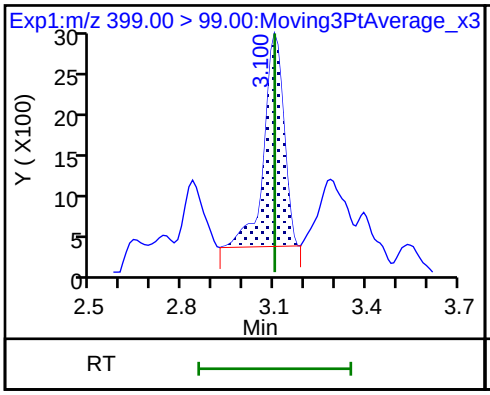

D 11 18O2 PFHxS



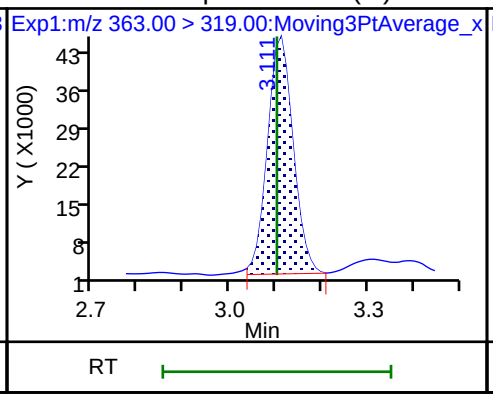

8 Perfluorohexanesulfonic acid (M)



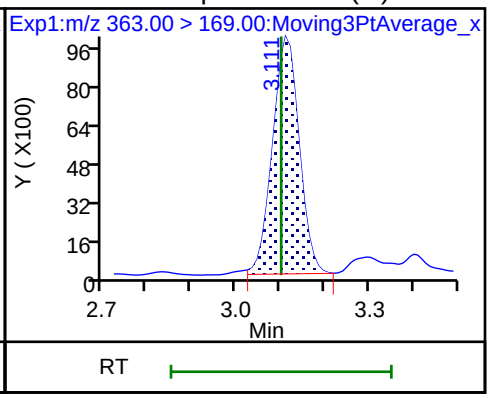
8 Perfluorohexanesulfonic acid



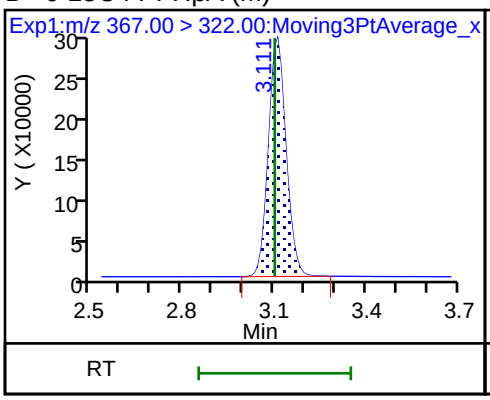

10 Perfluoroheptanoic acid (M)



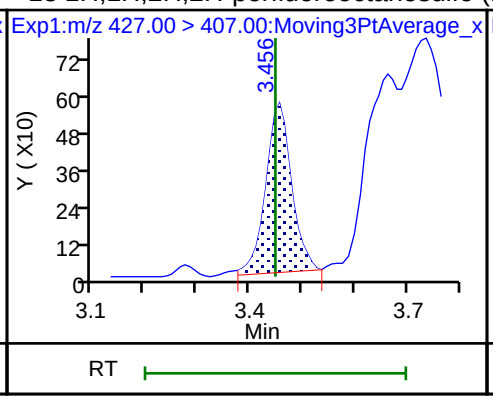

10 Perfluoroheptanoic acid (M)



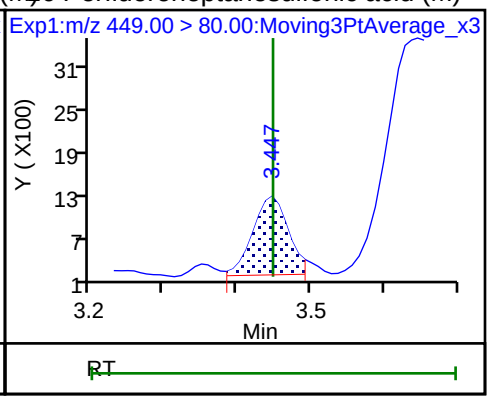

D 9 13C4 PFHpA (M)



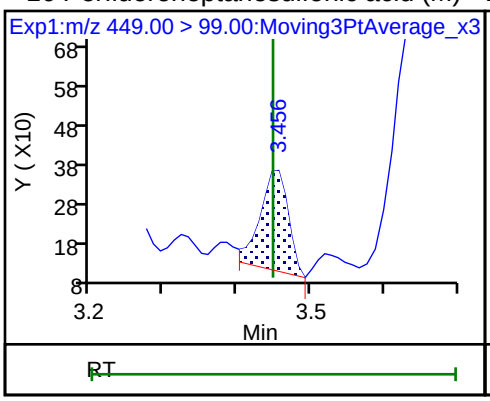

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



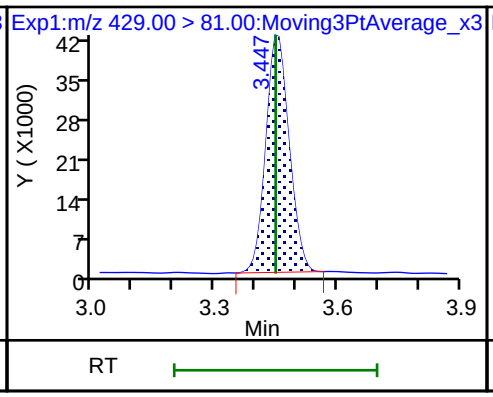

16 Perfluoroheptanesulfonic acid (M)



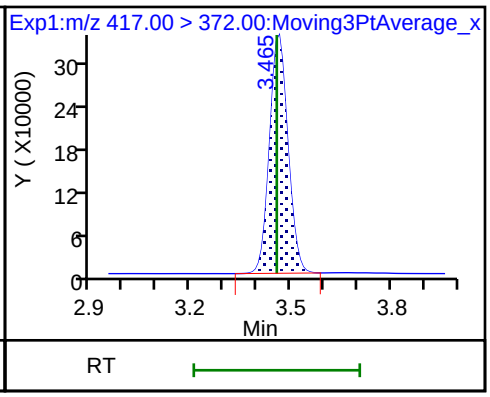

16 Perfluoroheptanesulfonic acid (M)



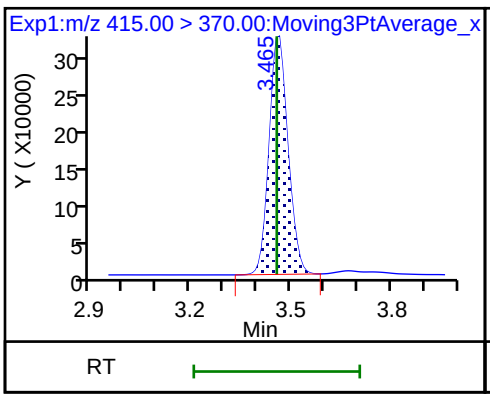

D 12 M2-6:2 FTS



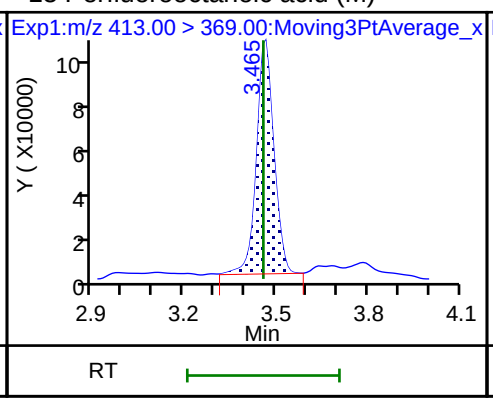

D 14 13C4 PFOA



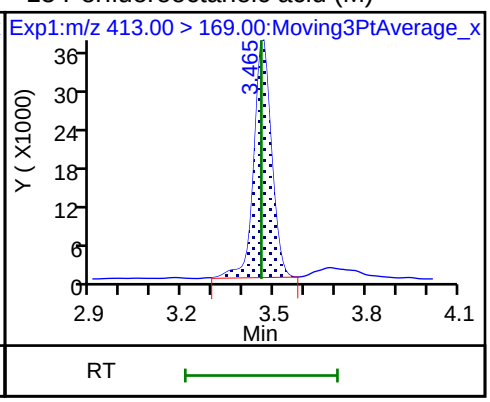

* 62 13C2 PFOA



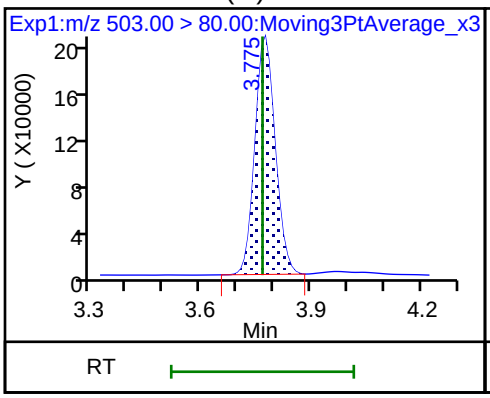

15 Perfluorooctanoic acid (M)



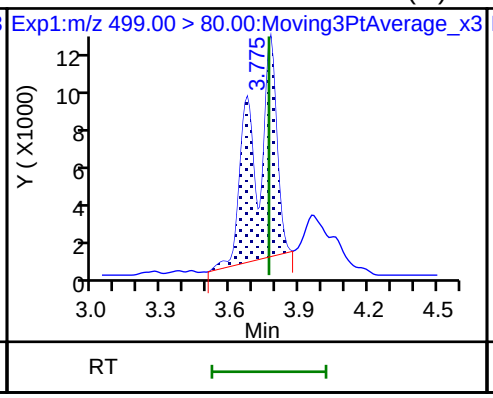

15 Perfluorooctanoic acid (M)



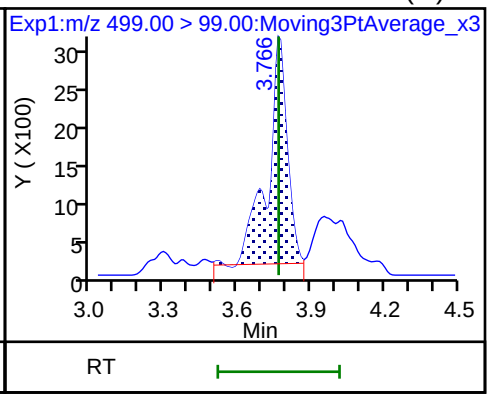
D 18 13C4 PFOS (M)



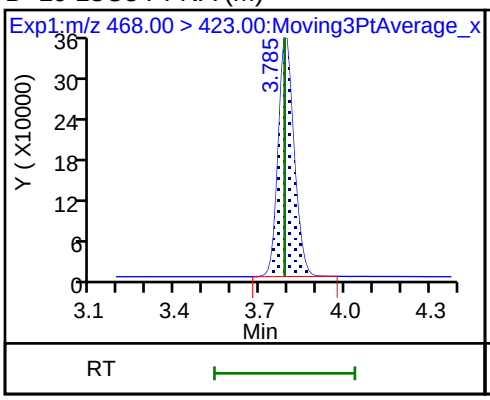

17 Perfluorooctanesulfonic acid (M)



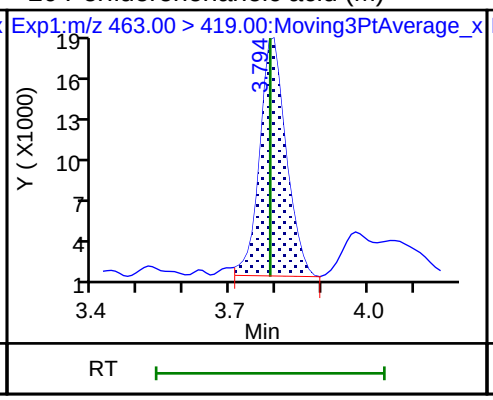

17 Perfluorooctanesulfonic acid (M)



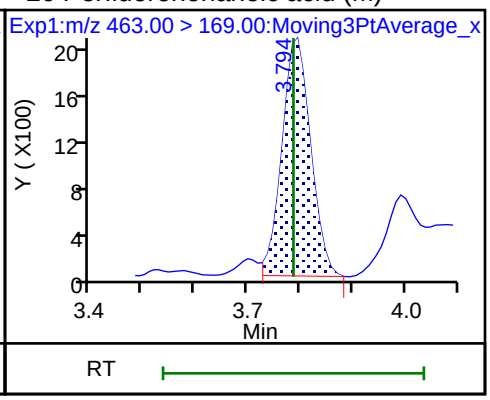

D 19 13C5 PFNA (M)



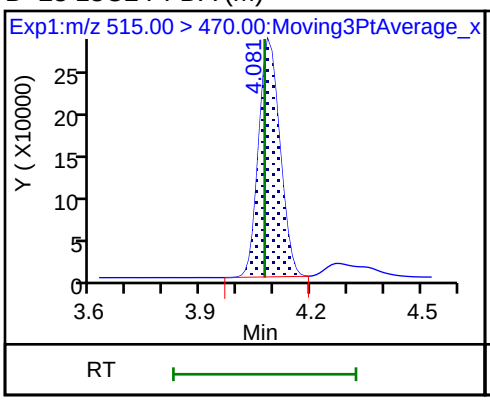

20 Perfluorononanoic acid (M)



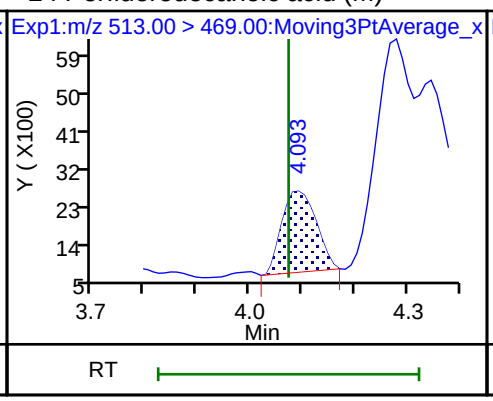

20 Perfluorononanoic acid (M)



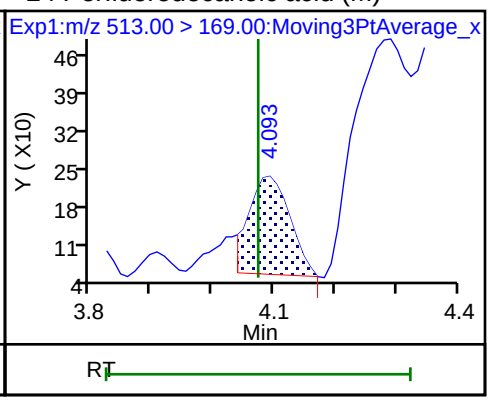

D 23 13C2 PFDA (M)



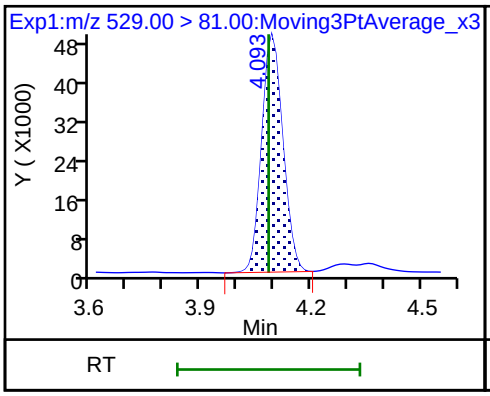

24 Perfluorodecanoic acid (M)



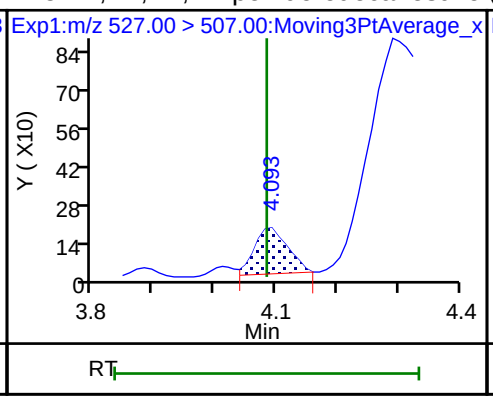

24 Perfluorodecanoic acid (M)



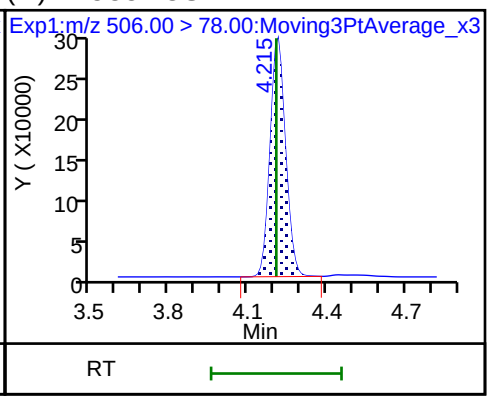

D 26 M2-8:2 FTS



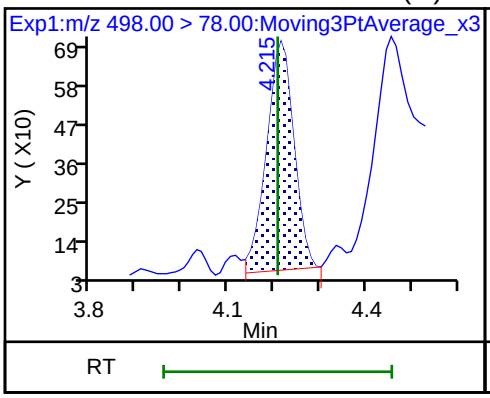

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



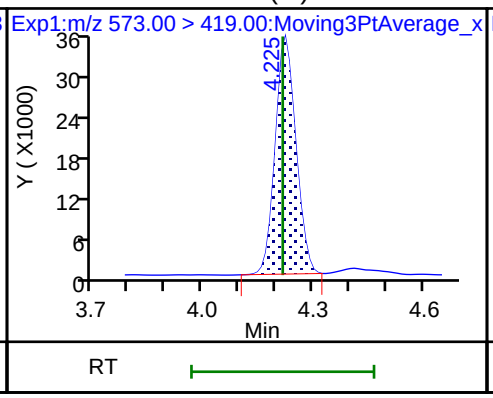

D 21 13C8 FOSA



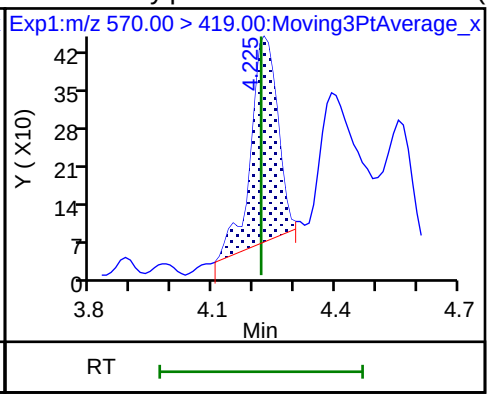
22 Perfluorooctanesulfonamide (M)



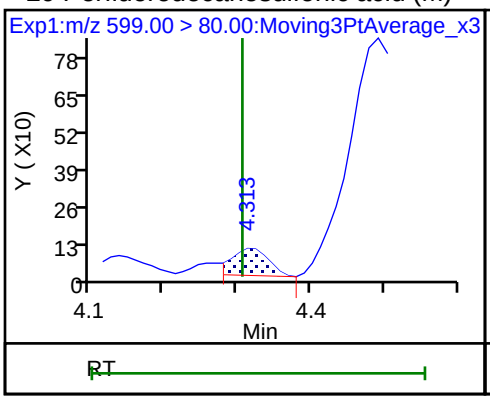

D 27 d3-NMeFOSAA (M)



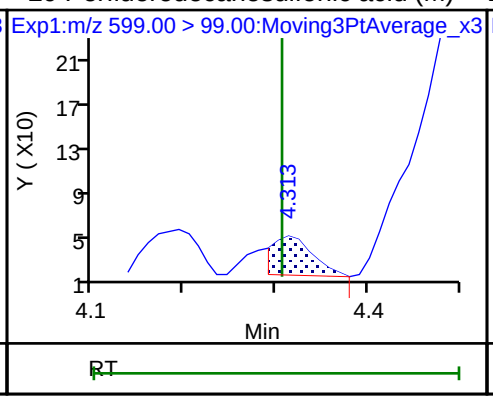

28 N-methylperfluorooctanesulfonami (M)



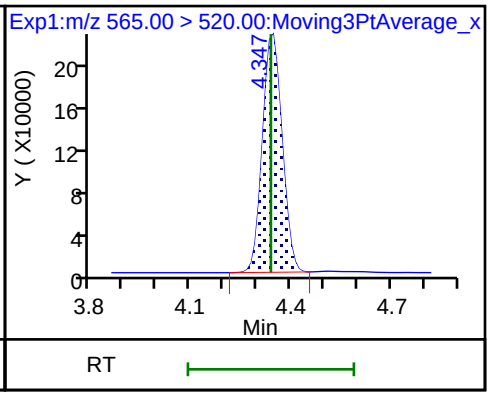

29 Perfluorodecanesulfonic acid (M)



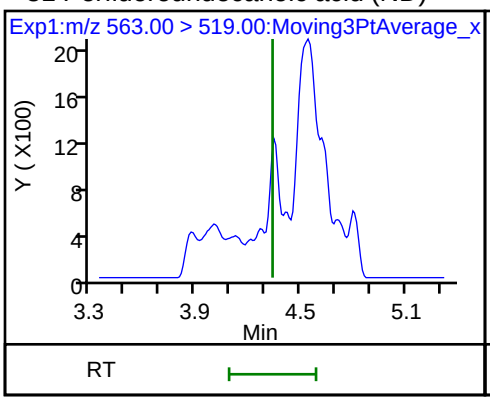

29 Perfluorodecanesulfonic acid (M)



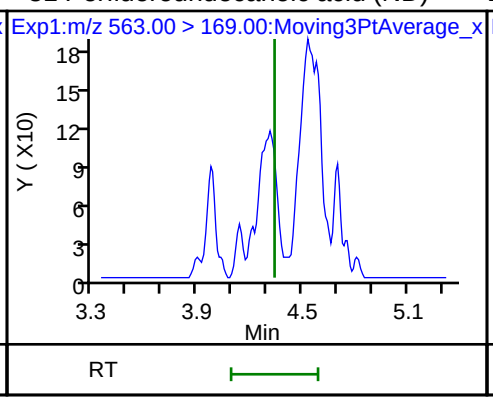

D 30 13C2 PFUnA



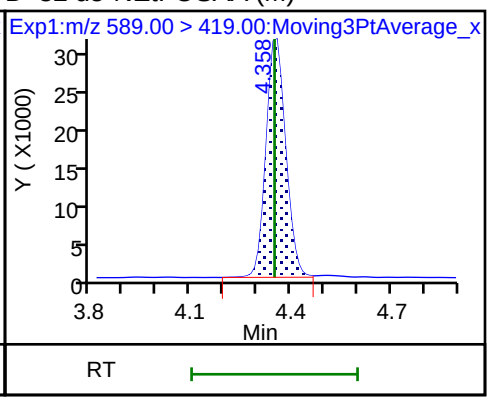

31 Perfluoroundecanoic acid (ND)



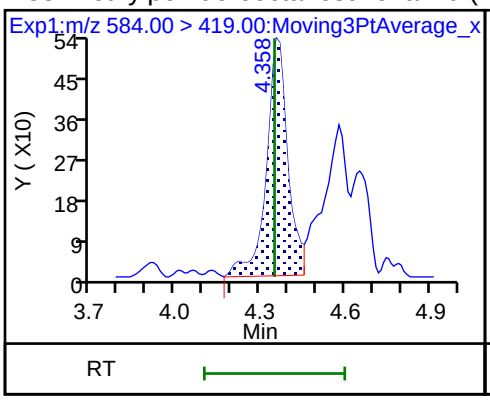

31 Perfluoroundecanoic acid (ND)



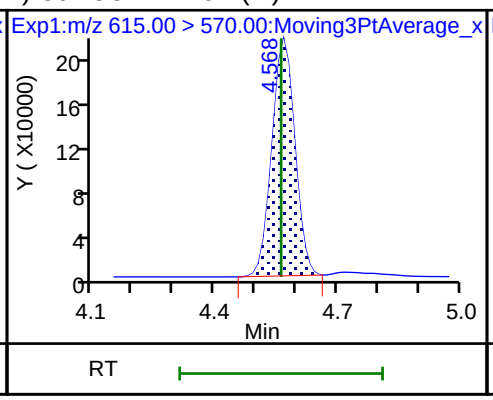

D 32 d5-NEtFOSAA (M)



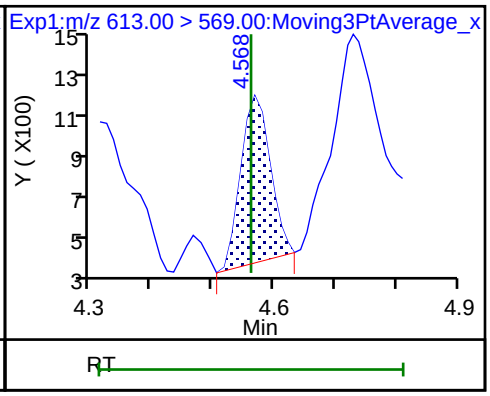

33 N-ethylperfluorooctanesulfonamid (ND)



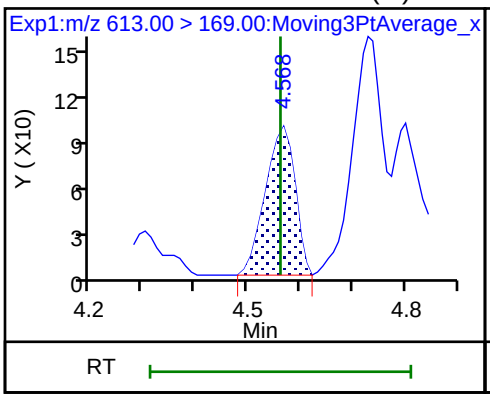

D 36 13C2 PFDoA (M)



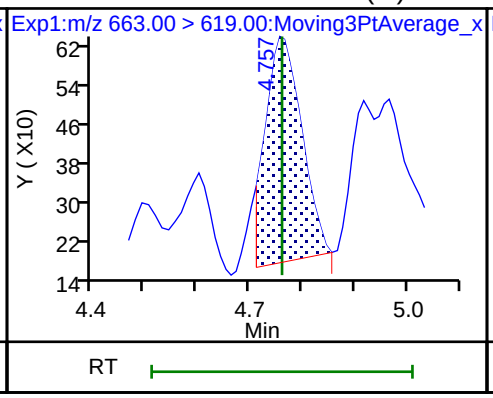

37 Perfluorododecanoic acid



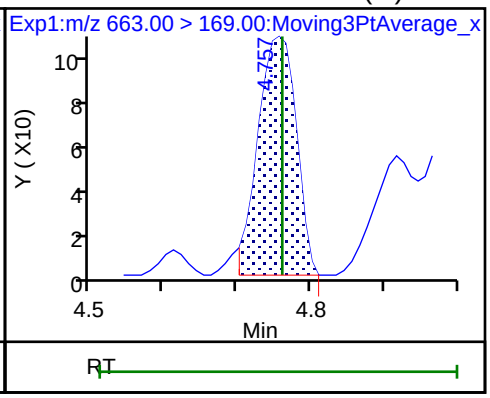
37 Perfluorododecanoic acid (M)



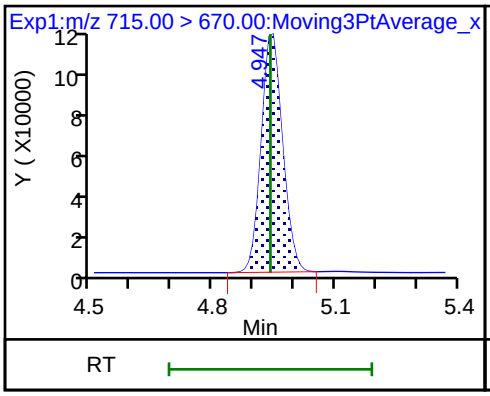

41 Perfluorotridecanoic acid (M)



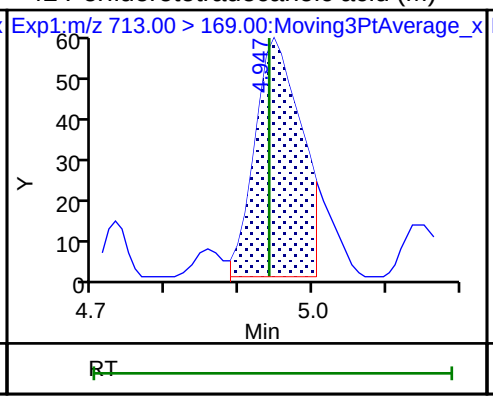

41 Perfluorotridecanoic acid (M)



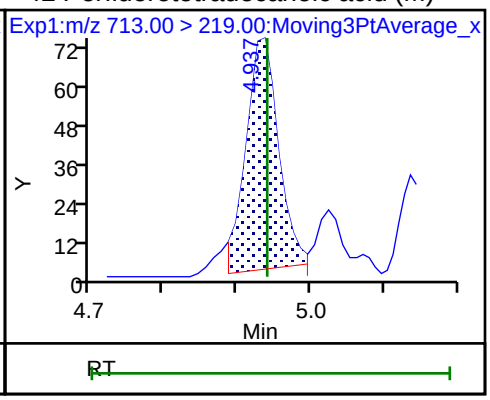

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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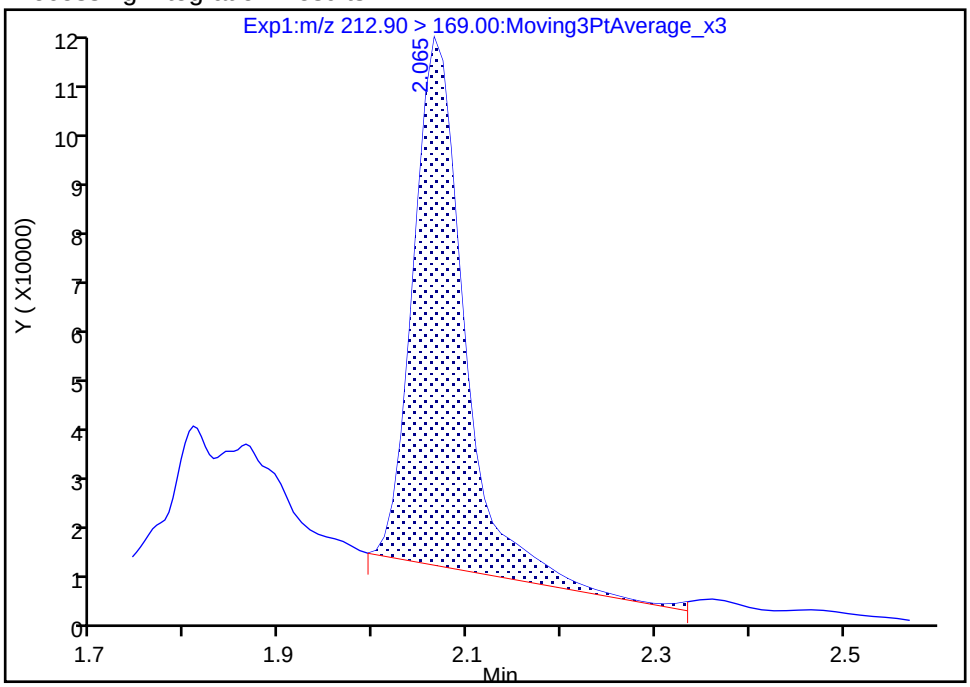
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

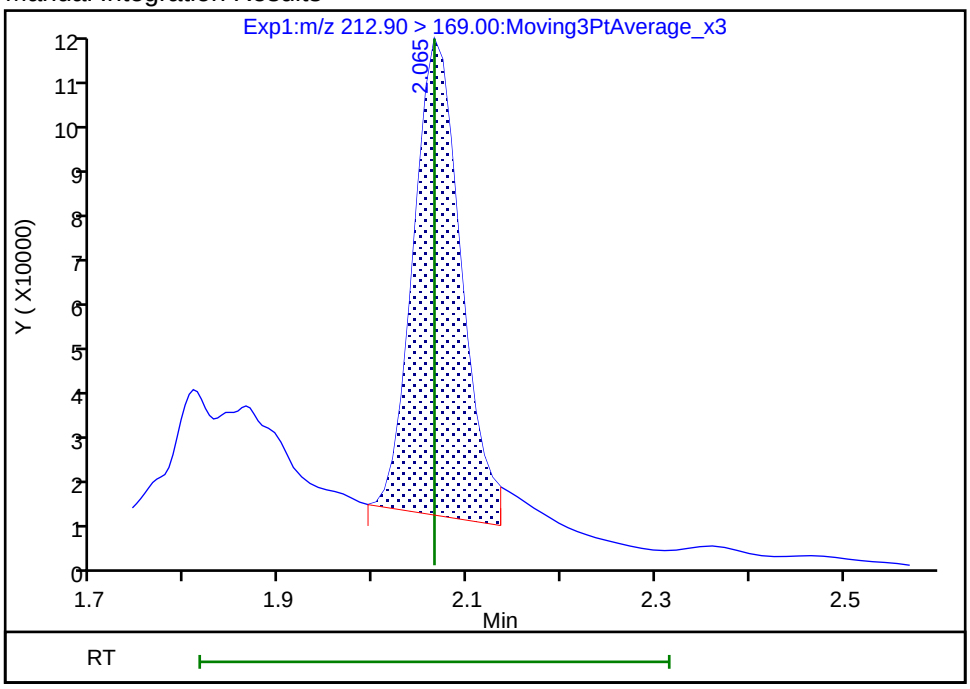
Processing Integration Results

RT: 2.06
Area: 378713
Amount: 0.384586
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 351014
Amount: 0.356457
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:04:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

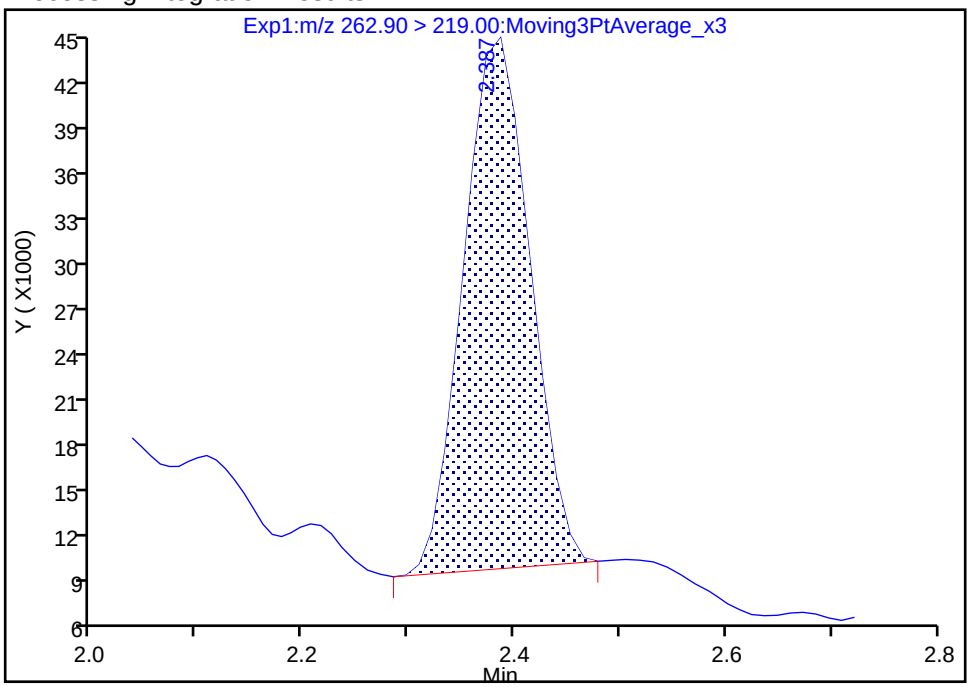
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

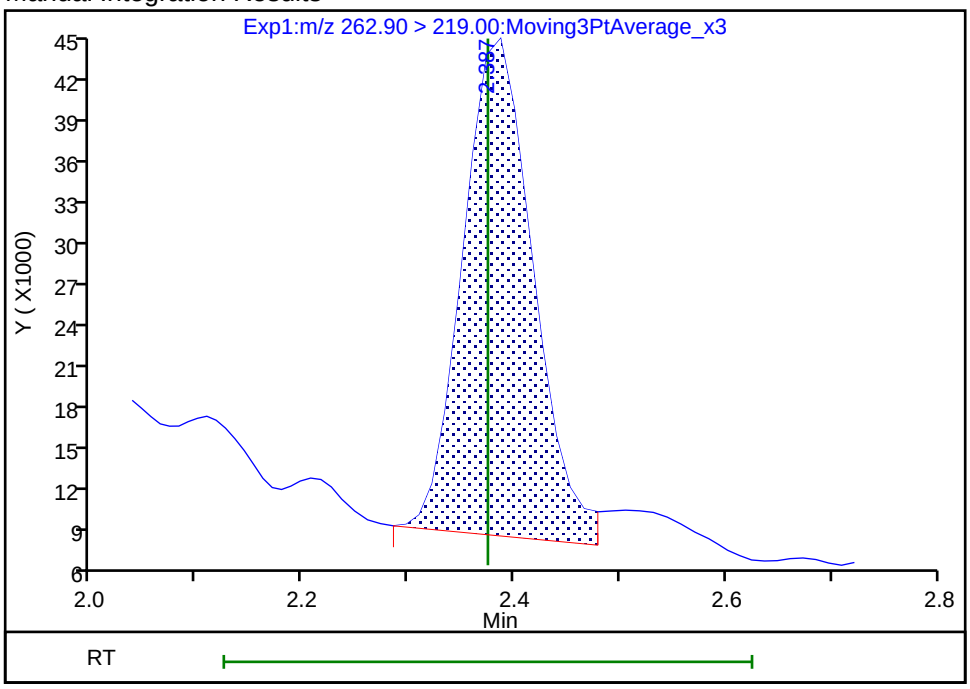
Processing Integration Results

RT: 2.39
Area: 154535
Amount: 0.178556
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 168731
Amount: 0.194958
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:04:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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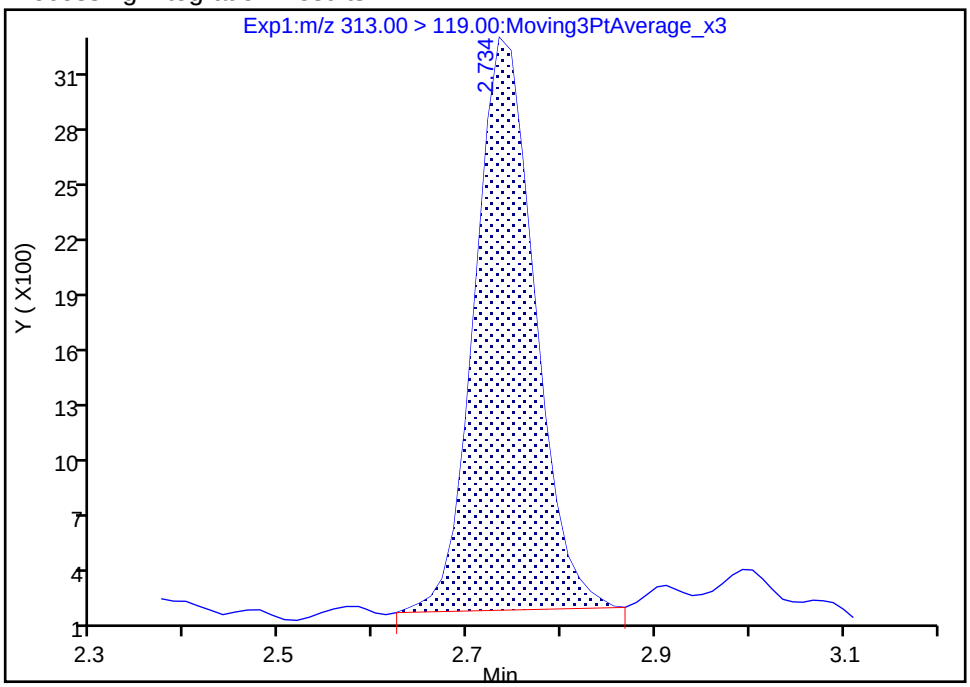
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

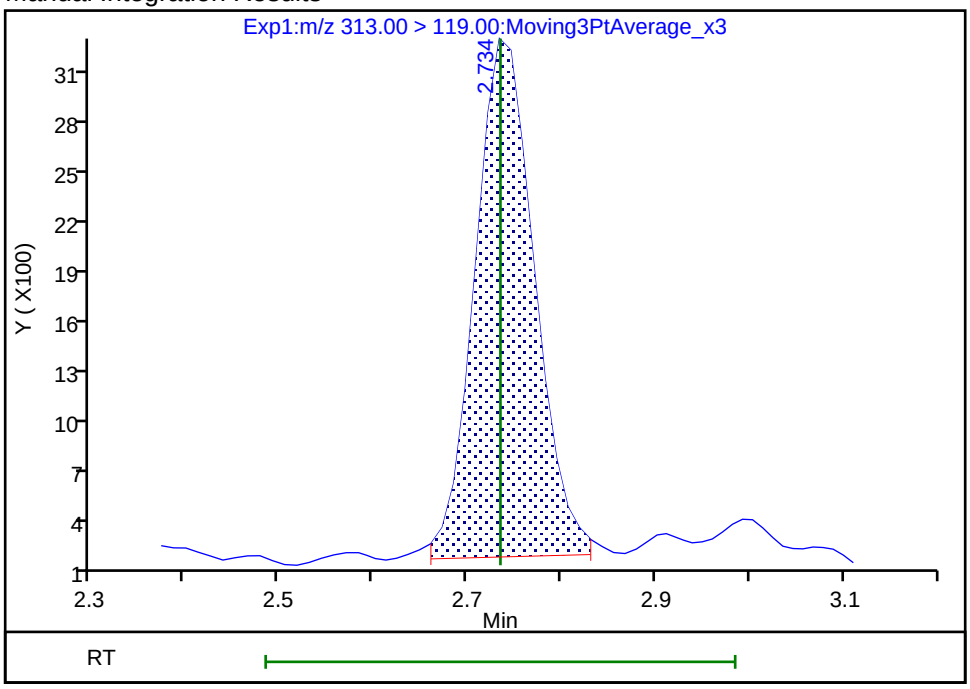
Processing Integration Results

RT: 2.73
Area: 13723
Amount: 0.192533
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 13624
Amount: 0.192533
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:58:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

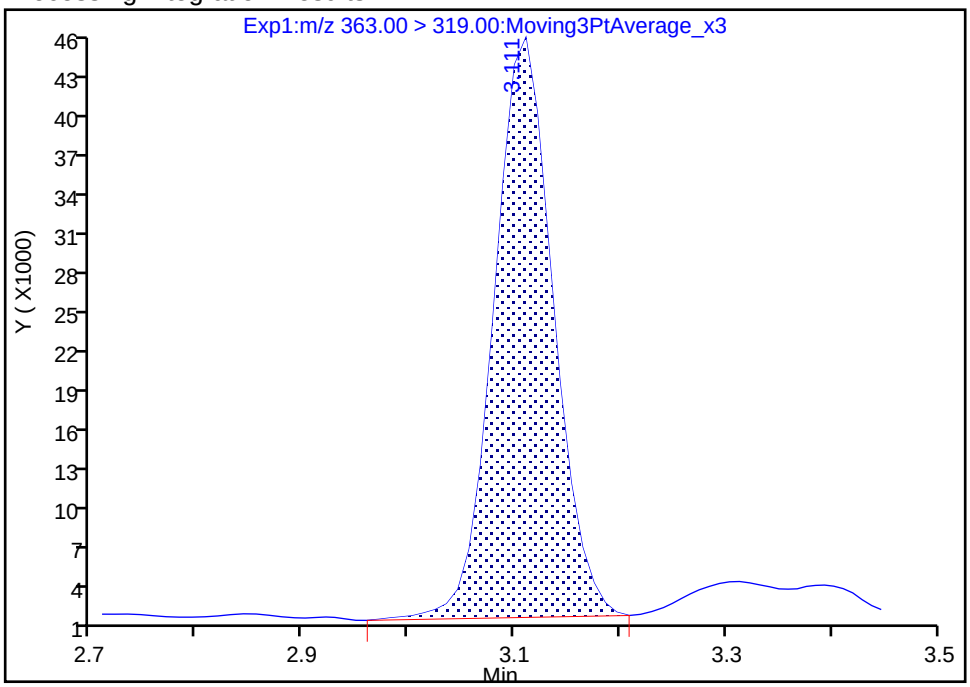
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

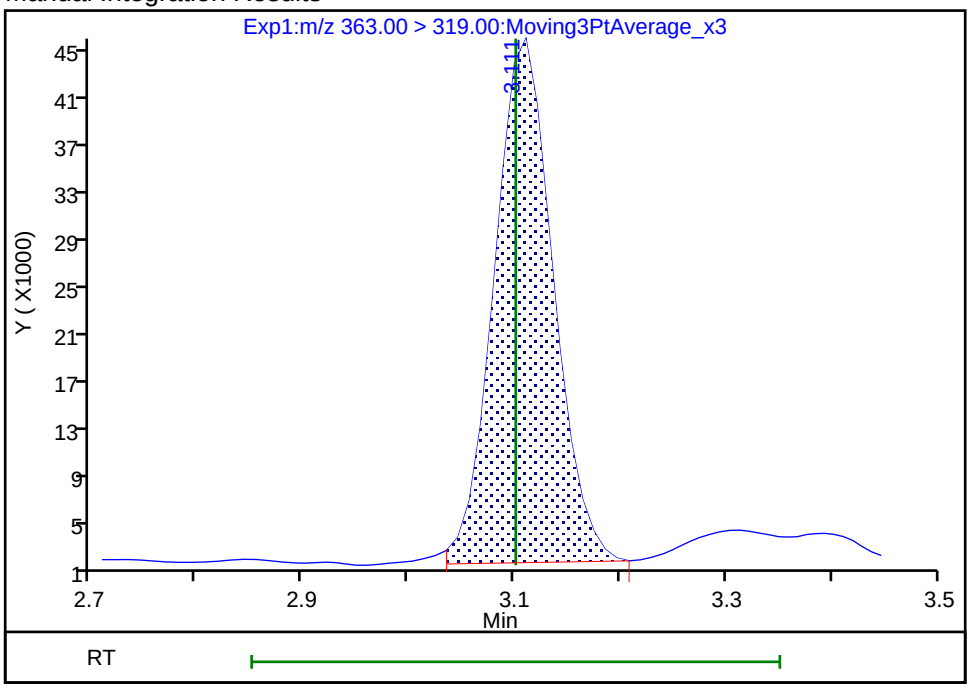
Processing Integration Results

RT: 3.11
Area: 168953
Amount: 0.176241
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 167431
Amount: 0.174653
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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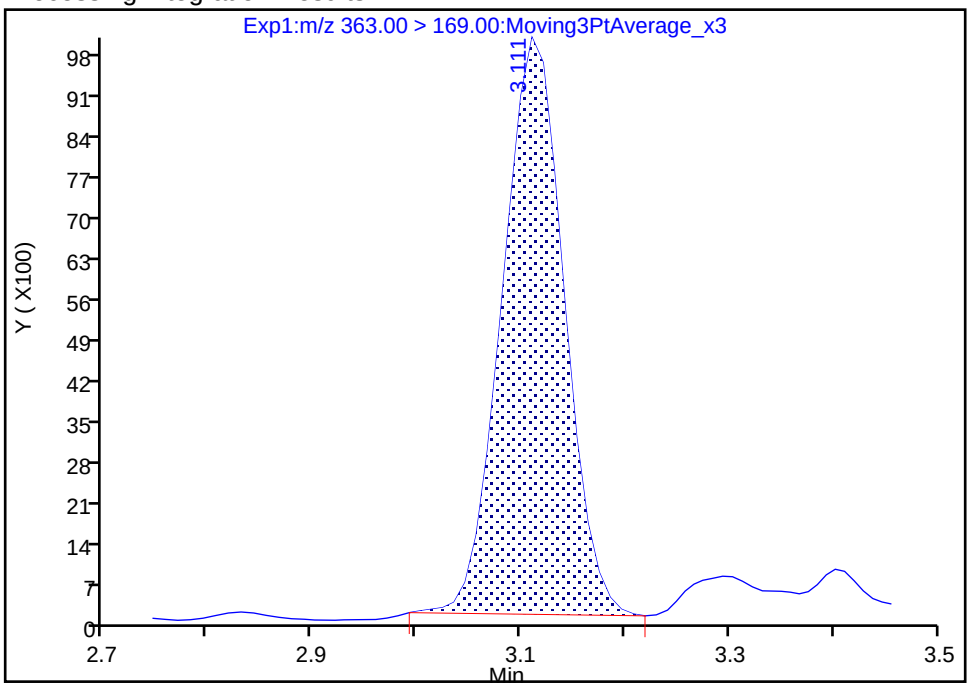
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

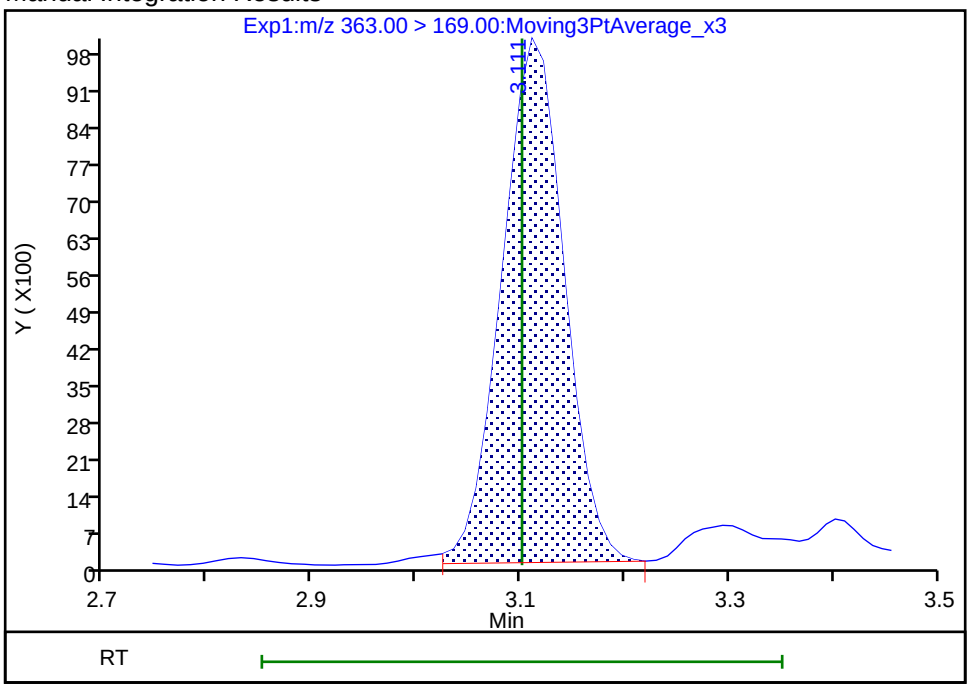
Processing Integration Results

RT: 3.11
Area: 40813
Amount: 0.176241
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 41272
Amount: 0.174653
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

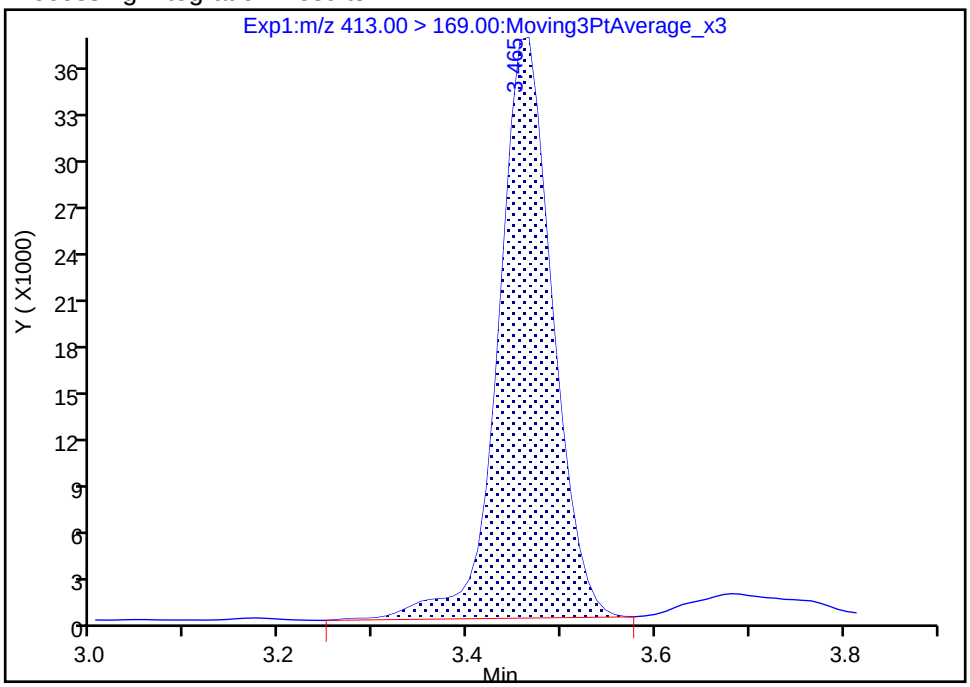
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

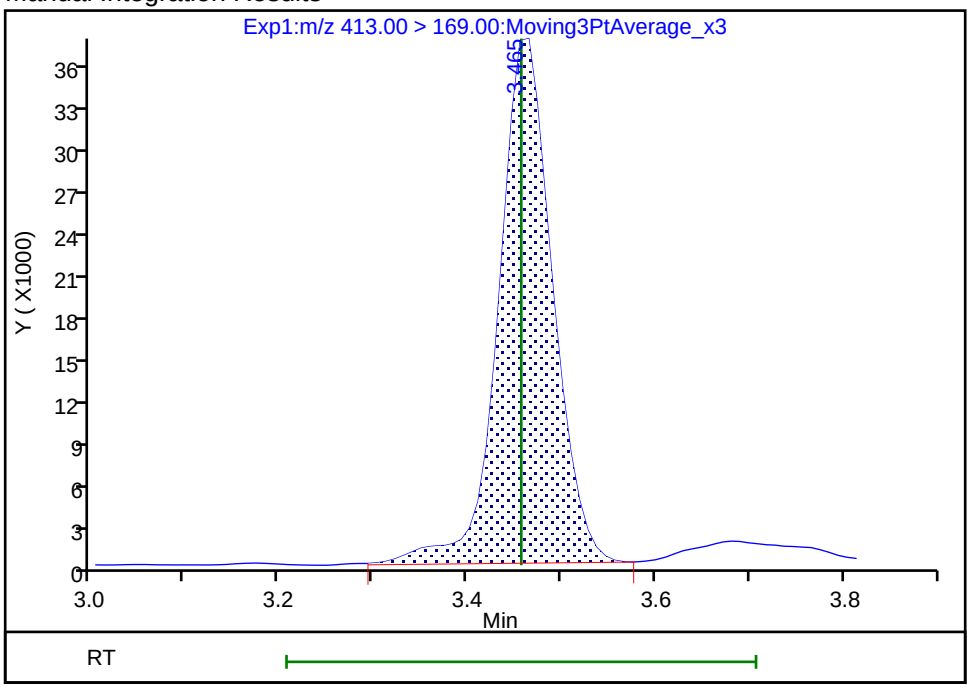
Processing Integration Results

RT: 3.47
Area: 149030
Amount: 0.365428
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 148869
Amount: 0.361784
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:06:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

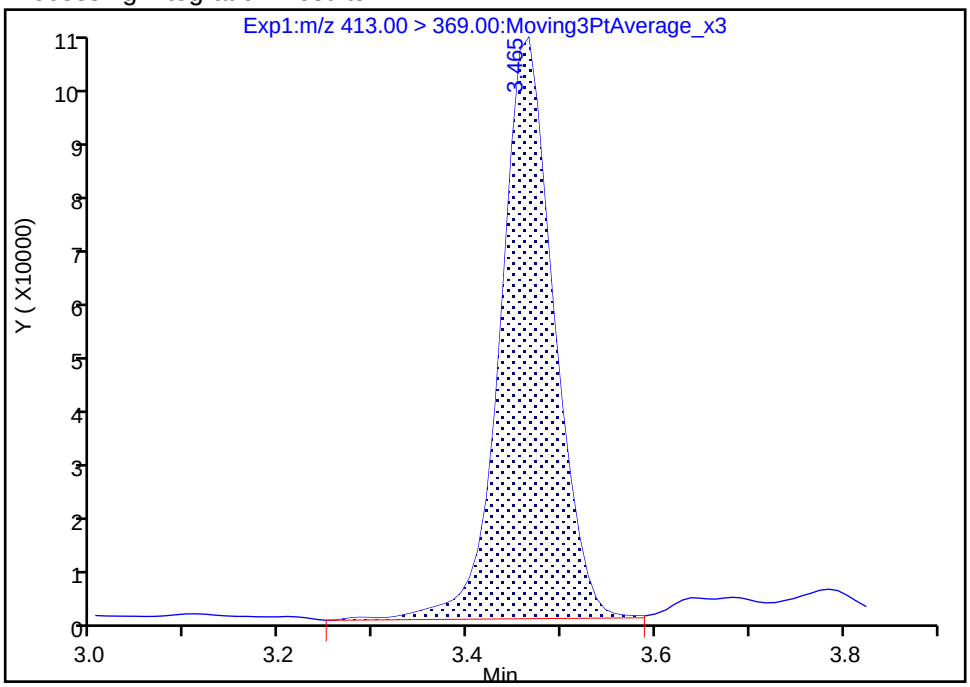
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

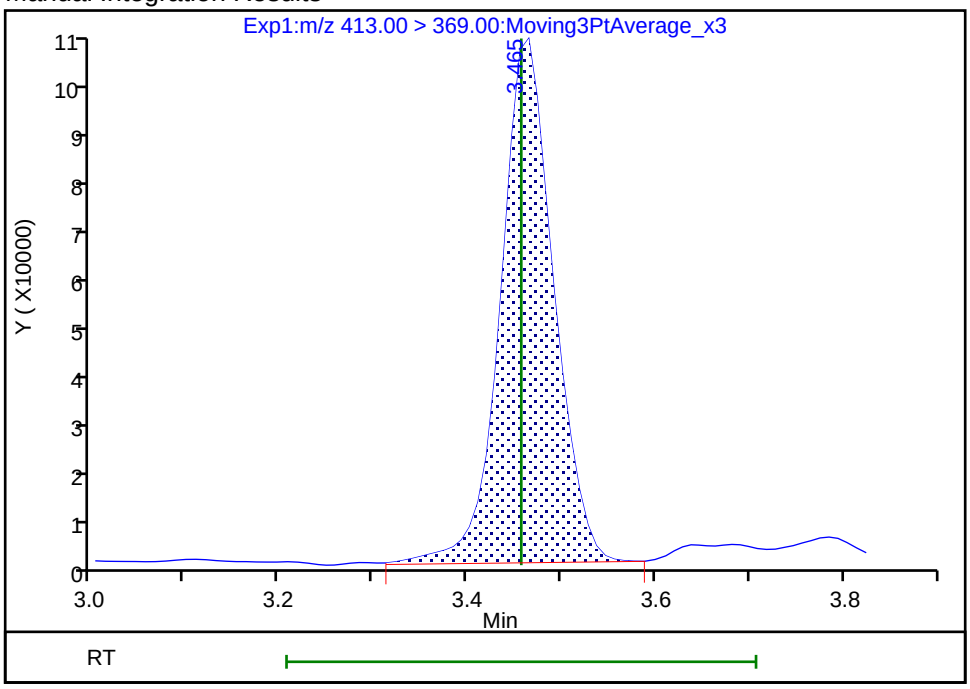
Processing Integration Results

RT: 3.47
Area: 401167
Amount: 0.365428
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 397167
Amount: 0.361784
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:06:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

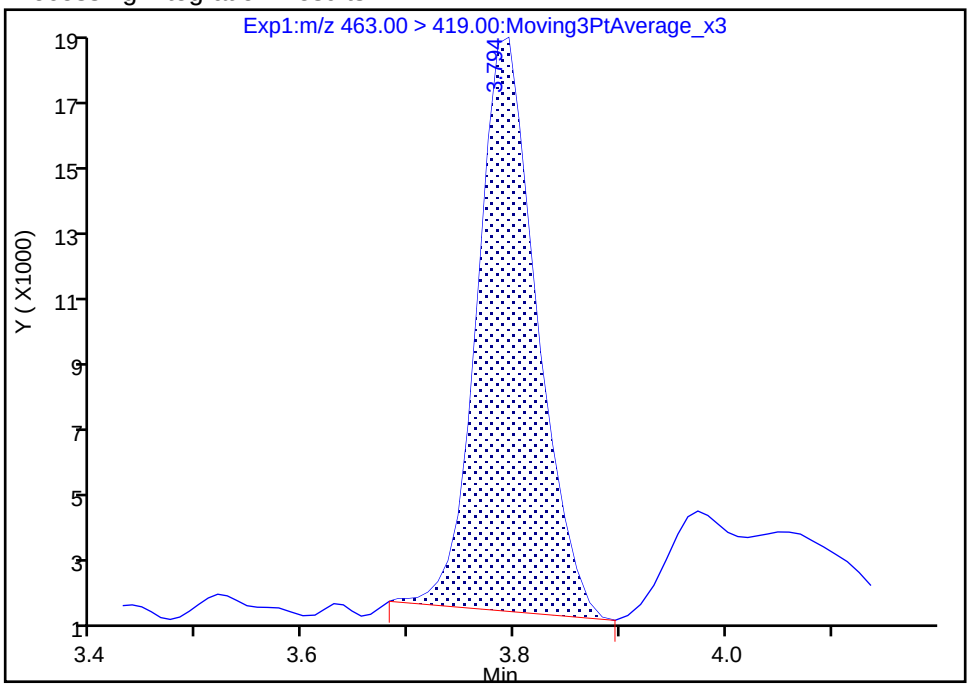
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

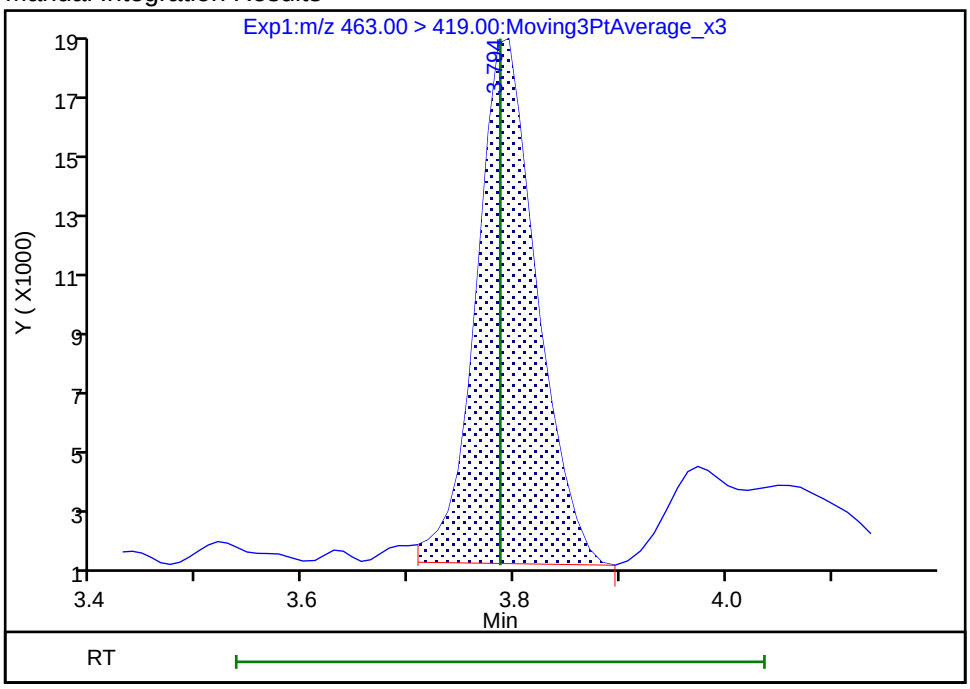
Processing Integration Results

RT: 3.79
Area: 65683
Amount: 0.061492
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 67688
Amount: 0.063370
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:07:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

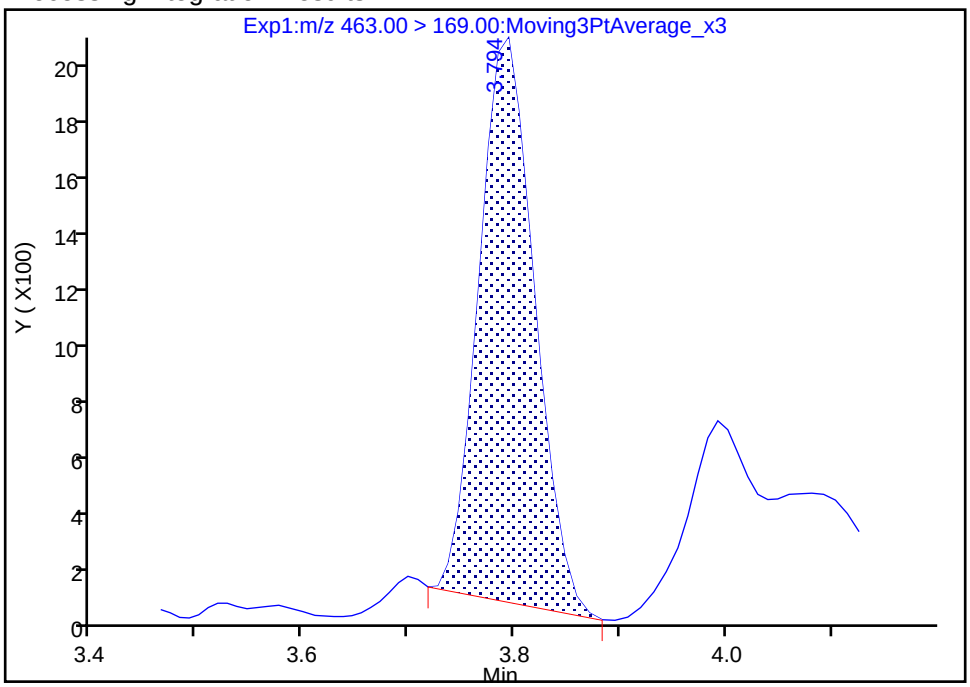
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

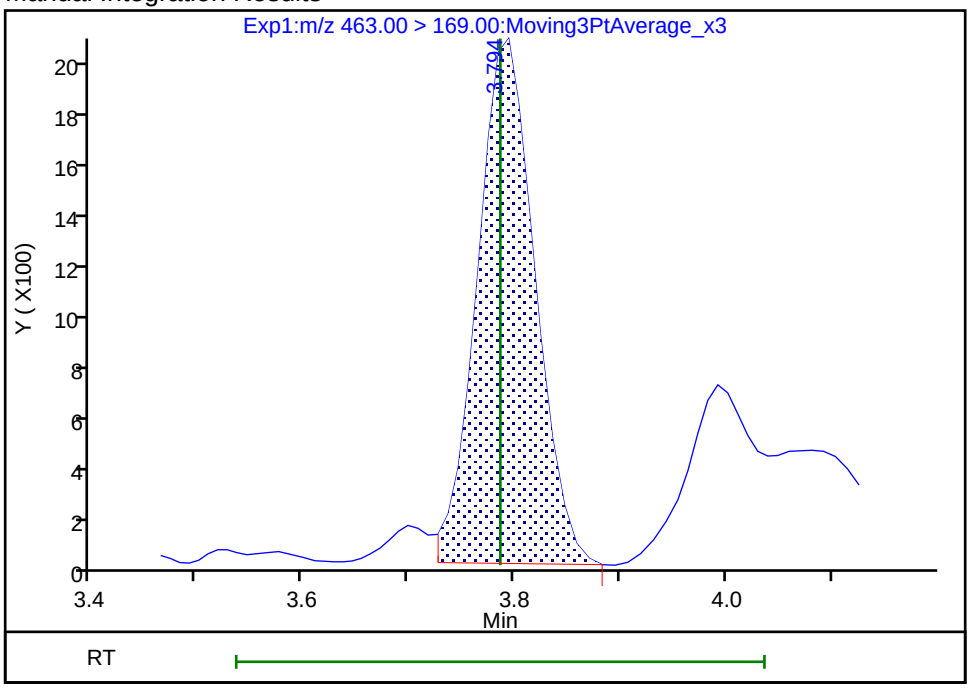
Processing Integration Results

RT: 3.79
Area: 7137
Amount: 0.061492
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 7583
Amount: 0.063370
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:07:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

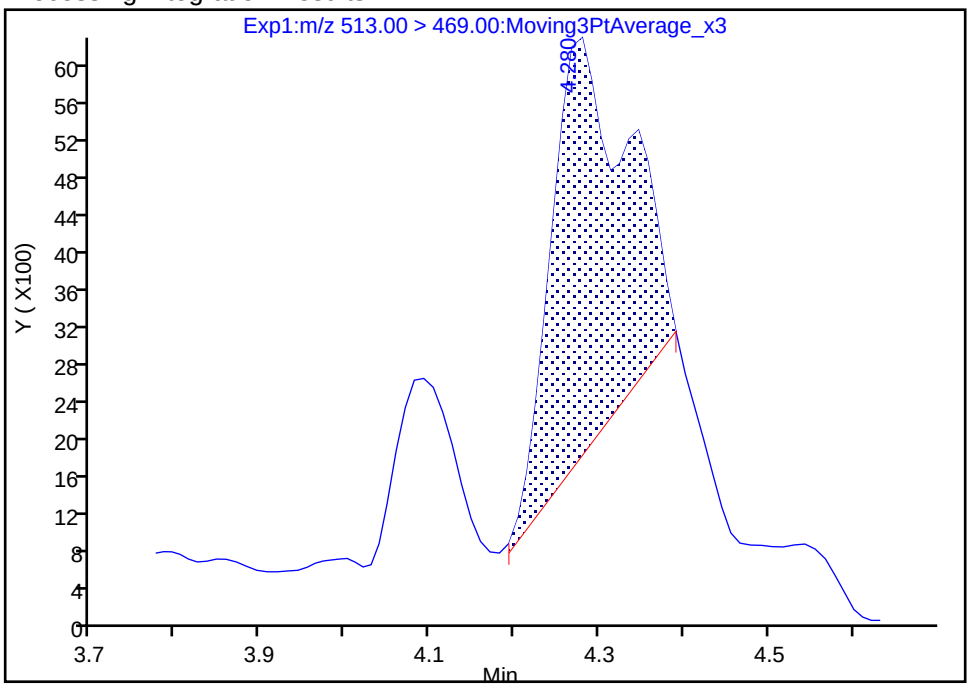
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

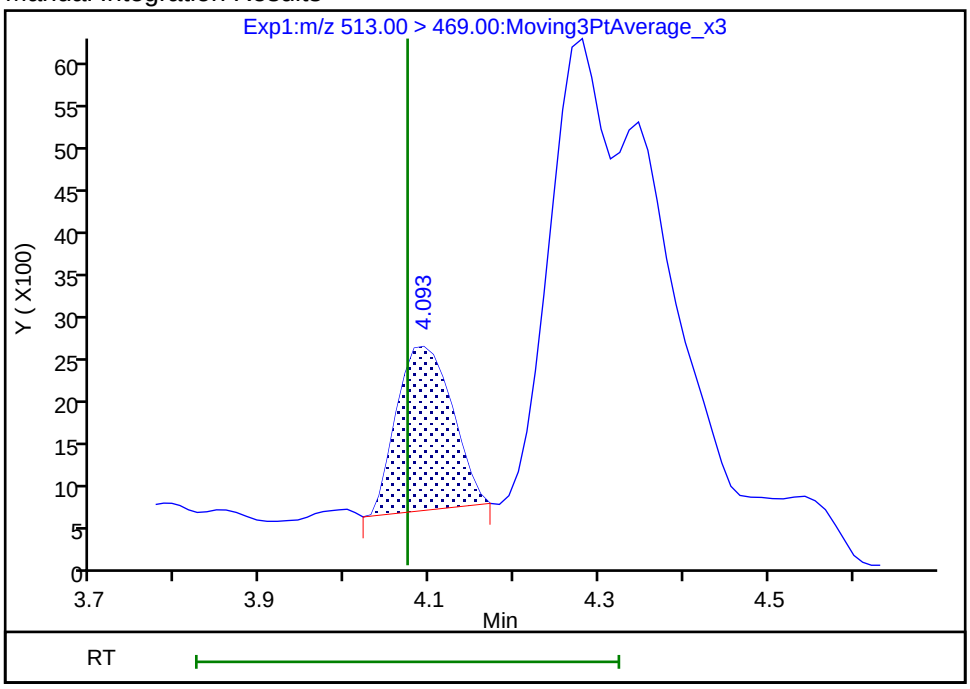
Processing Integration Results

RT: 4.28
Area: 28255
Amount: 0.030134
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 8939
Amount: 0.009628
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:07:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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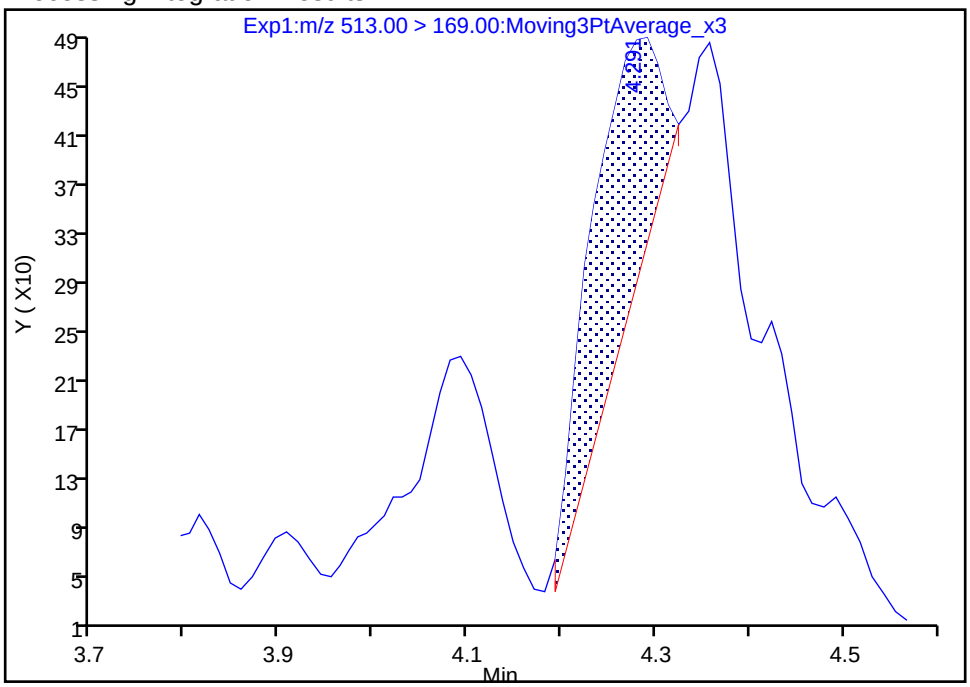
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

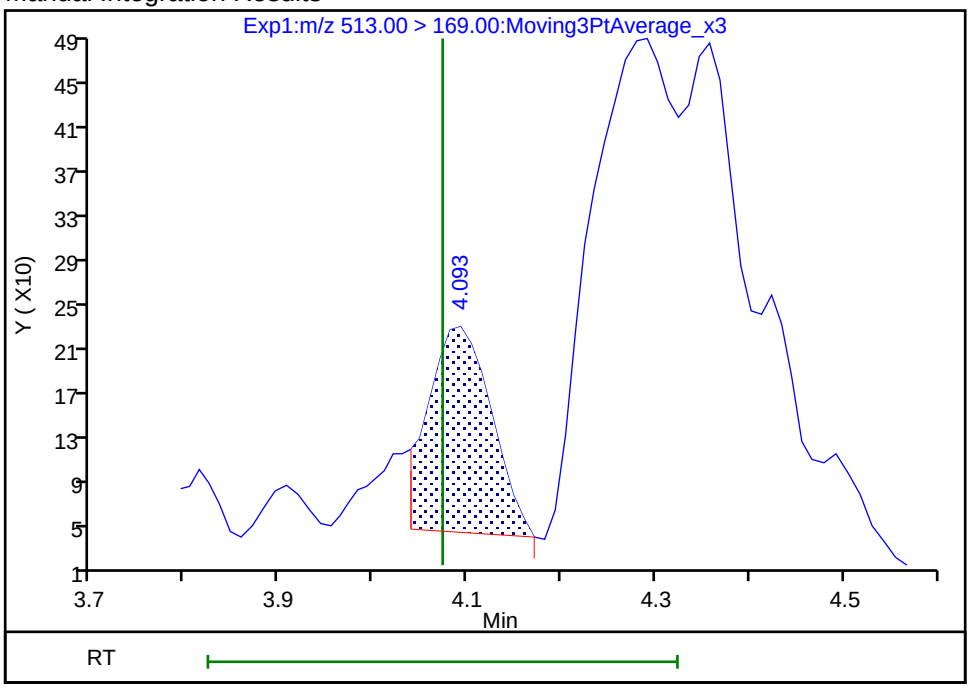
Processing Integration Results

RT: 4.29
Area: 1121
Amount: 0.030134
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 847
Amount: 0.009628
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:07:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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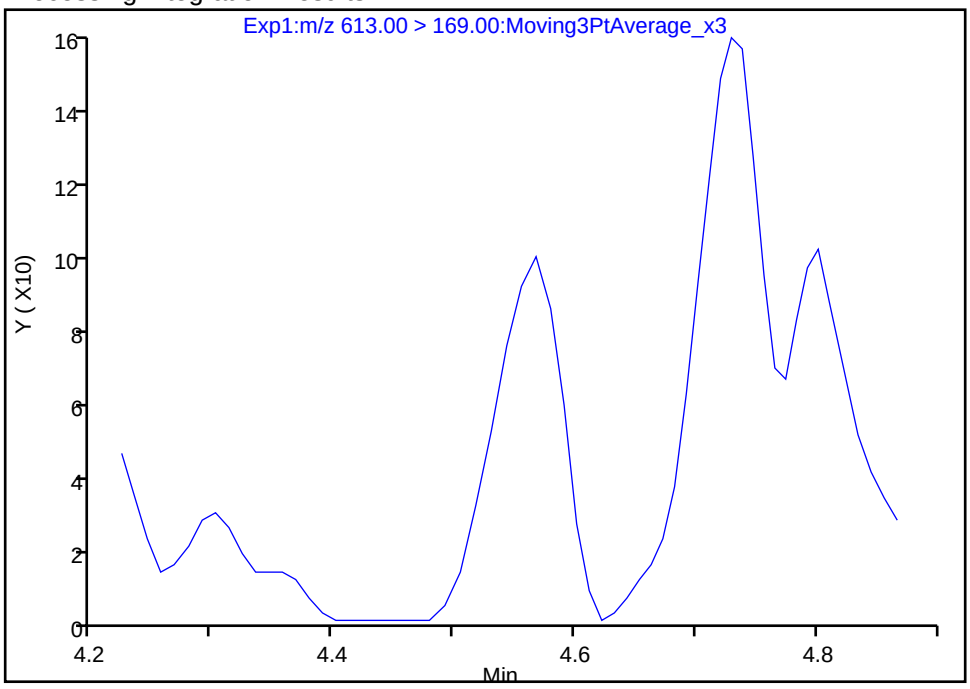
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

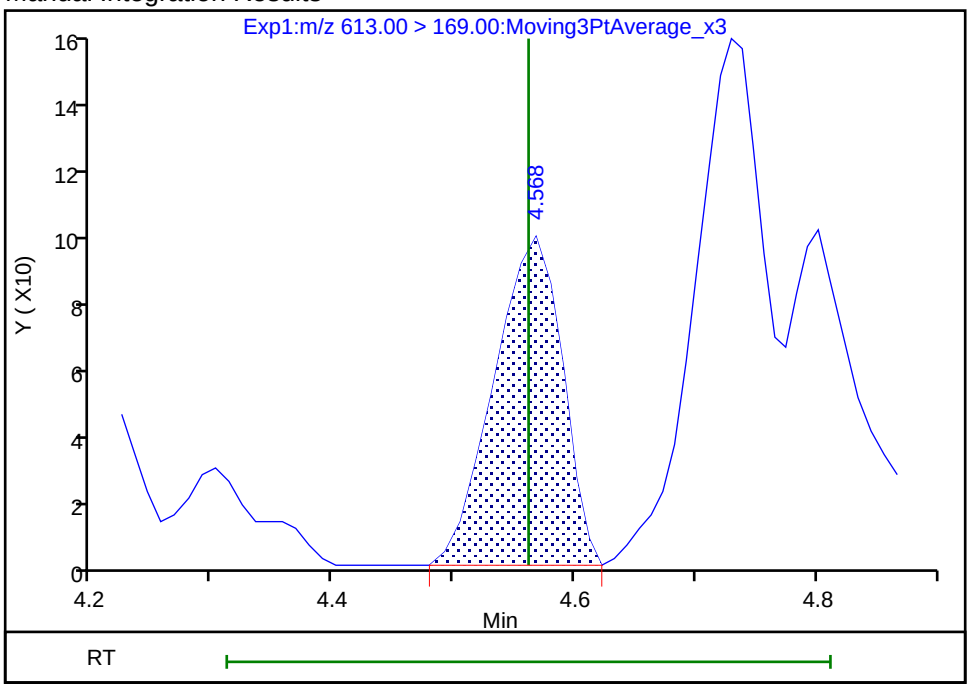
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 385
Amount: 0.003935
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:09:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

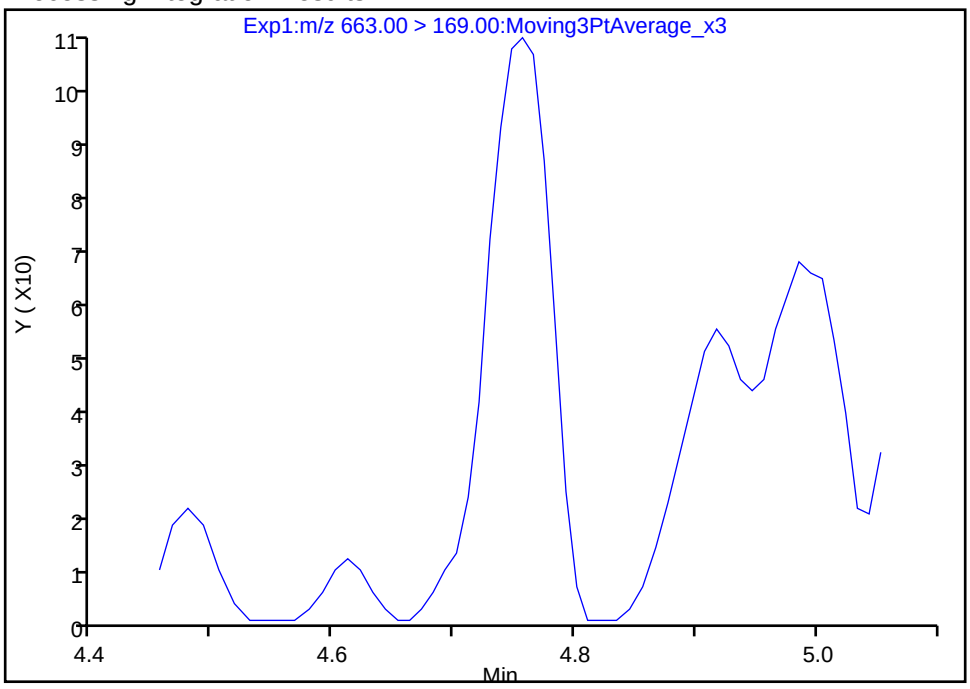
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

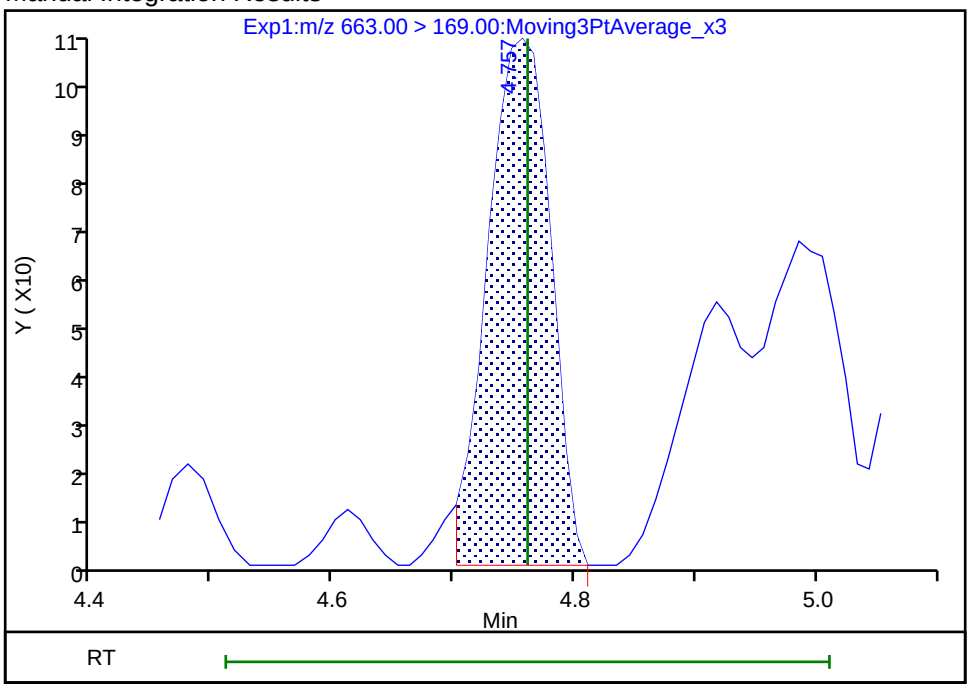
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.76
Area: 375
Amount: 0.003884
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:09:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

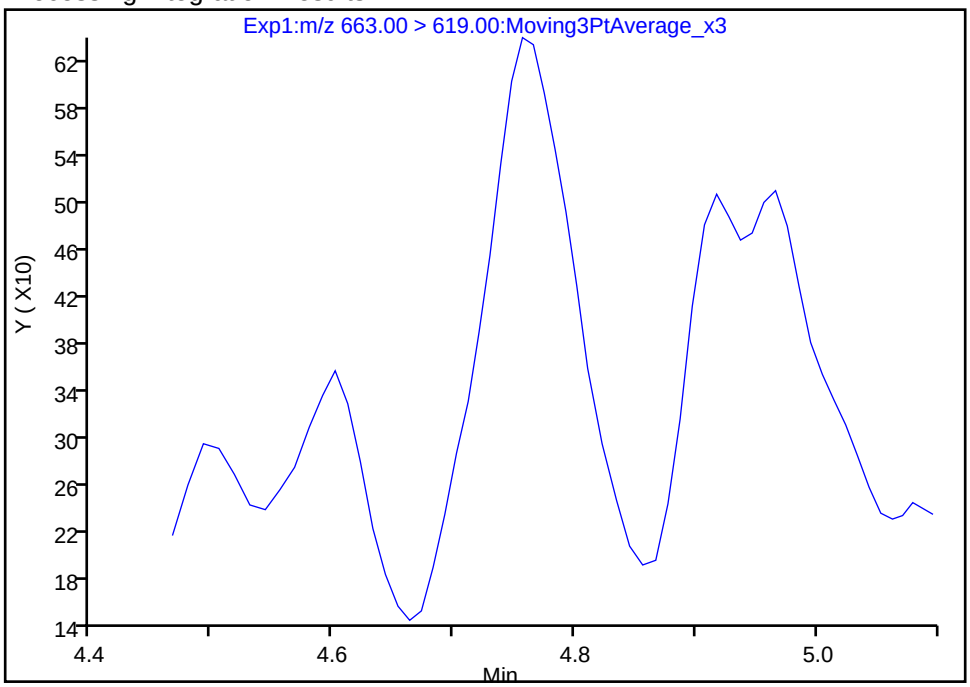
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

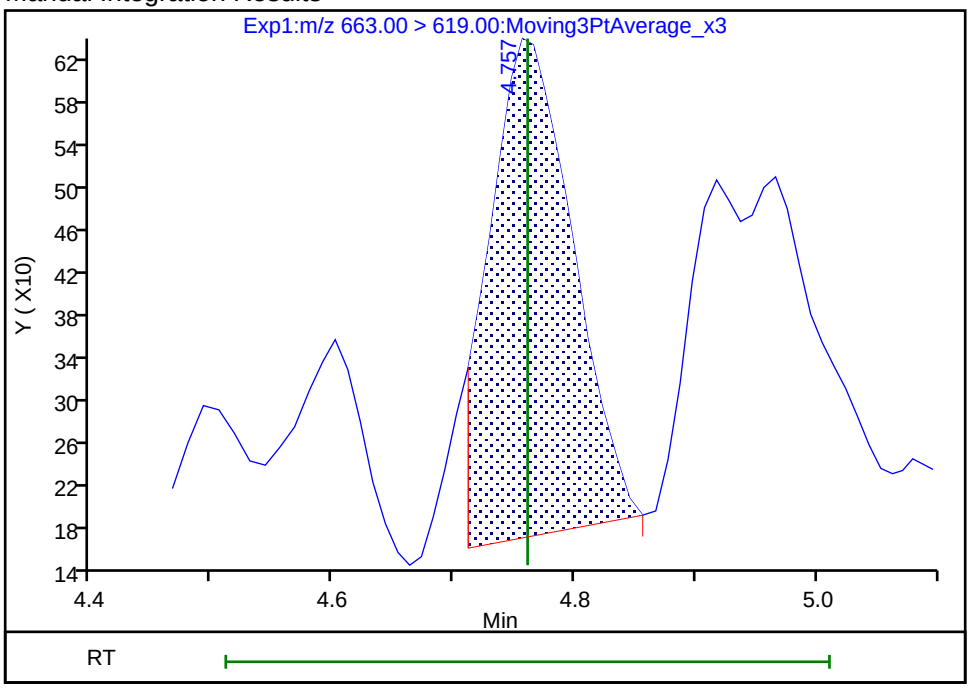
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.76
Area: 2231
Amount: 0.003884
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:09:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

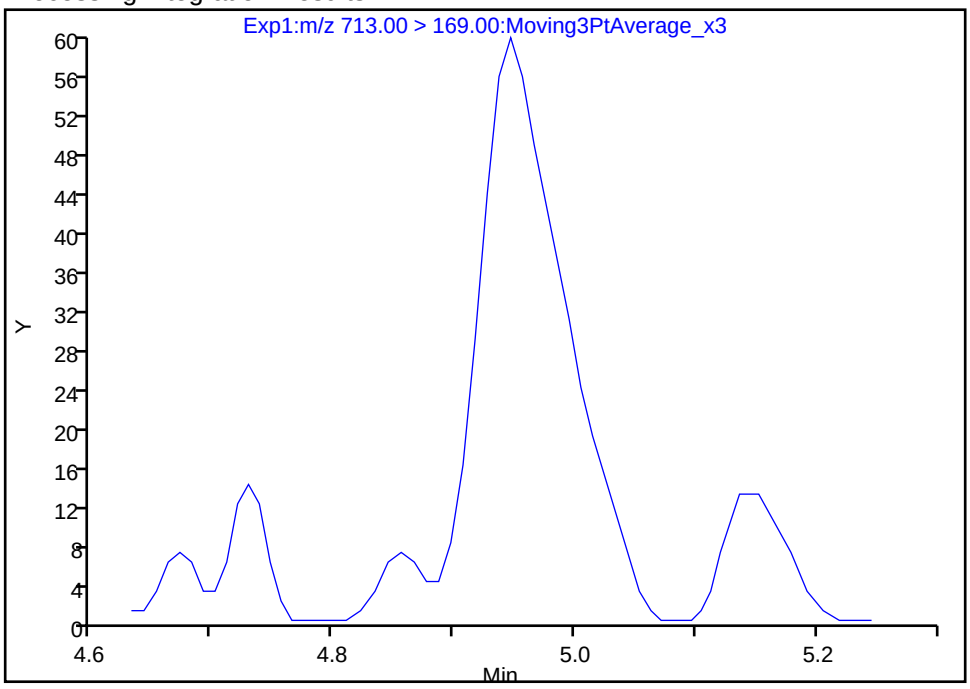
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

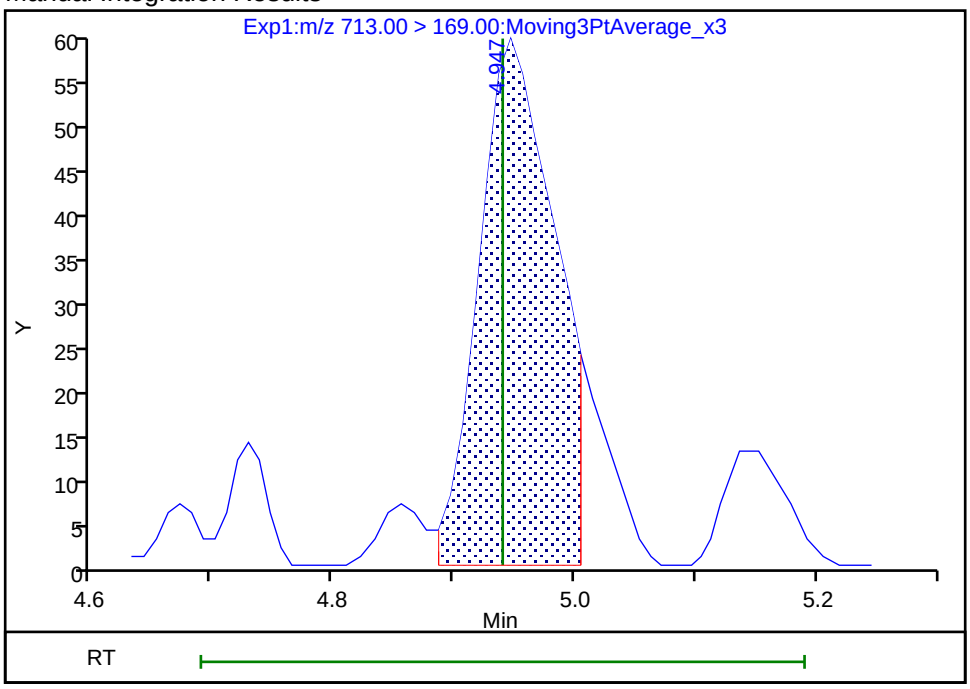
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 259
Amount: 0.005102
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:09:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

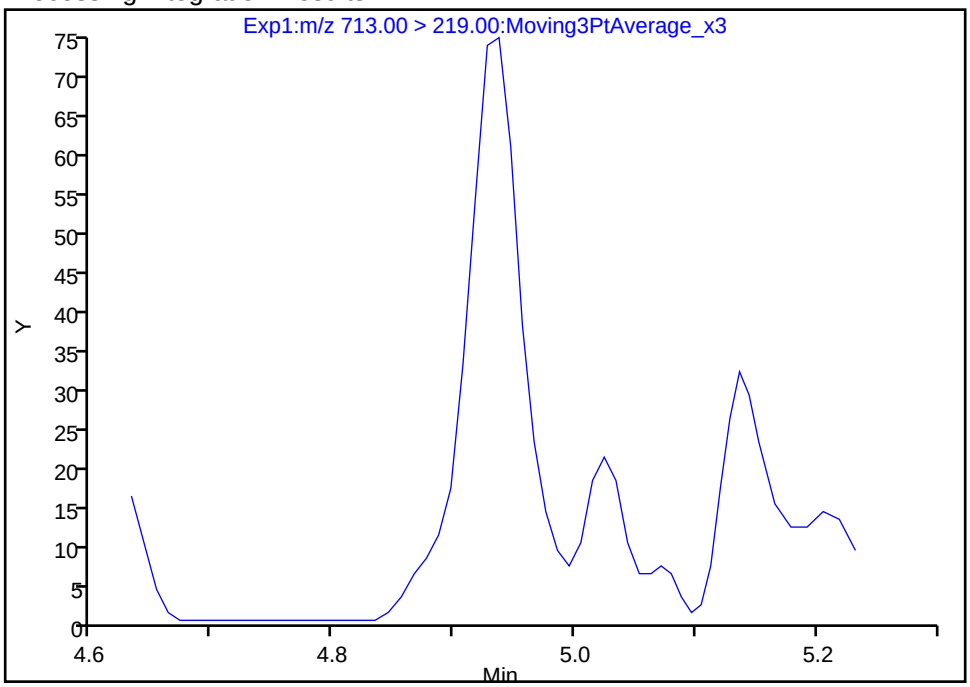
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

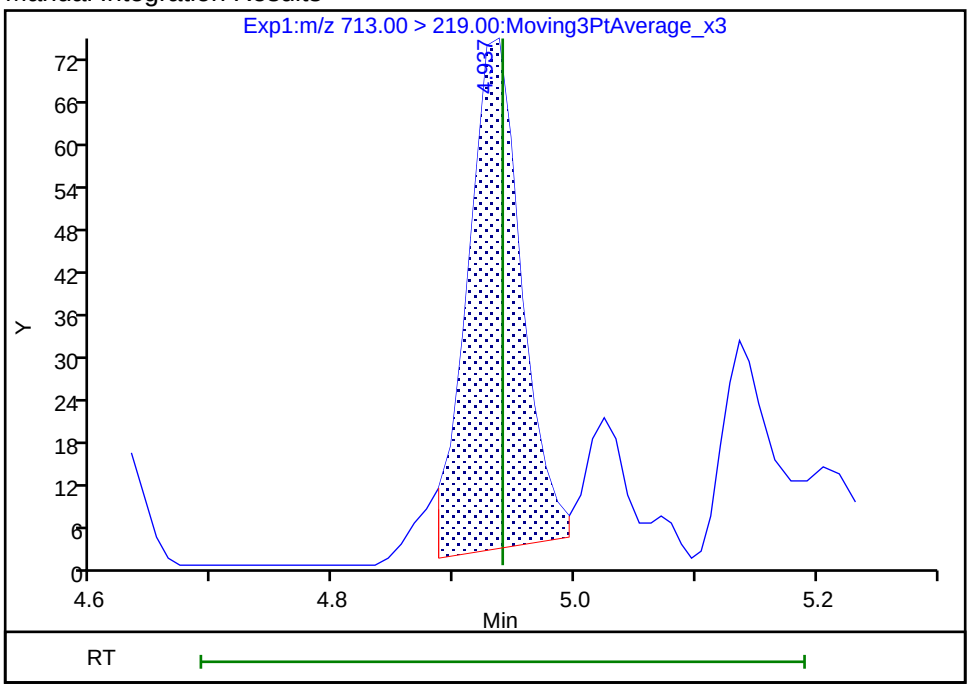
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.94
Area: 223
Amount: 0.005102
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:09:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

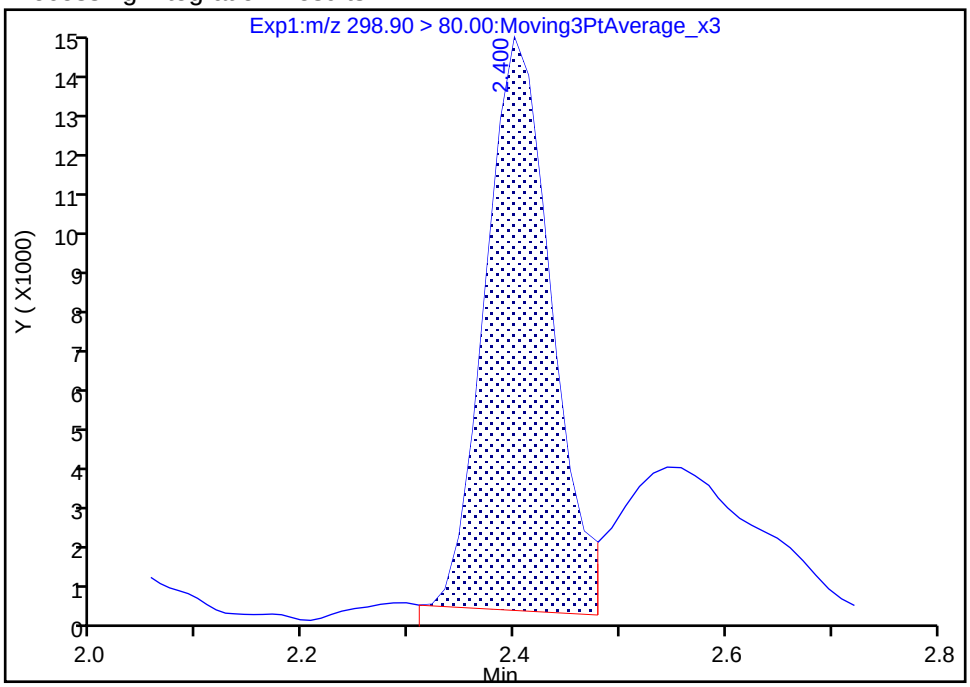
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

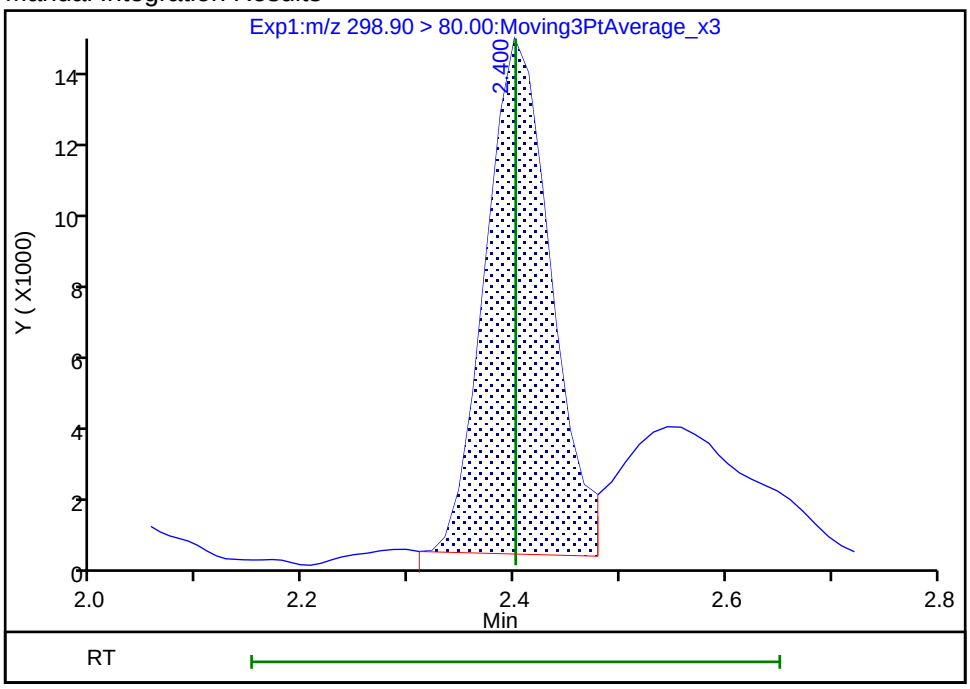
Processing Integration Results

RT: 2.40
Area: 59602
Amount: 0.048437
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 59034
Amount: 0.047976
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:04:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

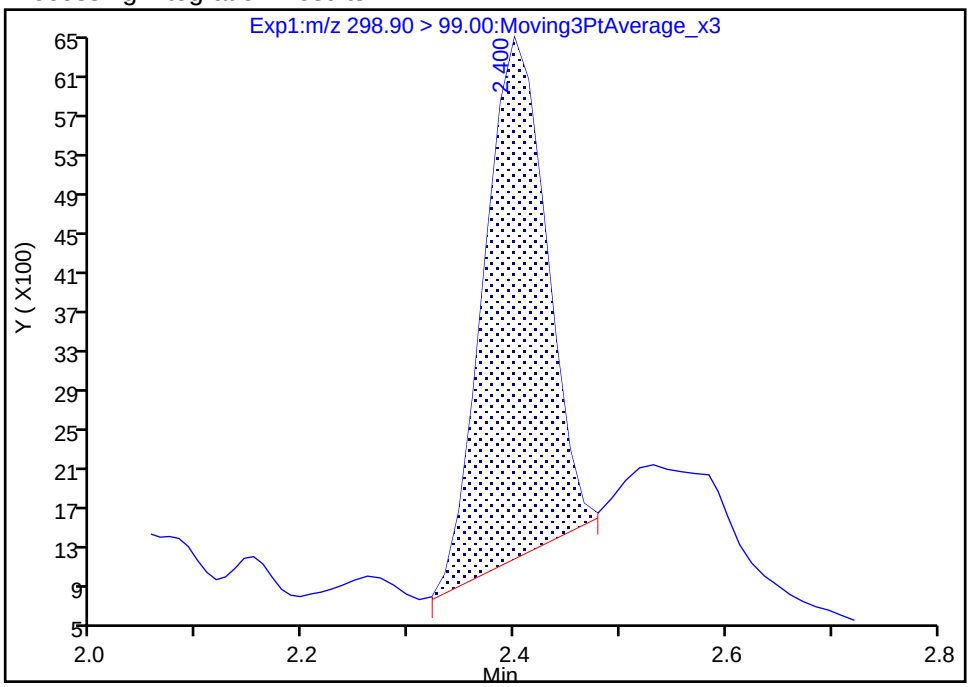
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

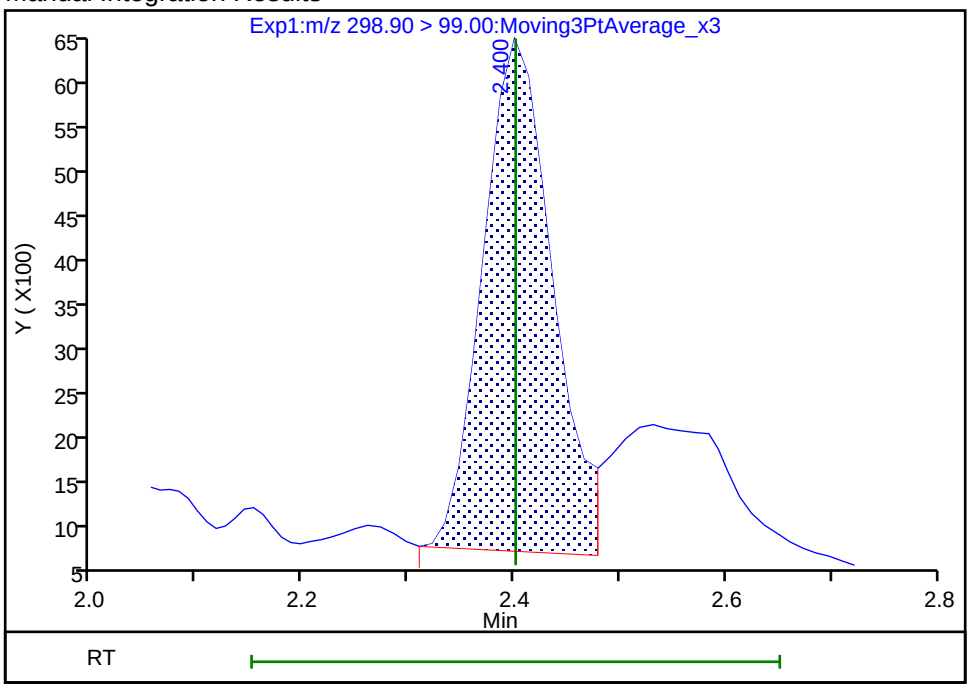
Processing Integration Results

RT: 2.40
Area: 21818
Amount: 0.048437
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 26245
Amount: 0.047976
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:04:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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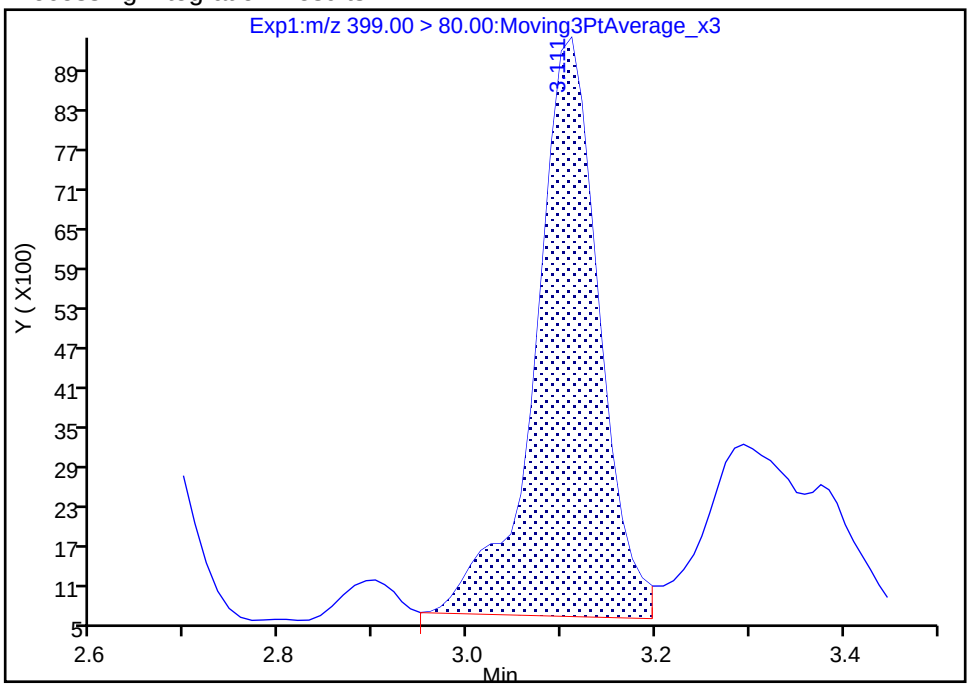
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

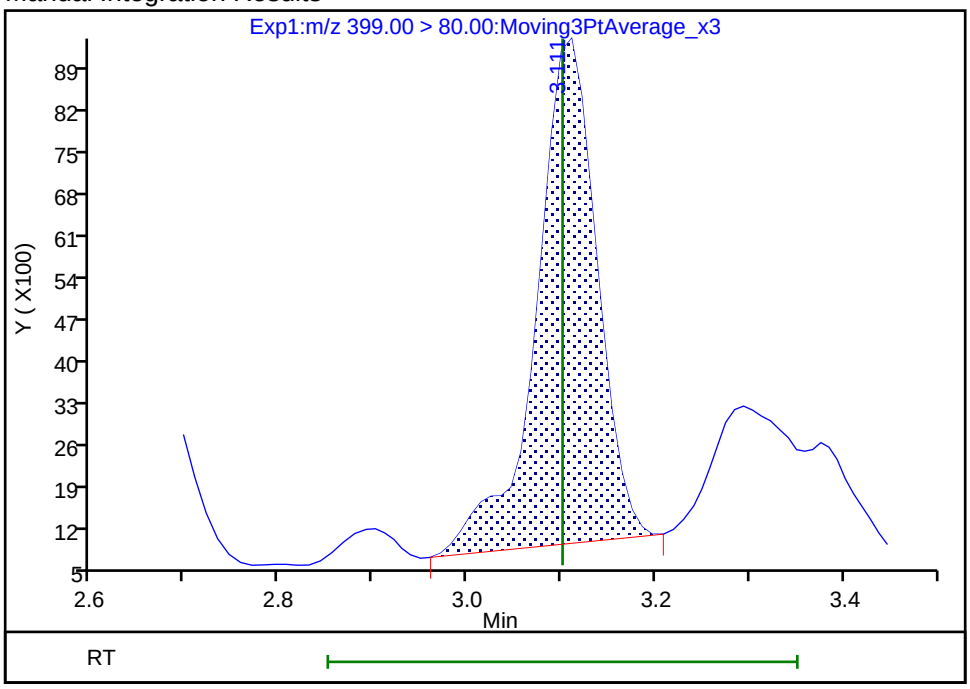
Processing Integration Results

RT: 3.11
Area: 41283
Amount: 0.042346
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 37781
Amount: 0.038754
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

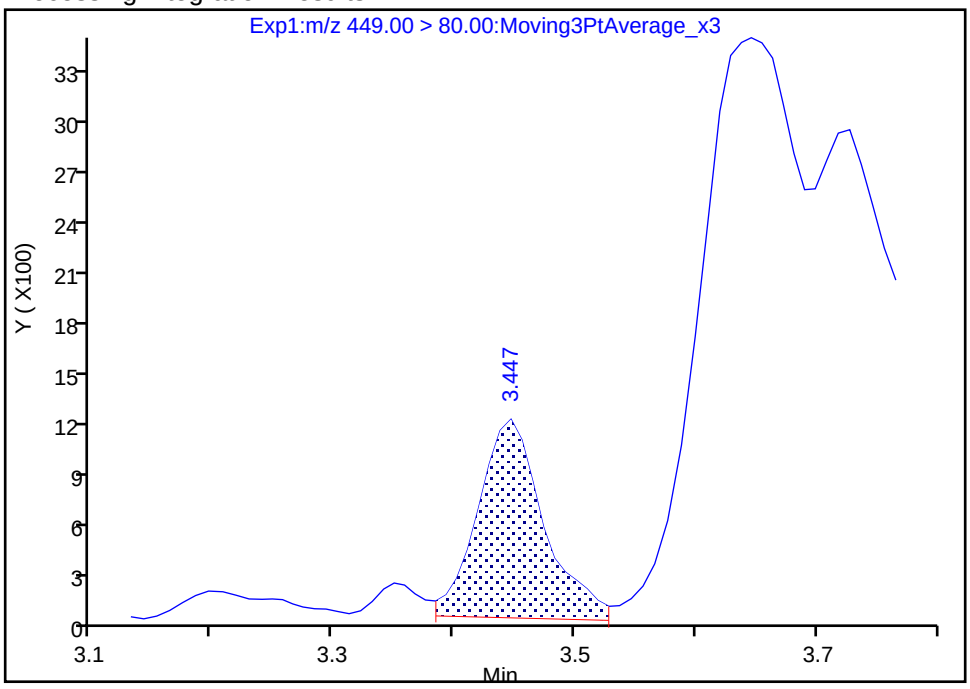
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

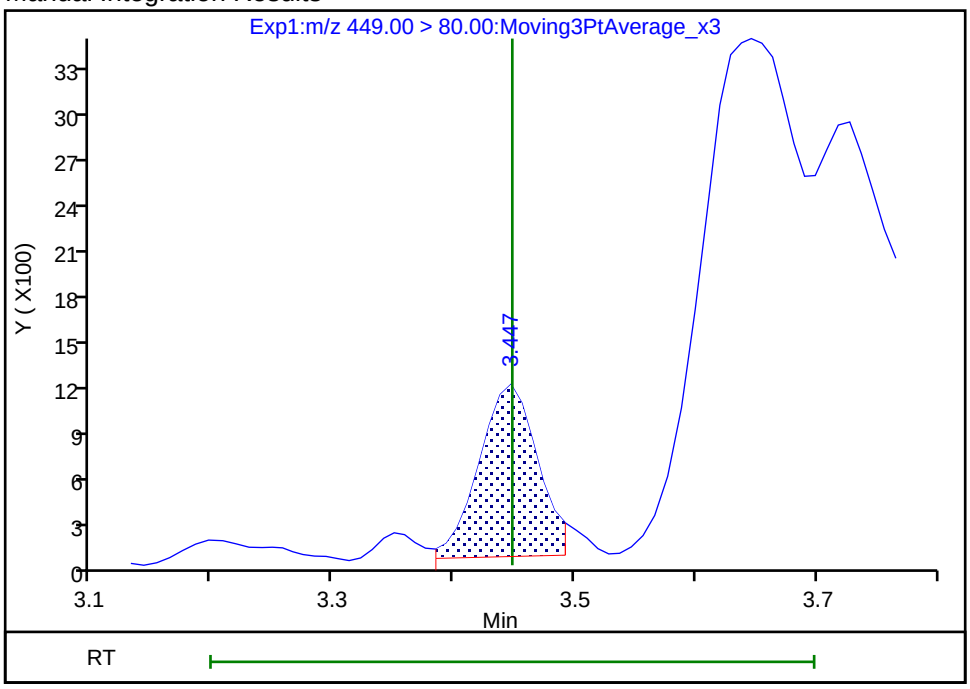
Processing Integration Results

RT: 3.45
Area: 4383
Amount: 0.005472
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 3699
Amount: 0.004644
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

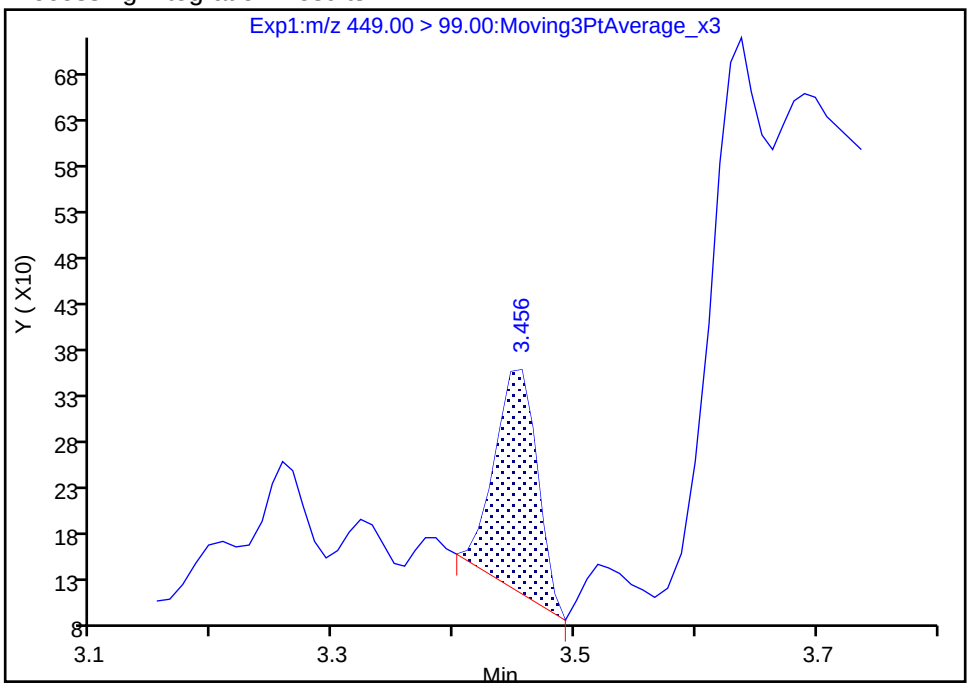
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

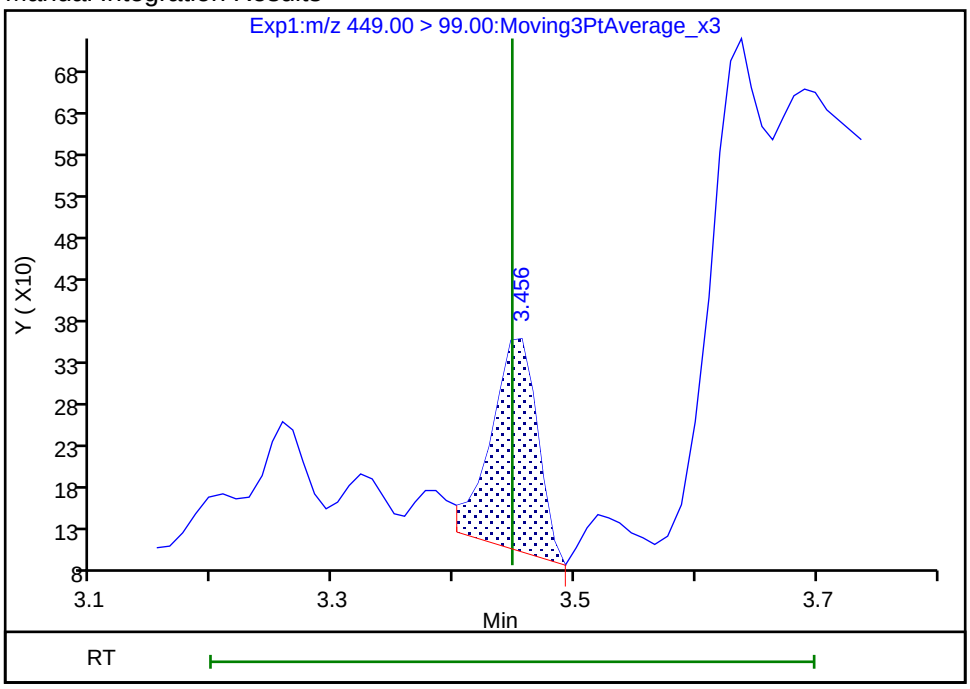
Processing Integration Results

RT: 3.46
Area: 588
Amount: 0.005472
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 674
Amount: 0.004644
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

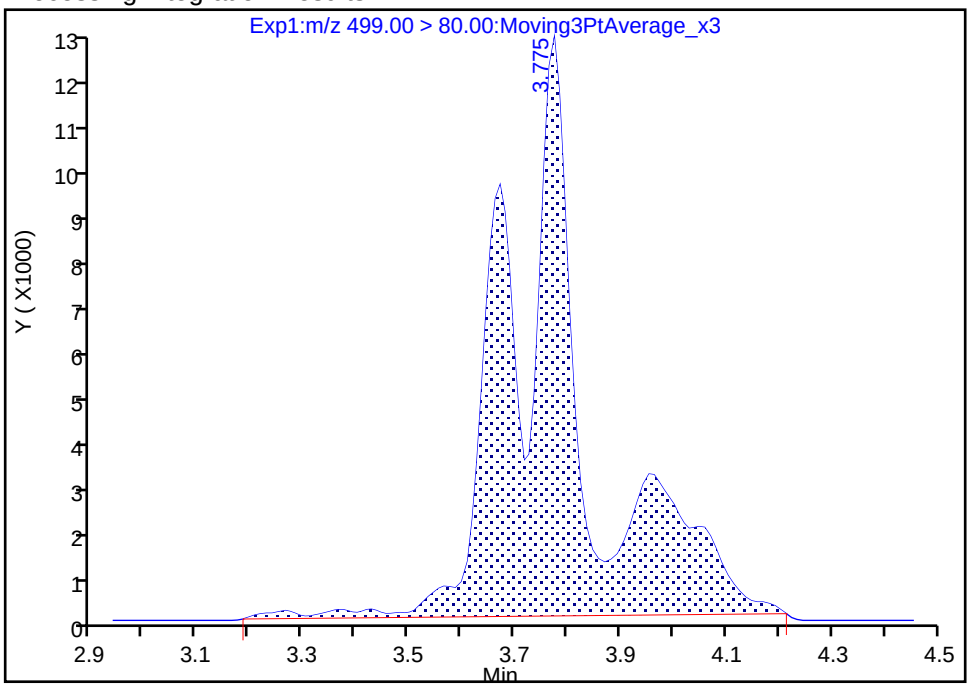
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

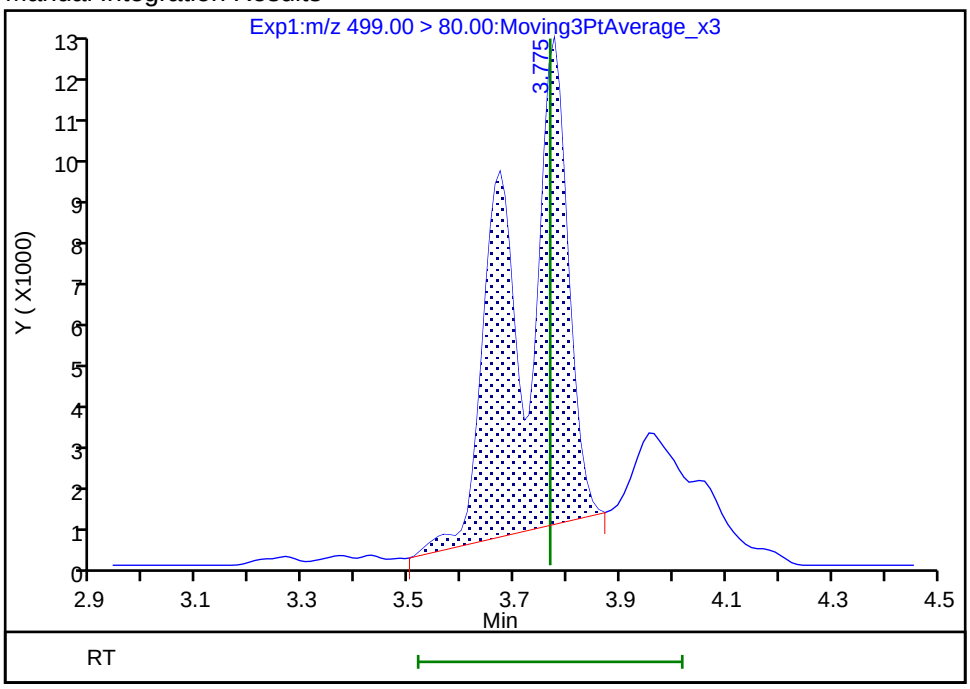
Processing Integration Results

RT: 3.78
Area: 125144
Amount: 0.179494
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 79693
Amount: 0.114946
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:06:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

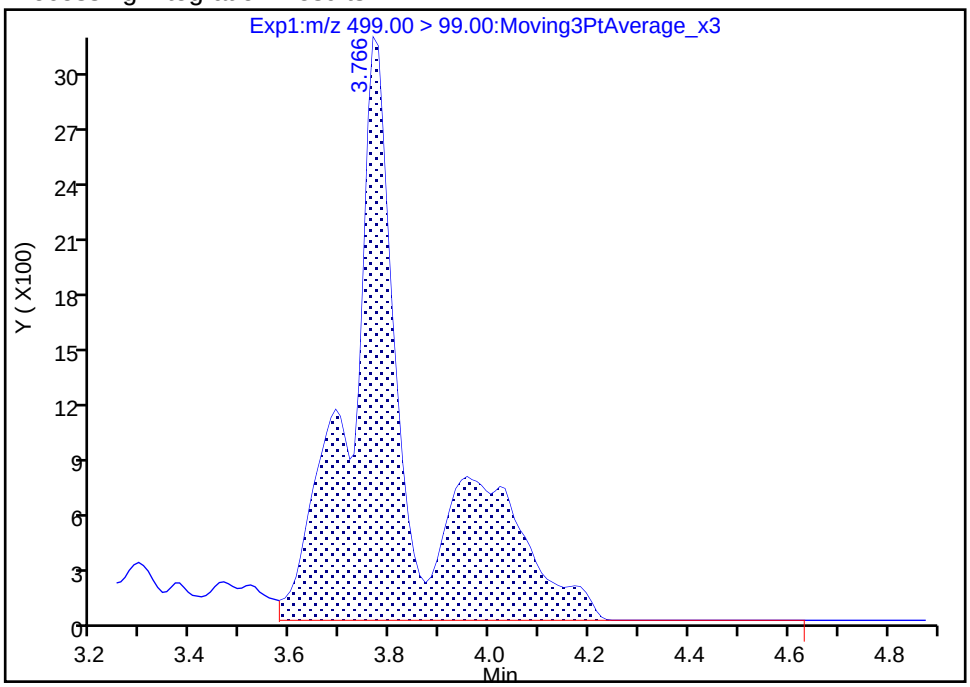
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

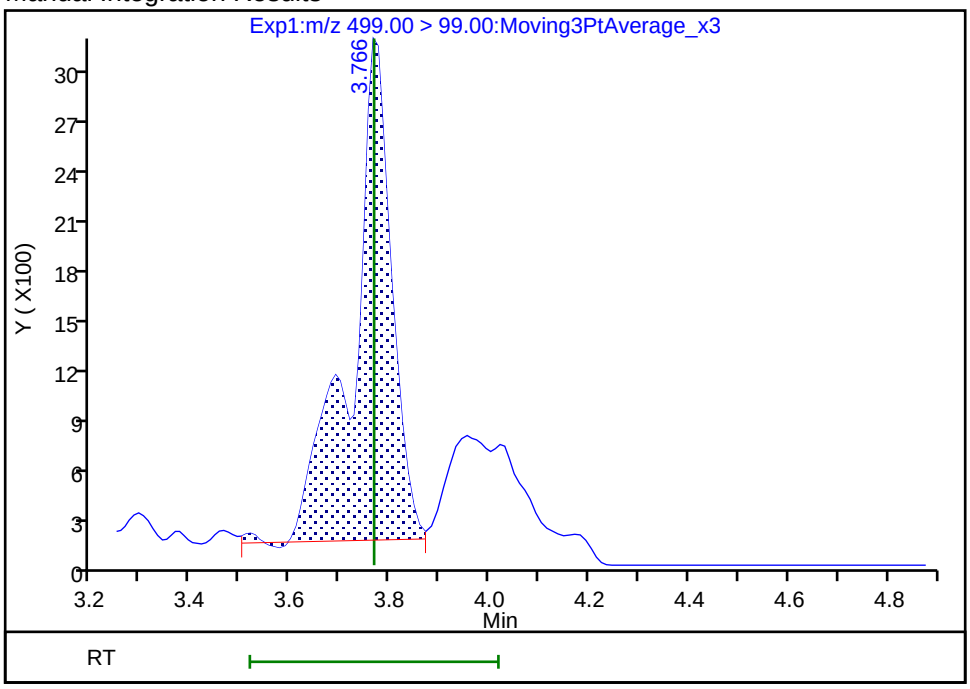
Processing Integration Results

RT: 3.77
Area: 28261
Amount: 0.179494
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 16677
Amount: 0.114946
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:59:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

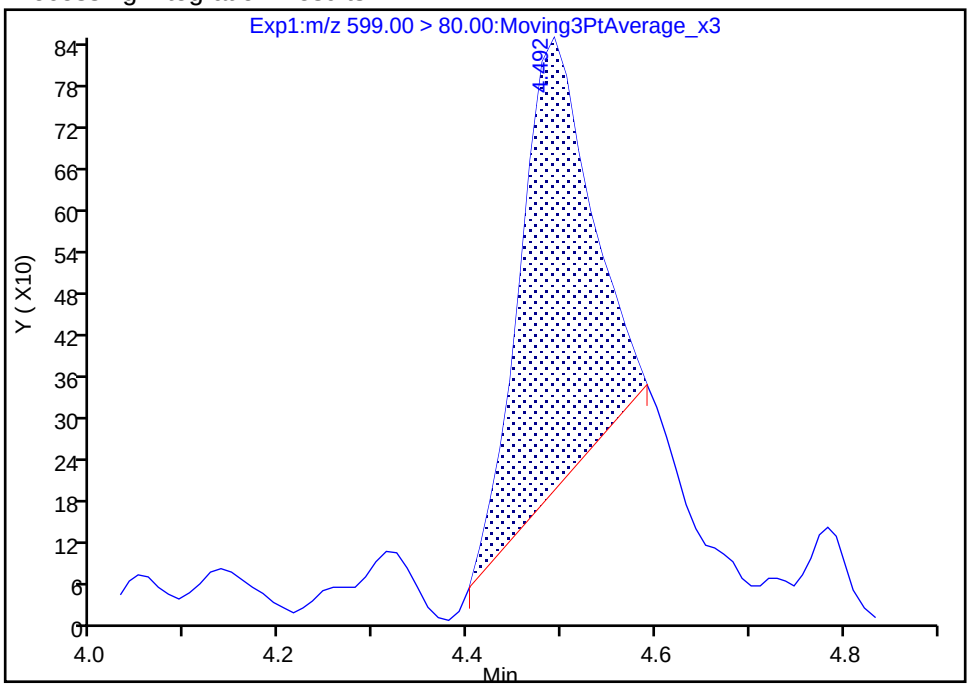
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

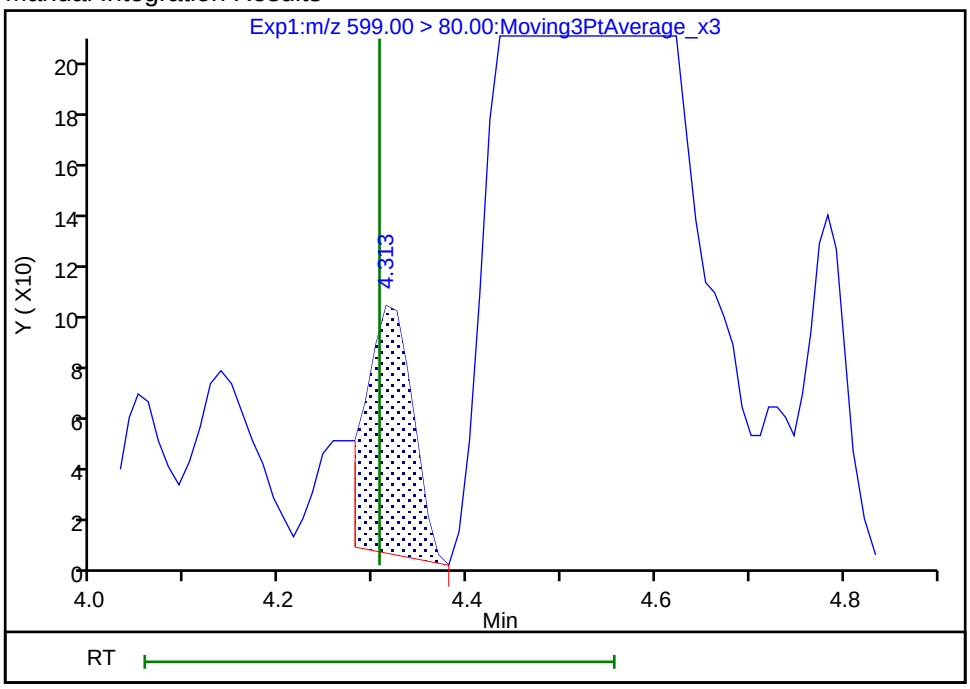
Processing Integration Results

RT: 4.49
Area: 3455
Amount: 0.008182
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 323
Amount: 0.000769
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:08:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

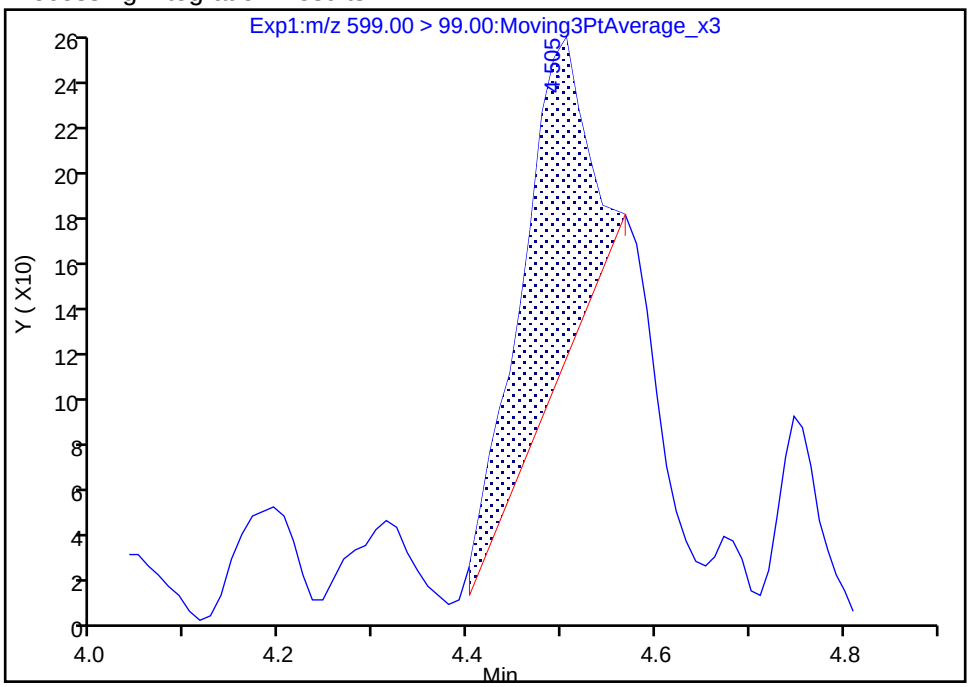
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

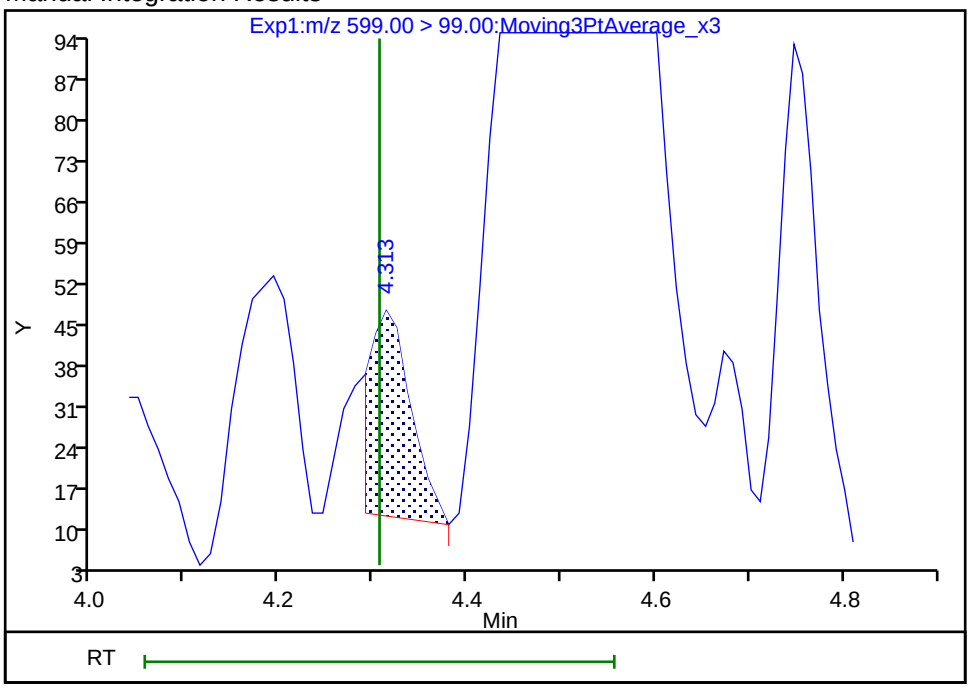
Processing Integration Results

RT: 4.51
Area: 706
Amount: 0.008182
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 105
Amount: 0.000769
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:08:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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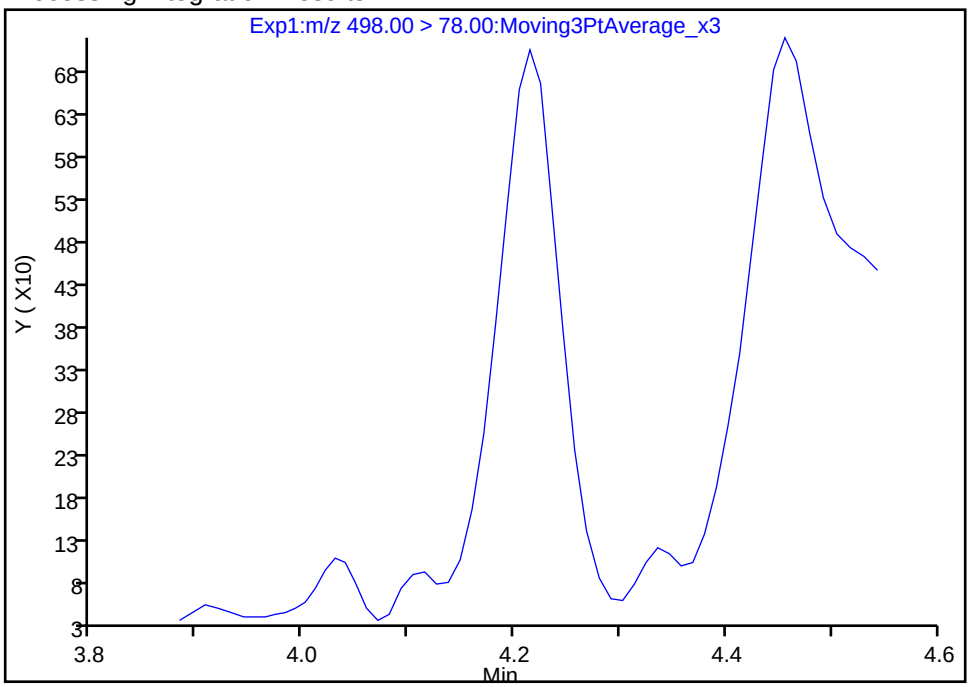
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

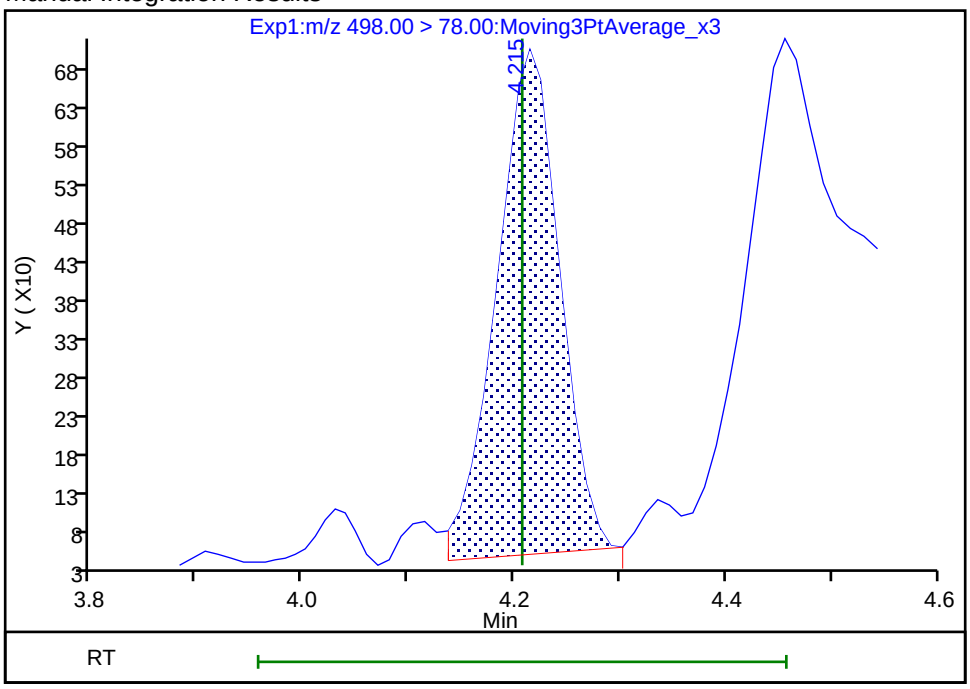
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 2664
Amount: 0.002976
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:08:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

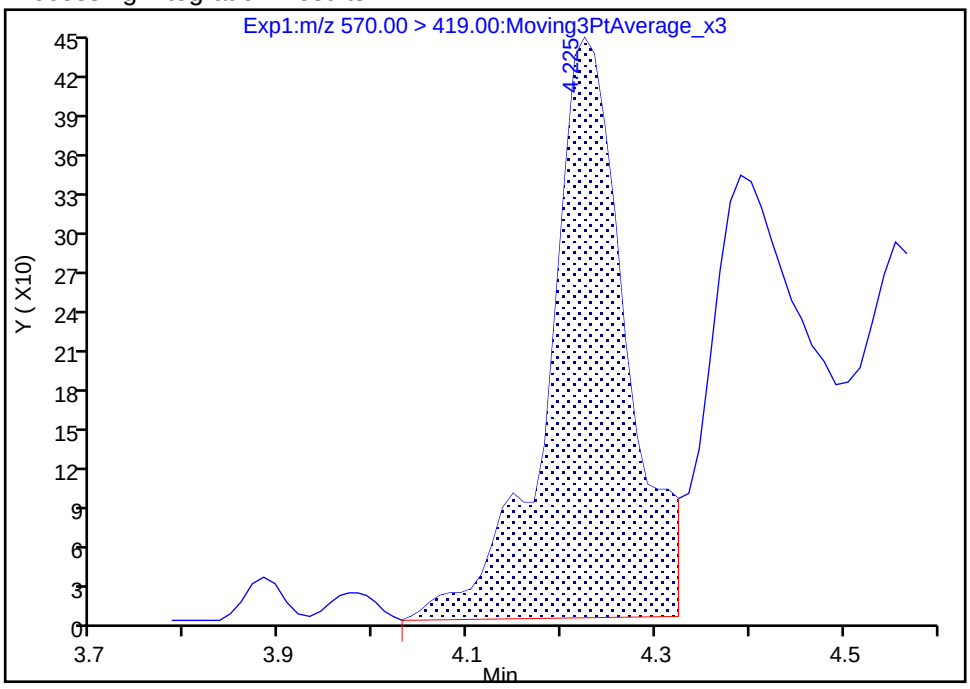
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

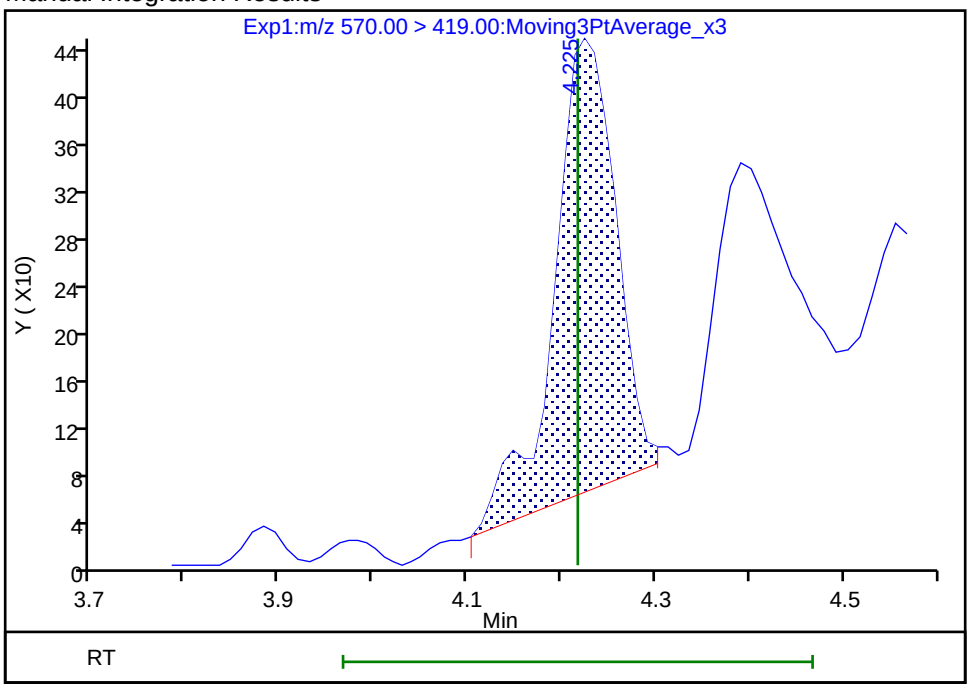
Processing Integration Results

RT: 4.22
Area: 2565
Amount: 0.029003
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1742
Amount: 0.019961
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:08:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

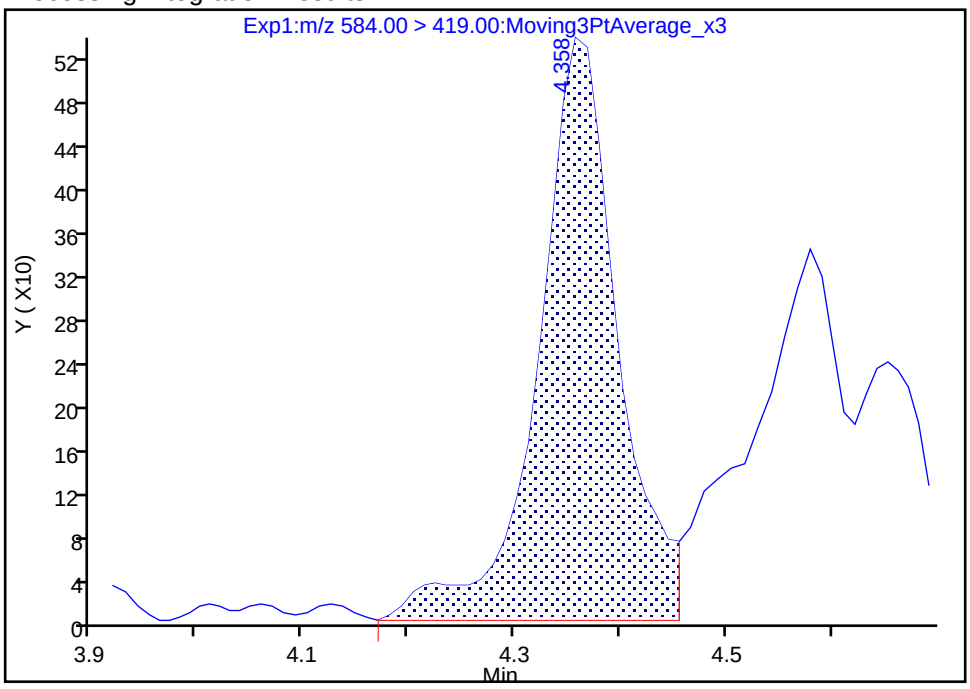
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

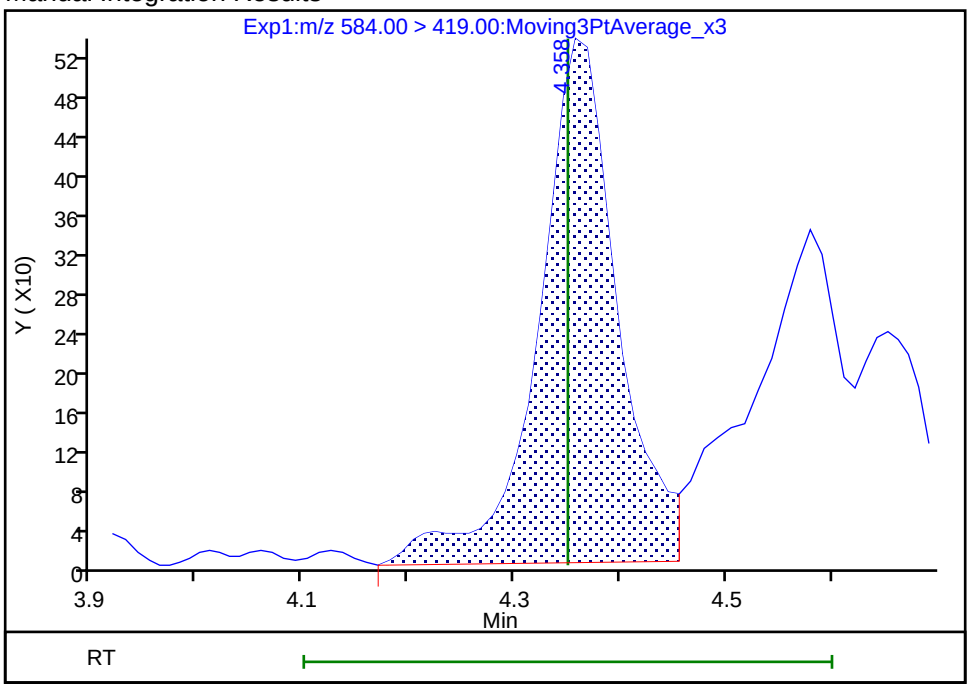
Processing Integration Results

RT: 4.36
Area: 2792
Amount: 0.031431
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 2758
Amount: 0.031048
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:08:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

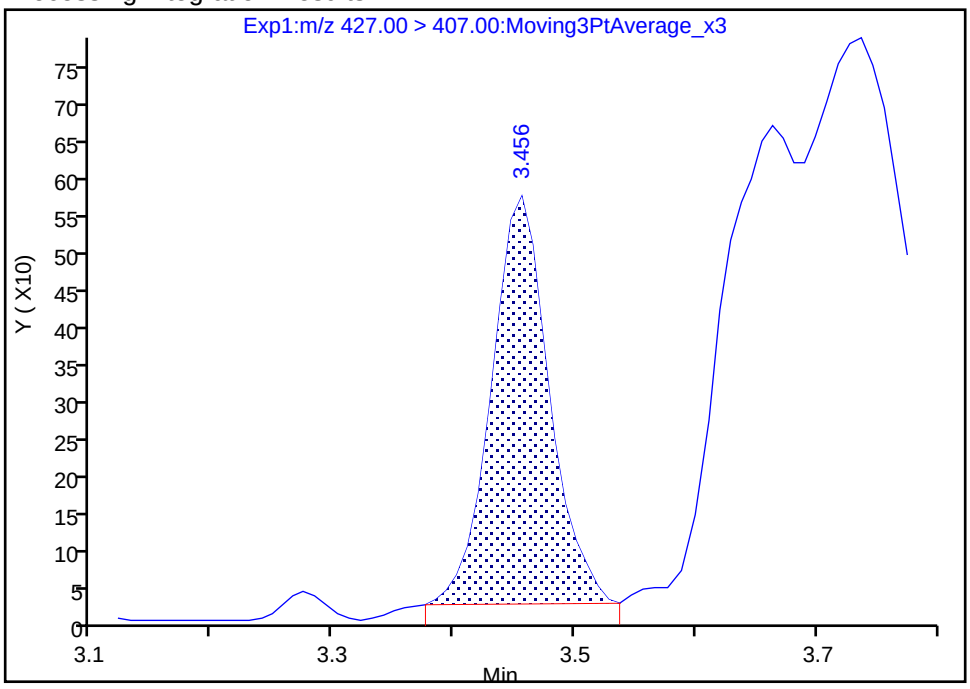
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

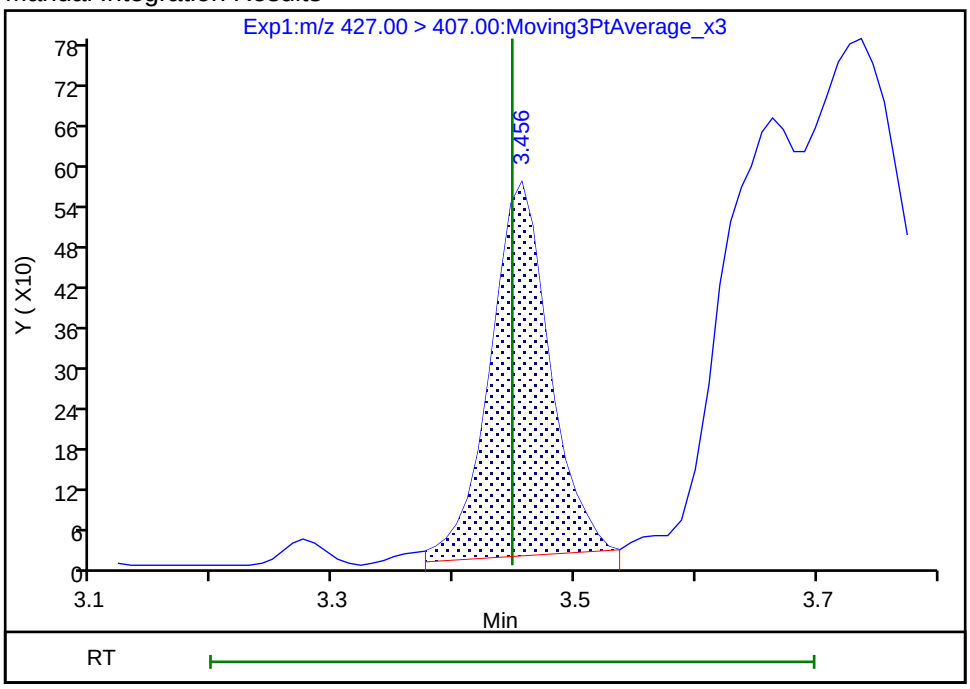
Processing Integration Results

RT: 3.46
Area: 1822
Amount: 0.010201
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1899
Amount: 0.010632
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:05:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

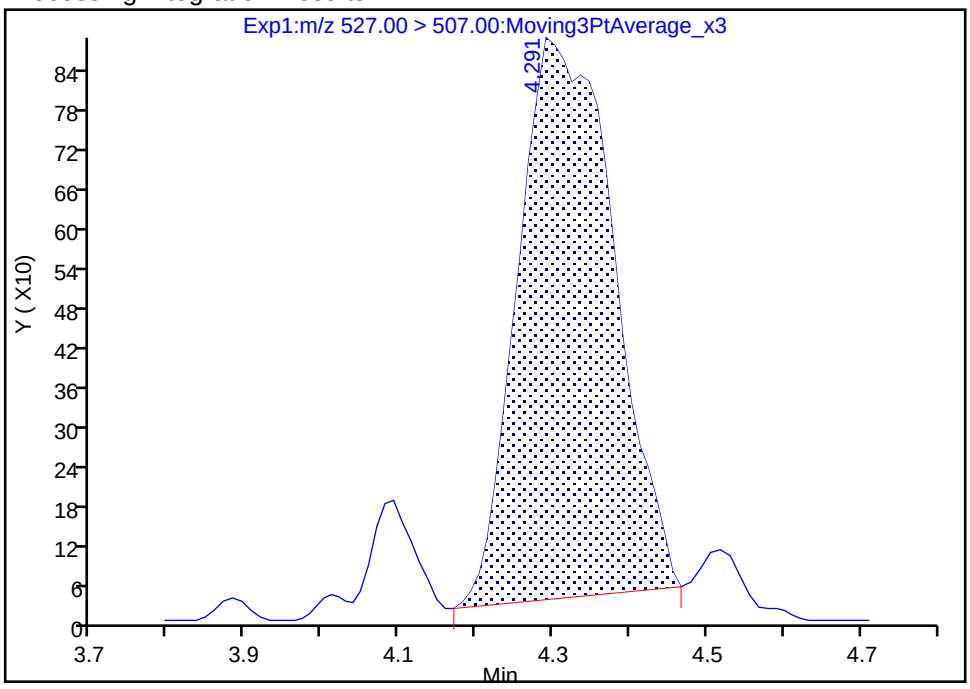
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

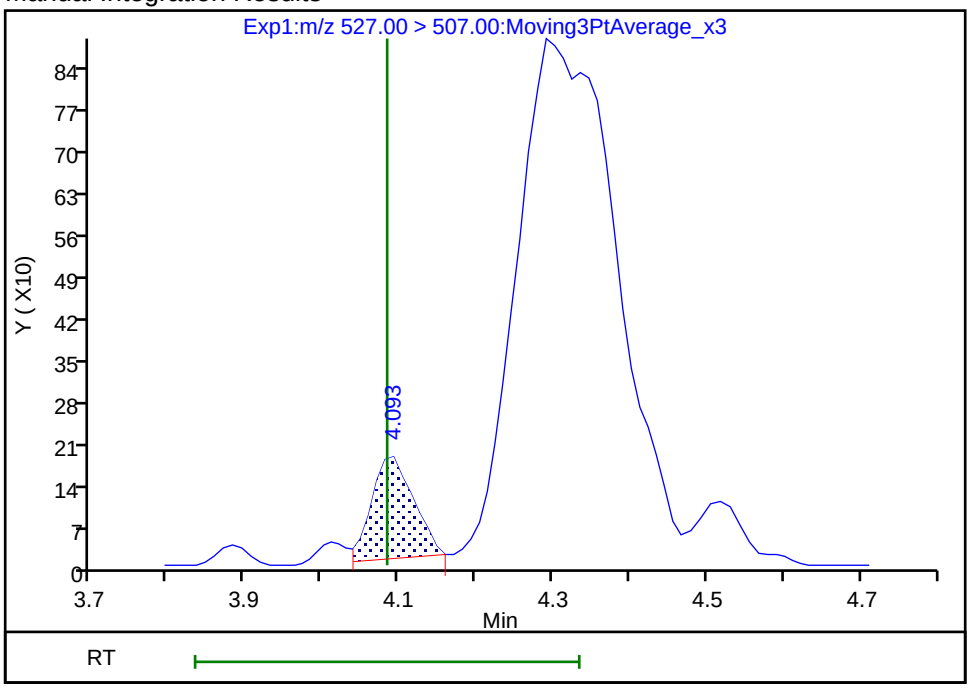
Processing Integration Results

RT: 4.29
Area: 7373
Amount: 0.053634
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 641
Amount: 0.004663
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:07:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

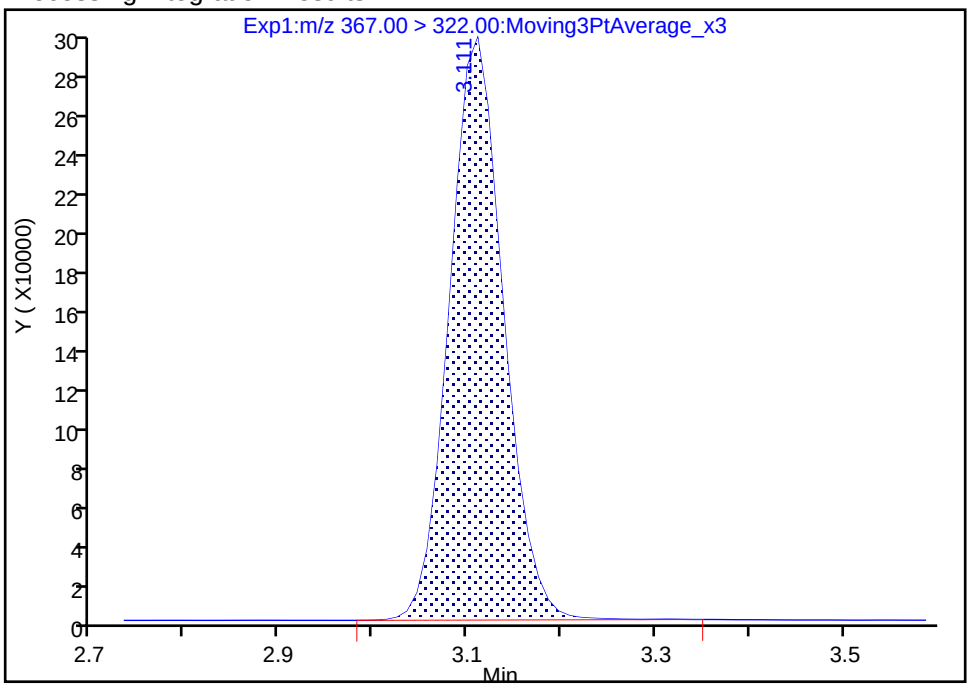
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 |
| Client ID: | MH-103D-20211027 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 Worklist Smp#: 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

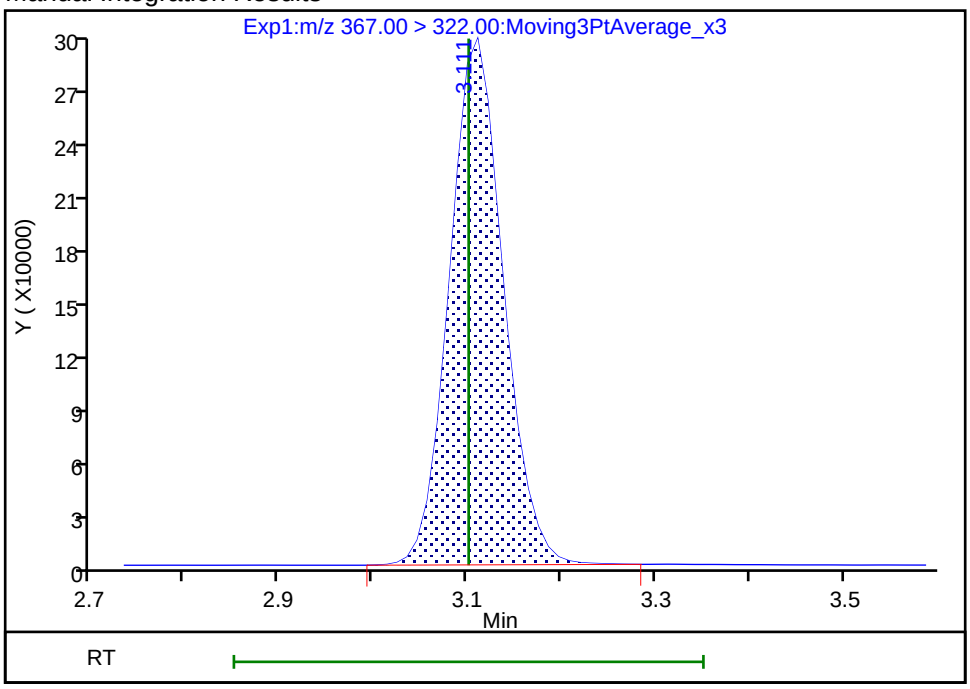
Processing Integration Results

RT: 3.11
Area: 1161417
Amount: 1.234359
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1159786
Amount: 1.232625
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:58:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

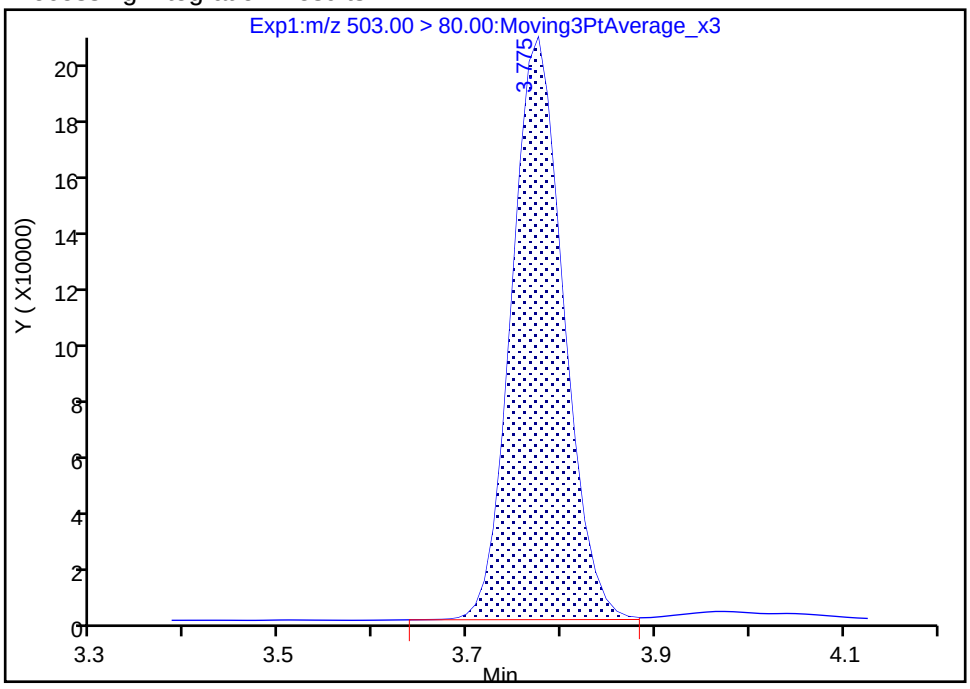
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

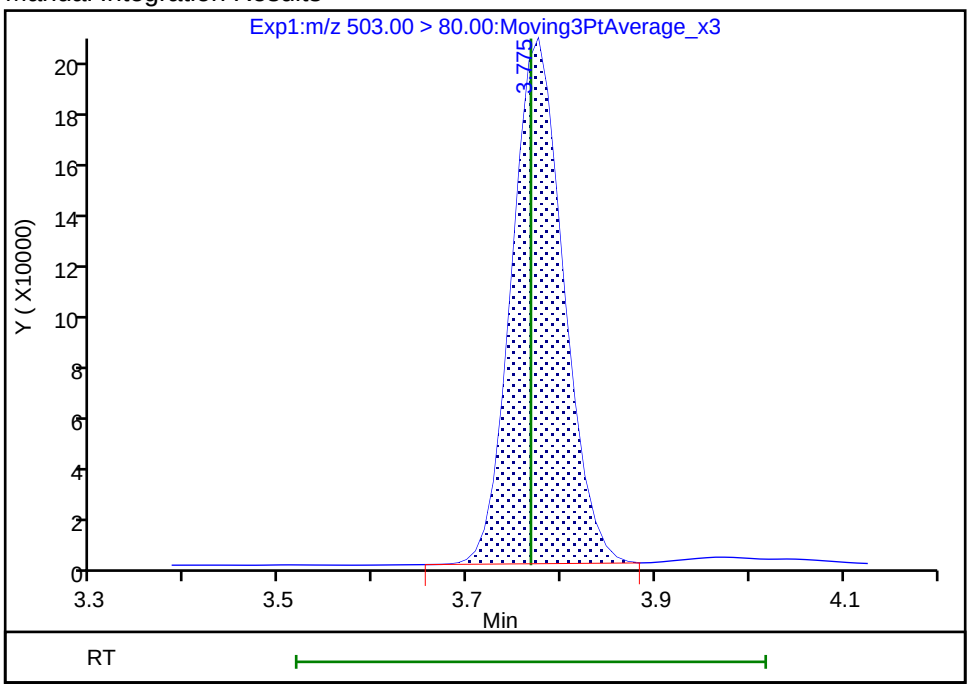
Processing Integration Results

RT: 3.78
Area: 767851
Amount: 1.268652
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 763556
Amount: 1.261556
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:58:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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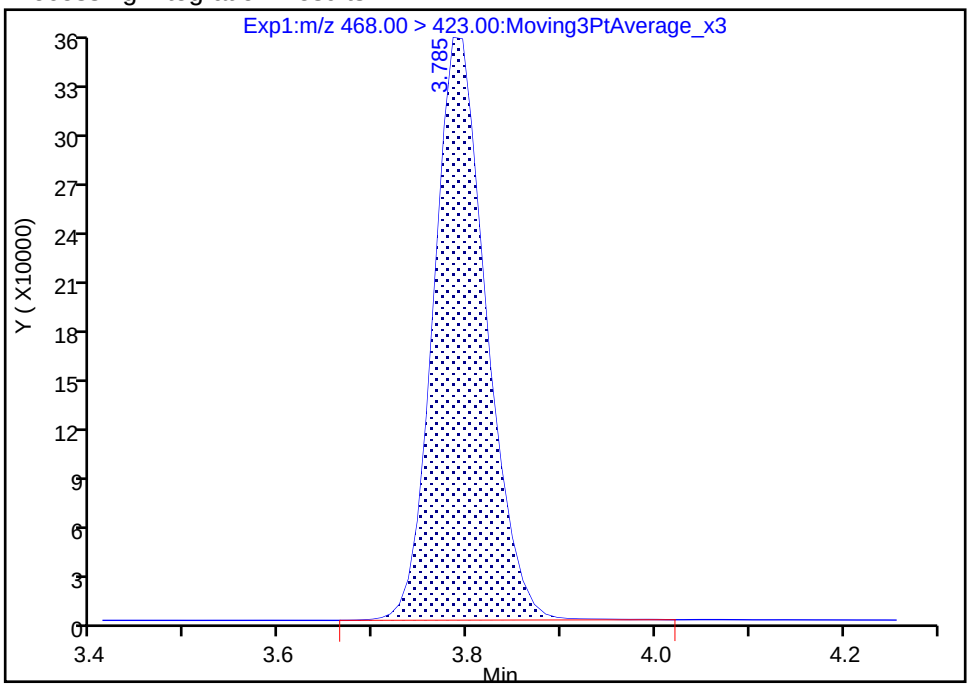
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

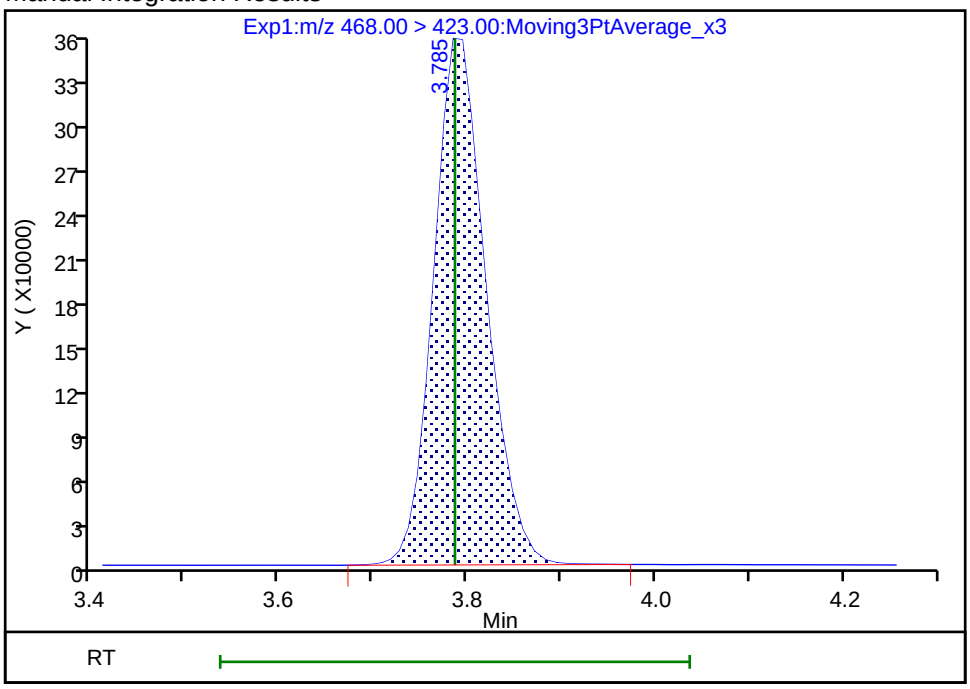
Processing Integration Results

RT: 3.78
Area: 1366580
Amount: 1.334535
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1364756
Amount: 1.332753
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:58:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

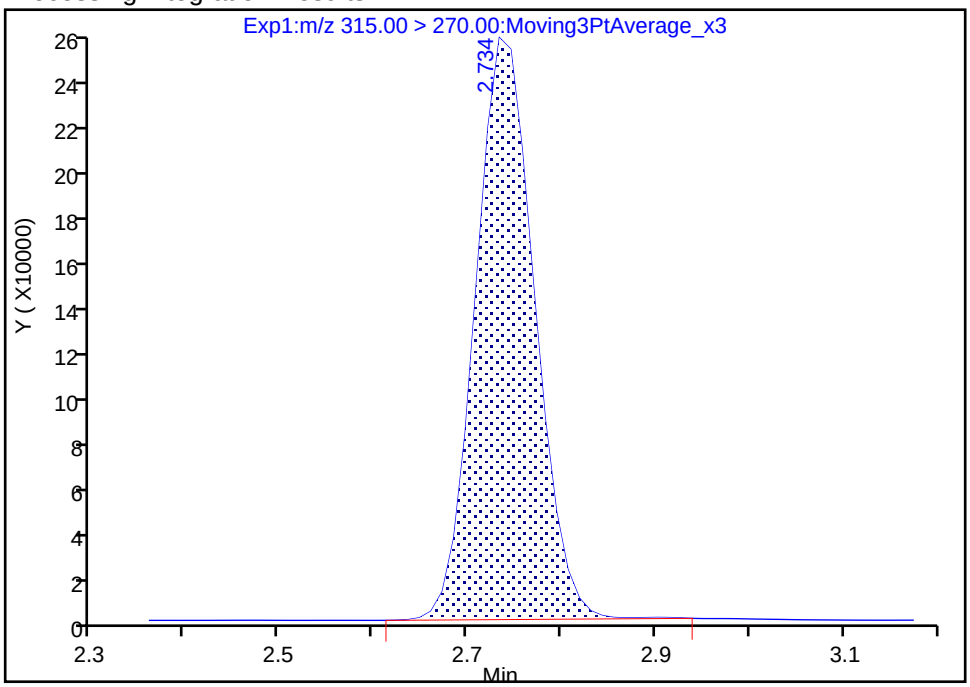
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

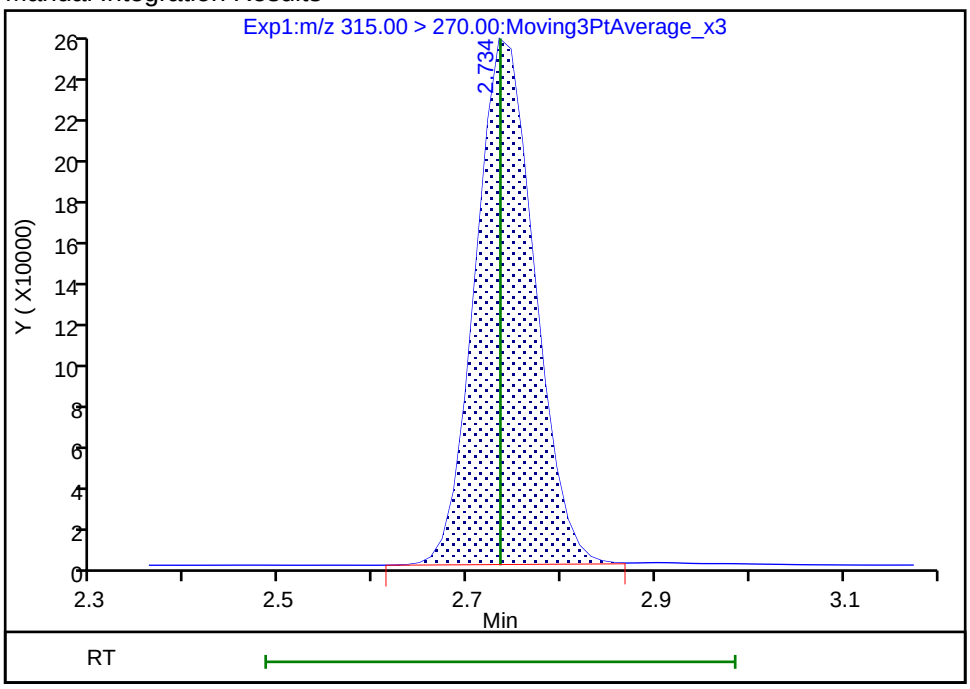
Processing Integration Results

RT: 2.73
Area: 1135202
Amount: 1.270105
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 1133590
Amount: 1.268302
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:58:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

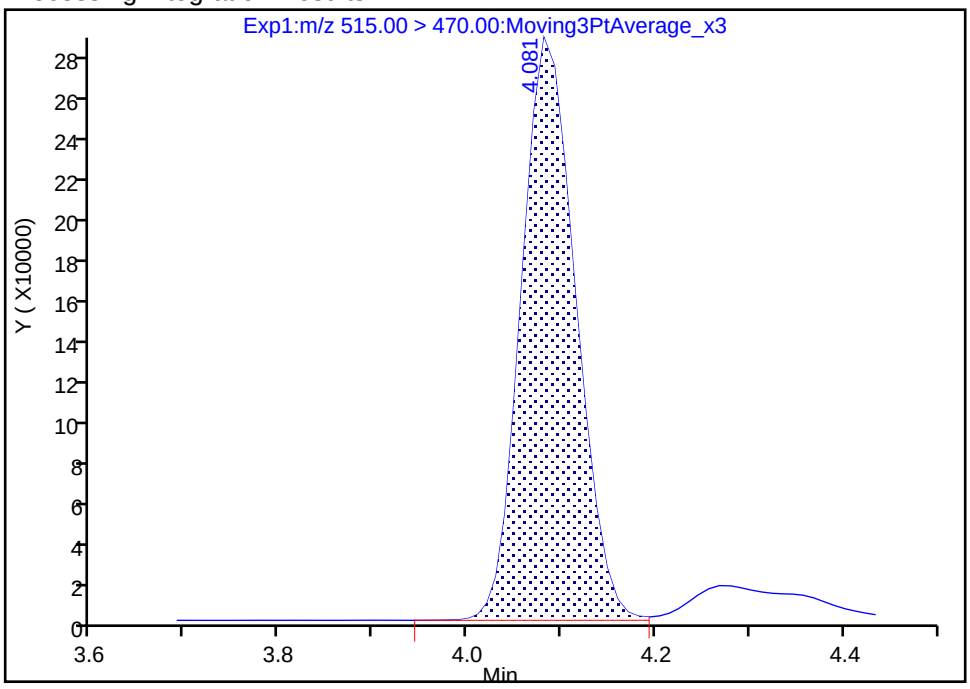
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

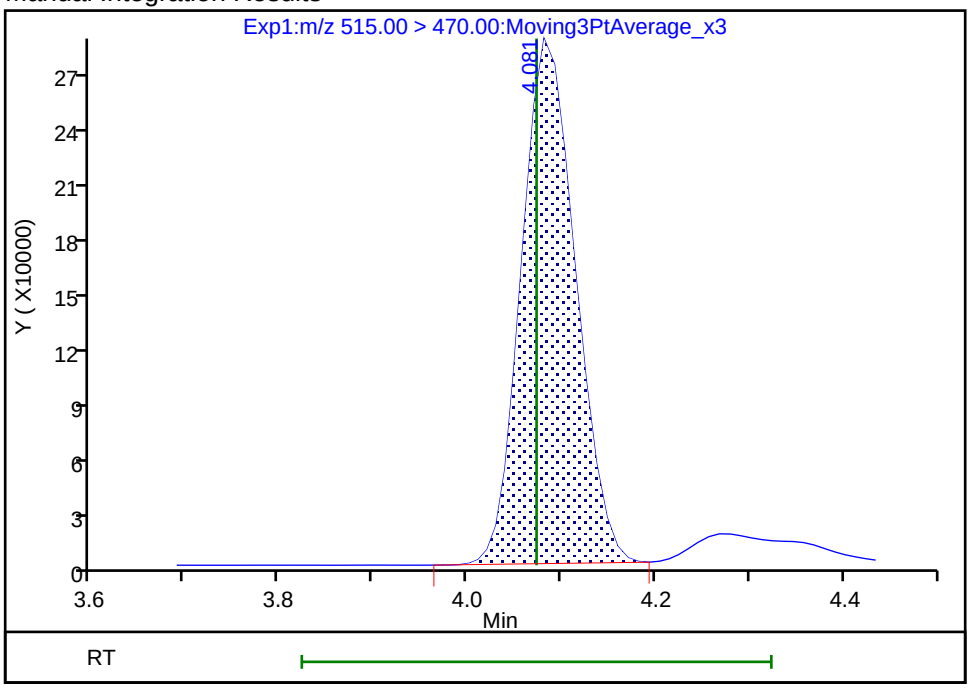
Processing Integration Results

RT: 4.08
Area: 1166429
Amount: 1.128675
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1154982
Amount: 1.117599
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:59:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

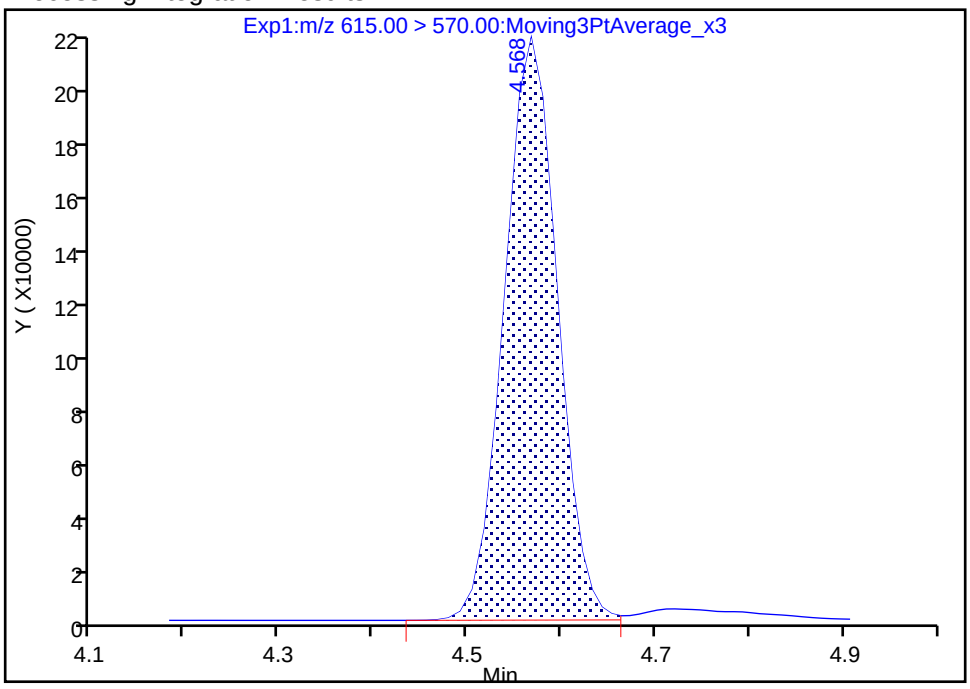
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

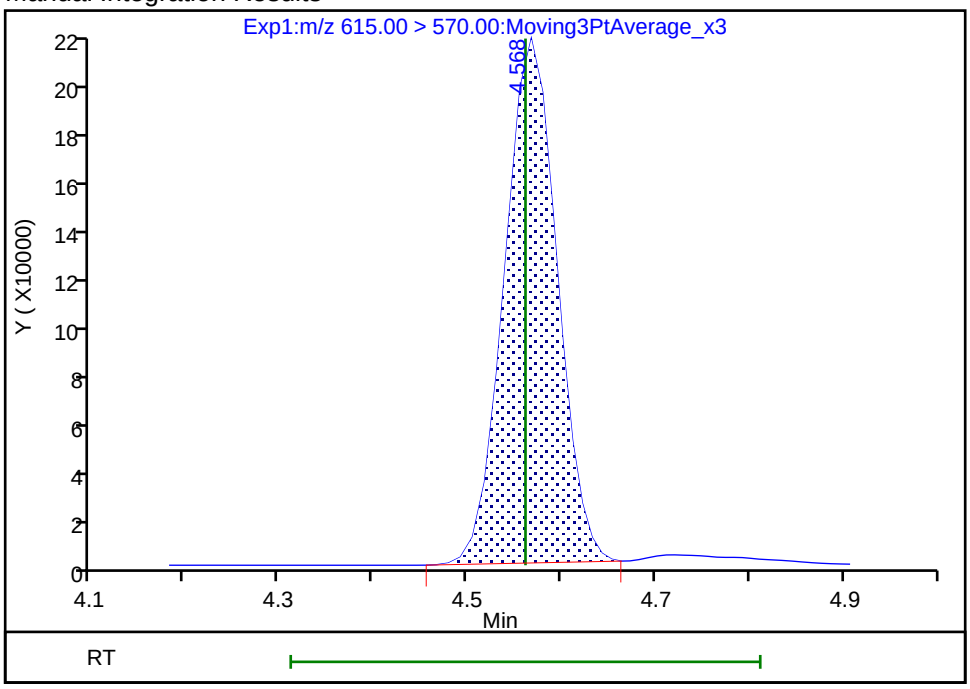
Processing Integration Results

RT: 4.57
Area: 860431
Amount: 0.993088
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 850631
Amount: 0.981777
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:00:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

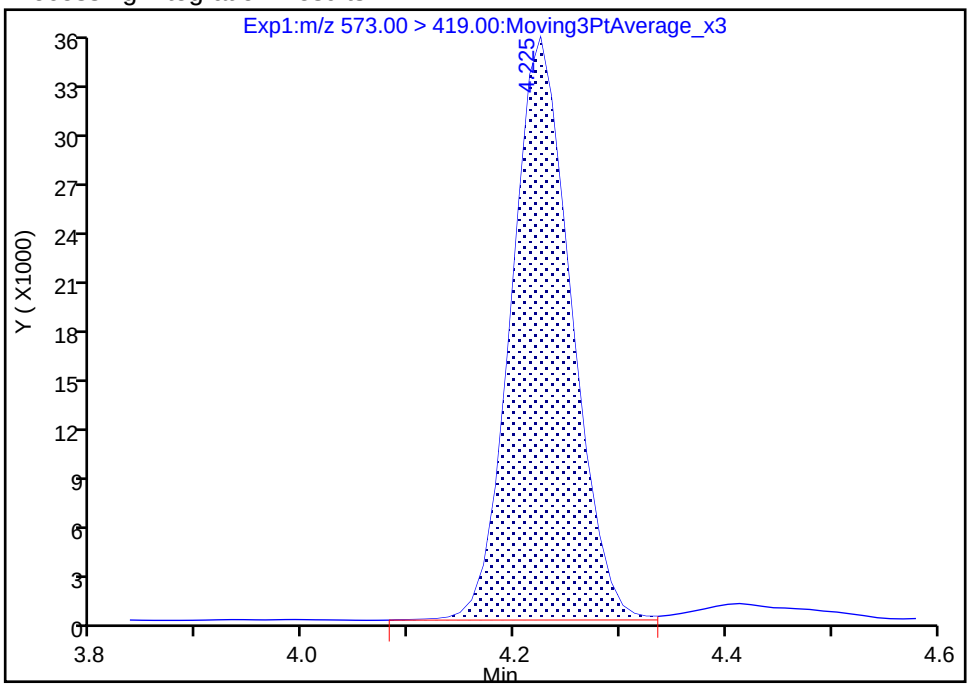
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

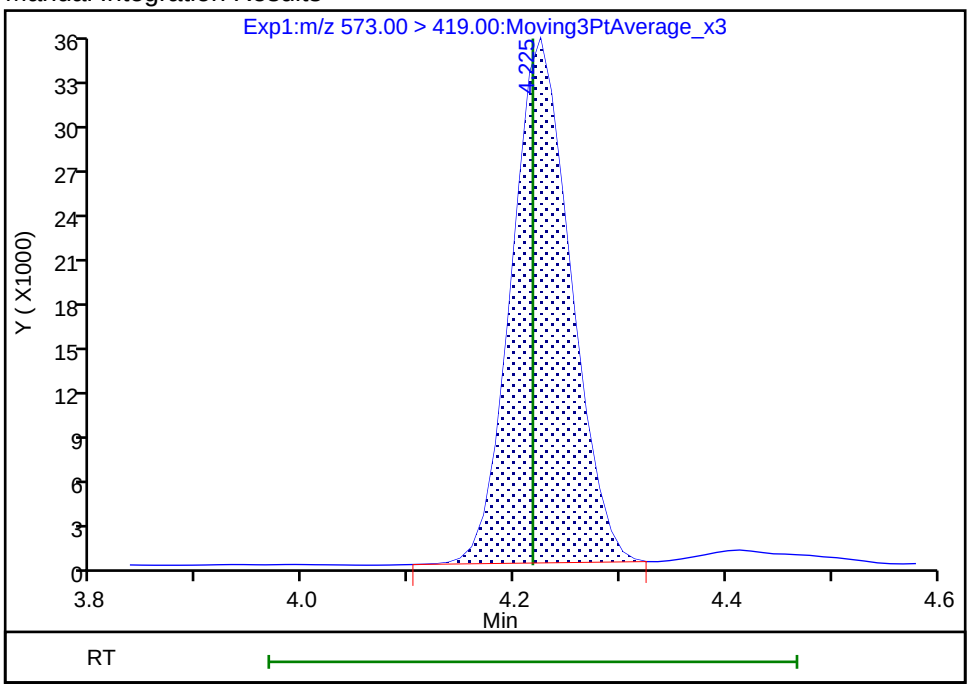
Processing Integration Results

RT: 4.22
Area: 140718
Amount: 1.384298
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 138858
Amount: 1.366001
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 13:59:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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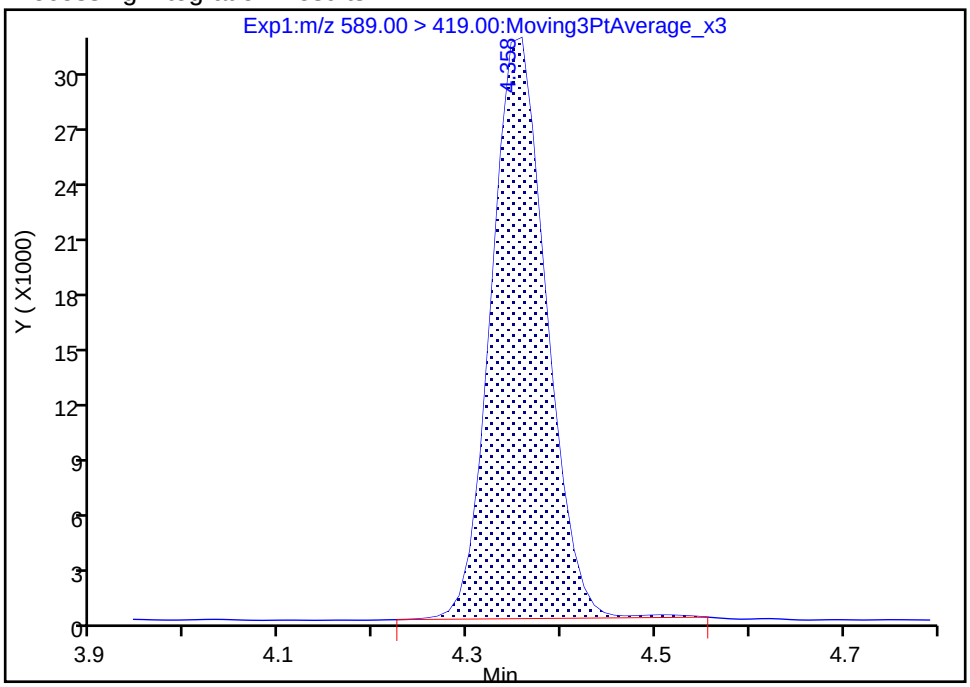
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

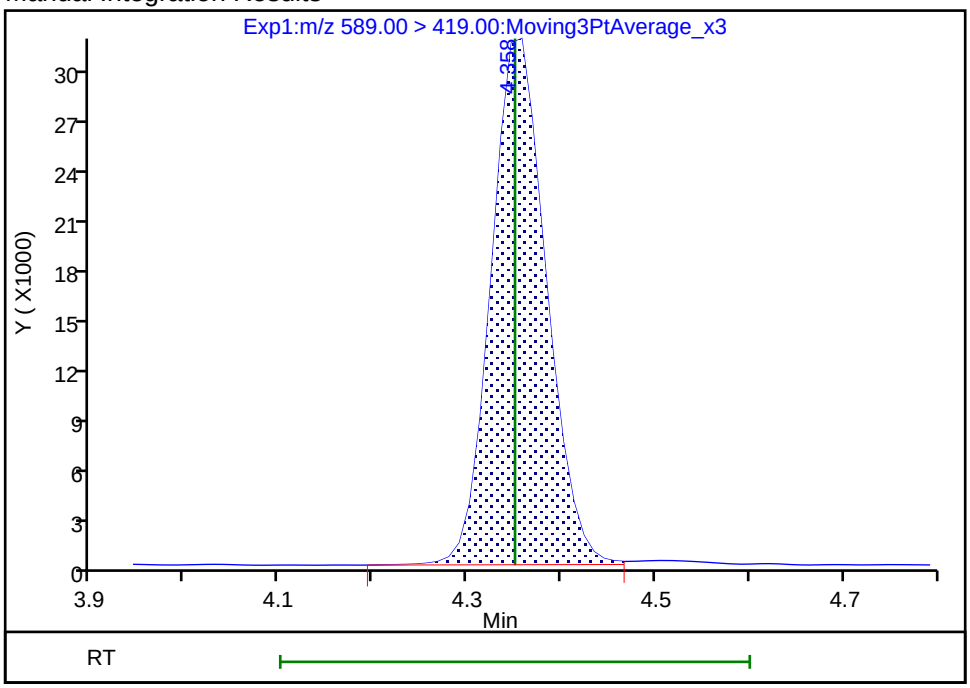
Processing Integration Results

RT: 4.36
Area: 129180
Amount: 1.356667
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 129583
Amount: 1.360899
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:03:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

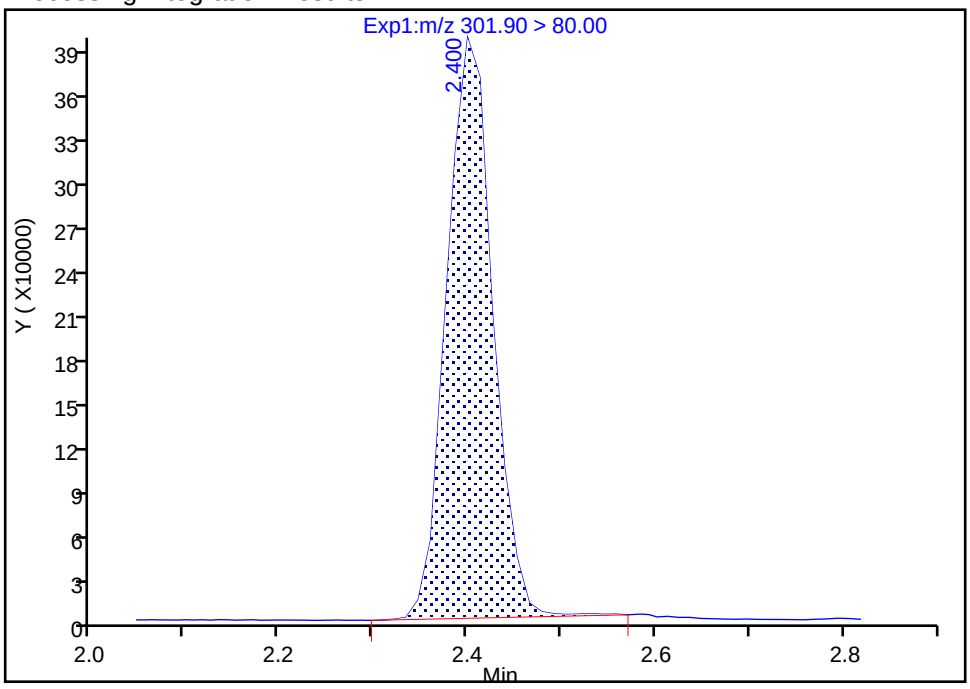
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A19.d | | | | |
| Injection Date: | 03-Nov-2021 15:13:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-6-A | Lab Sample ID: | 200-246027-6 | | |
| Client ID: | MH-103D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

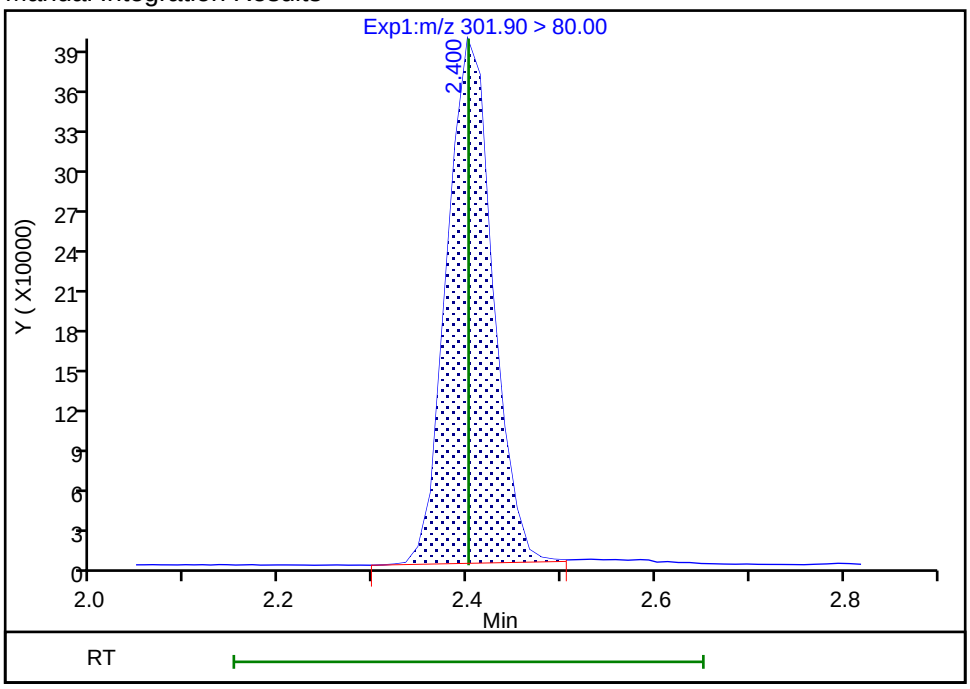
Processing Integration Results

RT: 2.40
Area: 1342869
Amount: 1.164853
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1339299
Amount: 1.161756
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 09:58:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105S-20211027  Lab Sample ID: 460-246027-7

Matrix: Water  Lab File ID: PA211103A20.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 262(mL)  Date Analyzed: 11/03/2021 15:21

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 2.11 | J | 4.77 | 0.85 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.80 | J | 1.91 | 0.45 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.48 | J | 1.91 | 0.43 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.41 | J | 1.91 | 0.23 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 1.10 | J | 1.91 | 0.40 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.27 | U | 1.91 | 0.27 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.91 | 0.29 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.91 | 0.33 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.91 | 0.37 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.91 | 0.41 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.60 | U | 1.91 | 0.60 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.24 | U | 1.91 | 0.24 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.29 | U | 1.91 | 0.29 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.22 | U | 1.91 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.43 | J I | 1.91 | 0.28 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.91 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.55 | U | 1.91 | 0.55 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.86 | U | 4.77 | 0.86 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.71 | U | 4.77 | 0.71 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.05 | U | 4.77 | 1.05 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.91 | 0.37 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105S-20211027  Lab Sample ID: 460-246027-7

Matrix: Water  Lab File ID: PA211103A20.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 09:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 262(mL)  Date Analyzed: 11/03/2021 15:21

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 93 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 98 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 96 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 90 | | 50-150 |
| STL00997 | 13C2 PFUnA | 89 | | 50-150 |
| STL00998 | 13C2 PFDoA | 87 | | 50-150 |
| STL01056 | 13C8 FOSA | 92 | | 25-150 |
| STL01893 | 13C5 PFPeA | 103 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 100 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 101 | | 50-150 |
| STL02279 | M2-6:2 FTS | 101 | | 25-150 |
| STL02280 | M2-8:2 FTS | 105 | | 25-150 |
| STL02337 | 13C3 PFBS | 94 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d
Lims ID: 460-246027-A-7-A
Client ID: MH-105S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:21:52 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-7-A
Misc. Info.: 200-0048270-020 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:14:14
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.596 | 1672789 | 1.21 | | 96.4 | 7894 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 69967 | 0.0553 | | | 7.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1510607 | 1.29 | | 103 | 2180 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.000 | 25453 | 0.0210 | | | 0.8 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.693 | 1727468 | 1.09 | | 93.9 | 49920 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 5504 | 0.003468 | Target=2.32 | | 0.8 | M |
| 298.90 > 99.00 | 2.413 | 2.401 | 0.012 | 1.005 | 4579 | | 1.20(1.16-3.48) | | 1.3 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.746 | 2.735 | 0.011 | 1.000 | 15051 | 0.0124 | Target=12.09 | | 1.7 | |
| 313.00 > 119.00 | 2.746 | 2.735 | 0.011 | 1.000 | 1013 | | 14.86(6.04-18.13) | | 1.3 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.746 | 2.735 | 0.011 | 0.792 | 1490043 | 1.21 | | 97.2 | 1321 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1264134 | 1.10 | | 93.0 | 288 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 6121 | 0.005208 | Target=3.55 | | 1.8 | |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 2152 | | 2.84(1.77-5.32) | | 1.4 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 13319 | 0.0107 | Target=3.69 | | 1.8 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 3479 | | 3.83(1.84-5.53) | | 3.7 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1504518 | 1.16 | | 93.2 | 1868 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.448 | 0.017 | 1.003 | 306 | 0.001321 | | | 0.3 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | RM |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 135 | 0.000133 | Target=4.88 | | 0.1 | RM |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 69 | | 1.96(2.44-7.32) | | 0.2 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 216890 | 1.20 | | 101 | 324 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1710947 | 1.21 | | 97.0 | 979 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1714277 | 1.25 | | | 304 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 41802 | 0.0287 | Target=2.68 | | 4.1 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 17603 | | 2.37(1.34-4.02) | | 8.2 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 973895 | 1.17 | | 98.1 | 434 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | RM |
| 499.00 > 80.00 | 3.664 | 3.767 | -0.103 | 0.970 | 9861 | 0.0112 | Target=4.69 | | 1.8 | RM |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 0.997 | 1321 | | 7.46(2.35-7.04) | | 1.3 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.795 | 3.786 | 0.009 | 1.095 | 1698915 | 1.21 | | 96.7 | 2759 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.785 | 3.786 | -0.001 | 0.997 | 6103 | 0.004590 | Target=7.29 | | 1.0 | RM |
| 463.00 > 169.00 | 3.795 | 3.786 | 0.009 | 1.000 | 370 | | 16.49(3.64-10.93) | | 1.0 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1595138 | 1.12 | | 90.0 | 87.2 | M |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.000 | 1292 | 0.001008 | Target=8.95 | | 0.3 | M |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.000 | 283 | | 4.57(4.47-13.42) | | 0.6 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.084 | 0.020 | 1.184 | 258433 | 1.26 | | 105 | 160 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1575029 | 1.15 | | 92.1 | 663 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 663 | 0.000554 | | | 1.2 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 174441 | 1.25 | | 100 | 184 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 333 | 0.003037 | | | 0.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1232280 | 1.11 | | 89.2 | 592 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.358 | 4.339 | 0.019 | 1.003 | 1139 | 0.001084 | Target=9.24 | | 0.5 | RM |
| 563.00 > 169.00 | 4.358 | 4.339 | 0.019 | 1.003 | 265 | | 4.30(4.62-13.86) | | 1.4 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 165750 | 1.27 | | 101 | 633 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 595 | 0.005237 | | | 1.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1297452 | 1.09 | | 87.3 | 363 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.562 | 0.018 | 1.003 | 890 | 0.000876 | Target=7.04 | | 0.2 | M |
| 613.00 > 169.00 | 4.580 | 4.562 | 0.018 | 1.003 | 207 | | 4.30(3.52-10.56) | | 1.9 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.427 | 940905 | 1.02 | | 81.6 | 1456 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.946 | 4.940 | 0.006 | 1.000 | 171 | 0.001439 | Target=1.01 | | 3.6 | M |
| 713.00 > 219.00 | 4.937 | 4.940 | -0.003 | 0.998 | 259 | | 0.66(0.51-1.52) | | 7.4 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:15:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d

Injection Date: 03-Nov-2021 15:21:52 Instrument ID: LC812

Lims ID: 460-246027-A-7-A Lab Sample ID: 200-246027-7

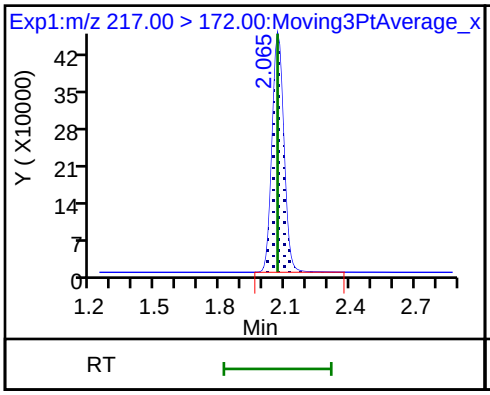
Client ID: MH-105S-20211027

Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20

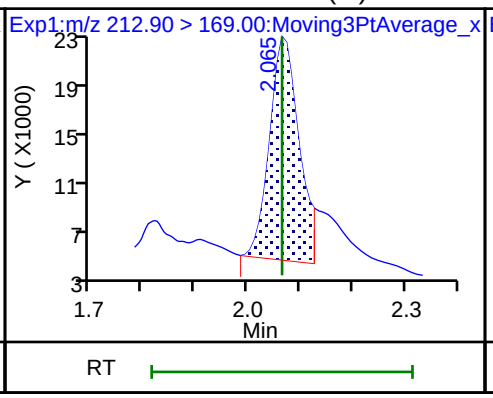
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

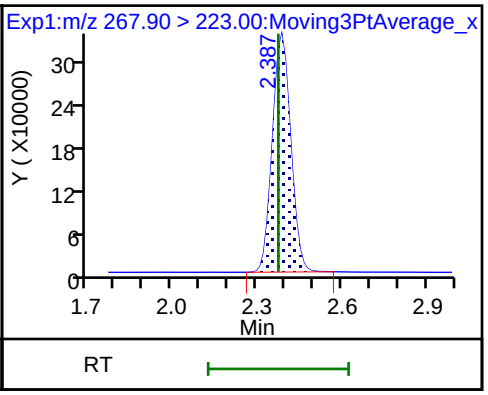
D 1 13C4 PFBA



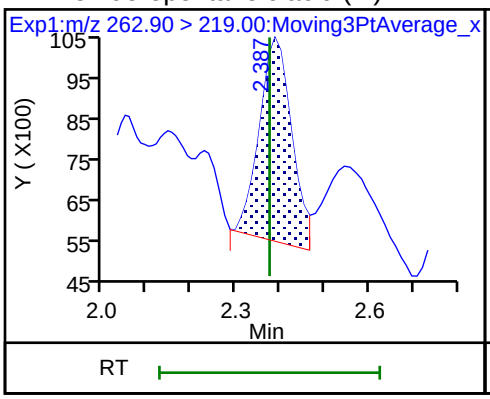

2 Perfluorobutanoic acid (M)



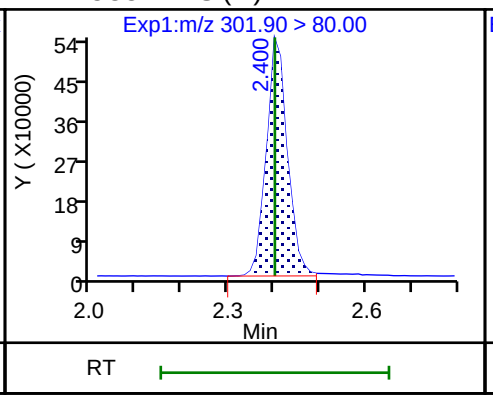

D 3 13C5 PFPeA



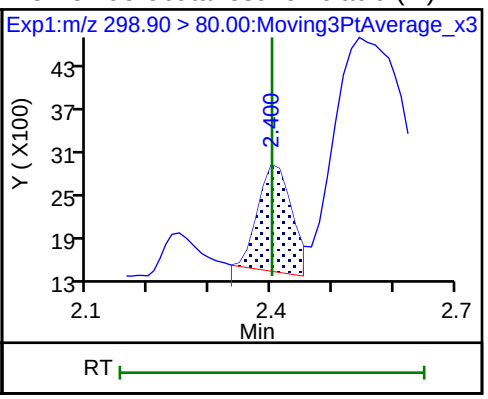

4 Perfluoropentanoic acid (M)



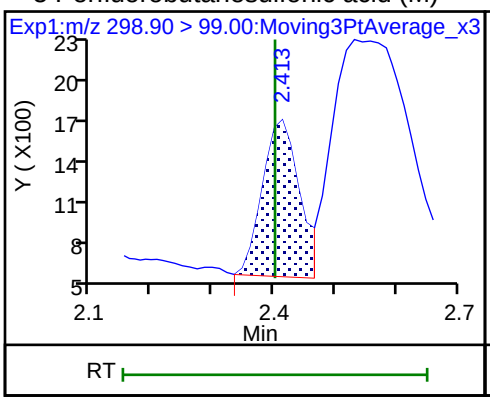

D 47 13C3 PFBS (M)



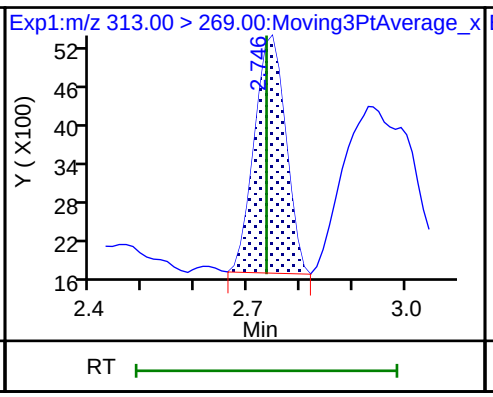

5 Perfluorobutanesulfonic acid (M)



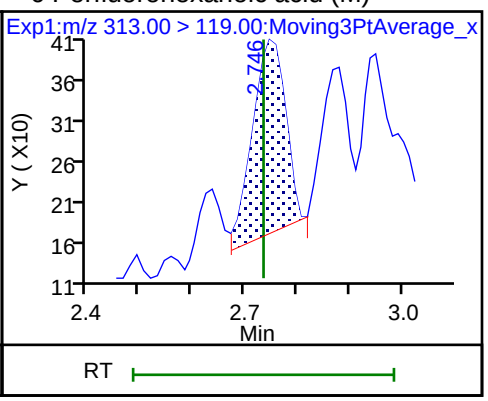

5 Perfluorobutanesulfonic acid (M)



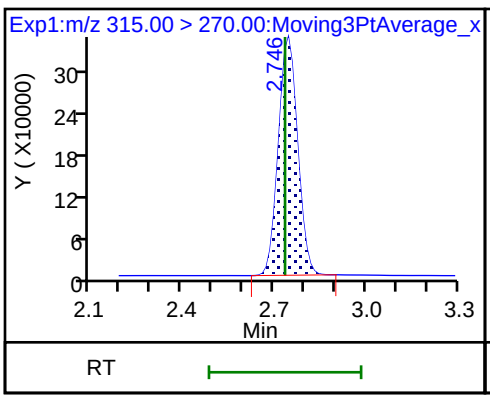

6 Perfluorohexanoic acid



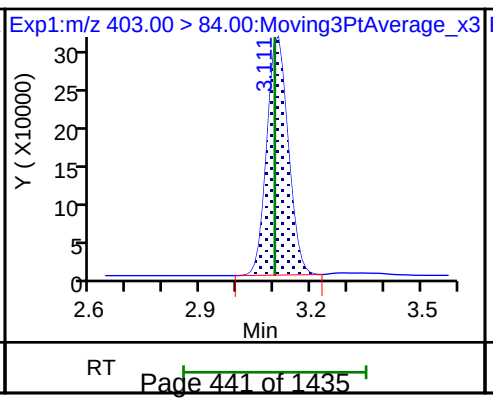

6 Perfluorohexanoic acid (M)



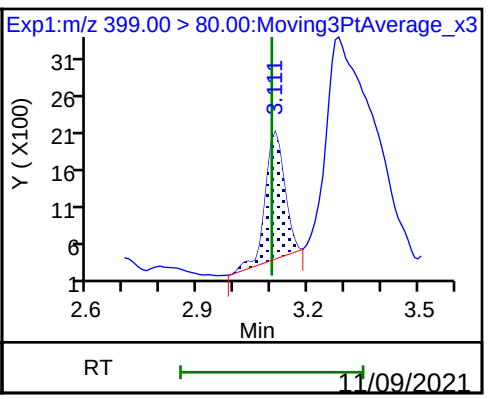

D 7 13C2 PFHxA



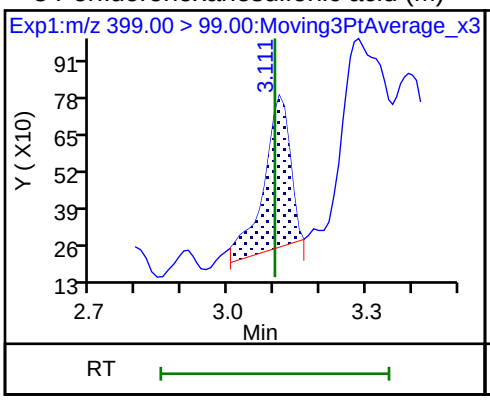

D 11 18O2 PFHxS



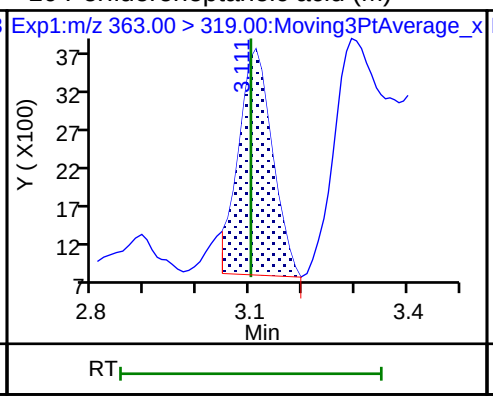

8 Perfluorohexanesulfonic acid



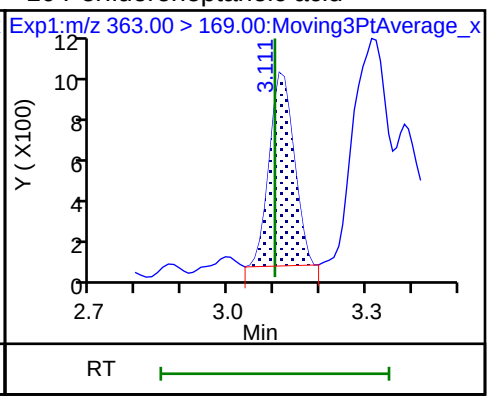
8 Perfluorohexanesulfonic acid (M)



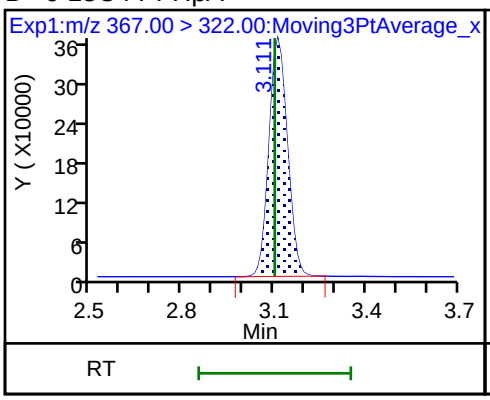

10 Perfluoroheptanoic acid (M)



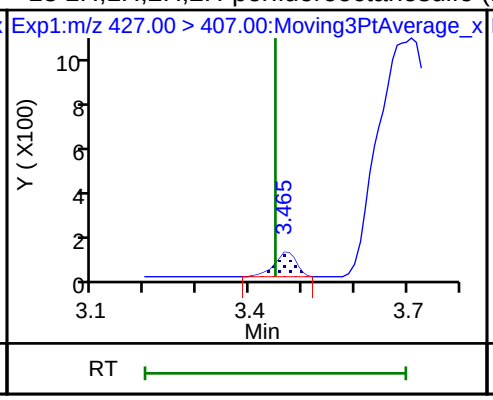

10 Perfluoroheptanoic acid



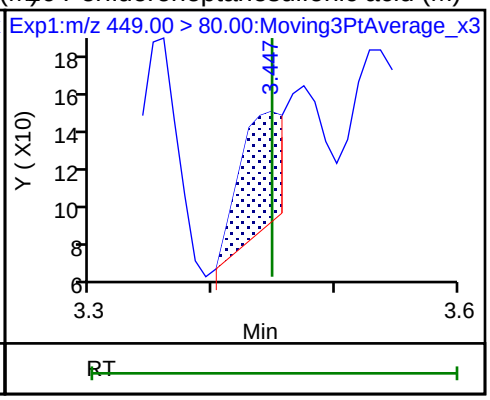

D 9 13C4 PFHpA



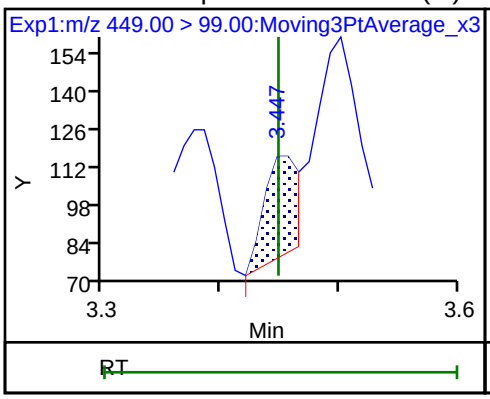

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



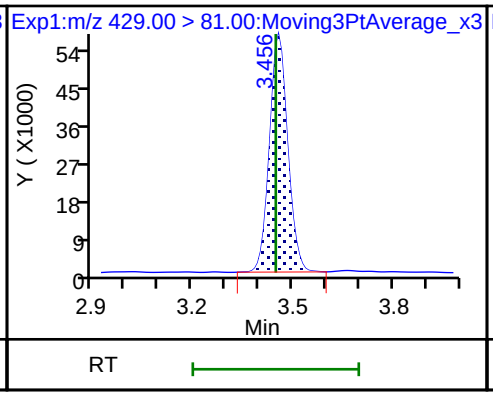

16 Perfluoroheptanesulfonic acid (M)



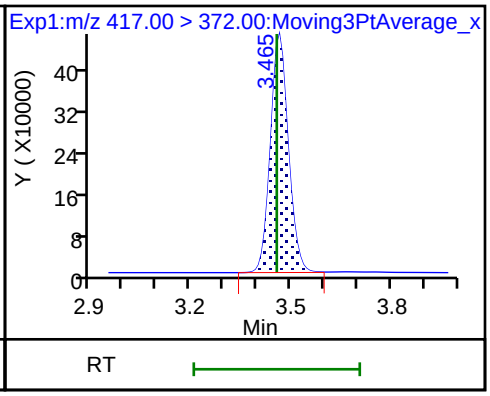

16 Perfluoroheptanesulfonic acid (M)



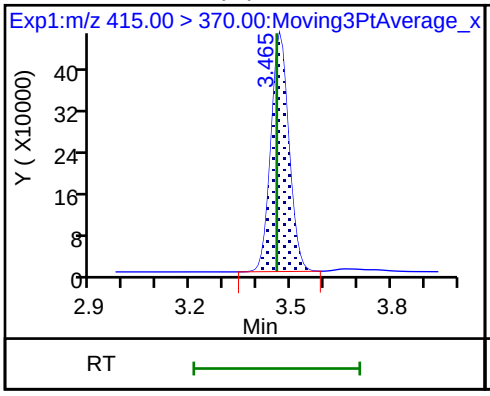

D 12 M2-6:2 FTS



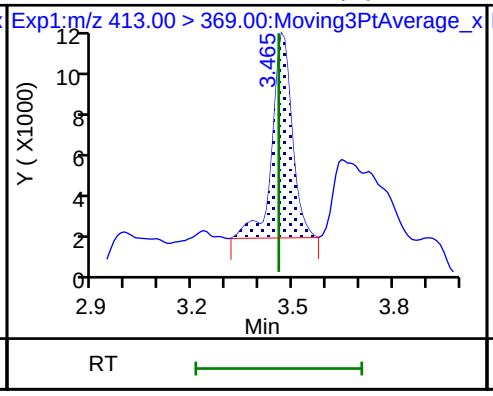

D 14 13C4 PFOA



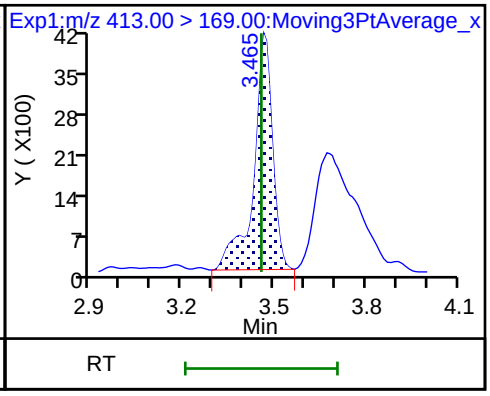

* 62 13C2 PFOA (M)



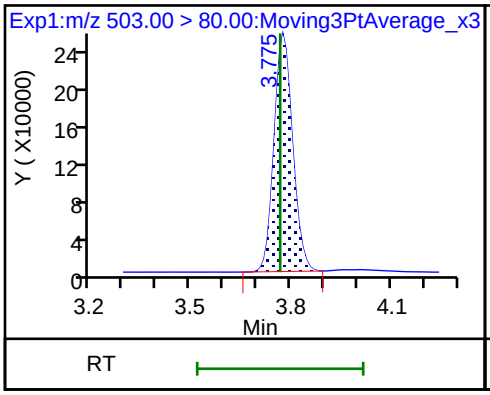

15 Perfluorooctanoic acid (M)



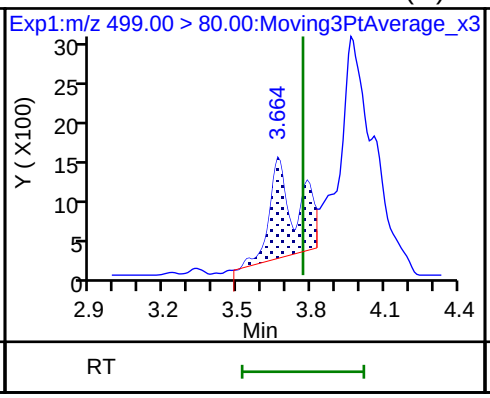

15 Perfluorooctanoic acid



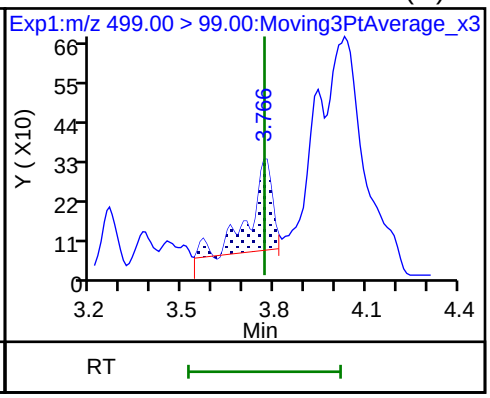
D 18 13C4 PFOS



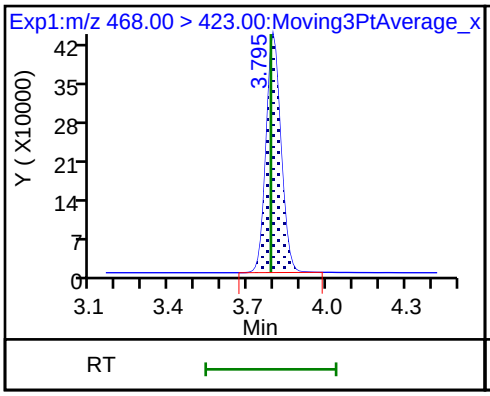

17 Perfluorooctanesulfonic acid (M)



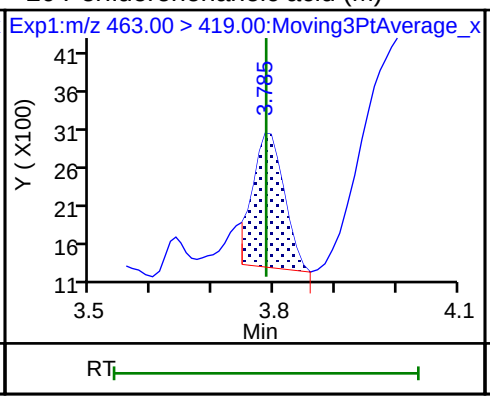

17 Perfluorooctanesulfonic acid (M)



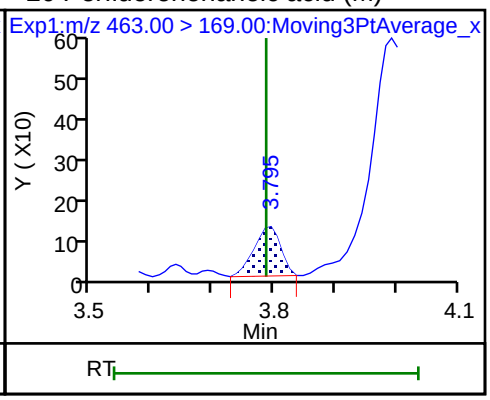

D 19 13C5 PFNA



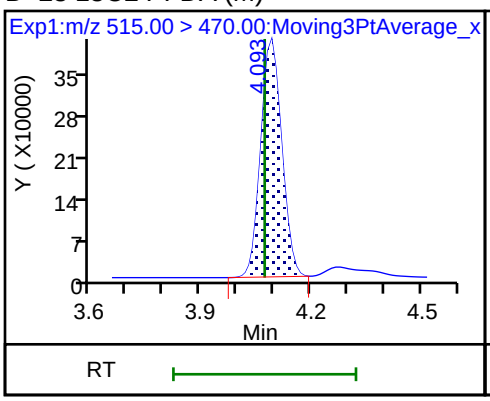

20 Perfluorononanoic acid (M)



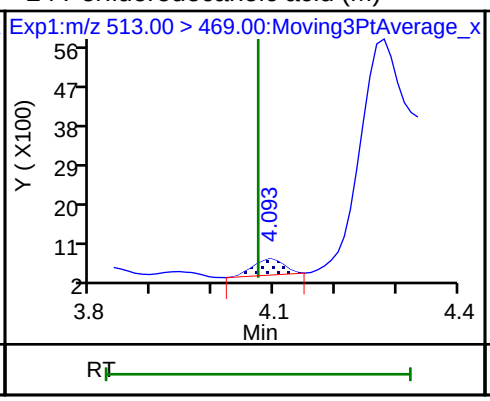

20 Perfluorononanoic acid (M)



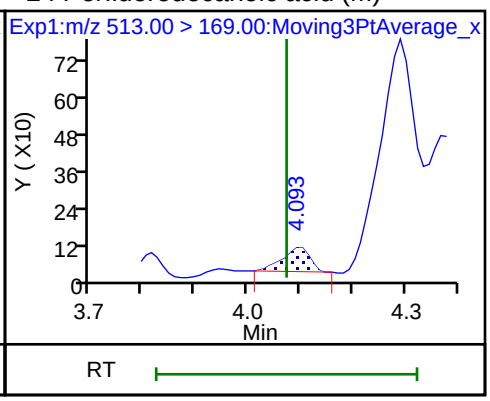

D 23 13C2 PFDA (M)



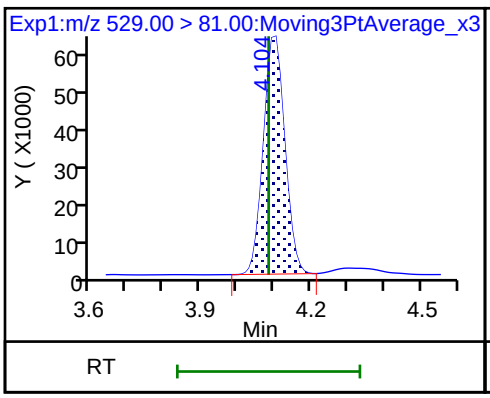

24 Perfluorodecanoic acid (M)



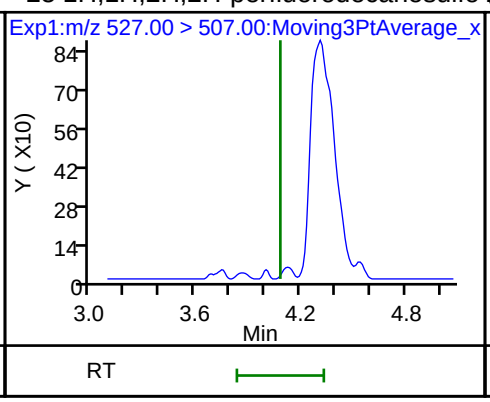

24 Perfluorodecanoic acid (M)




D 26 M2-8:2 FTS

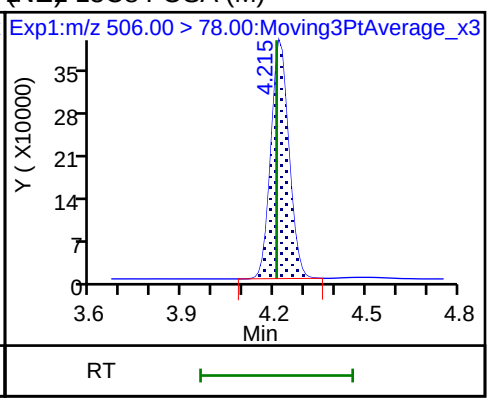



25 1H,1H,2H,2H-perfluorodecanesulfo

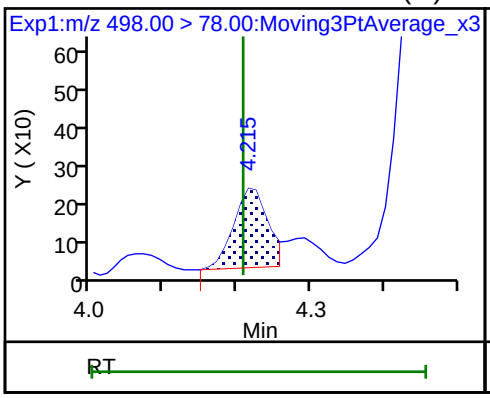



(ND)

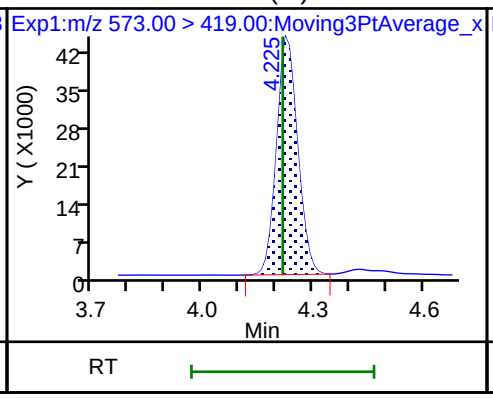
D 21 13C8 FOSA (M)



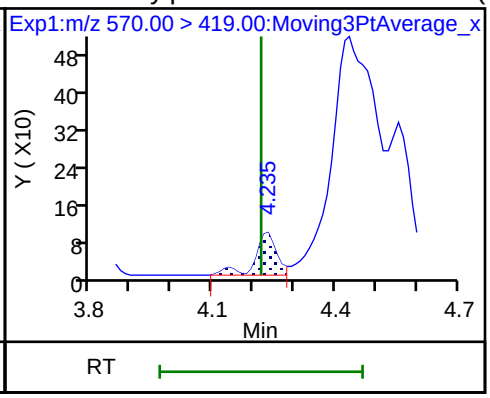
22 Perfluorooctanesulfonamide (M)



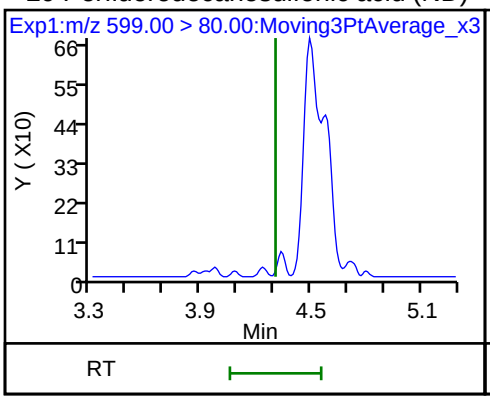

D 27 d3-NMeFOSAA (M)



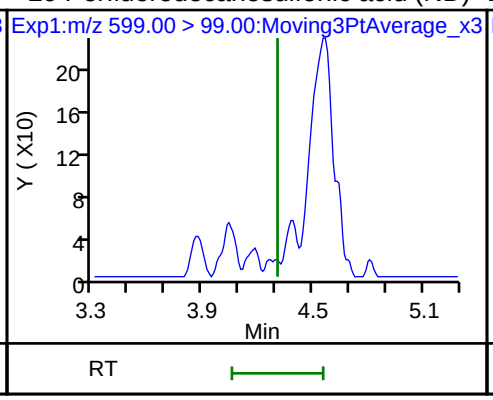

28 N-methylperfluorooctanesulfonami (M)



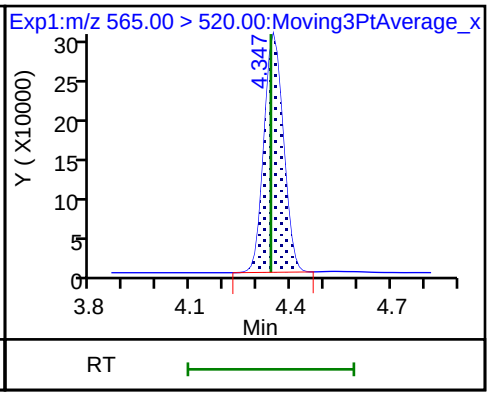

29 Perfluorodecanesulfonic acid (ND)



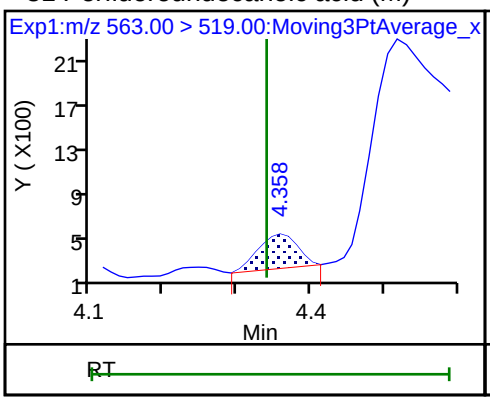

29 Perfluorodecanesulfonic acid (ND)



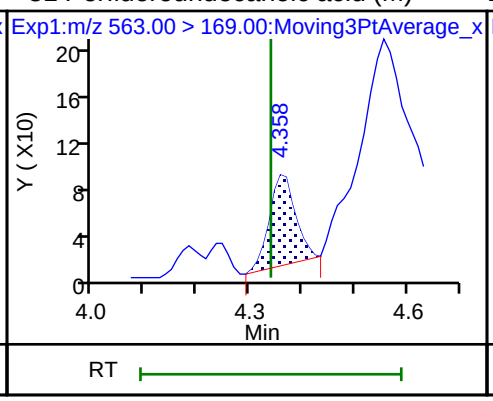

D 30 13C2 PFUnA



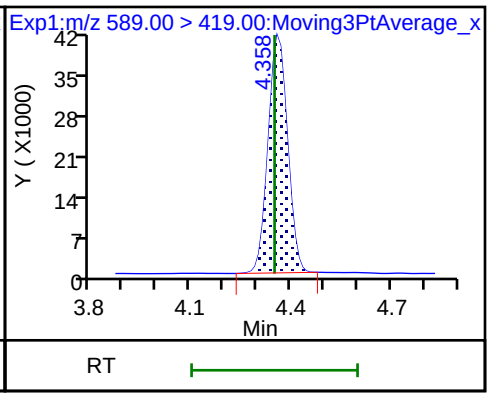

31 Perfluoroundecanoic acid (M)



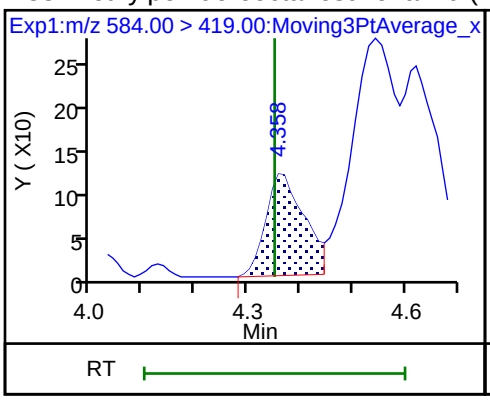

31 Perfluoroundecanoic acid (M)



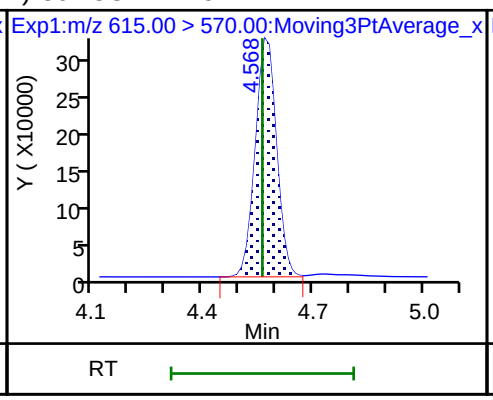

D 32 d5-NEtFOSAA



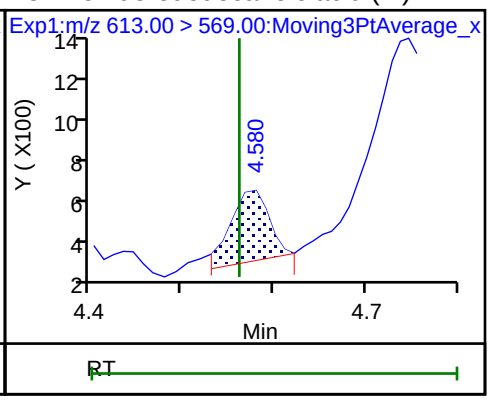

33 N-ethylperfluorooctanesulfonamid (ND)



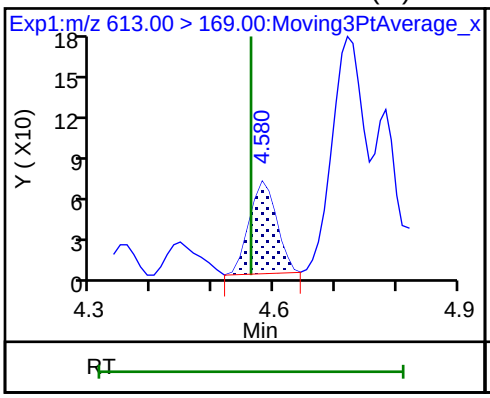

D 36 13C2 PFDoA



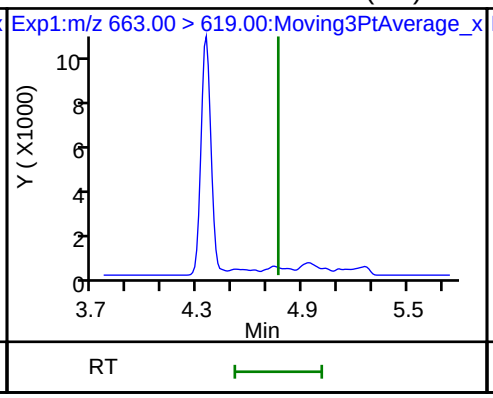

37 Perfluorododecanoic acid (M)



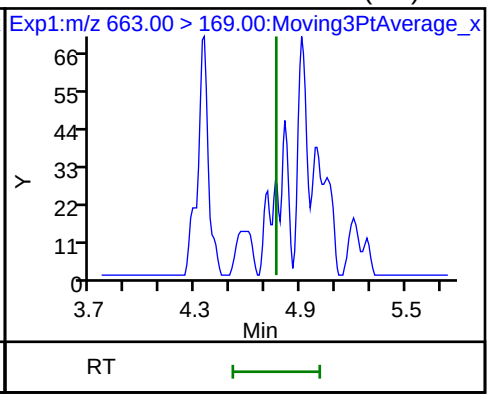
37 Perfluorododecanoic acid (M)



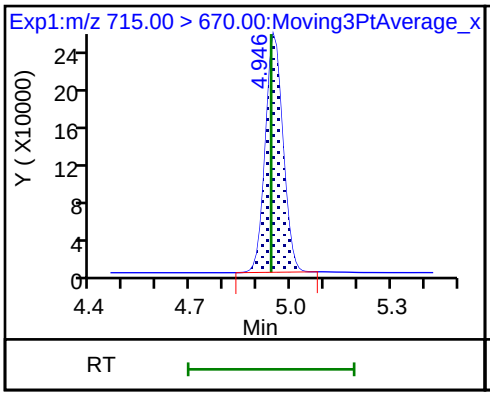

41 Perfluorotridecanoic acid (ND)



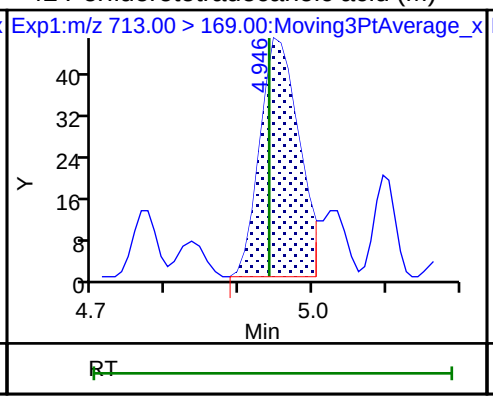

41 Perfluorotridecanoic acid (ND)



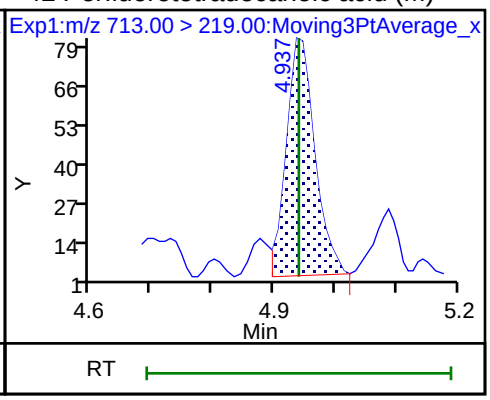

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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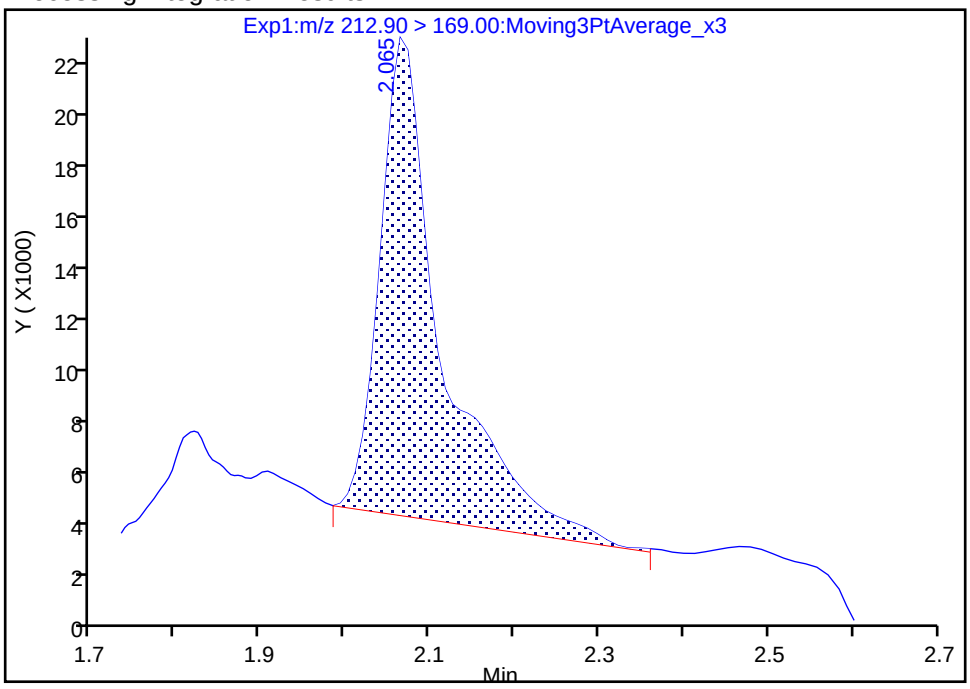
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

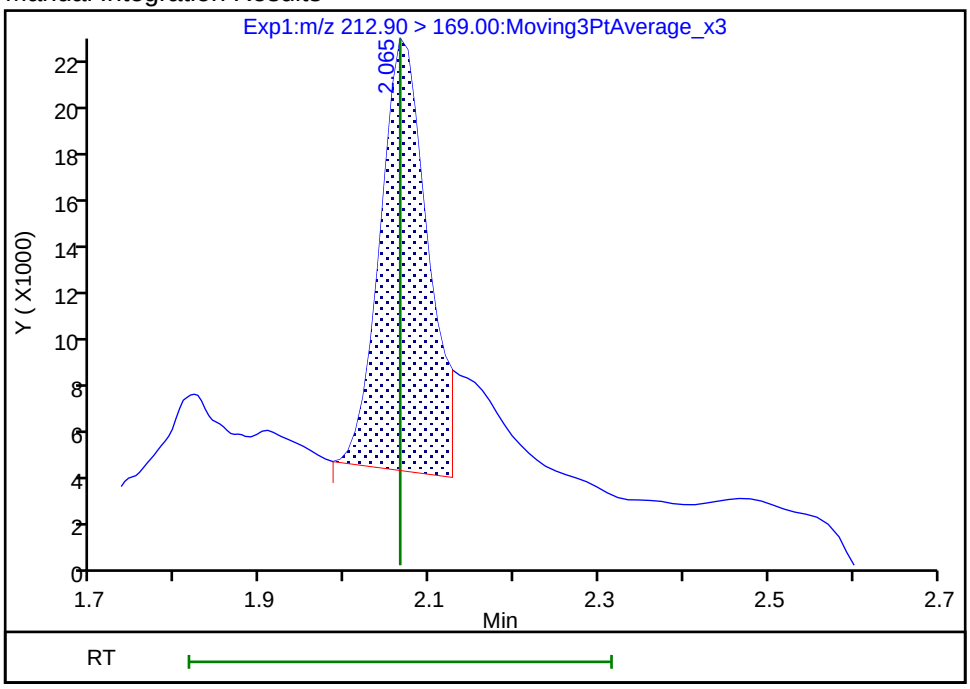
Processing Integration Results

RT: 2.06
Area: 91625
Amount: 0.072409
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 69967
Amount: 0.055293
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:10:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

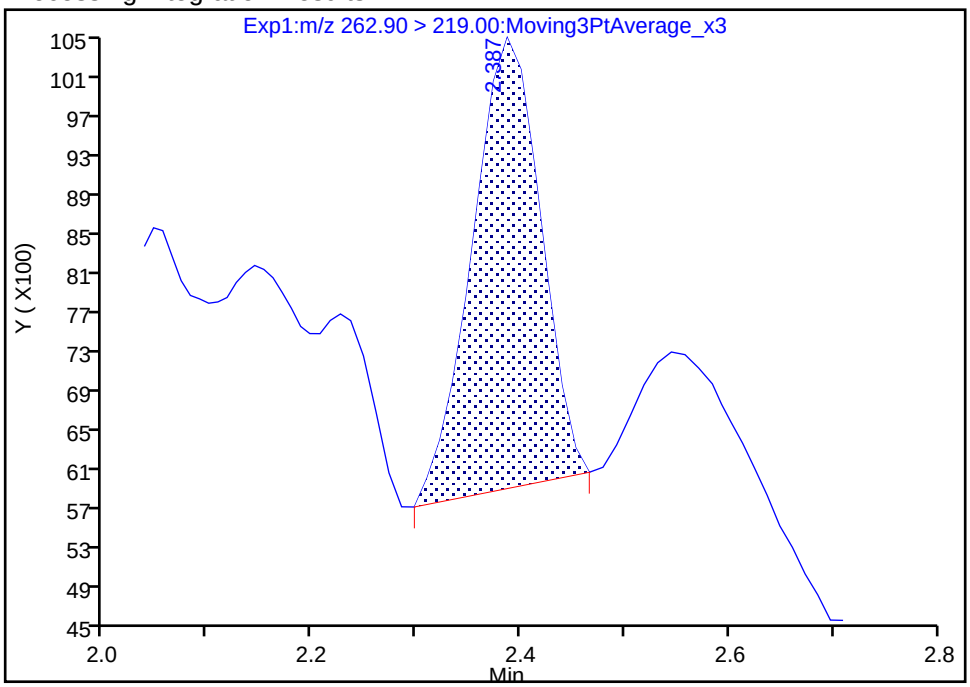
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

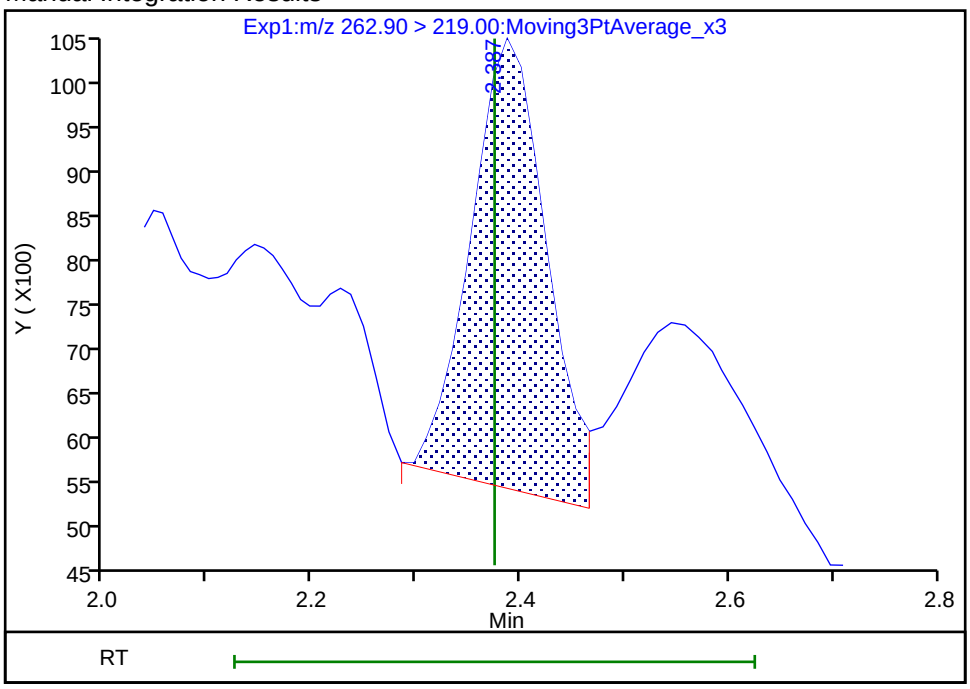
Processing Integration Results

RT: 2.39
Area: 20923
Amount: 0.017284
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 25453
Amount: 0.021026
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:10:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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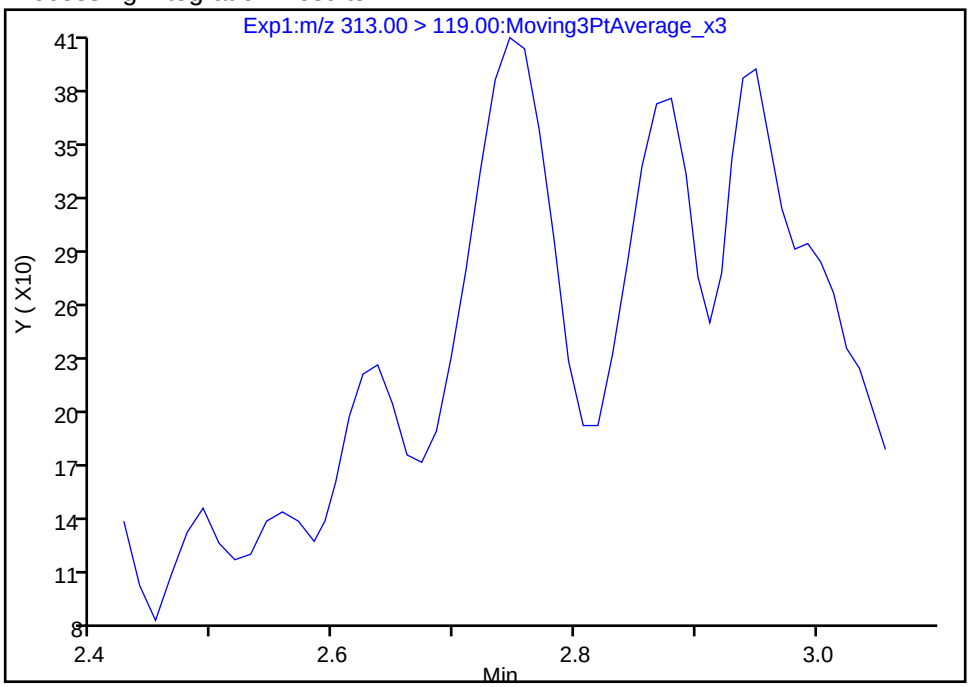
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

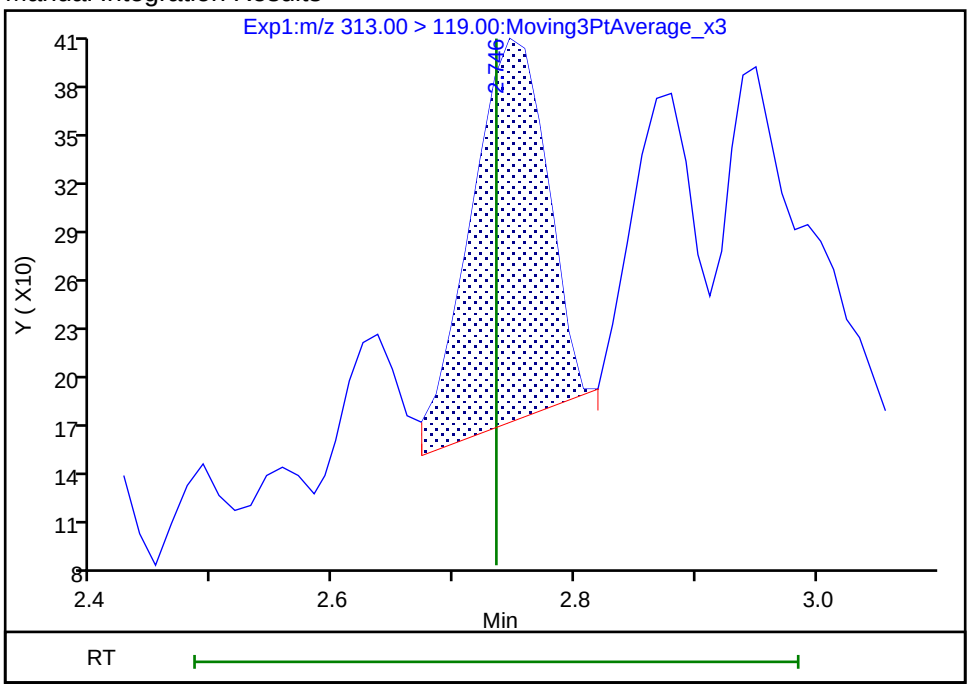
Not Detected
Expected RT: 2.73

Processing Integration Results




Manual Integration Results

RT: 2.75
Area: 1013
Amount: 0.012450
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

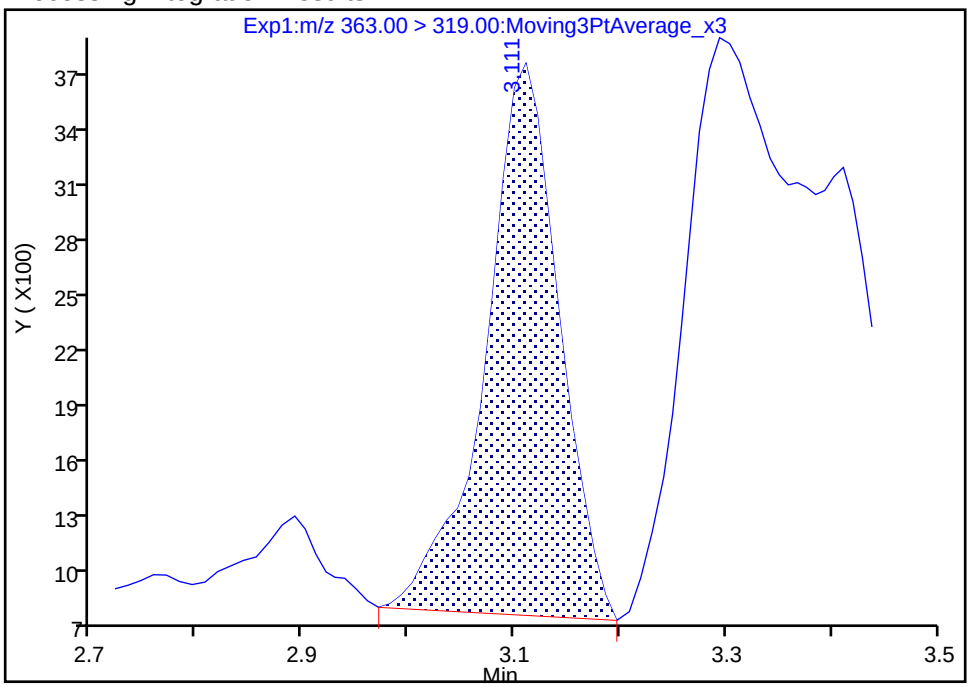
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

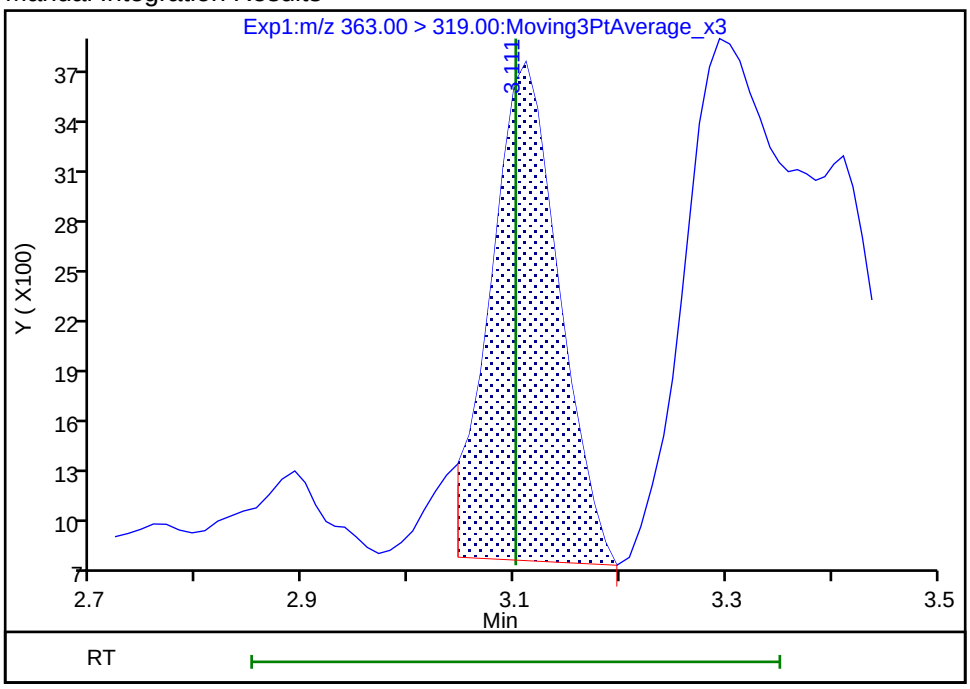
Processing Integration Results

RT: 3.11
Area: 14396
Amount: 0.011576
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 13319
Amount: 0.010710
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

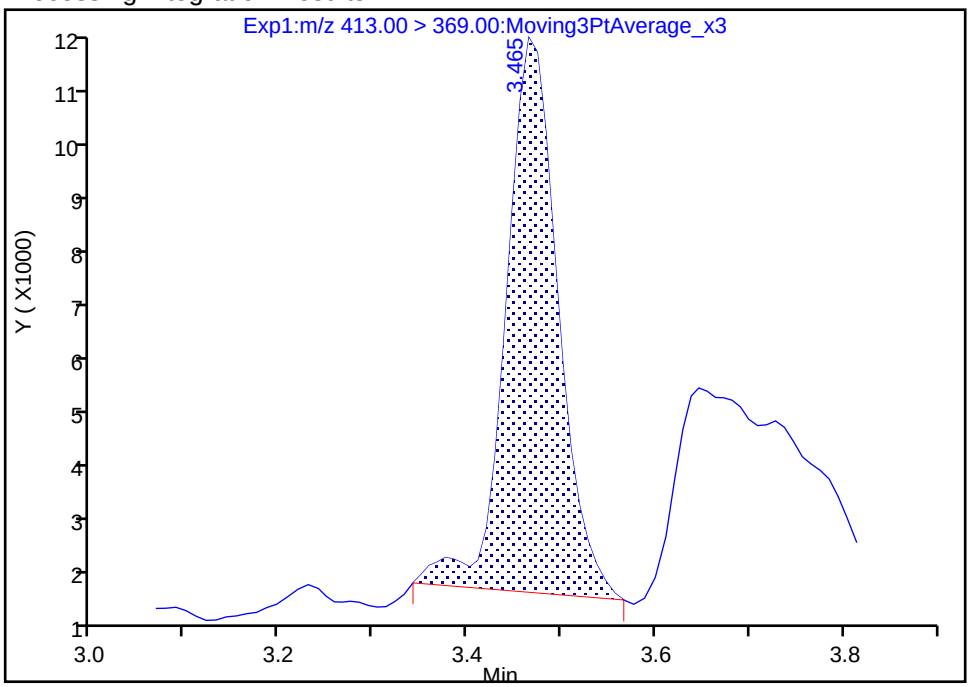
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

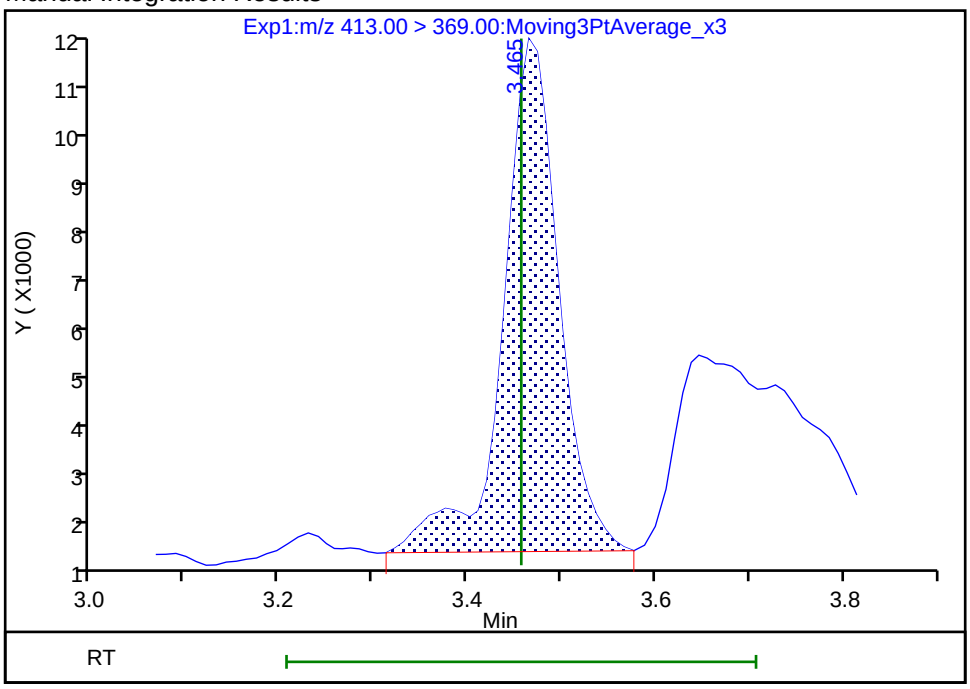
Processing Integration Results

RT: 3.47
Area: 38142
Amount: 0.026204
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 41802
Amount: 0.028718
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

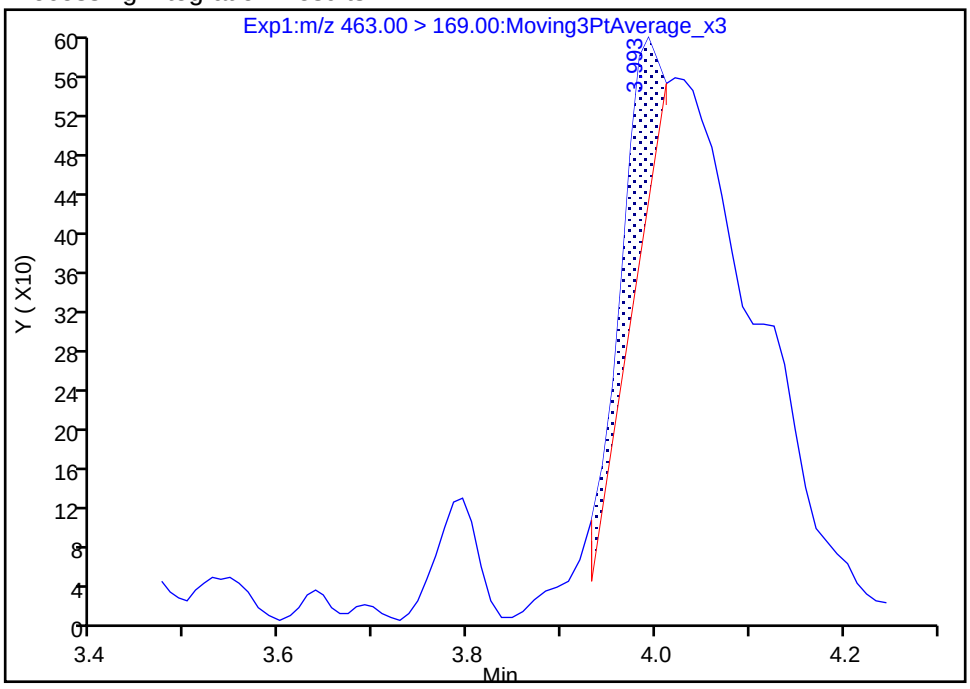
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

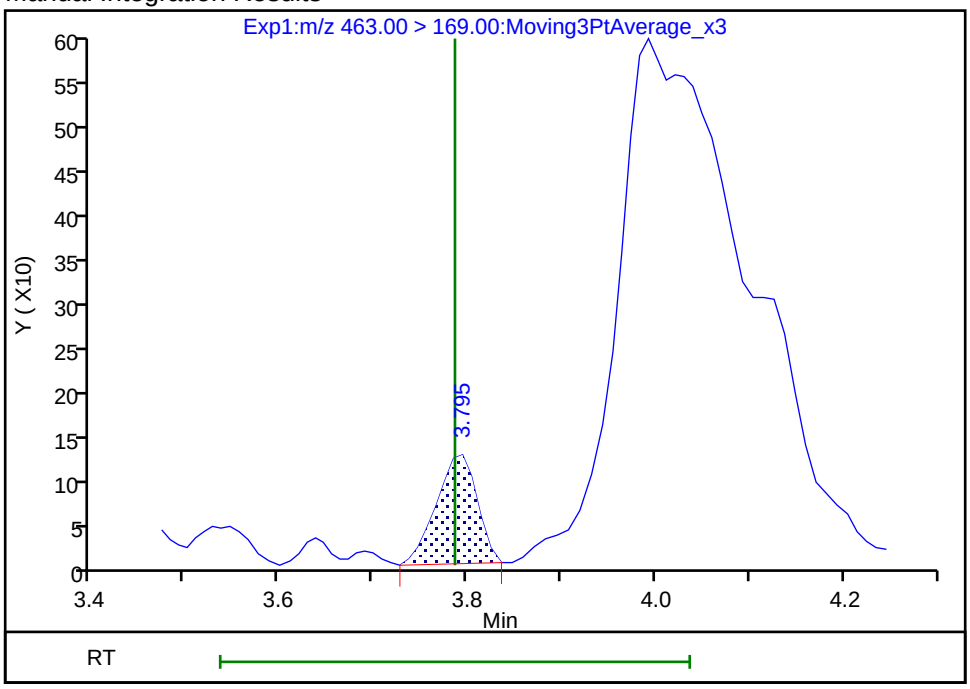
Processing Integration Results

RT: 3.99
Area: 512
Amount: 0.003815
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 370
Amount: 0.004590
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:12:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

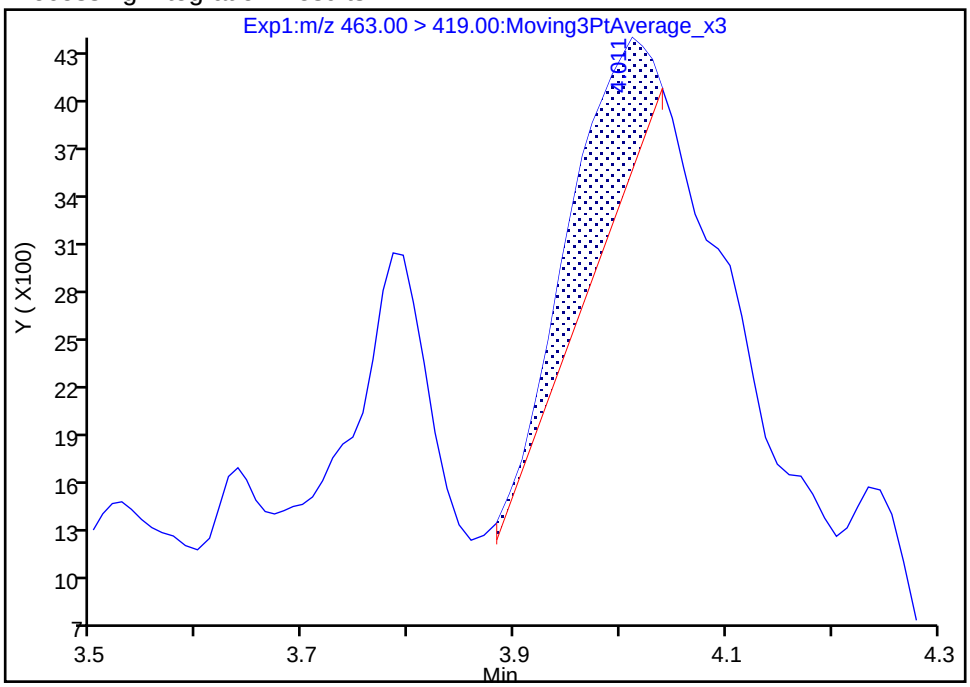
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

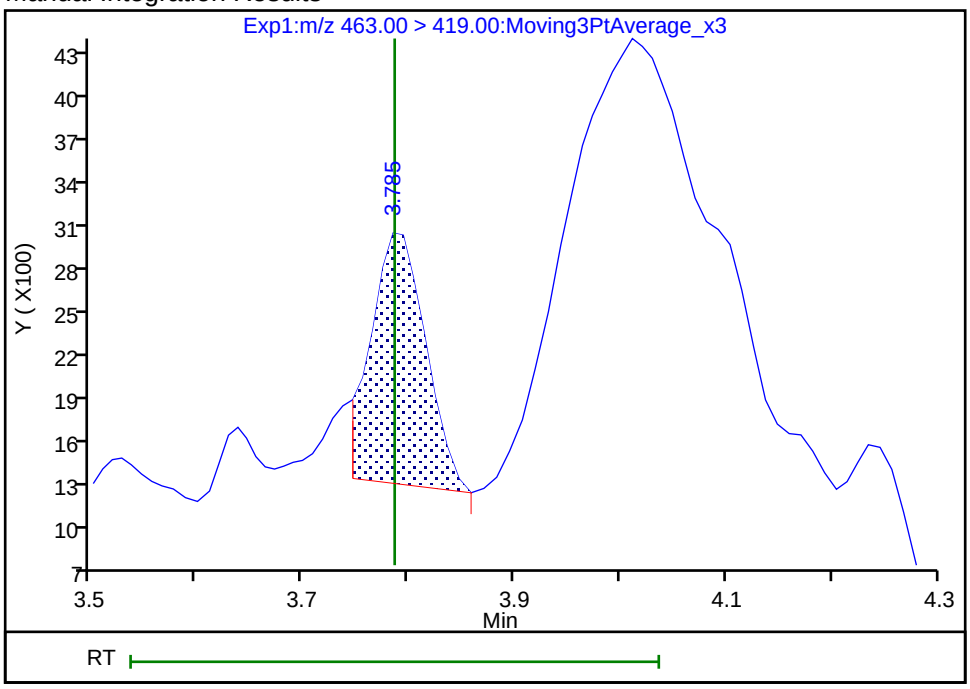
Processing Integration Results

RT: 4.01
Area: 5073
Amount: 0.003815
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 6103
Amount: 0.004590
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:12:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

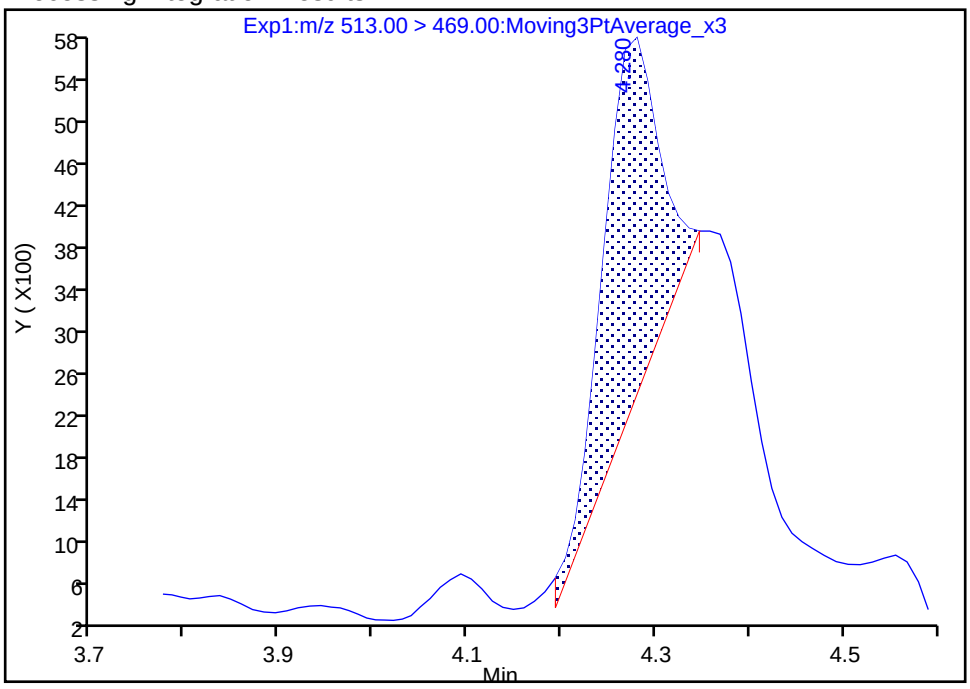
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

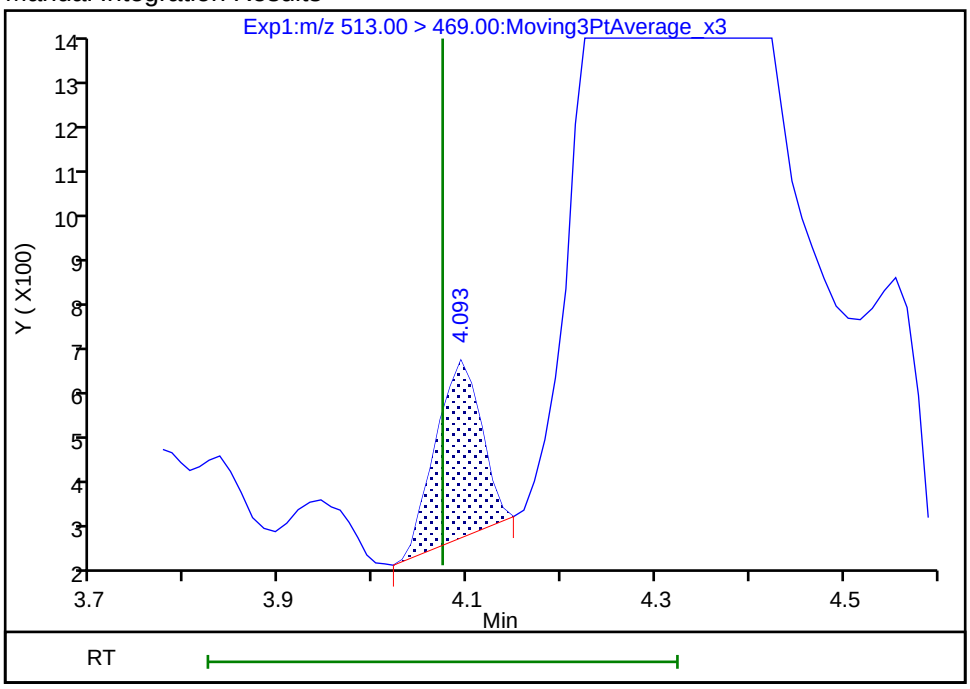
Processing Integration Results

RT: 4.28
Area: 14488
Amount: 0.011186
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1292
Amount: 0.001008
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:02:07

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

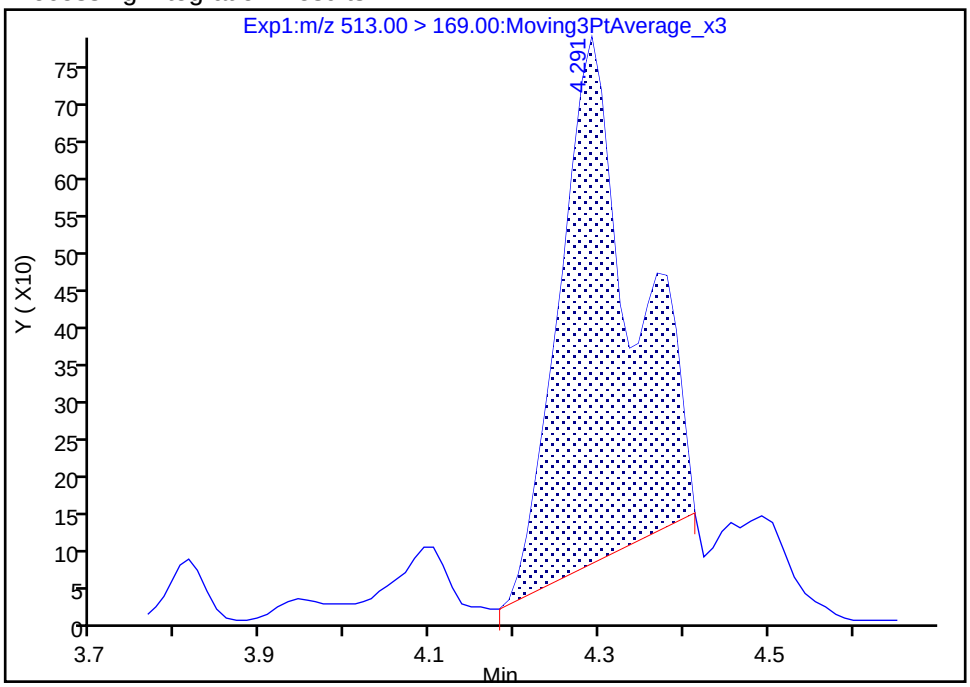
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

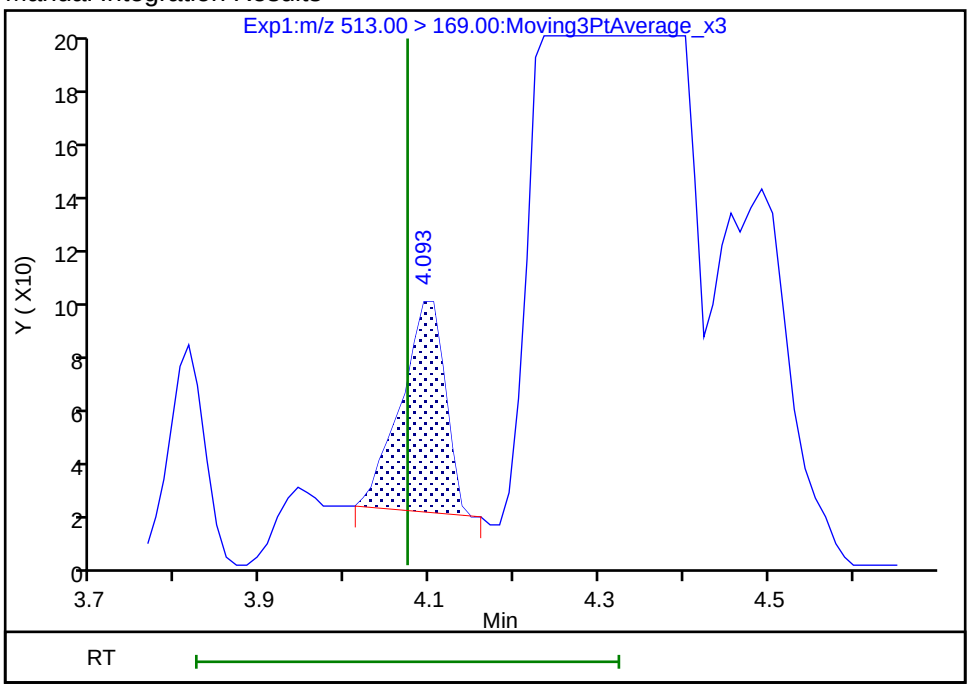
Processing Integration Results

RT: 4.29
Area: 4306
Amount: 0.011186
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 283
Amount: 0.001008
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:02:12
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

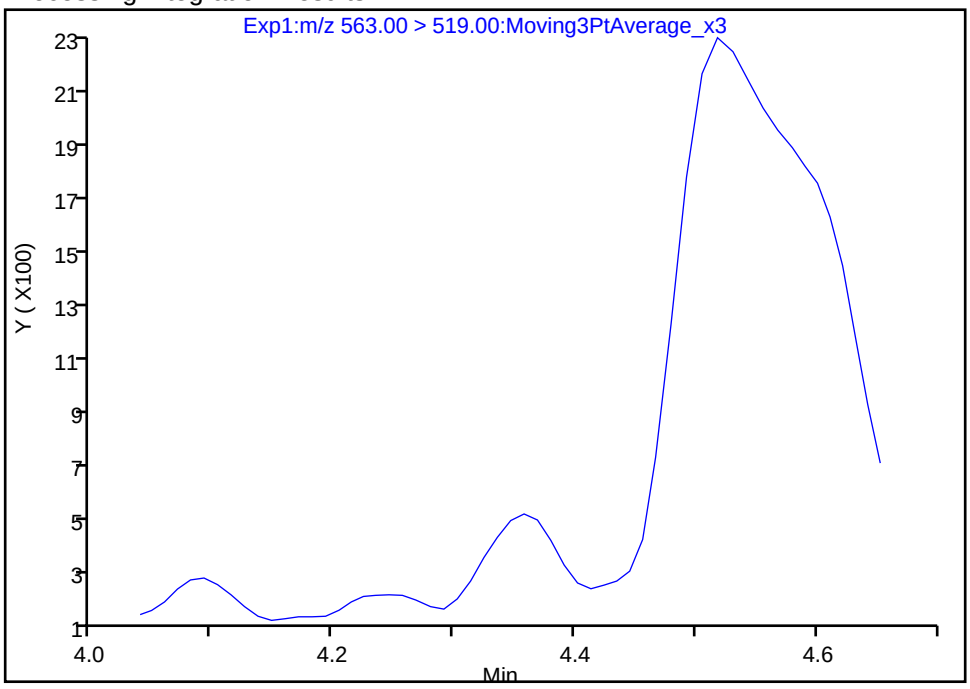
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

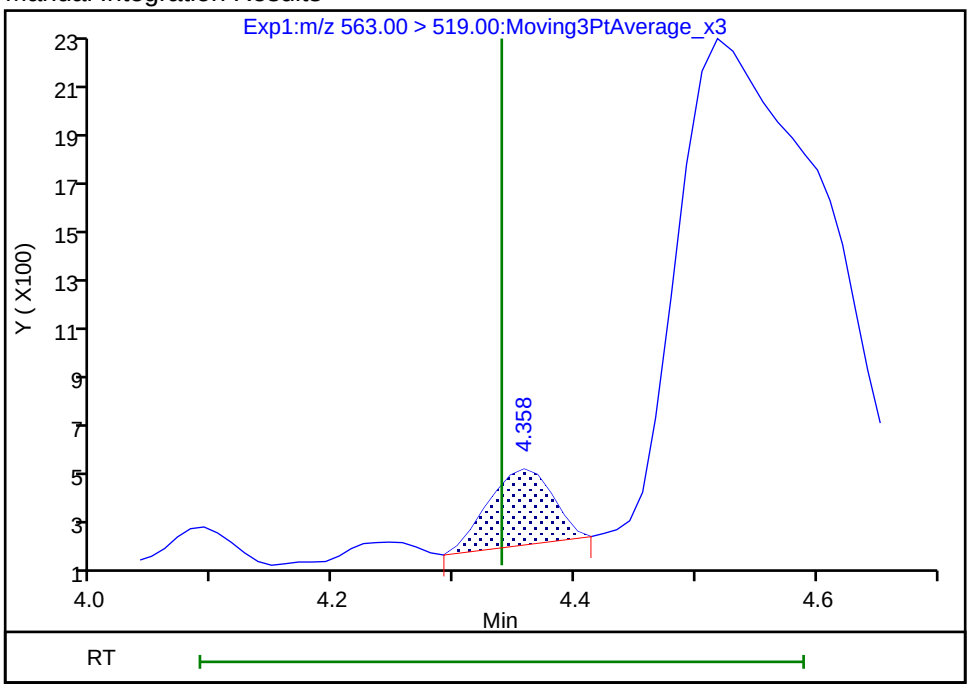
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 1139
Amount: 0.001084
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

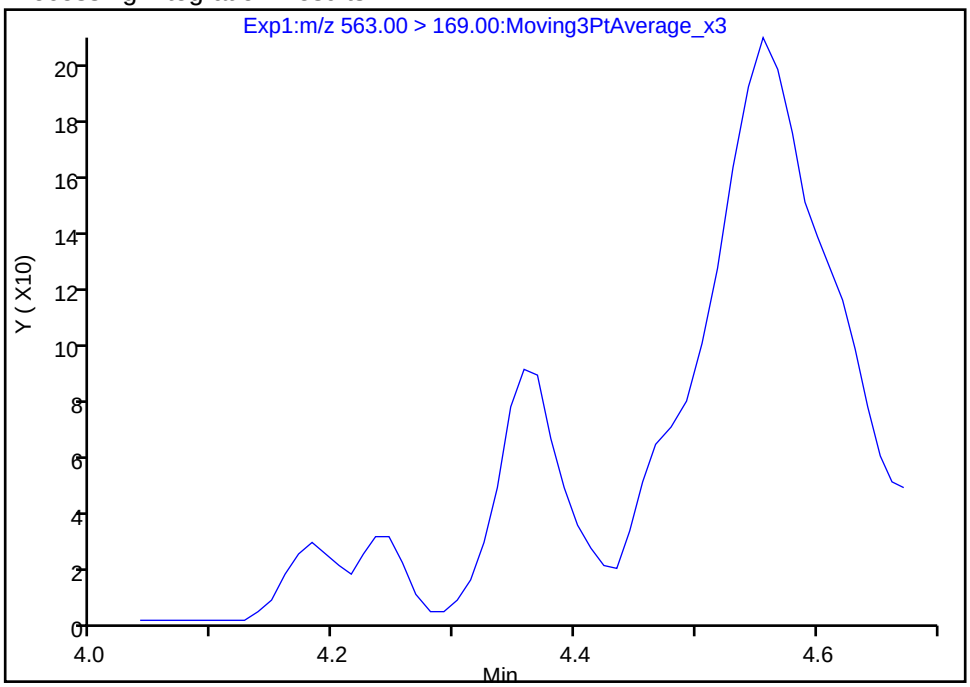
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

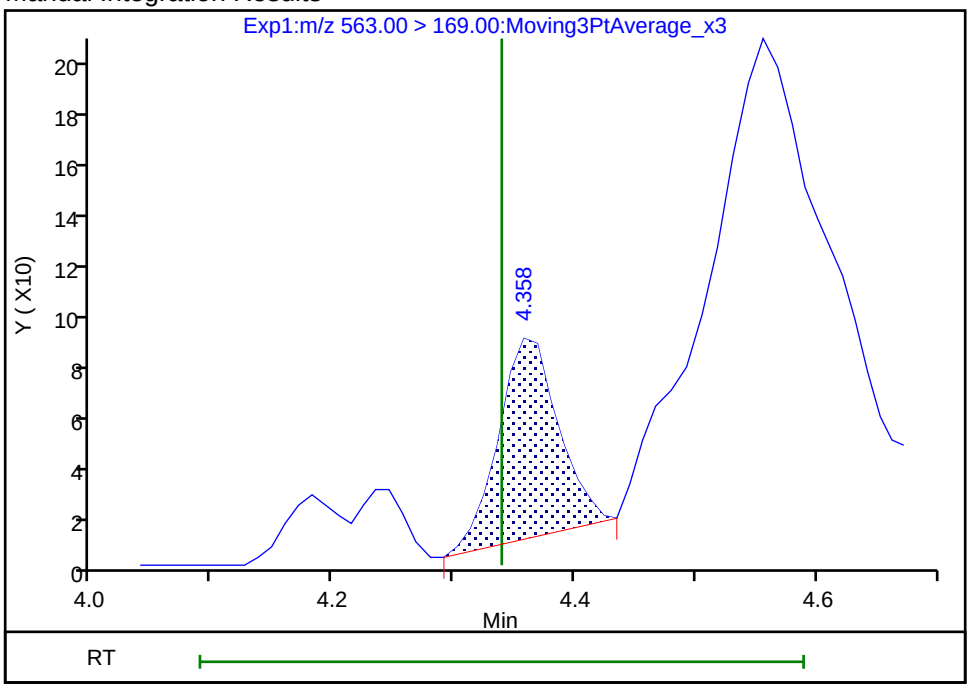
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 265
Amount: 0.001084
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

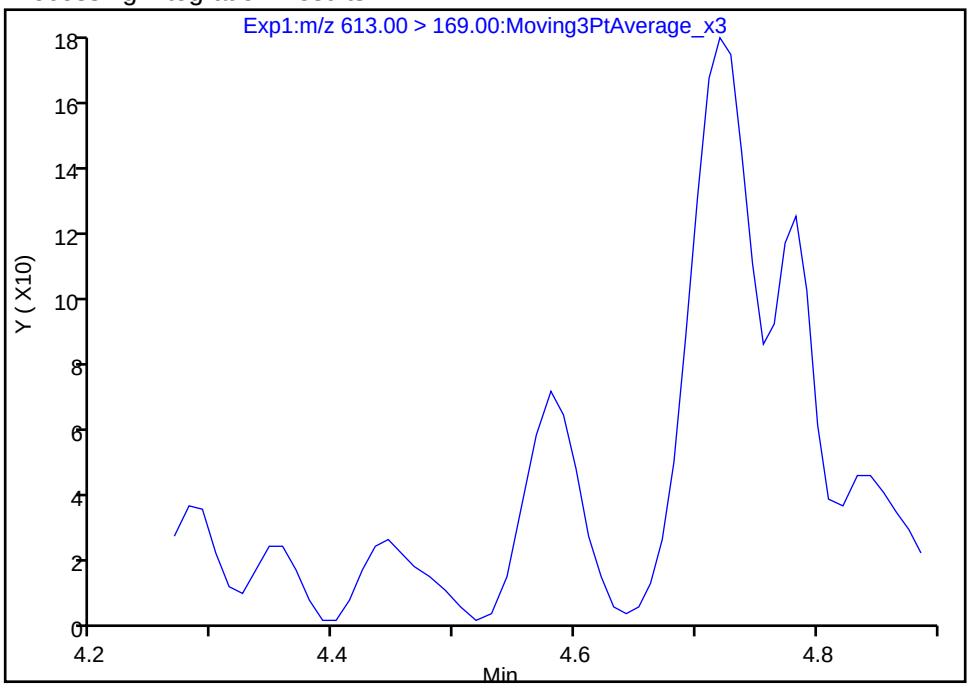
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

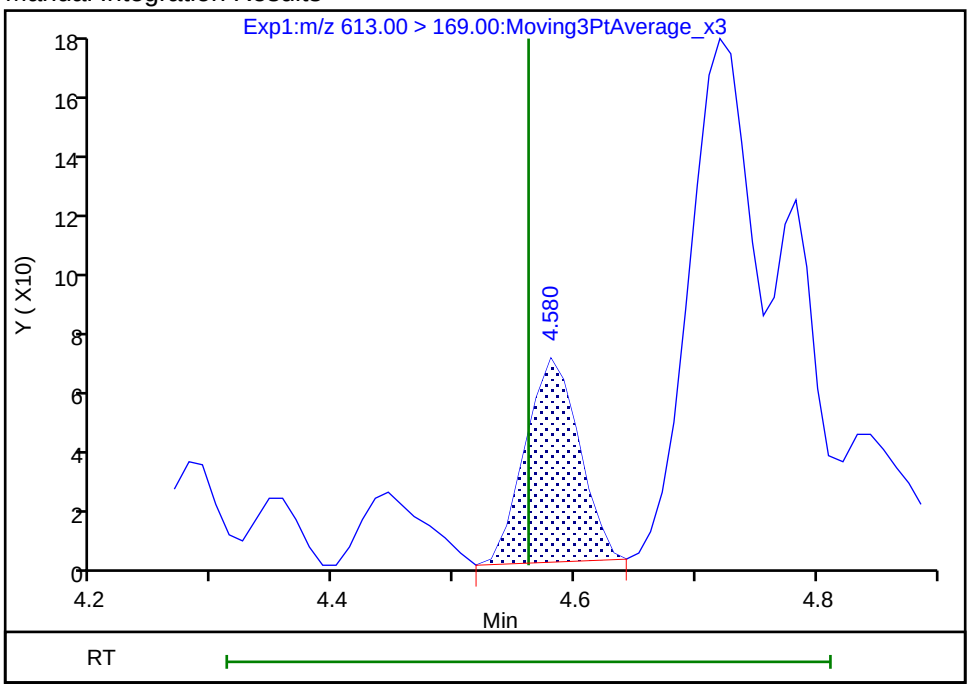
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 207
Amount: 0.000876
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

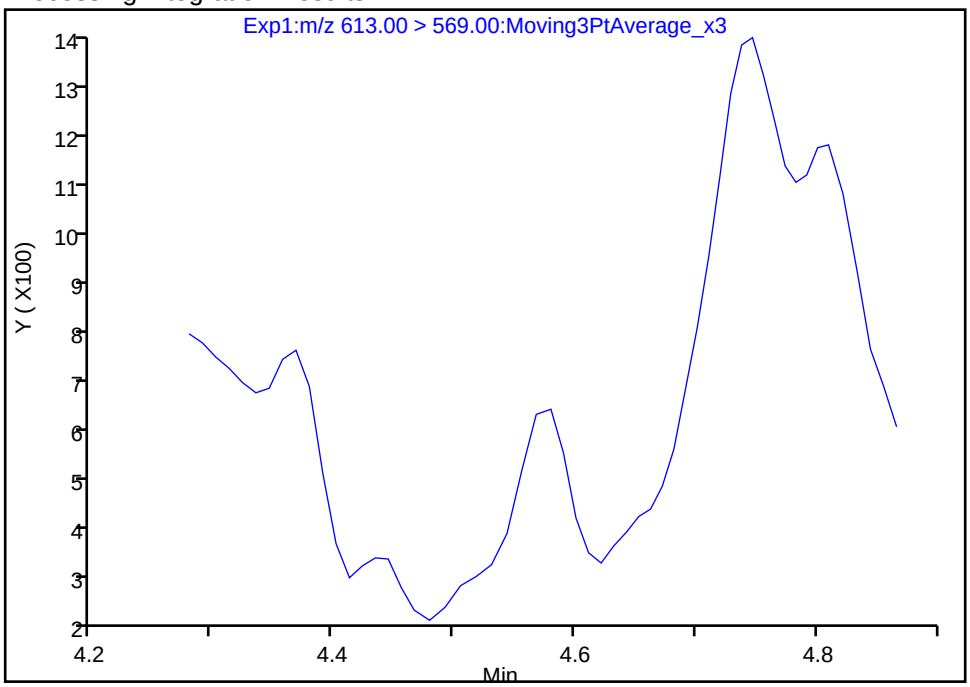
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

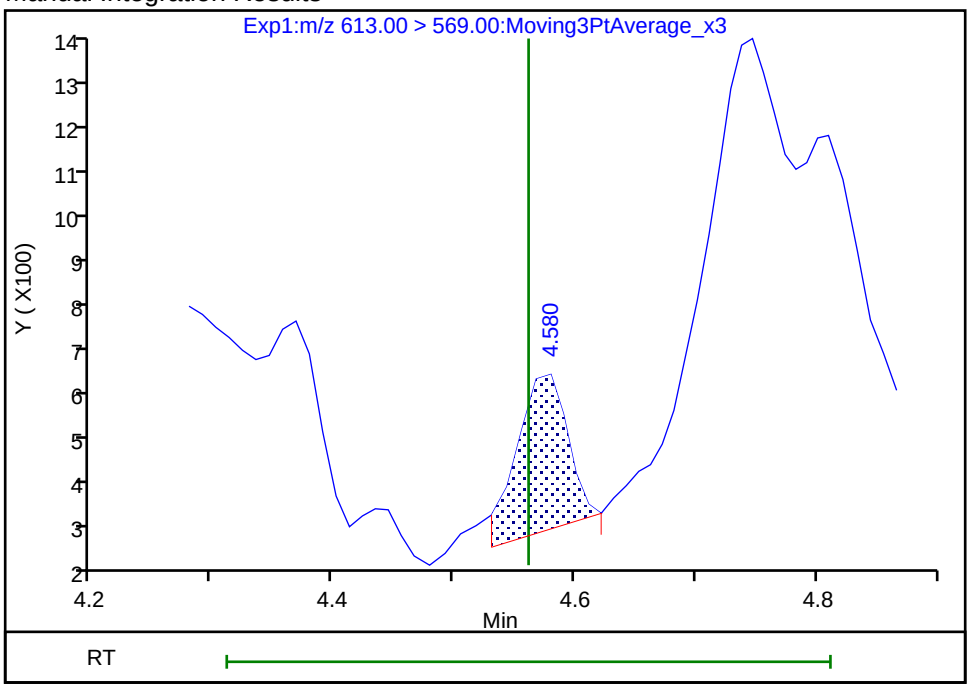
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 890
Amount: 0.000876
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

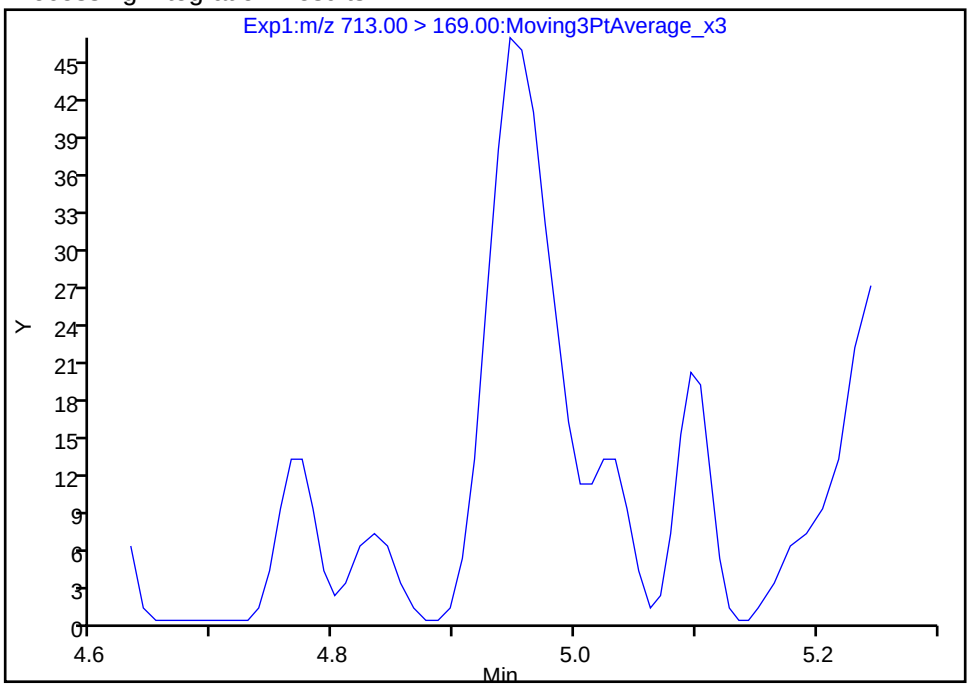
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

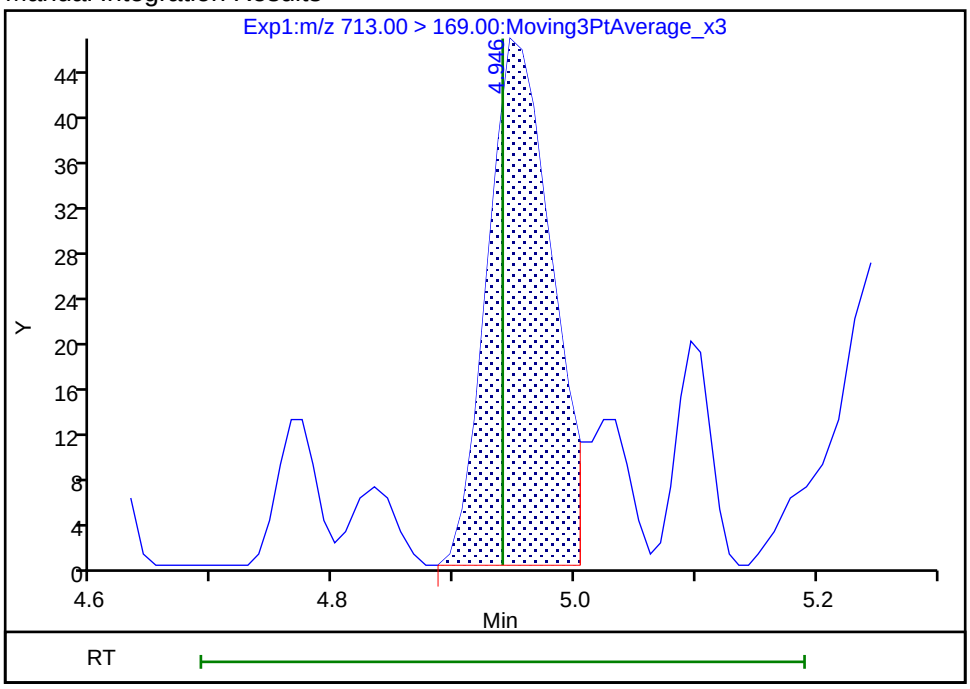
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 171
Amount: 0.001439
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:14:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

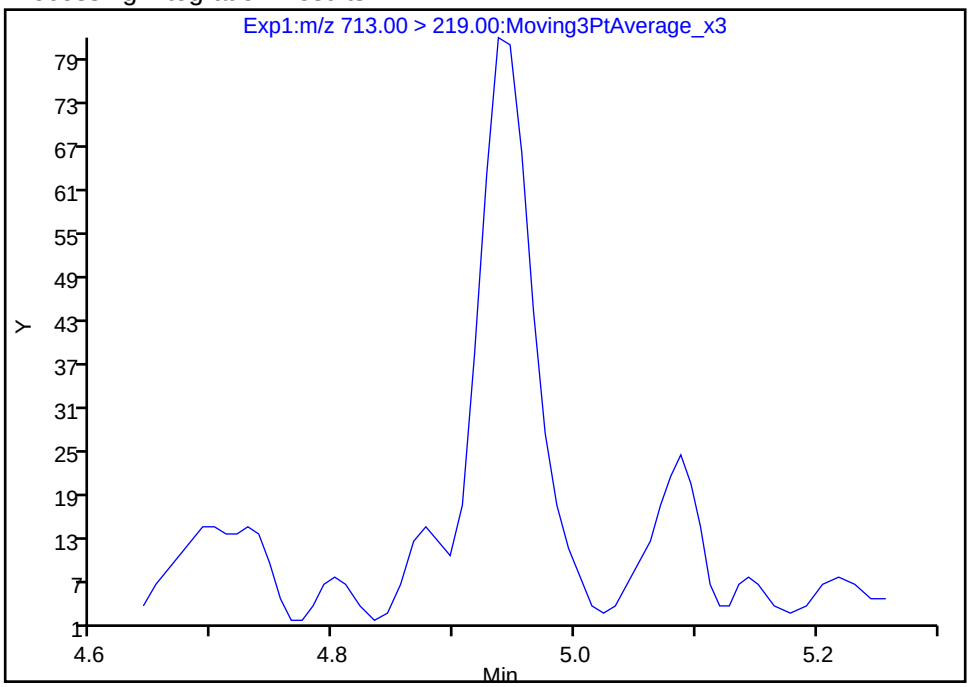
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

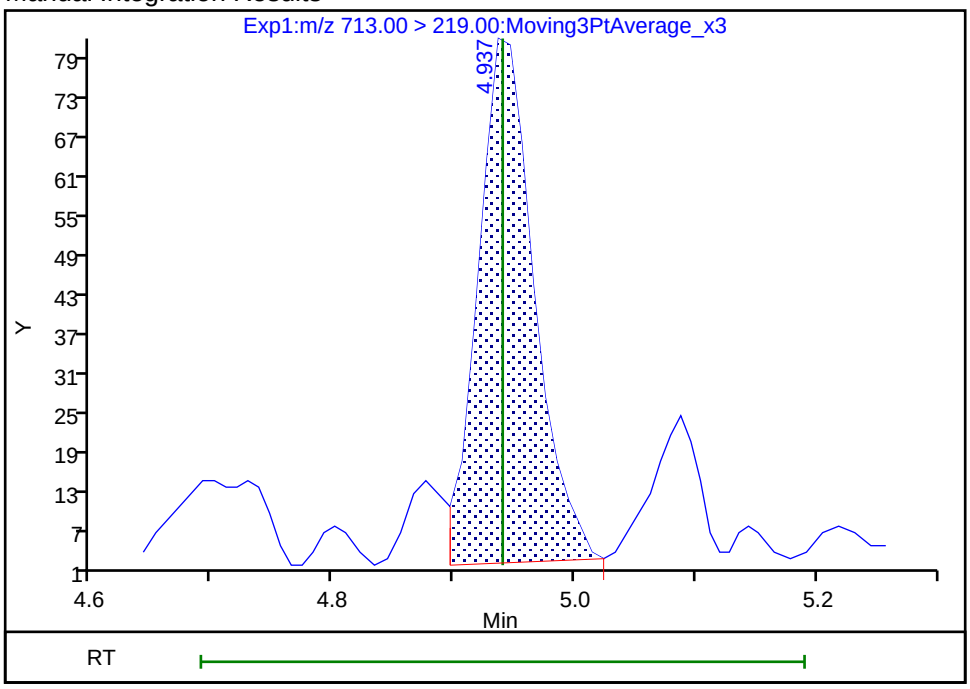
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.94
Area: 259
Amount: 0.001439
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:14:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

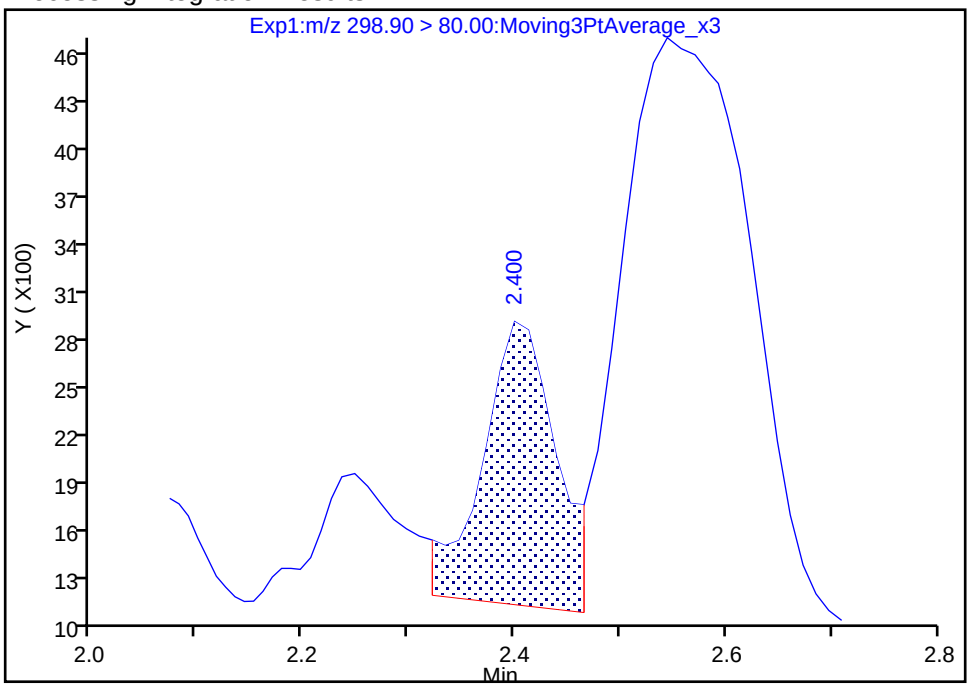
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 |
| Client ID: | MH-105S-20211027 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 Worklist Smp#: 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

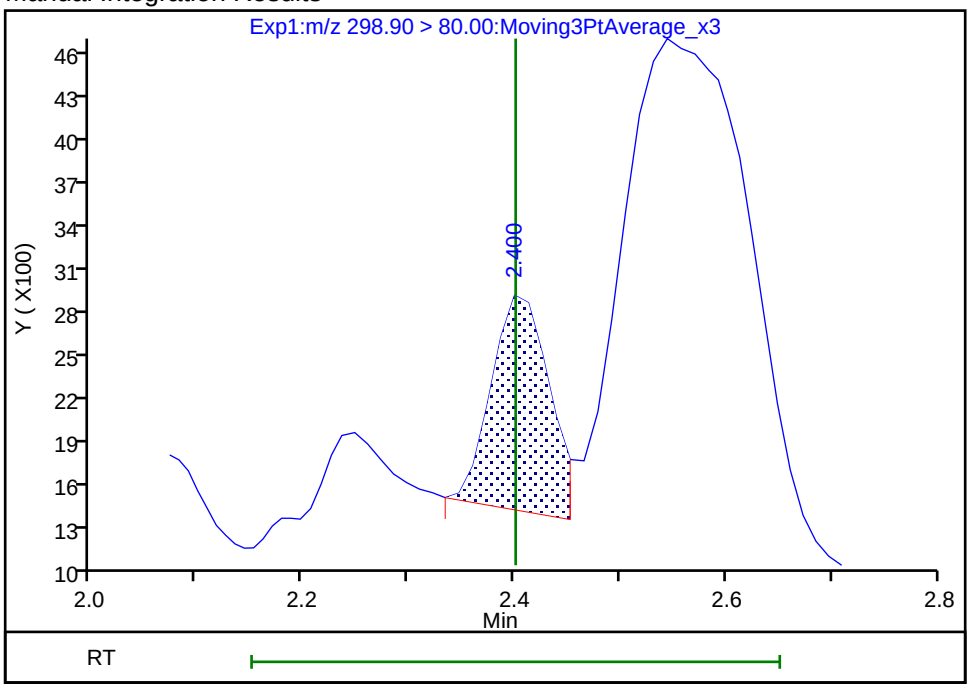
Processing Integration Results

RT: 2.40
Area: 8274
Amount: 0.005213
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 5504
Amount: 0.003468
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:10:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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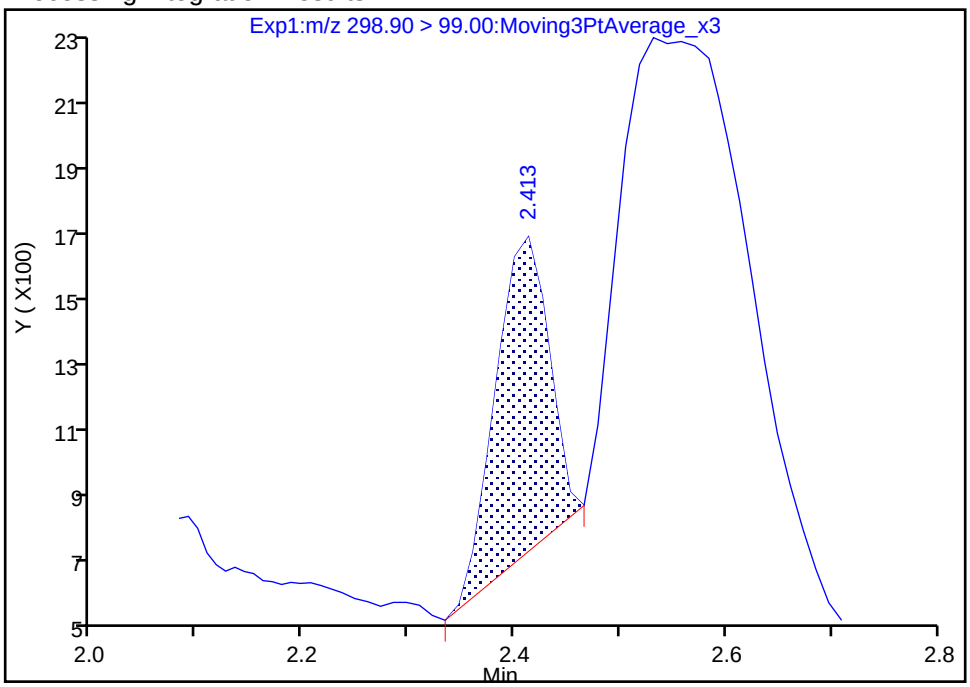
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

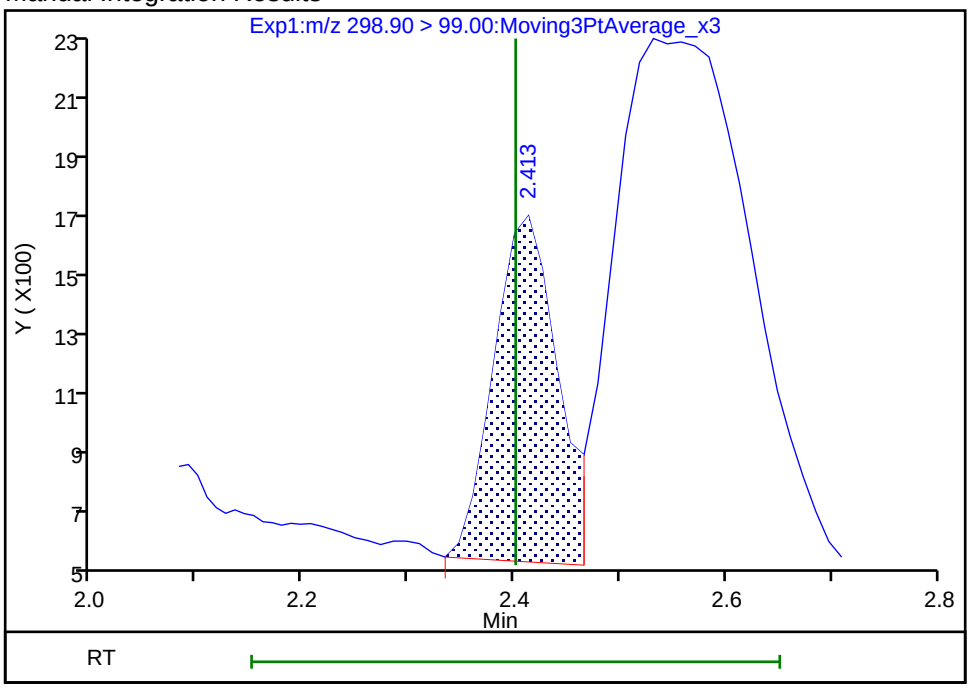
Processing Integration Results

RT: 2.41
Area: 3187
Amount: 0.005213
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 4579
Amount: 0.003468
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

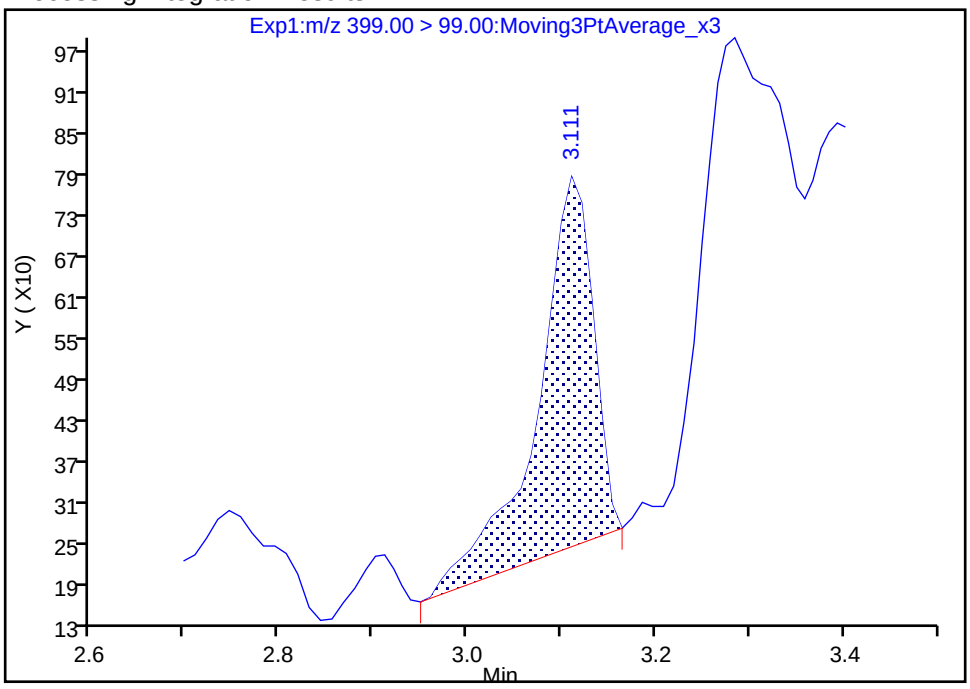
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

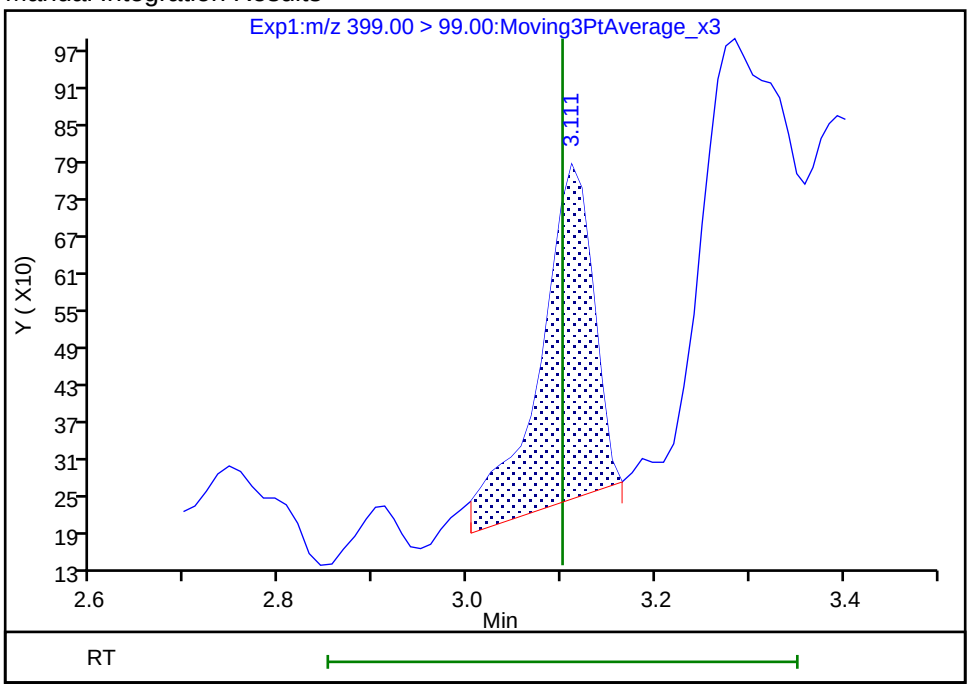
Processing Integration Results

RT: 3.11
Area: 2221
Amount: 0.005208
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 2152
Amount: 0.005208
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

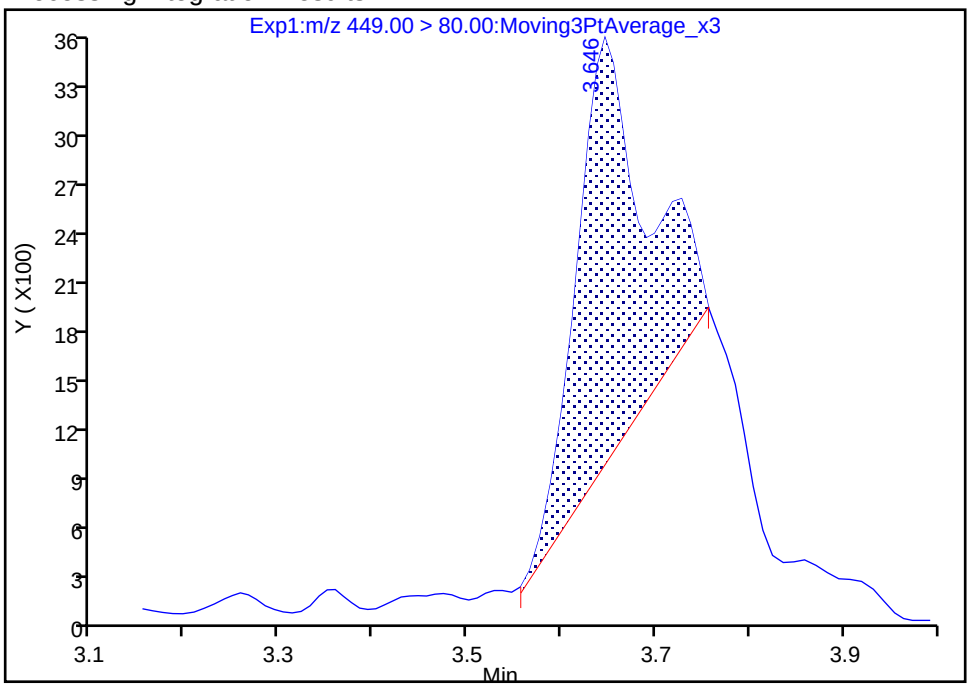
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

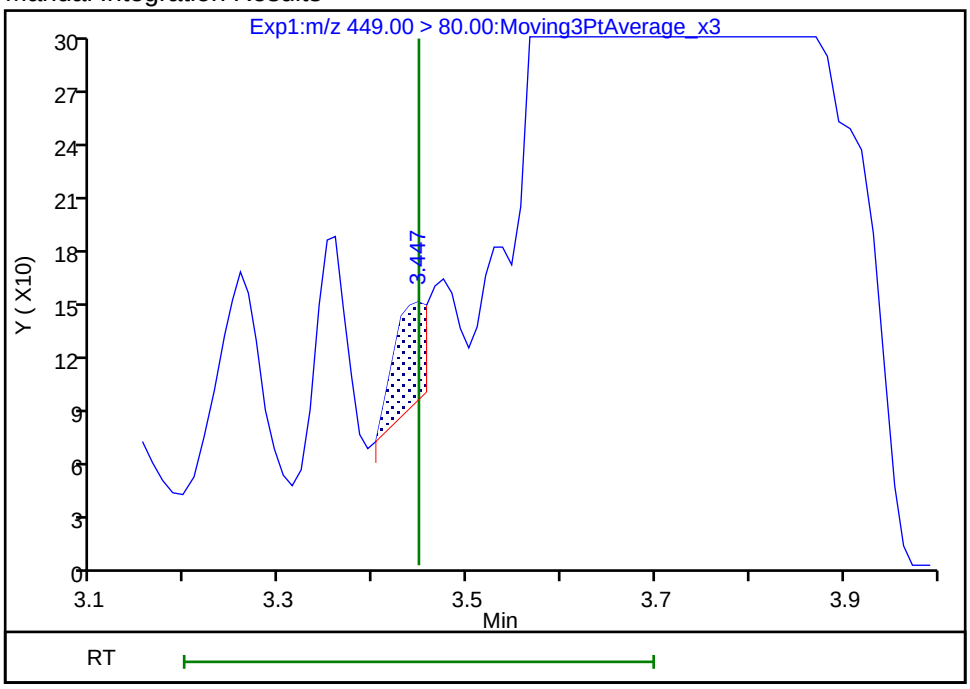
Processing Integration Results

RT: 3.65
Area: 13145
Amount: 0.012938
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 135
Amount: 0.000133
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

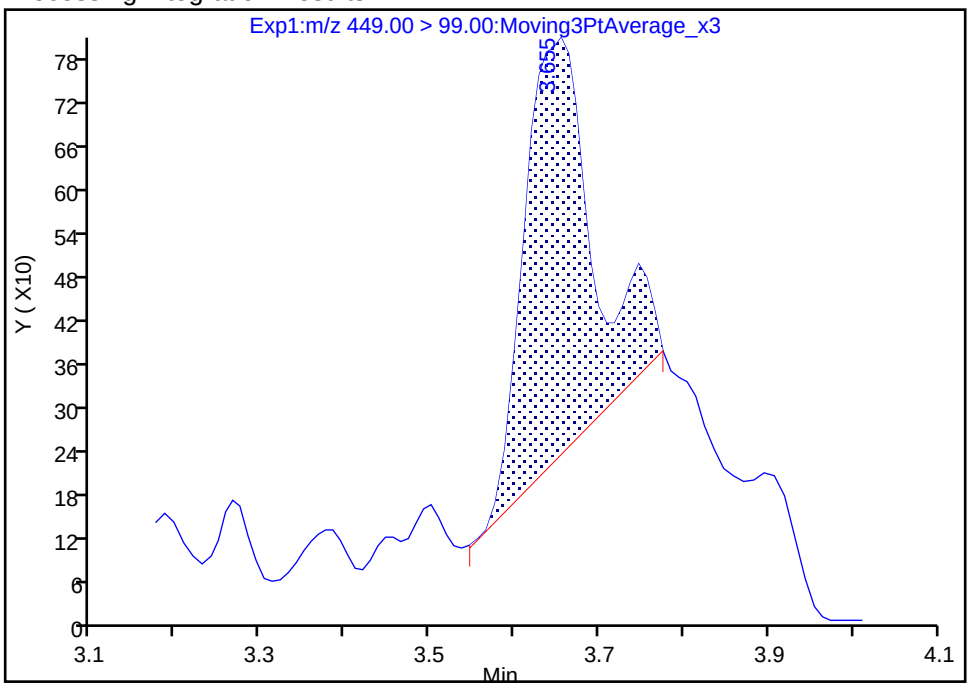
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

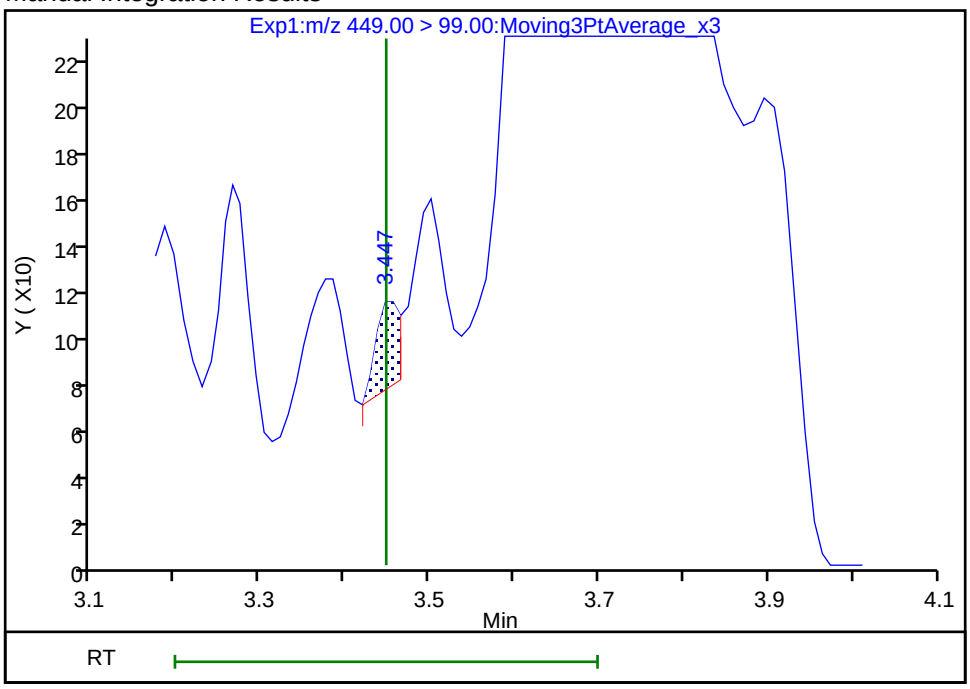
Processing Integration Results

RT: 3.66
Area: 3280
Amount: 0.012938
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 69
Amount: 0.000133
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

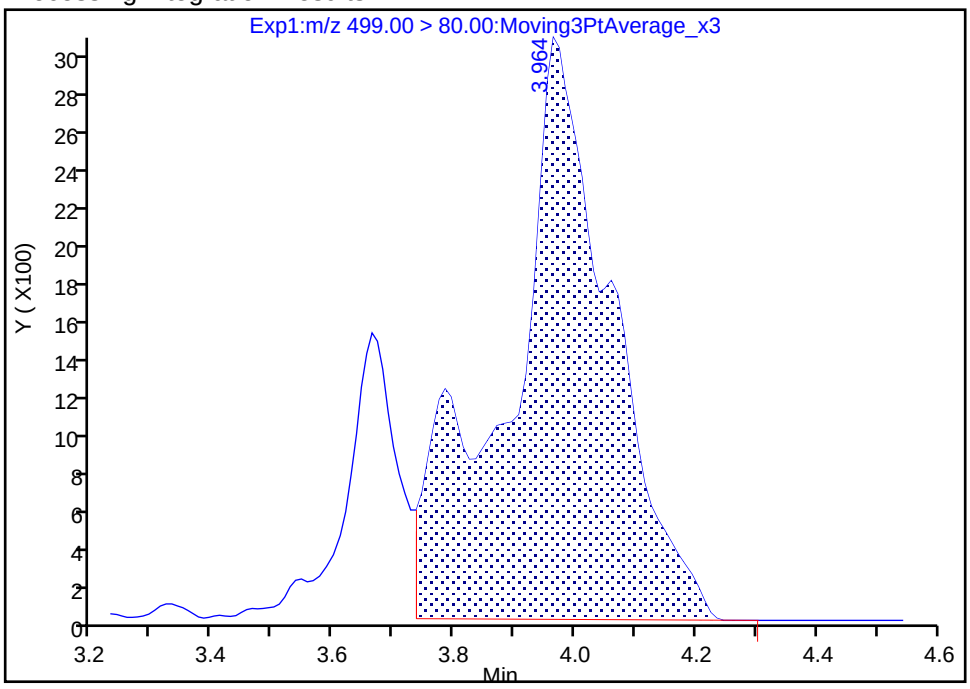
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

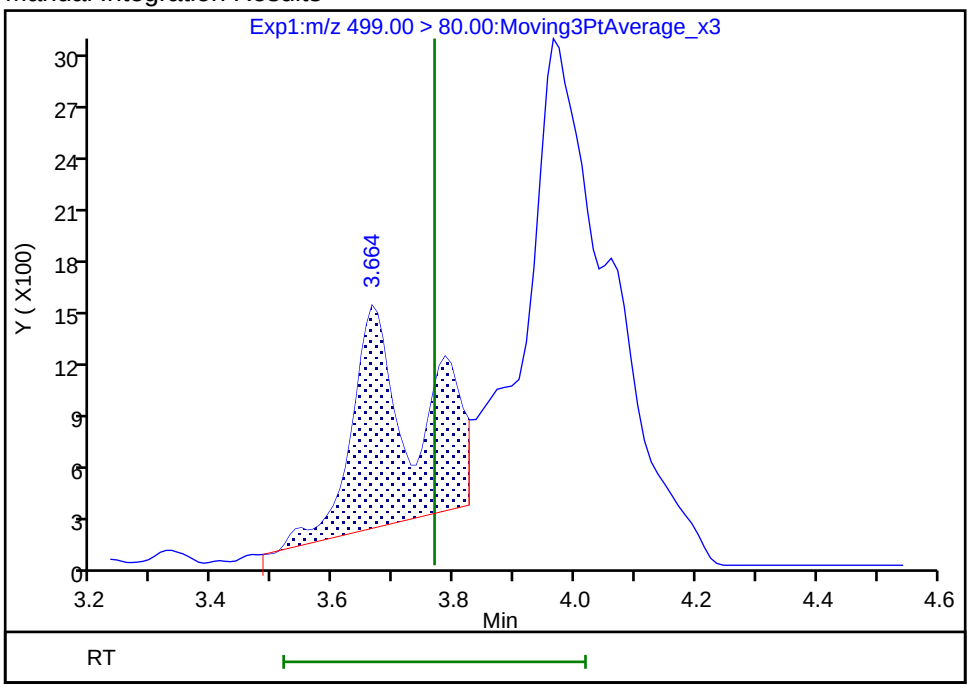
Processing Integration Results

RT: 3.96
Area: 36785
Amount: 0.041598
Amount Units: ng/ml




Manual Integration Results

RT: 3.66
Area: 9861
Amount: 0.011151
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:01:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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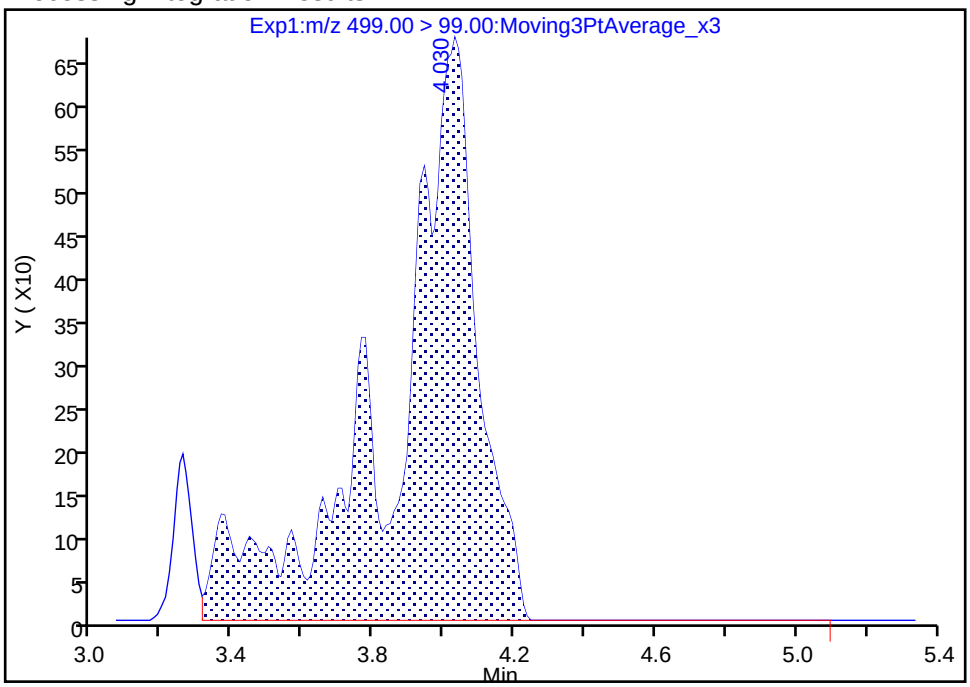
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

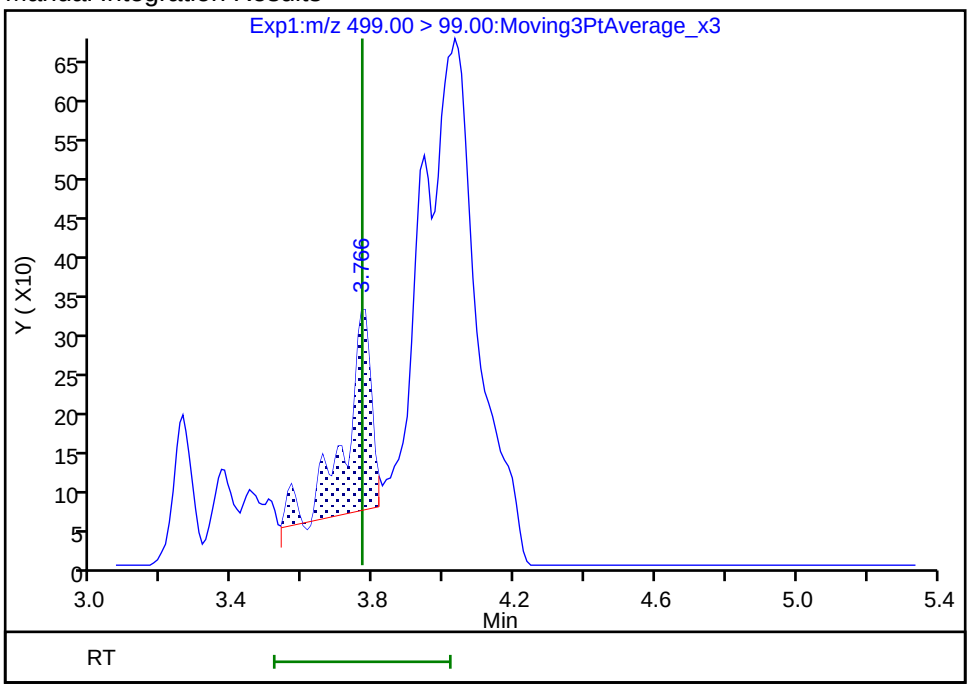
Processing Integration Results

RT: 4.03
Area: 11251
Amount: 0.041598
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 1321
Amount: 0.011151
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:01:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

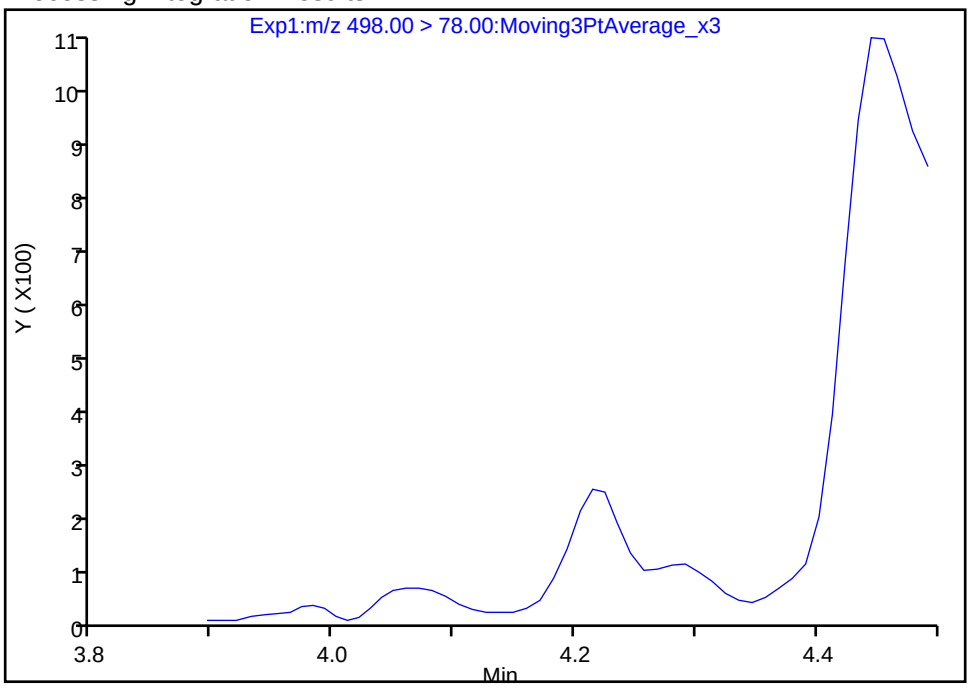
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

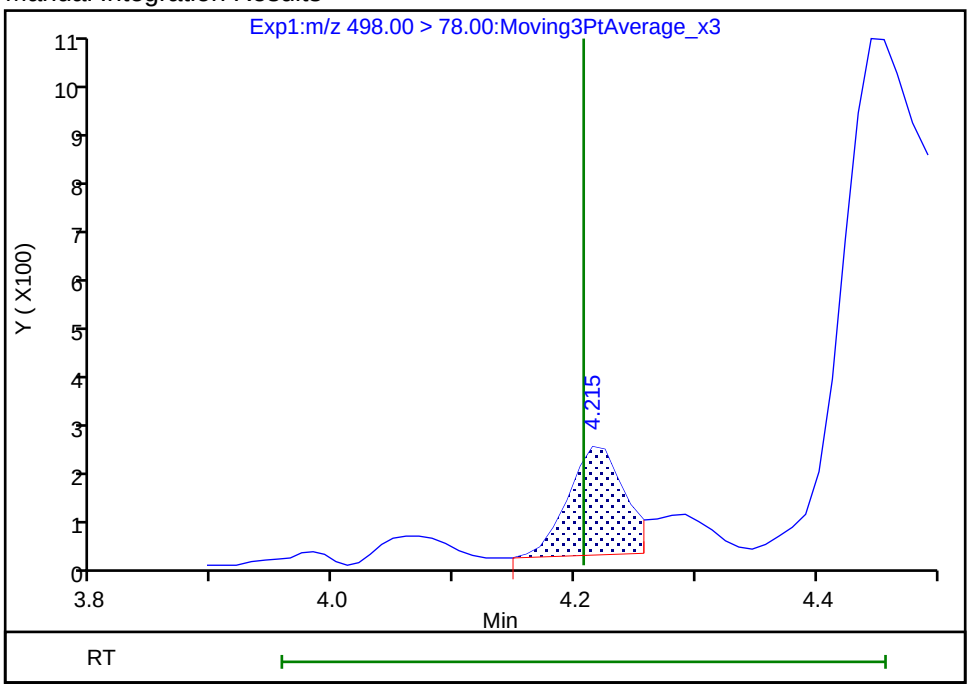
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 663
Amount: 0.000554
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

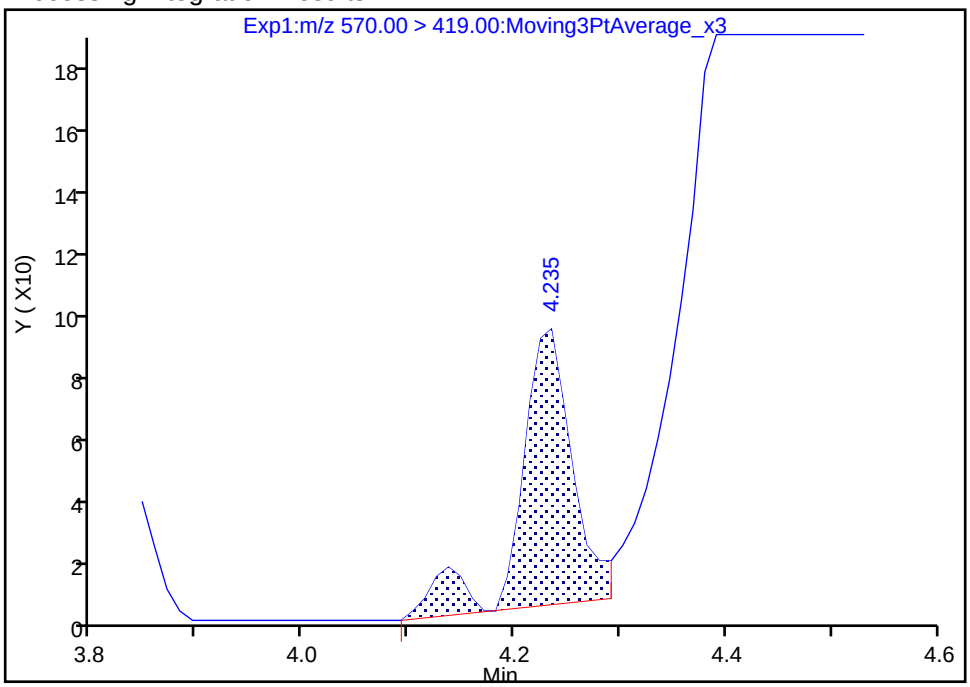
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

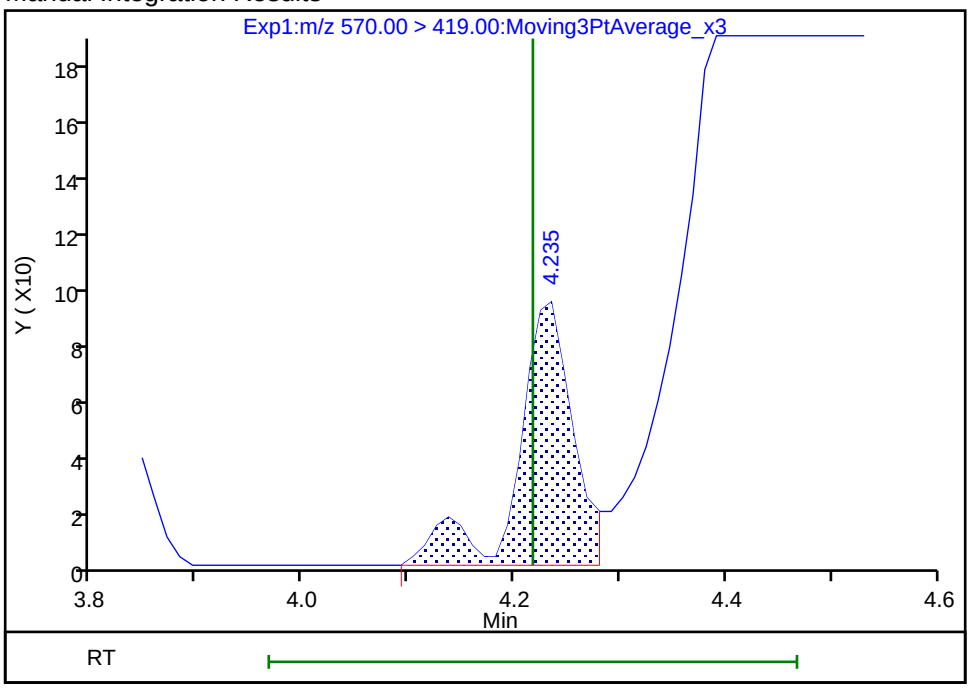
Processing Integration Results

RT: 4.23
Area: 305
Amount: 0.002761
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 333
Amount: 0.003037
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

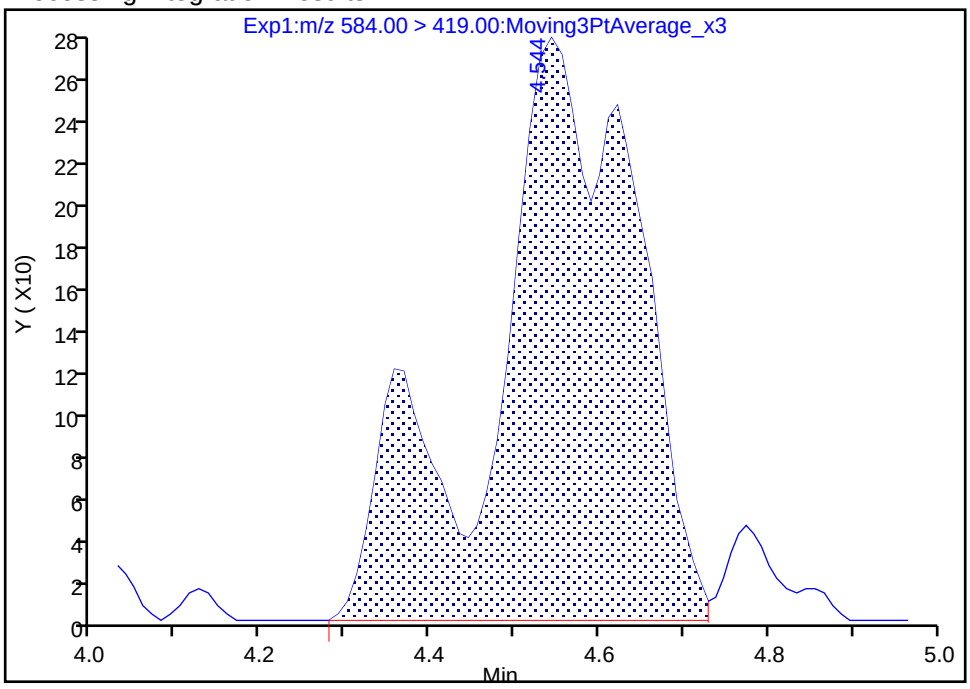
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

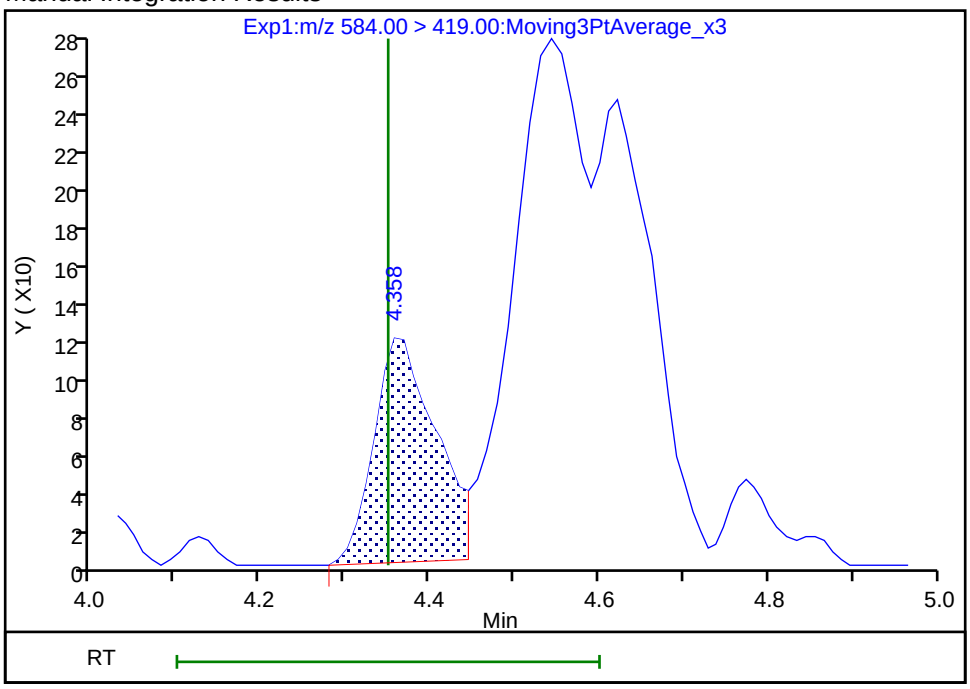
Processing Integration Results

RT: 4.54
Area: 3335
Amount: 0.029351
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 595
Amount: 0.005237
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:13:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

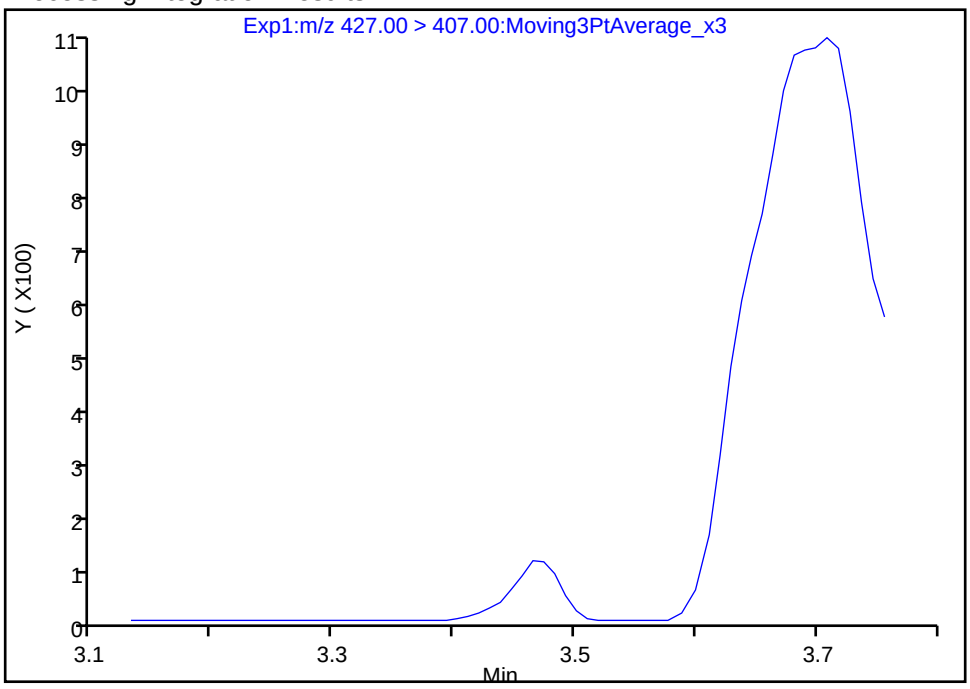
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

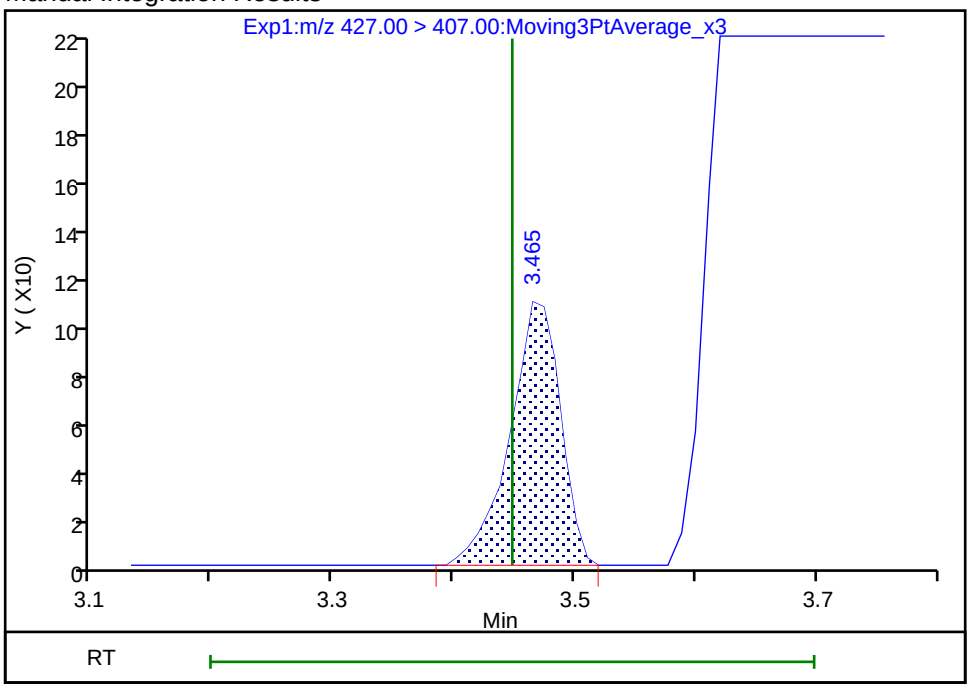
Not Detected
Expected RT: 3.45

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 306
Amount: 0.001321
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:11:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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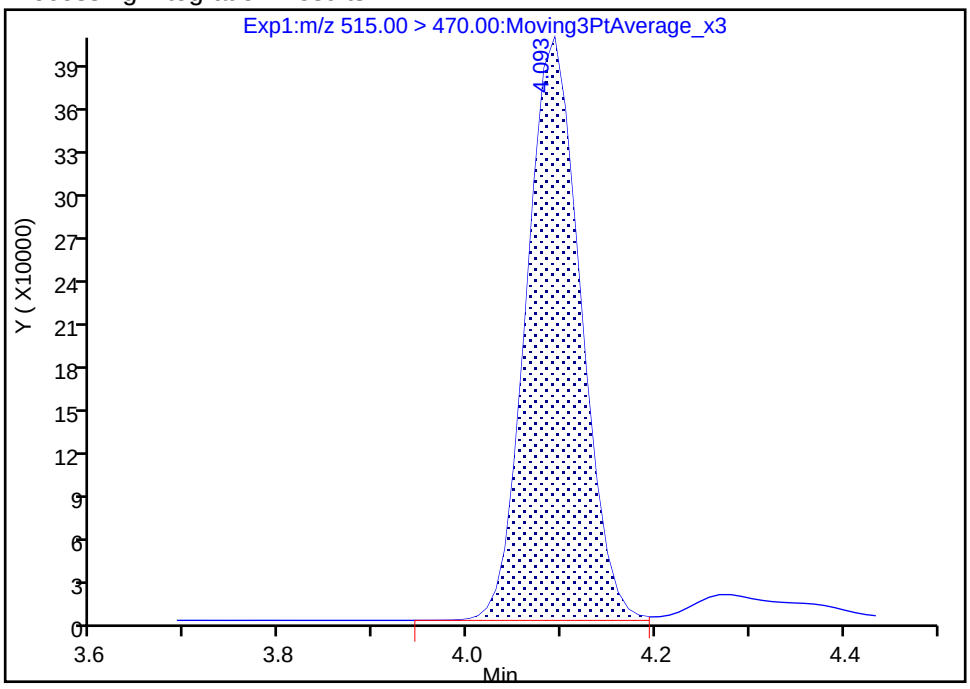
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

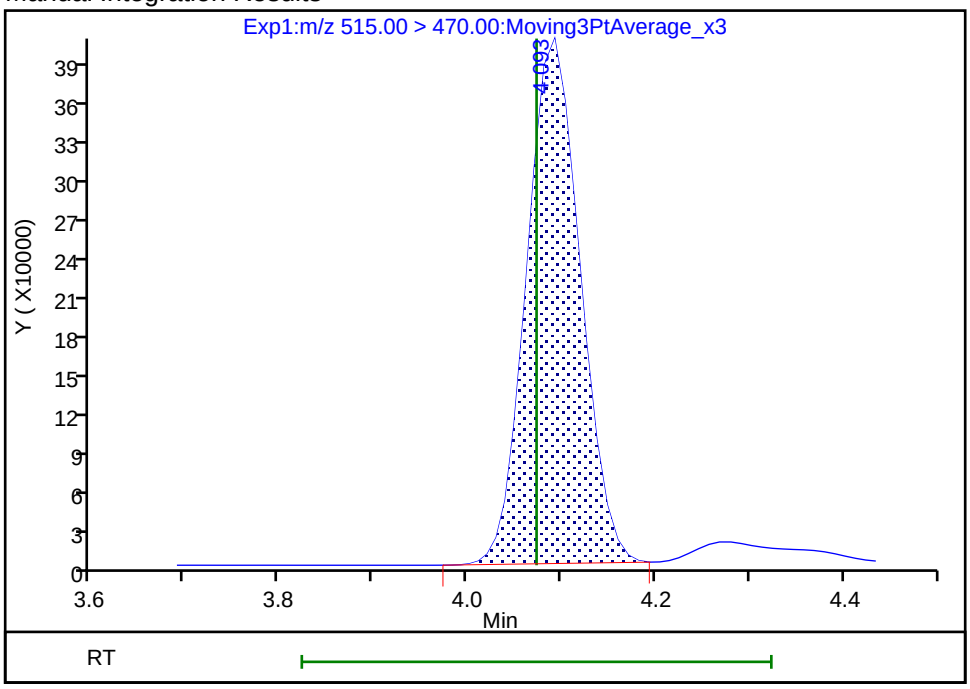
Processing Integration Results

RT: 4.09
Area: 1611248
Amount: 1.135870
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1595138
Amount: 1.124514
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:02:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

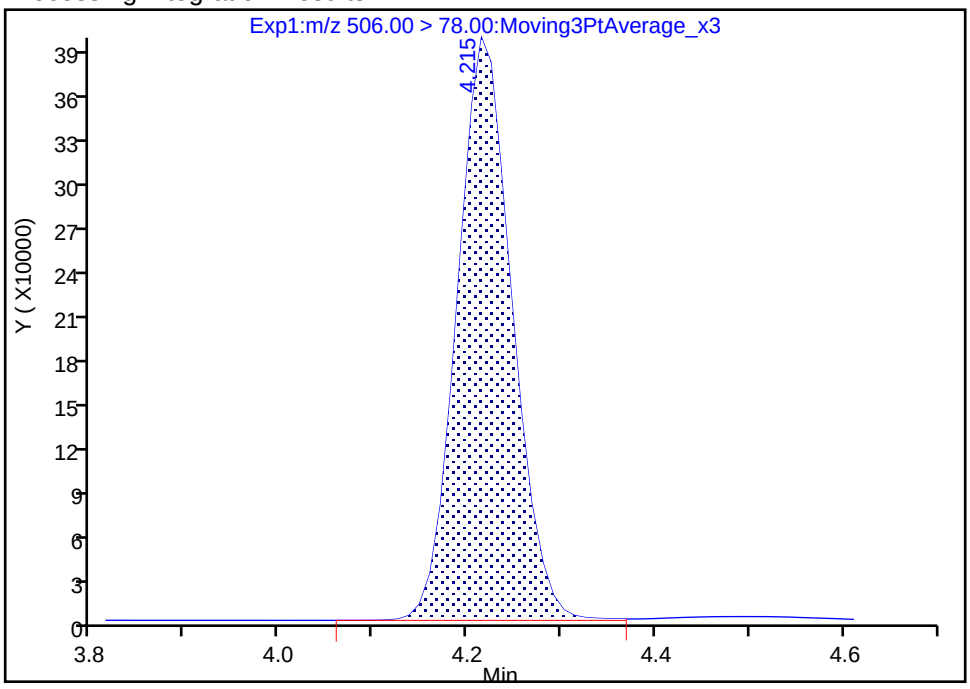
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

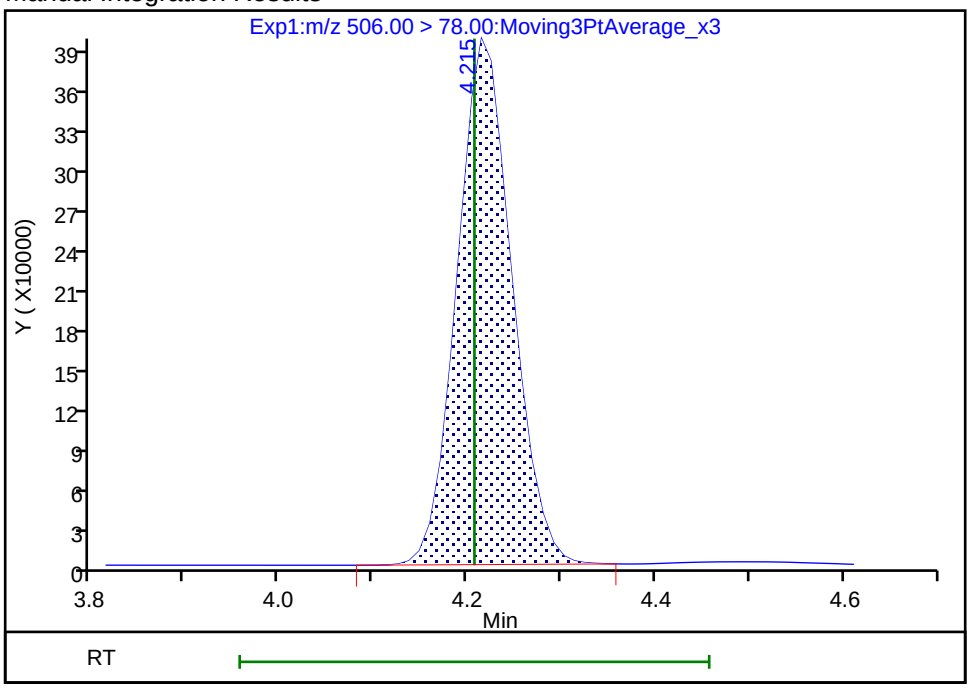
Processing Integration Results

RT: 4.21
Area: 1583951
Amount: 1.157676
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1575029
Amount: 1.151155
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:02:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

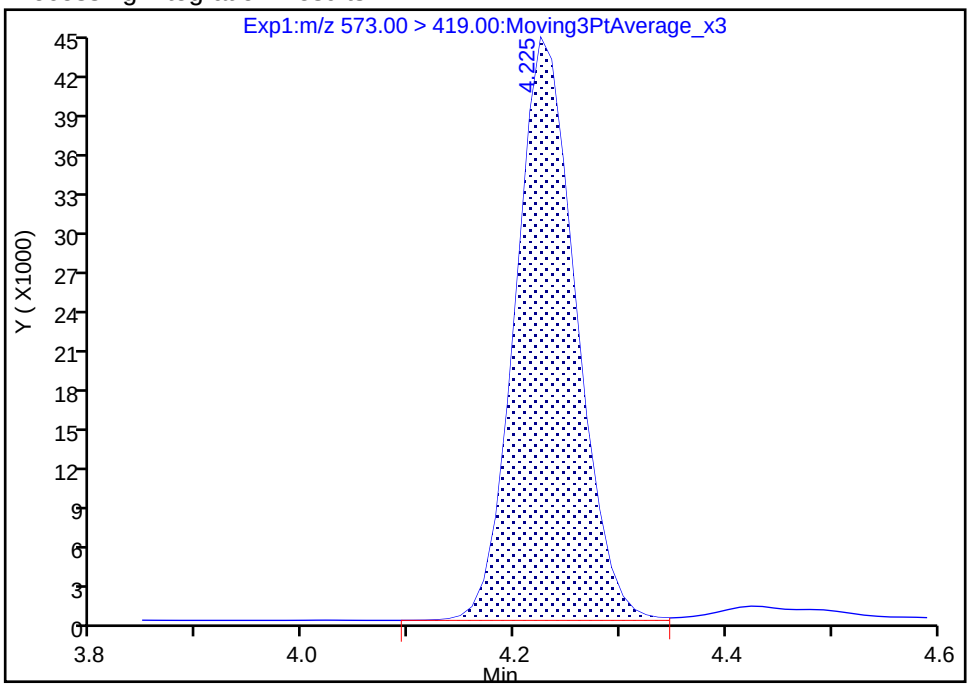
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

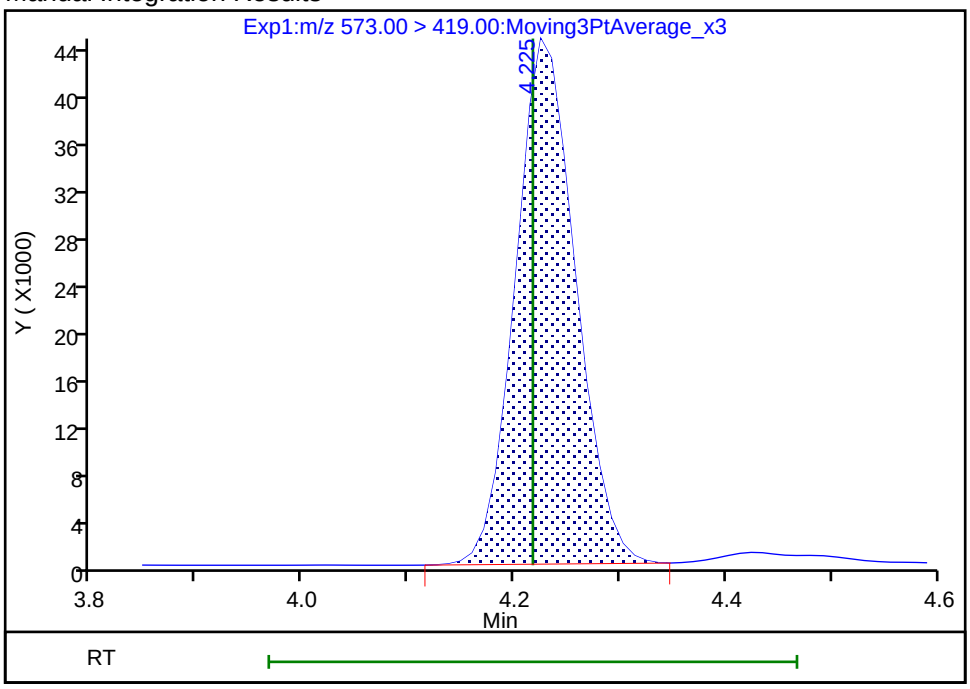
Processing Integration Results

RT: 4.22
Area: 175794
Amount: 1.259911
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 174441
Amount: 1.250214
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:02:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

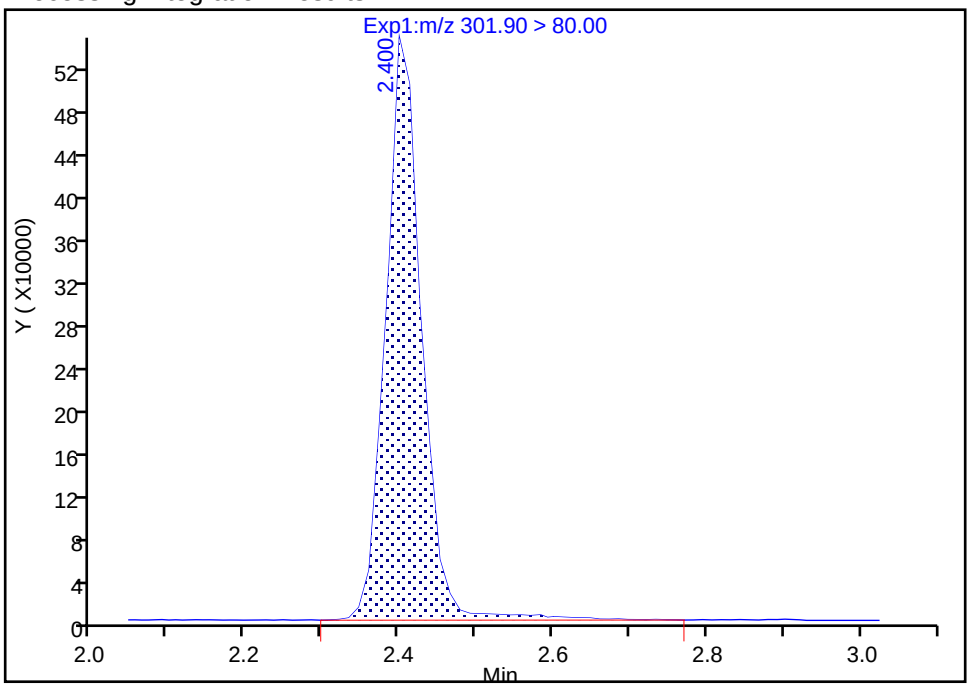
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

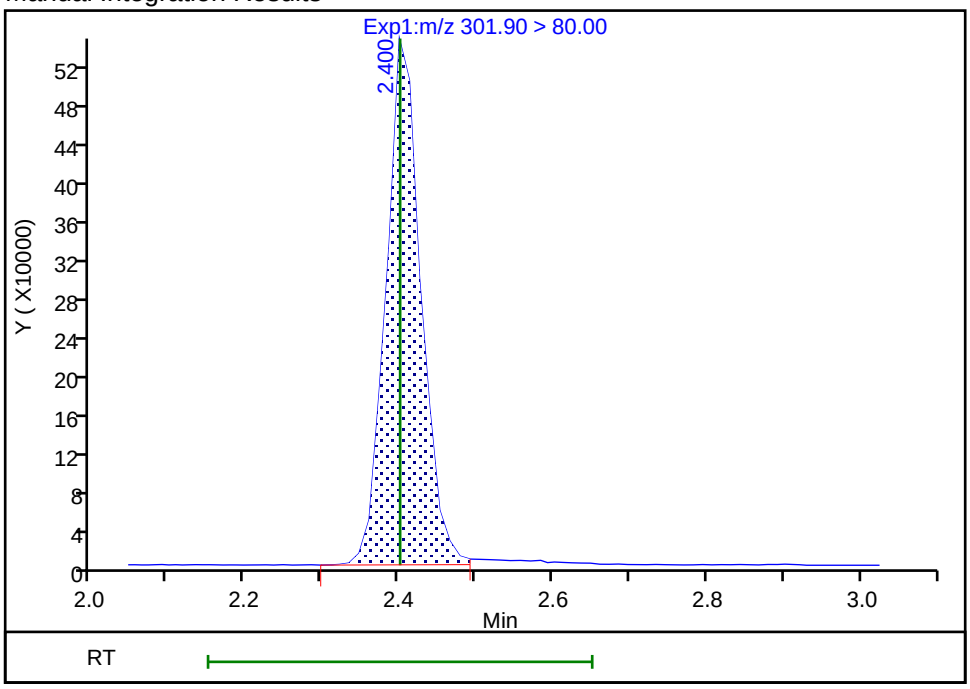
Processing Integration Results

RT: 2.40
Area: 1772422
Amount: 1.114883
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1727468
Amount: 1.091699
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:10:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

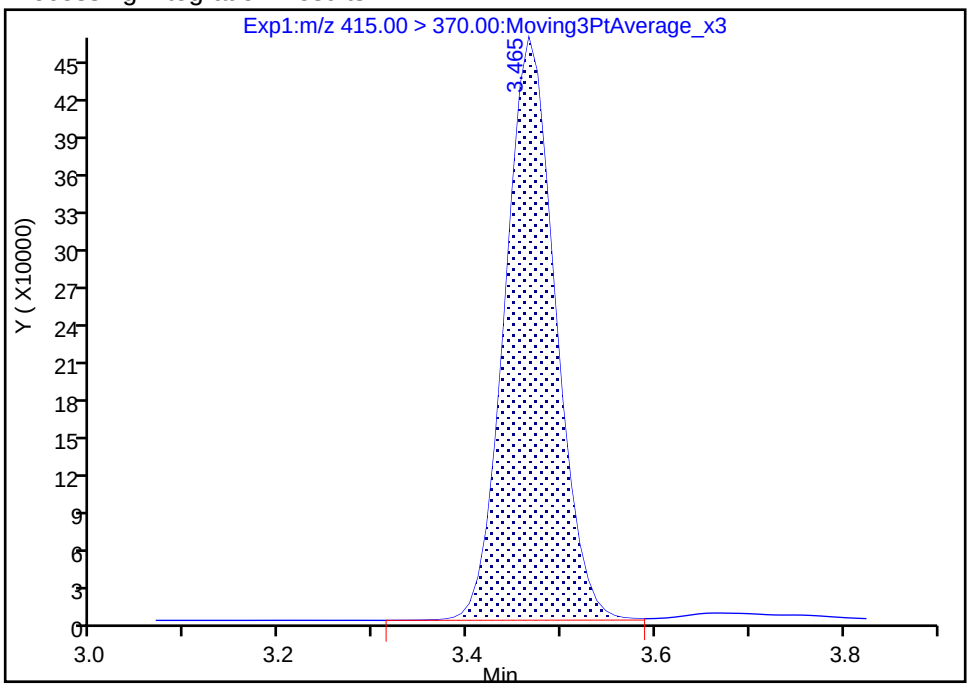
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A20.d | | | | |
| Injection Date: | 03-Nov-2021 15:21:52 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-7-A | Lab Sample ID: | 200-246027-7 | | |
| Client ID: | MH-105S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

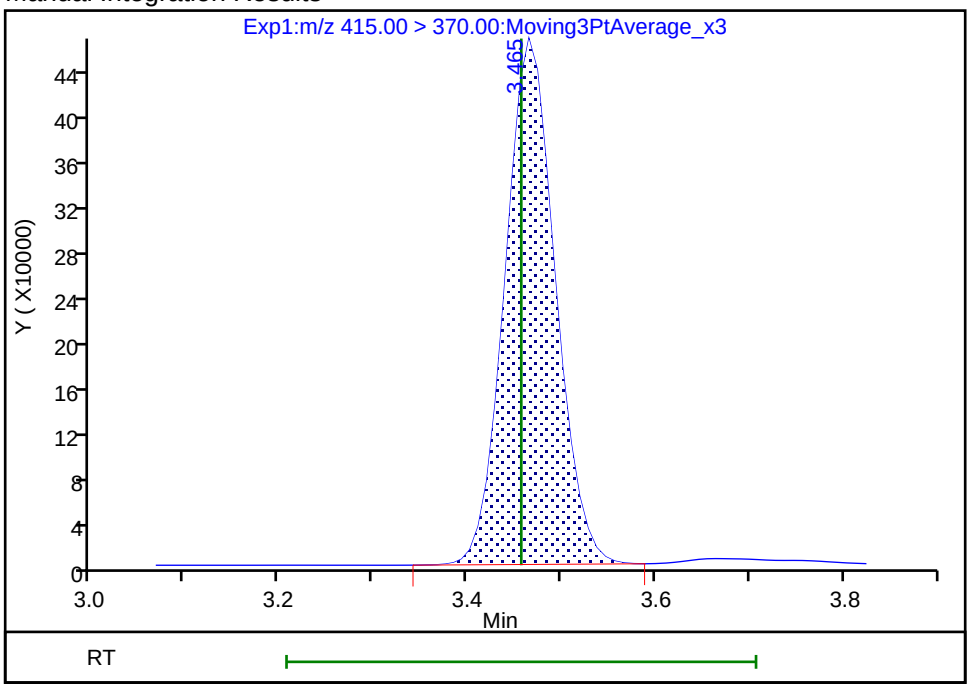
Processing Integration Results

RT: 3.47
Area: 1722312
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1714277
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:01:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105D-20211027  Lab Sample ID: 460-246027-8

Matrix: Water  Lab File ID: PA211103A21.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 11:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 240.8(mL)  Date Analyzed: 11/03/2021 15:30

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.98 | J | 5.19 | 0.93 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.62 | J | 2.08 | 0.49 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 1.43 | J | 2.08 | 0.47 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.77 | J | 2.08 | 0.25 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 2.35 | | 2.08 | 0.44 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.29 | U | 2.08 | 0.29 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.32 | U | 2.08 | 0.32 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.36 | U | 2.08 | 0.36 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.40 | U | 2.08 | 0.40 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.45 | U | 2.08 | 0.45 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.66 | U | 2.08 | 0.66 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 1.18 | J | 2.08 | 0.26 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 1.61 | J | 2.08 | 0.31 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.24 | U | 2.08 | 0.24 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 1.29 | J I | 2.08 | 0.30 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.32 | U | 2.08 | 0.32 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.60 | U | 2.08 | 0.60 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.94 | U | 5.19 | 0.94 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.77 | U | 5.19 | 0.77 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.14 | U | 5.19 | 1.14 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.40 | U | 2.08 | 0.40 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-105D-20211027  Lab Sample ID: 460-246027-8

Matrix: Water  Lab File ID: PA211103A21.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 11:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 240.8(mL)  Date Analyzed: 11/03/2021 15:30

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 102 | | 50-150 |
| STL00995 | 13C5 PFNA | 107 | | 50-150 |
| STL00992 | 13C4 PFBA | 101 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 98 | | 50-150 |
| STL00997 | 13C2 PFUnA | 95 | | 50-150 |
| STL00998 | 13C2 PFDoA | 92 | | 50-150 |
| STL01056 | 13C8 FOSA | 98 | | 25-150 |
| STL01893 | 13C5 PFPeA | 101 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 92 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 110 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 106 | | 50-150 |
| STL02279 | M2-6:2 FTS | 105 | | 25-150 |
| STL02280 | M2-8:2 FTS | 109 | | 25-150 |
| STL02337 | 13C3 PFBS | 102 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d
Lims ID: 460-246027-A-8-A
Client ID: MH-105D-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:30:08 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-8-A
Misc. Info.: 200-0048270-021 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:20:07
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.071 | 2.065 | 0.006 | 0.598 | 1702889 | 1.26 | | 101 | 8724 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.071 | 2.065 | 0.006 | 1.000 | 123584 | 0.0959 | | | 13.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.688 | 1433707 | 1.26 | | 101 | 2134 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 44697 | 0.0389 | | | 1.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.411 | 2.401 | 0.010 | 0.696 | 1814328 | 1.18 | | 102 | 54451 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.411 | 2.401 | 0.010 | 1.000 | 47230 | 0.0283 | Target=2.32 | | 4.7 | |
| 298.90 > 99.00 | 2.411 | 2.401 | 0.010 | 1.000 | 21519 | | 2.19(1.16-3.48) | | 6.2 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.744 | 2.735 | 0.009 | 1.000 | 41140 | 0.0345 | Target=12.09 | | 3.9 | |
| 313.00 > 119.00 | 2.744 | 2.735 | 0.009 | 1.000 | 4191 | | 9.82(6.04-18.13) | | 5.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.744 | 2.735 | 0.009 | 0.792 | 1471671 | 1.24 | | 98.8 | 1297 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1290755 | 1.16 | | 97.8 | 277 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 46474 | 0.0387 | Target=3.55 | | 9.5 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 13543 | | 3.43(1.77-5.32) | | 7.3 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 23340 | 0.0186 | Target=3.69 | | 3.3 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 7516 | | 3.11(1.84-5.53) | | 6.0 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1515625 | 1.21 | | 96.7 | 1833 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.448 | 0.017 | 1.003 | 185 | 0.000790 | | | 0.3 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | RM |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 460 | 0.000447 | Target=4.88 | | 0.3 | RM |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 264 | | 1.74(2.44-7.32) | | 0.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 219177 | 1.25 | | 105 | 396 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1645504 | 1.20 | | 96.1 | 1001 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1664596 | 1.25 | | | 286 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 79180 | 0.0566 | Target=2.68 | | 7.2 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 34492 | | 2.30(1.34-4.02) | | 16.4 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 987432 | 1.22 | | 102 | 434 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | RM |
| 499.00 > 80.00 | 3.664 | 3.767 | -0.103 | 0.970 | 27788 | 0.0310 | Target=4.69 | | 5.9 | RM |
| 499.00 > 99.00 | 3.673 | 3.767 | -0.094 | 0.973 | 3313 | | 8.39(2.35-7.04) | | 1.9 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.795 | 3.786 | 0.009 | 1.095 | 1831476 | 1.34 | | 107 | 2424 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.795 | 3.786 | 0.009 | 1.000 | 1679 | 0.001171 | Target=7.29 | | 0.3 | M |
| 463.00 > 169.00 | 3.795 | 3.786 | 0.009 | 1.000 | 194 | | 8.65(3.64-10.93) | | 0.5 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1695636 | 1.23 | | 98.5 | 99.5 | M |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.082 | 4.073 | 0.009 | 0.997 | 574 | 0.000421 | Target=8.95 | | 0.2 | RM |
| 513.00 > 169.00 | 4.071 | 4.073 | -0.002 | 0.995 | 258 | | 2.22(4.47-13.42) | | 0.7 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.104 | 4.084 | 0.020 | 1.184 | 259601 | 1.30 | | 109 | 157 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1632714 | 1.23 | | 98.3 | 614 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 3478 | 0.002804 | | | 3.6 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 185601 | 1.37 | | 110 | 170 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.000 | 167 | 0.001432 | | | 0.3 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.325 | 4.306 | 0.019 | 1.145 | 214 | 0.000394 | Target=2.47 | | 0.7 | M |
| 599.00 > 99.00 | 4.314 | 4.306 | 0.008 | 1.143 | 160 | | 1.34(1.23-3.70) | | 1.0 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1270643 | 1.18 | | 94.7 | 709 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.358 | 4.339 | 0.019 | 1.003 | 994 | 0.000917 | Target=9.24 | | 0.4 | M |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 77 | | 12.91(4.62-13.86) | | 0.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 167689 | 1.32 | | 106 | 750 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.350 | 0.019 | 1.003 | 504 | 0.004384 | | | 1.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1333911 | 1.16 | | 92.4 | 262 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.580 | 4.562 | 0.018 | 1.003 | 559 | 0.000535 | Target=7.04 | | 0.1 | RM |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.000 | 51 | | 10.96(3.52-10.56) | | 0.5 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.765 | 4.761 | 0.004 | 1.043 | 882 | 0.000979 | Target=4.68 | | 0.3 | RM |
| 663.00 > 169.00 | 4.783 | 4.761 | 0.022 | 1.047 | 114 | | 7.74(2.34-7.02) | | 1.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.427 | 1035323 | 1.16 | | 92.5 | 1720 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:15:11 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d

Injection Date: 03-Nov-2021 15:30:08 Instrument ID: LC812

Lims ID: 460-246027-A-8-A Lab Sample ID: 200-246027-8

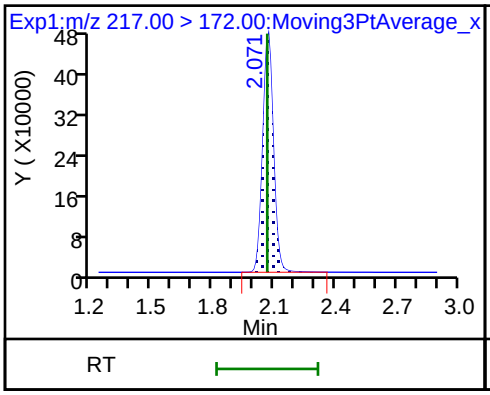
Client ID: MH-105D-20211027

Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21

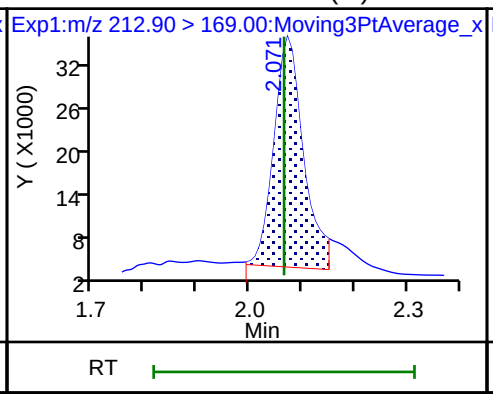
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

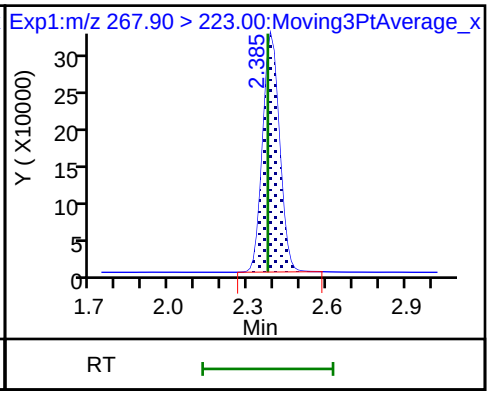
D 1 13C4 PFBA




2 Perfluorobutanoic acid (M)




D 3 13C5 PFPeA

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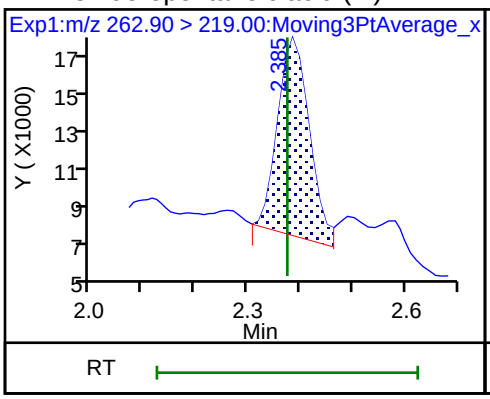
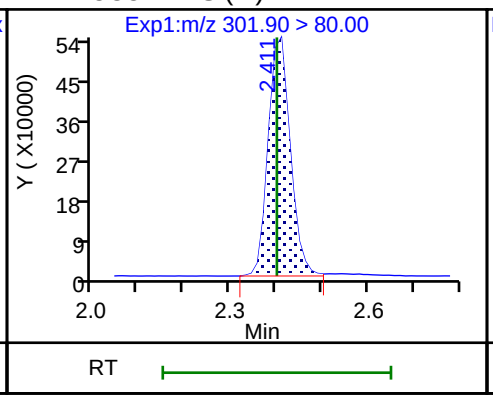
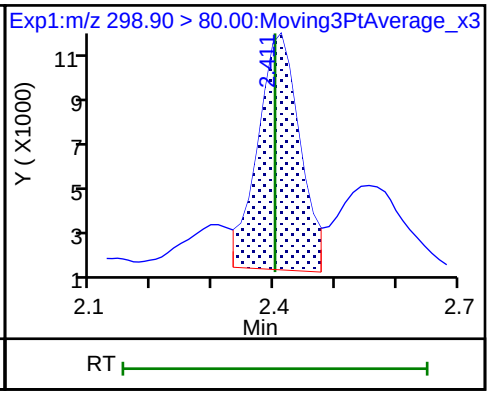



D 47 13C3 PFBS (M)




5 Perfluorobutanesulfonic acid

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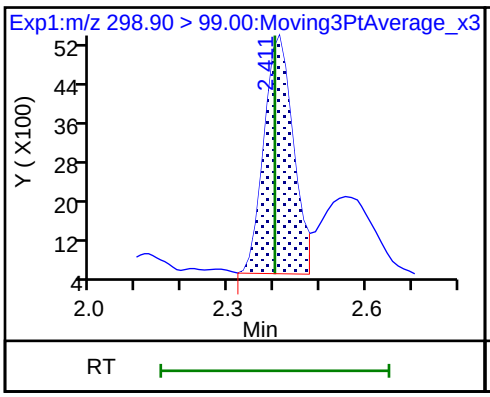
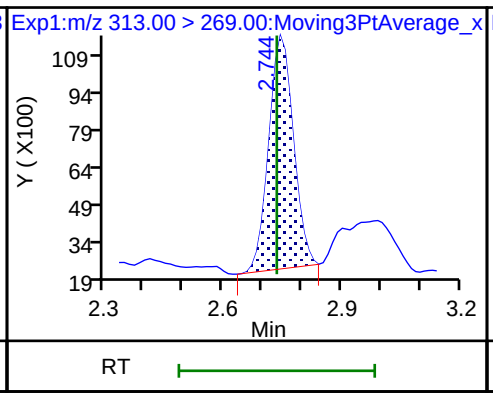
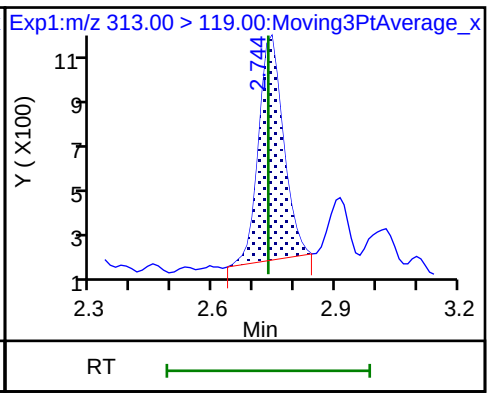


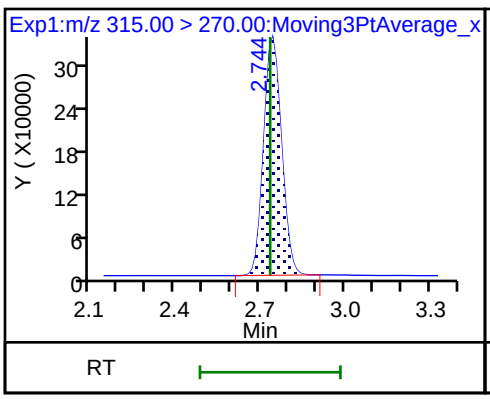

6 Perfluorohexanoic acid



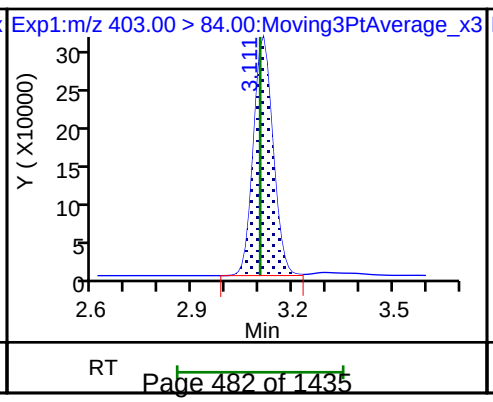

6 Perfluorohexanoic acid




D 7 13C2 PFHxA




D 11 18O2 PFHxS

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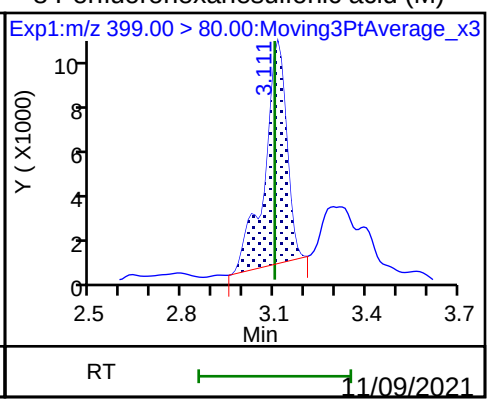
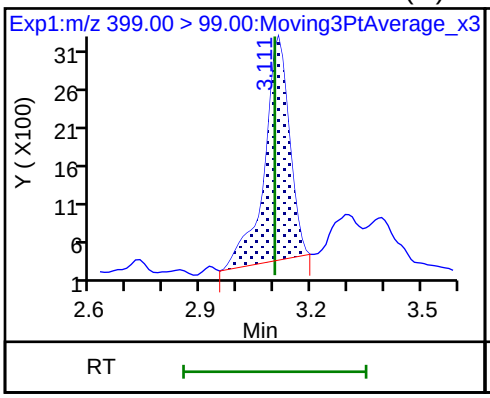
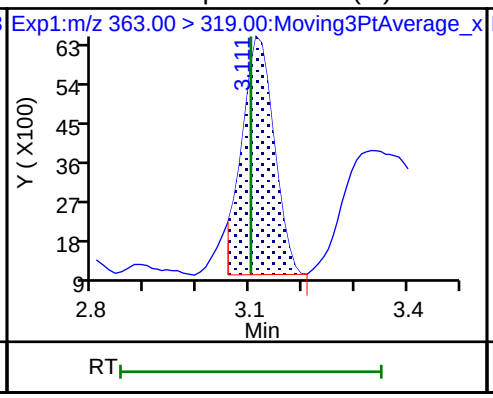


8 Perfluorohexanesulfonic acid (M)




10 Perfluoroheptanoic acid (M)

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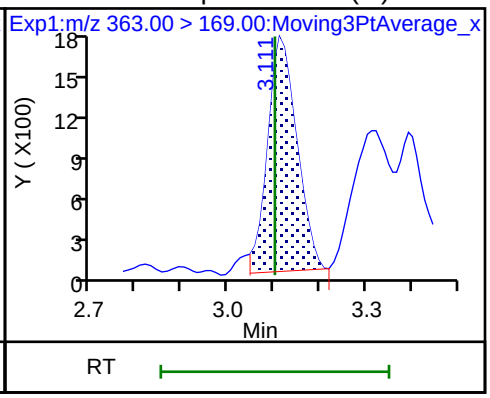
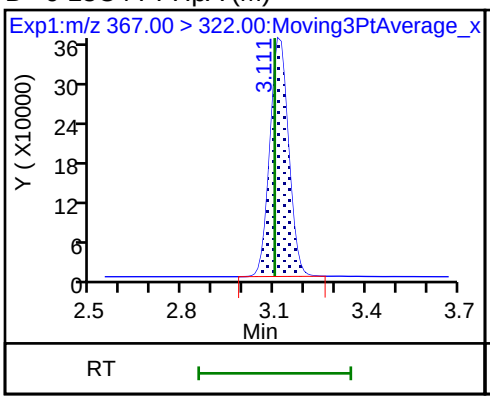
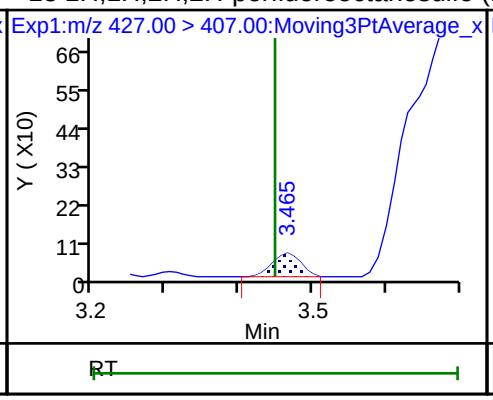


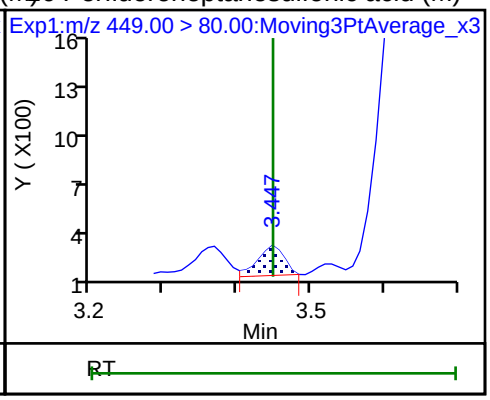

D 9 13C4 PFHpA (M)



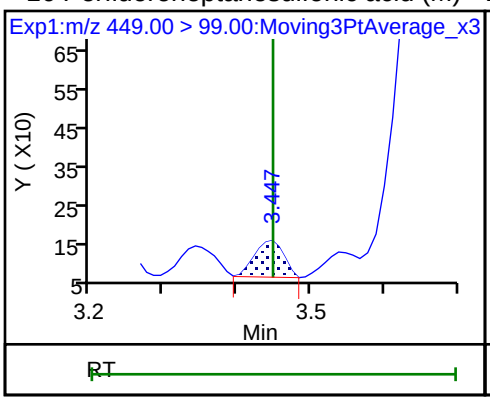

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



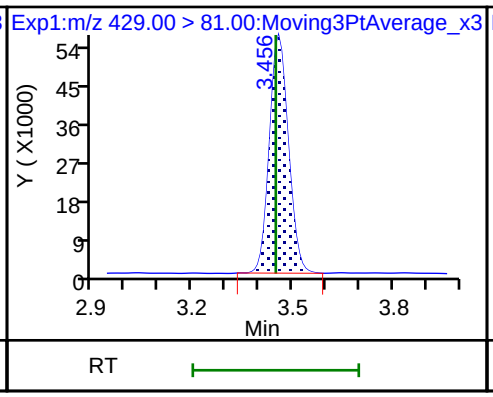

16 Perfluoroheptanesulfonic acid (M)




16 Perfluoroheptanesulfonic acid (M)




D 12 M2-6:2 FTS

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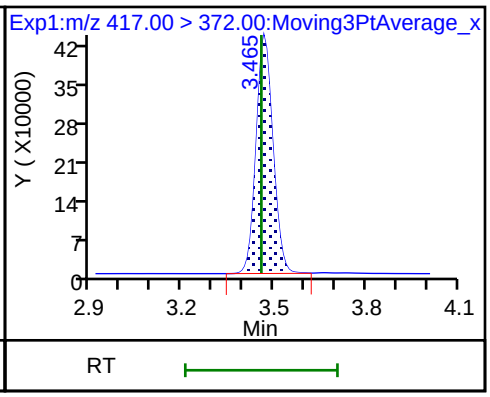
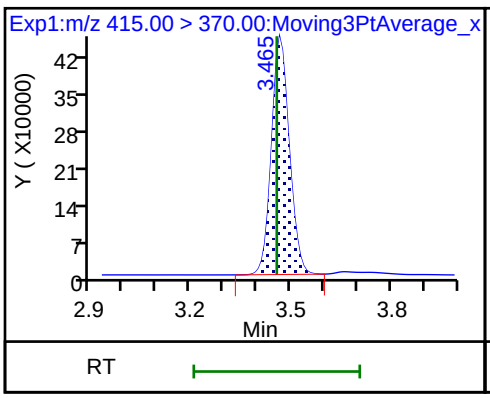
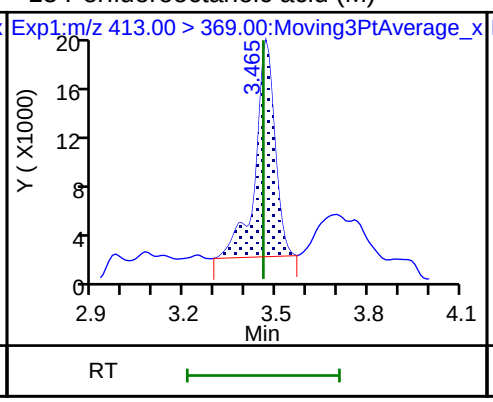


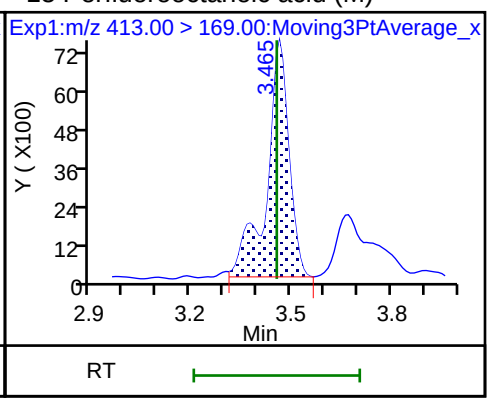

* 62 13C2 PFOA



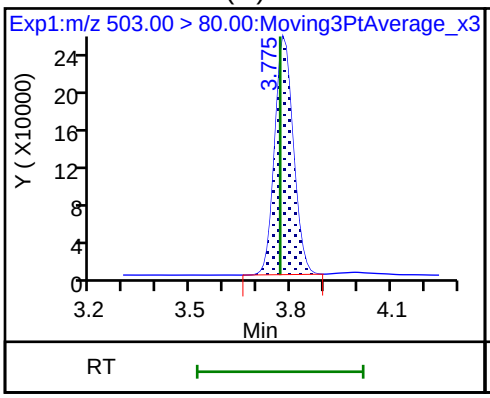

15 Perfluorooctanoic acid (M)




15 Perfluorooctanoic acid (M)



D 18 13C4 PFOS (M)

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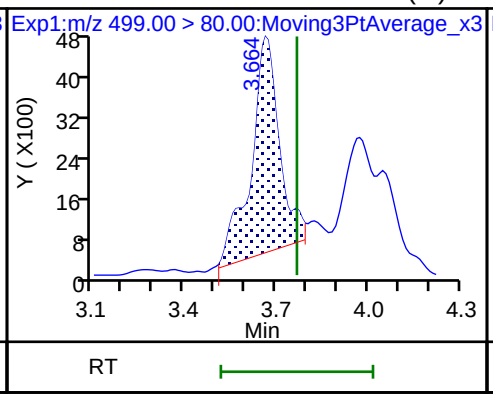


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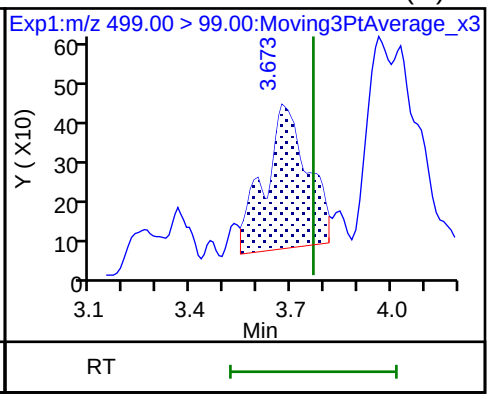


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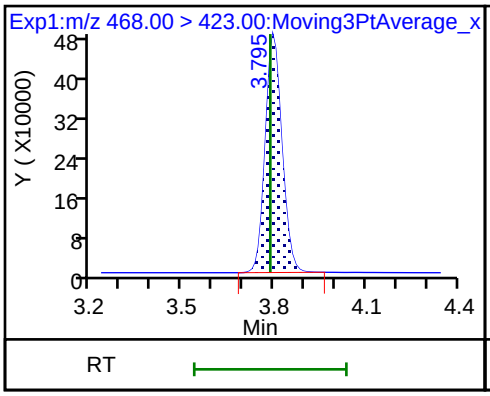


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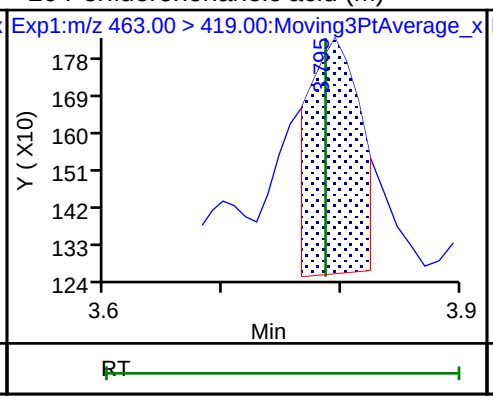


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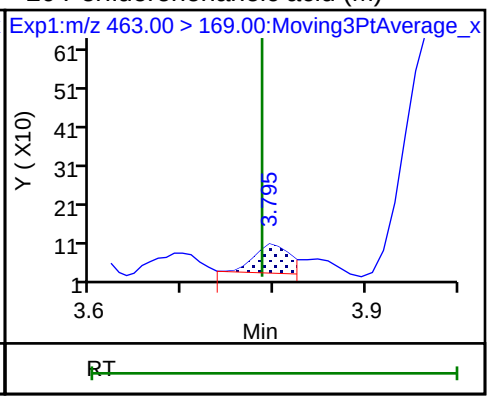
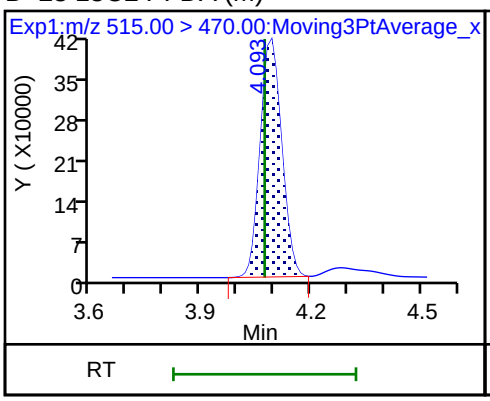
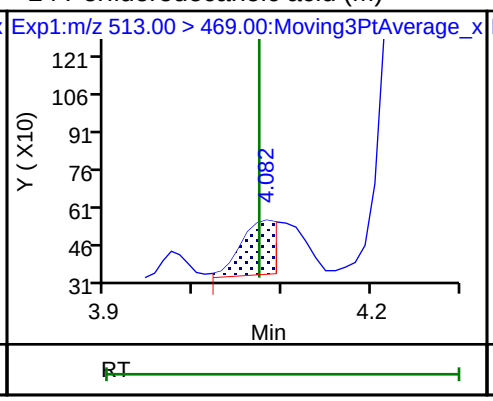


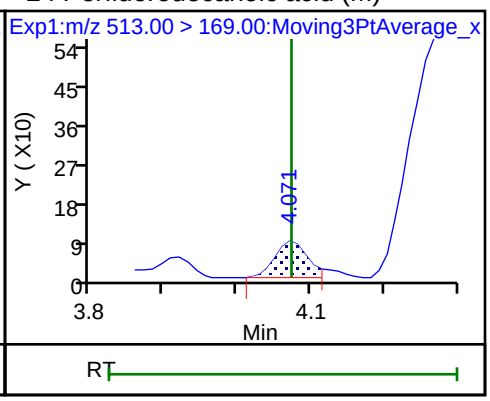

D 23 13C2 PFDA (M)



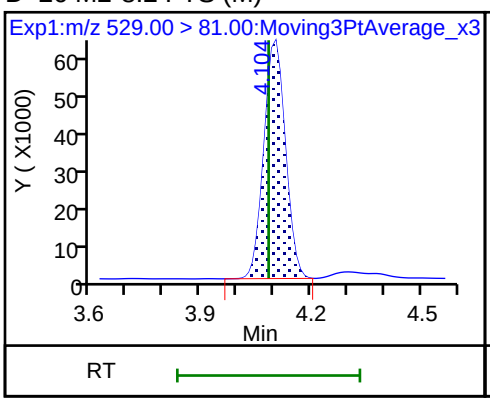

24 Perfluorodecanoic acid (M)



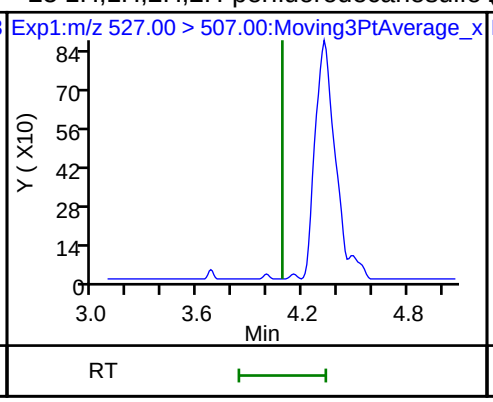

24 Perfluorodecanoic acid (M)



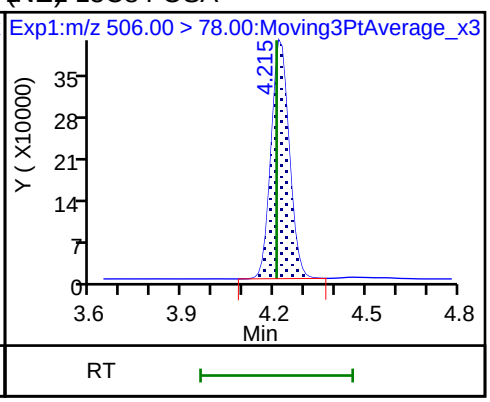

D 26 M2-8:2 FTS (M)



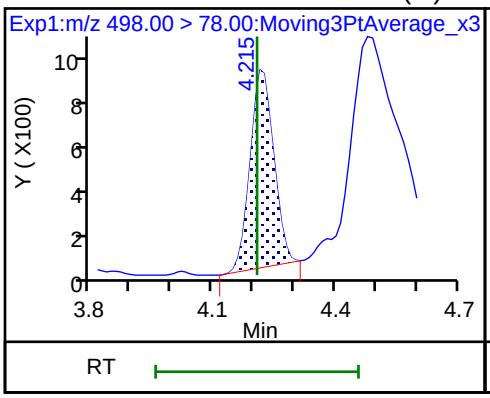

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



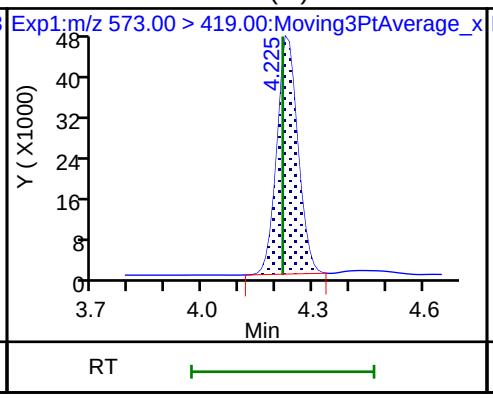

D 21 13C8 FOSA



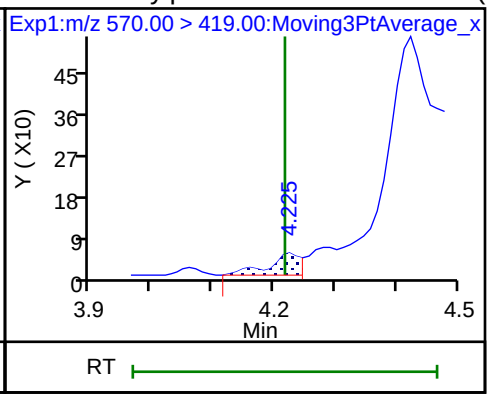
22 Perfluorooctanesulfonamide (M)




D 27 d3-NMeFOSAA (M)




28 N-methylperfluorooctanesulfonami (M)

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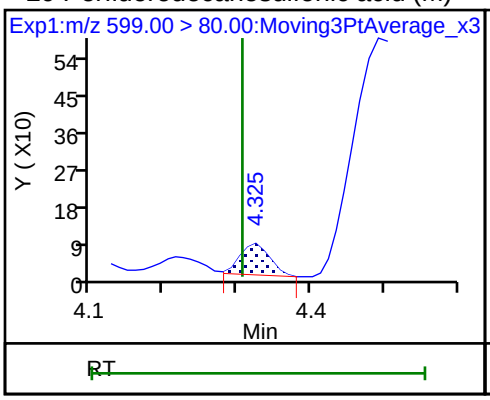


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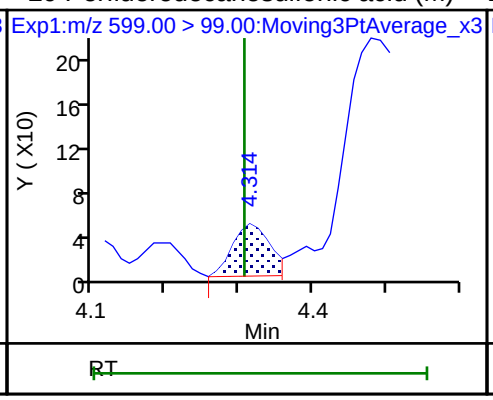
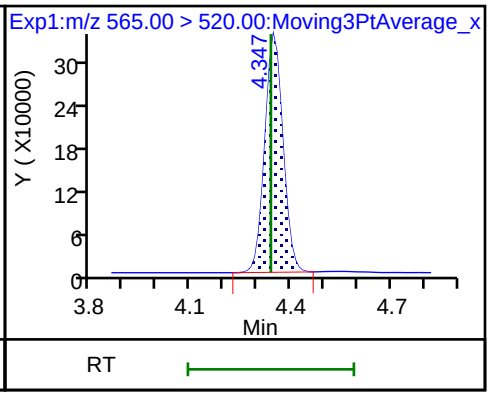
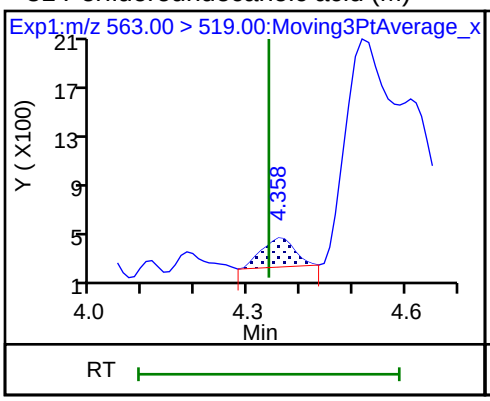


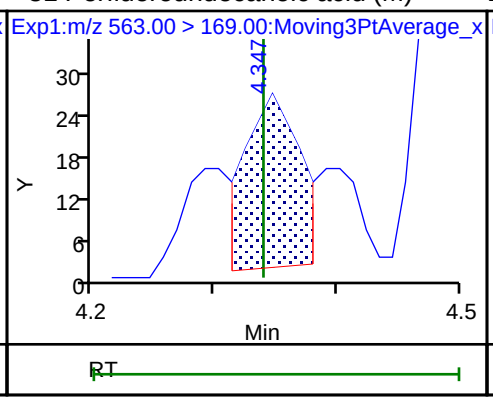

D 30 13C2 PFUnA



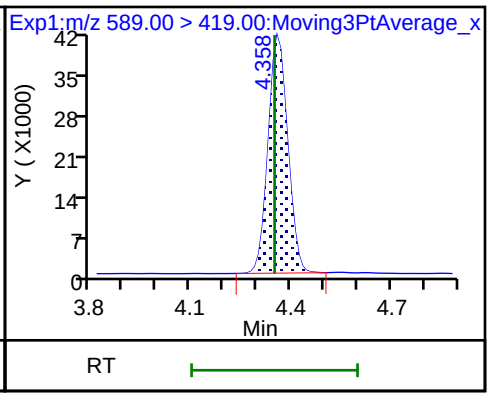

31 Perfluoroundecanoic acid (M)



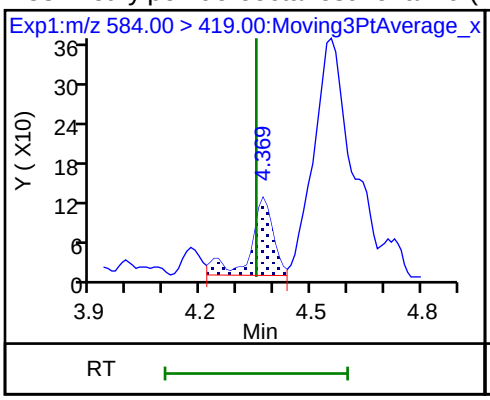

31 Perfluoroundecanoic acid (M)



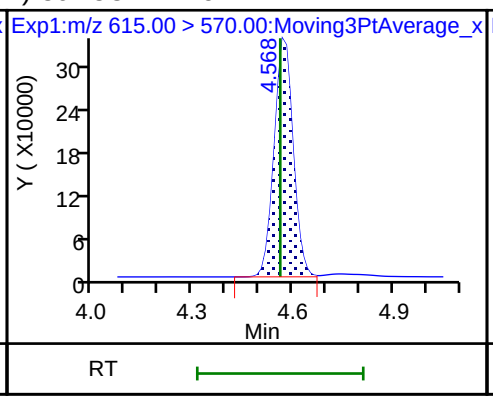

D 32 d5-NEtFOSAA



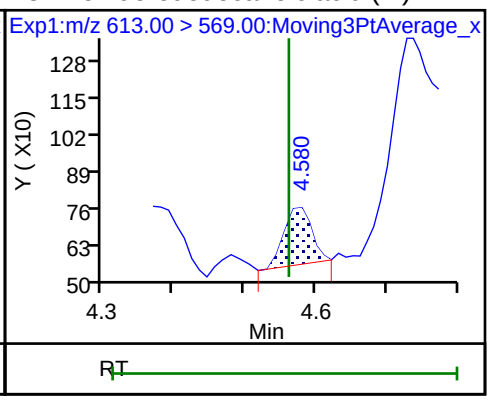

33 N-ethylperfluorooctanesulfonamid (M)



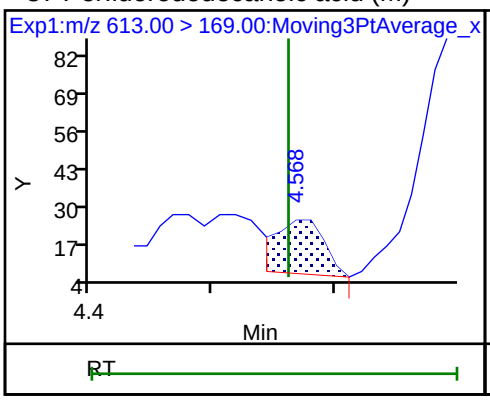

D 36 13C2 PFDoA



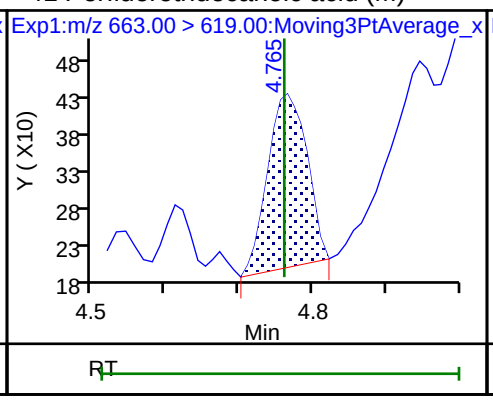

37 Perfluorododecanoic acid (M)



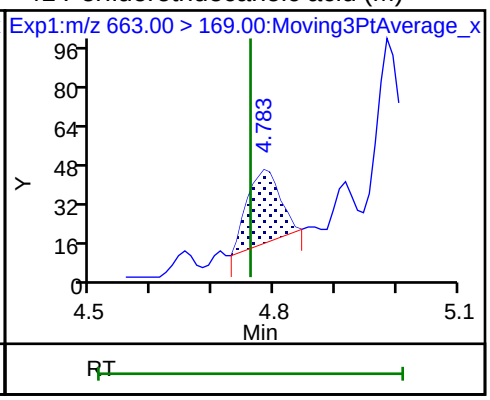
37 Perfluorododecanoic acid (M)



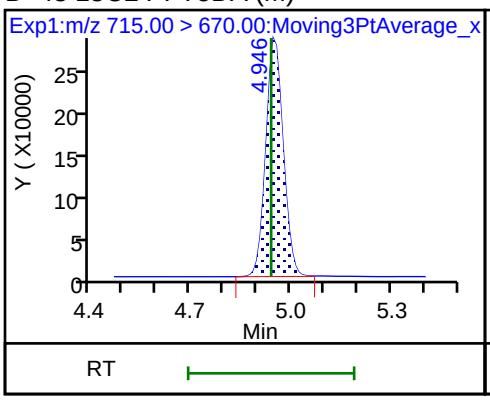

41 Perfluorotridecanoic acid (M)



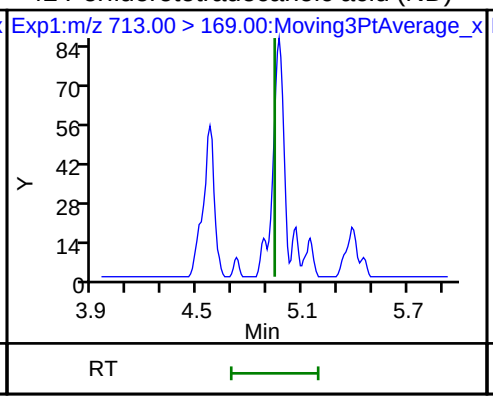

41 Perfluorotridecanoic acid (M)



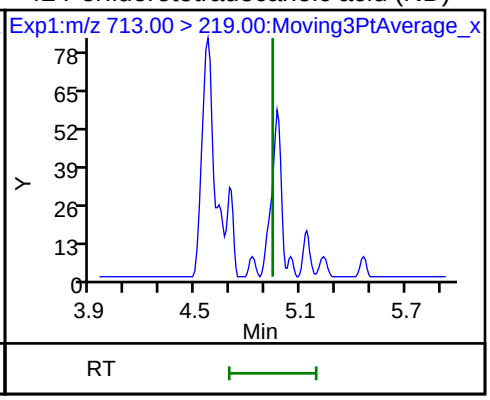

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

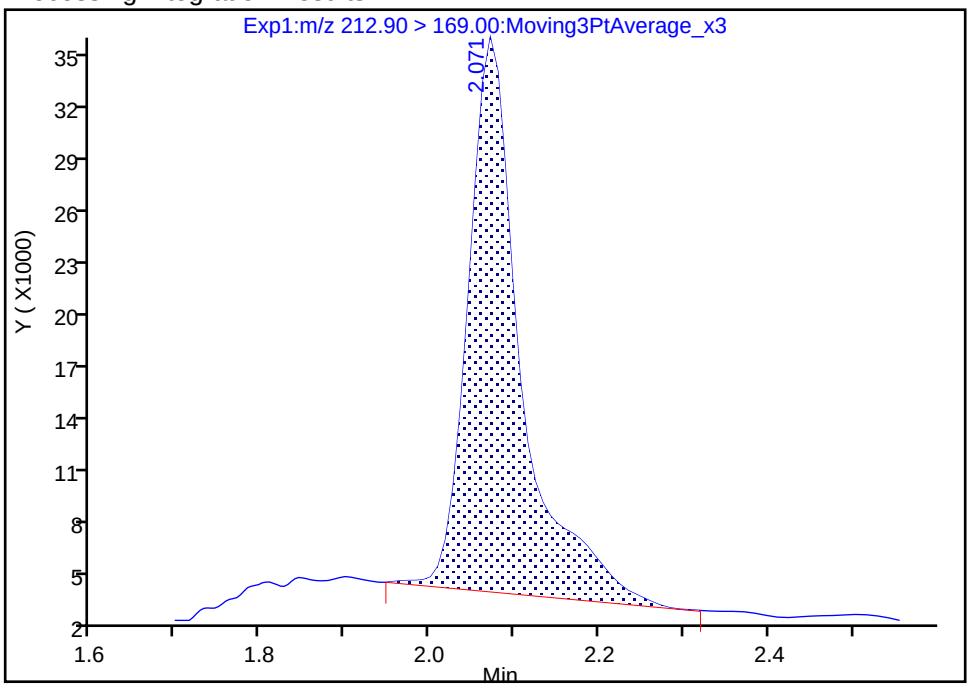
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

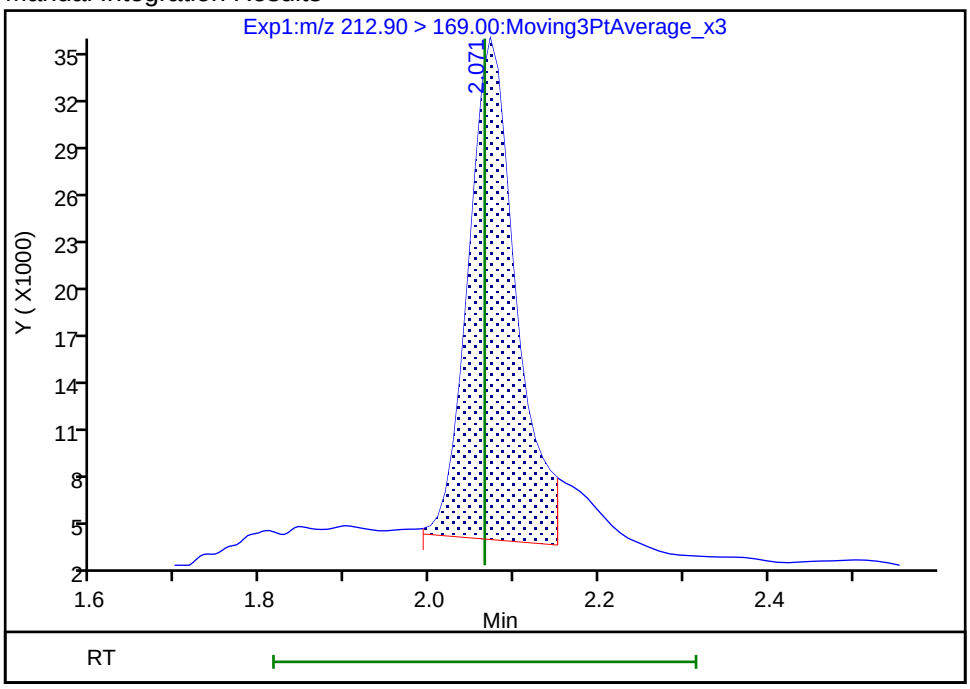
Processing Integration Results

RT: 2.07
Area: 138510
Amount: 0.107527
Amount Units: ng/ml




Manual Integration Results

RT: 2.07
Area: 123584
Amount: 0.095939
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:15:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

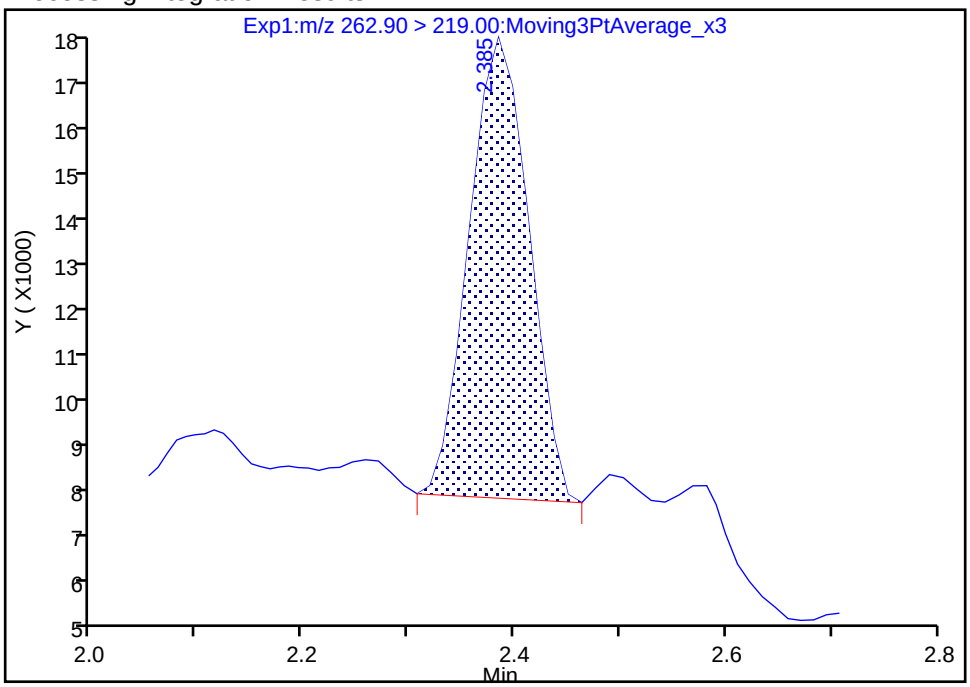
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

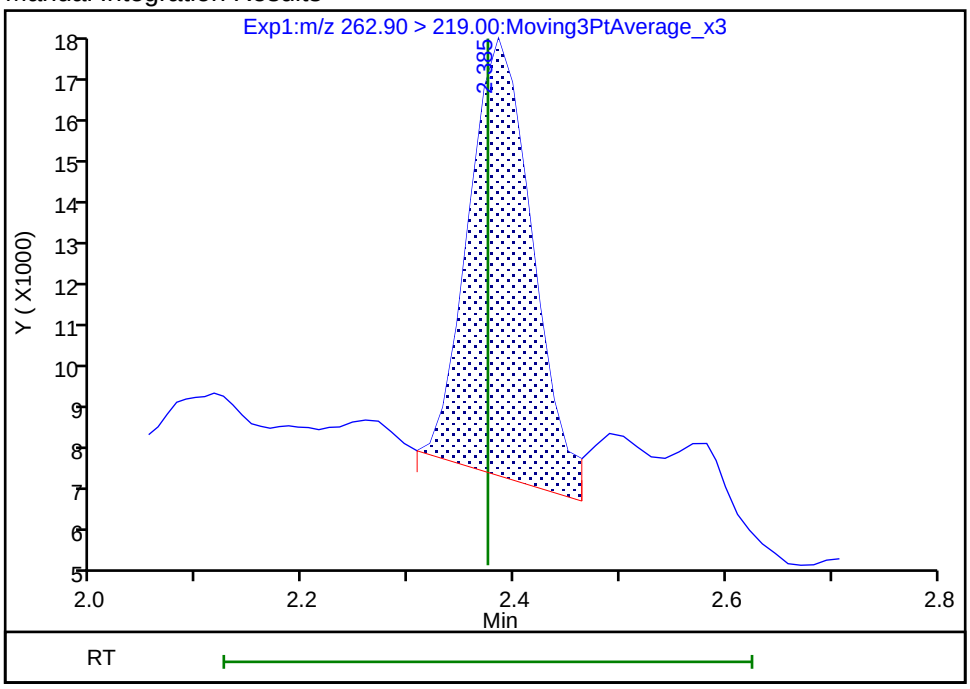
Processing Integration Results

RT: 2.38
Area: 39885
Amount: 0.034714
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 44697
Amount: 0.038903
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:15:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

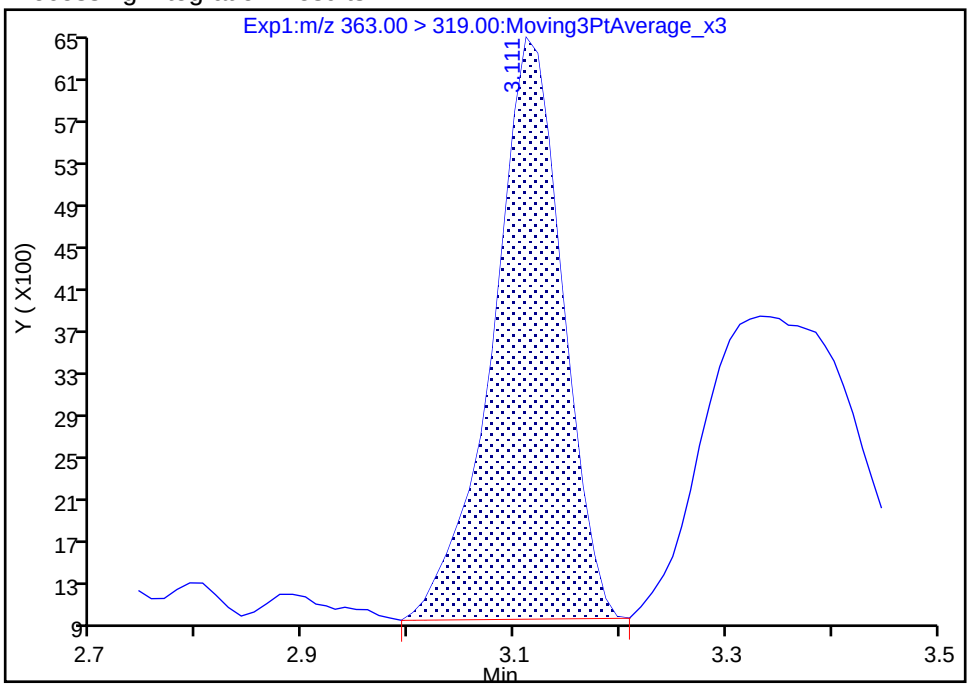
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

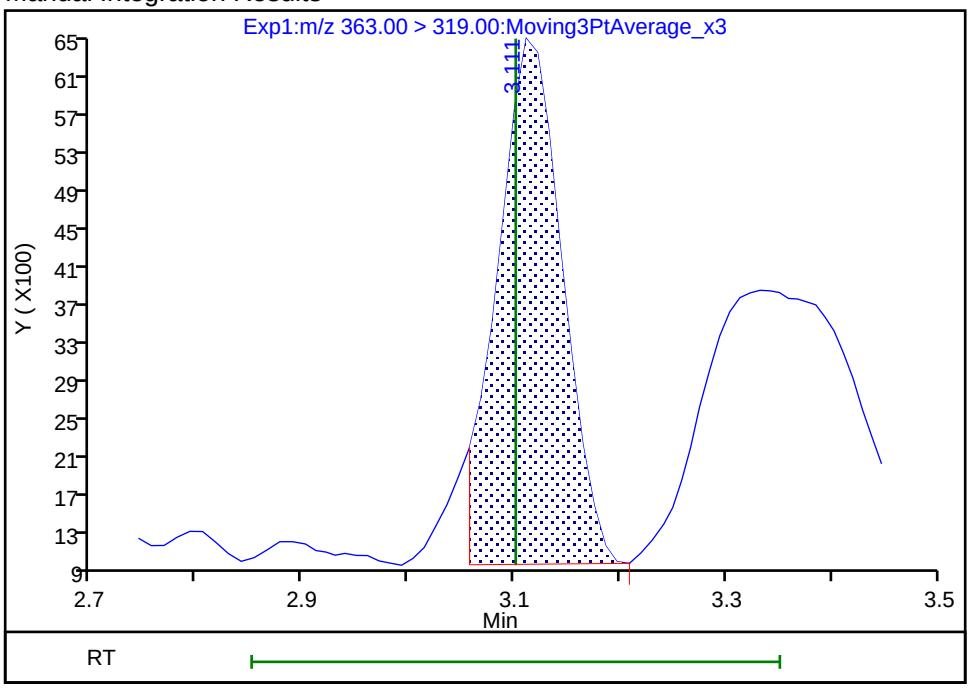
Processing Integration Results

RT: 3.11
Area: 25146
Amount: 0.020072
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 23340
Amount: 0.018631
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

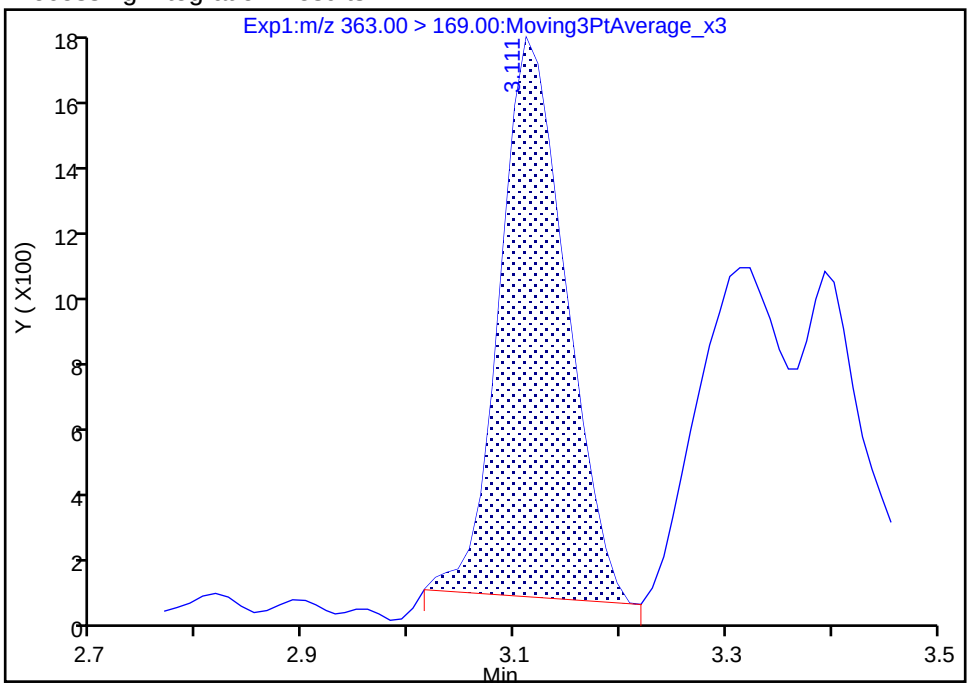
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

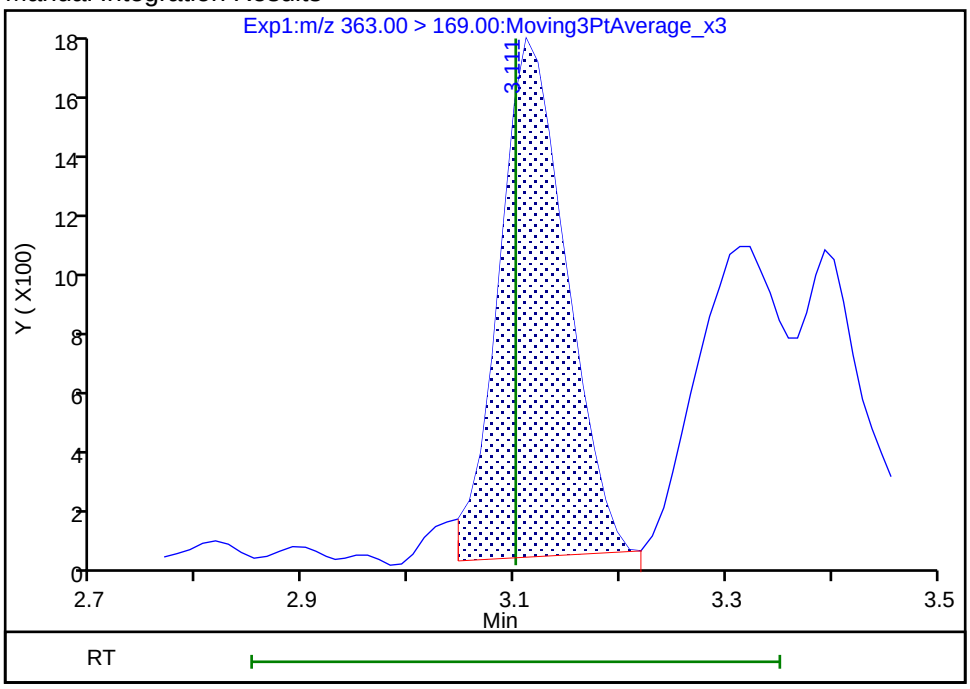
Processing Integration Results

RT: 3.11
Area: 7234
Amount: 0.020072
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 7516
Amount: 0.018631
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

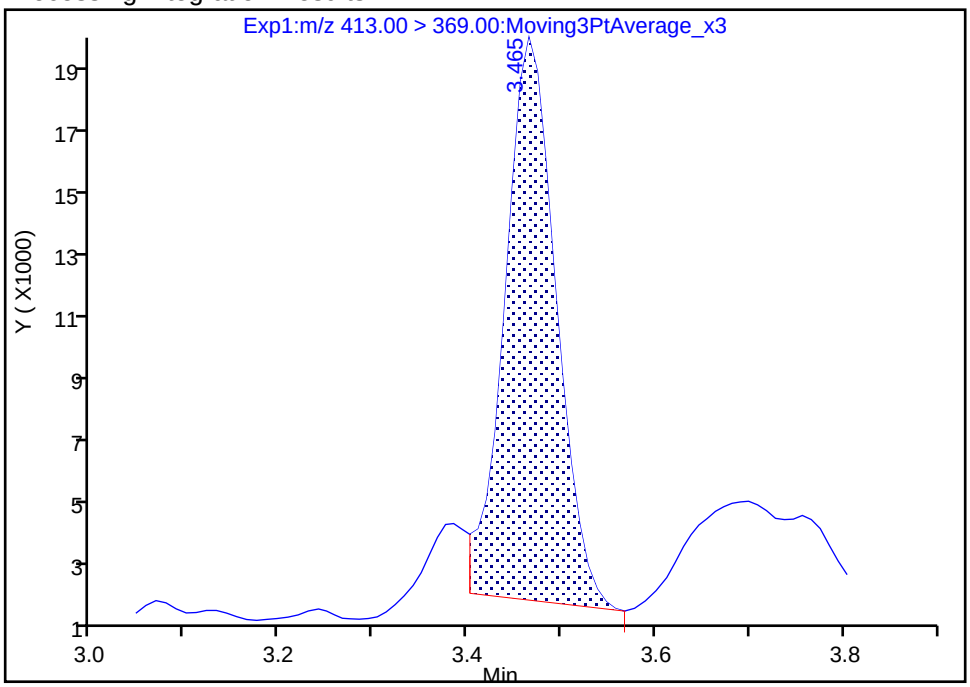
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

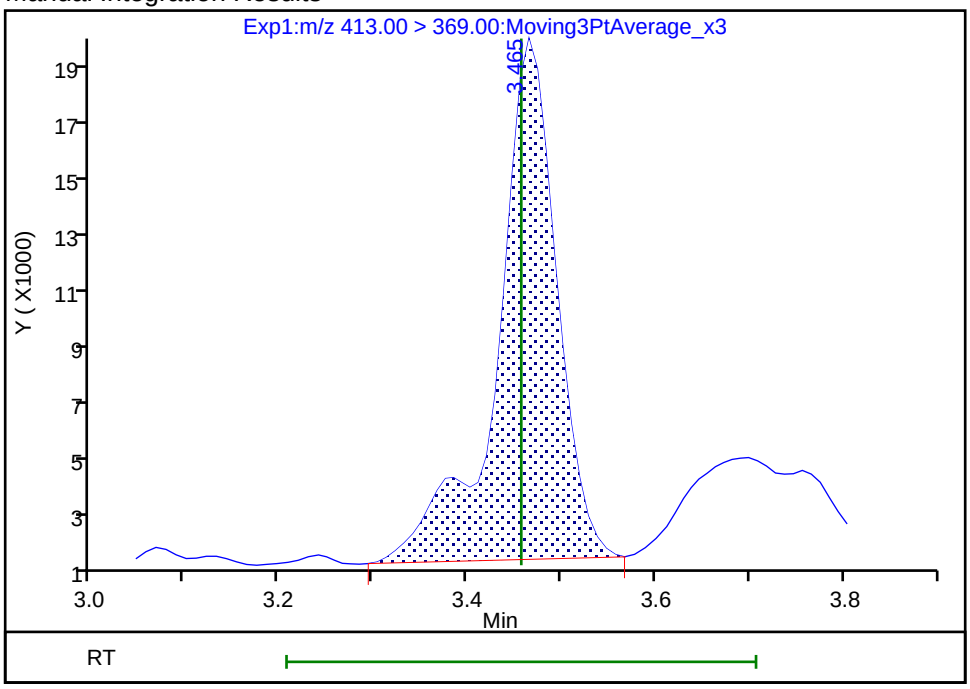
Processing Integration Results

RT: 3.47
Area: 66405
Amount: 0.047435
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 79180
Amount: 0.056561
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

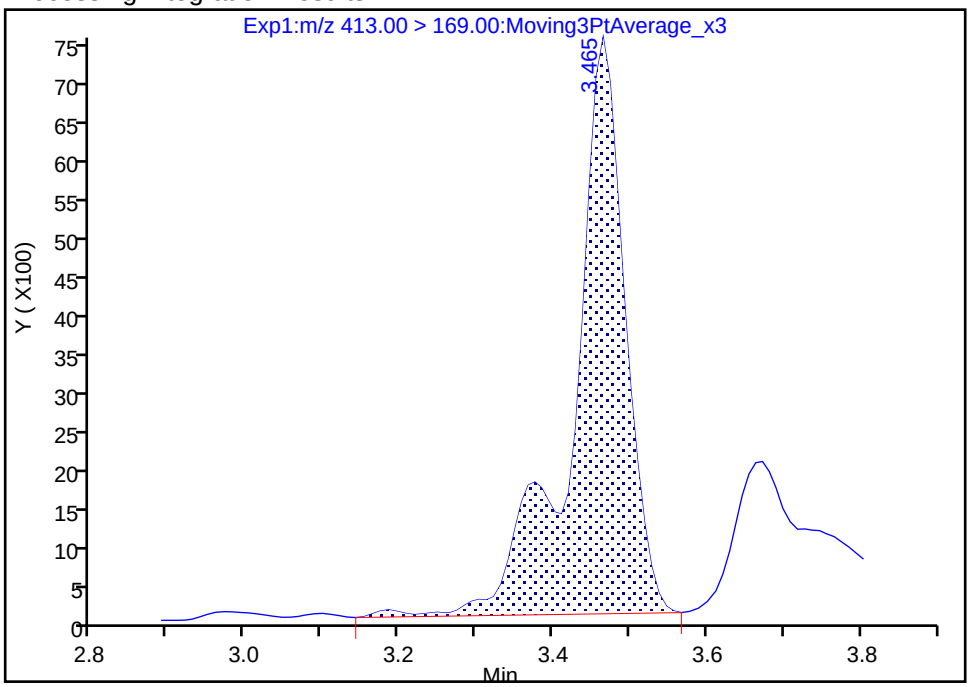
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

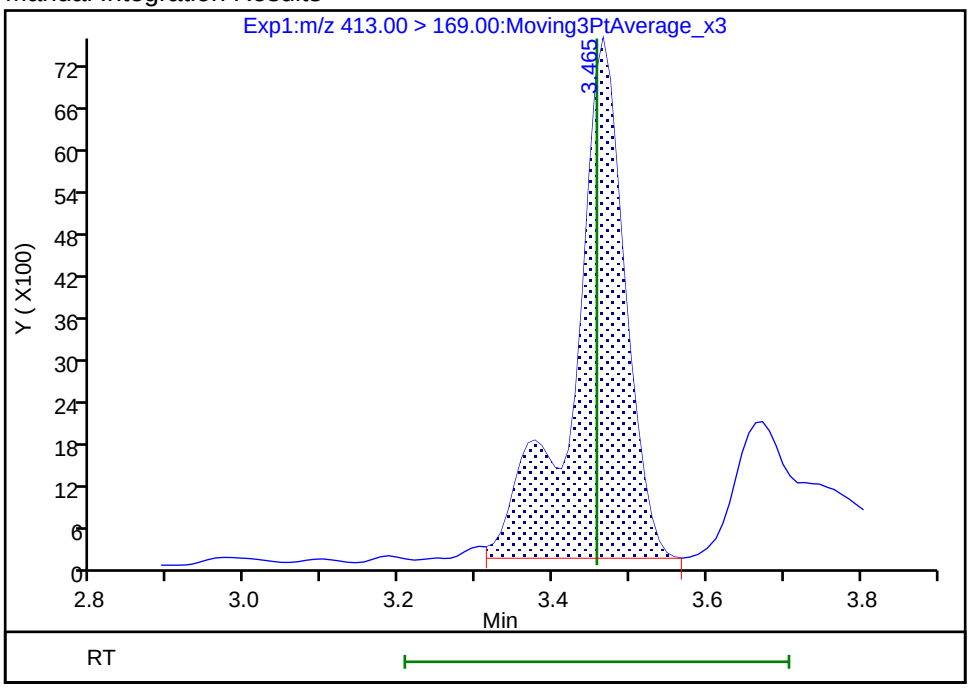
Processing Integration Results

RT: 3.47
Area: 35544
Amount: 0.047435
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 34492
Amount: 0.056561
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

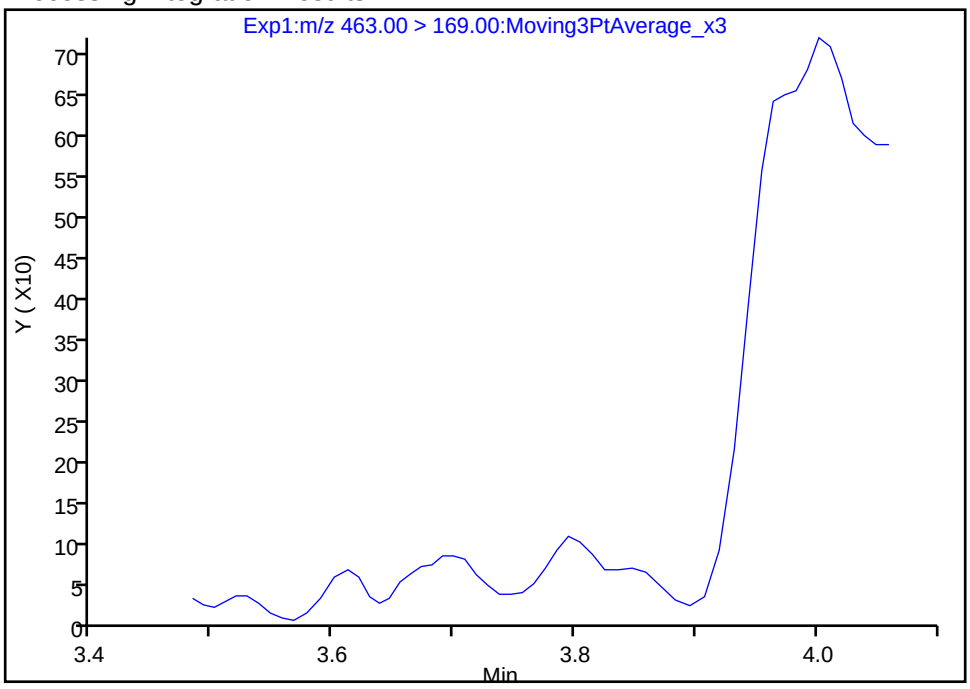
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

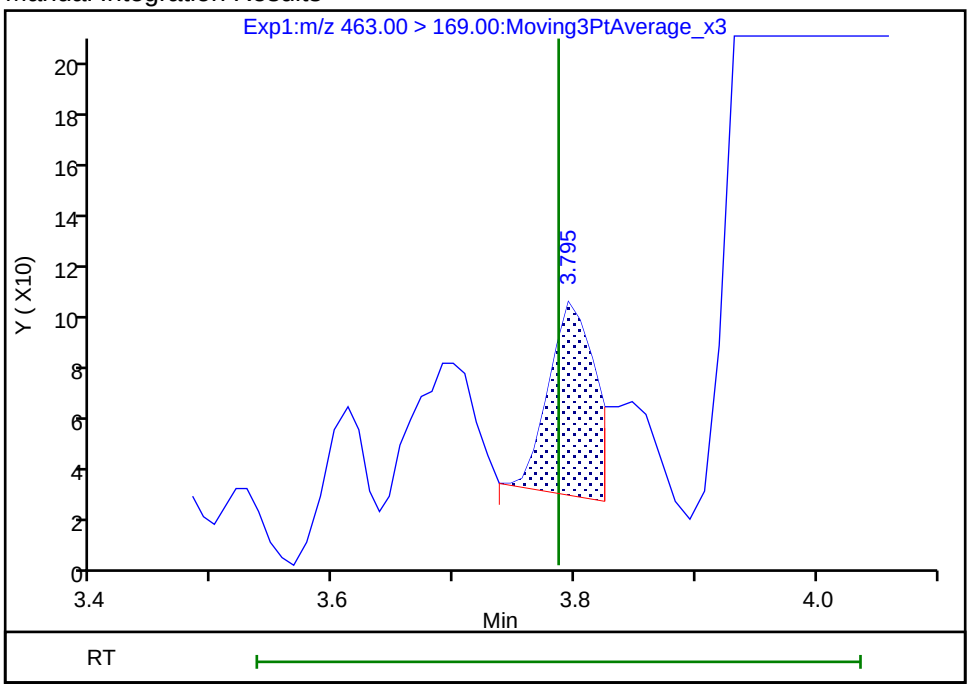
Not Detected
Expected RT: 3.79

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 194
Amount: 0.001171
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:17:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

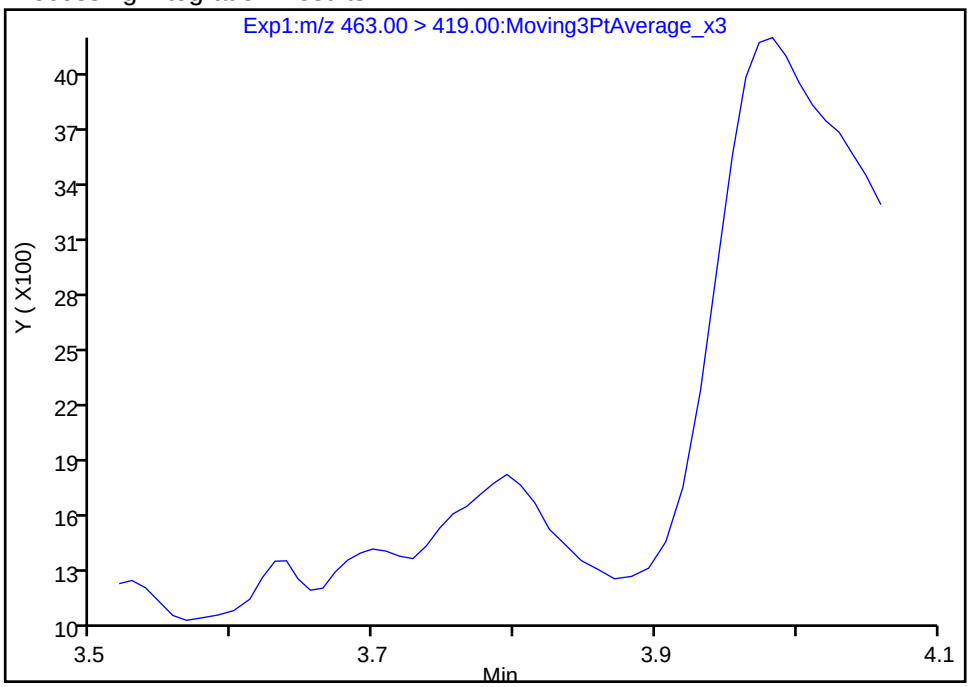
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

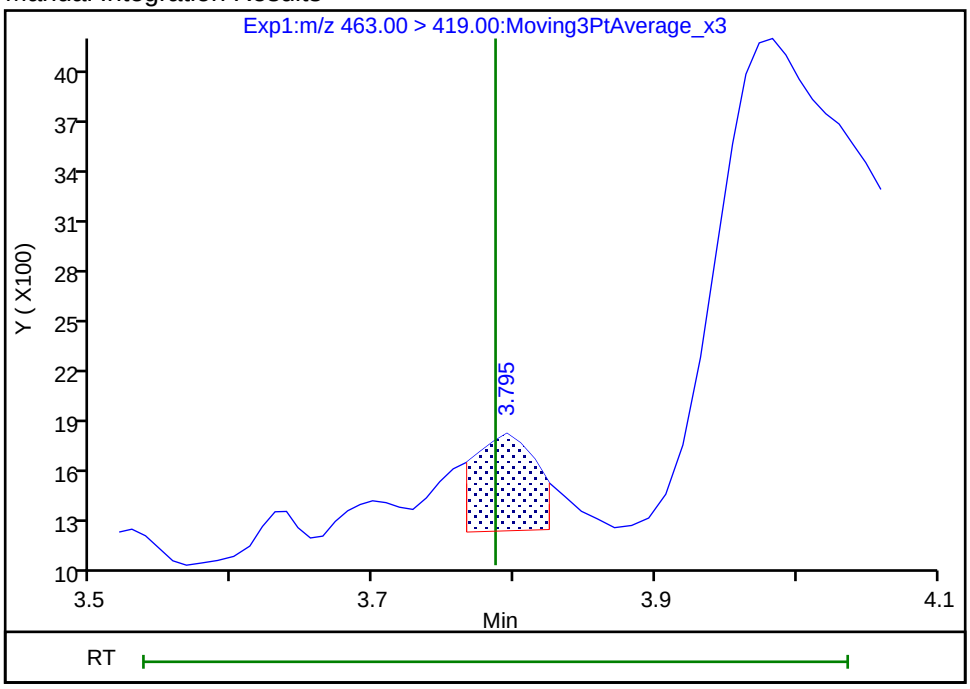
Not Detected
Expected RT: 3.79

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 1679
Amount: 0.001171
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:17:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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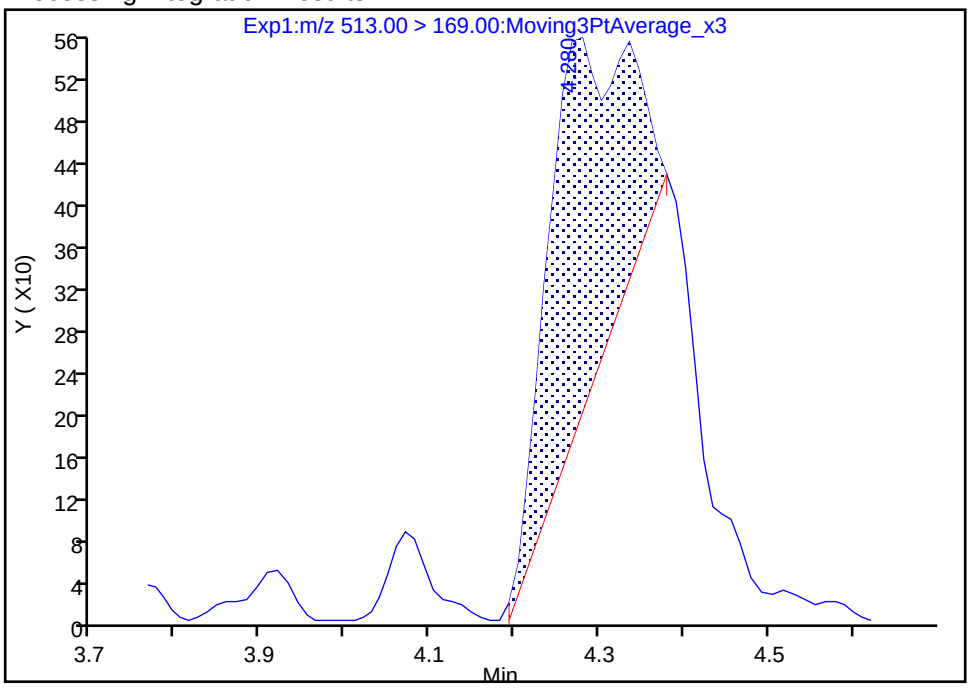
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

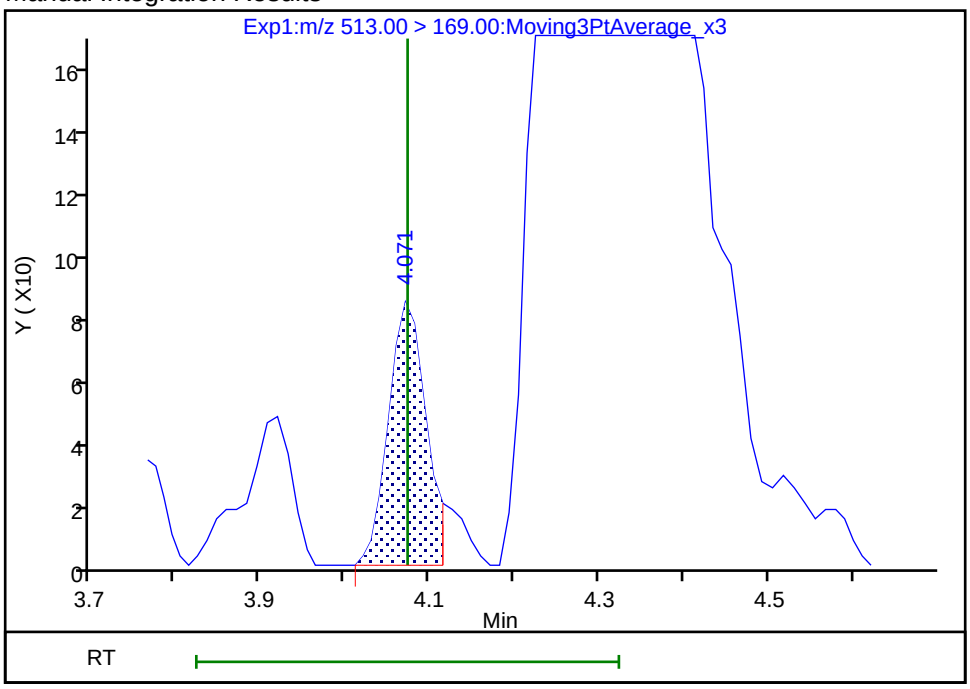
Processing Integration Results

RT: 4.28
Area: 2314
Amount: 0.022011
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 258
Amount: 0.000421
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

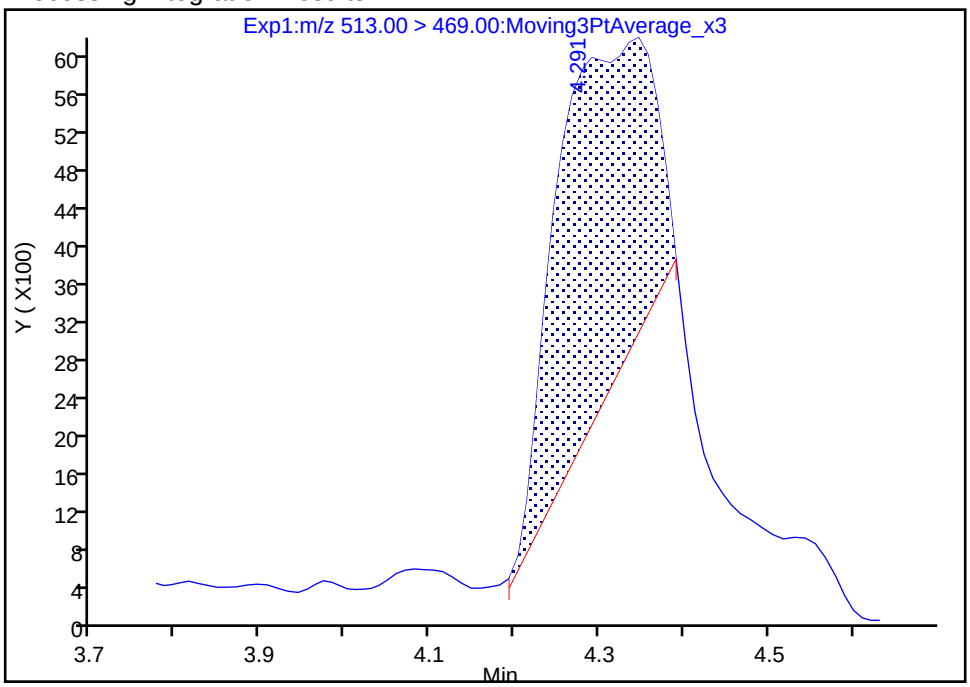
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

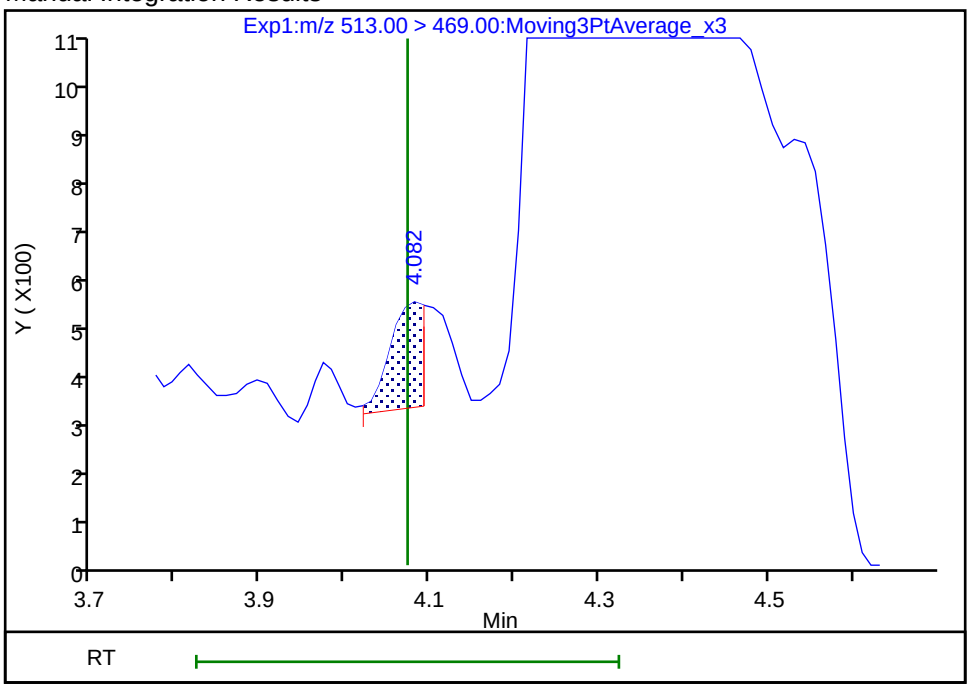
Processing Integration Results

RT: 4.29
Area: 30267
Amount: 0.022011
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 574
Amount: 0.000421
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

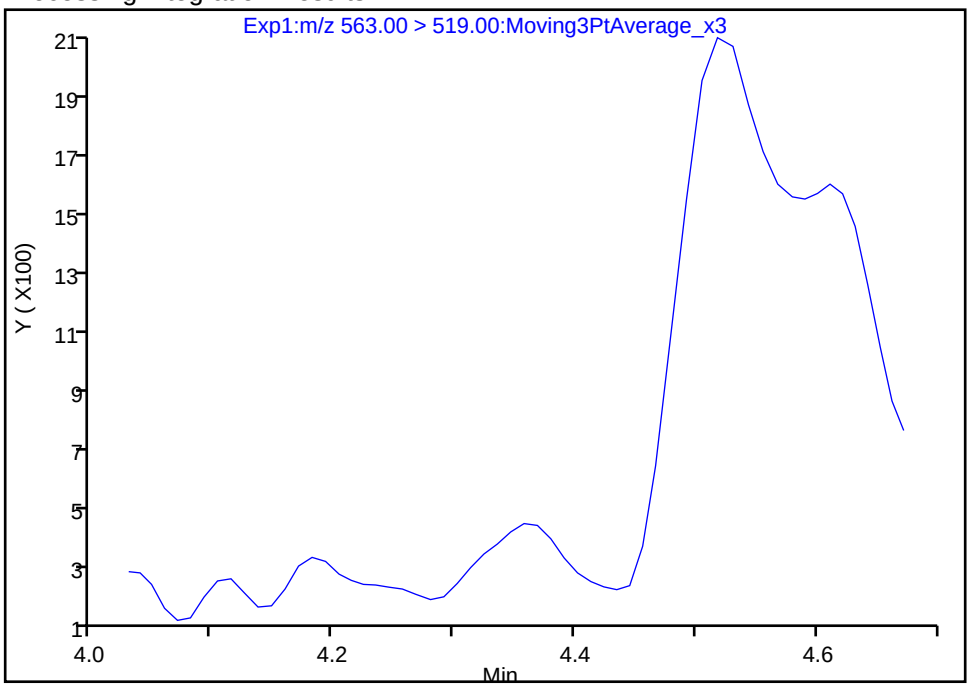
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

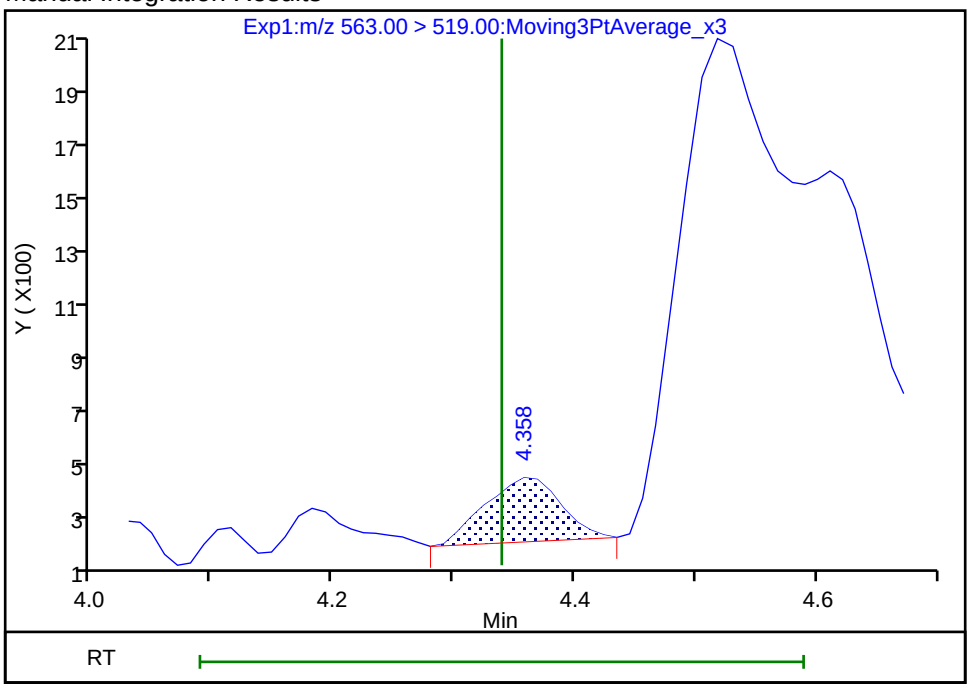
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 994
Amount: 0.000917
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

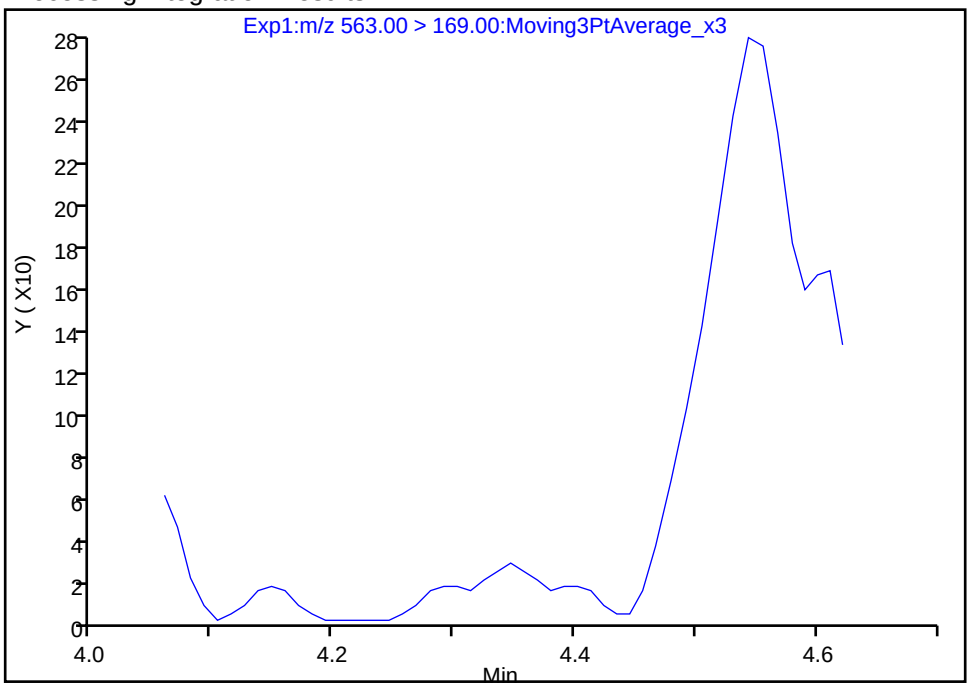
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

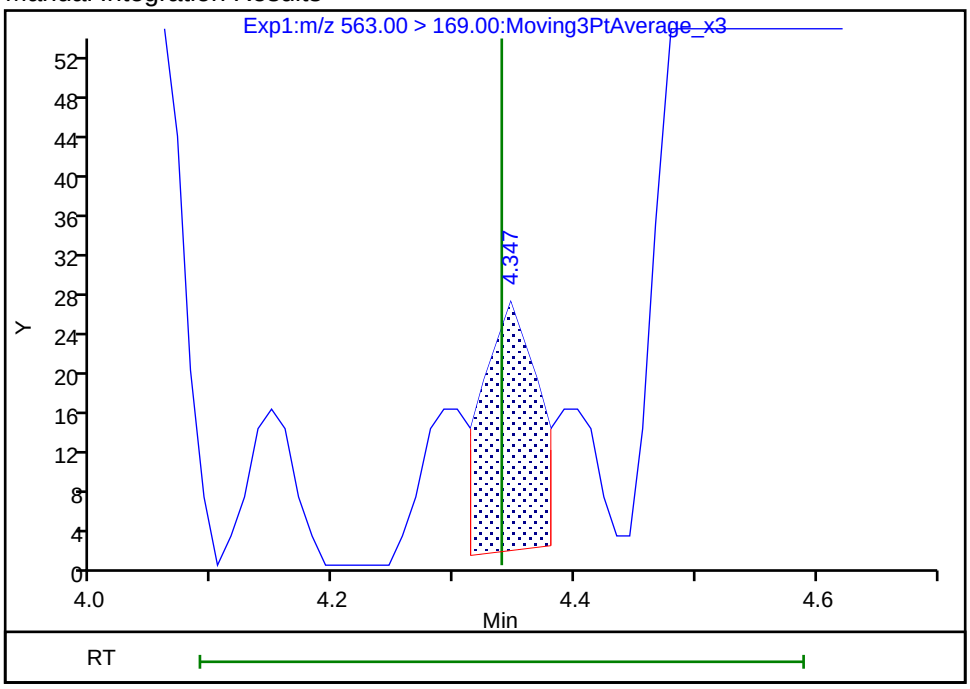
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 77
Amount: 0.000917
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

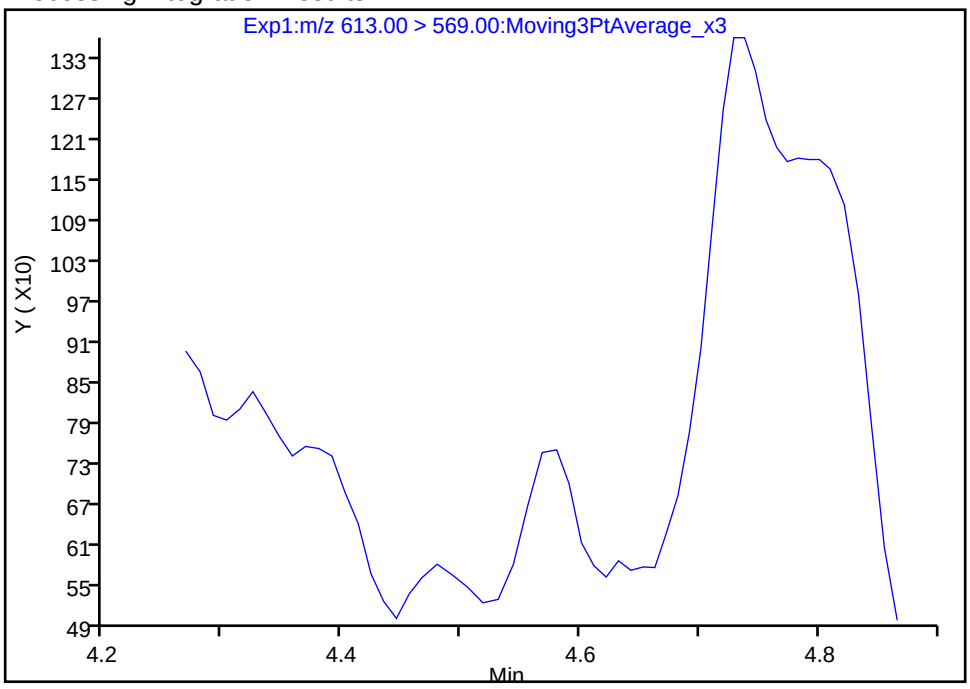
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

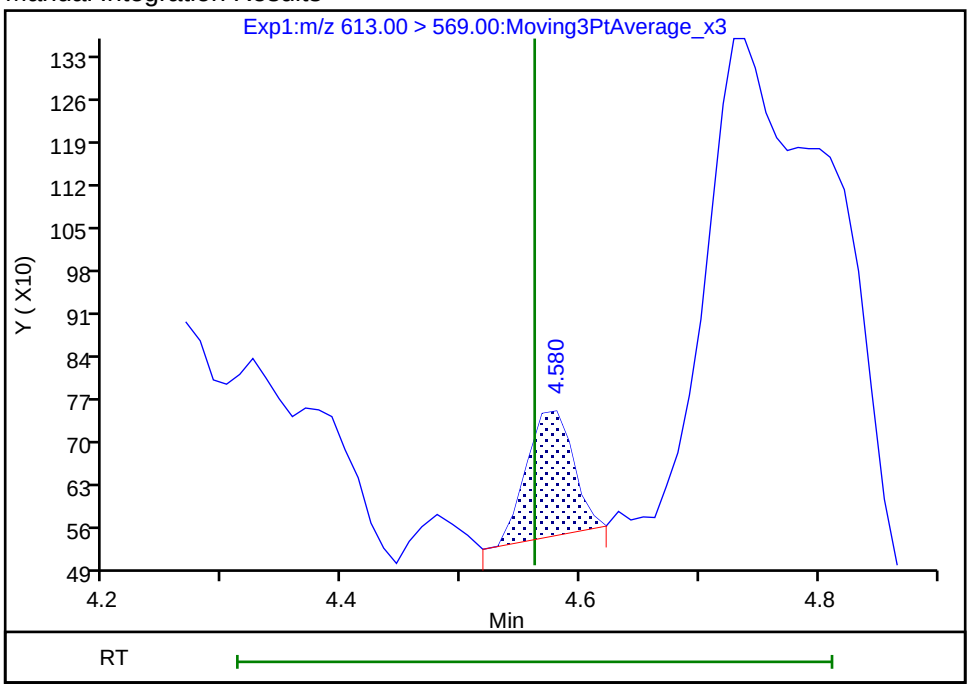
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 559
Amount: 0.000535
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:19:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

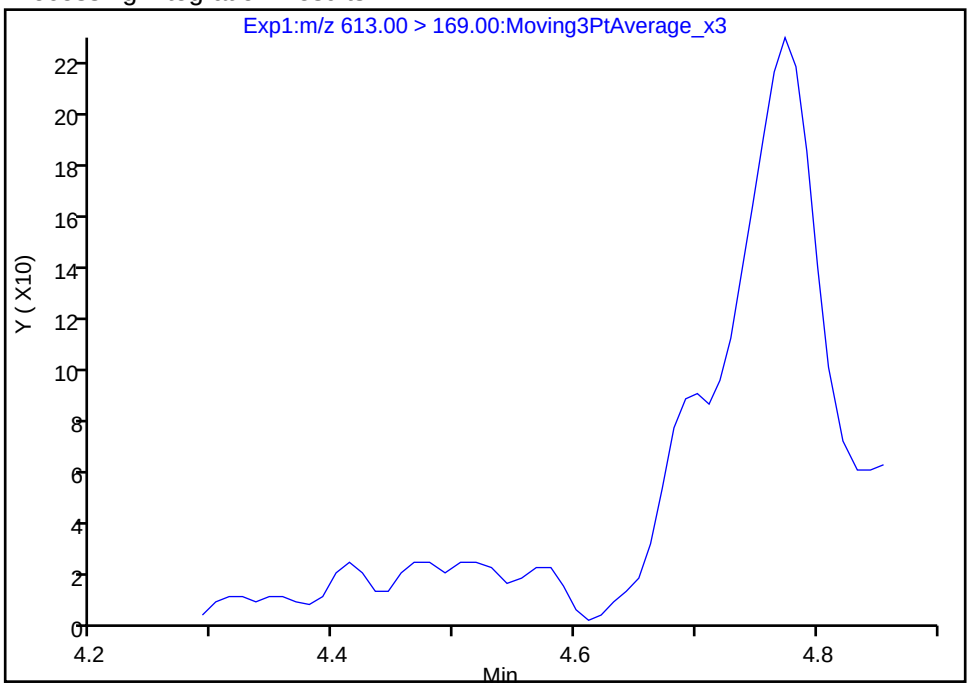
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

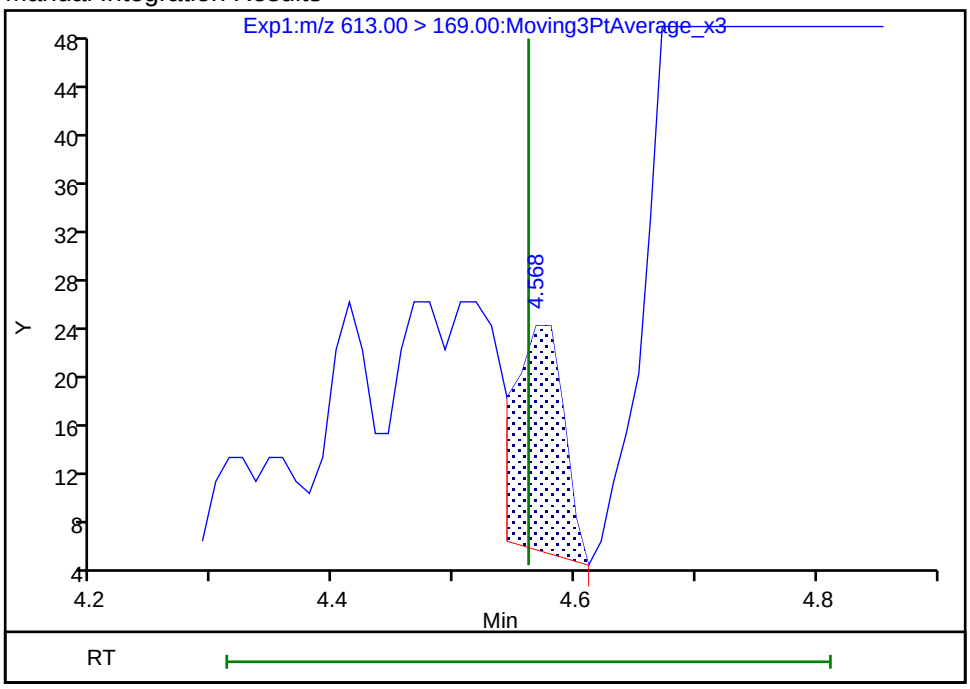
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 51
Amount: 0.000535
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:19:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

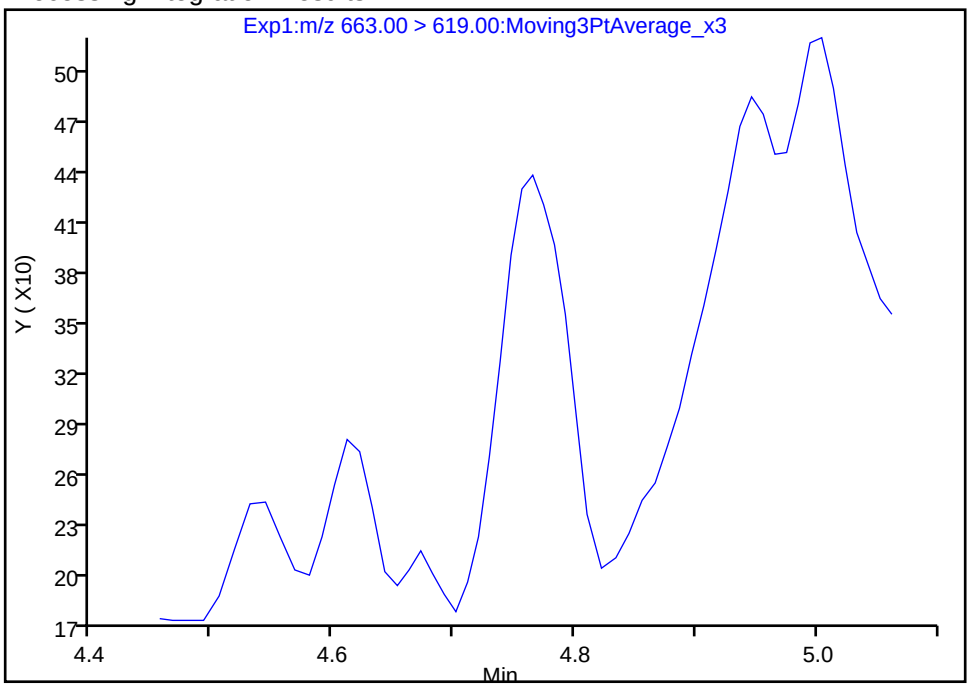
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

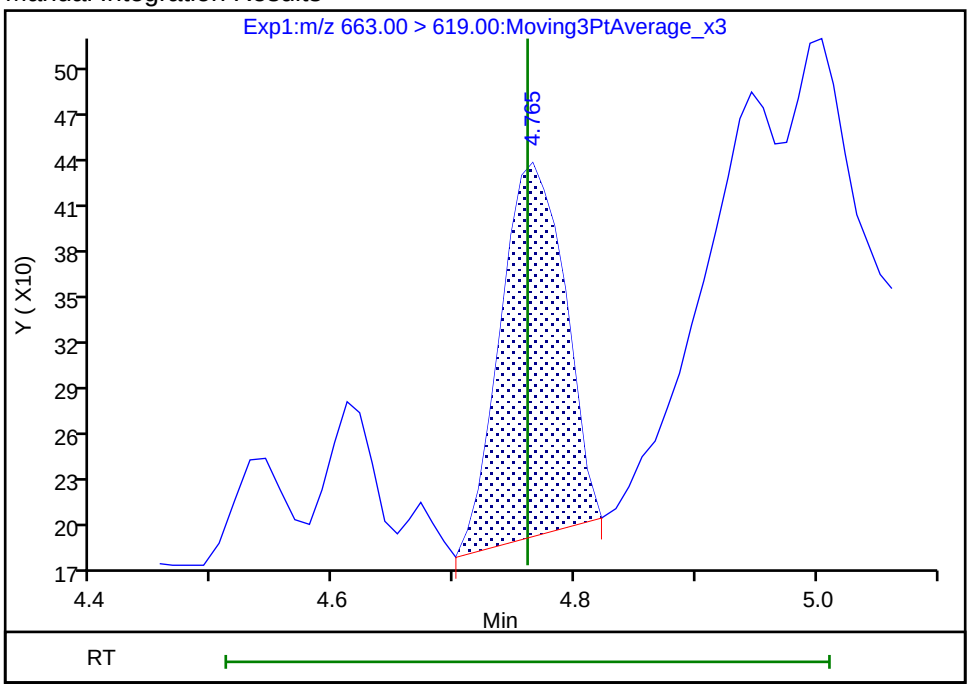
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 882
Amount: 0.000979
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:19:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

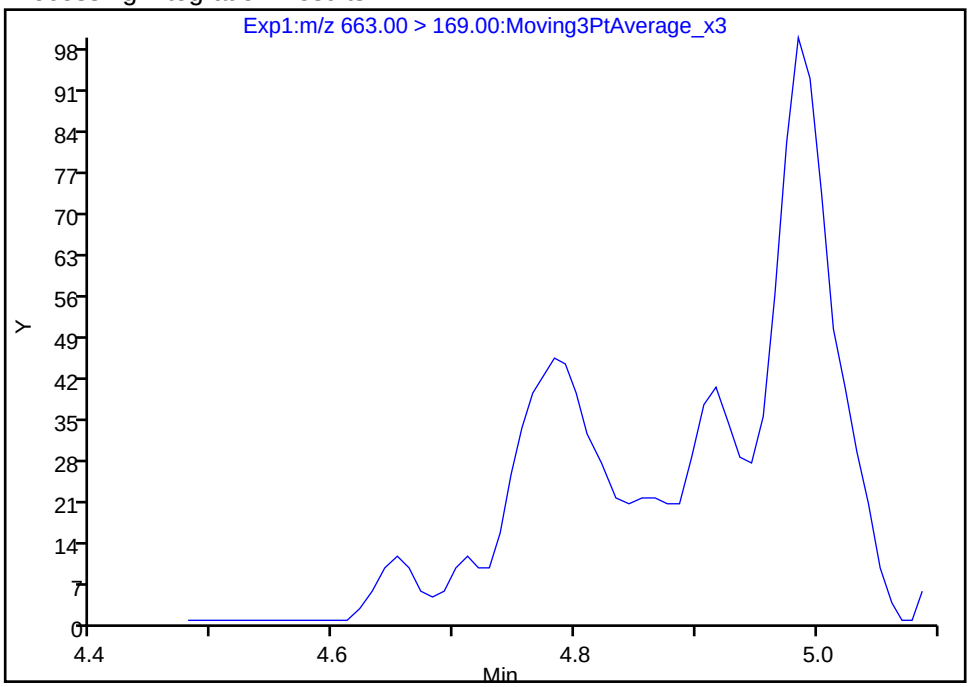
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

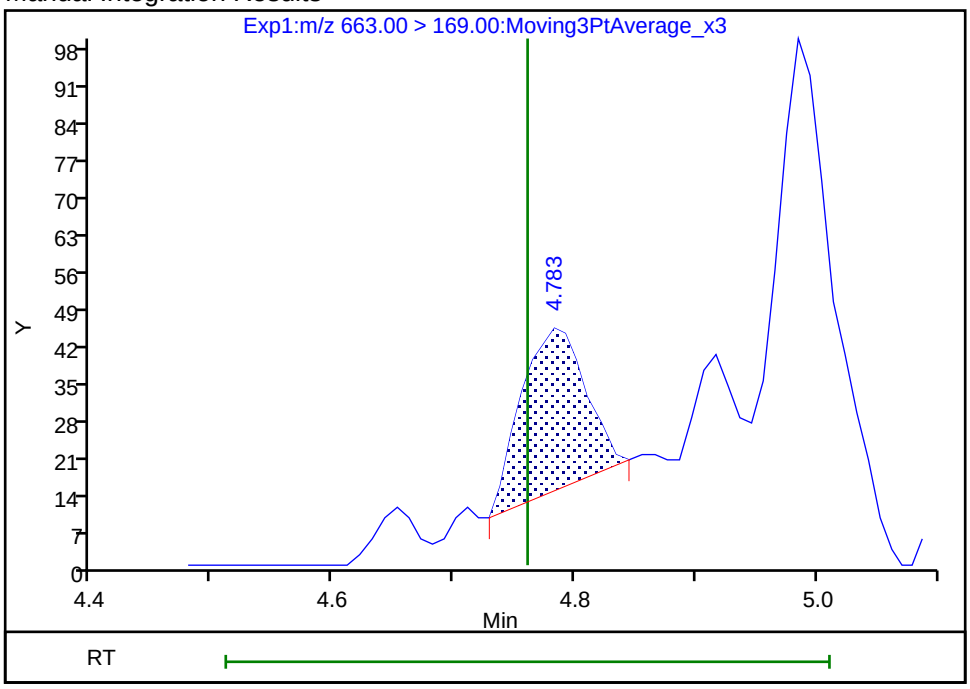
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 114
Amount: 0.000979
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:19:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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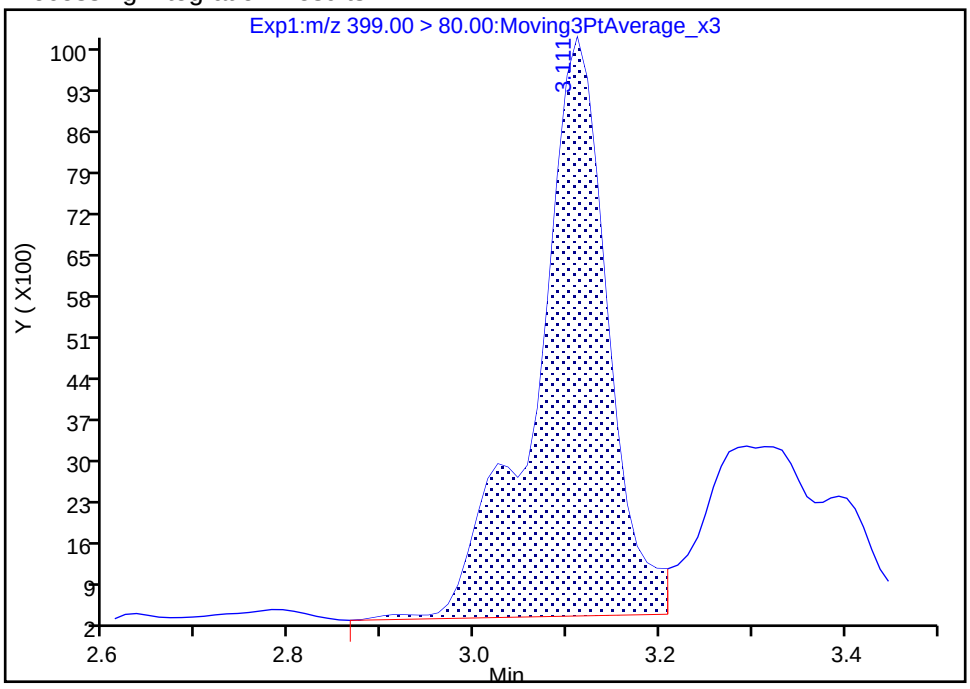
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

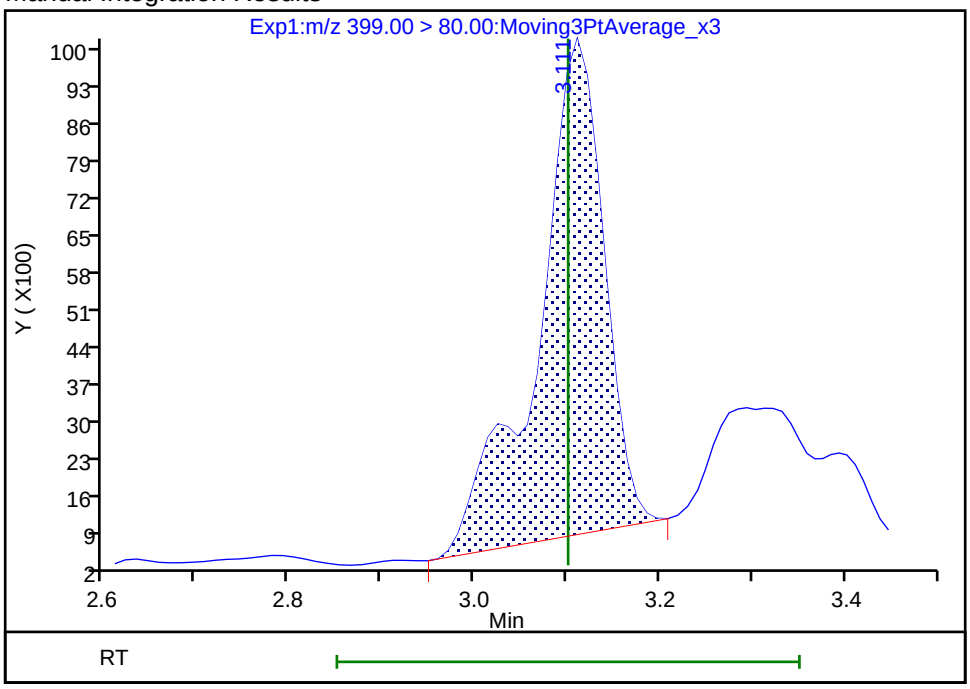
Processing Integration Results

RT: 3.11
Area: 53196
Amount: 0.044327
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 46474
Amount: 0.038726
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:15:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

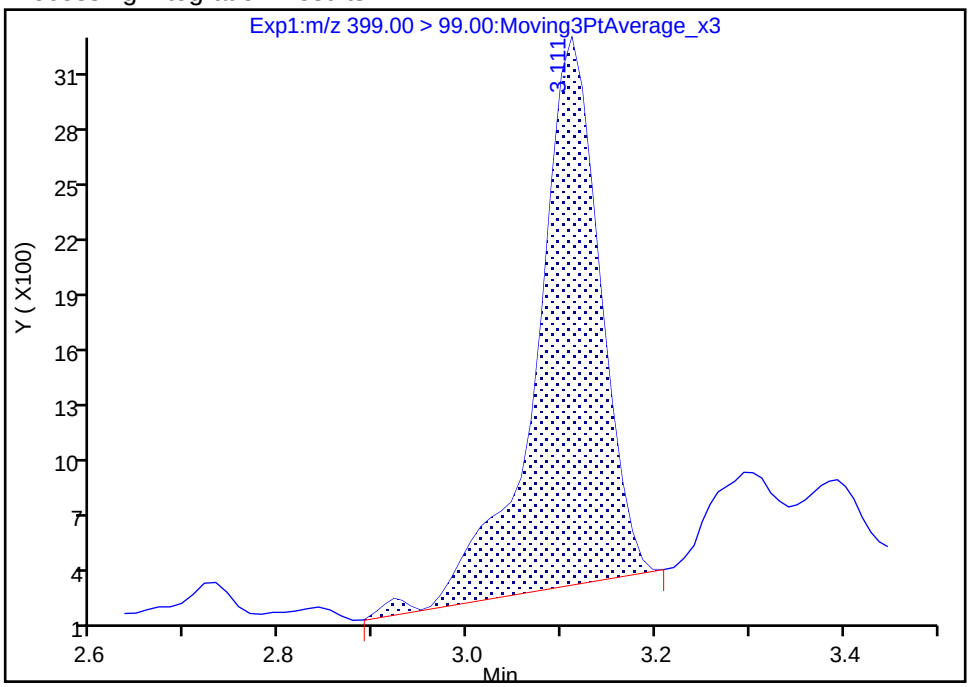
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

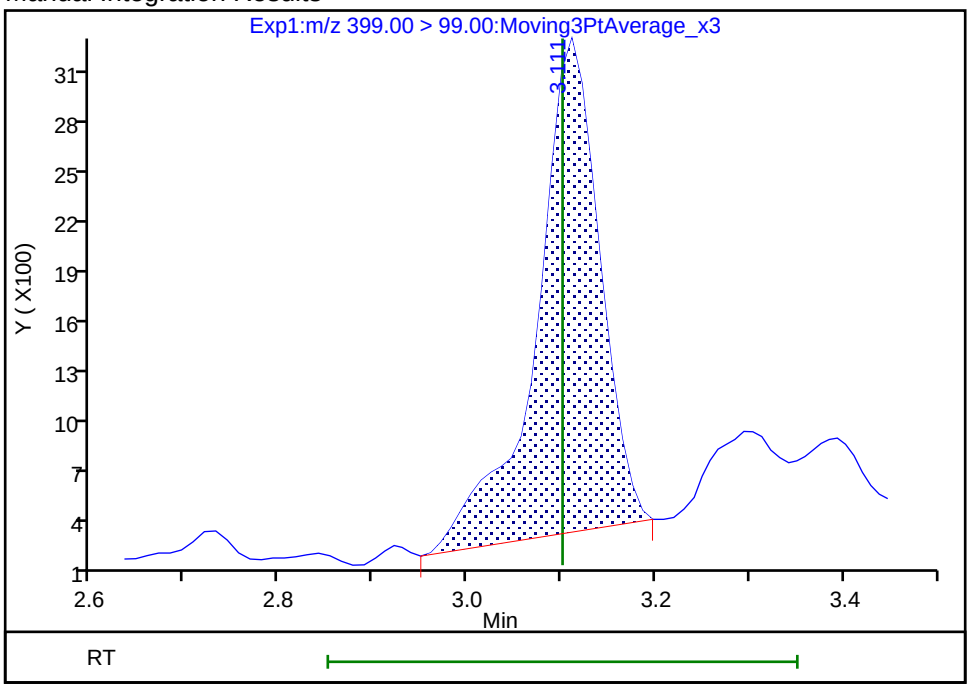
Processing Integration Results

RT: 3.11
Area: 13804
Amount: 0.044327
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 13543
Amount: 0.038726
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

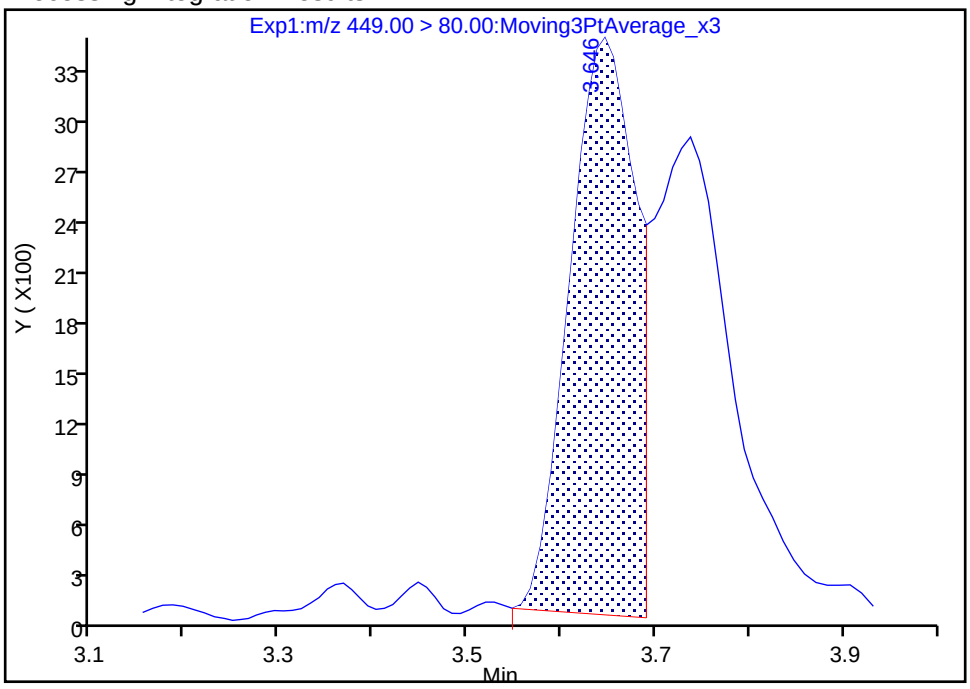
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

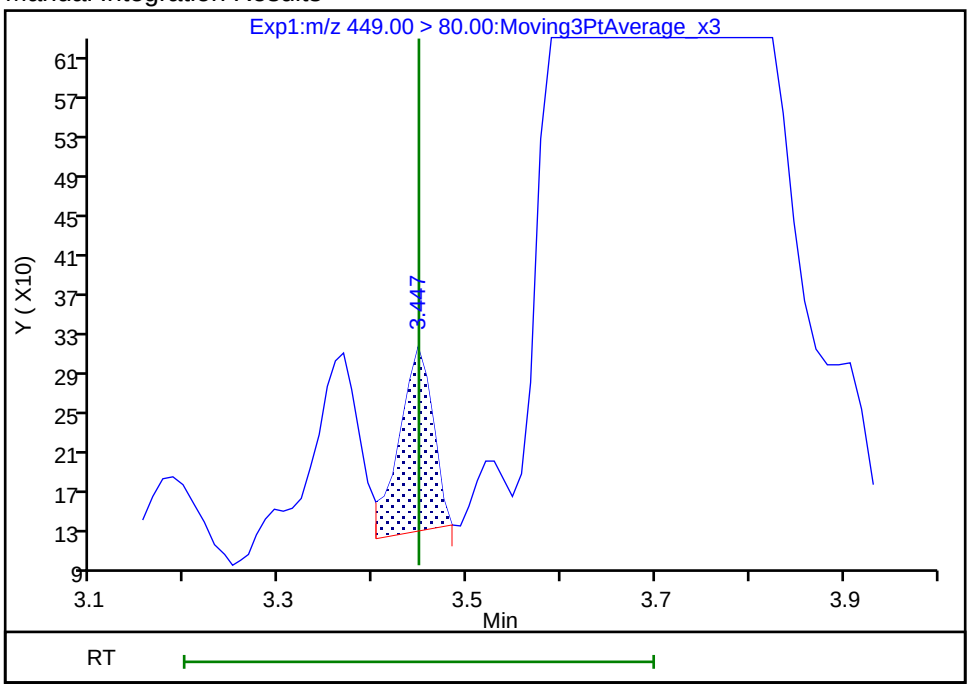
Processing Integration Results

RT: 3.65
Area: 16066
Amount: 0.015508
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 460
Amount: 0.000447
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

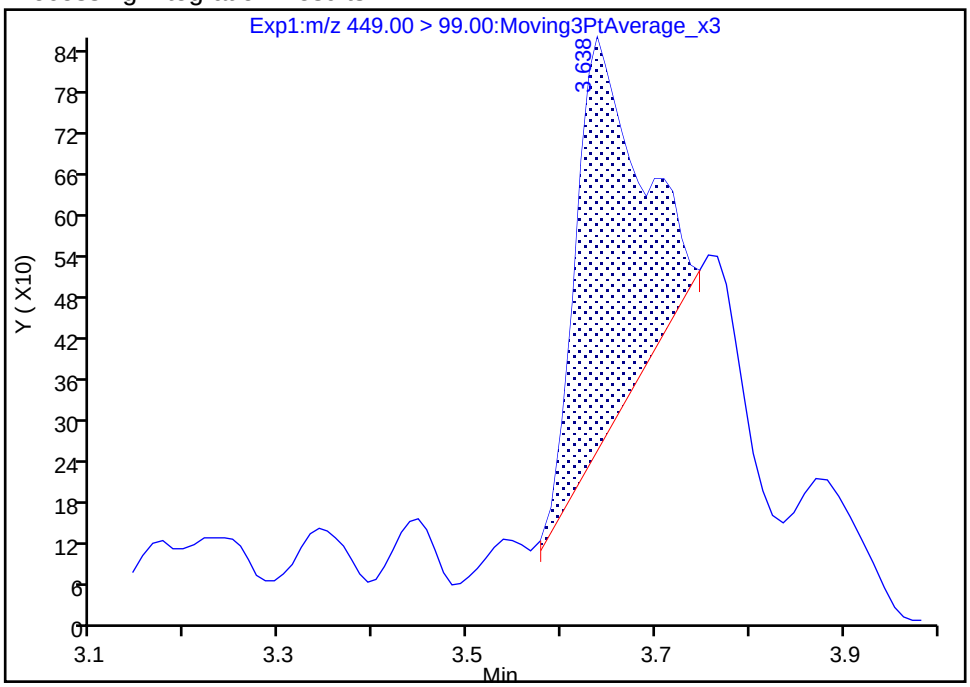
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

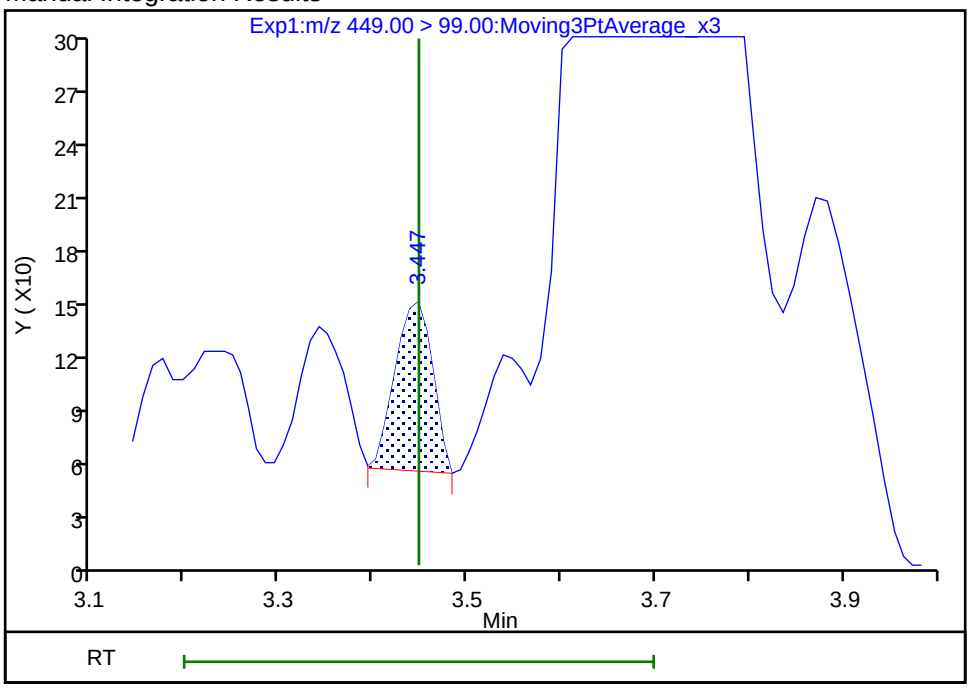
Processing Integration Results

RT: 3.64
Area: 2795
Amount: 0.015508
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 264
Amount: 0.000447
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

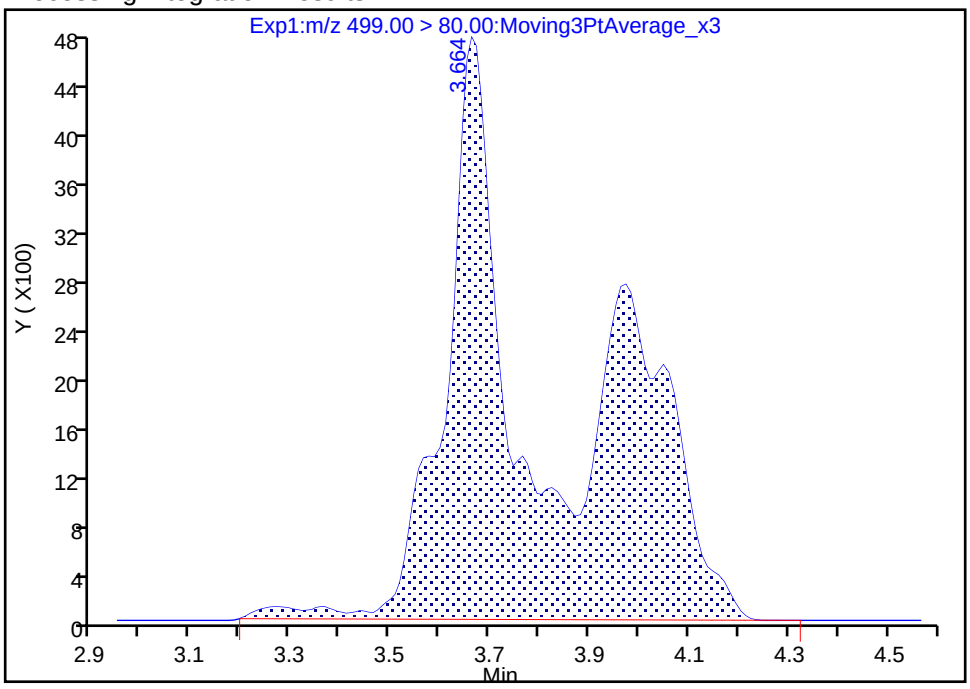
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

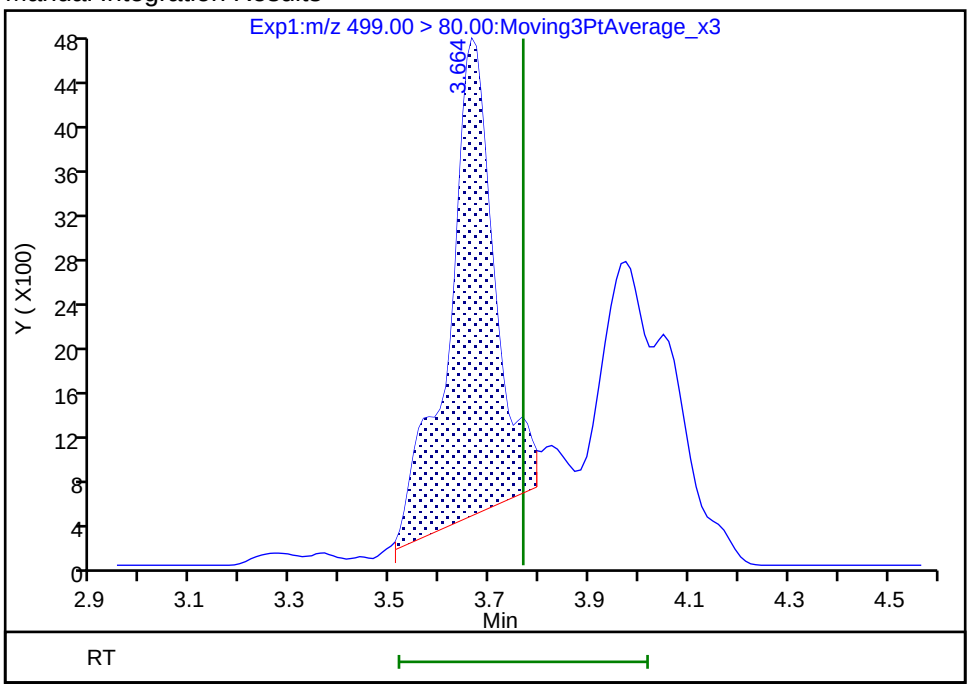
Processing Integration Results

RT: 3.66
Area: 69866
Amount: 0.077482
Amount Units: ng/ml




Manual Integration Results

RT: 3.66
Area: 27788
Amount: 0.030993
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:17:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

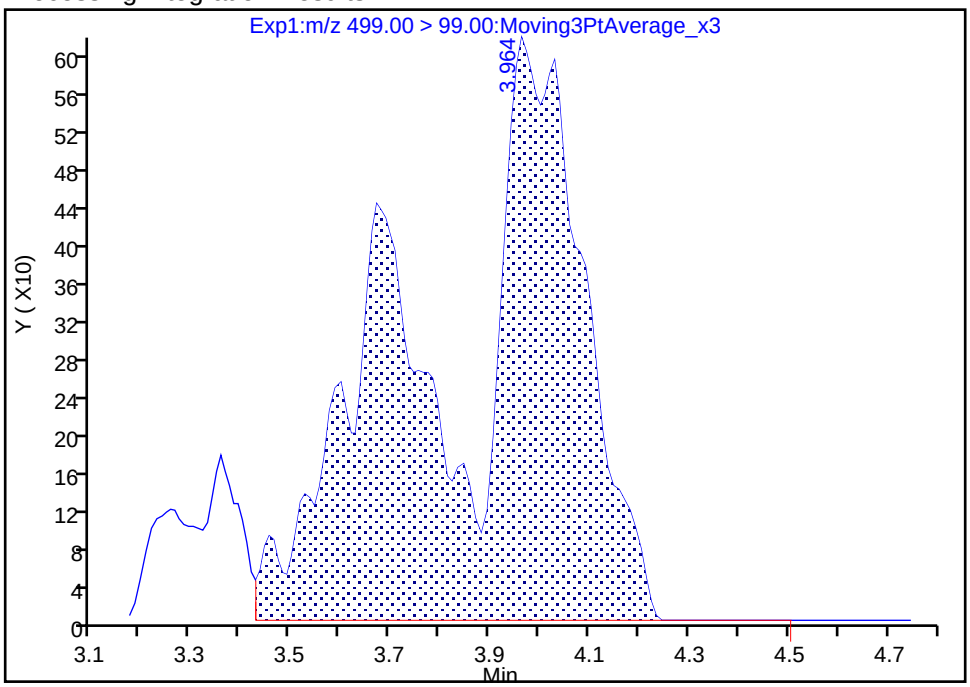
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

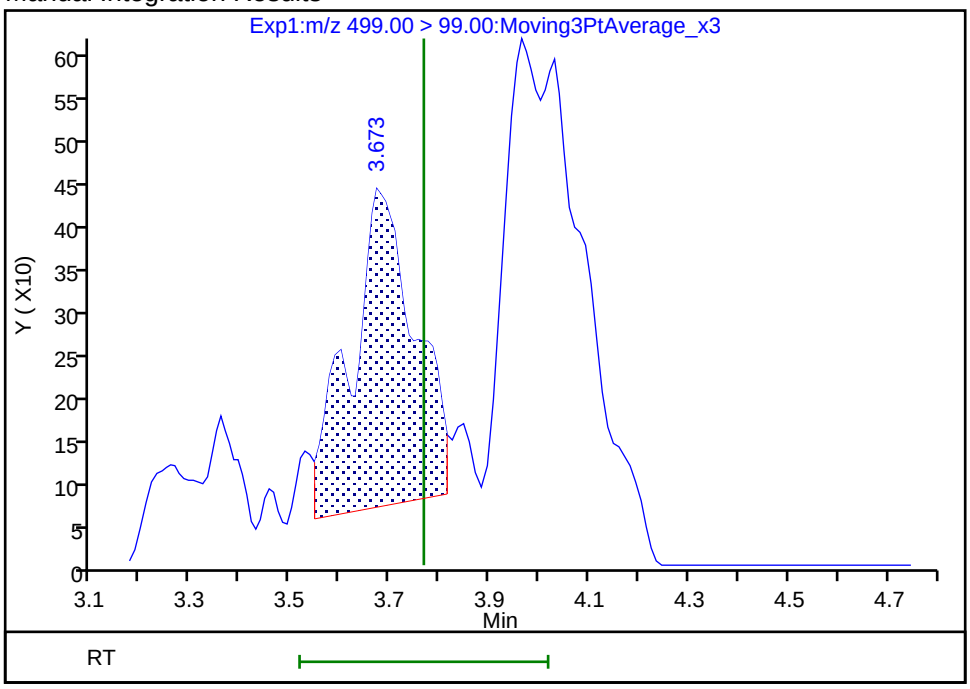
Processing Integration Results

RT: 3.96
Area: 12490
Amount: 0.077482
Amount Units: ng/ml




Manual Integration Results

RT: 3.67
Area: 3313
Amount: 0.030993
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:05:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

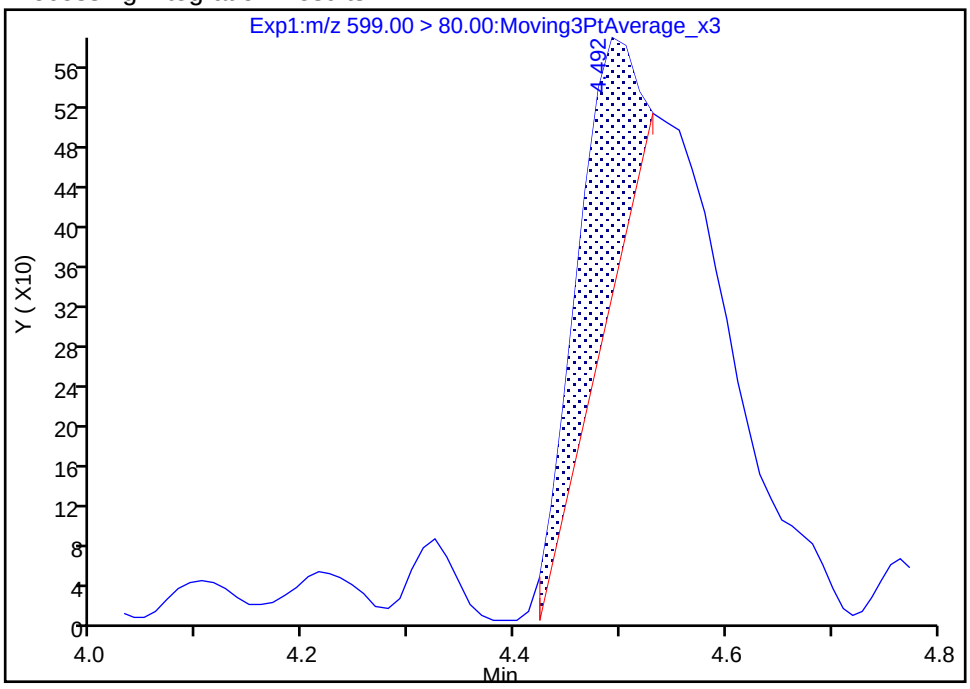
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

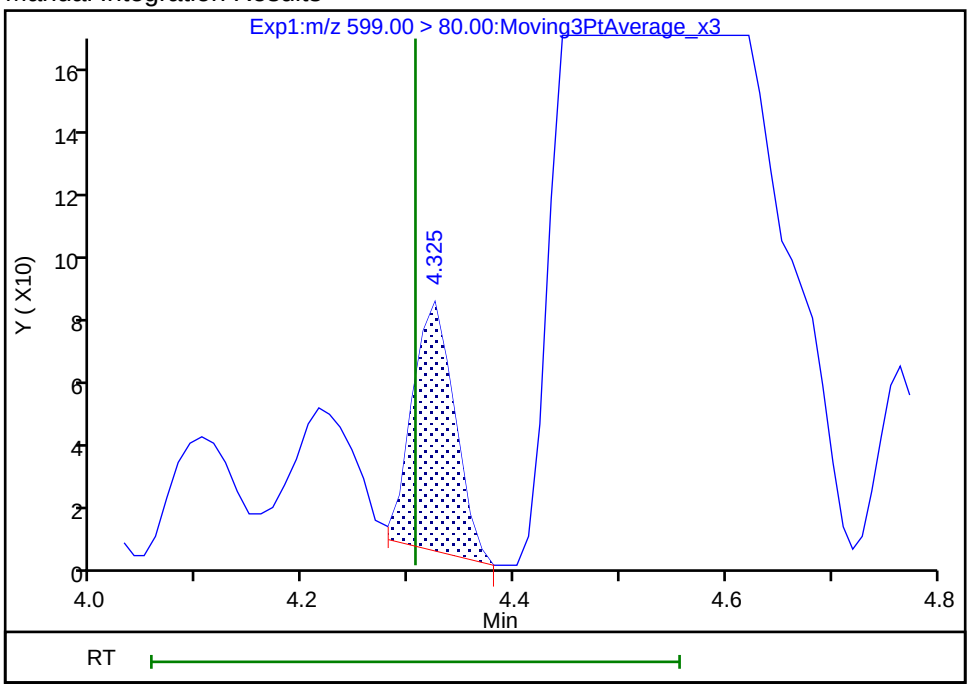
Processing Integration Results

RT: 4.49
Area: 1008
Amount: 0.001846
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 214
Amount: 0.000394
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

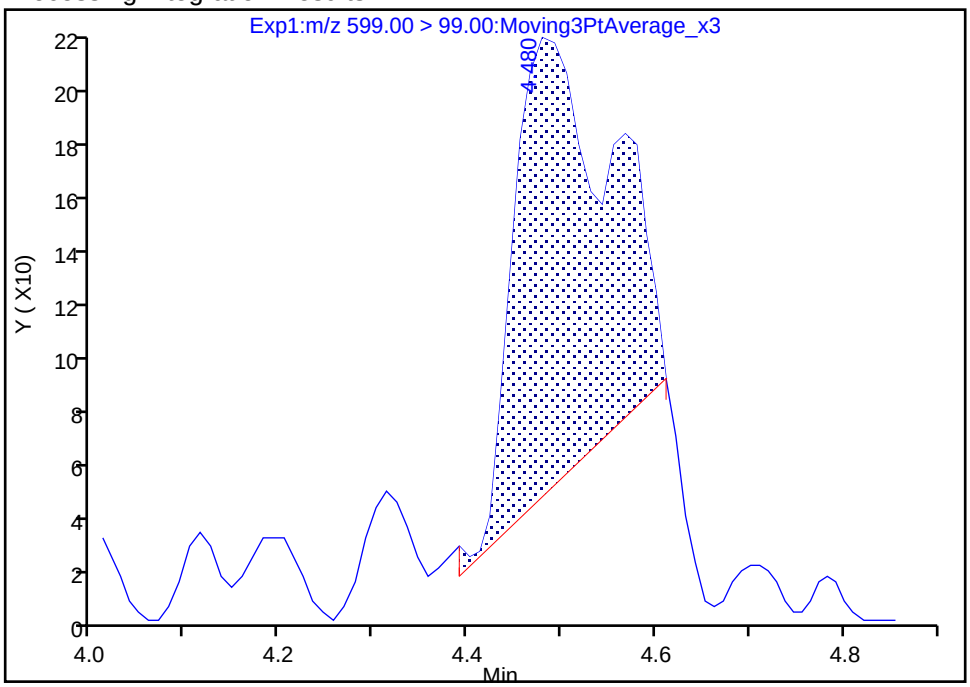
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

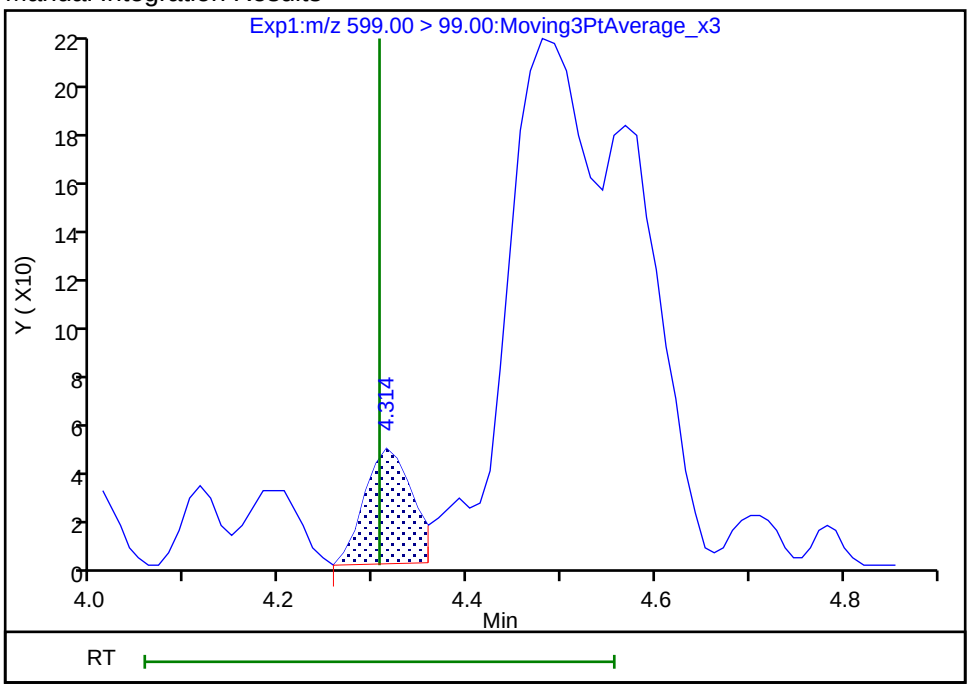
Processing Integration Results

RT: 4.48
Area: 1167
Amount: 0.001846
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 160
Amount: 0.000394
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

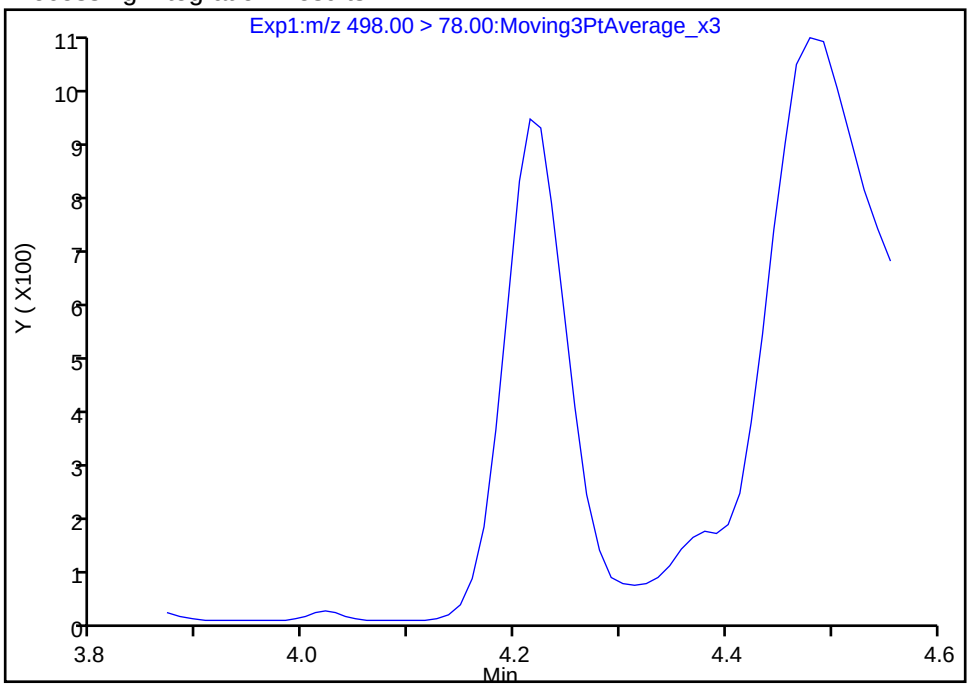
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

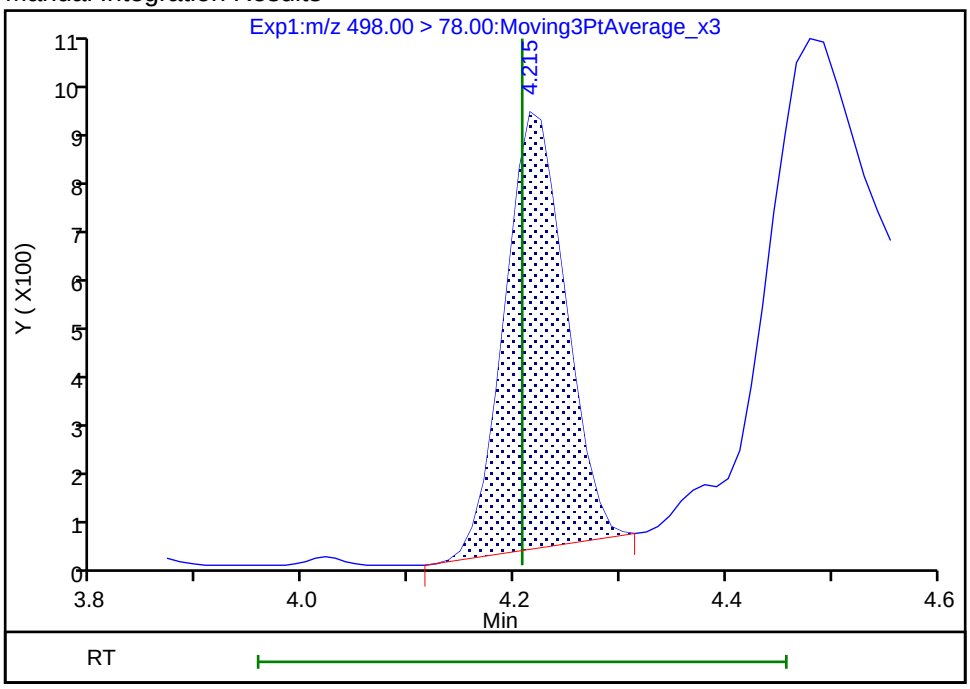
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 3478
Amount: 0.002804
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

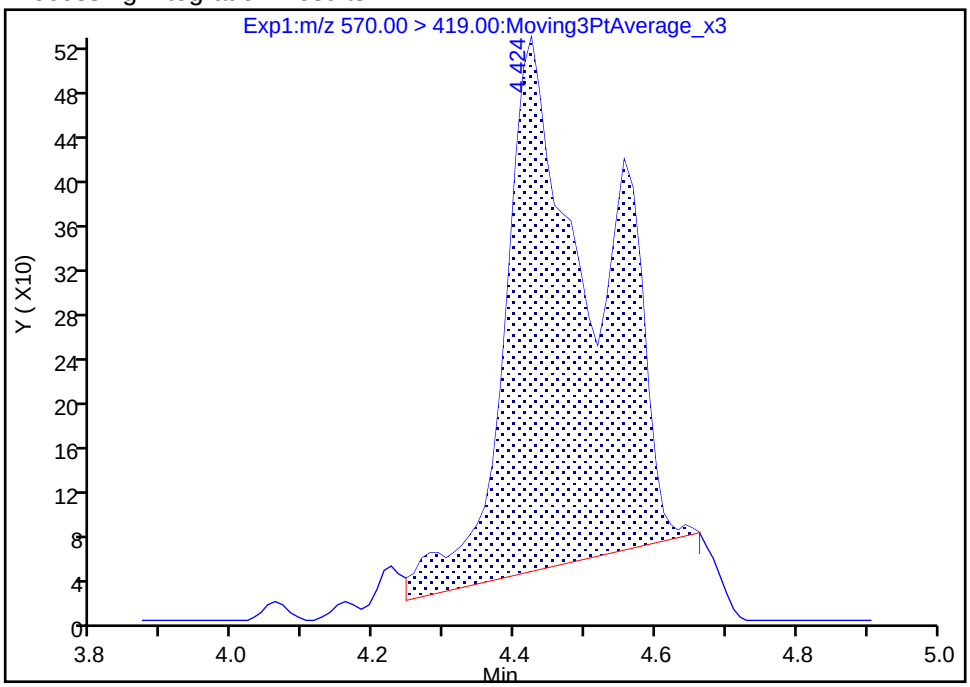
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

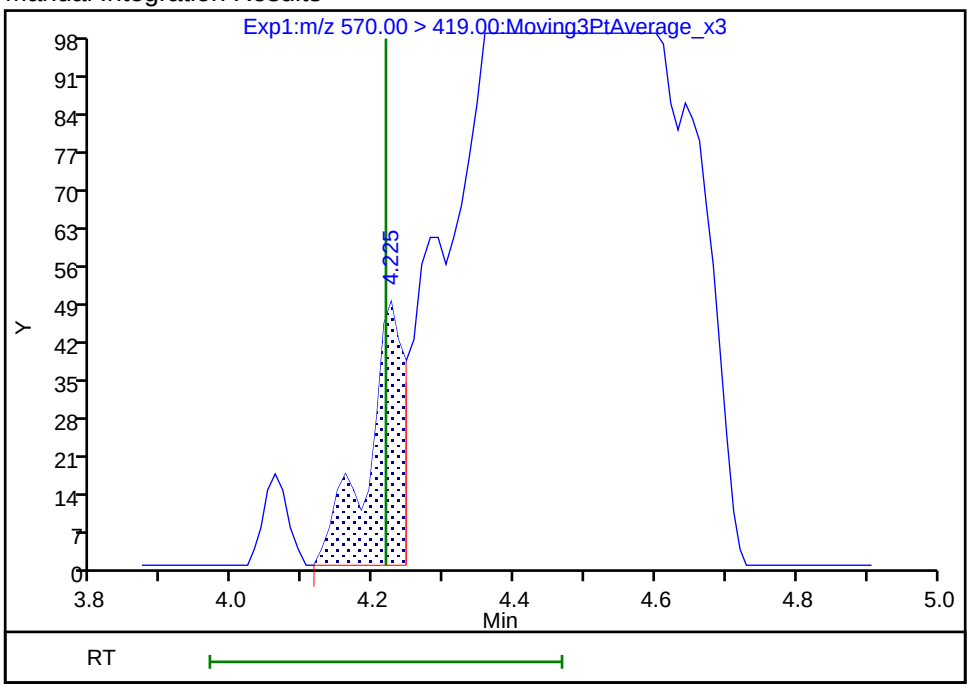
Processing Integration Results

RT: 4.42
Area: 4415
Amount: 0.037314
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 167
Amount: 0.001432
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:18:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

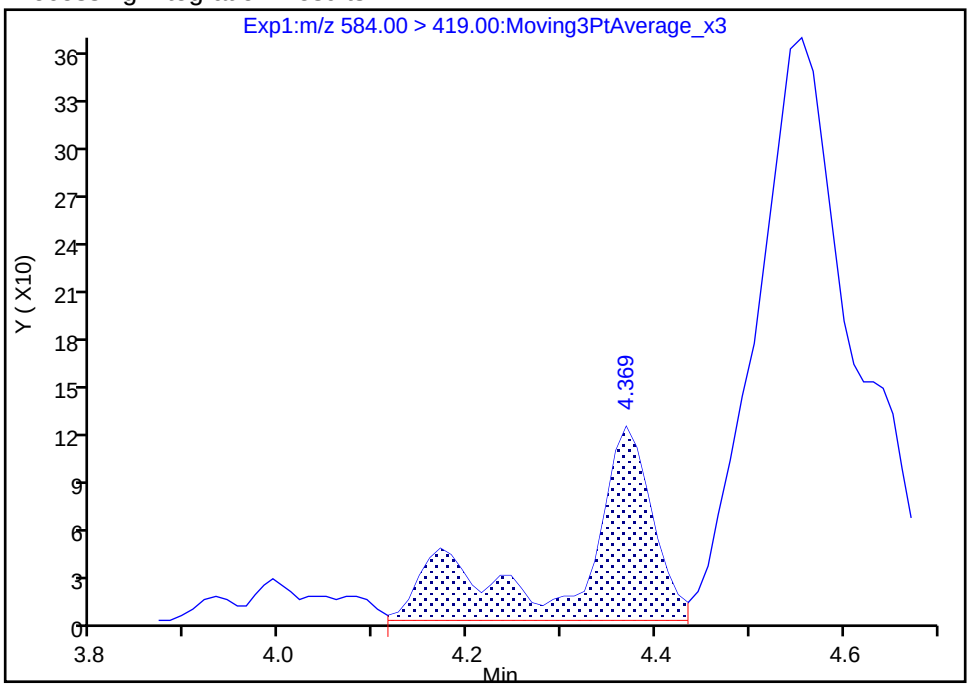
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

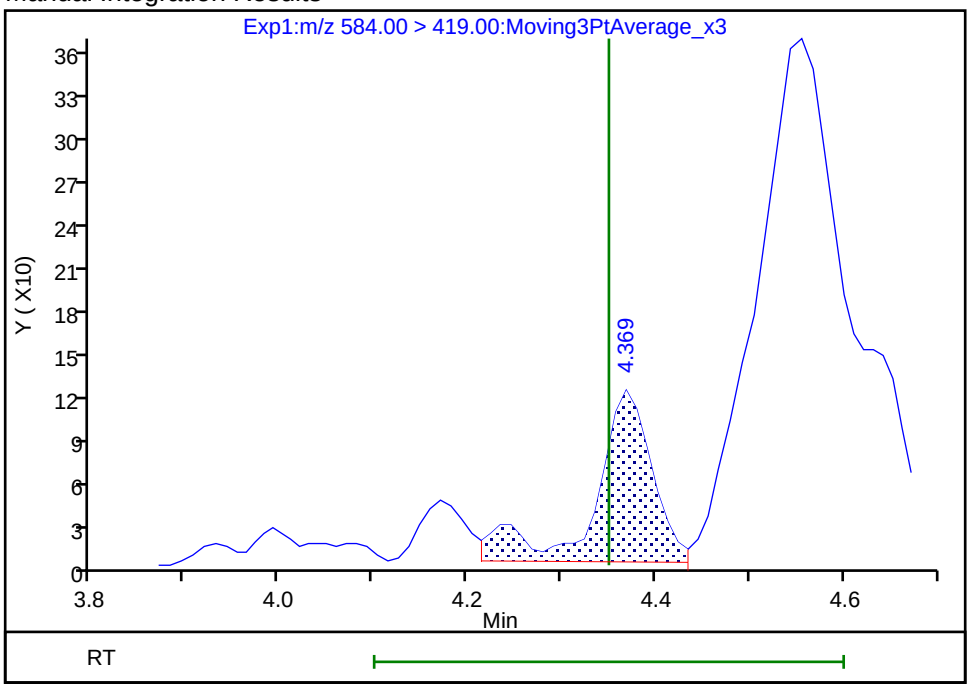
Processing Integration Results

RT: 4.37
Area: 693
Amount: 0.006029
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 504
Amount: 0.004384
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:19:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

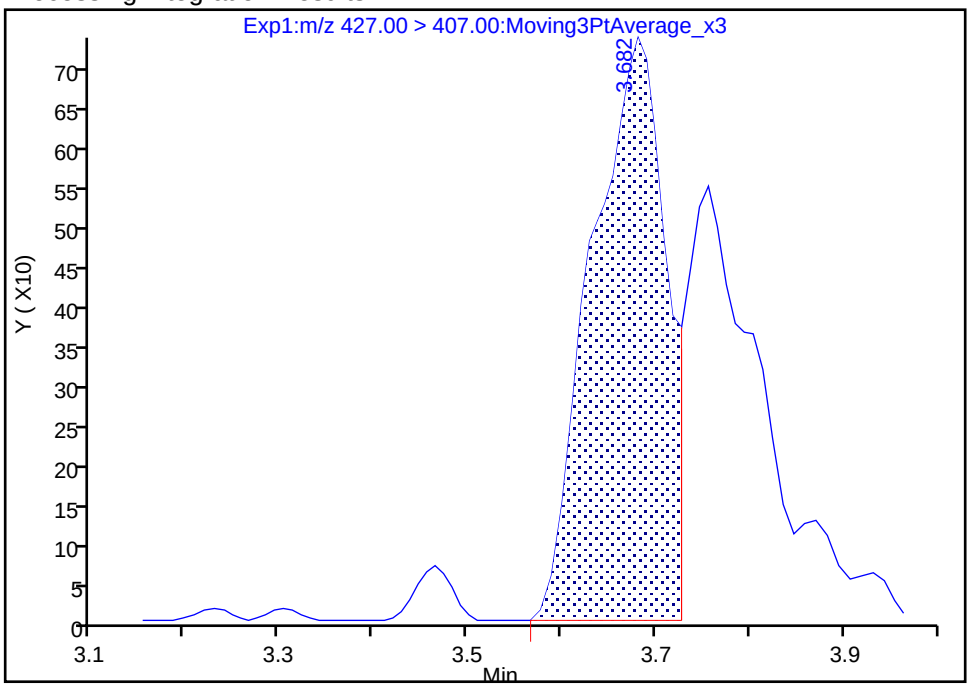
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

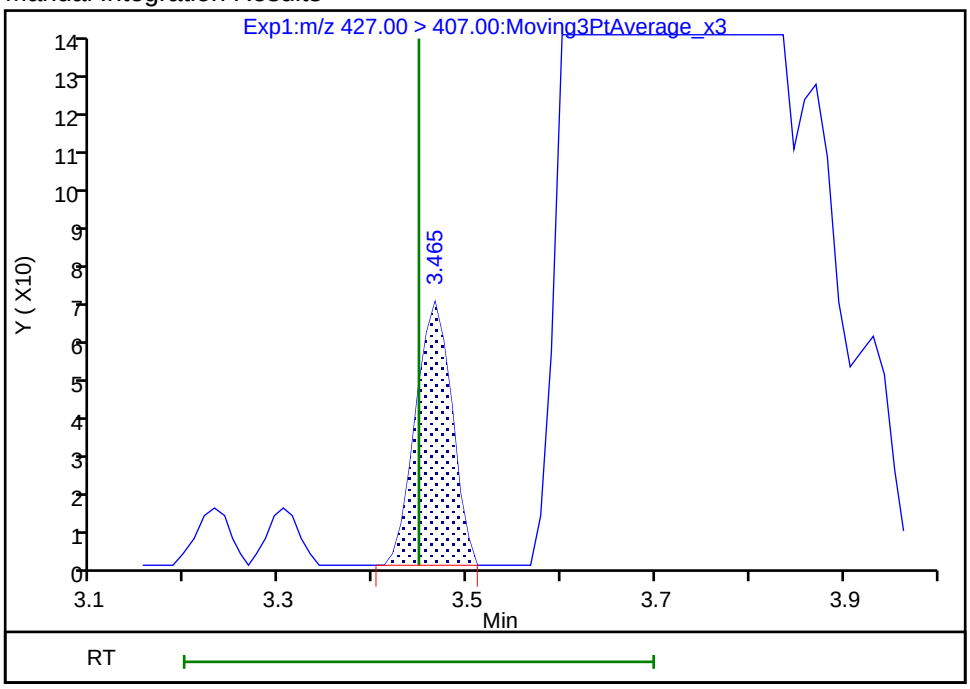
Processing Integration Results

RT: 3.68
Area: 3993
Amount: 0.017060
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 185
Amount: 0.000790
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:16:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

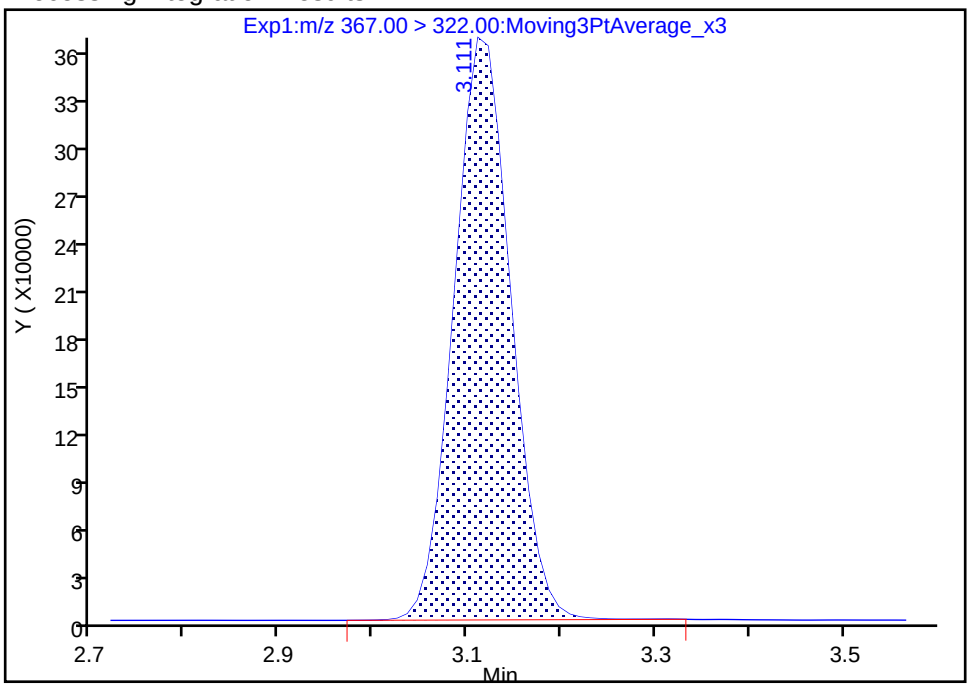
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

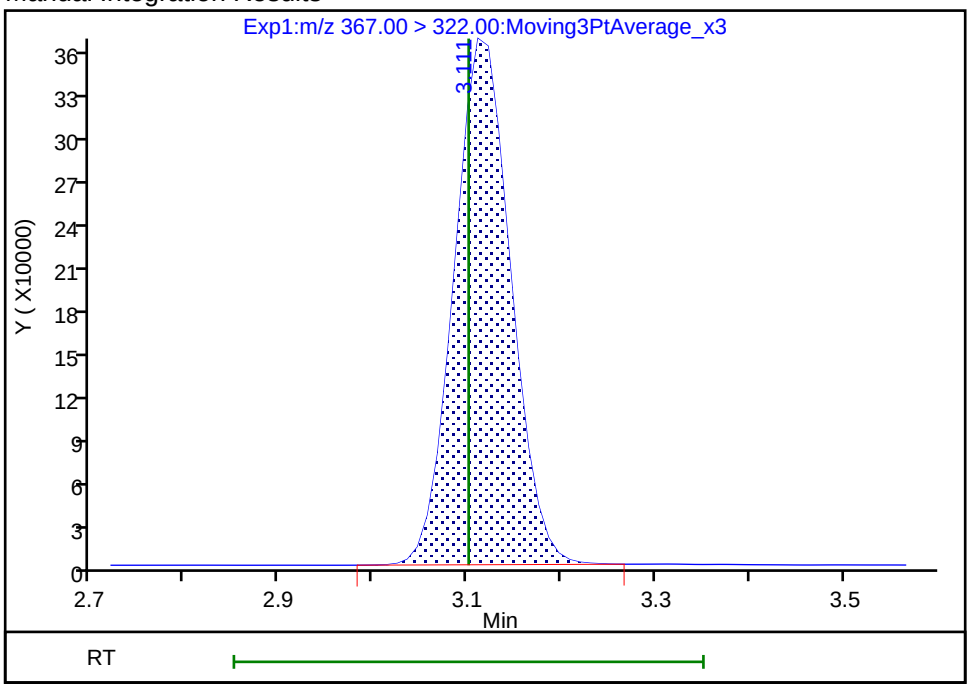
Processing Integration Results

RT: 3.11
Area: 1517742
Amount: 1.210261
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1515625
Amount: 1.208573
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:14:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

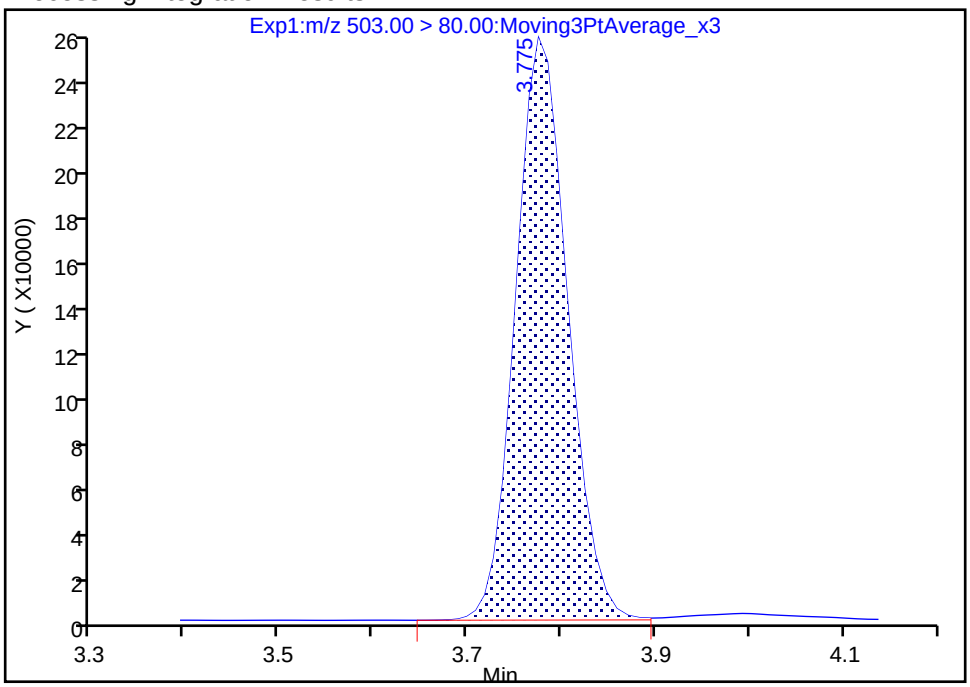
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

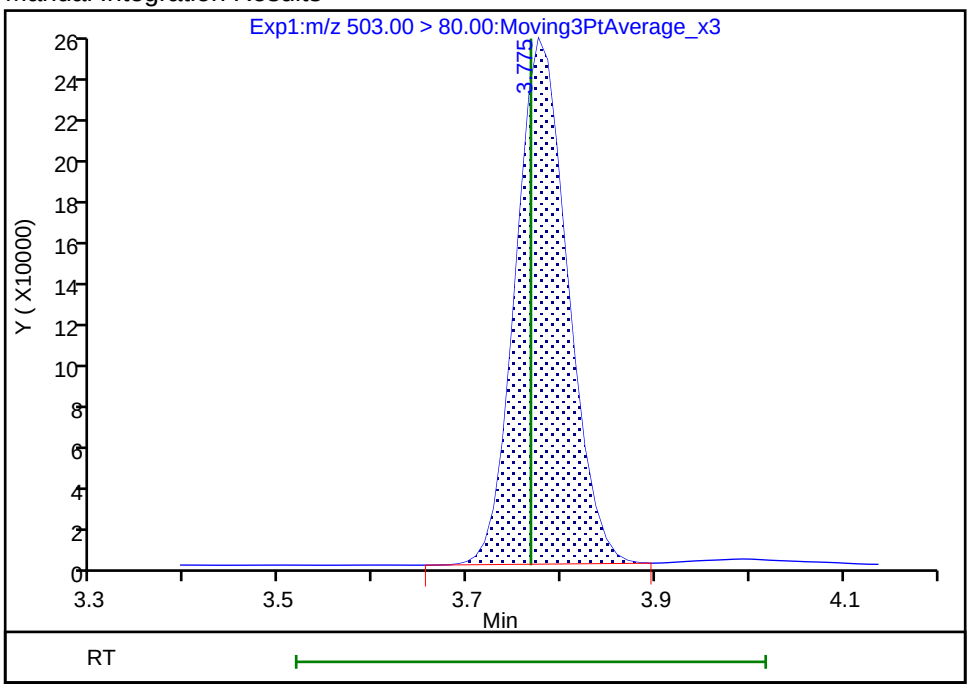
Processing Integration Results

RT: 3.78
Area: 993071
Amount: 1.231044
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 987432
Amount: 1.224054
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:05:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

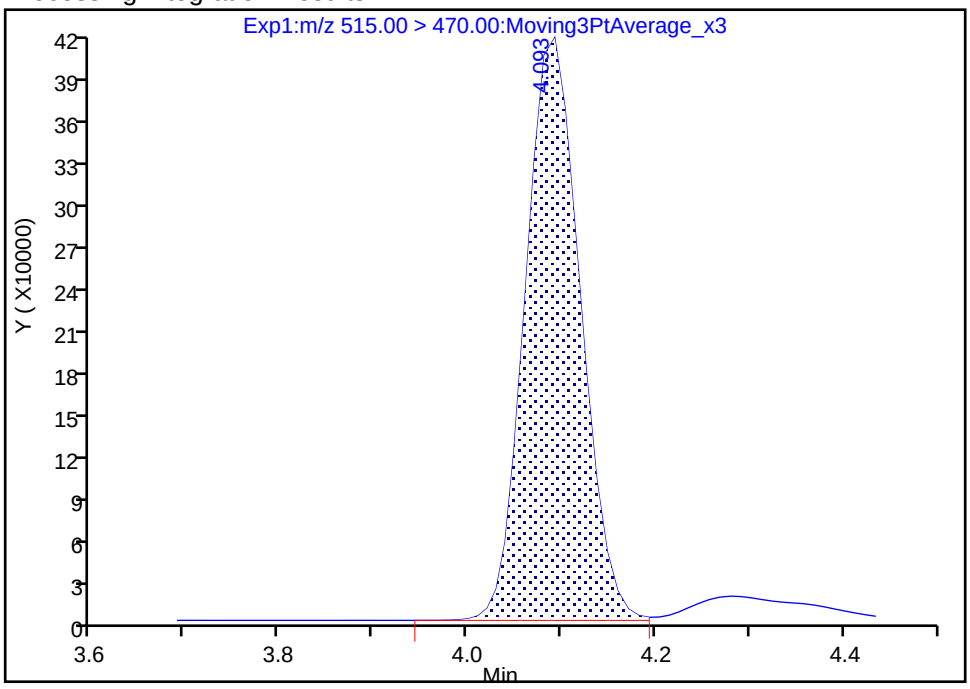
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

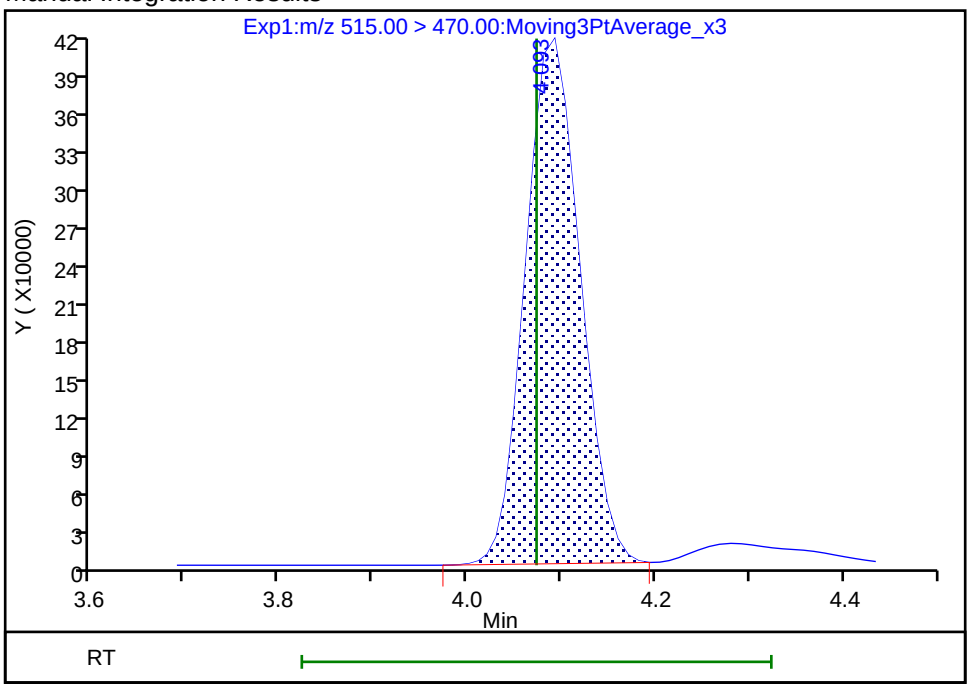
Processing Integration Results

RT: 4.09
Area: 1710587
Amount: 1.241892
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1695636
Amount: 1.231037
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:06:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

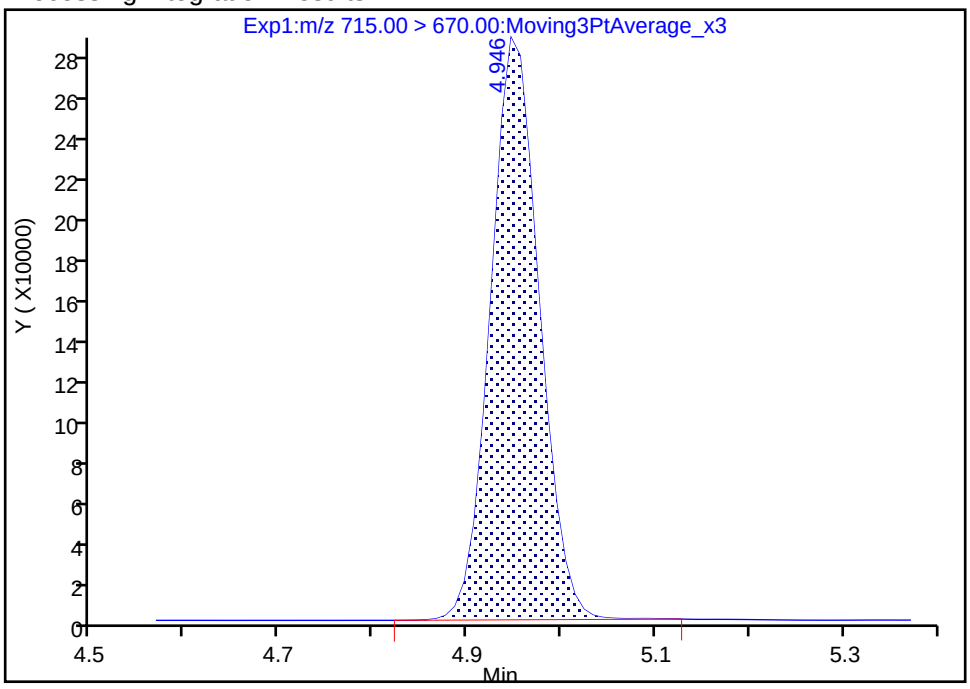
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

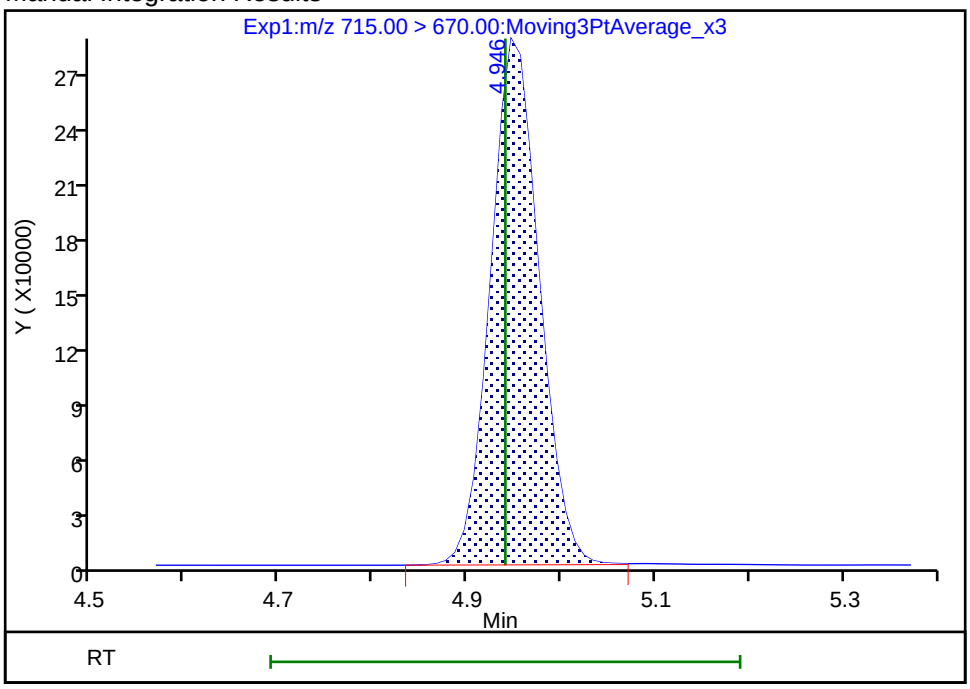
Processing Integration Results

RT: 4.95
Area: 1035051
Amount: 1.155676
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 1035323
Amount: 1.155979
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:15:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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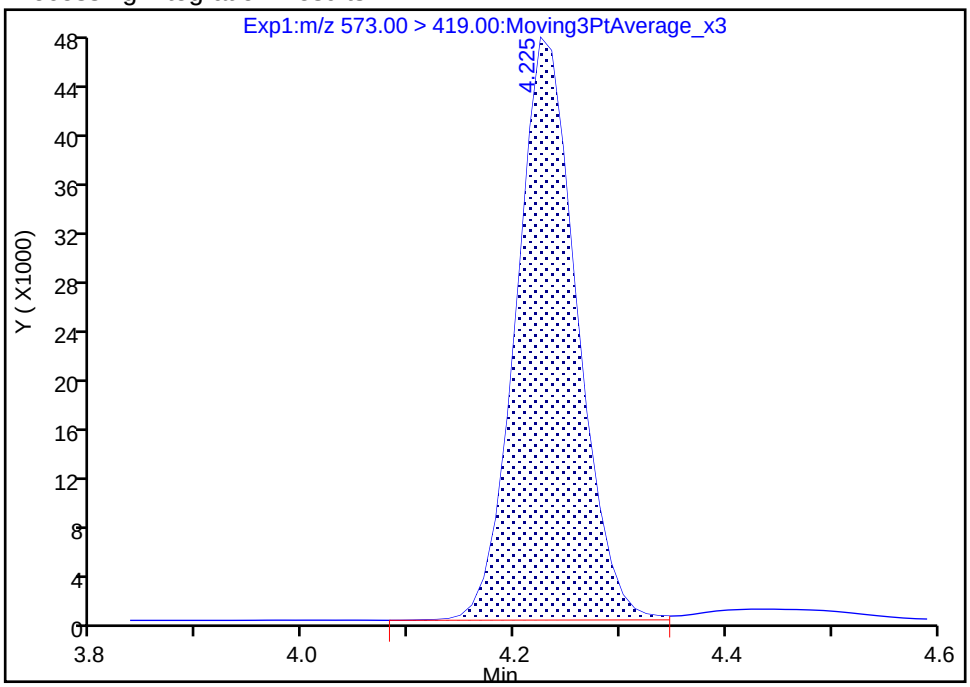
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

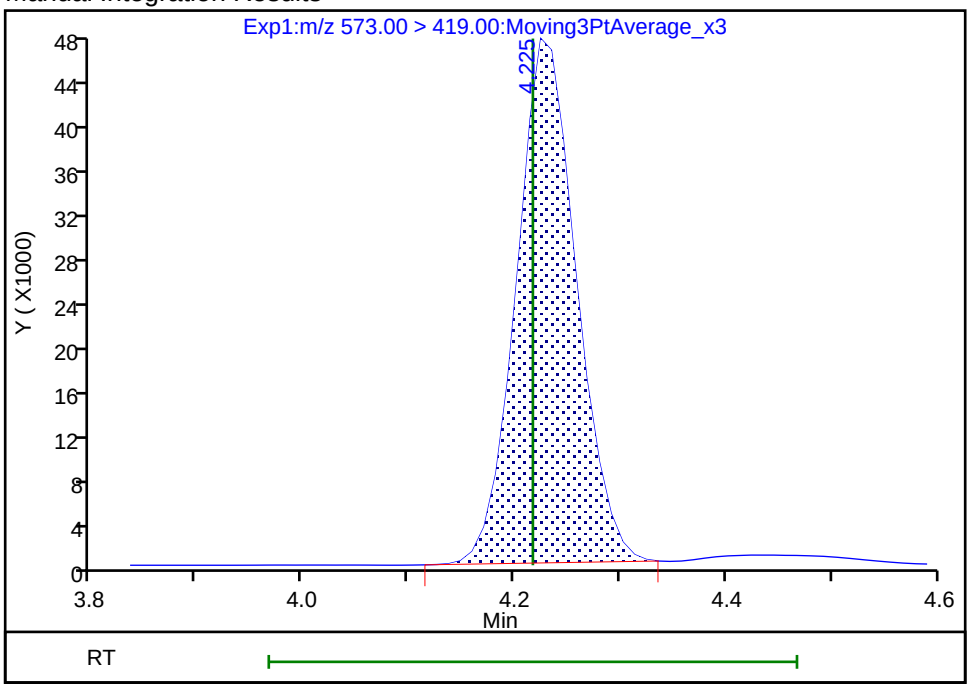
Processing Integration Results

RT: 4.22
Area: 188265
Amount: 1.389561
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 185601
Amount: 1.369898
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:54:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

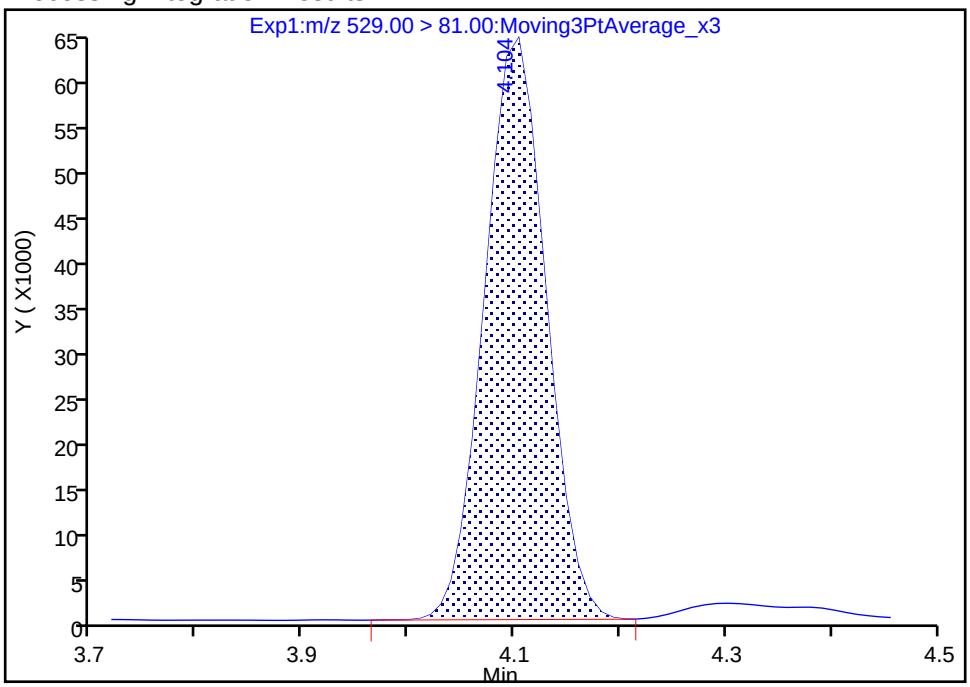
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

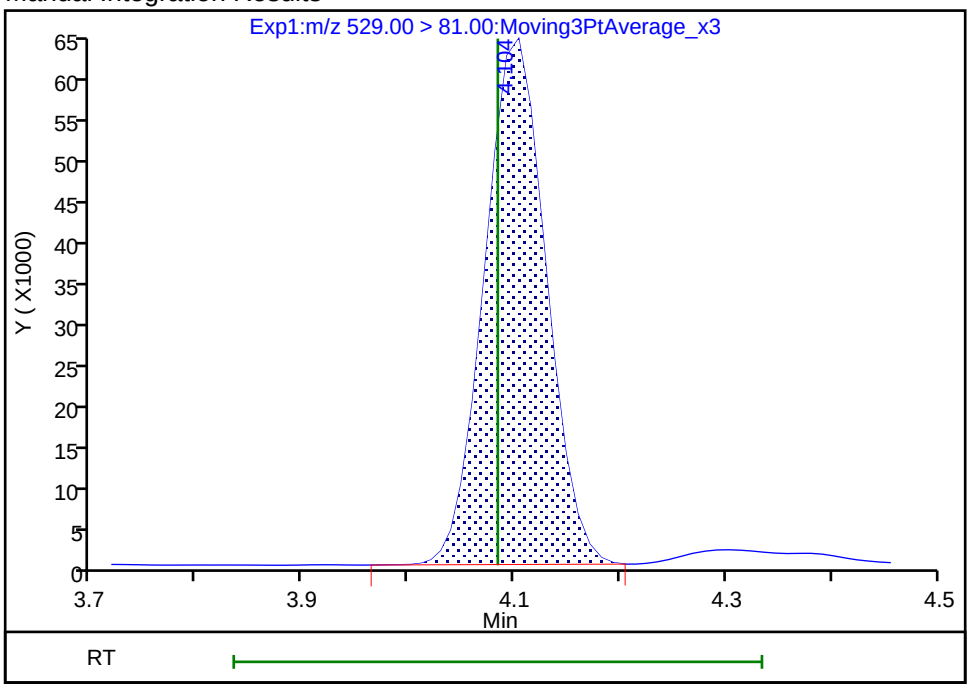
Processing Integration Results

RT: 4.10
Area: 259687
Amount: 1.301446
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 259601
Amount: 1.301015
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:06:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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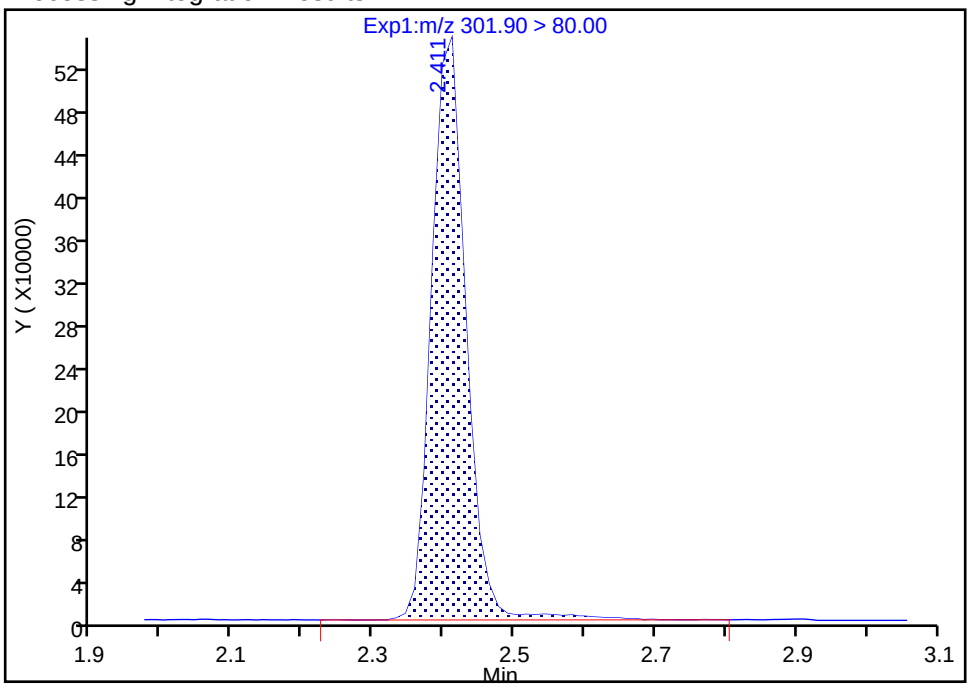
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A21.d | | | | |
| Injection Date: | 03-Nov-2021 15:30:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-8-A | Lab Sample ID: | 200-246027-8 | | |
| Client ID: | MH-105D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

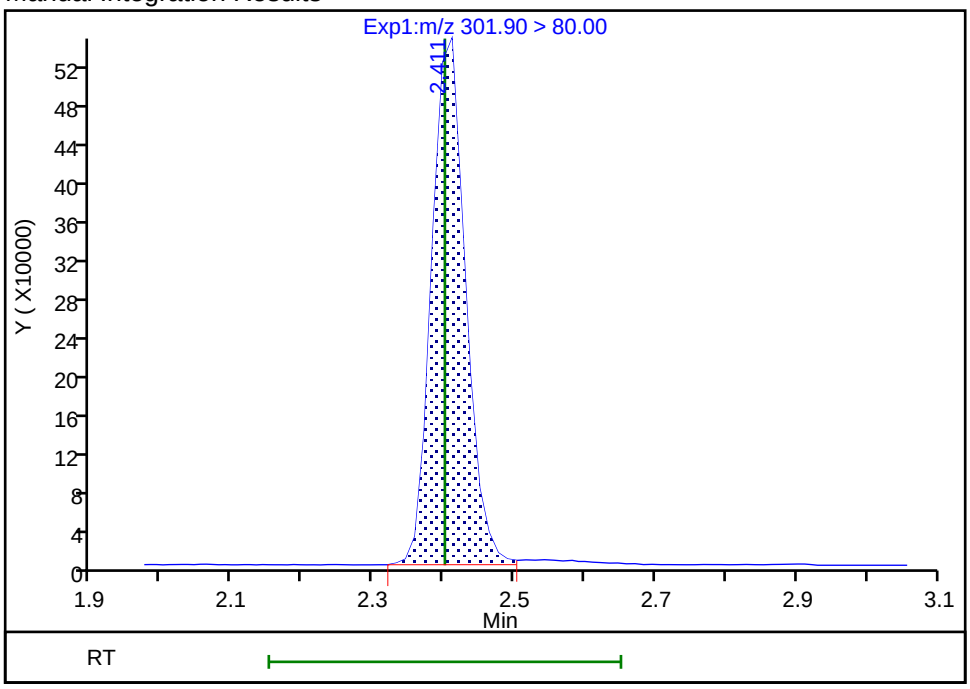
Processing Integration Results

RT: 2.41
Area: 1853749
Amount: 1.206469
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1814328
Amount: 1.180813
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:14:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103S-20211027  Lab Sample ID: 460-246027-9

Matrix: Water  Lab File ID: PA211103A22.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:10

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 259.6(mL)  Date Analyzed: 11/03/2021 15:38

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 1.40 | J | 4.82 | 0.86 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.72 | J | 1.93 | 0.46 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 1.32 | J | 1.93 | 0.44 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.42 | J | 1.93 | 0.23 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 1.89 | J | 1.93 | 0.41 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.27 | U | 1.93 | 0.27 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.93 | 0.29 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.93 | 0.33 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.93 | 0.37 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.93 | 0.42 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.93 | 0.61 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 2.44 |  | 1.93 | 0.24 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 25.4 |  | 1.93 | 0.29 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.81 | J | 1.93 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 53.4 |  | 1.93 | 0.28 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.93 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.56 | U | 1.93 | 0.56 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.87 | U | 4.82 | 0.87 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.72 | U | 4.82 | 0.72 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.06 | U | 4.82 | 1.06 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.93 | 0.38 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-103S-20211027  Lab Sample ID: 460-246027-9

Matrix: Water  Lab File ID: PA211103A22.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:10

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 259.6(mL)  Date Analyzed: 11/03/2021 15:38

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 97 | | 50-150 |
| STL01892 | 13C4 PFHpA | 102 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 94 | | 50-150 |
| STL00995 | 13C5 PFNA | 99 | | 50-150 |
| STL00992 | 13C4 PFBA | 95 | | 25-150 |
| STL00993 | 13C2 PFHxA | 90 | | 50-150 |
| STL00996 | 13C2 PFDA | 92 | | 50-150 |
| STL00997 | 13C2 PFUnA | 95 | | 50-150 |
| STL00998 | 13C2 PFDoA | 83 | | 50-150 |
| STL01056 | 13C8 FOSA | 90 | | 25-150 |
| STL01893 | 13C5 PFPeA | 95 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 86 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 110 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 114 | | 50-150 |
| STL02279 | M2-6:2 FTS | 101 | | 25-150 |
| STL02280 | M2-8:2 FTS | 110 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d
Lims ID: 460-246027-A-9-A
Client ID: MH-103S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:38:25 ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-9-A
Misc. Info.: 200-0048270-022 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:25:25
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.063 | 2.065 | -0.003 | 0.595 | 1653621 | 1.19 | | 94.9 | 9690 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.063 | 2.065 | -0.003 | 1.000 | 45307 | 0.0362 | | | 4.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.688 | 1400781 | 1.19 | | 95.4 | 2310 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 20888 | 0.0186 | | | 0.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.398 | 2.401 | -0.003 | 0.692 | 1757586 | 1.11 | | 95.1 | 52798 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.398 | 2.401 | -0.003 | 1.000 | 102267 | 0.0633 | Target=2.32 | | 12.5 | |
| 298.90 > 99.00 | 2.398 | 2.401 | -0.003 | 1.000 | 47688 | | 2.14(1.16-3.48) | | 14.2 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.744 | 2.735 | 0.009 | 1.000 | 38354 | 0.0343 | Target=12.09 | | 3.5 | |
| 313.00 > 119.00 | 2.732 | 2.735 | -0.003 | 0.996 | 3583 | | 10.70(6.04-18.13) | | 4.8 | M |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.744 | 2.735 | 0.009 | 0.792 | 1378890 | 1.12 | | 89.5 | 1050 | M |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.895 | 1318258 | 1.14 | | 96.6 | 331 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.003 | 807681 | 0.6590 | Target=3.55 | | 166 | |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 1.000 | 216997 | | 3.72(1.77-5.32) | | 110 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 14896 | 0.0109 | Target=3.69 | | 2.2 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 5001 | | 2.98(1.84-5.53) | | 4.6 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1654617 | 1.28 | | 102 | 2685 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 778 | 0.003338 | | | 1.3 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 20568 | 0.0211 | Target=4.88 | | 6.1 | M |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 5026 | | 4.09(2.44-7.32) | | 5.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.995 | 218288 | 1.20 | | 101 | 294 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1708184 | 1.21 | | 96.4 | 1243 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1721627 | 1.25 | | | 317 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 71410 | 0.0491 | Target=2.68 | | 7.0 | |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 31189 | | 2.29(1.34-4.02) | | 14.9 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 933397 | 1.12 | | 93.6 | 396 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.000 | 1175445 | 1.39 | Target=4.69 | | 243 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 0.997 | 263736 | | 4.46(2.35-7.04) | | 245 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.092 | 1743481 | 1.24 | | 98.8 | 1664 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.795 | 3.786 | 0.009 | 1.003 | 2621 | 0.001921 | Target=7.29 | | 0.4 | RM |
| 463.00 > 169.00 | 3.795 | 3.786 | 0.009 | 1.003 | 177 | | 14.81(3.64-10.93) | | 0.5 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.082 | 4.073 | 0.009 | 1.178 | 1634757 | 1.15 | | 91.8 | 100.0 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 271236 | 1.31 | | 110 | 168 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.084 | 0.020 | 1.003 | 644 | 0.003399 | | | 0.9 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1546923 | 1.13 | | 90.1 | 598 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.207 | 0.018 | 1.002 | 949 | 0.000807 | | | 1.5 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 193411 | 1.38 | | 110 | 217 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.193 | 4.217 | -0.024 | 0.993 | 283 | 0.002328 | | | 0.3 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.325 | 4.306 | 0.019 | 1.145 | 164 | 0.000319 | Target=2.47 | | 0.5 | M |
| 599.00 > 99.00 | 4.303 | 4.306 | -0.004 | 1.140 | 80 | | 2.05(1.23-3.70) | | 0.7 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1312334 | 1.18 | | 94.6 | 966 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.336 | 4.339 | -0.003 | 0.997 | 1083 | 0.000968 | Target=9.24 | | 0.7 | RM |
| 563.00 > 169.00 | 4.325 | 4.339 | -0.014 | 0.995 | 56 | | 19.34(4.62-13.86) | | 0.6 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 186693 | 1.42 | | 114 | 736 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 338 | 0.002641 | | | 1.0 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1240075 | 1.04 | | 83.1 | 299 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 2136 | 0.002199 | Target=7.04 | | 0.4 | M |
| 613.00 > 169.00 | 4.580 | 4.562 | 0.018 | 1.003 | 362 | | 5.90(3.52-10.56) | | 2.5 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.765 | 4.761 | 0.004 | 1.043 | 1255 | 0.001499 | Target=4.68 | | 0.4 | M |
| 663.00 > 169.00 | 4.774 | 4.761 | 0.013 | 1.045 | 256 | | 4.90(2.34-7.02) | | 2.5 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.427 | 991731 | 1.07 | | 85.7 | 1322 | M |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.946 | 4.940 | 0.006 | 1.000 | 388 | 0.003099 | Target=1.01 | | 13.9 | M |
| 713.00 > 219.00 | 4.946 | 4.940 | 0.006 | 1.000 | 272 | | 1.43(0.51-1.52) | | 9.6 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:15:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d

Injection Date: 03-Nov-2021 15:38:25 Instrument ID: LC812

Lims ID: 460-246027-A-9-A Lab Sample ID: 200-246027-9

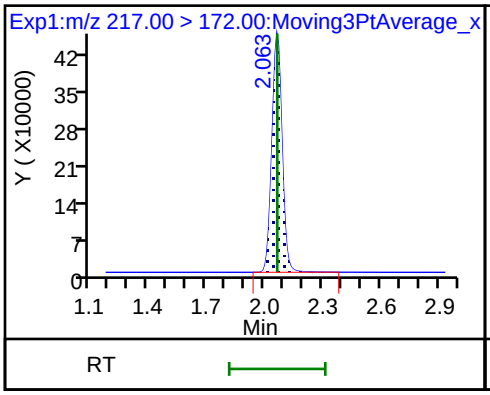
Client ID: MH-103S-20211027

Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22

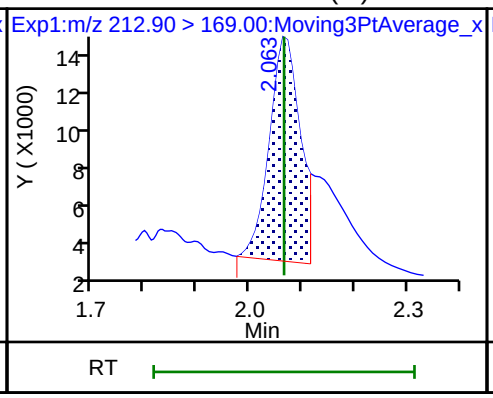
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

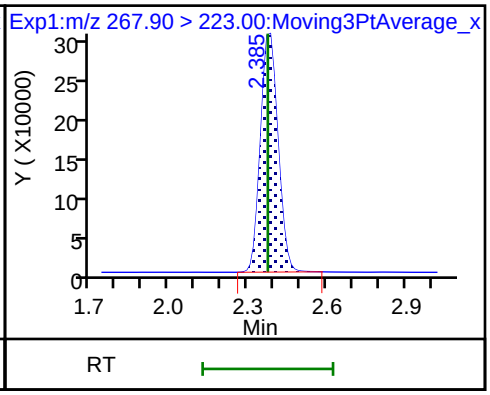
D 1 13C4 PFBA



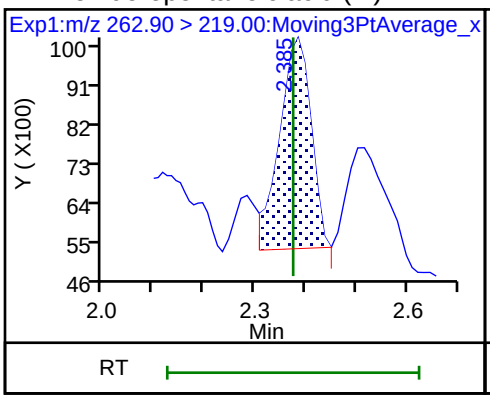

2 Perfluorobutanoic acid (M)



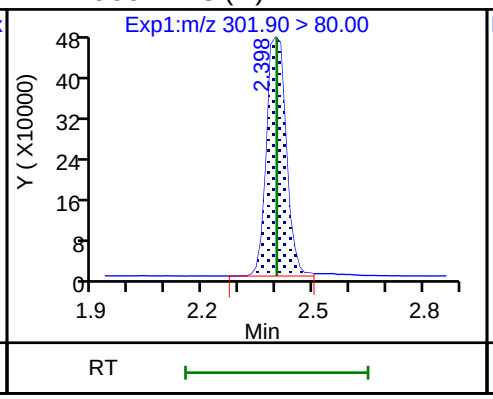

D 3 13C5 PFPeA



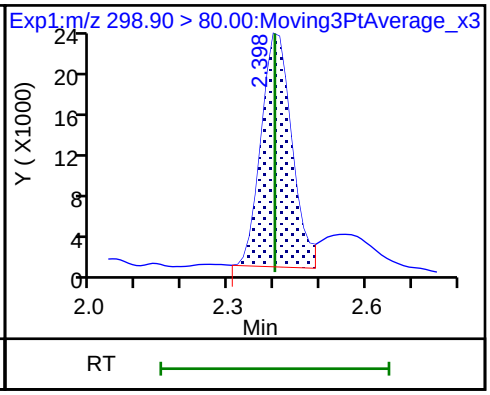

4 Perfluoropentanoic acid (M)



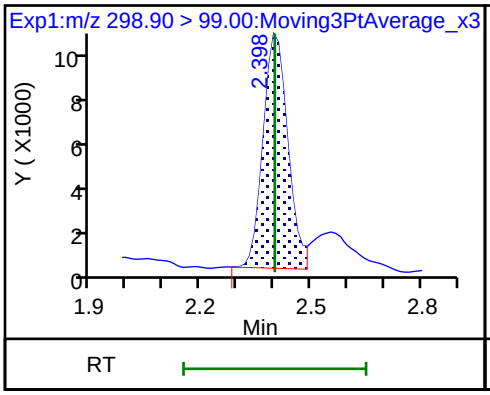

D 47 13C3 PFBS (M)



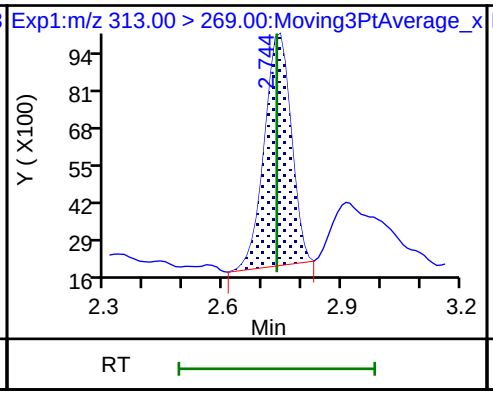

5 Perfluorobutanesulfonic acid



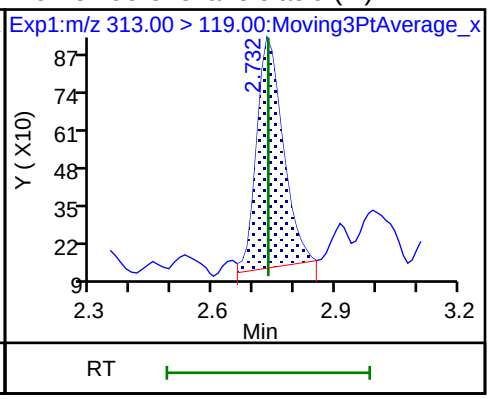

5 Perfluorobutanesulfonic acid



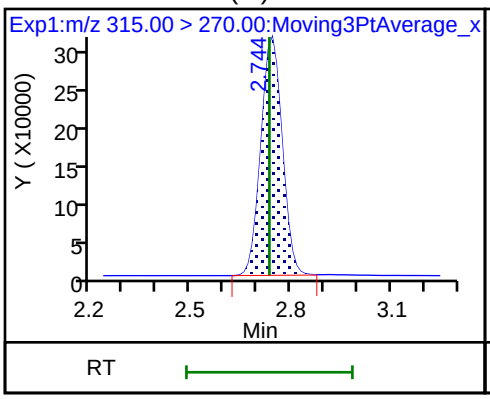

6 Perfluorohexanoic acid



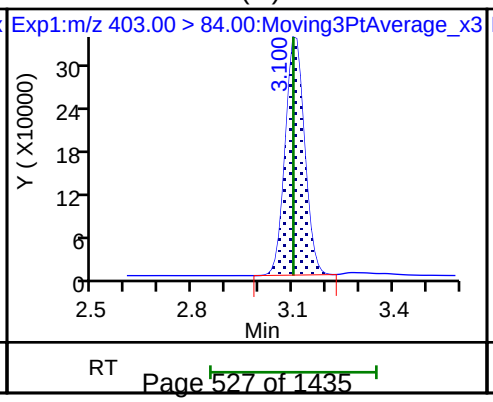

6 Perfluorohexanoic acid (M)



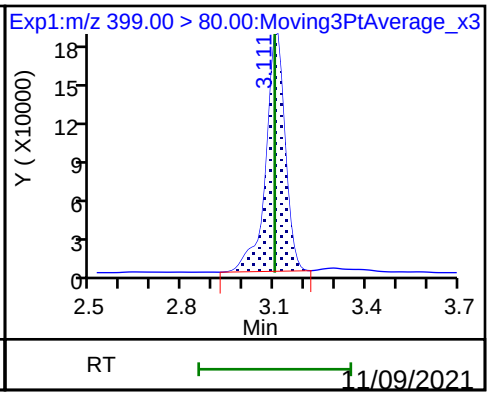

D 7 13C2 PFHxA (M)



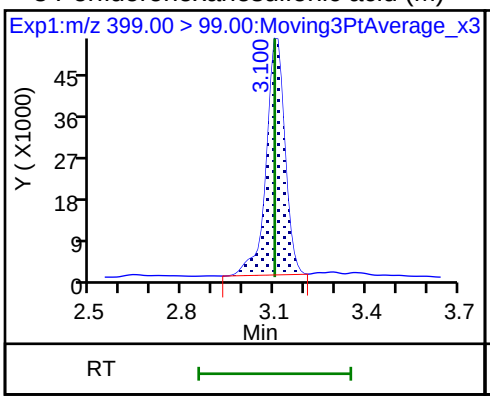

D 11 18O2 PFHxS (M)



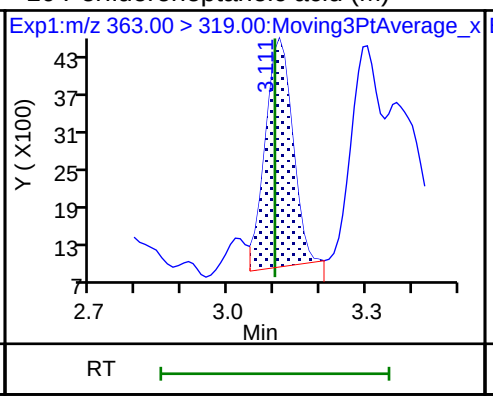

8 Perfluorohexanesulfonic acid



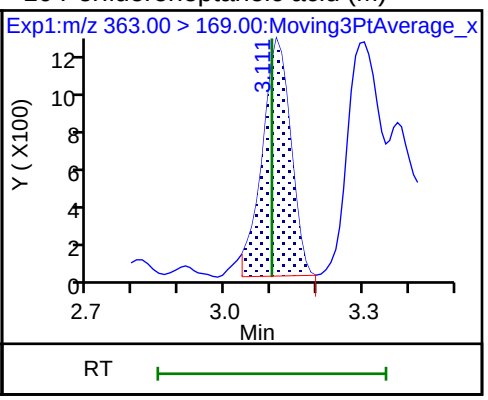
8 Perfluorohexanesulfonic acid (M)



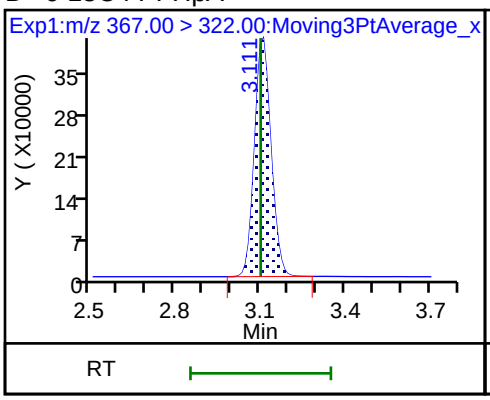

10 Perfluoroheptanoic acid (M)



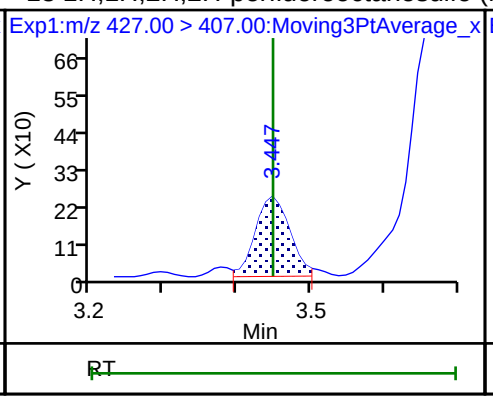

10 Perfluoroheptanoic acid (M)



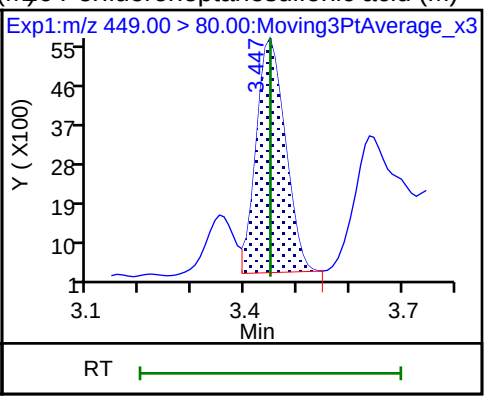

D 9 13C4 PFHpA



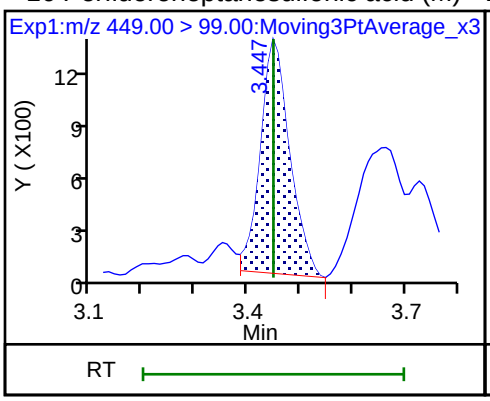

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



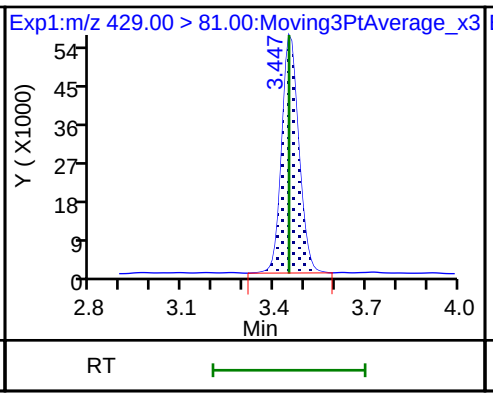

16 Perfluoroheptanesulfonic acid (M)



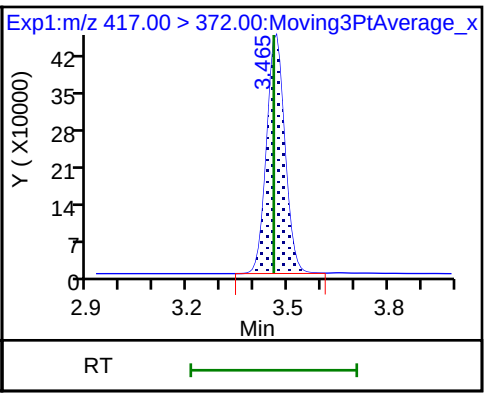

16 Perfluoroheptanesulfonic acid (M)



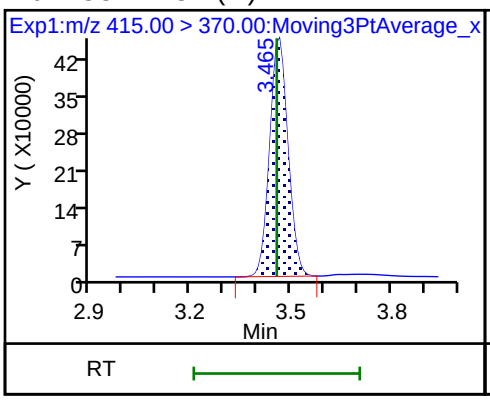

D 12 M2-6:2 FTS



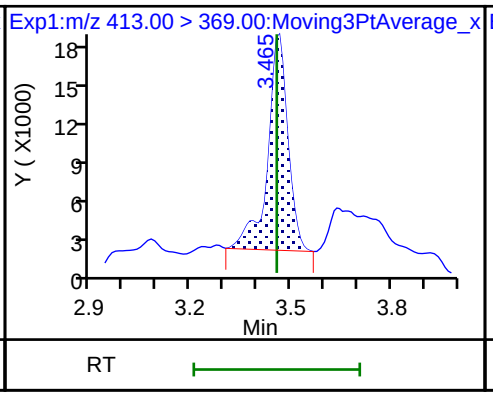

D 14 13C4 PFOA



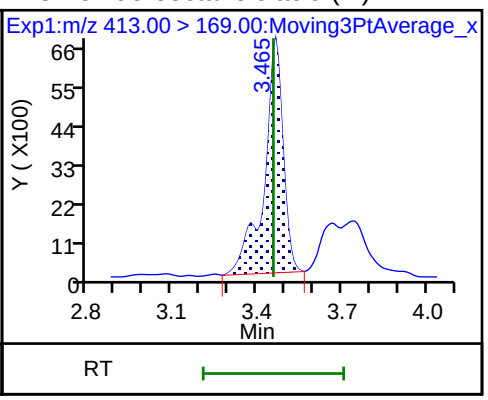

* 62 13C2 PFOA (M)



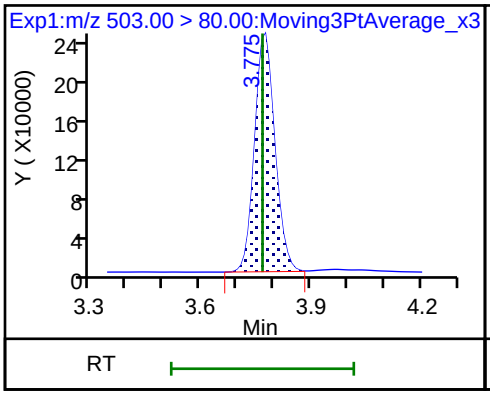

15 Perfluorooctanoic acid



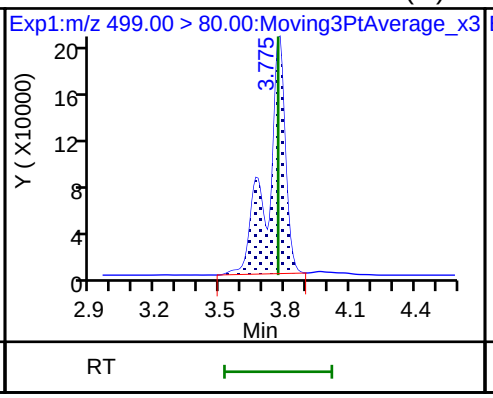

15 Perfluorooctanoic acid (M)



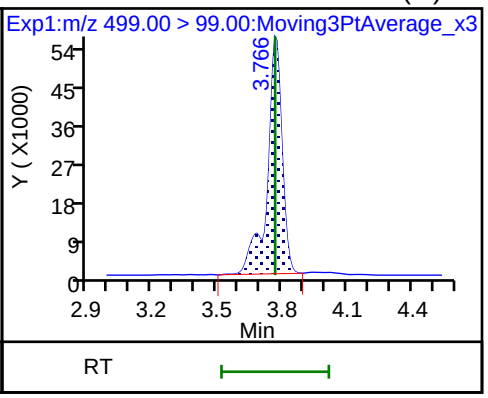
D 18 13C4 PFOS



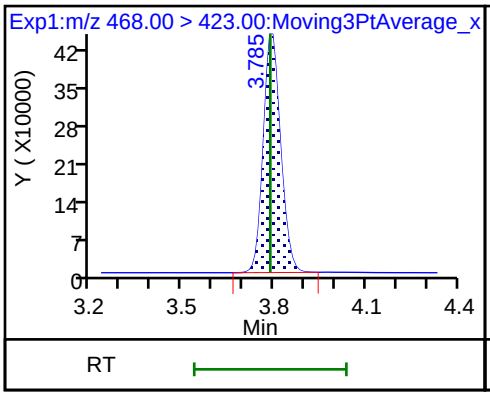

17 Perfluorooctanesulfonic acid (M)



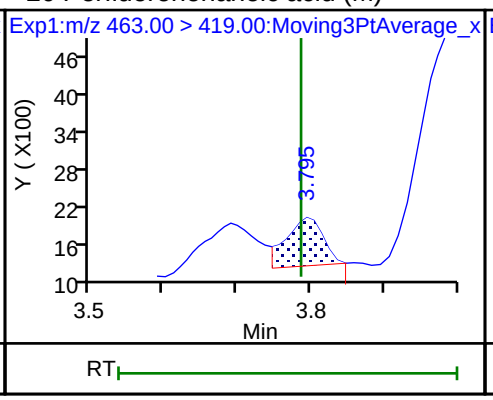

17 Perfluorooctanesulfonic acid (M)



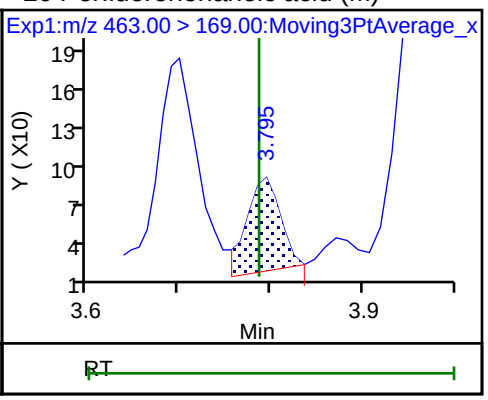

D 19 13C5 PFNA



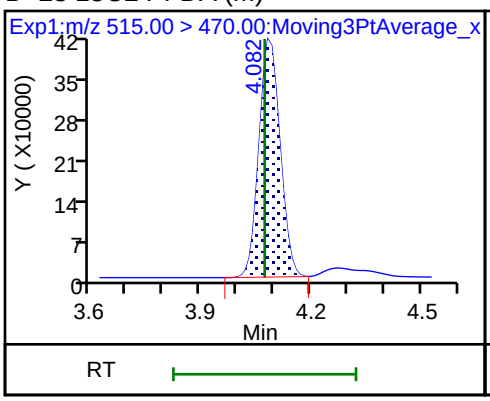

20 Perfluorononanoic acid (M)



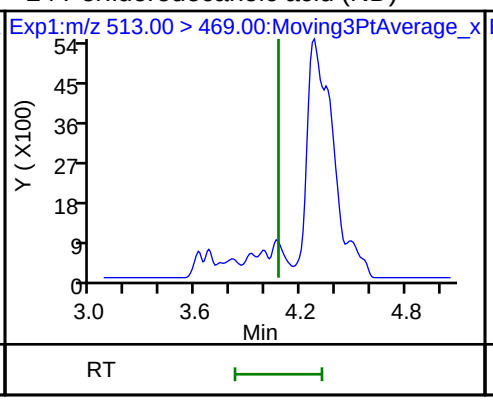

20 Perfluorononanoic acid (M)



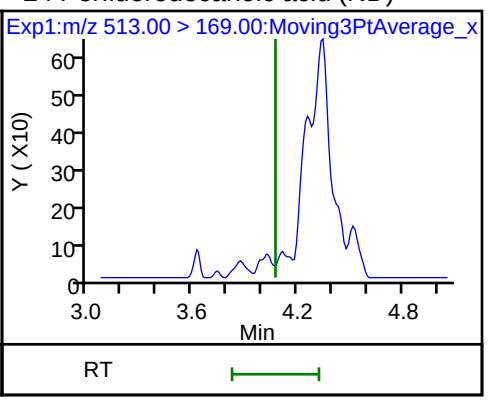

D 23 13C2 PFDA (M)



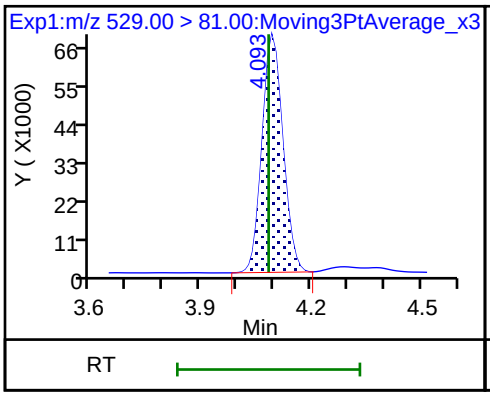

24 Perfluorodecanoic acid (ND)



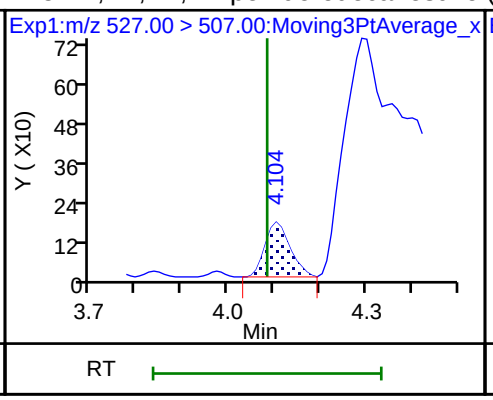

24 Perfluorodecanoic acid (ND)



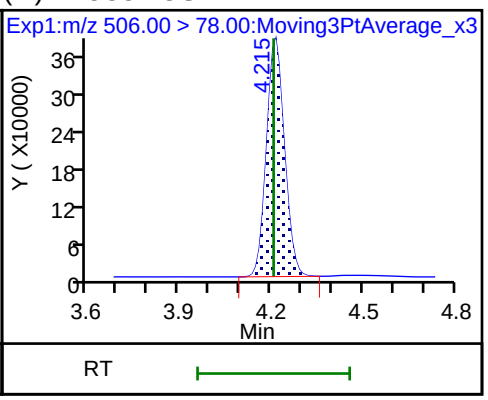

D 26 M2-8:2 FTS



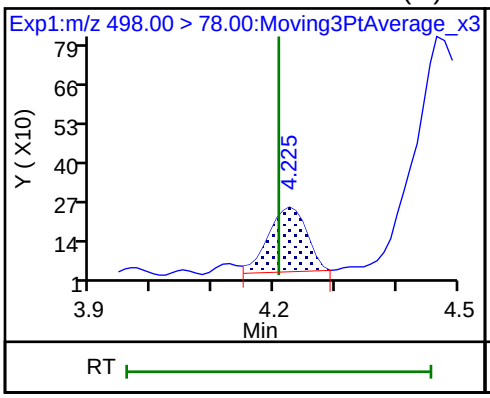

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



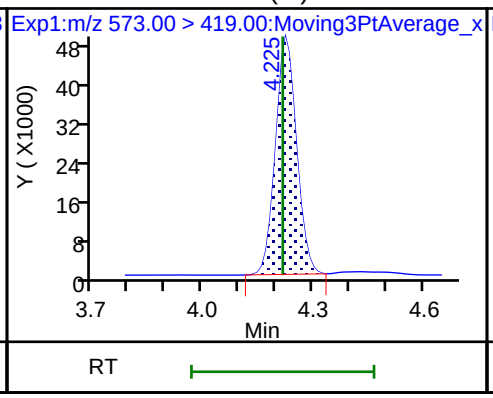

21 13C8 FOSA



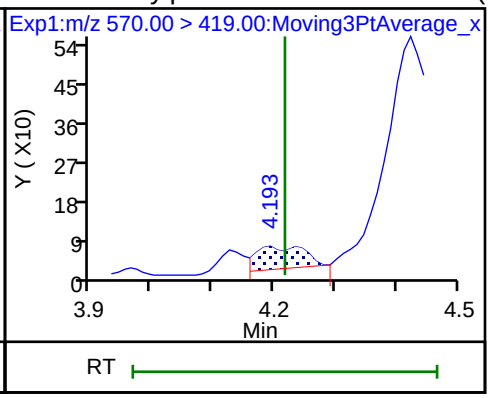
22 Perfluorooctanesulfonamide (M)



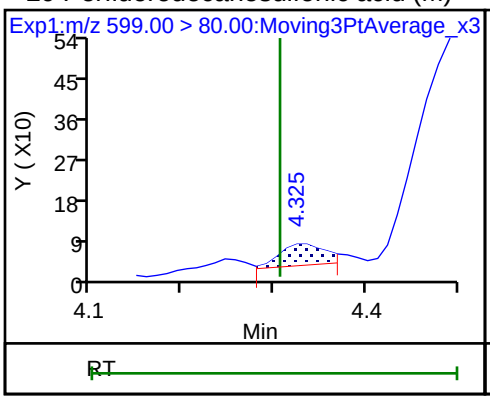

D 27 d3-NMeFOSAA (M)



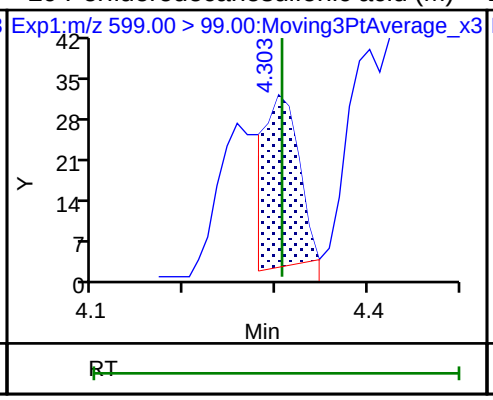

28 N-methylperfluorooctanesulfonami (M)



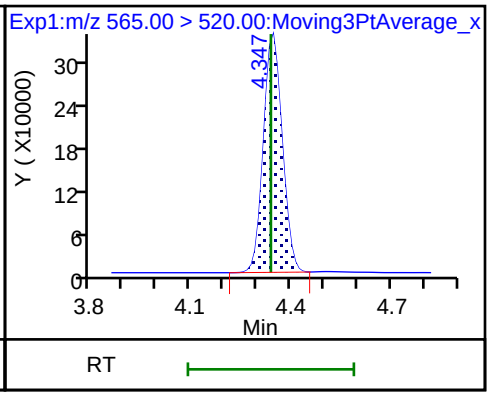

29 Perfluorodecanesulfonic acid (M)



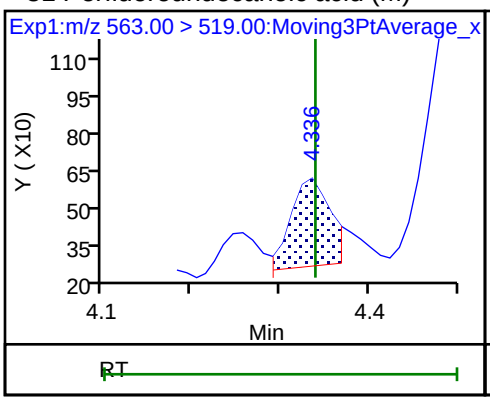

29 Perfluorodecanesulfonic acid (M)



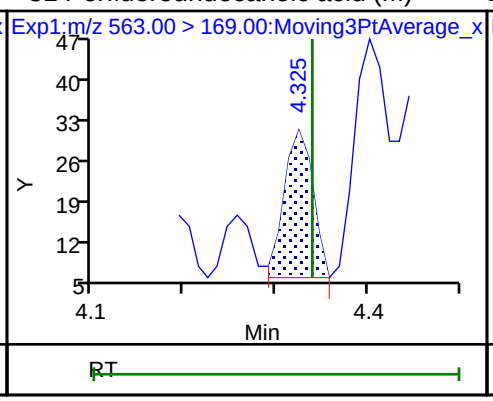

D 30 13C2 PFUnA



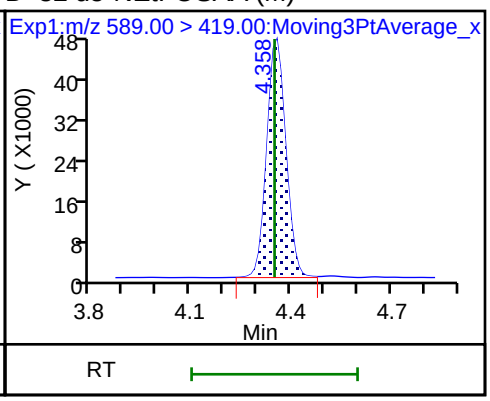

31 Perfluoroundecanoic acid (M)



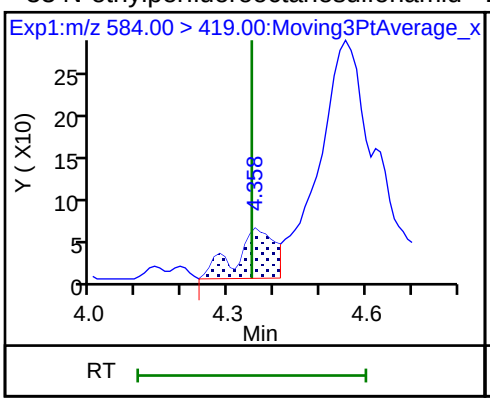

31 Perfluoroundecanoic acid (M)



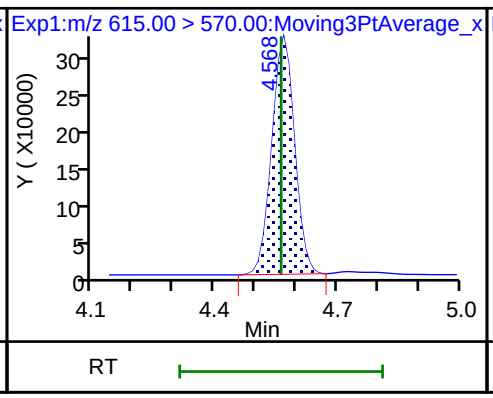

D 32 d5-NEtFOSAA (M)



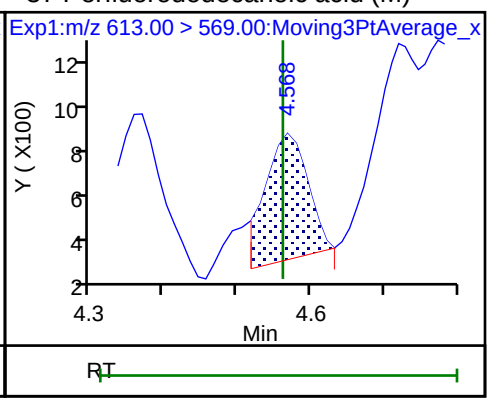

33 N-ethylperfluorooctanesulfonamid



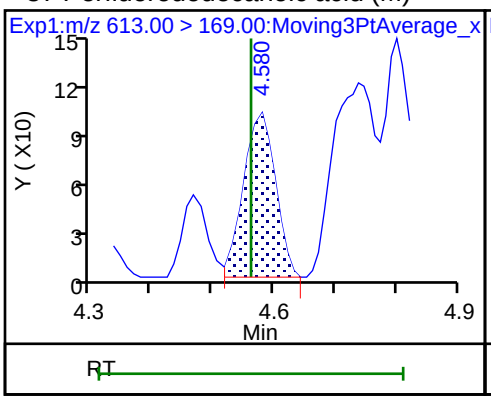

D 36 13C2 PFDoA



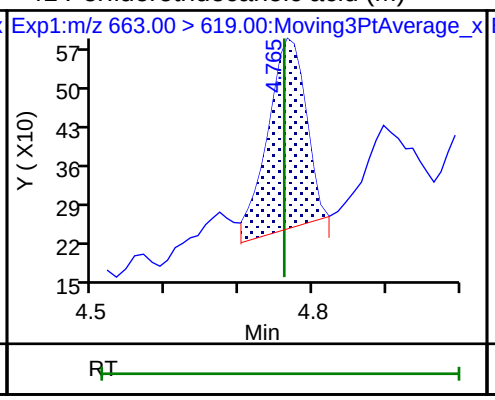

37 Perfluorododecanoic acid (M)



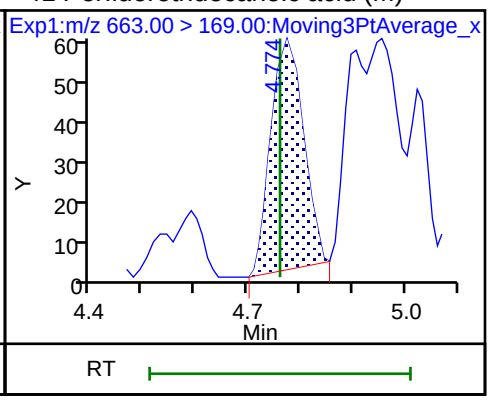
37 Perfluorododecanoic acid (M)



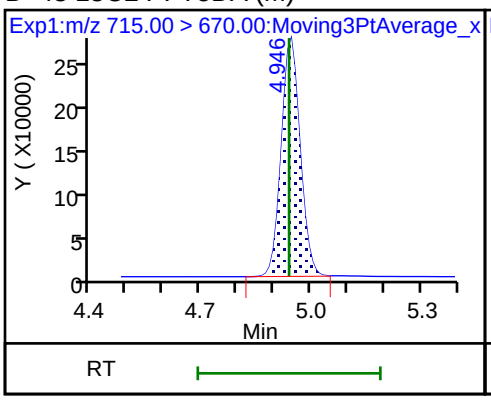

41 Perfluorotridecanoic acid (M)



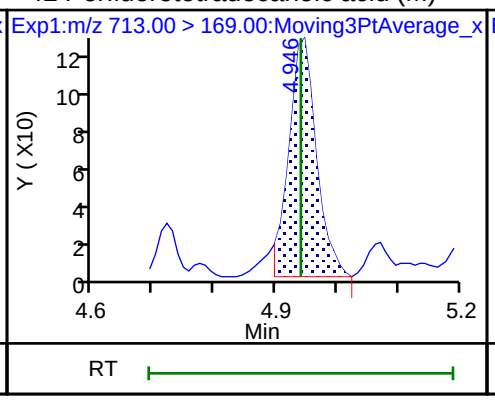

41 Perfluorotridecanoic acid (M)



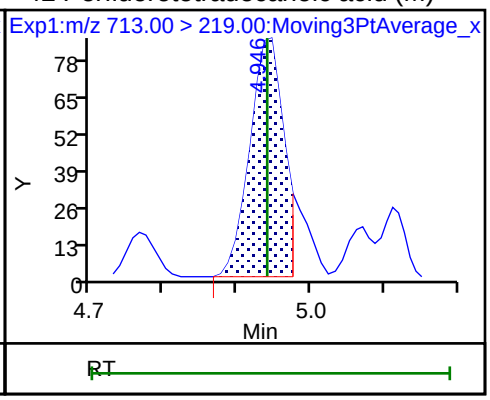

D 43 13C2 PFTeDA (M)




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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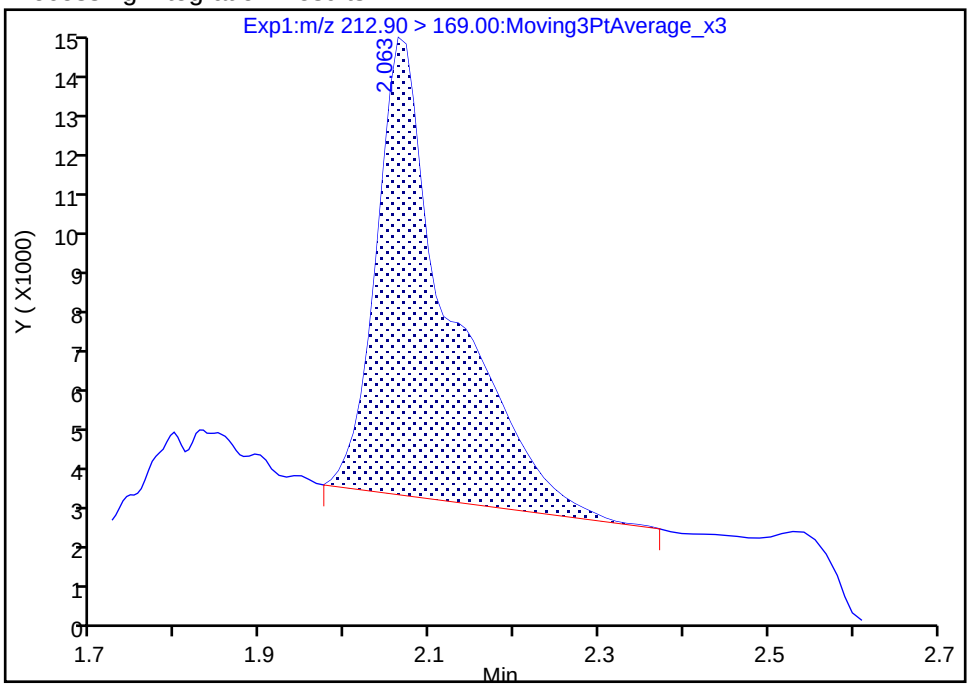
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

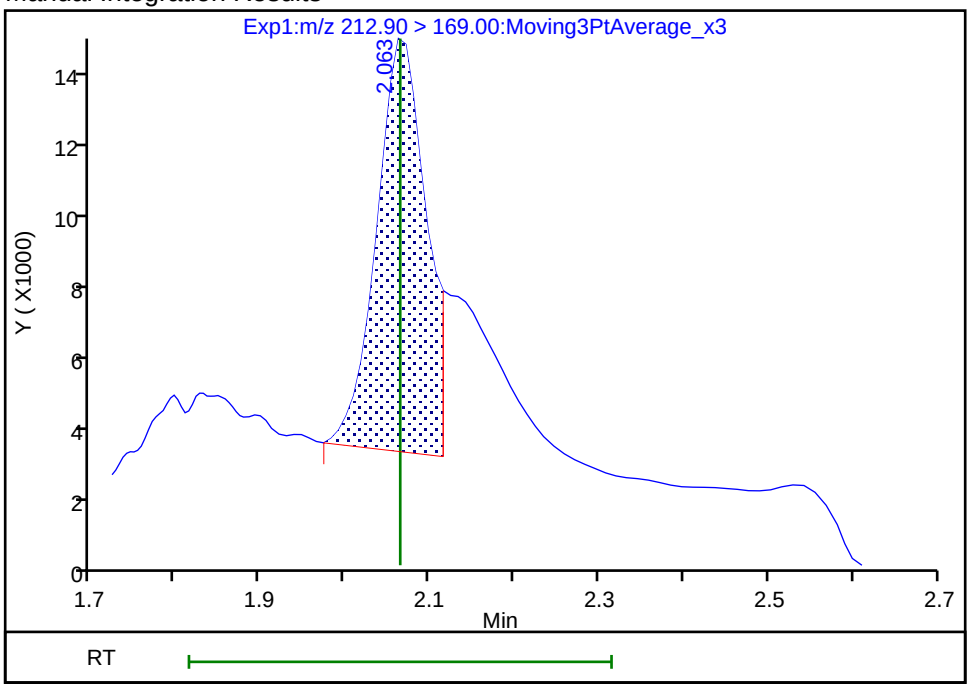
Processing Integration Results

RT: 2.06
Area: 68023
Amount: 0.054380
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 45307
Amount: 0.036220
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:21:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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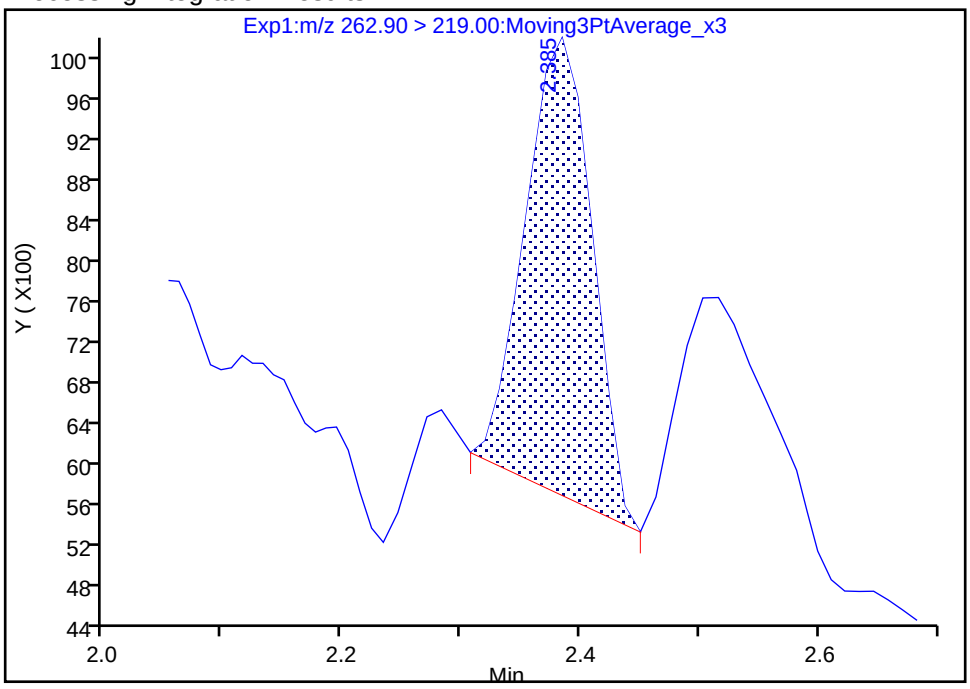
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

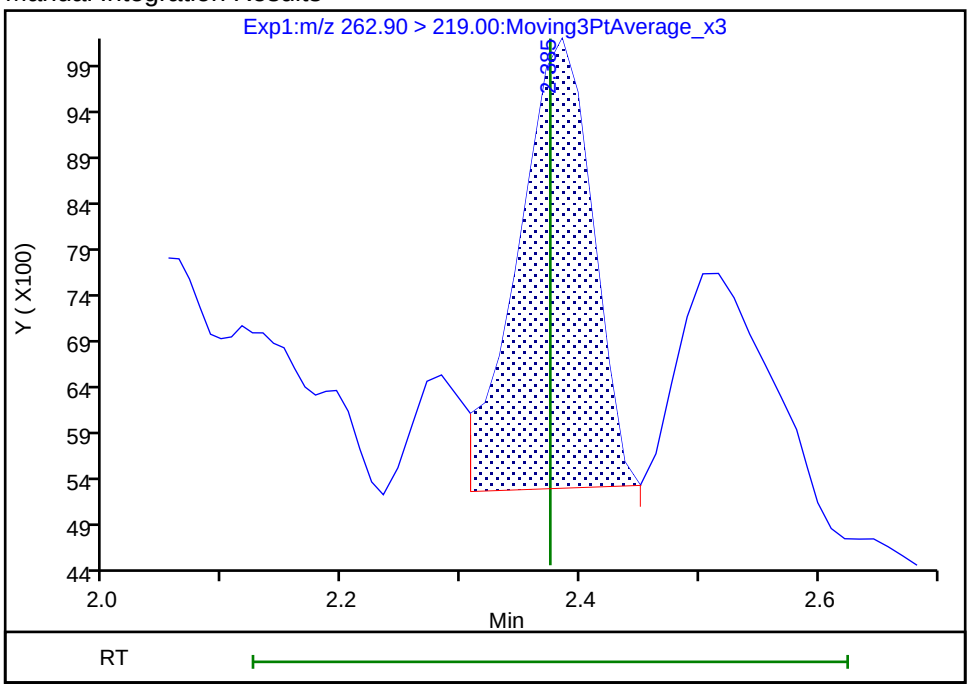
Processing Integration Results

RT: 2.38
Area: 17304
Amount: 0.015415
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 20888
Amount: 0.018607
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:21:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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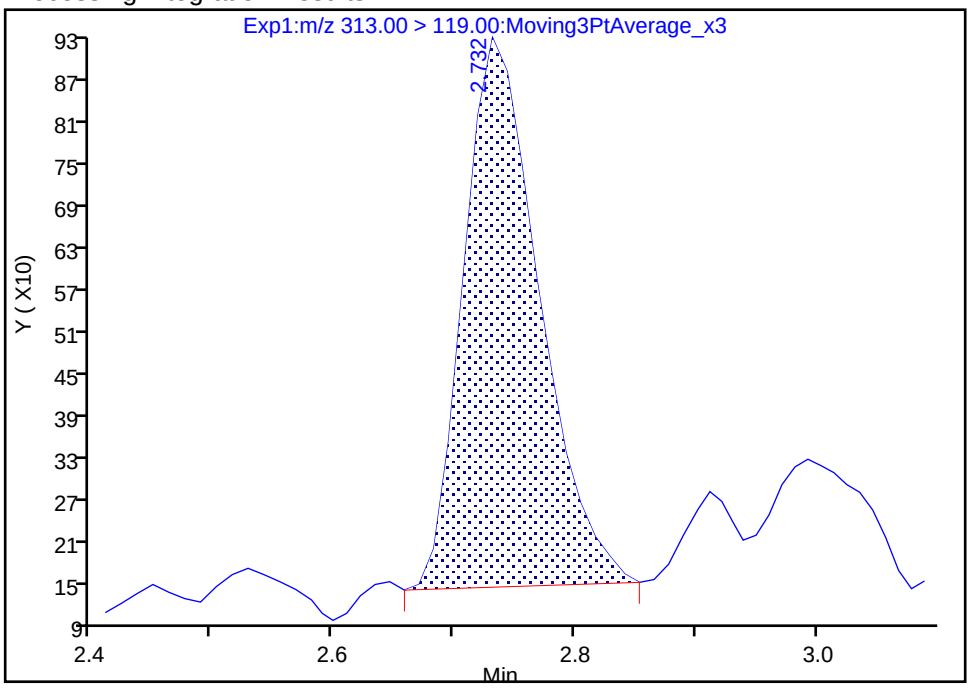
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

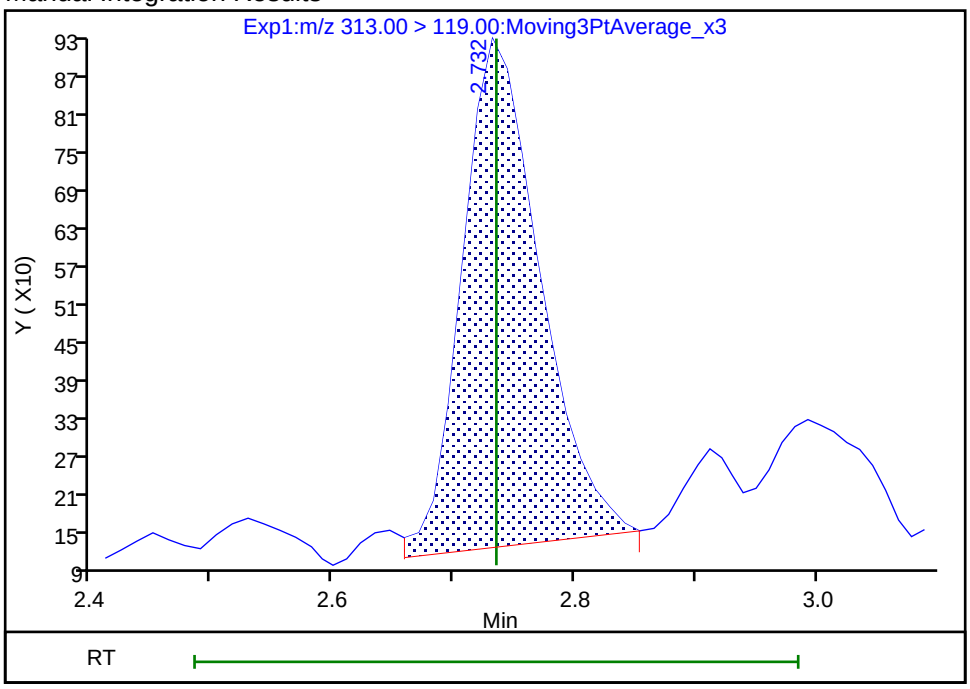
Processing Integration Results

RT: 2.73
Area: 3402
Amount: 0.034283
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 3583
Amount: 0.034283
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:21:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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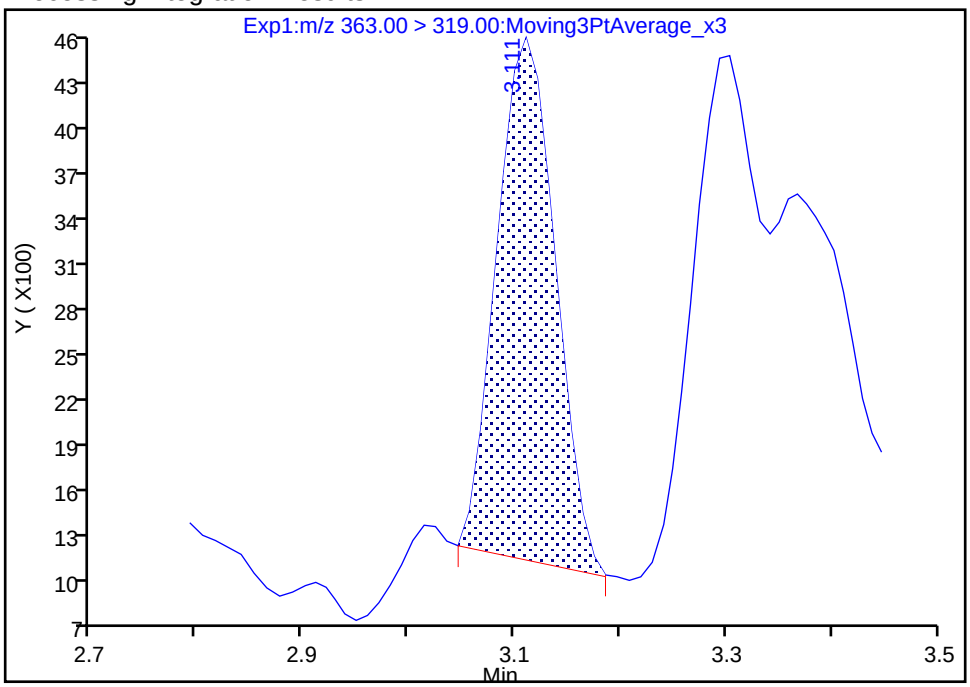
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

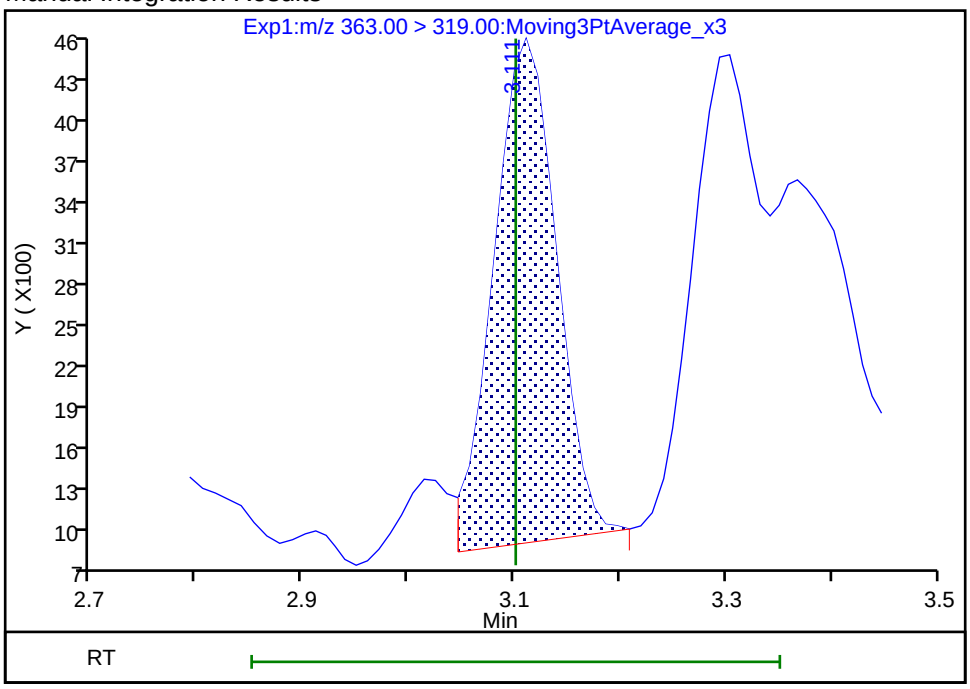
Processing Integration Results

RT: 3.11
Area: 13033
Amount: 0.009529
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 14896
Amount: 0.010892
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:22:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

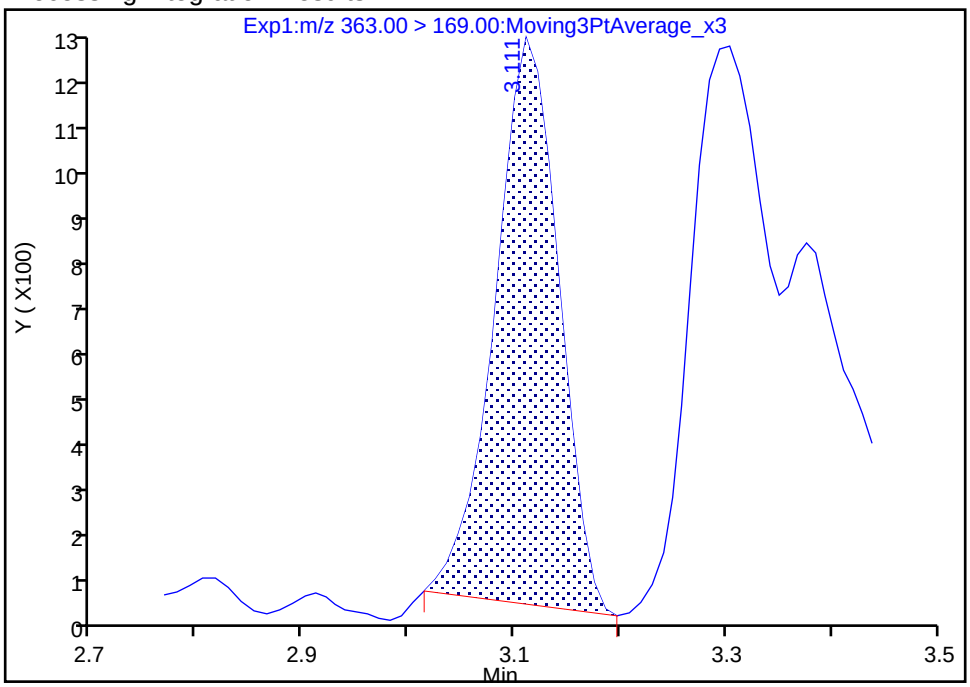
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

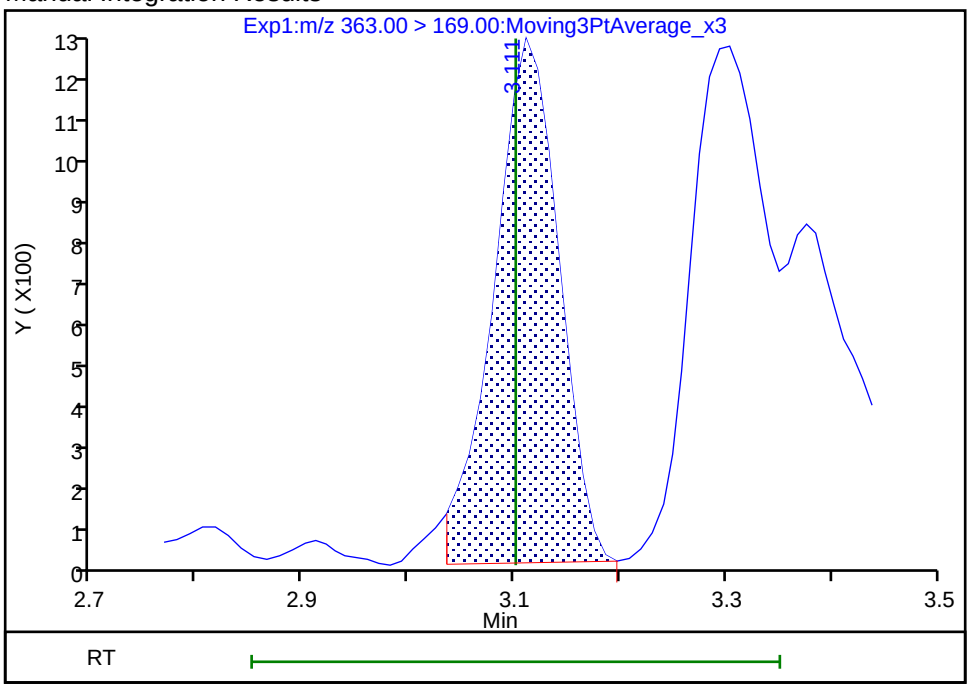
Processing Integration Results

RT: 3.11
Area: 4792
Amount: 0.009529
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 5001
Amount: 0.010892
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:22:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

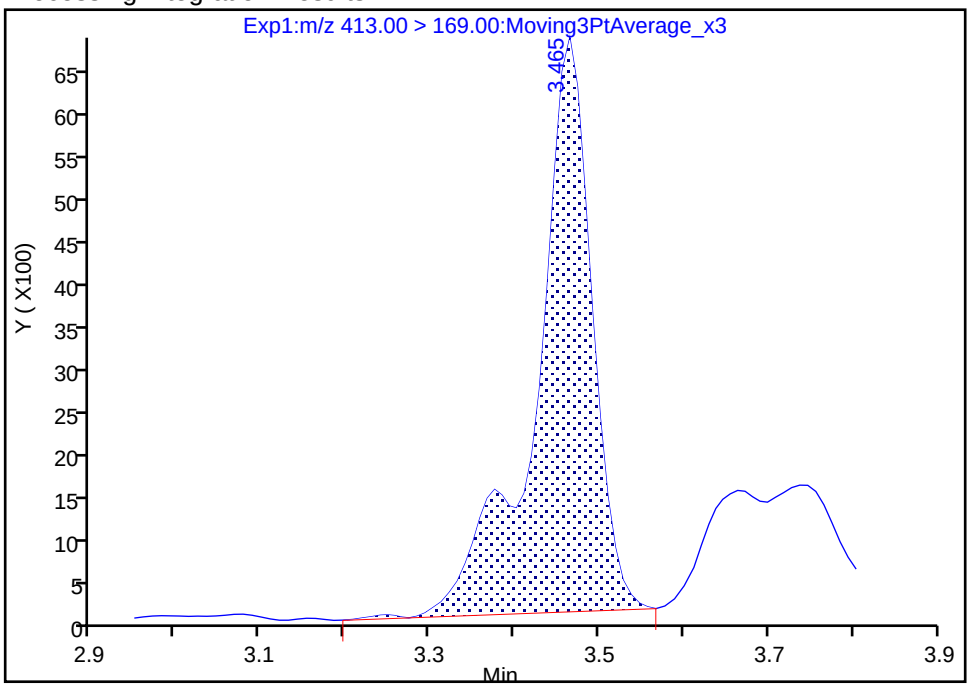
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

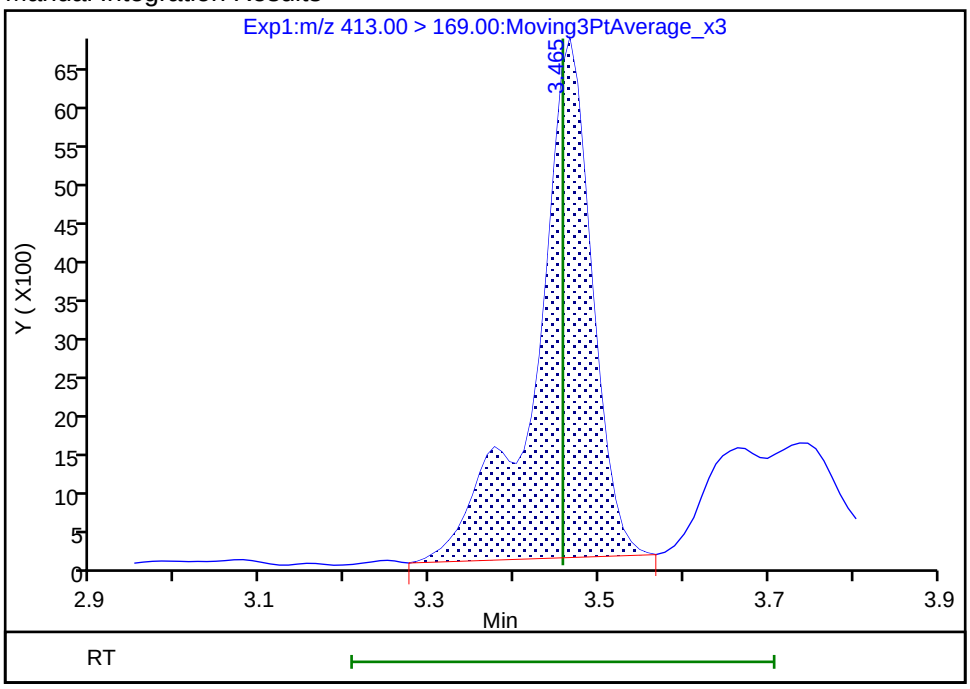
Processing Integration Results

RT: 3.47
Area: 31295
Amount: 0.049139
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 31189
Amount: 0.049139
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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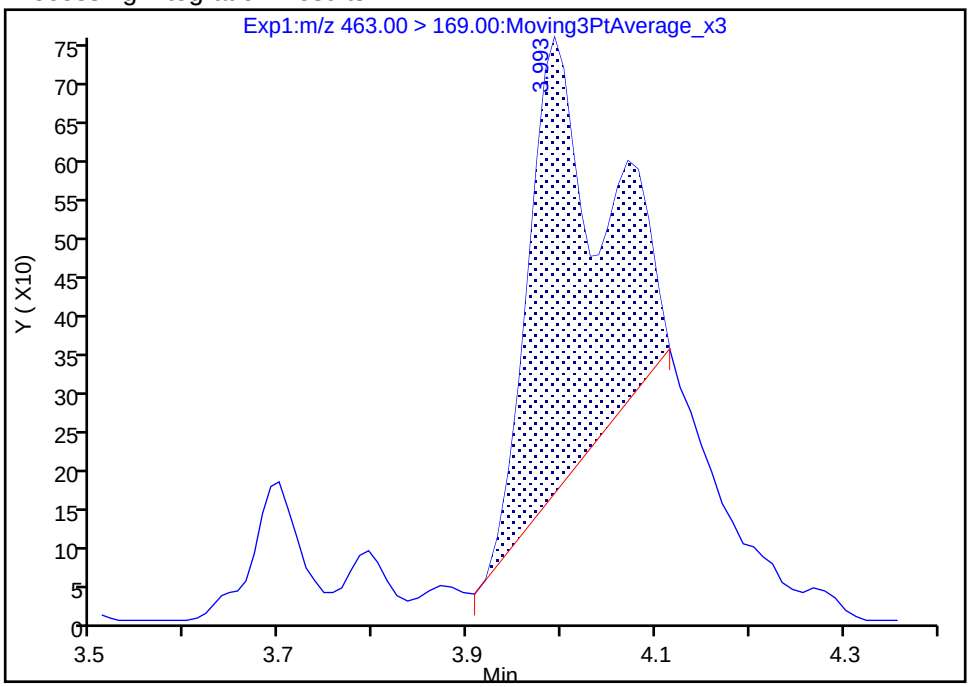
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

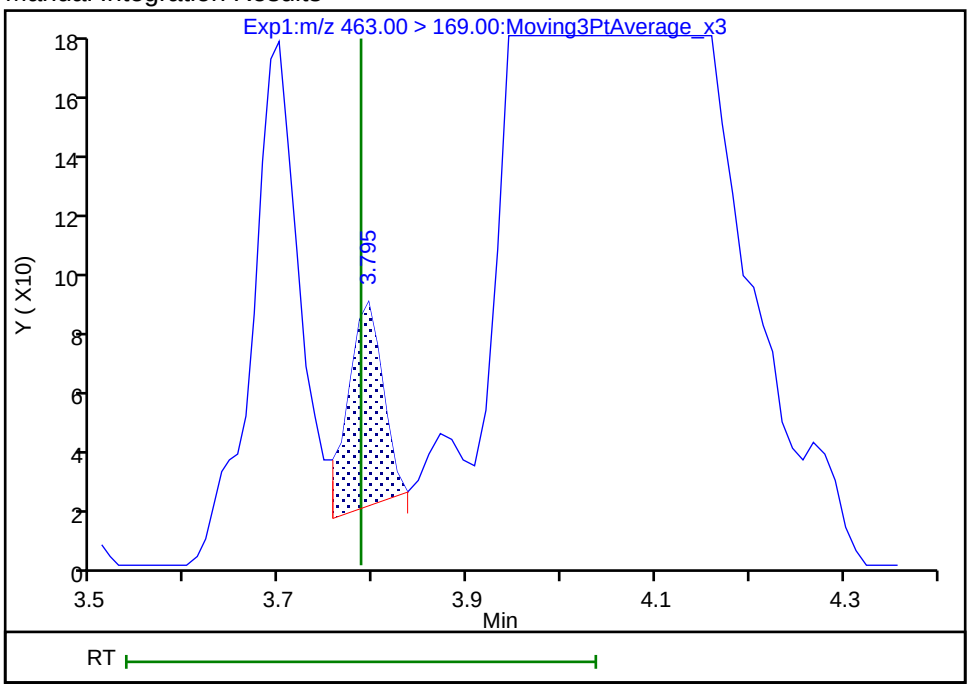
Processing Integration Results

RT: 3.99
Area: 3245
Amount: 0.008050
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 177
Amount: 0.001921
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

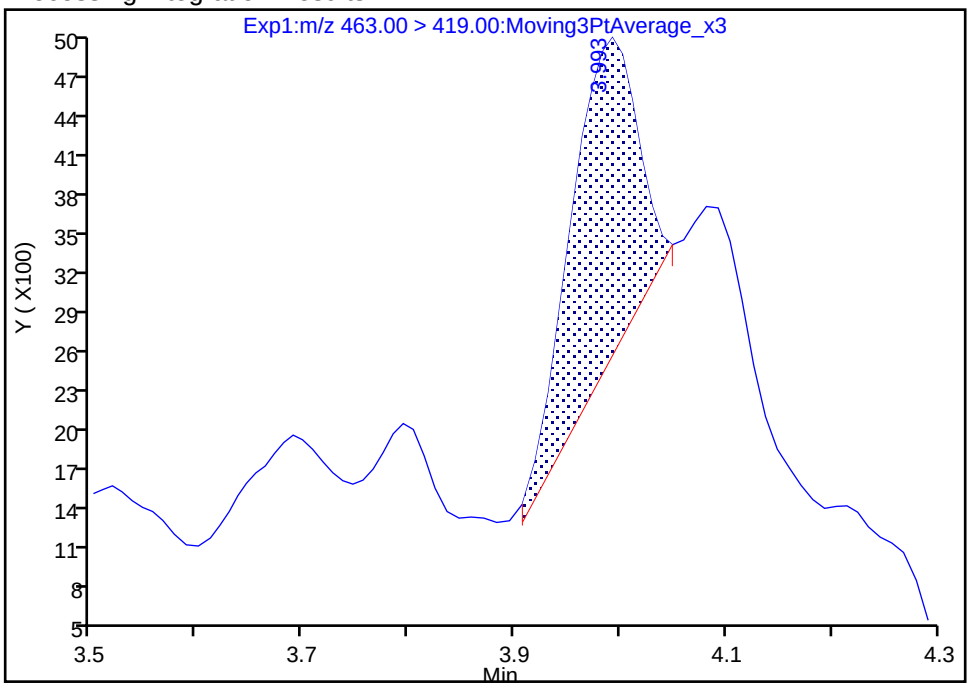
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

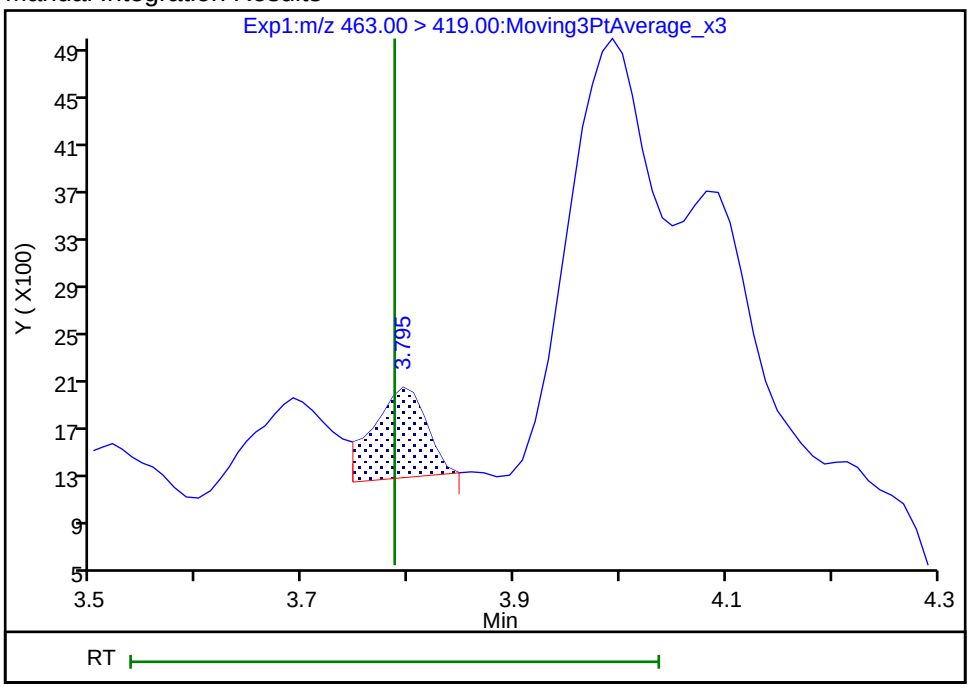
Processing Integration Results

RT: 3.99
Area: 10985
Amount: 0.008050
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 2621
Amount: 0.001921
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

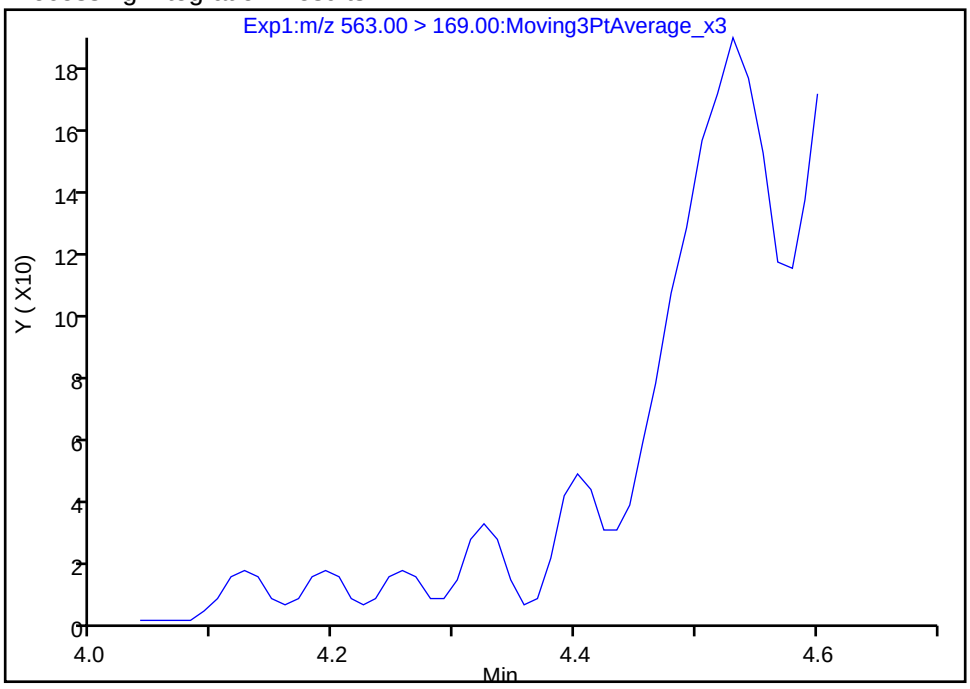
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

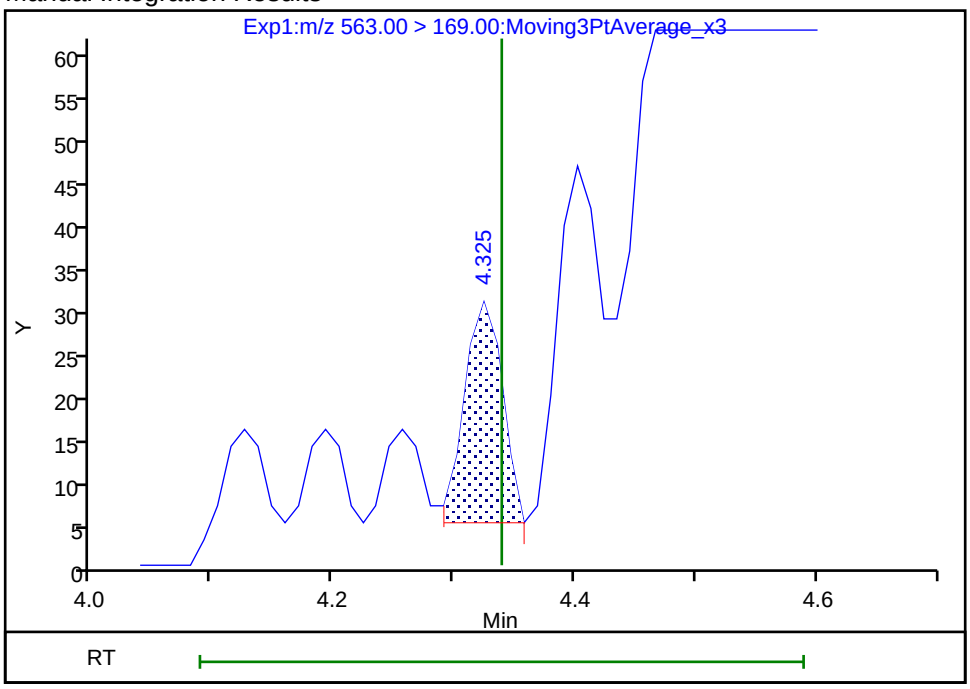
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 56
Amount: 0.000968
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:24:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

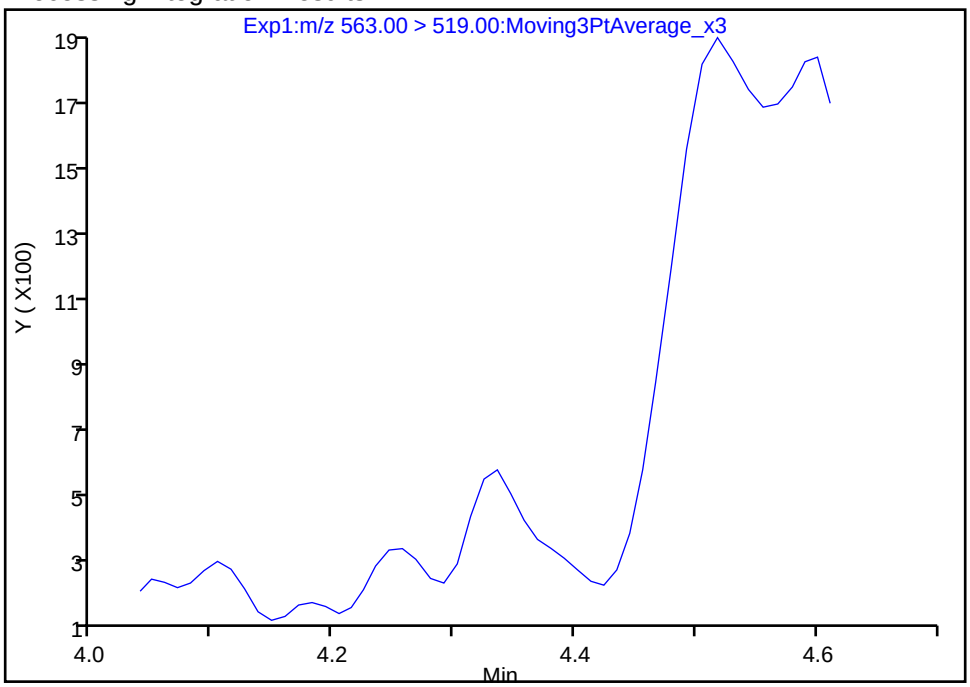
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

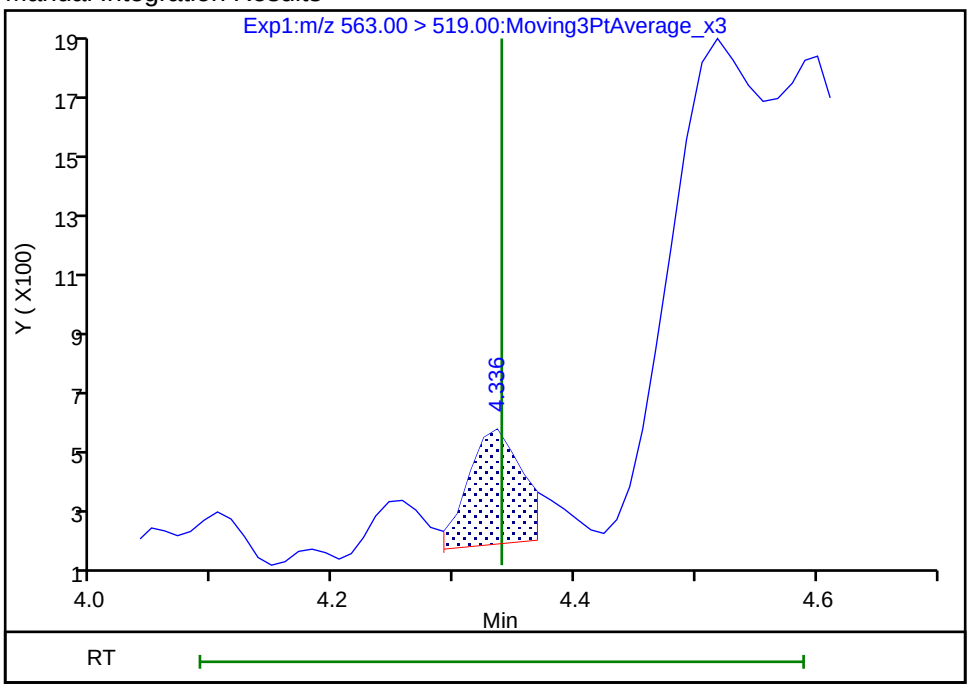
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 1083
Amount: 0.000968
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:24:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

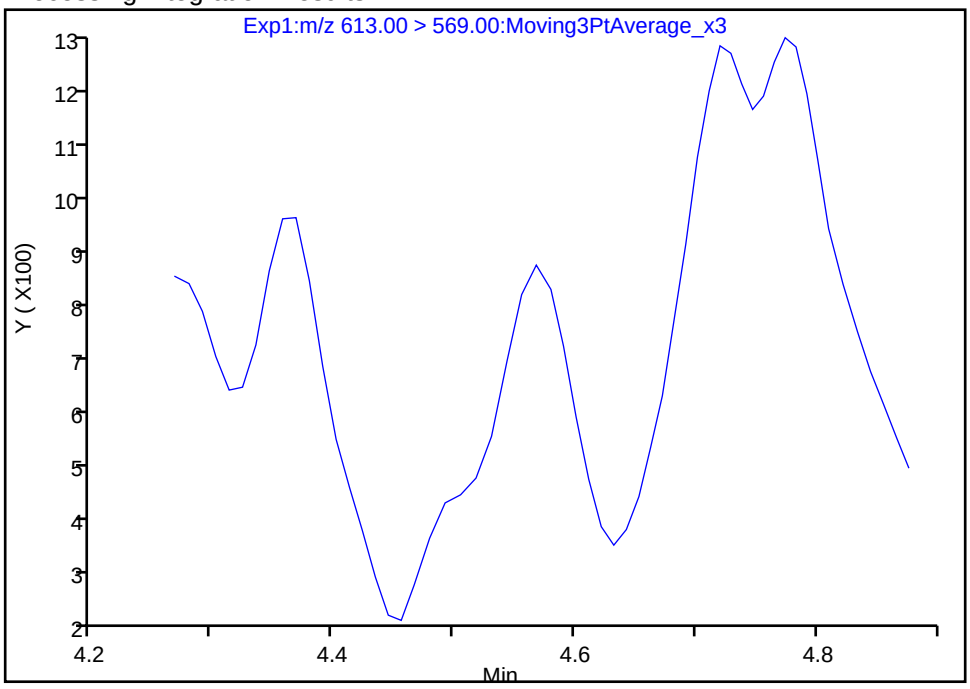
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

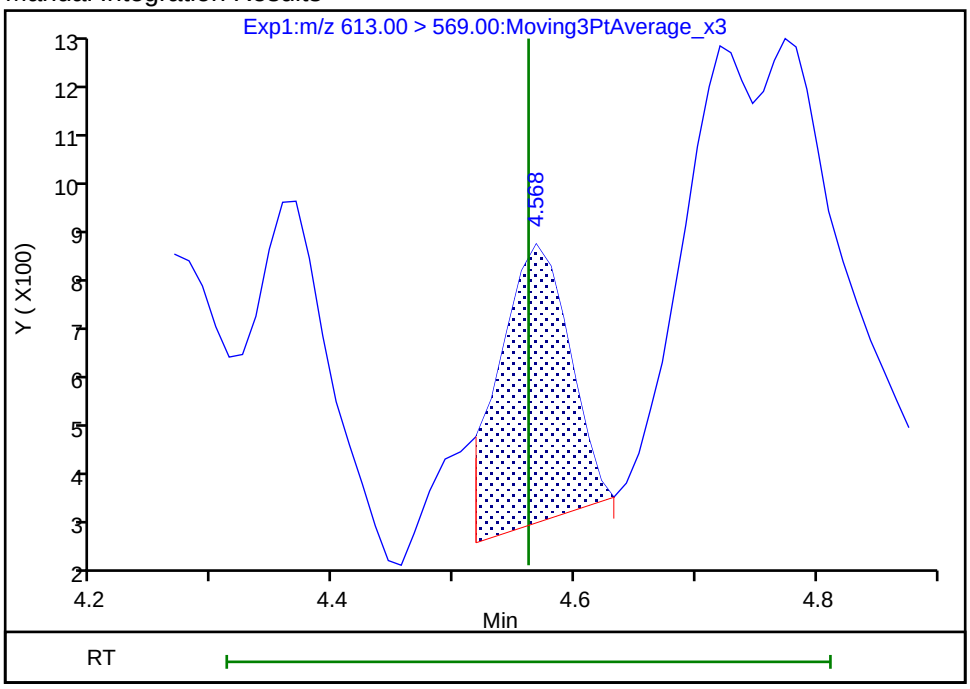
Not Detected
Expected RT: 4.56

Processing Integration Results




RT: 4.57
Area: 2136
Amount: 0.002199
Amount Units: ng/ml

Manual Integration Results




Reviewer: nampitakw, 04-Nov-2021 10:24:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

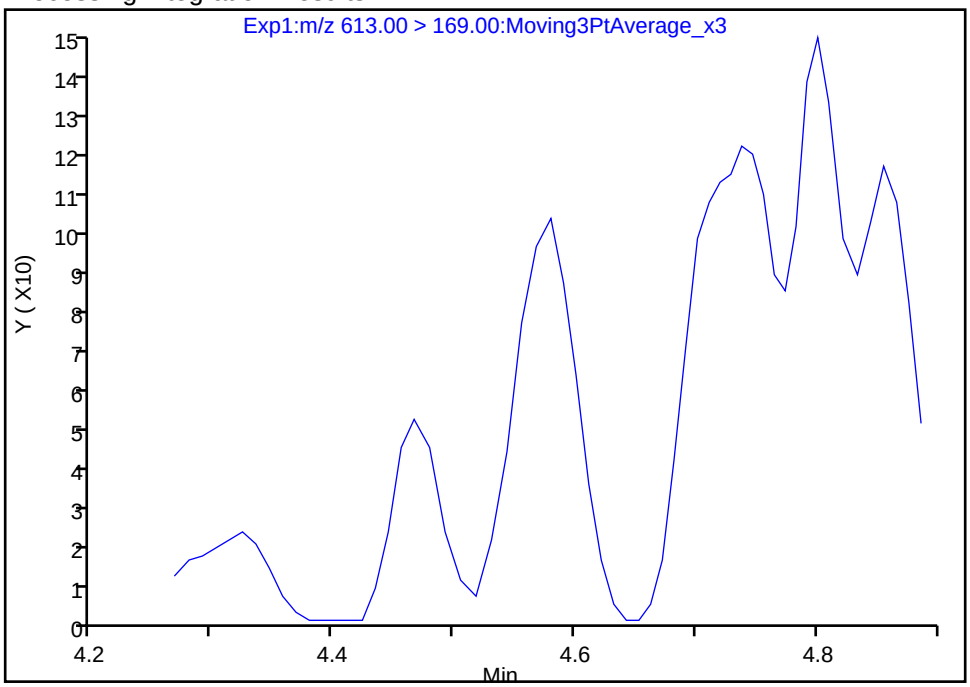
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

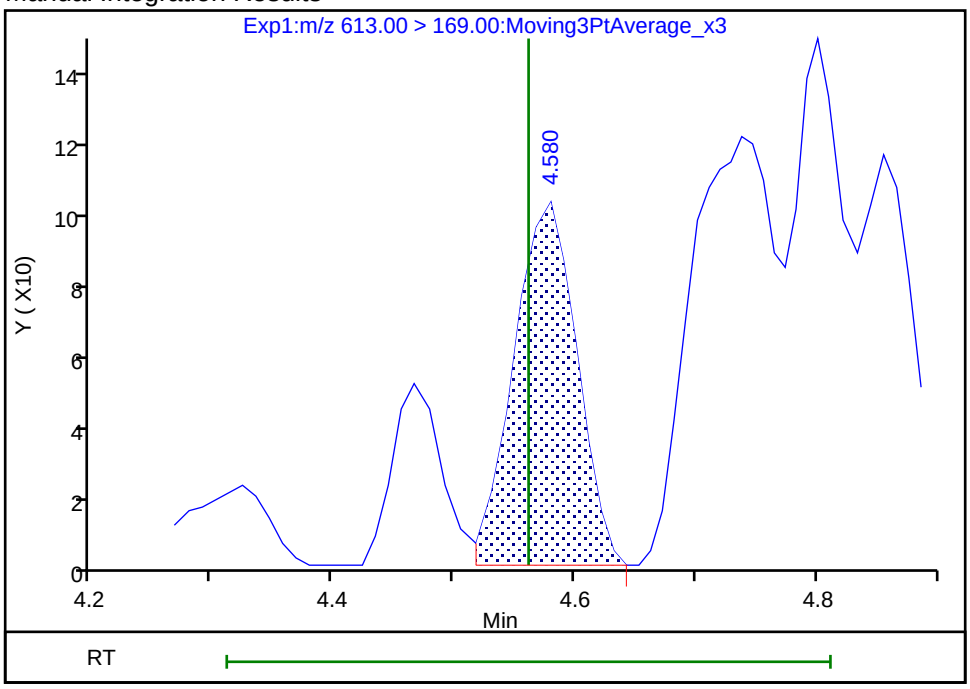
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 362
Amount: 0.002199
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:24:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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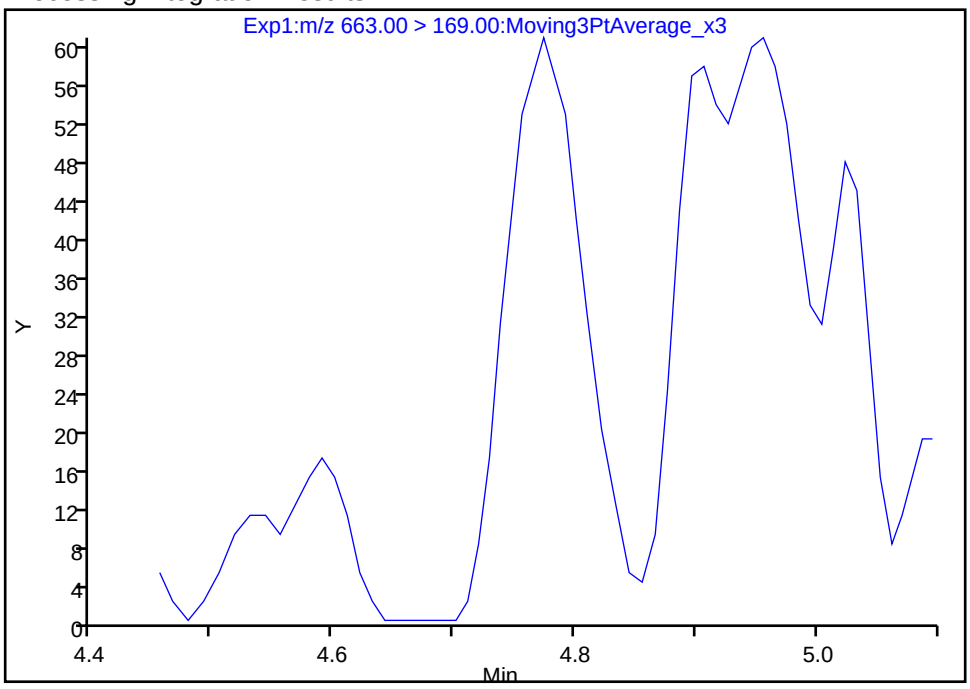
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

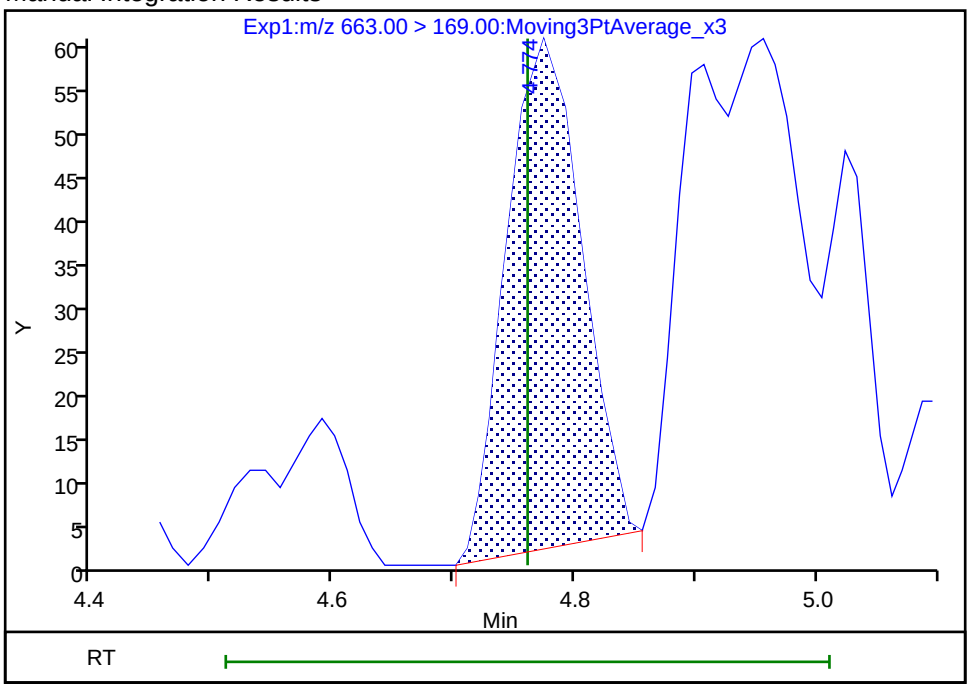
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 256
Amount: 0.001499
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:25:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

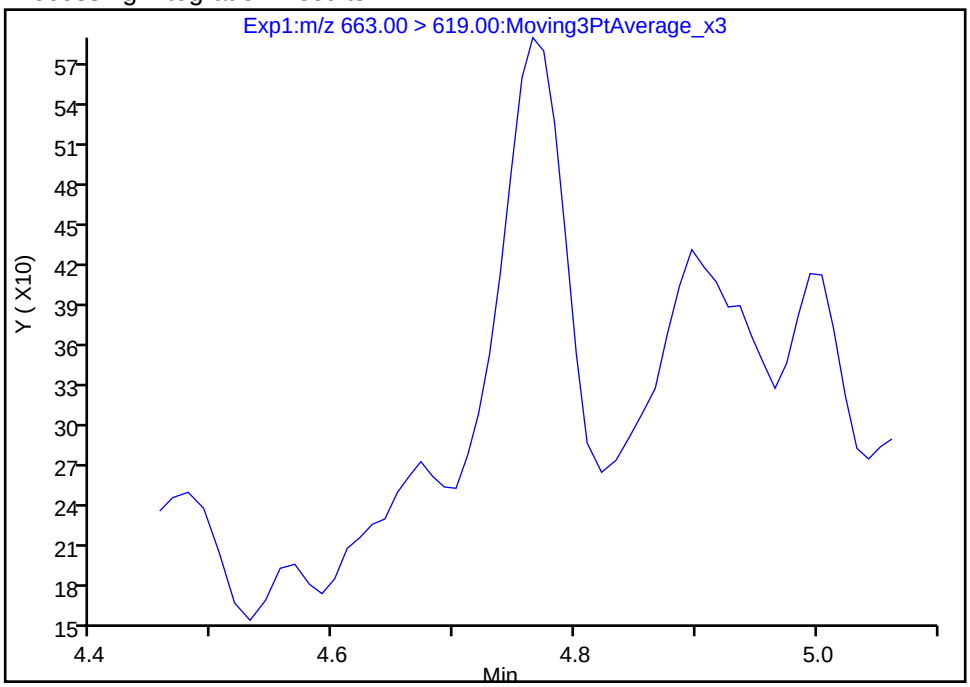
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

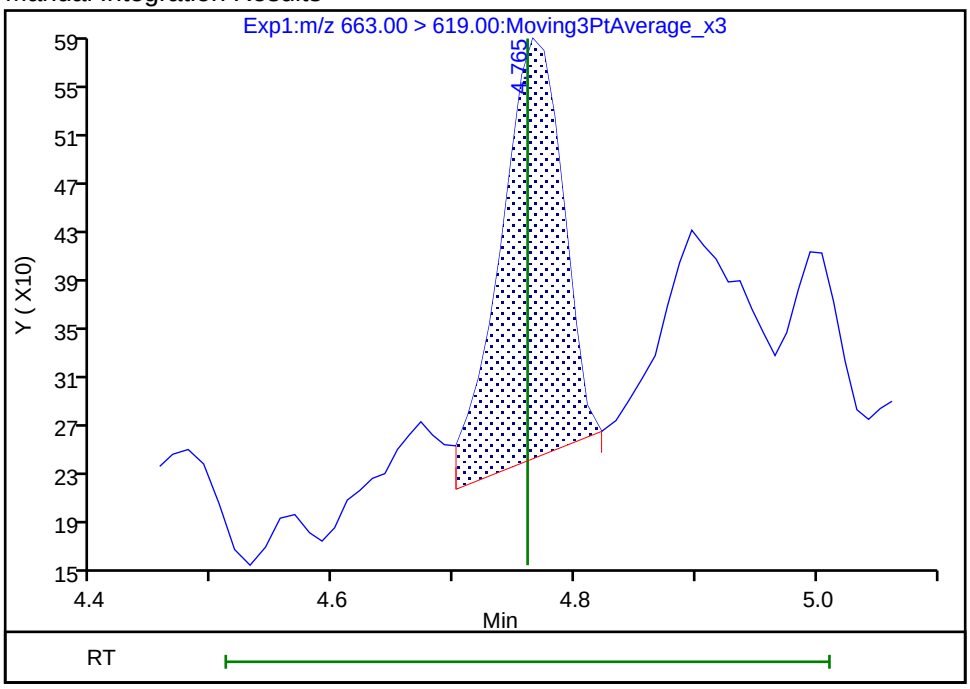
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 1255
Amount: 0.001499
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:25:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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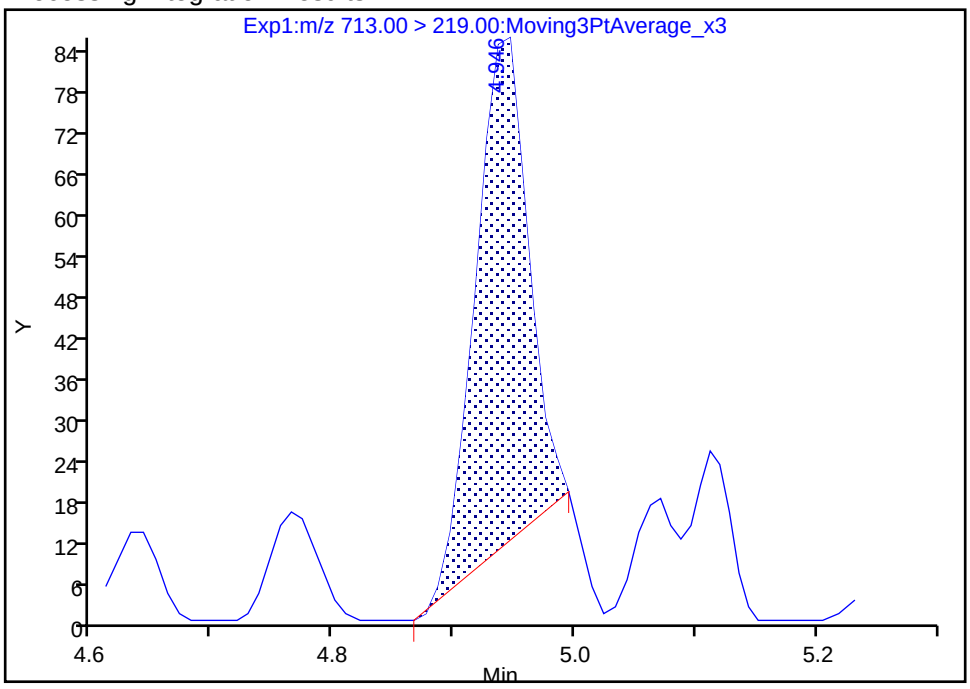
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

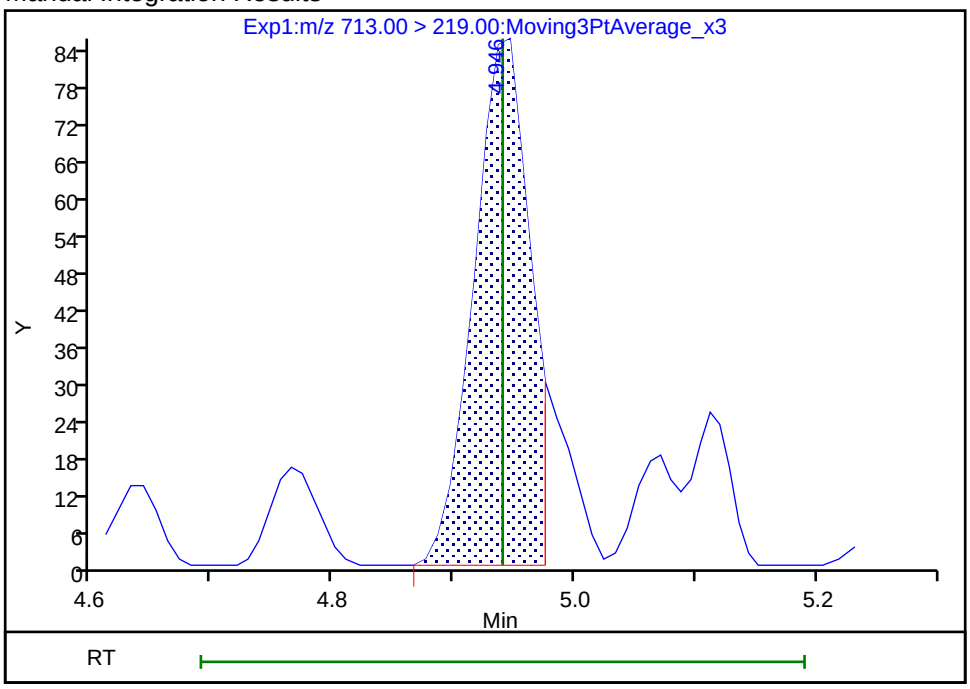
Processing Integration Results

RT: 4.95
Area: 227
Amount: 0.002316
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 272
Amount: 0.003099
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:25:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

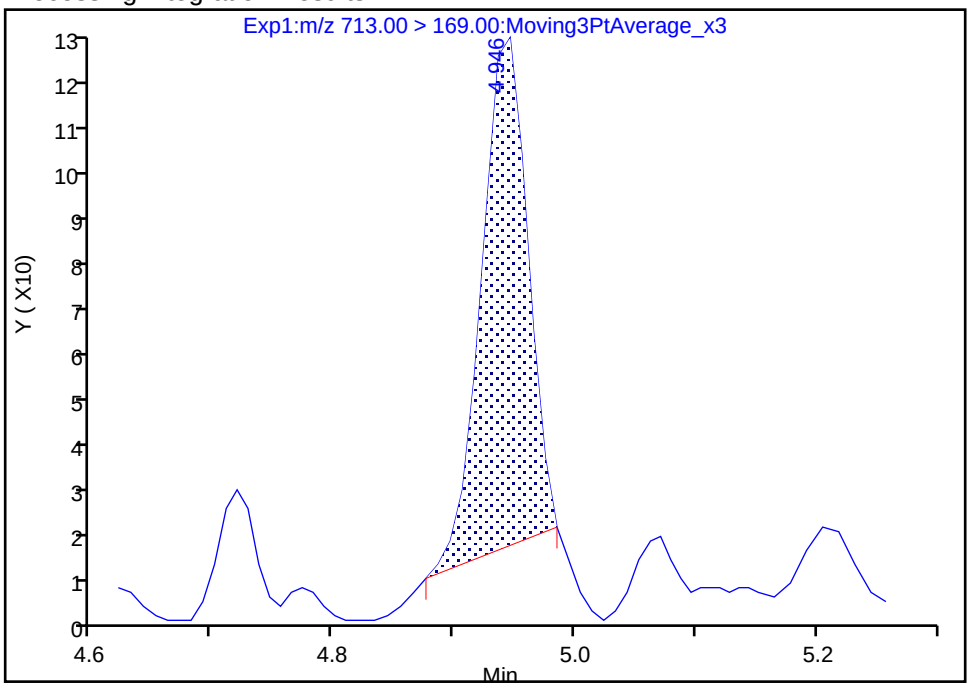
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

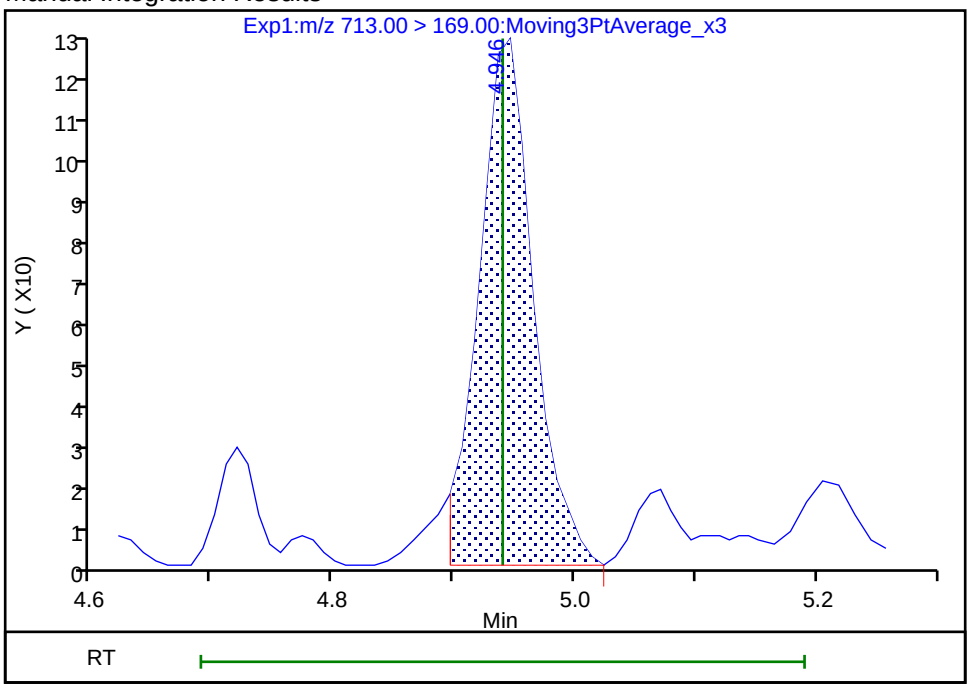
Processing Integration Results

RT: 4.95
Area: 290
Amount: 0.002316
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 388
Amount: 0.003099
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:25:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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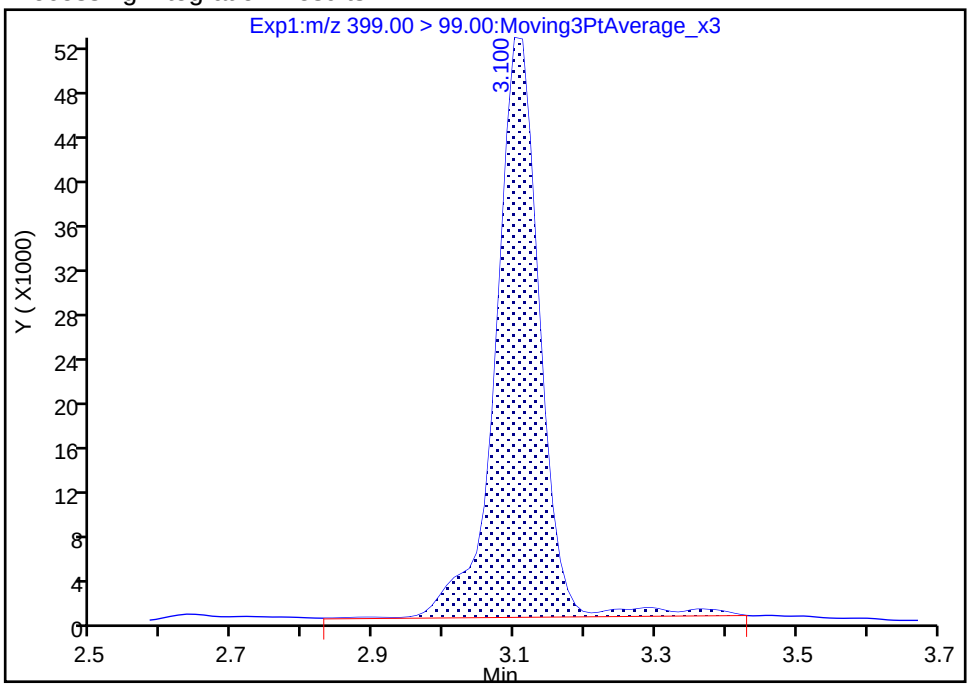
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

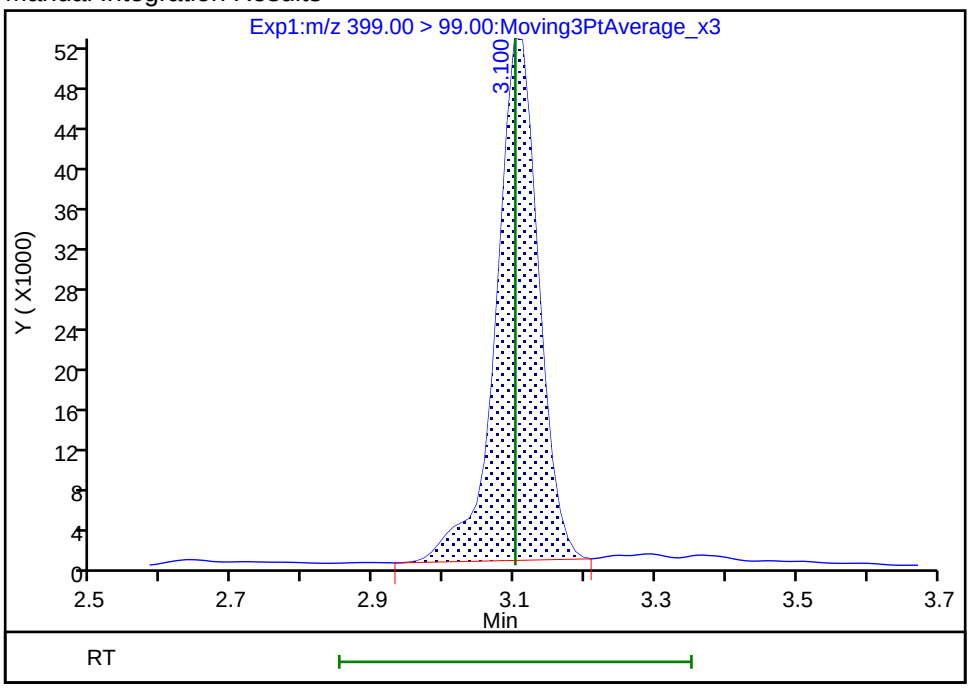
Processing Integration Results

RT: 3.10
Area: 227079
Amount: 0.654661
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 216997
Amount: 0.658979
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:22:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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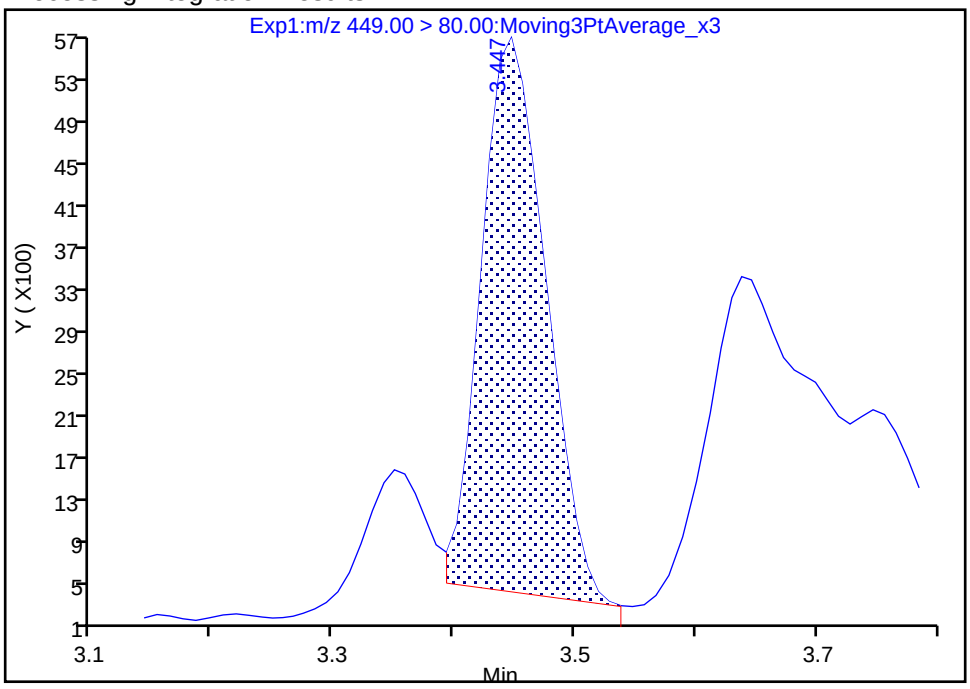
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

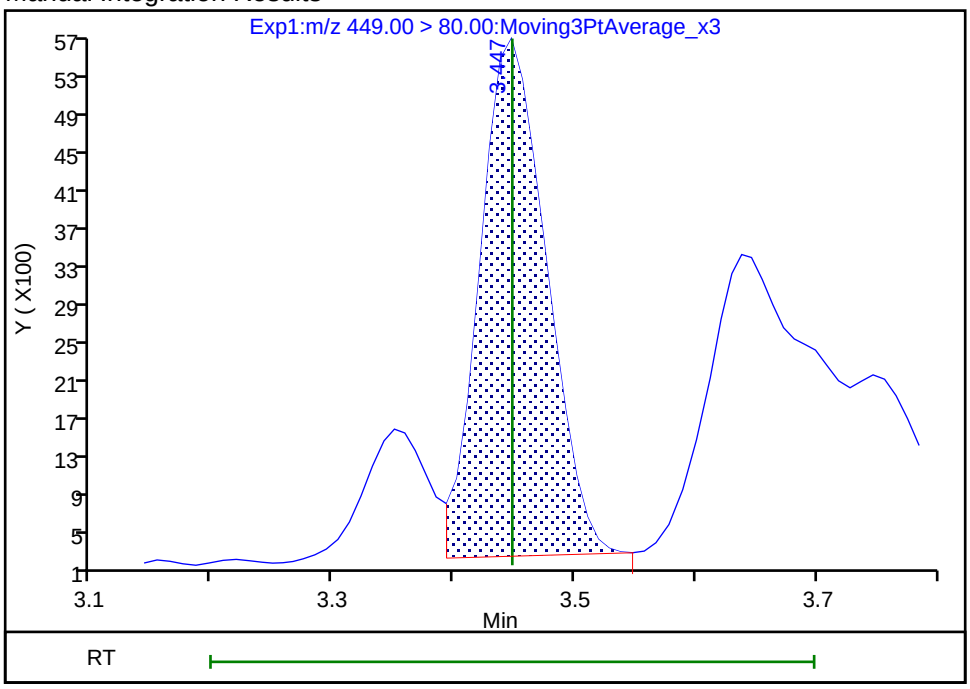
Processing Integration Results

RT: 3.45
Area: 19354
Amount: 0.019876
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 20568
Amount: 0.021123
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:22:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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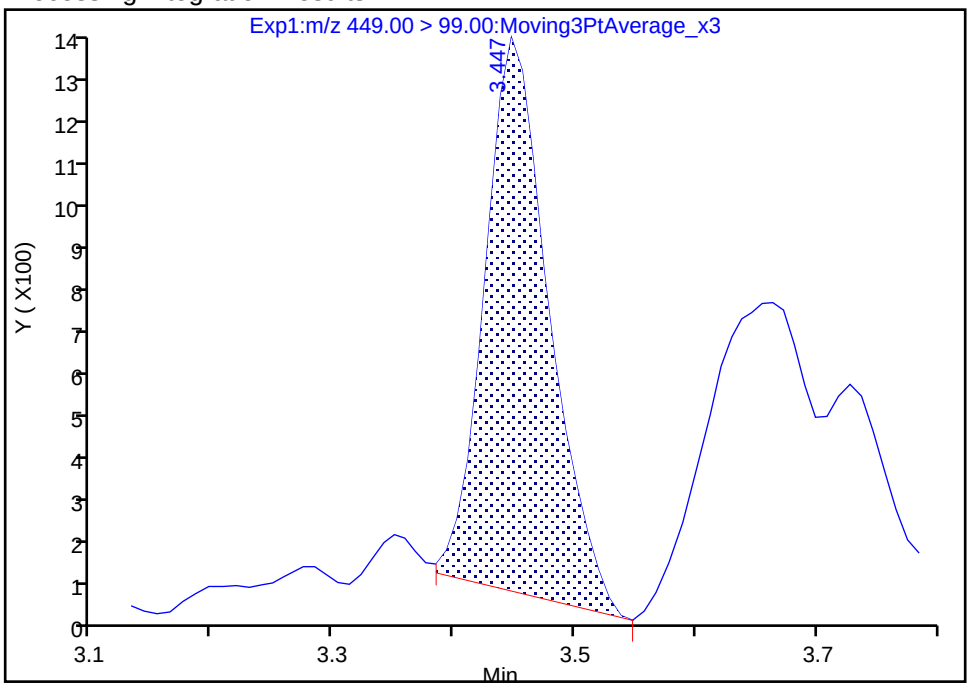
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

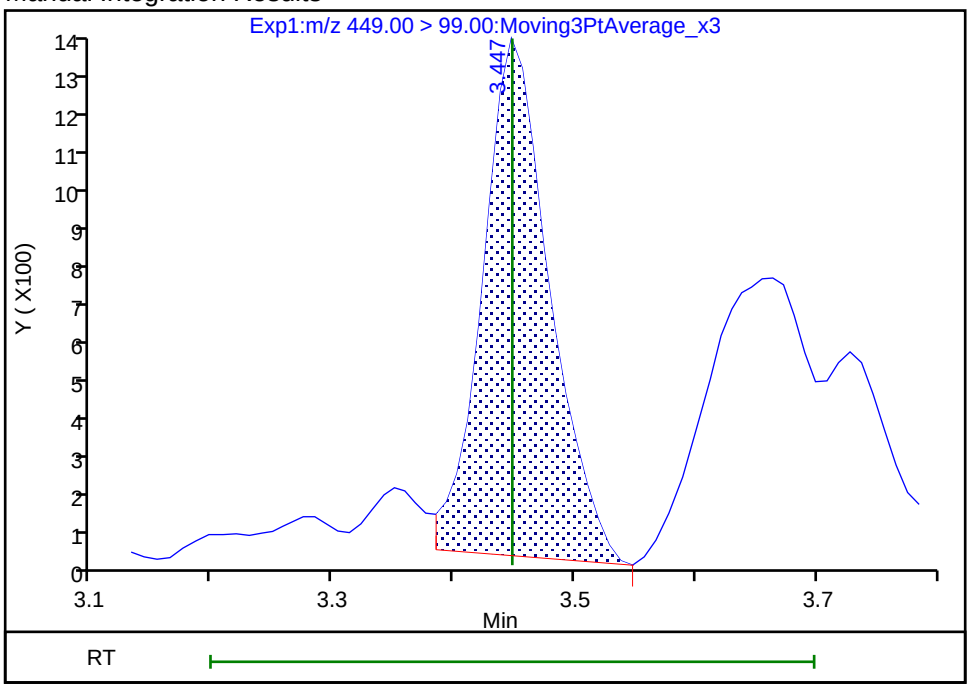
Processing Integration Results

RT: 3.45
Area: 4689
Amount: 0.019876
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 5026
Amount: 0.021123
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:57:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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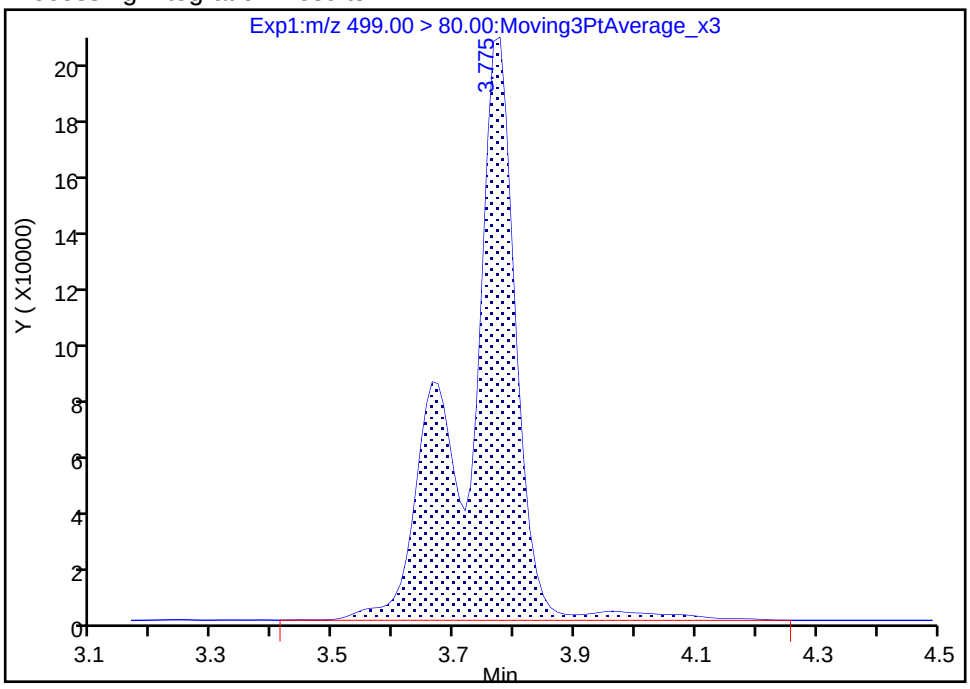
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

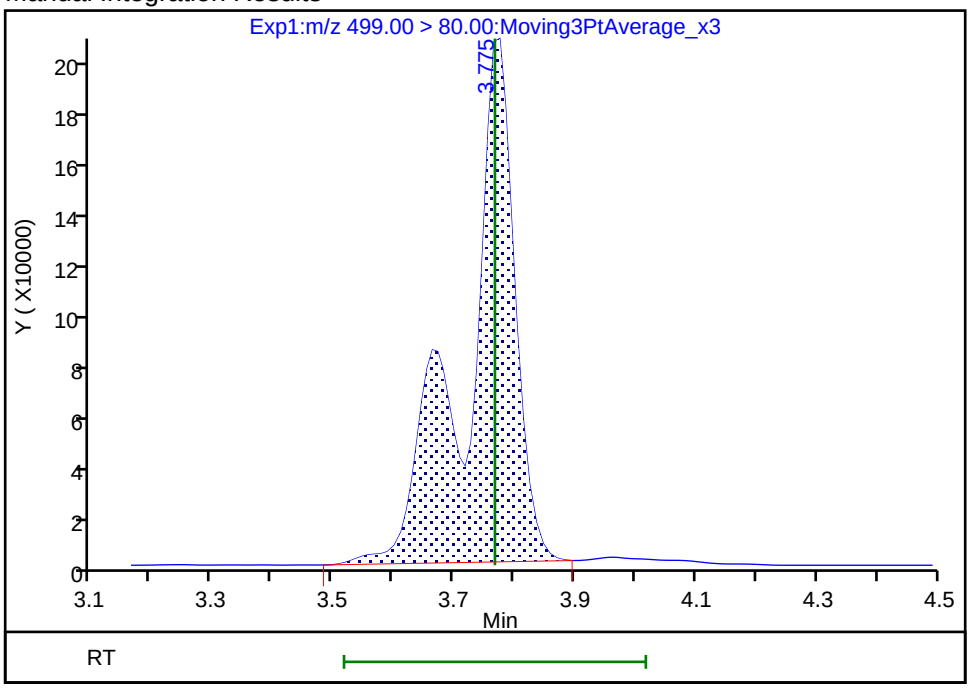
Processing Integration Results

RT: 3.78
Area: 1231855
Amount: 1.453480
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1175445
Amount: 1.386921
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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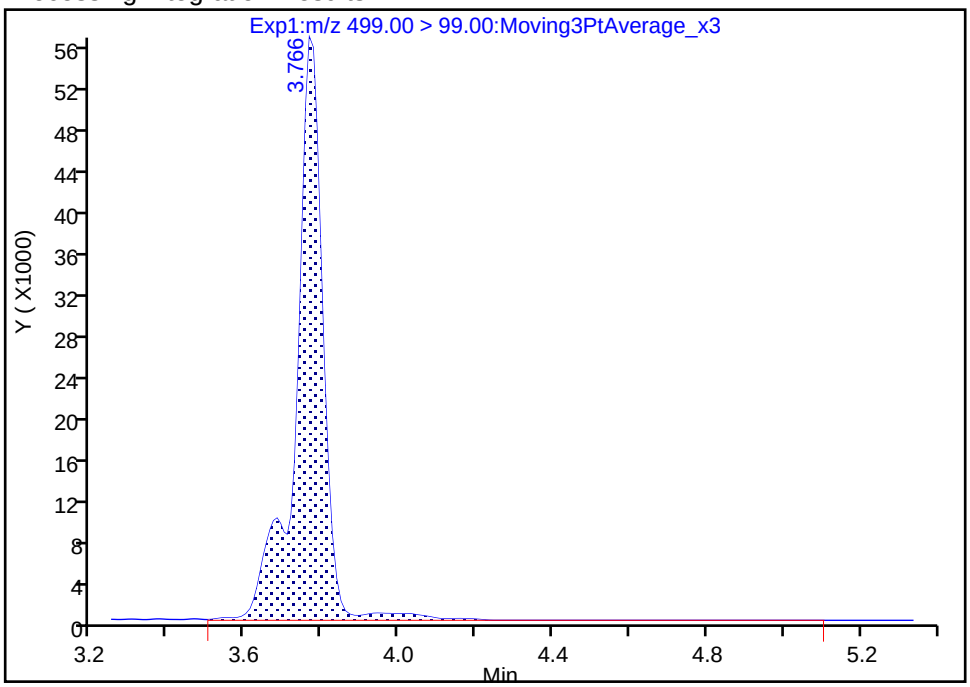
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

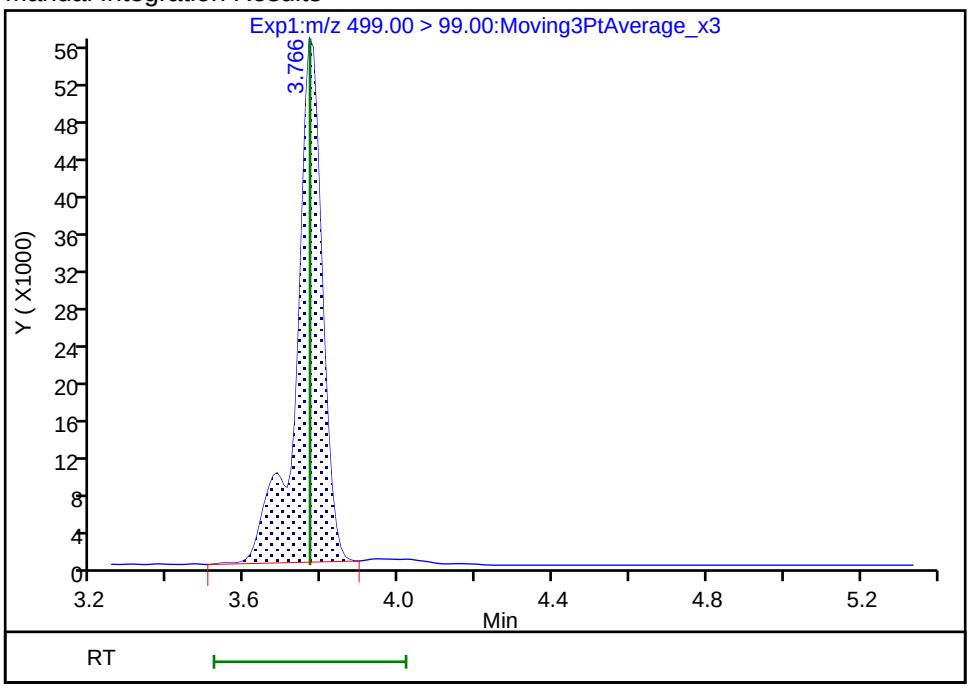
Processing Integration Results

RT: 3.77
Area: 277582
Amount: 1.453480
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 263736
Amount: 1.386921
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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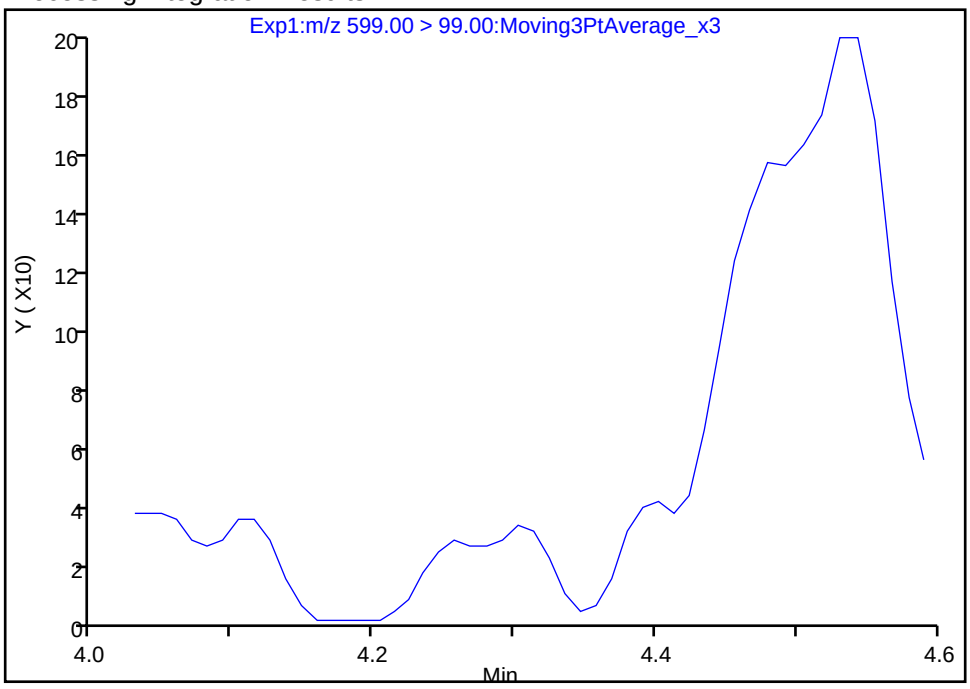
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

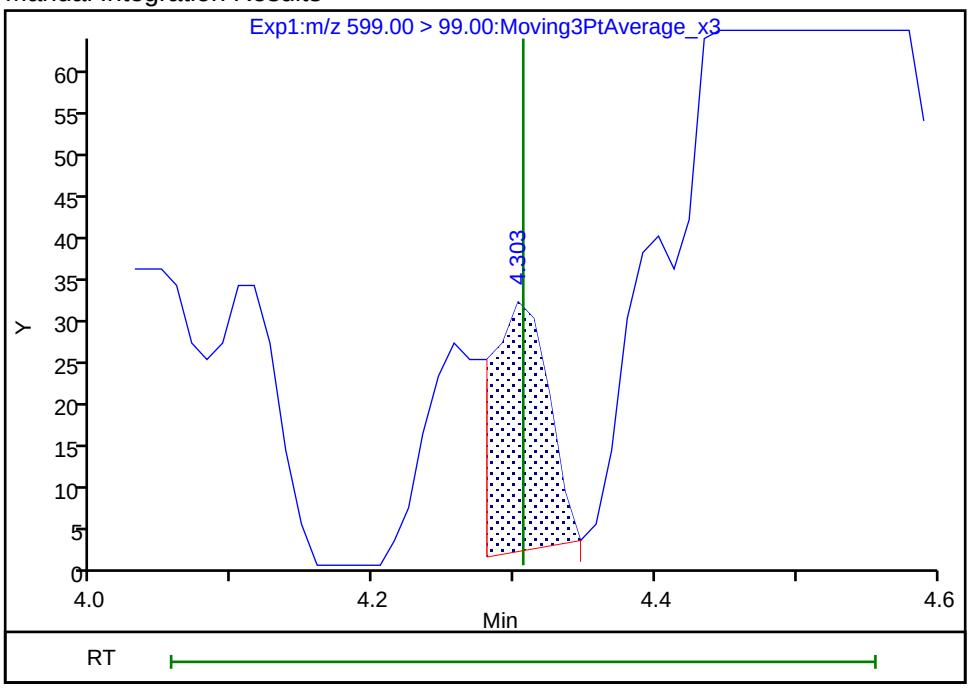
Not Detected
Expected RT: 4.31

Processing Integration Results




Manual Integration Results

RT: 4.30
Area: 80
Amount: 0.000319
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:24:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

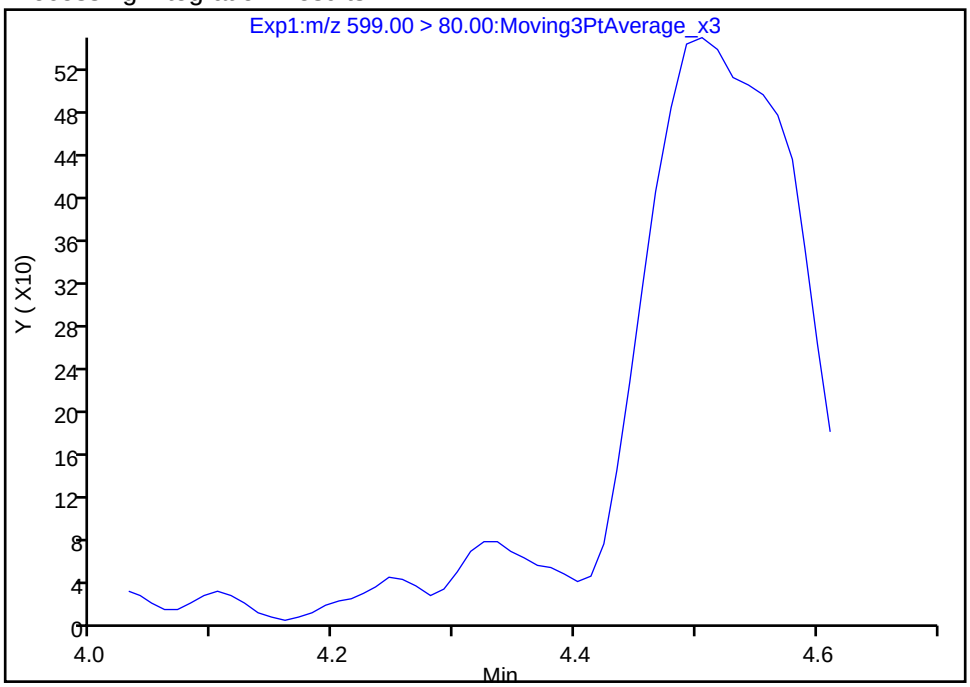
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

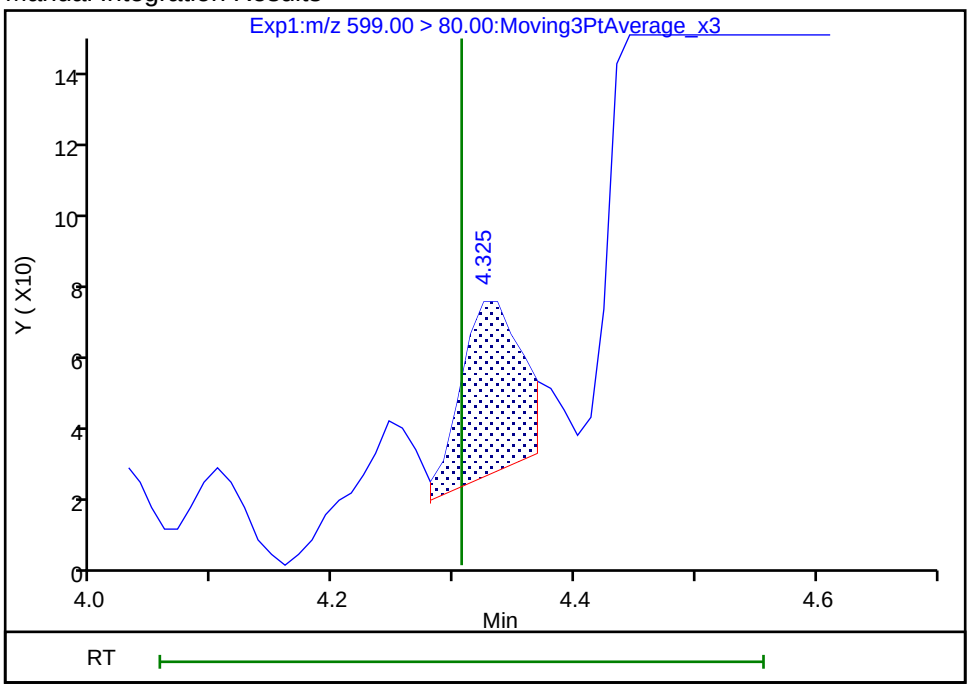
Not Detected
Expected RT: 4.31

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 164
Amount: 0.000319
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:24:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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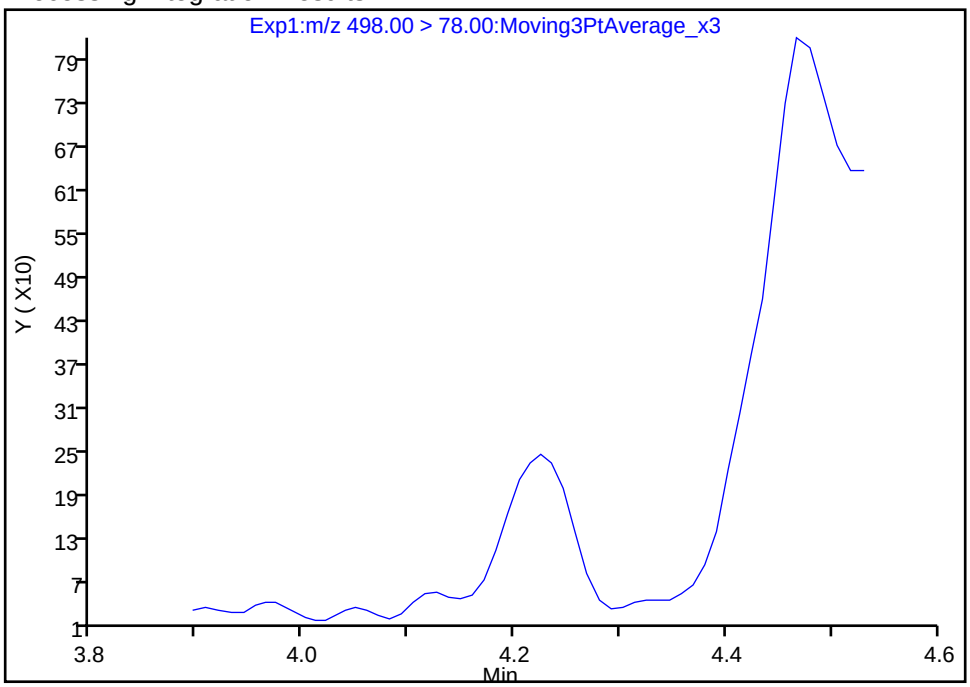
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

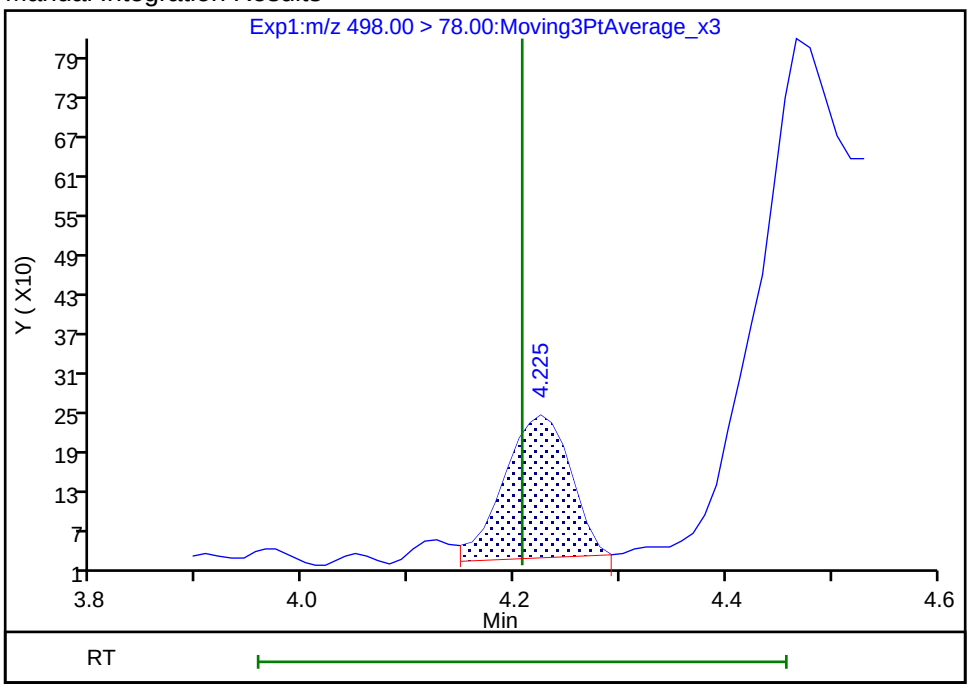
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 949
Amount: 0.000807
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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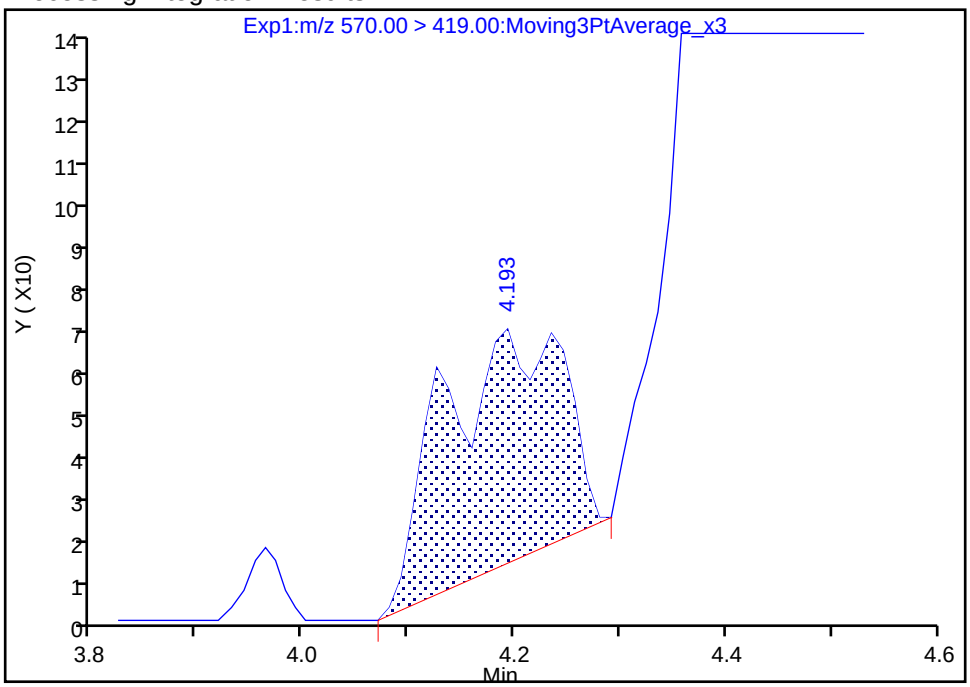
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

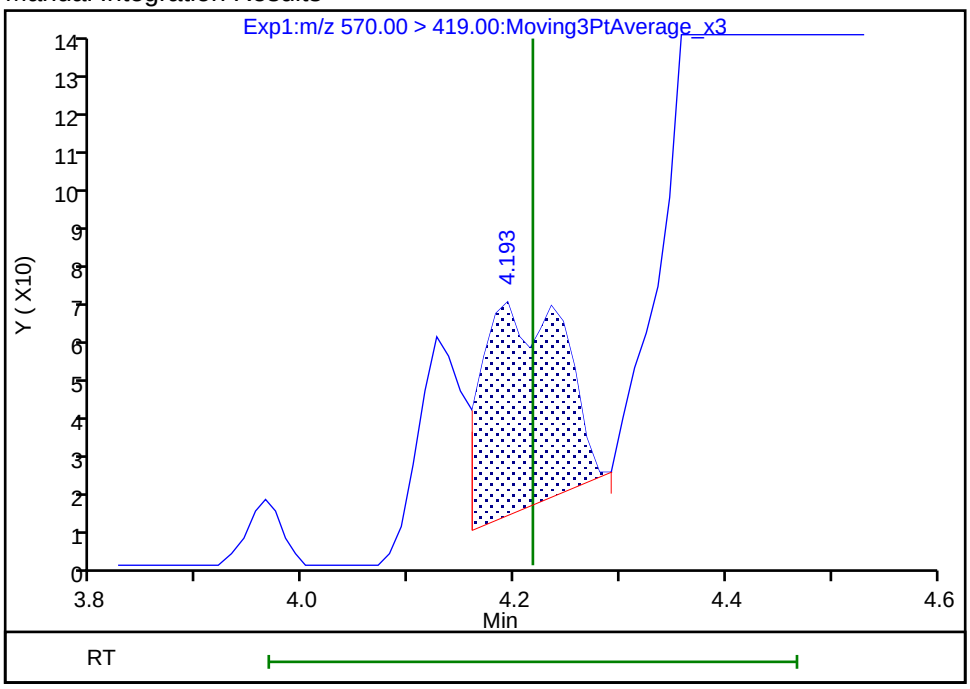
Processing Integration Results

RT: 4.19
Area: 430
Amount: 0.003499
Amount Units: ng/ml




Manual Integration Results

RT: 4.19
Area: 283
Amount: 0.002328
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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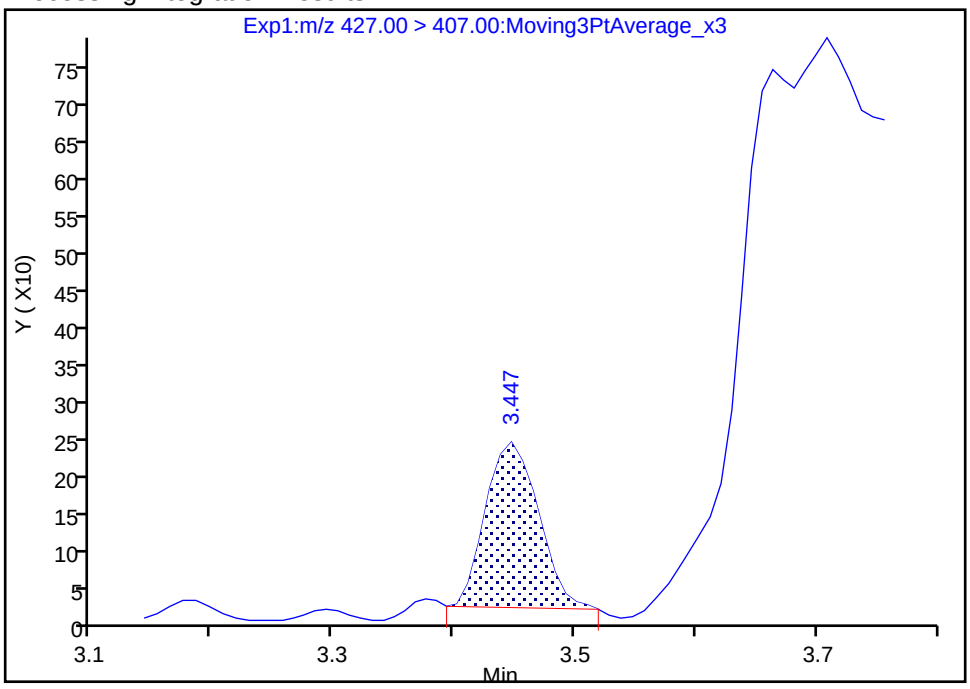
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

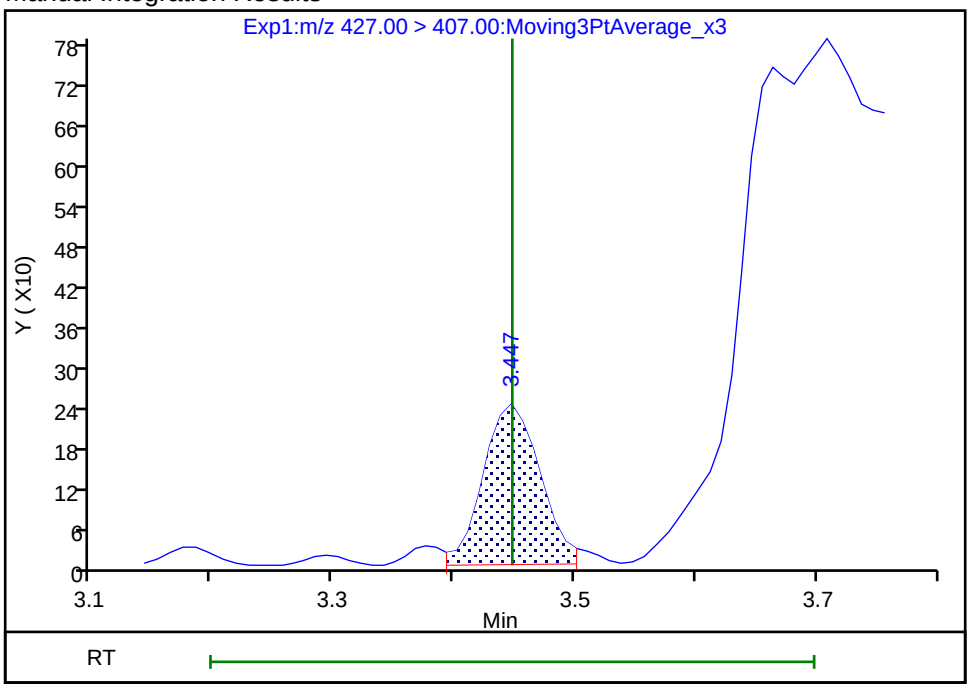
Processing Integration Results

RT: 3.45
Area: 679
Amount: 0.002913
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 778
Amount: 0.003338
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:22:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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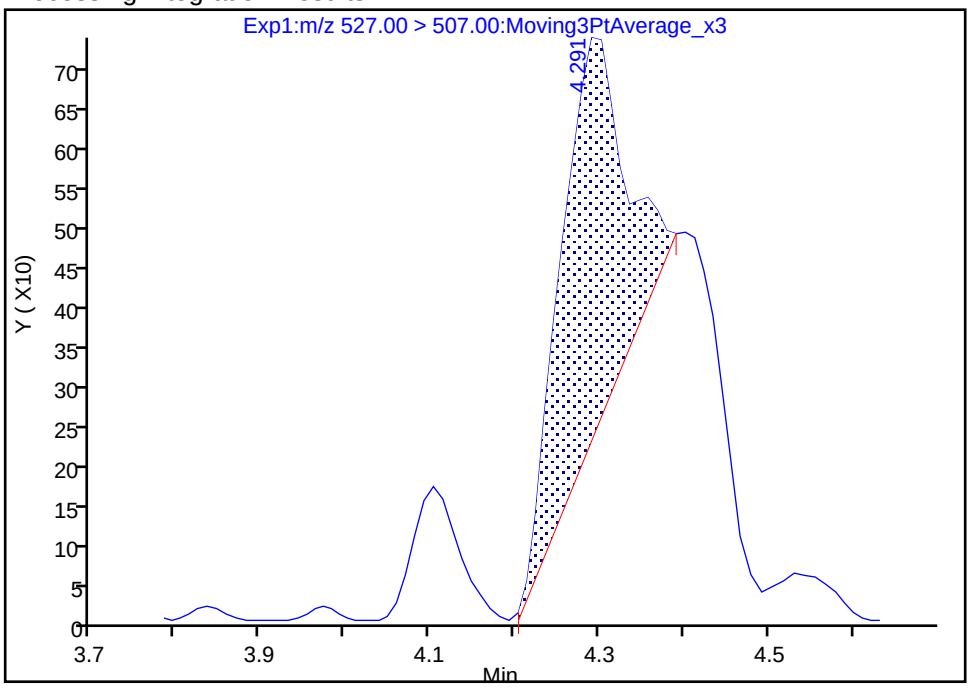
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

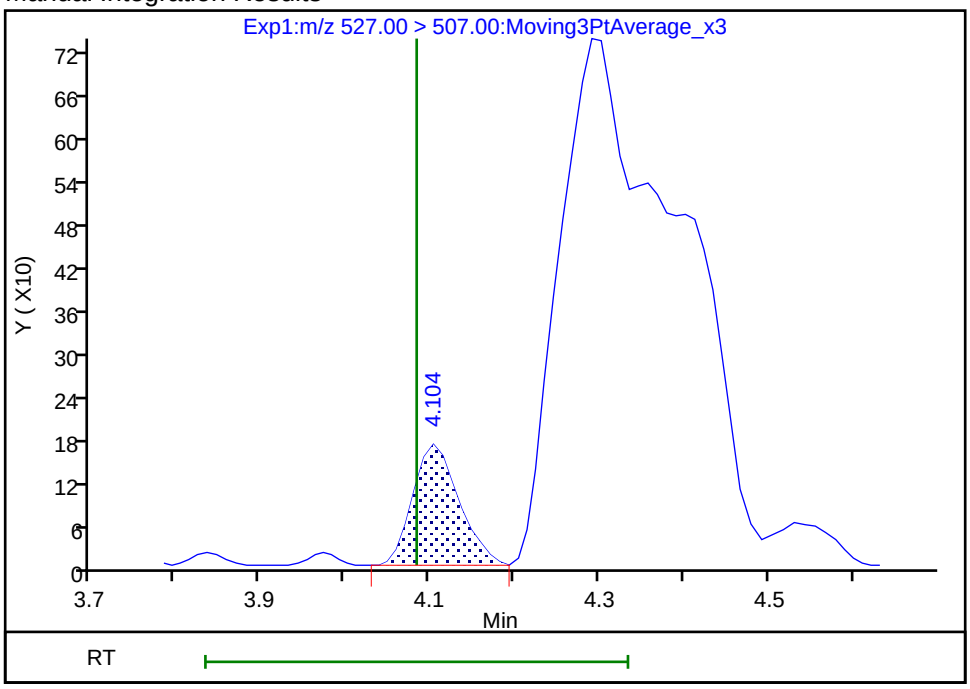
Processing Integration Results

RT: 4.29
Area: 2688
Amount: 0.014186
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 644
Amount: 0.003399
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:23:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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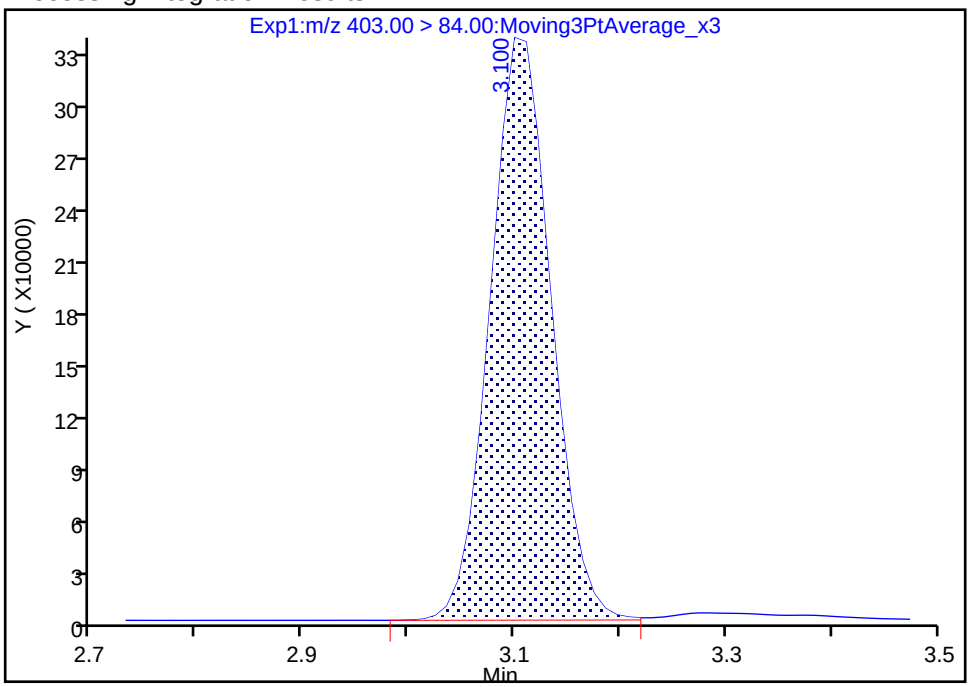
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

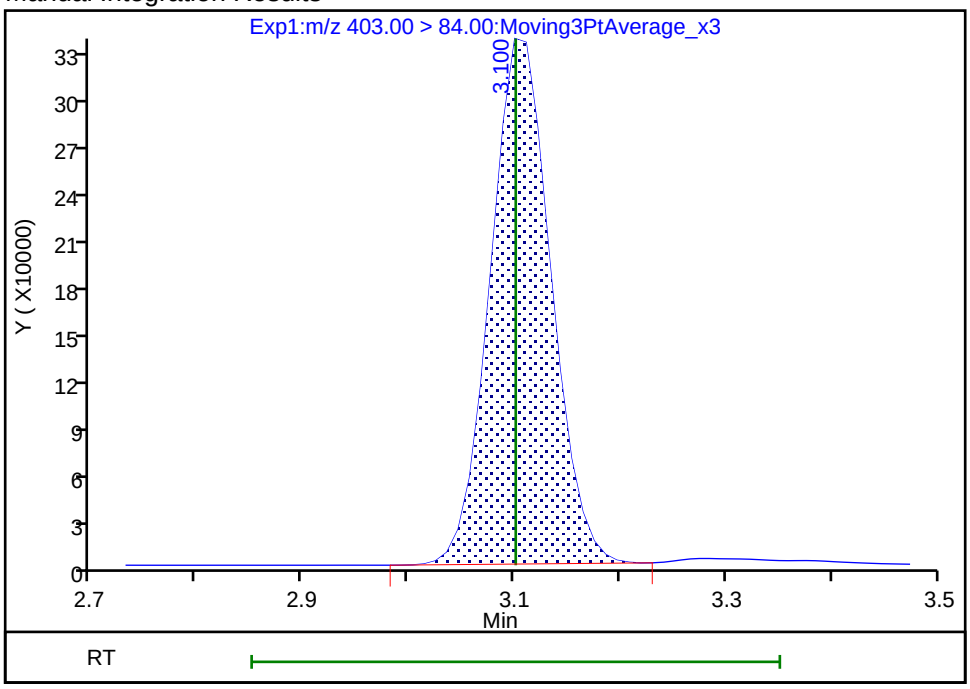
Processing Integration Results

RT: 3.10
Area: 1326953
Amount: 1.142242
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1318258
Amount: 1.141829
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:56:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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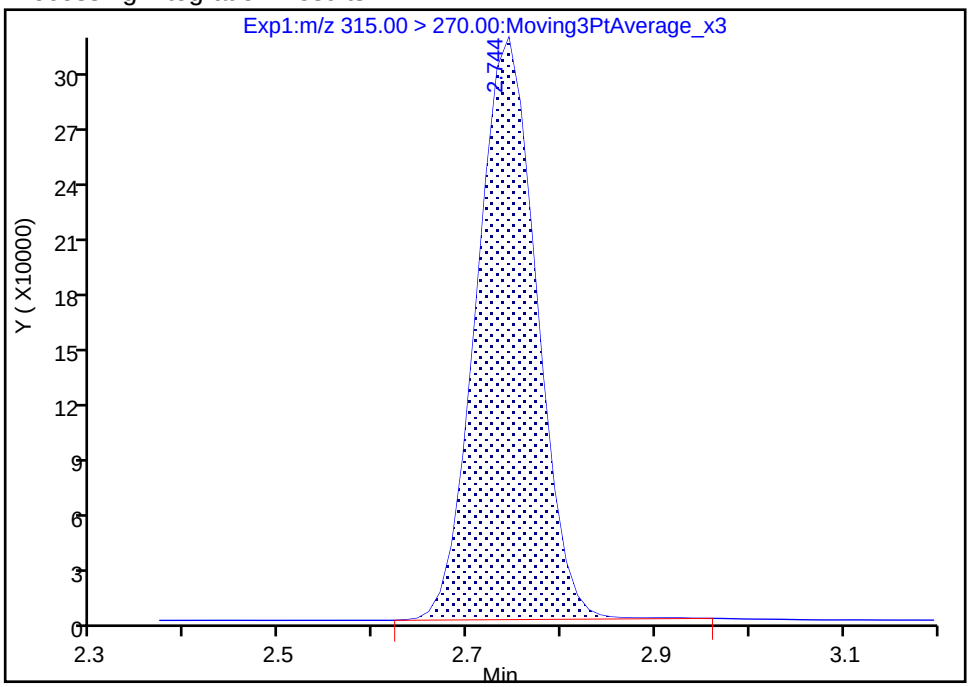
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

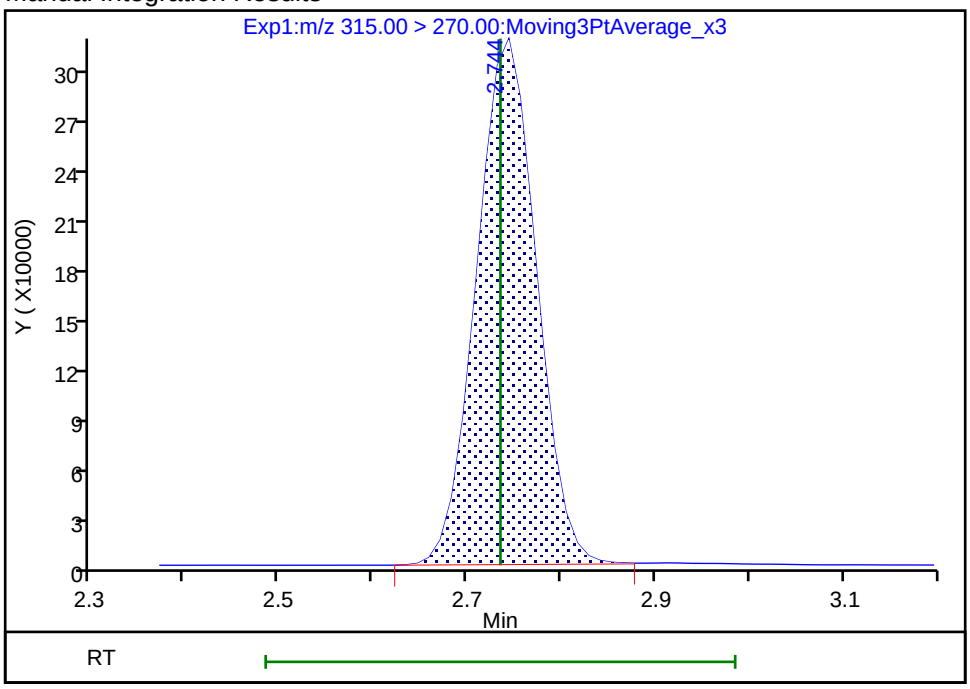
Processing Integration Results

RT: 2.74
Area: 1380307
Amount: 1.113376
Amount Units: ng/ml




Manual Integration Results

RT: 2.74
Area: 1378890
Amount: 1.119164
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:20:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

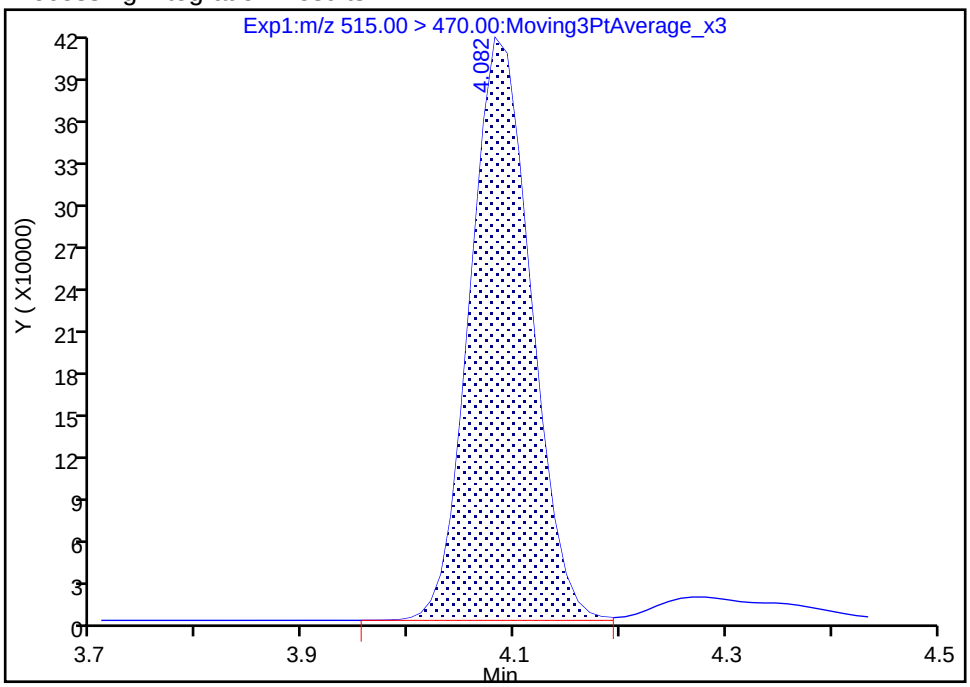
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

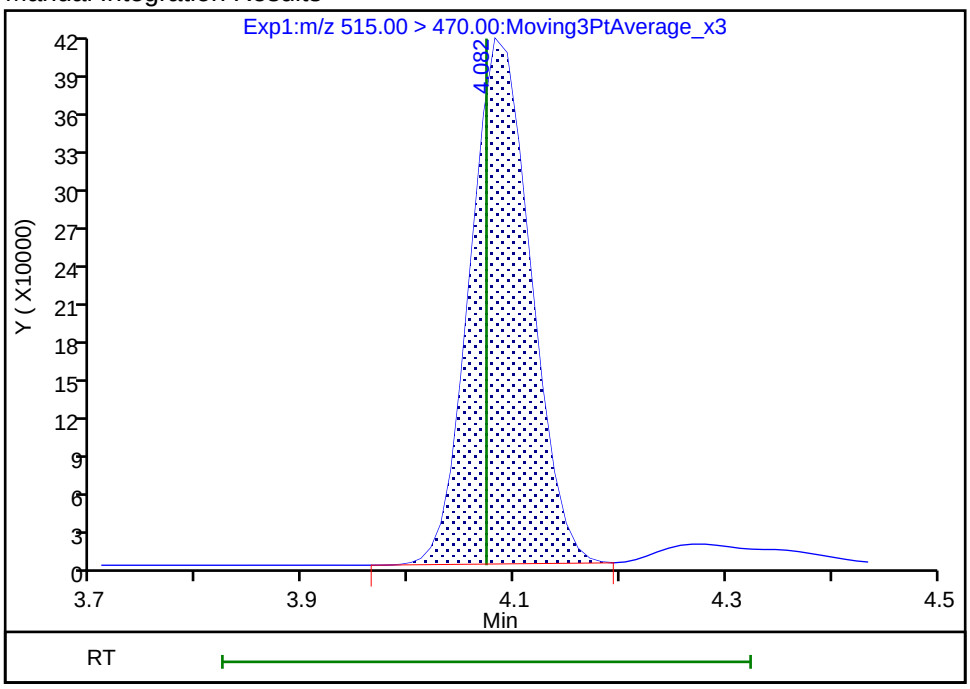
Processing Integration Results

RT: 4.08
Area: 1647773
Amount: 1.156660
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1634757
Amount: 1.147523
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:57:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

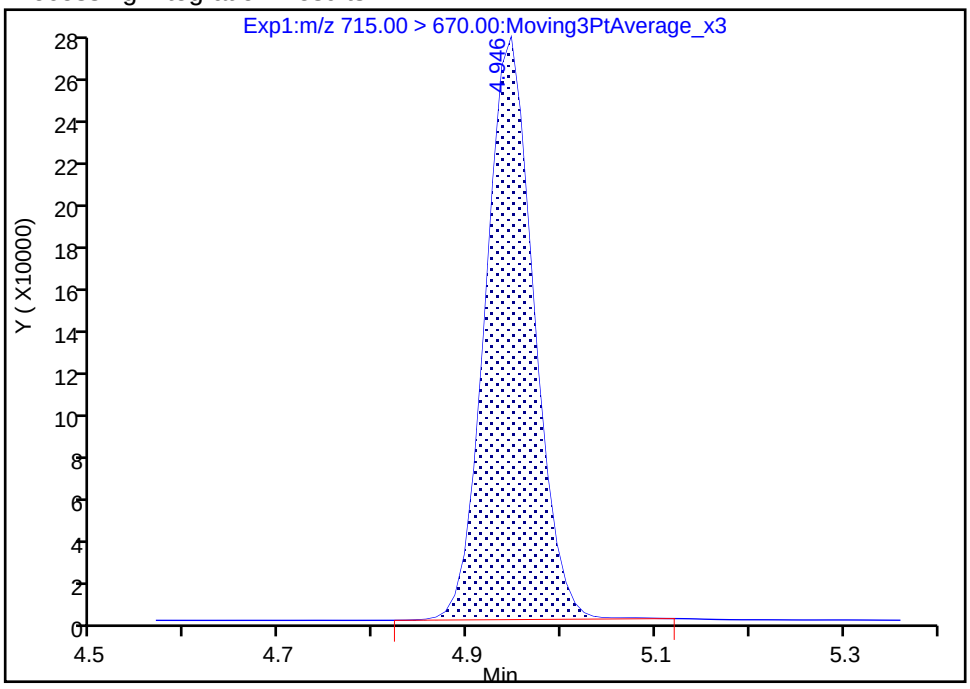
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

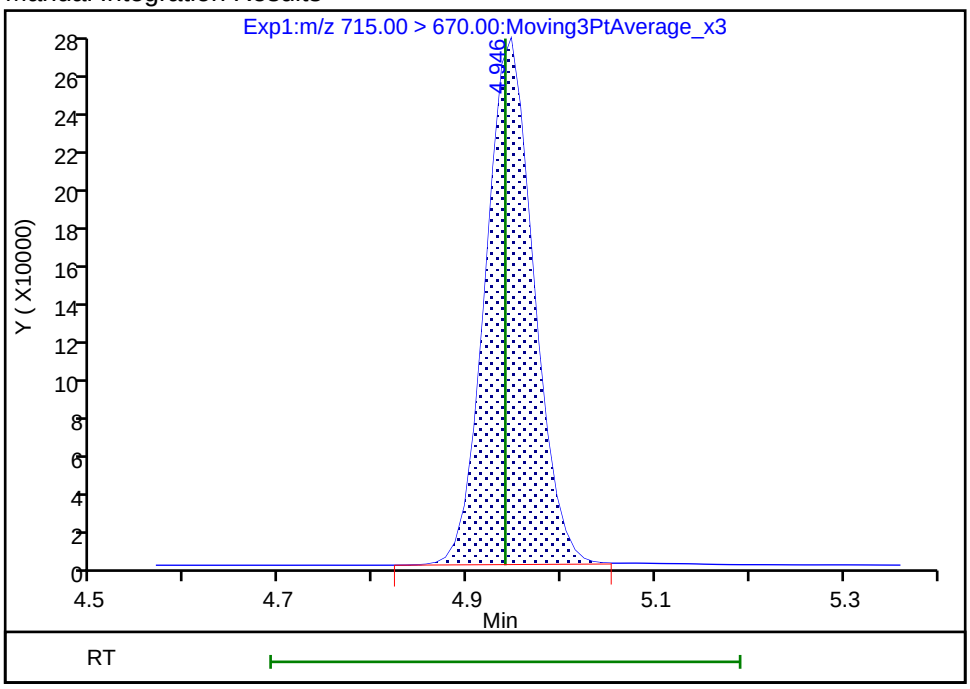
Processing Integration Results

RT: 4.95
Area: 992773
Amount: 1.065114
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 991731
Amount: 1.070626
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:21:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

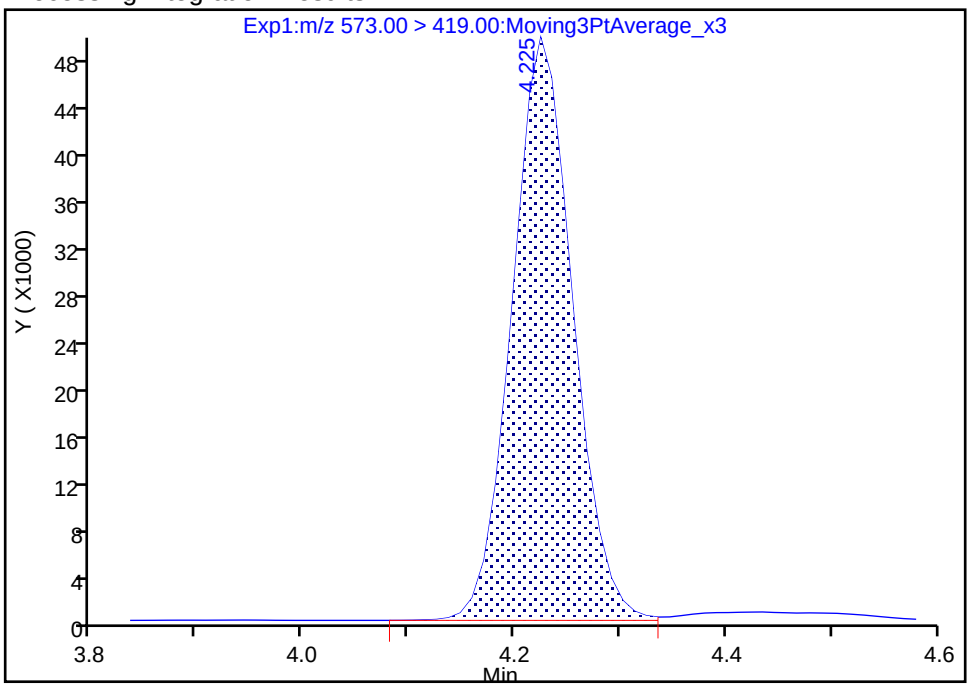
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

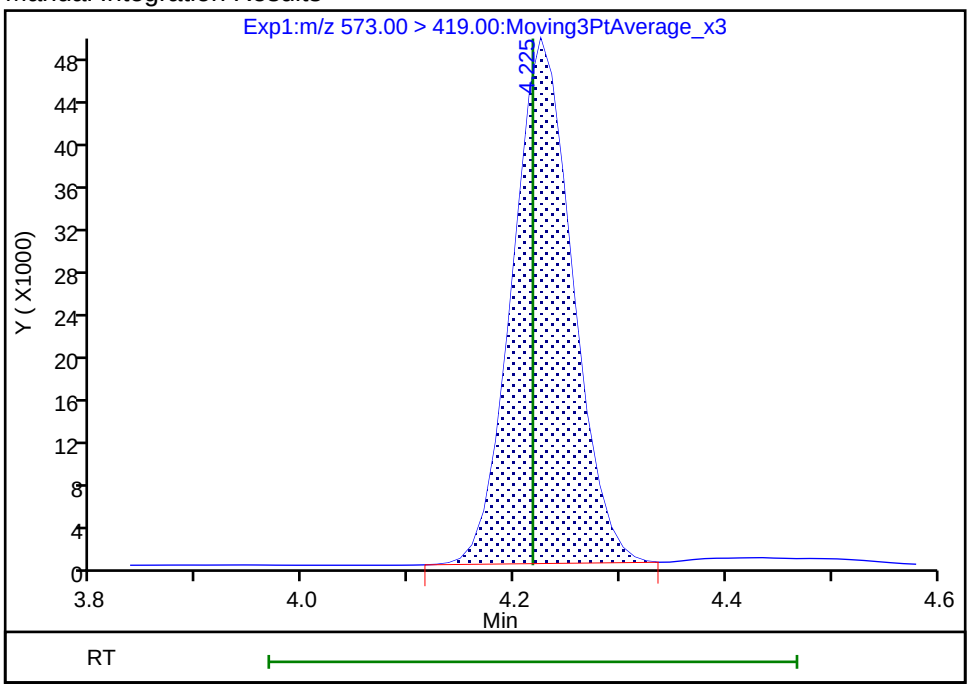
Processing Integration Results

RT: 4.22
Area: 195520
Amount: 1.395304
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 193411
Amount: 1.380254
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:57:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

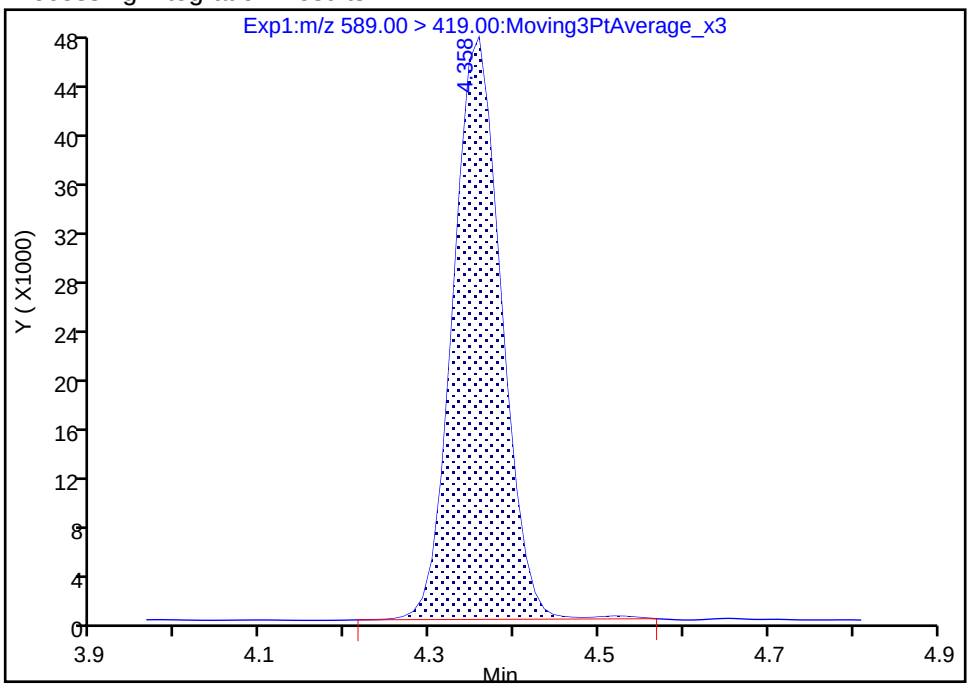
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

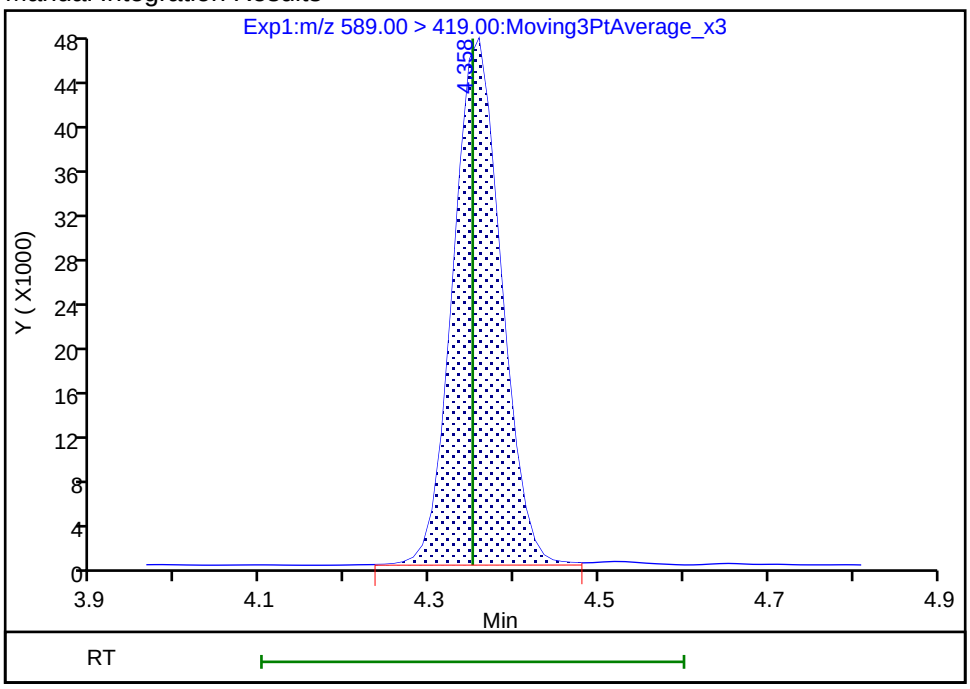
Processing Integration Results

RT: 4.36
Area: 186454
Amount: 1.411722
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 186693
Amount: 1.422341
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:21:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

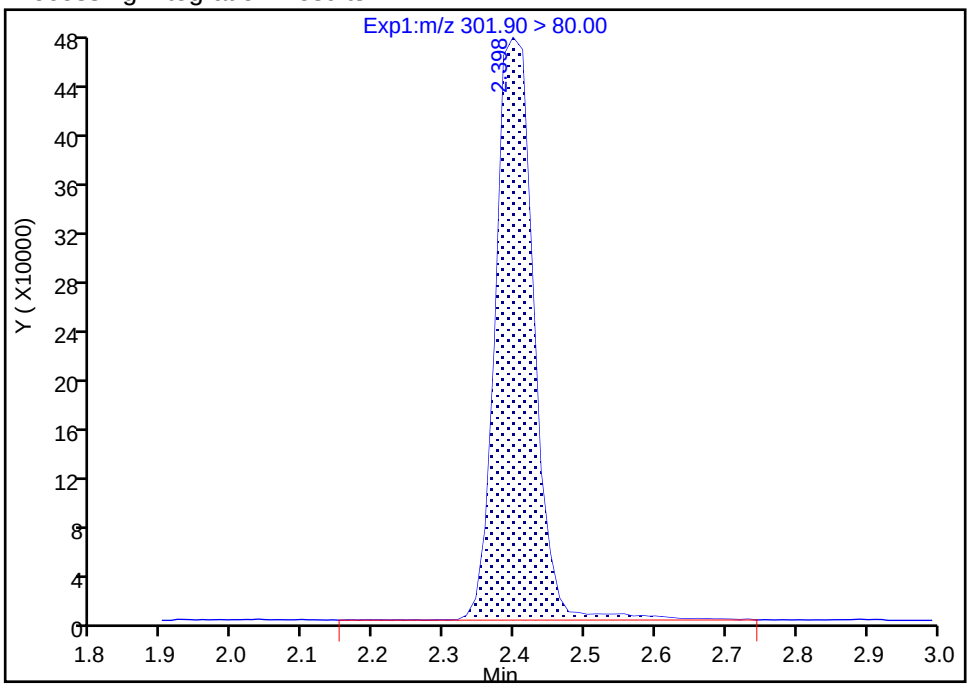
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

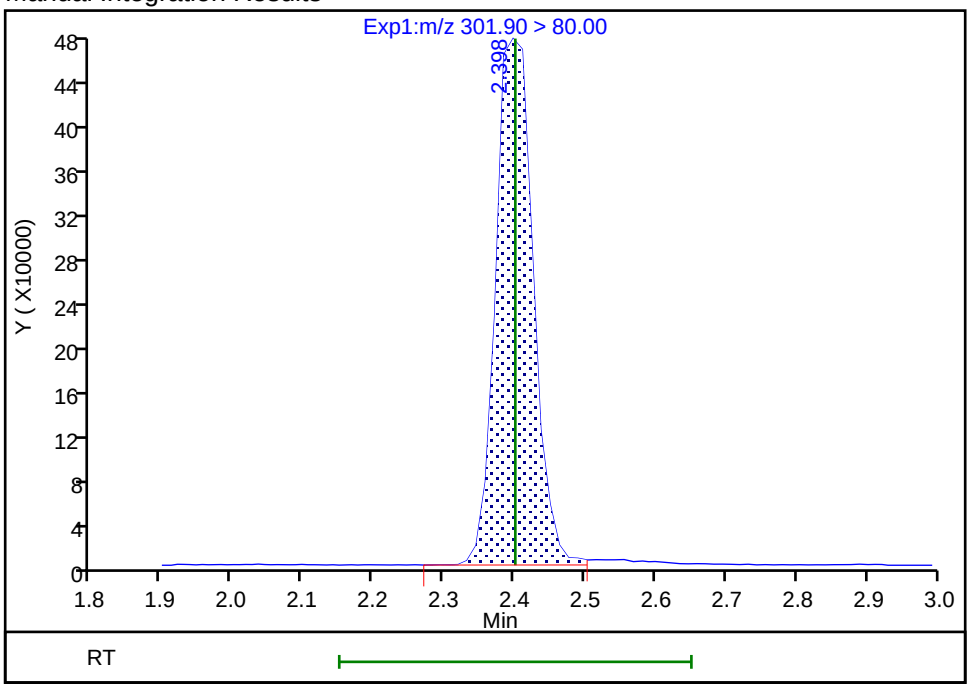
Processing Integration Results

RT: 2.40
Area: 1791862
Amount: 1.120576
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1757586
Amount: 1.105991
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:20:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

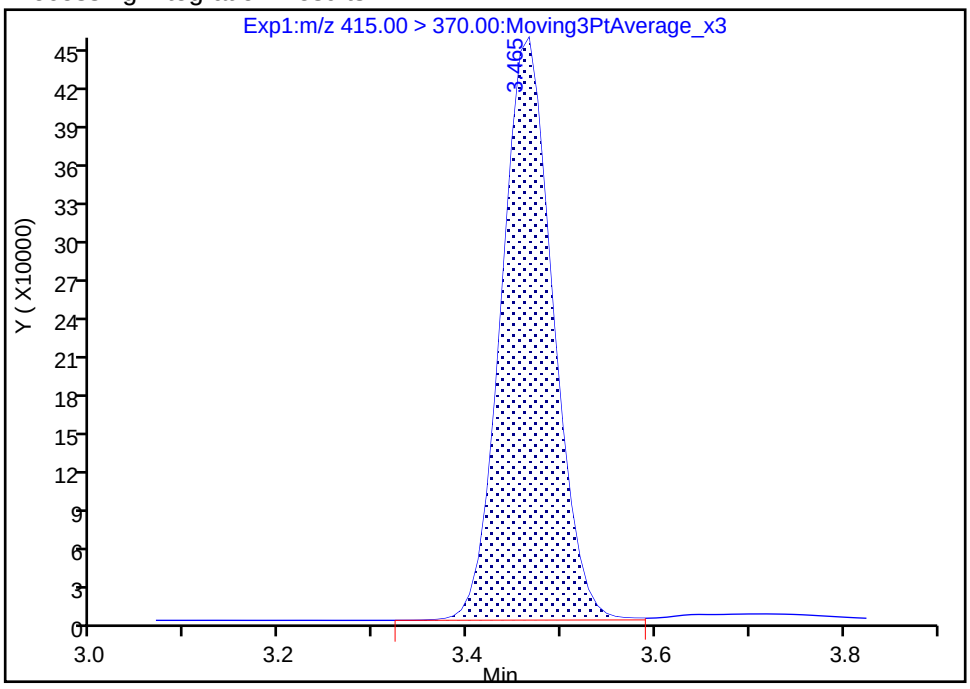
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A22.d | | | | |
| Injection Date: | 03-Nov-2021 15:38:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-9-A | Lab Sample ID: | 200-246027-9 | | |
| Client ID: | MH-103S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

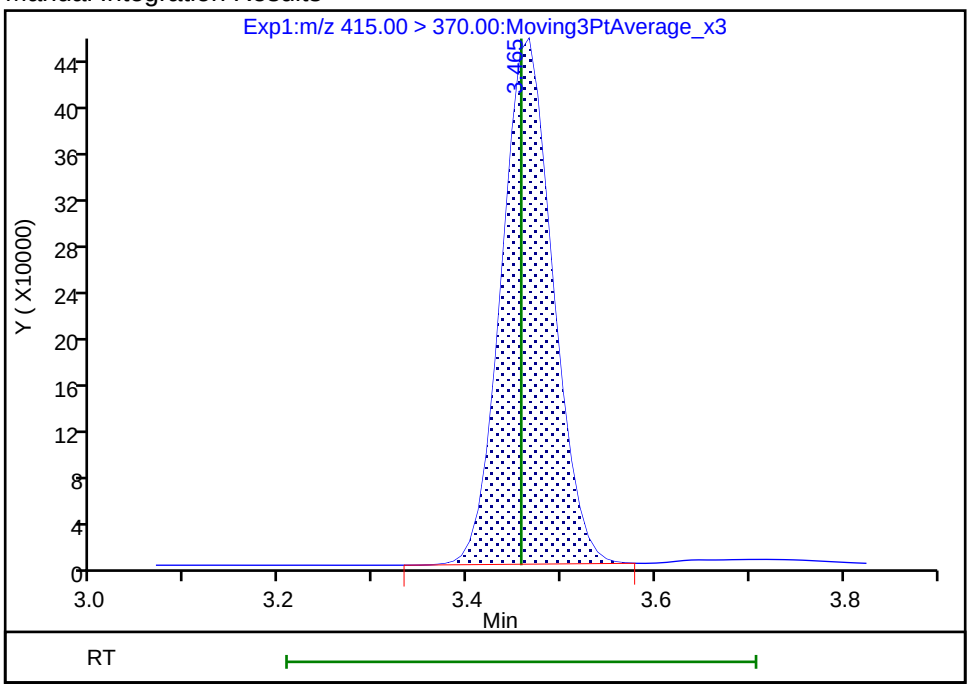
Processing Integration Results

RT: 3.47
Area: 1732356
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1721627
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:57:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-104-20211027  Lab Sample ID: 460-246027-10

Matrix: Water  Lab File ID: PA211103A23.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:25

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 278.7(mL)  Date Analyzed: 11/03/2021 15:46

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.73 | | 4.49 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 3.94 | | 1.79 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 8.13 | | 1.79 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.01 | | 1.79 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 7.08 | | 1.79 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.79 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 8.38 | | 1.79 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 142 | | 1.79 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 4.91 | | 1.79 | 0.21 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.49 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-104-20211027  Lab Sample ID: 460-246027-10

Matrix: Water  Lab File ID: PA211103A23.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:25

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 278.7(mL)  Date Analyzed: 11/03/2021 15:46

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 100 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 85 | | 50-150 |
| STL00995 | 13C5 PFNA | 89 | | 50-150 |
| STL00992 | 13C4 PFBA | 99 | | 25-150 |
| STL00993 | 13C2 PFHxA | 98 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 89 | | 50-150 |
| STL00998 | 13C2 PFDoA | 74 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 98 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 84 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 94 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 100 | | 50-150 |
| STL02279 | M2-6:2 FTS | 107 | | 25-150 |
| STL02280 | M2-8:2 FTS | 96 | | 25-150 |
| STL02337 | 13C3 PFBS | 91 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d
Lims ID: 460-246027-A-10-A
Client ID: MH-104-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:46:46 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-10-A
Misc. Info.: 200-0048270-023 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:31:29
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.597 | 1684637 | 1.23 | | 98.5 | 8438 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 167990 | 0.1318 | | | 18.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.374 | 2.375 | -0.001 | 0.687 | 1417179 | 1.23 | | 98.4 | 2304 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.006 | 124756 | 0.1098 | | | 4.6 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.694 | 1655737 | 1.06 | | 91.4 | 59565 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 355150 | 0.2335 | Target=2.32 | | 53.9 | M |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.000 | 165308 | | 2.15(1.16-3.48) | | 45.9 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.734 | 2.735 | -0.001 | 1.000 | 271434 | 0.2267 | Target=12.09 | | 27.5 | M |
| 313.00 > 119.00 | 2.734 | 2.735 | -0.001 | 1.000 | 18175 | | 14.93(6.04-18.13) | | 24.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.791 | 1475875 | 1.22 | | 97.7 | 1646 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1319001 | 1.16 | | 98.5 | 271 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.003 | 4850910 | 3.96 | Target=3.55 | | 791 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.003 | 1265944 | | 3.83(1.77-5.32) | | 576 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 73290 | 0.0560 | Target=3.69 | | 9.6 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 20465 | | 3.58(1.84-5.53) | | 18.3 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.900 | 1584566 | 1.25 | | 99.6 | 1997 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 125 | 0.000517 | | | 0.2 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.915 | 118415 | 0.1368 | Target=4.88 | | 27.4 | M |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.915 | 24447 | | 4.84(2.44-7.32) | | 22.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 226620 | 1.27 | | 107 | 324 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1683150 | 1.21 | | 96.9 | 1052 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1688974 | 1.25 | | | 302 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 282426 | 0.1972 | Target=2.68 | | 25.7 | M |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 1.000 | 109035 | | 2.59(1.34-4.02) | | 46.4 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 829996 | 1.01 | | 84.9 | 328 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.003 | 9958126 | 13.2 | Target=4.69 | | 1327 | EM |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 1.000 | 2347863 | | 4.24(2.35-7.04) | | 1346 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.098 | 1540311 | 1.11 | | 89.0 | 1998 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.804 | 3.786 | 0.018 | 1.003 | 3141 | 0.002605 | Target=7.29 | | 0.4 | RM |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 0.997 | 279 | | 11.26(3.64-10.93) | | 0.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.181 | 1527808 | 1.09 | | 87.5 | 88.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 232978 | 1.15 | | 96.1 | 139 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 125 | 0.000768 | | | 0.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.219 | 1531662 | 1.14 | | 90.9 | 660 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 459 | 0.000394 | | | 0.9 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.222 | 161511 | 1.17 | | 94.0 | 176 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 41 | 0.000404 | | | 0.1 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.258 | 1211208 | 1.11 | | 89.0 | 588 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.261 | 160991 | 1.25 | | 100 | 664 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.336 | 4.350 | -0.014 | 0.995 | 40 | 0.000362 | | | 0.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.322 | 1089374 | 0.9297 | | 74.4 | 309 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.937 | 4.940 | -0.003 | 1.429 | 956993 | 1.05 | | 84.2 | 1454 | |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- E - Exceeded Maximum Amount

Review Flags
- M - Manually Integrated

Report Date: 04-Nov-2021 15:15:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d

Injection Date: 03-Nov-2021 15:46:46 Instrument ID: LC812

Lims ID: 460-246027-A-10-A Lab Sample ID: 200-246027-10

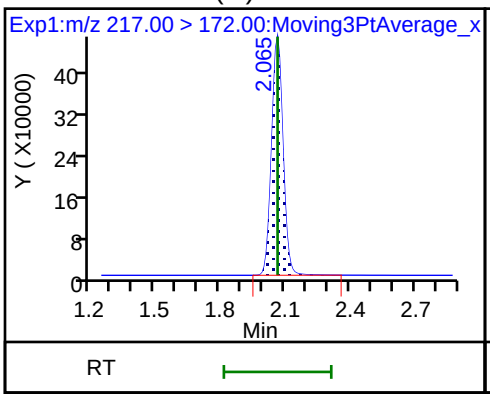
Client ID: MH-104-20211027

Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23

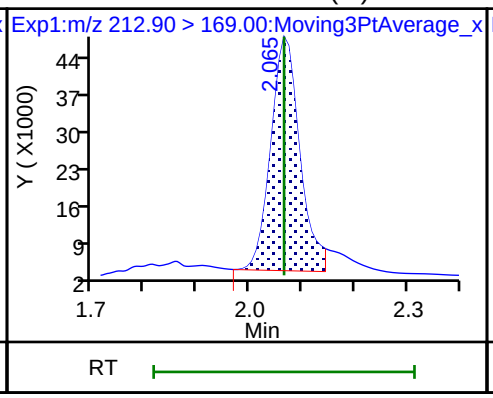
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

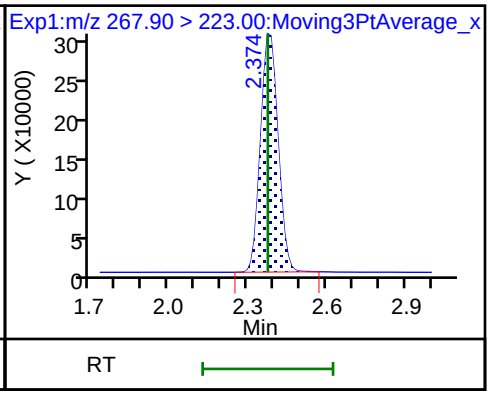
D 1 13C4 PFBA (M)



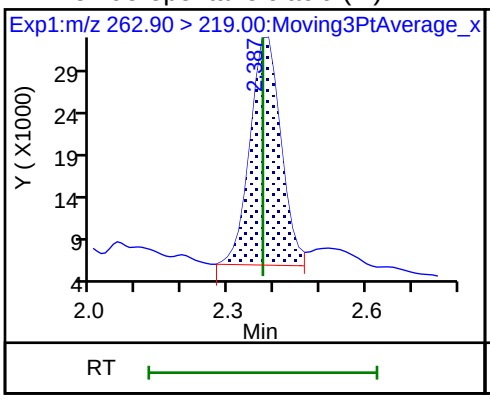

2 Perfluorobutanoic acid (M)



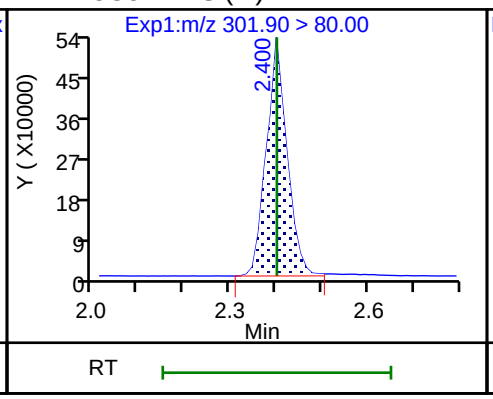

D 3 13C5 PFPeA



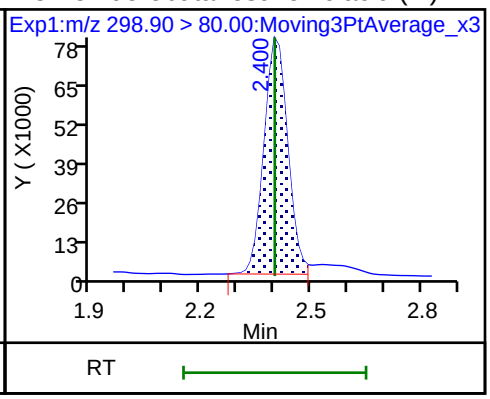

4 Perfluoropentanoic acid (M)



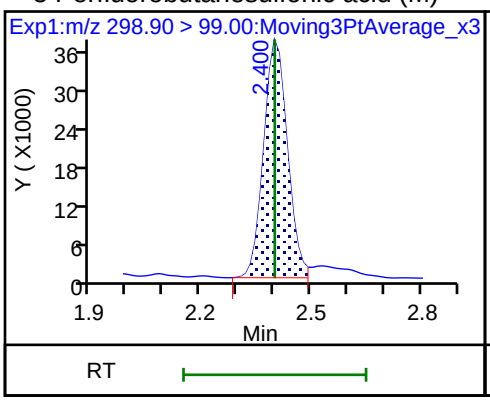

D 47 13C3 PFBS (M)



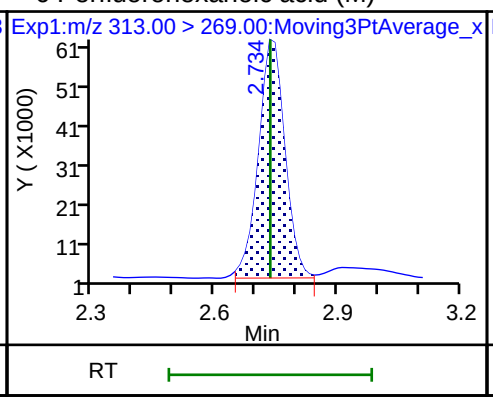

5 Perfluorobutanesulfonic acid (M)



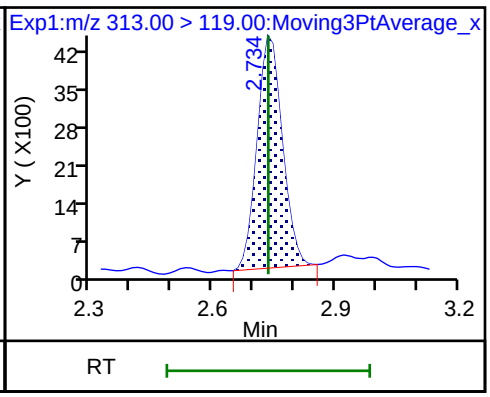

5 Perfluorobutanesulfonic acid (M)



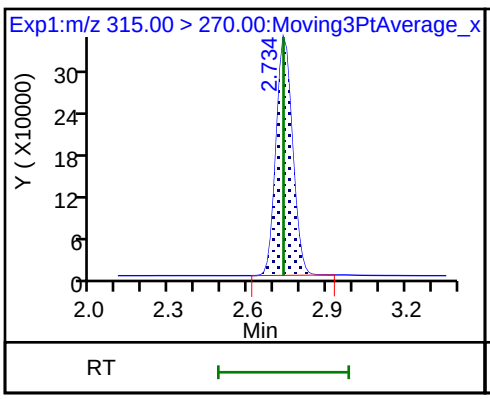

6 Perfluorohexanoic acid (M)



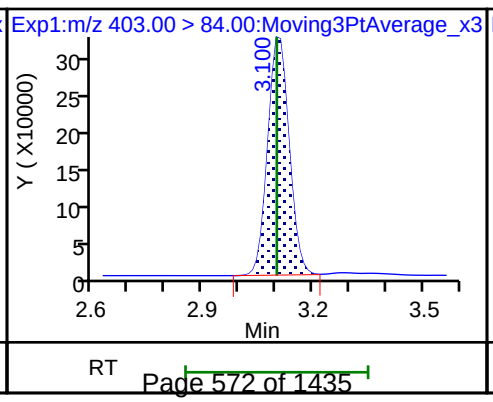

6 Perfluorohexanoic acid



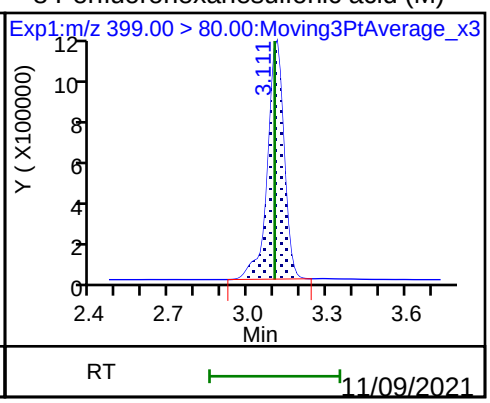

D 7 13C2 PFHxA



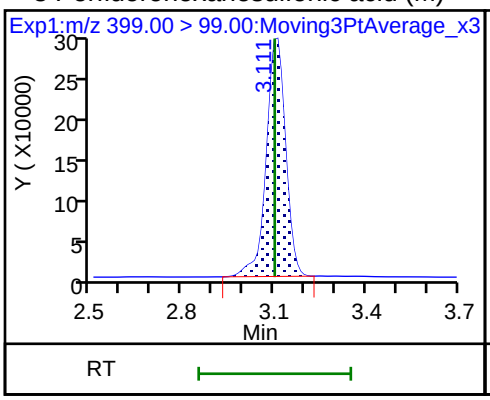

D 11 18O2 PFHxS



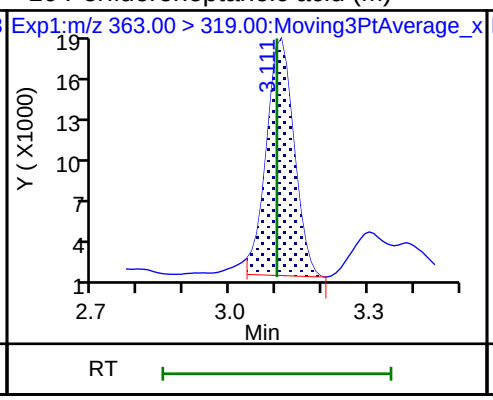

8 Perfluorohexanesulfonic acid (M)



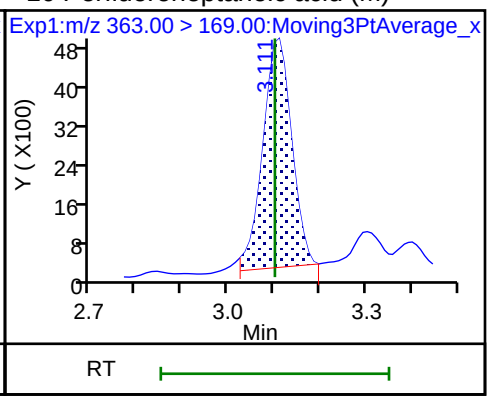
8 Perfluorohexanesulfonic acid (M)



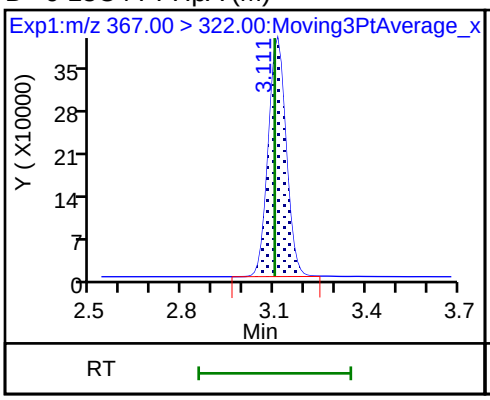

10 Perfluoroheptanoic acid (M)



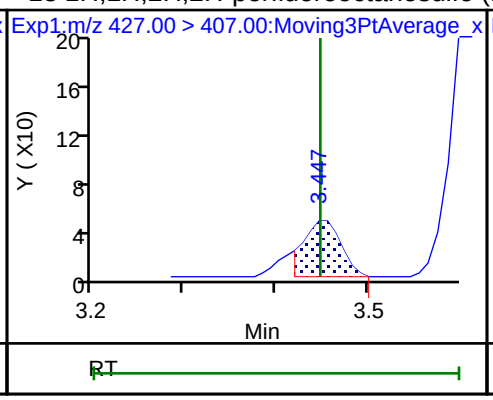

10 Perfluoroheptanoic acid (M)



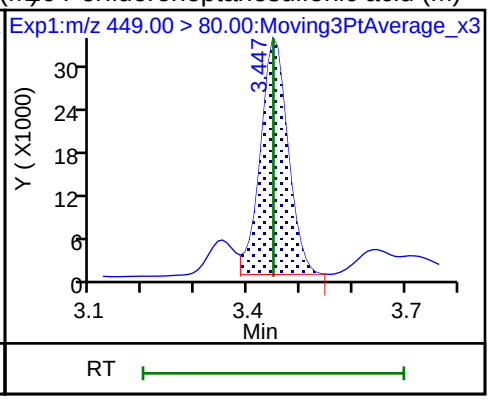

D 9 13C4 PFHpA (M)



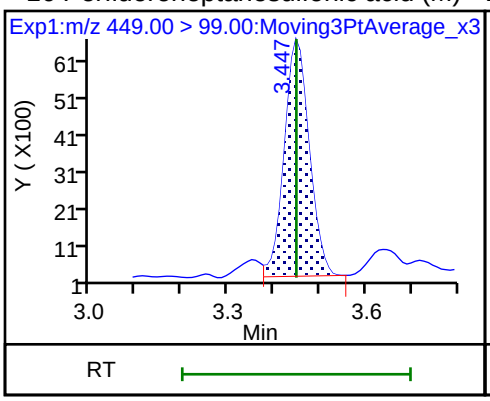

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



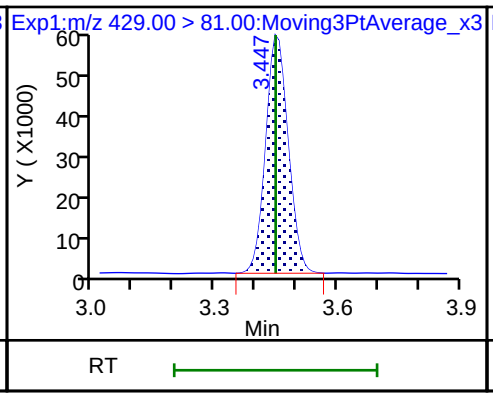

16 Perfluoroheptanesulfonic acid (M)



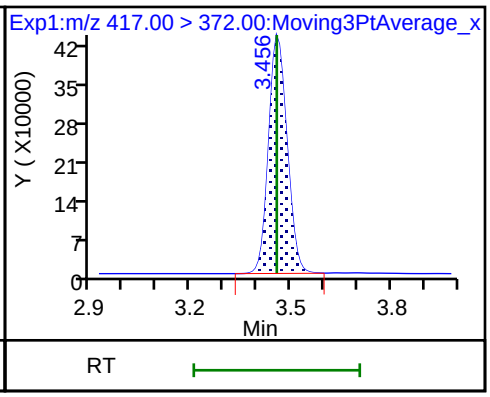

16 Perfluoroheptanesulfonic acid (M)



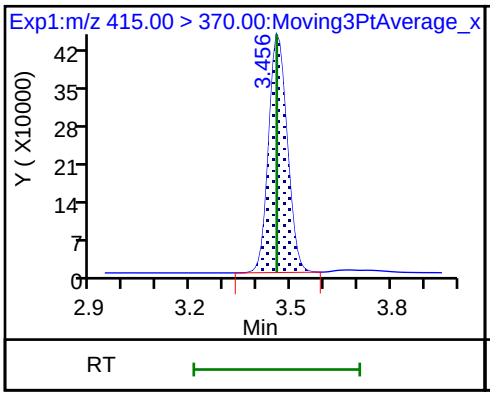

D 12 M2-6:2 FTS



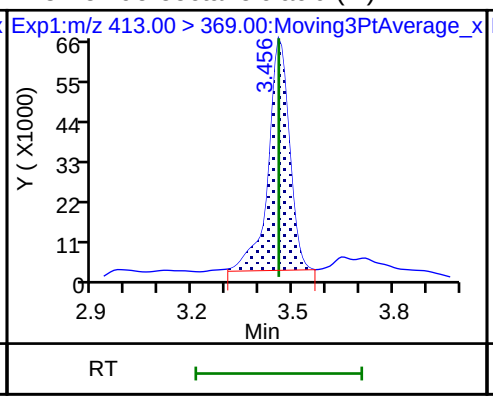

D 14 13C4 PFOA



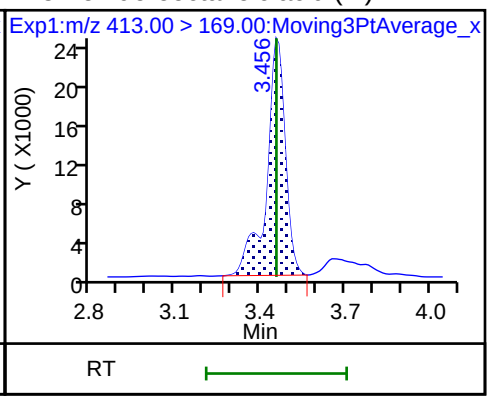

* 62 13C2 PFOA



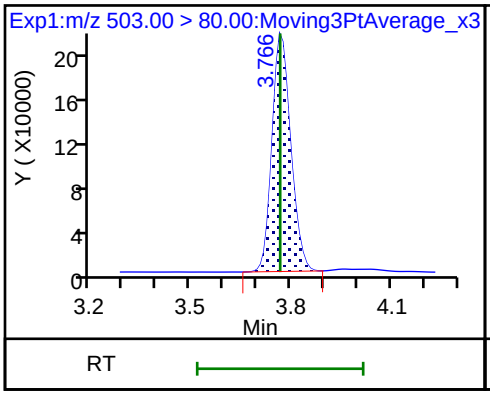

15 Perfluorooctanoic acid (M)



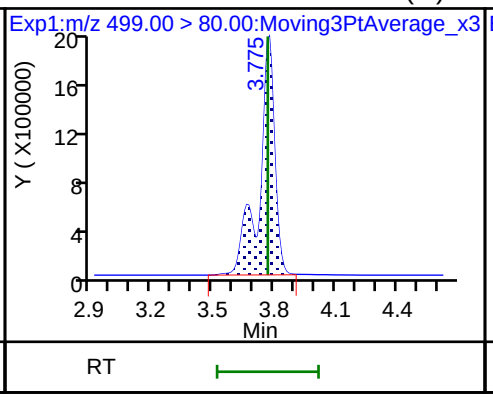

15 Perfluorooctanoic acid (M)



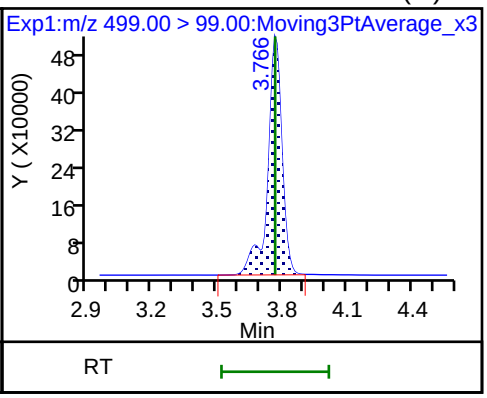
D 18 13C4 PFOS



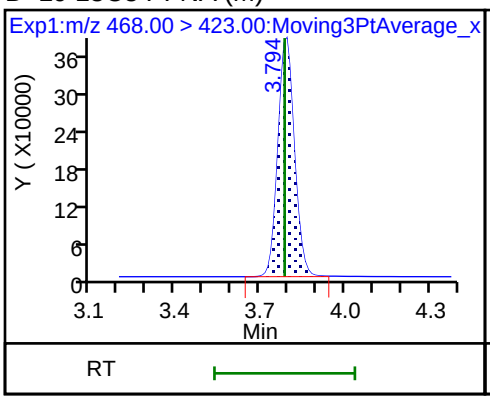

17 Perfluorooctanesulfonic acid (M)



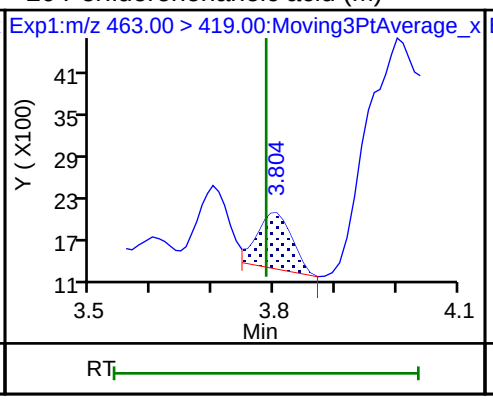

17 Perfluorooctanesulfonic acid (M)



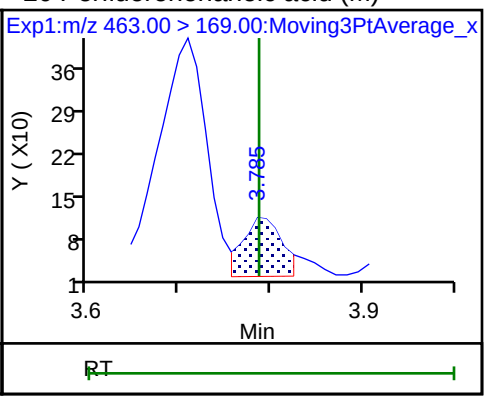

D 19 13C5 PFNA (M)



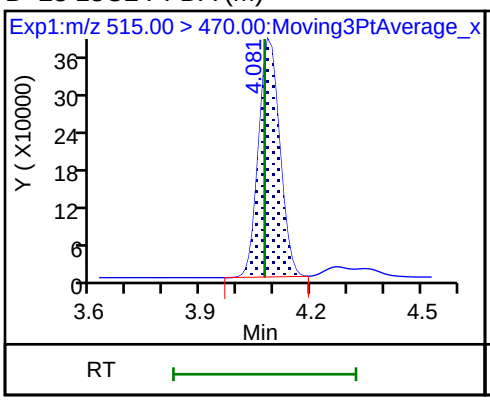

20 Perfluorononanoic acid (M)



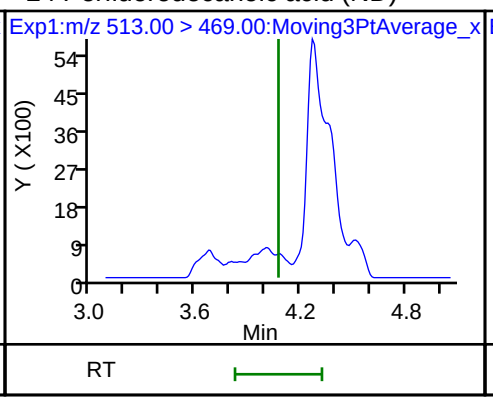

20 Perfluorononanoic acid (M)



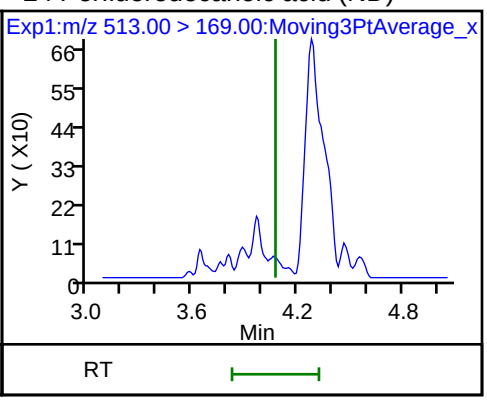

D 23 13C2 PFDA (M)



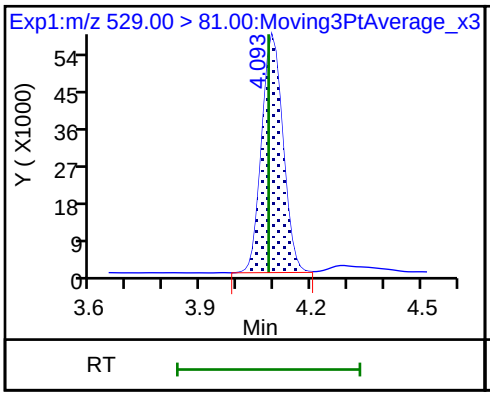

24 Perfluorodecanoic acid (ND)



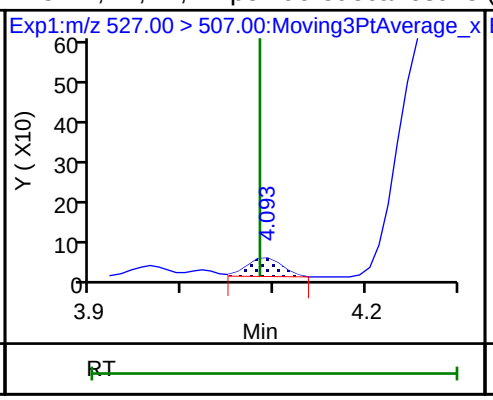

24 Perfluorodecanoic acid (ND)



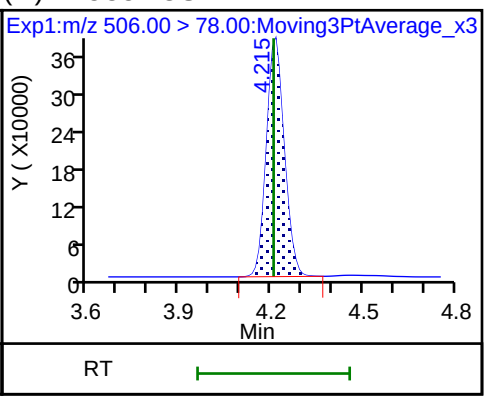

D 26 M2-8:2 FTS



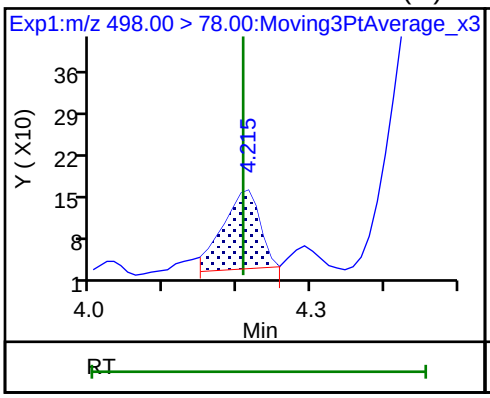

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



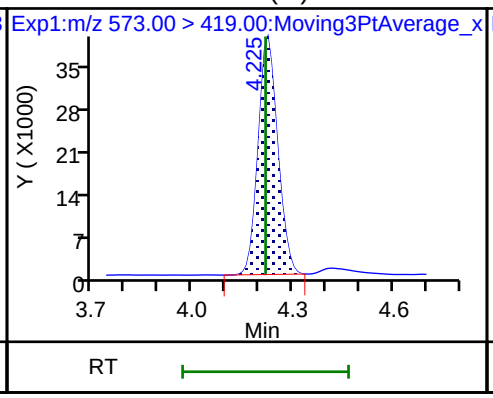

21 13C8 FOSA



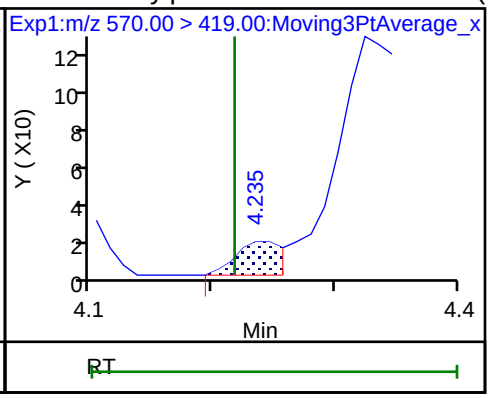
22 Perfluorooctanesulfonamide (M)



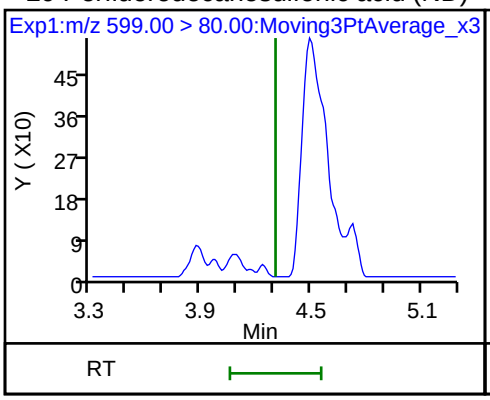

D 27 d3-NMeFOSAA (M)



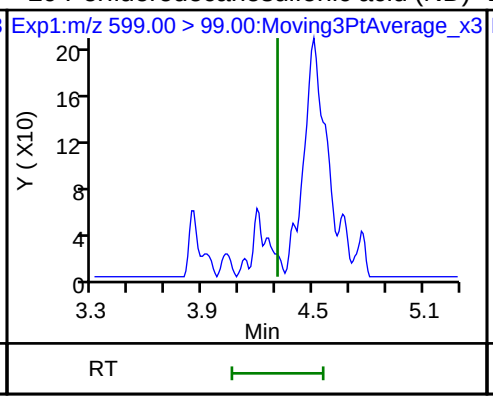

28 N-methylperfluorooctanesulfonami (M)



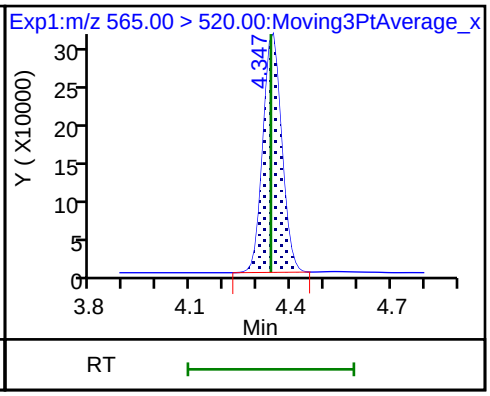

29 Perfluorodecanesulfonic acid (ND)



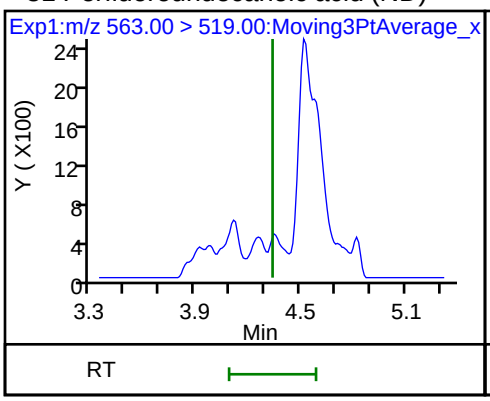

29 Perfluorodecanesulfonic acid (ND)



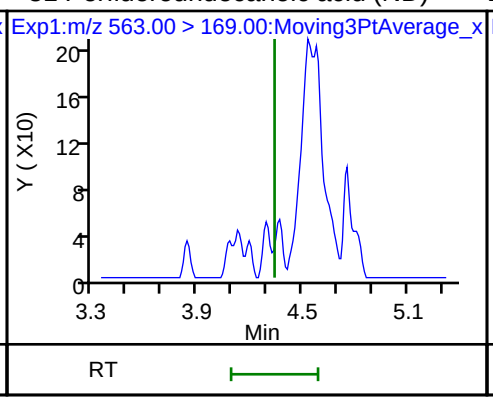

D 30 13C2 PFUnA



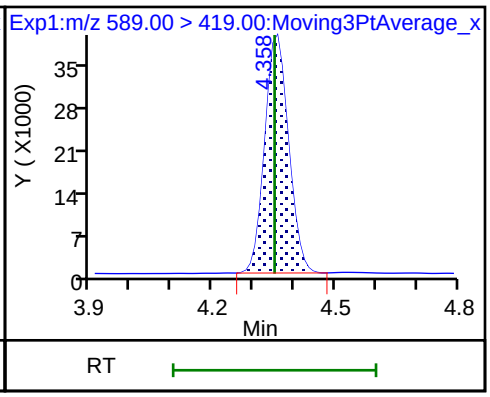

31 Perfluoroundecanoic acid (ND)



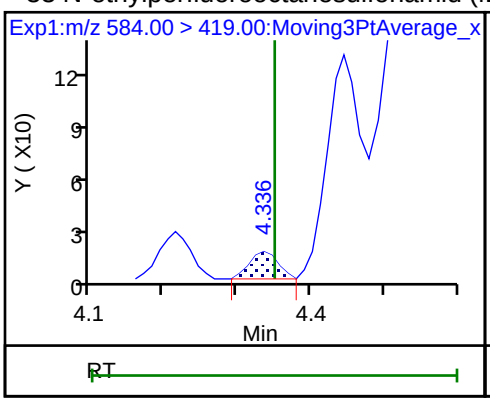

31 Perfluoroundecanoic acid (ND)



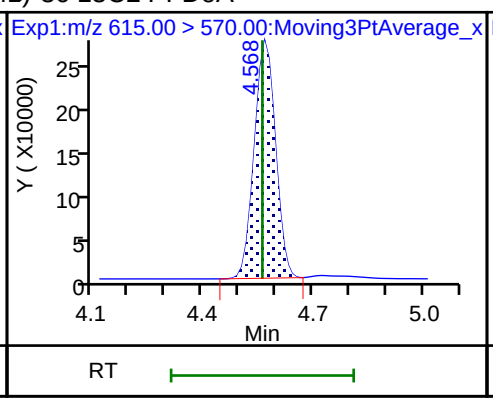

D 32 d5-NEtFOSAA



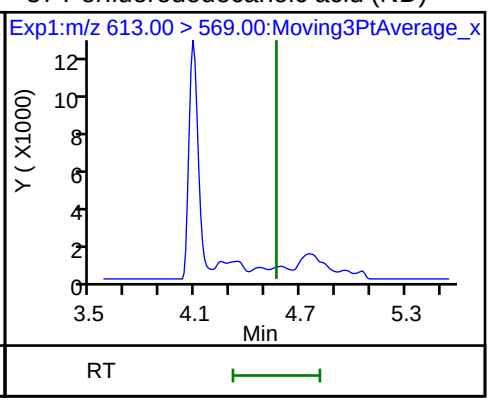

33 N-ethylperfluorooctanesulfonamid (ND)



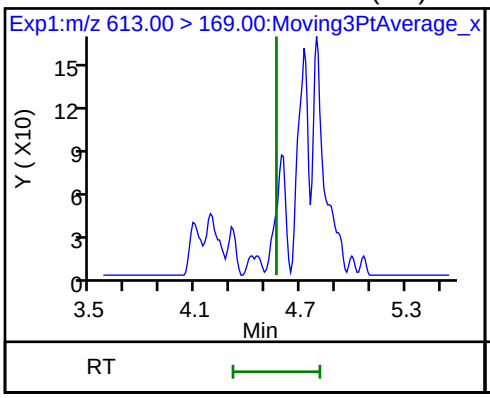

D 36 13C2 PFDoA



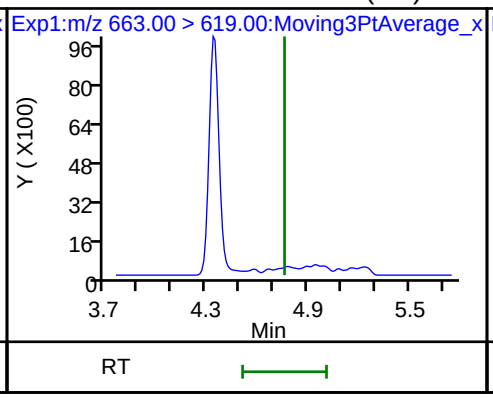

37 Perfluorododecanoic acid (ND)



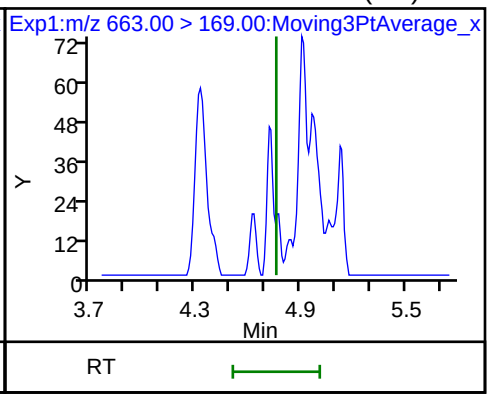
37 Perfluorododecanoic acid (ND)



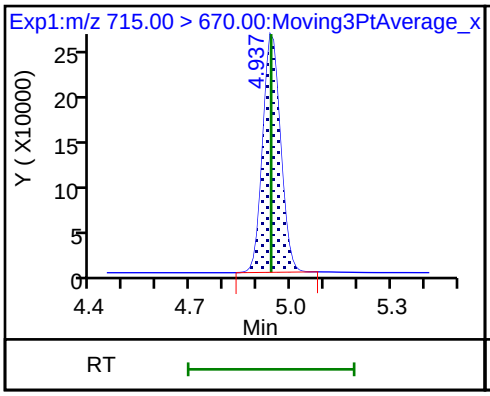

41 Perfluorotridecanoic acid (ND)



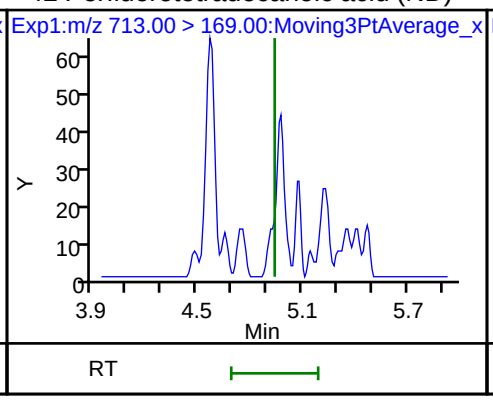

41 Perfluorotridecanoic acid (ND)



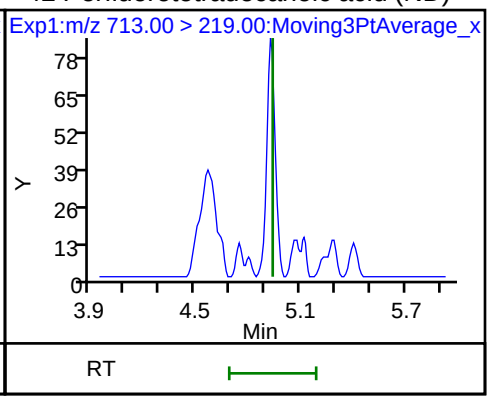

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

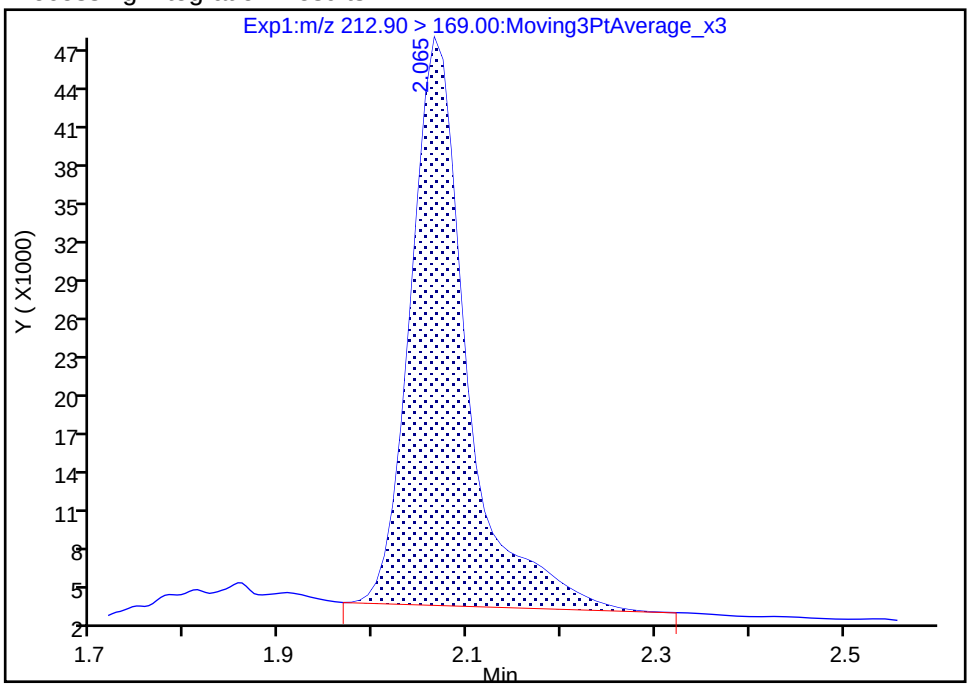
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

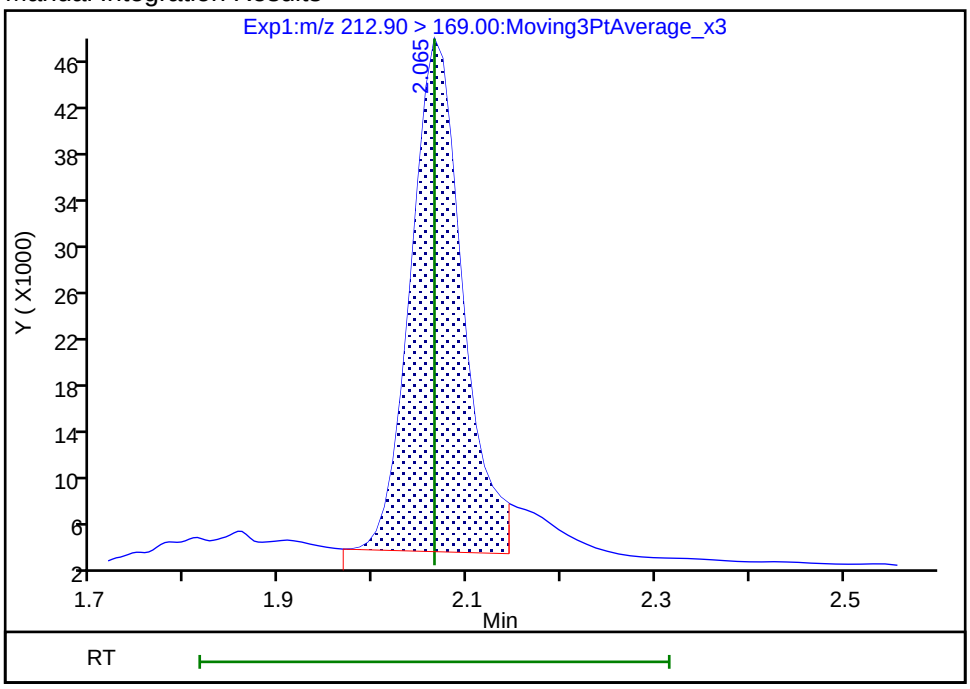
Processing Integration Results

RT: 2.06
Area: 183123
Amount: 0.143700
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 167990
Amount: 0.131825
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:27:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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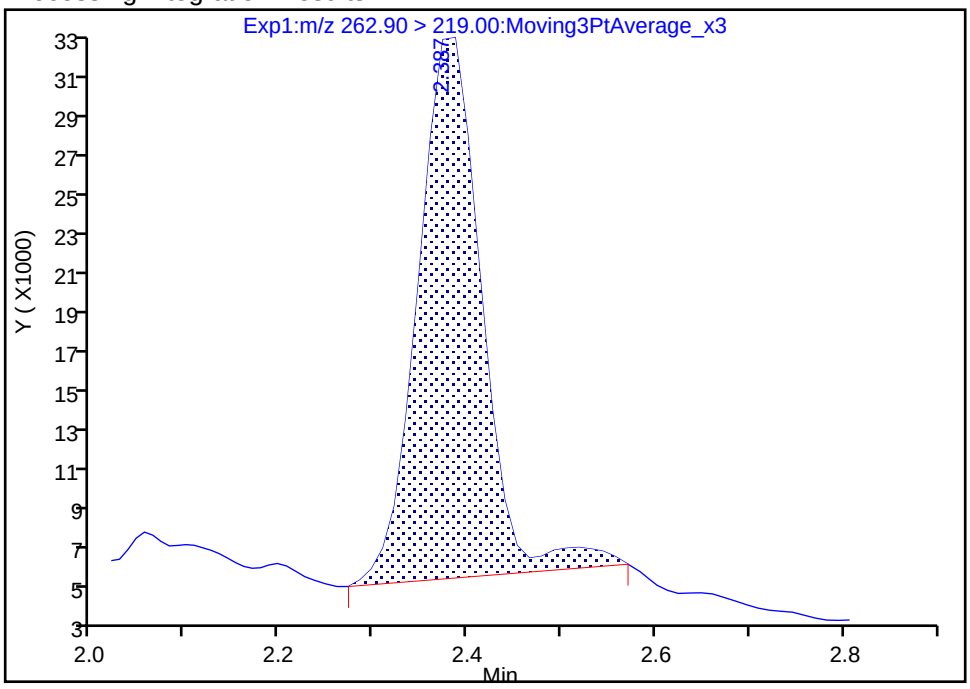
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

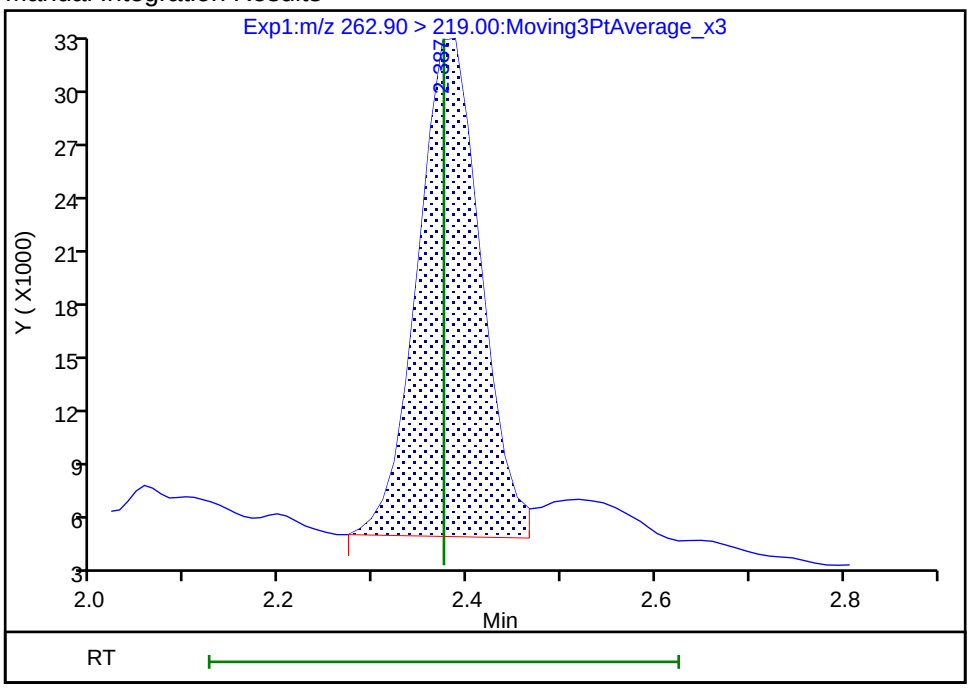
Processing Integration Results

RT: 2.39
Area: 124419
Amount: 0.109553
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 124756
Amount: 0.109849
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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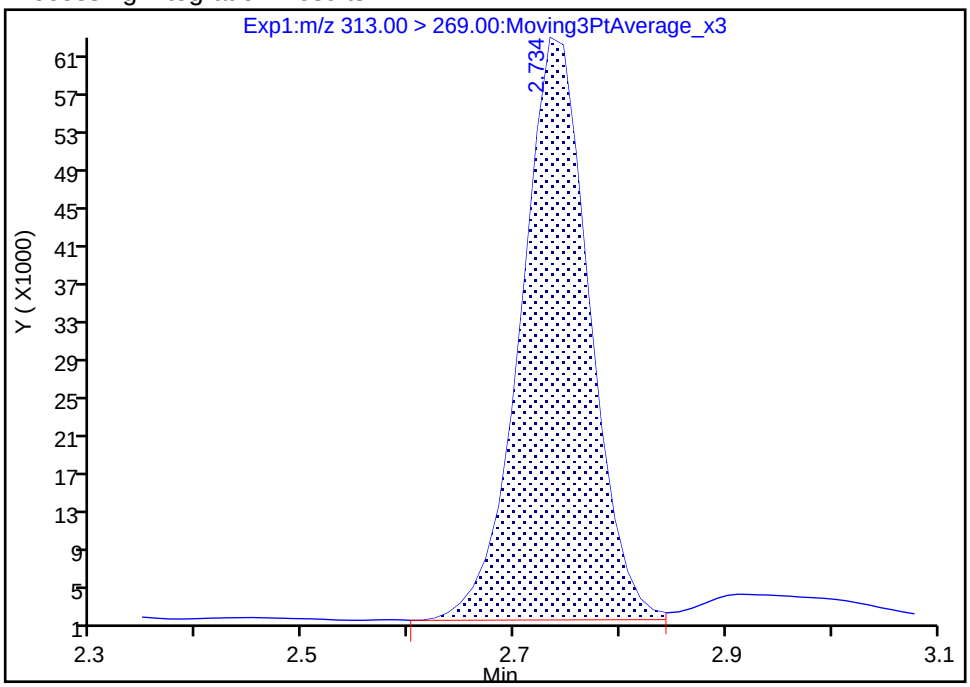
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

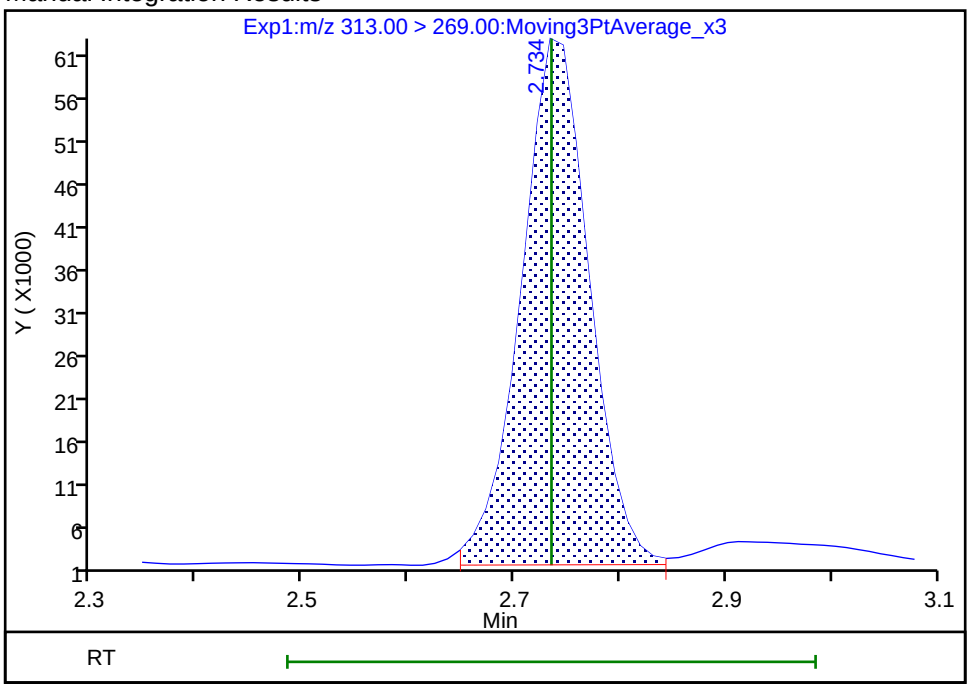
Processing Integration Results

RT: 2.73
Area: 272746
Amount: 0.227775
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 271434
Amount: 0.226679
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:59:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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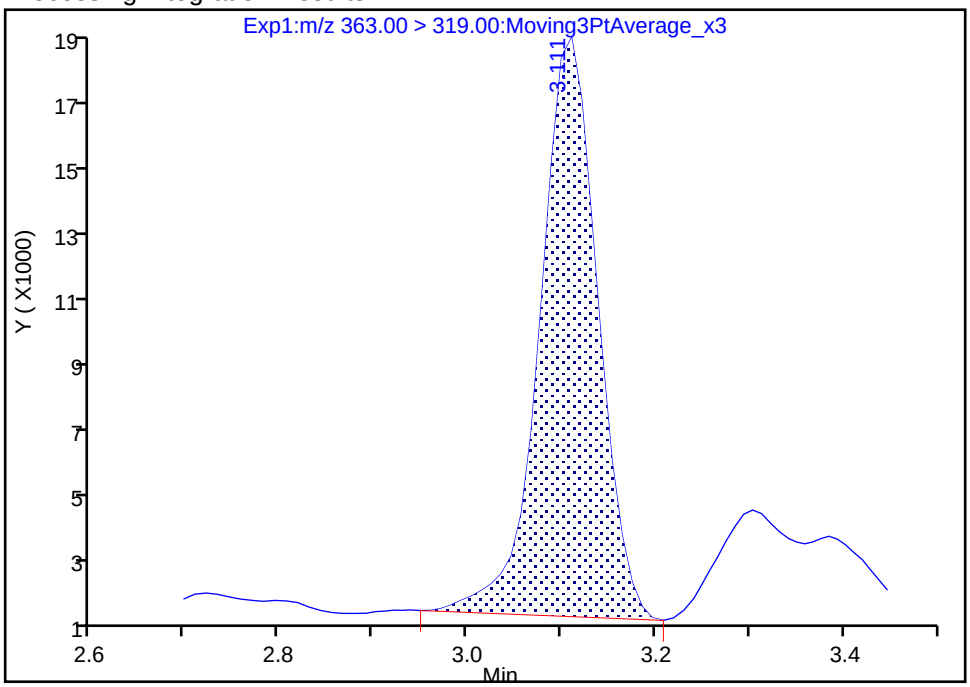
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

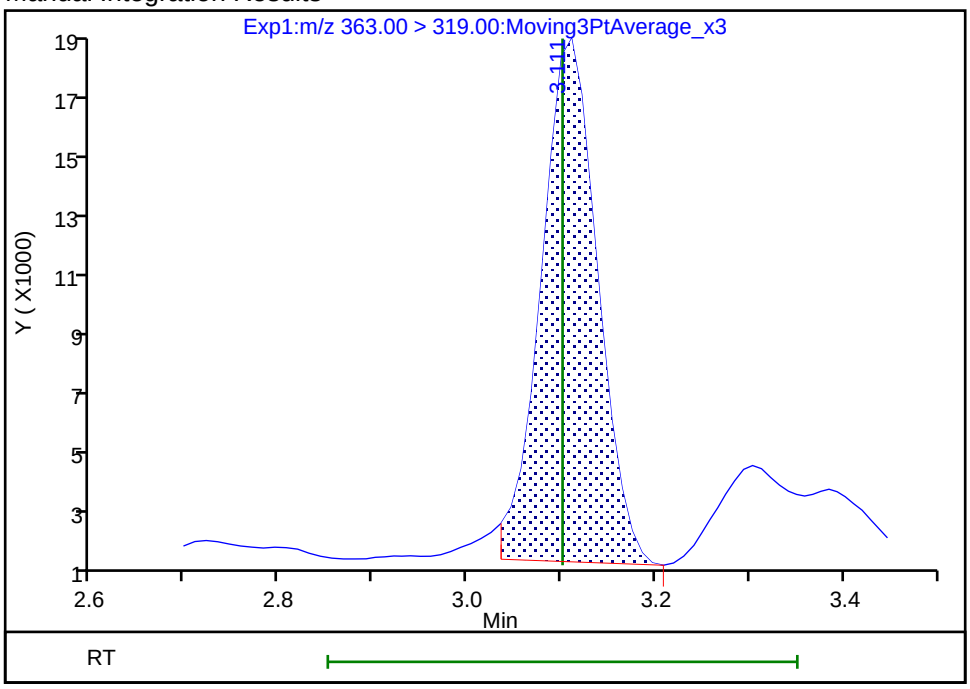
Processing Integration Results

RT: 3.11
Area: 75431
Amount: 0.057591
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 73290
Amount: 0.055957
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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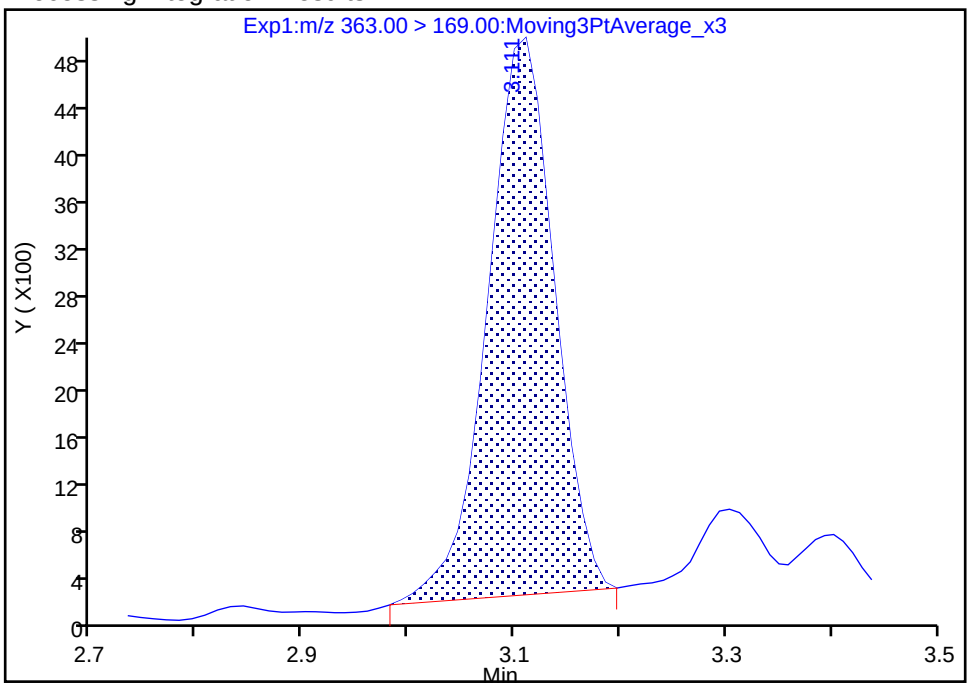
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

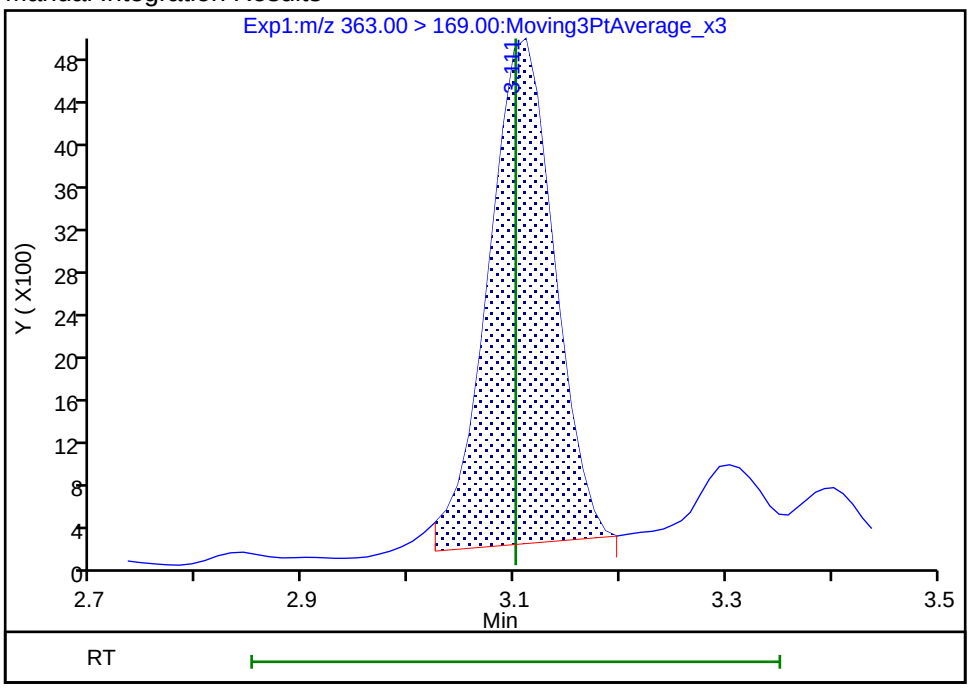
Processing Integration Results

RT: 3.11
Area: 20572
Amount: 0.057591
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 20465
Amount: 0.055957
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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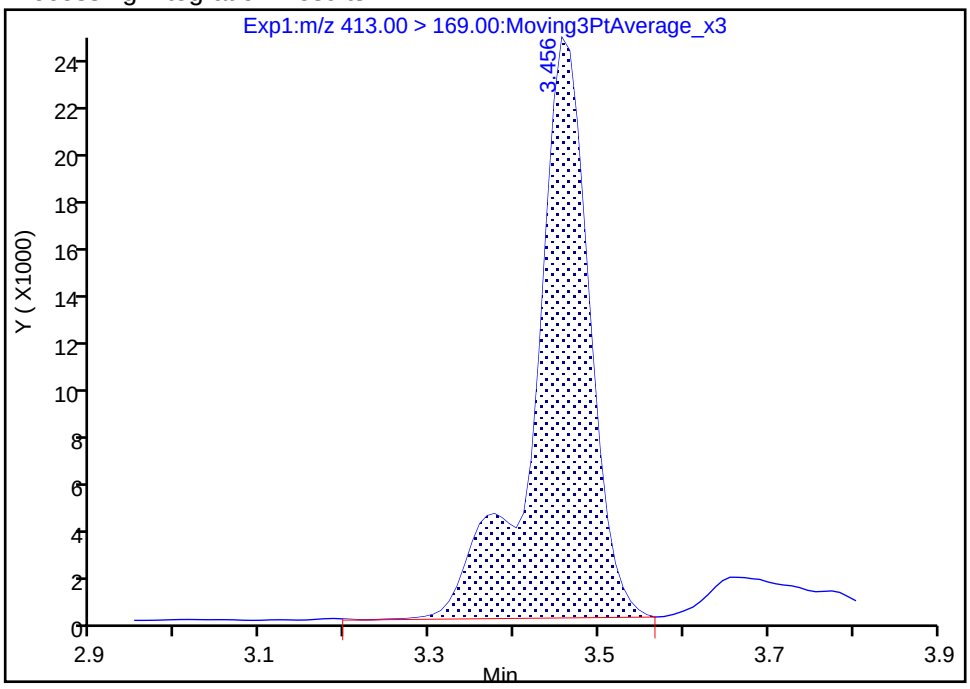
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

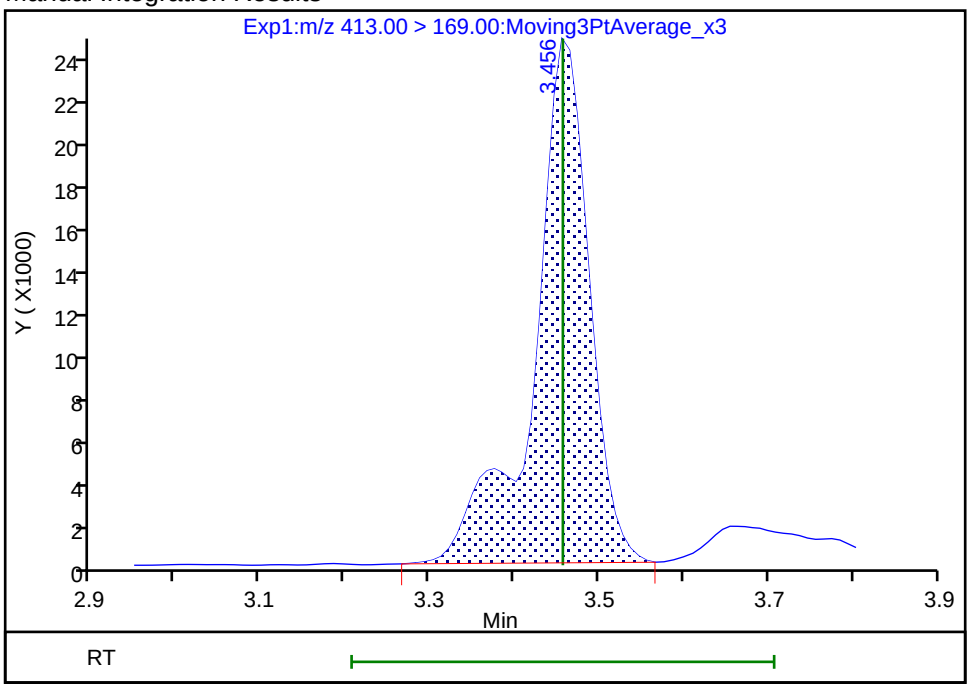
Processing Integration Results

RT: 3.46
Area: 109349
Amount: 0.198413
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 109035
Amount: 0.197233
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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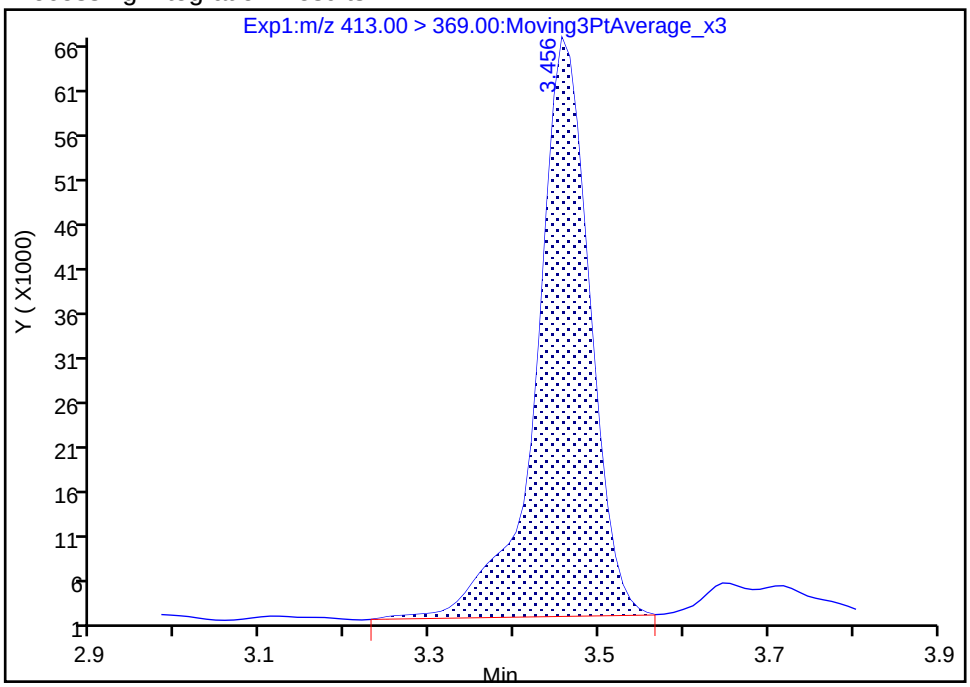
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

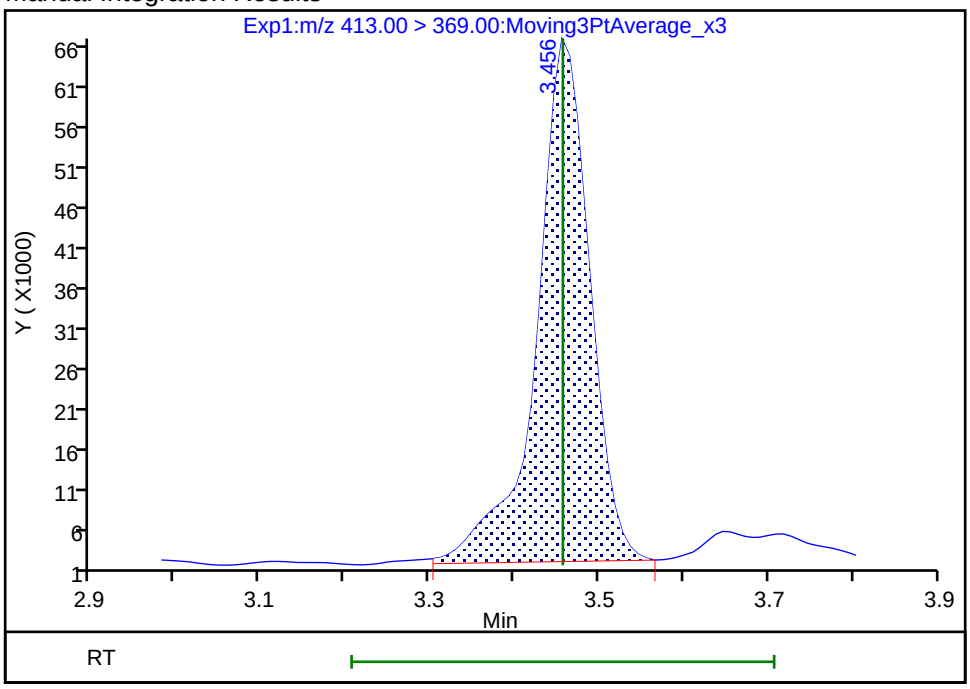
Processing Integration Results

RT: 3.46
Area: 284115
Amount: 0.198413
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 282426
Amount: 0.197233
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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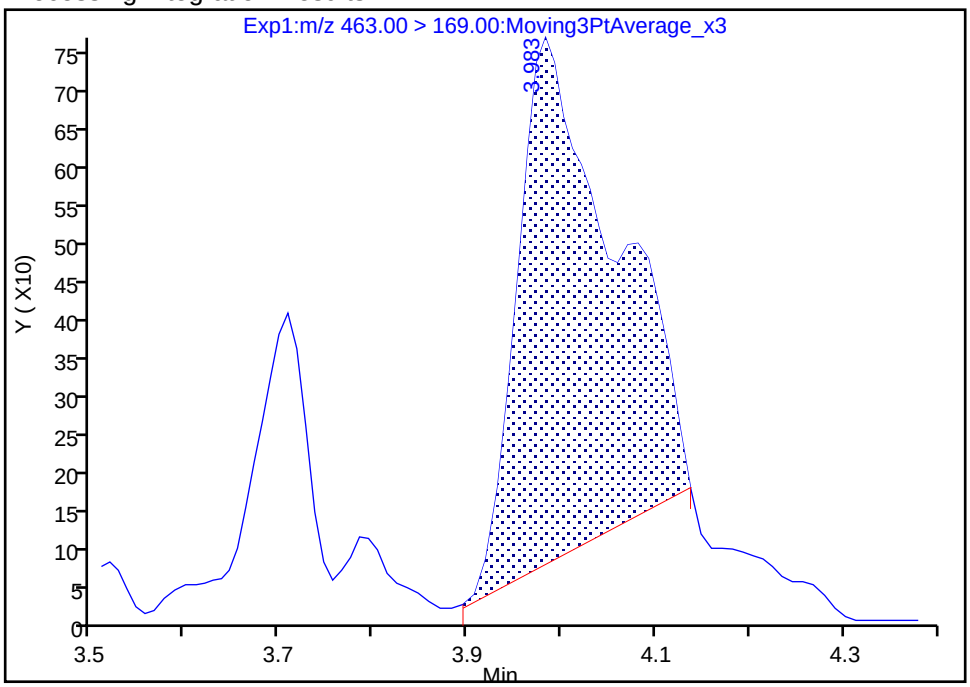
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

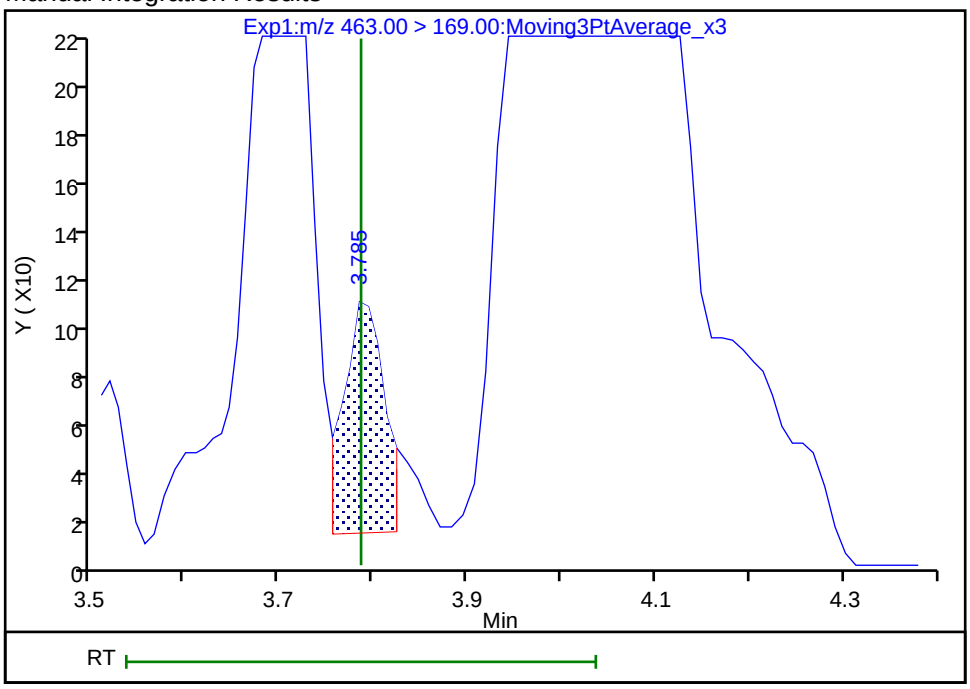
Processing Integration Results

RT: 3.98
Area: 4940
Amount: 0.005110
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 279
Amount: 0.002605
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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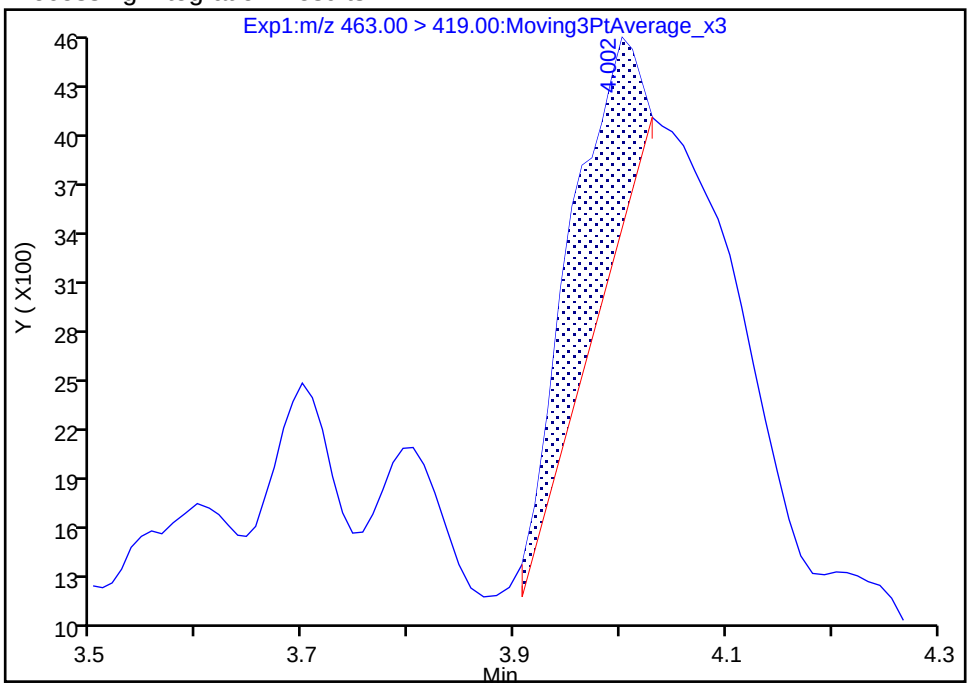
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

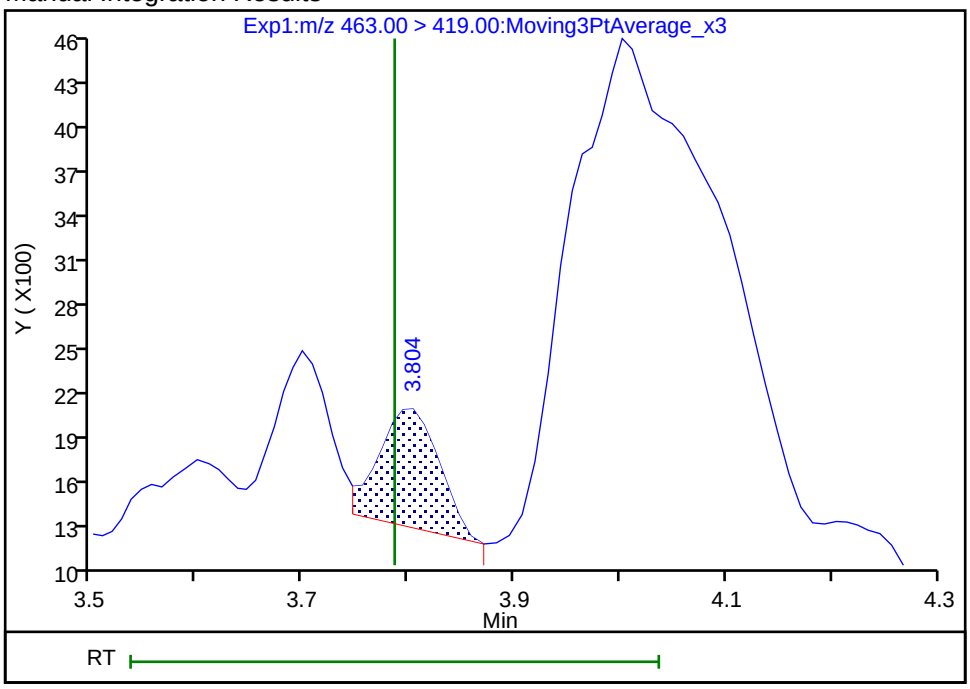
Processing Integration Results

RT: 4.00
Area: 6160
Amount: 0.005110
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 3141
Amount: 0.002605
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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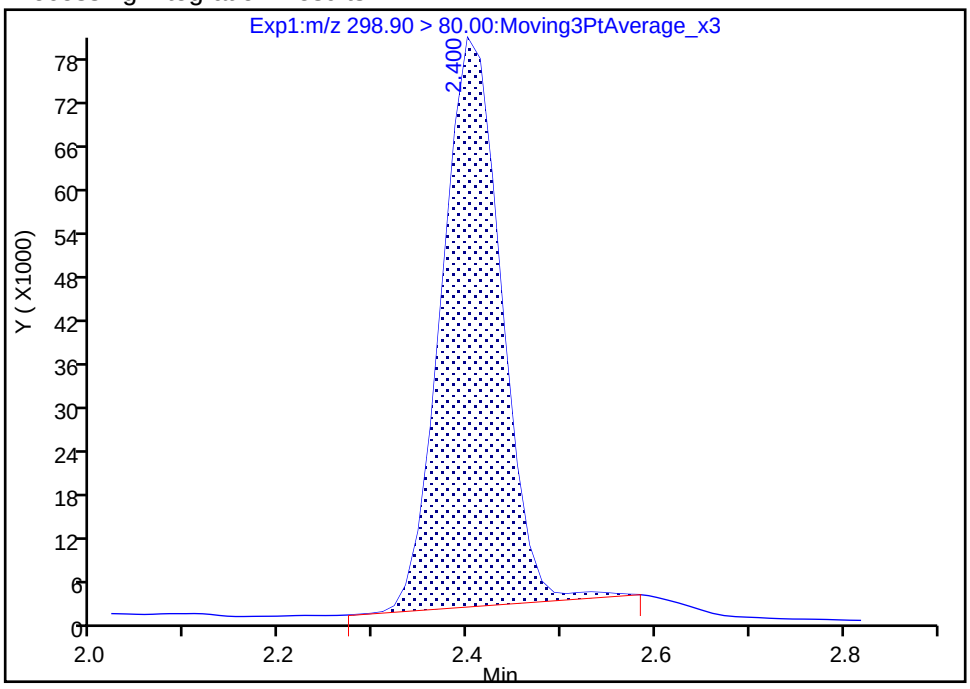
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

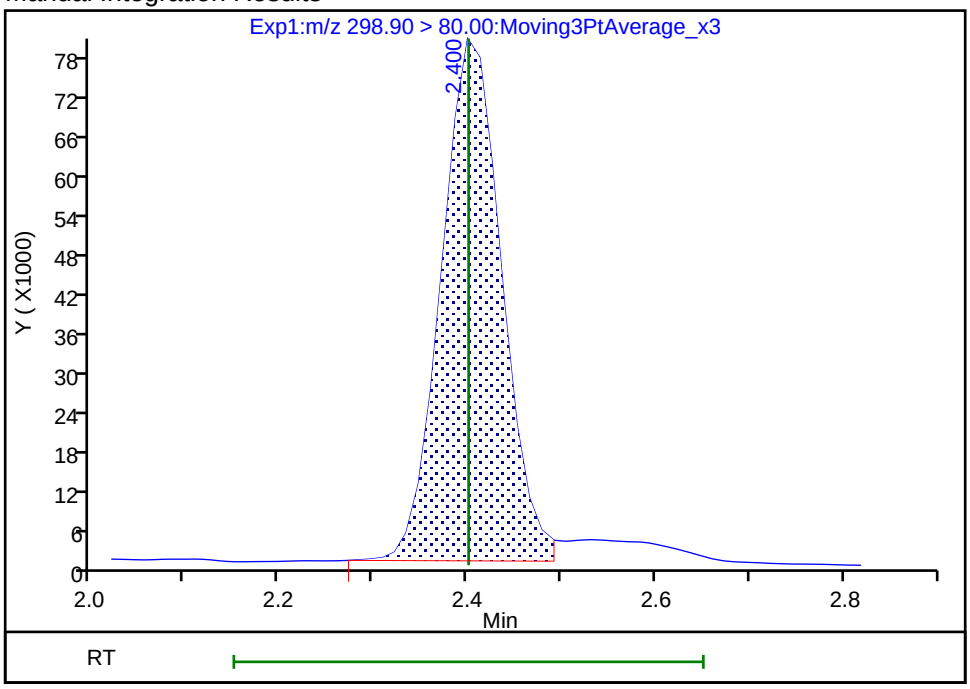
Processing Integration Results

RT: 2.40
Area: 345462
Amount: 0.227094
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 355150
Amount: 0.233462
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

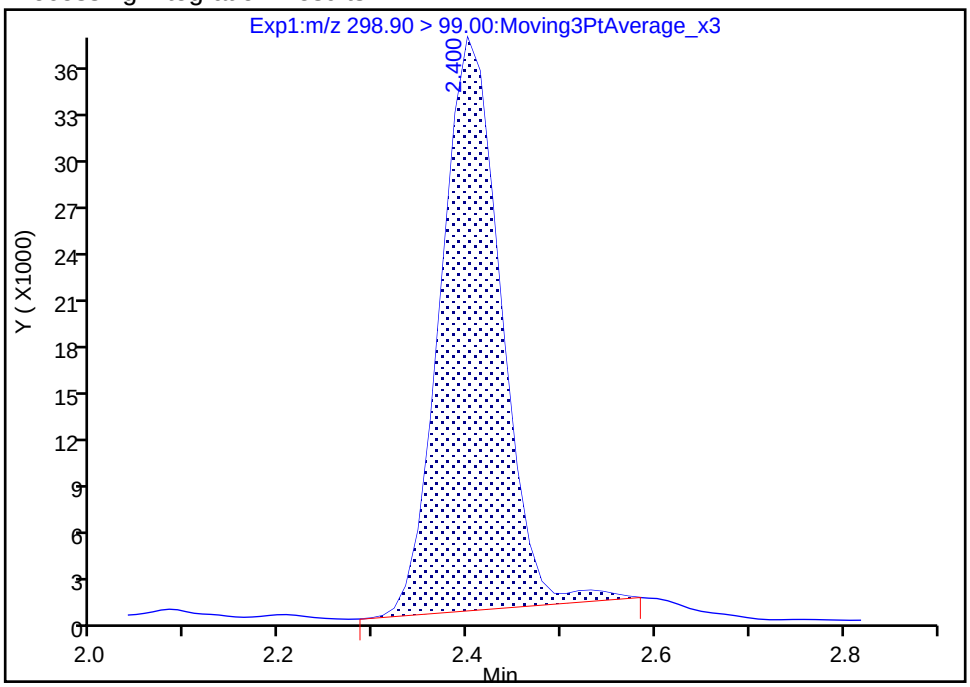
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

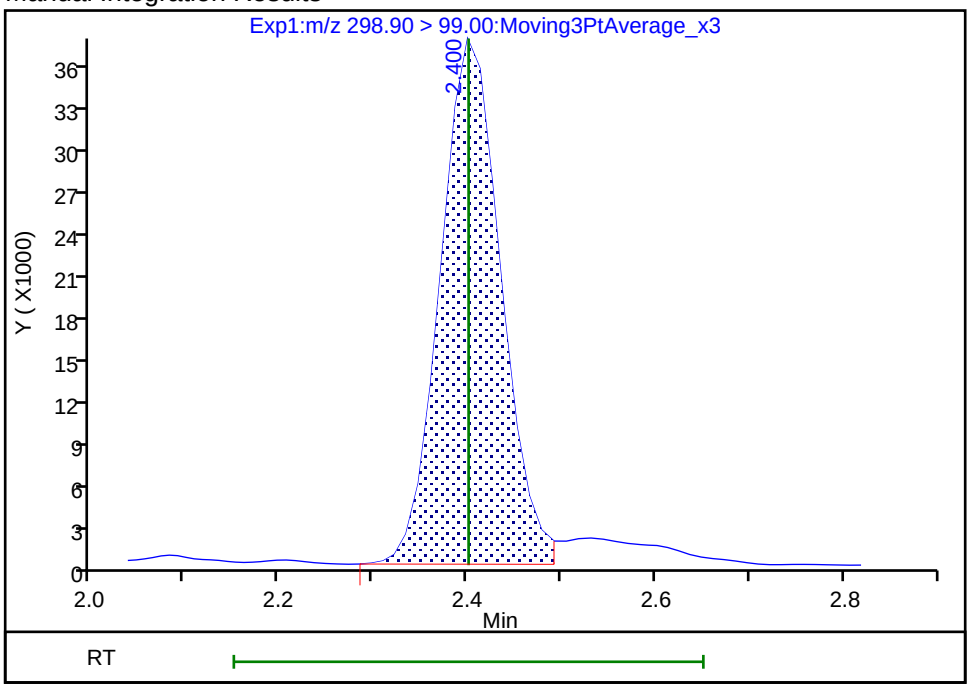
Processing Integration Results

RT: 2.40
Area: 162142
Amount: 0.227094
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 165308
Amount: 0.233462
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

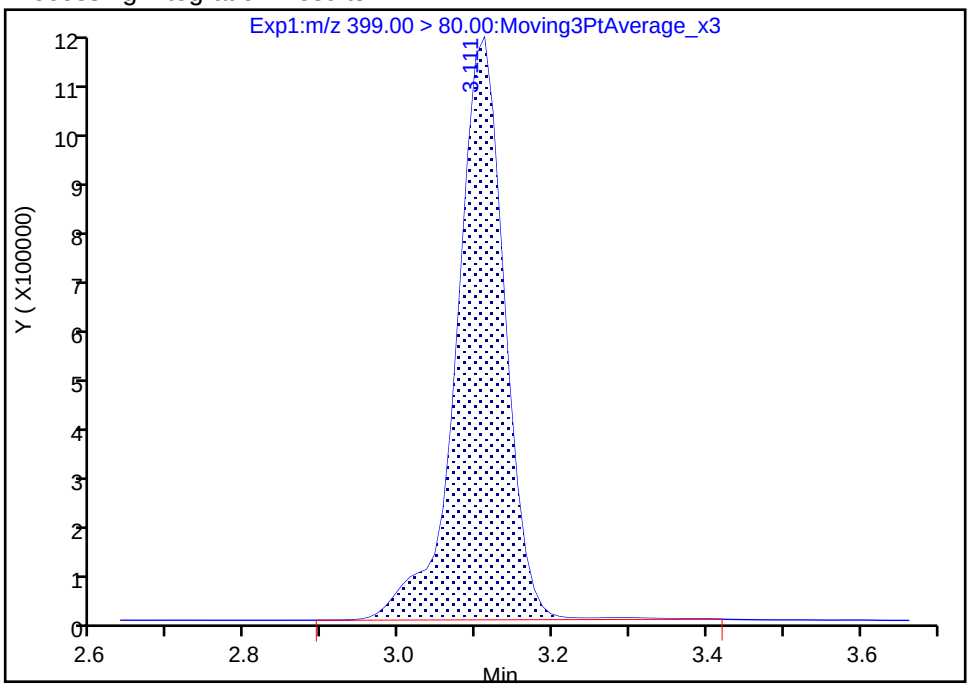
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

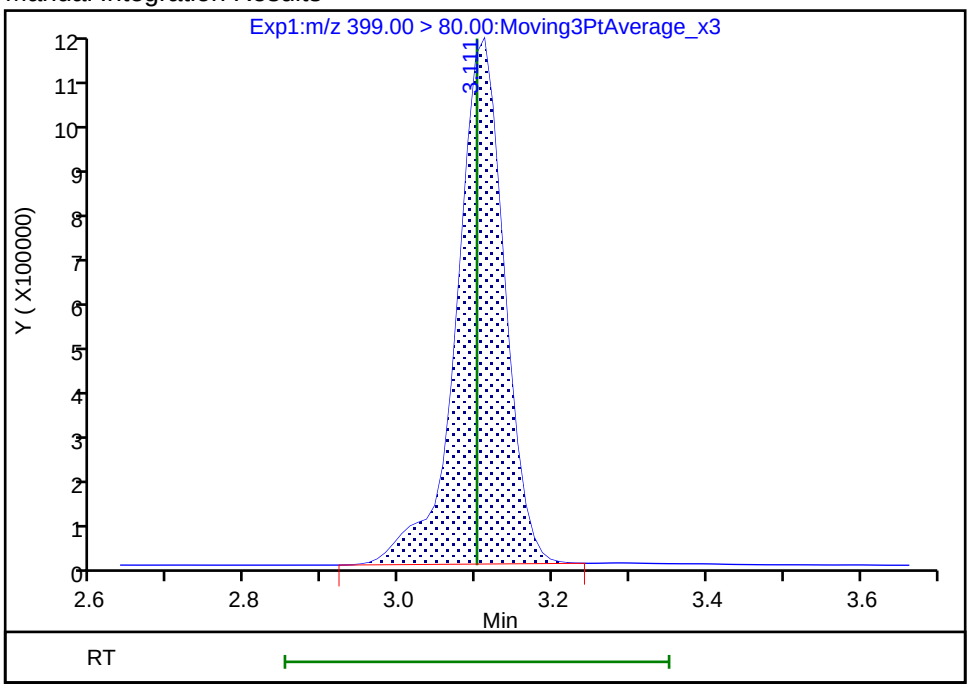
Processing Integration Results

RT: 3.11
Area: 4897045
Amount: 3.993198
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 4850910
Amount: 3.955578
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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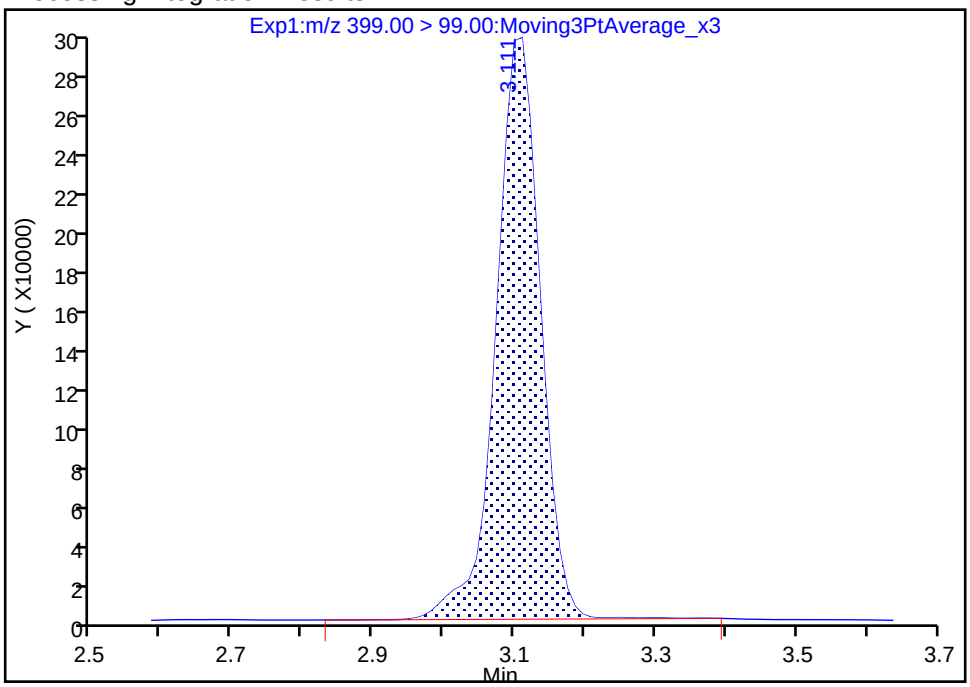
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

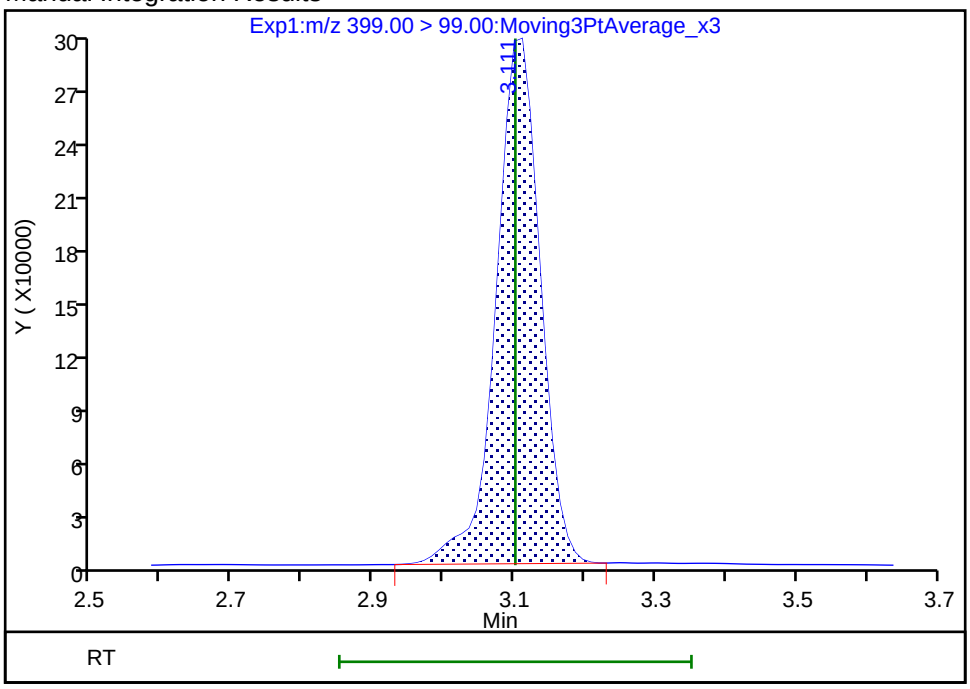
Processing Integration Results

RT: 3.11
Area: 1273773
Amount: 3.993198
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1265944
Amount: 3.955578
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:28:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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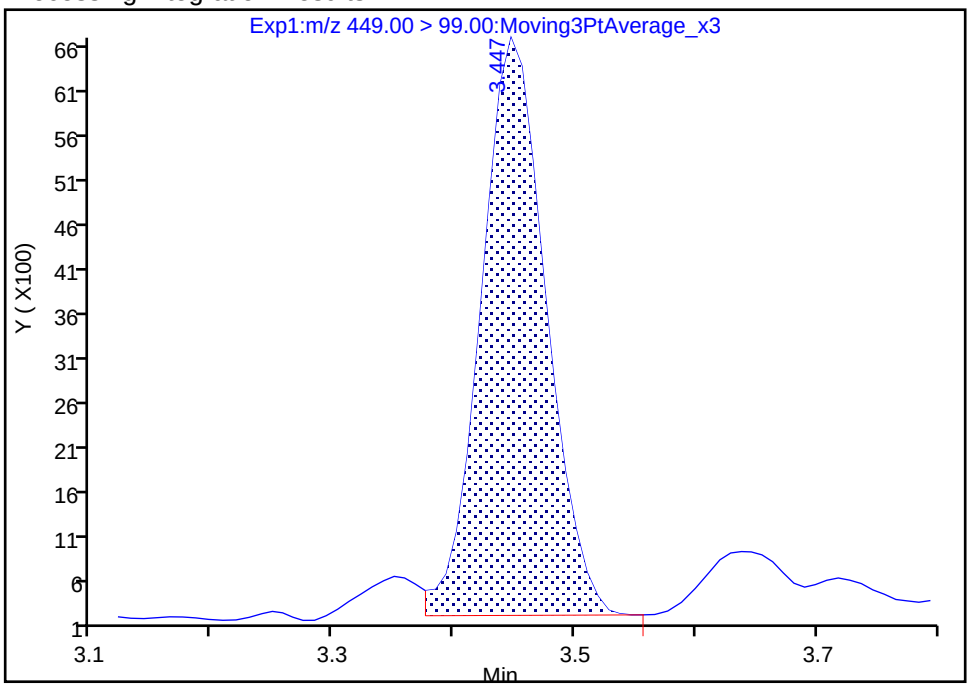
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

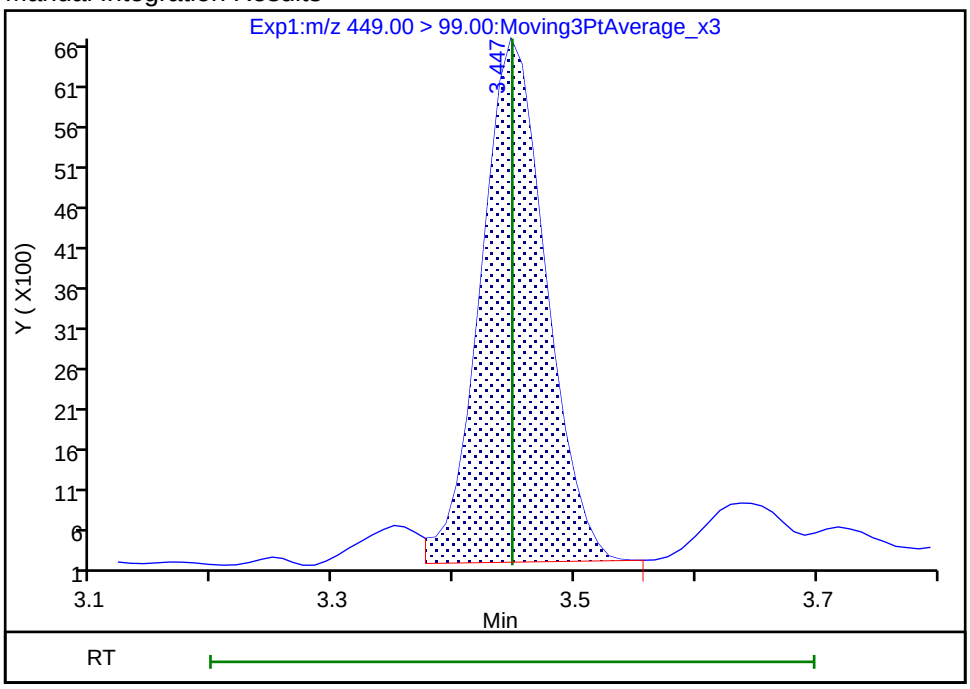
Processing Integration Results

RT: 3.45
Area: 24285
Amount: 0.134322
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 24447
Amount: 0.136762
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

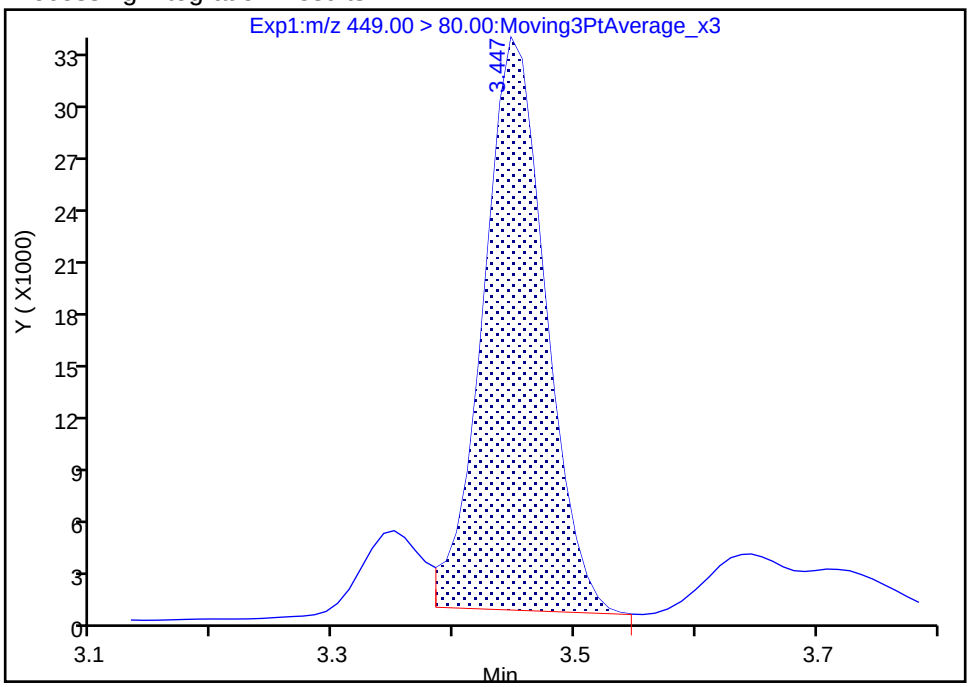
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

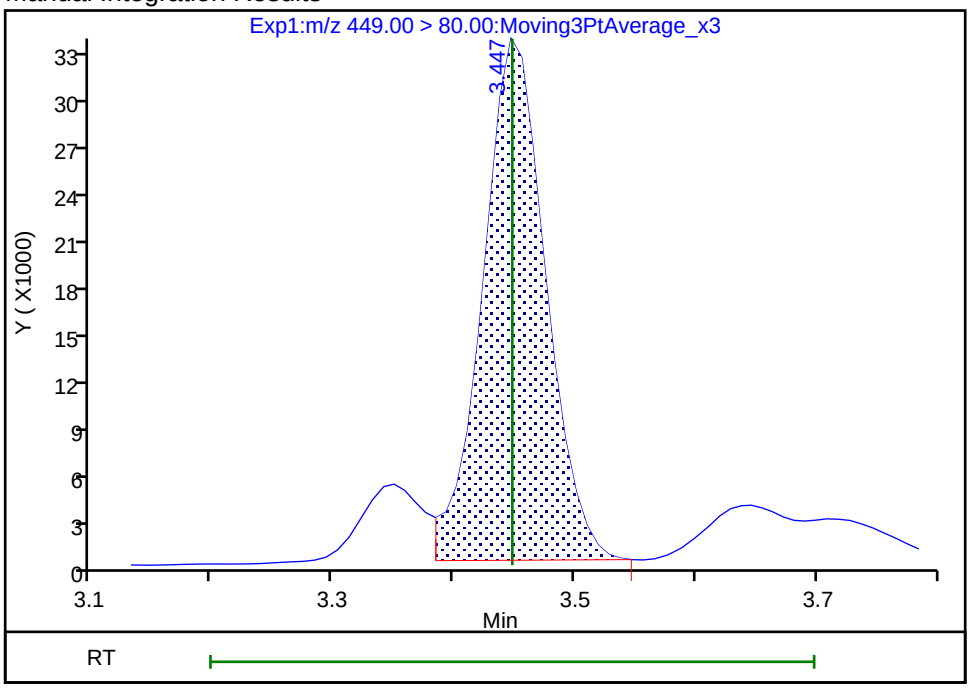
Processing Integration Results

RT: 3.45
Area: 116303
Amount: 0.134322
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 118415
Amount: 0.136762
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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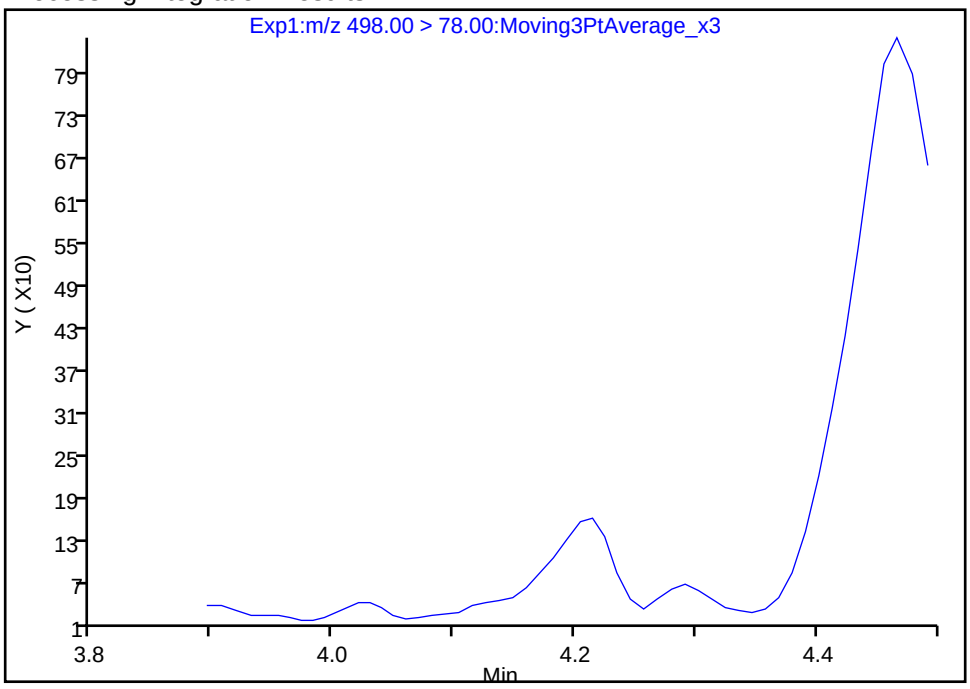
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

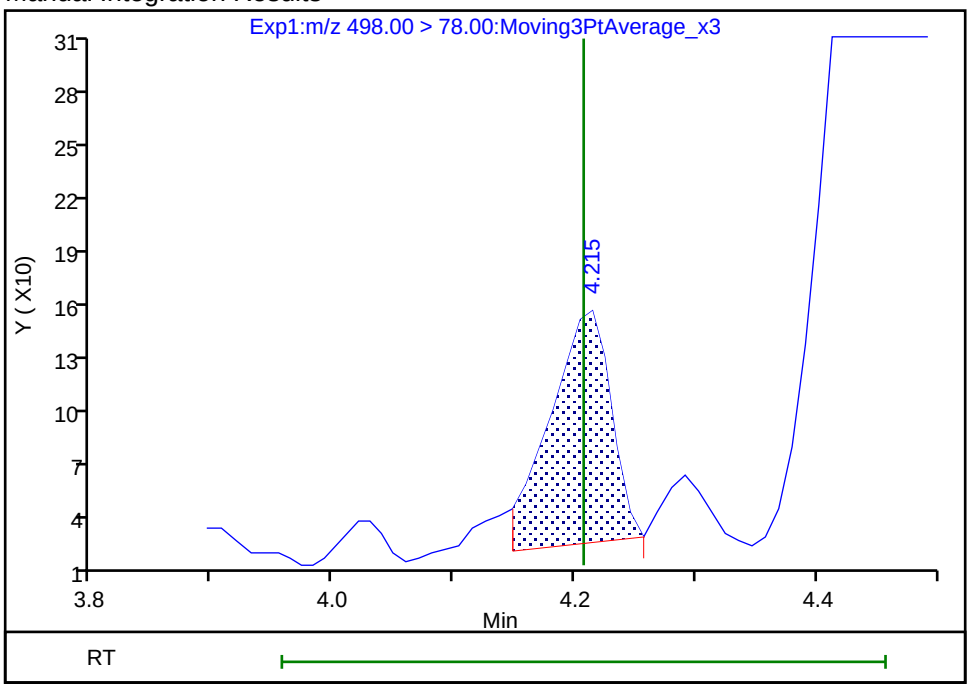
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 459
Amount: 0.000394
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:30:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

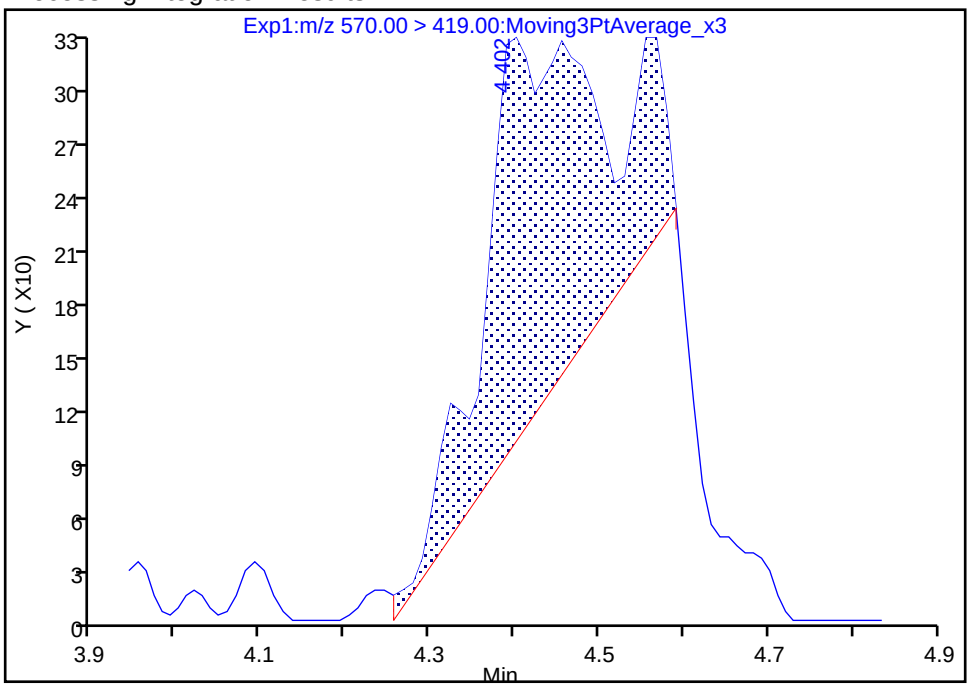
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

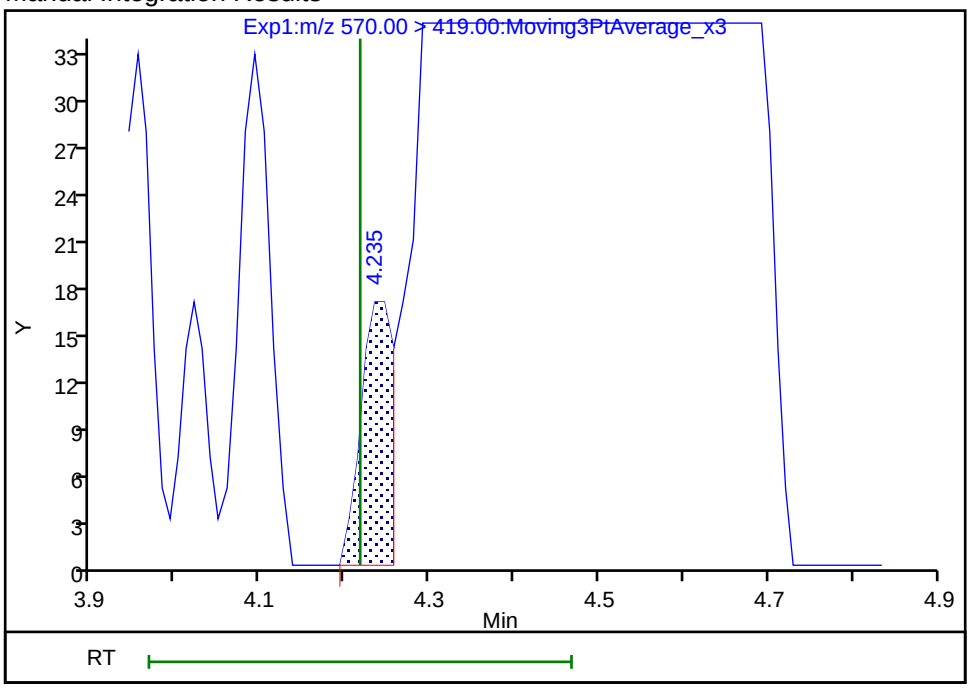
Processing Integration Results

RT: 4.40
Area: 2149
Amount: 0.020981
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 41
Amount: 0.000404
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:30:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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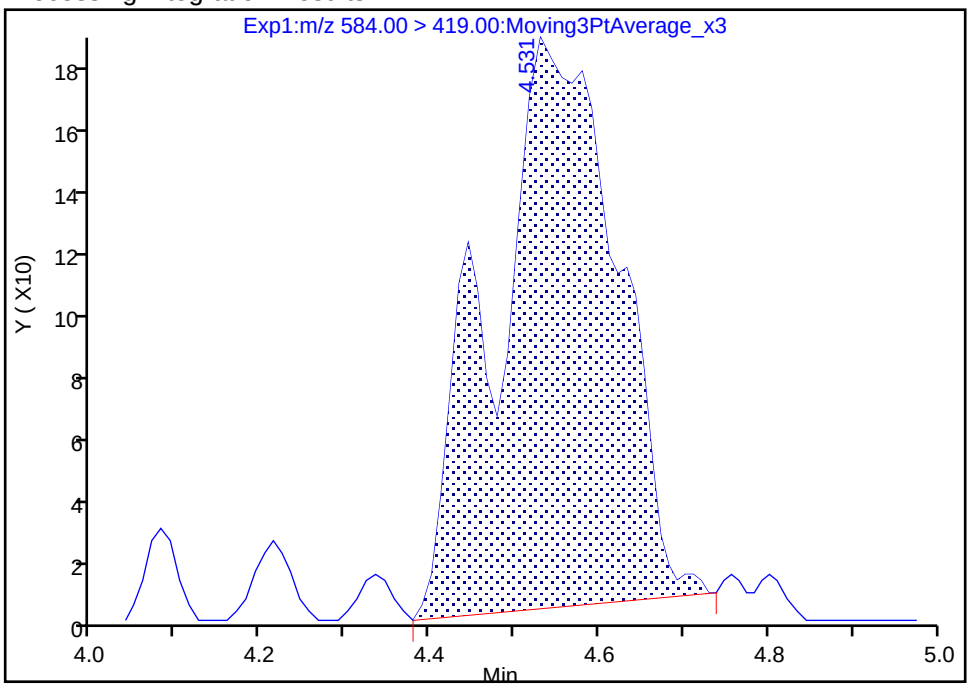
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

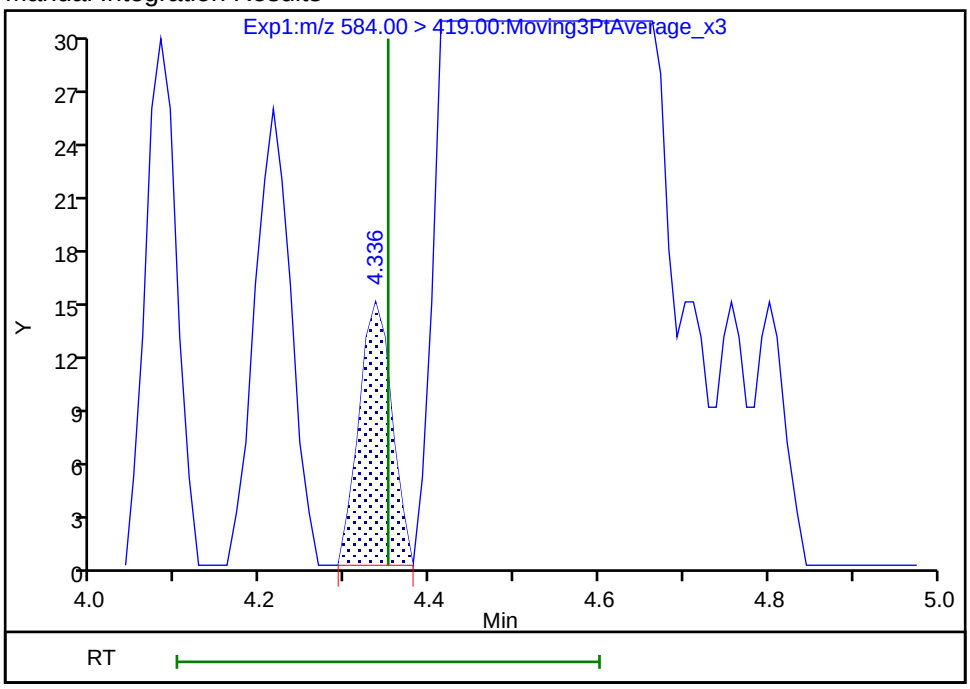
Processing Integration Results

RT: 4.53
Area: 1903
Amount: 0.017243
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 40
Amount: 0.000362
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:31:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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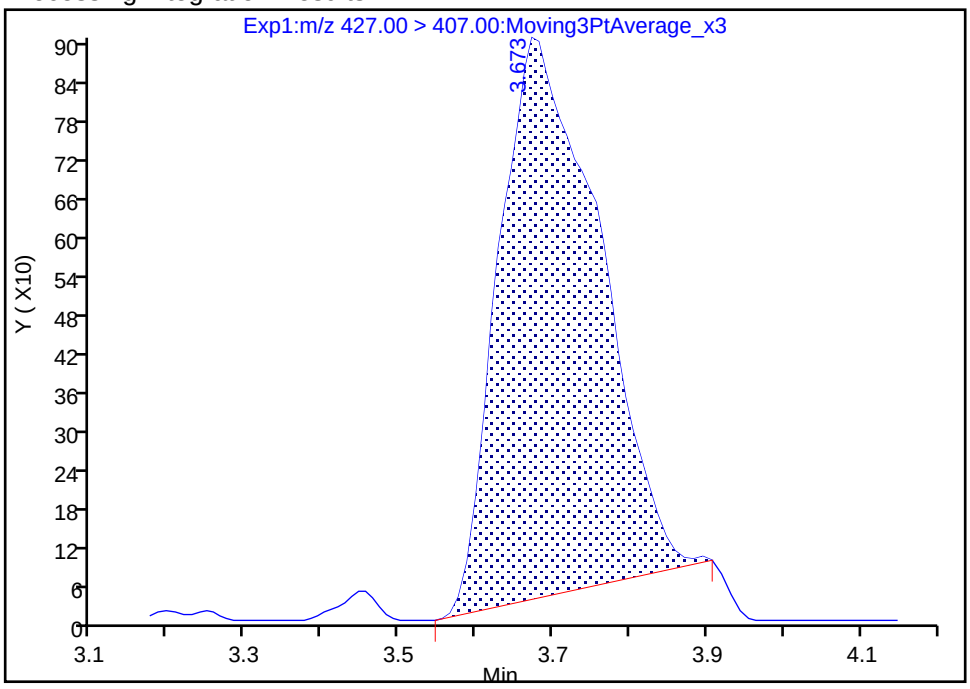
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

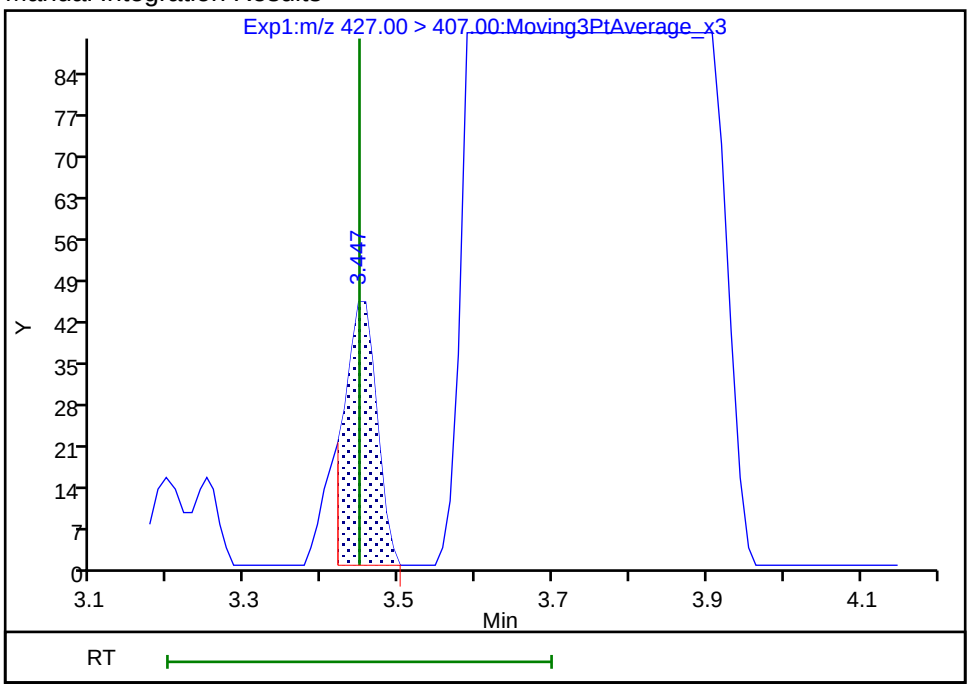
Processing Integration Results

RT: 3.67
Area: 7857
Amount: 0.032467
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 125
Amount: 0.000517
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:29:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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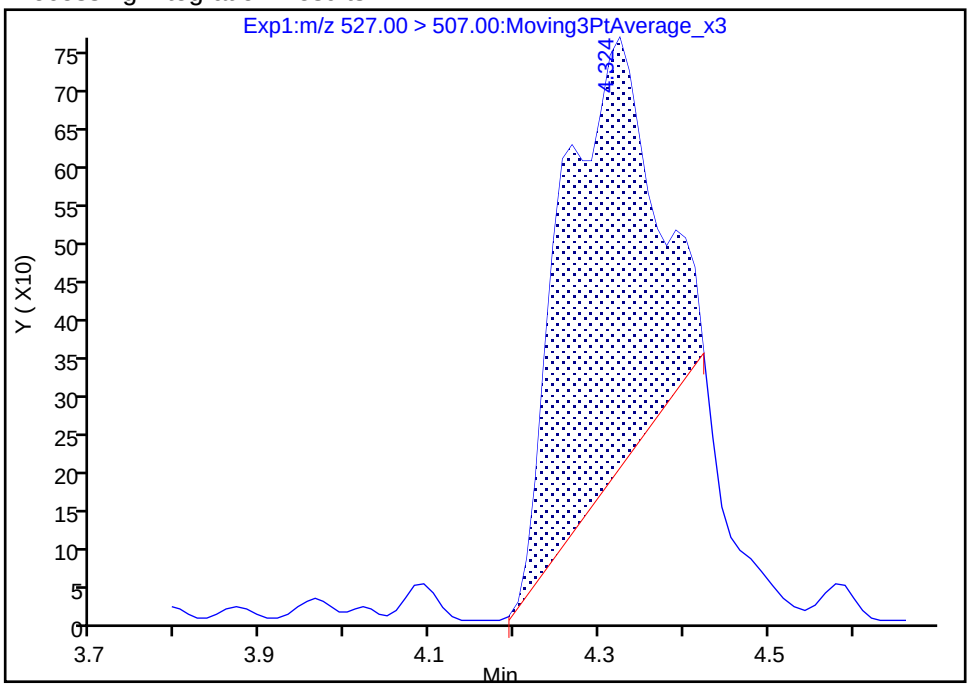
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

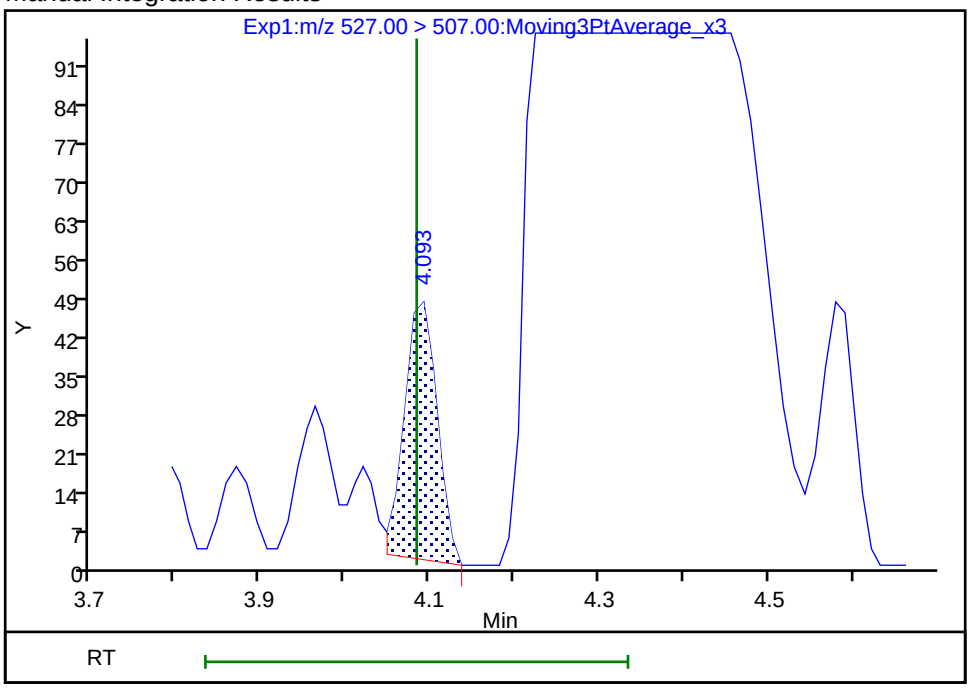
Processing Integration Results

RT: 4.32
Area: 4436
Amount: 0.027256
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 125
Amount: 0.000768
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:30:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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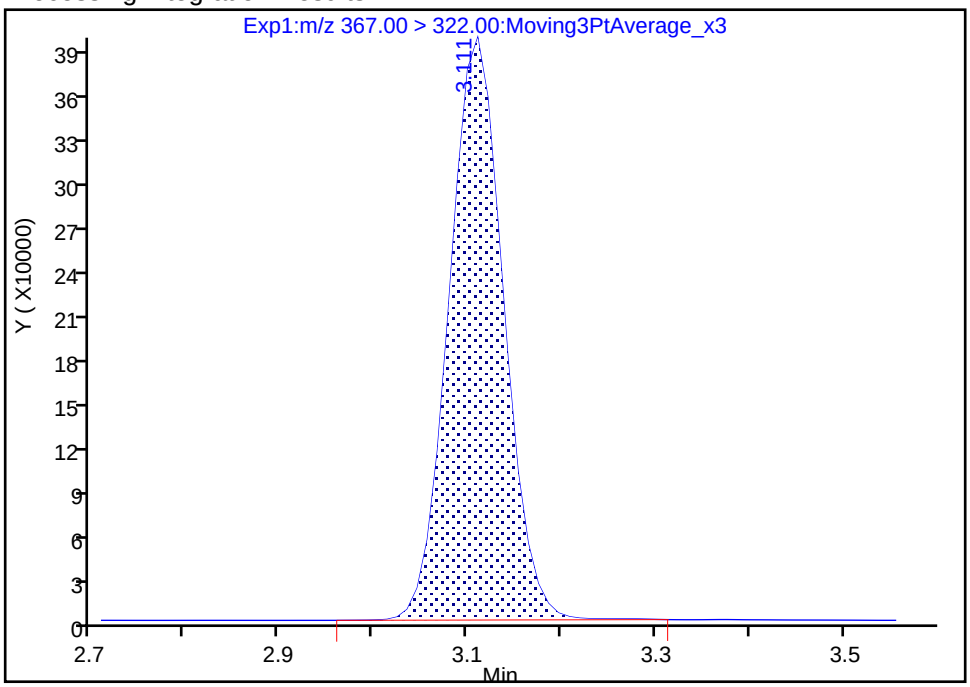
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

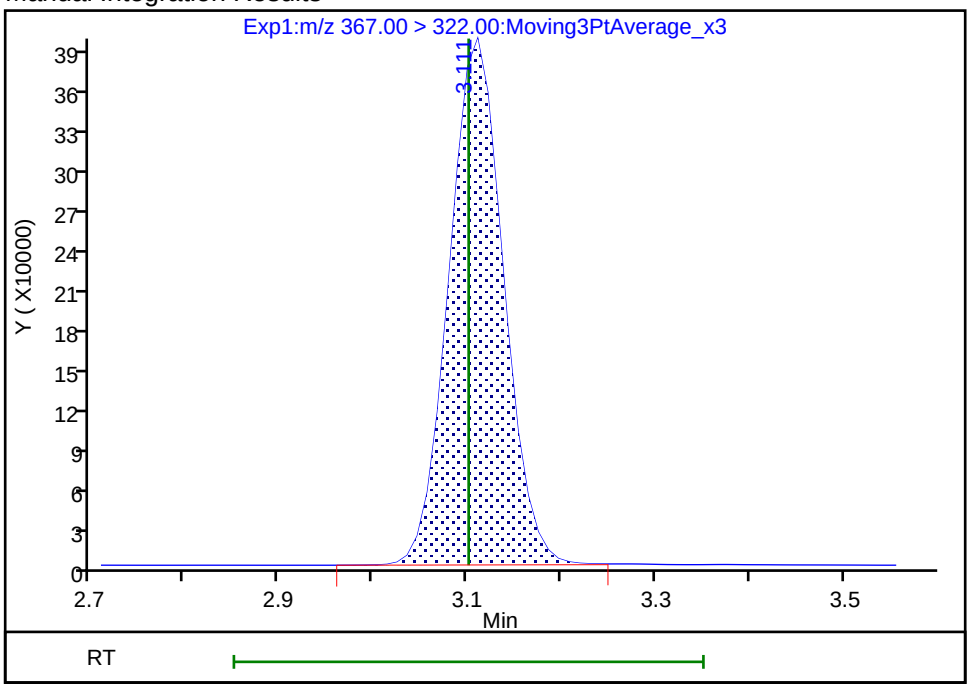
Processing Integration Results

RT: 3.11
Area: 1585977
Amount: 1.246418
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1584566
Amount: 1.245310
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:27:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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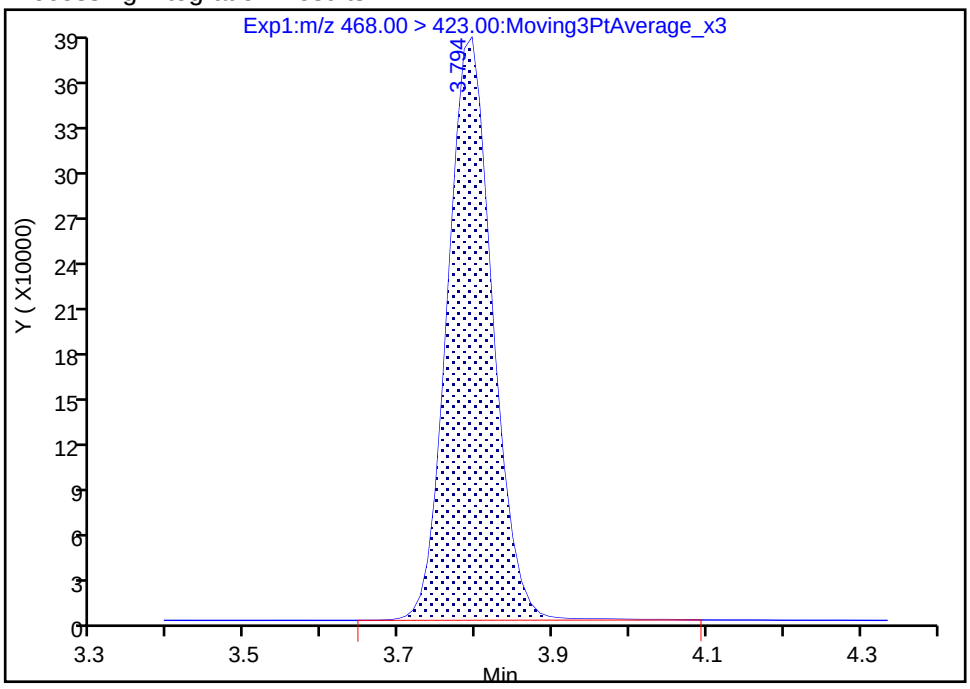
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

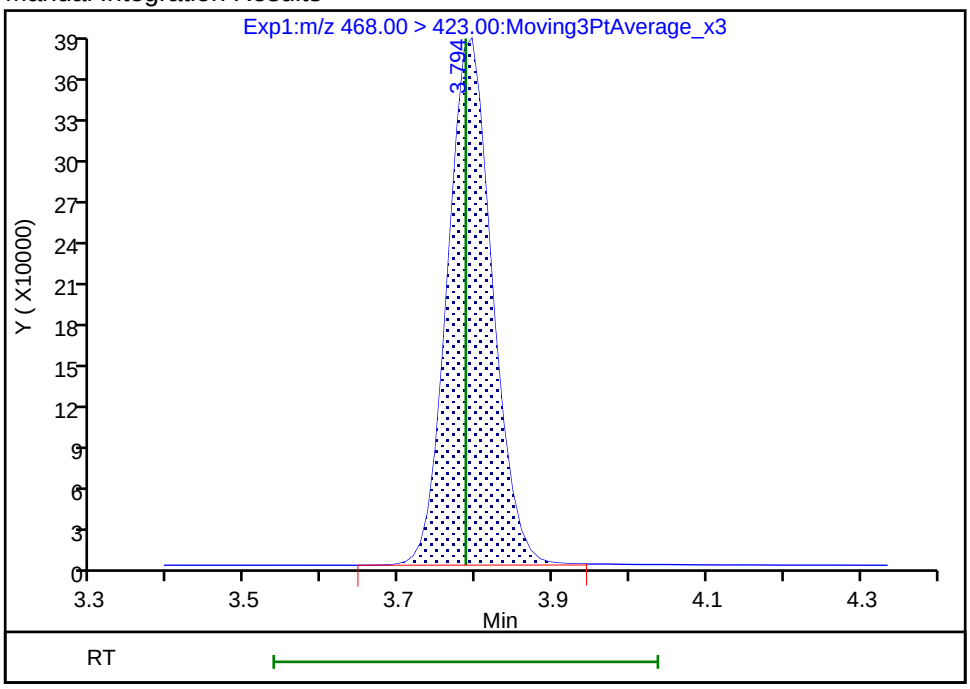
Processing Integration Results

RT: 3.79
Area: 1543503
Amount: 1.114592
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1540311
Amount: 1.112287
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:27:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

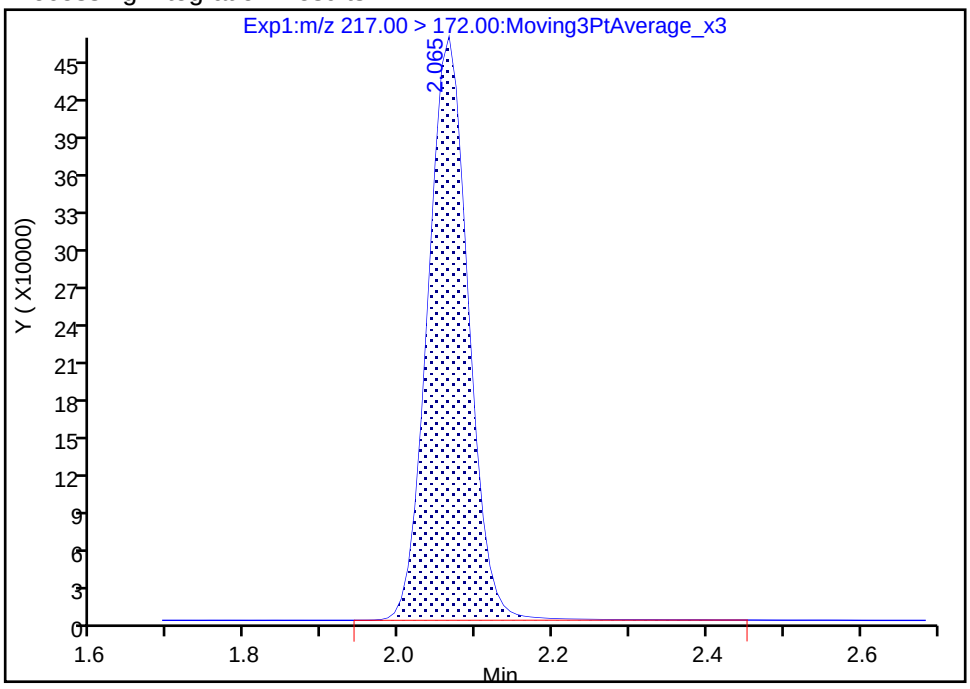
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

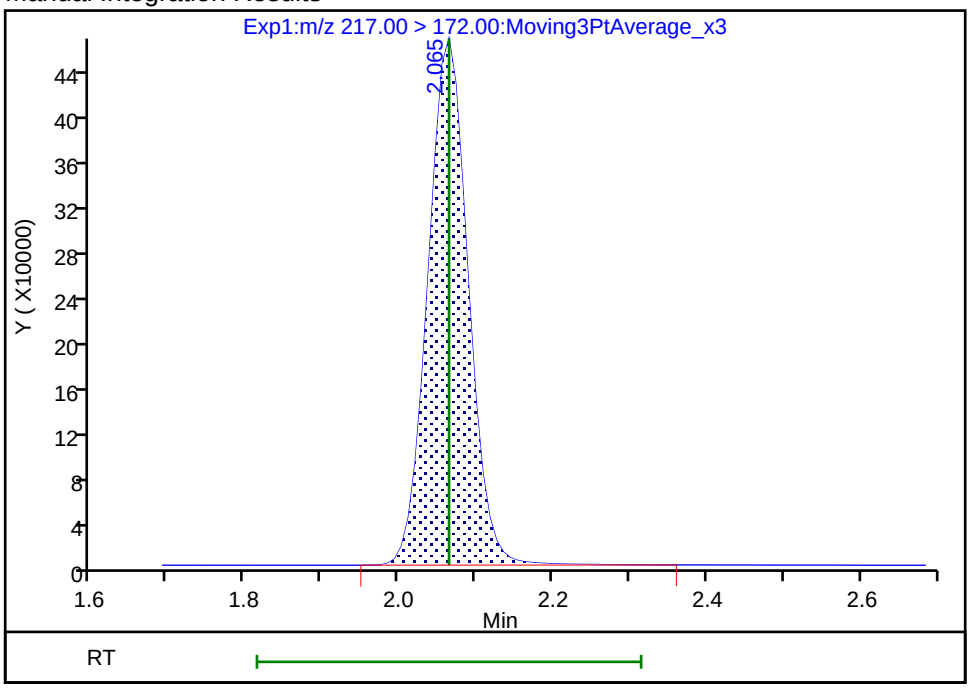
Processing Integration Results

RT: 2.06
Area: 1685856
Amount: 1.232623
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 1684637
Amount: 1.231732
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:27:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

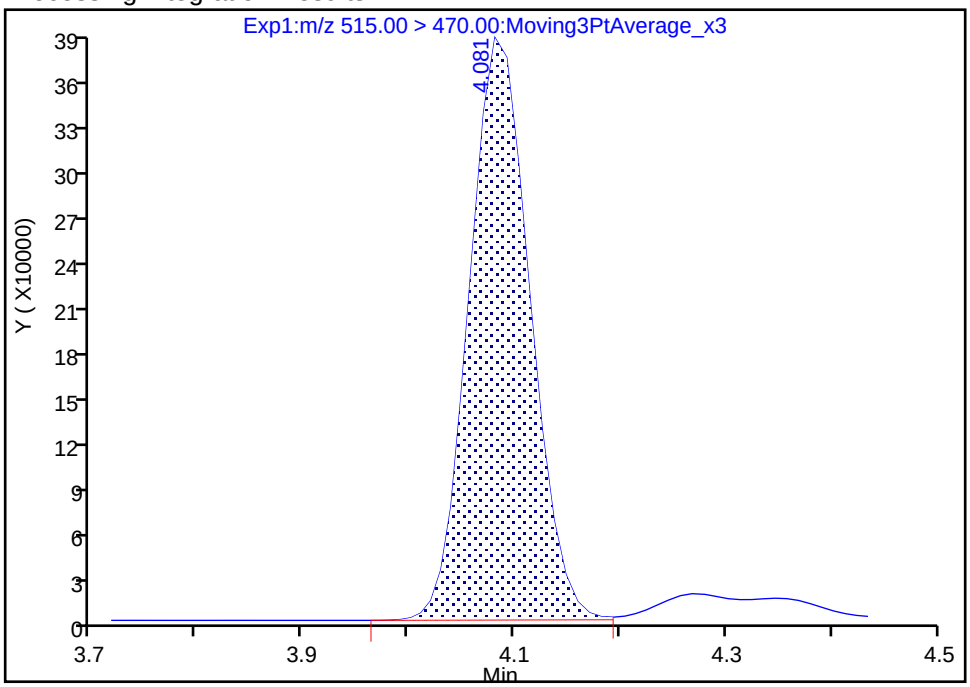
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

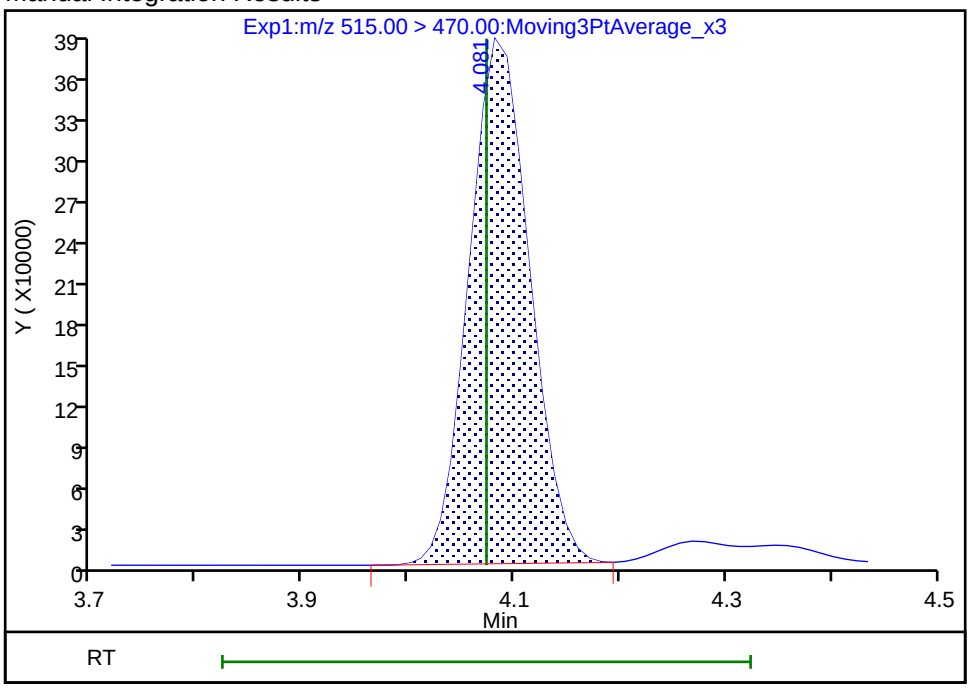
Processing Integration Results

RT: 4.08
Area: 1539458
Amount: 1.101520
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1527808
Amount: 1.093184
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 14:59:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

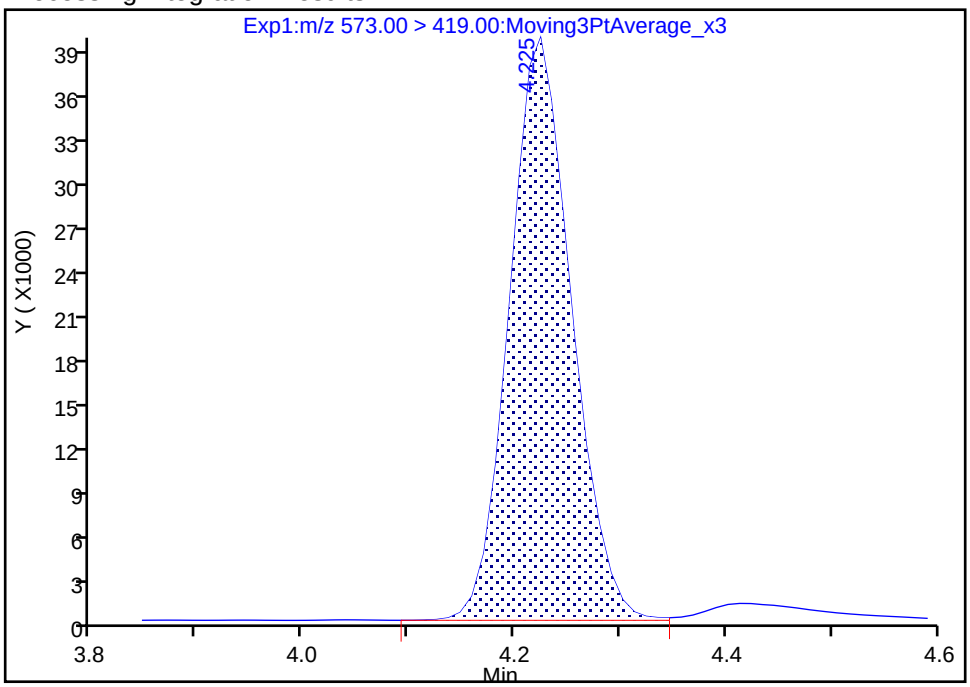
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

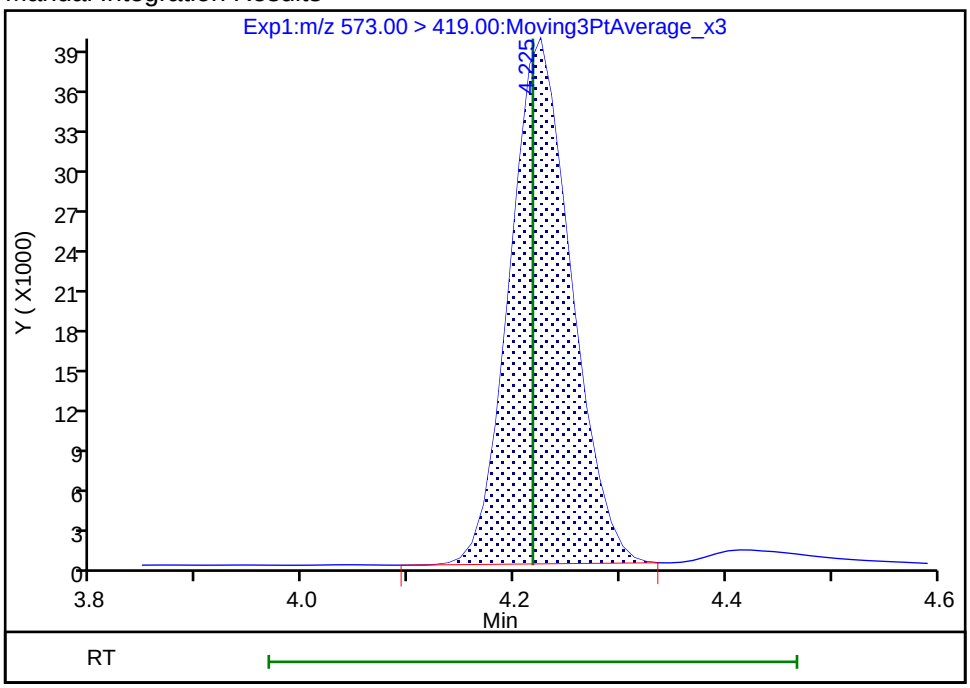
Processing Integration Results

RT: 4.22
Area: 162979
Amount: 1.185565
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 161511
Amount: 1.174886
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 15:00:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

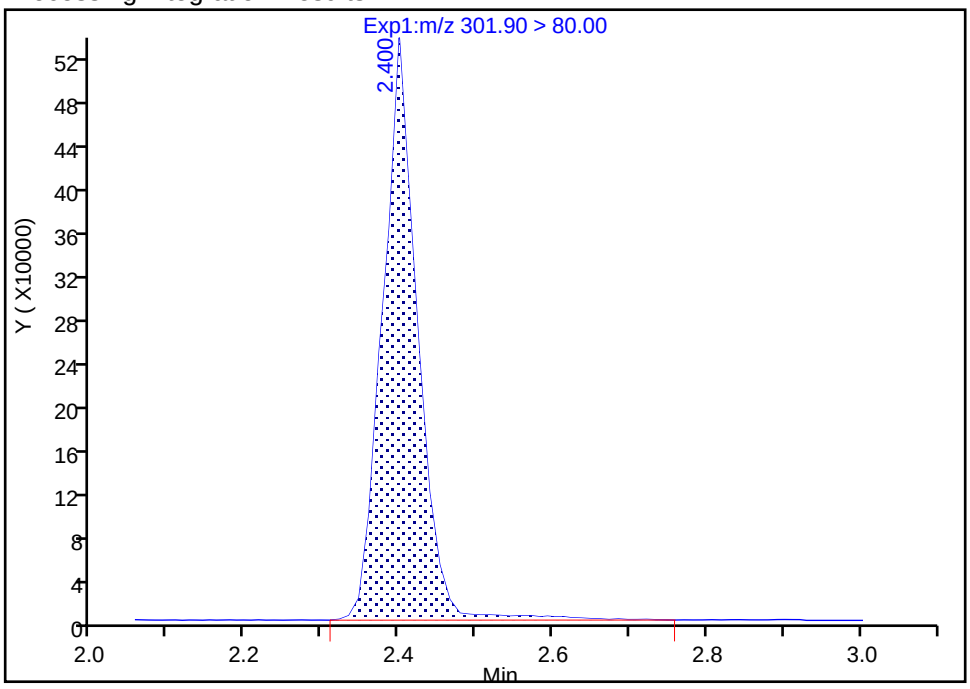
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A23.d | | | | |
| Injection Date: | 03-Nov-2021 15:46:46 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

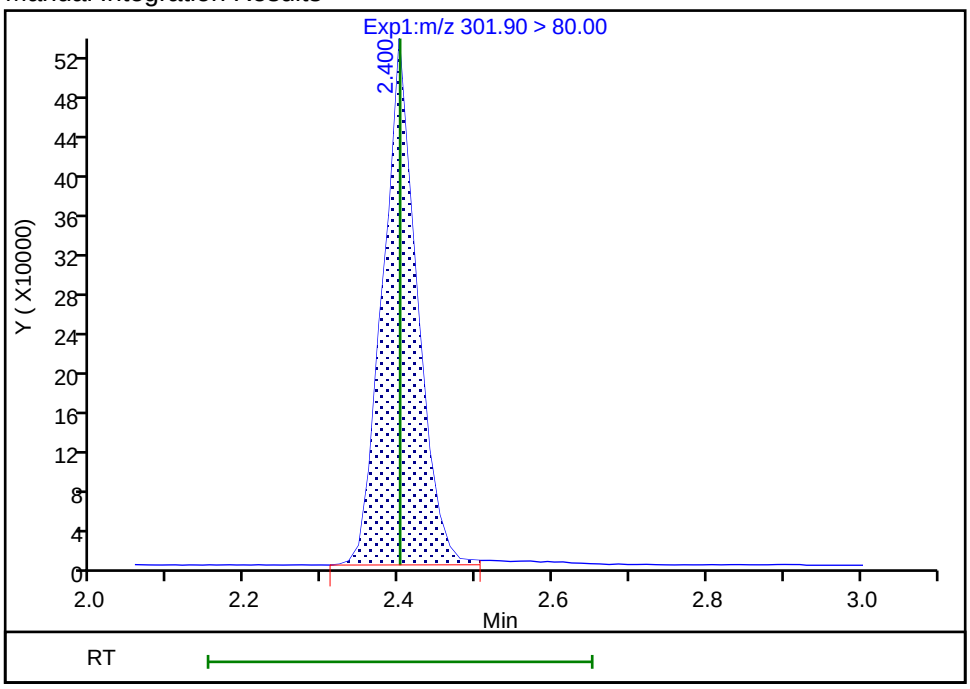
Processing Integration Results

RT: 2.40
Area: 1689965
Amount: 1.083999
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1655737
Amount: 1.062044
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:27:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-104-20211027 DL  Lab Sample ID: 460-246027-10 DL

Matrix: Water  Lab File ID: PA211104A09.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 12:25

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 278.7(mL)  Date Analyzed: 11/04/2021 14:34

Con. Extract Vol.: 10(mL)  Dilution Factor: 2

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

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

Analysis Batch No.: 173511  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 451 | D | 3.59 | 0.52 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00991 | 13C4 PFOS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A09.d
Lims ID: 460-246027-A-10-A
Client ID: MH-104-20211027
Sample Type: Client
Inject. Date: 04-Nov-2021 14:34:02 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 2.0000
Sample Info: 460-246027-A-10-A
Misc. Info.: 200-0048291-009 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: khanphomeea Date: 05-Nov-2021 11:53:59
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.074 | 2.082 | -0.008 | 0.594 | 886098 | 0.6316 | | 101 | 5442 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.082 | 2.082 | 0.0 | 1.004 | 95709 | 0.0714 | | | 10.7 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.401 | -0.001 | 0.687 | 740848 | 0.6268 | | 100 | 1821 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.401 | -0.001 | 1.000 | 62336 | 0.0525 | | | 2.4 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.427 | -0.014 | 0.691 | 842709 | 0.5270 | | 90.7 | 84260 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.005 | 184122 | 0.1189 | Target=2.32 | | 64.1 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.005 | 94038 | | 1.96(1.16-3.48) | | 34.8 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 792372 | 0.6391 | | 102 | 1466 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.758 | 2.771 | -0.013 | 0.996 | 149459 | 0.1162 | Target=12.09 | | 16.0 | |
| 313.00 > 119.00 | 2.758 | 2.771 | -0.013 | 0.996 | 10676 | | 14.00(6.04-18.13) | | 20.2 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 619520 | 0.5332 | | 90.2 | 379 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 2453983 | 2.13 | Target=3.55 | | 1705 | |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 650922 | | 3.77(1.77-5.32) | | 498 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 783962 | 0.6006 | | 96.1 | 1893 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.144 | -0.001 | 1.000 | 42496 | 0.0328 | Target=3.69 | | 8.3 | |
| 363.00 > 169.00 | 3.143 | 3.144 | -0.001 | 1.000 | 9345 | | 4.55(1.84-5.53) | | 14.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.483 | 3.484 | -0.001 | 0.916 | 58865 | 0.0610 | Target=4.88 | | 27.5 | |
| 449.00 > 99.00 | 3.483 | 3.484 | -0.001 | 0.916 | 11467 | | 5.13(2.44-7.32) | | 21.9 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.484 | -0.001 | 0.997 | 125177 | 0.6832 | | 115 | 123 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.493 | -0.001 | 1.000 | 852871 | 0.5981 | | 95.7 | 1202 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.493 | -0.001 | | 866244 | 0.6250 | | | 320 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.493 | -0.001 | 1.000 | 142794 | 0.0984 | Target=2.68 | | 16.4 | |
| 413.00 > 169.00 | 3.492 | 3.493 | -0.001 | 1.000 | 66443 | | 2.15(1.34-4.02) | | 192 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.089 | 462573 | 0.5510 | | 92.2 | 329 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.000 | 5284853 | 6.29 | Target=4.69 | | 1524 | M |
| 499.00 > 99.00 | 3.804 | 3.806 | -0.002 | 1.000 | 1224141 | | 4.32(2.35-7.04) | | 1261 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.826 | -0.001 | 1.095 | 845388 | 0.5951 | | 95.2 | 2451 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.118 | -0.003 | 1.178 | 750571 | 0.5236 | | 83.8 | 61.7 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.347 | 4.118 | 0.229 | 1.056 | 31901 | 0.0264 | Target=8.95 | | 11.8 | |
| 513.00 > 169.00 | 4.336 | 4.118 | 0.218 | 1.054 | 3732 | | 8.55(4.47-13.42) | | 6.6 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.129 | -0.003 | 1.182 | 135830 | 0.6540 | | 109 | 74.8 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.369 | 4.129 | 0.240 | 1.059 | 3919 | 0.0207 | | | 27.9 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.227 | 0.008 | 1.213 | 787618 | 0.5696 | | 91.1 | 565 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.260 | -0.003 | 1.219 | 91079 | 0.6459 | | 103 | 137 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.246 | 4.260 | -0.014 | 0.997 | 1001 | 0.008744 | | | 2.4 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.373 | 0.007 | 1.254 | 572753 | 0.5126 | | 82.0 | 446 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.384 | 0.007 | 1.257 | 84784 | 0.6419 | | 103 | 436 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.413 | 4.395 | 0.018 | 1.005 | 1666 | 0.0143 | | | 2.9 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.595 | 0.007 | 1.318 | 597847 | 0.4974 | | 79.6 | 227 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.979 | -0.003 | 1.425 | 486173 | 0.5216 | | 83.4 | 1053 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

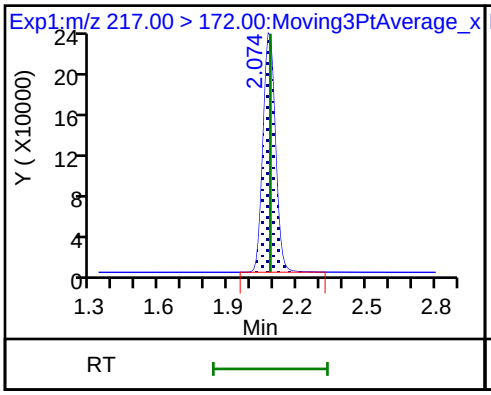
Report Date: 08-Nov-2021 11:22:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

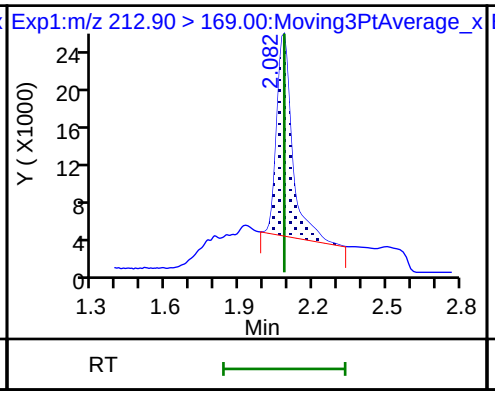
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A09.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 14:34:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |

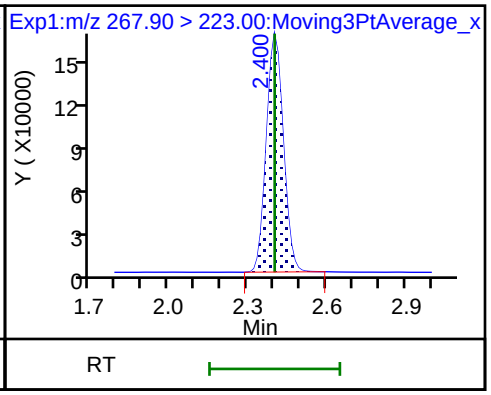
D 1 13C4 PFBA



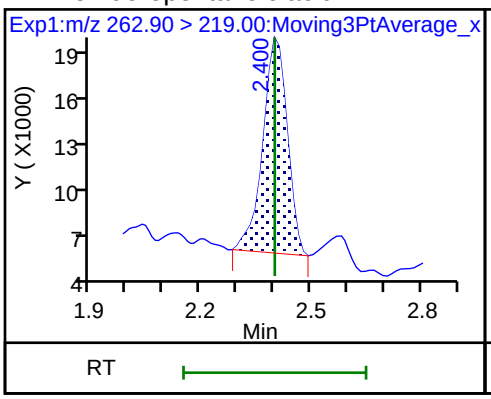

2 Perfluorobutanoic acid



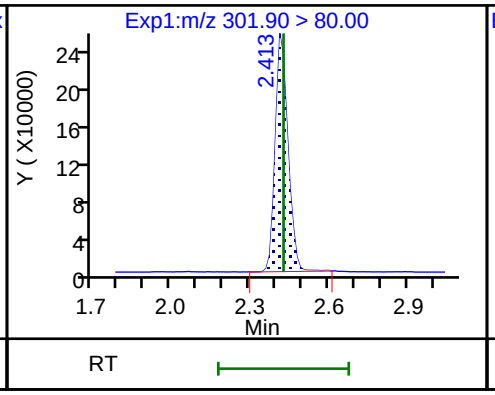

D 3 13C5 PFPeA



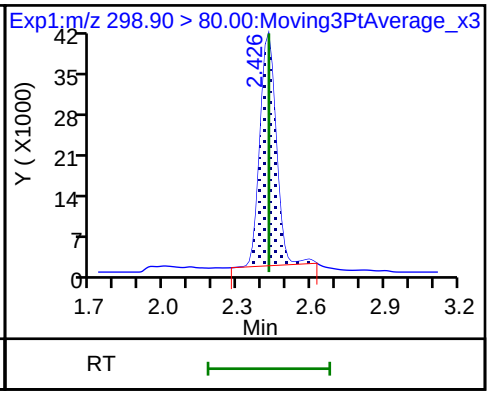

4 Perfluoropentanoic acid



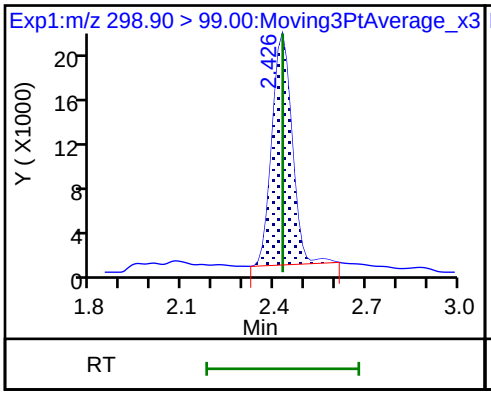

D 47 13C3 PFBS



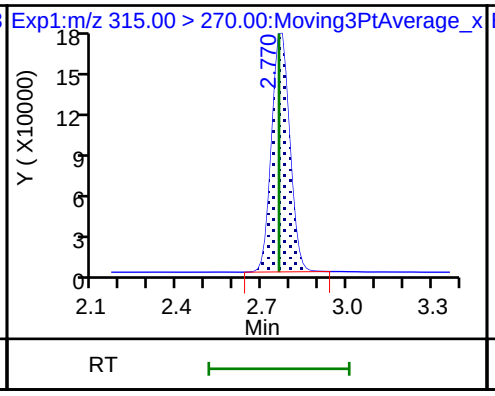

5 Perfluorobutanesulfonic acid



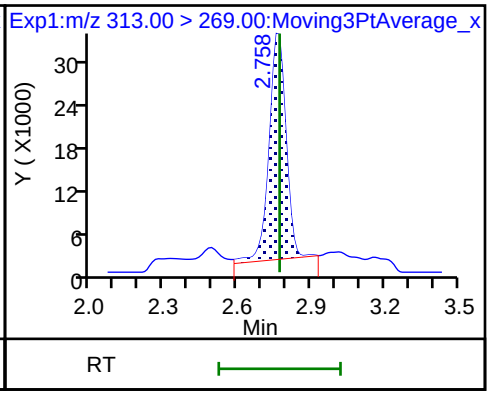

5 Perfluorobutanesulfonic acid



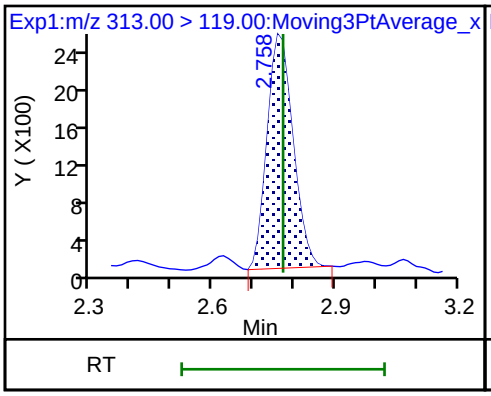

D 7 13C2 PFHxA



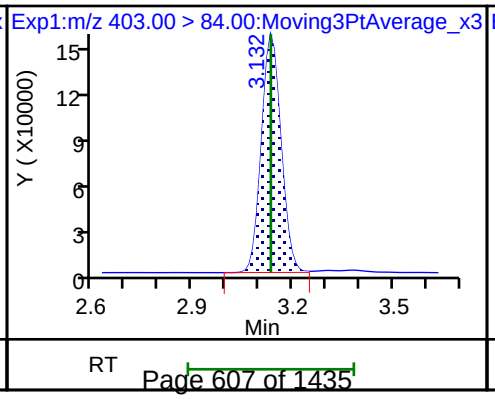

6 Perfluorohexanoic acid



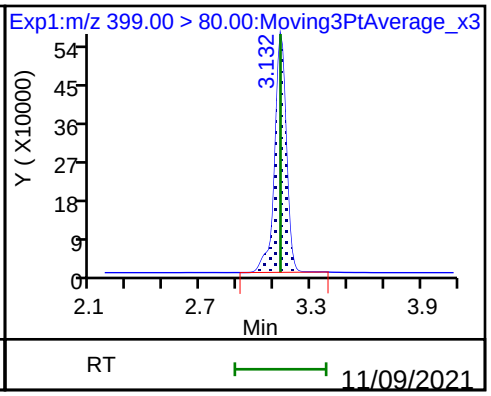

6 Perfluorohexanoic acid



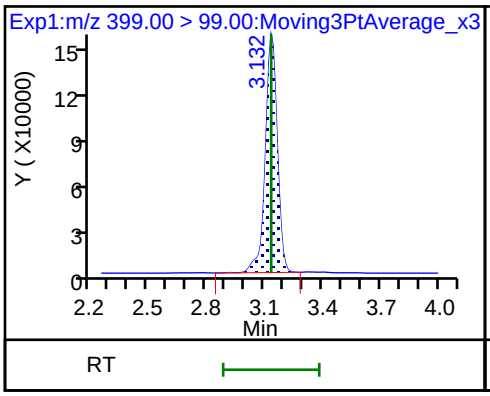

D 11 18O2 PFHxS



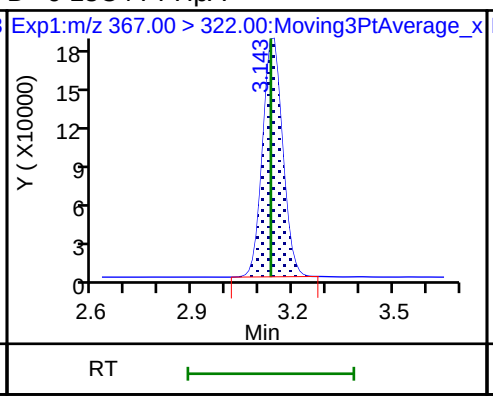

8 Perfluorohexanesulfonic acid



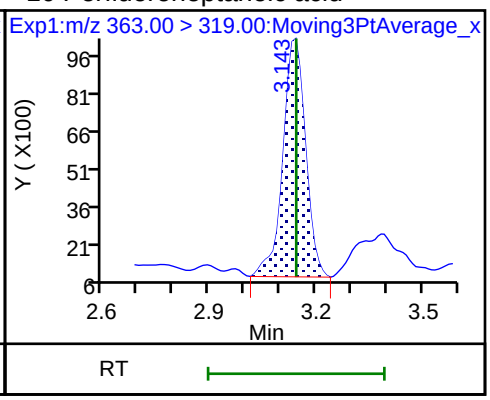
8 Perfluorohexanesulfonic acid



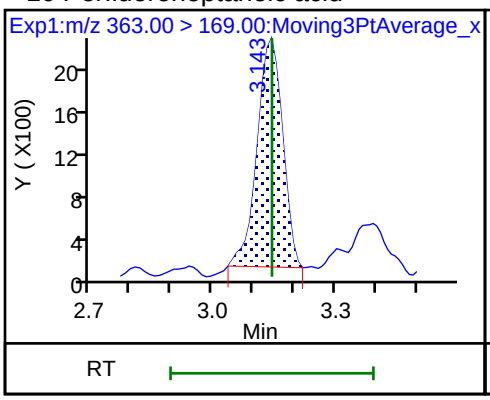

D 9 13C4 PFHpA



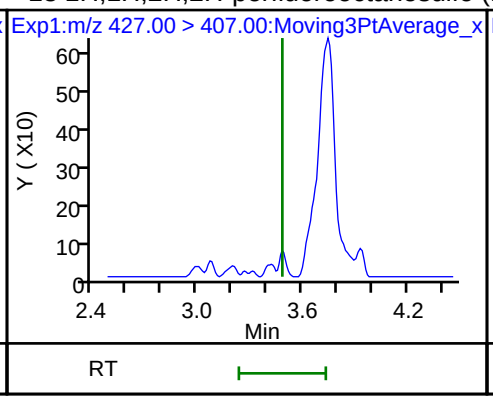

10 Perfluoroheptanoic acid



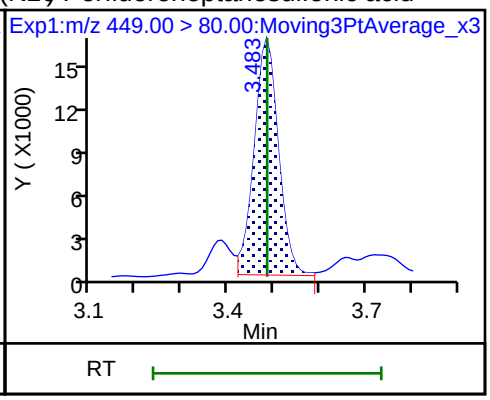

10 Perfluoroheptanoic acid



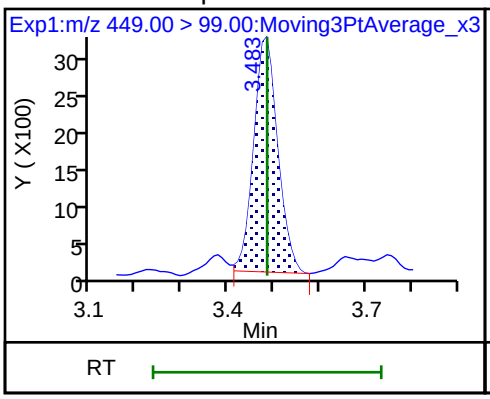

13 1H,1H,2H,2H-perfluorooctanesulfo (ND)



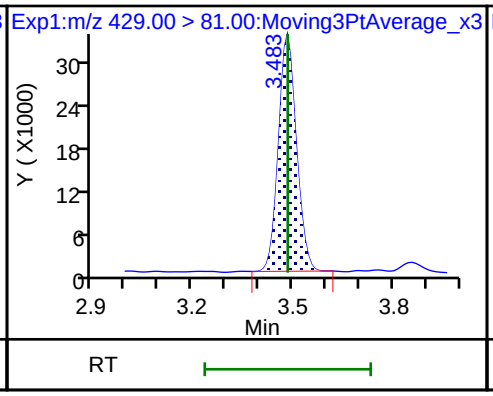

D 6 Perfluoroheptanesulfonic acid



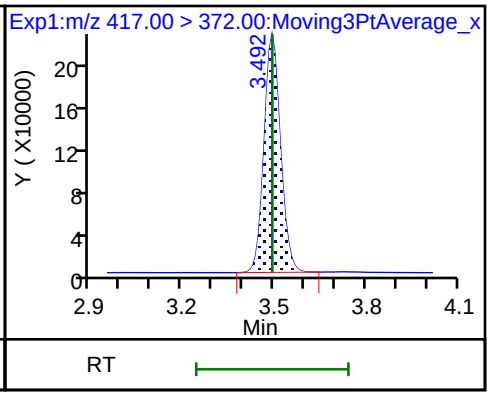

16 Perfluoroheptanesulfonic acid



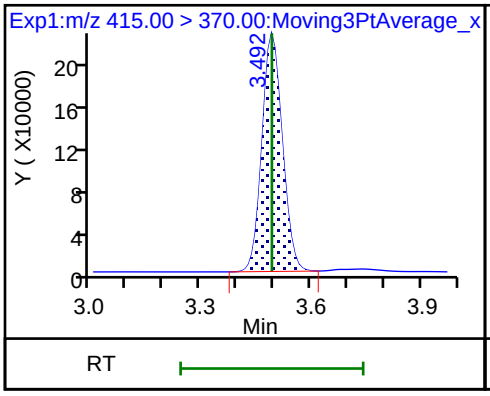

D 12 M2-6:2 FTS



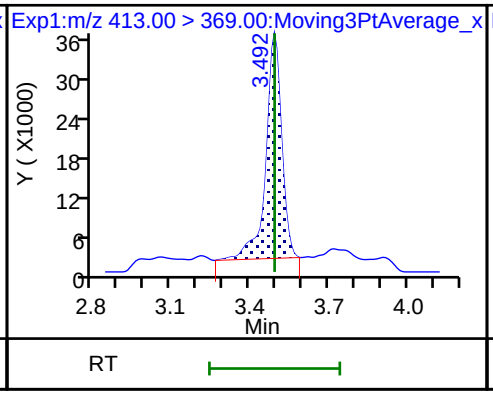

D 14 13C4 PFOA



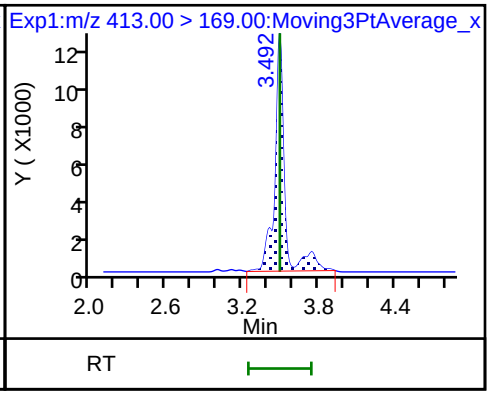

* 62 13C2 PFOA



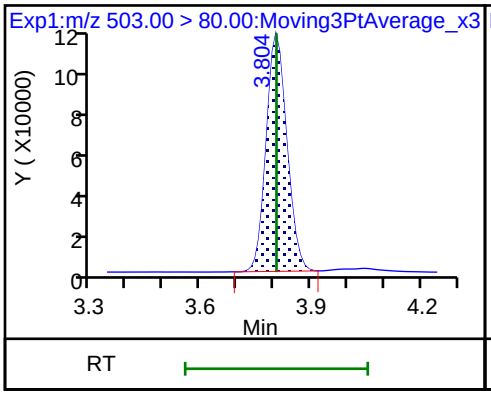

15 Perfluorooctanoic acid



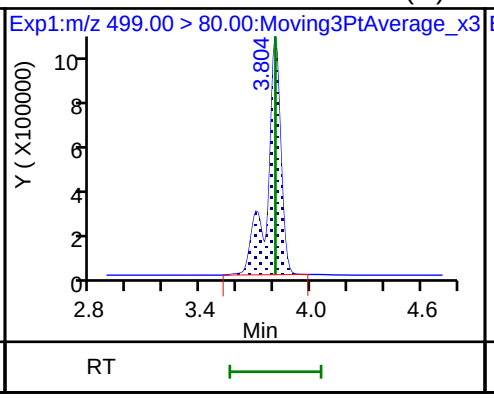

15 Perfluorooctanoic acid



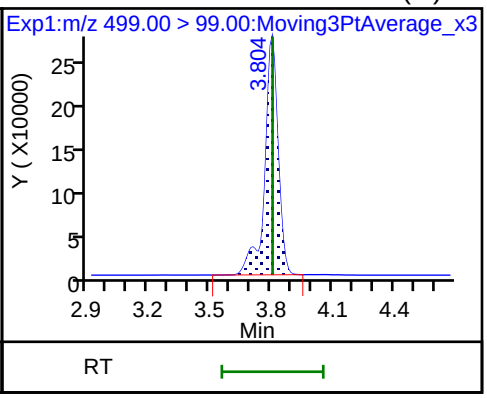
D 18 13C4 PFOS



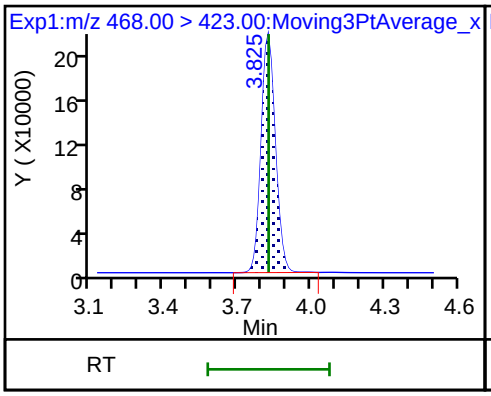

17 Perfluorooctanesulfonic acid (M)



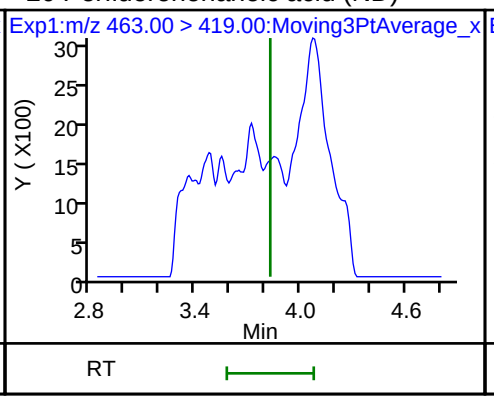

17 Perfluorooctanesulfonic acid (M)



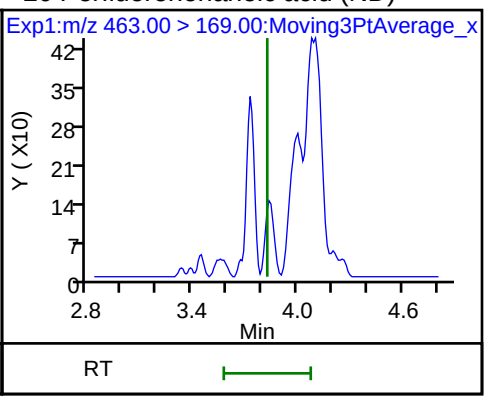

D 19 13C5 PFNA



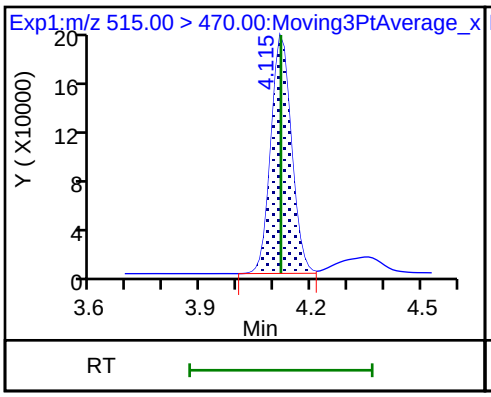

20 Perfluorononanoic acid (ND)



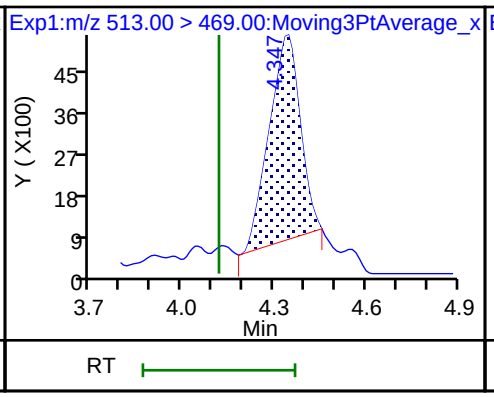

20 Perfluorononanoic acid (ND)



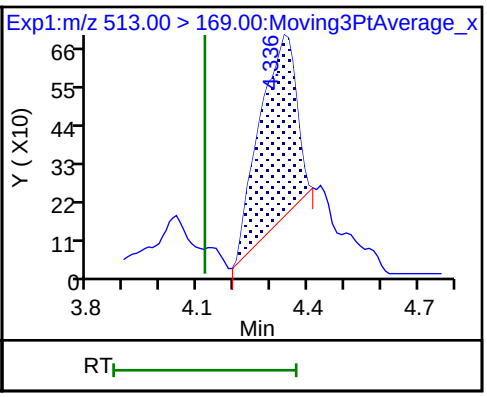

D 23 13C2 PFDA



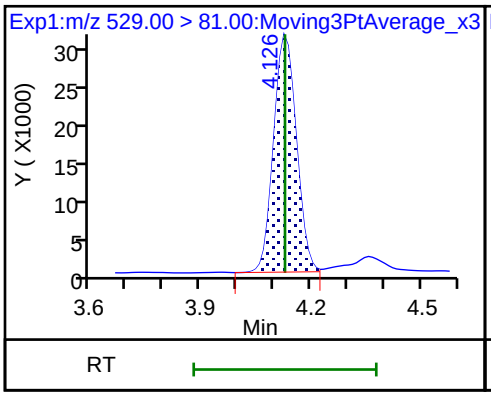

24 Perfluorodecanoic acid



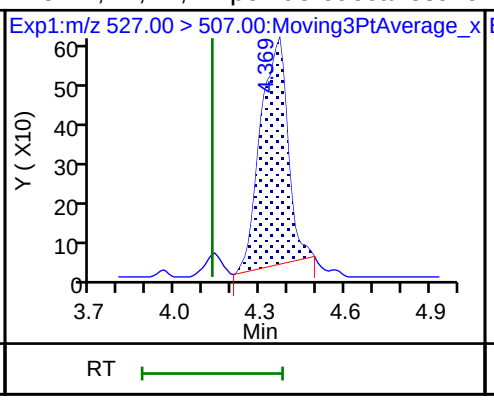

24 Perfluorodecanoic acid



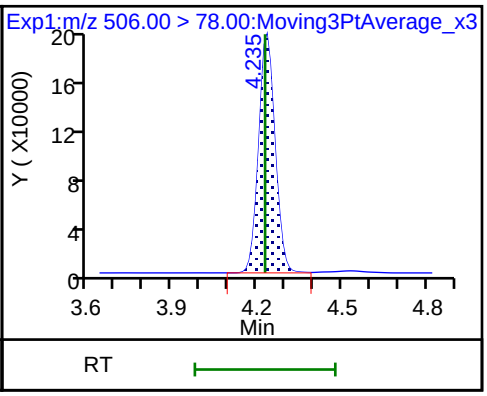

D 26 M2-8:2 FTS



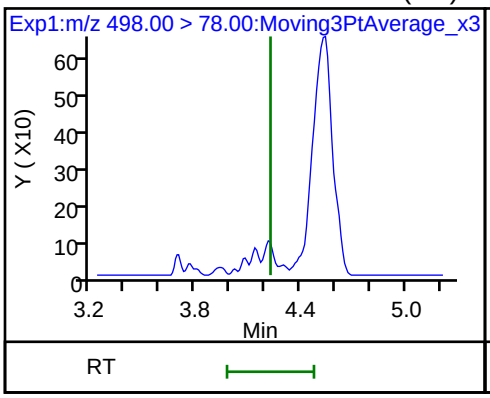

25 1H,1H,2H,2H-perfluorodecanesulfo



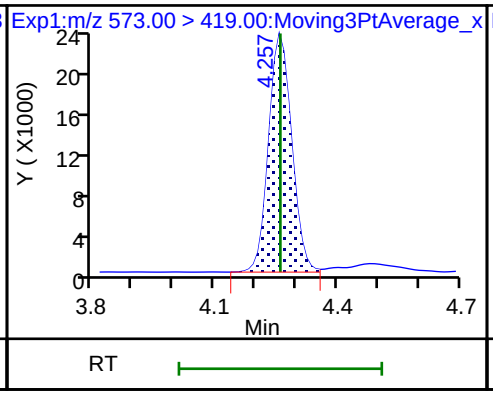

D 21 13C8 FOSA



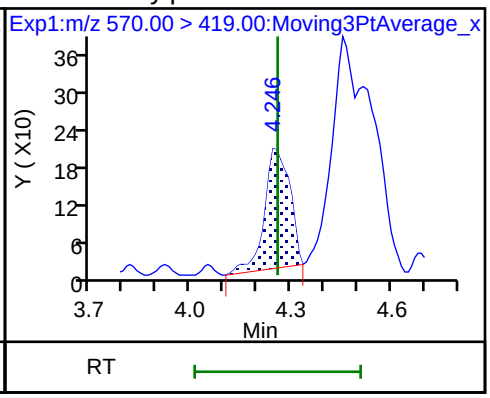
22 Perfluorooctanesulfonamide (ND)



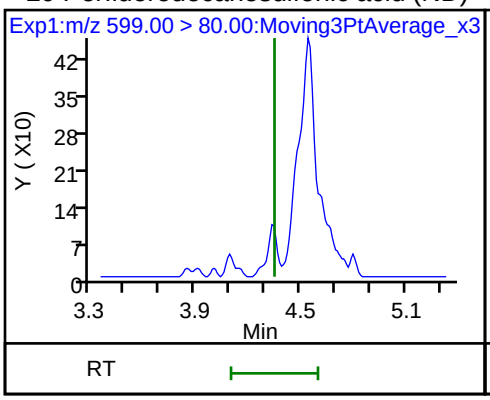

D 27 d3-NMeFOSAA



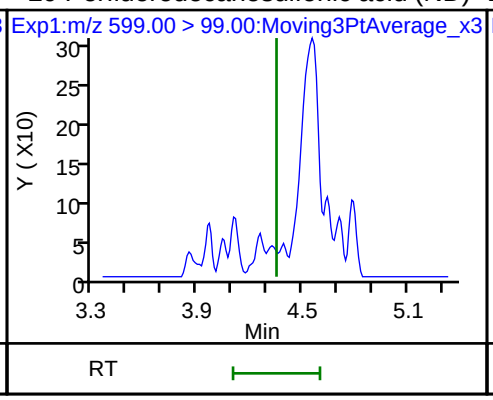

28 N-methylperfluorooctanesulfonami



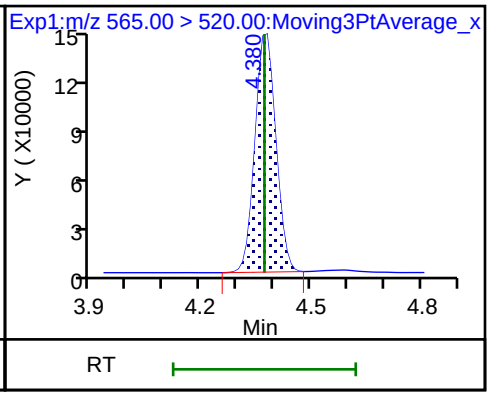

29 Perfluorodecanesulfonic acid (ND)



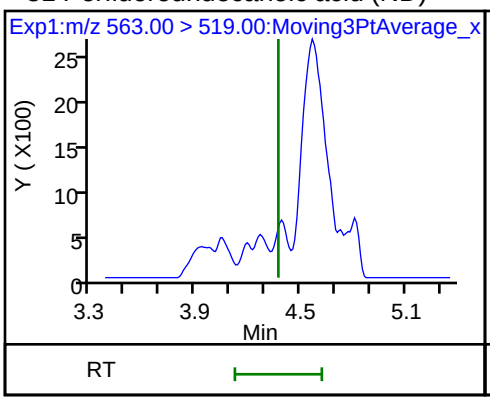

29 Perfluorodecanesulfonic acid (ND)



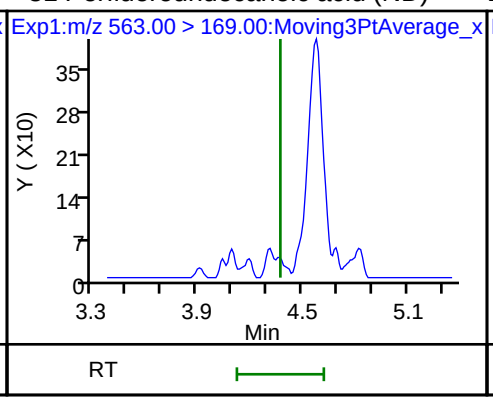

D 30 13C2 PFUnA



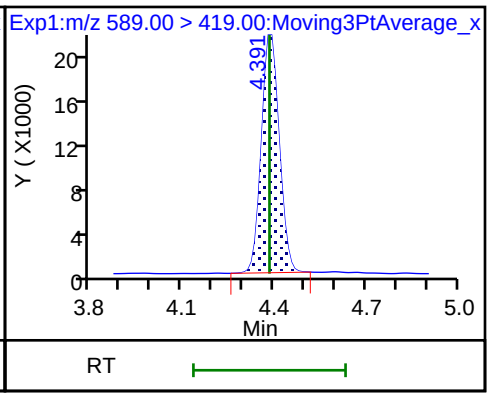

31 Perfluoroundecanoic acid (ND)



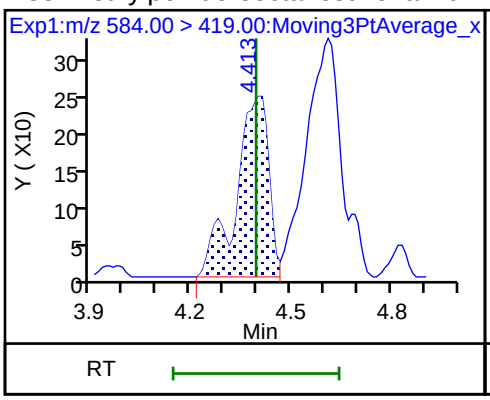

31 Perfluoroundecanoic acid (ND)



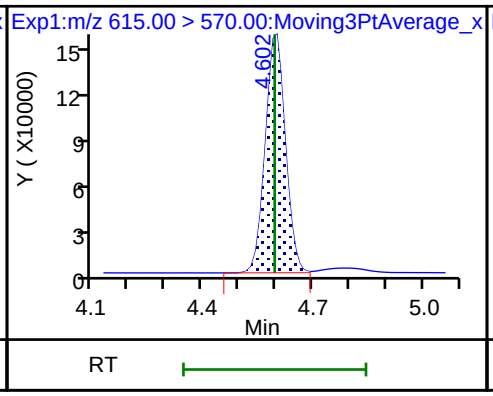

D 32 d5-NEtFOSAA



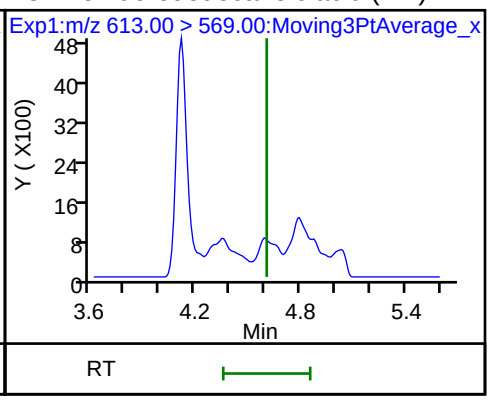

33 N-ethylperfluorooctanesulfonamid



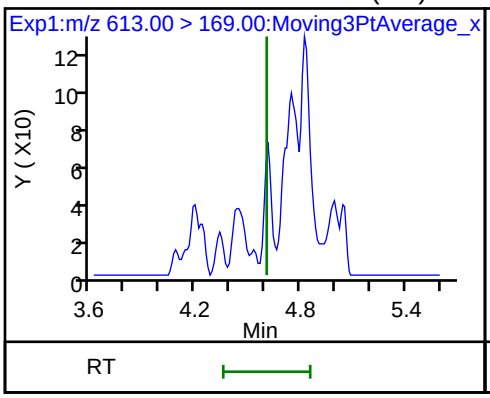

D 36 13C2 PFDoA



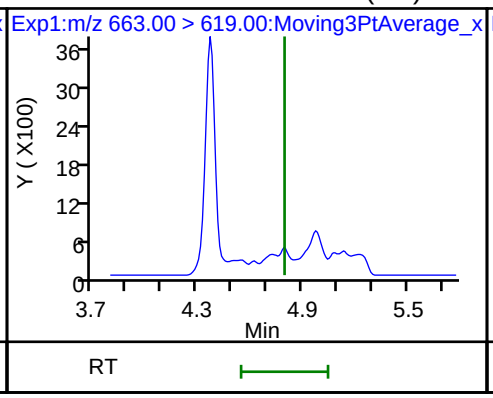

37 Perfluorododecanoic acid (ND)



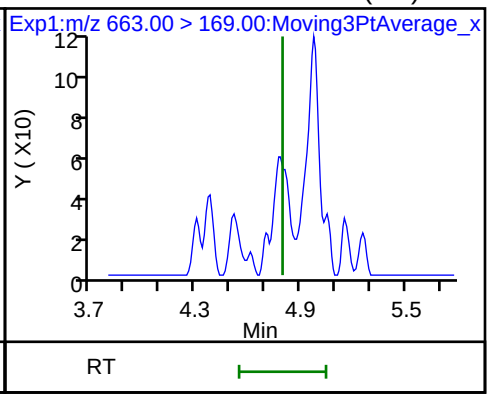
37 Perfluorododecanoic acid (ND)



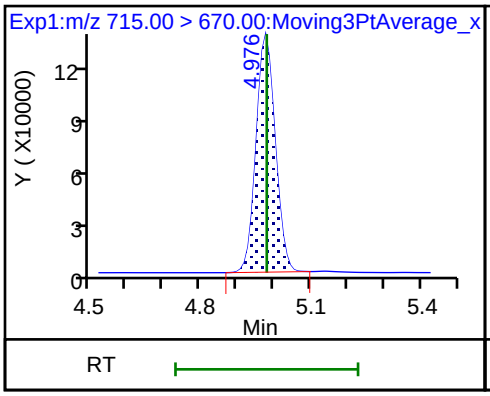

41 Perfluorotridecanoic acid (ND)



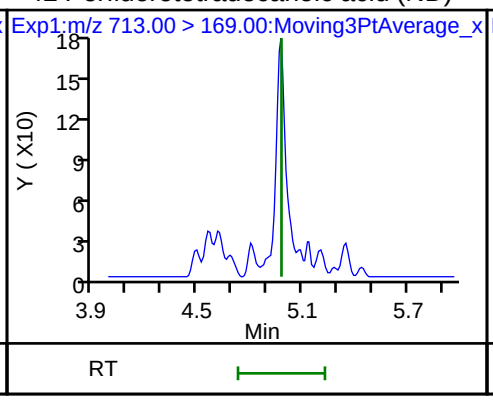

41 Perfluorotridecanoic acid (ND)



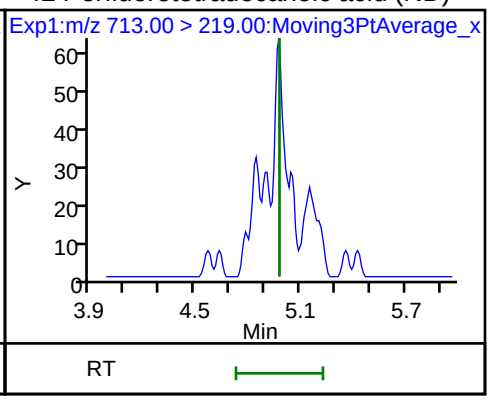

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

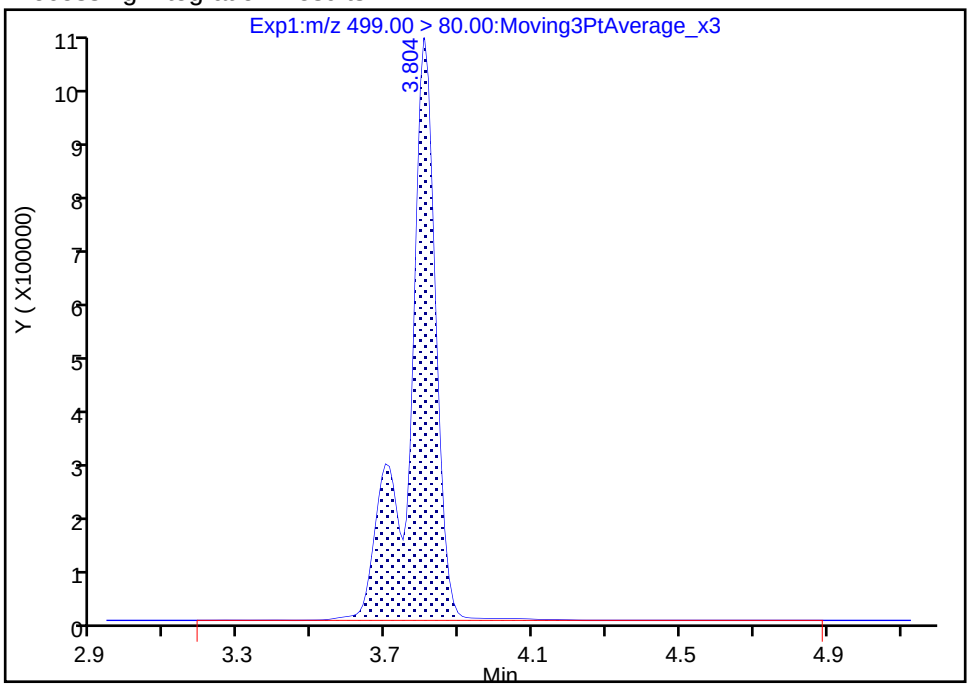
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A09.d | | | | |
| Injection Date: | 04-Nov-2021 14:34:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

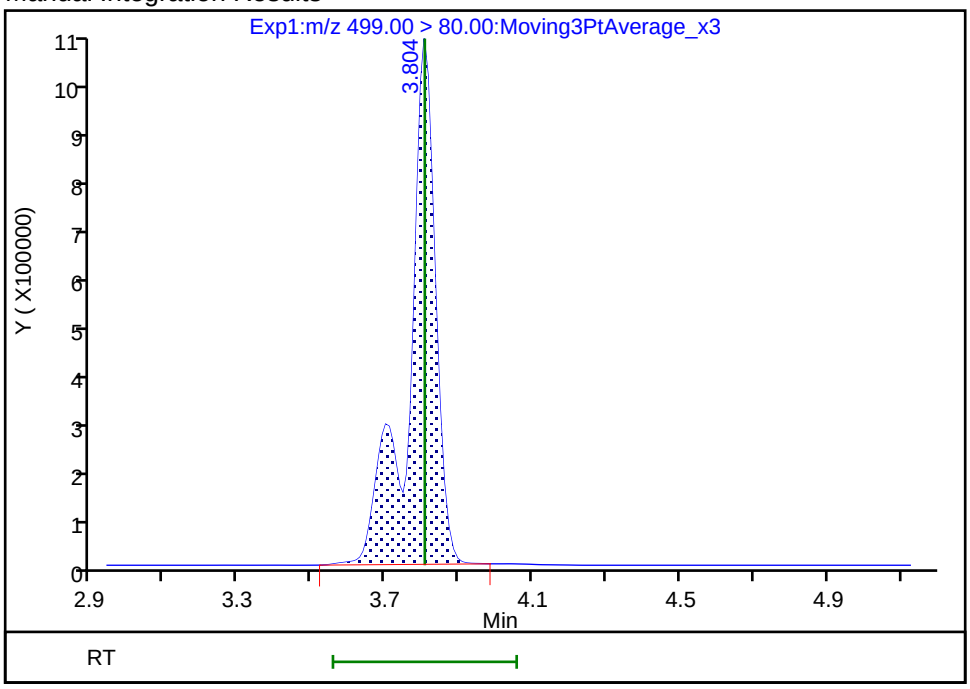
Processing Integration Results

RT: 3.80
Area: 5353155
Amount: 6.372582
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 5284853
Amount: 6.291273
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 11:53:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

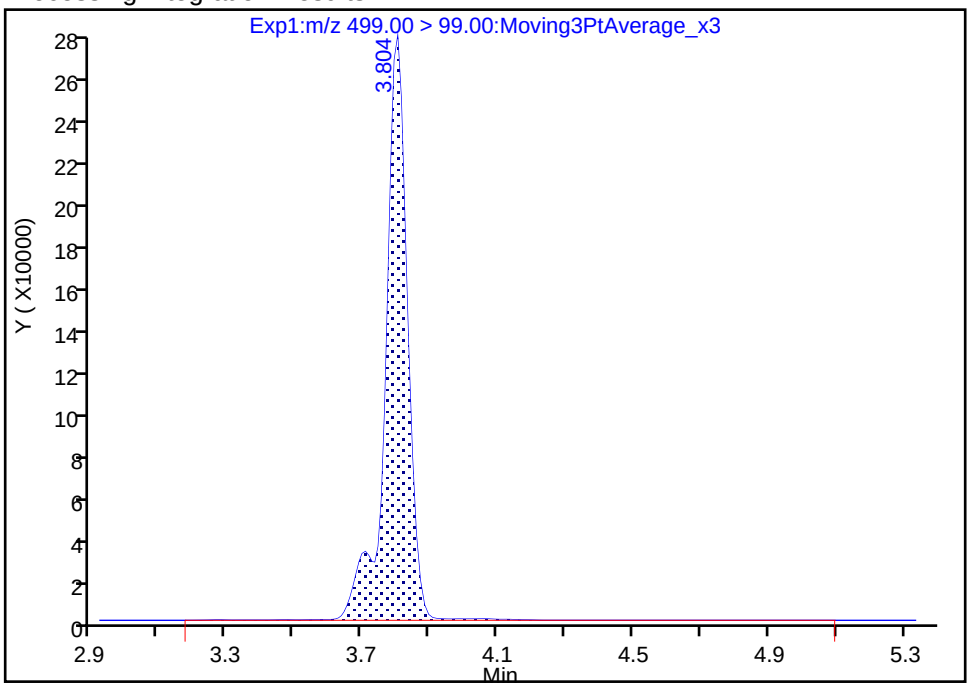
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A09.d | | | | |
| Injection Date: | 04-Nov-2021 14:34:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-10-A | Lab Sample ID: | 200-246027-10 | | |
| Client ID: | MH-104-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

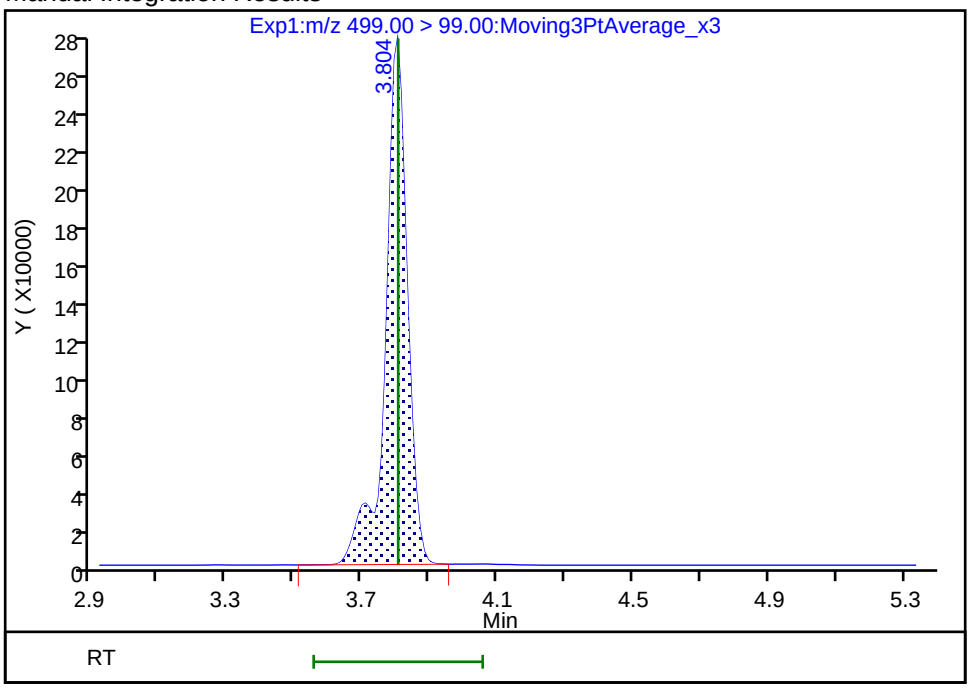
Processing Integration Results

RT: 3.80
Area: 1240460
Amount: 6.372582
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1224141
Amount: 6.291273
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 11:53:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-101-20211027  Lab Sample ID: 460-246027-11

Matrix: Water  Lab File ID: PA211103A24.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 13:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 279.6(mL)  Date Analyzed: 11/03/2021 15:55

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 2.53 | J | 4.47 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.08 | J | 1.79 | 0.42 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 1.38 | J | 1.79 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.06 | J | 1.79 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 4.71 | | 1.79 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.12 | | 1.79 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 8.80 | | 1.79 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.38 | J | 1.79 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 14.0 | | 1.79 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID: MH-101-20211027  Lab Sample ID: 460-246027-11

Matrix: Water  Lab File ID: PA211103A24.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 13:40

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 279.6(mL)  Date Analyzed: 11/03/2021 15:55

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 99 | | 50-150 |
| STL00992 | 13C4 PFBA | 96 | | 25-150 |
| STL00993 | 13C2 PFHxA | 90 | | 50-150 |
| STL00996 | 13C2 PFDA | 91 | | 50-150 |
| STL00997 | 13C2 PFUnA | 85 | | 50-150 |
| STL00998 | 13C2 PFDoA | 80 | | 50-150 |
| STL01056 | 13C8 FOSA | 99 | | 25-150 |
| STL01893 | 13C5 PFPeA | 95 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 90 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 104 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 98 | | 50-150 |
| STL02279 | M2-6:2 FTS | 101 | | 25-150 |
| STL02280 | M2-8:2 FTS | 104 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d
Lims ID: 460-246027-A-11-A
Client ID: MH-101-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 15:55:02 ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246027-A-11-A
Misc. Info.: 200-0048270-024 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 10:37:24
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.596 | 1617919 | 1.20 | | 95.7 | 6550 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 86568 | 0.0707 | | | 9.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1347106 | 1.18 | | 94.6 | 1776 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.000 | 32550 | 0.0302 | | | 0.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.413 | 2.401 | 0.012 | 0.696 | 1651612 | 1.07 | | 92.1 | 50582 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.413 | 2.401 | 0.012 | 1.000 | 132363 | 0.0872 | Target=2.32 | | 13.8 | |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 0.995 | 60502 | | 2.19(1.16-3.48) | | 14.7 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.746 | 2.735 | 0.011 | 1.000 | 41925 | 0.0385 | Target=12.09 | | 3.0 | M |
| 313.00 > 119.00 | 2.746 | 2.735 | 0.011 | 1.000 | 3073 | | 13.64(6.04-18.13) | | 3.8 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.746 | 2.735 | 0.011 | 0.792 | 1343570 | 1.12 | | 89.9 | 1189 | |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1261289 | 1.13 | | 95.2 | 308 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 288408 | 0.2459 | Target=3.55 | | 54.9 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 75841 | | 3.80(1.77-5.32) | | 41.8 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 37357 | 0.0296 | Target=3.69 | | 3.8 | M |
| 363.00 > 169.00 | 3.121 | 3.101 | 0.020 | 1.003 | 8321 | | 4.49(1.84-5.53) | | 6.9 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1528795 | 1.21 | | 97.2 | 1965 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.448 | 0.017 | 1.003 | 277 | 0.001227 | | | 0.5 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 10302 | 0.0107 | Target=4.88 | | 2.7 | M |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 1758 | | 5.86(2.44-7.32) | | 1.8 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 211463 | 1.20 | | 101 | 226 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1718660 | 1.25 | | 100.0 | 1121 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1670785 | 1.25 | | | 331 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 192505 | 0.1317 | Target=2.68 | | 15.5 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 86998 | | 2.21(1.34-4.02) | | 39.0 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 924900 | 1.14 | | 95.6 | 402 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.000 | 327883 | 0.3904 | Target=4.69 | | 56.7 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 0.997 | 67778 | | 4.84(2.35-7.04) | | 50.8 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.095 | 1688646 | 1.23 | | 98.6 | 2074 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.794 | 3.786 | 0.008 | 1.000 | 6232 | 0.004715 | Target=7.29 | | 0.9 | RM |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 0.997 | 380 | | 16.40(3.64-10.93) | | 1.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.178 | 1563992 | 1.13 | | 90.5 | 95.4 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.092 | 4.084 | 0.008 | 1.181 | 250096 | 1.25 | | 104 | 139 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.084 | 0.020 | 1.003 | 87 | 0.000498 | | | 0.2 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1648086 | 1.24 | | 98.9 | 574 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.204 | 4.207 | -0.003 | 0.998 | 476 | 0.000380 | | | 0.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 177435 | 1.30 | | 104 | 185 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 126 | 0.001130 | | | 0.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1147230 | 1.06 | | 85.2 | 679 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 156333 | 1.23 | | 98.2 | 547 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 134 | 0.001250 | | | 0.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1157713 | 1.00 | | 79.9 | 287 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.562 | 0.018 | 1.003 | 1153 | 0.001272 | Target=7.04 | | 0.2 | M |
| 613.00 > 169.00 | 4.556 | 4.562 | -0.006 | 0.997 | 144 | | 8.01(3.52-10.56) | | 1.0 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.766 | 4.761 | 0.005 | 1.043 | 833 | 0.001066 | Target=4.68 | | 0.3 | RM |
| 663.00 > 169.00 | 4.775 | 4.761 | 0.014 | 1.045 | 91 | | 9.15(2.34-7.02) | | 1.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.428 | 1007242 | 1.12 | | 89.6 | 1801 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.947 | 4.940 | 0.007 | 1.000 | 239 | 0.001879 | Target=1.01 | | 10.1 | RM |
| 713.00 > 219.00 | 4.947 | 4.940 | 0.007 | 1.000 | 66 | | 3.62(0.51-1.52) | | 2.5 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:15:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d

Injection Date: 03-Nov-2021 15:55:02 Instrument ID: LC812

Lims ID: 460-246027-A-11-A Lab Sample ID: 200-246027-11

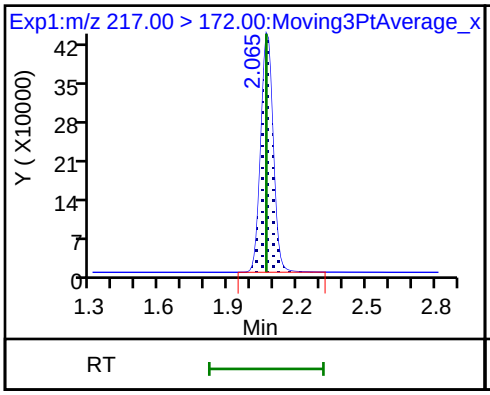
Client ID: MH-101-20211027

Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24

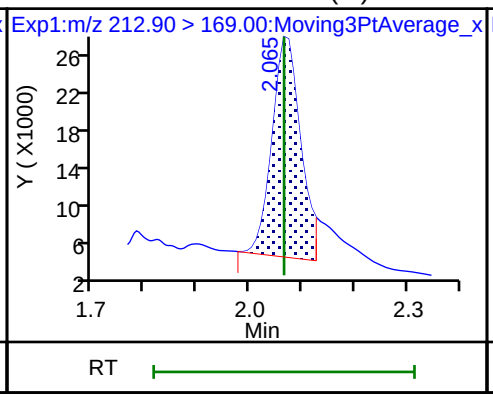
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

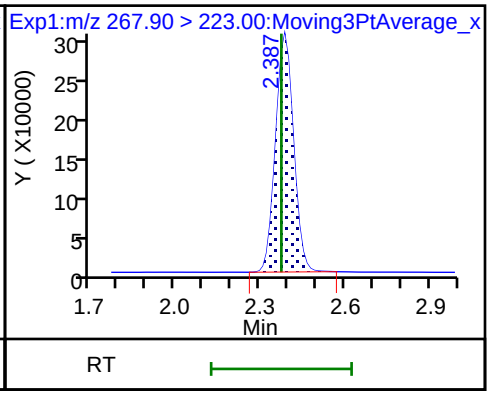
D 1 13C4 PFBA



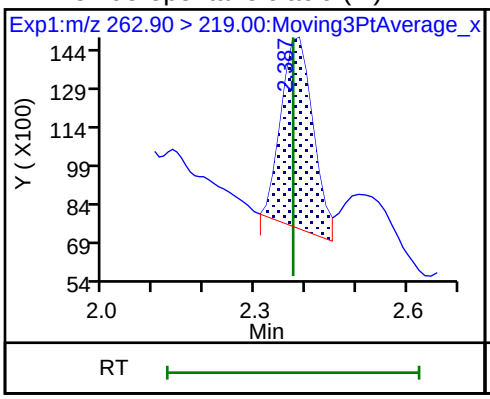

2 Perfluorobutanoic acid (M)



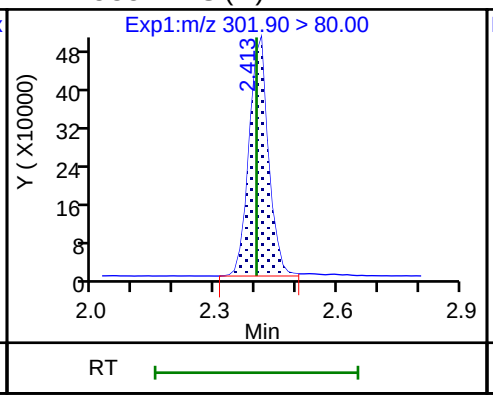

D 3 13C5 PFPeA



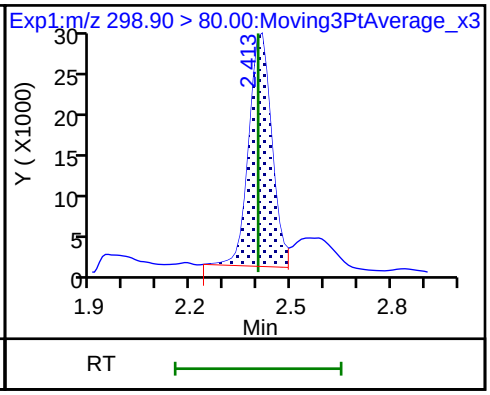

4 Perfluoropentanoic acid (M)



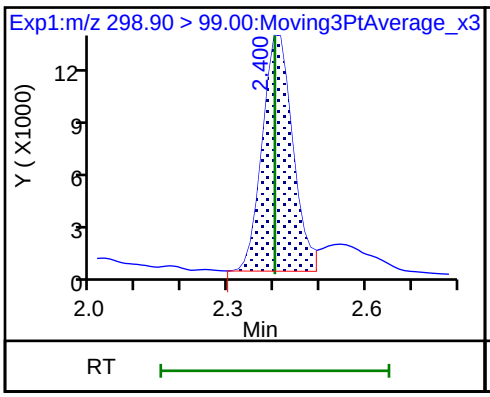

D 47 13C3 PFBS (M)



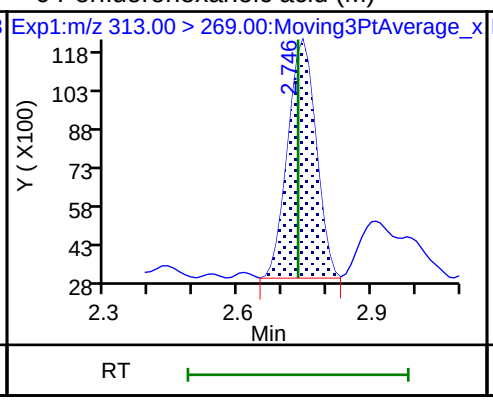

5 Perfluorobutanesulfonic acid



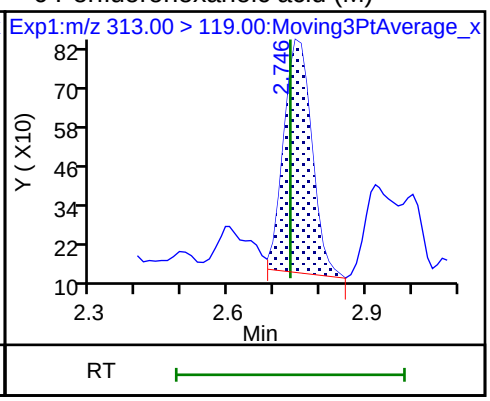

5 Perfluorobutanesulfonic acid



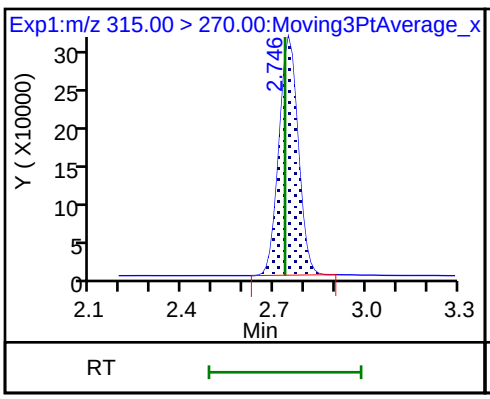

6 Perfluorohexanoic acid (M)



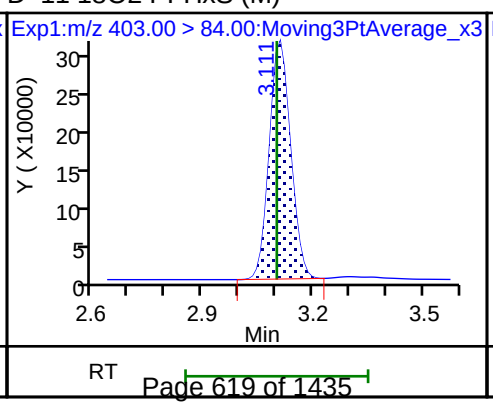

6 Perfluorohexanoic acid (M)



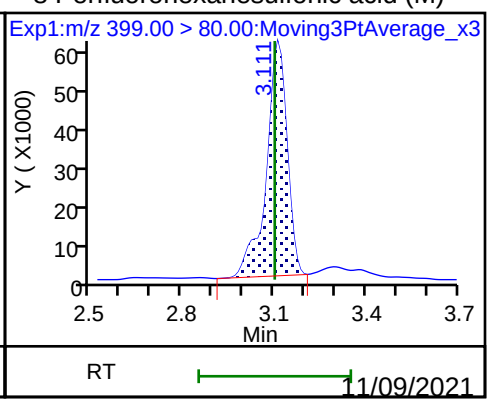

D 7 13C2 PFHxA



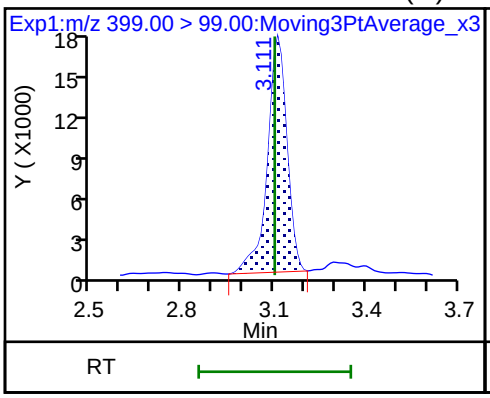

D 11 18O2 PFHxS (M)



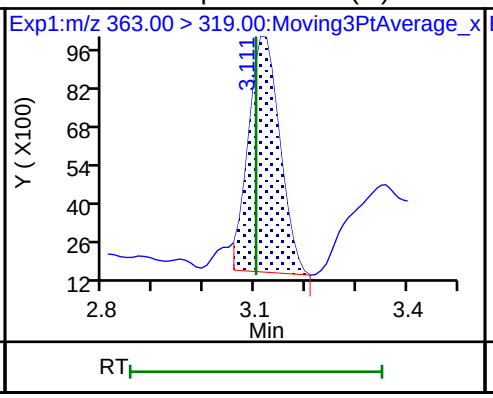

8 Perfluorohexanesulfonic acid (M)



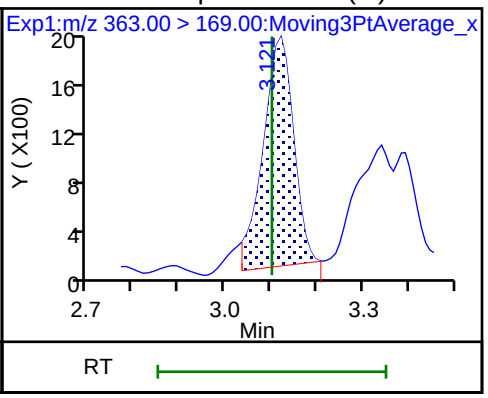
8 Perfluorohexanesulfonic acid (M)



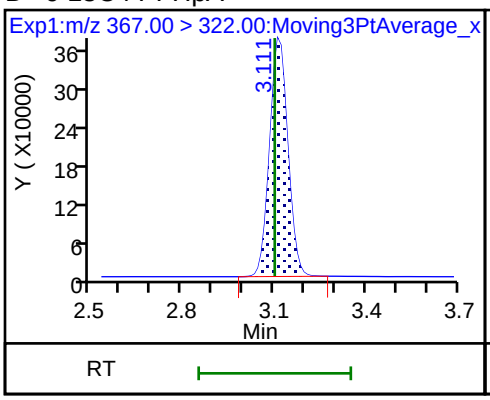

10 Perfluoroheptanoic acid (M)



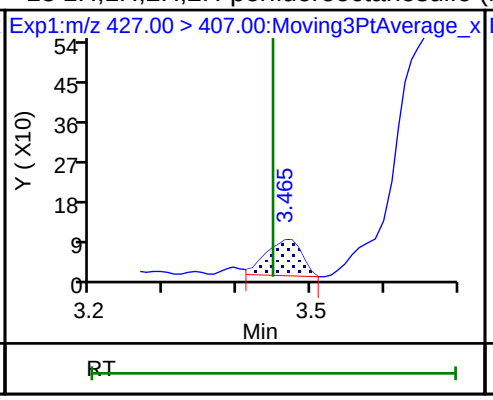

10 Perfluoroheptanoic acid (M)



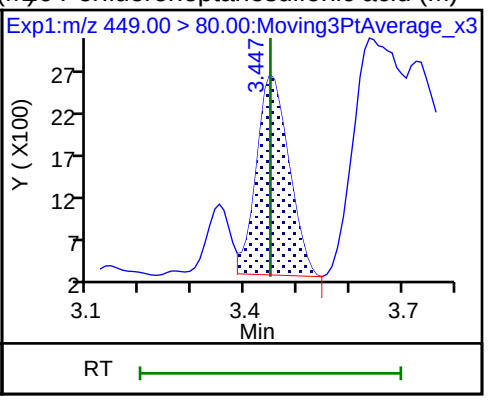

D 9 13C4 PFHpA



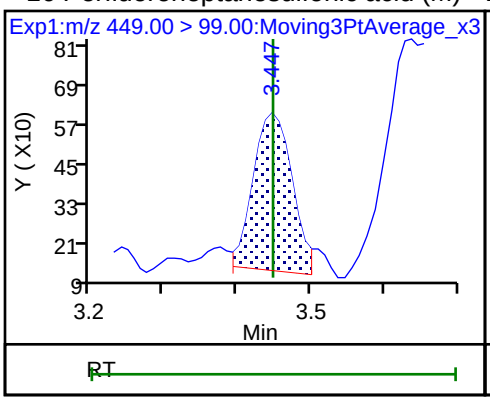

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



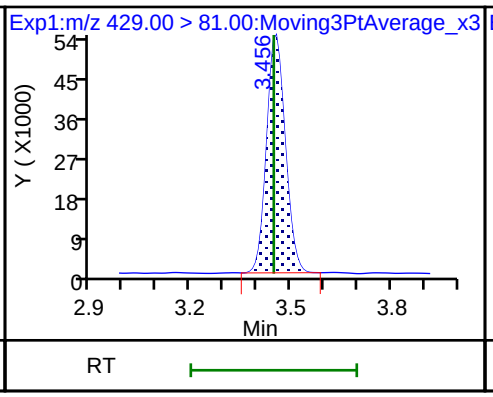

16 Perfluoroheptanesulfonic acid (M)



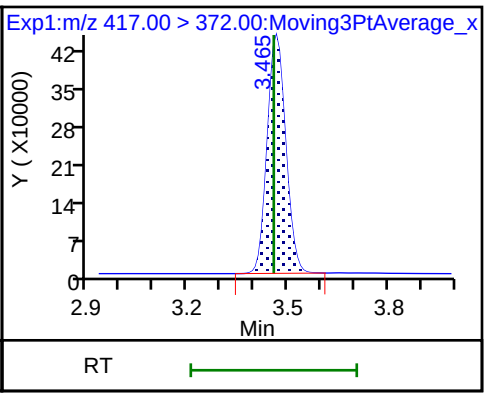

16 Perfluoroheptanesulfonic acid (M)



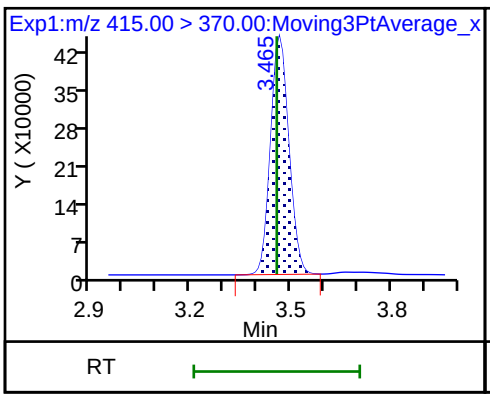

D 12 M2-6:2 FTS



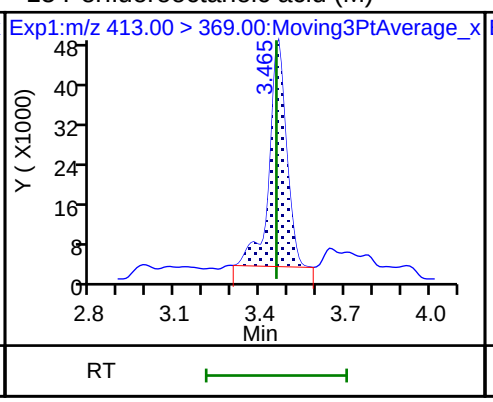

D 14 13C4 PFOA



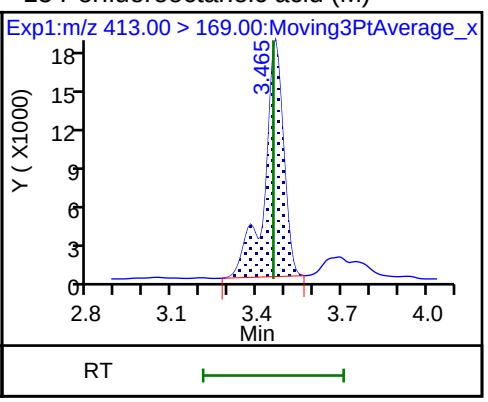

* 62 13C2 PFOA



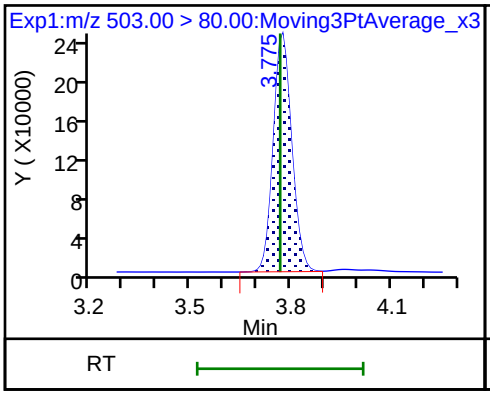

15 Perfluorooctanoic acid (M)



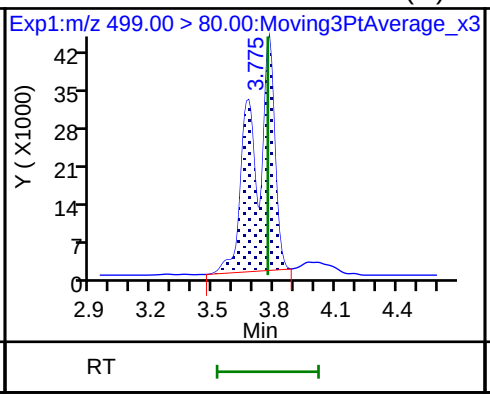

15 Perfluorooctanoic acid (M)



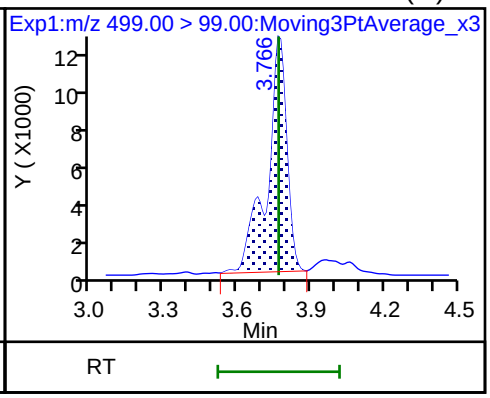
D 18 13C4 PFOS



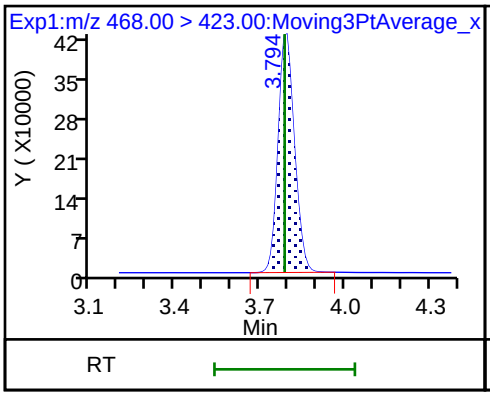

17 Perfluorooctanesulfonic acid (M)



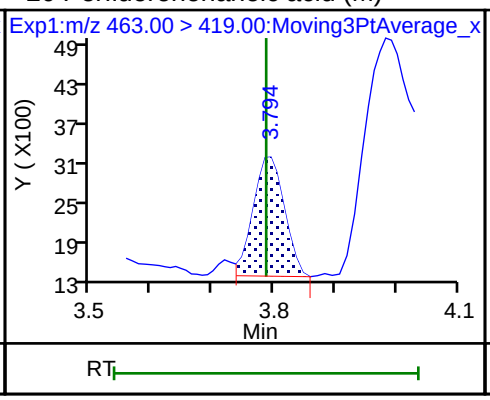

17 Perfluorooctanesulfonic acid (M)



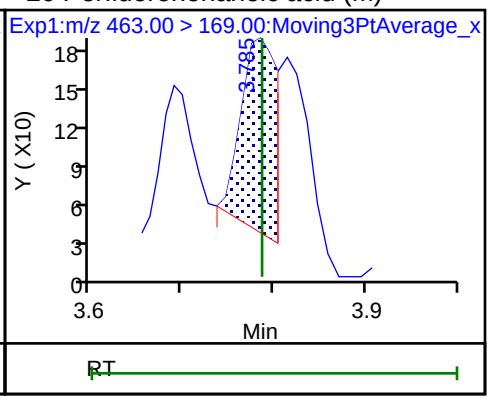

D 19 13C5 PFNA



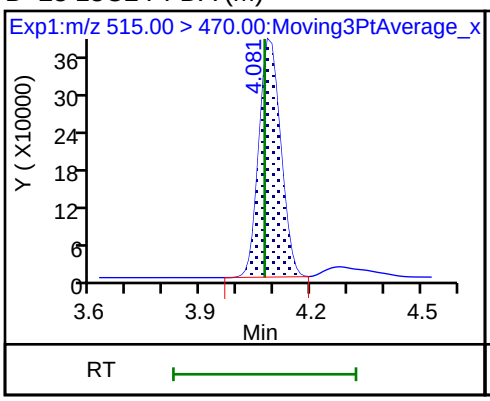

20 Perfluorononanoic acid (M)



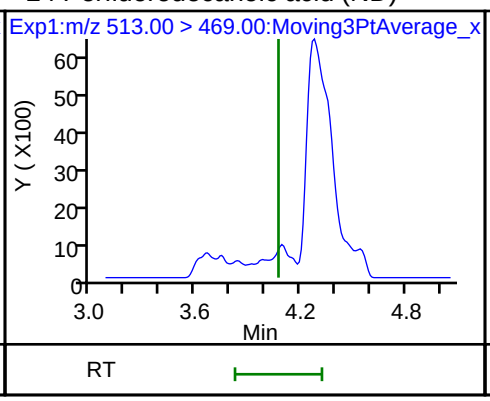

20 Perfluorononanoic acid (M)



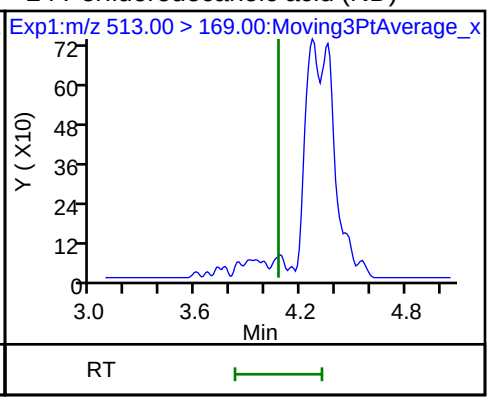

D 23 13C2 PFDA (M)



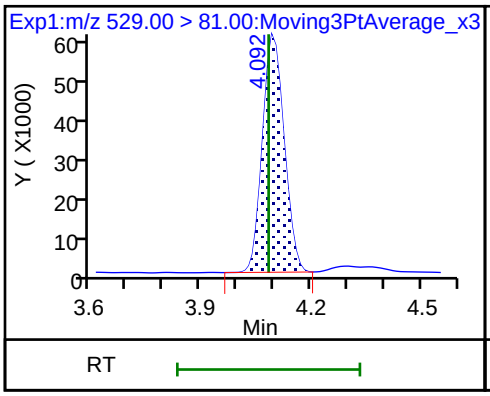

24 Perfluorodecanoic acid (ND)



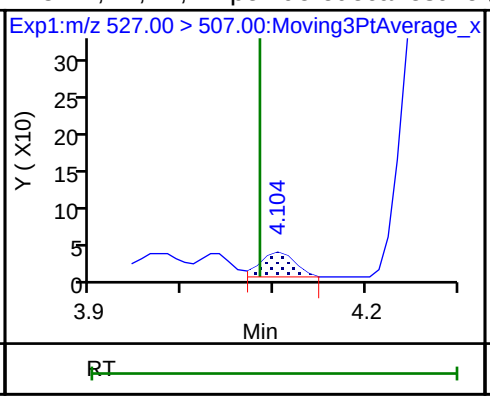

24 Perfluorodecanoic acid (ND)



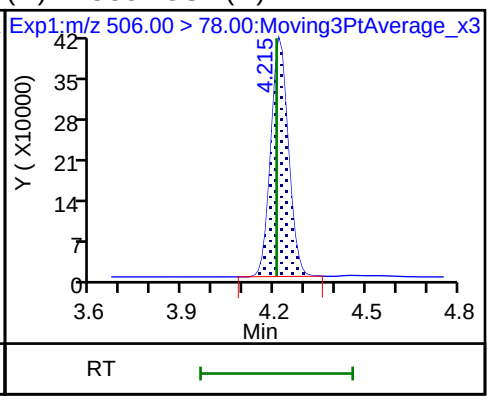

D 26 M2-8:2 FTS



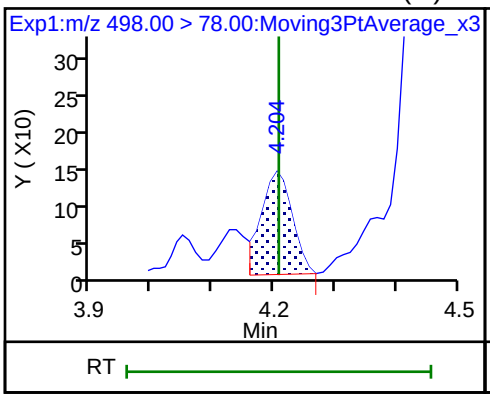

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



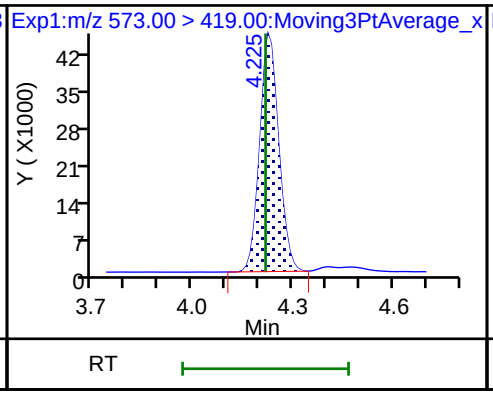

21 13C8 FOSA (M)



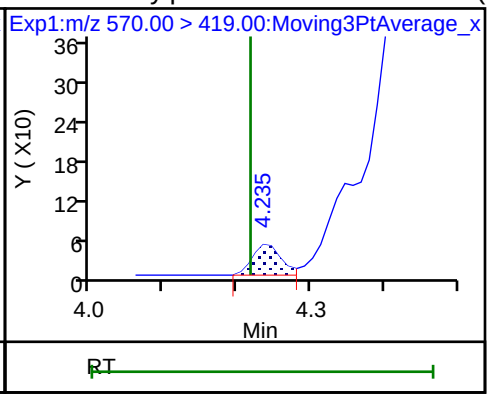
22 Perfluorooctanesulfonamide (M)



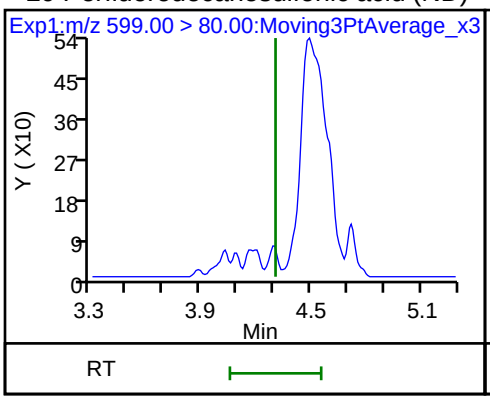

D 27 d3-NMeFOSAA



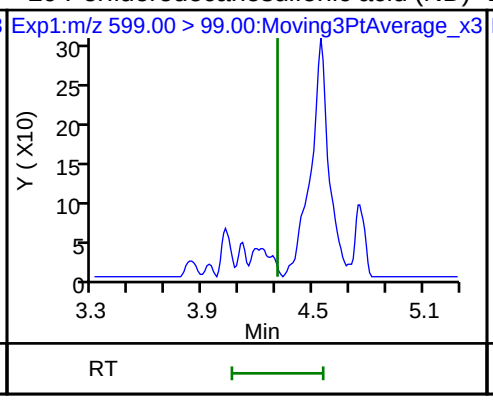

28 N-methylperfluorooctanesulfonami (M)



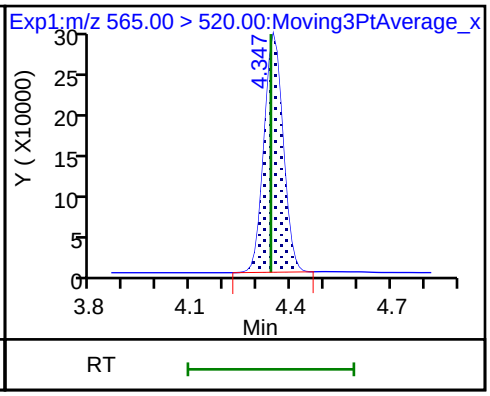

29 Perfluorodecanesulfonic acid (ND)



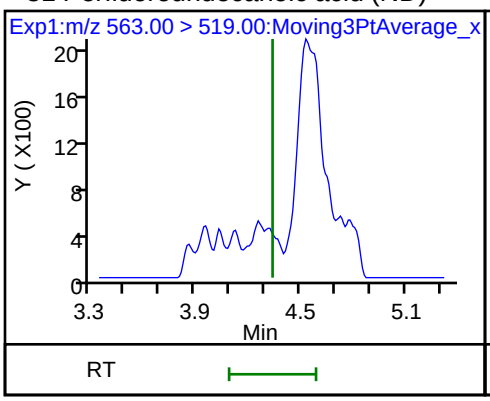

29 Perfluorodecanesulfonic acid (ND)



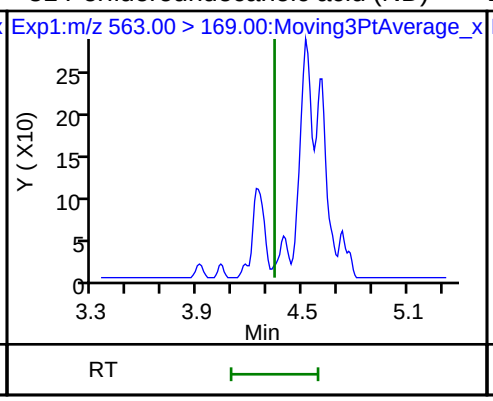

D 30 13C2 PFUnA



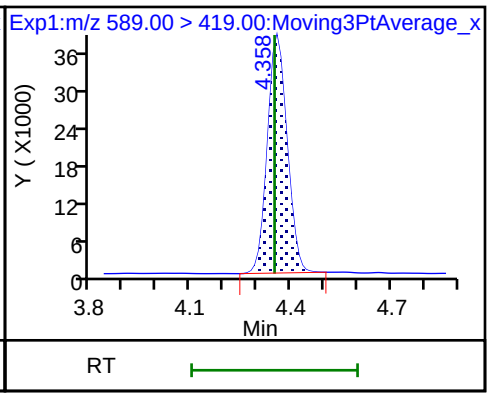

31 Perfluoroundecanoic acid (ND)



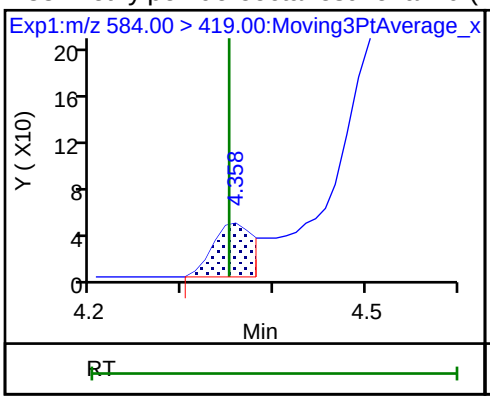

31 Perfluoroundecanoic acid (ND)



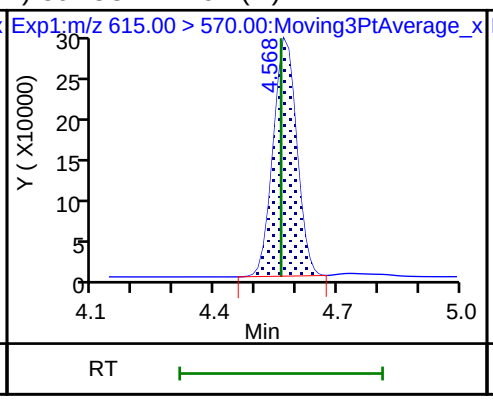

D 32 d5-NEtFOSAA



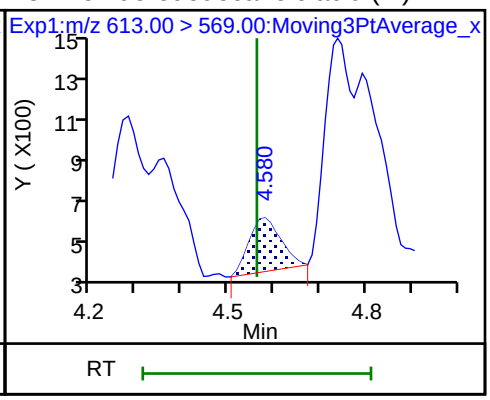

33 N-ethylperfluorooctanesulfonamid (ND)



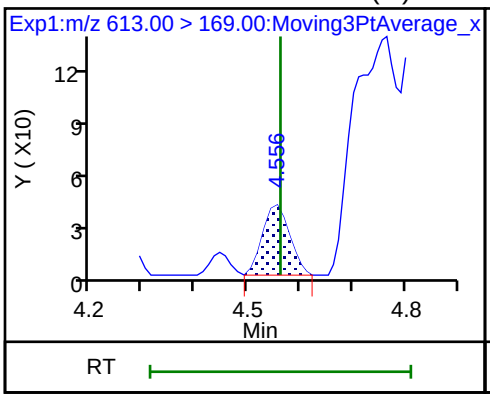

D 36 13C2 PFDoA (M)



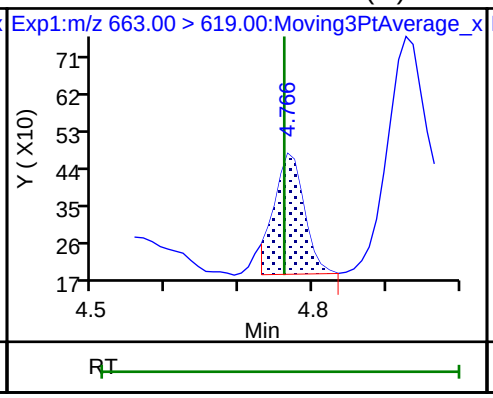

37 Perfluorododecanoic acid (M)



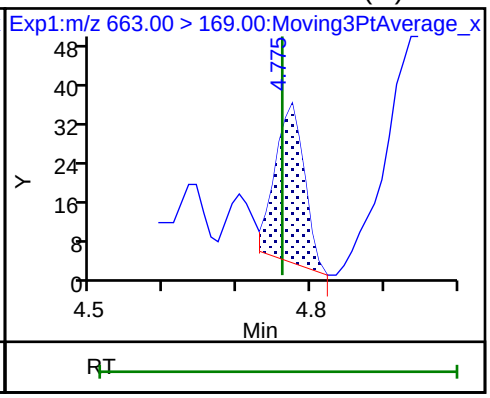
37 Perfluorododecanoic acid (M)



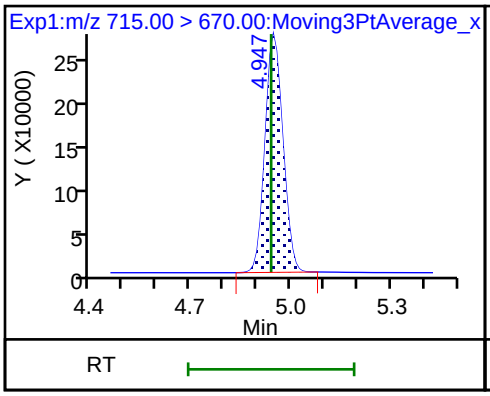

41 Perfluorotridecanoic acid (M)



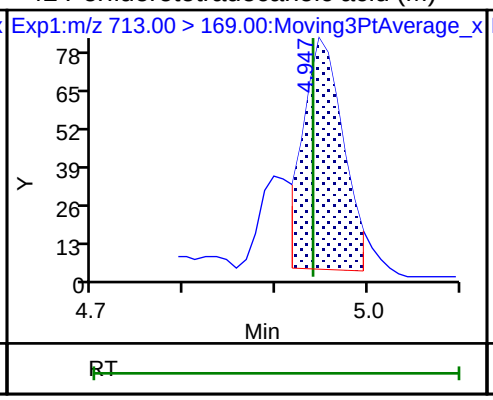

41 Perfluorotridecanoic acid (M)



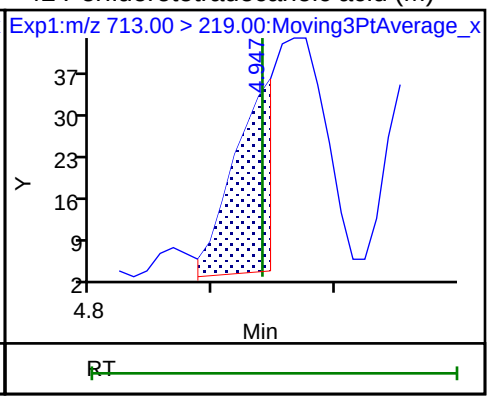

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

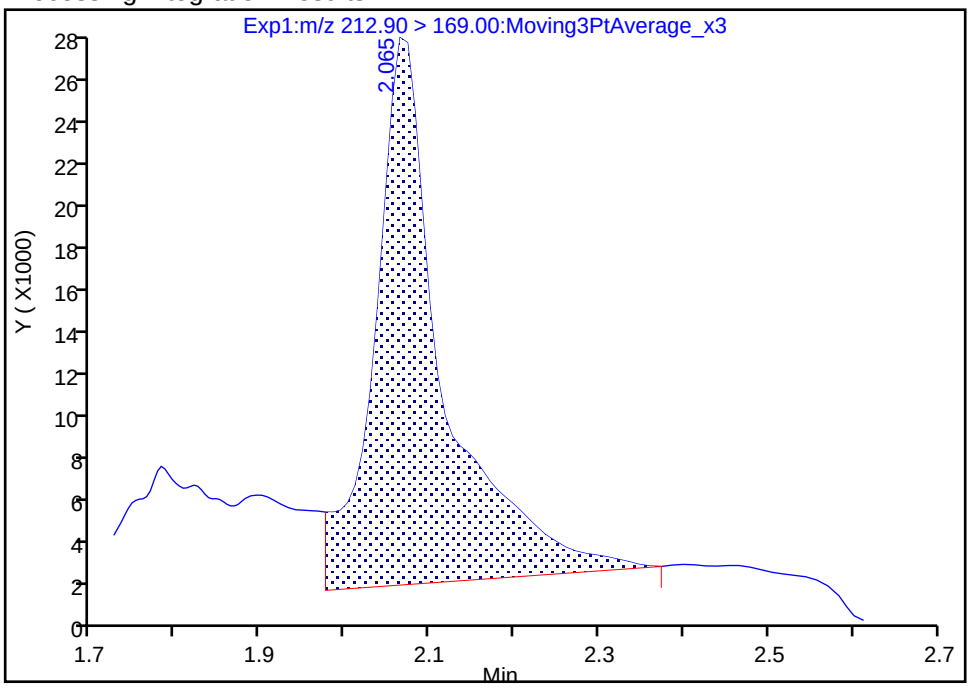
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

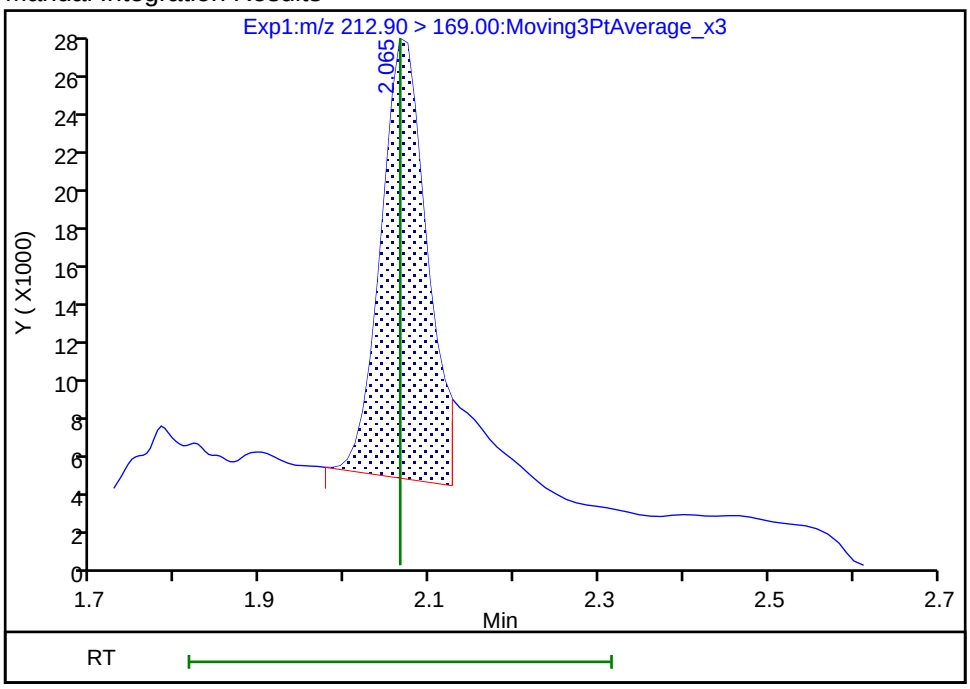
Processing Integration Results

RT: 2.06
Area: 147903
Amount: 0.120849
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 86568
Amount: 0.070733
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:32:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

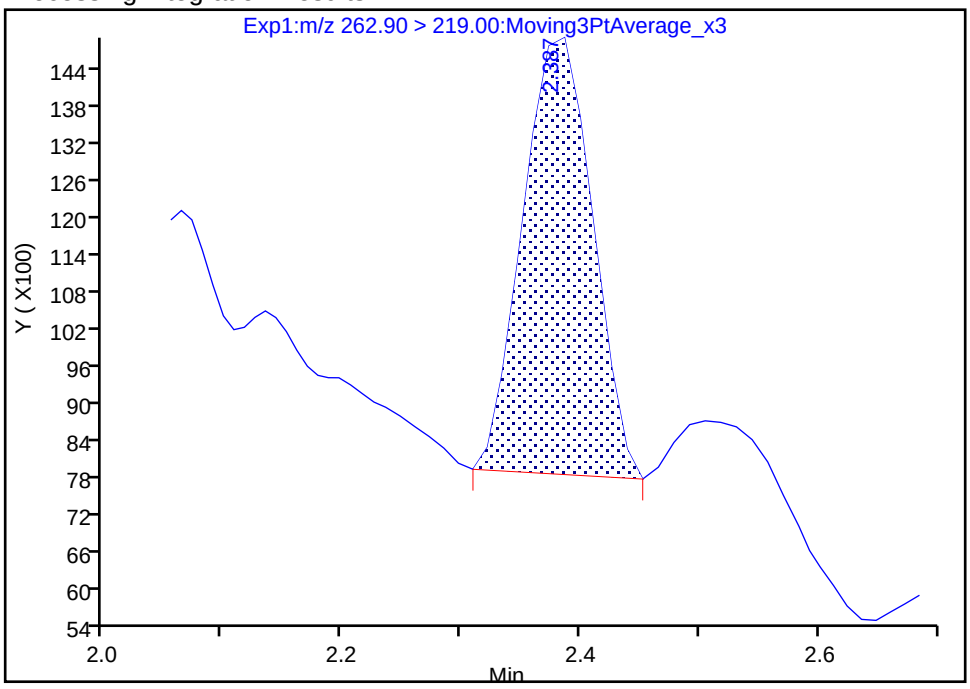
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

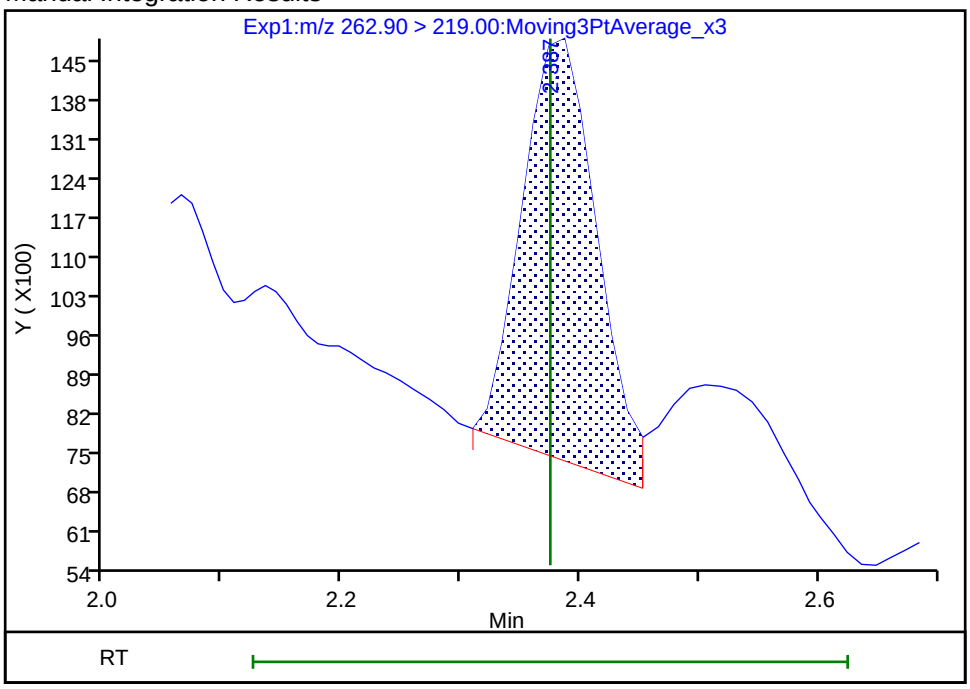
Processing Integration Results

RT: 2.39
Area: 28683
Amount: 0.026569
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 32550
Amount: 0.030152
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:32:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

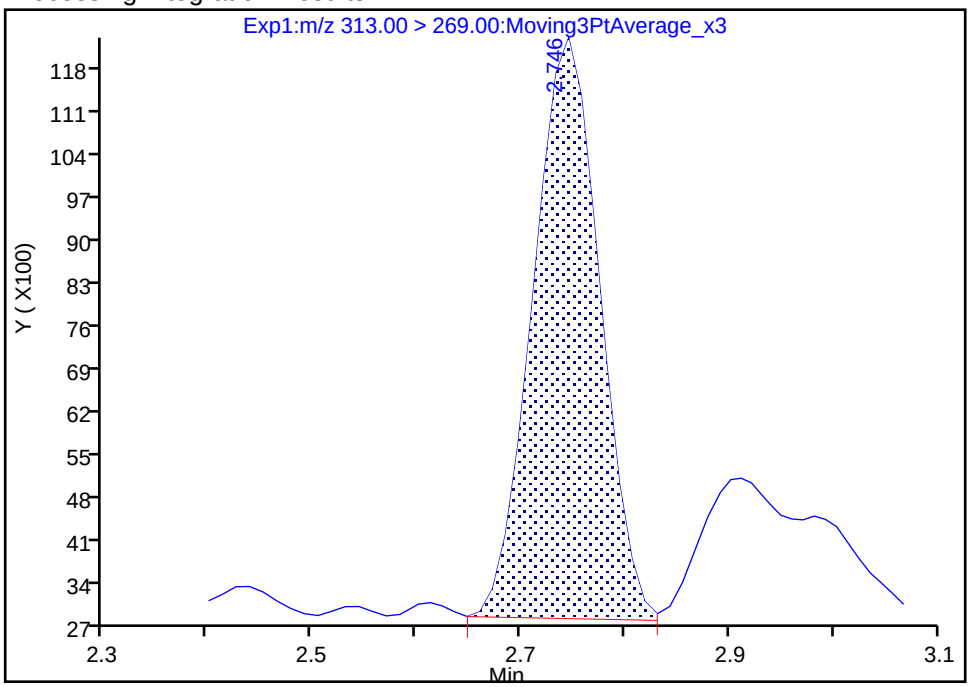
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

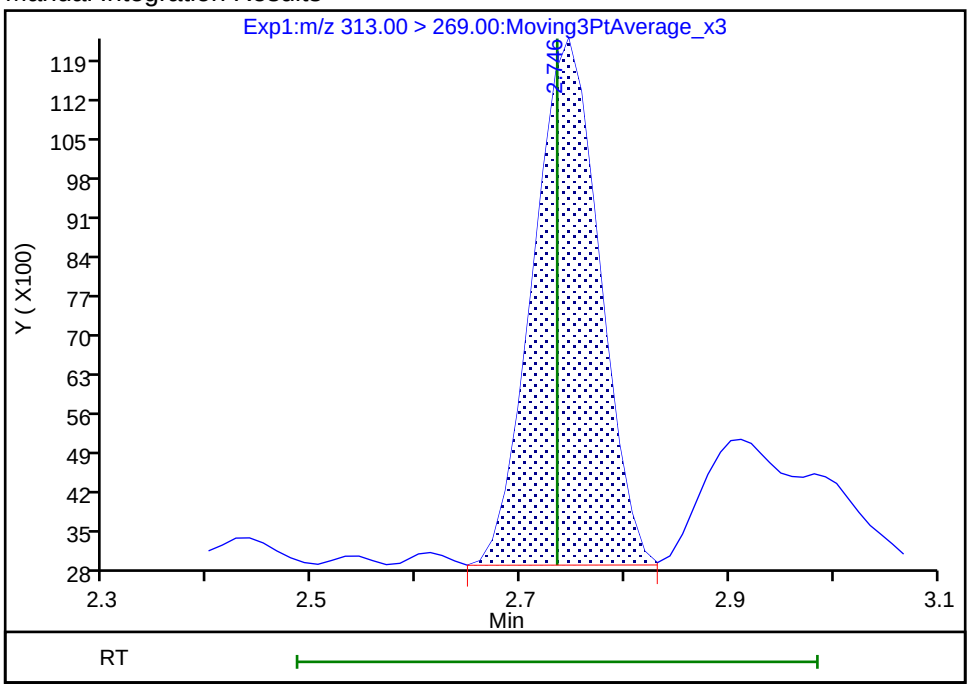
Processing Integration Results

RT: 2.75
Area: 42291
Amount: 0.038796
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 41925
Amount: 0.038460
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:32:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

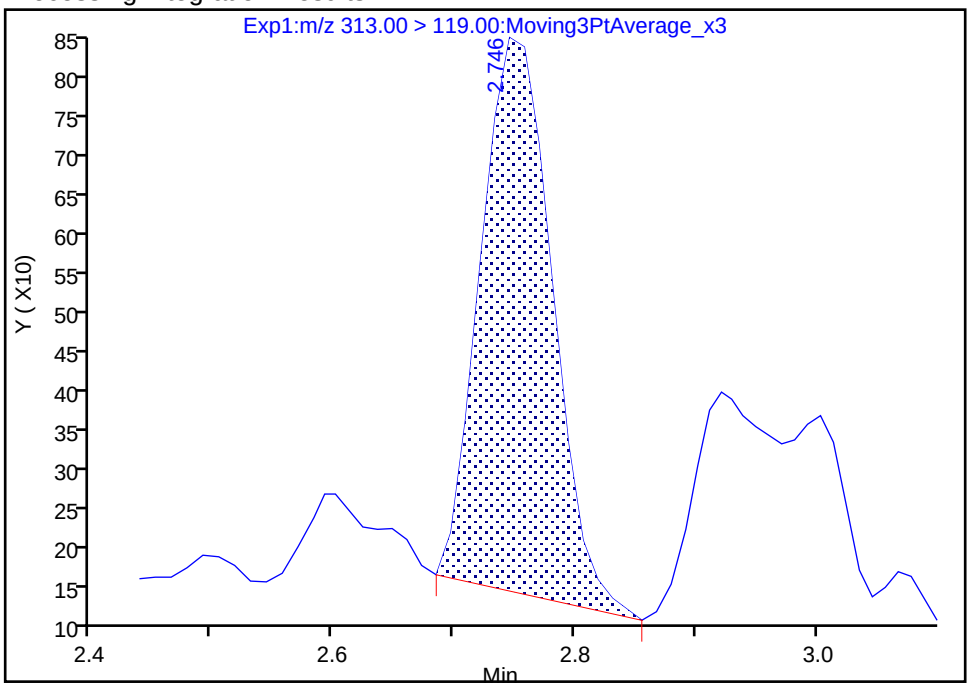
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

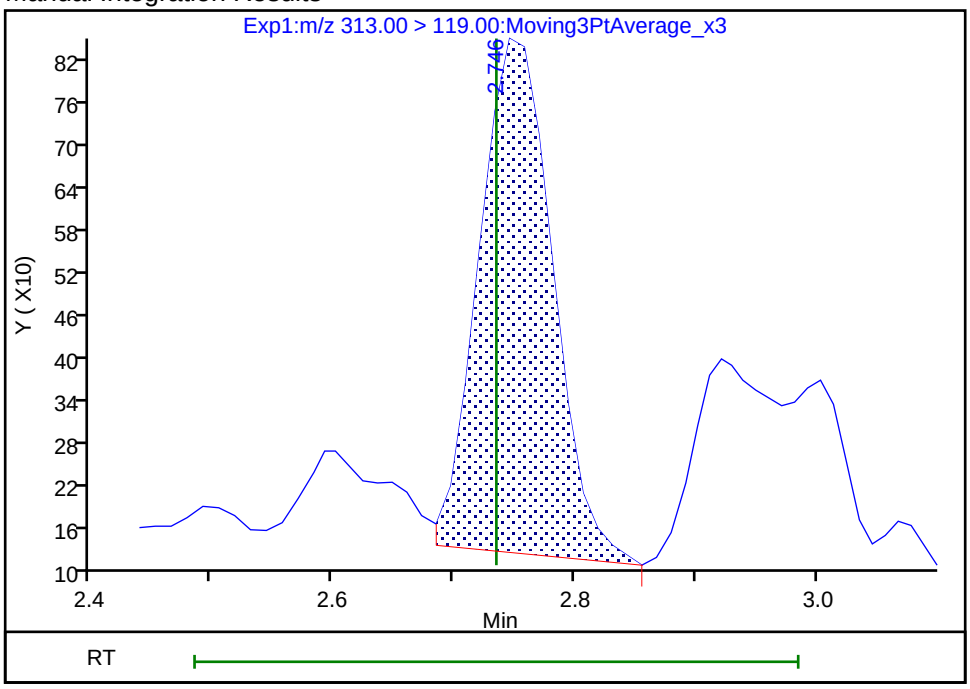
Processing Integration Results

RT: 2.75
Area: 2920
Amount: 0.038796
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 3073
Amount: 0.038460
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:32:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

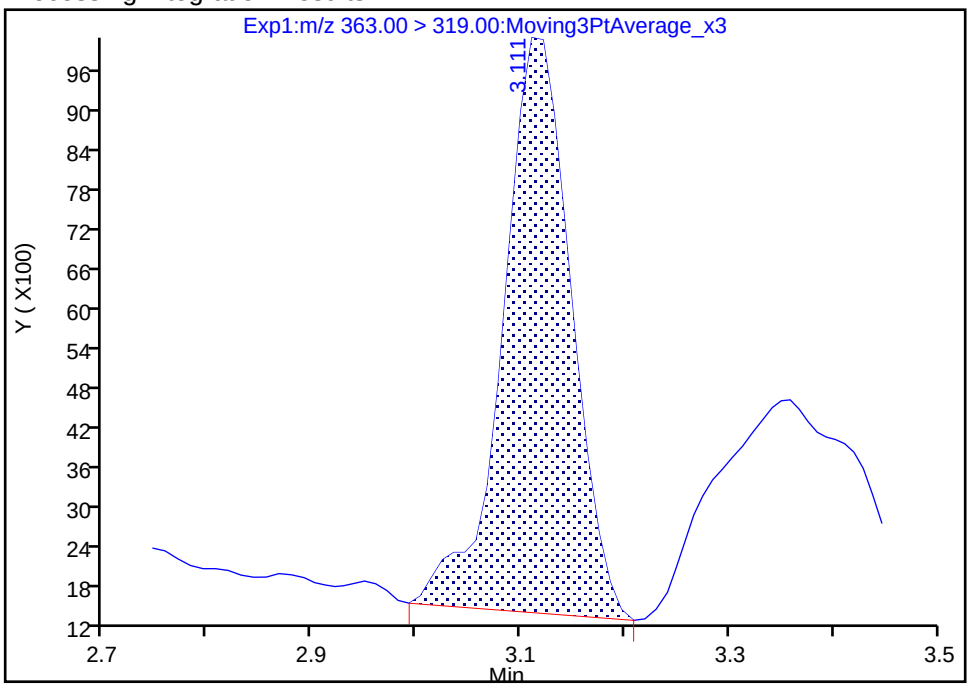
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

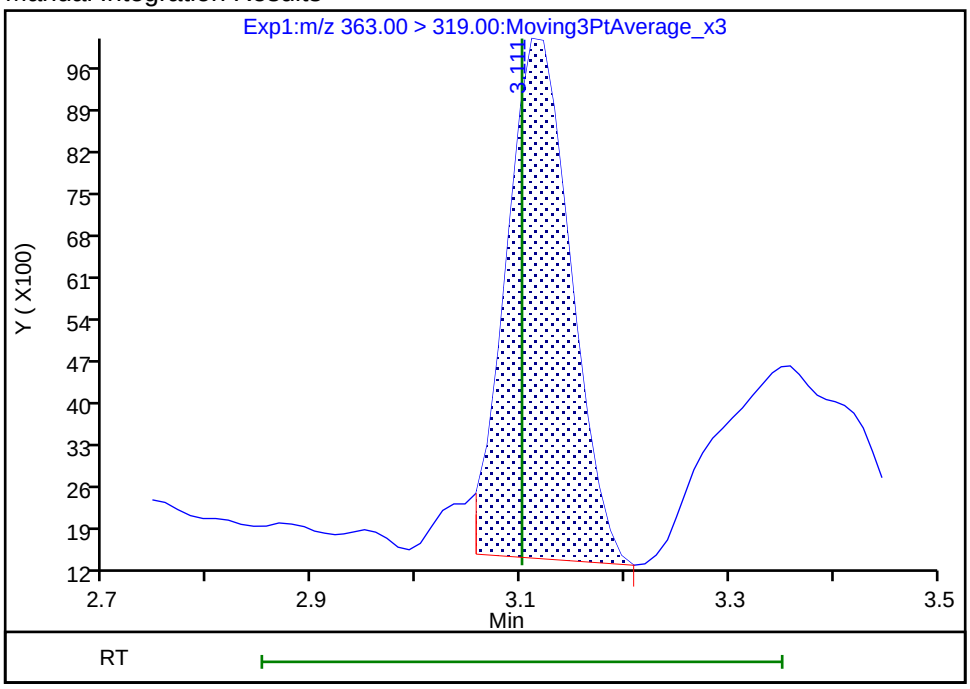
Processing Integration Results

RT: 3.11
Area: 39557
Amount: 0.031303
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 37357
Amount: 0.029562
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:33:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

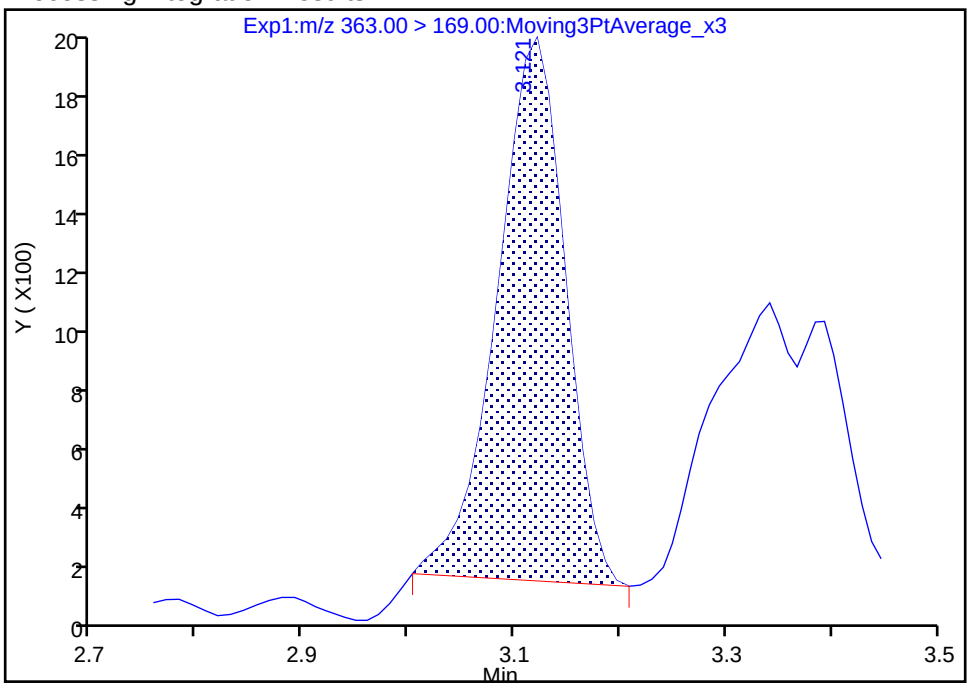
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

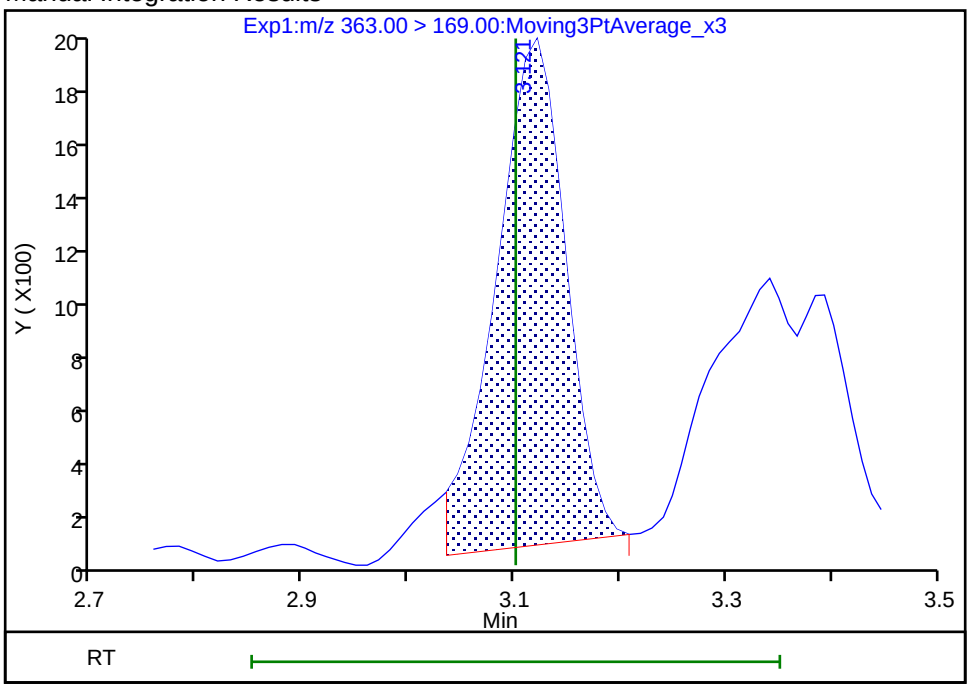
Processing Integration Results

RT: 3.12
Area: 7870
Amount: 0.031303
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 8321
Amount: 0.029562
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:33:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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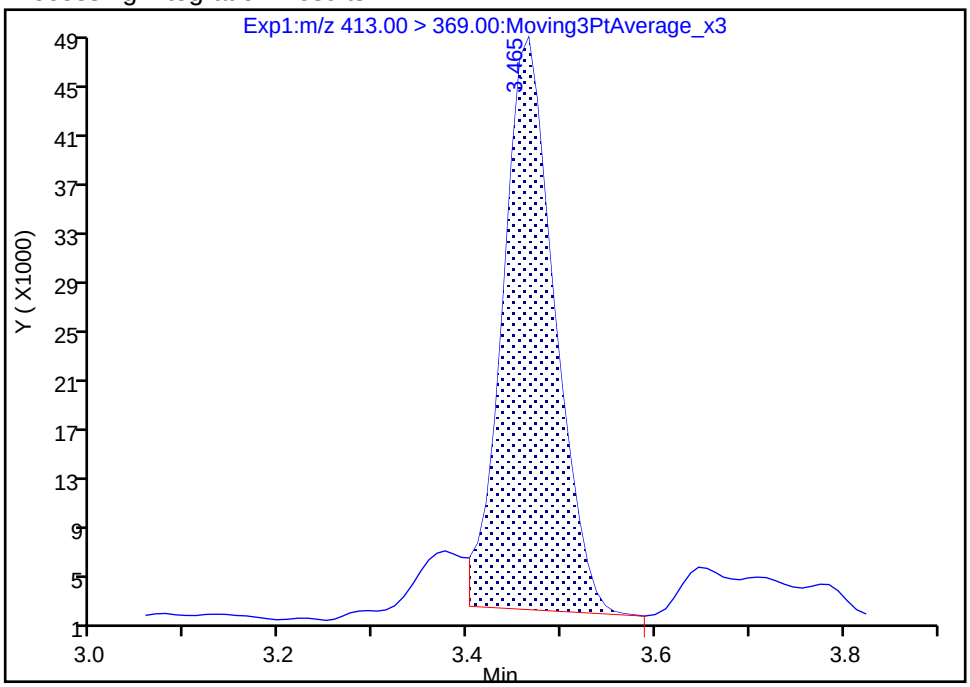
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

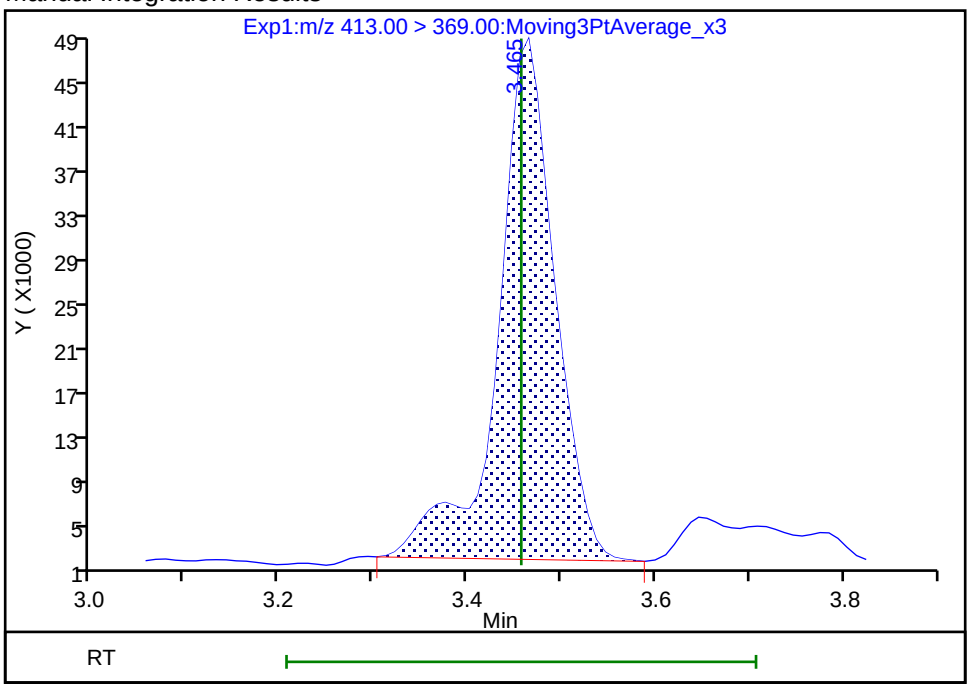
Processing Integration Results

RT: 3.46
Area: 172819
Amount: 0.118195
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 192505
Amount: 0.131659
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

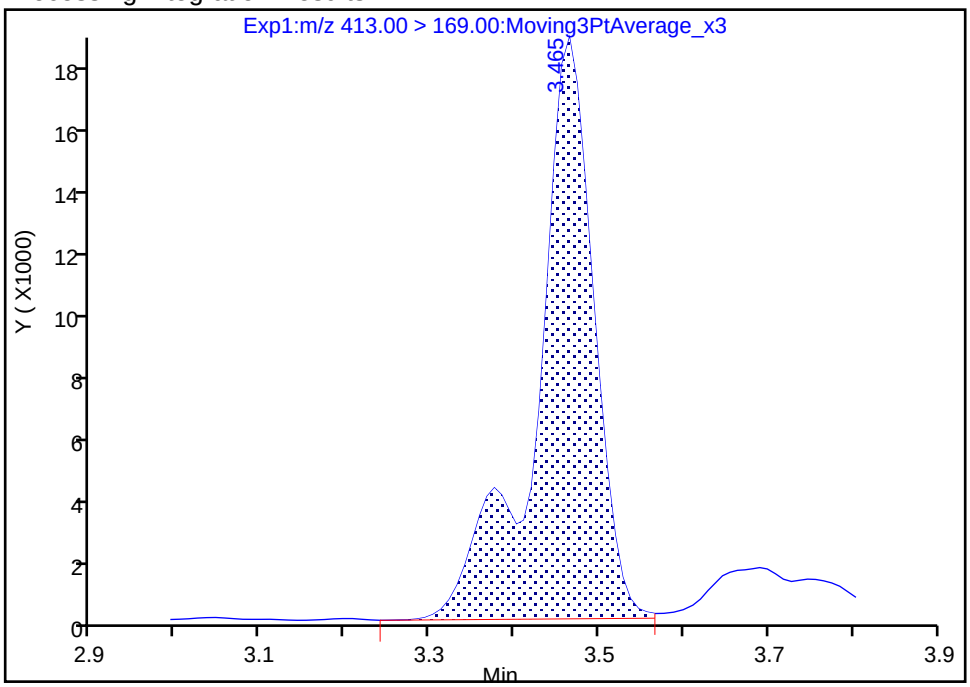
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

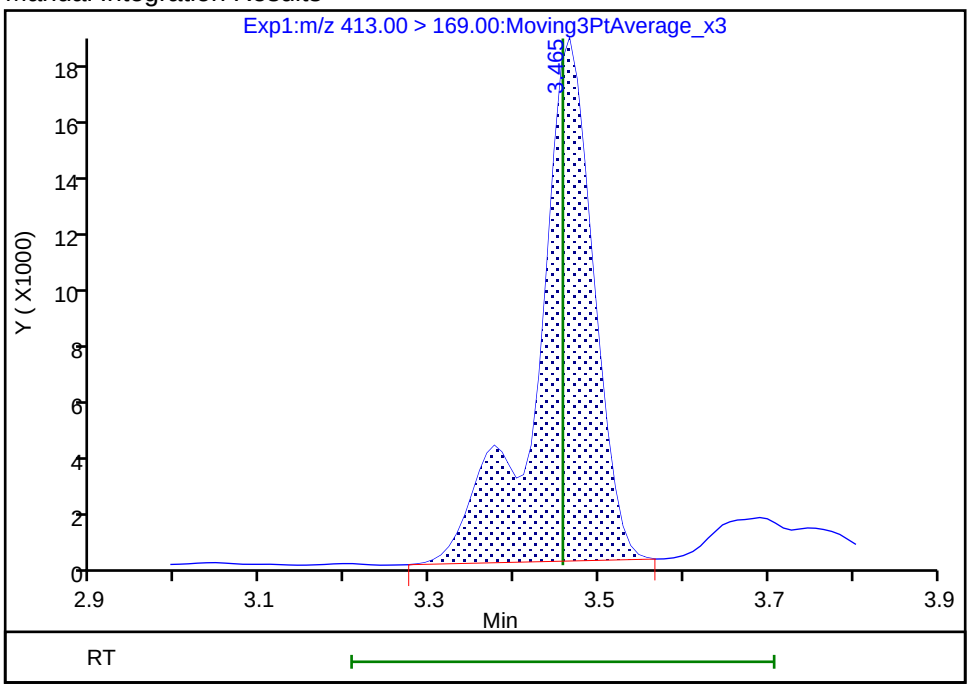
Processing Integration Results

RT: 3.46
Area: 88404
Amount: 0.118195
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 86998
Amount: 0.131659
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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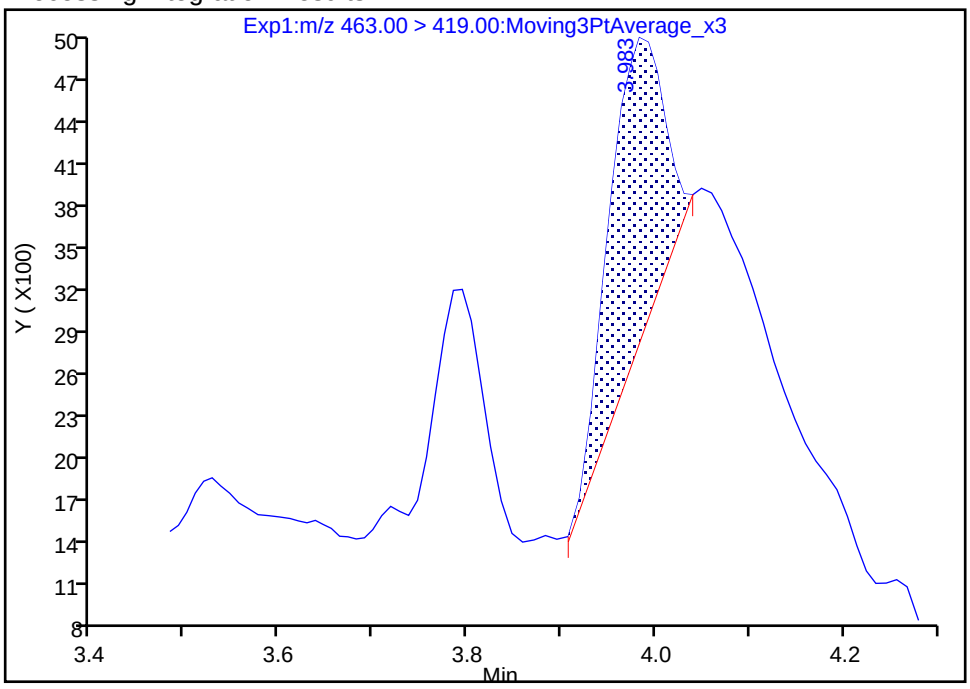
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

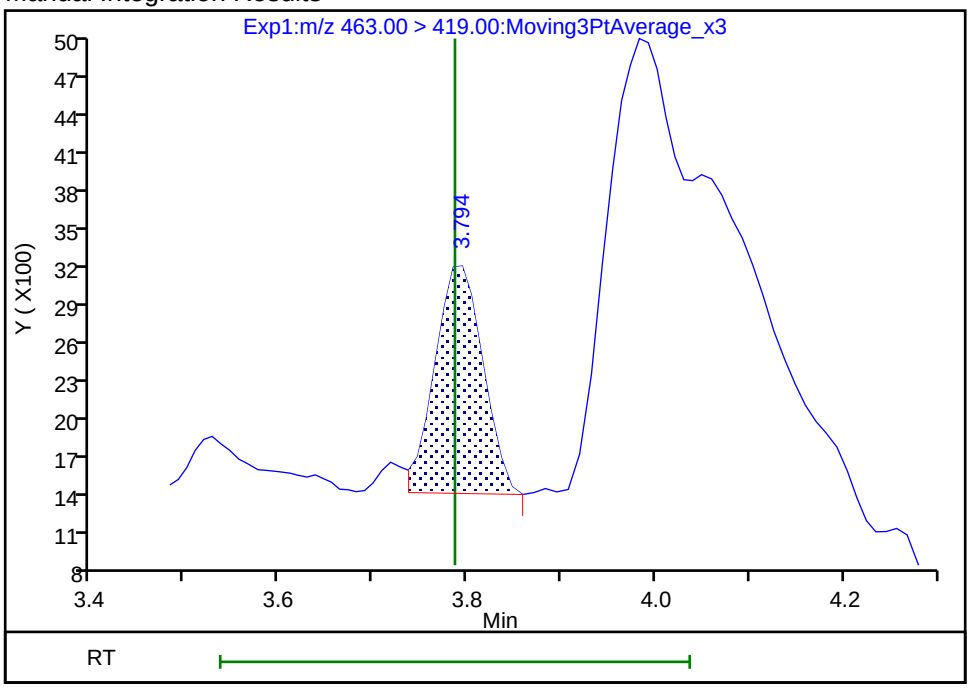
Processing Integration Results

RT: 3.98
Area: 8719
Amount: 0.006597
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 6232
Amount: 0.004715
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:35:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

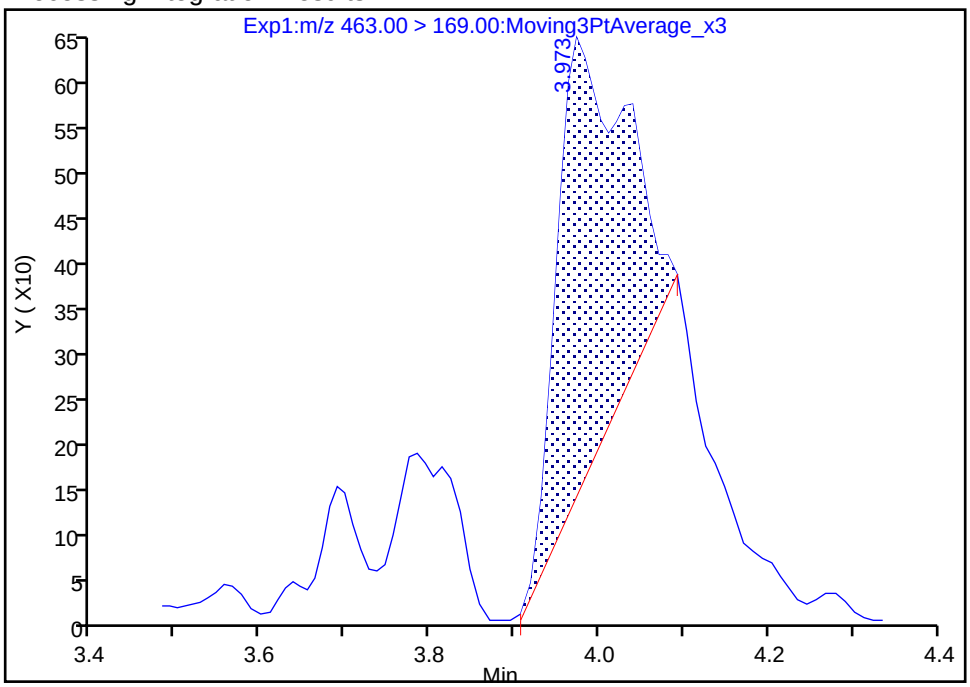
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

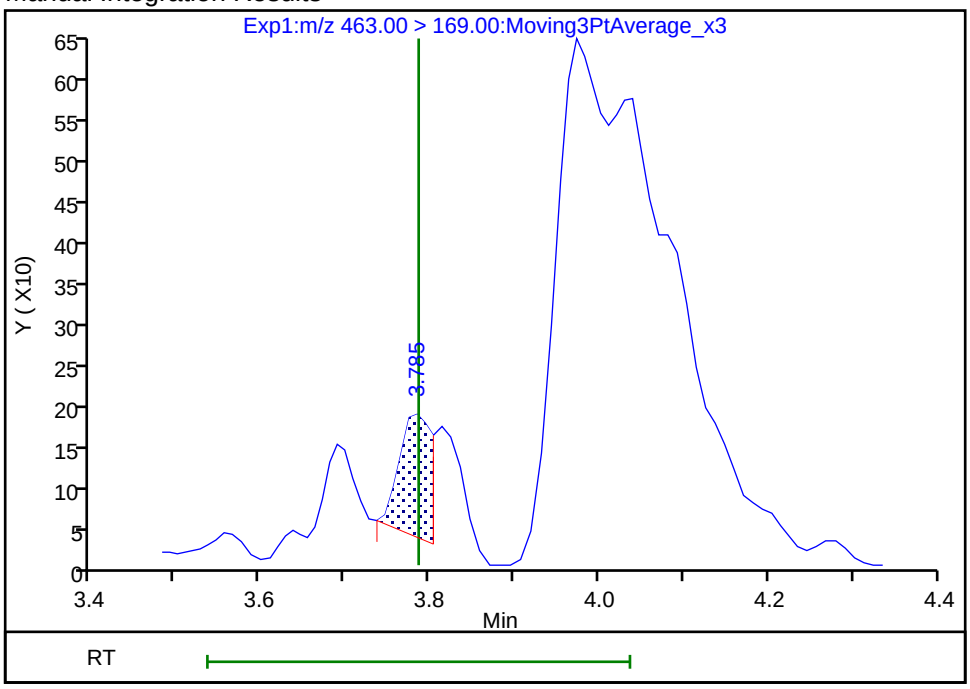
Processing Integration Results

RT: 3.97
Area: 2737
Amount: 0.006597
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 380
Amount: 0.004715
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:35:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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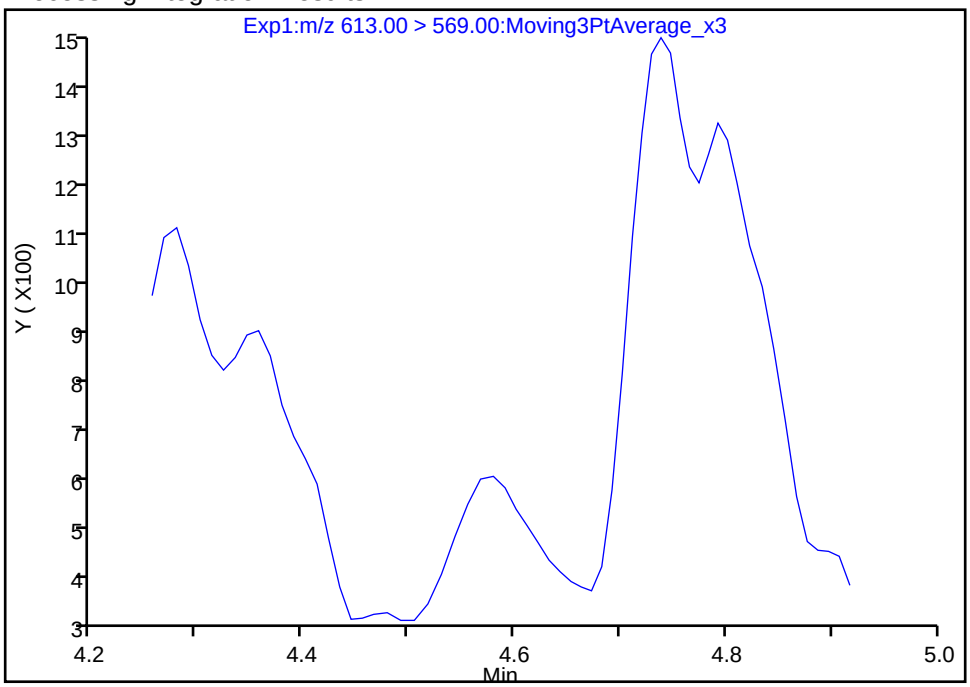
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

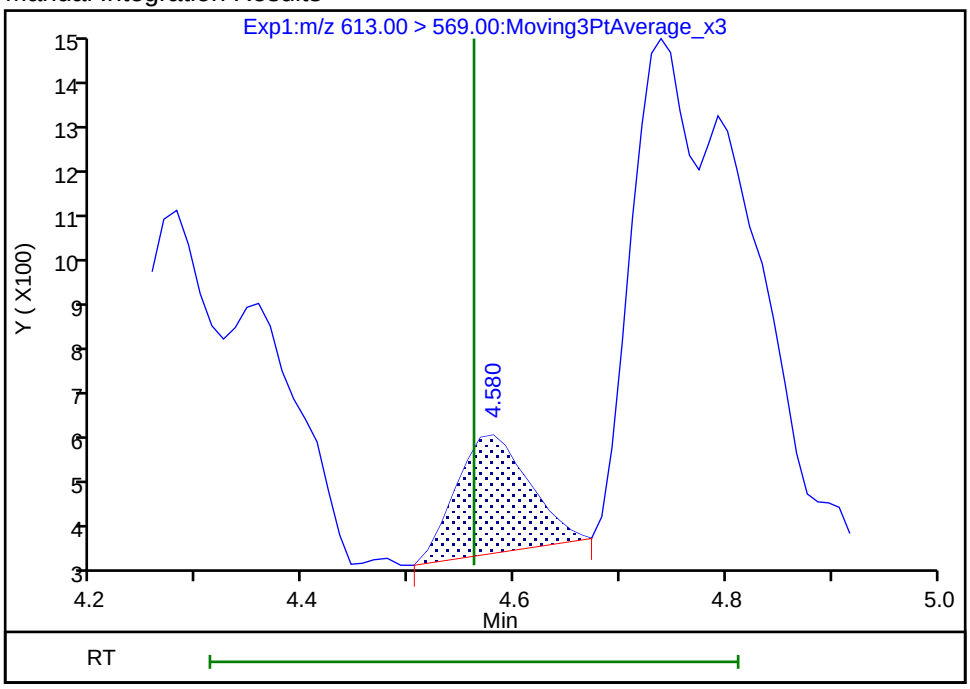
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 1153
Amount: 0.001272
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

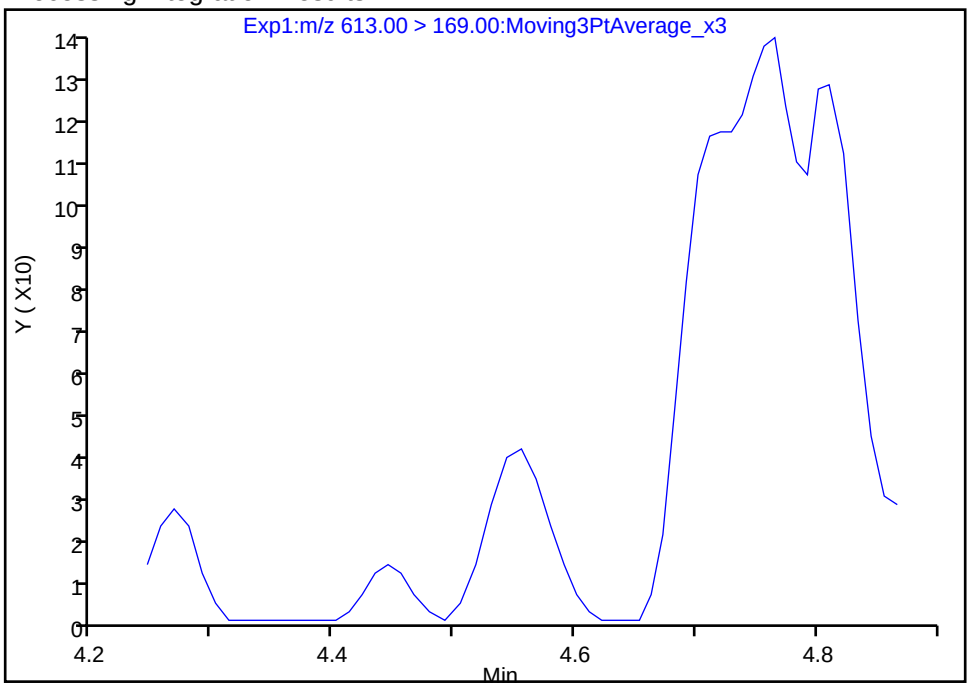
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

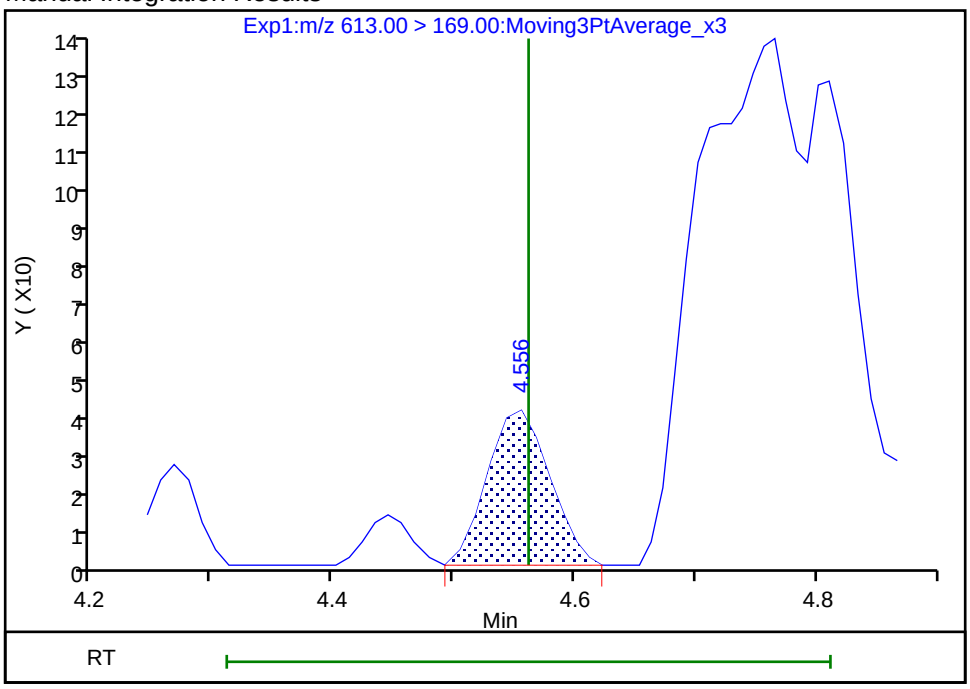
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.56
Area: 144
Amount: 0.001272
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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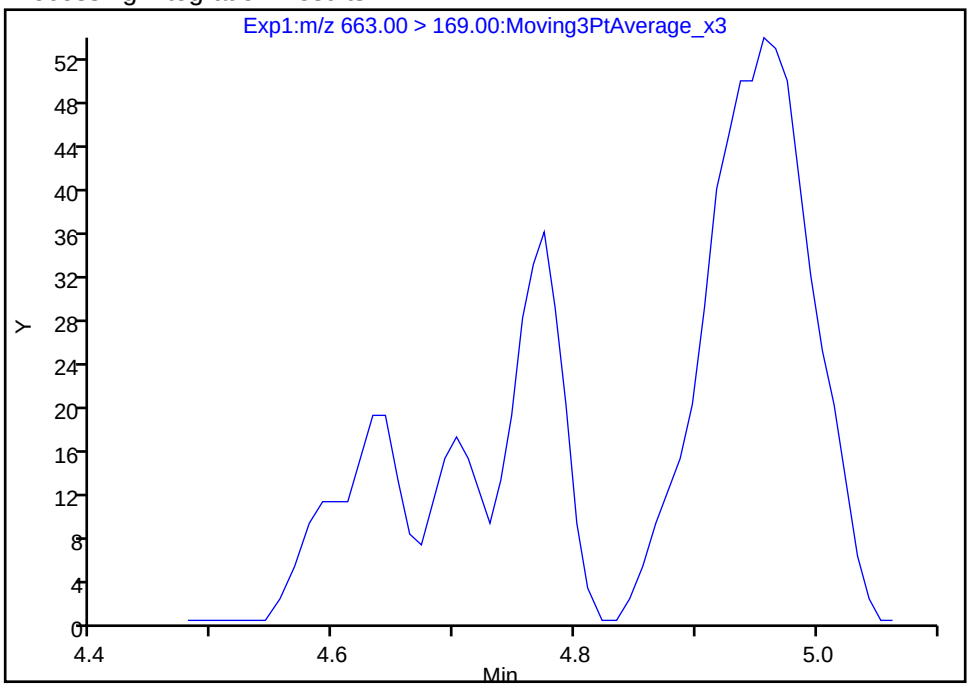
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

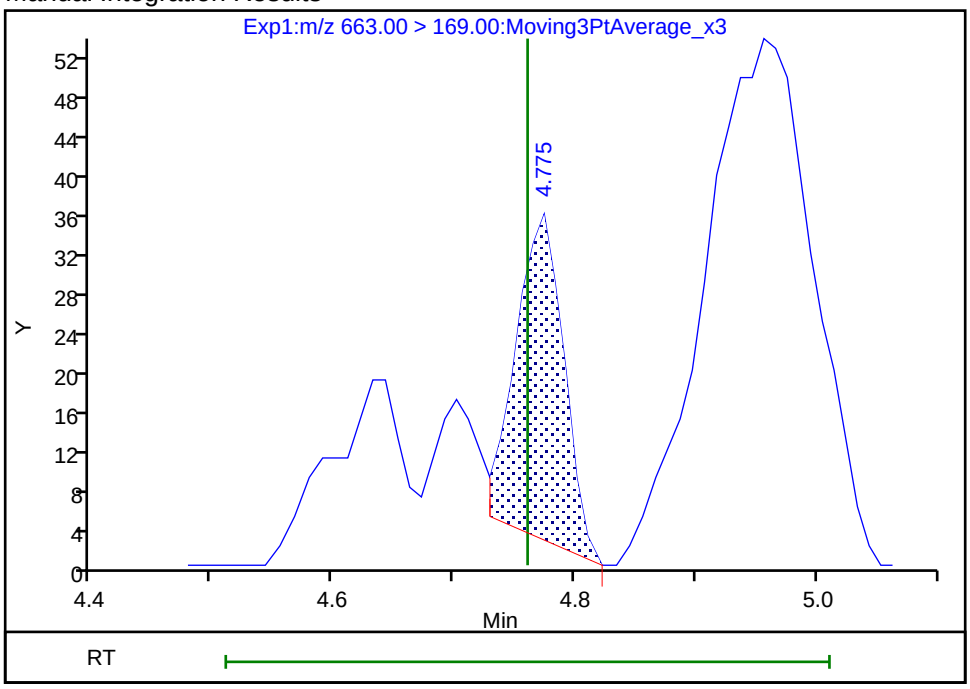
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 91
Amount: 0.001066
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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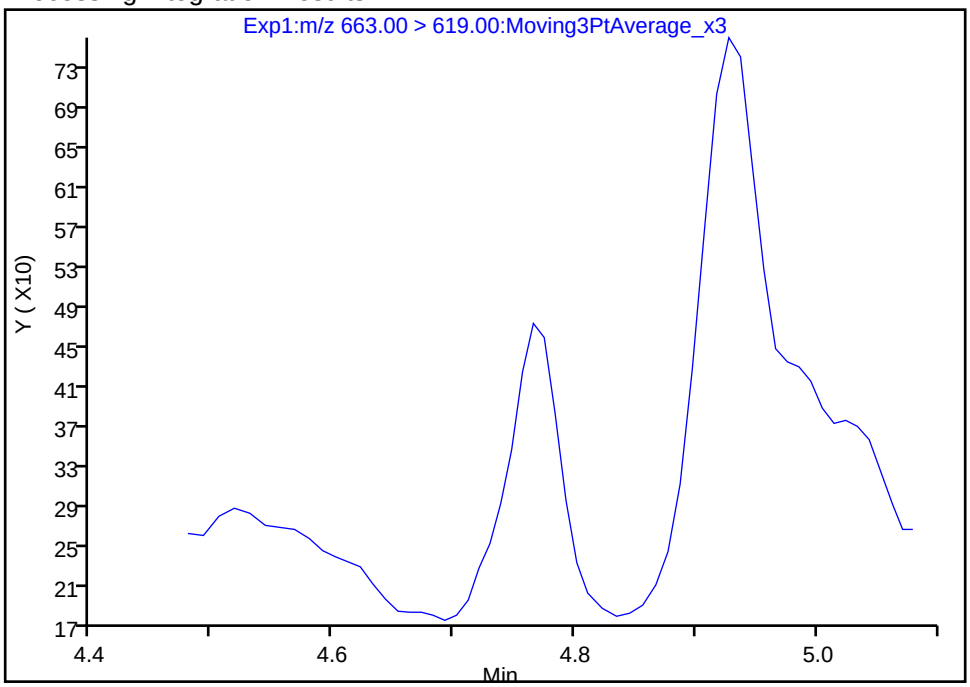
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

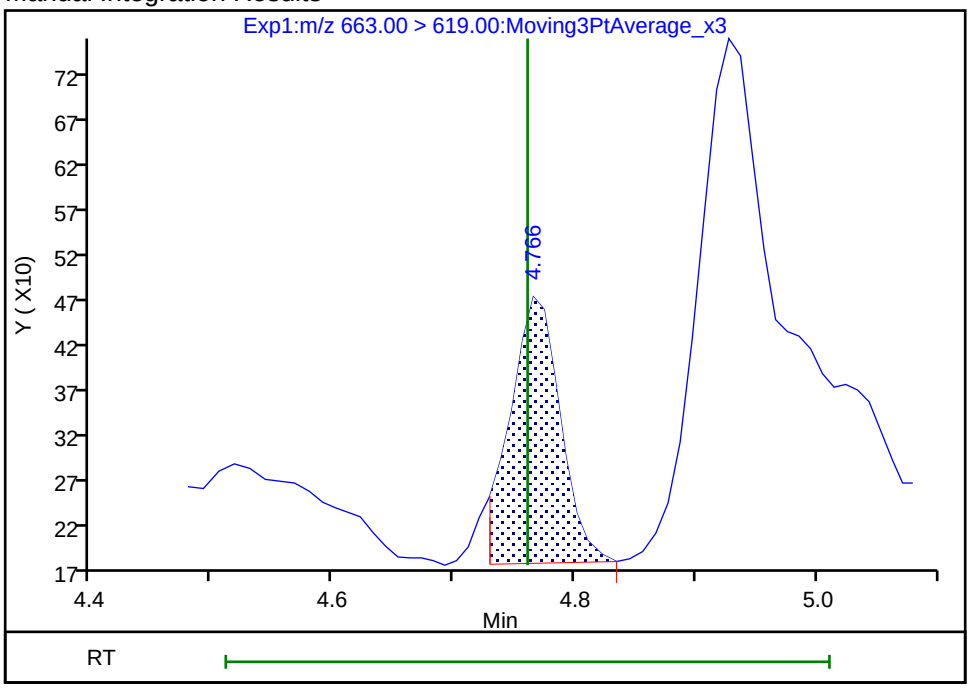
Not Detected
Expected RT: 4.76

Processing Integration Results




Manual Integration Results

RT: 4.77
Area: 833
Amount: 0.001066
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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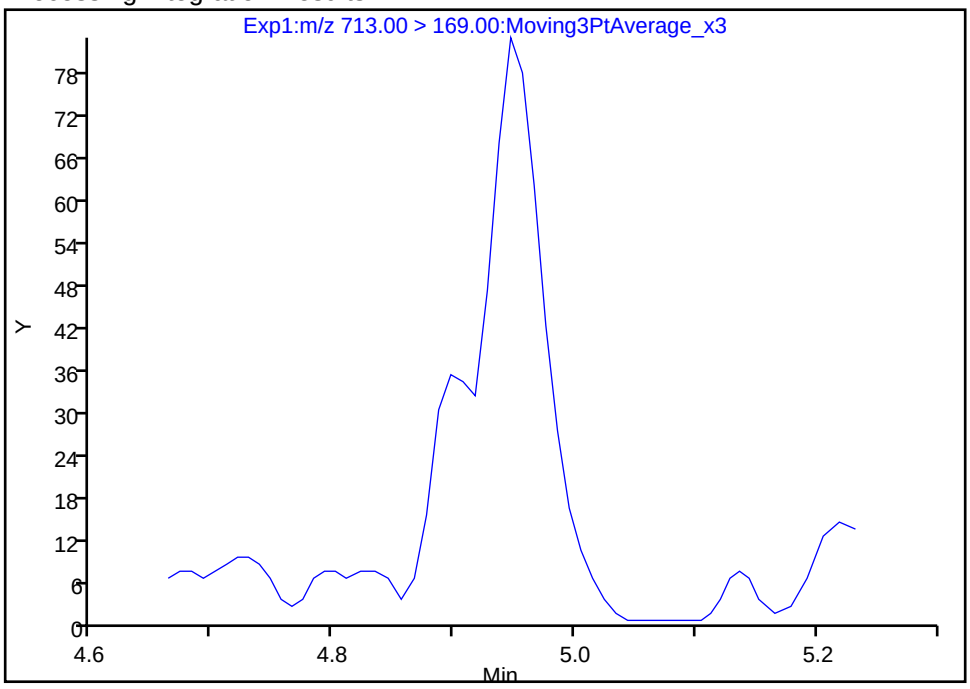
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

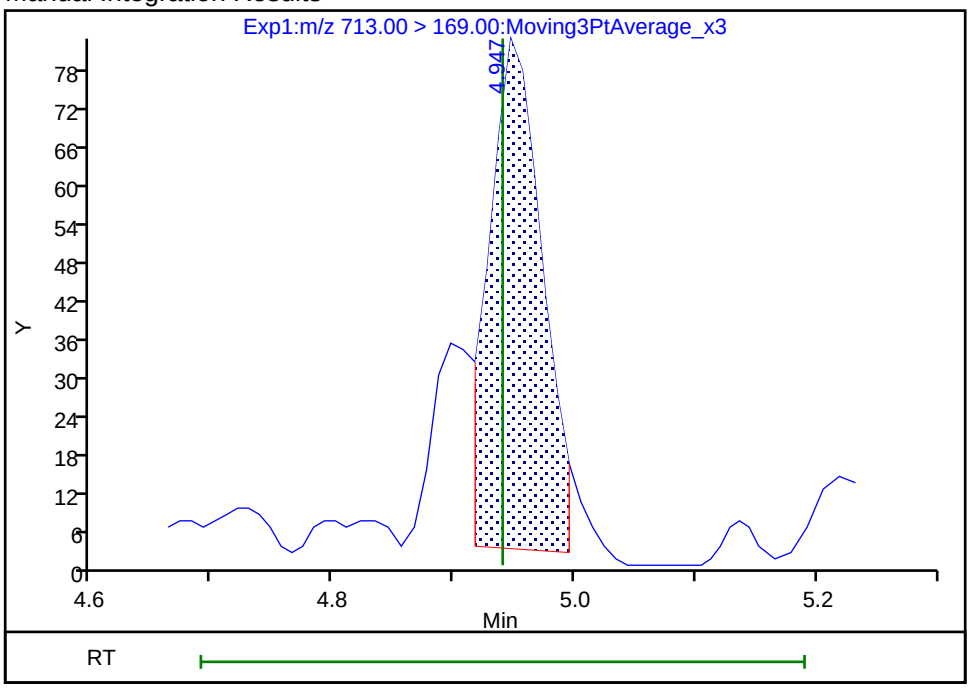
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 239
Amount: 0.001879
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:37:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

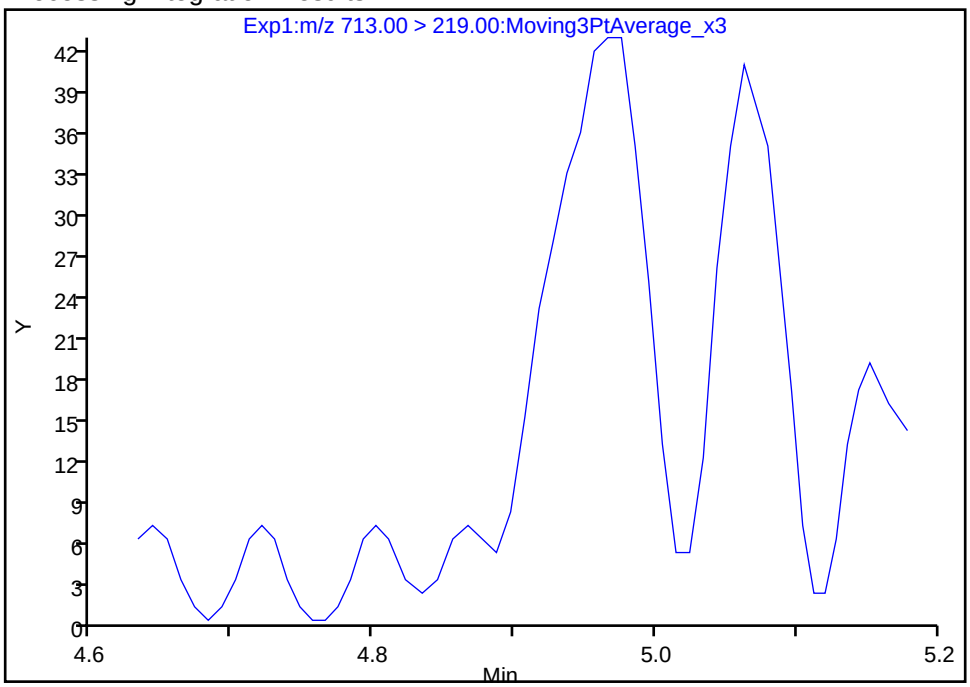
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

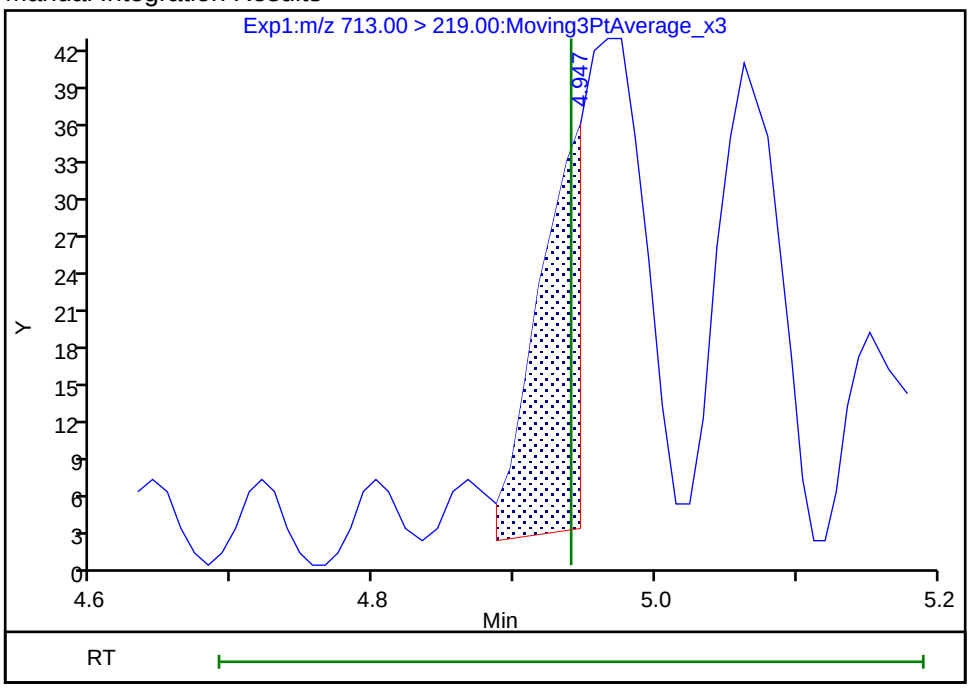
Not Detected
Expected RT: 4.94

Processing Integration Results




Manual Integration Results

RT: 4.95
Area: 66
Amount: 0.001879
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:37:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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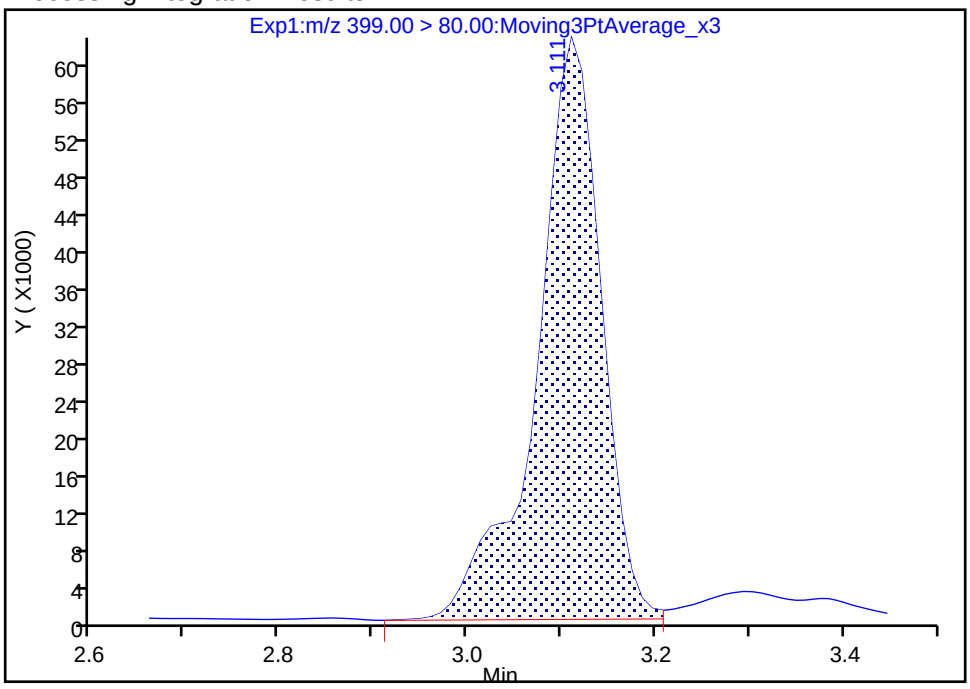
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

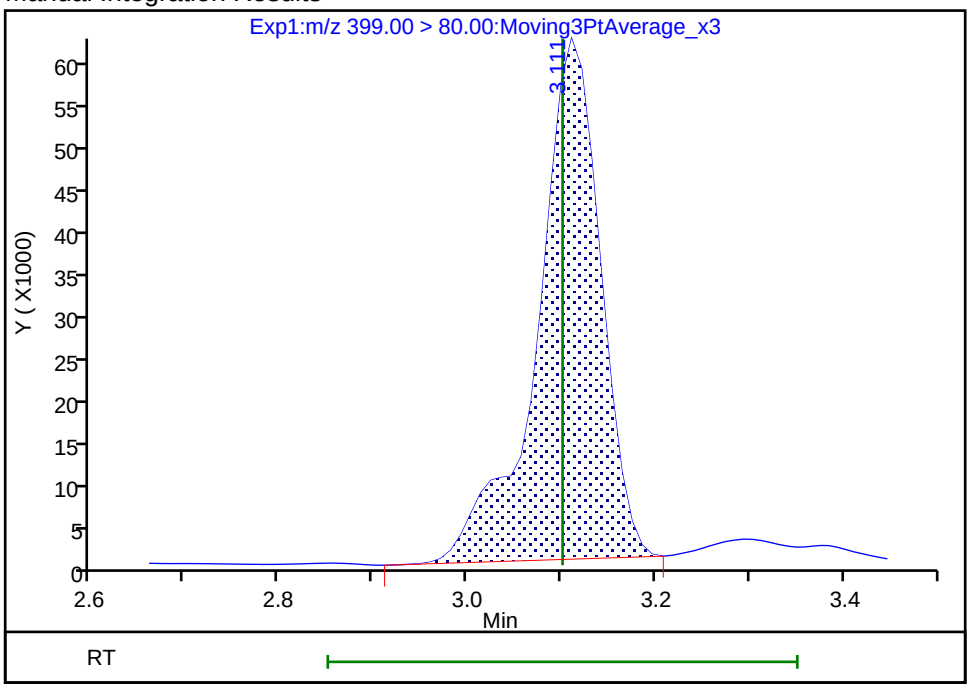
Processing Integration Results

RT: 3.11
Area: 296550
Amount: 0.250923
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 288408
Amount: 0.245937
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:33:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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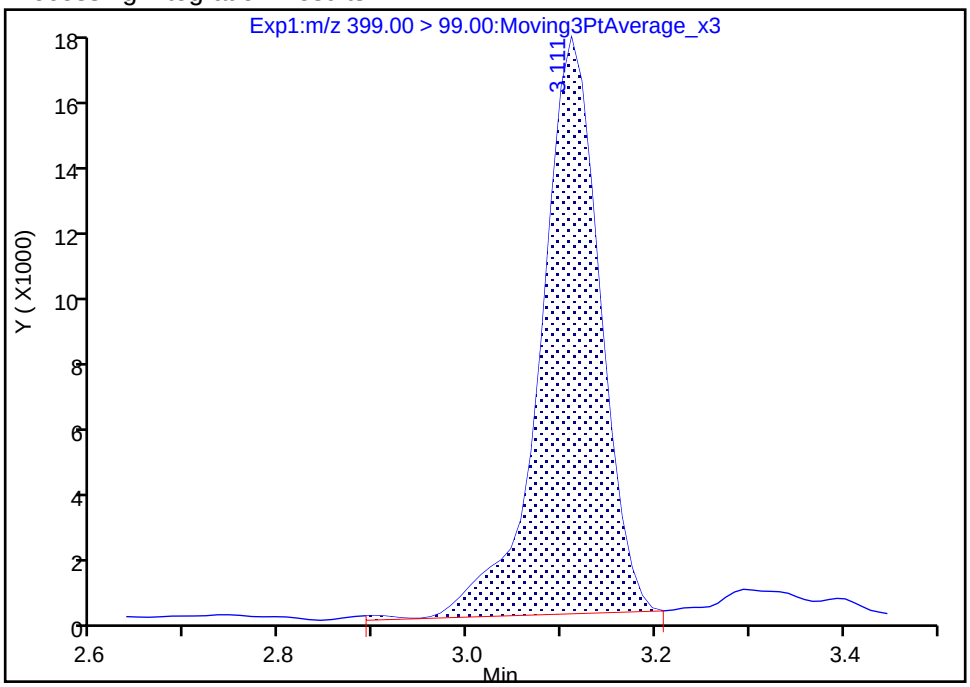
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

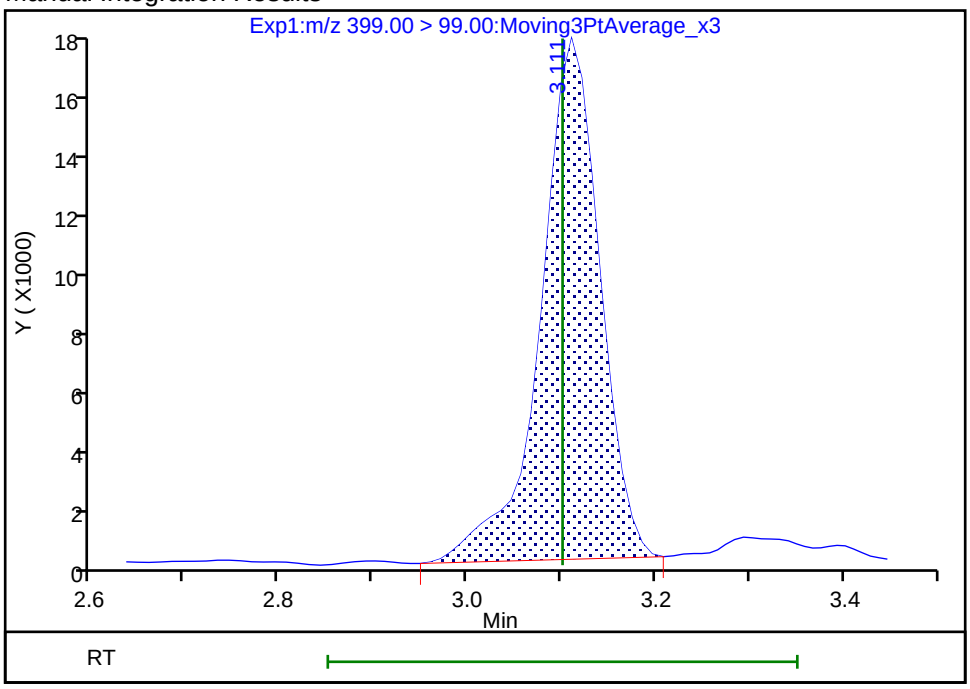
Processing Integration Results

RT: 3.11
Area: 76140
Amount: 0.250923
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 75841
Amount: 0.245937
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:33:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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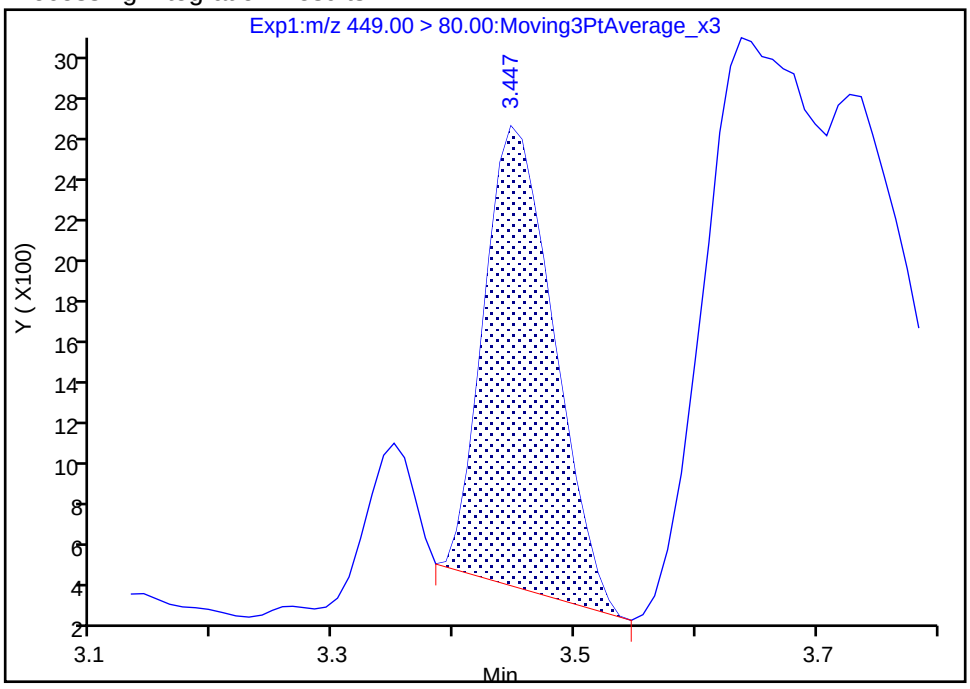
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

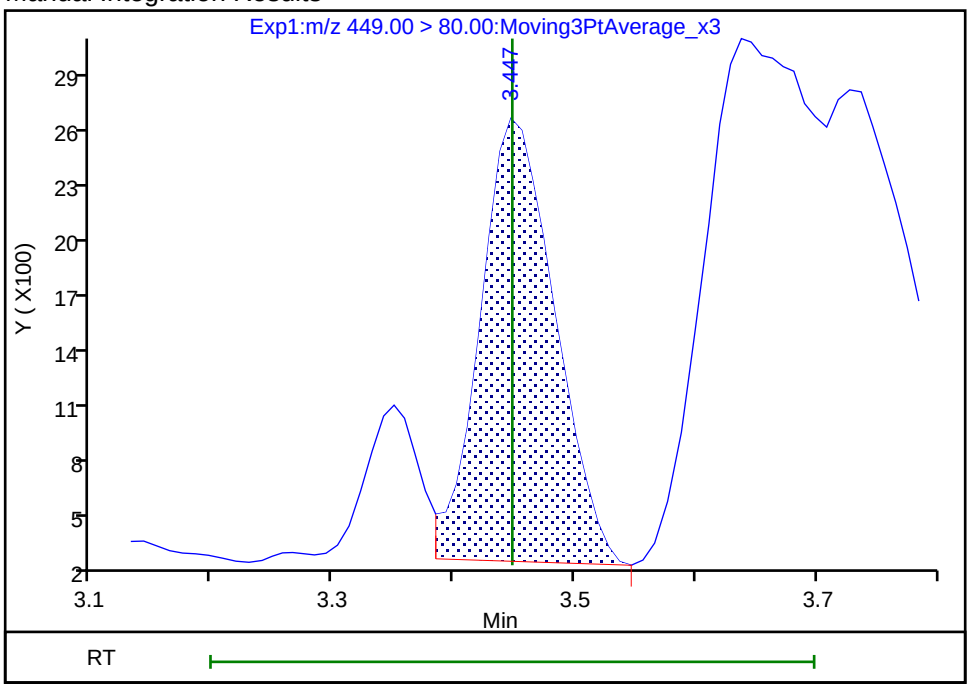
Processing Integration Results

RT: 3.45
Area: 9132
Amount: 0.009465
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 10302
Amount: 0.010677
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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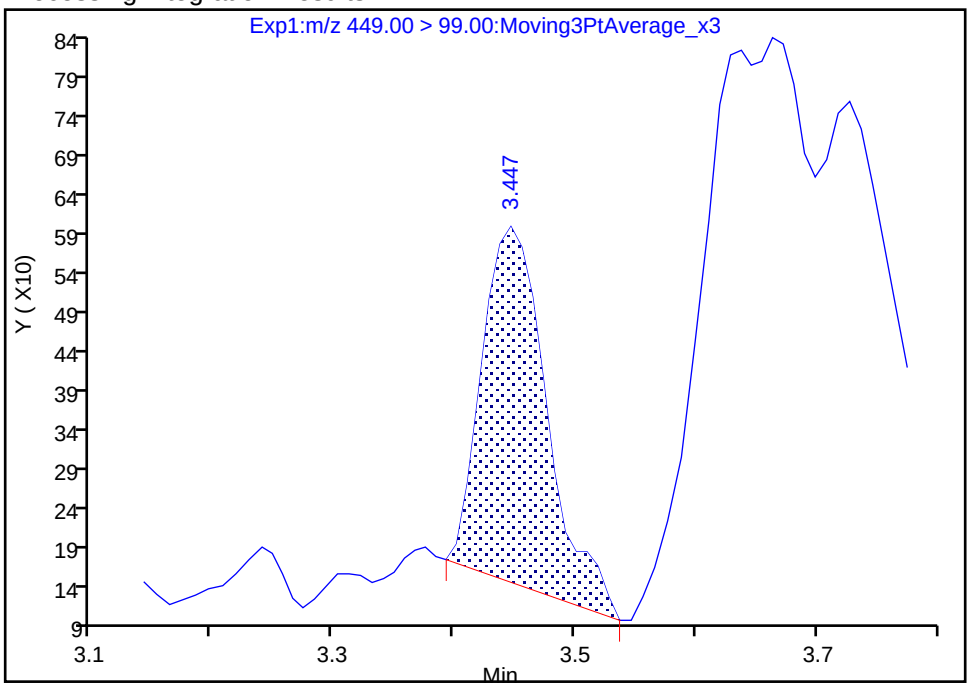
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

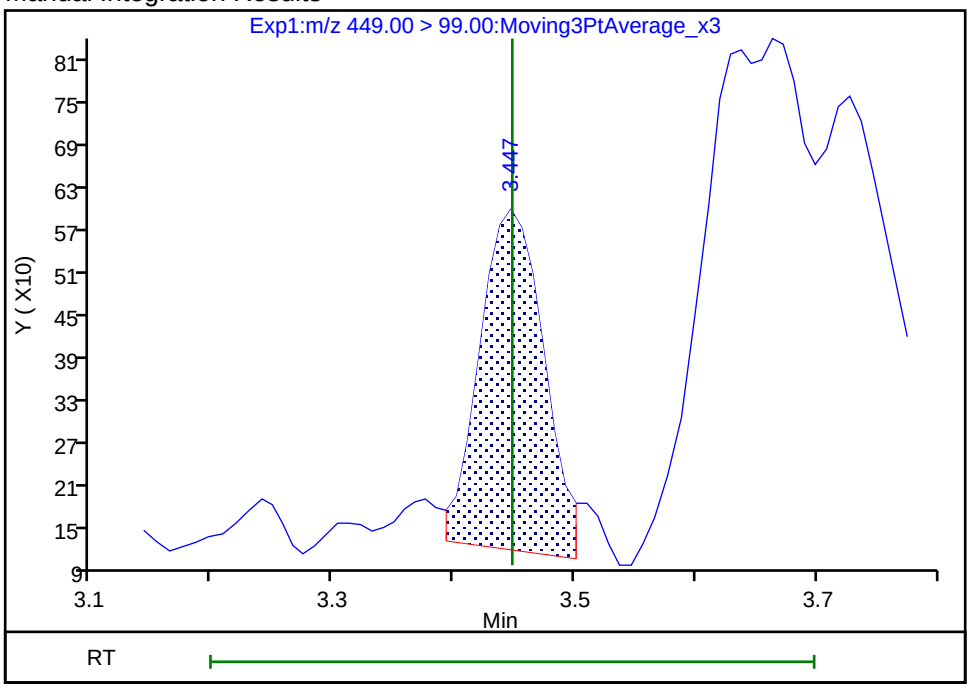
Processing Integration Results

RT: 3.45
Area: 1689
Amount: 0.009465
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 1758
Amount: 0.010677
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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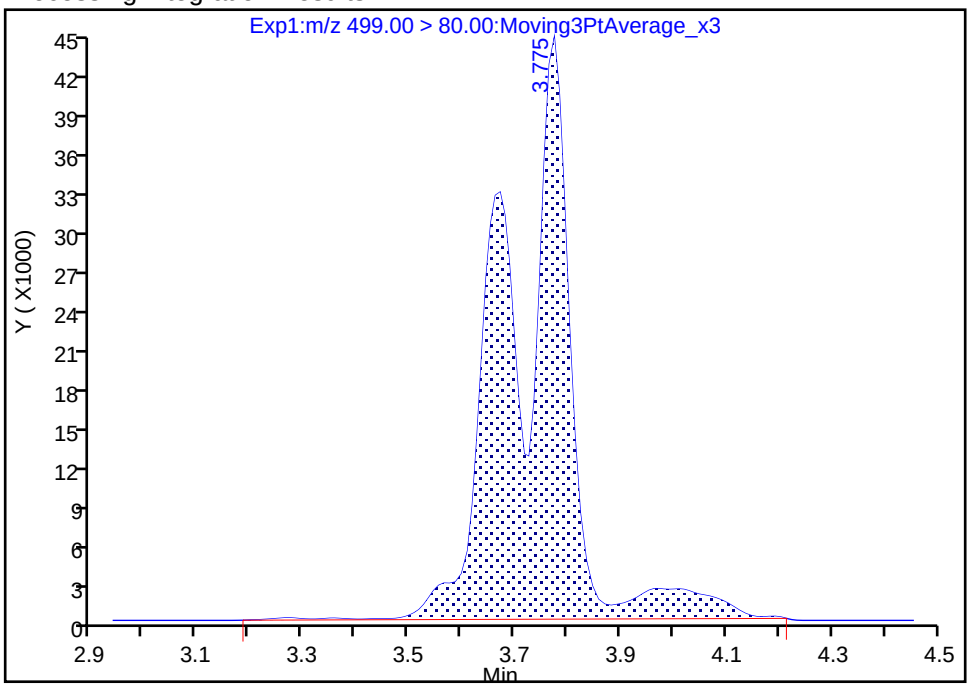
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

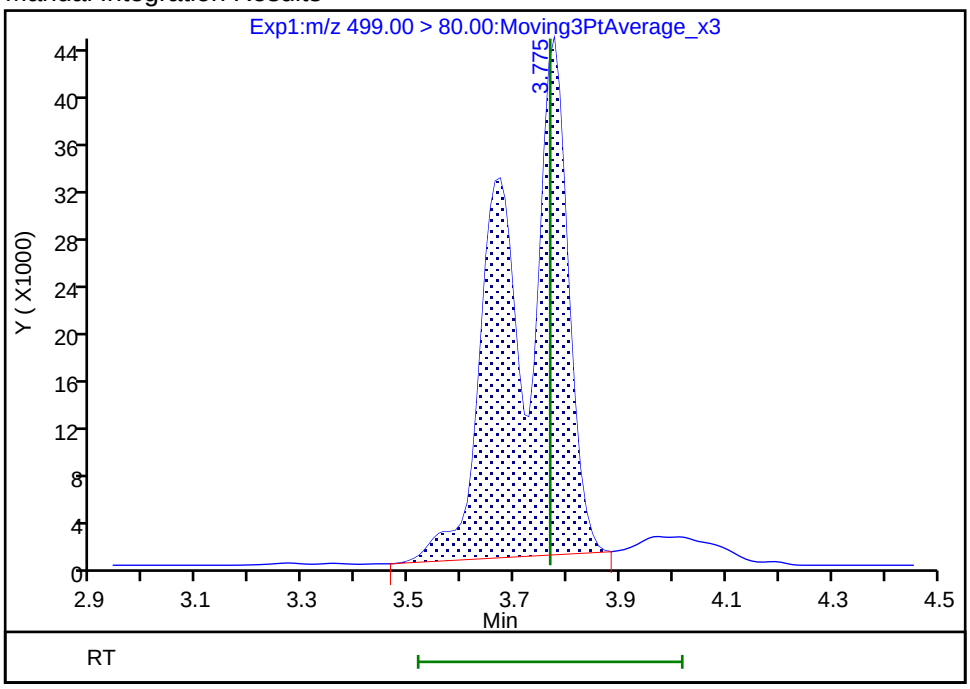
Processing Integration Results

RT: 3.78
Area: 369849
Amount: 0.440398
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 327883
Amount: 0.390427
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

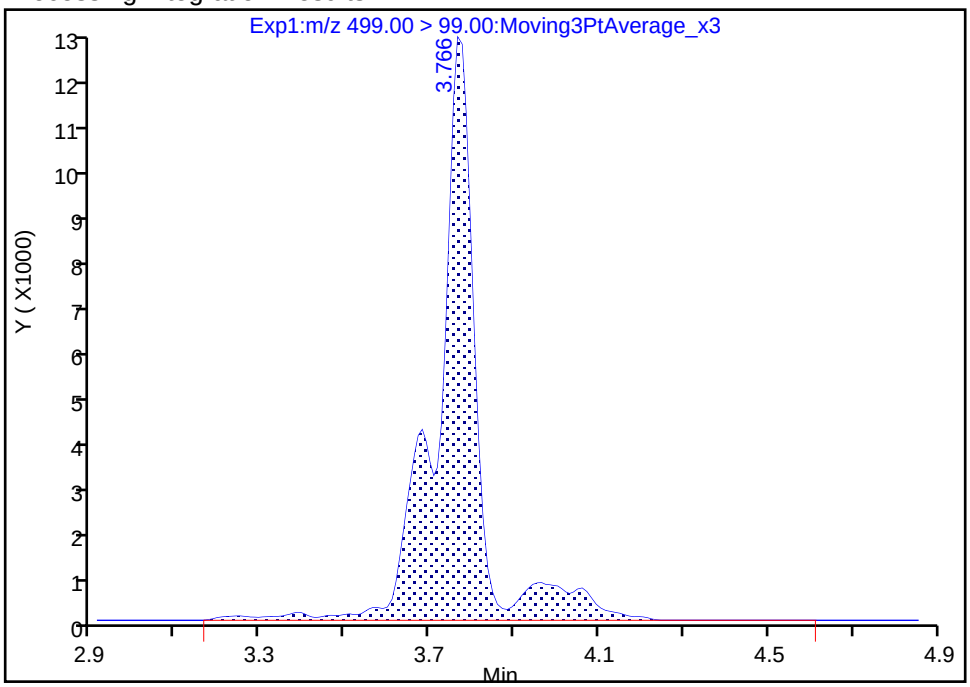
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

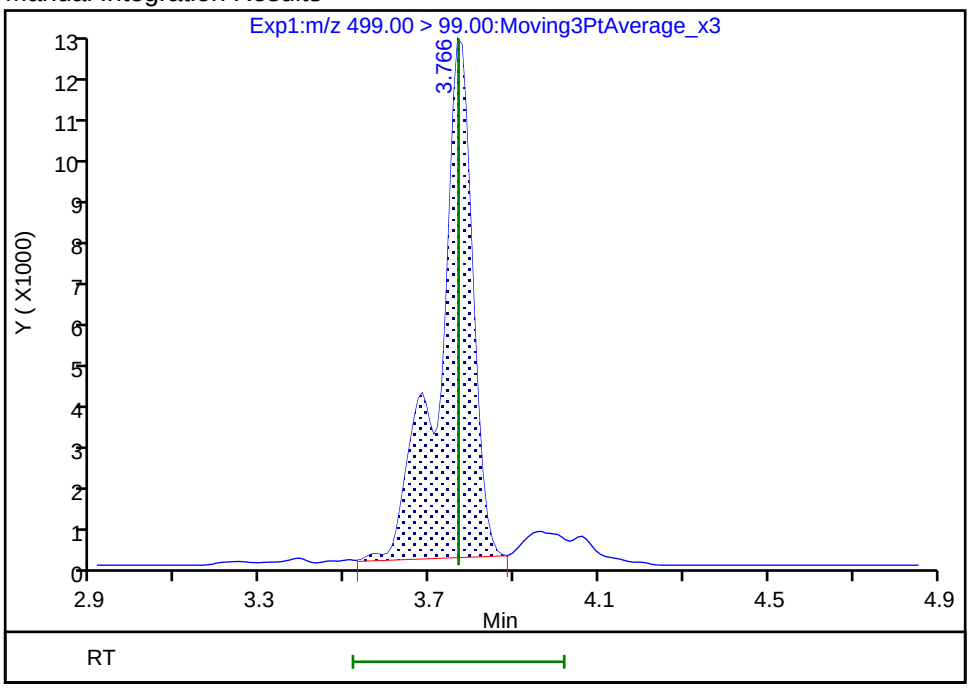
Processing Integration Results

RT: 3.77
Area: 81579
Amount: 0.440398
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 67778
Amount: 0.390427
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:34:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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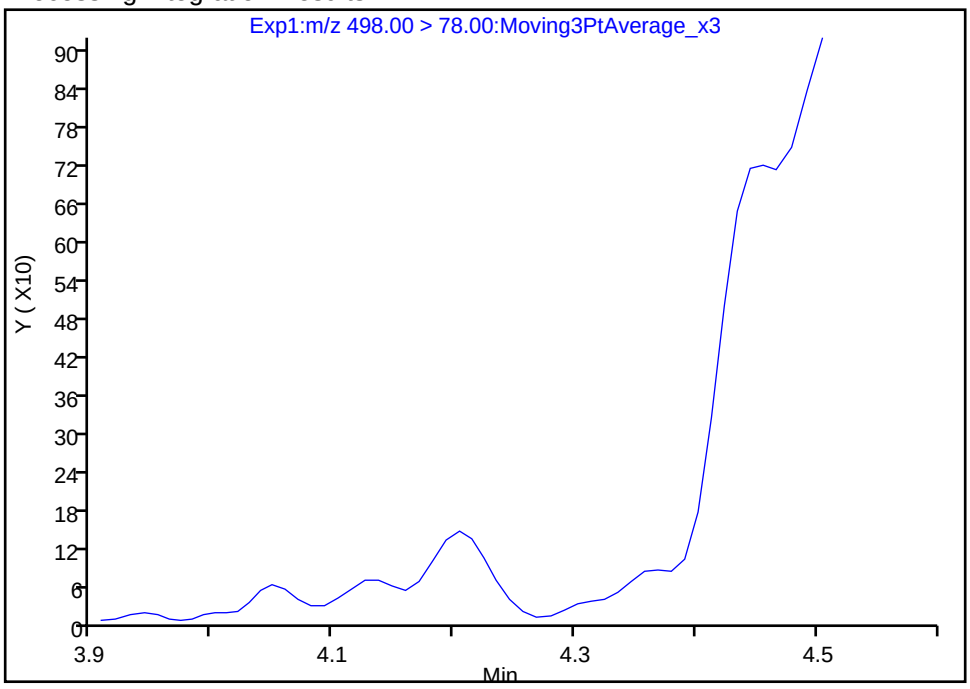
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

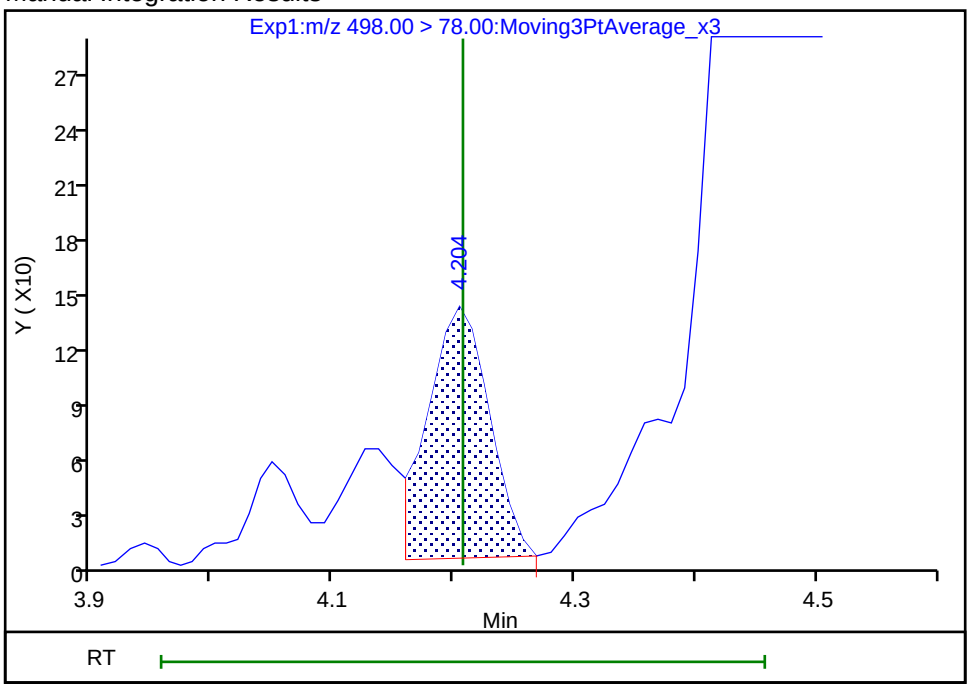
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.20
Area: 476
Amount: 0.000380
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:35:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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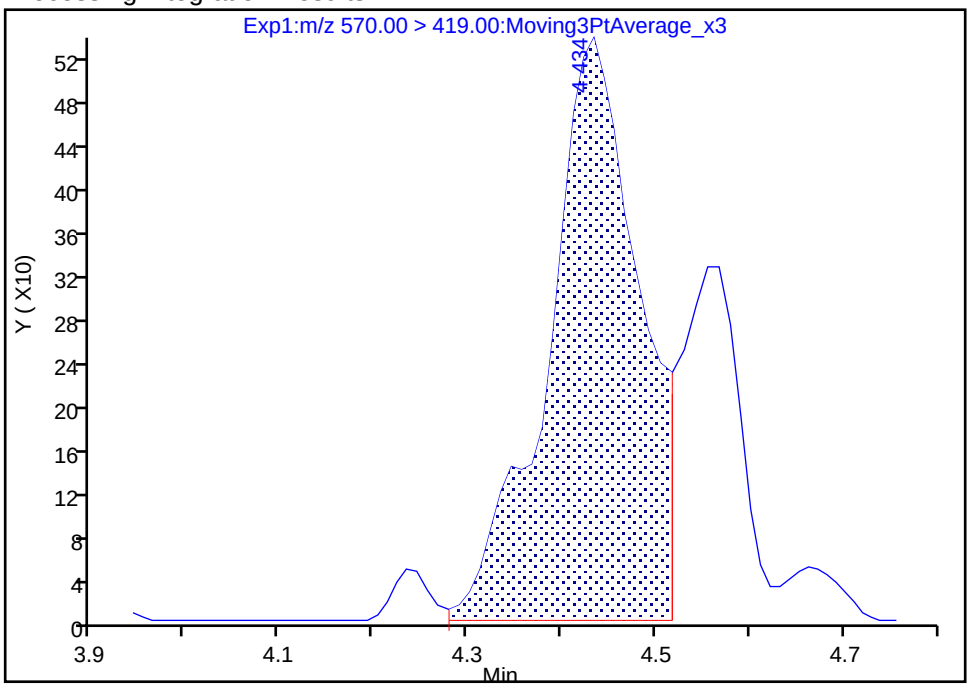
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

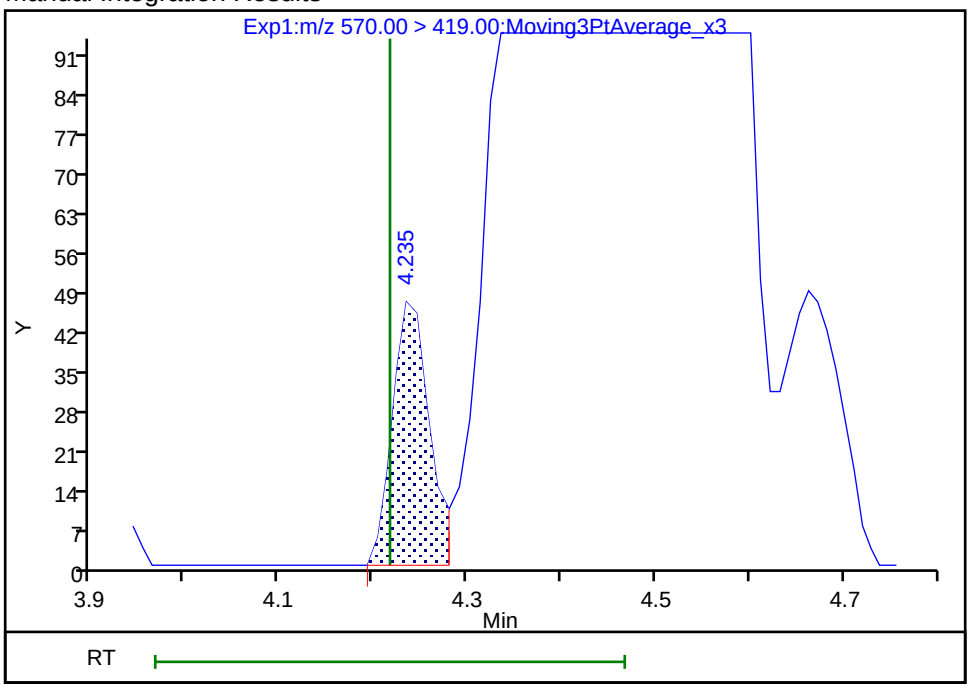
Processing Integration Results

RT: 4.43
Area: 3580
Amount: 0.032104
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 126
Amount: 0.001130
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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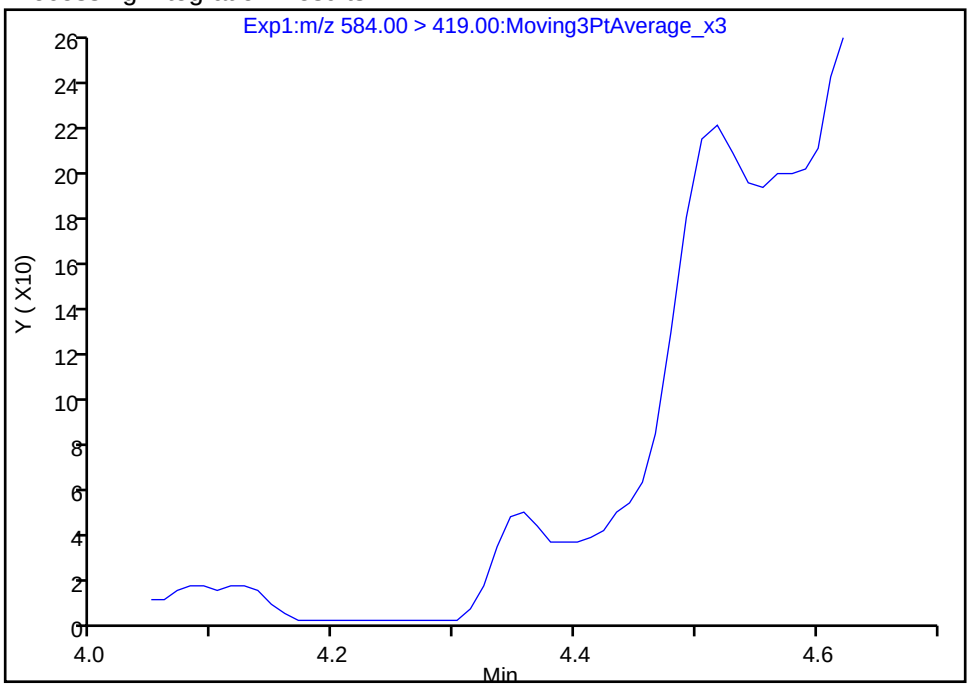
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

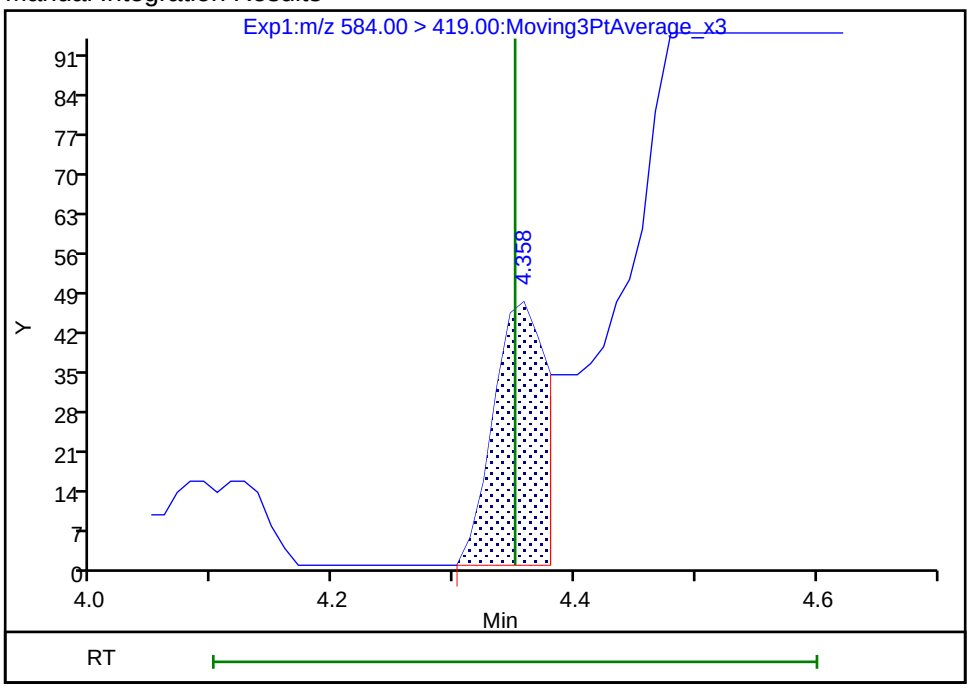
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 134
Amount: 0.001250
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:36:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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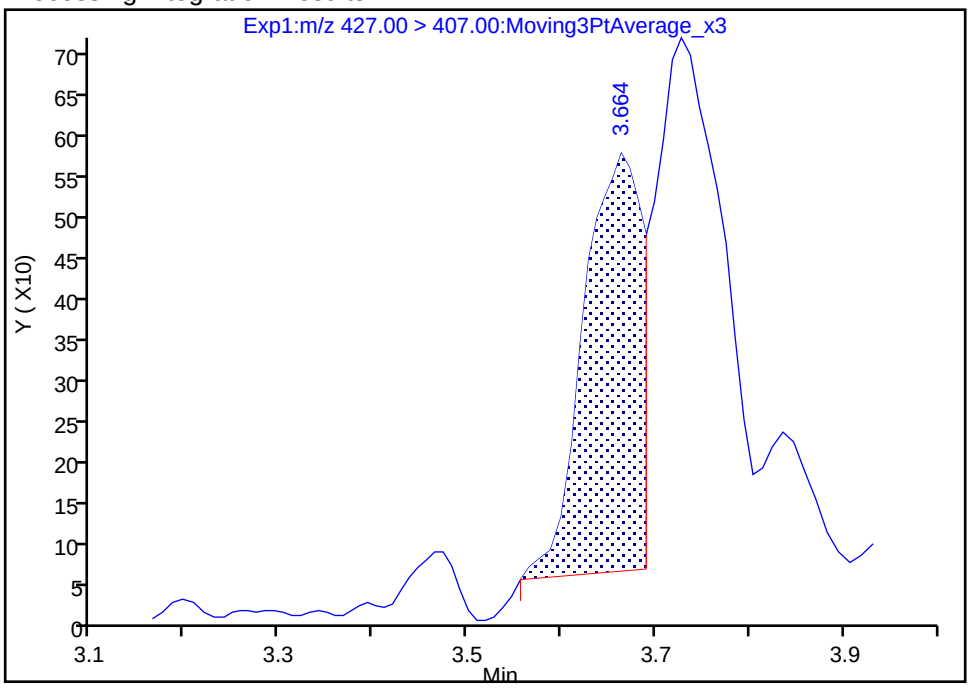
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

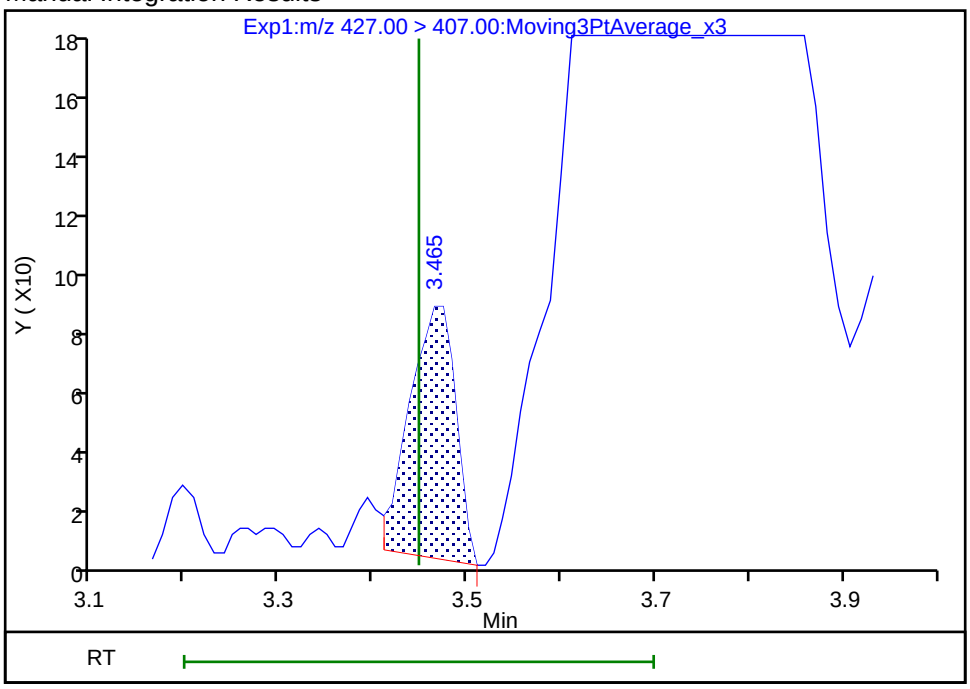
Processing Integration Results

RT: 3.66
Area: 2152
Amount: 0.009530
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 277
Amount: 0.001227
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:33:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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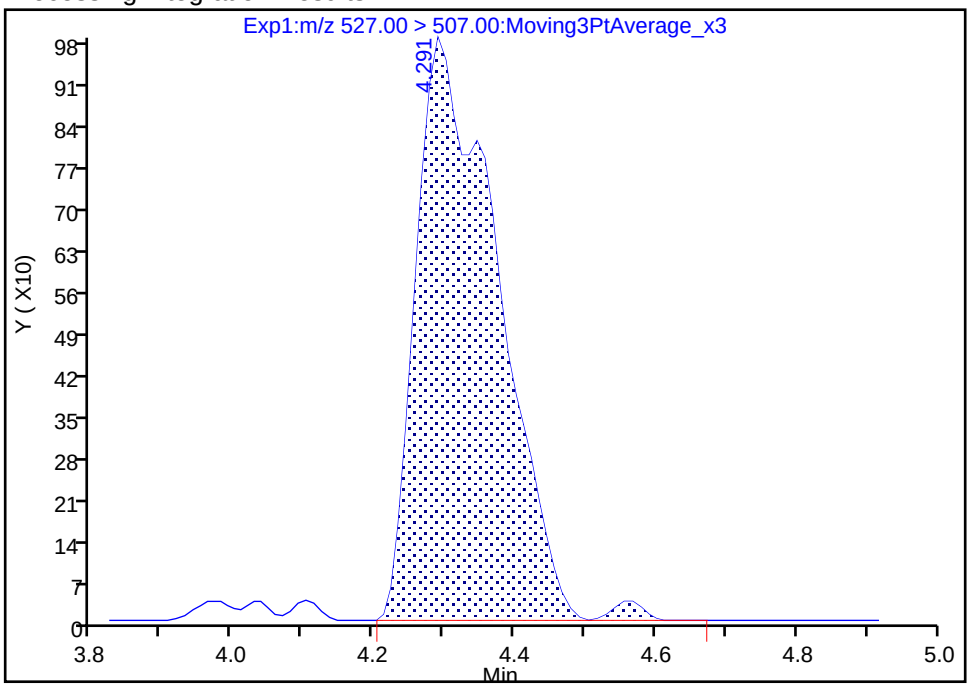
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

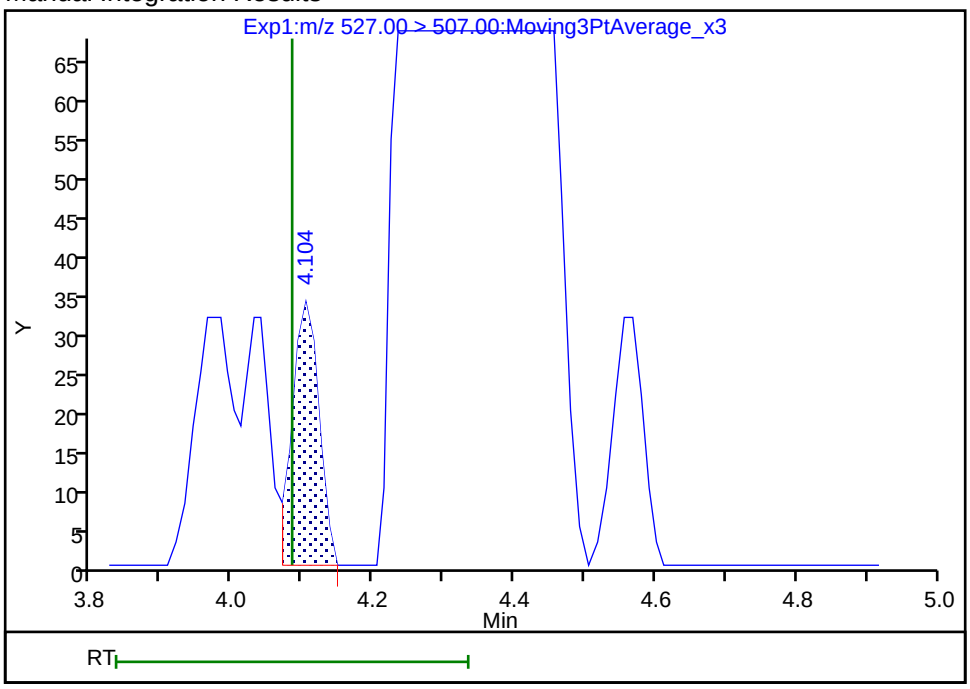
Processing Integration Results

RT: 4.29
Area: 7995
Amount: 0.045761
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 87
Amount: 0.000498
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:35:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

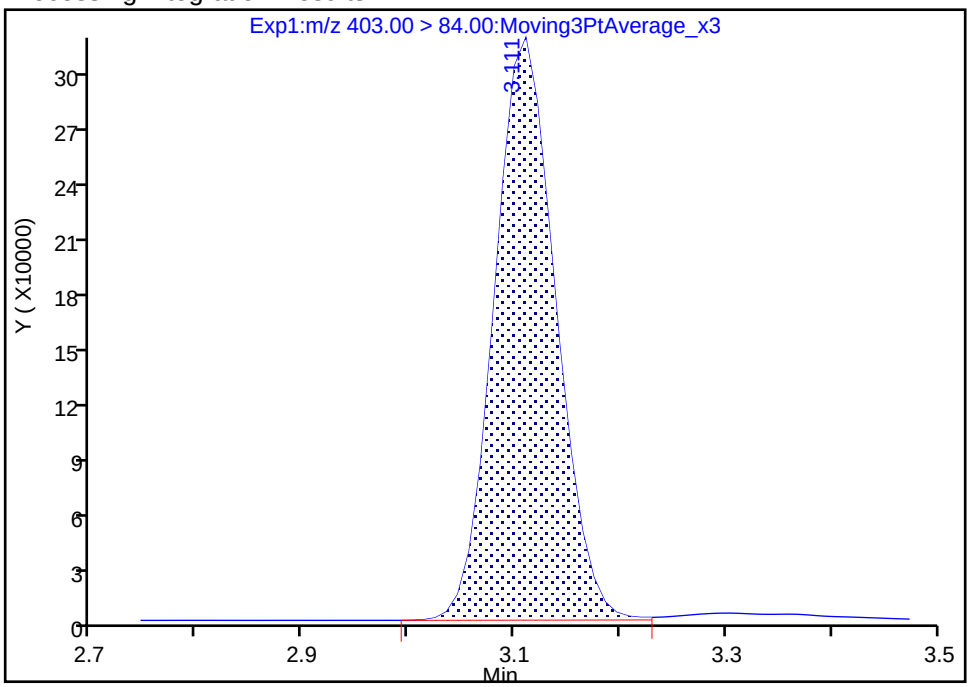
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

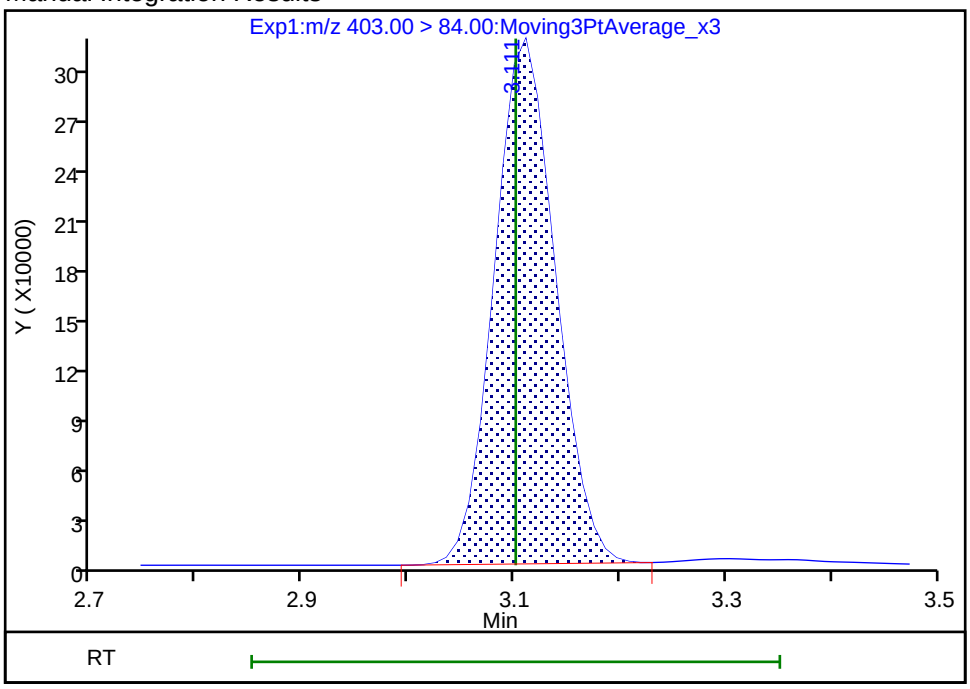
Processing Integration Results

RT: 3.11
Area: 1271130
Amount: 1.134513
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1261289
Amount: 1.125729
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 15:01:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

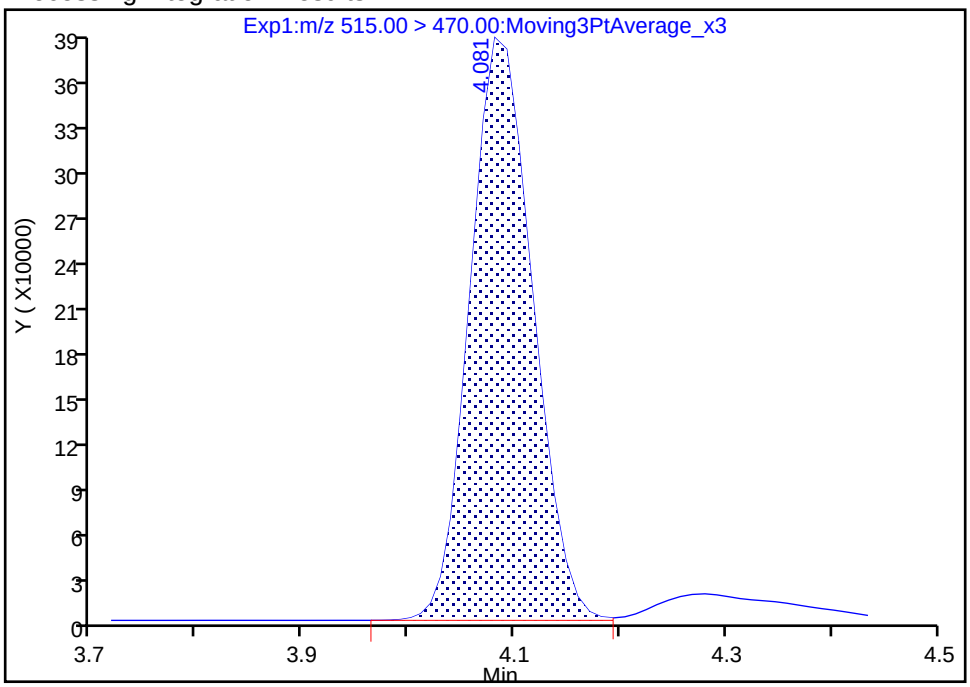
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

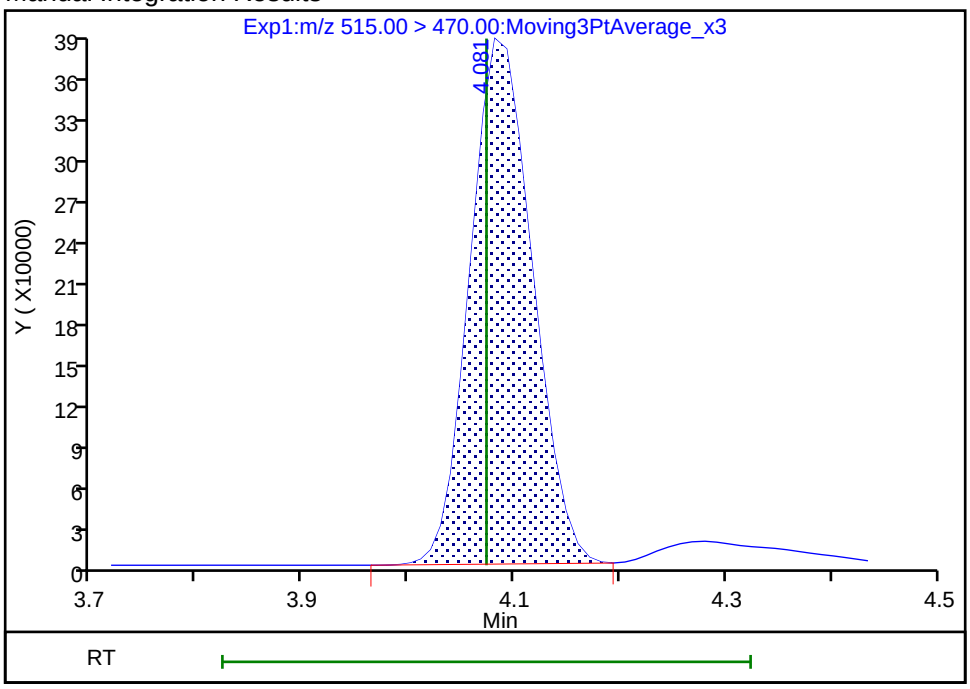
Processing Integration Results

RT: 4.08
Area: 1574900
Amount: 1.139147
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1563992
Amount: 1.131257
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 15:02:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

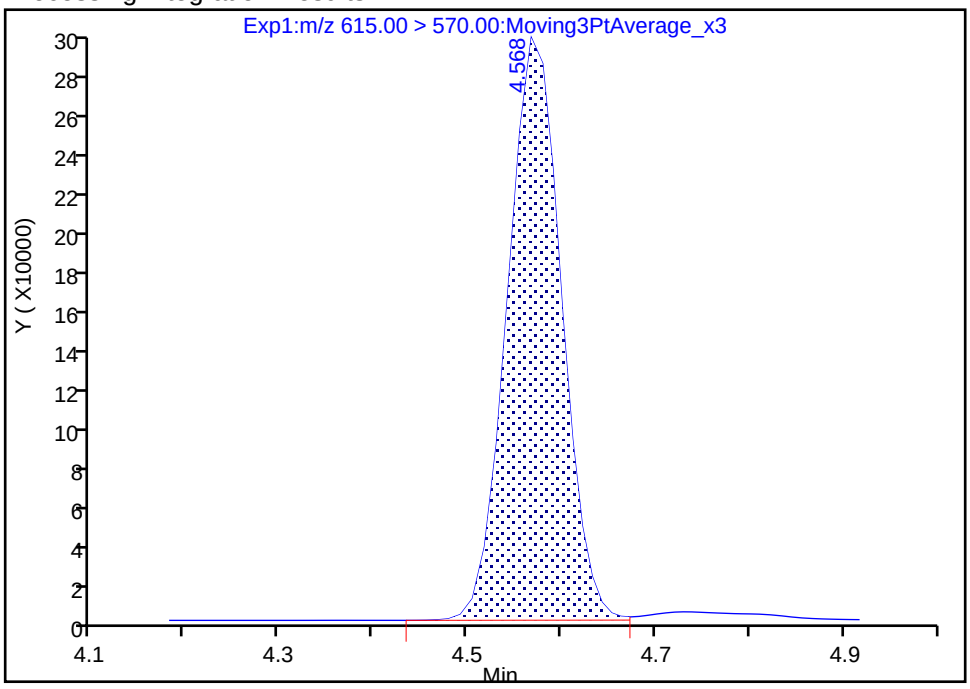
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

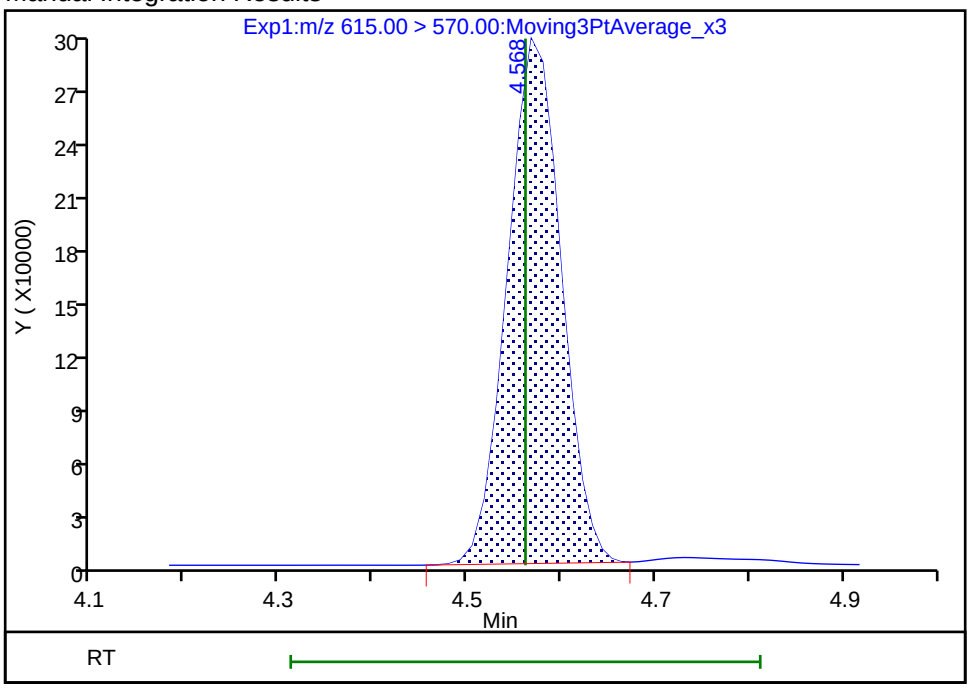
Processing Integration Results

RT: 4.57
Area: 1168346
Amount: 1.007997
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 1157713
Amount: 0.998823
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 15:02:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

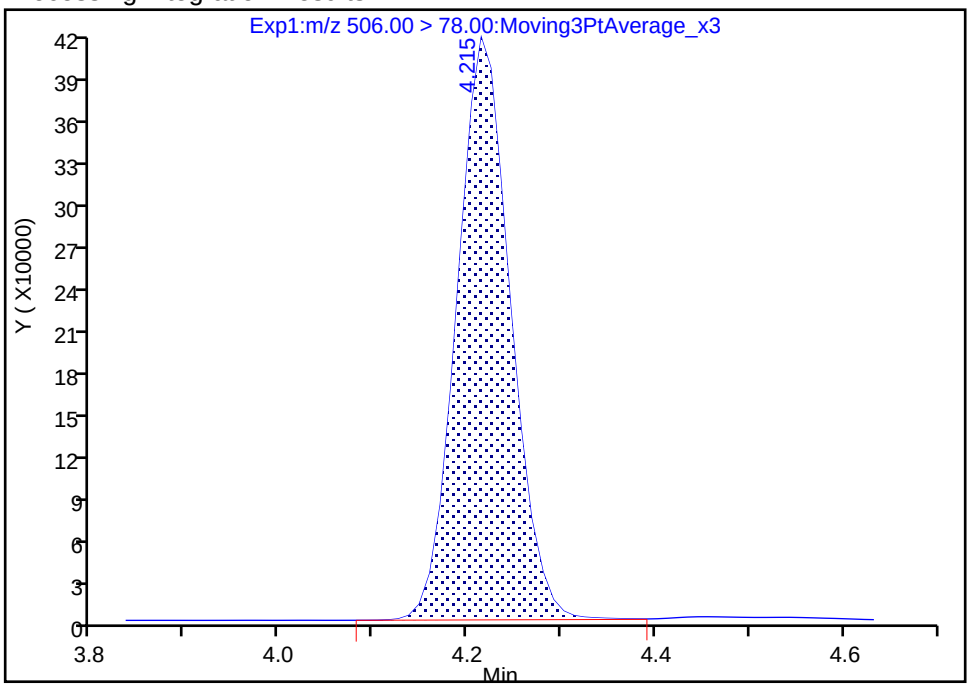
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

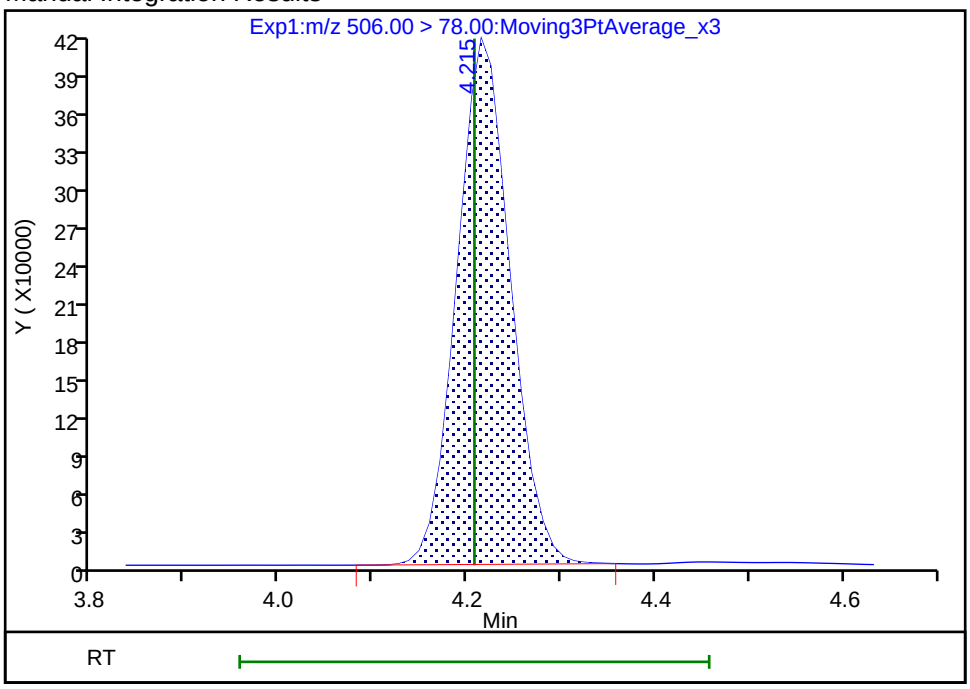
Processing Integration Results

RT: 4.21
Area: 1654484
Amount: 1.240704
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1648086
Amount: 1.235906
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 15:02:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

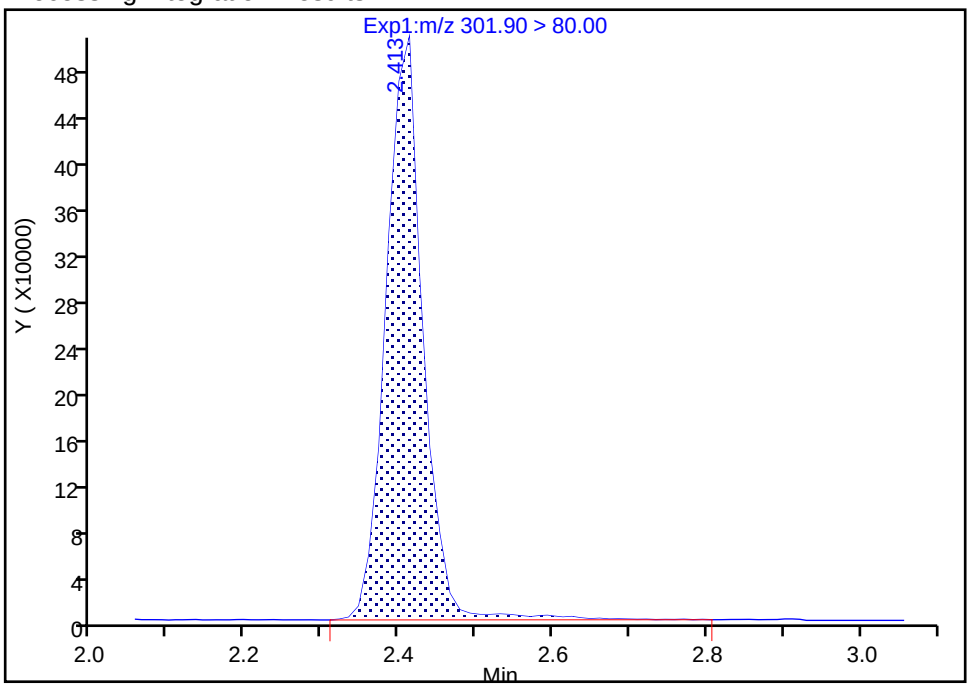
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A24.d | | | | |
| Injection Date: | 03-Nov-2021 15:55:02 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246027-A-11-A | Lab Sample ID: | 200-246027-11 | | |
| Client ID: | MH-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

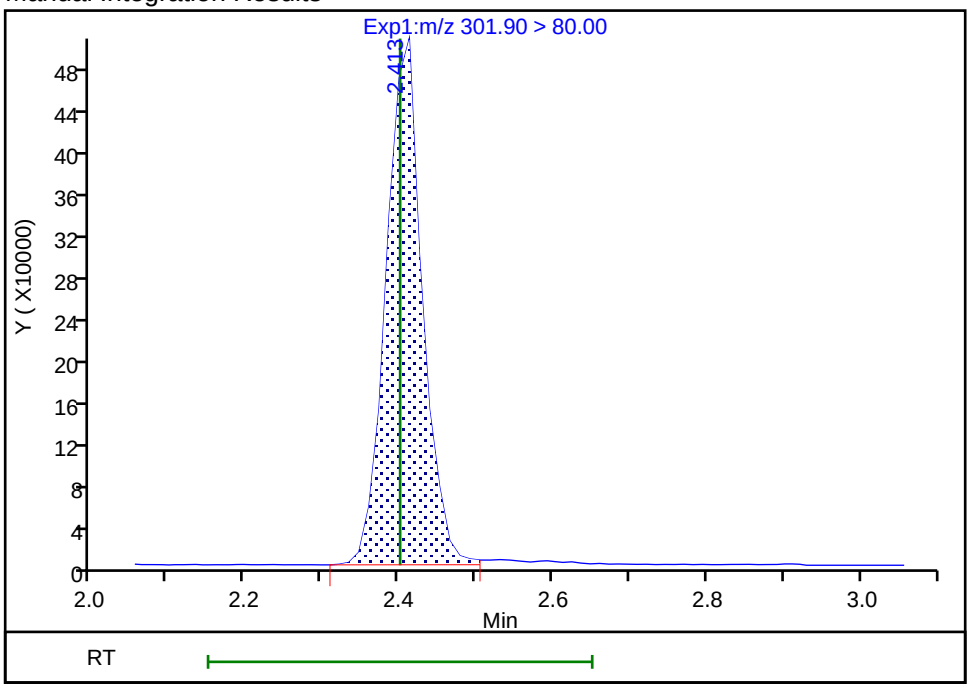
Processing Integration Results

RT: 2.41
Area: 1684694
Amount: 1.092382
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1651612
Amount: 1.070931
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 10:31:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 200-173158/2 | PA211027ICAL02.d |
| Level 2 | IC 200-173158/3 | PA211027ICAL03.d |
| Level 3 | IC 200-173158/4 | PA211027ICAL04.d |
| Level 4 | ICIS 200-173158/5 | PA211027ICAL05.d |
| Level 5 | IC 200-173158/6 | PA211027ICAL06.d |
| Level 6 | IC 200-173158/7 | PA211027ICAL07.d |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 1.0010 0.8637 | 1.0194 | 0.9824 | 0.9270 | 0.8797 | AveID | | 0.9456 | | | | 6.9 | | 20.0 | | | |
| Perfluoropentanoic acid (PFPeA) | 1.0316 0.9193 | 1.0493 | 1.0507 | 0.9910 | 0.9684 | AveID | | 1.0017 | | | | 5.2 | | 20.0 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 1.1253 0.9712 | 1.1608 | 1.1562 | 1.0183 | 0.9766 | AveID | | 1.0681 | | | | 8.4 | | 20.0 | | | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | 1.9796 1.9803 | 2.3311 | 2.2324 | 2.2408 | 2.0067 | AveID | | 2.1285 | | | | 7.4 | | 20.0 | | | |
| Perfluorohexanoic acid (PFHxA) | 1.1108 0.9269 | 1.1190 | 1.0106 | 0.9610 | 0.9566 | AveID | | 1.0142 | | | | 8.1 | | 20.0 | | | |
| Perfluoropentanesulfonic acid (PFPeS) | 1.2972 1.1273 | 1.2654 | 1.2281 | 1.1444 | 1.1629 | AveID | | 1.2042 | | | | 5.8 | | 20.0 | | | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | 5.0231 3.6768 | 4.4979 | 4.4070 | 4.5307 | 5.0151 | AveID | | 4.5251 | | | | 10.9 | | 20.0 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 1.2600 1.0049 | 1.1681 | 1.1115 | 1.0204 | 1.0318 | AveID | | 1.0994 | | | | 9.1 | | 20.0 | | | |
| Perfluoroheptanoic acid (PFHpA) | 1.1090 0.9340 | 1.1113 | 1.0909 | 0.9787 | 0.9754 | AveID | | 1.0332 | | | | 7.7 | | 20.0 | | | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 3.7435 3.0887 | 3.7459 | 3.7716 | 3.2650 | 3.3852 | AveID | | 3.5000 | | | | 8.4 | | 20.0 | | | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.3227 1.1403 | 1.3367 | 1.3294 | 1.1546 | 1.1961 | AveID | | 1.2466 | | | | 7.4 | | 20.0 | | | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.2228 1.1860 | 1.3236 | 1.3531 | 1.2548 | 1.2682 | AveID | | 1.2681 | | | | 4.9 | | 20.0 | | | |
| Perfluorooctanoic acid (PFOA) | 1.1617 0.9611 | 1.1525 | 1.1106 | 1.0097 | 0.9849 | AveID | | 1.0634 | | | | 8.3 | | 20.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 1.1259 0.9935 | 1.2065 | 1.1576 | 1.0258 | 1.0010 | AveID | | 1.0851 | | | | 8.3 | | 20.0 | | | |
| Perfluorononanoic acid (PFNA) | 1.1030 0.8731 | 1.0824 | 0.9994 | 0.8920 | 0.9201 | AveID | | 0.9783 | | | | 10.1 | | 20.0 | | | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | 1.7265 1.4677 | 1.7405 | 1.6913 | 1.5866 | 1.5955 | AveID | | 1.6347 | | | | 6.4 | | 20.0 | | | |
| Perfluorononanesulfonic acid (PFNS) | 0.8887 0.7894 | 0.9008 | 0.8628 | 0.8148 | 0.8146 | AveID | | 0.8452 | | | | 5.4 | | 20.0 | | | |
| Perfluorodecanoic acid (PFDA) | 1.0373 0.9076 | 1.1361 | 1.0248 | 0.9966 | 0.9265 | AveID | | 1.0048 | | | | 8.2 | | 20.0 | | | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.8055 0.7780 | 0.9016 | 0.9227 | 0.8343 | 0.7772 | AveID | | 0.8365 | | | | 7.5 | | 20.0 | | | |
| Perfluorooctanesulfonamide (PFOSA) | 0.9888 0.8861 | 0.9872 | 0.9895 | 0.9199 | 0.9267 | AveID | | 0.9497 | | | | 4.7 | | 20.0 | | | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.8343 0.7529 | 0.7862 | 0.7751 | 0.7636 | 0.8014 | AveID | | 0.7856 | | | | 3.7 | | 20.0 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 0.6747 0.5976 | 0.7209 | 0.7049 | 0.6250 | 0.6199 | AveID | | 0.6572 | | | | 7.6 | | 20.0 | | | |
| Perfluoroundecanoic acid (PFUnA) | 1.1440 0.9913 | 1.1696 | 1.1554 | 0.9773 | 0.9585 | AveID | | 1.0660 | | | | 9.4 | | 20.0 | | | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.0016 0.7592 | 0.9694 | 0.8520 | 0.7905 | 0.7687 | AveID | | 0.8569 | | | | 12.3 | | 20.0 | | | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | 2.0381 1.7962 | 1.9759 | 2.0480 | 1.8077 | 1.9172 | AveID | | 1.9305 | | | | 5.7 | | 20.0 | | | |
| Perfluorododecanoic acid (PFDoA) | 1.0163 0.8830 | 1.0775 | 1.0299 | 1.0096 | 0.8581 | AveID | | 0.9791 | | | | 9.0 | | 20.0 | | | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | 0.3704 0.3688 | 0.4172 | 0.4130 | 0.3862 | 0.3633 | AveID | | 0.3865 | | | | 6.1 | | 20.0 | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 0.2549 0.2190 | 0.2553 | 0.2493 | 0.2343 | 0.2375 | AveID | | 0.2417 | | | | 5.9 | | 20.0 | | | |
| Perfluorotridecanoic acid (PFTriA) | 0.9606 0.7593 | 0.9083 | 0.8609 | 0.8265 | 0.7490 | AveID | | 0.8441 | | | | 9.8 | | 20.0 | | | |
| Perfluorotetradecanoic acid (PFTeA) | 0.1648 0.1356 | 0.1762 | 0.1606 | 0.1596 | 0.1502 | AveID | | 0.1578 | | | | 8.7 | | 20.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | 1.1642 0.7976 | 1.0272 | 0.8948 | 0.8953 | 0.8757 | L2ID | 0.0160 | 0.8530 | | | | | | | 0.9980 | | 0.9900 |
| Perfluoro-n-octadecanoic acid (PFODA) | 0.8726 0.7520 | 0.9325 | 0.8831 | 0.8419 | 0.7780 | AveID | | 0.8433 | | | | 8.0 | | 20.0 | | | |
| 13C4 PFBA | 1.0666 1.0336 | 0.9997 | 1.0118 | 0.9535 | 1.0081 | Ave | | 1.0122 | | | | 3.7 | | 50.0 | | | |
| 13C5 PFPeA | 0.8502 0.8920 | 0.8192 | 0.8582 | 0.8443 | 0.8525 | Ave | | 0.8527 | | | | 2.8 | | 50.0 | | | |
| 13C3 PFBS | 1.1519 1.2041 | 1.1390 | 1.1301 | 1.1351 | 1.1628 | Ave | | 1.1538 | | | | 2.4 | | 50.0 | | | |
| M2-4:2 FTS | 0.0919 0.0895 | 0.0879 | 0.0888 | 0.0803 | 0.0892 | Ave | | 0.0879 | | | | 4.5 | | 50.0 | | | |
| 13C2 PFHxA | 0.8949 0.9176 | 0.8839 | 0.8921 | 0.8937 | 0.8851 | Ave | | 0.8946 | | | | 1.4 | | 50.0 | | | |
| 13C3 HFPO-DA | 0.0241 0.0273 | 0.0269 | 0.0228 | 0.0204 | 0.0199 | Ave | | 0.0236 | | | | 13.4 | | 50.0 | | | |
| 18O2 PFHxS | 0.8258 0.8648 | 0.8500 | 0.8292 | 0.8338 | 0.8259 | Ave | | 0.8382 | | | | 1.9 | | 50.0 | | | |
| 13C4 PFHpA | 0.9700 0.9494 | 0.9401 | 0.9303 | 0.9239 | 0.9366 | Ave | | 0.9417 | | | | 1.7 | | 50.0 | | | |
| M2-6:2 FTS | 0.1337 0.1316 | 0.1291 | 0.1341 | 0.1340 | 0.1306 | Ave | | 0.1322 | | | | 1.6 | | 50.0 | | | |
| 13C4 PFOA | 1.0418 1.0309 | 1.0369 | 1.0020 | 1.0234 | 1.0381 | Ave | | 1.0289 | | | | 1.4 | | 50.0 | | | |
| 13C4 PFOS | 0.6024 0.6268 | 0.6200 | 0.5819 | 0.6090 | 0.5945 | Ave | | 0.6058 | | | | 2.7 | | 50.0 | | | |
| 13C5 PFNA | 1.0139 1.0275 | 1.0011 | 1.0064 | 1.0538 | 1.0466 | Ave | | 1.0249 | | | | 2.1 | | 50.0 | | | |
| 13C2 PFDA | 1.0831 1.0559 | 1.0332 | 1.0006 | 1.0093 | 1.0240 | Ave | | 1.0343 | | | | 3.0 | | 50.0 | | | |
| M2-8:2 FTS | 0.1564 0.1502 | 0.1504 | 0.1424 | 0.1439 | 0.1556 | Ave | | 0.1498 | | | | 3.9 | | 50.0 | | | |
| 13C8 FOSA | 0.9824 1.0320 | 0.9982 | 1.0000 | 0.9919 | 0.9814 | Ave | | 0.9977 | | | | 1.9 | | 50.0 | | | |
| d3-NMeFOSAA | 0.0989 0.1074 | 0.1038 | 0.1025 | 0.1004 | 0.0976 | Ave | | 0.1017 | | | | 3.5 | | 50.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 13C2 PFUnA | 0.8118<br>0.7757 | 0.8146 | 0.7662 | 0.8461 | 0.8226 | Ave | | 0.8062 | | | | 3.7 | | 50.0 | | | |
| d5-NEtFOSAA | 0.0919<br>0.0974 | 0.0962 | 0.0940 | 0.0963 | 0.0959 | Ave | | 0.0953 | | | | 2.1 | | 50.0 | | | |
| 13C2 PFDoA | 0.8526<br>0.8936 | 0.8596 | 0.8339 | 0.8449 | 0.9183 | Ave | | 0.8672 | | | | 3.7 | | 50.0 | | | |
| 13C2 PFTeDA | 0.6741<br>0.7103 | 0.6664 | 0.6653 | 0.6566 | 0.6627 | Ave | | 0.6726 | | | | 2.9 | | 50.0 | | | |
| 13C2 PFHxDA | 0.6016<br>0.6097 | 0.5976 | 0.5810 | 0.5845 | 0.5790 | Ave | | 0.5922 | | | | 2.1 | | 50.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 200-173158/2 | PA211027ICAL02.d |
| Level 2 | IC 200-173158/3 | PA211027ICAL03.d |
| Level 3 | IC 200-173158/4 | PA211027ICAL04.d |
| Level 4 | ICIS 200-173158/5 | PA211027ICAL05.d |
| Level 5 | IC 200-173158/6 | PA211027ICAL06.d |
| Level 6 | IC 200-173158/7 | PA211027ICAL07.d |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Perfluorobutanoic acid (PFBA) | | AveID | 71507<br>11507928 | 163340 | 688237 | 1470004 | 2967709 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoropentanoic acid (PFPeA) | | AveID | 58740<br>10570544 | 137765 | 624348 | 1391544 | 2762586 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorobutanesulfonic acid (PFBS) | | AveID | 76739<br>13325047 | 187317 | 799747 | 1699240 | 3359273 | 0.0442<br>8.84 | 0.0884 | 0.442 | 0.884 | 2.21 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | | AveID | 11382<br>2133052 | 30668 | 128177 | 279615 | 559584 | 0.0467<br>9.34 | 0.0934 | 0.467 | 0.934 | 2.34 |
| Perfluorohexanoic acid (PFHxA) | | AveID | 66574<br>10964511 | 158519 | 624268 | 1428398 | 2833227 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoropentanesulfonic acid (PFPeS) | | AveID | 67291<br>11788049 | 161688 | 661381 | 1488551 | 3014762 | 0.0469<br>9.38 | 0.0938 | 0.469 | 0.938 | 2.35 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | | AveID | 8098<br>1294536 | 19398 | 69564 | 153961 | 333546 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorohexanesulfonic acid (PFHxS) | | AveID | 63407<br>10194384 | 144803 | 580723 | 1287587 | 2594885 | 0.0455<br>9.10 | 0.0910 | 0.455 | 0.910 | 2.28 |
| Perfluoroheptanoic acid (PFHpA) | | AveID | 72047<br>11431038 | 167428 | 702653 | 1503783 | 3057092 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | | AveI D | 142266<br>23507218 | 350627 | 1431405 | 3115107 | 6344394 | 0.0471<br>9.42 | 0.0942 | 0.471 | 0.942 | 2.36 |
| Perfluoroheptanesulfonic Acid (PFHpS) | | AveI D | 50800<br>8770862 | 126449 | 509888 | 1113260 | 2265445 | 0.0476<br>9.52 | 0.0952 | 0.476 | 0.952 | 2.38 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | AveI D | 10382<br>1906895 | 25961 | 119105 | 265198 | 525537 | 0.0474<br>9.48 | 0.0948 | 0.474 | 0.948 | 2.37 |
| Perfluorooctanoic acid (PFOA) | | AveI D | 81058<br>12772682 | 191529 | 770517 | 1718391 | 3421460 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorooctanesulfonic acid (PFOS) | | AveI D | 42154<br>7448626 | 111255 | 432797 | 964211 | 1848160 | 0.0464<br>9.28 | 0.0928 | 0.464 | 0.928 | 2.32 |
| Perfluorononanoic acid (PFNA) | | AveI D | 74901<br>11564350 | 173658 | 696392 | 1563242 | 3222609 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | | AveI D | 64917<br>11051728 | 161187 | 635074 | 1497666 | 2958438 | 0.0466<br>9.32 | 0.0932 | 0.466 | 0.932 | 2.33 |
| Perfluorononanesulfonic acid (PFNS) | | AveI D | 34421<br>6122325 | 85933 | 333722 | 792308 | 1555930 | 0.0480<br>9.60 | 0.0960 | 0.480 | 0.960 | 2.40 |
| Perfluorodecanoic acid (PFDA) | | AveI D | 75240<br>12354501 | 188134 | 710000 | 1672723 | 3174577 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | AveI D | 8084<br>1443544 | 20820 | 87150 | 191300 | 387800 | 0.0479<br>9.58 | 0.0958 | 0.479 | 0.958 | 2.40 |
| Perfluorooctanesulfonamide (PFOSA) | | AveI D | 65056<br>11787729 | 157927 | 685105 | 1517479 | 3043484 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | AveI D | 5527<br>1042012 | 13075 | 54995 | 127458 | 261621 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Perfluorodecanesulfonic acid (PFDS) | | AveID | 26240<br>4654579 | 69056 | 273773 | 610213 | 1188911 | 0.0482<br>9.64 | 0.0964 | 0.482 | 0.964 | 2.41 |
| Perfluoroundecanoic acid (PFUnA) | | AveID | 62199<br>9912583 | 152692 | 612929 | 1375247 | 2638255 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | AveID | 6162<br>953648 | 14950 | 55468 | 126650 | 246673 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | | AveID | 77454<br>13670685 | 184947 | 777266 | 1724753 | 3593181 | 0.0471<br>9.42 | 0.0942 | 0.471 | 0.942 | 2.36 |
| Perfluorododecanoic acid (PFDoA) | | AveID | 58029<br>10172160 | 148447 | 594650 | 1418492 | 2636999 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | | AveID | 3741<br>688615 | 9695 | 39257 | 89116 | 182391 | 0.0482<br>9.64 | 0.0964 | 0.482 | 0.964 | 2.41 |
| Perfluorododecanesulfonic acid (PFDoS) | | AveID | 9954<br>1712893 | 24558 | 97215 | 229693 | 457314 | 0.0484<br>9.68 | 0.0968 | 0.484 | 0.968 | 2.42 |
| Perfluorotridecanoic acid (PFTriA) | | AveID | 54849<br>8746311 | 125142 | 497082 | 1161247 | 2301928 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorotetradecanoic acid (PFTeA) | | AveID | 7441<br>1241475 | 18818 | 73965 | 174302 | 332972 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | | L2ID | 46907<br>6269085 | 98385 | 359982 | 870242 | 1696788 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoro-n-octadecanoic acid (PFODA) | | AveID | 35157<br>5910248 | 89309 | 355258 | 818298 | 1507499 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 13C4 PFBA | 13PFOA | Ave | 1785802<br>1665496 | 2002798 | 1751374 | 1982117 | 1686795 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| 13C5 PFPeA | 13PFOA | Ave | 1423500<br>1437251 | 1641164 | 1485537 | 1755143 | 1426418 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C3 PFBS | 13PFOA | Ave | 1793578<br>1804342 | 2122028 | 1819218 | 2194395 | 1809434 | 1.16<br>1.16 | 1.16 | 1.16 | 1.16 | 1.16 |
| M2-4:2 FTS | 13PFOA | Ave | 143738<br>134645 | 164450 | 143541 | 155977 | 139431 | 1.17<br>1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| 13C2 PFHxA | 13PFOA | Ave | 1498283<br>1478594 | 1770715 | 1544242 | 1857895 | 1480926 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C3 HFPO-DA | 13PFOA | Ave | 40304<br>44010 | 53908 | 39462 | 42477 | 33254 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 18O2 PFHxS | 13PFOA | Ave | 1307897<br>1318214 | 1610888 | 1357826 | 1639762 | 1307238 | 1.18<br>1.18 | 1.18 | 1.18 | 1.18 | 1.18 |
| 13C4 PFHpA | 13PFOA | Ave | 1624105<br>1529883 | 1883272 | 1610239 | 1920576 | 1567141 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| M2-6:2 FTS | 13PFOA | Ave | 212699<br>201400 | 245685 | 220518 | 264731 | 207642 | 1.19<br>1.19 | 1.19 | 1.19 | 1.19 | 1.19 |
| 13C4 PFOA | 13PFOA | Ave | 1744327<br>1661142 | 2077322 | 1734402 | 2127384 | 1736905 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C4 PFOS | 13PFOA | Ave | 964211<br>965476 | 1187422 | 962917 | 1210356 | 951013 | 1.20<br>1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| 13C5 PFNA | 13PFOA | Ave | 1697603<br>1655608 | 2005558 | 1742047 | 2190750 | 1751163 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFDA | 13PFOA | Ave | 1813381<br>1701445 | 2069906 | 1732010 | 2098041 | 1713267 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246027-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| M2-8:2 FTS | 13PF OA | Ave | 250892<br>231933 | 288661 | 236138 | 286620 | 249474 | 1.20<br>1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| 13C8 FOSA | 13PF OA | Ave | 1644854<br>1662915 | 1999674 | 1730994 | 2062074 | 1642092 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| d3-NMeFOSAA | 13PF OA | Ave | 165609<br>173007 | 207879 | 177391 | 208636 | 163220 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFUnA | 13PF OA | Ave | 1359196<br>1249906 | 1631857 | 1326229 | 1758950 | 1376292 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| d5-NEtFOSAA | 13PF OA | Ave | 153799<br>157024 | 192776 | 162762 | 200276 | 160452 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFDoA | 13PF OA | Ave | 1427497<br>1439938 | 1722128 | 1443504 | 1756299 | 1536568 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFTeDA | 13PF OA | Ave | 1128642<br>1144458 | 1335021 | 1151594 | 1364943 | 1108790 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFHxDA | 13PF OA | Ave | 1007270<br>982482 | 1197224 | 1005731 | 1215023 | 968779 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

Curve Type Legend
Ave = Average ISTD
AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Oct-2021 13:46:14 ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-002 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:03 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 16:48:03
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 1785802 | 1.32 | | 105 | 5640 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 71507 | 0.0529 | | 106 | 5.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1423500 | 1.25 | | 99.7 | 2552 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 58740 | 0.0515 | | 103 | 3.6 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 1793578 | 1.16 | | 99.8 | 177115 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 76739 | 0.0466 | Target=2.29 | 105 | 71.9 | M |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 32067 | | 2.39(1.15-3.44) | 105 | 11.6 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.781 | 143738 | 1.22 | | 105 | 121 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 11382 | 0.0434 | | 93.0 | 161 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 66574 | 0.0548 | Target=12.01 | 110 | 8.7 | M |
| 313.00 > 119.00 | 2.770 | 2.756 | 0.014 | 1.004 | 5719 | | 11.64(6.00-18.01) | 110 | 6.7 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1498283 | 1.25 | | 100 | 3652 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 67291 | 0.0505 | Target=3.04 | 108 | 123 | |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 21507 | | 3.13(1.52-4.56) | 108 | 21.8 | M |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.867 | 2.865 | 0.002 | 1.000 | 8098 | 0.0555 | | 111 | 2.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.823 | 40304 | 1.28 | | 102 | 340 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.899 | 1307897 | 1.16 | | 98.5 | 3516 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 63407 | 0.0521 | Target=3.51 | 115 | 130 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 18001 | | 3.52(1.76-5.27) | 115 | 17.8 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 72047 | 0.0537 | Target=3.83 | 107 | 18.8 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 18148 | | 3.97(1.91-5.74) | 107 | 38.0 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1624105 | 1.29 | | 103 | 4329 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 142266 | 0.0504 | Target=2.58 | 107 | 192 | |
| 377.00 > 85.00 | 3.164 | 3.165 | -0.001 | 0.834 | 53350 | | 2.67(1.29-3.88) | 107 | 75.9 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 50800 | 0.0505 | Target=5.12 | 106 | 264 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 9085 | | 5.59(2.56-7.67) | 106 | 23.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 212699 | 1.20 | | 101 | 489 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 10382 | 0.0457 | | 96.4 | 111 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1744327 | 1.27 | | 101 | 3448 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1674298 | 1.25 | | | 3475 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 81058 | 0.0546 | Target=2.65 | 109 | 14.1 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 32239 | | 2.51(1.32-3.97) | 109 | 46.7 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 964211 | 1.19 | | 99.4 | 2831 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 42154 | 0.0481 | Target=4.60 | 104 | 54.7 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 10148 | | 4.15(2.30-6.90) | 104 | 22.1 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 74901 | 0.0564 | Target=7.58 | 113 | 14.3 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 10028 | | 7.47(3.79-11.37) | 113 | 60.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 1697603 | 1.24 | | 98.9 | 4792 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 64917 | 0.0492 | | 106 | 275 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 34421 | 0.0505 | Target=2.38 | 105 | 349 | |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 14624 | | 2.35(1.19-3.56) | 105 | 34.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.104 | -0.001 | 1.178 | 1813381 | 1.31 | | 105 | 3995 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.104 | -0.001 | 1.000 | 75240 | 0.0516 | Target=9.30 | 103 | 46.6 | |
| 513.00 > 169.00 | 4.103 | 4.104 | -0.001 | 1.000 | 8579 | | 8.77(4.65-13.95) | 103 | 42.9 | |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 250892 | 1.25 | | 104 | 643 | M |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 8084 | 0.0461 | | 96.3 | 87.9 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.234 | 4.225 | 0.009 | 1.216 | 1644854 | 1.23 | | 98.5 | 2173 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.235 | -0.001 | 1.000 | 65056 | 0.0521 | | 104 | 222 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.245 | 4.246 | -0.001 | 1.219 | 165609 | 1.22 | | 97.2 | 879 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.246 | 0.011 | 1.003 | 5527 | 0.0531 | | 106 | 49.0 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 26240 | 0.0495 | Target=2.54 | 103 | 270 | |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 11839 | | 2.22(1.27-3.81) | 103 | 78.9 | M |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.358 | 4.358 | 0.0 | 1.000 | 62199 | 0.0537 | Target=9.37 | 107 | 44.1 | |
| 563.00 > 169.00 | 4.358 | 4.358 | 0.0 | 1.000 | 5982 | | 10.40(4.69-14.06) | 107 | 62.5 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.358 | 0.0 | 1.251 | 1359196 | 1.26 | | 101 | 3035 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.369 | 0.001 | 1.255 | 153799 | 1.20 | | 96.4 | 913 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.003 | 6162 | 0.0584 | | 117 | 111 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.457 | 4.445 | 0.012 | 1.175 | 77454 | 0.0497 | | 106 | 451 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.580 | 0.001 | 1.315 | 1427497 | 1.23 | | 98.3 | 669 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.002 | 58029 | 0.0519 | Target=6.84 | 104 | 11.0 | |
| 613.00 > 169.00 | 4.581 | 4.580 | 0.001 | 1.000 | 8812 | | 6.59(3.42-10.25) | 104 | 88.3 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 3741 | 0.0462 | | 95.8 | 79.1 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 9954 | 0.0510 | Target=0.51 | 105 | 151 | M |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 19120 | | 0.52(0.25-0.76) | 105 | 232 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.044 | 54849 | 0.0569 | Target=4.67 | 114 | 15.4 | |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.044 | 11059 | | 4.96(2.33-7.00) | 114 | 122 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.001 | 1.423 | 1128642 | 1.25 | | 100 | 3070 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.001 | 1.000 | 7441 | 0.0522 | Target=0.99 | 104 | 140 | |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.001 | 1.000 | 8407 | | 0.89(0.49-1.48) | 104 | 130 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 46907 | 0.0495 | Target=4.50 | 98.9 | 14.0 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 10284 | | 4.56(2.25-6.75) | 98.9 | 139 | |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 1007270 | 1.27 | | 102 | 2767 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.519 | 0.0 | 1.050 | 35157 | 0.0517 | Target=4.46 | 103 | 22.8 | |
| 913.00 > 169.00 | 5.519 | 5.519 | 0.0 | 1.050 | 7793 | | 4.51(2.23-6.68) | 103 | 157 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC1_00010 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d

Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812

Lims ID: IC

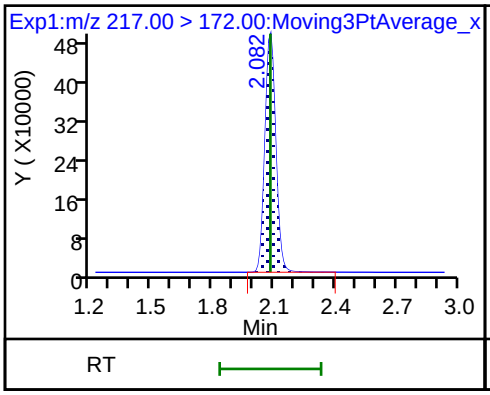
Client ID:

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2

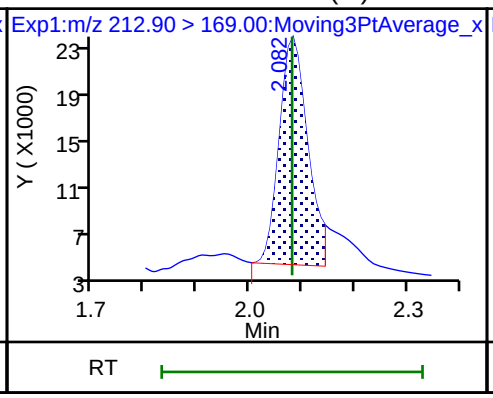
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

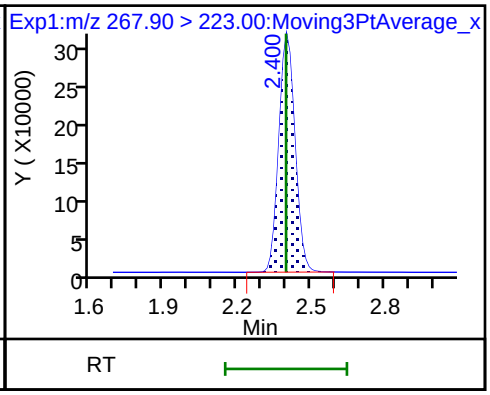
D 1 13C4 PFBA



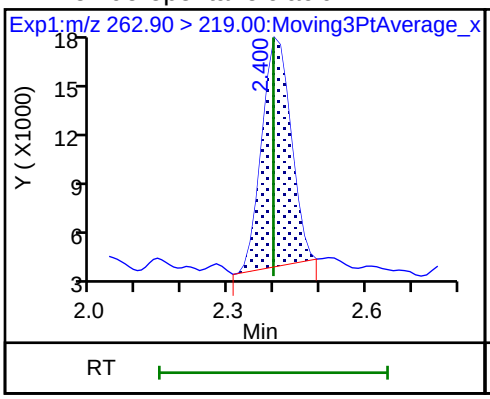

2 Perfluorobutanoic acid (M)



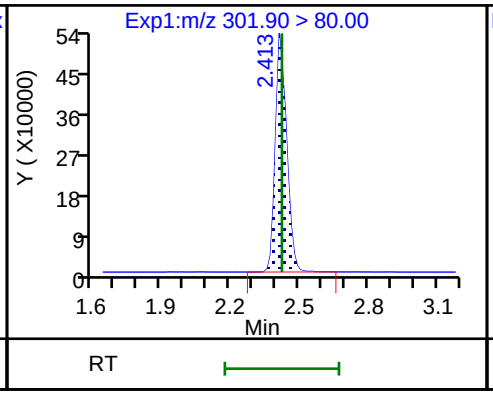

D 3 13C5 PFPeA



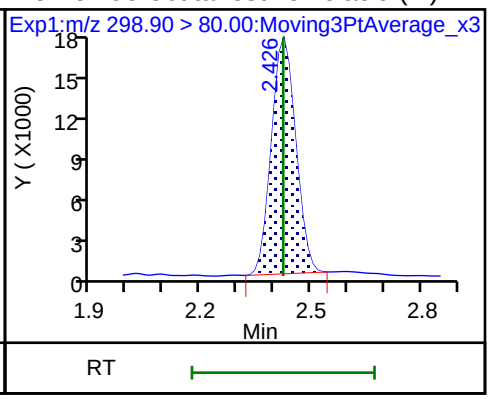

4 Perfluoropentanoic acid



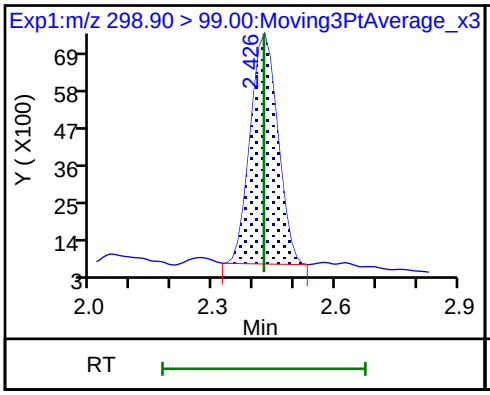

D 47 13C3 PFBS



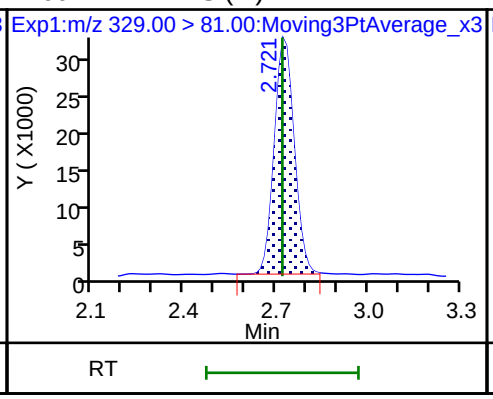

5 Perfluorobutanesulfonic acid (M)



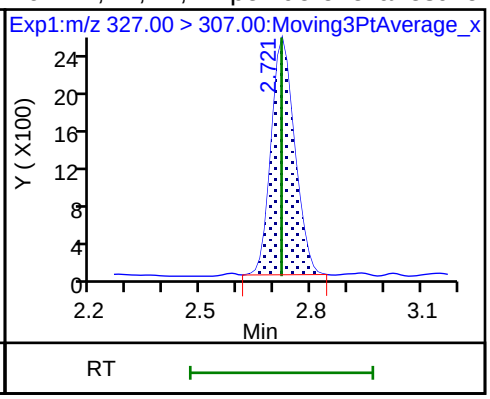

5 Perfluorobutanesulfonic acid



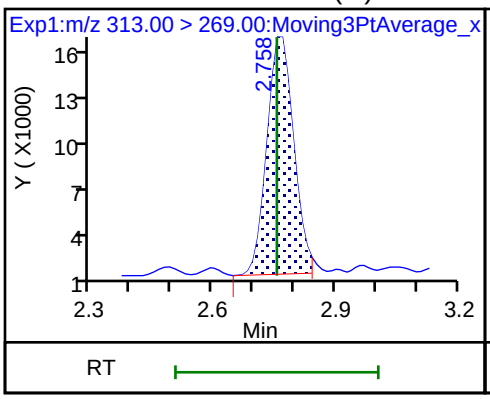

D 60 M2-4:2 FTS (M)



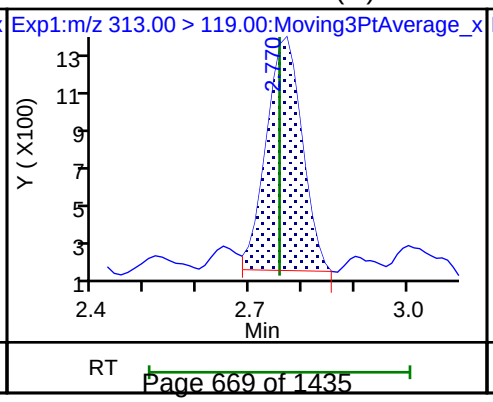

61 1H,1H,2H,2H-perfluorohexanesulfo



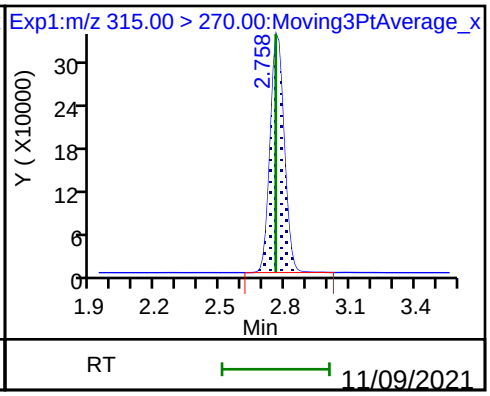

6 Perfluorohexanoic acid (M)



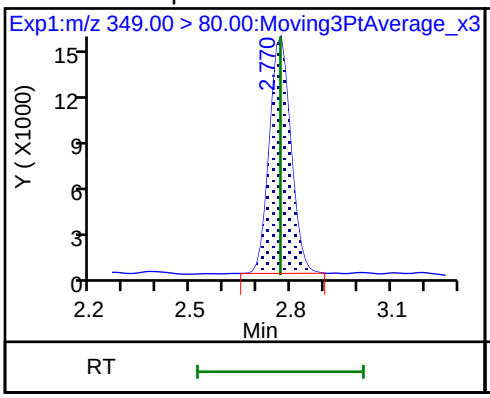

6 Perfluorohexanoic acid (M)



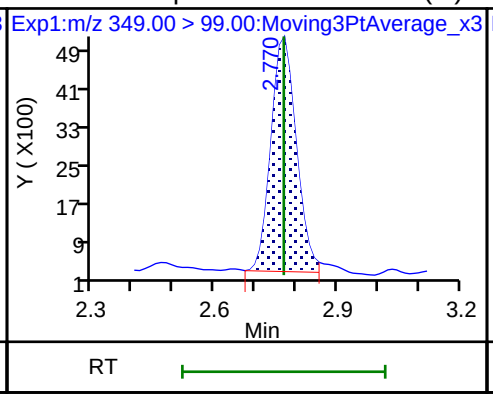

D 7 13C2 PFHxA



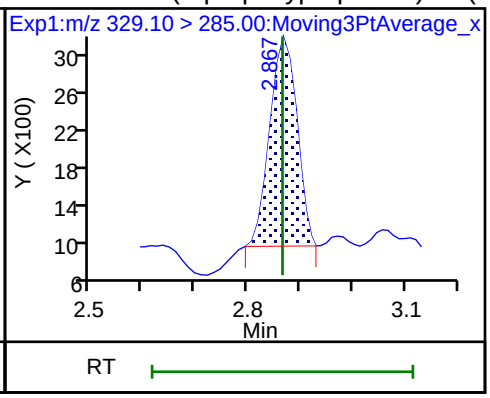
70 Perfluoropentanesulfonic acid



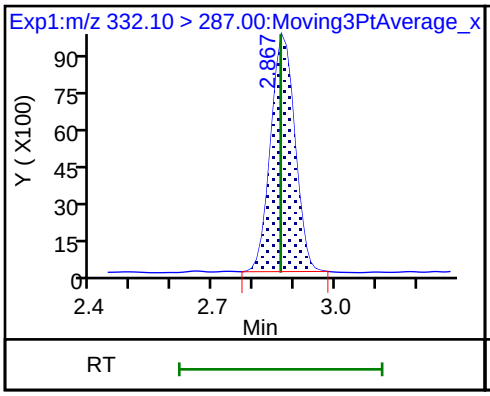

70 Perfluoropentanesulfonic acid (M)



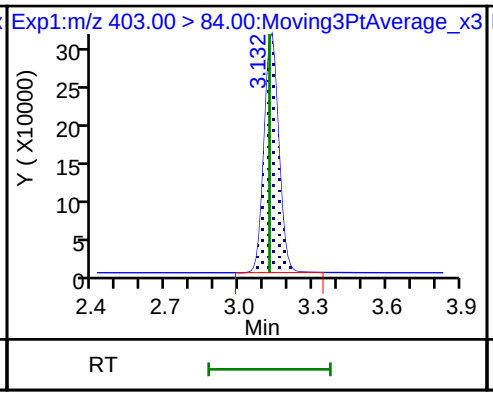

67 Perfluoro(2-propoxypropanoic) ac (M)



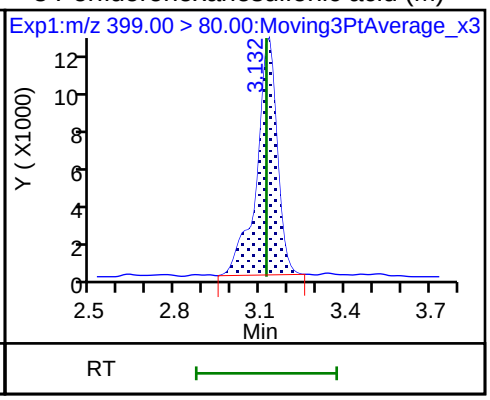

D 64 13C3 HFPO-DA



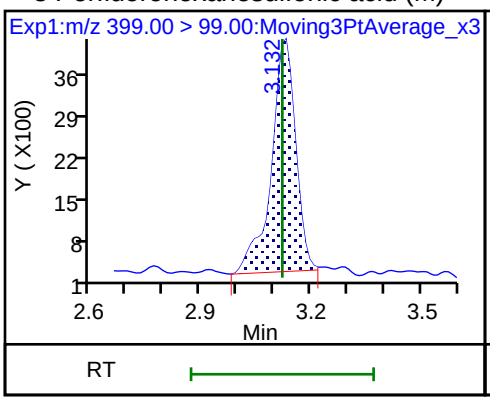

D 11 18O2 PFHxS



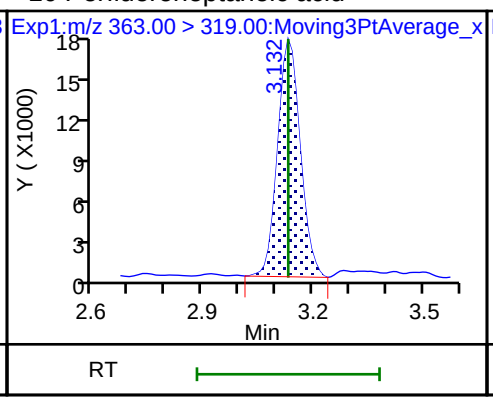

8 Perfluorohexanesulfonic acid (M)



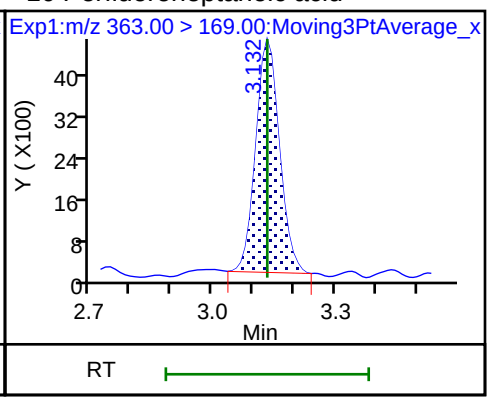

8 Perfluorohexanesulfonic acid (M)



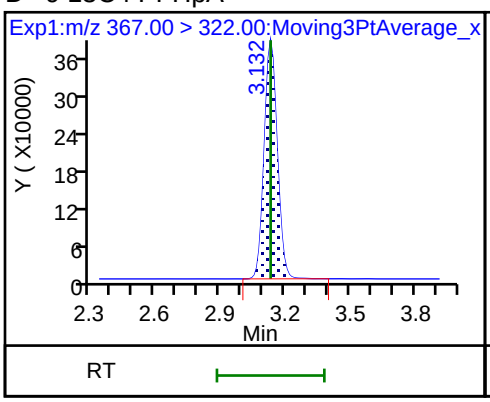

10 Perfluoroheptanoic acid



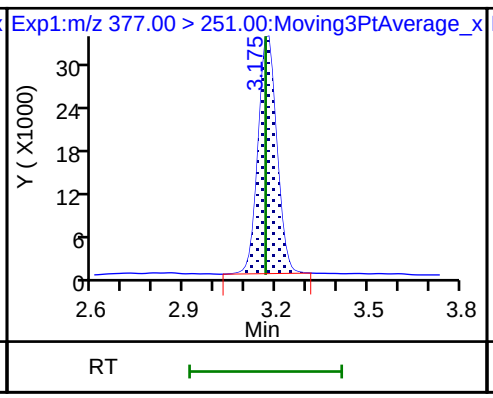

10 Perfluoroheptanoic acid



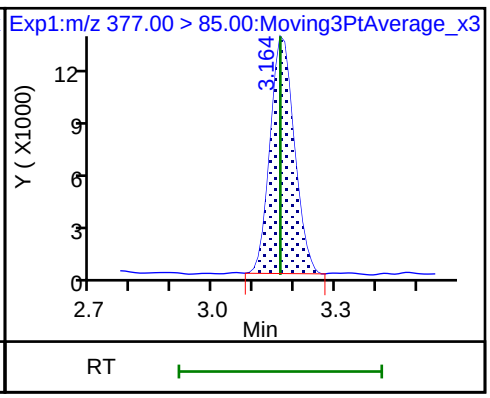

D 9 13C4 PFHpA



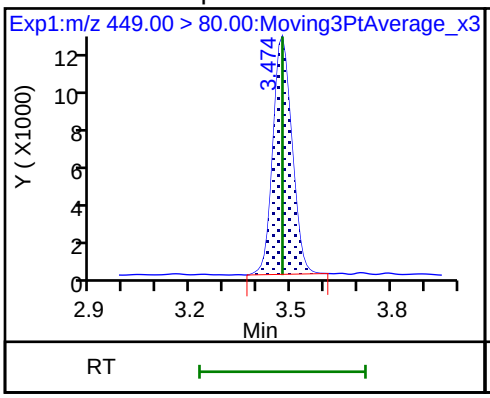

77 DONA



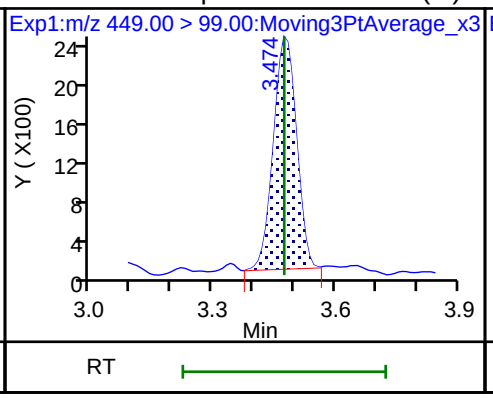

77 DONA



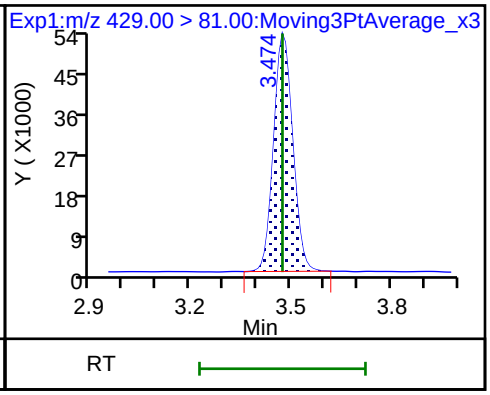
16 Perfluoroheptanesulfonic acid



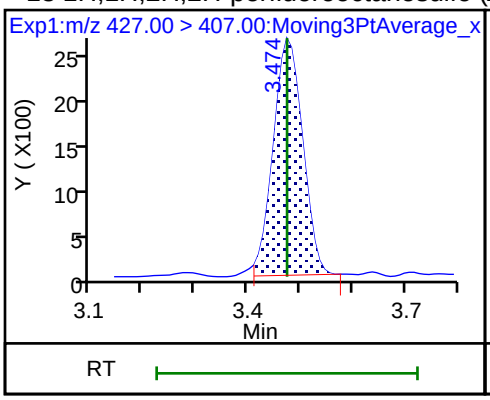

16 Perfluoroheptanesulfonic acid (M)



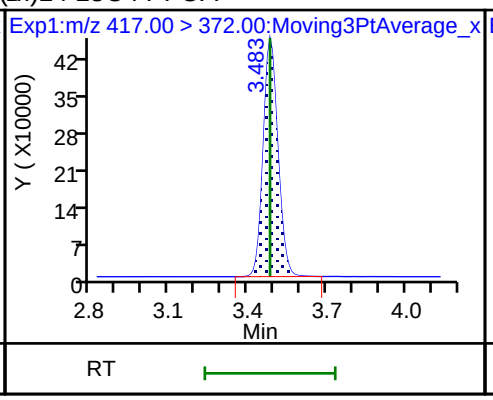

D 12 M2-6:2 FTS



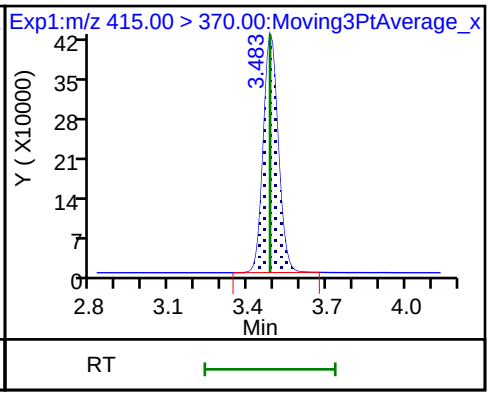

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



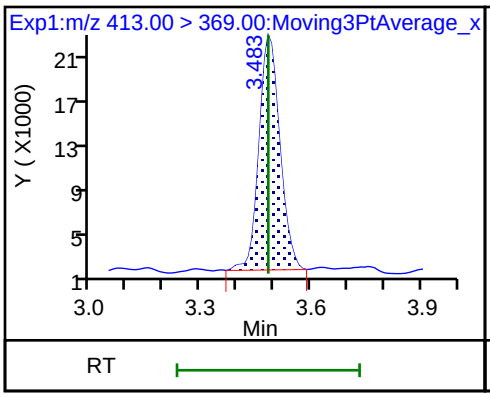

D 14 13C4 PFOA



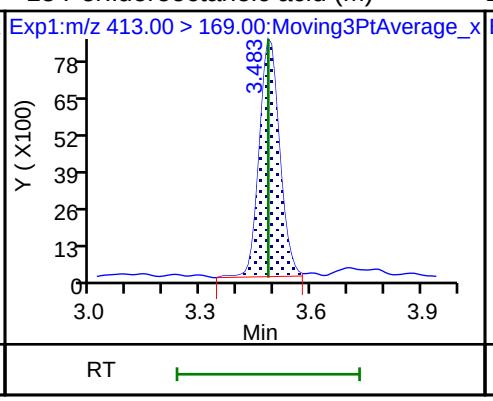

* 62 13C2 PFOA



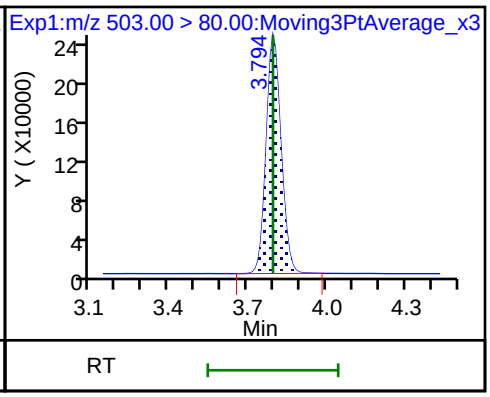

15 Perfluorooctanoic acid



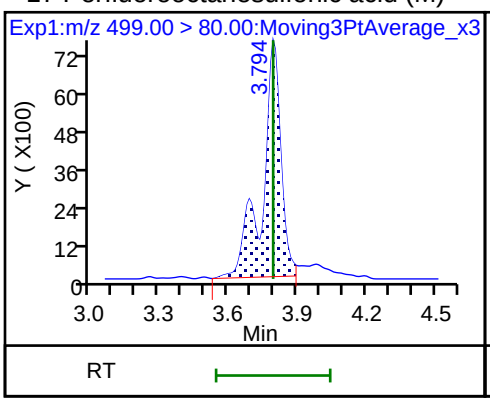

15 Perfluorooctanoic acid (M)



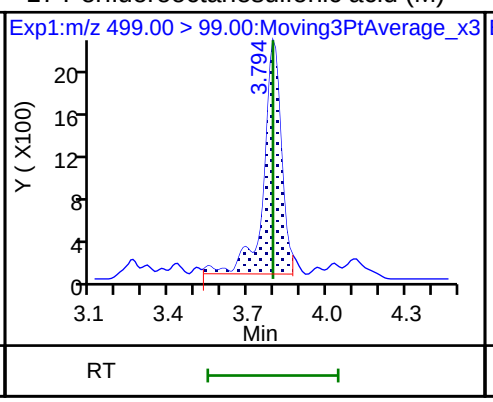

D 18 13C4 PFOS



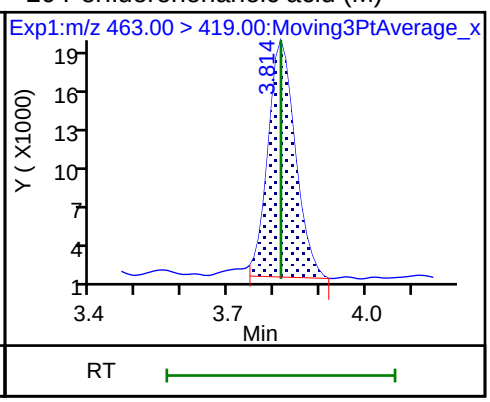

17 Perfluorooctanesulfonic acid (M)



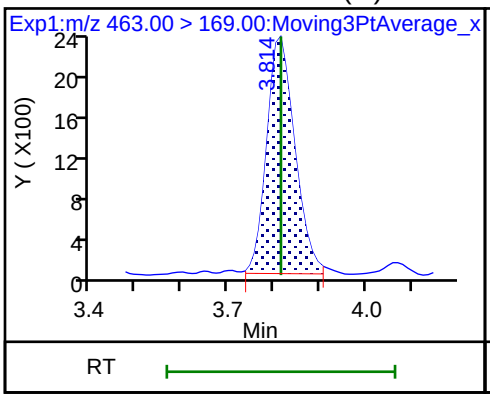

17 Perfluorooctanesulfonic acid (M)



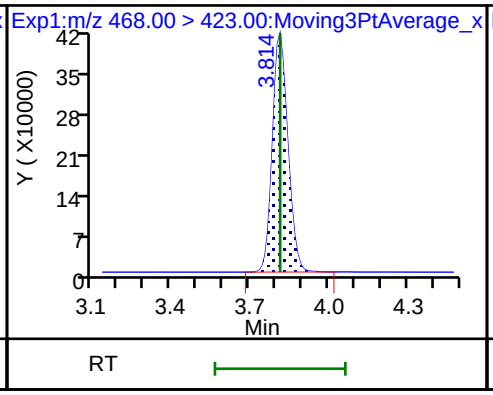

20 Perfluorononanoic acid (M)



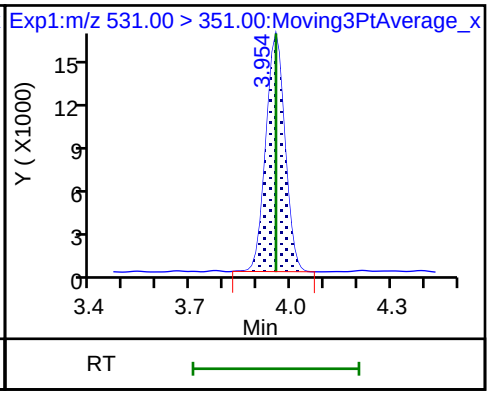
20 Perfluorononanoic acid (M)



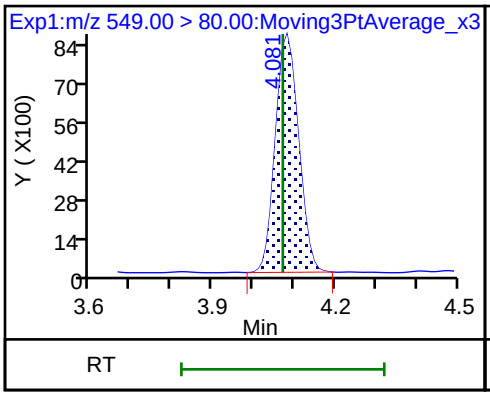

D 19 13C5 PFNA



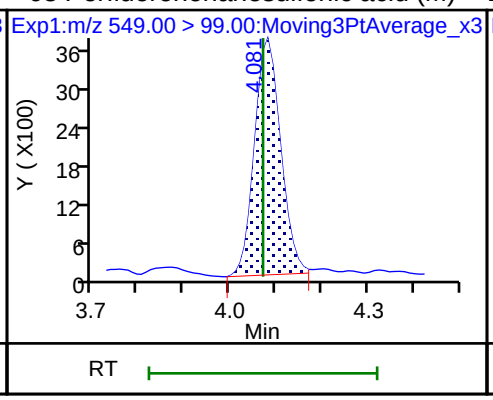

69 9-Chlorohexadecafluoro-3-oxanona



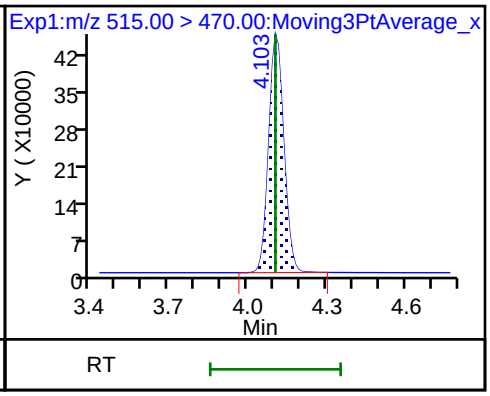

68 Perfluorononanesulfonic acid



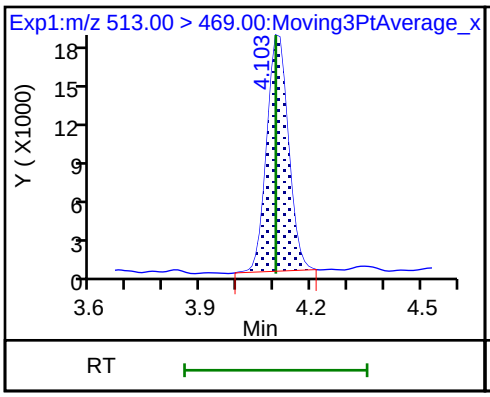

68 Perfluorononanesulfonic acid (M)



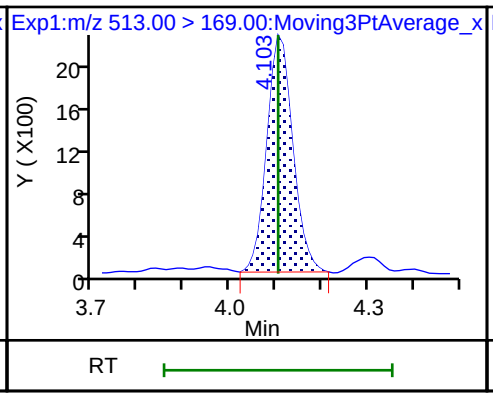

D 23 13C2 PFDA



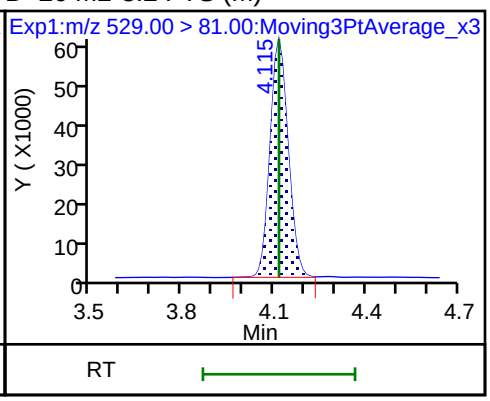

24 Perfluorodecanoic acid



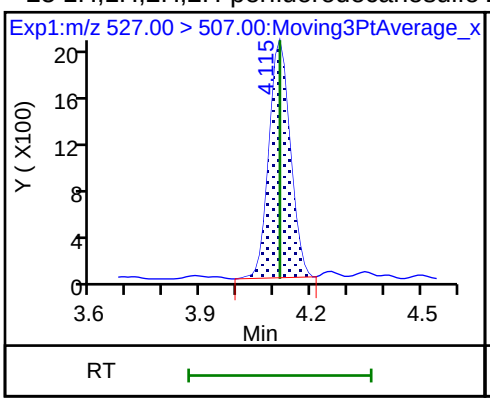

24 Perfluorodecanoic acid



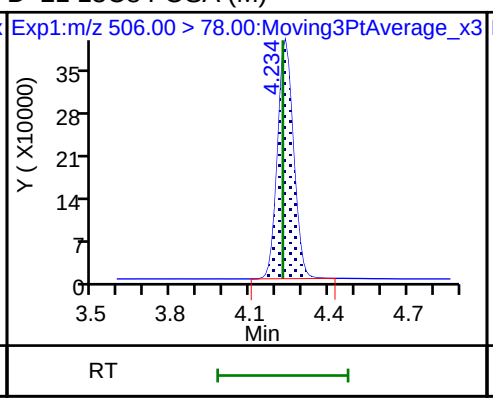

D 26 M2-8:2 FTS (M)



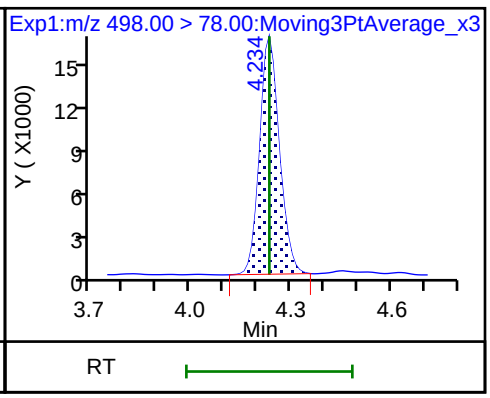

25 1H,1H,2H,2H-perfluorodecanesulfo



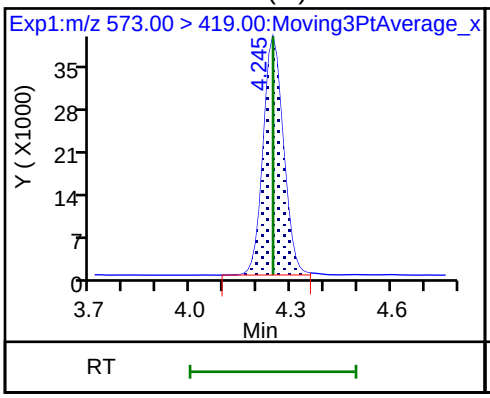

D 21 13C8 FOSA (M)



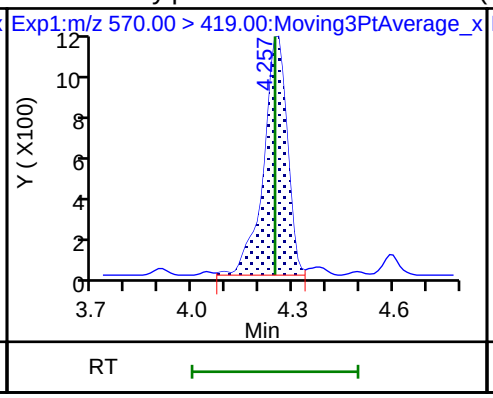

22 Perfluorooctanesulfonamide



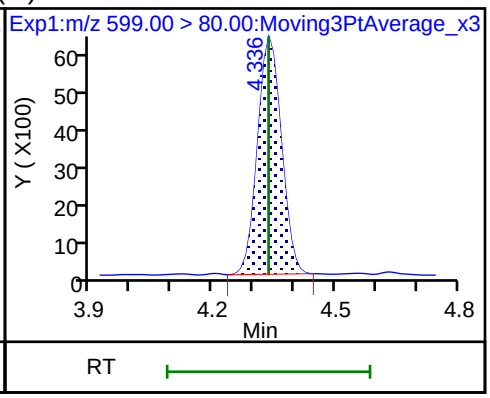
D 27 d3-NMeFOSAA (M)



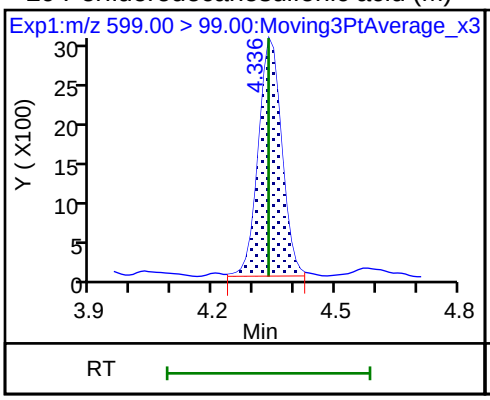

28 N-methylperfluorooctanesulfonami (M)



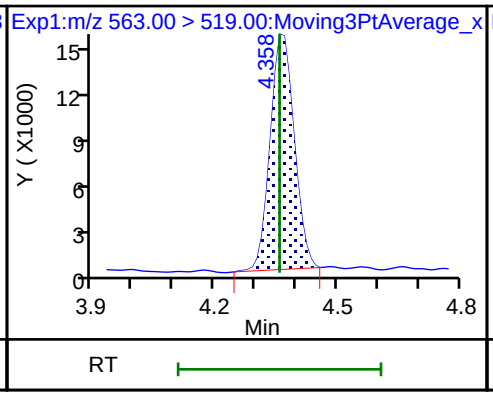

29 Perfluorodecanesulfonic acid



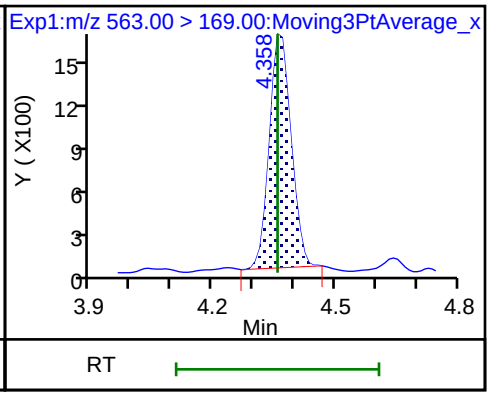

29 Perfluorodecanesulfonic acid (M)



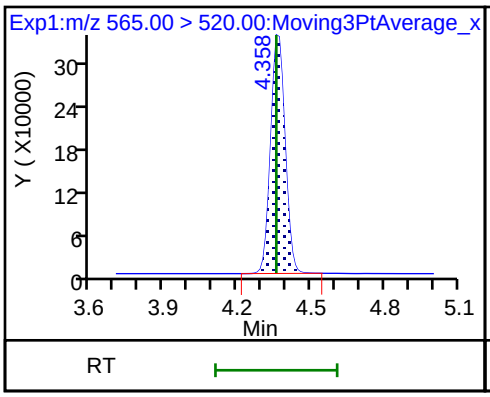

31 Perfluoroundecanoic acid



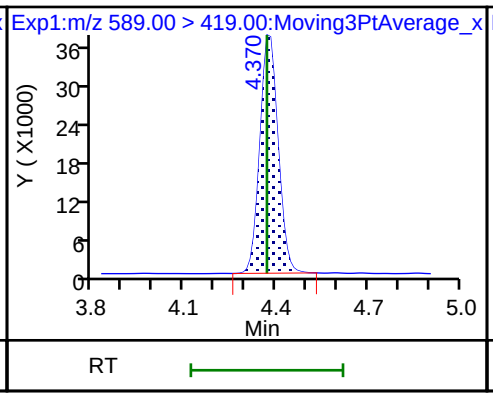

31 Perfluoroundecanoic acid



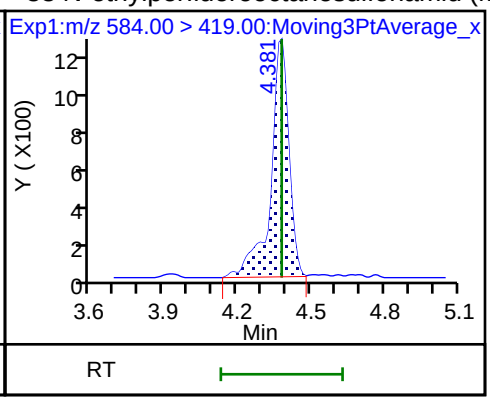

D 30 13C2 PFUnA



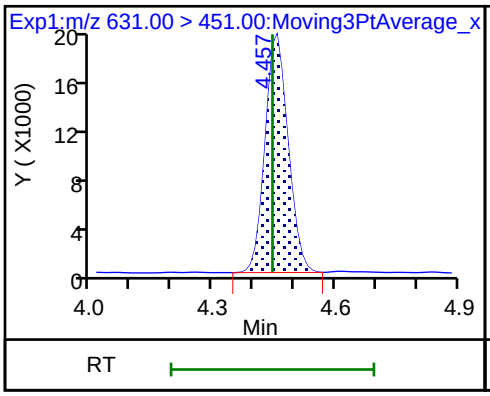

D 32 d5-NEtFOSAA



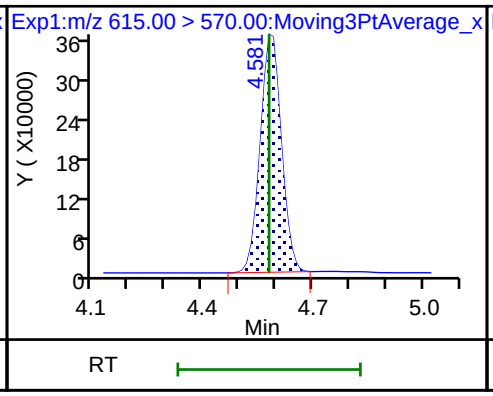

33 N-ethylperfluorooctanesulfonamid (M)



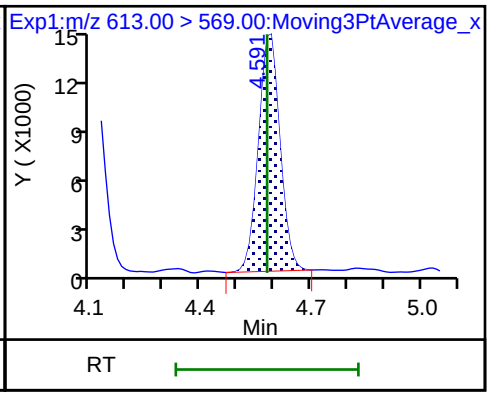

66 11-Chloroeicosafluoro-3-oxaundec



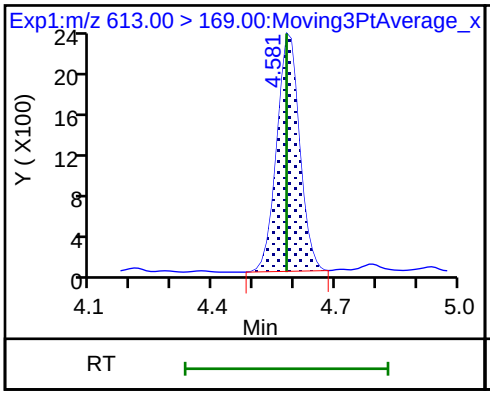

D 36 13C2 PFDoA



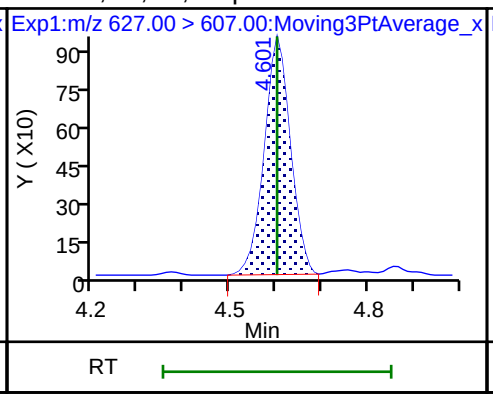

37 Perfluorododecanoic acid



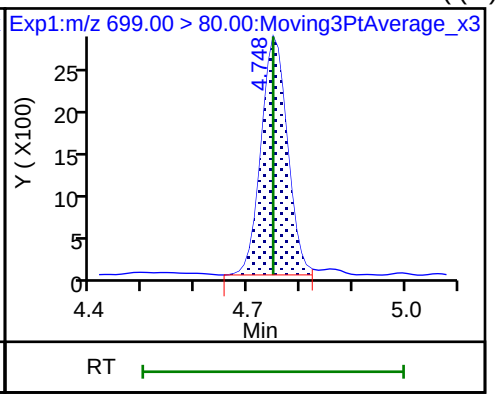
37 Perfluorododecanoic acid



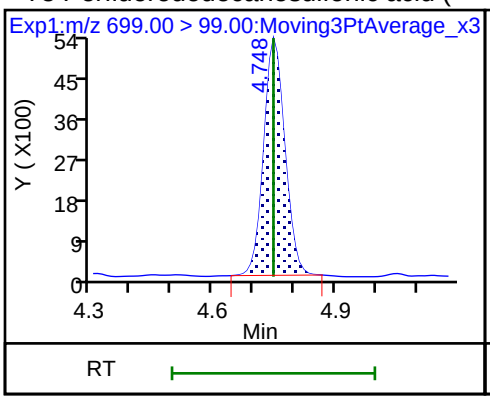

74 1H,1H,2H,2H-perfluorododecanesul



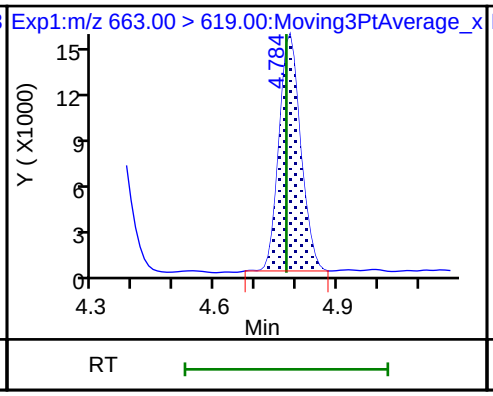

75 Perfluorododecanesulfonic acid ( (M)



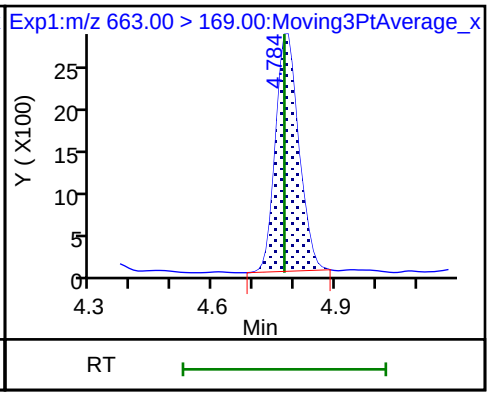

75 Perfluorododecanesulfonic acid (



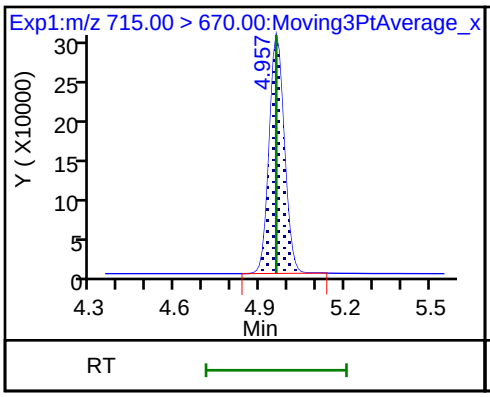

41 Perfluorotridecanoic acid



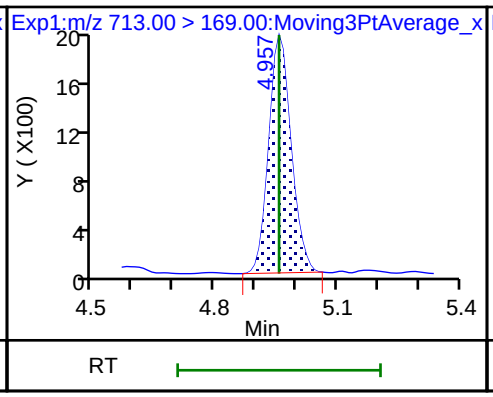

41 Perfluorotridecanoic acid



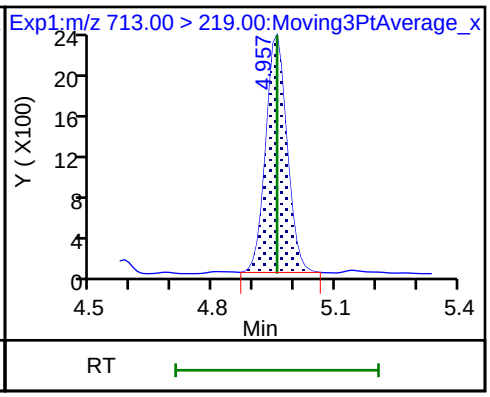

D 43 13C2 PFTeDA



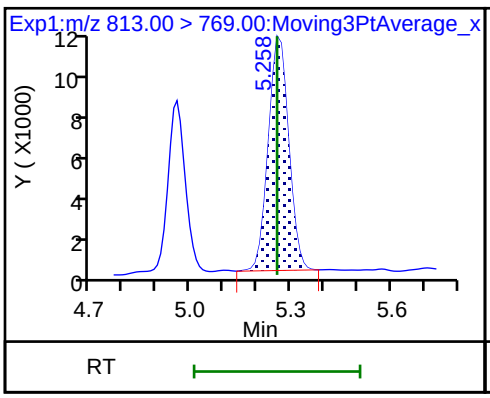

42 Perfluorotetradecanoic acid



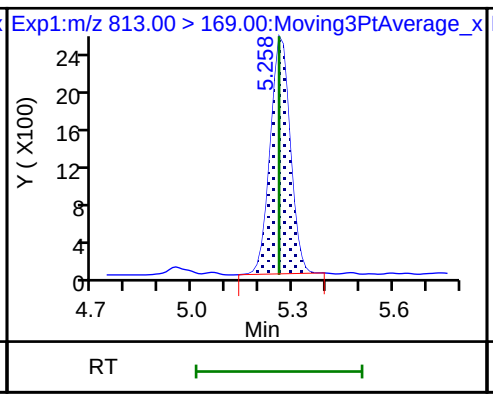

42 Perfluorotetradecanoic acid



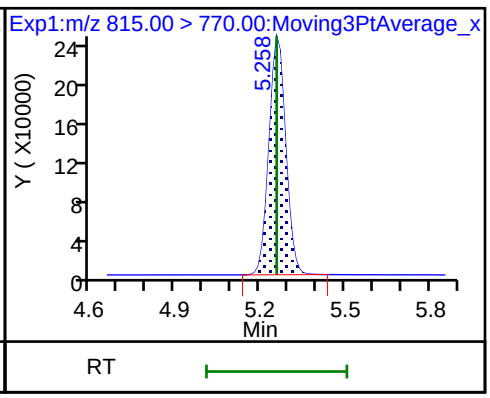

45 Perfluorohexadecanoic acid



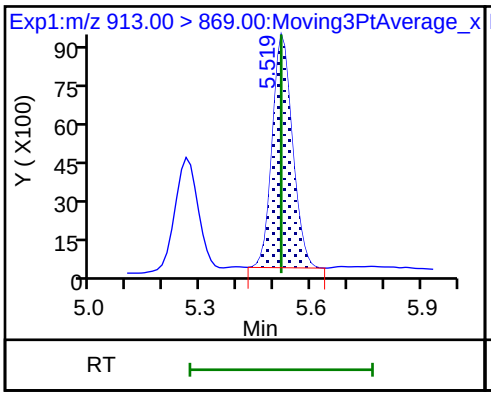

45 Perfluorohexadecanoic acid



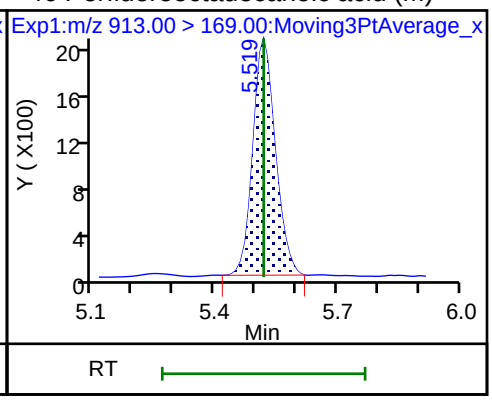

D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

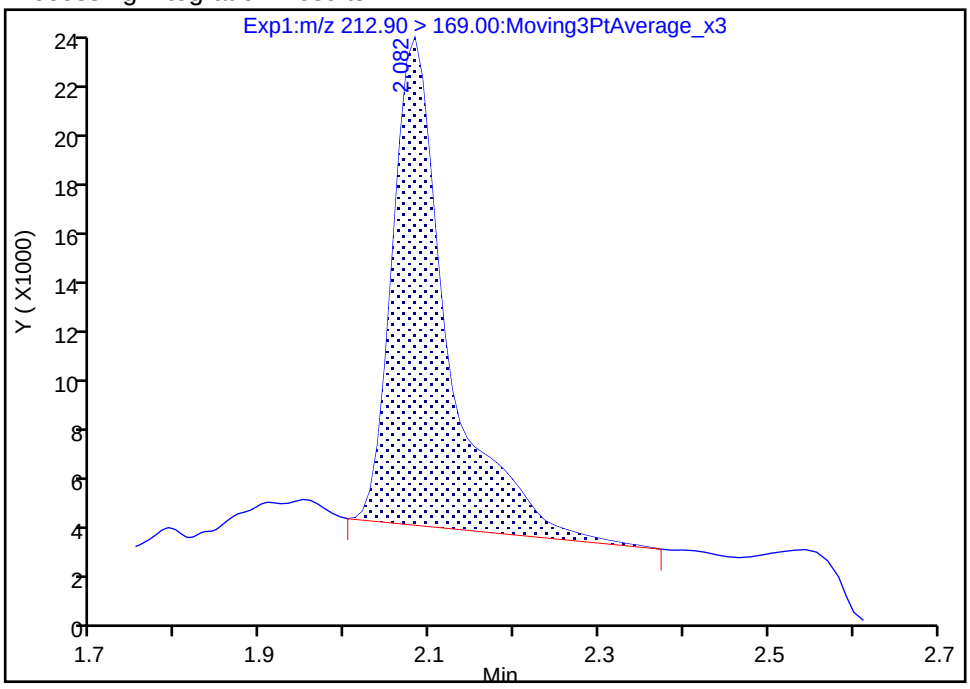
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

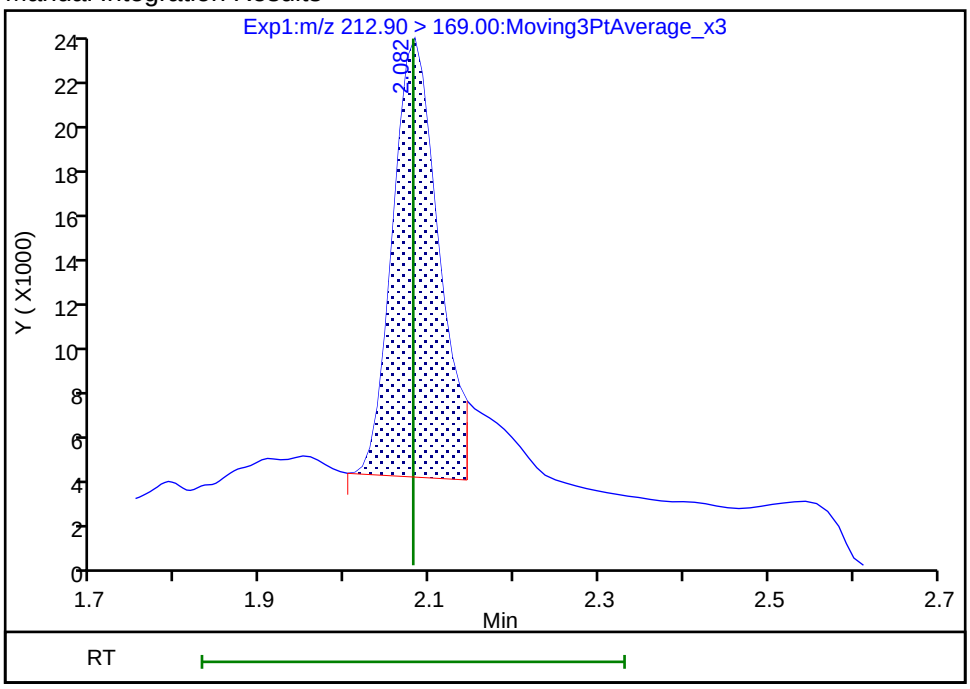
Processing Integration Results

RT: 2.08
Area: 86633
Amount: 0.057467
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 71507
Amount: 0.052934
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:44:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

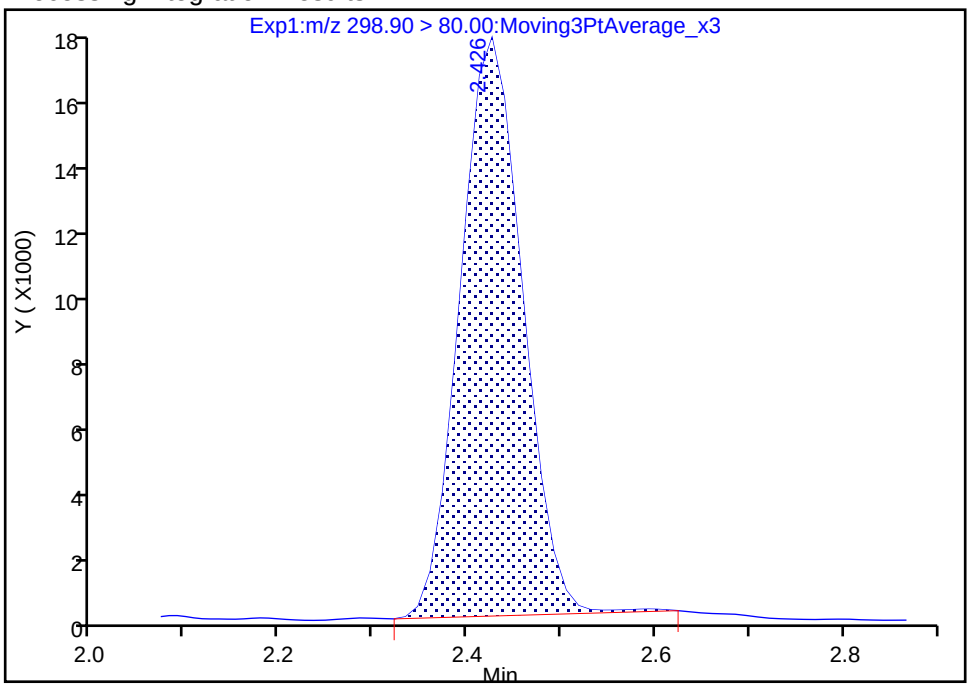
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

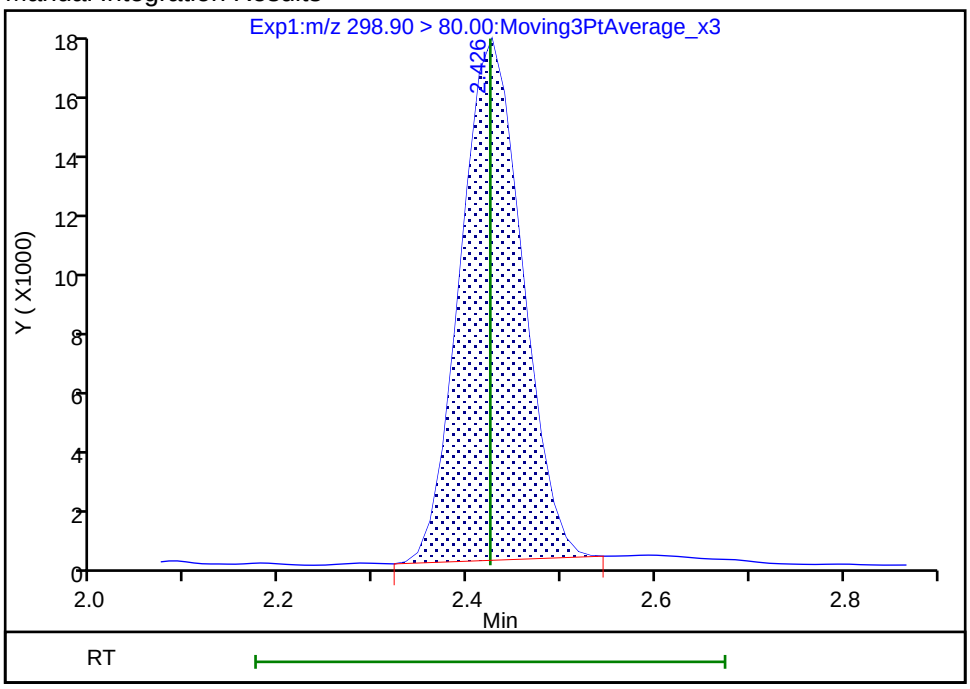
Processing Integration Results

RT: 2.43
Area: 77487
Amount: 0.044926
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 76739
Amount: 0.046568
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:44:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

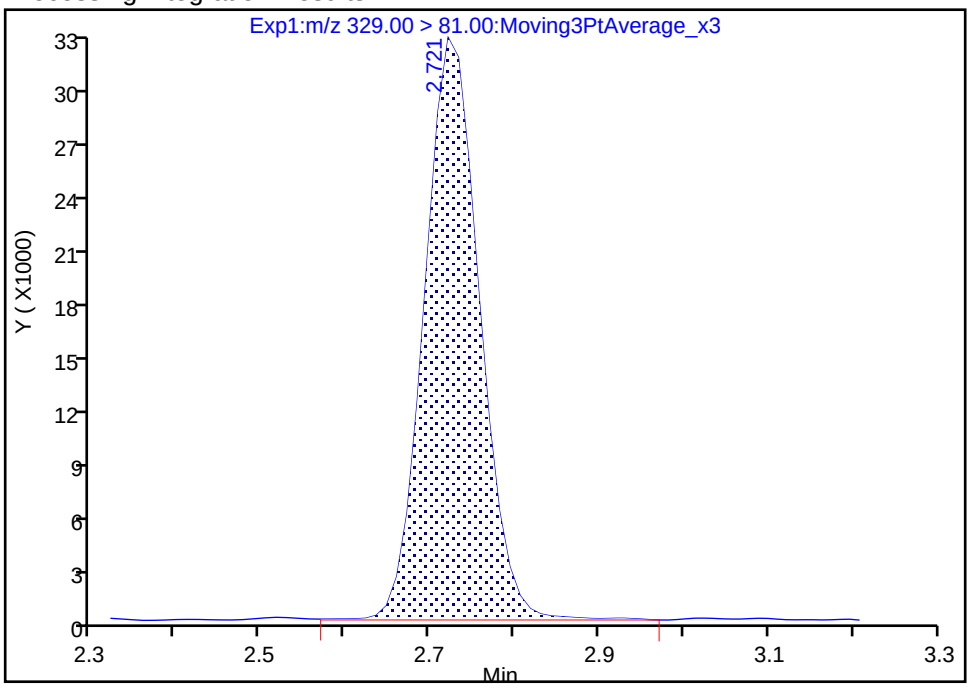
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

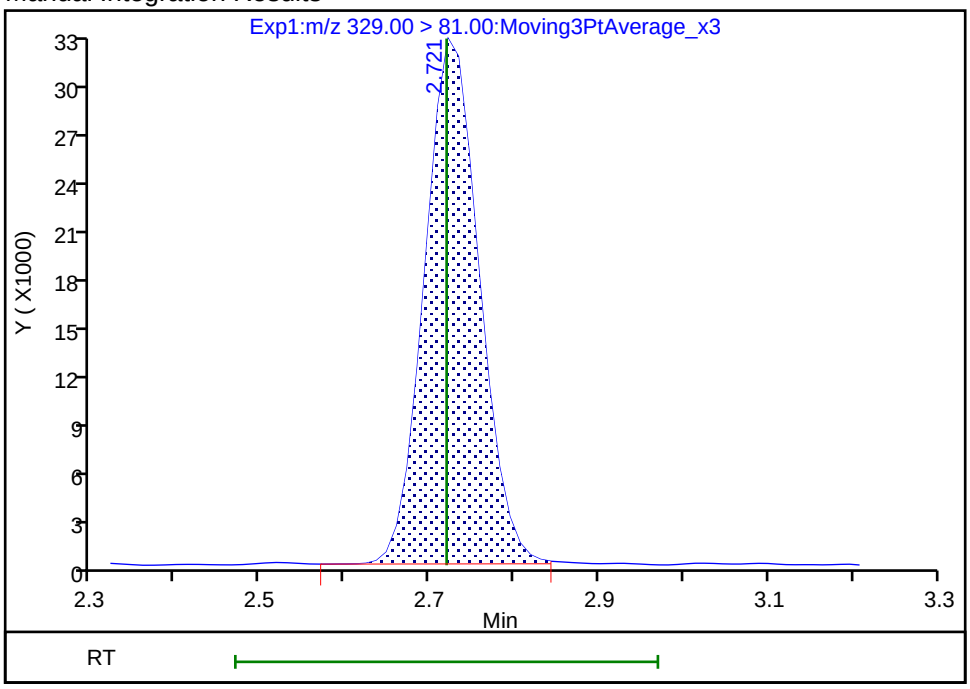
Processing Integration Results

RT: 2.72
Area: 145397
Amount: 1.238038
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 143738
Amount: 1.220355
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

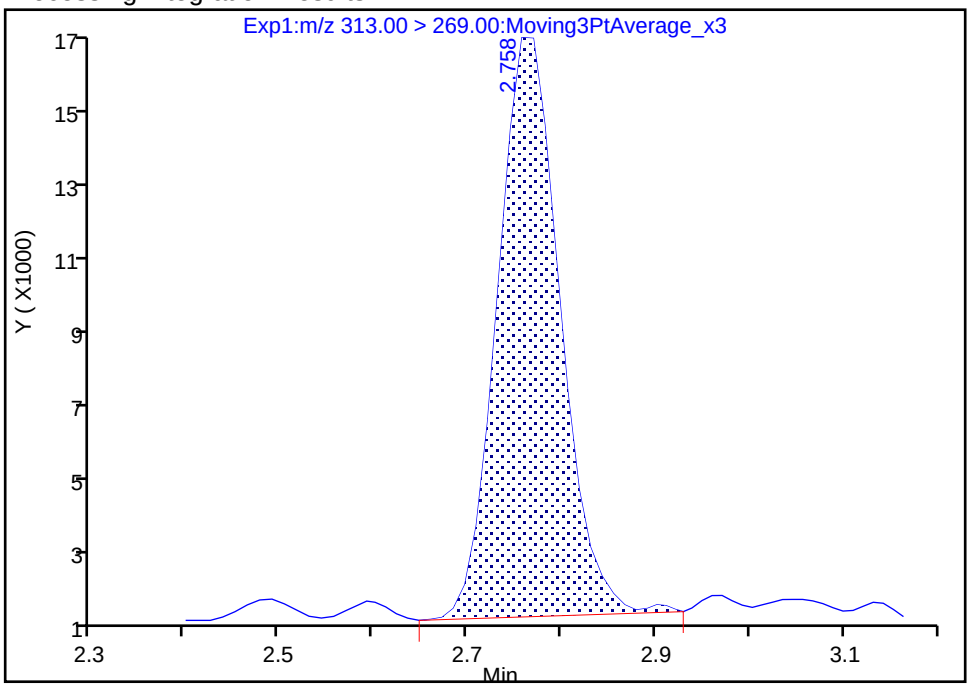
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

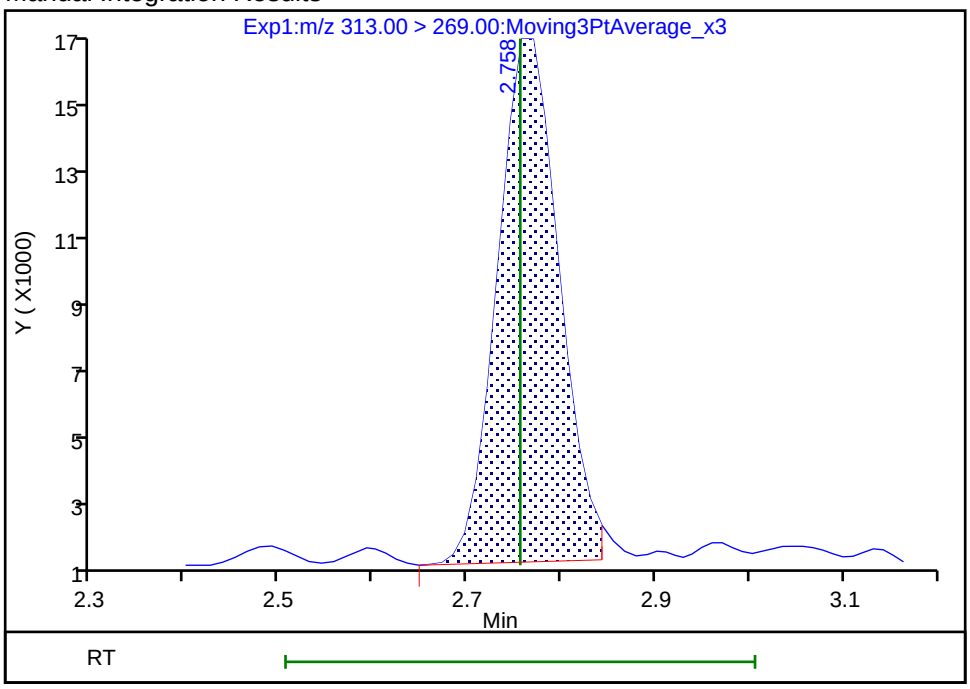
Processing Integration Results

RT: 2.76
Area: 67846
Amount: 0.053417
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 66574
Amount: 0.054766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

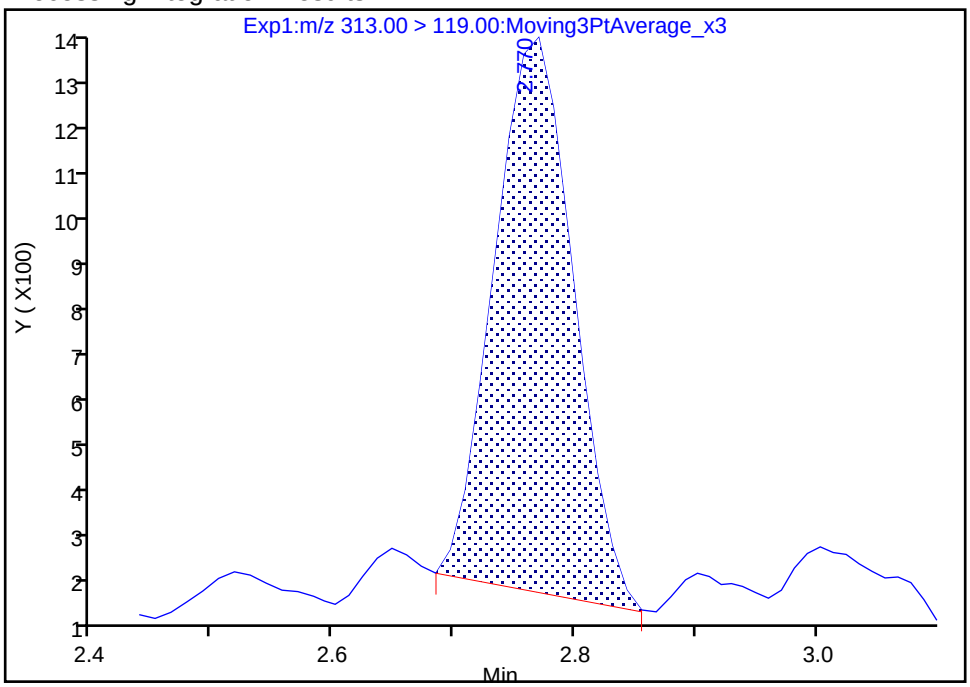
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

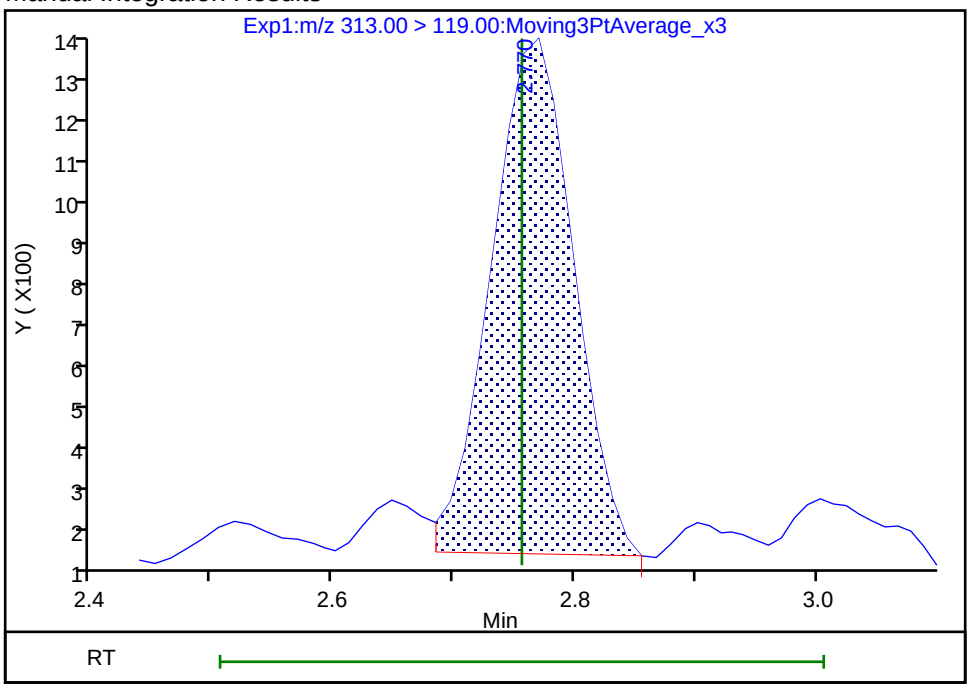
Processing Integration Results

RT: 2.77
Area: 5387
Amount: 0.053417
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 5719
Amount: 0.054766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

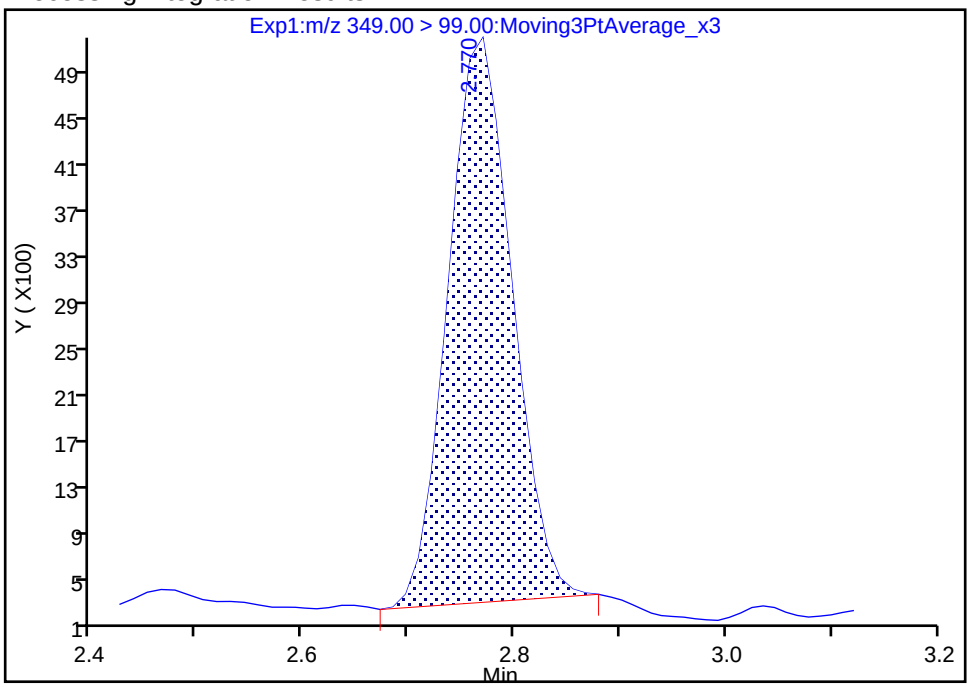
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 2

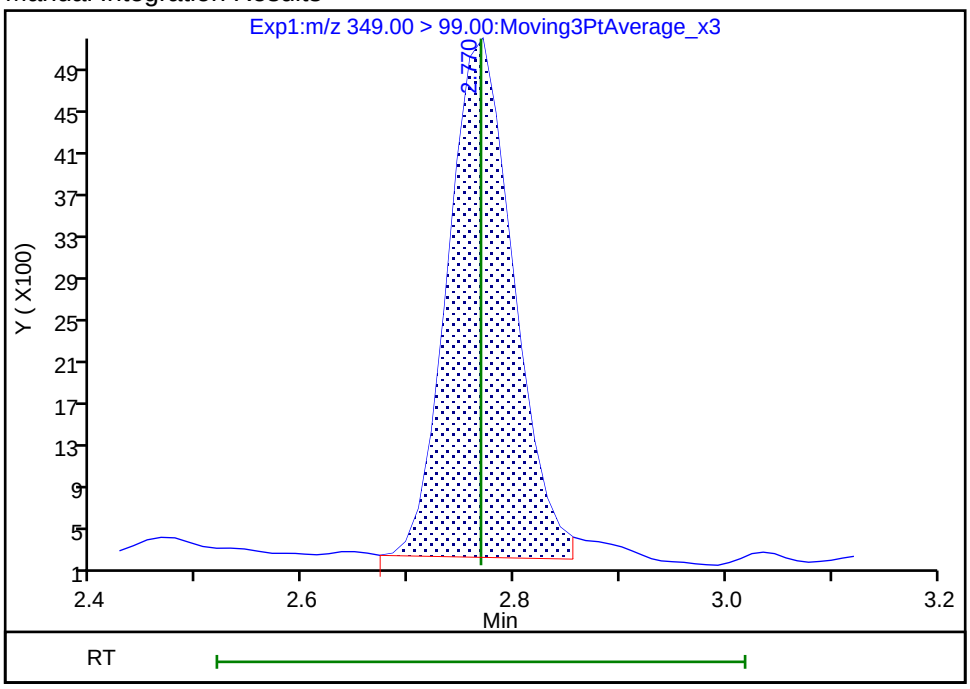
Processing Integration Results

RT: 2.77
Area: 20708
Amount: 0.049312
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 21507
Amount: 0.050522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

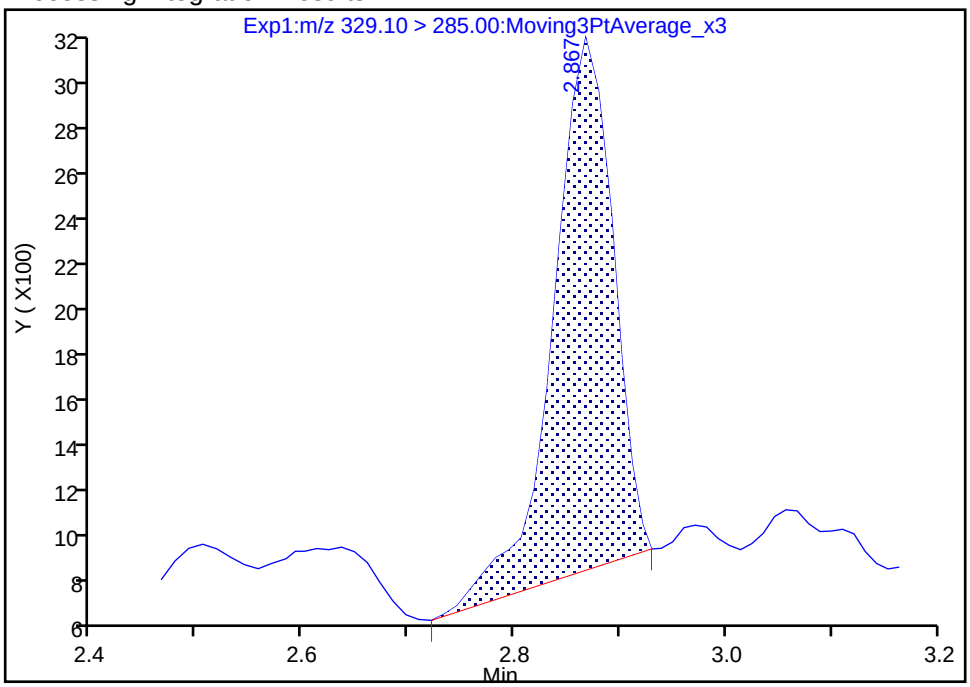
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

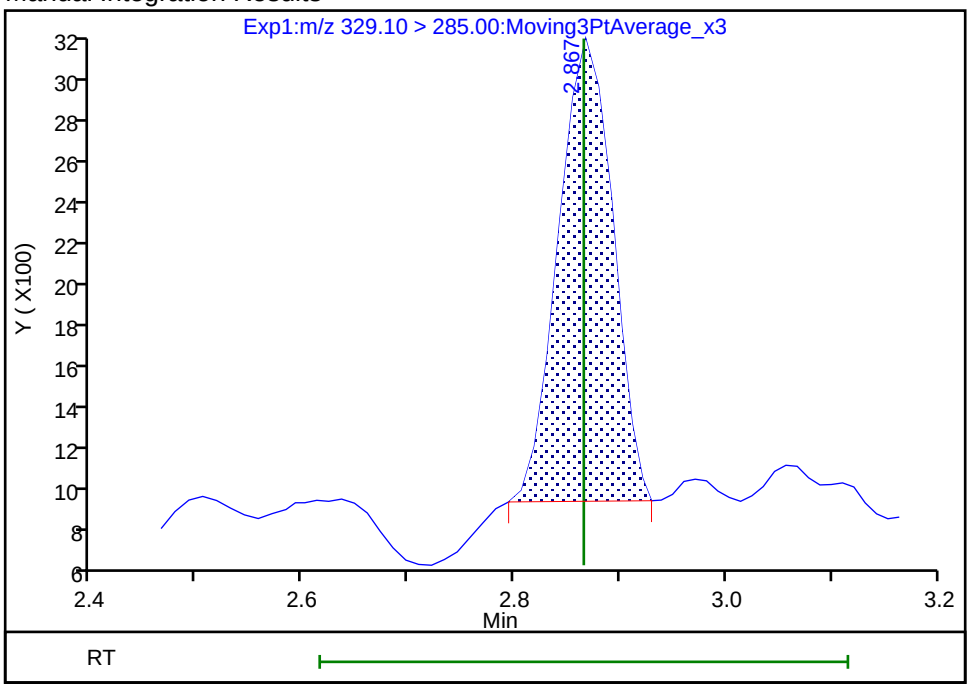
Processing Integration Results

RT: 2.87
Area: 9294
Amount: 0.059608
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 8098
Amount: 0.055502
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:40:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

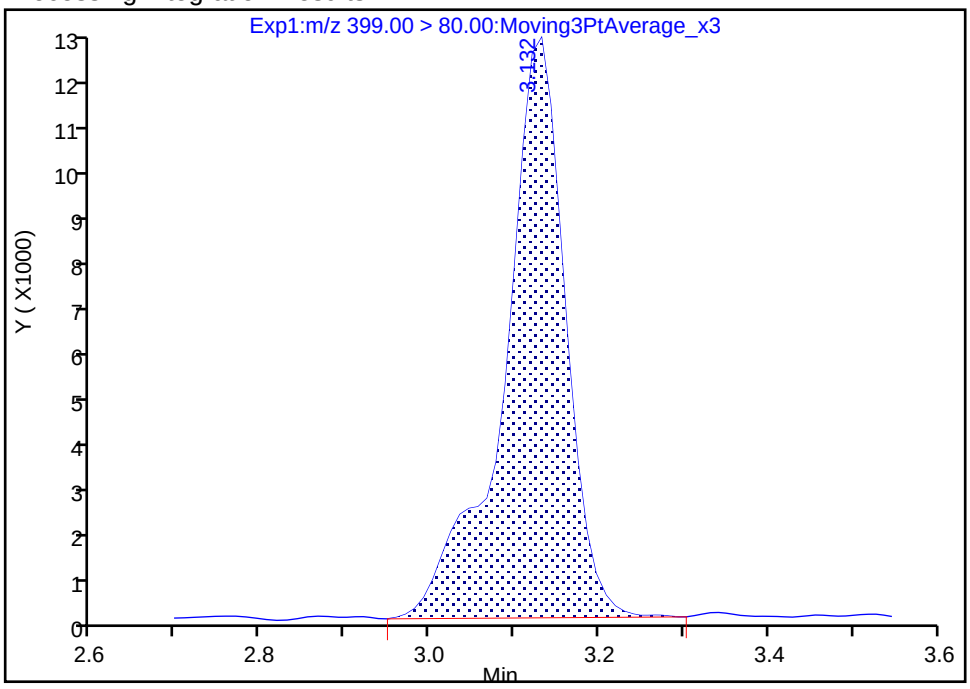
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

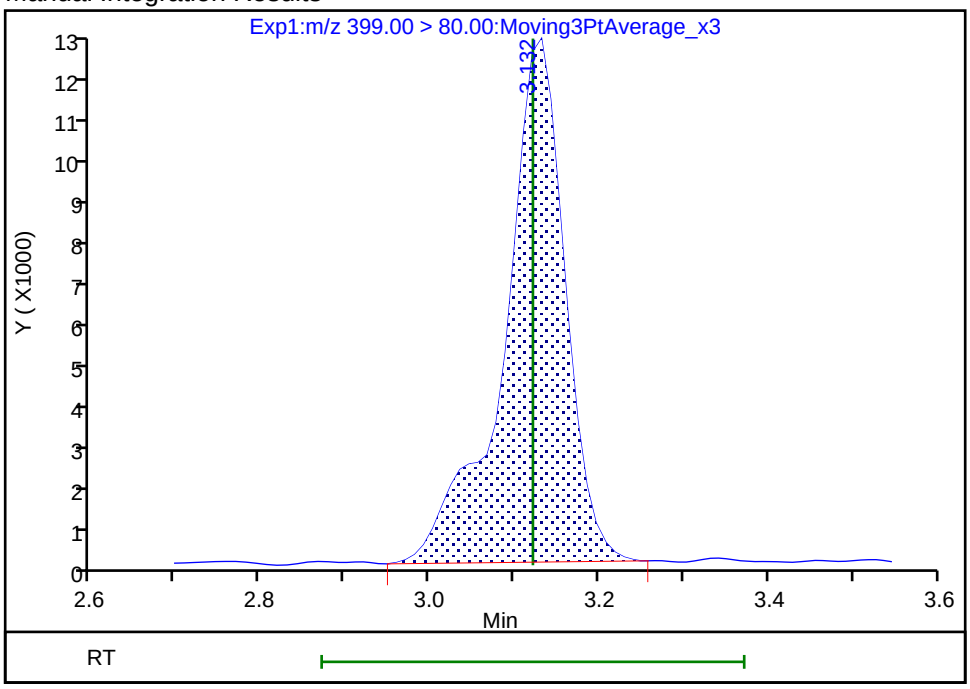
Processing Integration Results

RT: 3.13
Area: 63794
Amount: 0.050265
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 63407
Amount: 0.052143
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

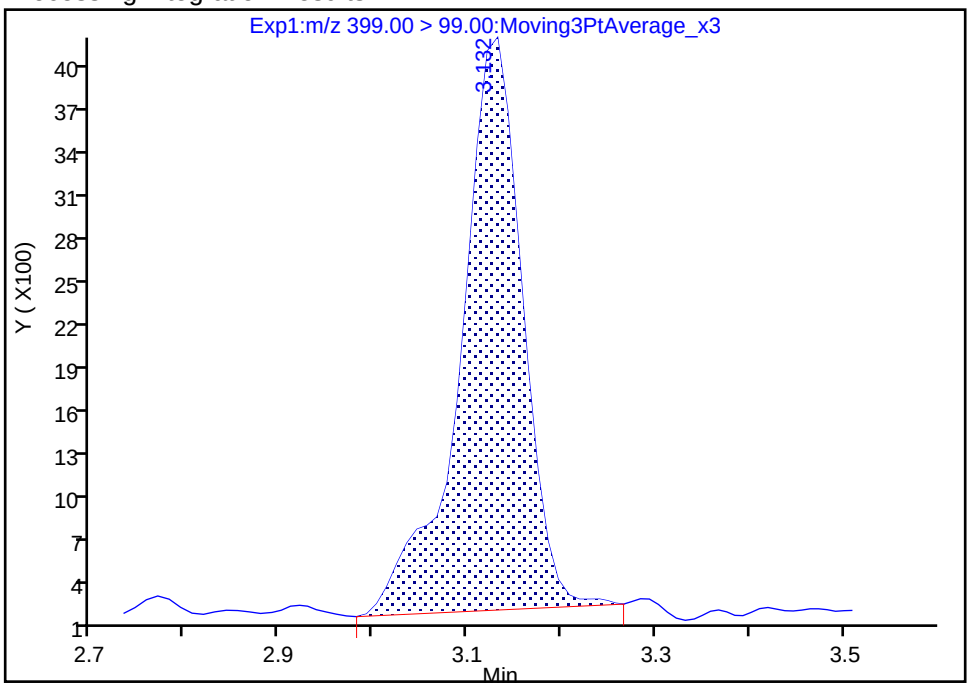
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

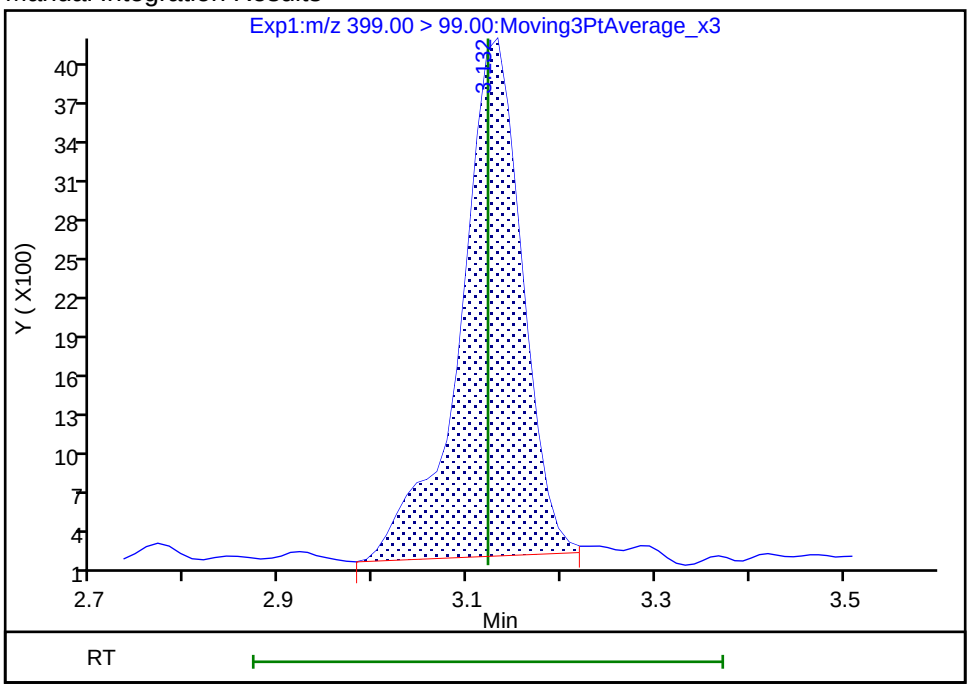
Processing Integration Results

RT: 3.13
Area: 18082
Amount: 0.050265
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 18001
Amount: 0.052143
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

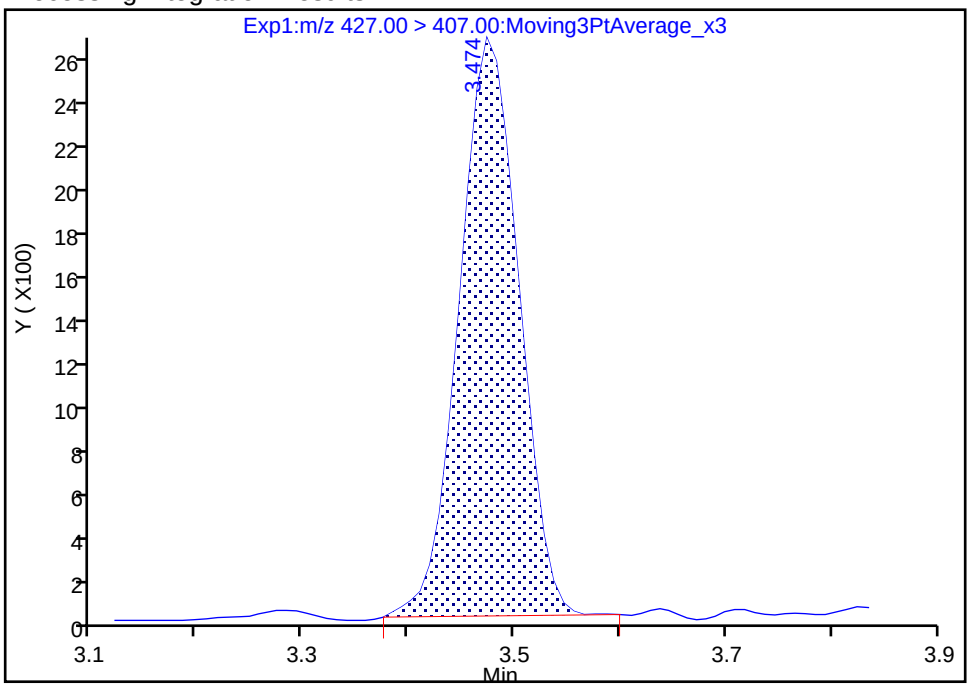
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

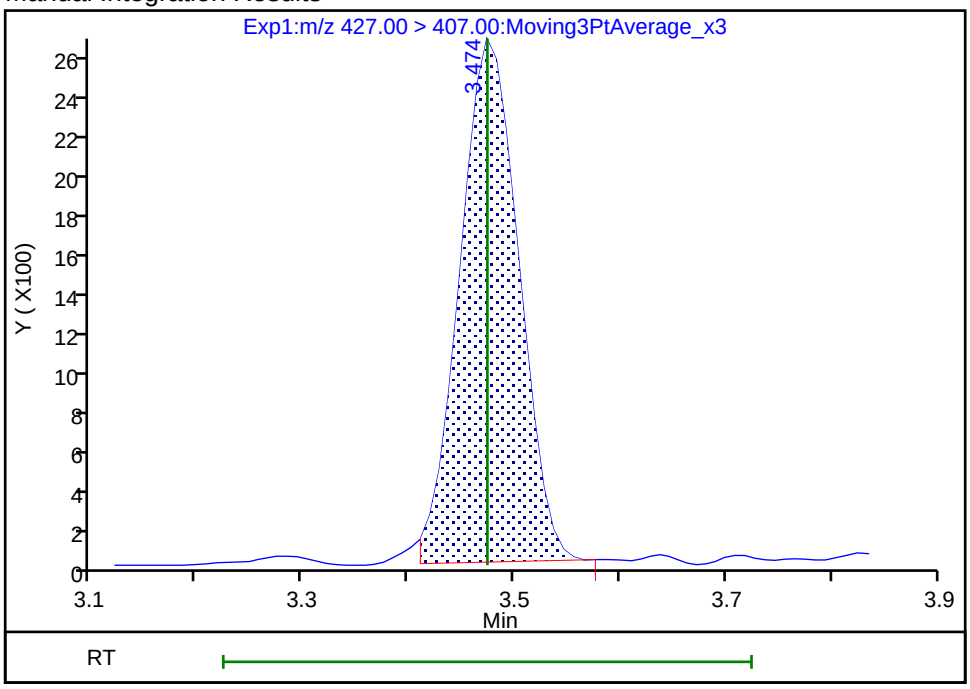
Processing Integration Results

RT: 3.47
Area: 10463
Amount: 0.045138
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 10382
Amount: 0.045708
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

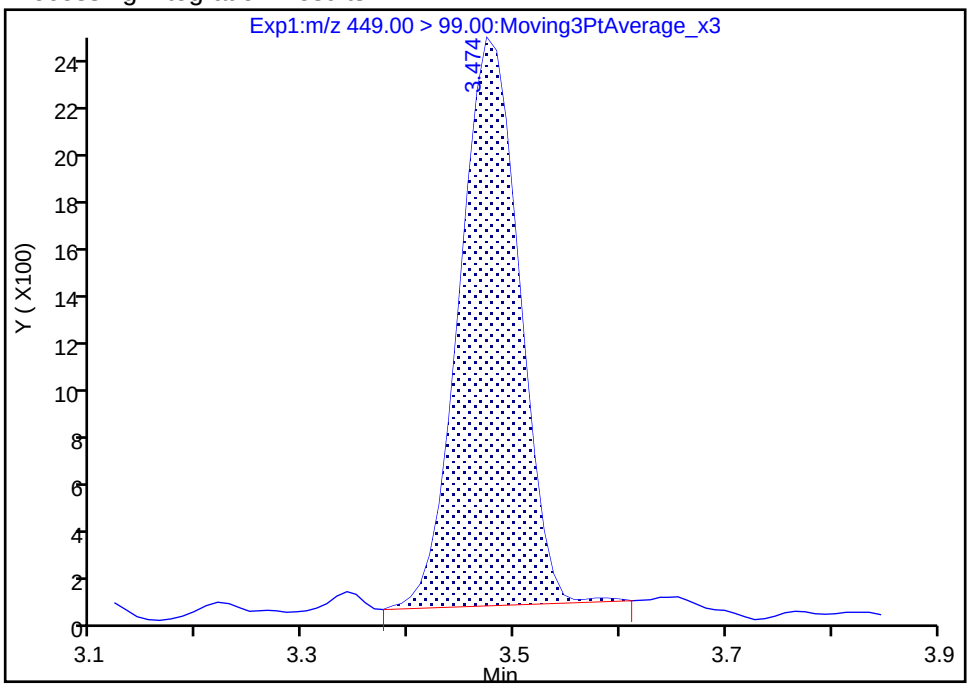
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

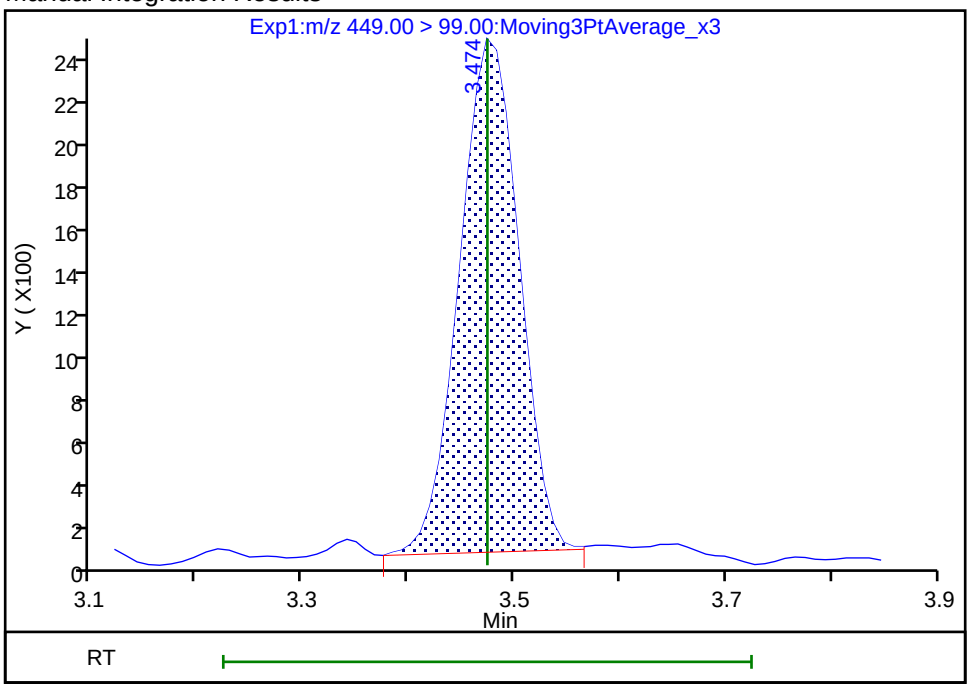
Processing Integration Results

RT: 3.47
Area: 9107
Amount: 0.048885
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 9085
Amount: 0.050504
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

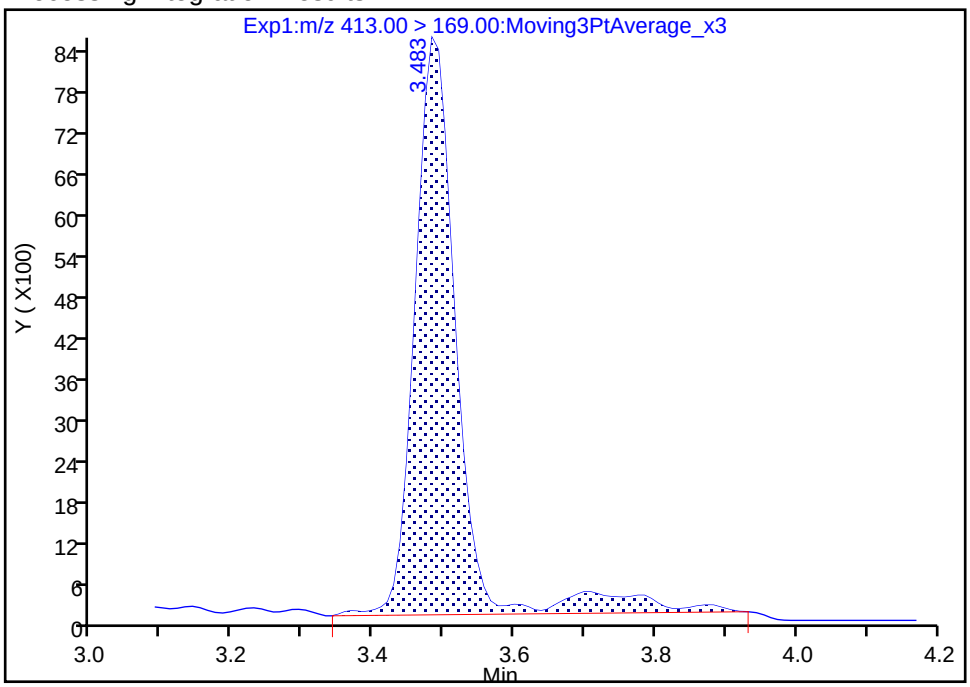
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

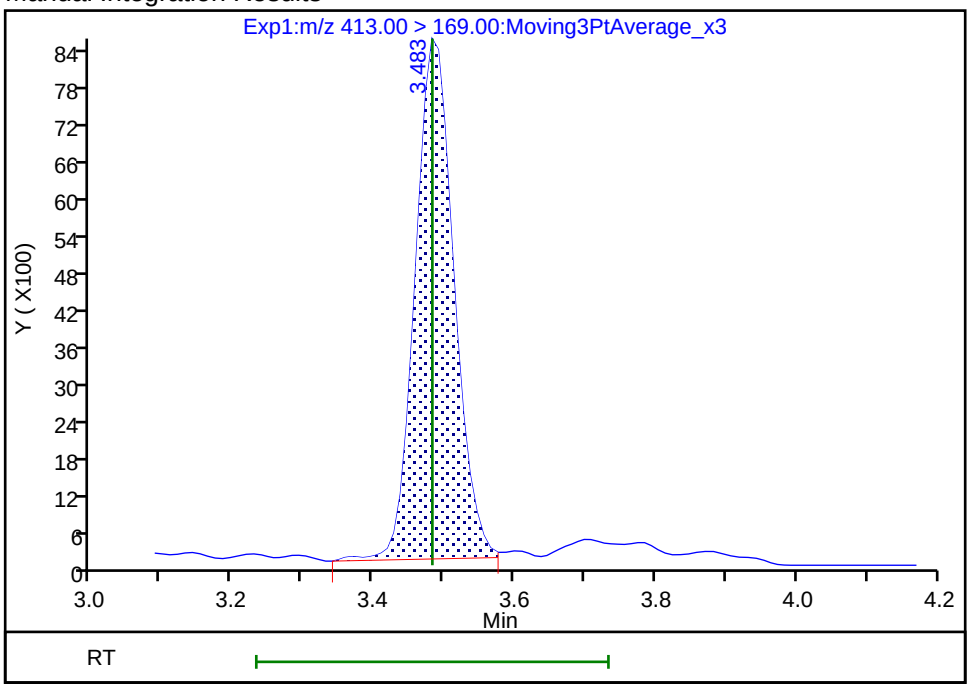
Processing Integration Results

RT: 3.48
Area: 35591
Amount: 0.052390
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 32239
Amount: 0.054622
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

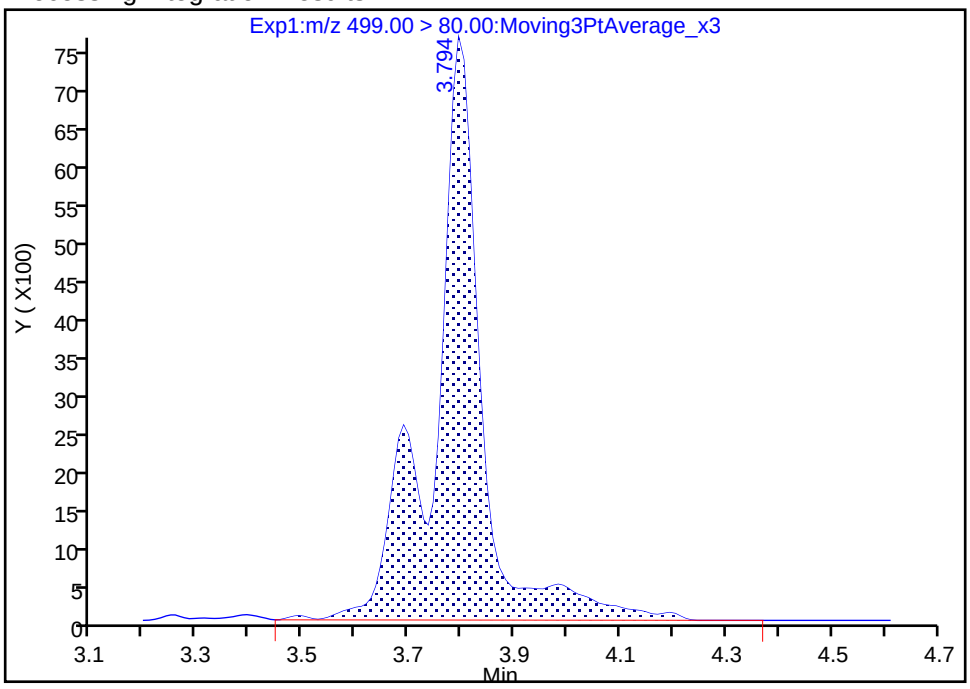
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

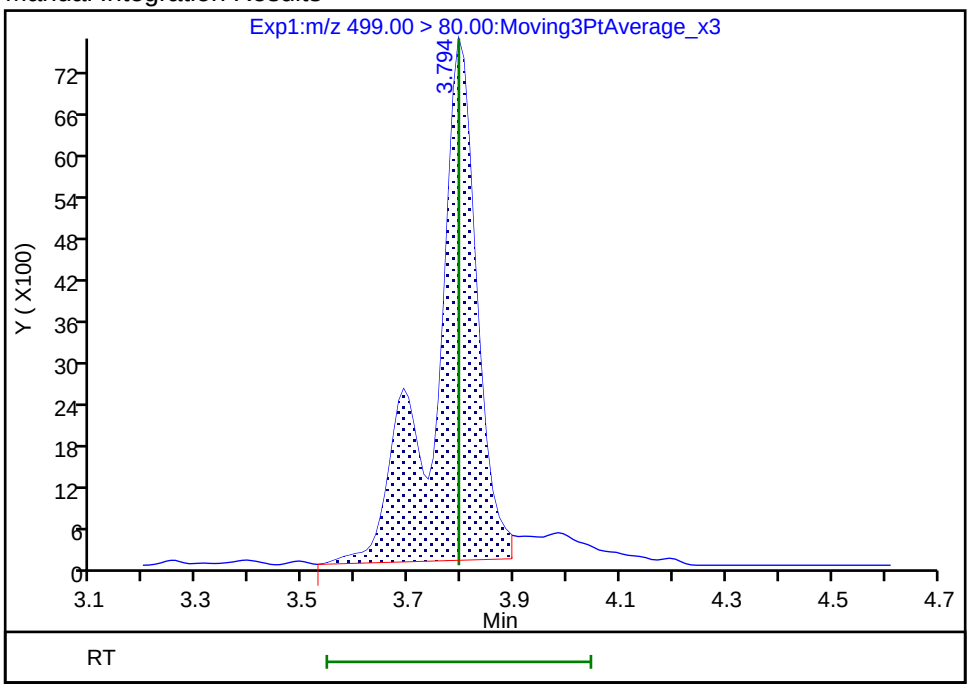
Processing Integration Results

RT: 3.79
Area: 48395
Amount: 0.049813
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 42154
Amount: 0.048148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

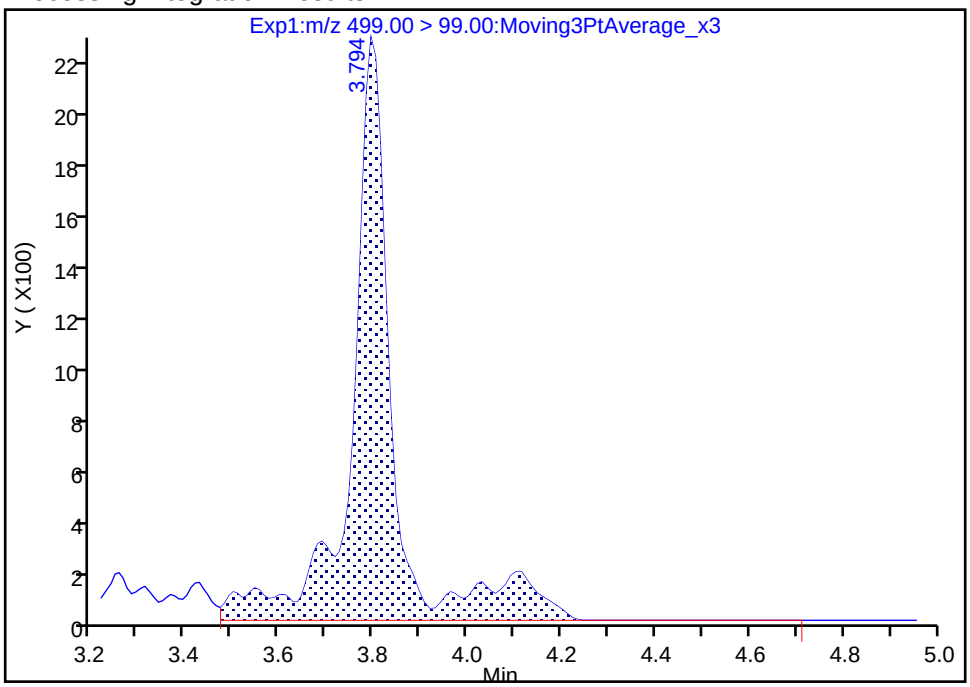
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

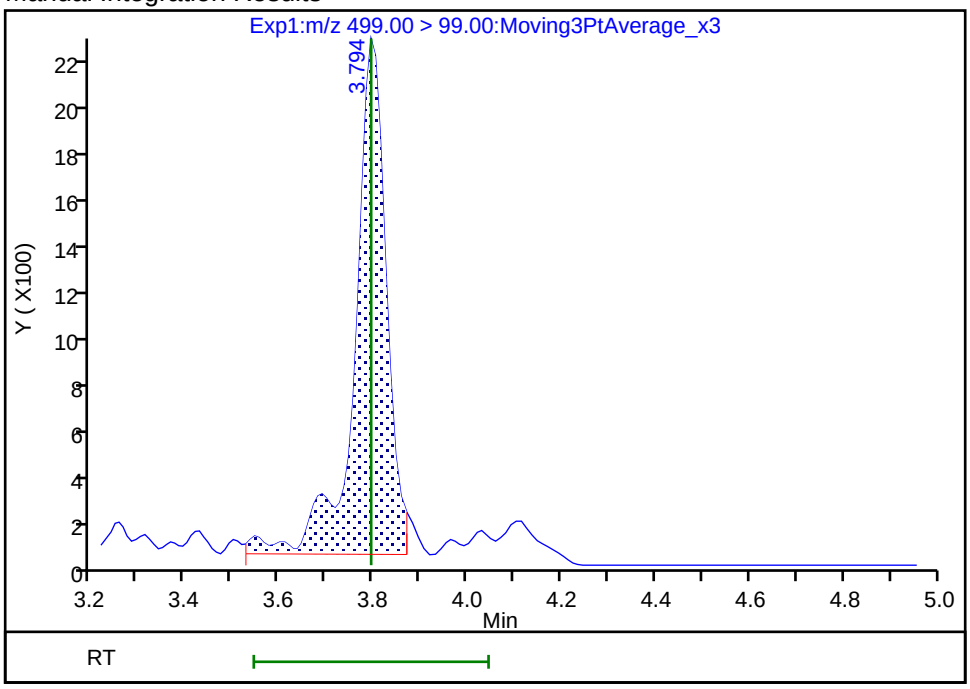
Processing Integration Results

RT: 3.79
Area: 13626
Amount: 0.049813
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 10148
Amount: 0.048148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:30

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

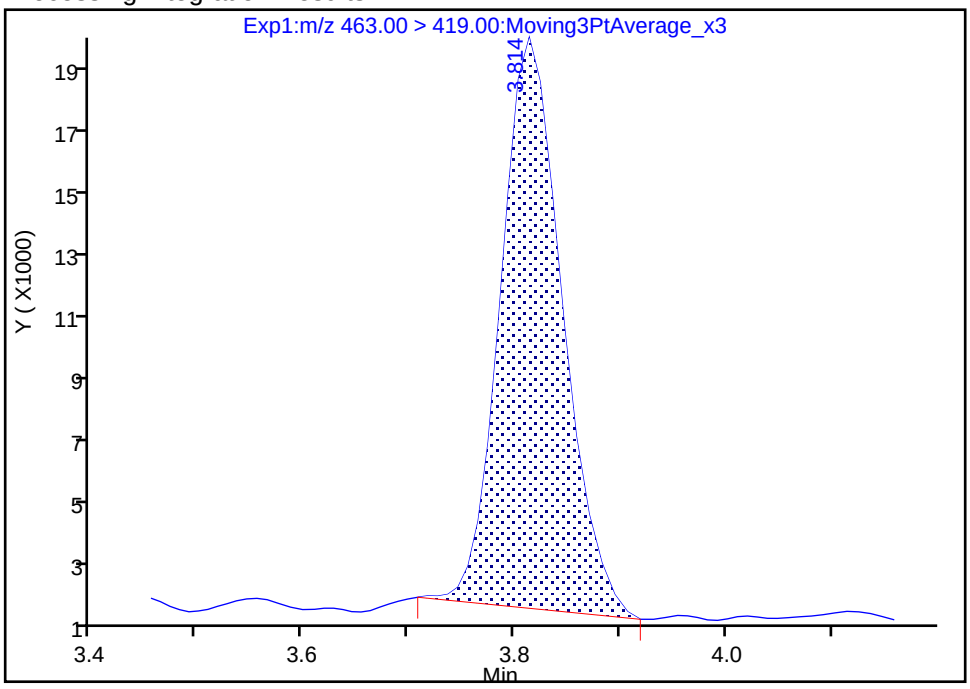
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

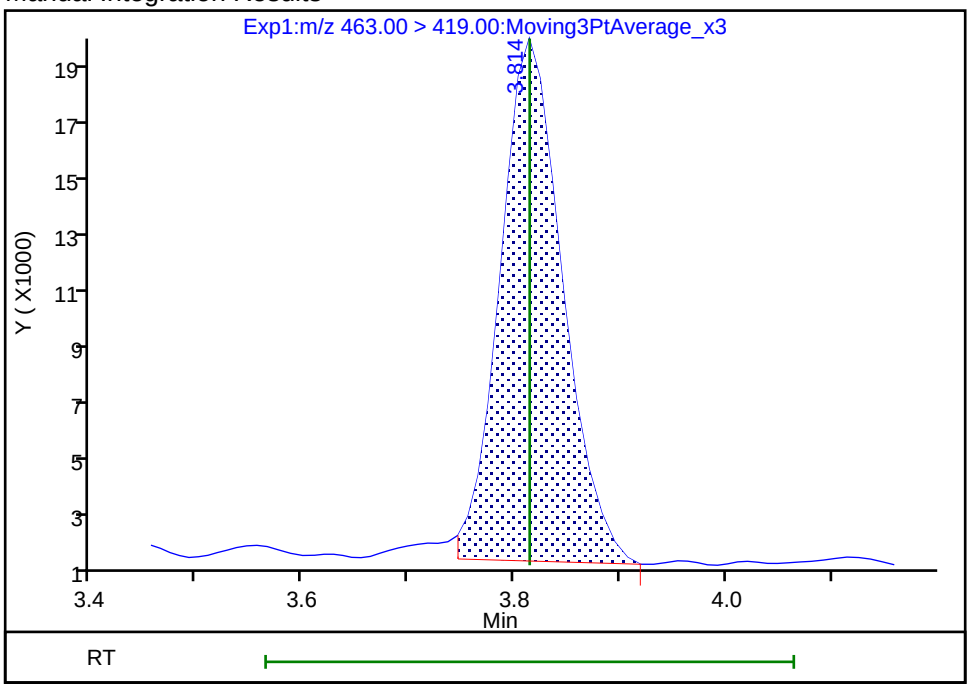
Processing Integration Results

RT: 3.81
Area: 73250
Amount: 0.053250
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 74901
Amount: 0.056374
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

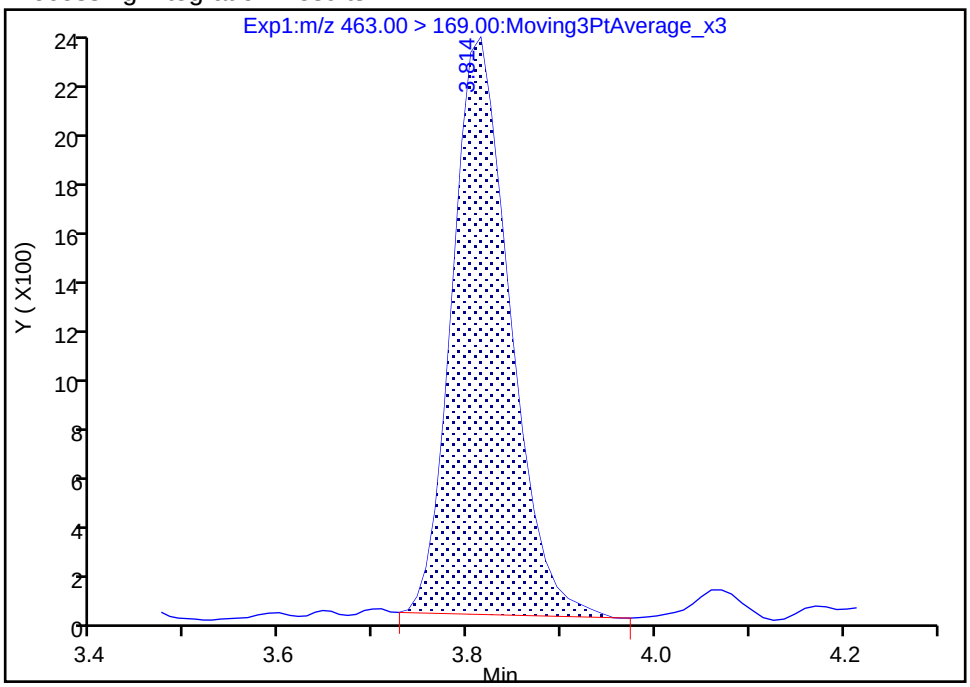
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

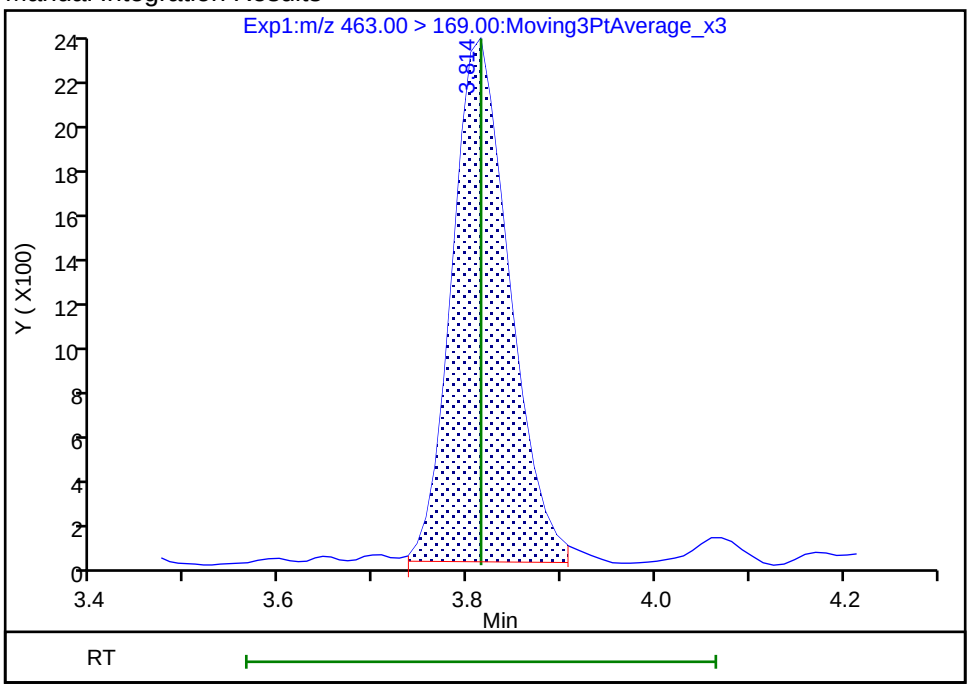
Processing Integration Results

RT: 3.81
Area: 10045
Amount: 0.053250
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 10028
Amount: 0.056374
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

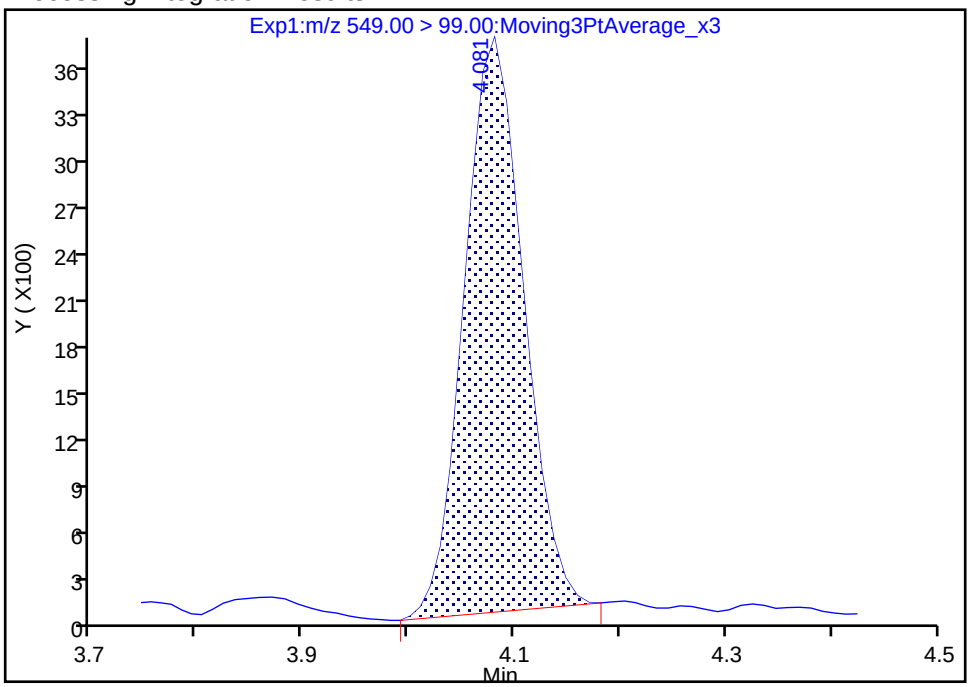
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

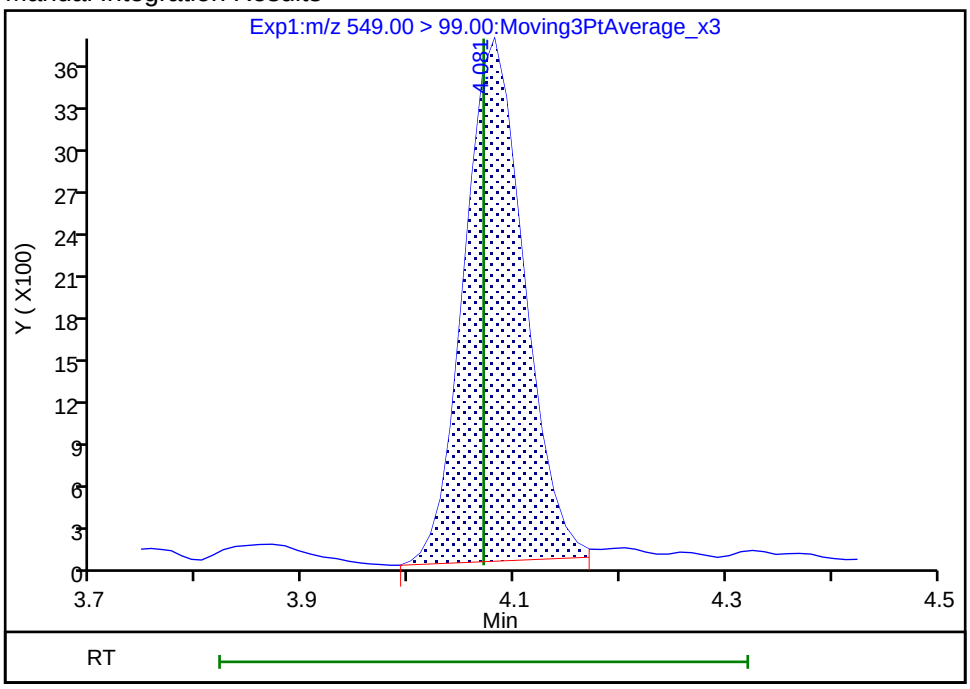
Processing Integration Results

RT: 4.08
Area: 14368
Amount: 0.049009
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 14624
Amount: 0.050473
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

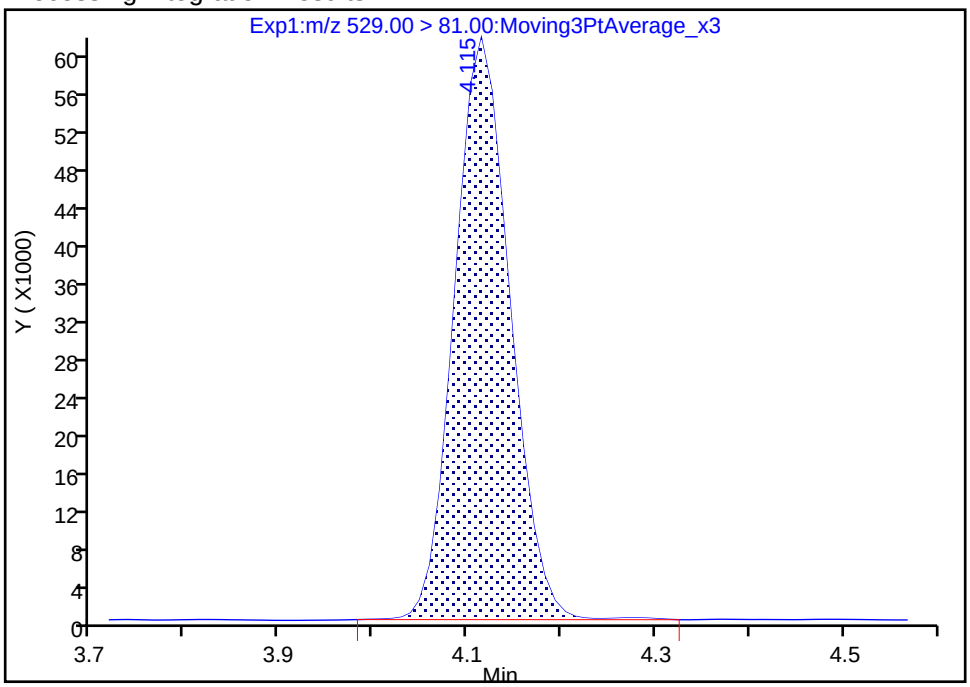
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

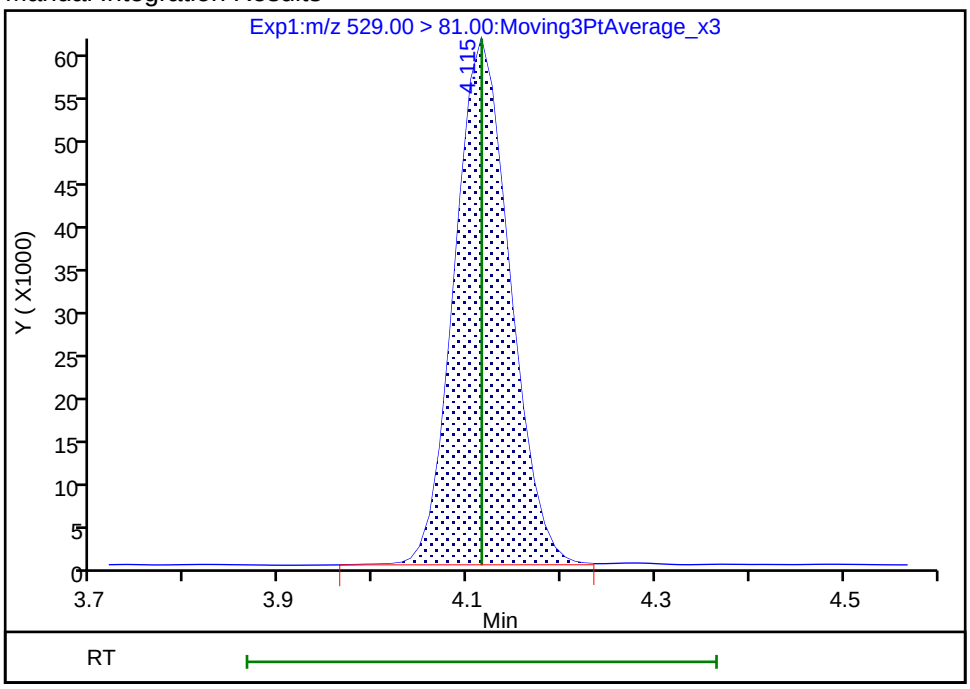
Processing Integration Results

RT: 4.11
Area: 251126
Amount: 1.264034
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 250892
Amount: 1.250083
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

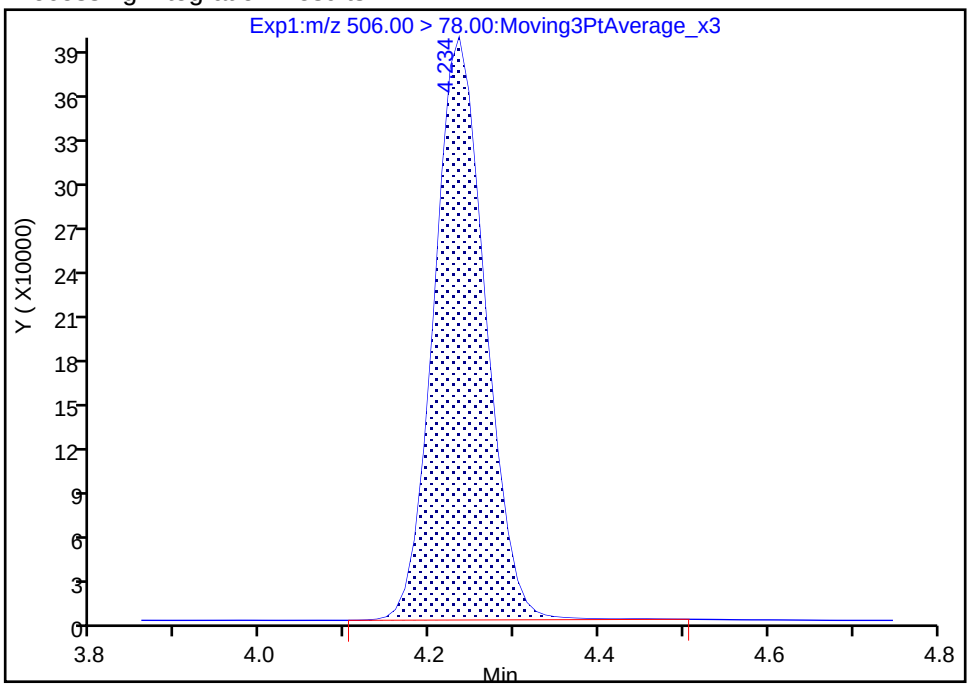
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

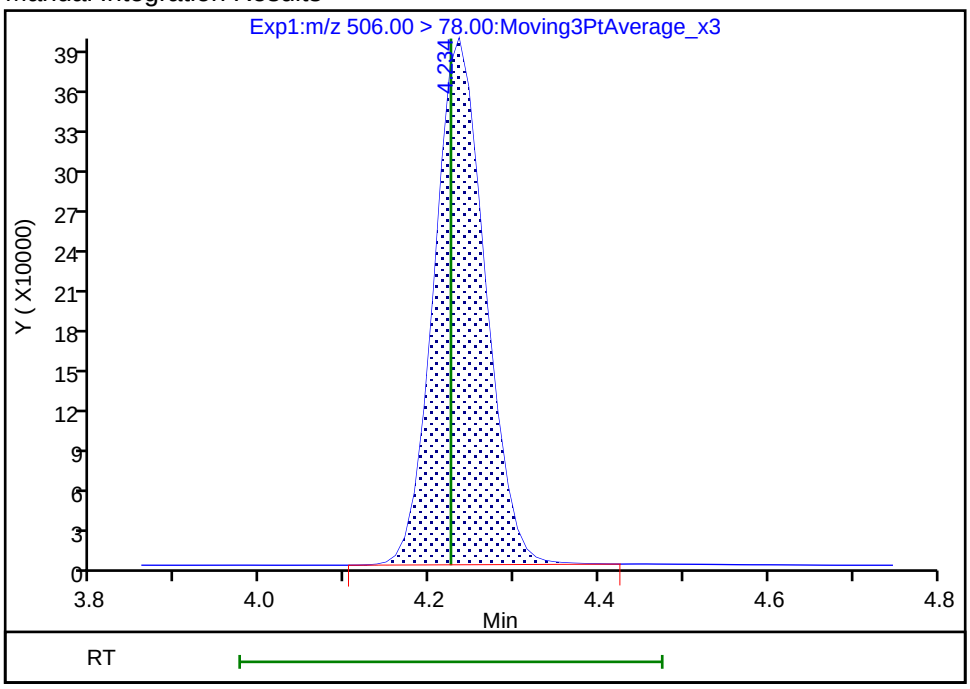
Processing Integration Results

RT: 4.23
Area: 1648414
Amount: 1.232877
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1644854
Amount: 1.230894
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

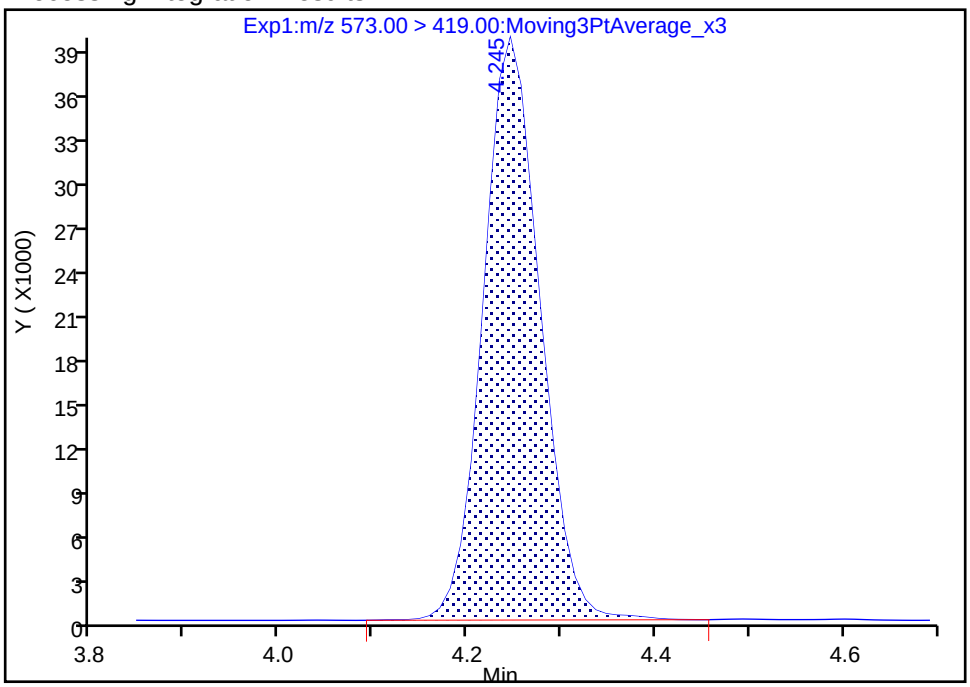
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

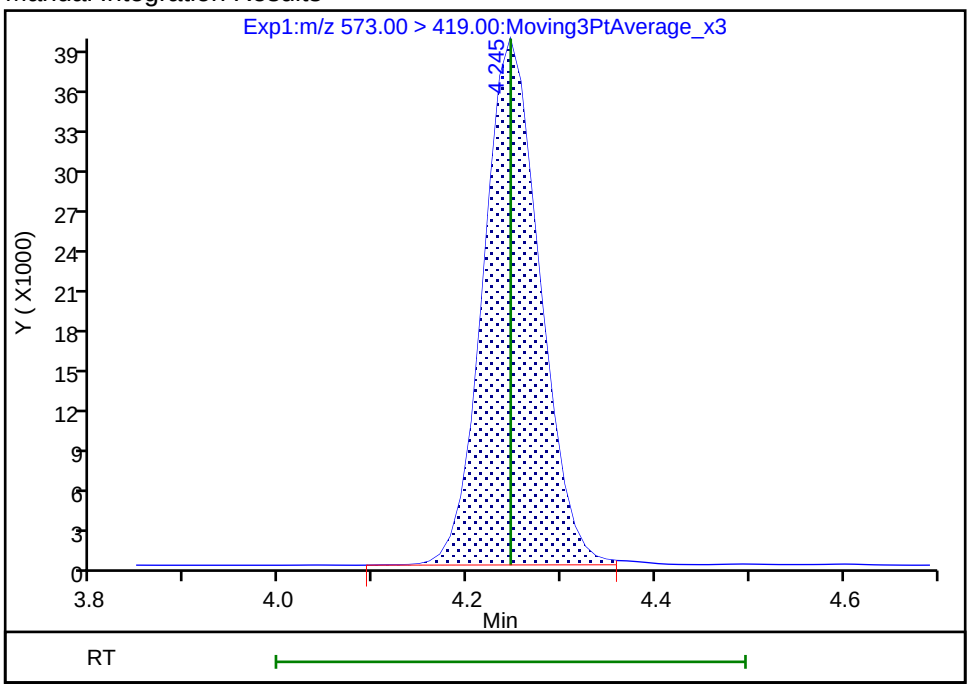
Processing Integration Results

RT: 4.25
Area: 166258
Amount: 1.219048
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 165609
Amount: 1.215256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

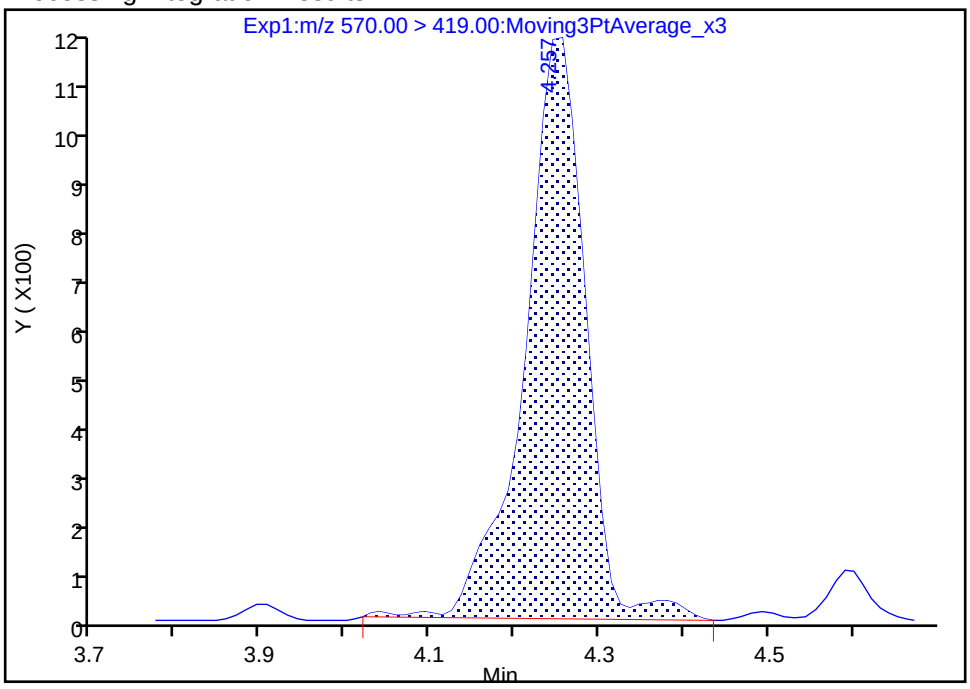
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

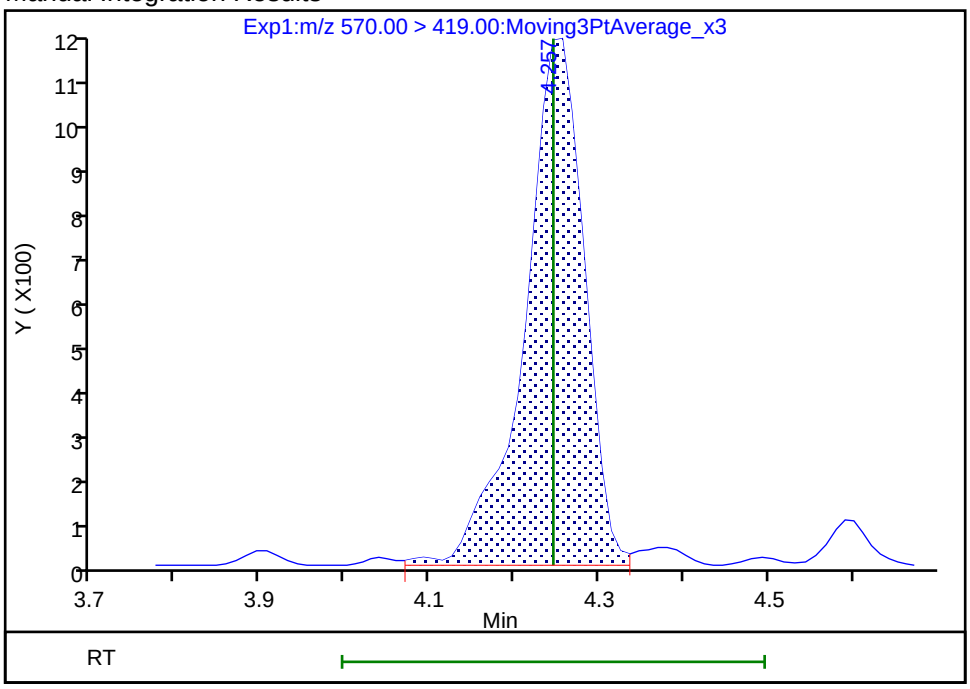
Processing Integration Results

RT: 4.26
Area: 5623
Amount: 0.054991
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 5527
Amount: 0.053103
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

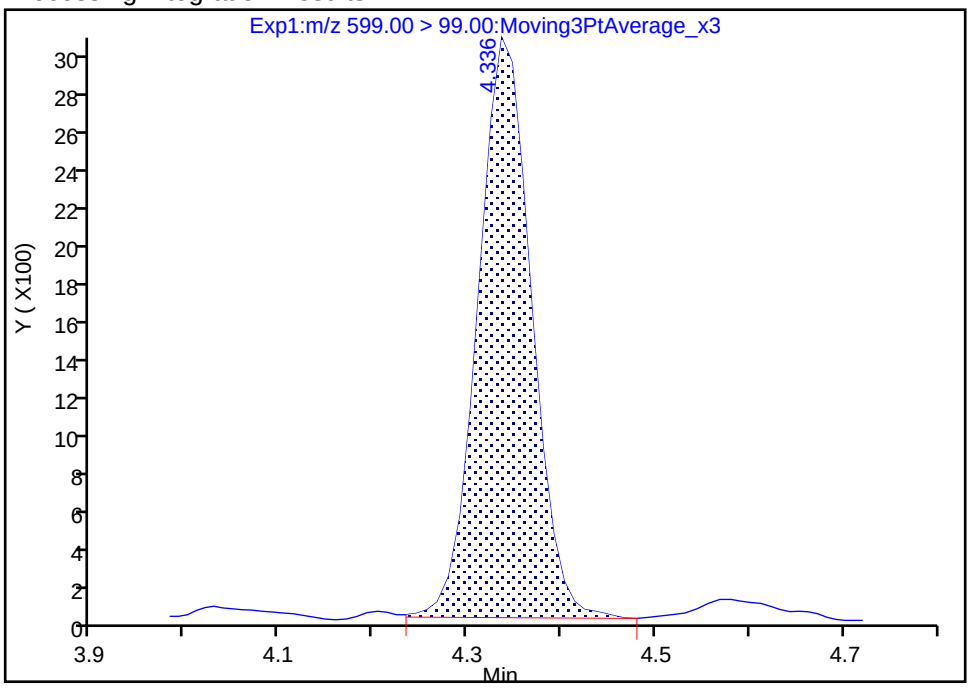
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

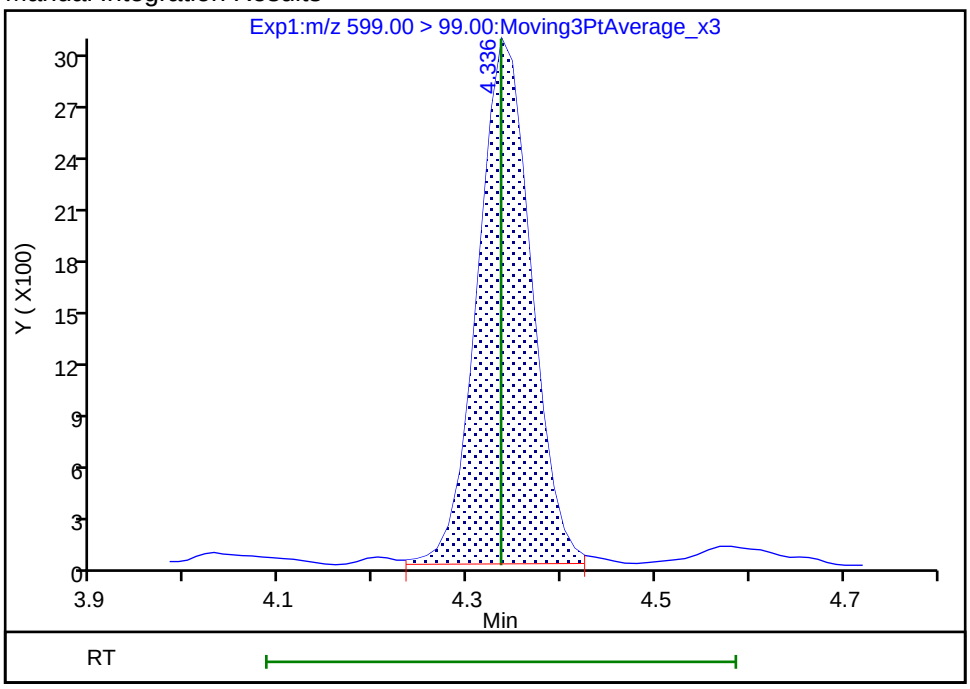
Processing Integration Results

RT: 4.34
Area: 11824
Amount: 0.047665
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 11839
Amount: 0.049486
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

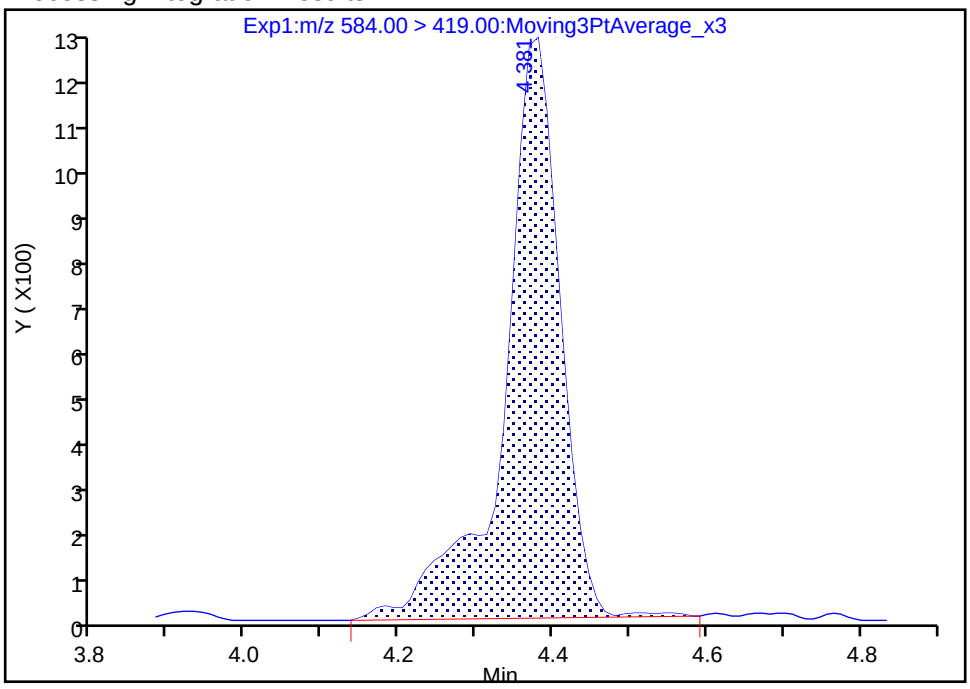
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

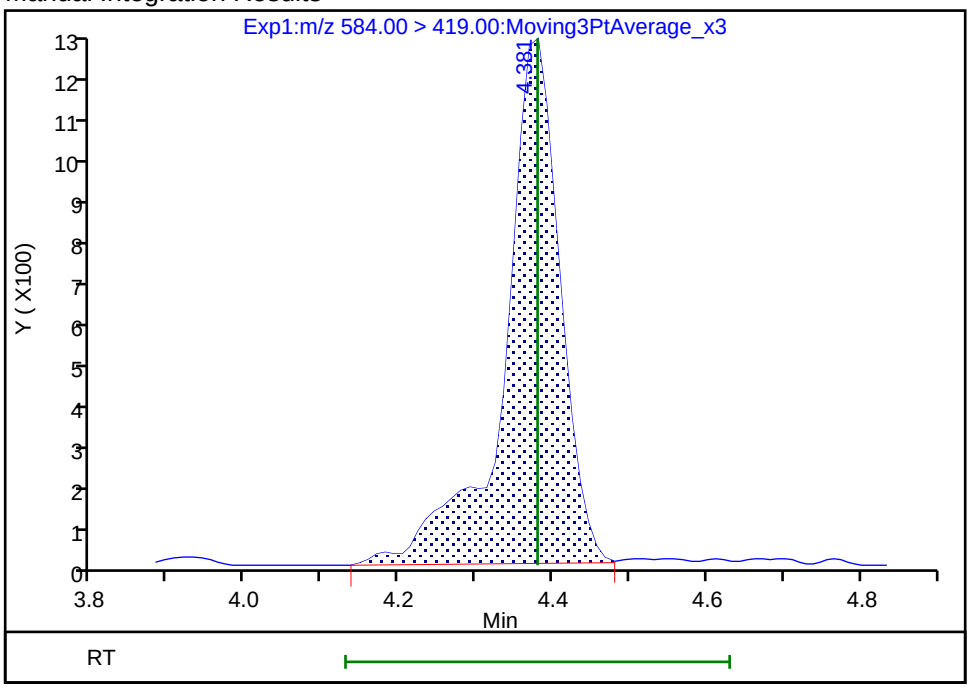
Processing Integration Results

RT: 4.38
Area: 6188
Amount: 0.055124
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 6162
Amount: 0.058446
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

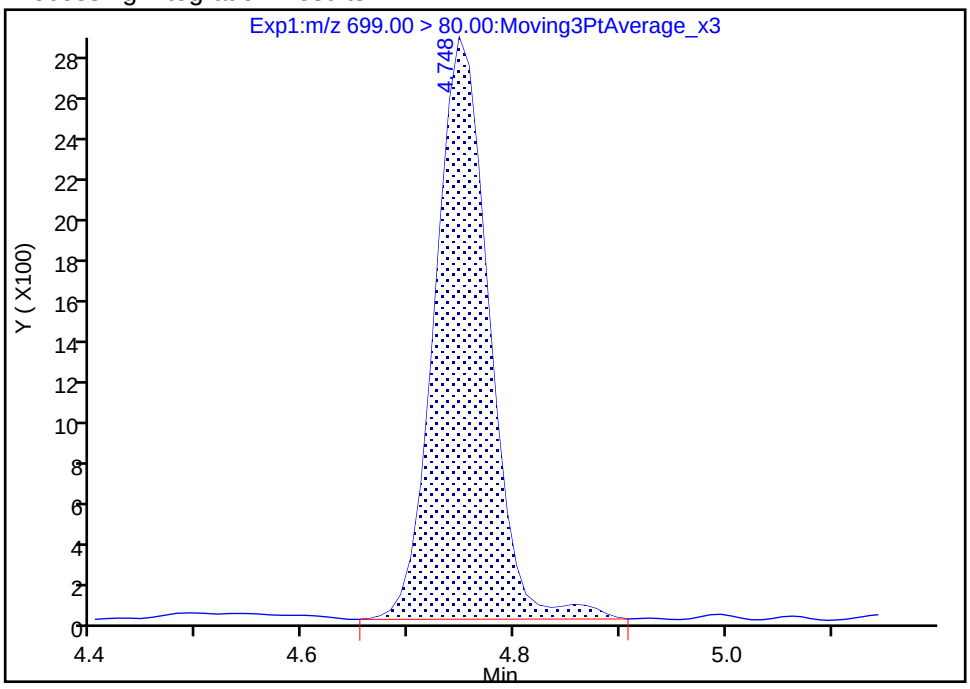
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

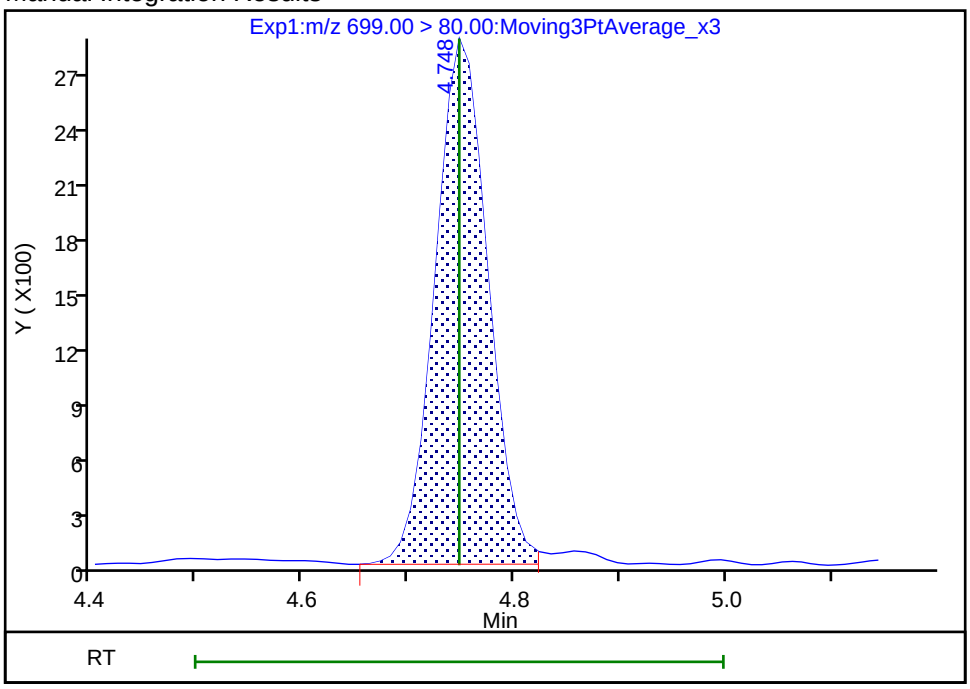
Processing Integration Results

RT: 4.75
Area: 10193
Amount: 0.050368
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 9954
Amount: 0.051040
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

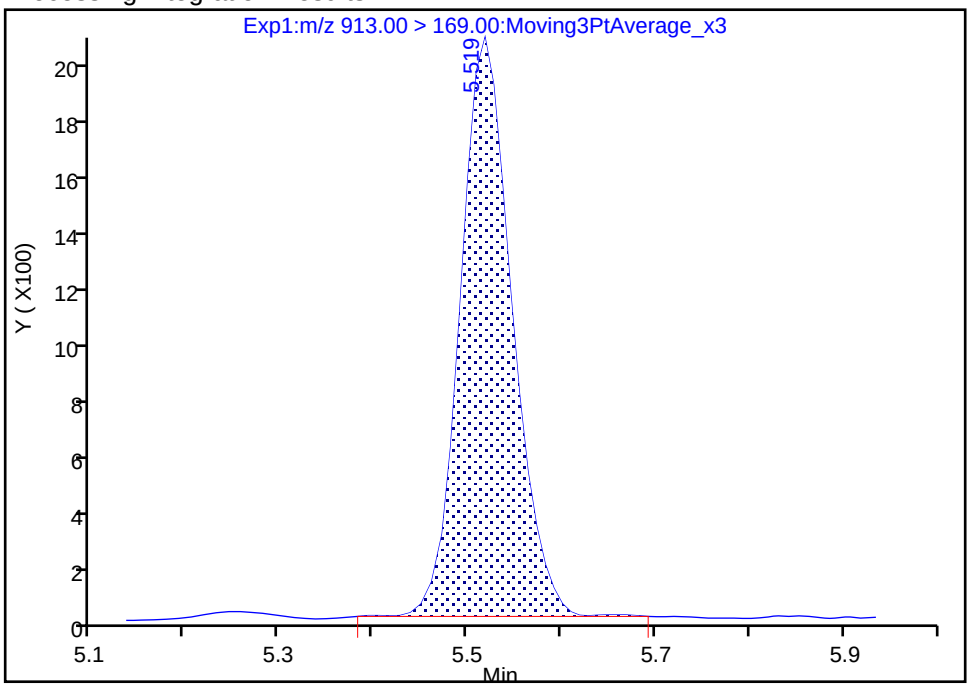
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

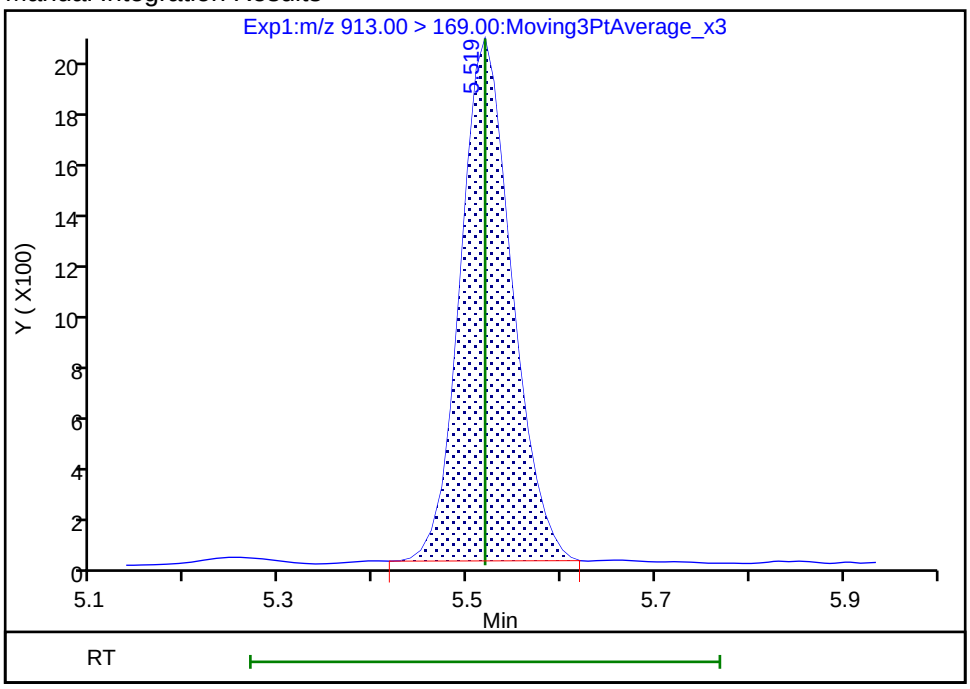
Processing Integration Results

RT: 5.52
Area: 7851
Amount: 0.049358
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 7793
Amount: 0.051734
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:50:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Oct-2021 13:54:32 ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-003 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:09 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 14:59:46
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.596 | 2002798 | 1.23 | | 98.8 | 5880 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 163340 | 0.1078 | | 108 | 12.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.687 | 1641164 | 1.20 | | 96.1 | 2729 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.398 | 0.015 | 1.005 | 137765 | 0.1047 | | 105 | 7.5 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.691 | 2122028 | 1.15 | | 98.7 | 192469 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 187317 | 0.0961 | Target=2.29 | 109 | 172 | |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 79509 | | 2.36(1.15-3.44) | 109 | 26.9 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.720 | 0.014 | 0.783 | 164450 | 1.17 | | 99.9 | 141 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.720 | 0.014 | 1.000 | 30668 | 0.1023 | | 110 | 605 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.756 | 0.014 | 1.000 | 158519 | 0.1103 | Target=12.01 | 110 | 21.6 | M |
| 313.00 > 119.00 | 2.770 | 2.756 | 0.014 | 1.000 | 13979 | | 11.34(6.00-18.01) | 110 | 16.3 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.756 | 0.014 | 0.793 | 1770715 | 1.24 | | 98.8 | 4575 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 161688 | 0.0986 | Target=3.04 | 105 | 239 | |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 53418 | | 3.03(1.52-4.56) | 105 | 56.9 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.821 | 53908 | 1.43 | | 114 | 483 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.865 | 0.015 | 1.004 | 19398 | 0.0994 | | 99.4 | 4.9 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.897 | 1610888 | 1.20 | | 101 | 2603 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 144803 | 0.0967 | Target=3.51 | 106 | 266 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 40713 | | 3.56(1.76-5.27) | 106 | 34.5 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 167428 | 0.1076 | Target=3.83 | 108 | 44.6 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 43469 | | 3.85(1.91-5.74) | 108 | 75.3 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1883272 | 1.25 | | 99.8 | 2668 | M |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 350627 | 0.1008 | Target=2.58 | 107 | 503 | |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 129559 | | 2.71(1.29-3.88) | 107 | 189 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 126449 | 0.1021 | Target=5.12 | 107 | 469 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 24700 | | 5.12(2.56-7.67) | 107 | 57.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.995 | 245685 | 1.16 | | 97.7 | 494 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 25961 | 0.0990 | | 104 | 448 | |
| D 14 13C4 PFOA | | | | | | | | | | M |
| 417.00 > 372.00 | 3.492 | 3.483 | 0.009 | 1.000 | 2077322 | 1.26 | | 101 | 2521 | M |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.483 | 0.009 | | 2003365 | 1.25 | | | 3641 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.000 | 191529 | 0.1084 | Target=2.65 | 108 | 32.8 | M |
| 413.00 > 169.00 | 3.492 | 3.483 | 0.009 | 1.000 | 68573 | | 2.79(1.32-3.97) | 108 | 112 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 1187422 | 1.22 | | 102 | 3511 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 111255 | 0.1032 | Target=4.60 | 111 | 140 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 25348 | | 4.39(2.30-6.90) | 111 | 49.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 2005558 | 1.22 | | 97.7 | 3790 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 173658 | 0.1106 | Target=7.58 | 111 | 34.7 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 21301 | | 8.15(3.79-11.37) | 111 | 173 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 161187 | 0.0992 | | 106 | 685 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 85933 | 0.1023 | Target=2.38 | 107 | 518 | M |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 37006 | | 2.32(1.19-3.56) | 107 | 114 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.175 | 2069906 | 1.25 | | 99.9 | 3263 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 188134 | 0.1131 | Target=9.30 | 113 | 110 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 18655 | | 10.08(4.65-13.95) | 113 | 117 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.178 | 288661 | 1.20 | | 100 | 839 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 20820 | 0.1032 | | 108 | 162 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.234 | 4.225 | 0.009 | 1.213 | 1999674 | 1.25 | | 100 | 2029 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.235 | -0.001 | 1.000 | 157927 | 0.1040 | | 104 | 400 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.216 | 207879 | 1.27 | | 102 | 1087 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 13075 | 0.1001 | | 100 | 70.6 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.335 | 4.336 | -0.001 | 1.143 | 69056 | 0.1058 | Target=2.54 | 110 | 593 | |
| 599.00 > 99.00 | 4.335 | 4.336 | -0.001 | 1.143 | 24214 | | 2.85(1.27-3.81) | 110 | 150 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.357 | 4.358 | -0.001 | 1.248 | 1631857 | 1.26 | | 101 | 3280 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.357 | 4.358 | -0.001 | 1.000 | 152692 | 0.1097 | Target=9.37 | 110 | 108 | M |
| 563.00 > 169.00 | 4.357 | 4.358 | -0.001 | 1.000 | 16331 | | 9.35(4.69-14.06) | 110 | 187 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.251 | 192776 | 1.26 | | 101 | 1218 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.003 | 14950 | 0.1131 | | 113 | 175 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.456 | 4.445 | 0.011 | 1.174 | 184947 | 0.0964 | | 102 | 934 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.312 | 1722128 | 1.24 | | 99.1 | 749 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.002 | 148447 | 0.1101 | Target=6.84 | 110 | 25.7 | M |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 22363 | | 6.64(3.42-10.25) | 110 | 155 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 9695 | 0.1041 | | 108 | 192 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.747 | 4.748 | -0.001 | 1.251 | 24558 | 0.1023 | Target=0.51 | 106 | 362 | M |
| 699.00 > 99.00 | 4.747 | 4.748 | -0.001 | 1.251 | 49542 | | 0.50(0.25-0.76) | 106 | 543 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.783 | 4.775 | 0.008 | 1.044 | 125142 | 0.1076 | Target=4.67 | 108 | 29.4 | |
| 663.00 > 169.00 | 4.783 | 4.775 | 0.008 | 1.044 | 26851 | | 4.66(2.33-7.00) | 108 | 397 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.956 | 4.957 | 0.0 | 1.419 | 1335021 | 1.24 | | 99.1 | 3337 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.956 | 4.957 | 0.0 | 1.000 | 18818 | 0.1116 | Target=0.99 | 112 | 316 | |
| 713.00 > 219.00 | 4.947 | 4.957 | -0.009 | 0.998 | 17852 | | 1.05(0.49-1.48) | 112 | 298 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.506 | 1197224 | 1.26 | | 101 | 3117 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 98385 | 0.1016 | Target=4.50 | 102 | 27.0 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 22341 | | 4.40(2.25-6.75) | 102 | 282 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.518 | 5.519 | -0.001 | 1.050 | 89309 | 0.1106 | Target=4.46 | 111 | 46.6 | |
| 913.00 > 169.00 | 5.518 | 5.519 | -0.001 | 1.050 | 20170 | | 4.43(2.23-6.68) | 111 | 352 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC2_00009 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d

Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812

Lims ID: IC

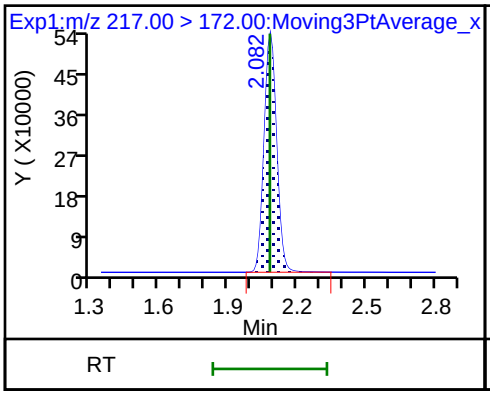
Client ID:

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3

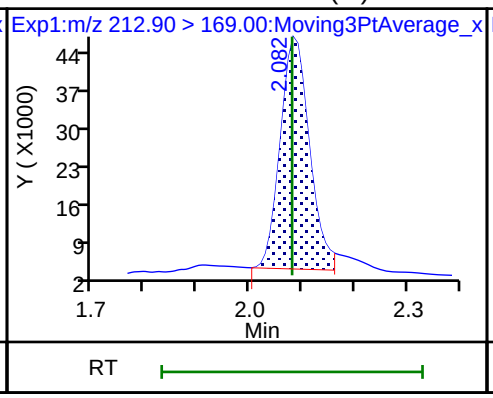
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

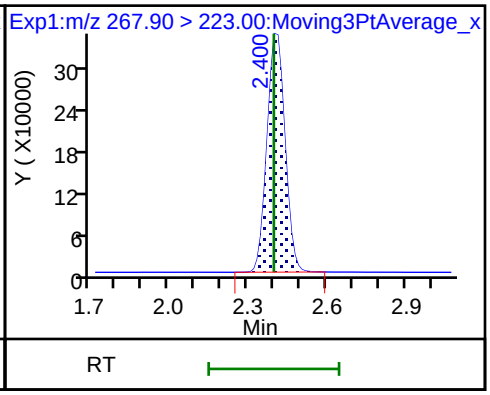
D 1 13C4 PFBA



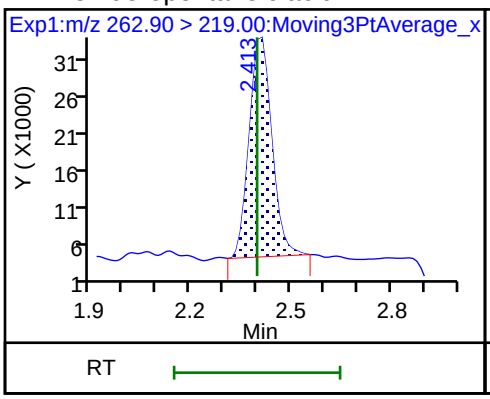

2 Perfluorobutanoic acid (M)



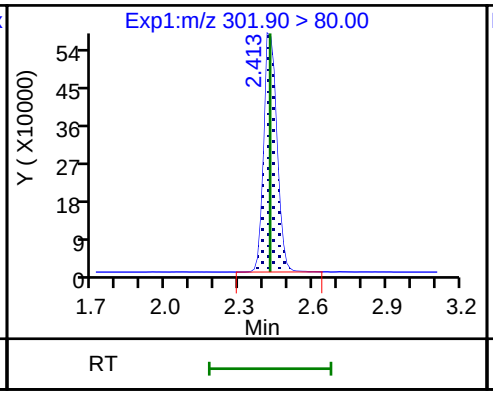

D 3 13C5 PFPeA



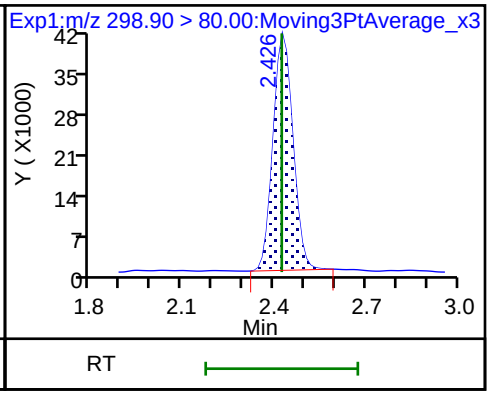

4 Perfluoropentanoic acid



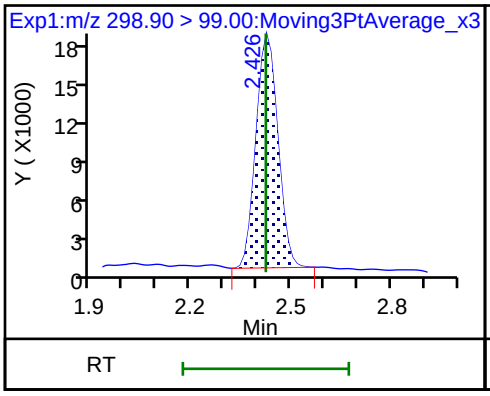

D 47 13C3 PFBS



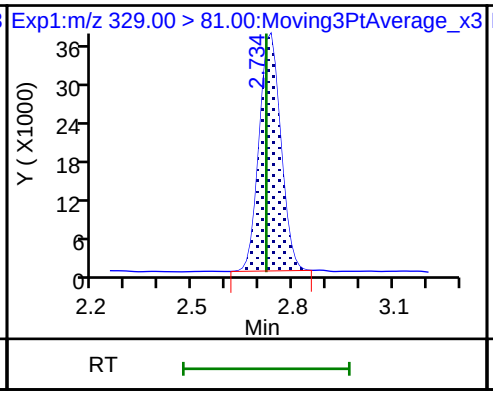

5 Perfluorobutanesulfonic acid



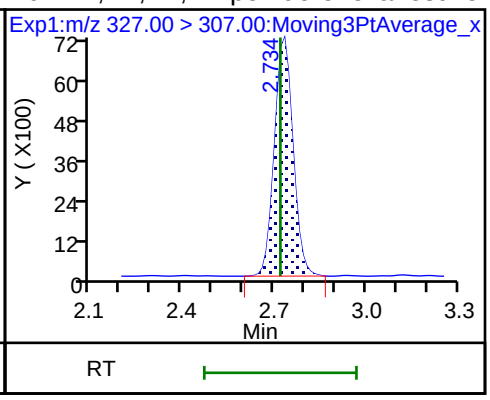

5 Perfluorobutanesulfonic acid



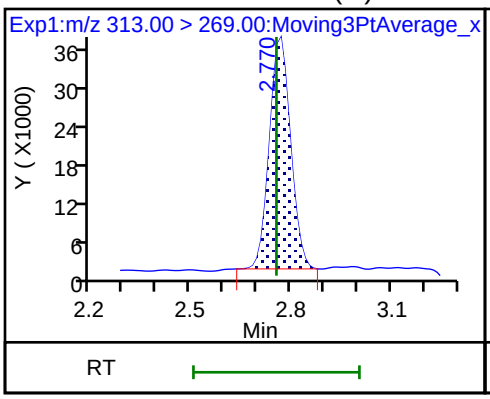

D 60 M2-4:2 FTS



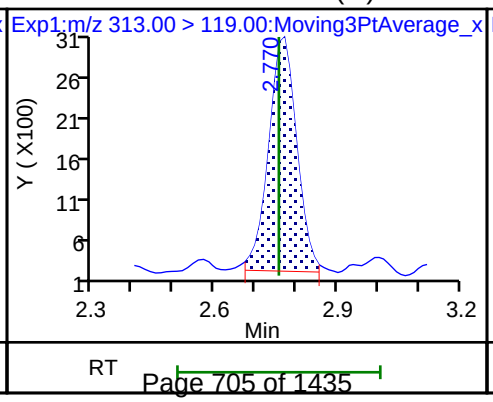

61 1H,1H,2H,2H-perfluorohexanesulfo



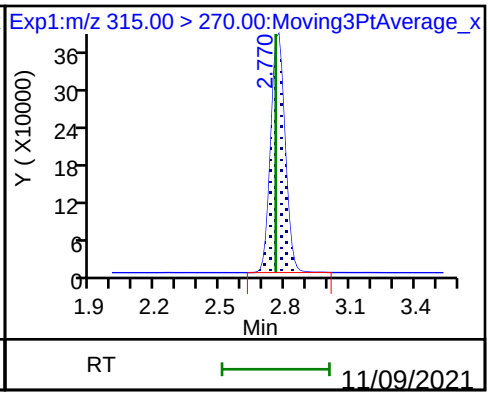

6 Perfluorohexanoic acid (M)



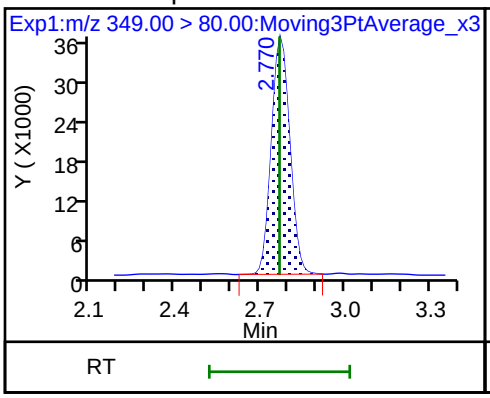

6 Perfluorohexanoic acid (M)



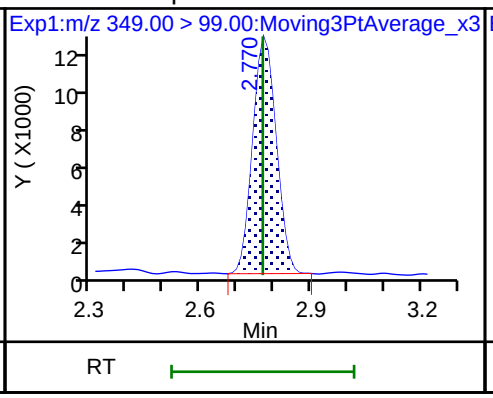

D 7 13C2 PFHxA



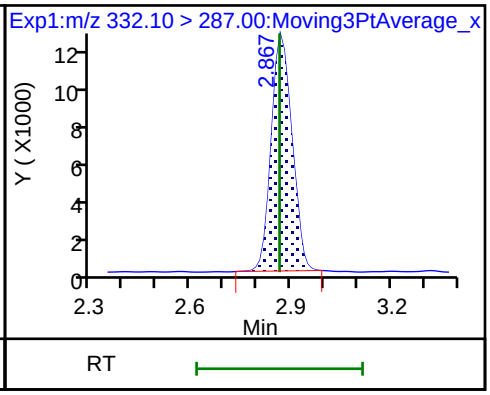
70 Perfluoropentanesulfonic acid



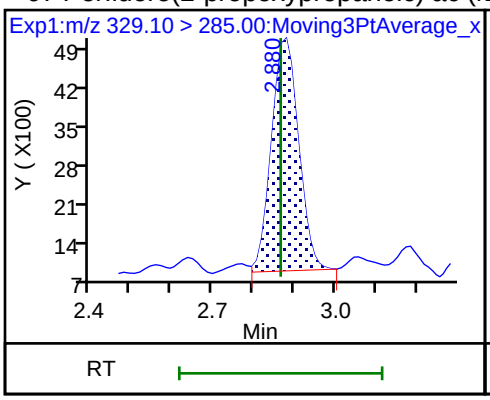

70 Perfluoropentanesulfonic acid



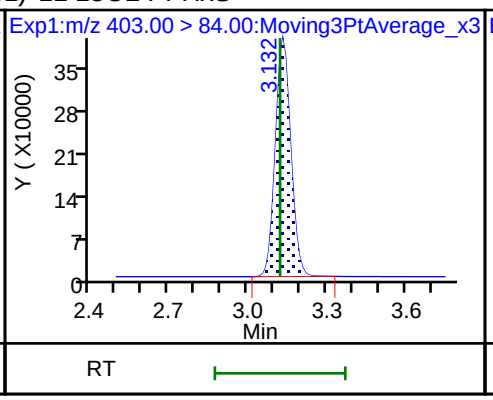

D 64 13C3 HFPO-DA



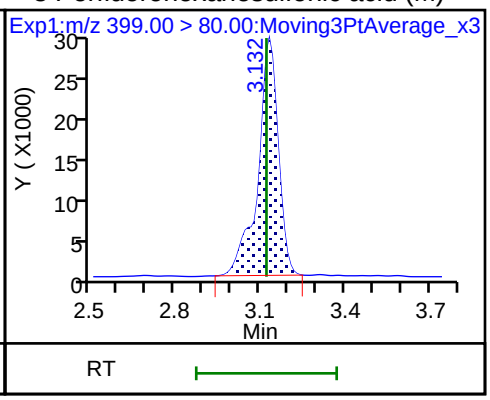

67 Perfluoro(2-propoxypropanoic) ac (M)



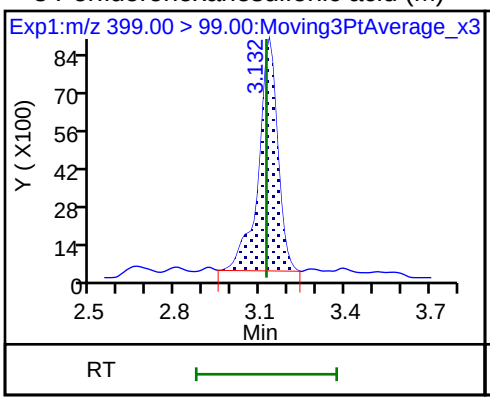

D 11 18O2 PFHxS



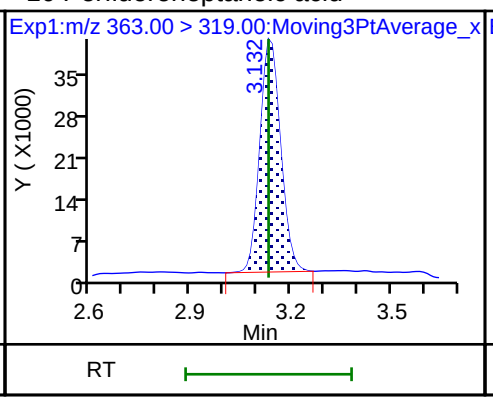

8 Perfluorohexanesulfonic acid (M)



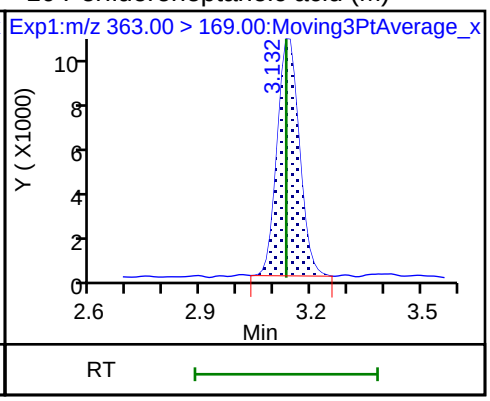

8 Perfluorohexanesulfonic acid (M)



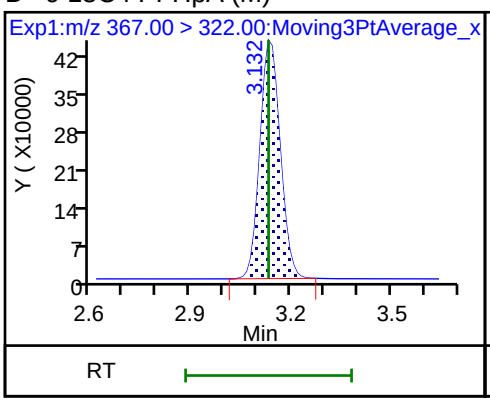

10 Perfluoroheptanoic acid



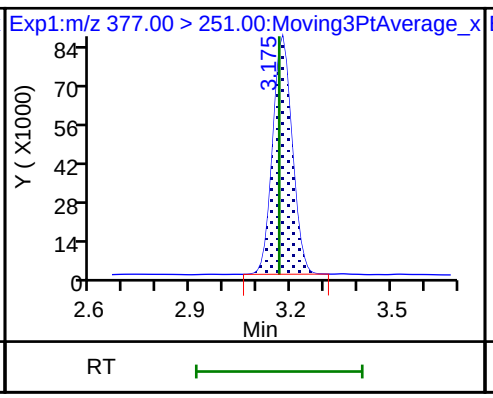

10 Perfluoroheptanoic acid (M)



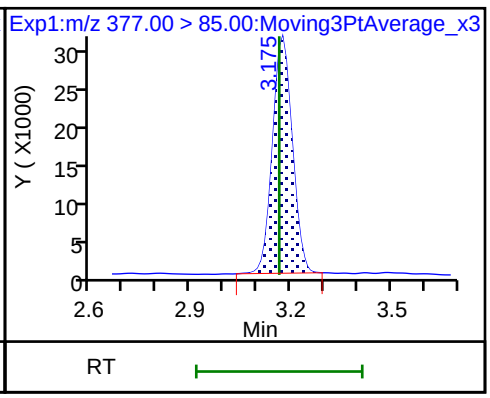

D 9 13C4 PFHpA (M)



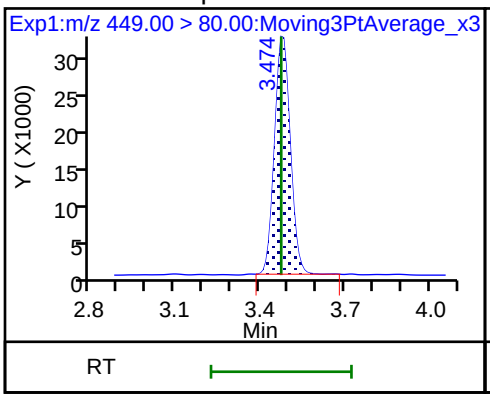

77 DONA



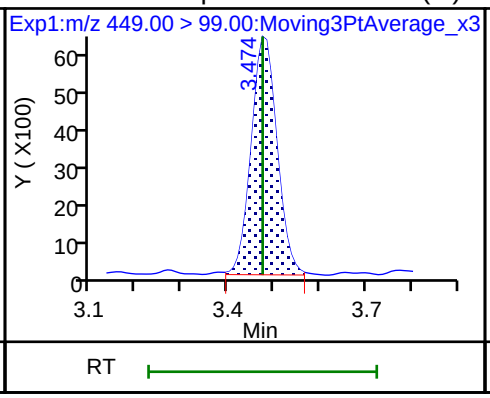

77 DONA



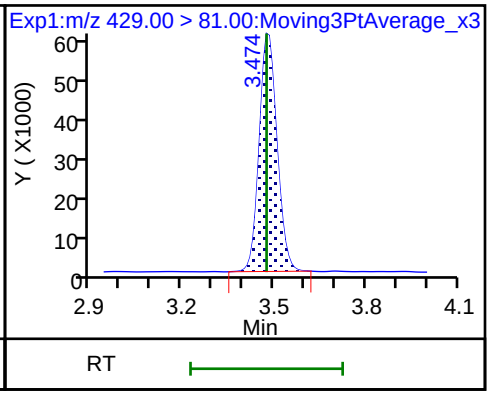
16 Perfluoroheptanesulfonic acid



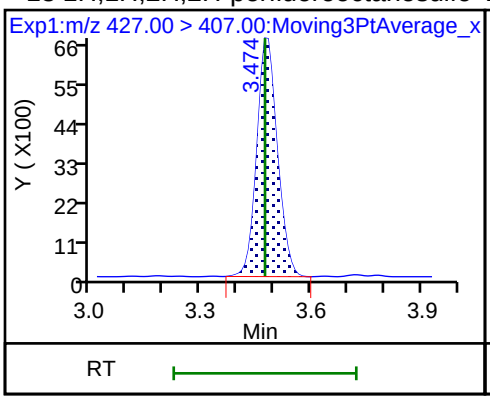

16 Perfluoroheptanesulfonic acid (M)



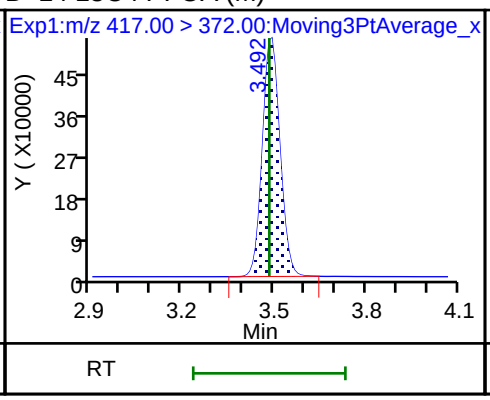

D 12 M2-6:2 FTS



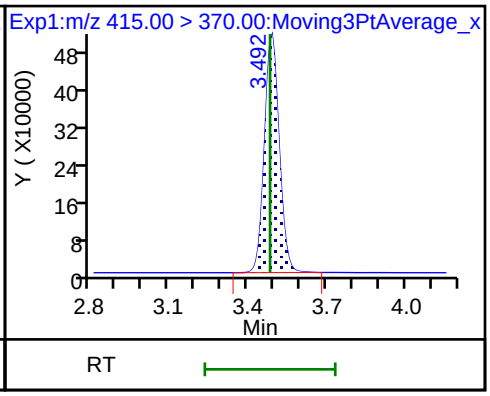

13 1H,1H,2H,2H-perfluorooctanesulfo



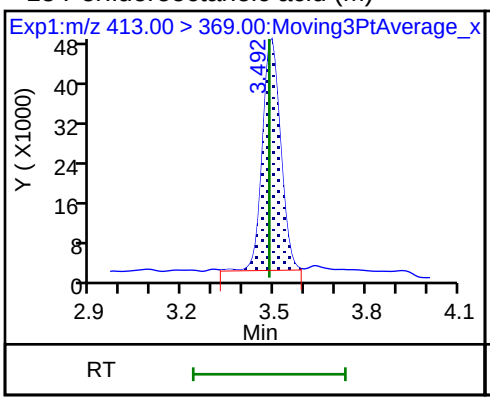

D 14 13C4 PFOA (M)



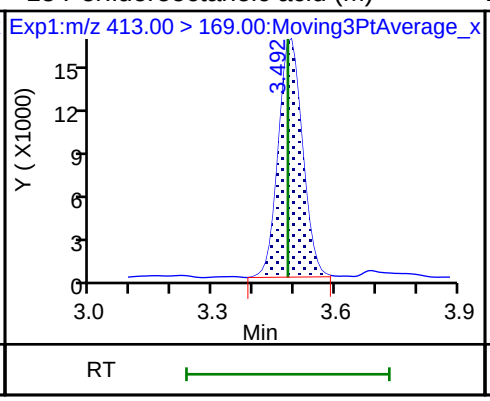

* 62 13C2 PFOA



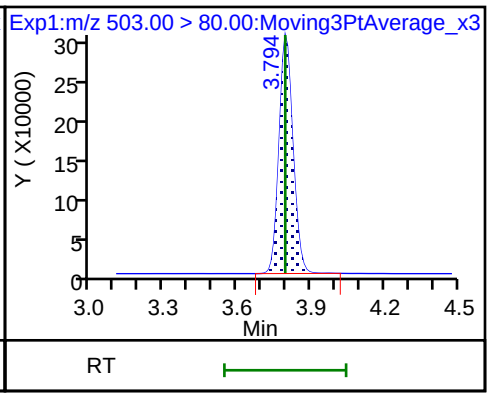

15 Perfluorooctanoic acid (M)



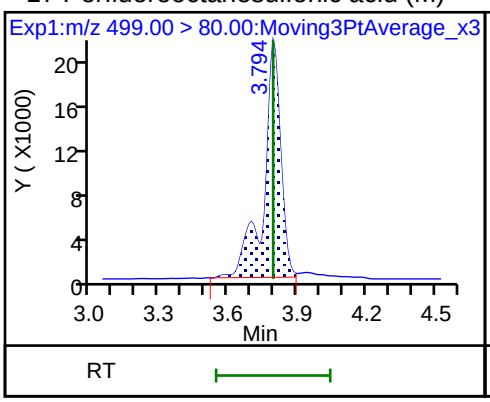

15 Perfluorooctanoic acid (M)



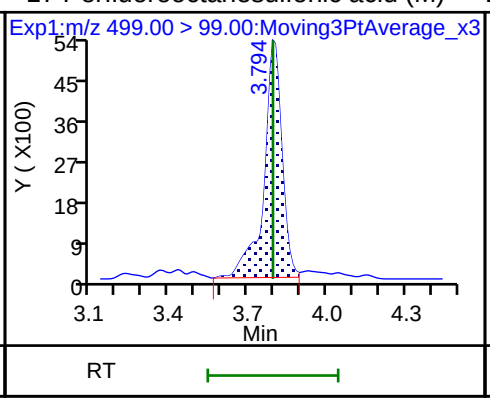

D 18 13C4 PFOS



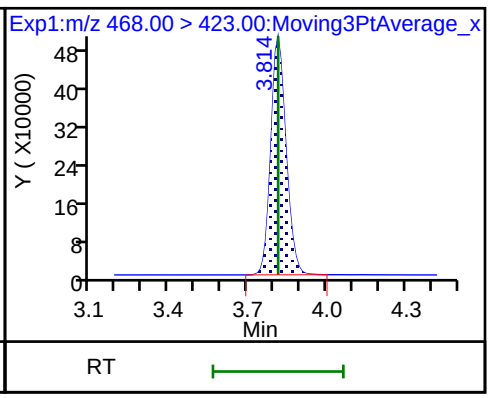

17 Perfluorooctanesulfonic acid (M)



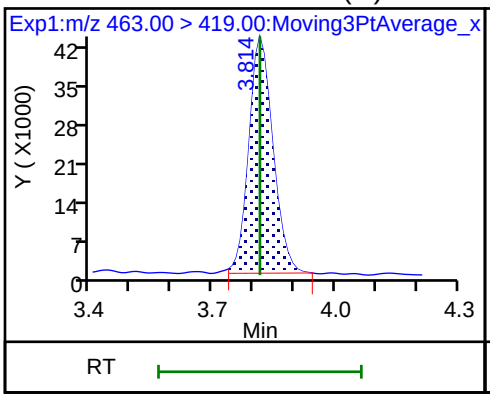

17 Perfluorooctanesulfonic acid (M)



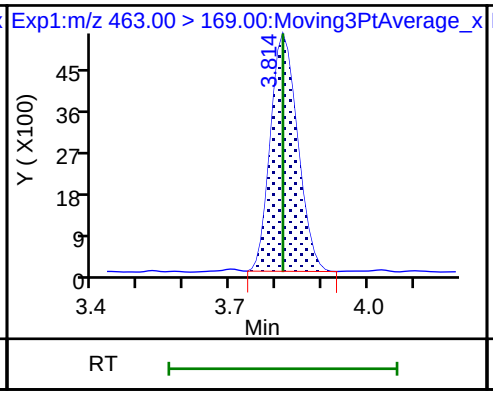

D 19 13C5 PFNA



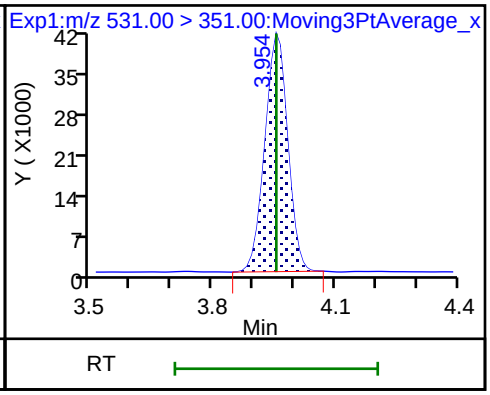
20 Perfluorononanoic acid (M)



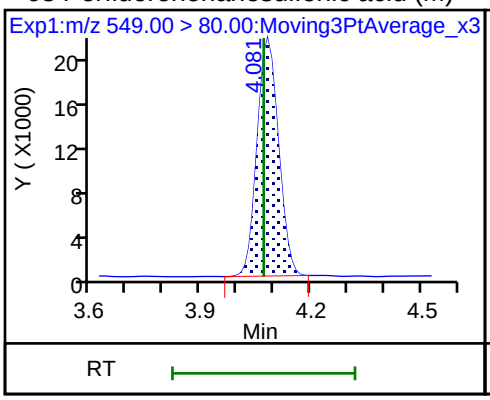

20 Perfluorononanoic acid



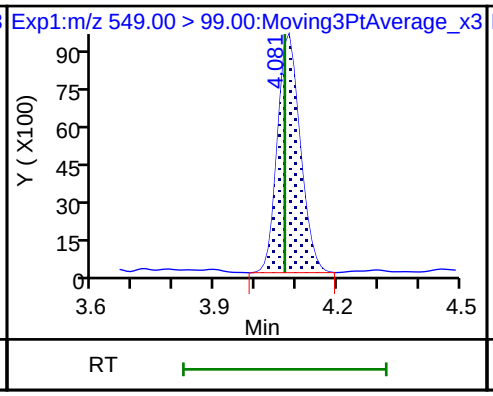

69 9-Chlorohexadecafluoro-3-oxanona



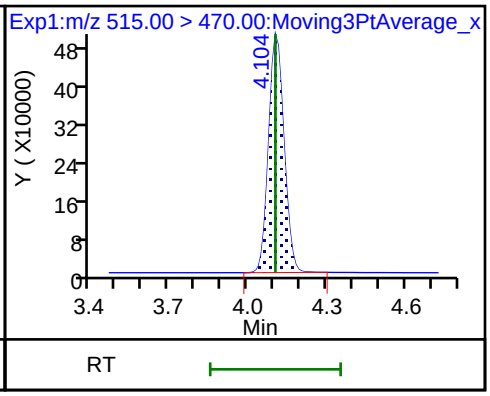

68 Perfluorononanesulfonic acid (M)



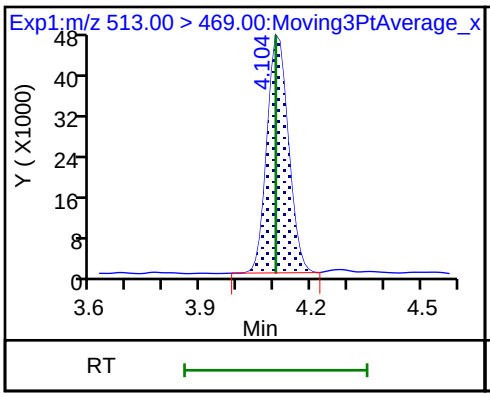

68 Perfluorononanesulfonic acid



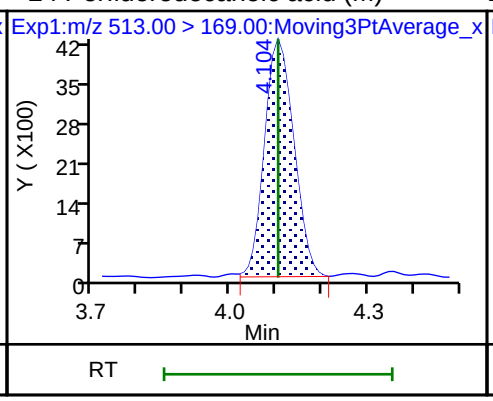

D 23 13C2 PFDA



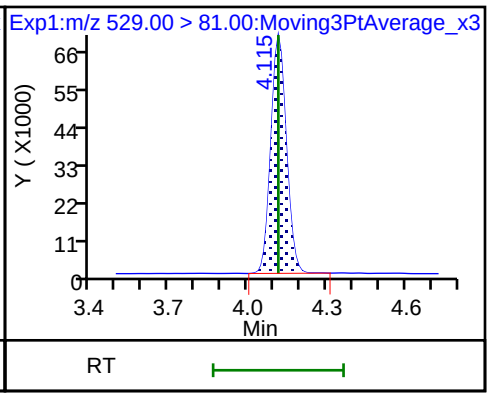

24 Perfluorodecanoic acid



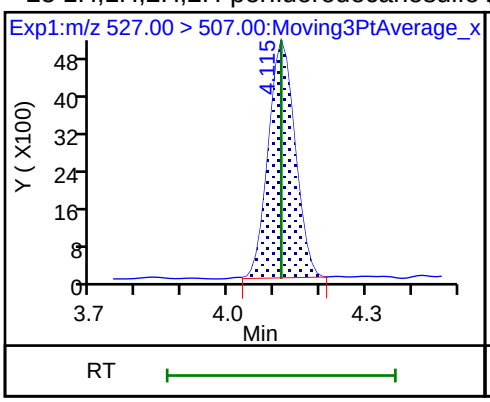

24 Perfluorodecanoic acid (M)



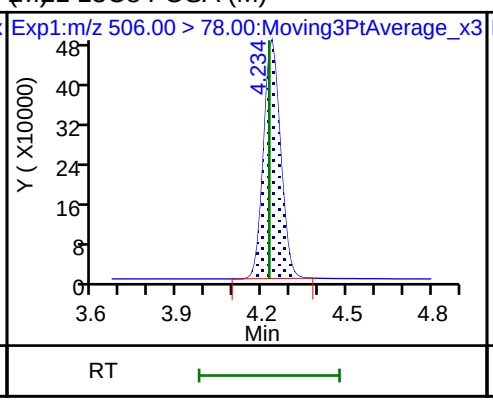

D 26 M2-8:2 FTS



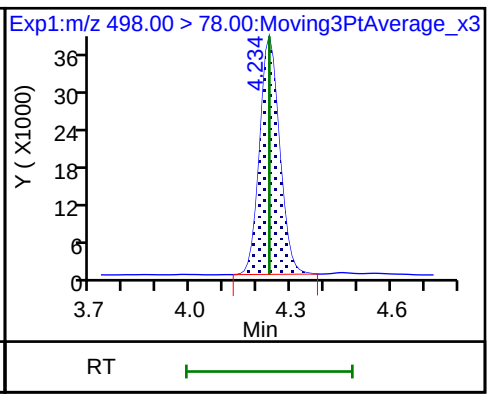

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



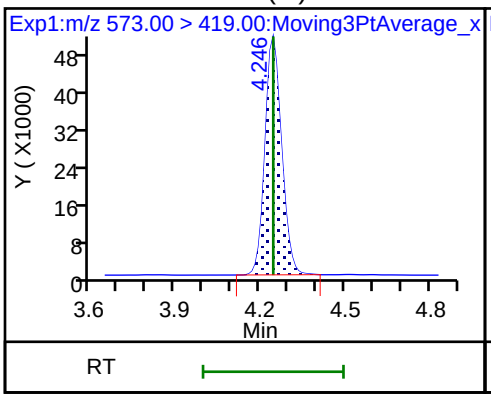

D 21 13C8 FOSA (M)



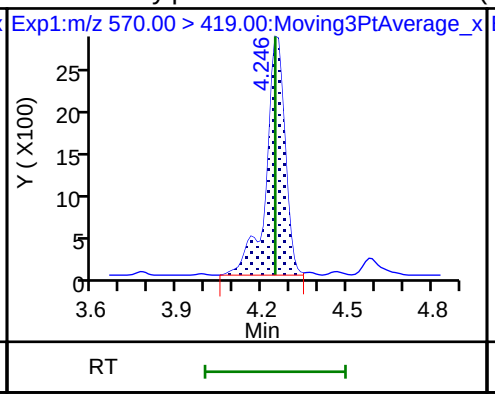

22 Perfluorooctanesulfonamide



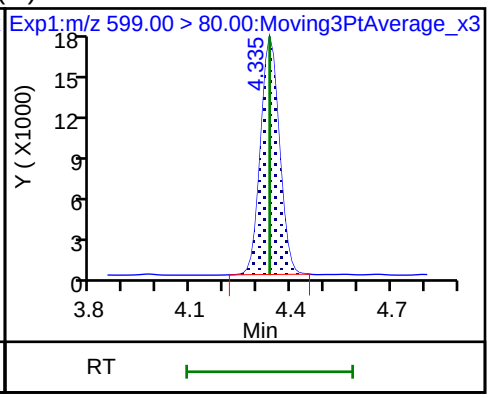
D 27 d3-NMeFOSAA (M)



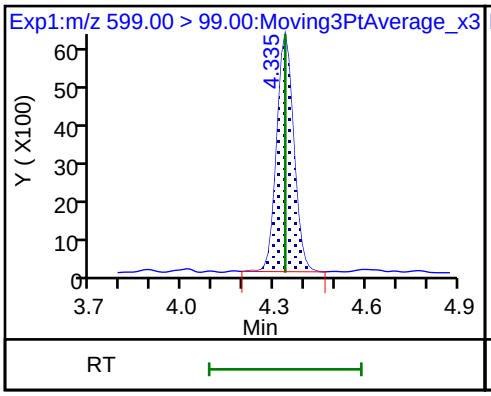

28 N-methylperfluorooctanesulfonami (M)



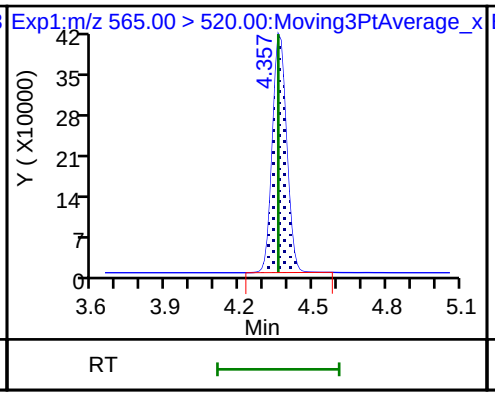

29 Perfluorodecanesulfonic acid



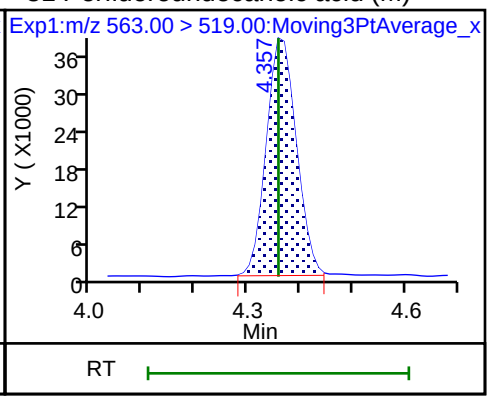

29 Perfluorodecanesulfonic acid



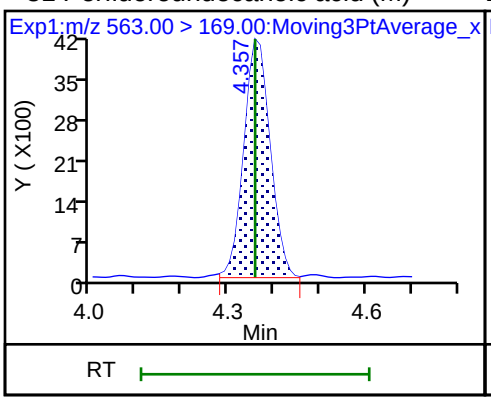

D 30 13C2 PFUnA



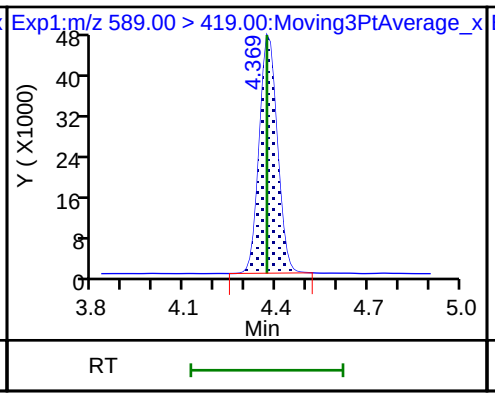

31 Perfluoroundecanoic acid (M)



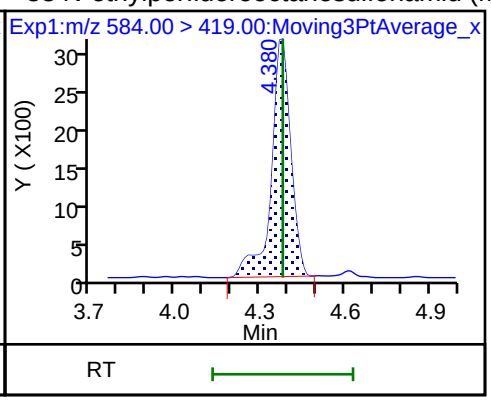

31 Perfluoroundecanoic acid (M)



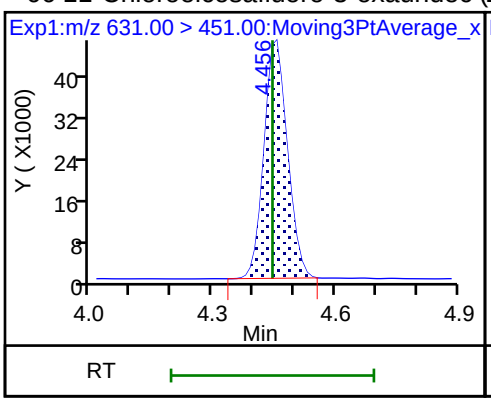

D 32 d5-NEtFOSAA



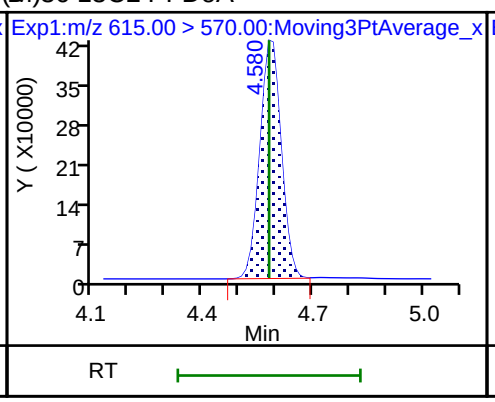

33 N-ethylperfluorooctanesulfonamid (M)



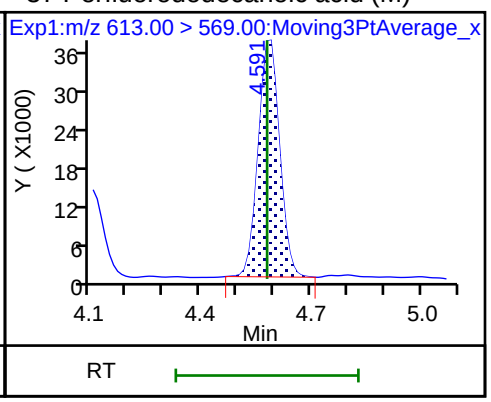

66 11-Chloroeicosafluoro-3-oxaundec (M)



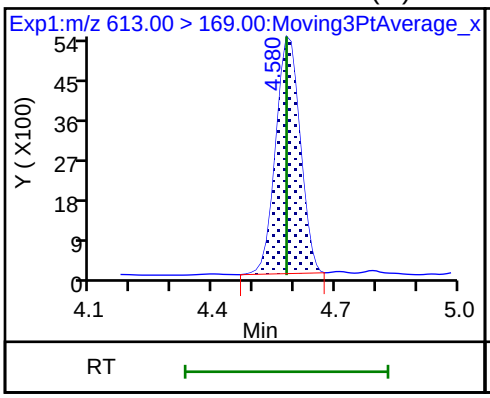

D 36 13C2 PFDoA



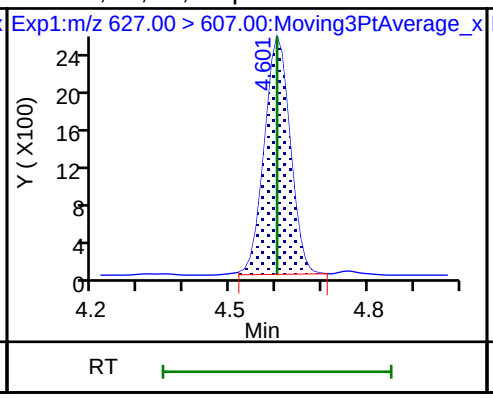

37 Perfluorododecanoic acid (M)



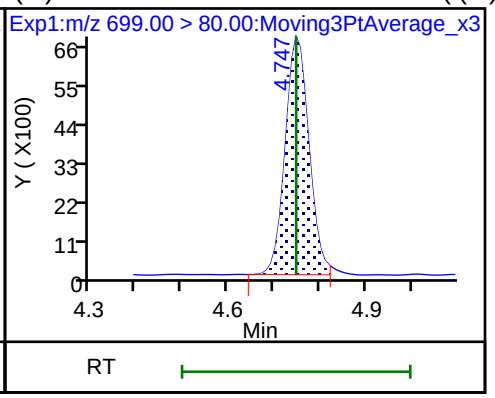
37 Perfluorododecanoic acid (M)



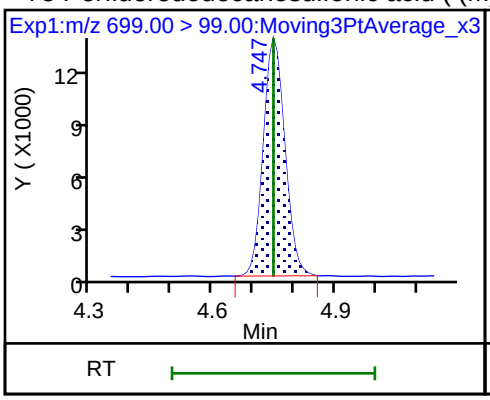

74 1H,1H,2H,2H-perfluorododecanesul (M)



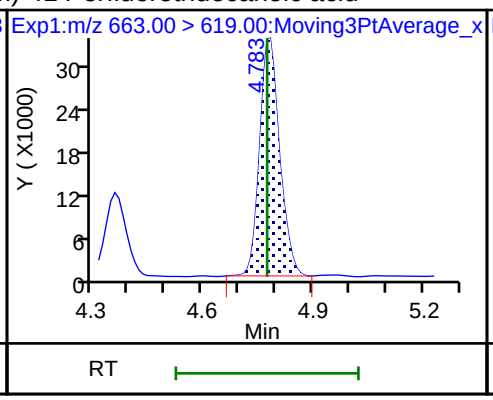

75 Perfluorododecanesulfonic acid ( (M)



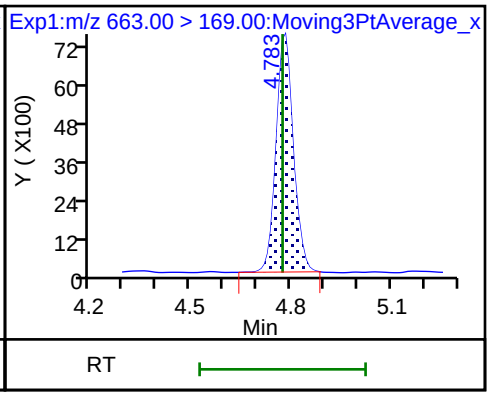

75 Perfluorododecanesulfonic acid ( (M)



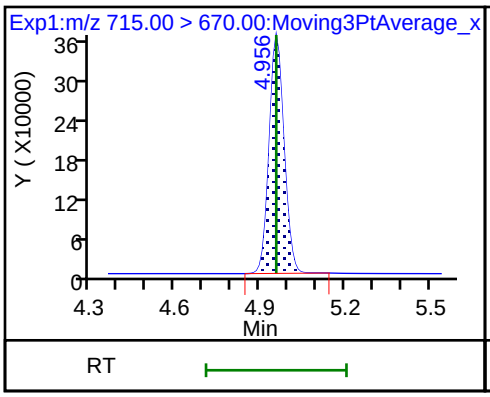

41 Perfluorotridecanoic acid



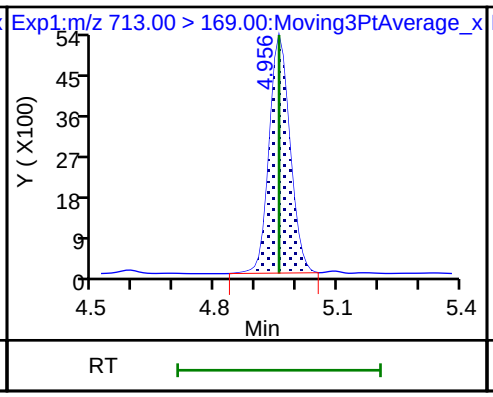

41 Perfluorotridecanoic acid



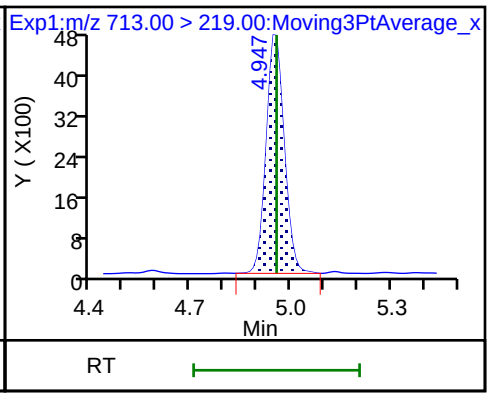

D 43 13C2 PFTeDA



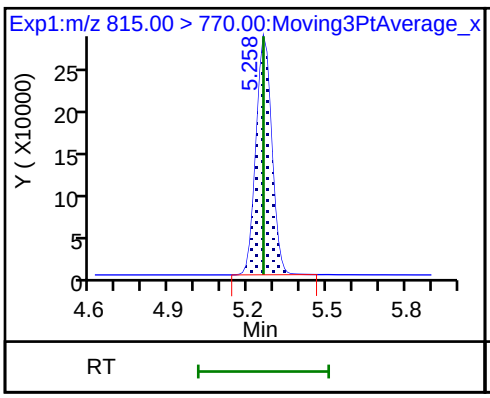

42 Perfluorotetradecanoic acid



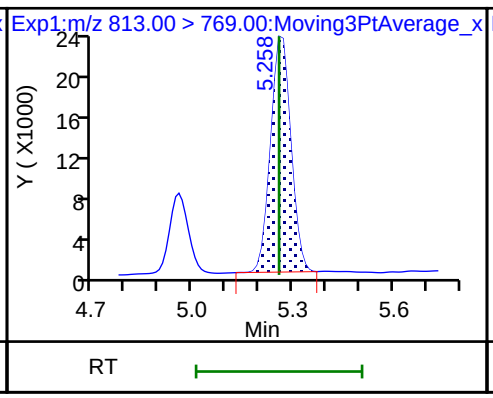

42 Perfluorotetradecanoic acid



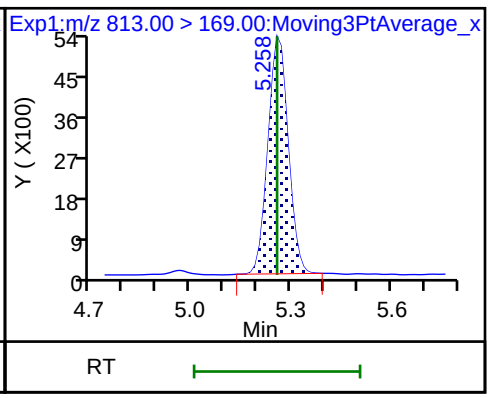

D 44 13C2 PFHxDA



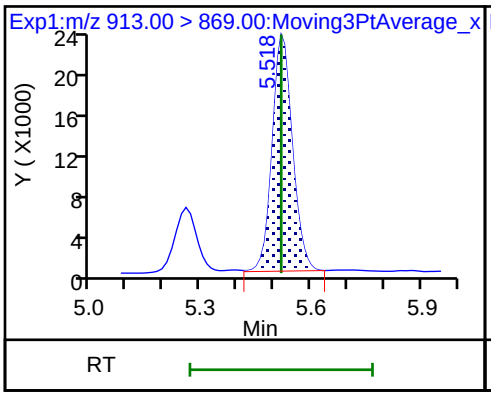

45 Perfluorohexadecanoic acid



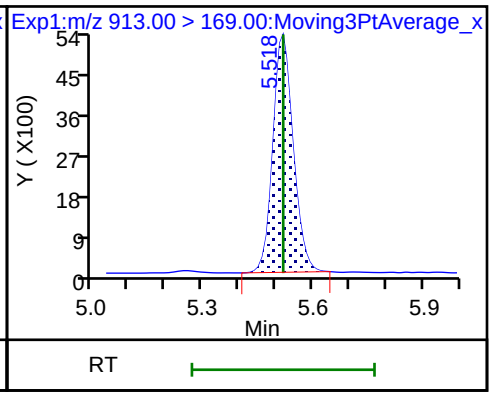

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

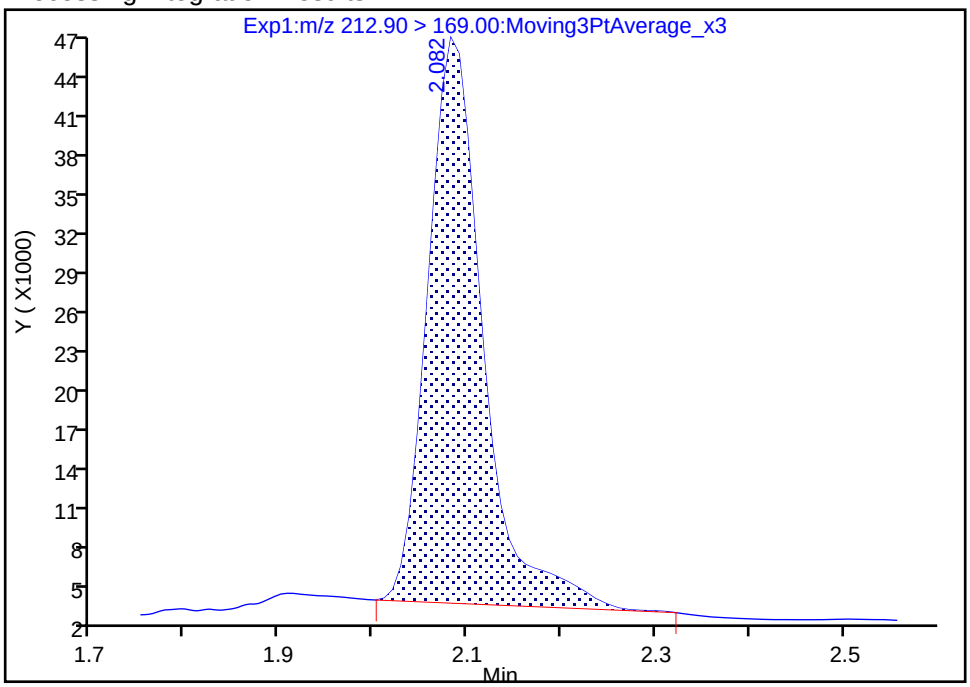
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

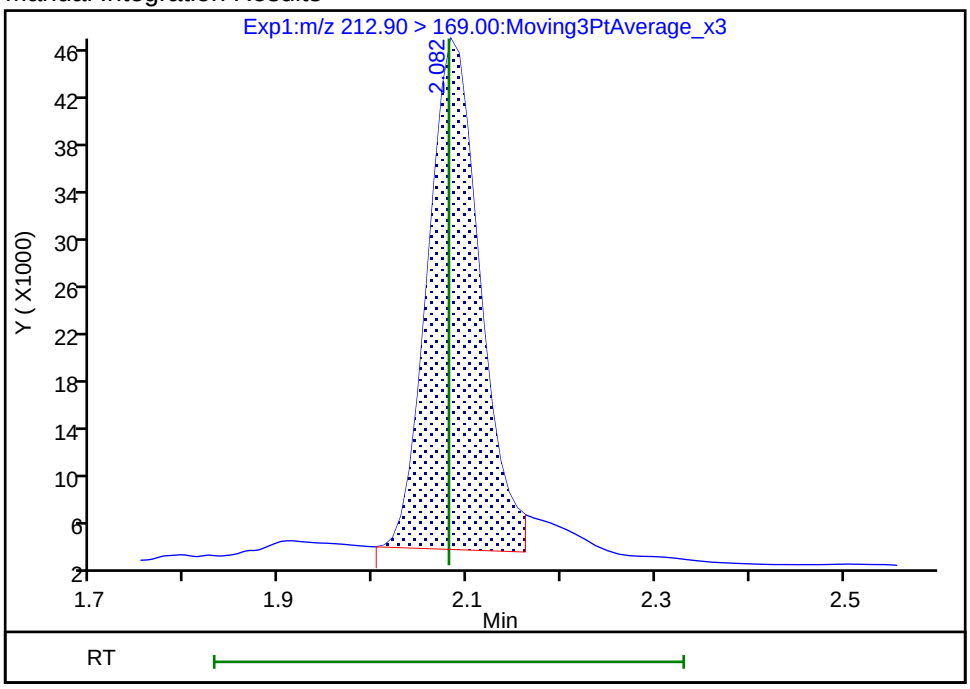
Processing Integration Results

RT: 2.08
Area: 173975
Amount: 0.108335
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 163340
Amount: 0.107814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

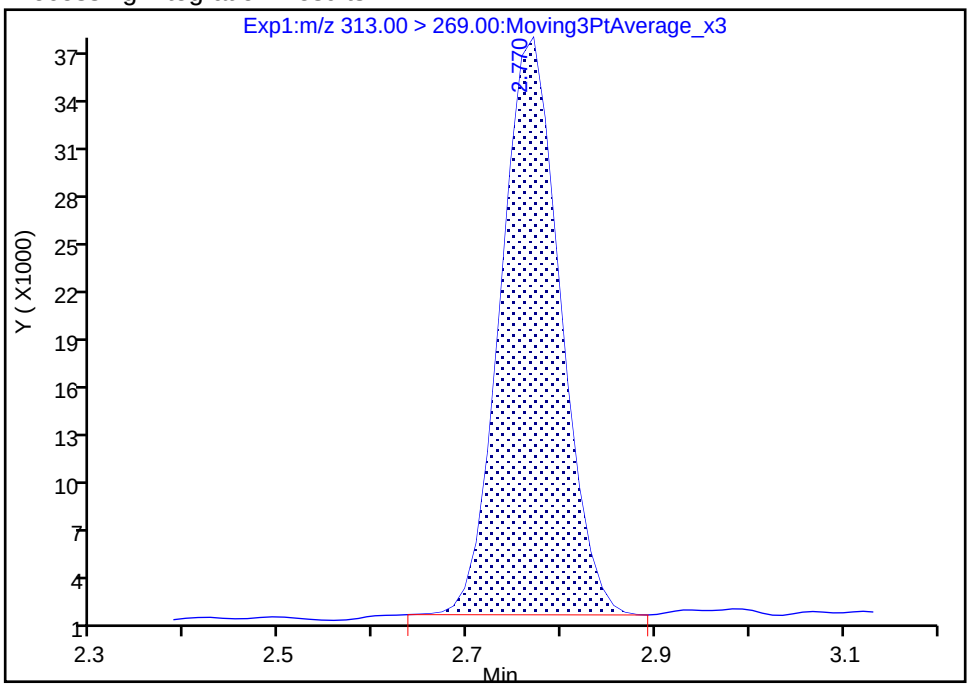
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

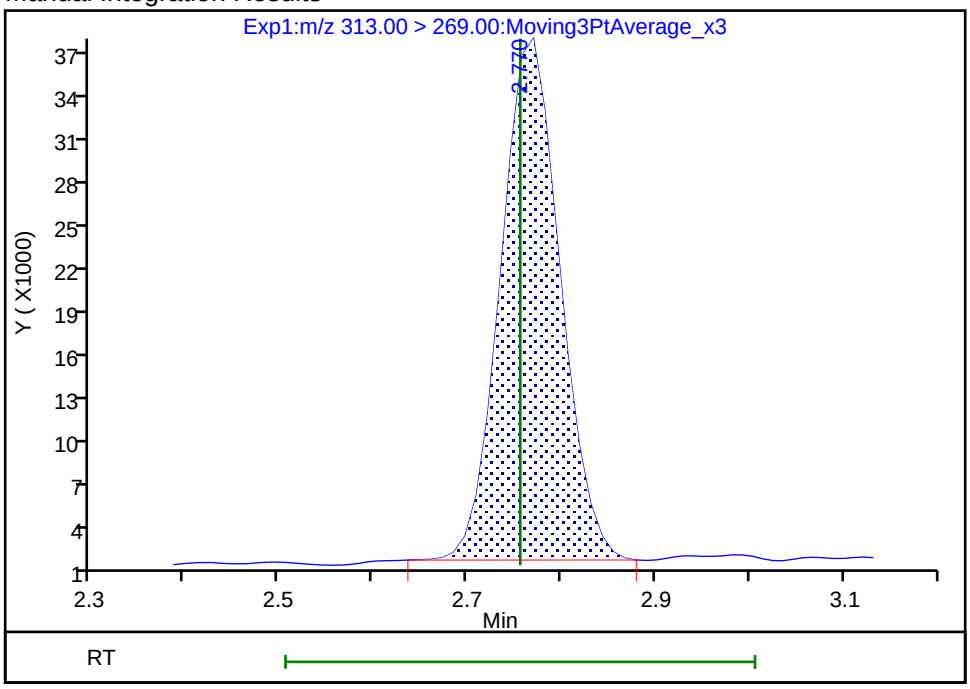
Processing Integration Results

RT: 2.77
Area: 158703
Amount: 0.106258
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 158519
Amount: 0.110339
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

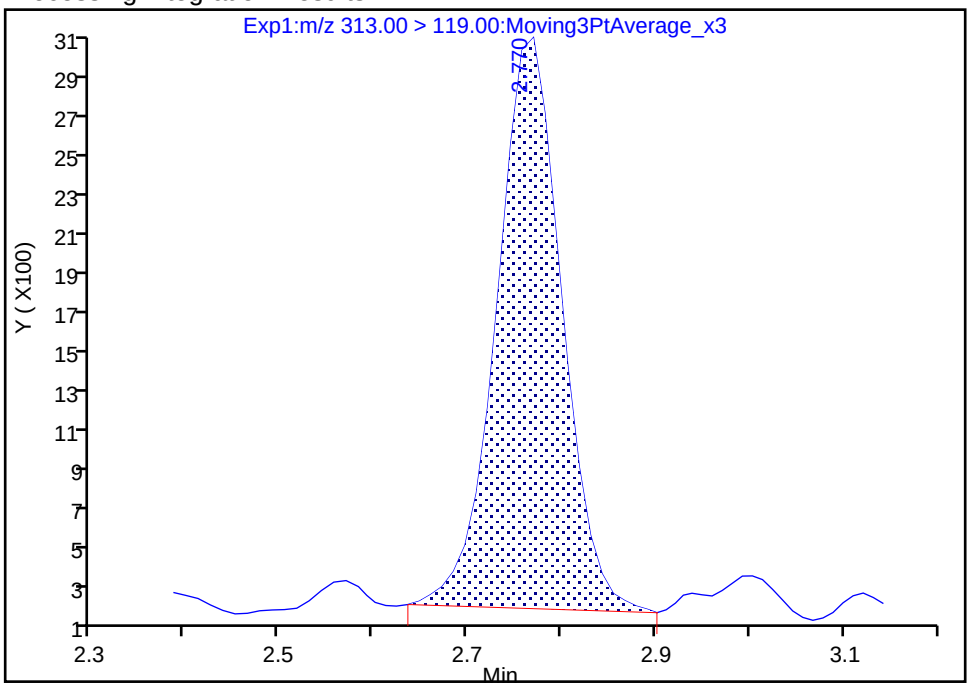
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

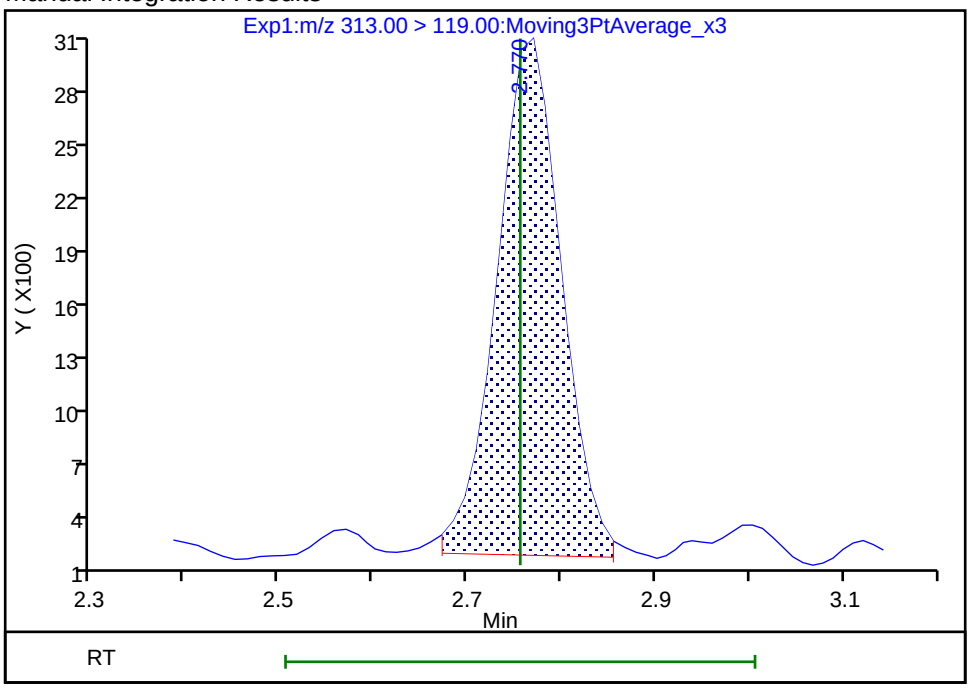
Processing Integration Results

RT: 2.77
Area: 14129
Amount: 0.106258
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 13979
Amount: 0.110339
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

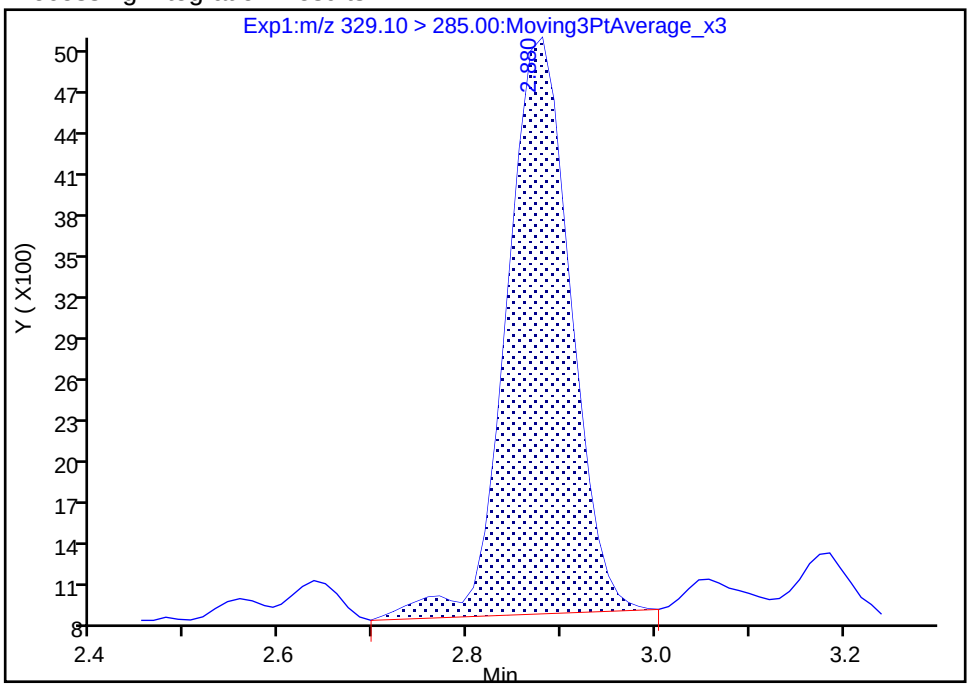
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

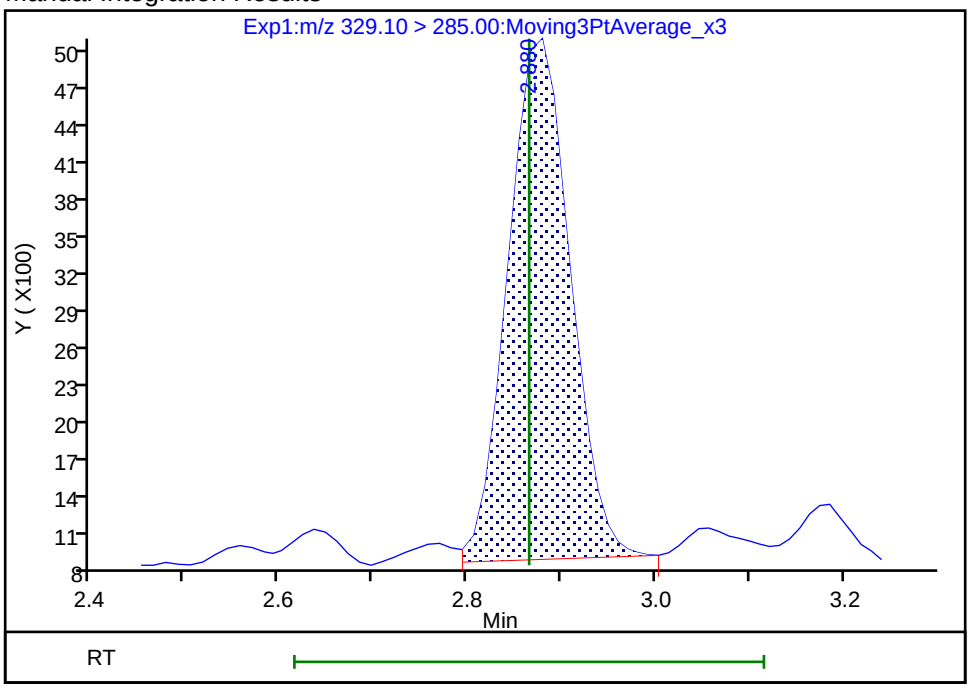
Processing Integration Results

RT: 2.88
Area: 19967
Amount: 0.097427
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 19398
Amount: 0.099399
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

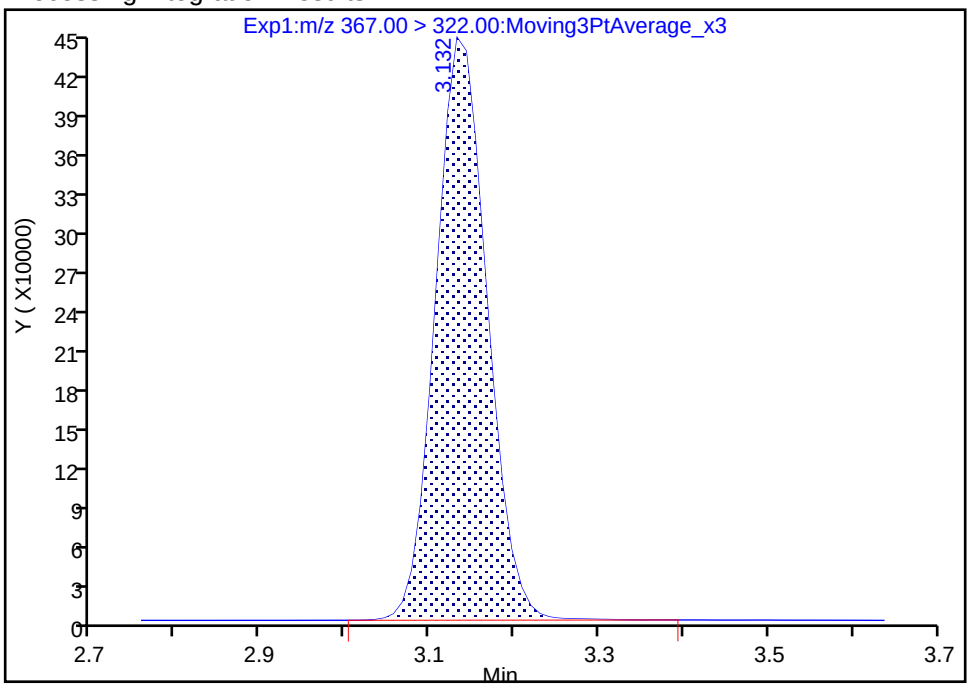
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

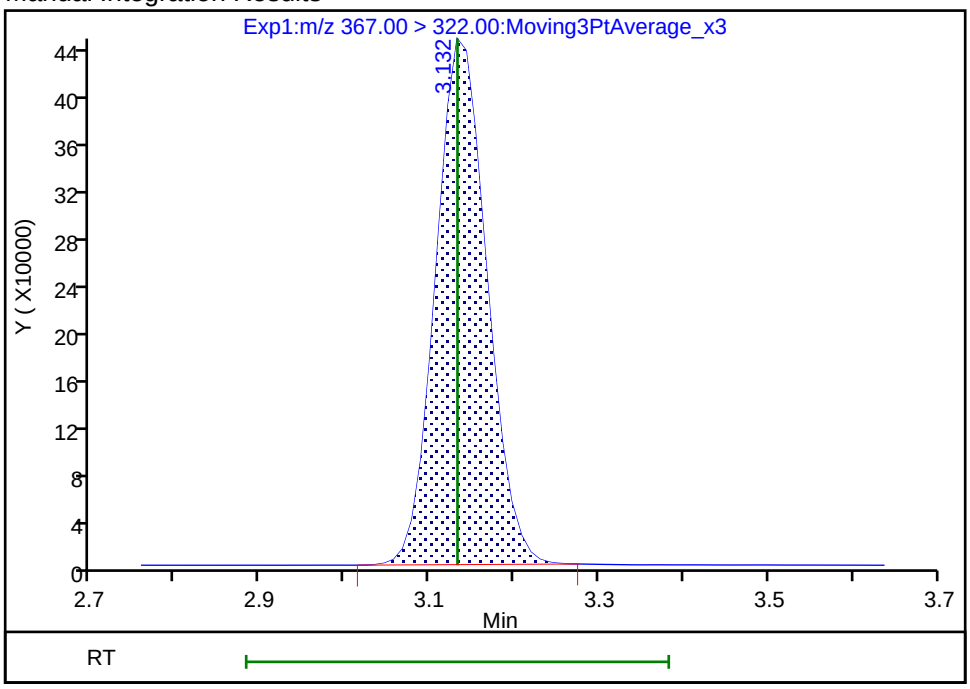
Processing Integration Results

RT: 3.13
Area: 1891793
Amount: 1.252902
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1883272
Amount: 1.247794
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

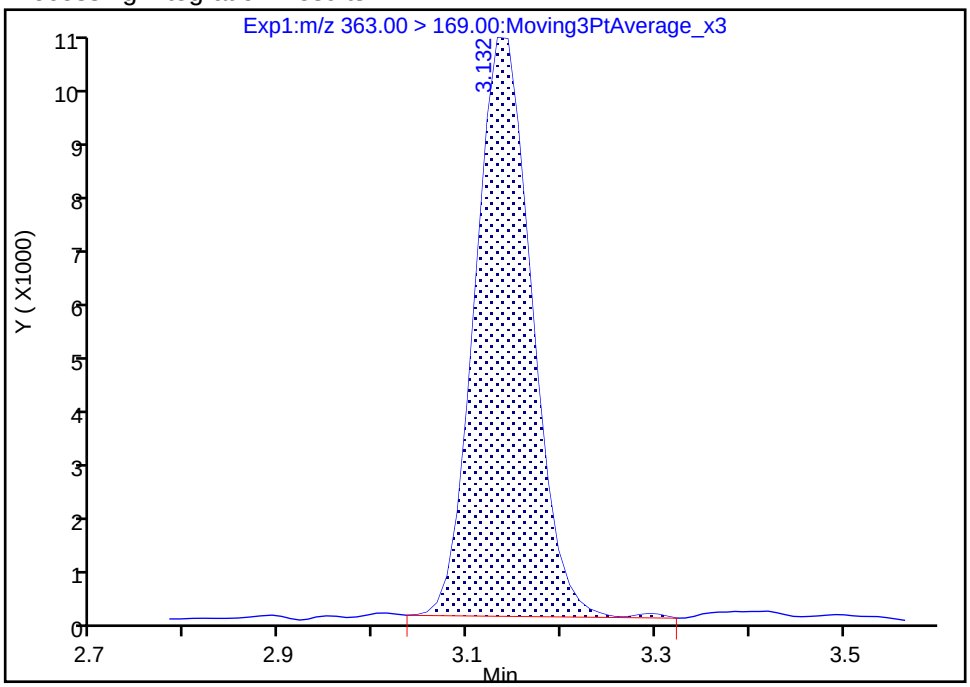
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

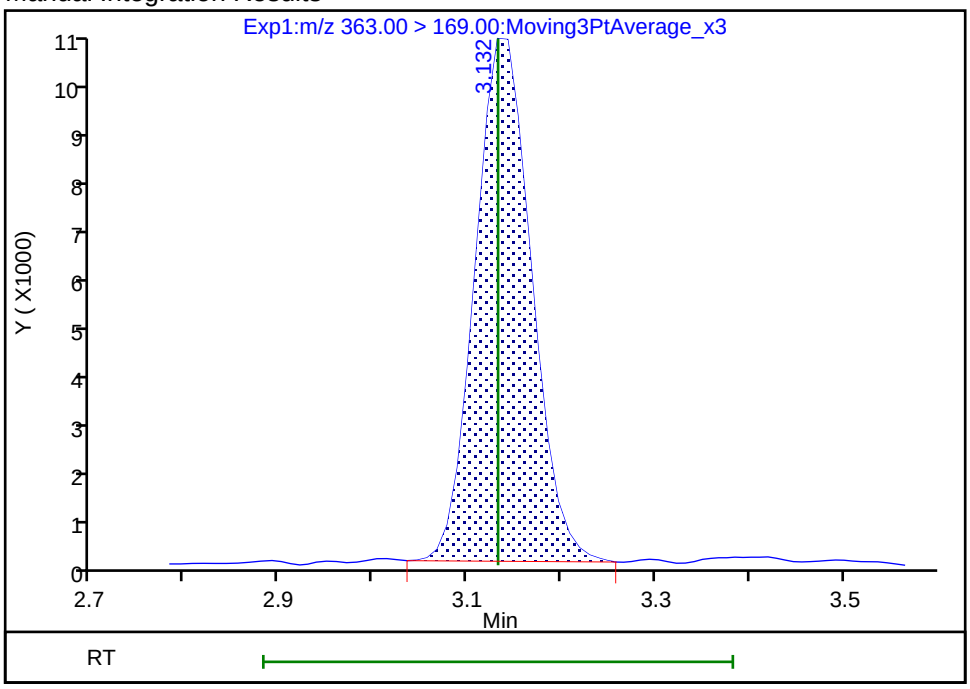
Processing Integration Results

RT: 3.13
Area: 43704
Amount: 0.103271
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 43469
Amount: 0.107556
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

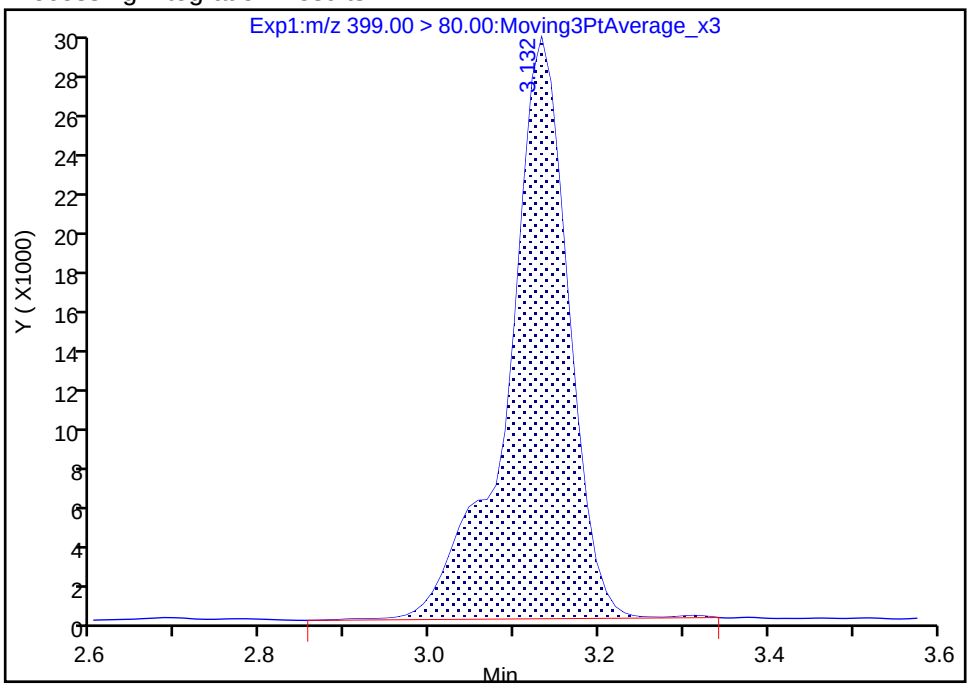
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

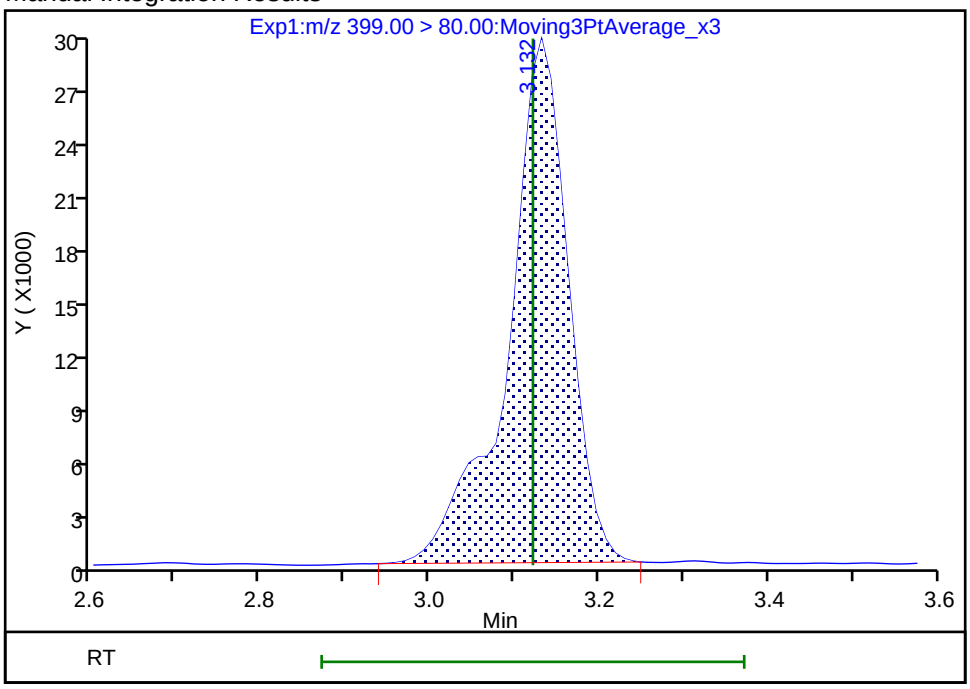
Processing Integration Results

RT: 3.13
Area: 146530
Amount: 0.093897
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 144803
Amount: 0.096682
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

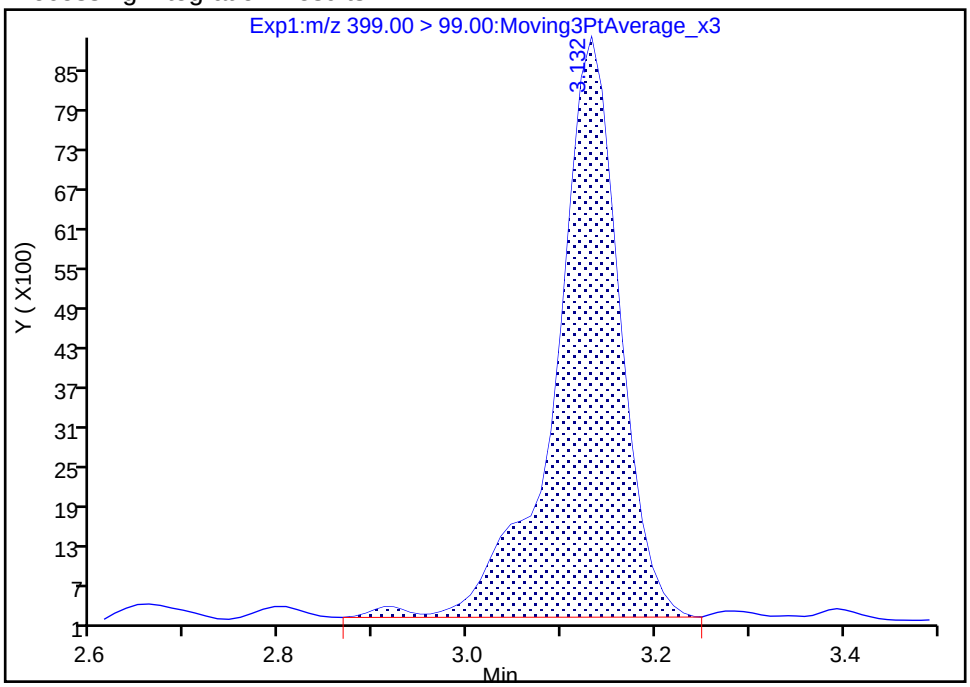
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

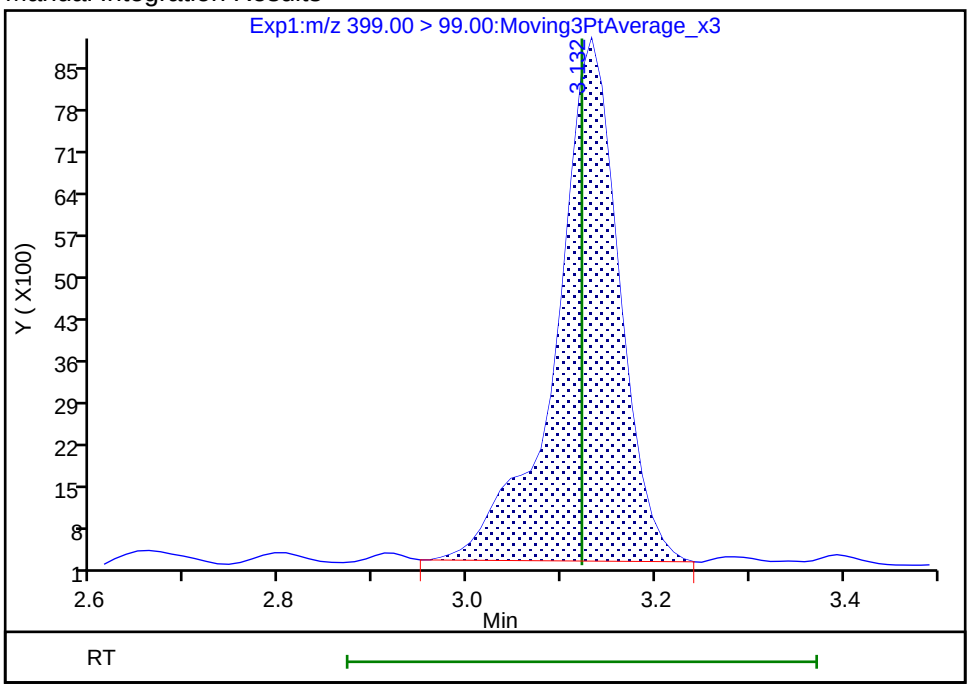
Processing Integration Results

RT: 3.13
Area: 41577
Amount: 0.093897
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 40713
Amount: 0.096682
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

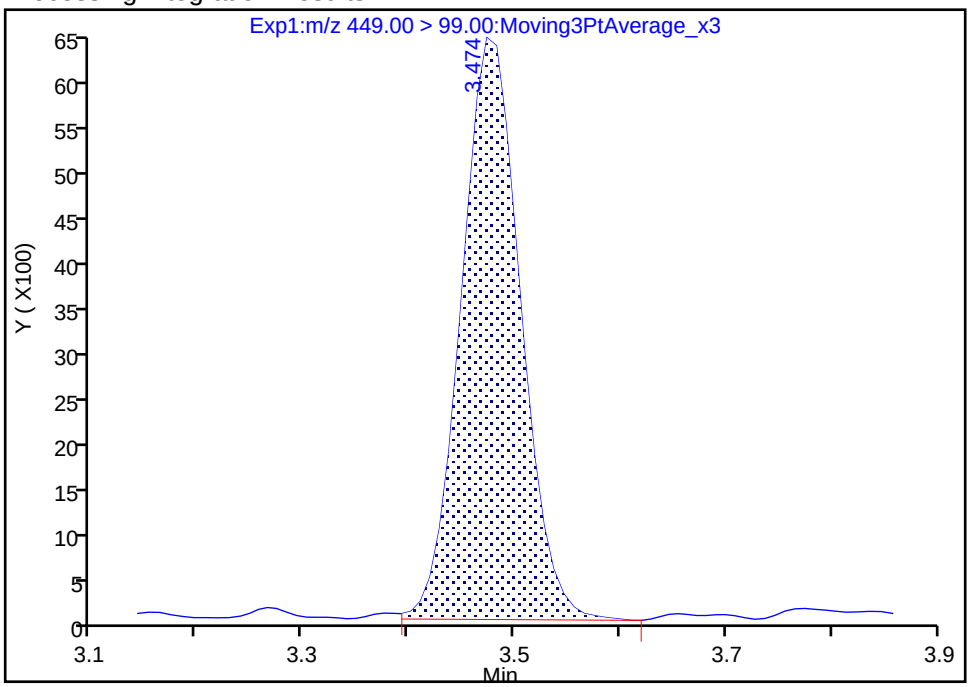
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

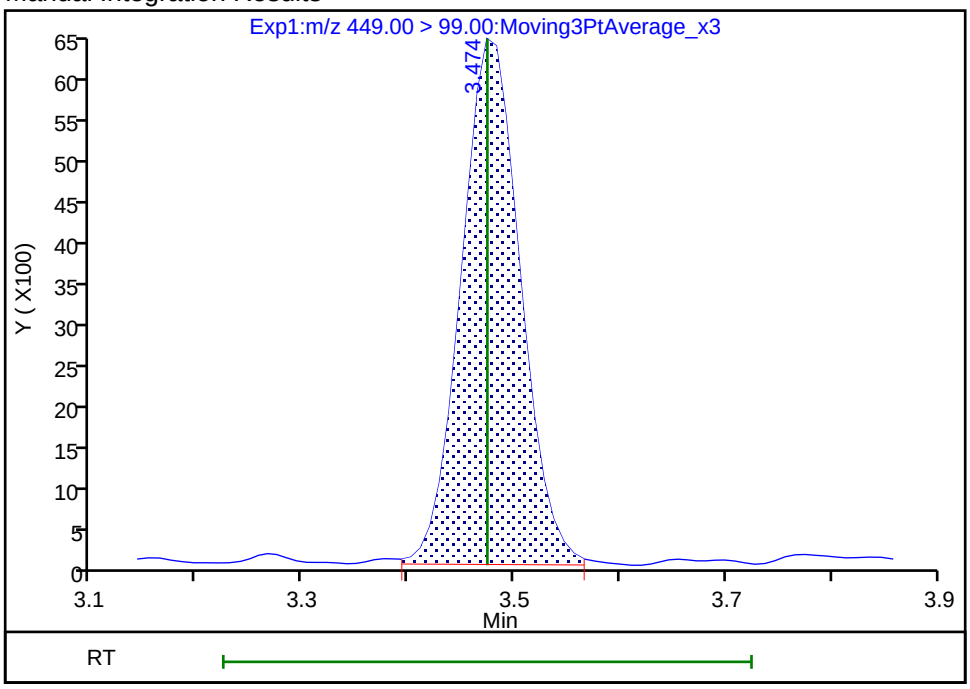
Processing Integration Results

RT: 3.47
Area: 24776
Amount: 0.098809
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 24700
Amount: 0.102081
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

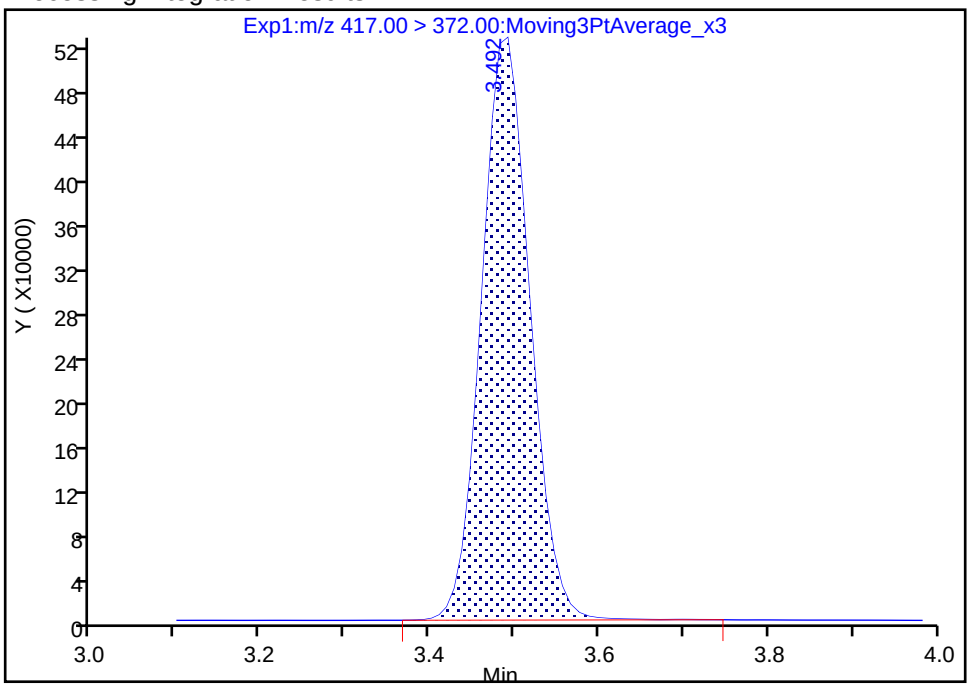
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 14 13C4 PFOA, CAS: STL00990

Signal: 1

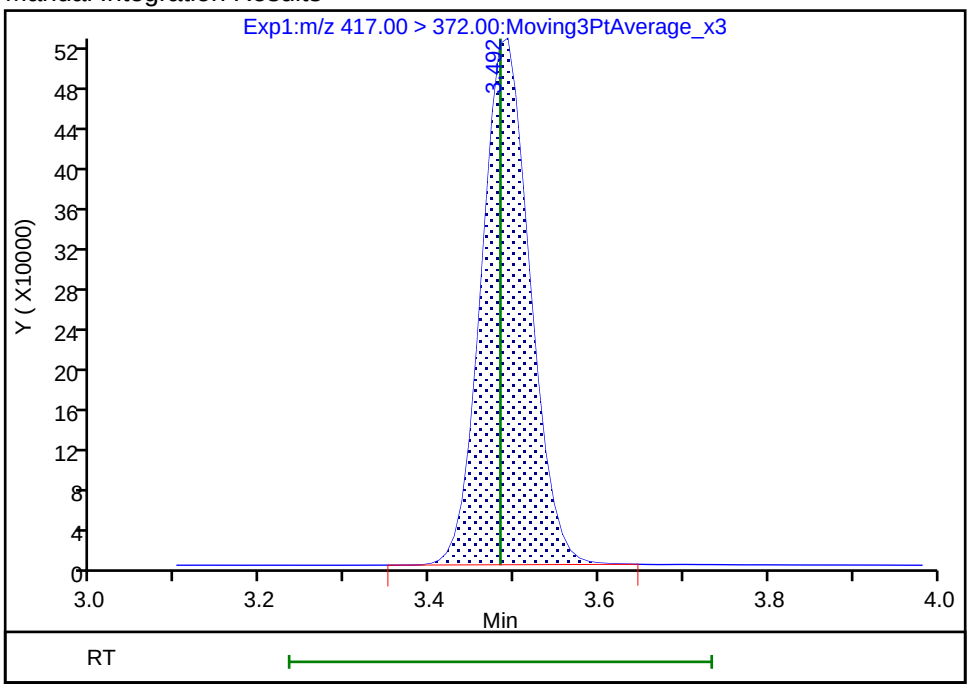
Processing Integration Results

RT: 3.49
Area: 2083166
Amount: 1.265919
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 2077322
Amount: 1.259800
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:55:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

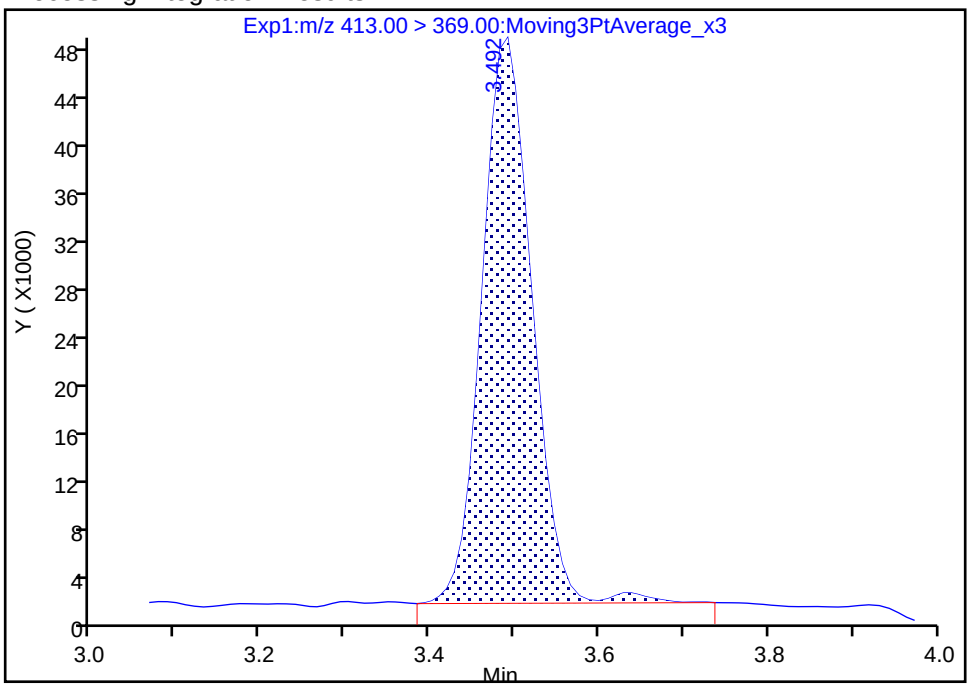
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

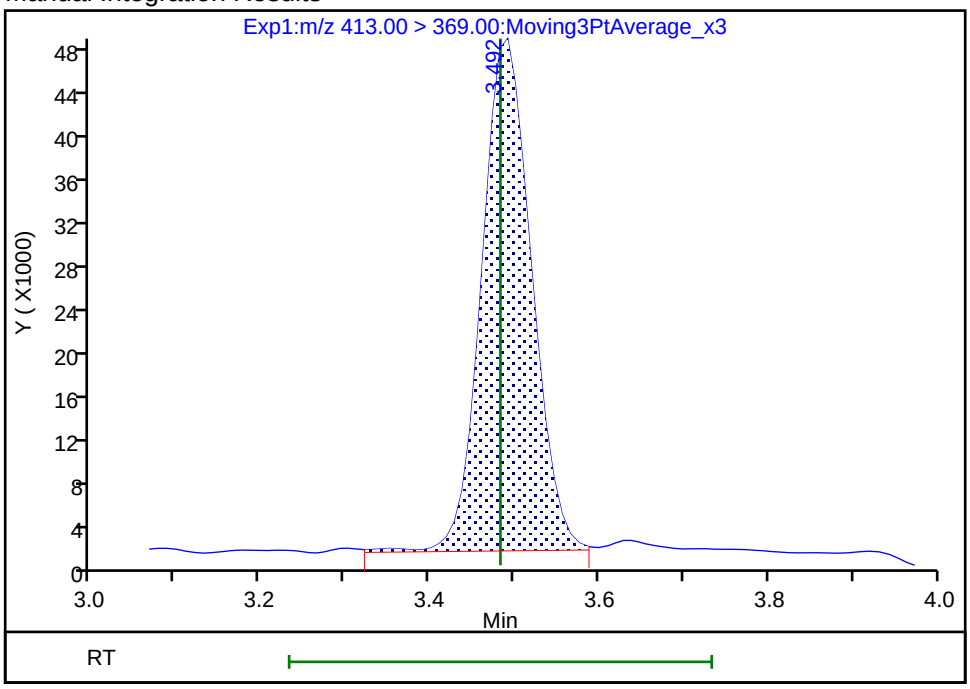
Processing Integration Results

RT: 3.49
Area: 192135
Amount: 0.104199
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 191529
Amount: 0.108375
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

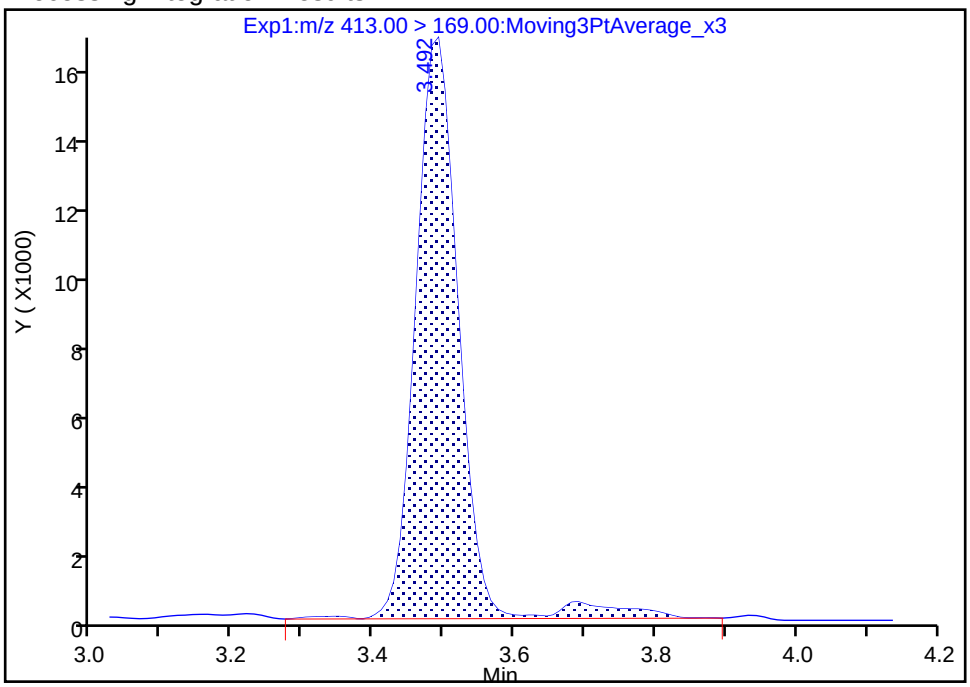
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

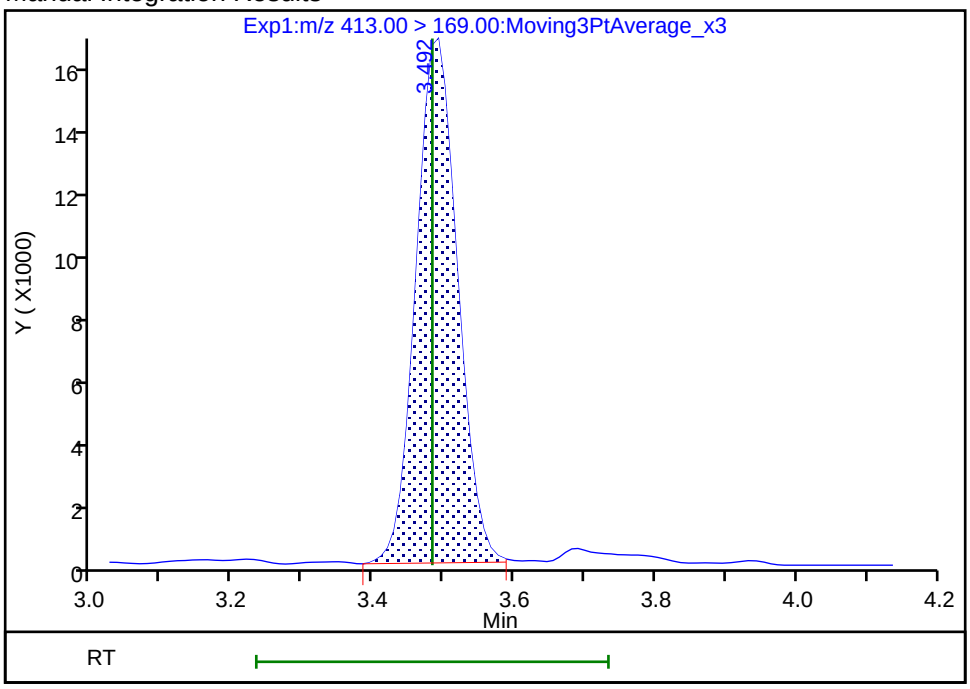
Processing Integration Results

RT: 3.49
Area: 72537
Amount: 0.104199
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 68573
Amount: 0.108375
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

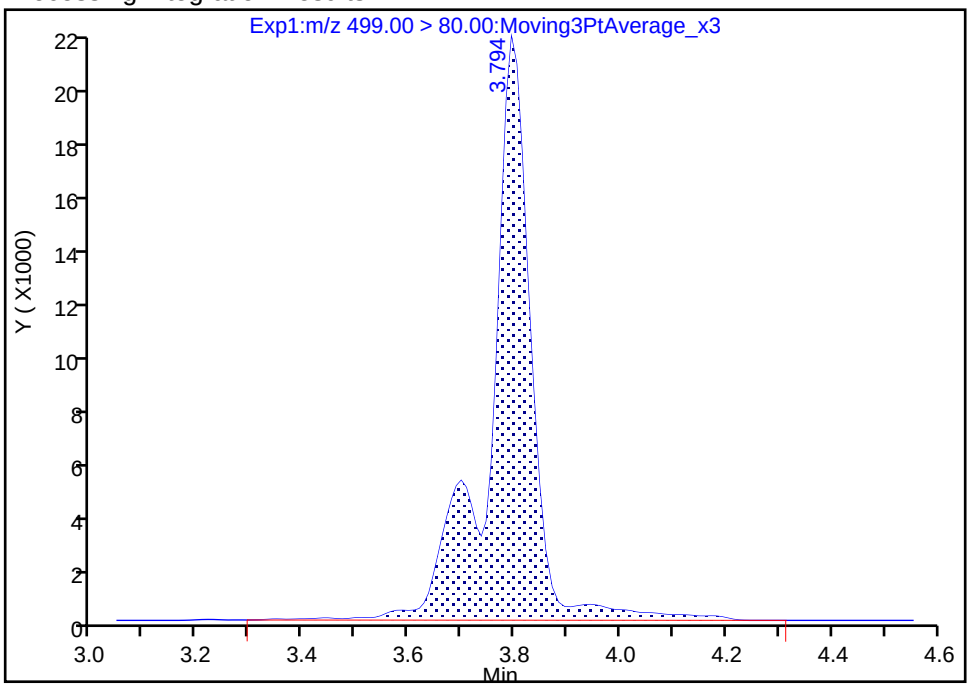
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

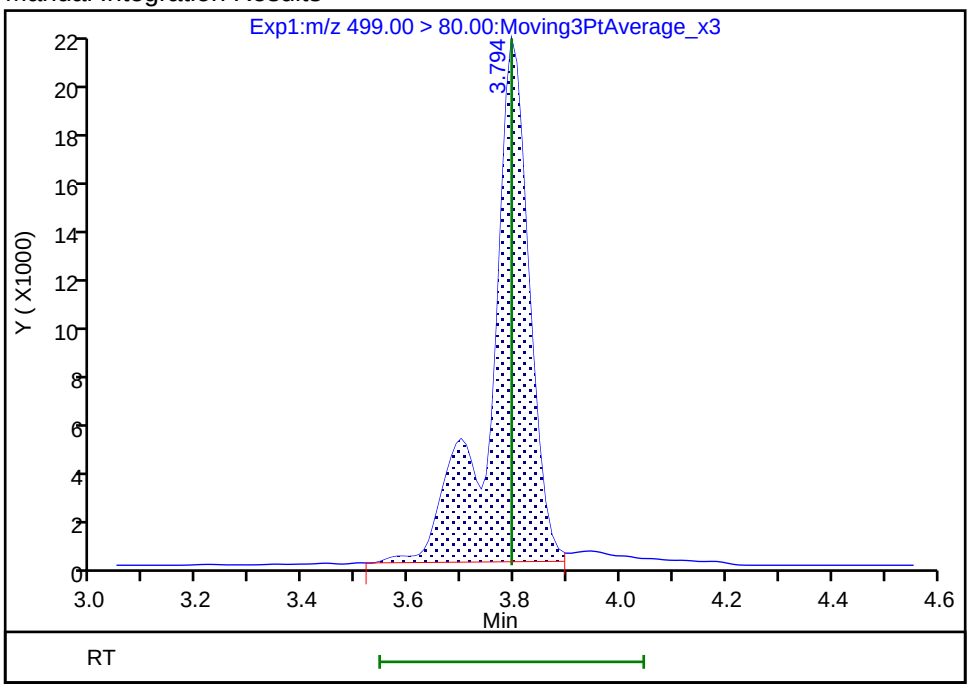
Processing Integration Results

RT: 3.79
Area: 120558
Amount: 0.104376
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 111255
Amount: 0.103188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

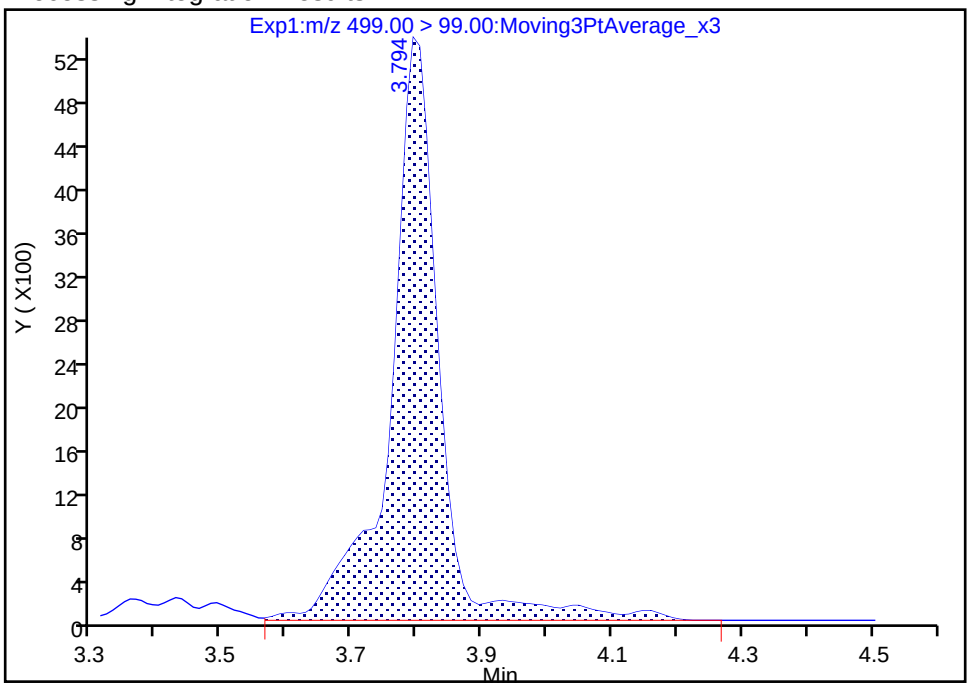
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

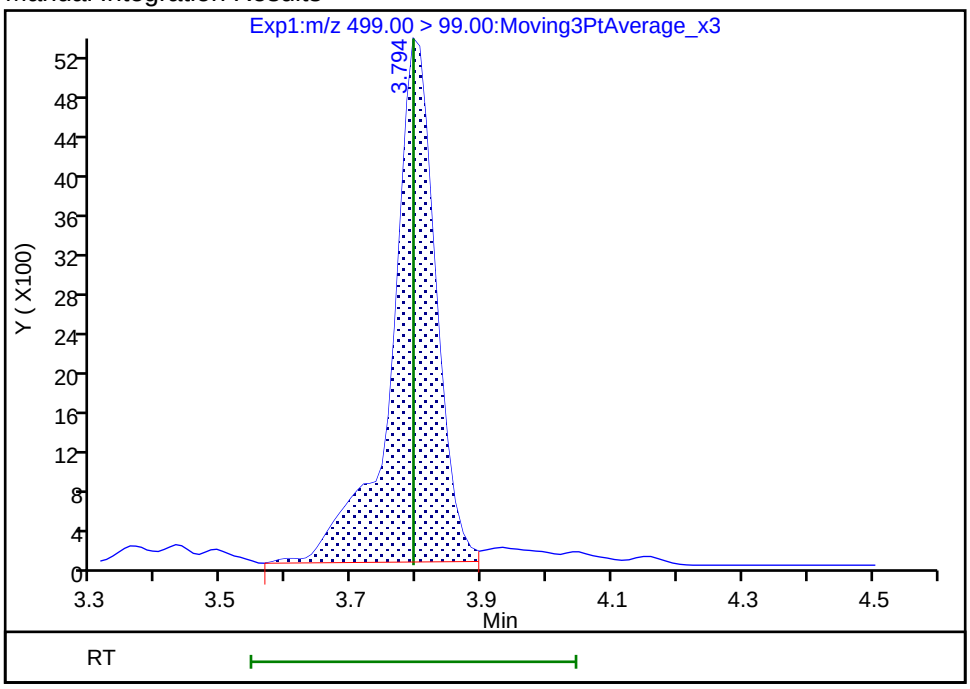
Processing Integration Results

RT: 3.79
Area: 27951
Amount: 0.104376
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 25348
Amount: 0.103188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

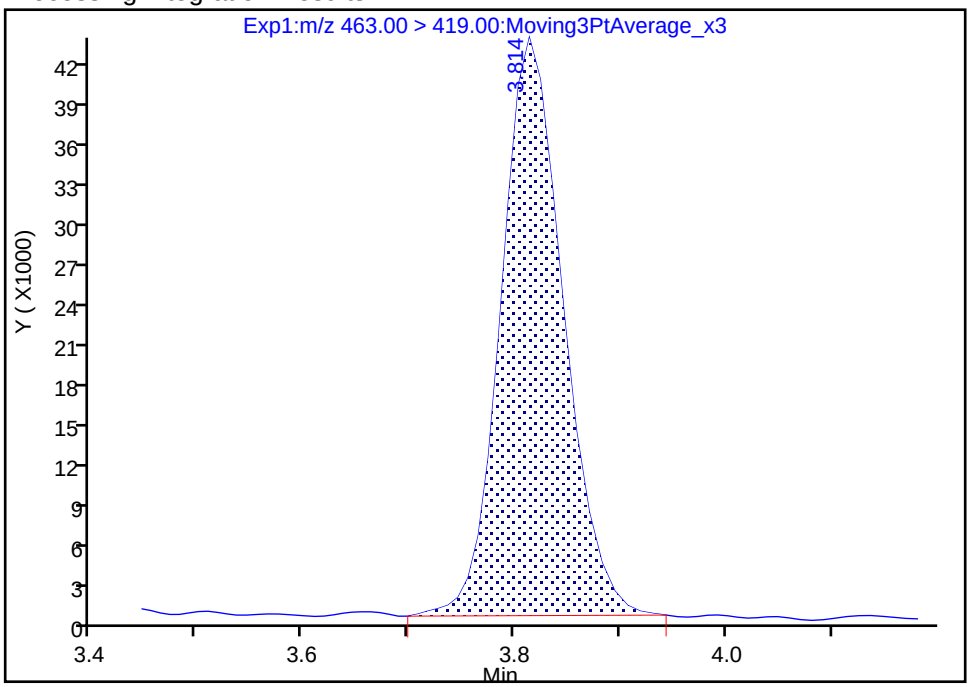
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

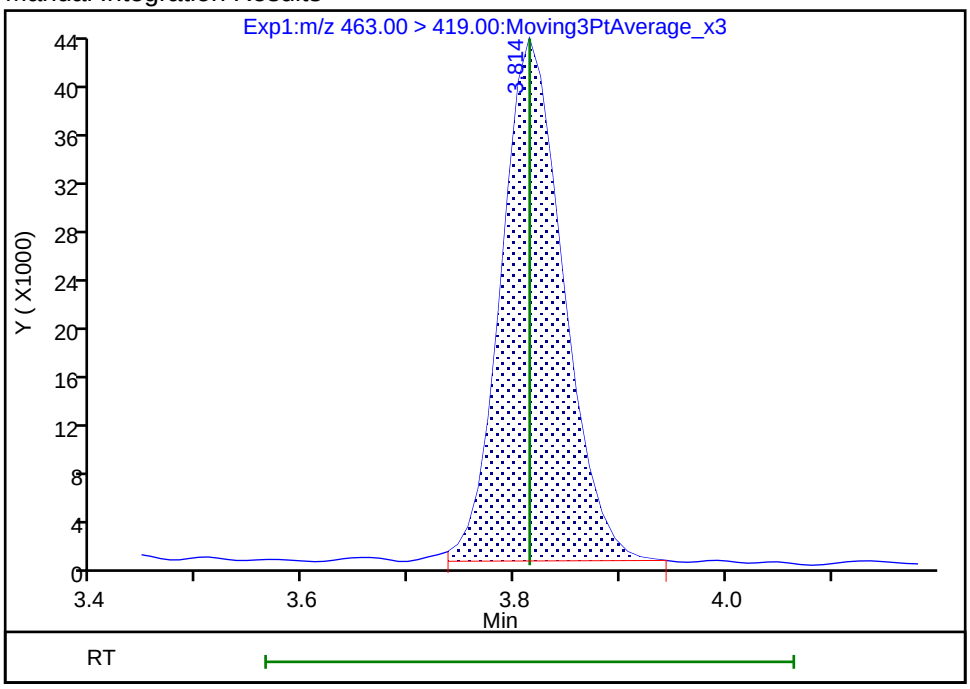
Processing Integration Results

RT: 3.81
Area: 174476
Amount: 0.106721
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 173658
Amount: 0.110633
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

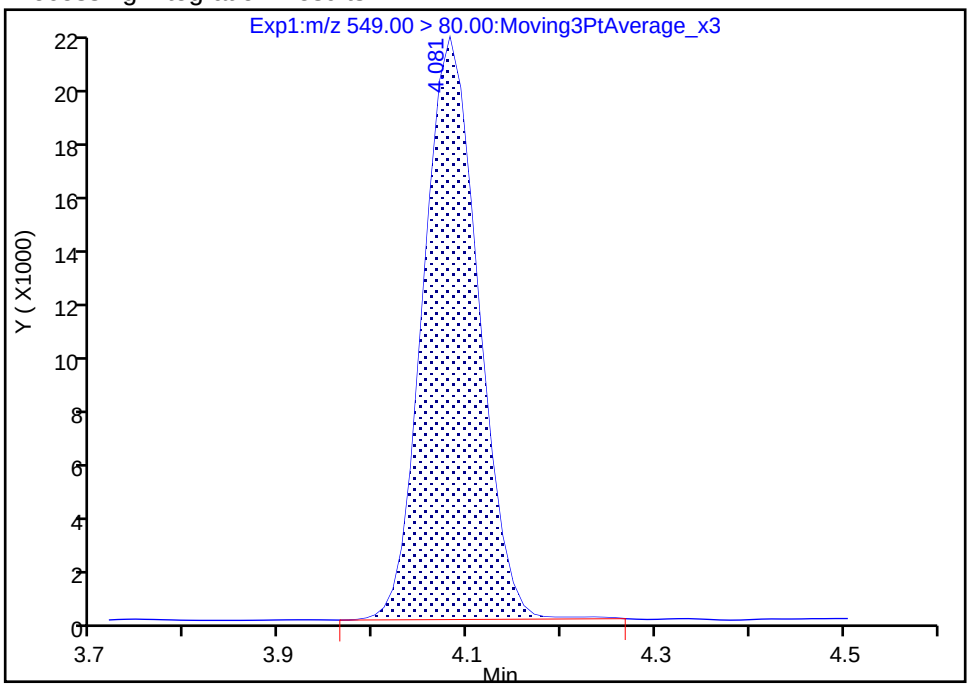
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

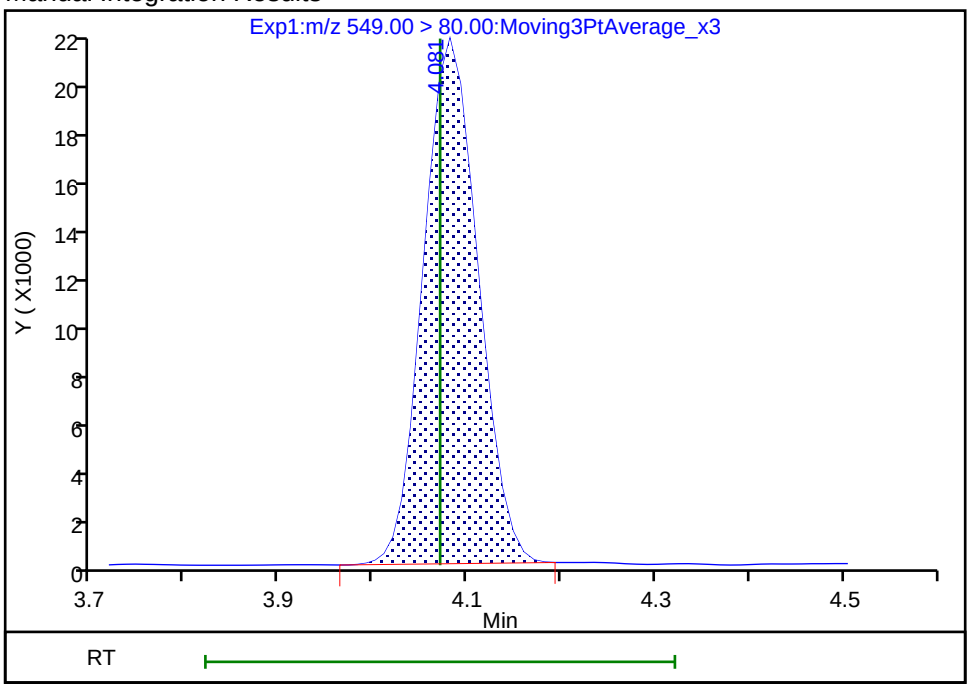
Processing Integration Results

RT: 4.08
Area: 86575
Amount: 0.100095
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 85933
Amount: 0.102320
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

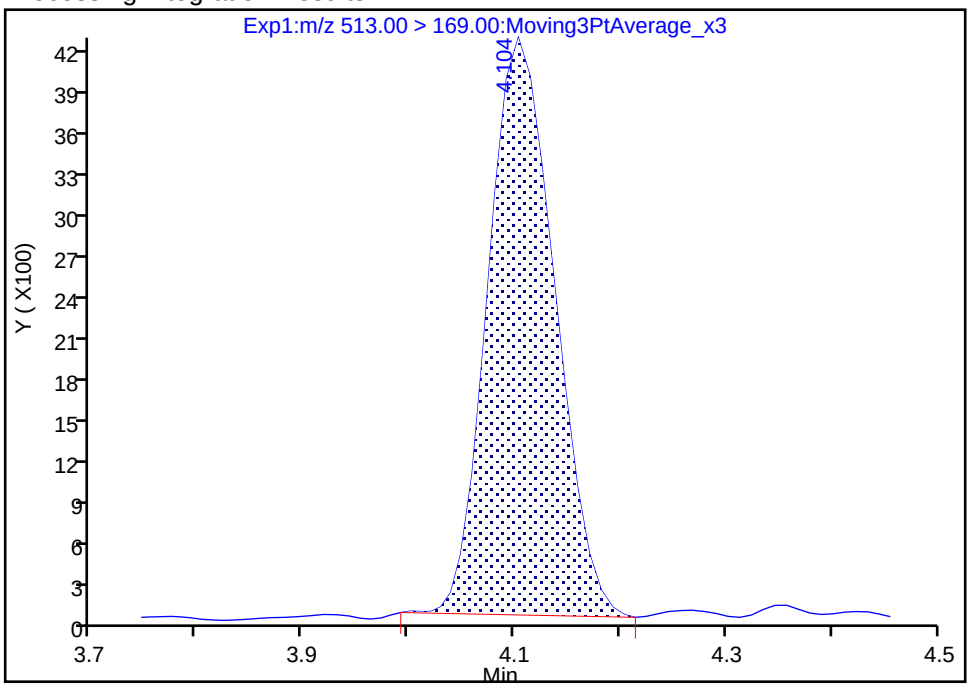
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

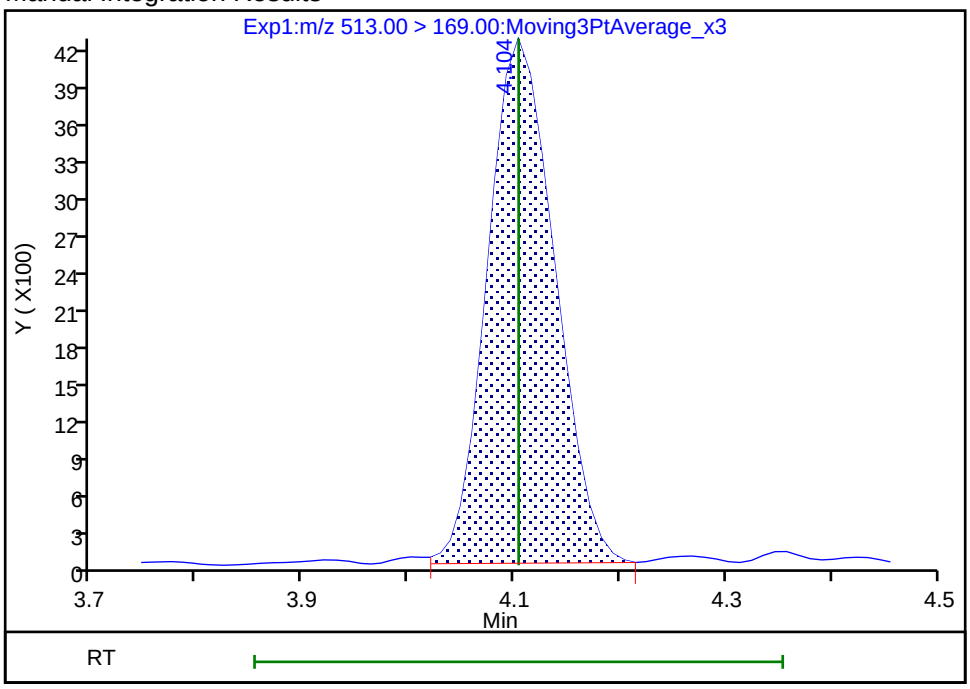
Processing Integration Results

RT: 4.10
Area: 18435
Amount: 0.108313
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 18655
Amount: 0.113067
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

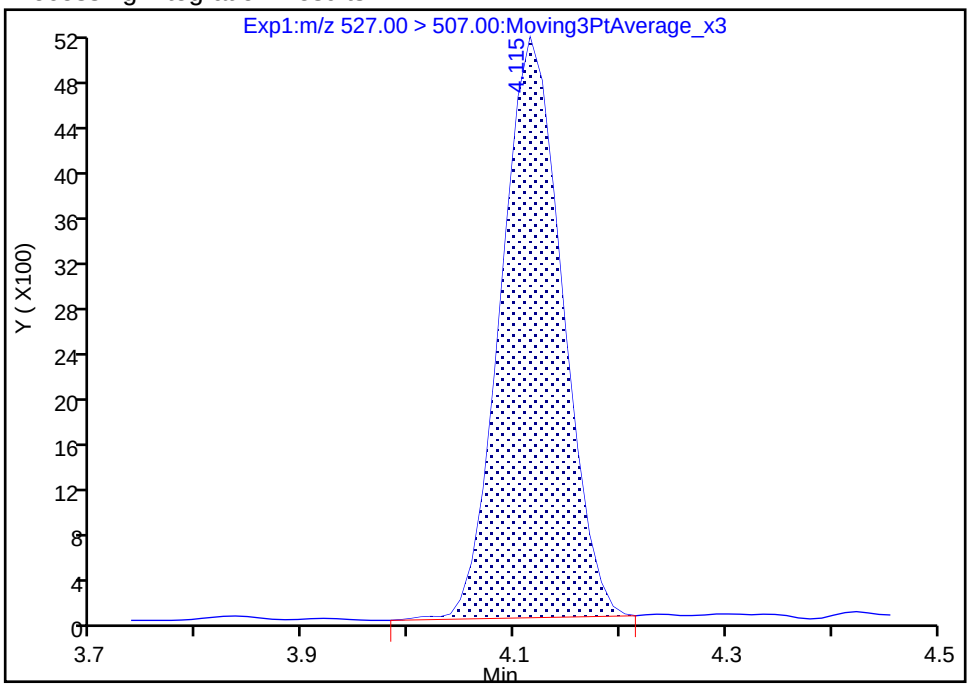
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

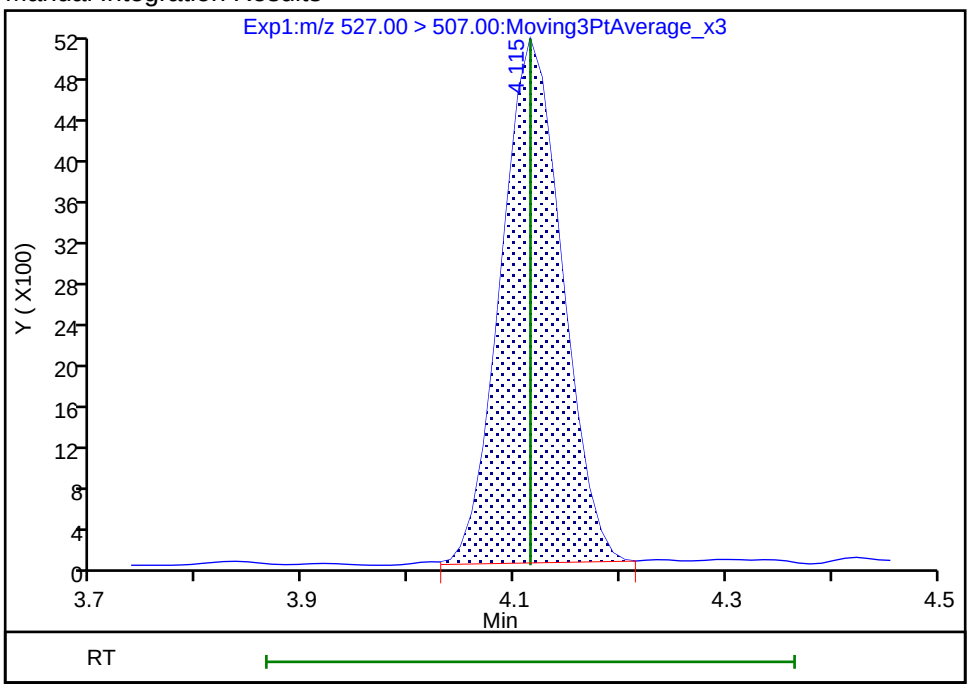
Processing Integration Results

RT: 4.11
Area: 20857
Amount: 0.099865
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 20820
Amount: 0.103247
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

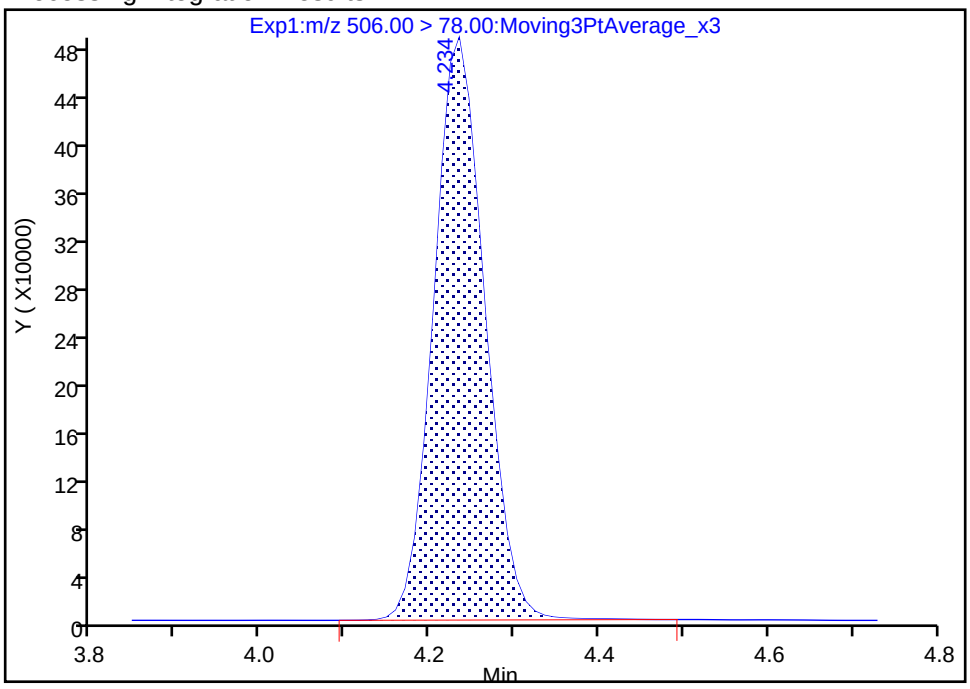
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

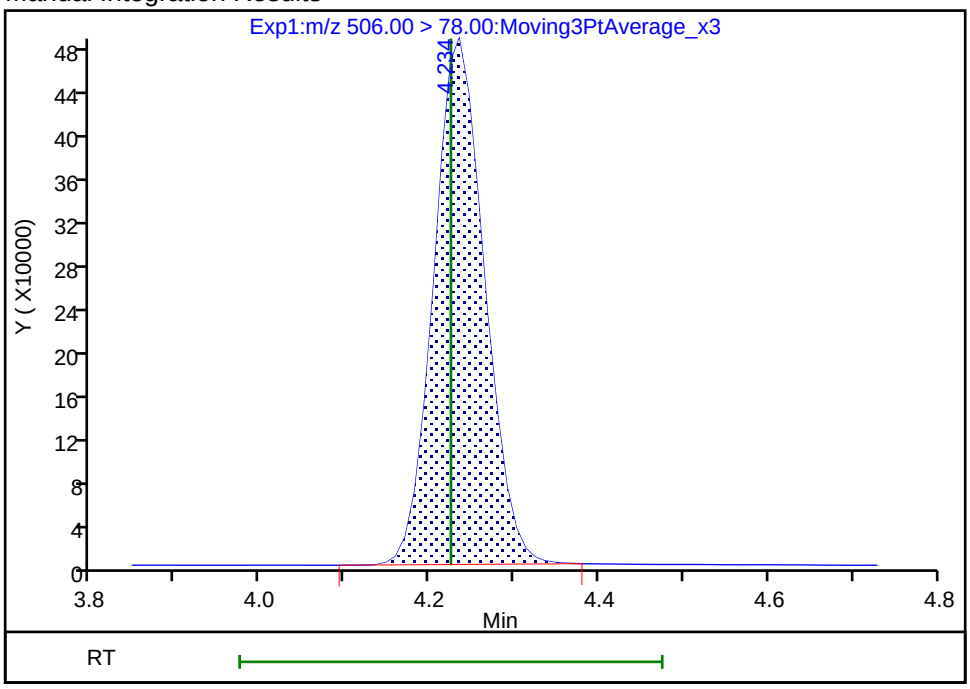
Processing Integration Results

RT: 4.23
Area: 2010154
Amount: 1.257149
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1999674
Amount: 1.250620
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

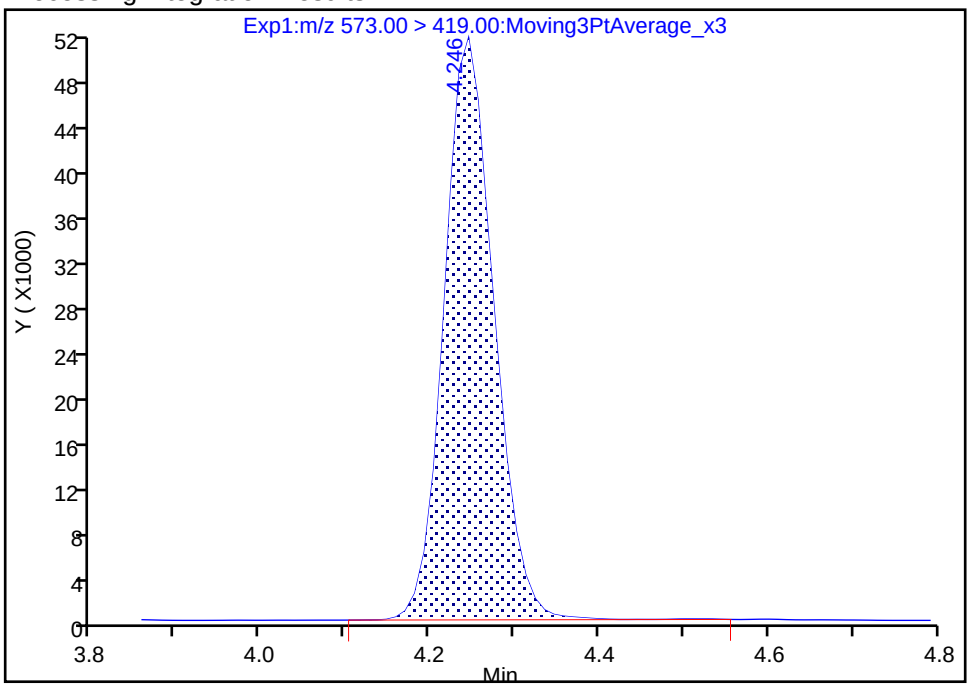
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

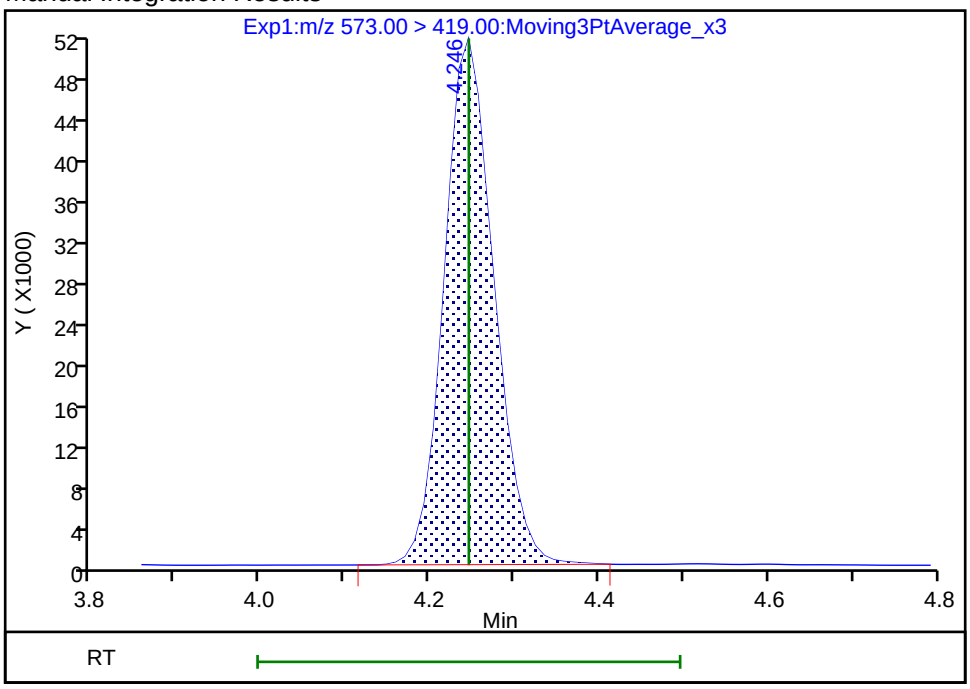
Processing Integration Results

RT: 4.25
Area: 208467
Amount: 1.278680
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 207879
Amount: 1.274874
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

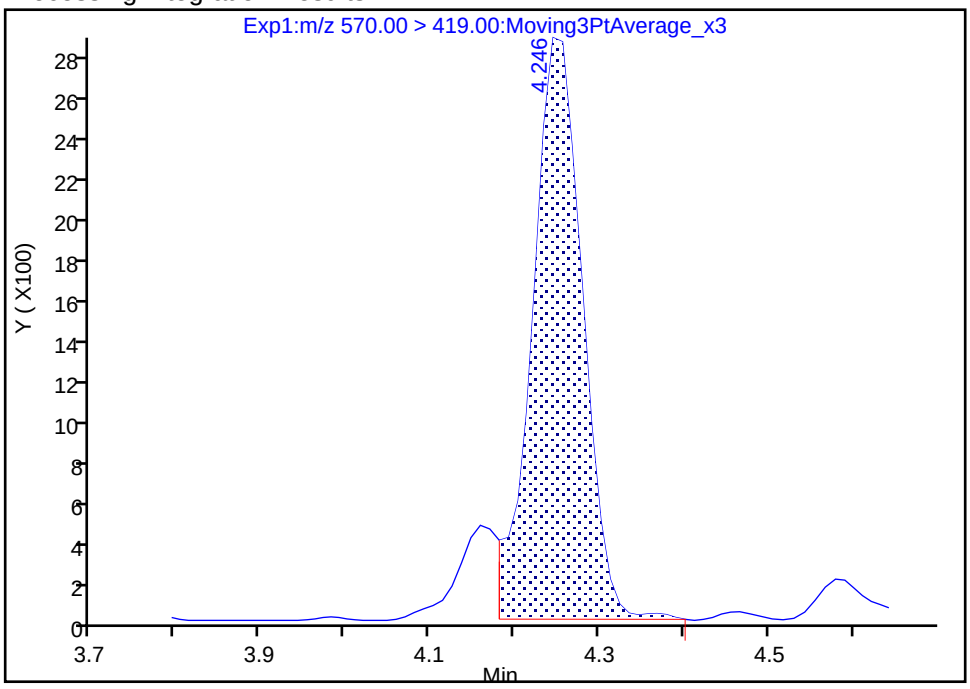
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

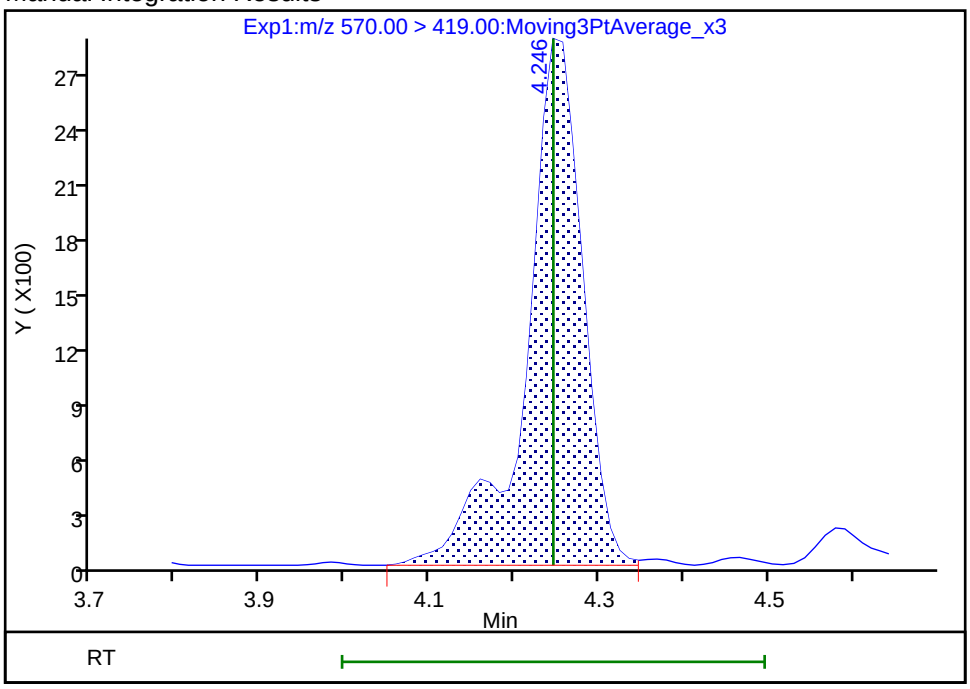
Processing Integration Results

RT: 4.25
Area: 11589
Amount: 0.090658
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 13075
Amount: 0.100079
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

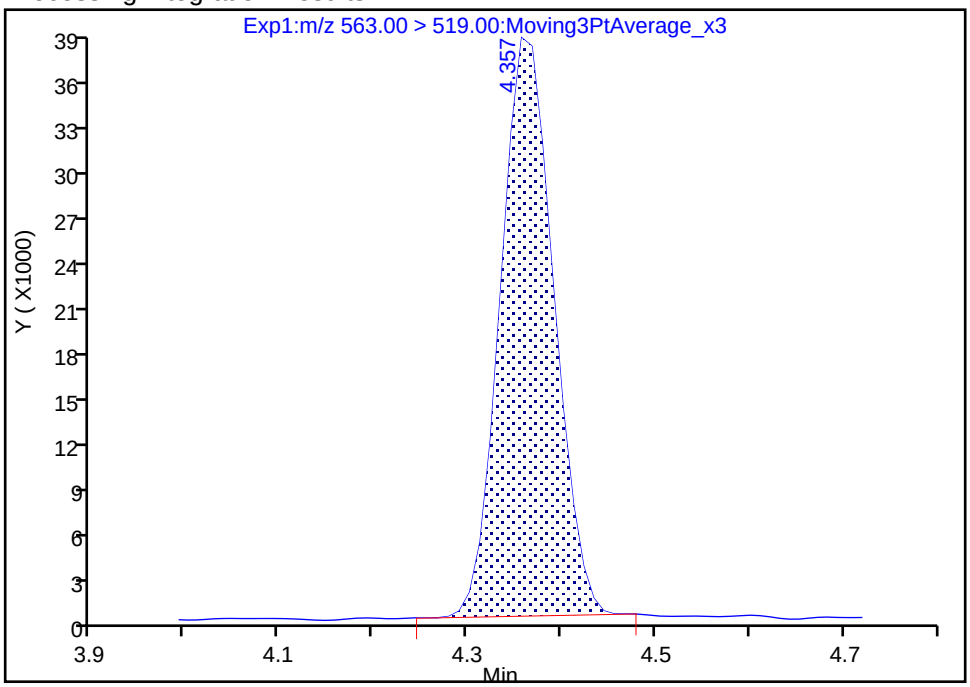
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

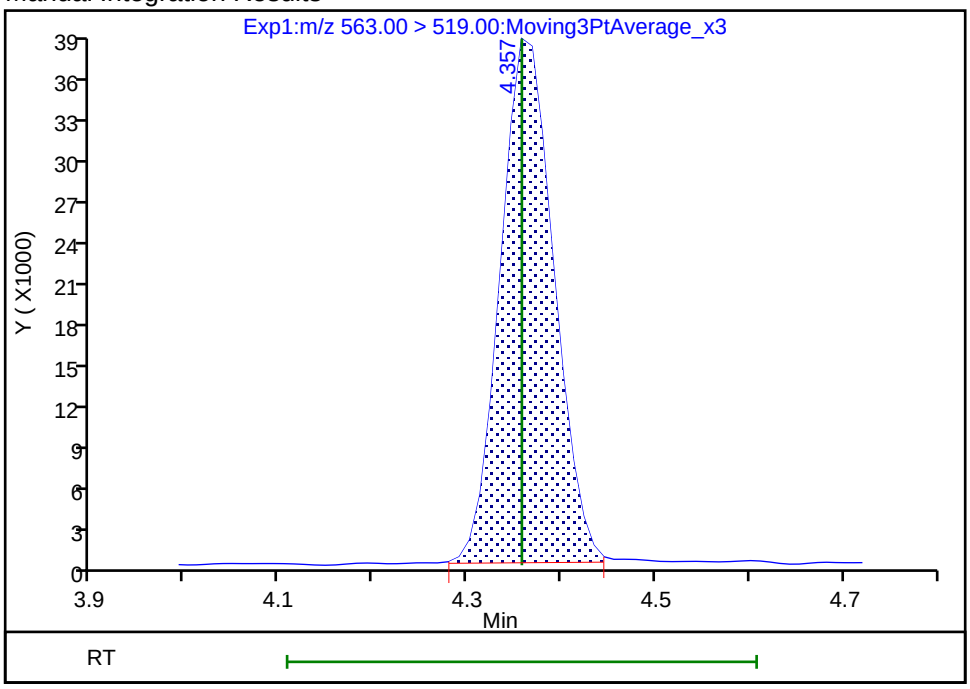
Processing Integration Results

RT: 4.36
Area: 151907
Amount: 0.104821
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 152692
Amount: 0.109717
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

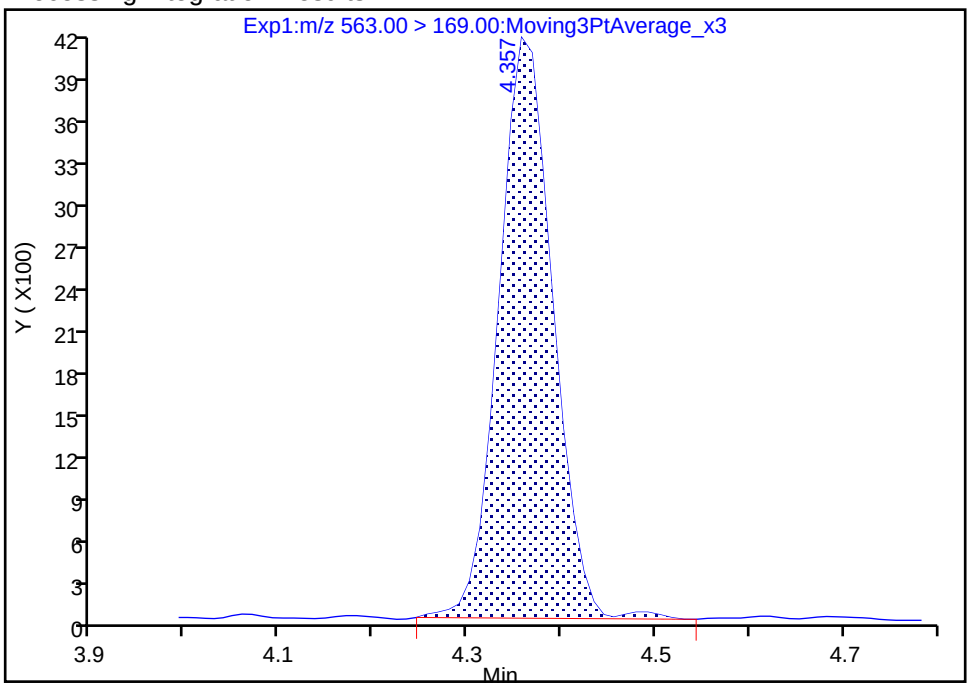
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

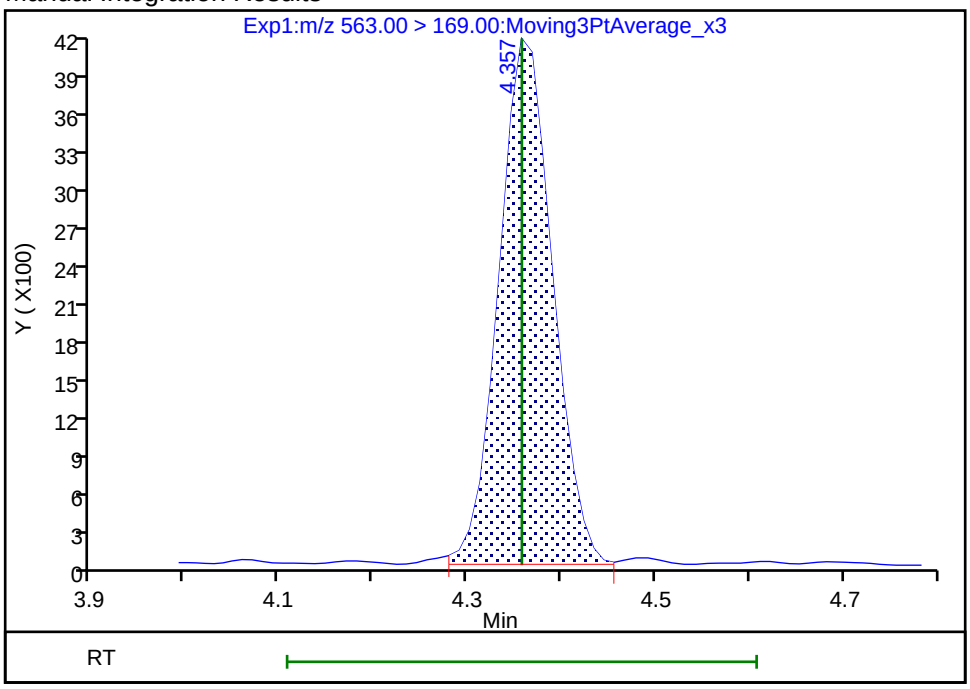
Processing Integration Results

RT: 4.36
Area: 16437
Amount: 0.104821
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 16331
Amount: 0.109717
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

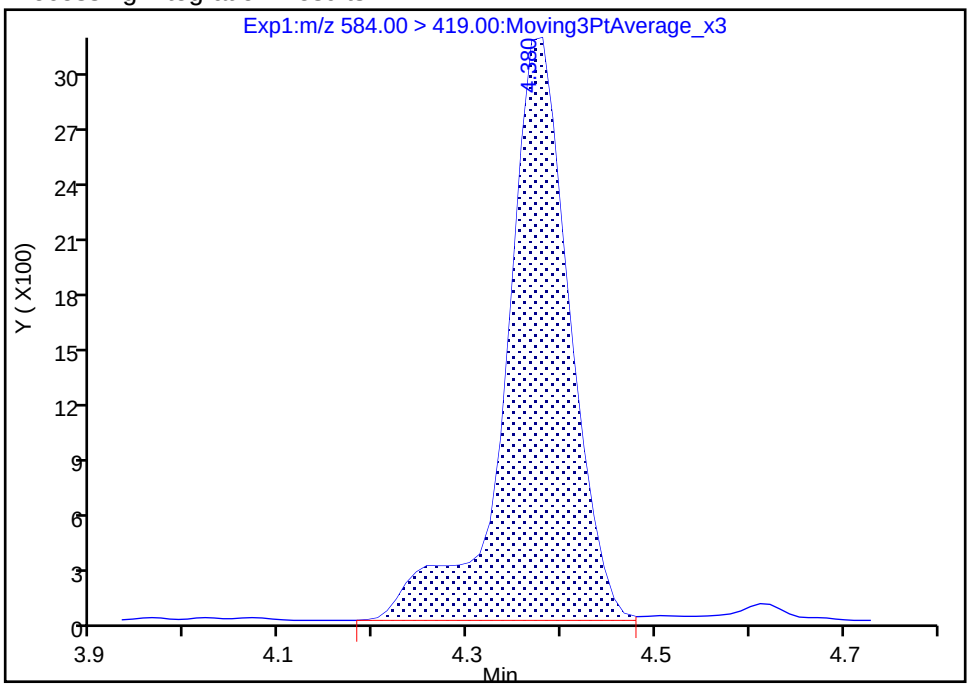
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

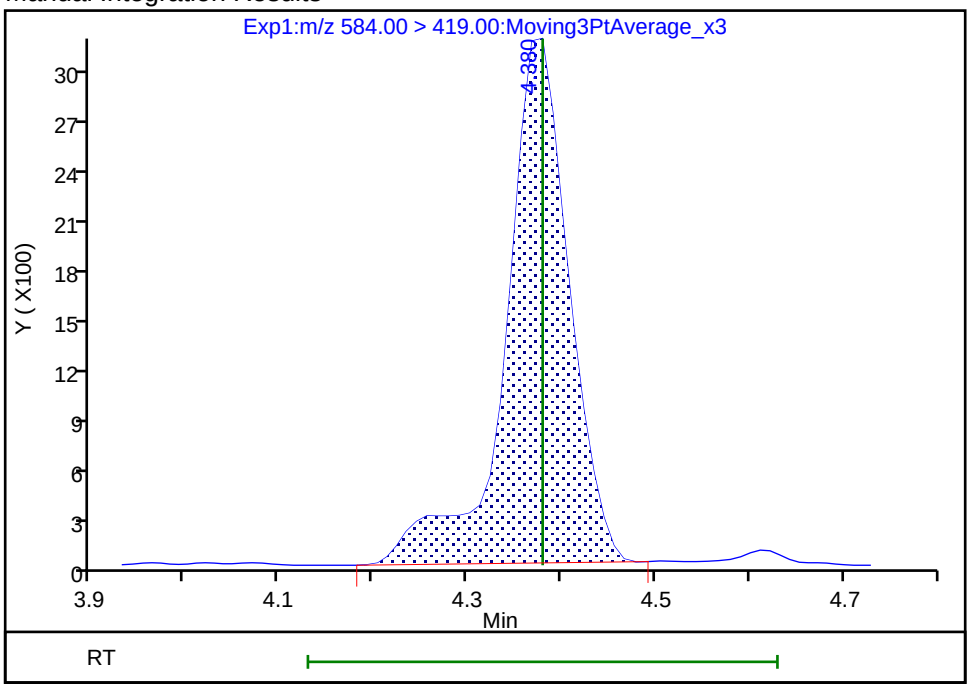
Processing Integration Results

RT: 4.38
Area: 15138
Amount: 0.107711
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 14950
Amount: 0.113129
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

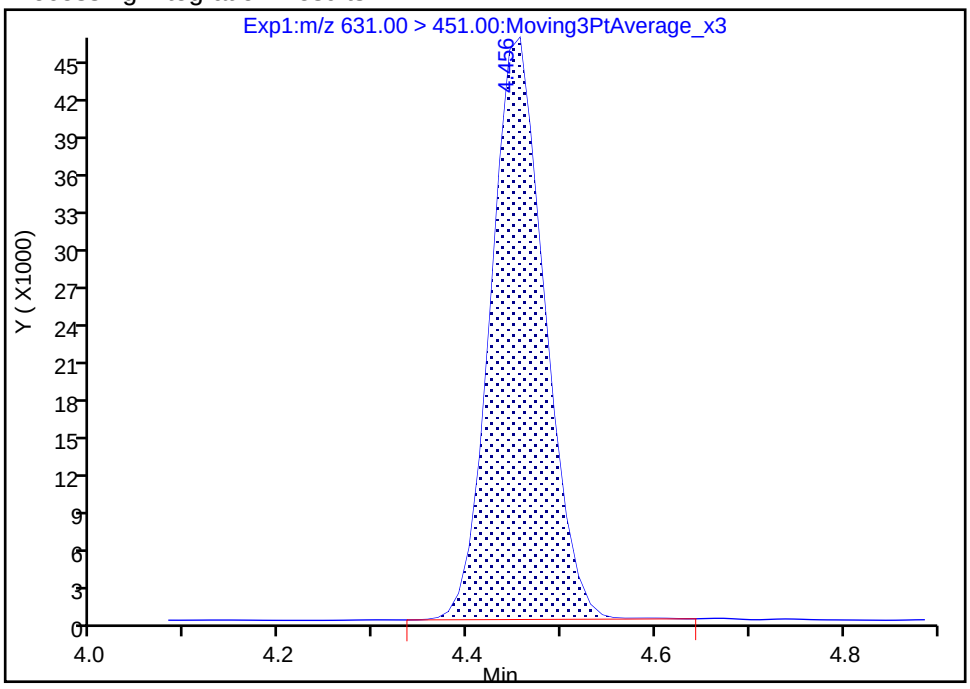
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

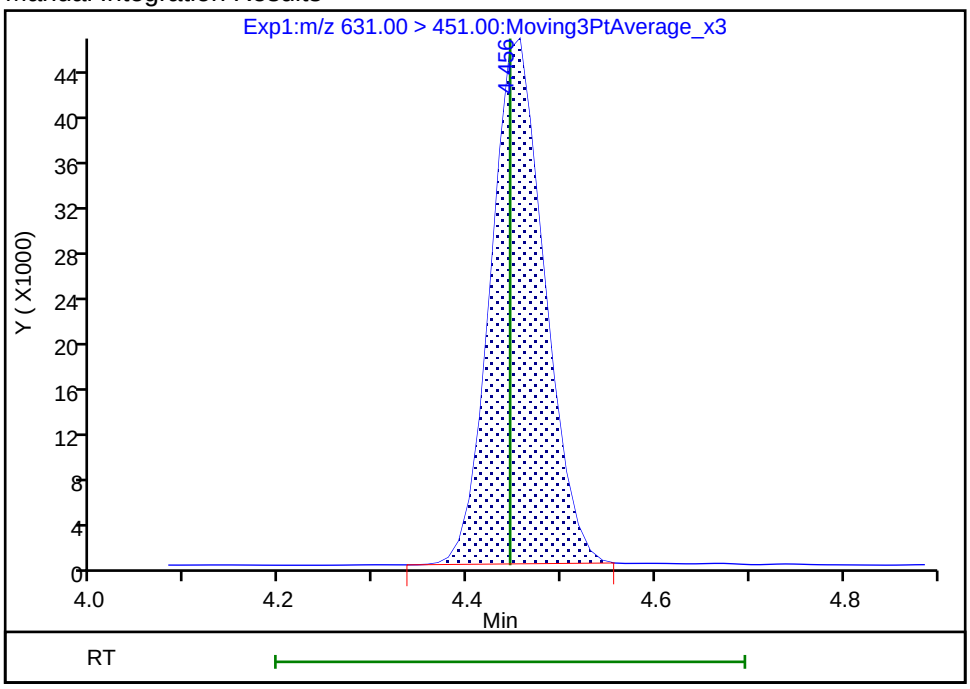
Processing Integration Results

RT: 4.46
Area: 185842
Amount: 0.094948
Amount Units: ng/ml




Manual Integration Results

RT: 4.46
Area: 184947
Amount: 0.096413
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

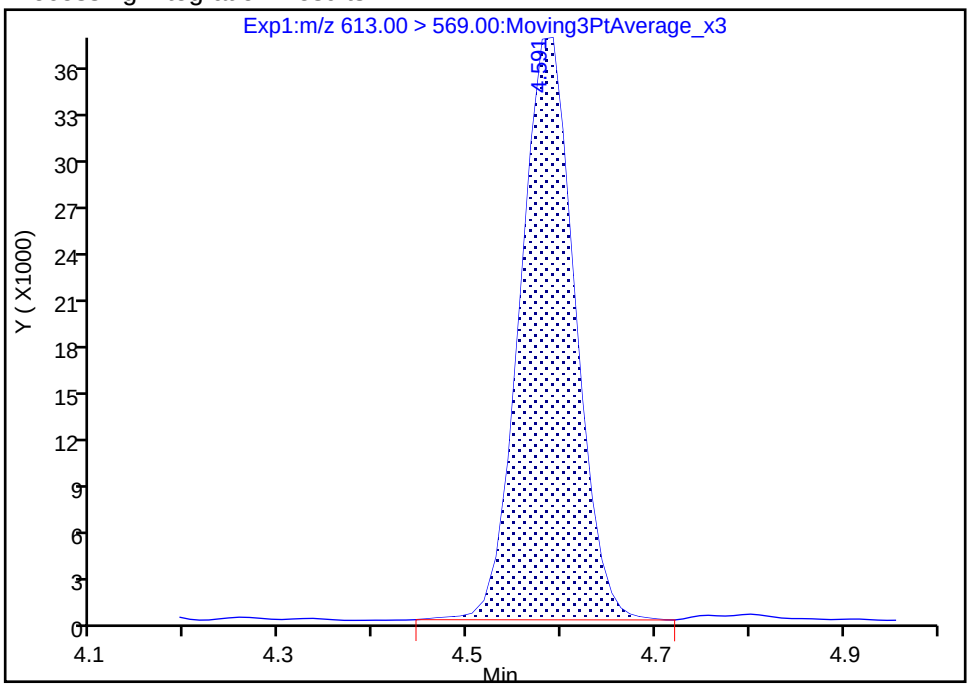
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

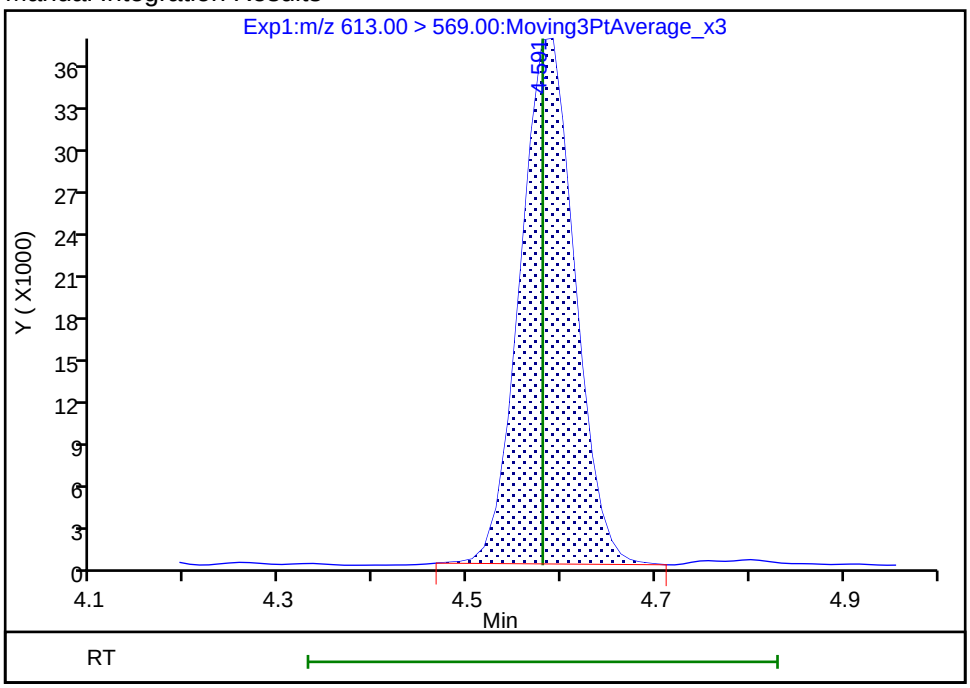
Processing Integration Results

RT: 4.59
Area: 149316
Amount: 0.104807
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 148447
Amount: 0.110055
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

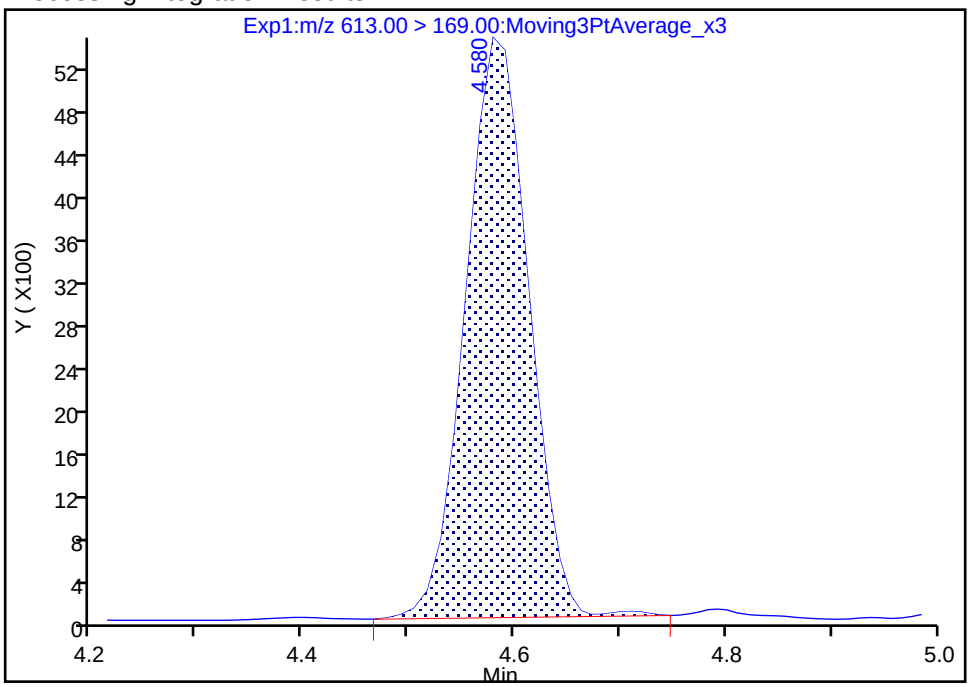
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

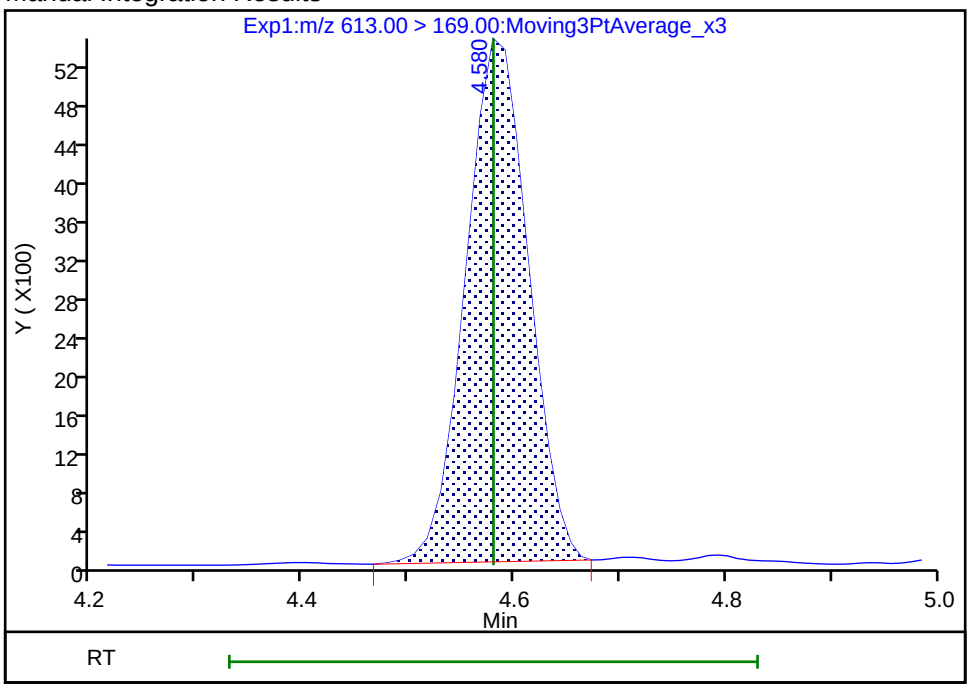
Processing Integration Results

RT: 4.58
Area: 22590
Amount: 0.104807
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 22363
Amount: 0.110055
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

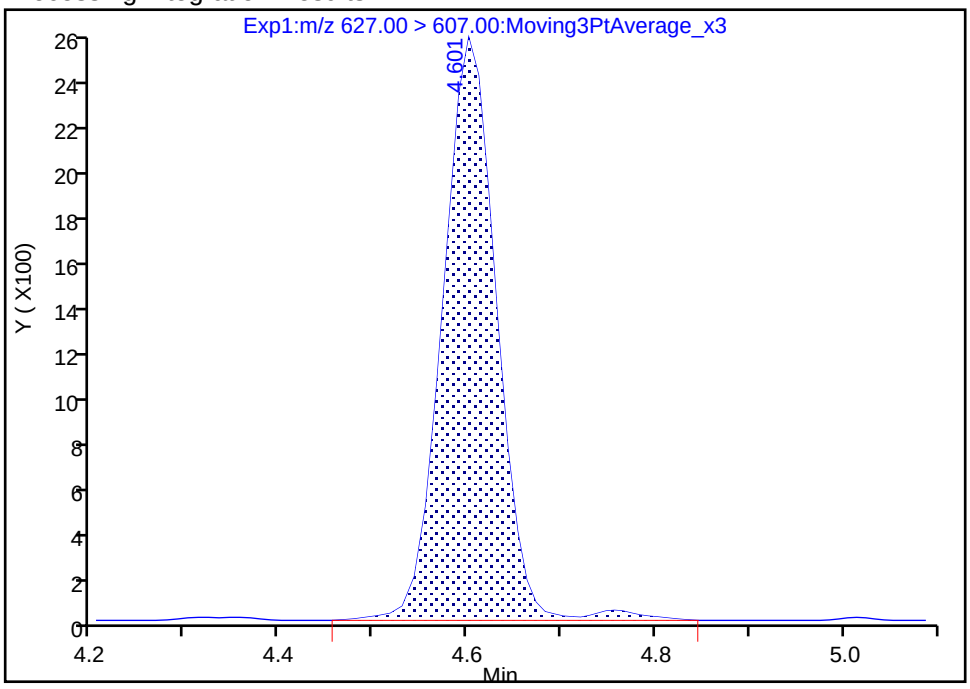
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

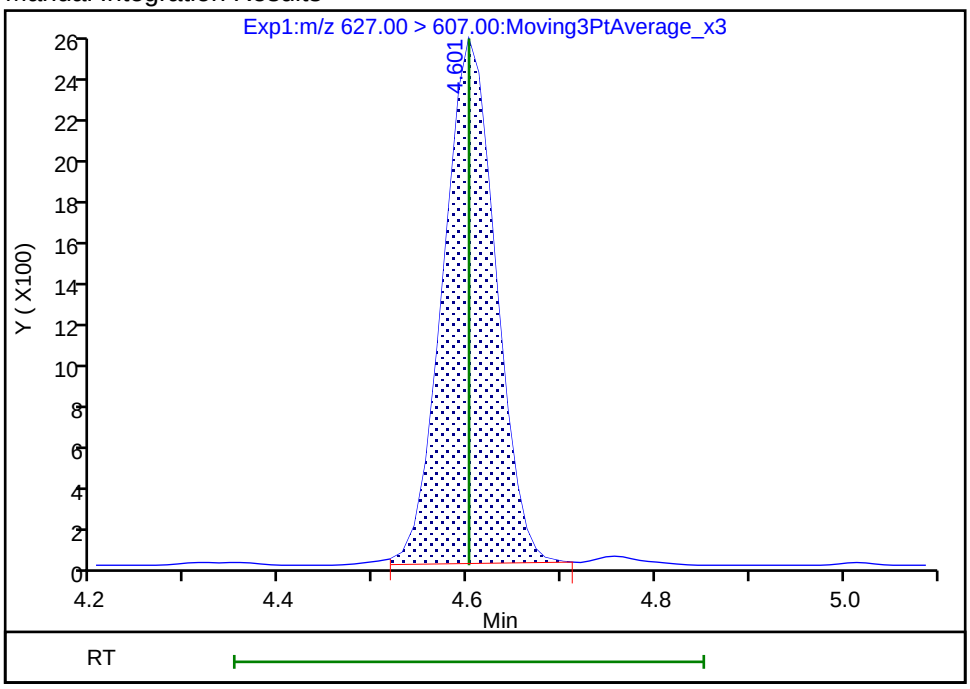
Processing Integration Results

RT: 4.60
Area: 10007
Amount: 0.103625
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 9695
Amount: 0.104060
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

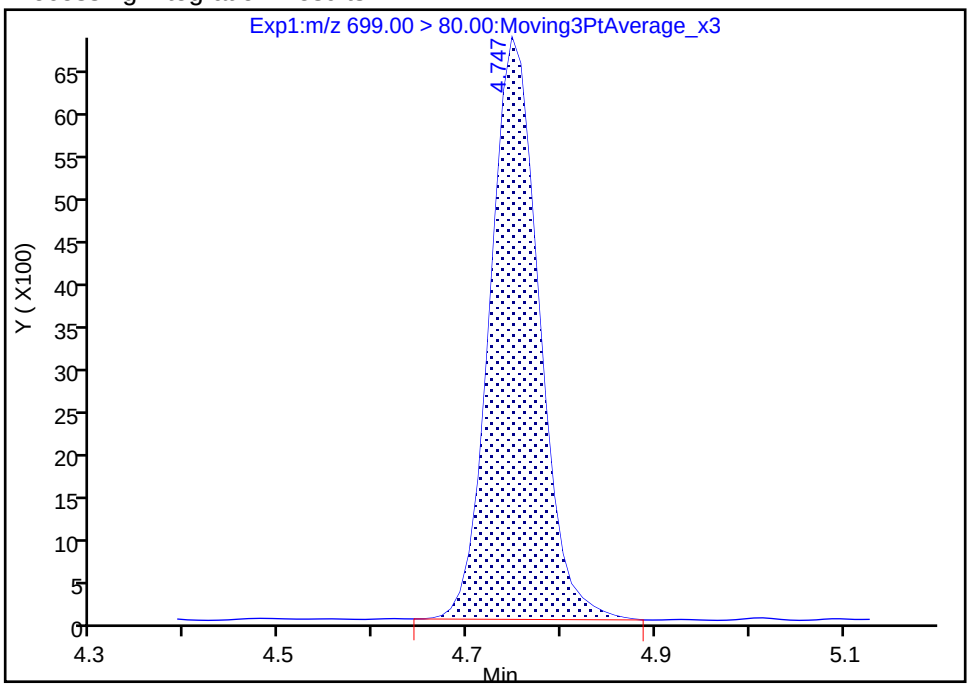
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

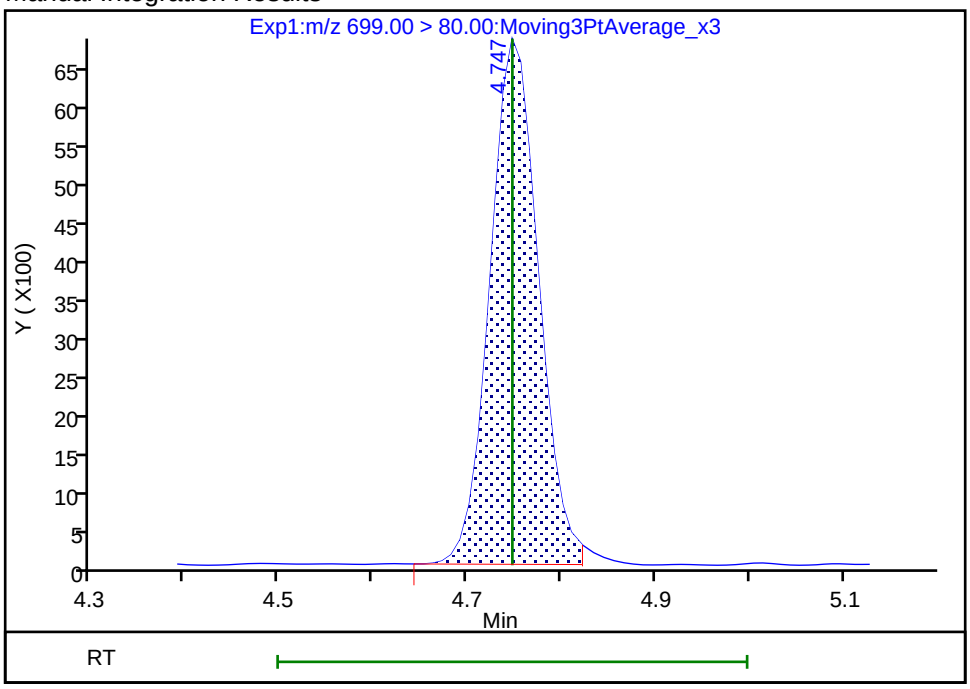
Processing Integration Results

RT: 4.75
Area: 24881
Amount: 0.100450
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 24558
Amount: 0.102252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

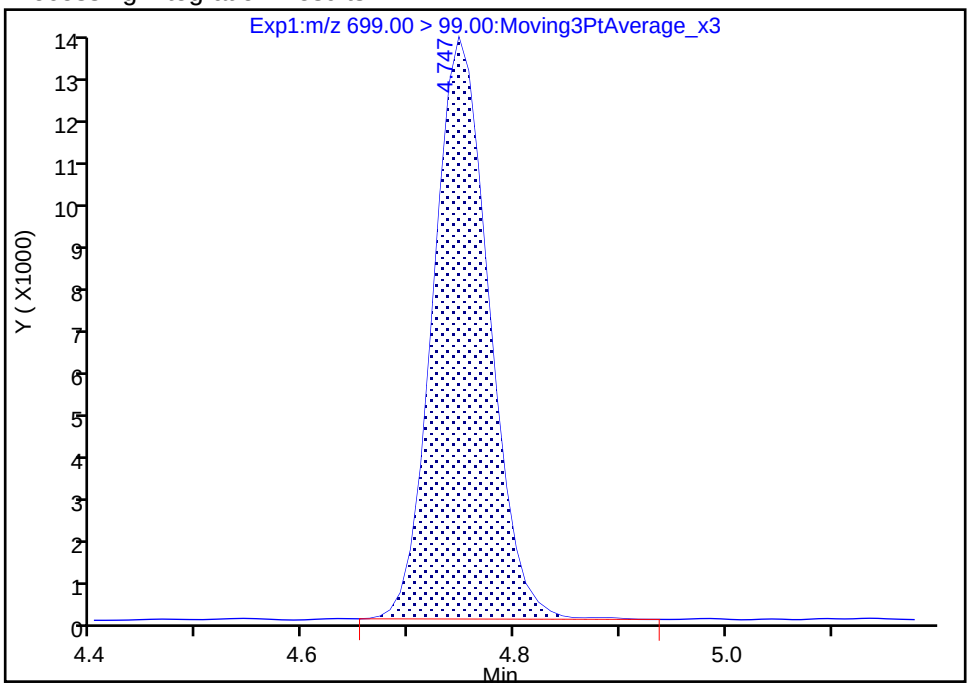
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

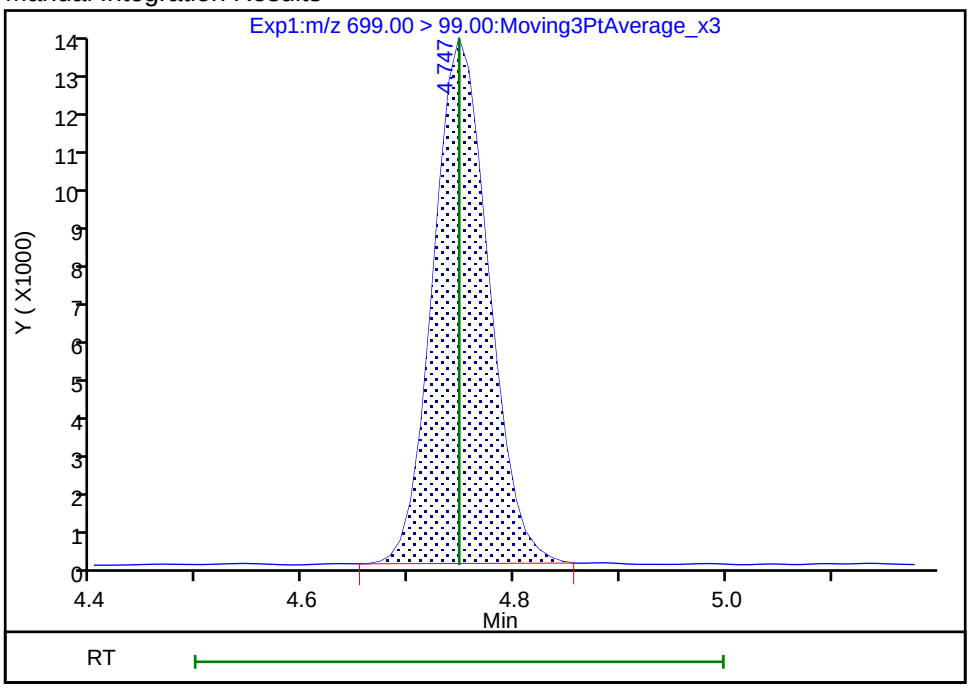
Processing Integration Results

RT: 4.75
Area: 49816
Amount: 0.100450
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 49542
Amount: 0.102252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Oct-2021 14:02:49 ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-004 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:15 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:05:22
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 1751374 | 1.25 | | 100.0 | 5944 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 688237 | 0.5195 | | 104 | 54.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.401 | 2.398 | 0.003 | 0.689 | 1485537 | 1.26 | | 101 | 2293 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.401 | 2.398 | 0.003 | 1.000 | 624348 | 0.5244 | | 105 | 33.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.414 | 2.424 | -0.010 | 0.693 | 1819218 | 1.14 | | 97.9 | 175499 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.427 | 2.424 | 0.003 | 1.005 | 799747 | 0.4785 | Target=2.29 | 108 | 763 | |
| 298.90 > 99.00 | 2.427 | 2.424 | 0.003 | 1.005 | 367001 | | 2.18(1.15-3.44) | 108 | 130 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.723 | 2.720 | 0.003 | 0.781 | 143541 | 1.18 | | 101 | 112 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.723 | 2.720 | 0.003 | 1.000 | 128177 | 0.4898 | | 105 | 1369 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.759 | 2.756 | 0.003 | 1.000 | 624268 | 0.4983 | Target=12.01 | 99.7 | 83.1 | M |
| 313.00 > 119.00 | 2.759 | 2.756 | 0.003 | 1.000 | 51849 | | 12.04(6.00-18.01) | 99.7 | 61.6 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.756 | 0.003 | 0.792 | 1544242 | 1.25 | | 99.7 | 3313 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.771 | 2.768 | 0.003 | 0.884 | 661381 | 0.4783 | Target=3.04 | 102 | 915 | |
| 349.00 > 99.00 | 2.771 | 2.768 | 0.003 | 0.884 | 216551 | | 3.05(1.52-4.56) | 102 | 209 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.868 | 2.865 | 0.003 | 0.823 | 39462 | 1.21 | | 96.7 | 391 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.868 | 2.865 | 0.003 | 1.000 | 69564 | 0.4870 | | 97.4 | 18.8 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.122 | 0.011 | 0.899 | 1357826 | 1.17 | | 98.9 | 3336 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.122 | 0.011 | 1.000 | 580723 | 0.4600 | Target=3.51 | 101 | 768 | M |
| 399.00 > 99.00 | 3.122 | 3.122 | 0.0 | 0.997 | 166326 | | 3.49(1.76-5.27) | 101 | 145 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.133 | 3.132 | 0.001 | 1.000 | 702653 | 0.5279 | Target=3.83 | 106 | 188 | |
| 363.00 > 169.00 | 3.133 | 3.132 | 0.001 | 1.000 | 179392 | | 3.92(1.91-5.74) | 106 | 267 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.133 | 3.132 | 0.001 | 0.899 | 1610239 | 1.23 | | 98.8 | 3556 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.834 | 1431405 | 0.5075 | Target=2.58 | 108 | 1549 | M |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.834 | 547095 | | 2.62(1.29-3.88) | 108 | 536 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.475 | 3.474 | 0.001 | 0.915 | 509888 | 0.5076 | Target=5.12 | 107 | 1522 | M |
| 449.00 > 99.00 | 3.475 | 3.474 | 0.001 | 0.915 | 100429 | | 5.08(2.56-7.67) | 107 | 212 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.475 | 3.474 | 0.001 | 0.997 | 220518 | 1.20 | | 101 | 453 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.475 | 3.474 | 0.001 | 1.000 | 119105 | 0.5058 | | 107 | 690 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.484 | 3.483 | 0.001 | 1.000 | 1734402 | 1.22 | | 97.4 | 4648 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.484 | 3.483 | 0.001 | | 1730934 | 1.25 | | | 2477 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.484 | 3.483 | 0.001 | 1.000 | 770517 | 0.5222 | Target=2.65 | 104 | 123 | |
| 413.00 > 169.00 | 3.484 | 3.483 | 0.001 | 1.000 | 292988 | | 2.63(1.32-3.97) | 104 | 410 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.796 | 3.794 | 0.002 | 1.090 | 962917 | 1.15 | | 96.1 | 3770 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.796 | 3.794 | 0.002 | 1.000 | 432797 | 0.4950 | Target=4.60 | 107 | 565 | M |
| 499.00 > 99.00 | 3.796 | 3.794 | 0.002 | 1.000 | 84548 | | 5.12(2.30-6.90) | 107 | 195 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.816 | 3.814 | 0.002 | 1.095 | 1742047 | 1.23 | | 98.2 | 2890 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.816 | 3.814 | 0.002 | 1.000 | 696392 | 0.5108 | Target=7.58 | 102 | 135 | |
| 463.00 > 169.00 | 3.816 | 3.814 | 0.002 | 1.000 | 90994 | | 7.65(3.79-11.37) | 102 | 411 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.957 | 3.955 | 0.002 | 1.043 | 635074 | 0.4821 | | 103 | 1940 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.084 | 4.071 | 0.013 | 1.076 | 333722 | 0.4900 | Target=2.38 | 102 | 1333 | M |
| 549.00 > 99.00 | 4.084 | 4.071 | 0.013 | 1.076 | 138967 | | 2.40(1.19-3.56) | 102 | 330 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.106 | 4.104 | 0.002 | 1.179 | 1732010 | 1.21 | | 96.7 | 2939 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.106 | 4.104 | 0.002 | 1.000 | 710000 | 0.5099 | Target=9.30 | 102 | 379 | M |
| 513.00 > 169.00 | 4.106 | 4.104 | 0.002 | 1.000 | 73895 | | 9.61(4.65-13.95) | 102 | 310 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.118 | 4.115 | 0.003 | 1.182 | 236138 | 1.14 | | 95.0 | 740 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.118 | 4.115 | 0.003 | 1.000 | 87150 | 0.5283 | | 110 | 1098 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.237 | 4.225 | 0.012 | 1.216 | 1730994 | 1.25 | | 100 | 2008 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.237 | 4.235 | 0.002 | 1.000 | 685105 | 0.5209 | | 104 | 1757 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.248 | 4.246 | 0.002 | 1.219 | 177391 | 1.26 | | 101 | 504 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.248 | 4.246 | 0.002 | 1.000 | 54995 | 0.4933 | | 98.7 | 223 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.339 | 4.336 | 0.003 | 1.143 | 273773 | 0.5170 | Target=2.54 | 107 | 1664 | |
| 599.00 > 99.00 | 4.339 | 4.336 | 0.003 | 1.143 | 103908 | | 2.63(1.27-3.81) | 107 | 545 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.361 | 4.358 | 0.003 | 1.252 | 1326229 | 1.19 | | 95.0 | 5285 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.361 | 4.358 | 0.003 | 1.000 | 612929 | 0.5419 | Target=9.37 | 108 | 427 | |
| 563.00 > 169.00 | 4.361 | 4.358 | 0.003 | 1.000 | 66139 | | 9.27(4.69-14.06) | 108 | 634 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.372 | 4.369 | 0.003 | 1.255 | 162762 | 1.23 | | 98.7 | 670 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.384 | 4.380 | 0.004 | 1.003 | 55468 | 0.4971 | | 99.4 | 395 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.449 | 4.445 | 0.004 | 1.172 | 777266 | 0.4997 | | 106 | 3044 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.585 | 4.580 | 0.005 | 1.316 | 1443504 | 1.20 | | 96.2 | 694 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.585 | 4.580 | 0.005 | 1.000 | 594650 | 0.5260 | Target=6.84 | 105 | 114 | M |
| 613.00 > 169.00 | 4.585 | 4.580 | 0.005 | 1.000 | 85701 | | 6.94(3.42-10.25) | 105 | 683 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.605 | 4.601 | 0.004 | 1.118 | 39257 | 0.5151 | | 107 | 599 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.752 | 4.748 | 0.004 | 1.252 | 97215 | 0.4991 | Target=0.51 | 103 | 1585 | |
| 699.00 > 99.00 | 4.752 | 4.748 | 0.004 | 1.252 | 193705 | | 0.50(0.25-0.76) | 103 | 1751 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.779 | 4.775 | 0.004 | 1.042 | 497082 | 0.5099 | Target=4.67 | 102 | 121 | M |
| 663.00 > 169.00 | 4.779 | 4.775 | 0.004 | 1.042 | 108142 | | 4.60(2.33-7.00) | 102 | 994 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.959 | 4.957 | 0.003 | 1.424 | 1151594 | 1.24 | | 98.9 | 1818 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.959 | 4.957 | 0.003 | 1.000 | 73965 | 0.5087 | Target=0.99 | 102 | 810 | |
| 713.00 > 219.00 | 4.950 | 4.957 | -0.006 | 0.998 | 75099 | | 0.98(0.49-1.48) | 102 | 1249 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.260 | 5.258 | 0.002 | 1.510 | 1005731 | 1.23 | | 98.1 | 2741 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.260 | 5.258 | 0.002 | 1.000 | 359982 | 0.5057 | Target=4.50 | 101 | 98.5 | |
| 813.00 > 169.00 | 5.260 | 5.258 | 0.002 | 1.000 | 83736 | | 4.30(2.25-6.75) | 101 | 856 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.512 | 5.519 | -0.007 | 1.048 | 355258 | 0.5236 | Target=4.46 | 105 | 182 | |
| 913.00 > 169.00 | 5.512 | 5.519 | -0.007 | 1.048 | 77457 | | 4.59(2.23-6.68) | 105 | 870 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC3_00011 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d

Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812

Lims ID: IC

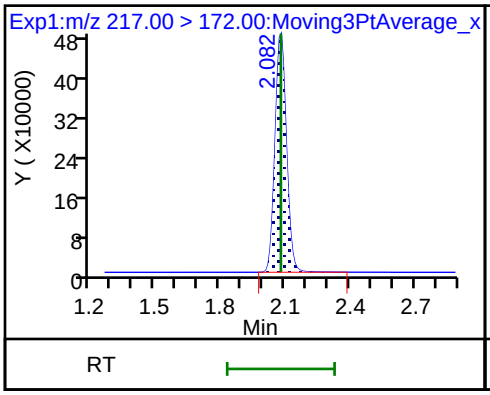
Client ID:

Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4

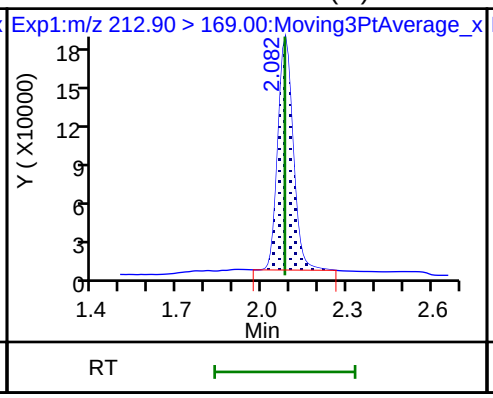
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

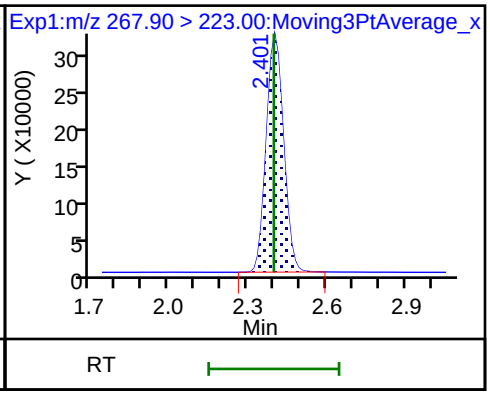
D 1 13C4 PFBA



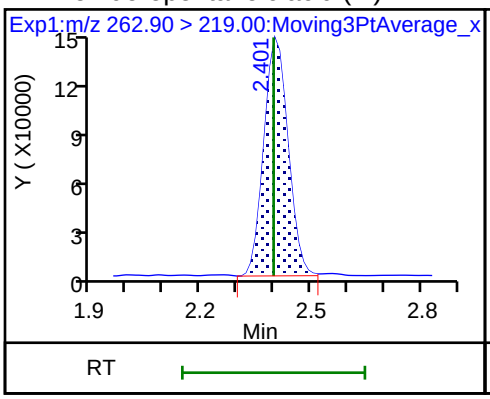

2 Perfluorobutanoic acid (M)



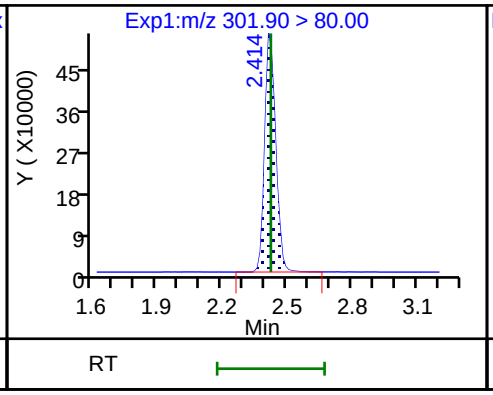

D 3 13C5 PFPeA



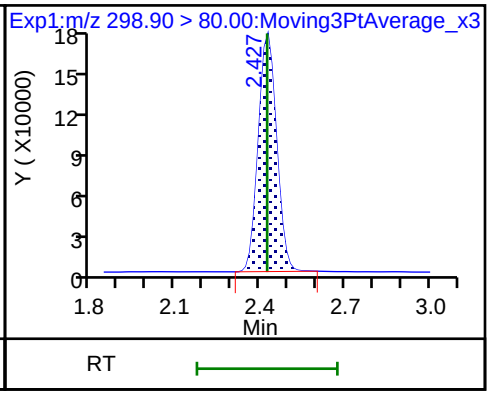

4 Perfluoropentanoic acid (M)



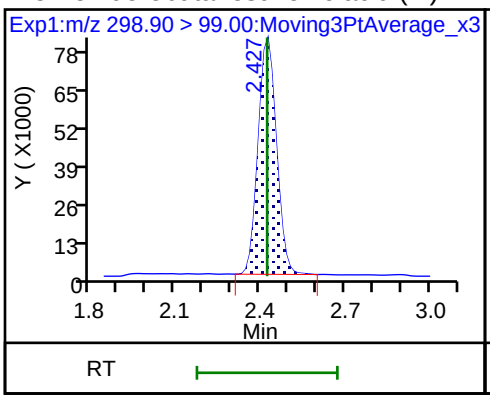

D 47 13C3 PFBS



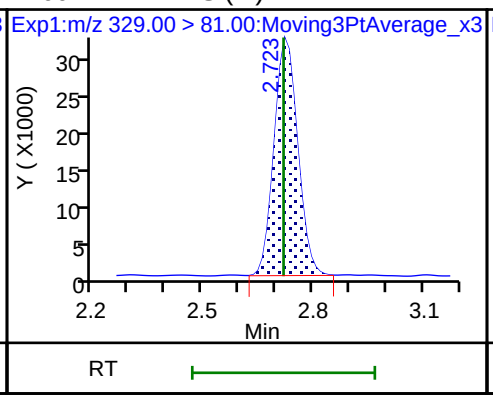

5 Perfluorobutanesulfonic acid



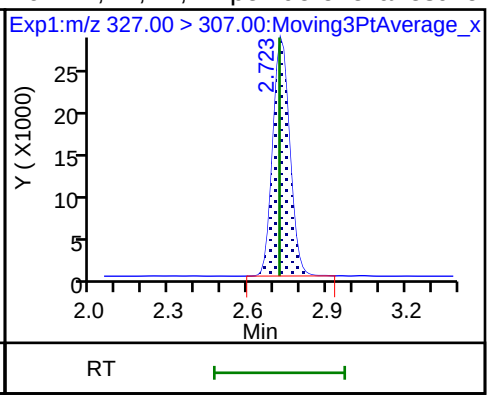

5 Perfluorobutanesulfonic acid (M)



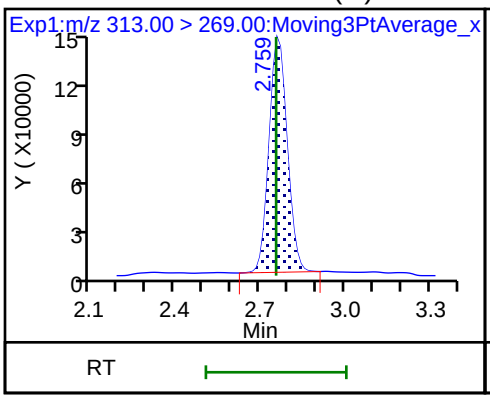

D 60 M2-4:2 FTS (M)



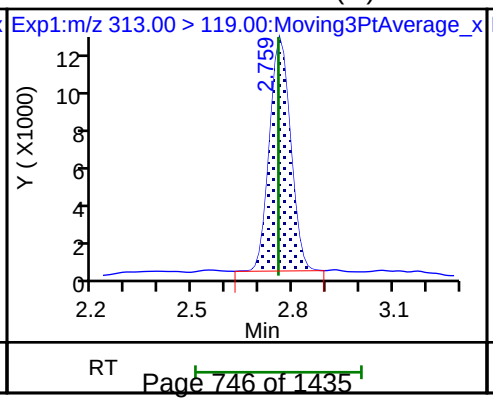

61 1H,1H,2H,2H-perfluorohexanesulfo



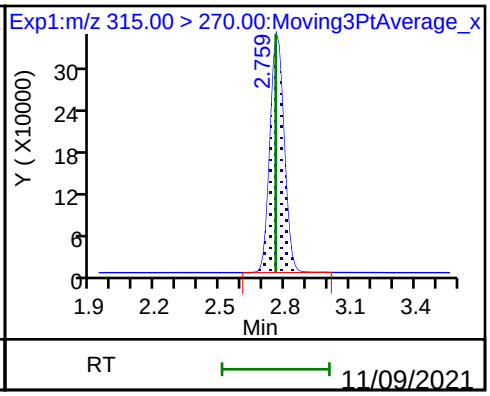

6 Perfluorohexanoic acid (M)



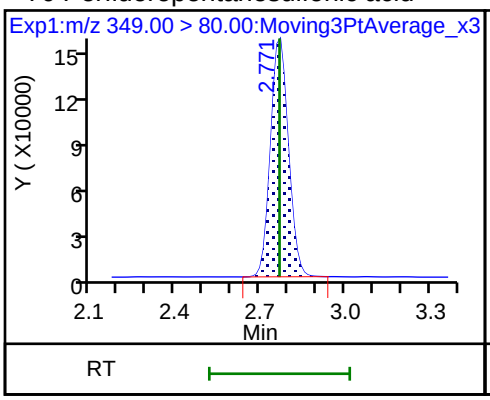

6 Perfluorohexanoic acid (M)



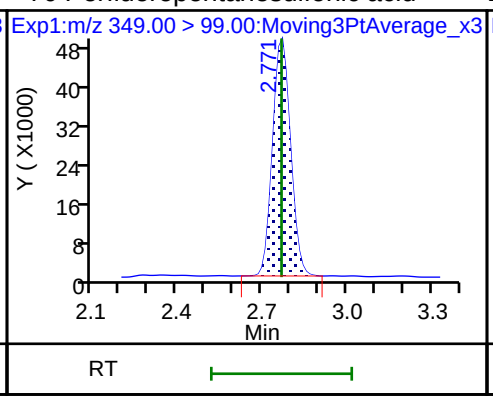

D 7 13C2 PFHxA



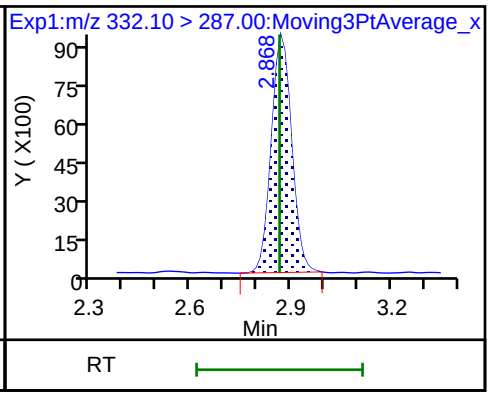
70 Perfluoropentanesulfonic acid



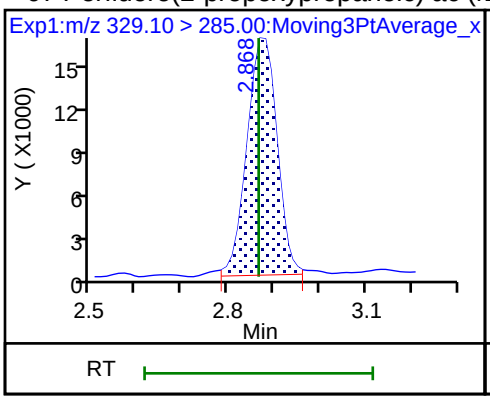

70 Perfluoropentanesulfonic acid



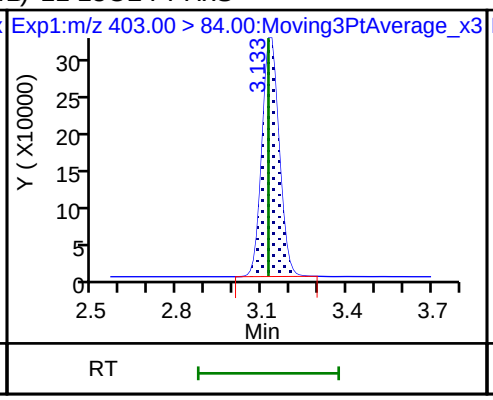

D 64 13C3 HFPO-DA



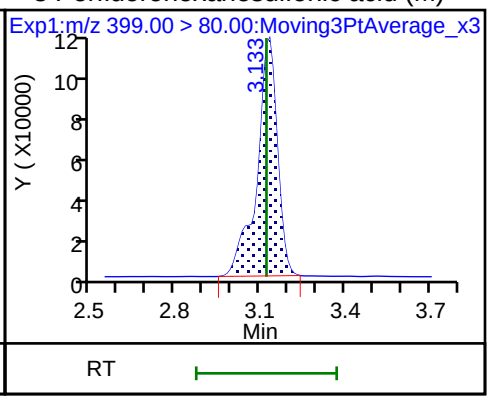

67 Perfluoro(2-propoxypropanoic) ac (M)



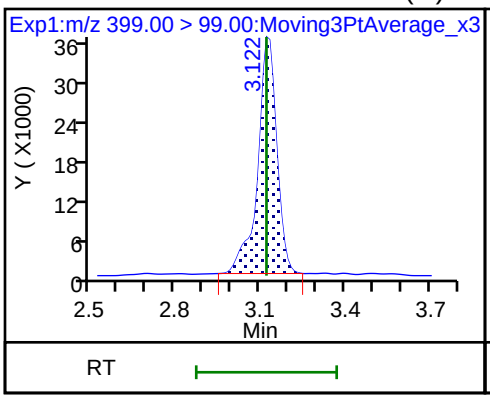

D 11 18O2 PFHxS



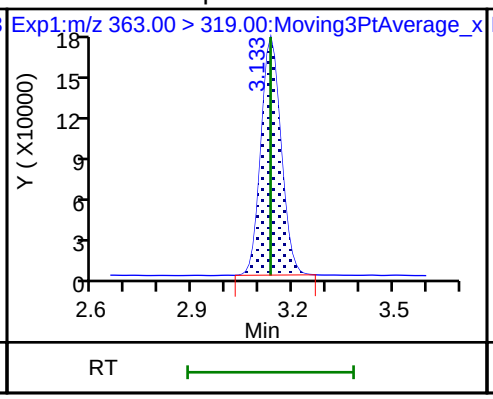

8 Perfluorohexanesulfonic acid (M)



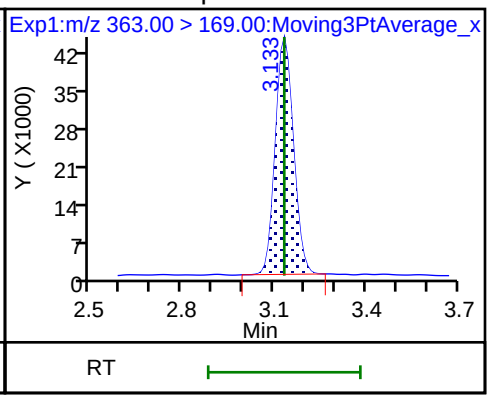

8 Perfluorohexanesulfonic acid (M)



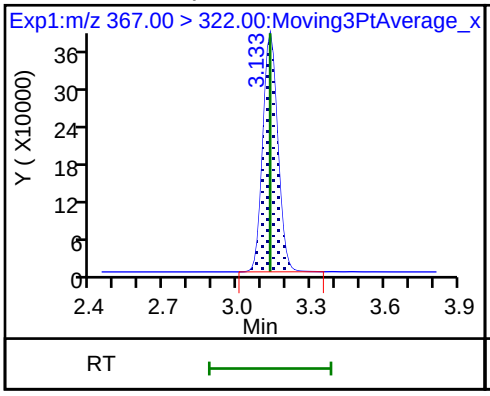

10 Perfluoroheptanoic acid



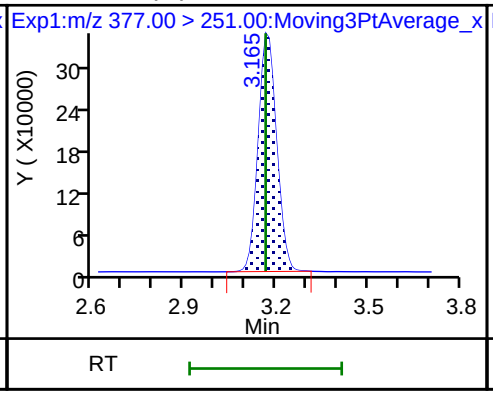

10 Perfluoroheptanoic acid



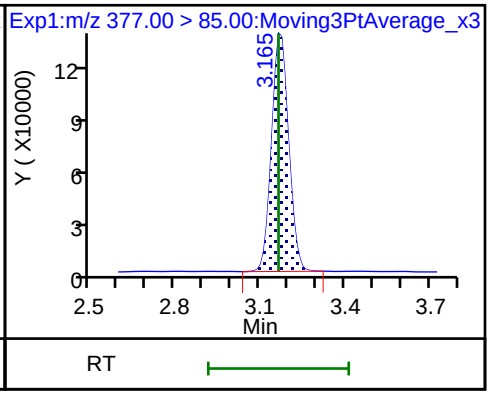

D 9 13C4 PFHpA



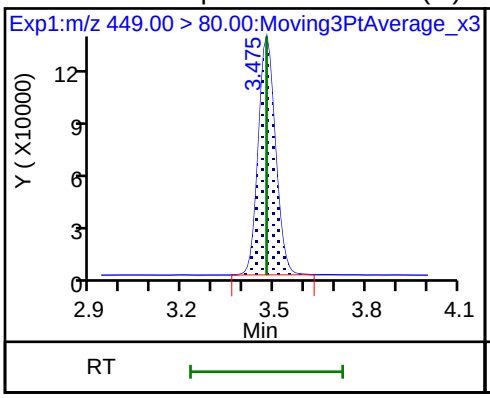

77 DONA (M)



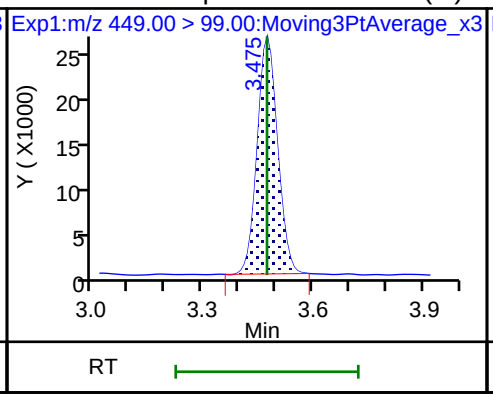

77 DONA



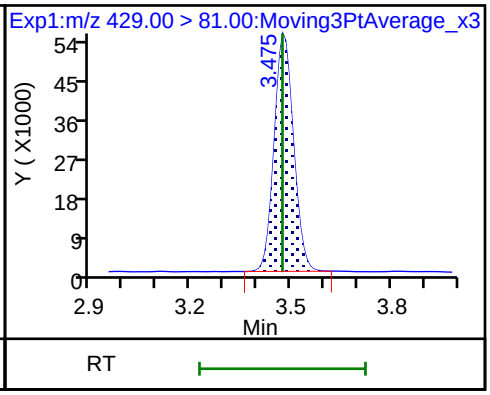
16 Perfluoroheptanesulfonic acid (M)



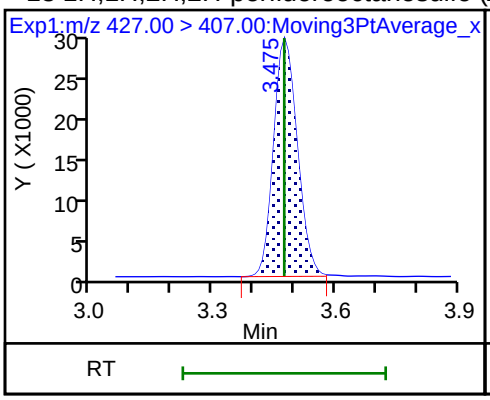

16 Perfluoroheptanesulfonic acid (M)



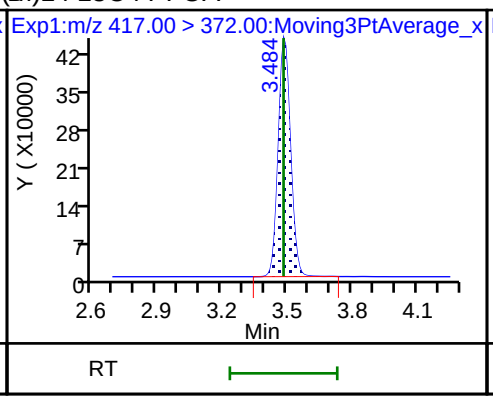

D 12 M2-6:2 FTS



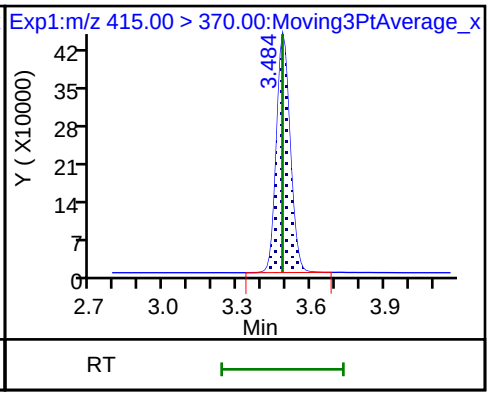

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



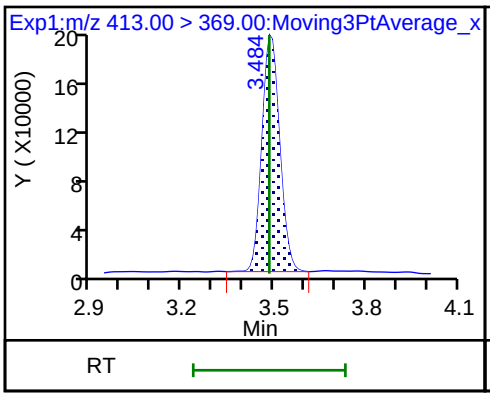

D 14 13C4 PFOA



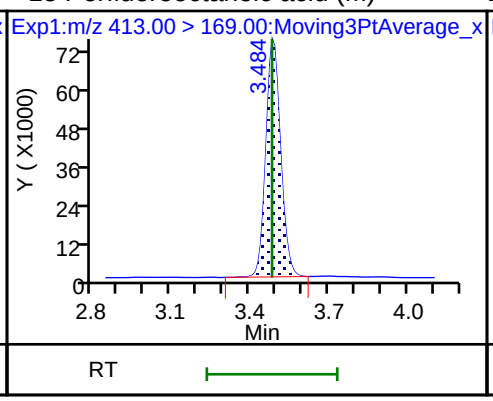

* 62 13C2 PFOA



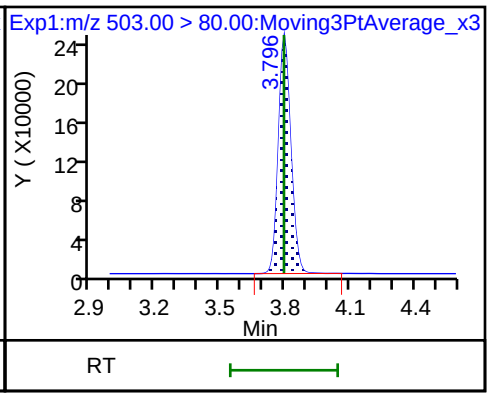

15 Perfluorooctanoic acid



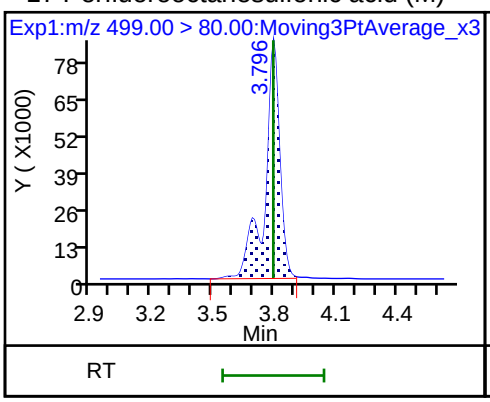

15 Perfluorooctanoic acid (M)



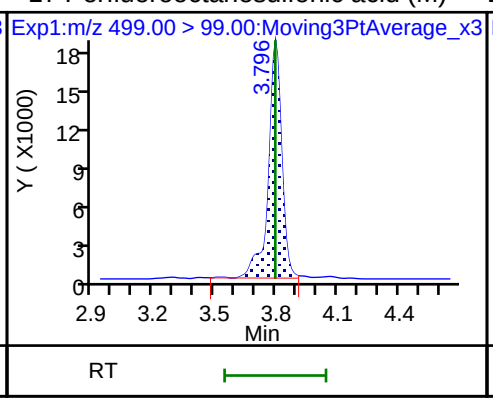

D 18 13C4 PFOS



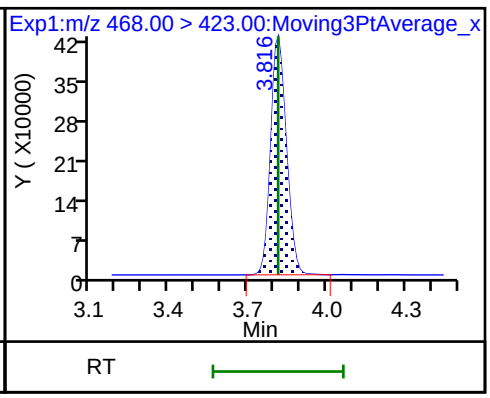

17 Perfluorooctanesulfonic acid (M)



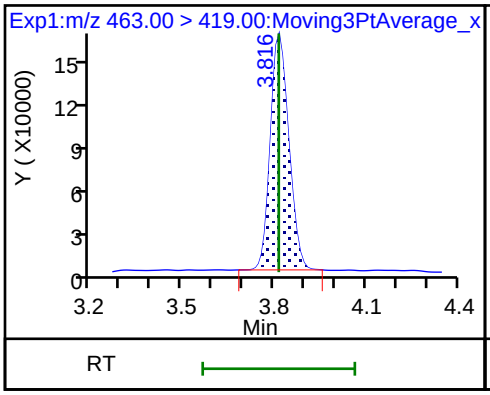

17 Perfluorooctanesulfonic acid (M)



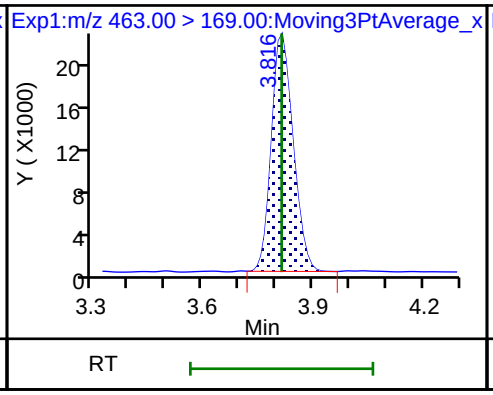

D 19 13C5 PFNA



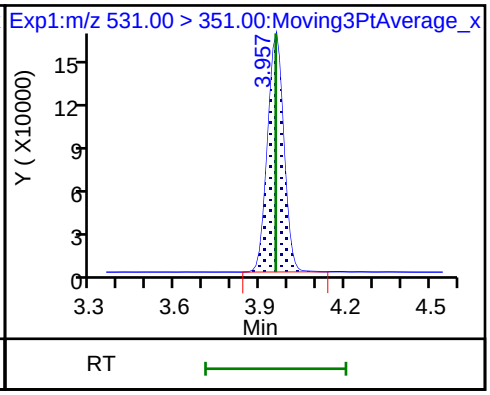
20 Perfluorononanoic acid



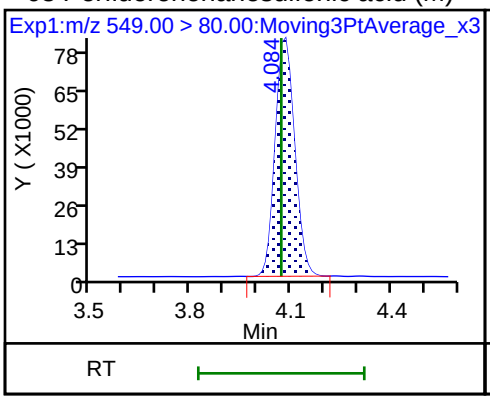

20 Perfluorononanoic acid



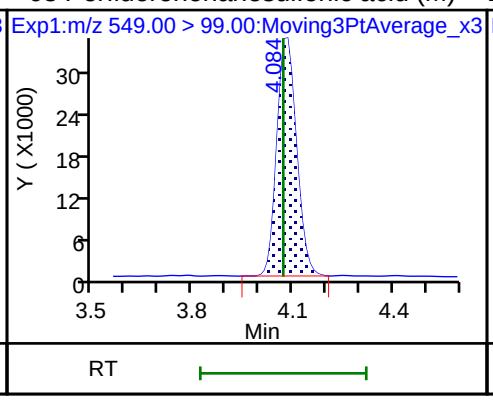

69 9-Chlorohexadecafluoro-3-oxanona



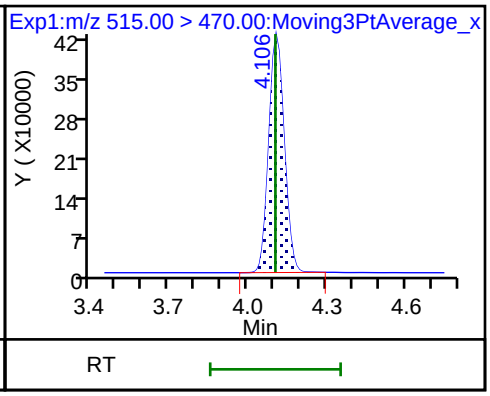

68 Perfluorononanesulfonic acid (M)



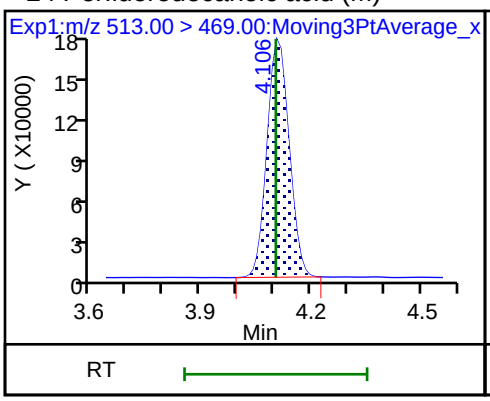

68 Perfluorononanesulfonic acid (M)



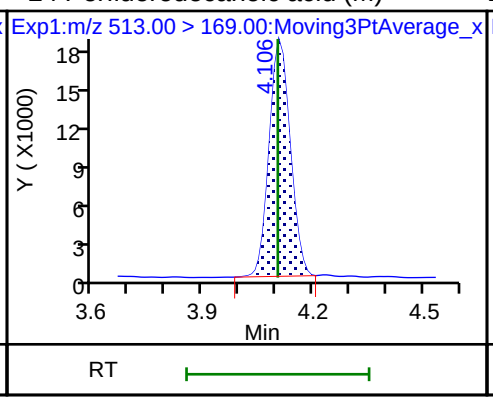

D 23 13C2 PFDA



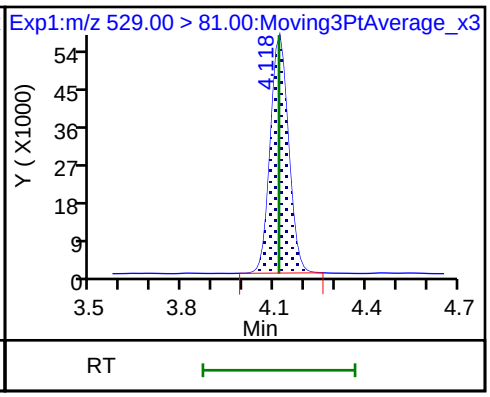

24 Perfluorodecanoic acid (M)



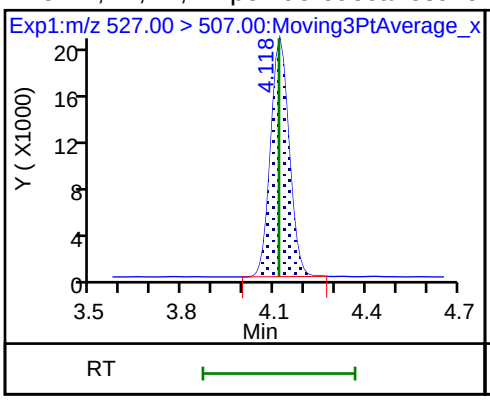

24 Perfluorodecanoic acid (M)



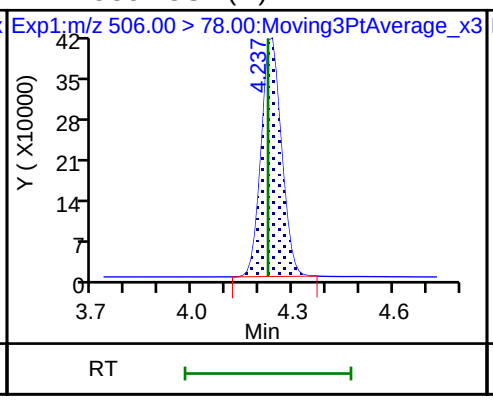

D 26 M2-8:2 FTS



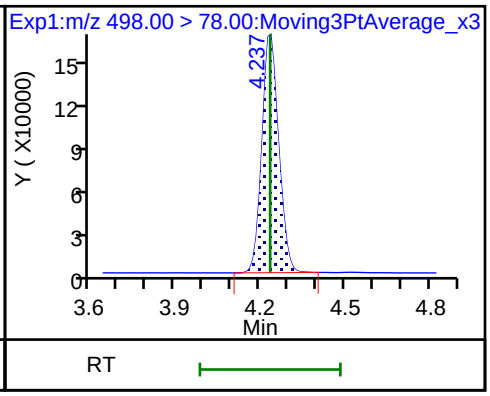

25 1H,1H,2H,2H-perfluorodecanesulfo



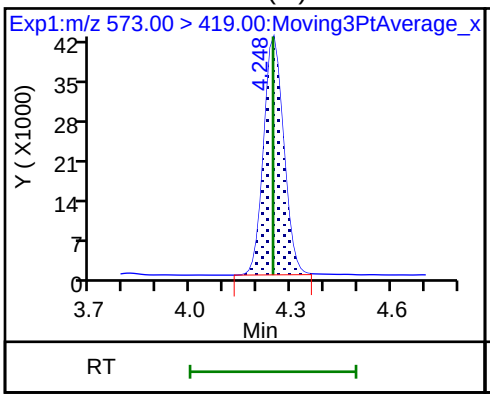

D 21 13C8 FOSA (M)



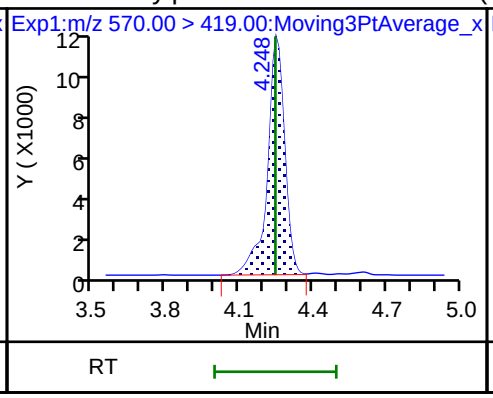

22 Perfluorooctanesulfonamide



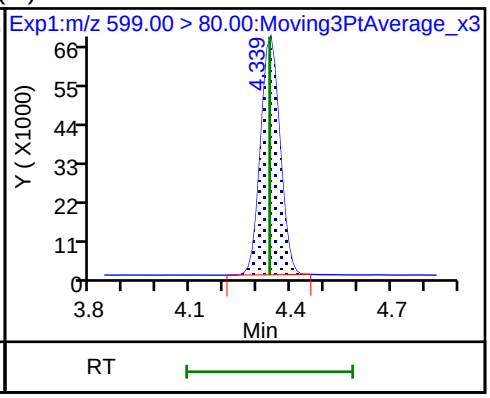
D 27 d3-NMeFOSAA (M)



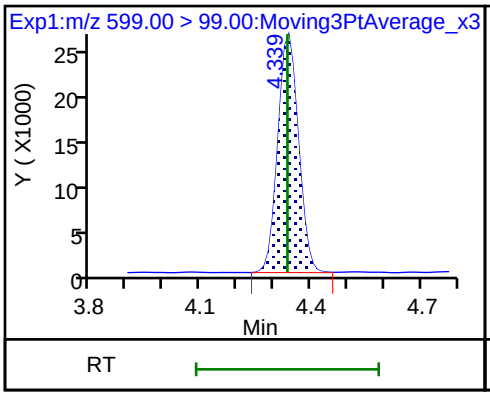

28 N-methylperfluorooctanesulfonami (M)



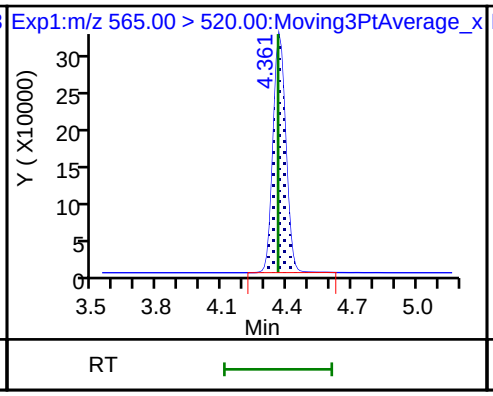

29 Perfluorodecanesulfonic acid



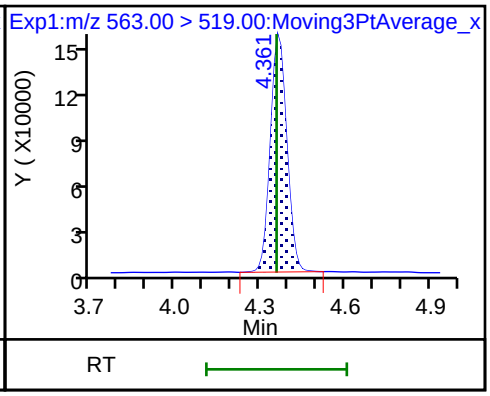

29 Perfluorodecanesulfonic acid



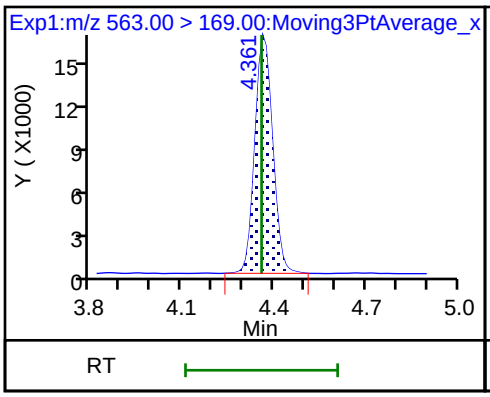

D 30 13C2 PFUnA



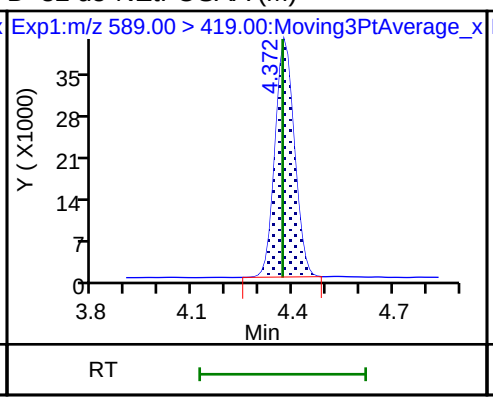

31 Perfluoroundecanoic acid



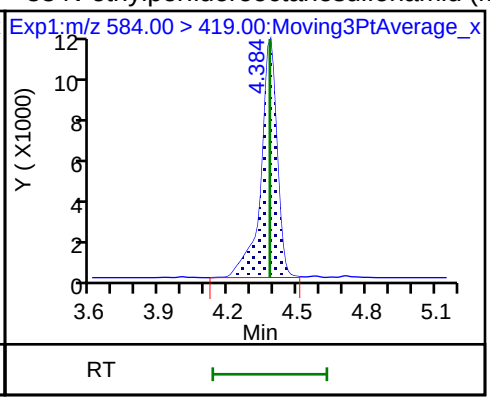

31 Perfluoroundecanoic acid



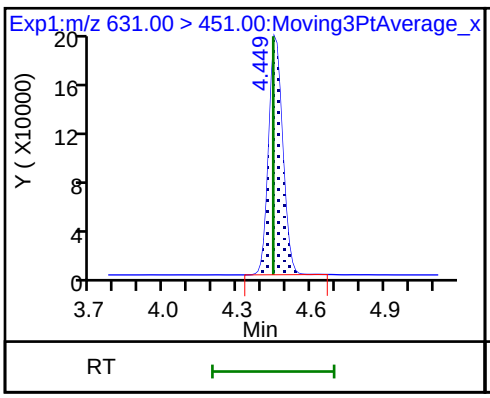

D 32 d5-NEtFOSAA (M)



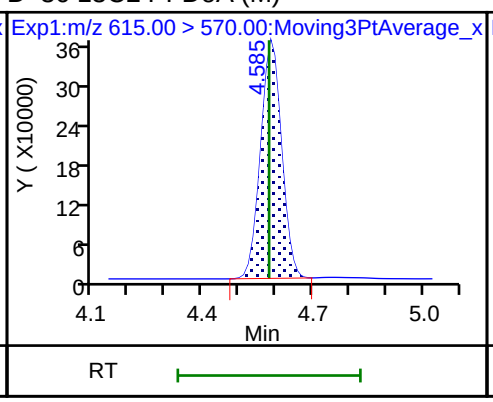

33 N-ethylperfluorooctanesulfonamid (M)



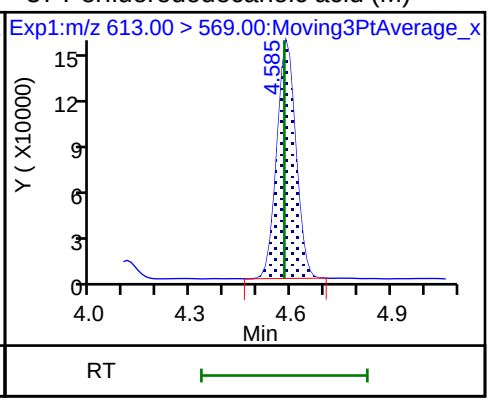

66 11-Chloroeicosafluoro-3-oxaundec



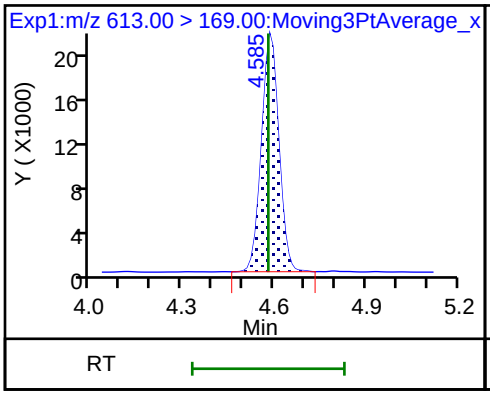

D 36 13C2 PFDoA (M)



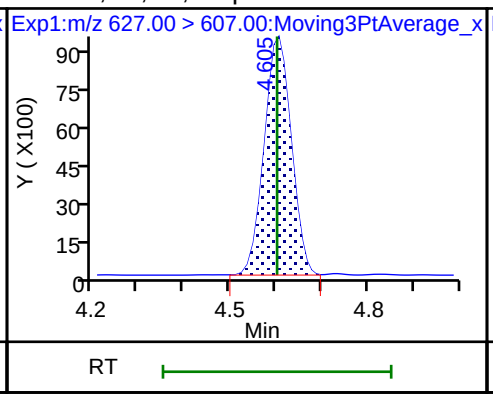

37 Perfluorododecanoic acid (M)



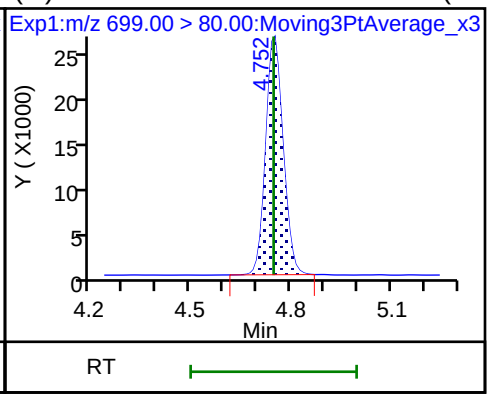
37 Perfluorododecanoic acid



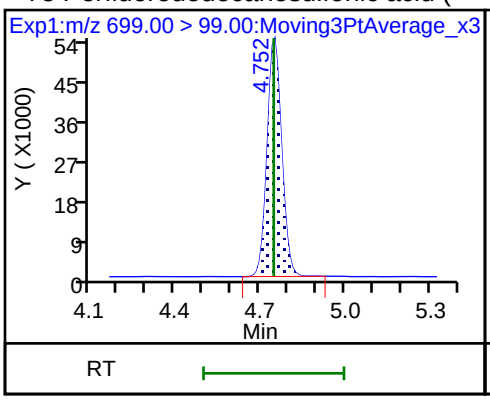

74 1H,1H,2H,2H-perfluorododecanesul (M)



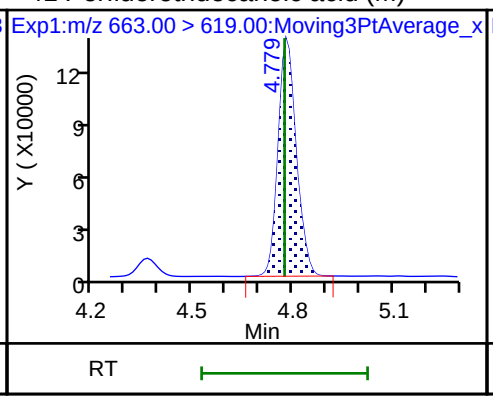

75 Perfluorododecanesulfonic acid (



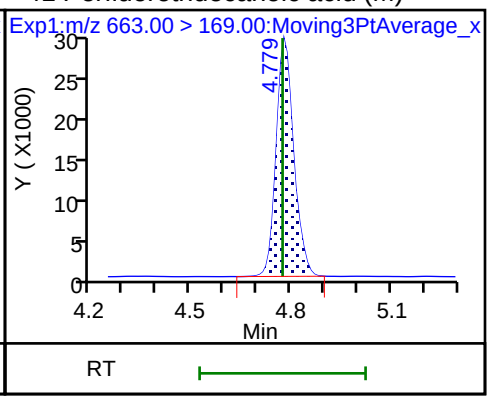

75 Perfluorododecanesulfonic acid (



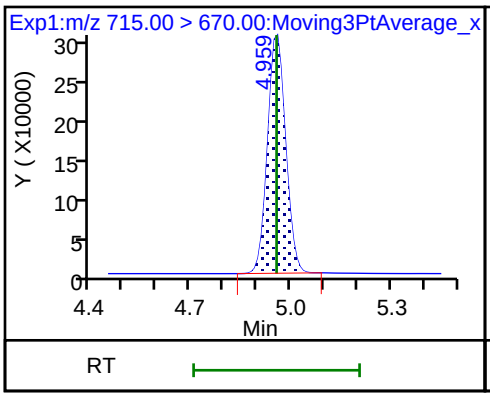

41 Perfluorotridecanoic acid (M)



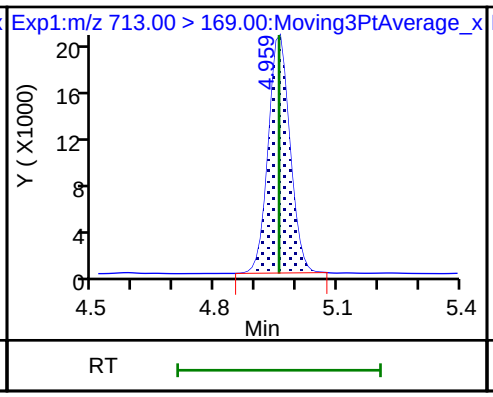

41 Perfluorotridecanoic acid (M)



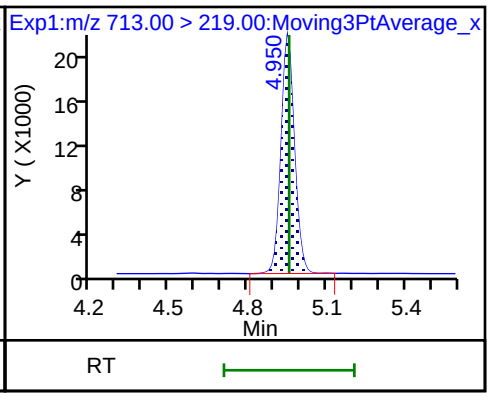

D 43 13C2 PFTeDA



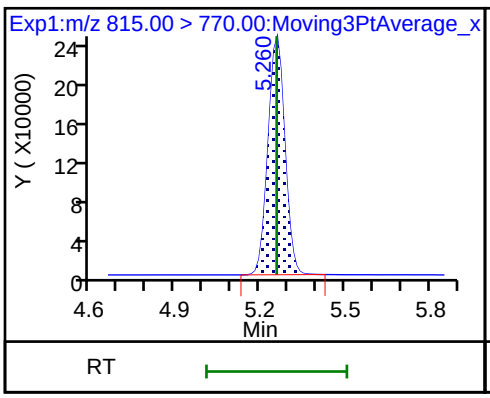

42 Perfluorotetradecanoic acid



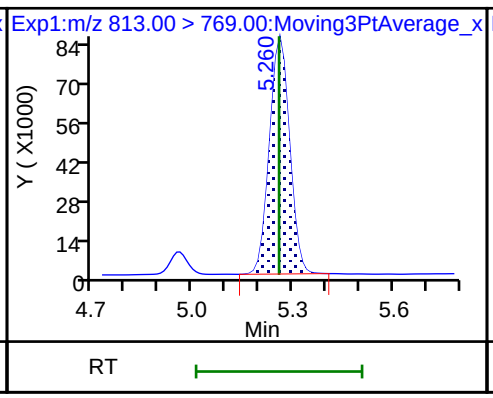

42 Perfluorotetradecanoic acid



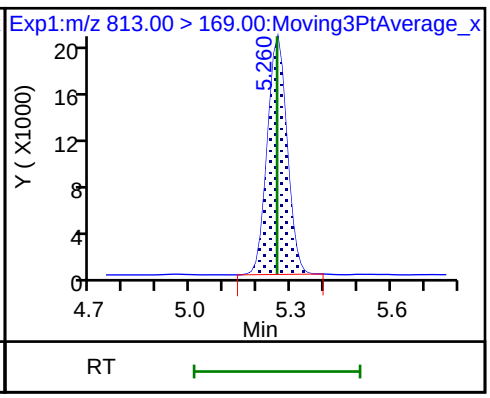

D 44 13C2 PFHxDA



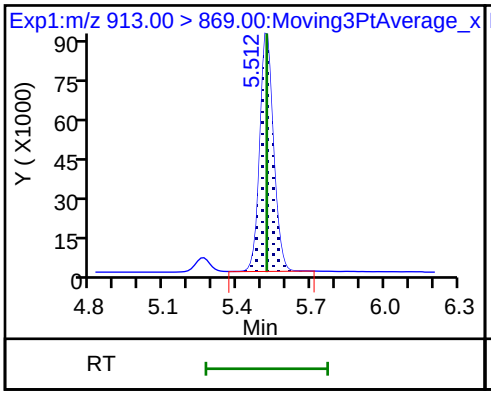

45 Perfluorohexadecanoic acid



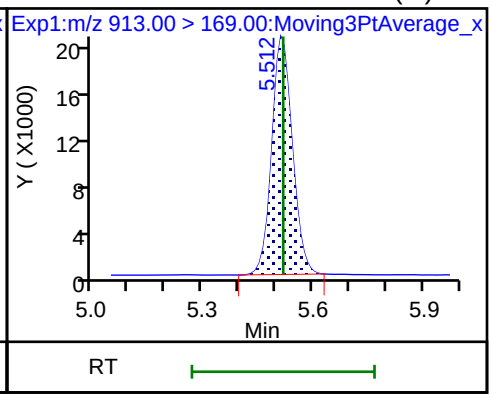

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

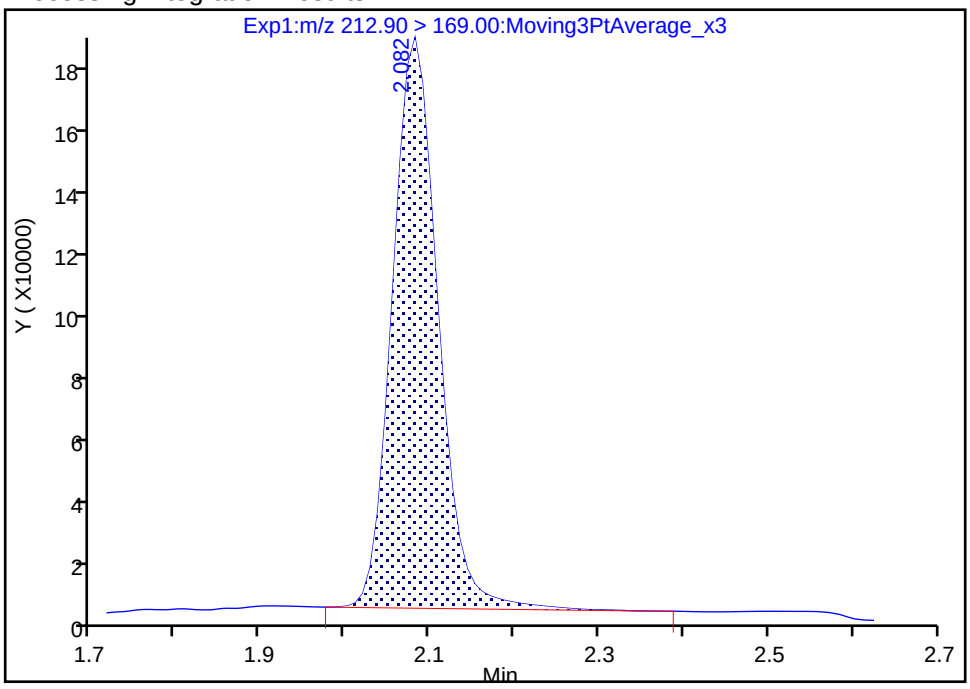
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

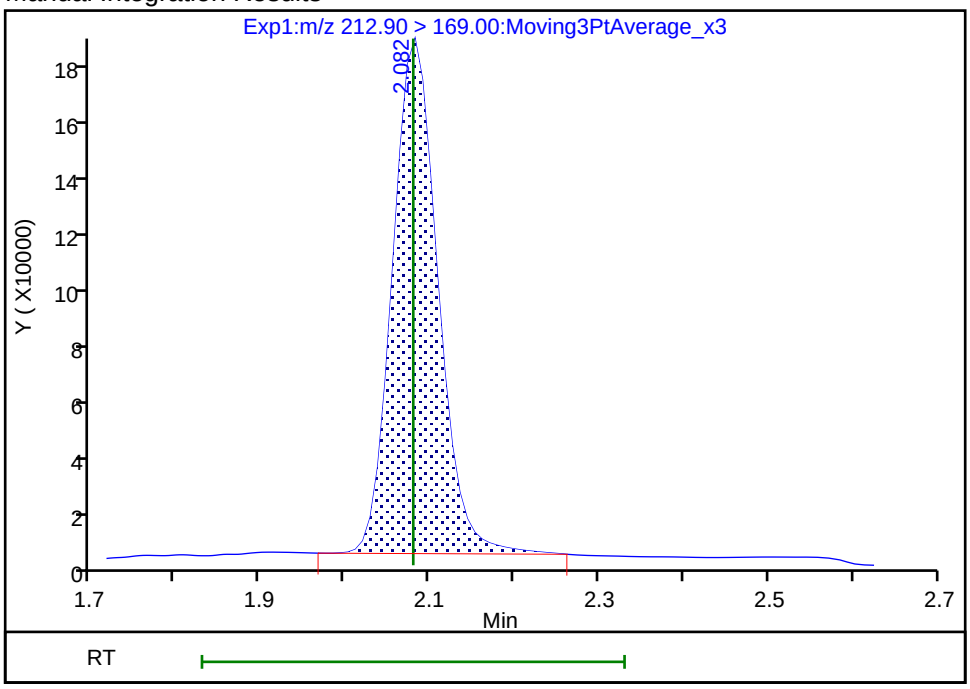
Processing Integration Results

RT: 2.08
Area: 694905
Amount: 0.503172
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 688237
Amount: 0.519494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

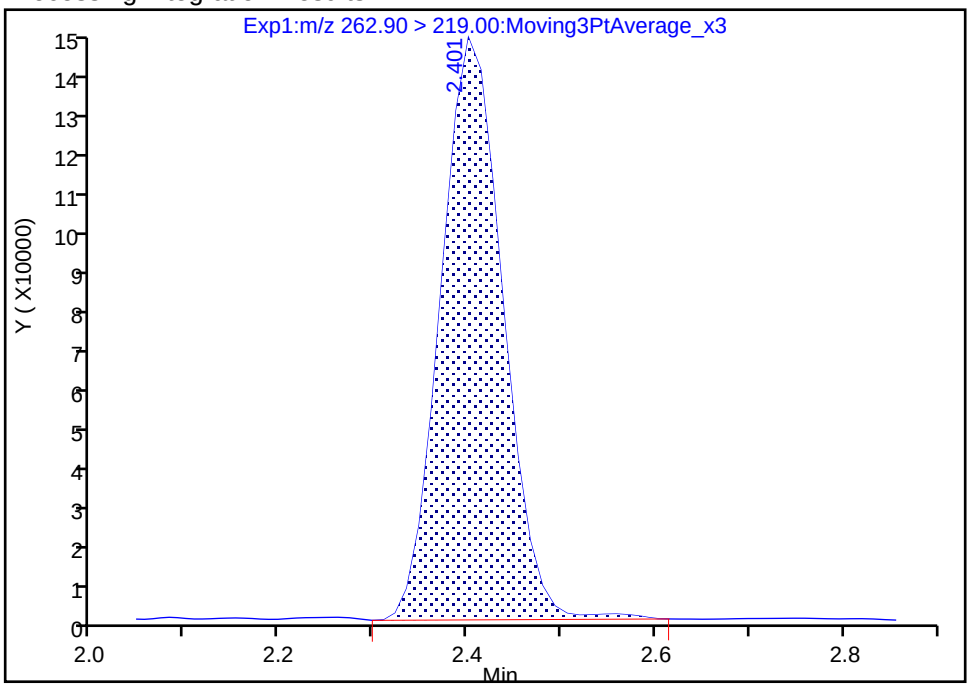
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

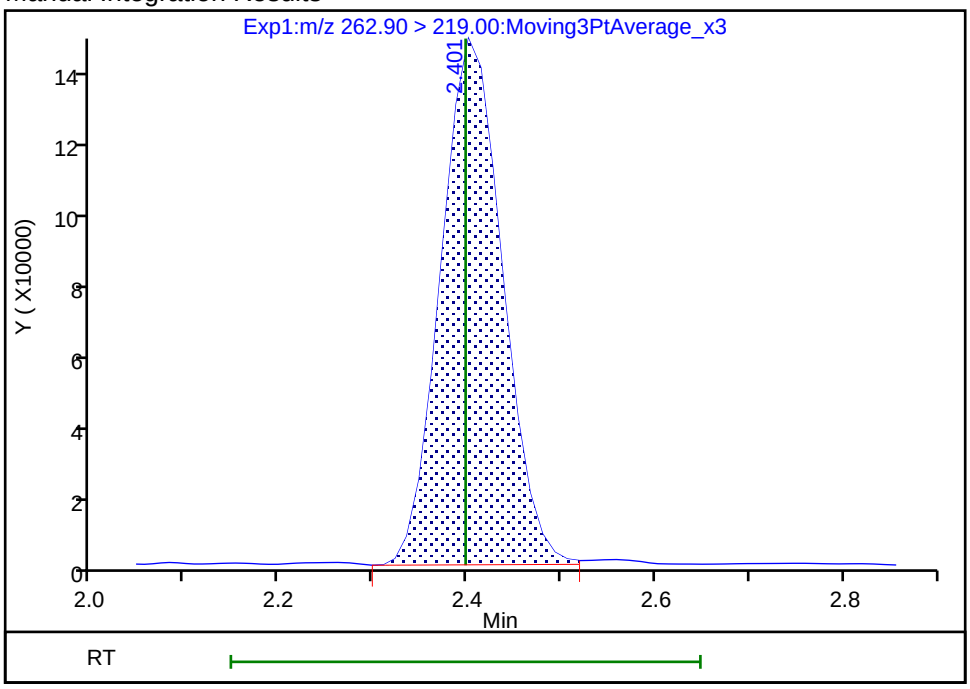
Processing Integration Results

RT: 2.40
Area: 628836
Amount: 0.512450
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 624348
Amount: 0.524449
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

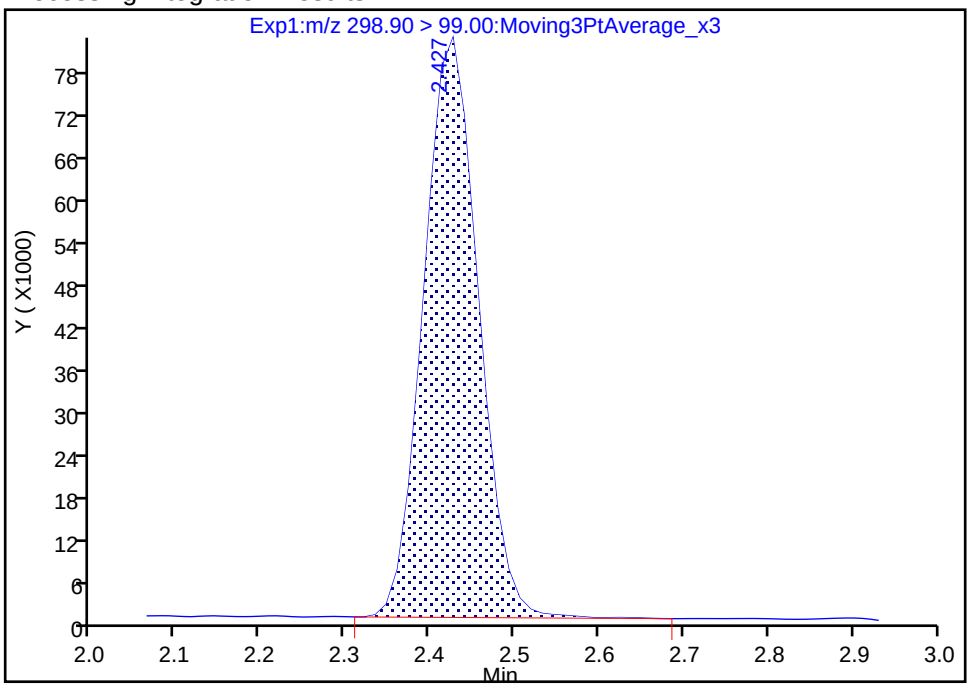
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

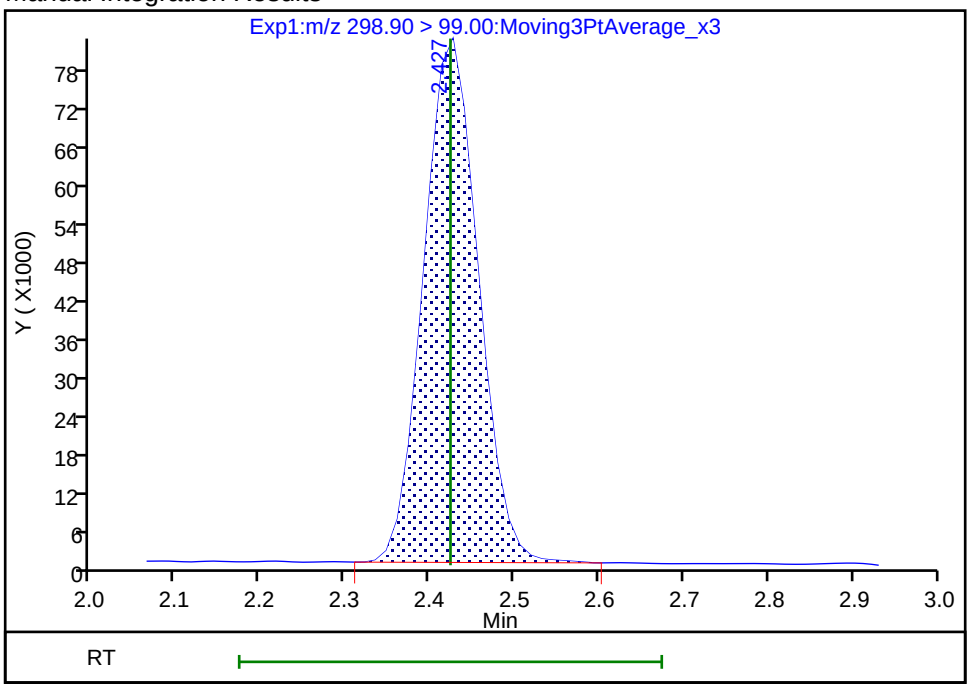
Processing Integration Results

RT: 2.43
Area: 367932
Amount: 0.458272
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 367001
Amount: 0.478480
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

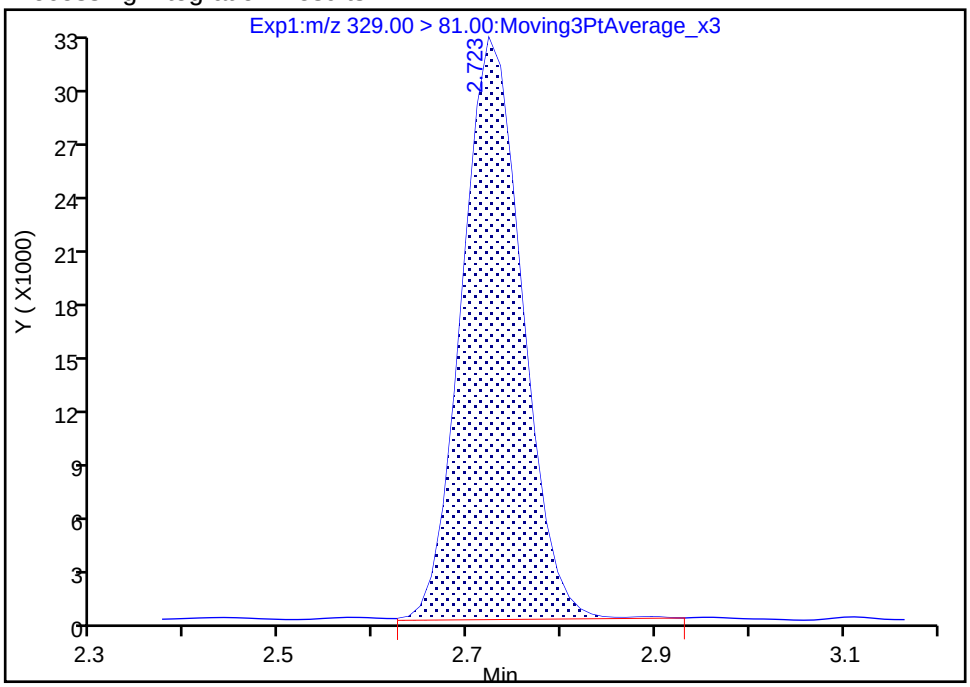
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

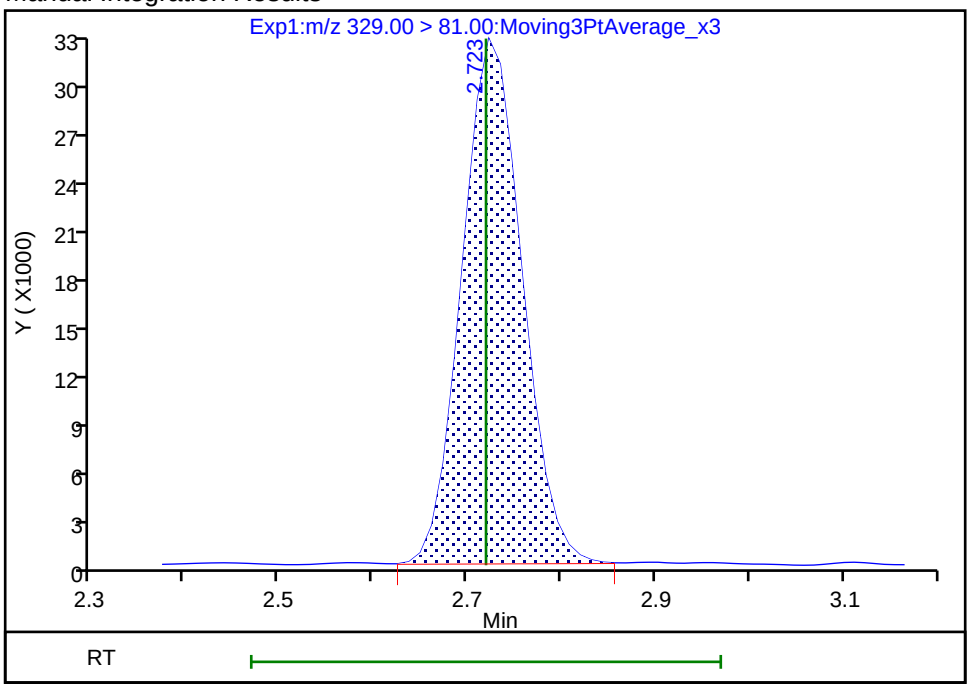
Processing Integration Results

RT: 2.72
Area: 144342
Amount: 1.192447
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 143541
Amount: 1.178807
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

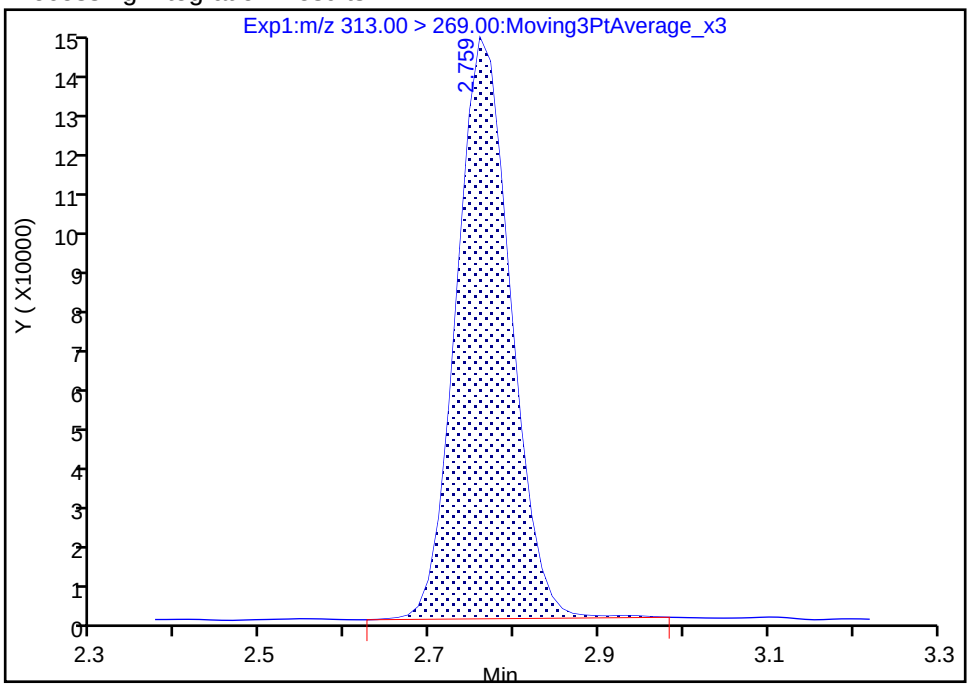
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

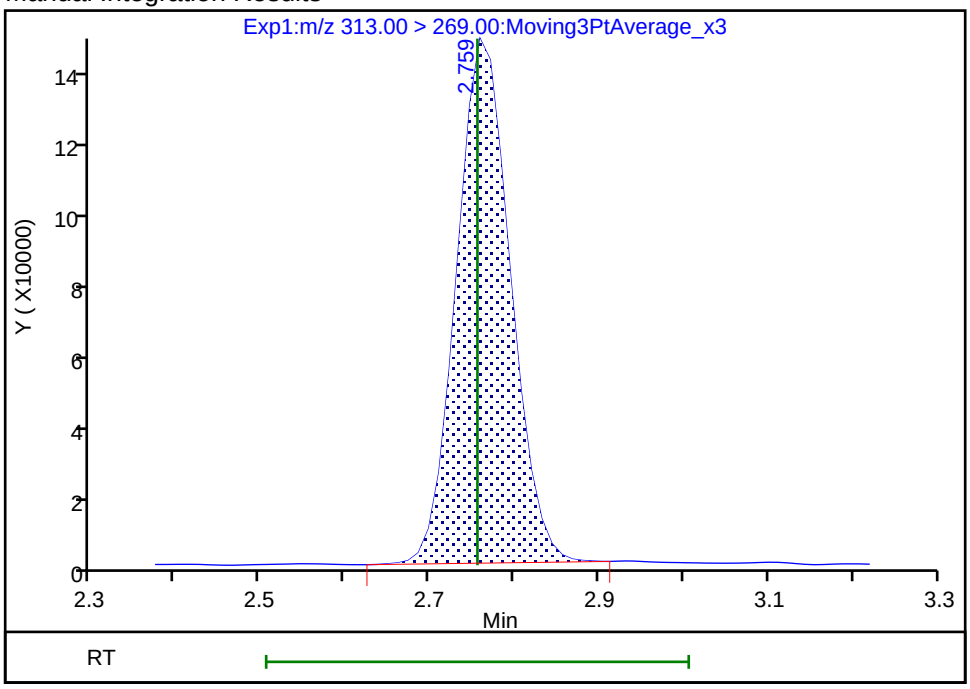
Processing Integration Results

RT: 2.76
Area: 628963
Amount: 0.483024
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 624268
Amount: 0.498256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

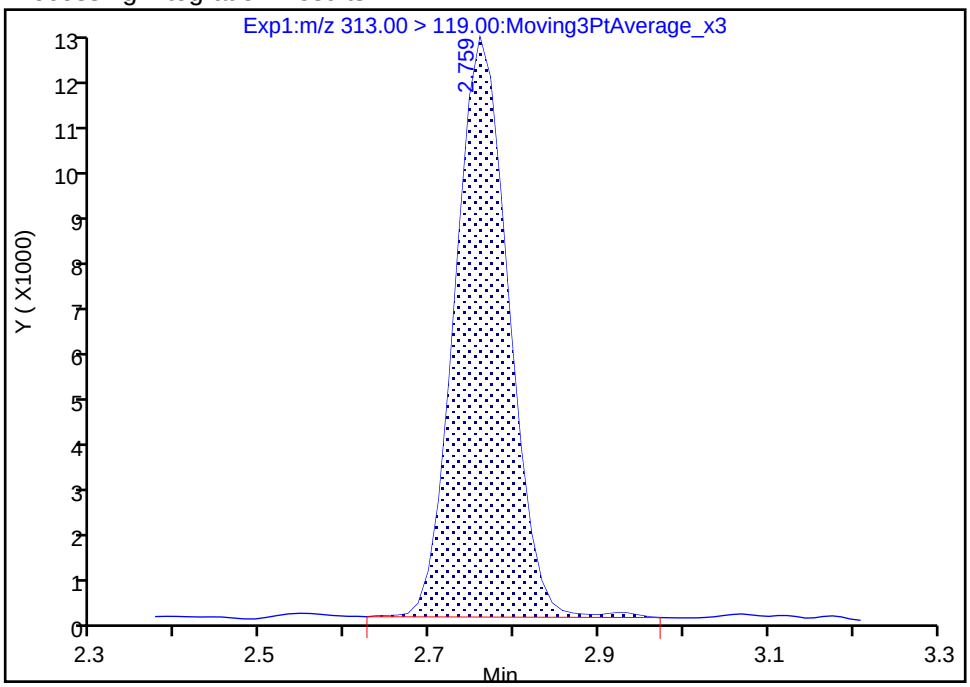
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

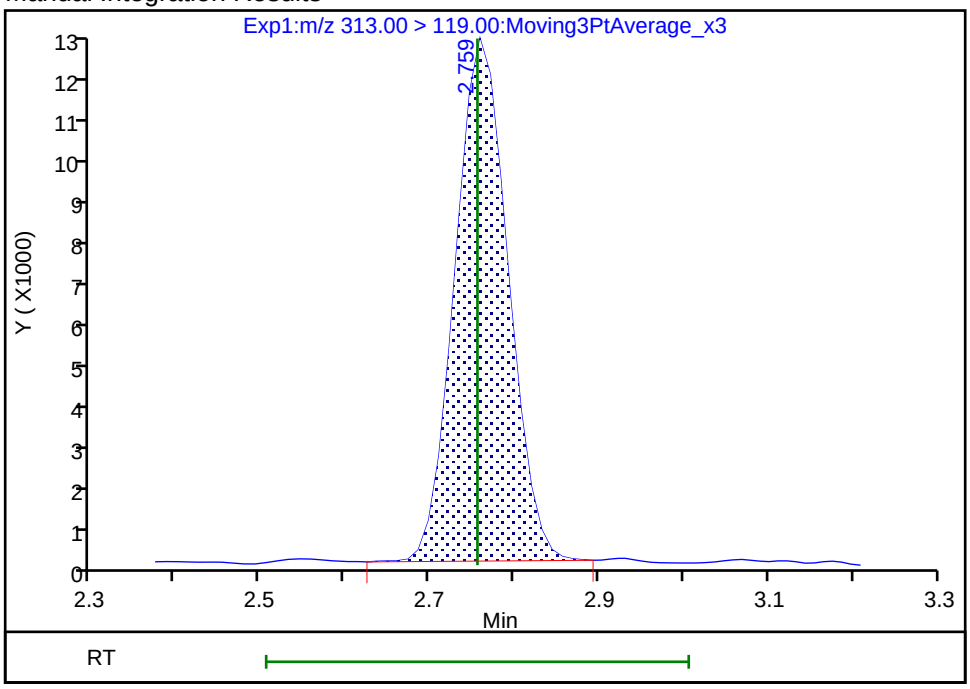
Processing Integration Results

RT: 2.76
Area: 52536
Amount: 0.483024
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 51849
Amount: 0.498256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

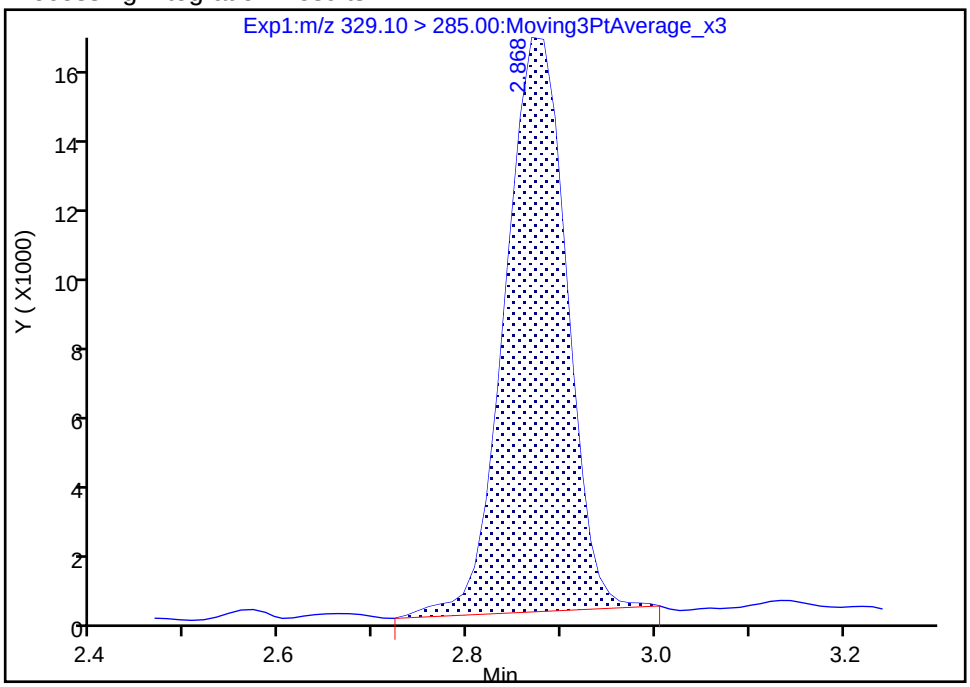
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

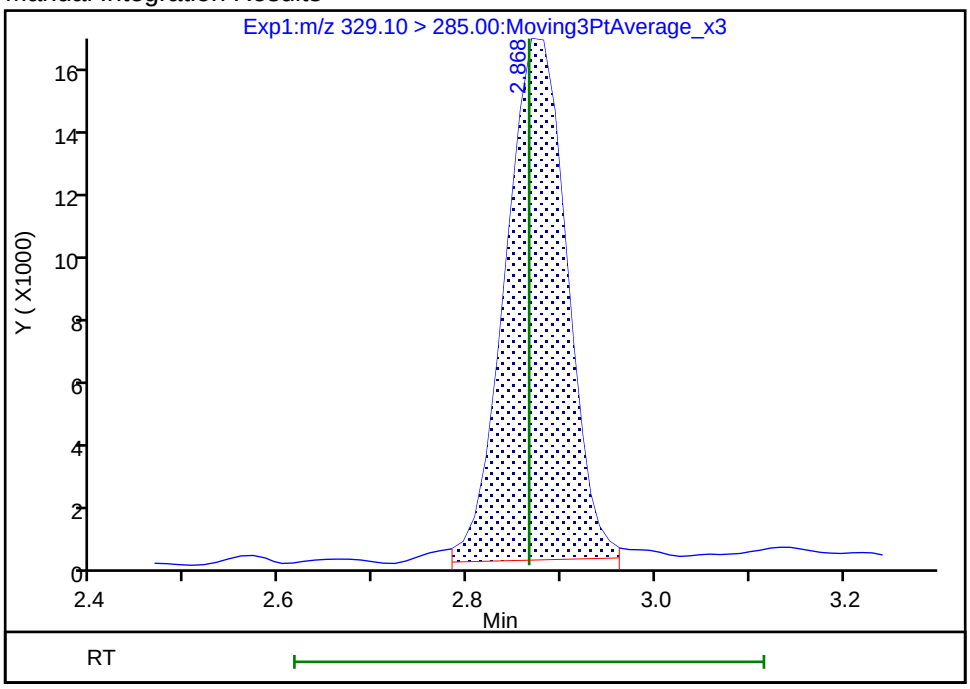
Processing Integration Results

RT: 2.87
Area: 69727
Amount: 0.468024
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 69564
Amount: 0.486951
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

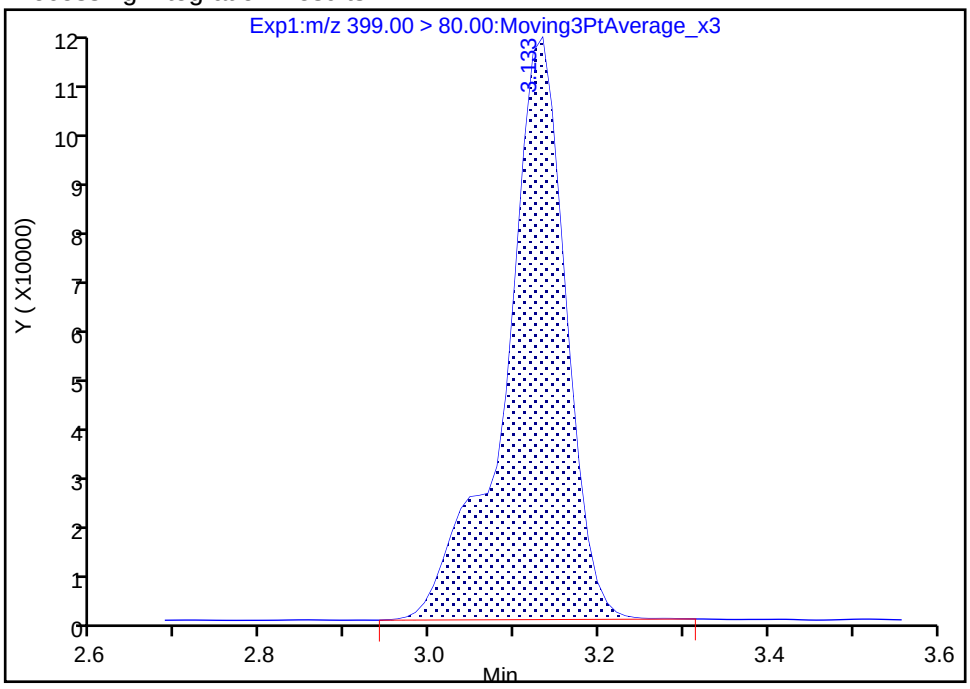
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

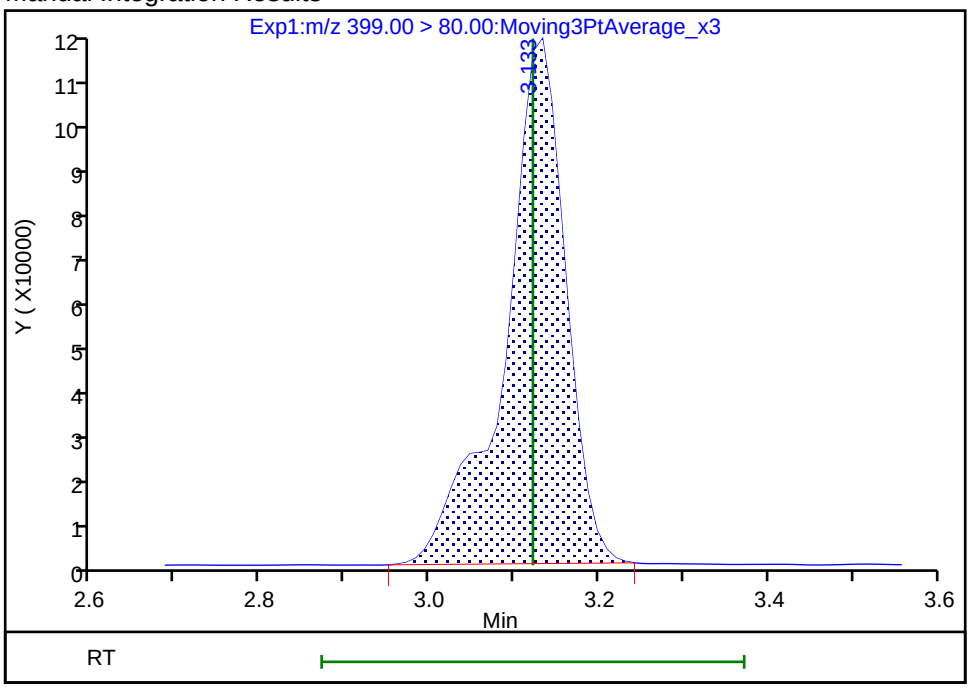
Processing Integration Results

RT: 3.13
Area: 584310
Amount: 0.445566
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 580723
Amount: 0.459999
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

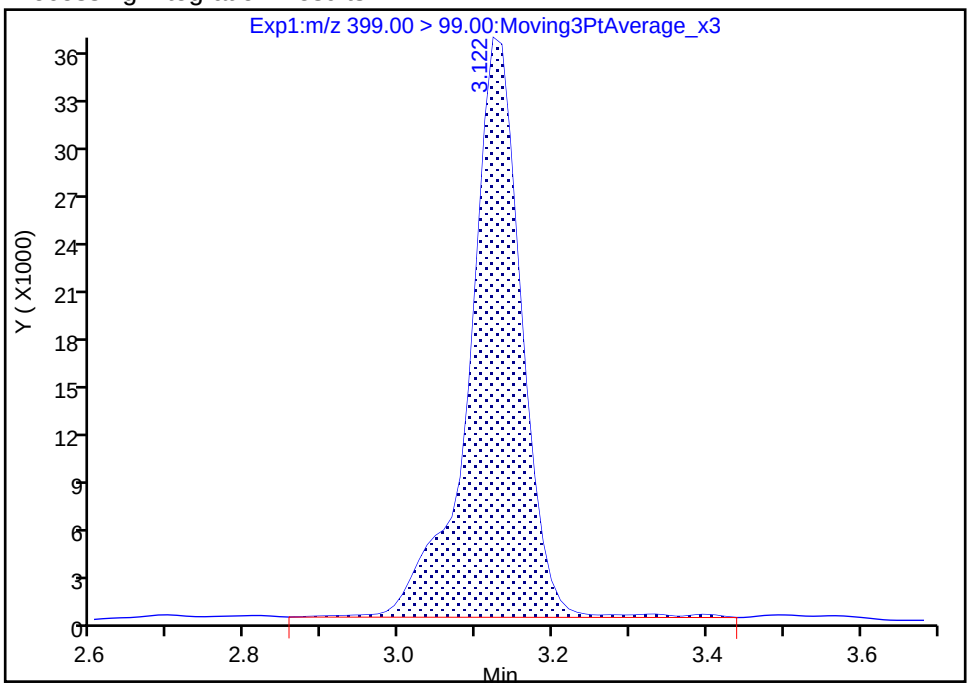
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

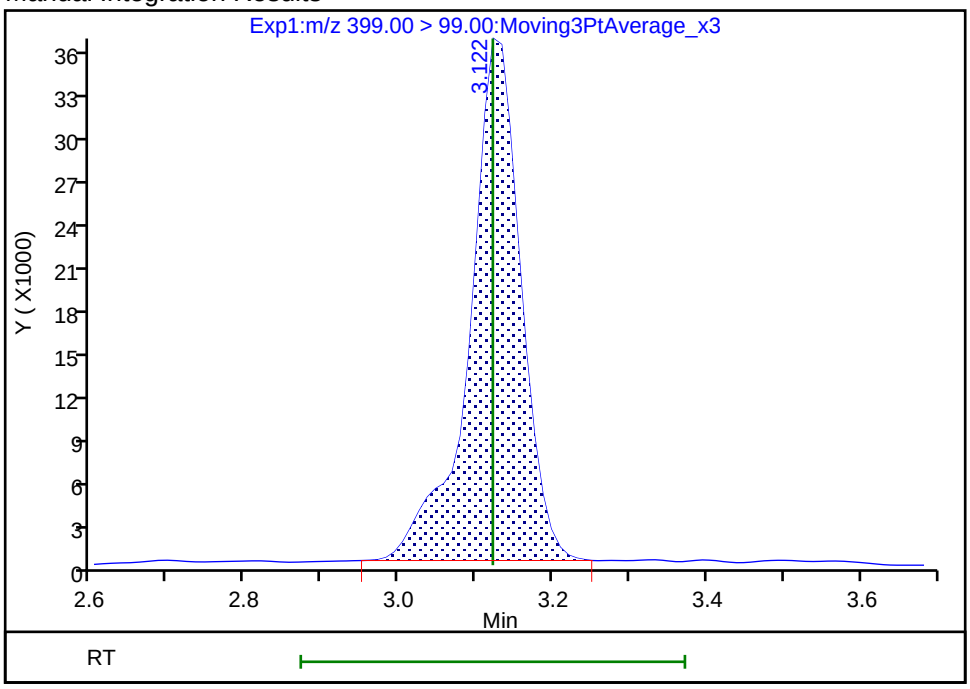
Processing Integration Results

RT: 3.12
Area: 170544
Amount: 0.445566
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 166326
Amount: 0.459999
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

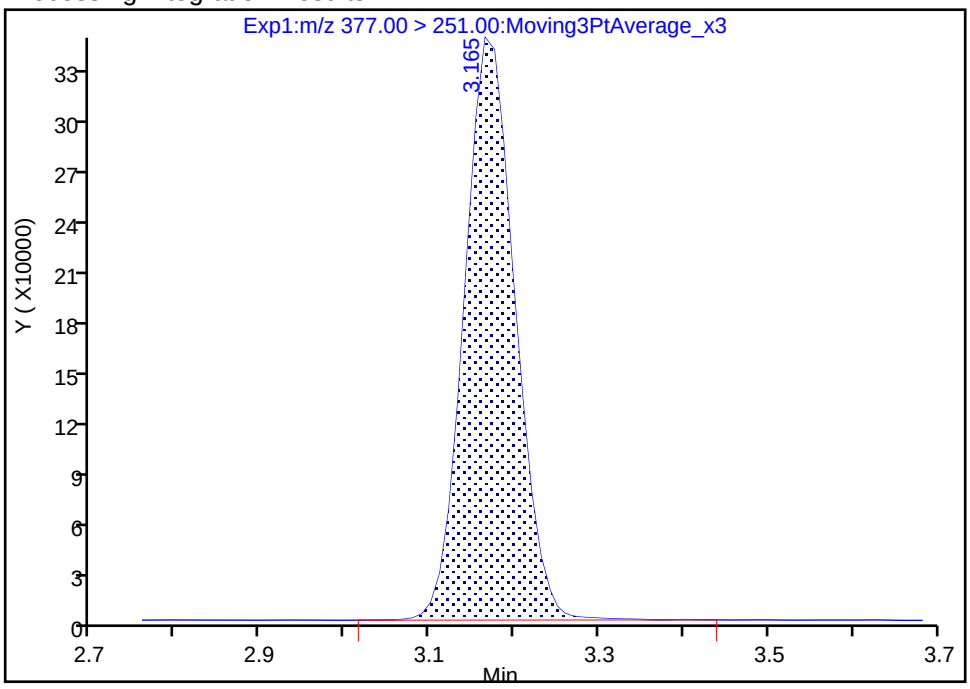
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 77 DONA, CAS: 919005-14-4

Signal: 1

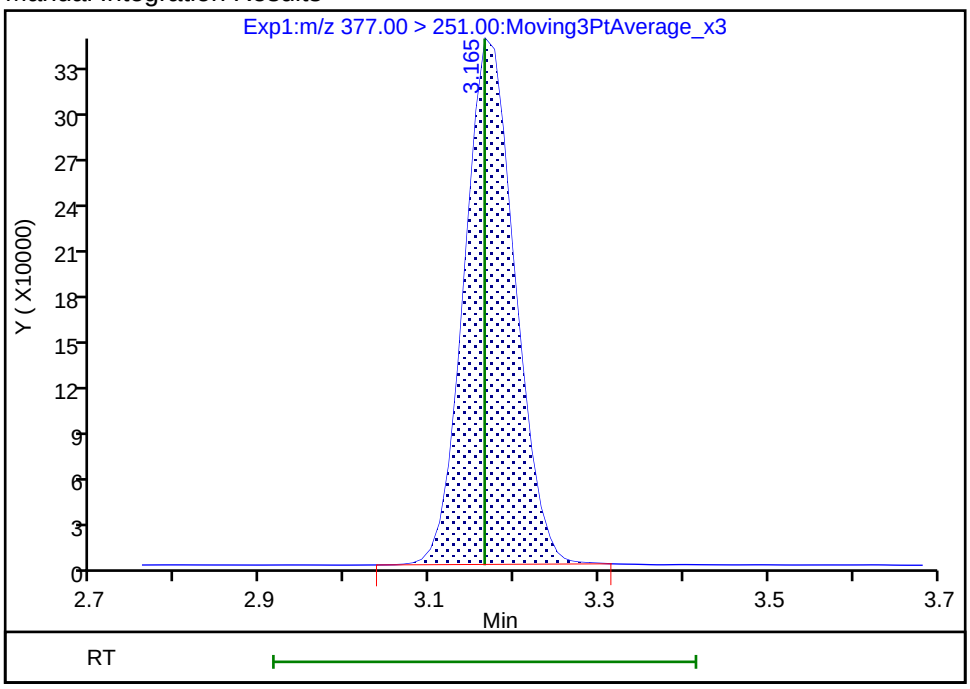
Processing Integration Results

RT: 3.17
Area: 1439508
Amount: 0.490597
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 1431405
Amount: 0.507549
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

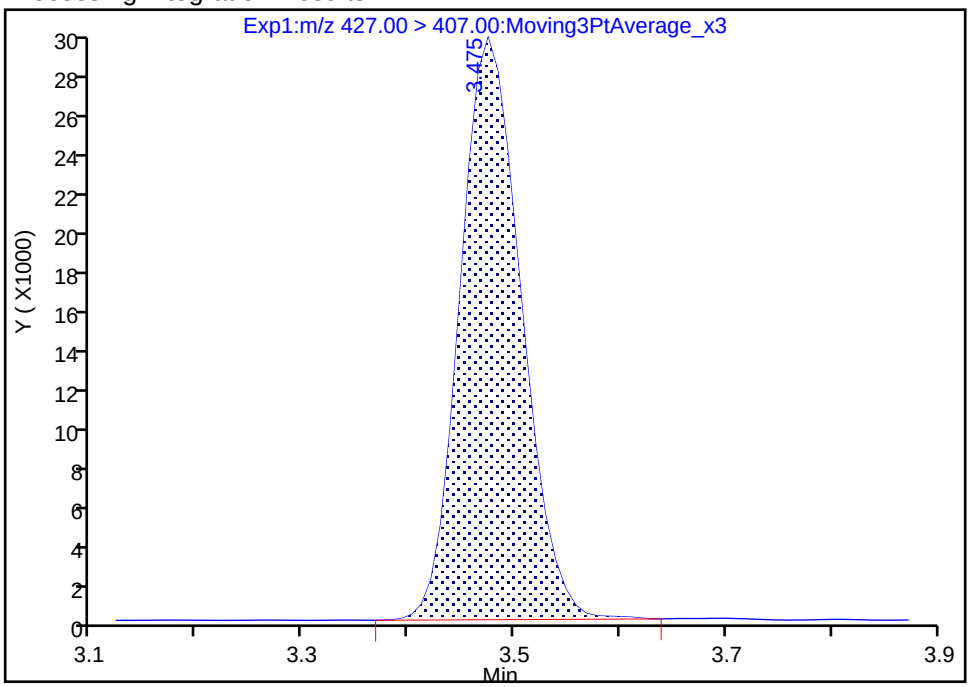
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

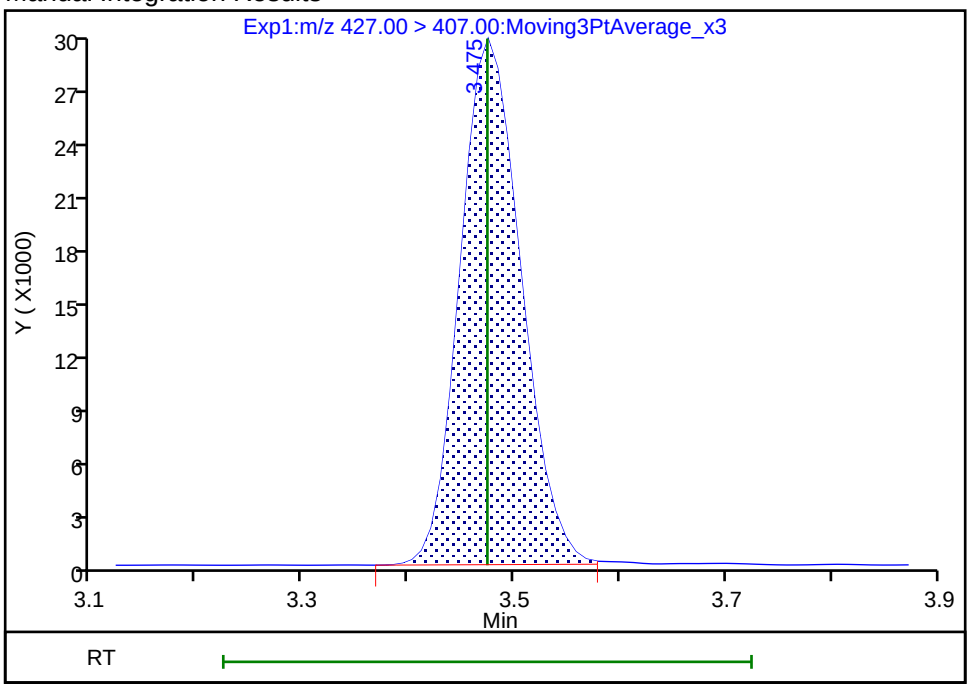
Processing Integration Results

RT: 3.47
Area: 119411
Amount: 0.497803
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 119105
Amount: 0.505783
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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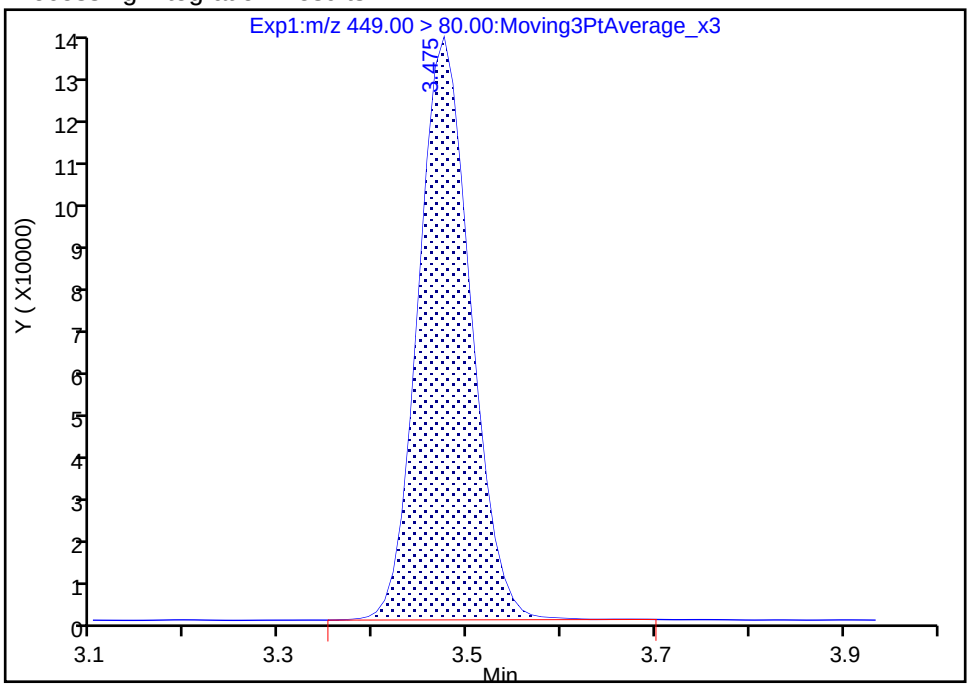
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

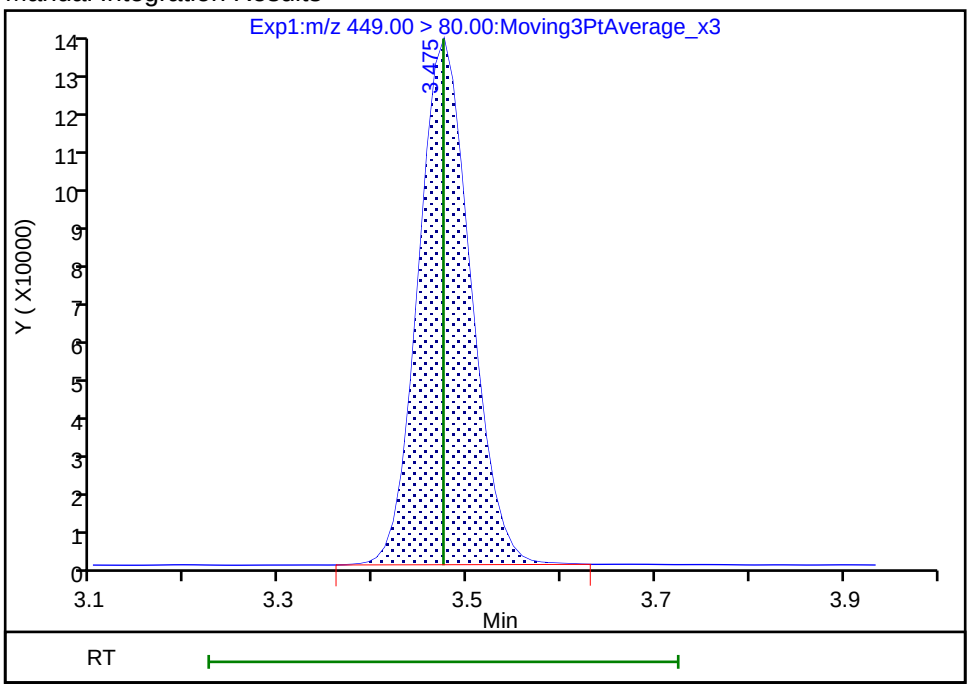
Processing Integration Results

RT: 3.47
Area: 510503
Amount: 0.491921
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 509888
Amount: 0.507597
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

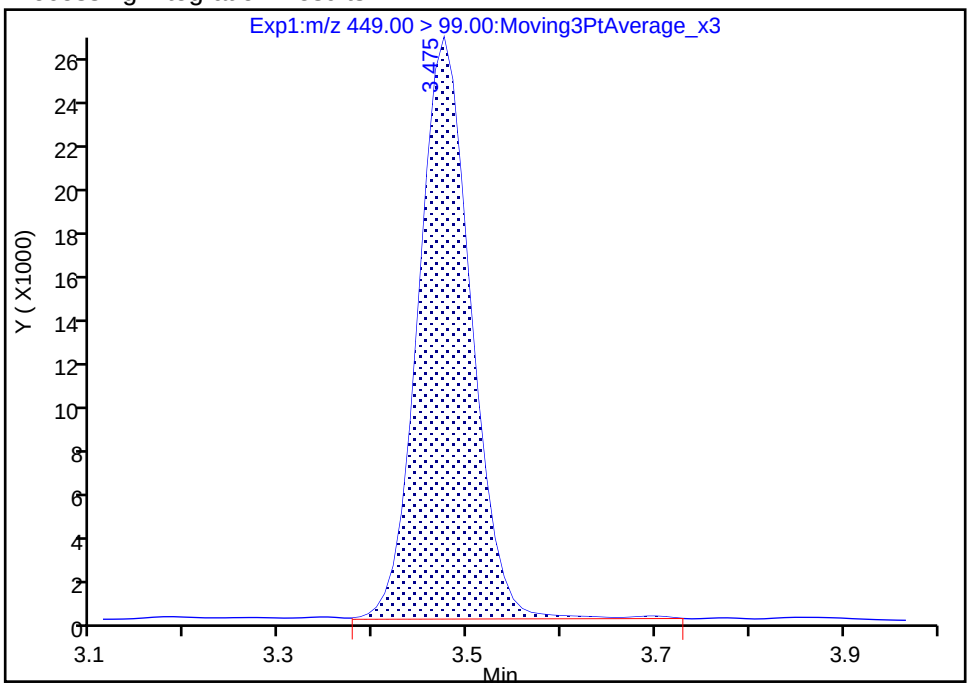
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

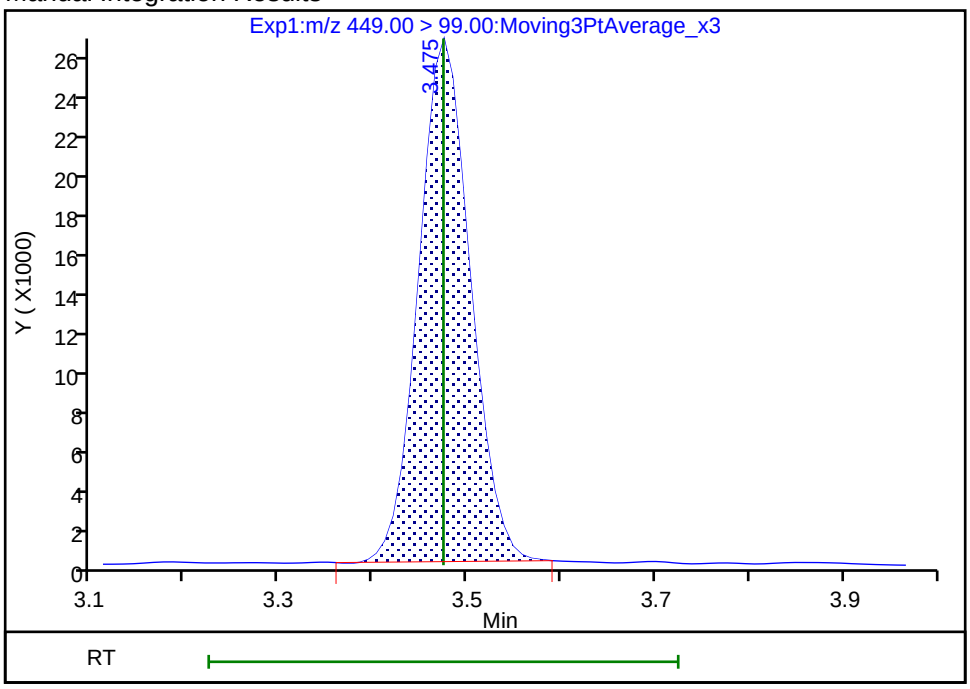
Processing Integration Results

RT: 3.47
Area: 102753
Amount: 0.491921
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 100429
Amount: 0.507597
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

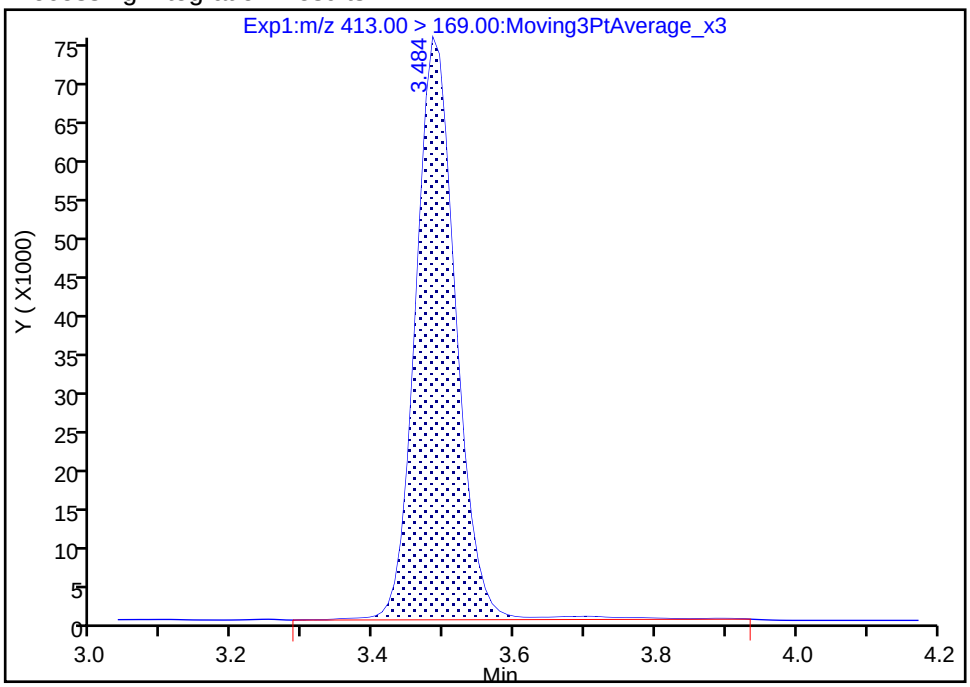
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

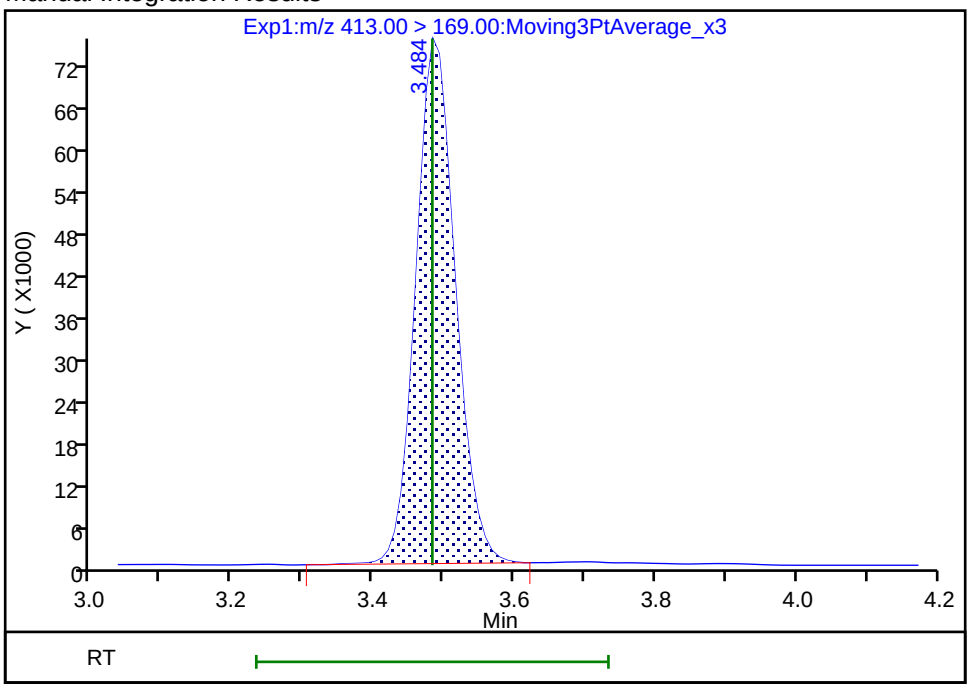
Processing Integration Results

RT: 3.48
Area: 299371
Amount: 0.500901
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 292988
Amount: 0.522192
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

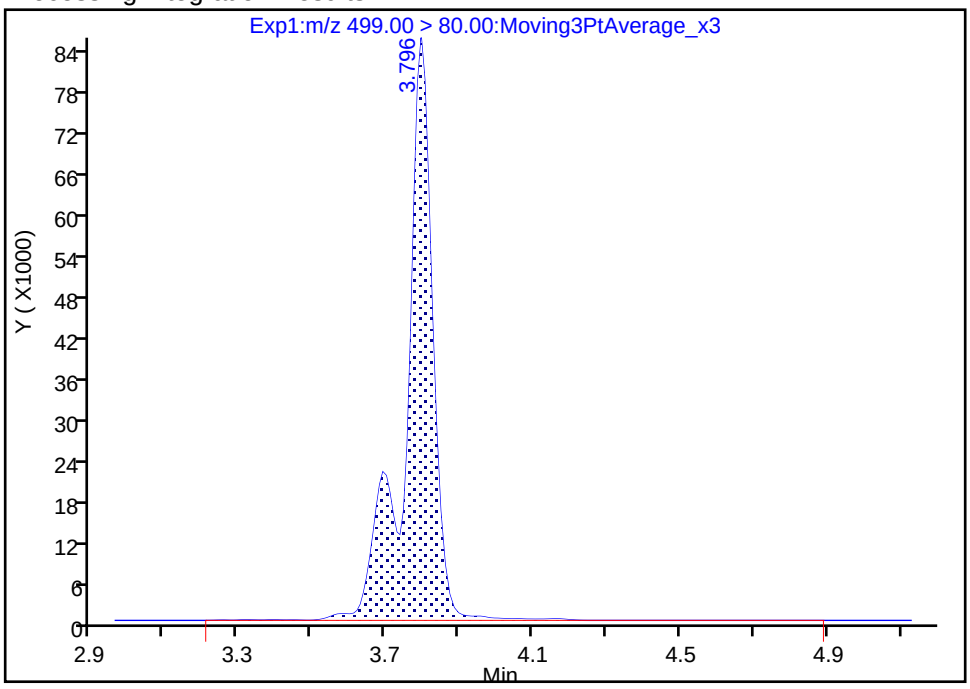
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

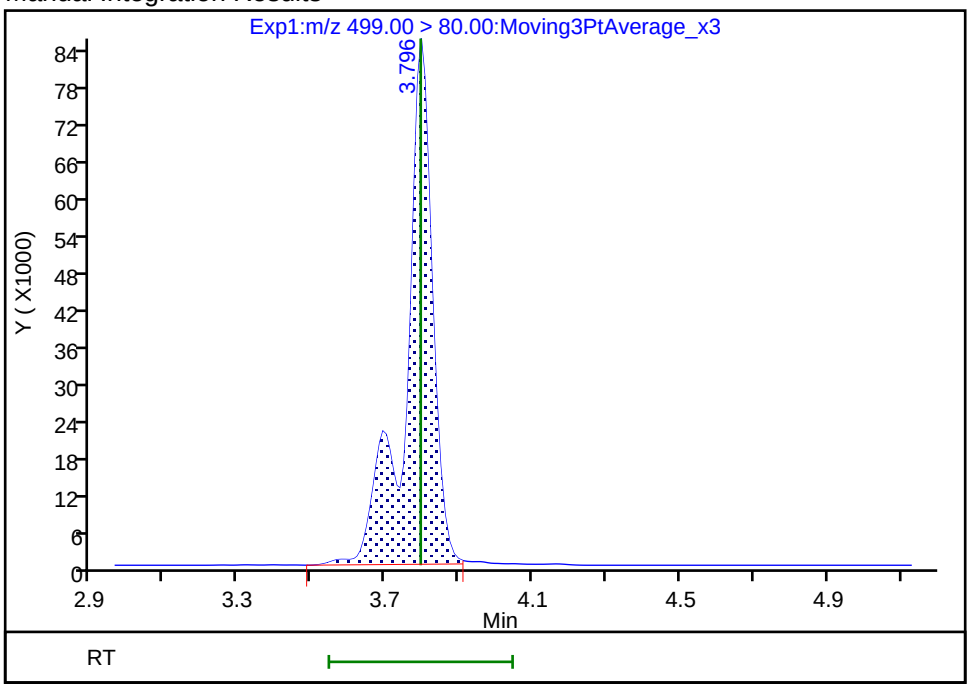
Processing Integration Results

RT: 3.80
Area: 441597
Amount: 0.481919
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 432797
Amount: 0.495007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

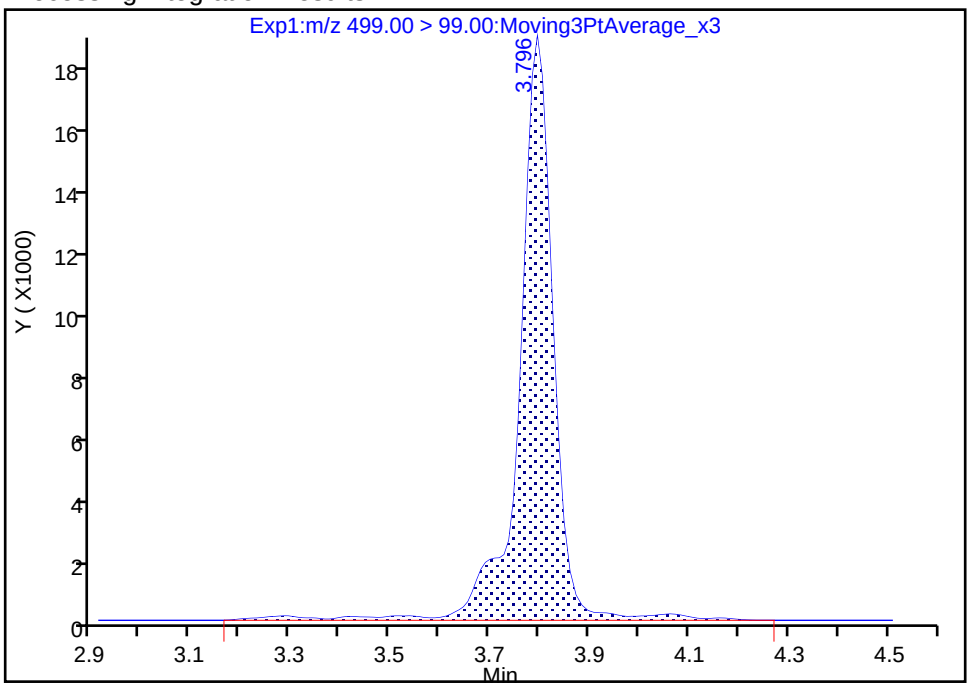
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

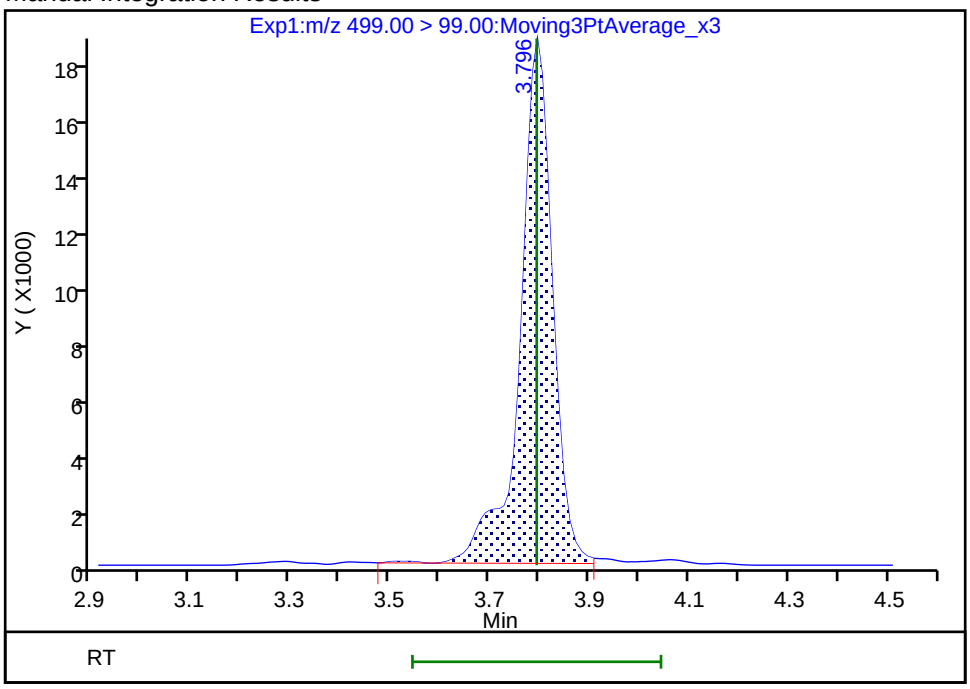
Processing Integration Results

RT: 3.80
Area: 90106
Amount: 0.481919
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 84548
Amount: 0.495007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

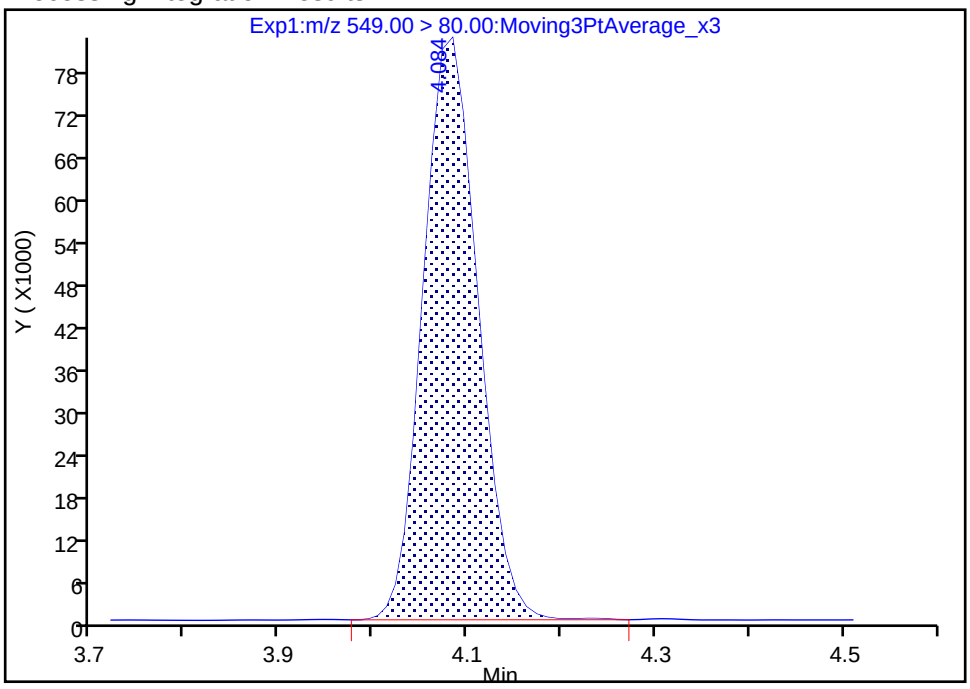
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

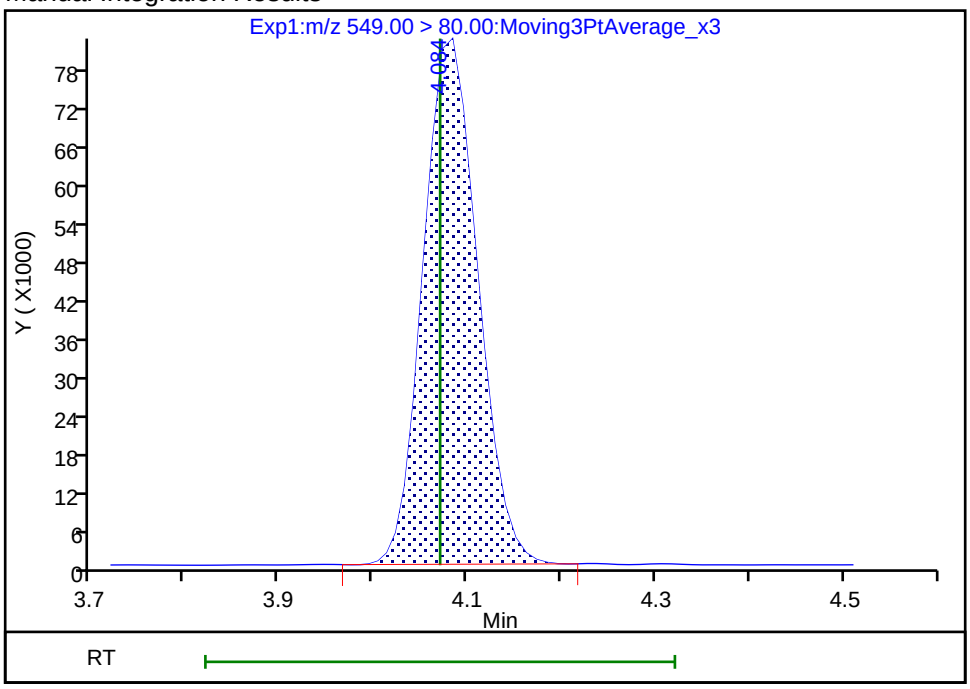
Processing Integration Results

RT: 4.08
Area: 335266
Amount: 0.478923
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 333722
Amount: 0.490004
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

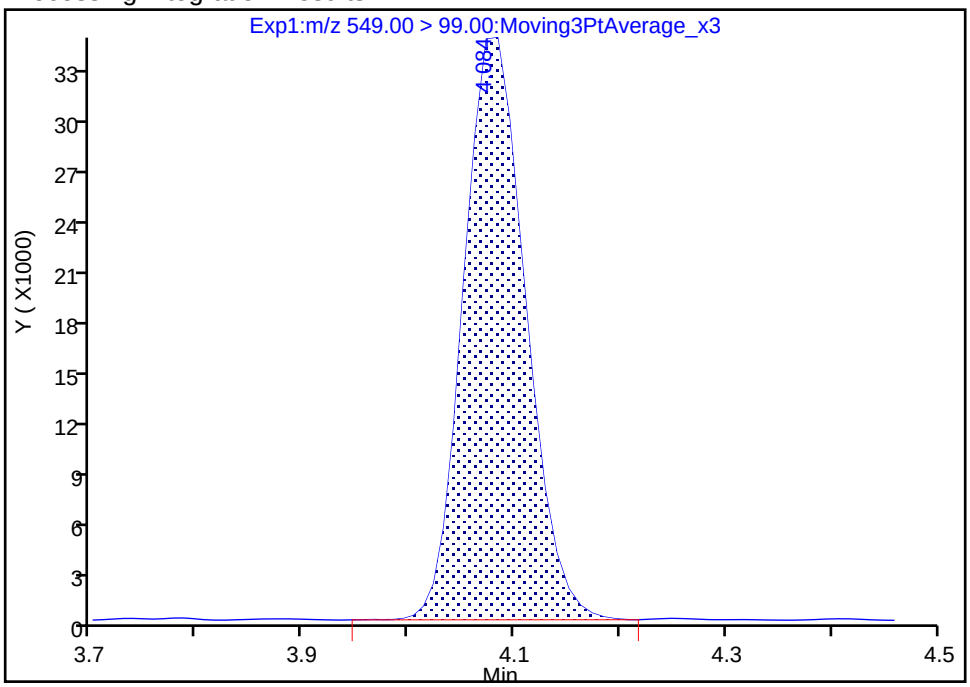
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

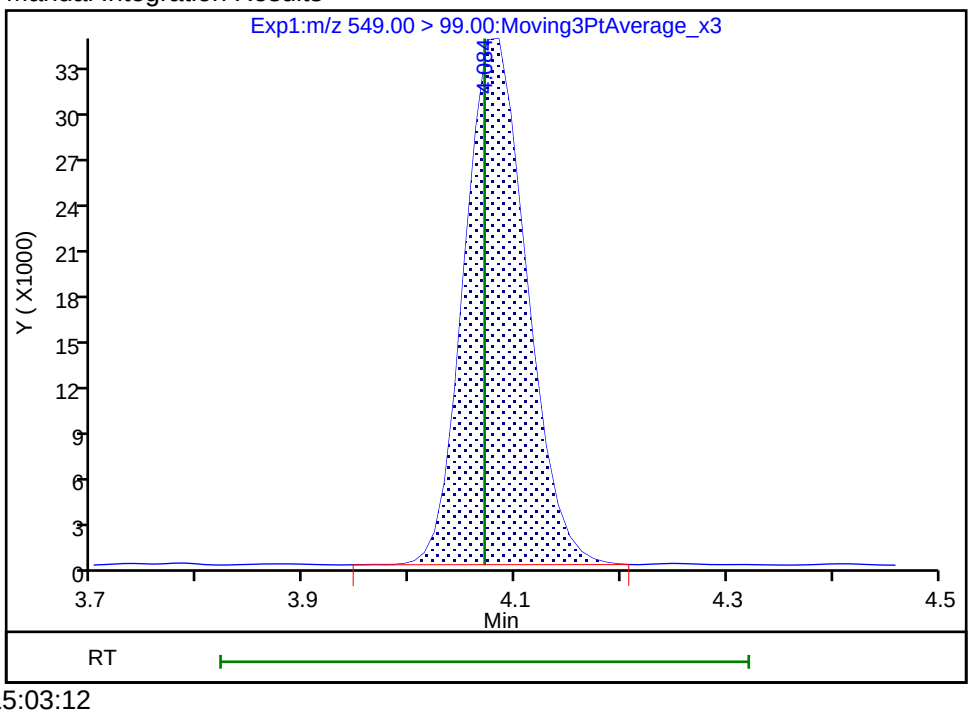
Processing Integration Results

RT: 4.08
Area: 139026
Amount: 0.478923
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 138967
Amount: 0.490004
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

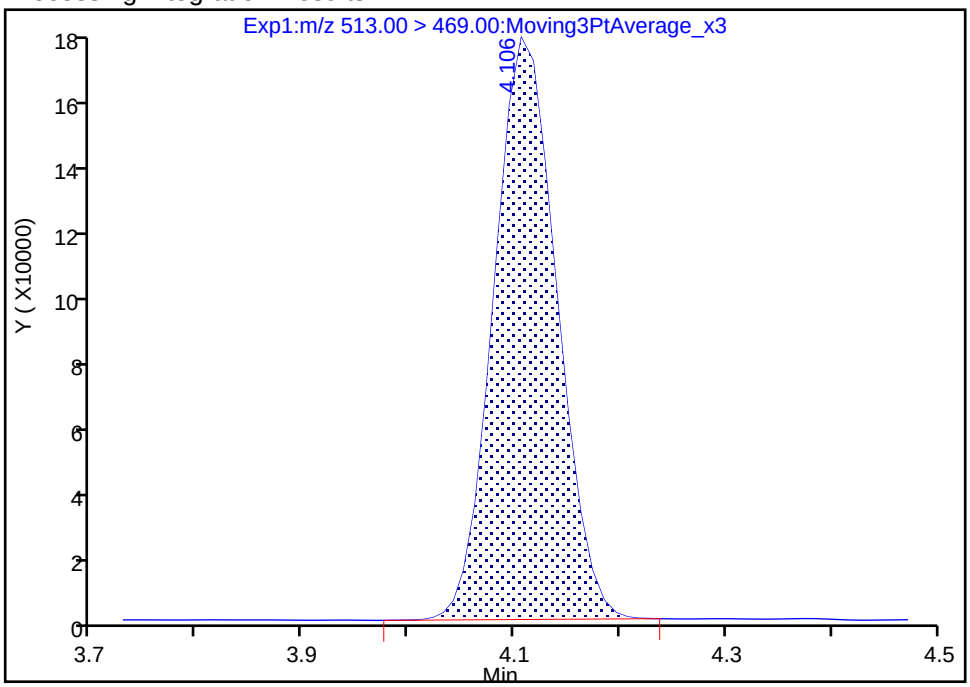
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

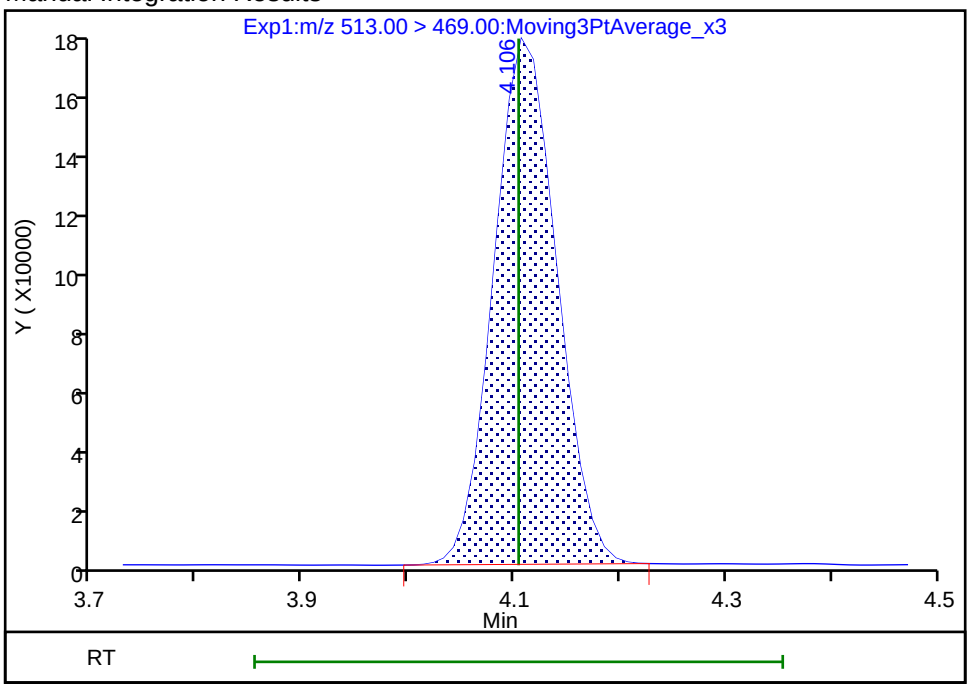
Processing Integration Results

RT: 4.11
Area: 710603
Amount: 0.488924
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 710000
Amount: 0.509950
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

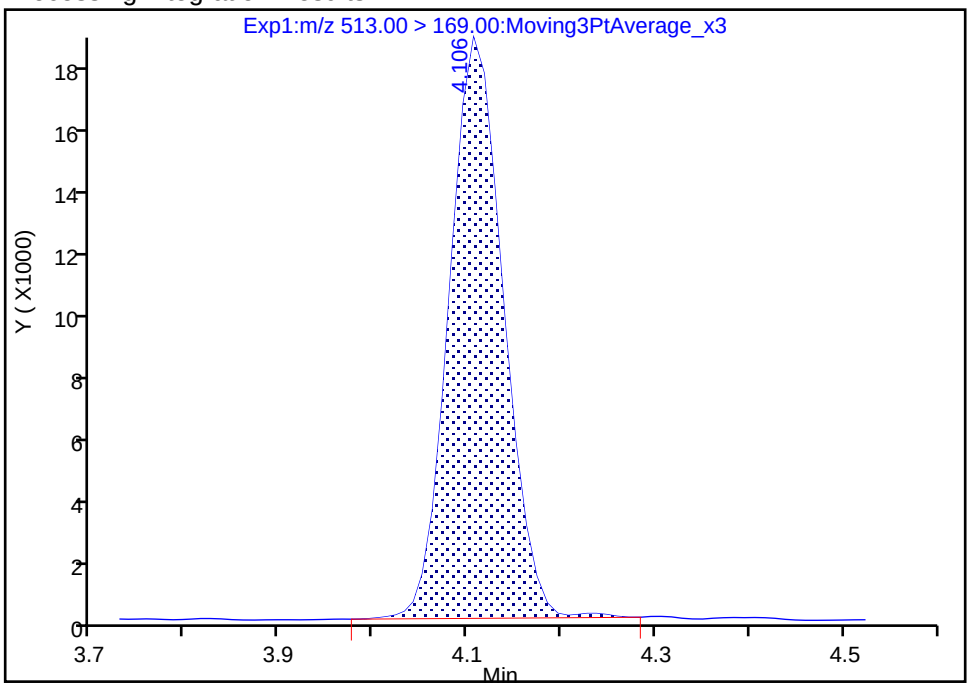
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

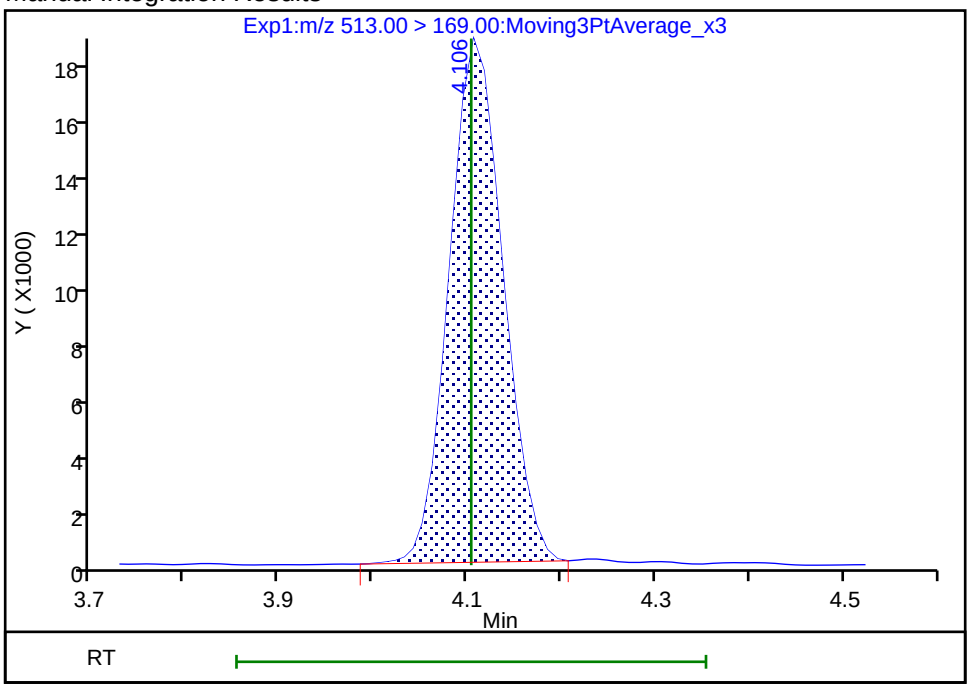
Processing Integration Results

RT: 4.11
Area: 74719
Amount: 0.488924
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 73895
Amount: 0.509950
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

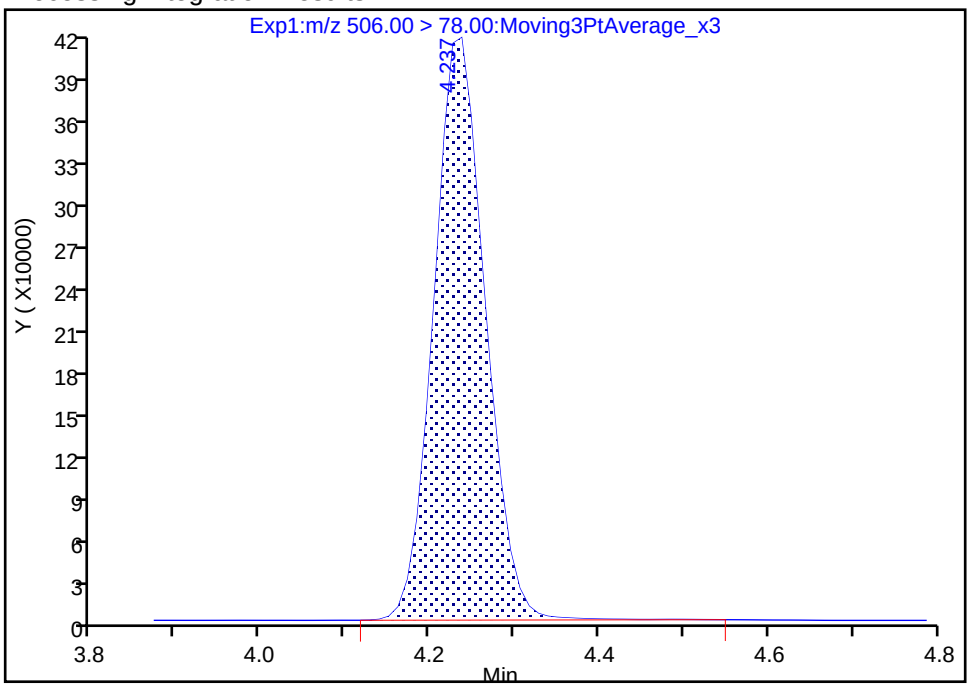
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

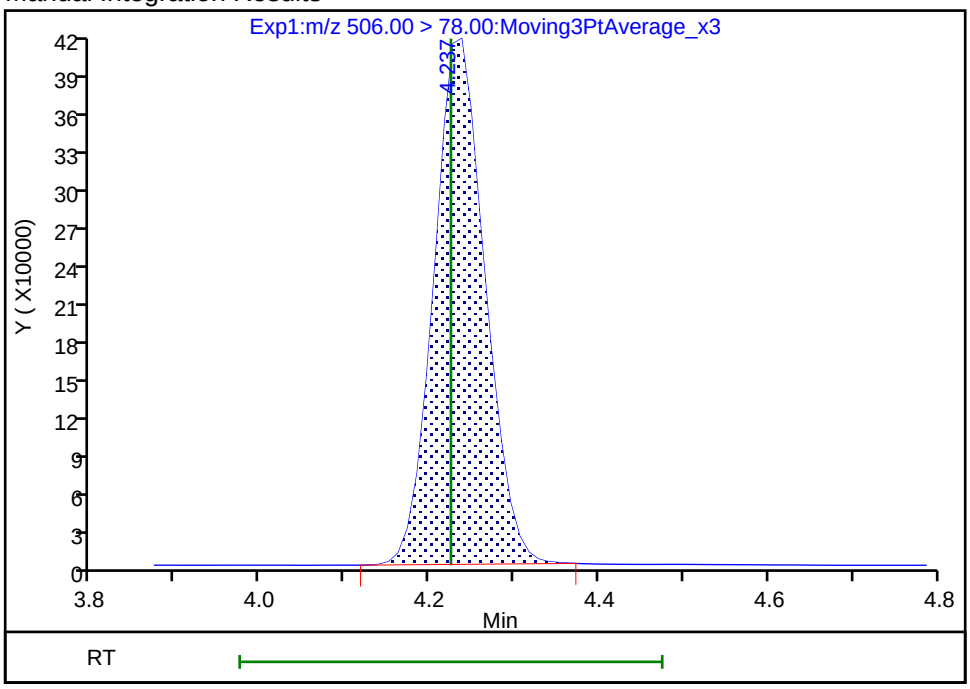
Processing Integration Results

RT: 4.24
Area: 1743171
Amount: 1.263417
Amount Units: ng/ml




Manual Integration Results

RT: 4.24
Area: 1730994
Amount: 1.252971
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

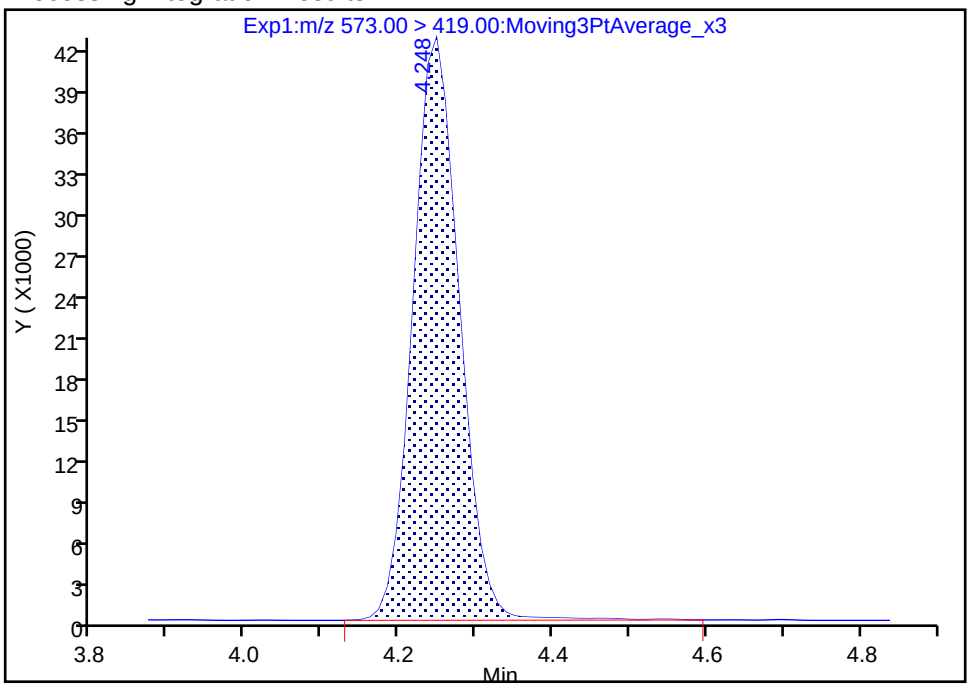
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

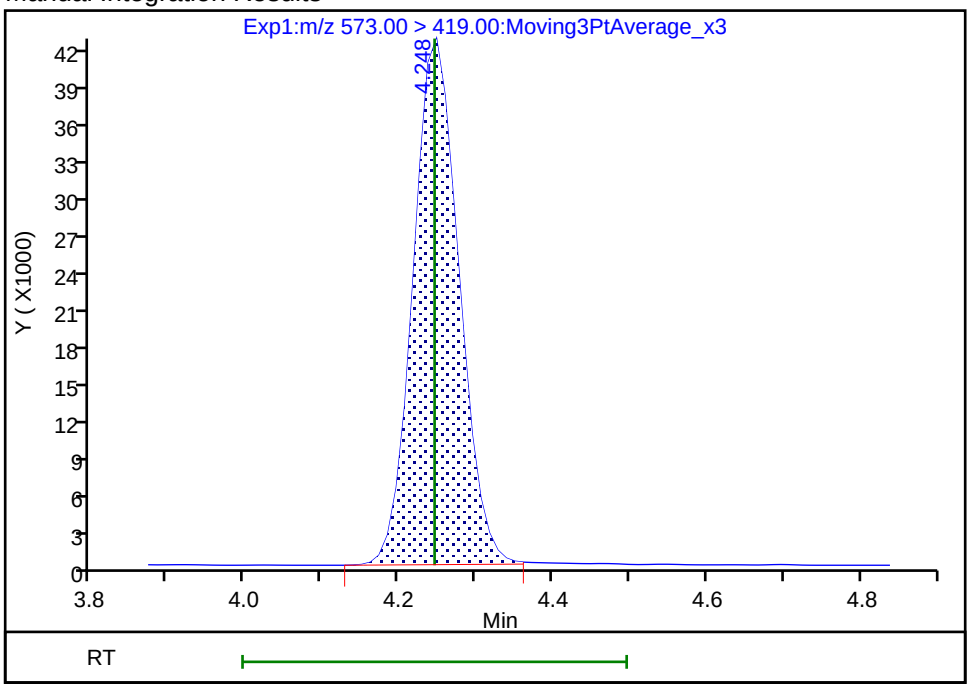
Processing Integration Results

RT: 4.25
Area: 179262
Amount: 1.273520
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 177391
Amount: 1.259122
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

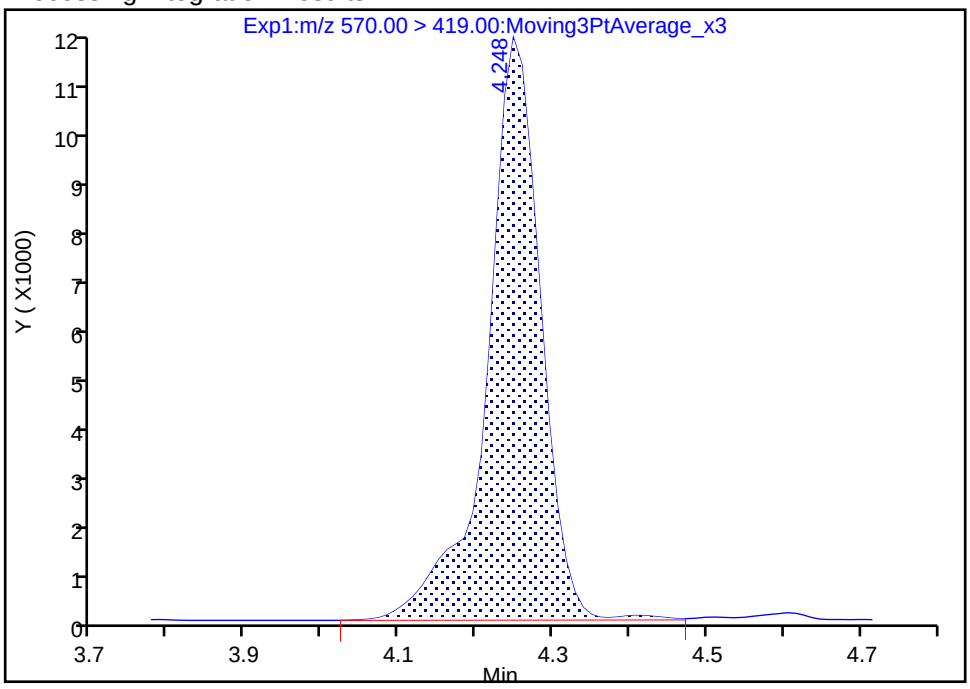
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

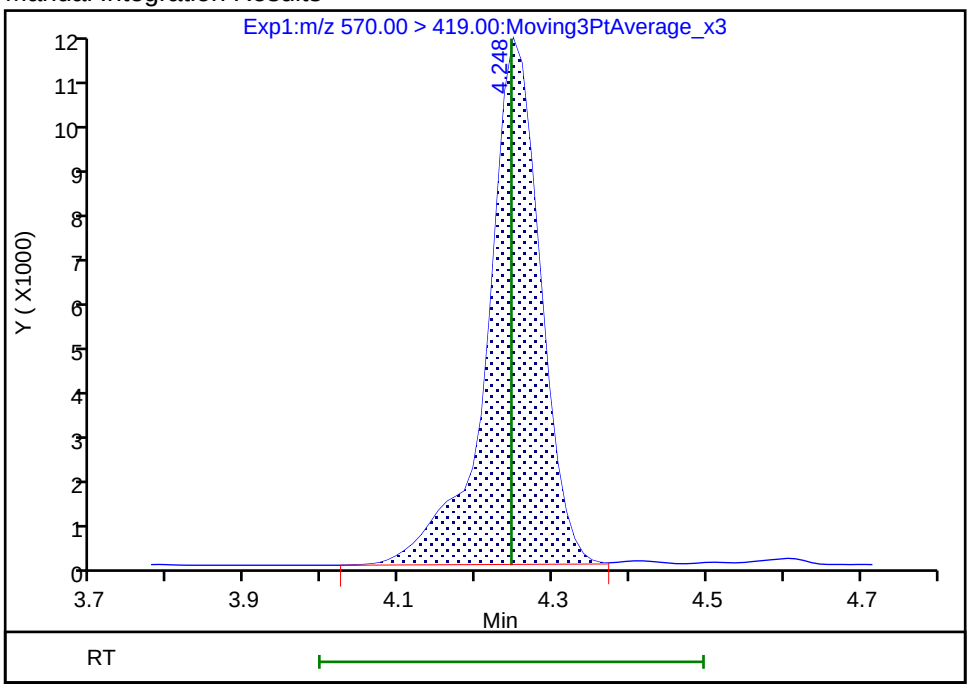
Processing Integration Results

RT: 4.25
Area: 55573
Amount: 0.493788
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 54995
Amount: 0.493292
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

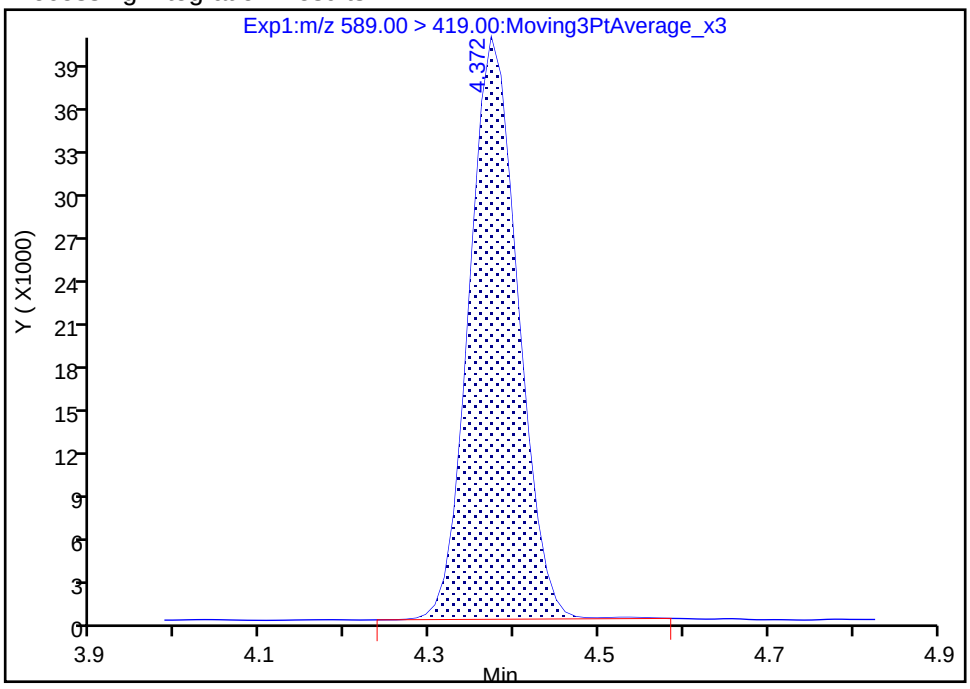
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

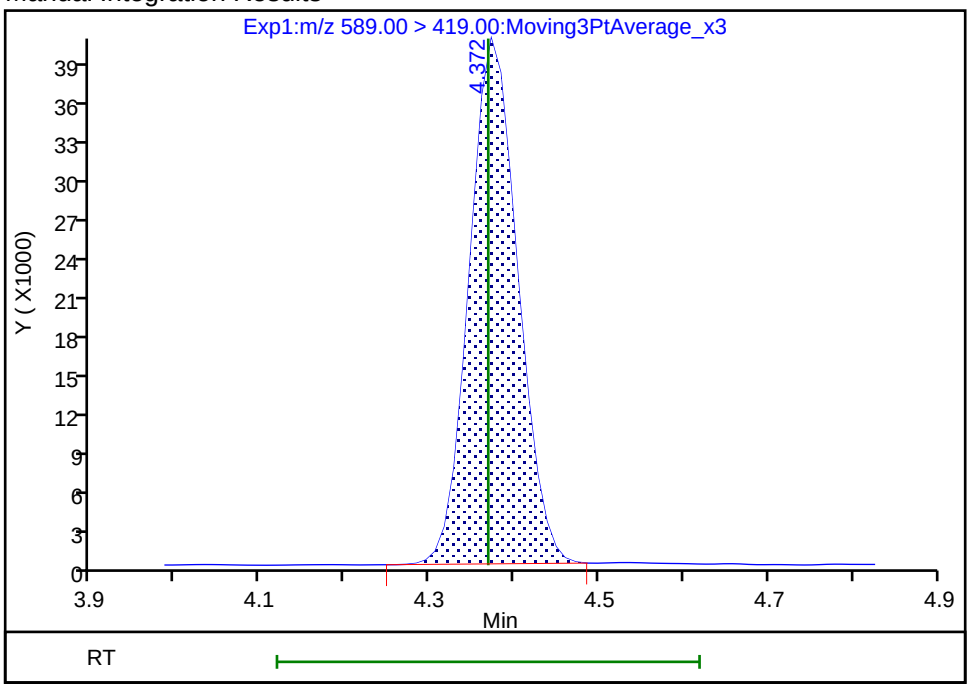
Processing Integration Results

RT: 4.37
Area: 163511
Amount: 1.246587
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 162762
Amount: 1.233352
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

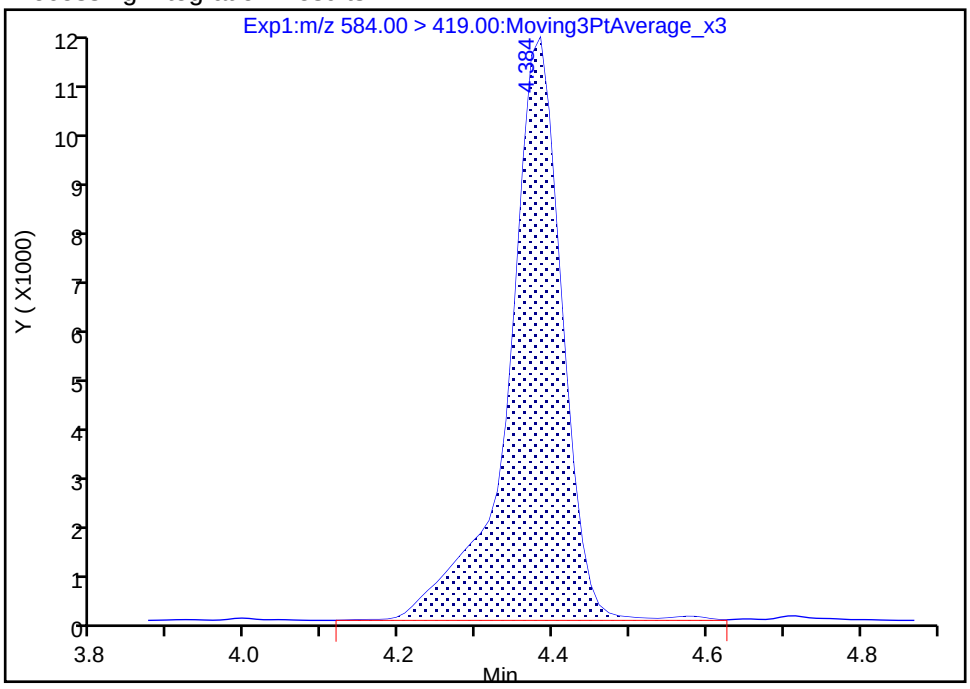
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

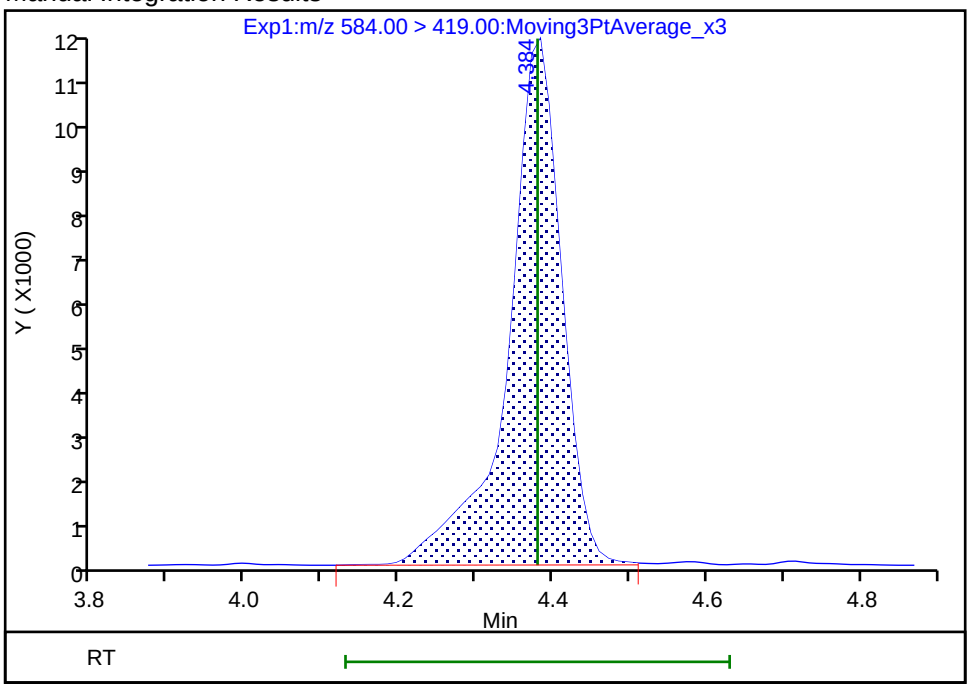
Processing Integration Results

RT: 4.38
Area: 55884
Amount: 0.472025
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 55468
Amount: 0.497138
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

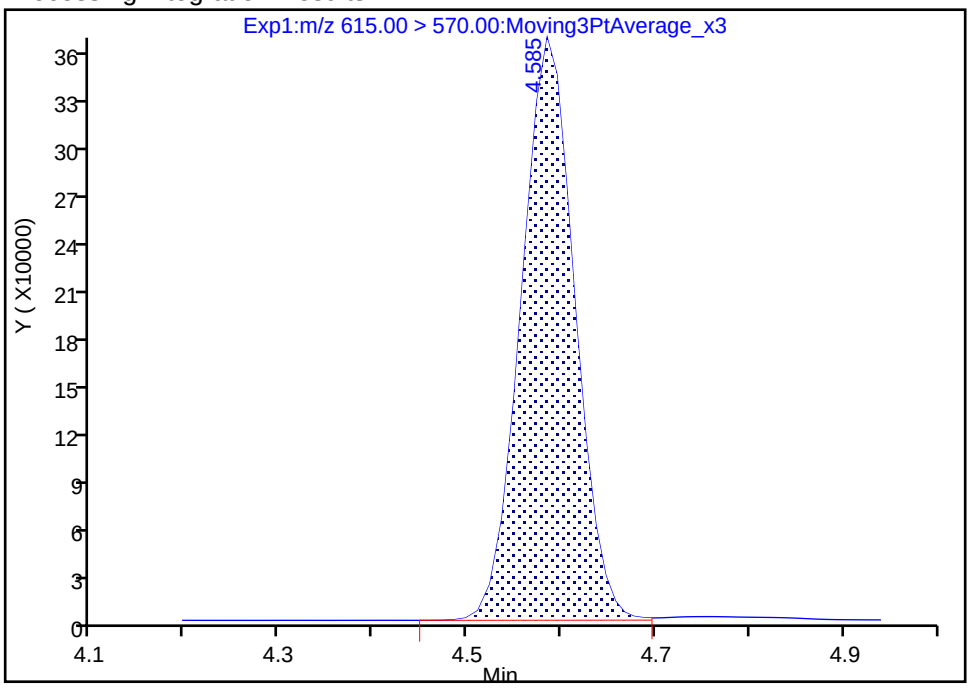
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

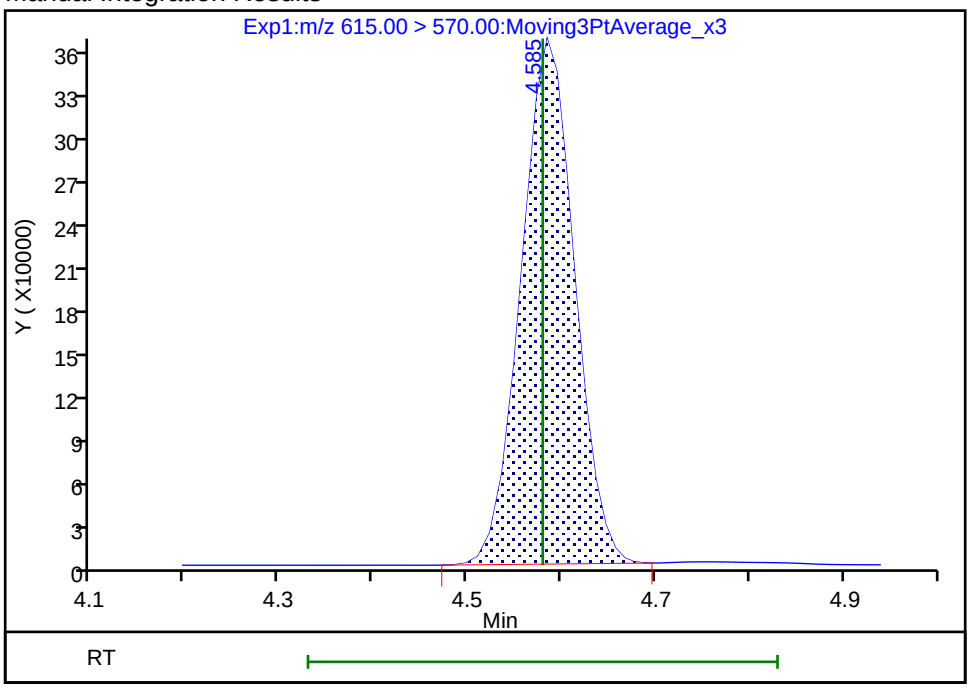
Processing Integration Results

RT: 4.58
Area: 1453068
Amount: 1.235773
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 1443504
Amount: 1.202114
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

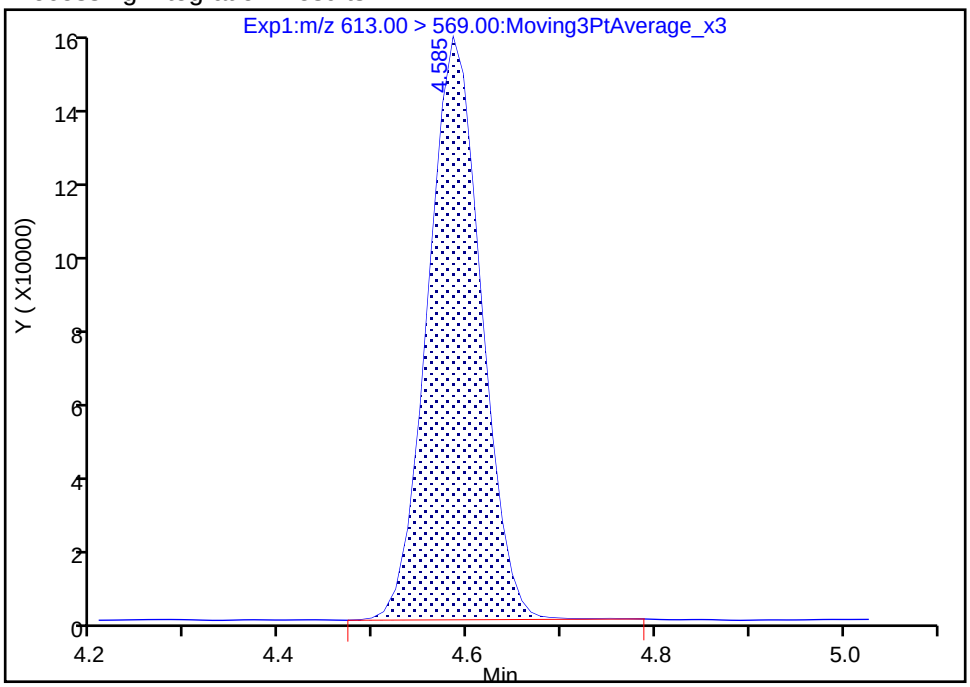
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

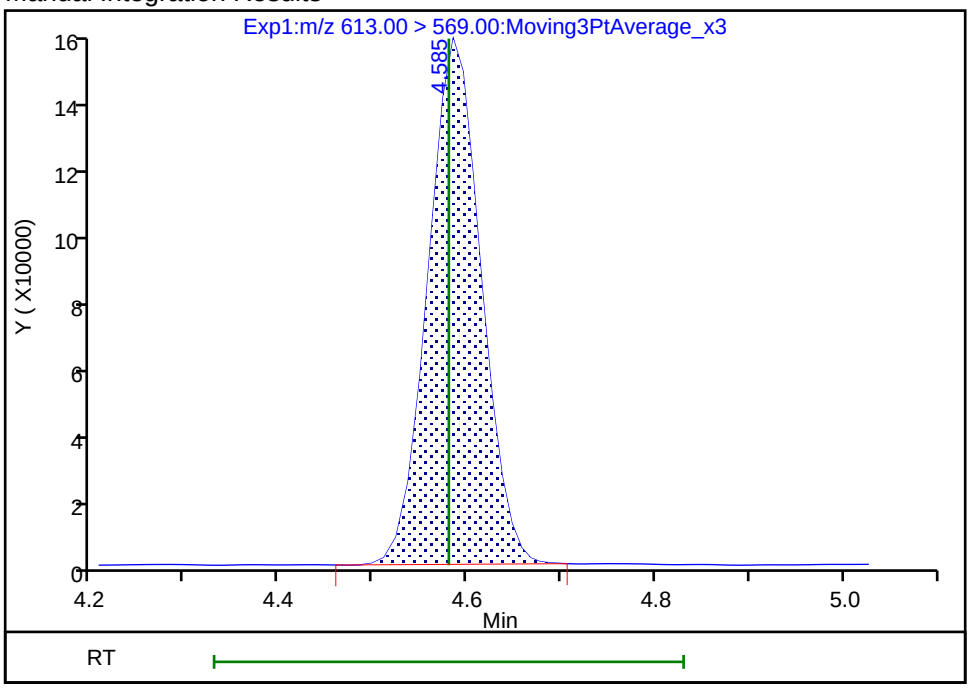
Processing Integration Results

RT: 4.58
Area: 596774
Amount: 0.499675
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 594650
Amount: 0.525952
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

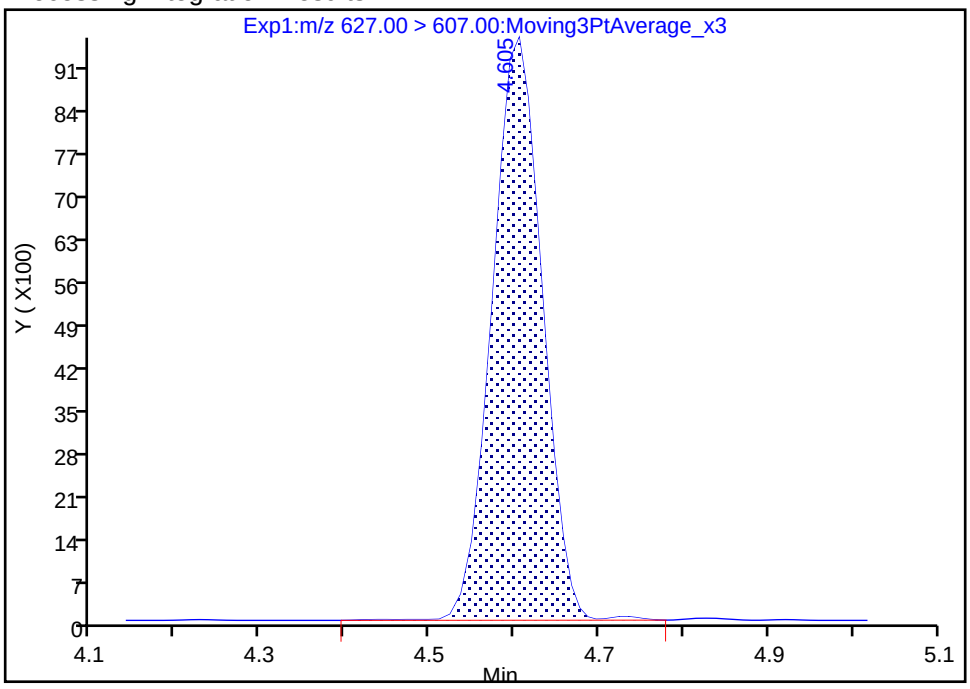
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

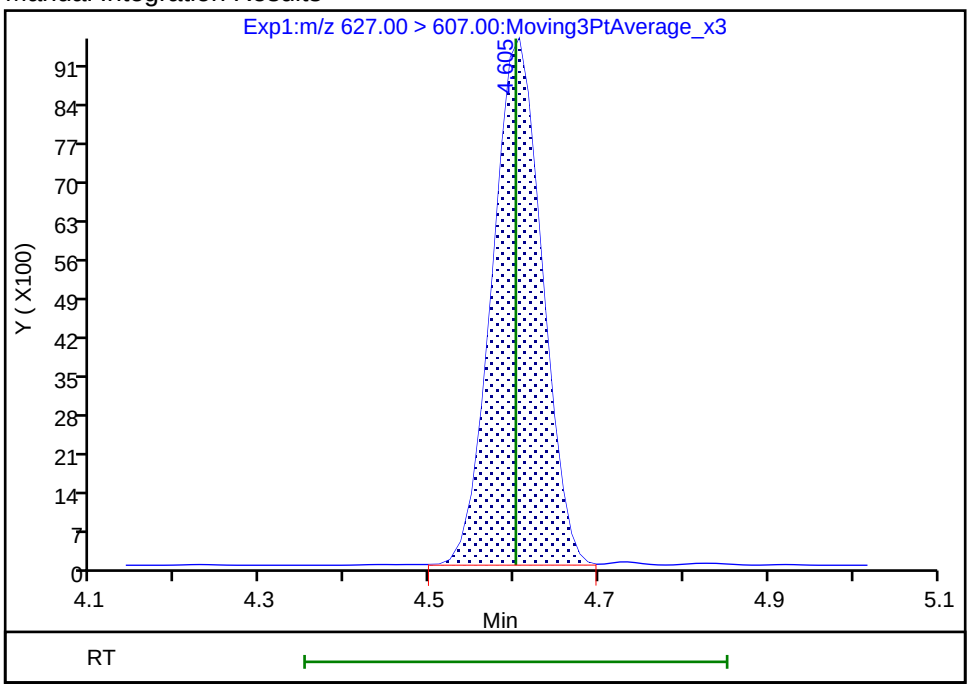
Processing Integration Results

RT: 4.61
Area: 39457
Amount: 0.503689
Amount Units: ng/ml




Manual Integration Results

RT: 4.61
Area: 39257
Amount: 0.515079
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

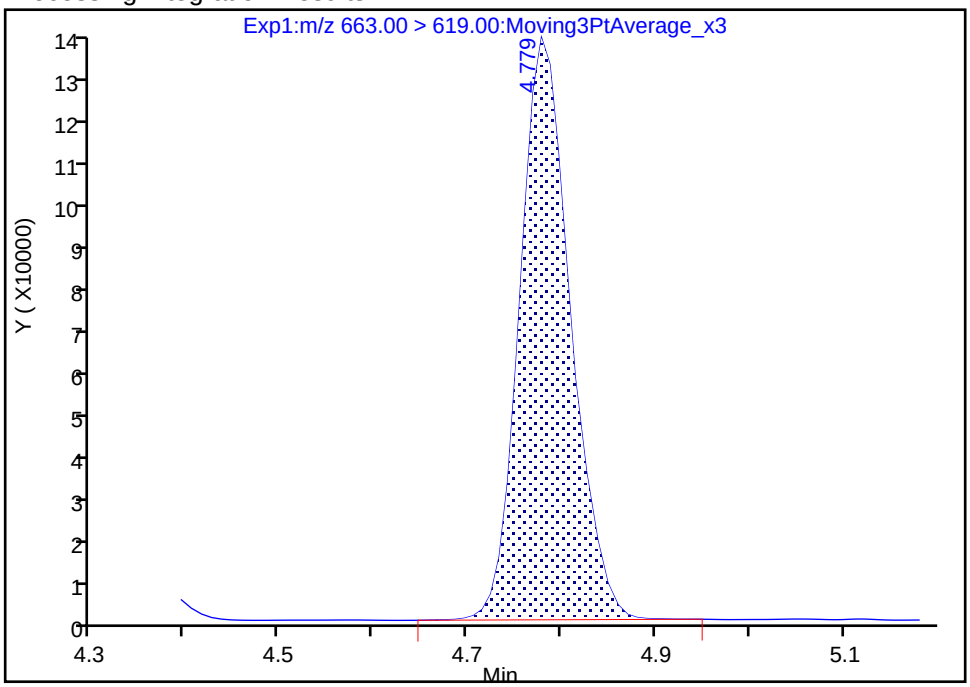
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

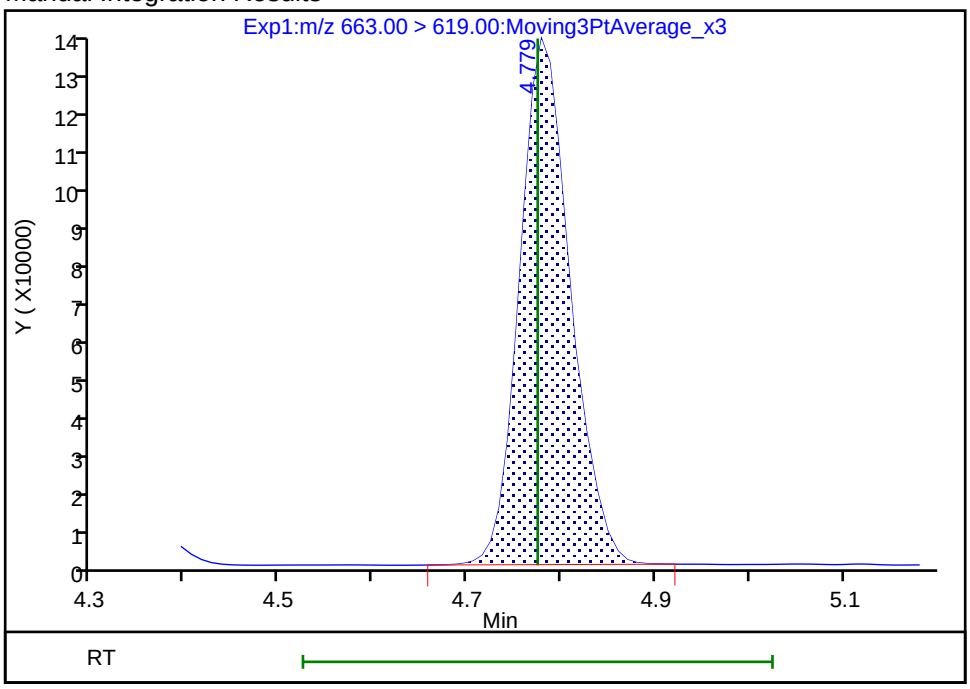
Processing Integration Results

RT: 4.78
Area: 497556
Amount: 0.483729
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 497082
Amount: 0.509947
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

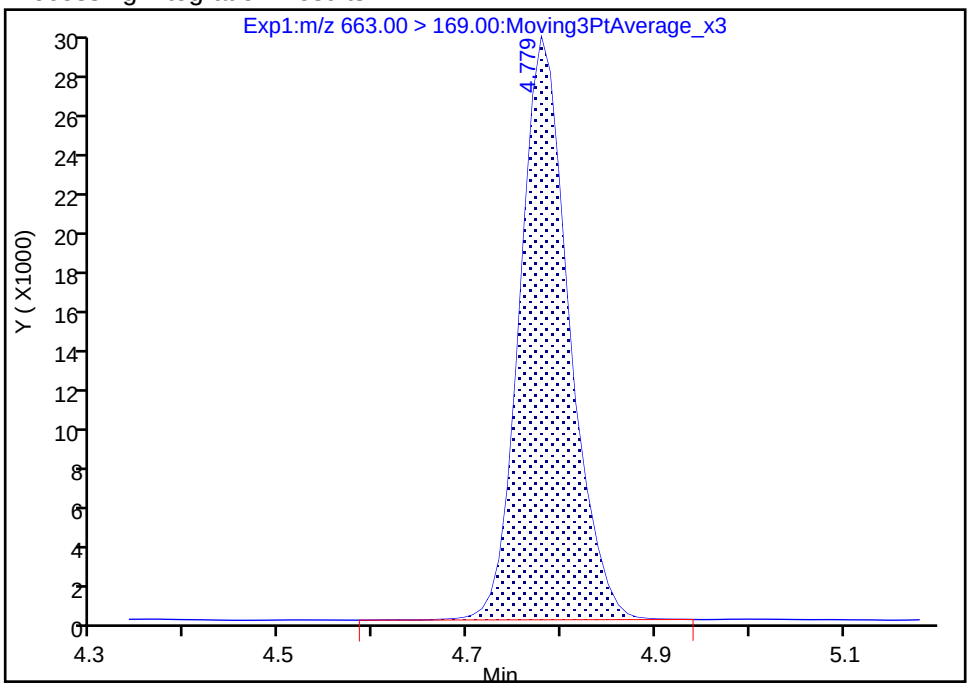
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

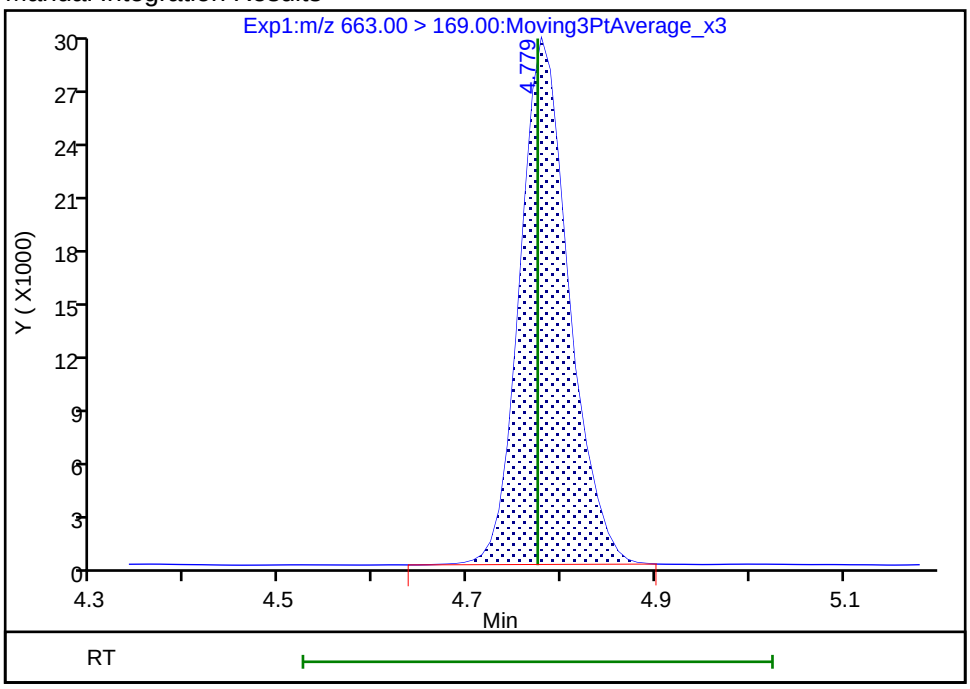
Processing Integration Results

RT: 4.78
Area: 108411
Amount: 0.483729
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 108142
Amount: 0.509947
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

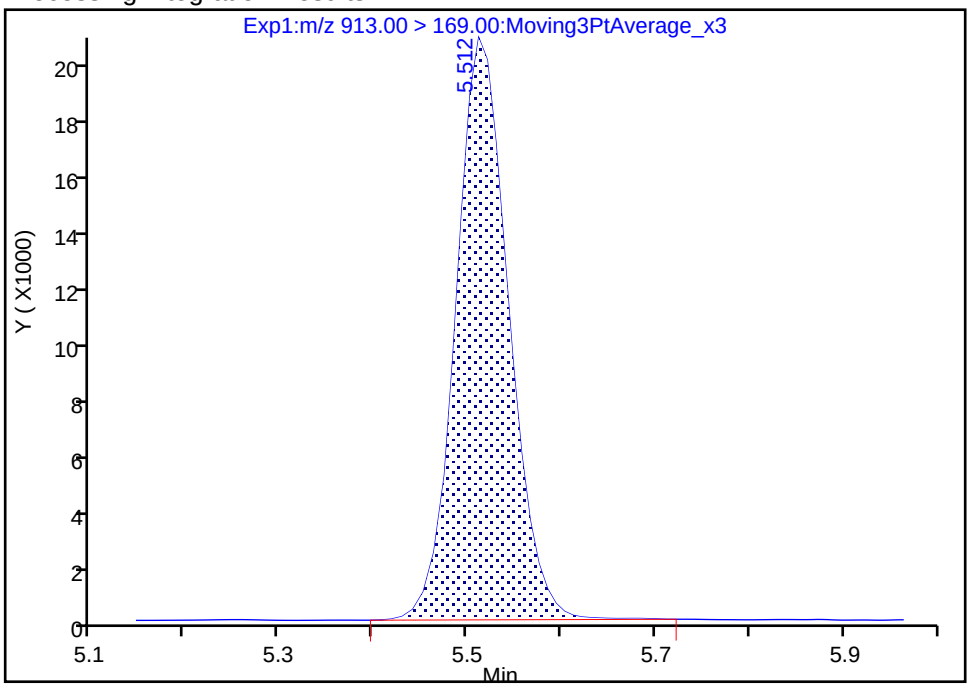
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

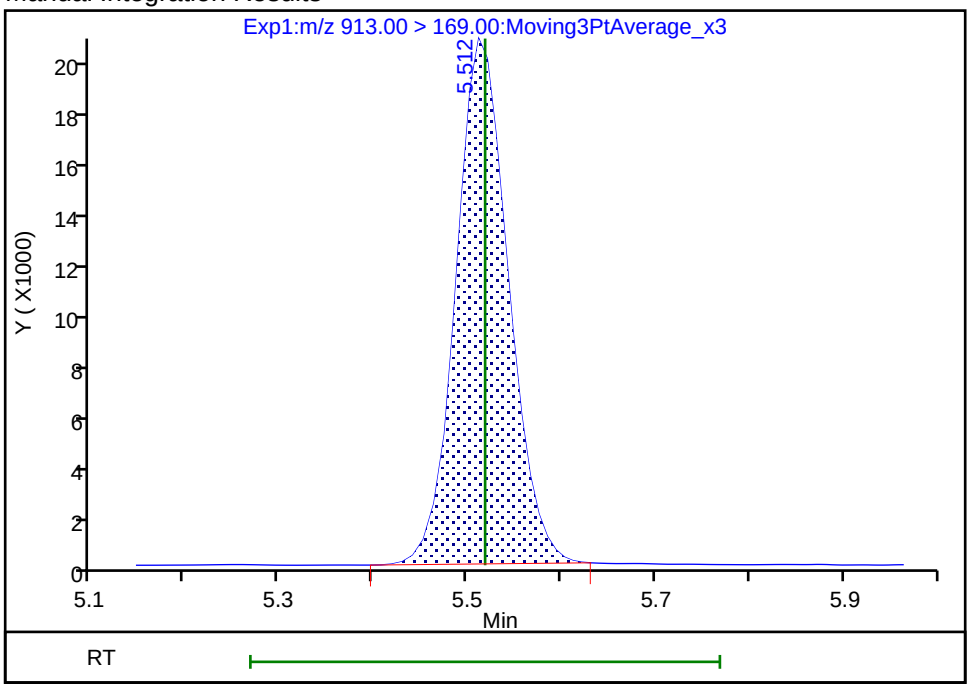
Processing Integration Results

RT: 5.51
Area: 78058
Amount: 0.499525
Amount Units: ng/ml




Manual Integration Results

RT: 5.51
Area: 77457
Amount: 0.523570
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 27-Oct-2021 14:11:07 ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 200-0048181-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:09:23
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.080 | 2.080 | 0.0 | 0.597 | 1982117 | 1.18 | | 94.2 | 5111 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.080 | 2.080 | 0.0 | 1.000 | 1470004 | 0.9804 | | 98.0 | 118 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.398 | 2.398 | 0.0 | 0.688 | 1755143 | 1.24 | | 99.0 | 2660 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.398 | 2.398 | 0.0 | 1.000 | 1391544 | 0.9893 | | 98.9 | 78.4 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.424 | 2.424 | 0.0 | 0.696 | 2194395 | 1.14 | | 98.4 | 154005 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.424 | 2.424 | 0.0 | 1.000 | 1699240 | 0.8428 | Target=2.29 | 95.3 | 1323 | |
| 298.90 > 99.00 | 2.424 | 2.424 | 0.0 | 1.000 | 731908 | | 2.32(1.15-3.44) | 95.3 | 254 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.720 | 2.720 | 0.0 | 0.781 | 155977 | 1.07 | | 91.4 | 131 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.720 | 2.720 | 0.0 | 1.000 | 279615 | 0.9833 | | 105 | 2925 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.756 | 2.756 | 0.0 | 1.000 | 1428398 | 0.9476 | Target=12.01 | 94.8 | 179 | M |
| 313.00 > 119.00 | 2.756 | 2.756 | 0.0 | 1.000 | 118176 | | 12.09(6.00-18.01) | 94.8 | 162 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.756 | 2.756 | 0.0 | 0.791 | 1857895 | 1.25 | | 99.9 | 2952 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.768 | 2.768 | 0.0 | 0.887 | 1488551 | 0.8914 | Target=3.04 | 95.0 | 1686 | |
| 349.00 > 99.00 | 2.768 | 2.768 | 0.0 | 0.887 | 490767 | | 3.03(1.52-4.56) | 95.0 | 427 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.865 | 2.865 | 0.0 | 0.823 | 42477 | 1.08 | | 86.7 | 286 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.865 | 2.865 | 0.0 | 1.000 | 153961 | 1.00 | | 100 | 39.3 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.122 | 3.122 | 0.0 | 0.896 | 1639762 | 1.18 | | 99.5 | 3393 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.122 | 3.122 | 0.0 | 1.000 | 1287587 | 0.8446 | Target=3.51 | 92.8 | 1132 | M |
| 399.00 > 99.00 | 3.122 | 3.122 | 0.0 | 1.000 | 362786 | | 3.55(1.76-5.27) | 92.8 | 303 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1503783 | 0.9473 | Target=3.83 | 94.7 | 379 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 407853 | | 3.69(1.91-5.74) | 94.7 | 541 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1920576 | 1.23 | | 98.1 | 3478 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.834 | 3115107 | 0.8787 | Target=2.58 | 93.3 | 1928 | M |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.834 | 1216733 | | 2.56(1.29-3.88) | 93.3 | 1081 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1113260 | 0.8817 | Target=5.12 | 92.6 | 1894 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 228238 | | 4.88(2.56-7.67) | 92.6 | 486 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 264731 | 1.20 | | 101 | 498 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 265198 | 0.9381 | | 99.0 | 1344 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 2127384 | 1.24 | | 99.5 | 5608 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 2078811 | 1.25 | | | 2883 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1718391 | 0.9495 | Target=2.65 | 94.9 | 259 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 641965 | | 2.68(1.32-3.97) | 94.9 | 789 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 1210356 | 1.20 | | 101 | 3831 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 964211 | 0.8774 | Target=4.60 | 94.5 | 1180 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 205583 | | 4.69(2.30-6.90) | 94.5 | 472 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 2190750 | 1.29 | | 103 | 2531 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1563242 | 0.9117 | Target=7.58 | 91.2 | 289 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 214440 | | 7.29(3.79-11.37) | 91.2 | 915 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.955 | 3.955 | 0.0 | 1.042 | 1497666 | 0.9046 | | 97.1 | 2633 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.071 | 4.071 | 0.0 | 1.073 | 792308 | 0.9255 | Target=2.38 | 96.4 | 1784 | M |
| 549.00 > 99.00 | 4.071 | 4.071 | 0.0 | 1.073 | 337501 | | 2.35(1.19-3.56) | 96.4 | 855 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.178 | 2098041 | 1.22 | | 97.6 | 3926 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 1672723 | 0.99 | Target=9.30 | 99.2 | 820 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 186937 | | 8.95(4.65-13.95) | 99.2 | 652 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 286620 | 1.15 | | 96.1 | 713 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 191300 | 0.9554 | | 99.7 | 1338 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.225 | 4.225 | 0.0 | 1.213 | 2062074 | 1.24 | | 99.4 | 1745 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.002 | 1517479 | 0.9686 | | 96.9 | 1914 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.219 | 208636 | 1.23 | | 98.6 | 756 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 127458 | 0.9721 | | 97.2 | 481 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 610213 | 0.9168 | Target=2.54 | 95.1 | 2080 | M |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 247219 | | 2.47(1.27-3.81) | 95.1 | 1009 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.358 | 0.0 | 1.251 | 1758950 | 1.31 | | 105 | 3983 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.358 | 4.358 | 0.0 | 1.000 | 1375247 | 0.9168 | Target=9.37 | 91.7 | 863 | |
| 563.00 > 169.00 | 4.358 | 4.358 | 0.0 | 1.000 | 148846 | | 9.24(4.69-14.06) | 91.7 | 1505 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.254 | 200276 | 1.26 | | 101 | 1218 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.003 | 126650 | 0.9225 | | 92.2 | 992 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.172 | 1724753 | 0.8821 | | 93.6 | 3401 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.315 | 1756299 | 1.22 | | 97.4 | 904 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.580 | 4.580 | 0.0 | 1.000 | 1418492 | 1.03 | Target=6.84 | 103 | 215 | |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 201548 | | 7.04(3.42-10.25) | 103 | 1232 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 89116 | 0.9633 | | 99.9 | 1611 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 229693 | 0.9383 | Target=0.51 | 96.9 | 2544 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 468736 | | 0.49(0.25-0.76) | 96.9 | 3618 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.775 | 4.775 | 0.0 | 1.042 | 1161247 | 0.9791 | Target=4.67 | 97.9 | 254 | M |
| 663.00 > 169.00 | 4.775 | 4.775 | 0.0 | 1.042 | 248156 | | 4.68(2.33-7.00) | 97.9 | 1444 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.0 | 1.423 | 1364943 | 1.22 | | 97.6 | 2699 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.0 | 1.000 | 174302 | 1.01 | Target=0.99 | 101 | 1690 | |
| 713.00 > 219.00 | 4.947 | 4.957 | -0.009 | 0.998 | 172074 | | 1.01(0.49-1.48) | 101 | 1958 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 1215023 | 1.23 | | 98.7 | 2574 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 870242 | 1.03 | Target=4.50 | 103 | 202 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 190383 | | 4.57(2.25-6.75) | 103 | 1515 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.519 | 0.0 | 1.050 | 818298 | 1.00 | Target=4.46 | 99.8 | 331 | M |
| 913.00 > 169.00 | 5.519 | 5.519 | 0.0 | 1.050 | 191537 | | 4.27(2.23-6.68) | 99.8 | 1663 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d

Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812

Lims ID: ICIS

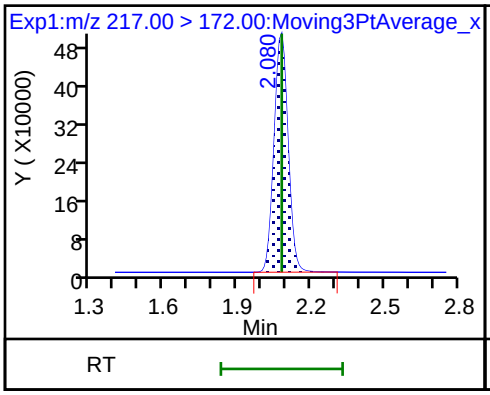
Client ID:

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5

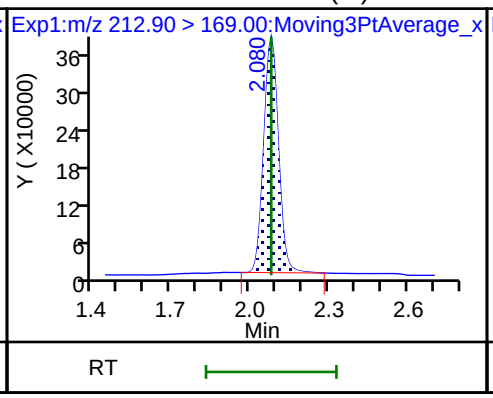
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

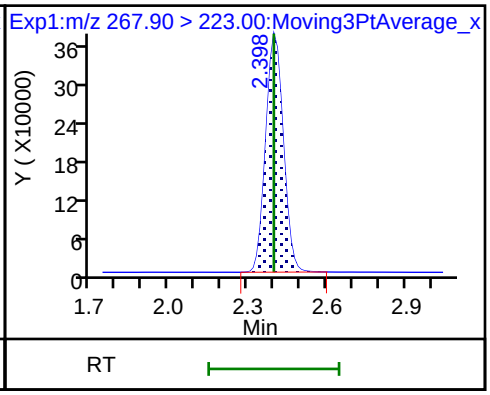
D 1 13C4 PFBA



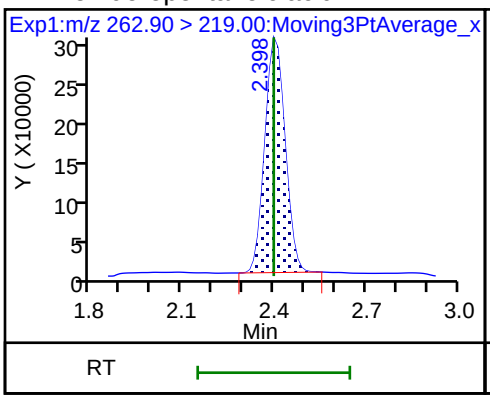

2 Perfluorobutanoic acid (M)



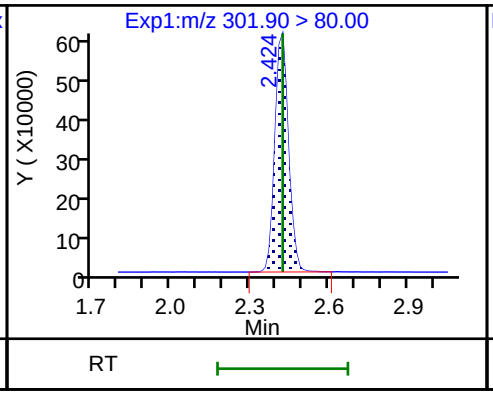

D 3 13C5 PFPeA



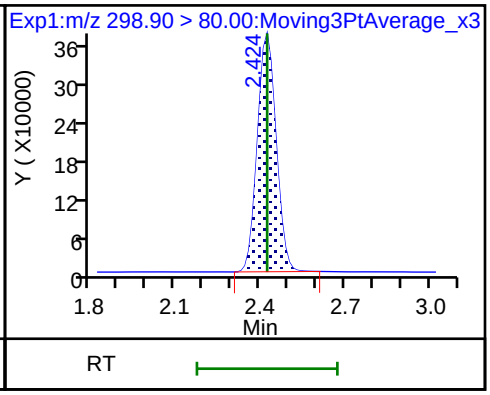

4 Perfluoropentanoic acid



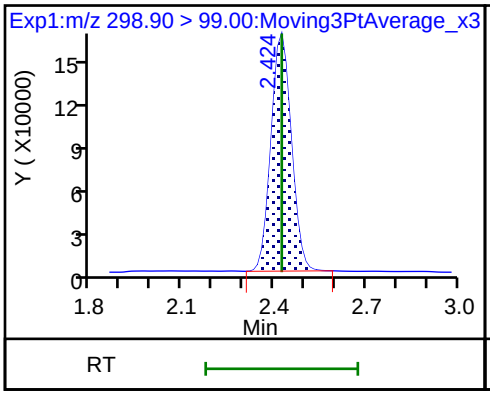

D 47 13C3 PFBS



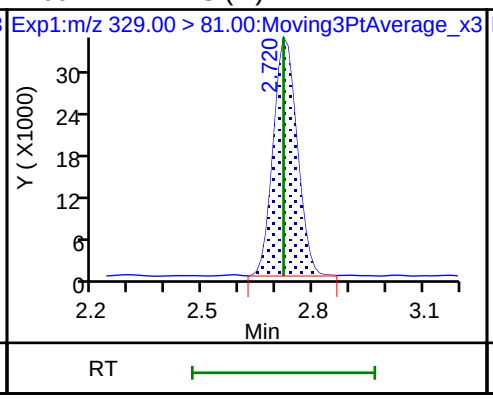

5 Perfluorobutanesulfonic acid



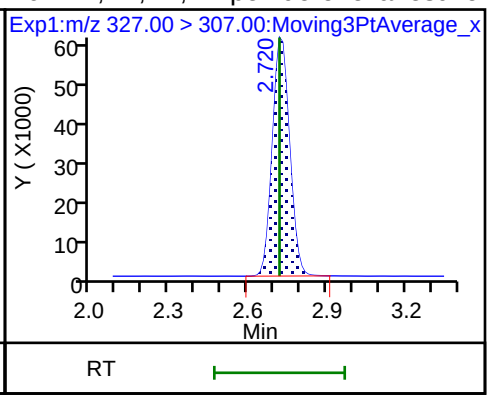

5 Perfluorobutanesulfonic acid



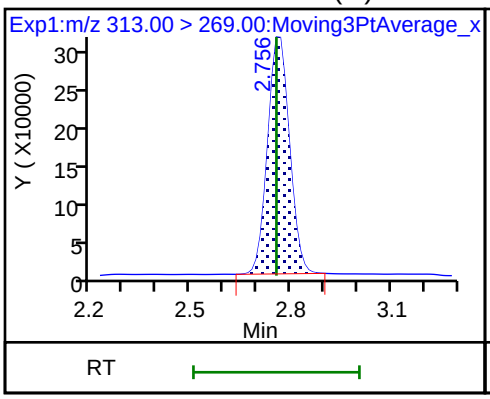

D 60 M2-4:2 FTS (M)



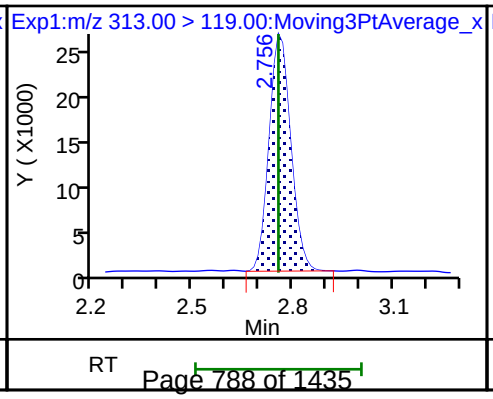

61 1H,1H,2H,2H-perfluorohexanesulfo



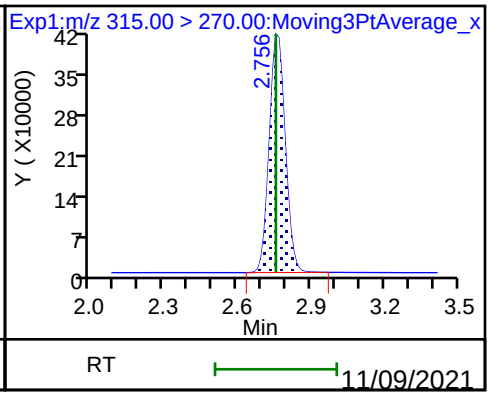

6 Perfluorohexanoic acid (M)



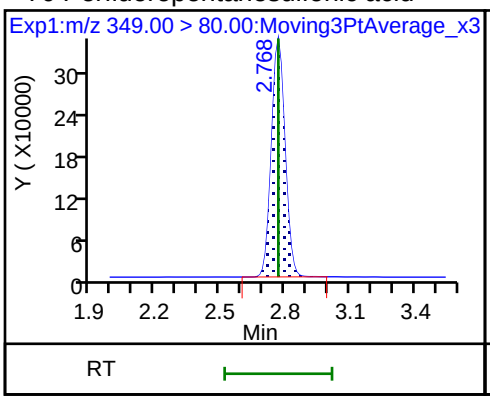

6 Perfluorohexanoic acid



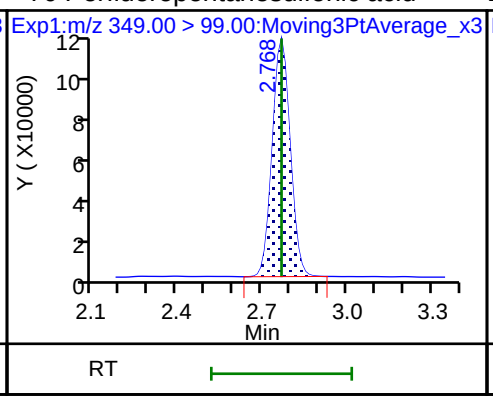

D 7 13C2 PFHxA



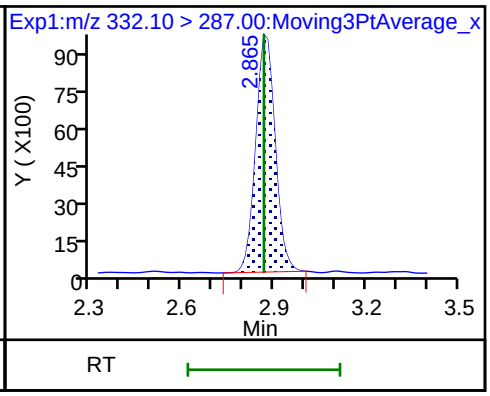
70 Perfluoropentanesulfonic acid



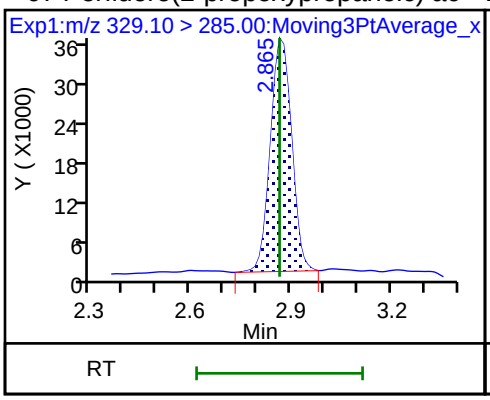

70 Perfluoropentanesulfonic acid



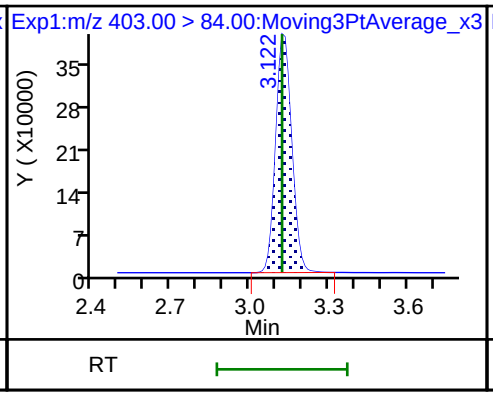

D 64 13C3 HFPO-DA



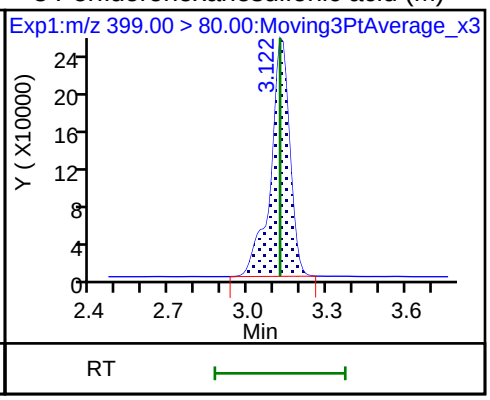

67 Perfluoro(2-propoxypropanoic) ac



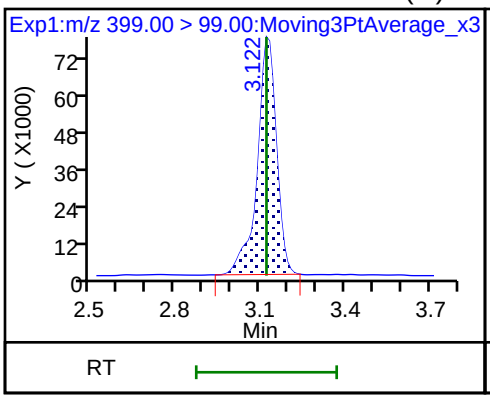

D 11 18O2 PFHxS



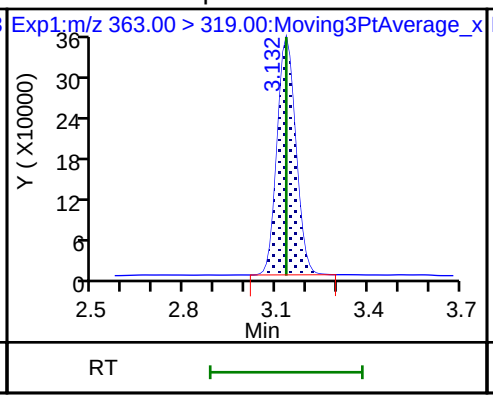

8 Perfluorohexanesulfonic acid (M)



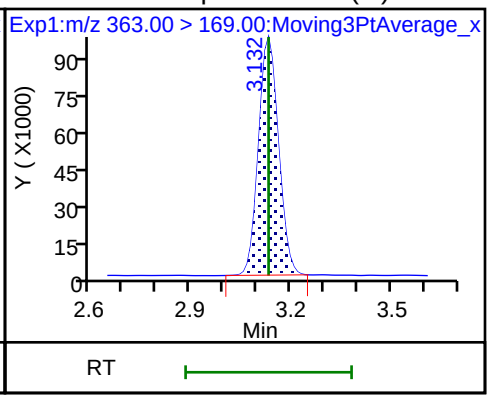

8 Perfluorohexanesulfonic acid (M)



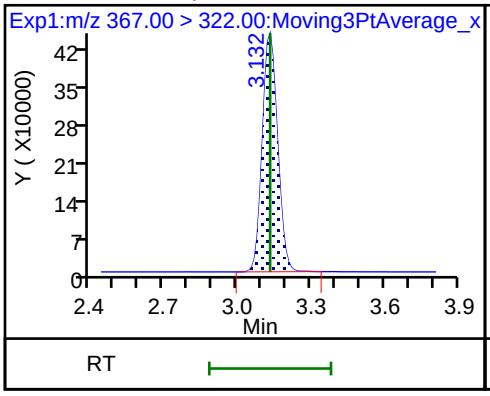

10 Perfluoroheptanoic acid



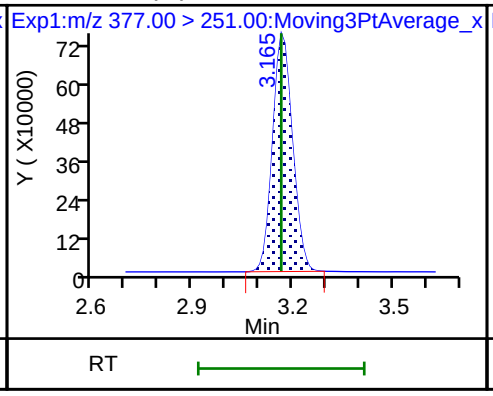

10 Perfluoroheptanoic acid (M)



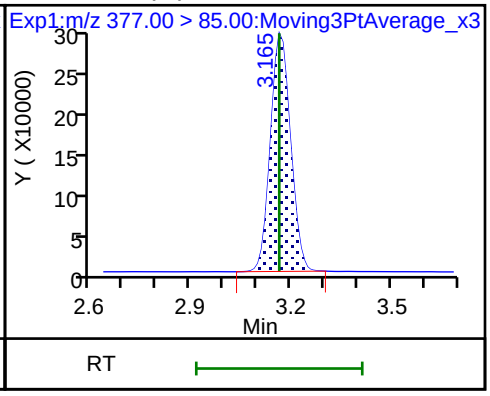

D 9 13C4 PFHpA



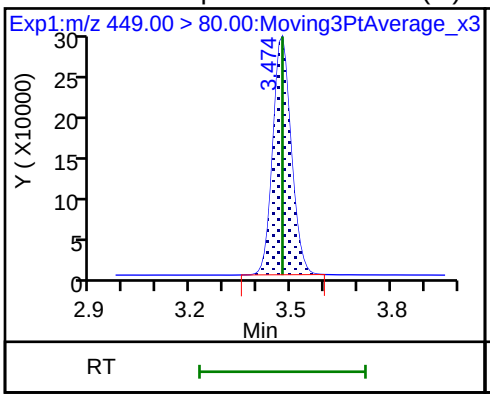

77 DONA (M)



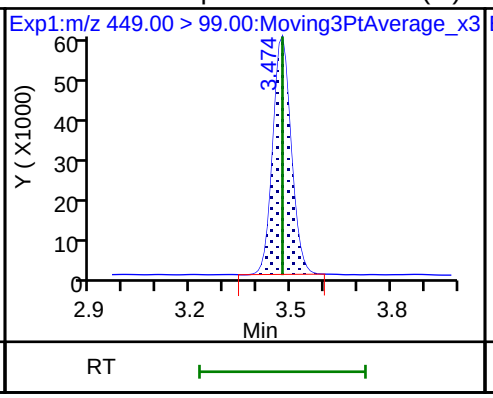

77 DONA (M)



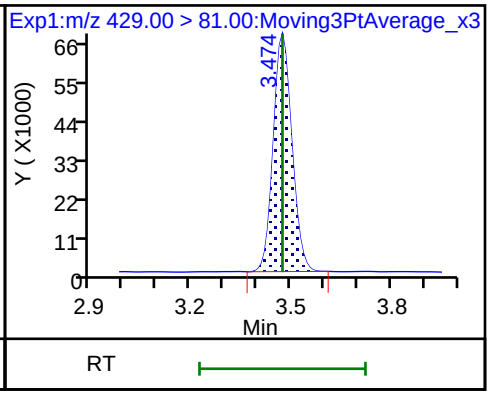
16 Perfluoroheptanesulfonic acid (M)



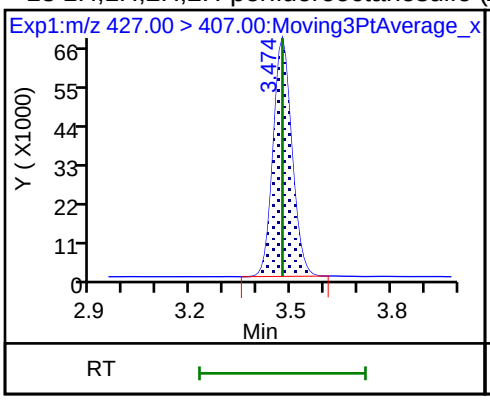

16 Perfluoroheptanesulfonic acid (M)



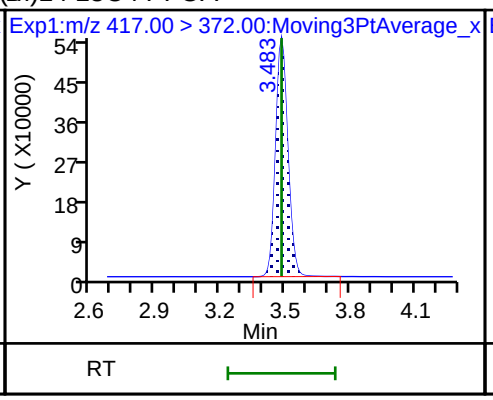

D 12 M2-6:2 FTS



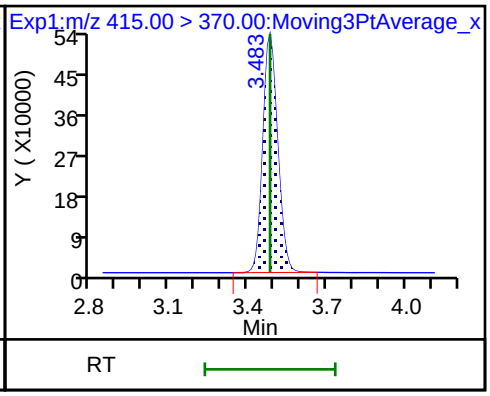

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



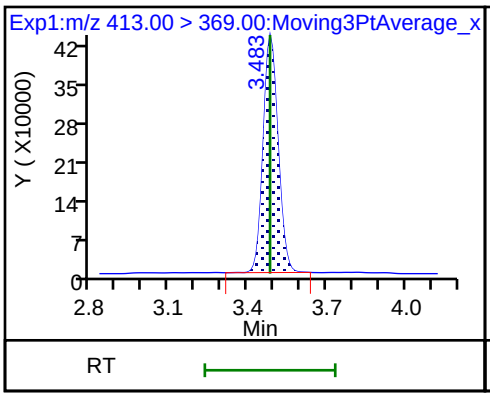

14 13C4 PFOA



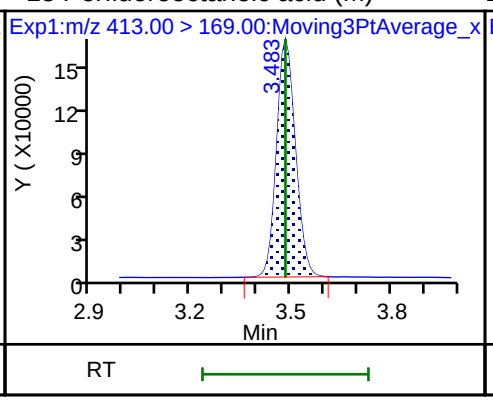

* 62 13C2 PFOA



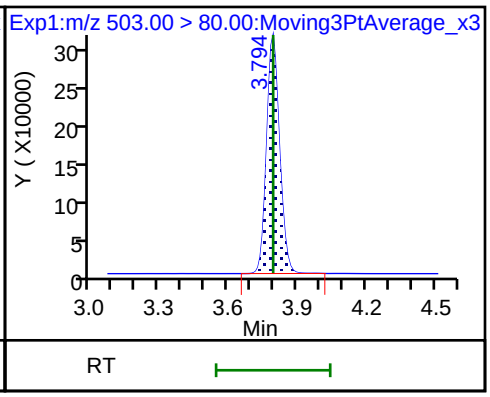

15 Perfluorooctanoic acid



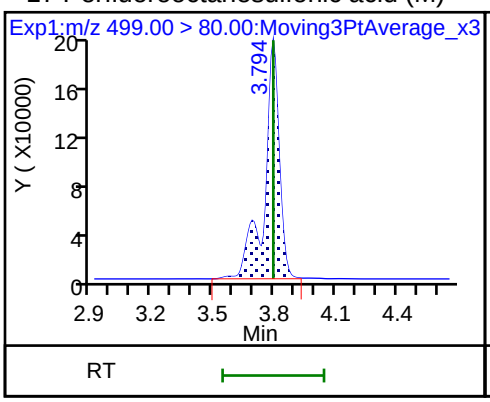

15 Perfluorooctanoic acid (M)



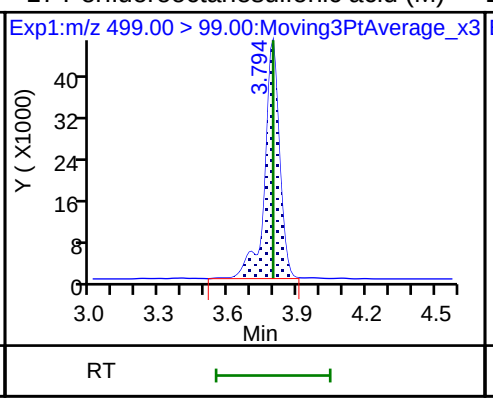

D 18 13C4 PFOS



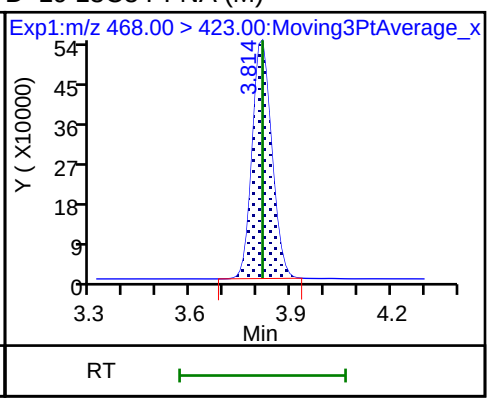

17 Perfluorooctanesulfonic acid (M)



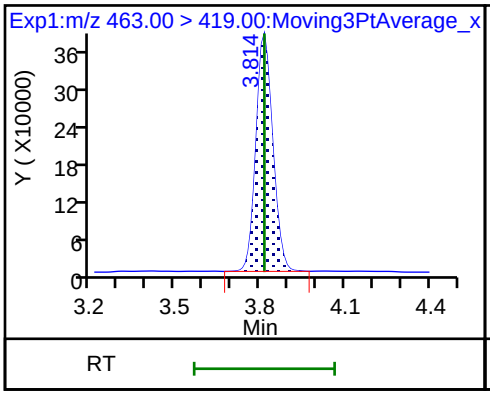

17 Perfluorooctanesulfonic acid (M)



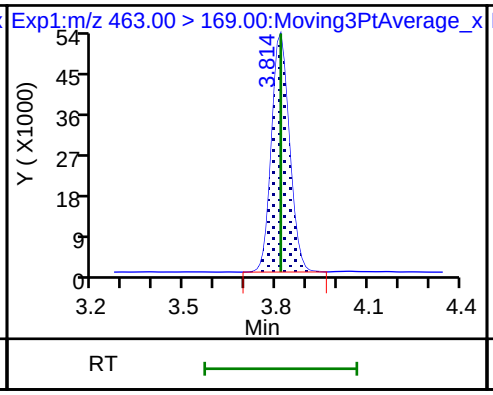

D 19 13C5 PFNA (M)



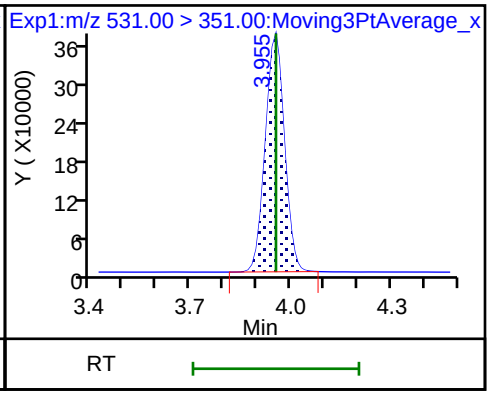
20 Perfluorononanoic acid



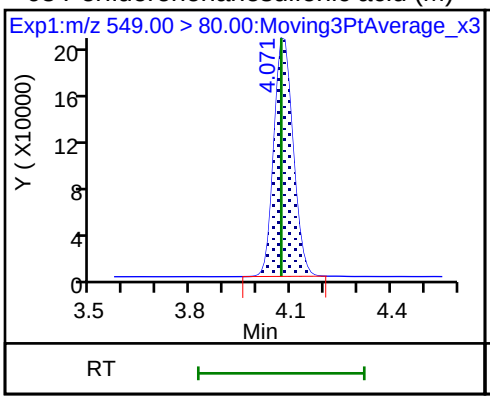

20 Perfluorononanoic acid



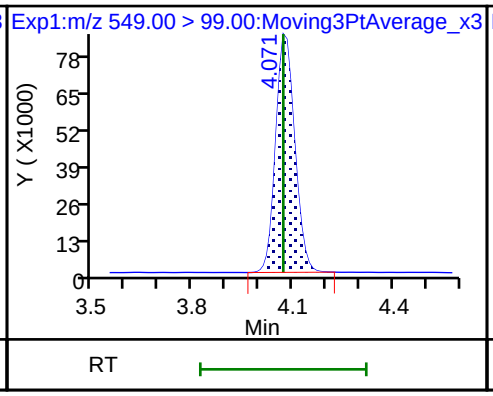

69 9-Chlorohexadecafluoro-3-oxanona (M)



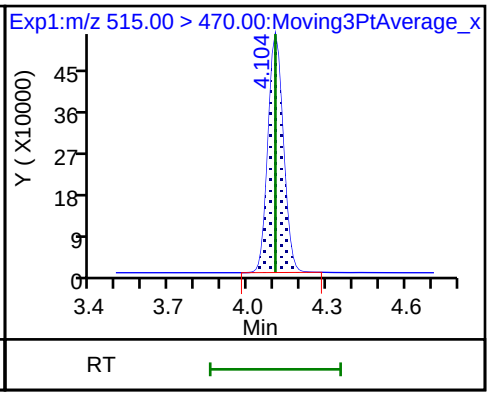

68 Perfluorononanesulfonic acid (M)



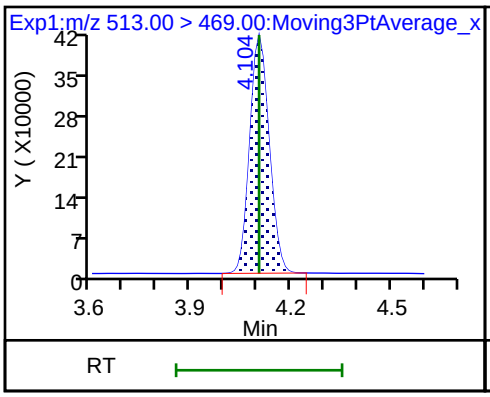

68 Perfluorononanesulfonic acid



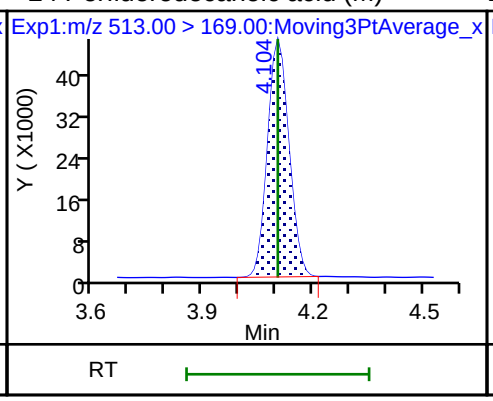

D 23 13C2 PFDA



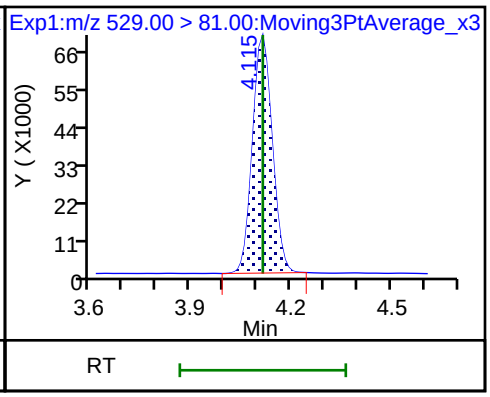

24 Perfluorodecanoic acid



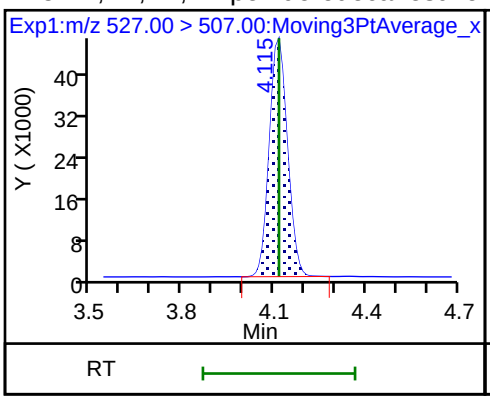

24 Perfluorodecanoic acid (M)



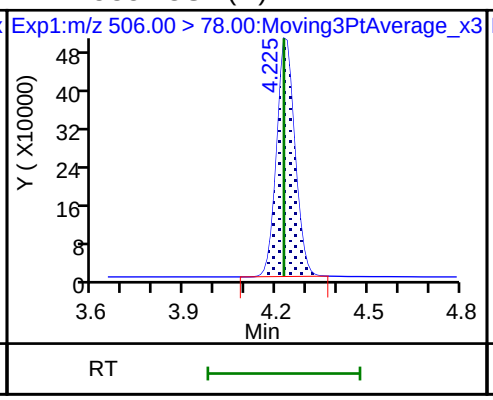

D 26 M2-8:2 FTS



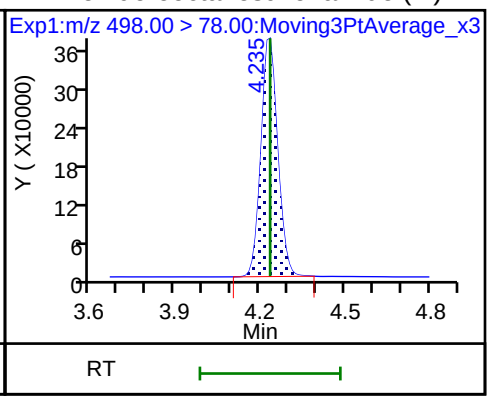

25 1H,1H,2H,2H-perfluorodecanesulfo



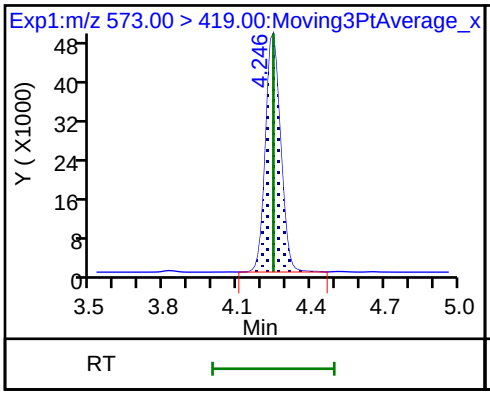

D 21 13C8 FOSA (M)



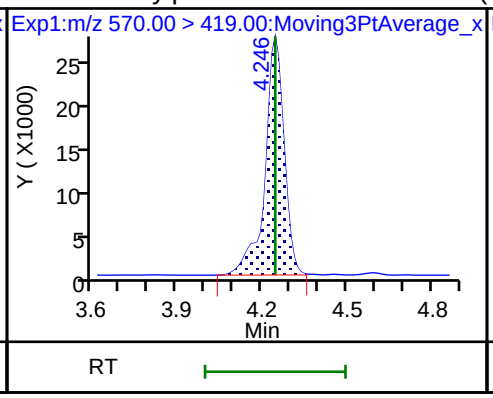

22 Perfluorooctanesulfonamide (M)



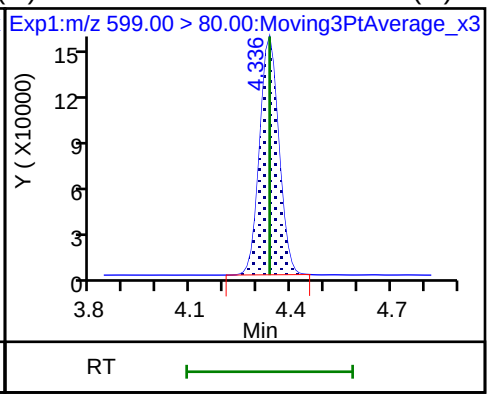
D 27 d3-NMeFOSAA



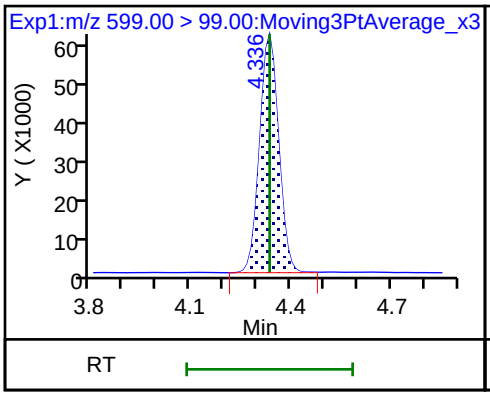

28 N-methylperfluorooctanesulfonami (M)



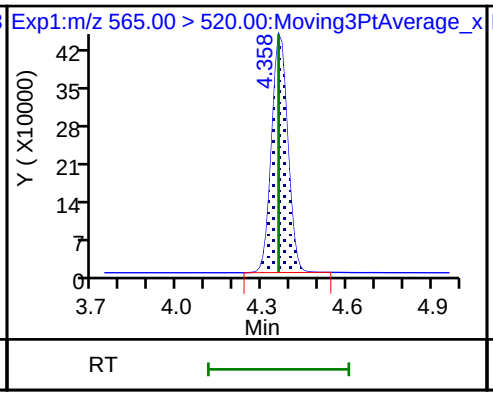

29 Perfluorodecanesulfonic acid (M)



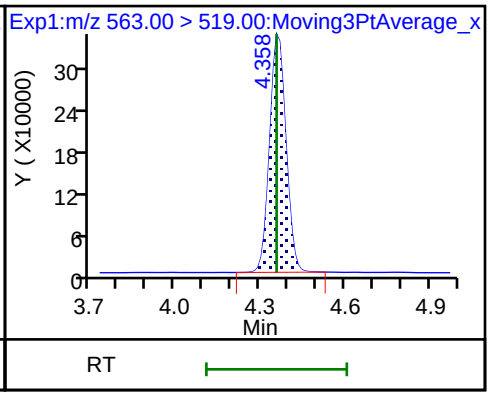

29 Perfluorodecanesulfonic acid



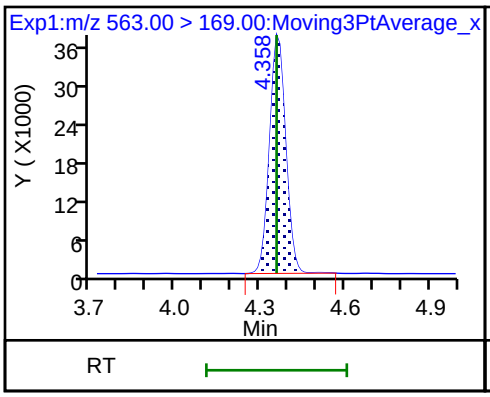

D 30 13C2 PFUnA



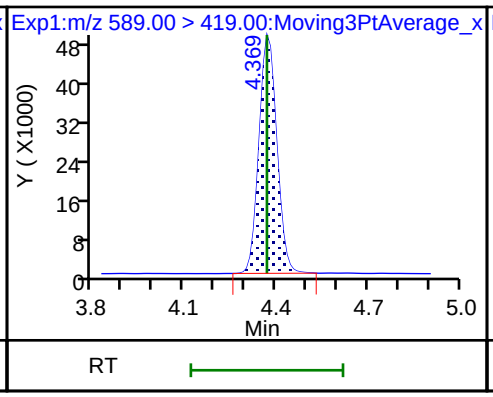

31 Perfluoroundecanoic acid



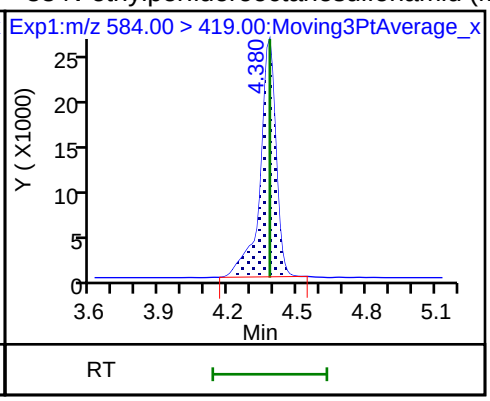

31 Perfluoroundecanoic acid



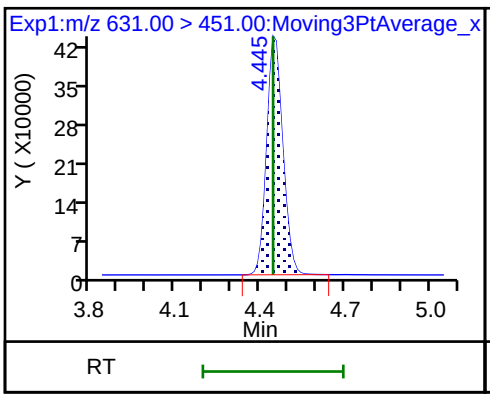

D 32 d5-NEtFOSAA



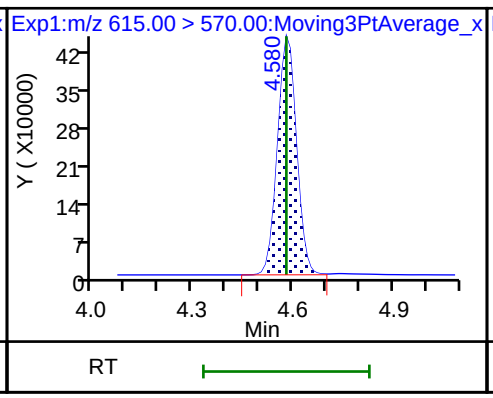

33 N-ethylperfluorooctanesulfonamid (M)



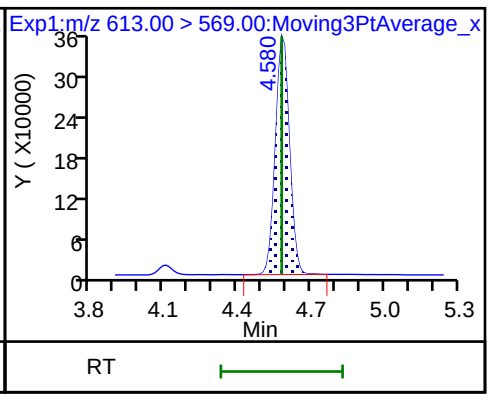

66 11-Chloroeicosafluoro-3-oxaundec



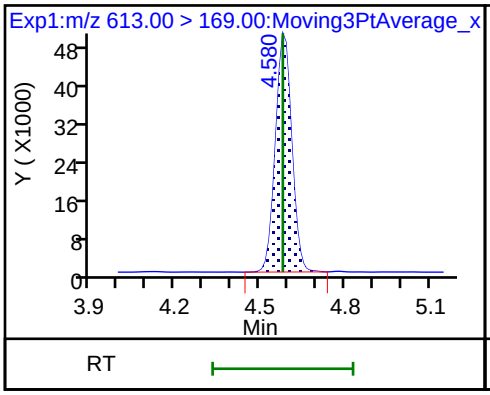

D 36 13C2 PFDoA



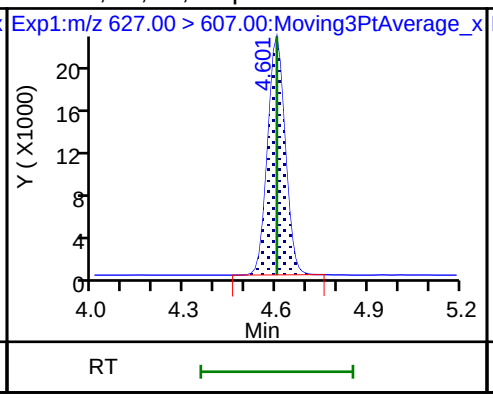

37 Perfluorododecanoic acid



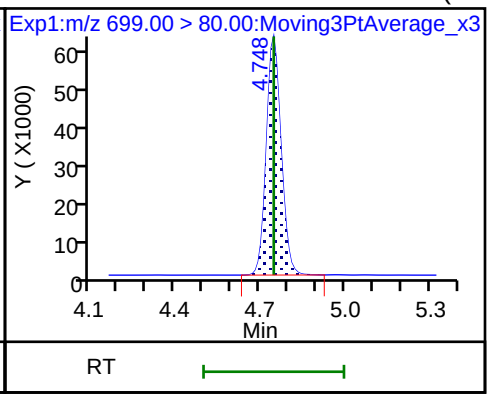
37 Perfluorododecanoic acid



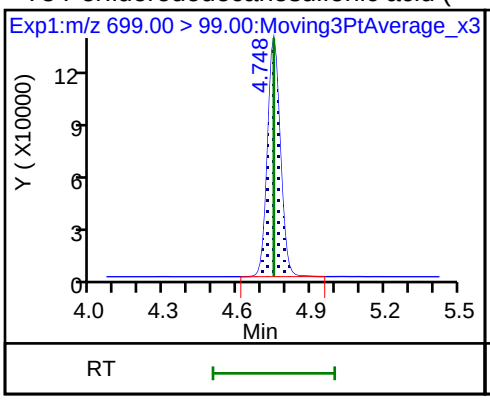

74 1H,1H,2H,2H-perfluorododecanesul



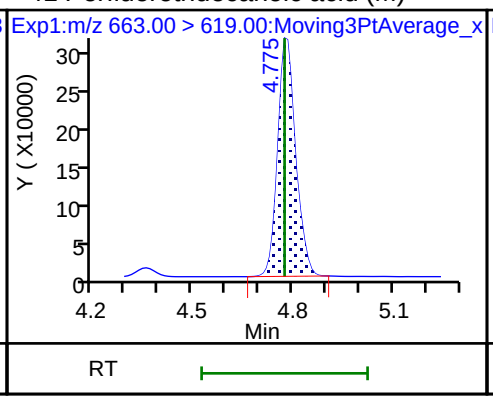

75 Perfluorododecanesulfonic acid (



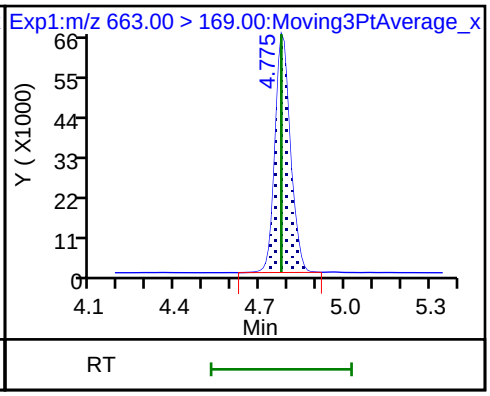

75 Perfluorododecanesulfonic acid (



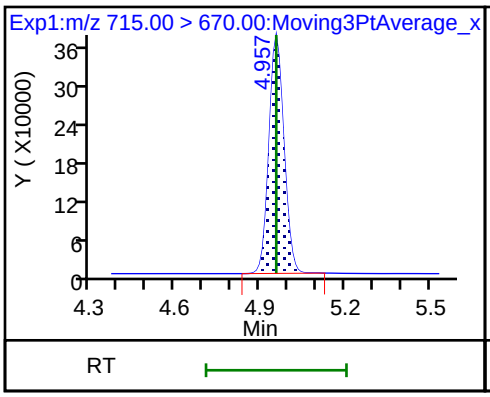

41 Perfluorotridecanoic acid (M)



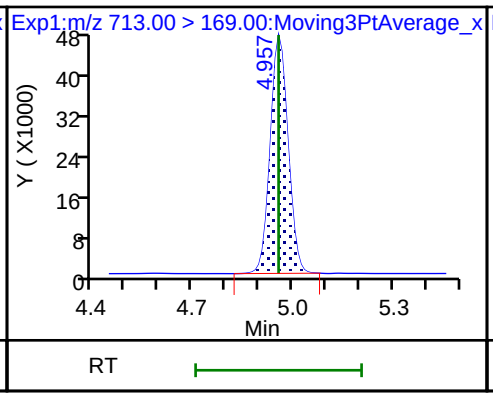

41 Perfluorotridecanoic acid



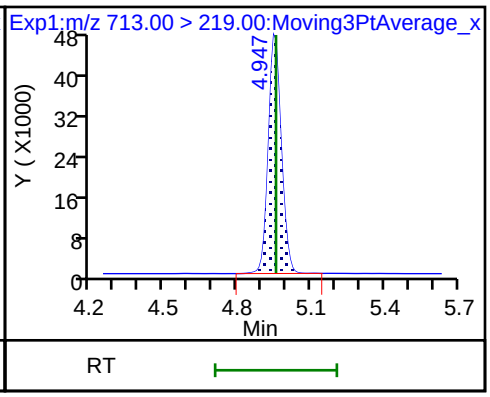

D 43 13C2 PFTeDA



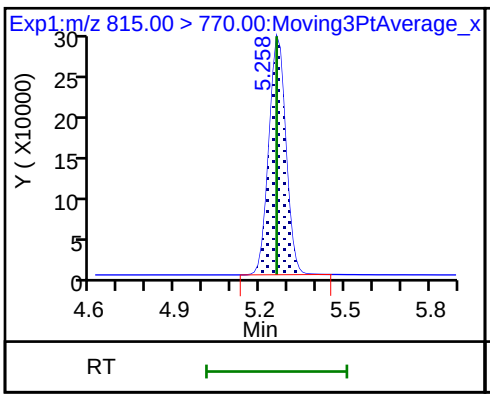

42 Perfluorotetradecanoic acid



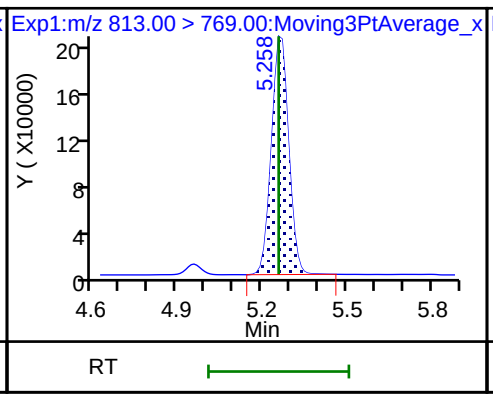

42 Perfluorotetradecanoic acid



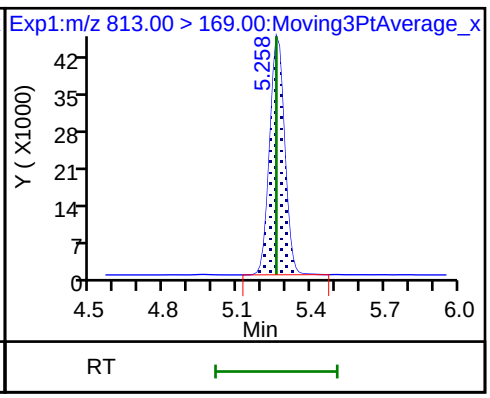

D 44 13C2 PFHxDA



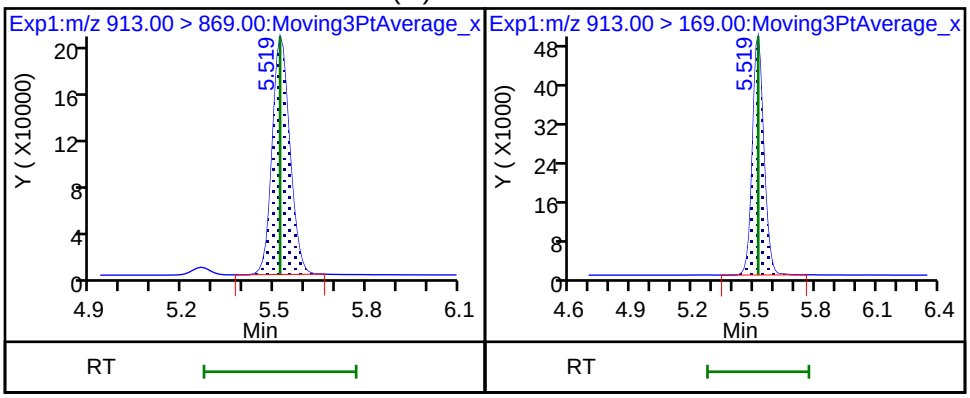

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

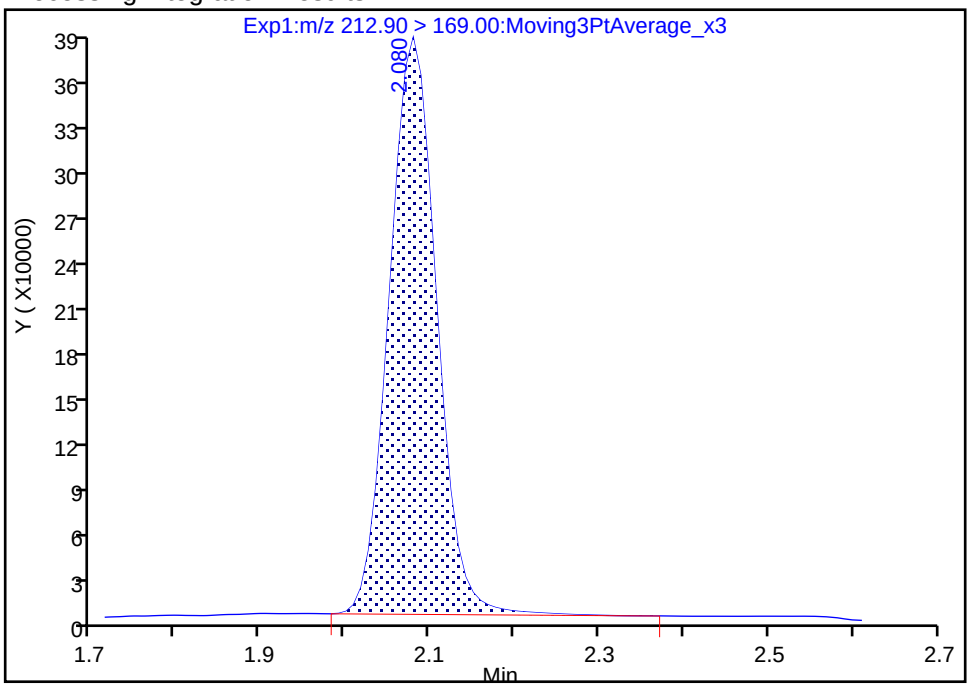
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

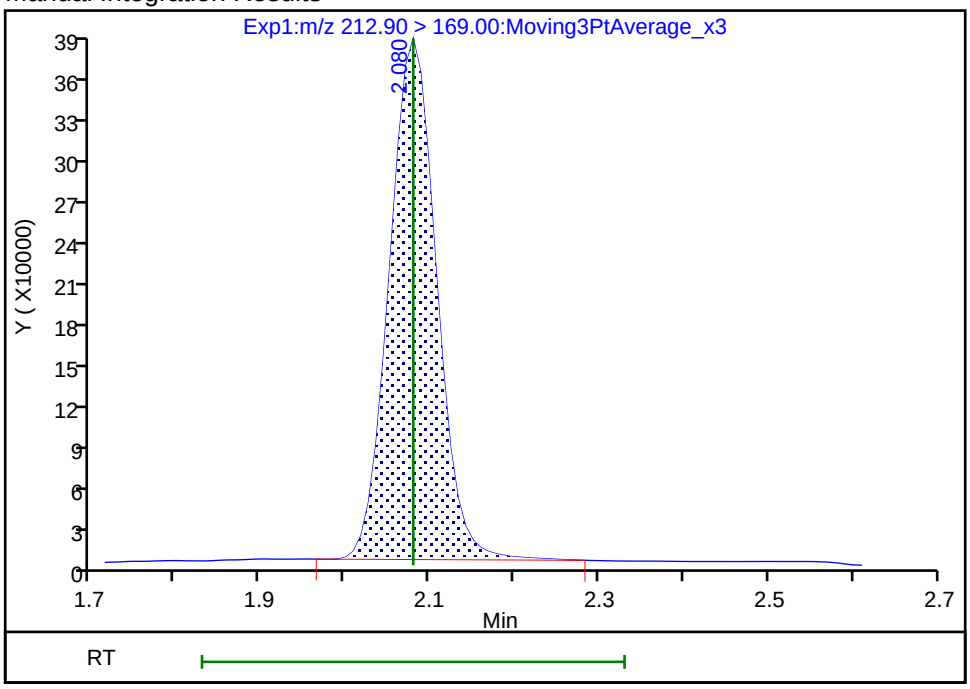
Processing Integration Results

RT: 2.08
Area: 1475193
Amount: 0.946105
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 1470004
Amount: 0.980417
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

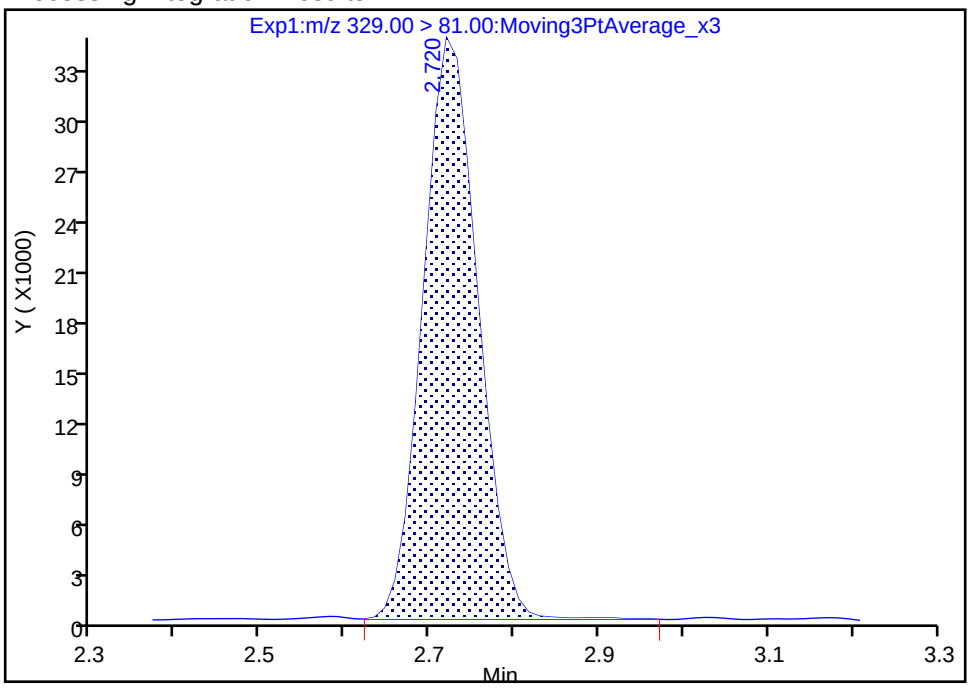
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

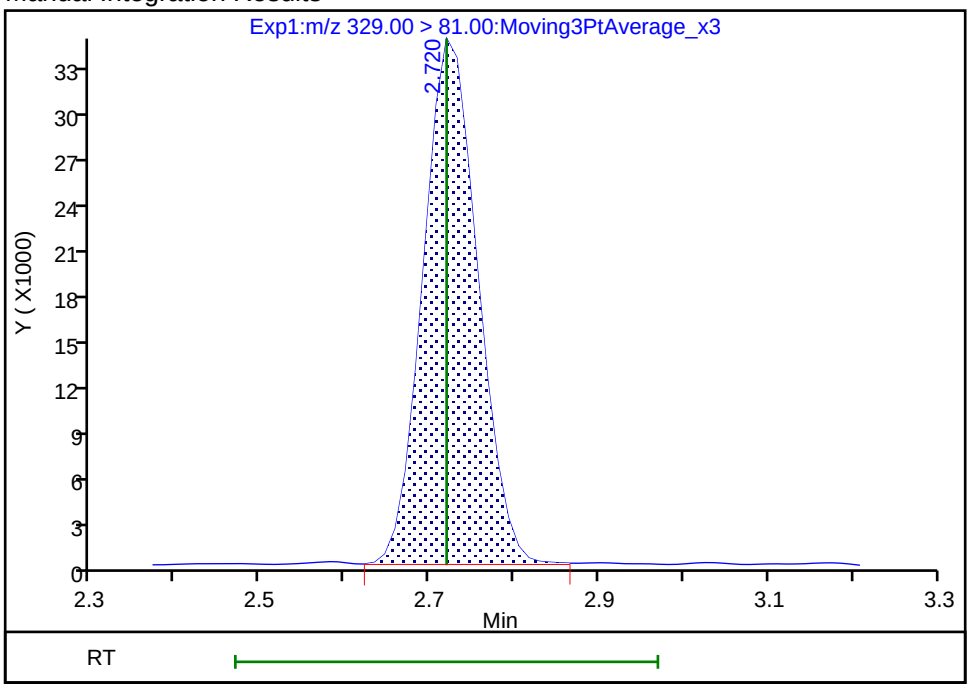
Processing Integration Results

RT: 2.72
Area: 156439
Amount: 1.077637
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 155977
Amount: 1.066579
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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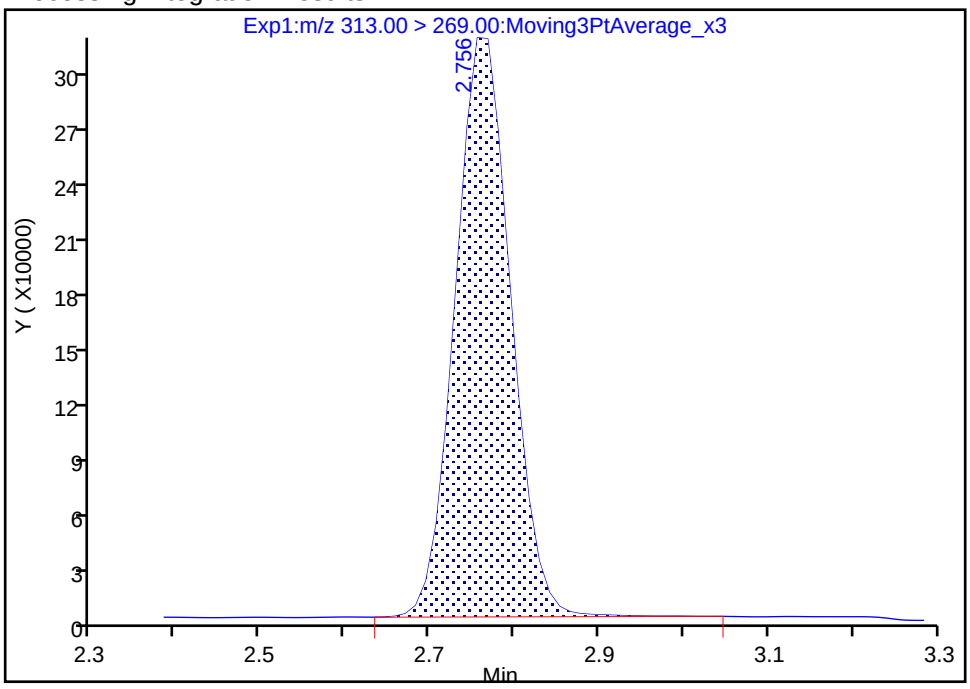
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

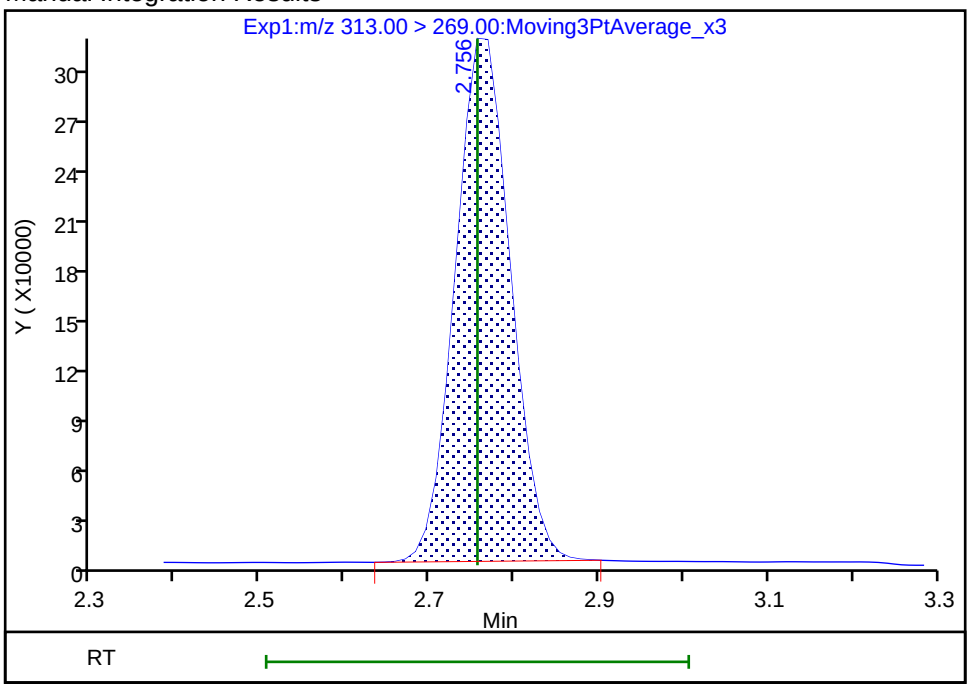
Processing Integration Results

RT: 2.76
Area: 1438735
Amount: 0.920032
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 1428398
Amount: 0.947600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

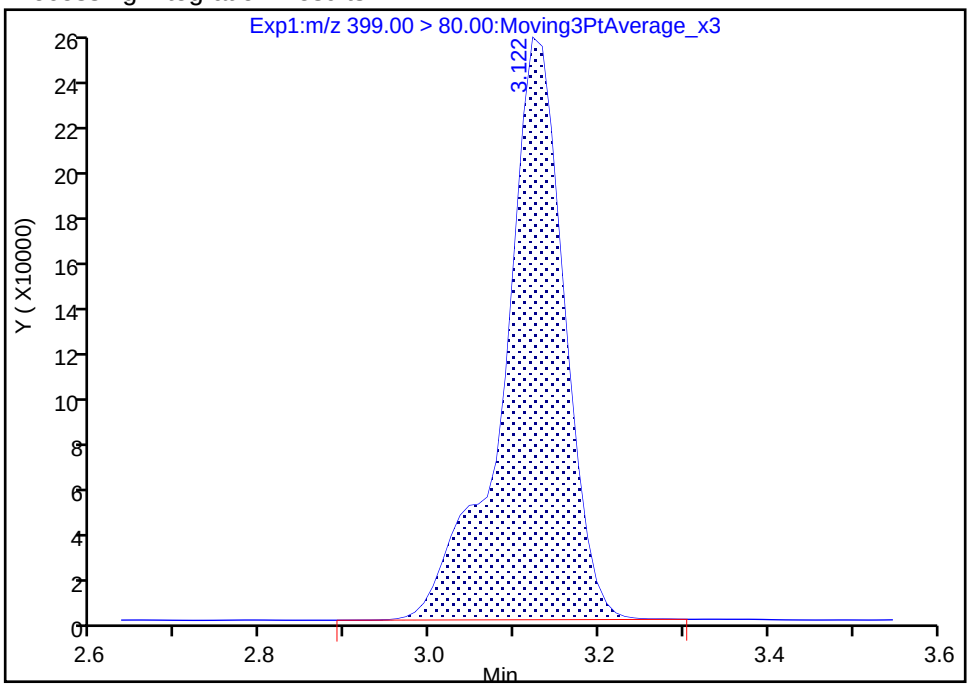
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

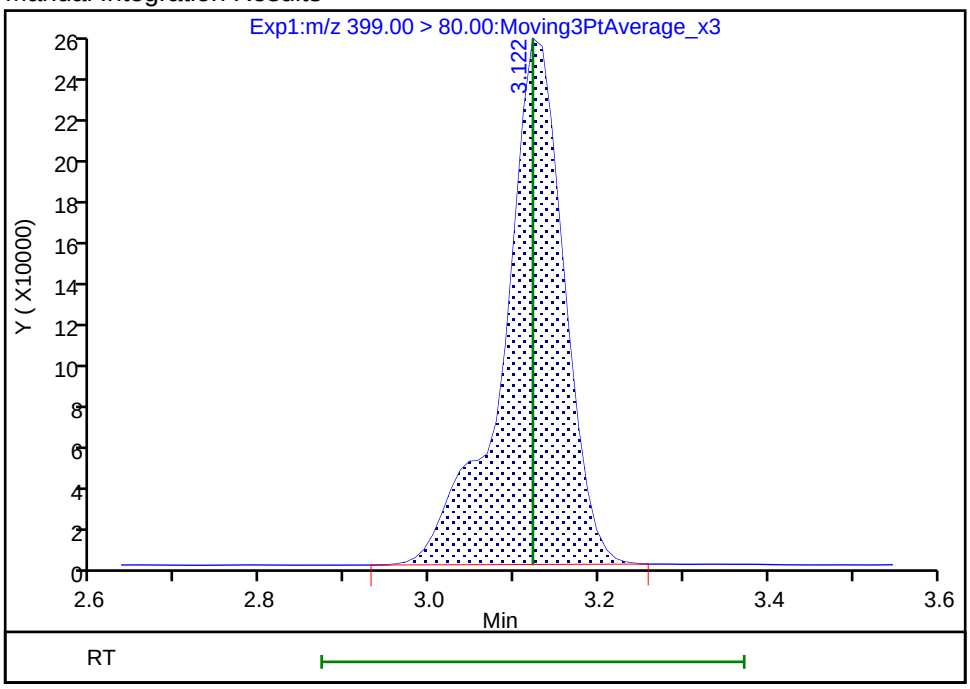
Processing Integration Results

RT: 3.12
Area: 1289432
Amount: 0.815424
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 1287587
Amount: 0.844554
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

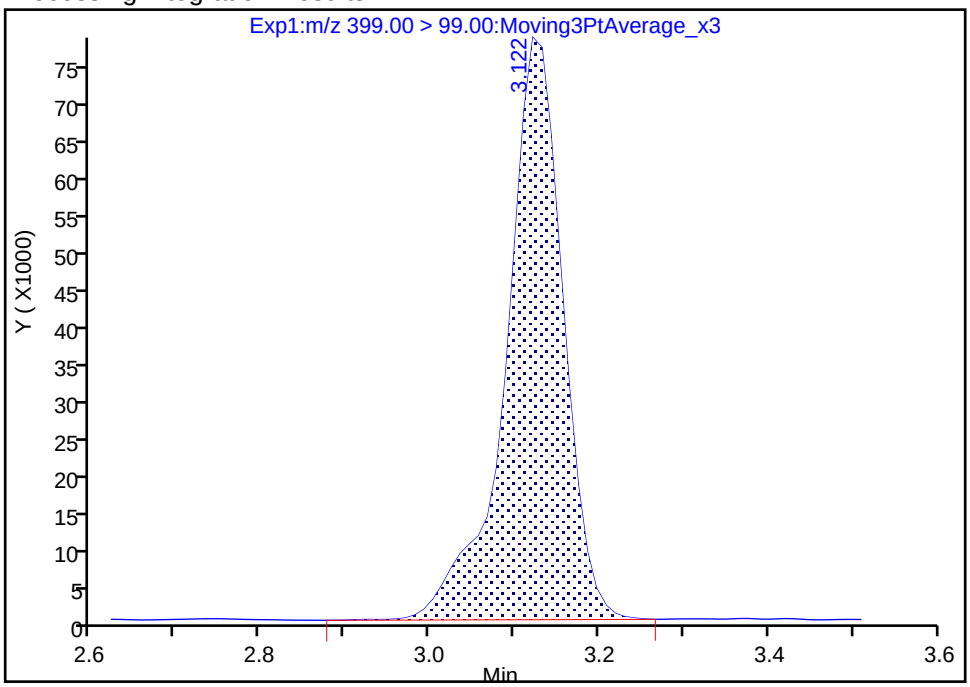
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

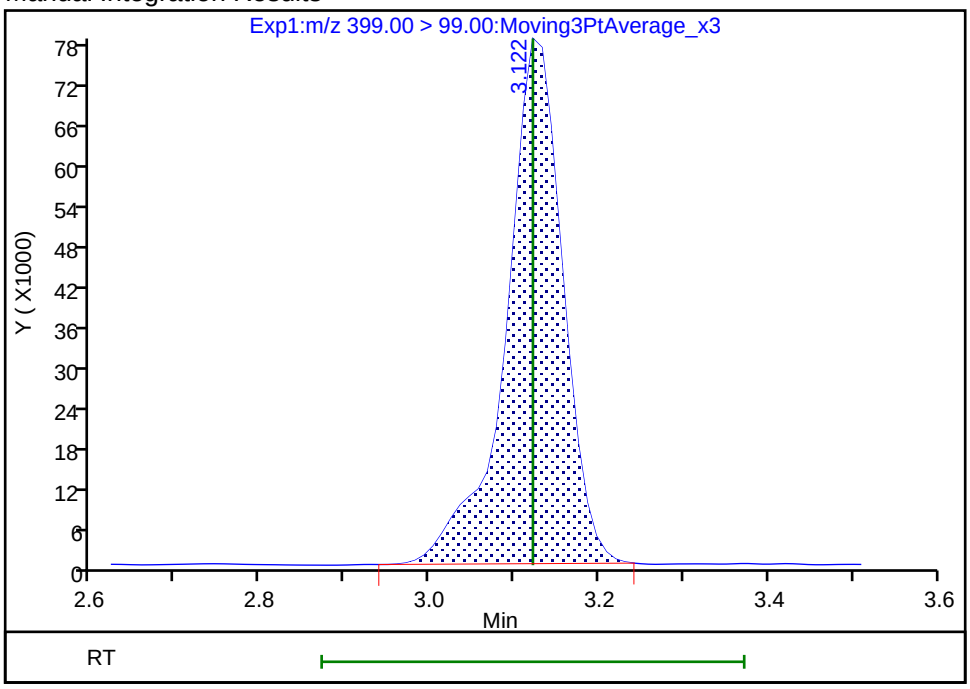
Processing Integration Results

RT: 3.12
Area: 365514
Amount: 0.815424
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 362786
Amount: 0.844554
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

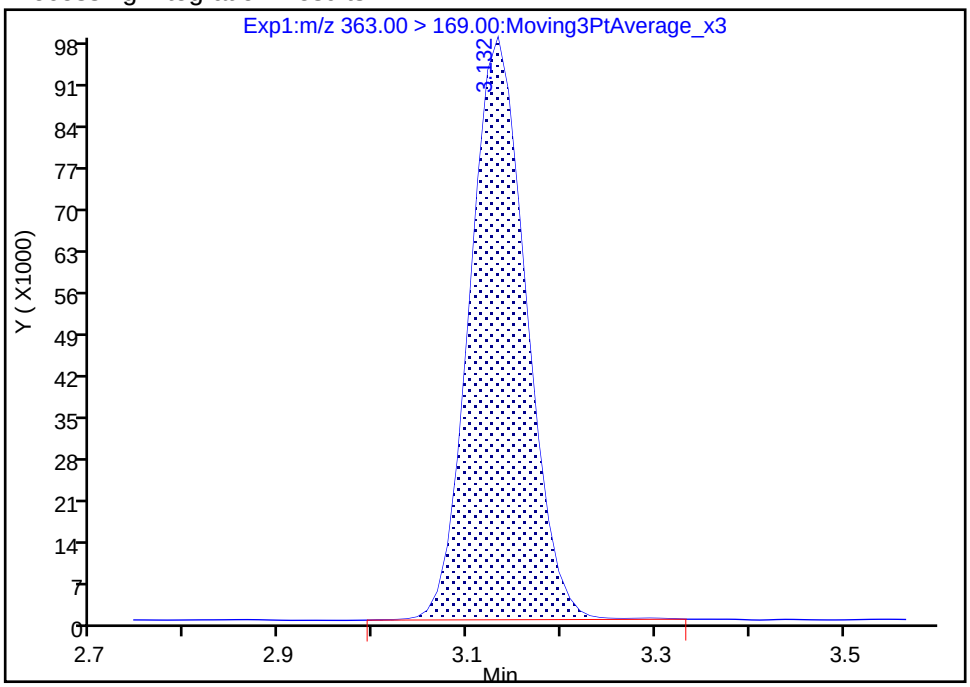
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

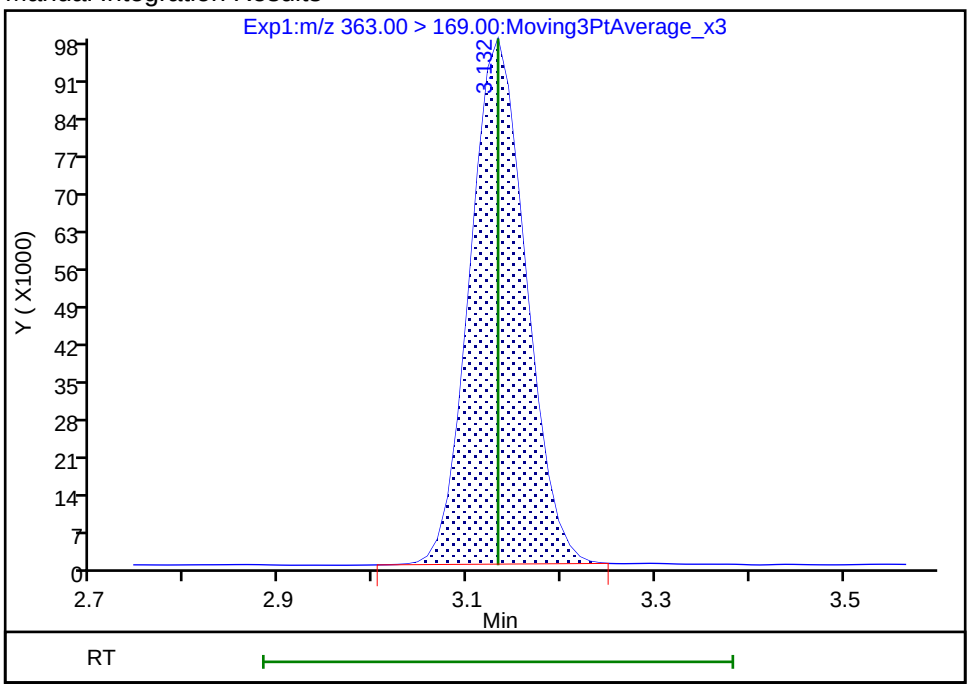
Processing Integration Results

RT: 3.13
Area: 410006
Amount: 0.912580
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 407853
Amount: 0.947265
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

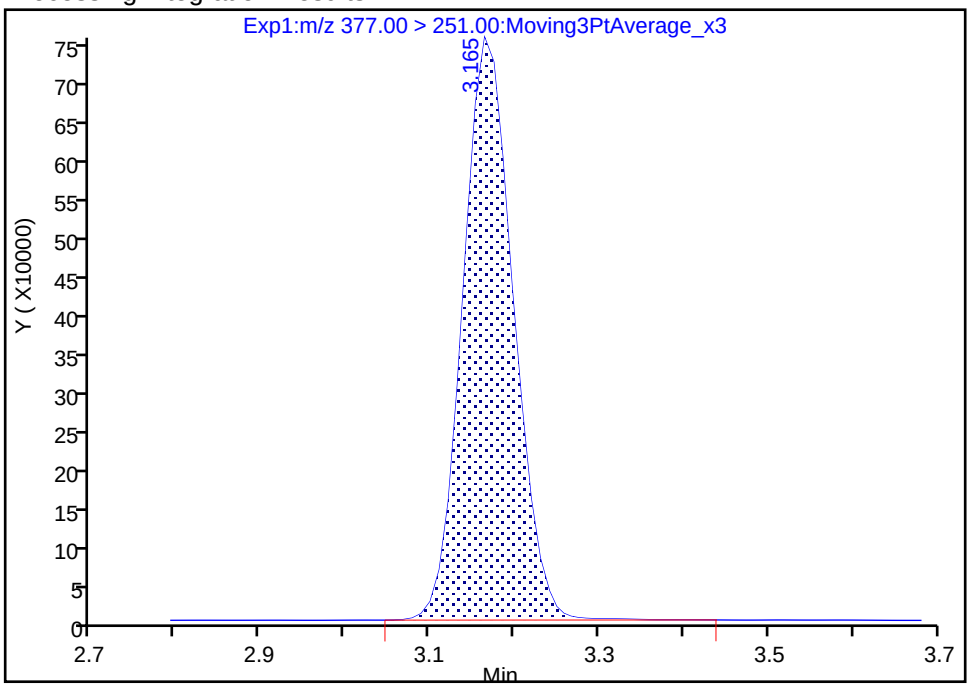
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

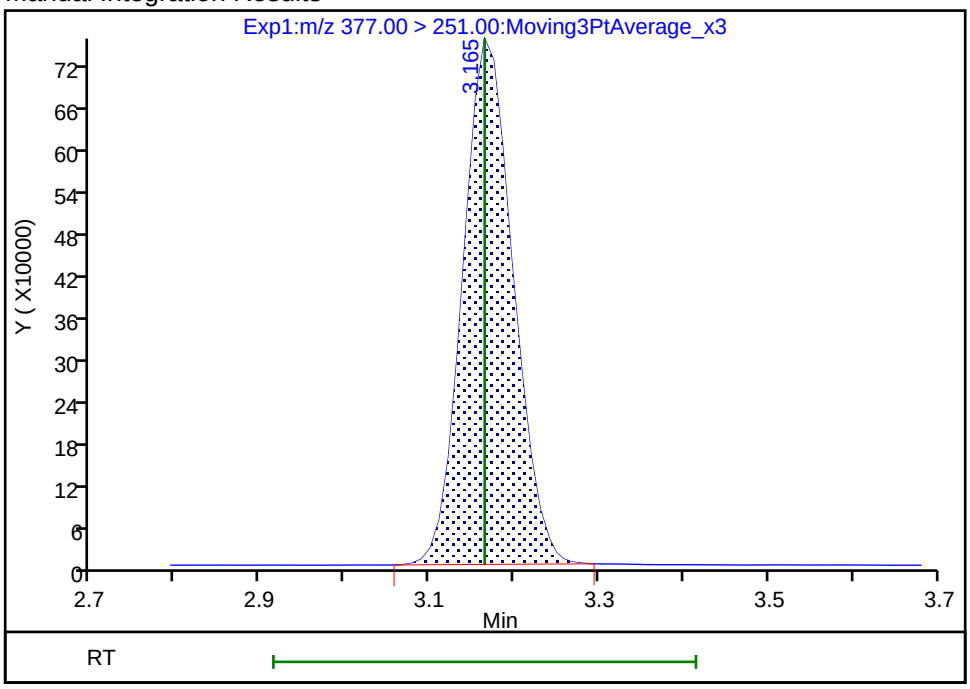
Processing Integration Results

RT: 3.16
Area: 3132618
Amount: 0.850610
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 3115107
Amount: 0.878748
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

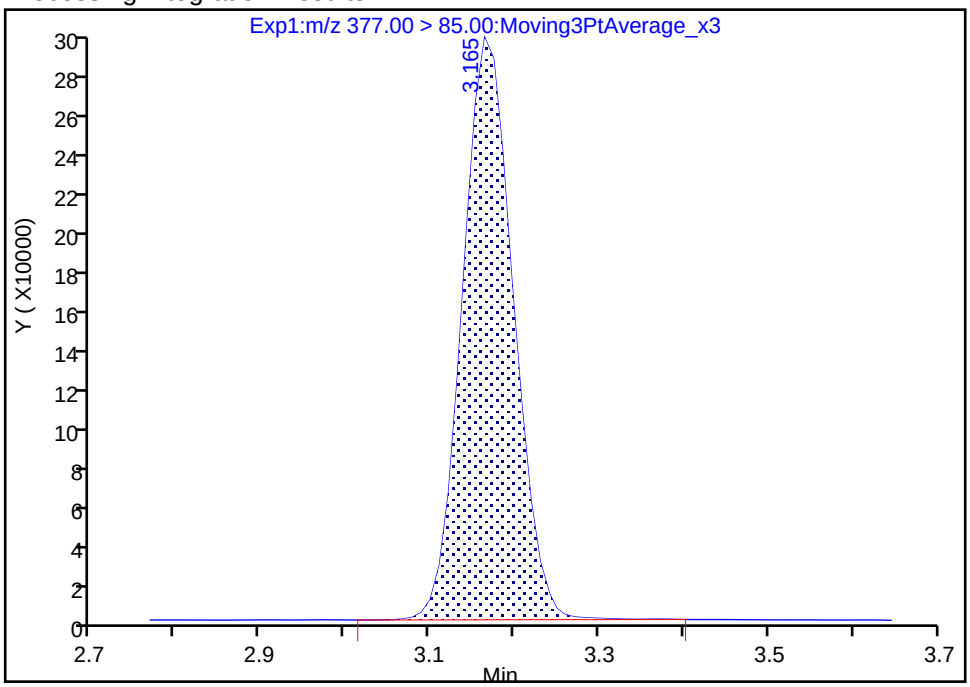
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

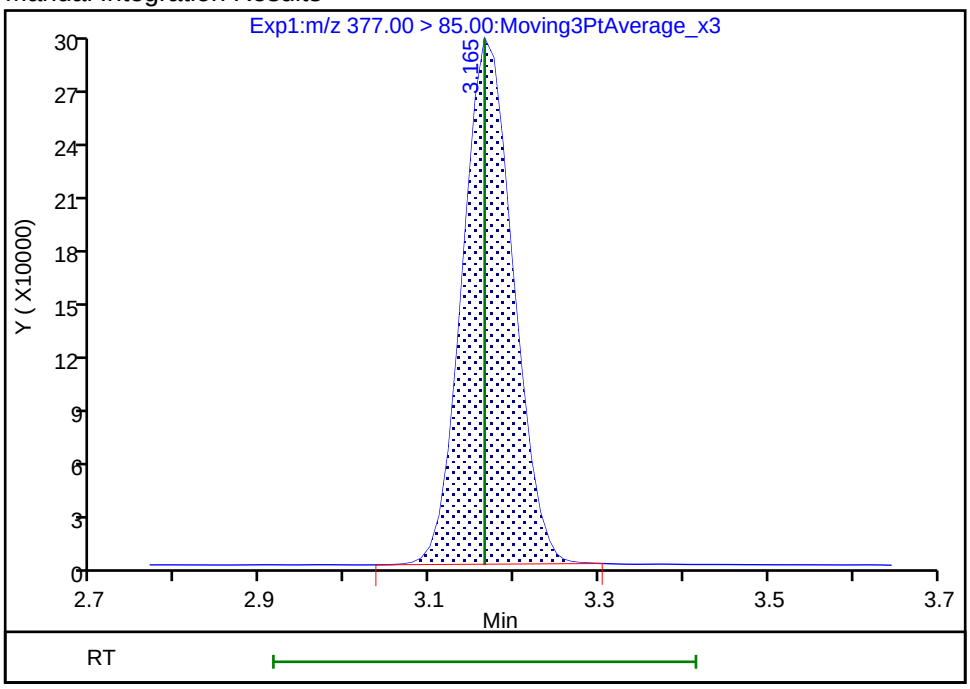
Processing Integration Results

RT: 3.16
Area: 1223001
Amount: 0.850610
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 1216733
Amount: 0.878748
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

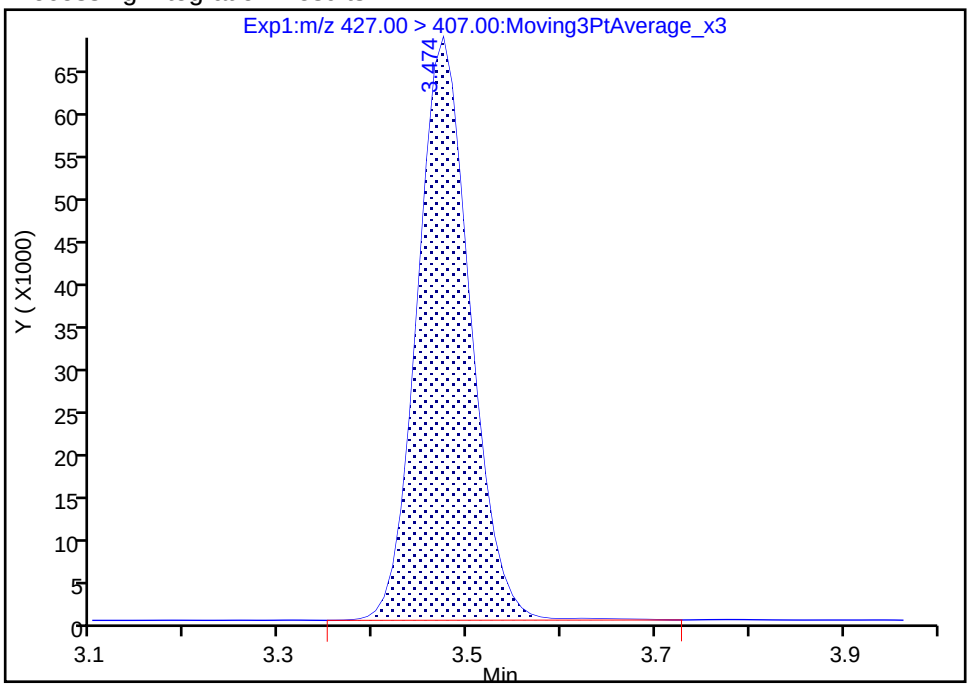
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

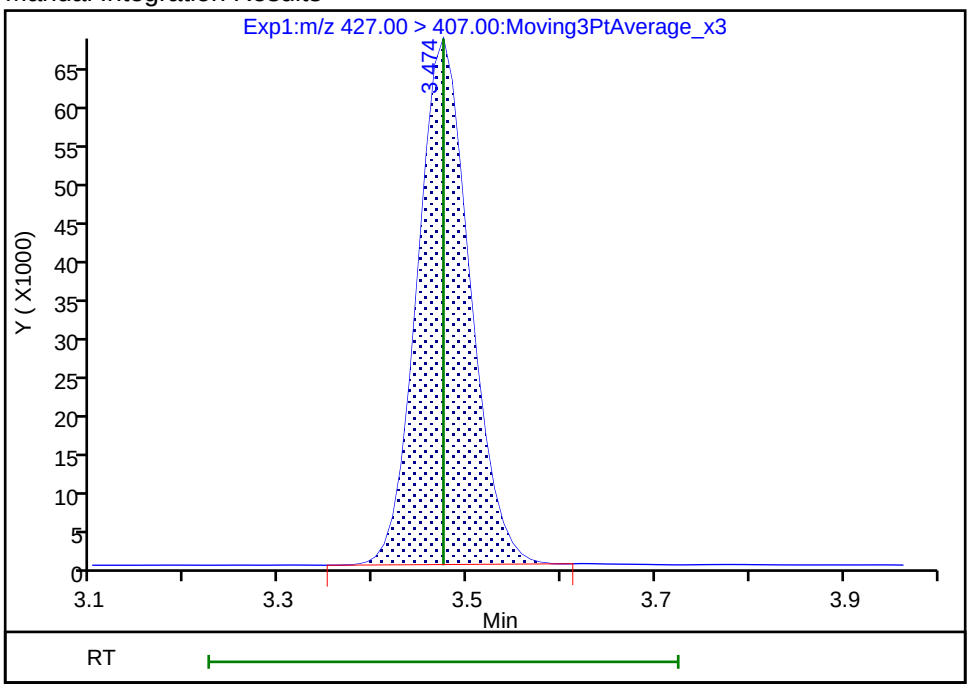
Processing Integration Results

RT: 3.47
Area: 267109
Amount: 0.928182
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 265198
Amount: 0.938087
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

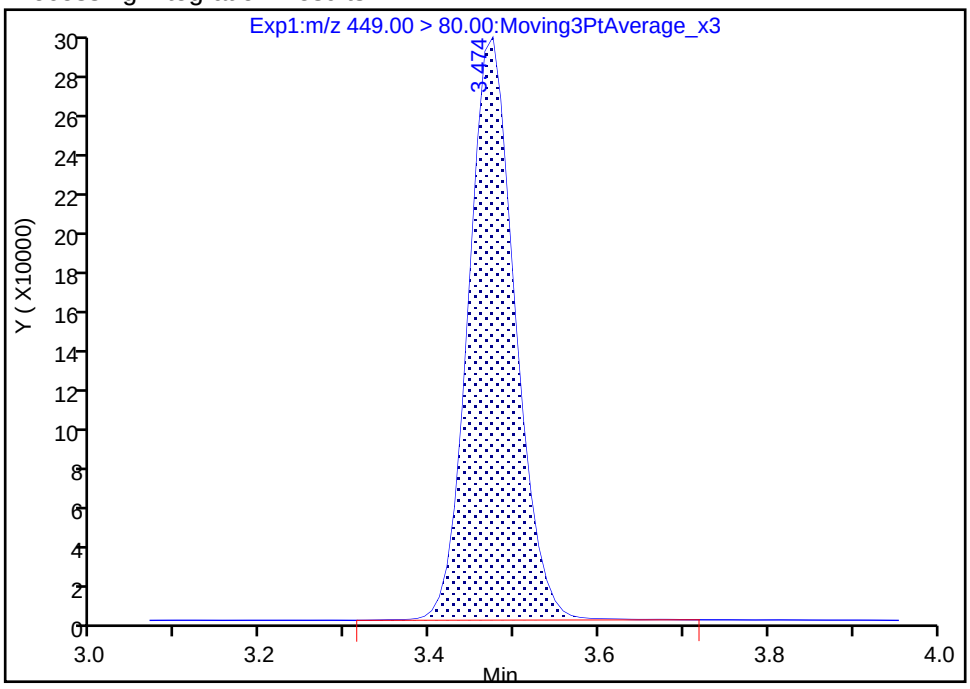
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

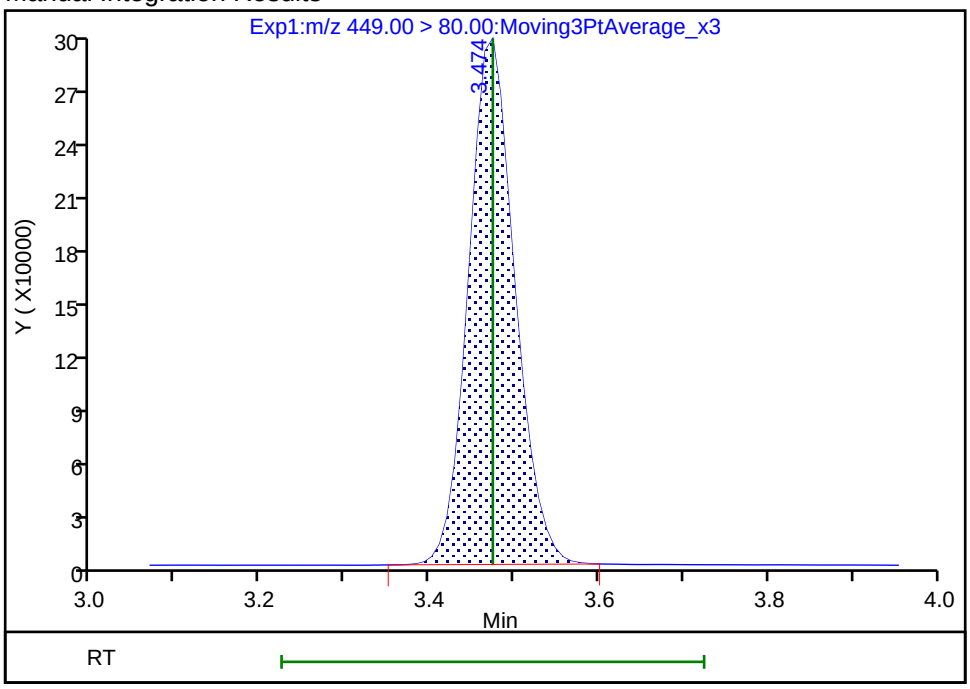
Processing Integration Results

RT: 3.47
Area: 1119691
Amount: 0.858631
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1113260
Amount: 0.881692
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

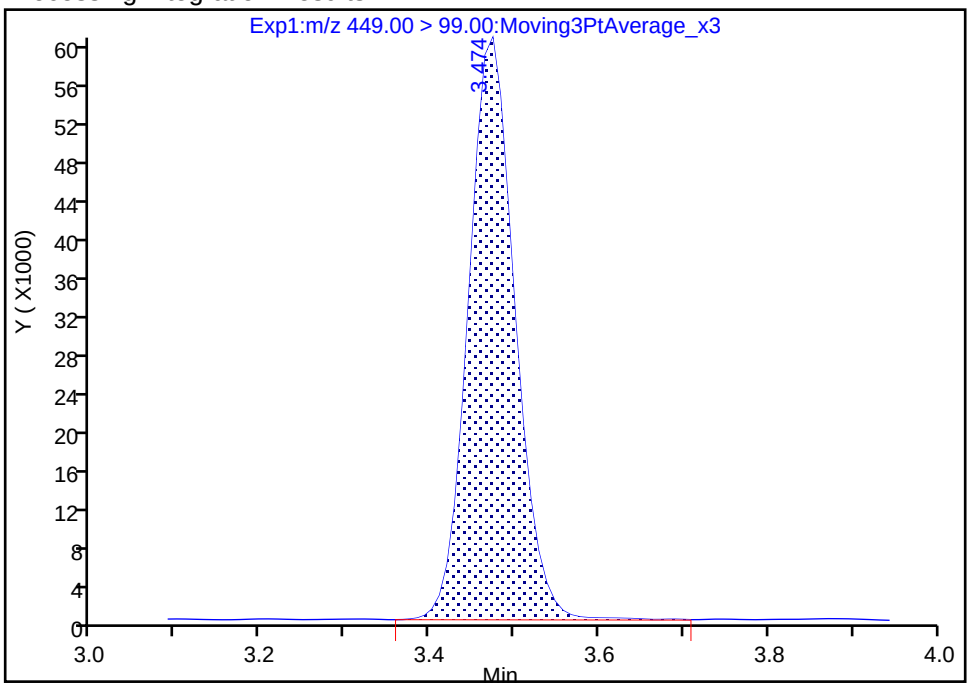
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

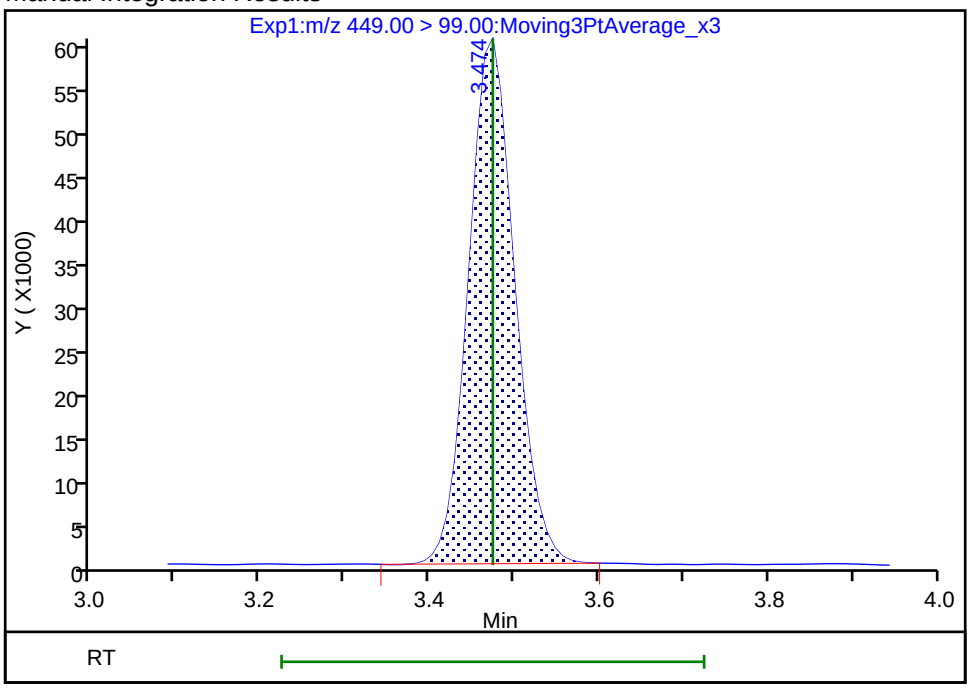
Processing Integration Results

RT: 3.47
Area: 230764
Amount: 0.858631
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 228238
Amount: 0.881692
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

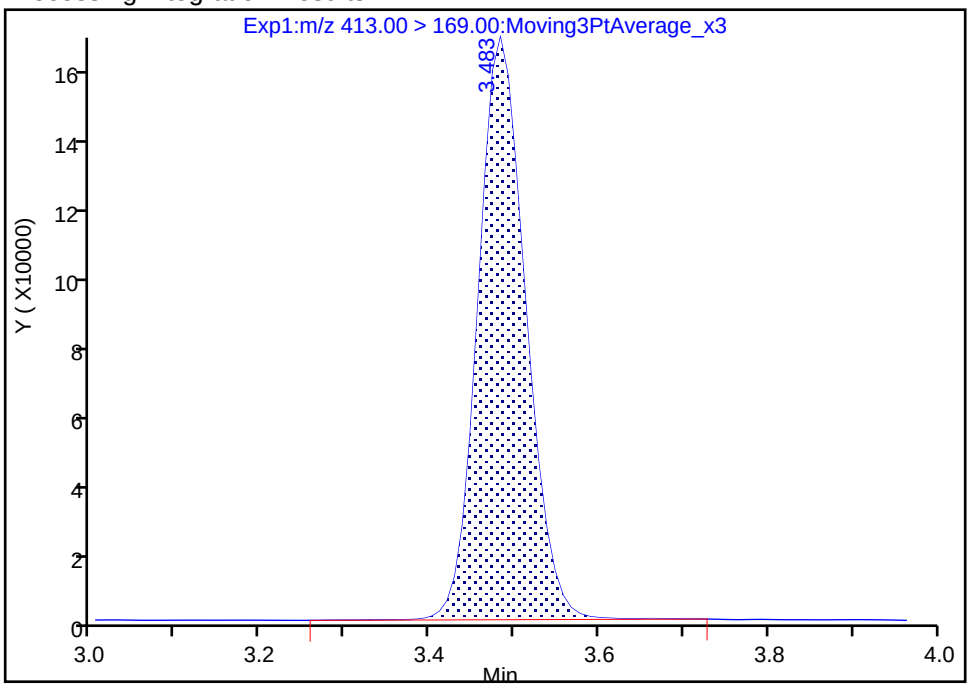
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

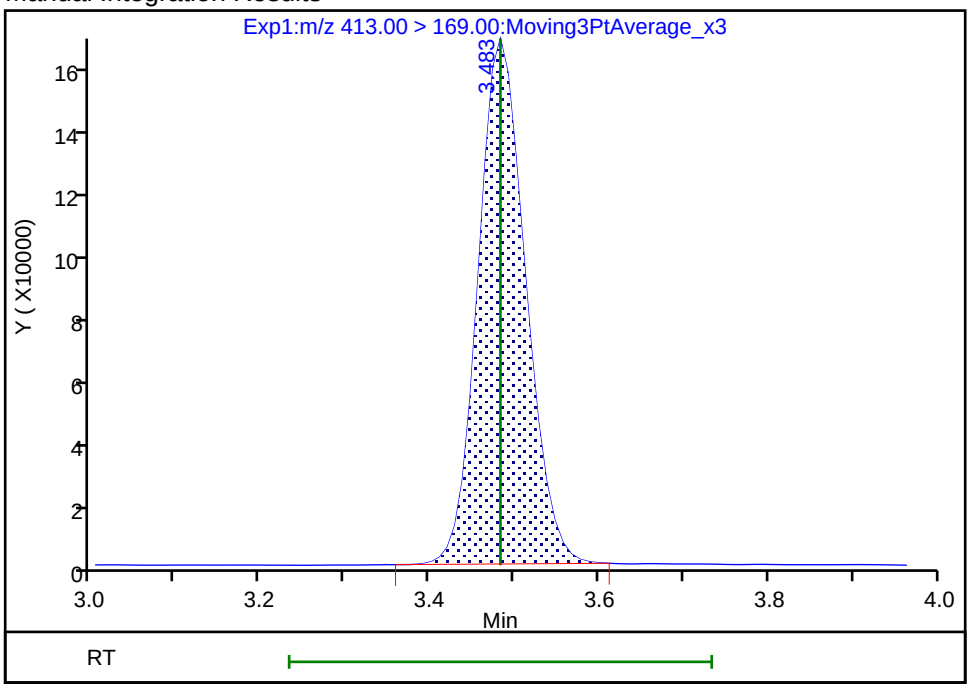
Processing Integration Results

RT: 3.48
Area: 646357
Amount: 0.910742
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 641965
Amount: 0.949454
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

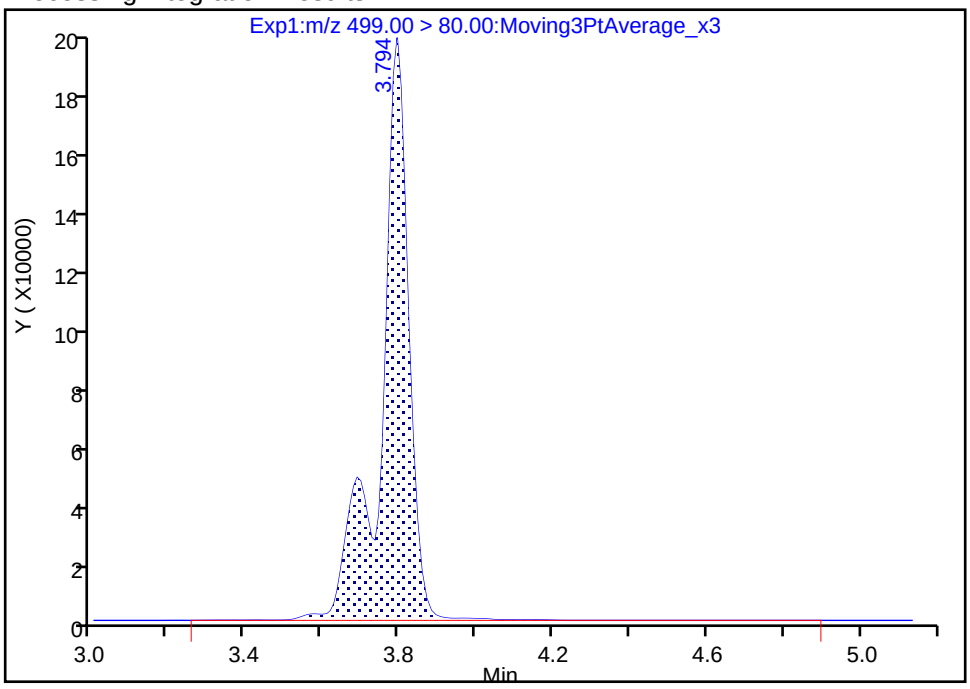
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

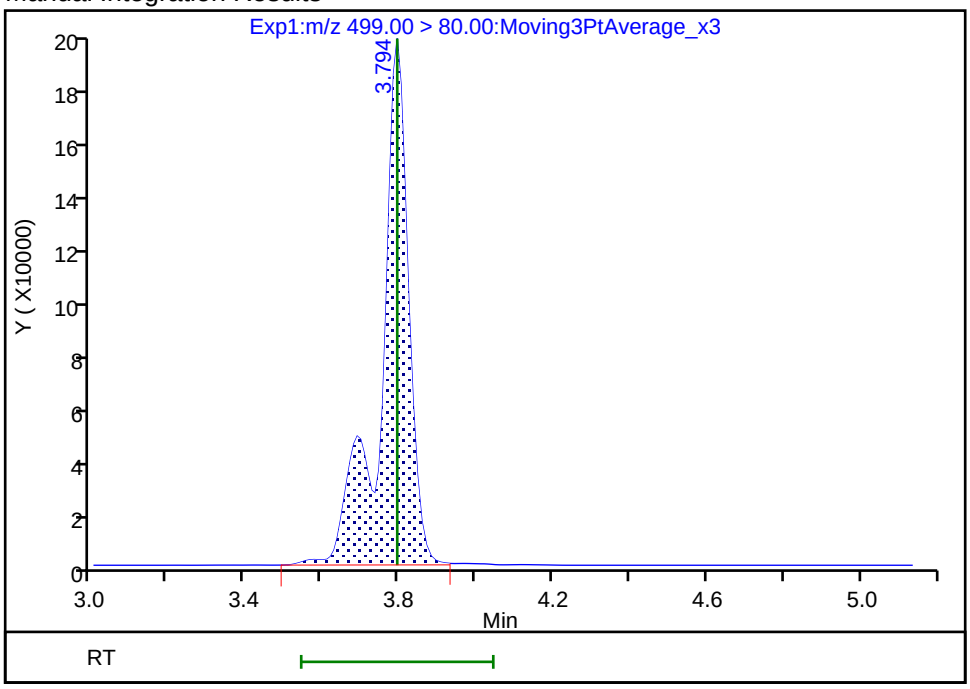
Processing Integration Results

RT: 3.79
Area: 972989
Amount: 0.849150
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 964211
Amount: 0.877354
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

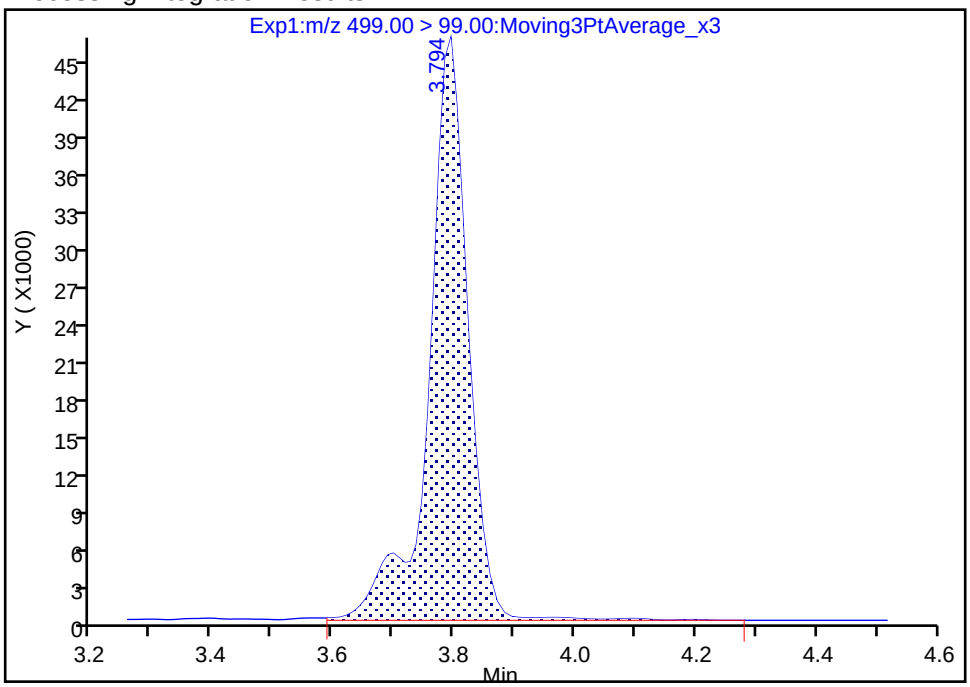
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

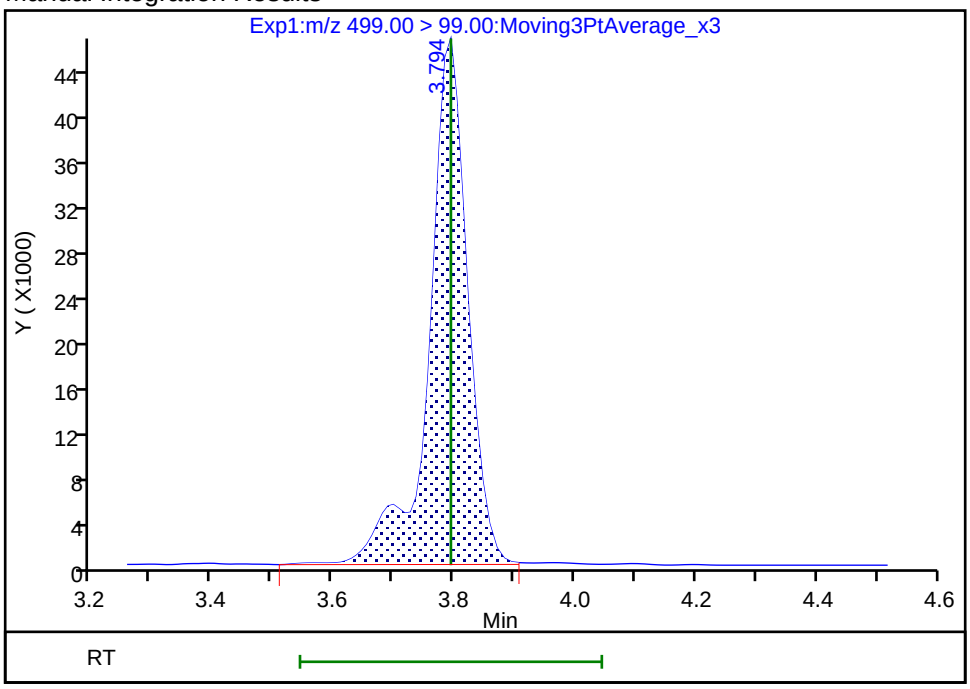
Processing Integration Results

RT: 3.79
Area: 208422
Amount: 0.849150
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 205583
Amount: 0.877354
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

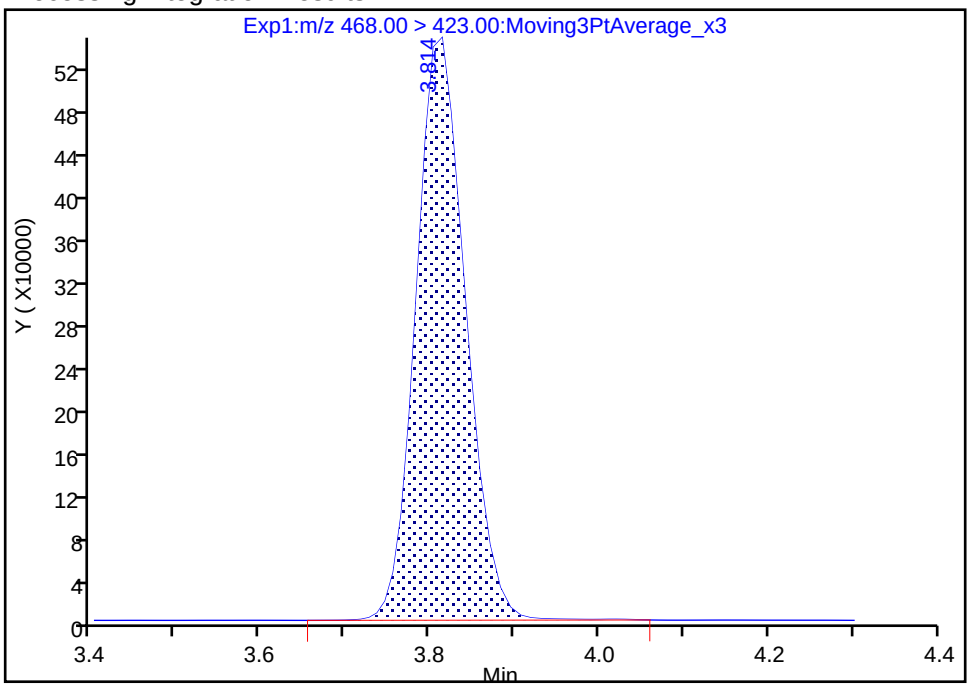
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

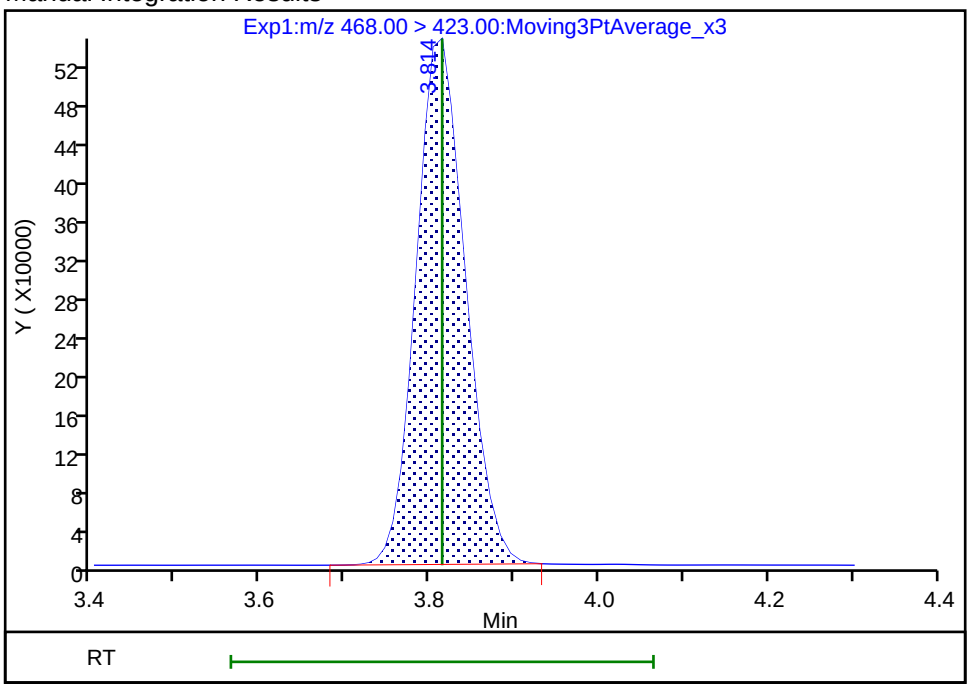
Processing Integration Results

RT: 3.81
Area: 2205481
Amount: 1.299410
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 2190750
Amount: 1.285314
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

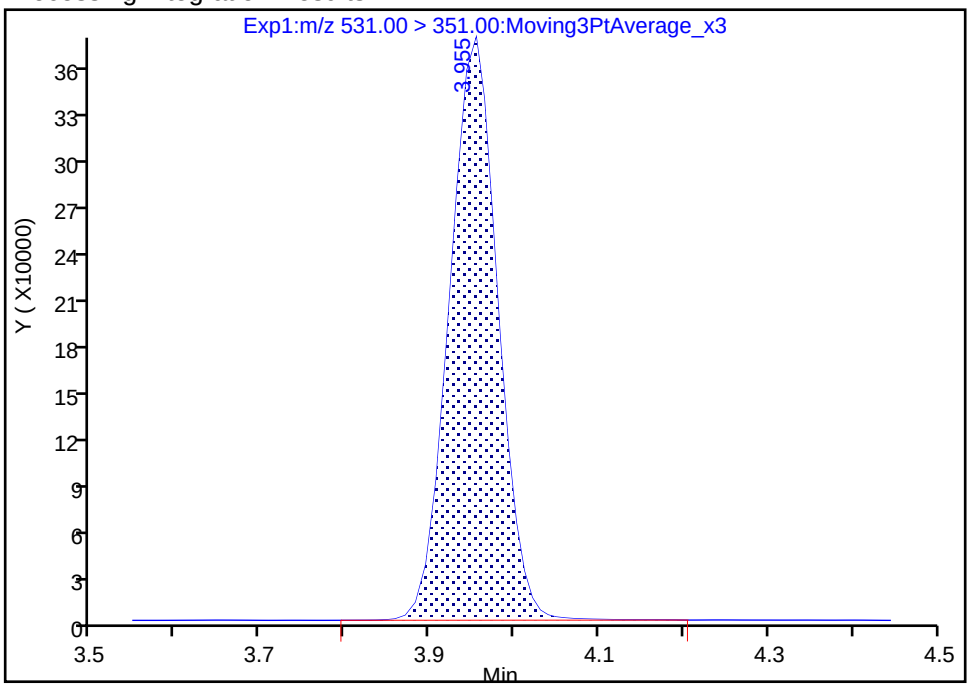
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

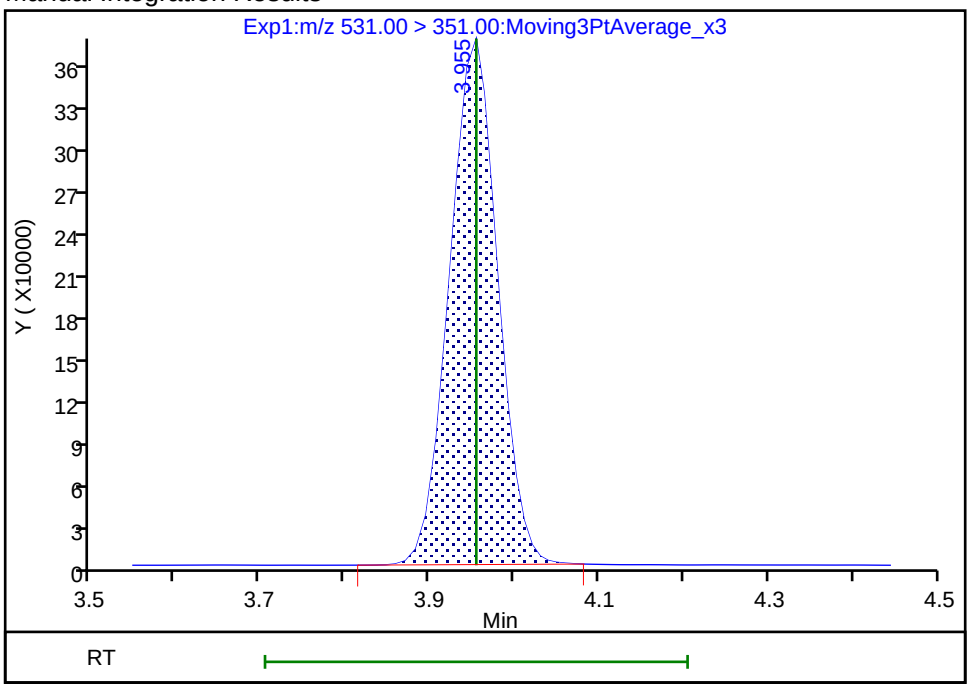
Processing Integration Results

RT: 3.95
Area: 1505461
Amount: 0.880400
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 1497666
Amount: 0.904563
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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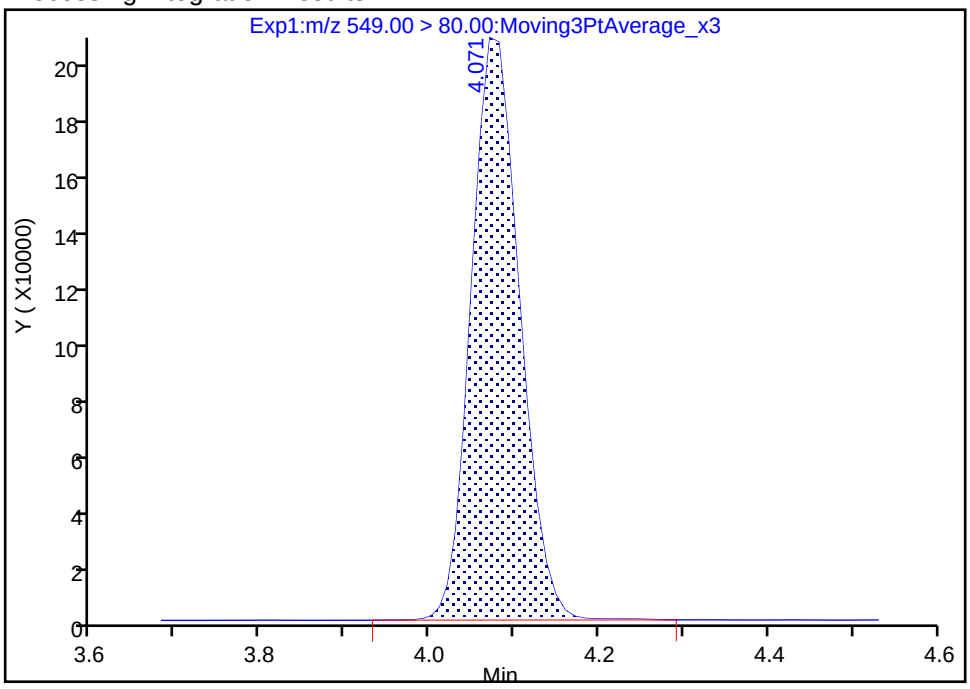
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

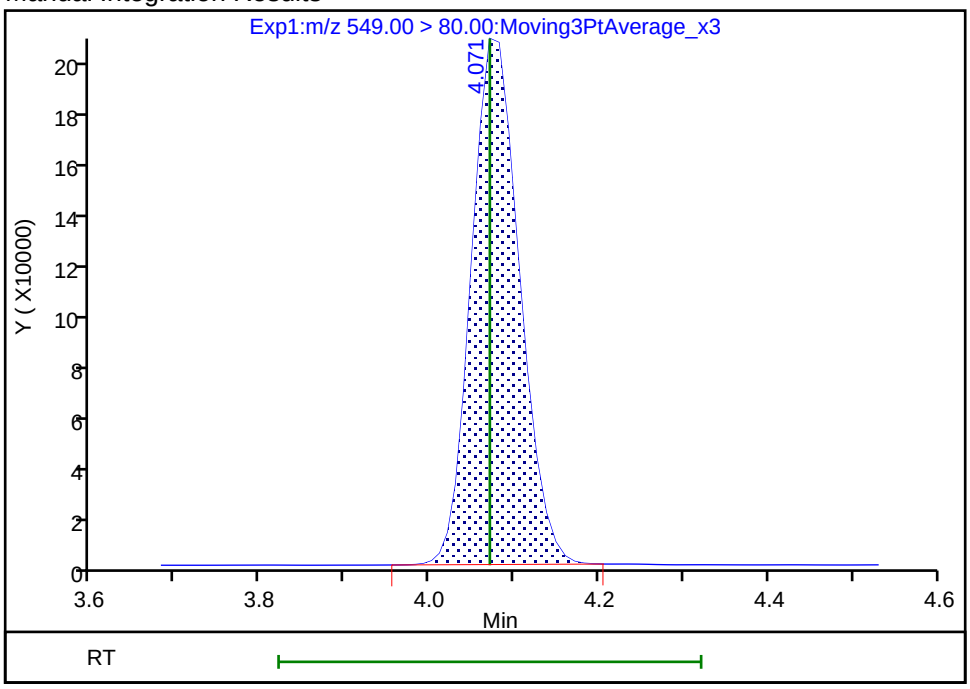
Processing Integration Results

RT: 4.07
Area: 796003
Amount: 0.905662
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 792308
Amount: 0.925518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

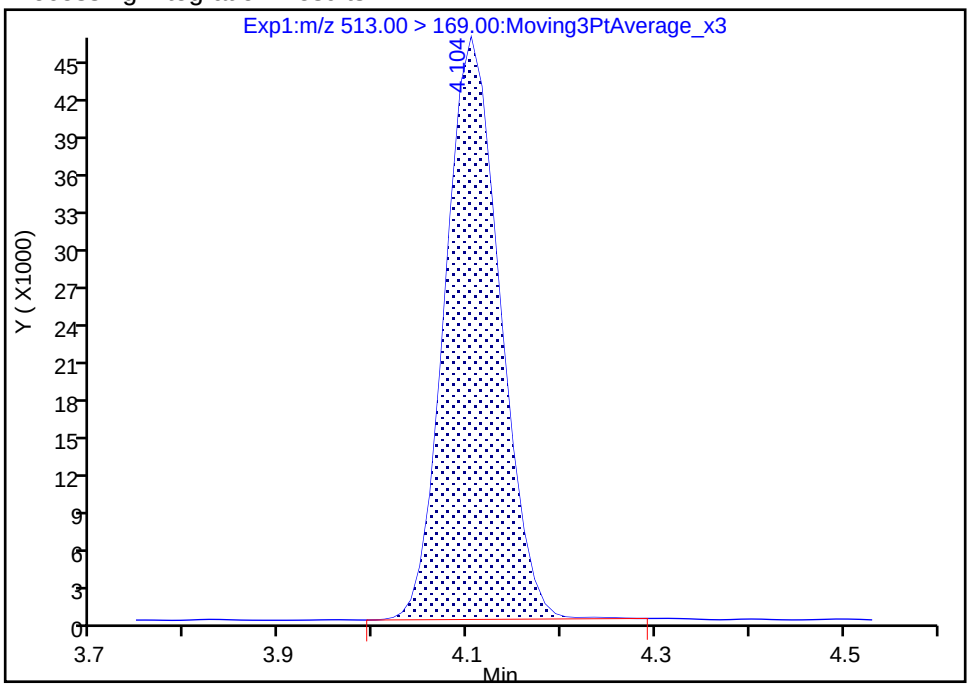
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

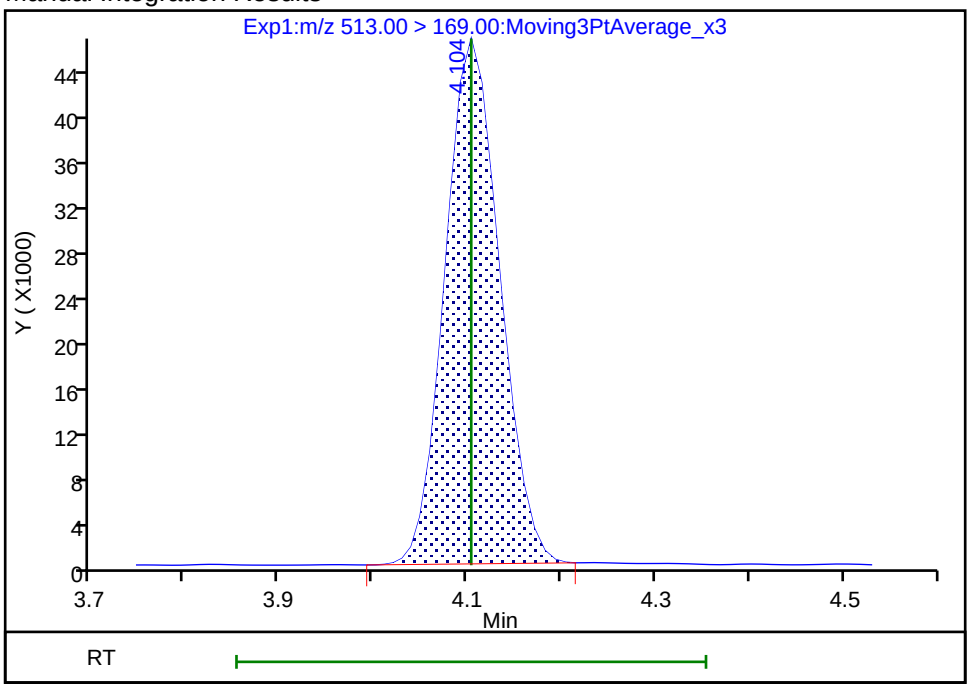
Processing Integration Results

RT: 4.10
Area: 187824
Amount: 0.950310
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 186937
Amount: 0.991812
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

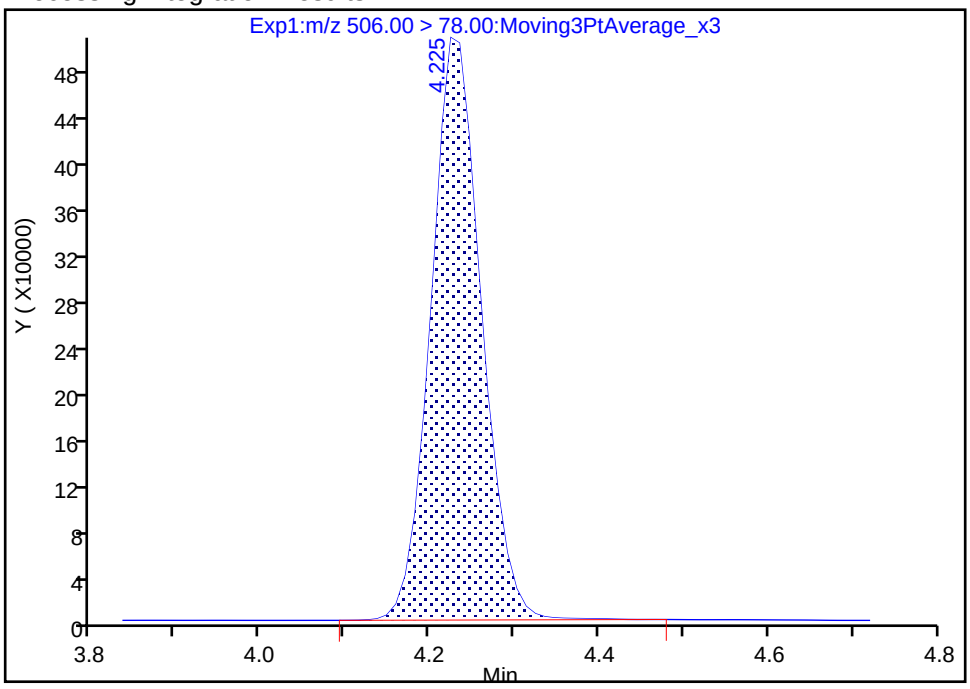
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

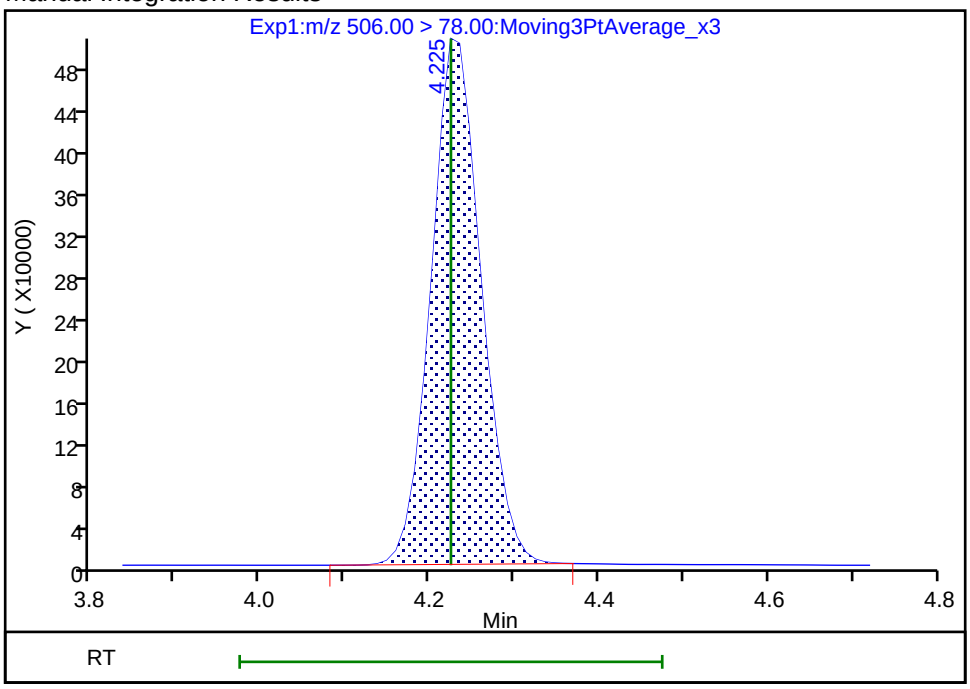
Processing Integration Results

RT: 4.22
Area: 2074361
Amount: 1.254076
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 2062074
Amount: 1.242840
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

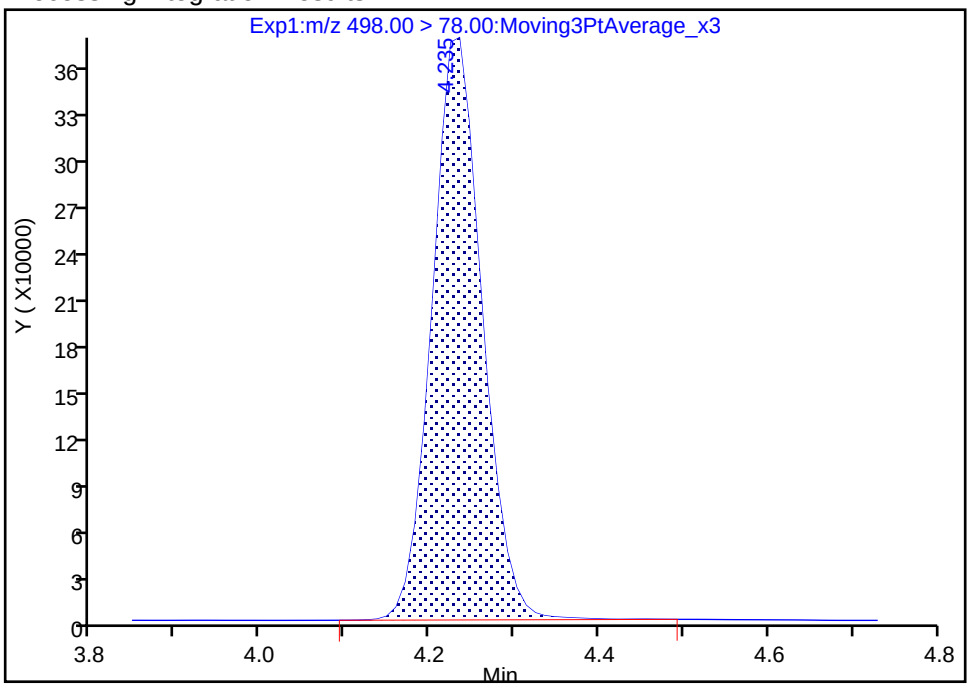
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

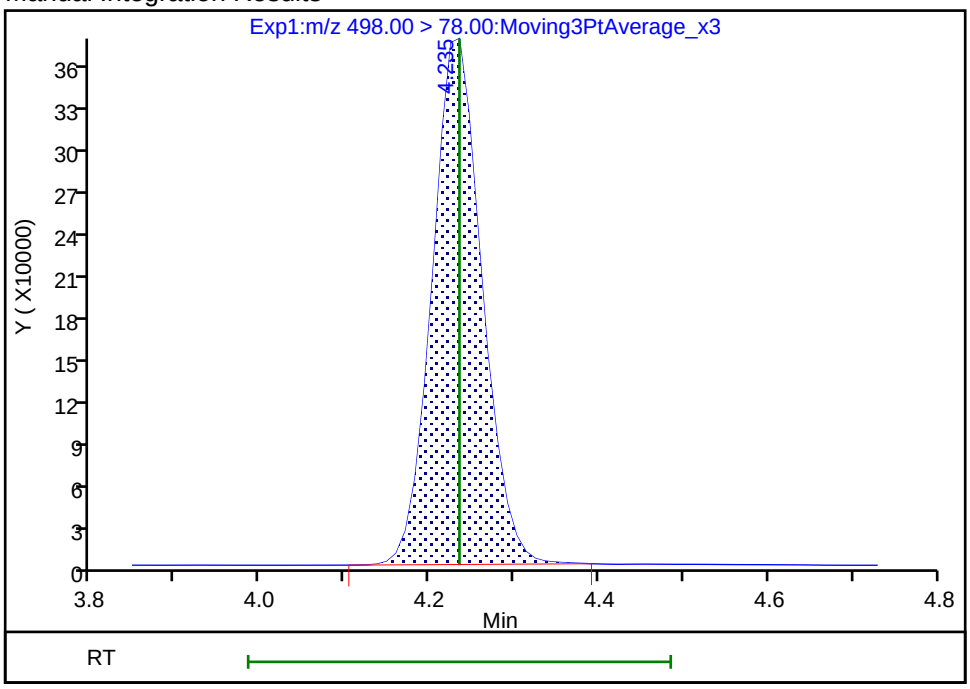
Processing Integration Results

RT: 4.23
Area: 1523749
Amount: 0.950007
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1517479
Amount: 0.968610
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

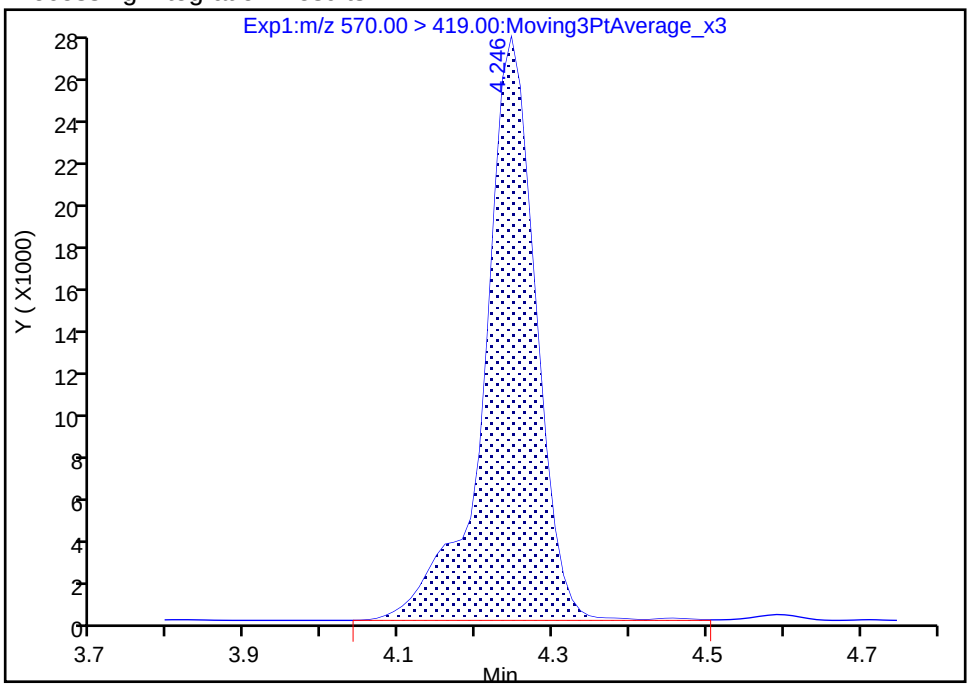
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

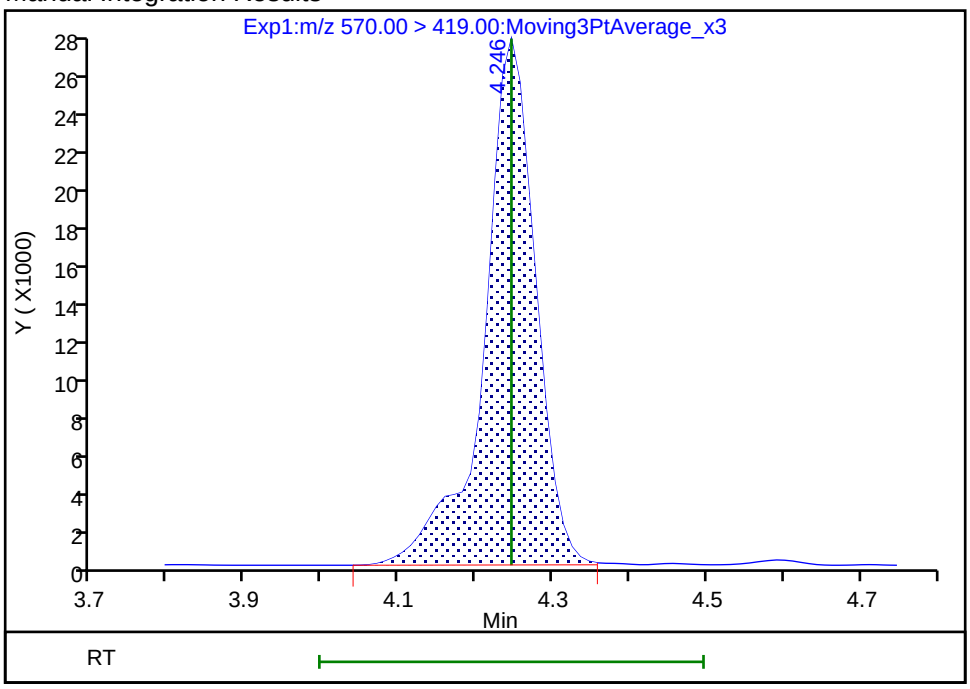
Processing Integration Results

RT: 4.25
Area: 128261
Amount: 0.971472
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 127458
Amount: 0.972054
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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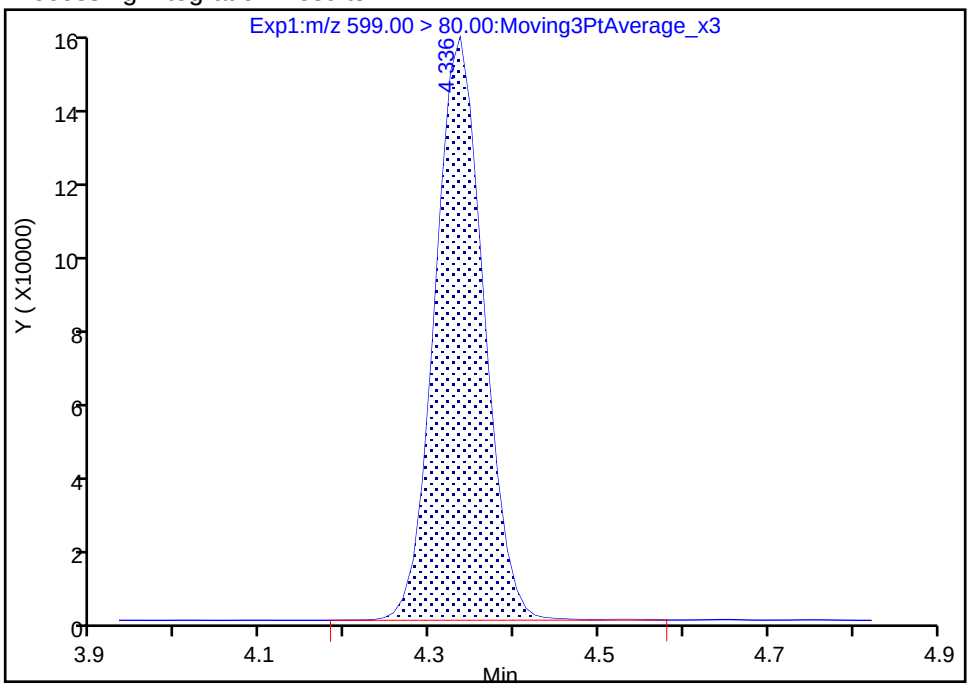
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

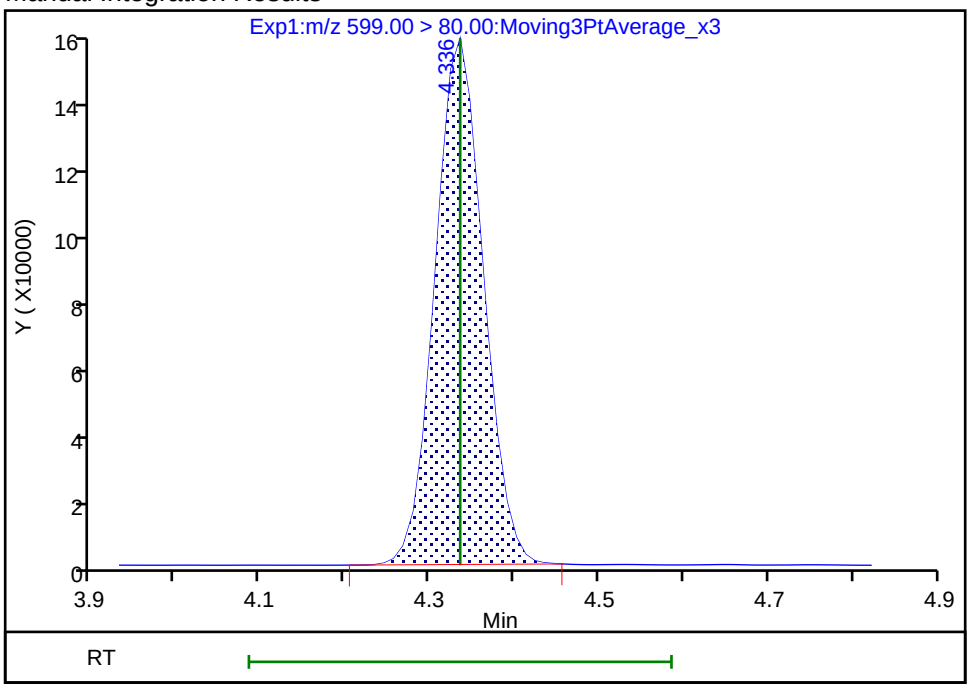
Processing Integration Results

RT: 4.34
Area: 613731
Amount: 0.888127
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 610213
Amount: 0.916771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

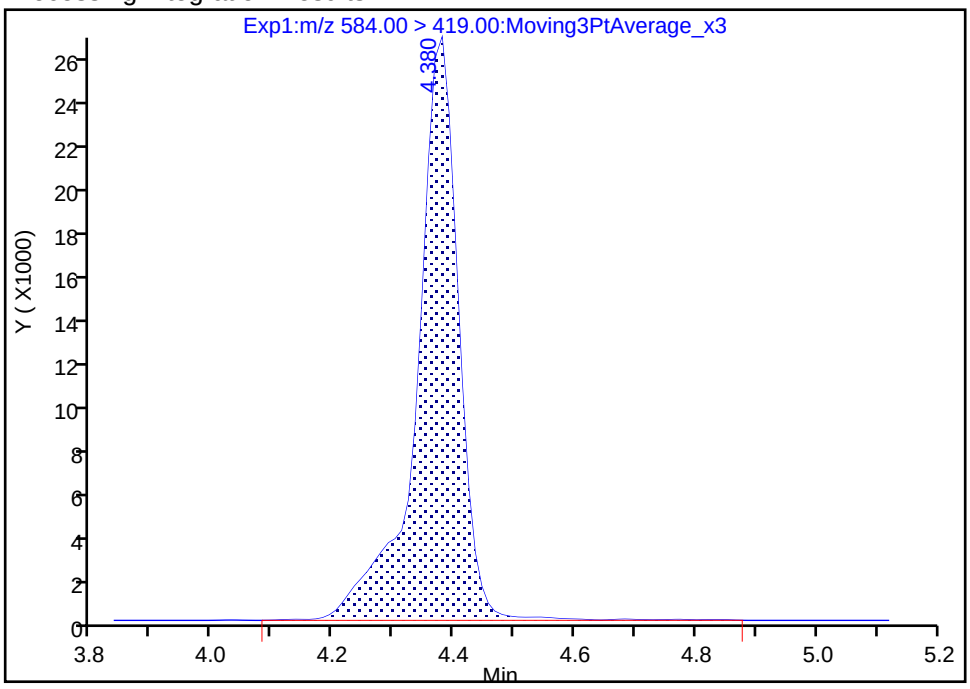
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

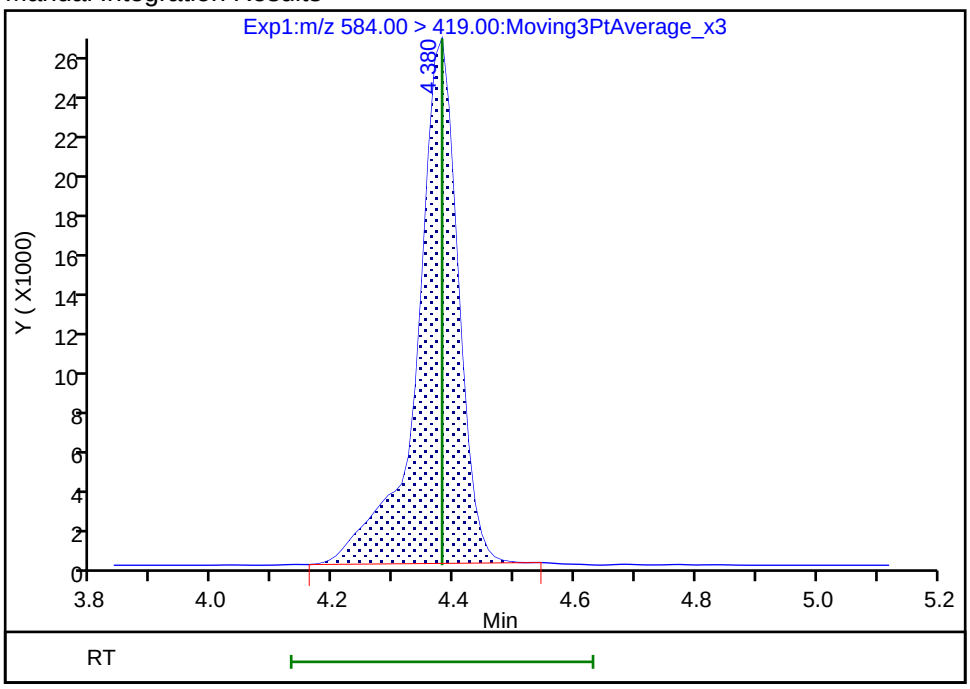
Processing Integration Results

RT: 4.38
Area: 129390
Amount: 0.889747
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 126650
Amount: 0.922494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

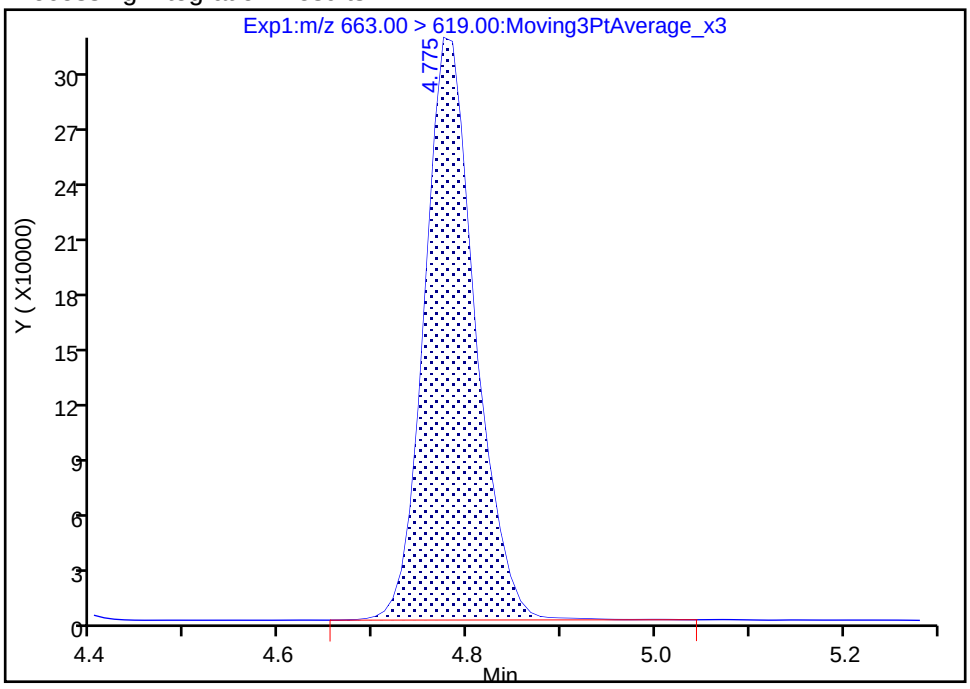
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

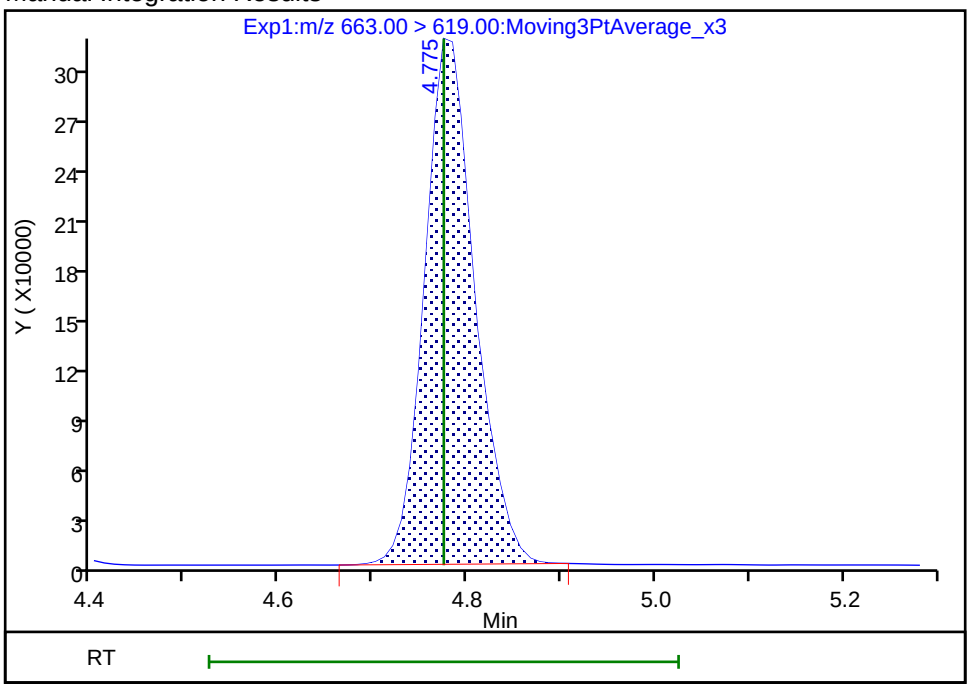
Processing Integration Results

RT: 4.77
Area: 1169235
Amount: 0.934504
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 1161247
Amount: 0.979132
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

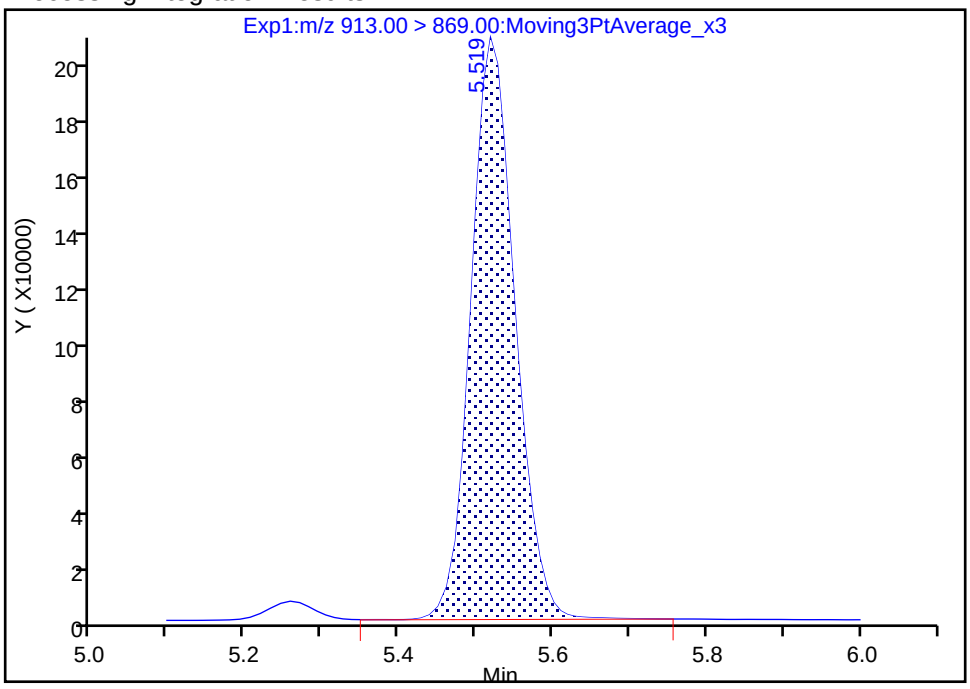
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

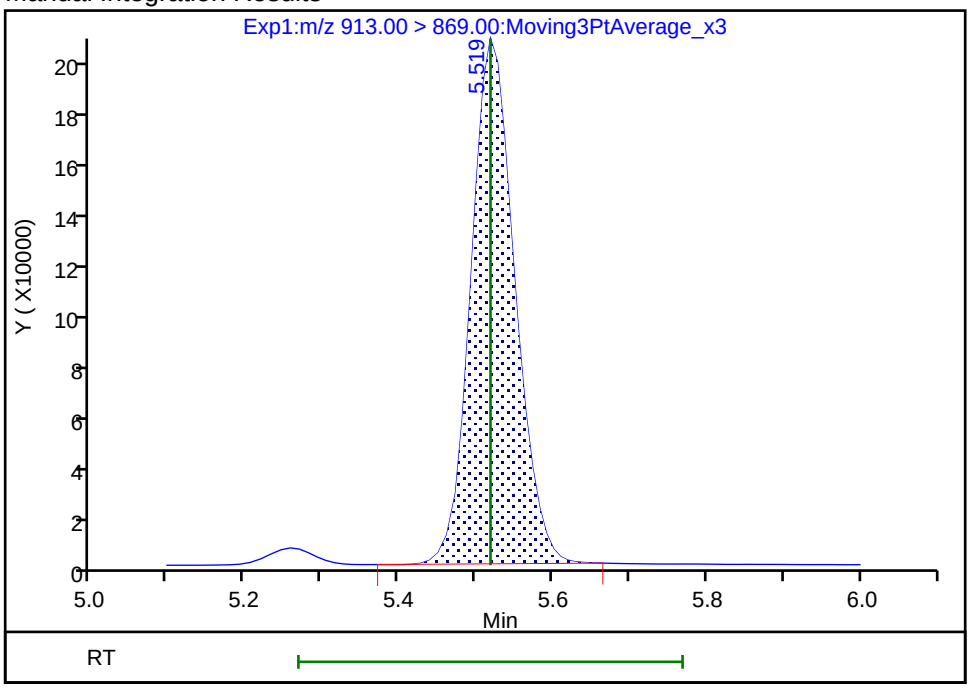
Processing Integration Results

RT: 5.52
Area: 823852
Amount: 0.958871
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 818298
Amount: 0.998252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Oct-2021 14:19:25 ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:26 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:14:28
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.073 | 2.080 | -0.007 | 0.595 | 1686795 | 1.24 | | 99.6 | 5818 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.073 | 2.080 | -0.007 | 1.000 | 2967709 | 2.33 | | 93.0 | 249 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1426418 | 1.25 | | 100.0 | 2799 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 2762586 | 2.42 | | 96.7 | 158 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 1809434 | 1.17 | | 101 | 269977 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.413 | 2.424 | -0.011 | 1.000 | 3359273 | 2.02 | Target=2.29 | 91.4 | 2715 | M |
| 298.90 > 99.00 | 2.413 | 2.424 | -0.011 | 1.000 | 1463595 | | 2.30(1.15-3.44) | 91.4 | 526 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.781 | 139431 | 1.18 | | 101 | 113 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 559584 | 2.20 | | 94.3 | 2933 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 2833227 | 2.36 | Target=12.01 | 94.3 | 359 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 223009 | | 12.70(6.00-18.01) | 94.3 | 263 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1480926 | 1.24 | | 98.9 | 2896 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.758 | 2.768 | -0.010 | 0.884 | 3014762 | 2.26 | Target=3.04 | 96.6 | 1887 | M |
| 349.00 > 99.00 | 2.758 | 2.768 | -0.010 | 0.884 | 1009803 | | 2.99(1.52-4.56) | 96.6 | 834 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.823 | 33254 | 1.05 | | 84.3 | 223 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.867 | 2.865 | 0.002 | 1.000 | 333546 | 2.77 | | 111 | 89.2 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.121 | 3.122 | -0.001 | 0.896 | 1307238 | 1.17 | | 98.5 | 2914 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.121 | 3.122 | -0.001 | 1.000 | 2594885 | 2.13 | Target=3.51 | 93.8 | 1539 | M |
| 399.00 > 99.00 | 3.121 | 3.122 | -0.001 | 1.000 | 745424 | | 3.48(1.76-5.27) | 93.8 | 562 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3057092 | 2.36 | Target=3.83 | 94.4 | 681 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 800647 | | 3.82(1.91-5.74) | 94.4 | 1044 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1567141 | 1.24 | | 99.5 | 2953 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.164 | 3.165 | -0.001 | 0.834 | 6344394 | 2.28 | Target=2.58 | 96.7 | 2807 | M |
| 377.00 > 85.00 | 3.164 | 3.165 | -0.001 | 0.834 | 2516908 | | 2.52(1.29-3.88) | 96.7 | 1732 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.474 | -0.009 | 0.913 | 2265445 | 2.28 | Target=5.12 | 95.9 | 2527 | M |
| 449.00 > 99.00 | 3.465 | 3.474 | -0.009 | 0.913 | 451574 | | 5.02(2.56-7.67) | 95.9 | 818 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 207642 | 1.17 | | 98.8 | 415 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 525537 | 2.37 | | 100 | 1754 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1736905 | 1.26 | | 101 | 4140 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1673185 | 1.25 | | | 1952 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 3421460 | 2.32 | Target=2.65 | 92.6 | 531 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1288271 | | 2.66(1.32-3.97) | 92.6 | 1536 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 951013 | 1.17 | | 98.1 | 2404 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 1848160 | 2.14 | Target=4.60 | 92.3 | 1126 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 406321 | | 4.55(2.30-6.90) | 92.3 | 563 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.814 | -0.010 | 1.092 | 1751163 | 1.28 | | 102 | 3373 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.003 | 3222609 | 2.35 | Target=7.58 | 94.1 | 564 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.003 | 427402 | | 7.54(3.79-11.37) | 94.1 | 2659 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 2958438 | 2.27 | | 97.6 | 2763 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.070 | 4.071 | -0.001 | 1.073 | 1555930 | 2.31 | Target=2.38 | 96.4 | 3529 | |
| 549.00 > 99.00 | 4.070 | 4.071 | -0.001 | 1.073 | 648940 | | 2.40(1.19-3.56) | 96.4 | 1395 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.104 | -0.001 | 1.178 | 1713267 | 1.24 | | 99.0 | 4183 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.104 | -0.001 | 1.000 | 3174577 | 2.31 | Target=9.30 | 92.2 | 1141 | |
| 513.00 > 169.00 | 4.103 | 4.104 | -0.001 | 1.000 | 353320 | | 8.98(4.65-13.95) | 92.2 | 1307 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 249474 | 1.24 | | 104 | 745 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 387800 | 2.23 | | 92.9 | 1686 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.224 | 4.225 | -0.001 | 1.213 | 1642092 | 1.23 | | 98.4 | 1730 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.235 | -0.011 | 1.000 | 3043484 | 2.44 | | 97.6 | 2847 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.234 | 4.246 | -0.012 | 1.216 | 163220 | 1.20 | | 95.9 | 290 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.003 | 261621 | 2.55 | | 102 | 730 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.335 | 4.336 | -0.001 | 1.143 | 1188911 | 2.27 | Target=2.54 | 94.3 | 3547 | |
| 599.00 > 99.00 | 4.335 | 4.336 | -0.001 | 1.143 | 473644 | | 2.51(1.27-3.81) | 94.3 | 1754 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.357 | 4.358 | -0.001 | 1.251 | 1376292 | 1.28 | | 102 | 3838 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.357 | 4.358 | -0.001 | 1.000 | 2638255 | 2.25 | Target=9.37 | 89.9 | 1239 | M |
| 563.00 > 169.00 | 4.357 | 4.358 | -0.001 | 1.000 | 292513 | | 9.02(4.69-14.06) | 89.9 | 2461 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.368 | 4.369 | -0.001 | 1.254 | 160452 | 1.26 | | 101 | 995 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.368 | 4.380 | -0.012 | 1.000 | 246673 | 2.24 | | 89.7 | 791 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.172 | 3593181 | 2.34 | | 99.3 | 3392 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.315 | 1536568 | 1.32 | | 106 | 802 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.580 | 0.0 | 1.000 | 2636999 | 2.19 | Target=6.84 | 87.6 | 450 | M |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 379888 | | 6.94(3.42-10.25) | 87.6 | 2149 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 182391 | 2.27 | | 94.0 | 1458 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.738 | 4.748 | -0.010 | 1.249 | 457314 | 2.38 | Target=0.51 | 98.2 | 2001 | M |
| 699.00 > 99.00 | 4.738 | 4.748 | -0.010 | 1.249 | 871466 | | 0.52(0.25-0.76) | 98.2 | 3605 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.774 | 4.775 | -0.001 | 1.042 | 2301928 | 2.22 | Target=4.67 | 88.7 | 456 | |
| 663.00 > 169.00 | 4.774 | 4.775 | -0.001 | 1.042 | 504202 | | 4.57(2.33-7.00) | 88.7 | 2168 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.956 | 4.957 | 0.0 | 1.423 | 1108790 | 1.23 | | 98.5 | 2382 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.956 | 4.957 | 0.0 | 1.000 | 332972 | 2.38 | Target=0.99 | 95.1 | 2181 | |
| 713.00 > 219.00 | 4.946 | 4.957 | -0.010 | 0.998 | 324405 | | 1.03(0.49-1.48) | 95.1 | 2194 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 968779 | 1.22 | | 97.8 | 2767 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 1696788 | 2.55 | Target=4.50 | 102 | 440 | M |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 349644 | | 4.85(2.25-6.75) | 102 | 1782 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.518 | 5.519 | -0.001 | 1.050 | 1507499 | 2.31 | Target=4.46 | 92.3 | 619 | M |
| 913.00 > 169.00 | 5.518 | 5.519 | -0.001 | 1.050 | 339769 | | 4.44(2.23-6.68) | 92.3 | 1621 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00022 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:28 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d

Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812

Lims ID: IC

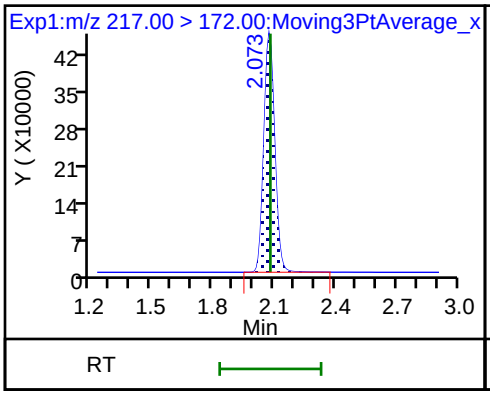
Client ID:

Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6

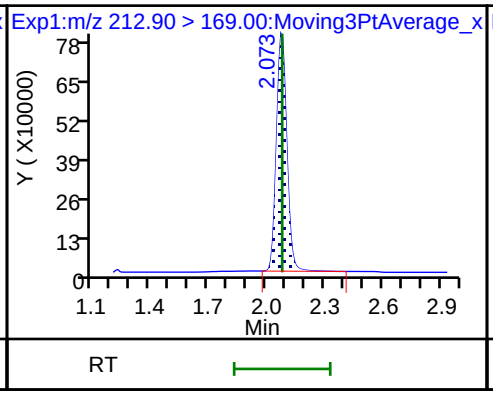
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

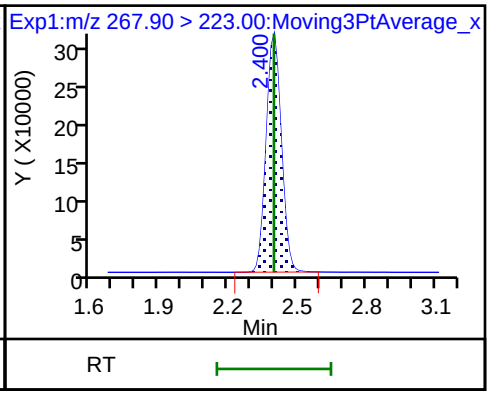
D 1 13C4 PFBA



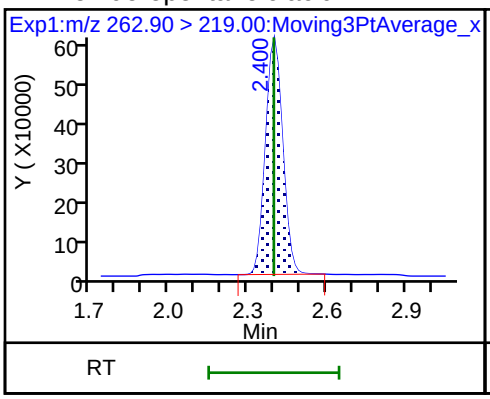

2 Perfluorobutanoic acid



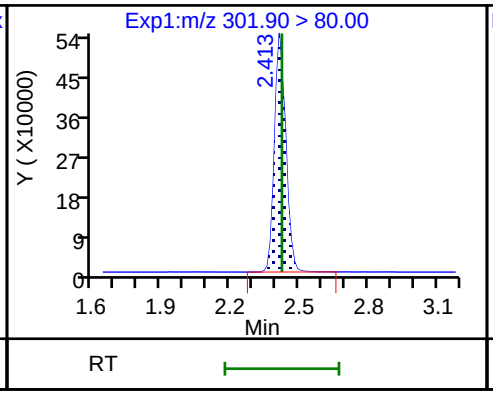

D 3 13C5 PFPeA



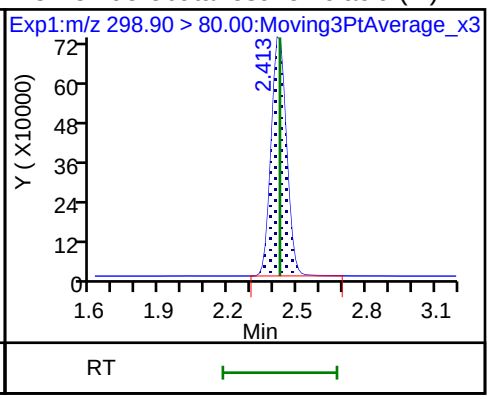

4 Perfluoropentanoic acid



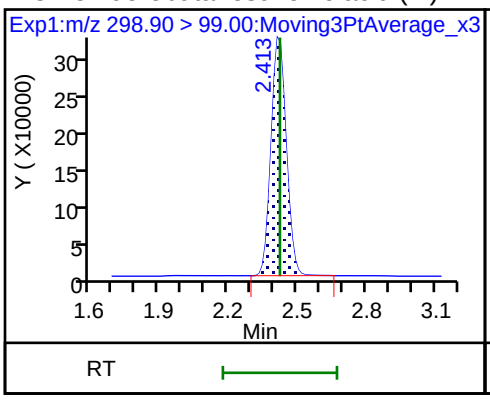

D 47 13C3 PFBS



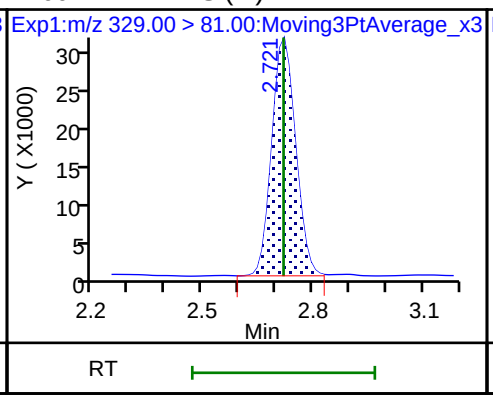

5 Perfluorobutanesulfonic acid (M)



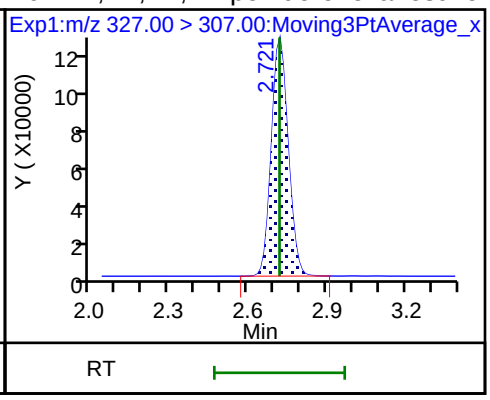

5 Perfluorobutanesulfonic acid (M)



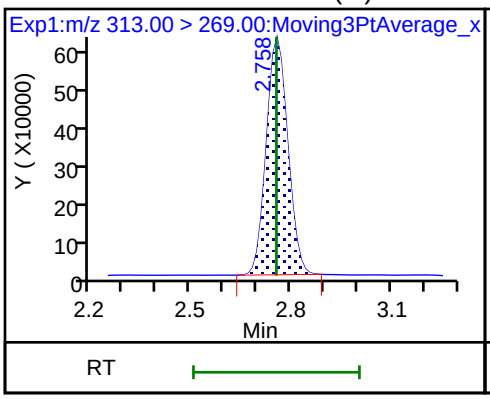

D 60 M2-4:2 FTS (M)



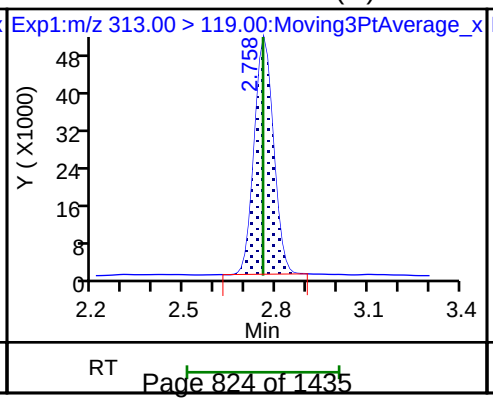

61 1H,1H,2H,2H-perfluorohexanesulfo



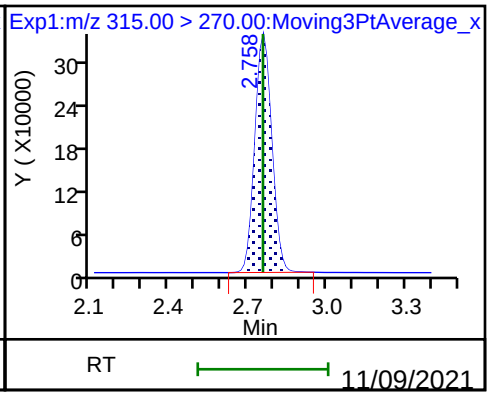

6 Perfluorohexanoic acid (M)



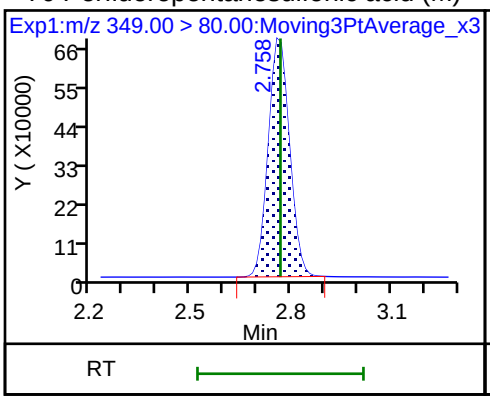

6 Perfluorohexanoic acid (M)



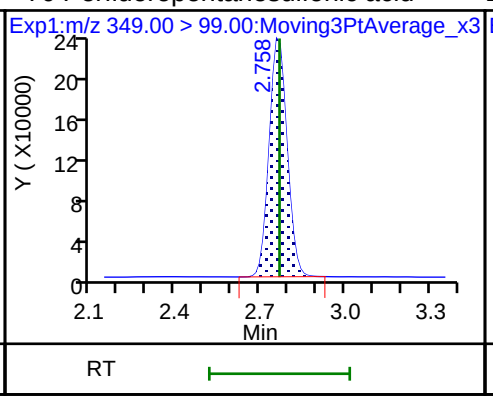

D 7 13C2 PFHxA



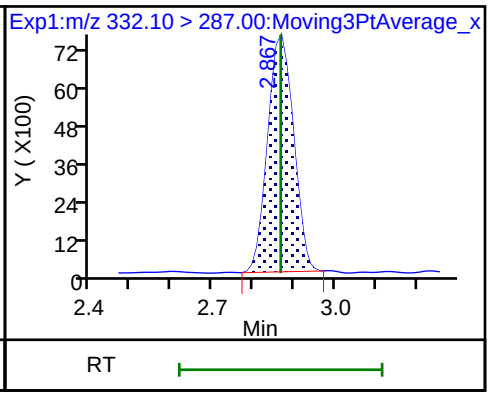
70 Perfluoropentanesulfonic acid (M)



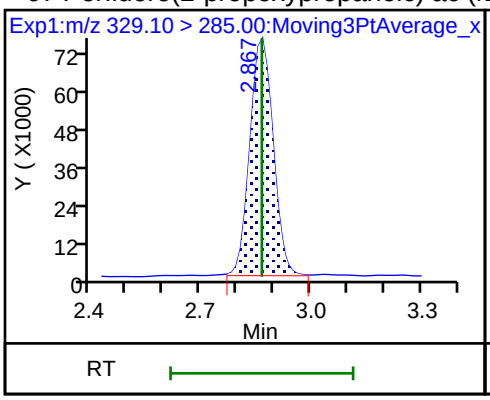

70 Perfluoropentanesulfonic acid



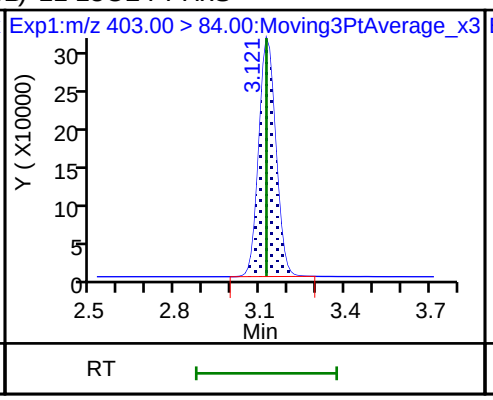

D 64 13C3 HFPO-DA



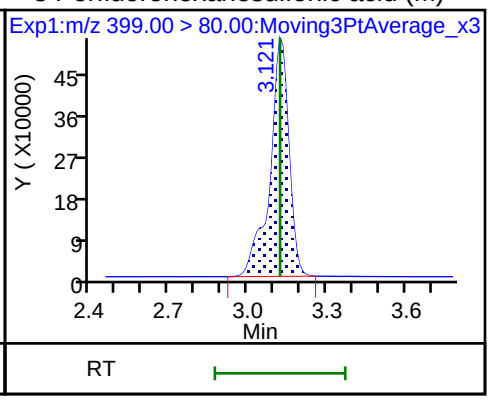

67 Perfluoro(2-propoxypropanoic) ac (M)



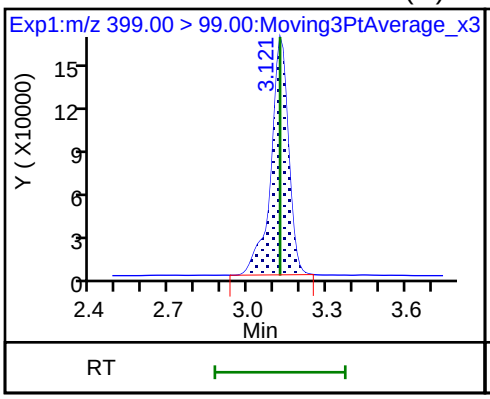

D 11 18O2 PFHxS



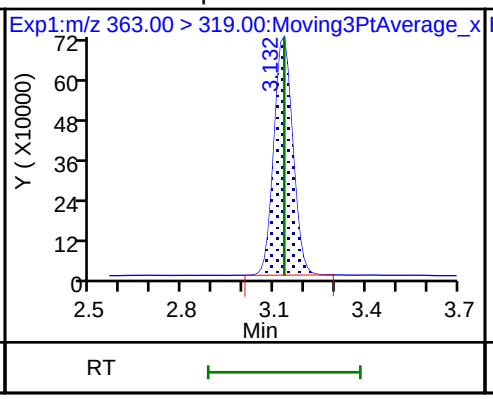

8 Perfluorohexanesulfonic acid (M)



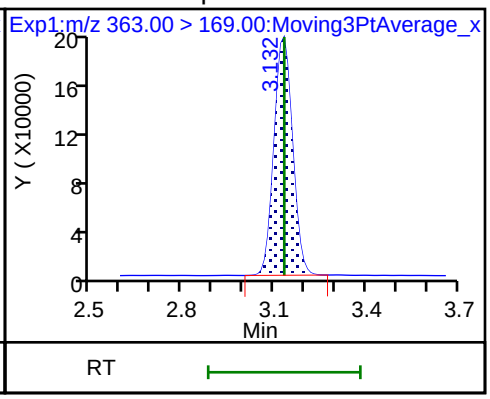

8 Perfluorohexanesulfonic acid (M)



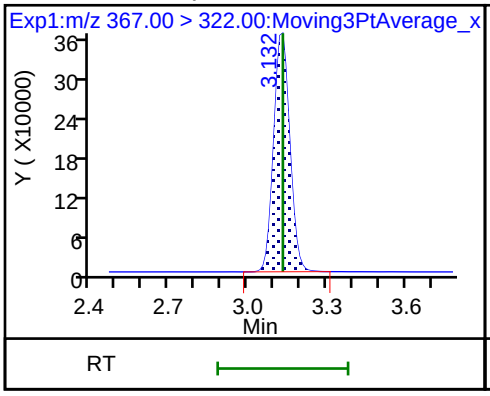

10 Perfluoroheptanoic acid



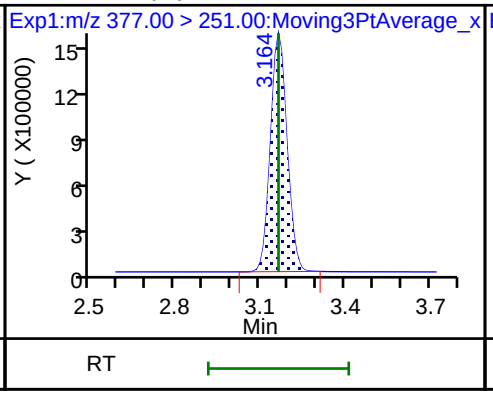

10 Perfluoroheptanoic acid



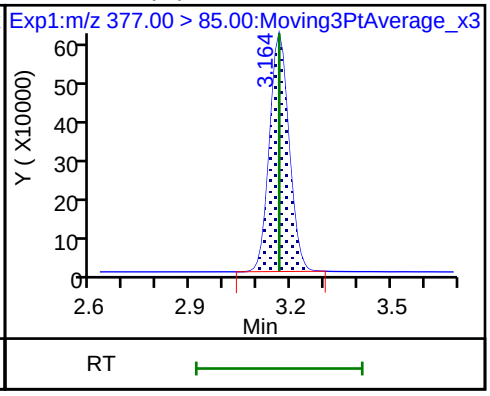

D 9 13C4 PFHpA



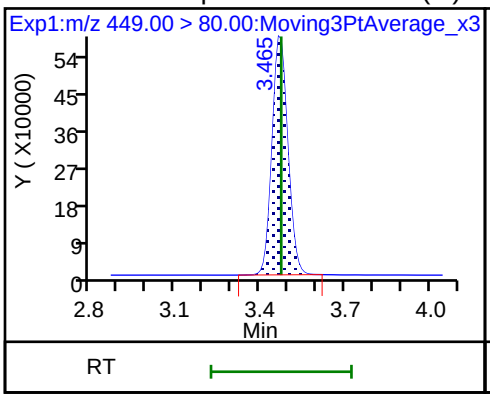

77 DONA (M)



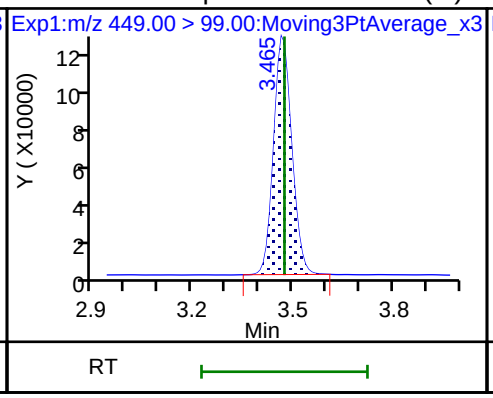

77 DONA (M)



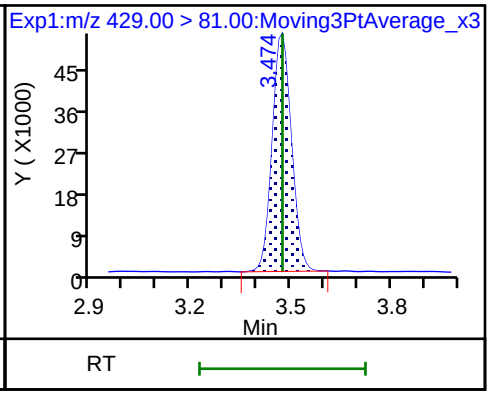
16 Perfluoroheptanesulfonic acid (M)



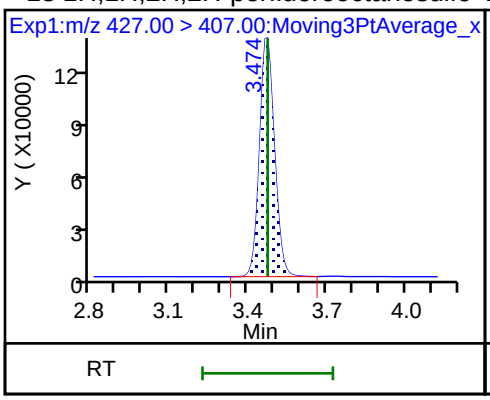

16 Perfluoroheptanesulfonic acid (M)



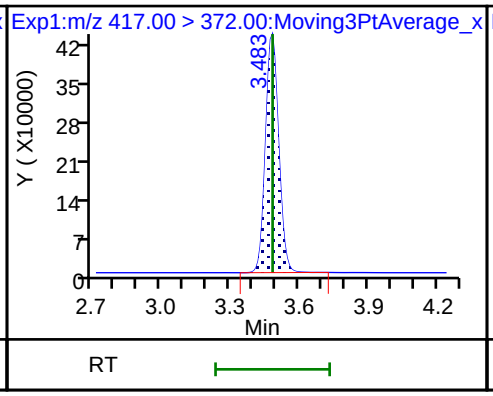

D 12 M2-6:2 FTS



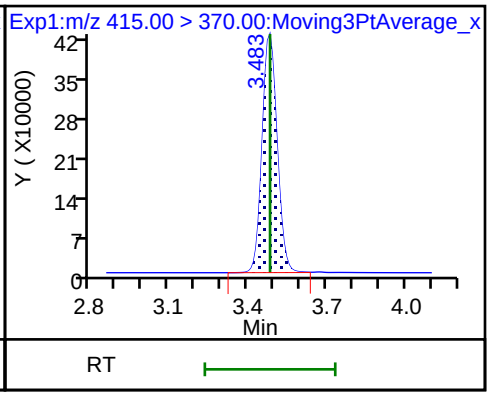

13 1H,1H,2H,2H-perfluorooctanesulfo



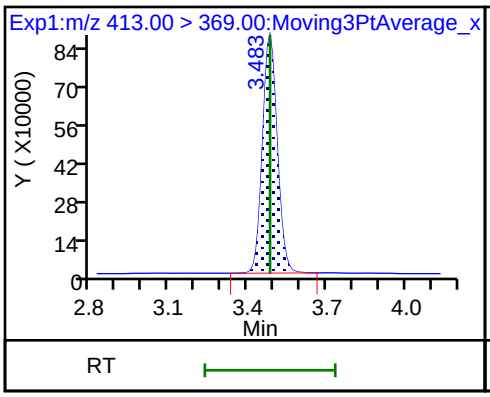

D 14 13C4 PFOA



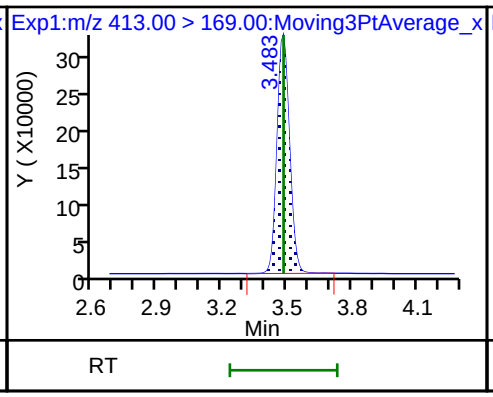

* 62 13C2 PFOA



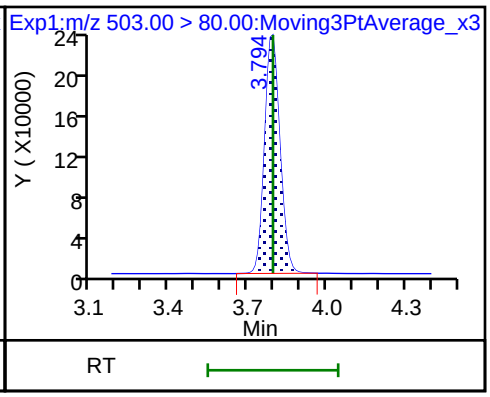

15 Perfluorooctanoic acid



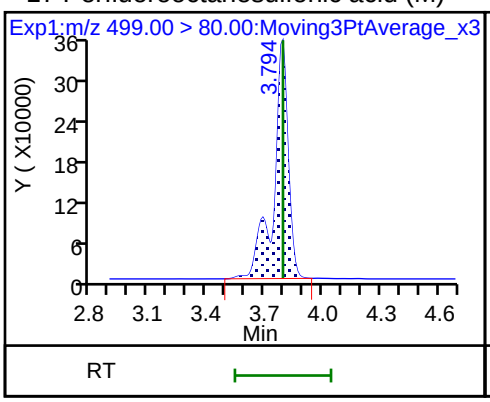

15 Perfluorooctanoic acid



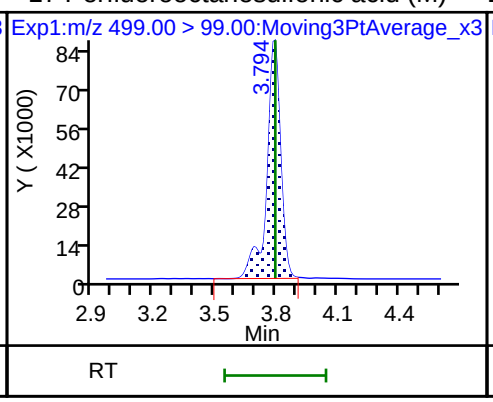

D 18 13C4 PFOS



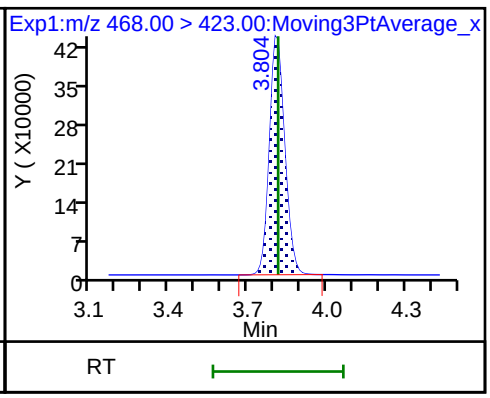

17 Perfluorooctanesulfonic acid (M)



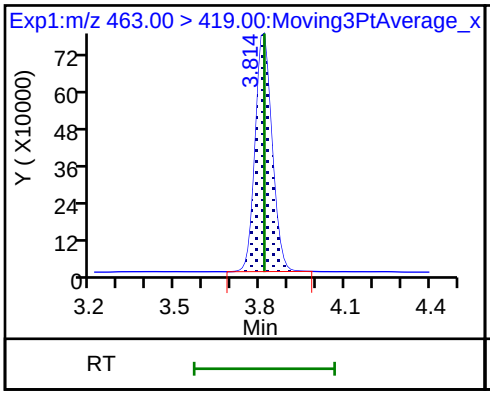

17 Perfluorooctanesulfonic acid (M)



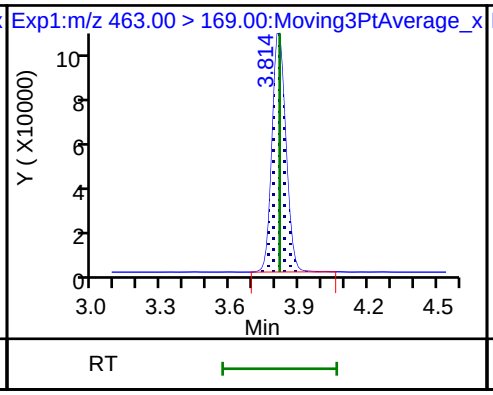

D 19 13C5 PFNA



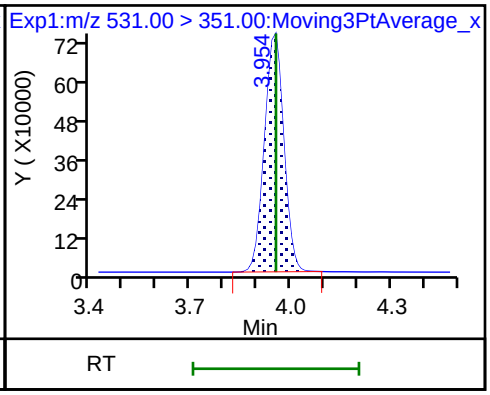
20 Perfluorononanoic acid



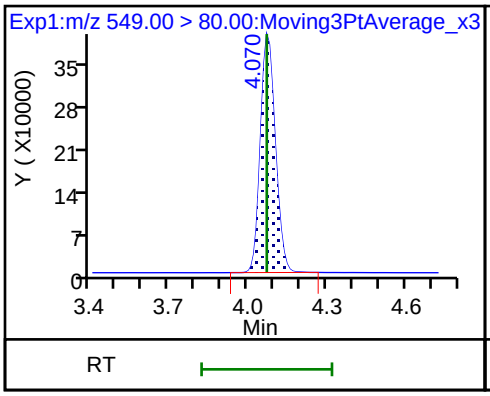

20 Perfluorononanoic acid



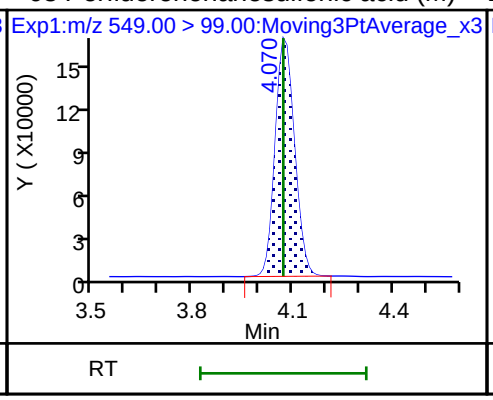

69 9-Chlorohexadecafluoro-3-oxanona (M)



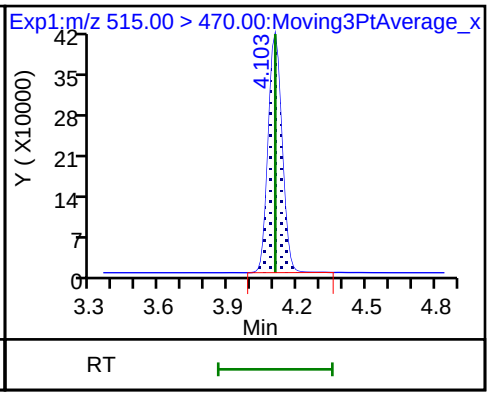

68 Perfluorononanesulfonic acid



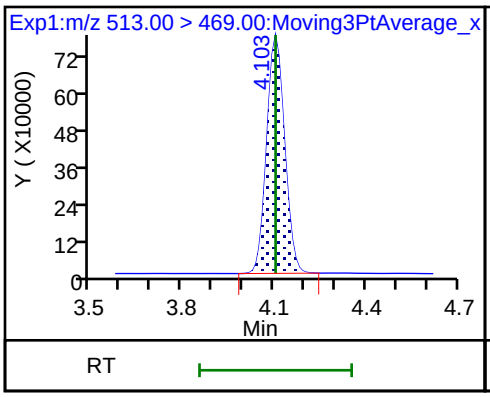

68 Perfluorononanesulfonic acid (M)



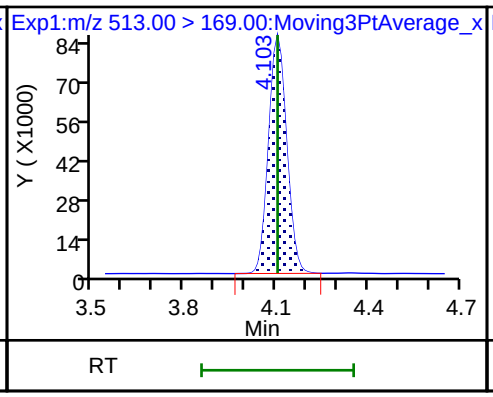

D 23 13C2 PFDA



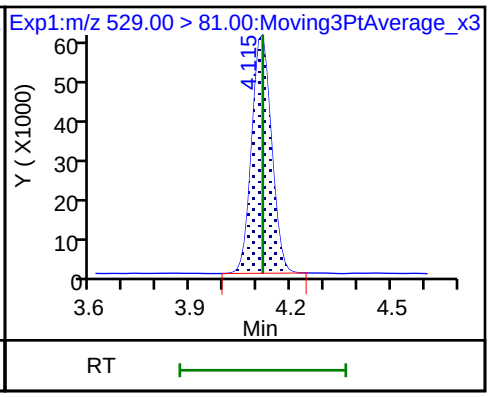

24 Perfluorodecanoic acid



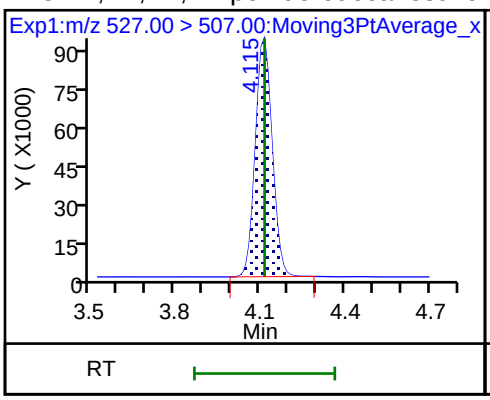

24 Perfluorodecanoic acid



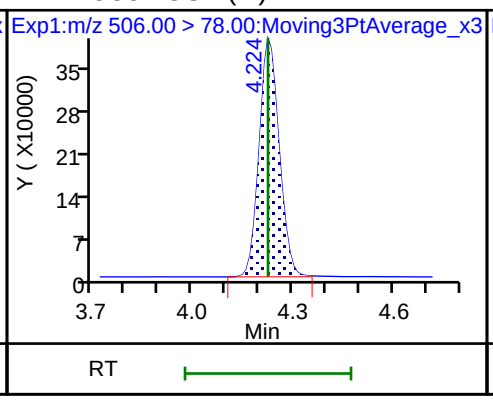

D 26 M2-8:2 FTS



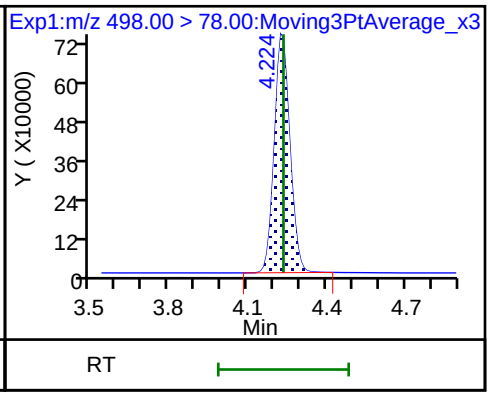

25 1H,1H,2H,2H-perfluorodecanesulfo



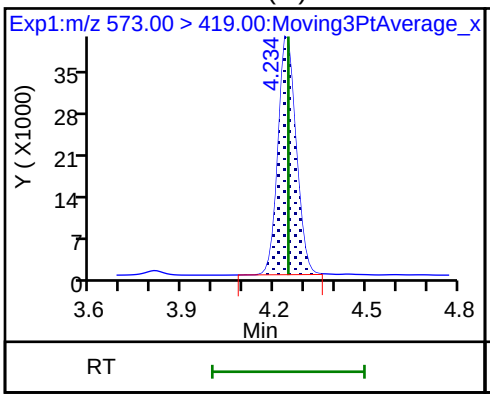

D 21 13C8 FOSA (M)



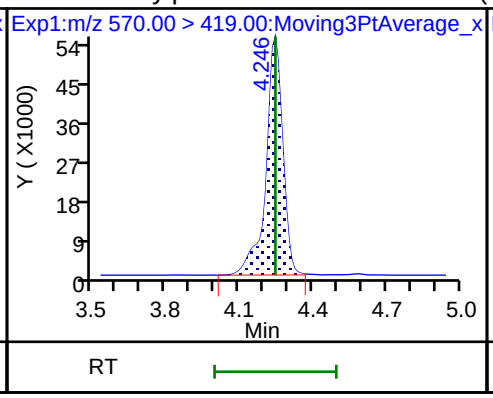

22 Perfluorooctanesulfonamide



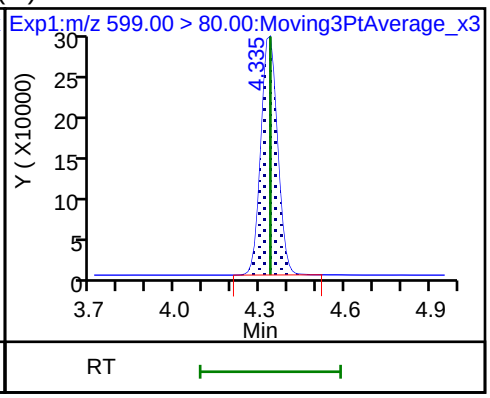
D 27 d3-NMeFOSAA (M)



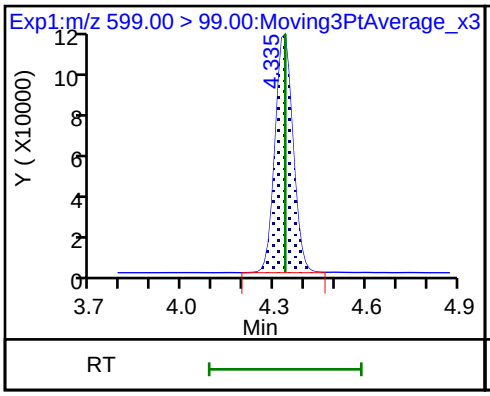

28 N-methylperfluorooctanesulfonami (M)



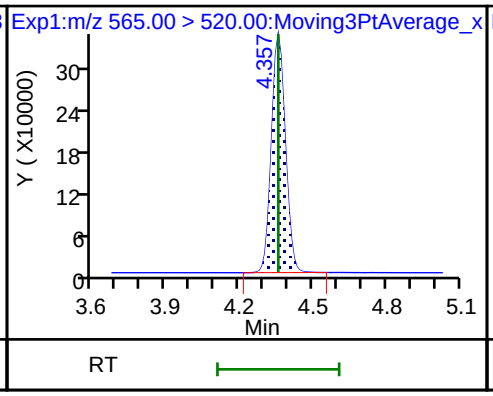

29 Perfluorodecanesulfonic acid



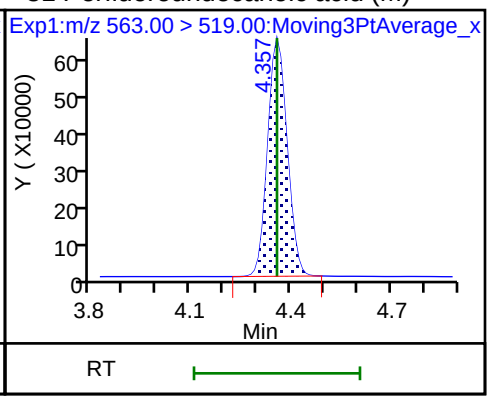

29 Perfluorodecanesulfonic acid



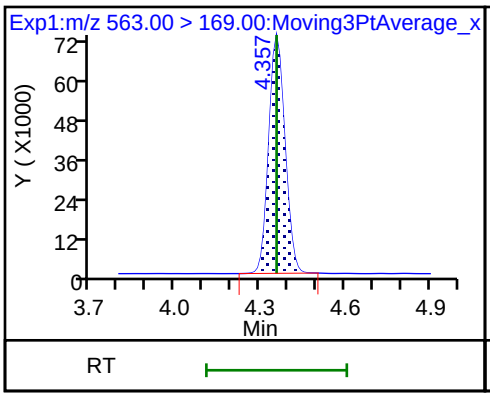

D 30 13C2 PFUnA



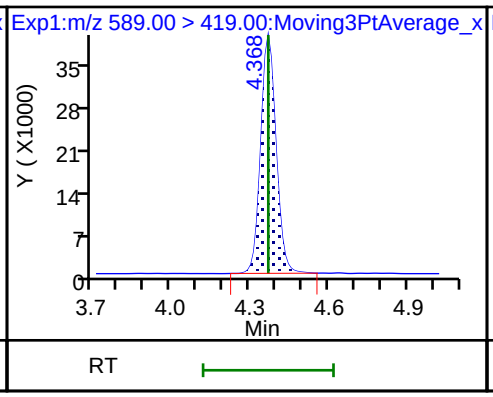

31 Perfluoroundecanoic acid (M)



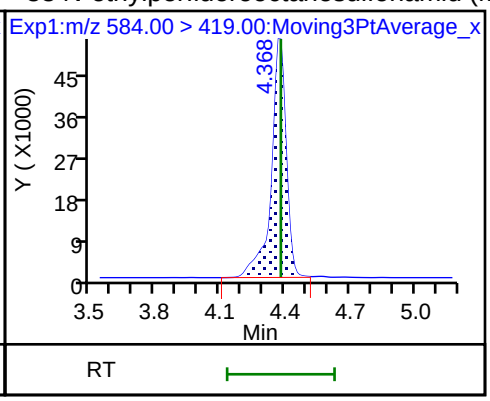

31 Perfluoroundecanoic acid



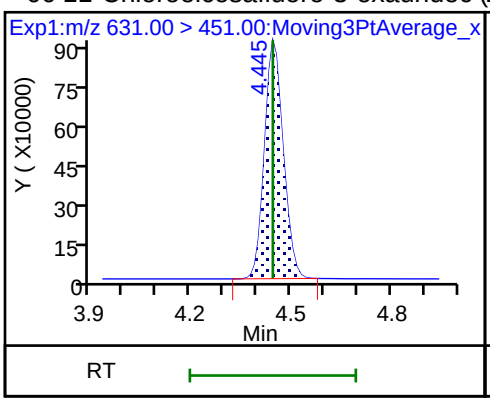

D 32 d5-NEtFOSAA



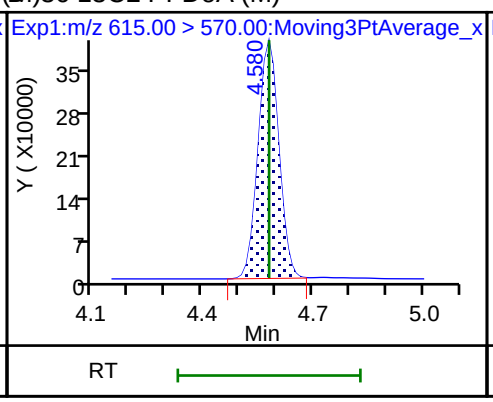

33 N-ethylperfluorooctanesulfonamid (M)



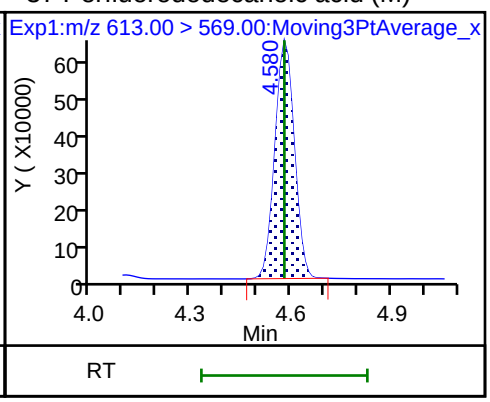

66 11-Chloroeicosafluoro-3-oxaundec (M)



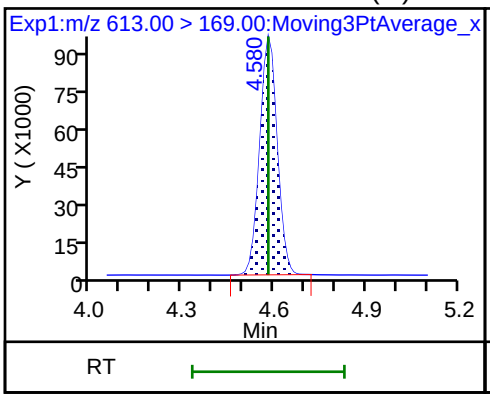

D 36 13C2 PFDoA (M)



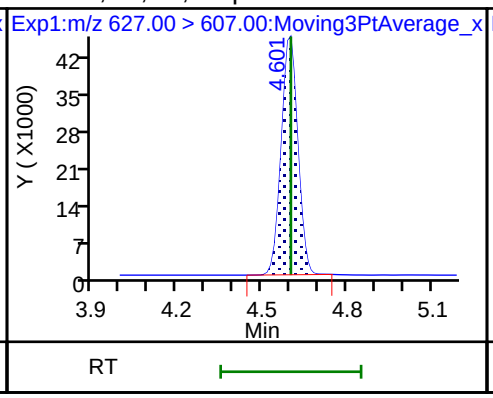

37 Perfluorododecanoic acid (M)



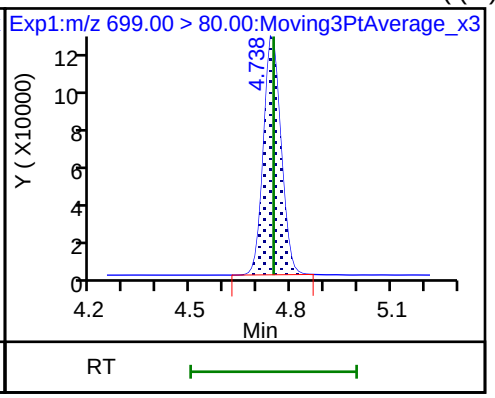
37 Perfluorododecanoic acid (M)



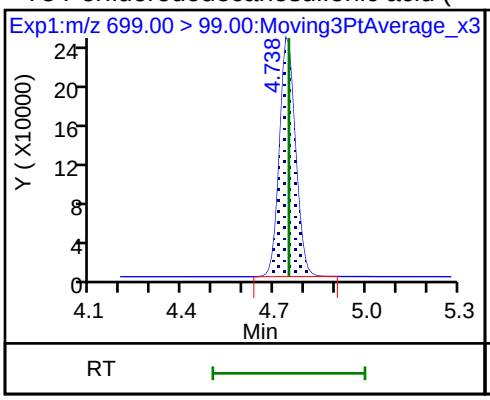

74 1H,1H,2H,2H-perfluorododecanesul



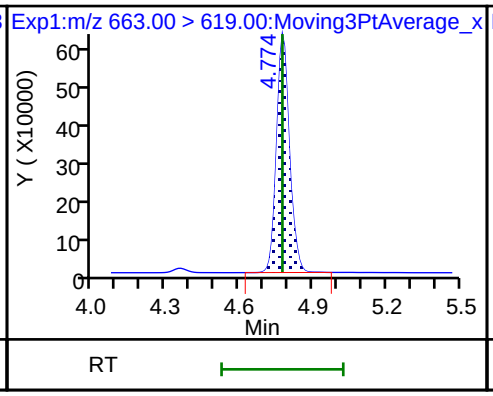

75 Perfluorododecanesulfonic acid ( (M)



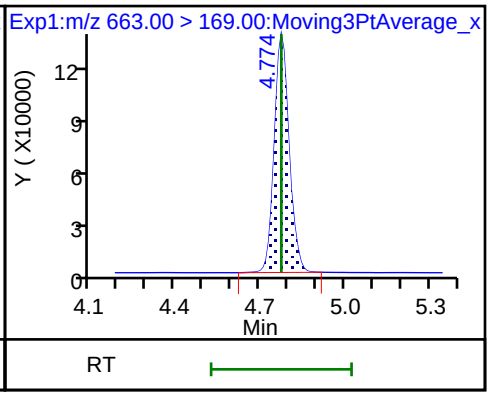

75 Perfluorododecanesulfonic acid (



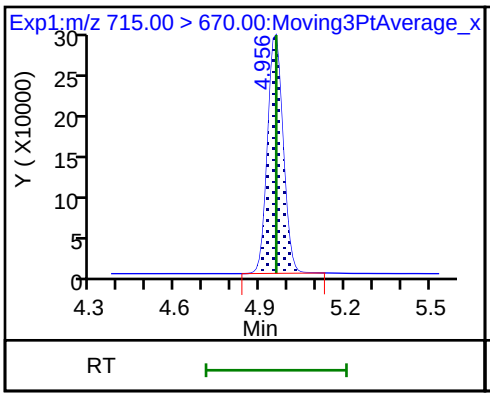

41 Perfluorotridecanoic acid



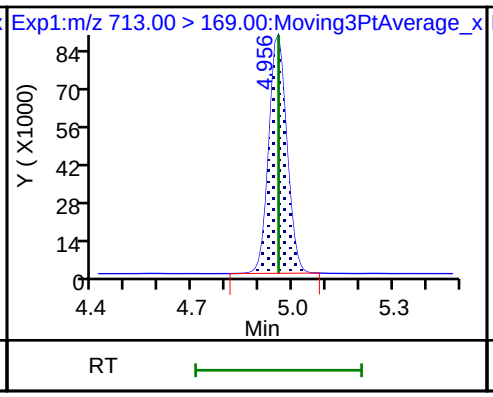

41 Perfluorotridecanoic acid



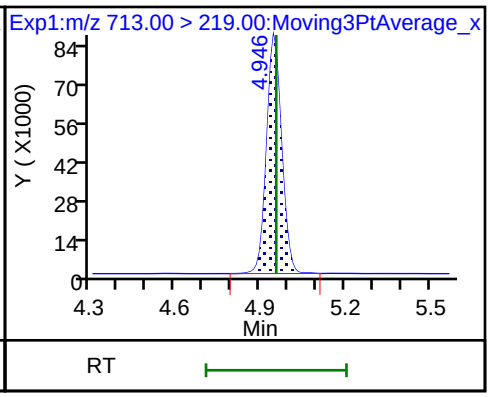

D 43 13C2 PFTeDA



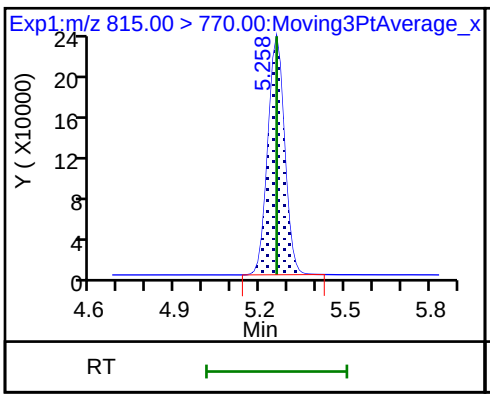

42 Perfluorotetradecanoic acid



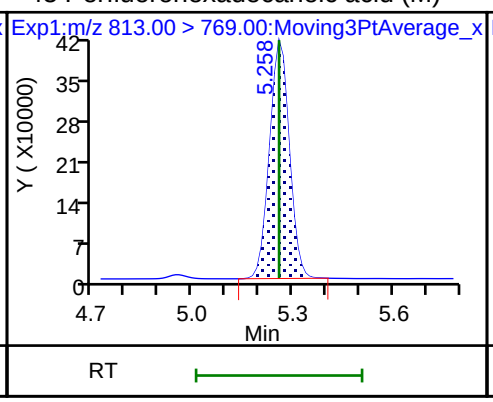

42 Perfluorotetradecanoic acid



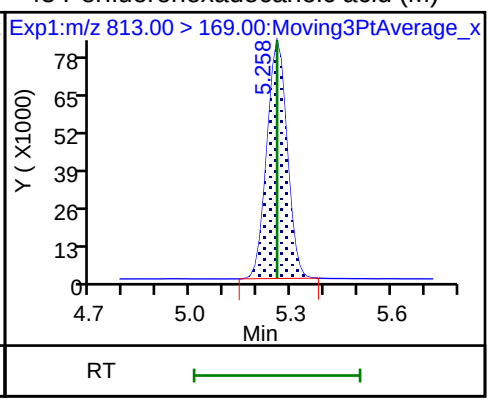

D 44 13C2 PFHxDA



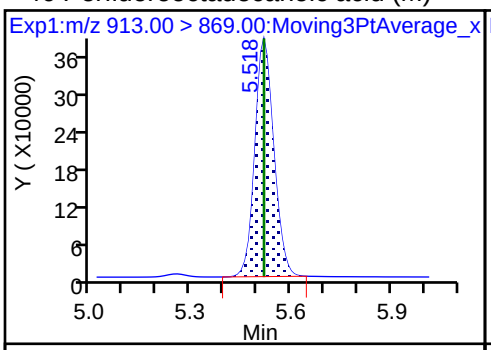

45 Perfluorohexadecanoic acid (M)



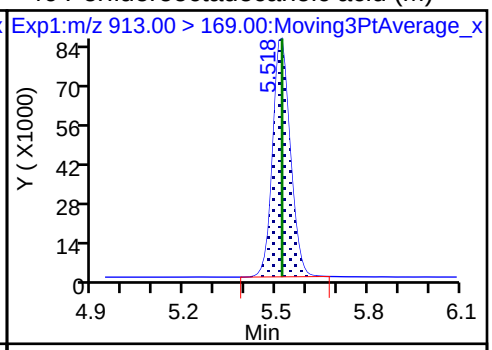

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M)




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

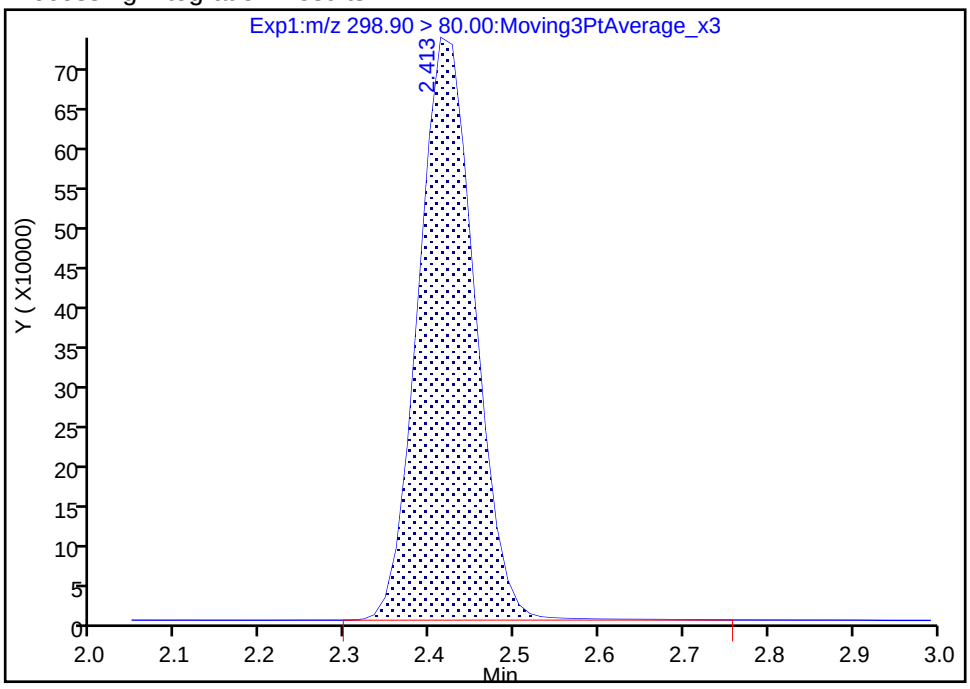
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

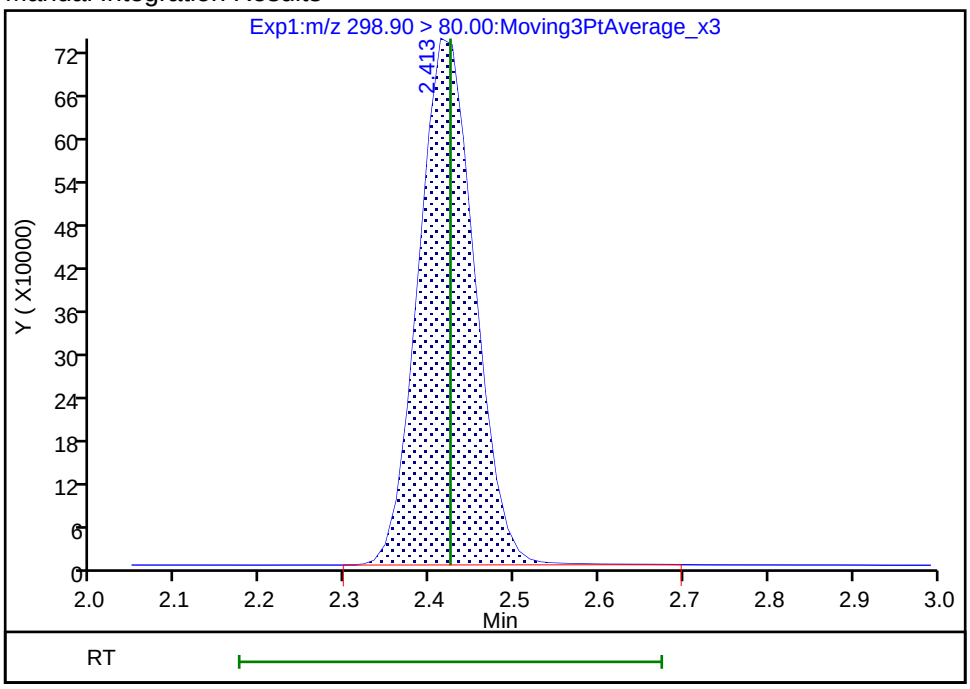
Processing Integration Results

RT: 2.41
Area: 3364127
Amount: 1.987025
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 3359273
Amount: 2.020686
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

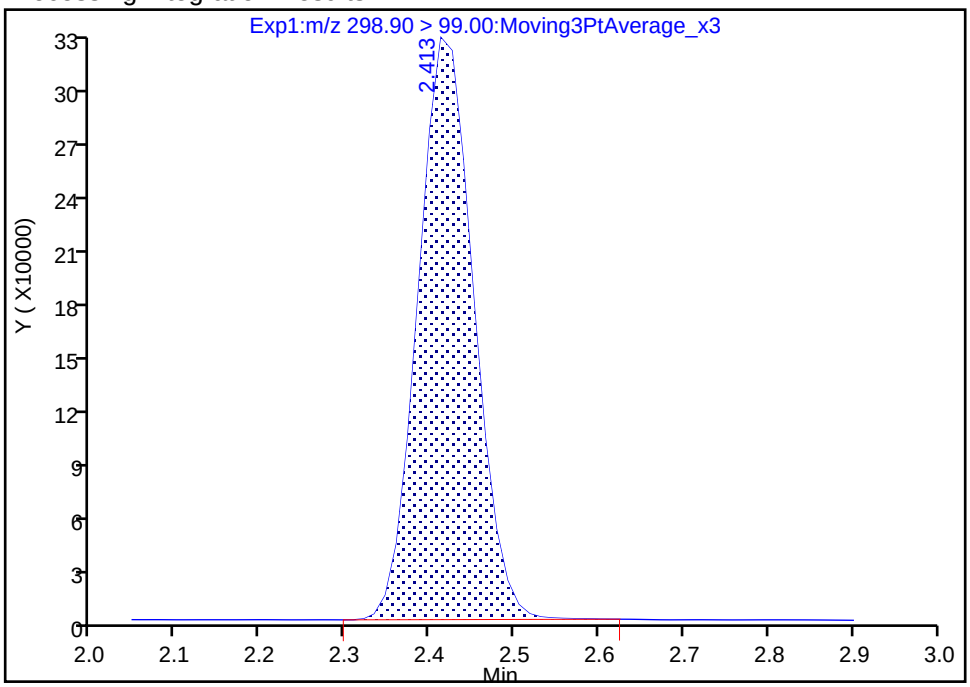
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

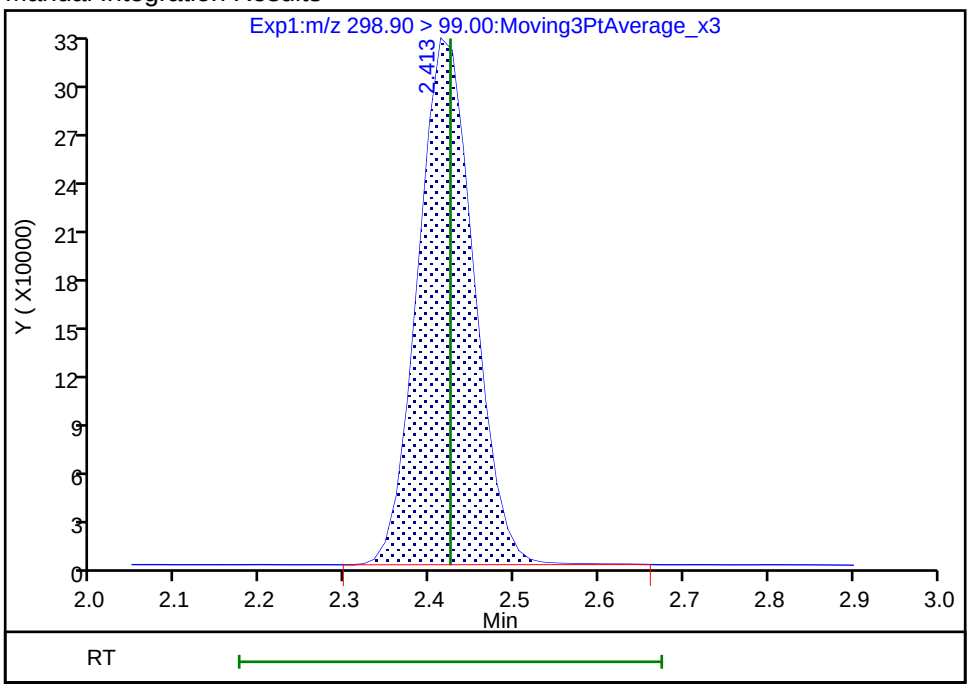
Processing Integration Results

RT: 2.41
Area: 1460913
Amount: 1.987025
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1463595
Amount: 2.020686
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

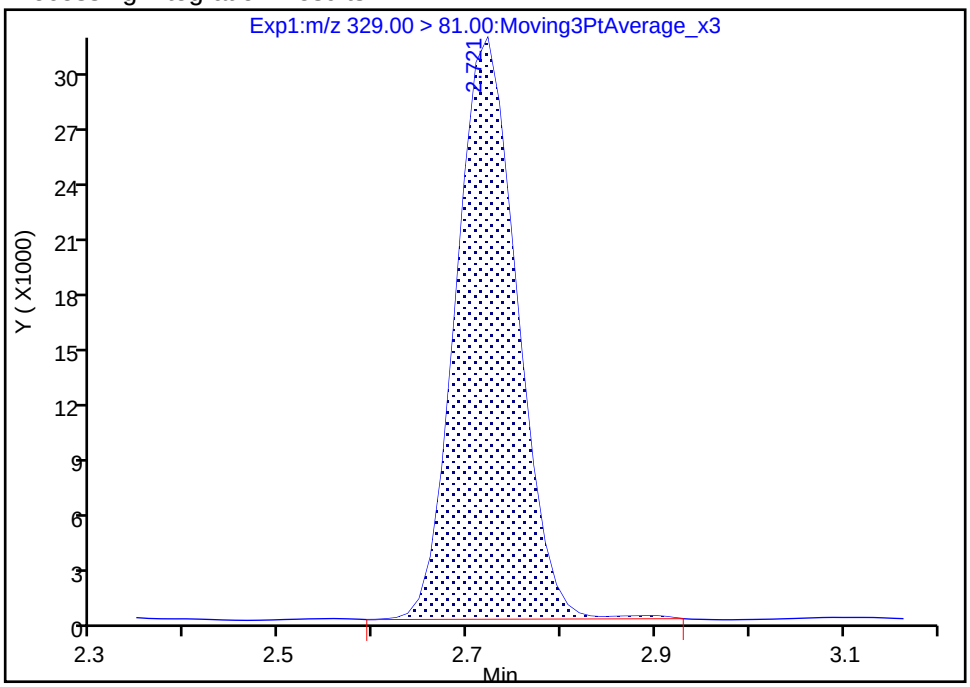
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

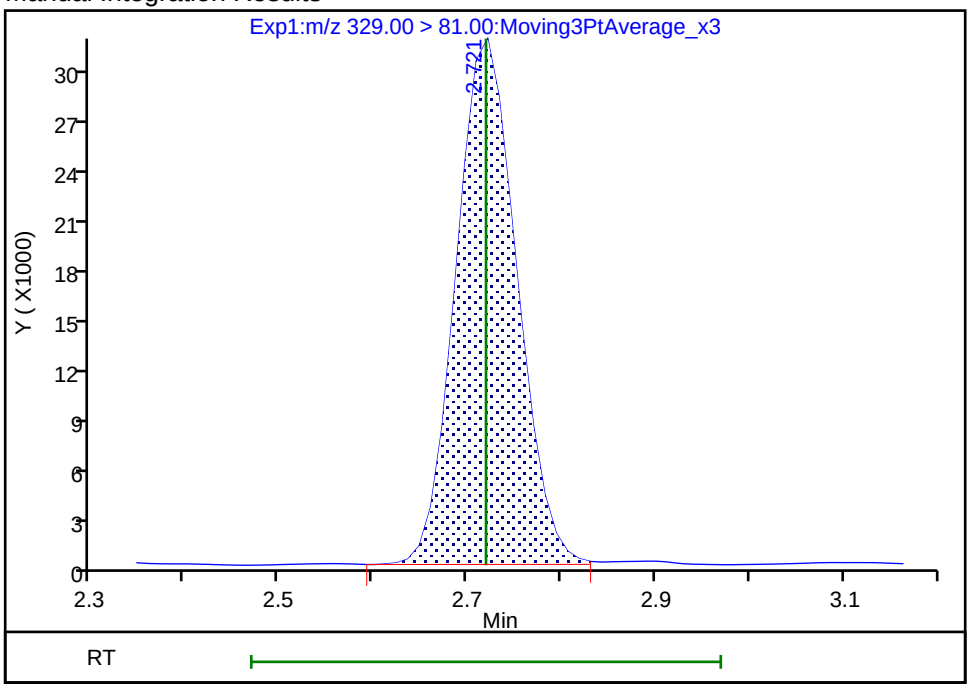
Processing Integration Results

RT: 2.72
Area: 139966
Amount: 1.192342
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 139431
Amount: 1.184575
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

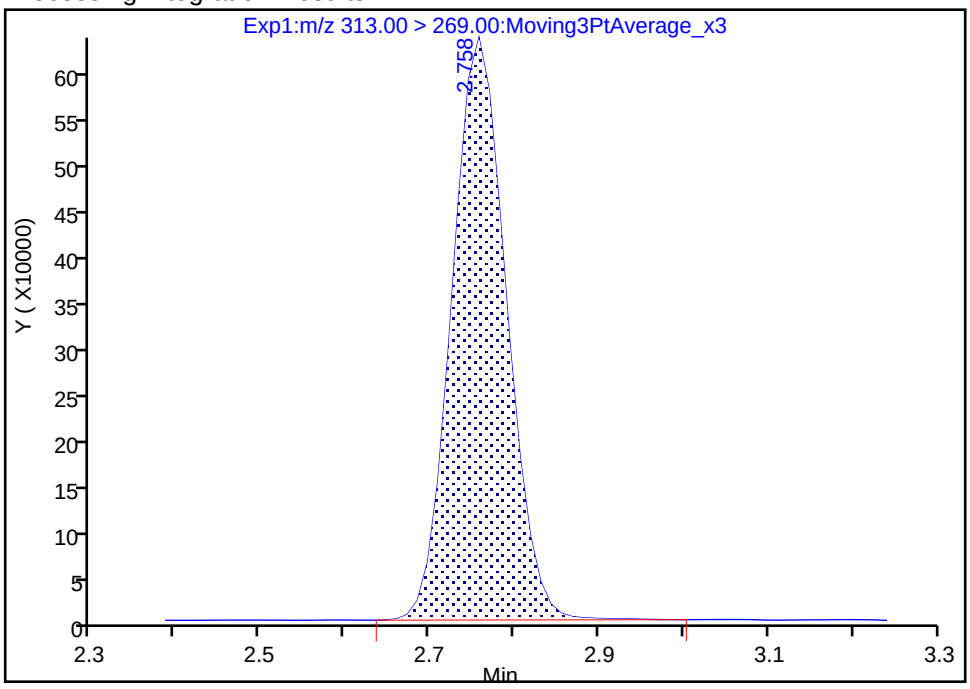
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

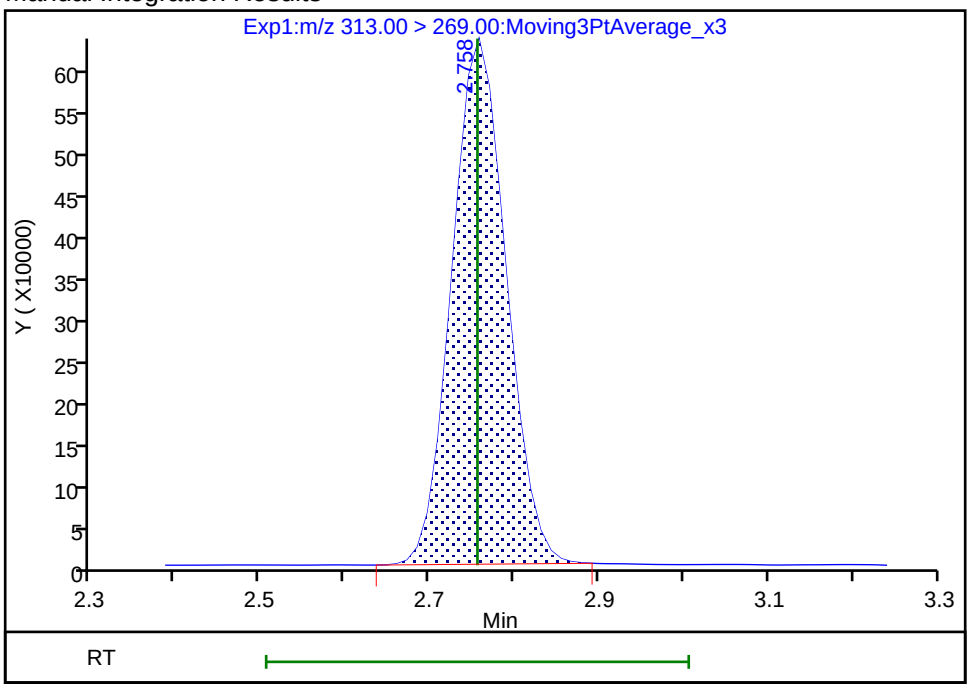
Processing Integration Results

RT: 2.76
Area: 2851646
Amount: 2.330387
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 2833227
Amount: 2.358007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

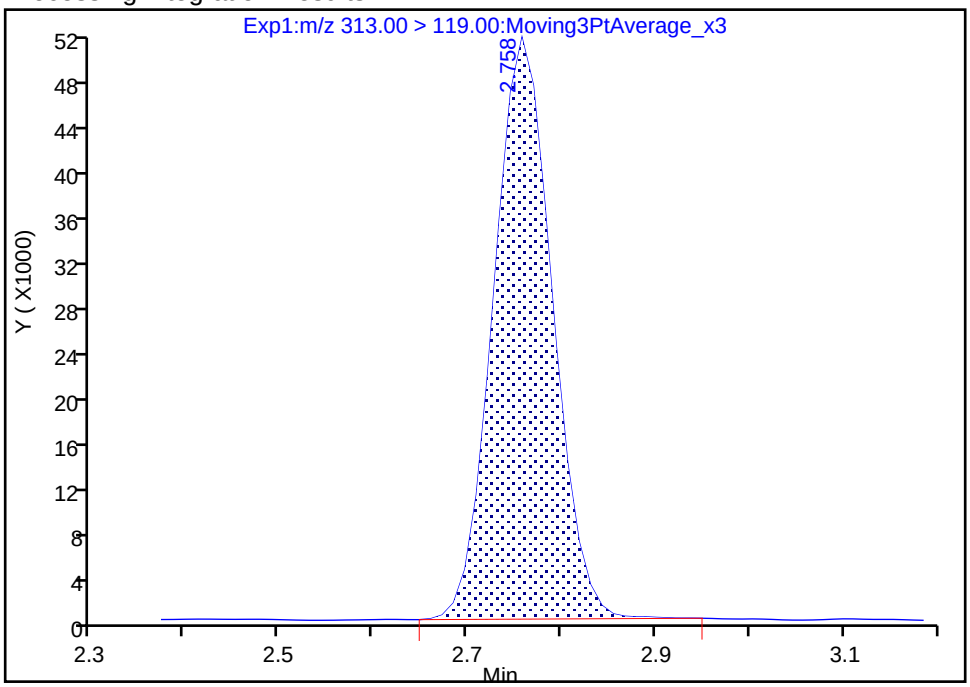
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

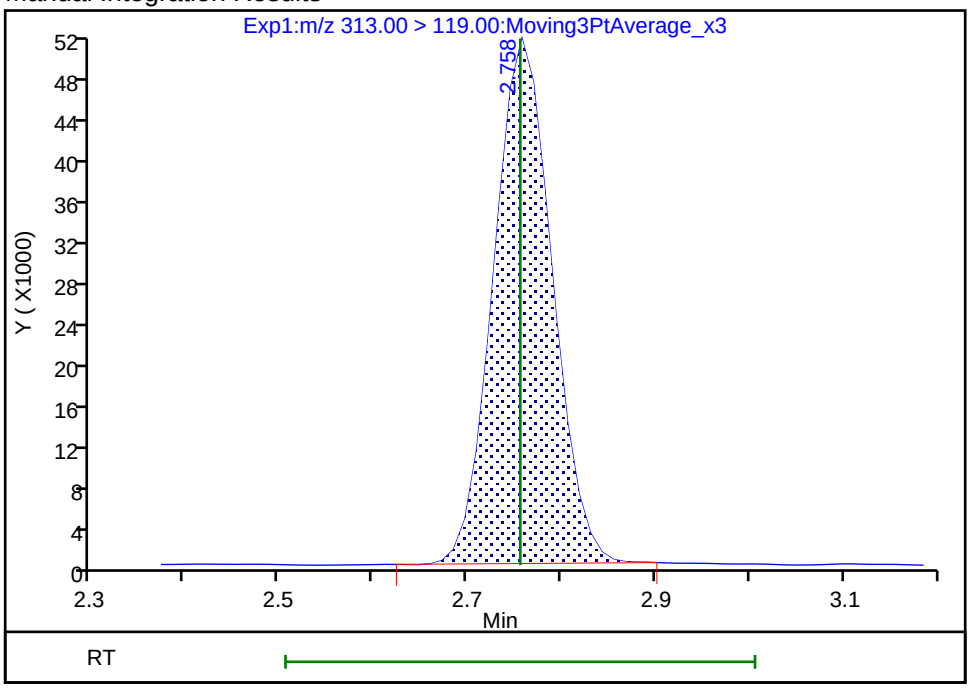
Processing Integration Results

RT: 2.76
Area: 224099
Amount: 2.330387
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 223009
Amount: 2.358007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

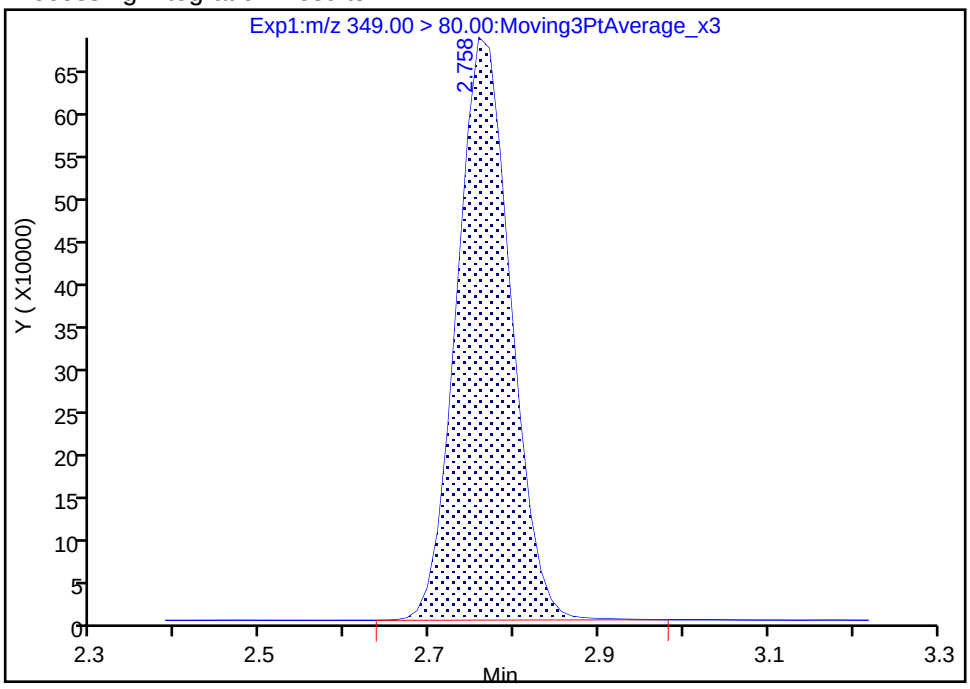
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

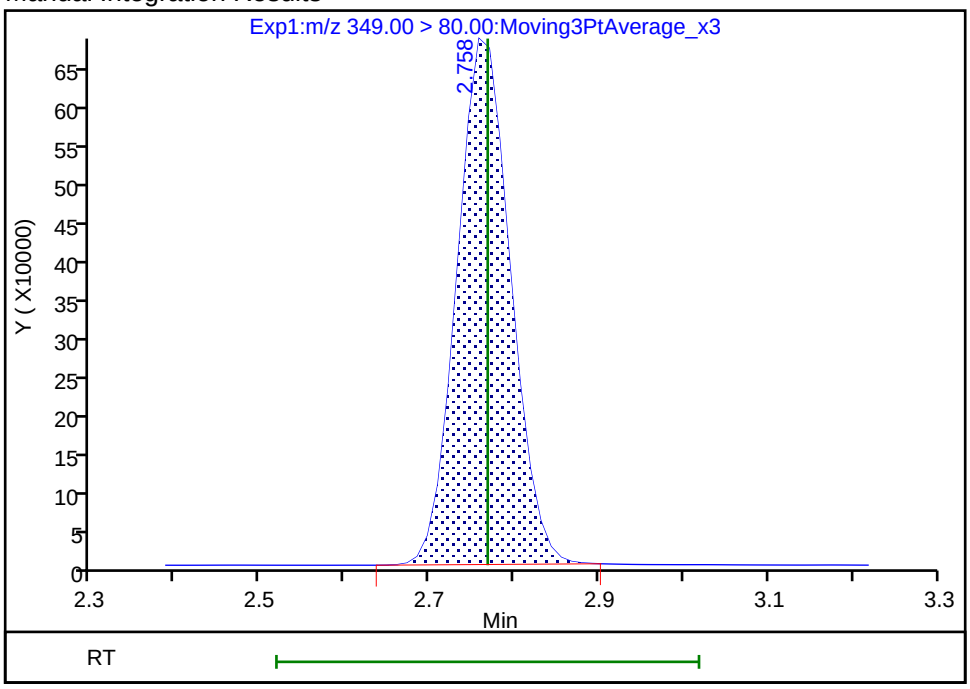
Processing Integration Results

RT: 2.76
Area: 3027530
Amount: 2.243704
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 3014762
Amount: 2.264600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

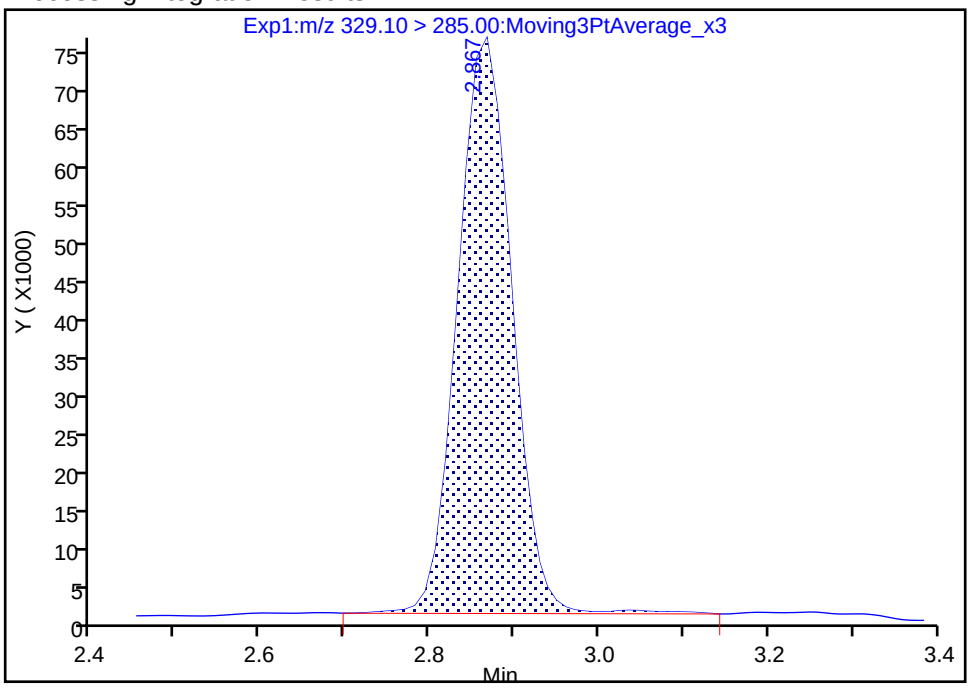
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

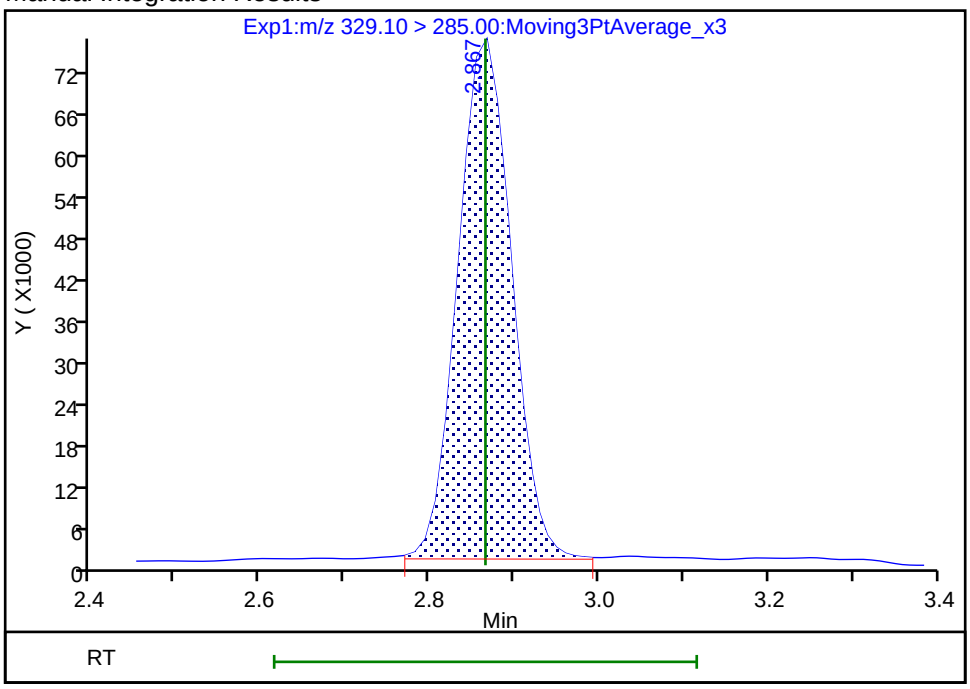
Processing Integration Results

RT: 2.87
Area: 336731
Amount: 2.644778
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 333546
Amount: 2.770716
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

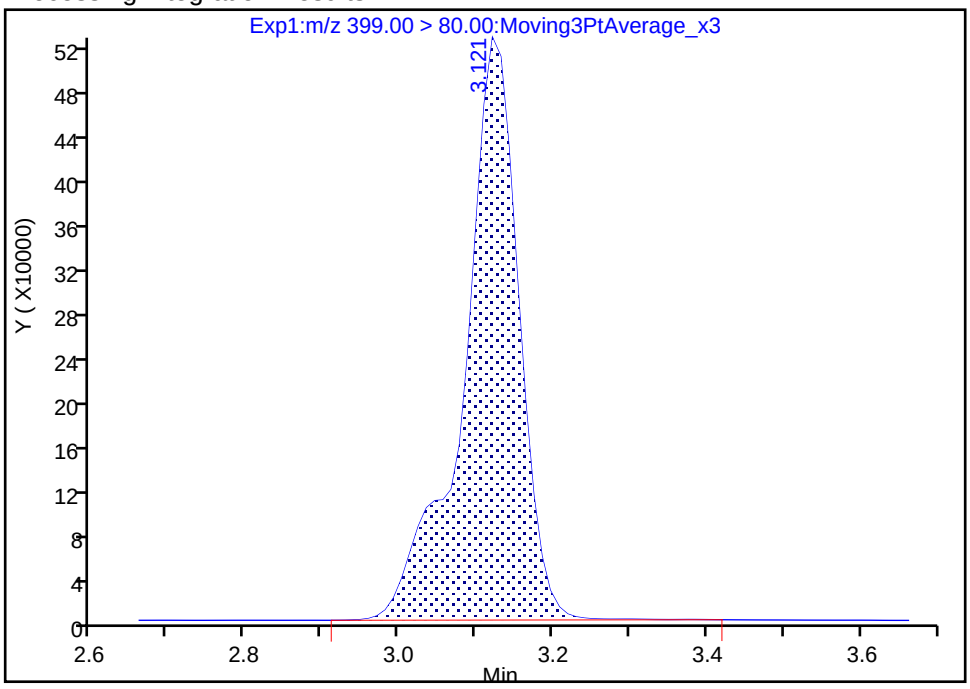
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

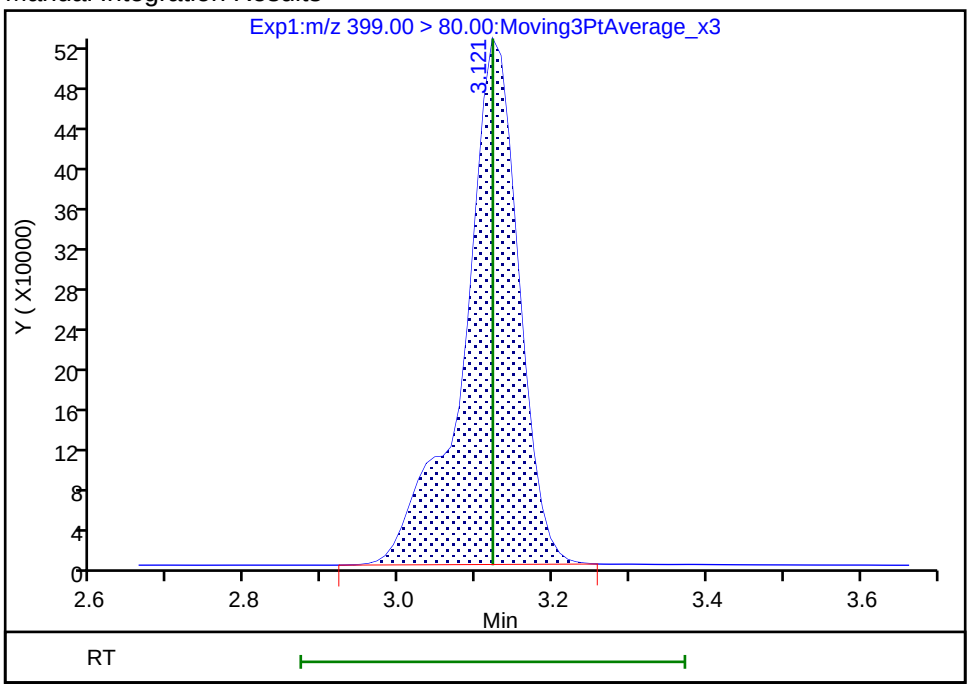
Processing Integration Results

RT: 3.12
Area: 2606777
Amount: 2.106741
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 2594885
Amount: 2.134988
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

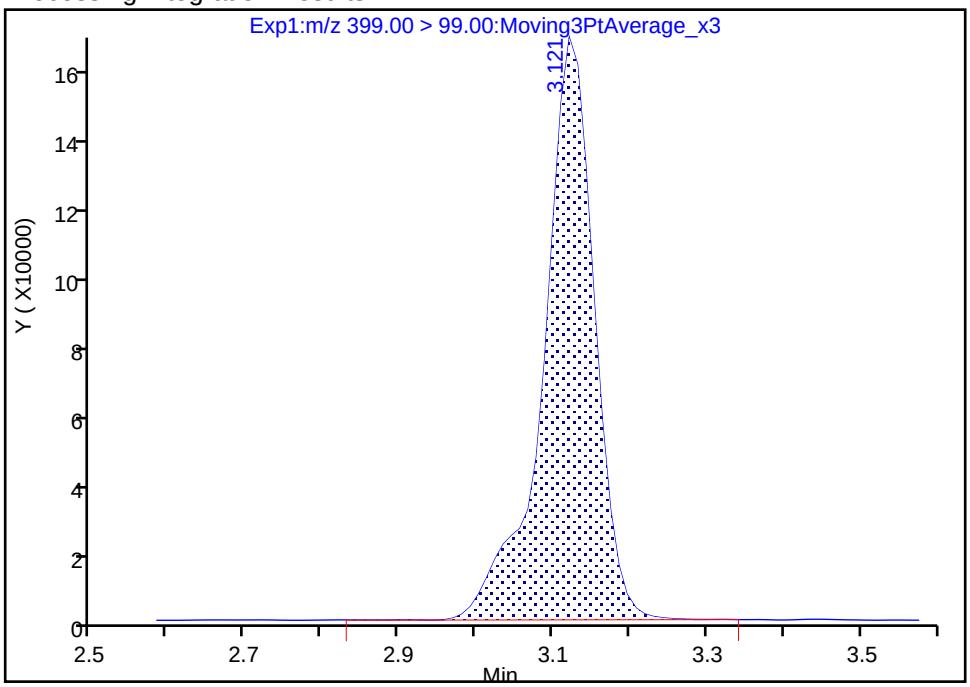
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

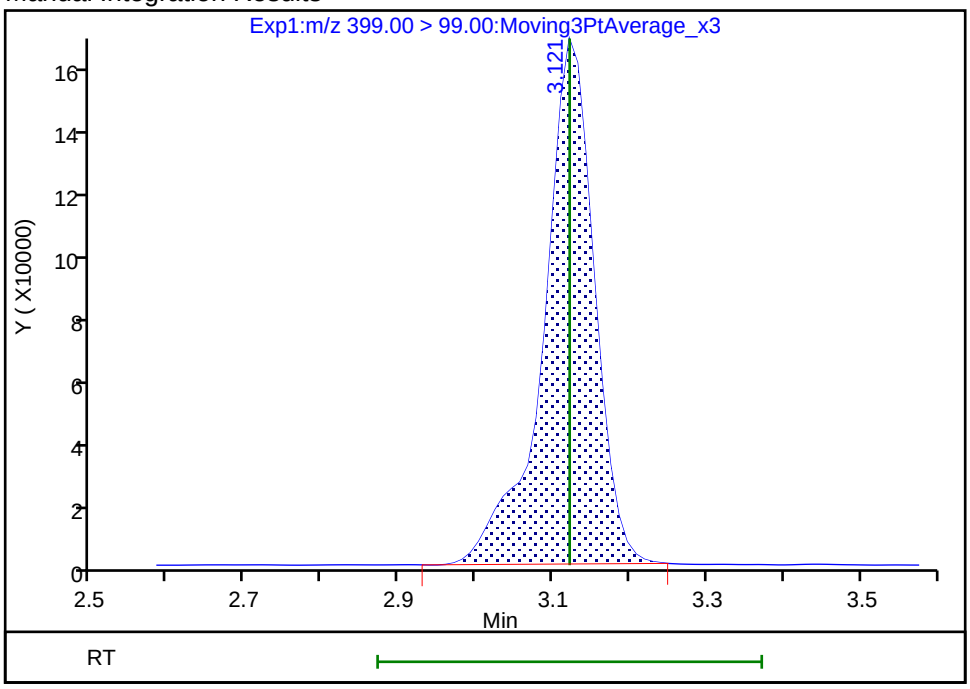
Processing Integration Results

RT: 3.12
Area: 750496
Amount: 2.106741
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 745424
Amount: 2.134988
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

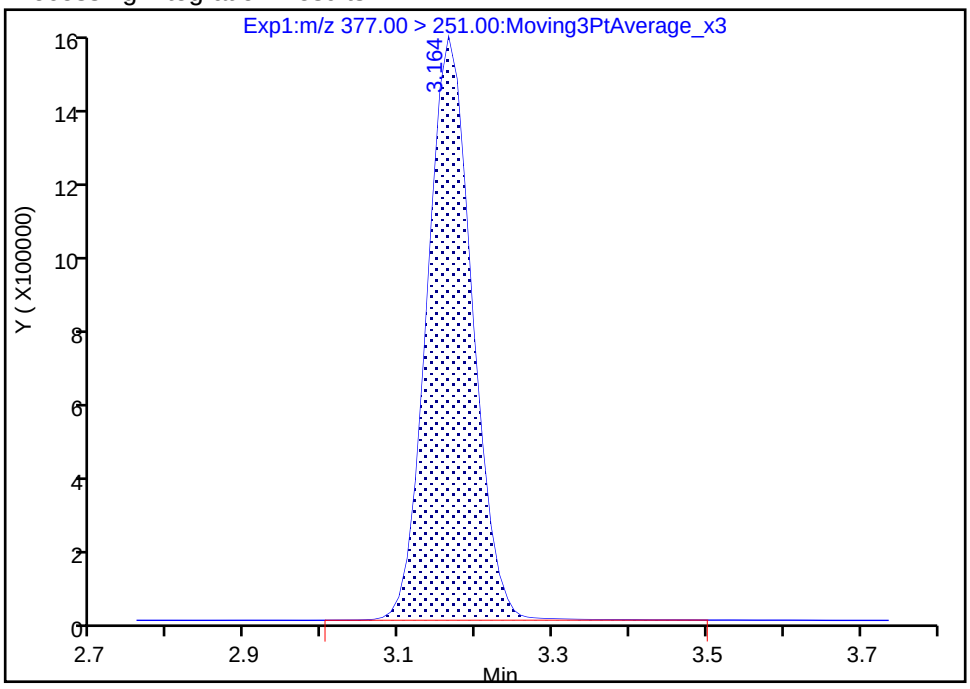
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

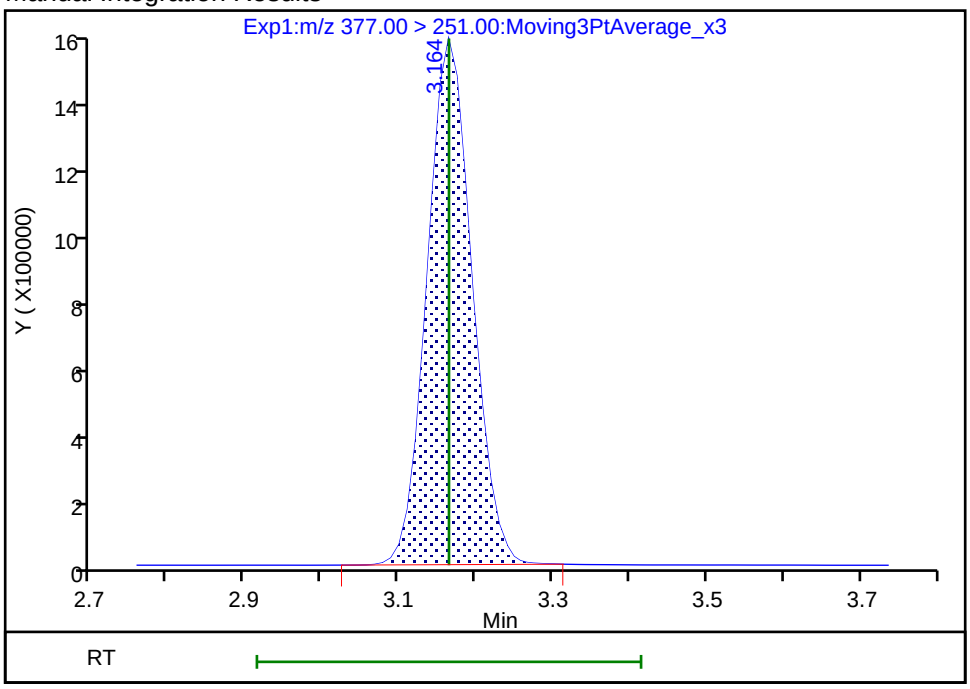
Processing Integration Results

RT: 3.16
Area: 6376625
Amount: 2.234621
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 6344394
Amount: 2.277761
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

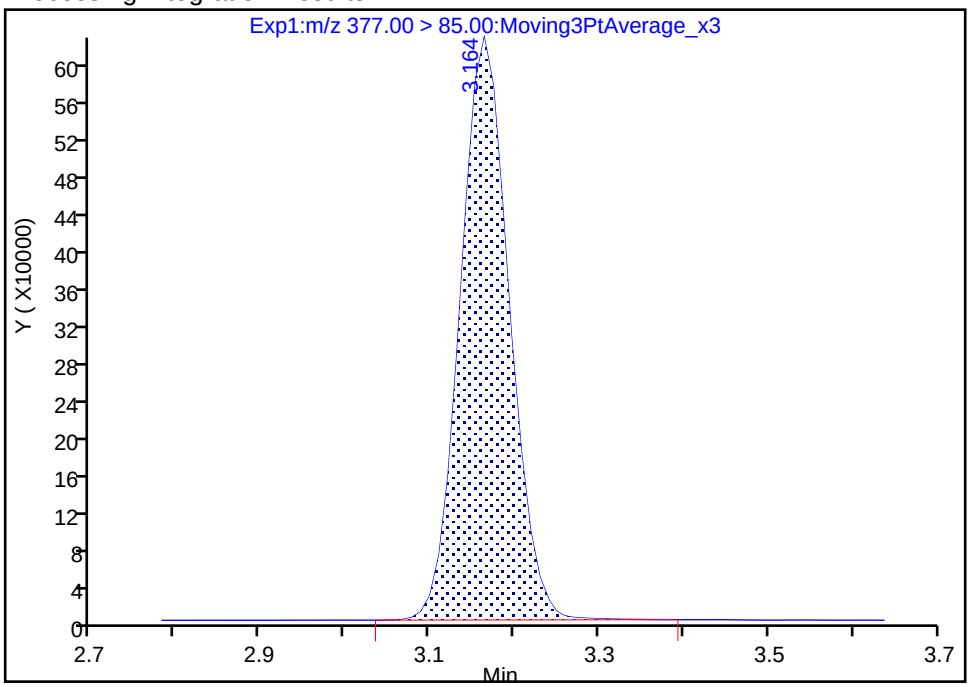
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

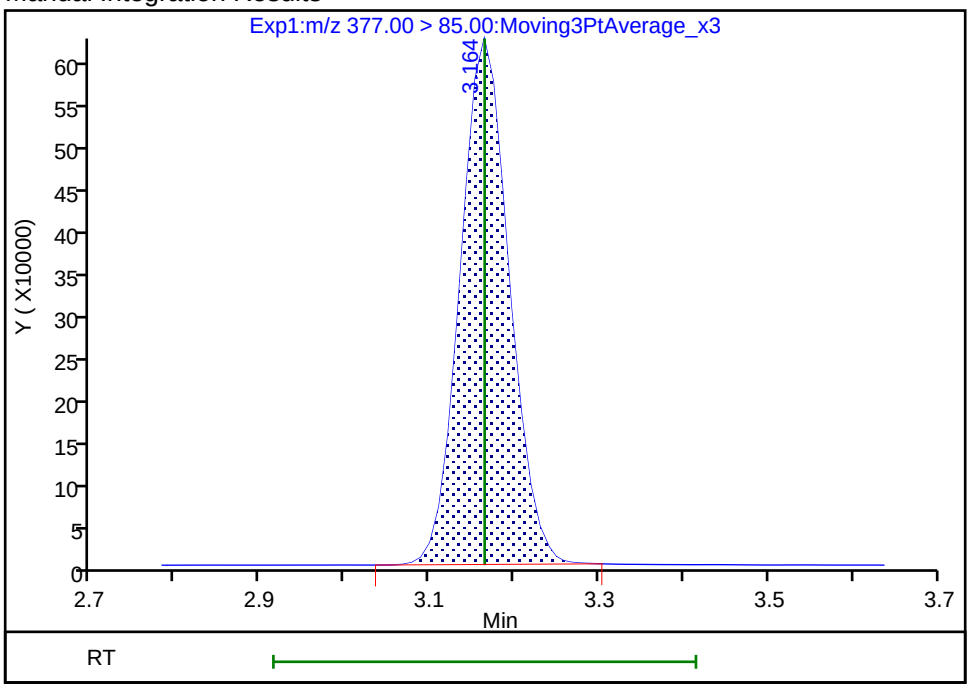
Processing Integration Results

RT: 3.16
Area: 2527704
Amount: 2.234621
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 2516908
Amount: 2.277761
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

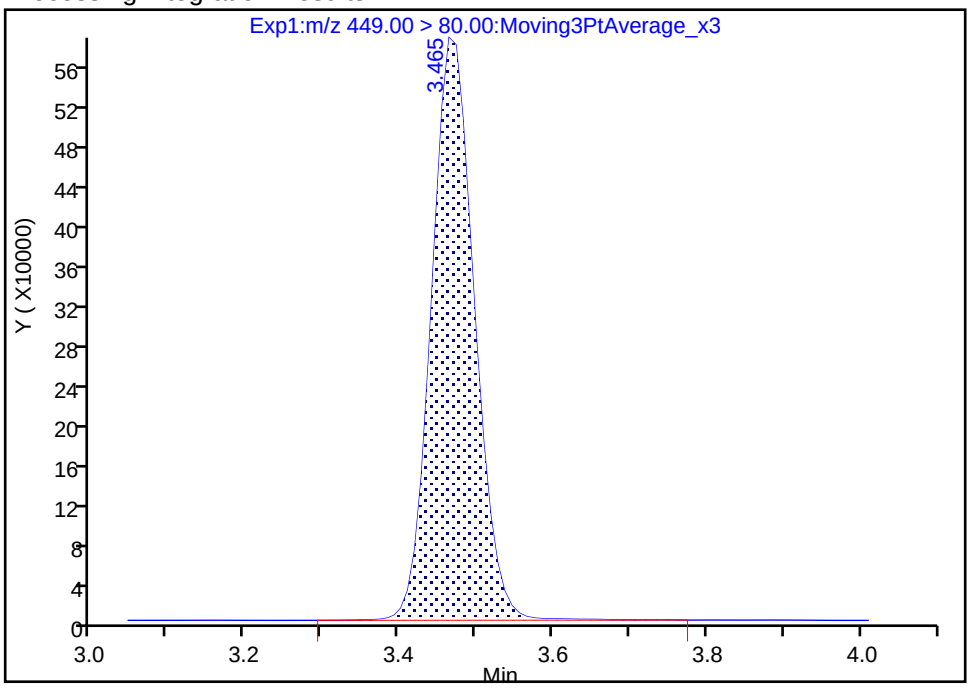
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

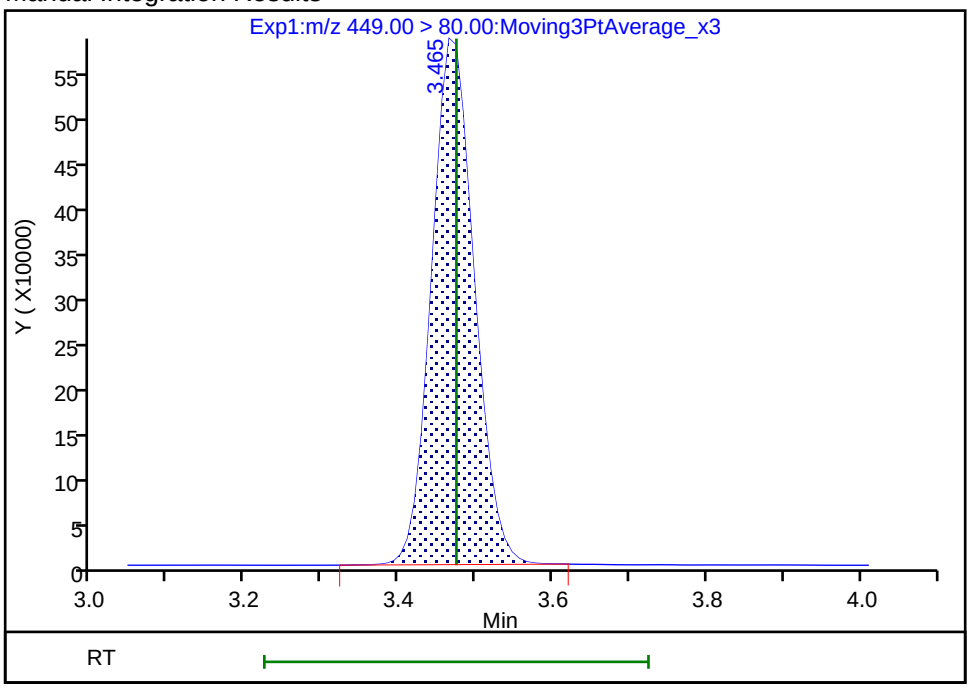
Processing Integration Results

RT: 3.46
Area: 2279685
Amount: 2.256647
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 2265445
Amount: 2.283496
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

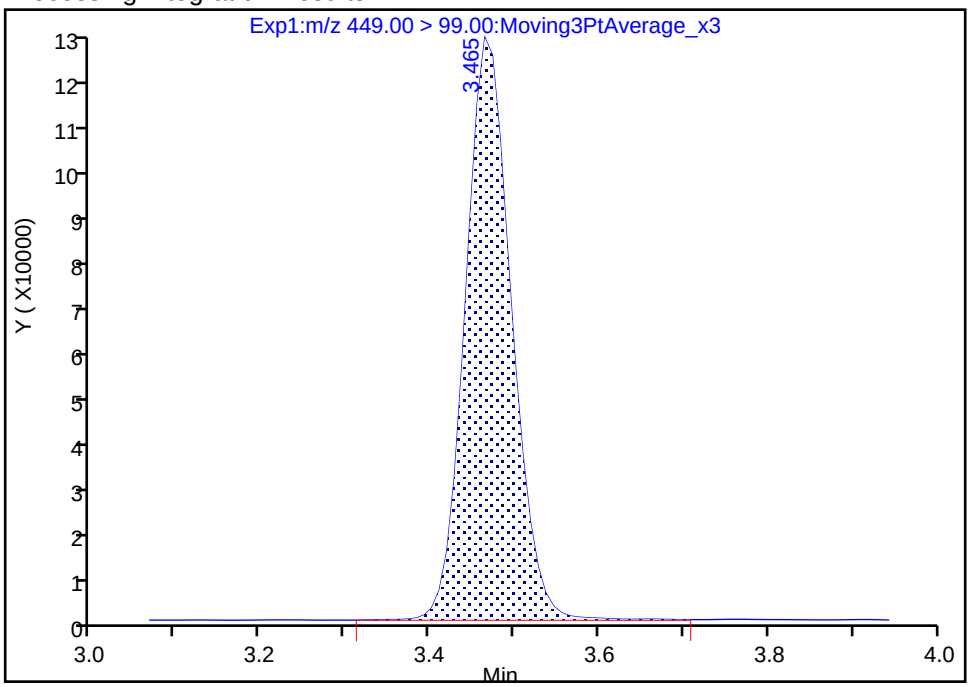
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

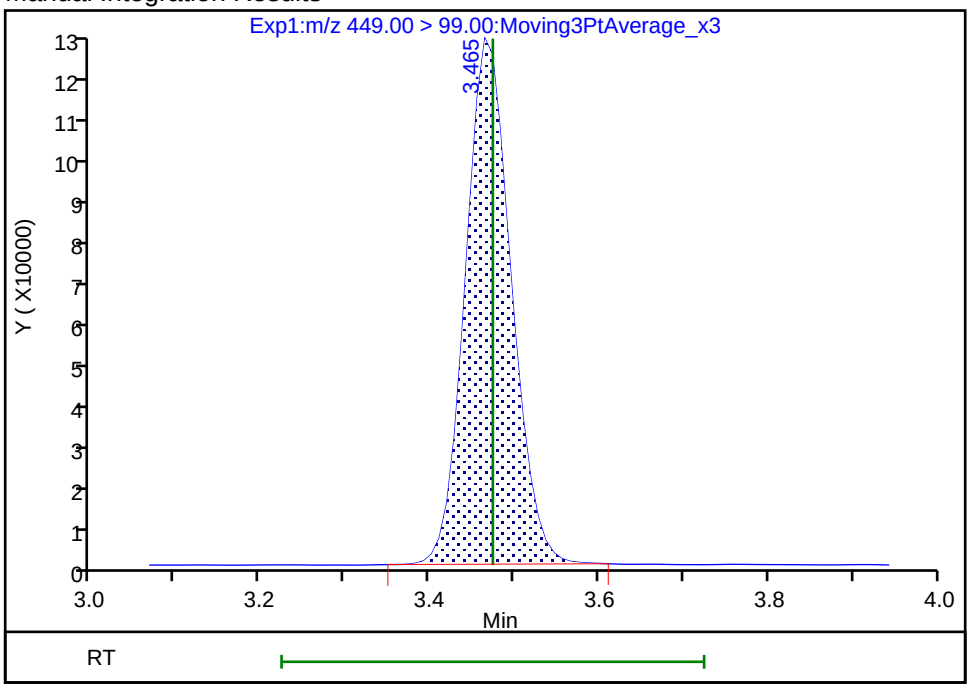
Processing Integration Results

RT: 3.46
Area: 456797
Amount: 2.256647
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 451574
Amount: 2.283496
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

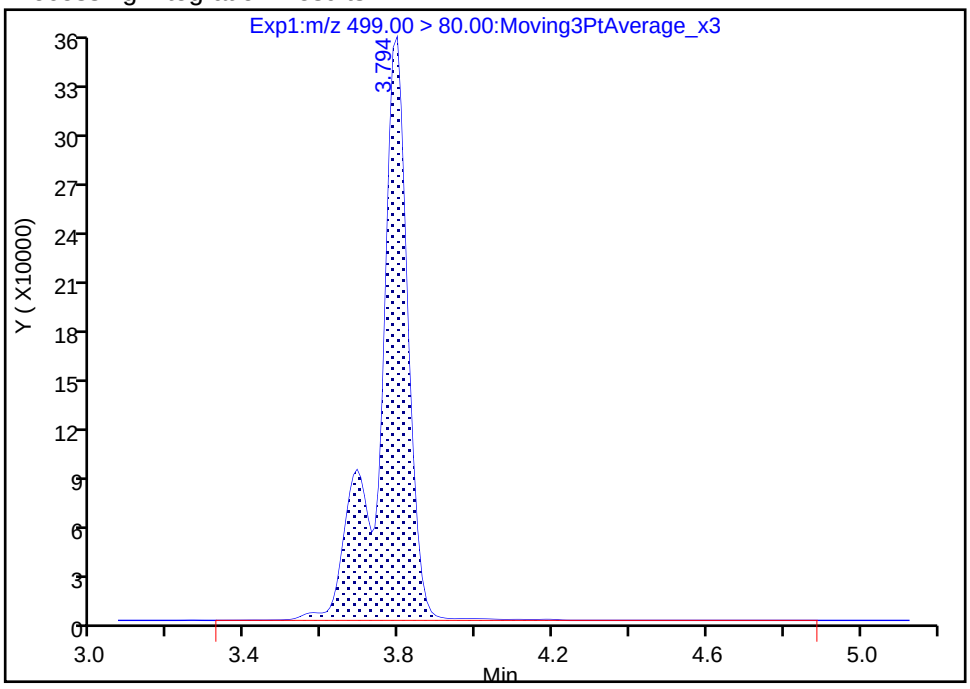
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

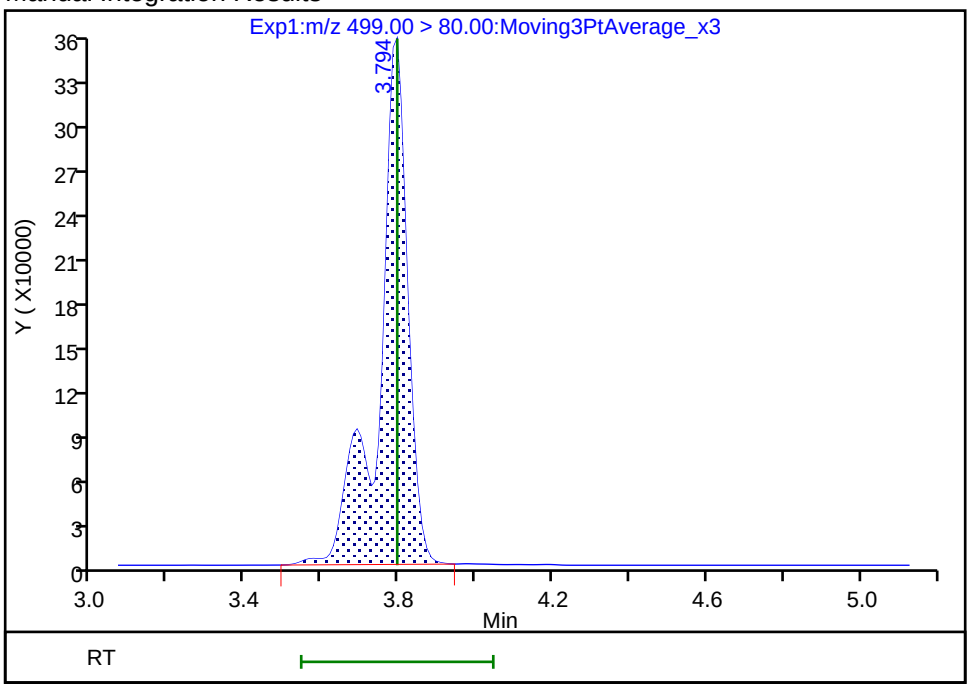
Processing Integration Results

RT: 3.79
Area: 1871198
Amount: 2.126169
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1848160
Amount: 2.140272
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

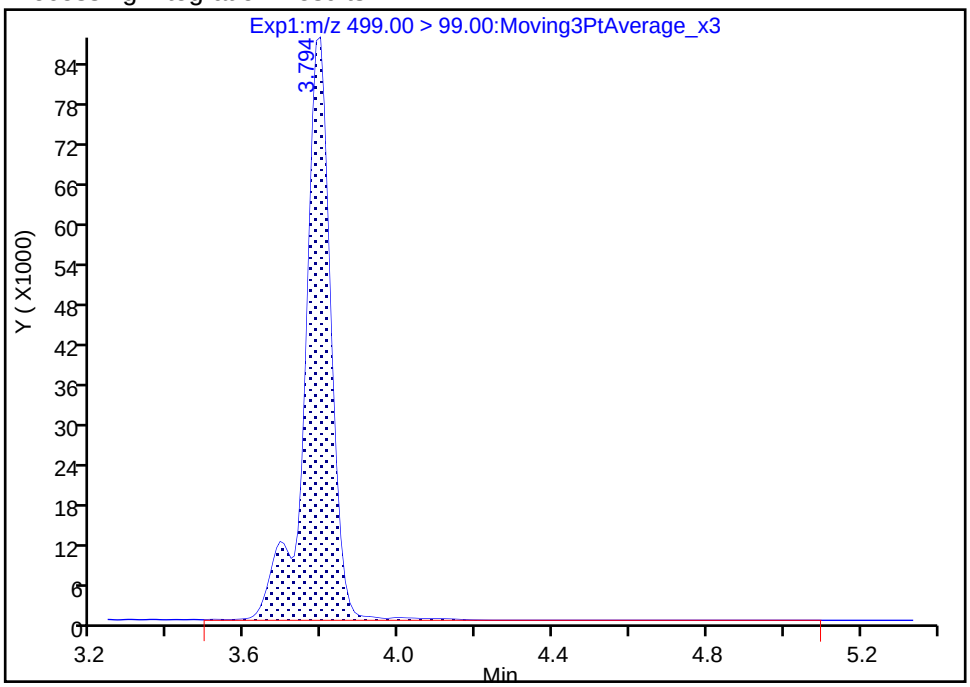
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

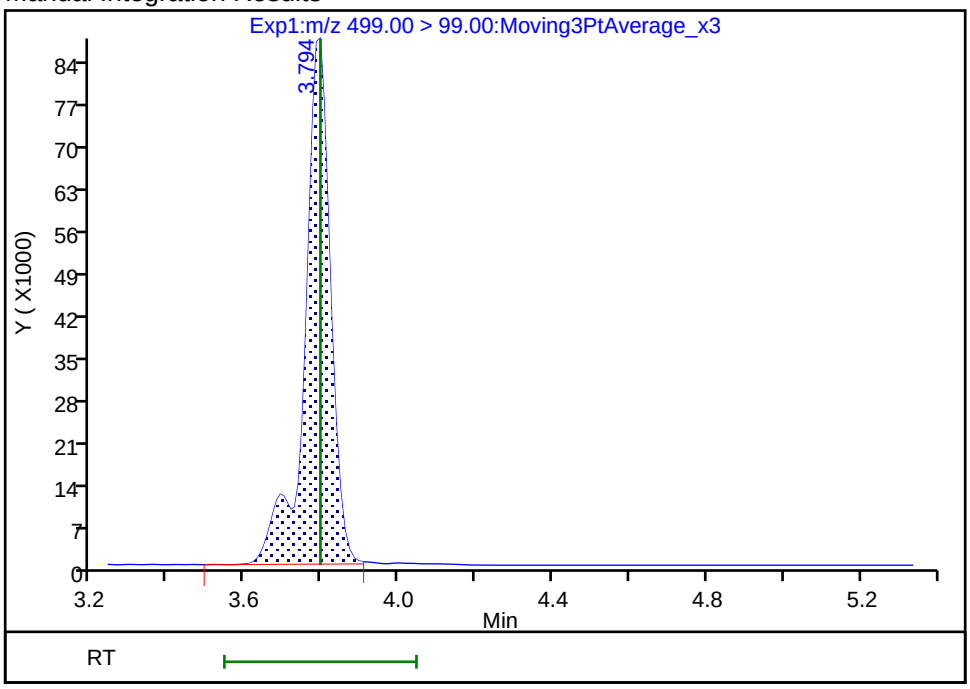
Processing Integration Results

RT: 3.79
Area: 414412
Amount: 2.126169
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 406321
Amount: 2.140272
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

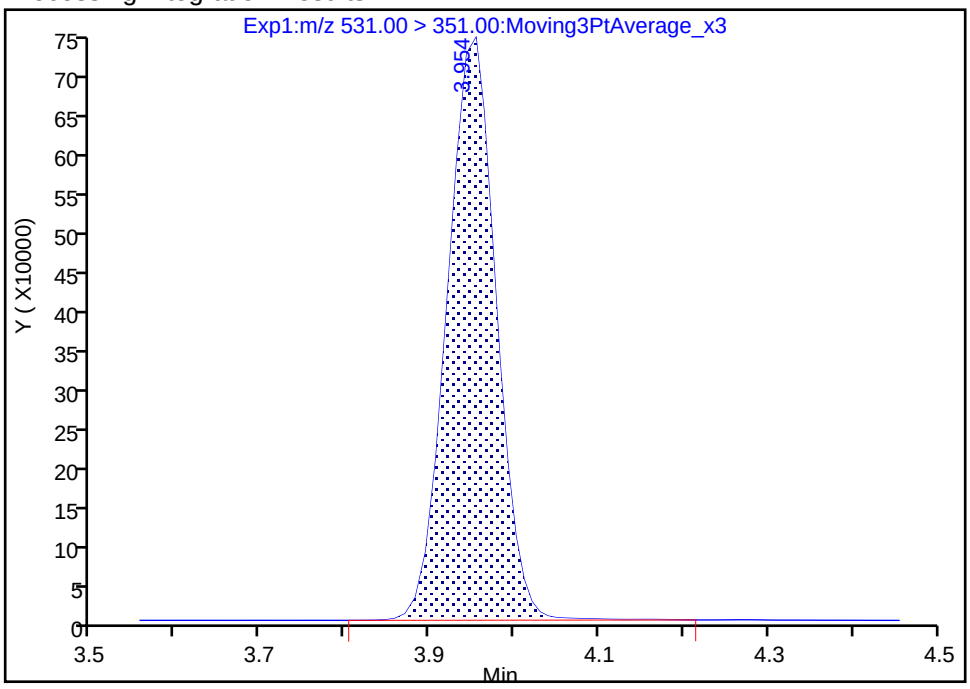
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

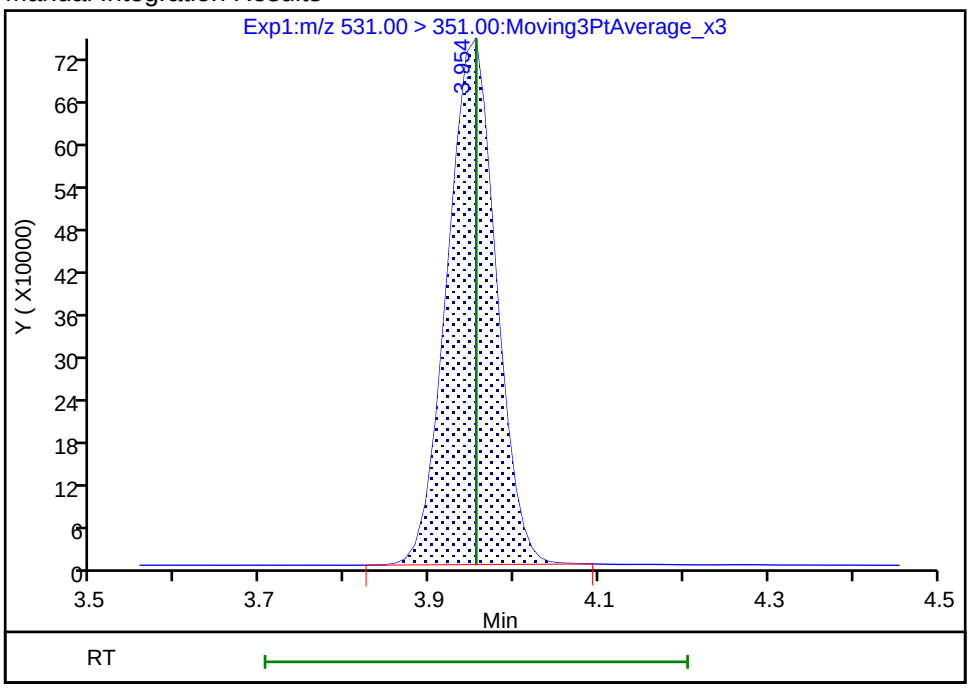
Processing Integration Results

RT: 3.95
Area: 2974791
Amount: 2.238546
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 2958438
Amount: 2.274119
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

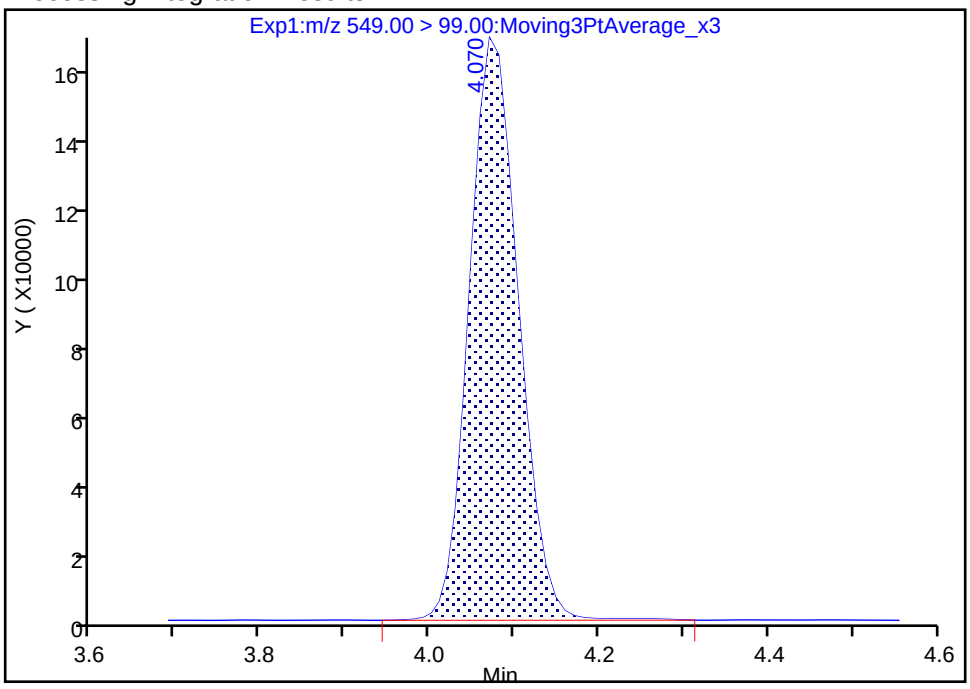
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

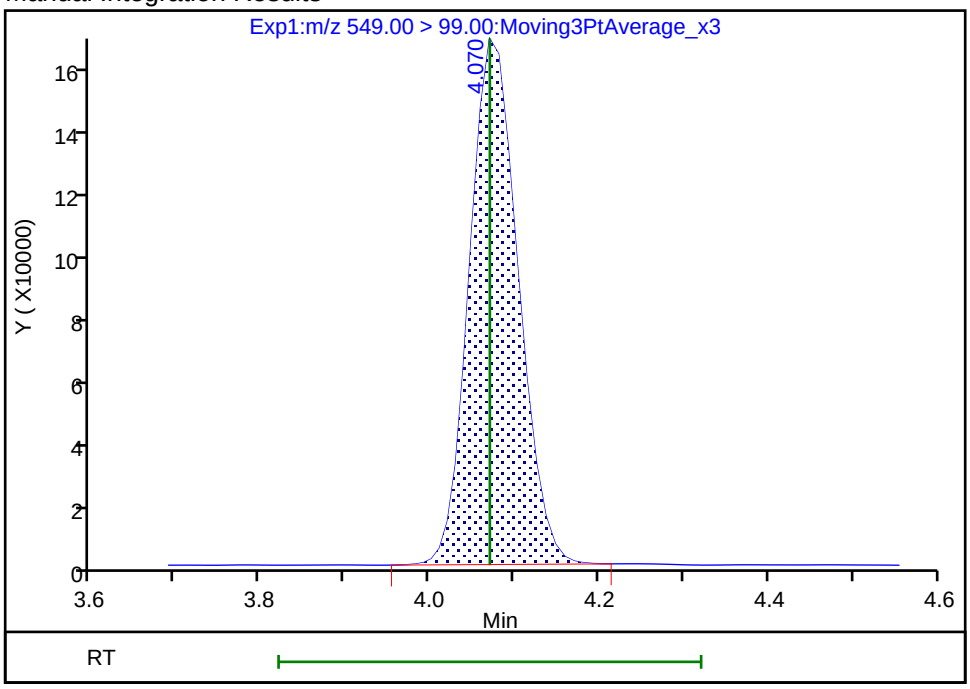
Processing Integration Results

RT: 4.07
Area: 653667
Amount: 2.282995
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 648940
Amount: 2.313170
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

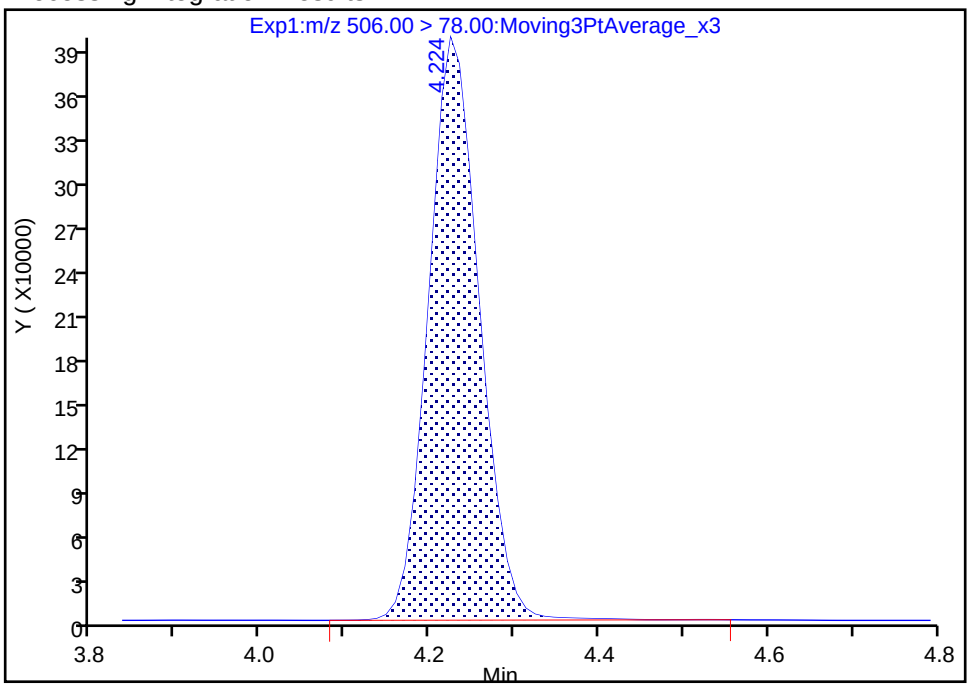
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

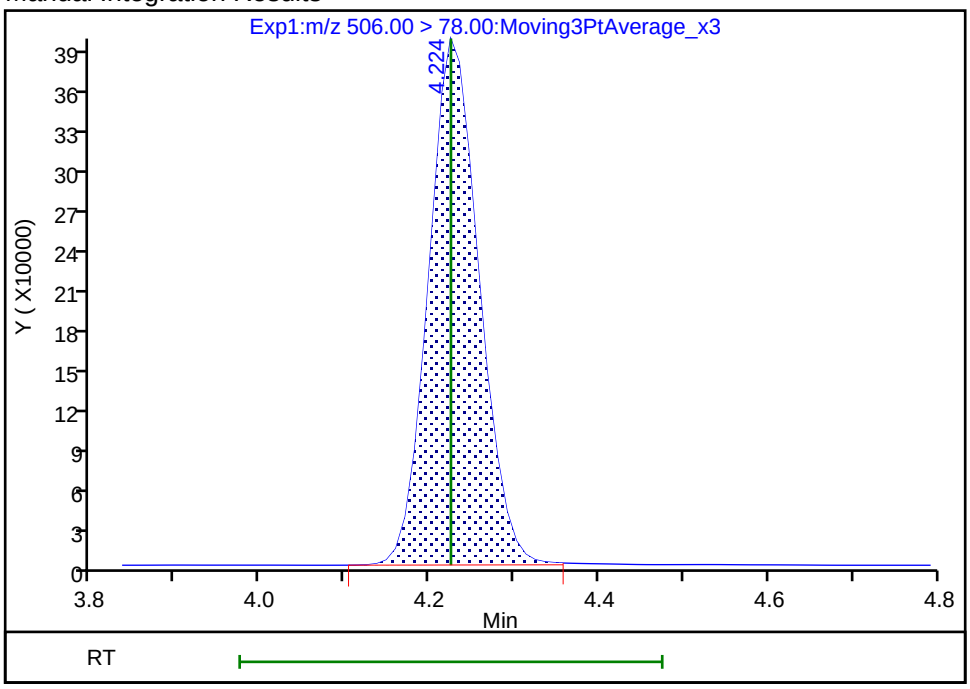
Processing Integration Results

RT: 4.22
Area: 1647809
Amount: 1.241624
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1642092
Amount: 1.229645
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

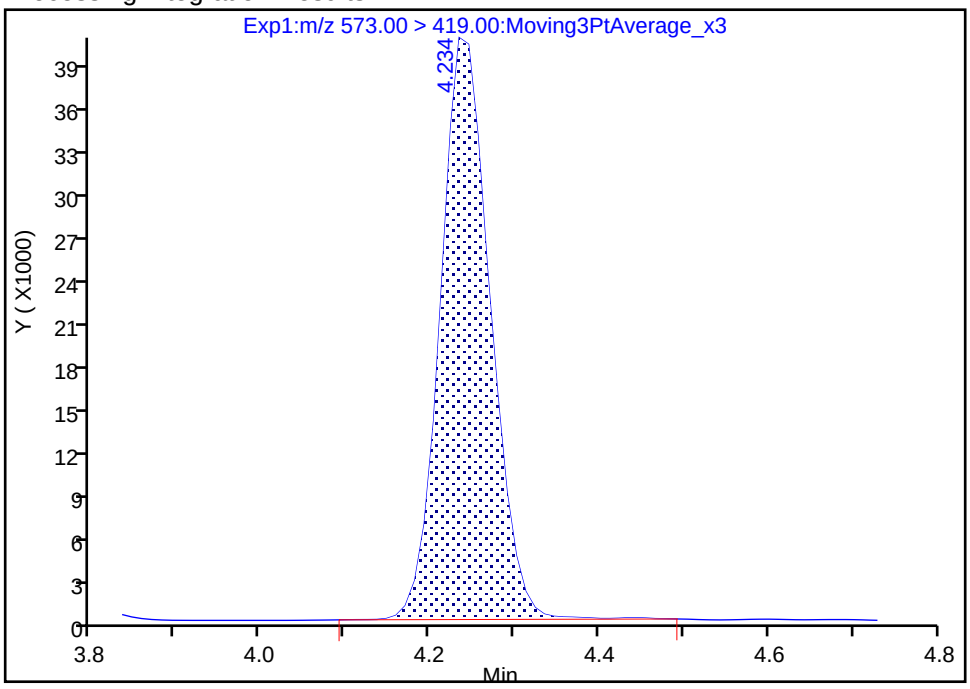
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

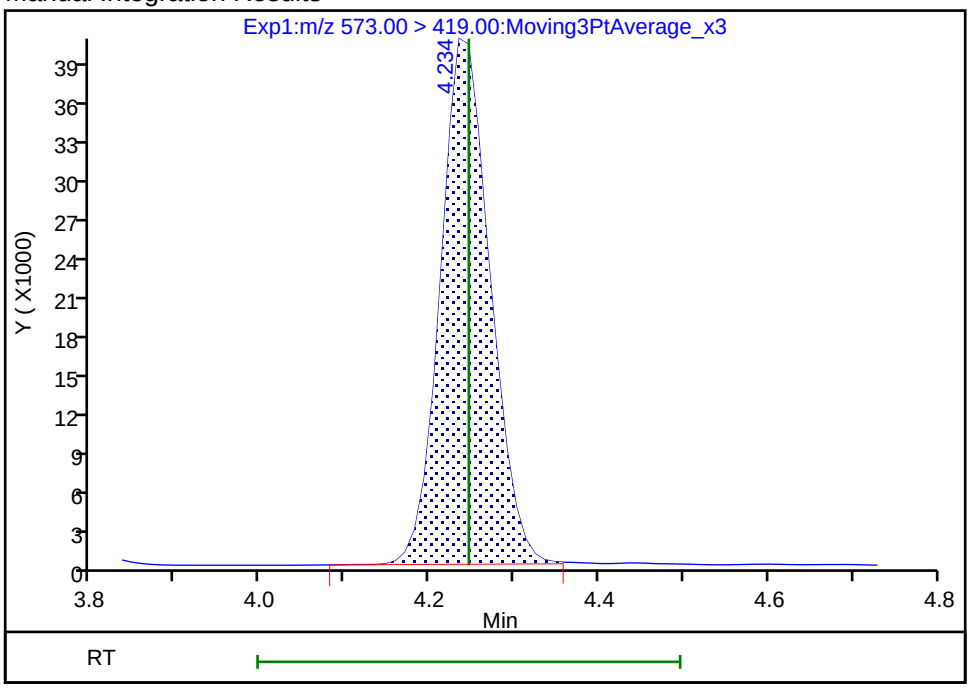
Processing Integration Results

RT: 4.23
Area: 164010
Amount: 1.216654
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 163220
Amount: 1.198522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

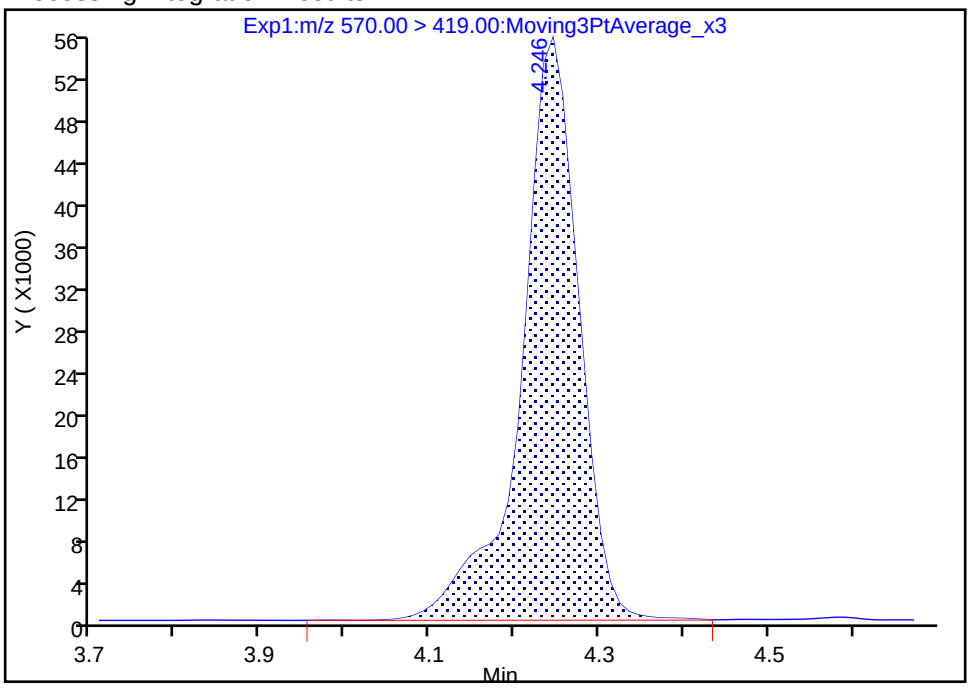
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

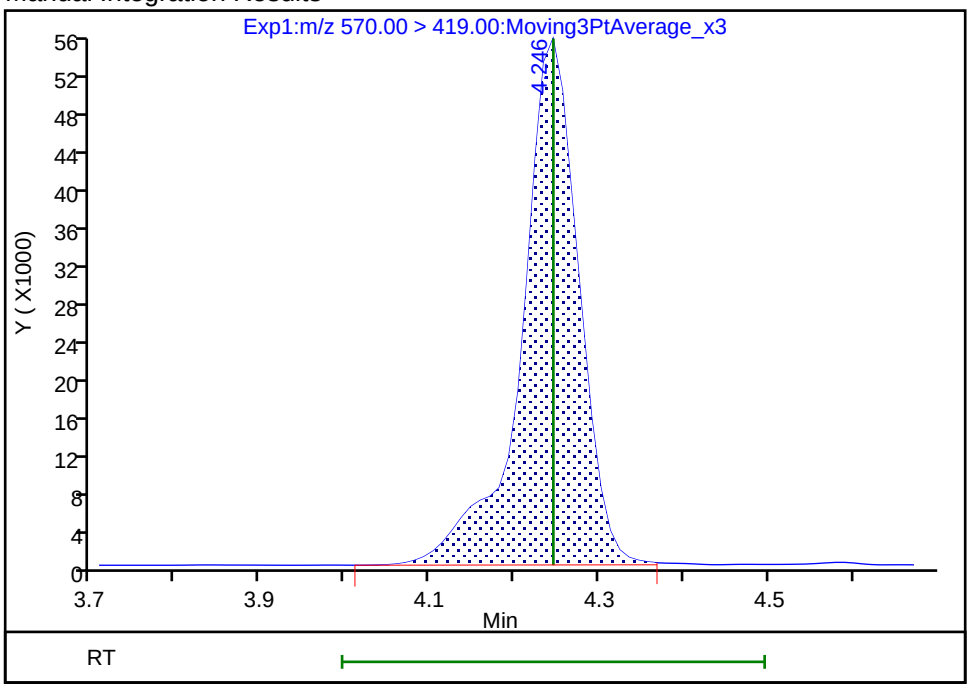
Processing Integration Results

RT: 4.25
Area: 262442
Amount: 2.535675
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 261621
Amount: 2.550420
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

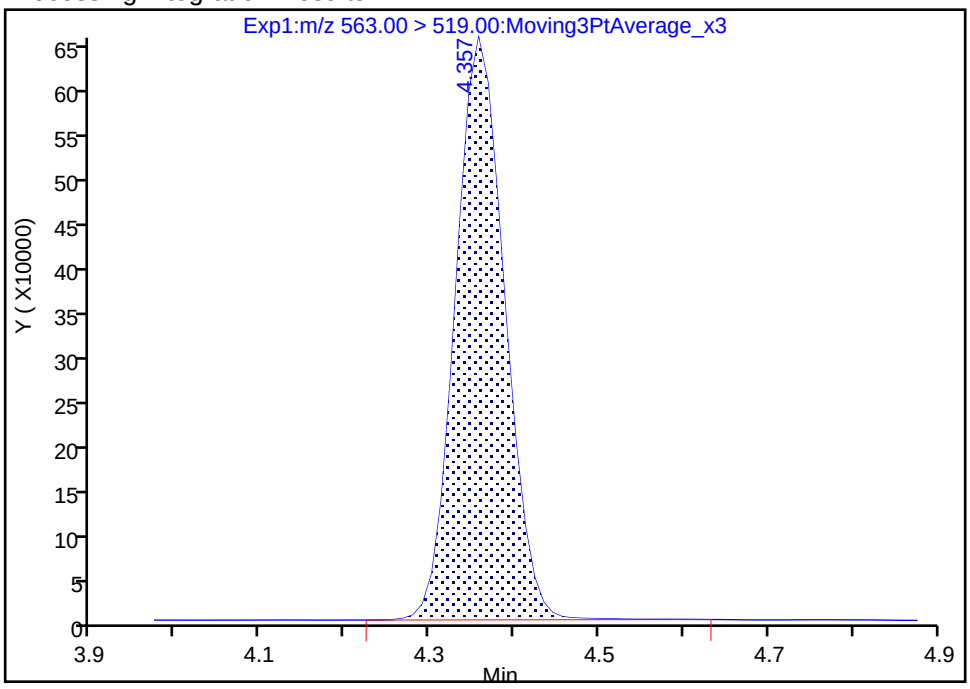
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

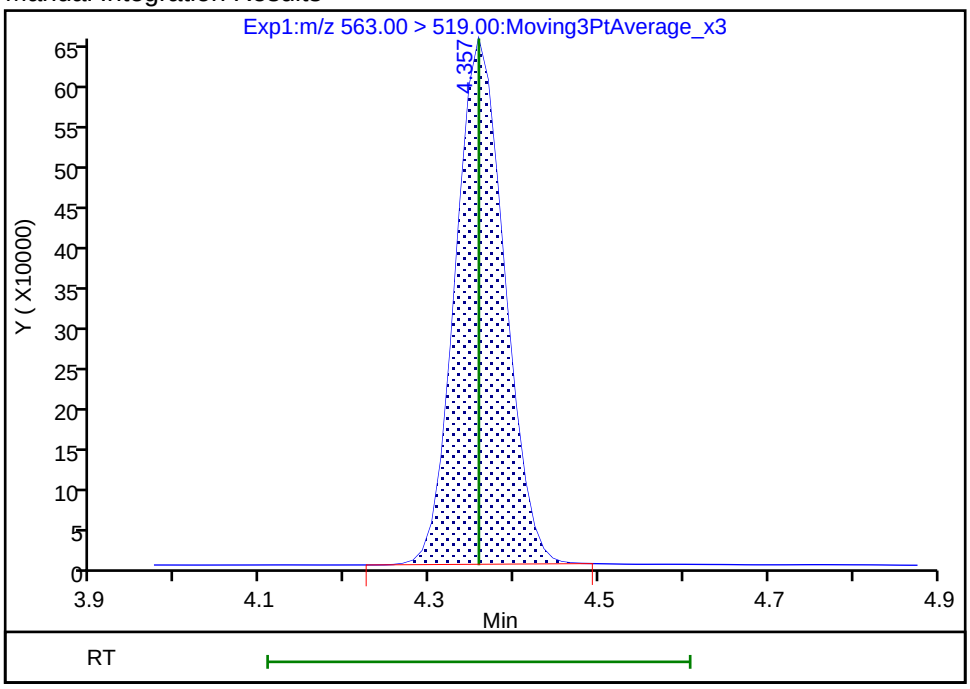
Processing Integration Results

RT: 4.36
Area: 2652813
Amount: 2.226734
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 2638255
Amount: 2.247745
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

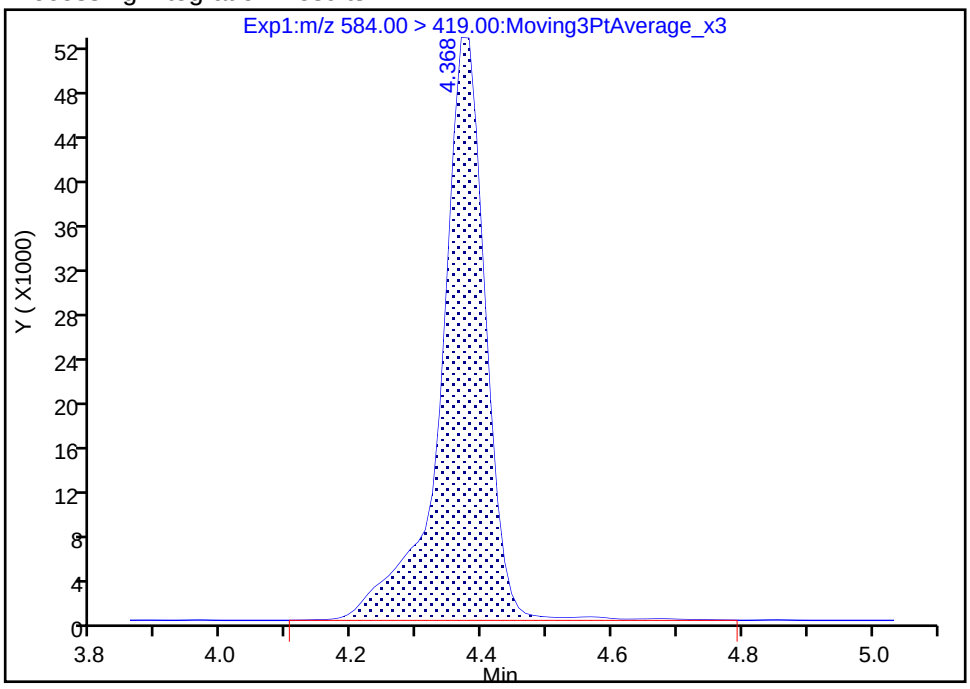
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

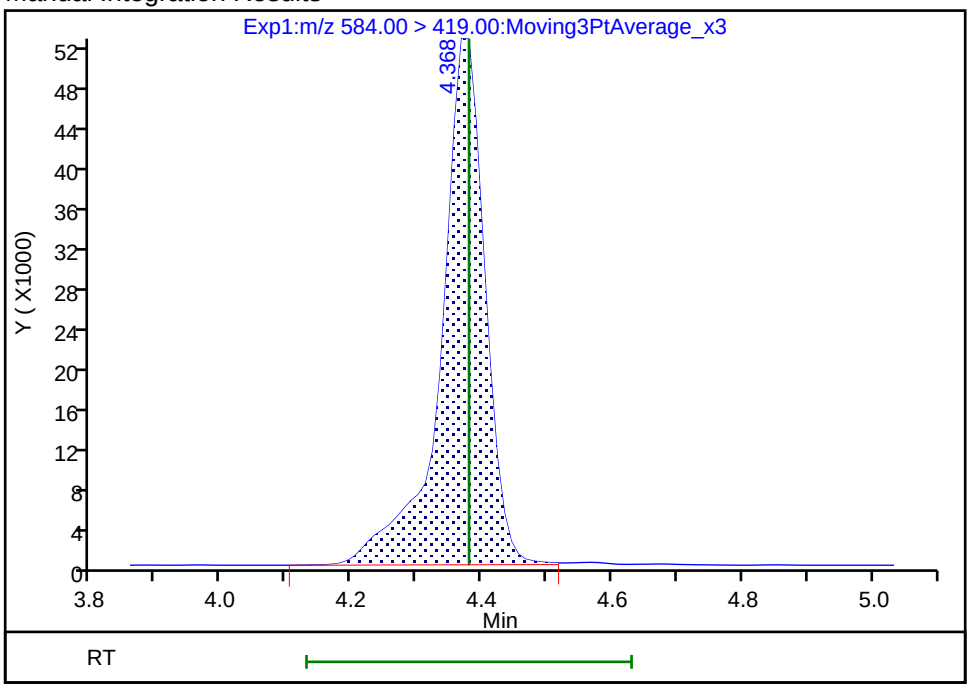
Processing Integration Results

RT: 4.37
Area: 249588
Amount: 2.213969
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 246673
Amount: 2.242662
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

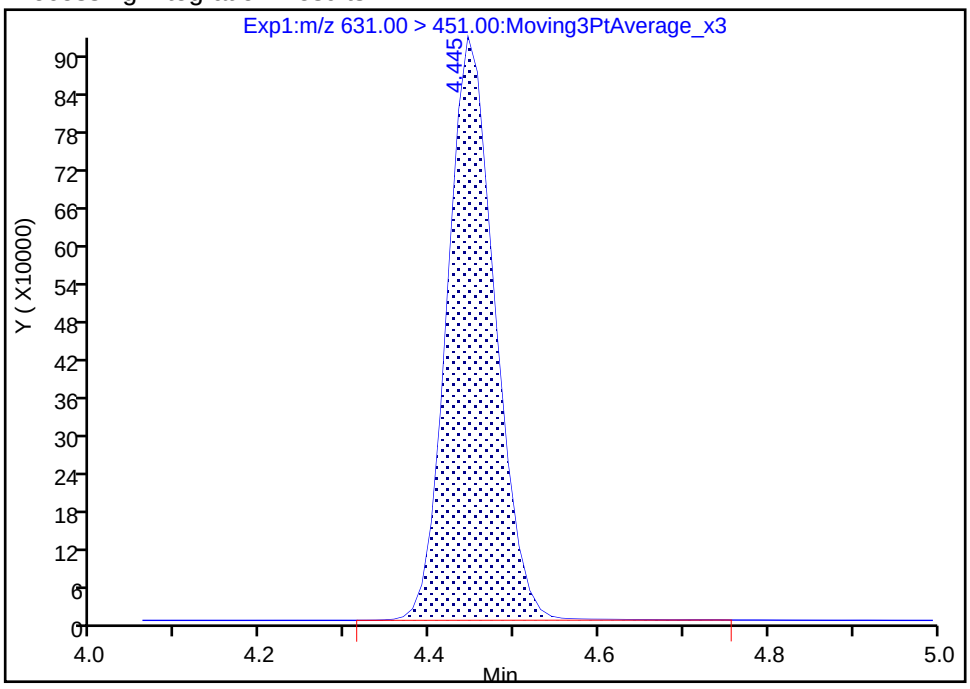
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

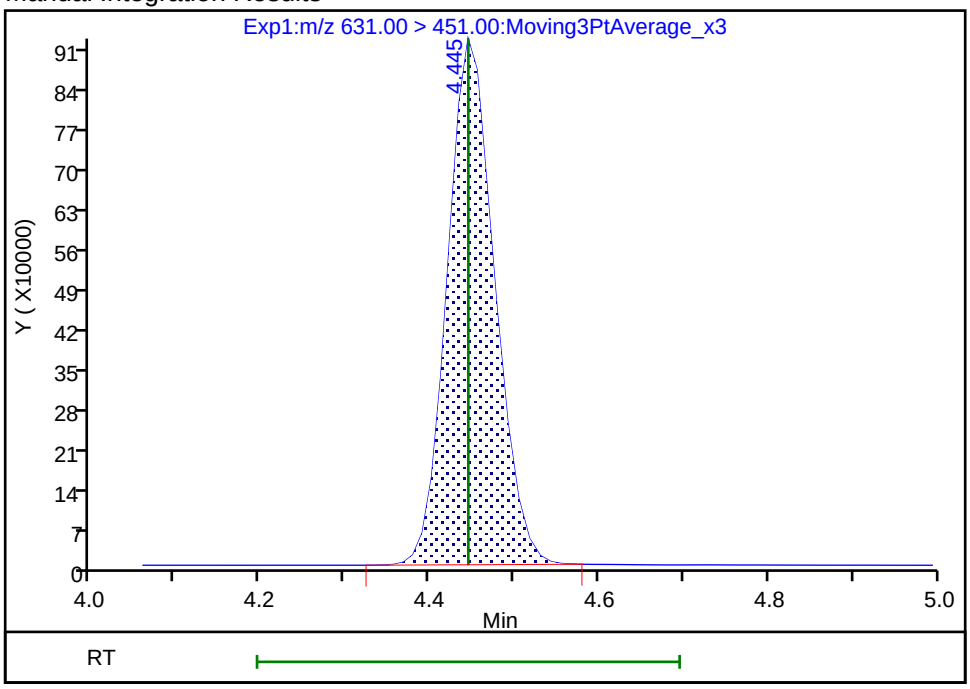
Processing Integration Results

RT: 4.44
Area: 3609805
Amount: 2.315253
Amount Units: ng/ml




Manual Integration Results

RT: 4.44
Area: 3593181
Amount: 2.338766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

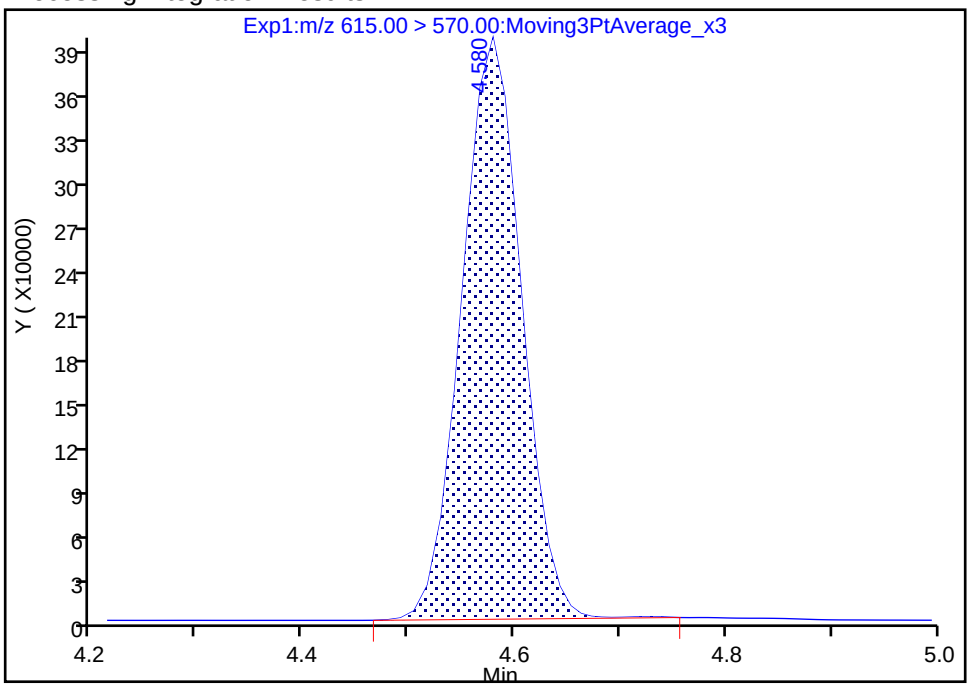
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

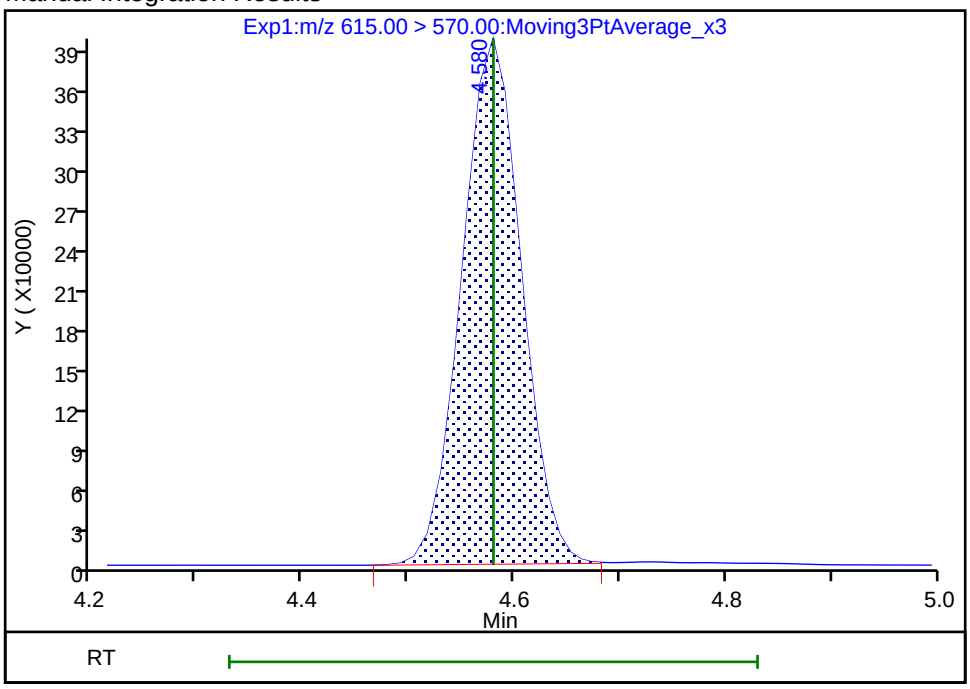
Processing Integration Results

RT: 4.58
Area: 1538968
Amount: 1.333546
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 1536568
Amount: 1.323781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

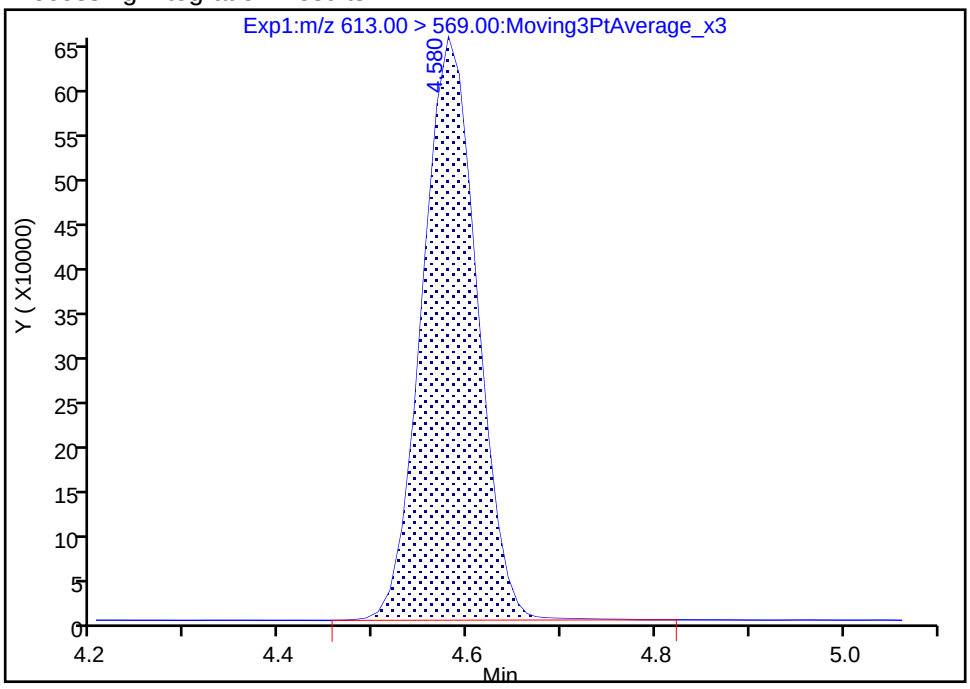
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

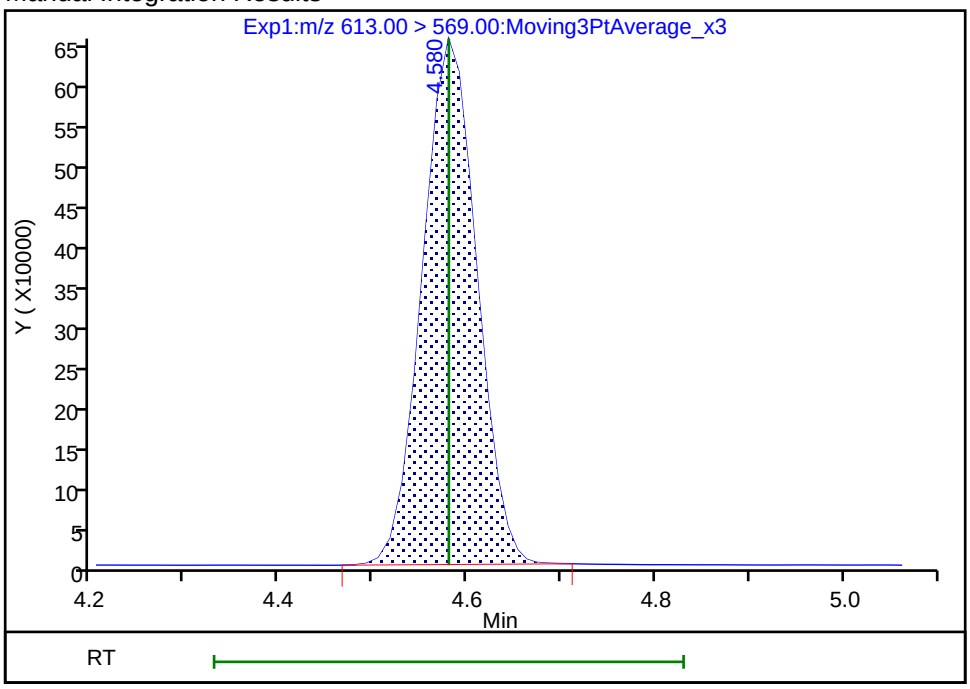
Processing Integration Results

RT: 4.58
Area: 2650934
Amount: 2.158338
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 2636999
Amount: 2.191093
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

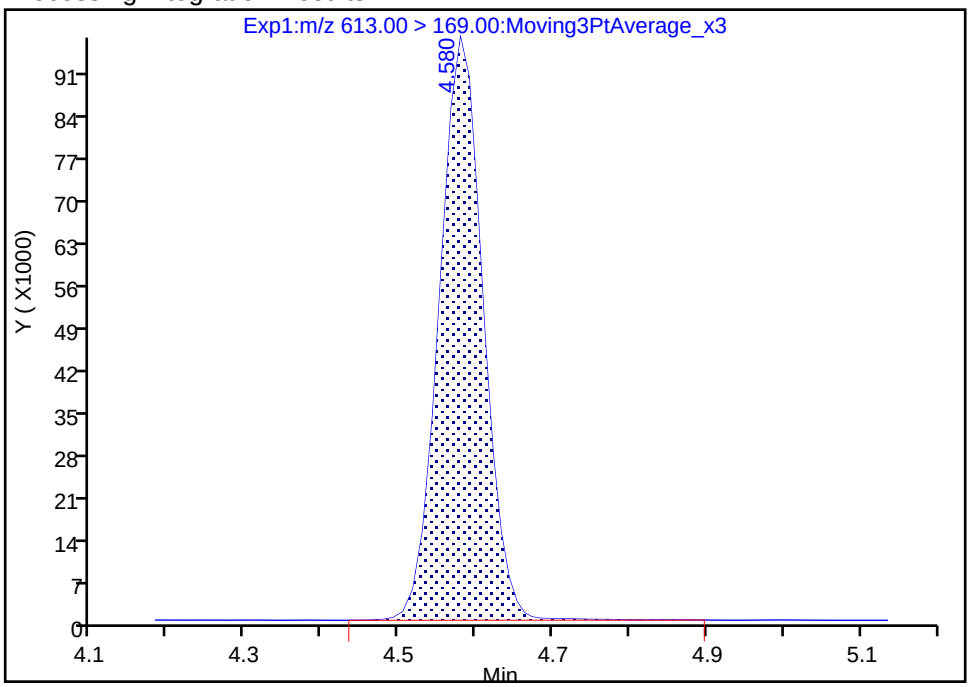
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

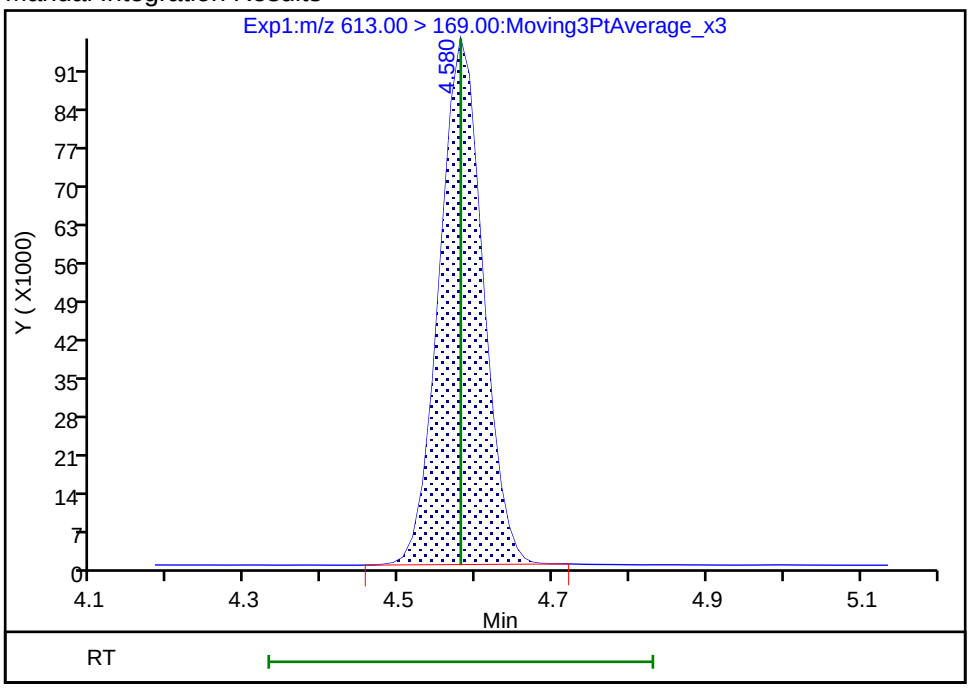
Processing Integration Results

RT: 4.58
Area: 382365
Amount: 2.158338
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 379888
Amount: 2.191093
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

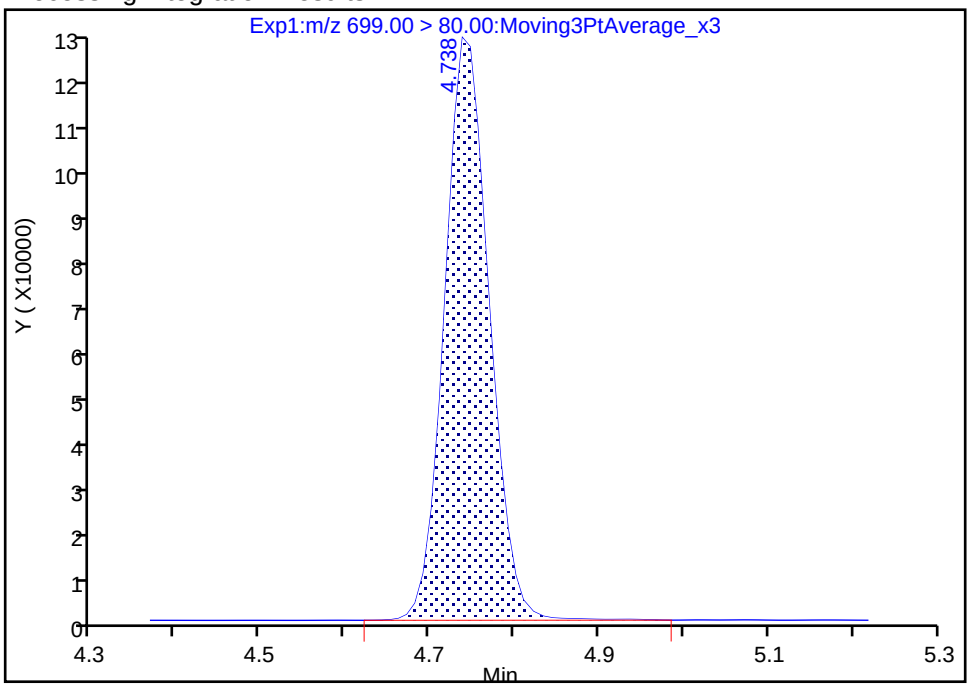
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

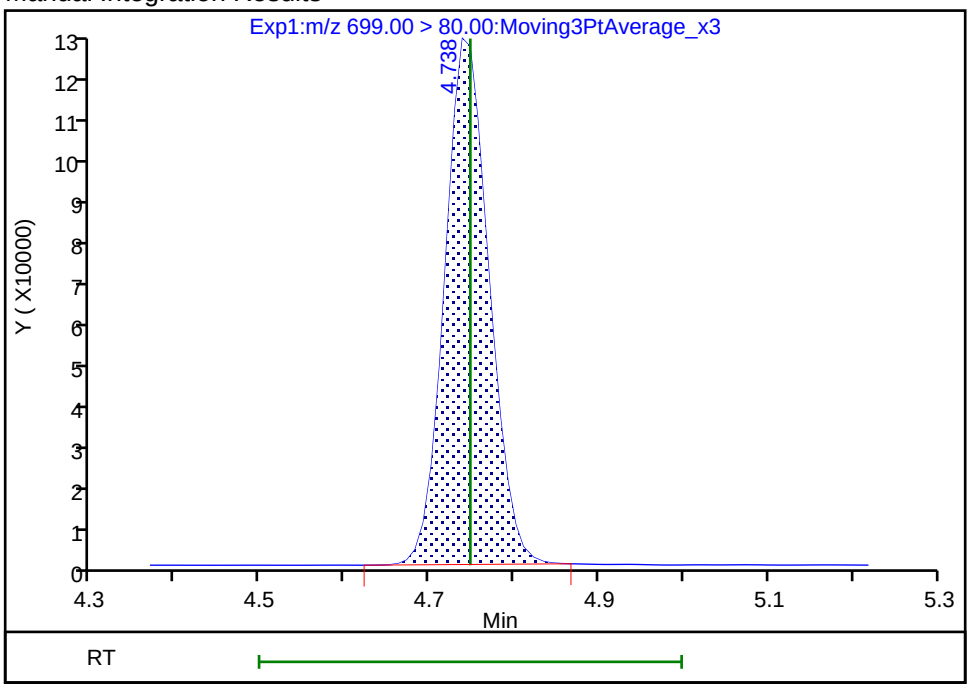
Processing Integration Results

RT: 4.74
Area: 460671
Amount: 2.347460
Amount Units: ng/ml




Manual Integration Results

RT: 4.74
Area: 457314
Amount: 2.377457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

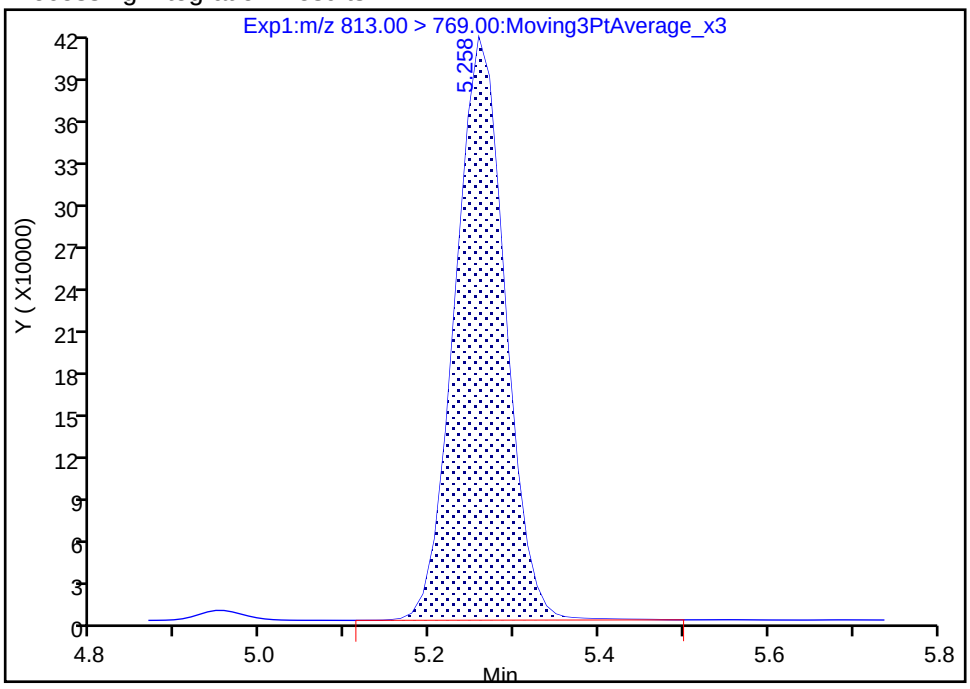
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

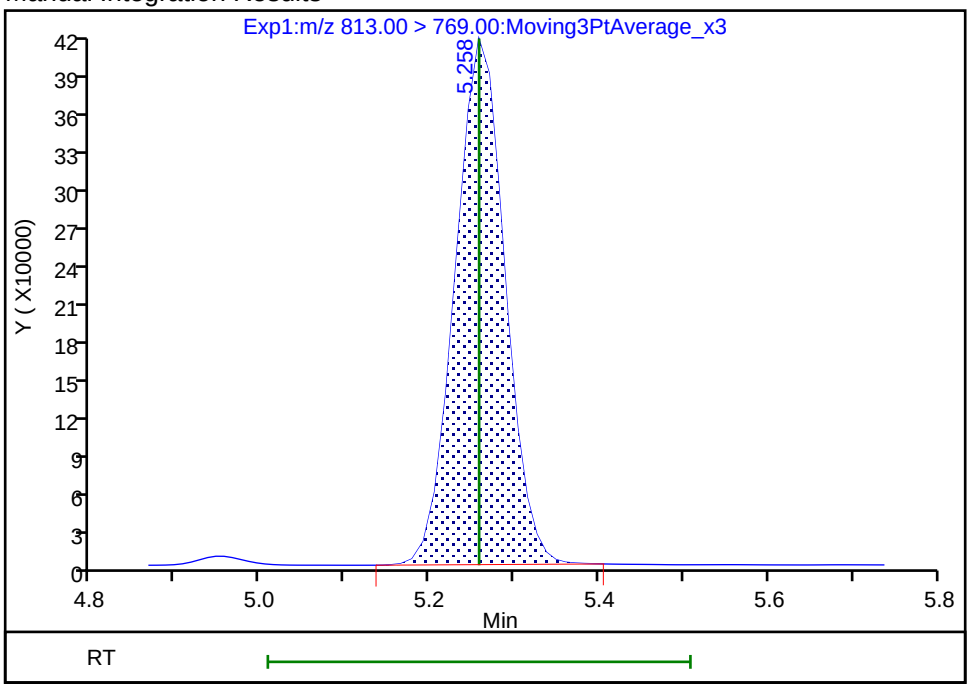
Processing Integration Results

RT: 5.26
Area: 1704682
Amount: 2.497881
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 1696788
Amount: 2.547831
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

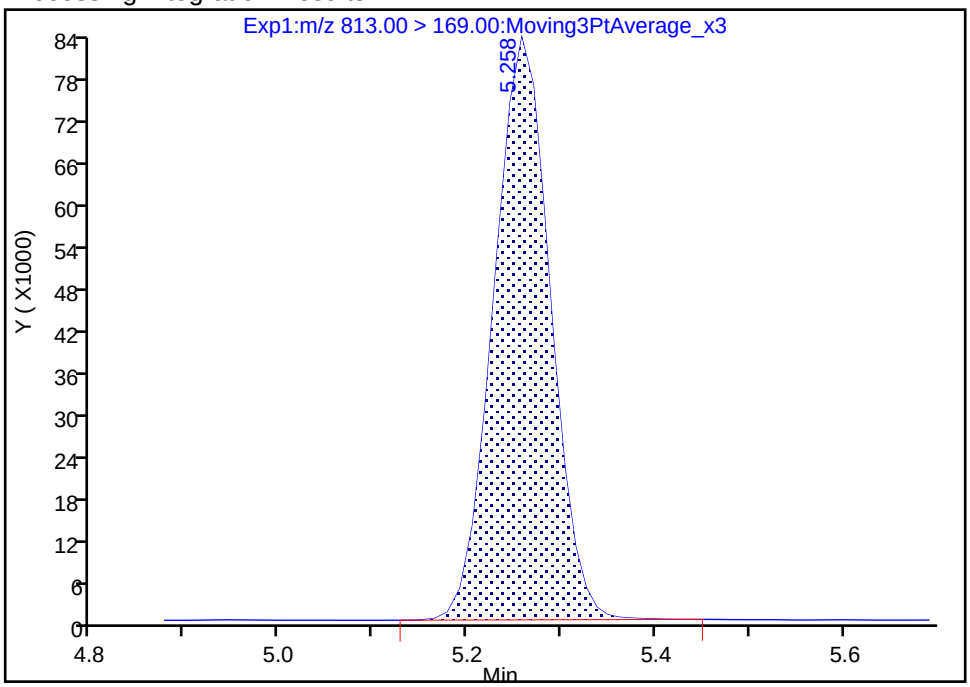
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

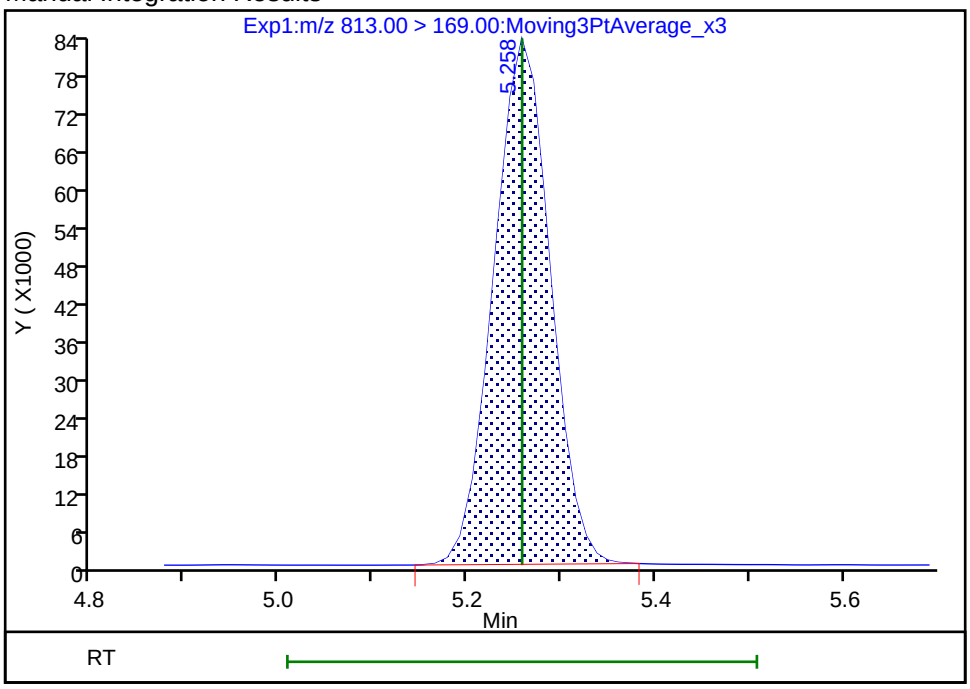
Processing Integration Results

RT: 5.26
Area: 350964
Amount: 2.497881
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 349644
Amount: 2.547831
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

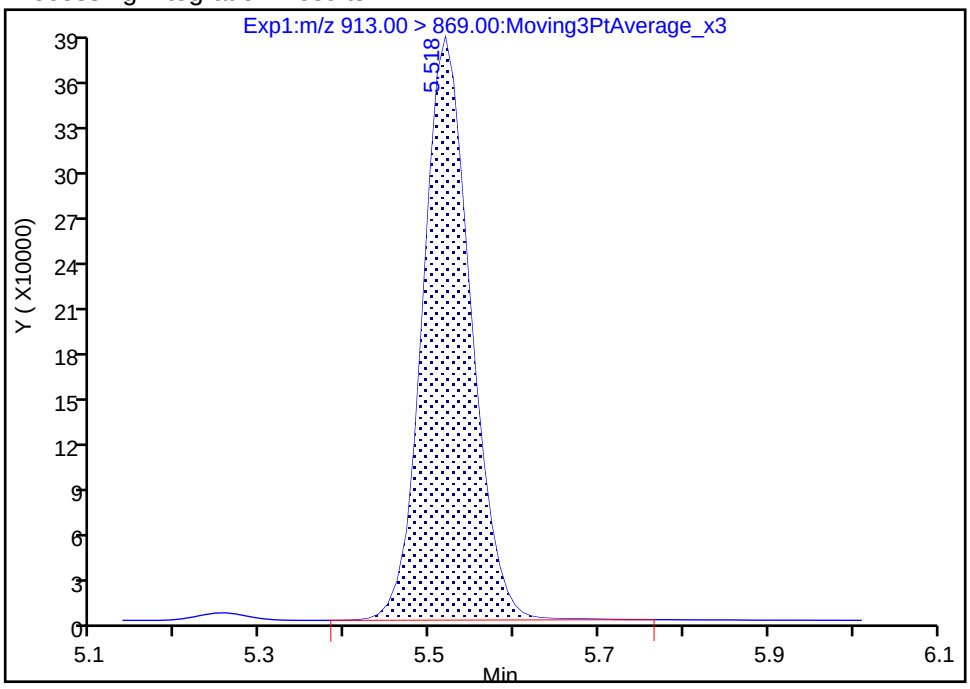
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

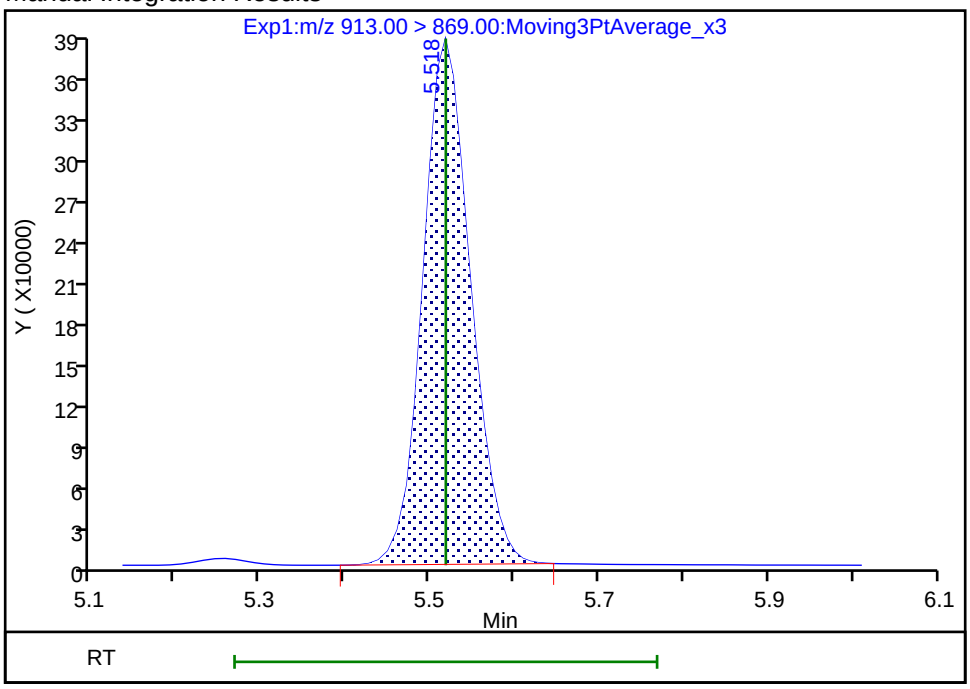
Processing Integration Results

RT: 5.52
Area: 1516935
Amount: 2.269101
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 1507499
Amount: 2.306457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

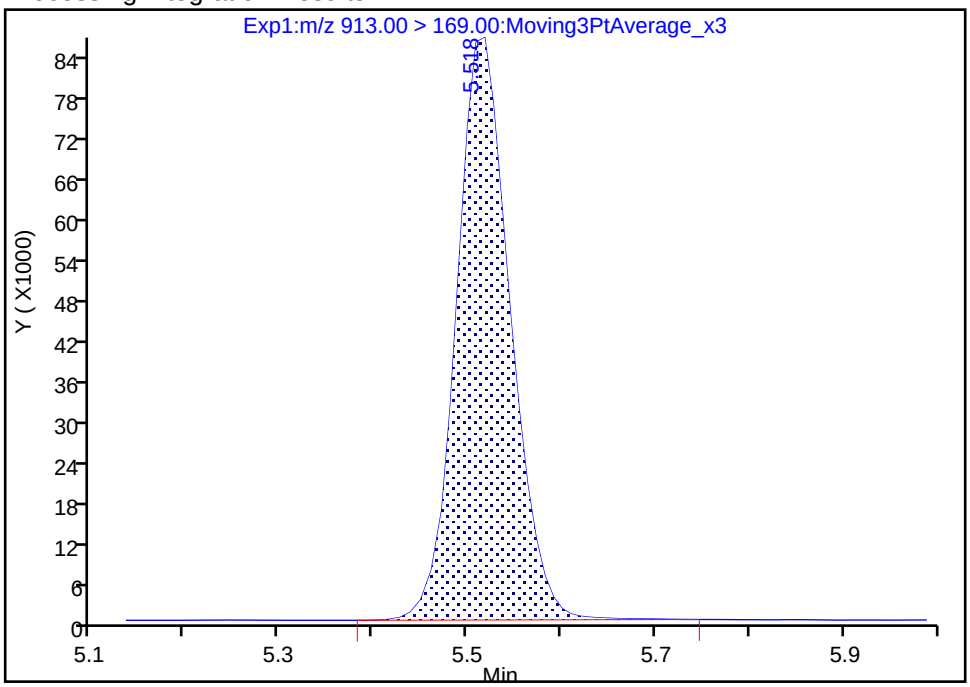
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

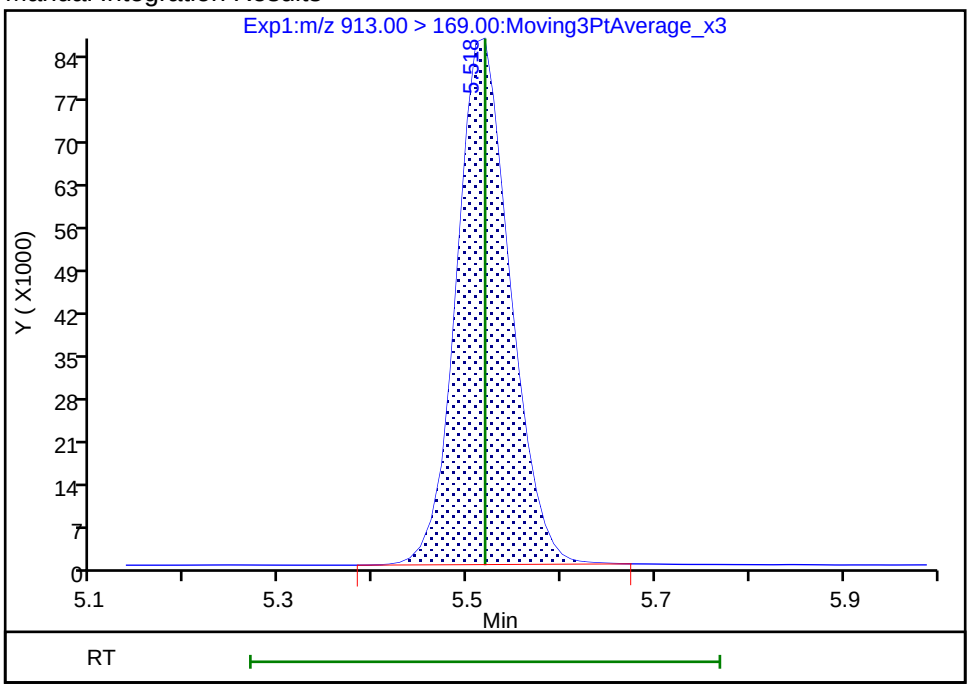
Processing Integration Results

RT: 5.52
Area: 341074
Amount: 2.269101
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 339769
Amount: 2.306457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Oct-2021 14:27:41 ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:47:05
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.596 | 1665496 | 1.28 | | 102 | 5812 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 11507928 | 9.13 | | 91.3 | 972 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.687 | 1437251 | 1.31 | | 105 | 2464 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 10570544 | 9.18 | | 91.8 | 558 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.424 | 0.002 | 0.695 | 1804342 | 1.21 | | 104 | 169004 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.000 | 13325047 | 8.04 | Target=2.29 | 90.9 | 4713 | M |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.000 | 6068174 | | 2.20(1.15-3.44) | 90.9 | 1617 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.779 | 134645 | 1.19 | | 102 | 120 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 2133052 | 8.69 | | 93.0 | 3180 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 10964511 | 9.14 | Target=12.01 | 91.4 | 1039 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 897013 | | 12.22(6.00-18.01) | 91.4 | 818 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.790 | 1478594 | 1.28 | | 103 | 2491 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 11788049 | 8.78 | Target=3.04 | 93.6 | 3332 | M |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 3939690 | | 2.99(1.52-4.56) | 93.6 | 2085 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.821 | 44010 | 1.45 | | 116 | 414 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.879 | 2.865 | 0.014 | 1.004 | 1294536 | 8.13 | | 81.3 | 341 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.897 | 1318214 | 1.22 | | 103 | 2857 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 10194384 | 8.32 | Target=3.51 | 91.4 | 2105 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 2926854 | | 3.48(1.76-5.27) | 91.4 | 1422 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 11431038 | 9.04 | Target=3.83 | 90.4 | 1662 | M |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3076429 | | 3.72(1.91-5.74) | 90.4 | 2199 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1529883 | 1.26 | | 101 | 2873 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 23507218 | 8.31 | Target=2.58 | 88.2 | 3183 | M |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 9670775 | | 2.43(1.29-3.88) | 88.2 | 2615 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 8770862 | 8.71 | Target=5.12 | 91.5 | 3885 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1751385 | | 5.01(2.56-7.67) | 91.5 | 1918 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.995 | 201400 | 1.18 | | 99.5 | 393 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 1906895 | 8.87 | | 93.5 | 2224 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.483 | 0.009 | 1.000 | 1661142 | 1.25 | | 100 | 3857 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.483 | 0.009 | | 1611342 | 1.25 | | | 2775 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.000 | 12772682 | 9.04 | Target=2.65 | 90.4 | 1283 | M |
| 413.00 > 169.00 | 3.492 | 3.483 | 0.009 | 1.000 | 4908934 | | 2.60(1.32-3.97) | 90.4 | 2165 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 965476 | 1.24 | | 103 | 1872 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 7448626 | 8.50 | Target=4.60 | 91.6 | 2574 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 1580361 | | 4.71(2.30-6.90) | 91.6 | 1993 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1655608 | 1.25 | | 100 | 4865 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 11564350 | 8.92 | Target=7.58 | 89.2 | 1767 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1563770 | | 7.40(3.79-11.37) | 89.2 | 2918 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 11051728 | 8.37 | | 89.8 | 3548 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 6122325 | 8.97 | Target=2.38 | 93.4 | 2936 | M |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 2514266 | | 2.44(1.19-3.56) | 93.4 | 2460 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.104 | 0.011 | 1.178 | 1701445 | 1.28 | | 102 | 2241 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.104 | 0.011 | 1.000 | 12354501 | 9.03 | Target=9.30 | 90.3 | 3349 | M |
| 513.00 > 169.00 | 4.115 | 4.104 | 0.011 | 1.000 | 1315764 | | 9.39(4.65-13.95) | 90.3 | 2378 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.178 | 231933 | 1.20 | | 100 | 606 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1443544 | 8.91 | | 93.0 | 2160 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.225 | 0.010 | 1.213 | 1662915 | 1.29 | | 103 | 5370 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.000 | 11787729 | 9.33 | | 93.3 | 2371 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.216 | 173007 | 1.32 | | 106 | 98.3 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.246 | 0.011 | 1.003 | 1042012 | 9.58 | | 95.8 | 865 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 4654579 | 8.77 | Target=2.54 | 90.9 | 3341 | M |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 1813571 | | 2.57(1.27-3.81) | 90.9 | 3650 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.358 | 0.012 | 1.251 | 1249906 | 1.20 | | 96.2 | 2573 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.370 | 4.358 | 0.012 | 1.000 | 9912583 | 9.30 | Target=9.37 | 93.0 | 3118 | |
| 563.00 > 169.00 | 4.370 | 4.358 | 0.012 | 1.000 | 1108227 | | 8.94(4.69-14.06) | 93.0 | 4312 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.369 | 0.012 | 1.255 | 157024 | 1.28 | | 102 | 962 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.000 | 953648 | 8.86 | | 88.6 | 1097 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.457 | 4.445 | 0.012 | 1.175 | 13670685 | 8.76 | | 93.0 | 3941 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.580 | 0.011 | 1.315 | 1439938 | 1.29 | | 103 | 742 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.000 | 10172160 | 9.02 | Target=6.84 | 90.2 | 1283 | M |
| 613.00 > 169.00 | 4.591 | 4.580 | 0.011 | 1.000 | 1481045 | | 6.87(3.42-10.25) | 90.2 | 3021 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.602 | 4.601 | 0.001 | 1.118 | 688615 | 9.20 | | 95.4 | 2962 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 1712893 | 8.77 | Target=0.51 | 90.6 | 4133 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 3407477 | | 0.50(0.25-0.76) | 90.6 | 4072 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.042 | 8746311 | 8.99 | Target=4.67 | 89.9 | 1434 | M |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.042 | 1929671 | | 4.53(2.33-7.00) | 89.9 | 2605 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.967 | 4.957 | 0.011 | 1.422 | 1144458 | 1.32 | | 106 | 3045 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.967 | 4.957 | 0.011 | 1.000 | 1241475 | 8.59 | Target=0.99 | 85.9 | 3398 | |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.001 | 0.998 | 1291633 | | 0.96(0.49-1.48) | 85.9 | 3646 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.271 | 5.258 | 0.013 | 1.509 | 982482 | 1.29 | | 103 | 3409 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.271 | 5.258 | 0.013 | 1.000 | 6269085 | 9.33 | Target=4.50 | 93.3 | 1030 | M |
| 813.00 > 169.00 | 5.271 | 5.258 | 0.013 | 1.000 | 1454092 | | 4.31(2.25-6.75) | 93.3 | 3019 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.528 | 5.519 | 0.009 | 1.049 | 5910248 | 8.92 | Target=4.46 | 89.2 | 1372 | M |
| 913.00 > 169.00 | 5.528 | 5.519 | 0.009 | 1.049 | 1313814 | | 4.50(2.23-6.68) | 89.2 | 2306 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC6_00009 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812

Lims ID: IC

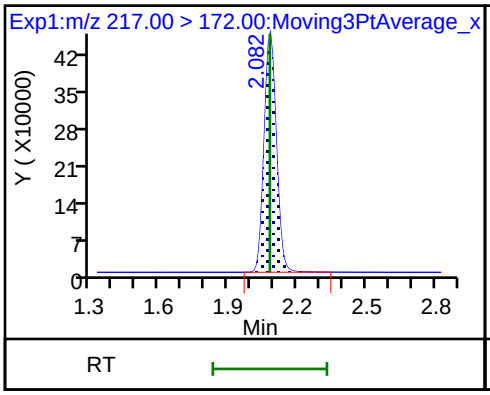
Client ID:

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7

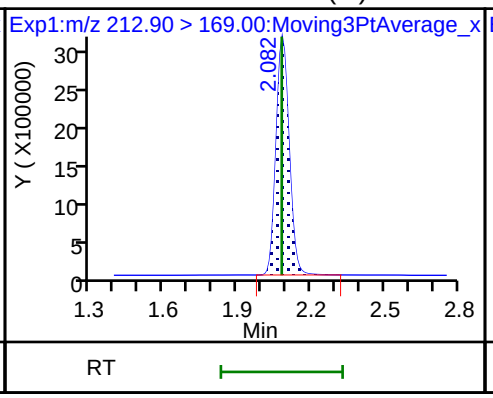
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

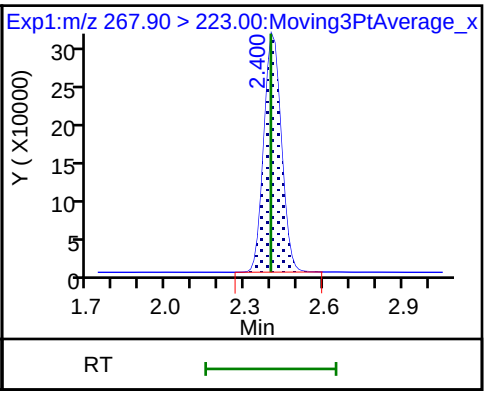
D 1 13C4 PFBA



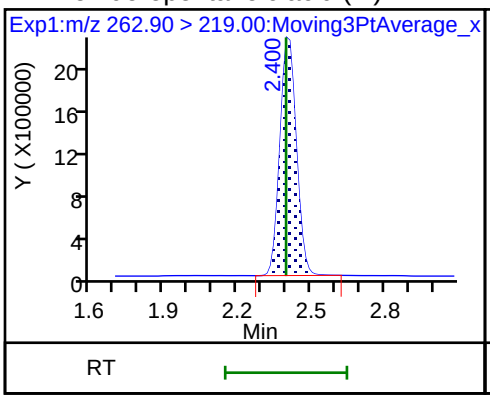

2 Perfluorobutanoic acid (M)



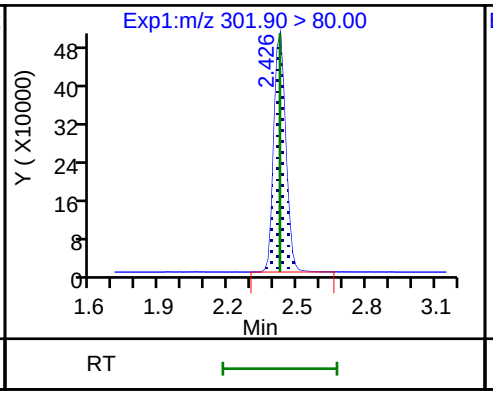

D 3 13C5 PFPeA



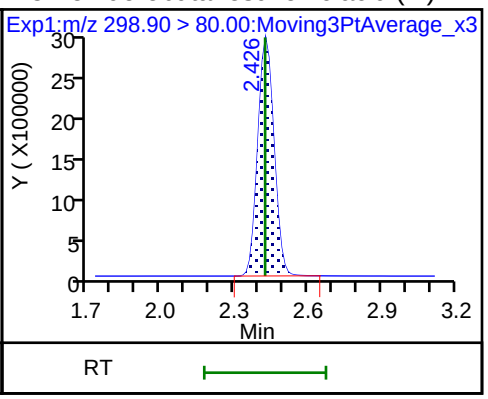

4 Perfluoropentanoic acid (M)



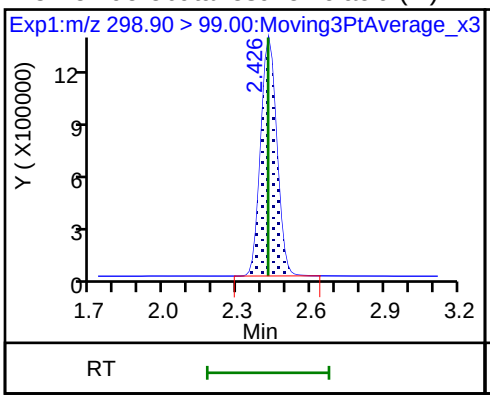

D 47 13C3 PFBS



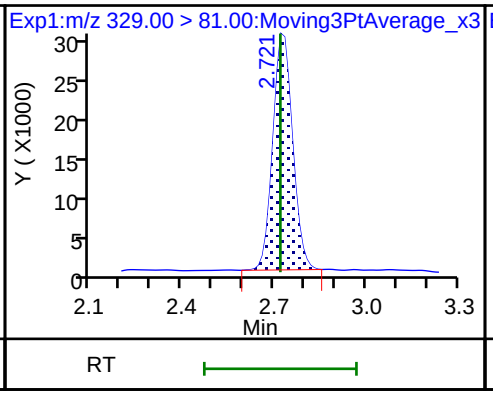

5 Perfluorobutanesulfonic acid (M)



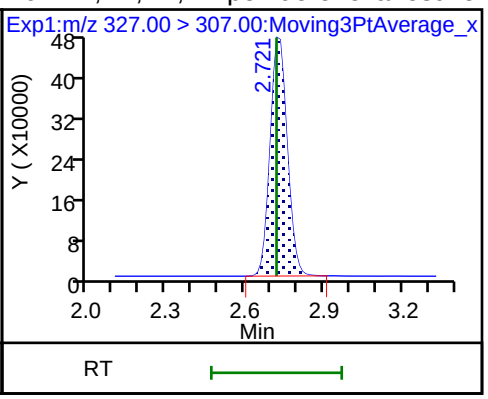

5 Perfluorobutanesulfonic acid (M)



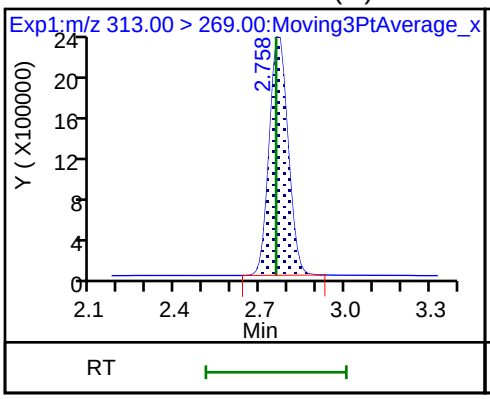

D 60 M2-4:2 FTS



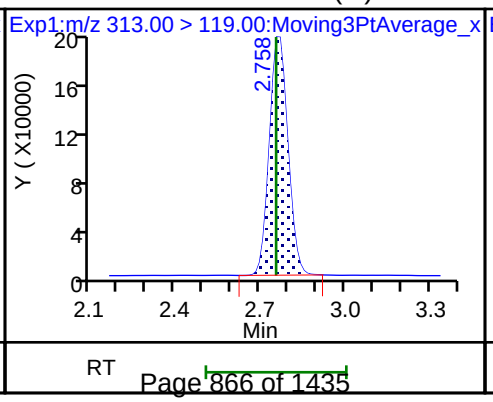

61 1H,1H,2H,2H-perfluorohexanesulfo



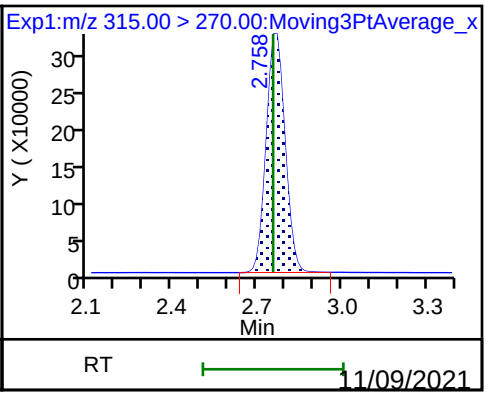

6 Perfluorohexanoic acid (M)



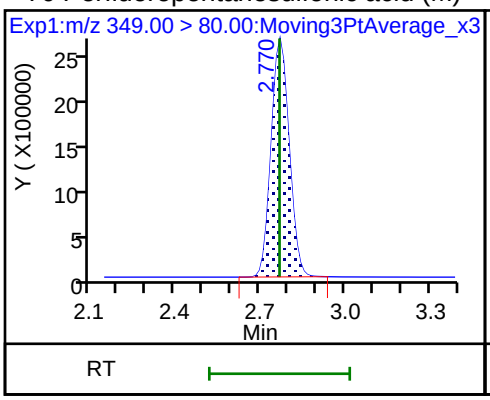

6 Perfluorohexanoic acid (M)



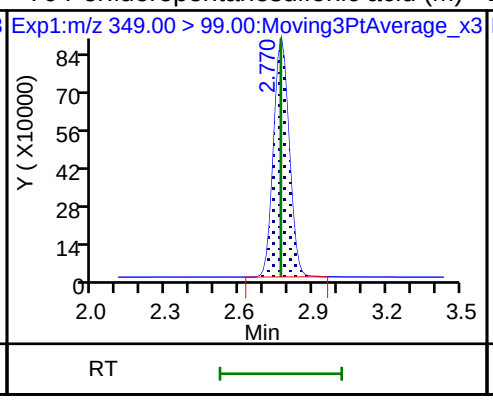

D 7 13C2 PFHxA



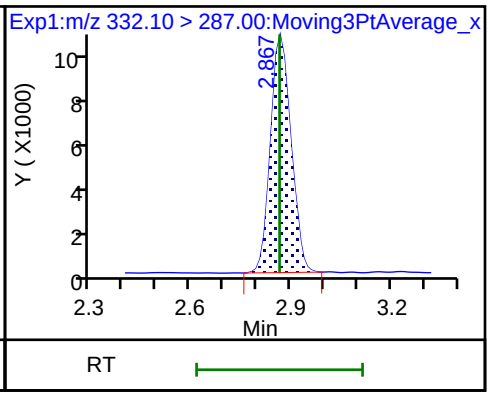
70 Perfluoropentanesulfonic acid (M)



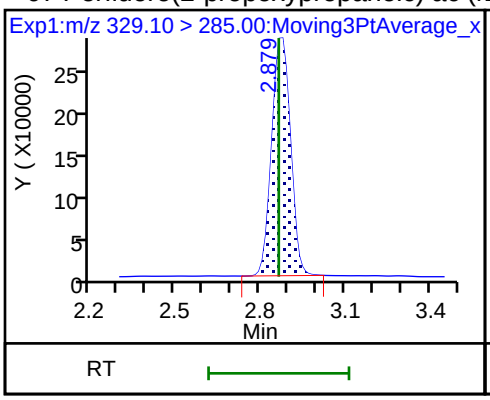

70 Perfluoropentanesulfonic acid (M)



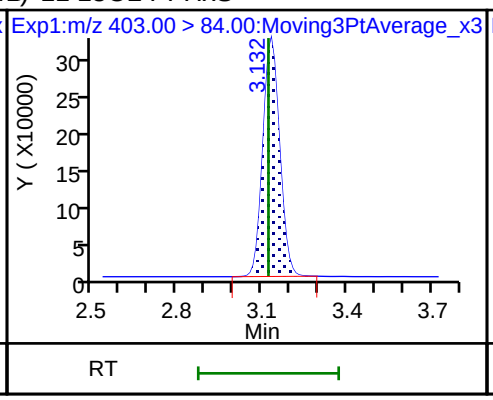

D 64 13C3 HFPO-DA



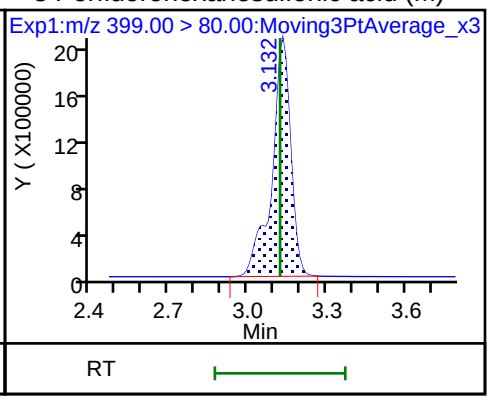

67 Perfluoro(2-propoxypropanoic) ac (M)



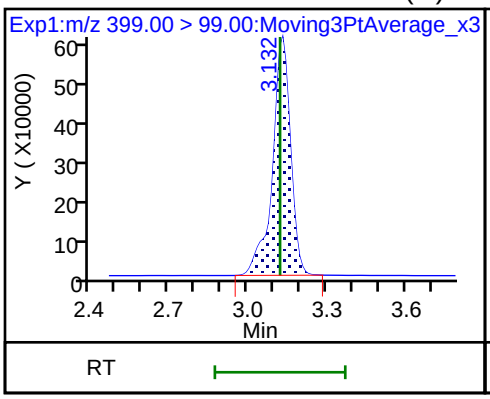

D 11 18O2 PFHxS



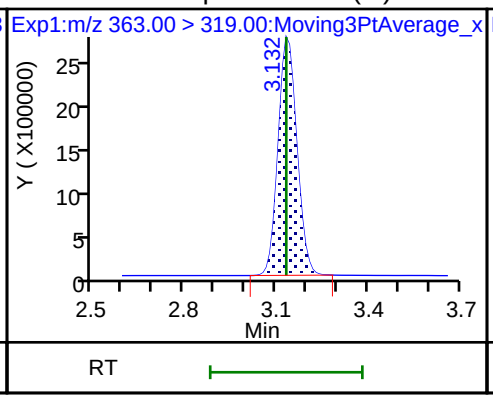

8 Perfluorohexanesulfonic acid (M)



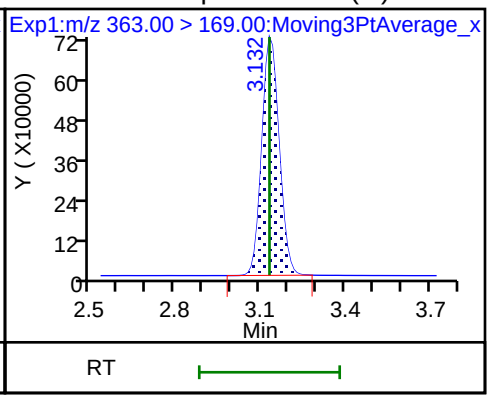

8 Perfluorohexanesulfonic acid (M)



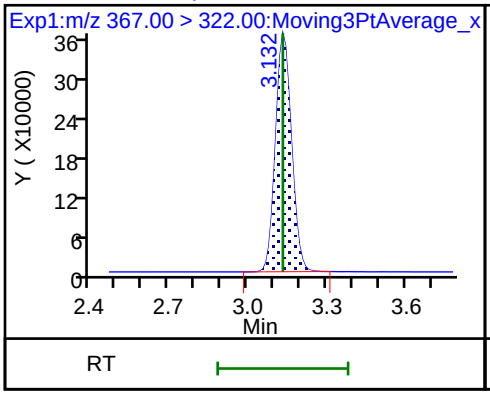

10 Perfluoroheptanoic acid (M)



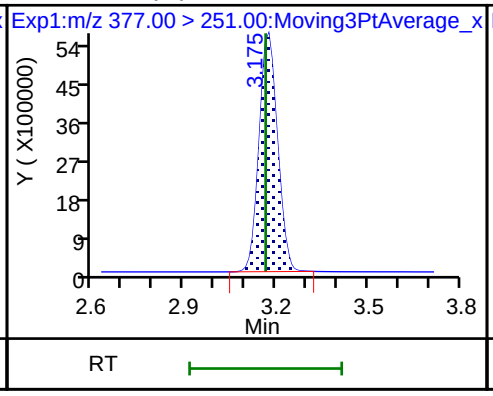

10 Perfluoroheptanoic acid (M)



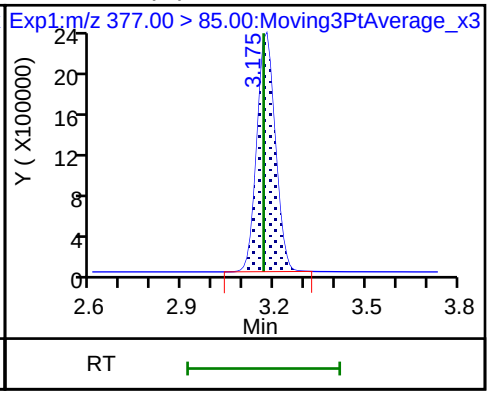

D 9 13C4 PFHpA



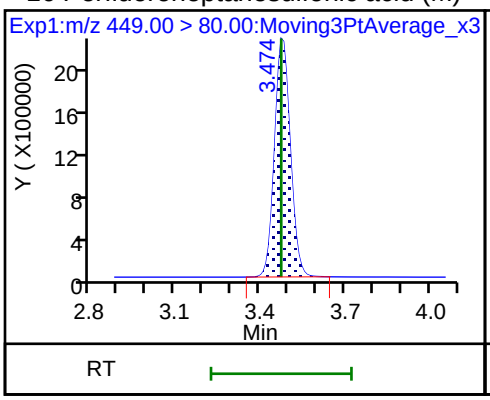

77 DONA (M)



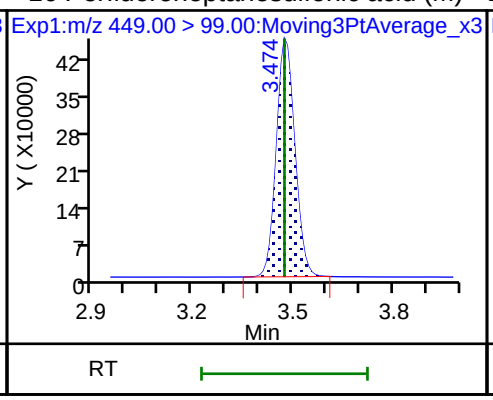

77 DONA (M)



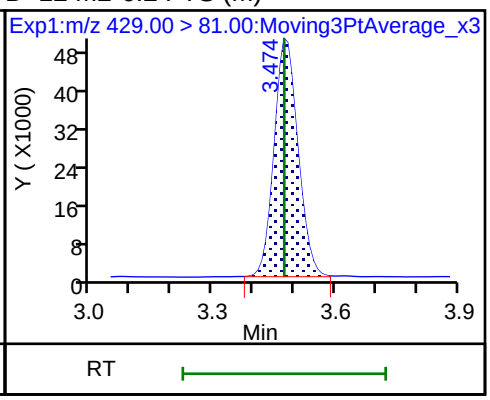
16 Perfluoroheptanesulfonic acid (M)



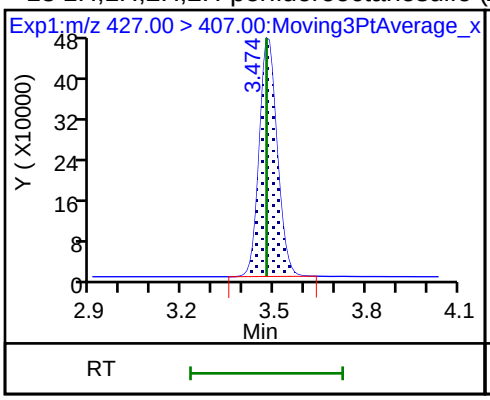

16 Perfluoroheptanesulfonic acid (M)



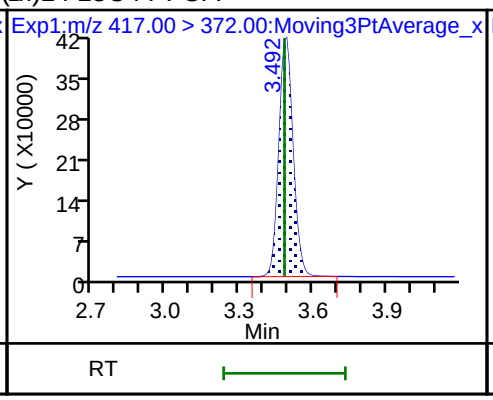

D 12 M2-6:2 FTS (M)



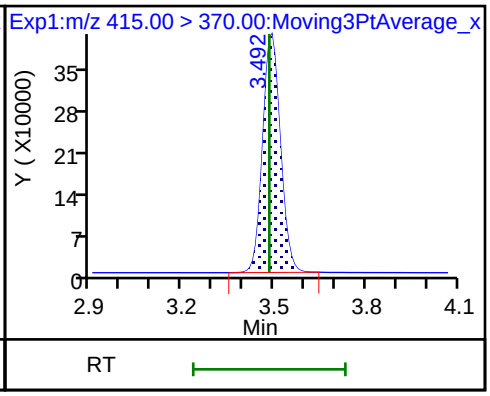

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



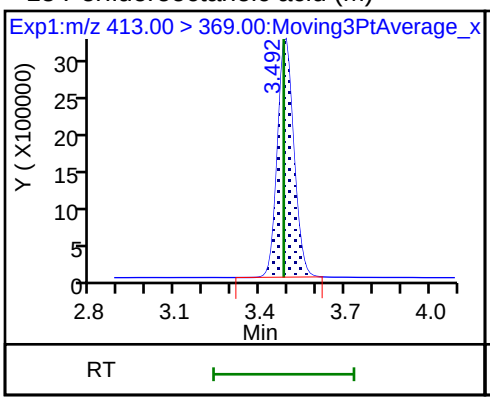

14 13C4 PFOA



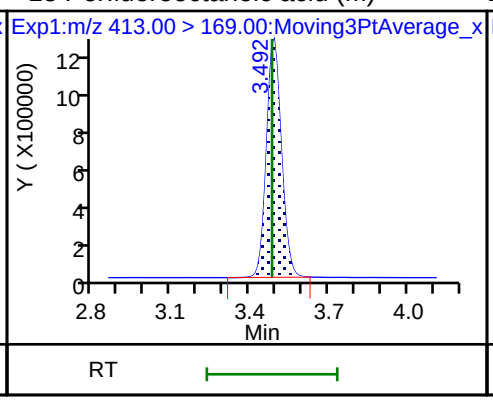

* 62 13C2 PFOA



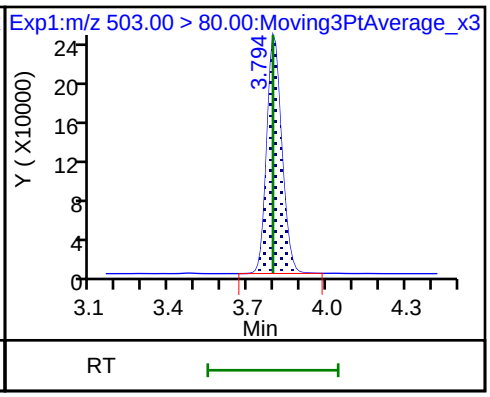

15 Perfluorooctanoic acid (M)



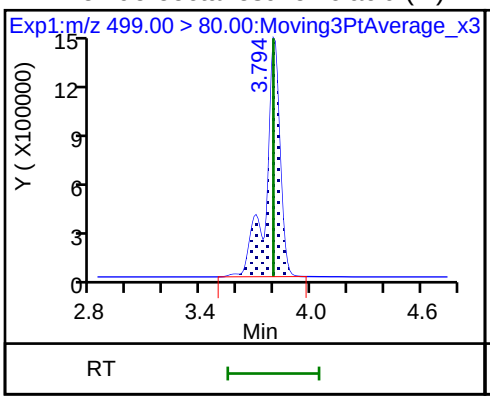

15 Perfluorooctanoic acid (M)



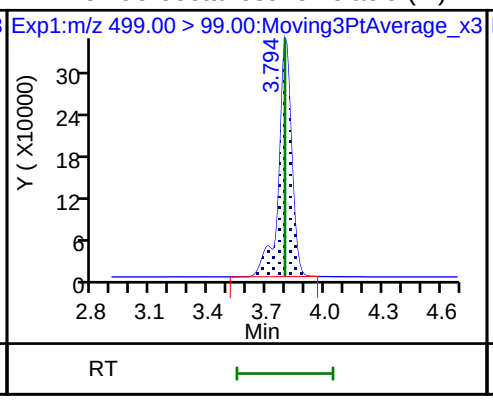

D 18 13C4 PFOS



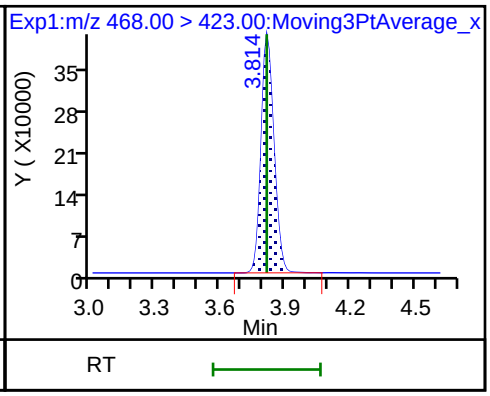

17 Perfluorooctanesulfonic acid (M)



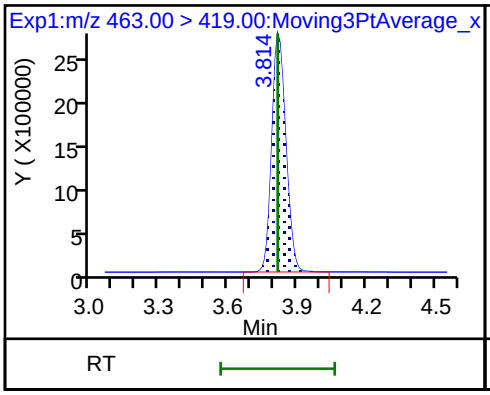

17 Perfluorooctanesulfonic acid (M)



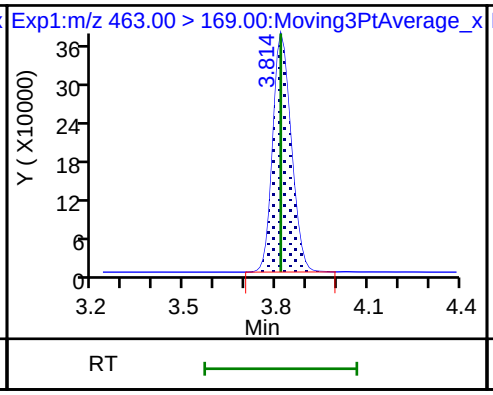

D 19 13C5 PFNA



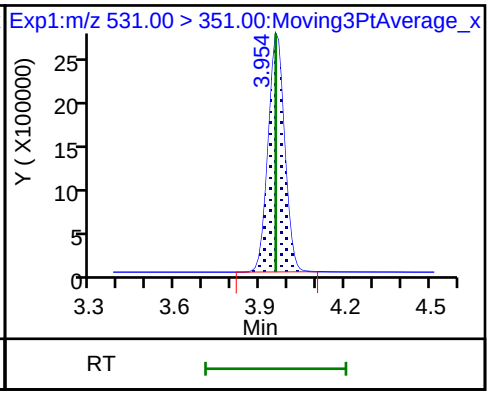
20 Perfluorononanoic acid



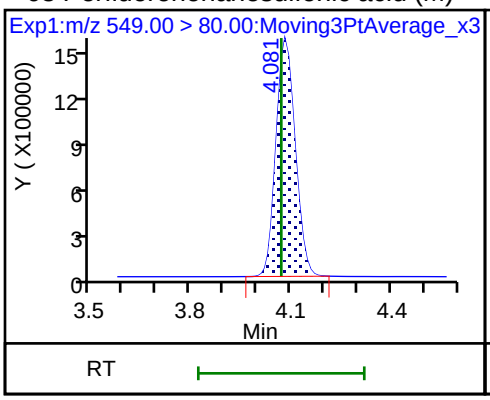

20 Perfluorononanoic acid



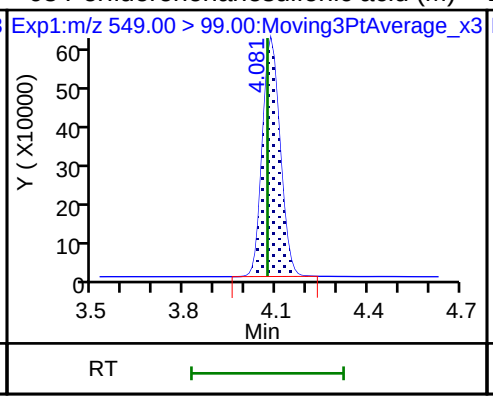

69 9-Chlorohexadecafluoro-3-oxanona (M)



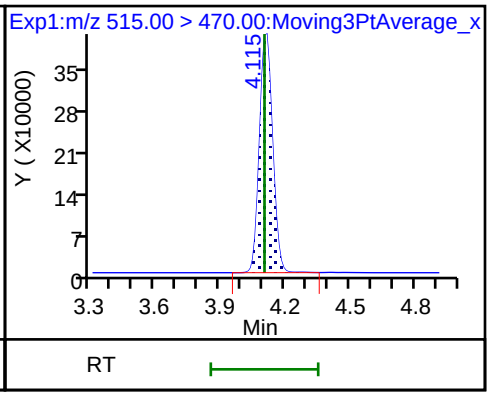

68 Perfluorononanesulfonic acid (M)



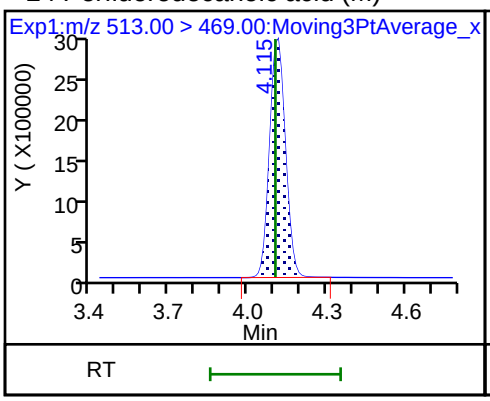

68 Perfluorononanesulfonic acid (M)



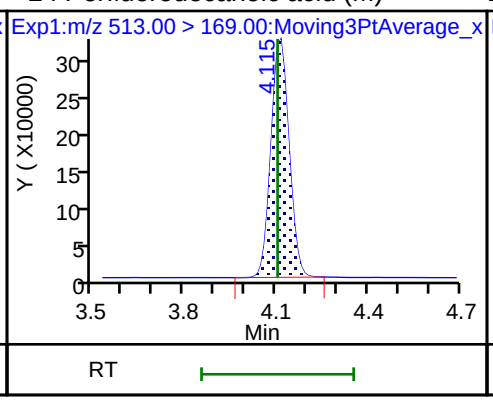

D 23 13C2 PFDA



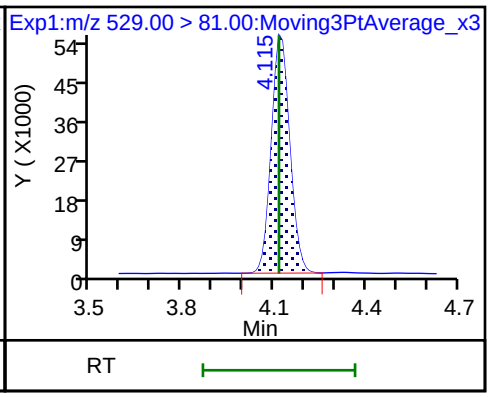

24 Perfluorodecanoic acid (M)



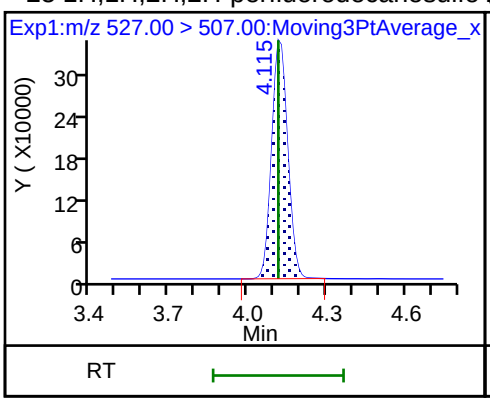

24 Perfluorodecanoic acid (M)



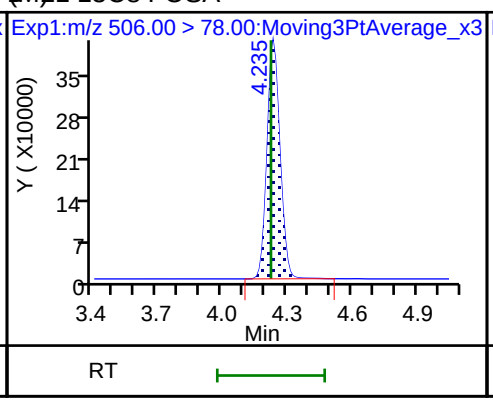

D 26 M2-8:2 FTS



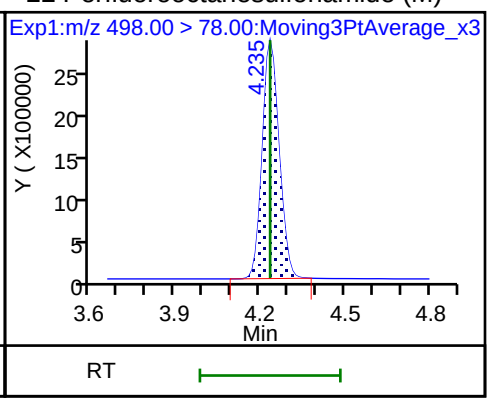

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



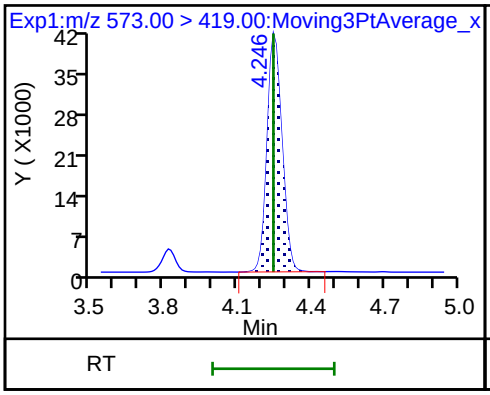

D 21 13C8 FOSA



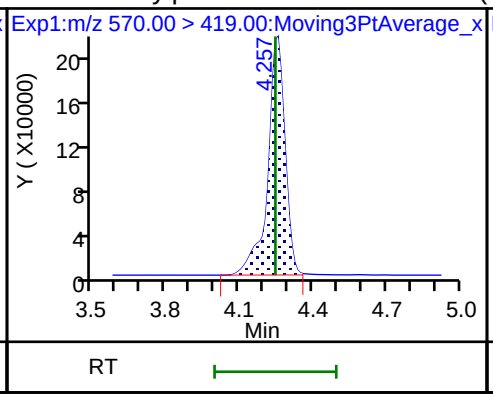

22 Perfluorooctanesulfonamide (M)



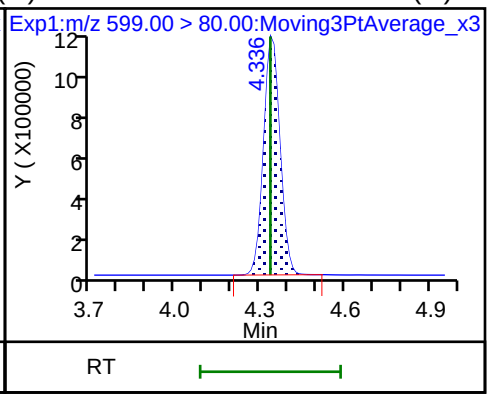
D 27 d3-NMeFOSAA



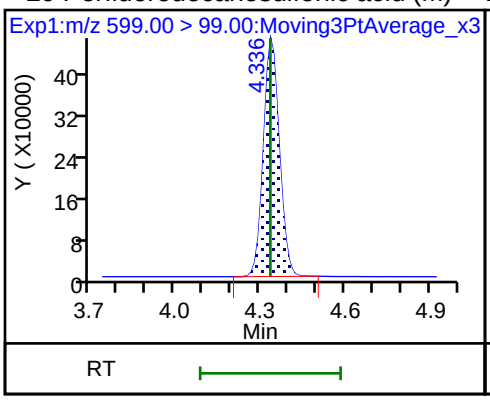

28 N-methylperfluorooctanesulfonami (M)



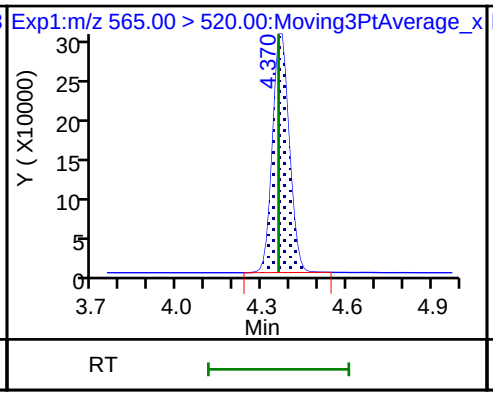

29 Perfluorodecanesulfonic acid (M)



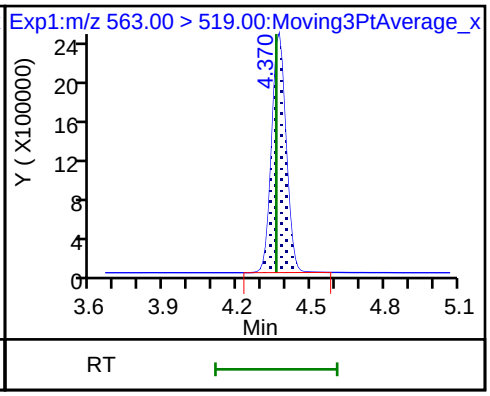

29 Perfluorodecanesulfonic acid (M)



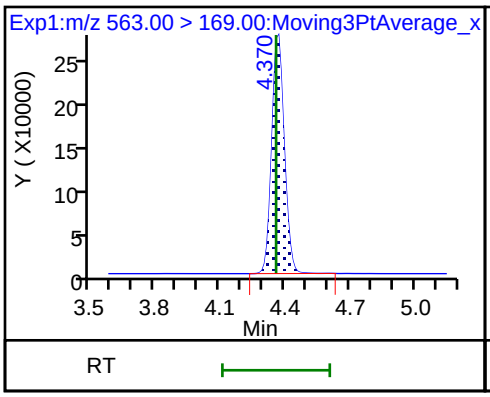

D 30 13C2 PFUnA



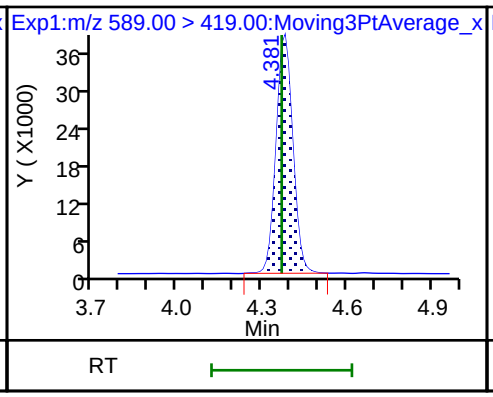

31 Perfluoroundecanoic acid



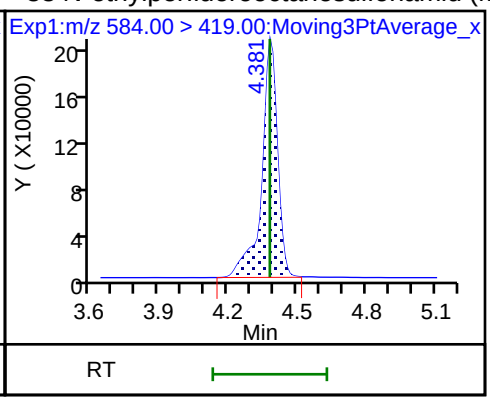

31 Perfluoroundecanoic acid



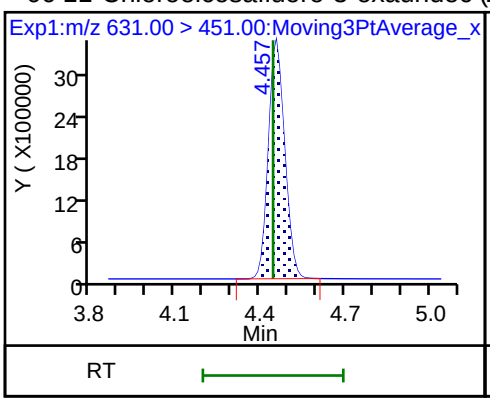

D 32 d5-NEtFOSAA



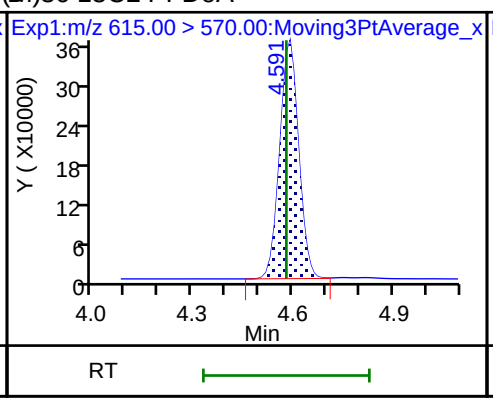

33 N-ethylperfluorooctanesulfonamid (M)



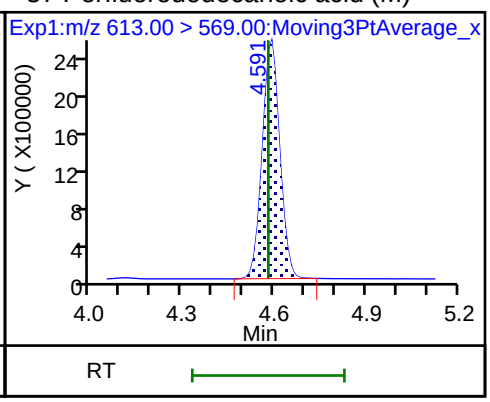

66 11-Chloroeicosafluoro-3-oxaundec (M)



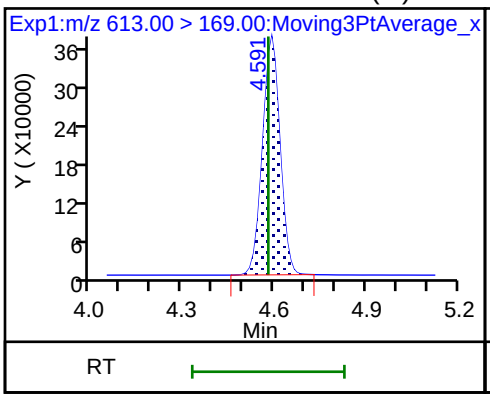

D 36 13C2 PFDoA



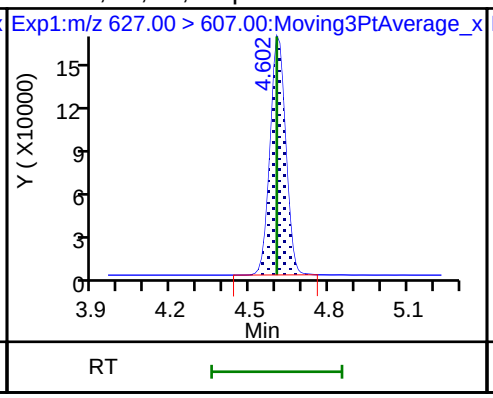

37 Perfluorododecanoic acid (M)



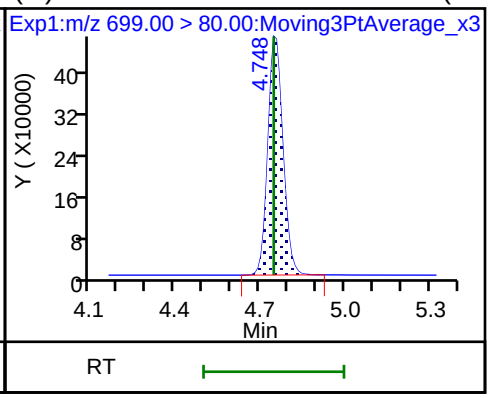
37 Perfluorododecanoic acid (M)



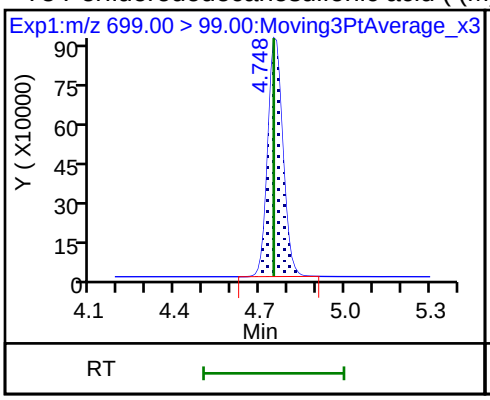

74 1H,1H,2H,2H-perfluorododecanesul (M)



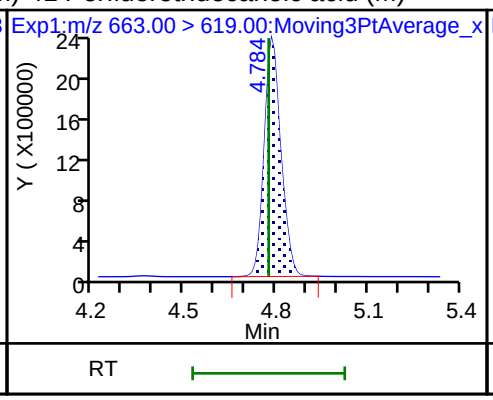

75 Perfluorododecanesulfonic acid (



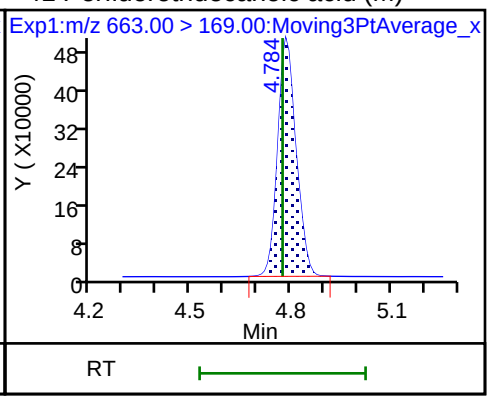

75 Perfluorododecanesulfonic acid ( (M)



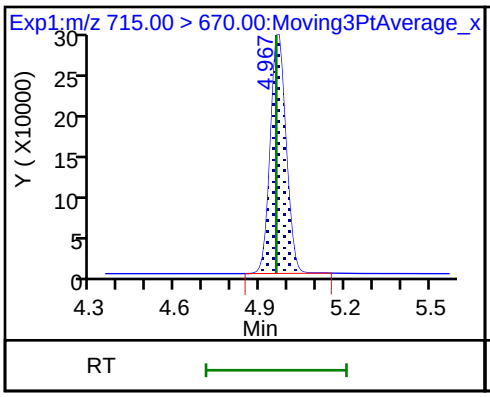

41 Perfluorotridecanoic acid (M)



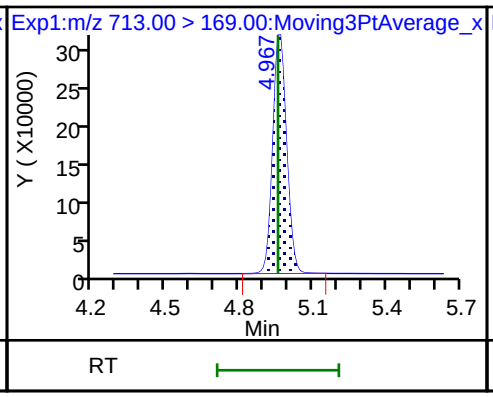

41 Perfluorotridecanoic acid (M)



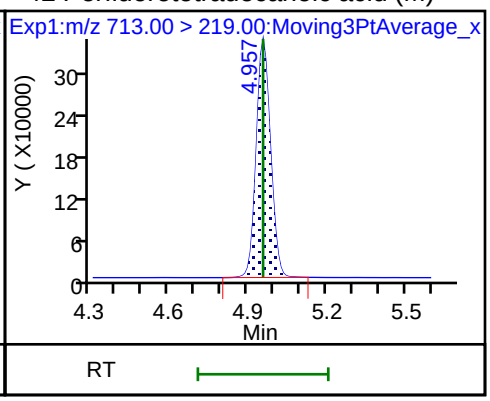

D 43 13C2 PFTeDA



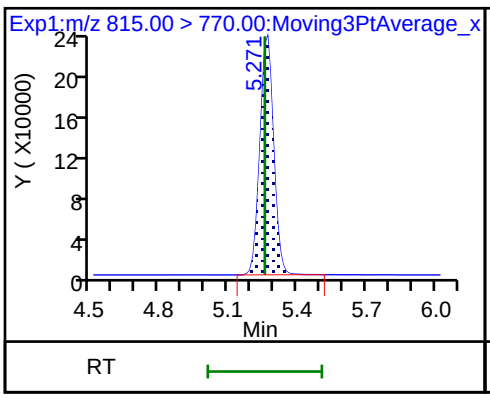

42 Perfluorotetradecanoic acid



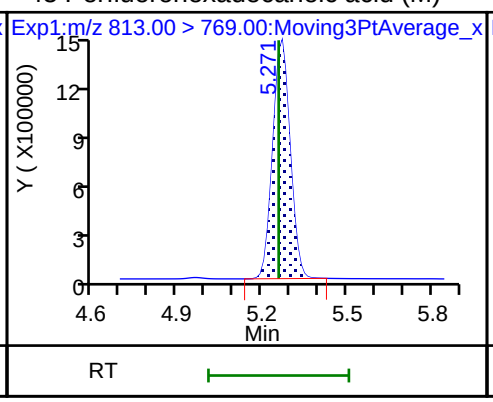

42 Perfluorotetradecanoic acid (M)



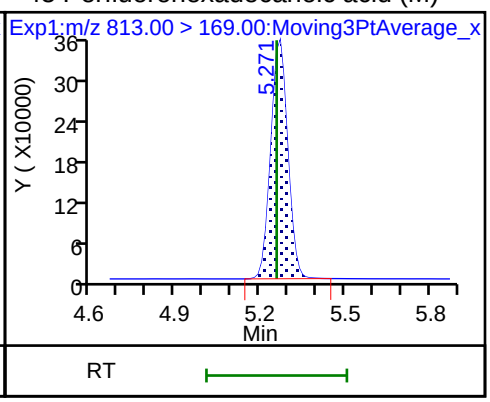

D 44 13C2 PFHxDA



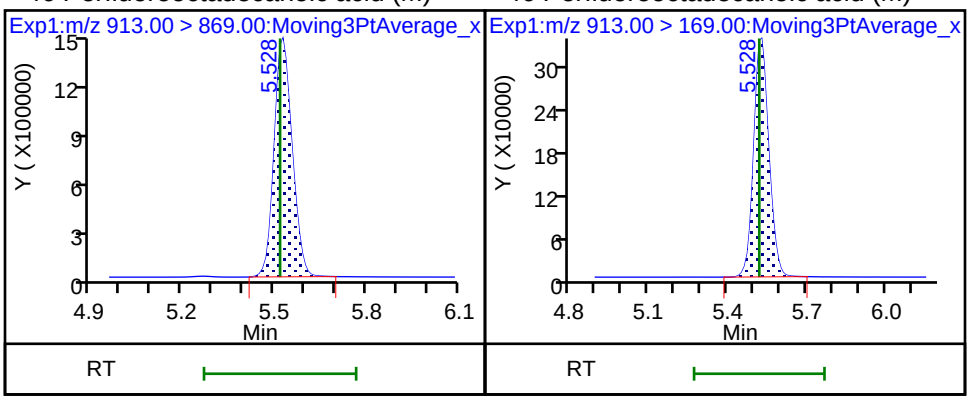

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

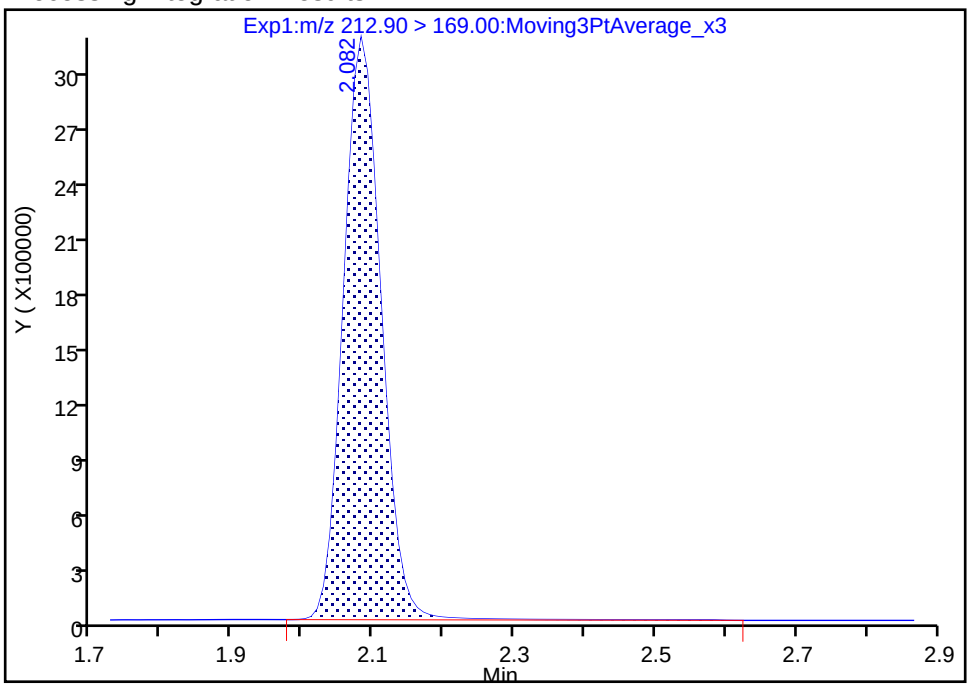
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

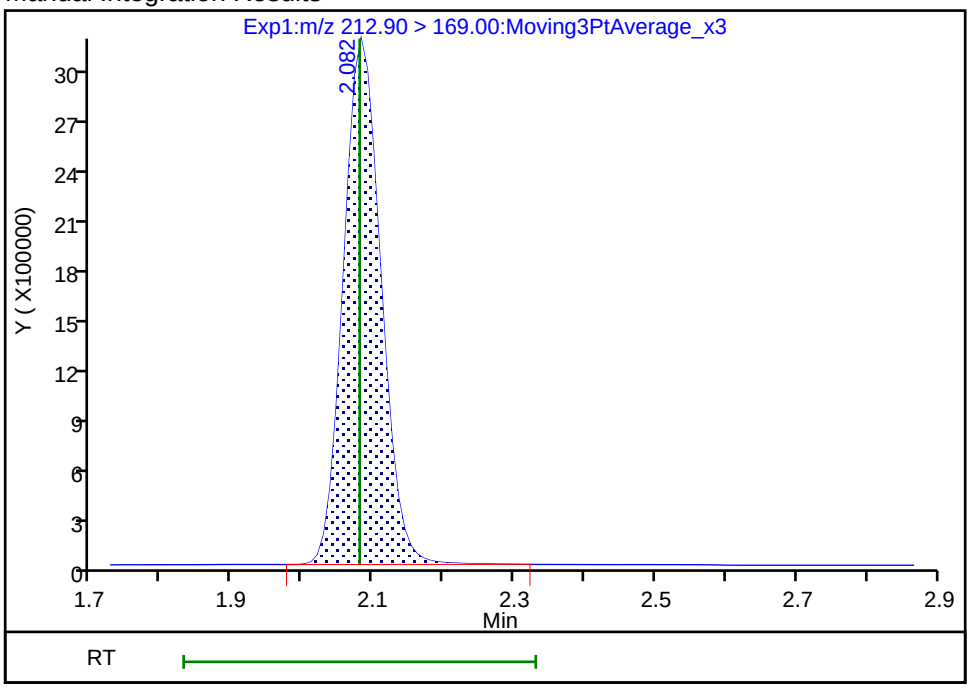
Processing Integration Results

RT: 2.08
Area: 11584973
Amount: 9.186084
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 11507928
Amount: 9.134293
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:15:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

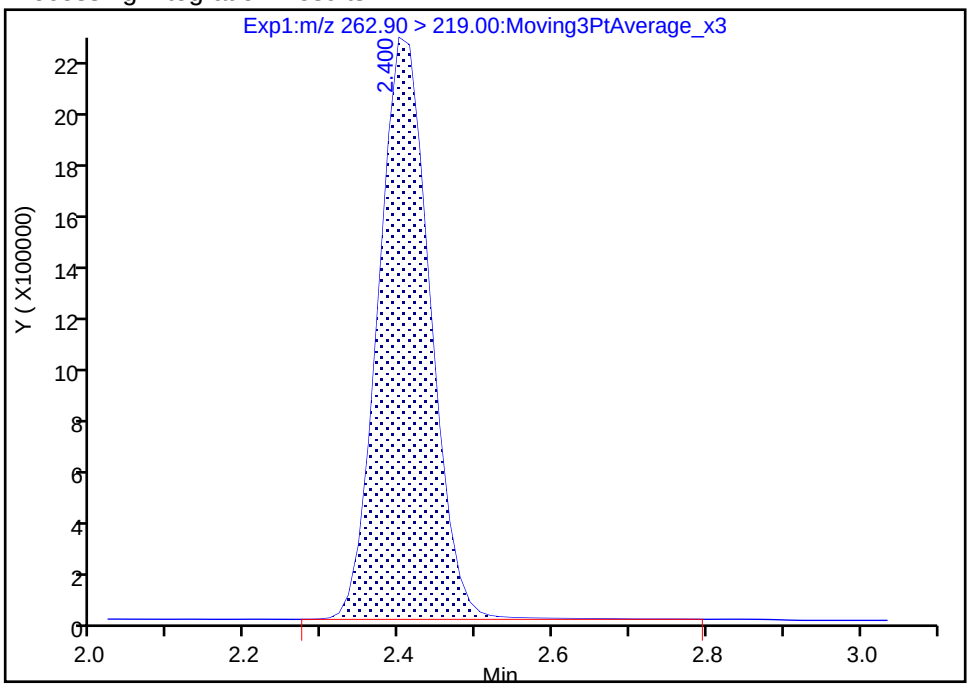
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

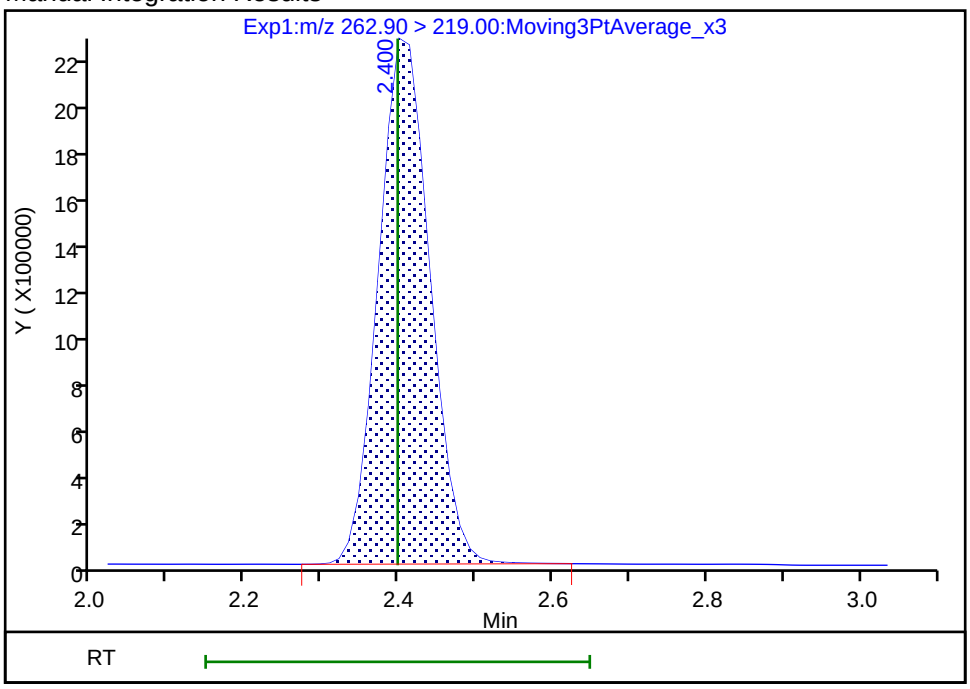
Processing Integration Results

RT: 2.40
Area: 10609985
Amount: 9.206503
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 10570544
Amount: 9.177514
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:15:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

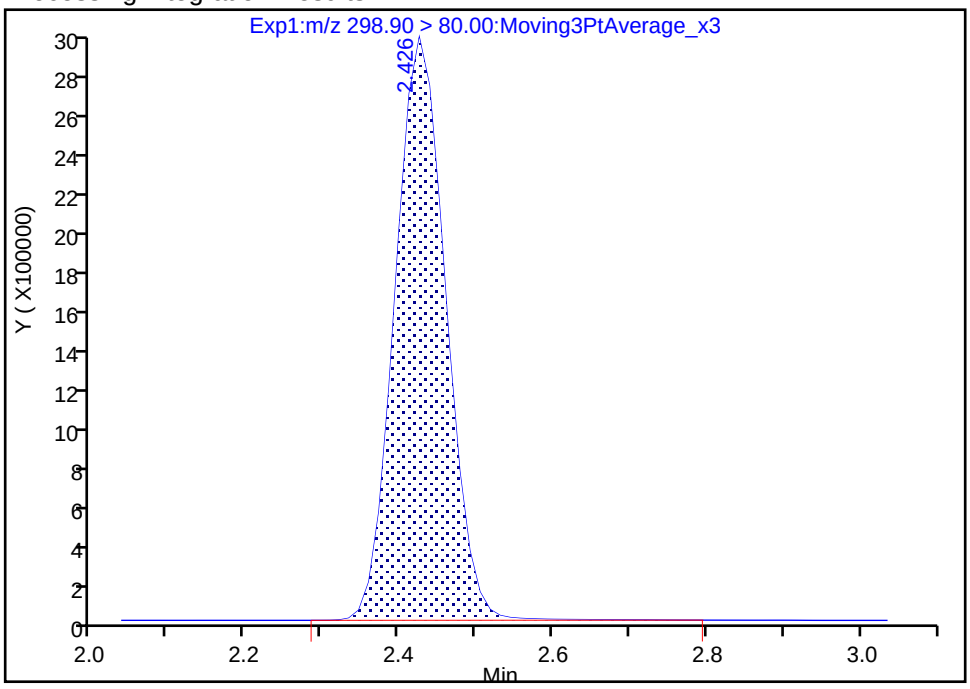
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

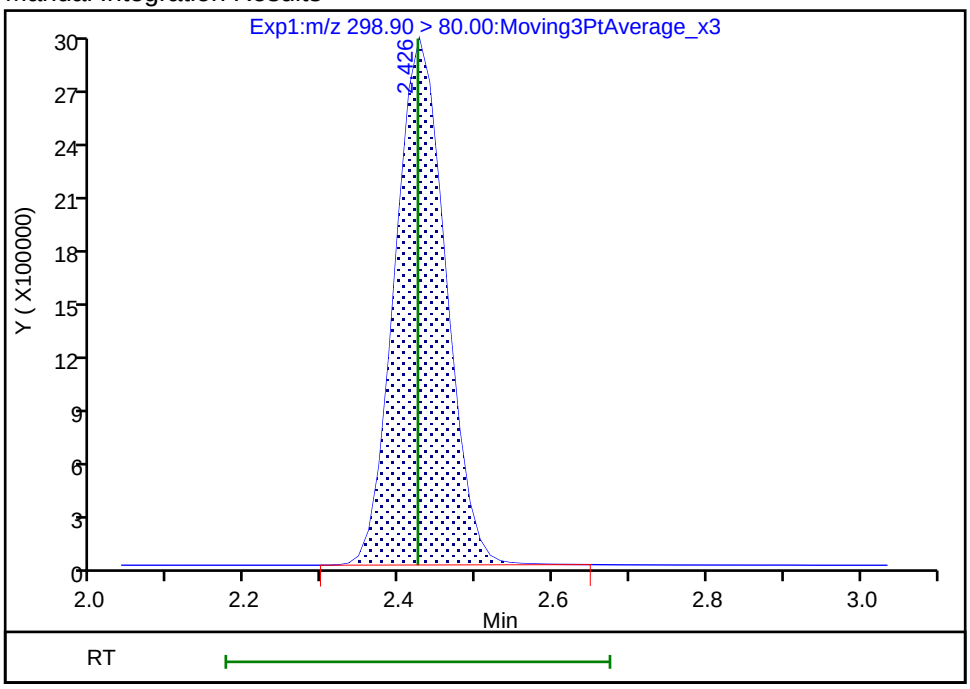
Processing Integration Results

RT: 2.43
Area: 13360994
Amount: 8.056355
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 13325047
Amount: 8.037965
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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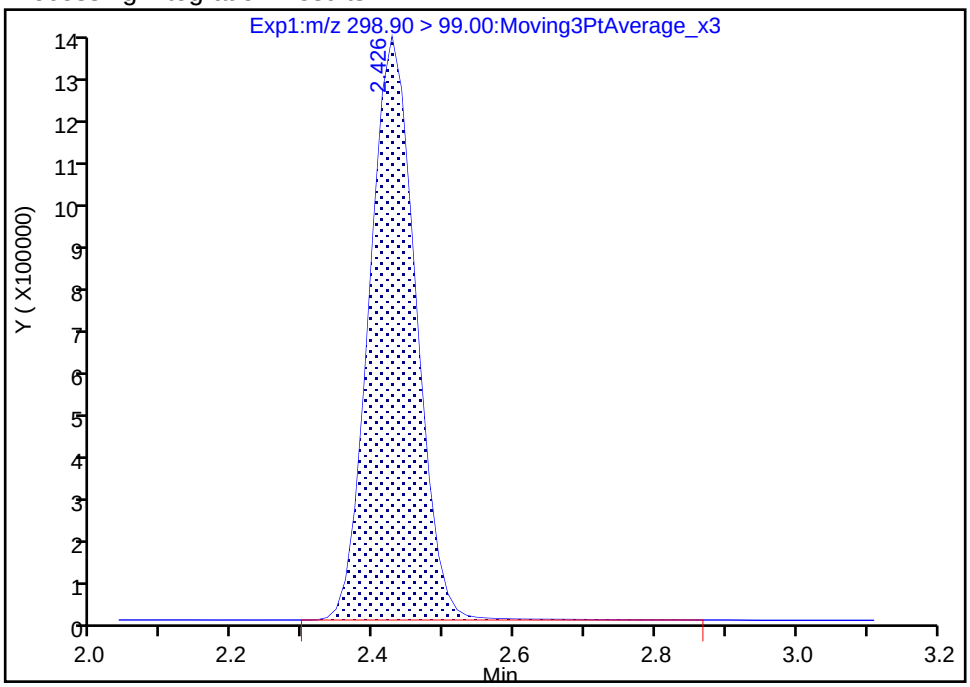
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

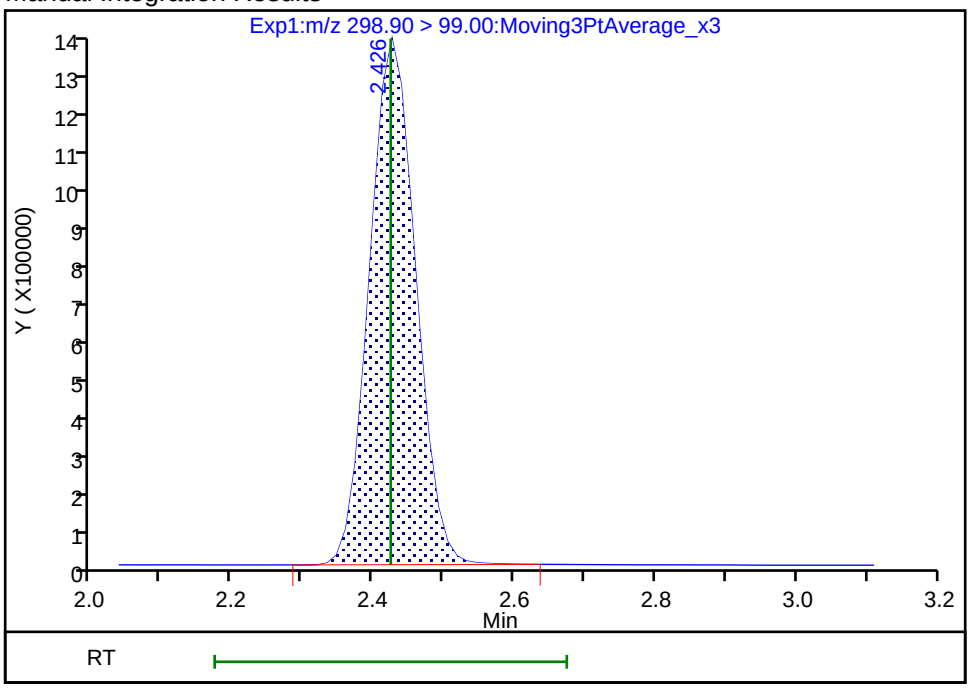
Processing Integration Results

RT: 2.43
Area: 6090919
Amount: 8.056355
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 6068174
Amount: 8.037965
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

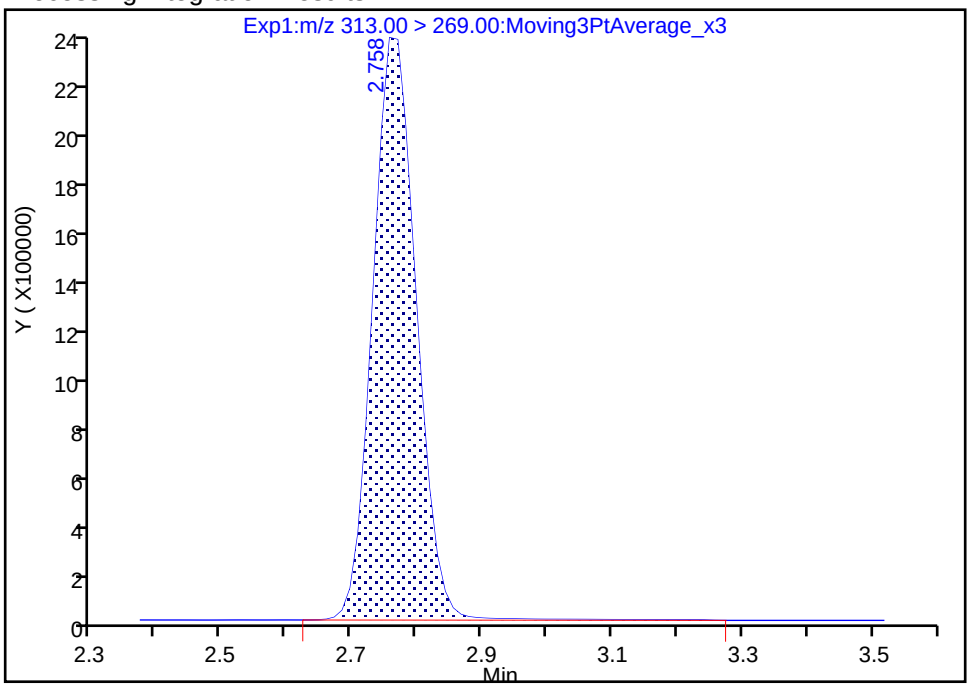
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

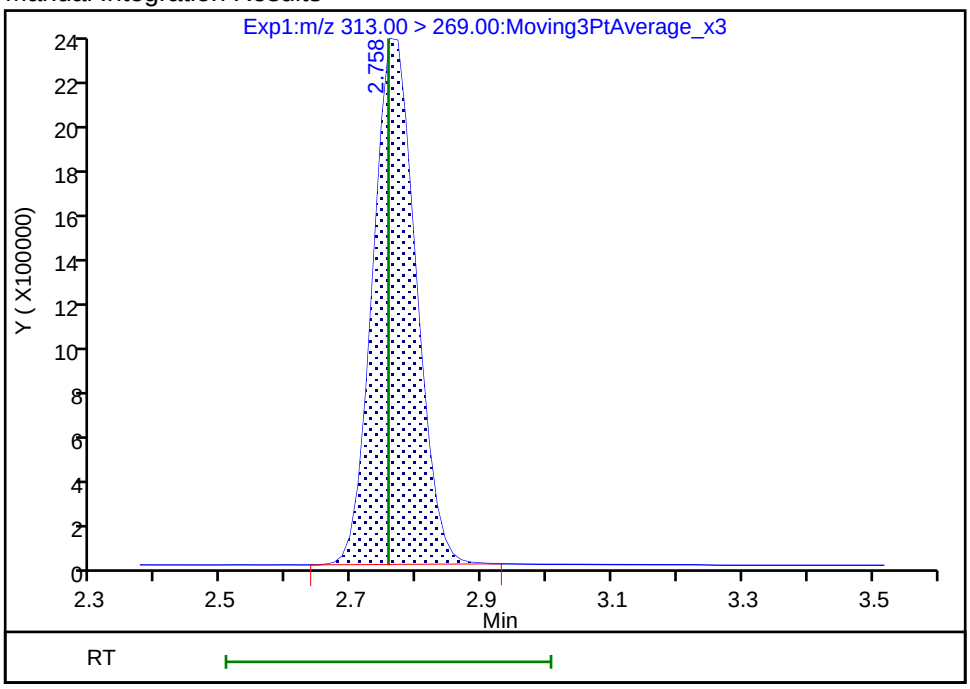
Processing Integration Results

RT: 2.76
Area: 11074582
Amount: 9.217471
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 10964511
Amount: 9.139814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

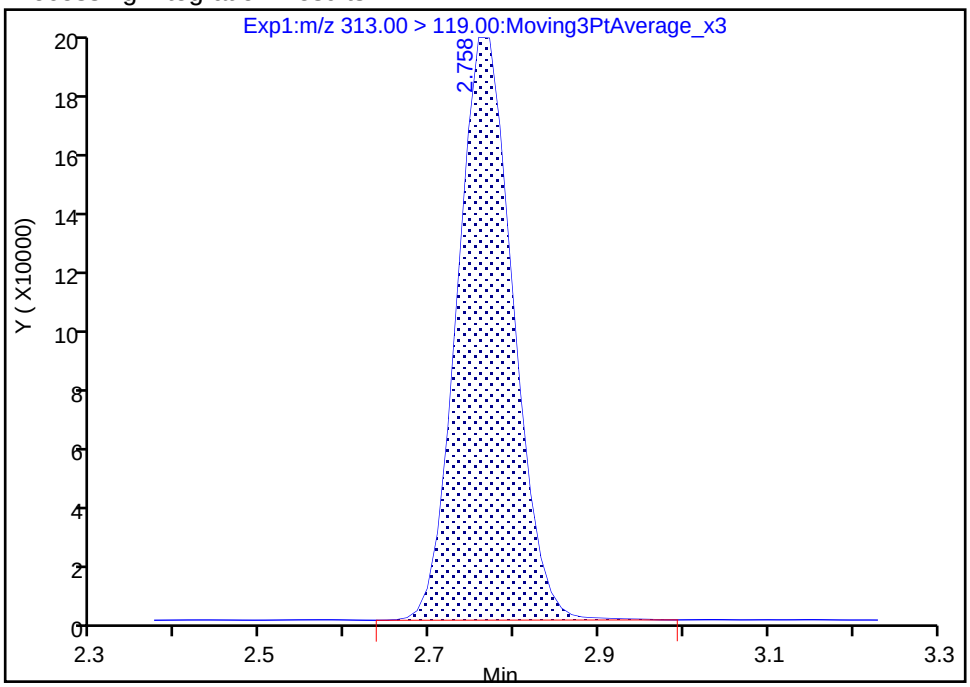
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

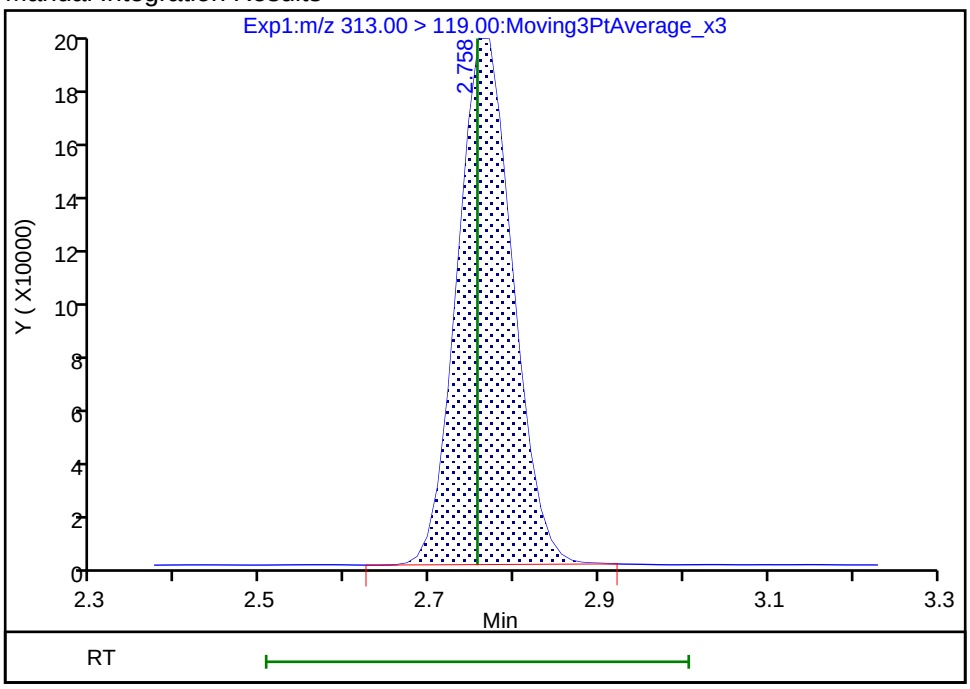
Processing Integration Results

RT: 2.76
Area: 901161
Amount: 9.217471
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 897013
Amount: 9.139814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

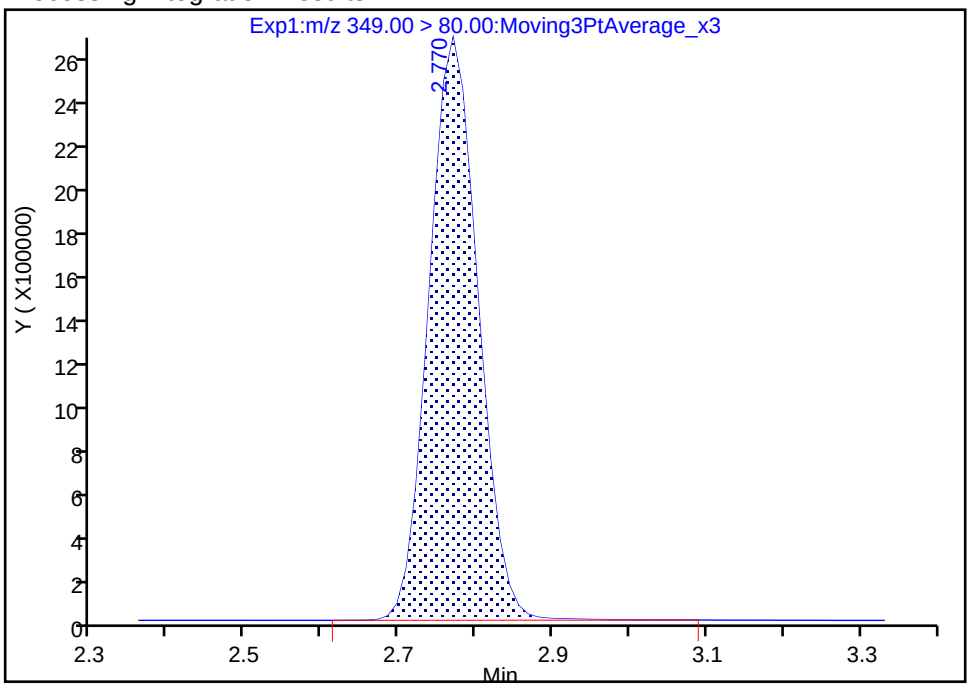
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

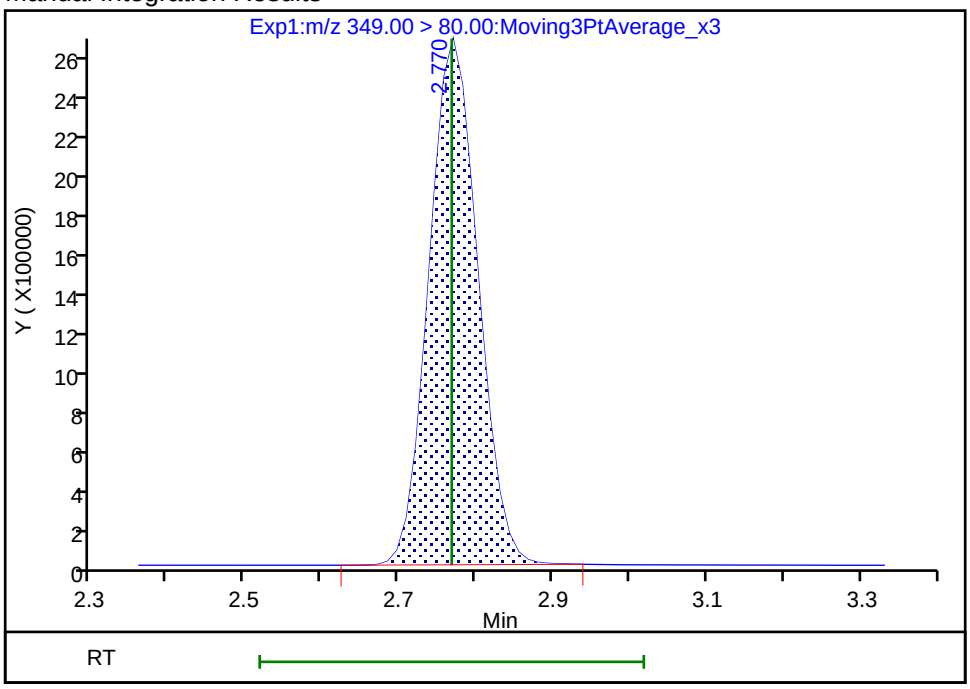
Processing Integration Results

RT: 2.77
Area: 11835103
Amount: 8.810668
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 11788049
Amount: 8.781104
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

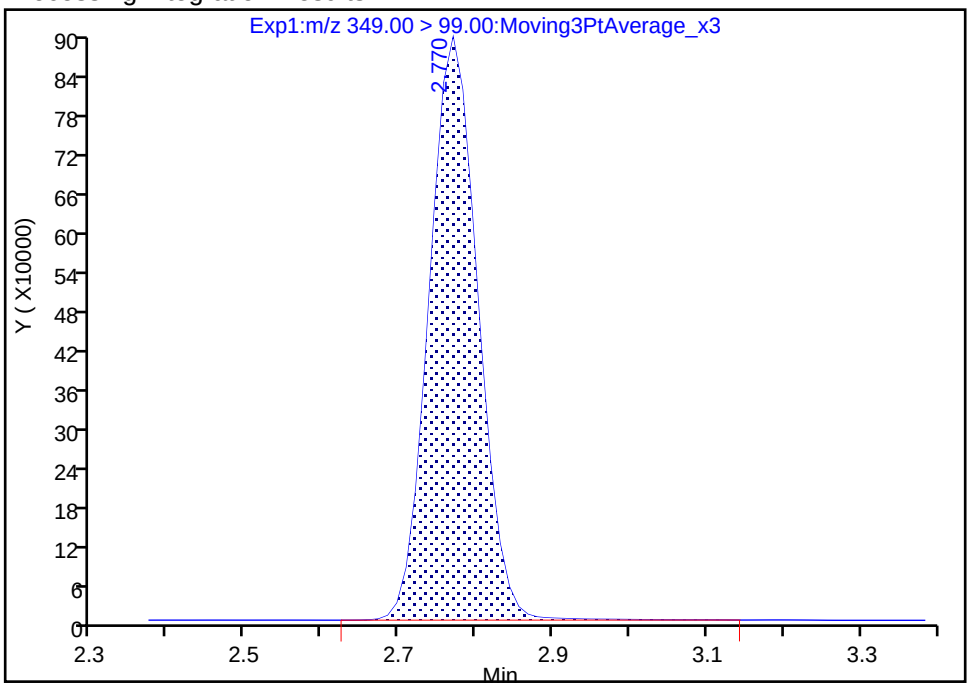
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 2

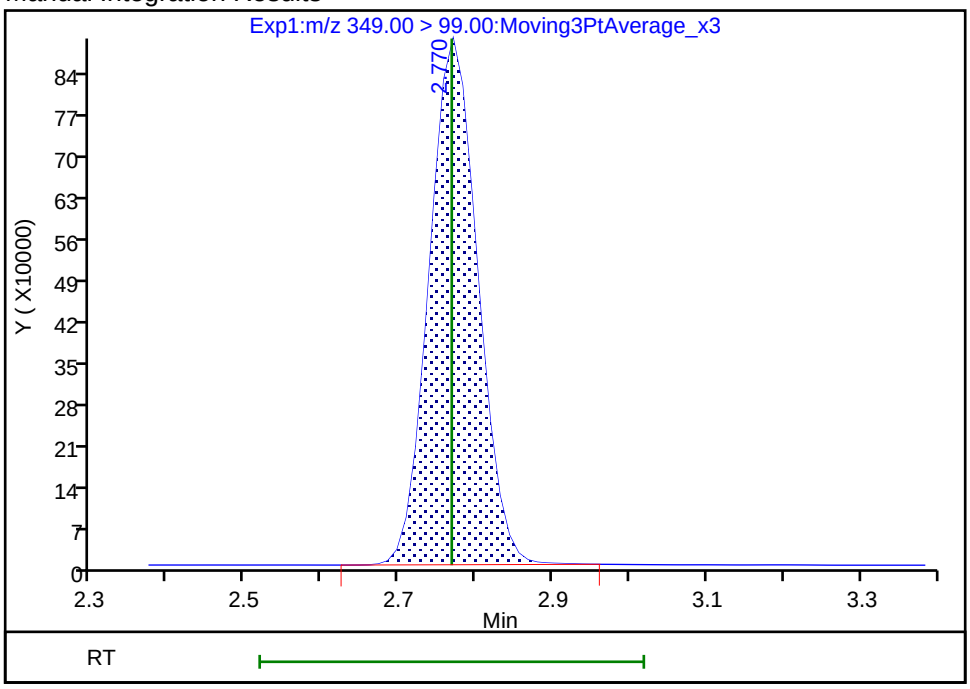
Processing Integration Results

RT: 2.77
Area: 3956964
Amount: 8.810668
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3939690
Amount: 8.781104
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

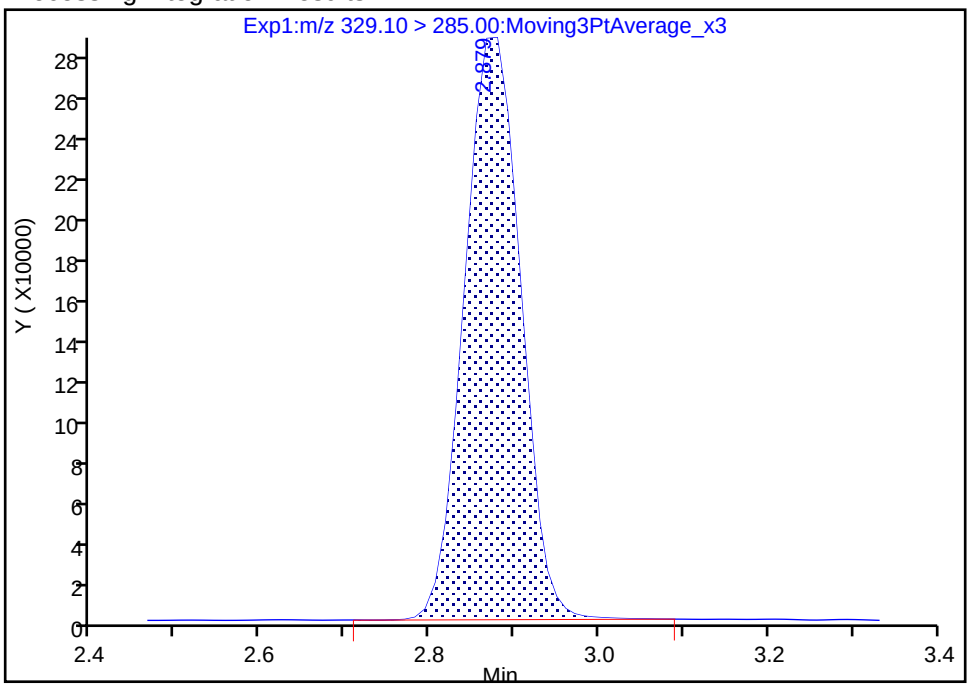
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

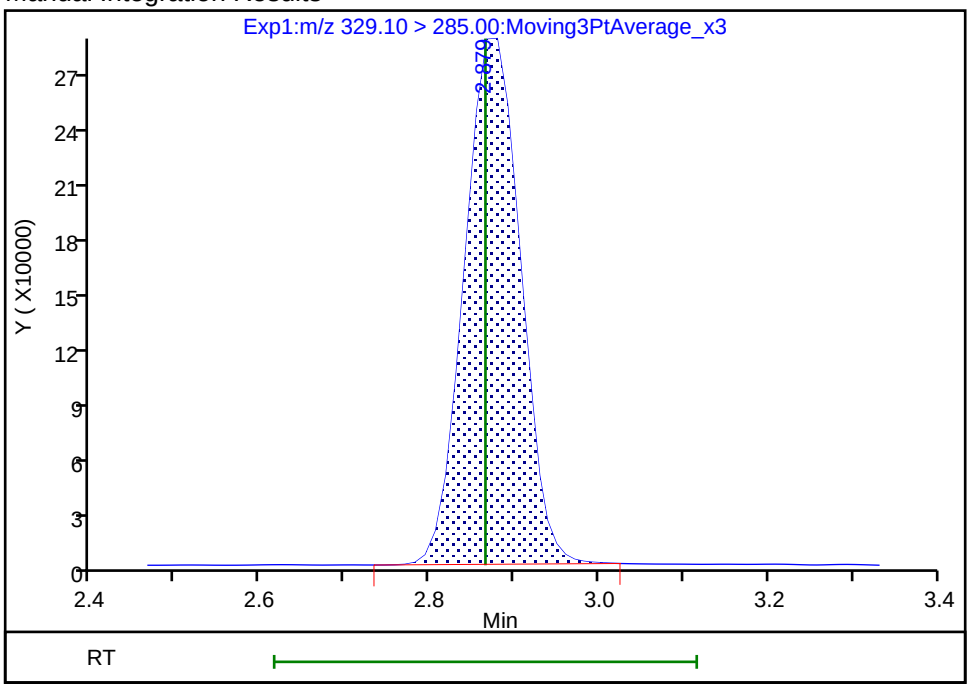
Processing Integration Results

RT: 2.88
Area: 1298993
Amount: 8.029082
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 1294536
Amount: 8.125365
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

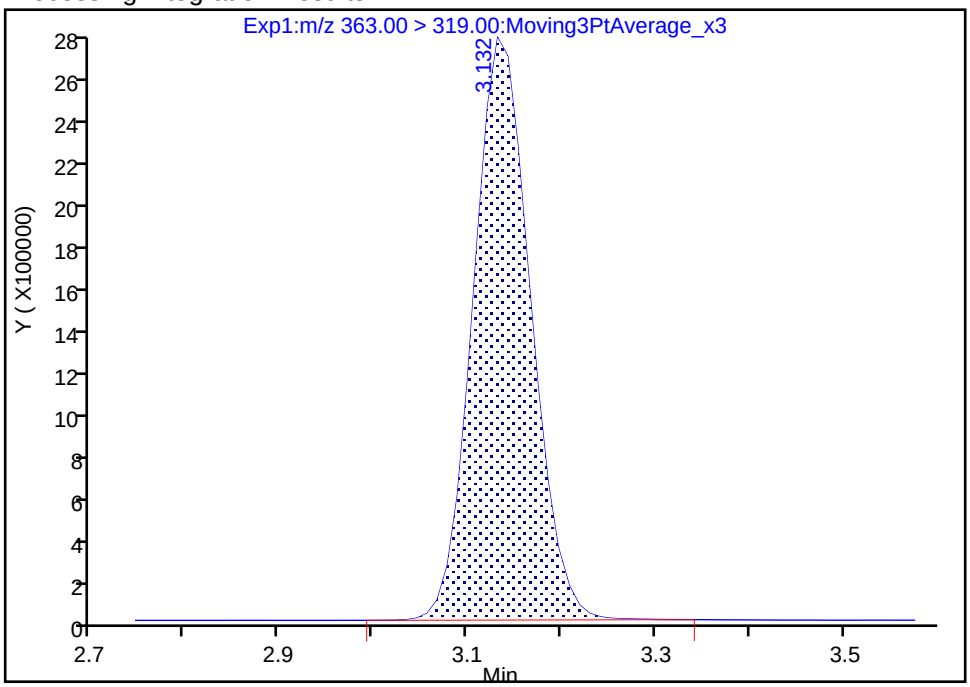
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

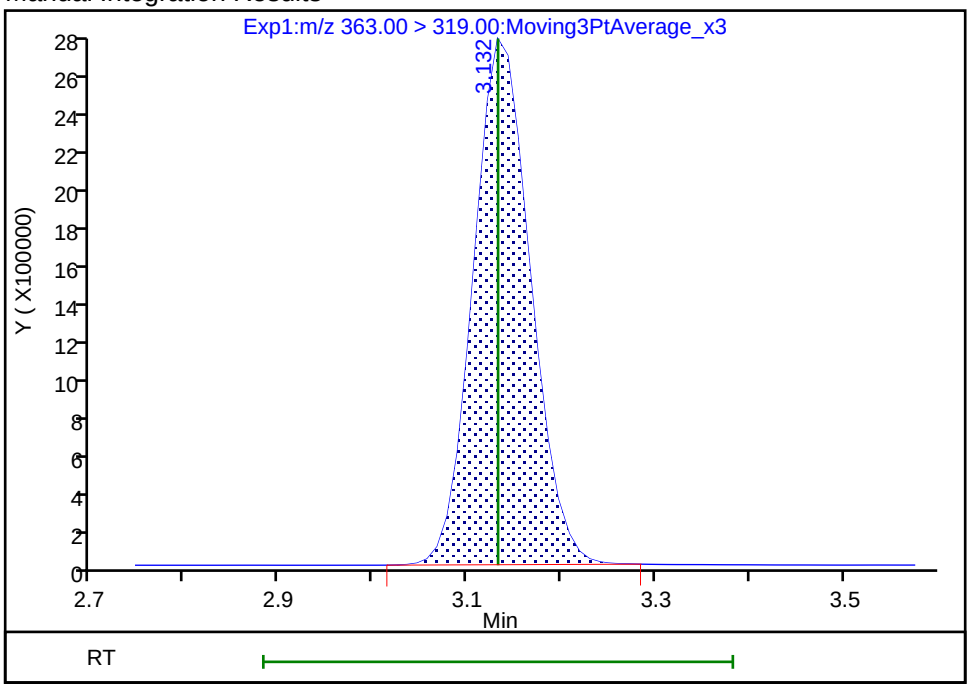
Processing Integration Results

RT: 3.13
Area: 11458224
Amount: 9.057775
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 11431038
Amount: 9.039522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

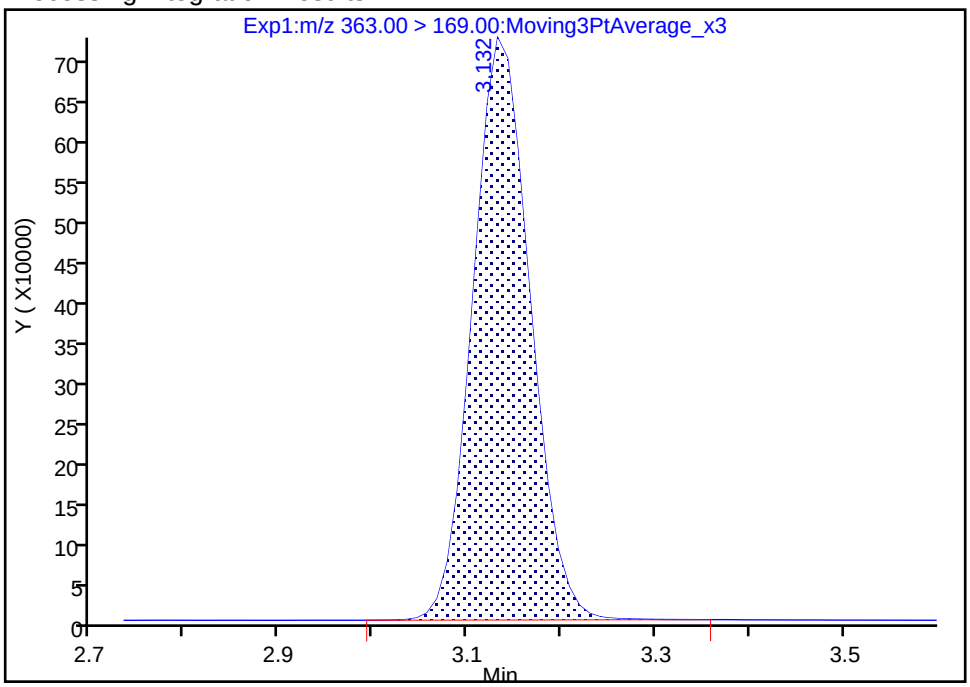
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

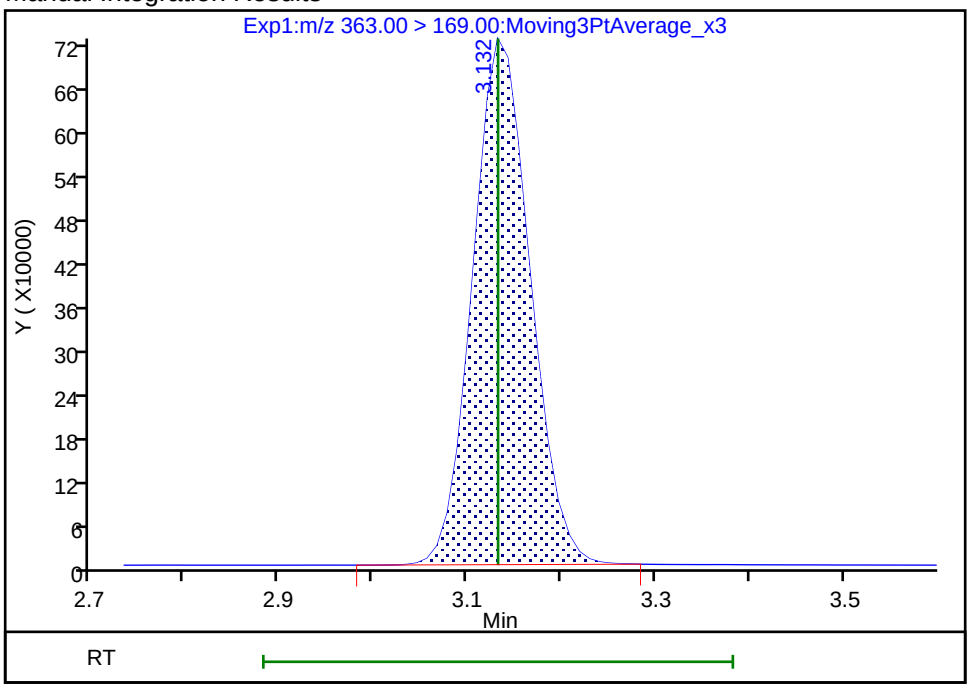
Processing Integration Results

RT: 3.13
Area: 3084383
Amount: 9.057775
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 3076429
Amount: 9.039522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

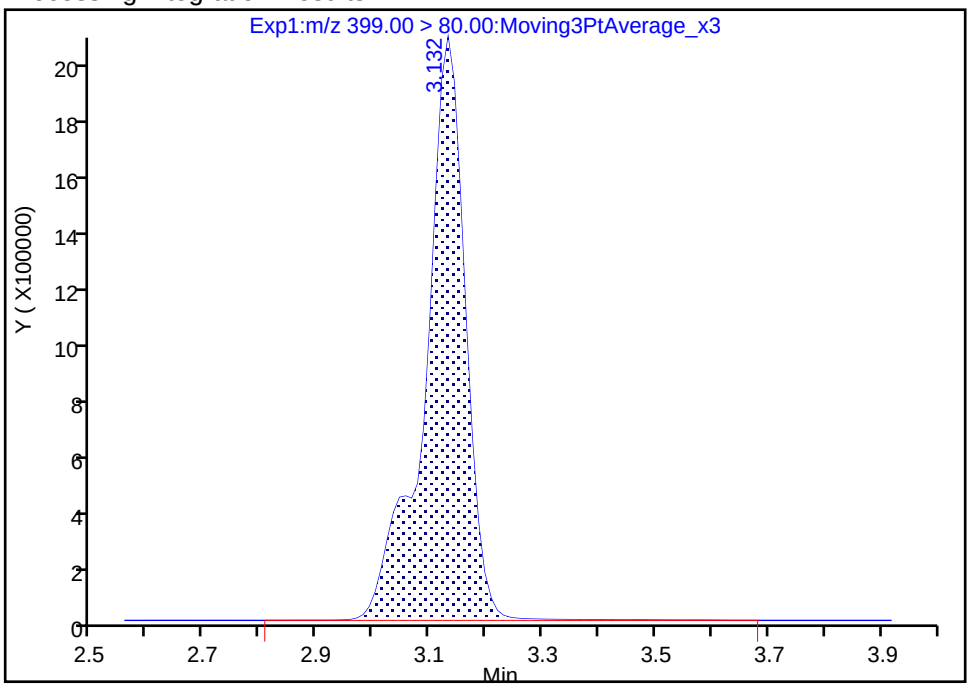
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

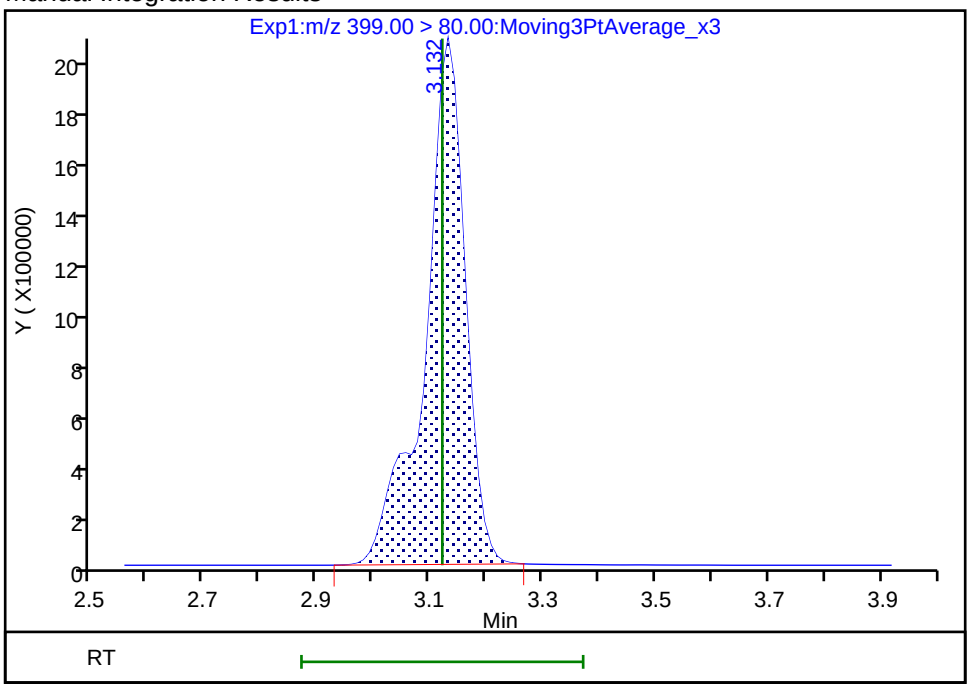
Processing Integration Results

RT: 3.13
Area: 10291218
Amount: 8.384647
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 10194384
Amount: 8.317771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

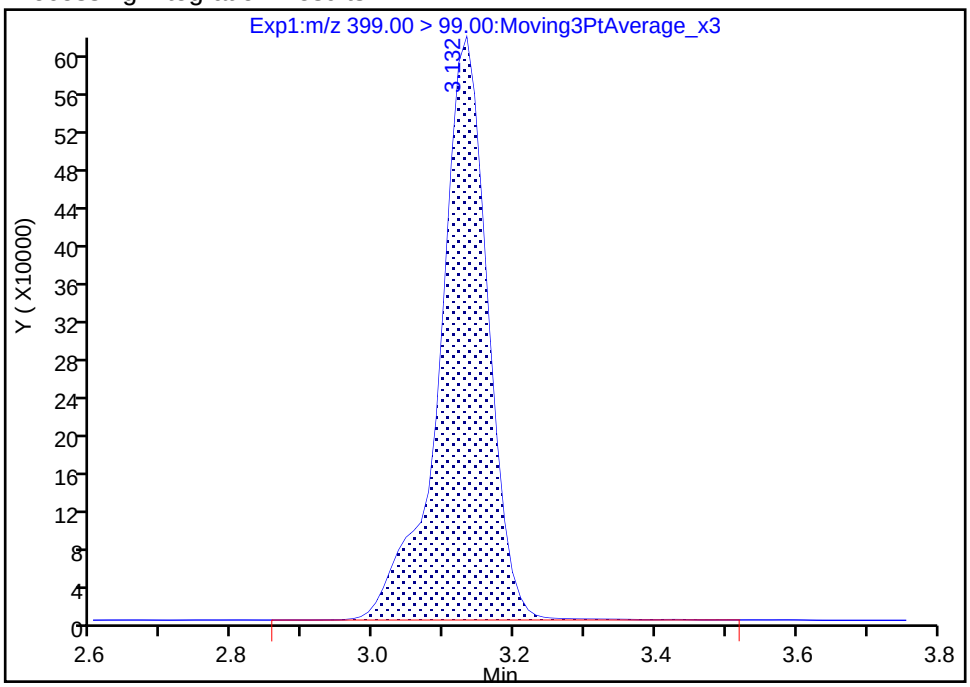
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

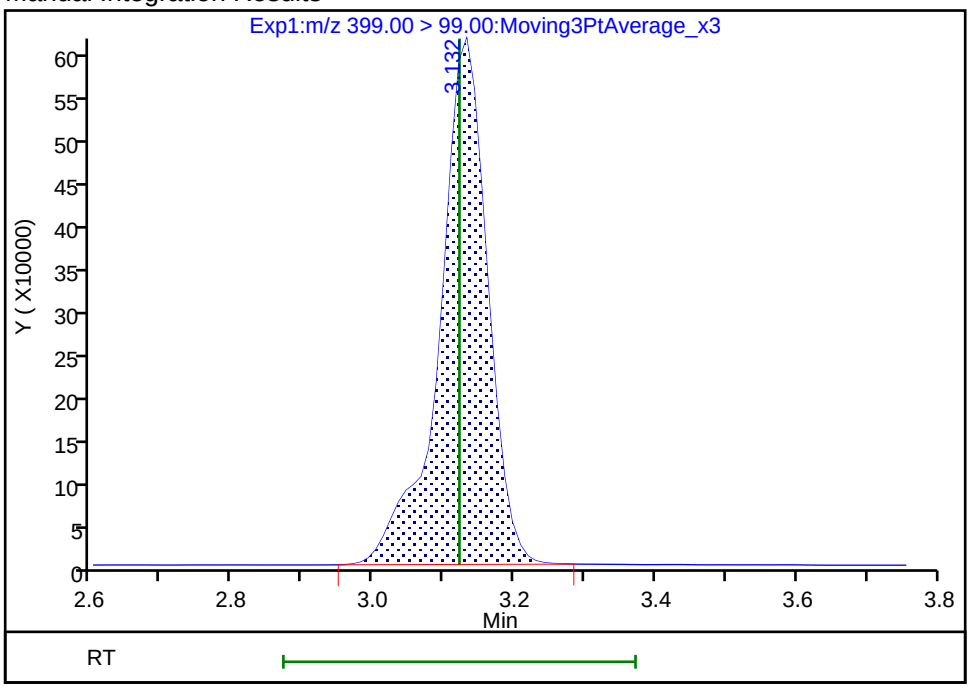
Processing Integration Results

RT: 3.13
Area: 2943526
Amount: 8.384647
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2926854
Amount: 8.317771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

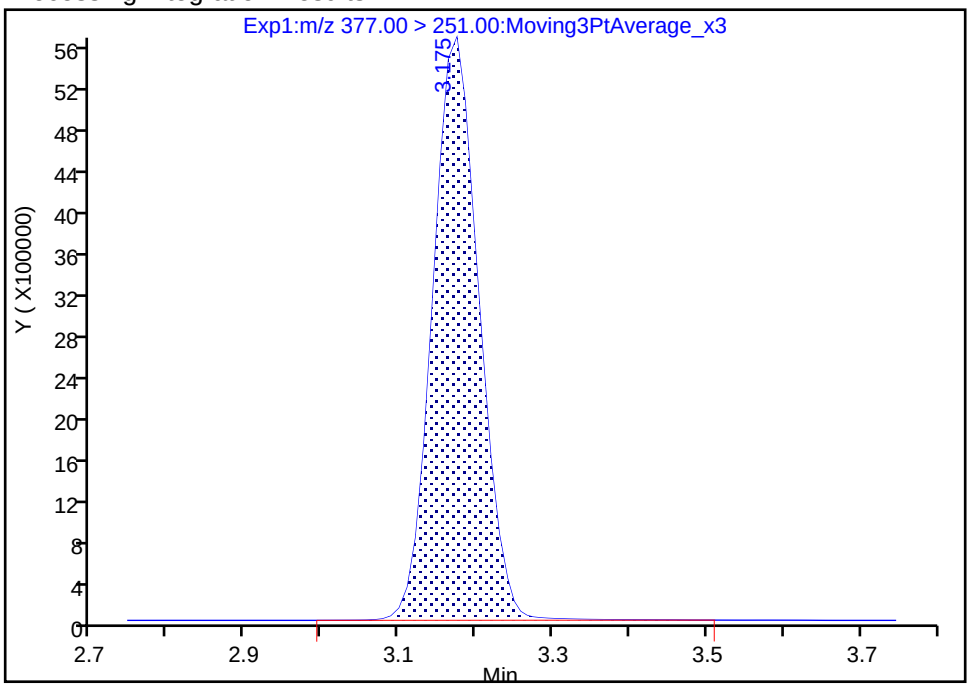
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

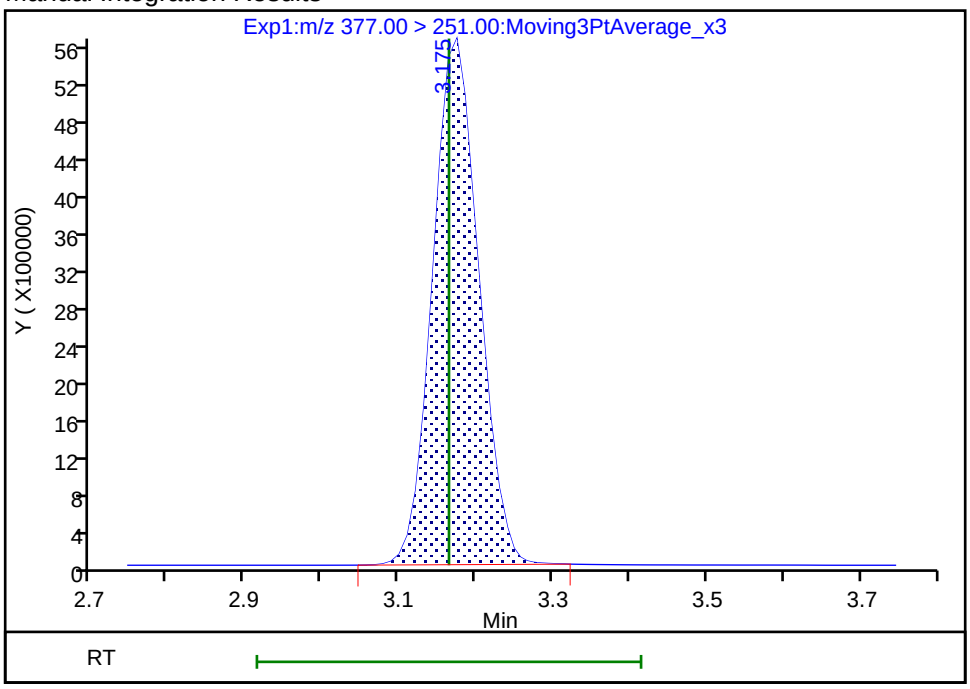
Processing Integration Results

RT: 3.17
Area: 23633712
Amount: 8.351245
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 23507218
Amount: 8.313121
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

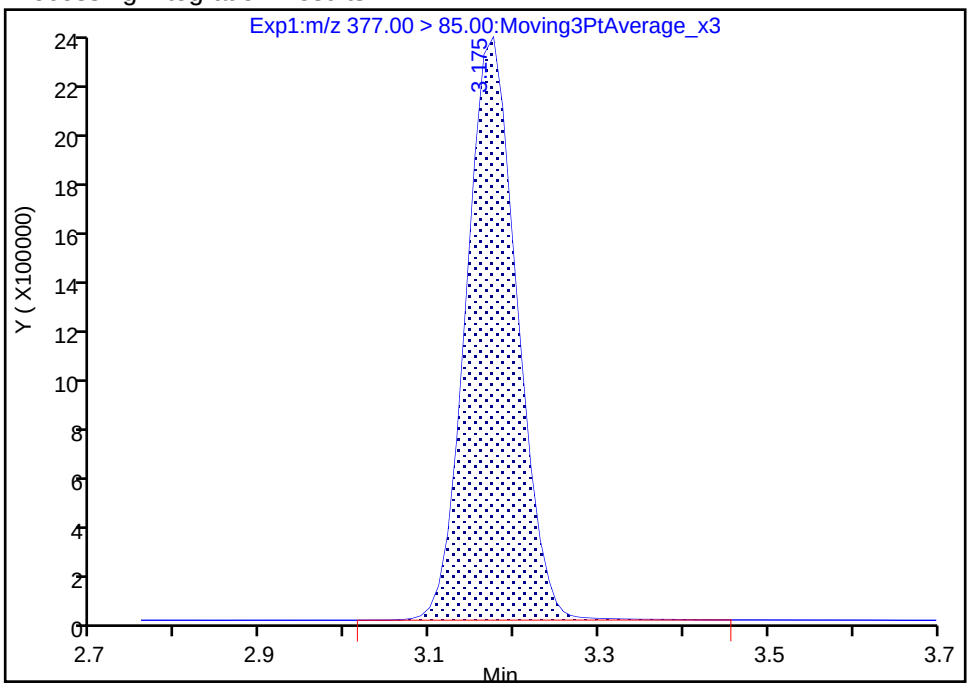
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

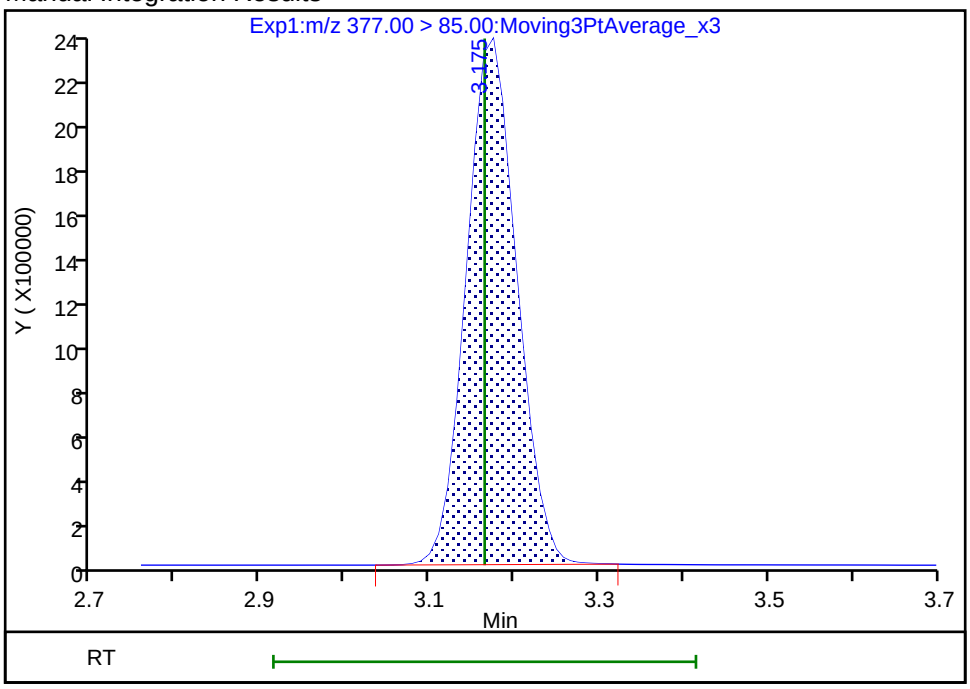
Processing Integration Results

RT: 3.17
Area: 9713406
Amount: 8.351245
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 9670775
Amount: 8.313121
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

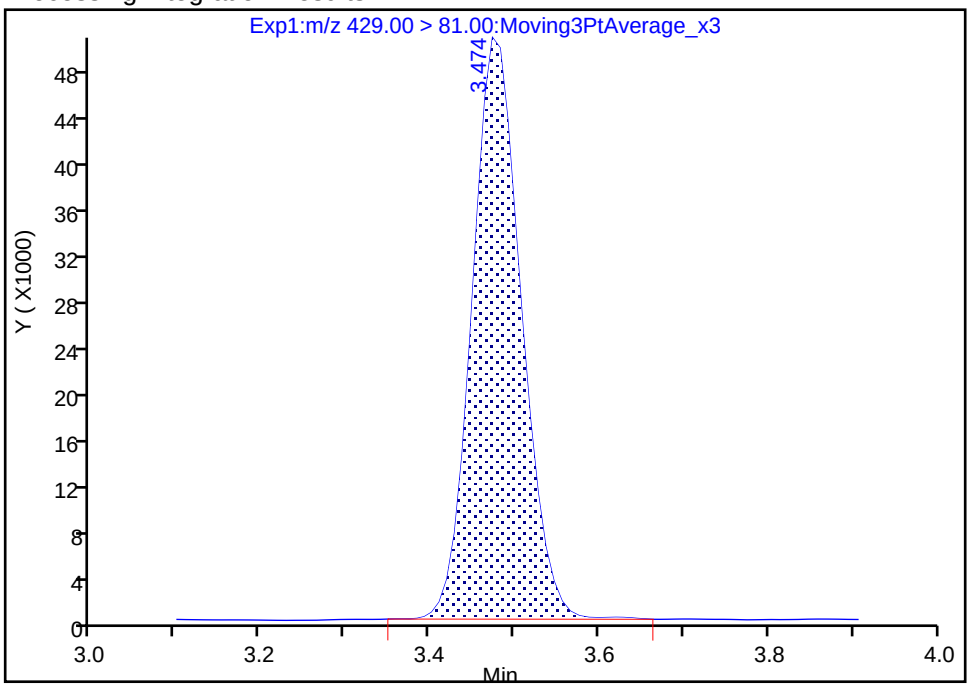
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

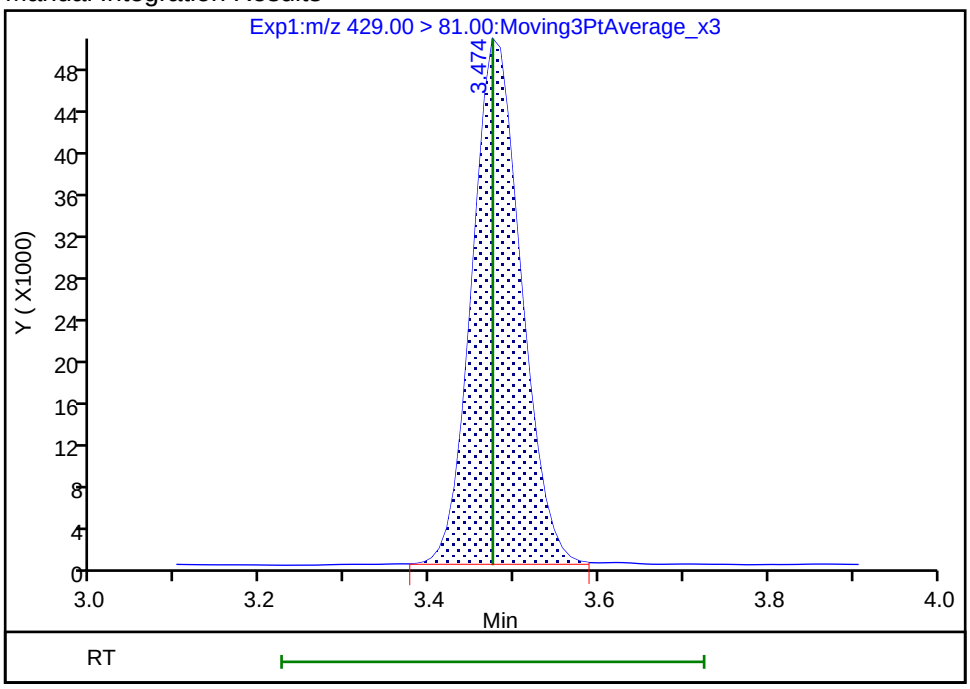
Processing Integration Results

RT: 3.47
Area: 201752
Amount: 1.183589
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 201400
Amount: 1.181867
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

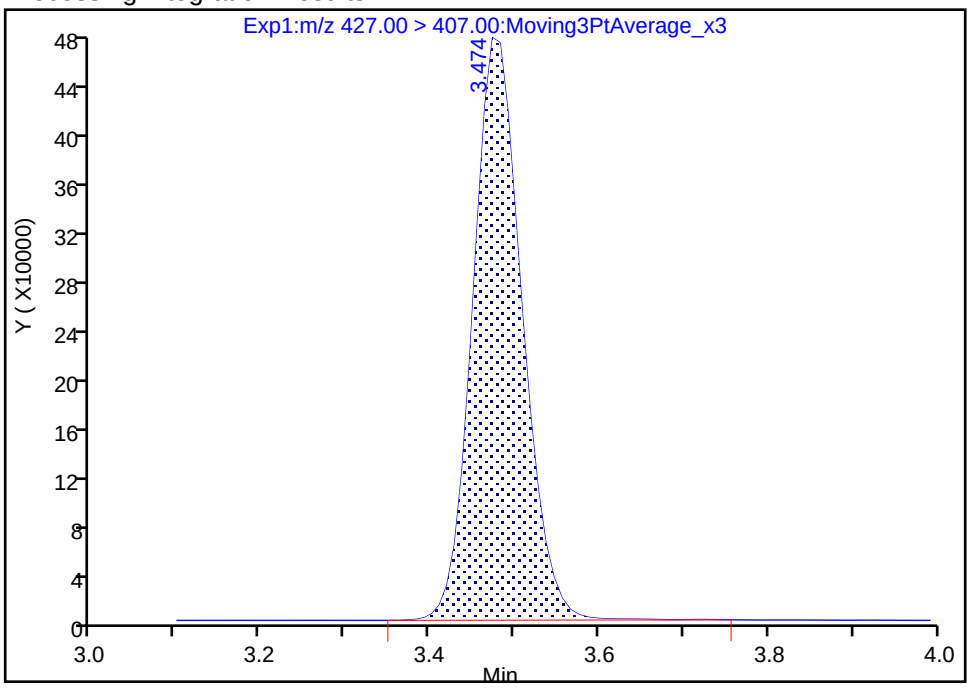
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

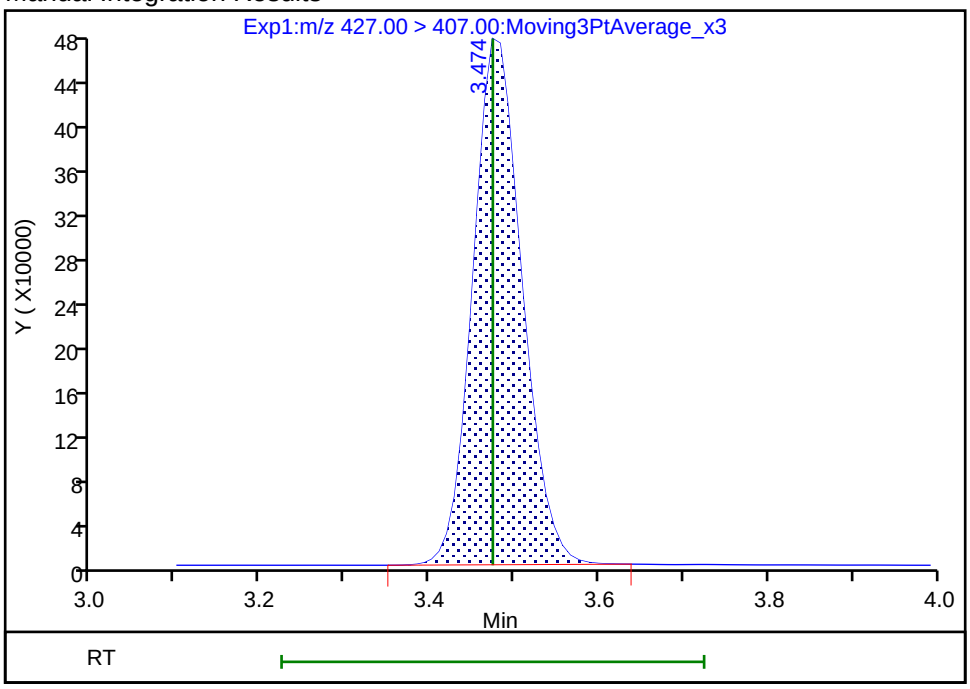
Processing Integration Results

RT: 3.47
Area: 1914658
Amount: 8.896805
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1906895
Amount: 8.866356
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

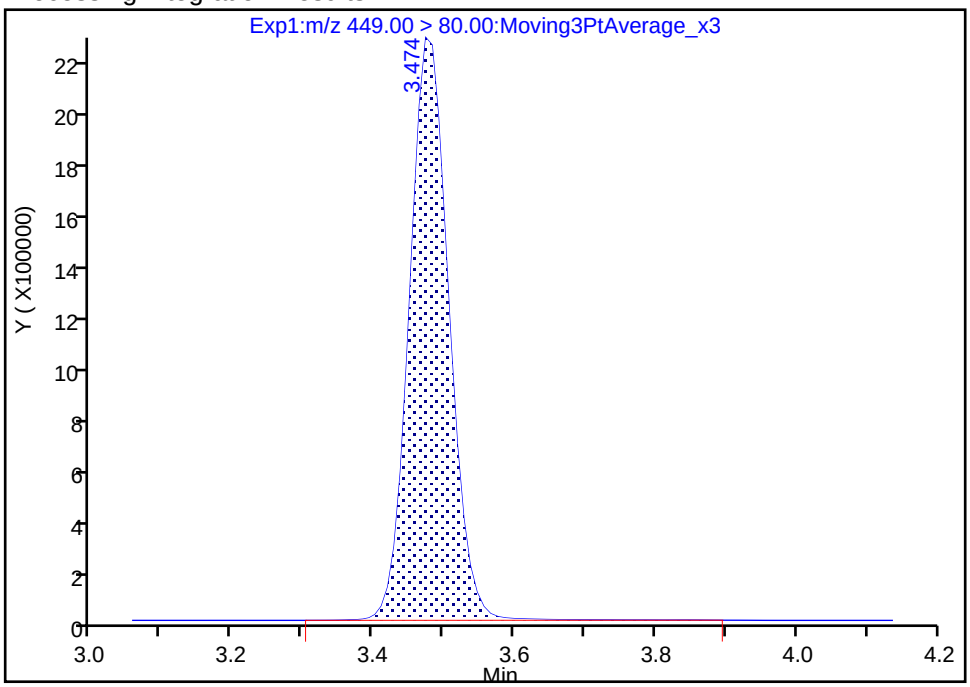
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

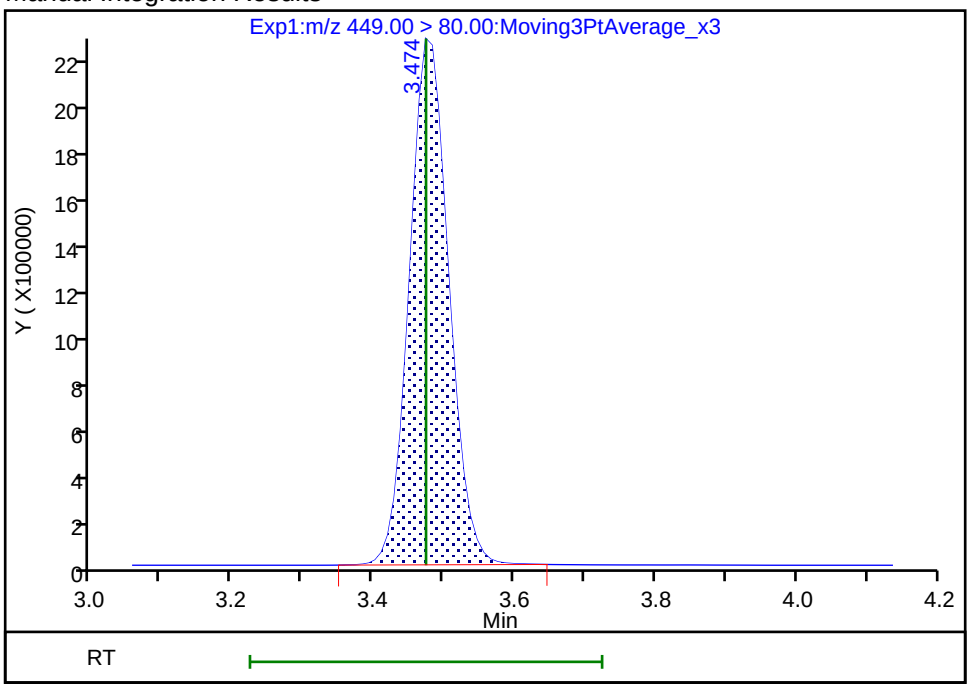
Processing Integration Results

RT: 3.47
Area: 8816764
Amount: 8.746908
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 8770862
Amount: 8.708312
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

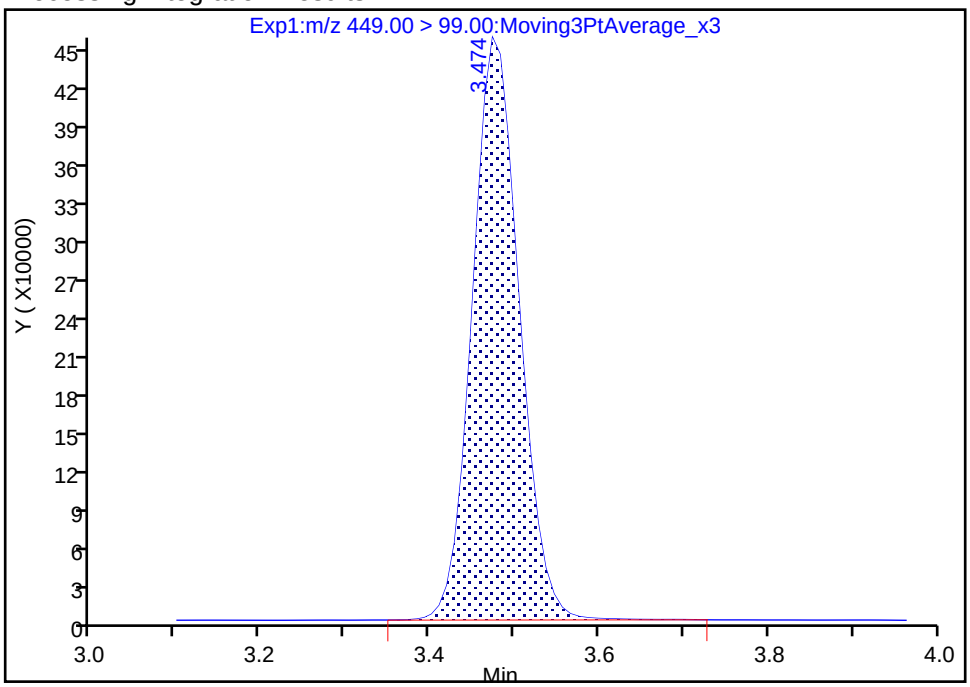
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

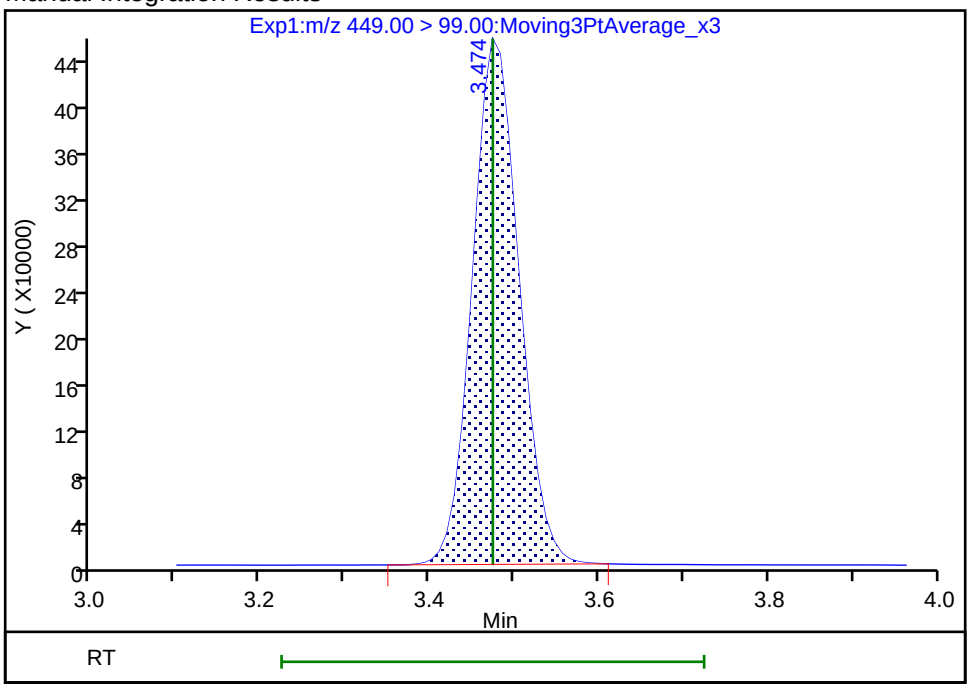
Processing Integration Results

RT: 3.47
Area: 1761320
Amount: 8.746908
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1751385
Amount: 8.708312
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

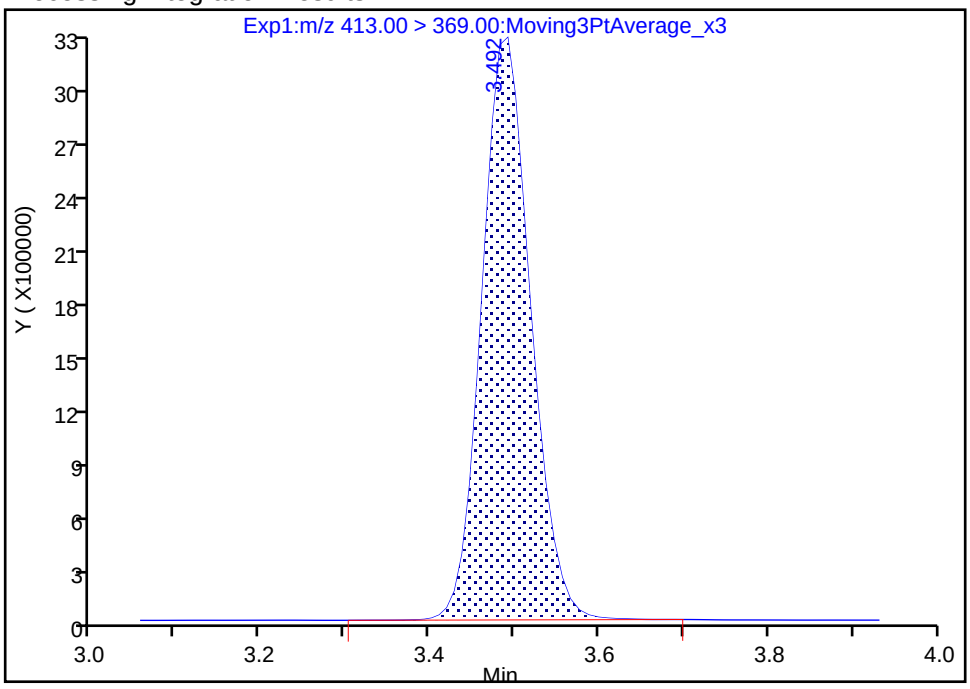
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

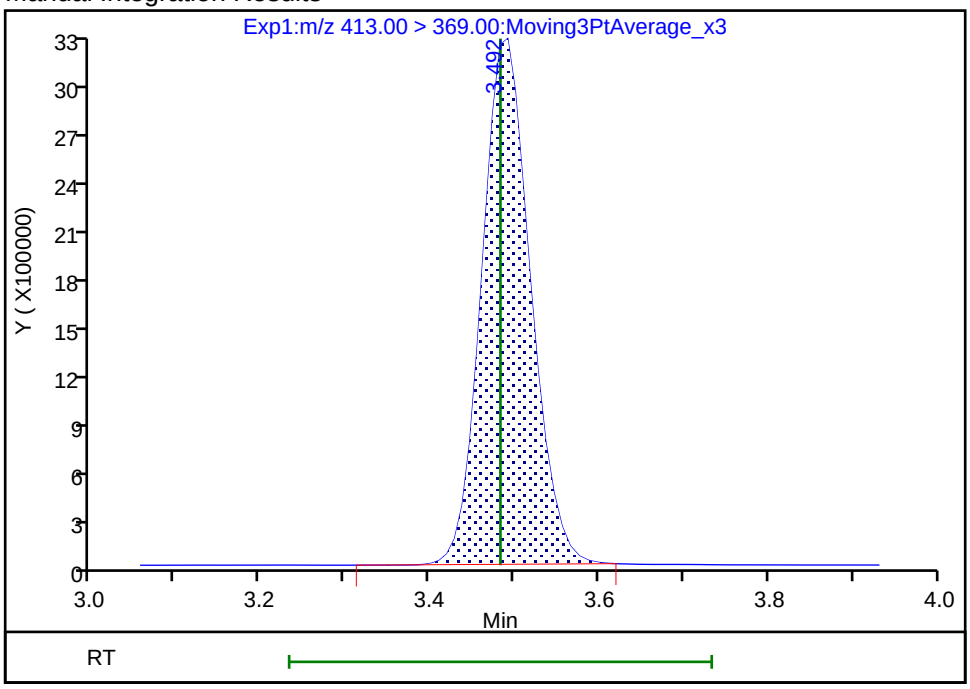
Processing Integration Results

RT: 3.49
Area: 12834137
Amount: 9.074927
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 12772682
Amount: 9.038018
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

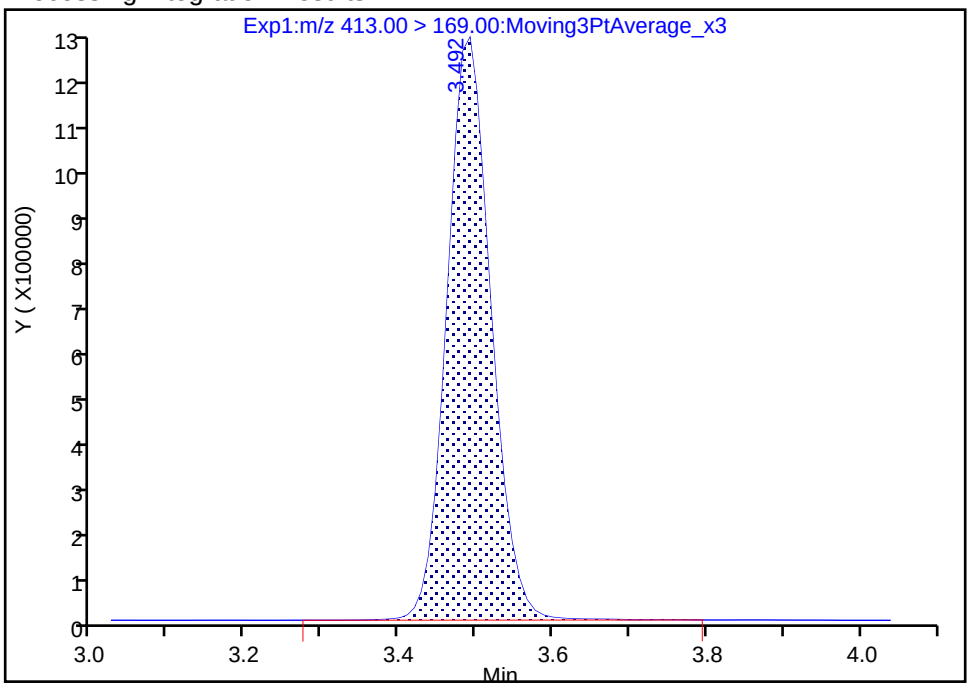
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

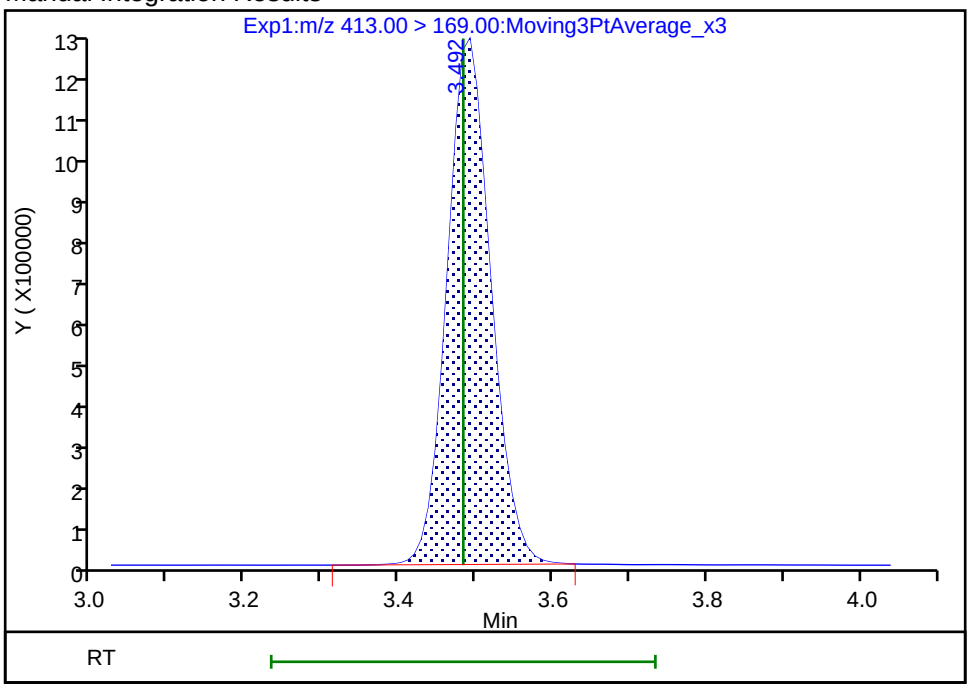
Processing Integration Results

RT: 3.49
Area: 4940570
Amount: 9.074927
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 4908934
Amount: 9.038018
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

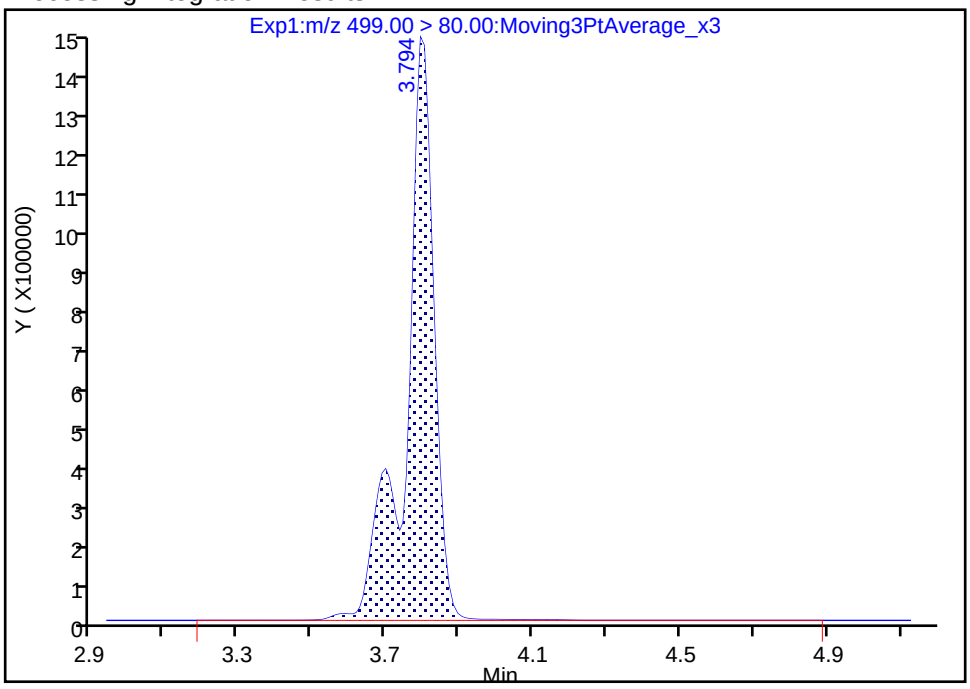
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

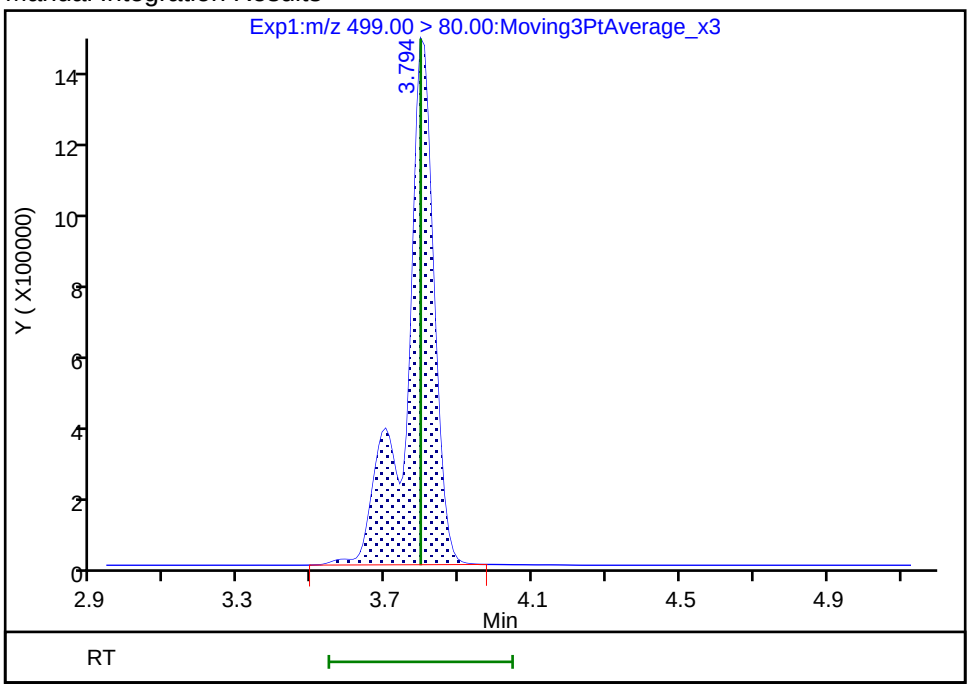
Processing Integration Results

RT: 3.79
Area: 7503566
Amount: 8.549754
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 7448626
Amount: 8.496706
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

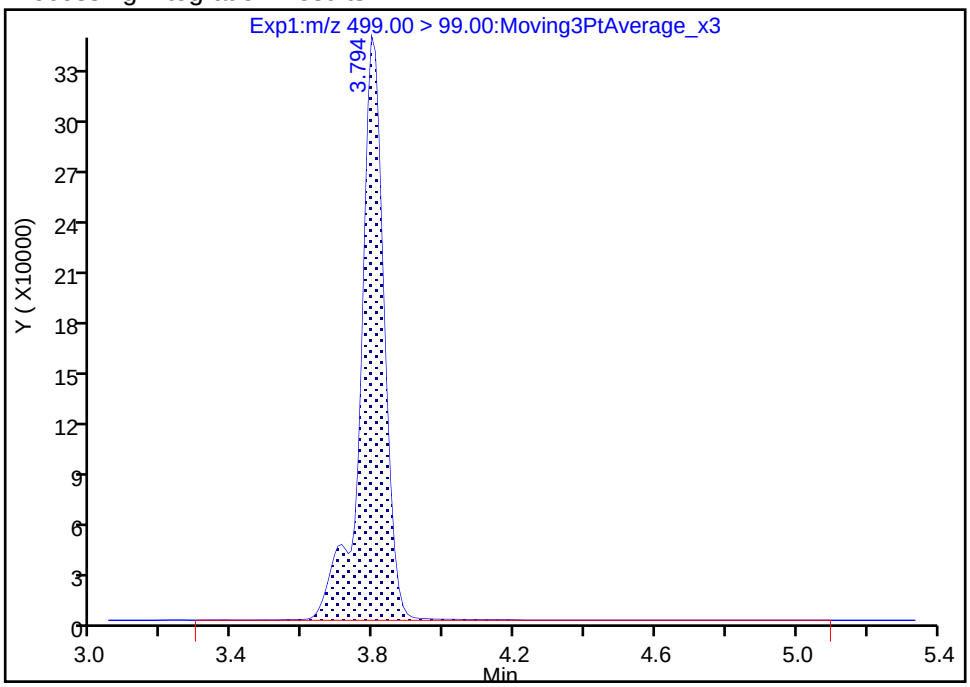
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

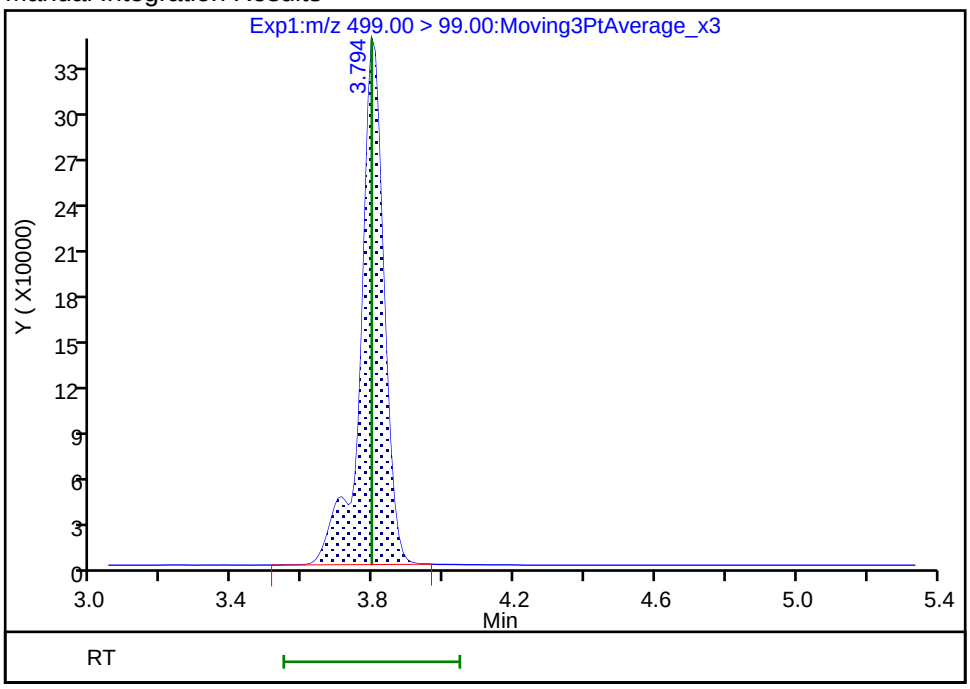
Processing Integration Results

RT: 3.79
Area: 1595792
Amount: 8.549754
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1580361
Amount: 8.496706
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

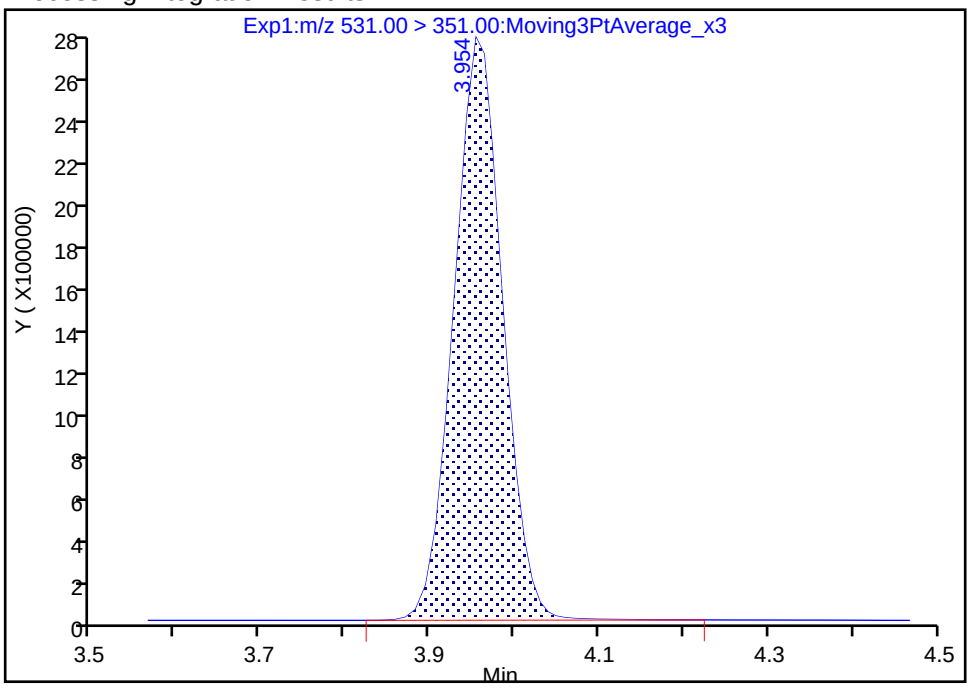
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

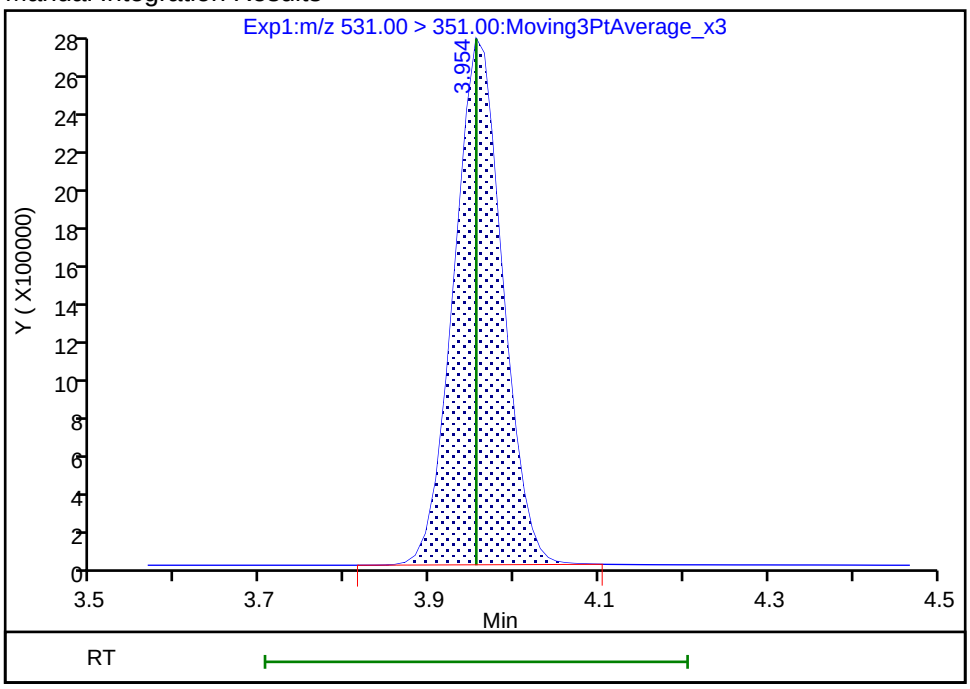
Processing Integration Results

RT: 3.95
Area: 11090425
Amount: 8.392983
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 11051728
Amount: 8.368080
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

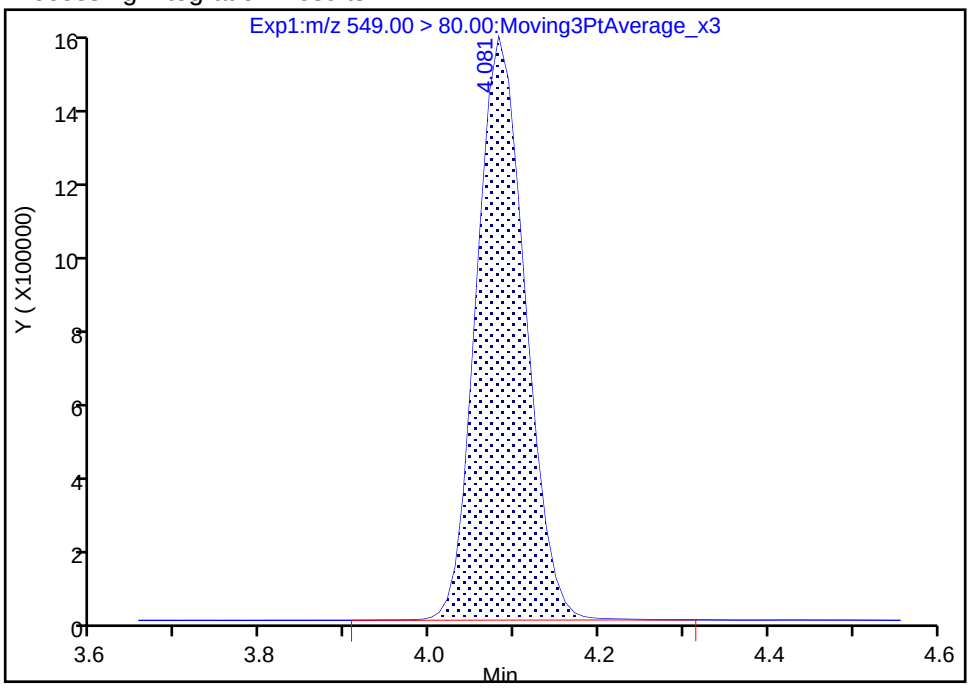
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

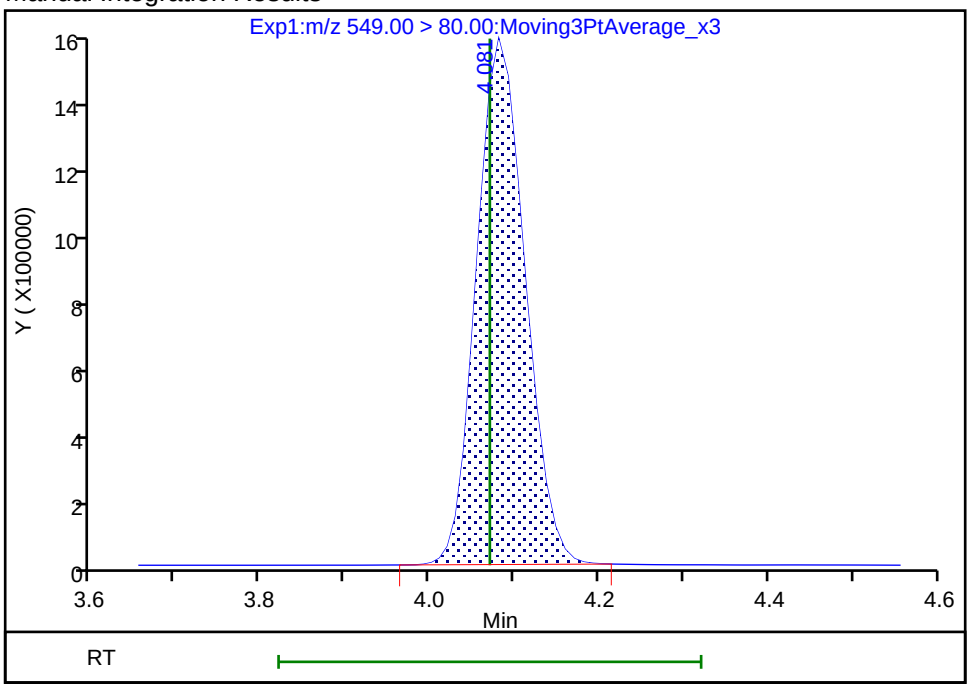
Processing Integration Results

RT: 4.08
Area: 6150066
Amount: 8.999865
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 6122325
Amount: 8.965588
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

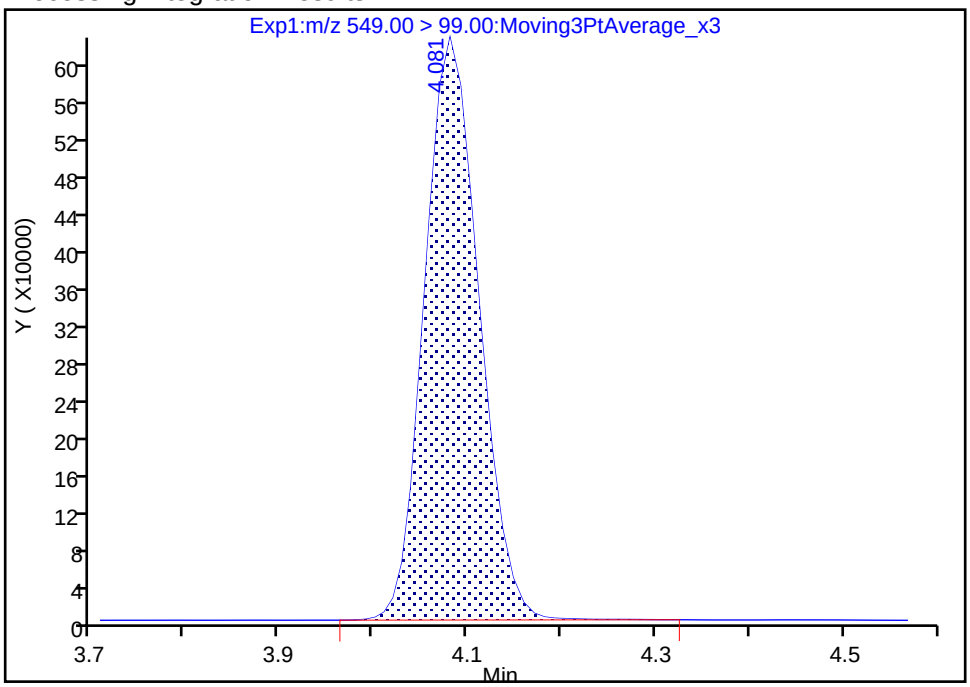
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

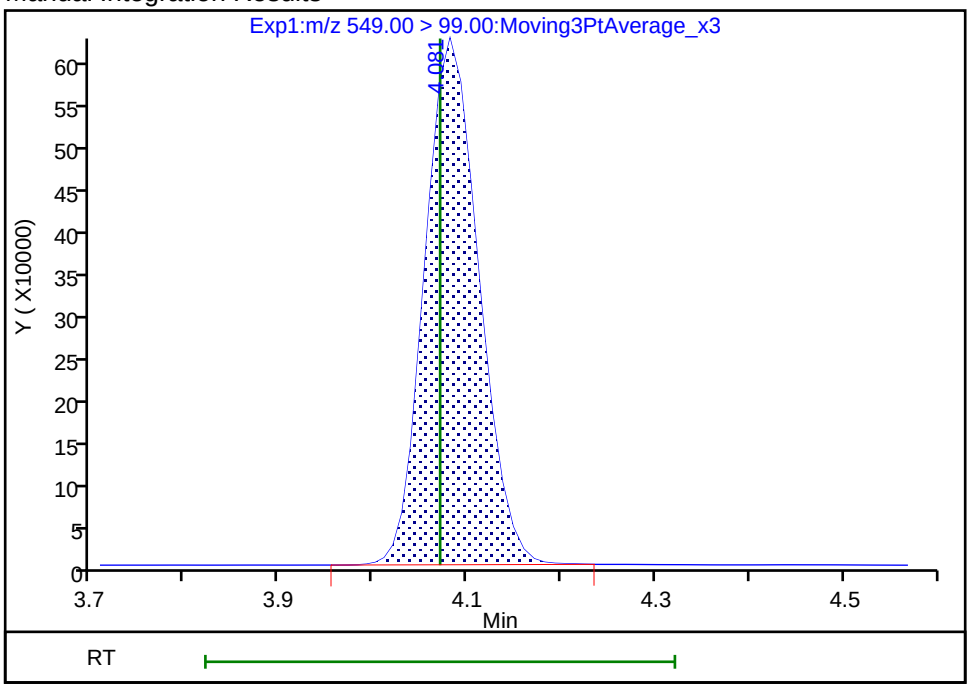
Processing Integration Results

RT: 4.08
Area: 2519947
Amount: 8.999865
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 2514266
Amount: 8.965588
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

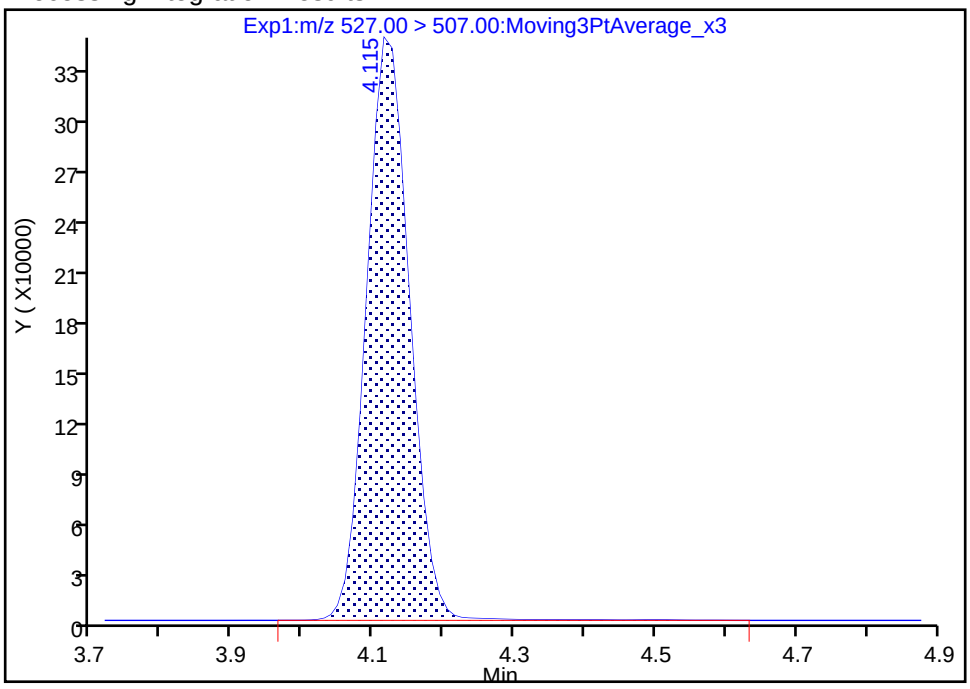
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

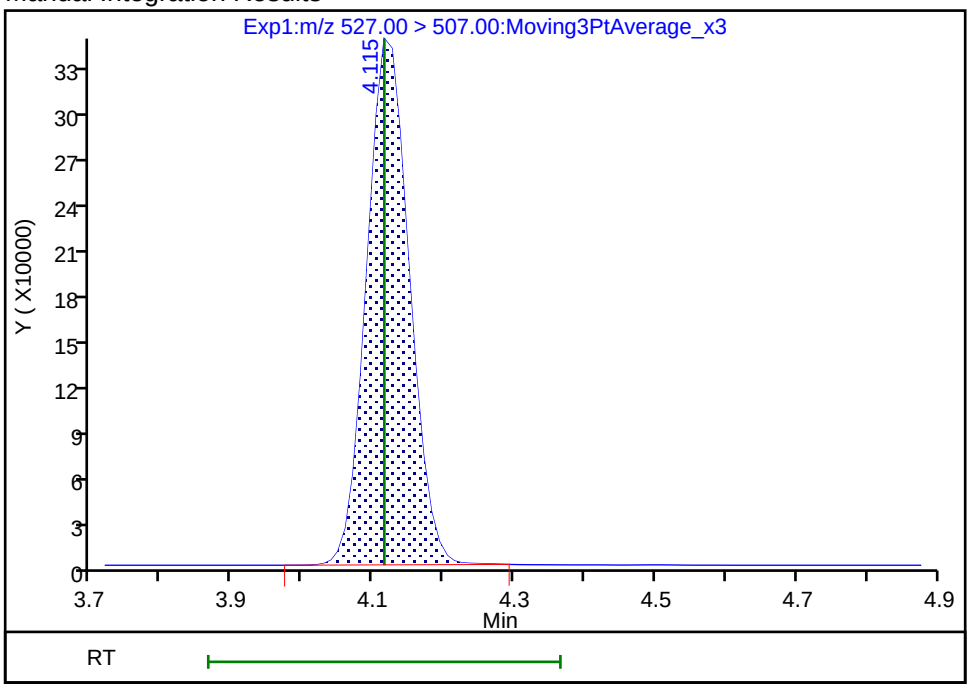
Processing Integration Results

RT: 4.11
Area: 1452659
Amount: 8.956969
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 1443544
Amount: 8.909478
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

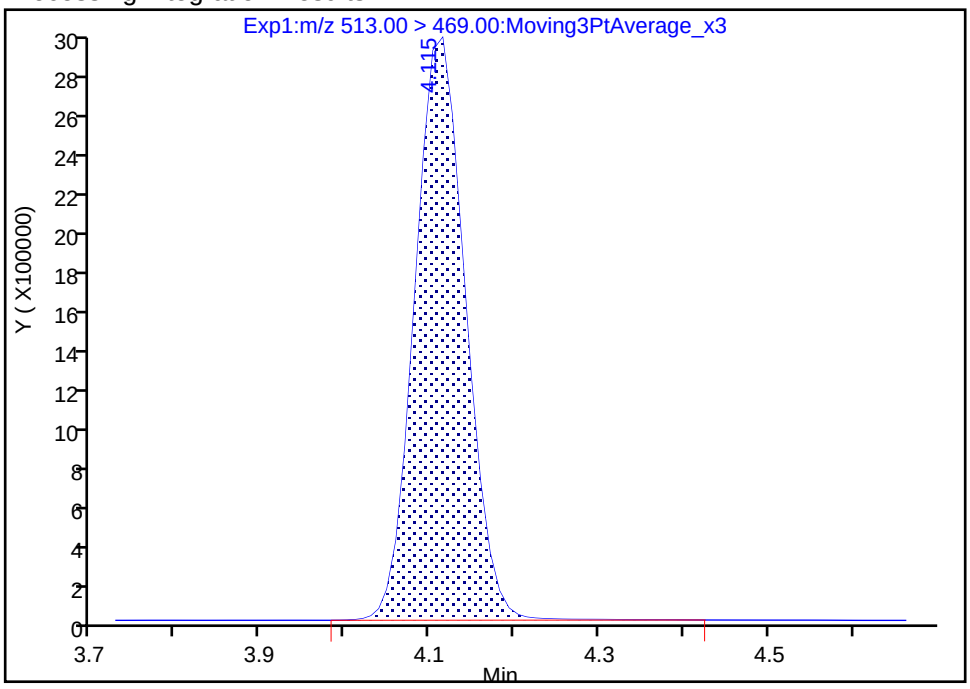
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

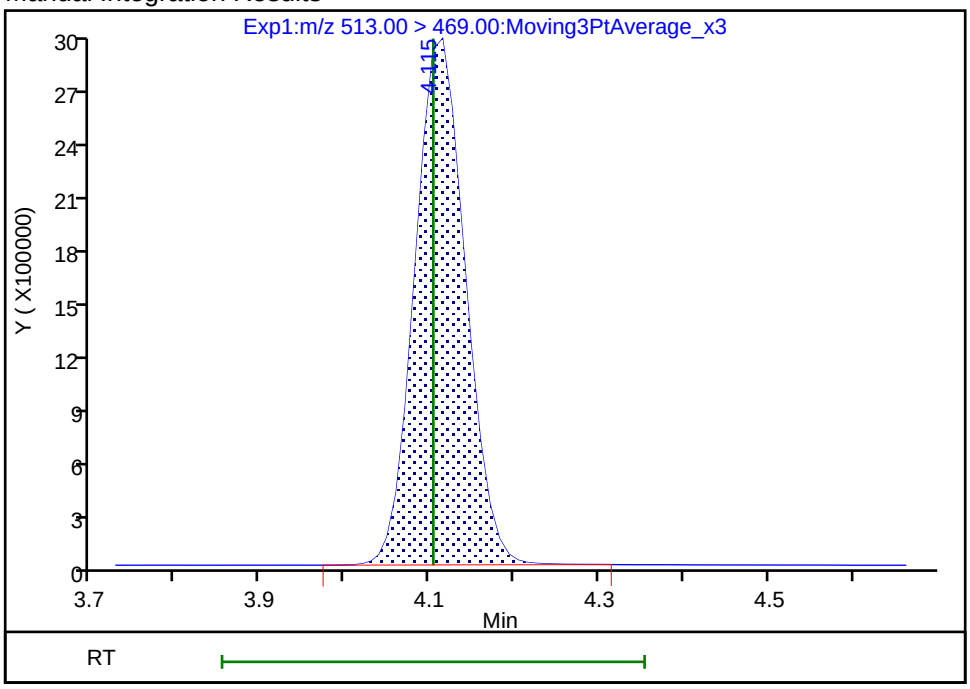
Processing Integration Results

RT: 4.11
Area: 12386303
Amount: 9.052635
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 12354501
Amount: 9.032892
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

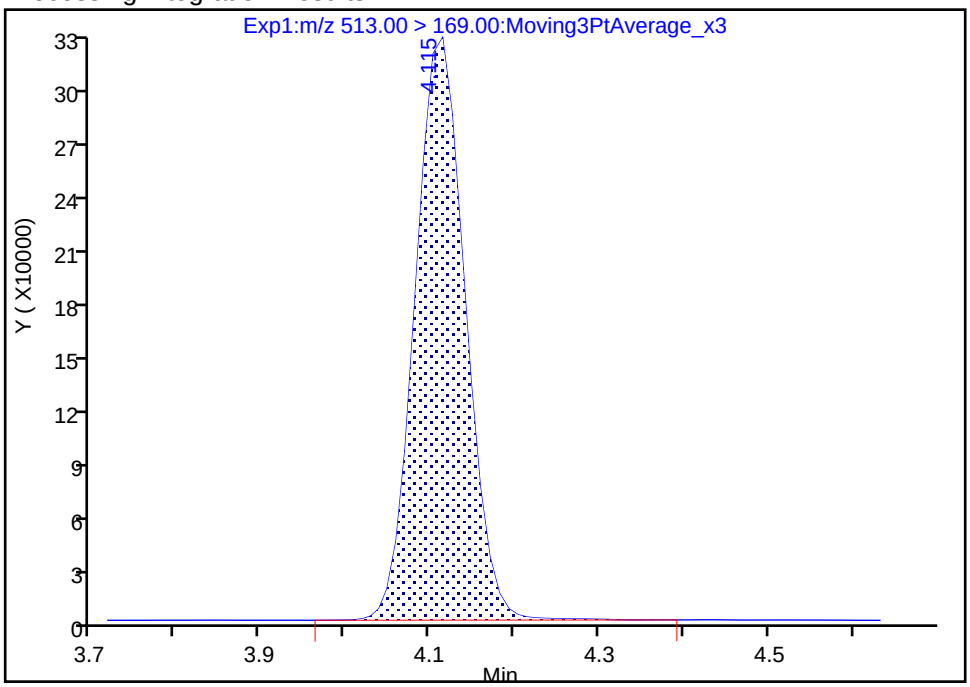
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

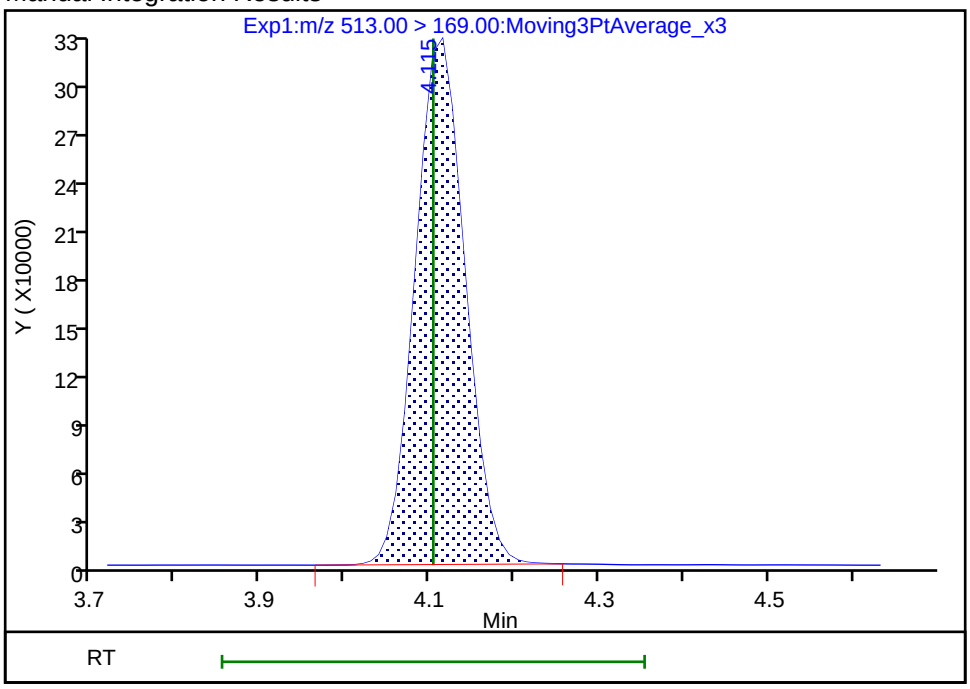
Processing Integration Results

RT: 4.11
Area: 1323609
Amount: 9.052635
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 1315764
Amount: 9.032892
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

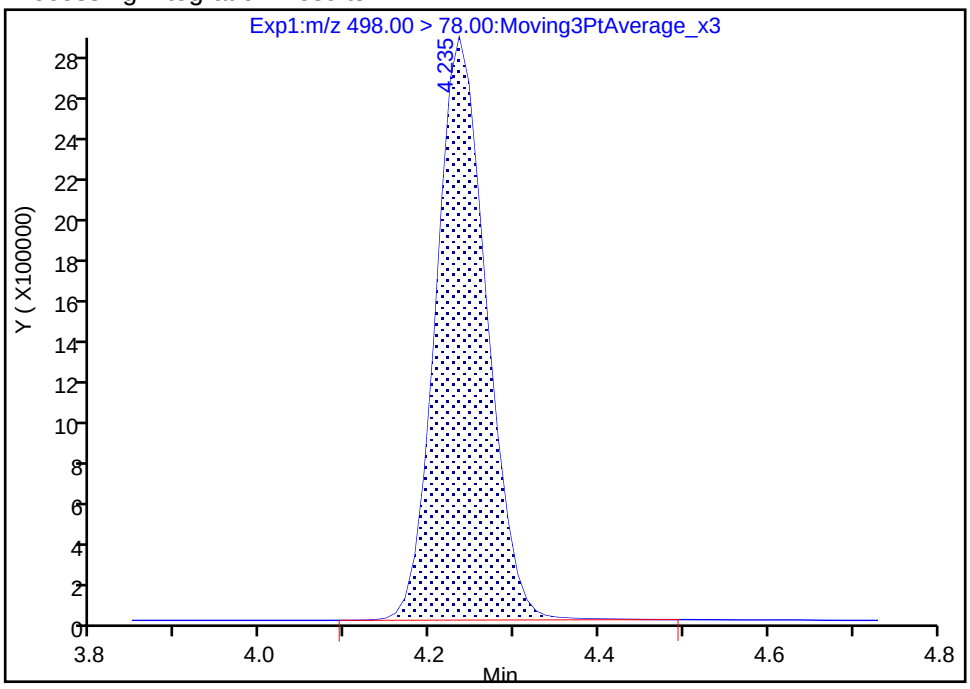
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

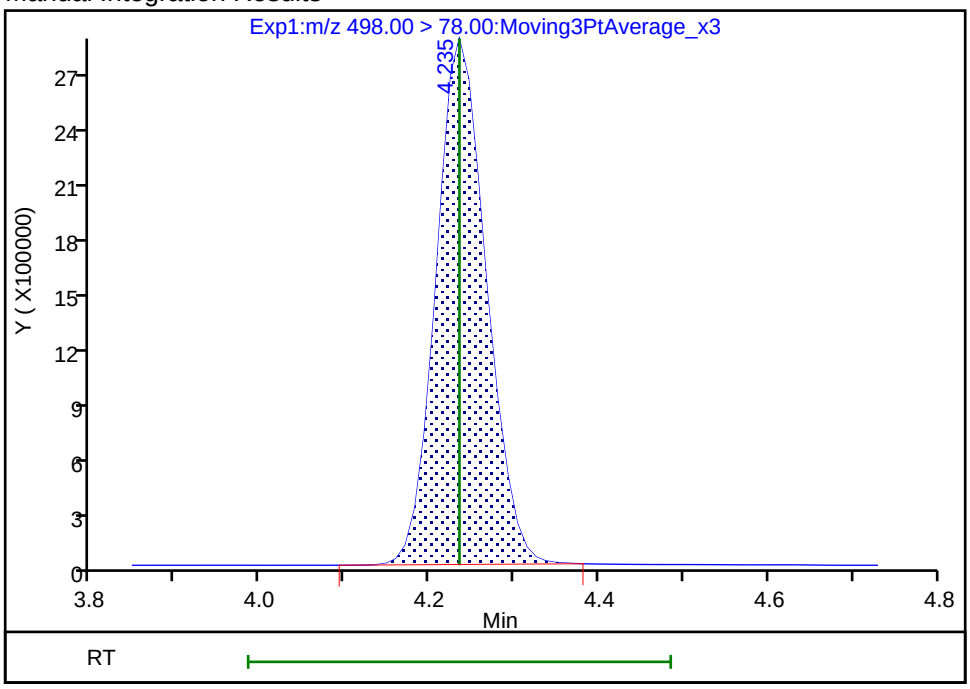
Processing Integration Results

RT: 4.23
Area: 11847382
Amount: 9.370032
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 11787729
Amount: 9.330189
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

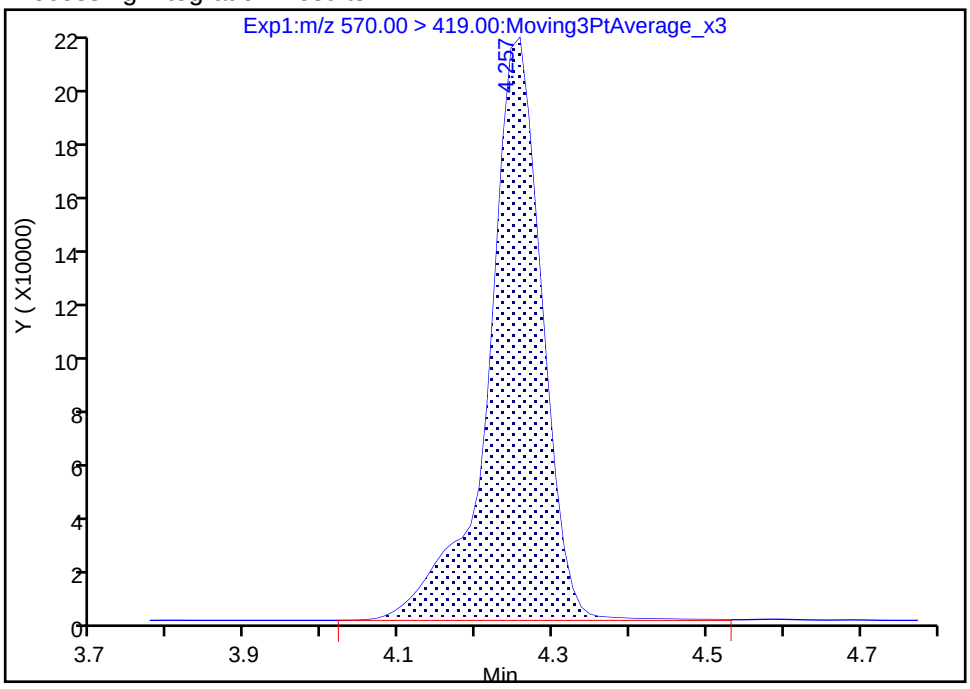
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

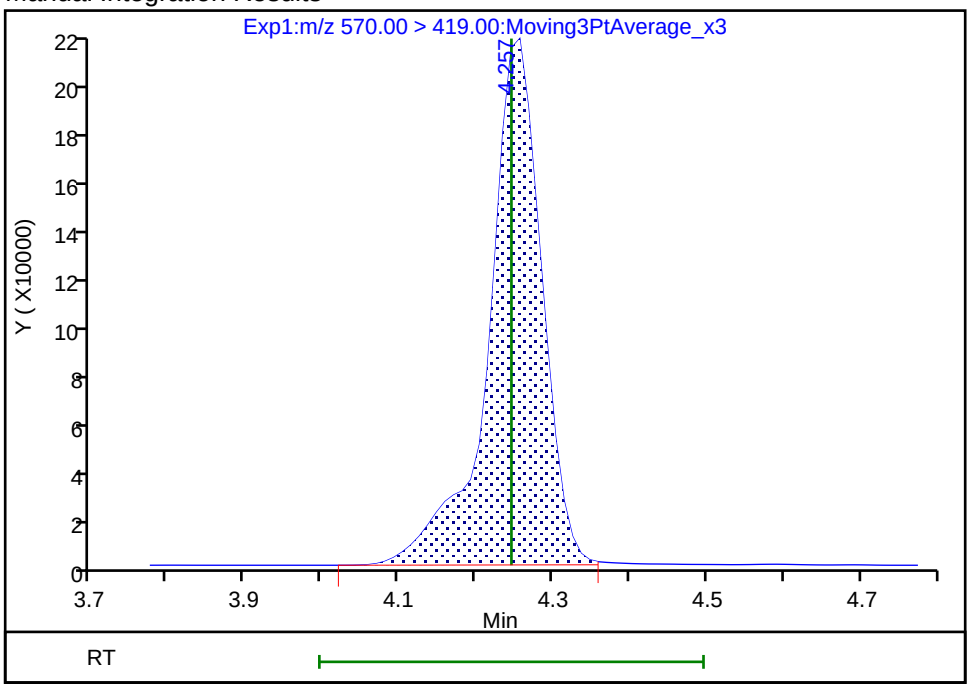
Processing Integration Results

RT: 4.26
Area: 1049769
Amount: 9.643319
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 1042012
Amount: 9.583444
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

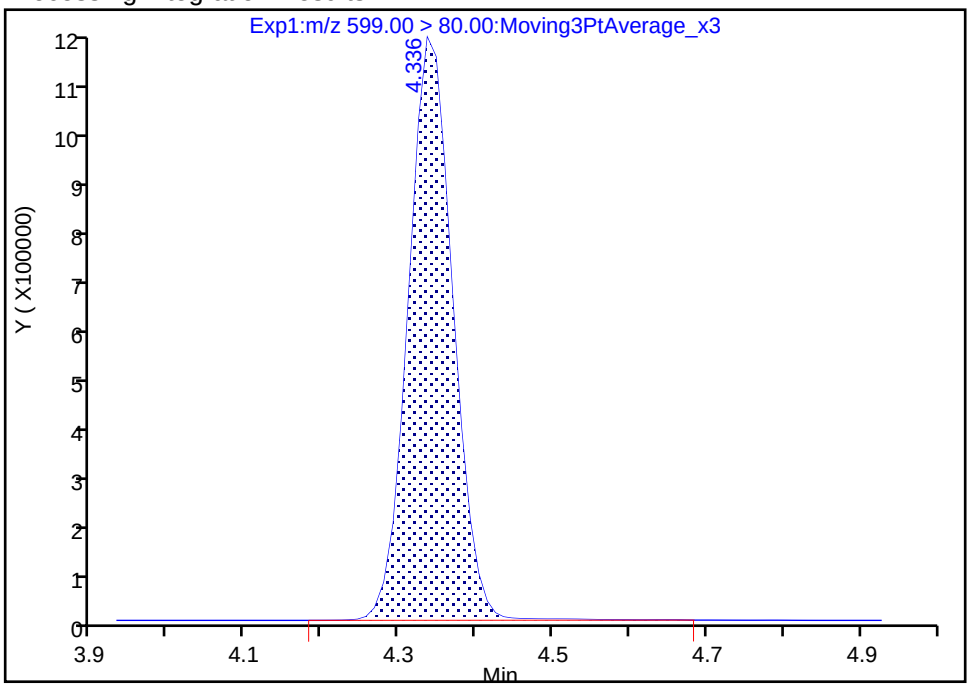
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

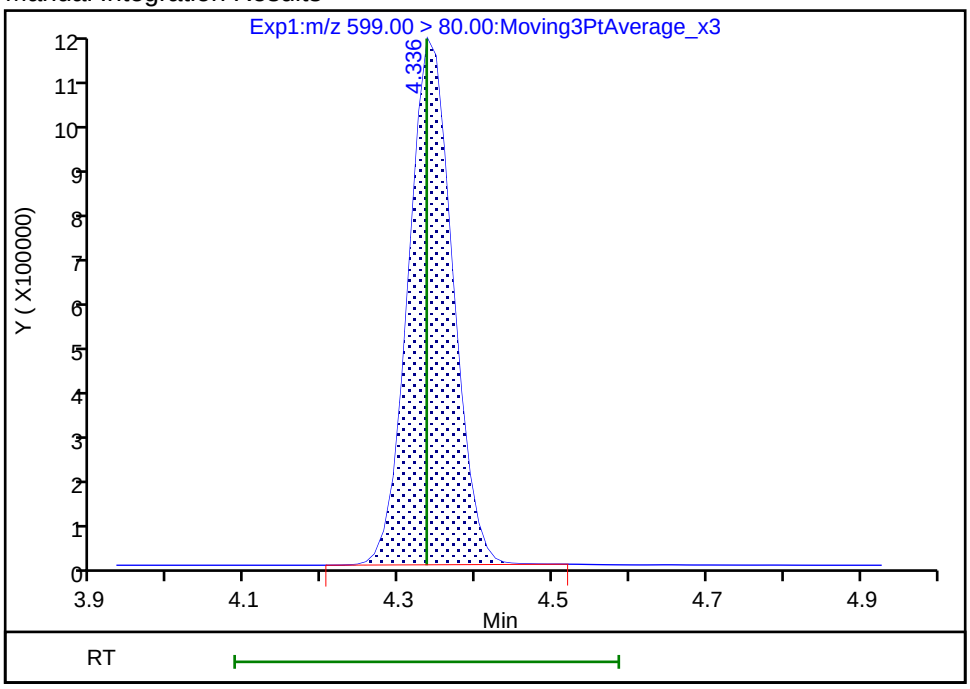
Processing Integration Results

RT: 4.34
Area: 4680172
Amount: 8.807464
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 4654579
Amount: 8.766601
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

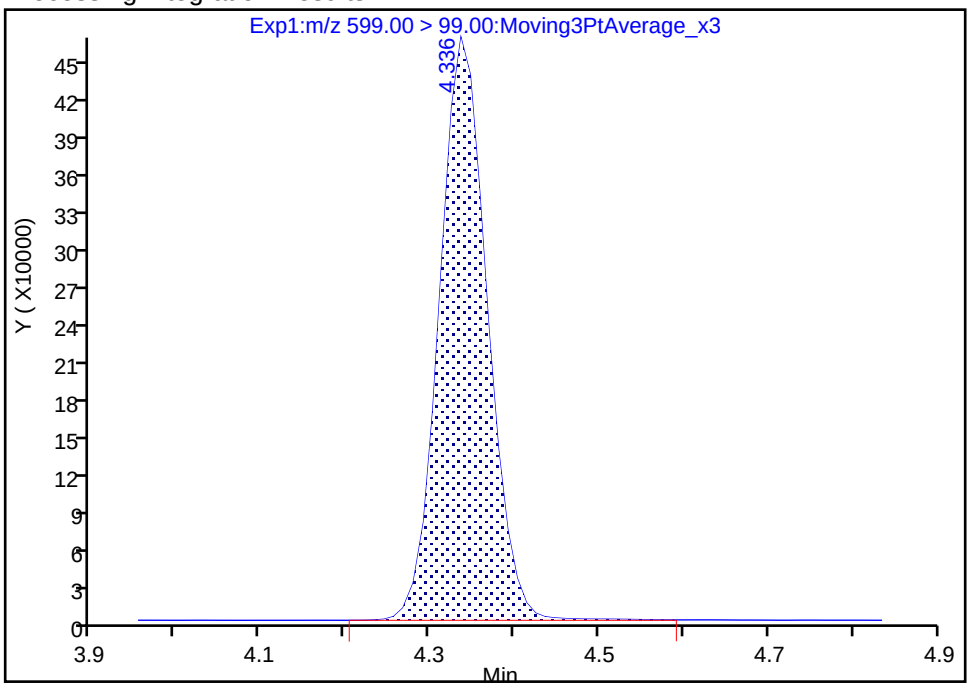
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

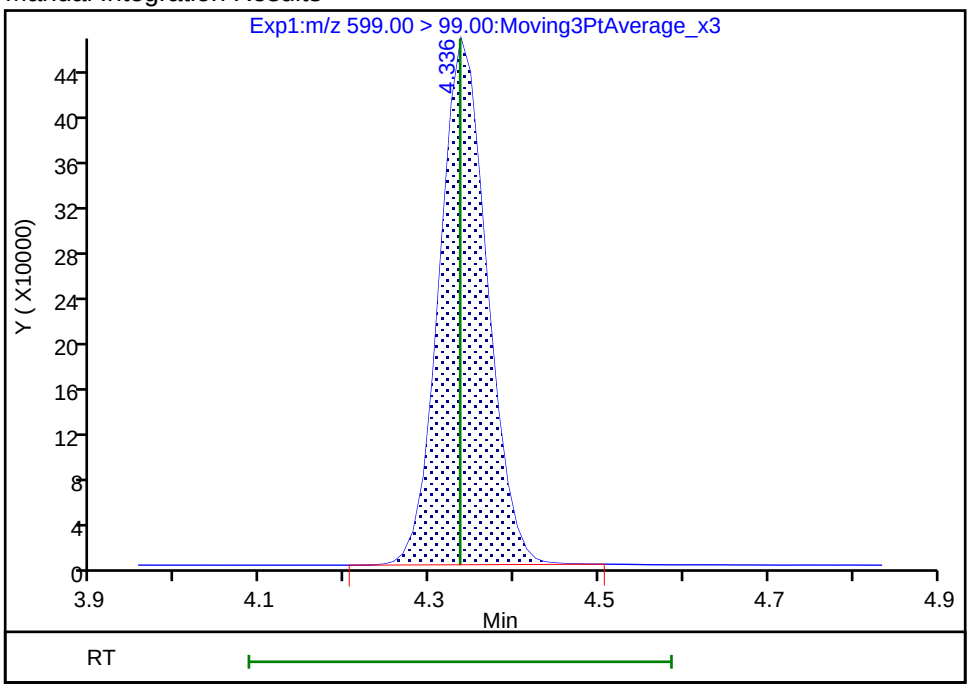
Processing Integration Results

RT: 4.34
Area: 1824493
Amount: 8.807464
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 1813571
Amount: 8.766601
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

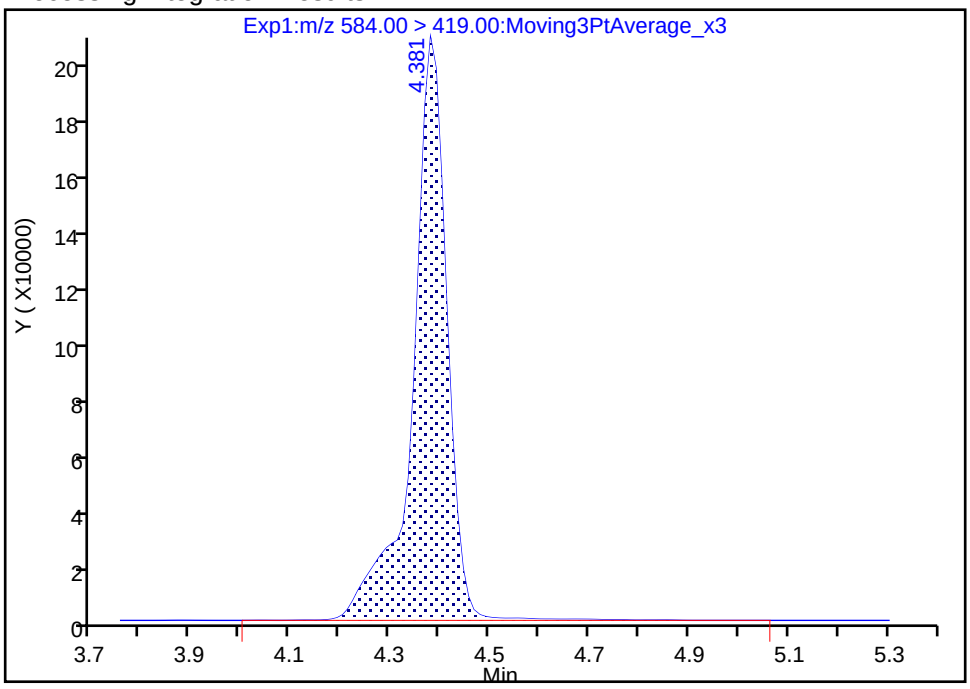
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

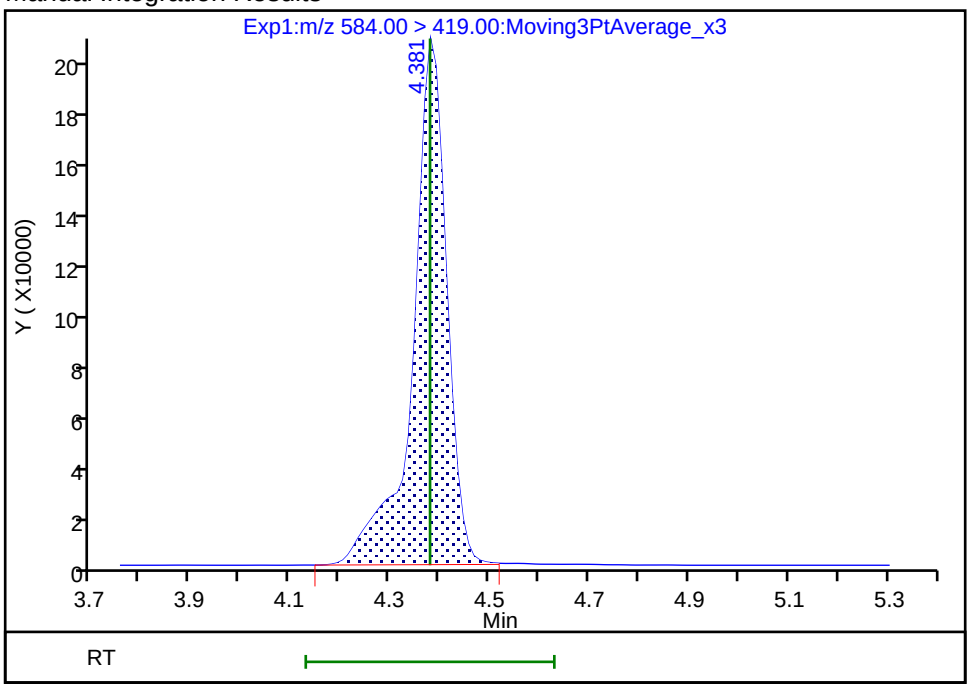
Processing Integration Results

RT: 4.38
Area: 965193
Amount: 8.950756
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 953648
Amount: 8.859502
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

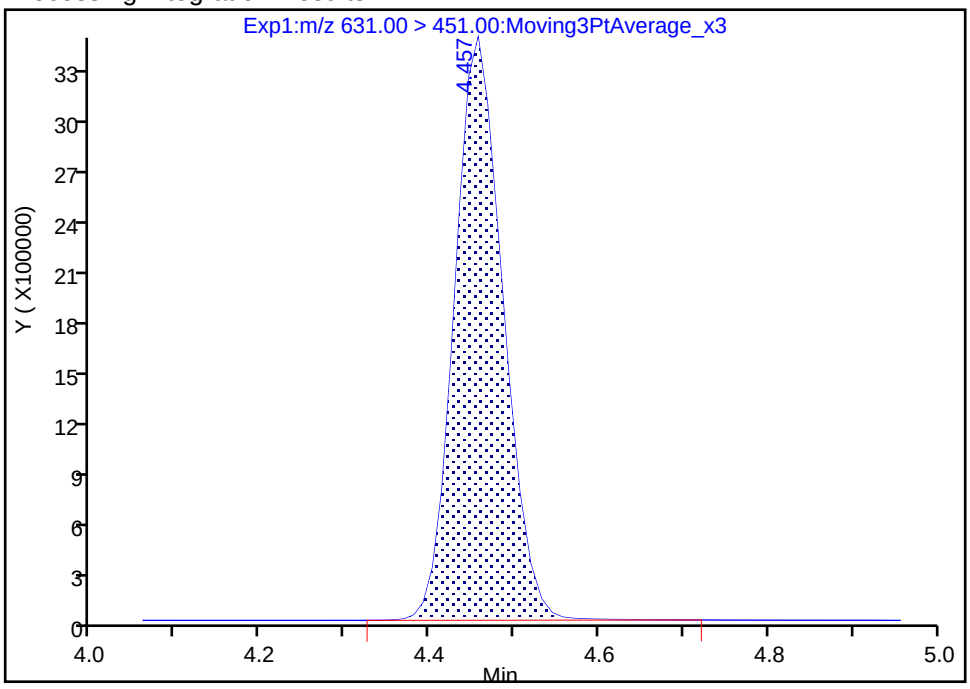
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

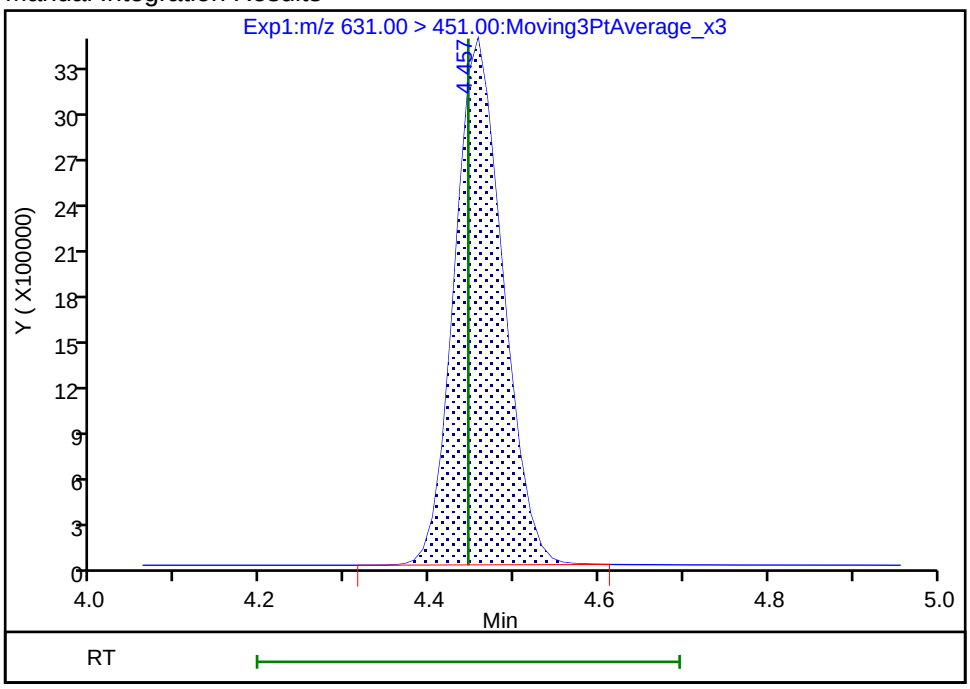
Processing Integration Results

RT: 4.46
Area: 13712008
Amount: 8.787193
Amount Units: ng/ml




Manual Integration Results

RT: 4.46
Area: 13670685
Amount: 8.764818
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

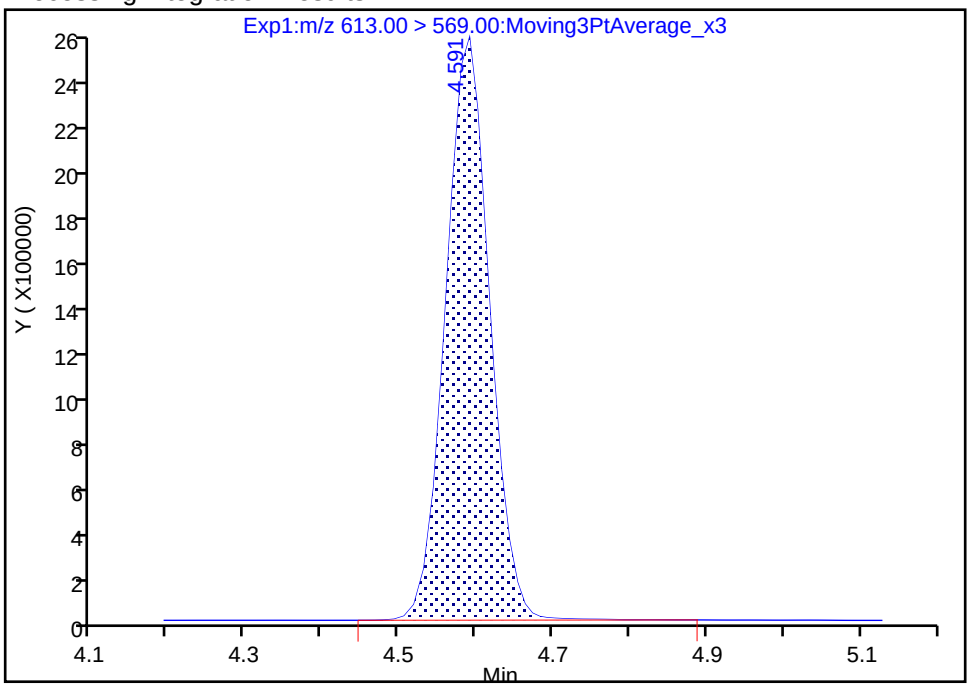
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

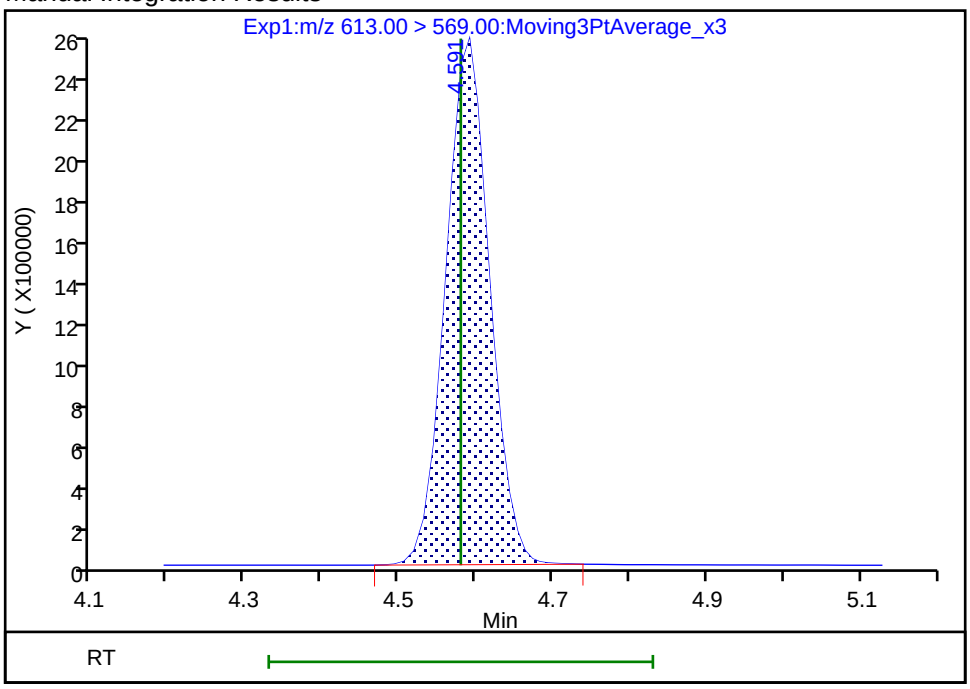
Processing Integration Results

RT: 4.59
Area: 10214644
Amount: 9.051269
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 10172160
Amount: 9.019282
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

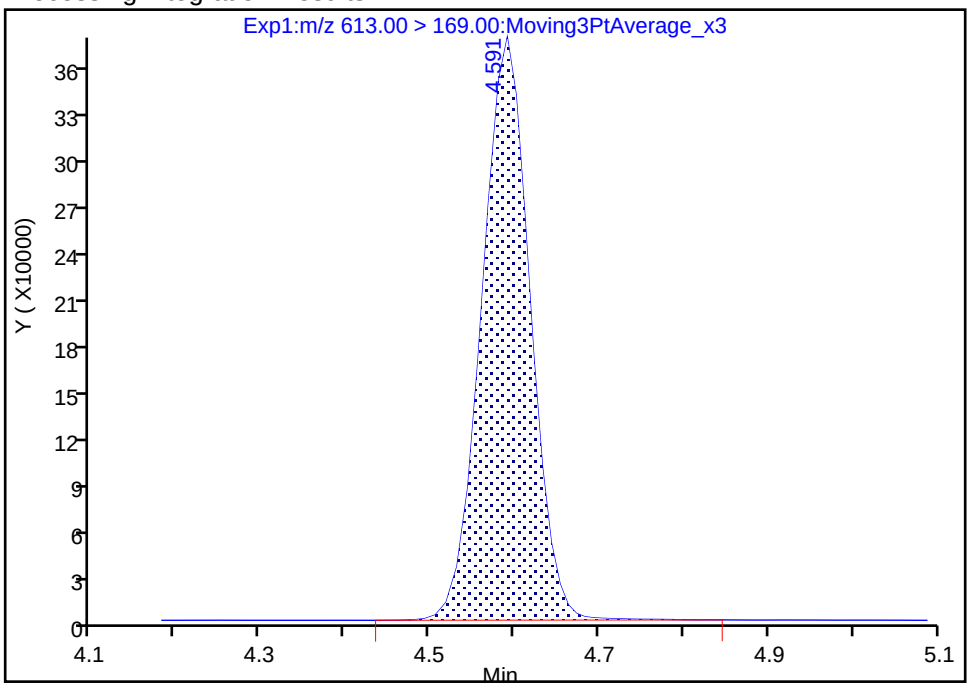
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

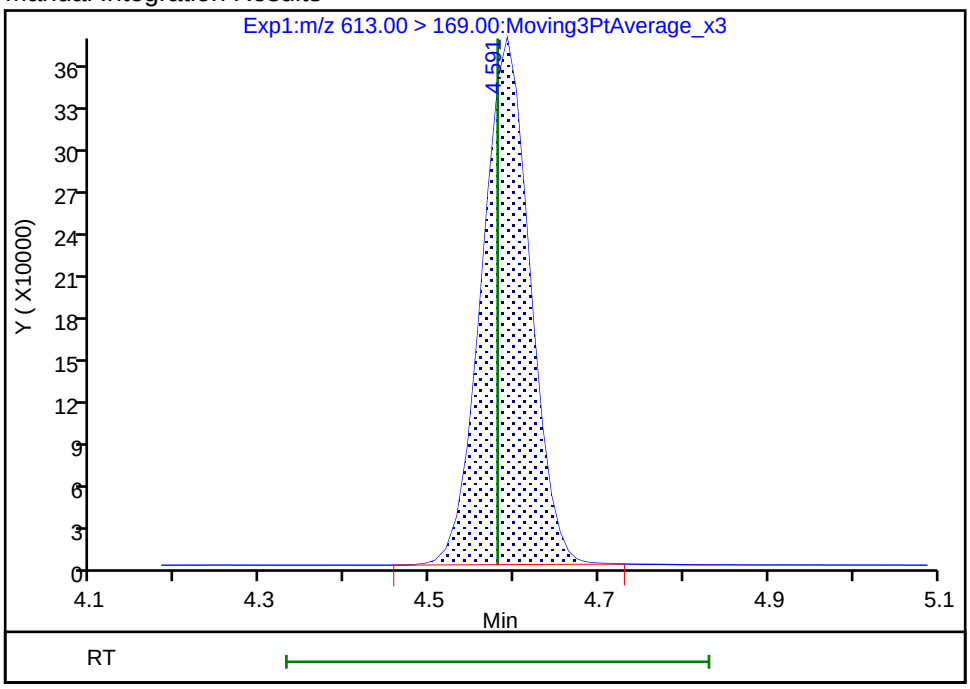
Processing Integration Results

RT: 4.59
Area: 1488002
Amount: 9.051269
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 1481045
Amount: 9.019282
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

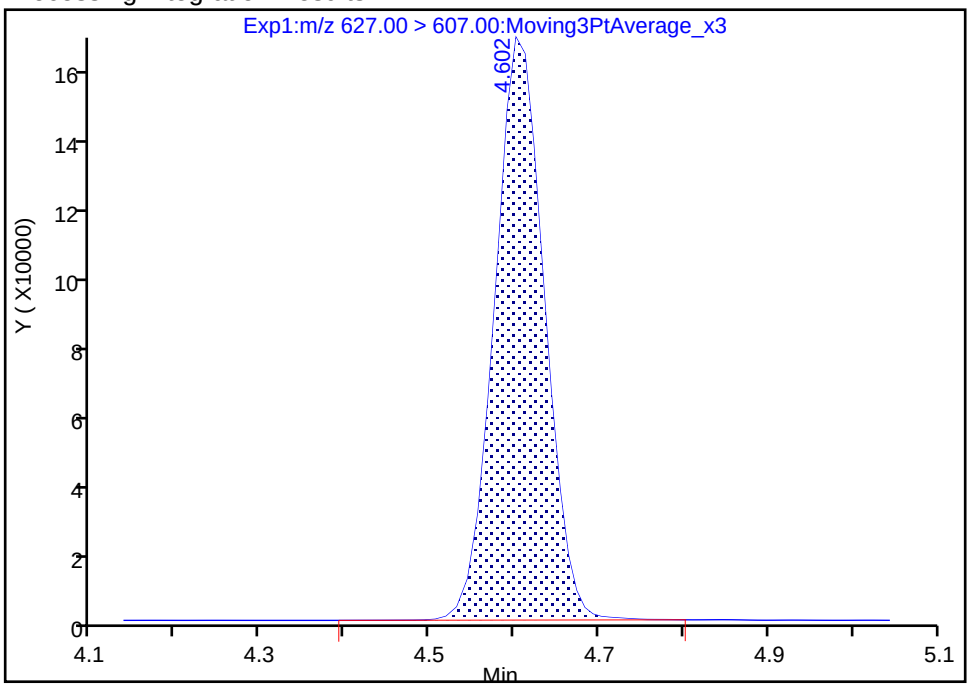
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

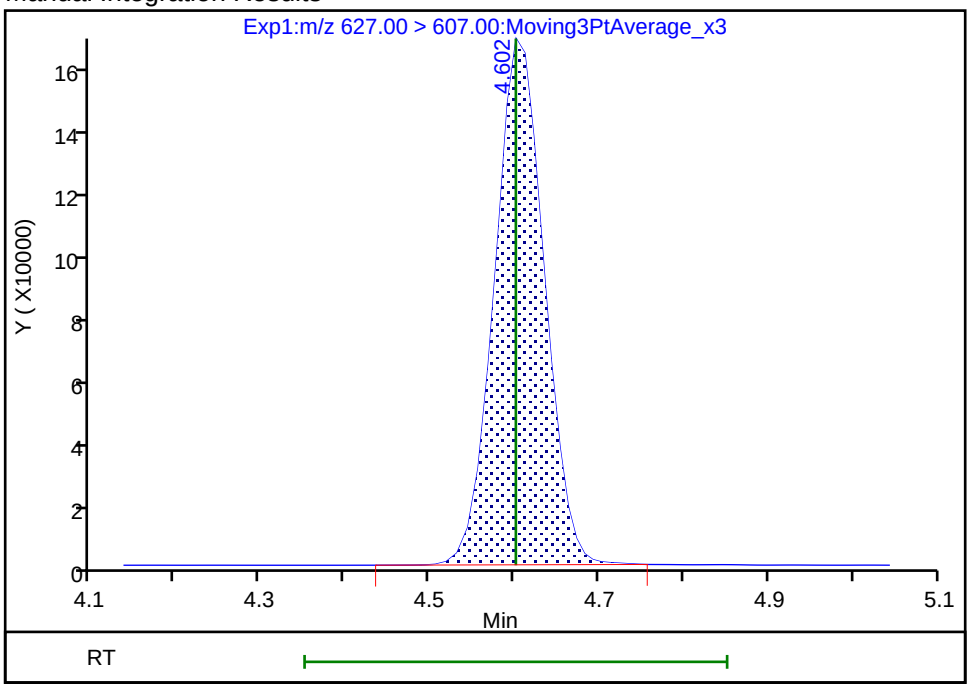
Processing Integration Results

RT: 4.60
Area: 689786
Amount: 9.212070
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 688615
Amount: 9.198918
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

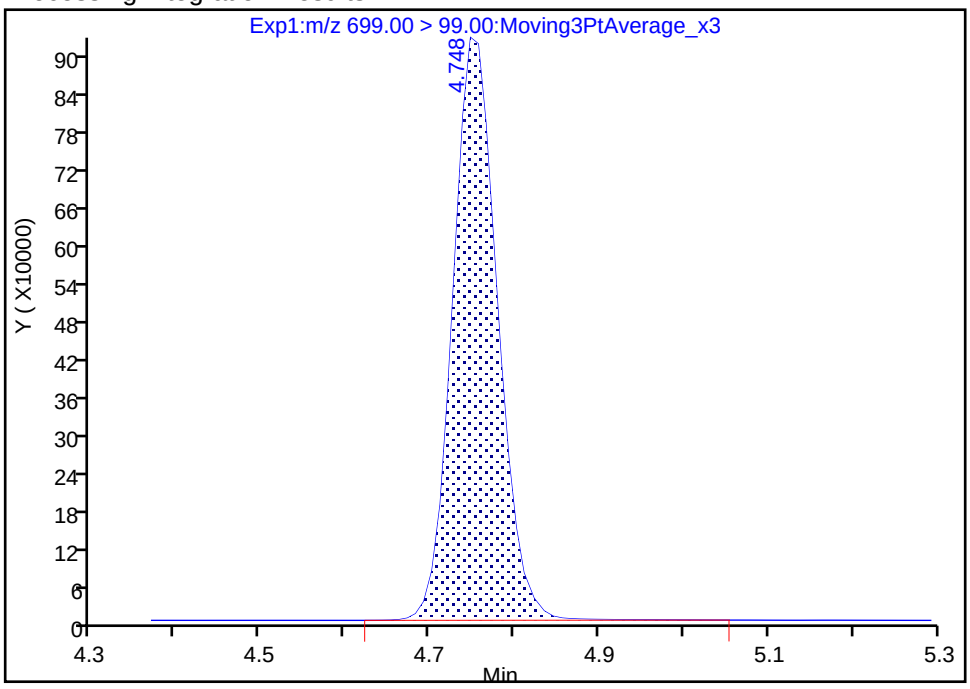
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

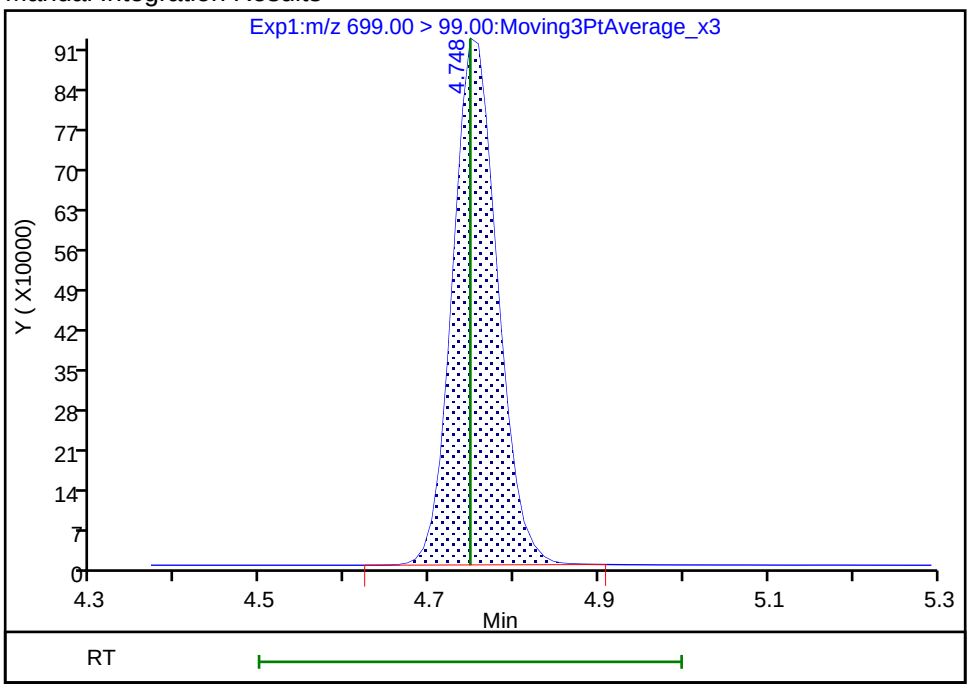
Processing Integration Results

RT: 4.75
Area: 3418943
Amount: 8.771491
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 3407477
Amount: 8.771491
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

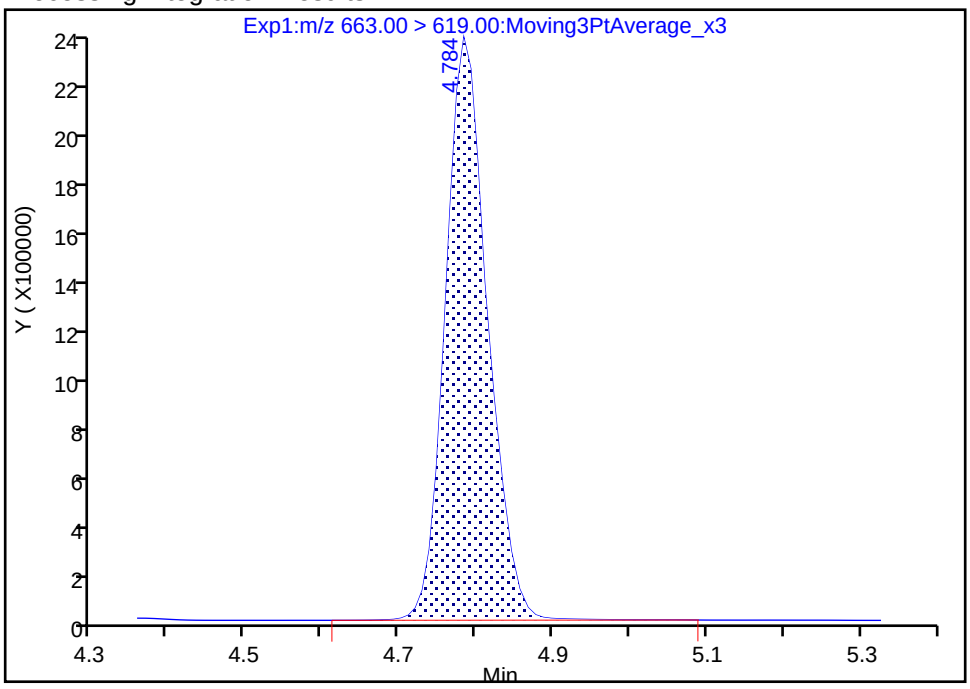
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

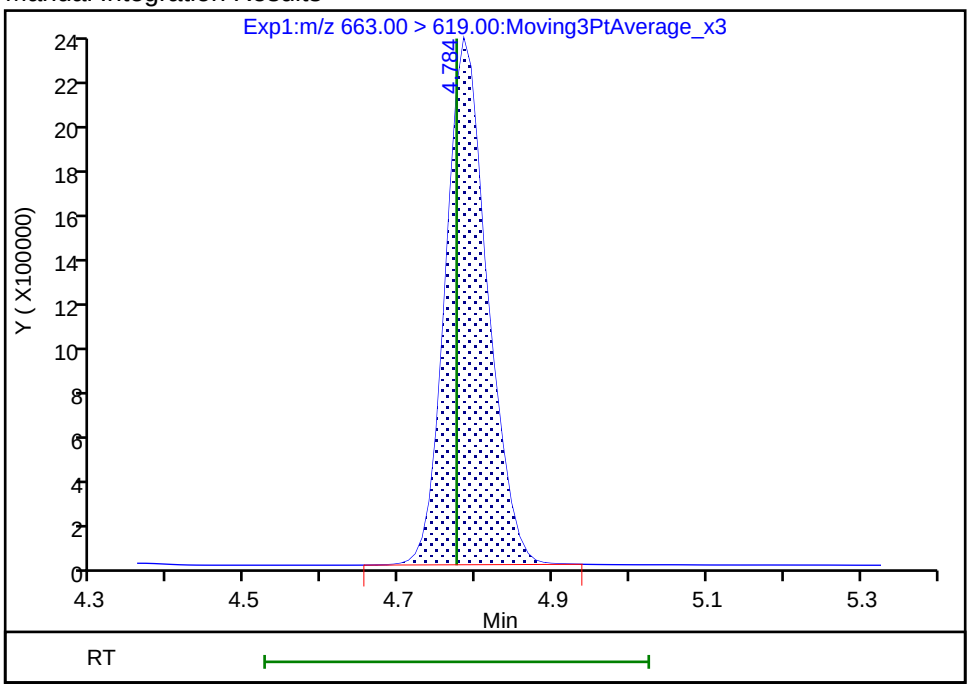
Processing Integration Results

RT: 4.78
Area: 8785712
Amount: 9.029324
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 8746311
Amount: 8.994901
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

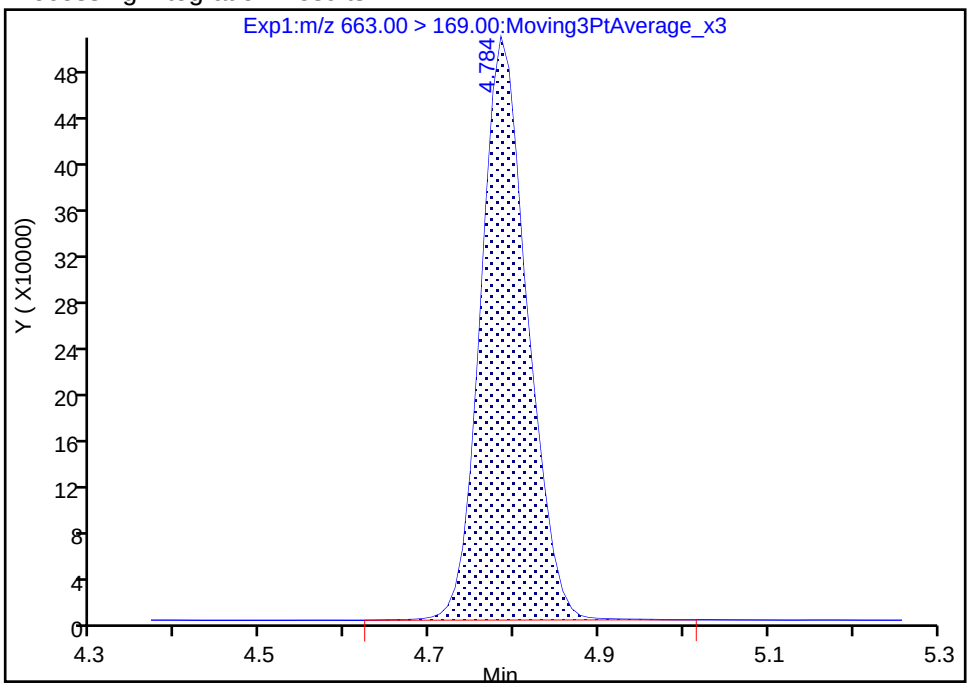
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

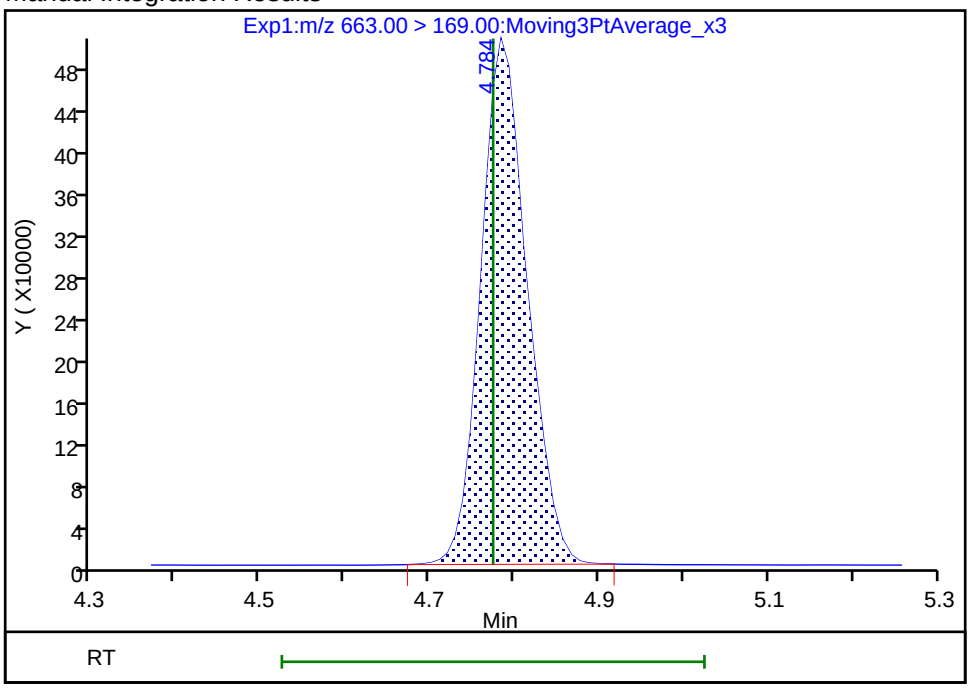
Processing Integration Results

RT: 4.78
Area: 1940597
Amount: 9.029324
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 1929671
Amount: 8.994901
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

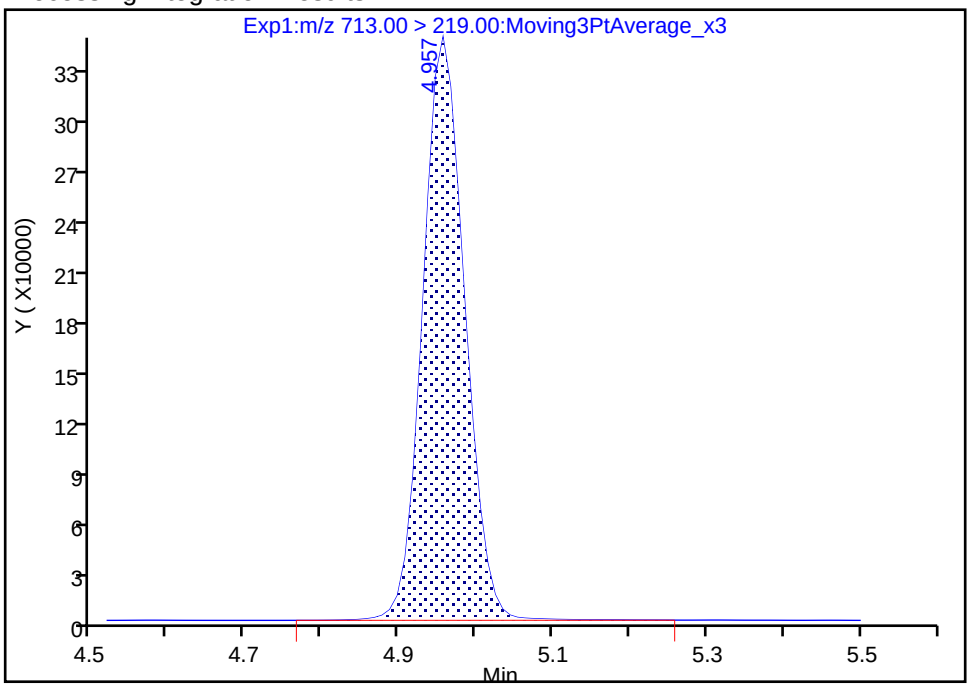
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

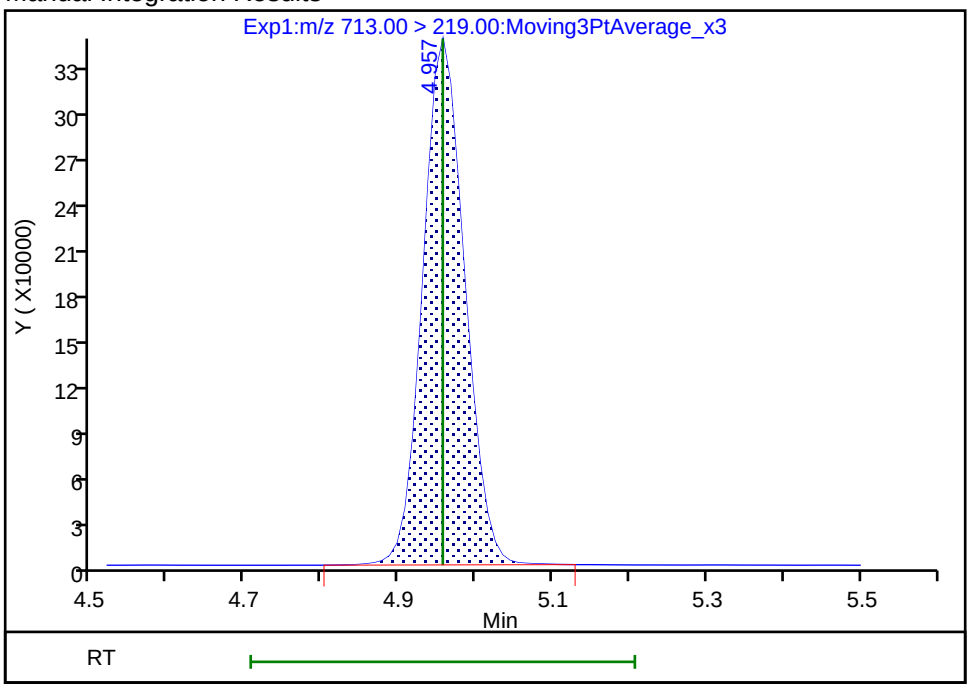
Processing Integration Results

RT: 4.96
Area: 1296731
Amount: 8.591476
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 1291633
Amount: 8.591476
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

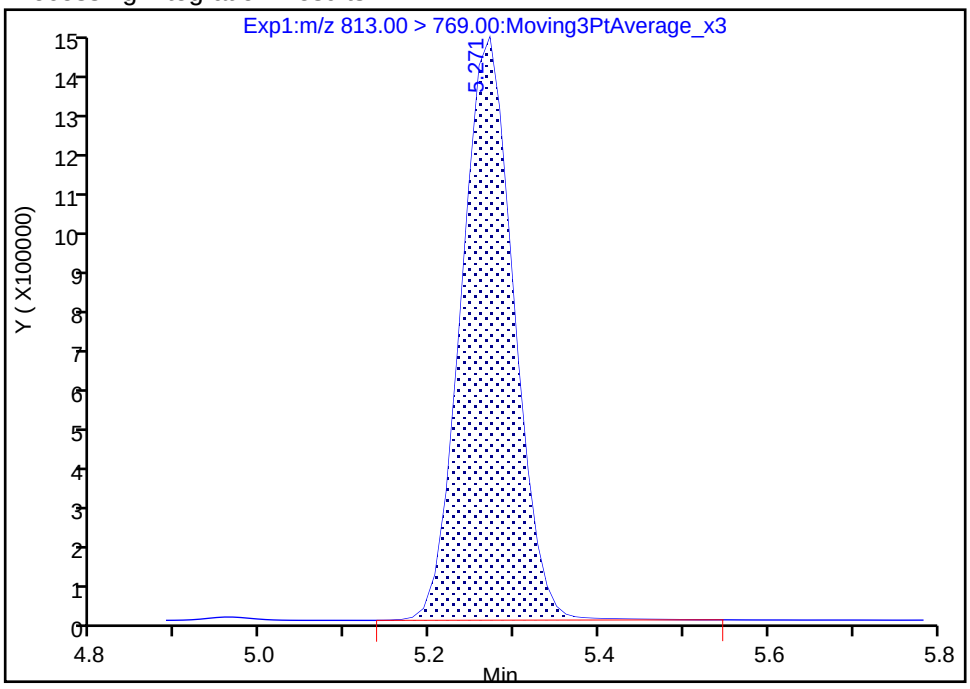
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

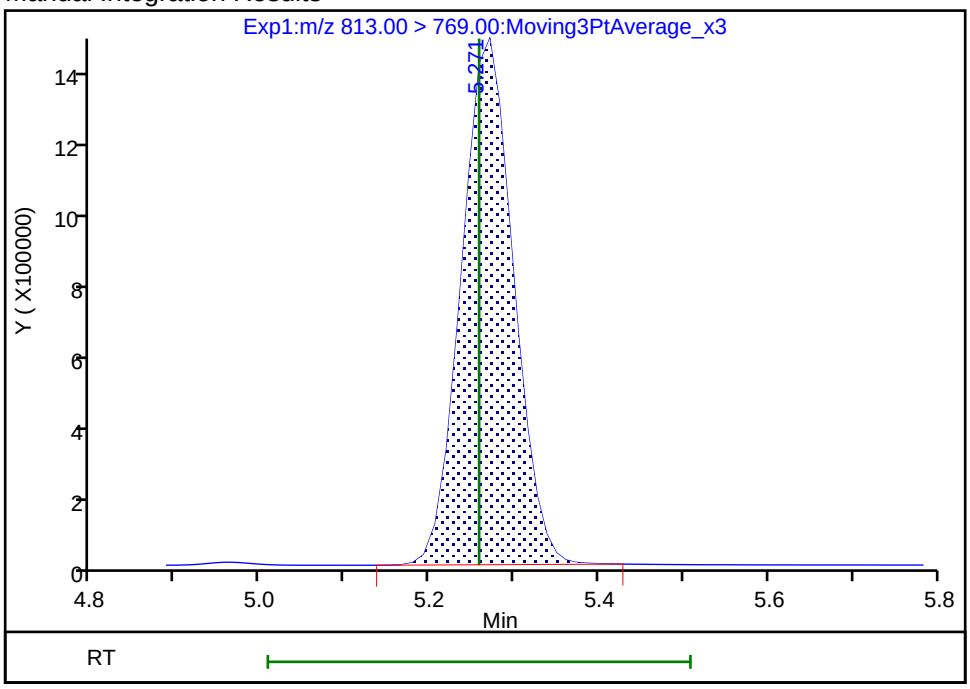
Processing Integration Results

RT: 5.27
Area: 6294559
Amount: 9.360490
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 6269085
Amount: 9.331779
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

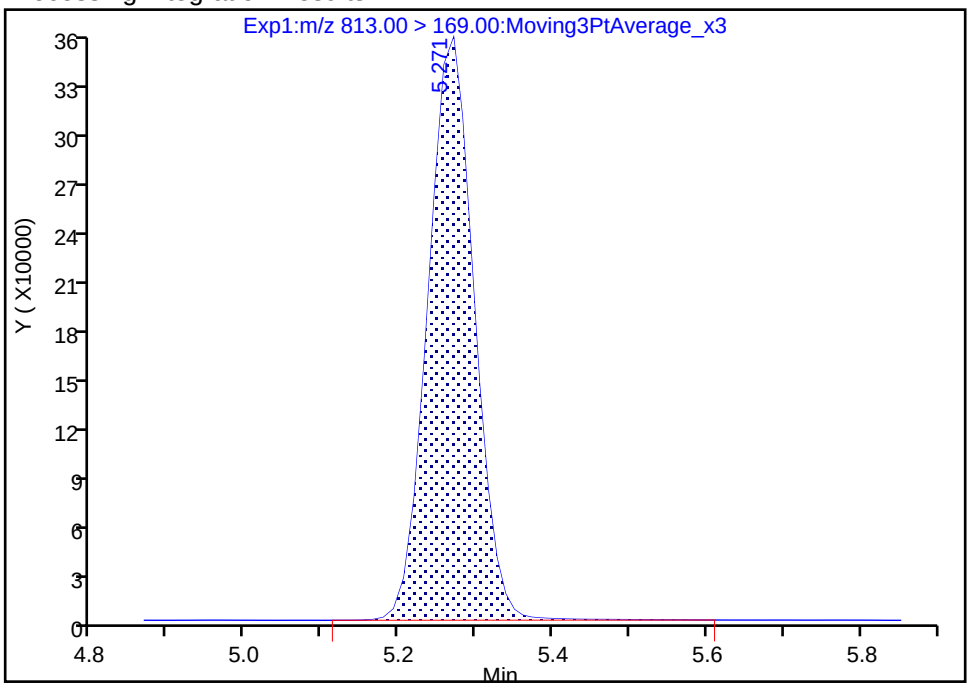
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

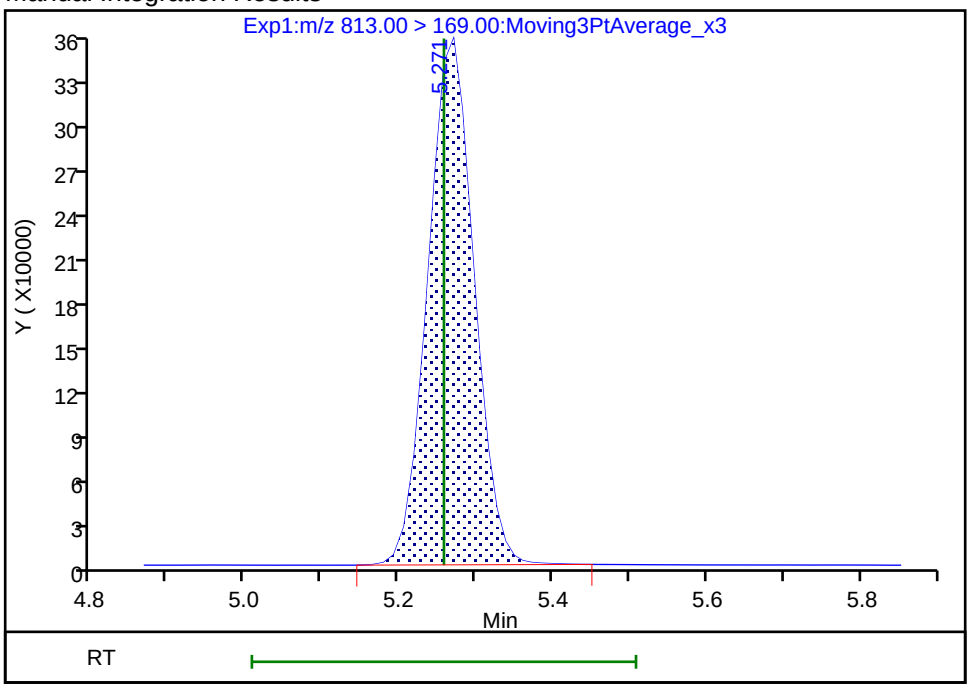
Processing Integration Results

RT: 5.27
Area: 1459535
Amount: 9.360490
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 1454092
Amount: 9.331779
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

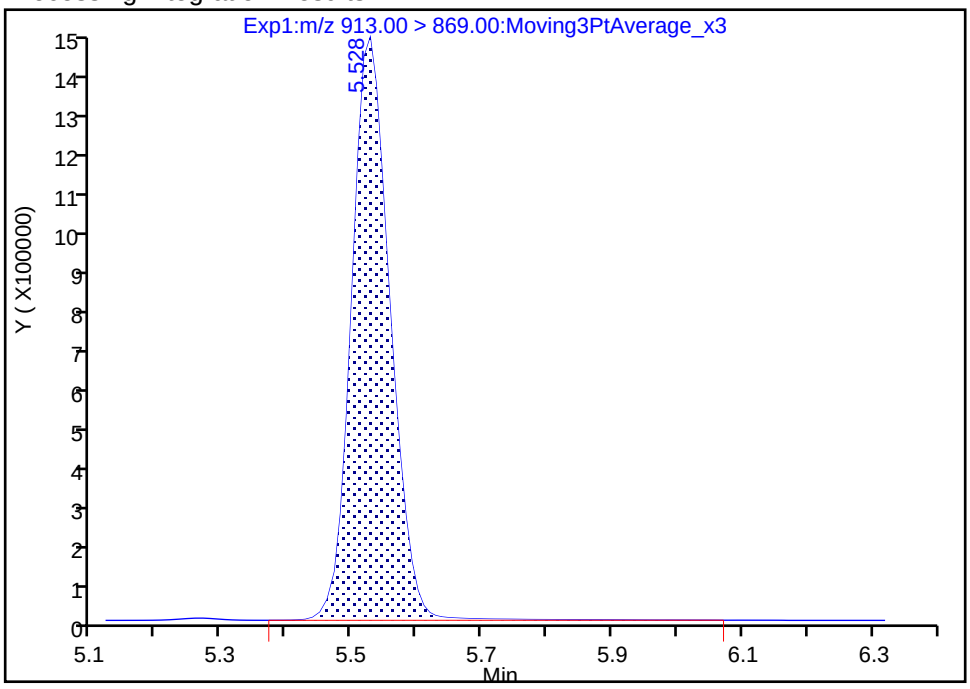
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

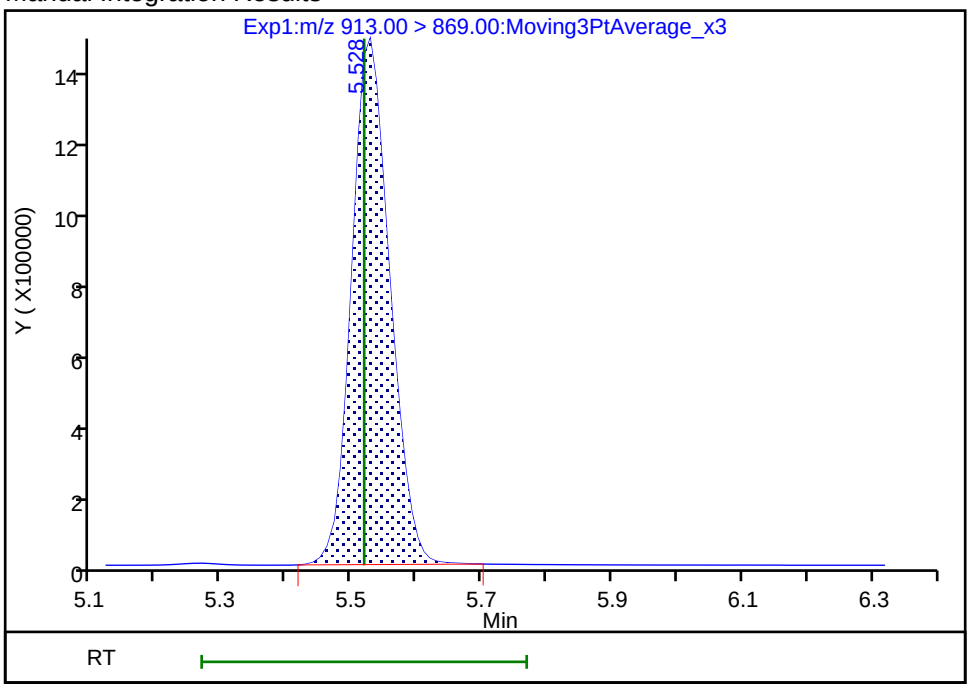
Processing Integration Results

RT: 5.53
Area: 5965487
Amount: 8.987348
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 5910248
Amount: 8.916494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

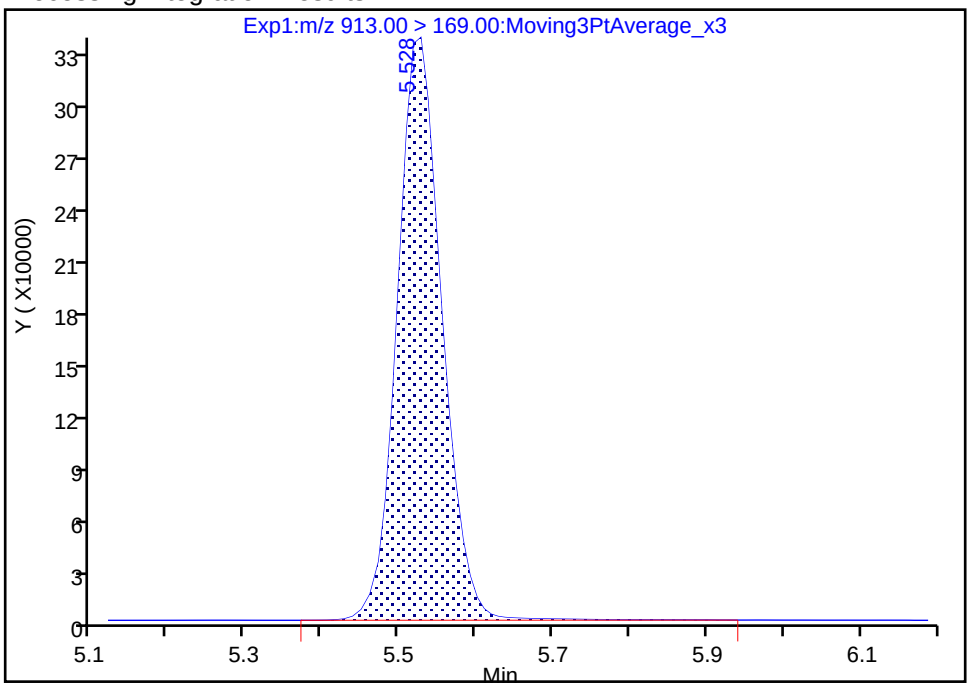
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

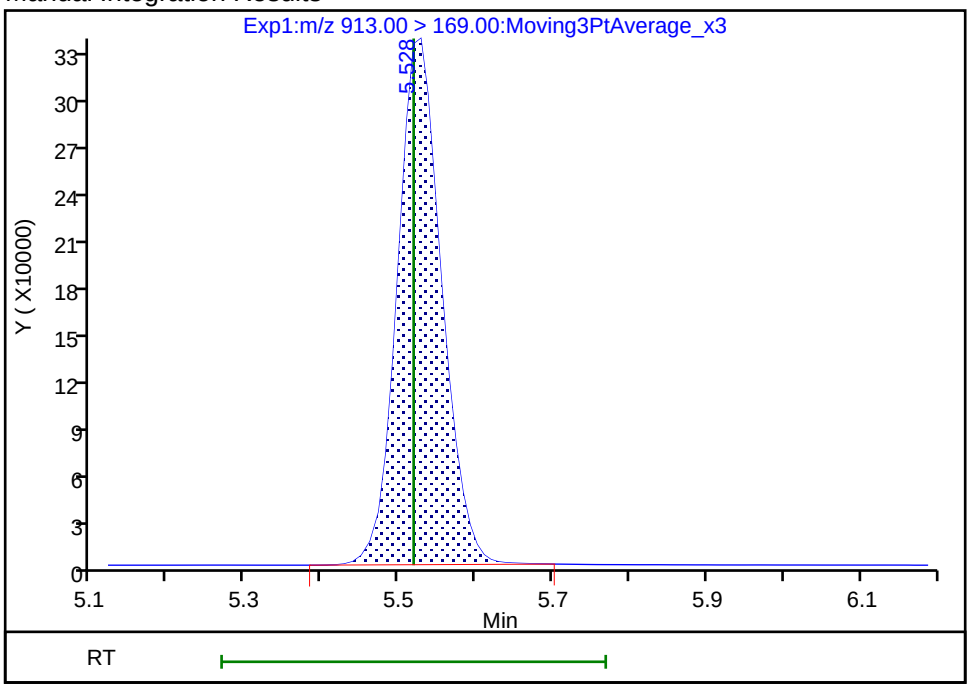
Processing Integration Results

RT: 5.53
Area: 1323104
Amount: 8.987348
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 1313814
Amount: 8.916494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

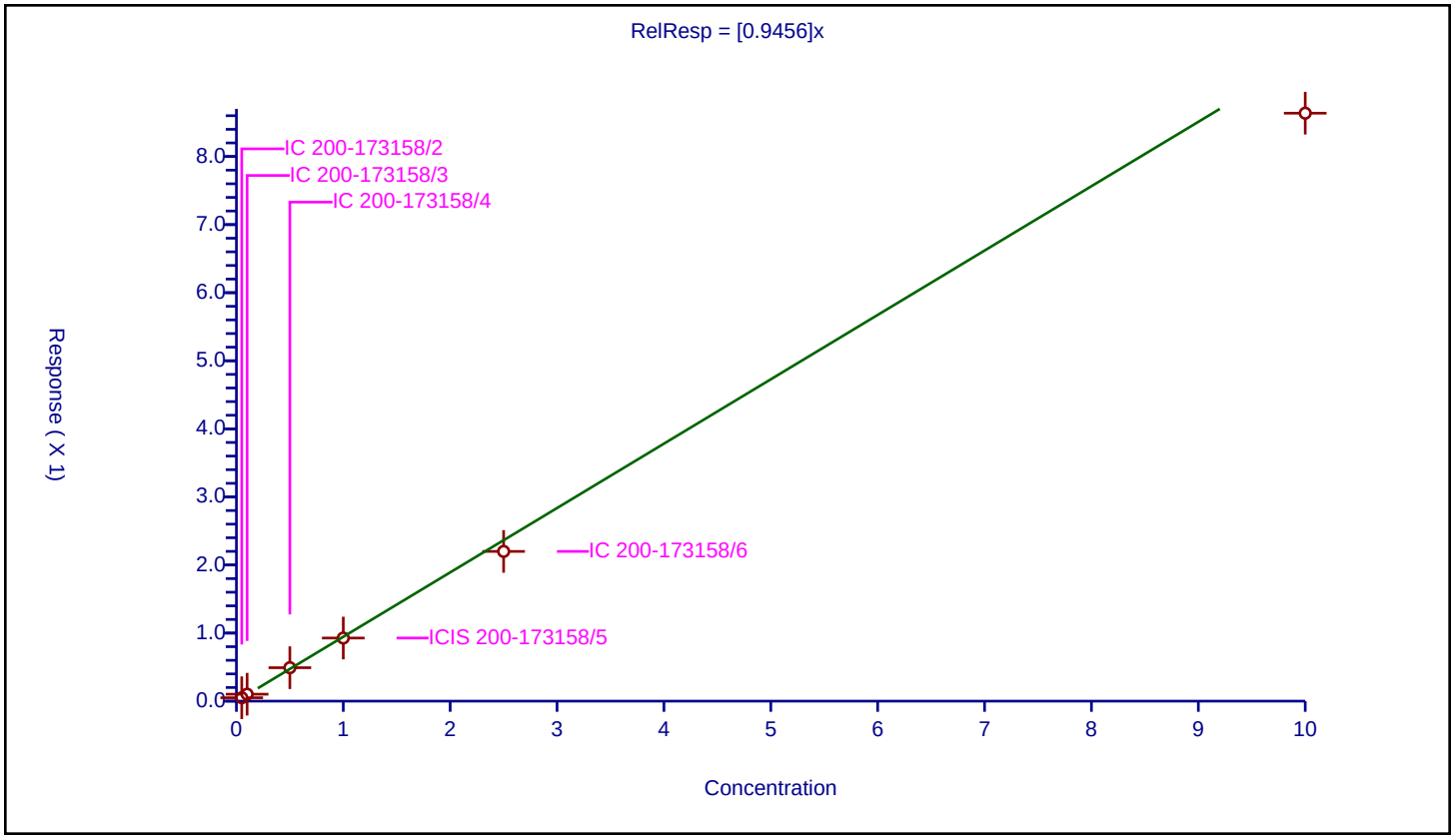
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9456 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5360000 |
| **Relative Standard Error:** | 6.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050052 | 1.25 | 1785802.0 | 1.001049 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.101945 | 1.25 | 2002798.0 | 1.019449 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.491212 | 1.25 | 1751374.0 | 0.982424 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.927042 | 1.25 | 1982117.0 | 0.927042 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.199222 | 1.25 | 1686795.0 | 0.879689 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.637013 | 1.25 | 1665496.0 | 0.863701 | Y |



## Calibration / Perfluoropentanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

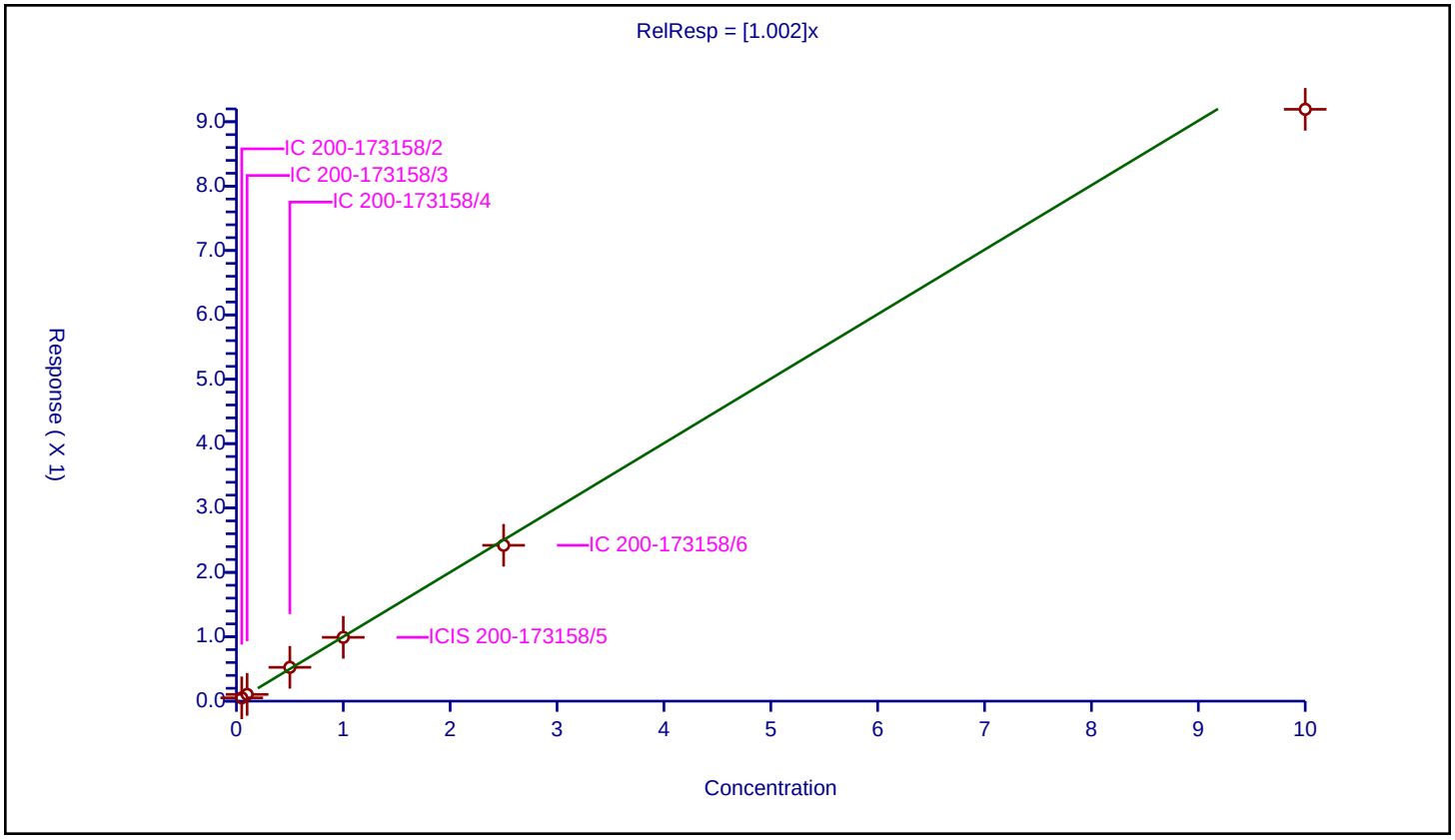
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.002 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4930000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.051581 | 1.25 | 1423500.0 | 1.031612 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.104929 | 1.25 | 1641164.0 | 1.049293 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.525355 | 1.25 | 1485537.0 | 1.050711 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.991047 | 1.25 | 1755143.0 | 0.991047 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.420912 | 1.25 | 1426418.0 | 0.968365 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.19337 | 1.25 | 1437251.0 | 0.919337 | Y |



## Calibration / Perfluorobutanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

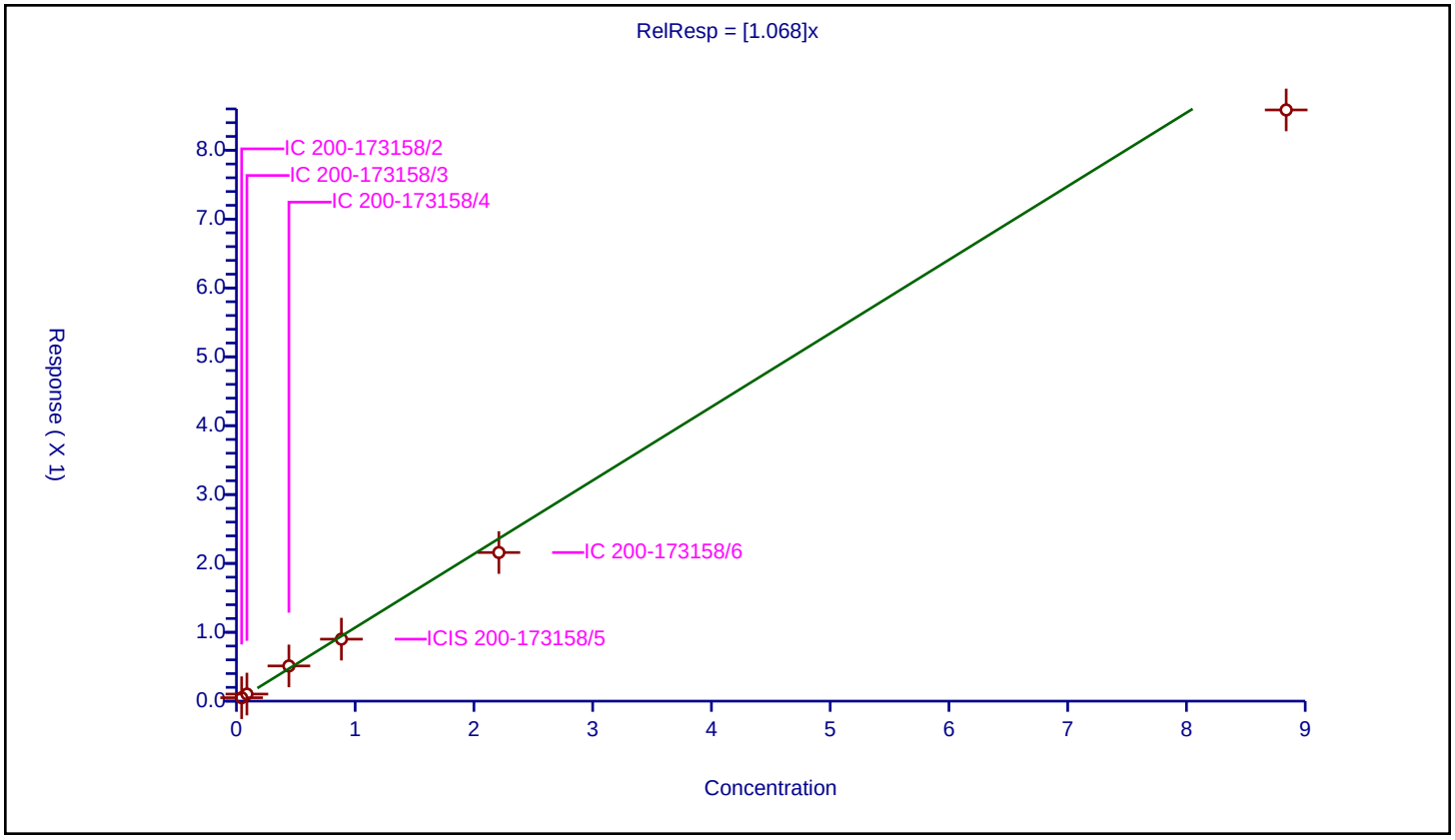
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.068 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6200000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0442 | 0.049738 | 1.1625 | 1793578.0 | 1.125295 | Y |
| 2 | IC 200-173158/3 | 0.0884 | 0.102617 | 1.1625 | 2122028.0 | 1.160825 | Y |
| 3 | IC 200-173158/4 | 0.442 | 0.511047 | 1.1625 | 1819218.0 | 1.156215 | Y |
| 4 | ICIS 200-173158/5 | 0.884 | 0.900187 | 1.1625 | 2194395.0 | 1.018311 | Y |
| 5 | IC 200-173158/6 | 2.21 | 2.158219 | 1.1625 | 1809434.0 | 0.97657 | Y |
| 6 | IC 200-173158/7 | 8.84 | 8.58505 | 1.1625 | 1804342.0 | 0.97116 | Y |



## Calibration / 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

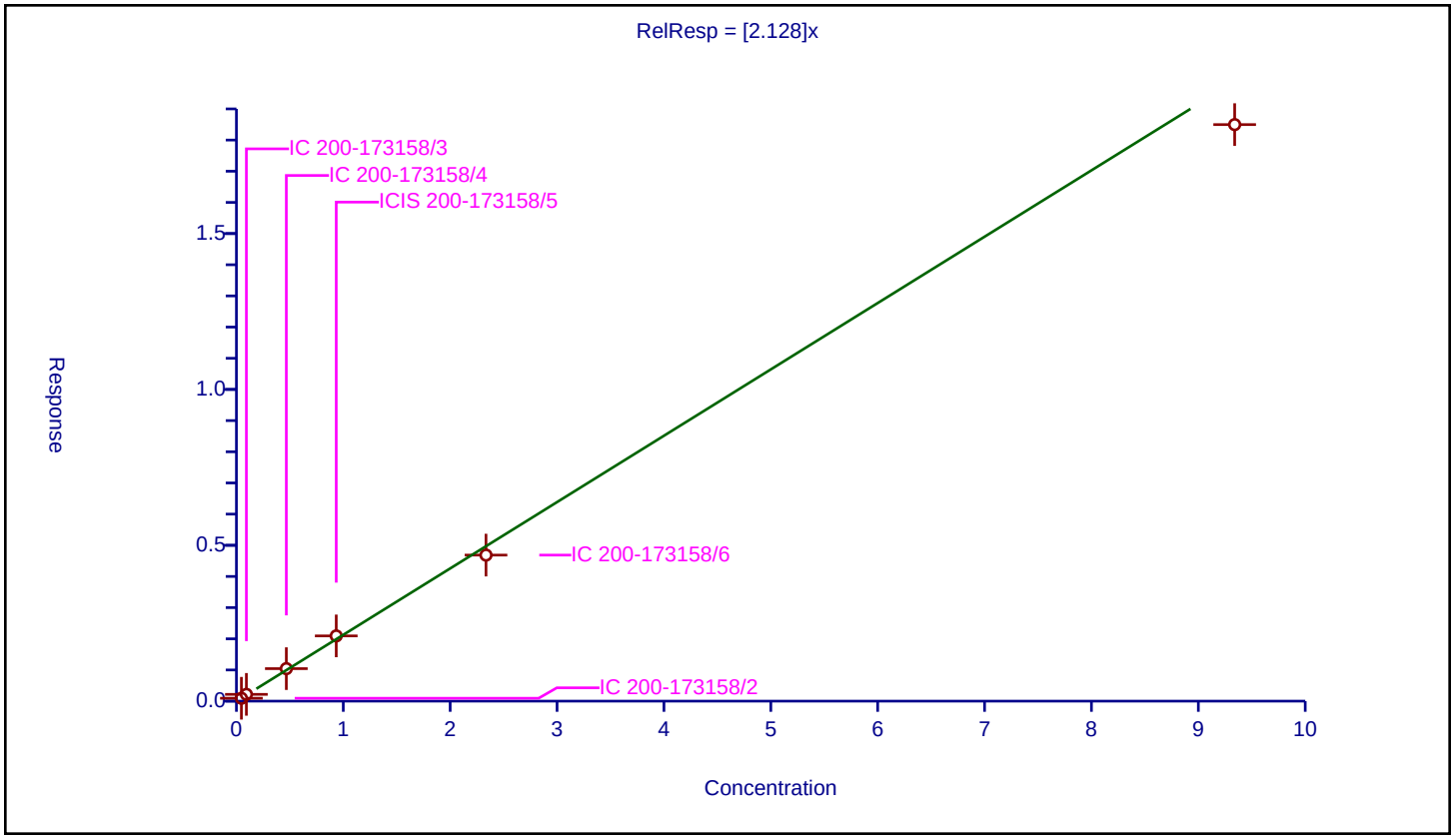
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.128 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 996000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0467 | 0.092449 | 1.1675 | 143738.0 | 1.979644 | Y |
| 2 | IC 200-173158/3 | 0.0934 | 0.217725 | 1.1675 | 164450.0 | 2.331104 | Y |
| 3 | IC 200-173158/4 | 0.467 | 1.042536 | 1.1675 | 143541.0 | 2.232411 | Y |
| 4 | ICIS 200-173158/5 | 0.934 | 2.09294 | 1.1675 | 155977.0 | 2.240835 | Y |
| 5 | IC 200-173158/6 | 2.335 | 4.685574 | 1.1675 | 139431.0 | 2.00667 | Y |
| 6 | IC 200-173158/7 | 9.34 | 18.495586 | 1.1675 | 134645.0 | 1.980255 | Y |



## Calibration / Perfluorohexanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

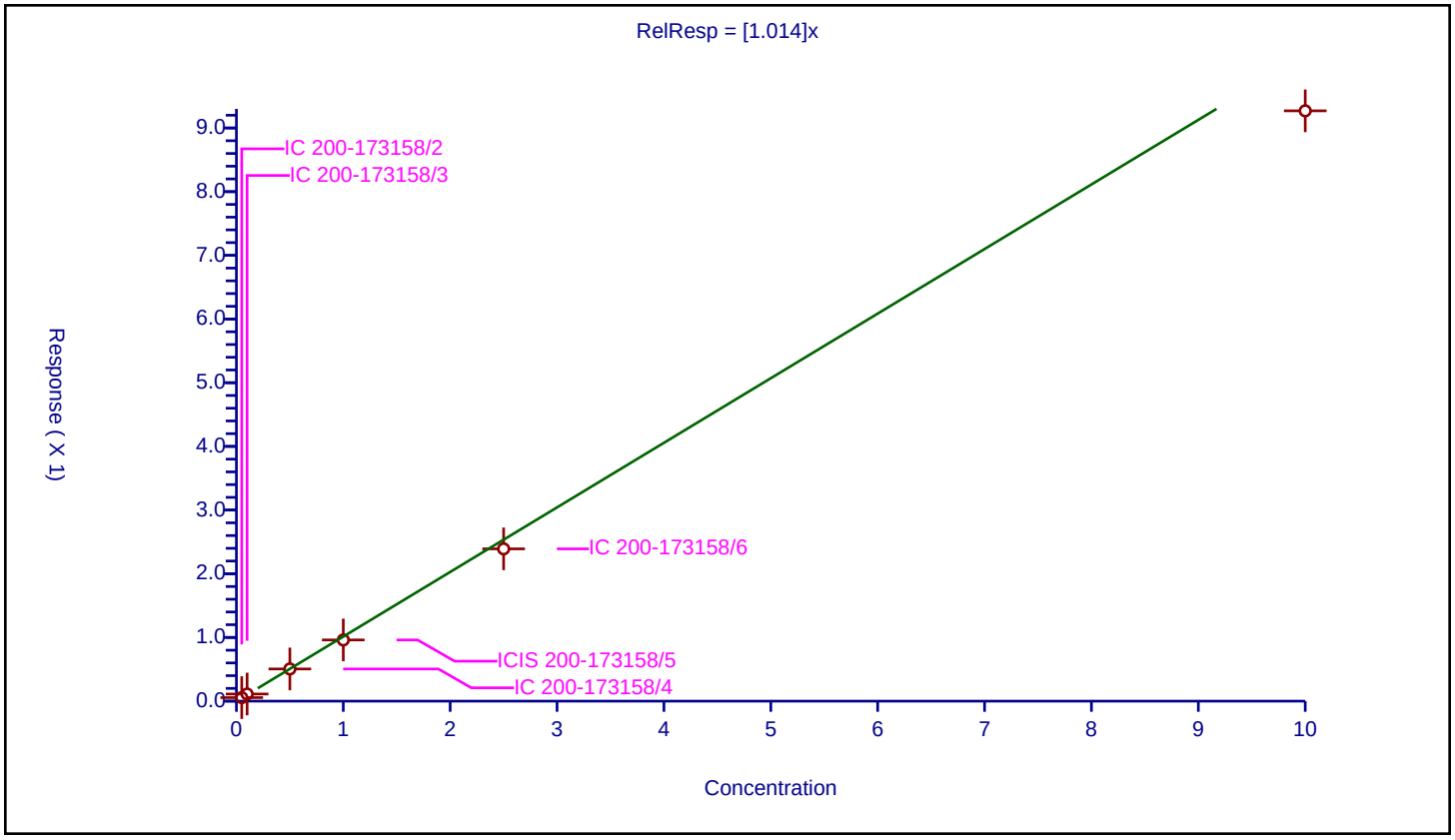
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.014 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5110000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055542 | 1.25 | 1498283.0 | 1.110838 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.111903 | 1.25 | 1770715.0 | 1.119032 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.505319 | 1.25 | 1544242.0 | 1.010638 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.961033 | 1.25 | 1857895.0 | 0.961033 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.391432 | 1.25 | 1480926.0 | 0.956573 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.269373 | 1.25 | 1478594.0 | 0.926937 | Y |



## Calibration / Perfluoropentanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

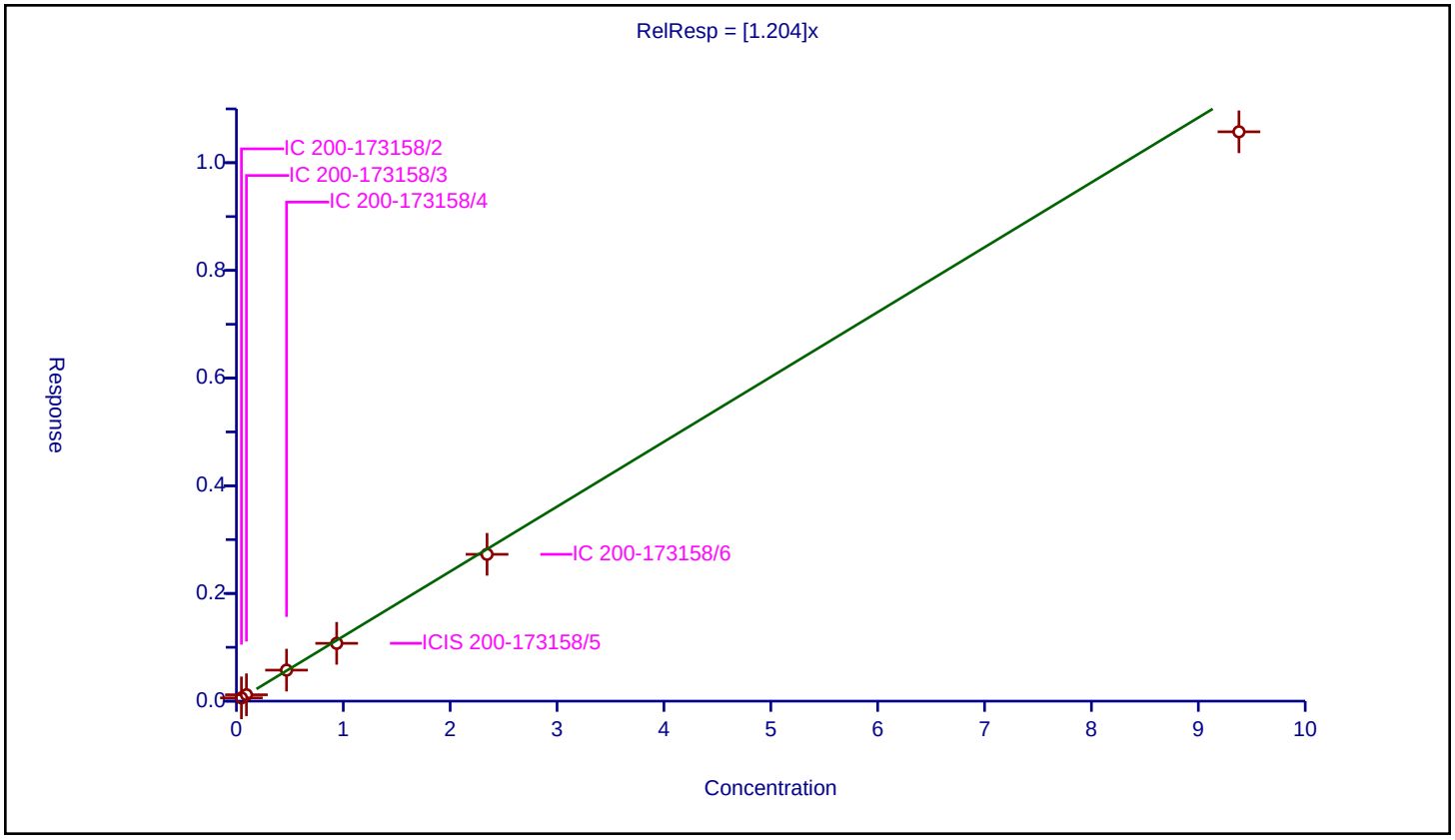
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.204 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5490000 |
| **Relative Standard Error:** | 5.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0469 | 0.060839 | 1.1825 | 1307897.0 | 1.297214 | Y |
| 2 | IC 200-173158/3 | 0.0938 | 0.11869 | 1.1825 | 1610888.0 | 1.26535 | Y |
| 3 | IC 200-173158/4 | 0.469 | 0.575982 | 1.1825 | 1357826.0 | 1.228106 | Y |
| 4 | ICIS 200-173158/5 | 0.938 | 1.073456 | 1.1825 | 1639762.0 | 1.144409 | Y |
| 5 | IC 200-173158/6 | 2.345 | 2.72709 | 1.1825 | 1307238.0 | 1.162938 | Y |
| 6 | IC 200-173158/7 | 9.38 | 10.574435 | 1.1825 | 1318214.0 | 1.127338 | Y |



## Calibration / Perfluoro(2-propoxypropanoic) acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

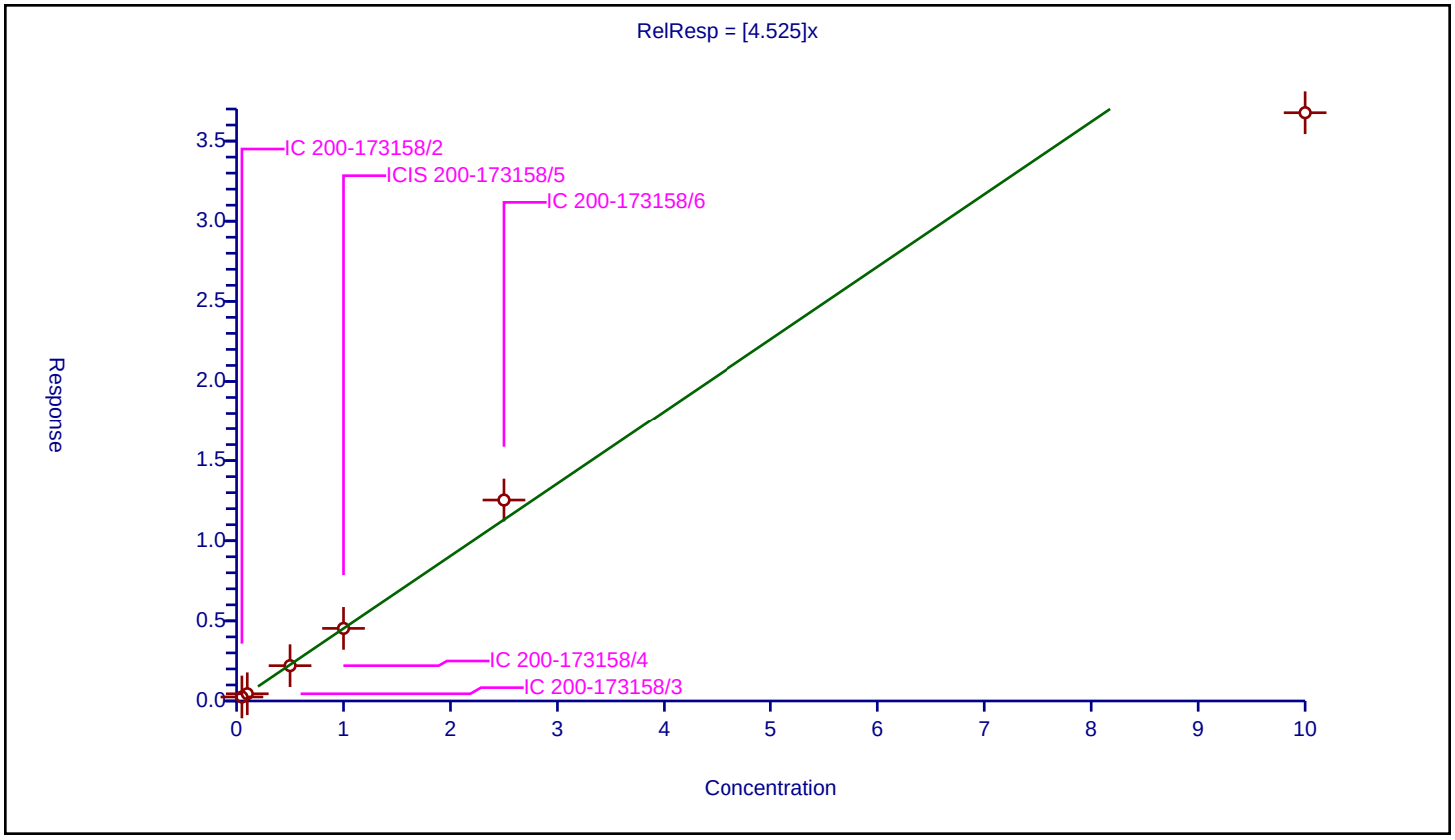
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.525 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 603000 |
| **Relative Standard Error:** | 10.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.251154 | 1.25 | 40304.0 | 5.023075 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.449794 | 1.25 | 53908.0 | 4.497941 | Y |
| 3 | IC 200-173158/4 | 0.5 | 2.203512 | 1.25 | 39462.0 | 4.407024 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 4.530717 | 1.25 | 42477.0 | 4.530717 | Y |
| 5 | IC 200-173158/6 | 2.5 | 12.537815 | 1.25 | 33254.0 | 5.015126 | Y |
| 6 | IC 200-173158/7 | 10.0 | 36.768234 | 1.25 | 44010.0 | 3.676823 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

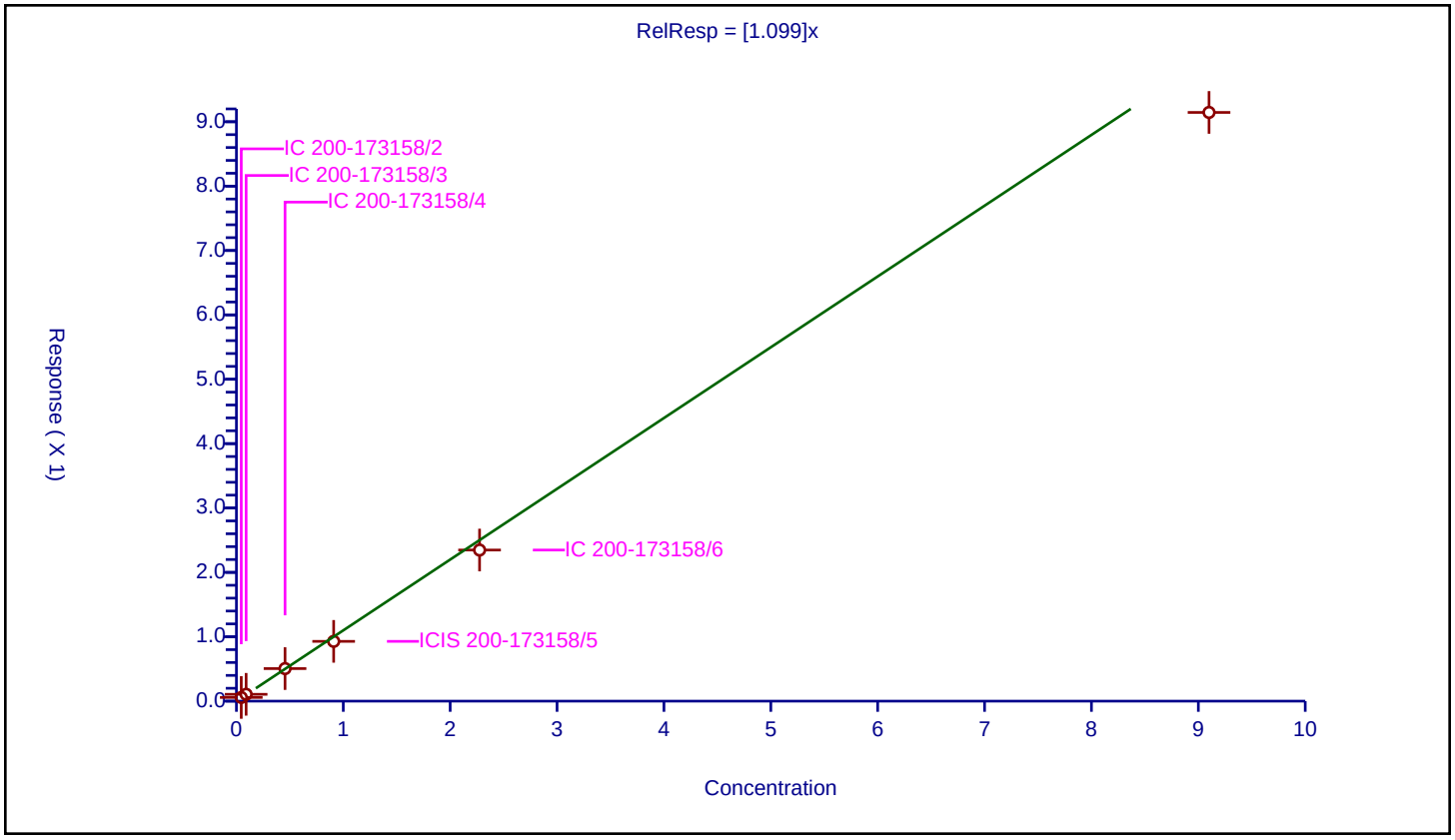
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.099 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4750000 |
| **Relative Standard Error:** | 9.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0455 | 0.057328 | 1.1825 | 1307897.0 | 1.25995 | Y |
| 2 | IC 200-173158/3 | 0.091 | 0.106295 | 1.1825 | 1610888.0 | 1.168078 | Y |
| 3 | IC 200-173158/4 | 0.455 | 0.505739 | 1.1825 | 1357826.0 | 1.111513 | Y |
| 4 | ICIS 200-173158/5 | 0.91 | 0.928532 | 1.1825 | 1639762.0 | 1.020365 | Y |
| 5 | IC 200-173158/6 | 2.275 | 2.347278 | 1.1825 | 1307238.0 | 1.031771 | Y |
| 6 | IC 200-173158/7 | 9.1 | 9.144842 | 1.1825 | 1318214.0 | 1.004928 | Y |



## Calibration / Perfluoroheptanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

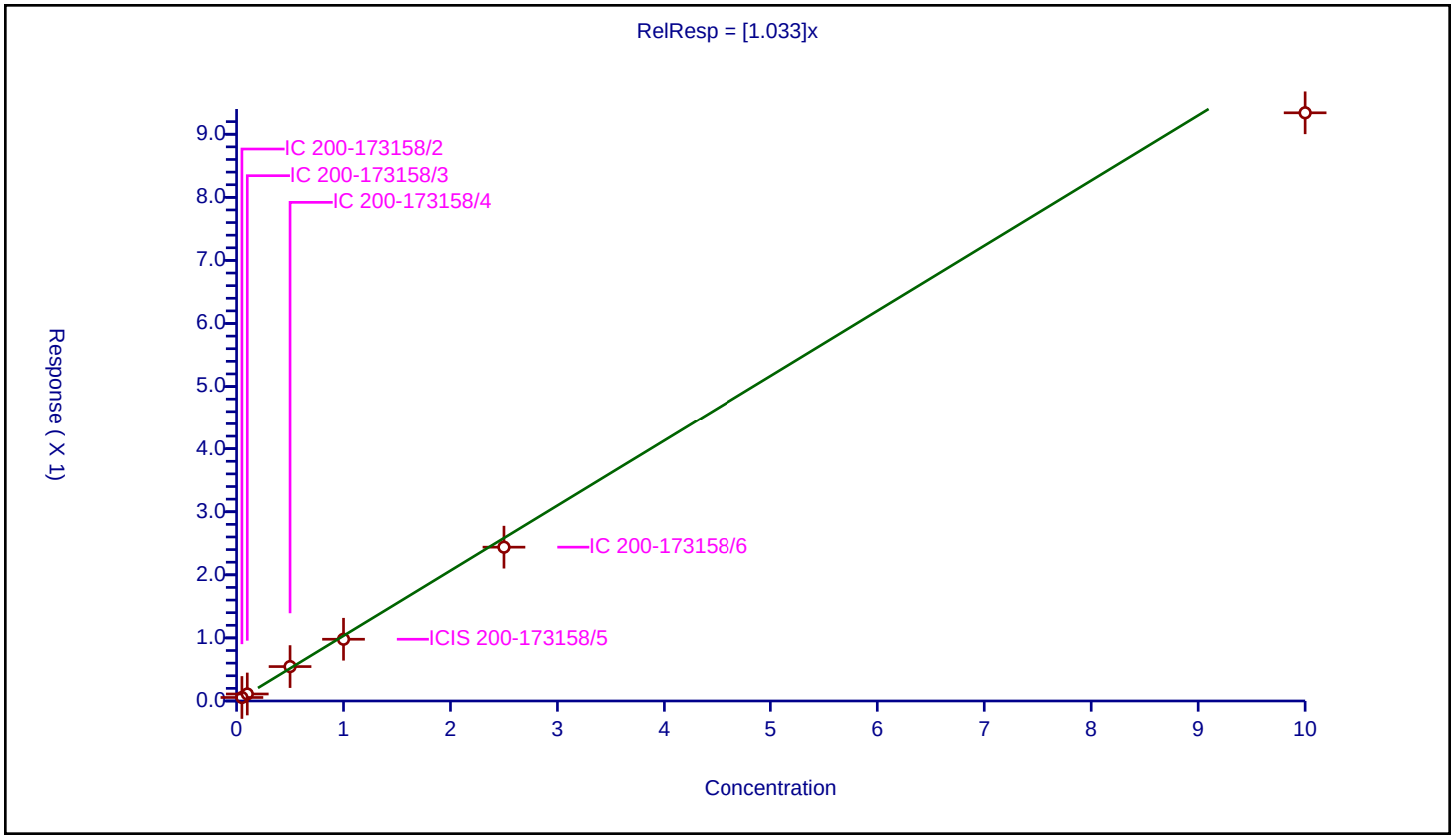
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.033 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5340000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055451 | 1.25 | 1624105.0 | 1.109026 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.111128 | 1.25 | 1883272.0 | 1.111284 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.545457 | 1.25 | 1610239.0 | 1.090914 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.978732 | 1.25 | 1920576.0 | 0.978732 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.438431 | 1.25 | 1567141.0 | 0.975372 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.339798 | 1.25 | 1529883.0 | 0.93398 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

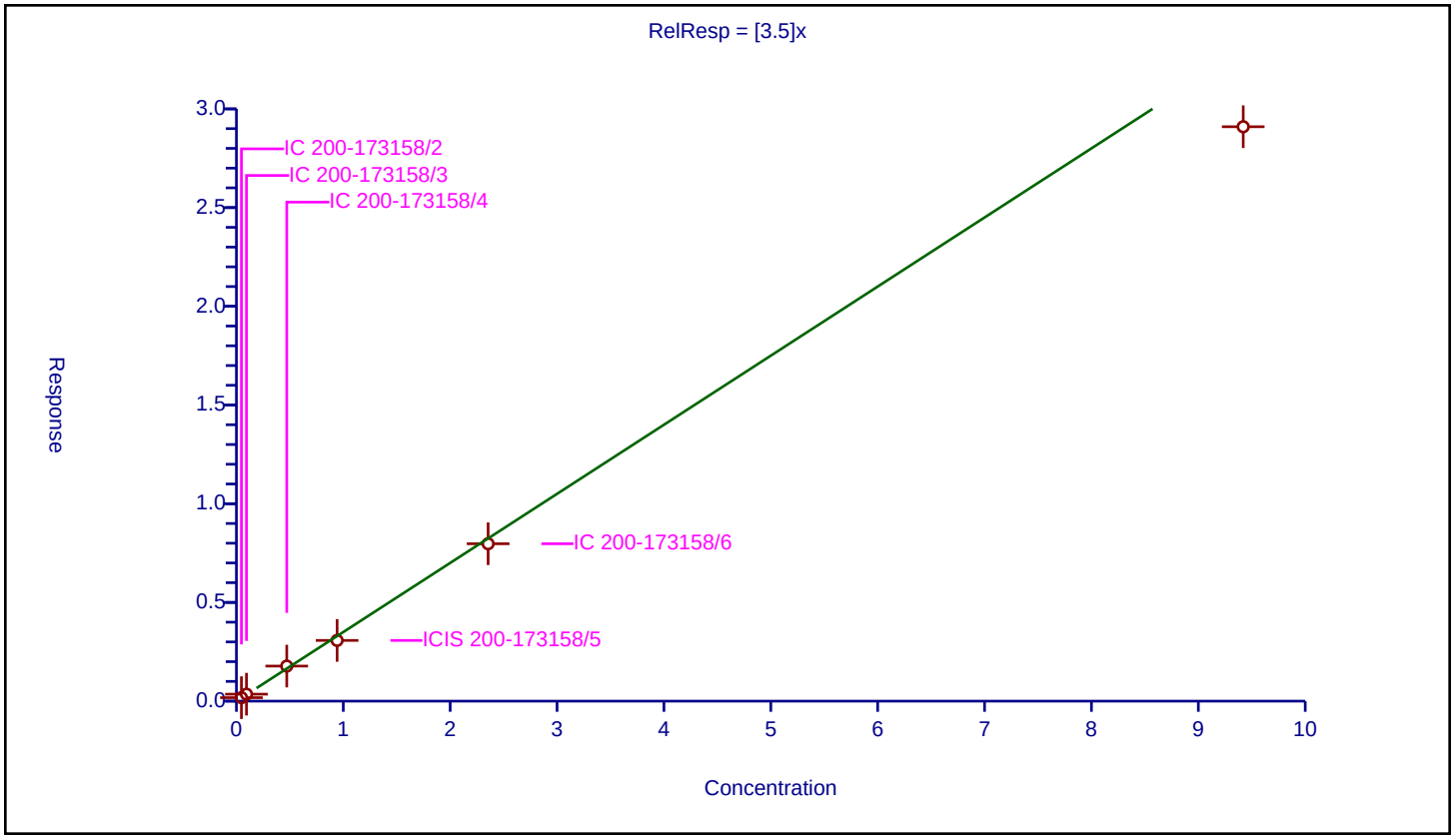
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.5 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 11000000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0471 | 0.176318 | 1.195 | 964211.0 | 3.743484 | Y |
| 2 | IC 200-173158/3 | 0.0942 | 0.352865 | 1.195 | 1187422.0 | 3.745909 | Y |
| 3 | IC 200-173158/4 | 0.471 | 1.776403 | 1.195 | 962917.0 | 3.771557 | Y |
| 4 | ICIS 200-173158/5 | 0.942 | 3.075585 | 1.195 | 1210356.0 | 3.264952 | Y |
| 5 | IC 200-173158/6 | 2.355 | 7.972079 | 1.195 | 951013.0 | 3.385172 | Y |
| 6 | IC 200-173158/7 | 9.42 | 29.095623 | 1.195 | 965476.0 | 3.088707 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

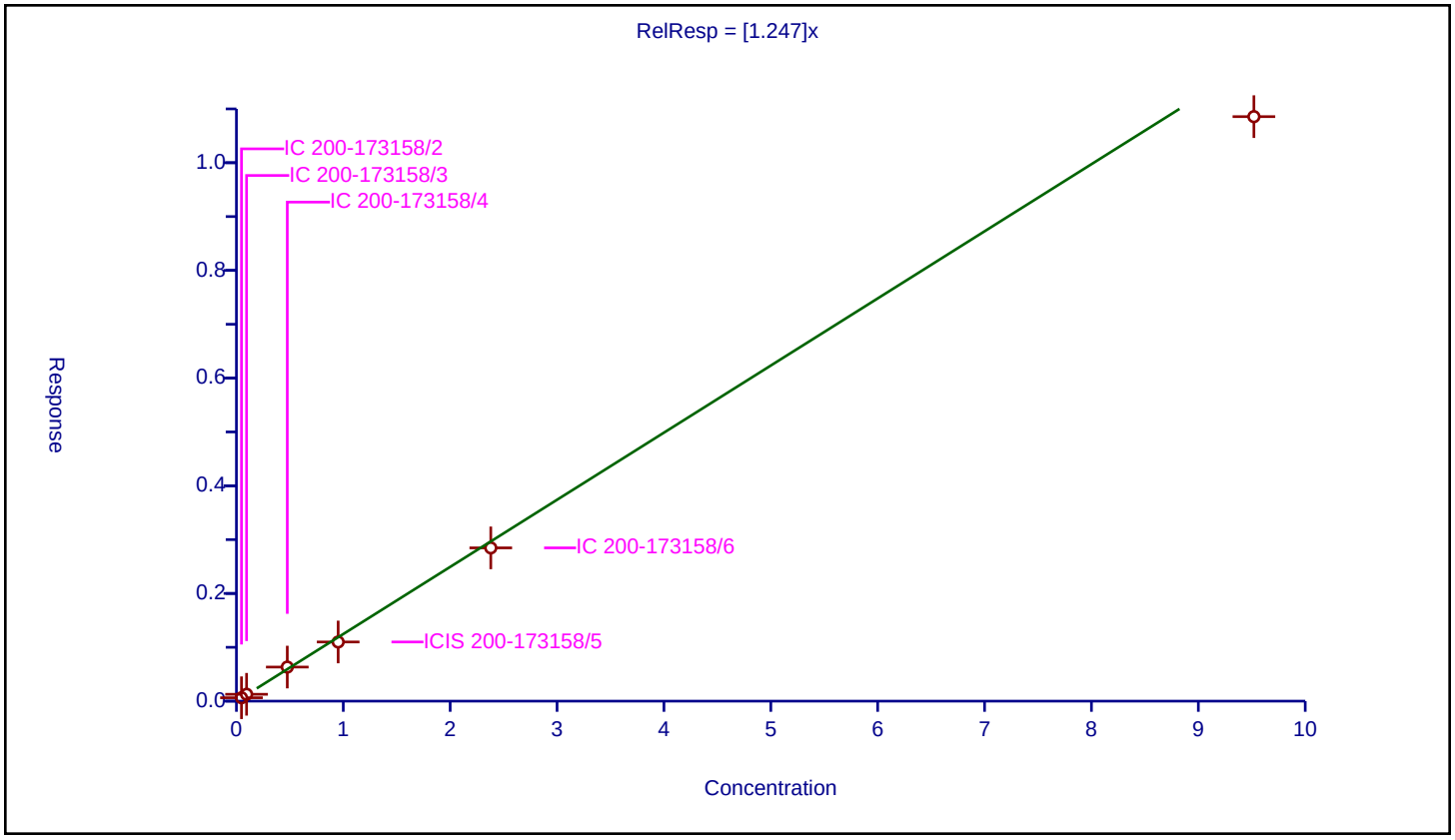
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.247 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4090000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0476 | 0.062959 | 1.195 | 964211.0 | 1.322673 | Y |
| 2 | IC 200-173158/3 | 0.0952 | 0.127256 | 1.195 | 1187422.0 | 1.336723 | Y |
| 3 | IC 200-173158/4 | 0.476 | 0.632782 | 1.195 | 962917.0 | 1.329373 | Y |
| 4 | ICIS 200-173158/5 | 0.952 | 1.099136 | 1.195 | 1210356.0 | 1.154554 | Y |
| 5 | IC 200-173158/6 | 2.38 | 2.846656 | 1.195 | 951013.0 | 1.196074 | Y |
| 6 | IC 200-173158/7 | 9.52 | 10.855972 | 1.195 | 965476.0 | 1.140333 | Y |



## Calibration / 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

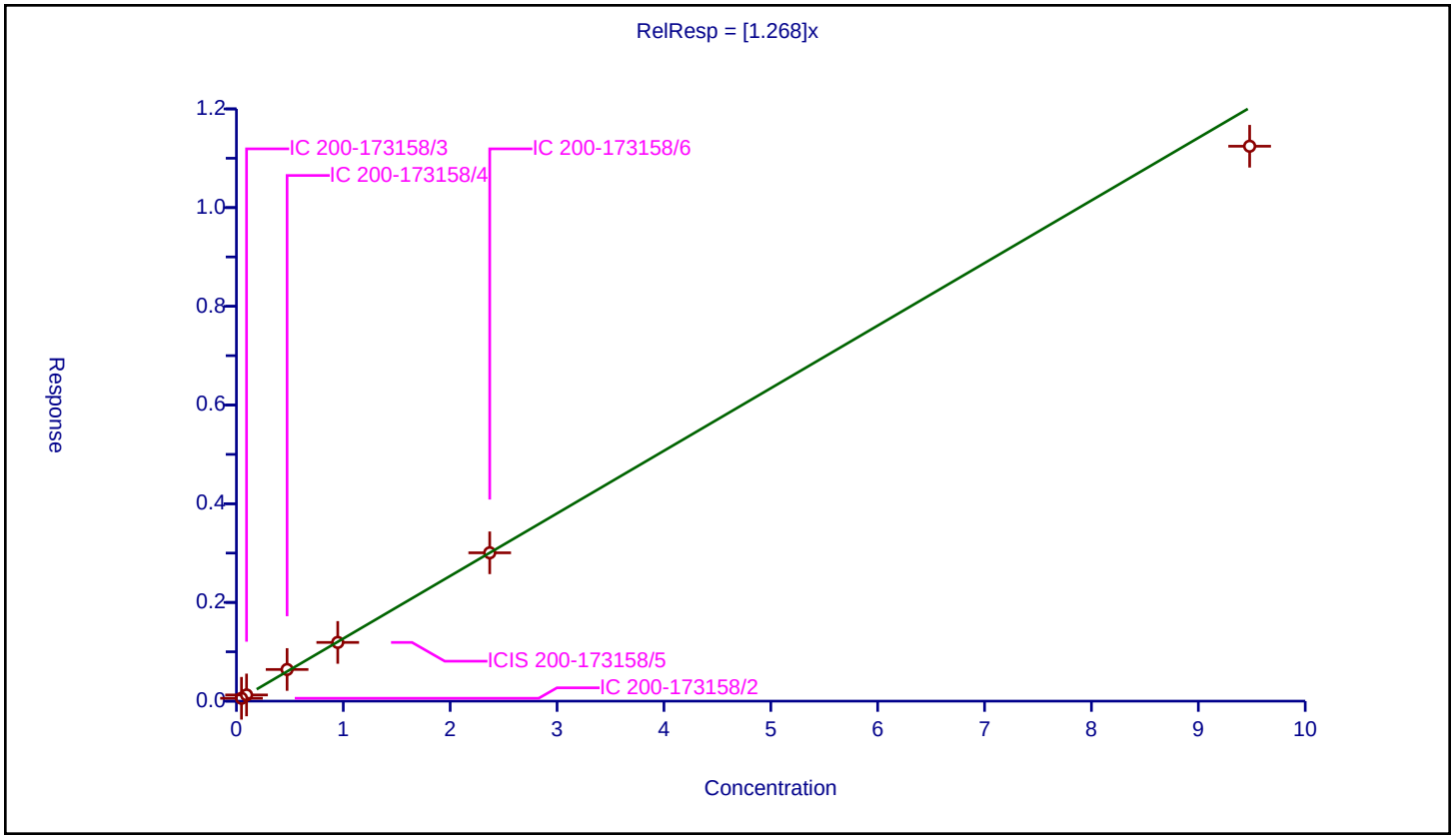
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.268 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 894000 |
| **Relative Standard Error:** | 4.9 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0474 | 0.057963 | 1.1875 | 212699.0 | 1.222843 | Y |
| 2 | IC 200-173158/3 | 0.0948 | 0.125481 | 1.1875 | 245685.0 | 1.323634 | Y |
| 3 | IC 200-173158/4 | 0.474 | 0.641386 | 1.1875 | 220518.0 | 1.353135 | Y |
| 4 | ICIS 200-173158/5 | 0.948 | 1.189595 | 1.1875 | 264731.0 | 1.254847 | Y |
| 5 | IC 200-173158/6 | 2.37 | 3.005534 | 1.1875 | 207642.0 | 1.268158 | Y |
| 6 | IC 200-173158/7 | 9.48 | 11.243485 | 1.1875 | 201400.0 | 1.186022 | Y |



## Calibration / Perfluorooctanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

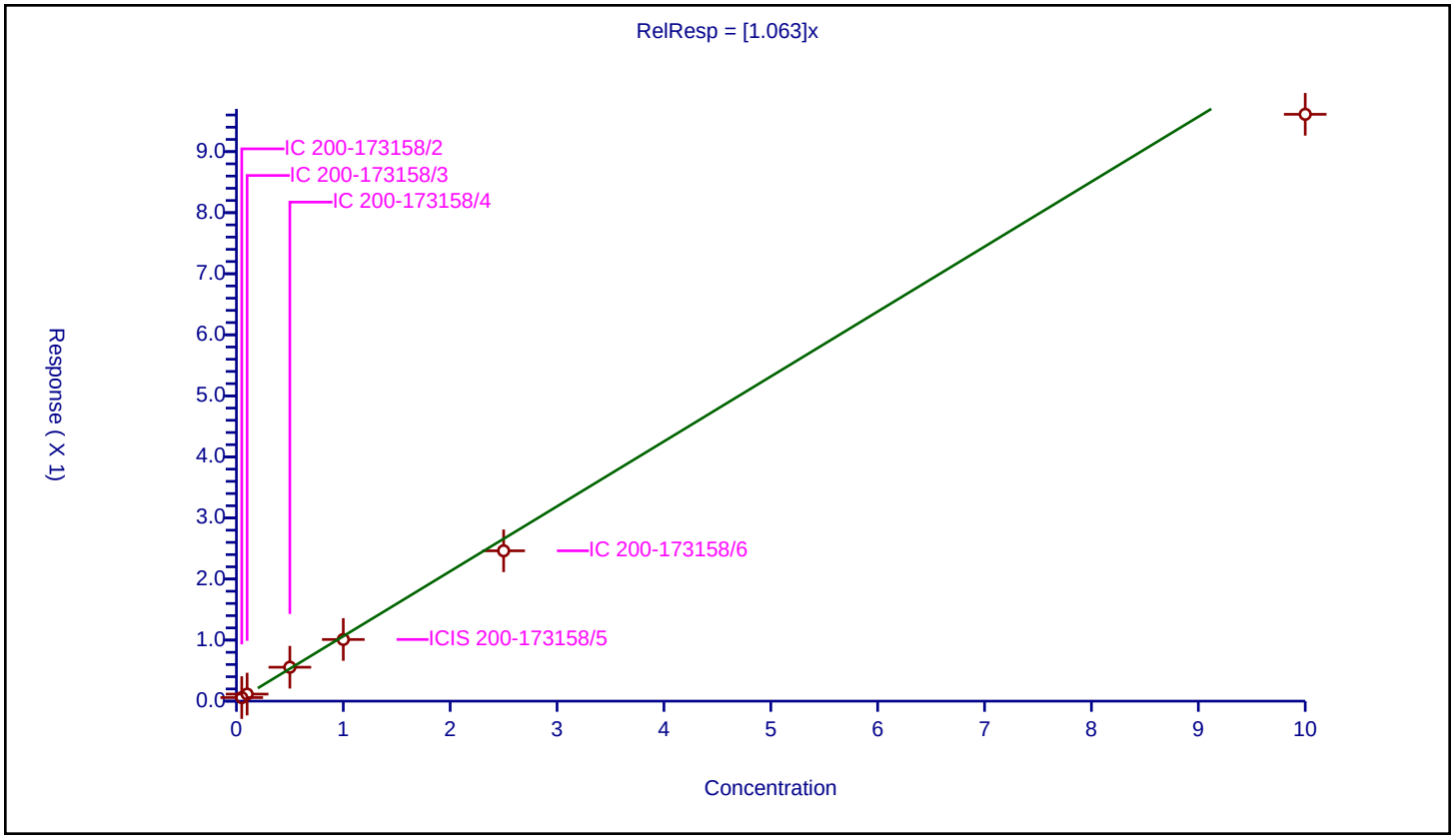
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.063 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5970000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.058087 | 1.25 | 1744327.0 | 1.161737 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.11525 | 1.25 | 2077322.0 | 1.152499 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.555319 | 1.25 | 1734402.0 | 1.110638 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 1.009685 | 1.25 | 2127384.0 | 1.009685 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.462325 | 1.25 | 1736905.0 | 0.98493 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.611371 | 1.25 | 1661142.0 | 0.961137 | Y |



## Calibration / Perfluorooctanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

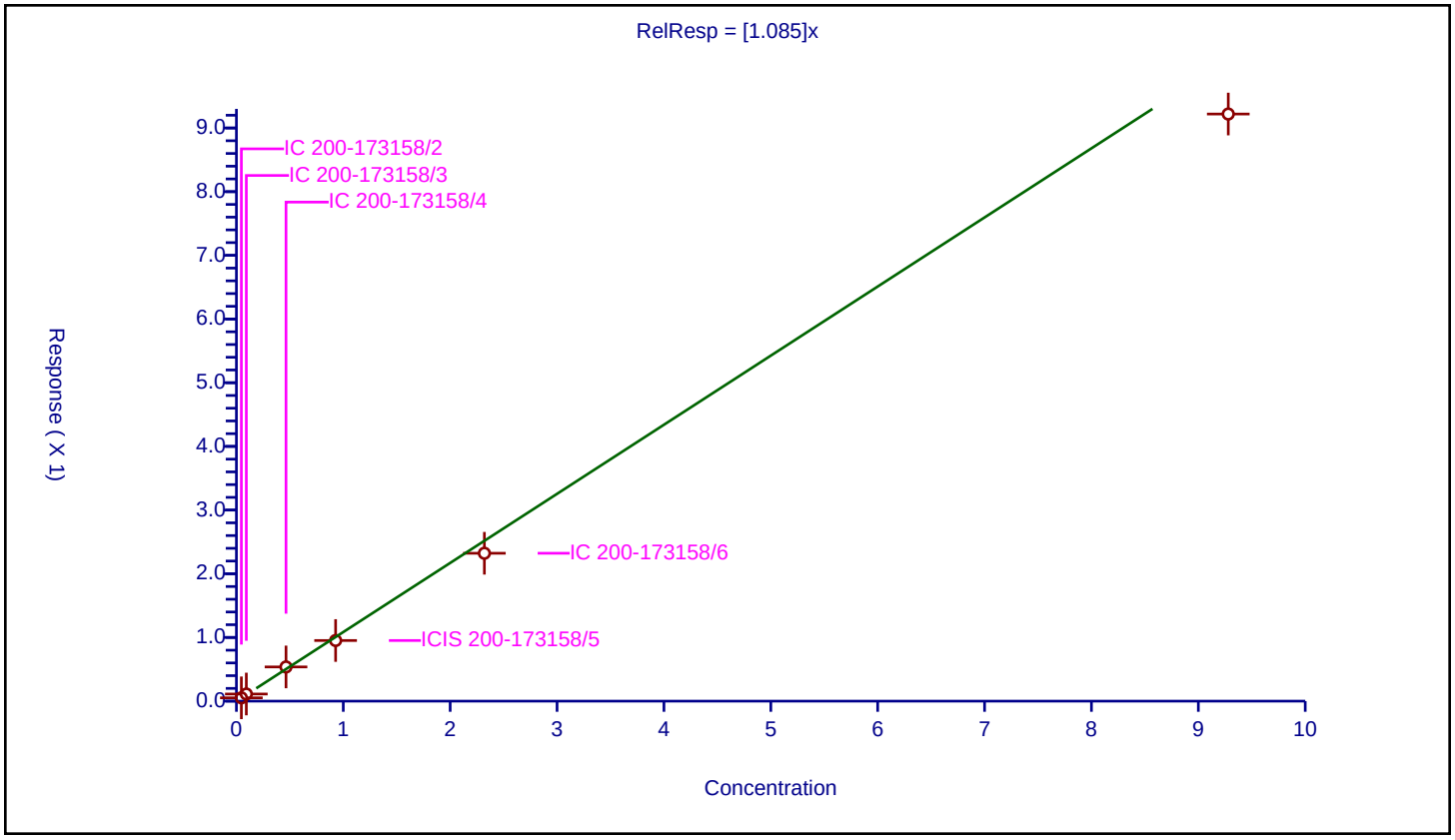
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.085 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3460000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0464 | 0.052244 | 1.195 | 964211.0 | 1.125944 | Y |
| 2 | IC 200-173158/3 | 0.0928 | 0.111965 | 1.195 | 1187422.0 | 1.20652 | Y |
| 3 | IC 200-173158/4 | 0.464 | 0.53711 | 1.195 | 962917.0 | 1.157565 | Y |
| 4 | ICIS 200-173158/5 | 0.928 | 0.951978 | 1.195 | 1210356.0 | 1.025838 | Y |
| 5 | IC 200-173158/6 | 2.32 | 2.322314 | 1.195 | 951013.0 | 1.000998 | Y |
| 6 | IC 200-173158/7 | 9.28 | 9.219399 | 1.195 | 965476.0 | 0.99347 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

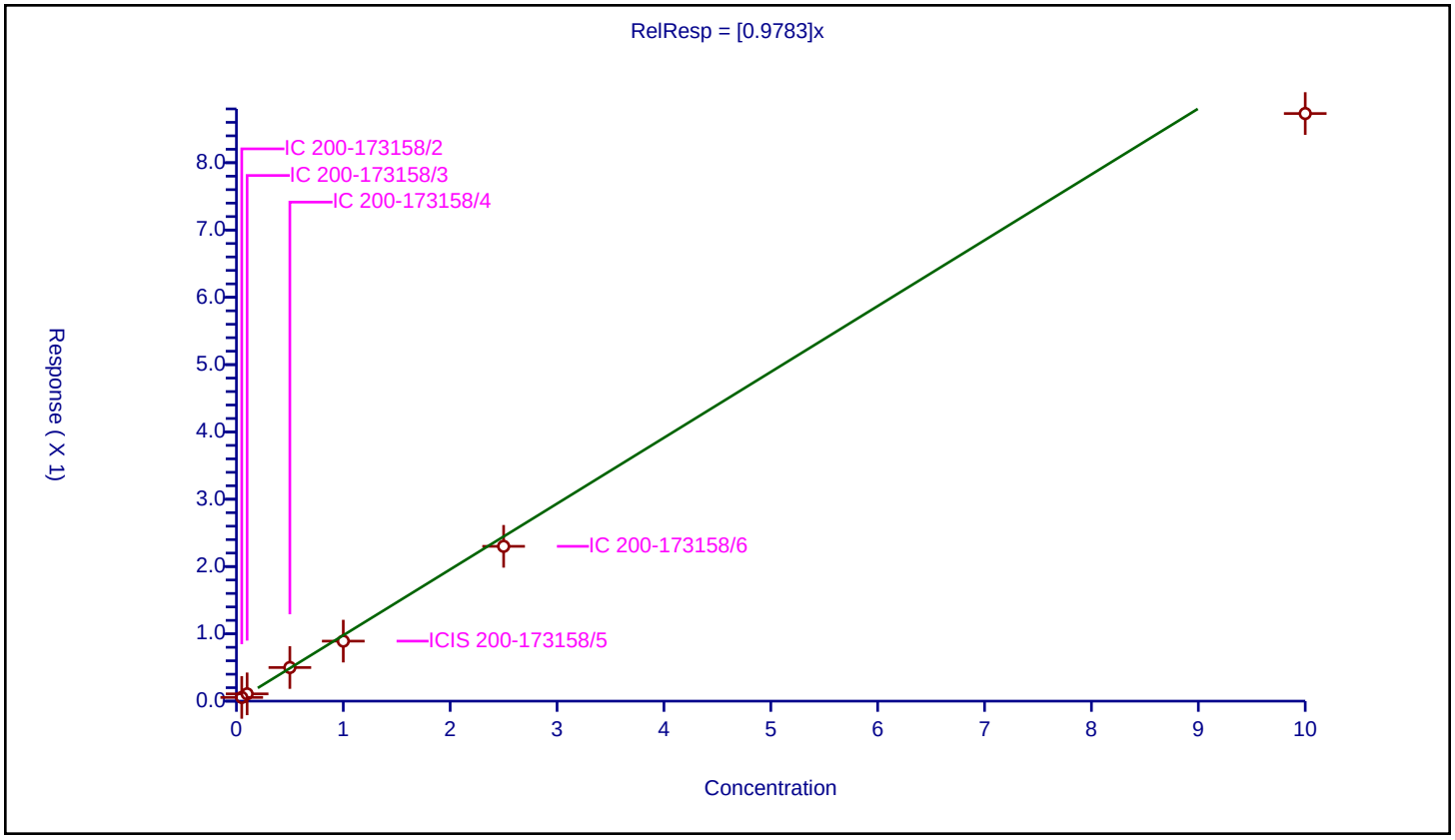
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9783 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5420000 |
| **Relative Standard Error:** | 10.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055152 | 1.25 | 1697603.0 | 1.103041 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.108235 | 1.25 | 2005558.0 | 1.082355 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.499694 | 1.25 | 1742047.0 | 0.999388 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.891956 | 1.25 | 2190750.0 | 0.891956 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.300335 | 1.25 | 1751163.0 | 0.920134 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.731196 | 1.25 | 1655608.0 | 0.87312 | Y |



## Calibration / 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

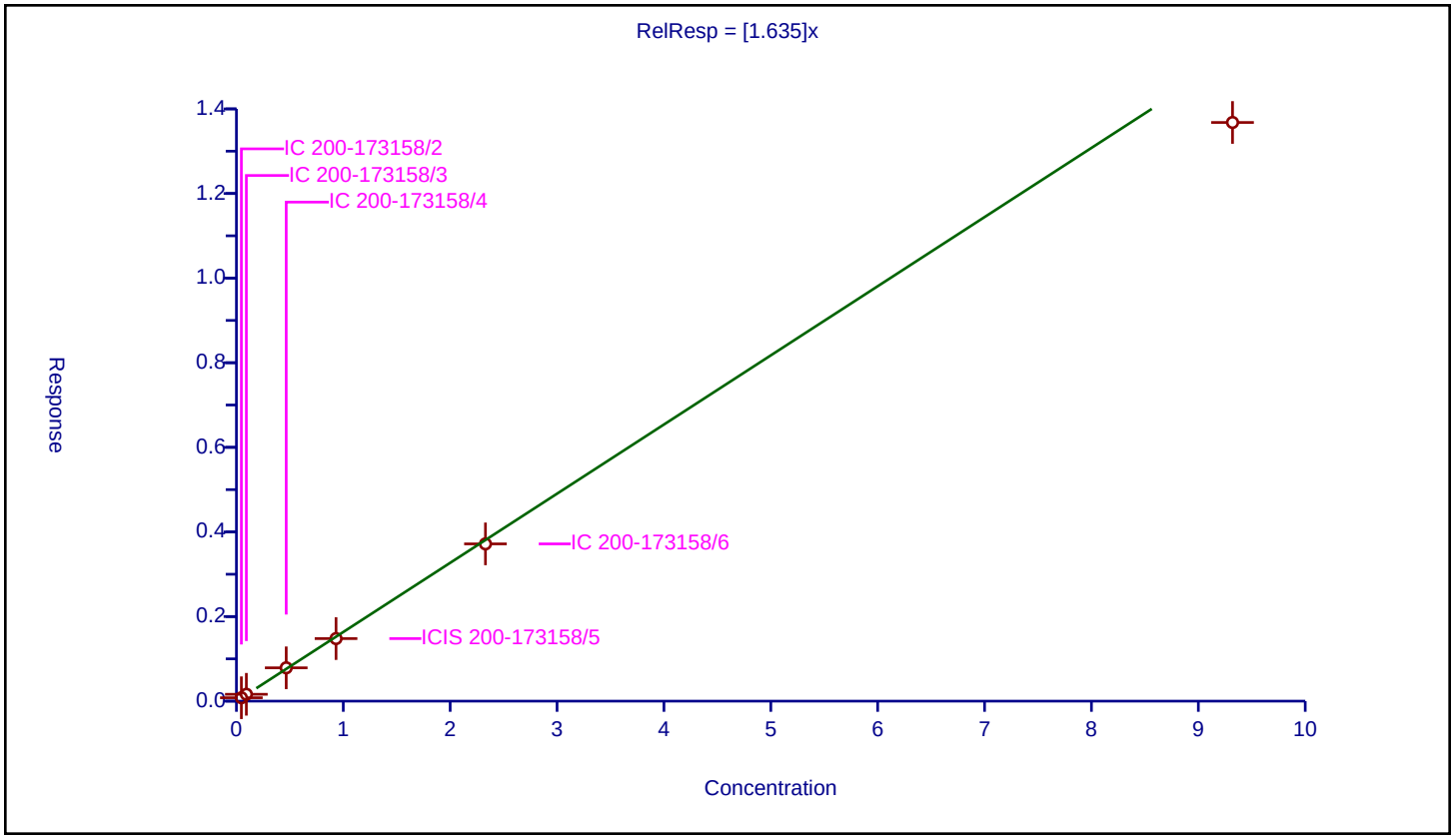
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.635 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5170000 |
| **Relative Standard Error:** | 6.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0466 | 0.080455 | 1.195 | 964211.0 | 1.726507 | Y |
| 2 | IC 200-173158/3 | 0.0932 | 0.162216 | 1.195 | 1187422.0 | 1.740512 | Y |
| 3 | IC 200-173158/4 | 0.466 | 0.78814 | 1.195 | 962917.0 | 1.691288 | Y |
| 4 | ICIS 200-173158/5 | 0.932 | 1.478665 | 1.195 | 1210356.0 | 1.58655 | Y |
| 5 | IC 200-173158/6 | 2.33 | 3.71744 | 1.195 | 951013.0 | 1.595468 | Y |
| 6 | IC 200-173158/7 | 9.32 | 13.679071 | 1.195 | 965476.0 | 1.467712 | Y |



## Calibration / Perfluorononanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

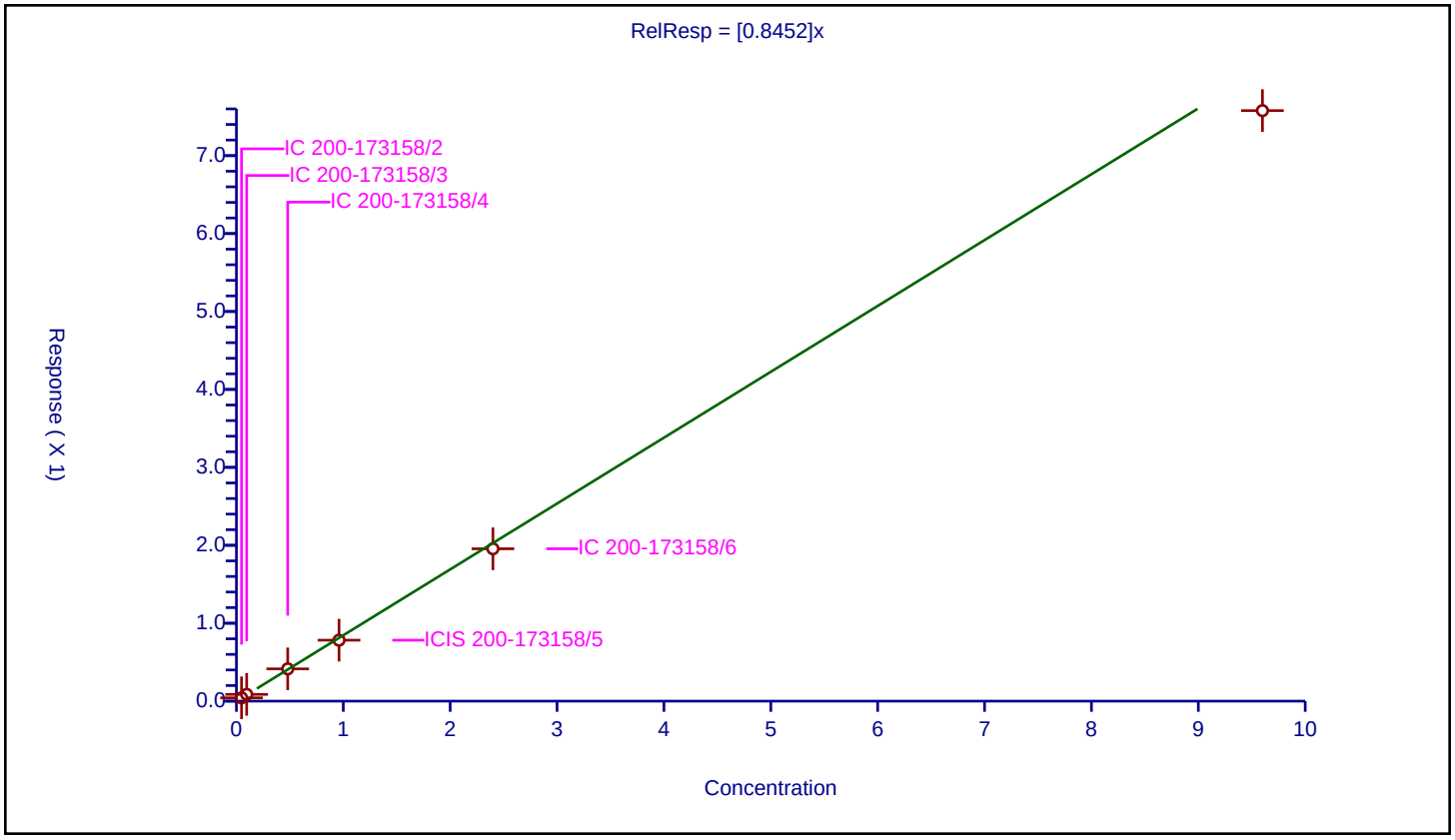
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8452 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2850000 |
| **Relative Standard Error:** | 5.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.048 | 0.04266 | 1.195 | 964211.0 | 0.888747 | Y |
| 2 | IC 200-173158/3 | 0.096 | 0.086481 | 1.195 | 1187422.0 | 0.900848 | Y |
| 3 | IC 200-173158/4 | 0.48 | 0.414156 | 1.195 | 962917.0 | 0.862825 | Y |
| 4 | ICIS 200-173158/5 | 0.96 | 0.782256 | 1.195 | 1210356.0 | 0.81485 | Y |
| 5 | IC 200-173158/6 | 2.4 | 1.955111 | 1.195 | 951013.0 | 0.81463 | Y |
| 6 | IC 200-173158/7 | 9.6 | 7.577794 | 1.195 | 965476.0 | 0.789354 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

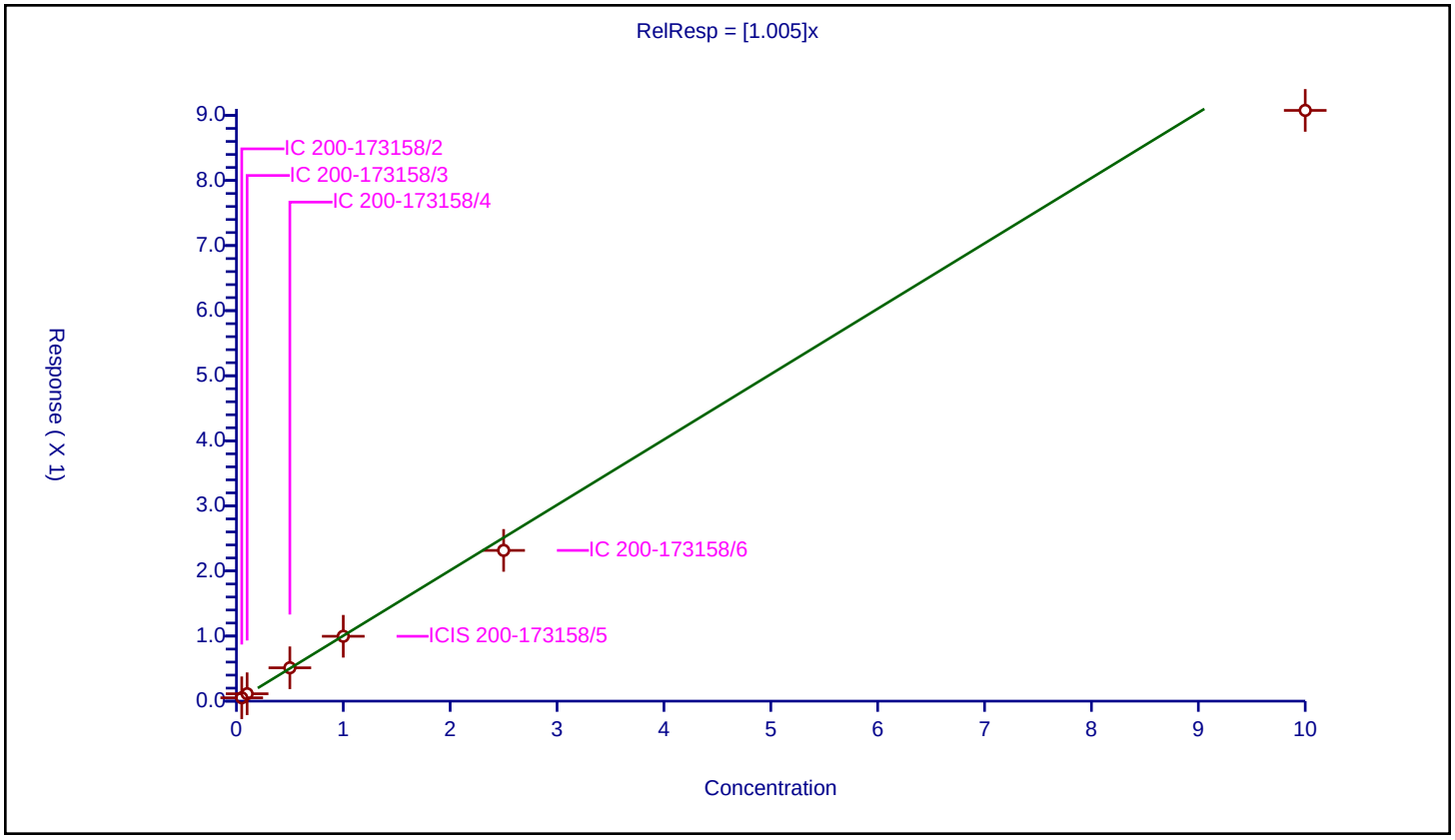
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.005 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5760000 |
| **Relative Standard Error:** | 8.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.051864 | 1.25 | 1813381.0 | 1.037289 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.113613 | 1.25 | 2069906.0 | 1.136126 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.51241 | 1.25 | 1732010.0 | 1.024821 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.996598 | 1.25 | 2098041.0 | 0.996598 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.316172 | 1.25 | 1713267.0 | 0.926469 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.076477 | 1.25 | 1701445.0 | 0.907648 | Y |



## Calibration / 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

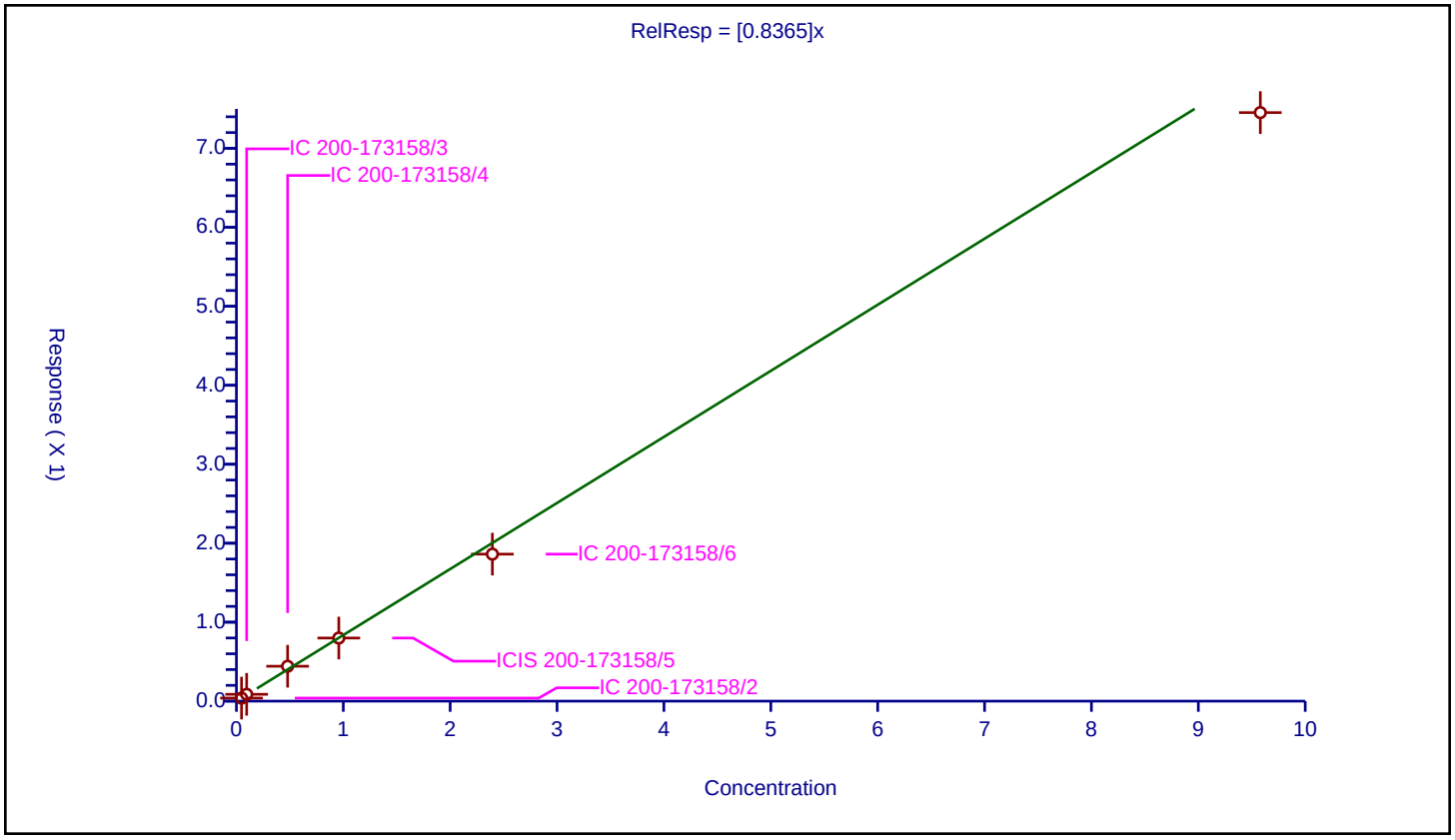
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8365 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 675000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0479 | 0.038585 | 1.1975 | 250892.0 | 0.805526 | Y |
| 2 | IC 200-173158/3 | 0.0958 | 0.086371 | 1.1975 | 288661.0 | 0.901577 | Y |
| 3 | IC 200-173158/4 | 0.479 | 0.441954 | 1.1975 | 236138.0 | 0.92266 | Y |
| 4 | ICIS 200-173158/5 | 0.958 | 0.799252 | 1.1975 | 286620.0 | 0.834293 | Y |
| 5 | IC 200-173158/6 | 2.395 | 1.861479 | 1.1975 | 249474.0 | 0.777235 | Y |
| 6 | IC 200-173158/7 | 9.58 | 7.453204 | 1.1975 | 231933.0 | 0.777996 | Y |



## Calibration / Perfluorooctanesulfonamide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

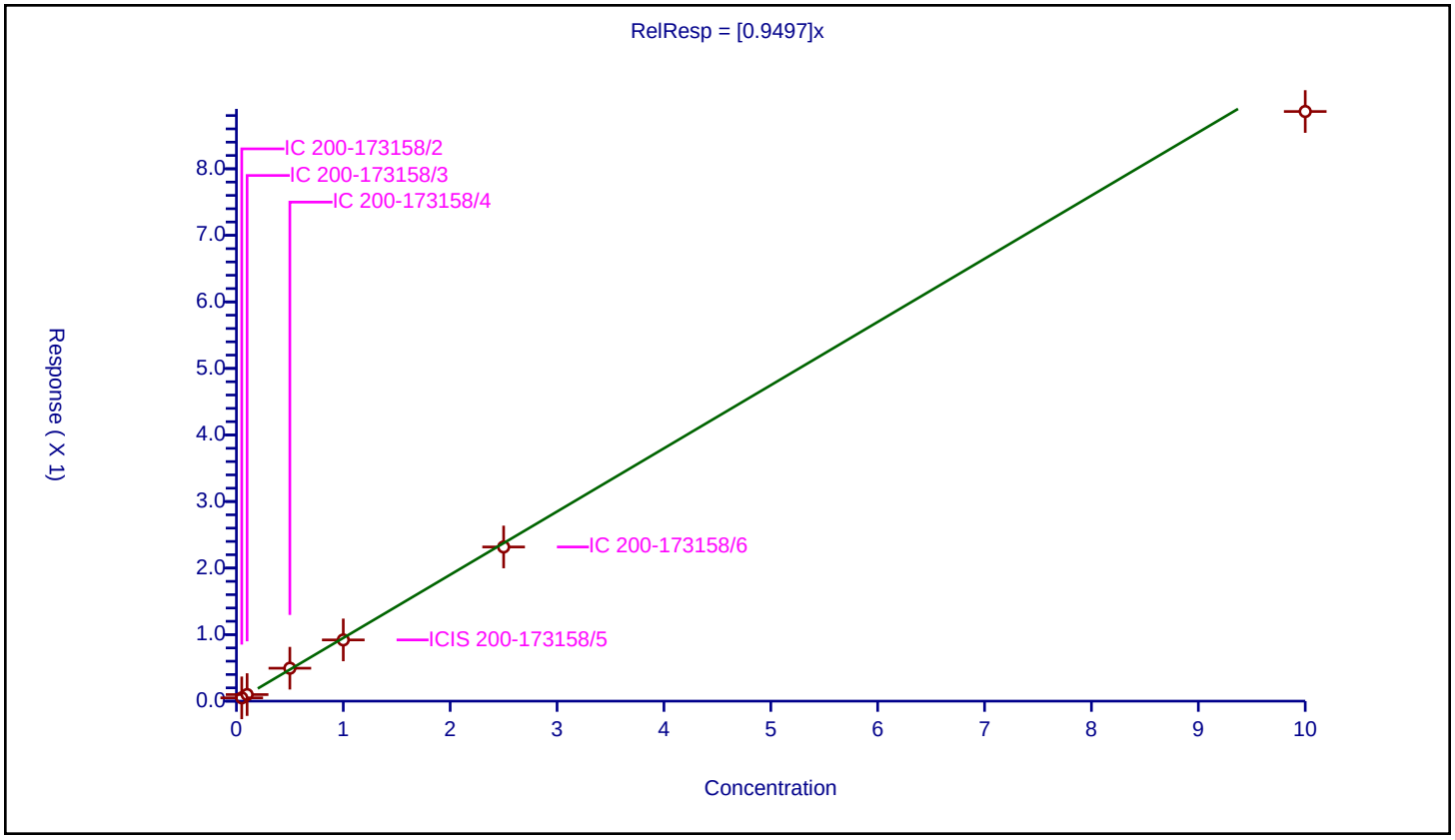
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9497 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5500000 |
| **Relative Standard Error:** | 4.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.049439 | 1.25 | 1644854.0 | 0.988781 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.09872 | 1.25 | 1999674.0 | 0.987205 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.494734 | 1.25 | 1730994.0 | 0.989468 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.919874 | 1.25 | 2062074.0 | 0.919874 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.316773 | 1.25 | 1642092.0 | 0.926709 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.860742 | 1.25 | 1662915.0 | 0.886074 | Y |



## Calibration / N-methylperfluorooctanesulfonamidoacetic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

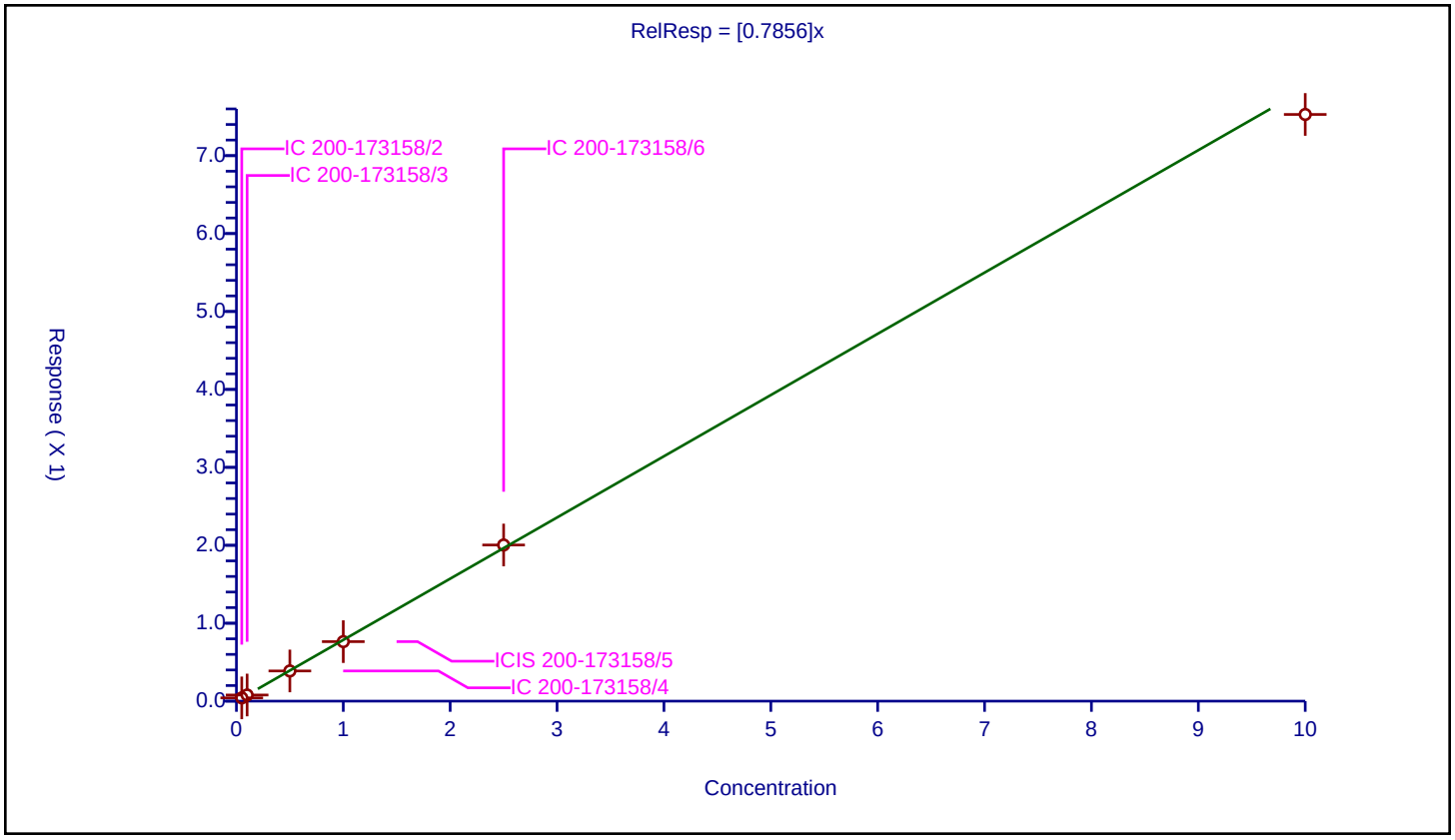
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7856 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 484000 |
| **Relative Standard Error:** | 3.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.041717 | 1.25 | 165609.0 | 0.834345 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.078621 | 1.25 | 207879.0 | 0.786215 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.387527 | 1.25 | 177391.0 | 0.775053 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.763639 | 1.25 | 208636.0 | 0.763639 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.003592 | 1.25 | 163220.0 | 0.801437 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.528684 | 1.25 | 173007.0 | 0.752868 | Y |



## Calibration / Perfluorodecanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

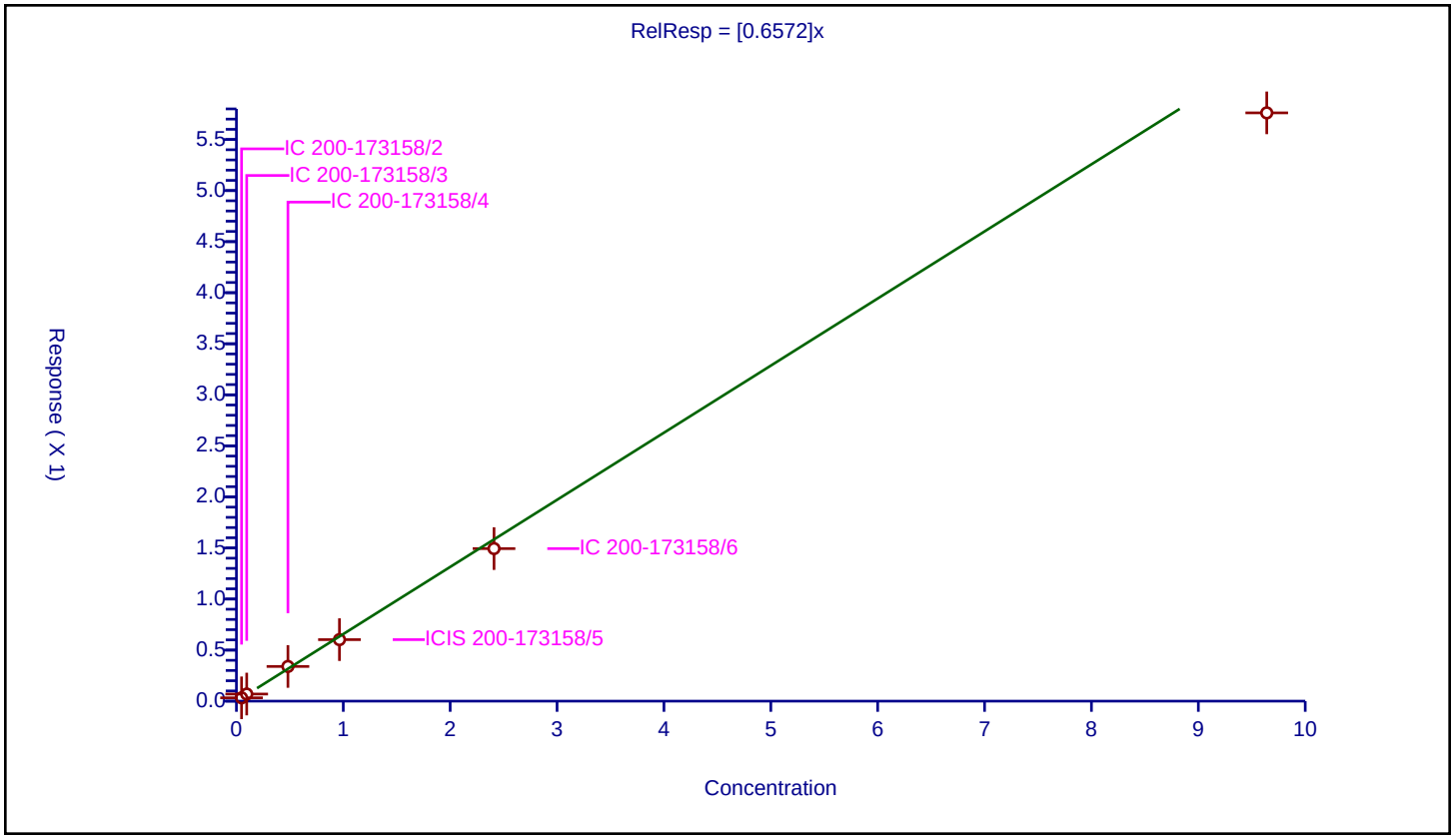
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6572 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2170000 |
| **Relative Standard Error:** | 7.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0482 | 0.032521 | 1.195 | 964211.0 | 0.674703 | Y |
| 2 | IC 200-173158/3 | 0.0964 | 0.069497 | 1.195 | 1187422.0 | 0.72092 | Y |
| 3 | IC 200-173158/4 | 0.482 | 0.339758 | 1.195 | 962917.0 | 0.704892 | Y |
| 4 | ICIS 200-173158/5 | 0.964 | 0.602471 | 1.195 | 1210356.0 | 0.62497 | Y |
| 5 | IC 200-173158/6 | 2.41 | 1.493932 | 1.195 | 951013.0 | 0.619889 | Y |
| 6 | IC 200-173158/7 | 9.64 | 5.761119 | 1.195 | 965476.0 | 0.597626 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

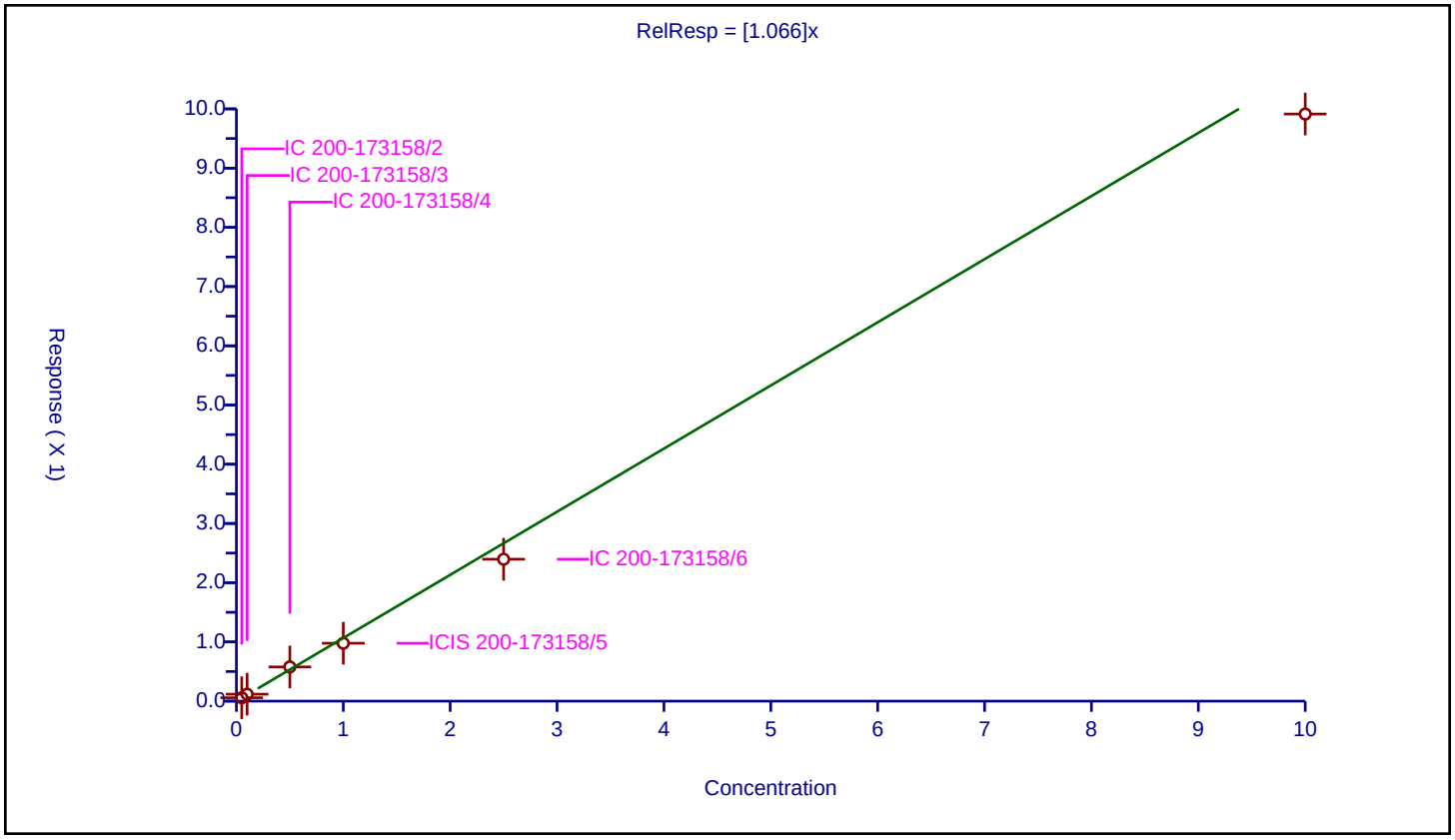
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.066 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4640000 |
| **Relative Standard Error:** | 9.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.057202 | 1.25 | 1359196.0 | 1.14404 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.116962 | 1.25 | 1631857.0 | 1.169618 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.577699 | 1.25 | 1326229.0 | 1.155398 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.977321 | 1.25 | 1758950.0 | 0.977321 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.396162 | 1.25 | 1376292.0 | 0.958465 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.913328 | 1.25 | 1249906.0 | 0.991333 | Y |



## Calibration / N-ethylperfluorooctanesulfonamidoacetic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

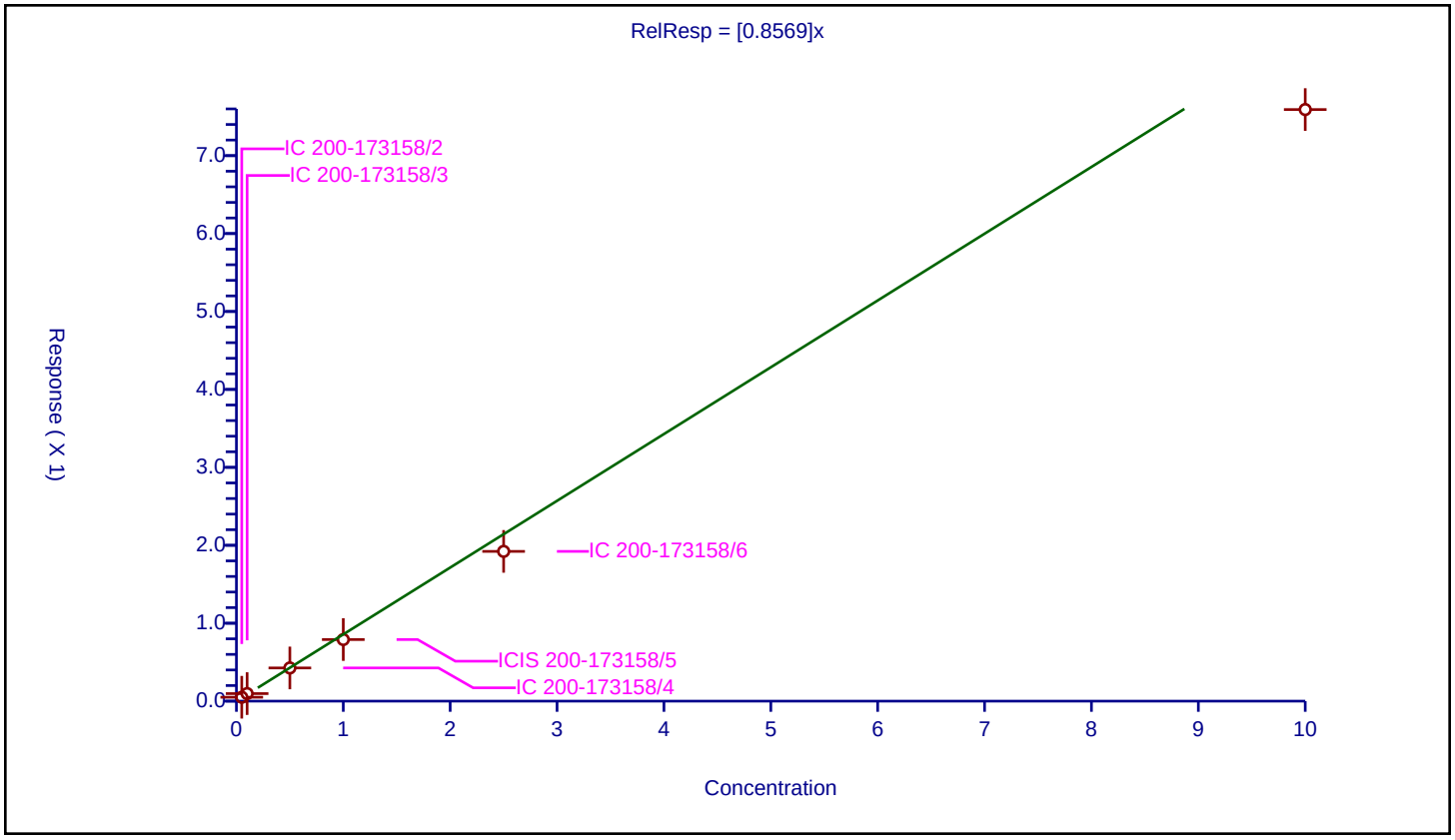
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8569 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 445000 |
| **Relative Standard Error:** | 12.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.977 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050082 | 1.25 | 153799.0 | 1.001632 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.096939 | 1.25 | 192776.0 | 0.969389 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.42599 | 1.25 | 162762.0 | 0.85198 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.790472 | 1.25 | 200276.0 | 0.790472 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.921704 | 1.25 | 160452.0 | 0.768682 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.591578 | 1.25 | 157024.0 | 0.759158 | Y |



## Calibration / 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

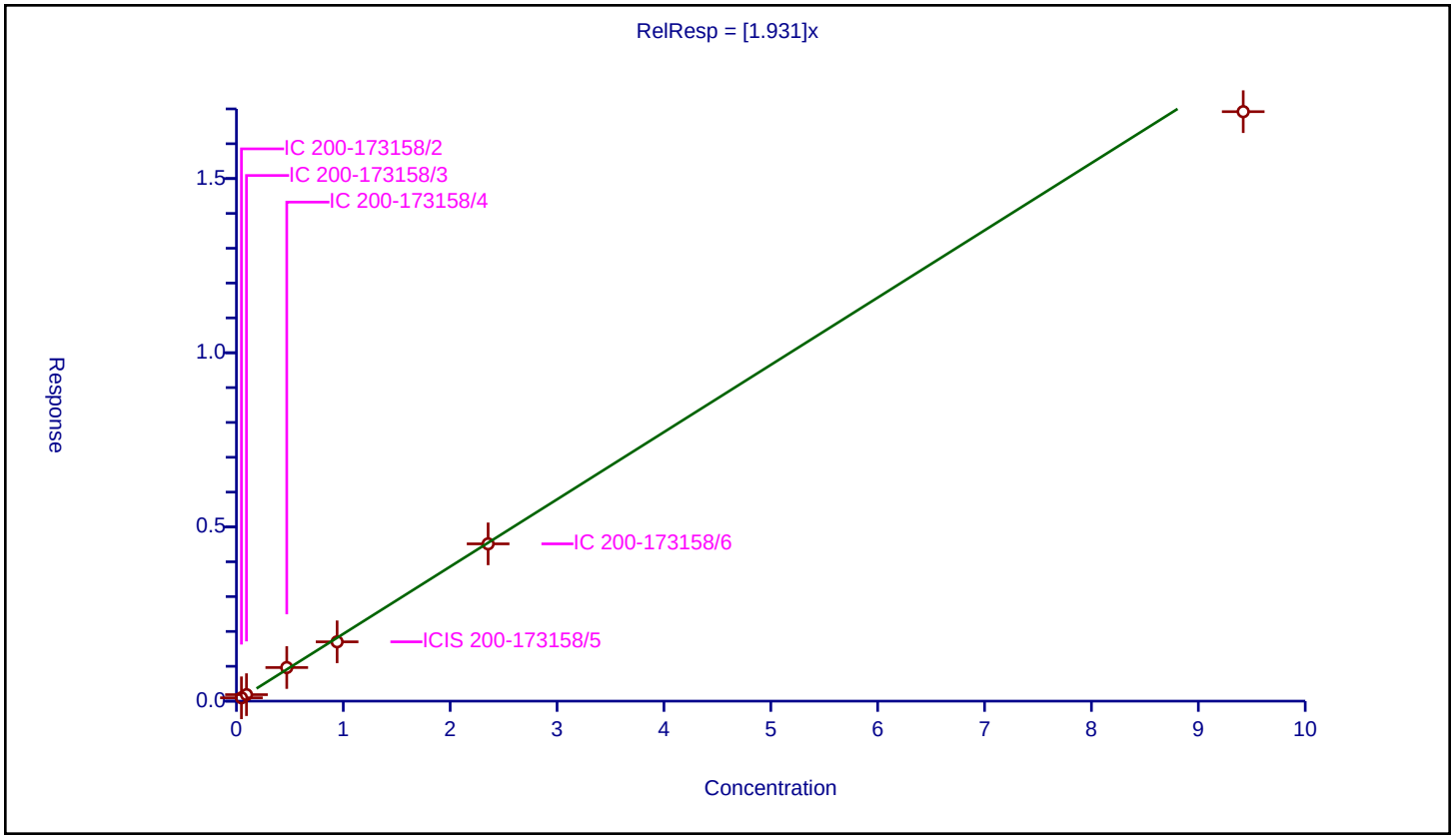
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.931 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6380000 |
| **Relative Standard Error:** | 5.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0471 | 0.095993 | 1.195 | 964211.0 | 2.038068 | Y |
| 2 | IC 200-173158/3 | 0.0942 | 0.186127 | 1.195 | 1187422.0 | 1.975874 | Y |
| 3 | IC 200-173158/4 | 0.471 | 0.964603 | 1.195 | 962917.0 | 2.04799 | Y |
| 4 | ICIS 200-173158/5 | 0.942 | 1.702871 | 1.195 | 1210356.0 | 1.807718 | Y |
| 5 | IC 200-173158/6 | 2.355 | 4.515029 | 1.195 | 951013.0 | 1.91721 | Y |
| 6 | IC 200-173158/7 | 9.42 | 16.920637 | 1.195 | 965476.0 | 1.796246 | Y |



## Calibration / Perfluorododecanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

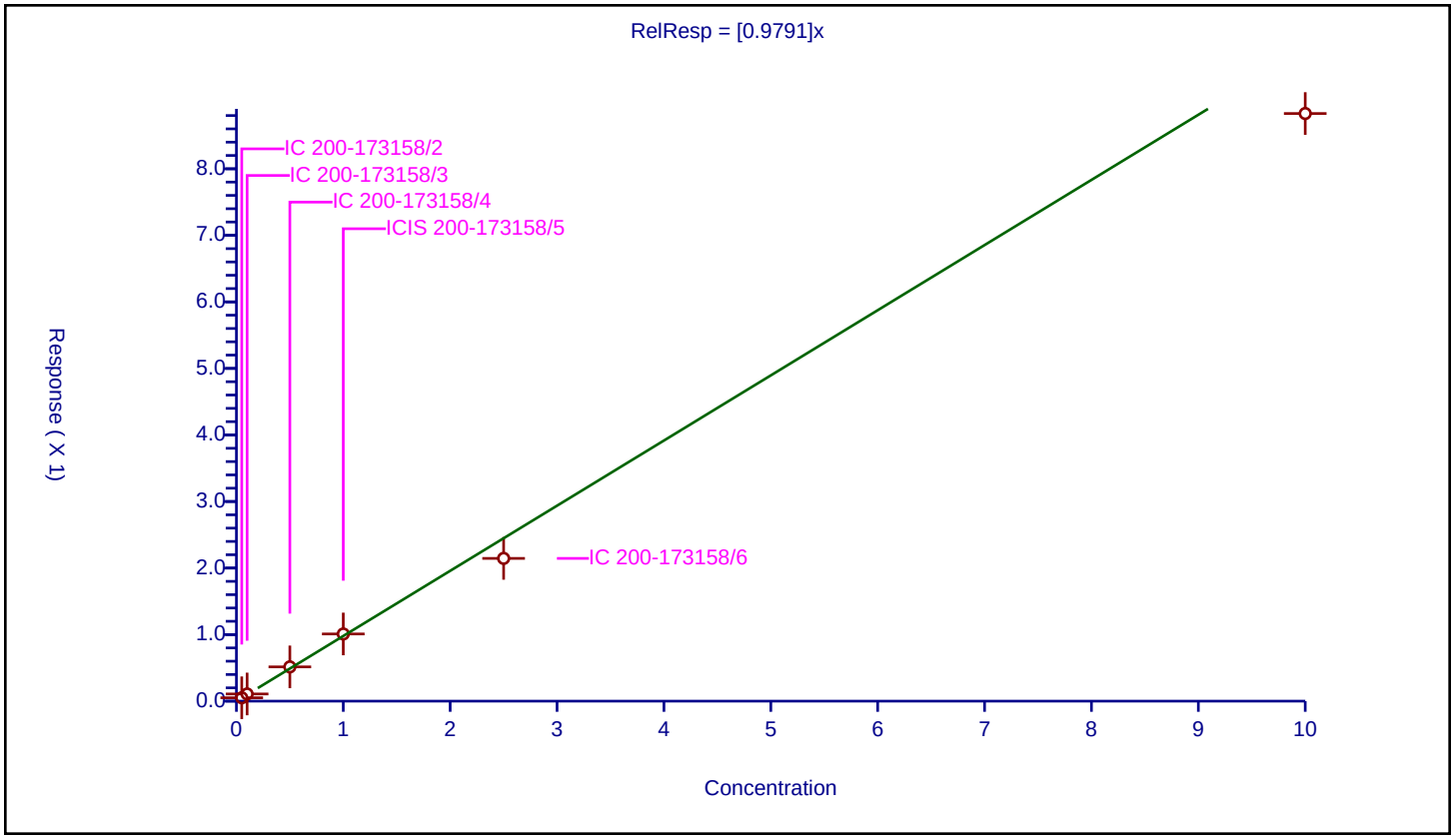
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9791 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4750000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050814 | 1.25 | 1427497.0 | 1.016272 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.10775 | 1.25 | 1722128.0 | 1.077497 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.514936 | 1.25 | 1443504.0 | 1.029872 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 1.009575 | 1.25 | 1756299.0 | 1.009575 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.145202 | 1.25 | 1536568.0 | 0.858081 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.83038 | 1.25 | 1439938.0 | 0.883038 | Y |



## Calibration / 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

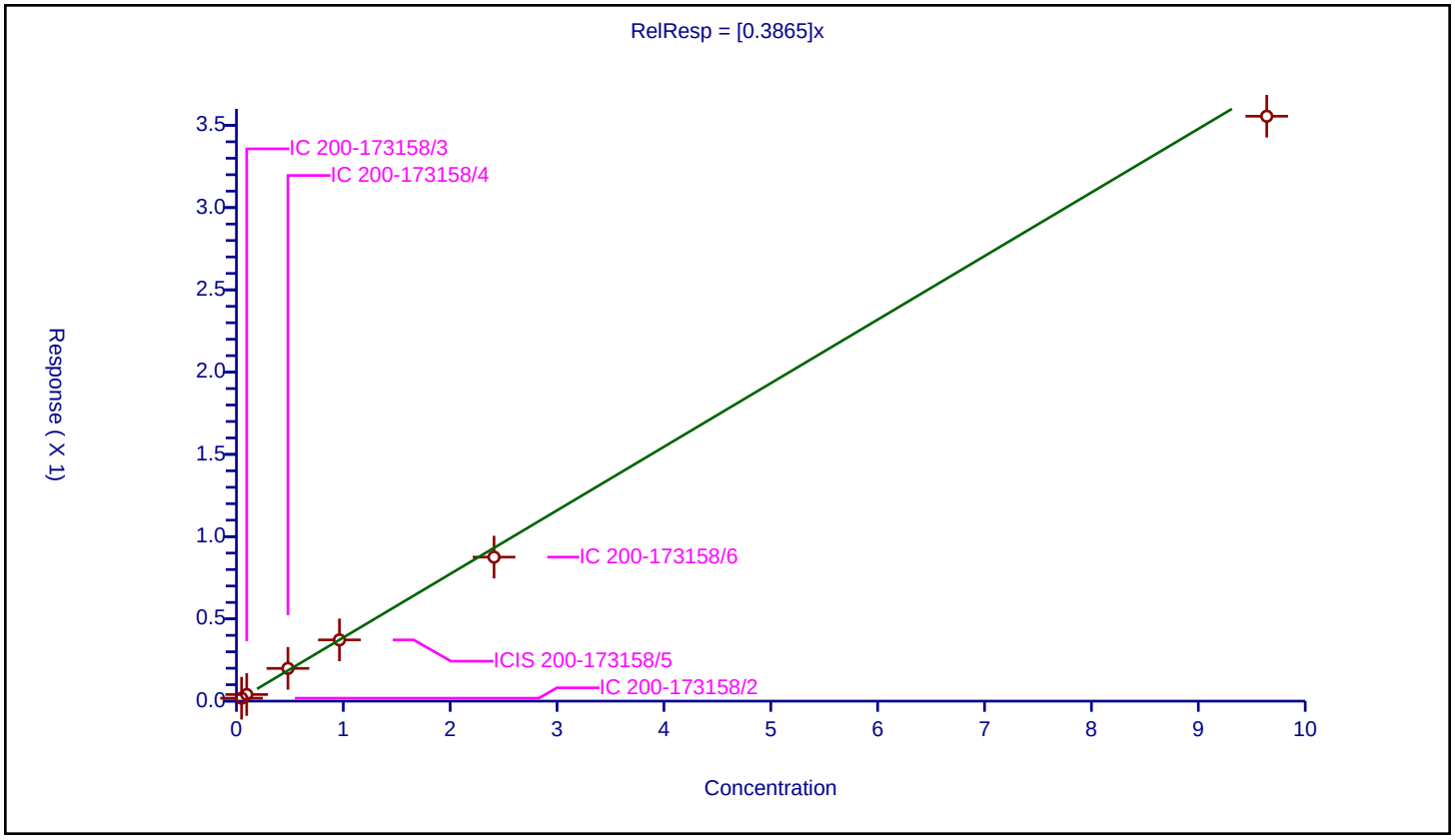
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3865 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 322000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0482 | 0.017856 | 1.1975 | 250892.0 | 0.37045 | Y |
| 2 | IC 200-173158/3 | 0.0964 | 0.040219 | 1.1975 | 288661.0 | 0.417213 | Y |
| 3 | IC 200-173158/4 | 0.482 | 0.19908 | 1.1975 | 236138.0 | 0.413028 | Y |
| 4 | ICIS 200-173158/5 | 0.964 | 0.372327 | 1.1975 | 286620.0 | 0.386231 | Y |
| 5 | IC 200-173158/6 | 2.41 | 0.875495 | 1.1975 | 249474.0 | 0.363276 | Y |
| 6 | IC 200-173158/7 | 9.64 | 3.555408 | 1.1975 | 231933.0 | 0.368818 | Y |



## Calibration / Perfluorododecanesulfonic acid (PFDoS)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

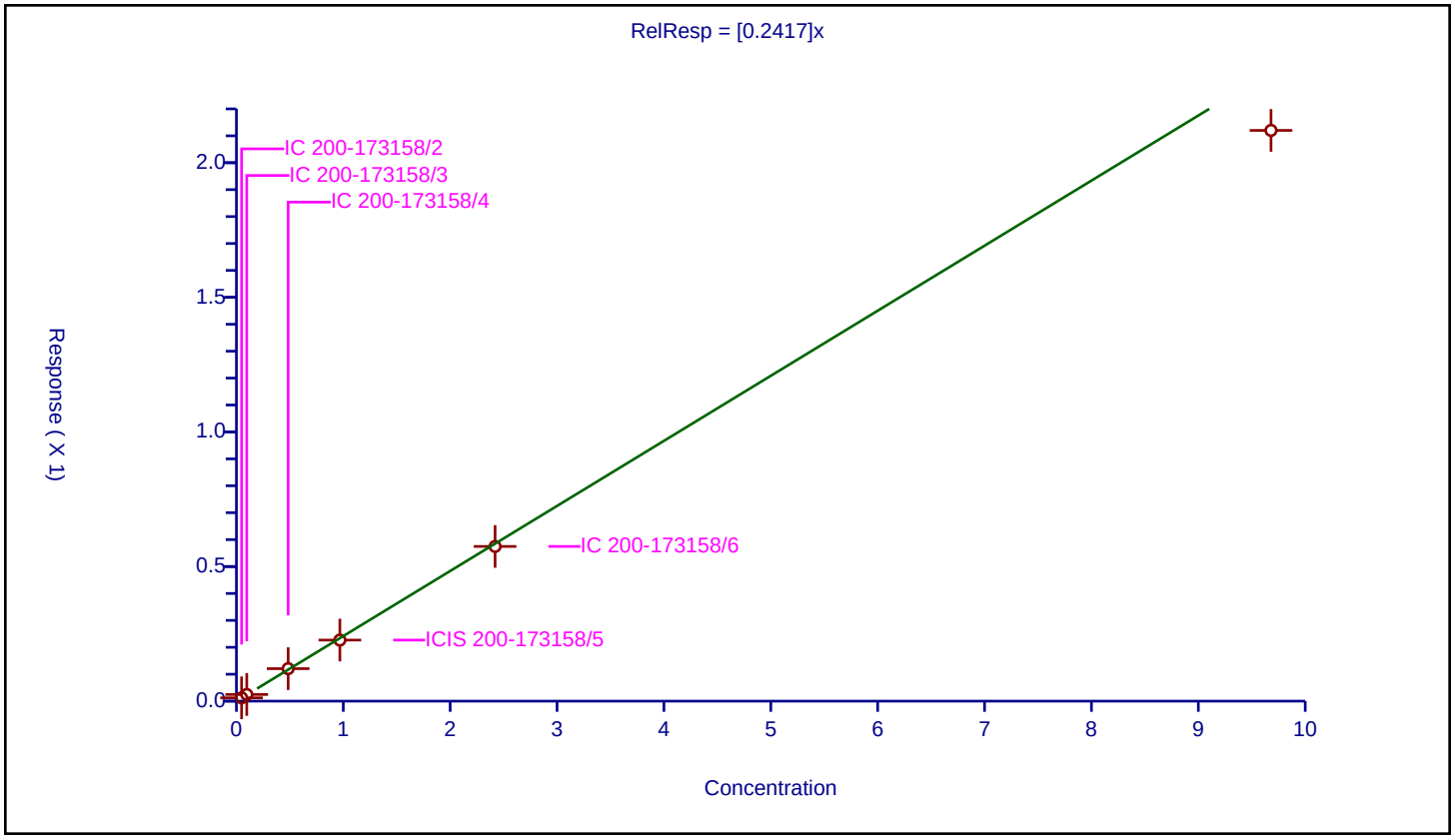
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2417 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 801000 |
| **Relative Standard Error:** | 5.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0484 | 0.012337 | 1.195 | 964211.0 | 0.254887 | Y |
| 2 | IC 200-173158/3 | 0.0968 | 0.024715 | 1.195 | 1187422.0 | 0.255317 | Y |
| 3 | IC 200-173158/4 | 0.484 | 0.120646 | 1.195 | 962917.0 | 0.249268 | Y |
| 4 | ICIS 200-173158/5 | 0.968 | 0.226779 | 1.195 | 1210356.0 | 0.234276 | Y |
| 5 | IC 200-173158/6 | 2.42 | 0.57464 | 1.195 | 951013.0 | 0.237455 | Y |
| 6 | IC 200-173158/7 | 9.68 | 2.120102 | 1.195 | 965476.0 | 0.219019 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

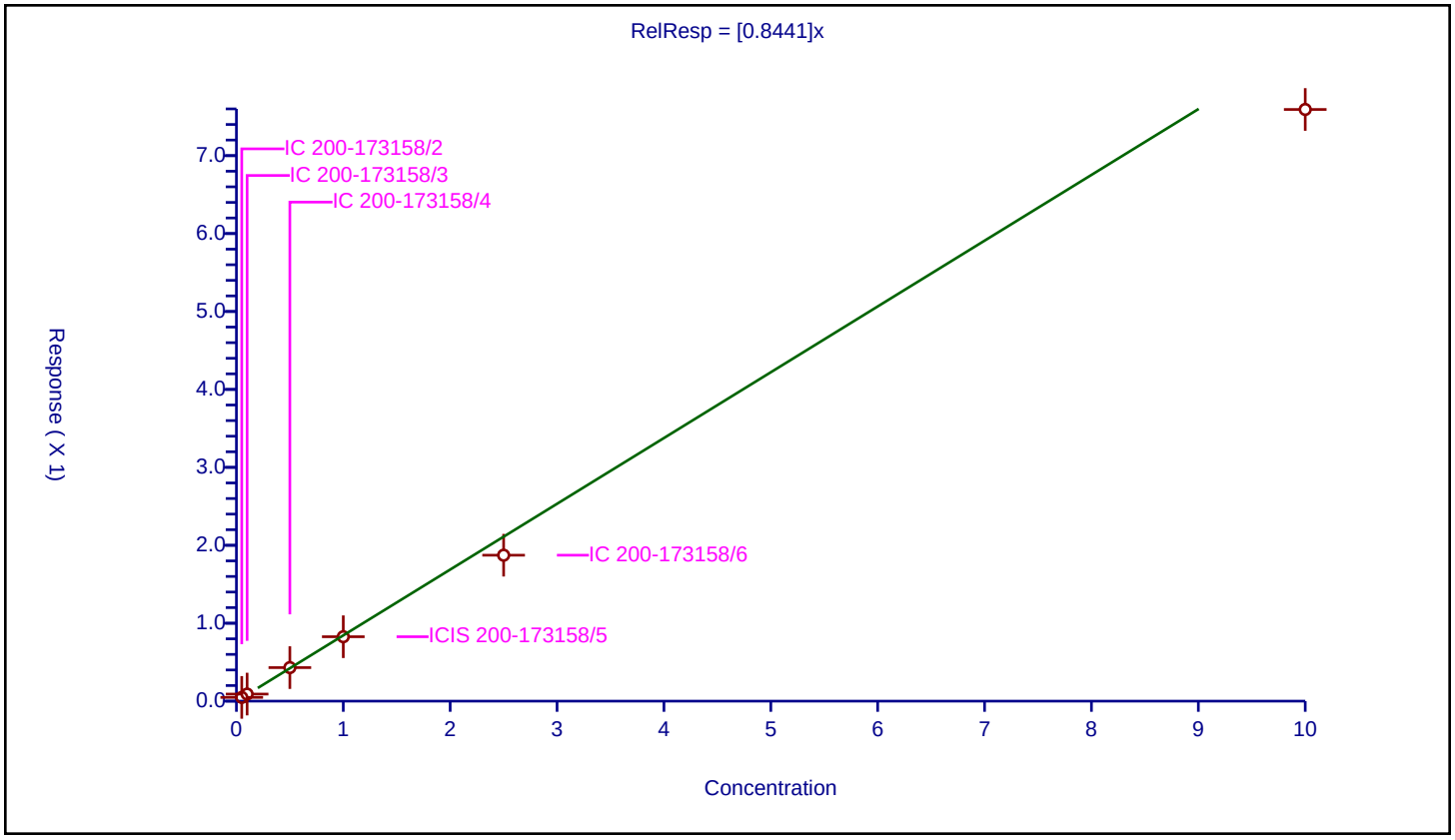
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8441 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4080000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.048029 | 1.25 | 1427497.0 | 0.96058 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.090834 | 1.25 | 1722128.0 | 0.908338 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.430447 | 1.25 | 1443504.0 | 0.860895 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.826487 | 1.25 | 1756299.0 | 0.826487 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.872621 | 1.25 | 1536568.0 | 0.749049 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.592611 | 1.25 | 1439938.0 | 0.759261 | Y |



## Calibration / Perfluorotetradecanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

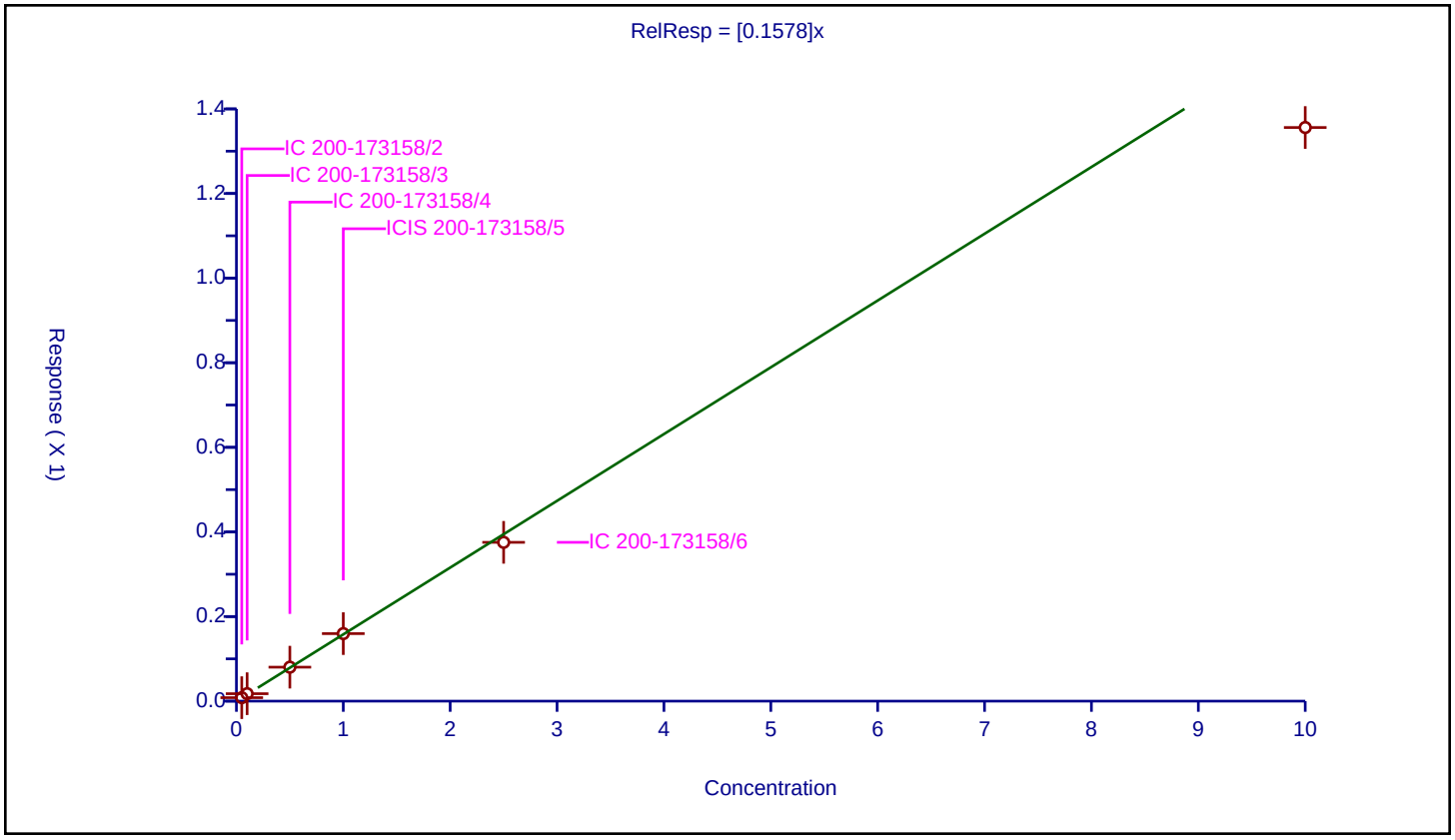
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1578 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 581000 |
| **Relative Standard Error:** | 8.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.008241 | 1.25 | 1128642.0 | 0.164822 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.01762 | 1.25 | 1335021.0 | 0.176196 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.080285 | 1.25 | 1151594.0 | 0.160571 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.159624 | 1.25 | 1364943.0 | 0.159624 | Y |
| 5 | IC 200-173158/6 | 2.5 | 0.375378 | 1.25 | 1108790.0 | 0.150151 | Y |
| 6 | IC 200-173158/7 | 10.0 | 1.355964 | 1.25 | 1144458.0 | 0.135596 | Y |



## Calibration / Perfluorohexadecanoic acid

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

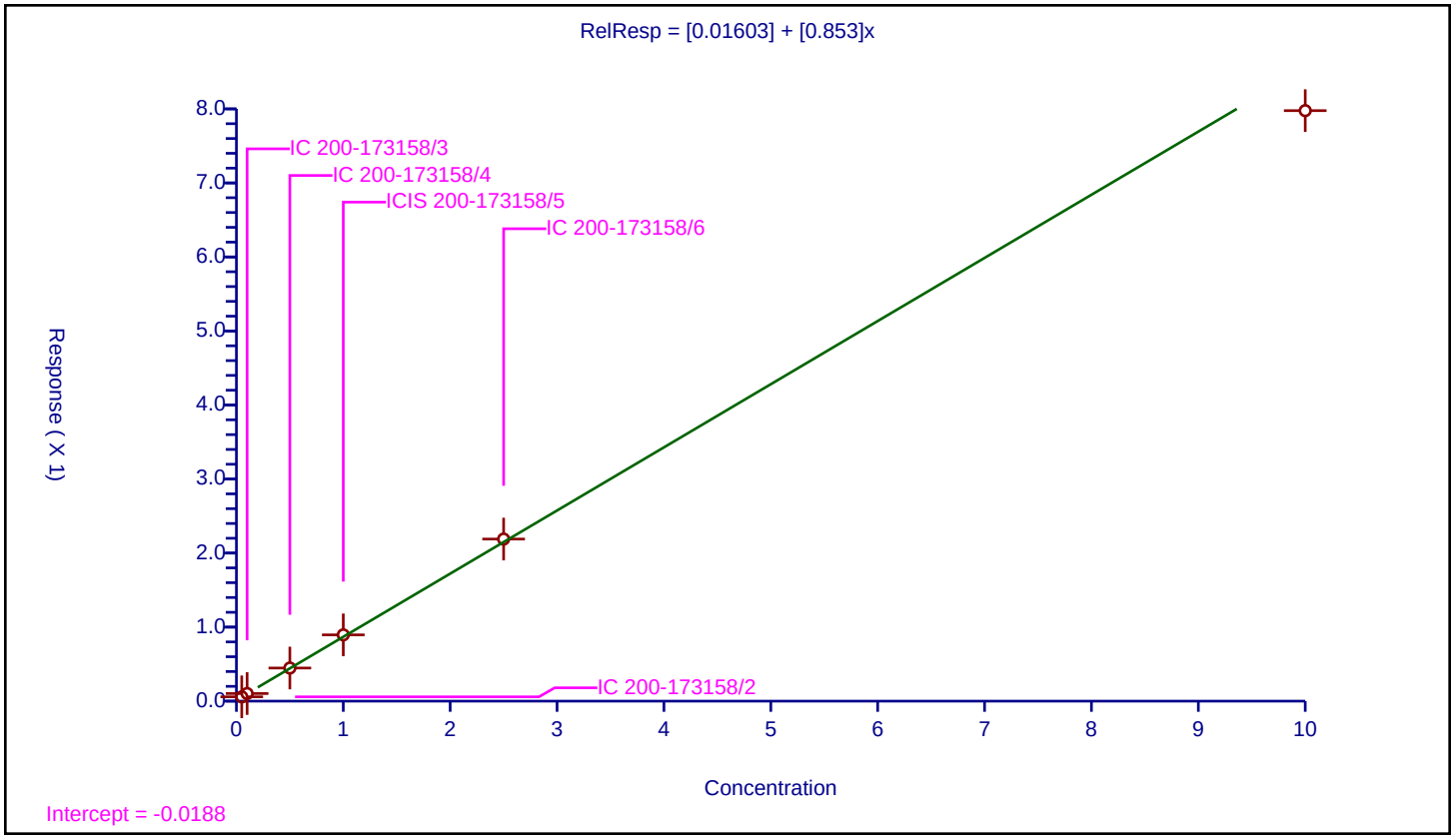
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.01603 |
| **Slope:** | 0.853 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3280000 |
| **Relative Standard Error:** | 4.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.058211 | 1.25 | 1007270.0 | 1.164211 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.102722 | 1.25 | 1197224.0 | 1.02722 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.447413 | 1.25 | 1005731.0 | 0.894827 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.895294 | 1.25 | 1215023.0 | 0.895294 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.189338 | 1.25 | 968779.0 | 0.875735 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.976081 | 1.25 | 982482.0 | 0.797608 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

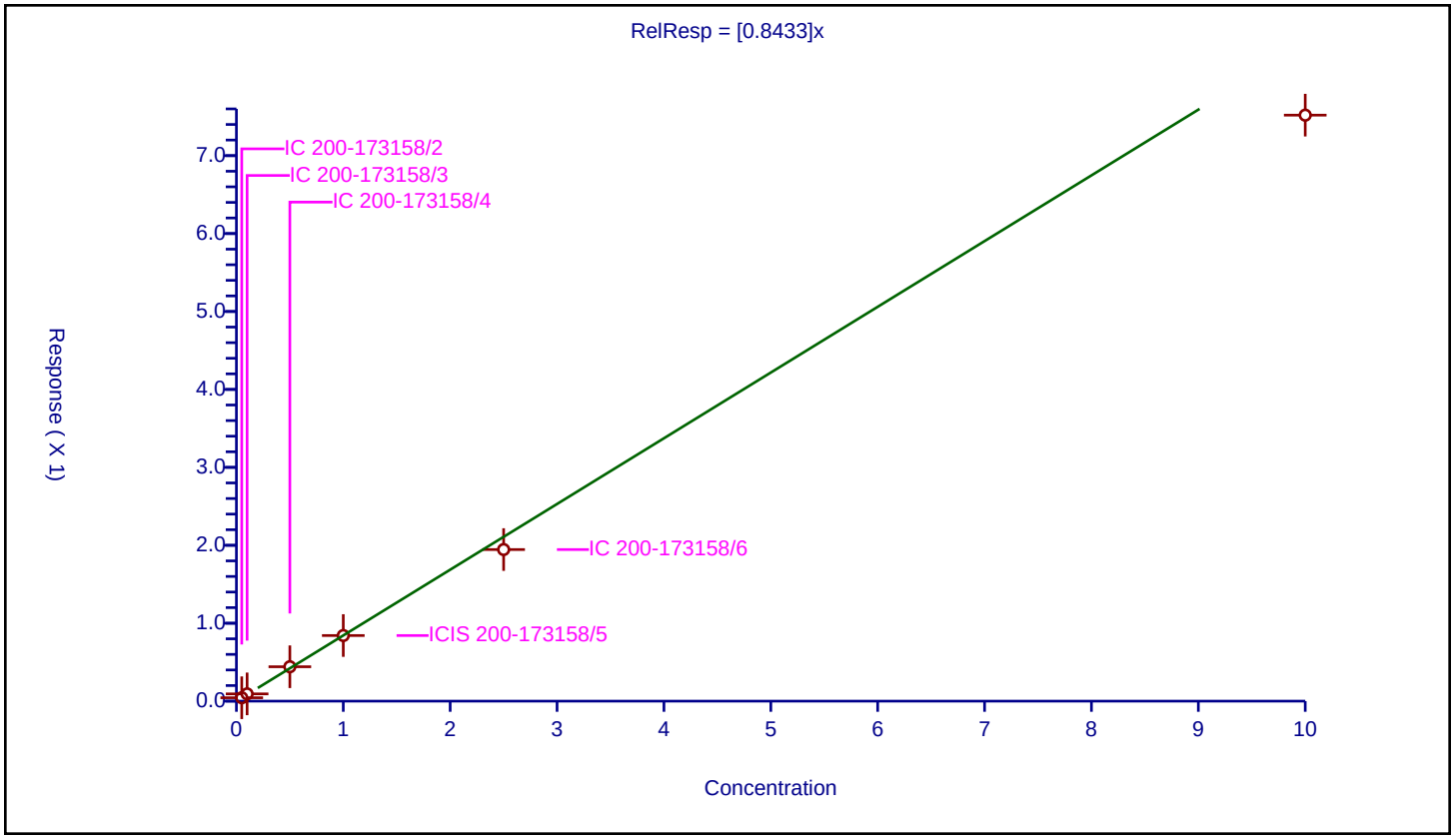
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8433 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2760000 |
| **Relative Standard Error:** | 8.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.043629 | 1.25 | 1007270.0 | 0.872581 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.093246 | 1.25 | 1197224.0 | 0.932459 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.441542 | 1.25 | 1005731.0 | 0.883084 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.841854 | 1.25 | 1215023.0 | 0.841854 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.945102 | 1.25 | 968779.0 | 0.778041 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.519537 | 1.25 | 982482.0 | 0.751954 | Y |



FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: ICV 200-173158/9  Calibration Date: 10/27/2021 14:44

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211027ICAL09.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9934 | | 1.05 | 1.00 | 5.1 | 30.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.057 | | 1.07 | 1.01 | 5.6 | 30.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.041 | | 0.974 | 1.00 | -2.6 | 30.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.100 | | 0.986 | 1.00 | -1.4 | 30.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.024 | | 1.02 | 1.01 | 1.0 | 30.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.239 | | 1.03 | 1.00 | 2.9 | 30.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.137 | | 0.910 | 1.01 | -8.6 | 30.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9701 | | 0.939 | 1.00 | -6.1 | 30.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.096 | | 1.01 | 1.01 | -0.3 | 30.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.617 | | 1.03 | 1.00 | 3.3 | 30.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.288 | | 1.02 | 1.00 | 1.6 | 30.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.245 | | 0.999 | 1.00 | -0.1 | 30.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.060 | | 0.996 | 1.00 | -0.4 | 30.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9529 | | 0.887 | 1.01 | -12.2 | 30.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.054 | | 1.08 | 1.00 | 7.8 | 30.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.616 | | 0.989 | 1.00 | -1.1 | 30.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8435 | | 1.01 | 1.01 | -0.2 | 30.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.010 | | 1.01 | 1.00 | 0.5 | 30.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.8345 | | 1.01 | 1.01 | -0.3 | 30.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9175 | | 0.966 | 1.00 | -3.4 | 30.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8584 | | 1.09 | 1.00 | 9.3 | 30.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6464 | | 0.993 | 1.01 | -1.6 | 30.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.029 | | 0.965 | 1.00 | -3.5 | 30.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.9272 | | 1.08 | 1.00 | 8.2 | 30.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.971 | | 1.02 | 1.00 | 2.1 | 30.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.8783 | | 0.897 | 1.00 | -10.3 | 30.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4394 | | 1.10 | 0.964 | 13.7 | 30.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2574 | | 1.03 | 0.968 | 6.5 | 30.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: ICV 200-173158/9  Calibration Date: 10/27/2021 14:44

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211027ICAL09.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7128 | | 0.844 | 1.00 | -15.6 | 30.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1550 | | 0.982 | 1.00 | -1.8 | 30.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8996 | | 1.04 | 1.00 | 3.6 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7314 | | 0.867 | 1.00 | -13.3 | 30.0 |
| 13C4 PFBA | Ave | 1.012 | 0.8260 | | 1.02 | 1.25 | -18.4 | 50.0 |
| 13C5 PFPeA | Ave | 0.8527 | 0.6847 | | 1.00 | 1.25 | -19.7 | 50.0 |
| 13C3 PFBS | Ave | 1.154 | 0.9238 | | 0.931 | 1.16 | -19.9 | 50.0 |
| M2-4:2 FTS | Ave | 0.0879 | 0.0723 | | 0.960 | 1.17 | -17.8 | 50.0 |
| 13C2 PFHxA | Ave | 0.8946 | 0.7451 | | 1.04 | 1.25 | -16.7 | 50.0 |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0200 | | 1.06 | 1.25 | -15.1 | 50.0 |
| 13C4 PFHpA | Ave | 0.9417 | 0.7903 | | 1.05 | 1.25 | -16.1 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.6868 | | 0.969 | 1.18 | -18.1 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1088 | | 0.977 | 1.19 | -17.7 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 0.8588 | | 1.04 | 1.25 | -16.5 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.4991 | | 0.985 | 1.20 | -17.6 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.8490 | | 1.04 | 1.25 | -17.2 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.8504 | | 1.03 | 1.25 | -17.8 | 50.0 |
| M2-8:2 FTS | Ave | 0.1498 | 0.1249 | | 0.998 | 1.20 | -16.7 | 50.0 |
| 13C8 FOSA | Ave | 0.998 | 0.8263 | | 1.04 | 1.25 | -17.2 | 50.0 |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0837 | | 1.03 | 1.25 | -17.7 | 50.0 |
| 13C2 PFUnA | Ave | 0.8062 | 0.6579 | | 1.02 | 1.25 | -18.4 | 50.0 |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0752 | | 0.987 | 1.25 | -21.1 | 50.0 |
| 13C2 PFDoA | Ave | 0.8672 | 0.7415 | | 1.07 | 1.25 | -14.5 | 50.0 |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5727 | | 1.06 | 1.25 | -14.8 | 50.0 |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5100 | | 1.08 | 1.25 | -13.9 | 50.0 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 27-Oct-2021 14:44:15 ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 200-0048181-009 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist:

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:06:39 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 16:05:53
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 2138431 | 1.02 | | 81.6 | 5987 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 1699523 | 1.05 | | | 137 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1772461 | 1.00 | | 80.3 | 2774 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 1514450 | 1.07 | | | 87.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 2224203 | 0.9308 | | 80.1 | 315649 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 1991363 | 0.9745 | Target=2.32 | | 1583 | |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 897423 | | 2.22(1.16-3.48) | | 306 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.722 | 2.720 | 0.002 | 0.781 | 174749 | 0.9595 | | 82.2 | 141 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.722 | 2.720 | 0.002 | 1.000 | 314283 | 0.9865 | | | 2061 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 1596681 | 1.02 | Target=12.09 | | 204 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 127959 | | 12.48(6.04-18.13) | | 152 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1928974 | 1.04 | | 83.3 | 3054 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 1762517 | 1.03 | Target=3.03 | | 1425 | M |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 586066 | | 3.01(1.52-4.55) | | 537 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.865 | 0.015 | 0.827 | 51797 | 1.06 | | 84.9 | 316 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.868 | 2.865 | 0.003 | 0.996 | 173128 | 0.9096 | | | 46.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.899 | 1682073 | 0.9689 | | 81.9 | 3065 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 1574569 | 1.01 | Target=3.55 | | 1319 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 420396 | | 3.75(1.77-5.32) | | 348 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1587824 | 0.9389 | Target=3.69 | | 383 | M |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 437838 | | 3.63(1.84-5.53) | | 746 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 2045905 | 1.05 | | 83.9 | 4587 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 3738319 | 1.03 | Target=2.56 | | 2012 | M |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 1445979 | | 2.59(1.28-3.84) | | 1153 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1287103 | 1.00 | Target=4.88 | | 1906 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 265262 | | 4.85(2.44-7.32) | | 658 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 267508 | 0.9771 | | 82.3 | 483 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 290233 | 1.02 | | | 1330 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 2223267 | 1.04 | | 83.5 | 5026 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 2588794 | 1.25 | | | 3620 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.003 | 1884671 | 1.00 | Target=2.68 | | 294 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 702627 | | 2.68(1.34-4.02) | | 775 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 1235127 | 0.9845 | | 82.4 | 2650 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 994741 | 0.8870 | Target=4.69 | | 755 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 215714 | | 4.61(2.35-7.04) | | 445 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 2198000 | 1.04 | | 82.8 | 6558 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1854225 | 1.08 | Target=7.29 | | 346 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 240141 | | 7.72(3.64-10.93) | | 1081 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.955 | 3.955 | 0.0 | 1.042 | 1670588 | 0.9888 | | | 3297 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 880522 | 1.01 | Target=2.35 | | 2199 | |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 364004 | | 2.42(1.17-3.52) | | 758 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.178 | 2201536 | 1.03 | | 82.2 | 4027 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 1778491 | 1.00 | Target=8.95 | | 768 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 190807 | | 9.32(4.47-13.42) | | 949 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 309648 | 1.00 | | 83.3 | 919 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 217930 | 1.01 | | | 1719 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.225 | 0.010 | 1.216 | 2139037 | 1.04 | | 82.8 | 4394 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.000 | 1570042 | 0.9661 | | | 2329 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.219 | 216683 | 1.03 | | 82.3 | 715 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 148796 | 1.09 | | | 481 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 674790 | 0.99 | Target=2.47 | | 3121 | |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 269271 | | 2.51(1.23-3.70) | | 1856 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.358 | 0.011 | 1.254 | 1703222 | 1.02 | | 81.6 | 4016 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.358 | 0.011 | 1.000 | 1401937 | 0.9652 | Target=9.24 | | 728 | M |
| 563.00 > 169.00 | 4.369 | 4.358 | 0.011 | 1.000 | 160471 | | 8.74(4.62-13.86) | | 431 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.369 | 0.011 | 1.257 | 194745 | 0.9867 | | 78.9 | 1134 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.000 | 144449 | 1.08 | | | 641 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.456 | 4.445 | 0.011 | 1.174 | 2036695 | 1.02 | | | 3965 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.580 | 0.011 | 1.318 | 1919558 | 1.07 | | 85.5 | 959 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.000 | 1348763 | 0.8971 | Target=7.04 | | 194 | M |
| 613.00 > 169.00 | 4.591 | 4.580 | 0.011 | 1.000 | 210862 | | 6.40(3.52-10.56) | | 1060 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 109540 | 1.10 | | | 1908 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 257568 | 1.03 | Target=0.49 | | 2754 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 511198 | | 0.50(0.25-0.74) | | 3140 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.042 | 1094580 | 0.8444 | Target=4.68 | | 227 | M |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.042 | 252536 | | 4.33(2.34-7.02) | | 492 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.0 | 1.423 | 1482565 | 1.06 | | 85.2 | 3522 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.0 | 1.000 | 183790 | 0.9818 | Target=1.01 | | 886 | M |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.0 | 1.000 | 181784 | | 1.01(0.51-1.52) | | 489 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.270 | 5.258 | 0.012 | 1.513 | 1320258 | 1.08 | | 86.1 | 3049 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.270 | 5.258 | 0.012 | 1.000 | 950197 | 1.04 | Target=4.57 | | 228 | M |
| 813.00 > 169.00 | 5.270 | 5.258 | 0.012 | 1.000 | 196531 | | 4.83(2.29-6.86) | | 1527 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.528 | 5.519 | 0.009 | 1.049 | 772499 | 0.8673 | Target=4.27 | | 317 | M |
| 913.00 > 169.00 | 5.528 | 5.519 | 0.009 | 1.049 | 178495 | | 4.33(2.14-6.41) | | 1263 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

LCPFAS28NCICV_00008 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:06:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d

Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812

Lims ID: ICV

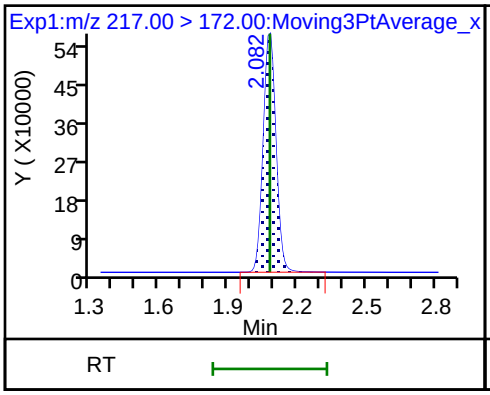
Client ID:

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9

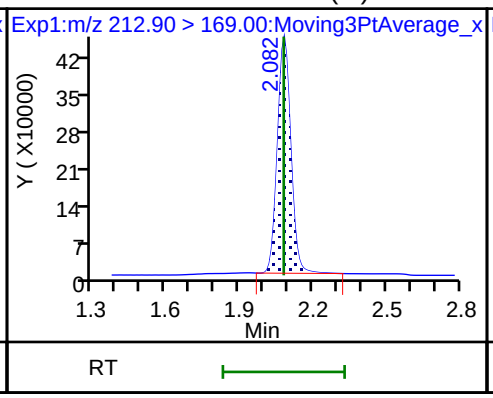
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

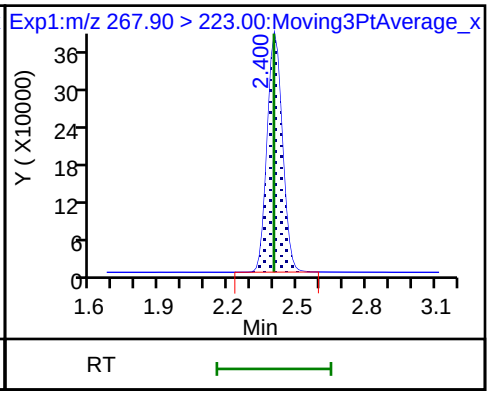
D 1 13C4 PFBA



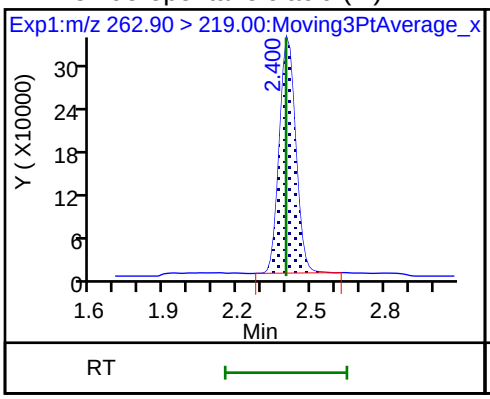

2 Perfluorobutanoic acid (M)



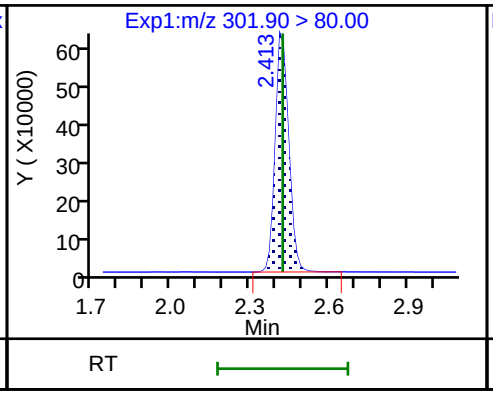

D 3 13C5 PFPeA



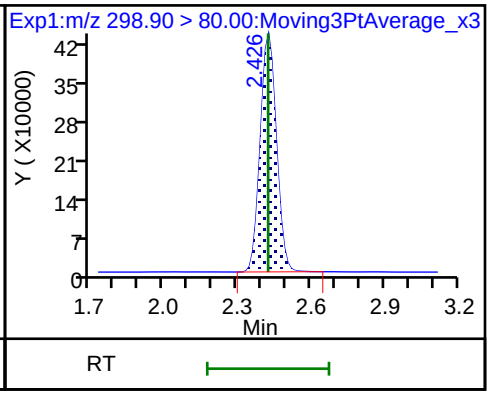

4 Perfluoropentanoic acid (M)



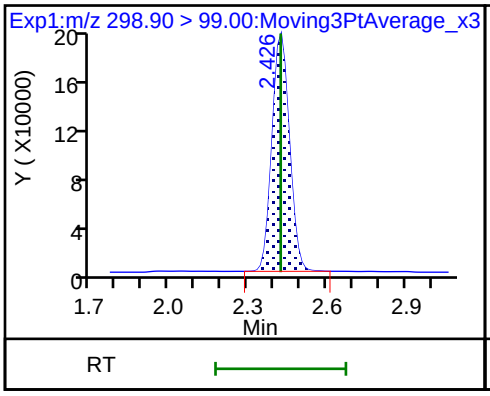

D 47 13C3 PFBS



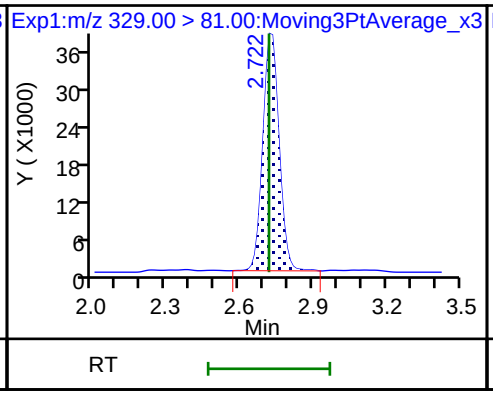

5 Perfluorobutanesulfonic acid



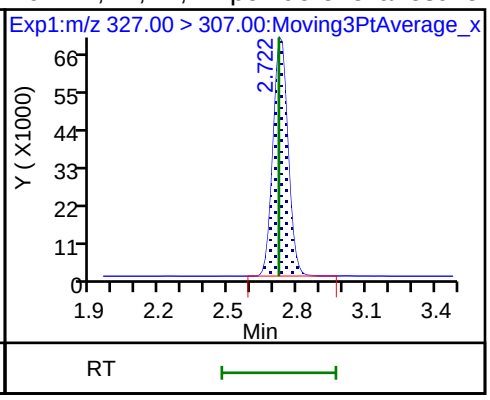

5 Perfluorobutanesulfonic acid



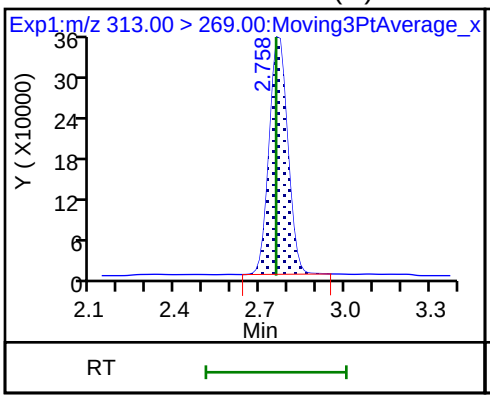

D 60 M2-4:2 FTS



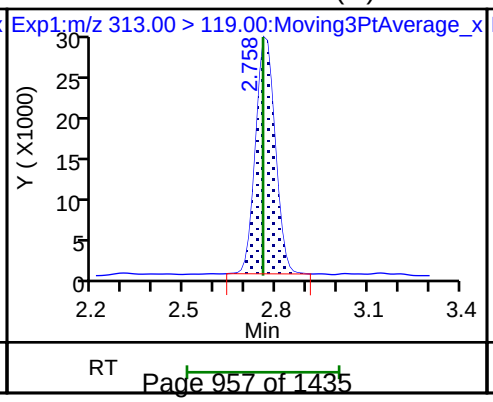

61 1H,1H,2H,2H-perfluorohexanesulfo



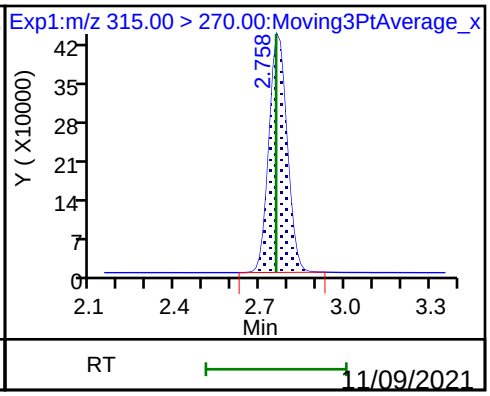

6 Perfluorohexanoic acid (M)



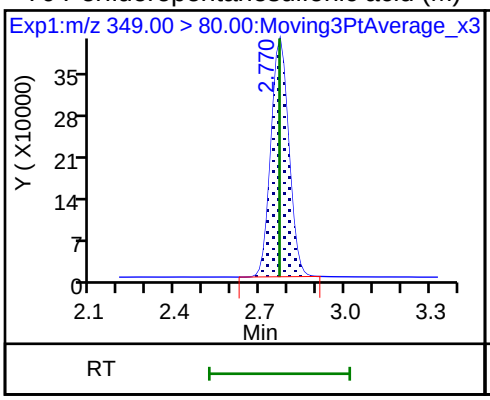

6 Perfluorohexanoic acid (M)



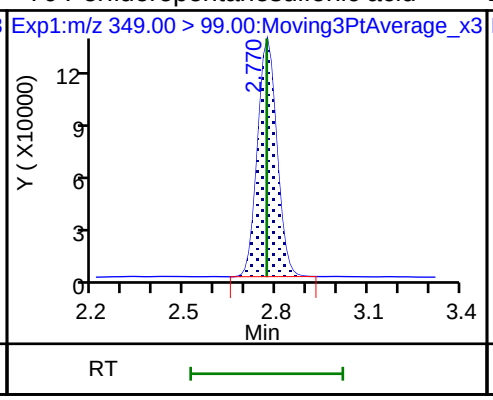

D 7 13C2 PFHxA



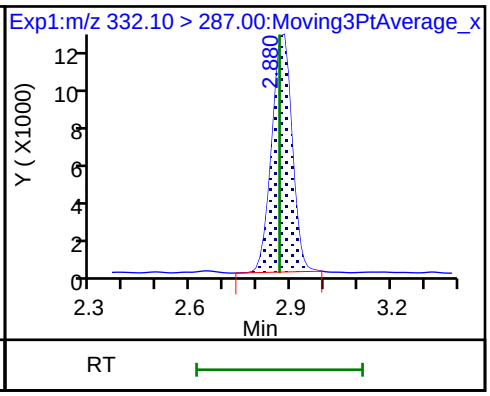
70 Perfluoropentanesulfonic acid (M)



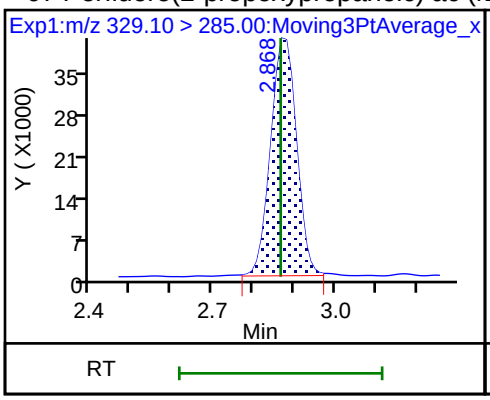

70 Perfluoropentanesulfonic acid



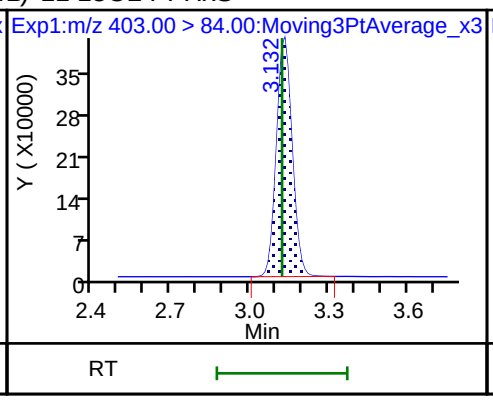

D 64 13C3 HFPO-DA



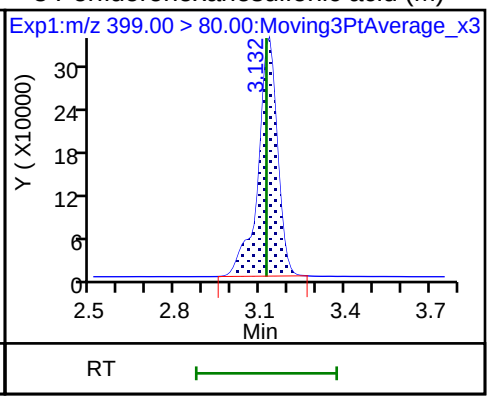

67 Perfluoro(2-propoxypropanoic) ac (M)



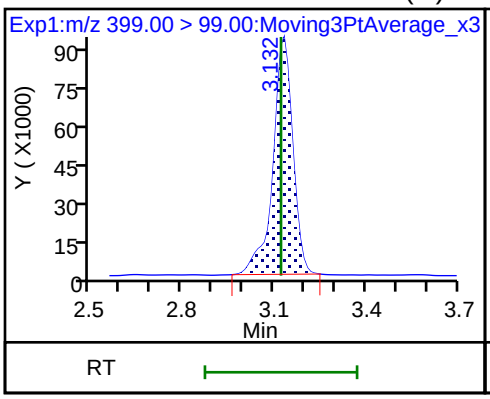

D 11 18O2 PFHxS



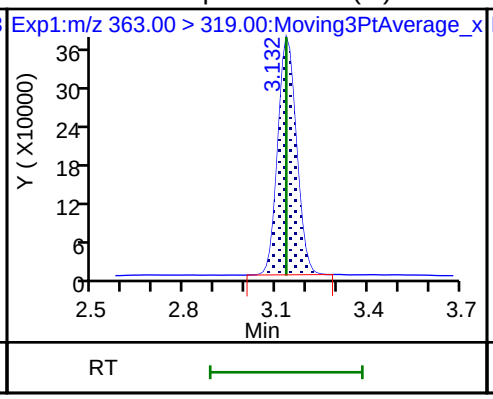

8 Perfluorohexanesulfonic acid (M)



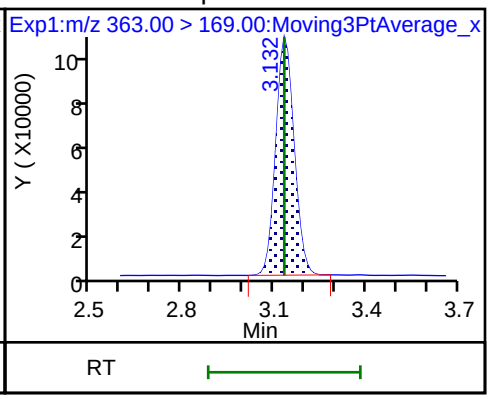

8 Perfluorohexanesulfonic acid (M)



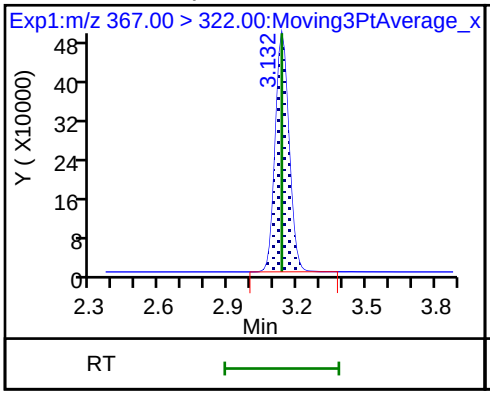

10 Perfluoroheptanoic acid (M)



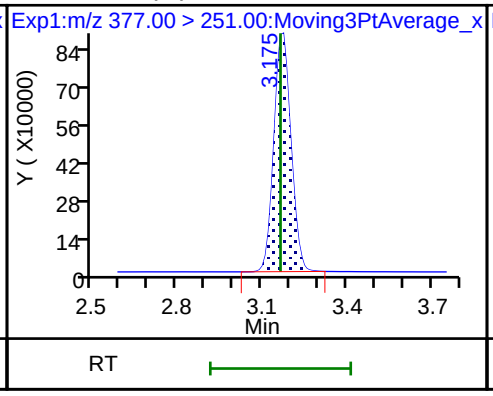

10 Perfluoroheptanoic acid



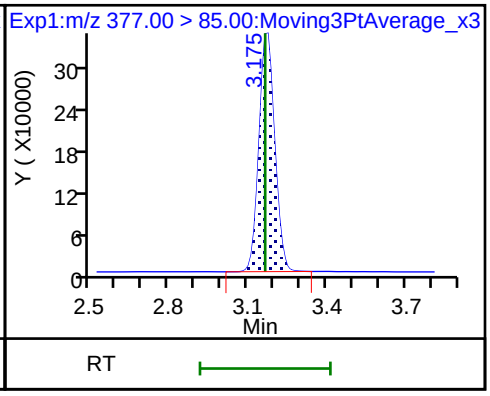

D 9 13C4 PFHpA



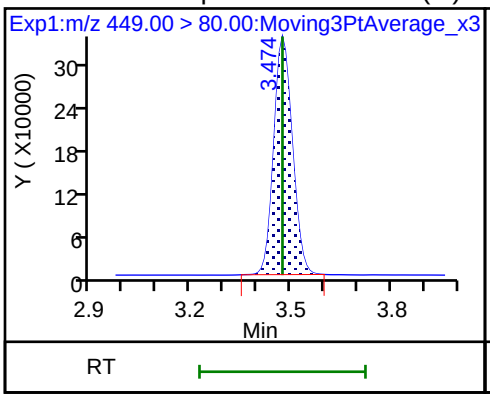

77 DONA (M)



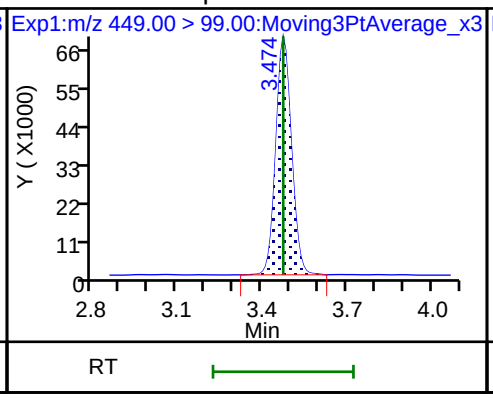

77 DONA



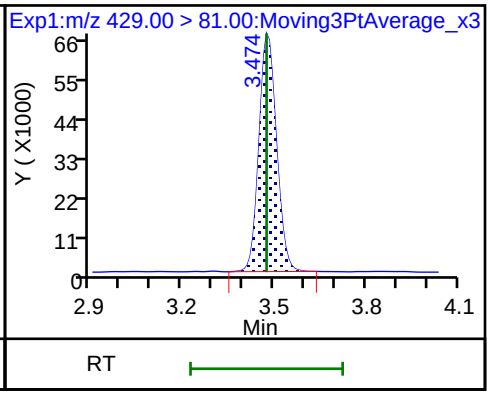
16 Perfluoroheptanesulfonic acid (M)



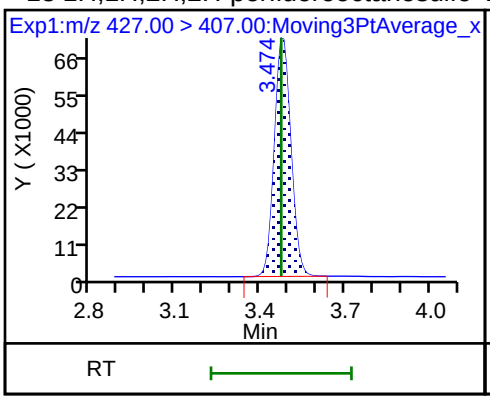

16 Perfluoroheptanesulfonic acid



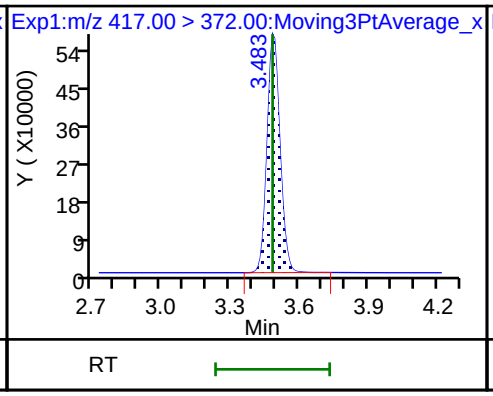

D 12 M2-6:2 FTS



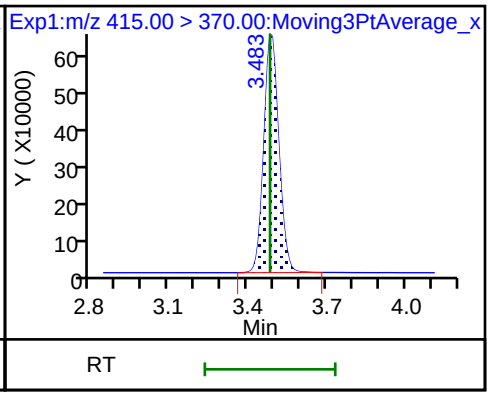

13 1H,1H,2H,2H-perfluorooctanesulfo



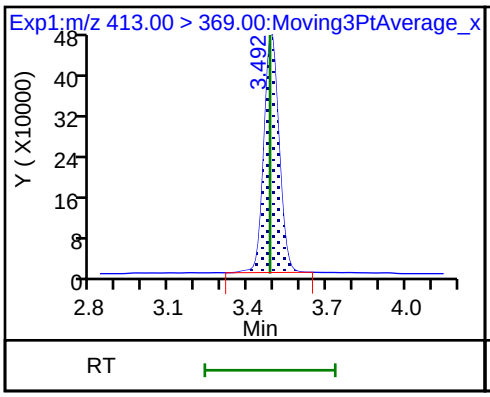

D 14 13C4 PFOA



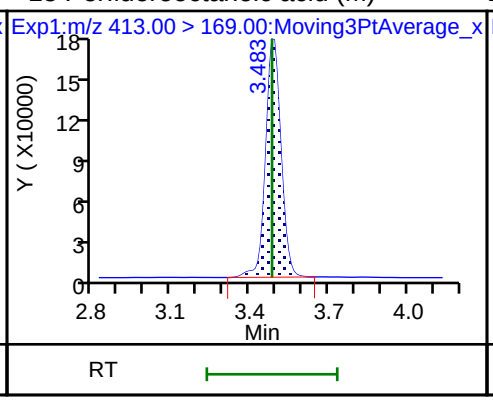

* 62 13C2 PFOA



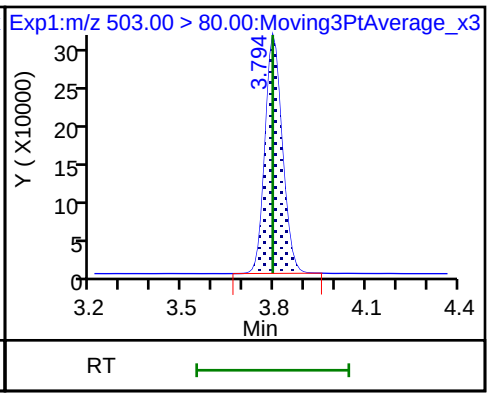

15 Perfluorooctanoic acid



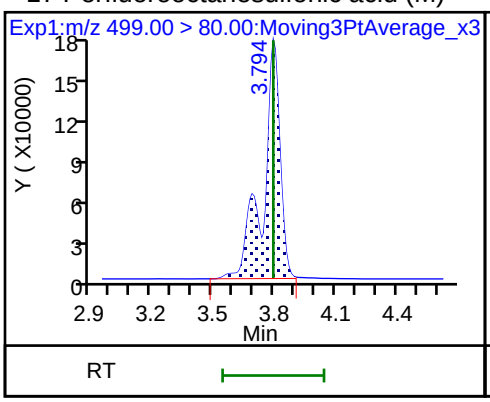

15 Perfluorooctanoic acid (M)



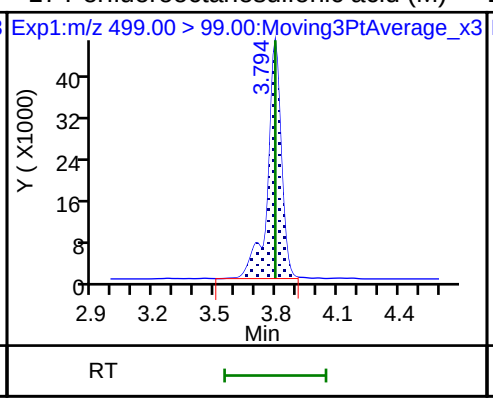

D 18 13C4 PFOS



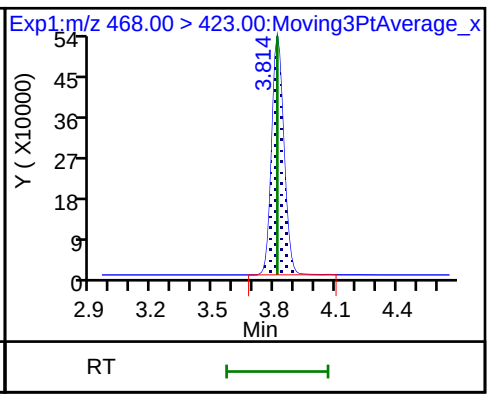

17 Perfluorooctanesulfonic acid (M)



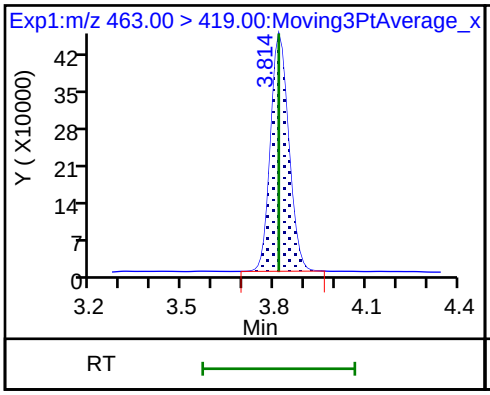

17 Perfluorooctanesulfonic acid (M)



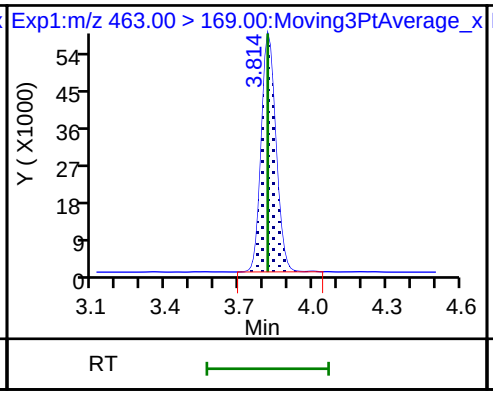

D 19 13C5 PFNA



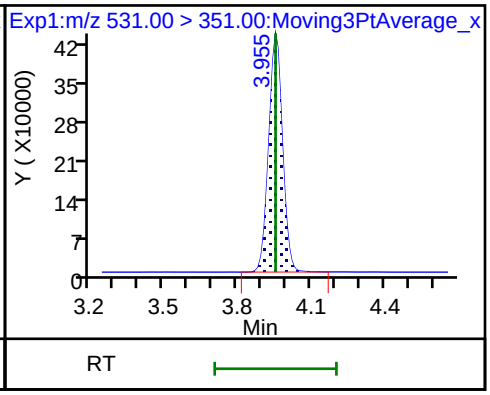
20 Perfluorononanoic acid



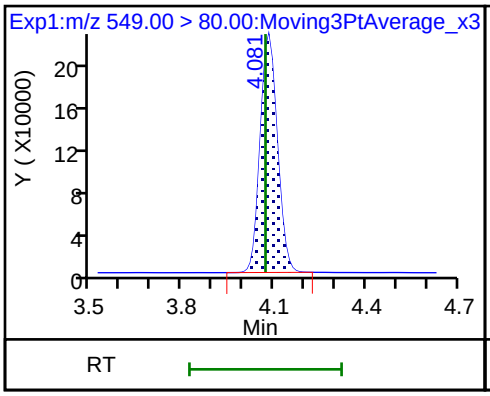

20 Perfluorononanoic acid



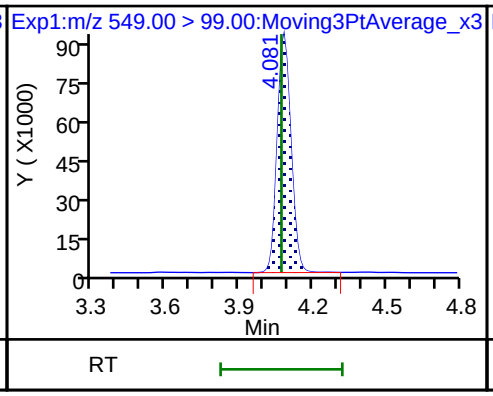

69 9-Chlorohexadecafluoro-3-oxanona



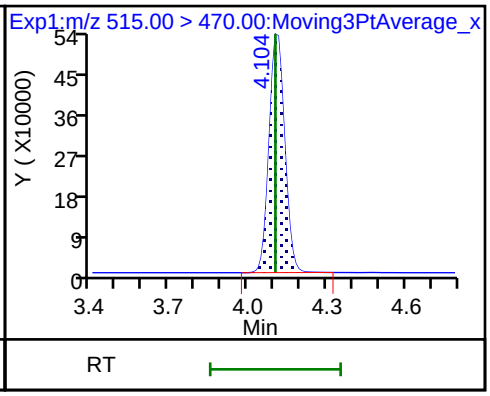

68 Perfluorononanesulfonic acid



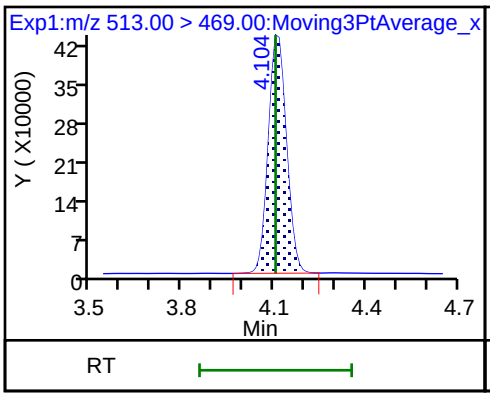

68 Perfluorononanesulfonic acid



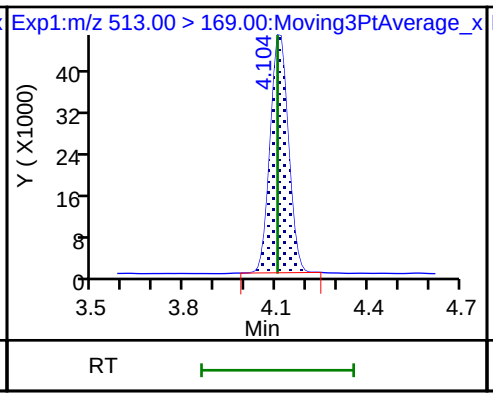

D 23 13C2 PFDA



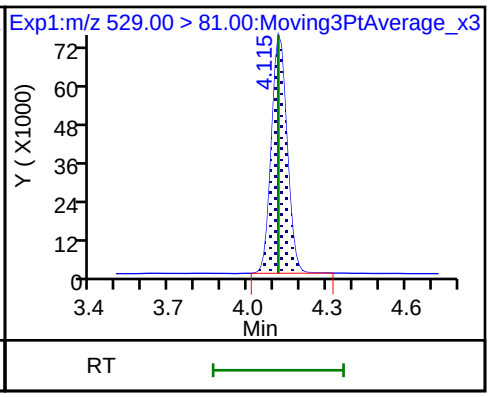

24 Perfluorodecanoic acid



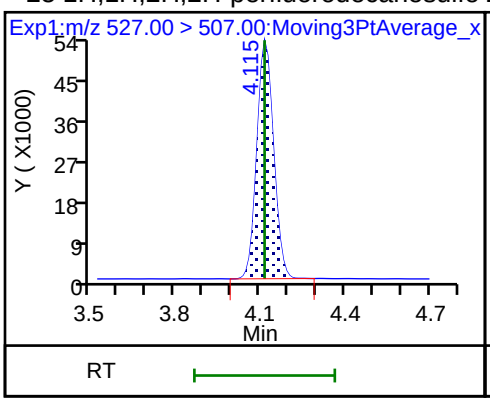

24 Perfluorodecanoic acid



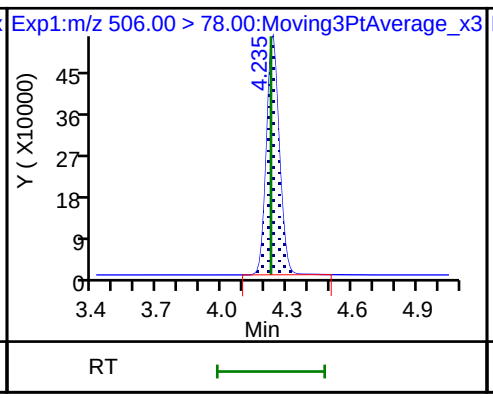

D 26 M2-8:2 FTS



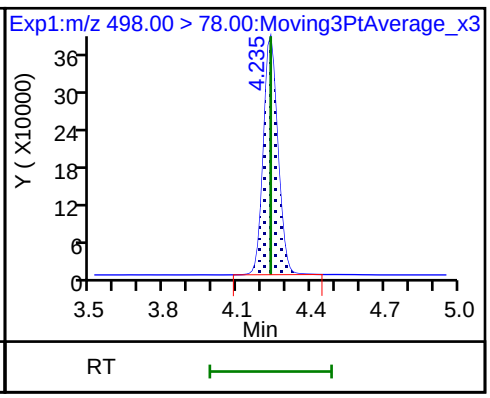

25 1H,1H,2H,2H-perfluorodecanesulfo



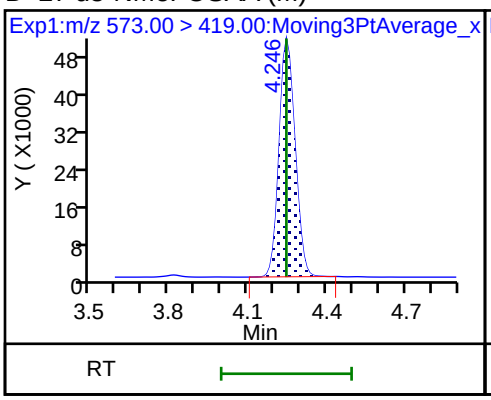

D 21 13C8 FOSA



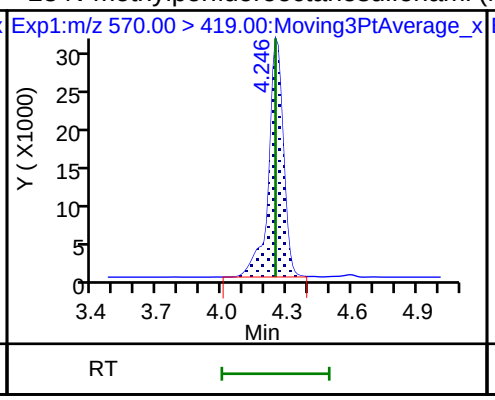

22 Perfluorooctanesulfonamide



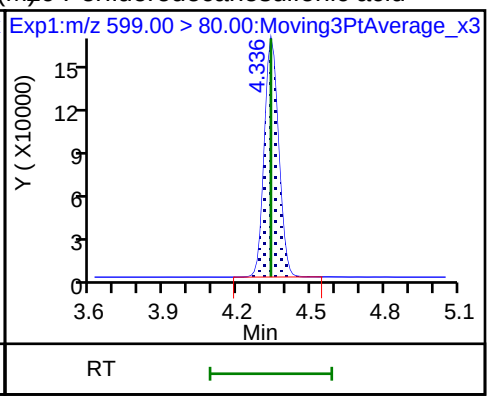
D 27 d3-NMeFOSAA (M)



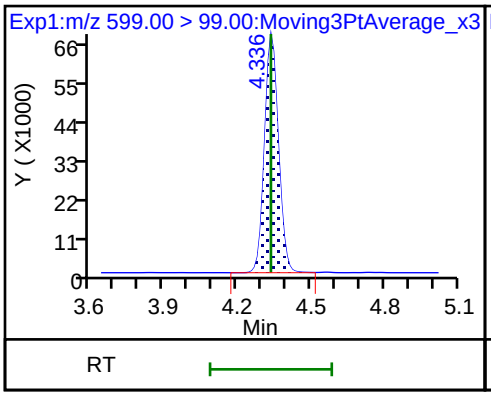

28 N-methylperfluorooctanesulfonami (M)



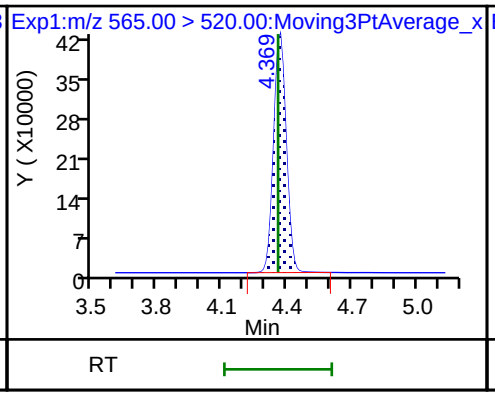

29 Perfluorodecanesulfonic acid



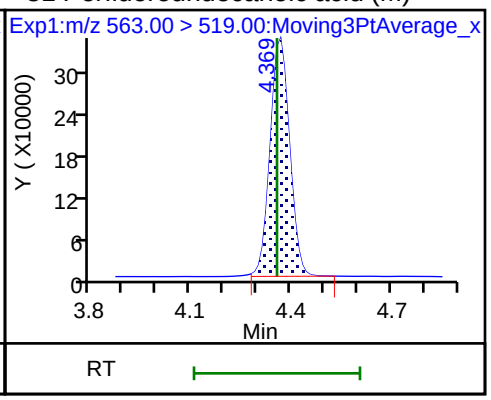

29 Perfluorodecanesulfonic acid



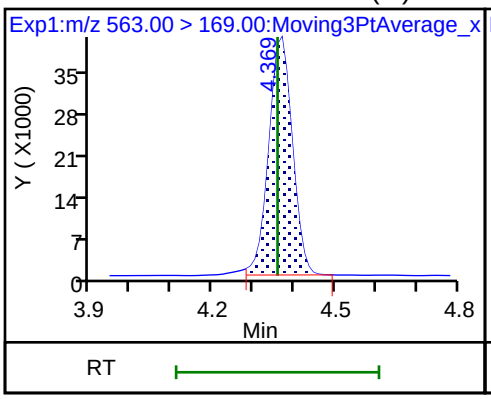

D 30 13C2 PFUnA



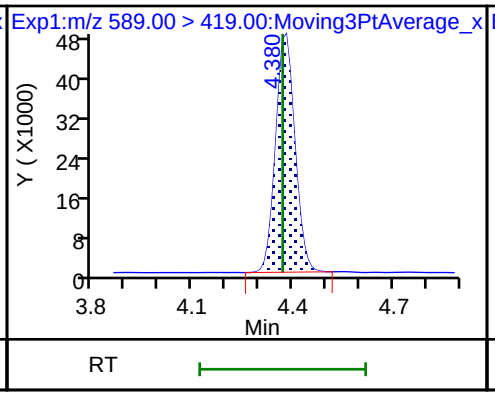

31 Perfluoroundecanoic acid (M)



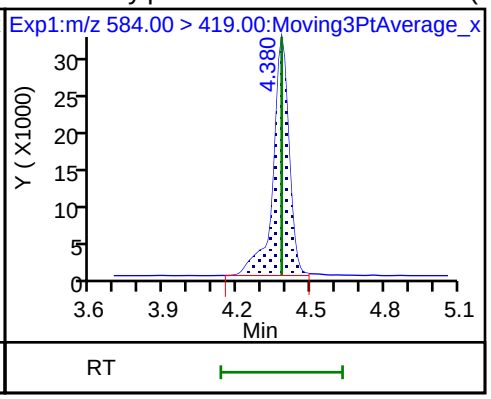

31 Perfluoroundecanoic acid (M)



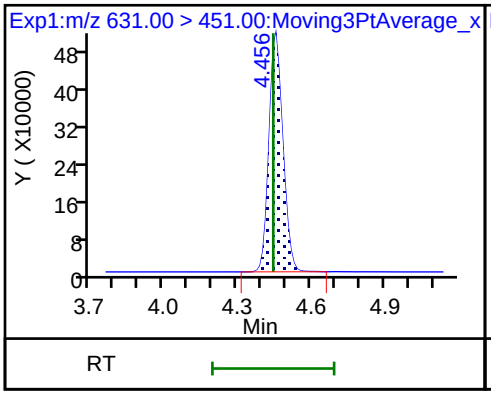

D 32 d5-NEtFOSAA



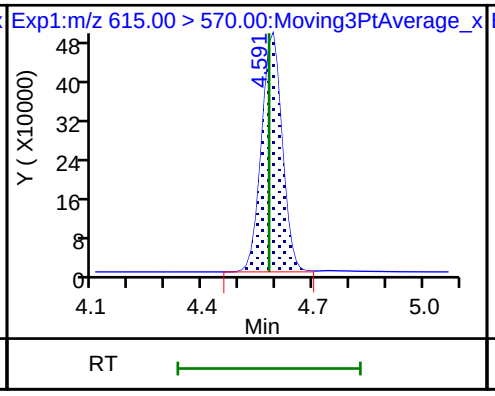

33 N-ethylperfluorooctanesulfonamid (M)



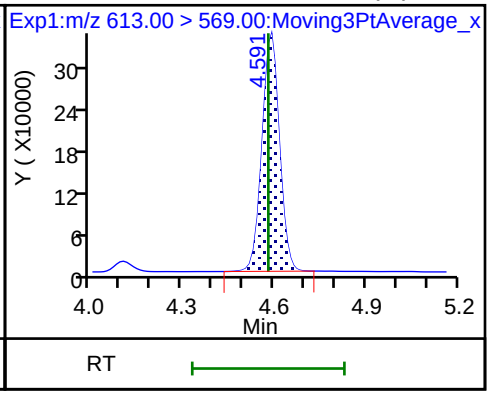

66 11-Chloroeicosafluoro-3-oxaundec



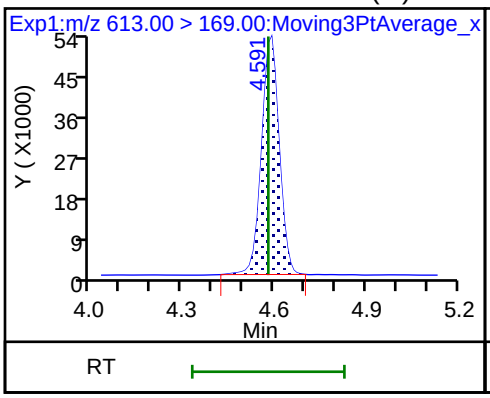

D 36 13C2 PFDoA



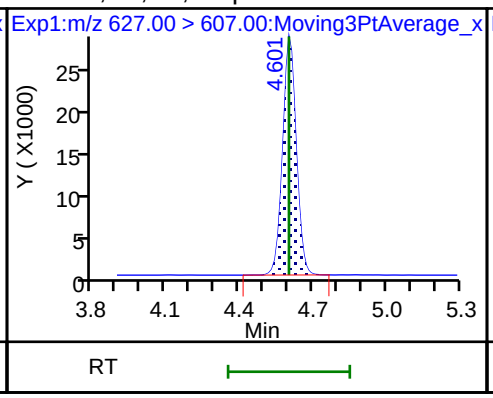

37 Perfluorododecanoic acid (M)



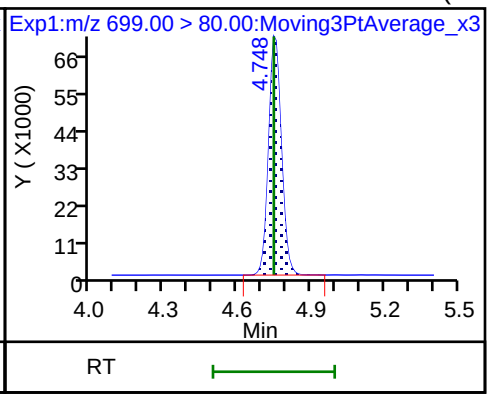
37 Perfluorododecanoic acid (M)



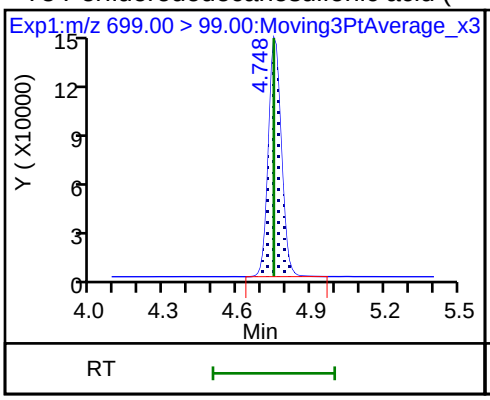

74 1H,1H,2H,2H-perfluorododecanesul



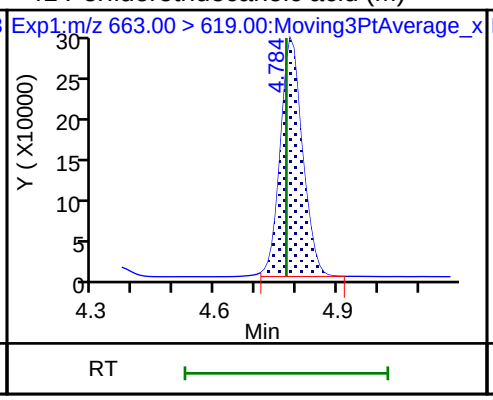

75 Perfluorododecanesulfonic acid (



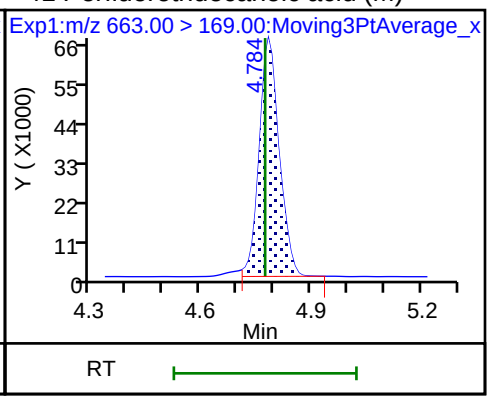

75 Perfluorododecanesulfonic acid (



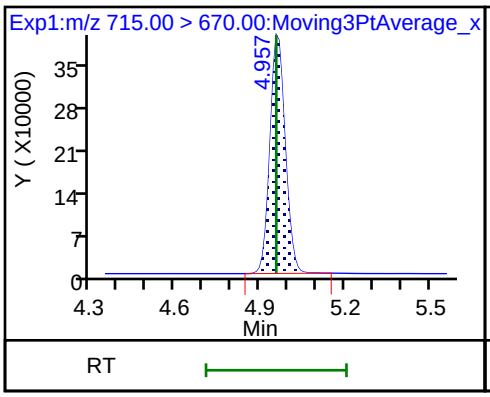

41 Perfluorotridecanoic acid (M)



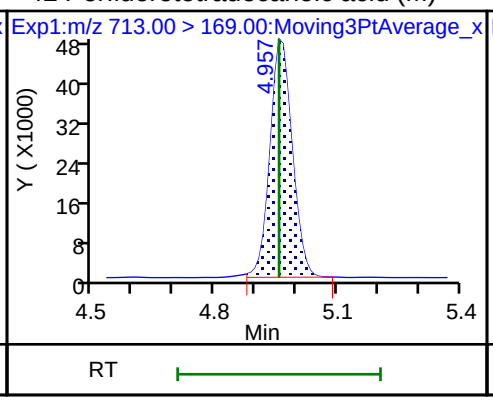

41 Perfluorotridecanoic acid (M)



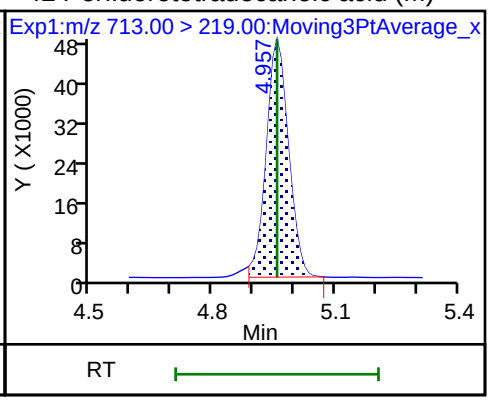

D 43 13C2 PFTeDA



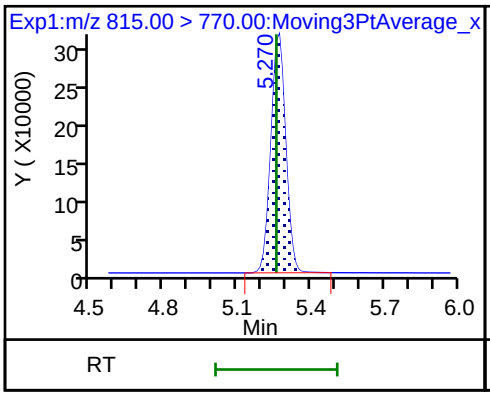

42 Perfluorotetradecanoic acid (M)



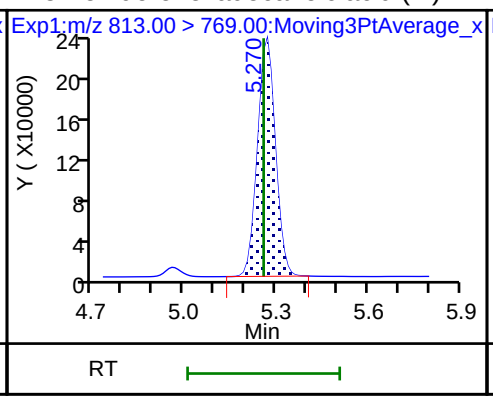

42 Perfluorotetradecanoic acid (M)



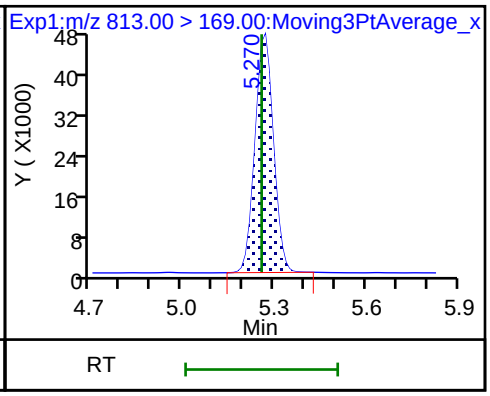

D 44 13C2 PFHxDA



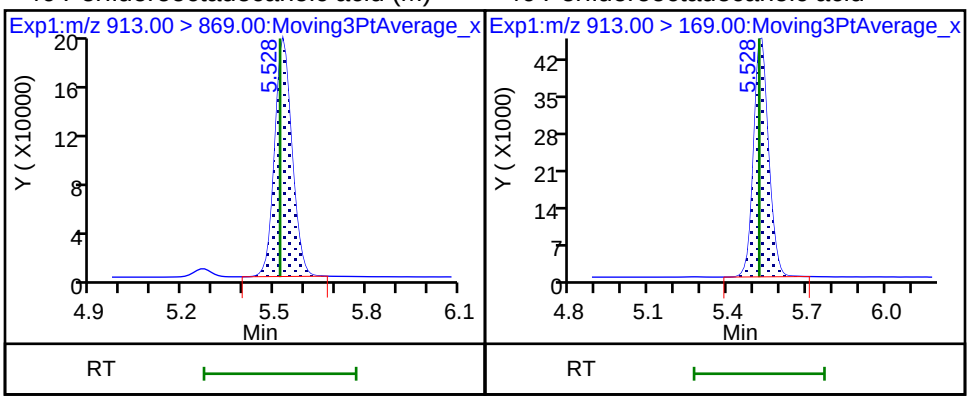

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

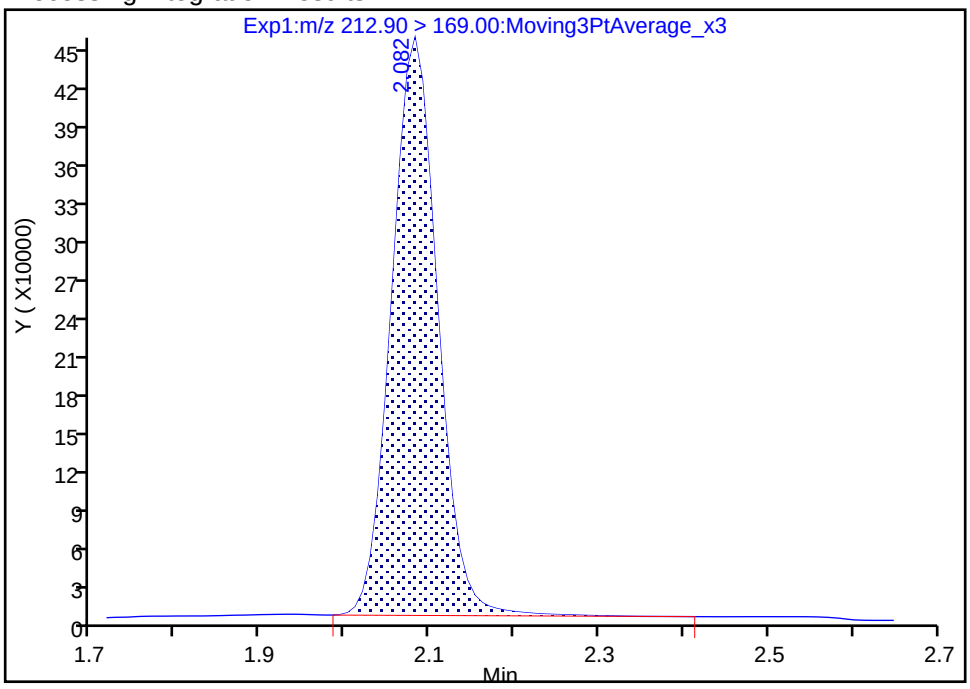
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

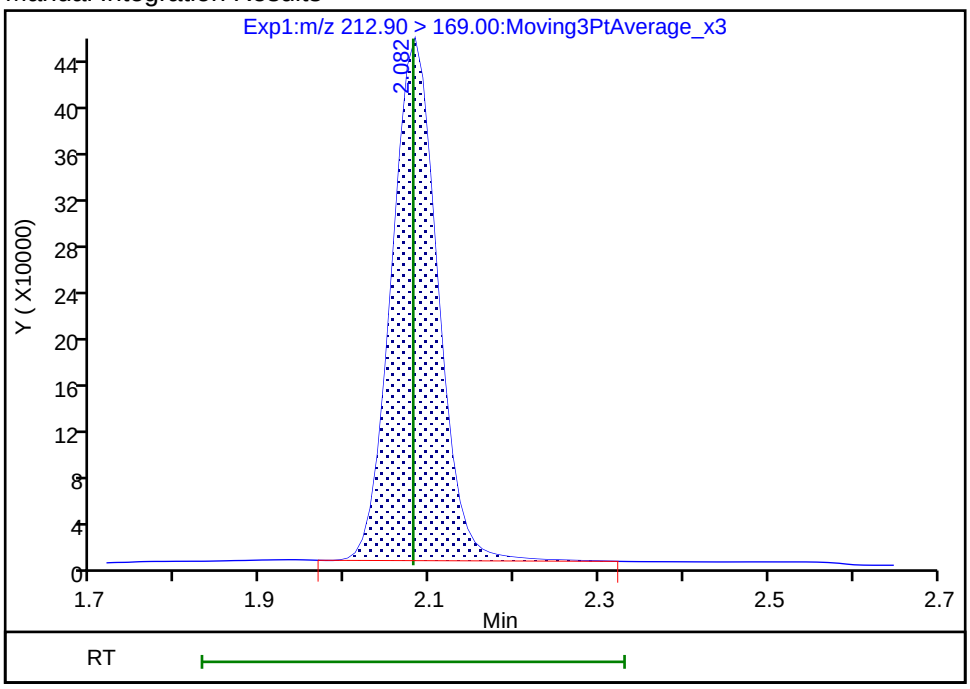
Processing Integration Results

RT: 2.08
Area: 1702417
Amount: 1.052427
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 1699523
Amount: 1.050638
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:00:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

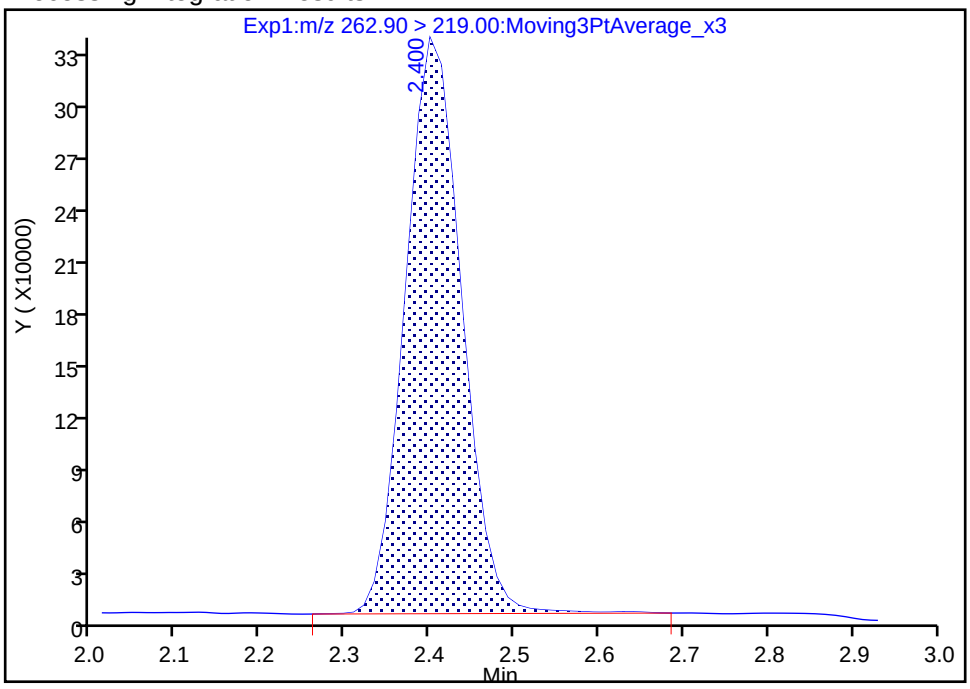
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

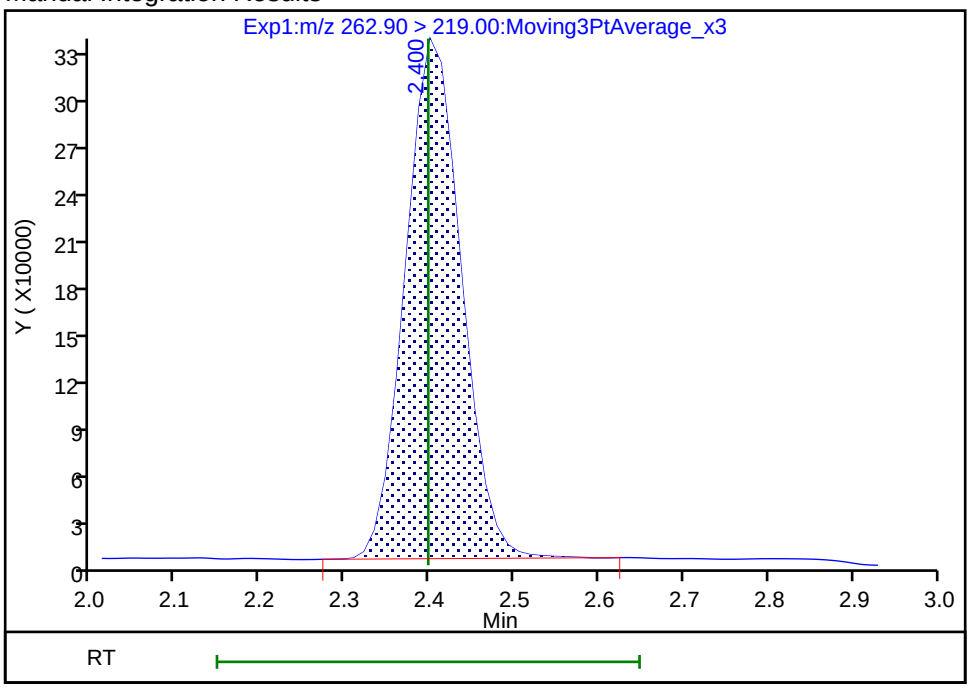
Processing Integration Results

RT: 2.40
Area: 1524900
Amount: 1.073557
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1514450
Amount: 1.066200
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:00:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

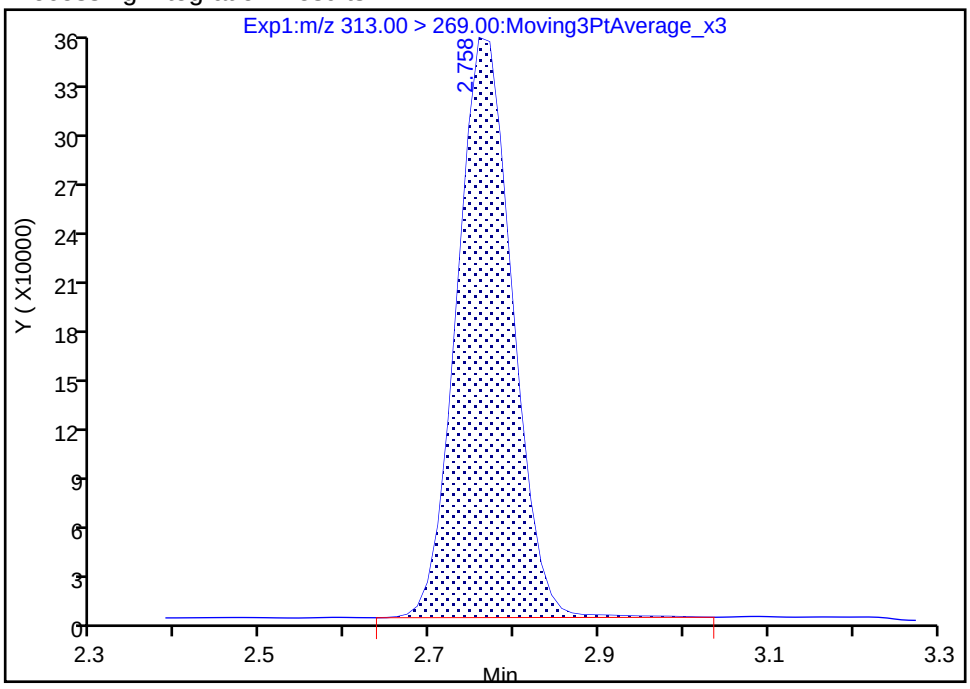
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

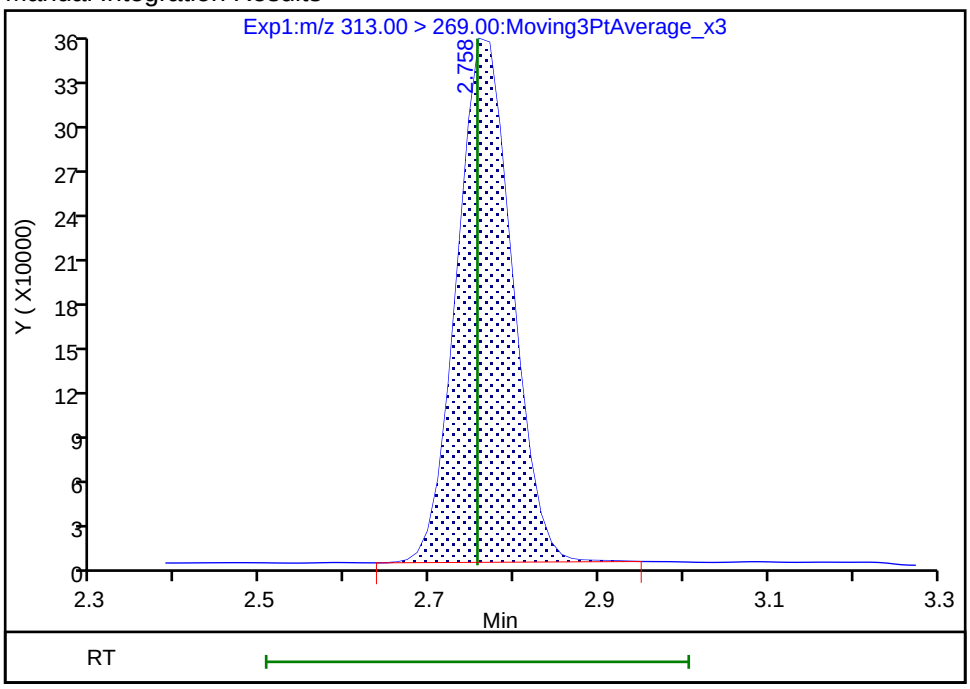
Processing Integration Results

RT: 2.76
Area: 1605293
Amount: 1.025711
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 1596681
Amount: 1.020208
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

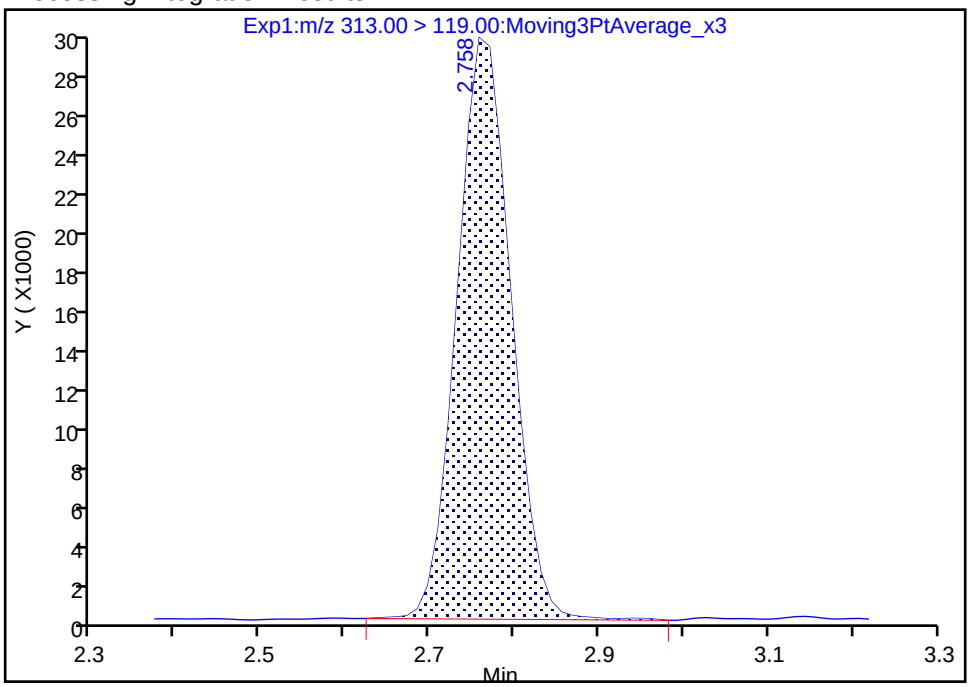
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

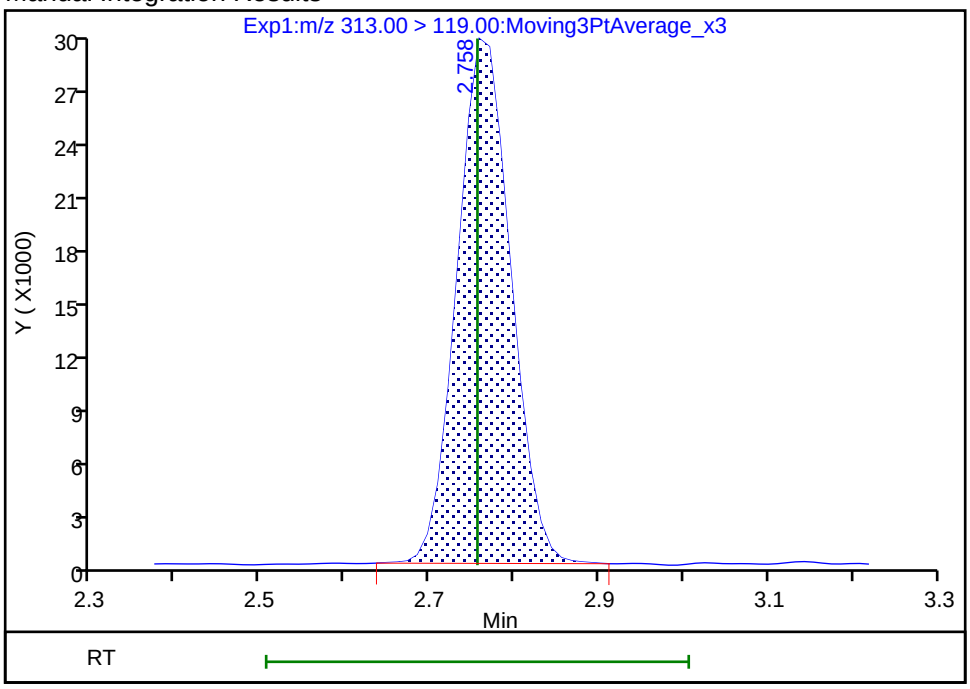
Processing Integration Results

RT: 2.76
Area: 128944
Amount: 1.025711
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 127959
Amount: 1.020208
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

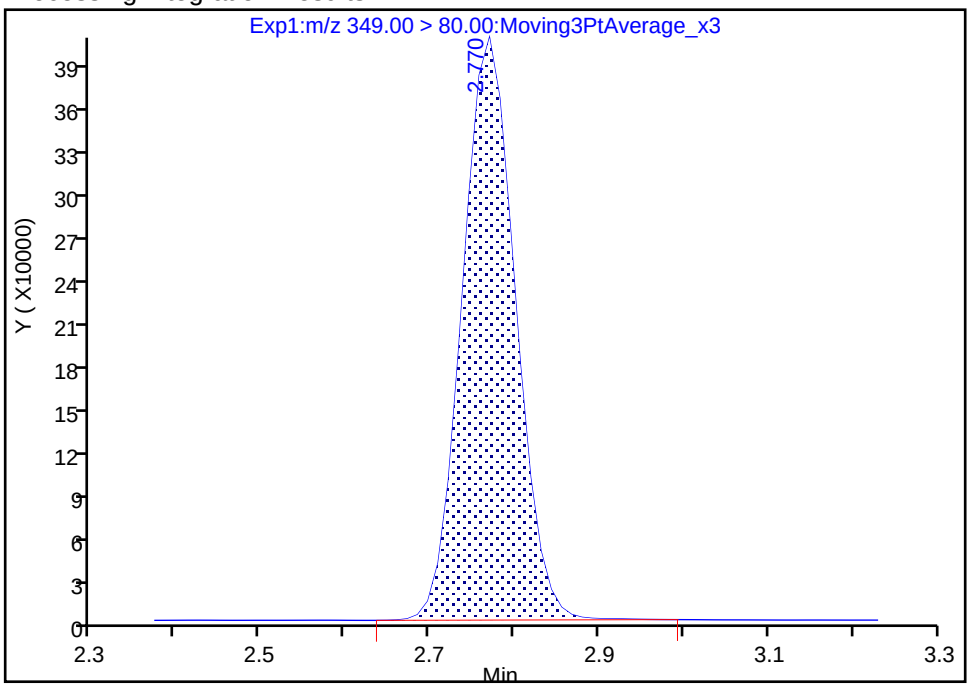
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

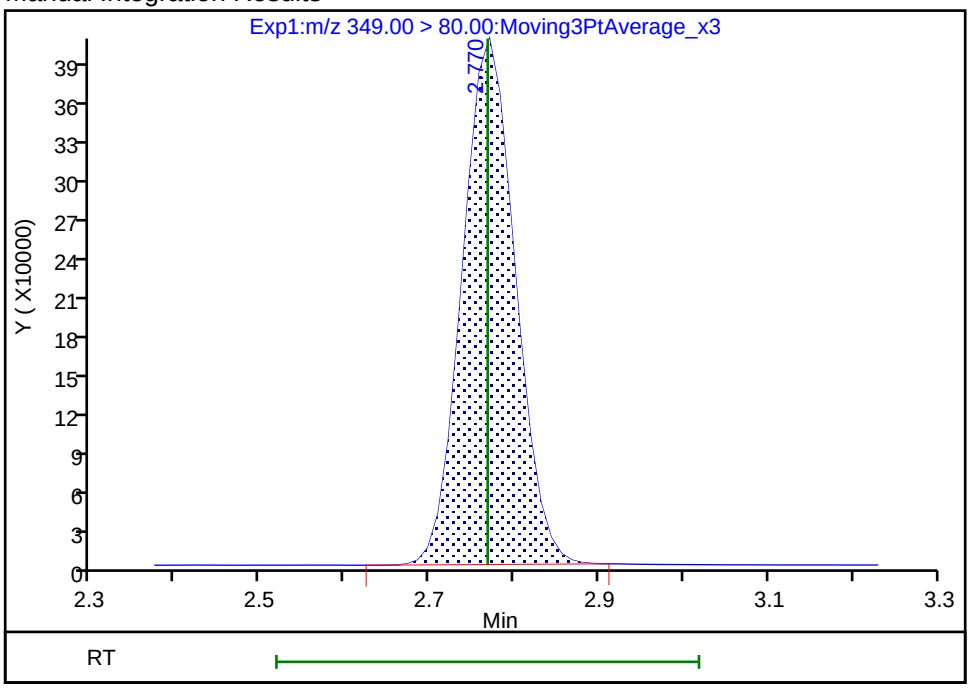
Processing Integration Results

RT: 2.77
Area: 1770101
Amount: 1.033347
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1762517
Amount: 1.028920
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

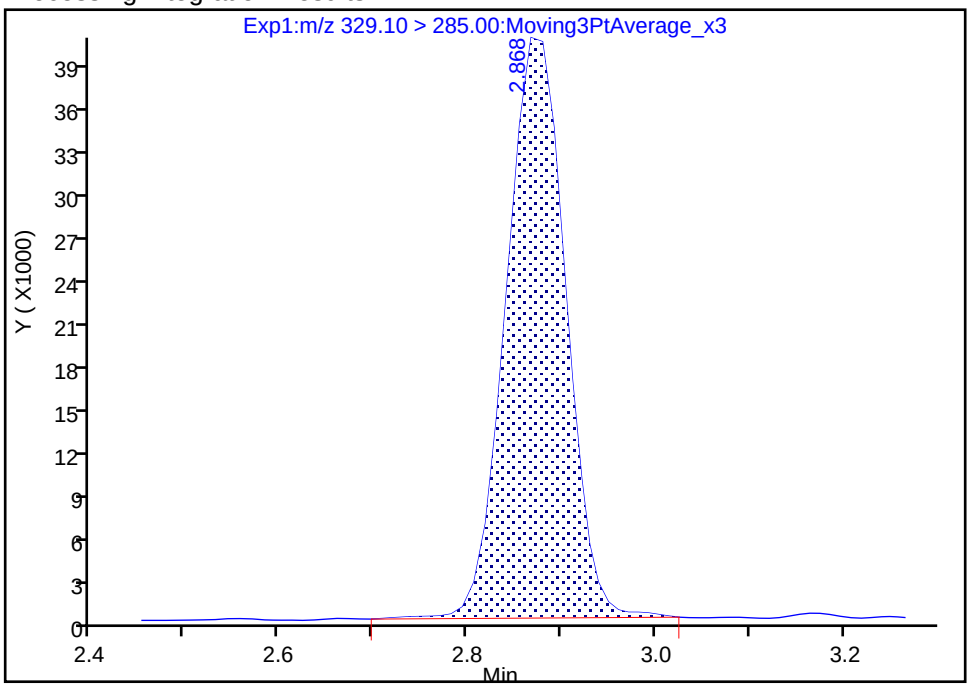
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

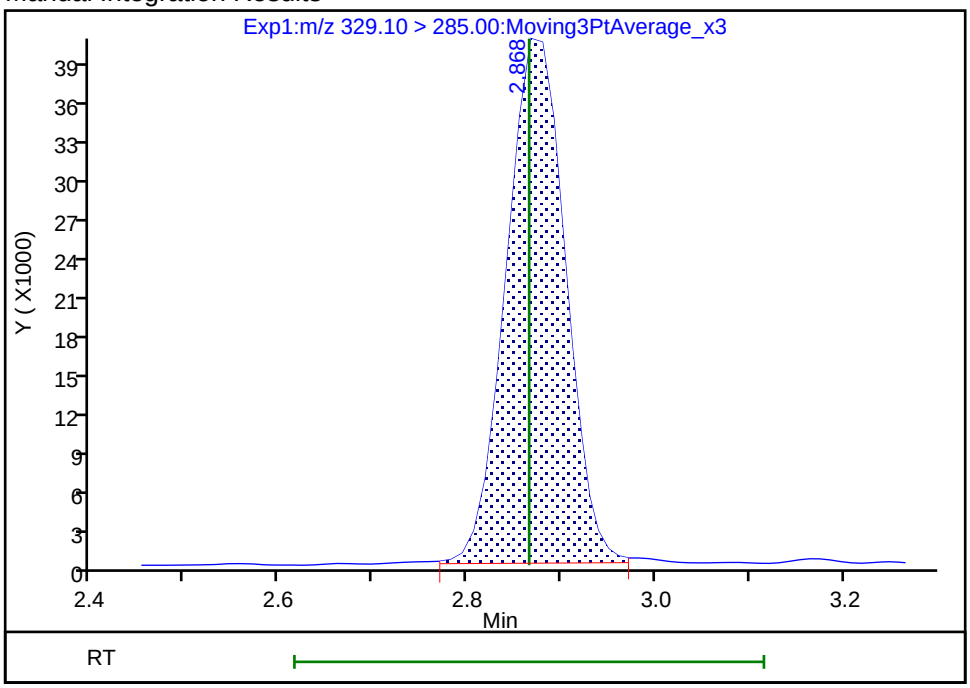
Processing Integration Results

RT: 2.87
Area: 174275
Amount: 0.915673
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 173128
Amount: 0.909646
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

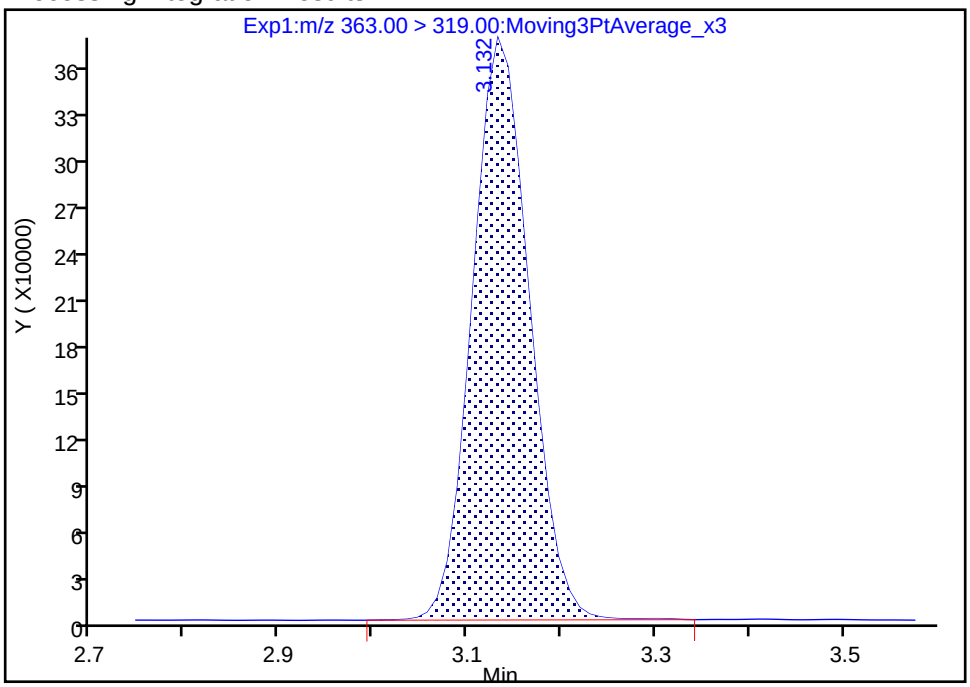
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

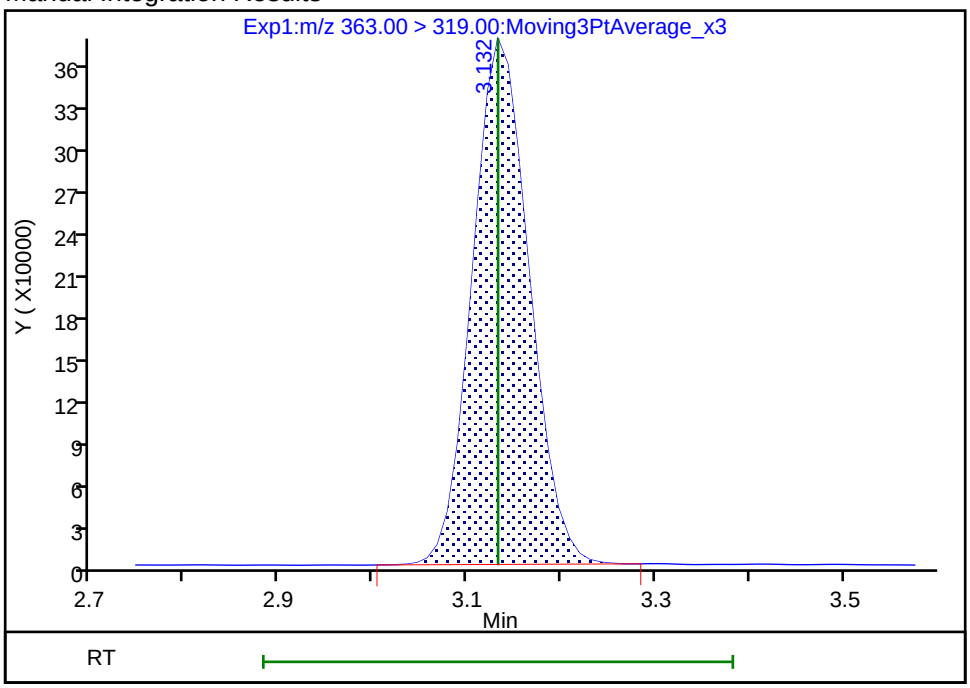
Processing Integration Results

RT: 3.13
Area: 1595526
Amount: 0.943488
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1587824
Amount: 0.938934
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

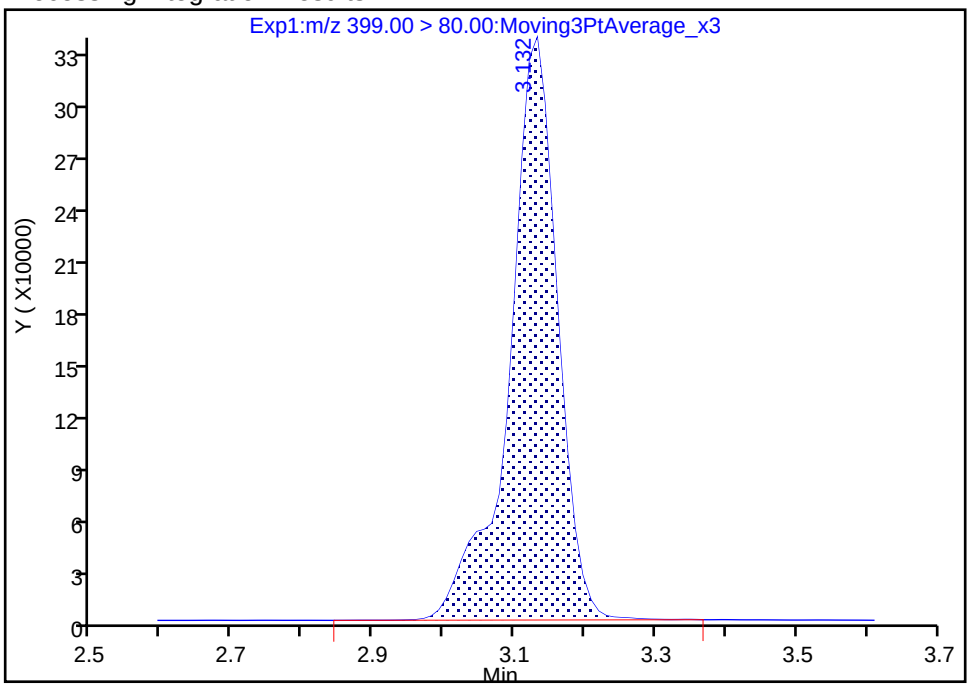
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

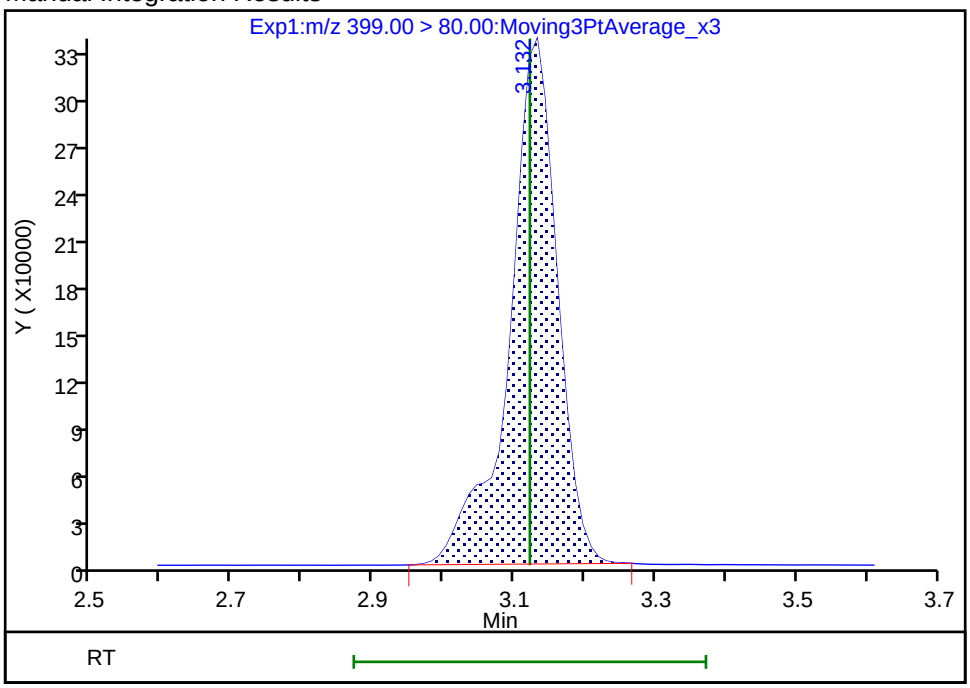
Processing Integration Results

RT: 3.13
Area: 1586343
Amount: 1.014341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1574569
Amount: 1.006813
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

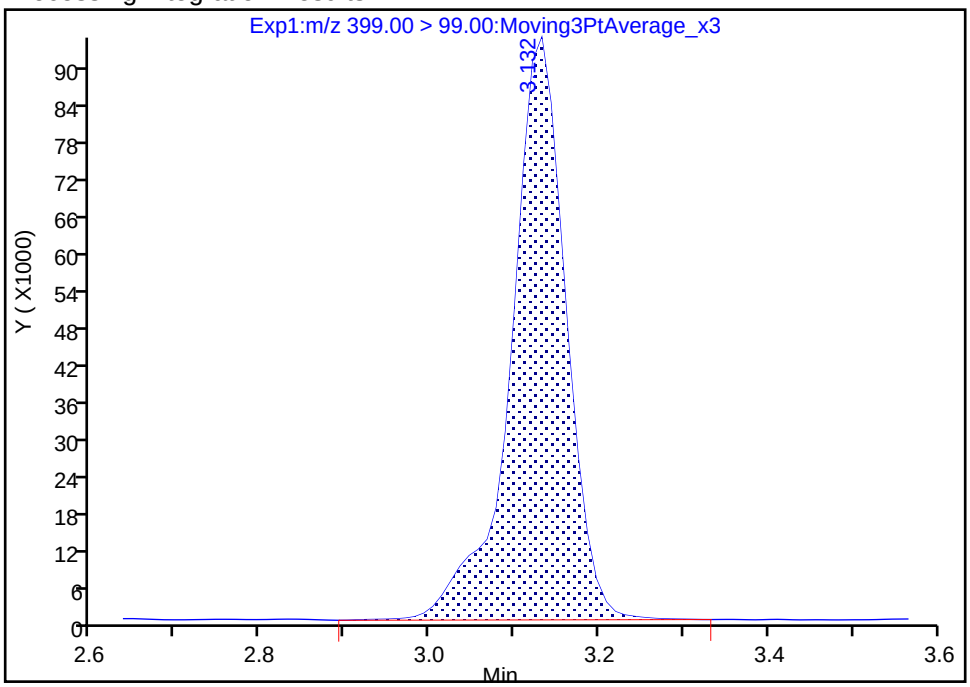
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

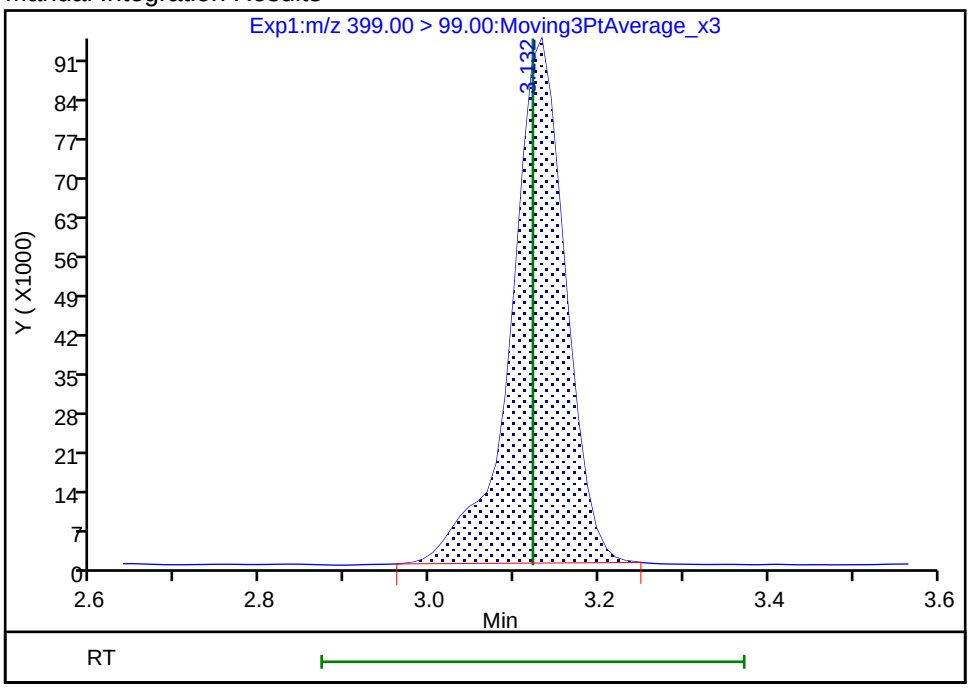
Processing Integration Results

RT: 3.13
Area: 426567
Amount: 1.014341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 420396
Amount: 1.006813
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

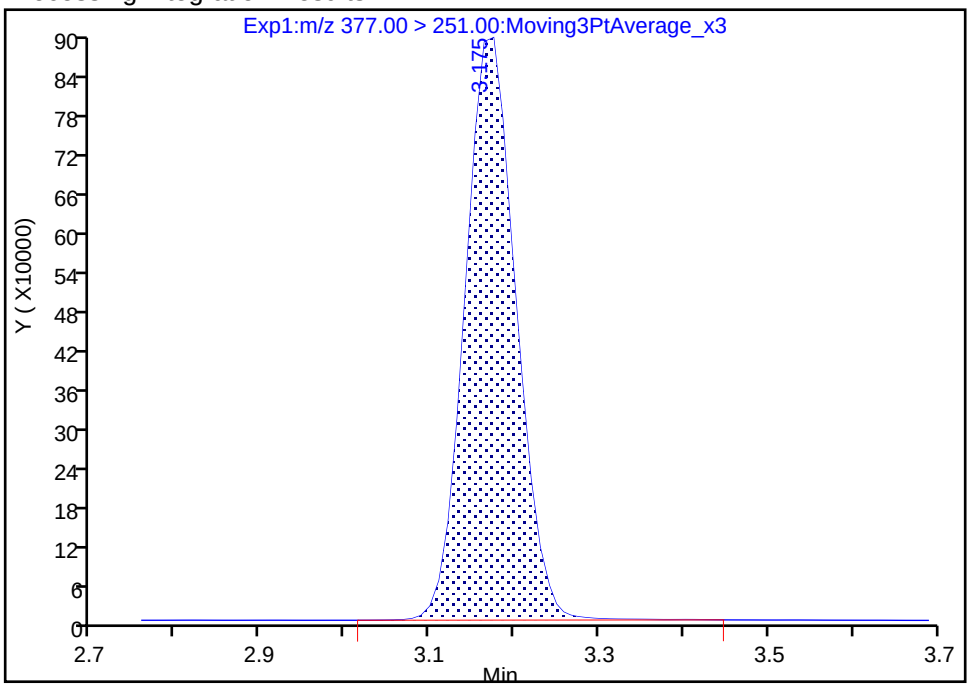
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

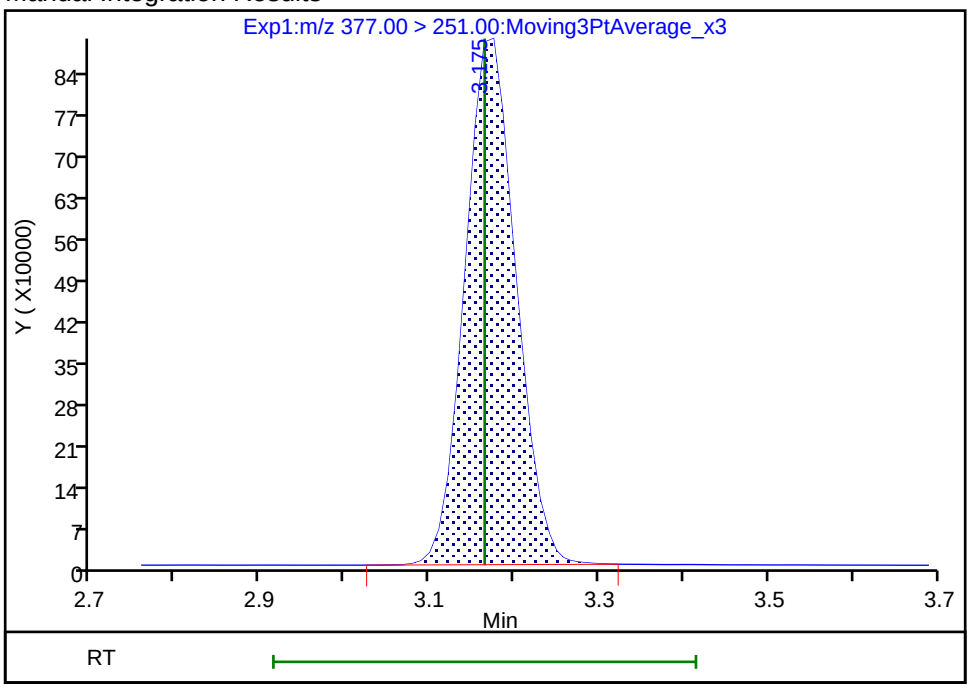
Processing Integration Results

RT: 3.18
Area: 3753045
Amount: 1.037472
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 3738319
Amount: 1.033402
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

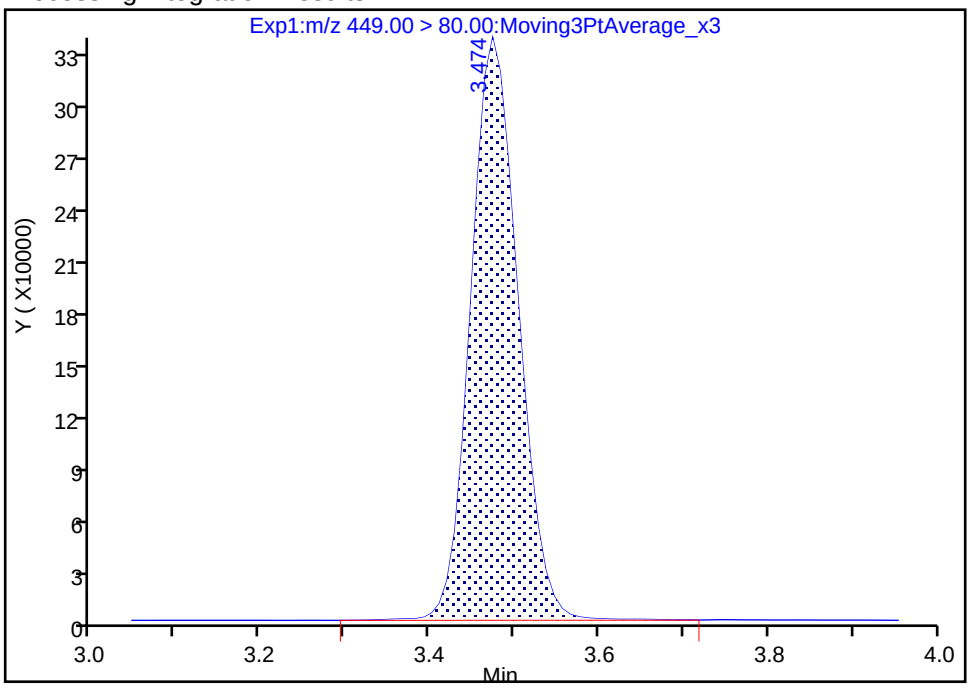
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

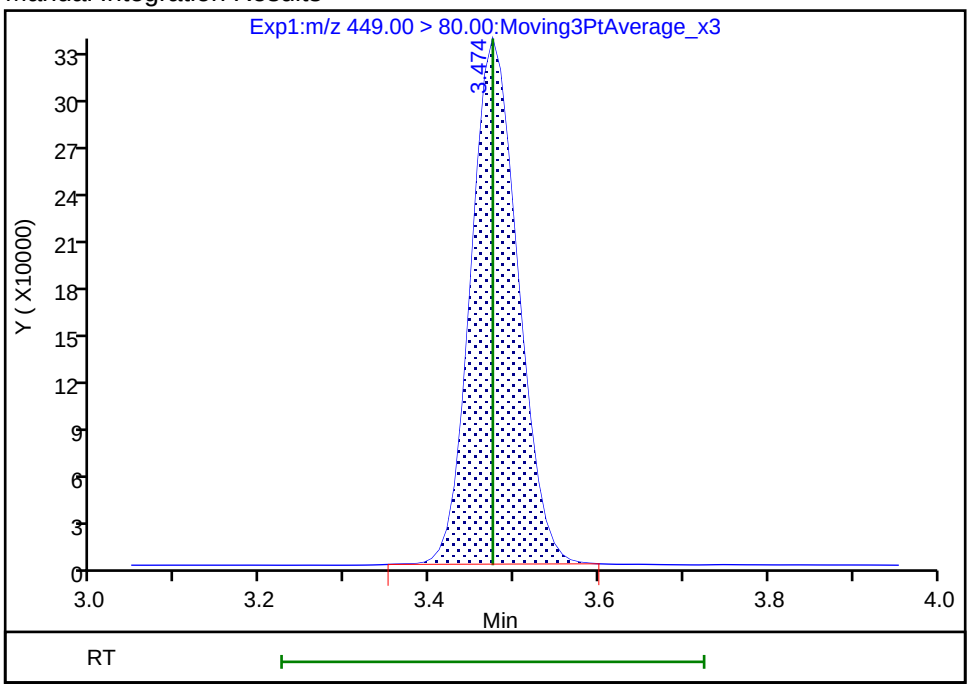
Processing Integration Results

RT: 3.47
Area: 1300204
Amount: 1.009097
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1287103
Amount: 0.998930
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

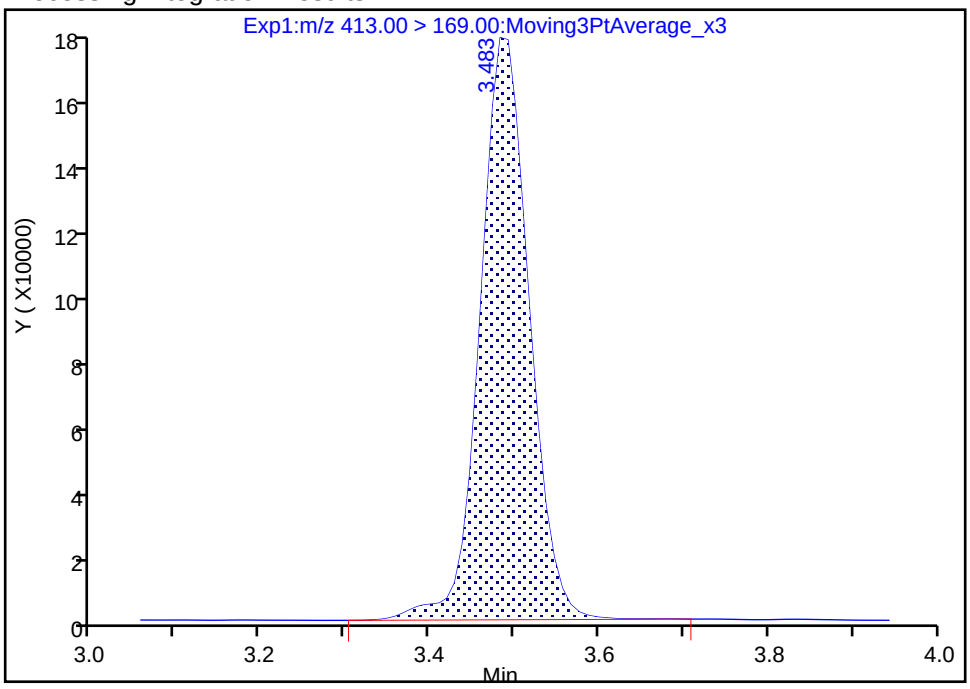
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

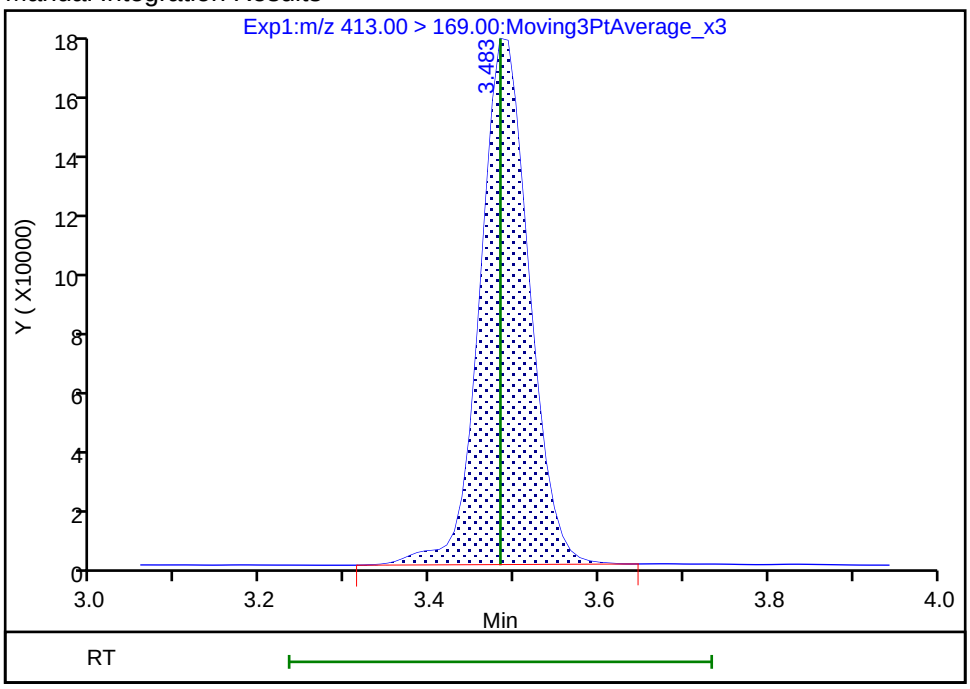
Processing Integration Results

RT: 3.48
Area: 704016
Amount: 0.996419
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 702627
Amount: 0.996419
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

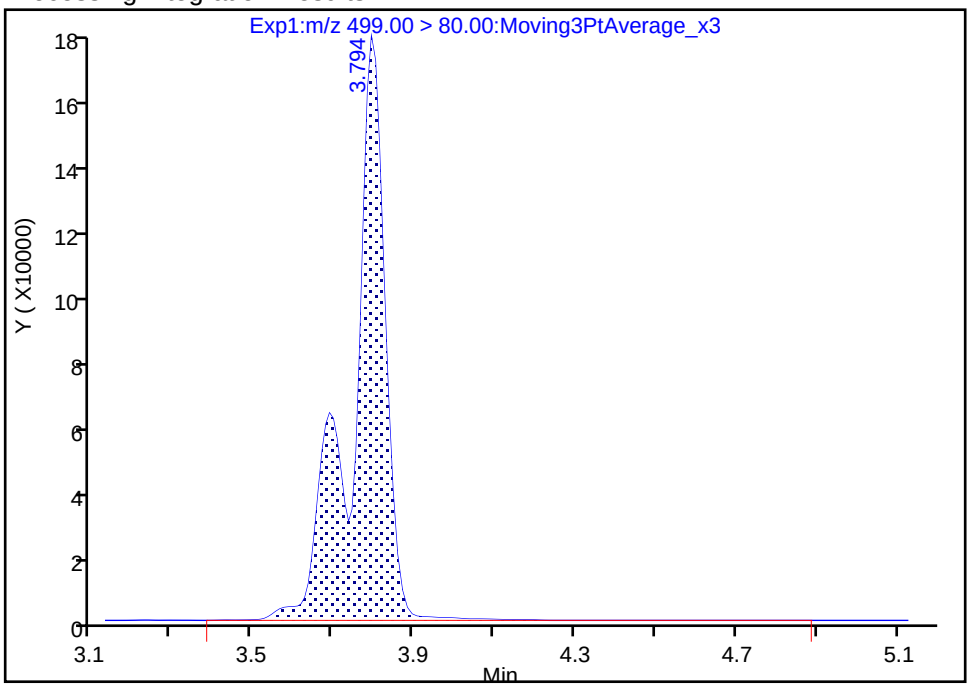
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

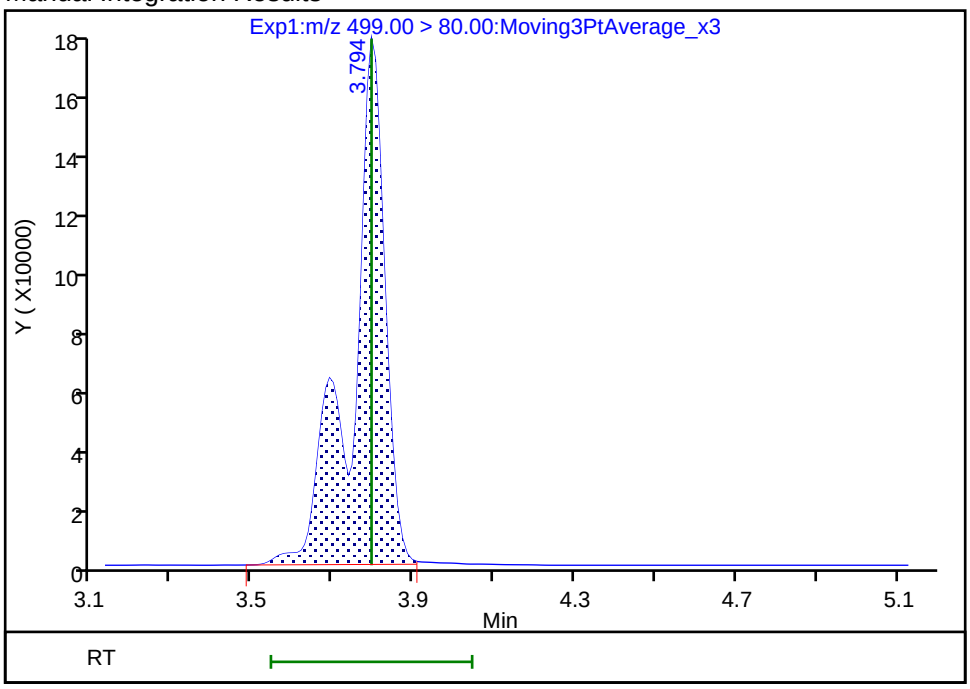
Processing Integration Results

RT: 3.79
Area: 1008988
Amount: 0.899685
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 994741
Amount: 0.886981
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

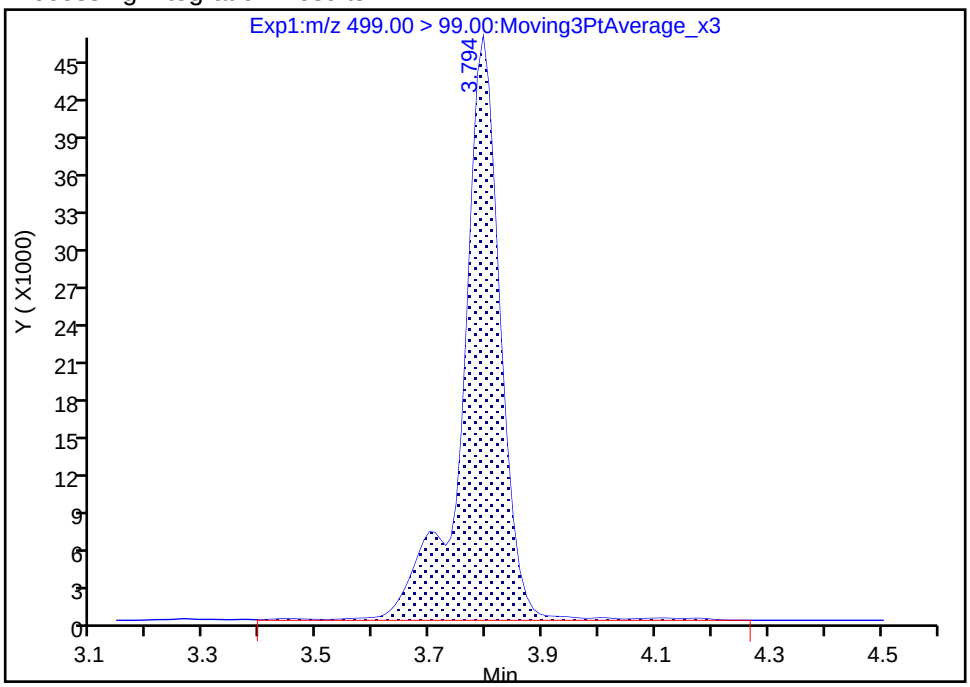
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

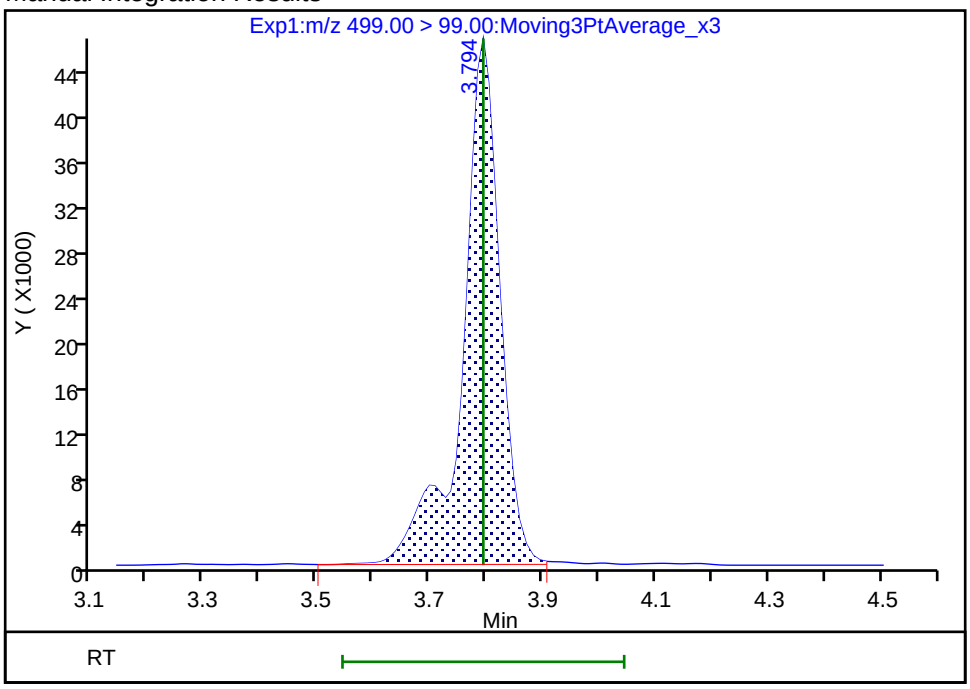
Processing Integration Results

RT: 3.79
Area: 220708
Amount: 0.899685
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 215714
Amount: 0.886981
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

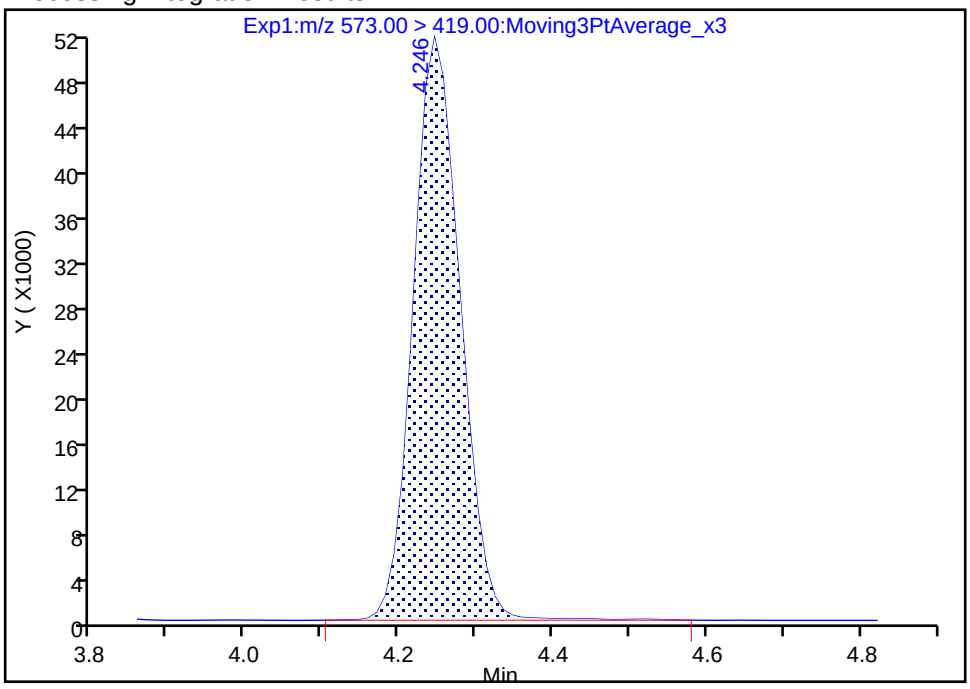
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

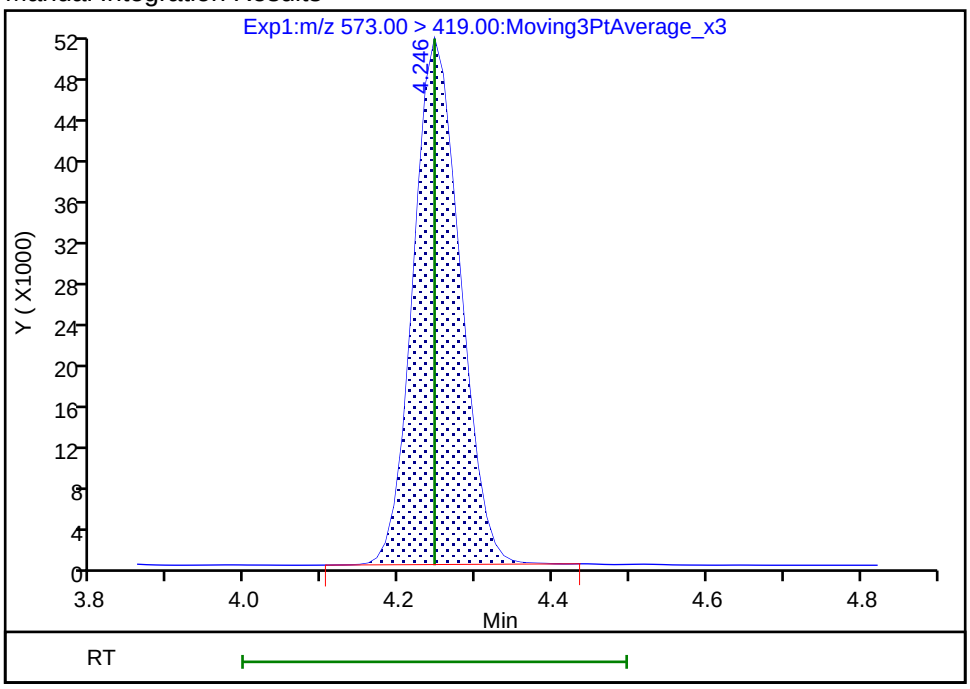
Processing Integration Results

RT: 4.25
Area: 218484
Amount: 1.036905
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 216683
Amount: 1.028357
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

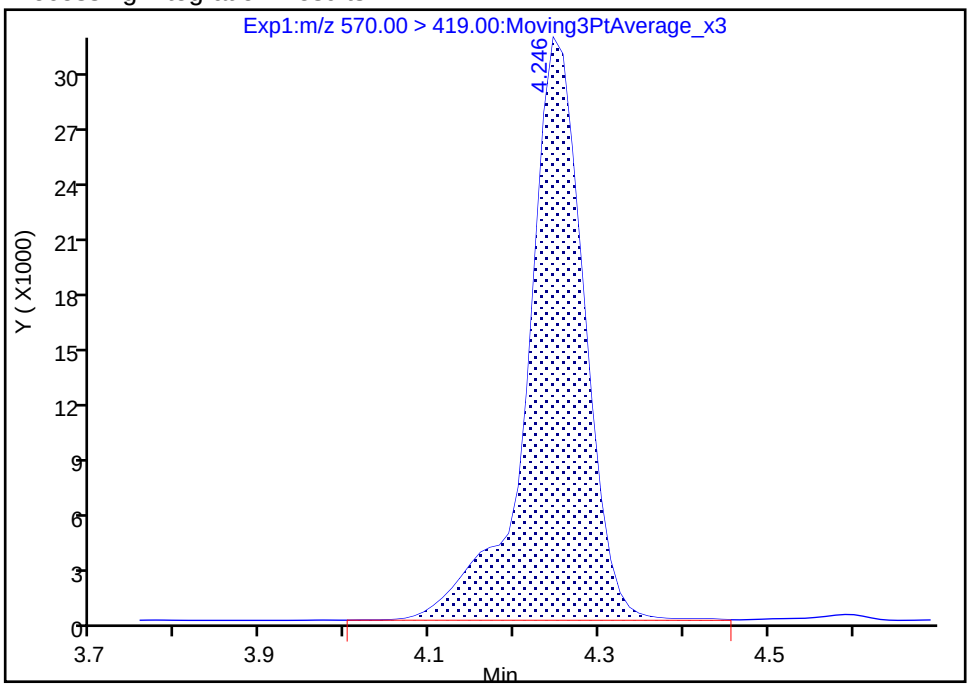
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

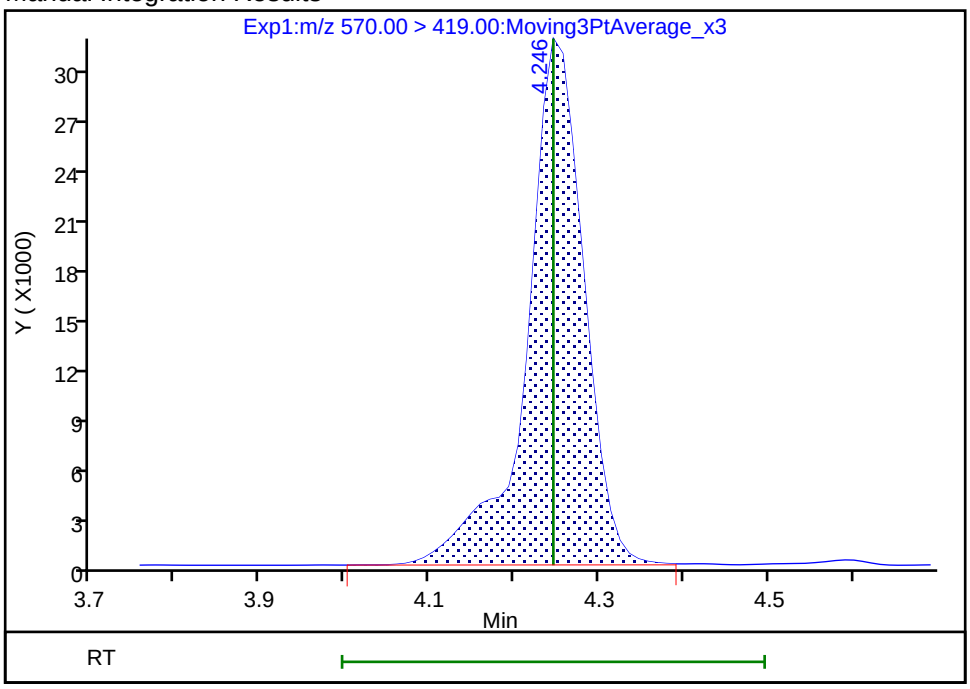
Processing Integration Results

RT: 4.25
Area: 149291
Amount: 1.096280
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 148796
Amount: 1.092645
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

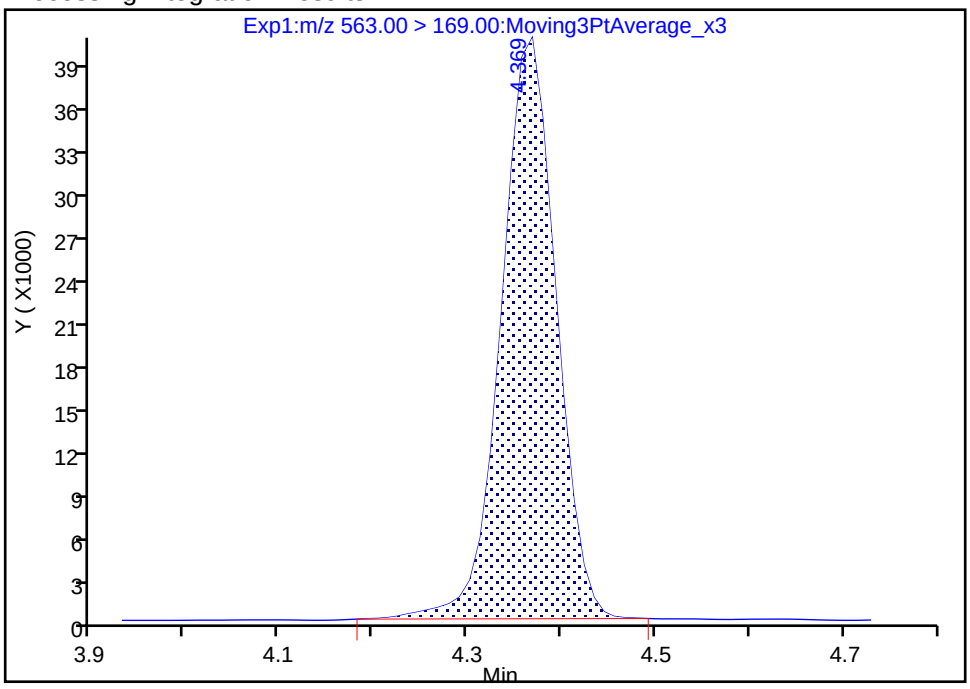
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

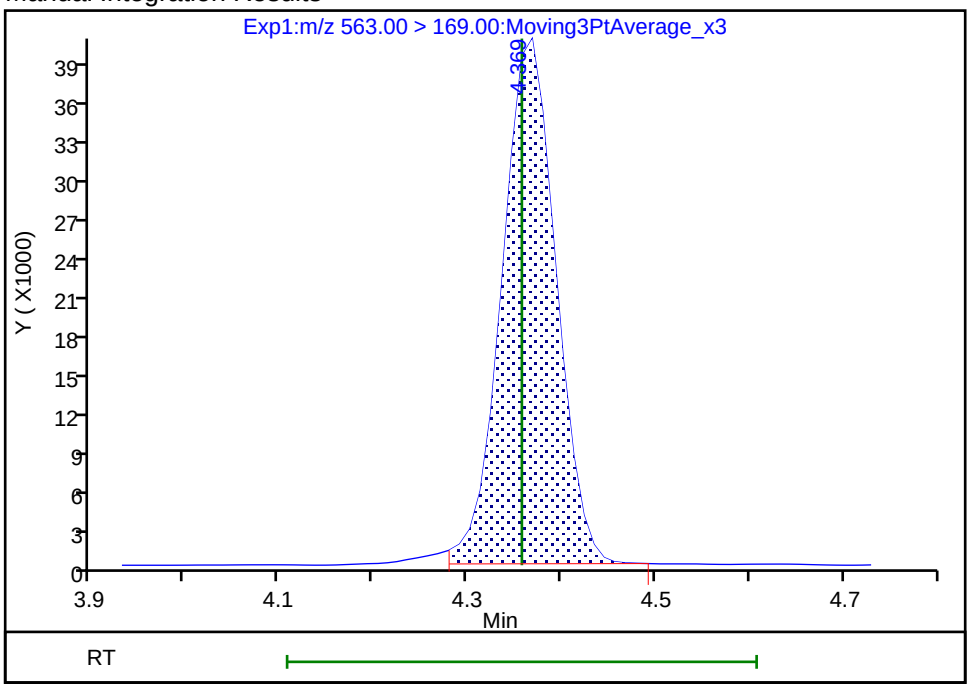
Processing Integration Results

RT: 4.37
Area: 162527
Amount: 0.968834
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 160471
Amount: 0.965157
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

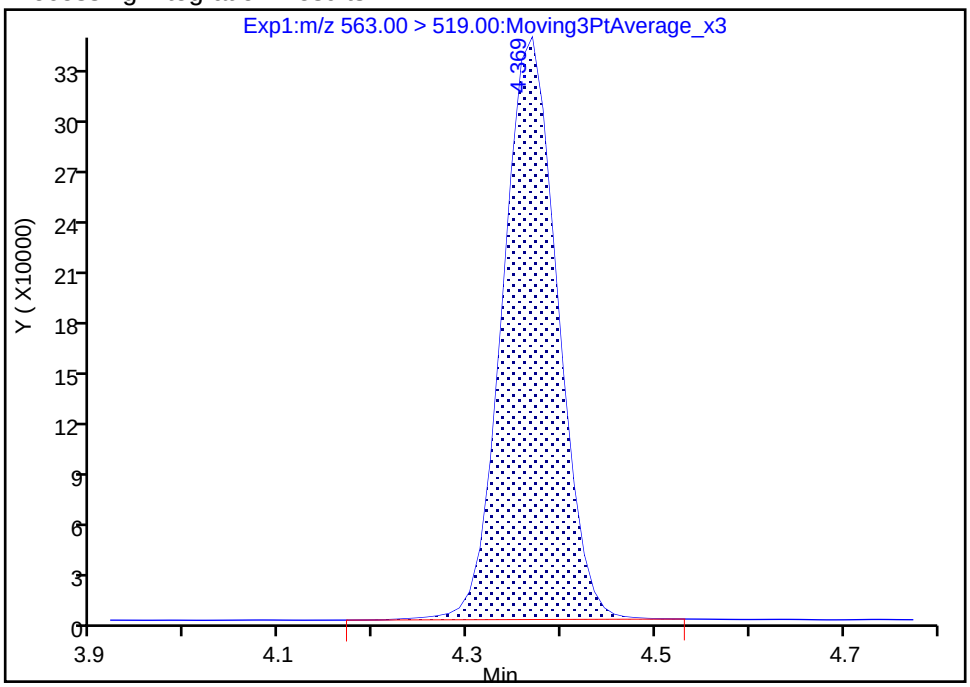
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

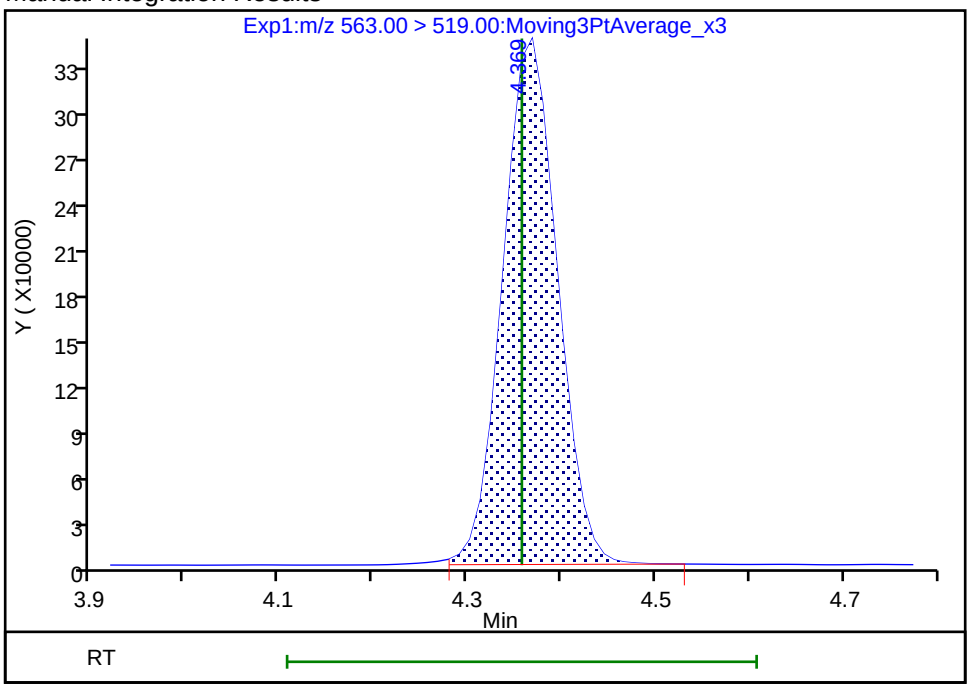
Processing Integration Results

RT: 4.37
Area: 1407277
Amount: 0.968834
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 1401937
Amount: 0.965157
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

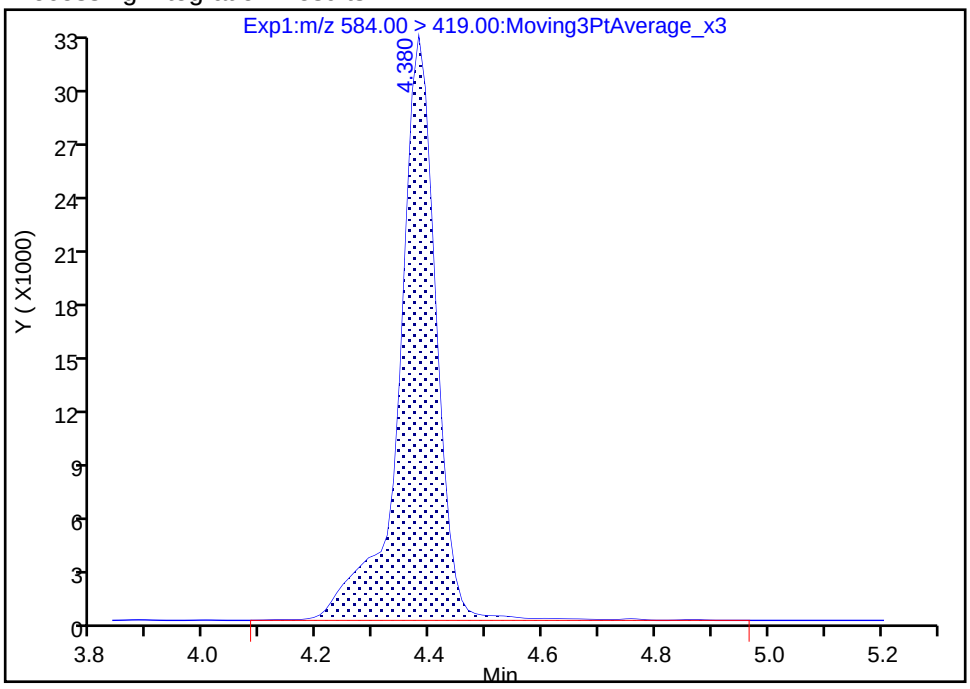
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

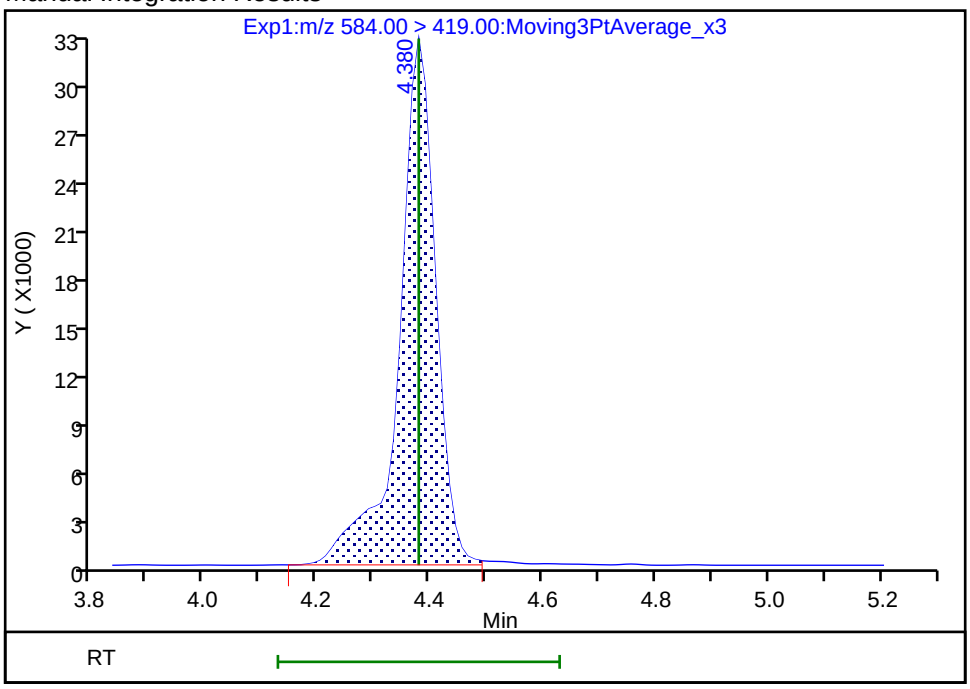
Processing Integration Results

RT: 4.38
Area: 146769
Amount: 1.099399
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 144449
Amount: 1.082020
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

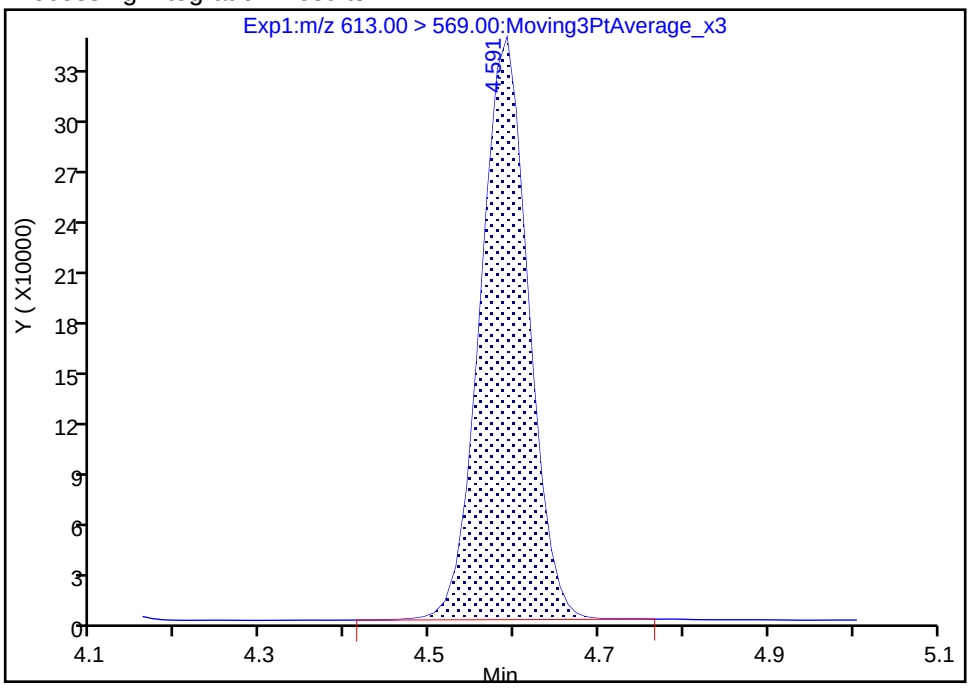
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

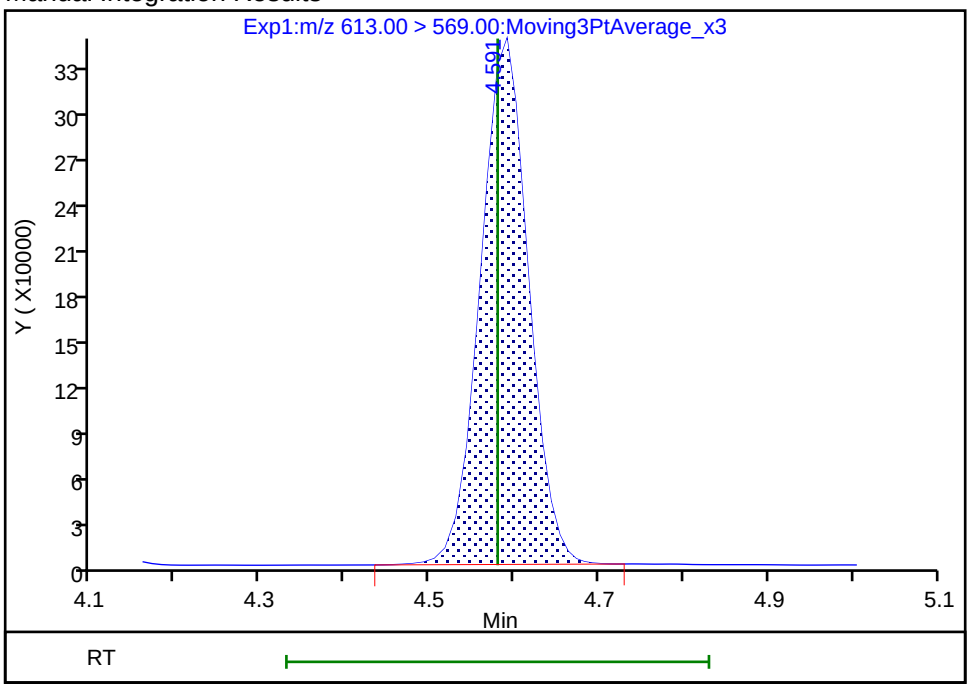
Processing Integration Results

RT: 4.59
Area: 1350692
Amount: 0.898375
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 1348763
Amount: 0.897092
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

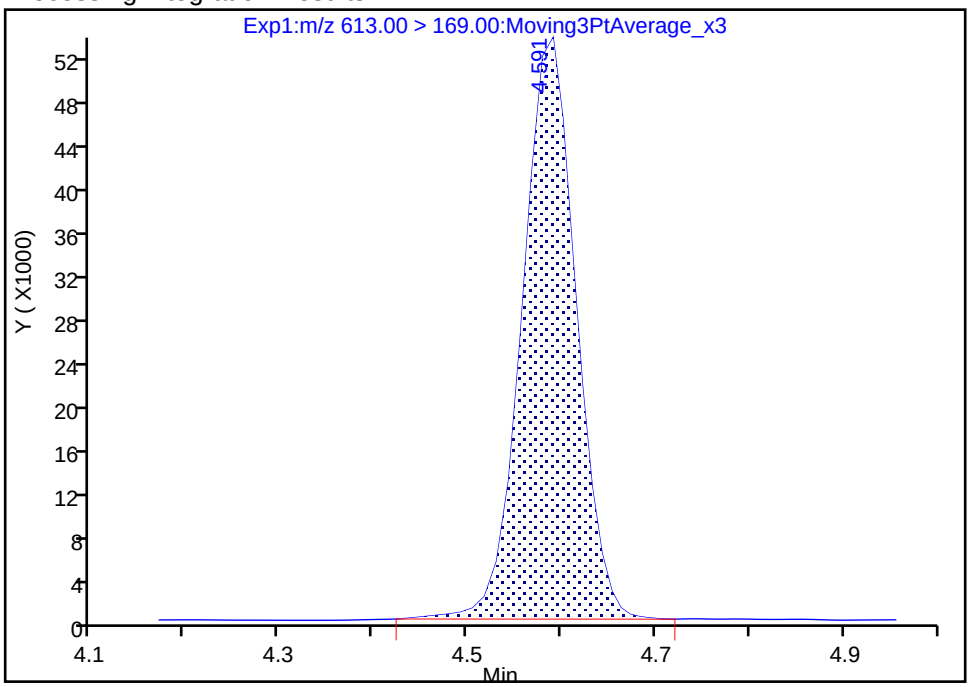
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

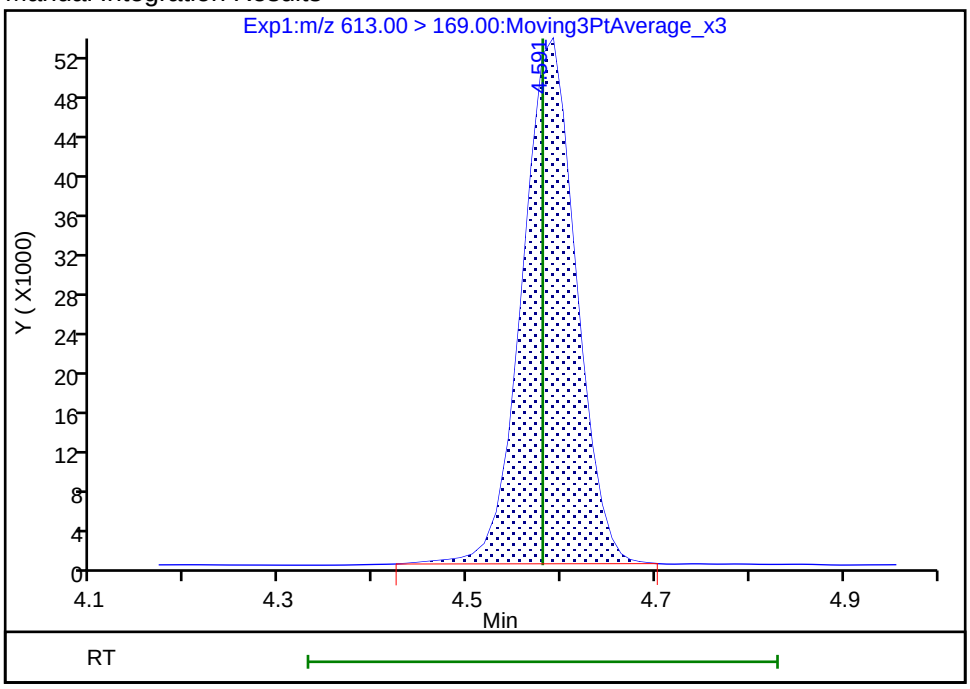
Processing Integration Results

RT: 4.59
Area: 211316
Amount: 0.898375
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 210862
Amount: 0.897092
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

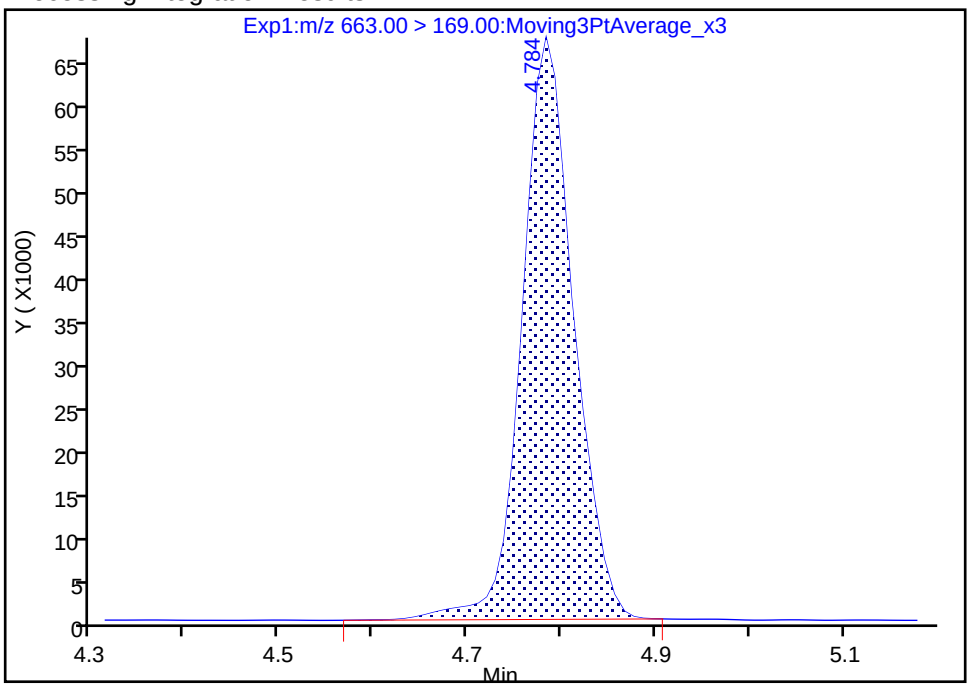
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

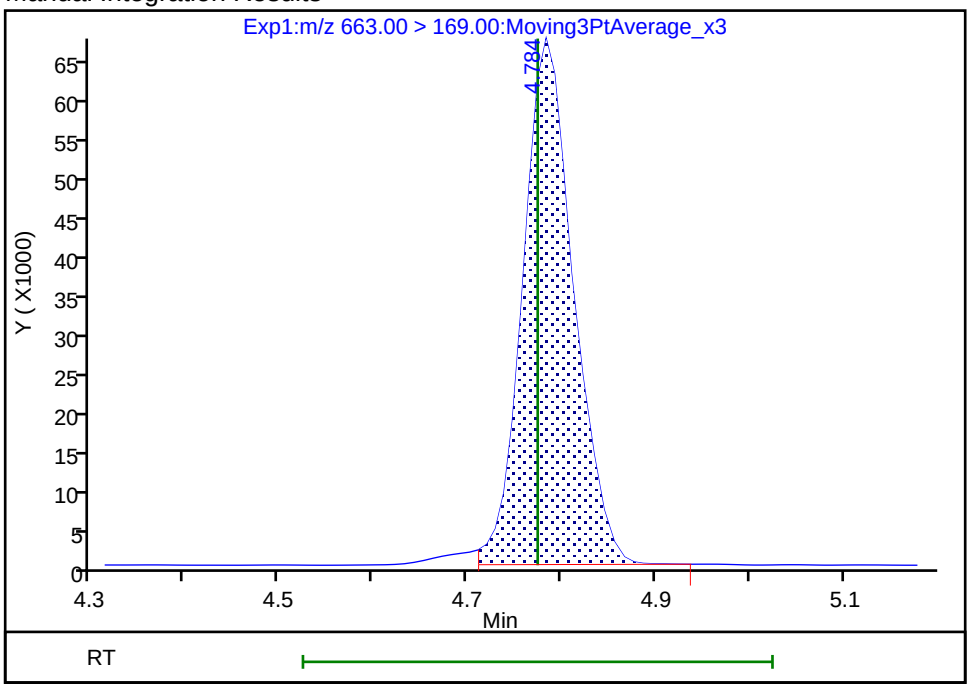
Processing Integration Results

RT: 4.78
Area: 257118
Amount: 0.851296
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 252536
Amount: 0.844426
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

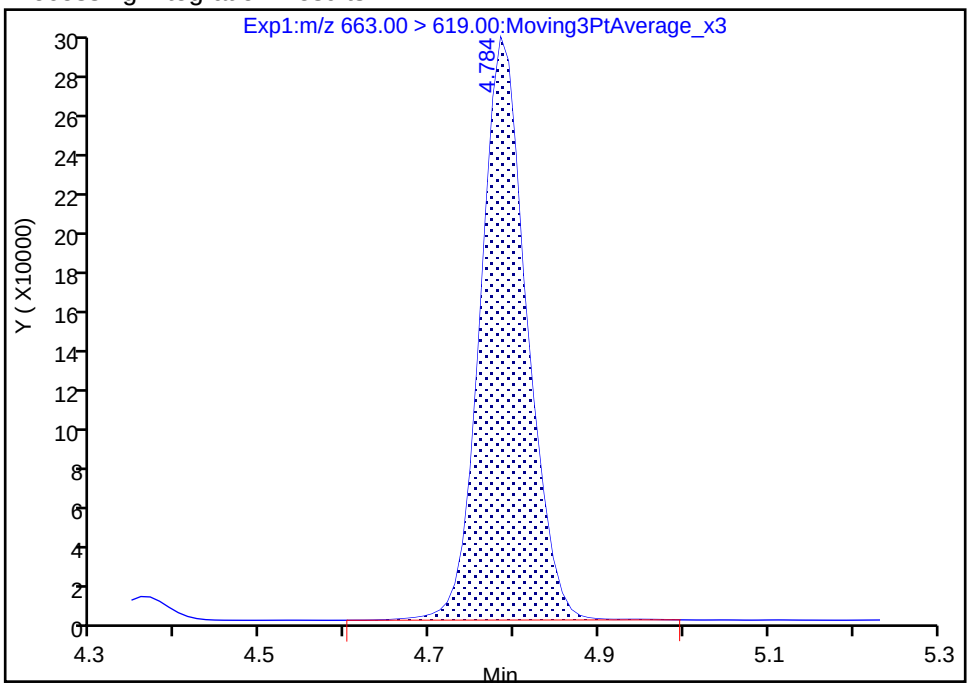
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

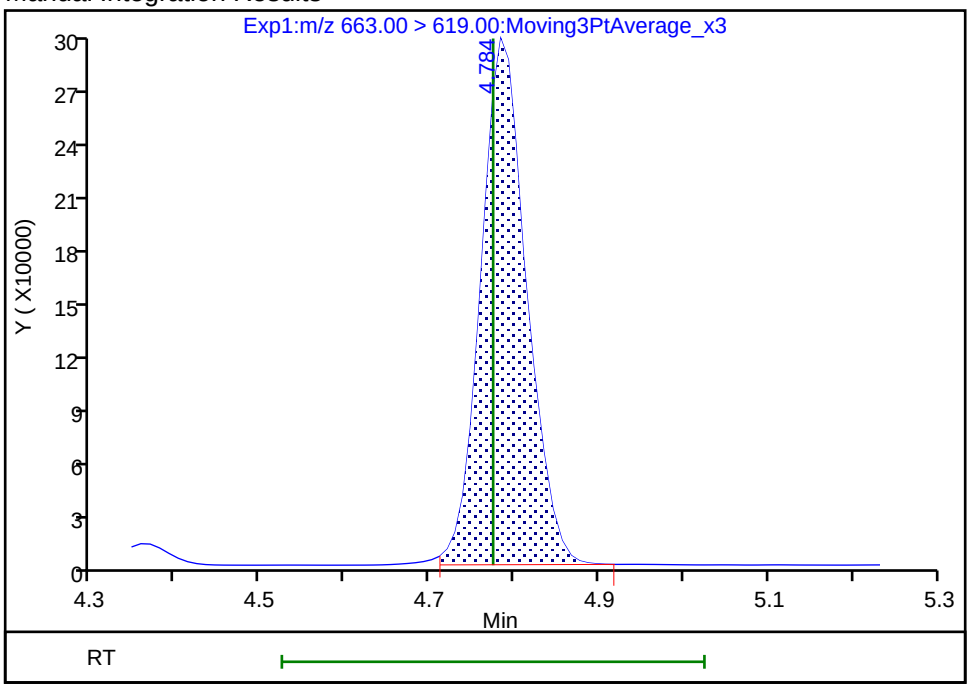
Processing Integration Results

RT: 4.78
Area: 1103486
Amount: 0.851296
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 1094580
Amount: 0.844426
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

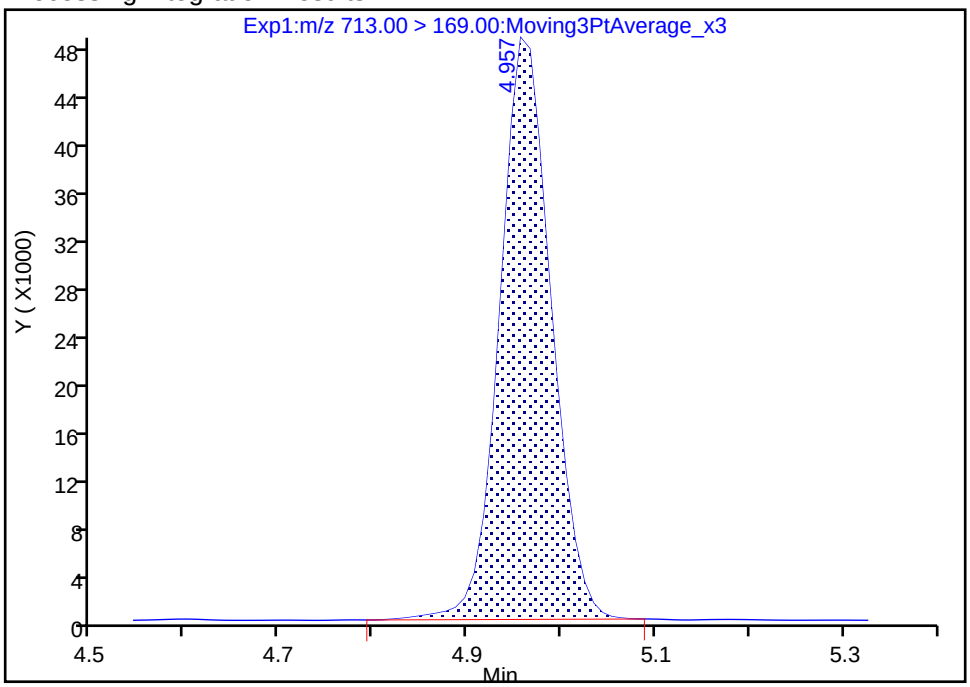
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

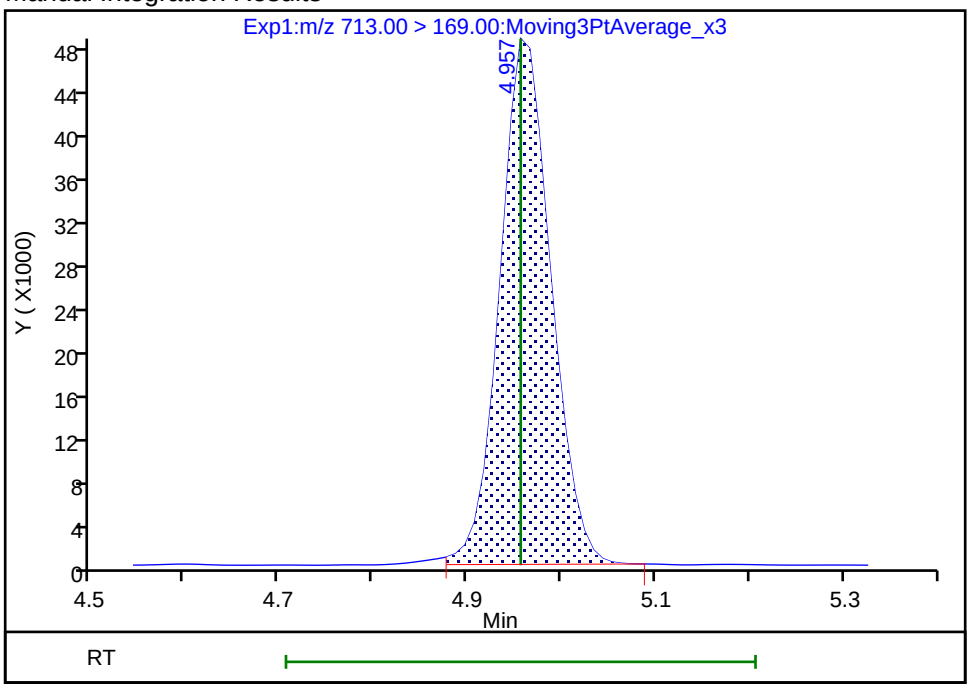
Processing Integration Results

RT: 4.96
Area: 184949
Amount: 0.988025
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 183790
Amount: 0.981833
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

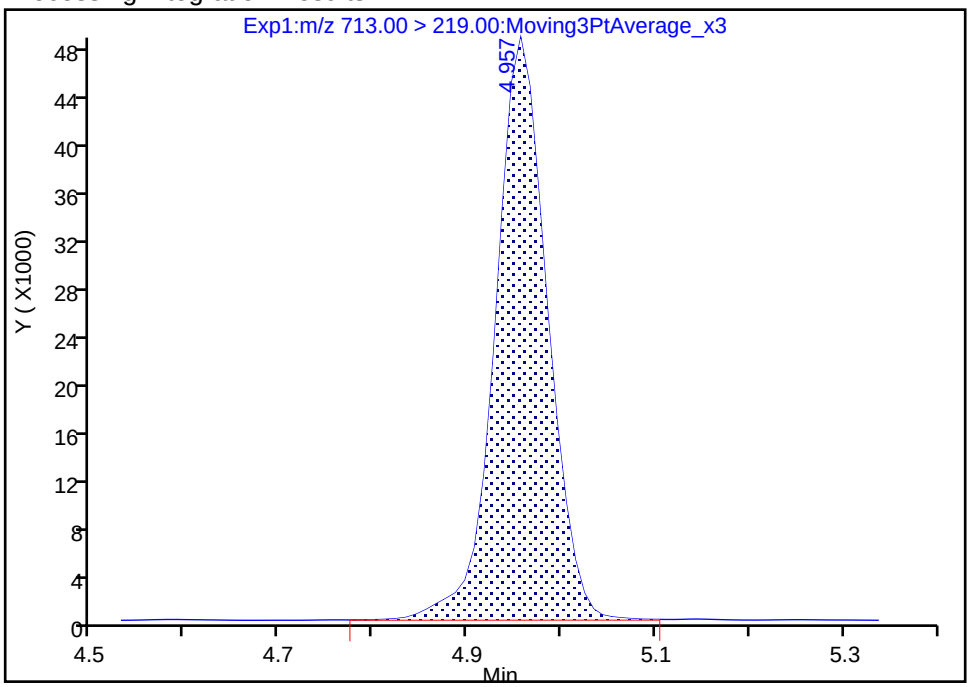
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

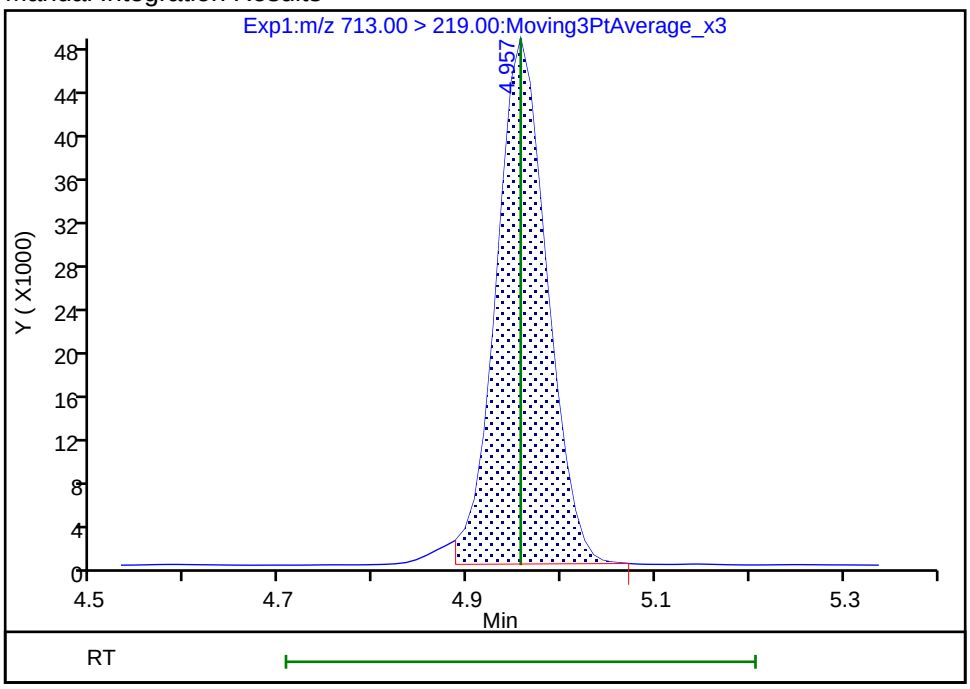
Processing Integration Results

RT: 4.96
Area: 187019
Amount: 0.988025
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 181784
Amount: 0.981833
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

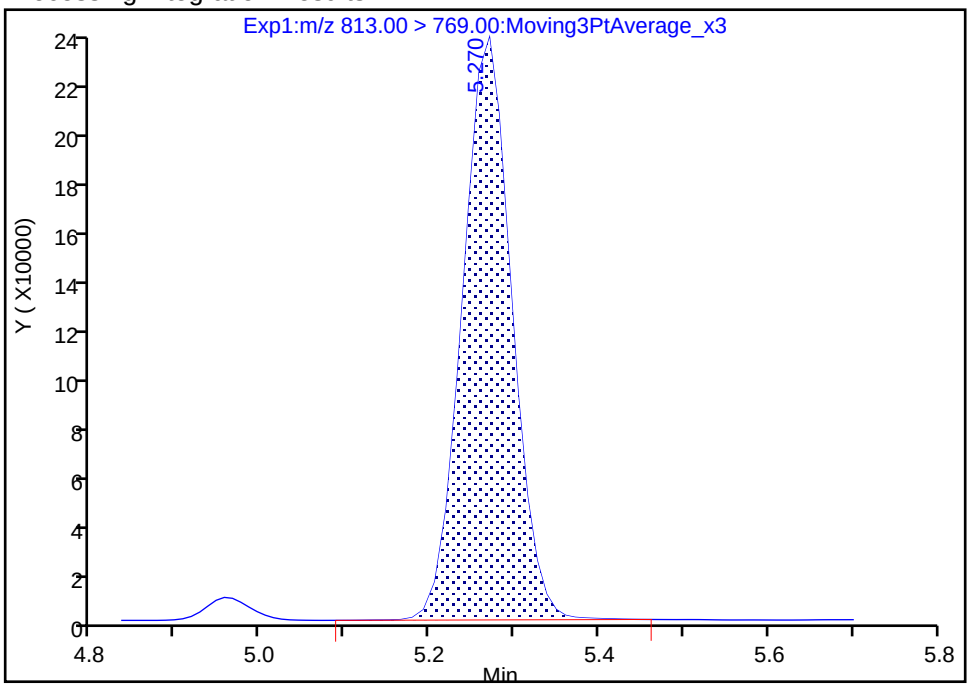
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

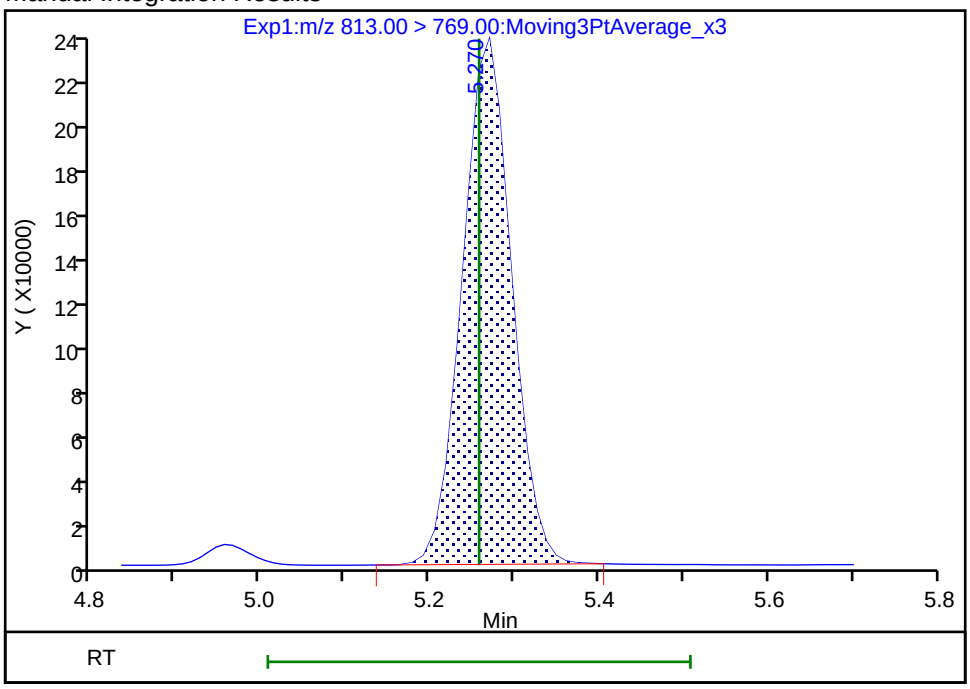
Processing Integration Results

RT: 5.27
Area: 954170
Amount: 1.040284
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 950197
Amount: 1.035874
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

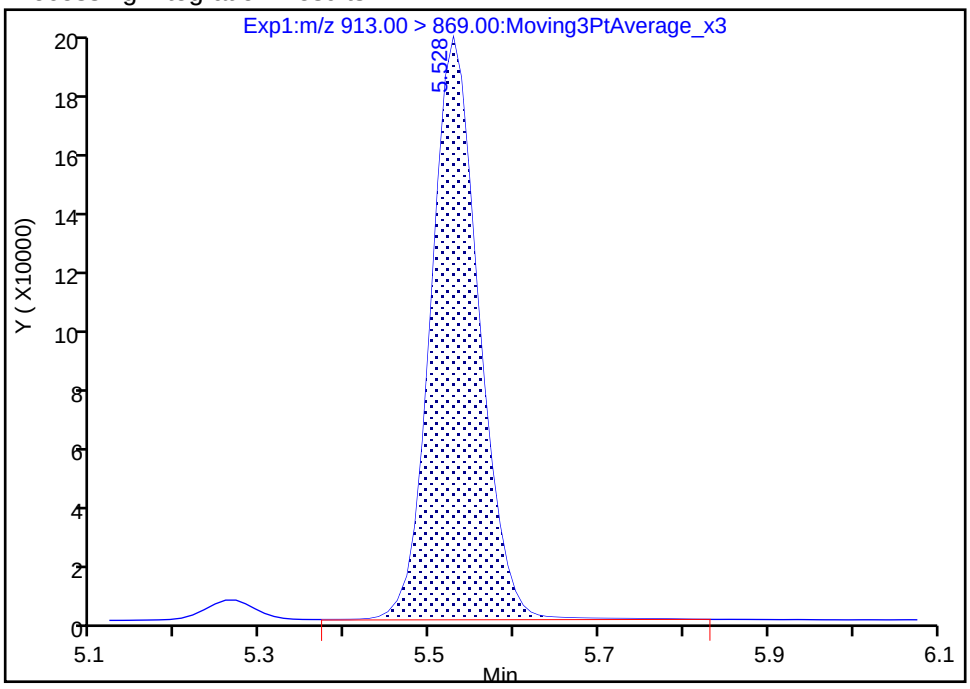
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

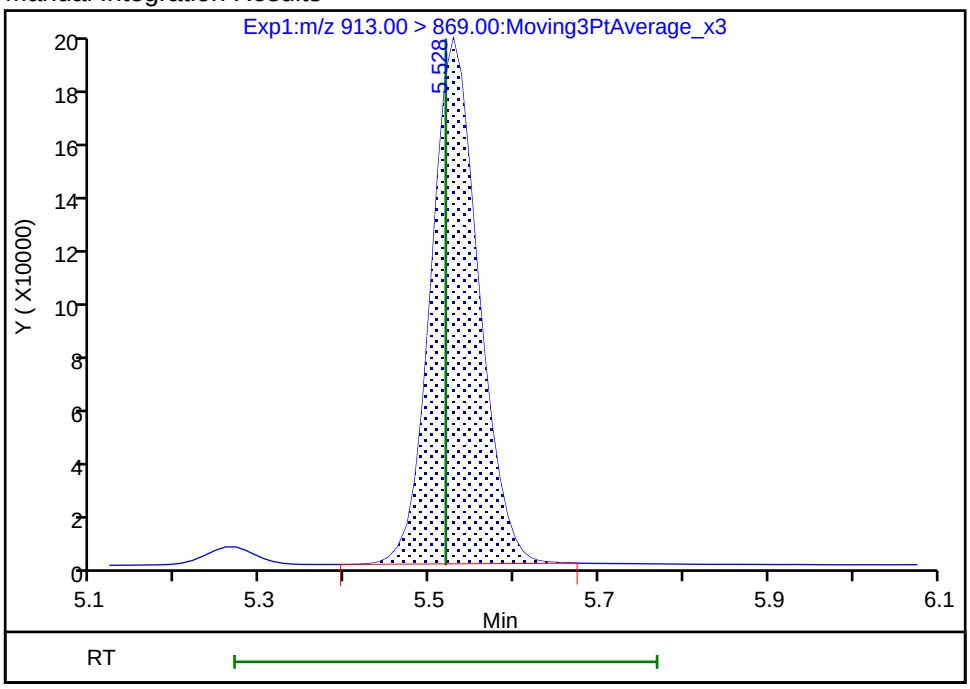
Processing Integration Results

RT: 5.53
Area: 780790
Amount: 0.876574
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 772499
Amount: 0.867266
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173453/5  Calibration Date: 11/03/2021 13:17

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.996 | | 0.132 | 0.125 | 5.4 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.072 | | 0.0535 | 0.0500 | 7.1 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.089 | | 0.0451 | 0.0442 | 2.0 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.325 | | 0.0510 | 0.0467 | 9.2 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.087 | | 0.0536 | 0.0500 | 7.2 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.188 | | 0.0463 | 0.0469 | -1.3 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.471 | | 0.121 | 0.100 | 20.9 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.042 | | 0.0504 | 0.0500 | 0.9 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.129 | | 0.0467 | 0.0455 | 2.7 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.502 | | 0.0471 | 0.0471 | 0.0 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.174 | | 0.110 | 0.119 | -7.4 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.351 | | 0.0516 | 0.0476 | 8.4 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.093 | | 0.0514 | 0.0500 | 2.7 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.058 | | 0.0452 | 0.0464 | -2.5 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.035 | | 0.0529 | 0.0500 | 5.8 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.590 | | 0.0453 | 0.0466 | -2.7 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.9411 | | 0.0534 | 0.0480 | 11.3 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9309 | | 0.0533 | 0.0479 | 11.3 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.077 | | 0.0536 | 0.0500 | 7.2 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9853 | | 0.0519 | 0.0500 | 3.8 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7399 | | 0.118 | 0.125 | -5.8 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6720 | | 0.0493 | 0.0482 | 2.3 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.125 | | 0.0528 | 0.0500 | 5.5 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7447 | | 0.109 | 0.125 | -13.1 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 2.024 | | 0.0494 | 0.0471 | 4.9 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.120 | | 0.0572 | 0.0500 | 14.4 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4127 | | 0.0515 | 0.0482 | 6.8 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.3098 | | 0.0620 | 0.0484 | 28.2 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173453/5  Calibration Date: 11/03/2021 13:17

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9006 | | 0.0533 | 0.0500 | 6.7 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1576 | | 0.0499 | 0.0500 | -0.1 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.084 | | 0.0448 | 0.0500 | -10.5 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.8250 | | 0.0489 | 0.0500 | -2.2 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.045 | | 1.29 | 1.25 | 3.2 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.8698 | | 1.28 | 1.25 | 2.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.096 | | 1.10 | 1.16 | -5.1 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0933 | | 1.24 | 1.17 | 6.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9004 | | 1.26 | 1.25 | 0.6 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0212 | | 1.12 | 1.25 | -10.2 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.999 | | 1.33 | 1.25 | 6.1 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8601 | | 1.21 | 1.18 | 2.6 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1436 | | 1.29 | 1.19 | 8.6 | |
| 13C4 PFOA | Ave | 1.029 | 1.033 | | 1.26 | 1.25 | 0.4 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6153 | | 1.21 | 1.20 | 1.6 | |
| 13C5 PFNA | Ave | 1.025 | 1.029 | | 1.26 | 1.25 | 0.4 | |
| 13C2 PFDA | Ave | 1.034 | 1.091 | | 1.32 | 1.25 | 5.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1660 | | 1.33 | 1.20 | 10.8 | |
| 13C8 FOSA | Ave | 0.998 | 1.047 | | 1.31 | 1.25 | 4.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1094 | | 1.34 | 1.25 | 7.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7837 | | 1.22 | 1.25 | -2.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1005 | | 1.32 | 1.25 | 5.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8208 | | 1.18 | 1.25 | -5.3 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6783 | | 1.26 | 1.25 | 0.9 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.6746 | | 1.42 | 1.25 | 13.9 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 03-Nov-2021 13:17:37 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048270-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:26 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: deannd Date: 03-Nov-2021 14:08:47
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.597 | 1912638 | 1.29 | | 103 | 9501 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 190539 | 0.1317 | | 105 | 23.0 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.374 | 2.375 | -0.001 | 0.687 | 1592110 | 1.28 | | 102 | 2725 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.374 | 2.375 | -0.001 | 1.000 | 68295 | 0.0535 | | 107 | 3.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.694 | 1864893 | 1.10 | | 94.9 | 78347 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 77214 | 0.0451 | Target=2.32 | 102 | 22.2 | |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.000 | 38267 | | 2.02(1.16-3.48) | | 12.3 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.697 | 2.698 | -0.001 | 0.780 | 159527 | 1.24 | | 106 | 80.4 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.697 | 2.698 | -0.001 | 1.000 | 14834 | 0.0510 | | 109 | 19.8 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.734 | 2.735 | -0.001 | 1.000 | 71648 | 0.0536 | Target=12.09 | 107 | 9.6 | |
| 313.00 > 119.00 | 2.734 | 2.735 | -0.001 | 1.000 | 4174 | | 17.17(6.04-18.13) | | 5.0 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.734 | 2.735 | -0.001 | 0.791 | 1648053 | 1.26 | | 101 | 1479 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.746 | 2.735 | 0.011 | 0.886 | 70202 | 0.0463 | Target=3.03 | 98.7 | 18.6 | |
| 349.00 > 99.00 | 2.734 | 2.735 | -0.001 | 0.882 | 23416 | | 3.00(1.52-4.55) | | 14.4 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.843 | 2.844 | -0.001 | 0.823 | 38753 | 1.12 | | 89.8 | 169 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.843 | 2.844 | -0.001 | 1.000 | 16961 | 0.1209 | | 121 | 4.4 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1489390 | 1.21 | | 103 | 289 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 1.000 | 64723 | 0.0467 | Target=3.55 | 103 | 17.3 | |
| 399.00 > 99.00 | 3.089 | 3.101 | -0.012 | 0.997 | 18511 | | 3.50(1.77-5.32) | | 11.4 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.100 | 3.101 | -0.001 | 1.000 | 76244 | 0.0504 | Target=3.69 | 101 | 14.7 | |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.003 | 19617 | | 3.89(1.84-5.53) | | 18.6 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.100 | 3.101 | -0.001 | 0.897 | 1828592 | 1.33 | | 106 | 2425 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.143 | 3.144 | -0.001 | 0.835 | 148616 | 0.0471 | Target=2.56 | 100 | 25.9 | |
| 377.00 > 85.00 | 3.143 | 3.144 | -0.001 | 0.835 | 58261 | | 2.55(1.28-3.84) | | 22.9 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 29251 | 0.1097 | | 92.6 | 18.8 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.915 | 57938 | 0.0516 | Target=4.88 | 108 | 21.2 | |
| 449.00 > 99.00 | 3.438 | 3.448 | -0.010 | 0.913 | 11651 | | 4.97(2.44-7.32) | | 17.0 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 249702 | 1.29 | | 109 | 508 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.456 | 3.457 | -0.001 | 1.000 | 1891649 | 1.26 | | 100 | 1028 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1830434 | 1.25 | | | 260 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.456 | 3.457 | -0.001 | 1.000 | 82666 | 0.0514 | Target=2.68 | 103 | 9.2 | M |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 1.000 | 30210 | | 2.74(1.34-4.02) | | 17.8 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.090 | 1076692 | 1.21 | | 102 | 397 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.766 | 3.767 | -0.001 | 1.000 | 44218 | 0.0452 | Target=4.69 | 97.5 | 12.2 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 1.000 | 10506 | | 4.21(2.35-7.04) | | 10.9 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.095 | 1883146 | 1.25 | | 100 | 2441 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.785 | 3.786 | -0.001 | 1.000 | 77936 | 0.0529 | Target=7.29 | 106 | 11.2 | |
| 463.00 > 169.00 | 3.785 | 3.786 | -0.001 | 1.000 | 12300 | | 6.34(3.64-10.93) | | 16.5 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.932 | 3.922 | 0.010 | 1.044 | 66772 | 0.0453 | | 97.3 | 18.9 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.049 | 4.052 | -0.003 | 1.075 | 40700 | 0.0534 | Target=2.35 | 111 | 30.1 | |
| 549.00 > 99.00 | 4.049 | 4.052 | -0.003 | 1.075 | 17171 | | 2.37(1.17-3.52) | | 23.3 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.181 | 1997799 | 1.32 | | 106 | 110 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.081 | 4.073 | 0.008 | 1.000 | 86045 | 0.0536 | Target=8.95 | 107 | 15.0 | |
| 513.00 > 169.00 | 4.081 | 4.073 | 0.008 | 1.000 | 10069 | | 8.55(4.47-13.42) | | 20.0 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.081 | 4.084 | -0.003 | 1.181 | 291019 | 1.33 | | 111 | 156 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.081 | 4.084 | -0.003 | 1.000 | 10836 | 0.0533 | | 111 | 11.5 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.205 | 4.207 | -0.002 | 1.217 | 1915687 | 1.31 | | 105 | 717 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.002 | 75503 | 0.0519 | | 104 | 88.1 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.215 | 4.217 | -0.002 | 1.219 | 200231 | 1.34 | | 108 | 217 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.002 | 14816 | 0.1177 | | 94.2 | 17.8 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.302 | 4.306 | -0.004 | 1.142 | 29185 | 0.0493 | Target=2.47 | 102 | 37.3 | |
| 599.00 > 99.00 | 4.302 | 4.306 | -0.004 | 1.142 | 13320 | | 2.19(1.23-3.70) | | 51.0 | M |
| D 30 13C2 PFUnA | | | | | | | | | | M |
| 565.00 > 520.00 | 4.336 | 4.339 | -0.003 | 1.254 | 1434451 | 1.22 | | 97.2 | 936 | M |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.336 | 4.339 | -0.003 | 1.000 | 64531 | 0.0528 | Target=9.24 | 106 | 26.2 | |
| 563.00 > 169.00 | 4.336 | 4.339 | -0.003 | 1.000 | 7611 | | 8.48(4.62-13.86) | | 23.8 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.258 | 184001 | 1.32 | | 105 | 696 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.347 | 4.350 | -0.003 | 1.000 | 13703 | 0.1086 | | 86.9 | 43.2 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.424 | 4.428 | -0.004 | 1.175 | 85911 | 0.0494 | | 105 | 84.9 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.556 | 4.562 | -0.006 | 1.318 | 1502442 | 1.18 | | 94.7 | 387 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.003 | 67301 | 0.0572 | Target=7.04 | 114 | 11.4 | |
| 613.00 > 169.00 | 4.556 | 4.562 | -0.006 | 1.000 | 9574 | | 7.03(3.52-10.56) | | 68.3 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.580 | 4.574 | 0.006 | 1.122 | 4834 | 0.0515 | | 107 | 41.6 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.730 | 4.725 | 0.005 | 1.256 | 13510 | 0.0620 | Target=0.49 | 128 | 319 | |
| 699.00 > 99.00 | 4.721 | 4.725 | -0.004 | 1.254 | 23643 | | 0.57(0.25-0.74) | | 452 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.757 | 4.761 | -0.004 | 1.044 | 54126 | 0.0533 | Target=4.68 | 107 | 12.3 | |
| 663.00 > 169.00 | 4.757 | 4.761 | -0.004 | 1.044 | 12042 | | 4.49(2.34-7.02) | | 111 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.937 | 4.940 | -0.003 | 1.429 | 1241593 | 1.26 | | 101 | 1619 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.937 | 4.940 | -0.003 | 1.000 | 7829 | 0.0499 | Target=1.01 | 99.9 | 123 | |
| 713.00 > 219.00 | 4.928 | 4.940 | -0.012 | 0.998 | 9431 | | 0.83(0.51-1.52) | | 290 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.248 | -0.002 | 1.518 | 1234891 | 1.42 | | 114 | 2906 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.246 | 5.248 | -0.002 | 1.000 | 53554 | 0.0448 | Target=4.57 | 89.5 | 14.7 | |
| 813.00 > 169.00 | 5.246 | 5.248 | -0.002 | 1.000 | 12761 | | 4.20(2.29-6.86) | | 227 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.500 | 5.503 | -0.003 | 1.049 | 40750 | 0.0489 | Target=4.27 | 97.8 | 23.1 | M |
| 913.00 > 169.00 | 5.500 | 5.503 | -0.003 | 1.049 | 8767 | | 4.65(2.14-6.41) | | 208 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 04-Nov-2021 15:14:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d

Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812

Lims ID: CCVL

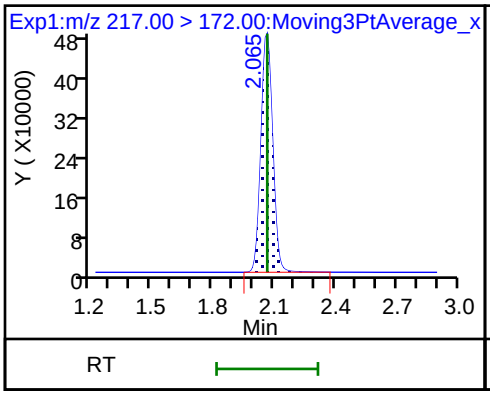
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

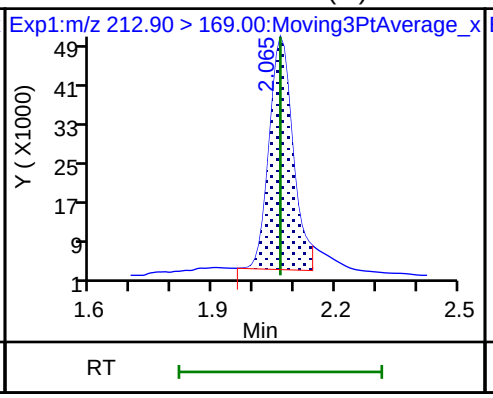
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

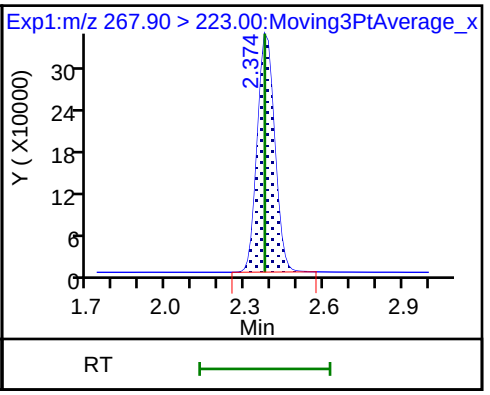
D 1 13C4 PFBA



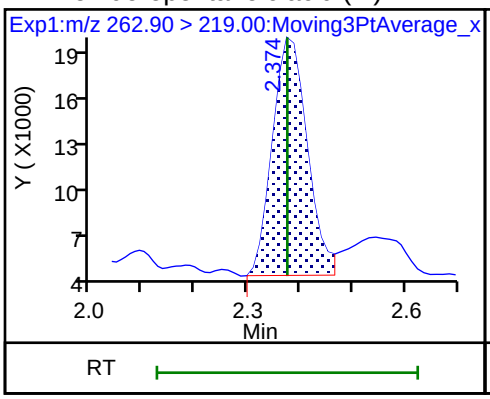

2 Perfluorobutanoic acid (M)



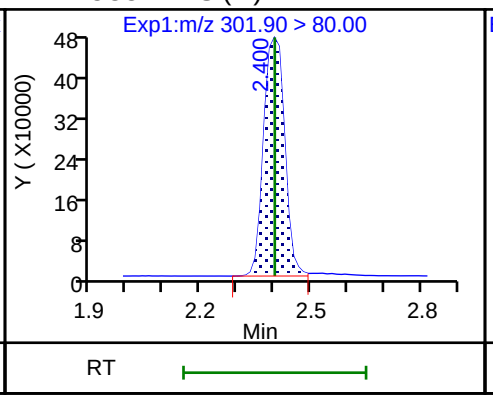

D 3 13C5 PFPeA



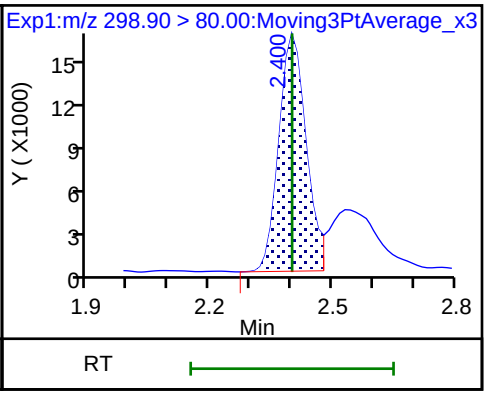

4 Perfluoropentanoic acid (M)



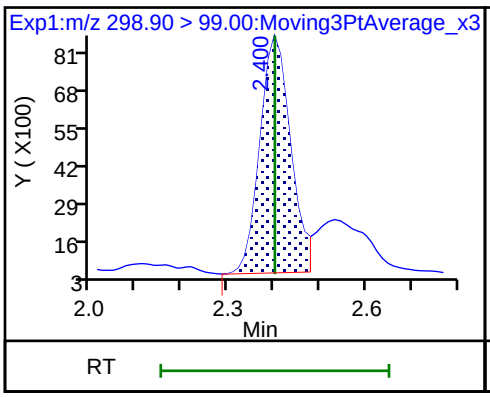

D 47 13C3 PFBS (M)



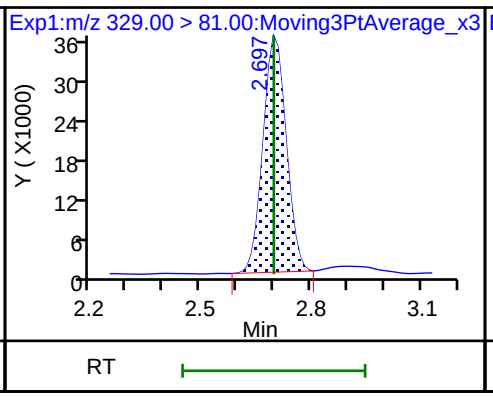

5 Perfluorobutanesulfonic acid



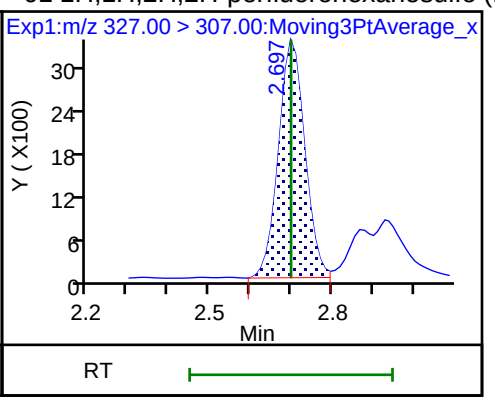

5 Perfluorobutanesulfonic acid



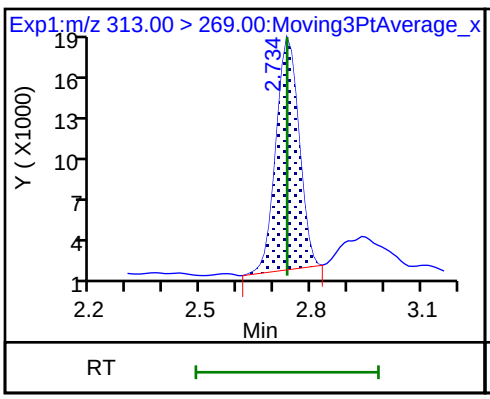

D 60 M2-4:2 FTS



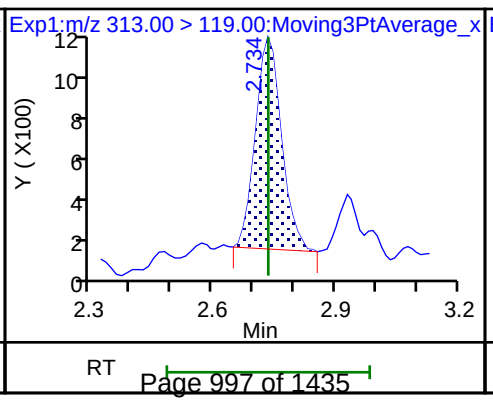

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



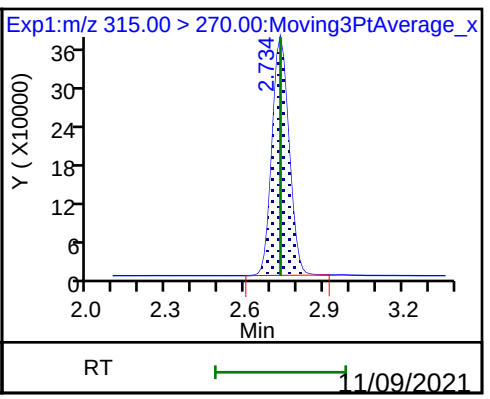

6 Perfluorohexanoic acid



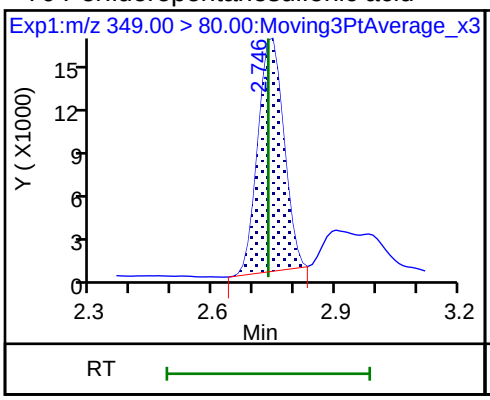

6 Perfluorohexanoic acid



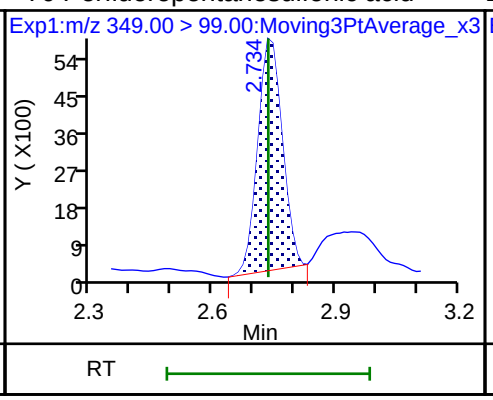

D 7 13C2 PFHxA



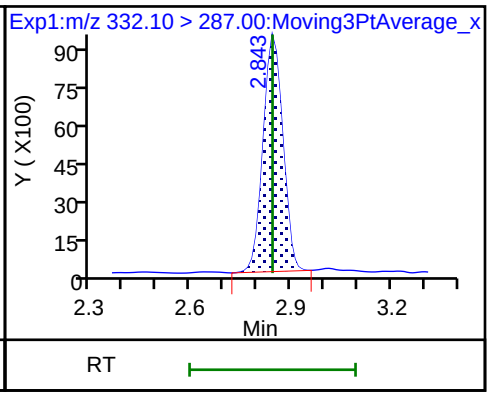
70 Perfluoropentanesulfonic acid



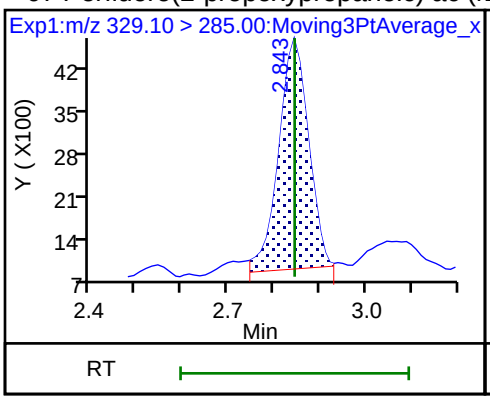

70 Perfluoropentanesulfonic acid



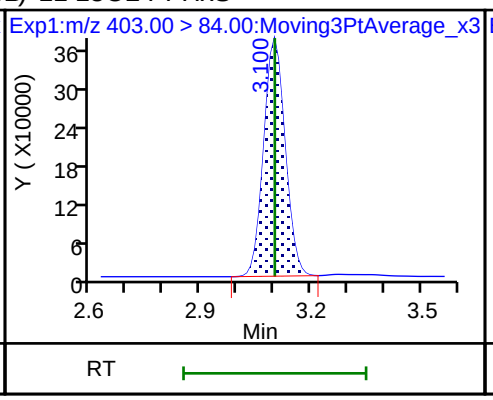

D 64 13C3 HFPO-DA



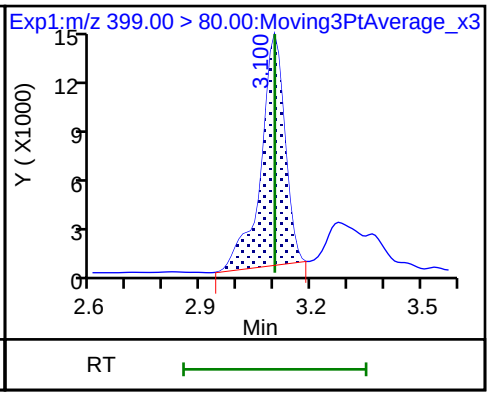

67 Perfluoro(2-propoxypropanoic) ac (M)



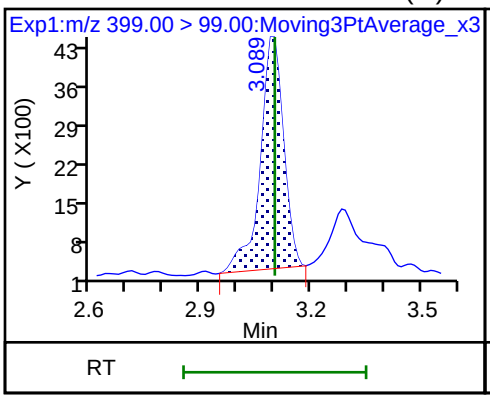

D 11 18O2 PFHxS



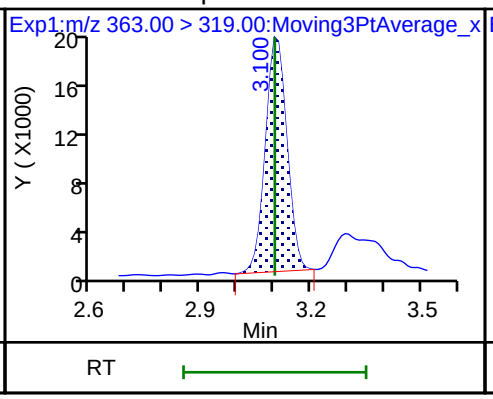

8 Perfluorohexanesulfonic acid



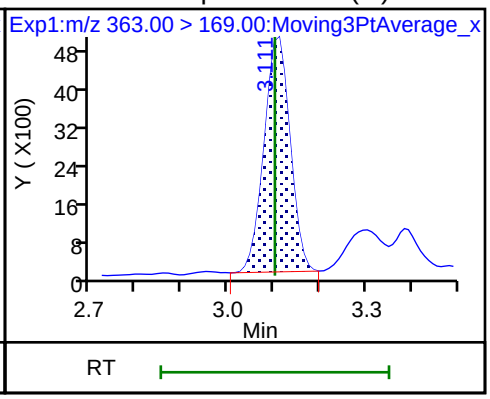

8 Perfluorohexanesulfonic acid (M)



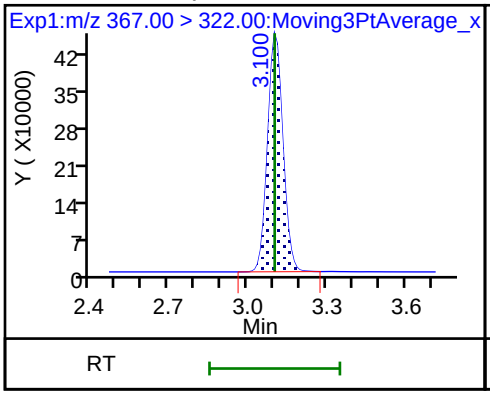

10 Perfluoroheptanoic acid



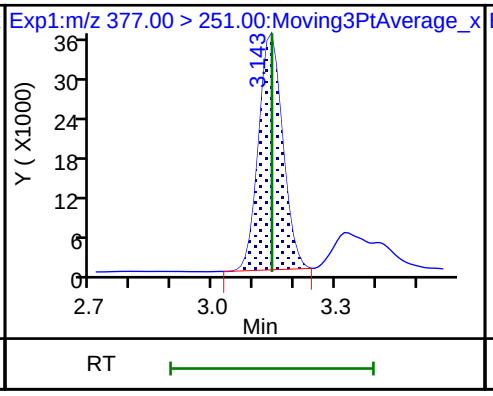

10 Perfluoroheptanoic acid (M)



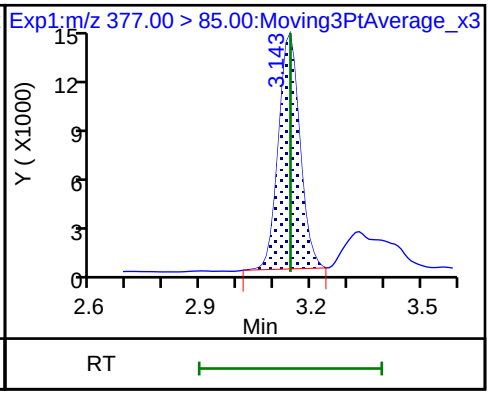

D 9 13C4 PFHpA



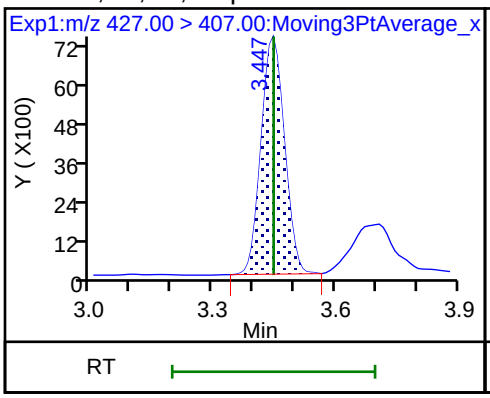

77 DONA



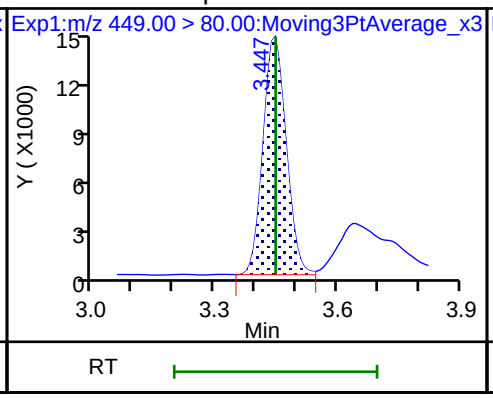

77 DONA



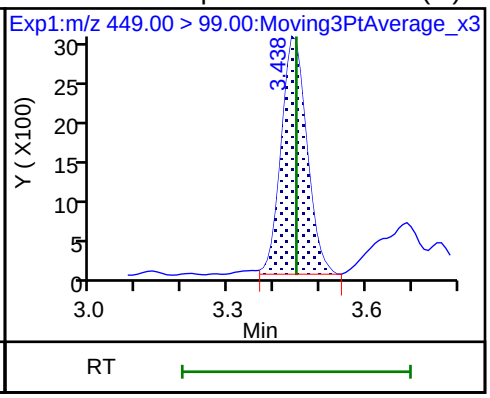
13 1H,1H,2H,2H-perfluorooctanesulfo



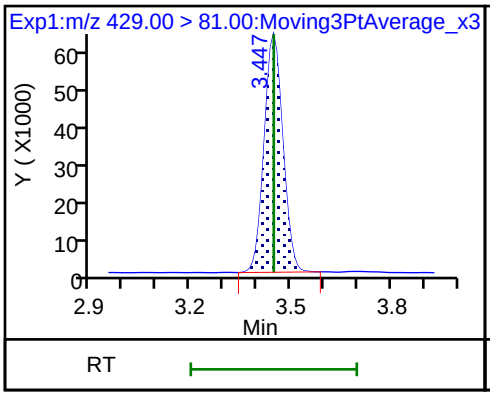

16 Perfluoroheptanesulfonic acid



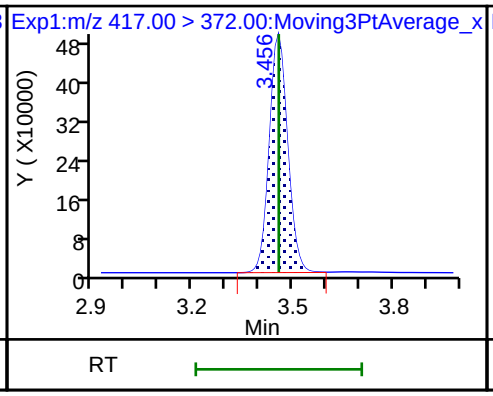

16 Perfluoroheptanesulfonic acid (M)



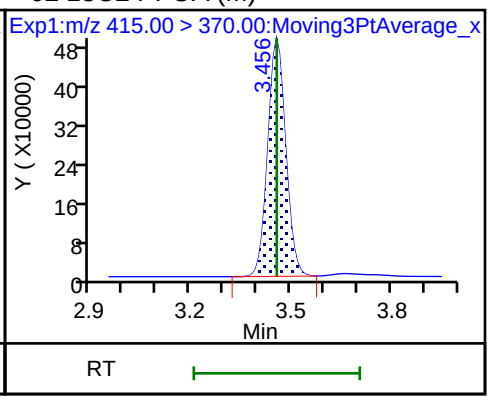

D 12 M2-6:2 FTS



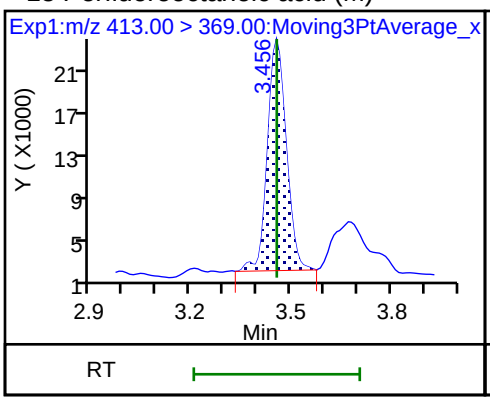

D 14 13C4 PFOA



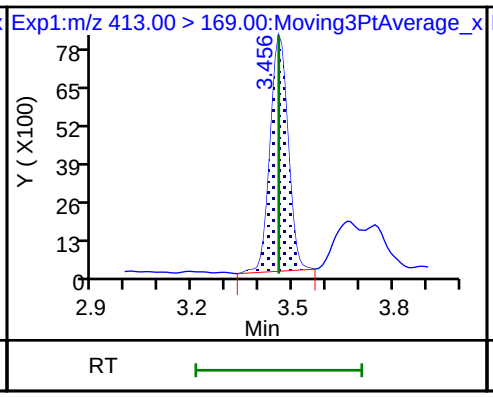

* 62 13C2 PFOA (M)



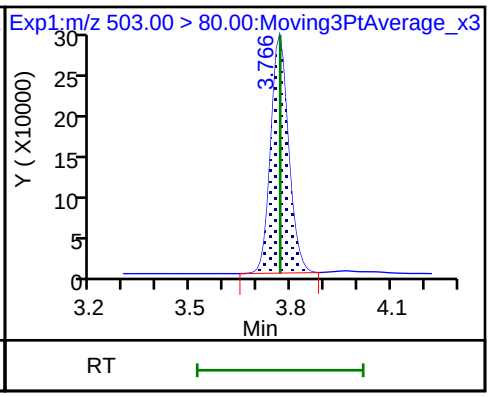

15 Perfluorooctanoic acid (M)



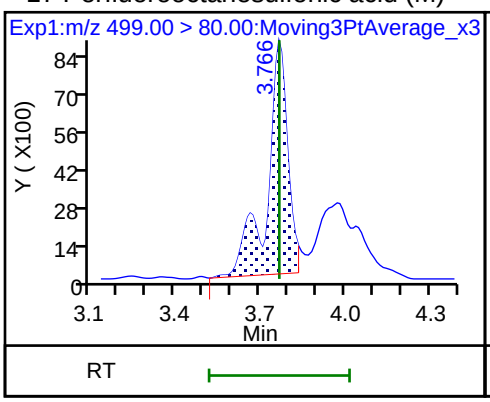

15 Perfluorooctanoic acid



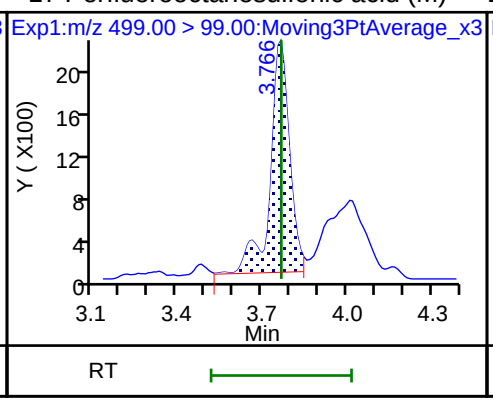

D 18 13C4 PFOS



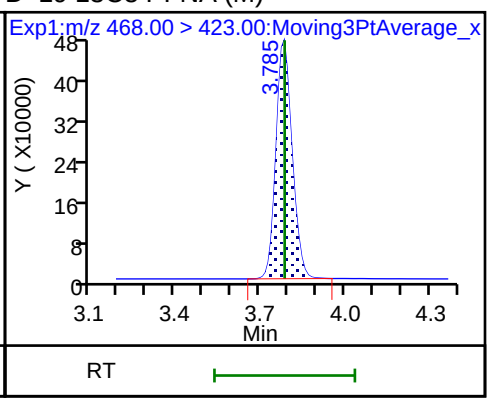

17 Perfluorooctanesulfonic acid (M)



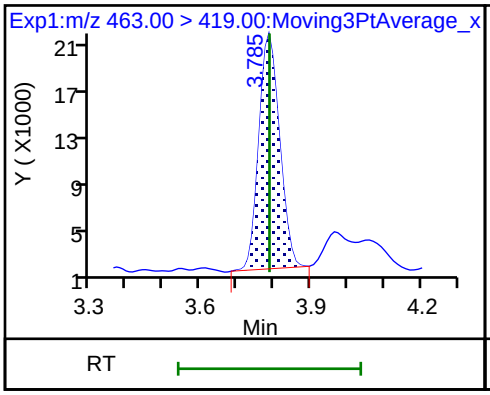

17 Perfluorooctanesulfonic acid (M)



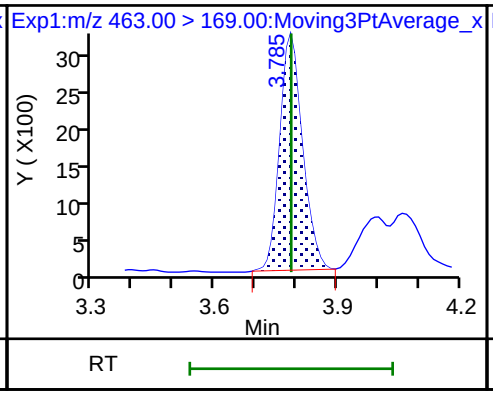

D 19 13C5 PFNA (M)



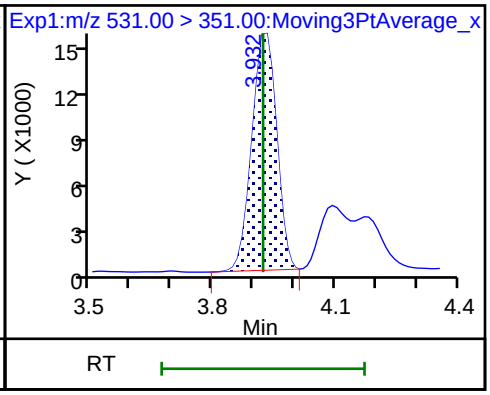
20 Perfluorononanoic acid



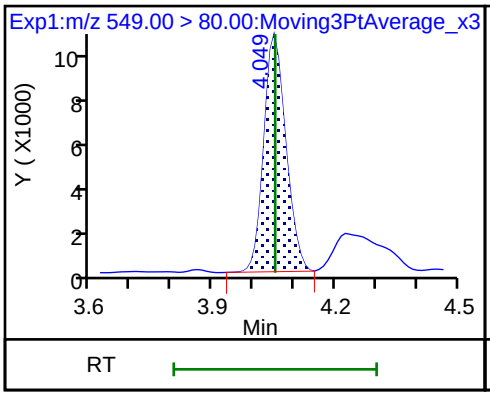

20 Perfluorononanoic acid



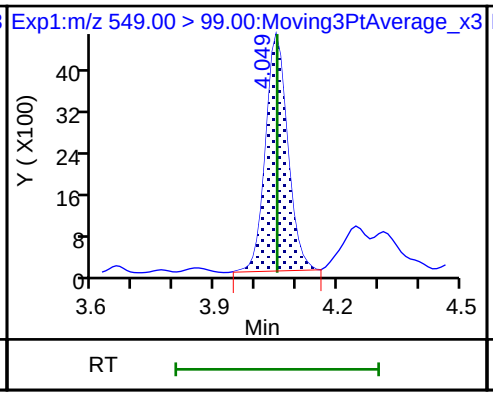

69 9-Chlorohexadecafluoro-3-oxanona



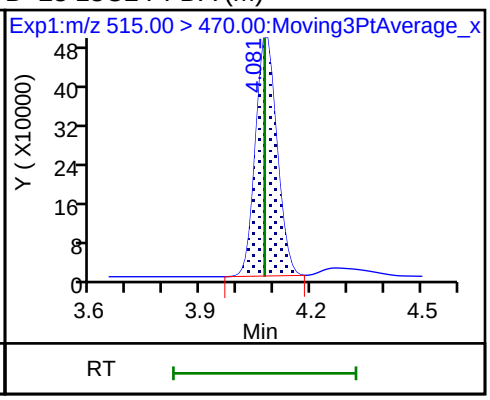

68 Perfluorononanesulfonic acid



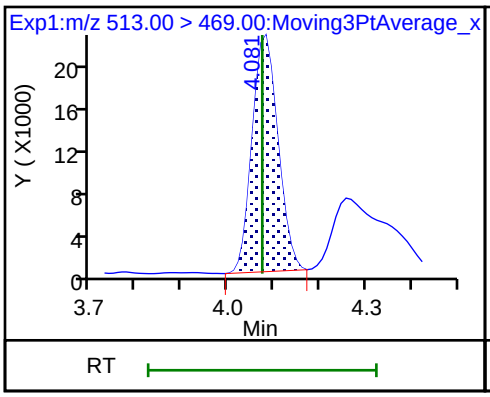

68 Perfluorononanesulfonic acid



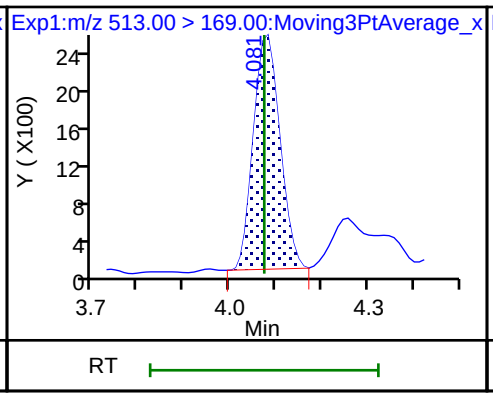

D 23 13C2 PFDA (M)



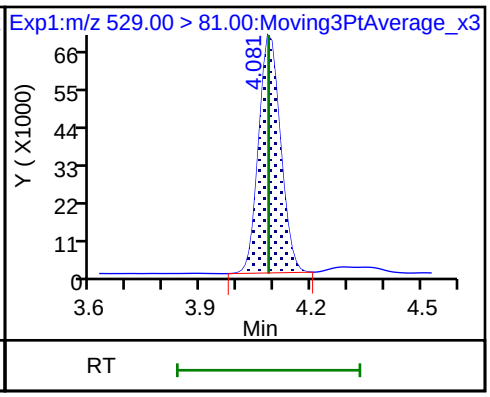

24 Perfluorodecanoic acid



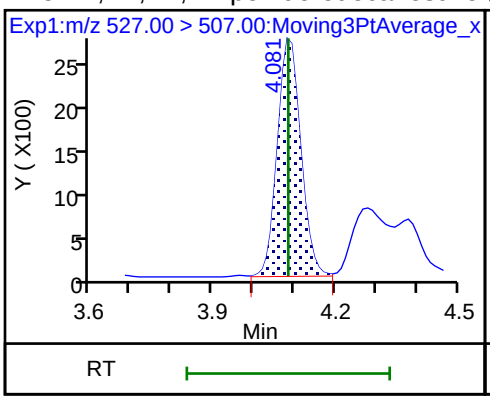

24 Perfluorodecanoic acid



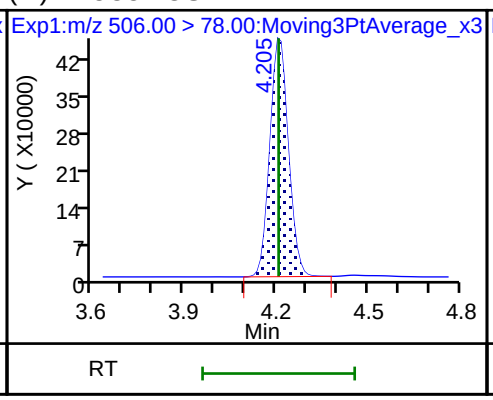

D 26 M2-8:2 FTS



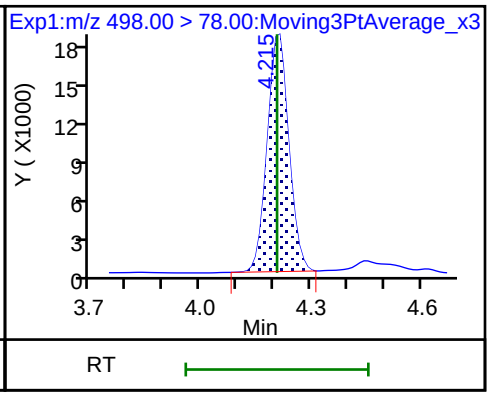

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



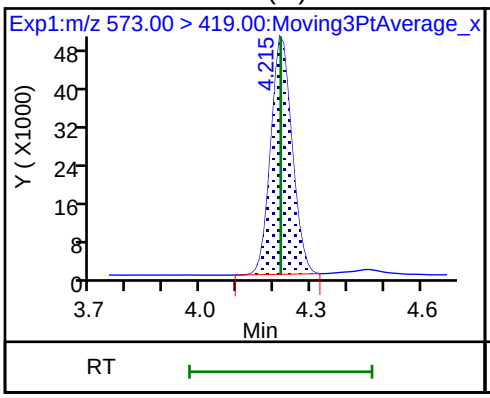

D 21 13C8 FOSA



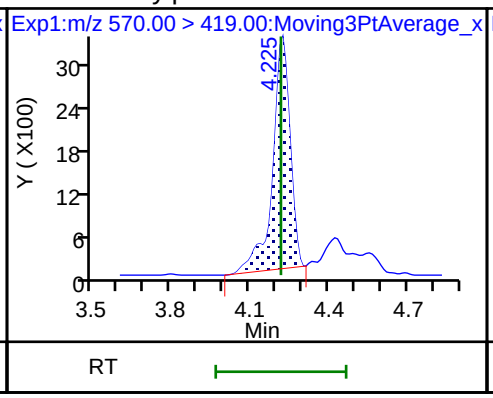

22 Perfluorooctanesulfonamide



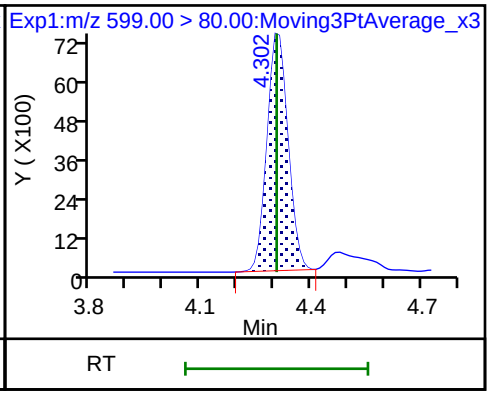
D 27 d3-NMeFOSAA (M)



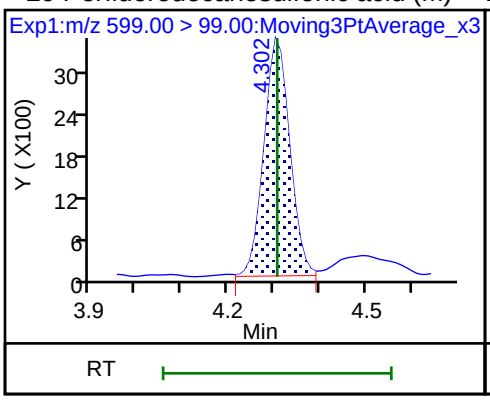

28 N-methylperfluorooctanesulfonami



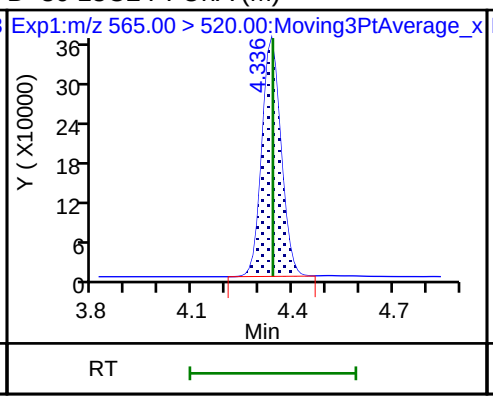

29 Perfluorodecanesulfonic acid



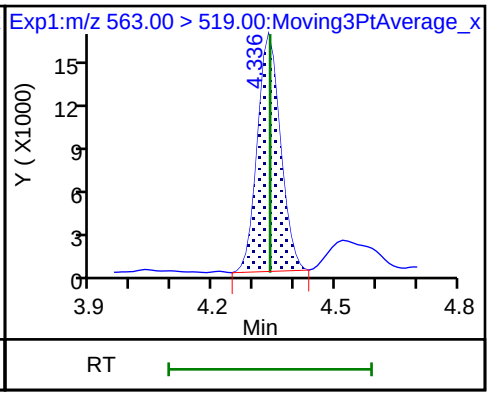

29 Perfluorodecanesulfonic acid (M)



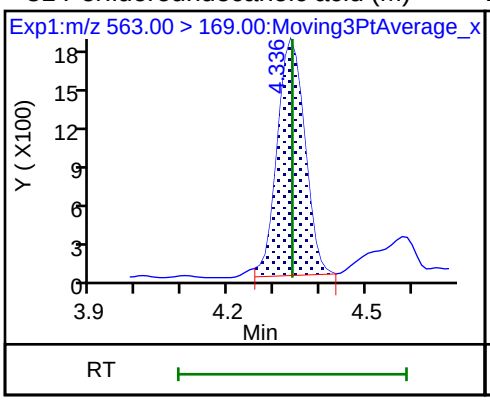

D 30 13C2 PFUnA (M)



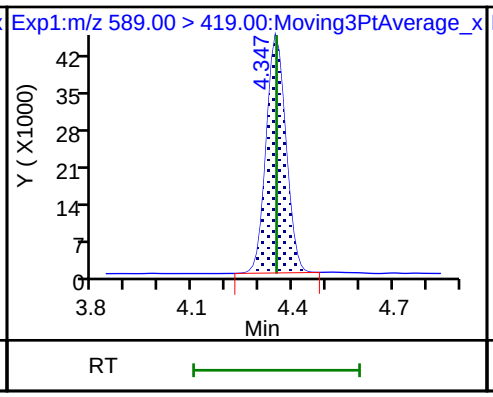

31 Perfluoroundecanoic acid



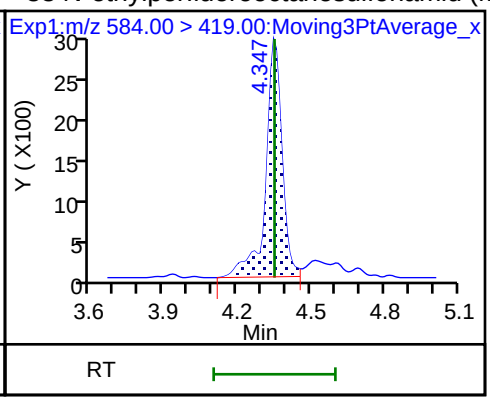

31 Perfluoroundecanoic acid (M)



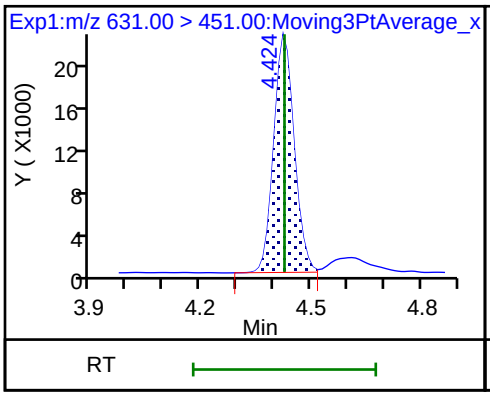

D 32 d5-NEtFOSAA



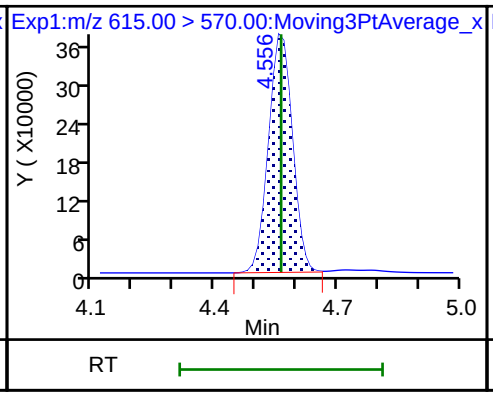

33 N-ethylperfluorooctanesulfonamid (M)



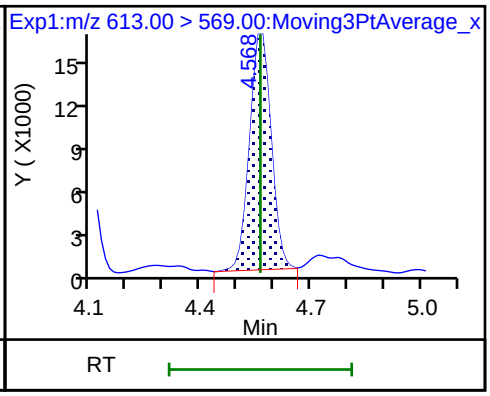

66 11-Chloroeicosafluoro-3-oxaundec



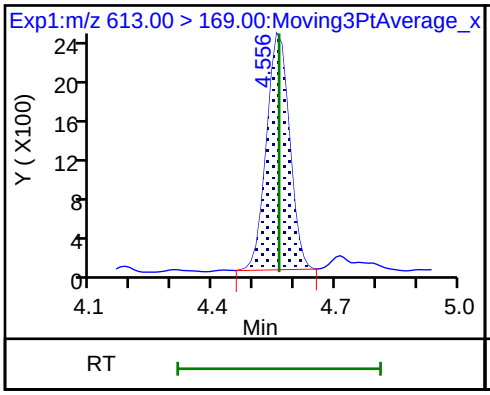

D 36 13C2 PFDoA



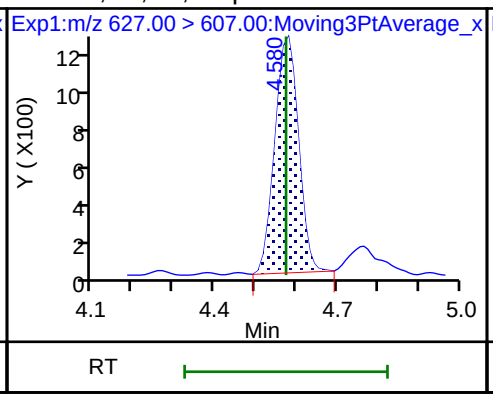

37 Perfluorododecanoic acid



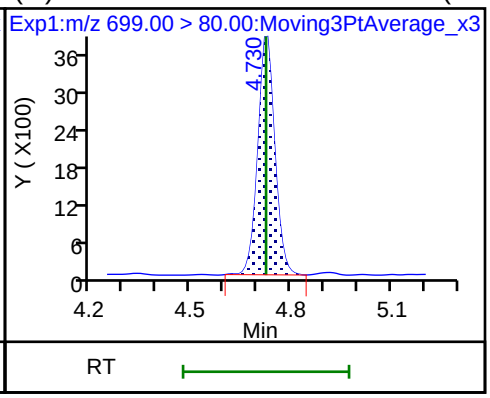
37 Perfluorododecanoic acid



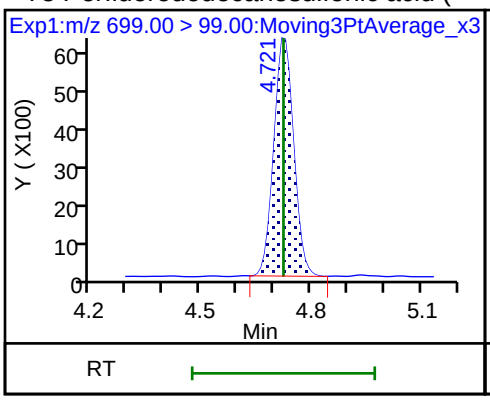

74 1H,1H,2H,2H-perfluorododecanesul (M)



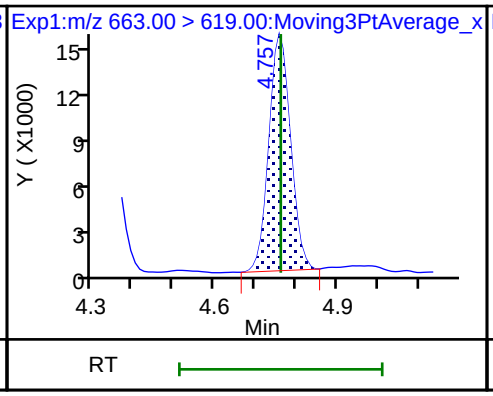

75 Perfluorododecanesulfonic acid (



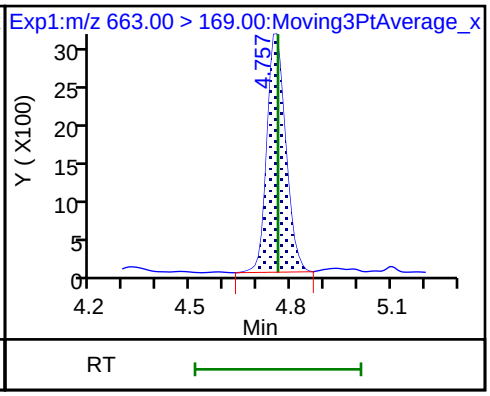

75 Perfluorododecanesulfonic acid (



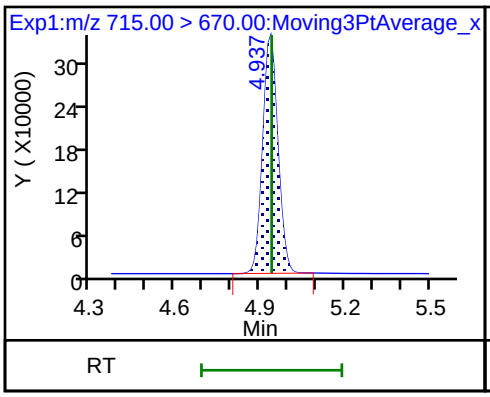

41 Perfluorotridecanoic acid



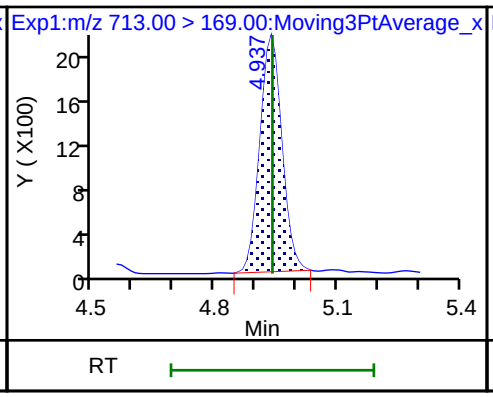

41 Perfluorotridecanoic acid



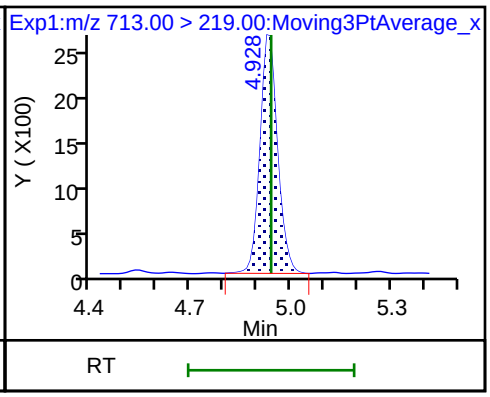

D 43 13C2 PFTeDA



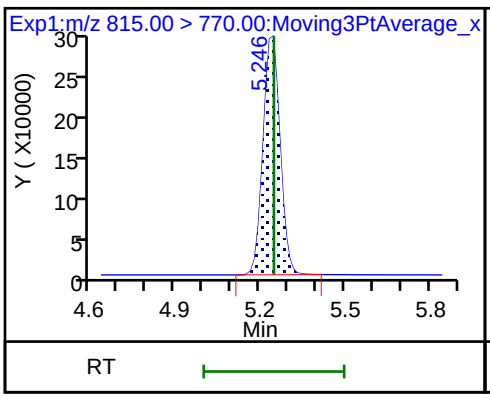

42 Perfluorotetradecanoic acid



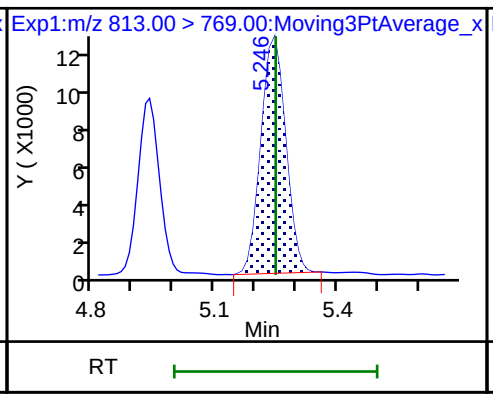

42 Perfluorotetradecanoic acid



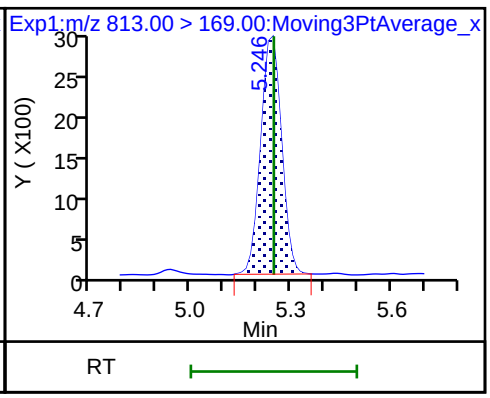

D 44 13C2 PFHxDA



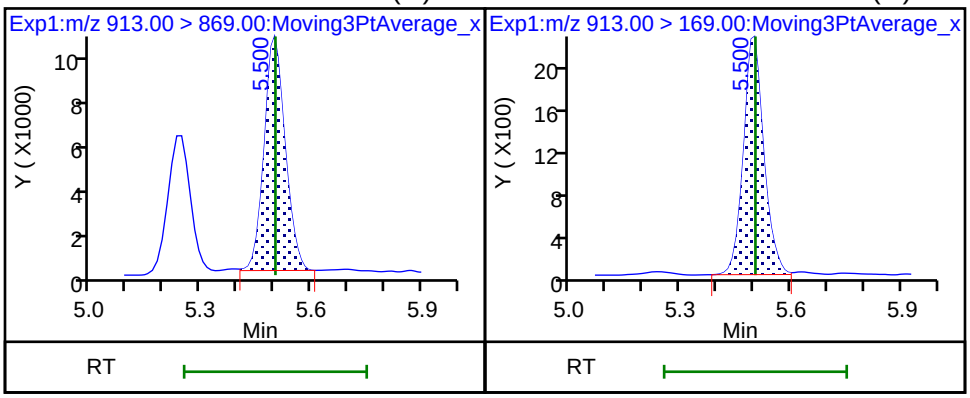

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

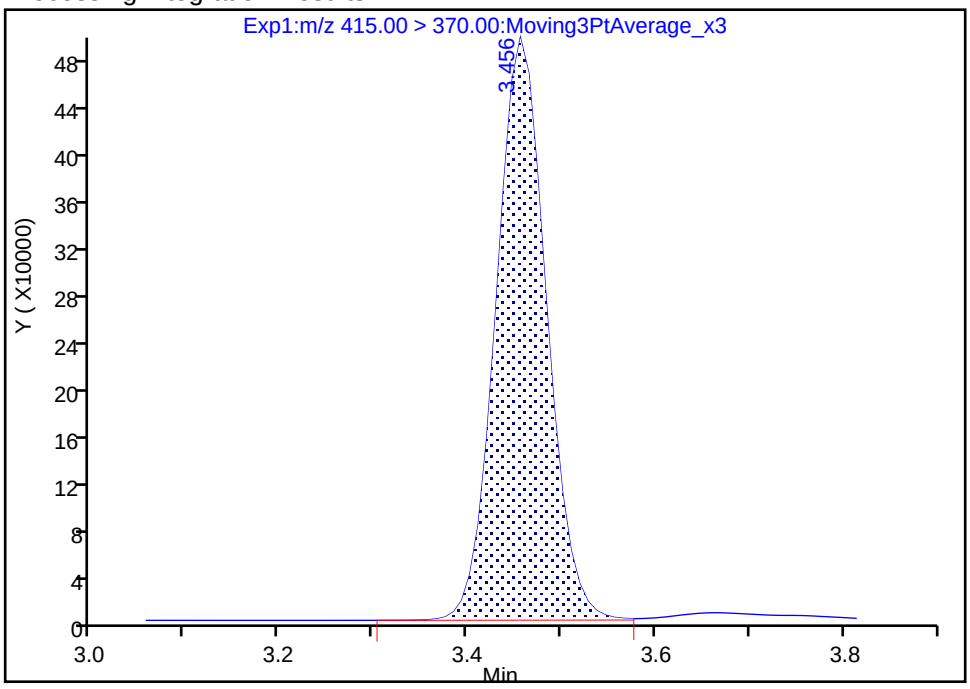
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

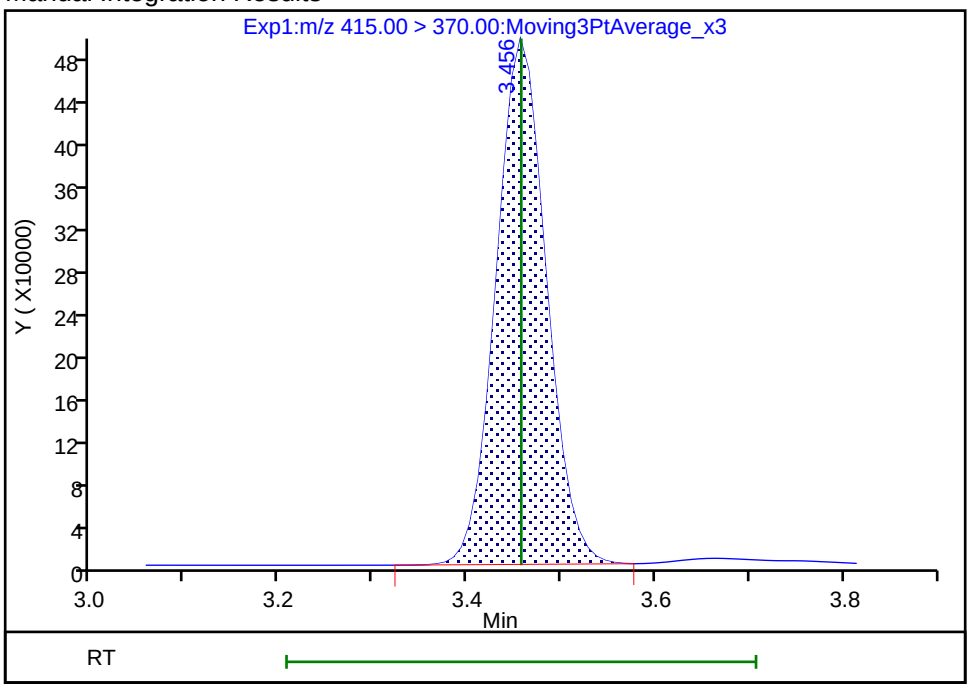
Processing Integration Results

RT: 3.46
Area: 1839384
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1830434
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:44:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

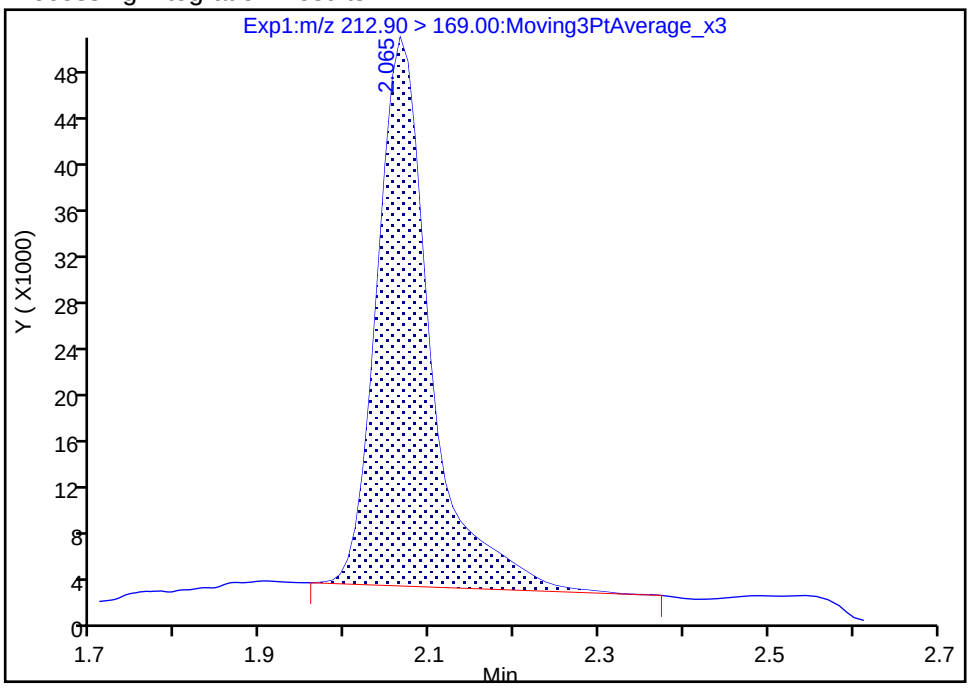
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

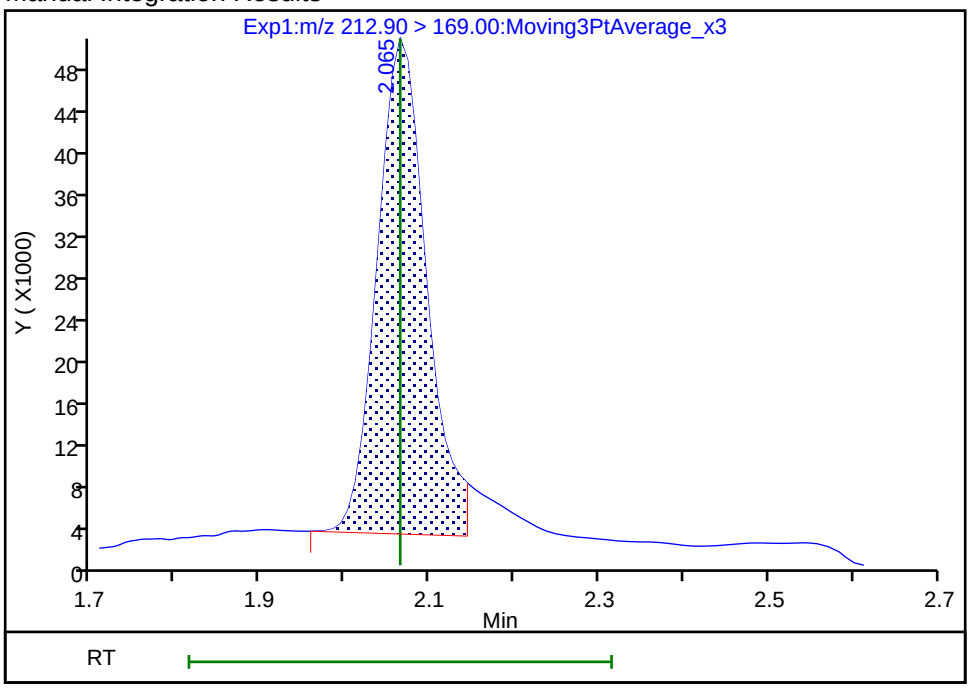
Processing Integration Results

RT: 2.06
Area: 207534
Amount: 0.143443
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 190539
Amount: 0.131696
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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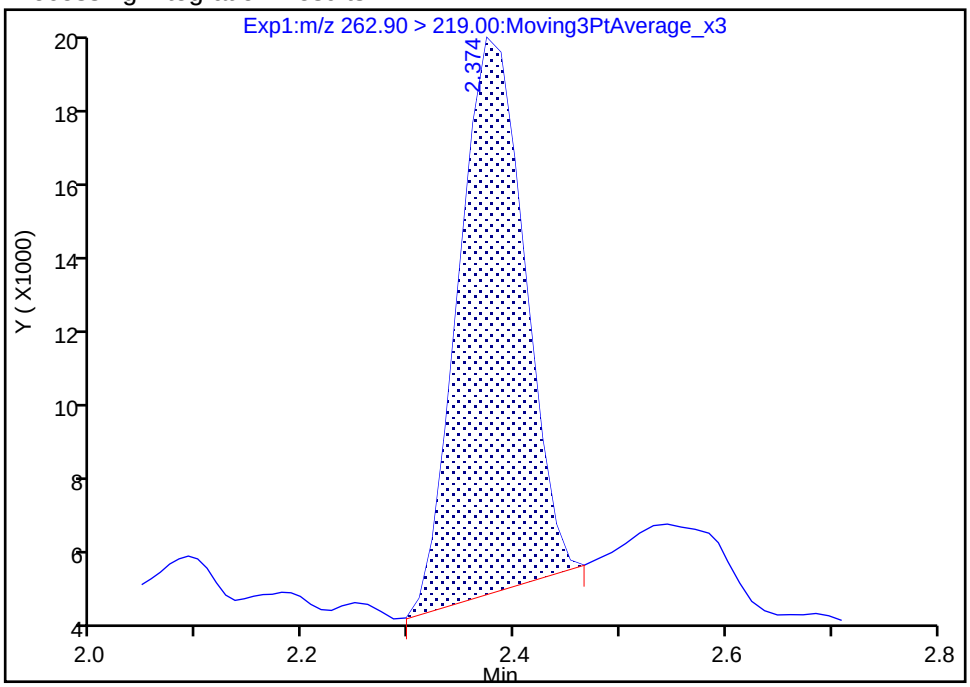
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

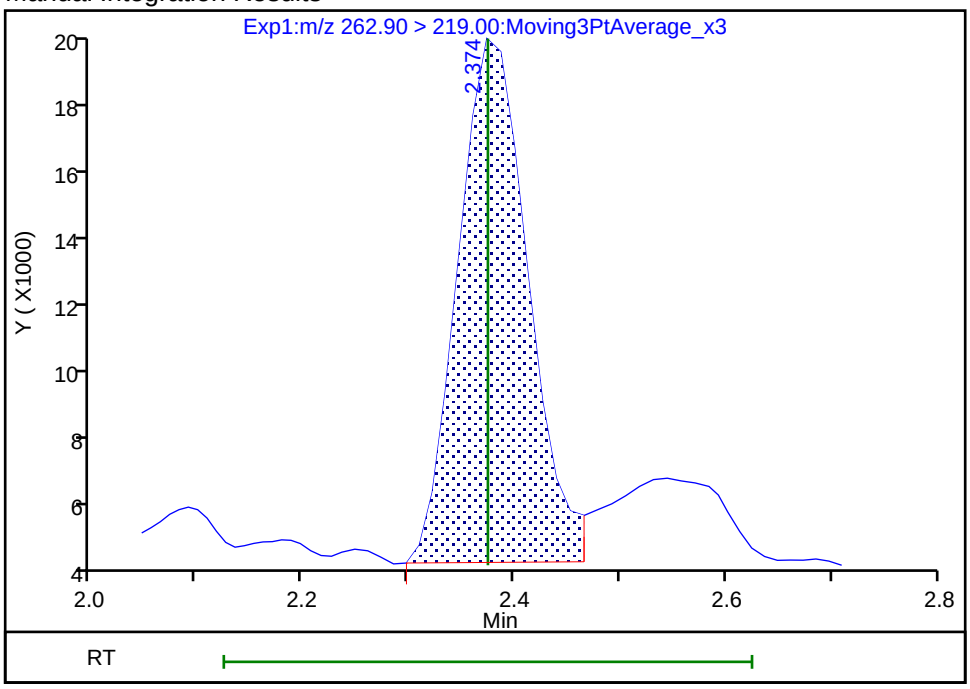
Processing Integration Results

RT: 2.37
Area: 61804
Amount: 0.048440
Amount Units: ng/ml




Manual Integration Results

RT: 2.37
Area: 68295
Amount: 0.053527
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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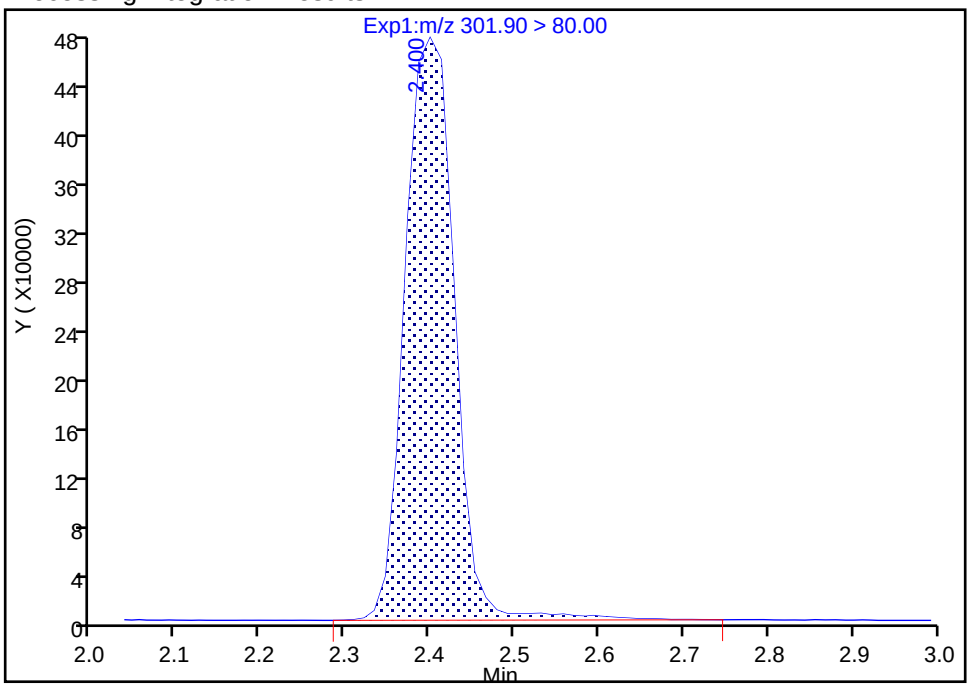
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

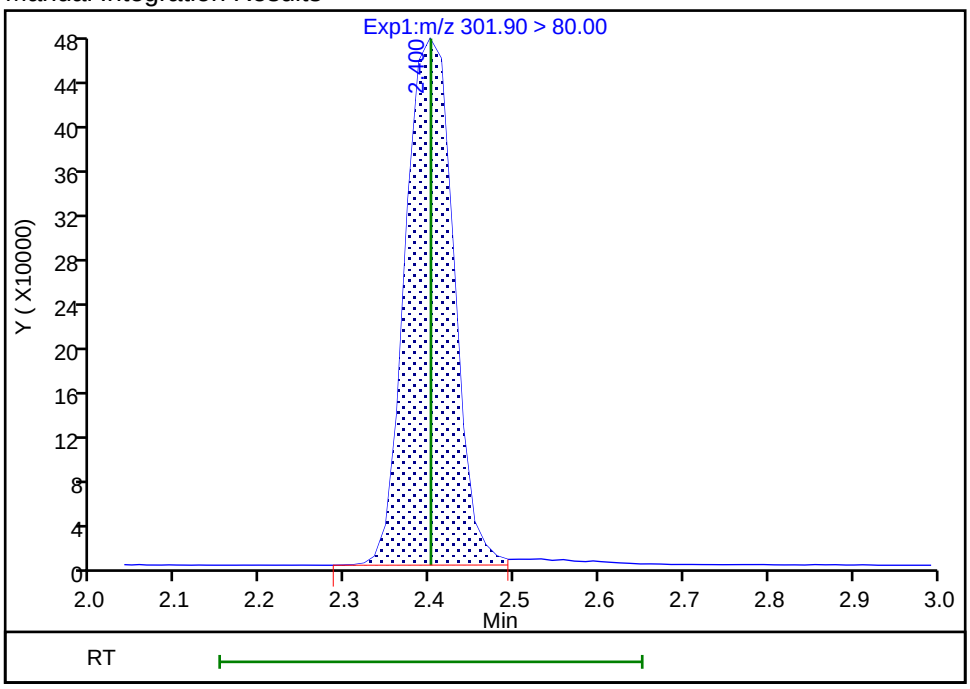
Processing Integration Results

RT: 2.40
Area: 1900540
Amount: 1.119383
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1864893
Amount: 1.103758
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:27:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

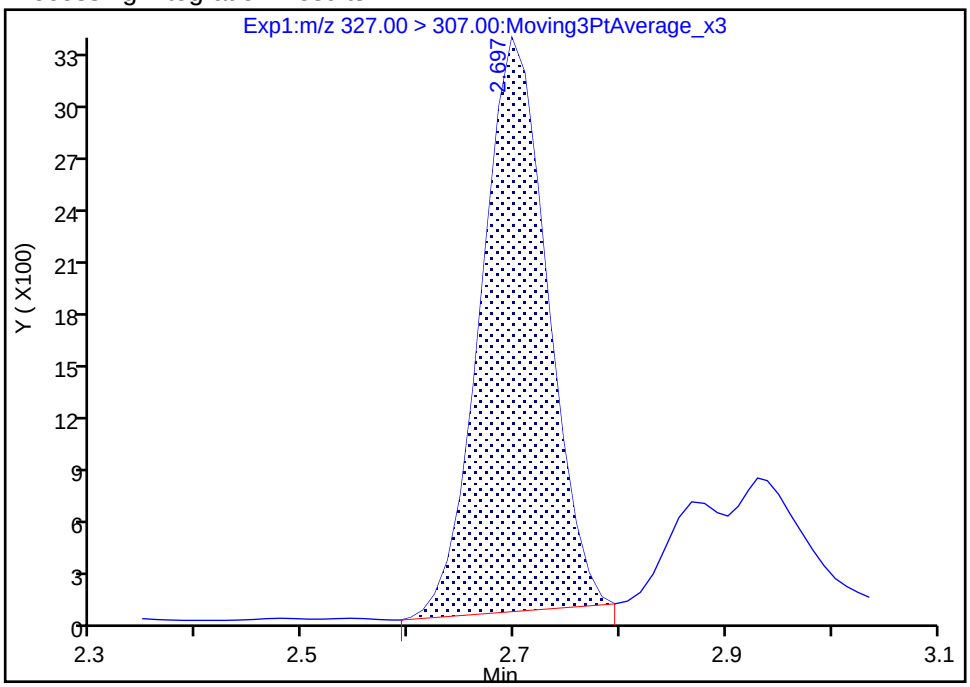
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 61 1H,1H,2H,2H-perfluorohexanesulfo, CAS: 757124-72-4

Signal: 1

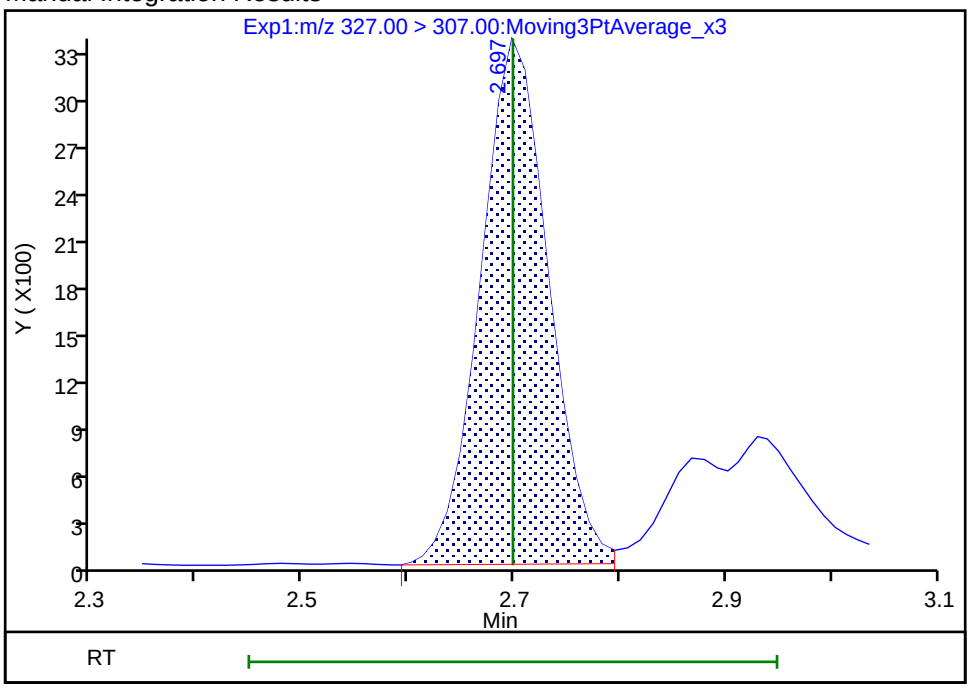
Processing Integration Results

RT: 2.70
Area: 14325
Amount: 0.049255
Amount Units: ng/ml




Manual Integration Results

RT: 2.70
Area: 14834
Amount: 0.051005
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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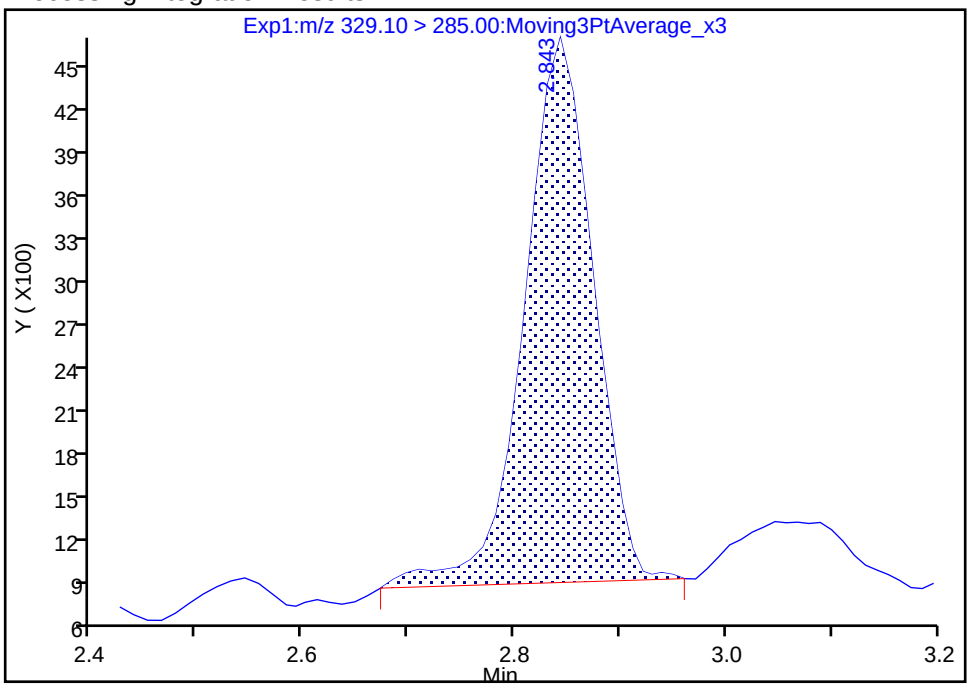
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

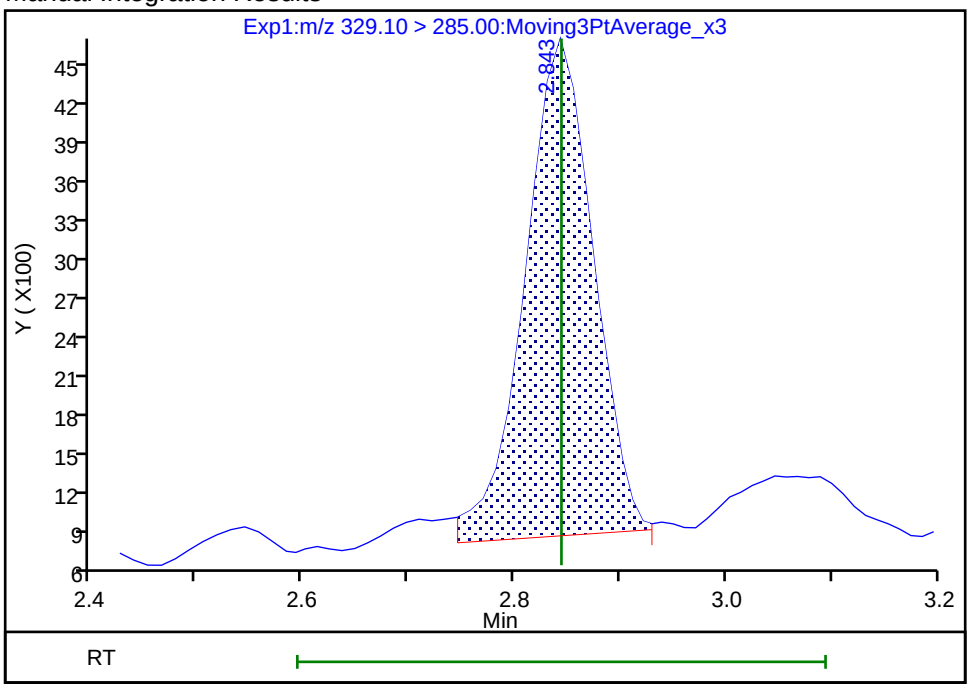
Processing Integration Results

RT: 2.84
Area: 17002
Amount: 0.121192
Amount Units: ng/ml




Manual Integration Results

RT: 2.84
Area: 16961
Amount: 0.120900
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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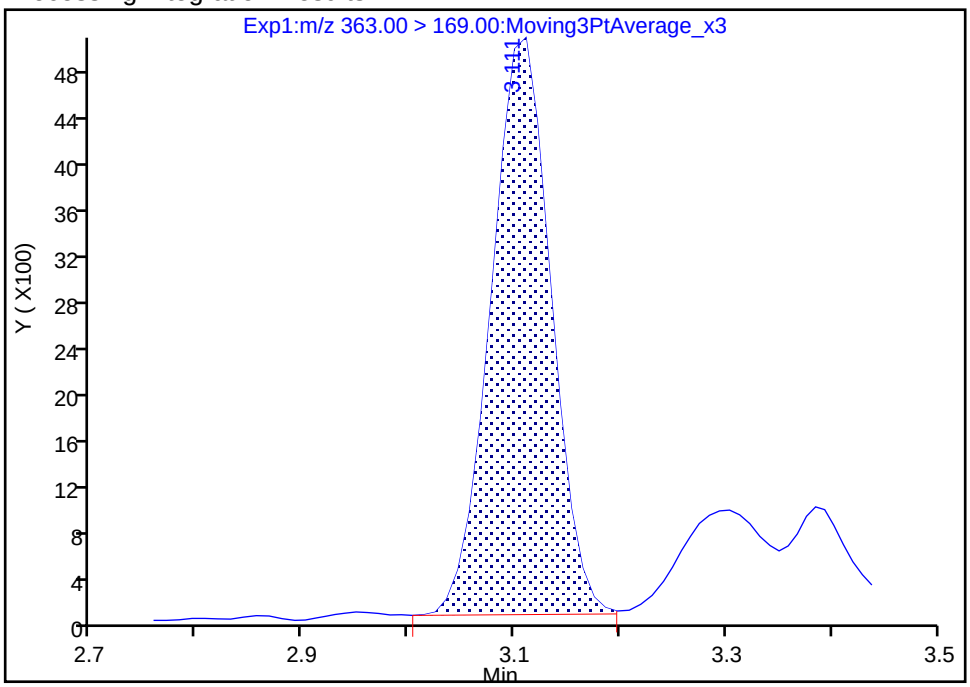
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

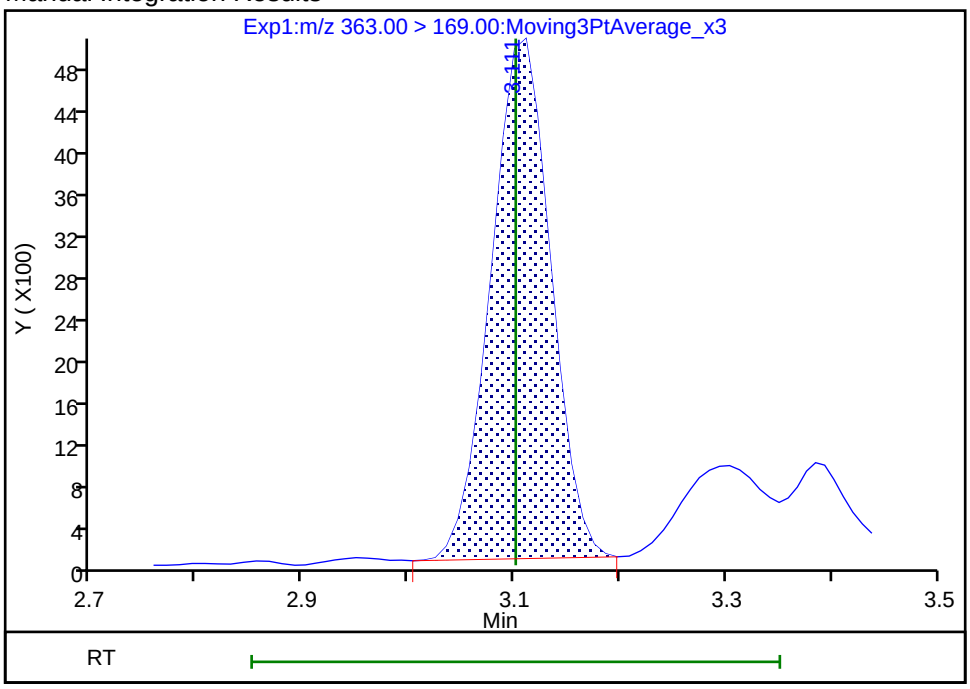
Processing Integration Results

RT: 3.11
Area: 19762
Amount: 0.050444
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 19617
Amount: 0.050444
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

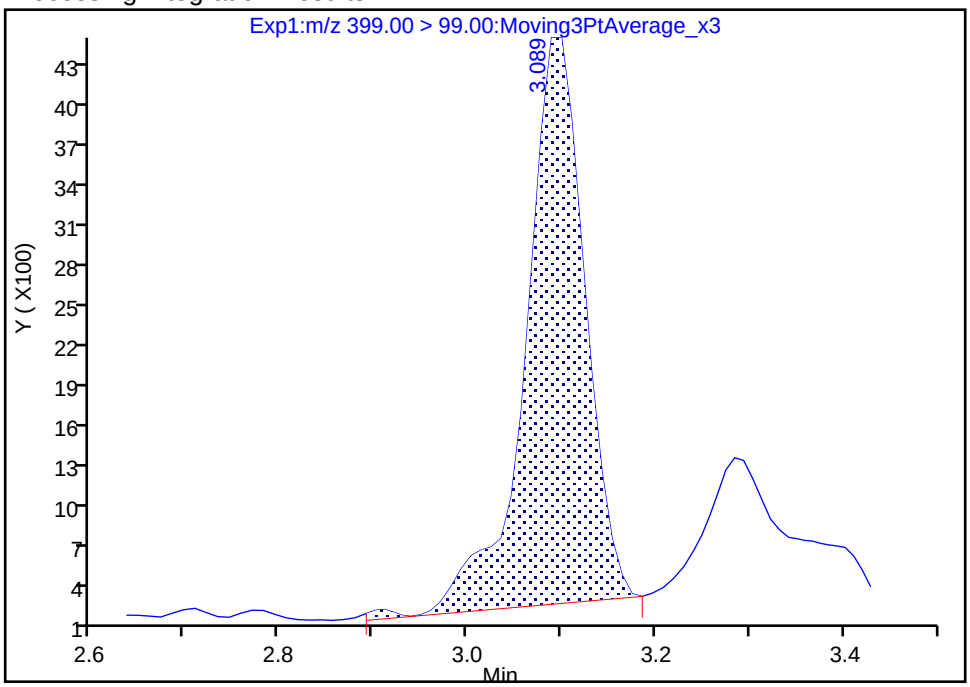
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

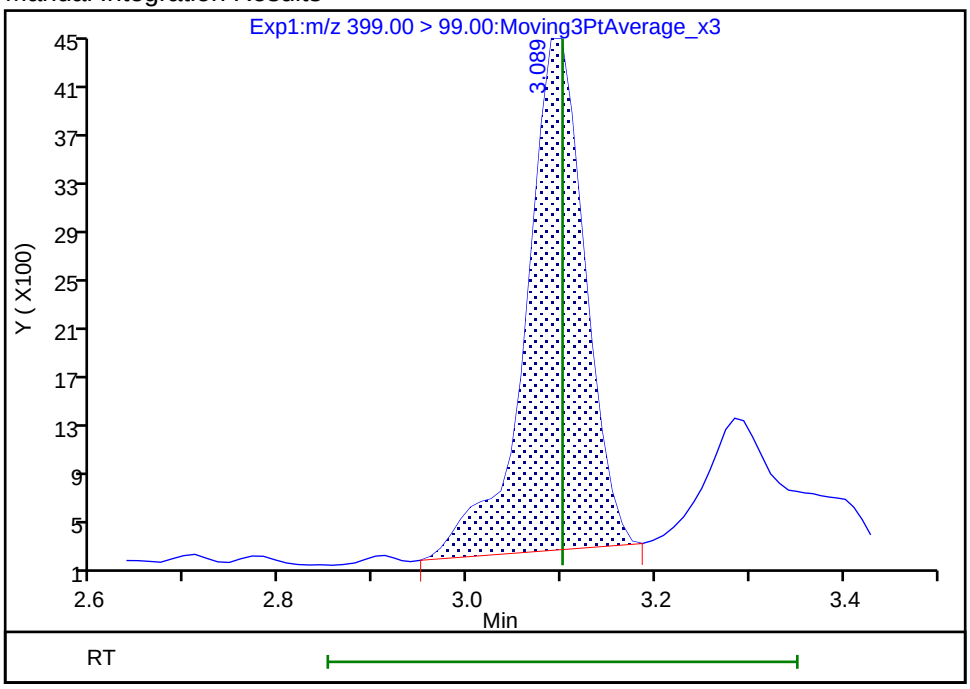
Processing Integration Results

RT: 3.09
Area: 18684
Amount: 0.046739
Amount Units: ng/ml




Manual Integration Results

RT: 3.09
Area: 18511
Amount: 0.046739
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:28:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

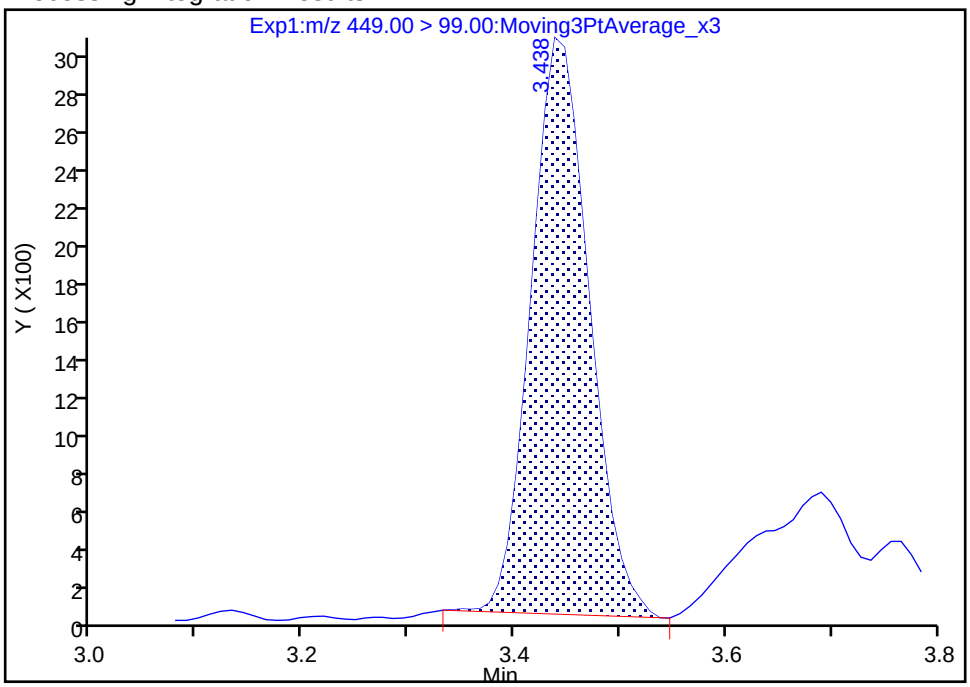
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

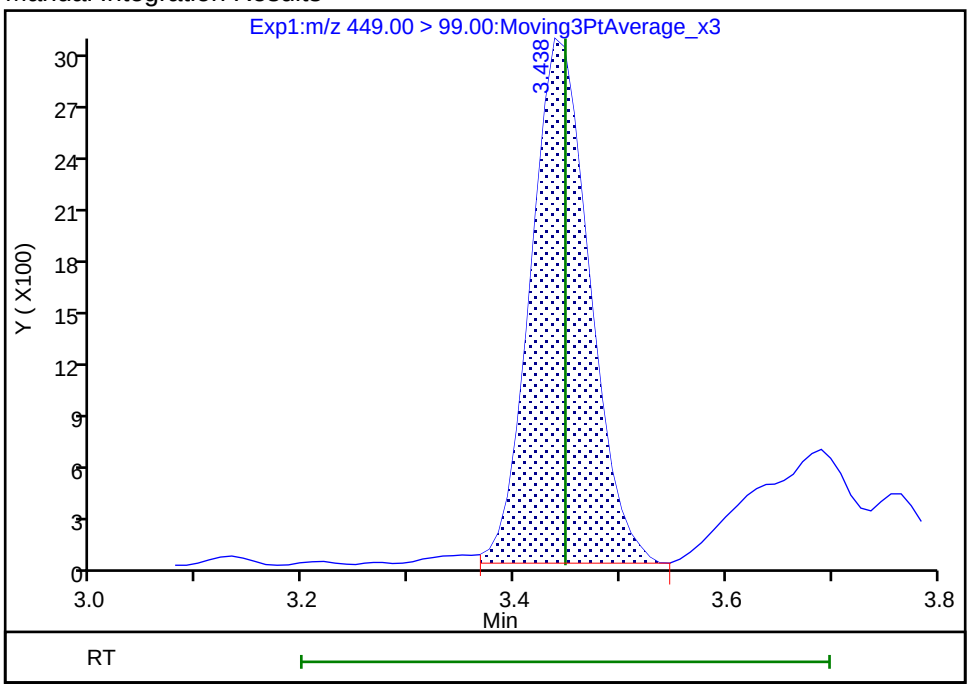
Processing Integration Results

RT: 3.44
Area: 11483
Amount: 0.051583
Amount Units: ng/ml




Manual Integration Results

RT: 3.44
Area: 11651
Amount: 0.051583
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:29:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

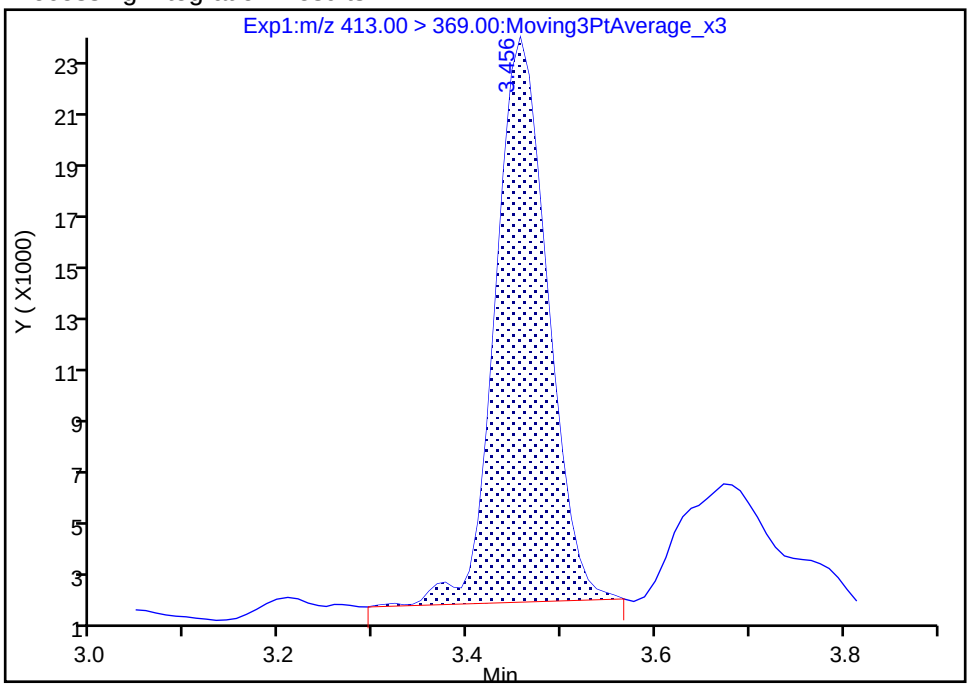
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

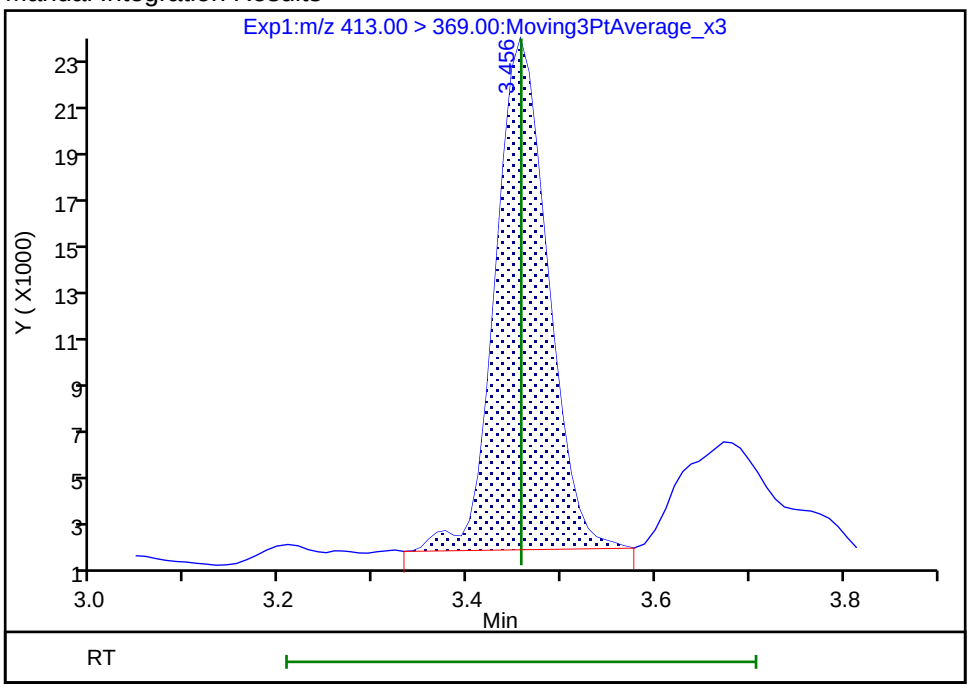
Processing Integration Results

RT: 3.46
Area: 82250
Amount: 0.051109
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 82666
Amount: 0.051367
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:29:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

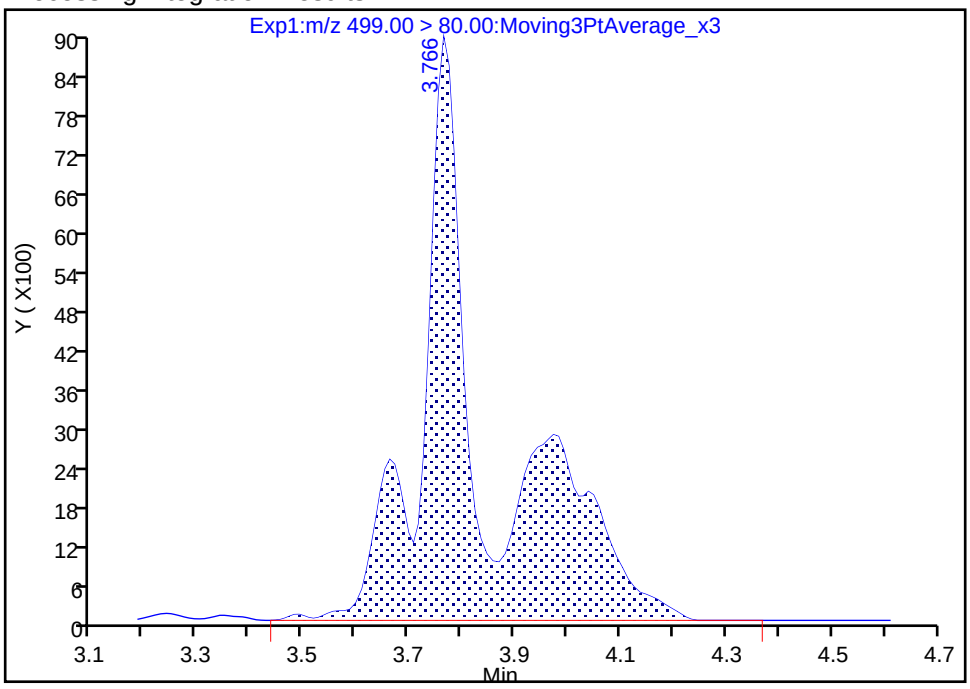
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

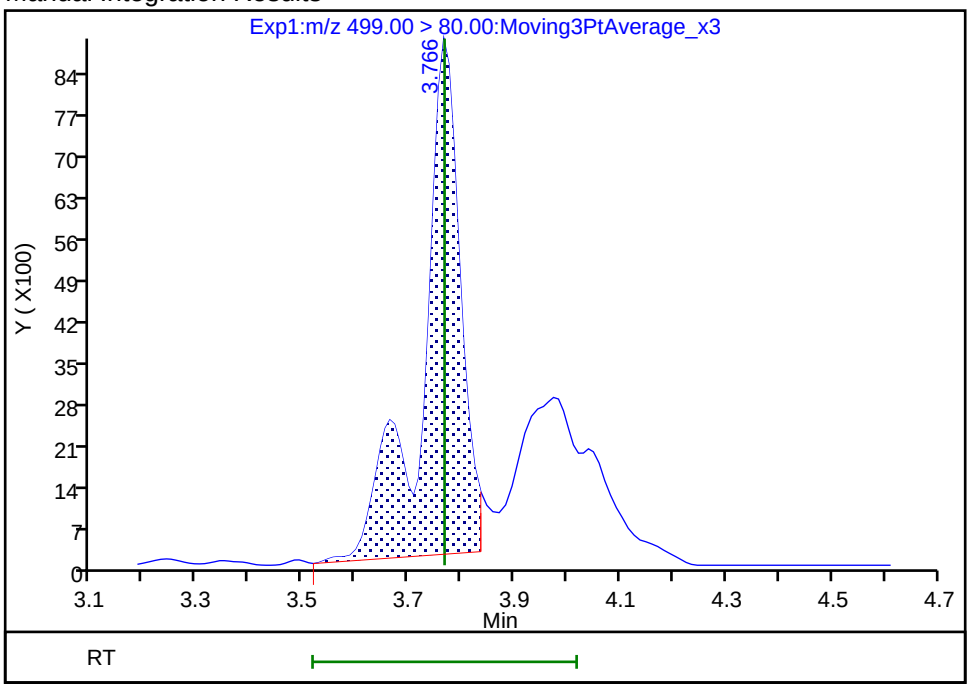
Processing Integration Results

RT: 3.77
Area: 78961
Amount: 0.080768
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 44218
Amount: 0.045230
Amount Units: ng/ml




Reviewer: deannd, 03-Nov-2021 14:08:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

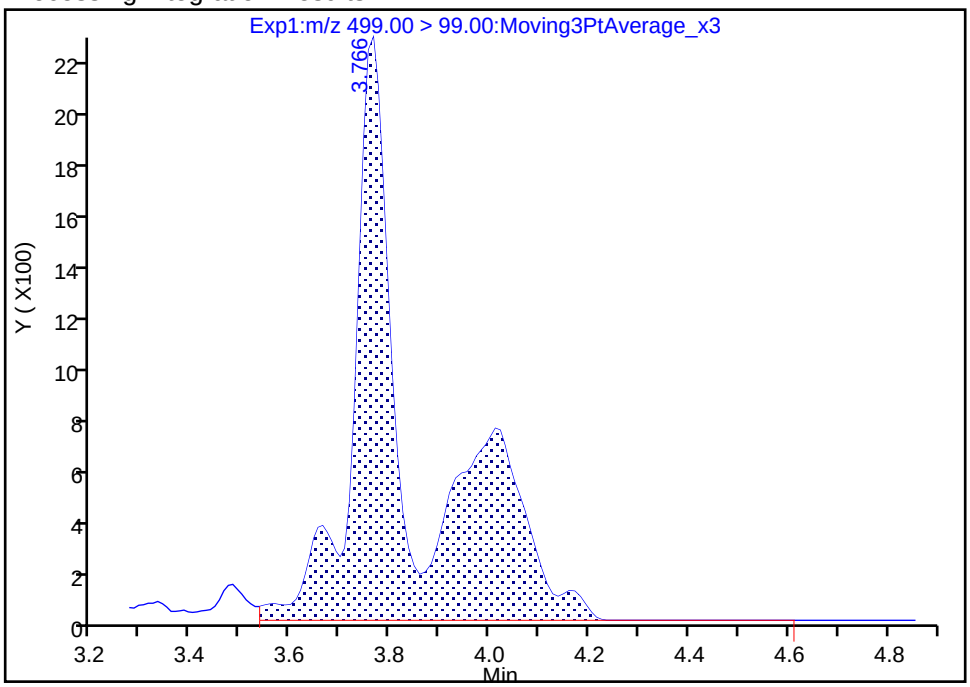
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

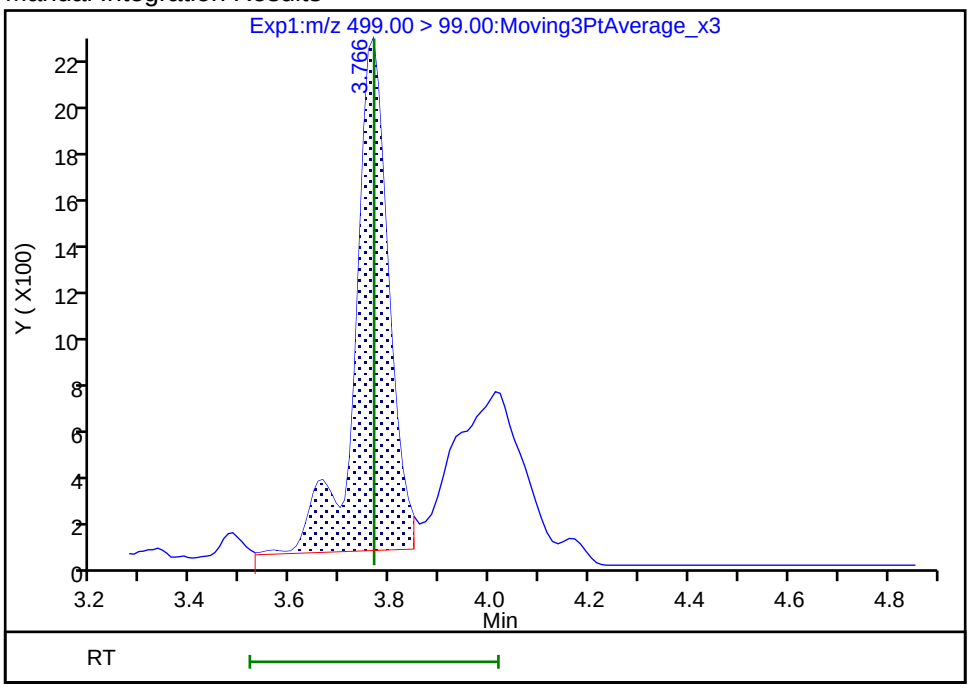
Processing Integration Results

RT: 3.77
Area: 19635
Amount: 0.080768
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 10506
Amount: 0.045230
Amount Units: ng/ml




Reviewer: deannd, 03-Nov-2021 14:08:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

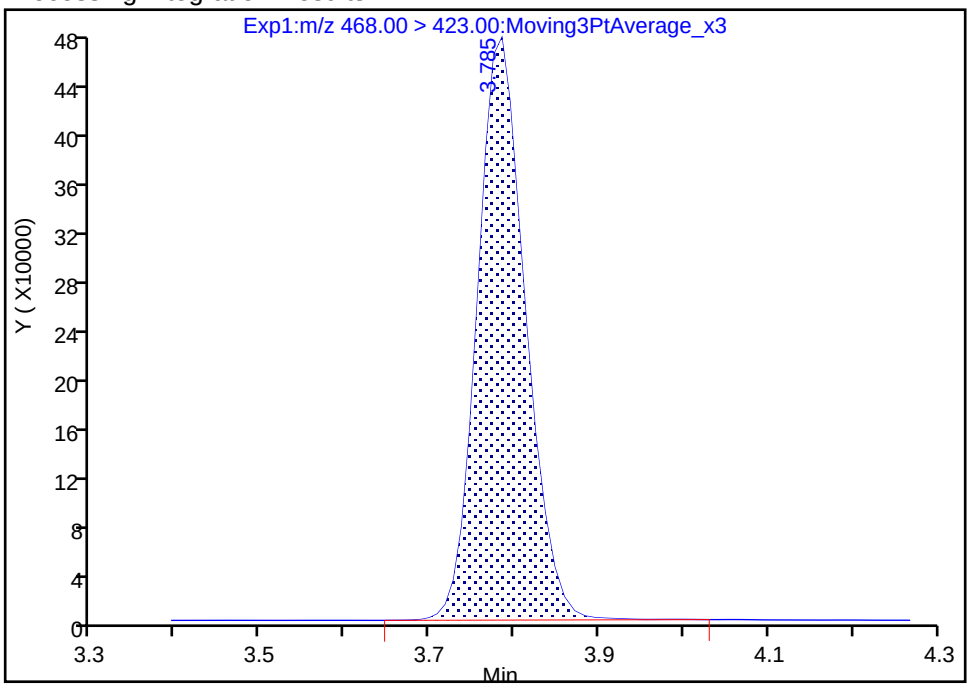
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

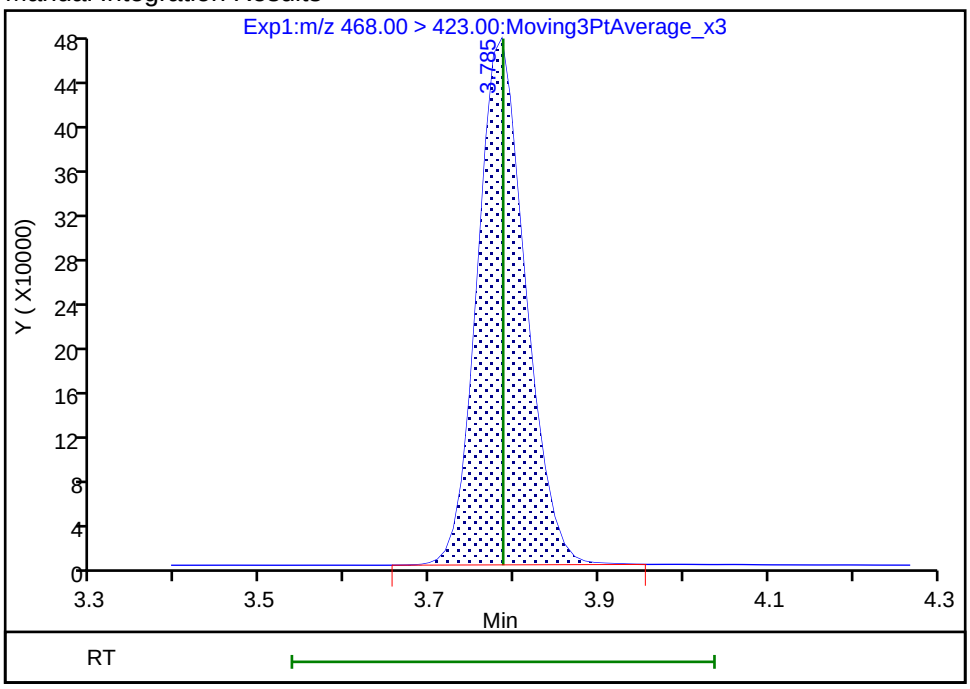
Processing Integration Results

RT: 3.78
Area: 1886371
Amount: 1.250795
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1883146
Amount: 1.254762
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:27:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

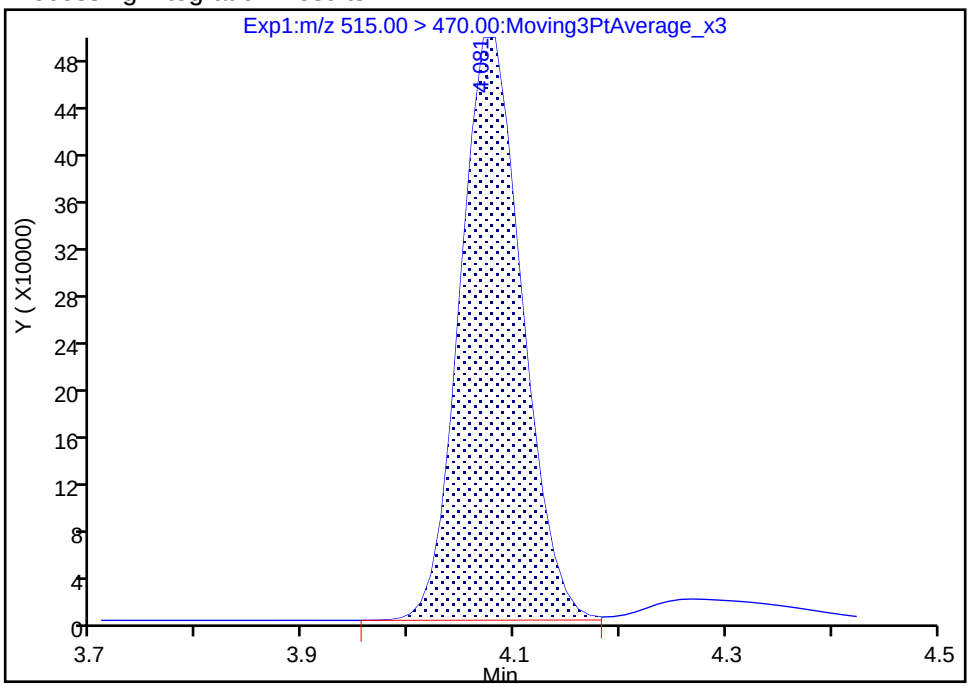
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

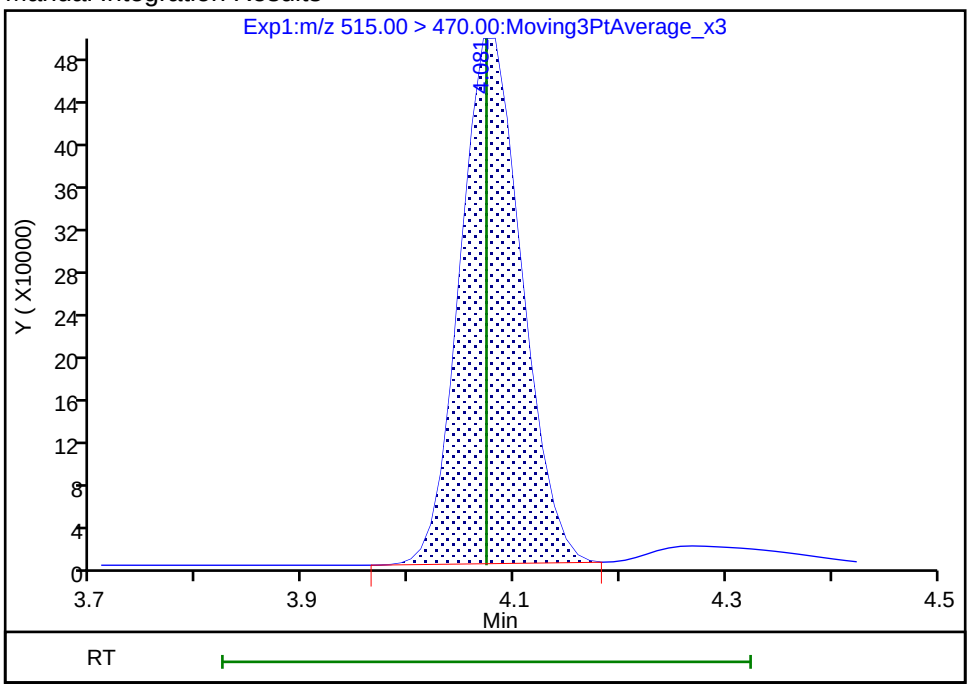
Processing Integration Results

RT: 4.08
Area: 2014167
Amount: 1.329808
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1997799
Amount: 1.319001
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:44:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

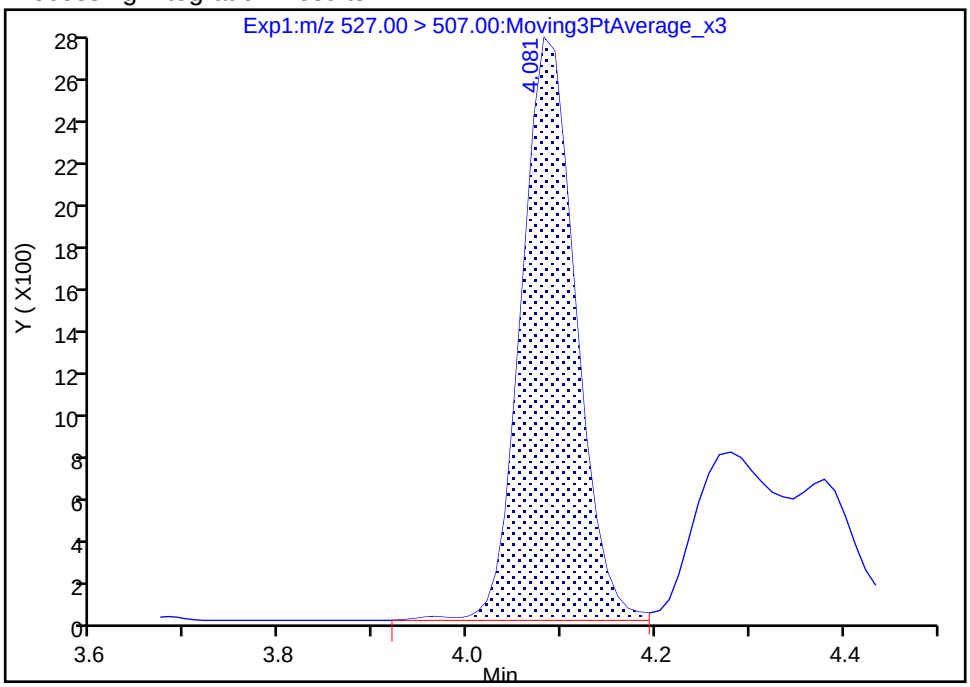
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

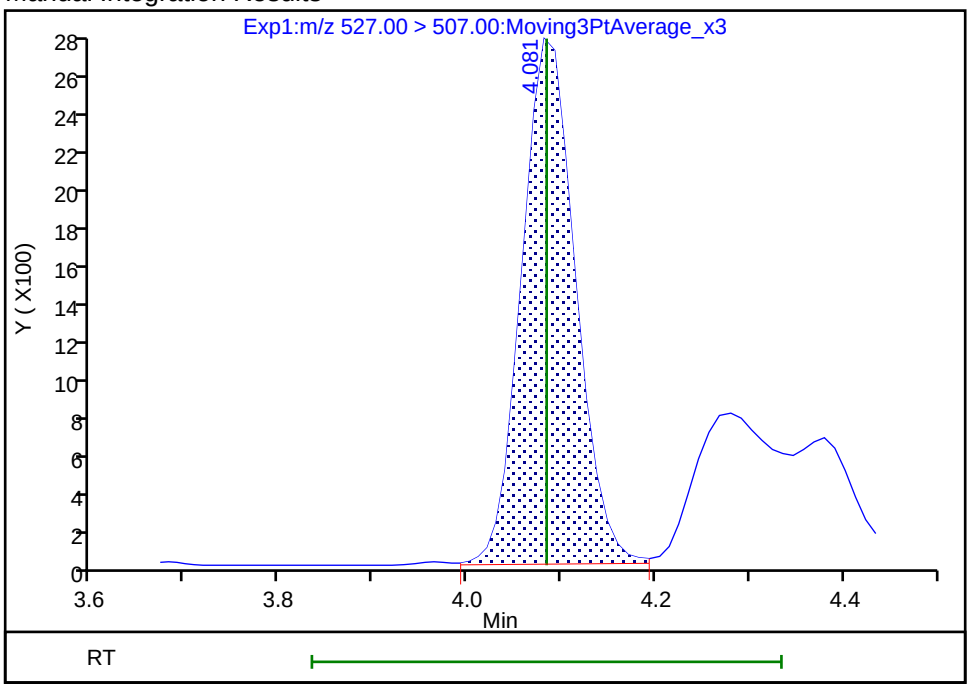
Processing Integration Results

RT: 4.08
Area: 10954
Amount: 0.053881
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 10836
Amount: 0.053301
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:29:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

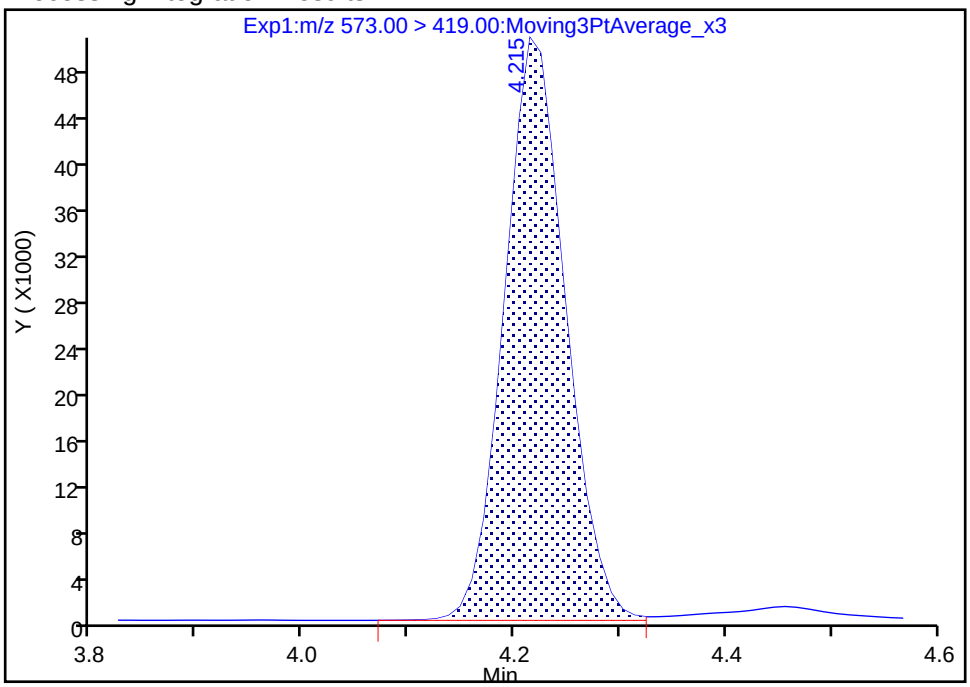
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

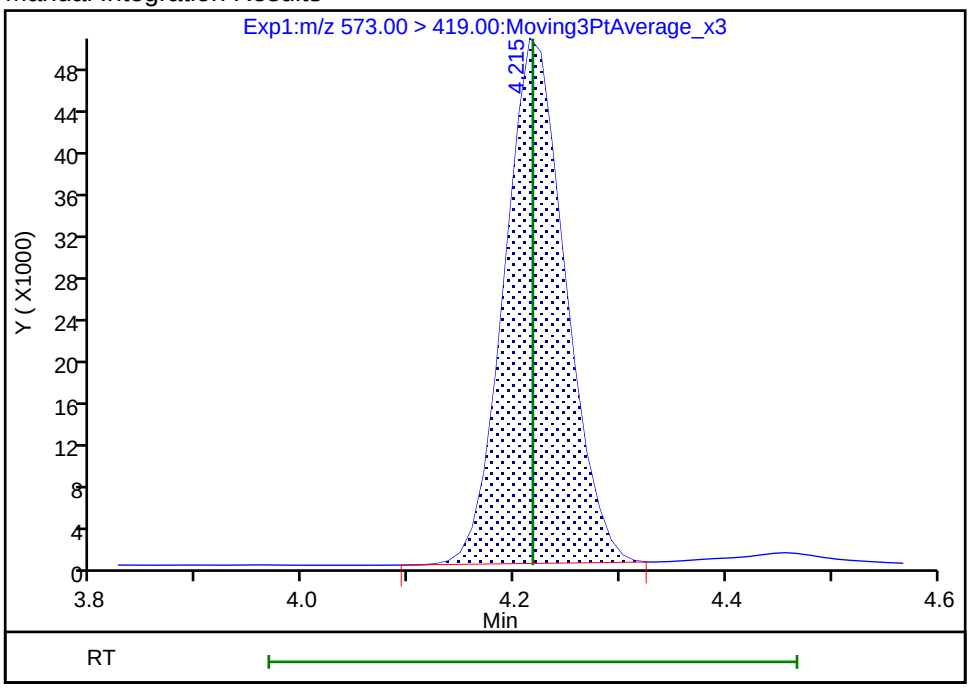
Processing Integration Results

RT: 4.21
Area: 202473
Amount: 1.359032
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 200231
Amount: 1.343984
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:44:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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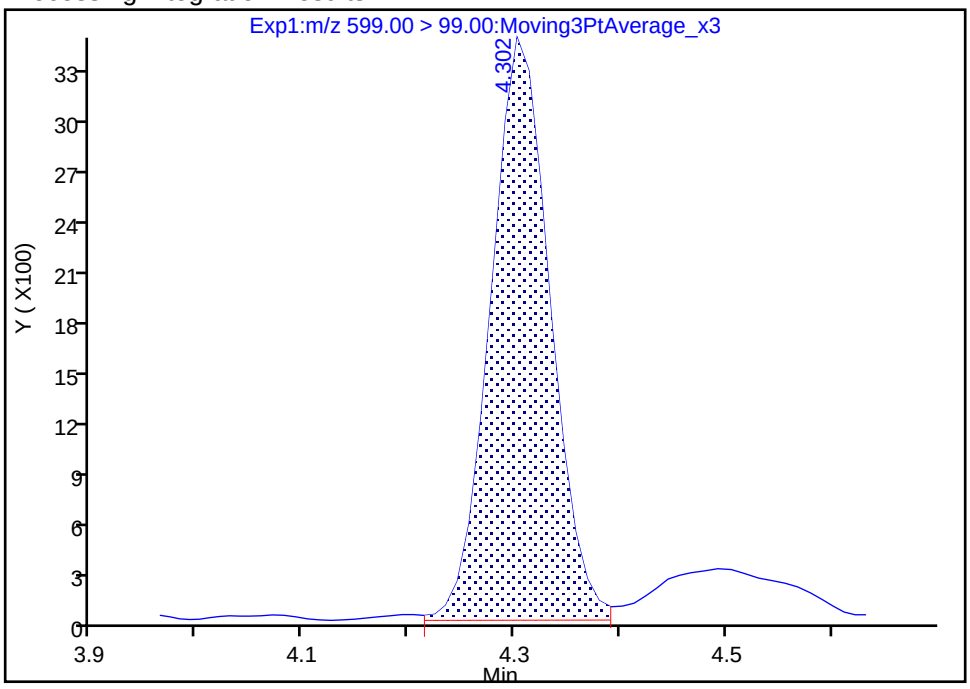
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

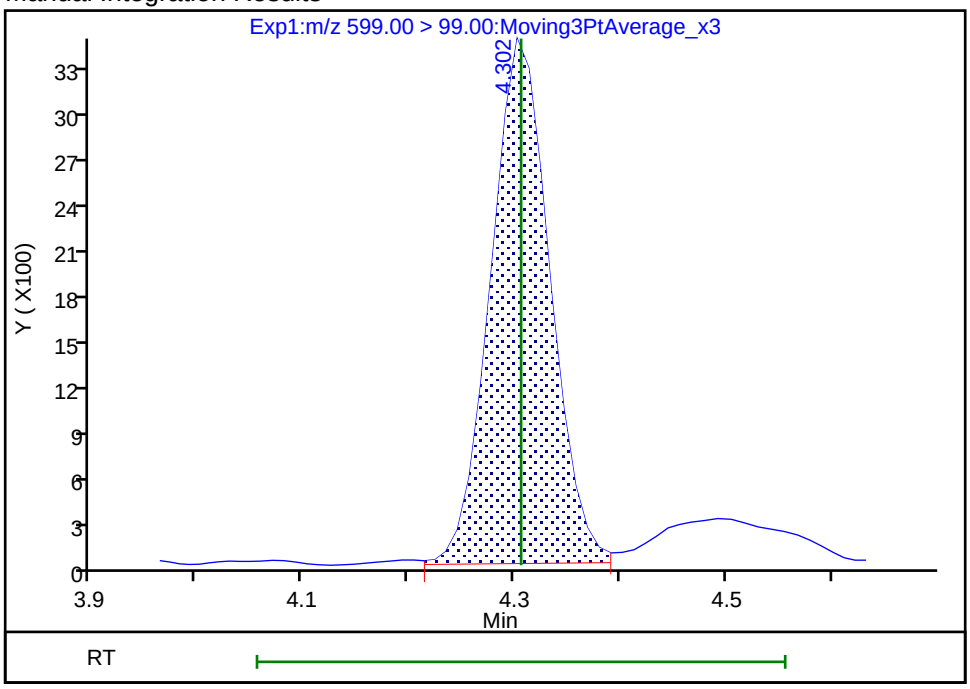
Processing Integration Results

RT: 4.30
Area: 13426
Amount: 0.049290
Amount Units: ng/ml




Manual Integration Results

RT: 4.30
Area: 13320
Amount: 0.049290
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:30:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

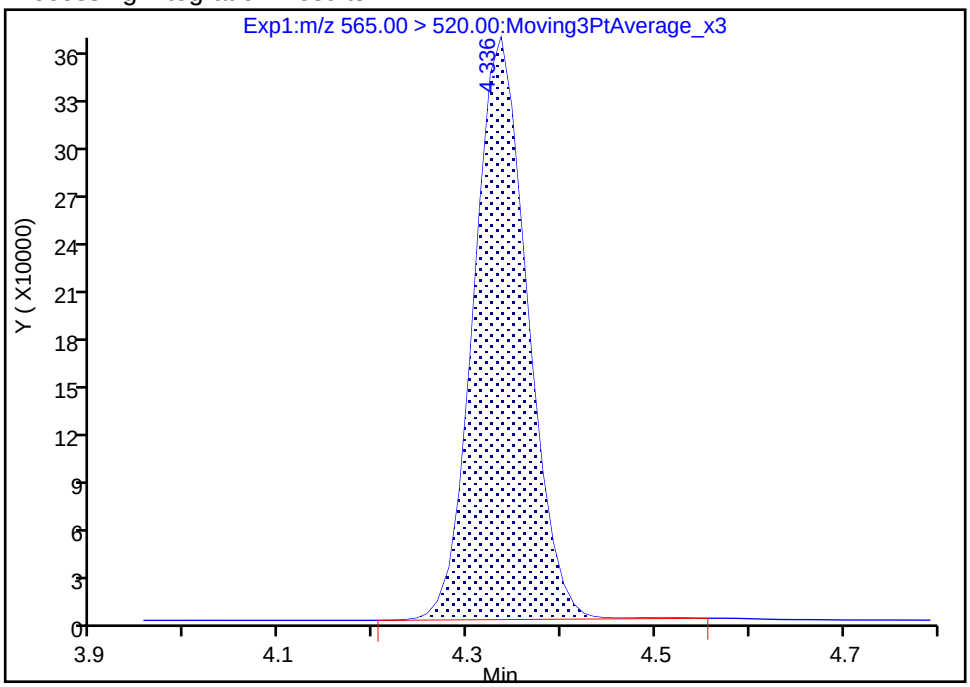
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 30 13C2 PFUnA, CAS: STL00997

Signal: 1

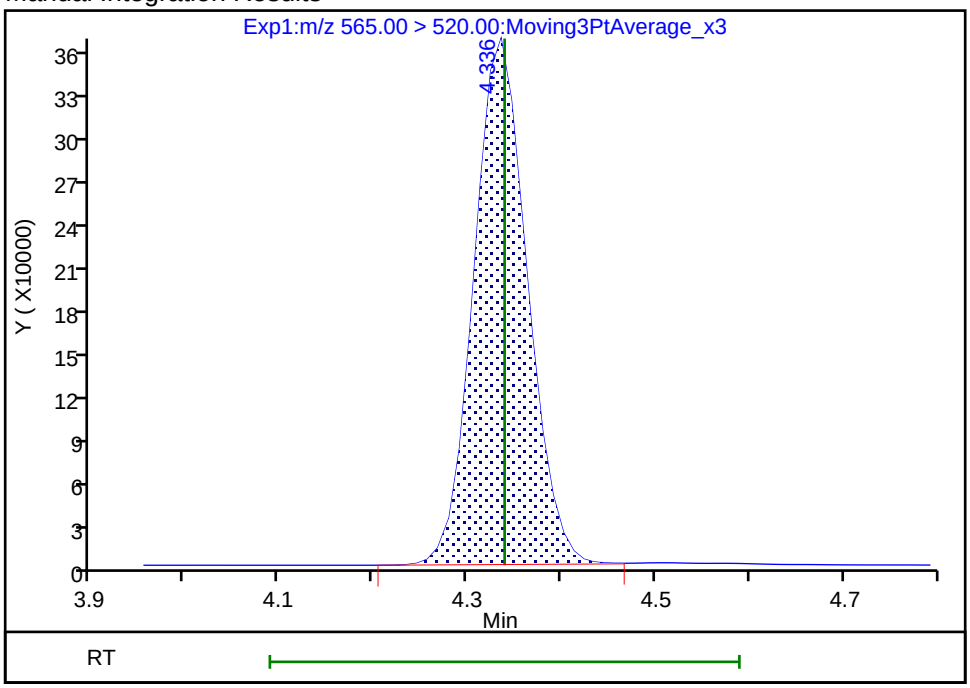
Processing Integration Results

RT: 4.34
Area: 1436505
Amount: 1.210949
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 1434451
Amount: 1.215130
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:27:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

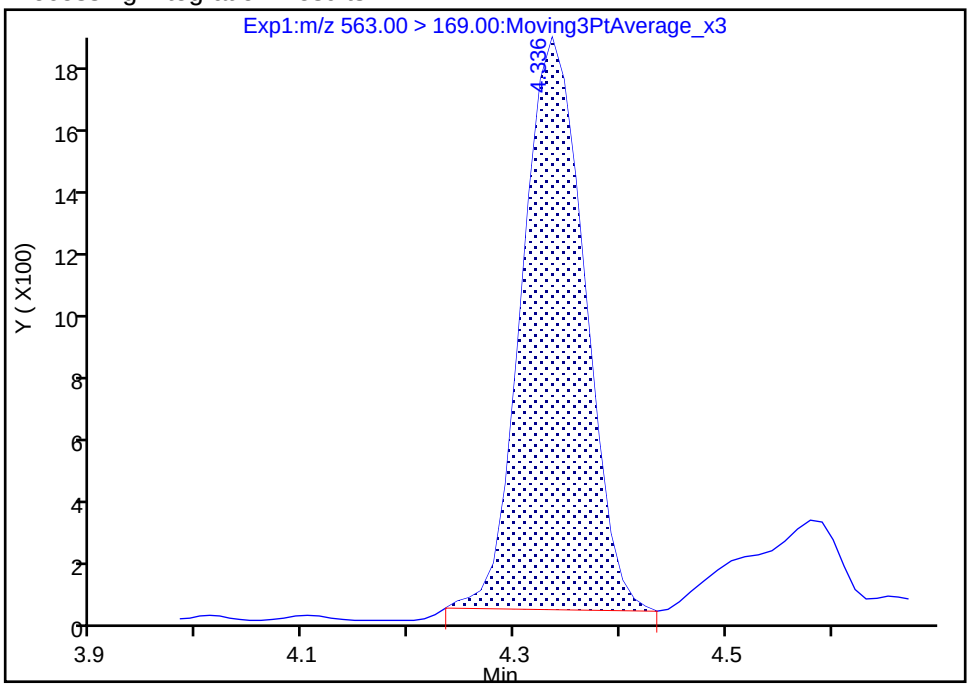
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

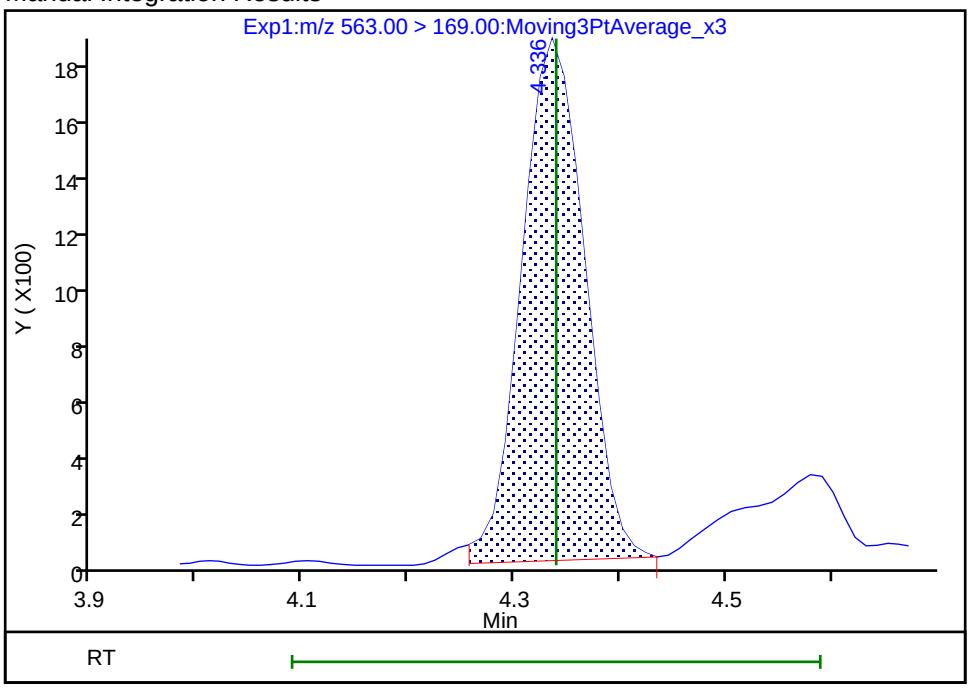
Processing Integration Results

RT: 4.34
Area: 7468
Amount: 0.052750
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 7611
Amount: 0.052750
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:30:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

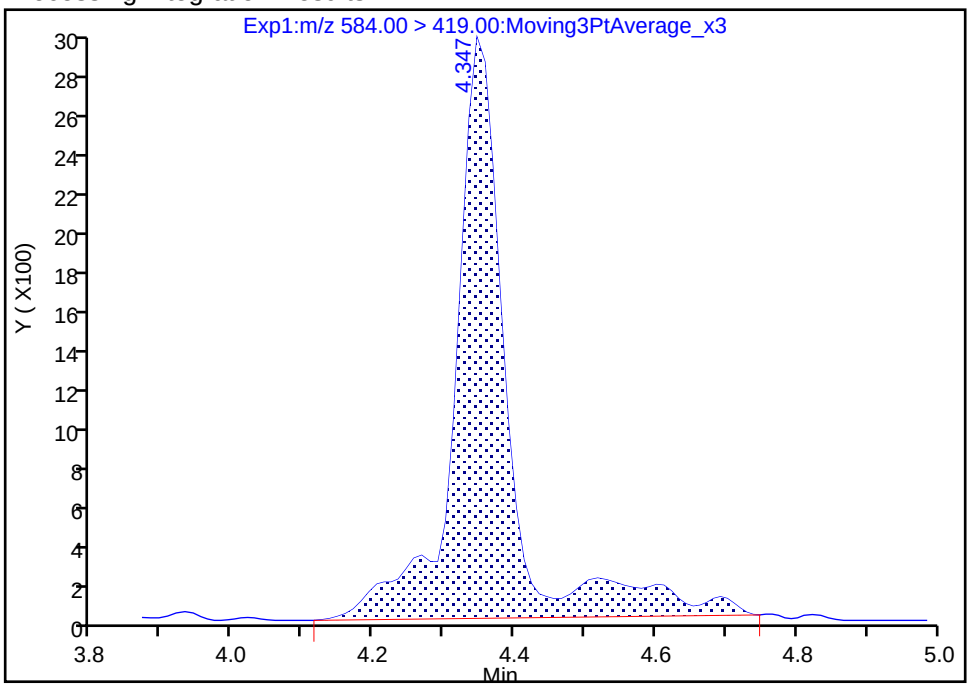
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

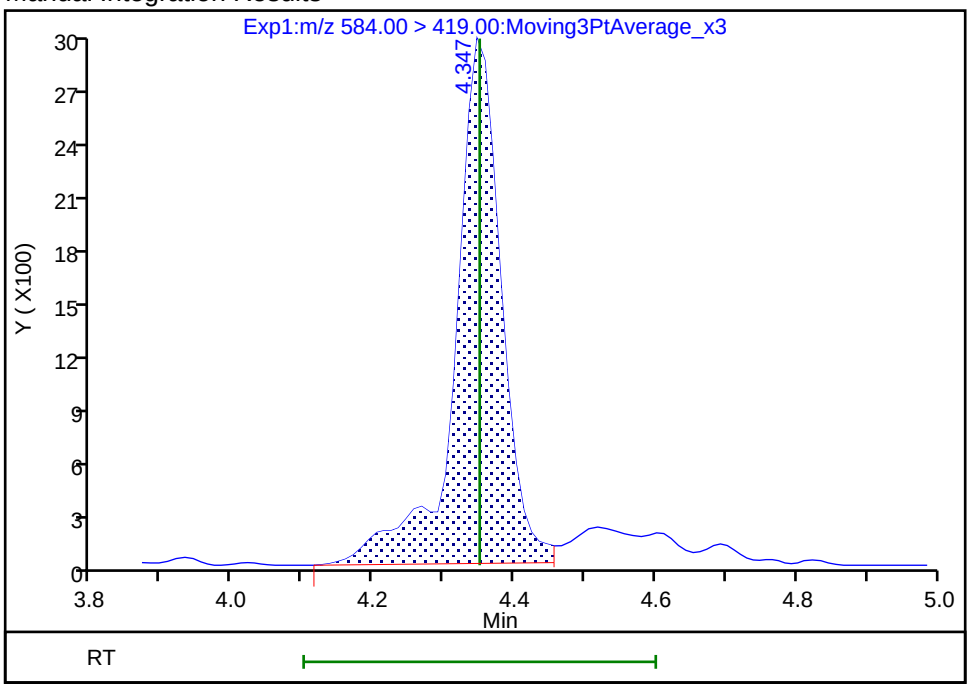
Processing Integration Results

RT: 4.35
Area: 15697
Amount: 0.124447
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 13703
Amount: 0.108638
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:30:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

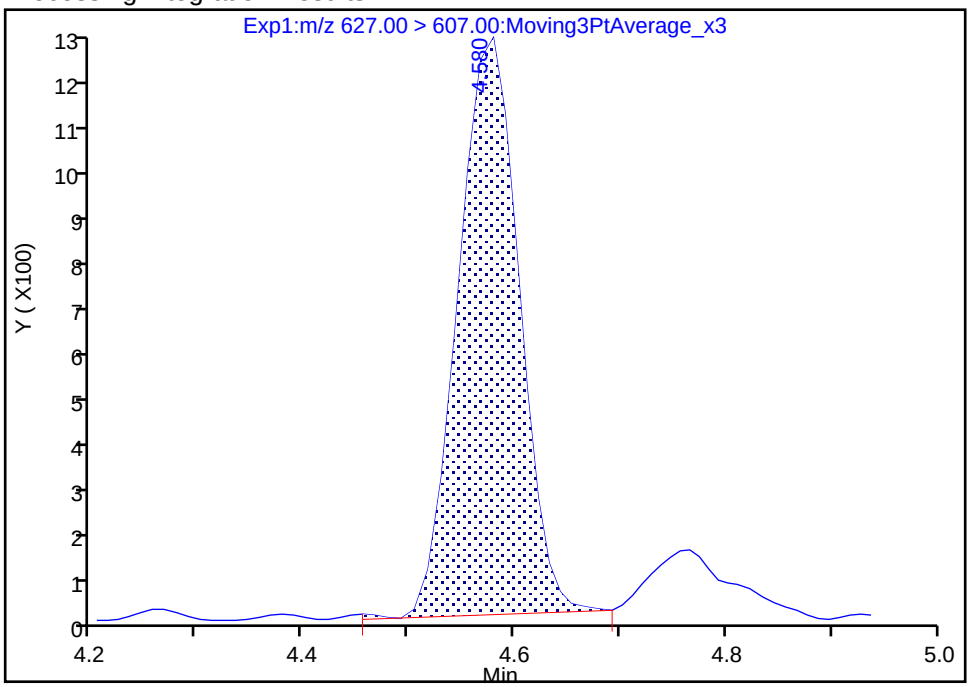
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d
Injection Date: 03-Nov-2021 13:17:37 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

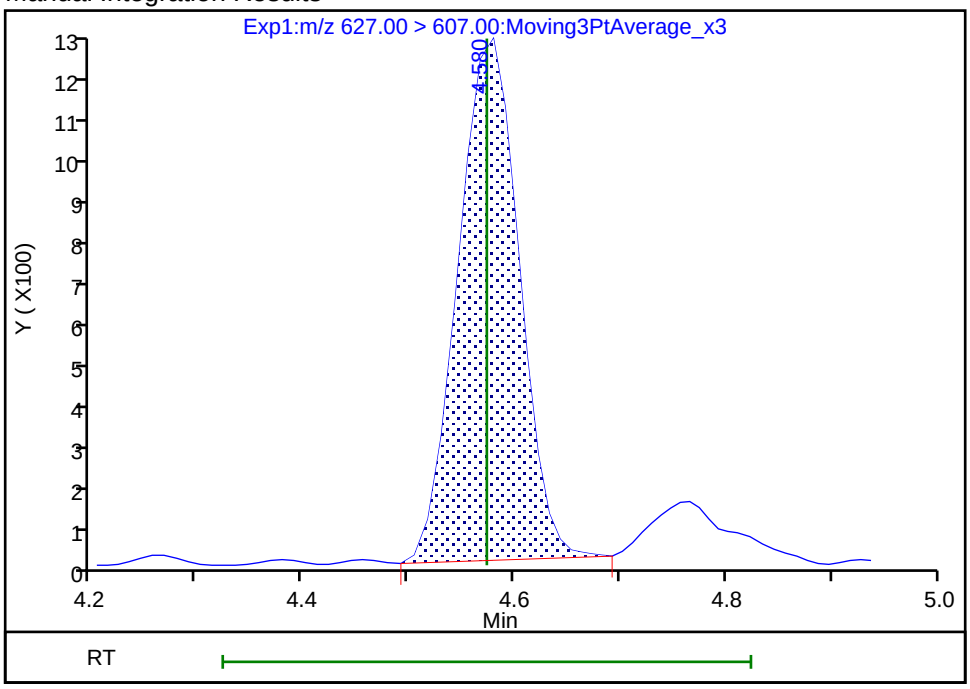
Processing Integration Results

RT: 4.58
Area: 4839
Amount: 0.051518
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 4834
Amount: 0.051465
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:31:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

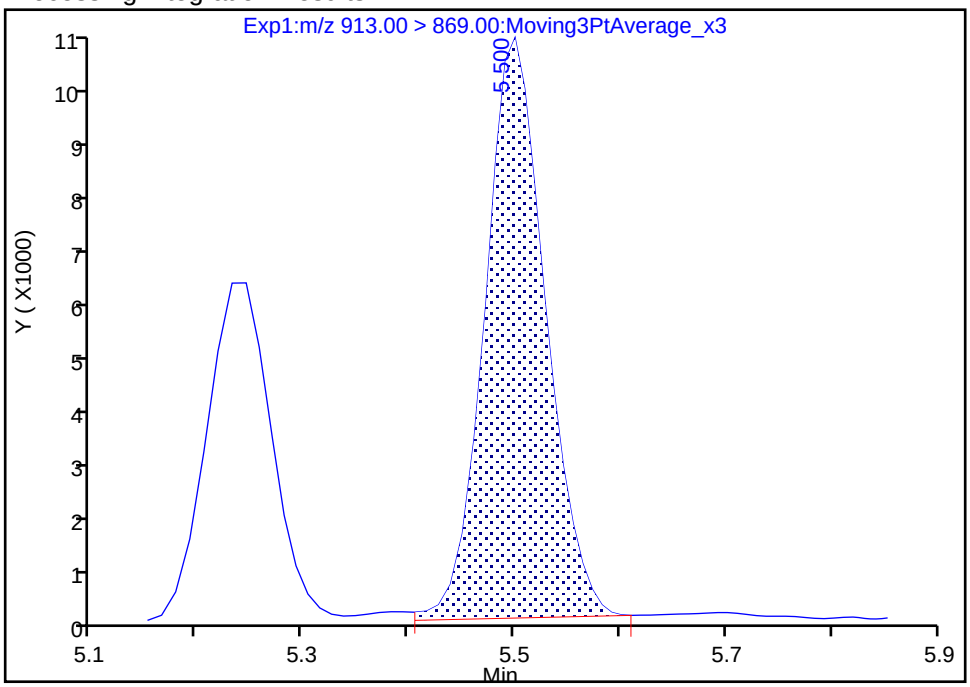
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

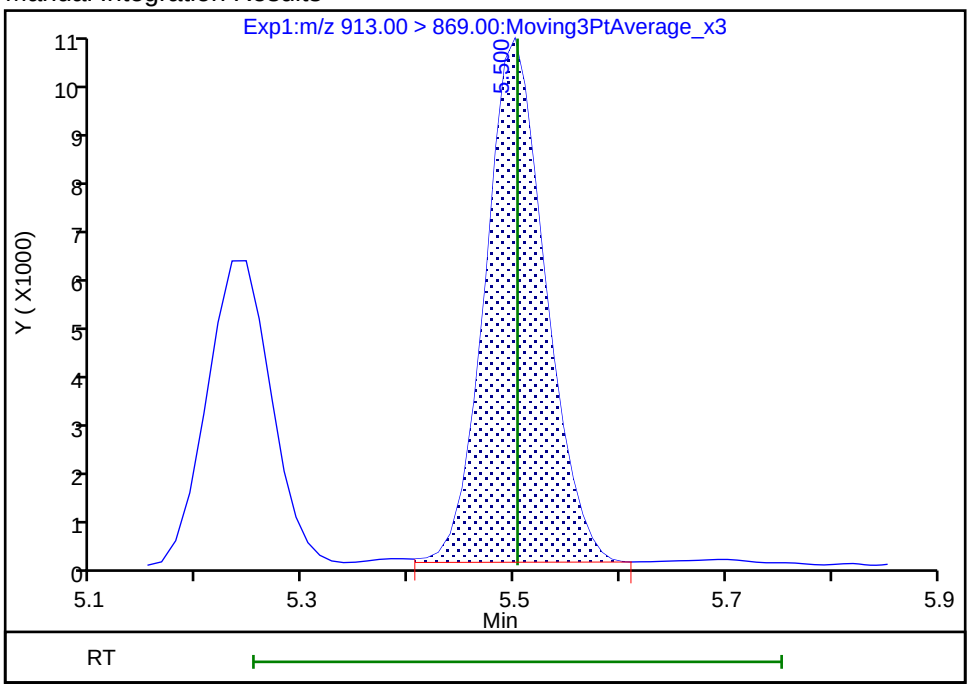
Processing Integration Results

RT: 5.50
Area: 41241
Amount: 0.049501
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 40750
Amount: 0.048912
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:31:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

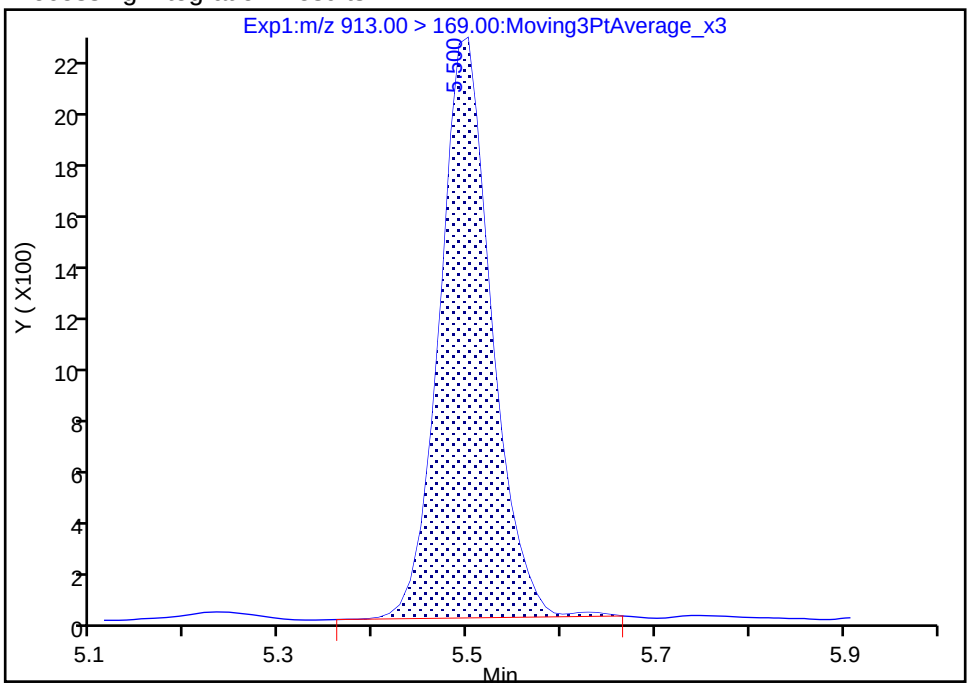
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A05.d | | | | |
| Injection Date: | 03-Nov-2021 13:17:37 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

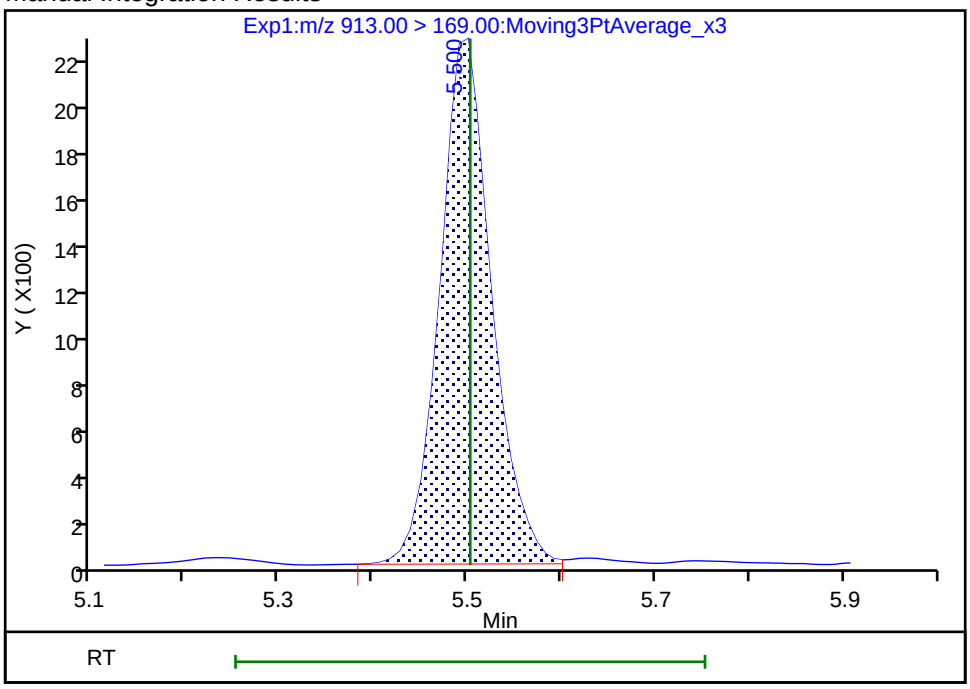
Processing Integration Results

RT: 5.50
Area: 8755
Amount: 0.049501
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 8767
Amount: 0.048912
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:31:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVIS 200-173453/6  Calibration Date: 11/03/2021 13:25

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9177 | | 0.971 | 1.00 | -2.9 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.8913 | | 0.890 | 1.00 | -11.0 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.042 | | 0.863 | 0.884 | -2.4 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.205 | | 0.968 | 0.934 | 3.6 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9573 | | 0.944 | 1.00 | -5.6 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.232 | | 0.960 | 0.938 | 2.3 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.134 | | 0.914 | 1.00 | -8.6 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.999 | | 0.967 | 1.00 | -3.3 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.033 | | 0.855 | 0.910 | -6.1 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.237 | | 0.871 | 0.942 | -7.5 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.179 | | 0.882 | 0.948 | -7.0 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.210 | | 0.924 | 0.952 | -2.9 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.044 | | 0.981 | 1.00 | -1.9 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9504 | | 0.813 | 0.928 | -12.4 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9827 | | 1.00 | 1.00 | 0.4 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.376 | | 0.784 | 0.932 | -15.8 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8405 | | 0.955 | 0.960 | -0.6 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9874 | | 0.983 | 1.00 | -1.7 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7827 | | 0.896 | 0.958 | -6.4 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.8832 | | 0.930 | 1.00 | -7.0 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8101 | | 1.03 | 1.00 | 3.1 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6177 | | 0.906 | 0.964 | -6.0 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.043 | | 0.978 | 1.00 | -2.2 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7942 | | 0.927 | 1.00 | -7.3 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.888 | | 0.921 | 0.942 | -2.2 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.017 | | 1.04 | 1.00 | 3.9 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3740 | | 0.933 | 0.964 | -3.2 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2628 | | 1.05 | 0.968 | 8.7 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVIS 200-173453/6  Calibration Date: 11/03/2021 13:25

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8880 | | 1.05 | 1.00 | 5.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1656 | | 1.05 | 1.00 | 4.9 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9224 | | 1.06 | 1.00 | 6.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.8471 | | 1.00 | 1.00 | 0.4 | |
| 13C4 PFBA | Ave | 1.012 | 0.9877 | | 1.22 | 1.25 | -2.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.8315 | | 1.22 | 1.25 | -2.5 | |
| 13C3 PFBS | Ave | 1.154 | 1.067 | | 1.08 | 1.16 | -7.5 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0904 | | 1.20 | 1.17 | 2.8 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.8919 | | 1.25 | 1.25 | -0.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0231 | | 1.23 | 1.25 | -1.9 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9016 | | 1.20 | 1.25 | -4.3 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8116 | | 1.15 | 1.18 | -3.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1444 | | 1.30 | 1.19 | 9.2 | |
| 13C4 PFOA | Ave | 1.029 | 1.024 | | 1.24 | 1.25 | -0.5 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6308 | | 1.24 | 1.20 | 4.1 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.9414 | | 1.15 | 1.25 | -8.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.041 | | 1.26 | 1.25 | 0.7 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1696 | | 1.36 | 1.20 | 13.2 | |
| 13C8 FOSA | Ave | 0.998 | 1.007 | | 1.26 | 1.25 | 0.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1114 | | 1.37 | 1.25 | 9.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8542 | | 1.32 | 1.25 | 6.0 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1086 | | 1.43 | 1.25 | 14.0 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7937 | | 1.14 | 1.25 | -8.5 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6953 | | 1.29 | 1.25 | 3.4 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5837 | | 1.23 | 1.25 | -1.4 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Nov-2021 13:25:54 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048270-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: deannd Date: 03-Nov-2021 14:09:01
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.597 | 1808310 | 1.22 | | 97.6 | 8142 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 1327634 | 0.9706 | | 97.1 | 168 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.375 | 2.375 | 0.0 | 0.687 | 1522441 | 1.22 | | 97.5 | 2724 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.375 | 2.375 | 0.0 | 1.000 | 1085613 | 0.8898 | | 89.0 | 51.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.401 | 2.401 | 0.0 | 0.695 | 1817280 | 1.08 | | 92.5 | 93059 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.401 | 2.401 | 0.0 | 1.000 | 1440096 | 0.8625 | Target=2.32 | 97.6 | 433 | M |
| 298.90 > 99.00 | 2.401 | 2.401 | 0.0 | 1.000 | 668860 | | 2.15(1.16-3.48) | | 222 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.698 | 2.698 | 0.0 | 0.781 | 154557 | 1.20 | | 103 | 72.6 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.698 | 2.698 | 0.0 | 1.000 | 272693 | 0.9678 | | 104 | 297 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.735 | 2.735 | 0.0 | 1.000 | 1250573 | 0.9439 | Target=12.09 | 94.4 | 167 | |
| 313.00 > 119.00 | 2.735 | 2.735 | 0.0 | 1.000 | 104342 | | 11.99(6.04-18.13) | | 130 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.735 | 2.735 | 0.0 | 0.791 | 1632999 | 1.25 | | 99.7 | 1756 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.735 | 2.735 | 0.0 | 0.882 | 1373654 | 0.9596 | Target=3.03 | 102 | 326 | |
| 349.00 > 99.00 | 2.735 | 2.735 | 0.0 | 0.882 | 454423 | | 3.02(1.52-4.55) | | 253 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.844 | 2.844 | 0.0 | 0.823 | 42306 | 1.23 | | 98.1 | 158 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.844 | 2.844 | 0.0 | 1.000 | 139908 | 0.9135 | | 91.4 | 35.1 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.101 | 3.101 | 0.0 | 0.897 | 1405723 | 1.14 | | 96.8 | 328 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.101 | 3.101 | 0.0 | 1.000 | 1116943 | 0.8546 | Target=3.55 | 93.9 | 239 | M |
| 399.00 > 99.00 | 3.101 | 3.101 | 0.0 | 1.000 | 322280 | | 3.47(1.77-5.32) | | 154 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.101 | 3.101 | 0.0 | 1.000 | 1318896 | 0.9667 | Target=3.69 | 96.7 | 224 | M |
| 363.00 > 169.00 | 3.101 | 3.101 | 0.0 | 1.000 | 354068 | | 3.72(1.84-5.53) | | 289 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.101 | 3.101 | 0.0 | 0.897 | 1650630 | 1.20 | | 95.7 | 3372 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.144 | 3.144 | 0.0 | 0.835 | 2816828 | 0.8711 | Target=2.56 | 92.5 | 417 | |
| 377.00 > 85.00 | 3.144 | 3.144 | 0.0 | 0.835 | 1061976 | | 2.65(1.28-3.84) | | 339 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.448 | 3.448 | 0.0 | 1.000 | 236463 | 0.8817 | | 93.0 | 164 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.448 | 3.448 | 0.0 | 0.915 | 1064412 | 0.9242 | Target=4.88 | 97.1 | 296 | |
| 449.00 > 99.00 | 3.448 | 3.448 | 0.0 | 0.915 | 215037 | | 4.95(2.44-7.32) | | 224 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.448 | 3.448 | 0.0 | 0.997 | 251132 | 1.30 | | 109 | 531 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.457 | 3.457 | 0.0 | 1.000 | 1874297 | 1.24 | | 99.5 | 1015 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.457 | 3.457 | 0.0 | | 1830853 | 1.25 | | | 301 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.457 | 3.457 | 0.0 | 1.000 | 1564839 | 0.9814 | Target=2.68 | 98.1 | 160 | M |
| 413.00 > 169.00 | 3.457 | 3.457 | 0.0 | 1.000 | 571885 | | 2.74(1.34-4.02) | | 253 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.767 | 3.767 | 0.0 | 1.090 | 1104024 | 1.24 | | 104 | 368 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.767 | 3.767 | 0.0 | 1.000 | 814803 | 0.8128 | Target=4.69 | 87.6 | 200 | M |
| 499.00 > 99.00 | 3.767 | 3.767 | 0.0 | 1.000 | 181276 | | 4.49(2.35-7.04) | | 199 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.786 | 3.786 | 0.0 | 1.095 | 1723561 | 1.15 | | 91.9 | 2495 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.786 | 3.786 | 0.0 | 1.000 | 1355021 | 1.00 | Target=7.29 | 100 | 181 | |
| 463.00 > 169.00 | 3.786 | 3.786 | 0.0 | 1.000 | 174125 | | 7.78(3.64-10.93) | | 267 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.922 | 3.922 | 0.0 | 1.041 | 1184623 | 0.7844 | | 84.2 | 273 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.052 | 4.052 | 0.0 | 1.076 | 745436 | 0.9546 | Target=2.35 | 99.4 | 452 | |
| 549.00 > 99.00 | 4.052 | 4.052 | 0.0 | 1.076 | 291840 | | 2.55(1.17-3.52) | | 372 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.073 | 4.073 | 0.0 | 1.178 | 1906107 | 1.26 | | 101 | 85.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.073 | 4.073 | 0.0 | 1.000 | 1505733 | 0.9827 | Target=8.95 | 98.3 | 243 | |
| 513.00 > 169.00 | 4.073 | 4.073 | 0.0 | 1.000 | 172994 | | 8.70(4.47-13.42) | | 246 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.084 | 4.084 | 0.0 | 1.181 | 297497 | 1.36 | | 113 | 169 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.084 | 4.084 | 0.0 | 1.000 | 186278 | 0.8963 | | 93.6 | 212 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.207 | 4.207 | 0.0 | 1.217 | 1842754 | 1.26 | | 101 | 655 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.207 | 4.207 | 0.0 | 1.000 | 1301981 | 0.9300 | | 93.0 | 1092 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.217 | 4.217 | 0.0 | 1.220 | 204002 | 1.37 | | 110 | 217 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.217 | 4.217 | 0.0 | 1.000 | 132203 | 1.03 | | 103 | 156 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.306 | 4.306 | 0.0 | 1.143 | 550145 | 0.9061 | Target=2.47 | 94.0 | 838 | |
| 599.00 > 99.00 | 4.306 | 4.306 | 0.0 | 1.143 | 202705 | | 2.71(1.23-3.70) | | 639 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.339 | 4.339 | 0.0 | 1.255 | 1563884 | 1.32 | | 106 | 870 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.339 | 4.339 | 0.0 | 1.000 | 1304733 | 0.9783 | Target=9.24 | 97.8 | 465 | |
| 563.00 > 169.00 | 4.339 | 4.339 | 0.0 | 1.000 | 140992 | | 9.25(4.62-13.86) | | 384 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.350 | 4.350 | 0.0 | 1.258 | 198913 | 1.43 | | 114 | 848 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.350 | 4.350 | 0.0 | 1.000 | 126376 | 0.9268 | | 92.7 | 176 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.428 | 4.428 | 0.0 | 1.175 | 1642720 | 0.9210 | | 97.8 | 1026 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.562 | 4.562 | 0.0 | 1.319 | 1453169 | 1.14 | | 91.5 | 309 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.562 | 4.562 | 0.0 | 1.000 | 1182386 | 1.04 | Target=7.04 | 104 | 167 | |
| 613.00 > 169.00 | 4.562 | 4.562 | 0.0 | 1.000 | 184464 | | 6.41(3.52-10.56) | | 684 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.574 | 4.574 | 0.0 | 1.120 | 89561 | 0.9327 | | 96.8 | 508 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.725 | 4.725 | 0.0 | 1.254 | 235028 | 1.05 | Target=0.49 | 109 | 2097 | |
| 699.00 > 99.00 | 4.725 | 4.725 | 0.0 | 1.254 | 415561 | | 0.57(0.25-0.74) | | 2077 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.761 | 4.761 | 0.0 | 1.044 | 1032310 | 1.05 | Target=4.68 | 105 | 223 | |
| 663.00 > 169.00 | 4.761 | 4.761 | 0.0 | 1.044 | 236492 | | 4.37(2.34-7.02) | | 1246 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.940 | 4.940 | 0.0 | 1.429 | 1273066 | 1.29 | | 103 | 2908 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.940 | 4.940 | 0.0 | 1.000 | 168684 | 1.05 | Target=1.01 | 105 | 1838 | |
| 713.00 > 219.00 | 4.930 | 4.940 | -0.010 | 0.998 | 157336 | | 1.07(0.51-1.52) | | 1934 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.248 | 5.248 | 0.0 | 1.518 | 1068747 | 1.23 | | 98.6 | 3107 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.248 | 5.248 | 0.0 | 1.000 | 788629 | 1.06 | Target=4.57 | 106 | 175 | |
| 813.00 > 169.00 | 5.248 | 5.248 | 0.0 | 1.000 | 170284 | | 4.63(2.29-6.86) | | 1405 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.503 | 5.503 | 0.0 | 1.048 | 724230 | 1.00 | Target=4.27 | 100 | 327 | M |
| 913.00 > 169.00 | 5.503 | 5.503 | 0.0 | 1.048 | 159355 | | 4.54(2.14-6.41) | | 1291 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 04-Nov-2021 15:14:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d

Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812

Lims ID: CCVIS

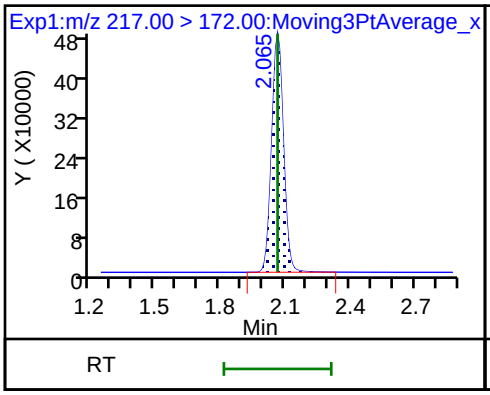
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

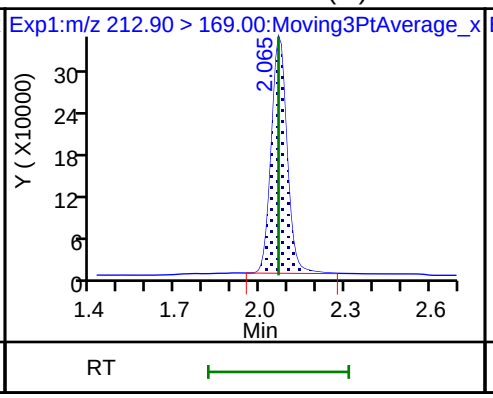
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

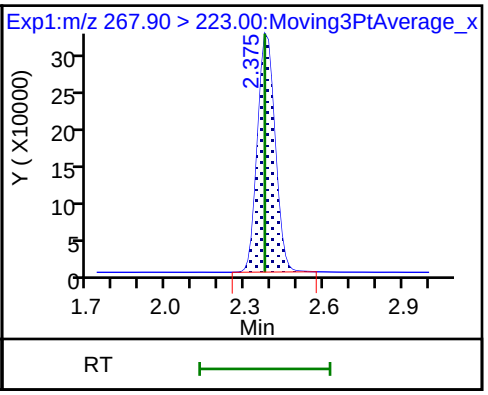
D 1 13C4 PFBA



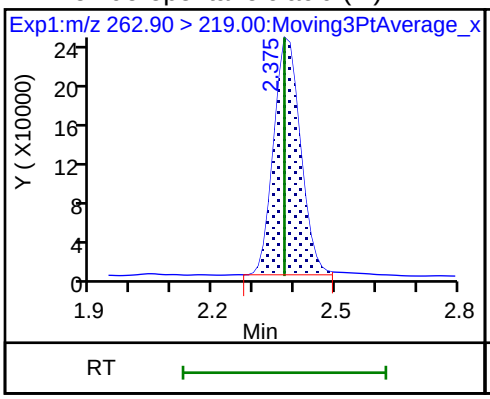

2 Perfluorobutanoic acid (M)



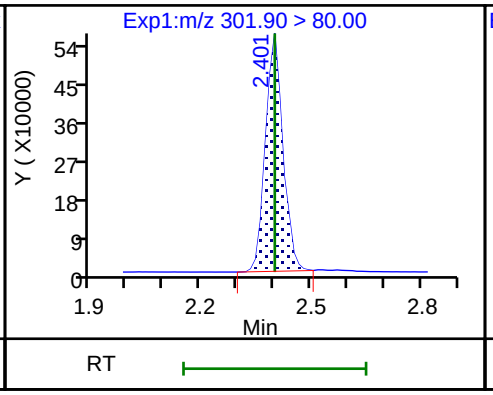

D 3 13C5 PFPeA




4 Perfluoropentanoic acid (M)




D 47 13C3 PFBS

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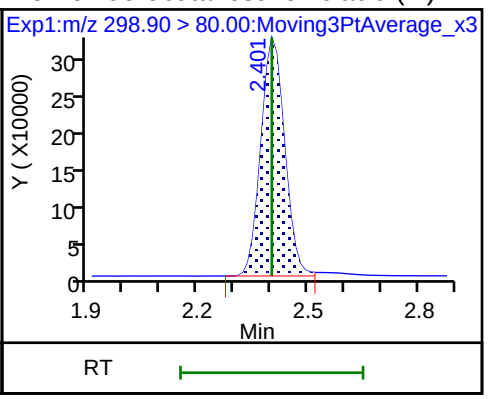
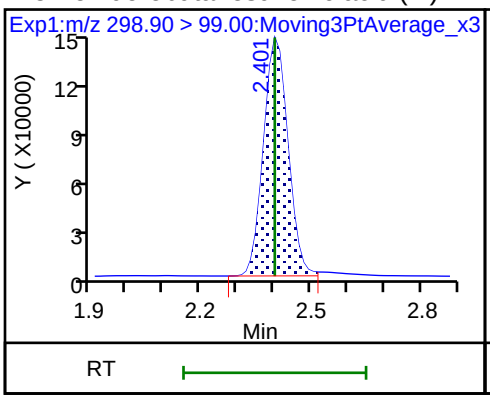
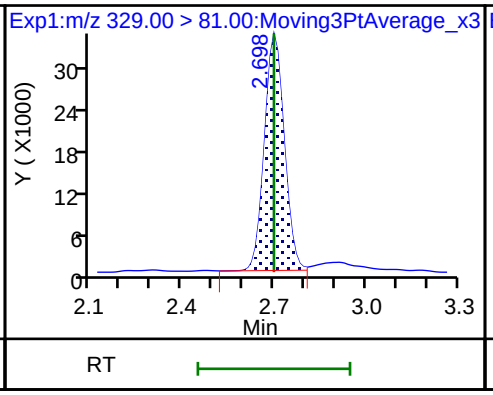


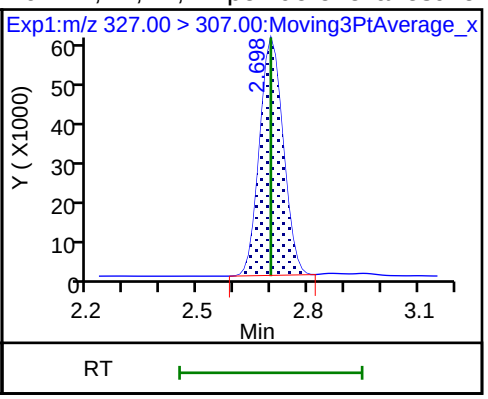

5 Perfluorobutanesulfonic acid (M)



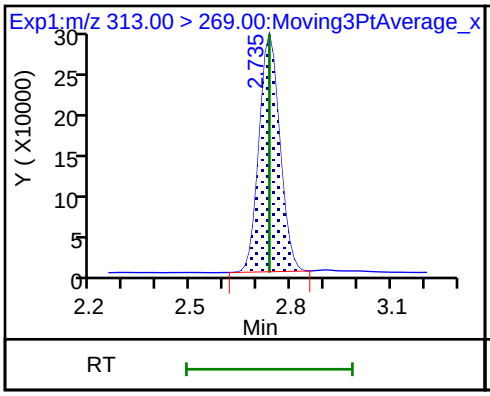

D 60 M2-4:2 FTS



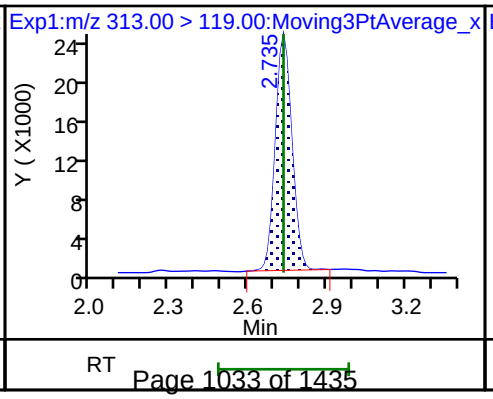

61 1H,1H,2H,2H-perfluorohexanesulfo



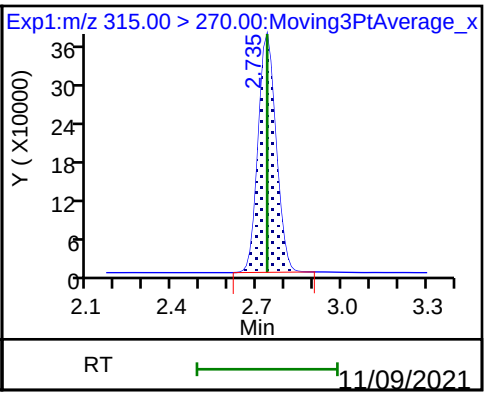

6 Perfluorohexanoic acid



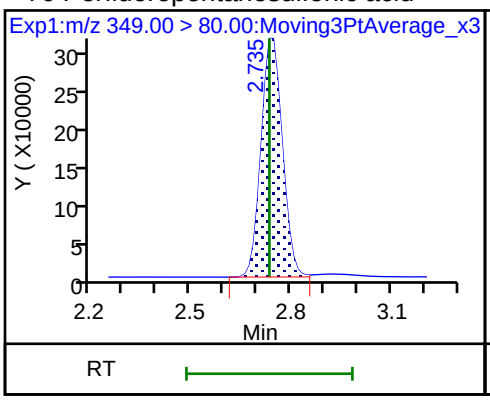

6 Perfluorohexanoic acid



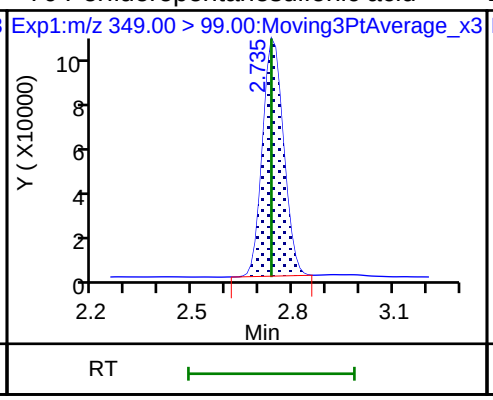

D 7 13C2 PFHxA



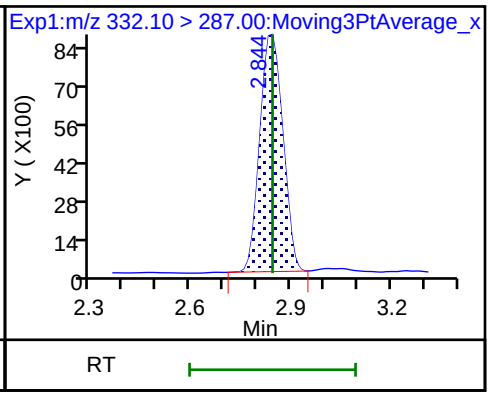
70 Perfluoropentanesulfonic acid



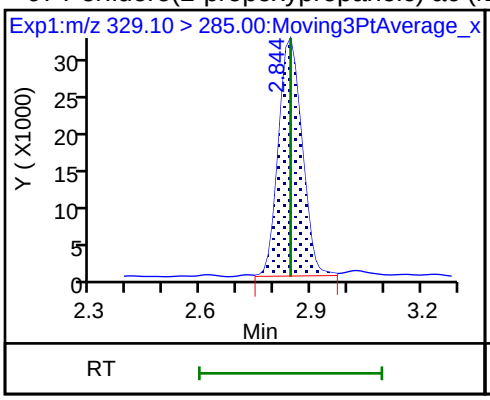

70 Perfluoropentanesulfonic acid



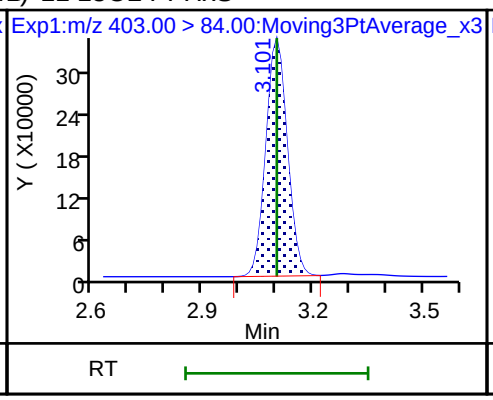

D 64 13C3 HFPO-DA



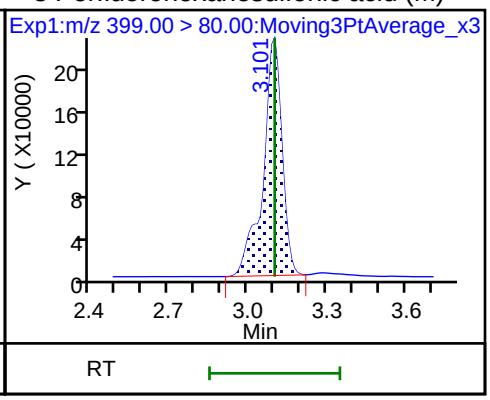

67 Perfluoro(2-propoxypropanoic) ac (M)



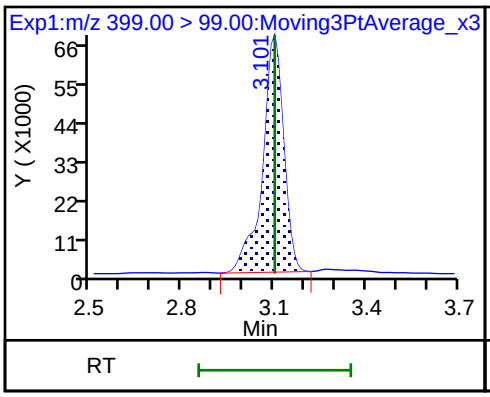

D 11 18O2 PFHxS



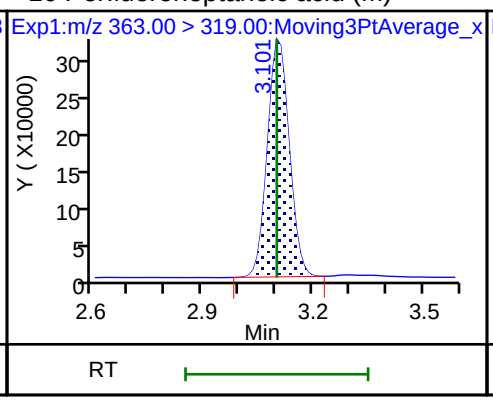

8 Perfluorohexanesulfonic acid (M)



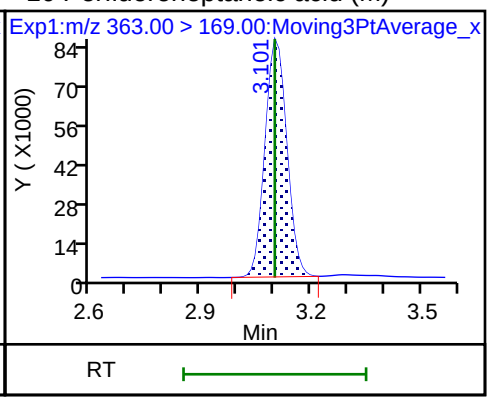

8 Perfluorohexanesulfonic acid



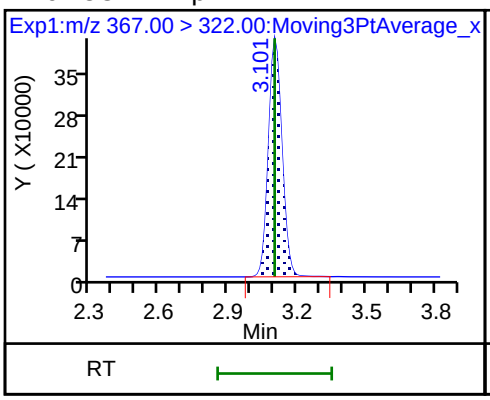

10 Perfluoroheptanoic acid (M)



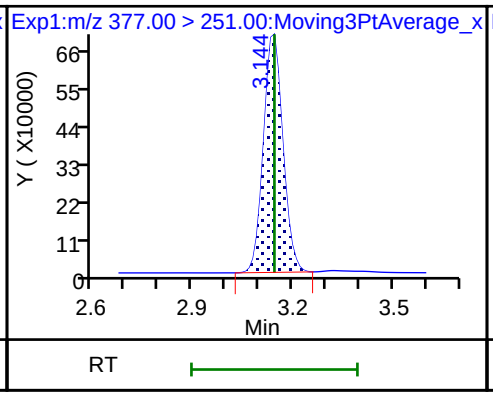

10 Perfluoroheptanoic acid (M)



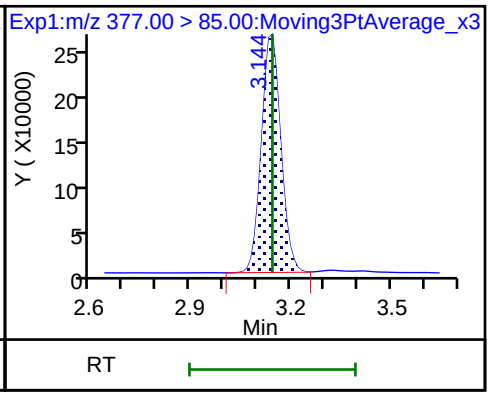

D 9 13C4 PFHpA



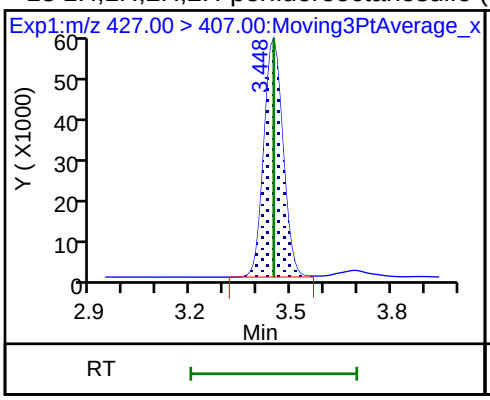

77 DONA



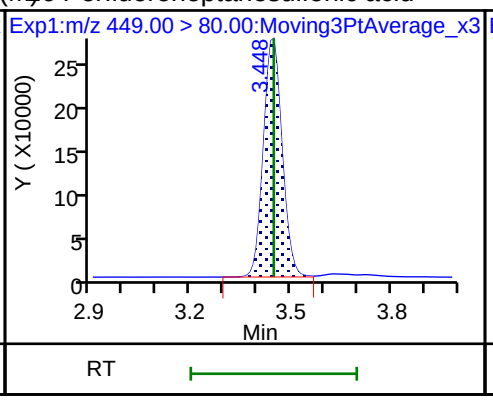

77 DONA



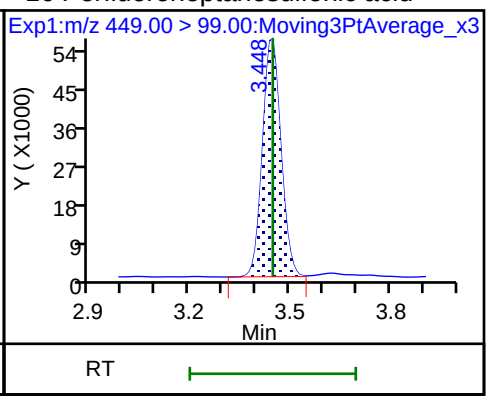
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



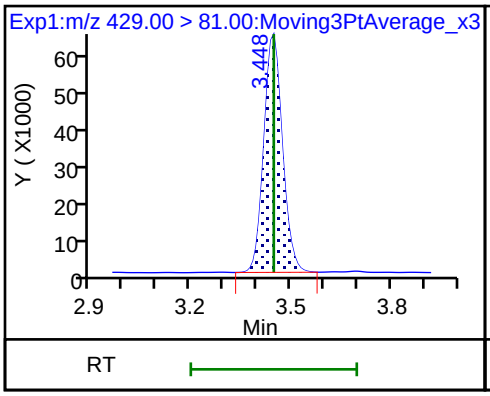

16 Perfluoroheptanesulfonic acid



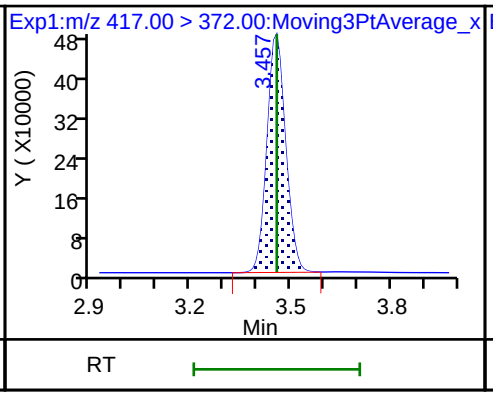

16 Perfluoroheptanesulfonic acid



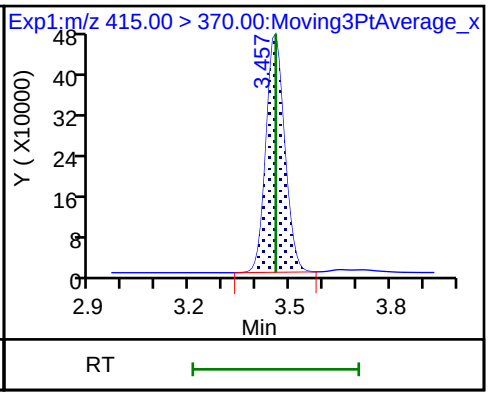

D 12 M2-6:2 FTS



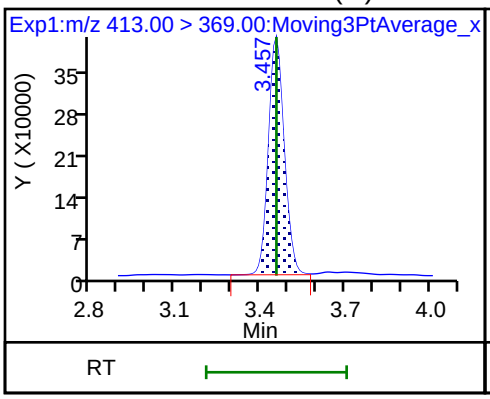

D 14 13C4 PFOA



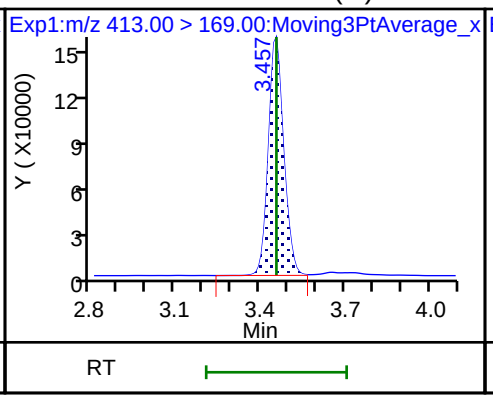

* 62 13C2 PFOA



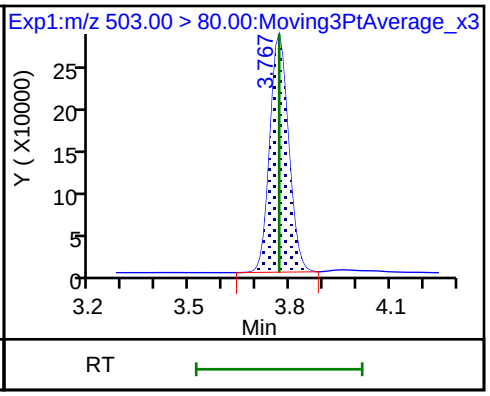

15 Perfluorooctanoic acid (M)



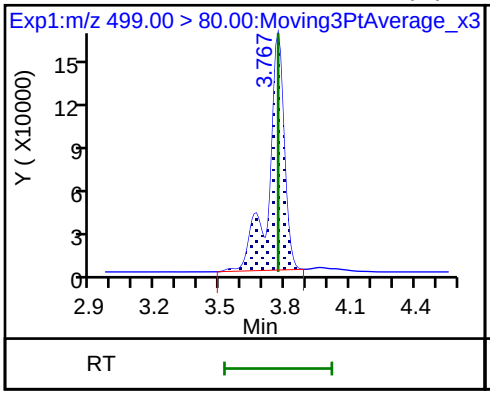

15 Perfluorooctanoic acid (M)



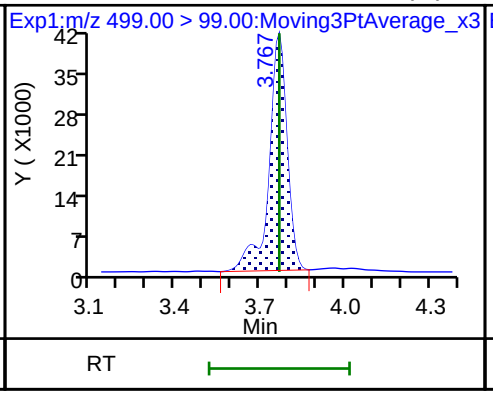

D 18 13C4 PFOS



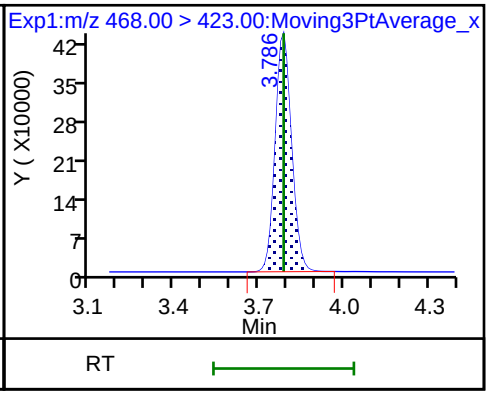

17 Perfluorooctanesulfonic acid (M)



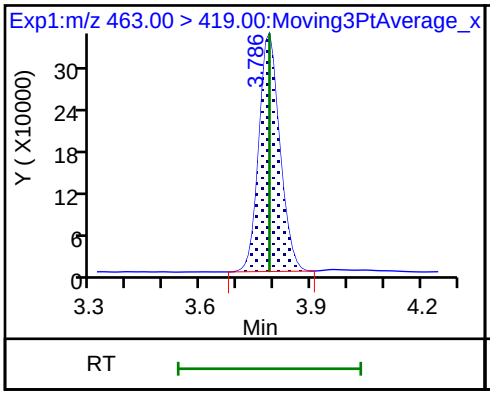

17 Perfluorooctanesulfonic acid (M)



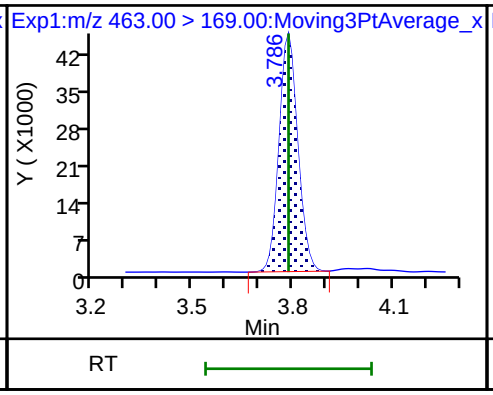

D 19 13C5 PFNA



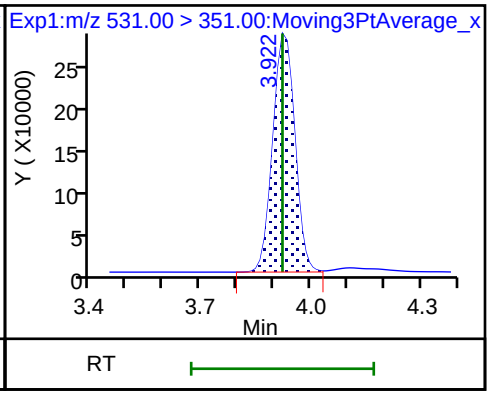
20 Perfluorononanoic acid



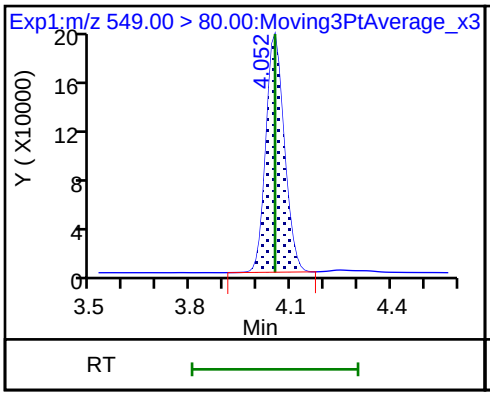

20 Perfluorononanoic acid



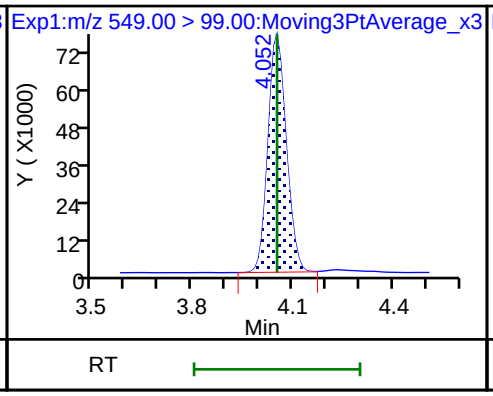

69 9-Chlorohexadecafluoro-3-oxanona



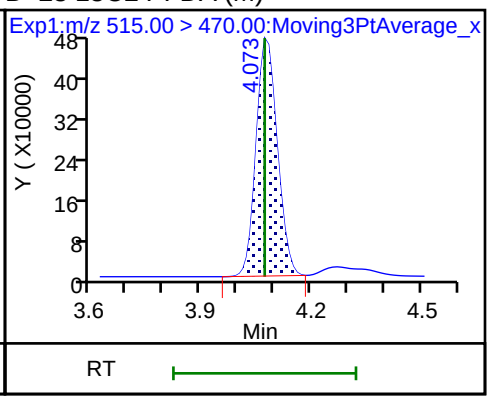

68 Perfluorononanesulfonic acid



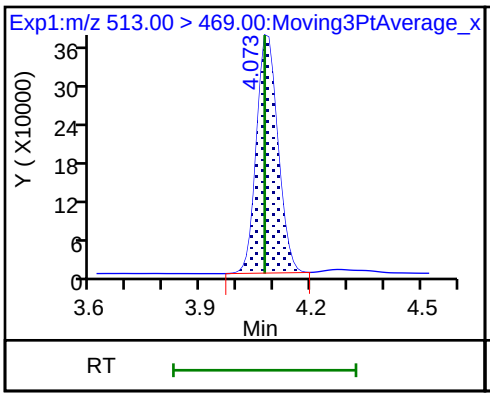

68 Perfluorononanesulfonic acid



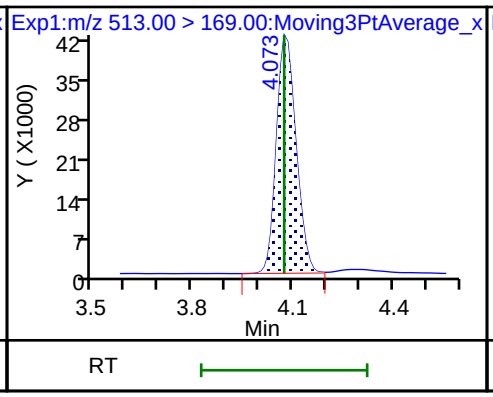

D 23 13C2 PFDA (M)



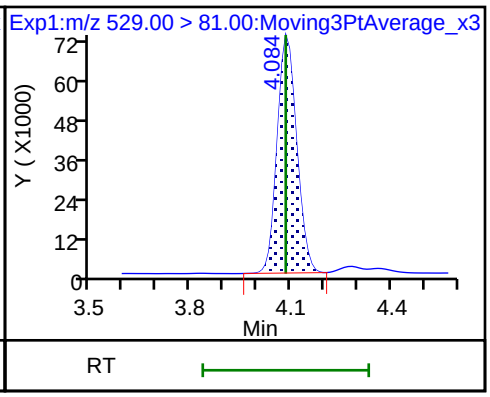

24 Perfluorodecanoic acid



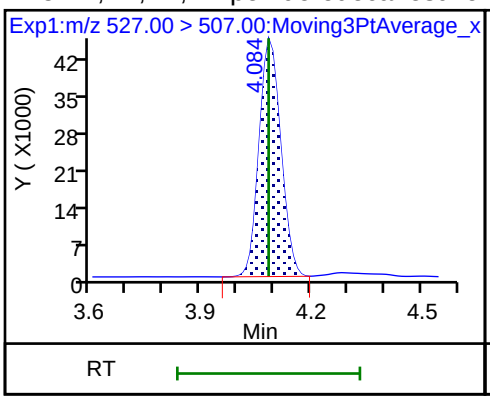

24 Perfluorodecanoic acid



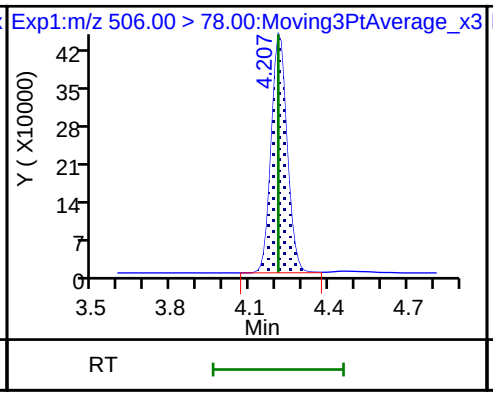

D 26 M2-8:2 FTS



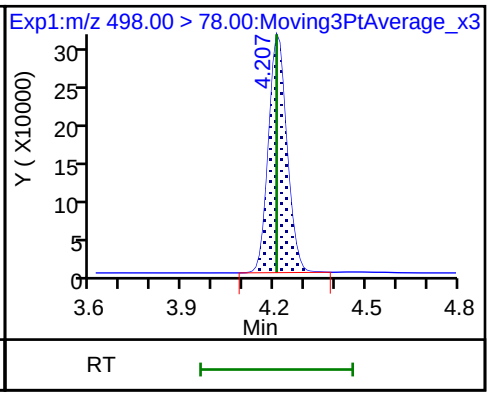

25 1H,1H,2H,2H-perfluorodecanesulfo



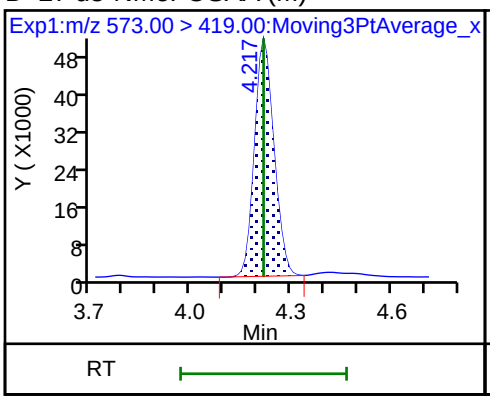

D 21 13C8 FOSA



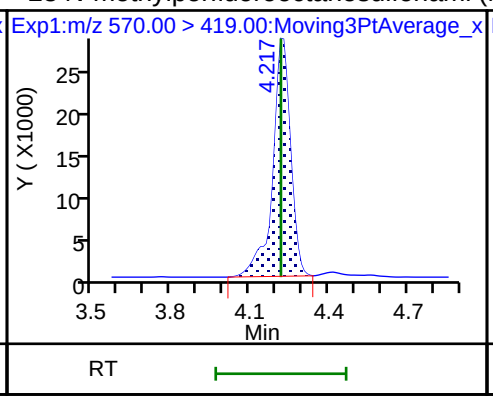

22 Perfluorooctanesulfonamide



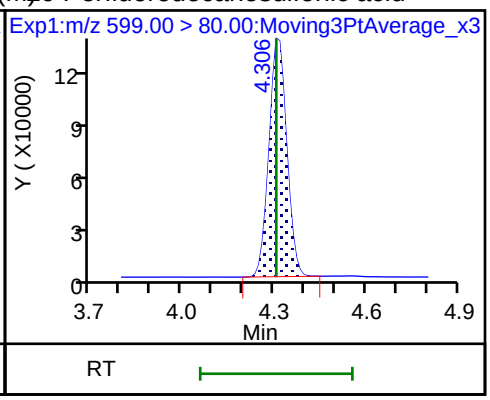
D 27 d3-NMeFOSAA (M)



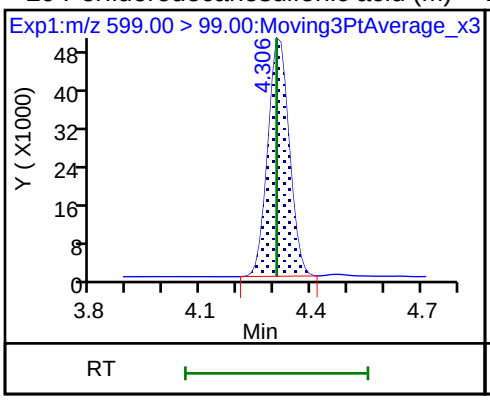

28 N-methylperfluorooctanesulfonami (M)



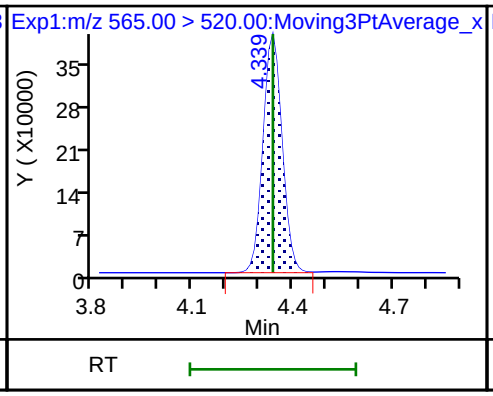

29 Perfluorodecanesulfonic acid



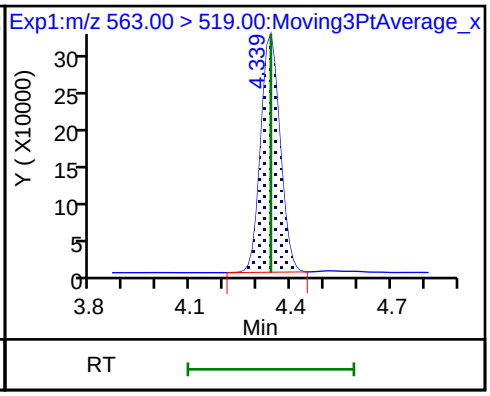

29 Perfluorodecanesulfonic acid (M)



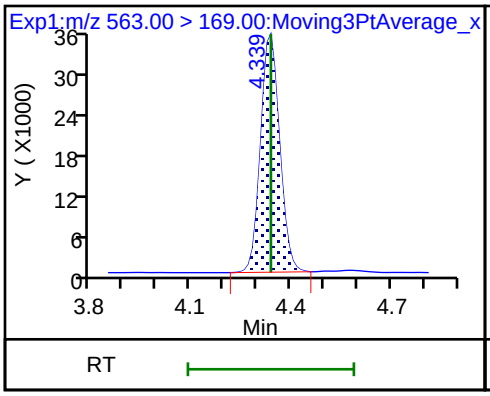

D 30 13C2 PFUnA



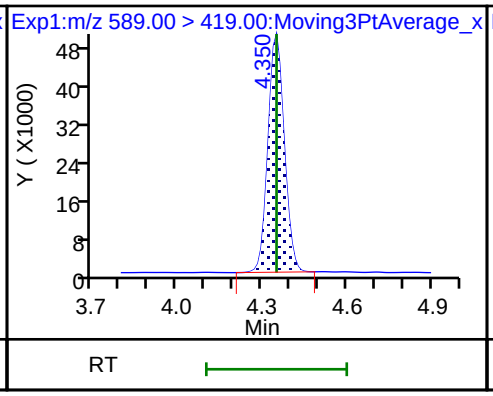

31 Perfluoroundecanoic acid



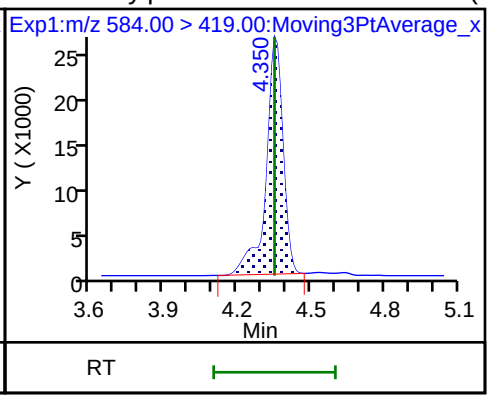

31 Perfluoroundecanoic acid



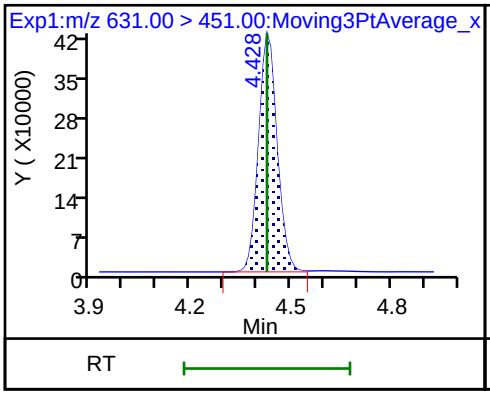

D 32 d5-NEtFOSAA



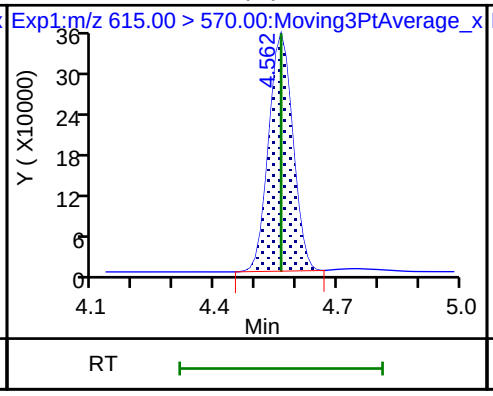

33 N-ethylperfluorooctanesulfonamid (M)



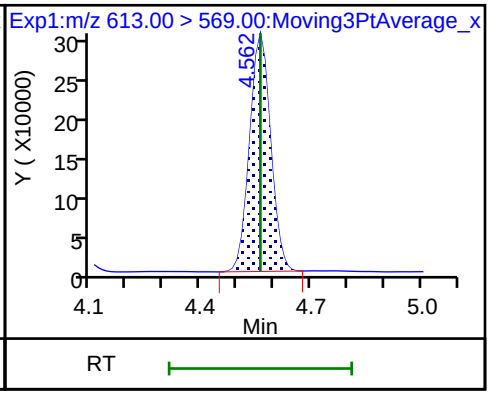

66 11-Chloroeicosafluoro-3-oxaundec



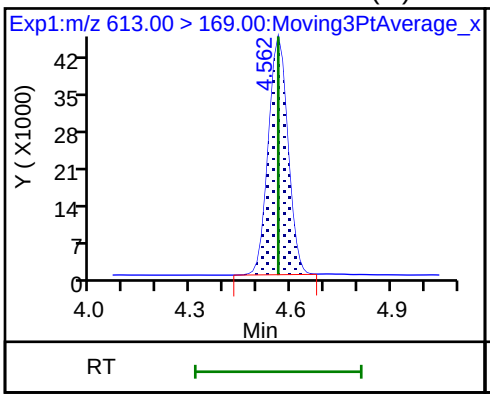

D 36 13C2 PFDoA (M)



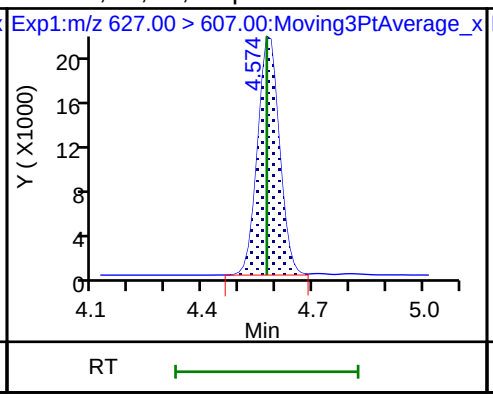

37 Perfluorododecanoic acid



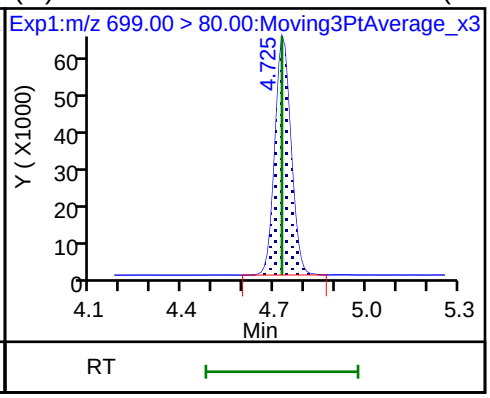
37 Perfluorododecanoic acid (M)



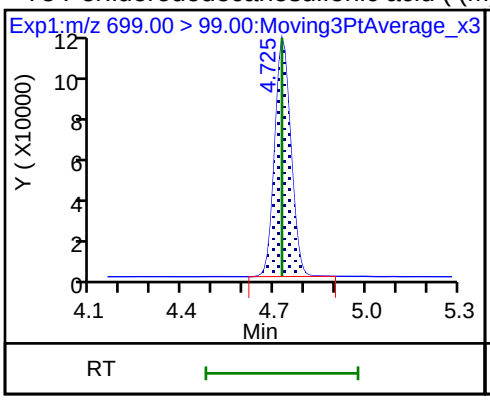

74 1H,1H,2H,2H-perfluorododecanesul (M)



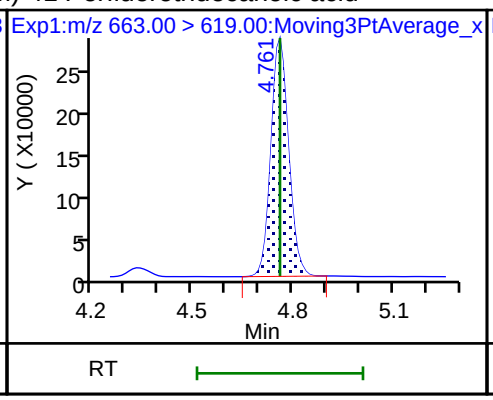

75 Perfluorododecanesulfonic acid (



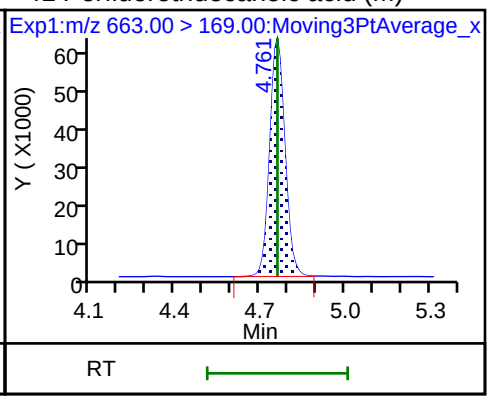

75 Perfluorododecanesulfonic acid ( (M)



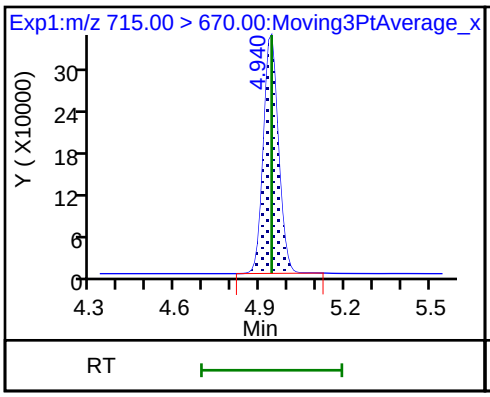

41 Perfluorotridecanoic acid



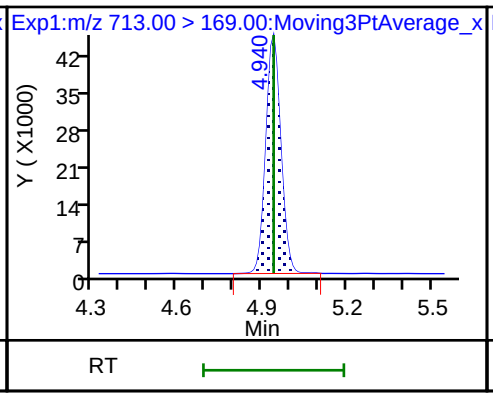

41 Perfluorotridecanoic acid (M)



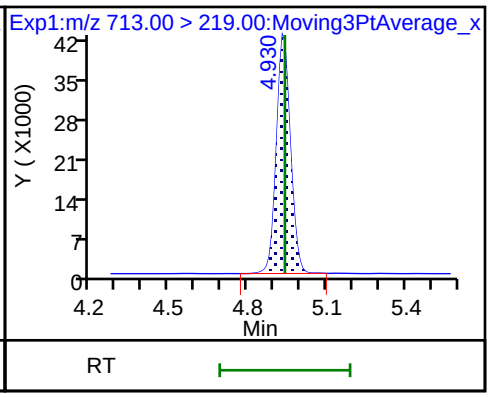

D 43 13C2 PFTeDA



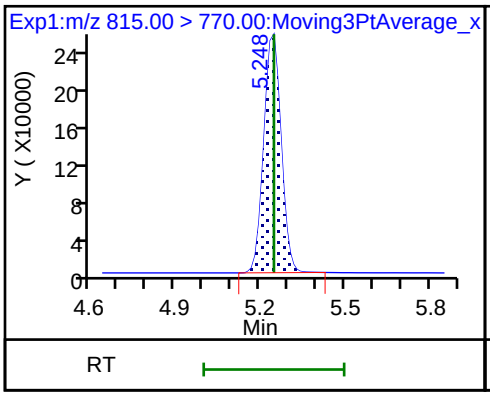

42 Perfluorotetradecanoic acid



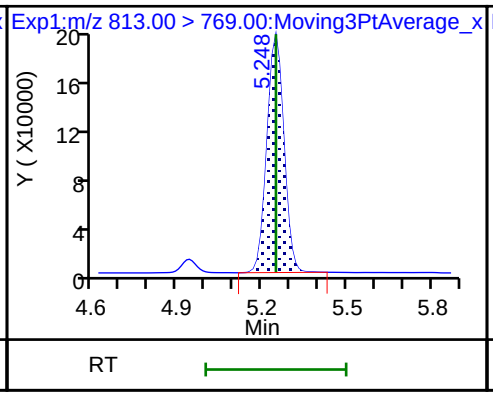

42 Perfluorotetradecanoic acid



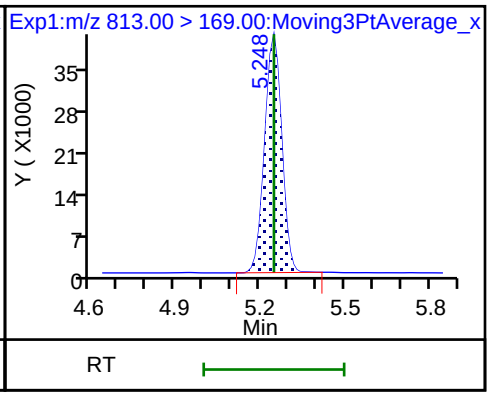

D 44 13C2 PFHxDA



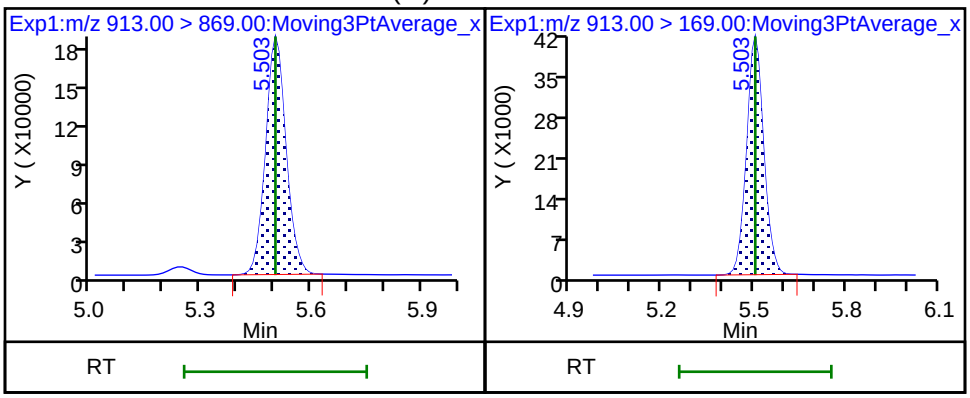

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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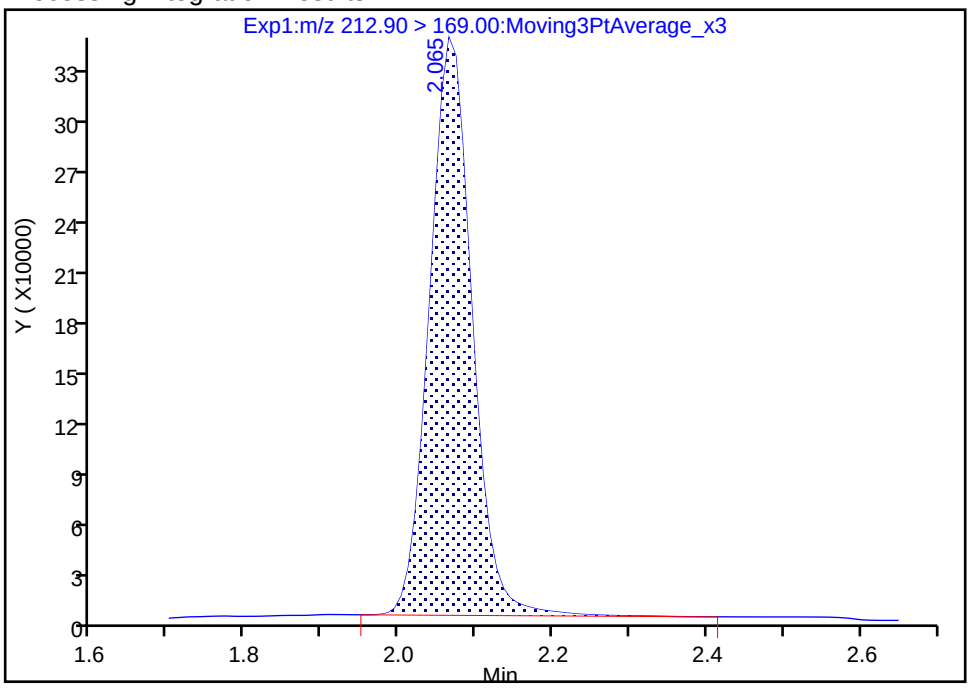
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

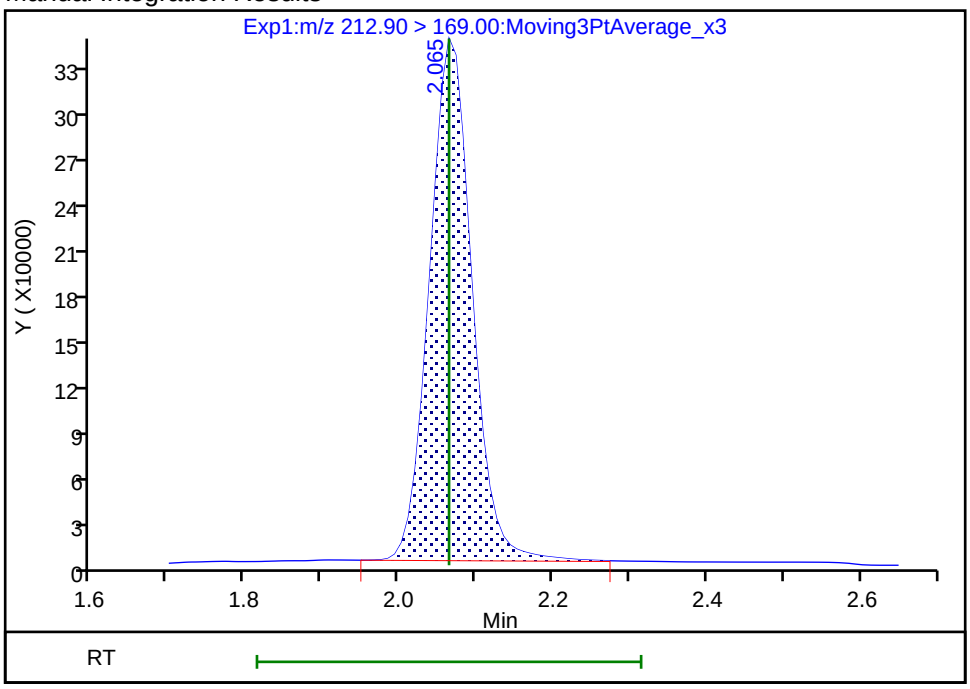
Processing Integration Results

RT: 2.06
Area: 1329177
Amount: 0.971698
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 1327634
Amount: 0.970570
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:32:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

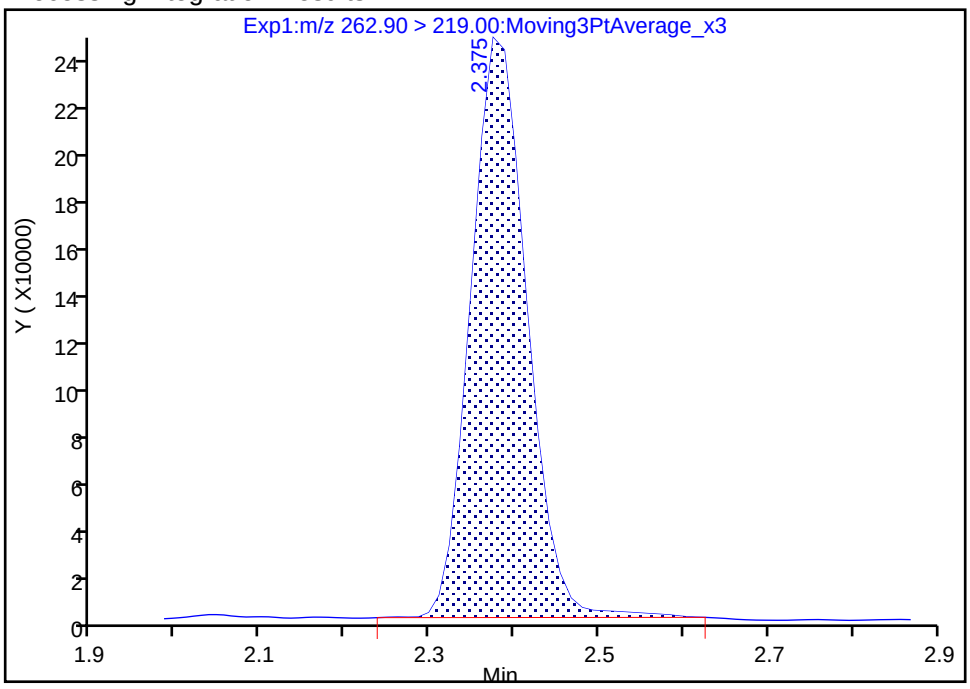
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

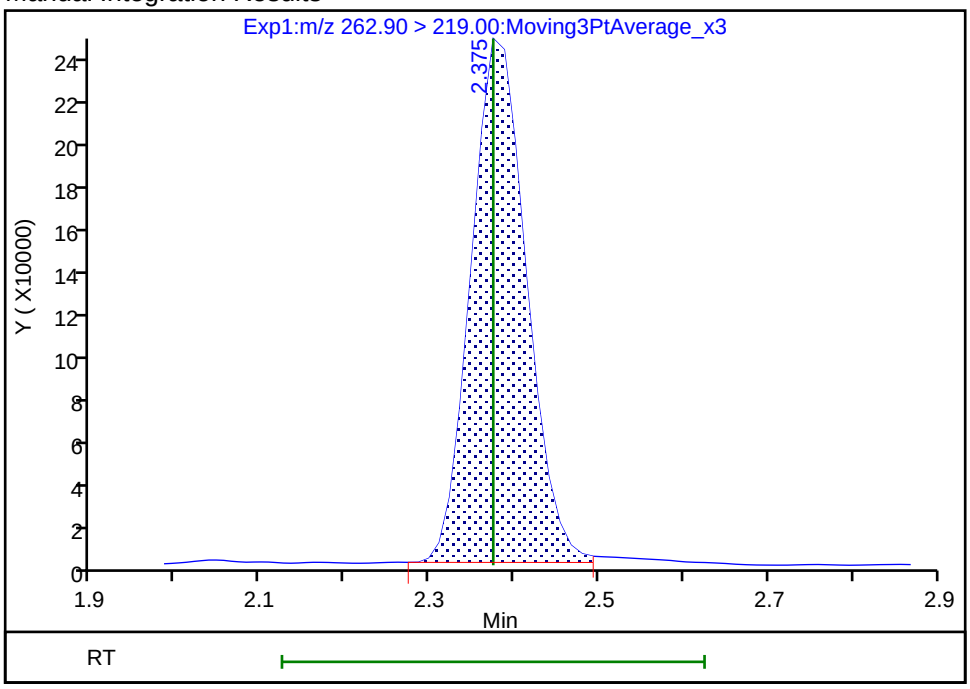
Processing Integration Results

RT: 2.37
Area: 1099273
Amount: 0.901001
Amount Units: ng/ml




Manual Integration Results

RT: 2.37
Area: 1085613
Amount: 0.889805
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:32:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

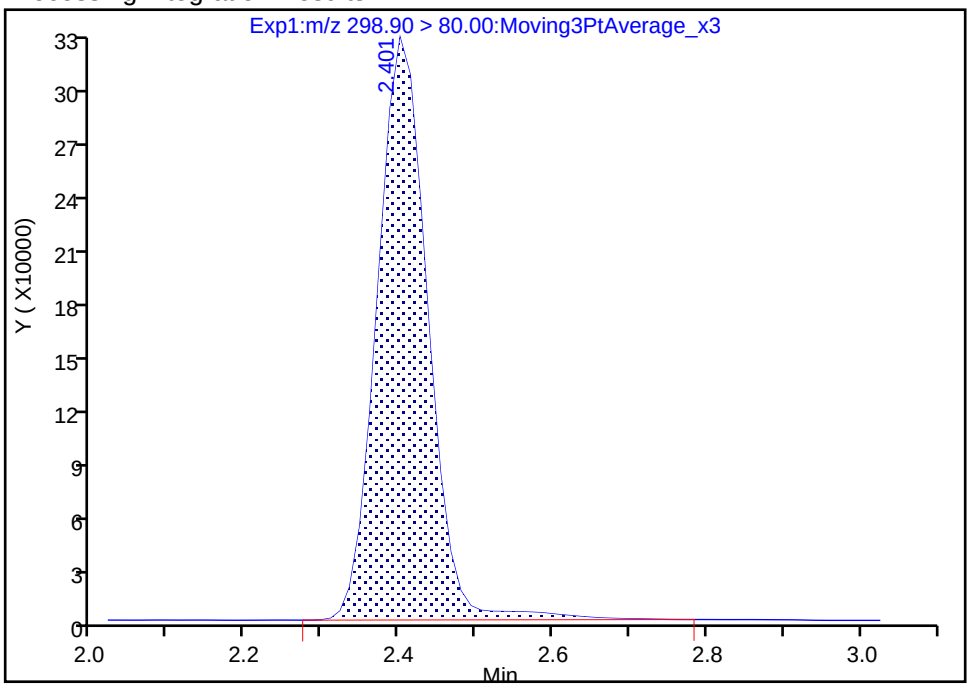
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

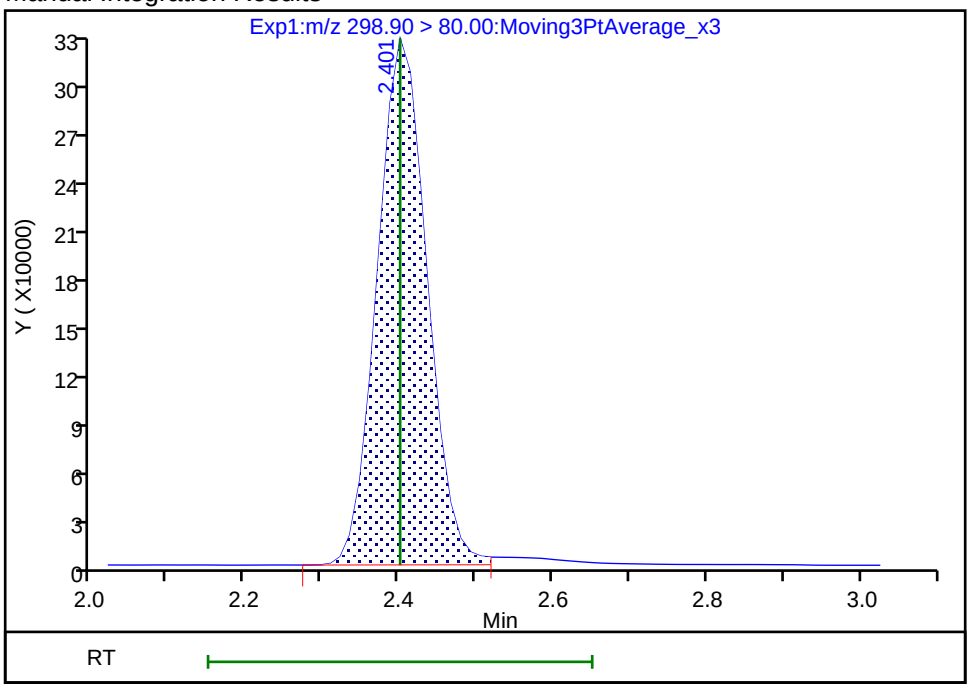
Processing Integration Results

RT: 2.40
Area: 1470295
Amount: 0.880600
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1440096
Amount: 0.862513
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:32:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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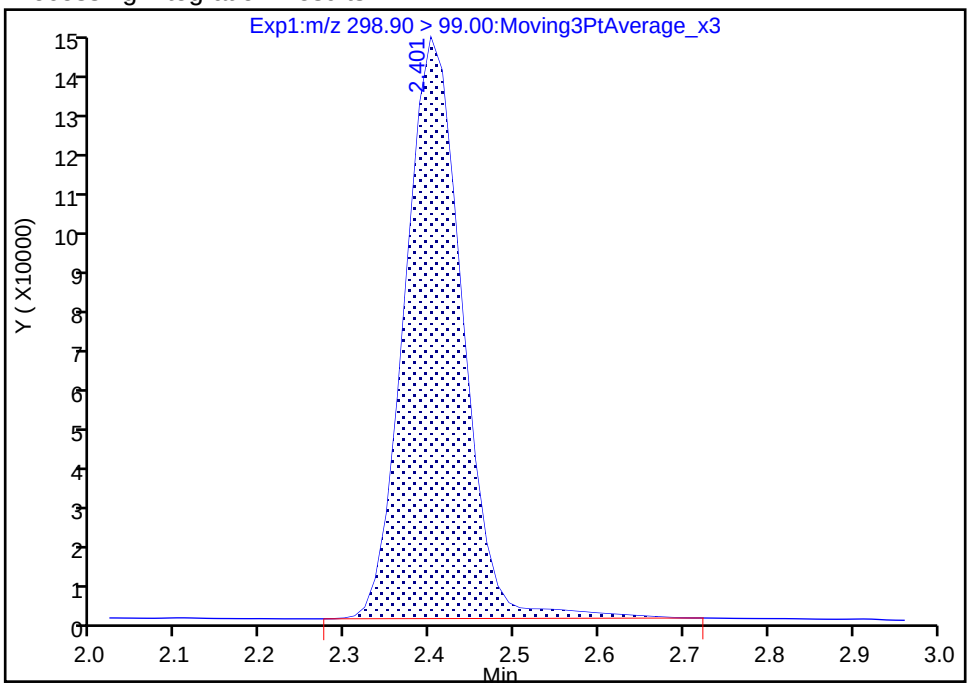
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

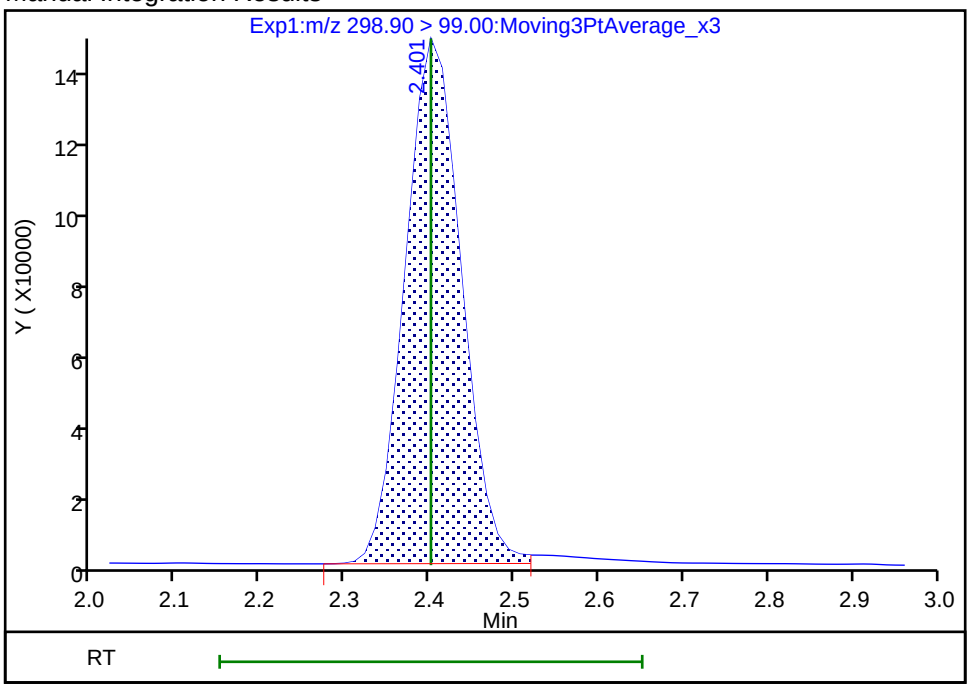
Processing Integration Results

RT: 2.40
Area: 681501
Amount: 0.880600
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 668860
Amount: 0.862513
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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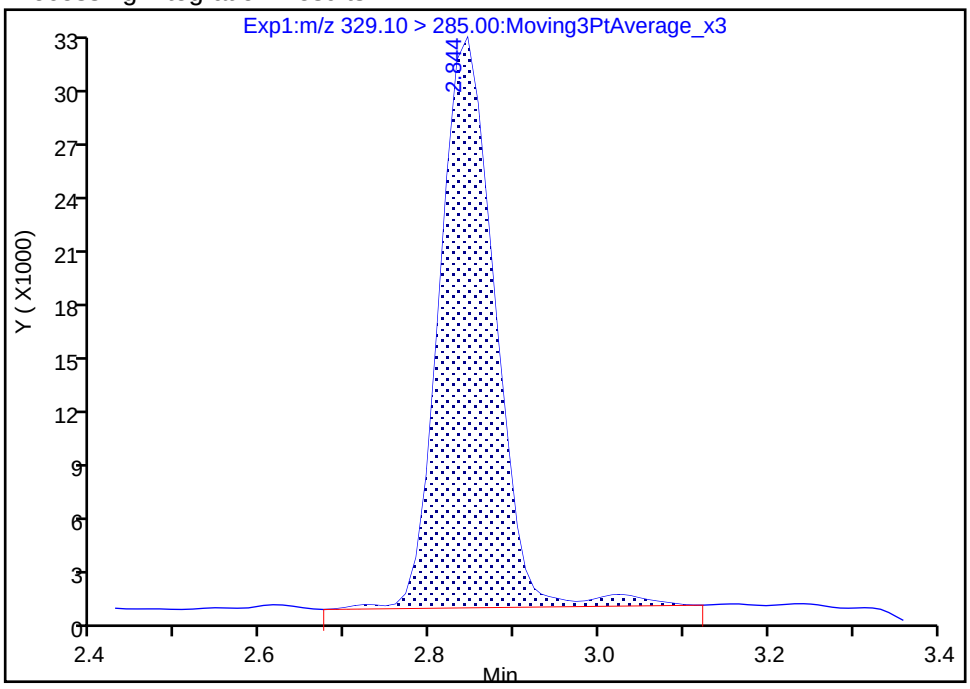
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

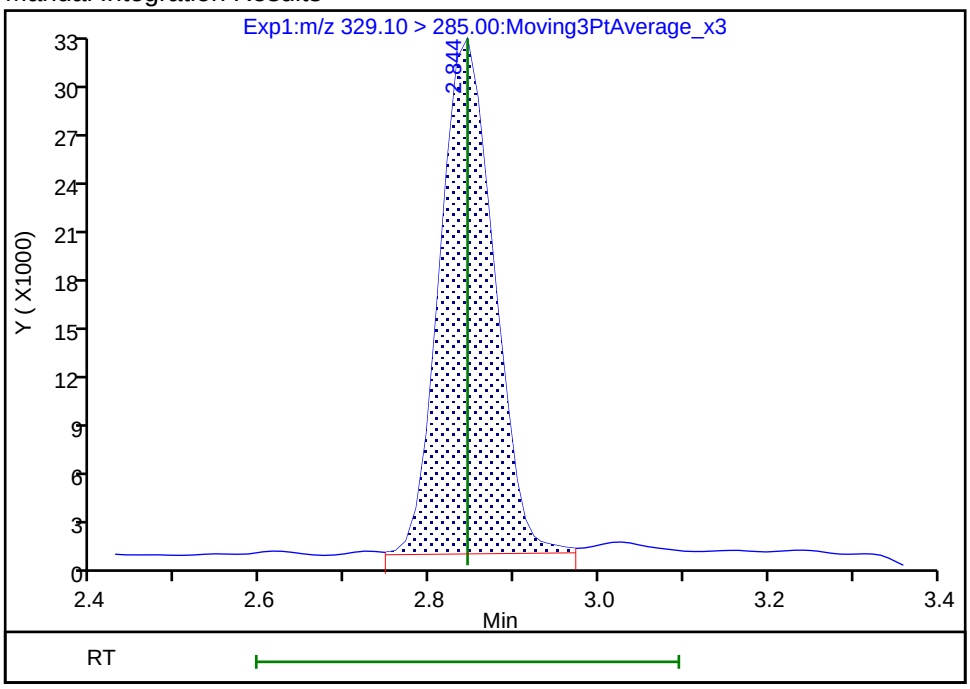
Processing Integration Results

RT: 2.84
Area: 143360
Amount: 0.936065
Amount Units: ng/ml




Manual Integration Results

RT: 2.84
Area: 139908
Amount: 0.913526
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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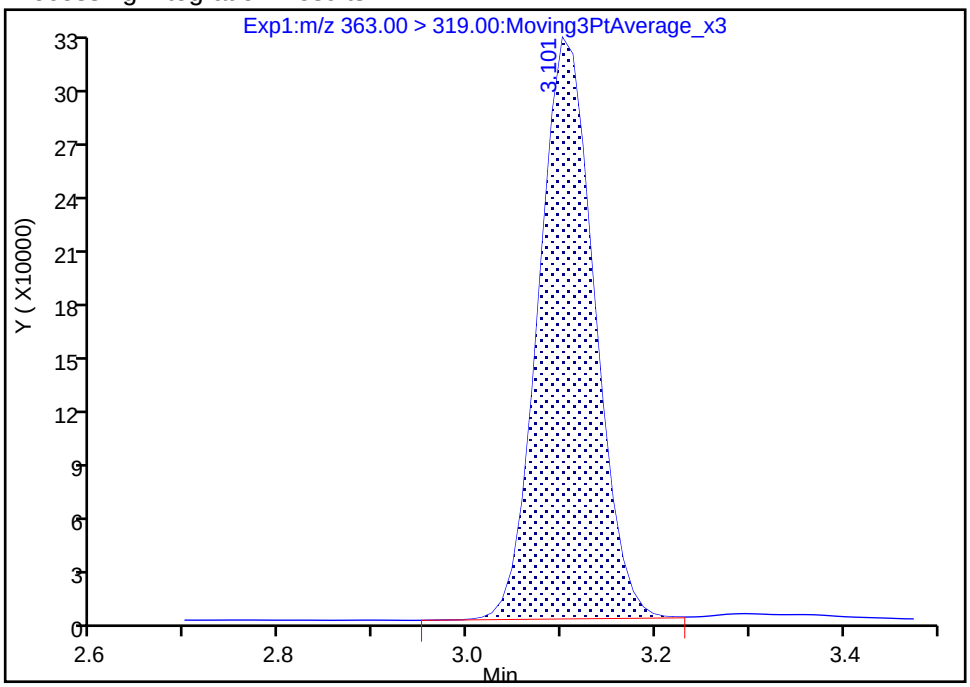
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

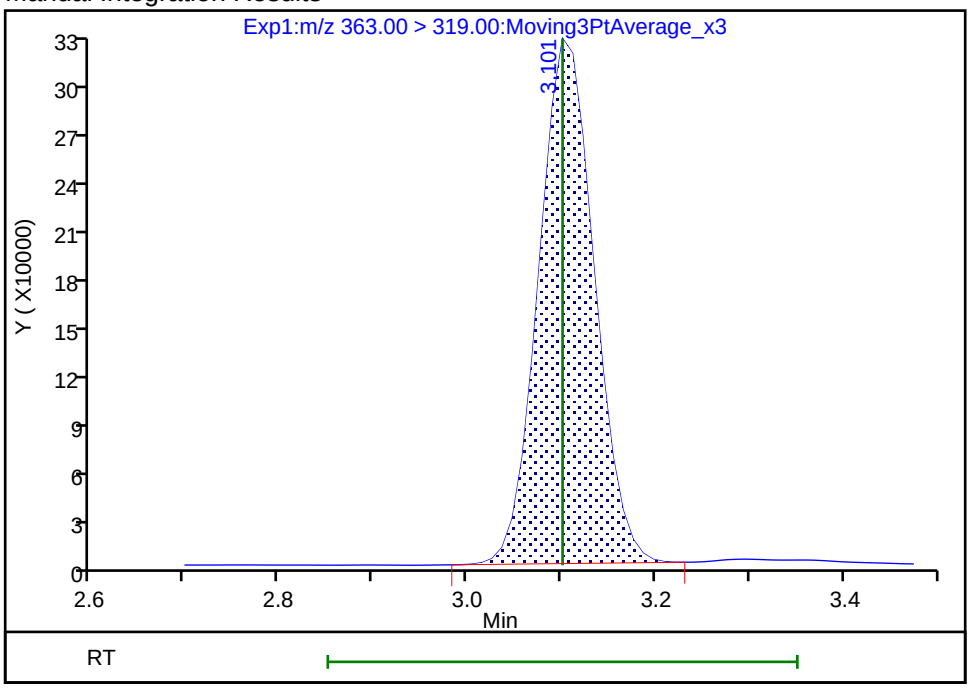
Processing Integration Results

RT: 3.10
Area: 1322586
Amount: 0.969376
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1318896
Amount: 0.966671
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

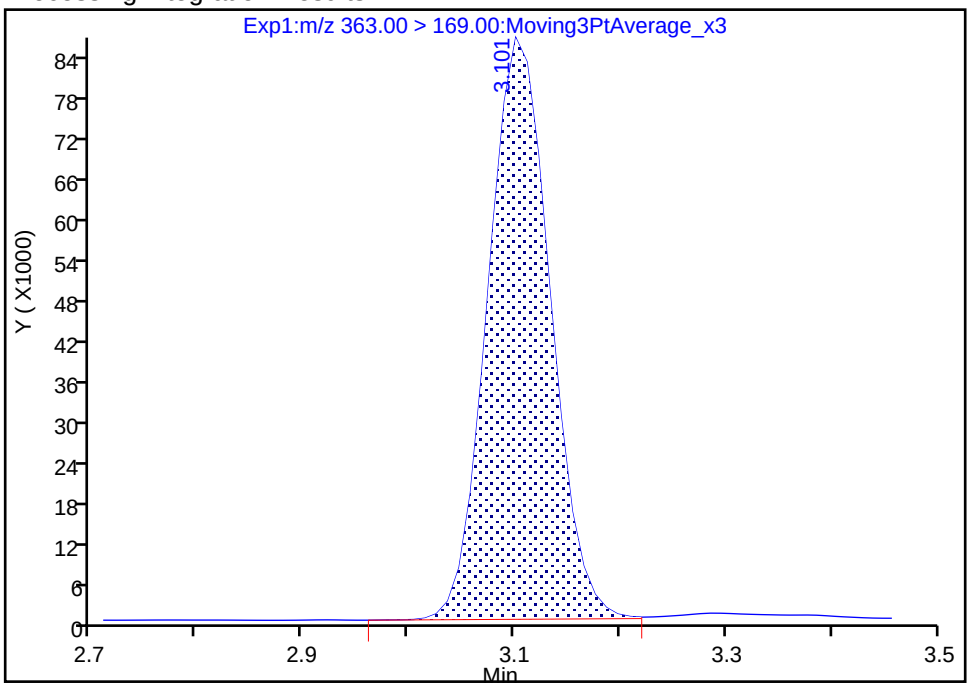
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

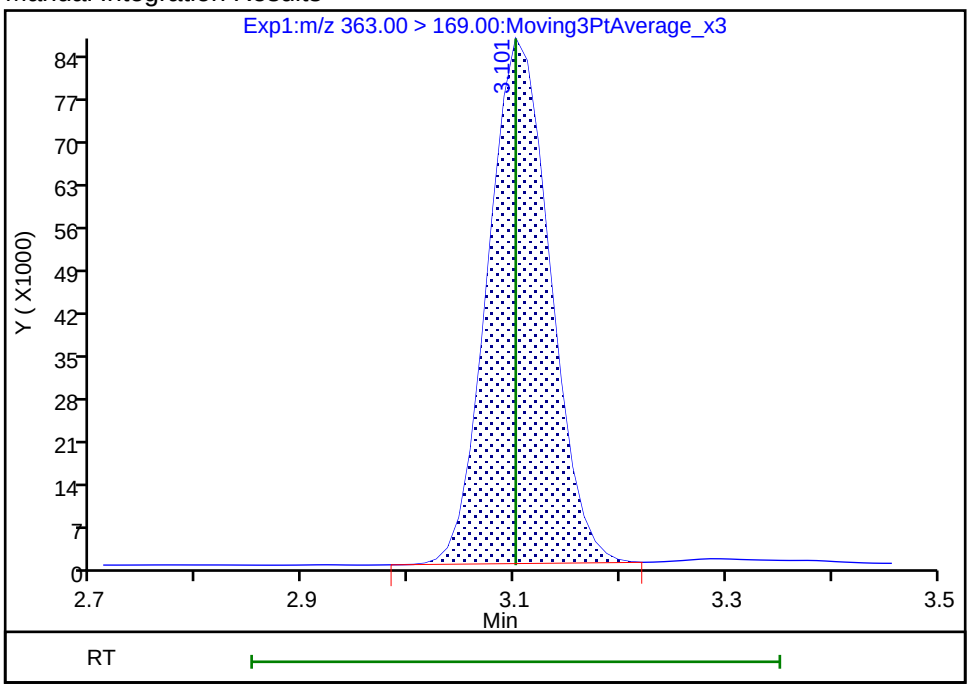
Processing Integration Results

RT: 3.10
Area: 355733
Amount: 0.969376
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 354068
Amount: 0.966671
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

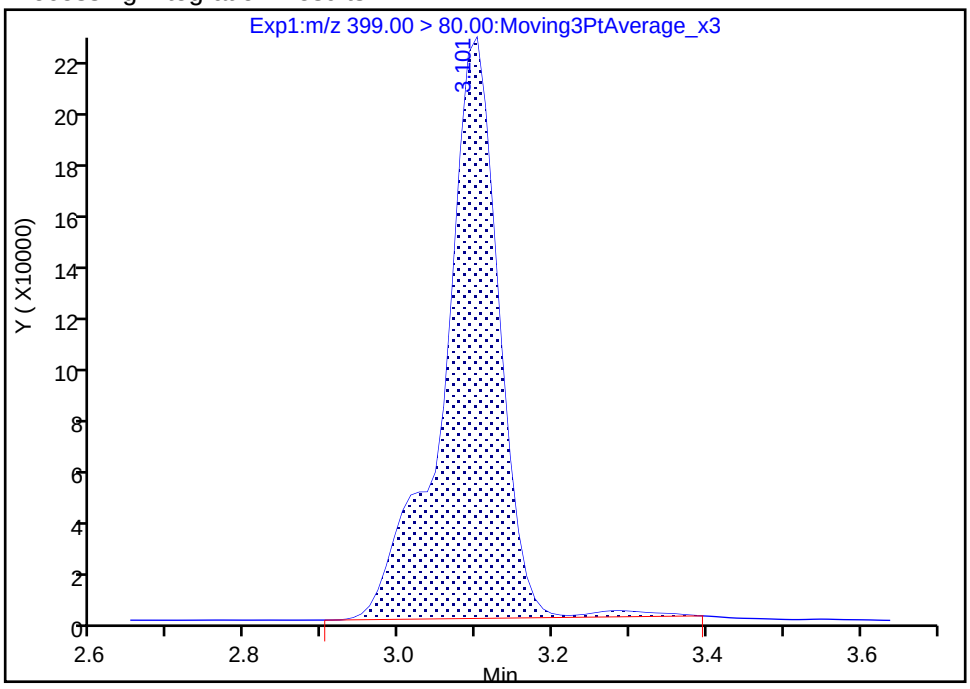
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

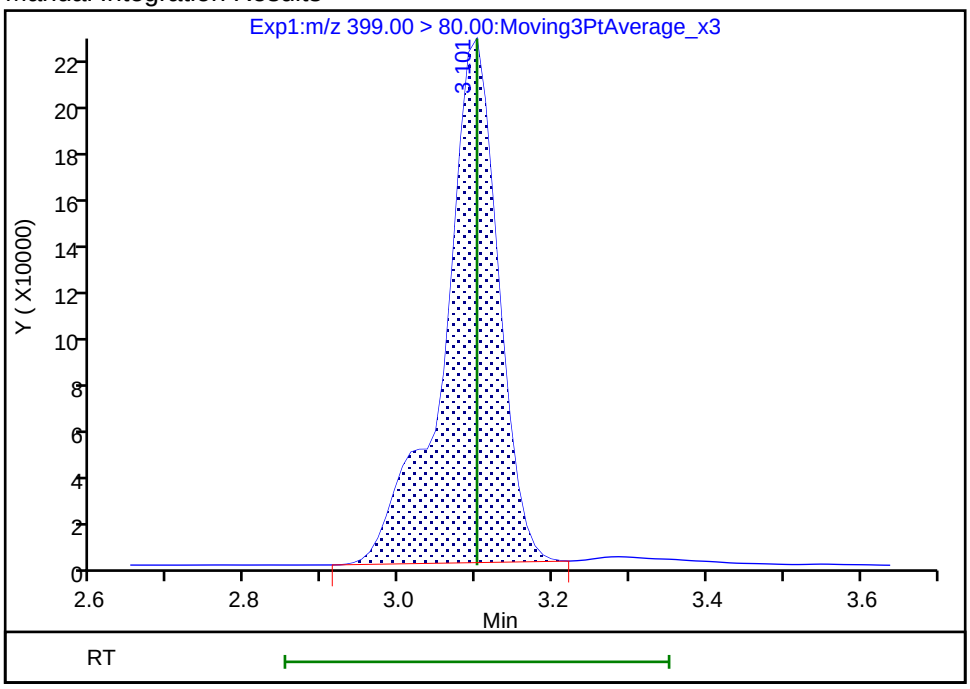
Processing Integration Results

RT: 3.10
Area: 1136064
Amount: 0.869230
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 1116943
Amount: 0.854601
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

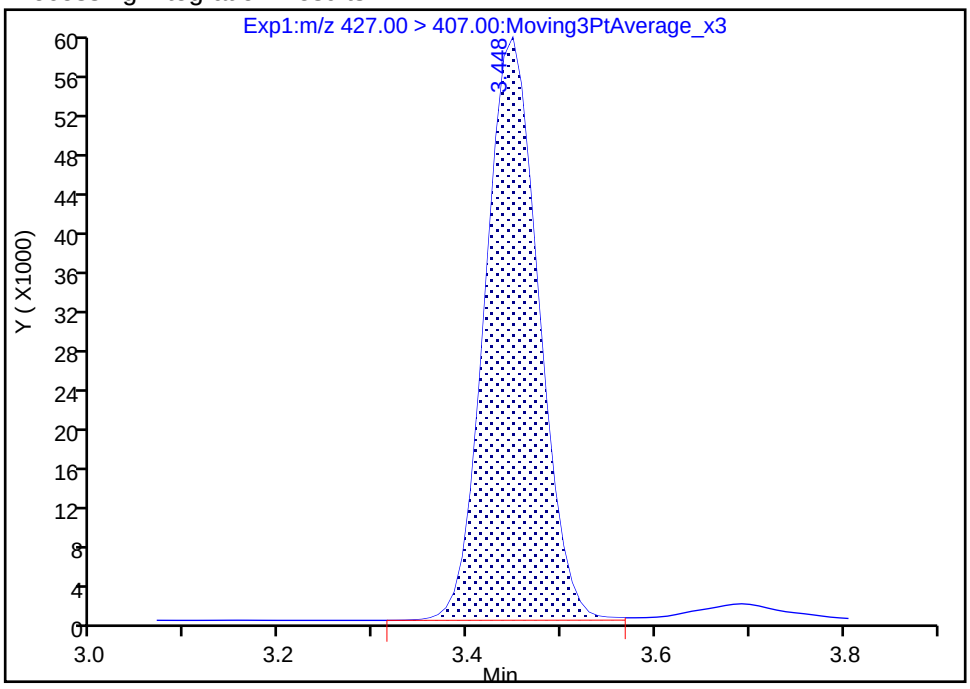
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

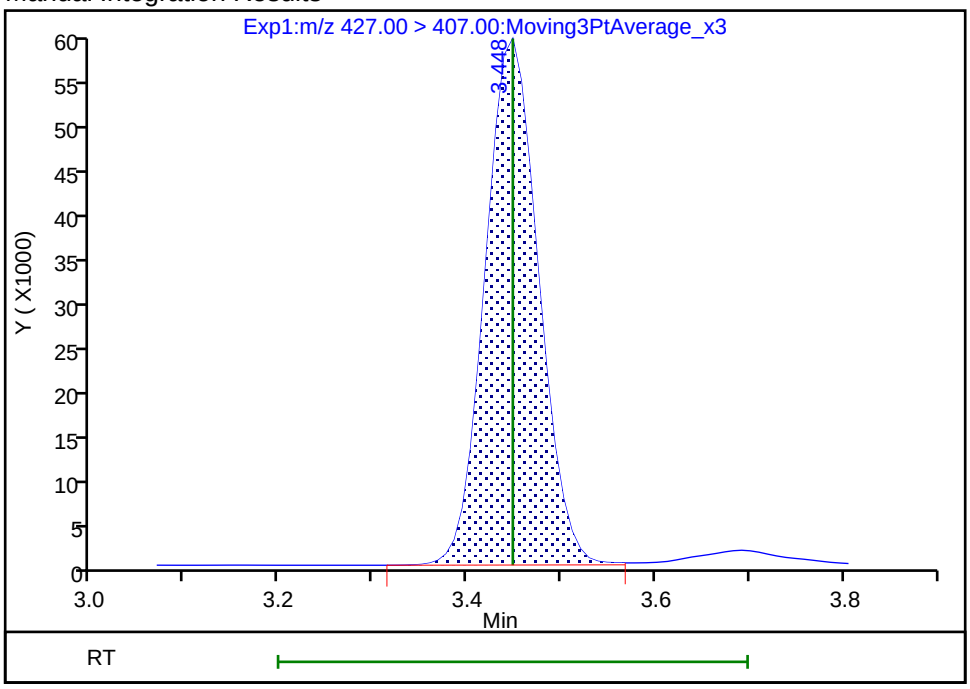
Processing Integration Results

RT: 3.45
Area: 236631
Amount: 0.882363
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 236463
Amount: 0.881737
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:33:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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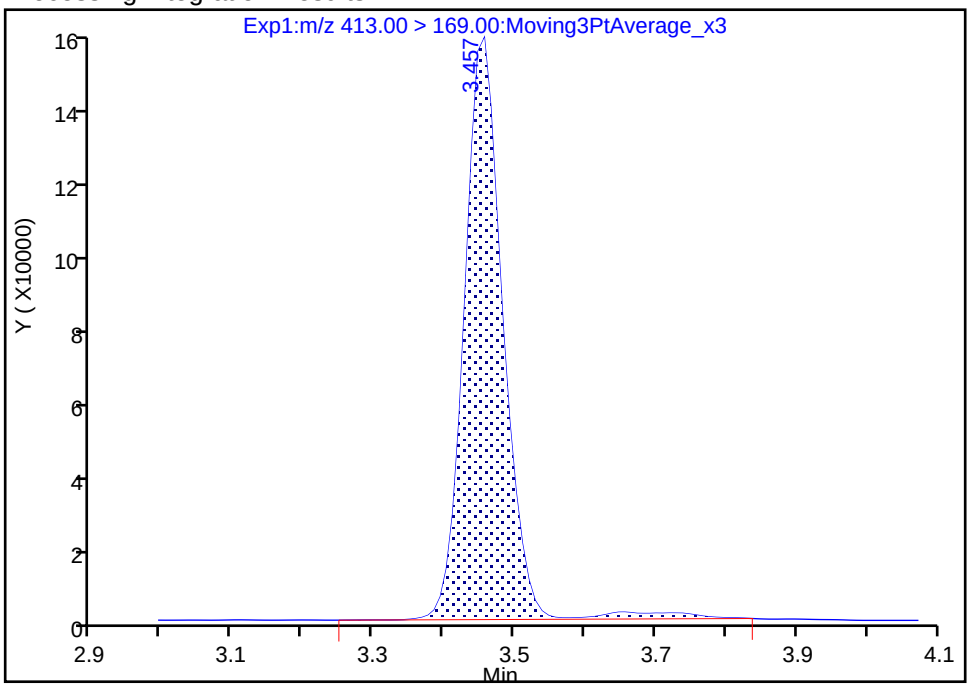
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

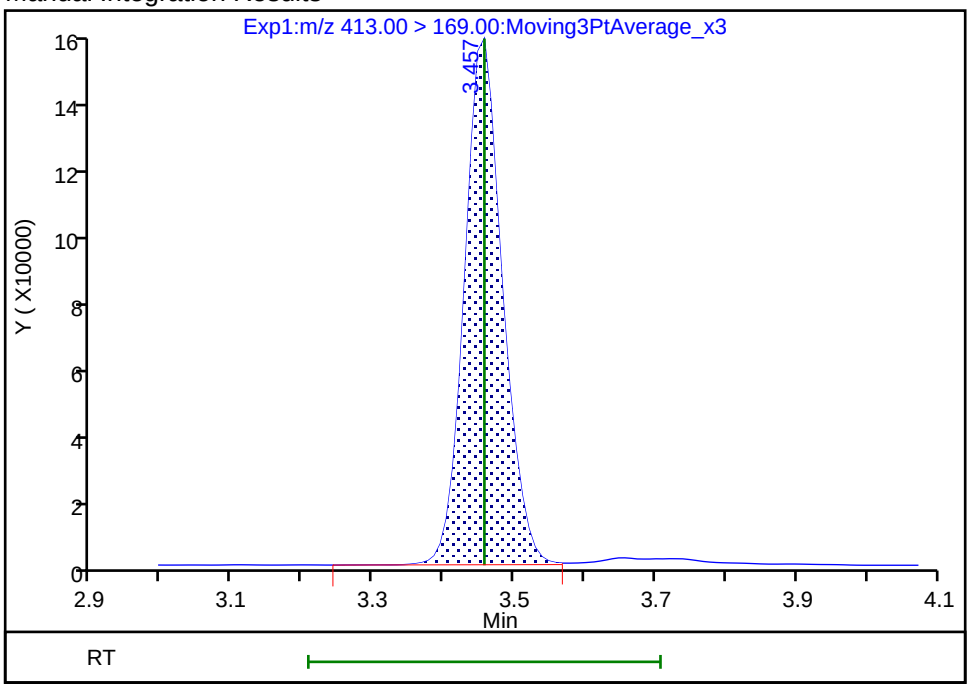
Processing Integration Results

RT: 3.46
Area: 585870
Amount: 0.978168
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 571885
Amount: 0.981362
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:34:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

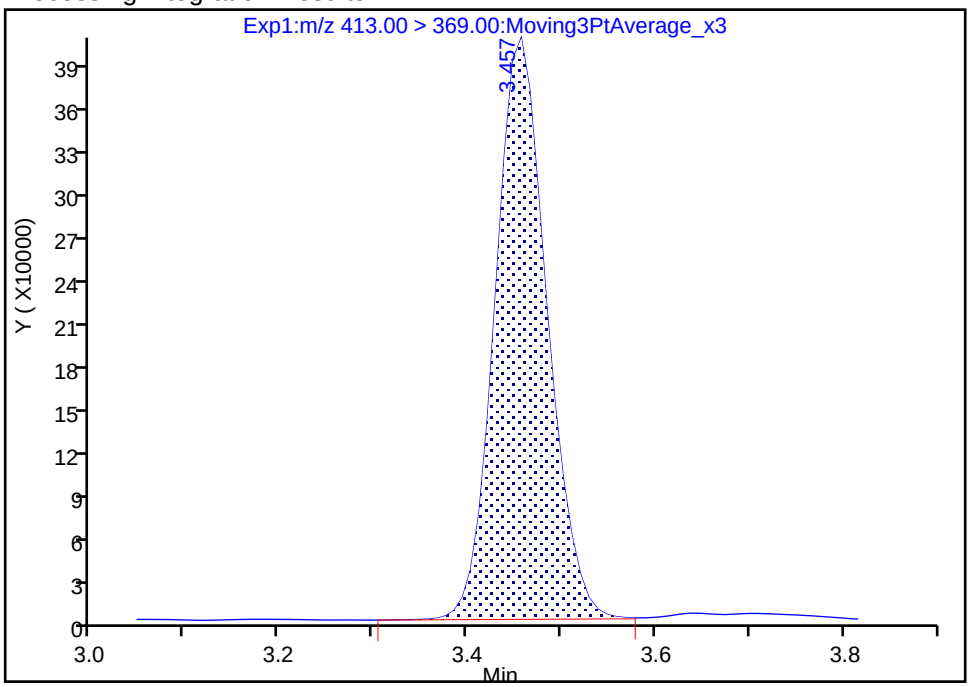
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

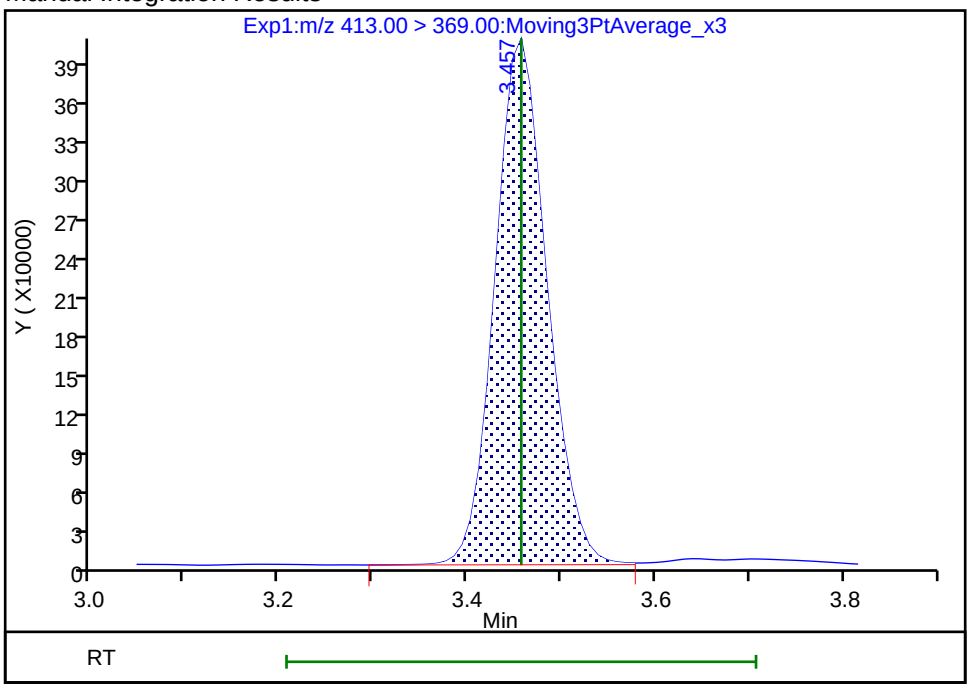
Processing Integration Results

RT: 3.46
Area: 1559747
Amount: 0.978168
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1564839
Amount: 0.981362
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:34:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

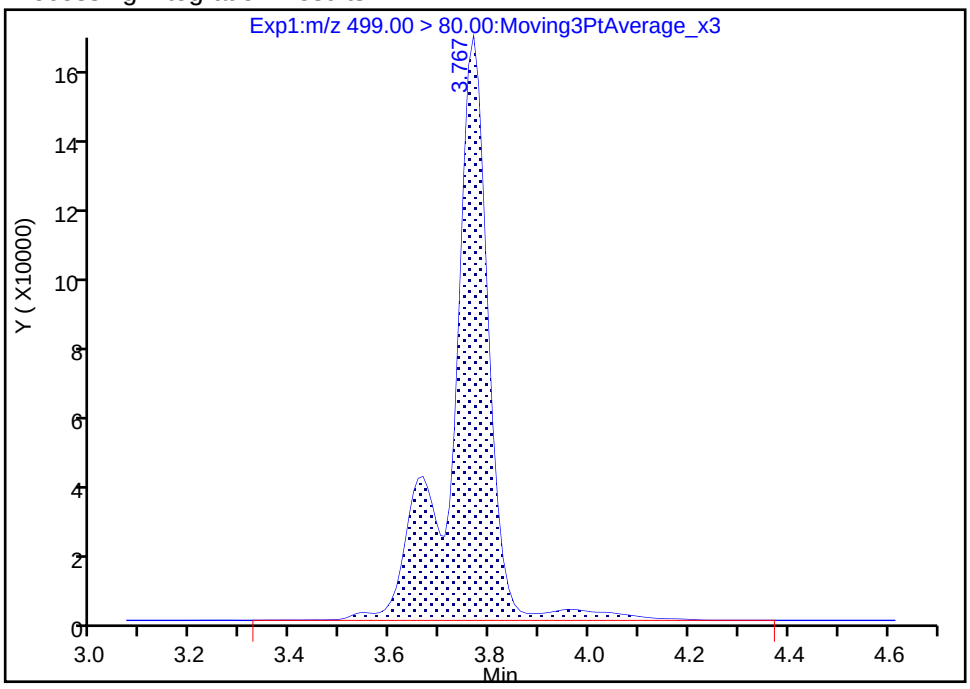
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

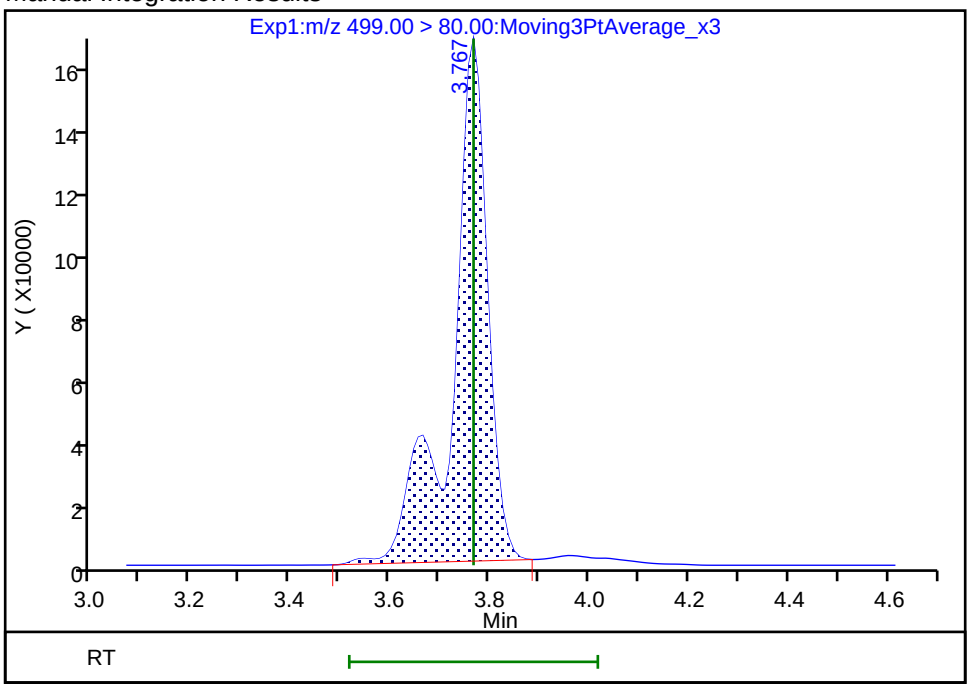
Processing Integration Results

RT: 3.77
Area: 869683
Amount: 0.867558
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 814803
Amount: 0.812812
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:34:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

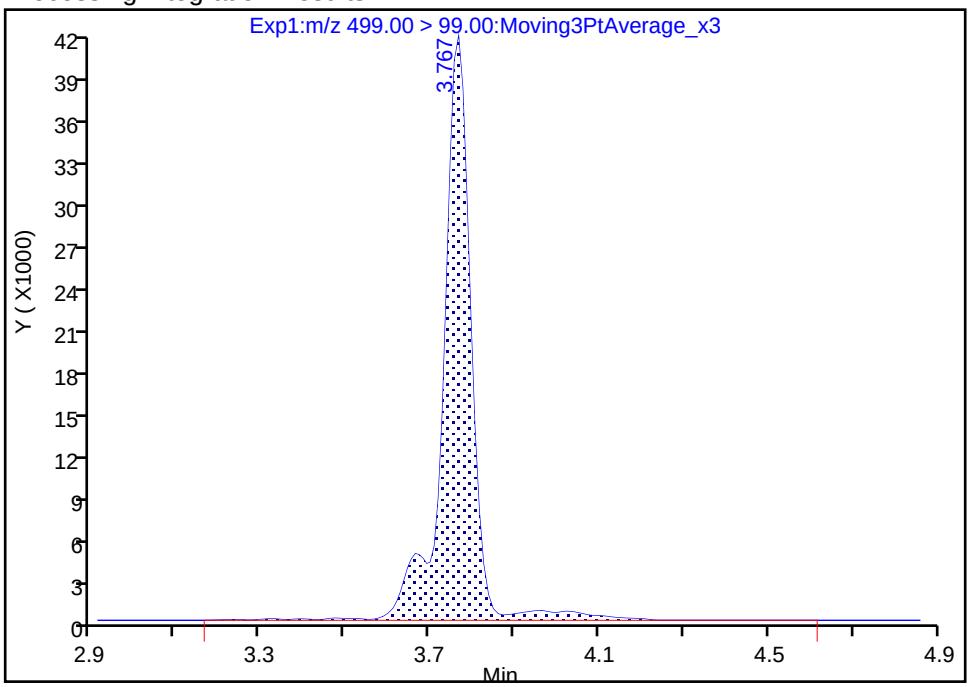
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

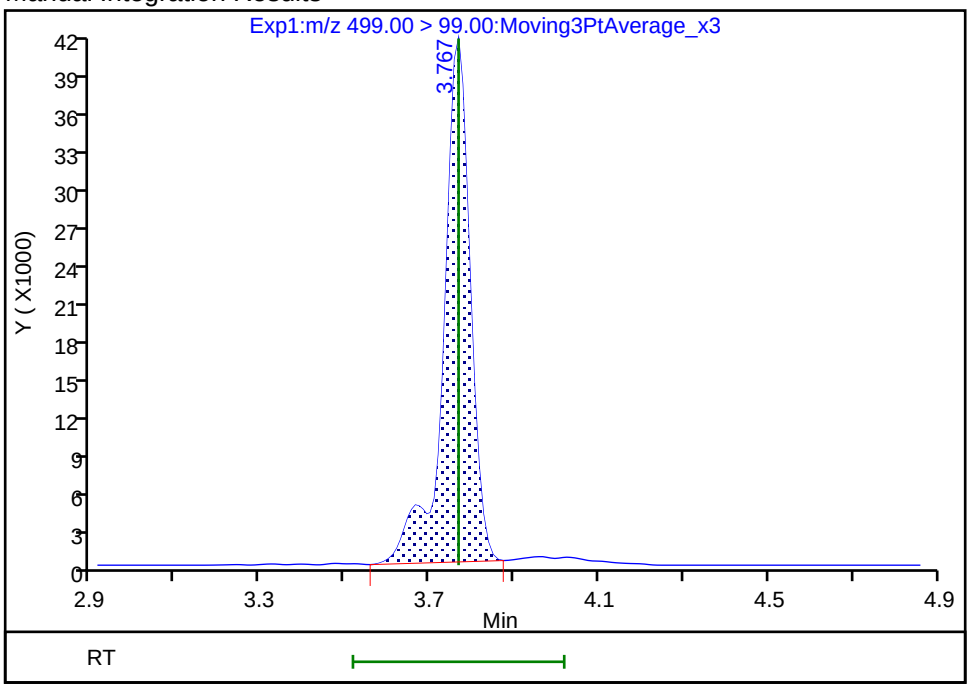
Processing Integration Results

RT: 3.77
Area: 194899
Amount: 0.867558
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 181276
Amount: 0.812812
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:34:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

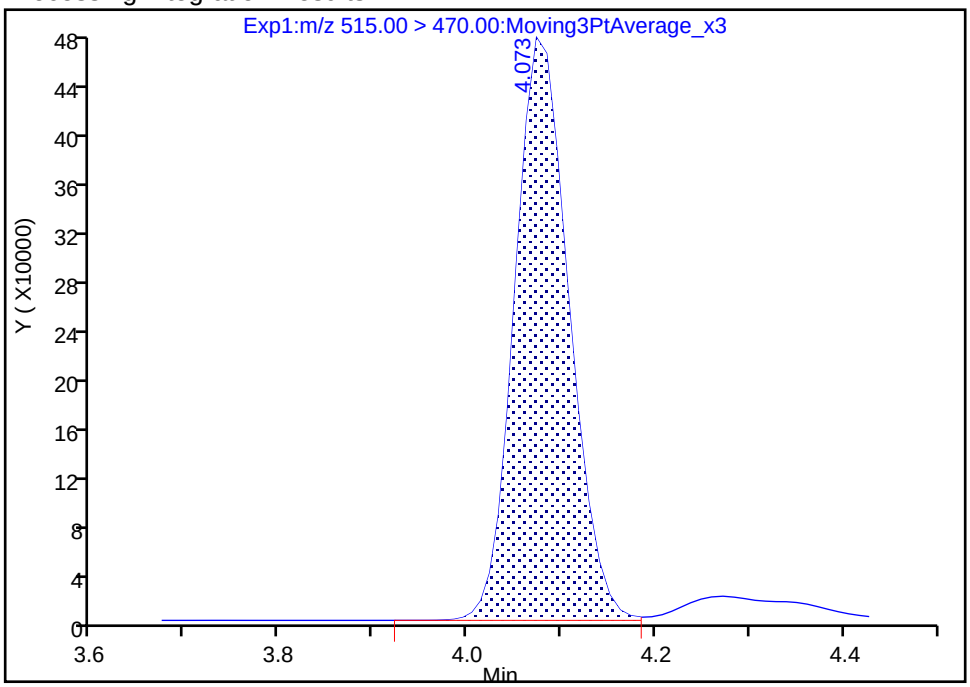
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

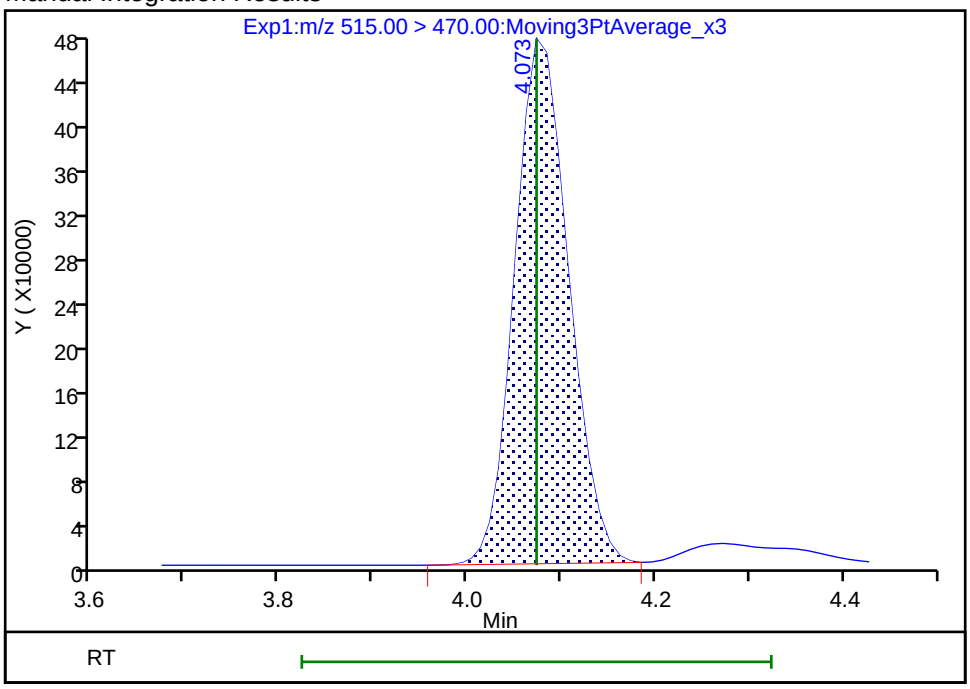
Processing Integration Results

RT: 4.07
Area: 1923831
Amount: 1.269875
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 1906107
Amount: 1.258175
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:46:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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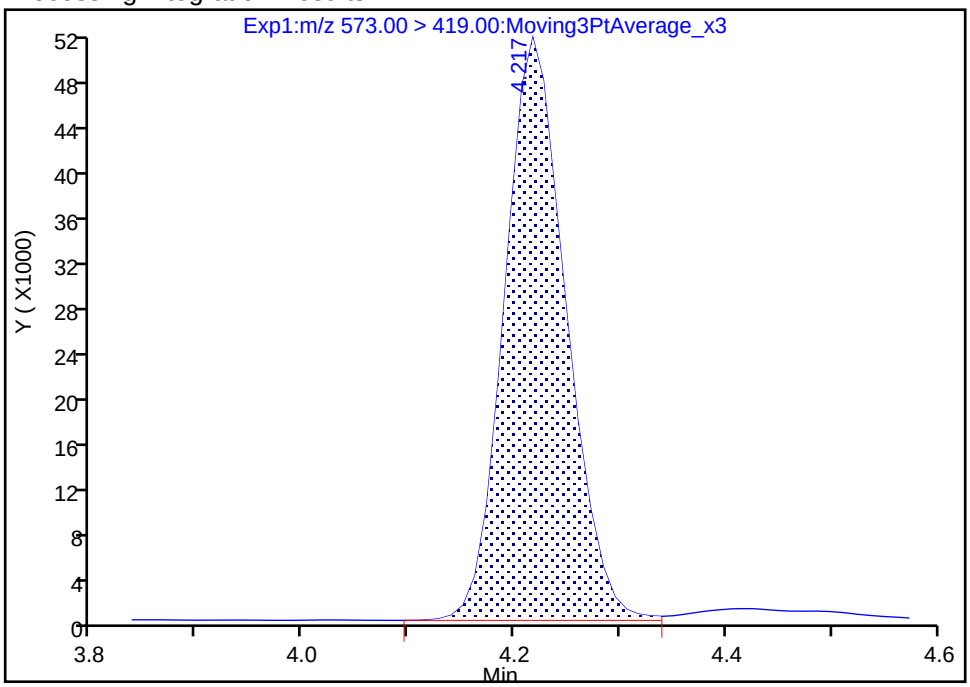
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

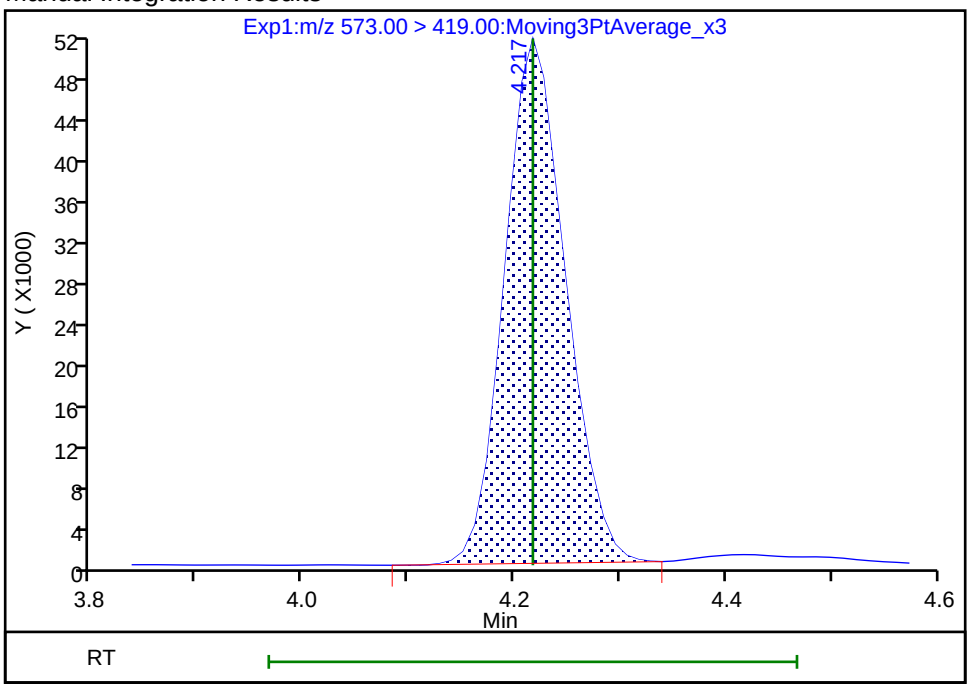
Processing Integration Results

RT: 4.22
Area: 206705
Amount: 1.387121
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 204002
Amount: 1.368982
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:47:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

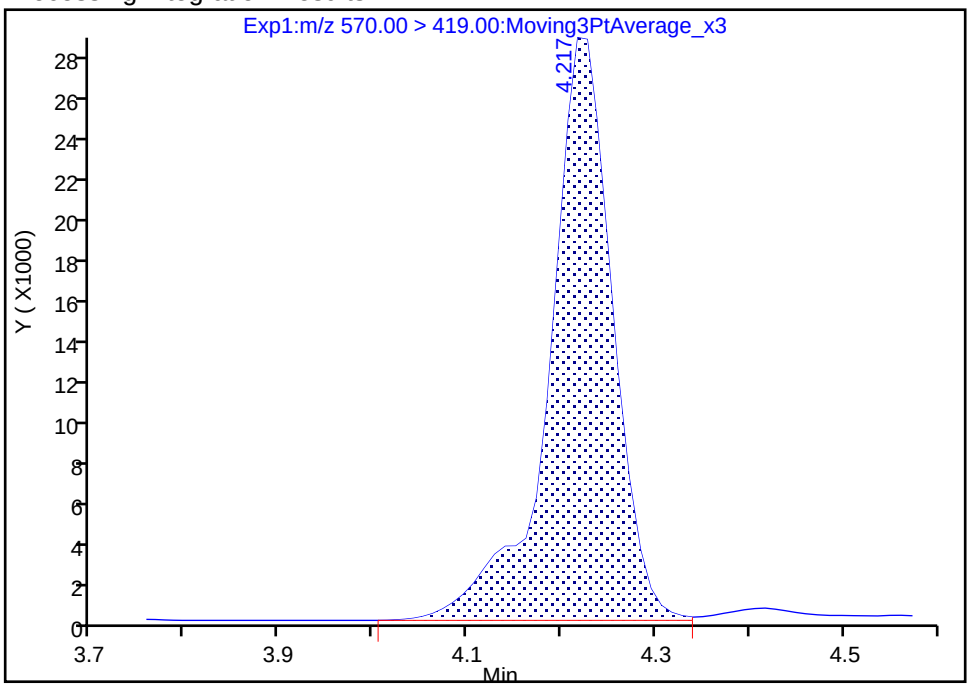
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

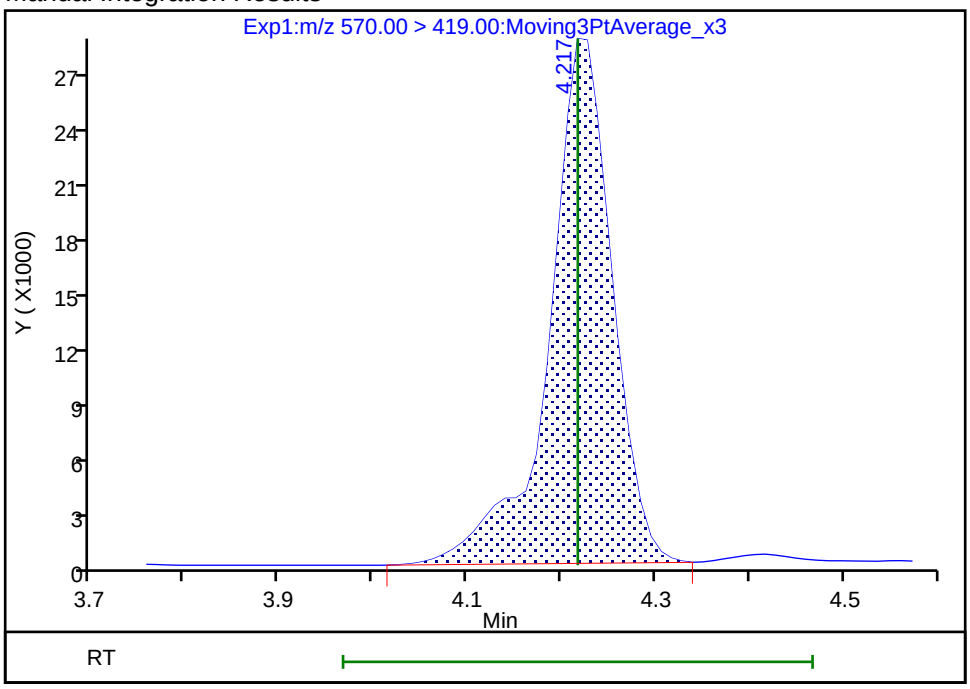
RT: 4.22
Area: 133766
Amount: 1.043335
Amount Units: ng/ml

Processing Integration Results




RT: 4.22
Area: 132203
Amount: 1.031144
Amount Units: ng/ml

Manual Integration Results




Reviewer: deannd, 04-Nov-2021 09:47:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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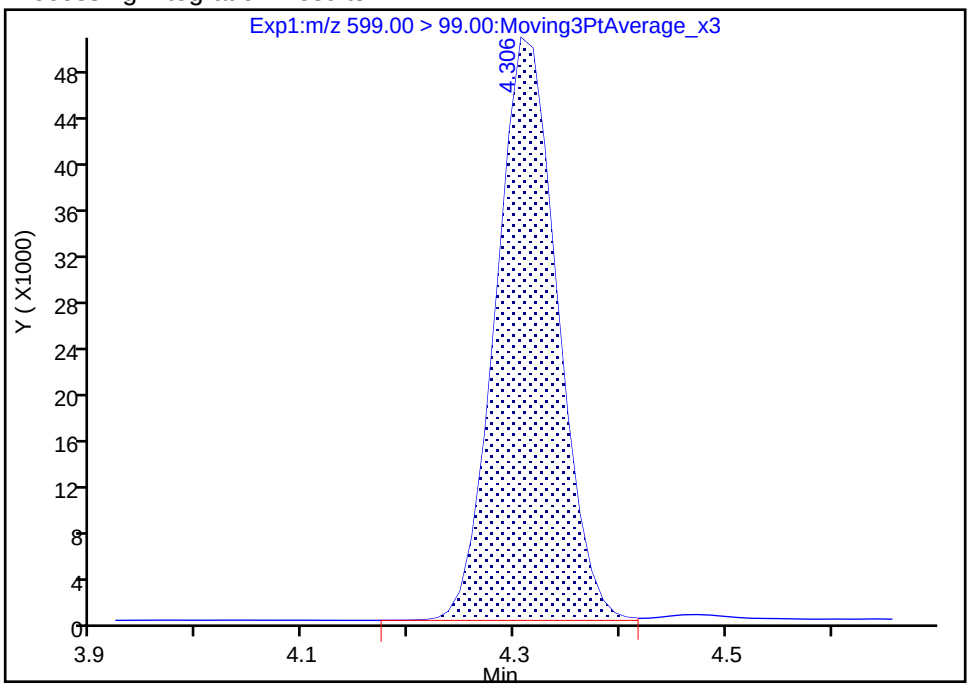
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

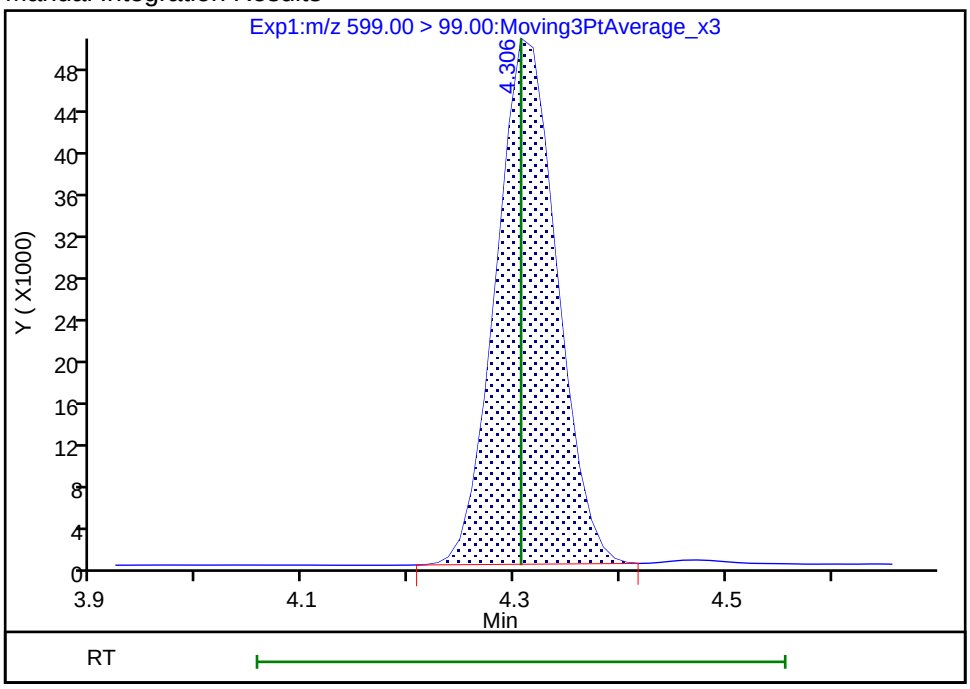
Processing Integration Results

RT: 4.31
Area: 203966
Amount: 0.906131
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 202705
Amount: 0.906131
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:47:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

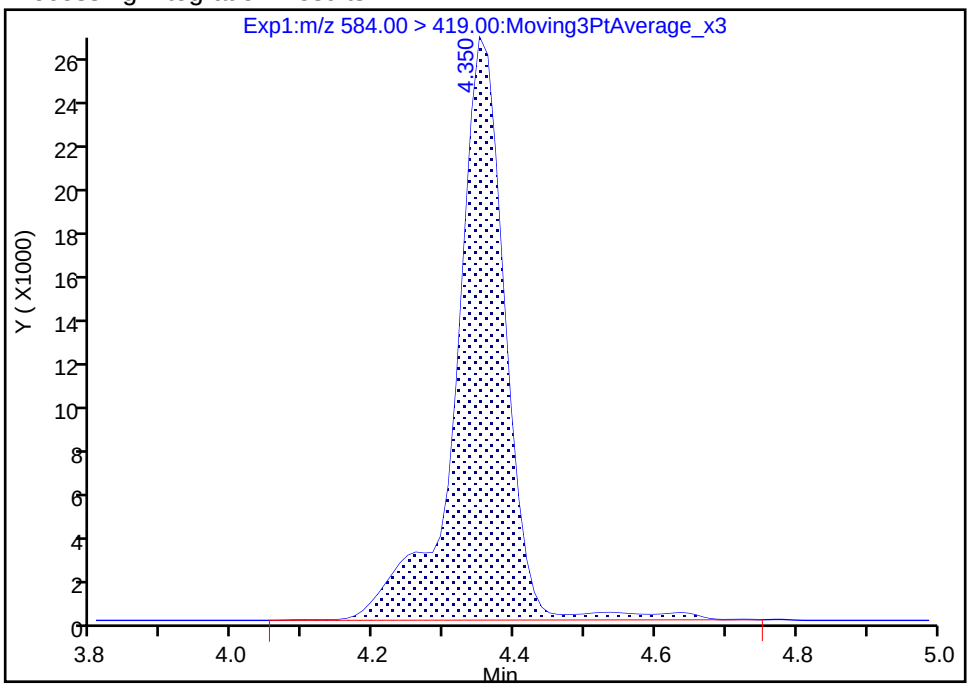
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

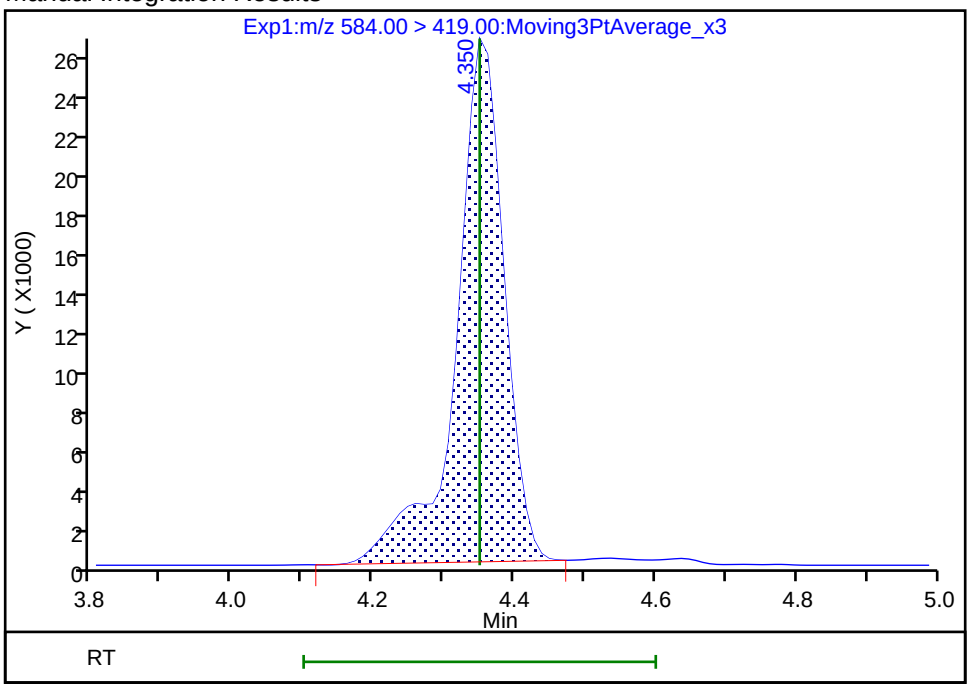
Processing Integration Results

RT: 4.35
Area: 132453
Amount: 0.971373
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 126376
Amount: 0.926806
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:47:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

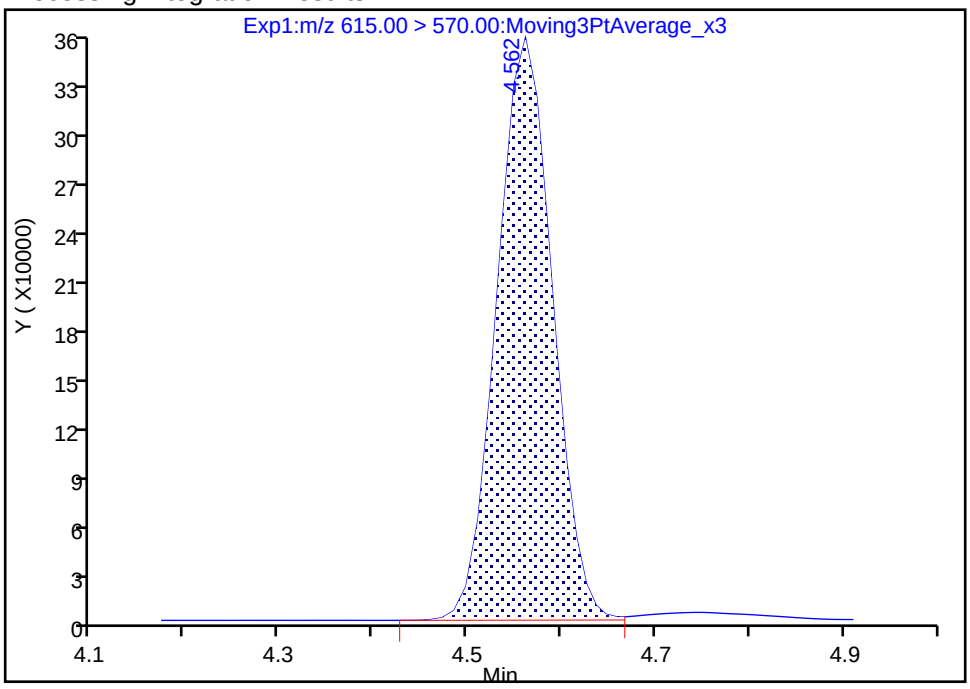
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

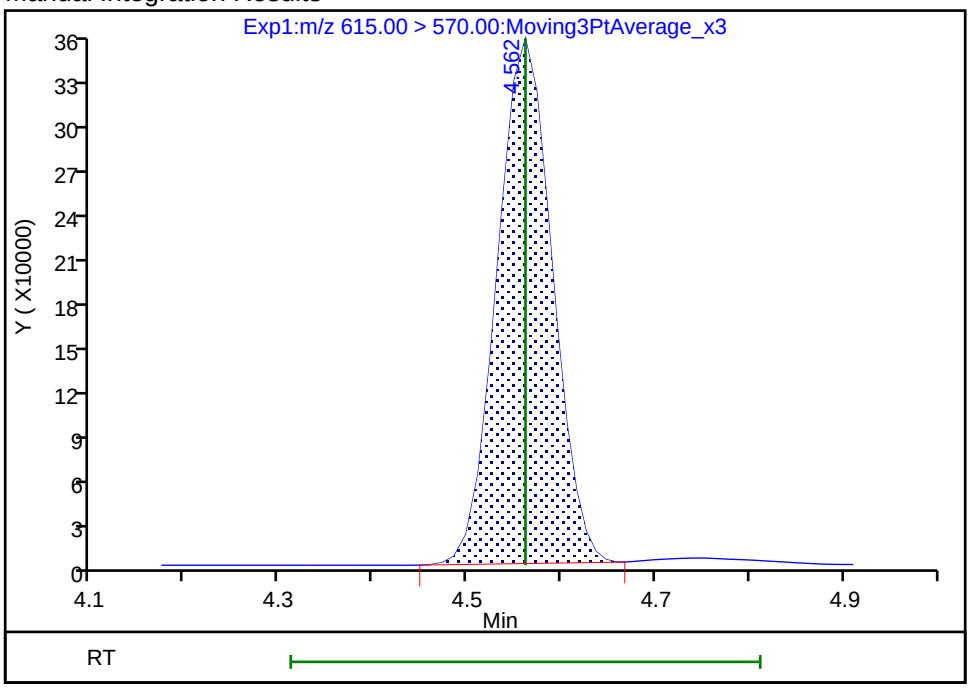
Processing Integration Results

RT: 4.56
Area: 1466108
Amount: 1.154305
Amount Units: ng/ml




Manual Integration Results

RT: 4.56
Area: 1453169
Amount: 1.144118
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:47:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

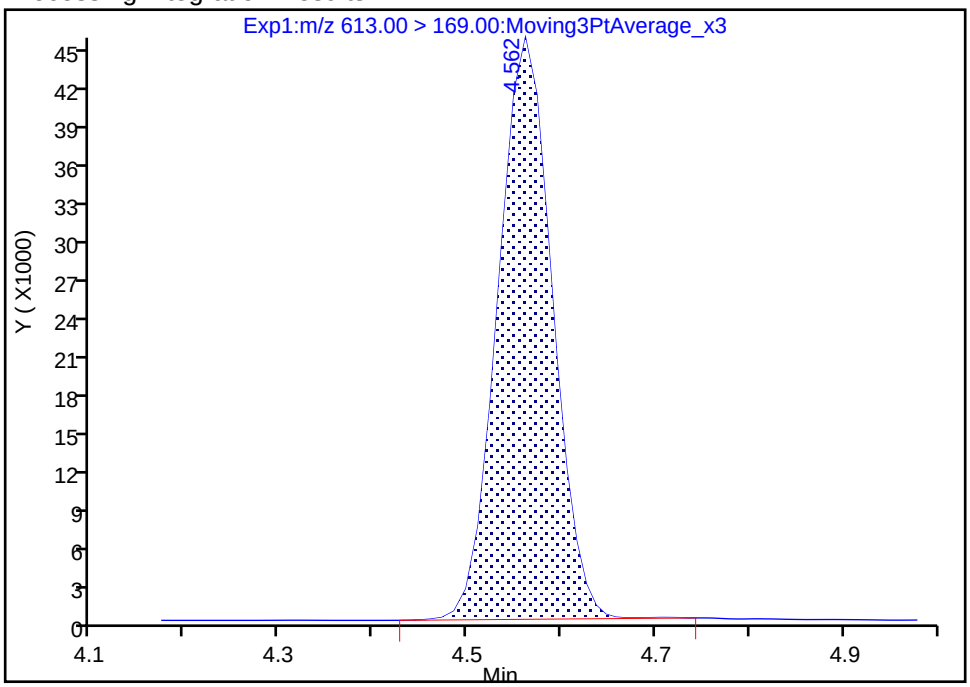
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

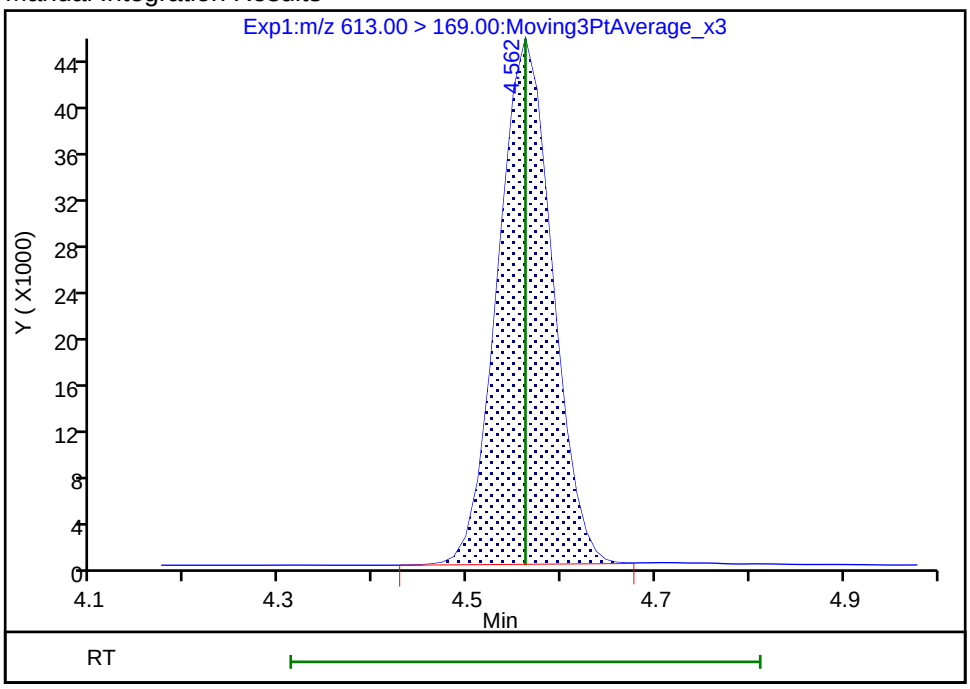
Processing Integration Results

RT: 4.56
Area: 184610
Amount: 1.029665
Amount Units: ng/ml




Manual Integration Results

RT: 4.56
Area: 184464
Amount: 1.038833
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:35:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

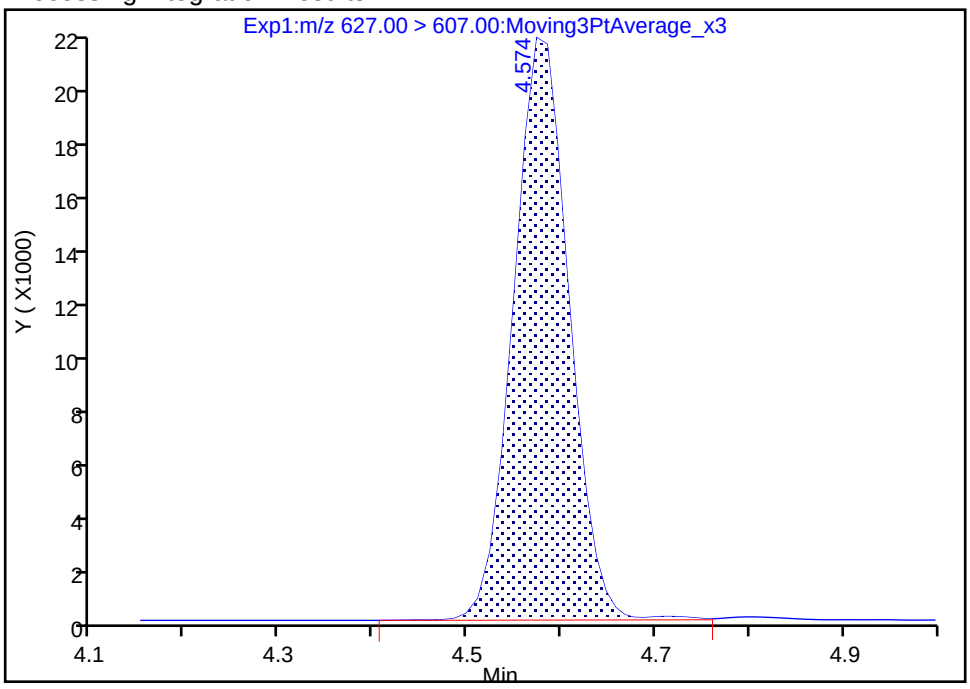
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

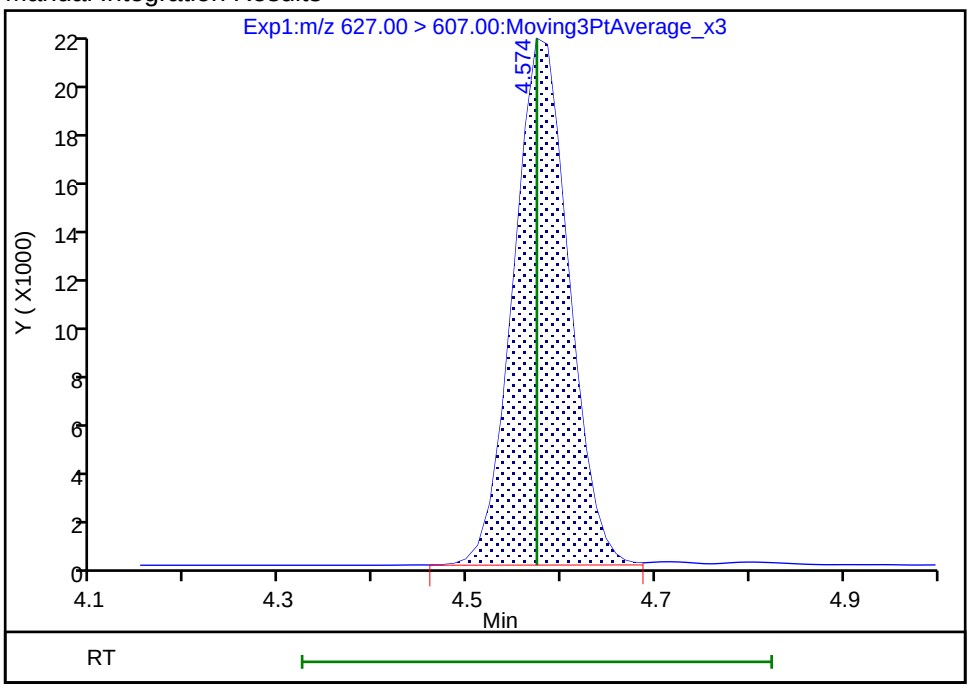
Processing Integration Results

RT: 4.57
Area: 89951
Amount: 0.936799
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 89561
Amount: 0.932737
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:35:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

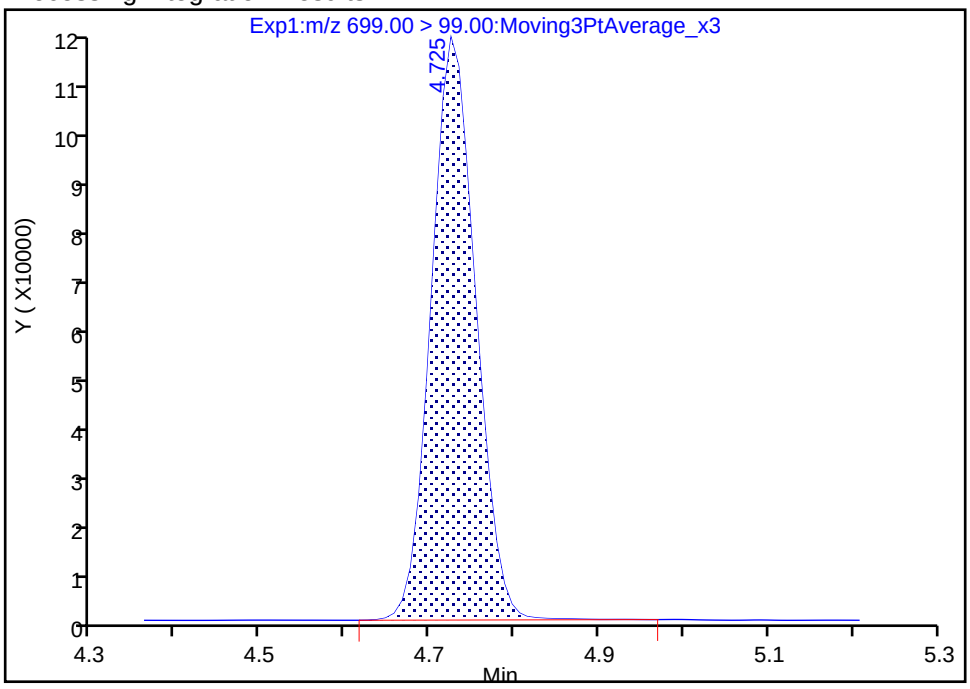
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

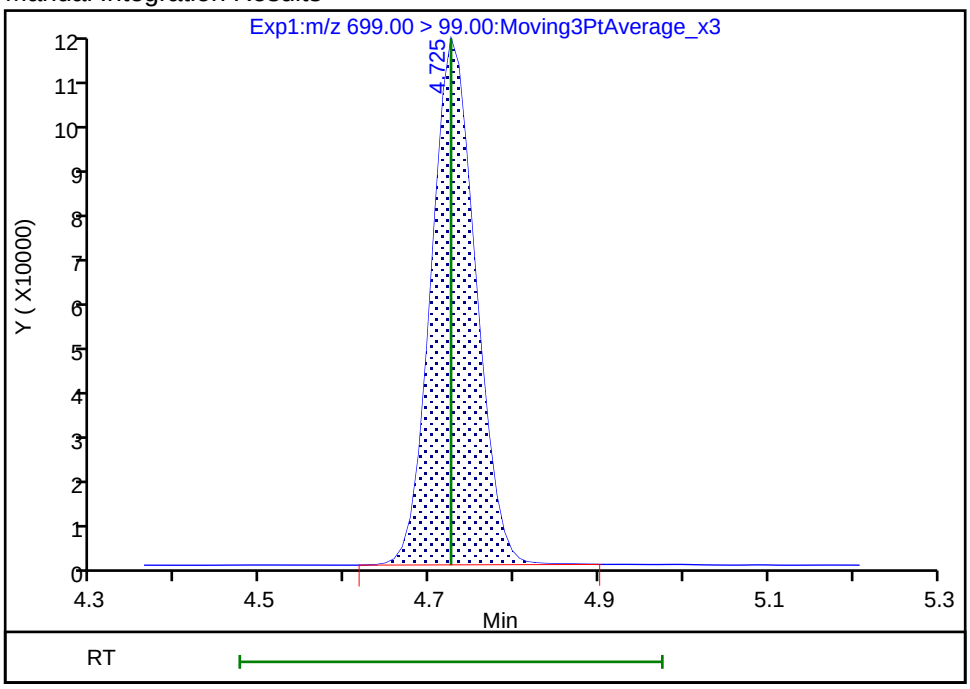
Processing Integration Results

RT: 4.72
Area: 416177
Amount: 1.052509
Amount Units: ng/ml




Manual Integration Results

RT: 4.72
Area: 415561
Amount: 1.052509
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:35:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

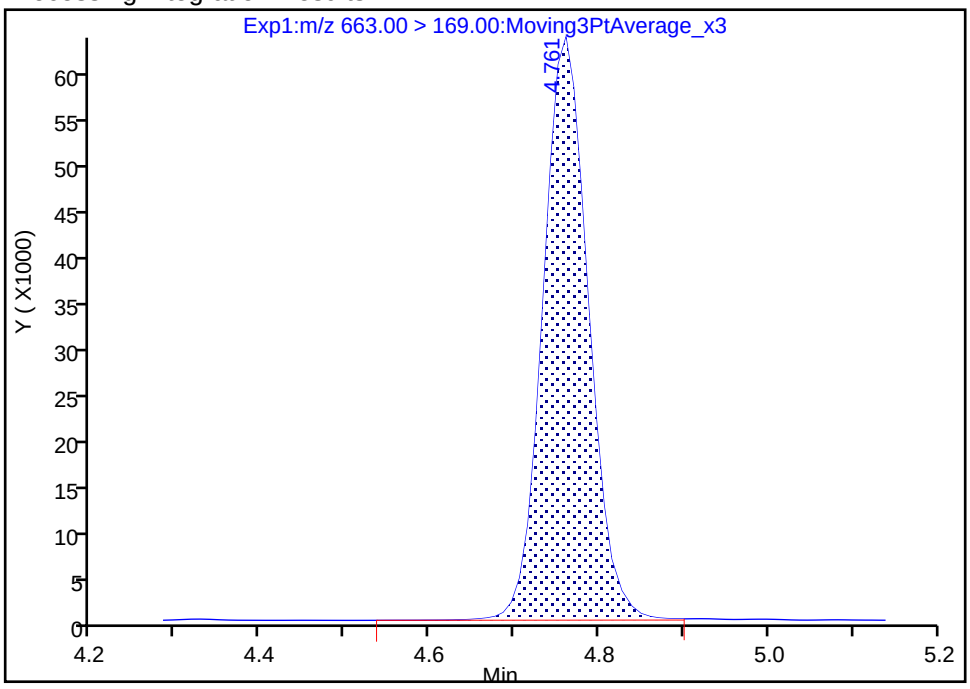
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d | | | | |
| Injection Date: | 03-Nov-2021 13:25:54 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

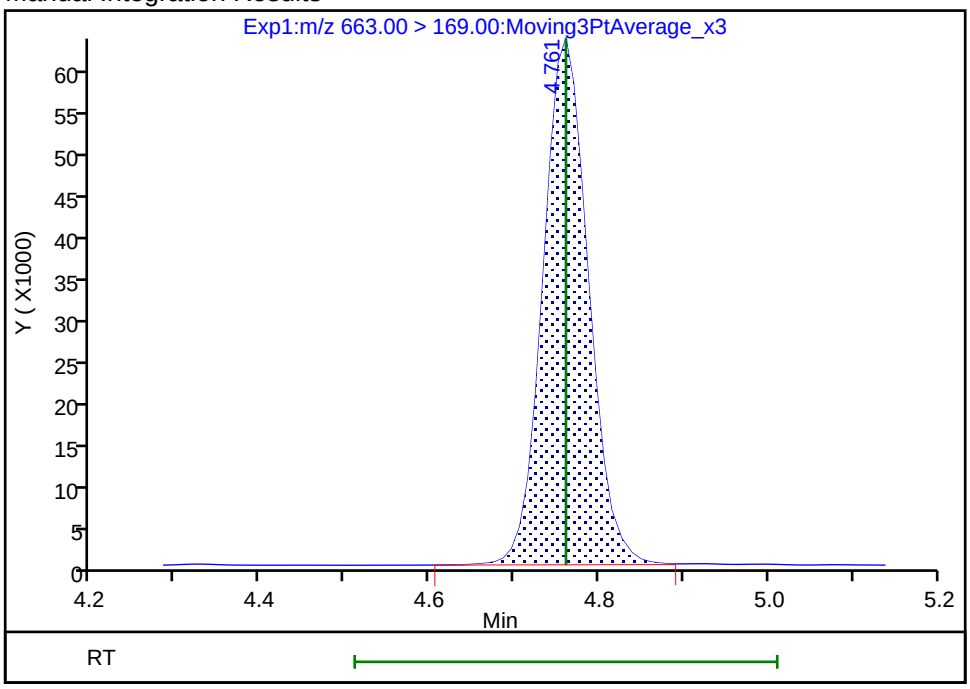
Processing Integration Results

RT: 4.76
Area: 237066
Amount: 1.042700
Amount Units: ng/ml




Manual Integration Results

RT: 4.76
Area: 236492
Amount: 1.051984
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:35:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

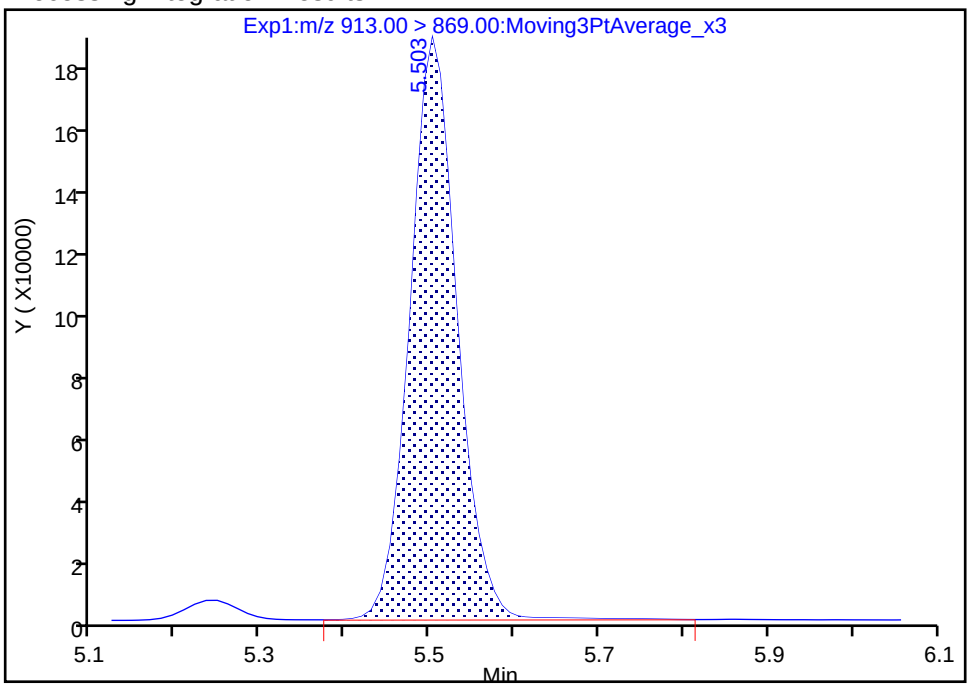
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A06.d
Injection Date: 03-Nov-2021 13:25:54 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

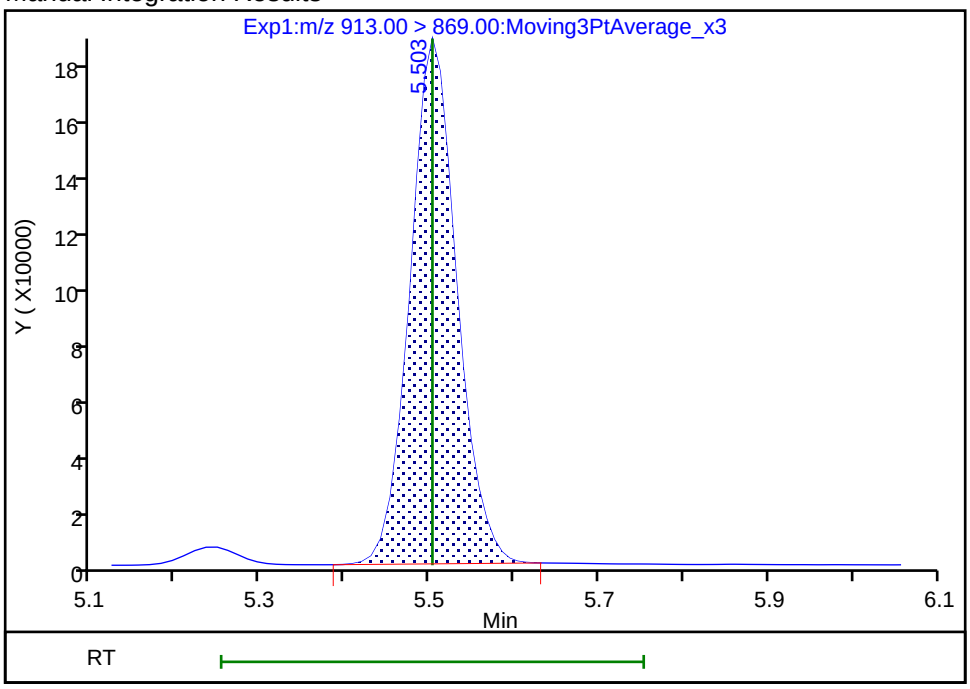
Processing Integration Results

RT: 5.50
Area: 734332
Amount: 1.018429
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 724230
Amount: 1.004418
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:48:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173453/18  Calibration Date: 11/03/2021 15:05

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8839 | | 2.34 | 2.50 | -6.5 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9171 | | 2.29 | 2.50 | -8.5 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.999 | | 2.07 | 2.21 | -6.4 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 1.918 | | 2.10 | 2.34 | -9.9 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.008 | | 2.49 | 2.50 | -0.6 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.185 | | 2.31 | 2.35 | -1.6 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.681 | | 2.59 | 2.50 | 3.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9738 | | 2.36 | 2.50 | -5.7 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 0.9912 | | 2.05 | 2.28 | -9.8 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.428 | | 2.31 | 2.36 | -2.0 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.314 | | 2.46 | 2.37 | 3.6 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.207 | | 2.31 | 2.38 | -3.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.038 | | 2.44 | 2.50 | -2.4 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.037 | | 2.22 | 2.32 | -4.4 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9242 | | 2.36 | 2.50 | -5.5 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.521 | | 2.17 | 2.33 | -6.9 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8140 | | 2.31 | 2.40 | -3.7 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.042 | | 2.59 | 2.50 | 3.7 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7258 | | 2.08 | 2.40 | -13.2 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9481 | | 2.50 | 2.50 | -0.2 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8533 | | 2.72 | 2.50 | 8.6 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6404 | | 2.35 | 2.41 | -2.5 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.054 | | 2.47 | 2.50 | -1.1 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8244 | | 2.41 | 2.50 | -3.8 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.956 | | 2.39 | 2.36 | 1.3 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9338 | | 2.38 | 2.50 | -4.6 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3604 | | 2.25 | 2.41 | -6.7 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2700 | | 2.70 | 2.42 | 11.7 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173453/18  Calibration Date: 11/03/2021 15:05

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7725 | | 2.29 | 2.50 | -8.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1506 | | 2.39 | 2.50 | -4.6 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9301 | | 2.71 | 2.50 | 8.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.8009 | | 2.37 | 2.50 | -5.0 | |
| 13C4 PFBA | Ave | 1.012 | 1.089 | | 1.35 | 1.25 | 7.6 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9128 | | 1.34 | 1.25 | 7.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.198 | | 1.21 | 1.16 | 3.8 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0952 | | 1.26 | 1.17 | 8.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.8944 | | 1.25 | 1.25 | -0.0 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0217 | | 1.15 | 1.25 | -8.0 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.001 | | 1.33 | 1.25 | 6.3 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8799 | | 1.24 | 1.18 | 5.0 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1352 | | 1.21 | 1.19 | 2.3 | |
| 13C4 PFOA | Ave | 1.029 | 1.007 | | 1.22 | 1.25 | -2.2 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6283 | | 1.24 | 1.20 | 3.7 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.050 | | 1.28 | 1.25 | 2.4 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.006 | | 1.22 | 1.25 | -2.7 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1815 | | 1.45 | 1.20 | 21.1 | |
| 13C8 FOSA | Ave | 0.998 | 1.055 | | 1.32 | 1.25 | 5.7 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1114 | | 1.37 | 1.25 | 9.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7673 | | 1.19 | 1.25 | -4.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1130 | | 1.48 | 1.25 | 18.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8963 | | 1.29 | 1.25 | 3.4 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6712 | | 1.25 | 1.25 | -0.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5963 | | 1.26 | 1.25 | 0.7 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 03-Nov-2021 15:05:20 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048270-018 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 07:51:22
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.071 | 2.065 | 0.006 | 0.598 | 1868322 | 1.34 | | 108 | 9108 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.071 | 2.065 | 0.006 | 1.000 | 3302687 | 2.34 | | 93.5 | 400 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.688 | 1566354 | 1.34 | | 107 | 2770 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 2872944 | 2.29 | | 91.5 | 135 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.411 | 2.401 | 0.010 | 0.696 | 1911864 | 1.21 | | 104 | 82804 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.411 | 2.401 | 0.010 | 1.000 | 3631889 | 2.07 | Target=2.32 | 93.6 | 972 | M |
| 298.90 > 99.00 | 2.411 | 2.401 | 0.010 | 1.000 | 1638482 | | 2.22(1.16-3.48) | | 525 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.708 | 2.698 | 0.010 | 0.781 | 152527 | 1.26 | | 108 | 80.9 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.708 | 2.698 | 0.010 | 1.000 | 585163 | 2.10 | | 90.1 | 562 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.744 | 2.735 | 0.009 | 1.000 | 3095458 | 2.49 | Target=12.09 | 99.4 | 381 | M |
| 313.00 > 119.00 | 2.744 | 2.735 | 0.009 | 1.000 | 240762 | | 12.86(6.04-18.13) | | 271 | |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.744 | 2.735 | 0.009 | 0.792 | 1534749 | 1.25 | | 100.0 | 1112 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.756 | 2.735 | 0.021 | 0.886 | 3356856 | 2.31 | Target=3.03 | 98.4 | 737 | M |
| 349.00 > 99.00 | 2.756 | 2.735 | 0.021 | 0.886 | 1077374 | | 3.12(1.52-4.55) | | 553 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.853 | 2.844 | 0.009 | 0.823 | 37188 | 1.15 | | 92.0 | 209 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.853 | 2.844 | 0.009 | 1.000 | 348168 | 2.59 | | 103 | 92.8 | |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1428334 | 1.24 | | 105 | 390 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 2723888 | 2.05 | Target=3.55 | 90.2 | 522 | |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 788881 | | 3.45(1.77-5.32) | | 419 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 3346280 | 2.36 | Target=3.69 | 94.3 | 557 | M |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 846769 | | 3.95(1.84-5.53) | | 589 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1718119 | 1.33 | | 106 | 2654 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.154 | 3.144 | 0.010 | 0.835 | 6963891 | 2.31 | Target=2.56 | 98.0 | 936 | |
| 377.00 > 85.00 | 3.154 | 3.144 | 0.010 | 0.835 | 2569620 | | 2.71(1.28-3.84) | | 761 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.456 | 3.448 | 0.008 | 1.000 | 578128 | 2.46 | | 104 | 405 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.456 | 3.448 | 0.008 | 0.915 | 2477887 | 2.30 | Target=4.88 | 96.8 | 664 | M |
| 449.00 > 99.00 | 3.456 | 3.448 | 0.008 | 0.915 | 531155 | | 4.67(2.44-7.32) | | 595 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 220390 | 1.21 | | 102 | 458 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1727359 | 1.22 | | 97.8 | 822 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1715992 | 1.25 | | | 259 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 3585098 | 2.44 | Target=2.68 | 97.6 | 362 | M |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1389008 | | 2.58(1.34-4.02) | | 600 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.776 | 3.767 | 0.009 | 1.089 | 1030700 | 1.24 | | 104 | 372 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.776 | 3.767 | 0.009 | 1.000 | 2074678 | 2.22 | Target=4.69 | 95.6 | 501 | M |
| 499.00 > 99.00 | 3.776 | 3.767 | 0.009 | 1.000 | 439753 | | 4.72(2.35-7.04) | | 427 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.795 | 3.786 | 0.009 | 1.095 | 1801552 | 1.28 | | 102 | 3384 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.795 | 3.786 | 0.009 | 1.000 | 3330049 | 2.36 | Target=7.29 | 94.5 | 427 | M |
| 463.00 > 169.00 | 3.795 | 3.786 | 0.009 | 1.000 | 460016 | | 7.24(3.64-10.93) | | 562 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.944 | 3.922 | 0.022 | 1.045 | 3057150 | 2.17 | | 93.1 | 723 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.060 | 4.052 | 0.008 | 1.075 | 1684990 | 2.31 | Target=2.35 | 96.3 | 687 | M |
| 549.00 > 99.00 | 4.060 | 4.052 | 0.008 | 1.075 | 690321 | | 2.44(1.17-3.52) | | 753 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1726312 | 1.22 | | 97.3 | 90.6 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.000 | 3598244 | 2.59 | Target=8.95 | 104 | 554 | |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.000 | 400786 | | 8.98(4.47-13.42) | | 573 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.084 | 0.020 | 1.184 | 298375 | 1.45 | | 121 | 175 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.084 | 0.020 | 1.000 | 433122 | 2.08 | | 86.8 | 346 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1809861 | 1.32 | | 106 | 724 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 3431775 | 2.50 | | 99.8 | 1931 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 191229 | 1.37 | | 110 | 194 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 326343 | 2.72 | | 109 | 493 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.325 | 4.306 | 0.019 | 1.145 | 1331218 | 2.35 | Target=2.47 | 97.5 | 1520 | M |
| 599.00 > 99.00 | 4.325 | 4.306 | 0.019 | 1.145 | 540114 | | 2.46(1.23-3.70) | | 1227 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1316644 | 1.19 | | 95.2 | 753 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.339 | 0.008 | 1.000 | 2775459 | 2.47 | Target=9.24 | 98.9 | 827 | |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 300917 | | 9.22(4.62-13.86) | | 607 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 193876 | 1.48 | | 119 | 768 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 319650 | 2.41 | | 96.2 | 477 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.445 | 4.428 | 0.017 | 1.177 | 3972504 | 2.39 | | 101 | 1975 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1538100 | 1.29 | | 103 | 334 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 2872527 | 2.38 | Target=7.04 | 95.4 | 397 | M |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.000 | 438456 | | 6.55(3.52-10.56) | | 1704 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.591 | 4.574 | 0.017 | 1.119 | 216433 | 2.25 | | 93.3 | 1158 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.739 | 4.725 | 0.014 | 1.255 | 563478 | 2.70 | Target=0.49 | 112 | 3204 | M |
| 699.00 > 99.00 | 4.739 | 4.725 | 0.014 | 1.255 | 1010975 | | 0.56(0.25-0.74) | | 3684 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.775 | 4.761 | 0.014 | 1.045 | 2376463 | 2.29 | Target=4.68 | 91.5 | 438 | M |
| 663.00 > 169.00 | 4.766 | 4.761 | 0.005 | 1.043 | 551551 | | 4.31(2.34-7.02) | | 2267 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.428 | 1151835 | 1.25 | | 99.8 | 1354 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.947 | 4.940 | 0.007 | 1.000 | 346842 | 2.38 | Target=1.01 | 95.4 | 1931 | |
| 713.00 > 219.00 | 4.947 | 4.940 | 0.007 | 1.000 | 375782 | | 0.92(0.51-1.52) | | 1557 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.248 | 0.010 | 1.517 | 1023302 | 1.26 | | 101 | 2869 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.248 | 0.010 | 1.000 | 1903622 | 2.71 | Target=4.57 | 108 | 424 | |
| 813.00 > 169.00 | 5.258 | 5.248 | 0.010 | 1.000 | 399142 | | 4.77(2.29-6.86) | | 2350 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.503 | 0.016 | 1.050 | 1639187 | 2.37 | Target=4.27 | 95.0 | 662 | M |
| 913.00 > 169.00 | 5.519 | 5.503 | 0.016 | 1.050 | 350256 | | 4.68(2.14-6.41) | | 1918 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00023 Amount Added: 100.00 Units: uL

Report Date: 04-Nov-2021 15:15:01 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d

Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812

Lims ID: CCV L5

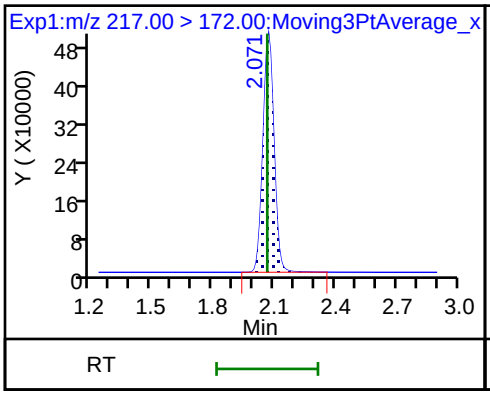
Client ID:

Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18

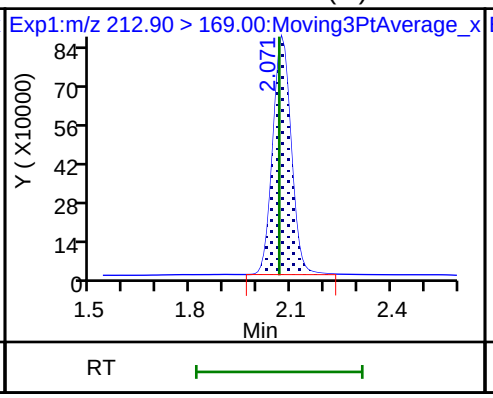
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

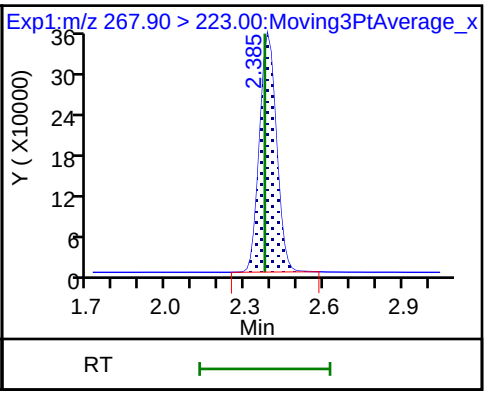
D 1 13C4 PFBA



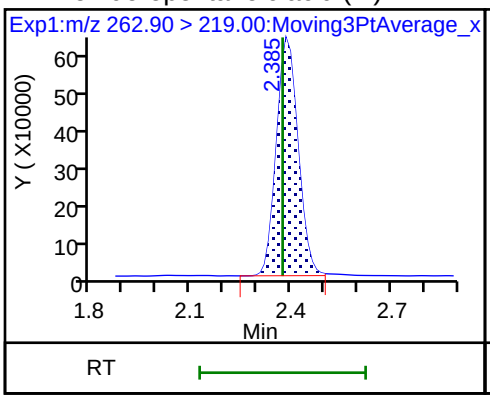

2 Perfluorobutanoic acid (M)



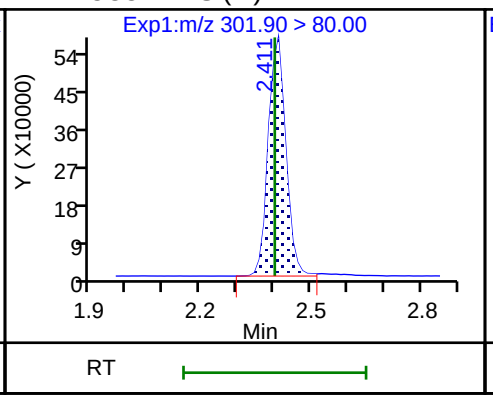

D 3 13C5 PFPeA



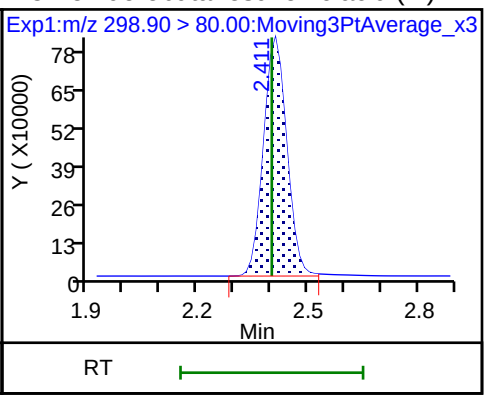

4 Perfluoropentanoic acid (M)



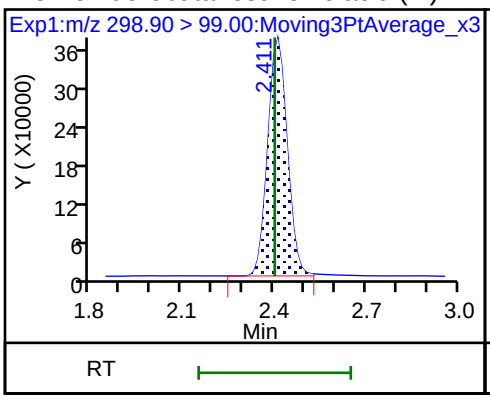

D 47 13C3 PFBS (M)



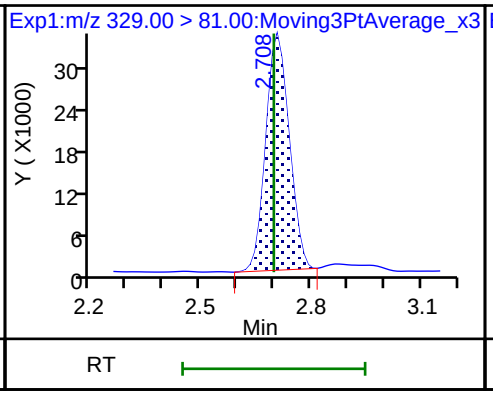

5 Perfluorobutanesulfonic acid (M)



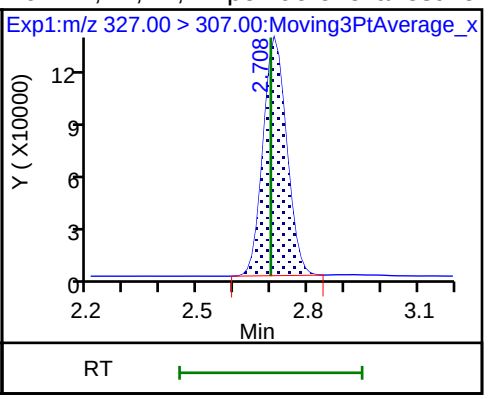

5 Perfluorobutanesulfonic acid (M)



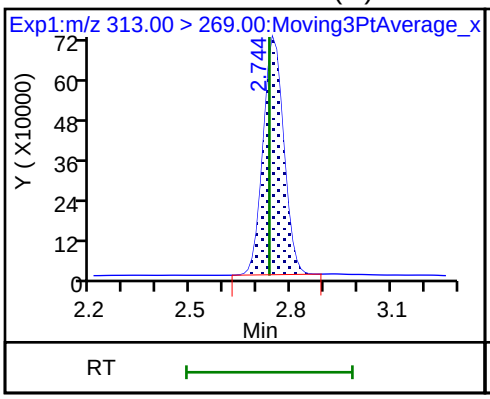

D 60 M2-4:2 FTS



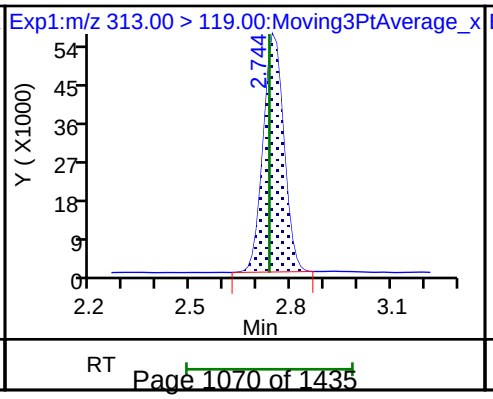

61 1H,1H,2H,2H-perfluorohexanesulfo



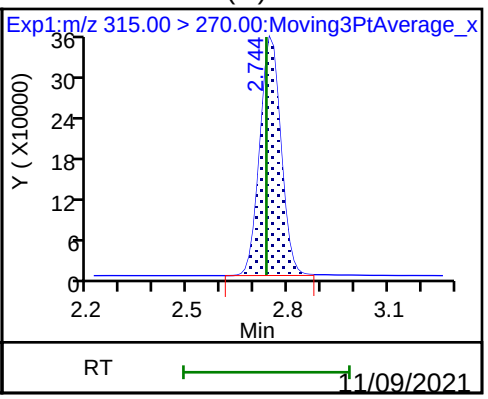

6 Perfluorohexanoic acid (M)



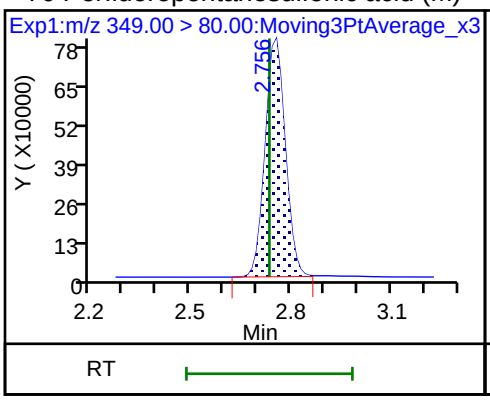

6 Perfluorohexanoic acid



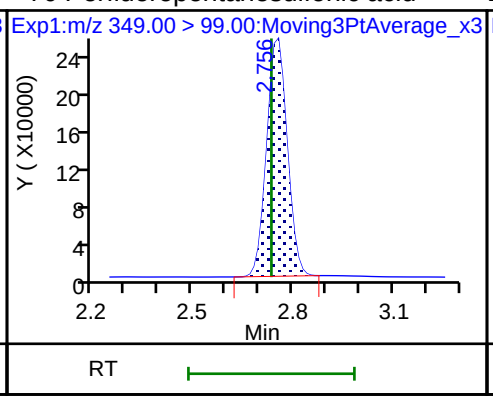

D 7 13C2 PFHxA (M)



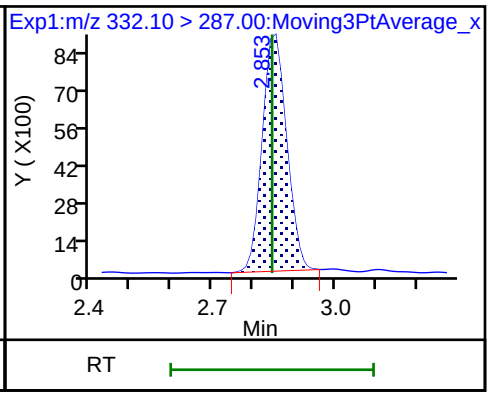
70 Perfluoropentanesulfonic acid (M)



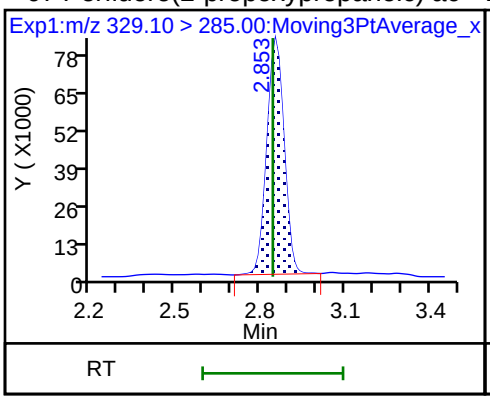

70 Perfluoropentanesulfonic acid



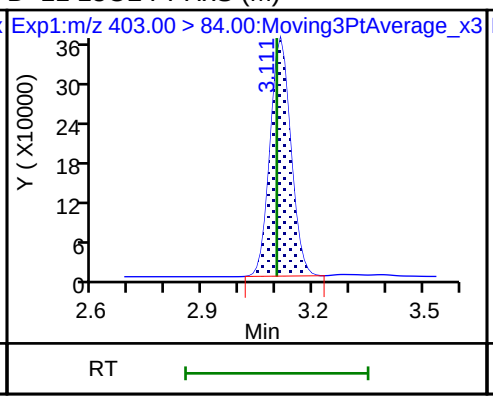

D 64 13C3 HFPO-DA



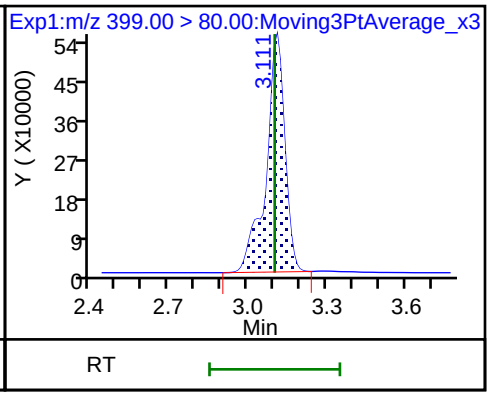

67 Perfluoro(2-propoxypropanoic) ac



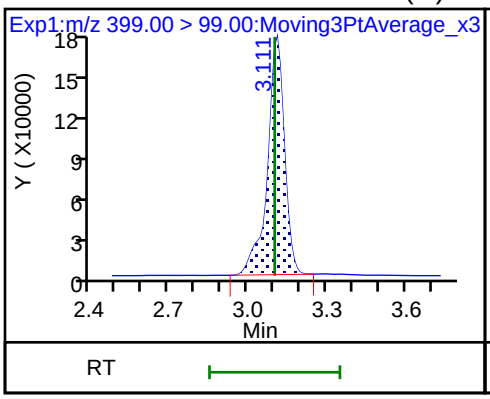

D 11 18O2 PFHxS (M)



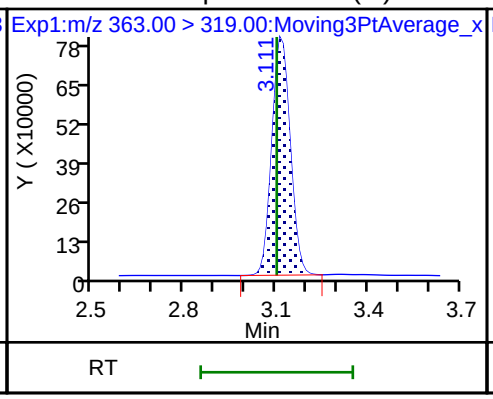

8 Perfluorohexanesulfonic acid



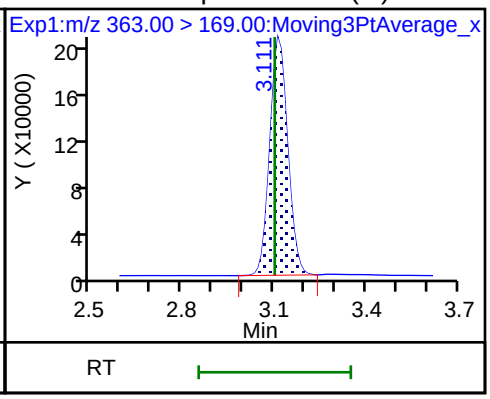

8 Perfluorohexanesulfonic acid (M)



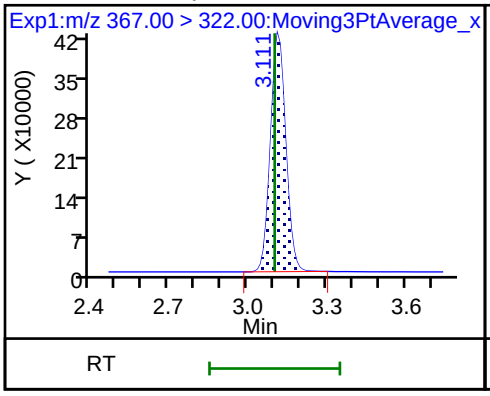

10 Perfluoroheptanoic acid (M)



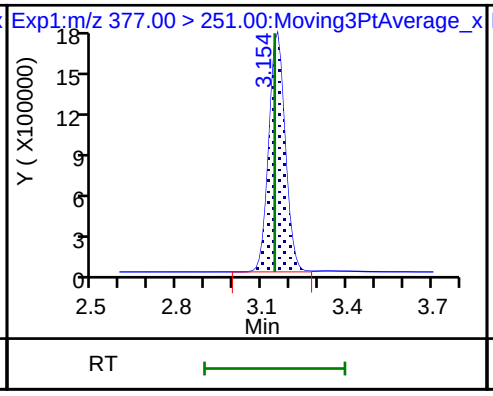

10 Perfluoroheptanoic acid (M)



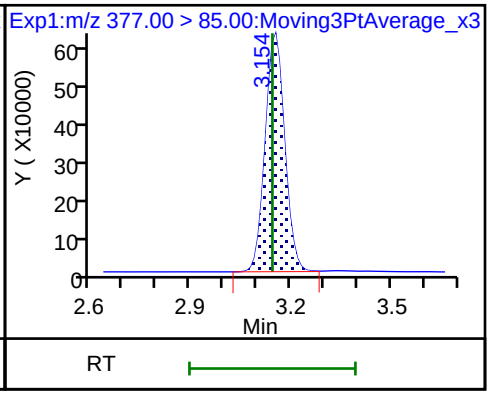

D 9 13C4 PFHpA



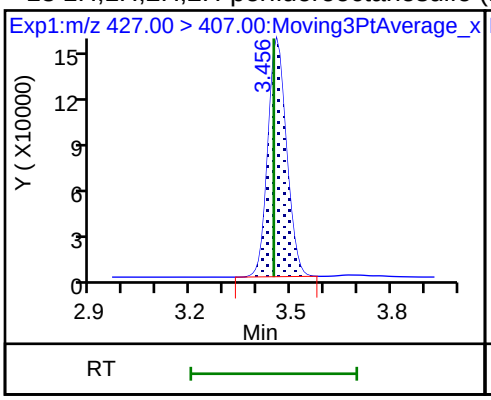

77 DONA



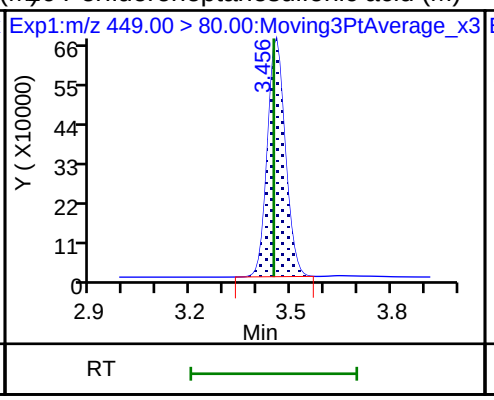

77 DONA



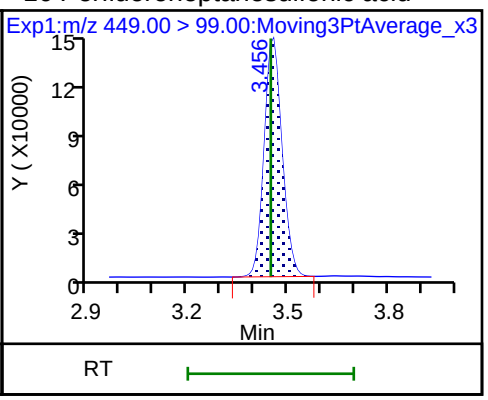
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



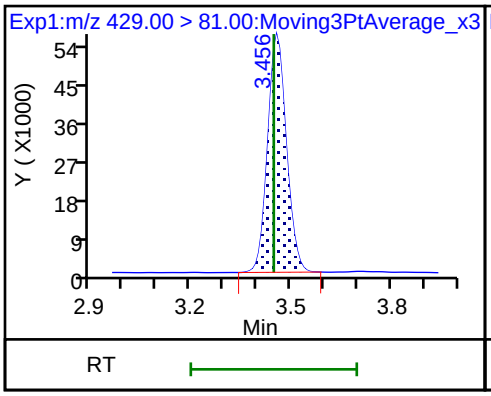

16 Perfluoroheptanesulfonic acid (M)



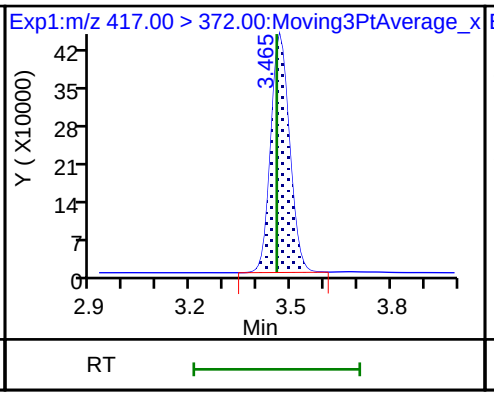

16 Perfluoroheptanesulfonic acid



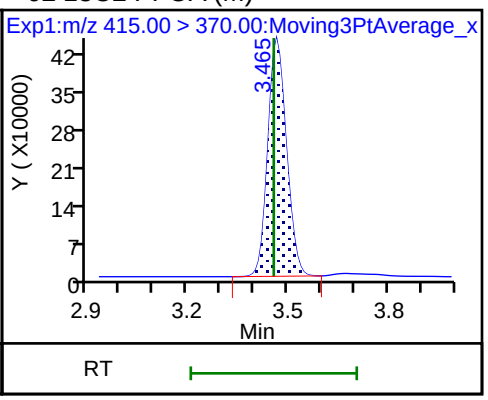

D 12 M2-6:2 FTS



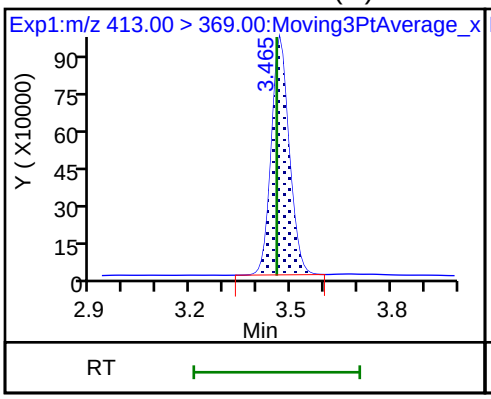

D 14 13C4 PFOA



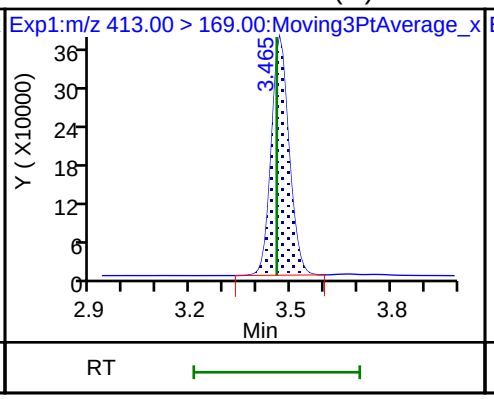

* 62 13C2 PFOA (M)



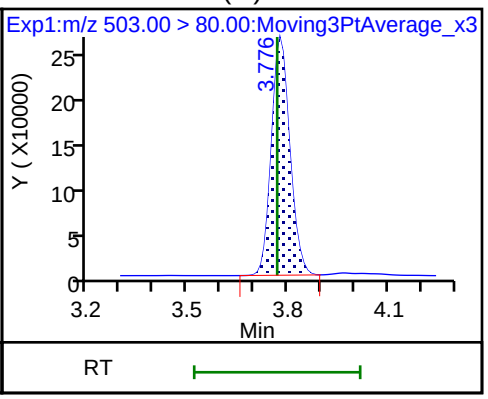

15 Perfluorooctanoic acid (M)



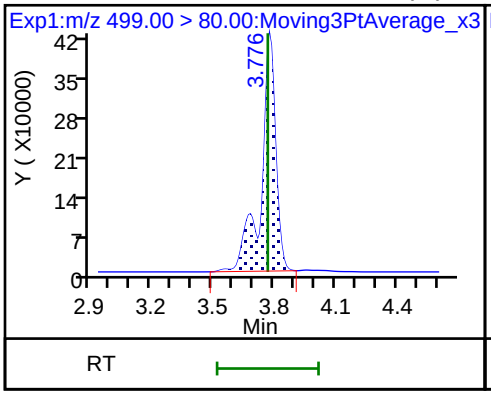

15 Perfluorooctanoic acid (M)



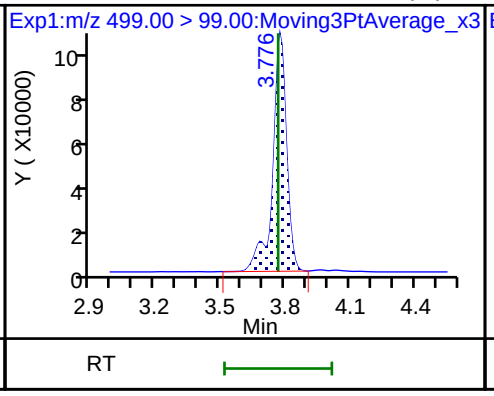

D 18 13C4 PFOS (M)



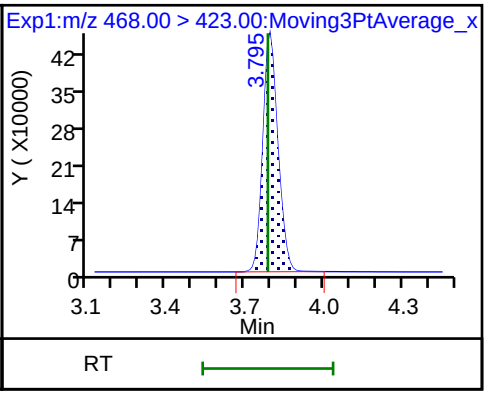

17 Perfluorooctanesulfonic acid (M)



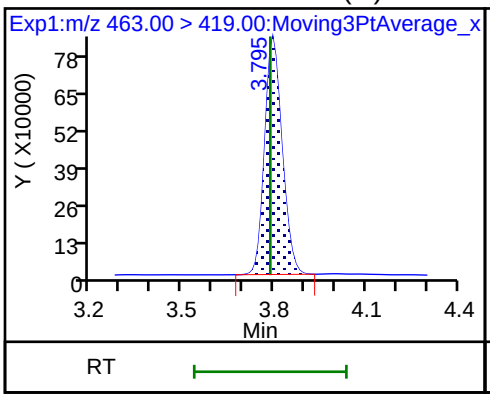

17 Perfluorooctanesulfonic acid (M)



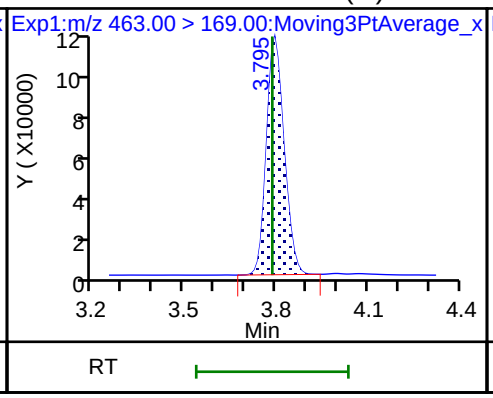

D 19 13C5 PFNA



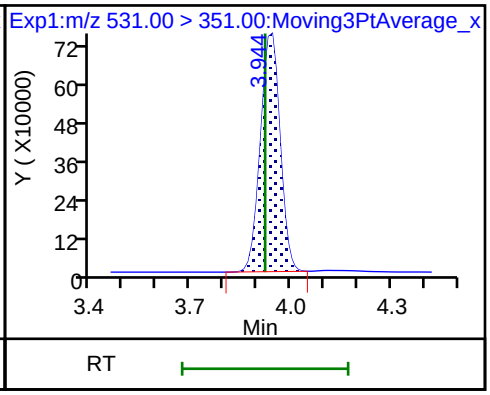
20 Perfluorononanoic acid (M)



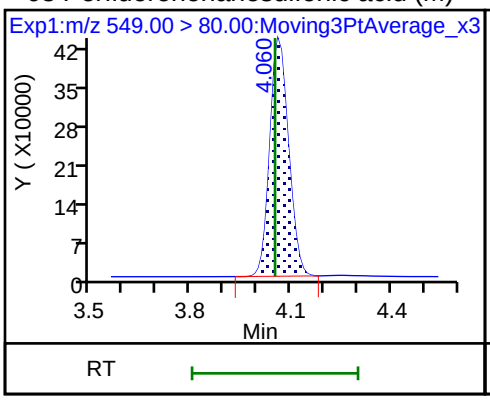

20 Perfluorononanoic acid (M)



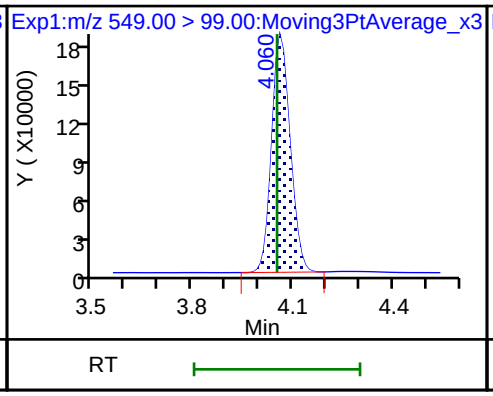

69 9-Chlorohexadecafluoro-3-oxanona (M)



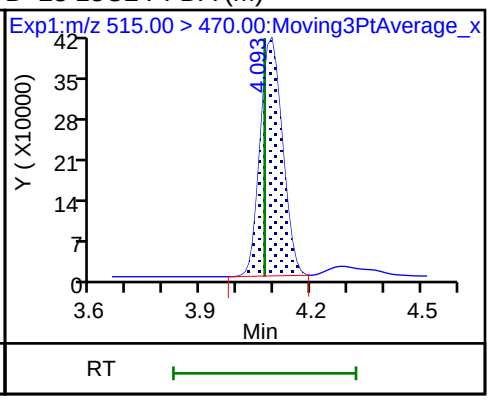

68 Perfluorononanesulfonic acid (M)



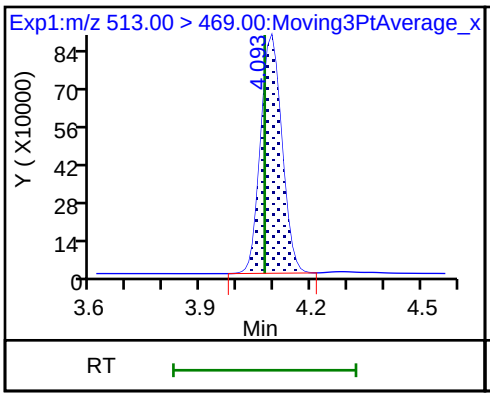

68 Perfluorononanesulfonic acid



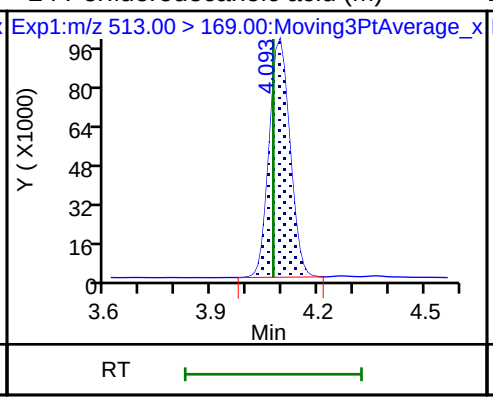

D 23 13C2 PFDA (M)



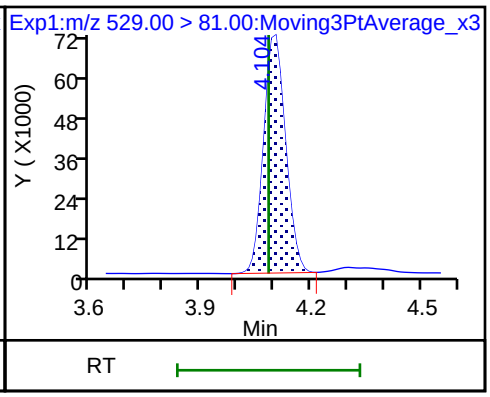

24 Perfluorodecanoic acid



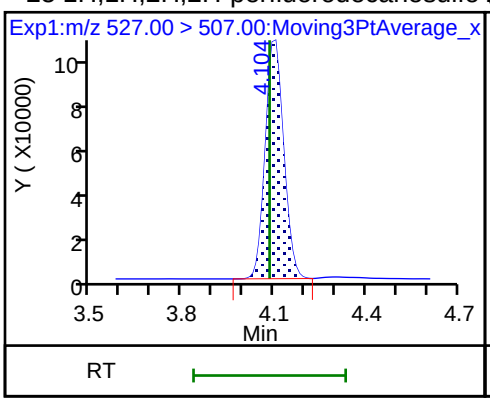

24 Perfluorodecanoic acid (M)



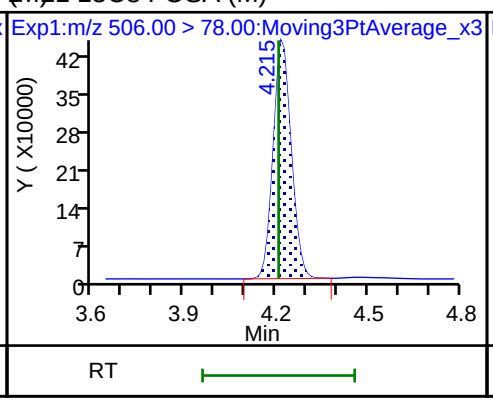

D 26 M2-8:2 FTS



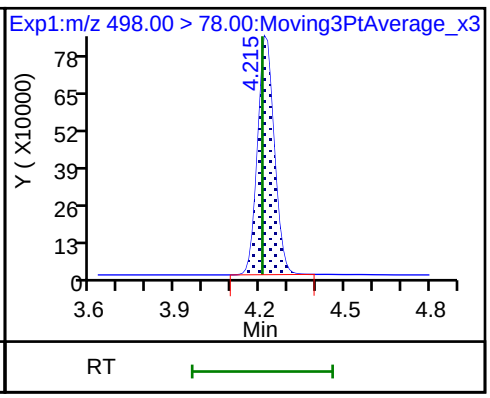

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



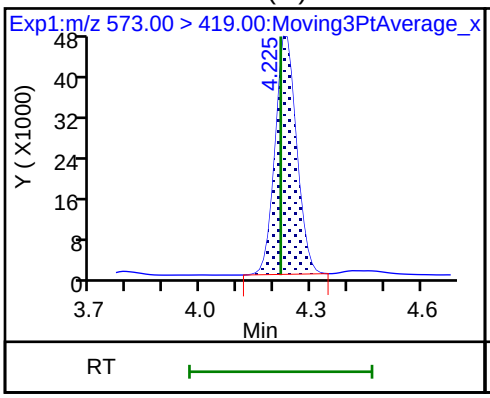

D 21 13C8 FOSA (M)



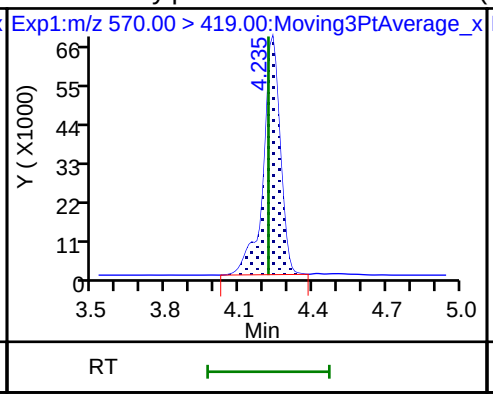

22 Perfluorooctanesulfonamide



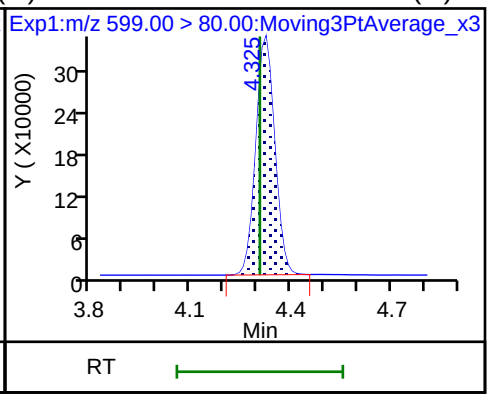
D 27 d3-NMeFOSAA (M)



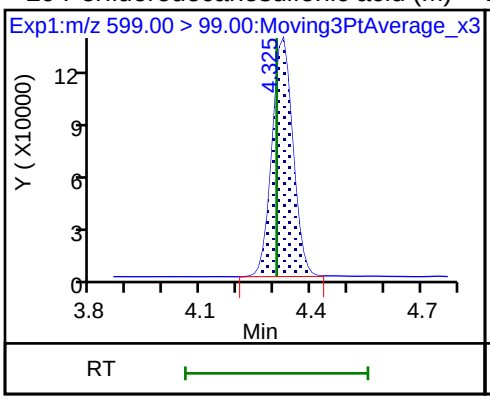

28 N-methylperfluorooctanesulfonami (M)



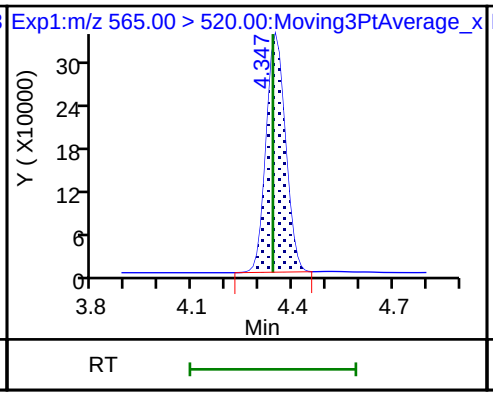

29 Perfluorodecanesulfonic acid (M)



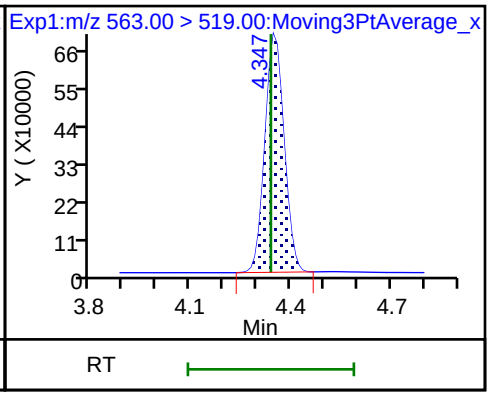

29 Perfluorodecanesulfonic acid (M)



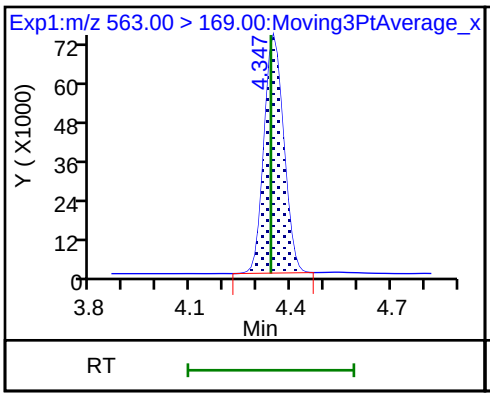

D 30 13C2 PFUnA



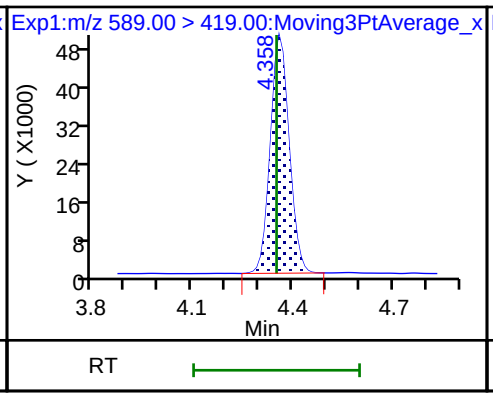

31 Perfluoroundecanoic acid



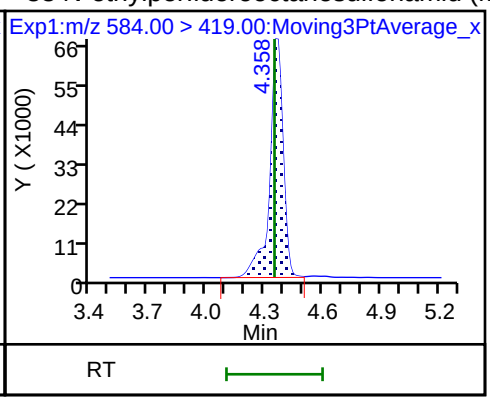

31 Perfluoroundecanoic acid



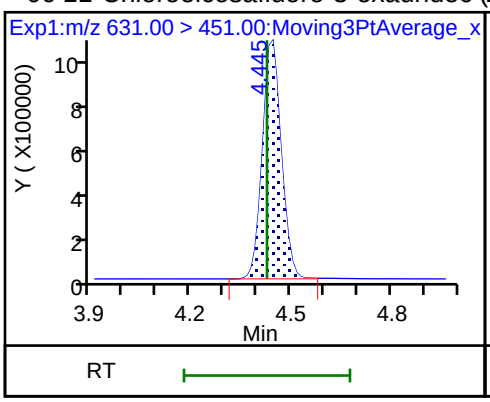

D 32 d5-NEtFOSAA



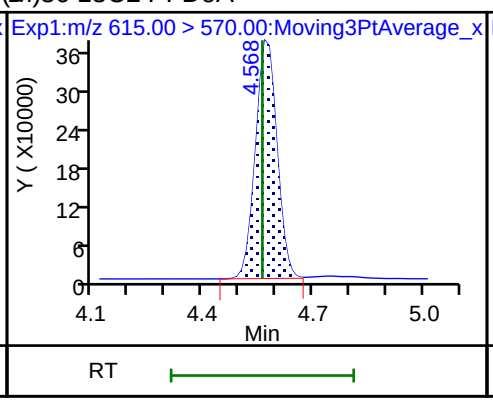

33 N-ethylperfluorooctanesulfonamid (M)



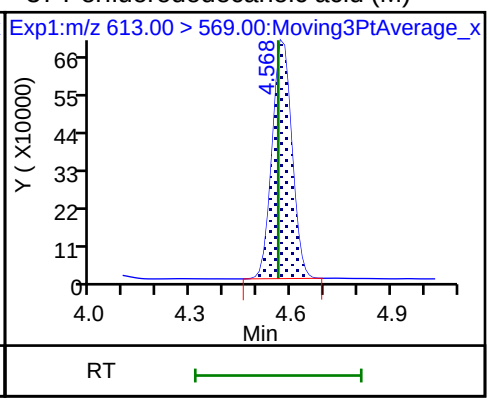

66 11-Chloroeicosafluoro-3-oxaundec (M)



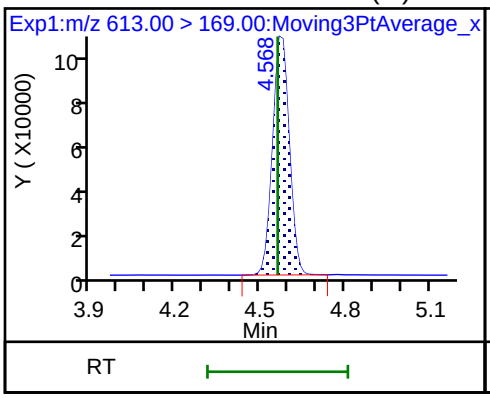

D 36 13C2 PFDoA



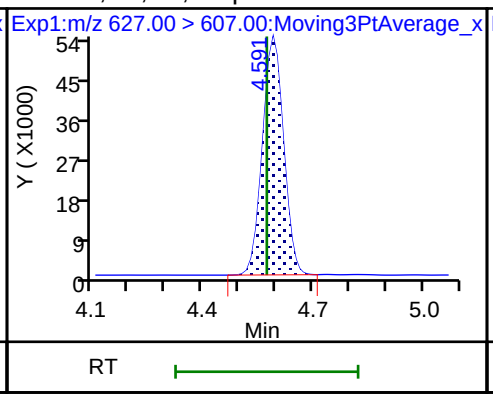

37 Perfluorododecanoic acid (M)



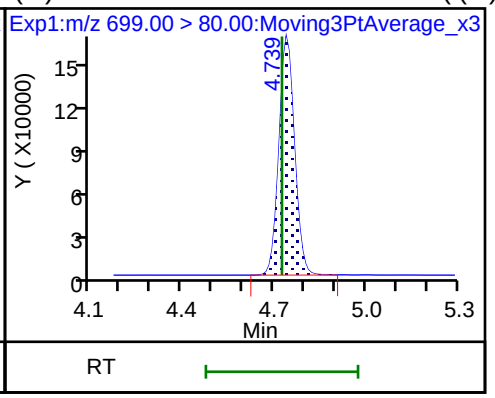
37 Perfluorododecanoic acid (M)



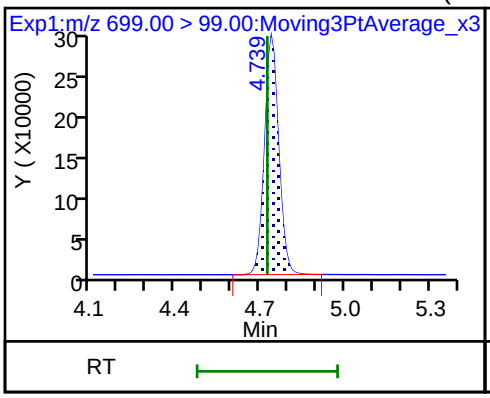

74 1H,1H,2H,2H-perfluorododecanesul (M)



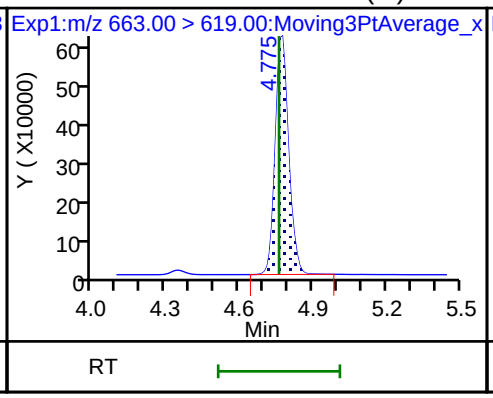

75 Perfluorododecanesulfonic acid ( (M)



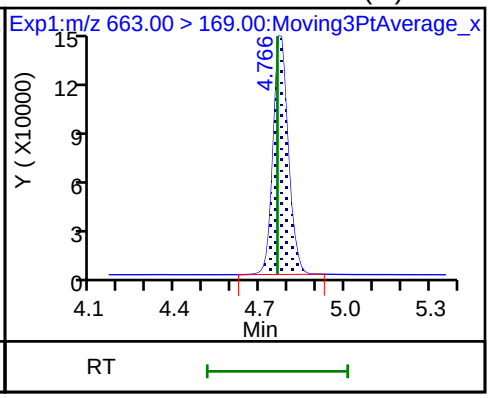

75 Perfluorododecanesulfonic acid (



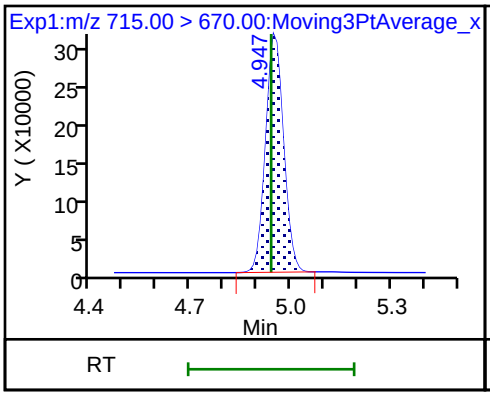

41 Perfluorotridecanoic acid (M)



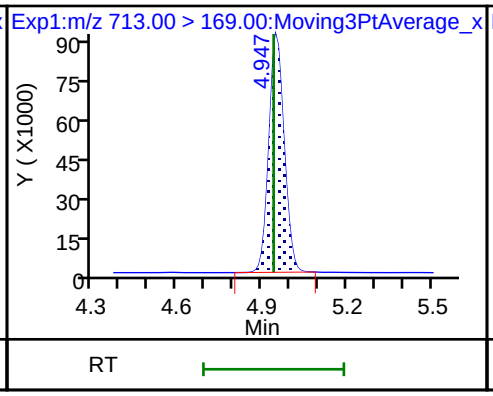

41 Perfluorotridecanoic acid (M)



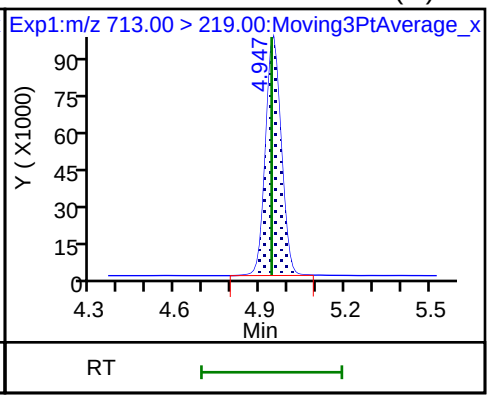

D 43 13C2 PFTeDA



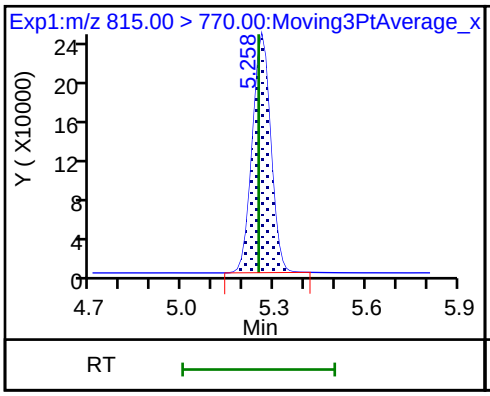

42 Perfluorotetradecanoic acid



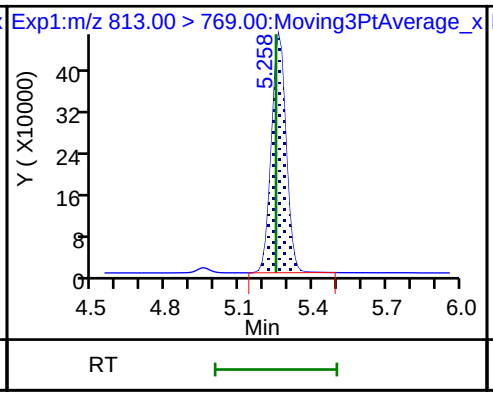

42 Perfluorotetradecanoic acid (M)



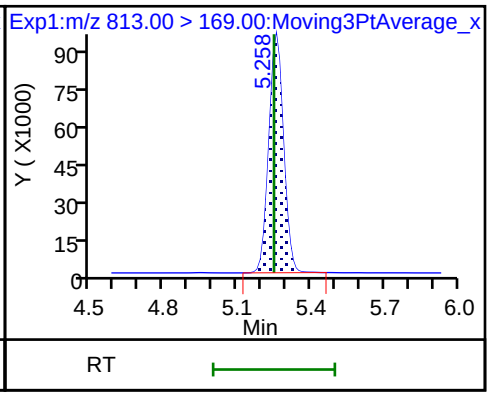

D 44 13C2 PFHxDA



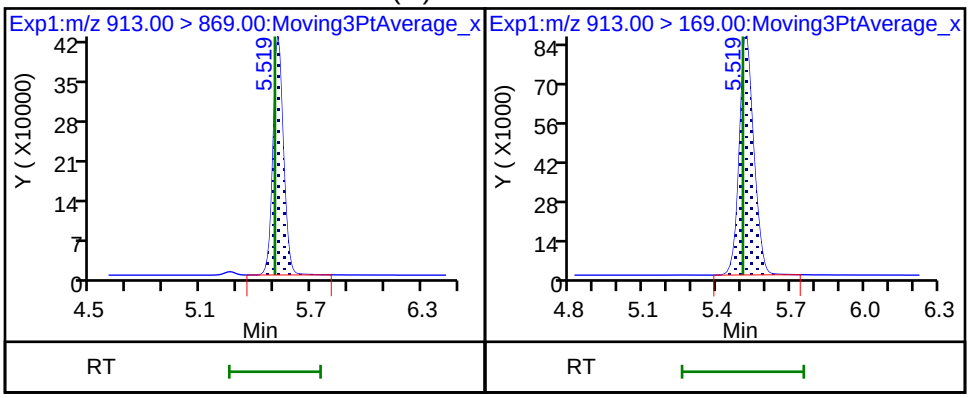

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

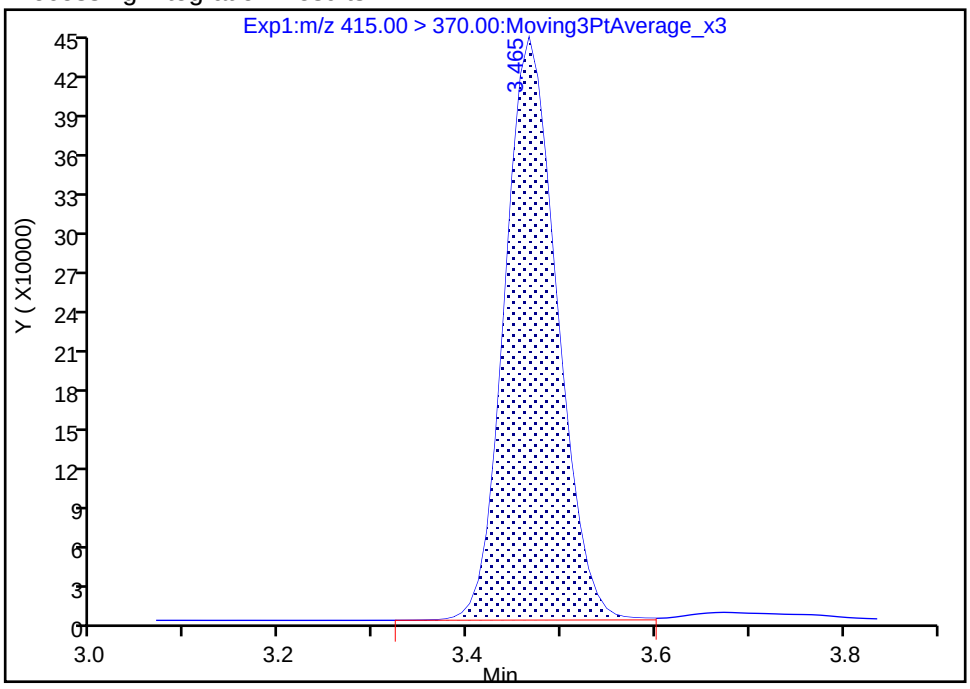
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

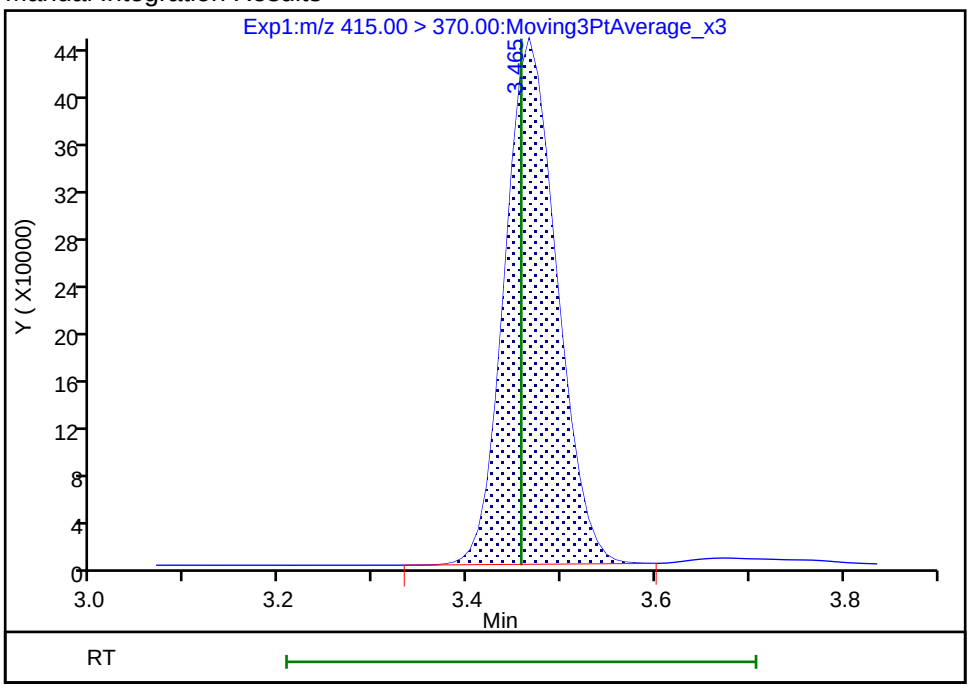
Processing Integration Results

RT: 3.47
Area: 1725594
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1715992
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:49:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

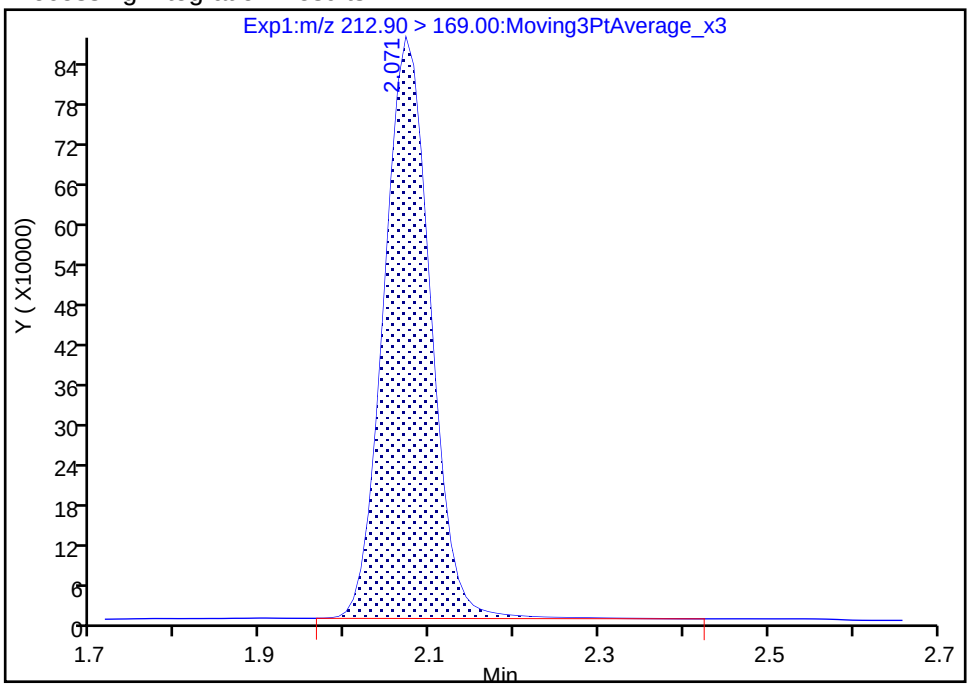
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

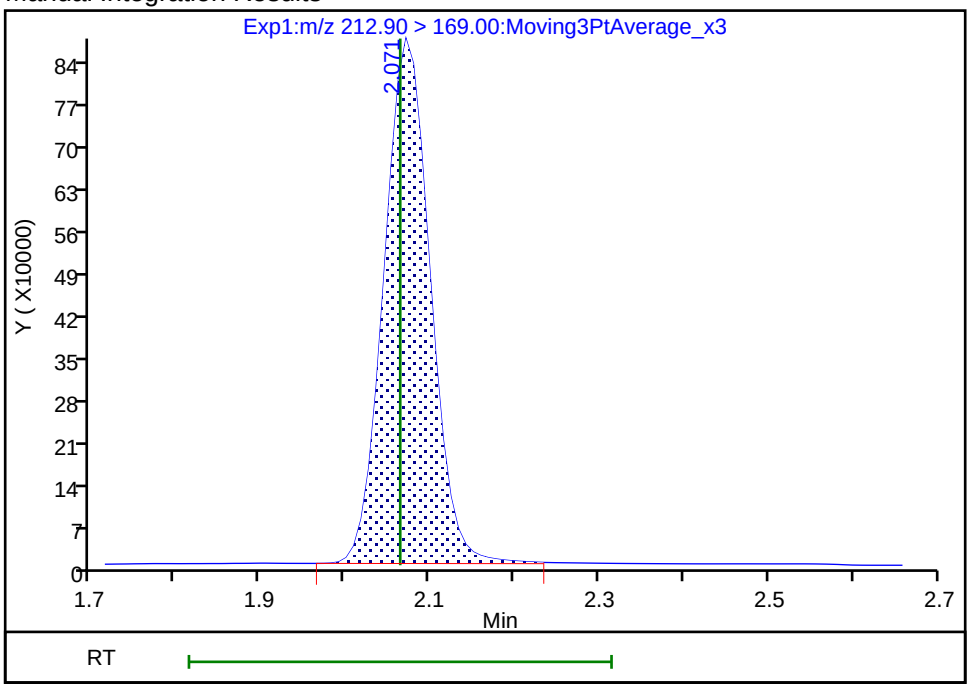
Processing Integration Results

RT: 2.07
Area: 3310399
Amount: 2.342340
Amount Units: ng/ml




Manual Integration Results

RT: 2.07
Area: 3302687
Amount: 2.336884
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

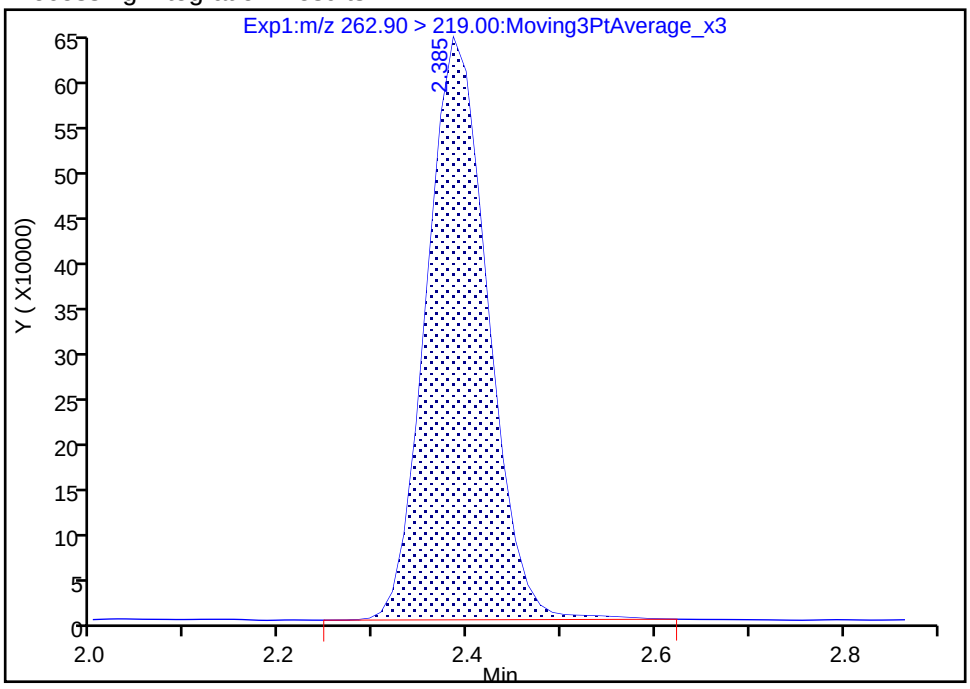
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

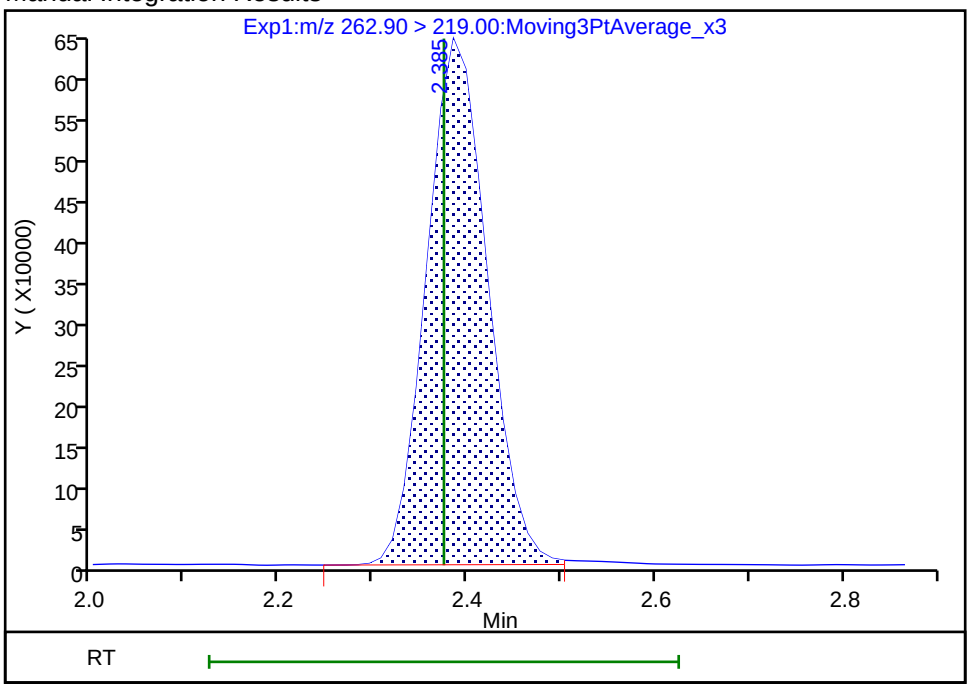
Processing Integration Results

RT: 2.38
Area: 2890012
Amount: 2.302343
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 2872944
Amount: 2.288746
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

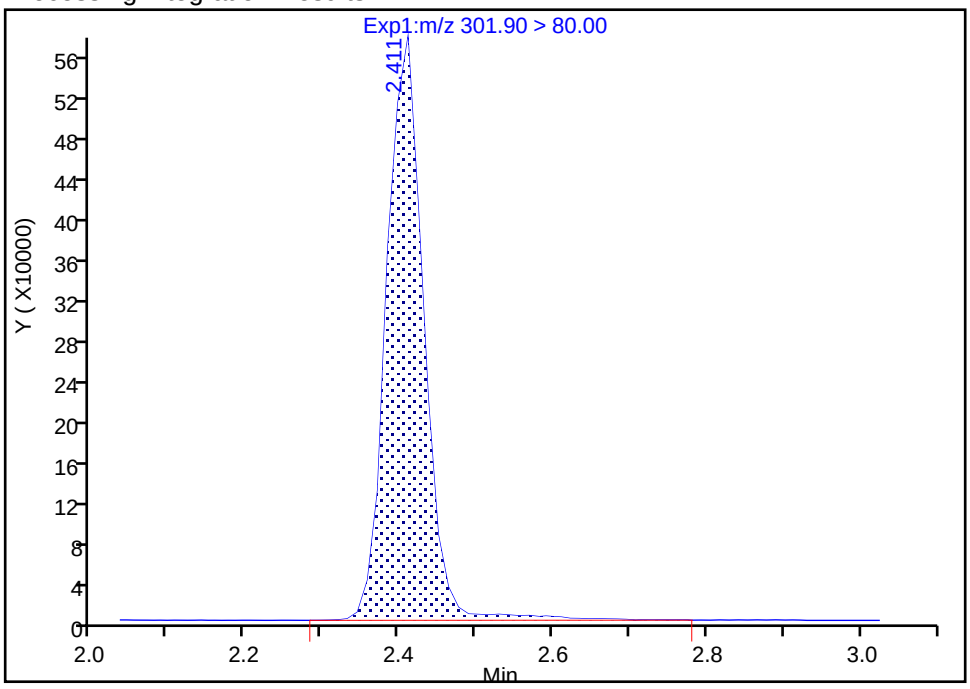
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

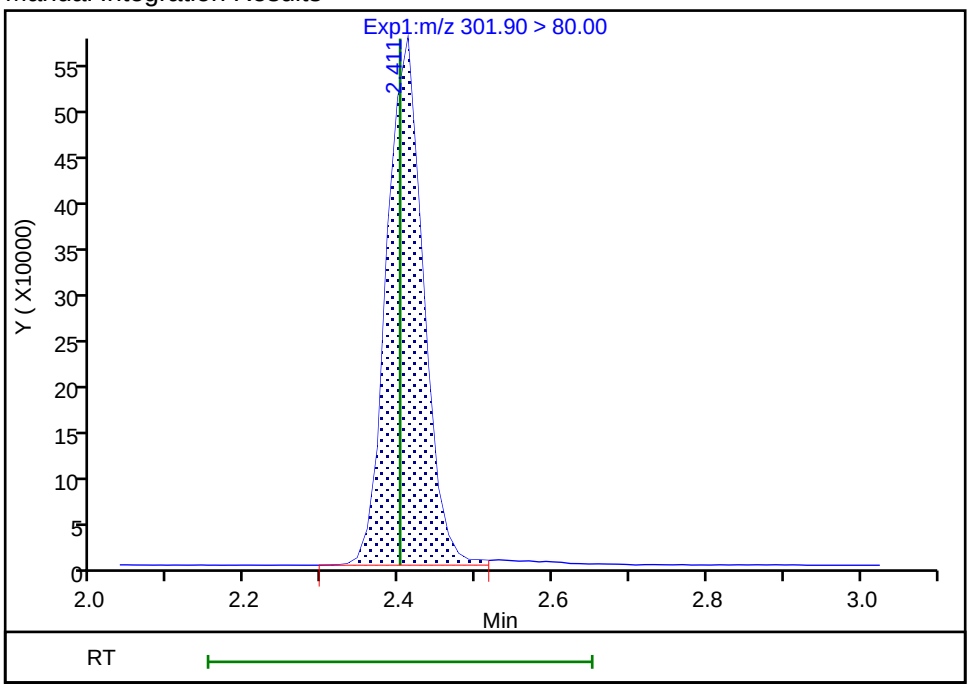
Processing Integration Results

RT: 2.41
Area: 1946900
Amount: 1.222303
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1911864
Amount: 1.207024
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

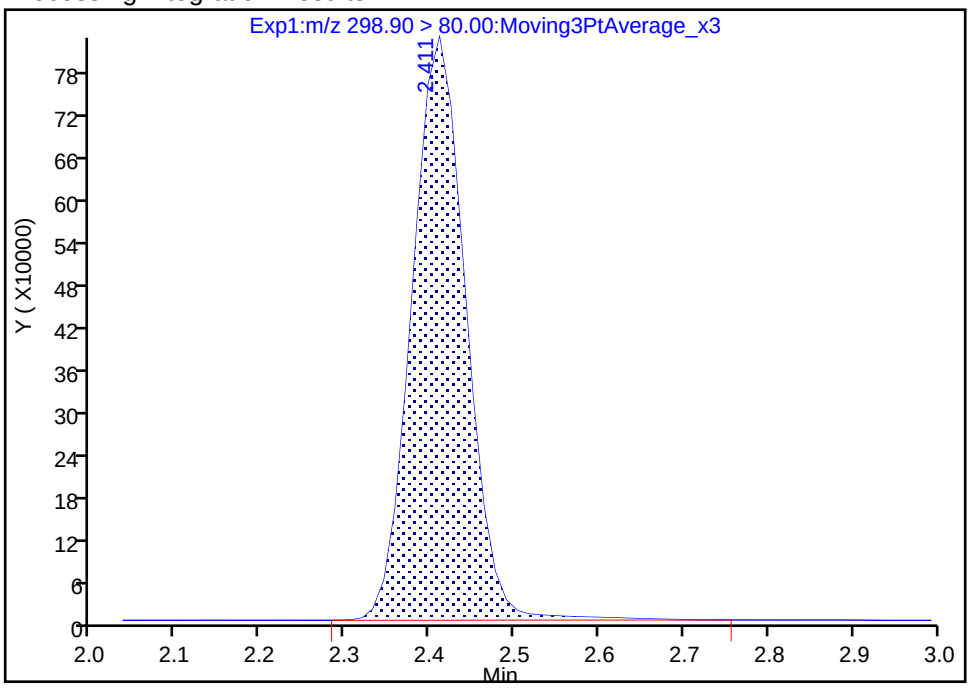
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

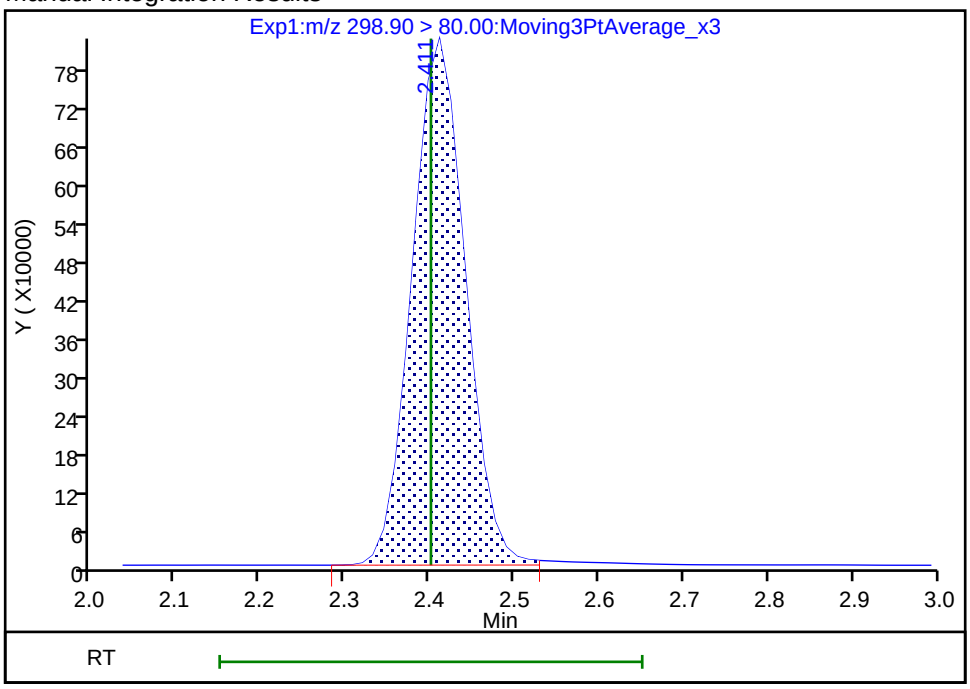
Processing Integration Results

RT: 2.41
Area: 3665923
Amount: 2.087001
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 3631889
Amount: 2.067625
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

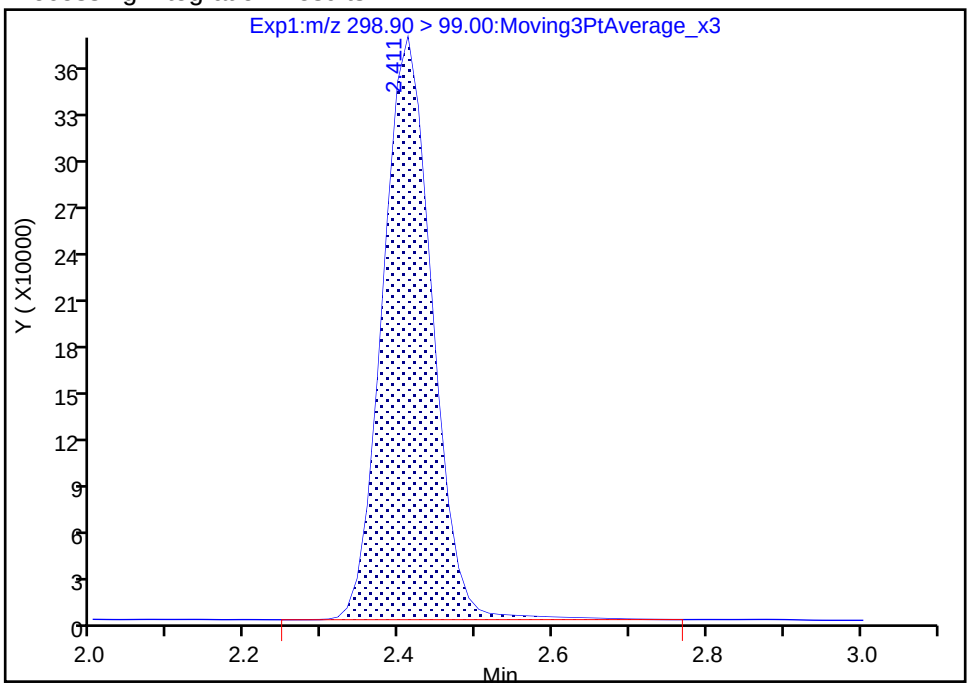
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

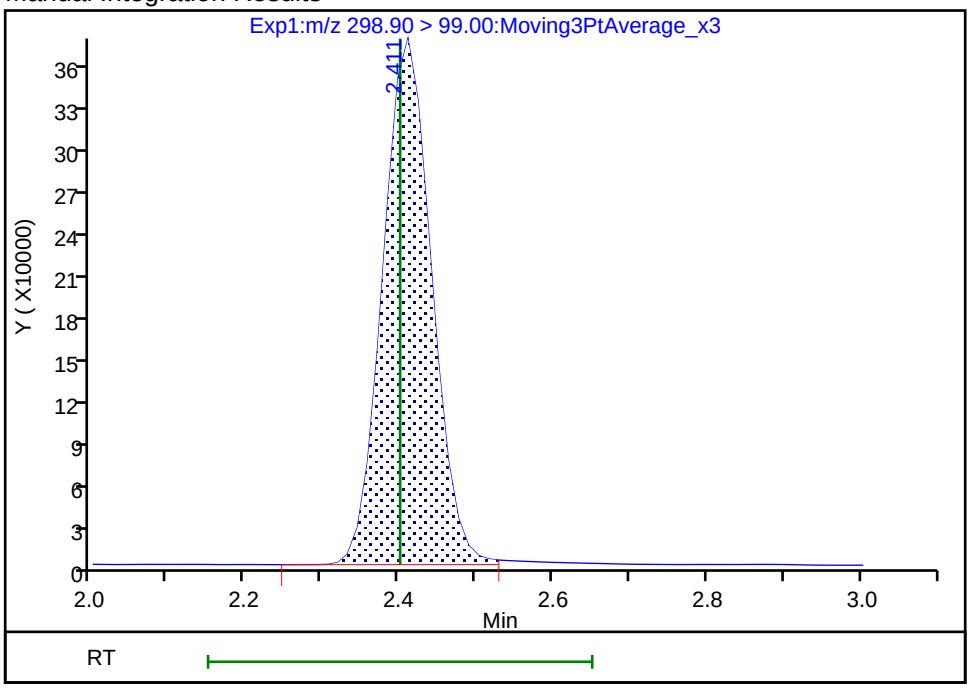
Processing Integration Results

RT: 2.41
Area: 1653923
Amount: 2.087001
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1638482
Amount: 2.067625
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

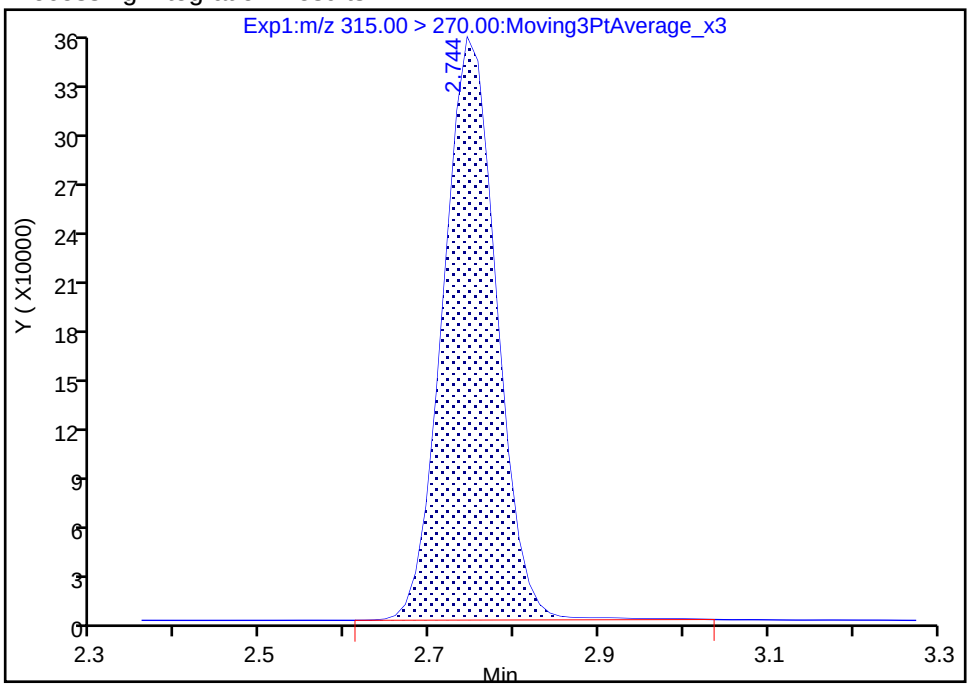
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

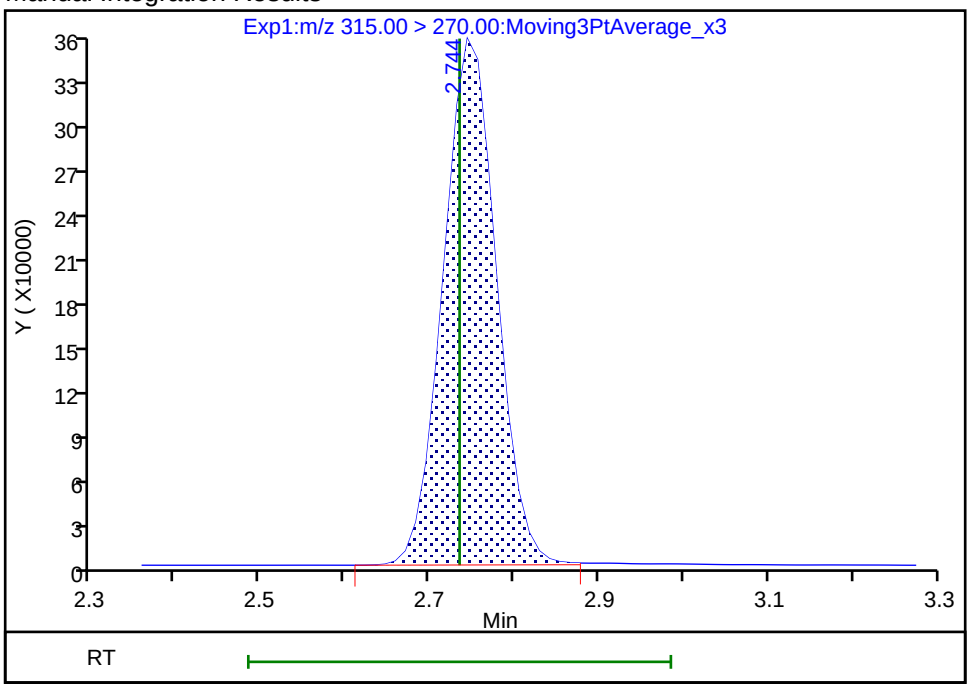
Processing Integration Results

RT: 2.74
Area: 1540487
Amount: 1.247449
Amount Units: ng/ml




Manual Integration Results

RT: 2.74
Area: 1534749
Amount: 1.249756
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:37:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

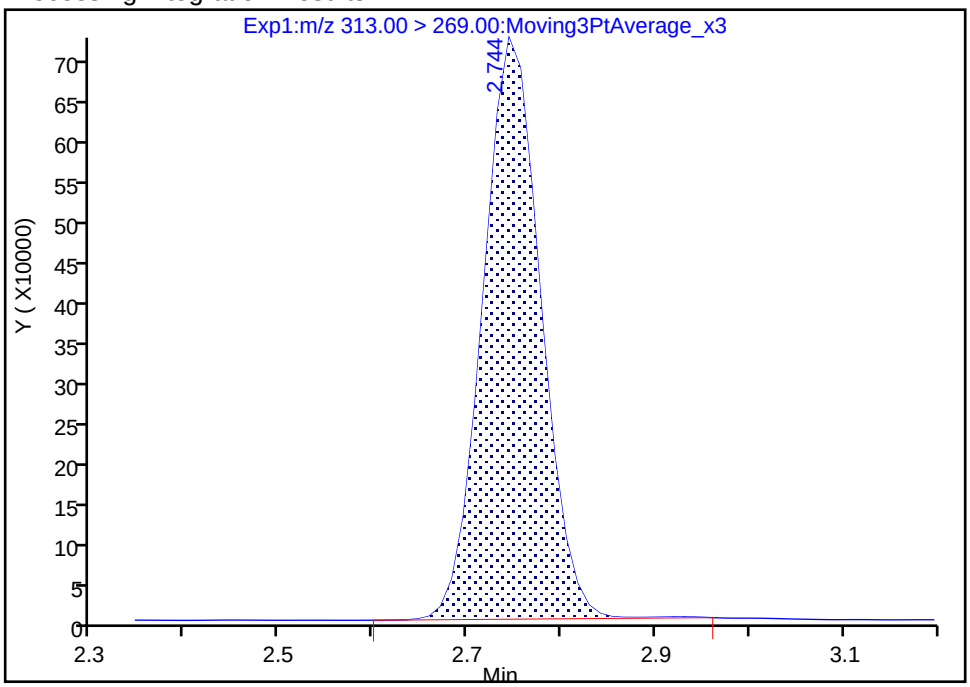
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 |
| Lims ID: | CCV L5 | | |
| Client ID: | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 Worklist Smp#: 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

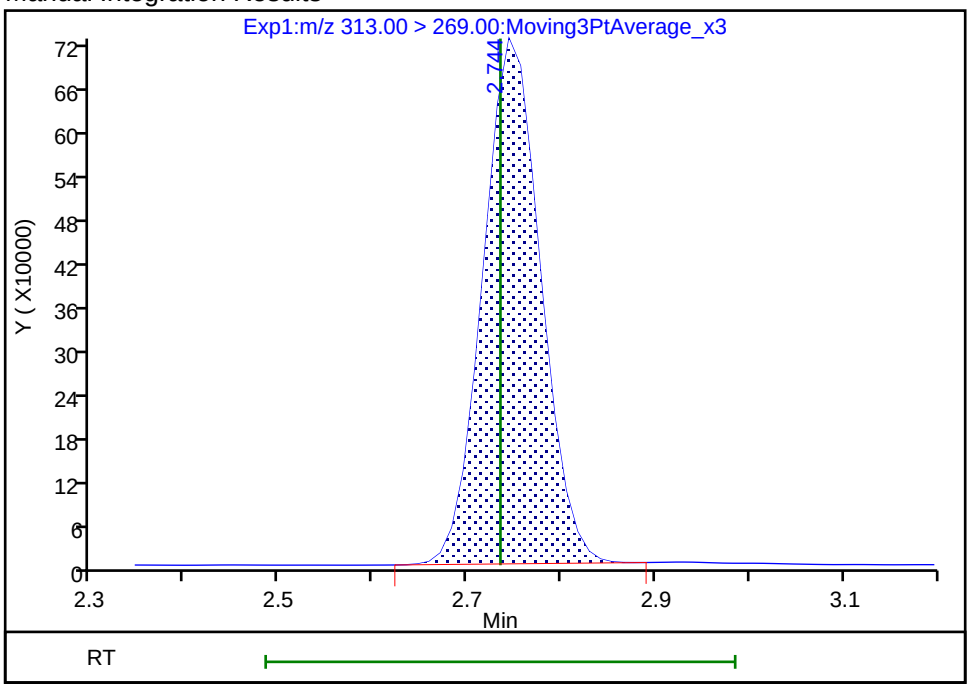
Processing Integration Results

RT: 2.74
Area: 3107766
Amount: 2.495790
Amount Units: ng/ml




Manual Integration Results

RT: 2.74
Area: 3095458
Amount: 2.485905
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:38:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

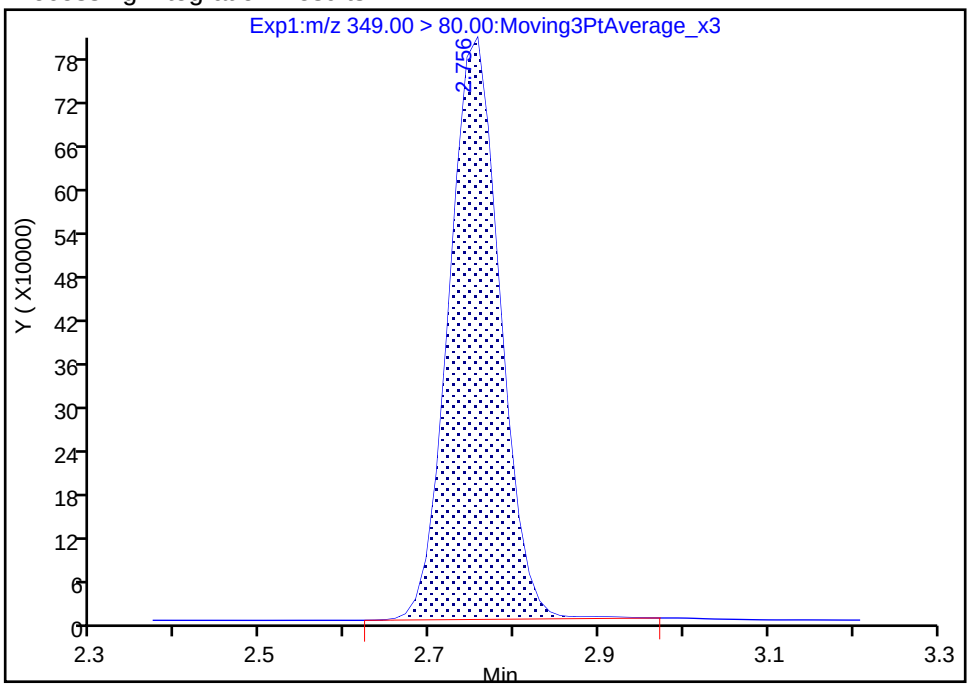
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

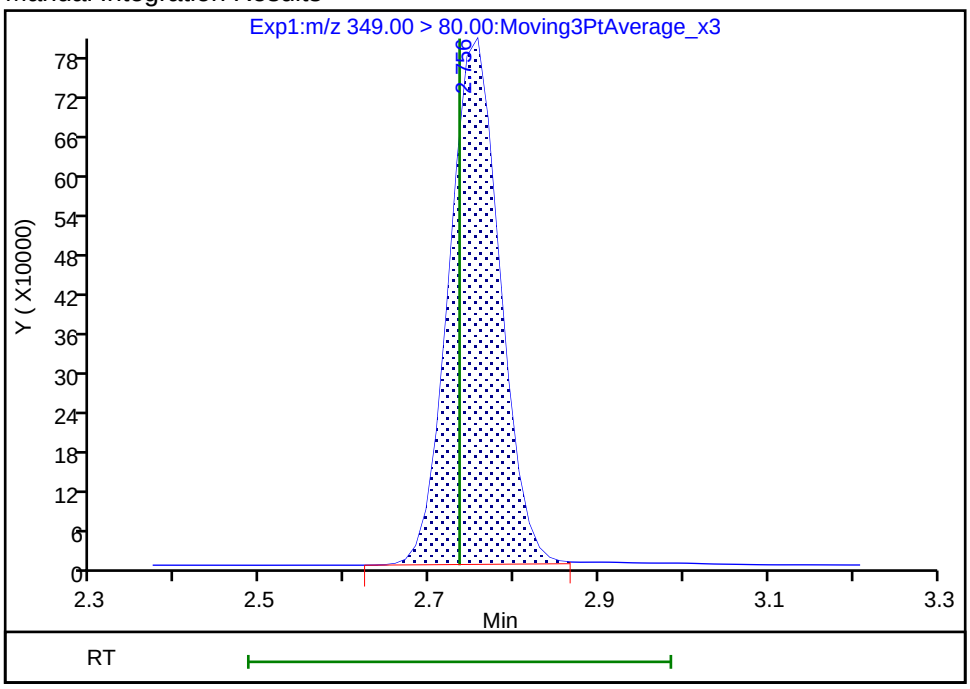
Processing Integration Results

RT: 2.76
Area: 3366017
Amount: 2.295936
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 3356856
Amount: 2.307789
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:38:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

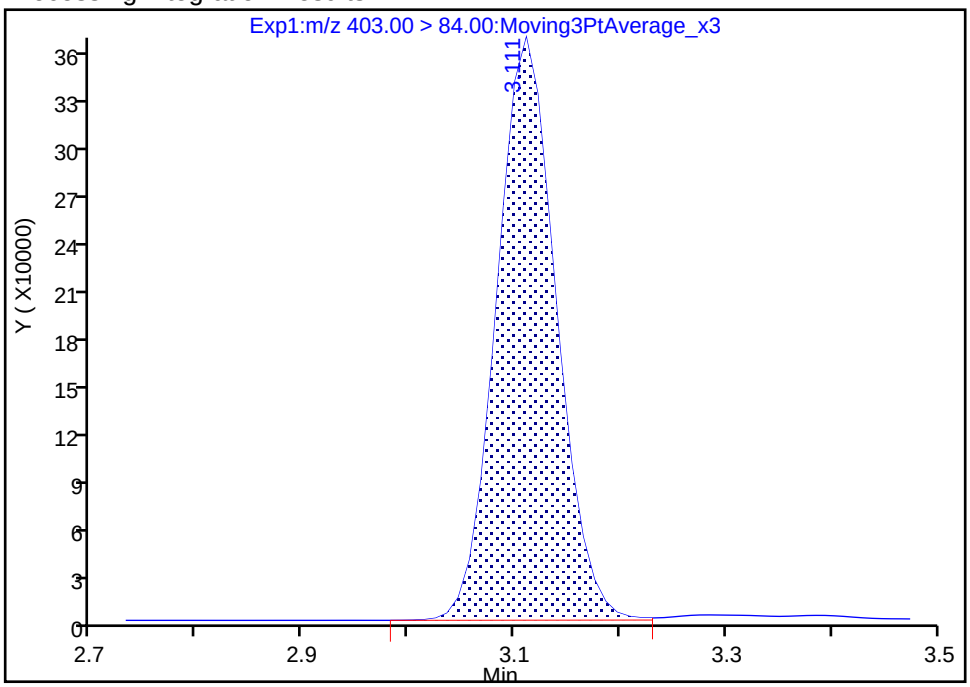
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

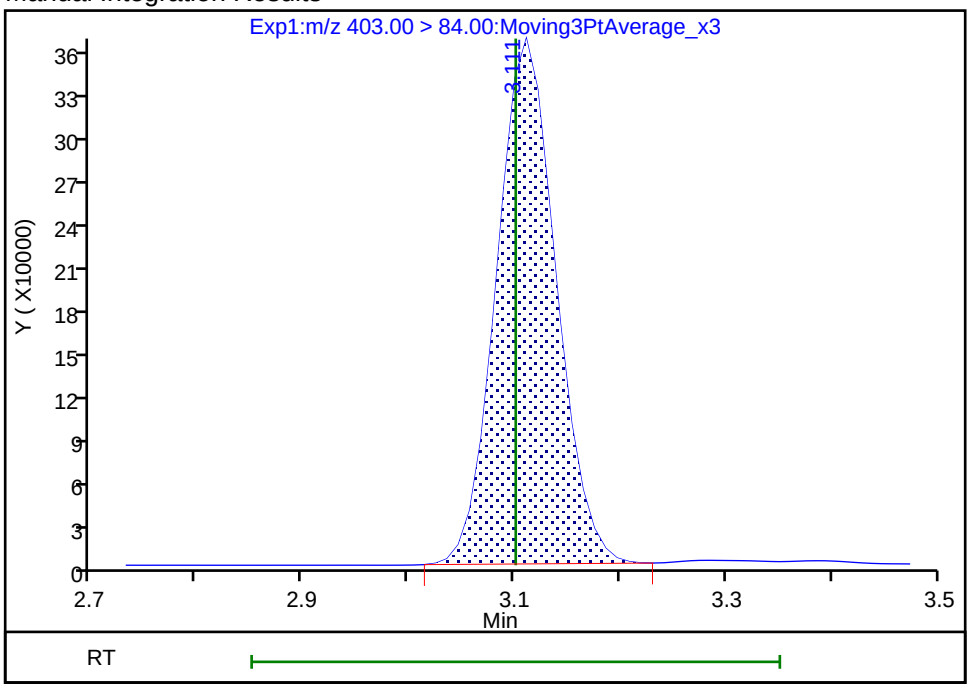
Processing Integration Results

RT: 3.11
Area: 1439626
Amount: 1.244088
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1428334
Amount: 1.241236
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:49:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

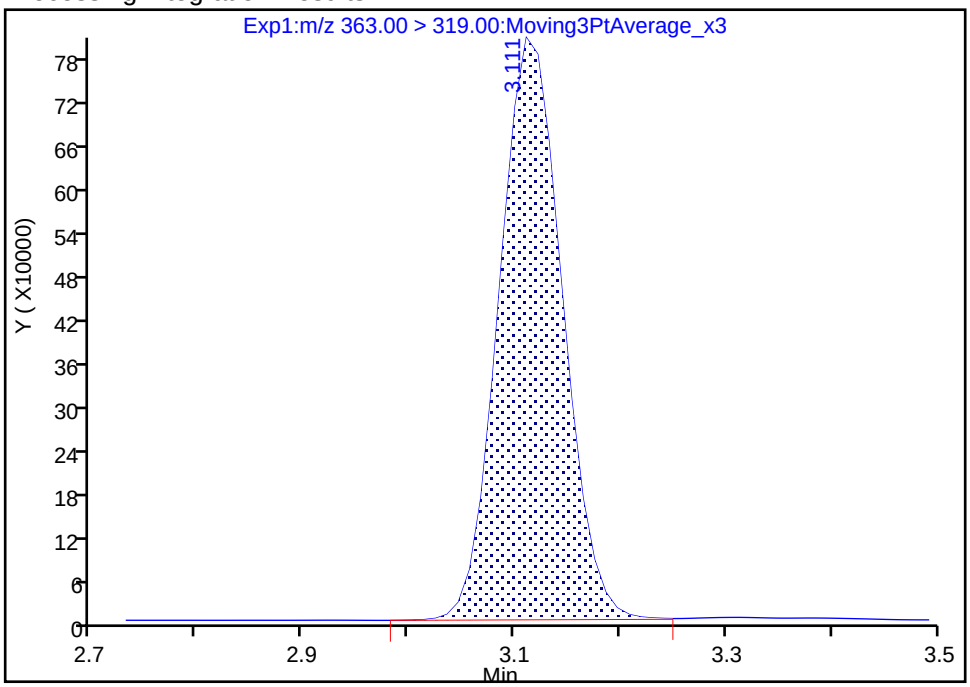
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

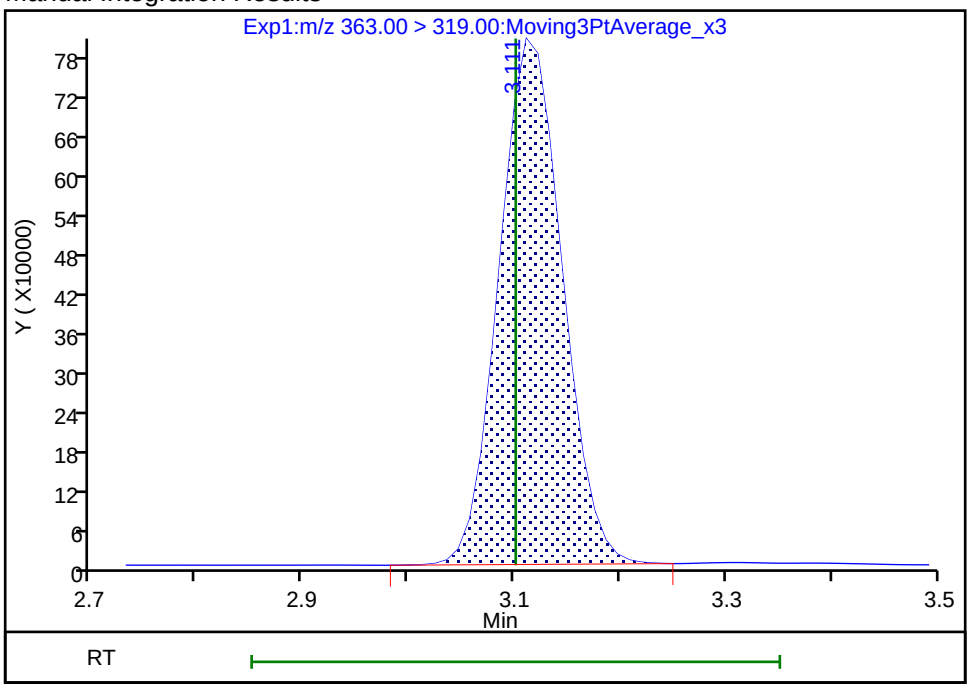
Processing Integration Results

RT: 3.11
Area: 3354503
Amount: 2.362071
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 3346280
Amount: 2.356281
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:38:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

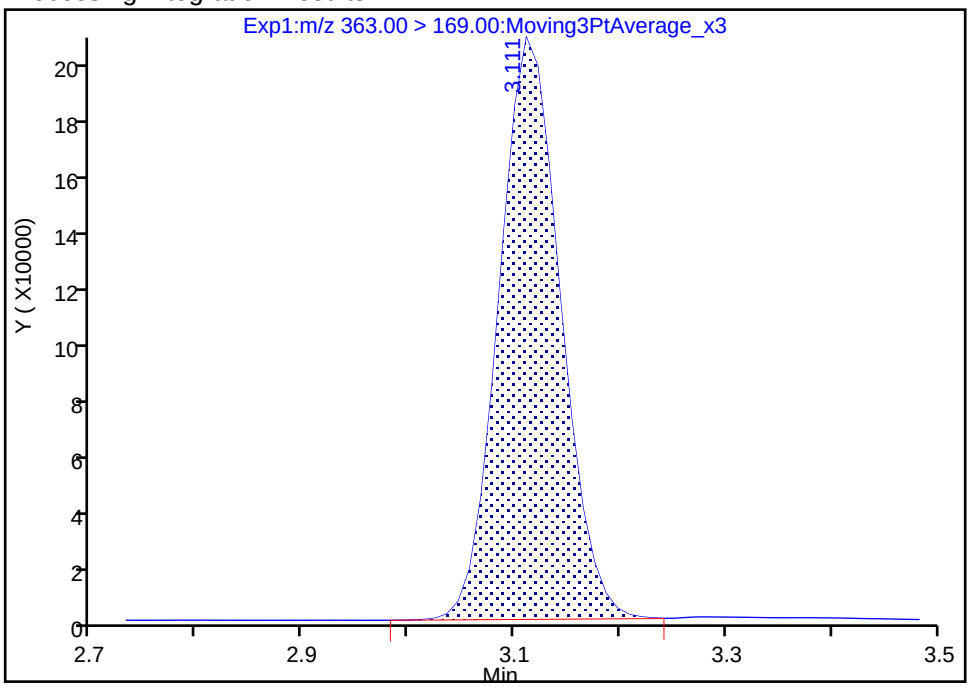
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

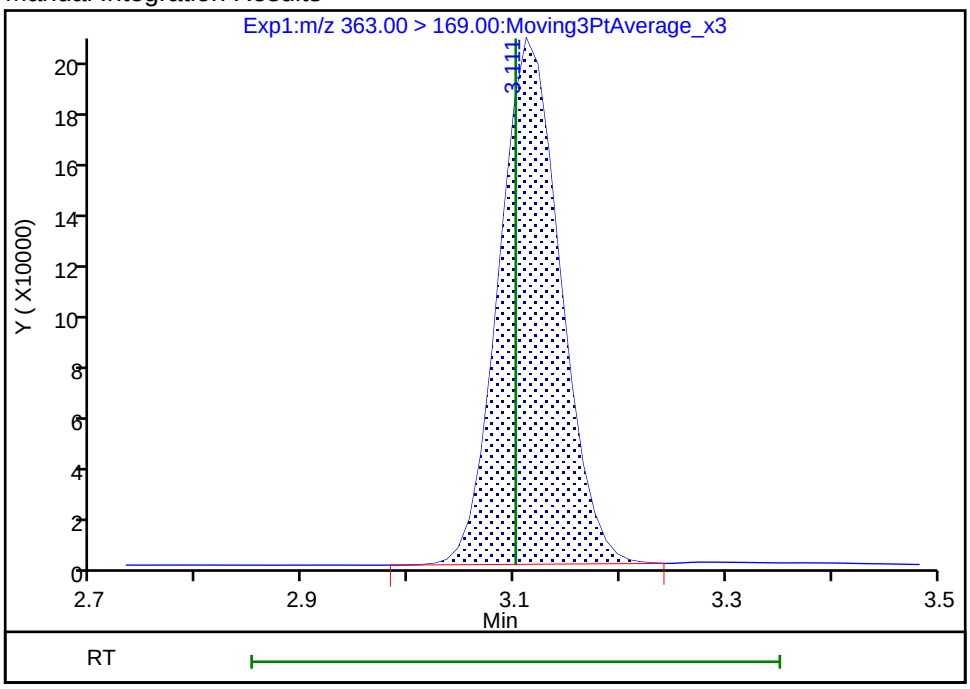
Processing Integration Results

RT: 3.11
Area: 847504
Amount: 2.362071
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 846769
Amount: 2.356281
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:38:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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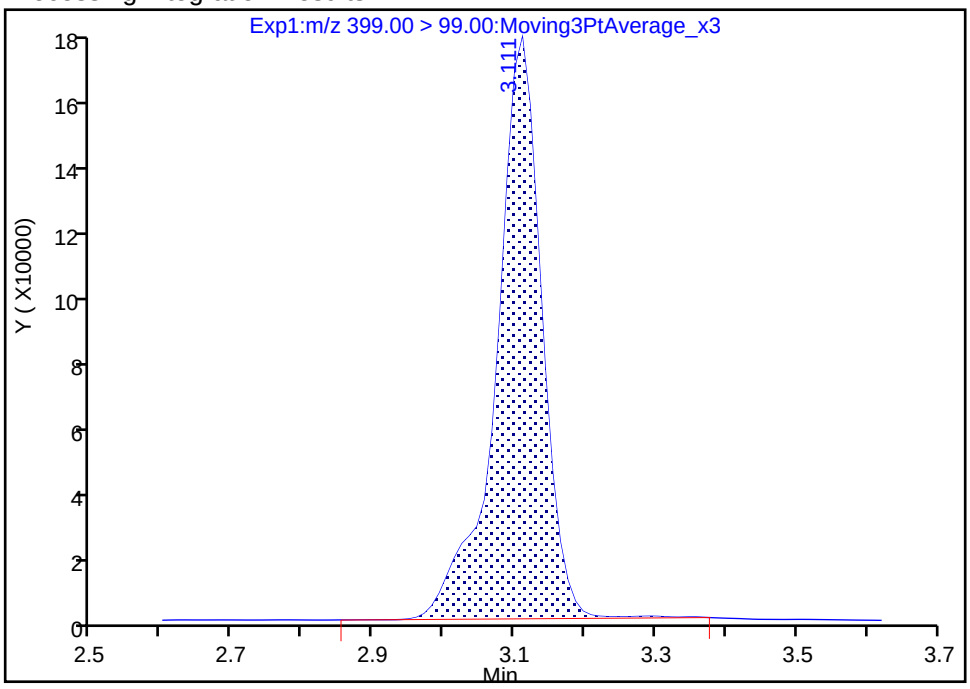
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

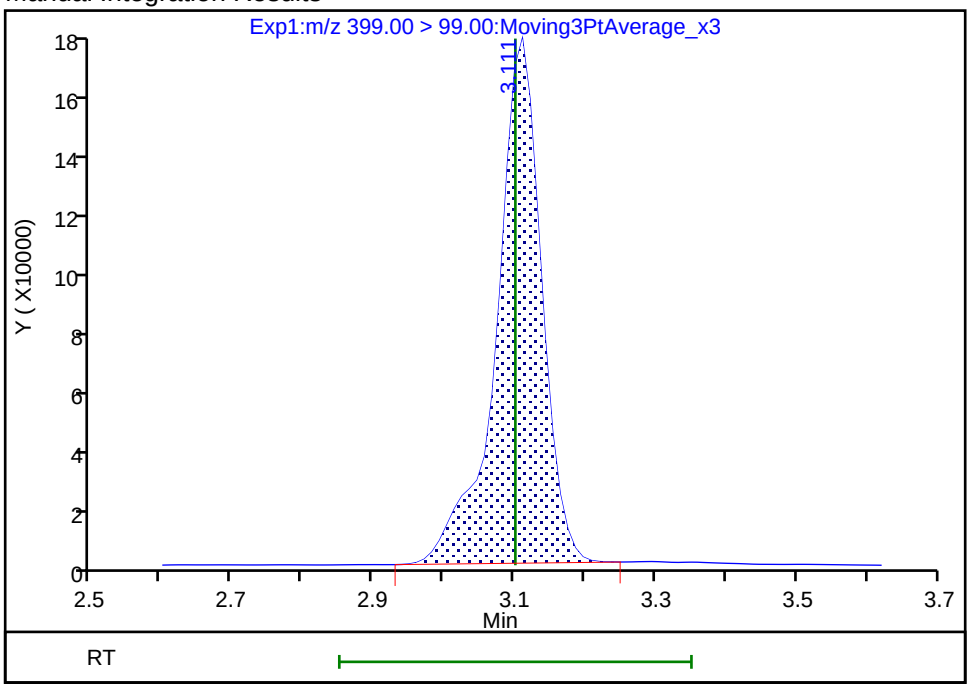
Processing Integration Results

RT: 3.11
Area: 795409
Amount: 2.035033
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 788881
Amount: 2.051121
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:38:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

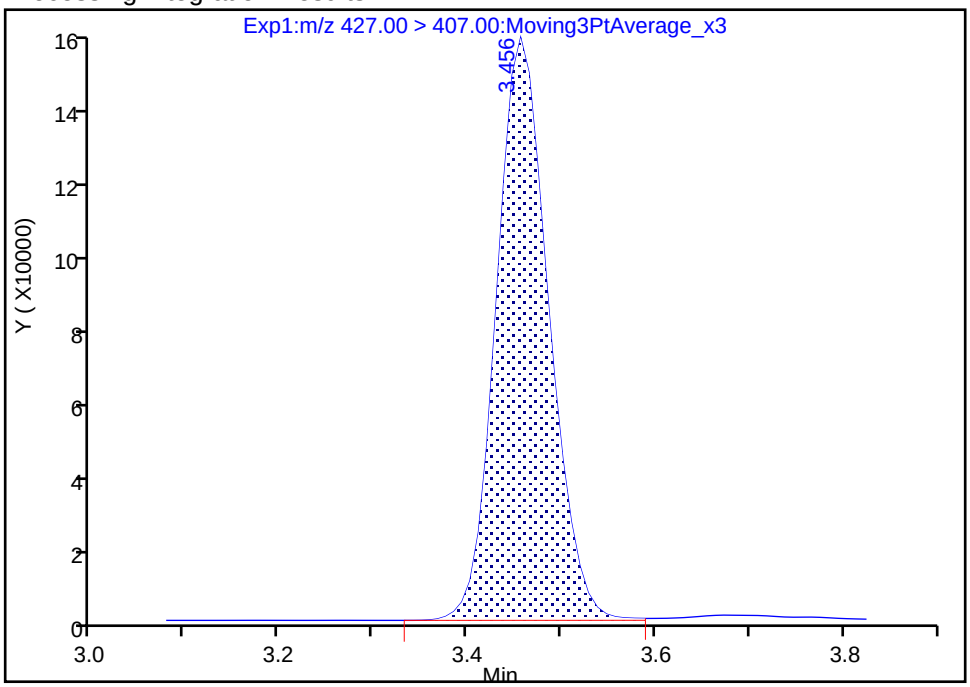
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

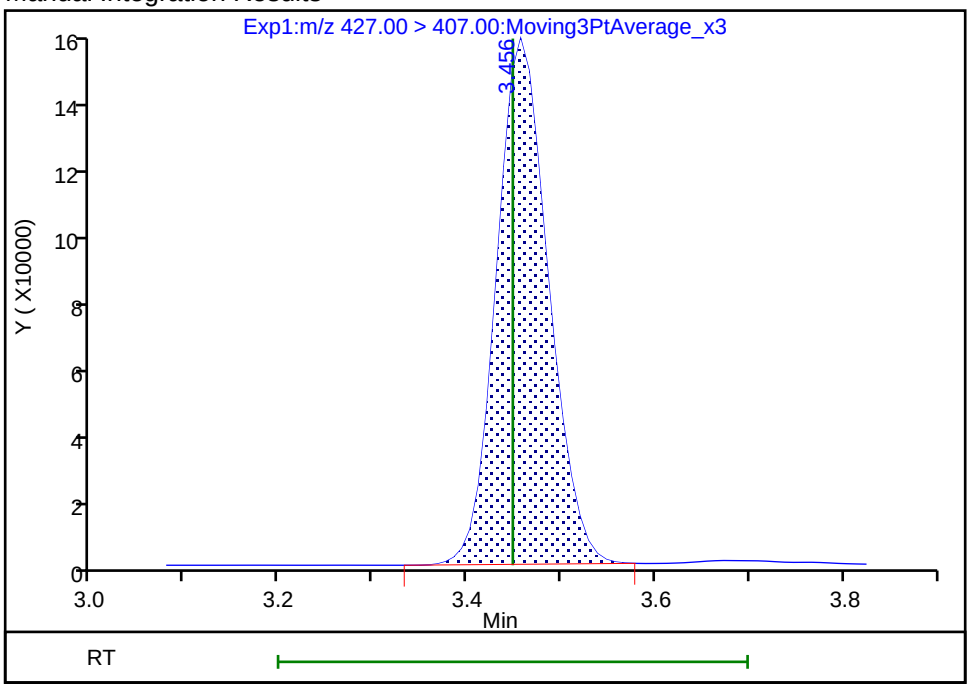
Processing Integration Results

RT: 3.46
Area: 582290
Amount: 2.474146
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 578128
Amount: 2.456462
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:49:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

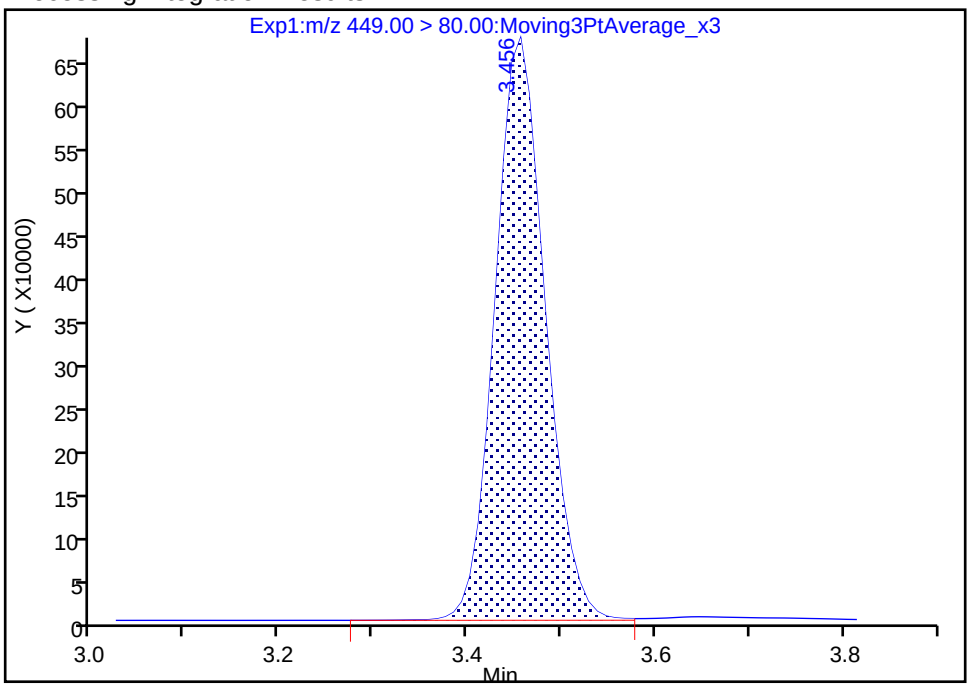
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

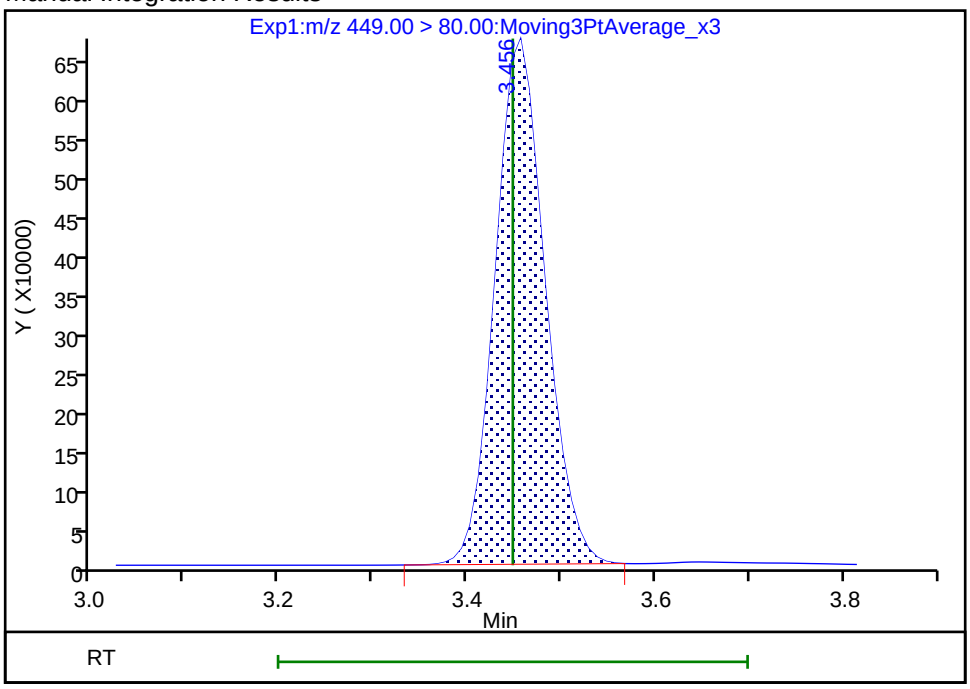
Processing Integration Results

RT: 3.46
Area: 2495063
Amount: 2.308725
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 2477887
Amount: 2.304530
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:49:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

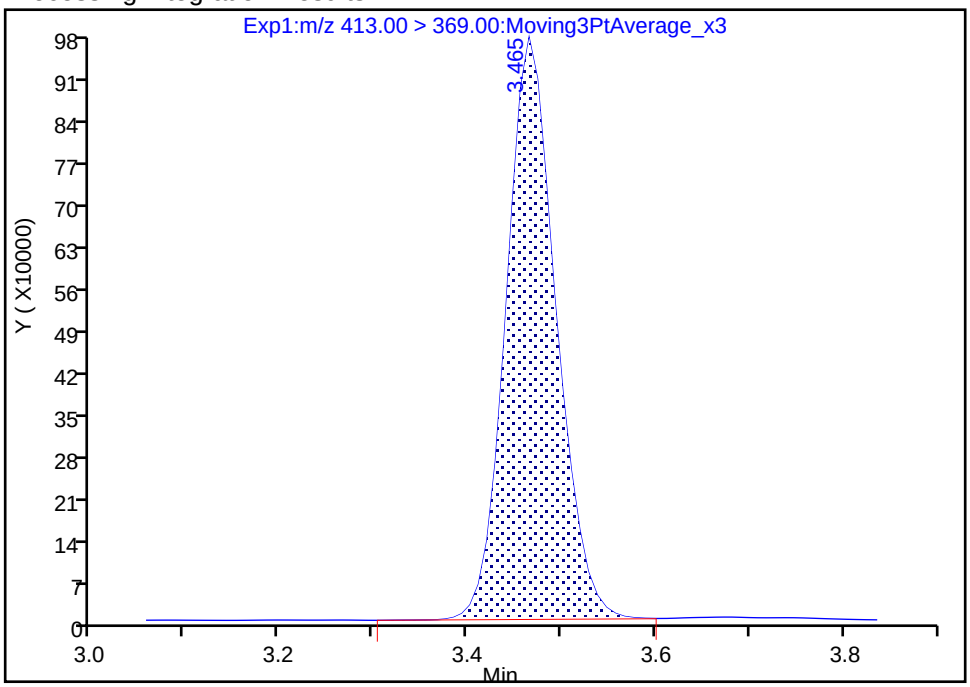
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

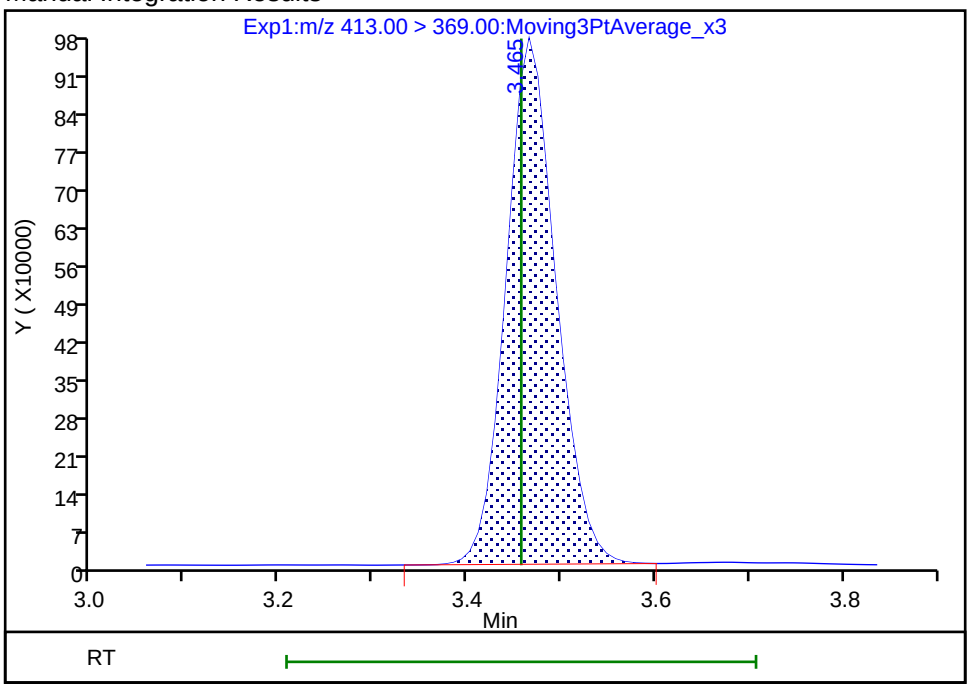
Processing Integration Results

RT: 3.47
Area: 3589672
Amount: 2.442699
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 3585098
Amount: 2.439587
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:50:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

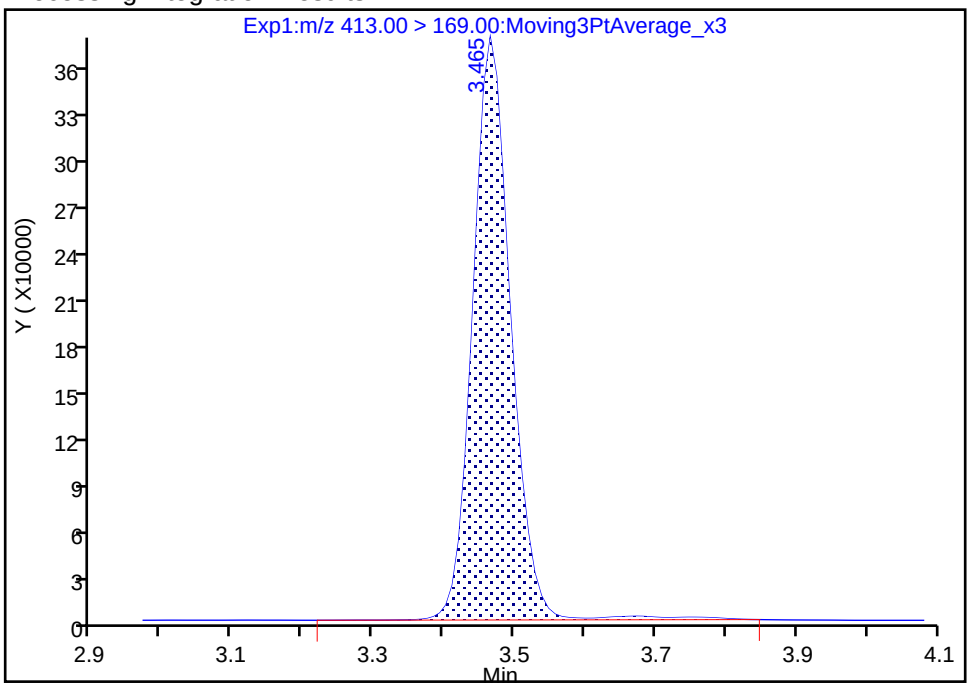
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

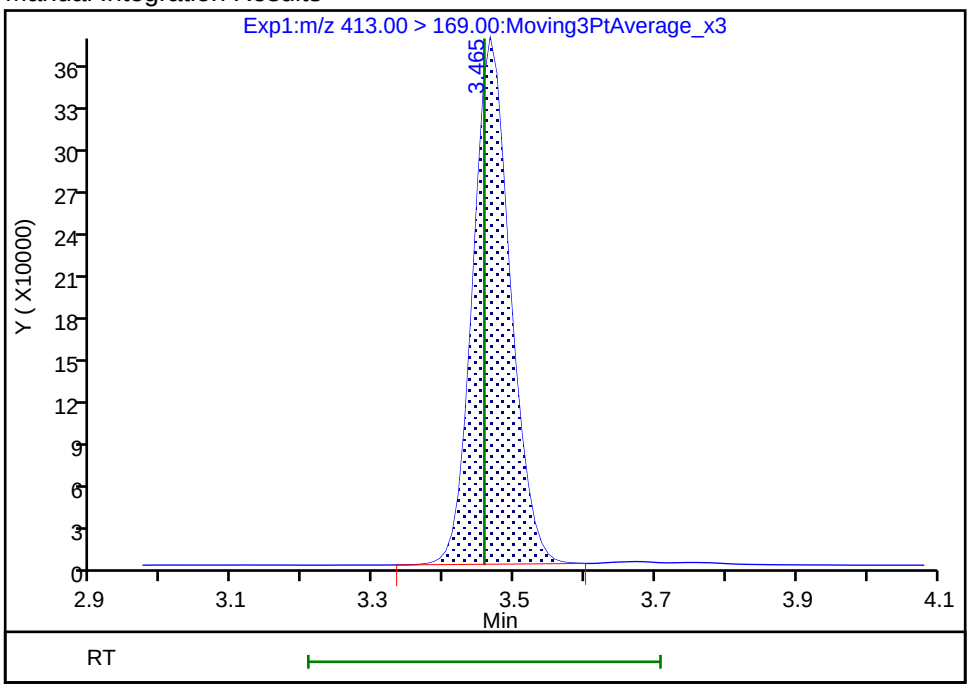
Processing Integration Results

RT: 3.47
Area: 1416186
Amount: 2.442699
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1389008
Amount: 2.439587
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:50:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

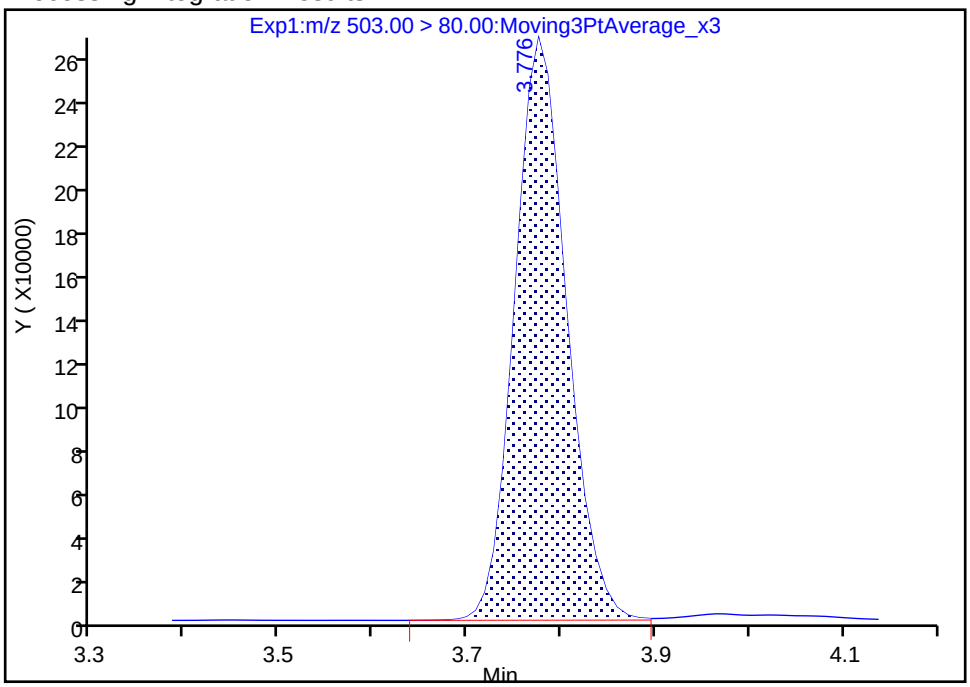
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

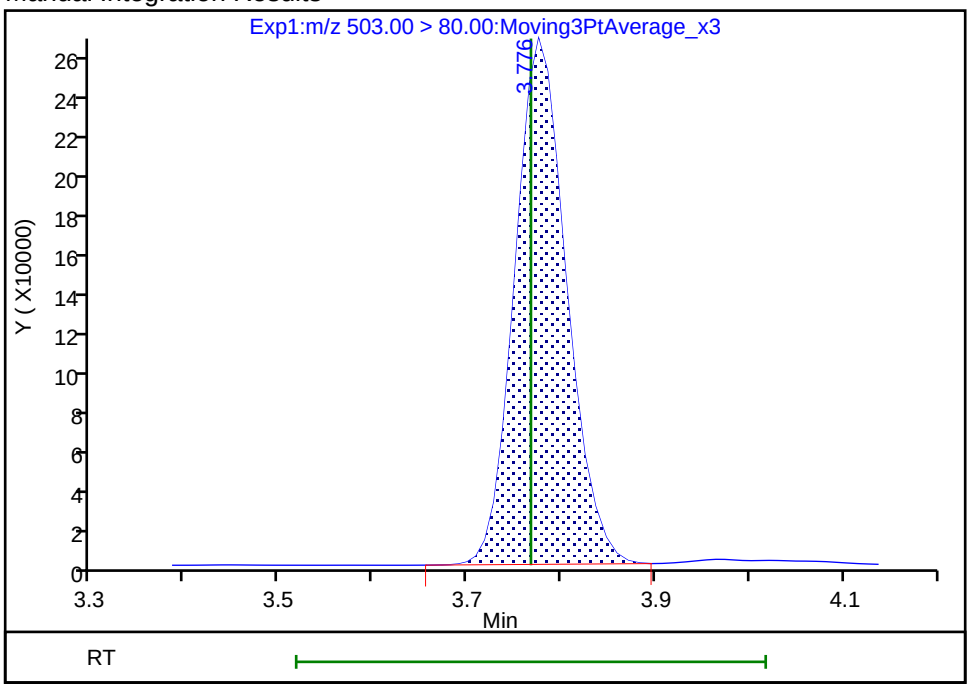
Processing Integration Results

RT: 3.78
Area: 1035959
Amount: 1.245746
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1030700
Amount: 1.239422
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:50:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

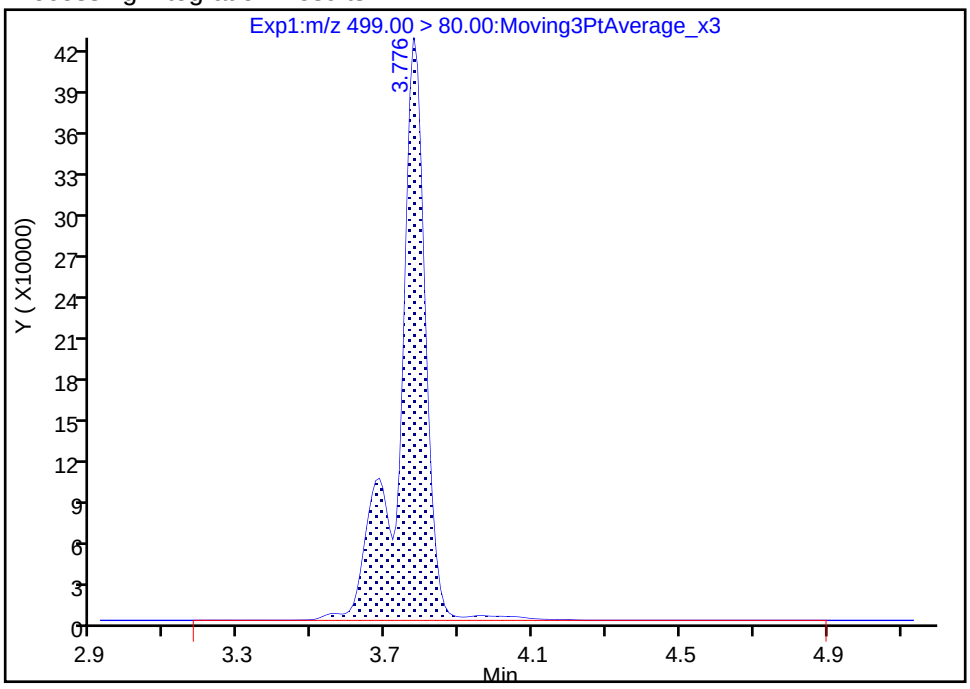
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

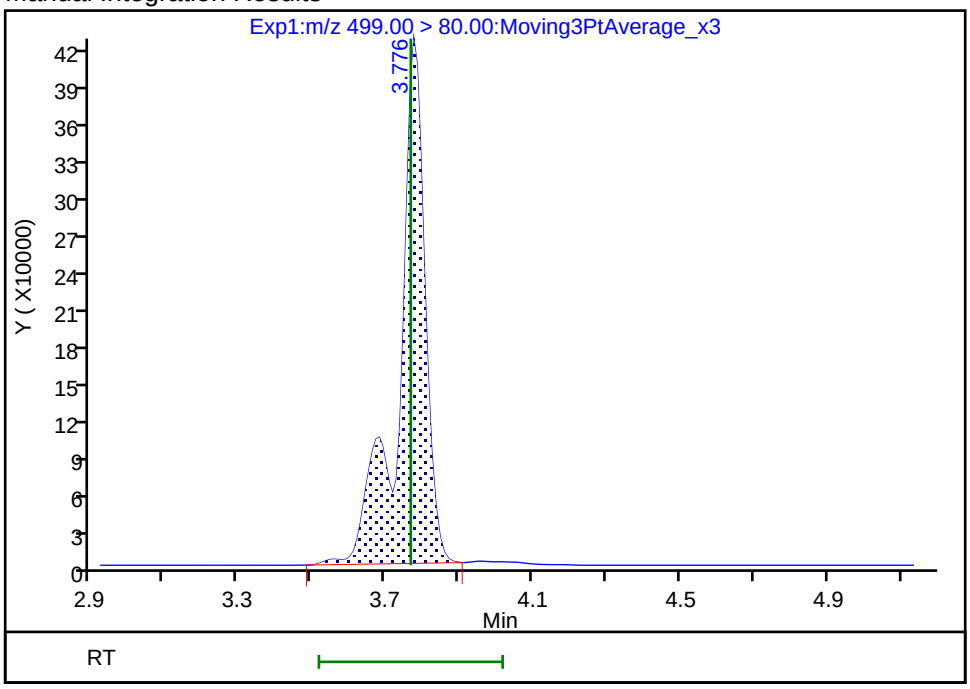
Processing Integration Results

RT: 3.78
Area: 2136795
Amount: 2.271623
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 2074678
Amount: 2.216840
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:47:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

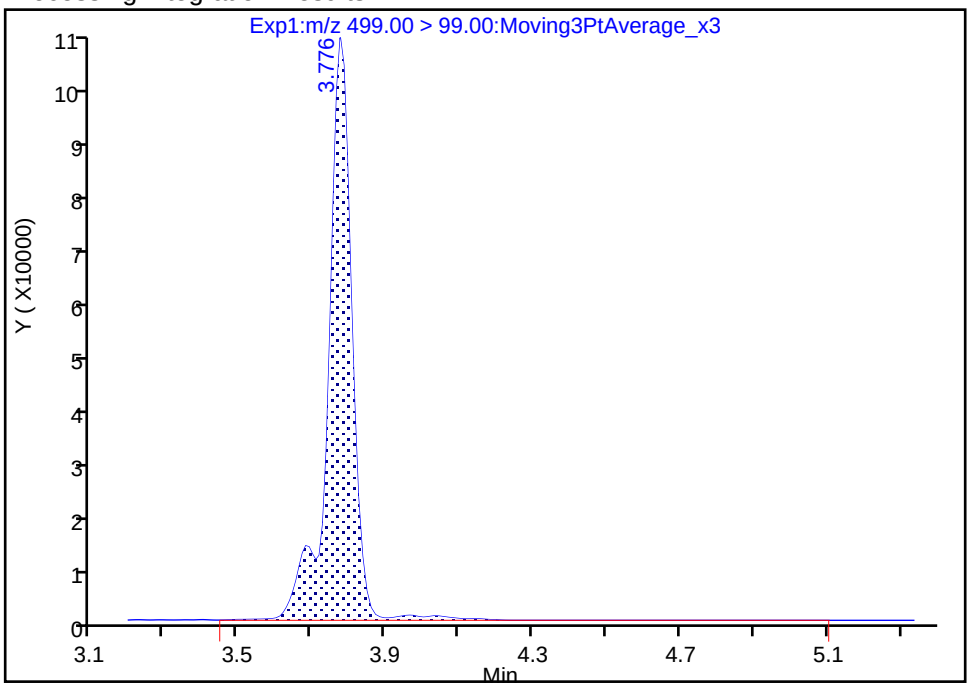
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

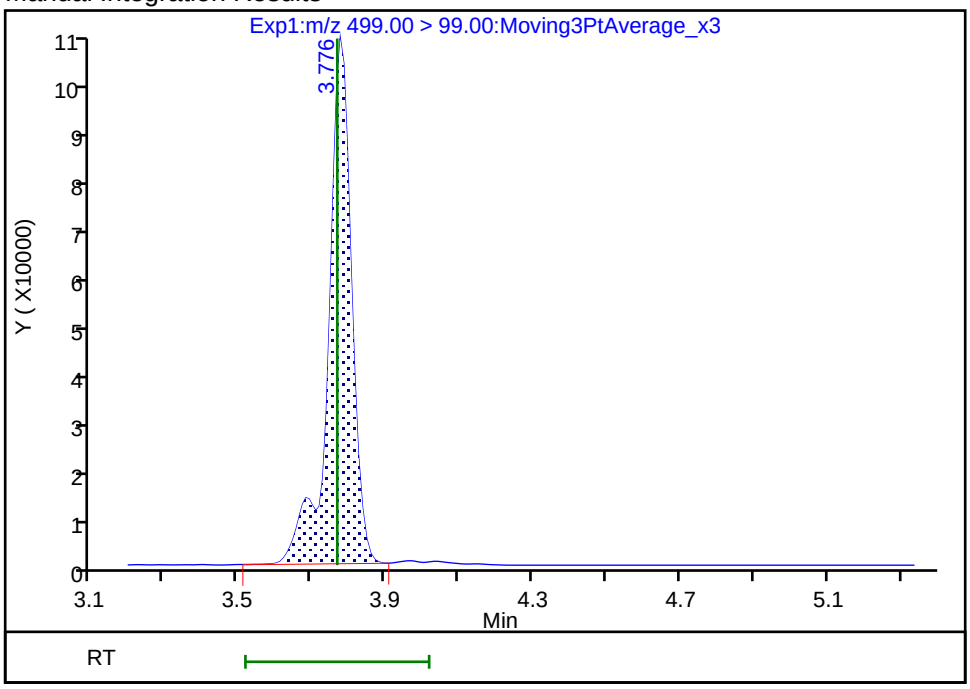
Processing Integration Results

RT: 3.78
Area: 453708
Amount: 2.271623
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 439753
Amount: 2.216840
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:48:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

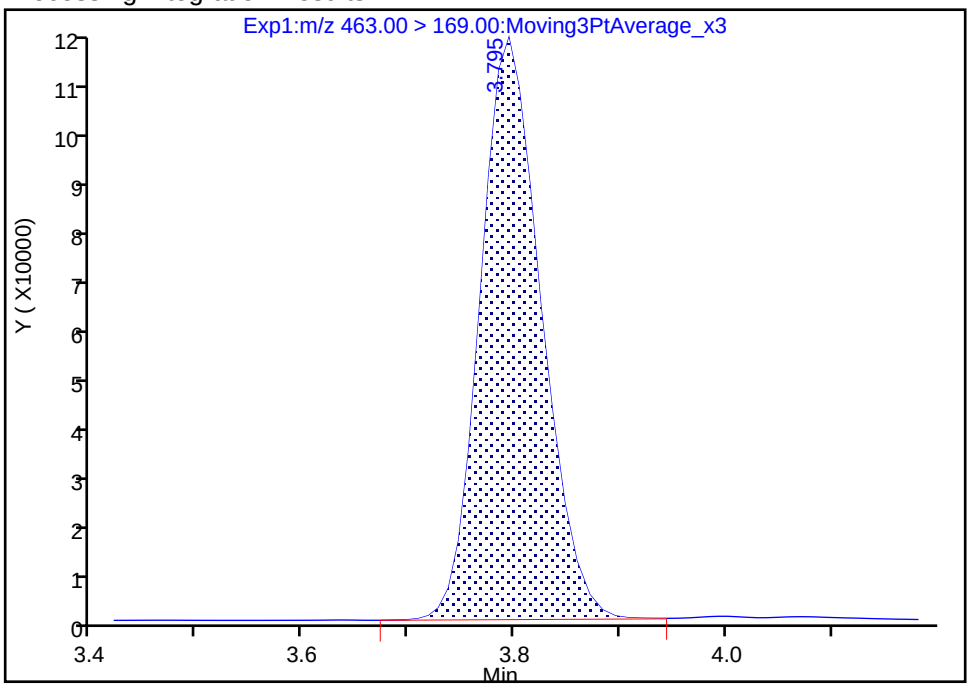
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

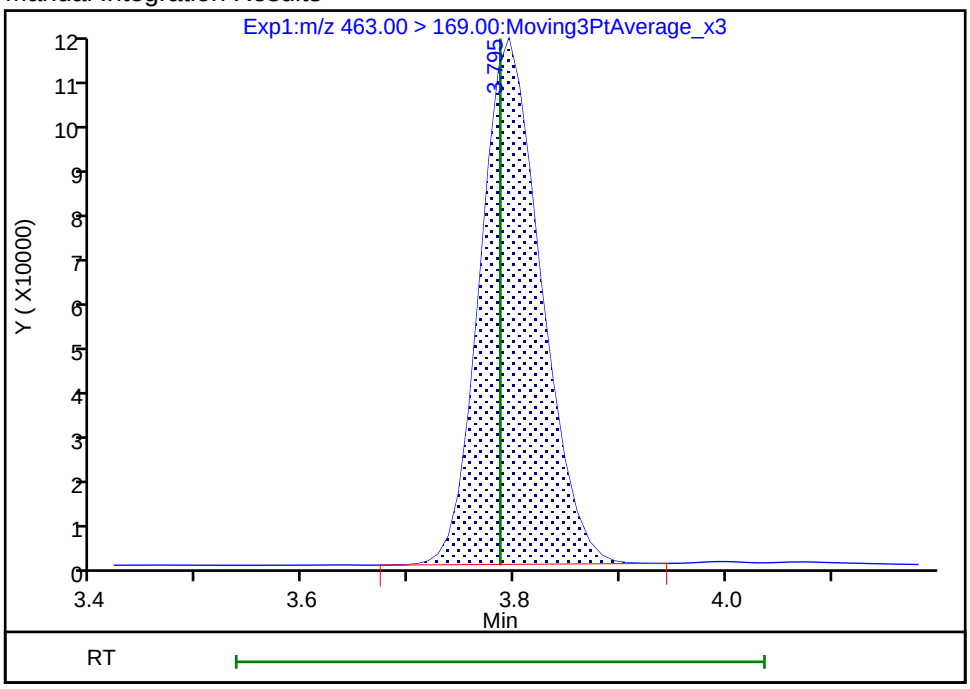
Processing Integration Results

RT: 3.79
Area: 460876
Amount: 2.368026
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 460016
Amount: 2.361715
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:48:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

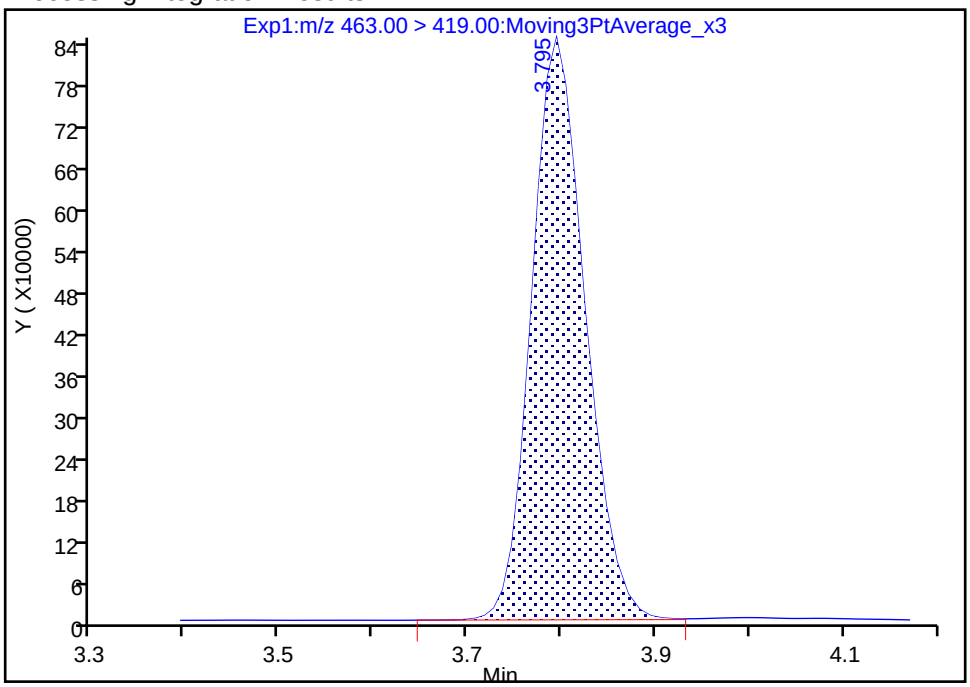
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

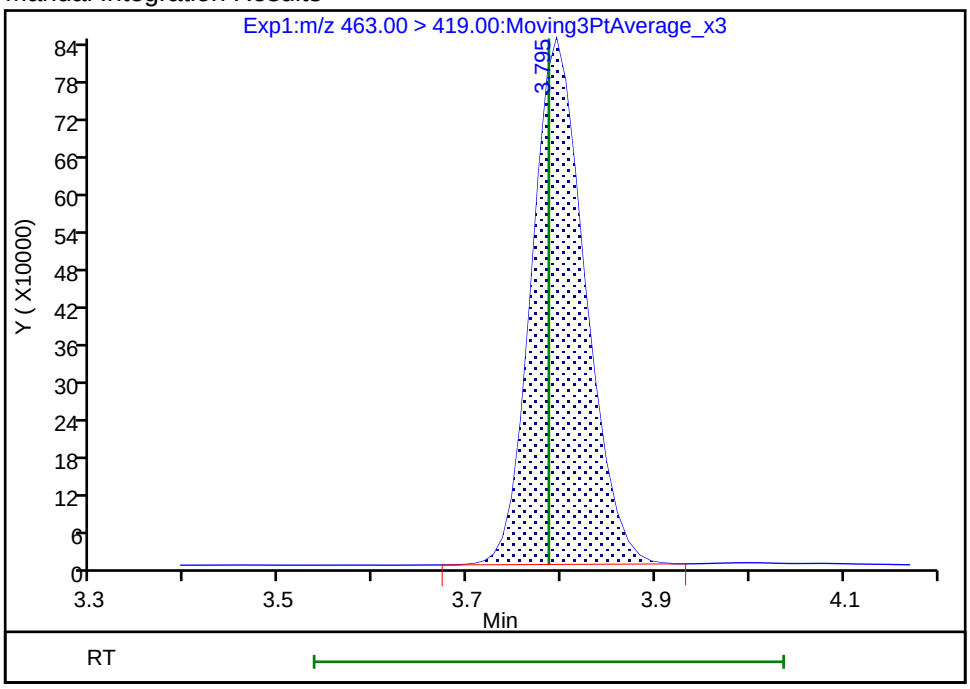
Processing Integration Results

RT: 3.79
Area: 3338947
Amount: 2.368026
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 3330049
Amount: 2.361715
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:48:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

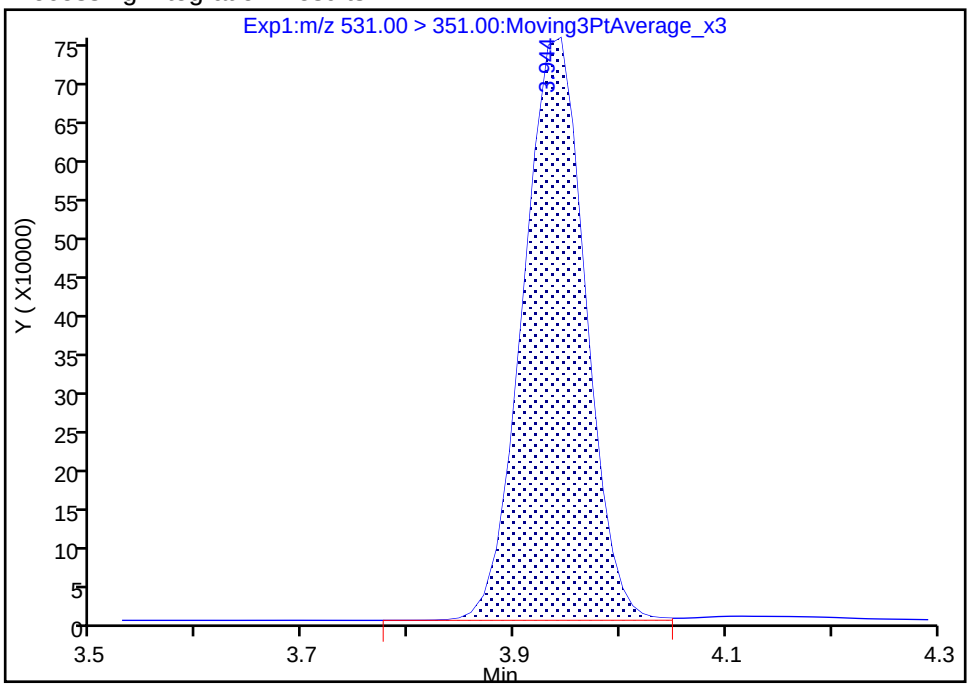
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

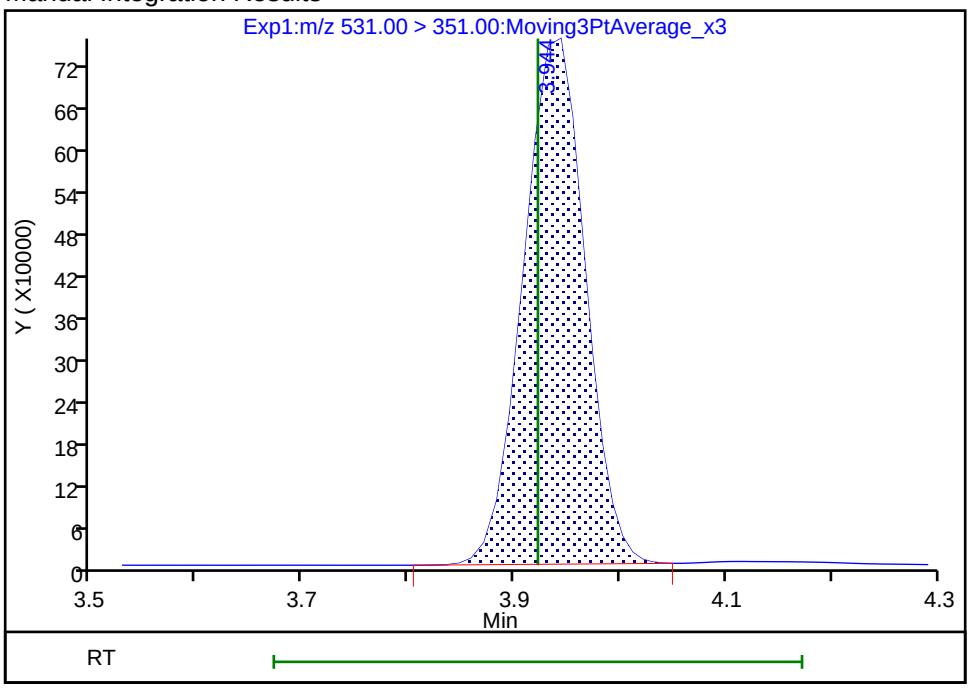
Processing Integration Results

RT: 3.94
Area: 3075825
Amount: 2.181557
Amount Units: ng/ml




Manual Integration Results

RT: 3.94
Area: 3057150
Amount: 2.168311
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:50:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

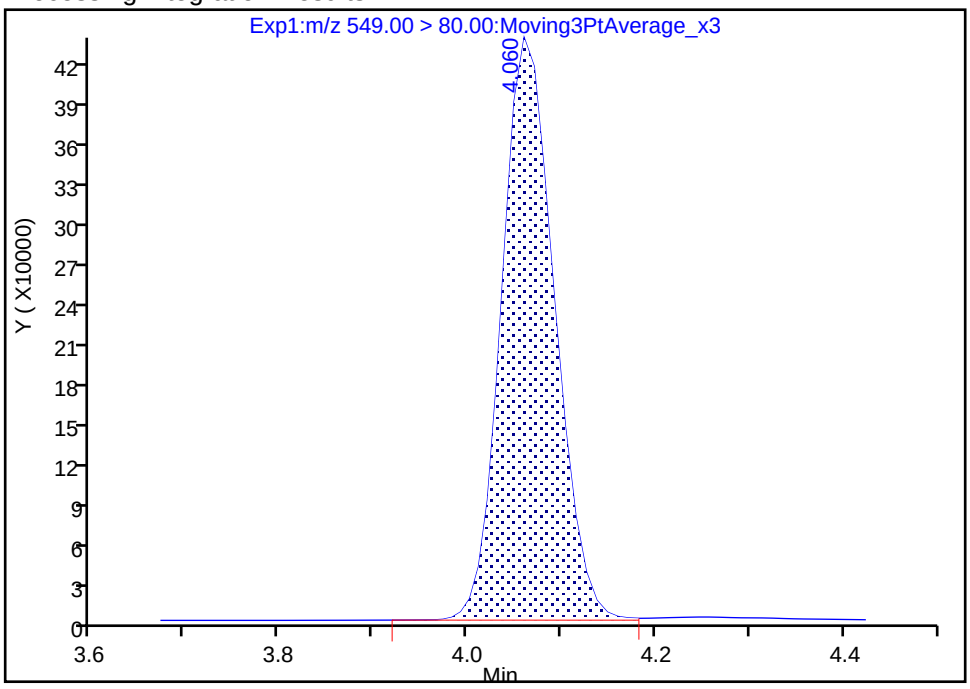
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

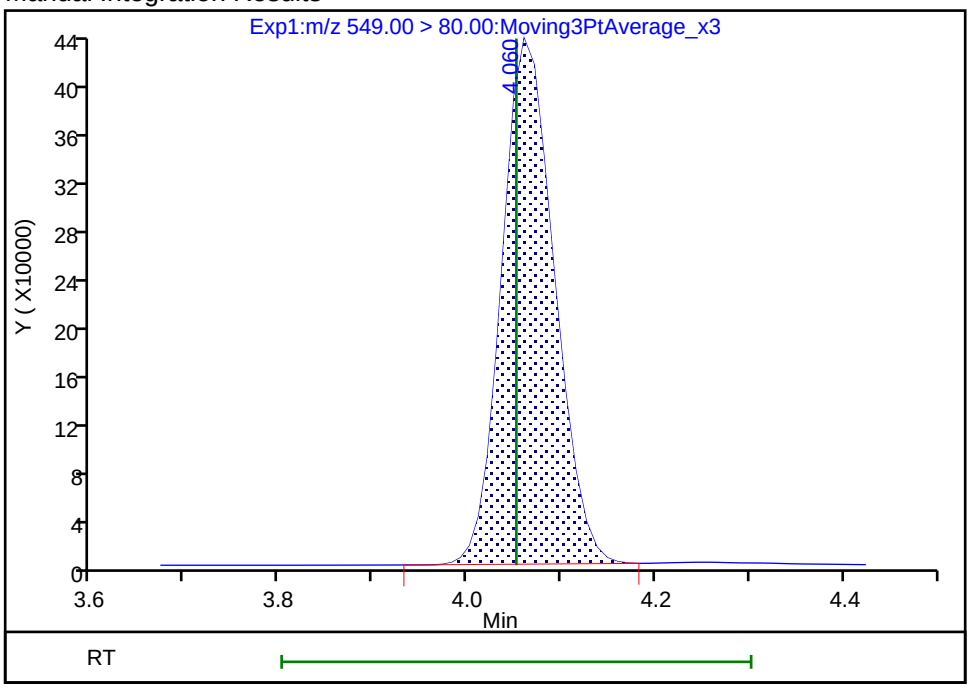
Processing Integration Results

RT: 4.06
Area: 1695572
Amount: 2.325883
Amount Units: ng/ml




Manual Integration Results

RT: 4.06
Area: 1684990
Amount: 2.311367
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:50:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

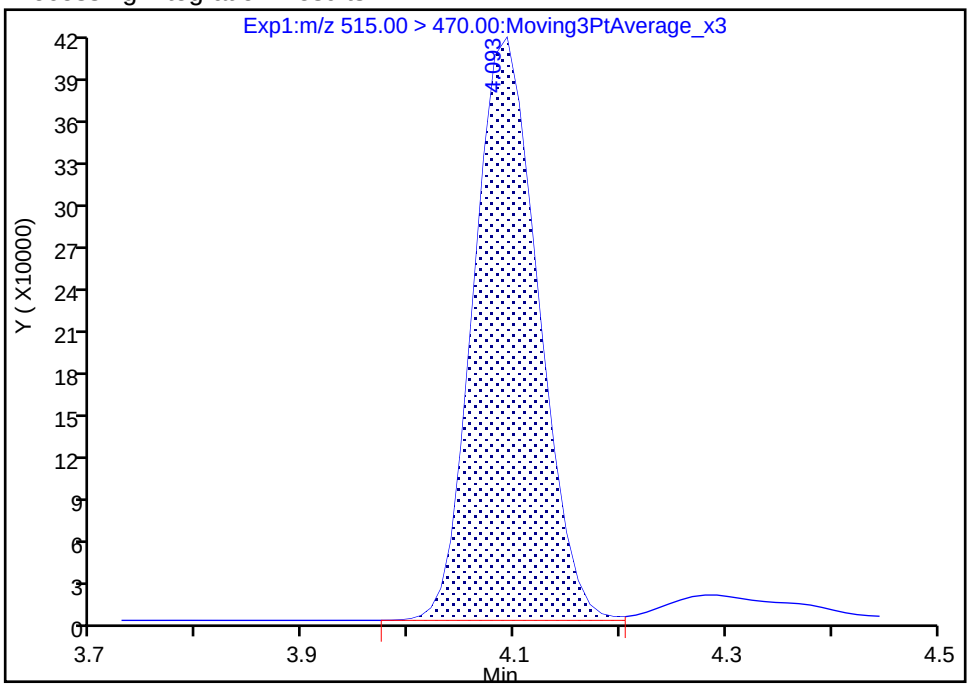
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

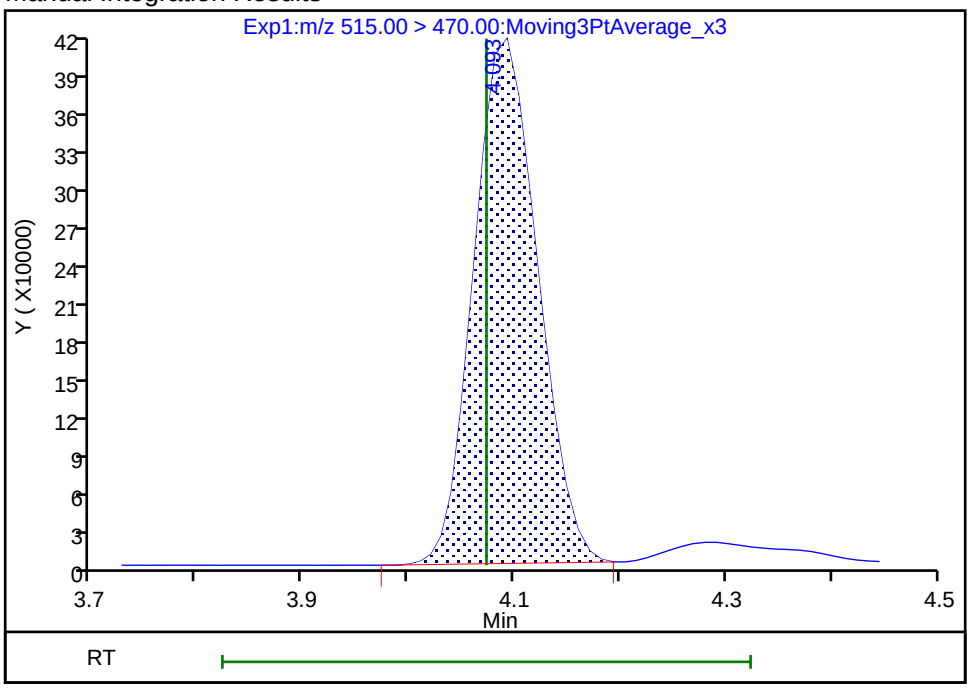
Processing Integration Results

RT: 4.09
Area: 1745074
Amount: 1.228983
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1726312
Amount: 1.215770
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:51:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

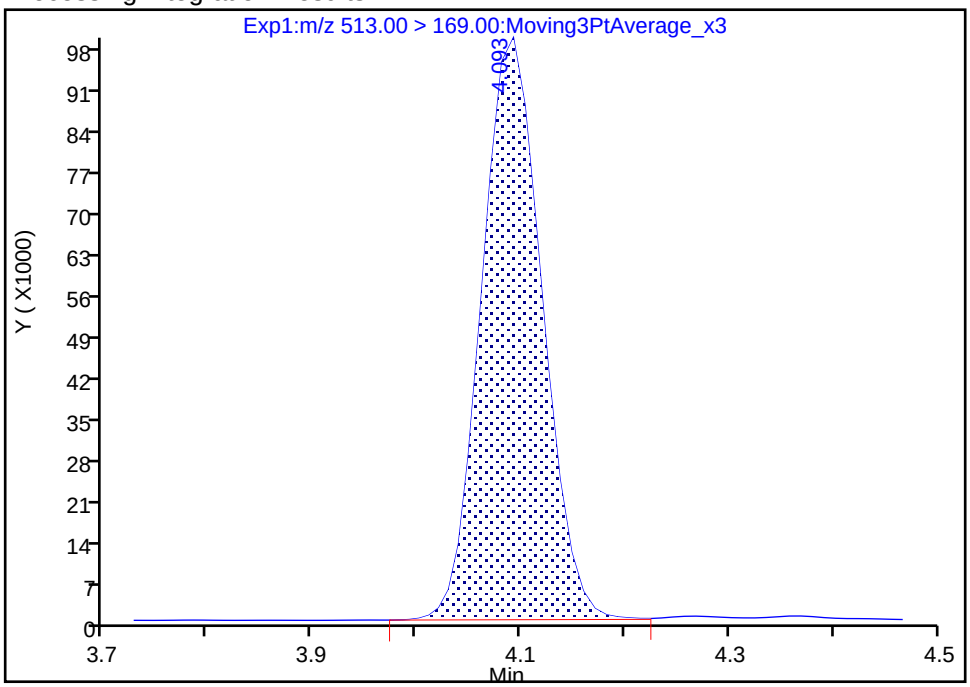
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

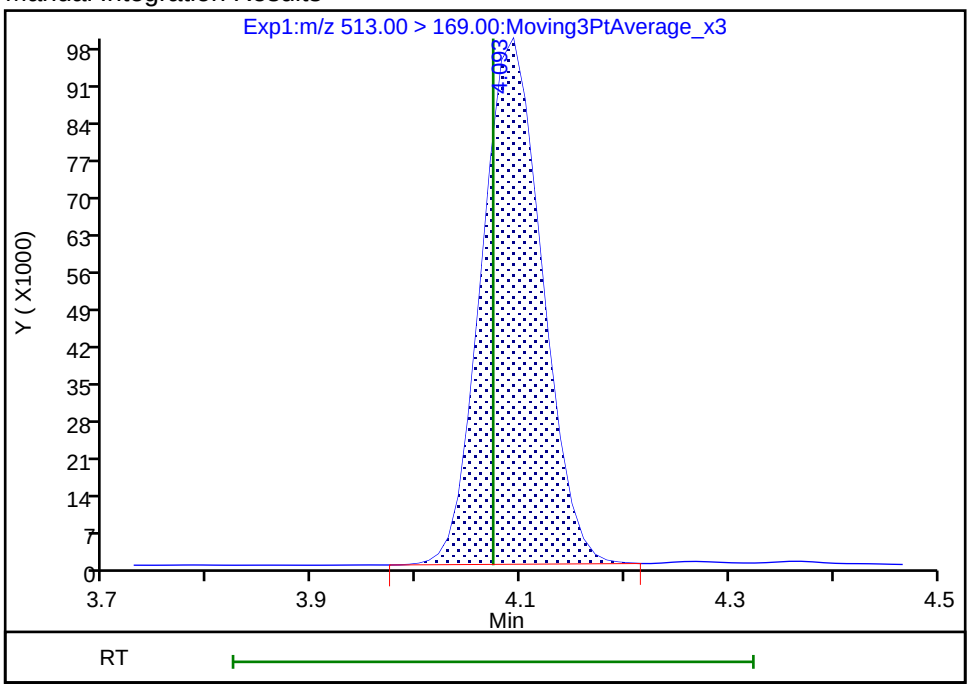
Processing Integration Results

RT: 4.09
Area: 401999
Amount: 2.565053
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 400786
Amount: 2.592930
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:51:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

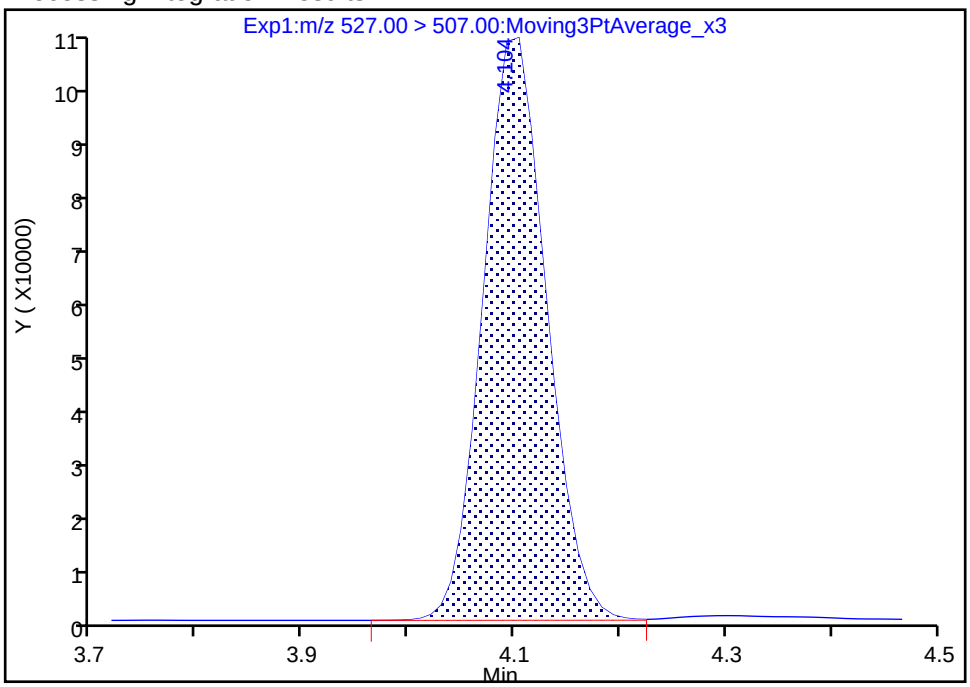
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

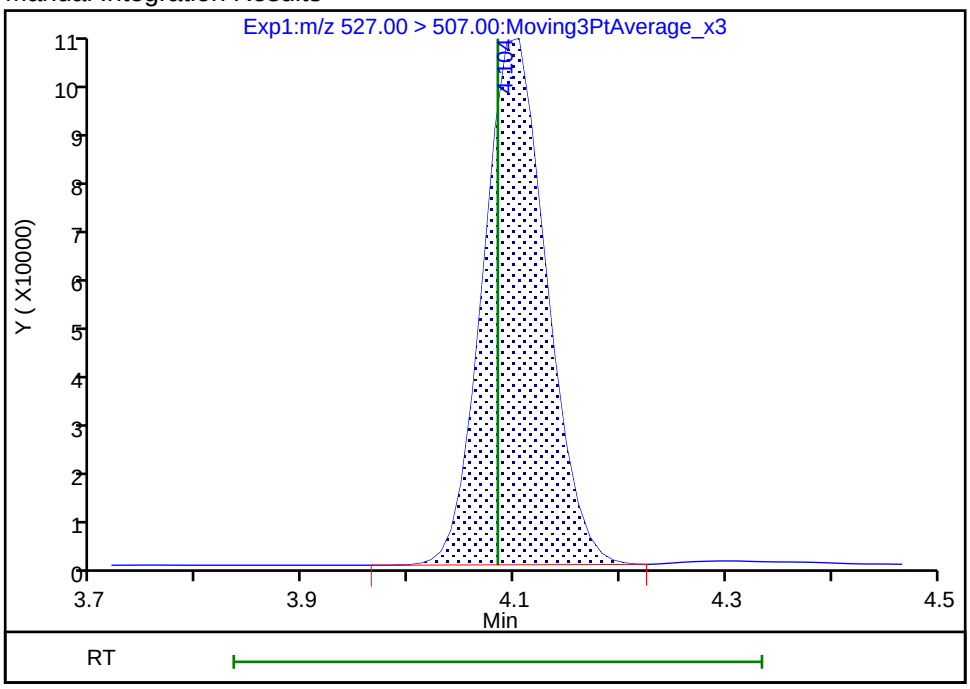
Processing Integration Results

RT: 4.10
Area: 434139
Amount: 2.082817
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 433122
Amount: 2.077938
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:51:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

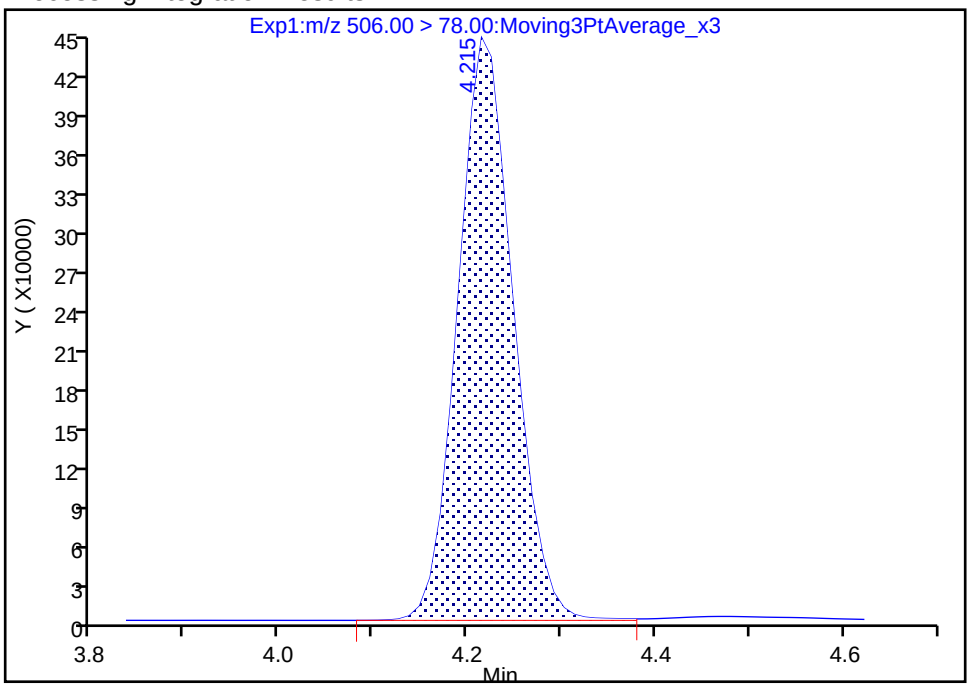
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

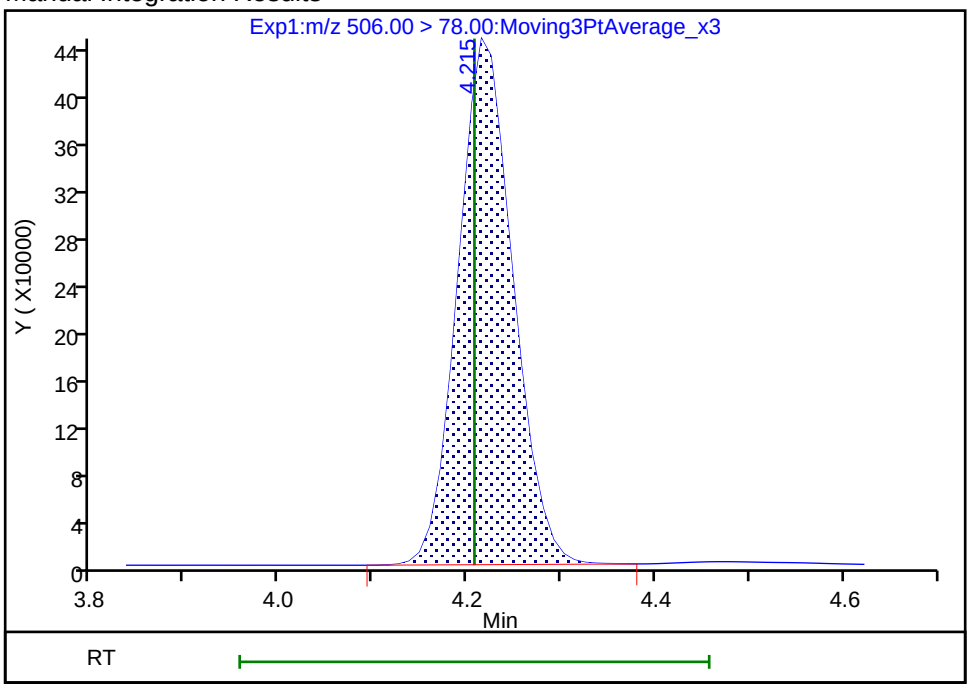
Processing Integration Results

RT: 4.21
Area: 1819536
Amount: 1.328530
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1809861
Amount: 1.321466
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:51:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

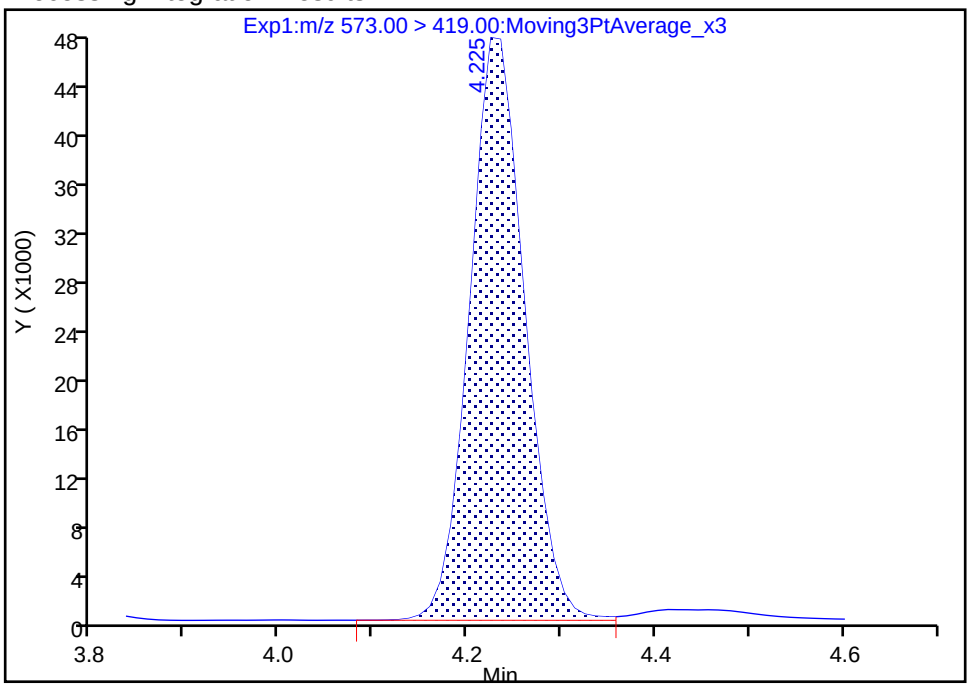
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

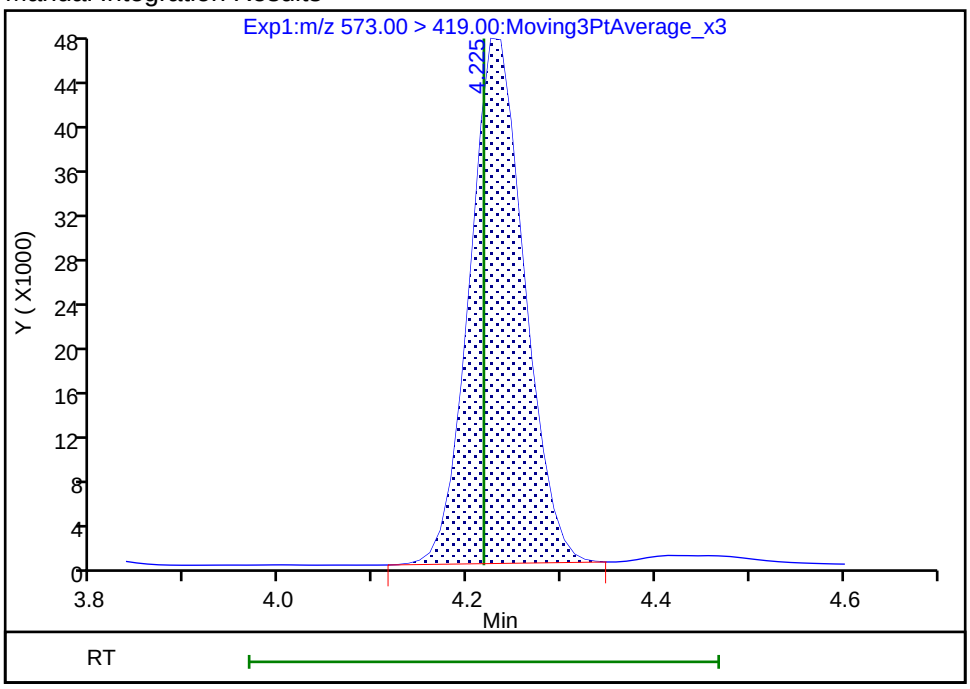
Processing Integration Results

RT: 4.22
Area: 193532
Amount: 1.385652
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 191229
Amount: 1.369163
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:51:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

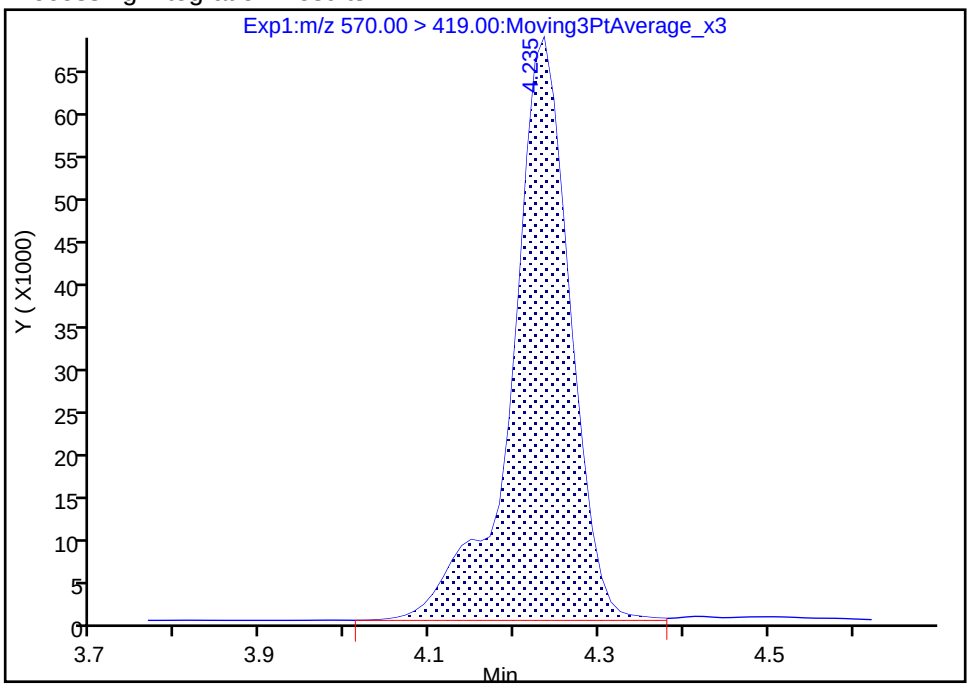
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

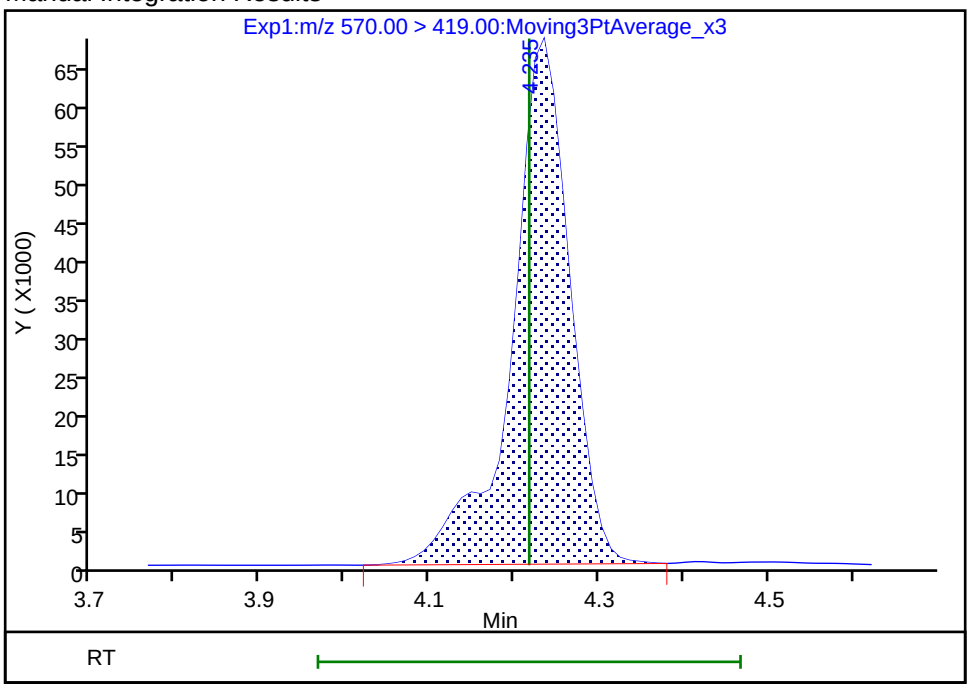
Processing Integration Results

RT: 4.23
Area: 328933
Amount: 2.704377
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 326343
Amount: 2.715396
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:49:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

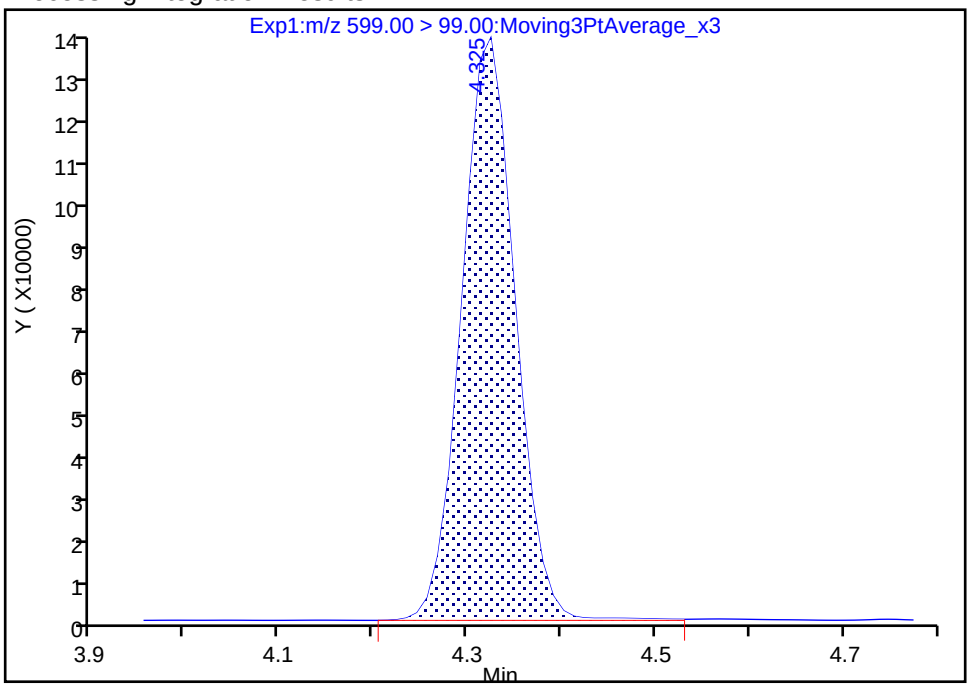
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

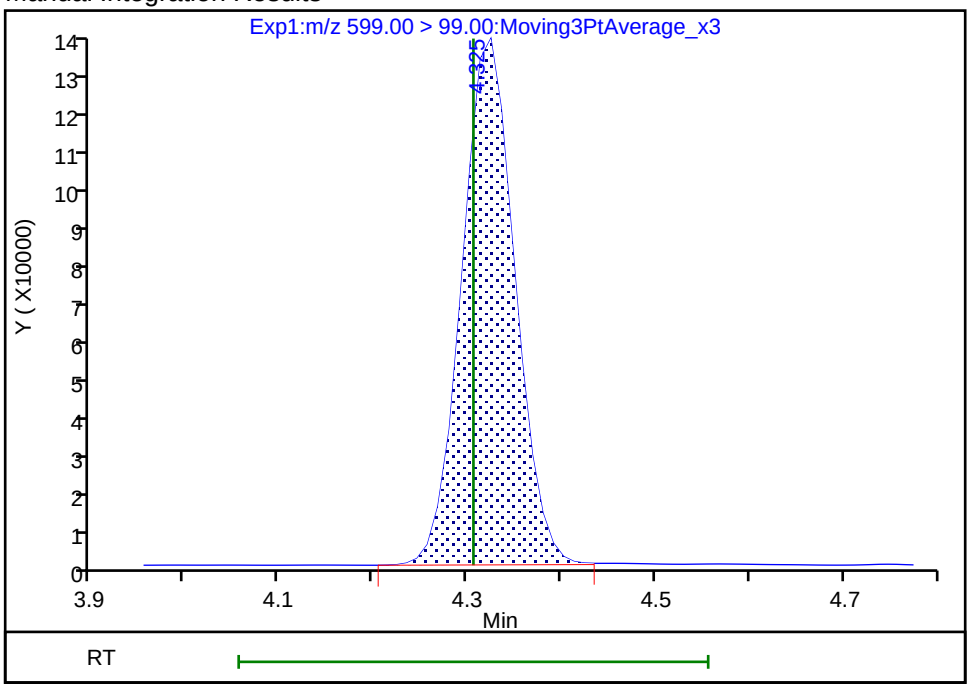
Processing Integration Results

RT: 4.32
Area: 543622
Amount: 2.344040
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 540114
Amount: 2.348601
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:49:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

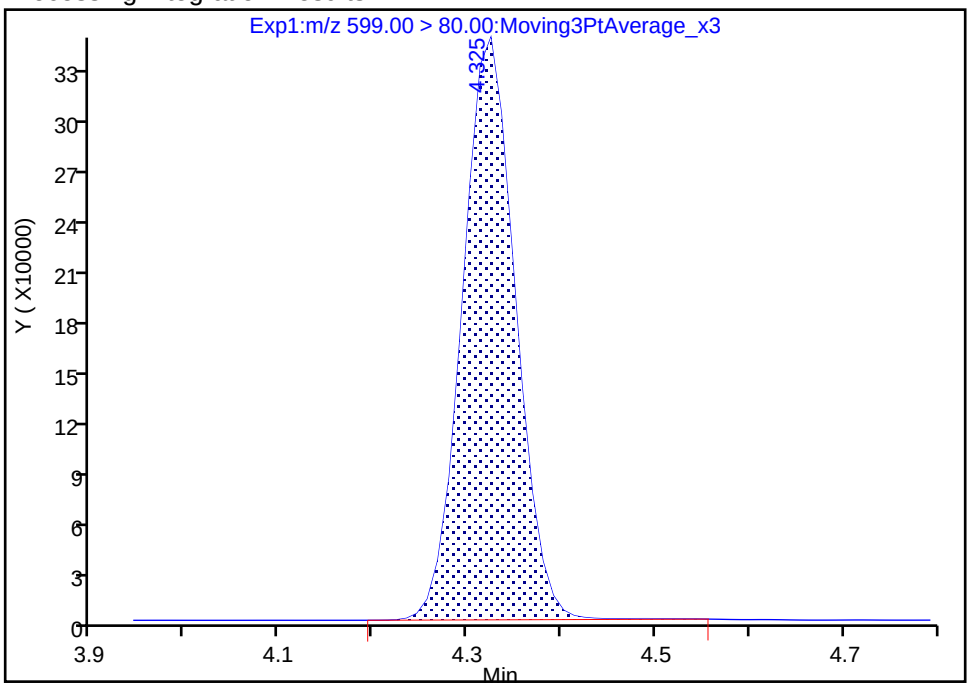
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

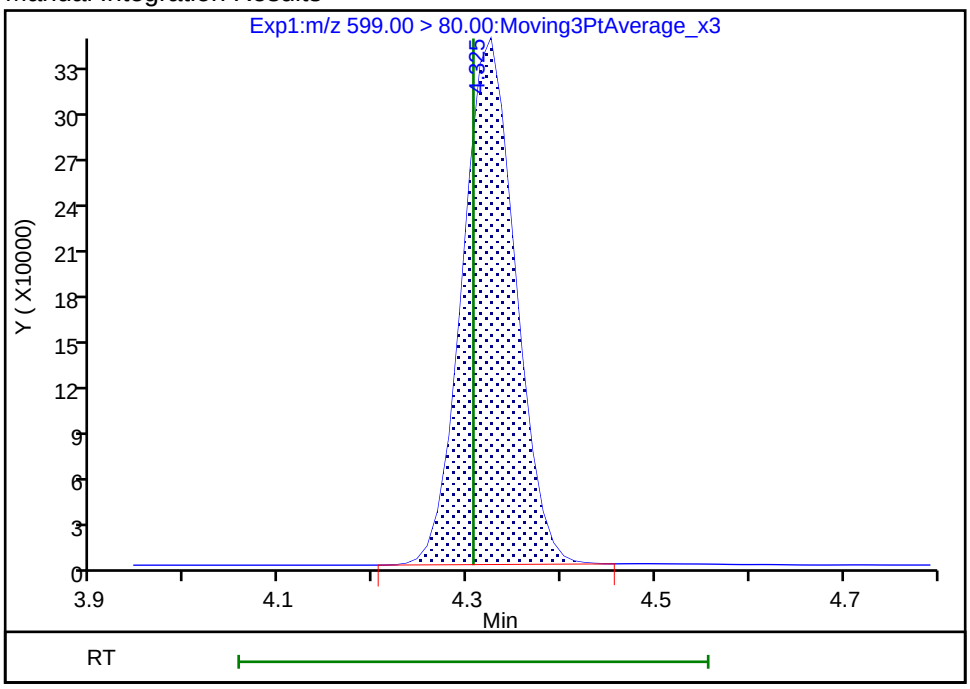
Processing Integration Results

RT: 4.32
Area: 1335412
Amount: 2.344040
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 1331218
Amount: 2.348601
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:49:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

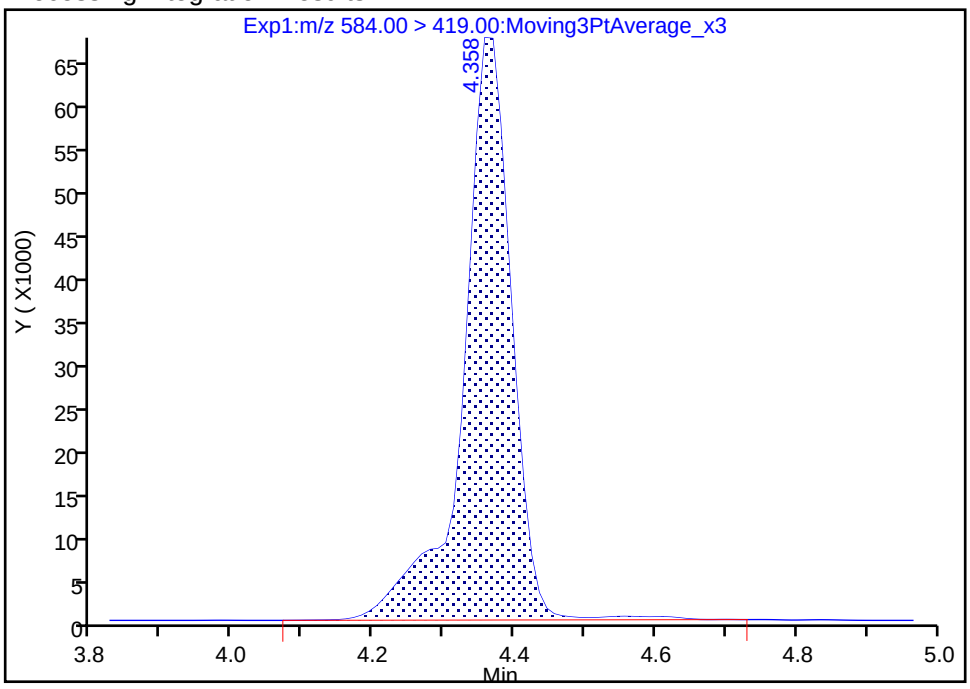
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

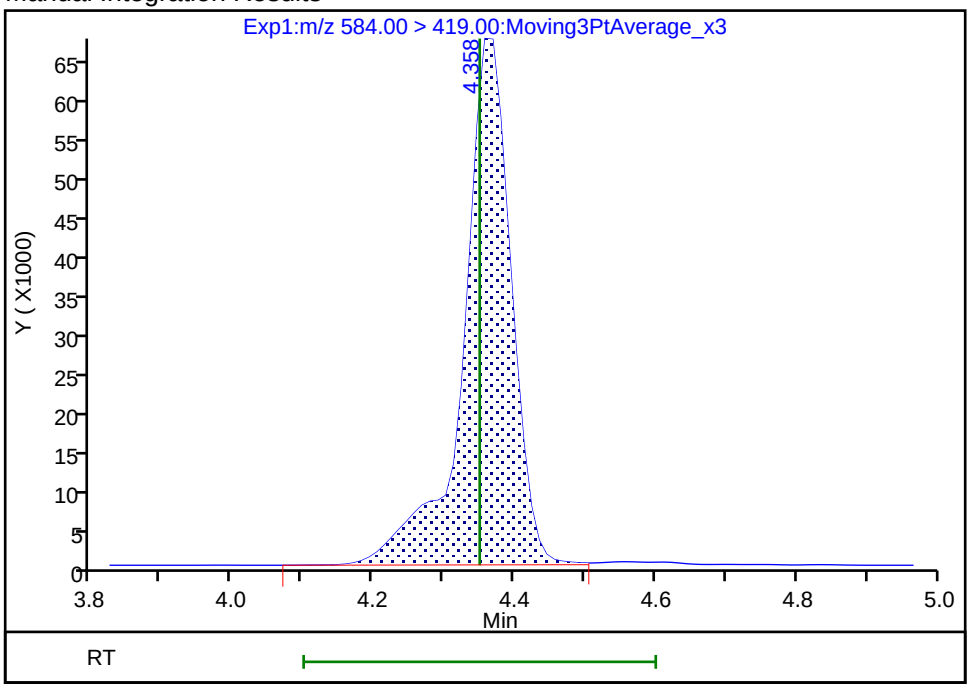
Processing Integration Results

RT: 4.36
Area: 322443
Amount: 2.426142
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 319650
Amount: 2.405126
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:49:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

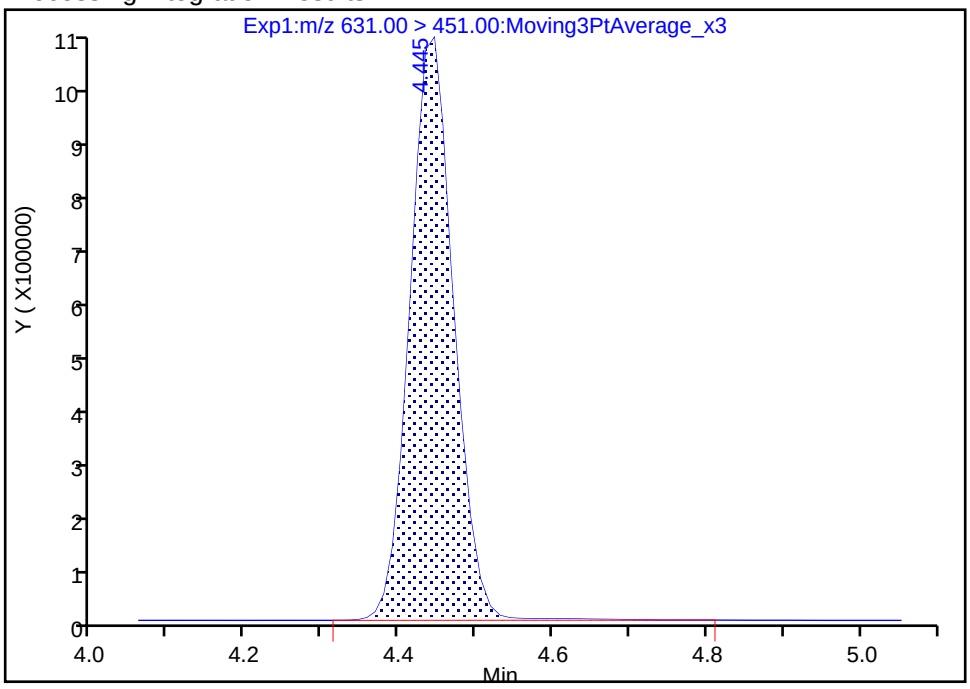
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

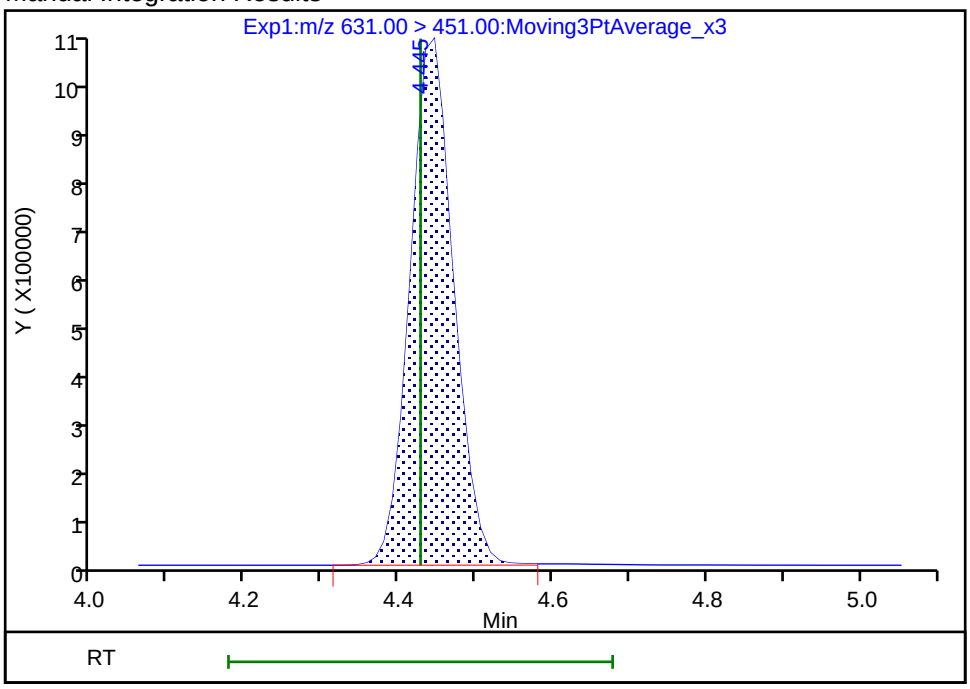
Processing Integration Results

RT: 4.45
Area: 3987364
Amount: 2.382525
Amount Units: ng/ml




Manual Integration Results

RT: 4.45
Area: 3972504
Amount: 2.385757
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:49:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

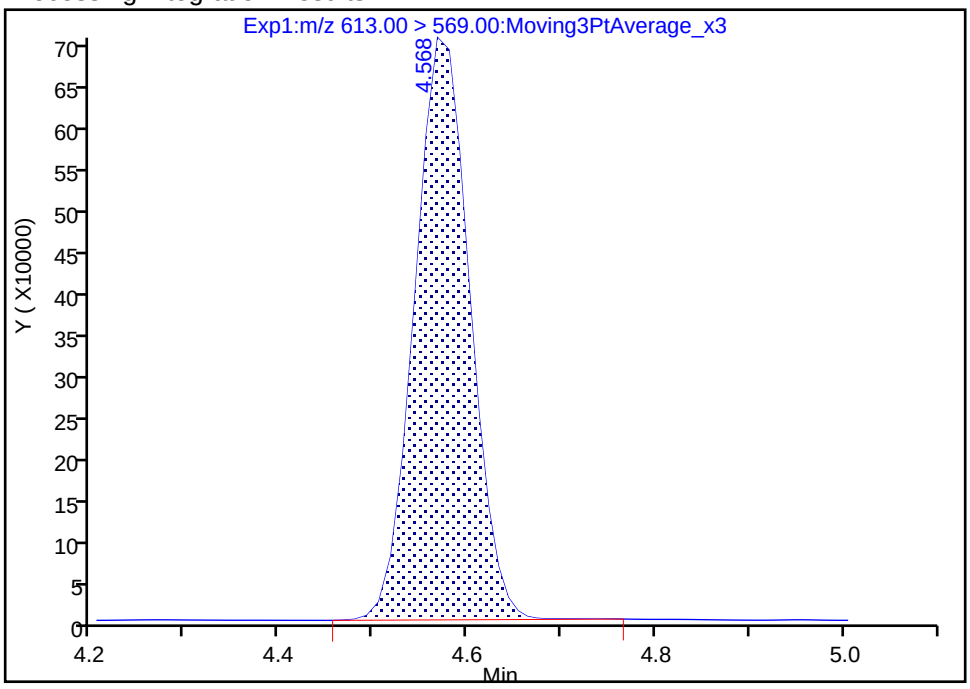
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

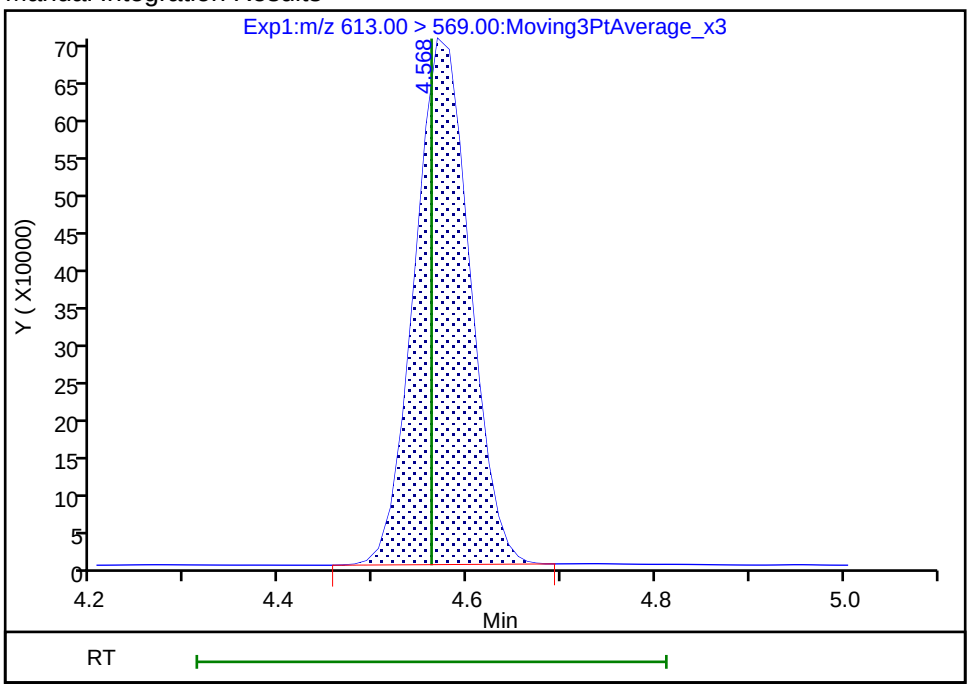
Processing Integration Results

RT: 4.57
Area: 2879196
Amount: 2.389952
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 2872527
Amount: 2.384417
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

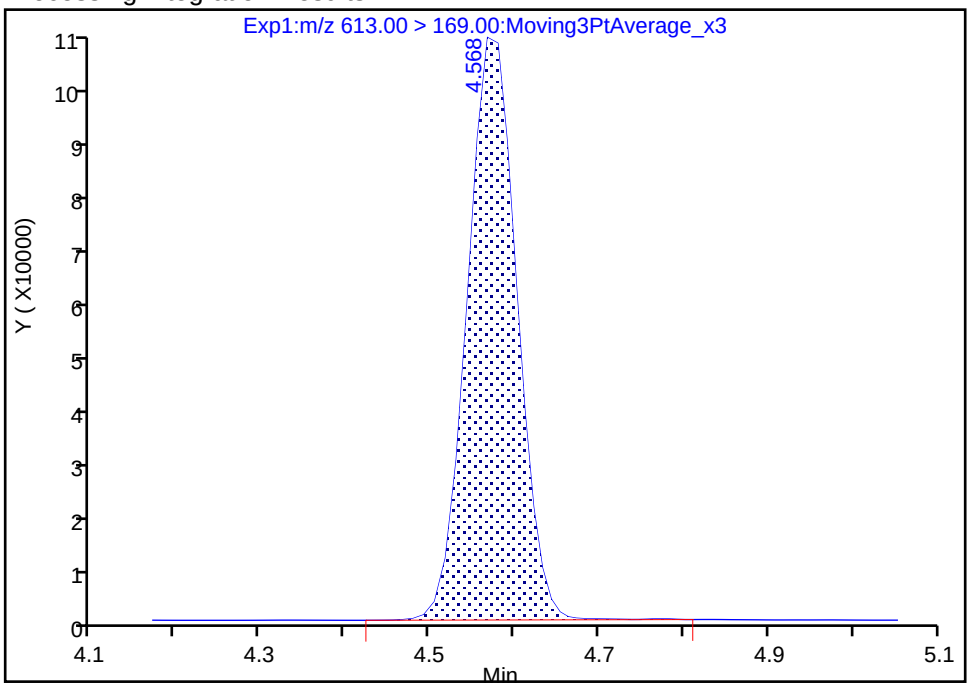
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

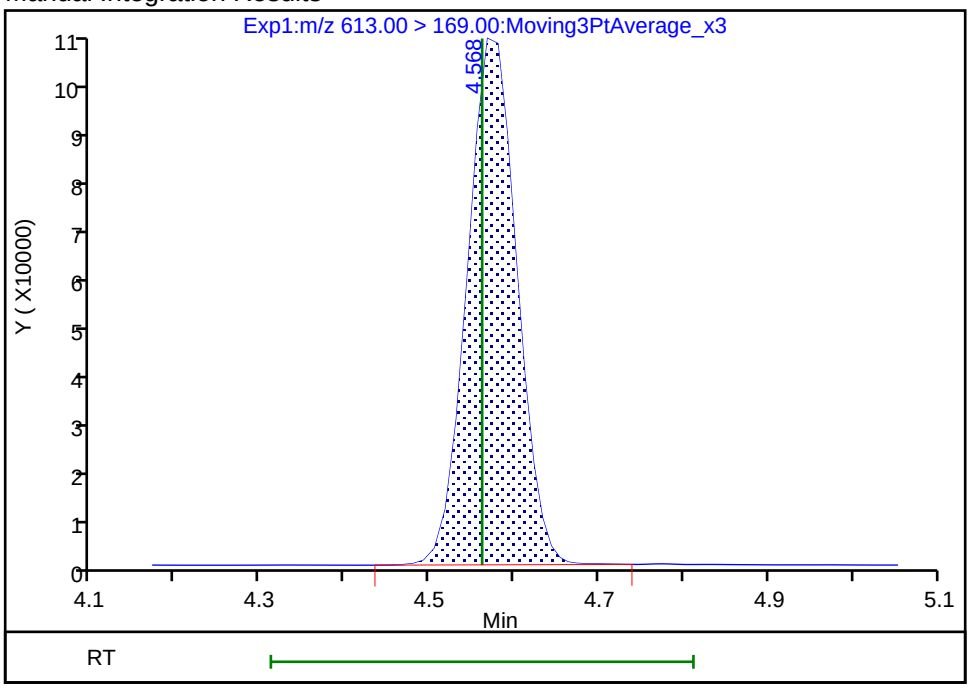
Processing Integration Results

RT: 4.57
Area: 439177
Amount: 2.389952
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 438456
Amount: 2.384417
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

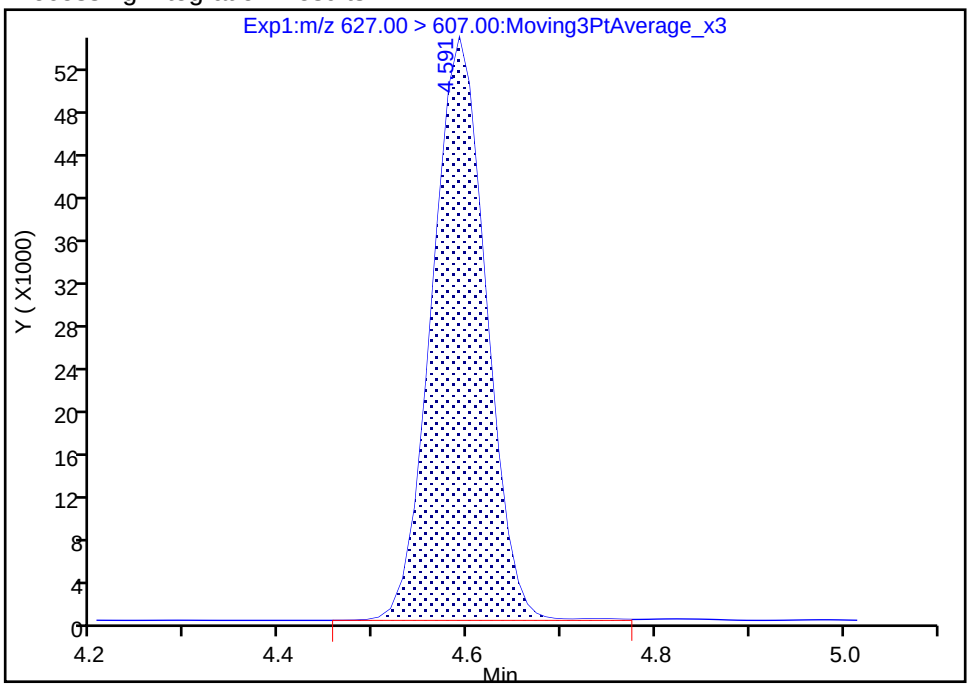
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

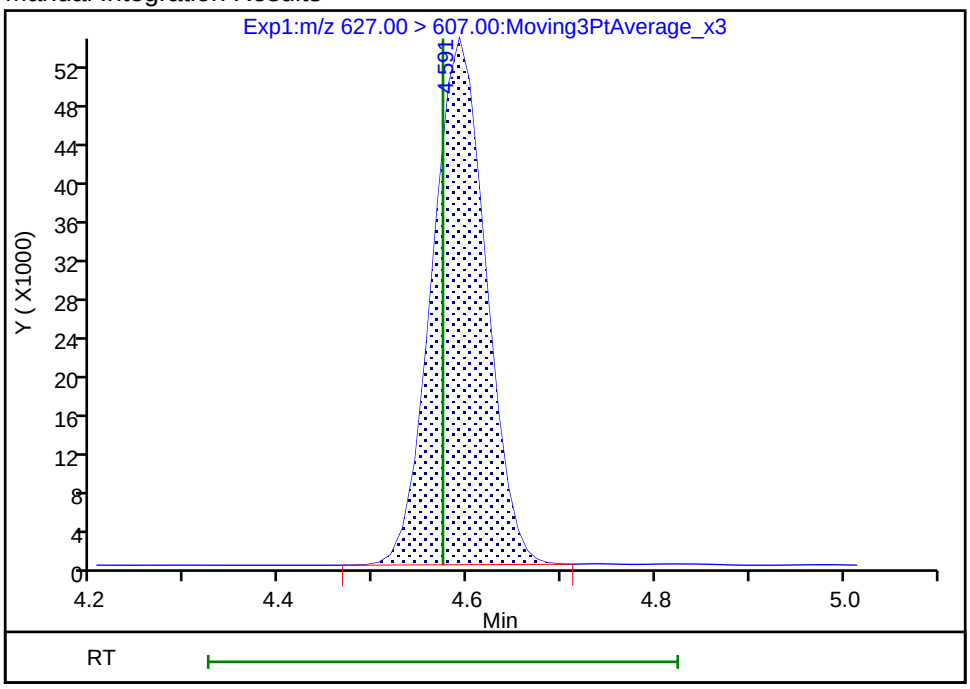
Processing Integration Results

RT: 4.59
Area: 217688
Amount: 2.260450
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 216433
Amount: 2.247418
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

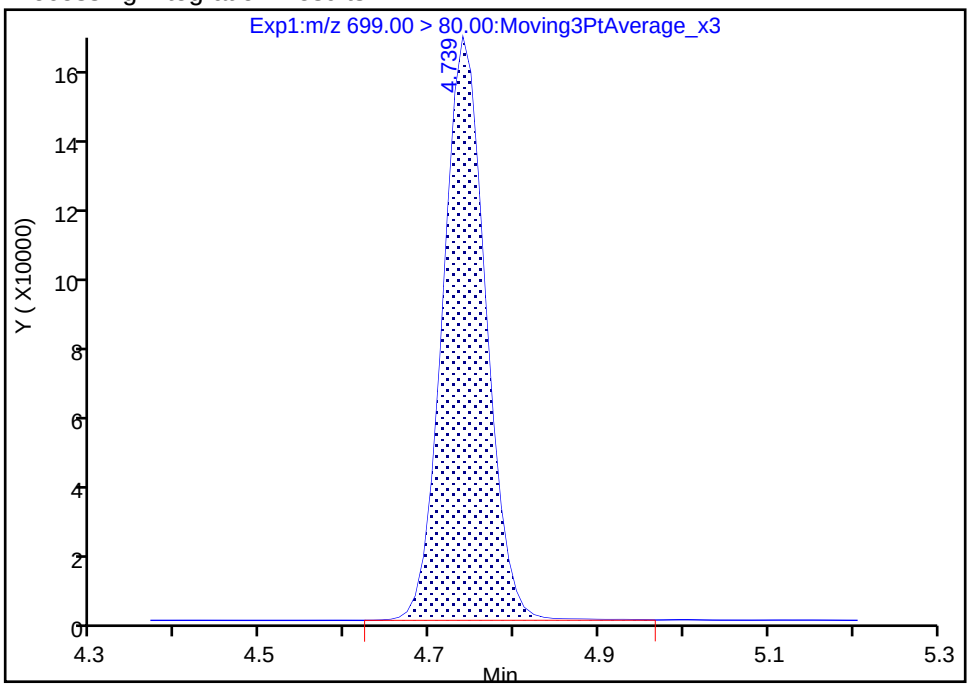
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

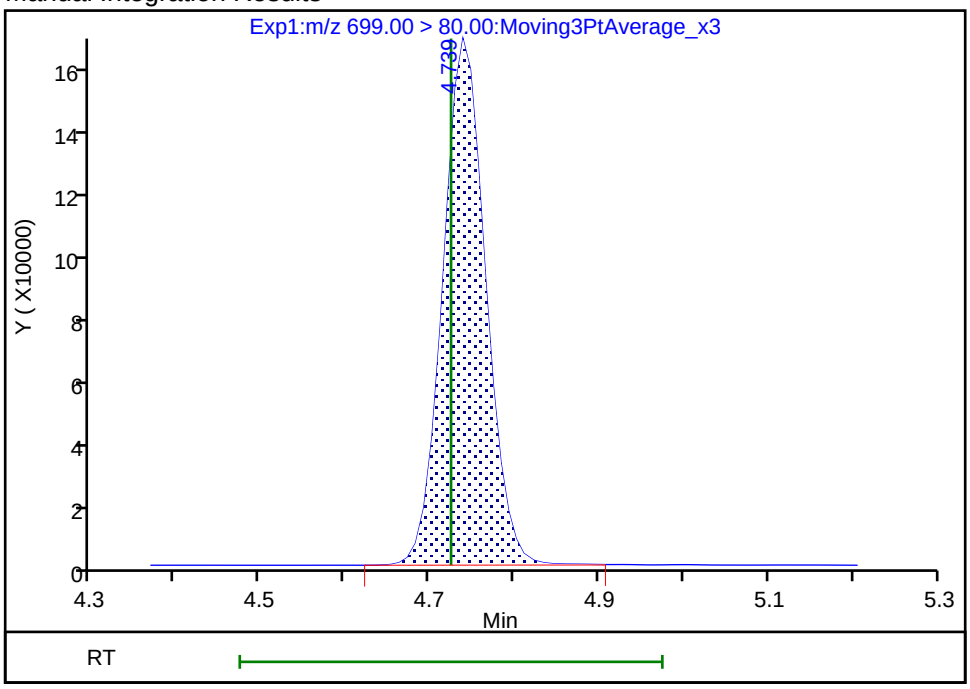
Processing Integration Results

RT: 4.74
Area: 564345
Amount: 2.693313
Amount Units: ng/ml




Manual Integration Results

RT: 4.74
Area: 563478
Amount: 2.702896
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

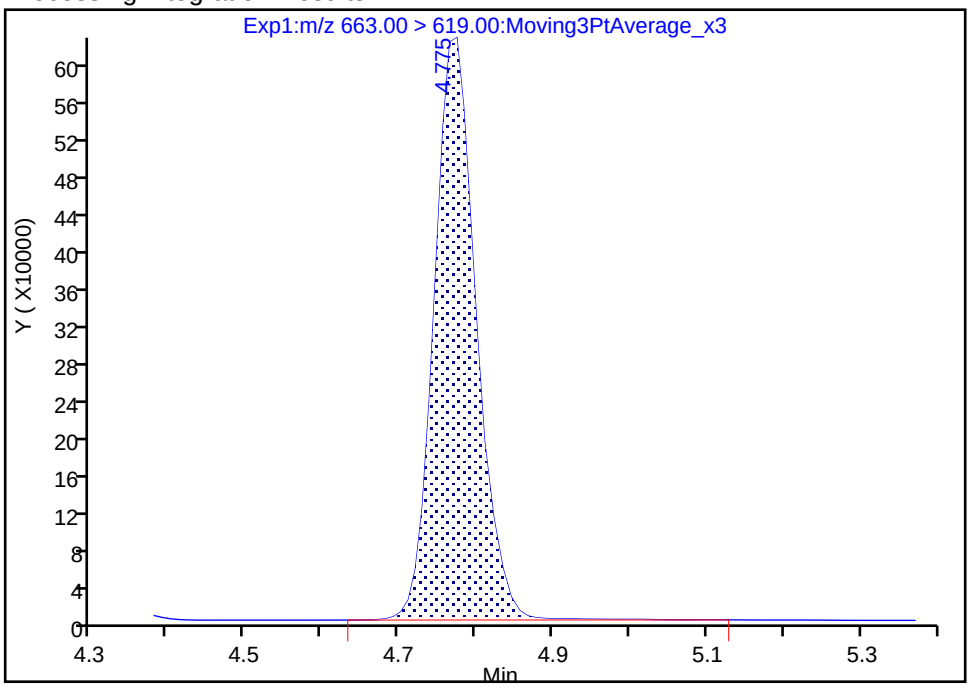
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

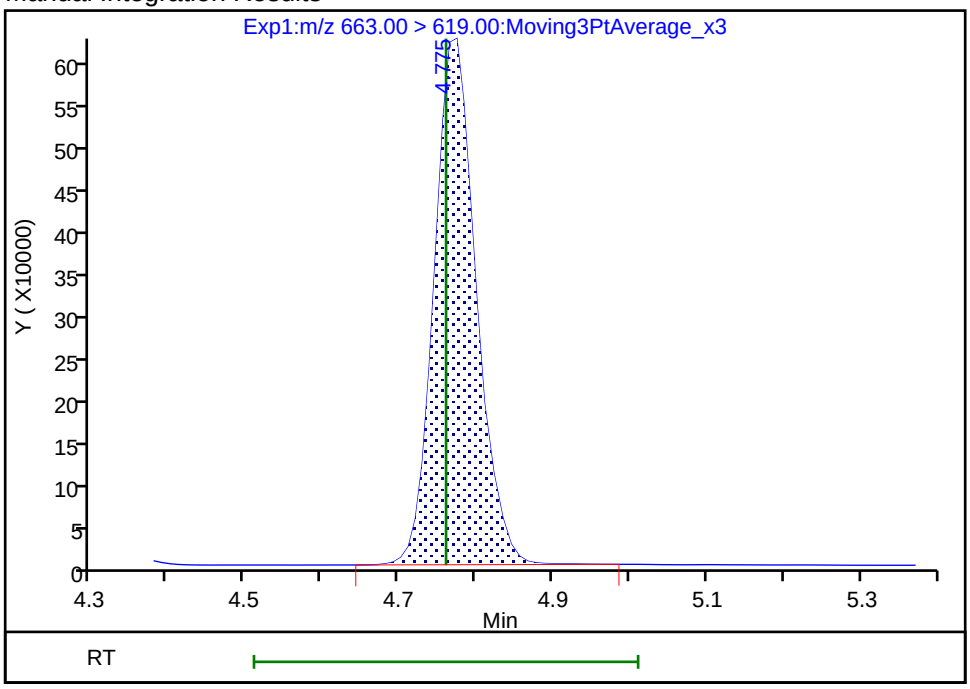
Processing Integration Results

RT: 4.77
Area: 2384826
Amount: 2.296082
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 2376463
Amount: 2.288030
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

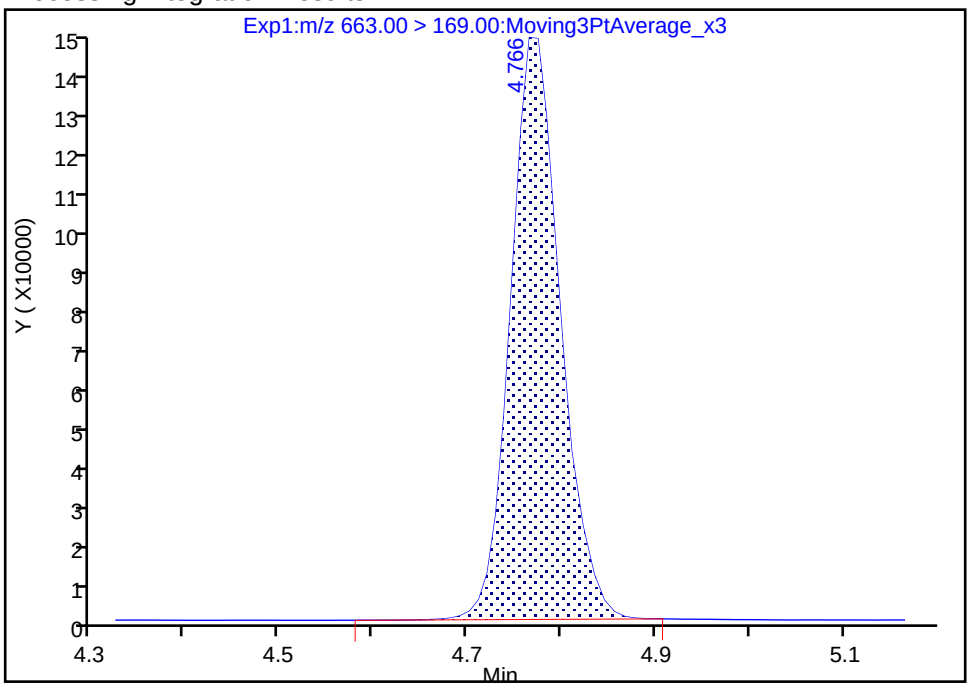
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d | | | | |
| Injection Date: | 03-Nov-2021 15:05:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

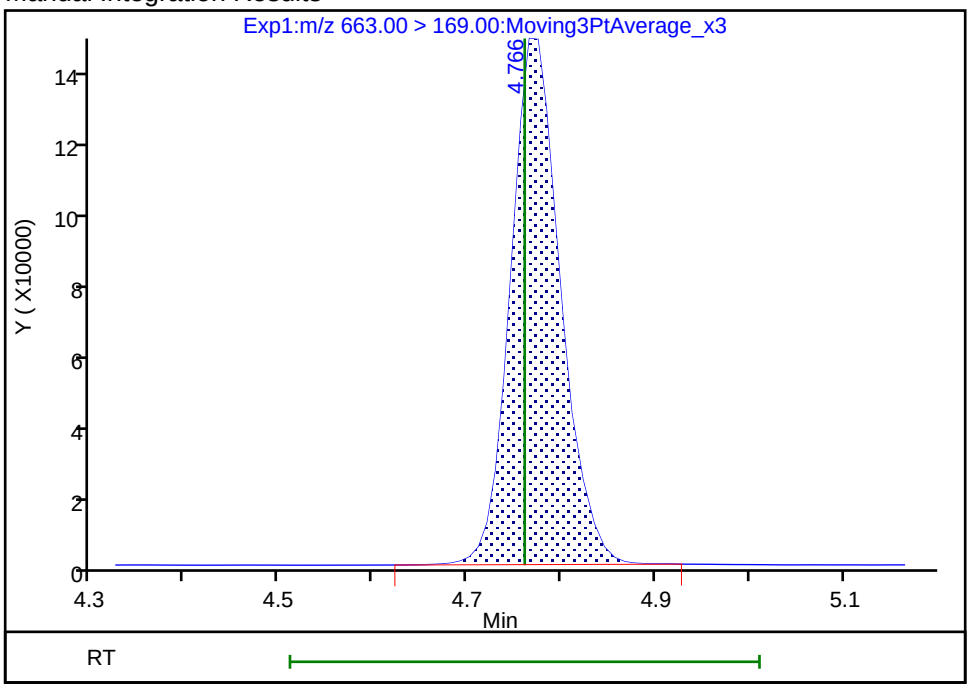
Processing Integration Results

RT: 4.77
Area: 550693
Amount: 2.296082
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 551551
Amount: 2.288030
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:50:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

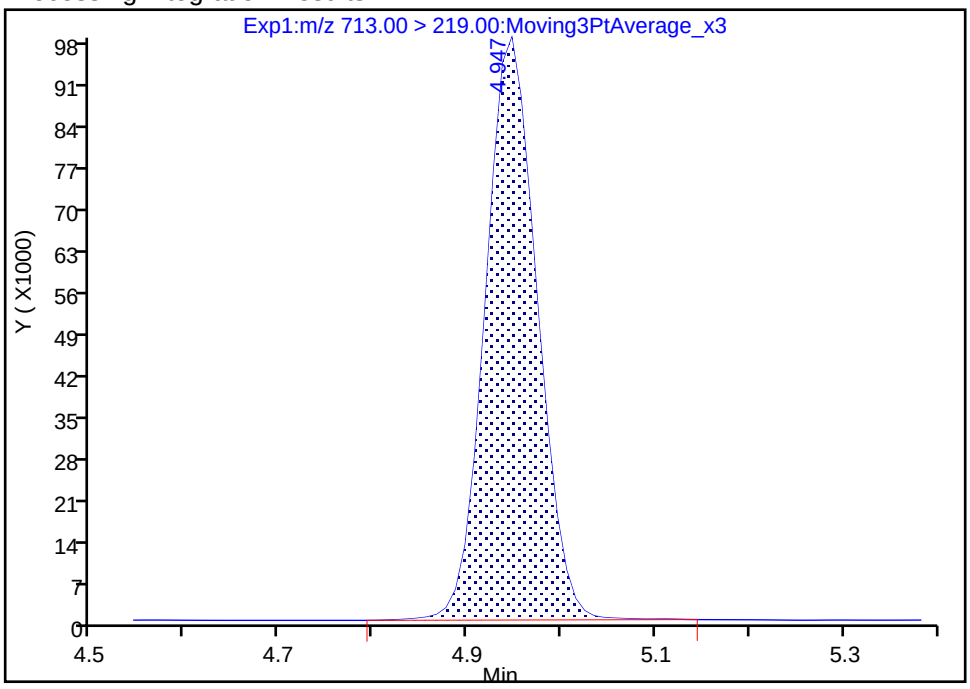
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

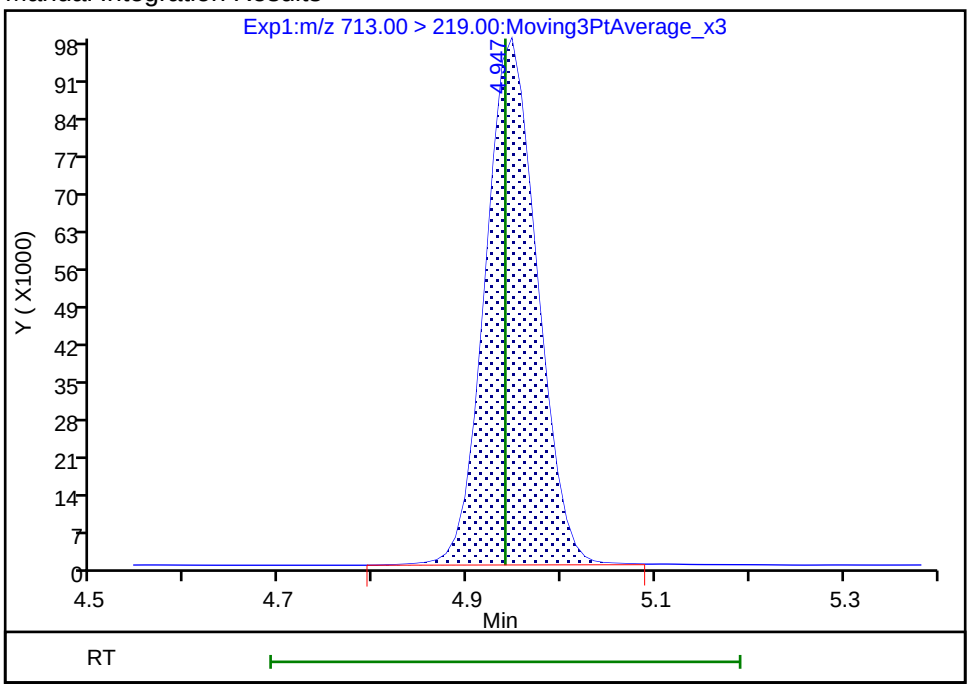
Processing Integration Results

RT: 4.95
Area: 375927
Amount: 2.384905
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 375782
Amount: 2.384905
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:51:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

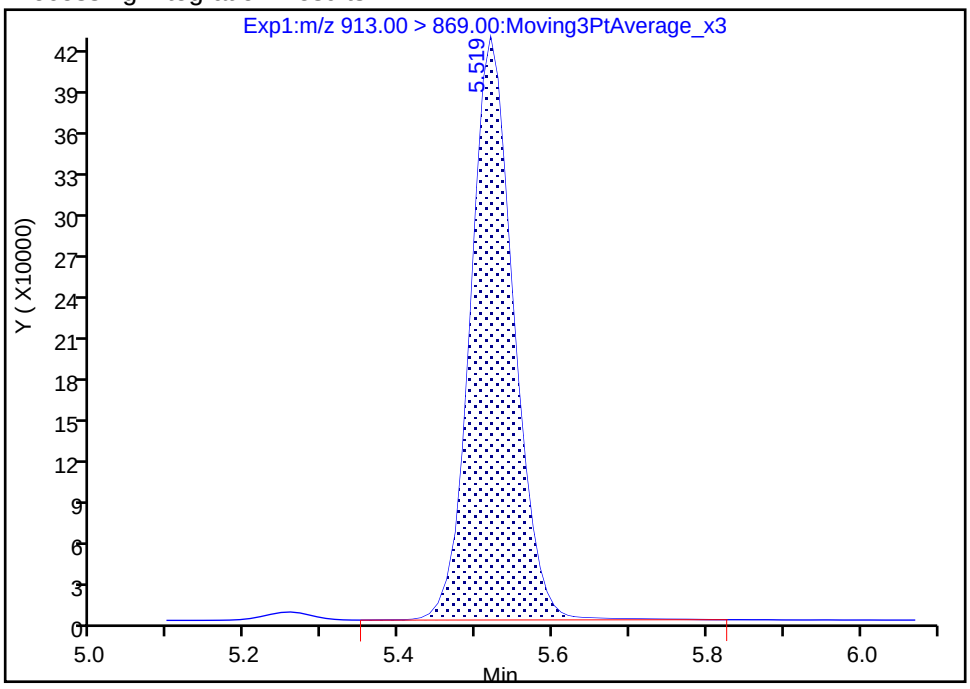
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A18.d
Injection Date: 03-Nov-2021 15:05:20 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

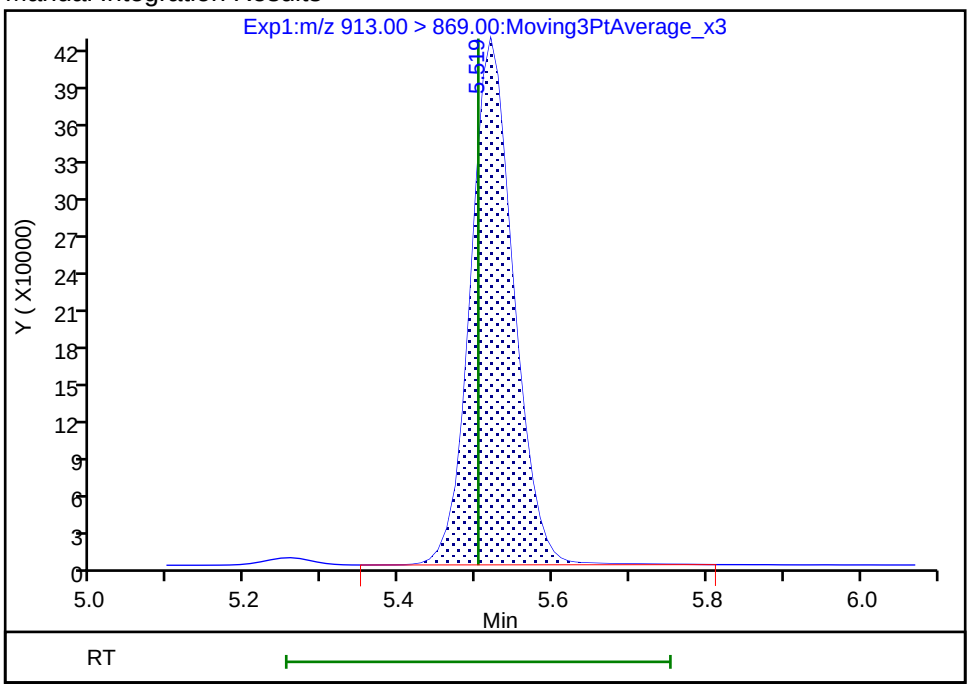
Processing Integration Results

RT: 5.52
Area: 1639964
Amount: 2.375437
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 1639187
Amount: 2.374312
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:51:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173453/25  Calibration Date: 11/03/2021 16:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A25.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8930 | | 0.944 | 1.00 | -5.6 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9924 | | 0.991 | 1.00 | -0.9 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.035 | | 0.857 | 0.884 | -3.1 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.325 | | 1.02 | 0.934 | 9.2 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9364 | | 0.923 | 1.00 | -7.7 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.175 | | 0.915 | 0.938 | -2.4 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.985 | | 1.32 | 1.00 | 32.3 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.004 | | 0.972 | 1.00 | -2.8 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 0.9857 | | 0.816 | 0.910 | -10.3 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.492 | | 0.940 | 0.942 | -0.2 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.279 | | 0.956 | 0.948 | 0.9 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.195 | | 0.912 | 0.952 | -4.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.004 | | 0.944 | 1.00 | -5.6 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.078 | | 0.922 | 0.928 | -0.6 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.003 | | 1.03 | 1.00 | 2.5 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.583 | | 0.903 | 0.932 | -3.1 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8661 | | 0.984 | 0.960 | 2.5 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.8163 | | 0.935 | 0.958 | -2.4 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9574 | | 0.953 | 1.00 | -4.7 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9476 | | 0.998 | 1.00 | -0.2 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8282 | | 1.05 | 1.00 | 5.4 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6671 | | 0.979 | 0.964 | 1.5 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.008 | | 0.946 | 1.00 | -5.4 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8034 | | 0.938 | 1.00 | -6.2 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.998 | | 0.975 | 0.942 | 3.5 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9596 | | 0.980 | 1.00 | -2.0 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3596 | | 0.897 | 0.964 | -7.0 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2879 | | 1.15 | 0.968 | 19.1 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173453/25  Calibration Date: 11/03/2021 16:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A25.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9406 | | 1.11 | 1.00 | 11.4 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1541 | | 0.976 | 1.00 | -2.4 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8889 | | 1.02 | 1.00 | 2.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.8653 | | 1.03 | 1.00 | 2.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.101 | | 1.36 | 1.25 | 8.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9599 | | 1.41 | 1.25 | 12.6 | |
| 13C3 PFBS | Ave | 1.154 | 1.247 | | 1.26 | 1.16 | 8.1 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0934 | | 1.24 | 1.17 | 6.3 | |
| 13C2 PFHxA | Ave | 0.8946 | 1.031 | | 1.44 | 1.25 | 15.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0209 | | 1.11 | 1.25 | -11.2 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.005 | | 1.33 | 1.25 | 6.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9160 | | 1.29 | 1.18 | 9.3 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1477 | | 1.33 | 1.19 | 11.7 | |
| 13C4 PFOA | Ave | 1.029 | 1.089 | | 1.32 | 1.25 | 5.8 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6609 | | 1.30 | 1.20 | 9.1 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.105 | | 1.35 | 1.25 | 7.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.209 | | 1.46 | 1.25 | 16.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1972 | | 1.58 | 1.20 | 31.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.089 | | 1.36 | 1.25 | 9.1 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1289 | | 1.58 | 1.25 | 26.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.9423 | | 1.46 | 1.25 | 16.9 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1271 | | 1.67 | 1.25 | 33.4 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.9124 | | 1.32 | 1.25 | 5.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6522 | | 1.21 | 1.25 | -3.0 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.6069 | | 1.28 | 1.25 | 2.5 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 03-Nov-2021 16:03:18 ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0048270-025 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:15:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 07:56:35
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.071 | 2.065 | 0.006 | 0.598 | 1762383 | 1.36 | | 109 | 8035 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.071 | 2.065 | 0.006 | 1.000 | 1259052 | 0.9444 | | 94.4 | 150 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.688 | 1535968 | 1.41 | | 113 | 3096 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 1219435 | 0.99 | | 99.1 | 59.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.411 | 2.401 | 0.010 | 0.696 | 1855922 | 1.26 | | 108 | 74589 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.411 | 2.401 | 0.010 | 1.000 | 1460506 | 0.8565 | Target=2.32 | 96.9 | 426 | M |
| 298.90 > 99.00 | 2.411 | 2.401 | 0.010 | 1.000 | 692799 | | 2.11(1.16-3.48) | | 239 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.707 | 2.698 | 0.009 | 0.781 | 139644 | 1.24 | | 106 | 75.8 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.707 | 2.698 | 0.009 | 1.000 | 259723 | 1.02 | | 109 | 280 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.744 | 2.735 | 0.009 | 1.000 | 1236066 | 0.9233 | Target=12.09 | 92.3 | 160 | |
| 313.00 > 119.00 | 2.744 | 2.735 | 0.009 | 1.000 | 104042 | | 11.88(6.04-18.13) | | 128 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.744 | 2.735 | 0.009 | 0.792 | 1649956 | 1.44 | | 115 | 1563 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.756 | 2.735 | 0.021 | 0.886 | 1292567 | 0.9154 | Target=3.03 | 97.6 | 313 | |
| 349.00 > 99.00 | 2.744 | 2.735 | 0.009 | 0.882 | 408067 | | 3.17(1.52-4.55) | | 243 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.853 | 2.844 | 0.009 | 0.823 | 33473 | 1.11 | | 88.8 | 164 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.853 | 2.844 | 0.009 | 1.000 | 160268 | 1.32 | | 132 | 43.9 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1386563 | 1.29 | | 109 | 296 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1051735 | 0.8158 | Target=3.55 | 89.7 | 222 | |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 306950 | | 3.43(1.77-5.32) | | 160 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1292339 | 0.9720 | Target=3.69 | 97.2 | 232 | |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 333191 | | 3.88(1.84-5.53) | | 279 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1608484 | 1.33 | | 107 | 1815 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.154 | 3.144 | 0.010 | 0.835 | 2783247 | 0.9399 | Target=2.56 | 99.8 | 428 | |
| 377.00 > 85.00 | 3.154 | 3.144 | 0.010 | 0.835 | 1097891 | | 2.54(1.28-3.84) | | 347 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.456 | 3.448 | 0.008 | 1.000 | 229259 | 0.9563 | | 101 | 115 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.456 | 3.448 | 0.008 | 0.915 | 962382 | 0.9125 | Target=4.88 | 95.8 | 317 | |
| 449.00 > 99.00 | 3.456 | 3.448 | 0.008 | 0.915 | 201806 | | 4.77(2.44-7.32) | | 253 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 224490 | 1.33 | | 112 | 413 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1742590 | 1.32 | | 106 | 1177 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1600189 | 1.25 | | | 274 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1399568 | 0.9441 | Target=2.68 | 94.4 | 145 | |
| 413.00 > 169.00 | 3.465 | 3.457 | 0.008 | 1.000 | 534743 | | 2.62(1.34-4.02) | | 260 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 1011031 | 1.30 | | 109 | 413 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.000 | 846658 | 0.9223 | Target=4.69 | 99.4 | 214 | M |
| 499.00 > 99.00 | 3.775 | 3.767 | 0.008 | 1.000 | 164257 | | 5.15(2.35-7.04) | | 187 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.095 | 1768095 | 1.35 | | 108 | 2047 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.794 | 3.786 | 0.008 | 1.000 | 1419063 | 1.03 | Target=7.29 | 103 | 193 | |
| 463.00 > 169.00 | 3.794 | 3.786 | 0.008 | 1.000 | 181597 | | 7.81(3.64-10.93) | | 255 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.932 | 3.922 | 0.010 | 1.041 | 1248559 | 0.9028 | | 96.9 | 324 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.060 | 4.052 | 0.008 | 1.075 | 703432 | 0.9837 | Target=2.35 | 102 | 391 | |
| 549.00 > 99.00 | 4.060 | 4.052 | 0.008 | 1.075 | 273231 | | 2.57(1.17-3.52) | | 308 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1935154 | 1.46 | | 117 | 110 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.000 | 1482221 | 0.9528 | Target=8.95 | 95.3 | 249 | |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.000 | 162867 | | 9.10(4.47-13.42) | | 264 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 302340 | 1.58 | | 132 | 186 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 197451 | 0.9349 | | 97.6 | 219 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1742273 | 1.36 | | 109 | 657 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 1320826 | 1.00 | | 99.8 | 958 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 206193 | 1.58 | | 127 | 170 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 136617 | 1.05 | | 105 | 153 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.325 | 4.306 | 0.019 | 1.145 | 544091 | 0.9786 | Target=2.47 | 102 | 904 | M |
| 599.00 > 99.00 | 4.325 | 4.306 | 0.019 | 1.145 | 205473 | | 2.65(1.23-3.70) | | 792 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1507811 | 1.46 | | 117 | 928 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.339 | 0.008 | 1.000 | 1216304 | 0.9459 | Target=9.24 | 94.6 | 485 | |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 141053 | | 8.62(4.62-13.86) | | 503 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 203452 | 1.67 | | 133 | 836 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 130759 | 0.9376 | | 93.8 | 343 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.435 | 4.428 | 0.006 | 1.175 | 1592117 | 0.9748 | | 103 | 1349 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1459980 | 1.32 | | 105 | 383 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 1120852 | 0.9802 | Target=7.04 | 98.0 | 172 | |
| 613.00 > 169.00 | 4.580 | 4.562 | 0.018 | 1.003 | 176106 | | 6.36(3.52-10.56) | | 708 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.590 | 4.574 | 0.016 | 1.122 | 87518 | 0.8969 | | 93.0 | 681 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.738 | 4.725 | 0.013 | 1.255 | 235778 | 1.15 | Target=0.49 | 119 | 2412 | M |
| 699.00 > 99.00 | 4.738 | 4.725 | 0.013 | 1.255 | 407470 | | 0.58(0.25-0.74) | | 1947 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.765 | 4.761 | 0.004 | 1.043 | 1098587 | 1.11 | Target=4.68 | 111 | 224 | M |
| 663.00 > 169.00 | 4.765 | 4.761 | 0.004 | 1.043 | 236603 | | 4.64(2.34-7.02) | | 1659 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.427 | 1043615 | 1.21 | | 97.0 | 1205 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.946 | 4.940 | 0.006 | 1.000 | 128639 | 0.9763 | Target=1.01 | 97.6 | 1108 | |
| 713.00 > 219.00 | 4.946 | 4.940 | 0.006 | 1.000 | 139136 | | 0.92(0.51-1.52) | | 1680 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.257 | 5.248 | 0.009 | 1.517 | 971098 | 1.28 | | 102 | 2363 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.257 | 5.248 | 0.009 | 1.000 | 690542 | 1.02 | Target=4.57 | 102 | 172 | |
| 813.00 > 169.00 | 5.257 | 5.248 | 0.009 | 1.000 | 171952 | | 4.02(2.29-6.86) | | 1775 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.503 | 0.016 | 1.050 | 672241 | 1.03 | Target=4.27 | 103 | 345 | M |
| 913.00 > 169.00 | 5.519 | 5.503 | 0.016 | 1.050 | 152636 | | 4.40(2.14-6.41) | | 1490 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 04-Nov-2021 15:15:21 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d

Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812

Lims ID: CCV L4

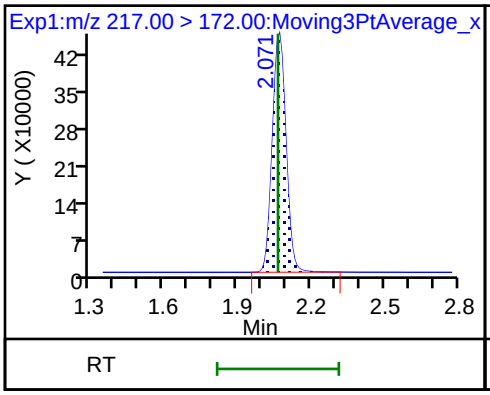
Client ID:

Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25

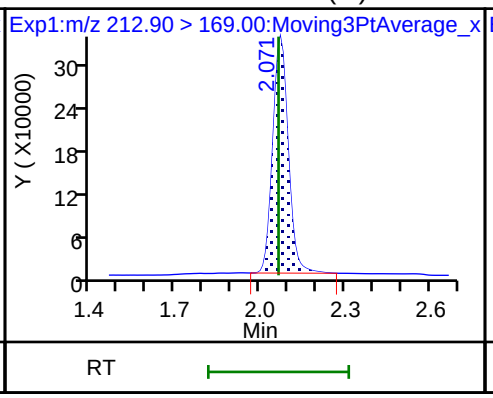
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

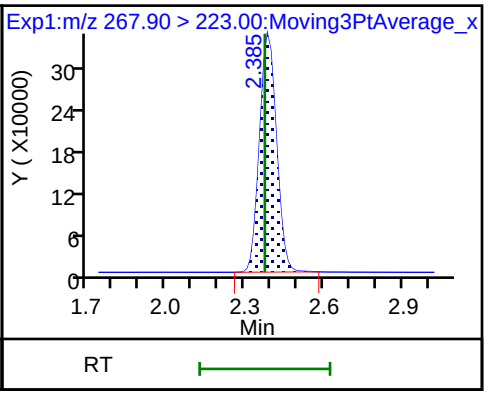
D 1 13C4 PFBA



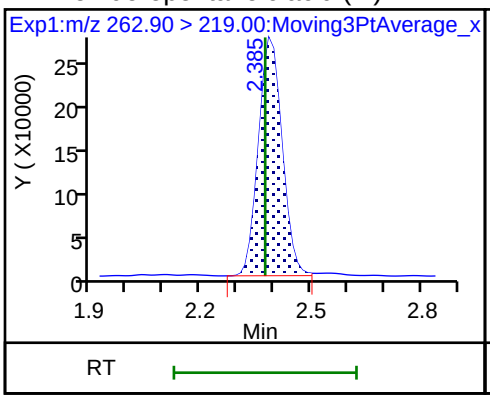

2 Perfluorobutanoic acid (M)



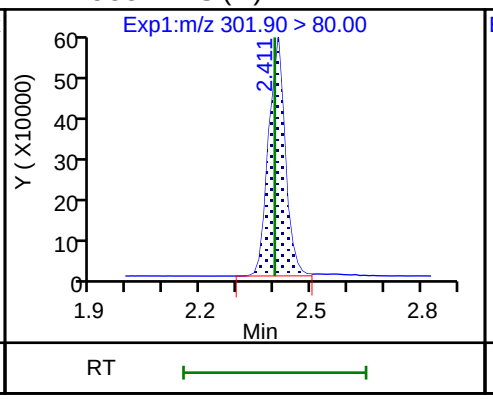

D 3 13C5 PFPeA



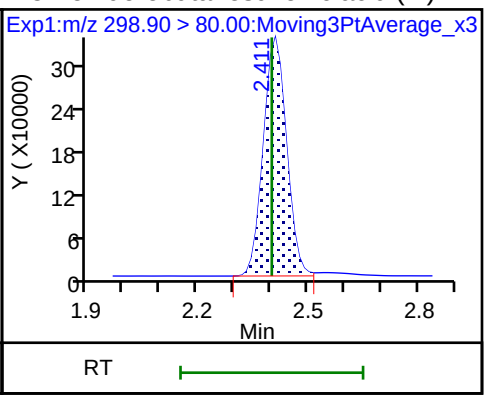

4 Perfluoropentanoic acid (M)




D 47 13C3 PFBS (M)




5 Perfluorobutanesulfonic acid (M)

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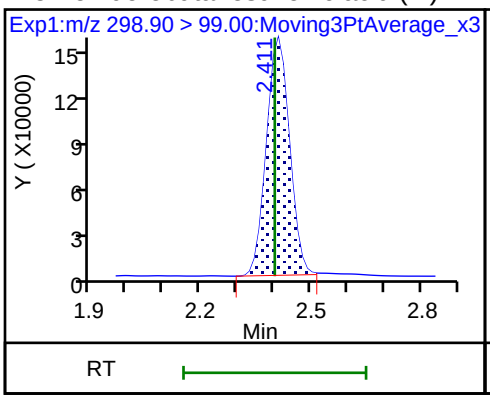
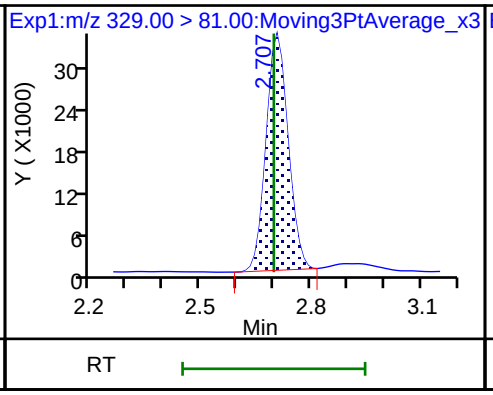
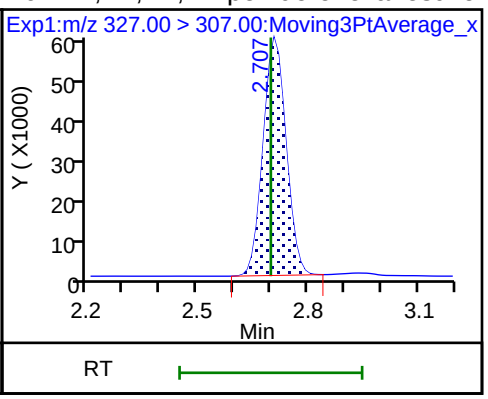


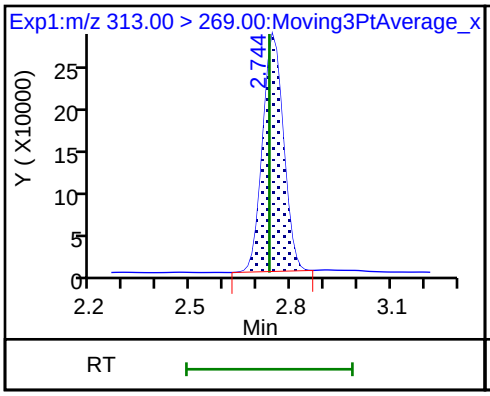

D 60 M2-4:2 FTS




61 1H,1H,2H,2H-perfluorohexanesulfo




6 Perfluorohexanoic acid

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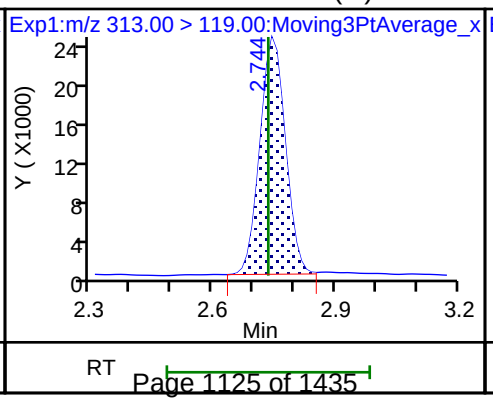
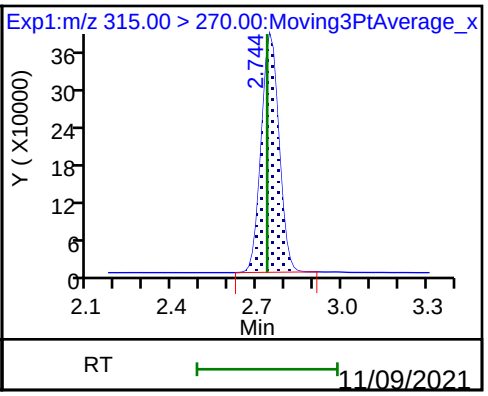
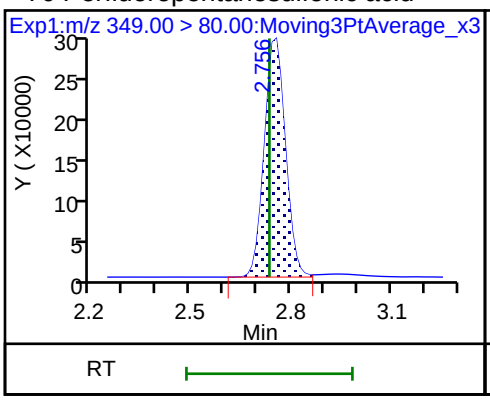



D 7 13C2 PFHxA



70 Perfluoropentanesulfonic acid

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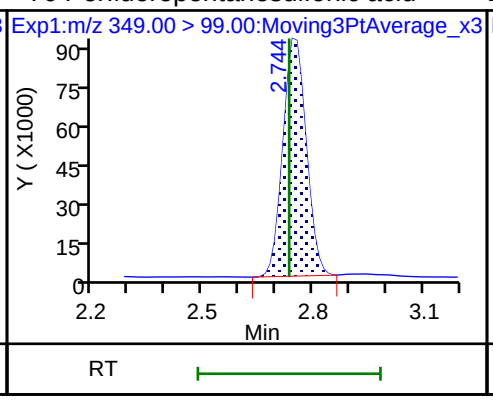
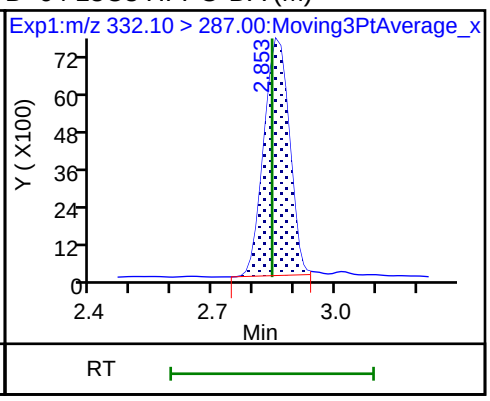
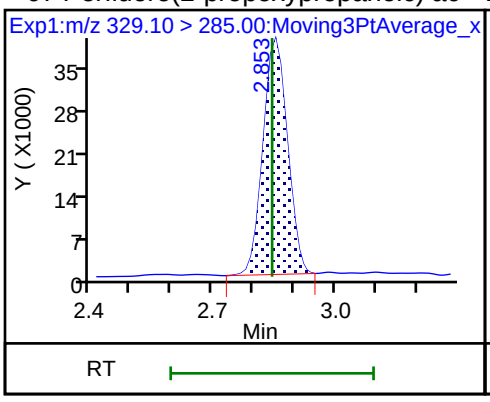


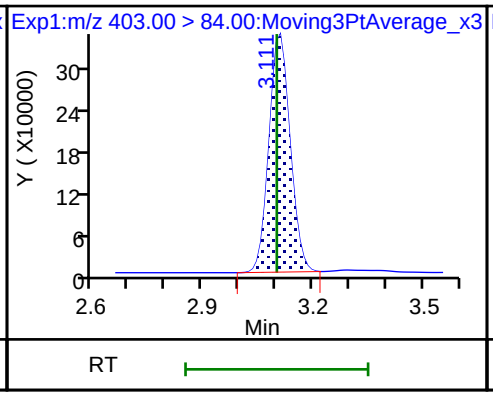

D 64 13C3 HFPO-DA (M)



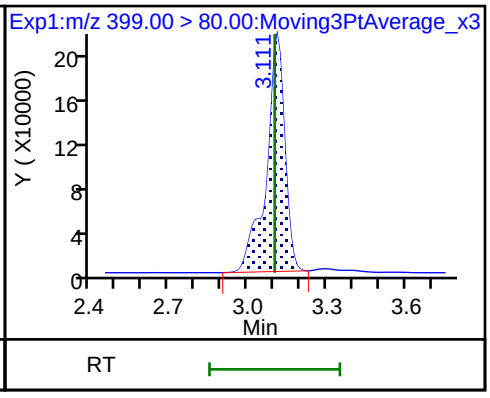

67 Perfluoro(2-propoxypropanoic) ac



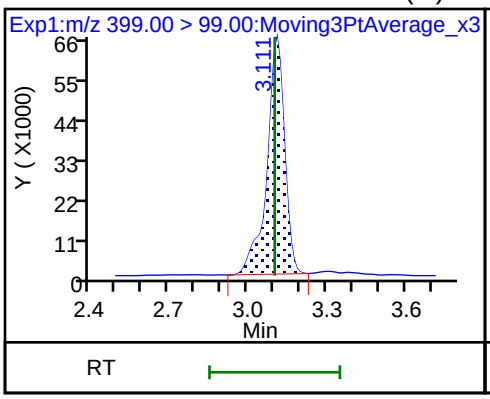

D 11 18O2 PFHxS



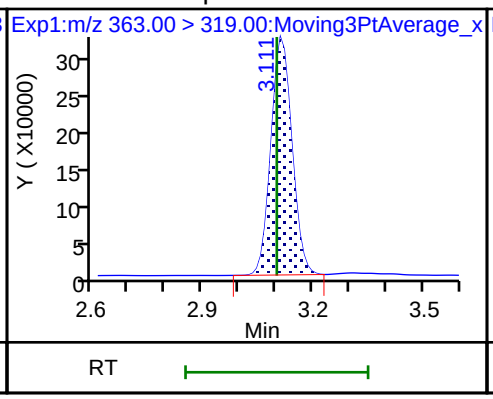

8 Perfluorohexanesulfonic acid



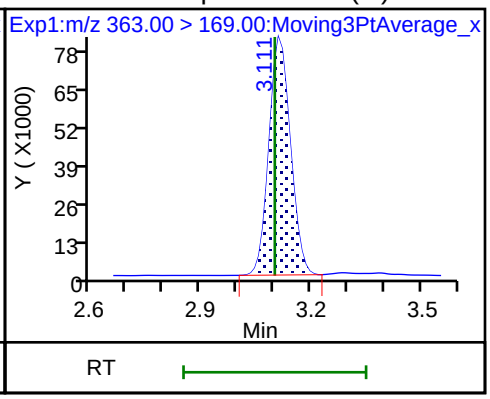

8 Perfluorohexanesulfonic acid (M)



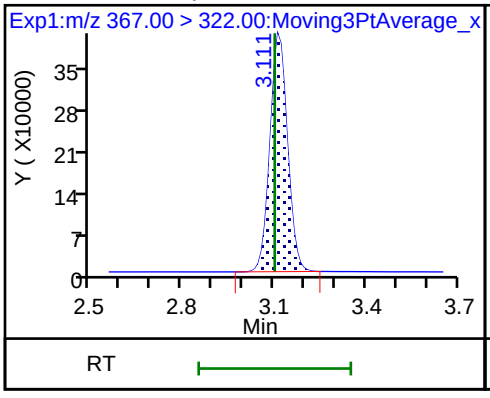

10 Perfluoroheptanoic acid



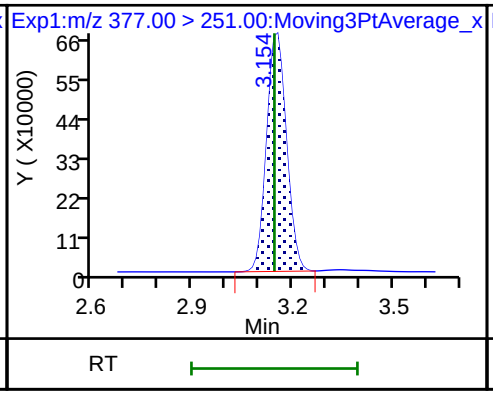

10 Perfluoroheptanoic acid (M)



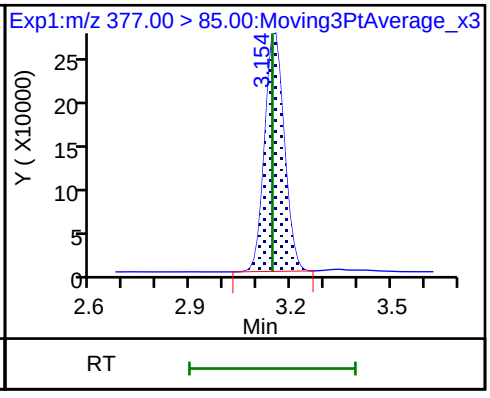

D 9 13C4 PFHpA



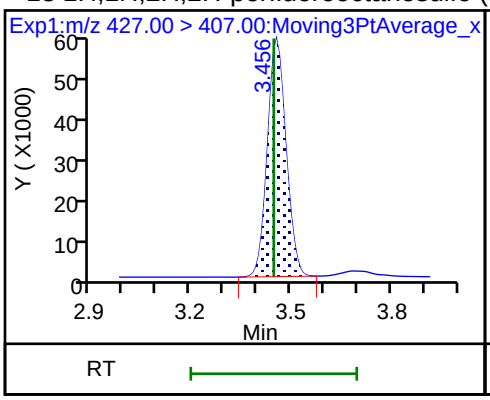

77 DONA



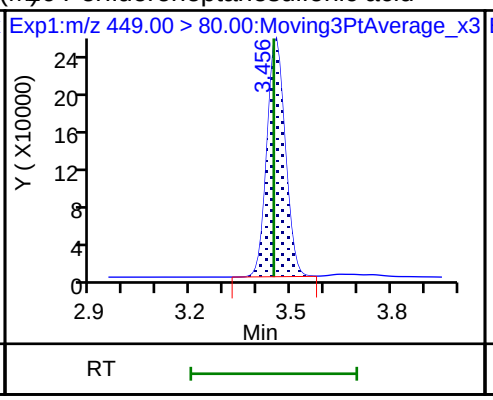

77 DONA



13 1H,1H,2H,2H-perfluorooctanesulfo (M)




16 Perfluoroheptanesulfonic acid

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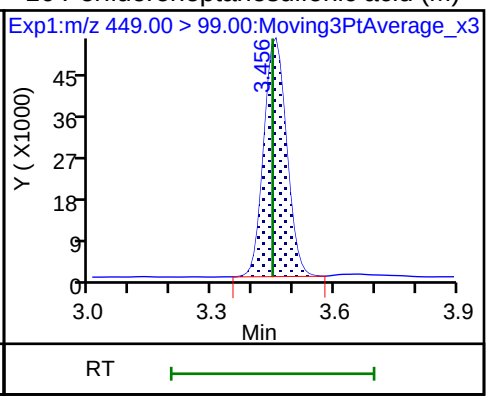
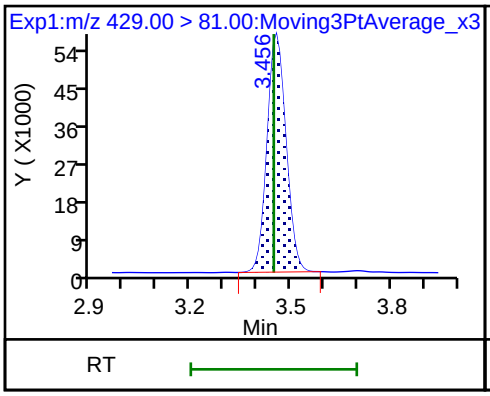
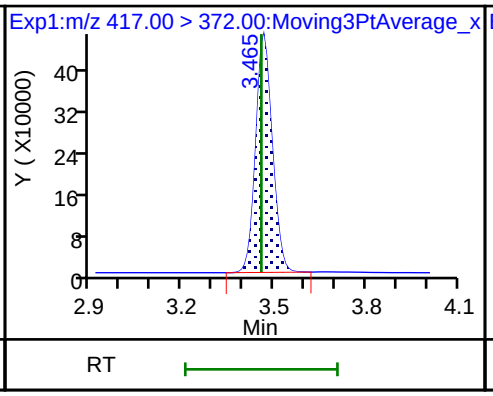


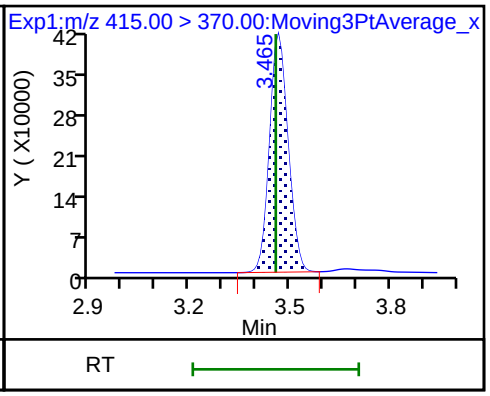

D 12 M2-6:2 FTS



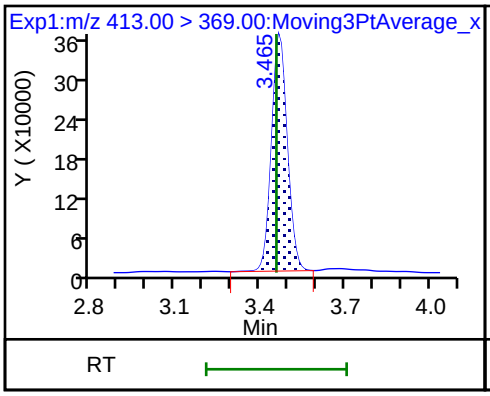

D 14 13C4 PFOA



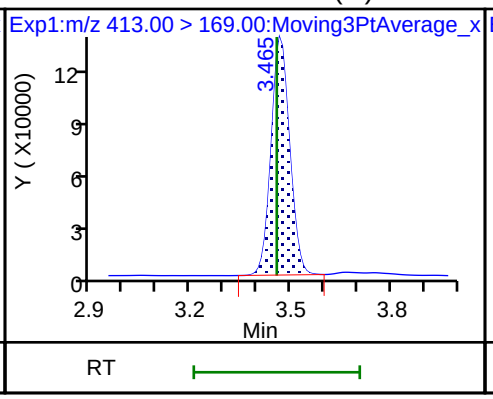

* 62 13C2 PFOA



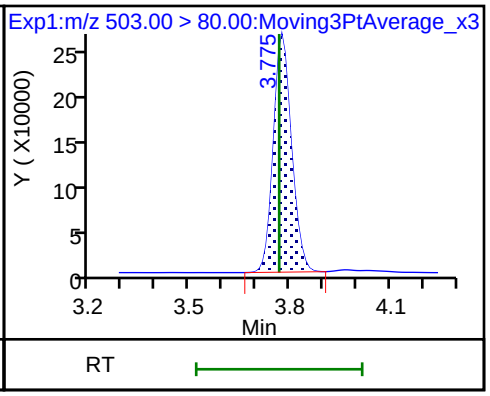

15 Perfluorooctanoic acid



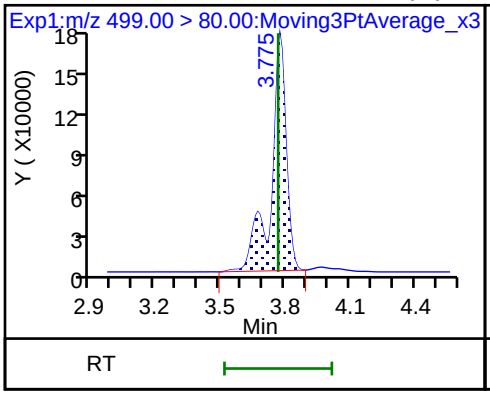

15 Perfluorooctanoic acid (M)



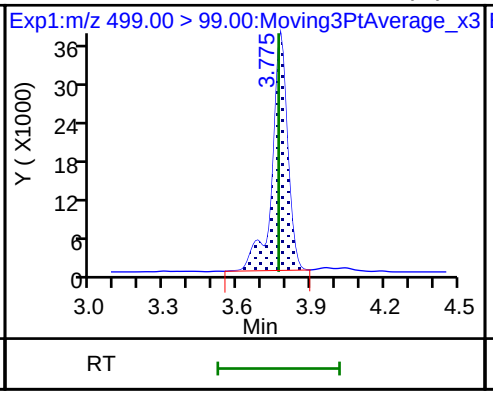

D 18 13C4 PFOS



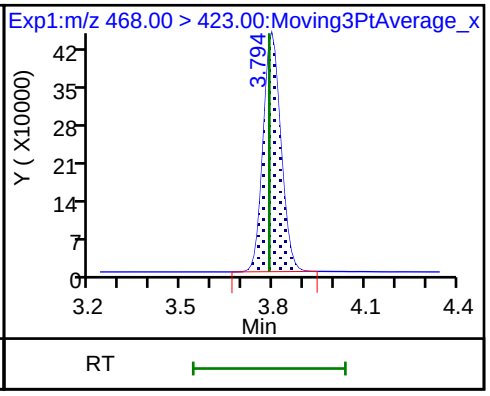

17 Perfluorooctanesulfonic acid (M)



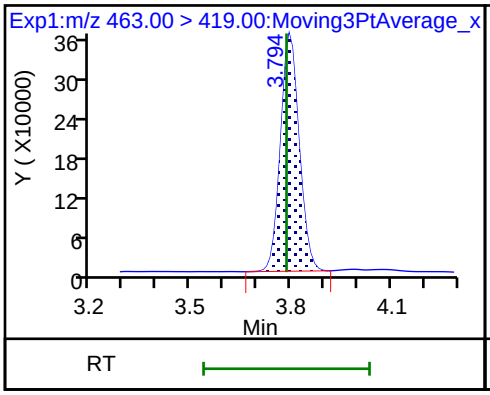

17 Perfluorooctanesulfonic acid (M)




D 19 13C5 PFNA



20 Perfluorononanoic acid

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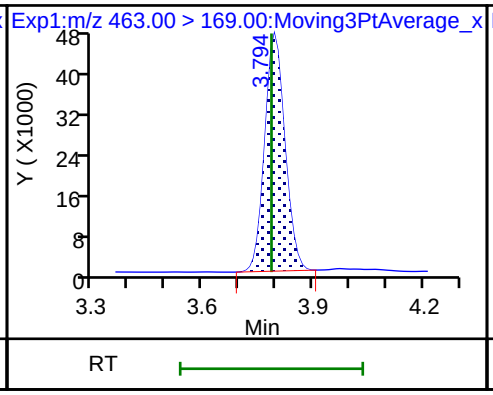
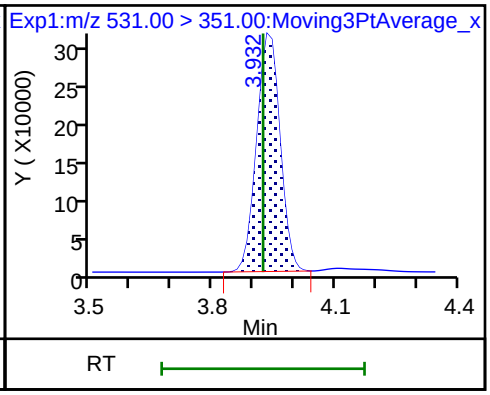
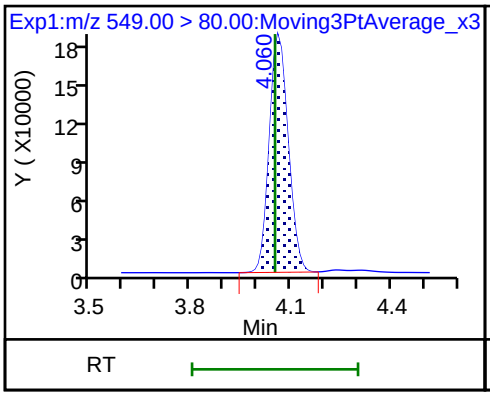


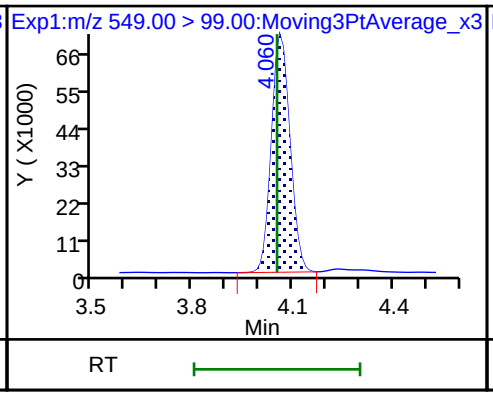

69 9-Chlorohexadecafluoro-3-oxanona (M)



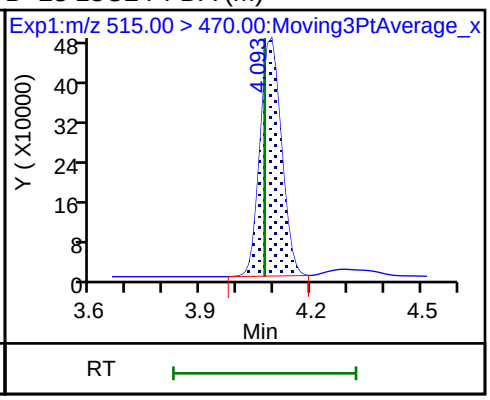

68 Perfluorononanesulfonic acid



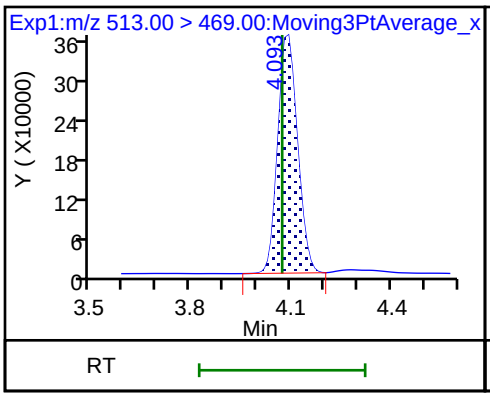

68 Perfluorononanesulfonic acid



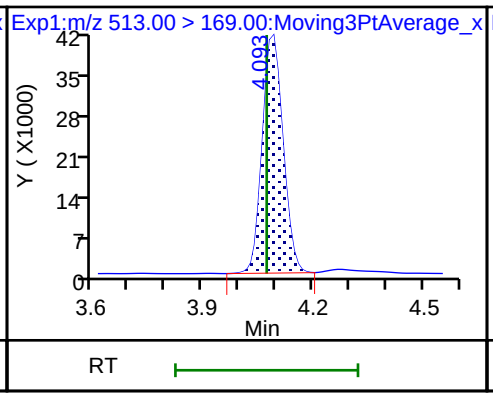

D 23 13C2 PFDA (M)



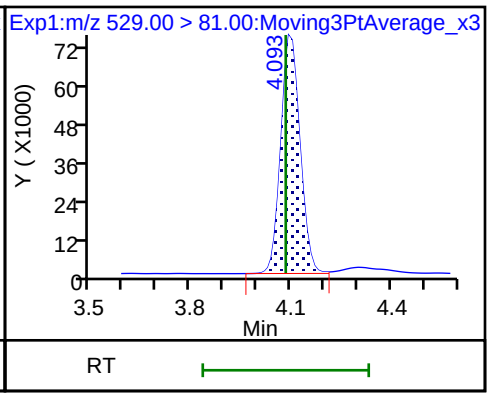

24 Perfluorodecanoic acid



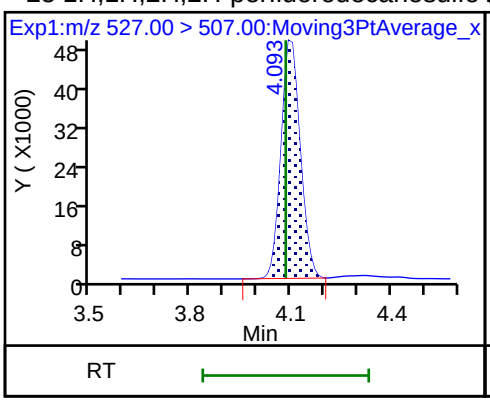

24 Perfluorodecanoic acid



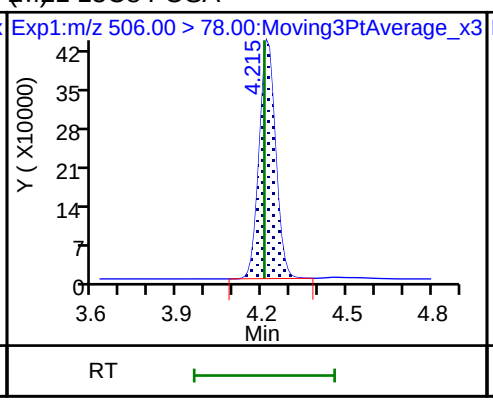

D 26 M2-8:2 FTS



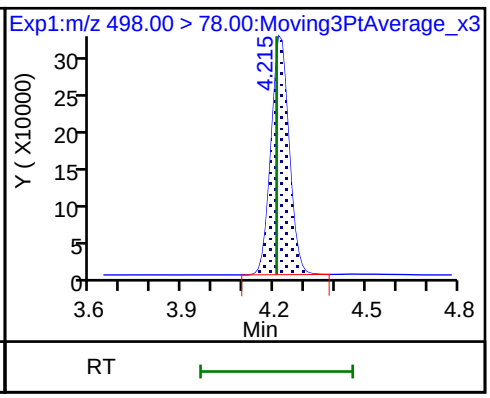

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



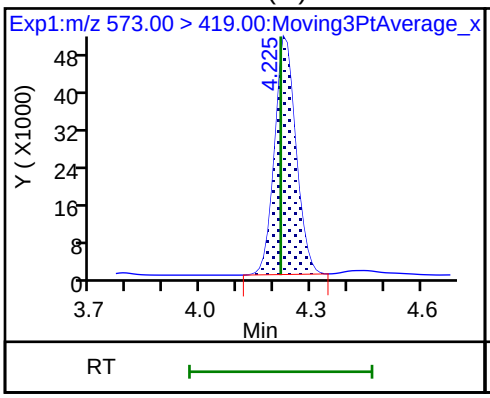

D 21 13C8 FOSA



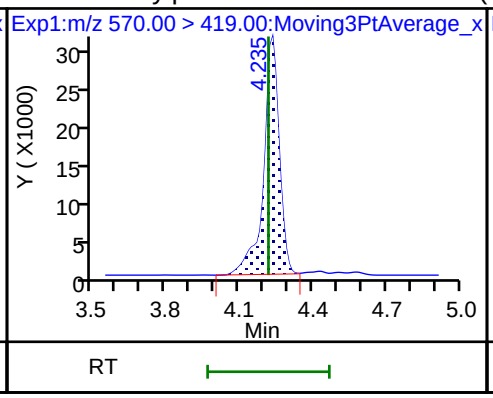

22 Perfluorooctanesulfonamide



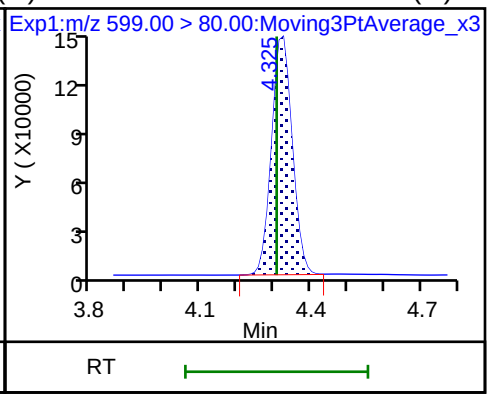
D 27 d3-NMeFOSAA (M)



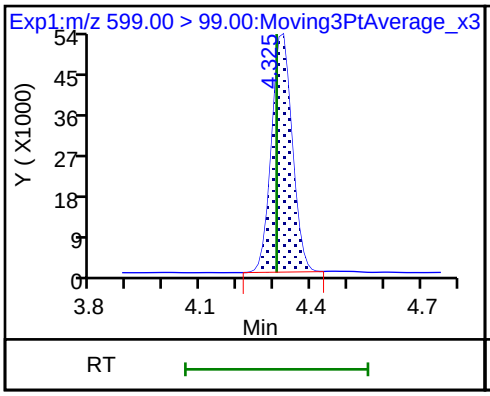

28 N-methylperfluorooctanesulfonami (M)



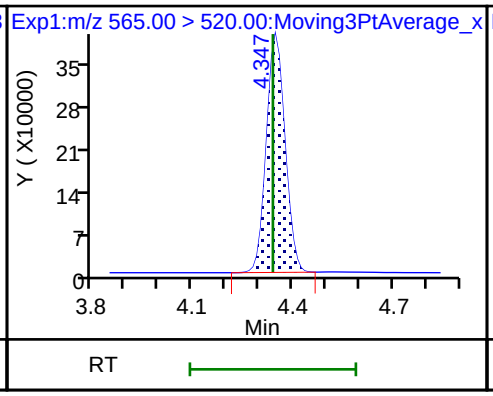

29 Perfluorodecanesulfonic acid (M)



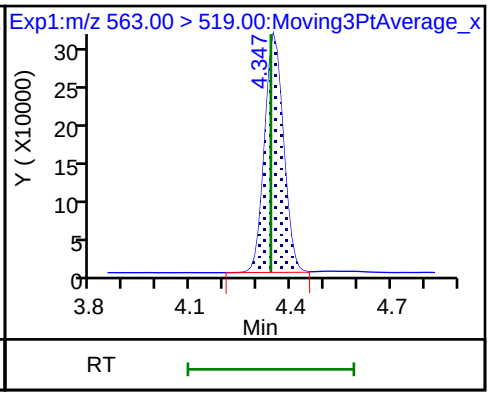

29 Perfluorodecanesulfonic acid



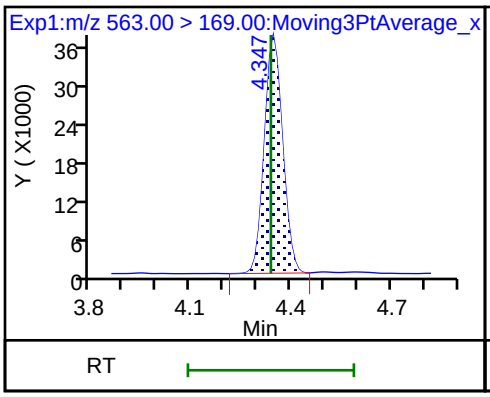

D 30 13C2 PFUnA



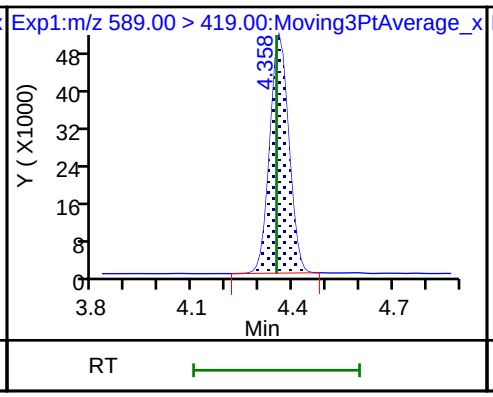

31 Perfluoroundecanoic acid



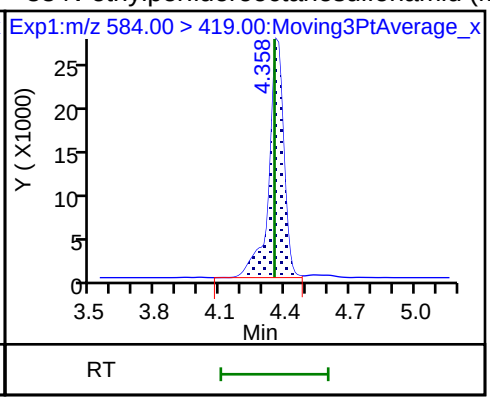

31 Perfluoroundecanoic acid



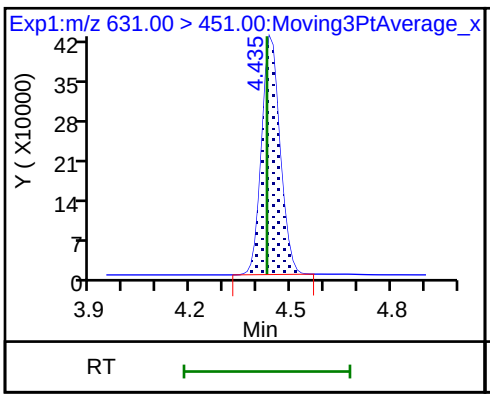

D 32 d5-NEtFOSAA



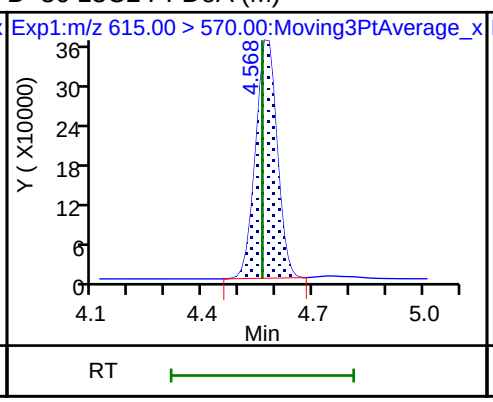

33 N-ethylperfluorooctanesulfonamid (M)



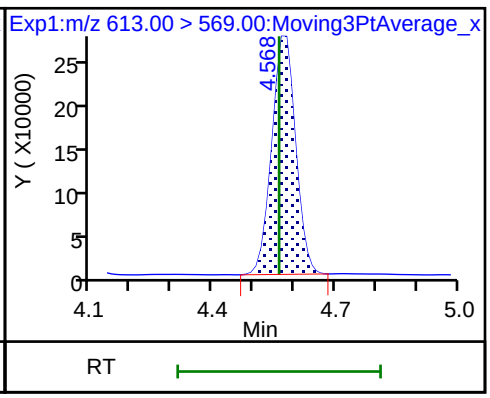

66 11-Chloroeicosafluoro-3-oxaundec



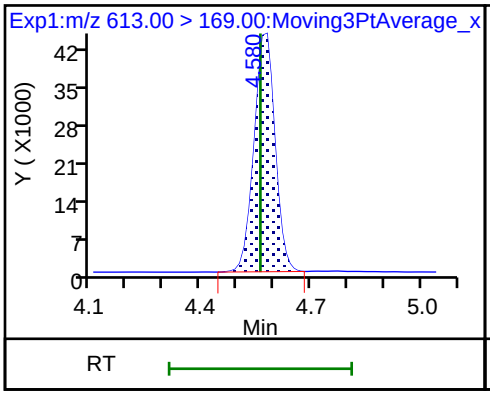

D 36 13C2 PFDoA (M)



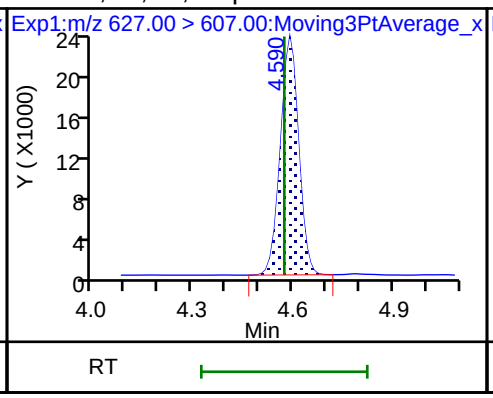

37 Perfluorododecanoic acid



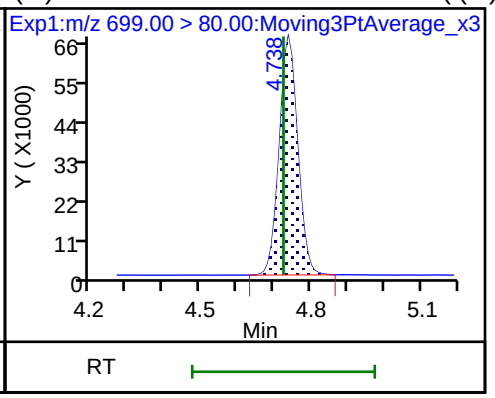
37 Perfluorododecanoic acid



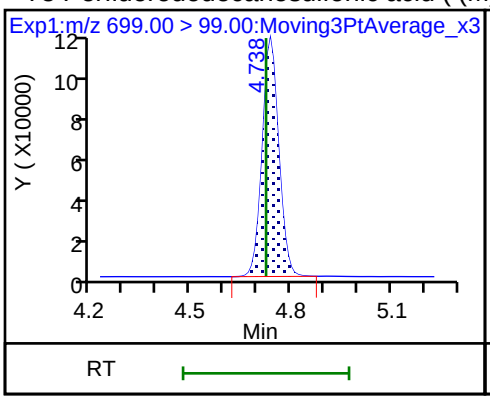

74 1H,1H,2H,2H-perfluorododecanesul (M)



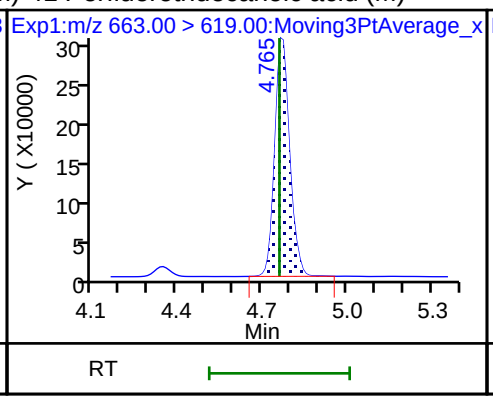

75 Perfluorododecanesulfonic acid ( (M)



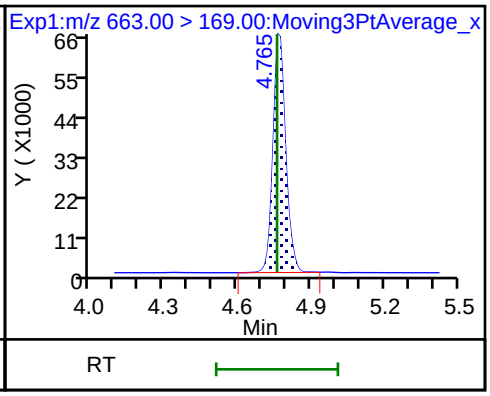

75 Perfluorododecanesulfonic acid ( (M)



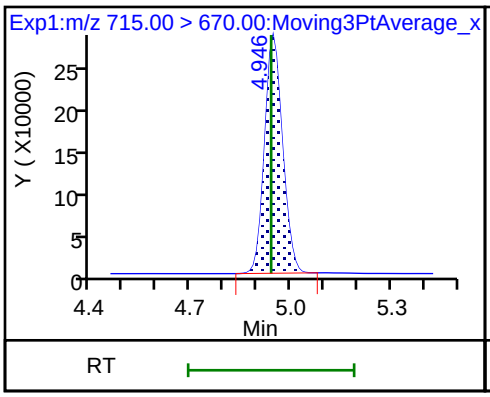

41 Perfluorotridecanoic acid (M)



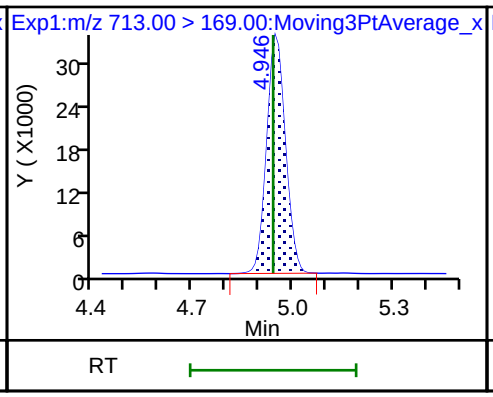

41 Perfluorotridecanoic acid



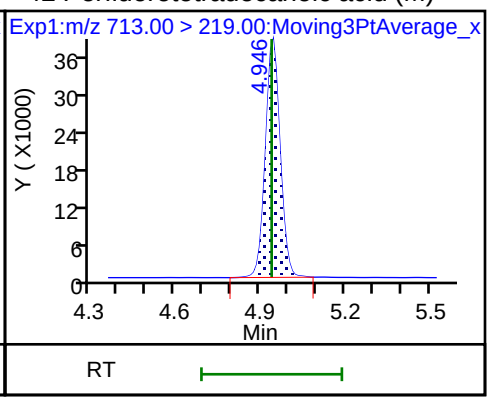

D 43 13C2 PFTeDA



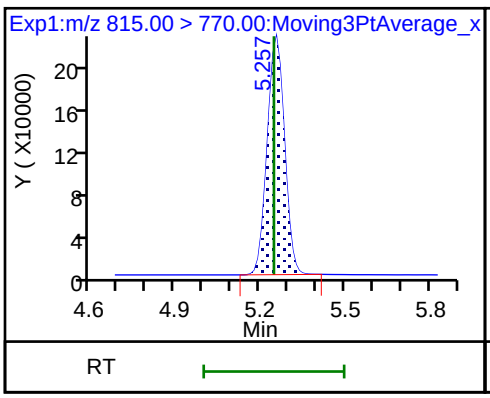

42 Perfluorotetradecanoic acid



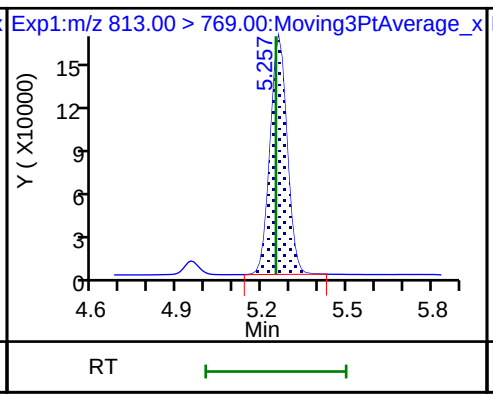

42 Perfluorotetradecanoic acid (M)



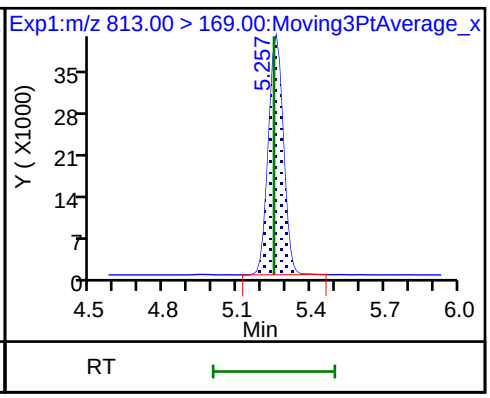

D 44 13C2 PFHxDA



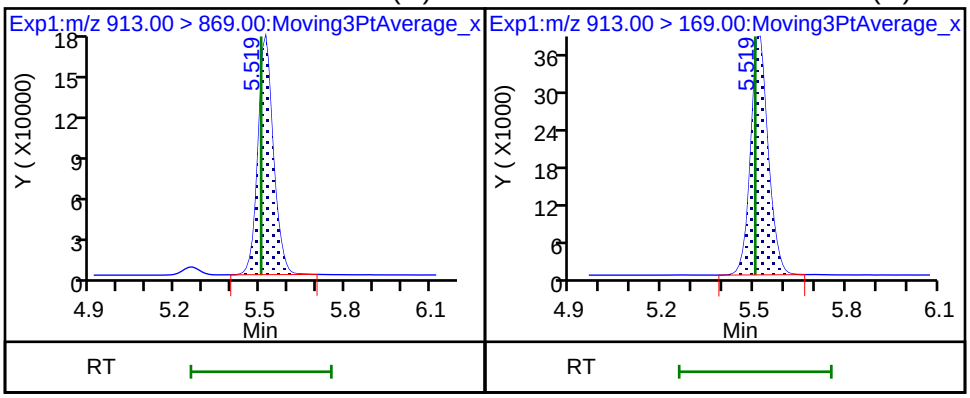

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

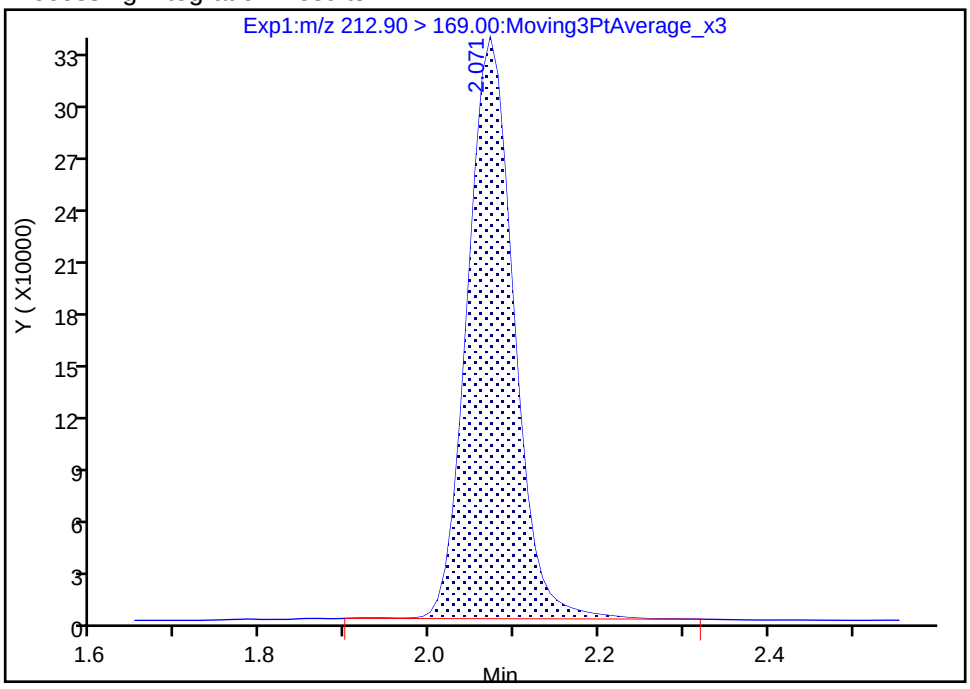
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

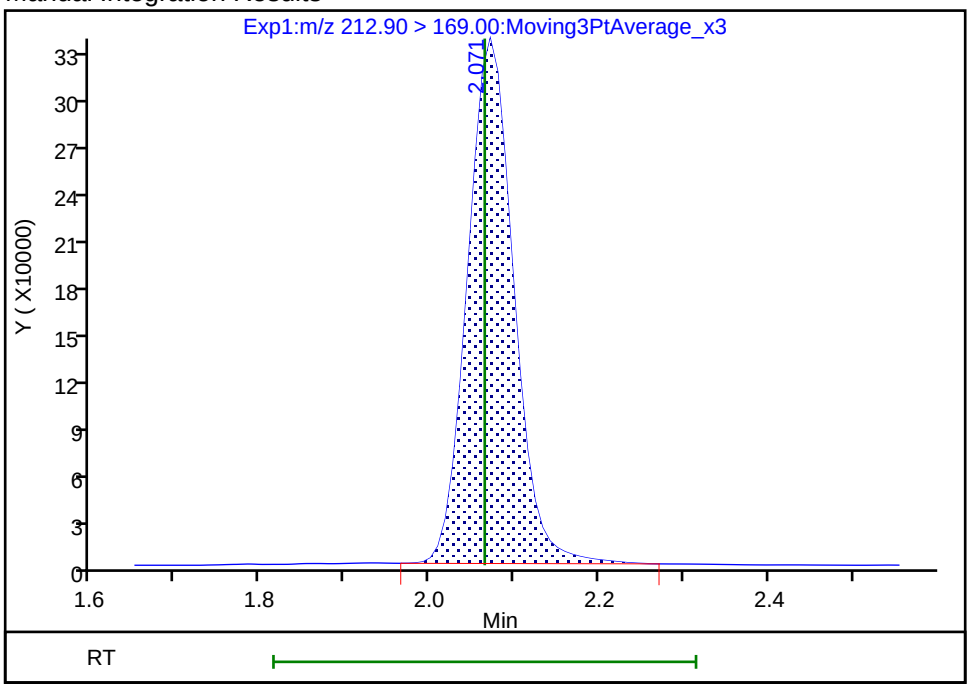
Processing Integration Results

RT: 2.07
Area: 1262742
Amount: 0.947187
Amount Units: ng/ml




Manual Integration Results

RT: 2.07
Area: 1259052
Amount: 0.944419
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:52:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

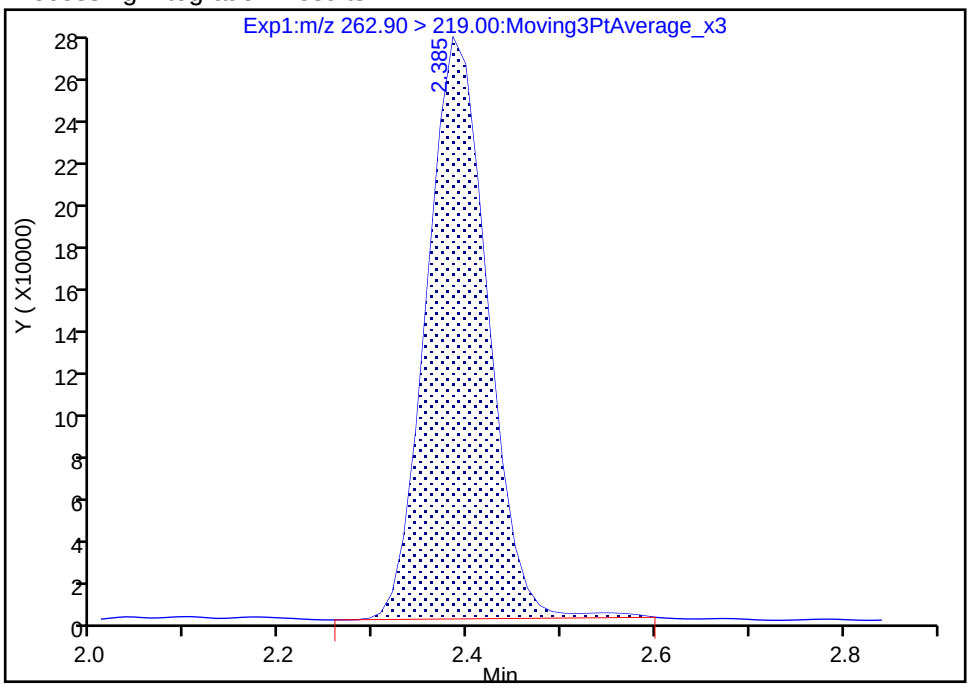
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

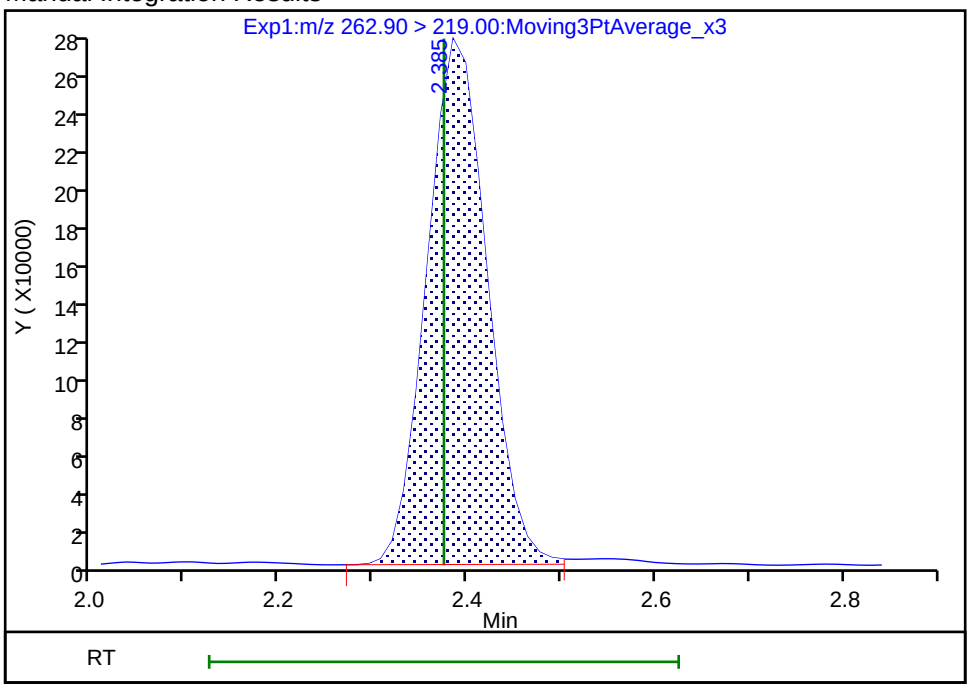
Processing Integration Results

RT: 2.38
Area: 1225196
Amount: 0.995368
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 1219435
Amount: 0.990688
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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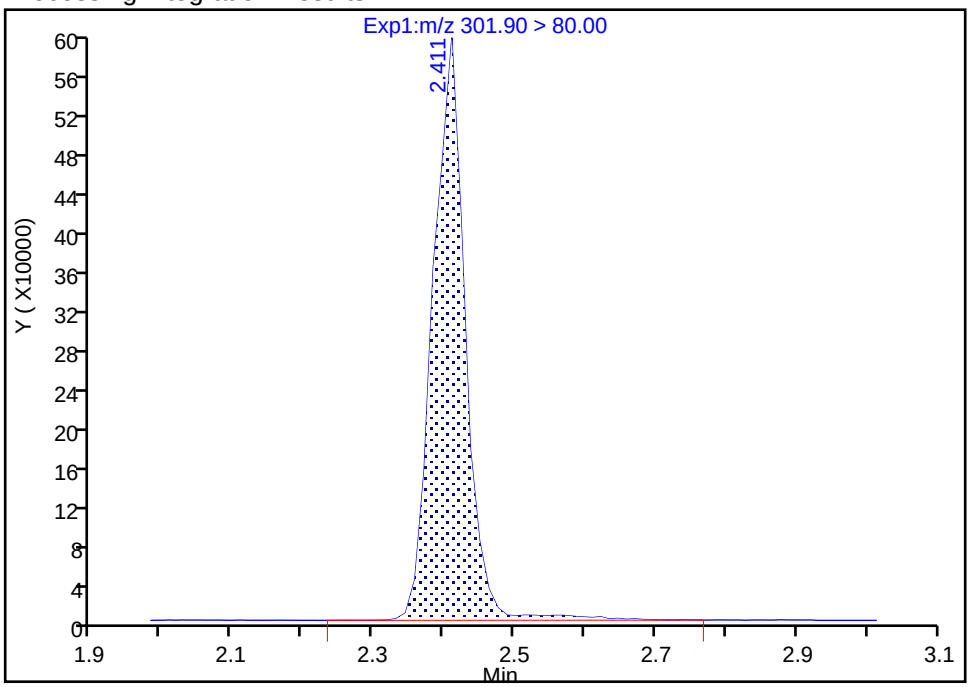
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

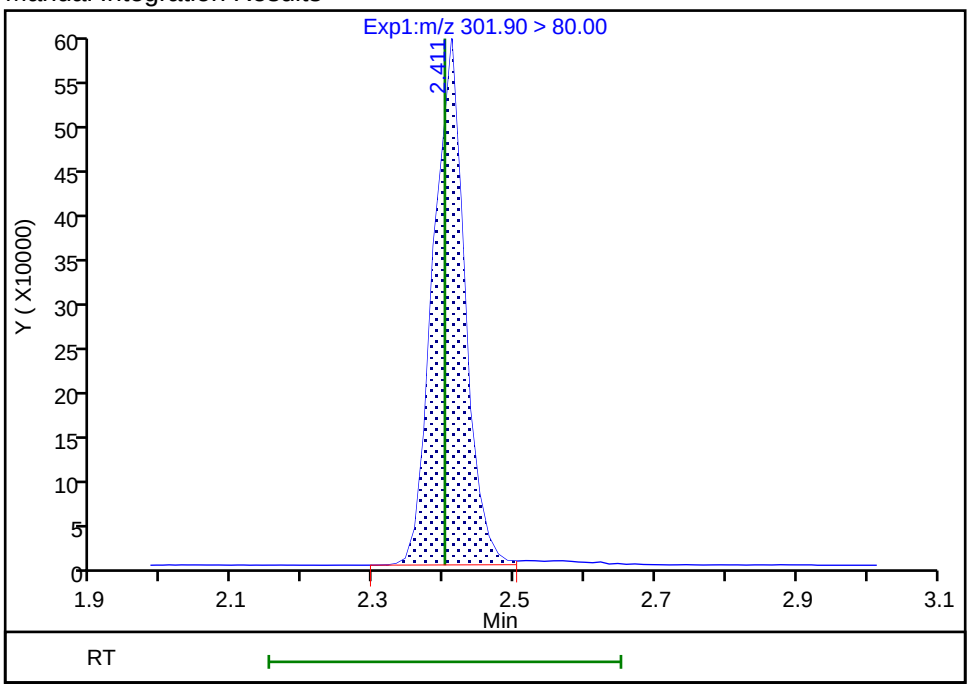
Processing Integration Results

RT: 2.41
Area: 1896861
Amount: 1.284216
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1855922
Amount: 1.256500
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:52:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

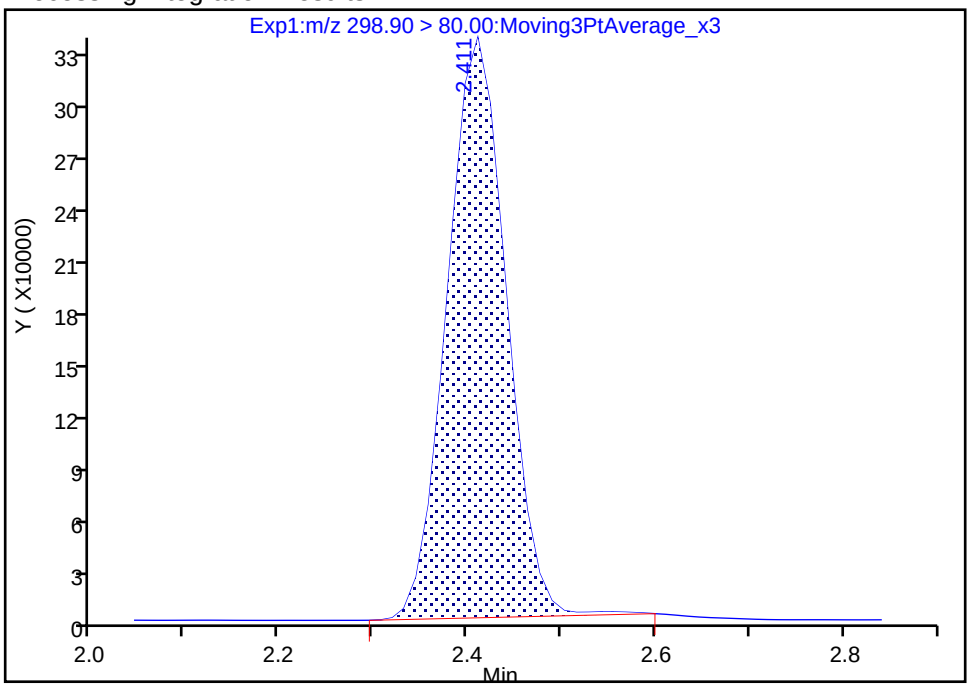
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

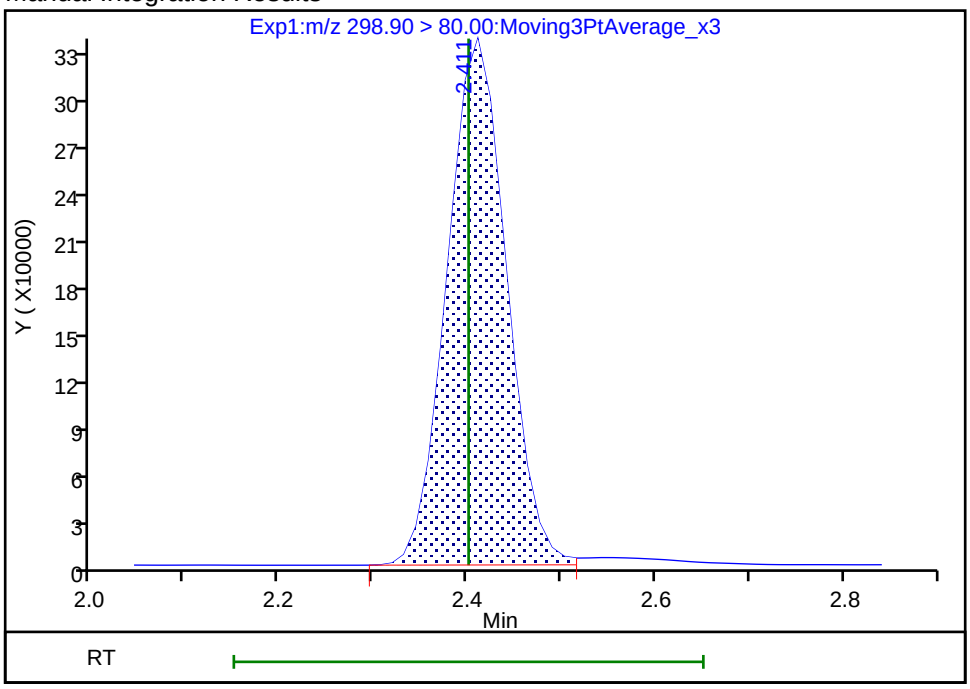
Processing Integration Results

RT: 2.41
Area: 1450343
Amount: 0.850564
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1460506
Amount: 0.856525
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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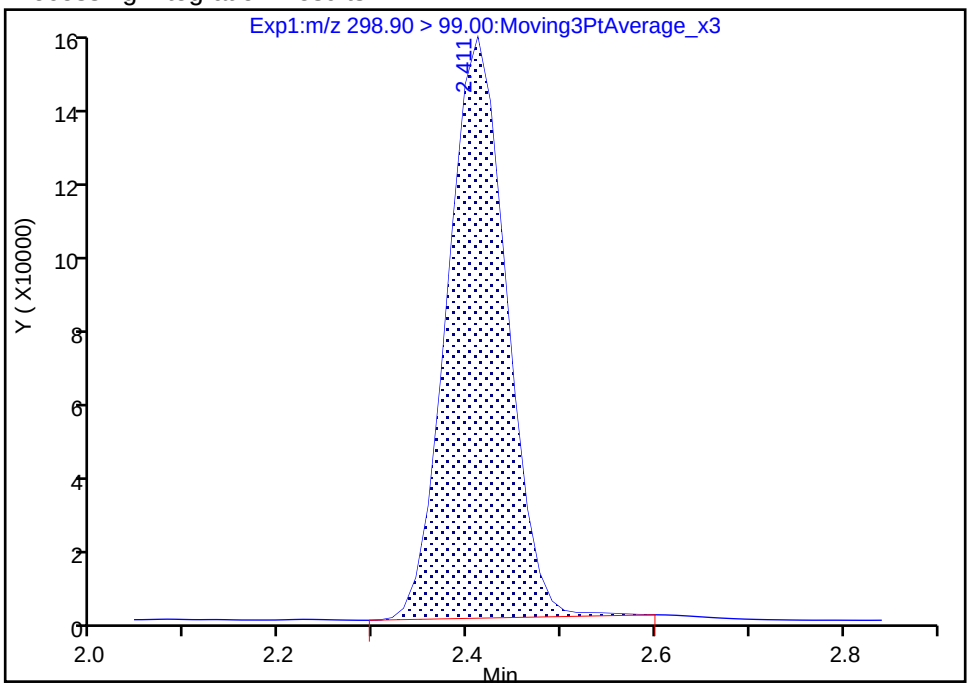
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

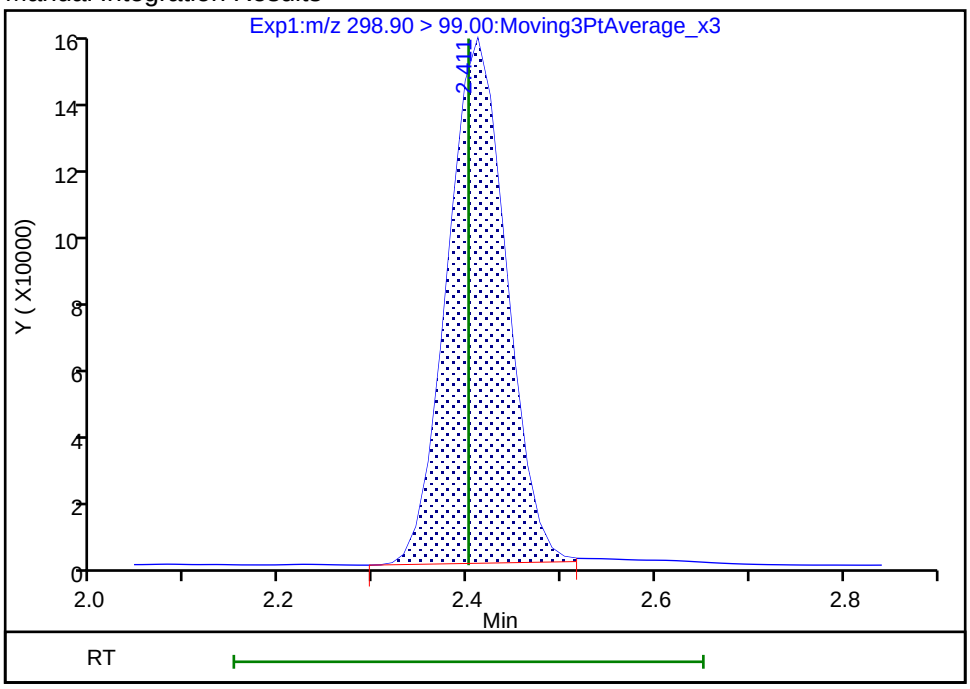
Processing Integration Results

RT: 2.41
Area: 695226
Amount: 0.850564
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 692799
Amount: 0.856525
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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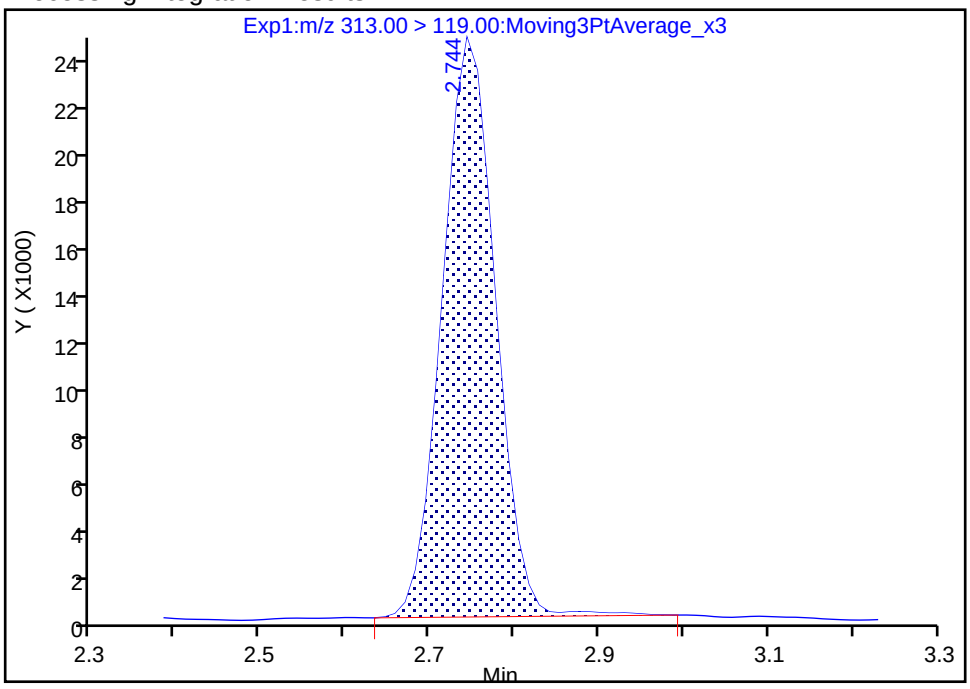
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

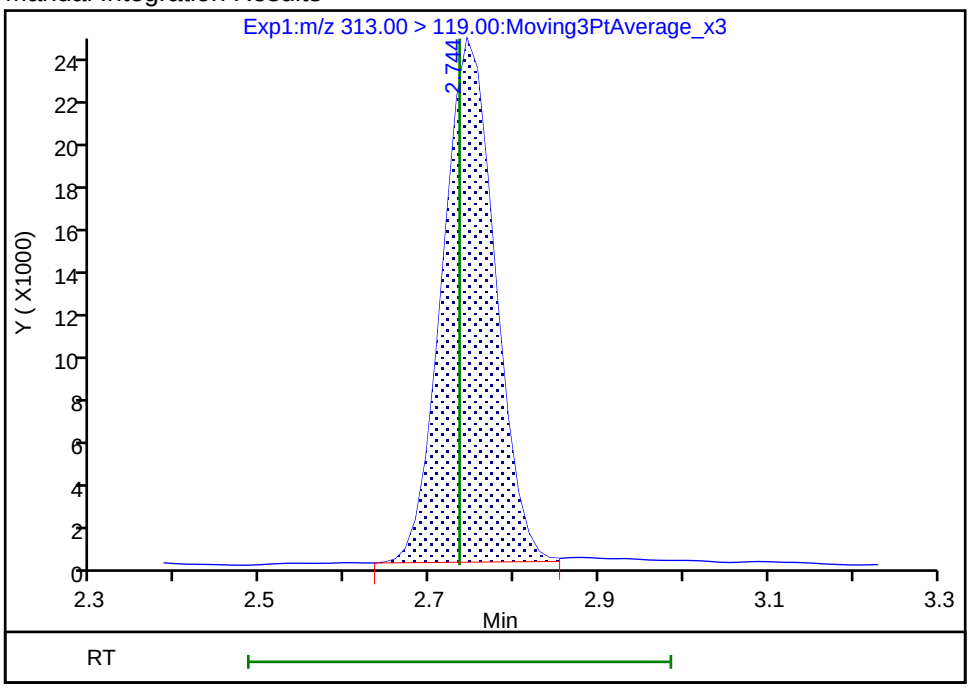
Processing Integration Results

RT: 2.74
Area: 104834
Amount: 0.923350
Amount Units: ng/ml




Manual Integration Results

RT: 2.74
Area: 104042
Amount: 0.923350
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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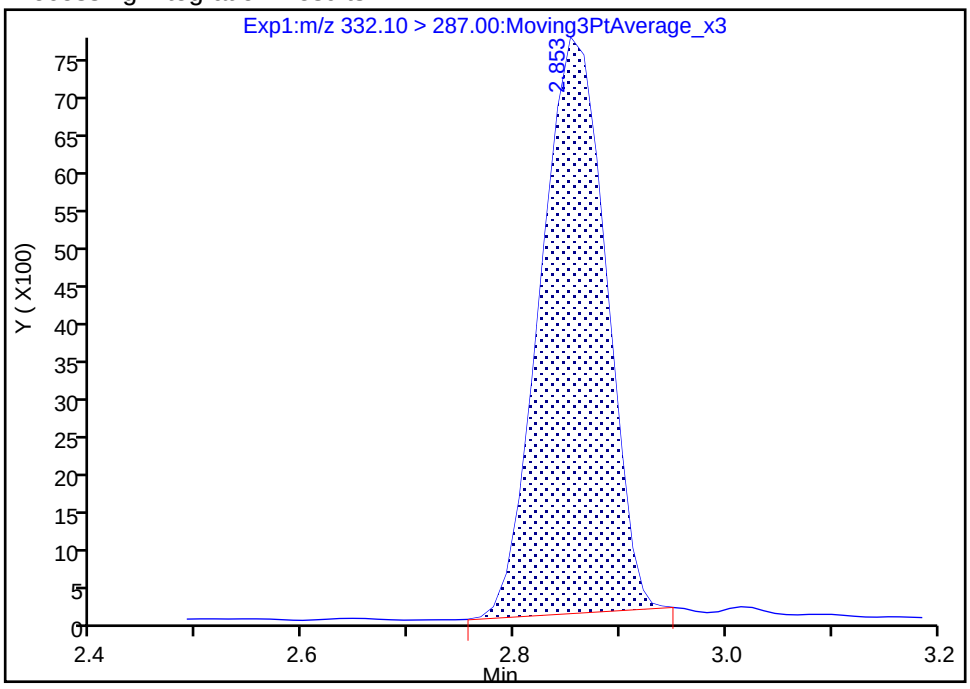
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

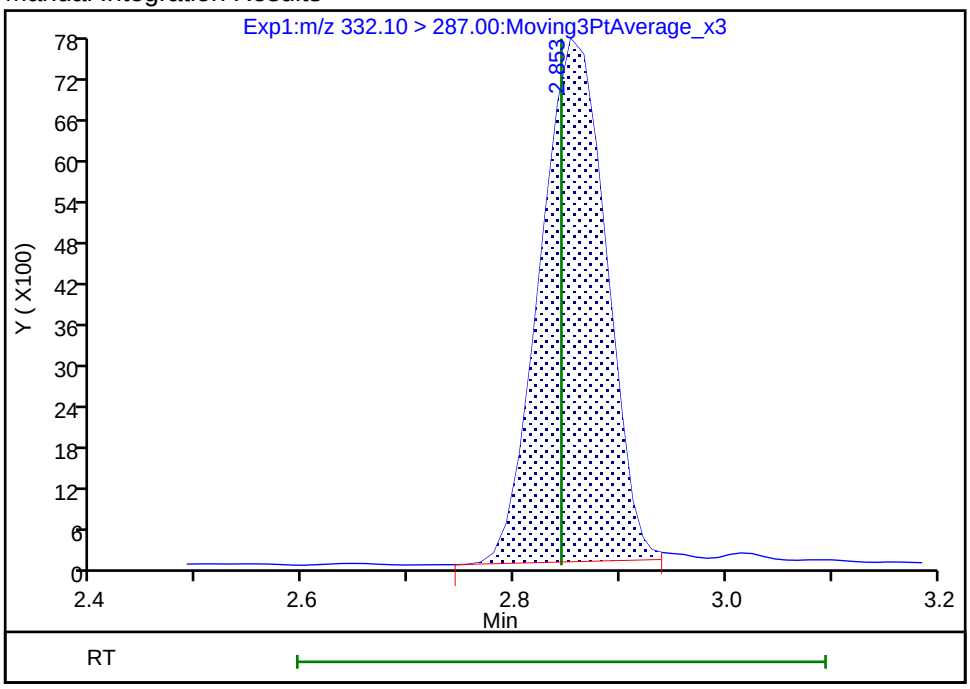
Processing Integration Results

RT: 2.85
Area: 33082
Amount: 1.096563
Amount Units: ng/ml




Manual Integration Results

RT: 2.85
Area: 33473
Amount: 1.109523
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:53:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

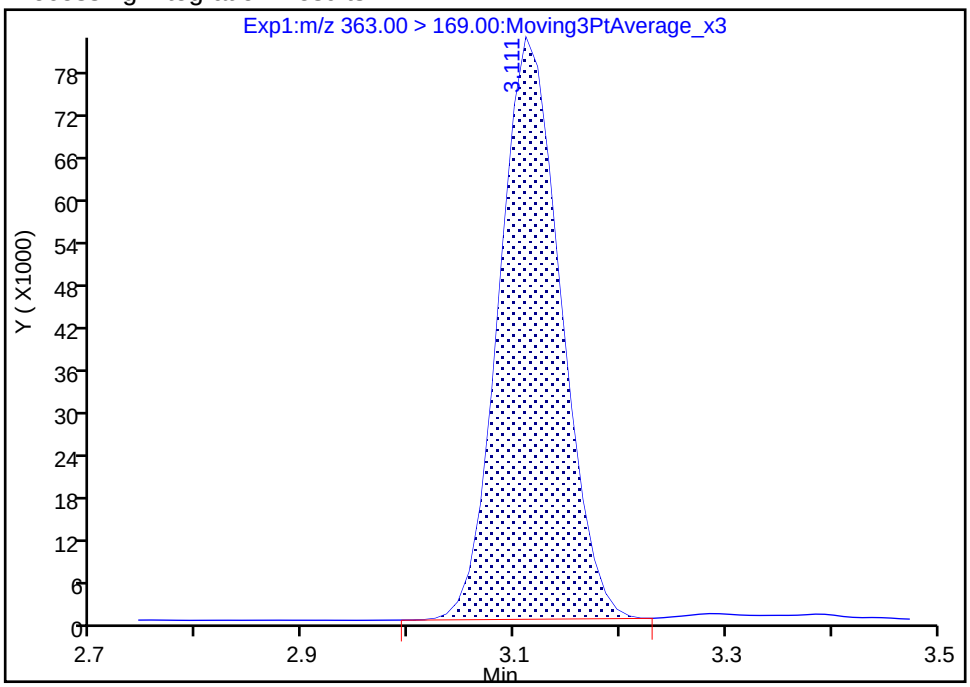
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

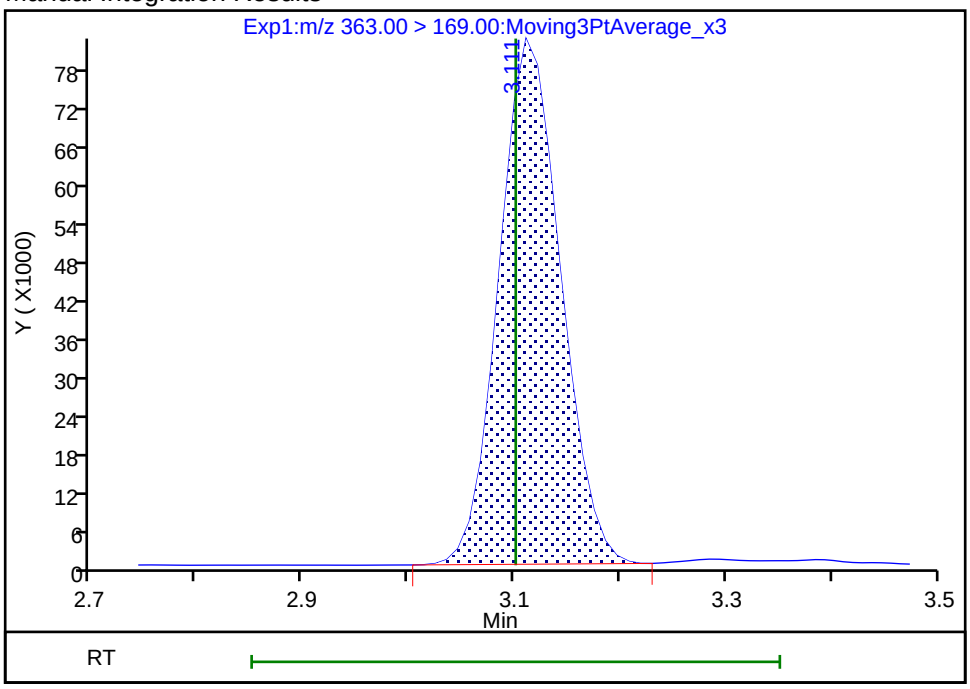
Processing Integration Results

RT: 3.11
Area: 333261
Amount: 0.972026
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 333191
Amount: 0.972026
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

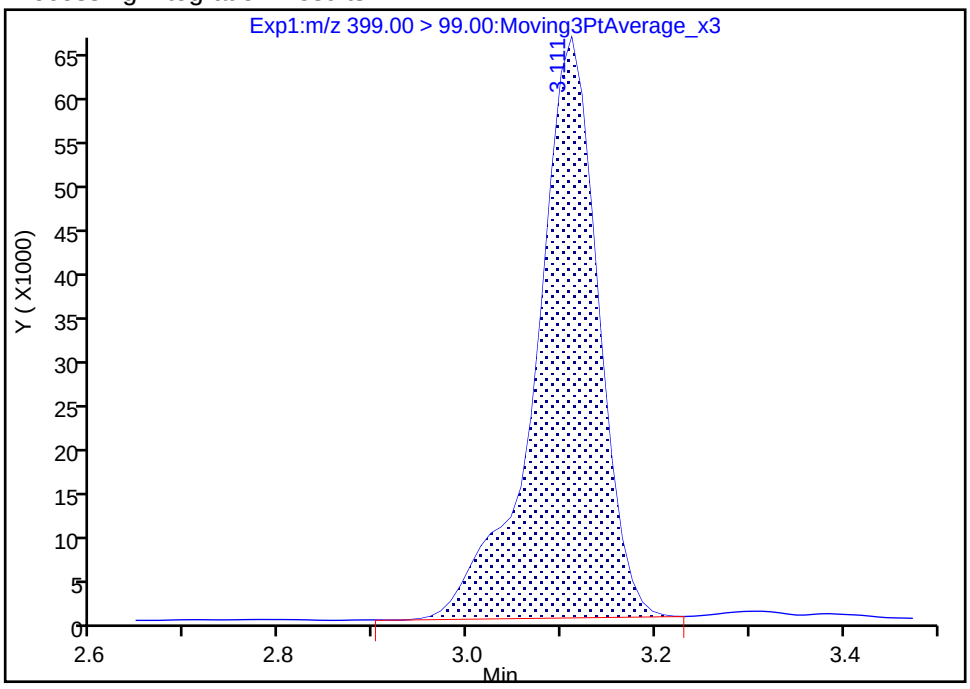
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

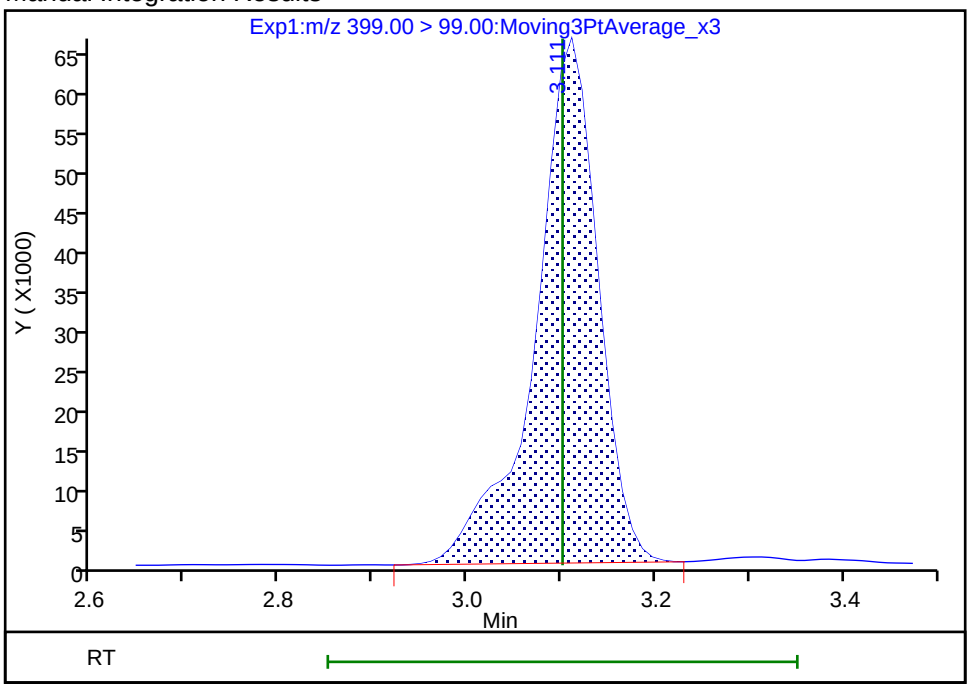
Processing Integration Results

RT: 3.11
Area: 307054
Amount: 0.815828
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 306950
Amount: 0.815828
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

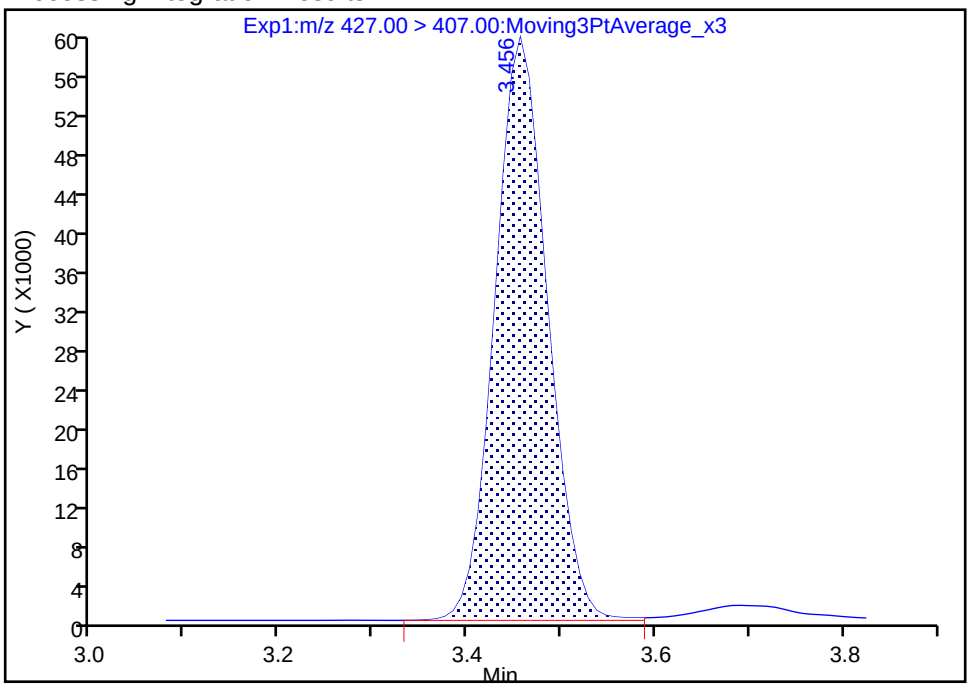
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

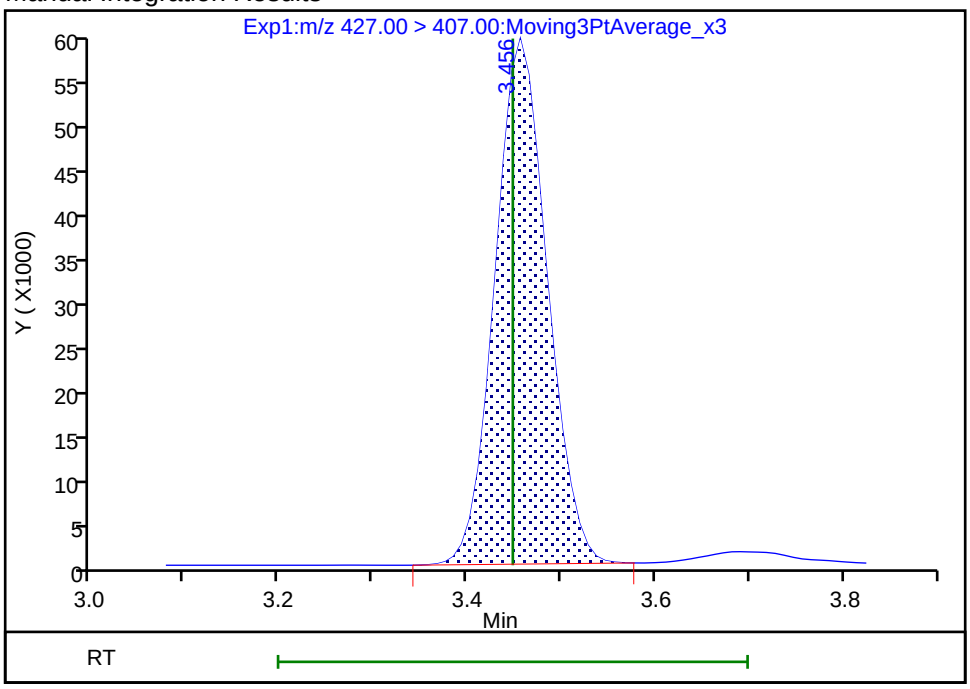
Processing Integration Results

RT: 3.46
Area: 231307
Amount: 0.964872
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 229259
Amount: 0.956329
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:53:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

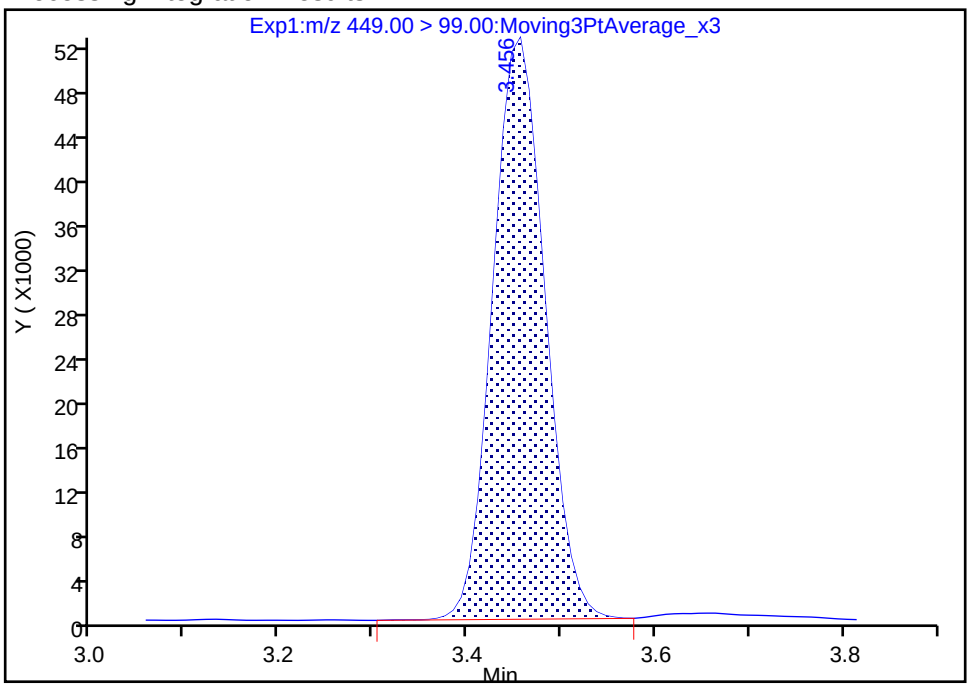
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

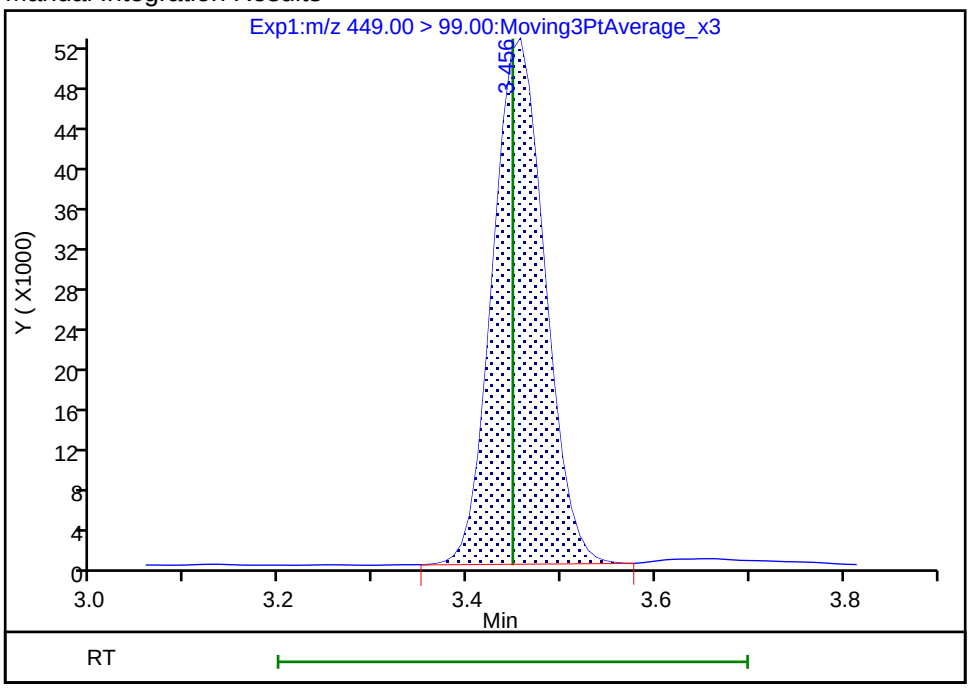
Processing Integration Results

RT: 3.46
Area: 201870
Amount: 0.912465
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 201806
Amount: 0.912465
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:53:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

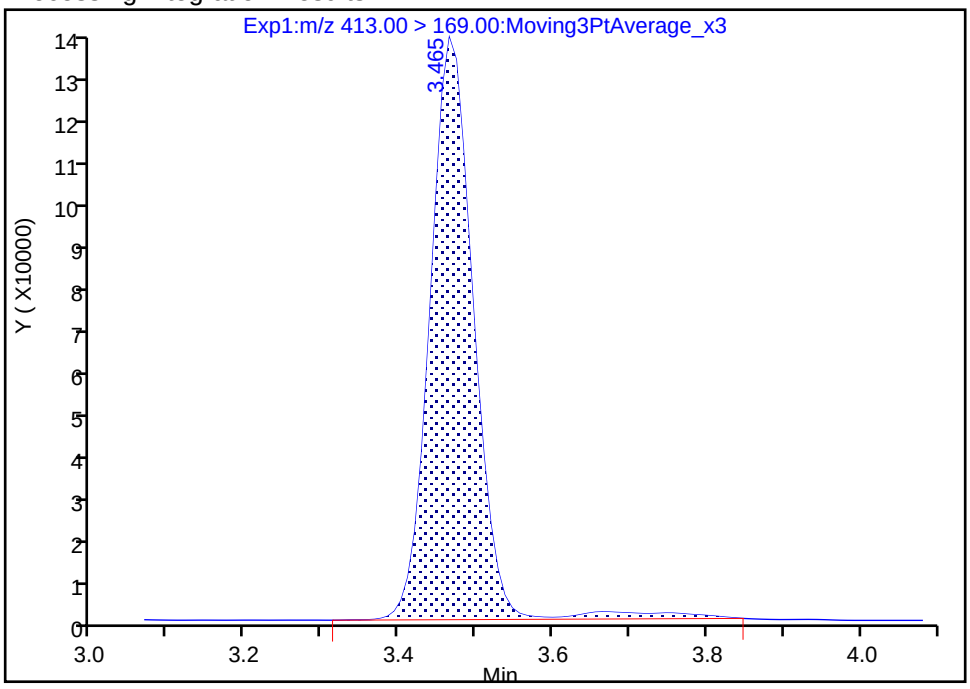
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

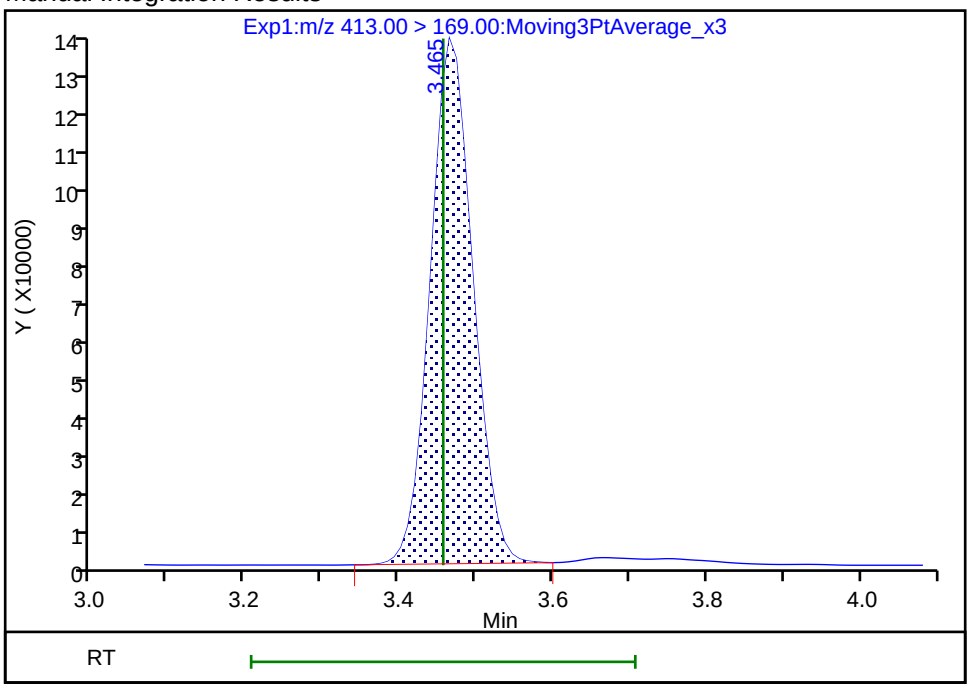
Processing Integration Results

RT: 3.47
Area: 553742
Amount: 0.944054
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 534743
Amount: 0.944054
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:53:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

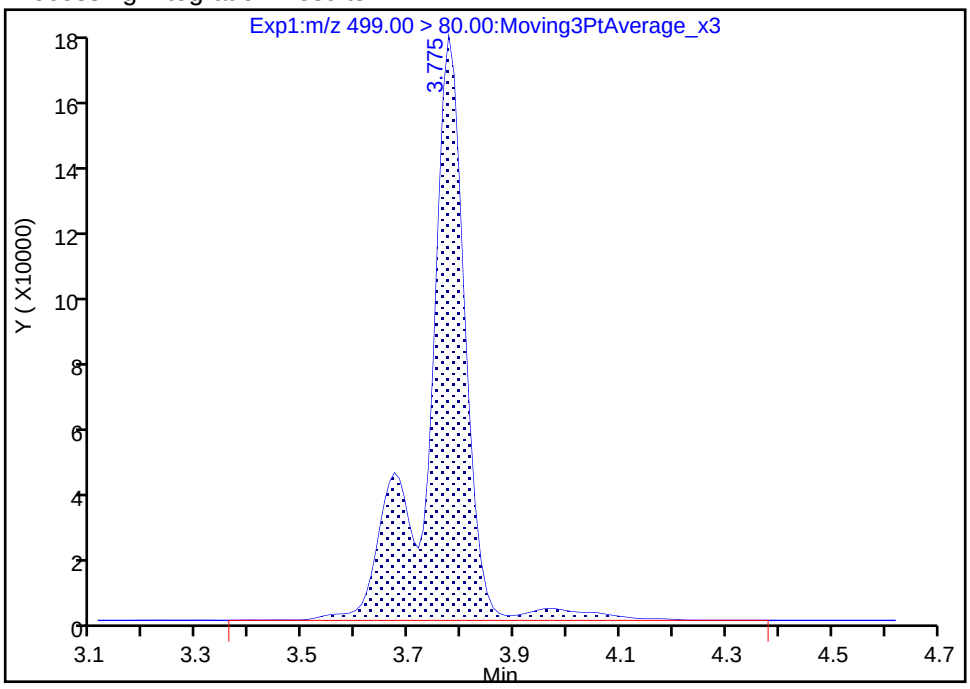
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

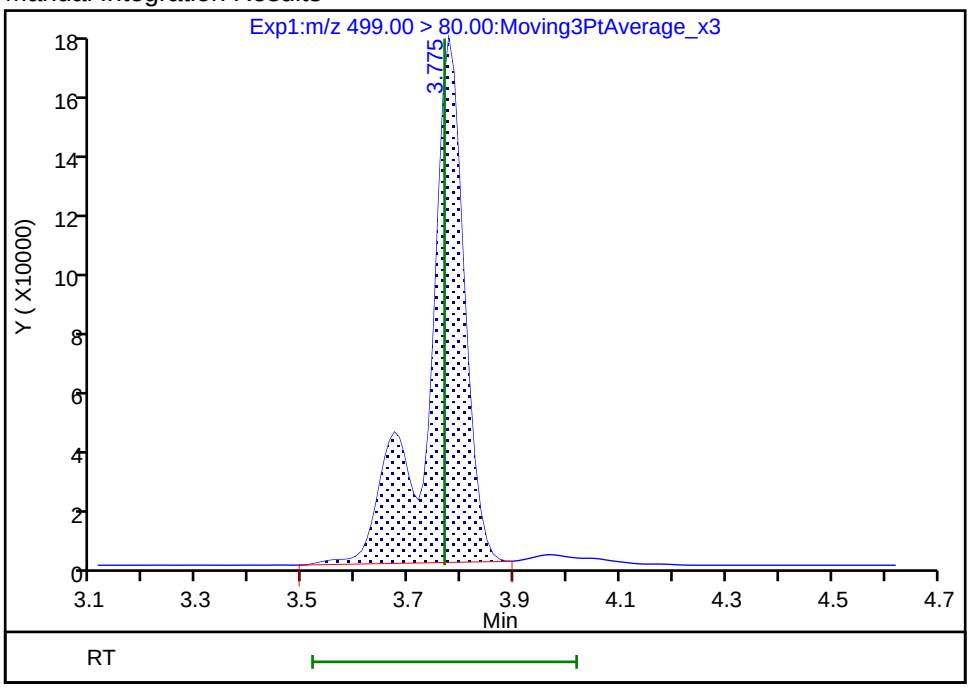
Processing Integration Results

RT: 3.78
Area: 896259
Amount: 0.976304
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 846658
Amount: 0.922273
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:54:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

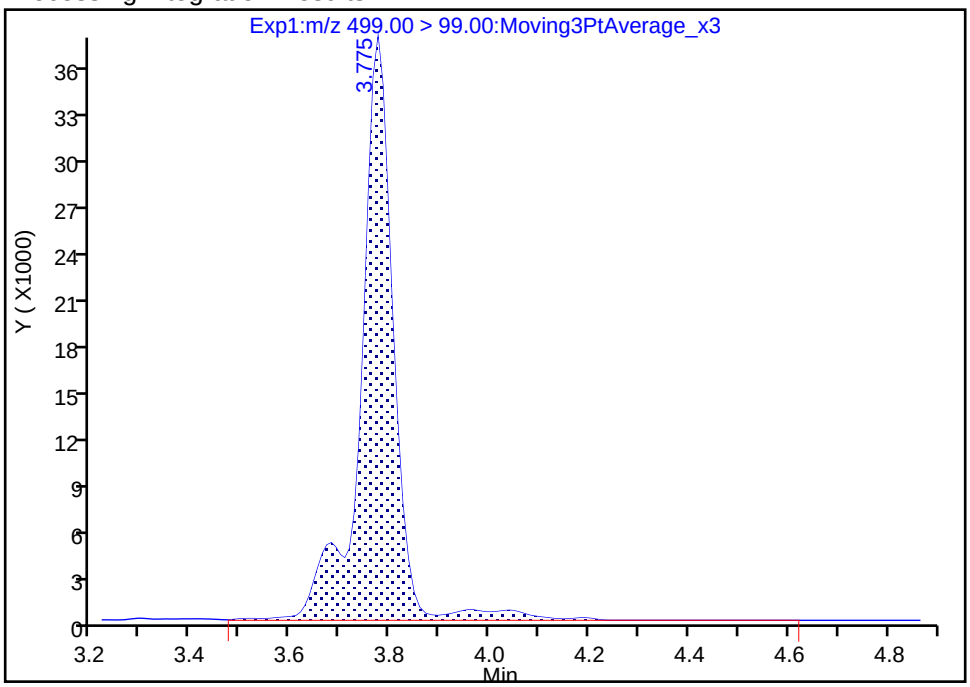
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

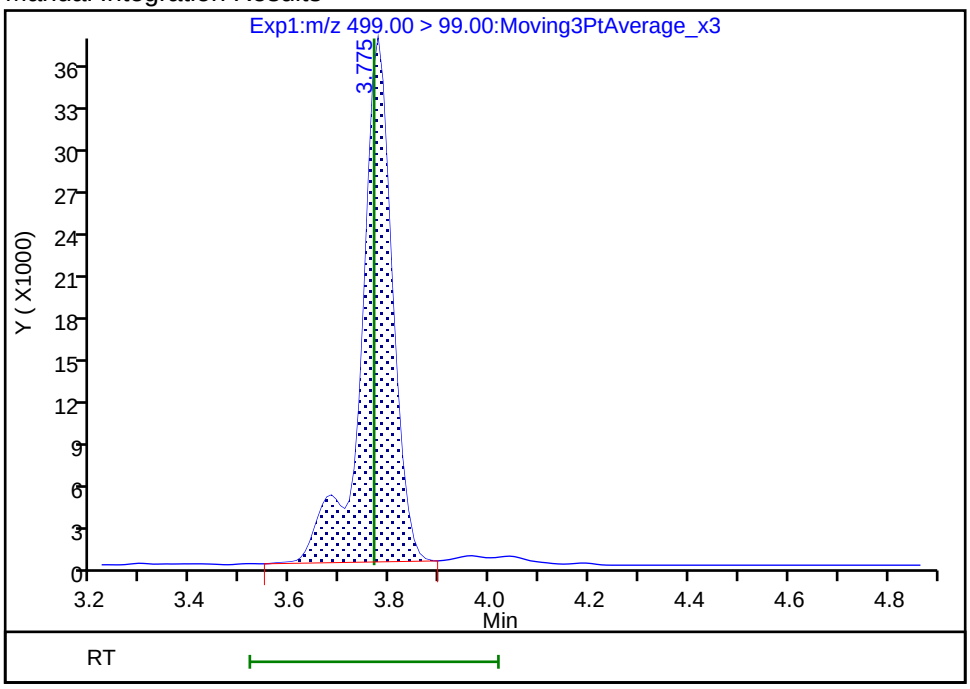
Processing Integration Results

RT: 3.78
Area: 176098
Amount: 0.976304
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 164257
Amount: 0.922273
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:54:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

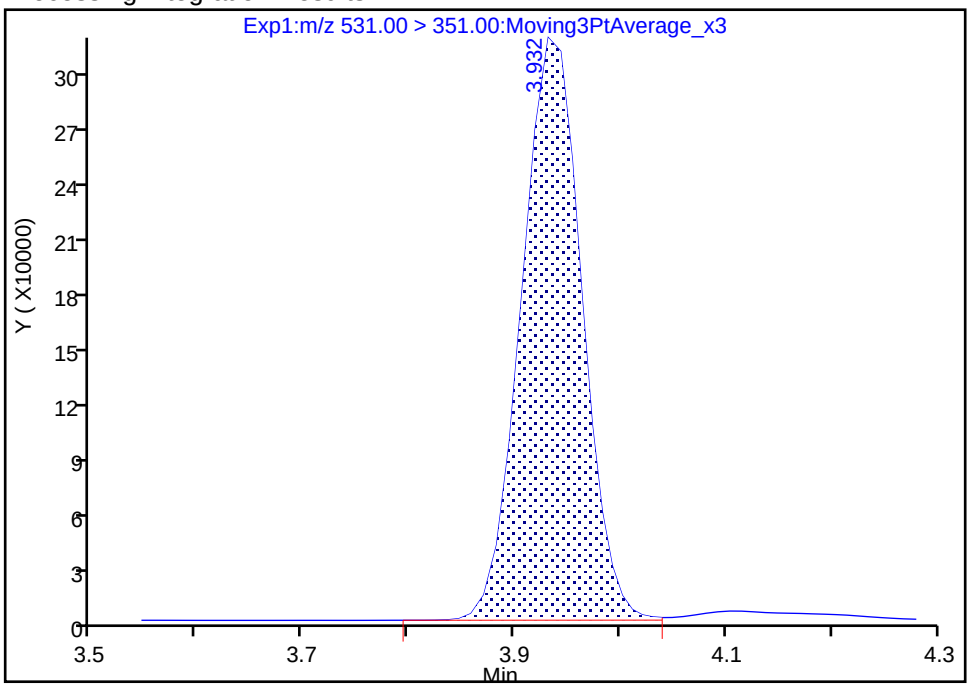
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

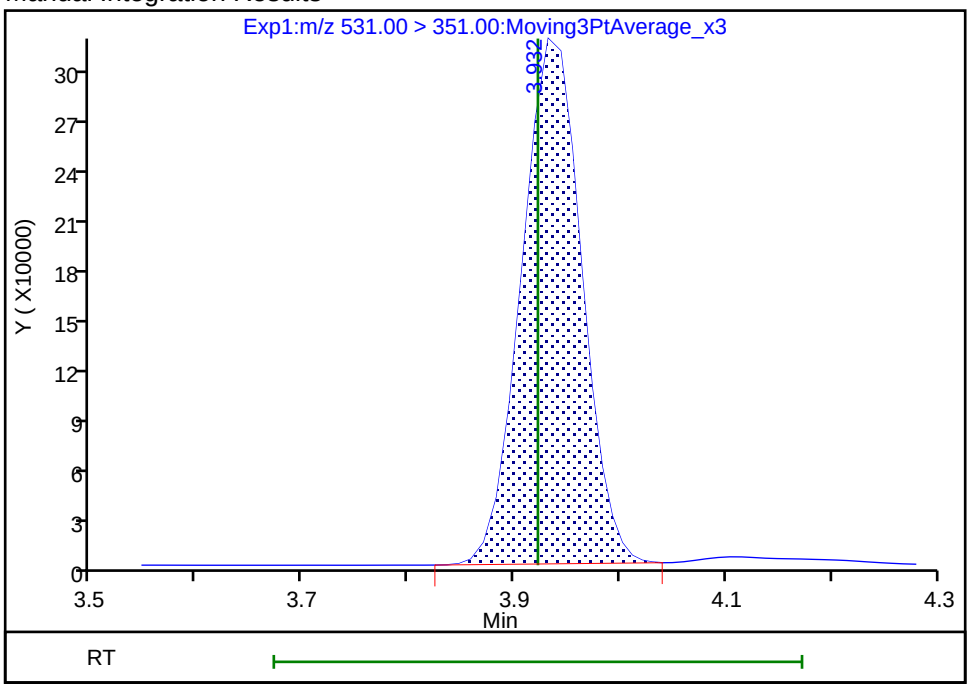
Processing Integration Results

RT: 3.93
Area: 1257677
Amount: 0.909372
Amount Units: ng/ml




Manual Integration Results

RT: 3.93
Area: 1248559
Amount: 0.902780
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:54:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

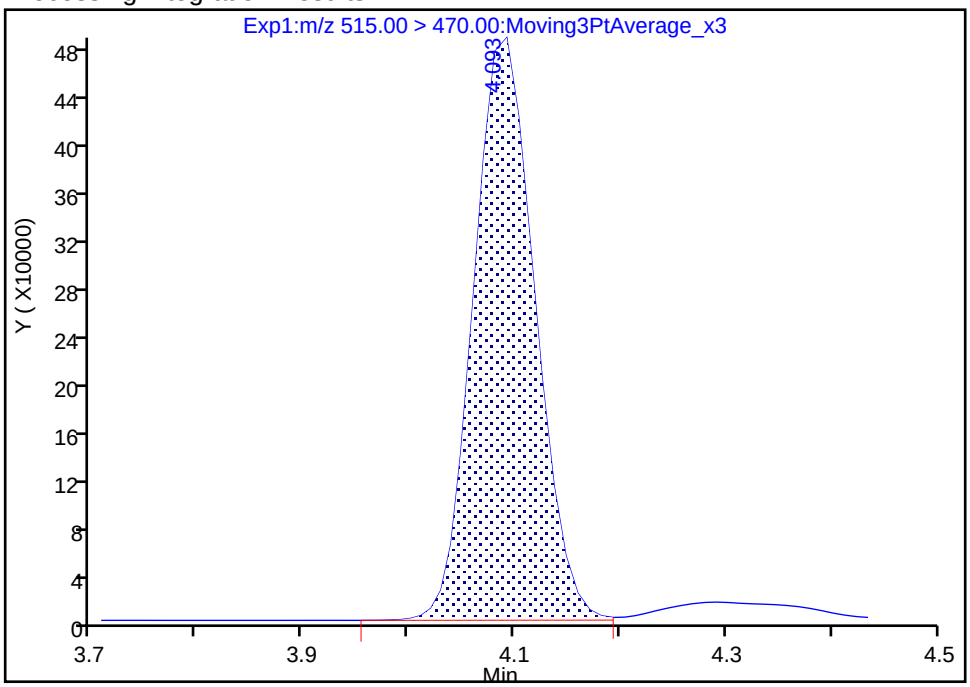
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

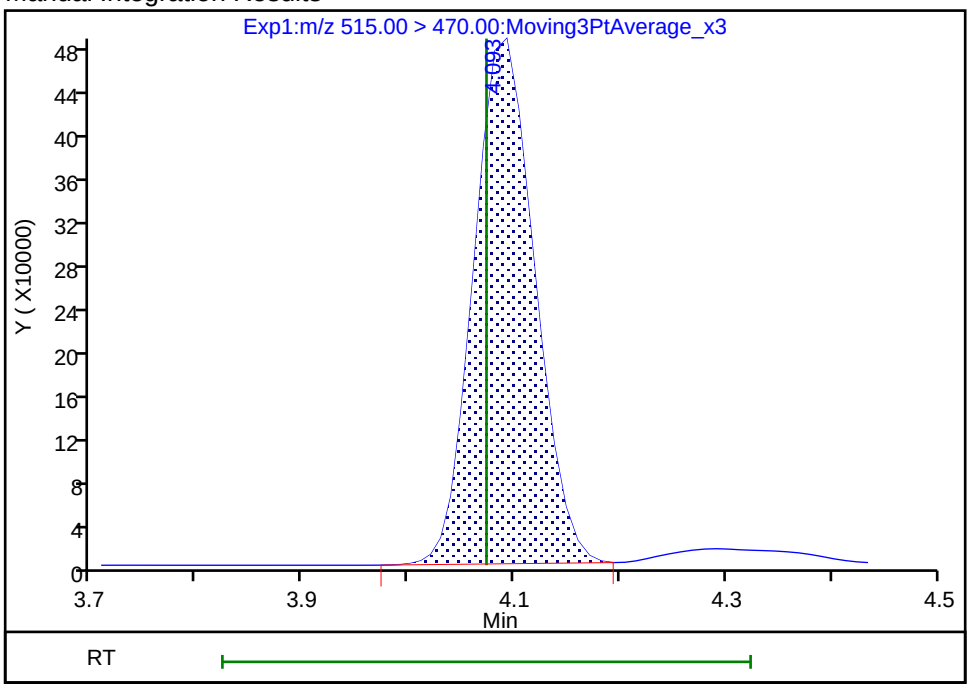
Processing Integration Results

RT: 4.09
Area: 1950258
Amount: 1.472883
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1935154
Amount: 1.461476
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:54:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

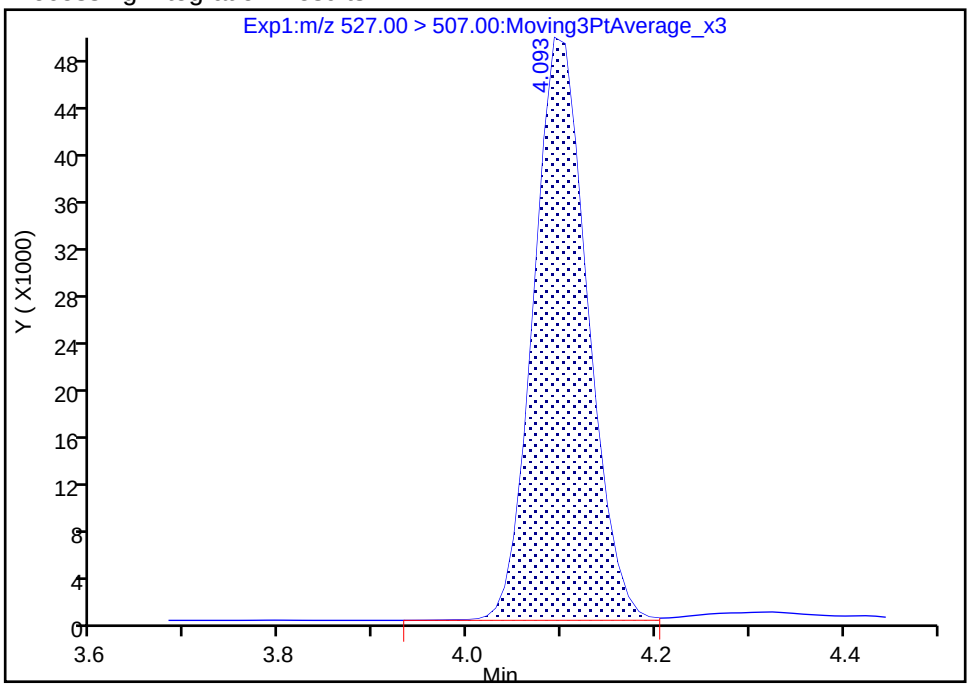
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

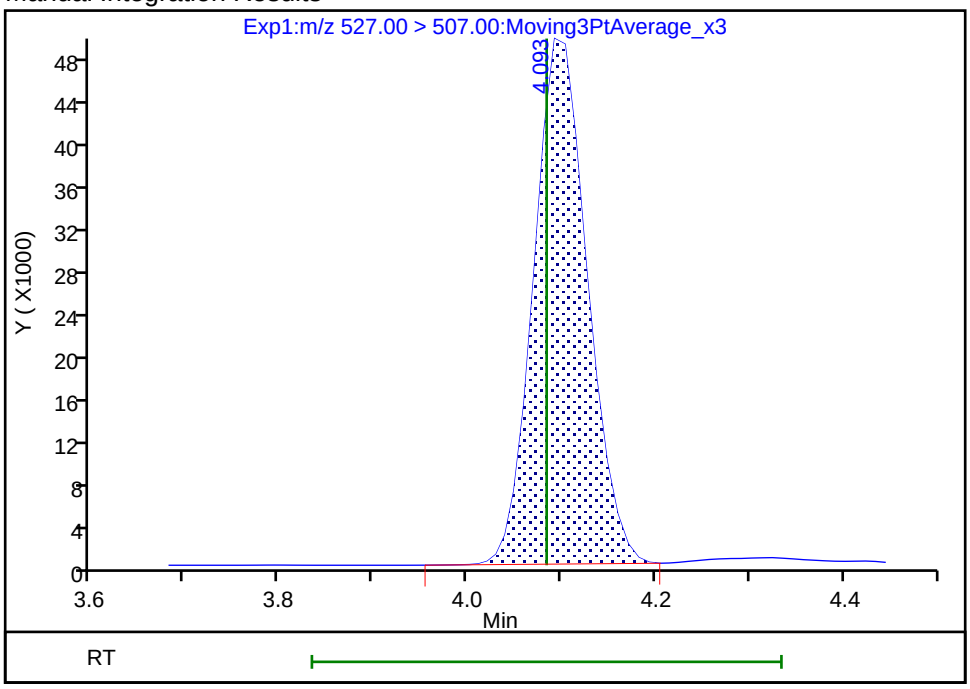
Processing Integration Results

RT: 4.09
Area: 198839
Amount: 0.941436
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 197451
Amount: 0.934864
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:54:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

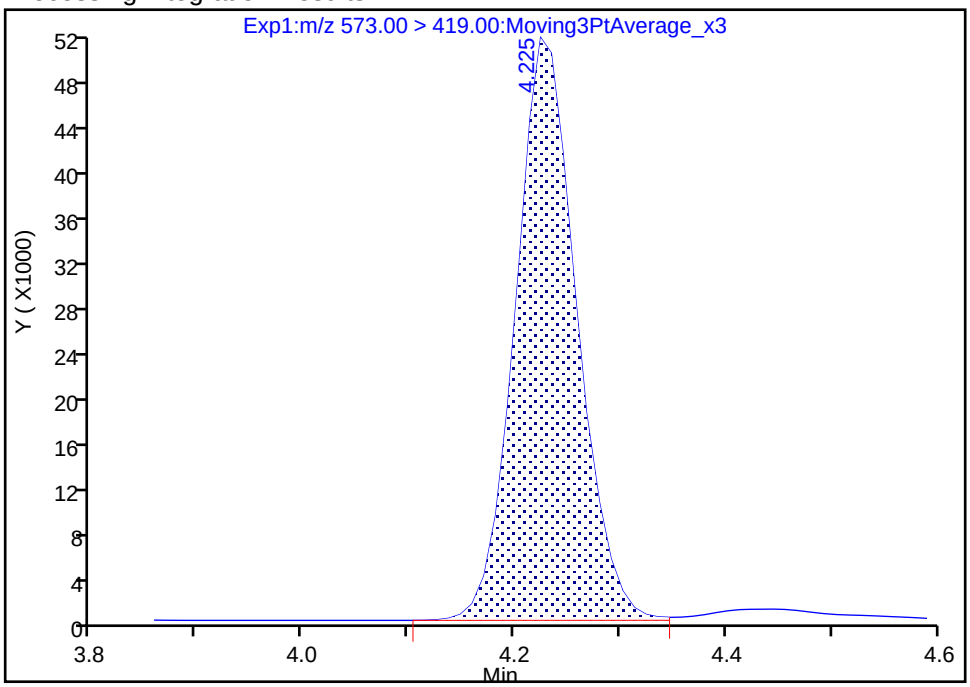
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

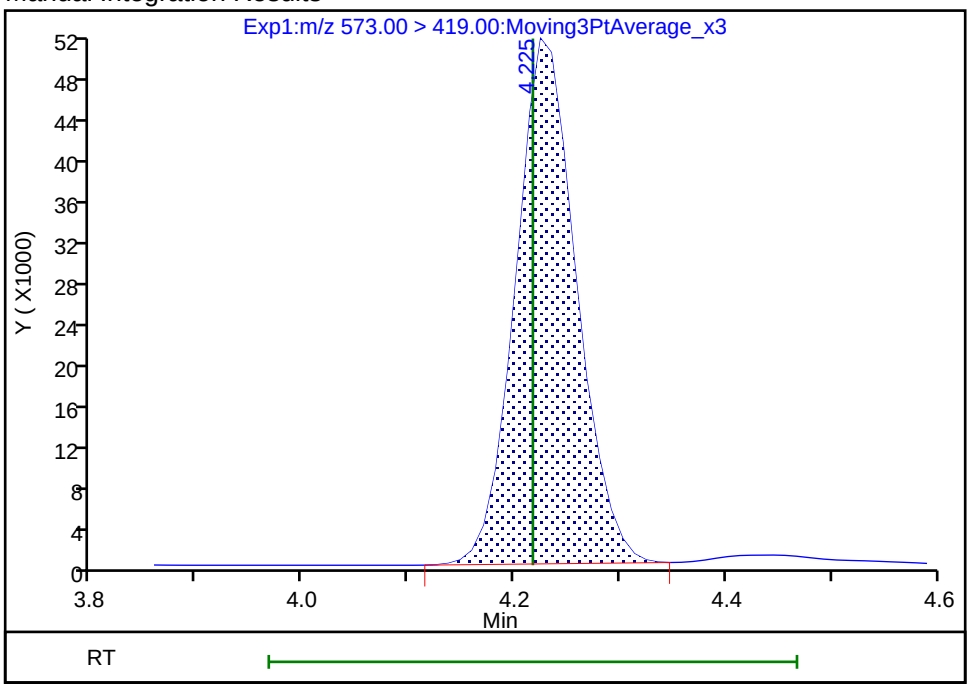
Processing Integration Results

RT: 4.22
Area: 208070
Amount: 1.597552
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 206193
Amount: 1.583140
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:54:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

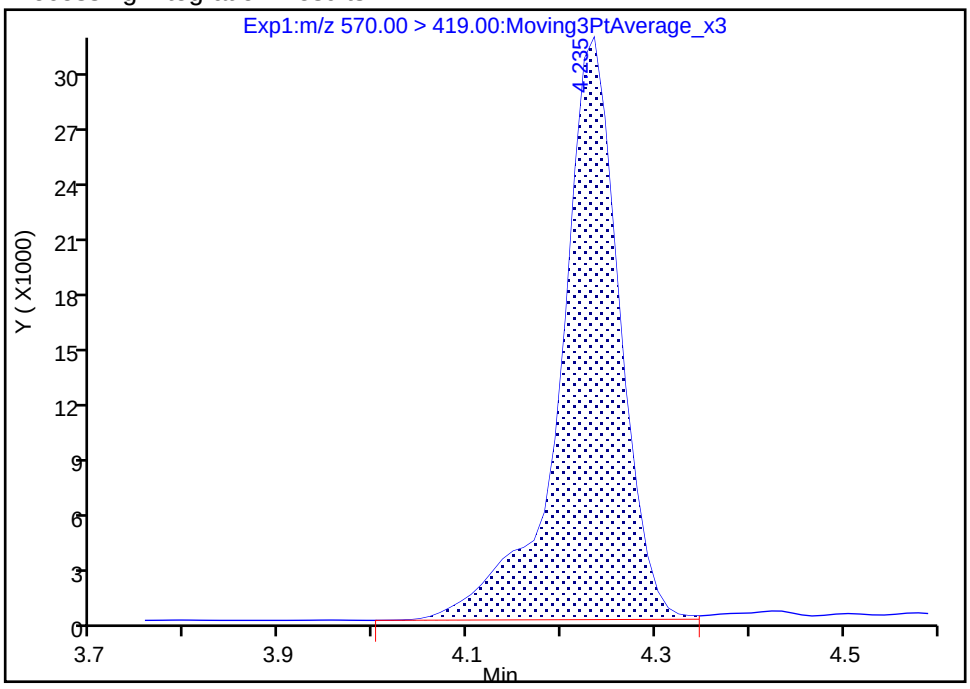
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

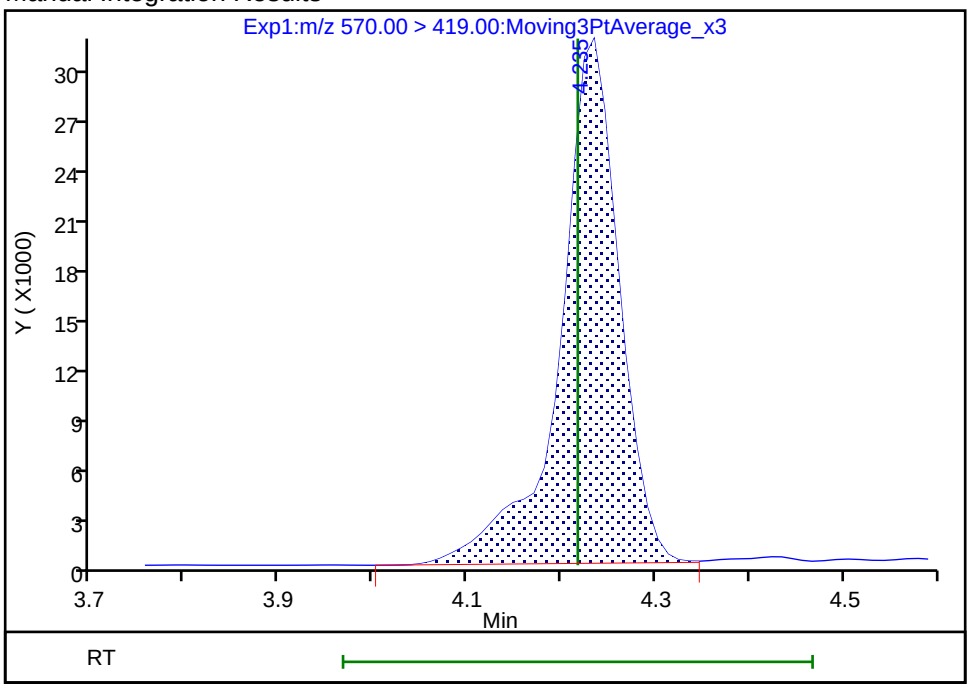
Processing Integration Results

RT: 4.23
Area: 137776
Amount: 1.053602
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 136617
Amount: 1.054249
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:54:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

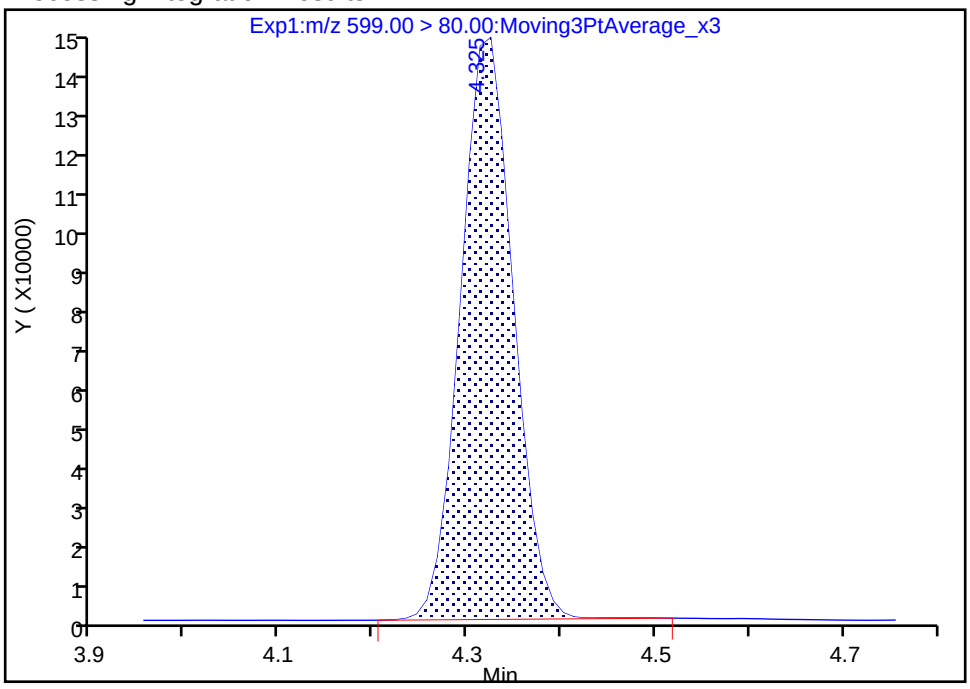
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

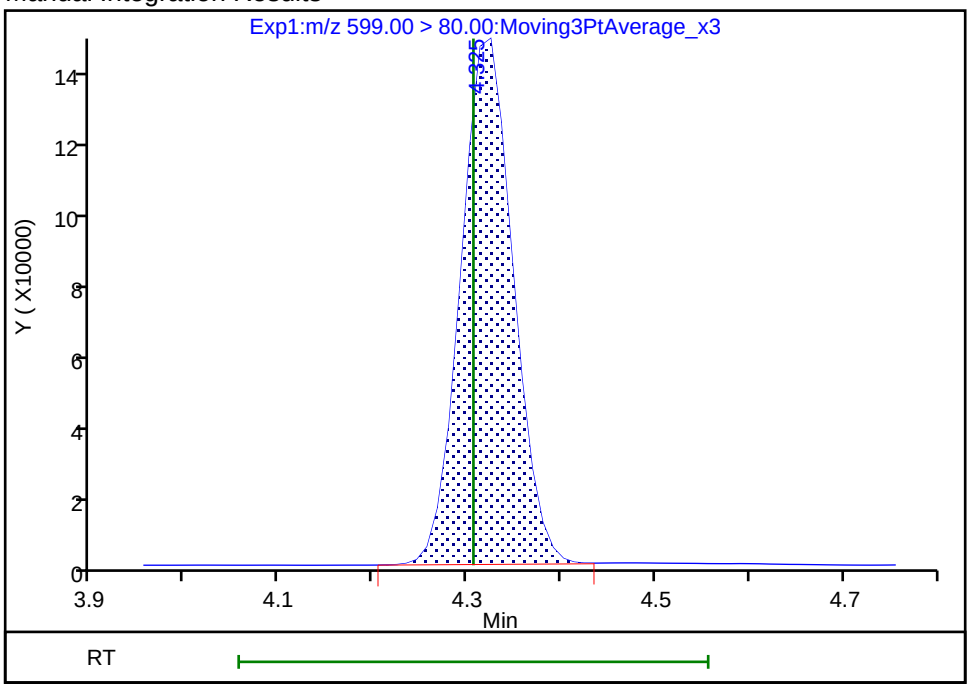
Processing Integration Results

RT: 4.32
Area: 544692
Amount: 0.979668
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 544091
Amount: 0.978587
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:54:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

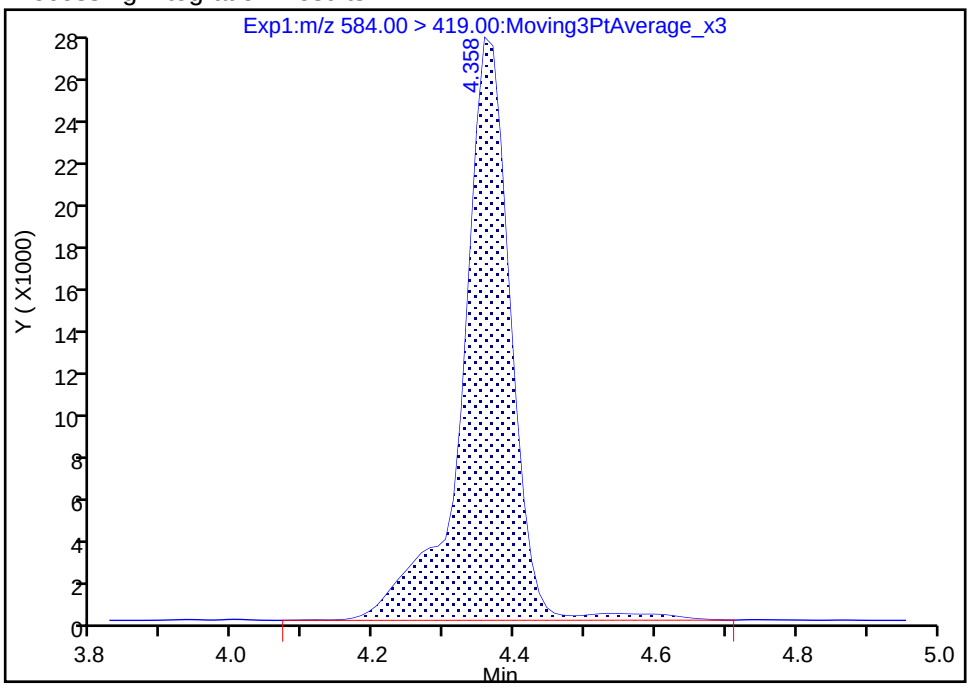
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d
Injection Date: 03-Nov-2021 16:03:18 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

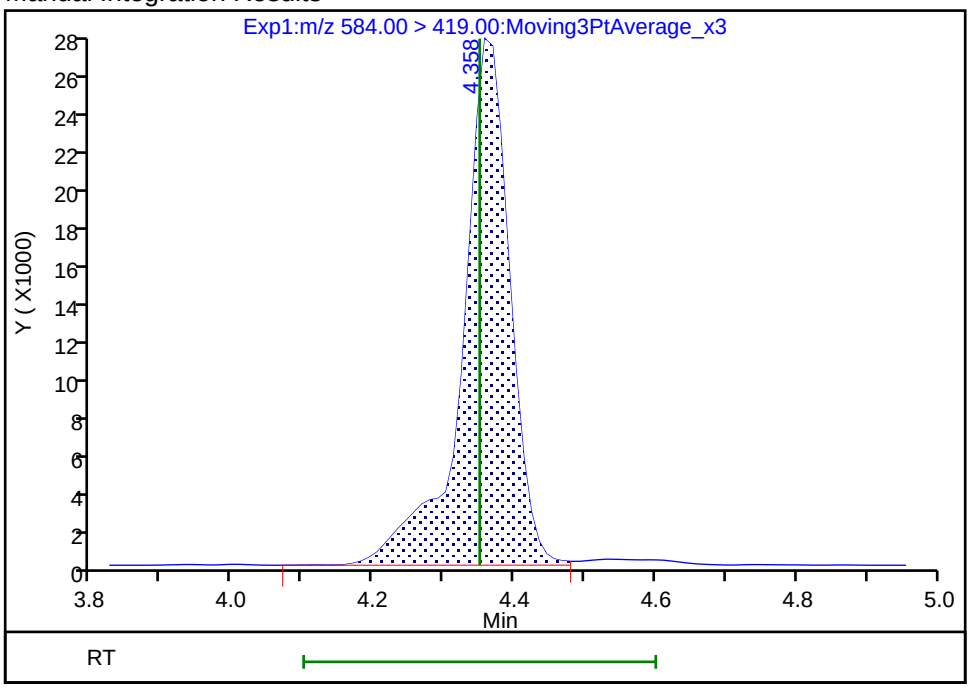
Processing Integration Results

RT: 4.36
Area: 133402
Amount: 0.956506
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 130759
Amount: 0.937555
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

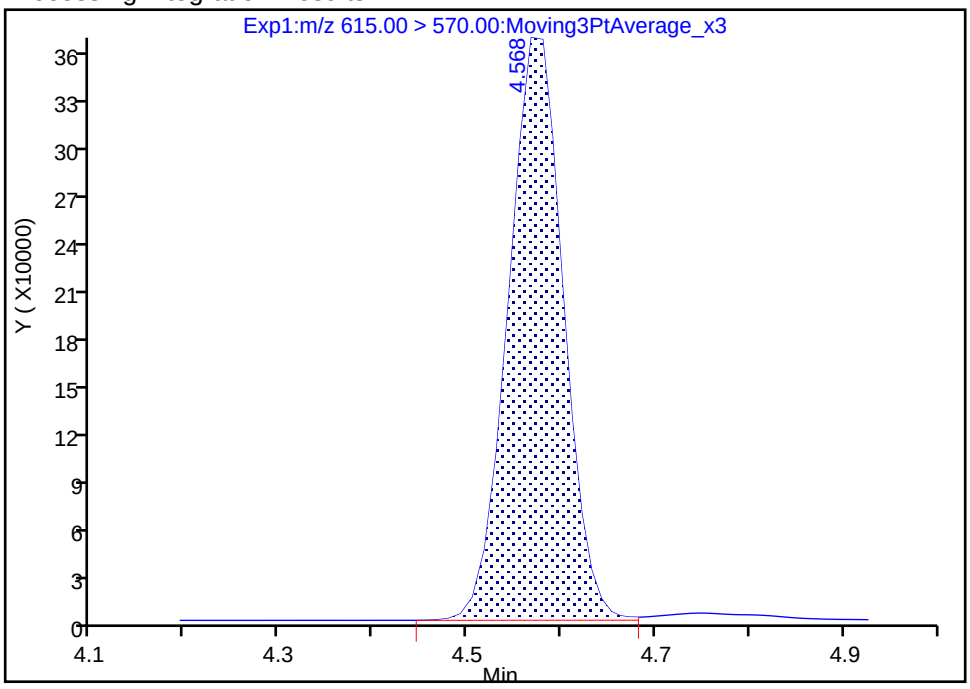
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

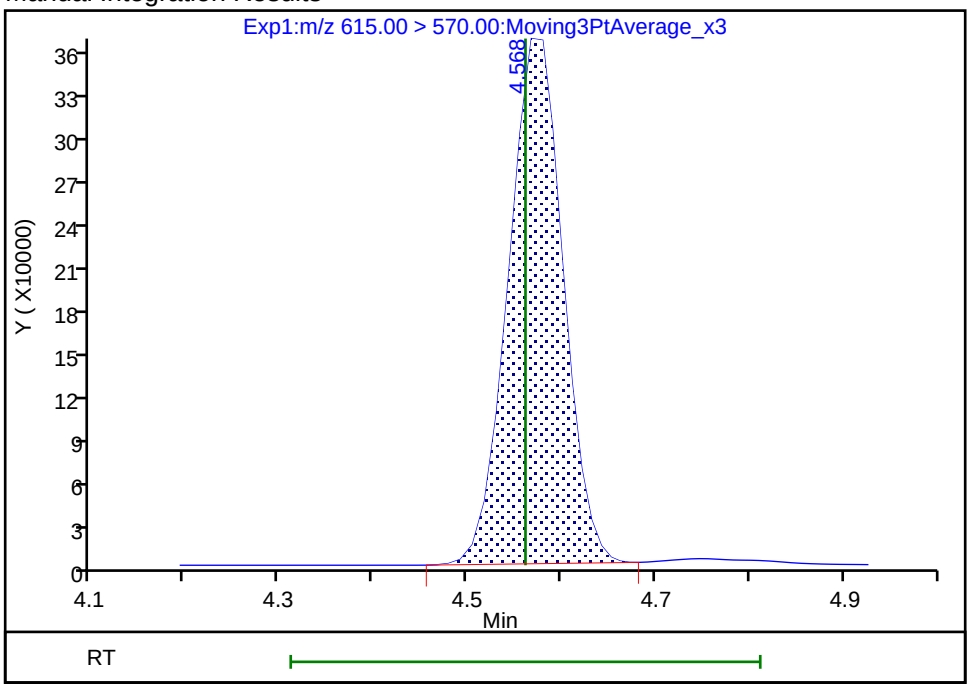
Processing Integration Results

RT: 4.57
Area: 1472558
Amount: 1.326506
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 1459980
Amount: 1.315176
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 09:55:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

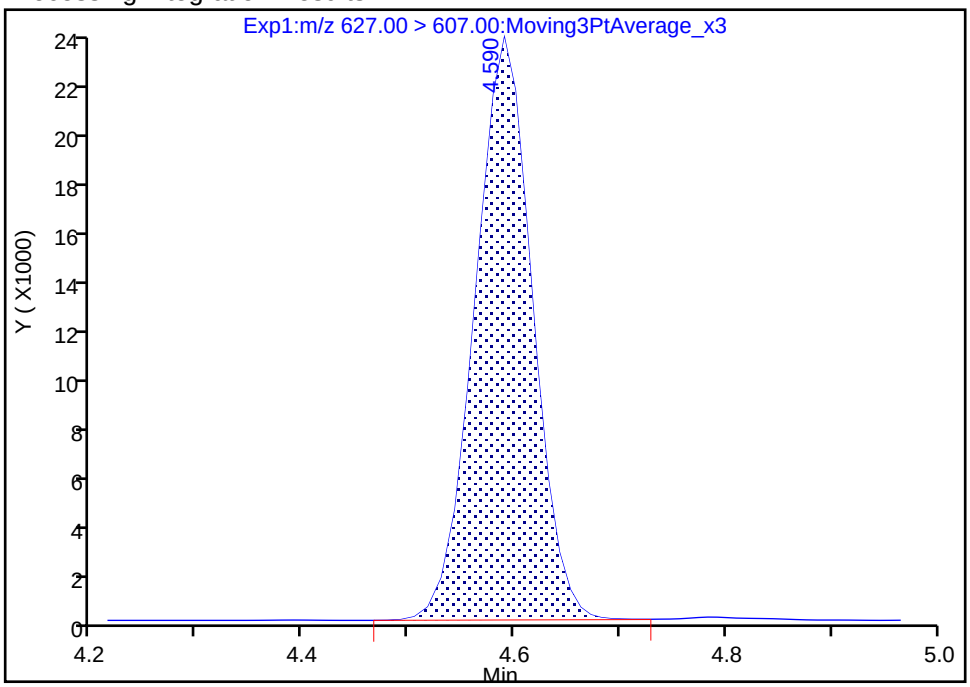
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

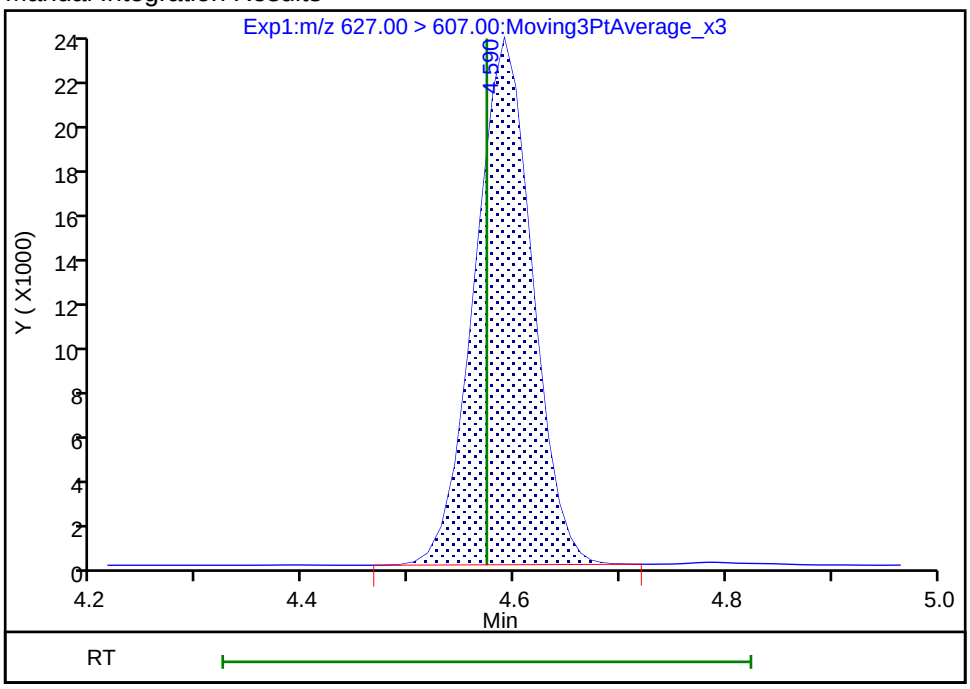
Processing Integration Results

RT: 4.59
Area: 87616
Amount: 0.897864
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 87518
Amount: 0.896860
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

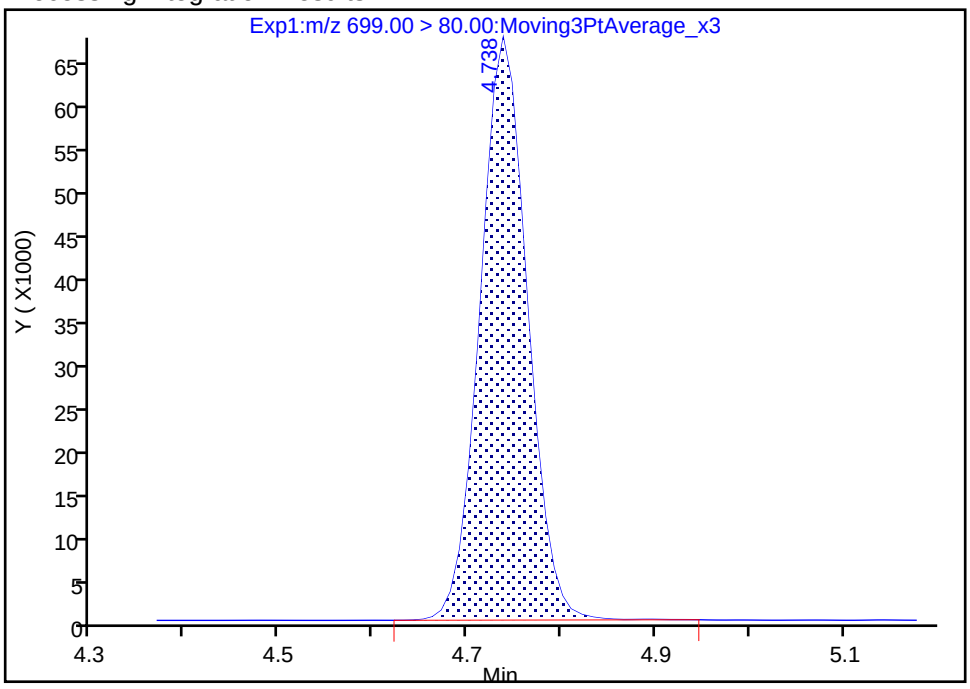
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

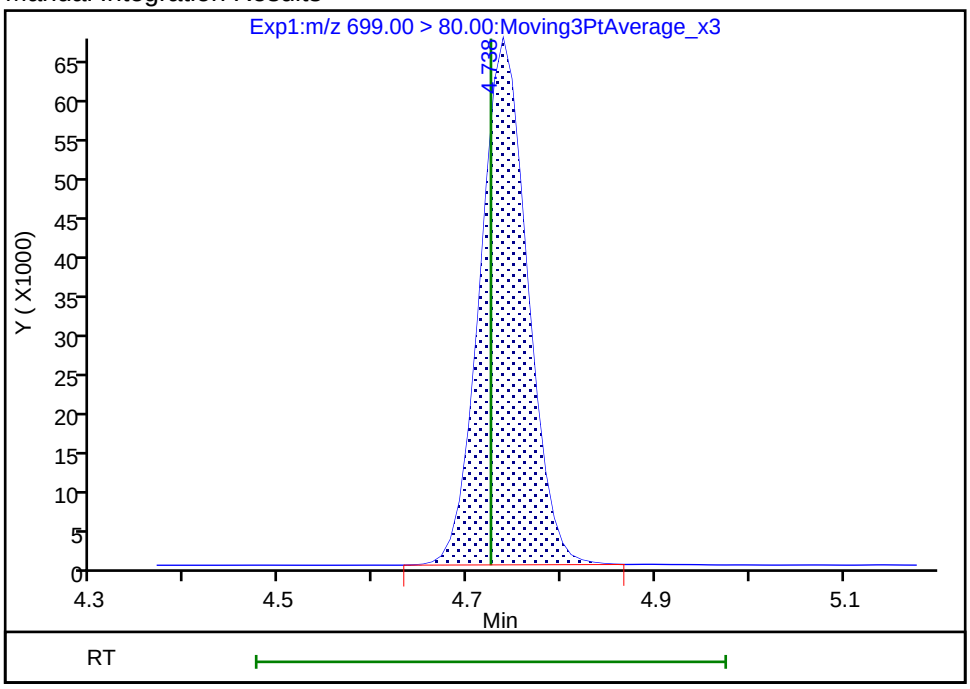
Processing Integration Results

RT: 4.74
Area: 236216
Amount: 1.155126
Amount Units: ng/ml




Manual Integration Results

RT: 4.74
Area: 235778
Amount: 1.152985
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

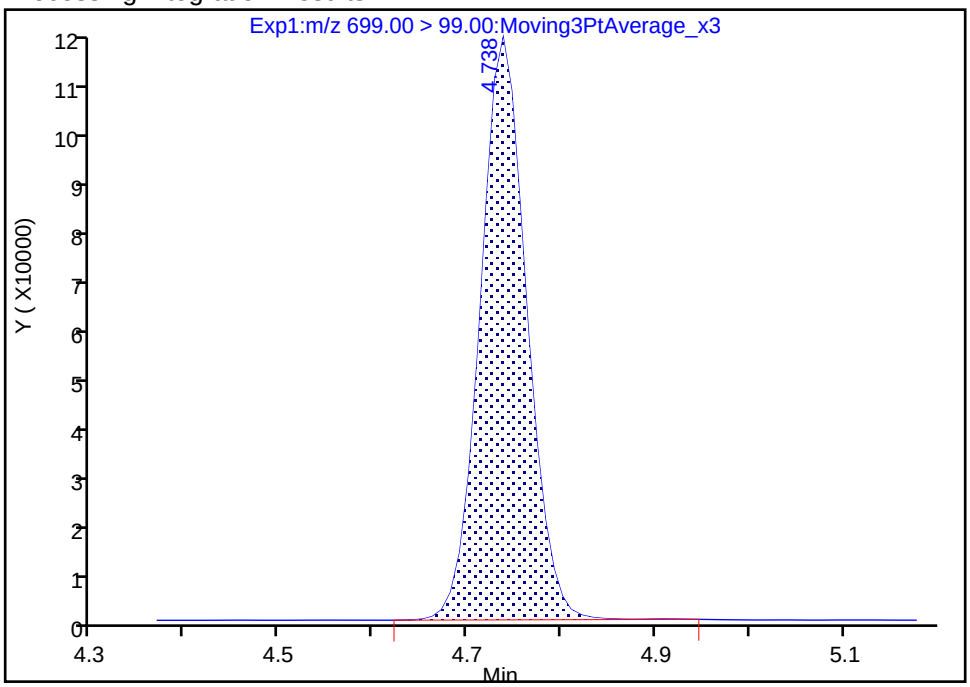
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

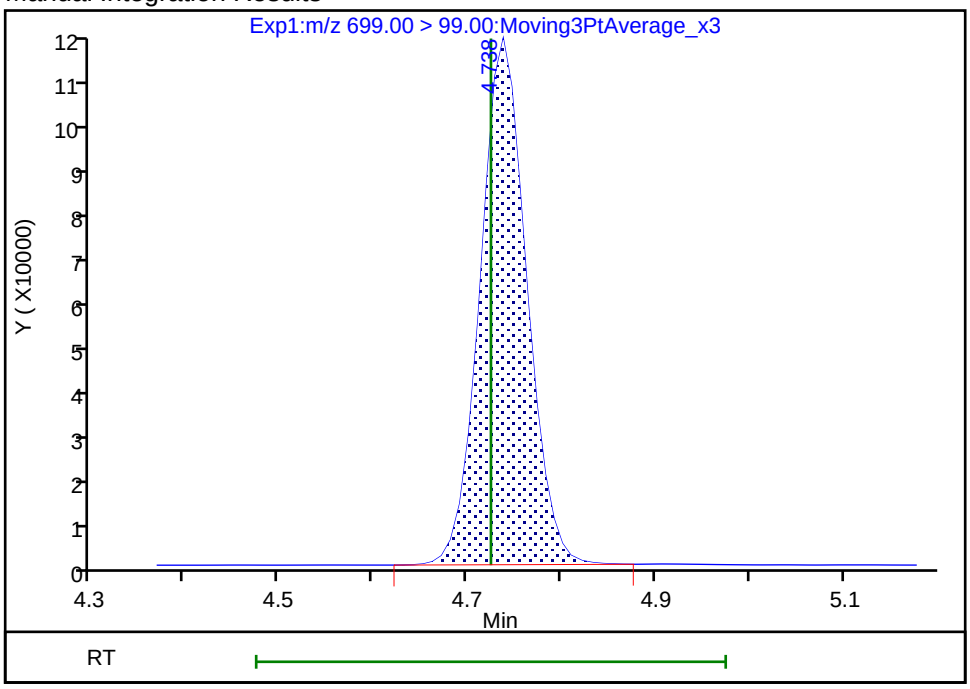
Processing Integration Results

RT: 4.74
Area: 408096
Amount: 1.155126
Amount Units: ng/ml




Manual Integration Results

RT: 4.74
Area: 407470
Amount: 1.152985
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

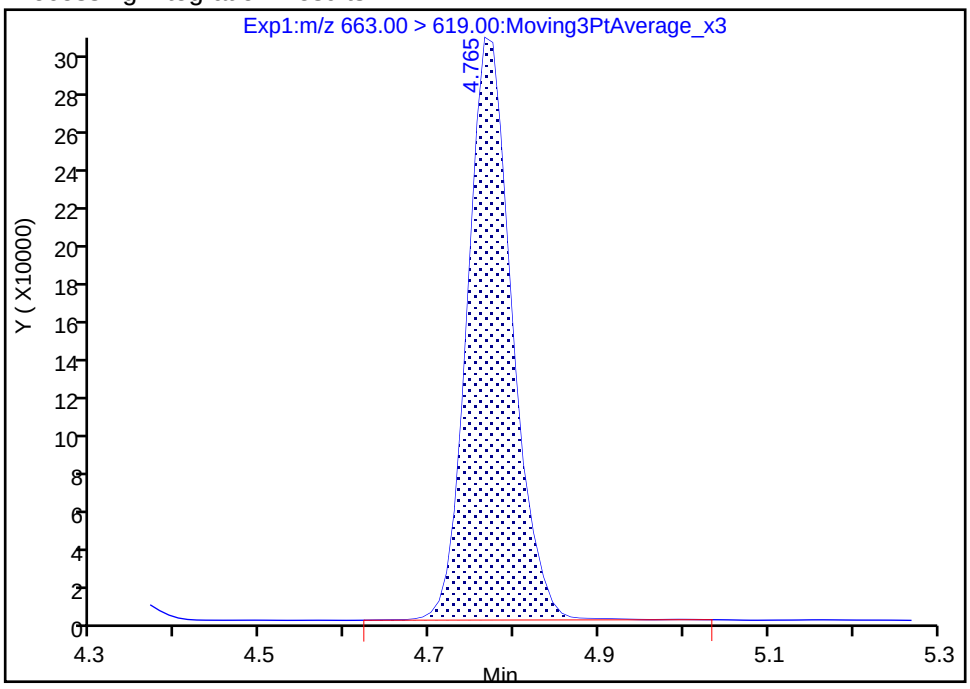
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

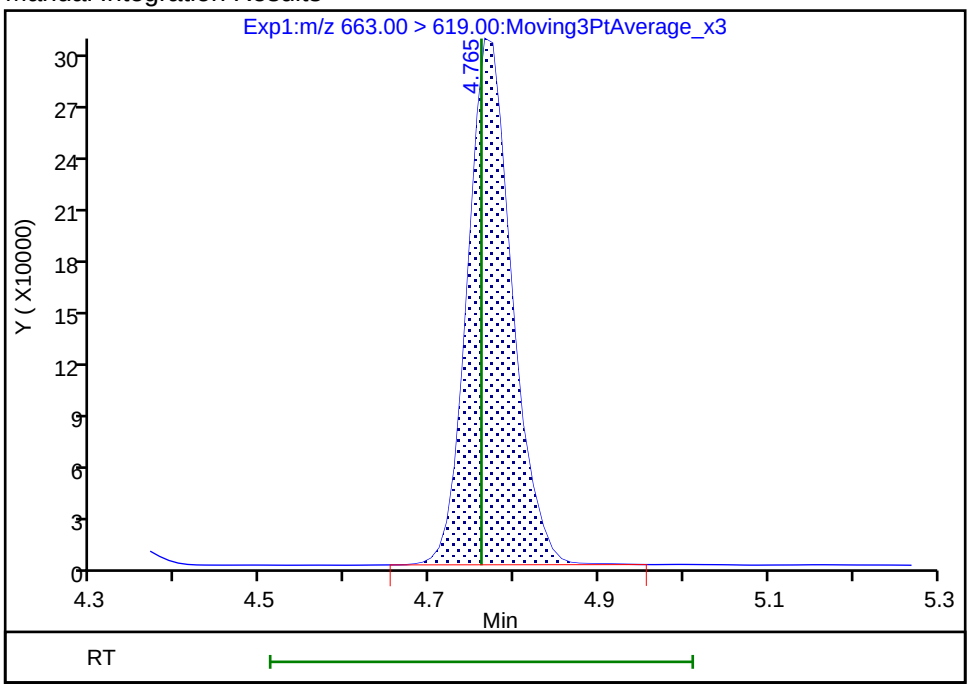
Processing Integration Results

RT: 4.76
Area: 1100774
Amount: 1.106983
Amount Units: ng/ml




Manual Integration Results

RT: 4.76
Area: 1098587
Amount: 1.114302
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

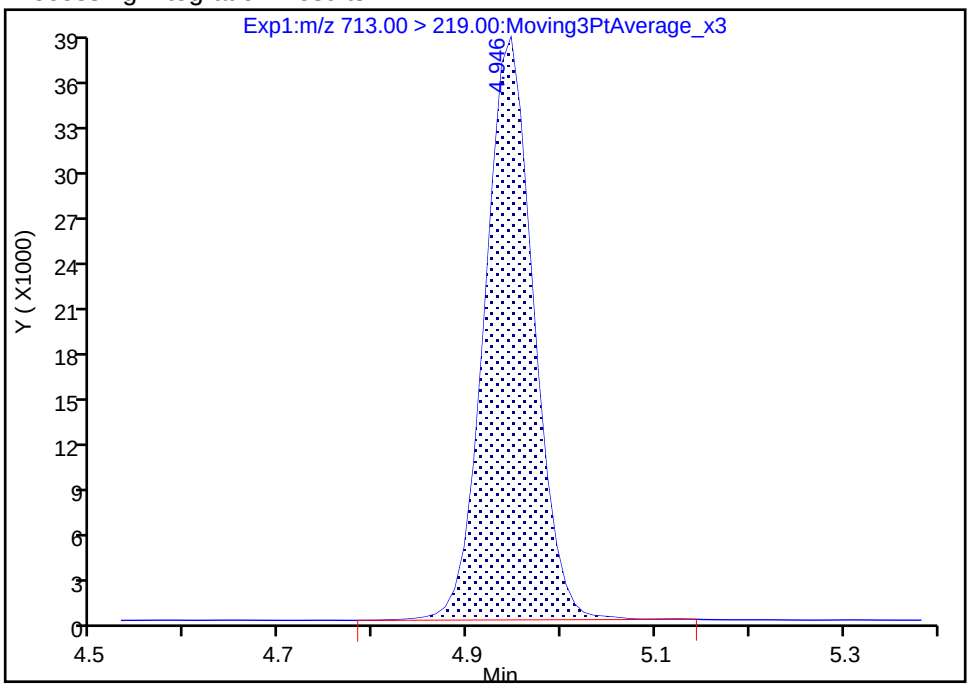
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

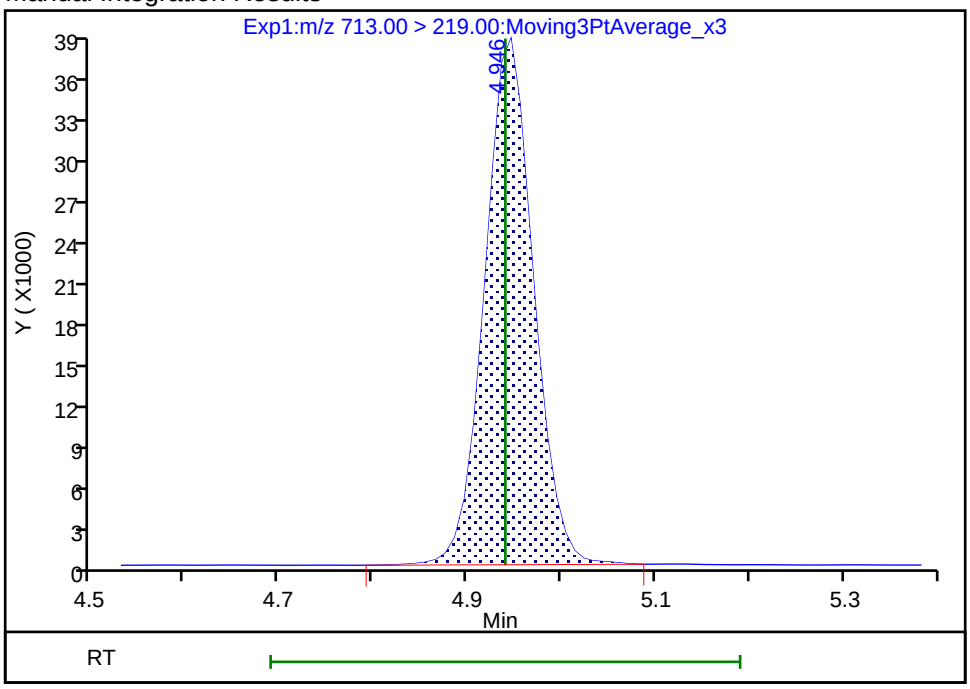
Processing Integration Results

RT: 4.95
Area: 139322
Amount: 0.976252
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 139136
Amount: 0.976252
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

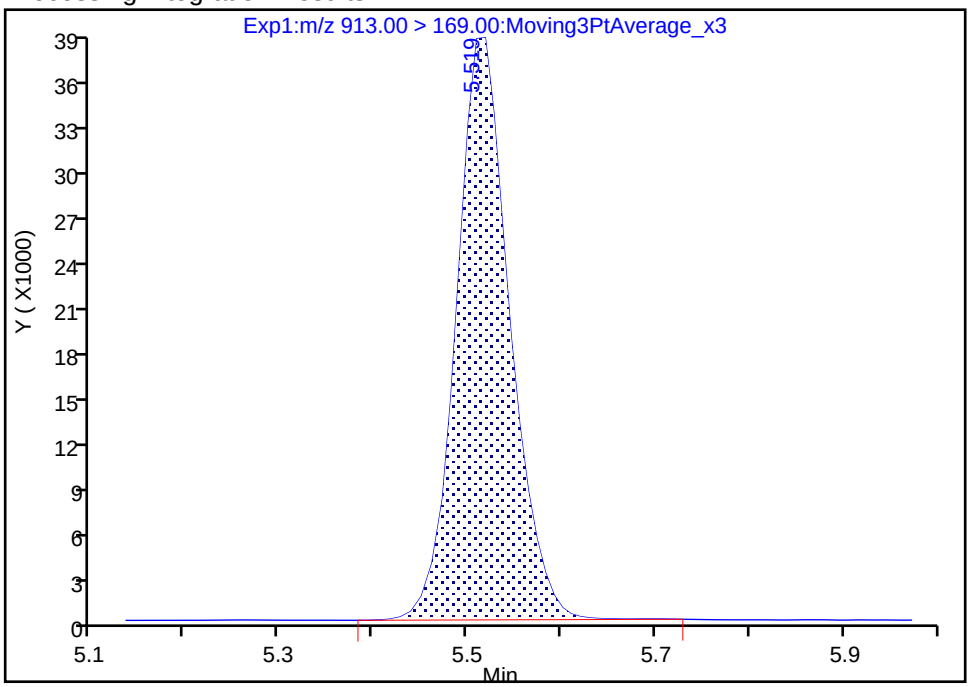
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

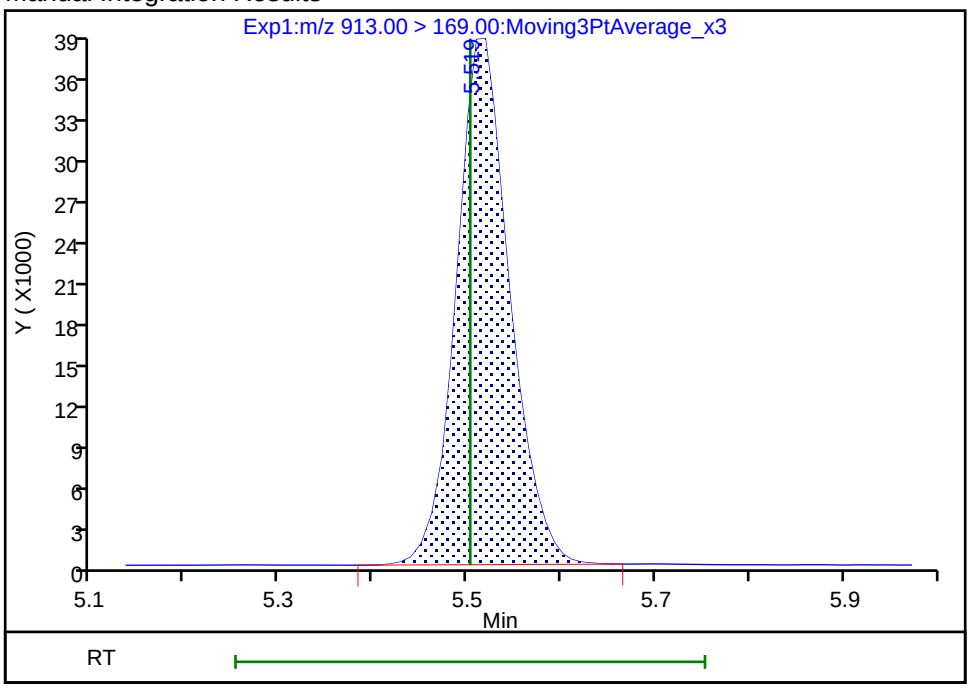
Processing Integration Results

RT: 5.52
Area: 152937
Amount: 1.031520
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 152636
Amount: 1.026065
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

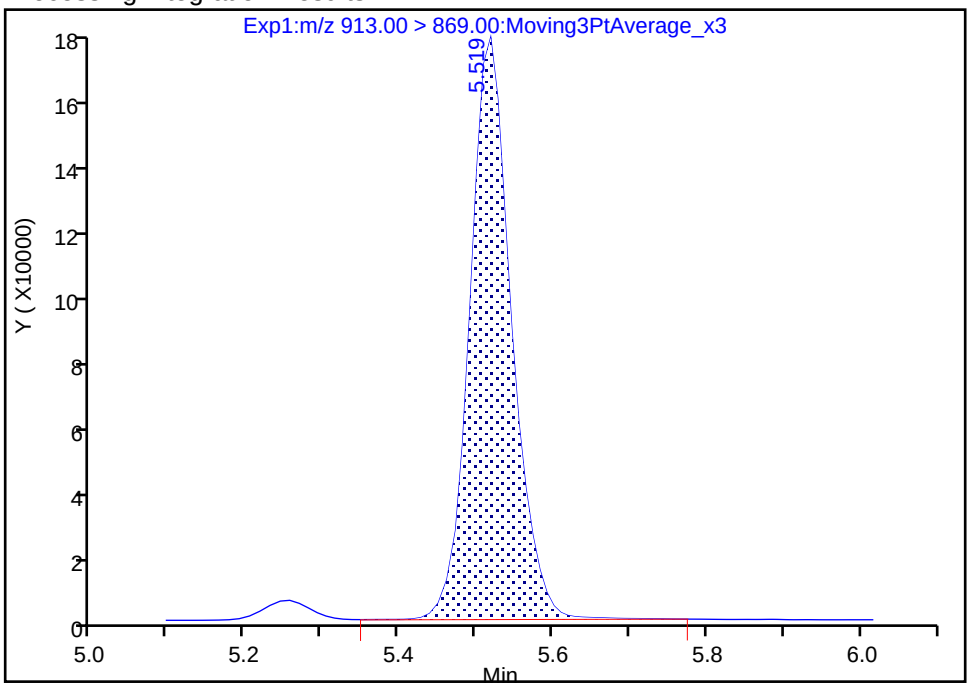
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A25.d | | | | |
| Injection Date: | 03-Nov-2021 16:03:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

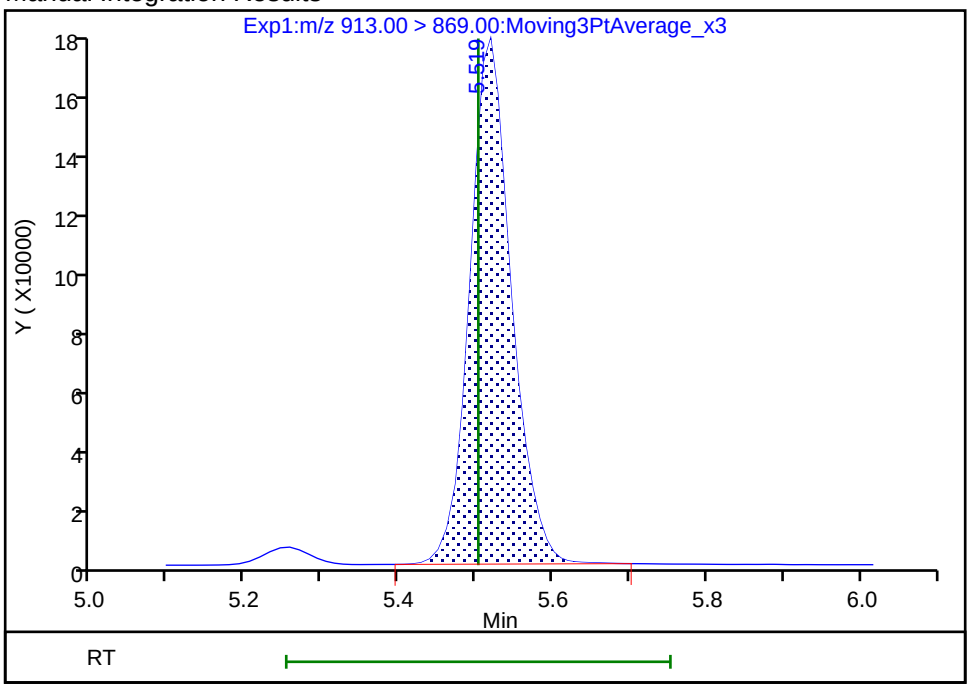
Processing Integration Results

RT: 5.52
Area: 675815
Amount: 1.031520
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 672241
Amount: 1.026065
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 07:55:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173511/5  Calibration Date: 11/04/2021 14:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9930 | | 0.131 | 0.125 | 5.0 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.010 | | 0.0504 | 0.0500 | 0.8 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.110 | | 0.0459 | 0.0442 | 3.9 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.382 | | 0.0523 | 0.0467 | 11.9 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9850 | | 0.0486 | 0.0500 | -2.9 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.251 | | 0.0487 | 0.0469 | 3.9 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.395 | | 0.0971 | 0.100 | -2.9 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.248 | | 0.0516 | 0.0455 | 13.5 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.110 | | 0.0537 | 0.0500 | 7.4 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.668 | | 0.0494 | 0.0471 | 4.8 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.263 | | 0.118 | 0.119 | -0.4 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.273 | | 0.0486 | 0.0476 | 2.1 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.156 | | 0.0544 | 0.0500 | 8.7 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.072 | | 0.0459 | 0.0464 | -1.2 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.035 | | 0.0529 | 0.0500 | 5.8 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.559 | | 0.0445 | 0.0466 | -4.6 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7953 | | 0.0452 | 0.0480 | -5.9 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.175 | | 0.0585 | 0.0500 | 16.9 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9252 | | 0.0530 | 0.0479 | 10.6 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9812 | | 0.0517 | 0.0500 | 3.3 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7305 | | 0.116 | 0.125 | -7.0 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6240 | | 0.0458 | 0.0482 | -5.0 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.056 | | 0.0495 | 0.0500 | -0.9 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7993 | | 0.117 | 0.125 | -6.7 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.806 | | 0.0441 | 0.0471 | -6.5 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.046 | | 0.0534 | 0.0500 | 6.9 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3858 | | 0.0481 | 0.0482 | -0.2 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.3053 | | 0.0611 | 0.0484 | 26.3 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173511/5  Calibration Date: 11/04/2021 14:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9210 | | 0.0546 | 0.0500 | 9.1 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1571 | | 0.0498 | 0.0500 | -0.4 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.164 | | 0.0494 | 0.0500 | -1.2 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7424 | | 0.0440 | 0.0500 | -12.0 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.098 | | 1.36 | 1.25 | 8.5 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9081 | | 1.33 | 1.25 | 6.5 | |
| 13C3 PFBS | Ave | 1.154 | 1.126 | | 1.14 | 1.16 | -2.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0976 | | 1.30 | 1.17 | 11.0 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9503 | | 1.33 | 1.25 | 6.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0224 | | 1.19 | 1.25 | -5.1 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8269 | | 1.17 | 1.18 | -1.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.999 | | 1.33 | 1.25 | 6.1 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1552 | | 1.39 | 1.19 | 17.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.061 | | 1.29 | 1.25 | 3.2 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6342 | | 1.25 | 1.20 | 4.7 | |
| 13C5 PFNA | Ave | 1.025 | 1.017 | | 1.24 | 1.25 | -0.8 | |
| 13C2 PFDA | Ave | 1.034 | 1.009 | | 1.22 | 1.25 | -2.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1835 | | 1.47 | 1.20 | 22.4 | |
| 13C8 FOSA | Ave | 0.998 | 1.046 | | 1.31 | 1.25 | 4.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1067 | | 1.31 | 1.25 | 4.9 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8039 | | 1.25 | 1.25 | -0.3 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1109 | | 1.45 | 1.25 | 16.3 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8387 | | 1.21 | 1.25 | -3.3 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.7120 | | 1.32 | 1.25 | 5.9 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.7469 | | 1.58 | 1.25 | 26.1 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 04-Nov-2021 14:00:51 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048291-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:17 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: deannd Date: 04-Nov-2021 14:55:37
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.080 | 2.082 | -0.002 | 0.596 | 1991705 | 1.36 | | 108 | 10274 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.080 | 2.082 | -0.002 | 1.000 | 197769 | 0.1313 | | 105 | 23.1 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.398 | 2.401 | -0.003 | 0.687 | 1647132 | 1.33 | | 106 | 3805 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.411 | 2.401 | 0.010 | 1.005 | 66531 | 0.0504 | | 101 | 3.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.424 | 2.427 | -0.003 | 0.694 | 1900012 | 1.13 | | 97.6 | 137741 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.424 | 2.427 | -0.003 | 1.000 | 80154 | 0.0459 | Target=2.32 | 104 | 50.2 | M |
| 298.90 > 99.00 | 2.424 | 2.427 | -0.003 | 1.000 | 36249 | | 2.21(1.16-3.48) | | 15.6 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.732 | 2.723 | 0.009 | 0.782 | 165398 | 1.30 | | 111 | 93.8 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.732 | 2.735 | -0.003 | 1.000 | 15760 | 0.0523 | | 112 | 47.8 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.768 | 2.759 | 0.009 | 0.793 | 1723796 | 1.33 | | 106 | 2803 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.768 | 2.771 | -0.003 | 1.000 | 67916 | 0.0486 | Target=12.09 | 97.1 | 11.1 | |
| 313.00 > 119.00 | 2.768 | 2.771 | -0.003 | 1.000 | 6790 | | 10.00(6.04-18.13) | | 12.9 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.768 | 2.771 | -0.003 | 0.884 | 70404 | 0.0487 | Target=3.03 | 104 | 41.1 | M |
| 349.00 > 99.00 | 2.780 | 2.771 | 0.009 | 0.888 | 21721 | | 3.24(1.52-4.55) | | 19.8 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.878 | 2.869 | 0.009 | 0.824 | 40551 | 1.19 | | 94.9 | 231 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.878 | 2.881 | -0.003 | 1.000 | 14259 | 0.0971 | | 97.1 | 4.0 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1418844 | 1.17 | | 98.6 | 955 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 68111 | 0.0516 | Target=3.55 | 113 | 41.3 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 20307 | | 3.35(1.77-5.32) | | 16.5 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1812679 | 1.33 | | 106 | 2825 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.144 | -0.001 | 1.000 | 80469 | 0.0537 | Target=3.69 | 107 | 20.8 | |
| 363.00 > 169.00 | 3.143 | 3.144 | -0.001 | 1.000 | 21150 | | 3.80(1.84-5.53) | | 33.4 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.176 | -0.001 | 0.835 | 158980 | 0.0494 | Target=2.56 | 105 | 64.0 | |
| 377.00 > 85.00 | 3.175 | 3.176 | -0.001 | 0.835 | 59195 | | 2.69(1.28-3.84) | | 43.0 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.484 | -0.001 | 1.000 | 33703 | 0.1180 | | 99.6 | 55.3 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.484 | -0.001 | 0.916 | 55779 | 0.0486 | Target=4.88 | 102 | 35.8 | M |
| 449.00 > 99.00 | 3.483 | 3.484 | -0.001 | 0.916 | 10968 | | 5.09(2.44-7.32) | | 20.4 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.484 | -0.001 | 0.997 | 267489 | 1.39 | | 117 | 432 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.493 | -0.001 | 1.000 | 1925261 | 1.29 | | 103 | 2050 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.493 | -0.001 | | 1813903 | 1.25 | | | 647 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.493 | -0.001 | 1.000 | 89045 | 0.0544 | Target=2.68 | 109 | 11.2 | |
| 413.00 > 169.00 | 3.501 | 3.493 | 0.008 | 1.003 | 31931 | | 2.79(1.34-4.02) | | 27.6 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.089 | 1099692 | 1.25 | | 105 | 713 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.806 | -0.002 | 1.000 | 45786 | 0.0459 | Target=4.69 | 98.8 | 20.7 | M |
| 499.00 > 99.00 | 3.804 | 3.806 | -0.002 | 1.000 | 9886 | | 4.63(2.35-7.04) | | 16.4 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.826 | -0.001 | 1.095 | 1844746 | 1.24 | | 99.2 | 3357 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.825 | 3.826 | -0.001 | 1.000 | 76356 | 0.0529 | Target=7.29 | 106 | 13.2 | |
| 463.00 > 169.00 | 3.825 | 3.826 | -0.001 | 1.000 | 9939 | | 7.68(3.64-10.93) | | 38.7 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.964 | 3.967 | -0.003 | 1.042 | 66867 | 0.0445 | | 95.4 | 38.9 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.093 | 4.095 | -0.002 | 1.076 | 35130 | 0.0452 | Target=2.35 | 94.1 | 33.0 | |
| 549.00 > 99.00 | 4.093 | 4.095 | -0.002 | 1.076 | 13977 | | 2.51(1.17-3.52) | | 25.1 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.118 | -0.003 | 1.178 | 1829463 | 1.22 | | 97.5 | 133 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.118 | -0.003 | 1.000 | 85988 | 0.0585 | Target=8.95 | 117 | 21.6 | |
| 513.00 > 169.00 | 4.115 | 4.118 | -0.003 | 1.000 | 10049 | | 8.56(4.47-13.42) | | 15.3 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.129 | -0.003 | 1.182 | 318798 | 1.47 | | 122 | 217 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.129 | -0.003 | 1.000 | 11798 | 0.0530 | | 111 | 19.2 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.235 | 4.227 | 0.008 | 1.213 | 1897610 | 1.31 | | 105 | 964 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.235 | 4.227 | 0.008 | 1.000 | 74475 | 0.0517 | | 103 | 154 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.260 | -0.003 | 1.219 | 193595 | 1.31 | | 105 | 218 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.260 | 0.008 | 1.003 | 14142 | 0.1162 | | 93.0 | 34.4 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.351 | -0.004 | 1.143 | 27680 | 0.0458 | Target=2.47 | 95.0 | 94.3 | |
| 599.00 > 99.00 | 4.347 | 4.351 | -0.004 | 1.143 | 11955 | | 2.32(1.23-3.70) | | 64.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.373 | 0.007 | 1.254 | 1458268 | 1.25 | | 99.7 | 1020 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.373 | 0.007 | 1.000 | 61603 | 0.0495 | Target=9.24 | 99.1 | 26.6 | |
| 563.00 > 169.00 | 4.380 | 4.373 | 0.007 | 1.000 | 7853 | | 7.84(4.62-13.86) | | 42.6 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.384 | 0.007 | 1.257 | 201084 | 1.45 | | 116 | 651 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.395 | -0.004 | 1.000 | 16073 | 0.1166 | | 93.3 | 56.7 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.460 | 0.007 | 1.174 | 78258 | 0.0441 | | 93.5 | 155 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.601 | 4.595 | 0.006 | 1.317 | 1521232 | 1.21 | | 96.7 | 601 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.606 | -0.005 | 1.000 | 63674 | 0.0534 | Target=7.04 | 107 | 11.5 | |
| 613.00 > 169.00 | 4.601 | 4.606 | -0.005 | 1.000 | 10869 | | 5.86(3.52-10.56) | | 91.3 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.622 | 4.616 | 0.006 | 1.120 | 4950 | 0.0481 | | 99.8 | 80.8 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.765 | 4.770 | -0.005 | 1.253 | 13599 | 0.0611 | Target=0.49 | 126 | 183 | M |
| 699.00 > 99.00 | 4.765 | 4.770 | -0.005 | 1.253 | 22764 | | 0.60(0.25-0.74) | | 228 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.797 | 0.004 | 1.043 | 56042 | 0.0546 | Target=4.68 | 109 | 13.3 | |
| 663.00 > 169.00 | 4.801 | 4.797 | 0.004 | 1.043 | 13776 | | 4.07(2.34-7.02) | | 141 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.975 | 4.979 | -0.004 | 1.425 | 1291517 | 1.32 | | 106 | 1508 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.979 | 0.006 | 1.002 | 8118 | 0.0498 | Target=1.01 | 99.6 | 103 | |
| 713.00 > 219.00 | 4.975 | 4.979 | -0.004 | 1.000 | 9022 | | 0.90(0.51-1.52) | | 166 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.282 | 5.284 | -0.002 | 1.513 | 1354736 | 1.58 | | 126 | 3834 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.282 | 5.284 | -0.002 | 1.000 | 63051 | 0.0494 | Target=4.57 | 98.8 | 19.3 | |
| 813.00 > 169.00 | 5.293 | 5.284 | 0.009 | 1.002 | 13603 | | 4.64(2.29-6.86) | | 240 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.556 | 5.549 | 0.007 | 1.052 | 40230 | 0.0440 | Target=4.27 | 88.0 | 20.1 | M |
| 913.00 > 169.00 | 5.546 | 5.549 | -0.003 | 1.050 | 9451 | | 4.26(2.14-6.41) | | 151 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 08-Nov-2021 11:22:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d

Injection Date: 04-Nov-2021 14:00:51 Instrument ID: LC812

Lims ID: CCVL

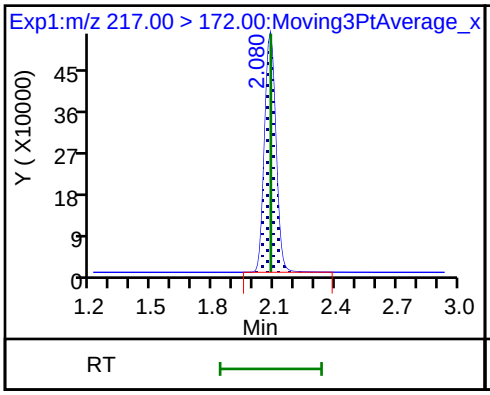
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

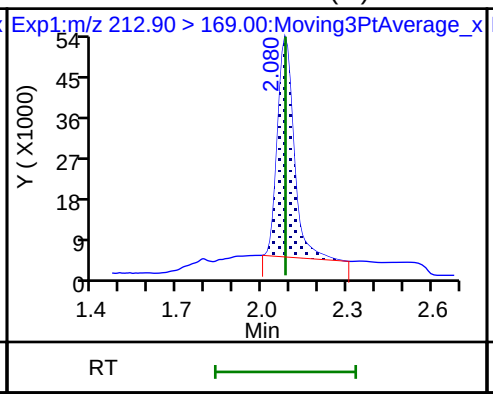
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

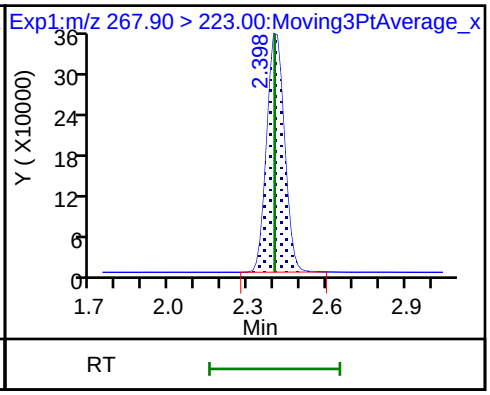
D 1 13C4 PFBA



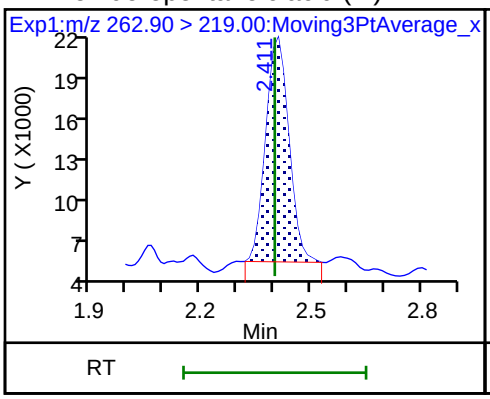

2 Perfluorobutanoic acid (M)



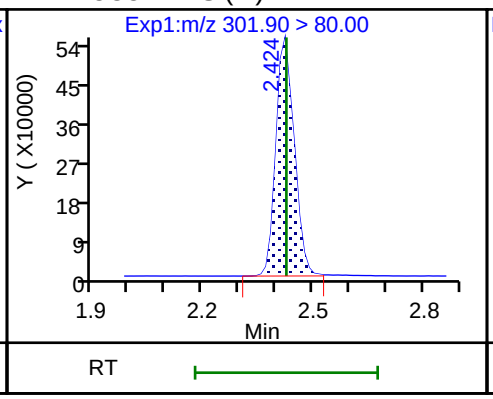

D 3 13C5 PFPeA



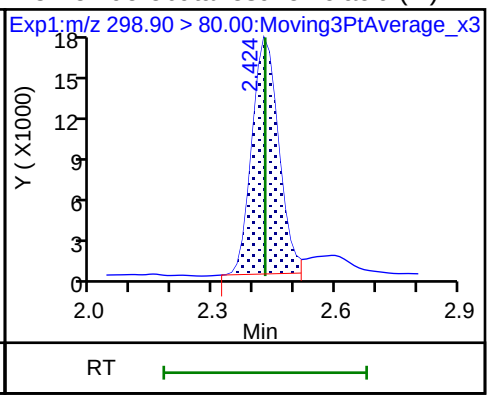

4 Perfluoropentanoic acid (M)



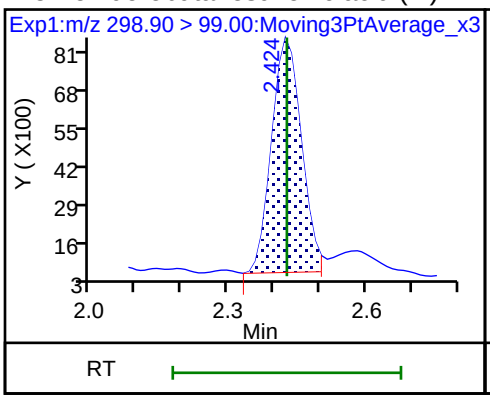

D 47 13C3 PFBS (M)



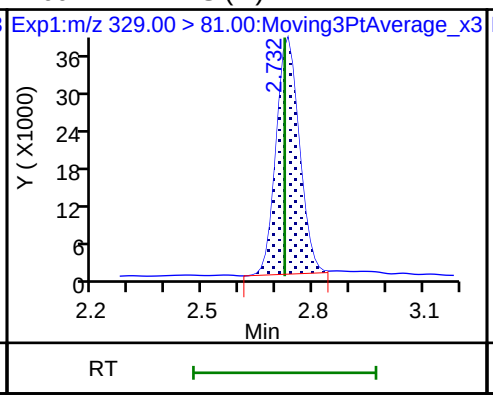

5 Perfluorobutanesulfonic acid (M)



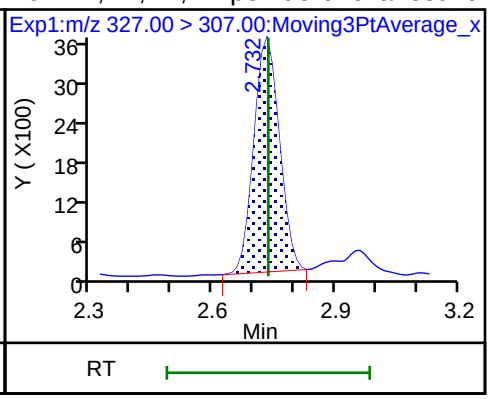

5 Perfluorobutanesulfonic acid (M)



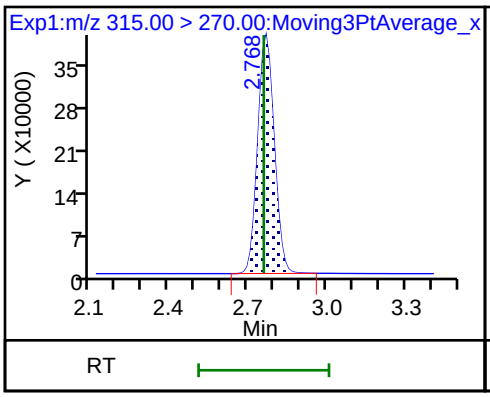

D 60 M2-4:2 FTS (M)



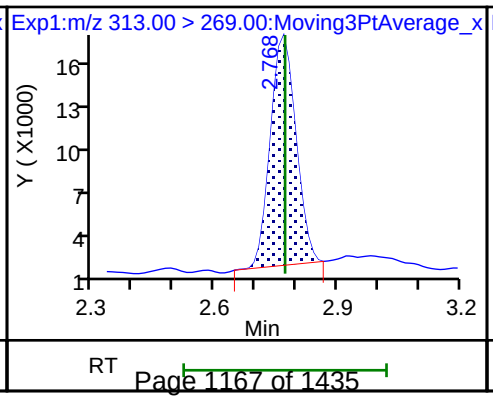

61 1H,1H,2H,2H-perfluorohexanesulfo



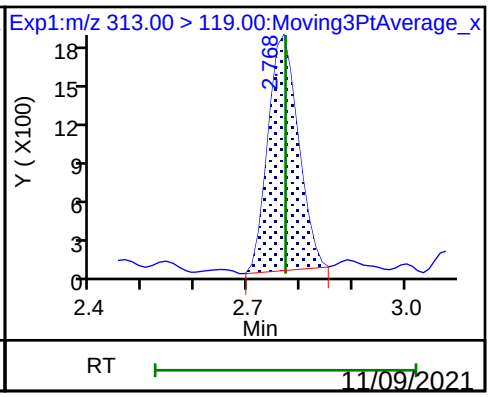

D 7 13C2 PFHxA



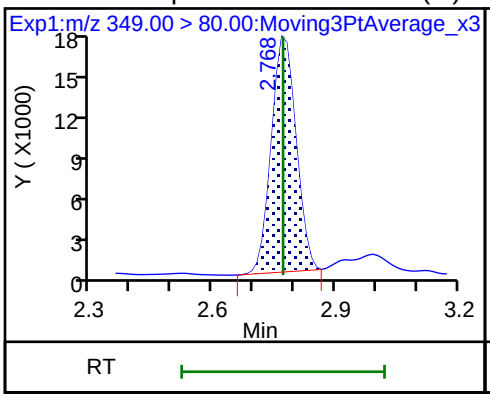

6 Perfluorohexanoic acid



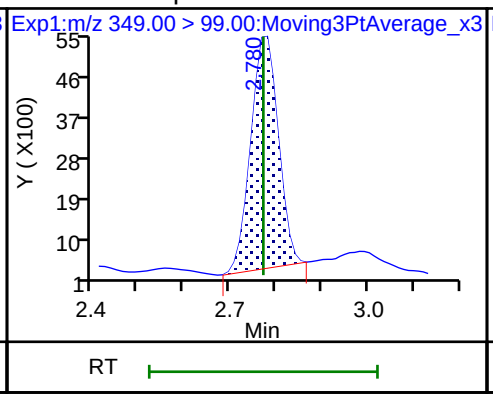

6 Perfluorohexanoic acid



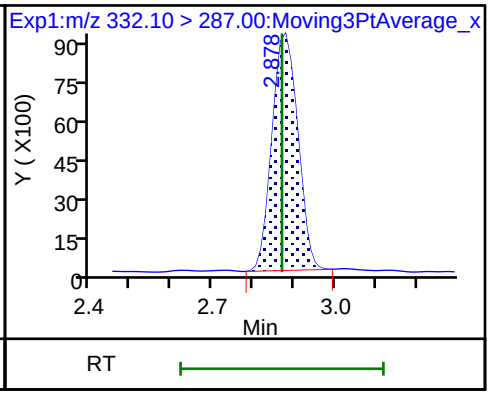
70 Perfluoropentanesulfonic acid (M)



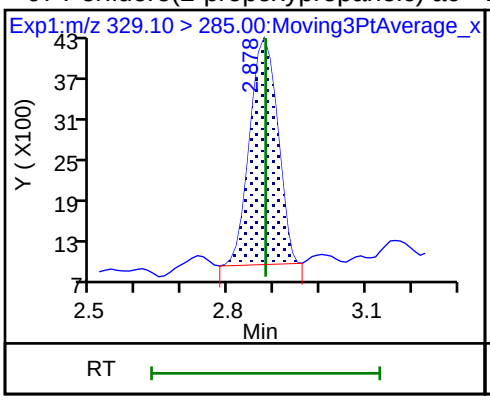

70 Perfluoropentanesulfonic acid



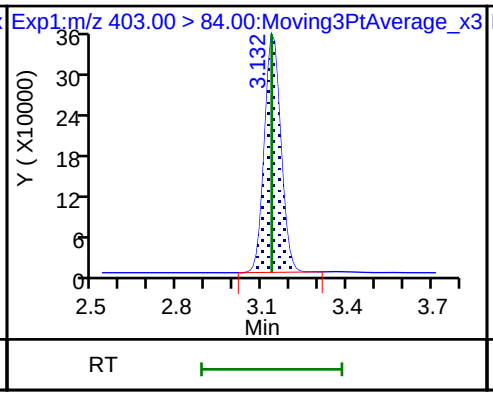

D 64 13C3 HFPO-DA



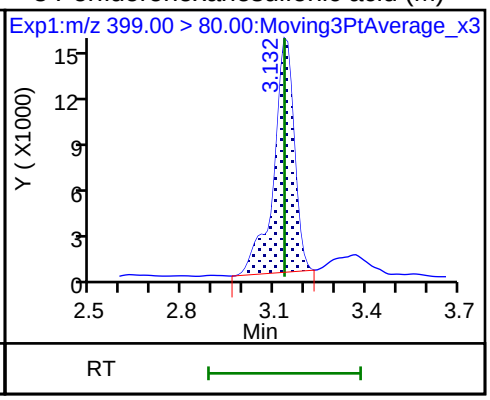

67 Perfluoro(2-propoxypropanoic) ac



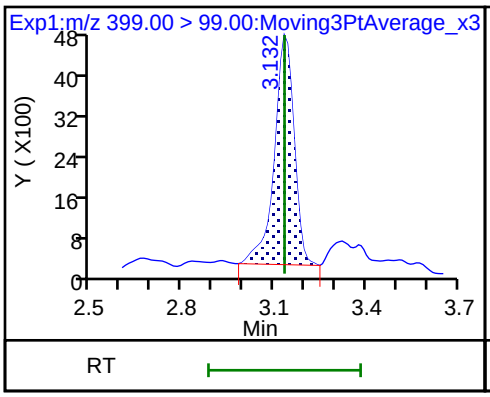

D 11 18O2 PFHxS



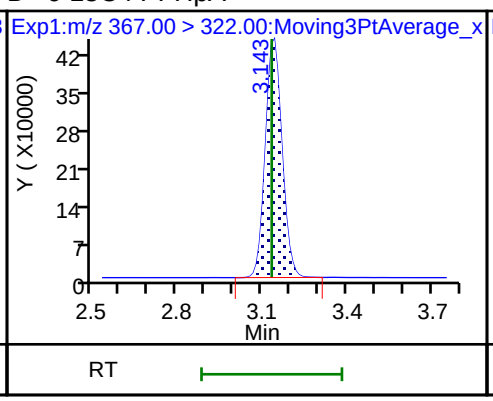

8 Perfluorohexanesulfonic acid (M)



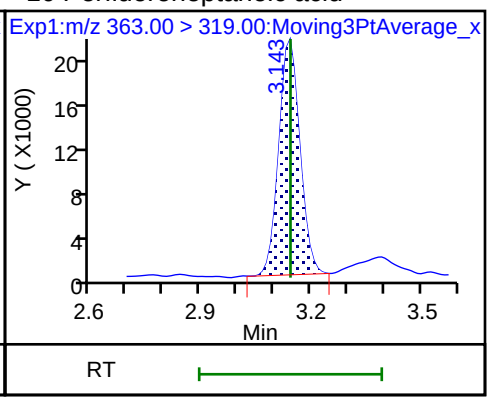

8 Perfluorohexanesulfonic acid



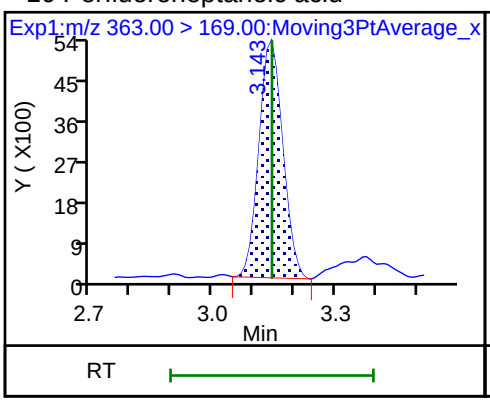

D 9 13C4 PFHpA



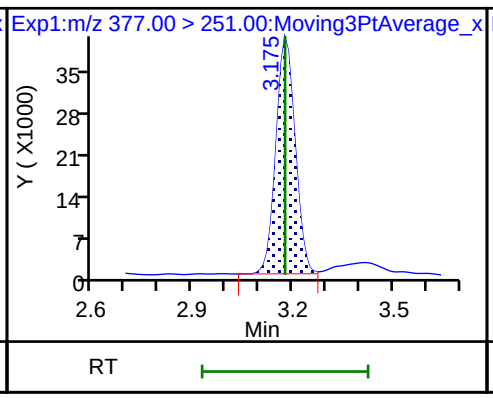

10 Perfluoroheptanoic acid



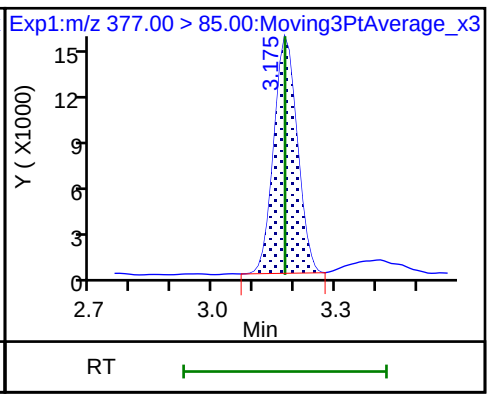

10 Perfluoroheptanoic acid



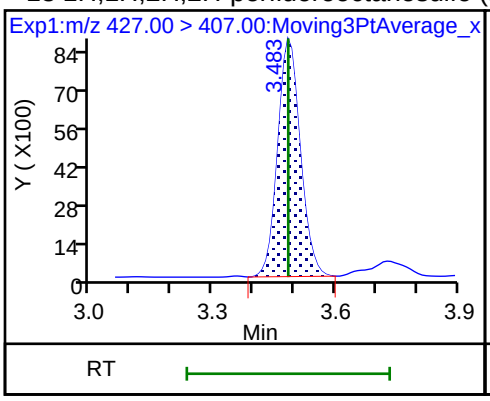

77 DONA



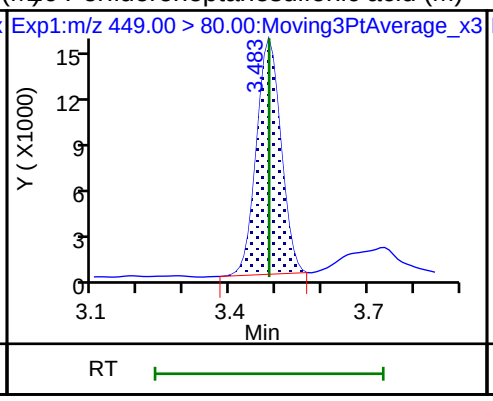

77 DONA



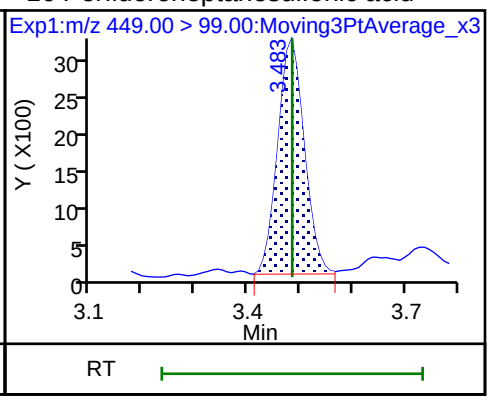
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



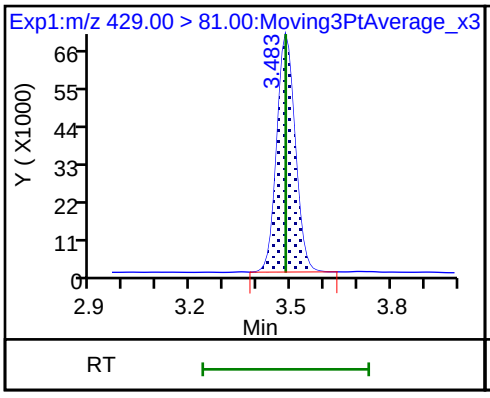

16 Perfluoroheptanesulfonic acid (M)



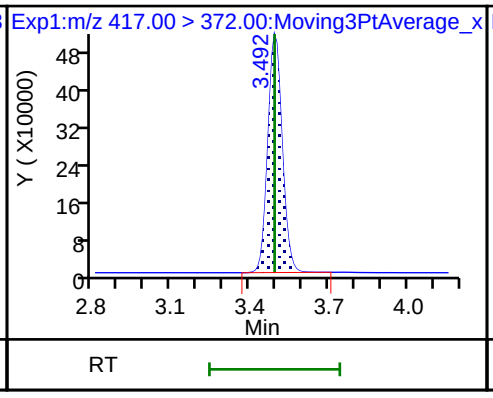

16 Perfluoroheptanesulfonic acid



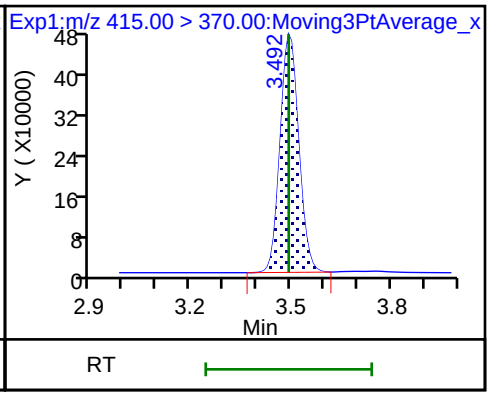

D 12 M2-6:2 FTS



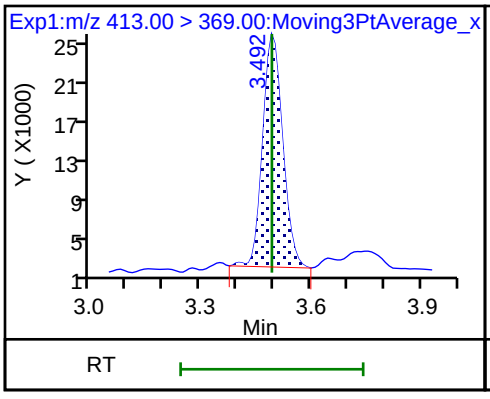

D 14 13C4 PFOA



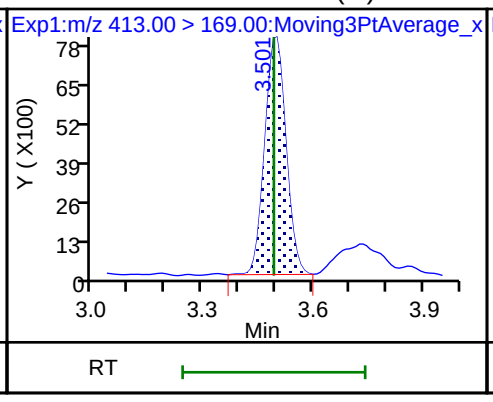

* 62 13C2 PFOA



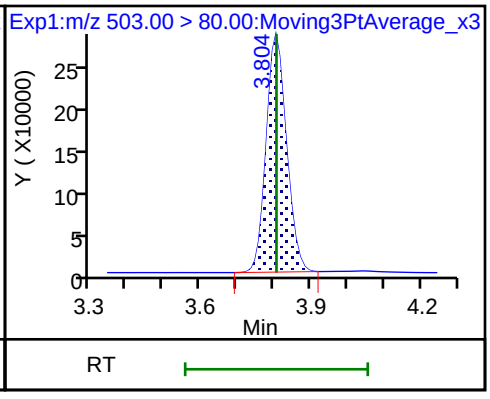

15 Perfluorooctanoic acid



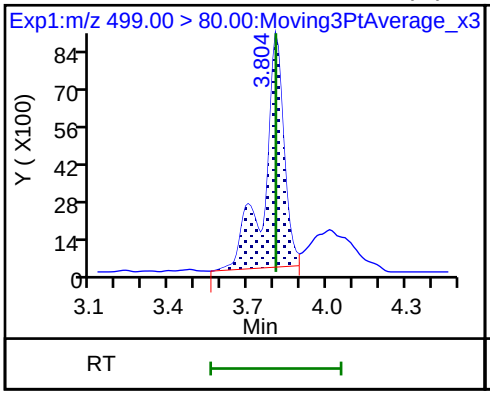

15 Perfluorooctanoic acid (M)



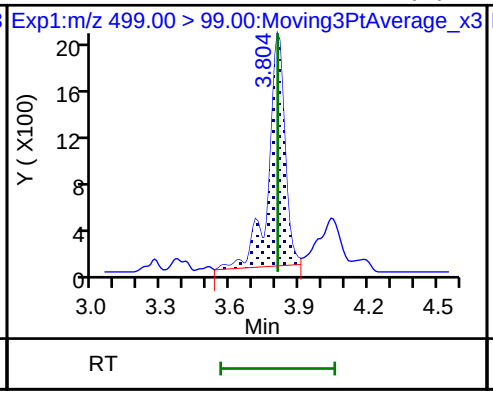

D 18 13C4 PFOS



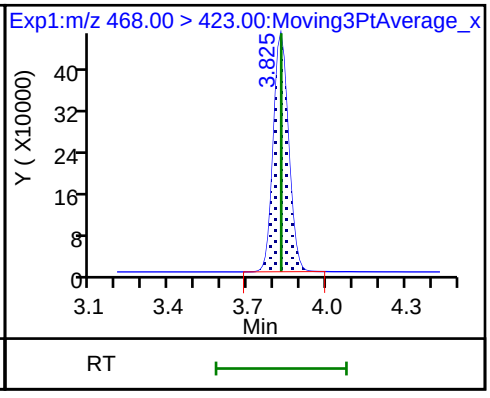

17 Perfluorooctanesulfonic acid (M)



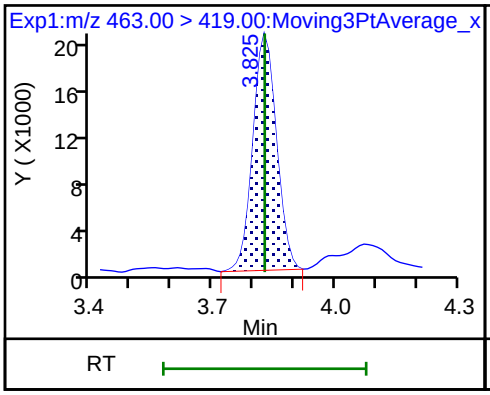

17 Perfluorooctanesulfonic acid (M)



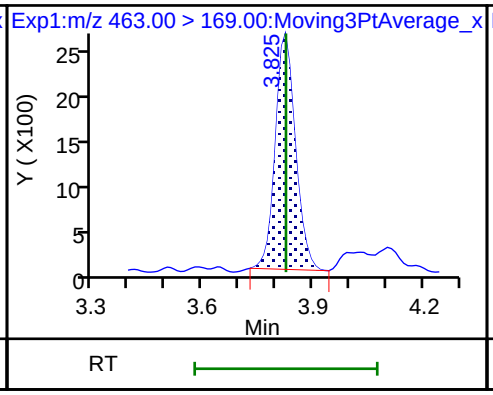

D 19 13C5 PFNA



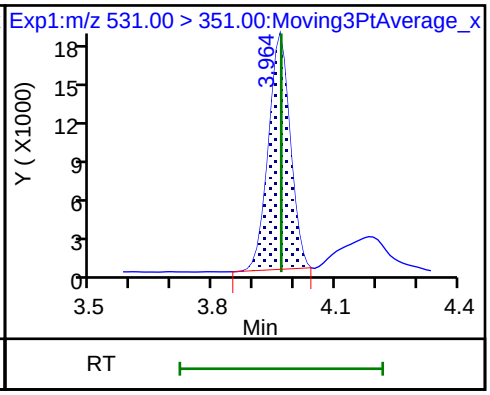
20 Perfluorononanoic acid



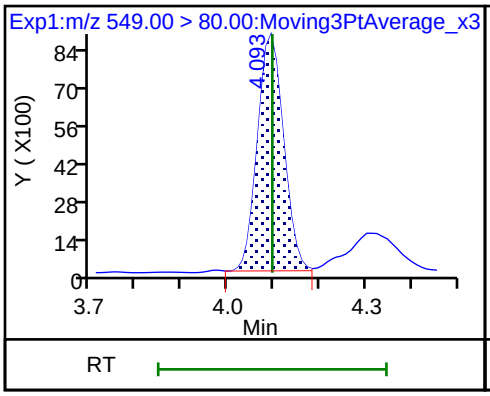

20 Perfluorononanoic acid



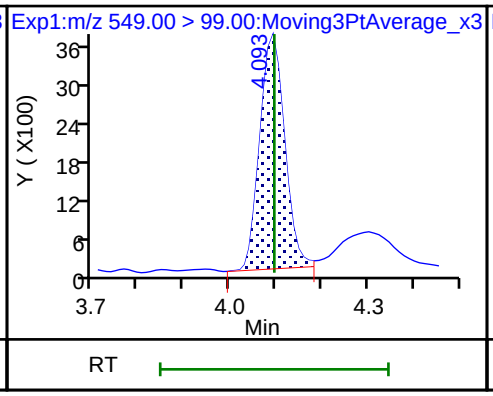

69 9-Chlorohexadecafluoro-3-oxanona (M)



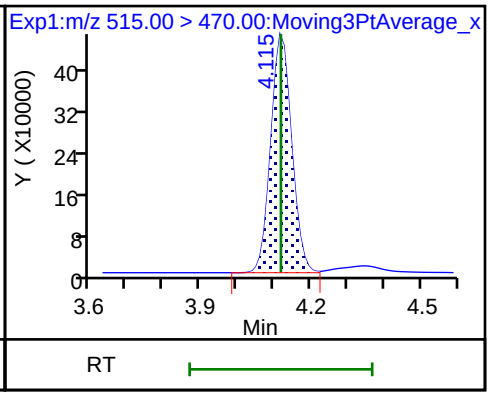

68 Perfluorononanesulfonic acid



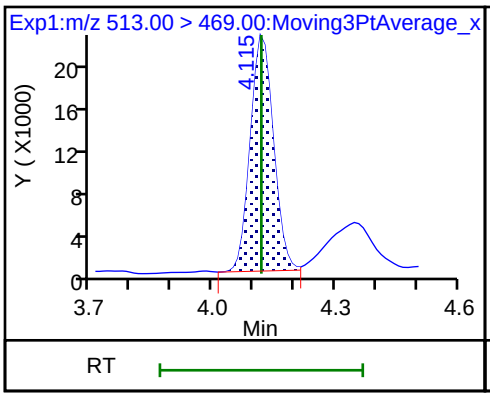

68 Perfluorononanesulfonic acid



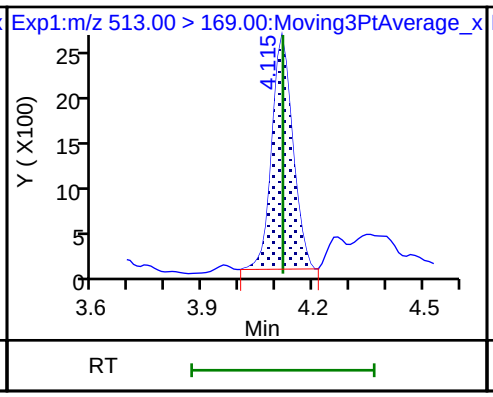

D 23 13C2 PFDA



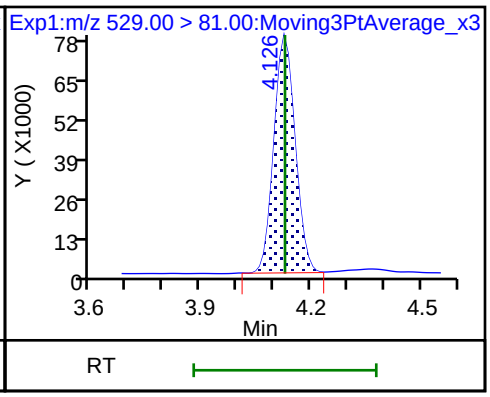

24 Perfluorodecanoic acid



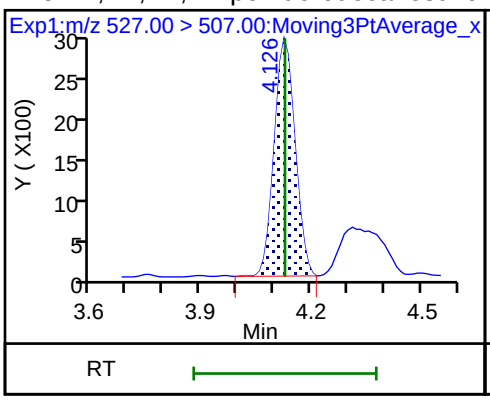

24 Perfluorodecanoic acid



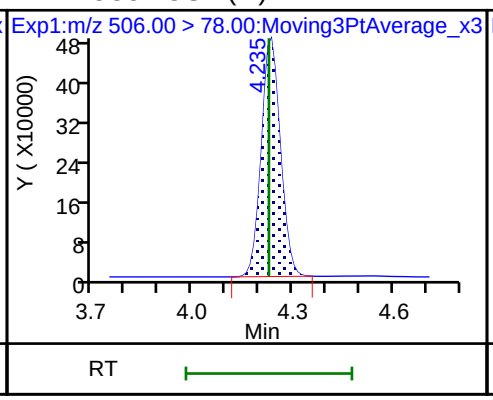

D 26 M2-8:2 FTS



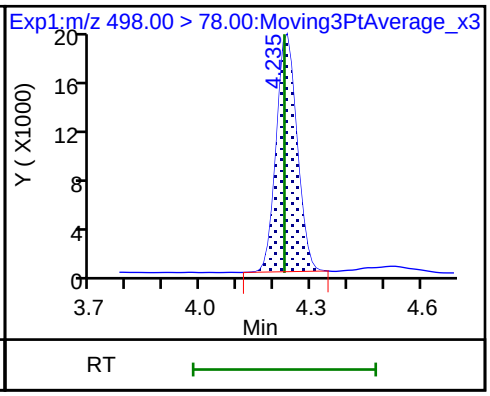

25 1H,1H,2H,2H-perfluorodecanesulfo



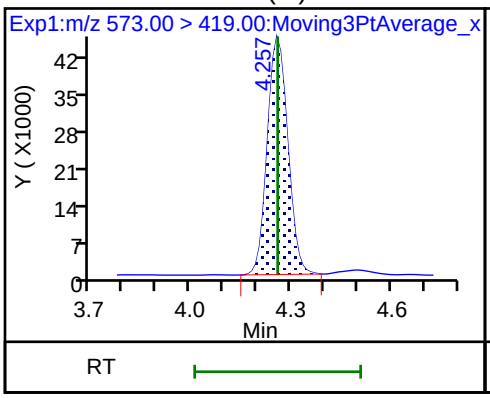

D 21 13C8 FOSA (M)



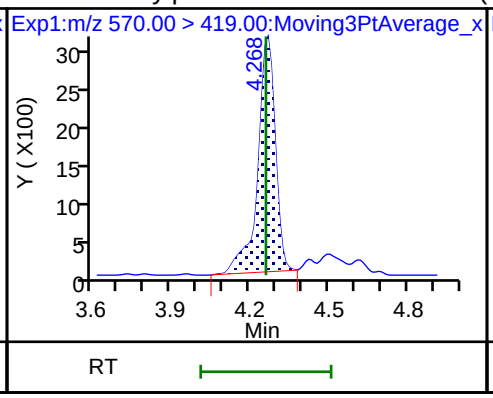

22 Perfluorooctanesulfonamide



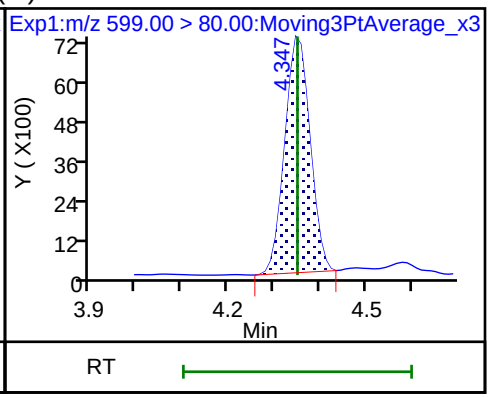
D 27 d3-NMeFOSAA (M)



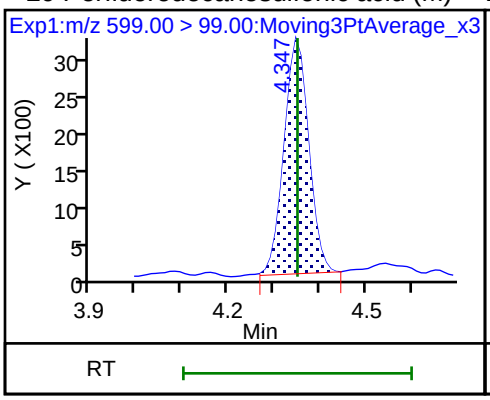

28 N-methylperfluorooctanesulfonami (M)



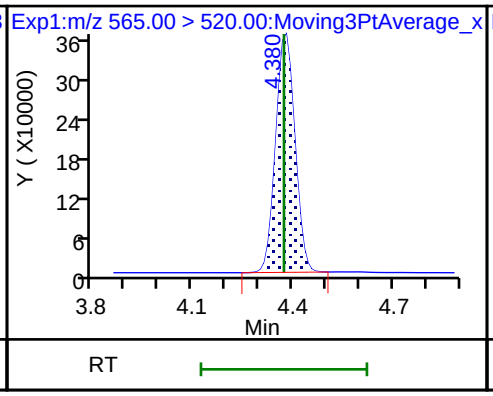

29 Perfluorodecanesulfonic acid



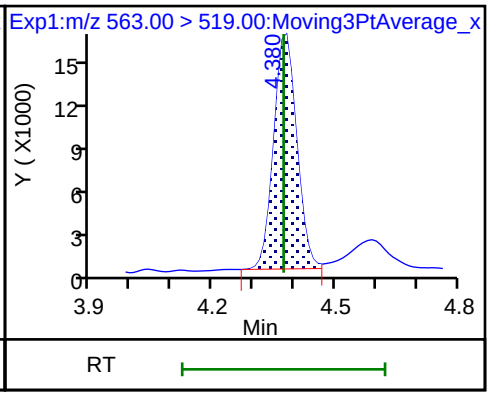

29 Perfluorodecanesulfonic acid (M)



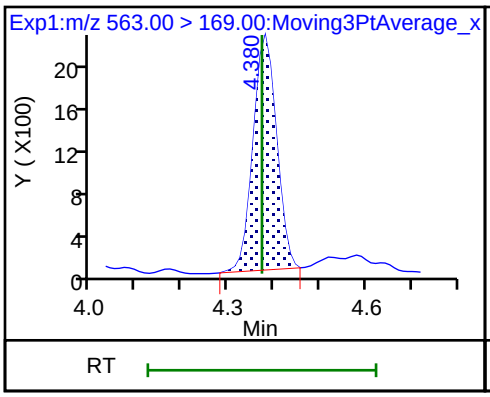

D 30 13C2 PFUnA



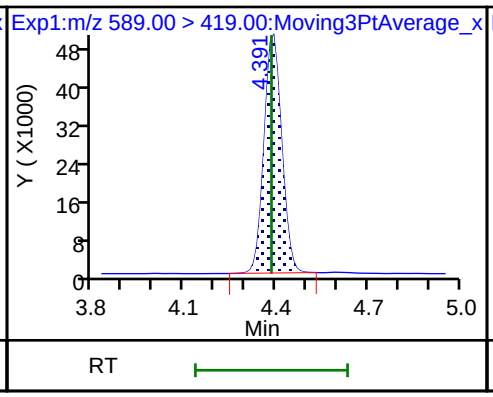

31 Perfluoroundecanoic acid



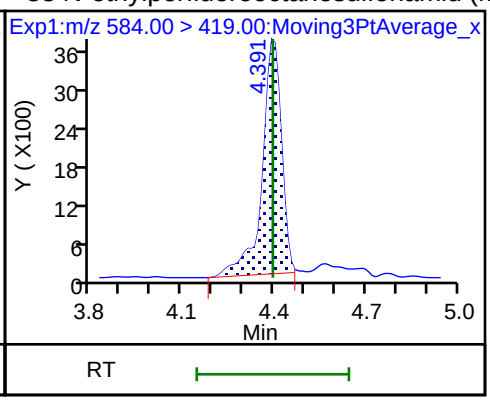

31 Perfluoroundecanoic acid



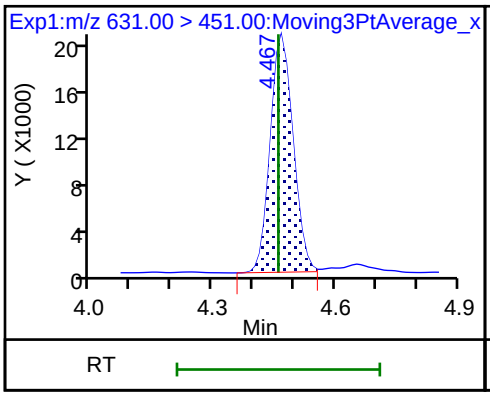

D 32 d5-NEtFOSAA



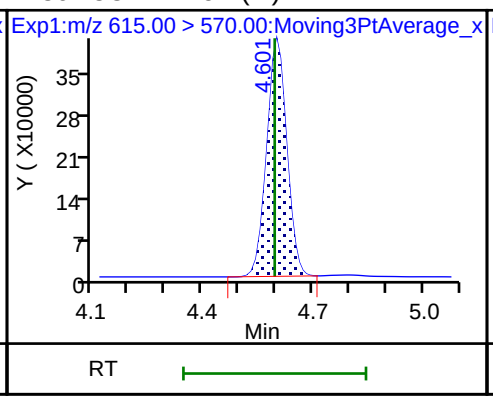

33 N-ethylperfluorooctanesulfonamid (M)



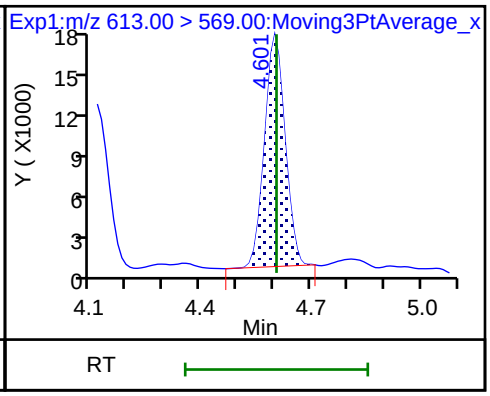

66 11-Chloroeicosafluoro-3-oxaundec



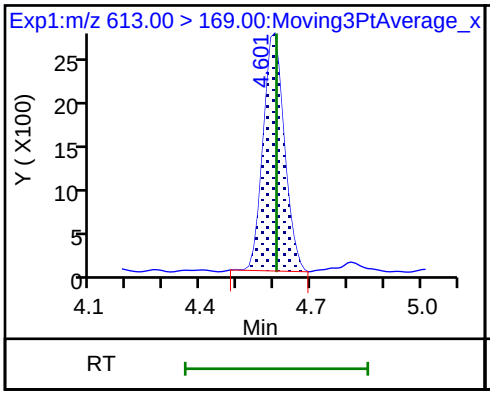

D 36 13C2 PFDoA (M)



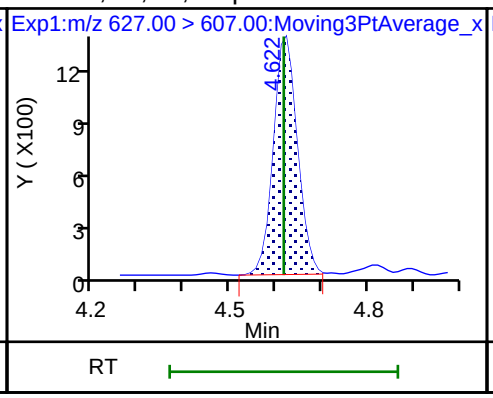

37 Perfluorododecanoic acid



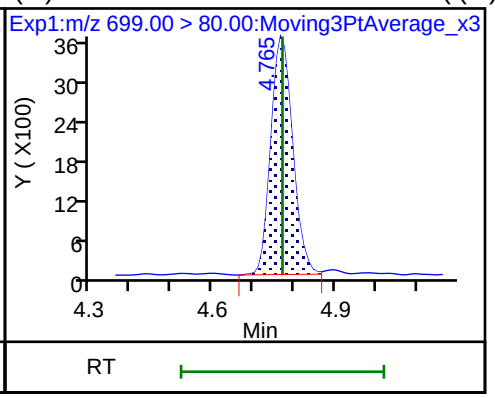
37 Perfluorododecanoic acid



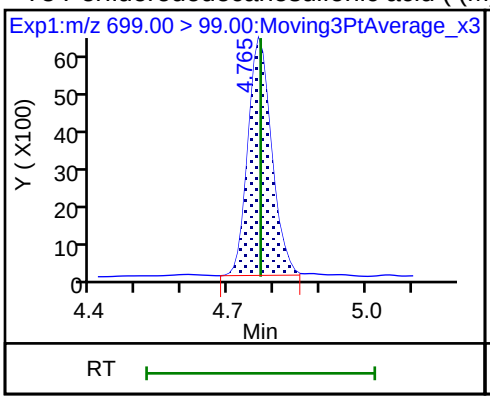

74 1H,1H,2H,2H-perfluorododecanesul (M)



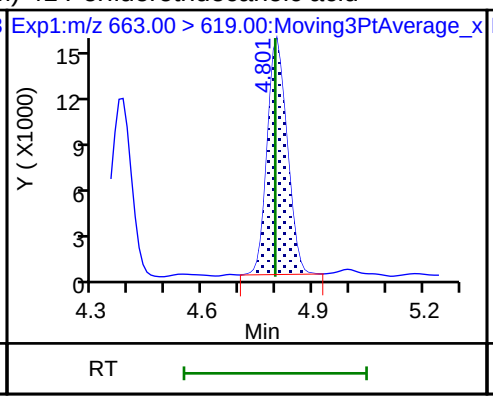

75 Perfluorododecanesulfonic acid ( (M)



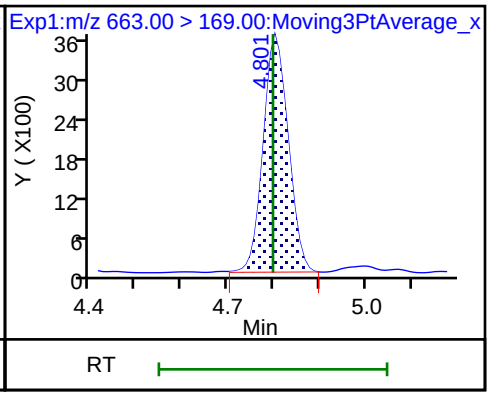

75 Perfluorododecanesulfonic acid ( (M)



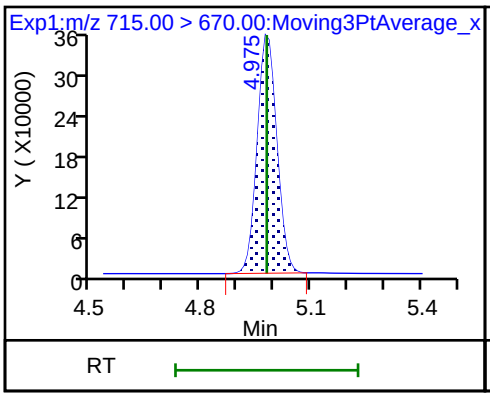

41 Perfluorotridecanoic acid



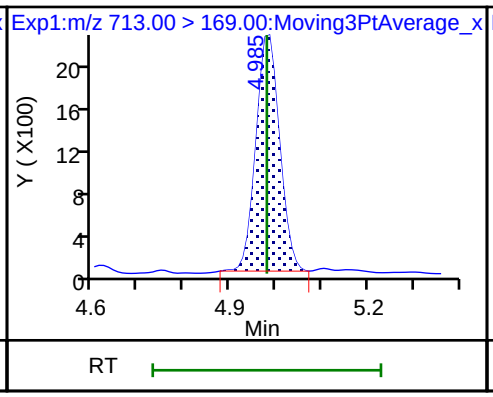

41 Perfluorotridecanoic acid



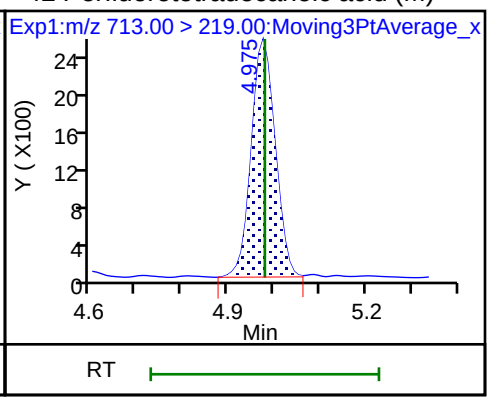

D 43 13C2 PFTeDA



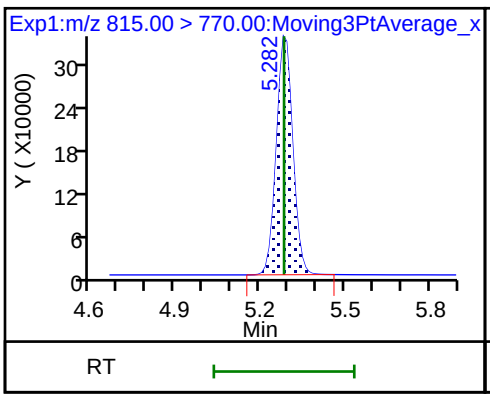

42 Perfluorotetradecanoic acid



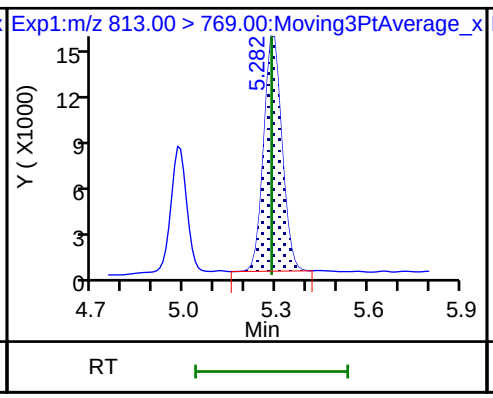

42 Perfluorotetradecanoic acid (M)



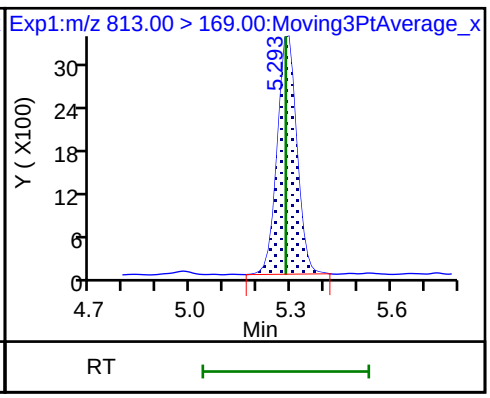

D 44 13C2 PFHxDA



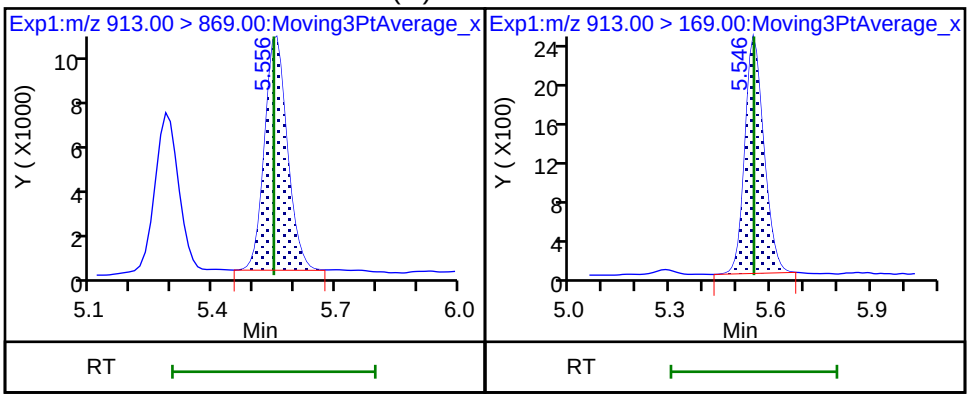

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

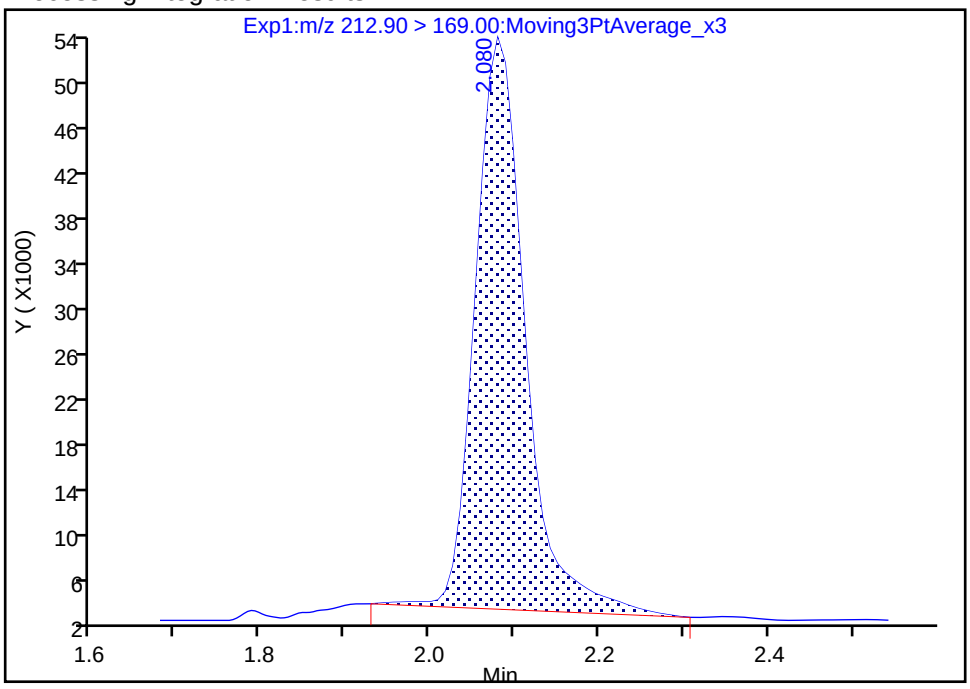
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d
Injection Date: 04-Nov-2021 14:00:51 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

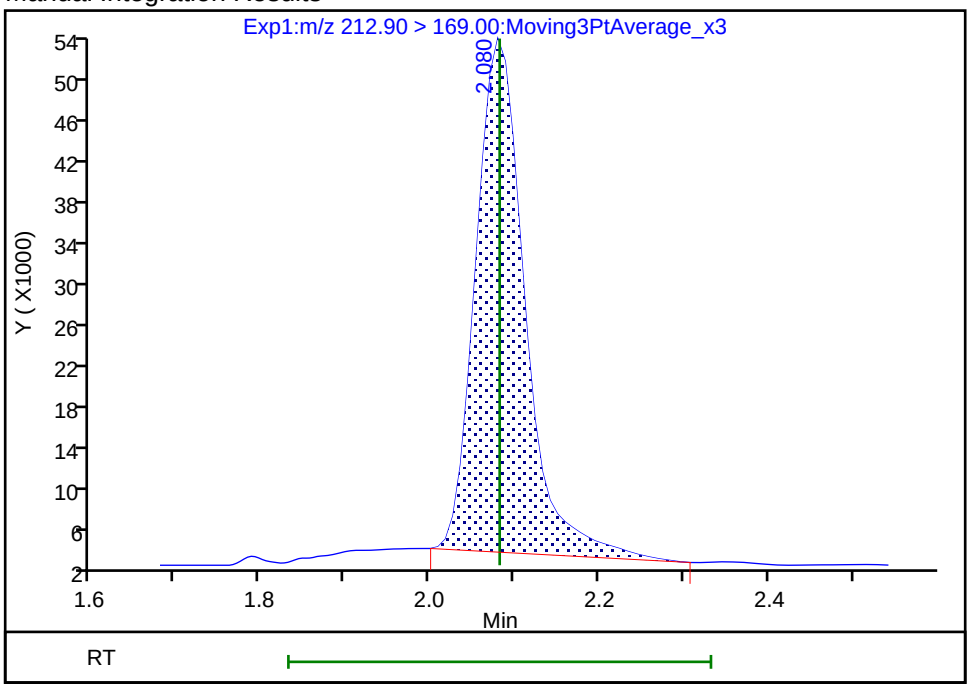
Processing Integration Results

RT: 2.08
Area: 202374
Amount: 0.134323
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 197769
Amount: 0.131267
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 09:59:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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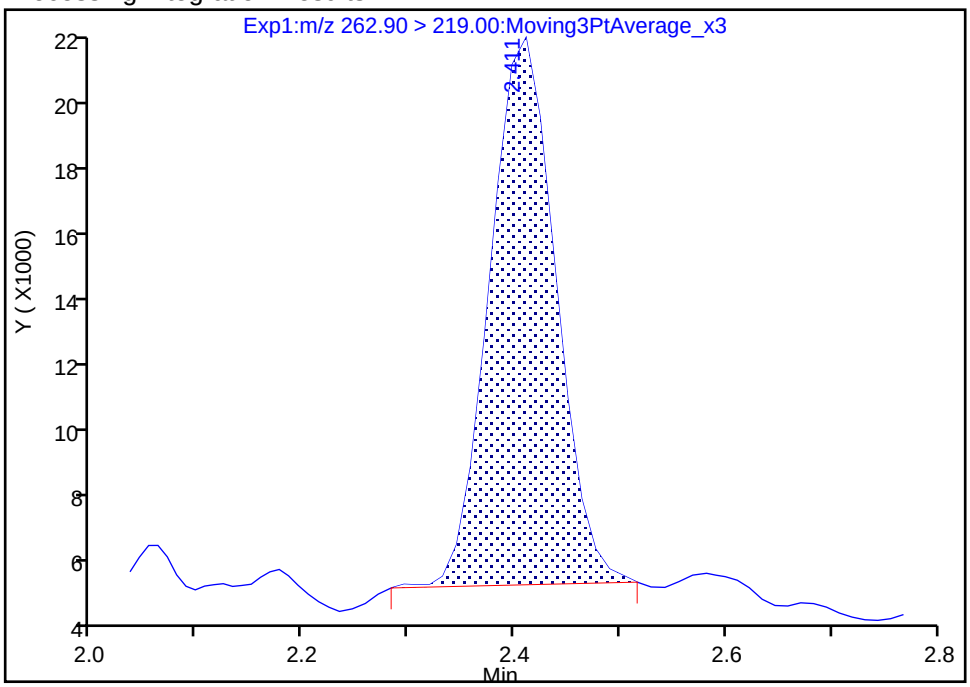
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

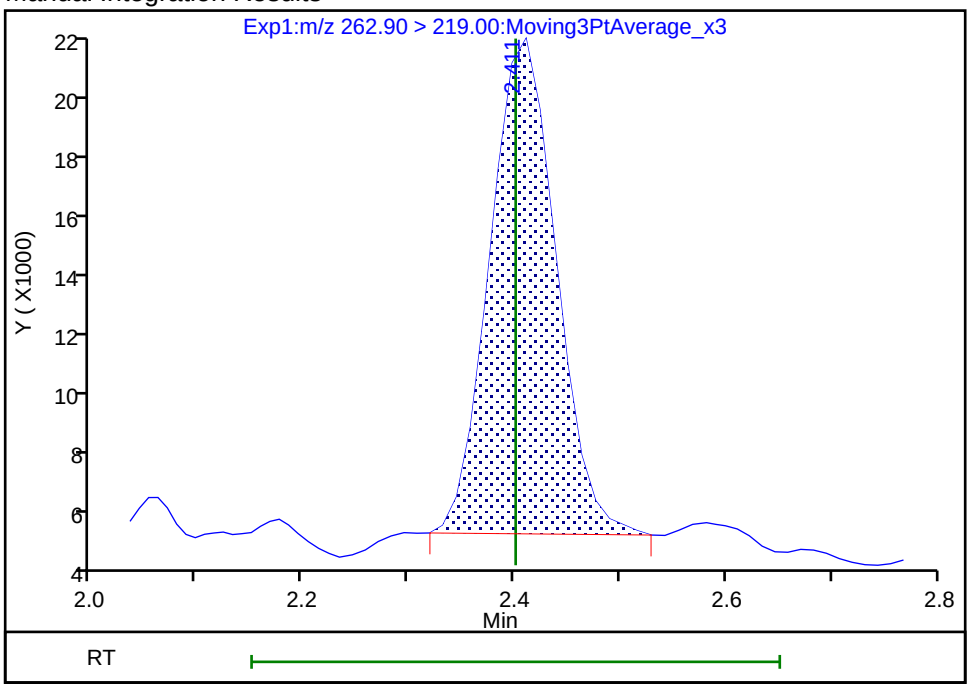
Processing Integration Results

RT: 2.41
Area: 66248
Amount: 0.050189
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 66531
Amount: 0.050403
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 09:59:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

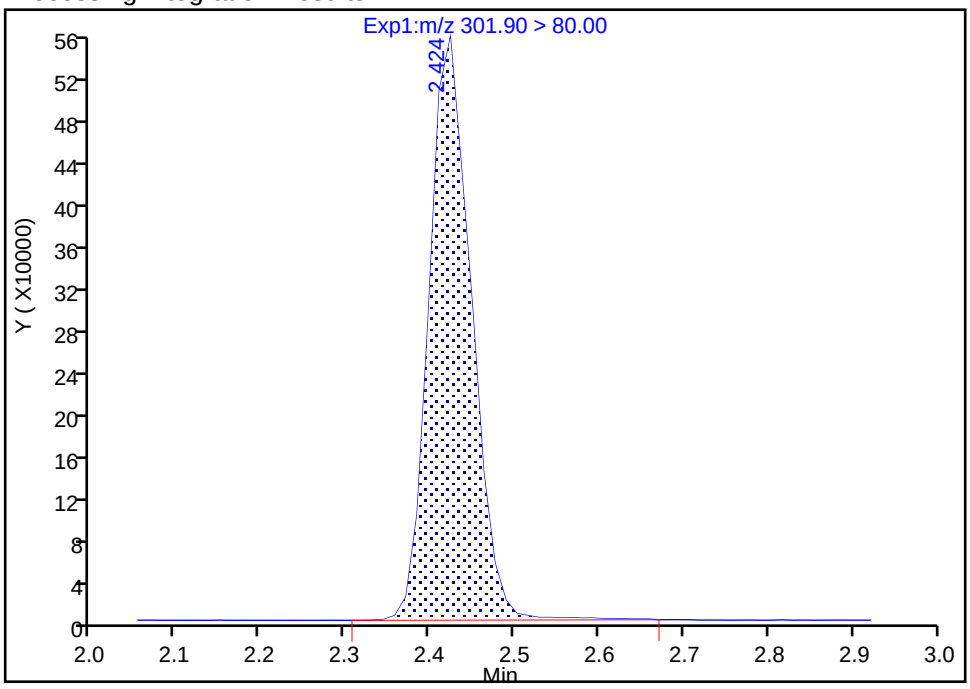
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

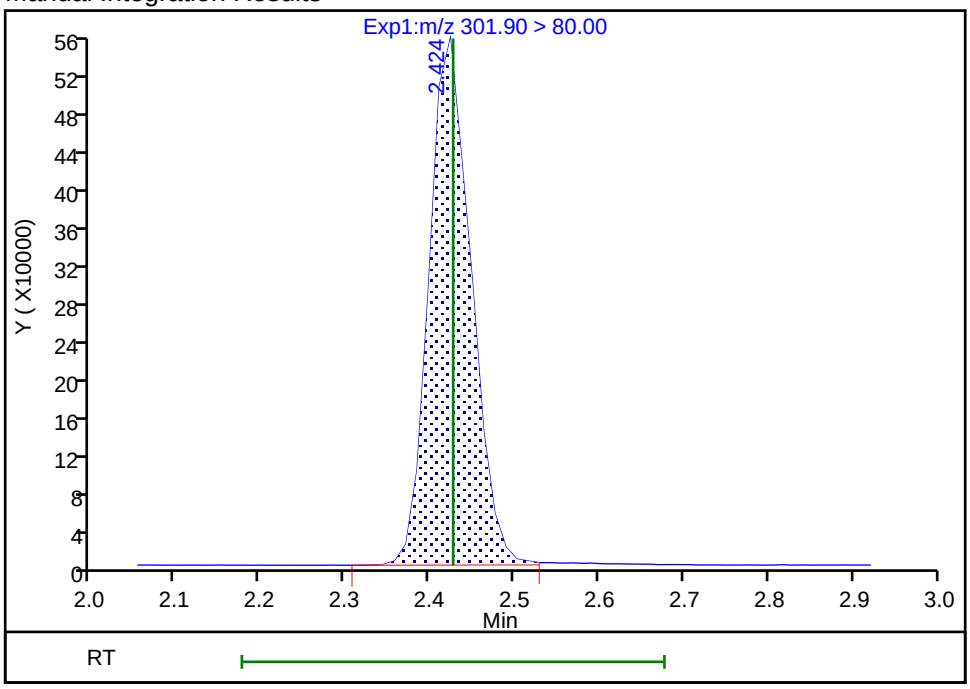
Processing Integration Results

RT: 2.42
Area: 1911368
Amount: 1.141574
Amount Units: ng/ml




Manual Integration Results

RT: 2.42
Area: 1900012
Amount: 1.134792
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 09:59:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

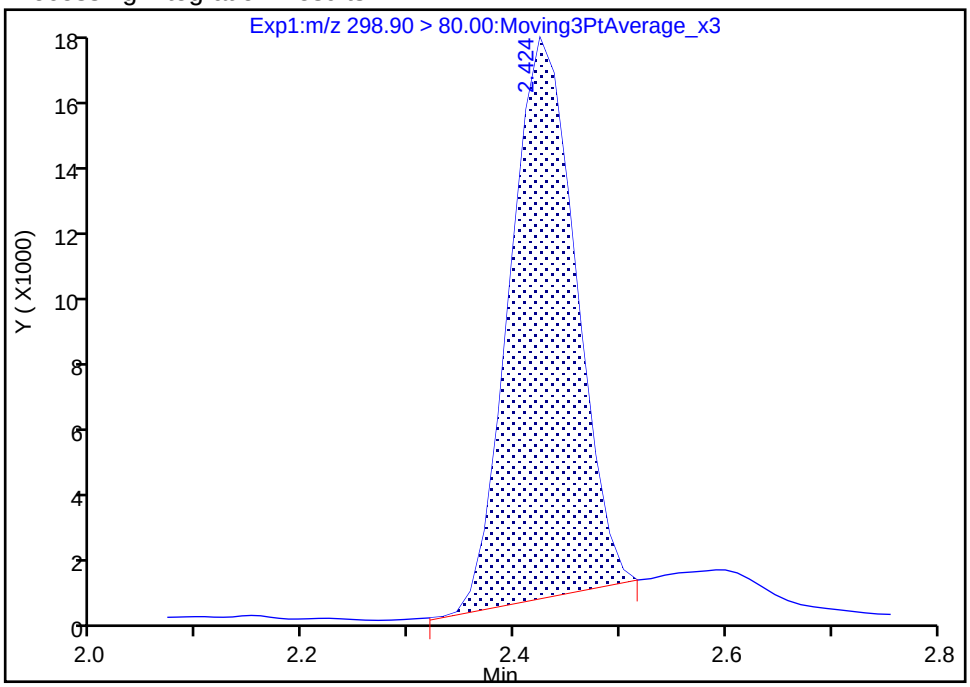
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

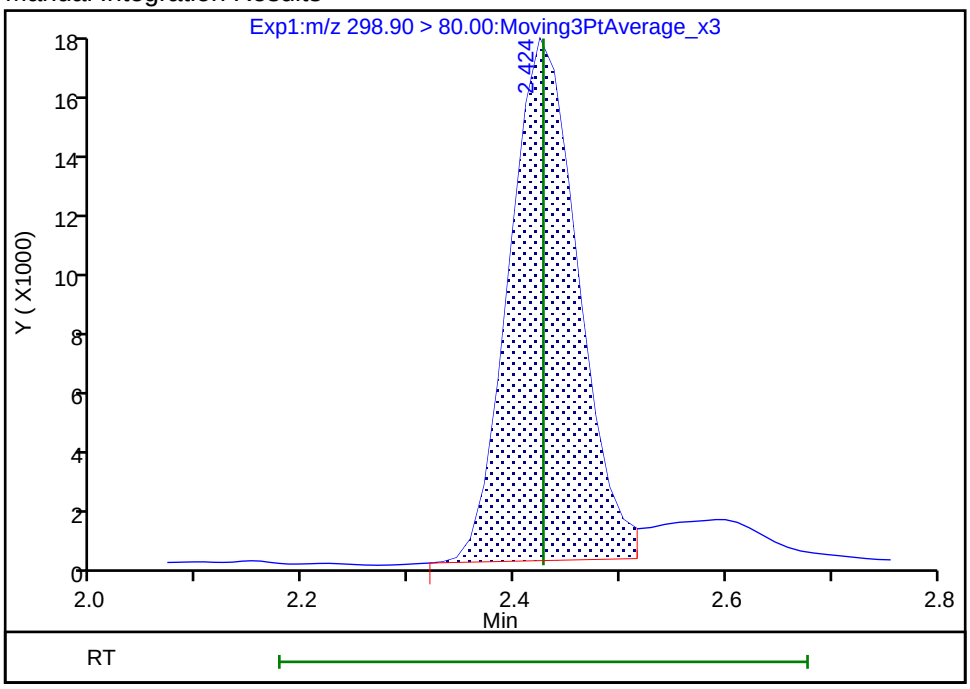
Processing Integration Results

RT: 2.42
Area: 74609
Amount: 0.042740
Amount Units: ng/ml




Manual Integration Results

RT: 2.42
Area: 80154
Amount: 0.045916
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:16:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

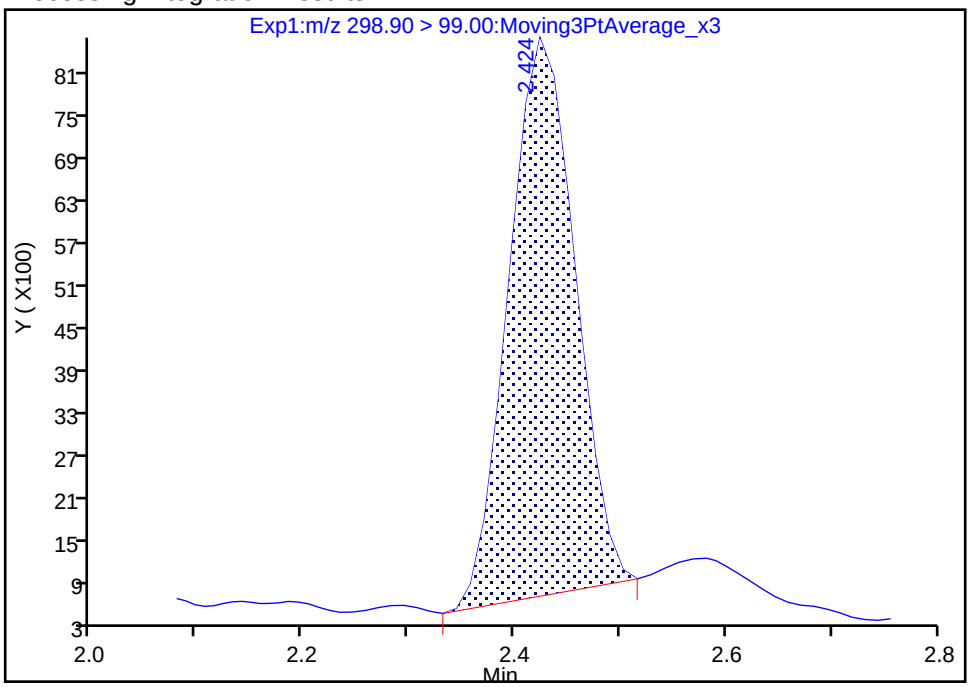
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d
Injection Date: 04-Nov-2021 14:00:51 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

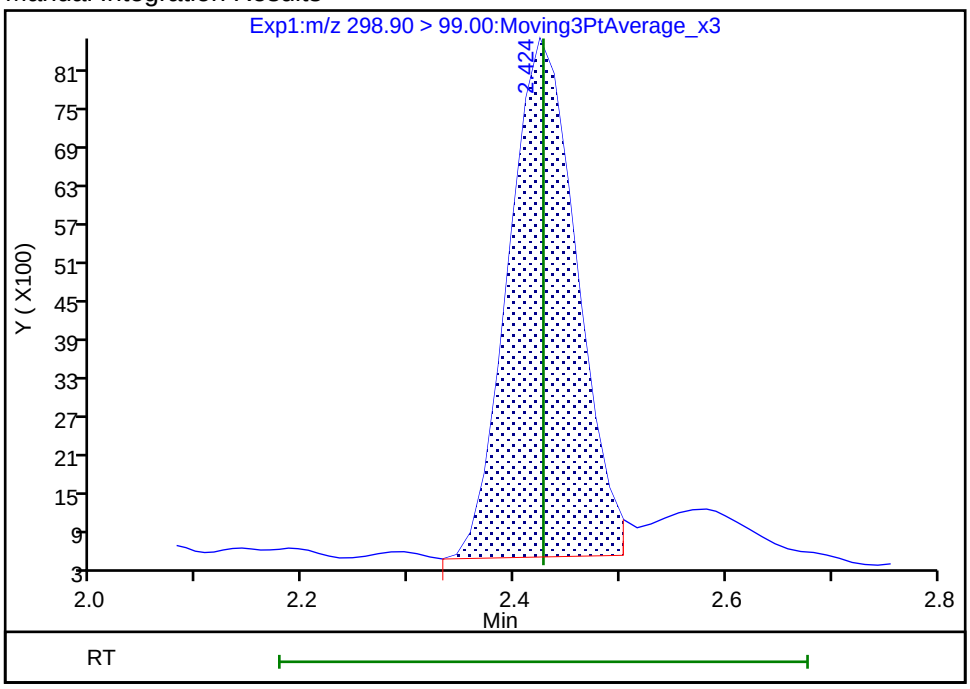
Processing Integration Results

RT: 2.42
Area: 34293
Amount: 0.042740
Amount Units: ng/ml




Manual Integration Results

RT: 2.42
Area: 36249
Amount: 0.045916
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:17:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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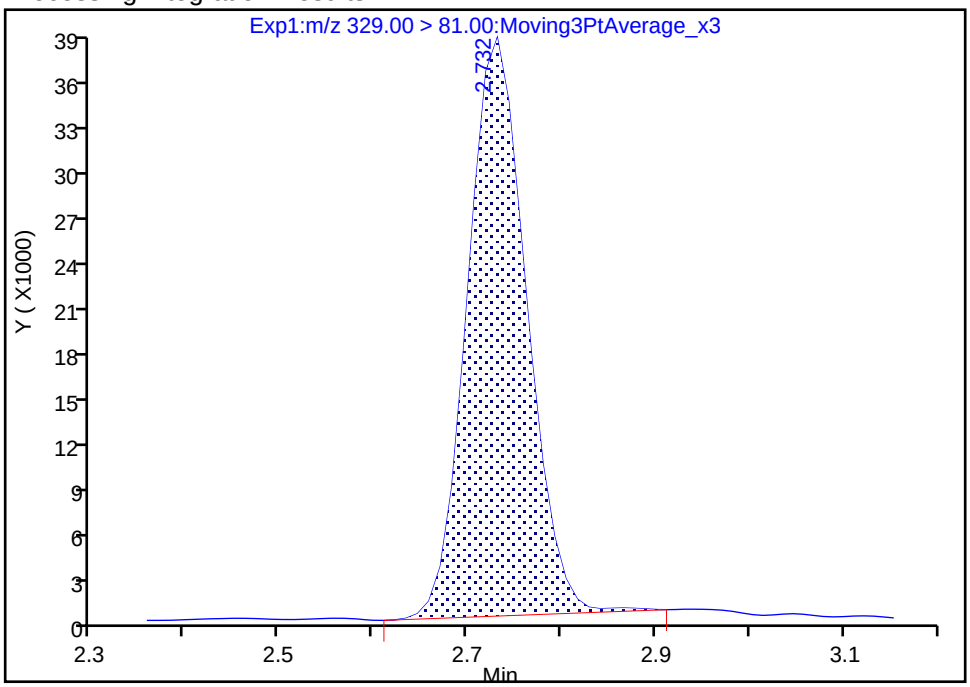
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

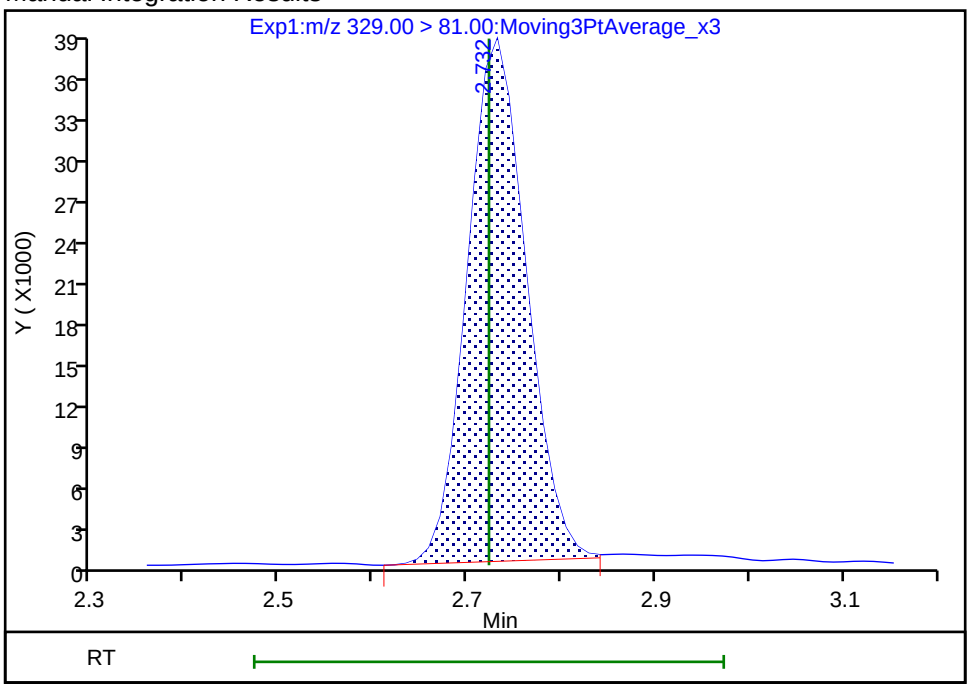
Processing Integration Results

RT: 2.73
Area: 166024
Amount: 1.301080
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 165398
Amount: 1.296175
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 09:59:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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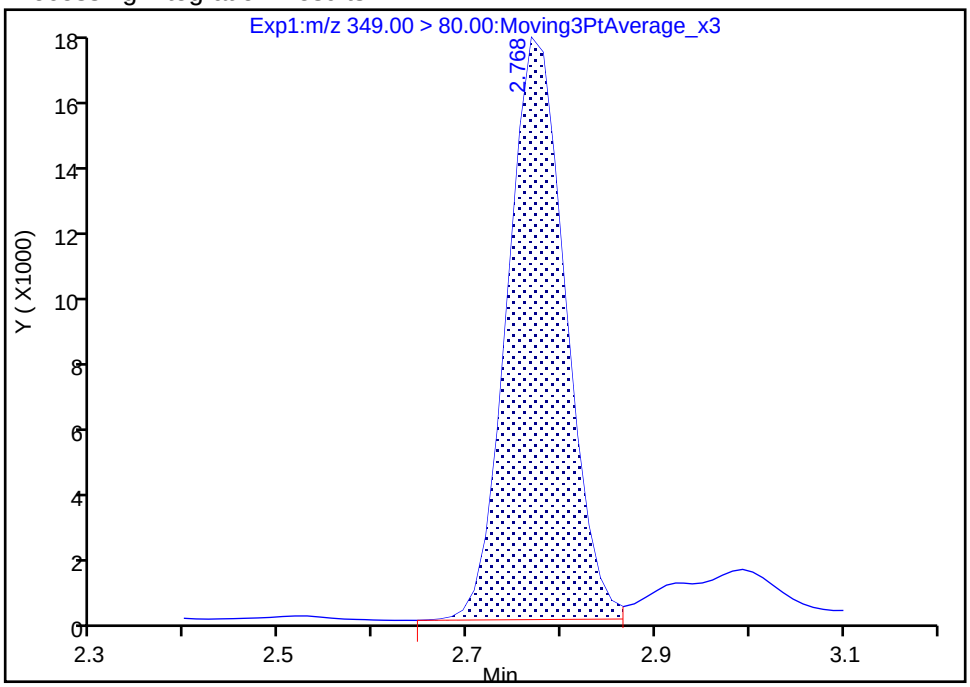
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

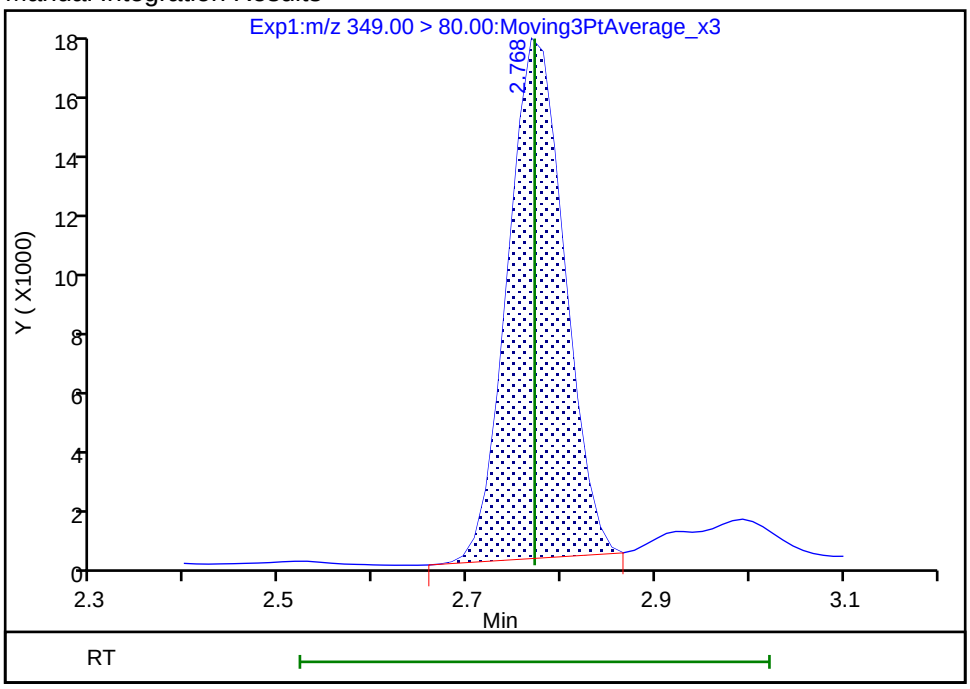
Processing Integration Results

RT: 2.77
Area: 72669
Amount: 0.050293
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 70404
Amount: 0.048725
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:00:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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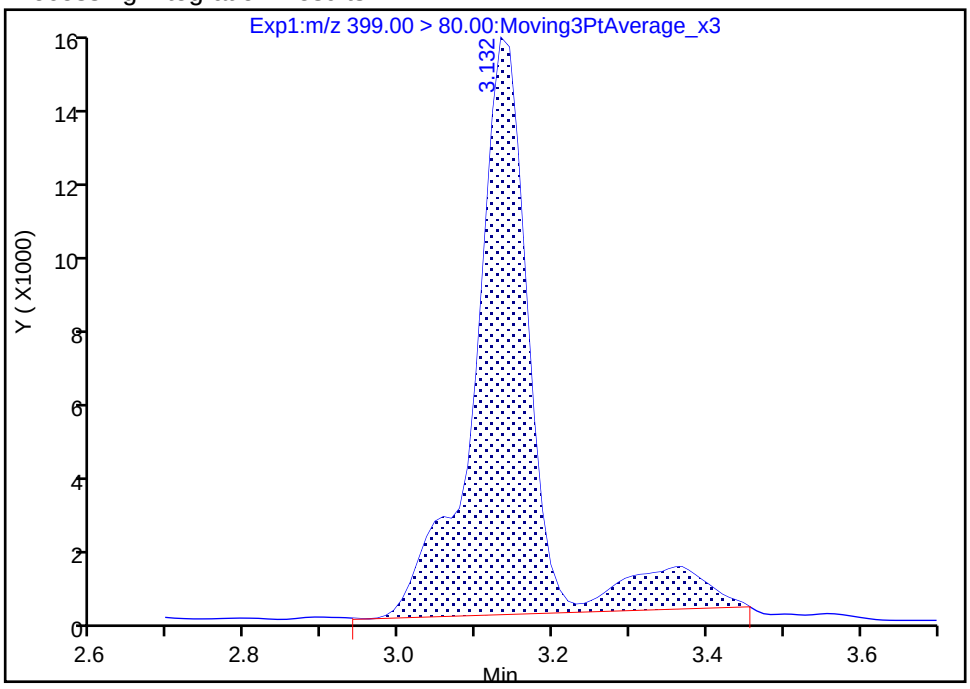
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

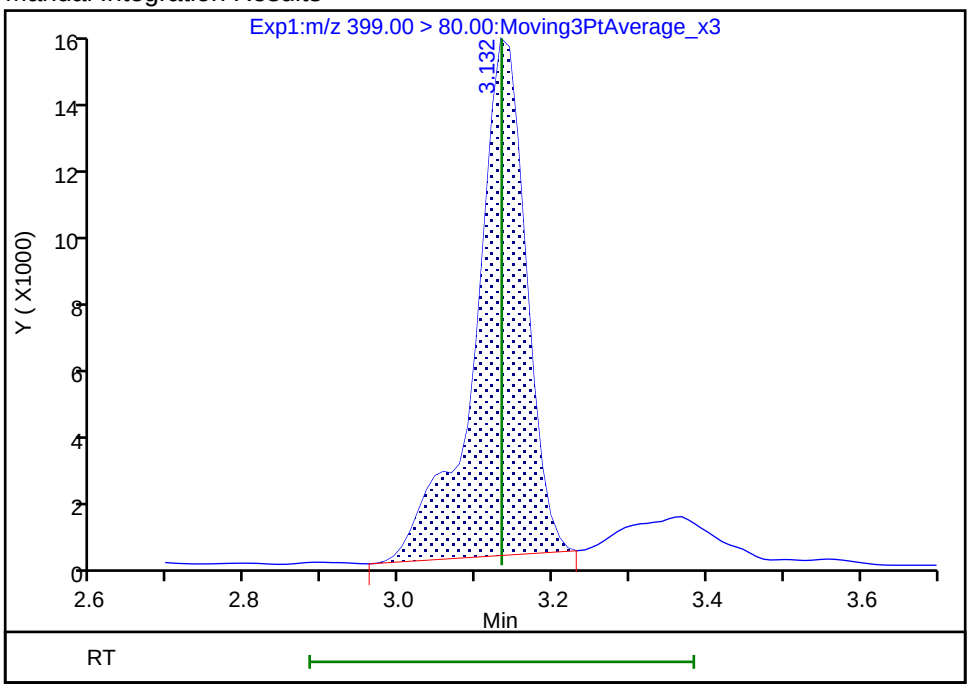
Processing Integration Results

RT: 3.13
Area: 78489
Amount: 0.059499
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 68111
Amount: 0.051631
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:00:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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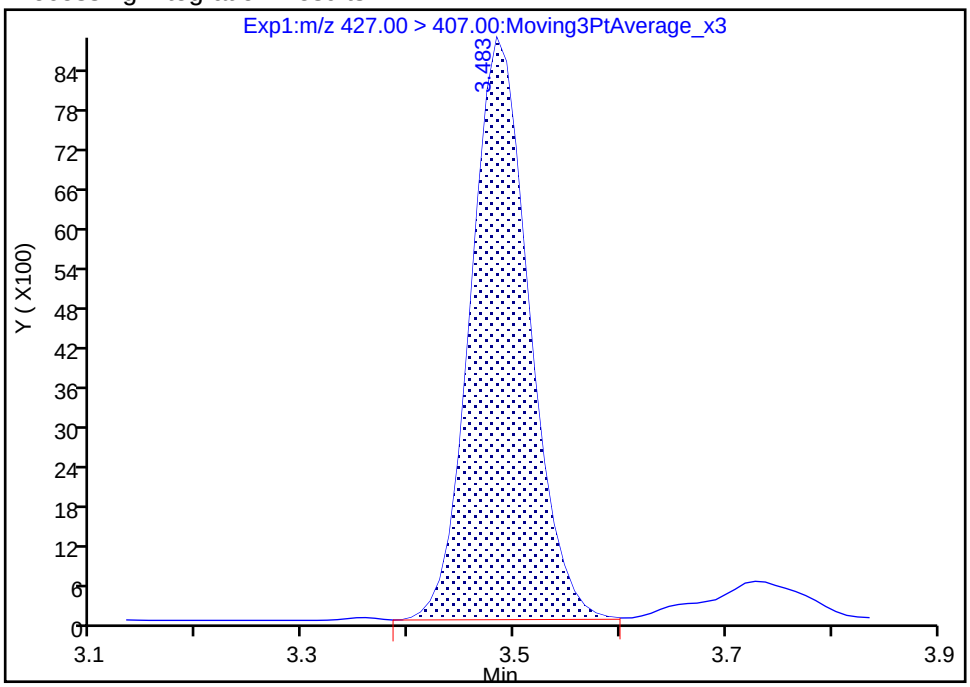
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

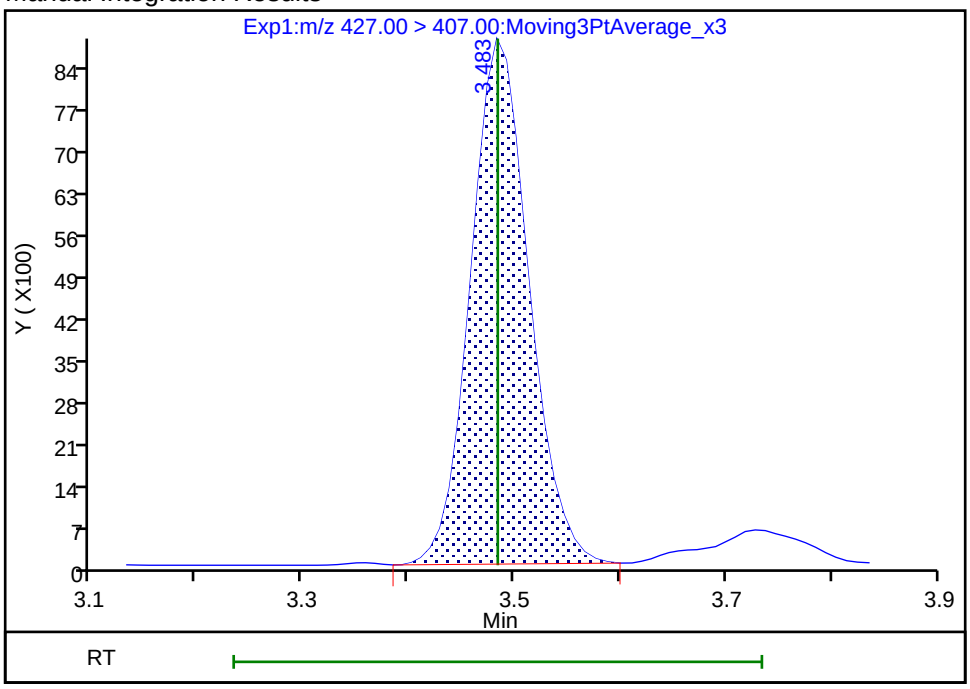
Processing Integration Results

RT: 3.48
Area: 33826
Amount: 0.118419
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 33703
Amount: 0.117989
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:17:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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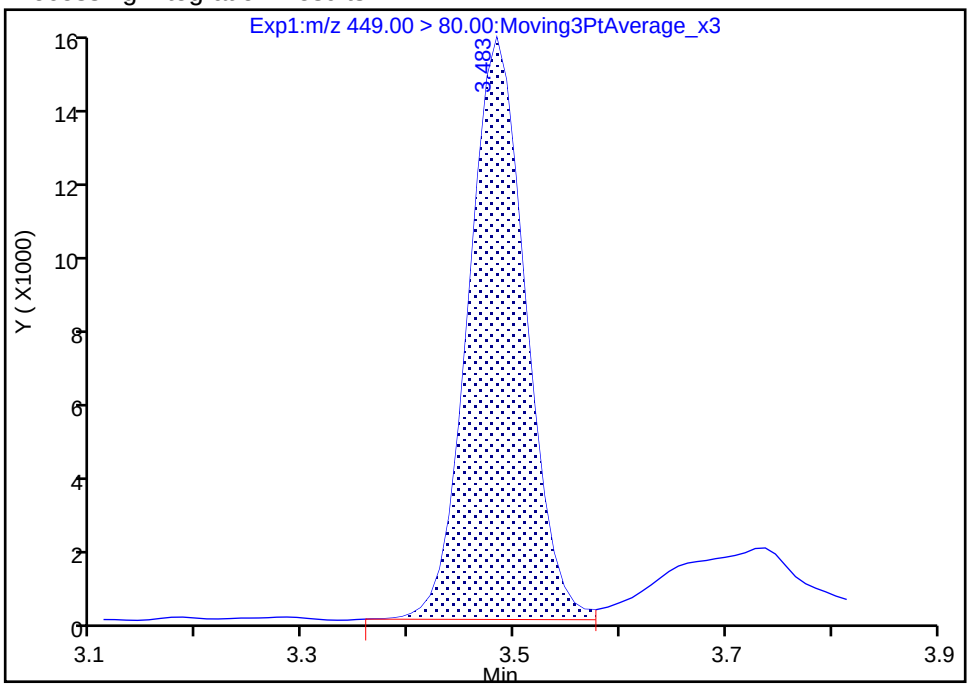
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

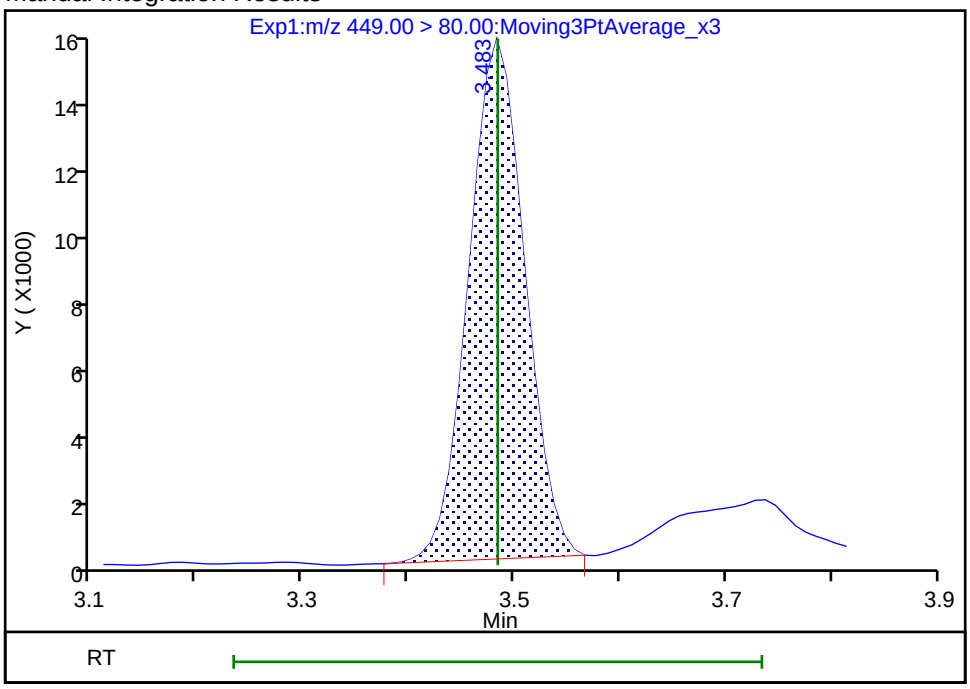
Processing Integration Results

RT: 3.48
Area: 57582
Amount: 0.050194
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 55779
Amount: 0.048622
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:17:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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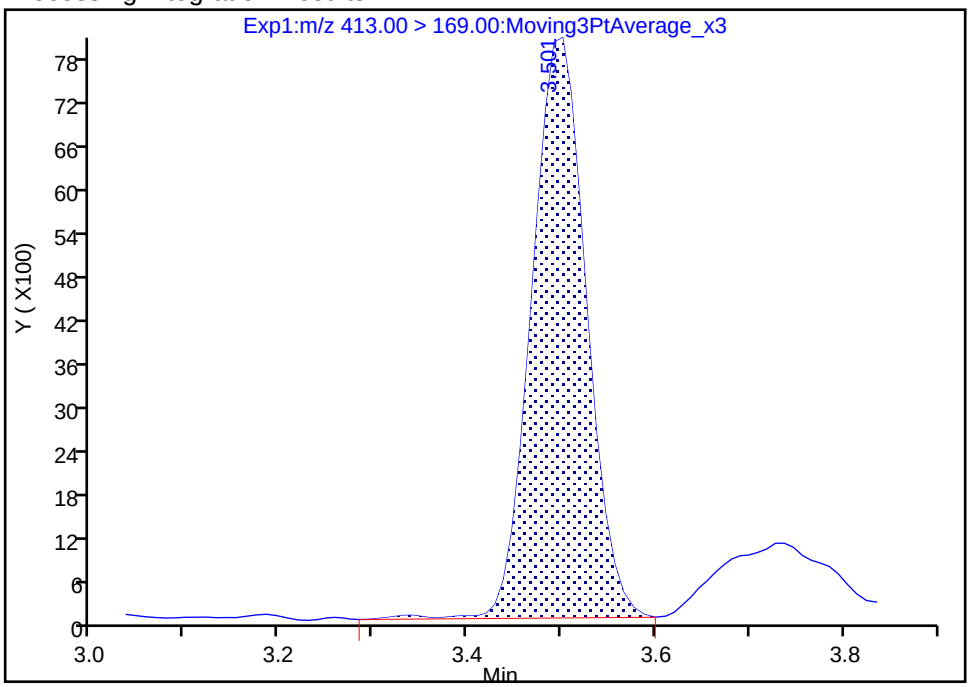
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

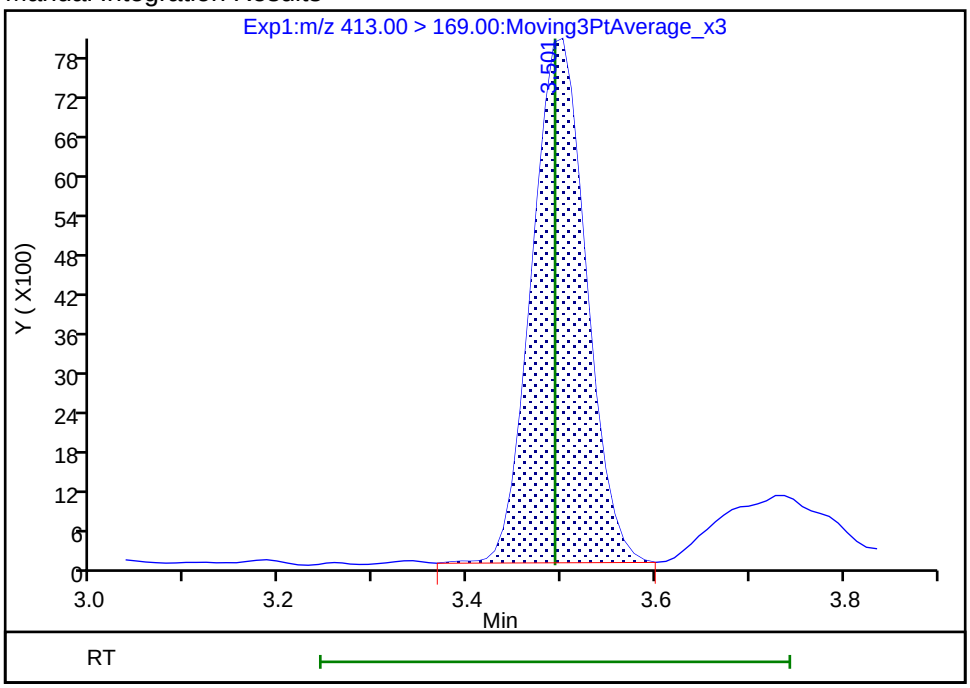
Processing Integration Results

RT: 3.50
Area: 32126
Amount: 0.054365
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 31931
Amount: 0.054365
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:00:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

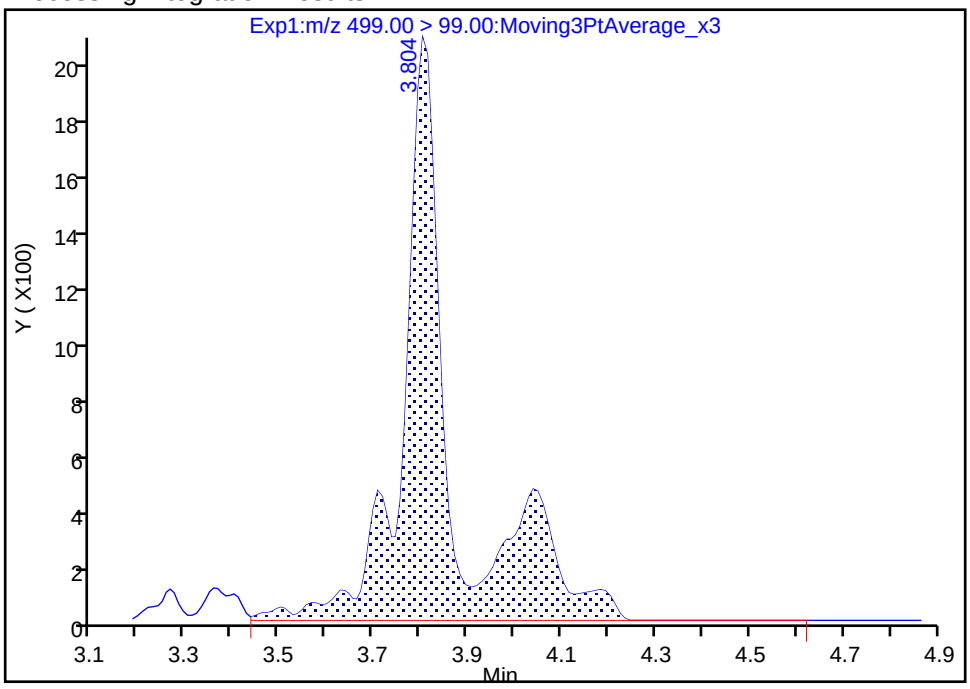
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

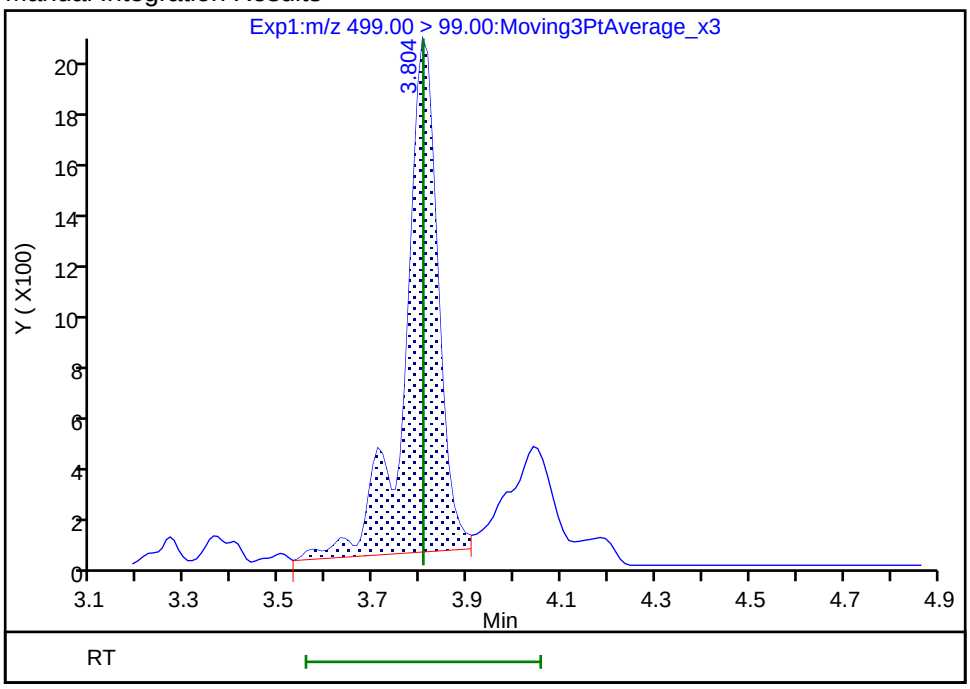
Processing Integration Results

RT: 3.80
Area: 14914
Amount: 0.067570
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 9886
Amount: 0.045854
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:01:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

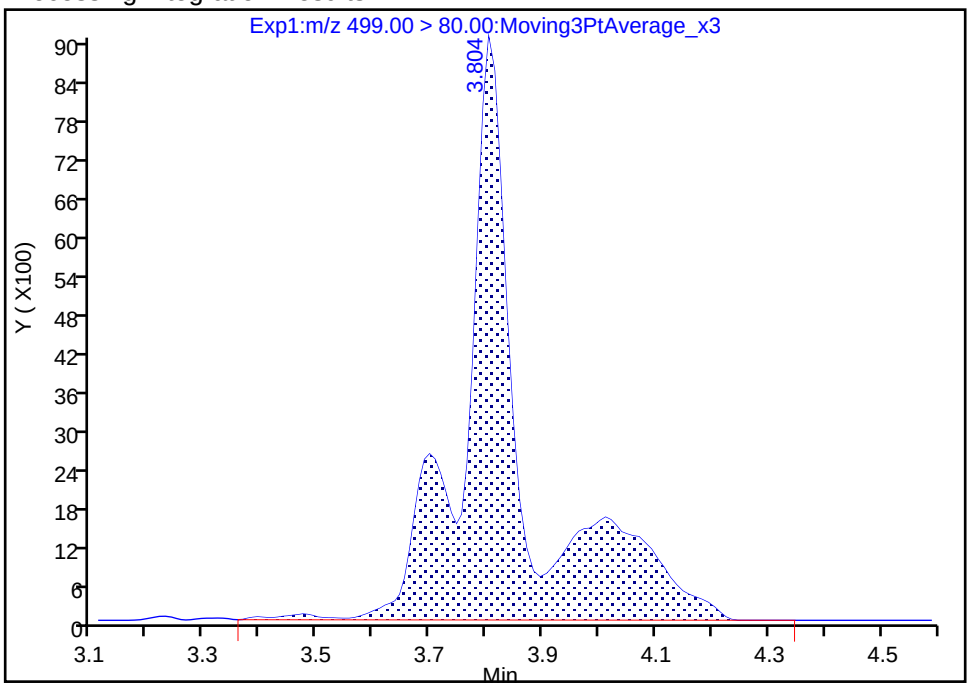
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

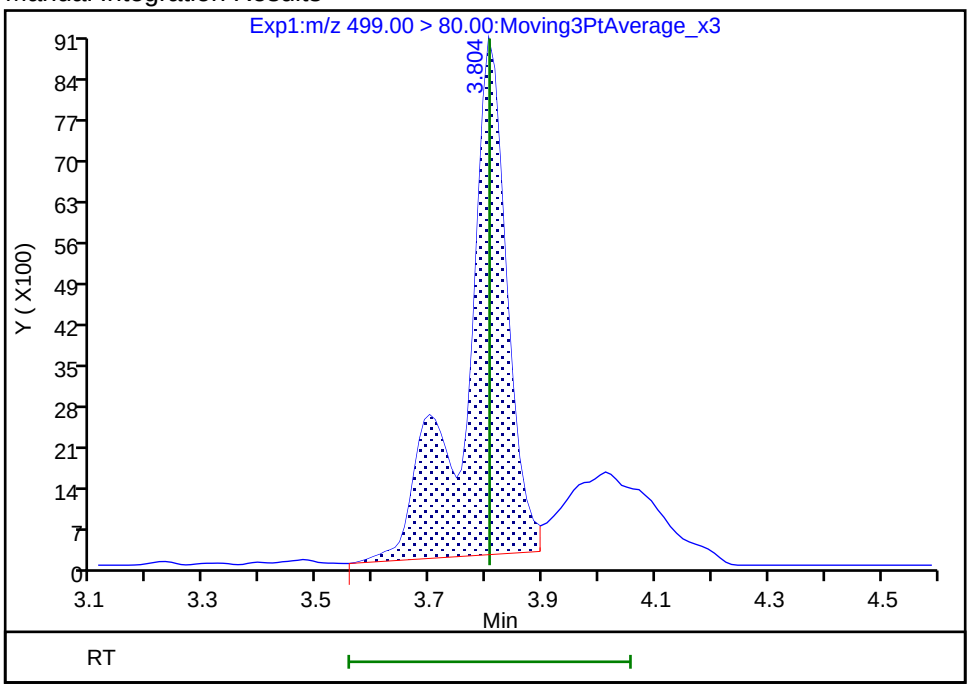
Processing Integration Results

RT: 3.80
Area: 67470
Amount: 0.067570
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 45786
Amount: 0.045854
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:18:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

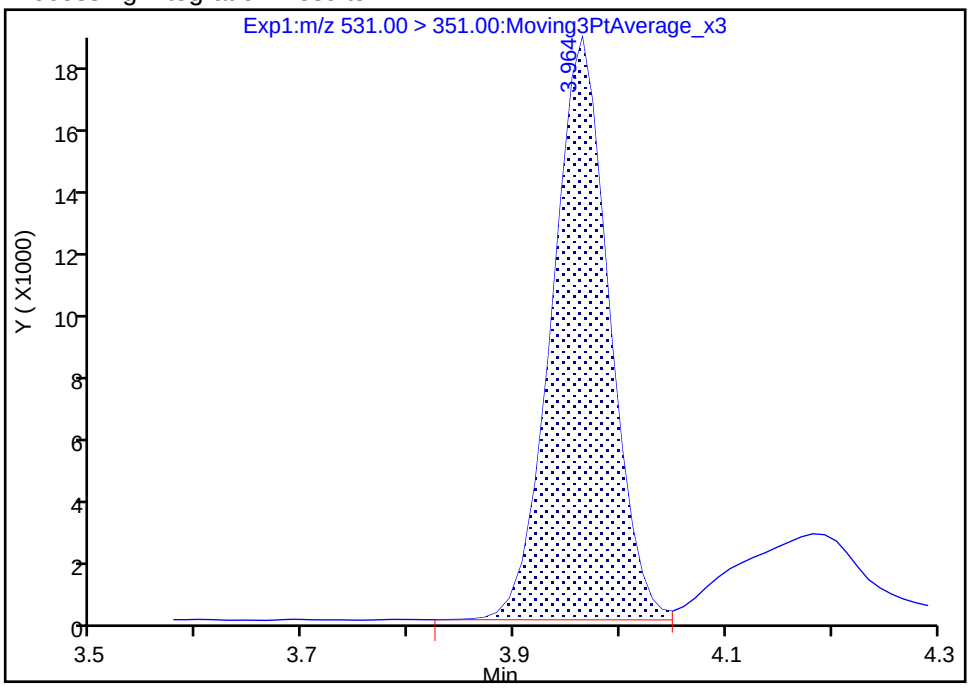
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

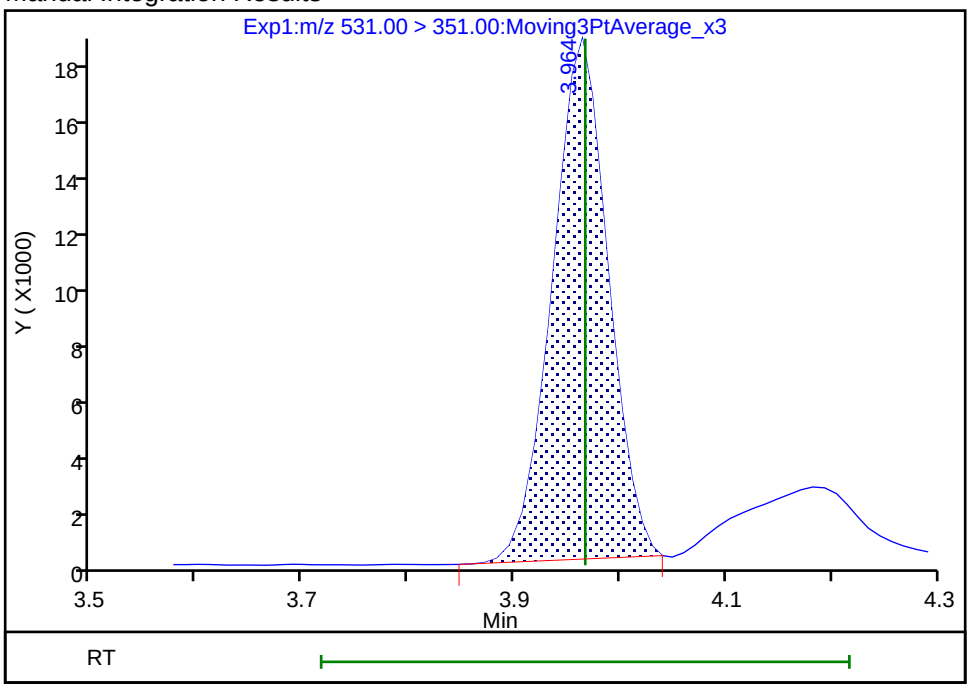
Processing Integration Results

RT: 3.96
Area: 68947
Amount: 0.045833
Amount Units: ng/ml




Manual Integration Results

RT: 3.96
Area: 66867
Amount: 0.044451
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:18:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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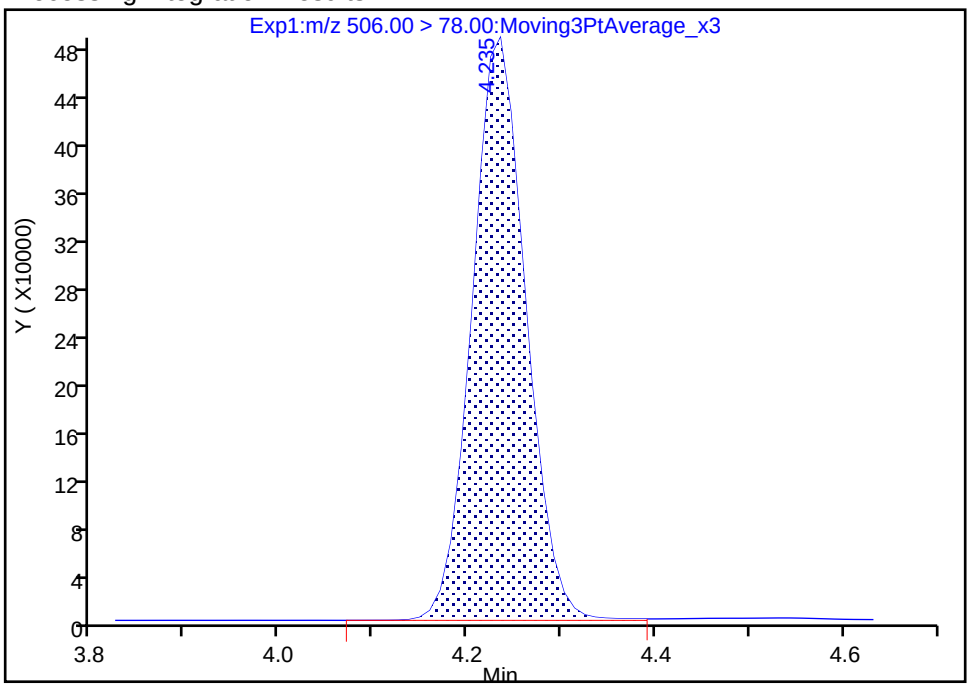
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

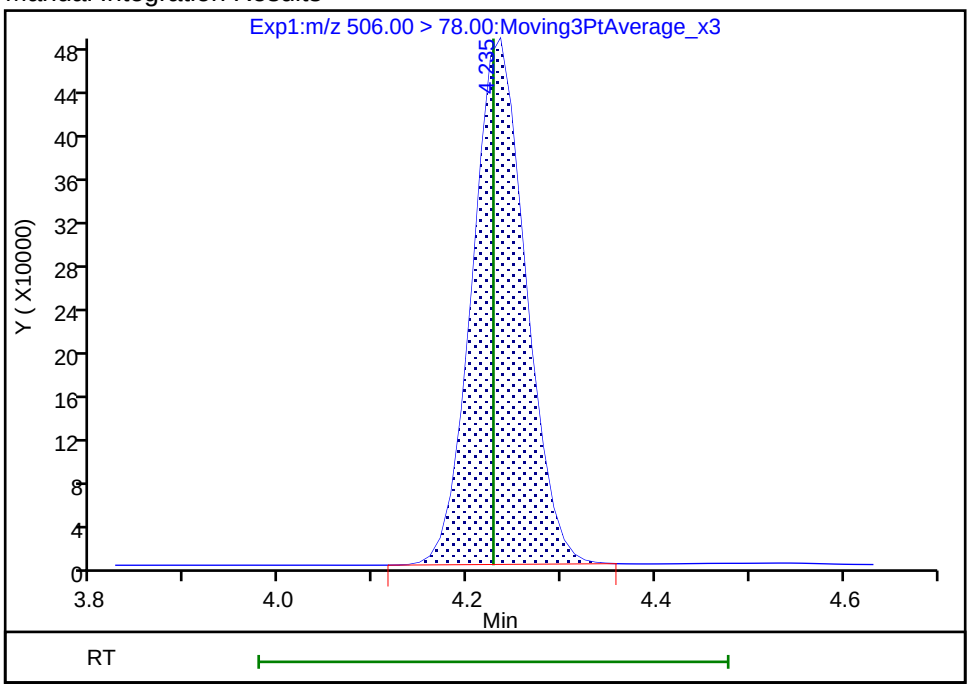
Processing Integration Results

RT: 4.23
Area: 1911013
Amount: 1.320005
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1897610
Amount: 1.310747
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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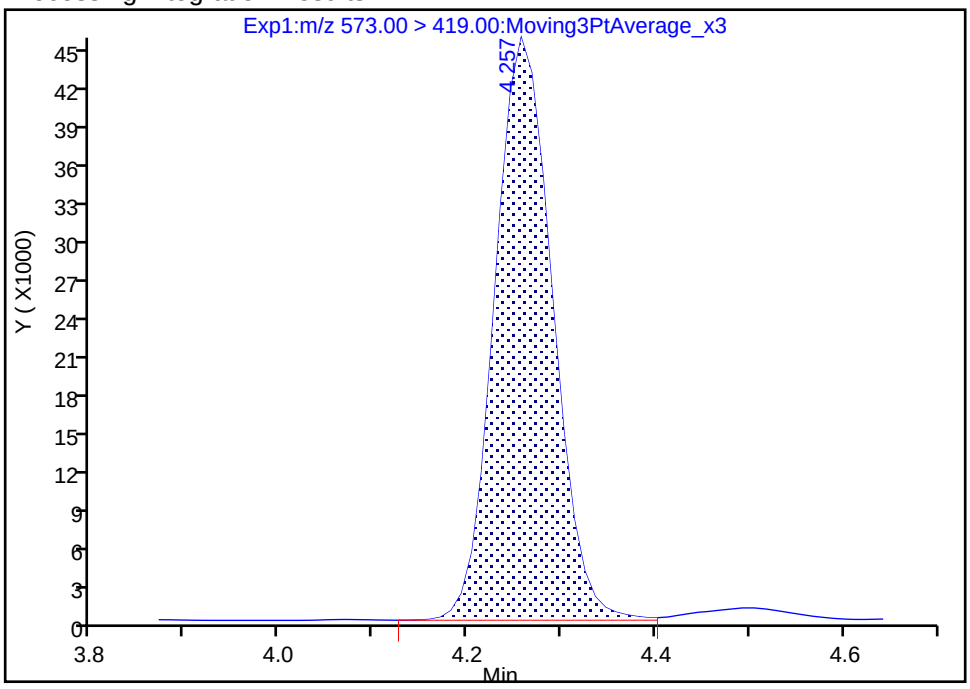
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

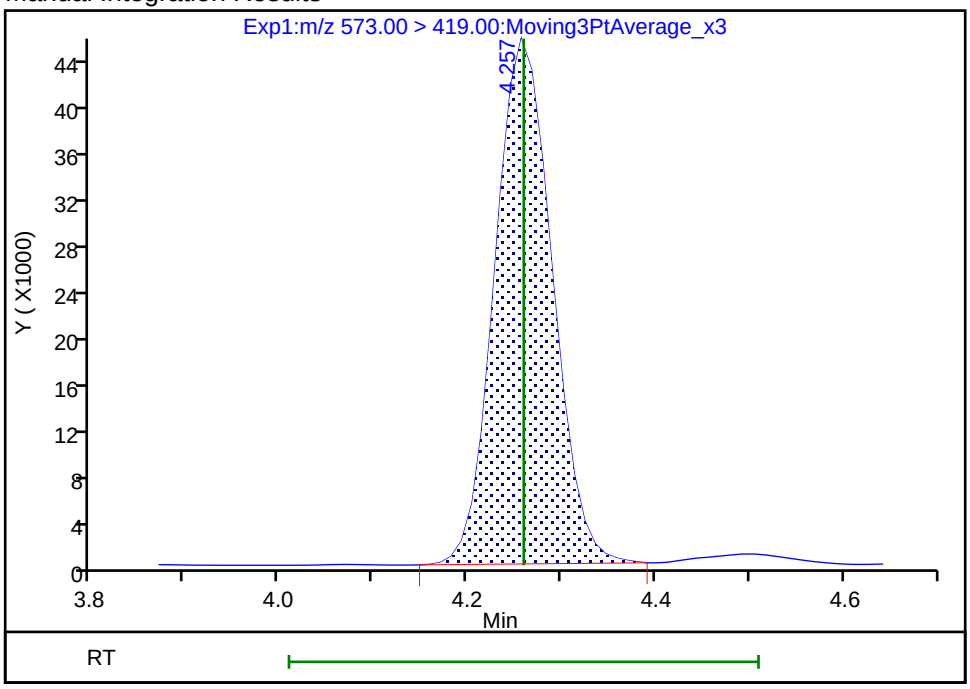
Processing Integration Results

RT: 4.26
Area: 195312
Amount: 1.322914
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 193595
Amount: 1.311284
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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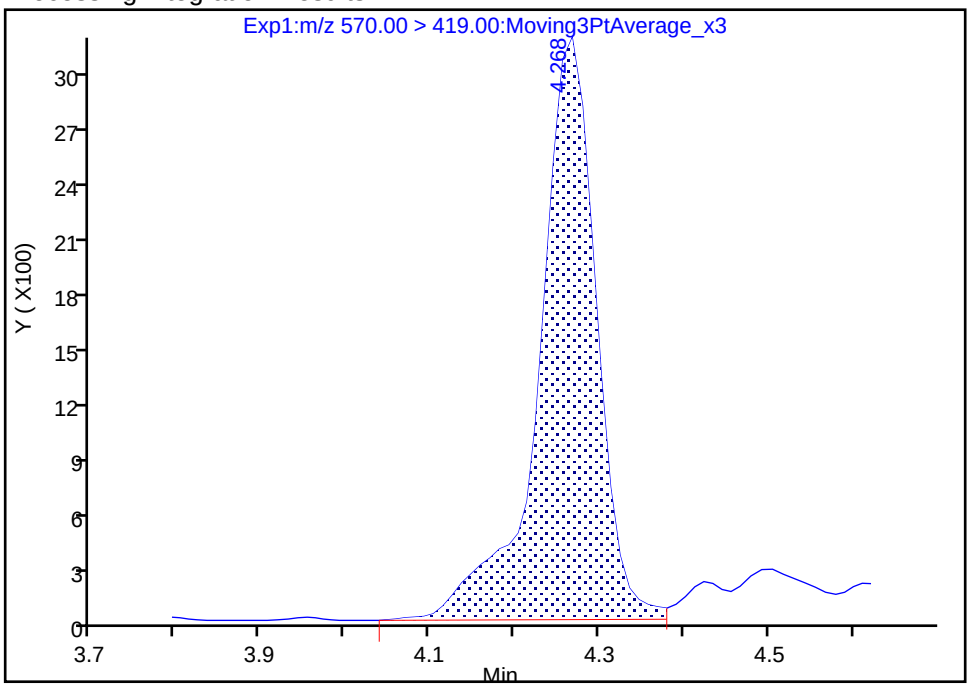
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

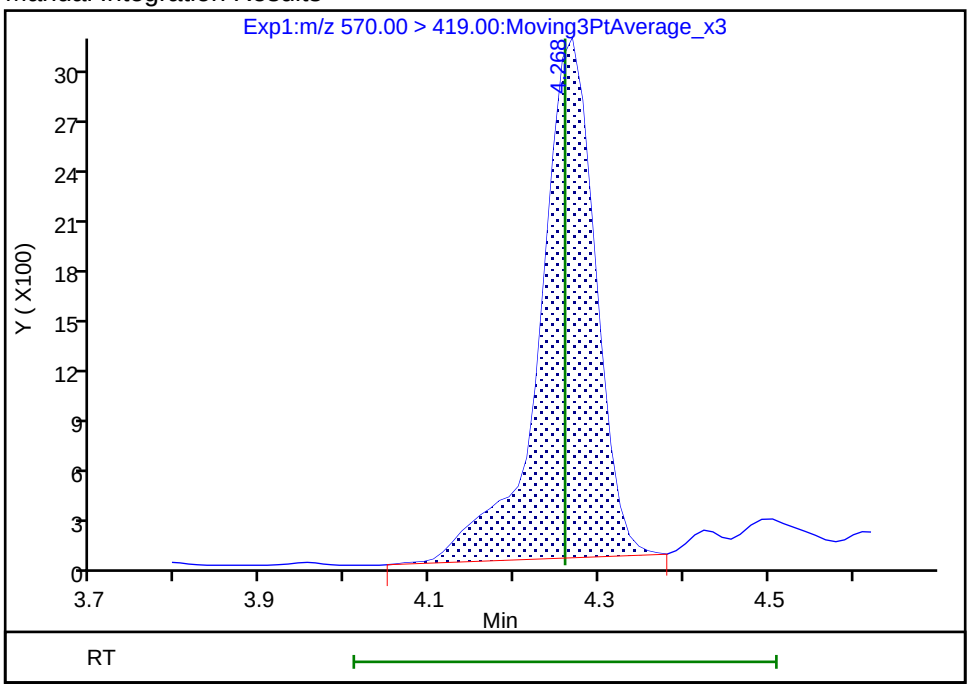
Processing Integration Results

RT: 4.27
Area: 14756
Amount: 0.121279
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 14142
Amount: 0.116233
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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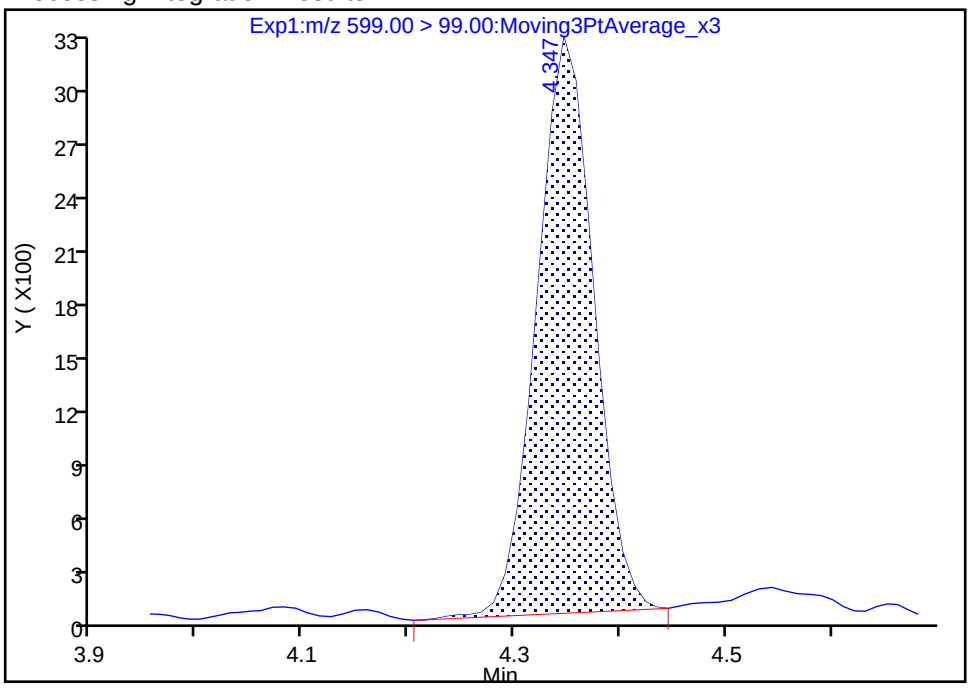
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

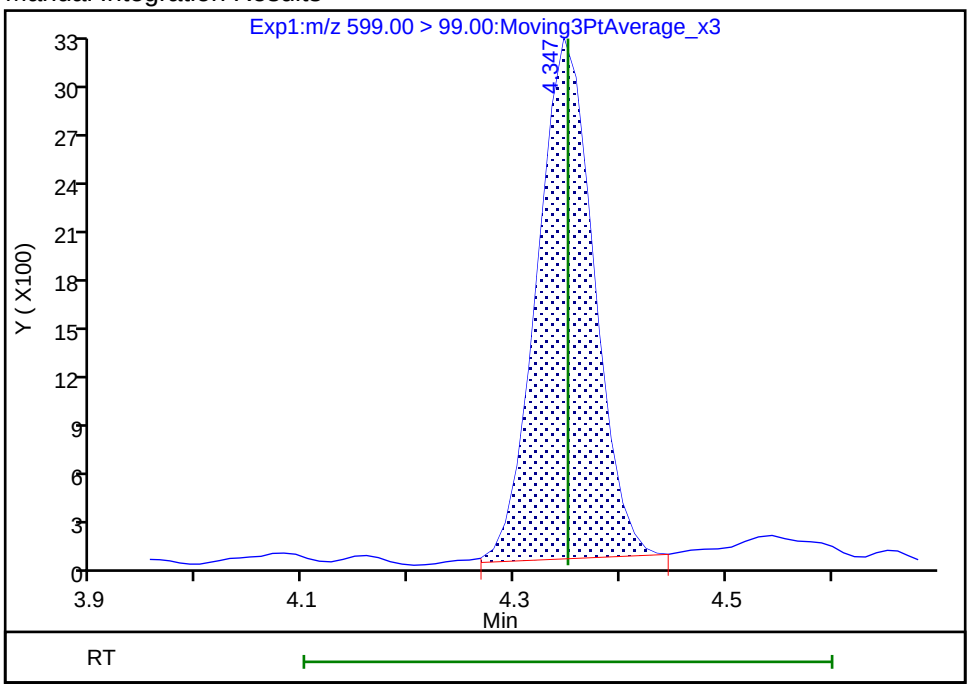
Processing Integration Results

RT: 4.35
Area: 11995
Amount: 0.045771
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 11955
Amount: 0.045771
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

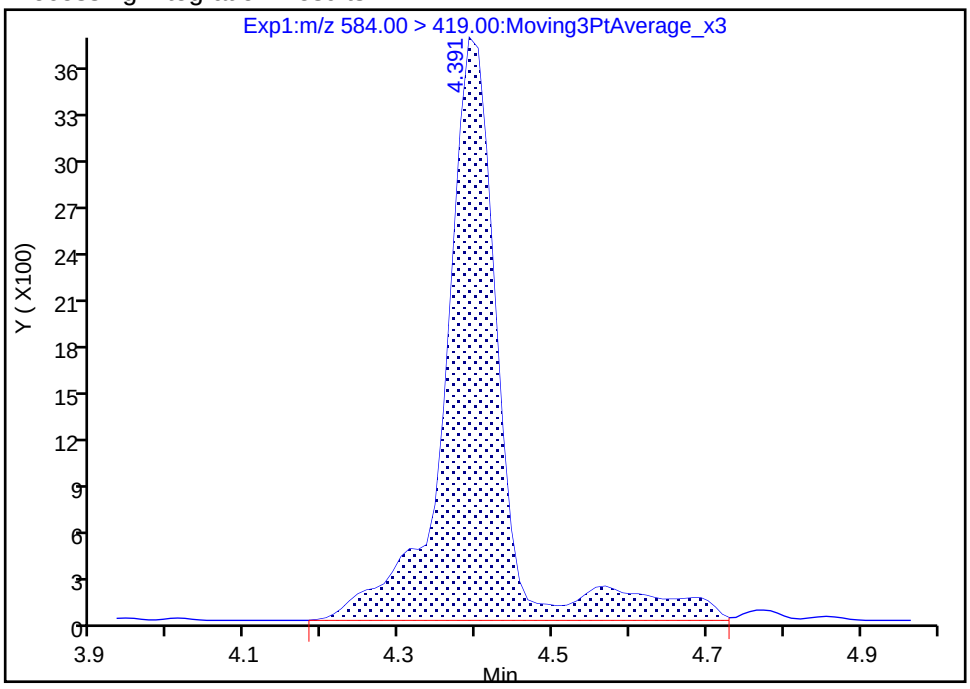
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d | | | | |
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

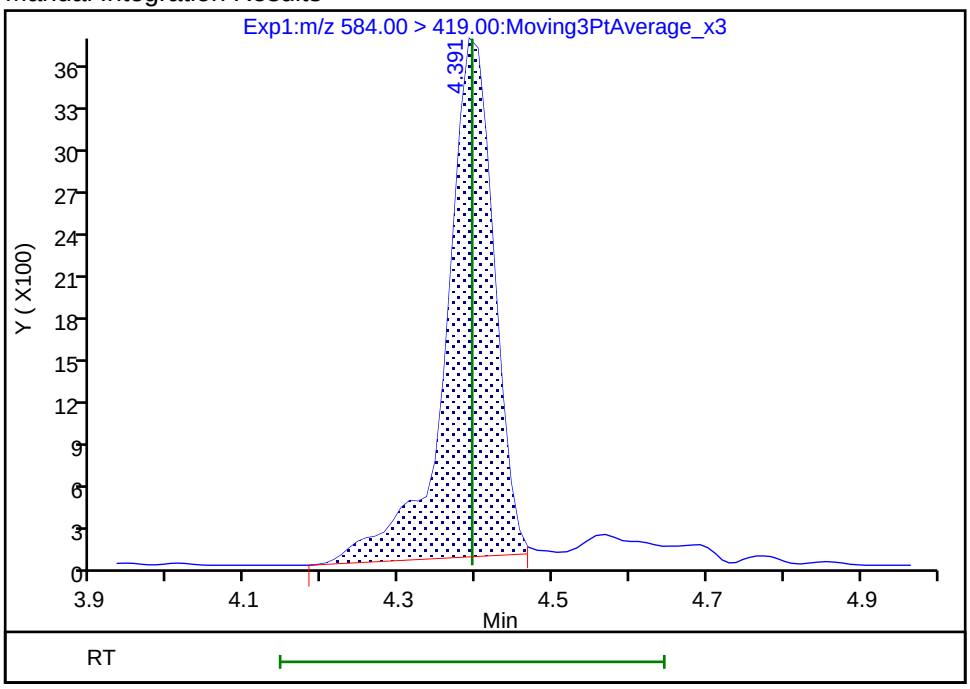
Processing Integration Results

RT: 4.39
Area: 18939
Amount: 0.137394
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 16073
Amount: 0.116602
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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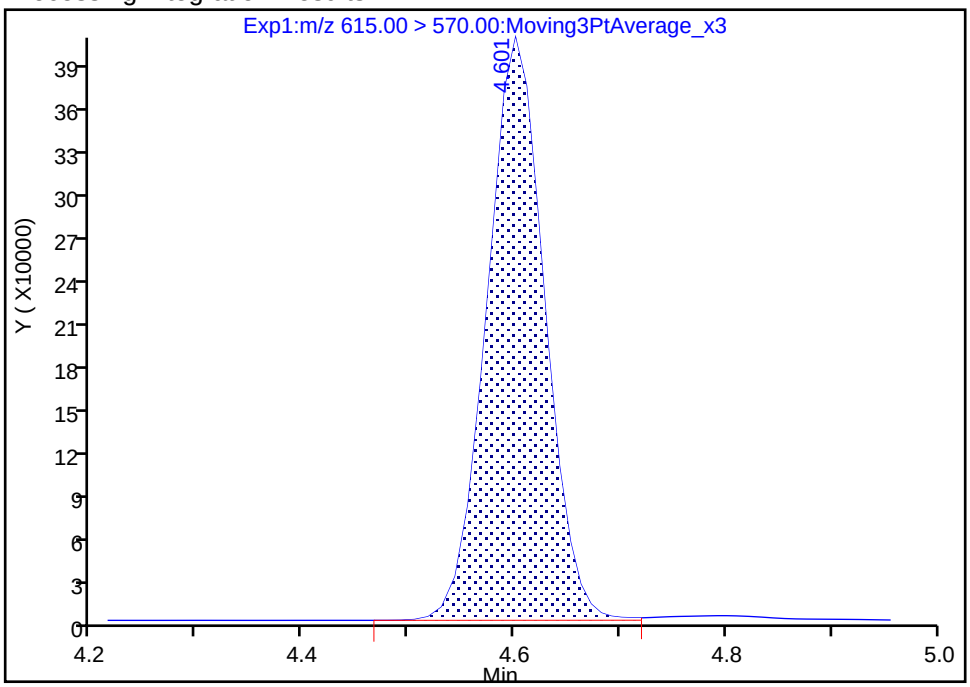
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

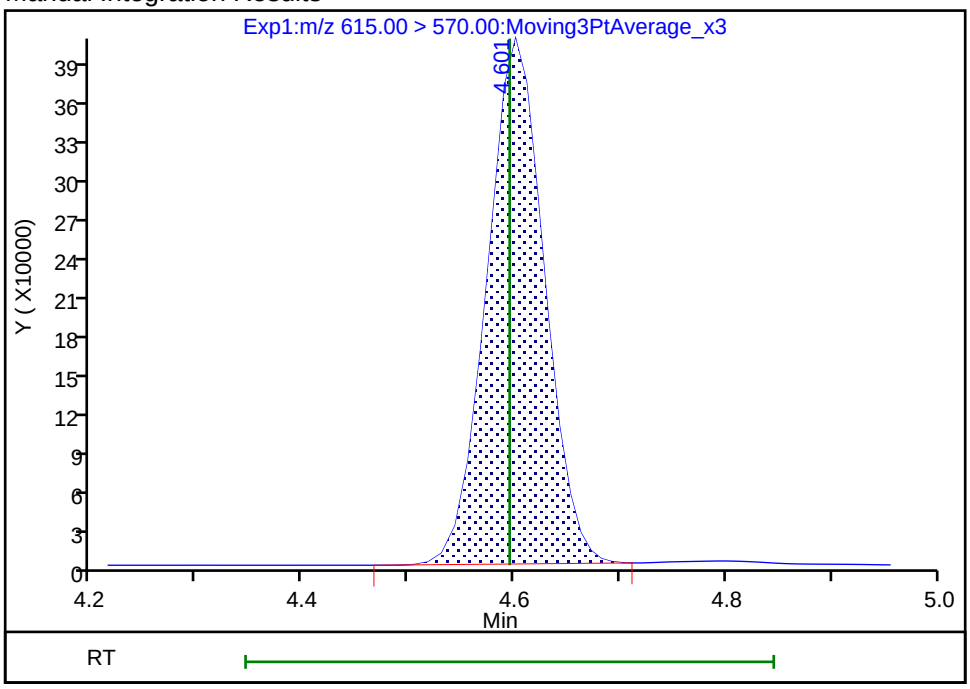
Processing Integration Results

RT: 4.60
Area: 1534351
Amount: 1.219323
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 1521232
Amount: 1.208898
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

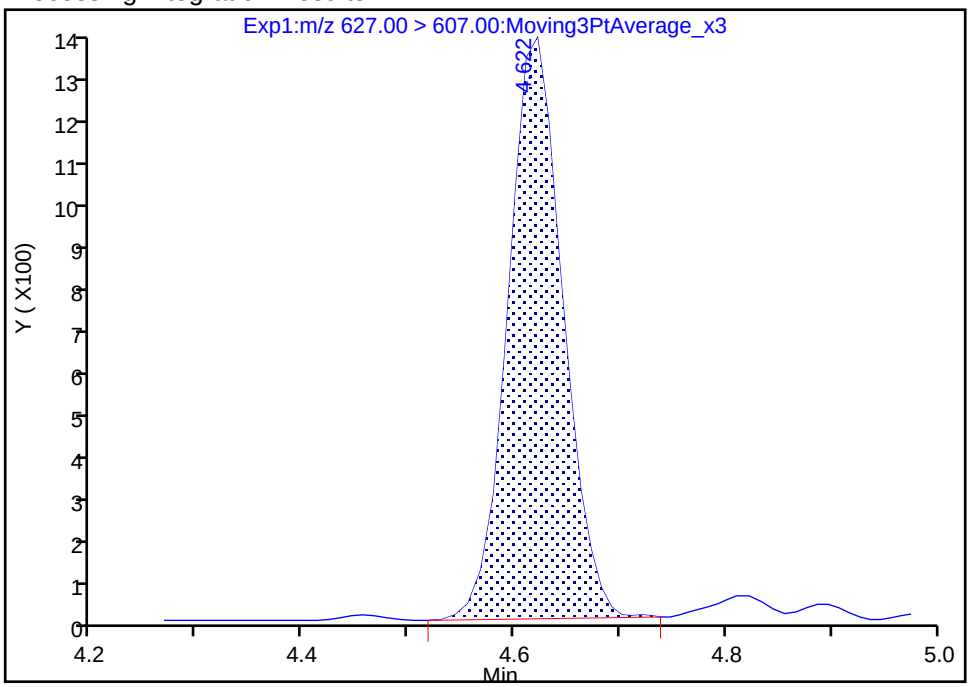
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A05.d
Injection Date: 04-Nov-2021 14:00:51 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

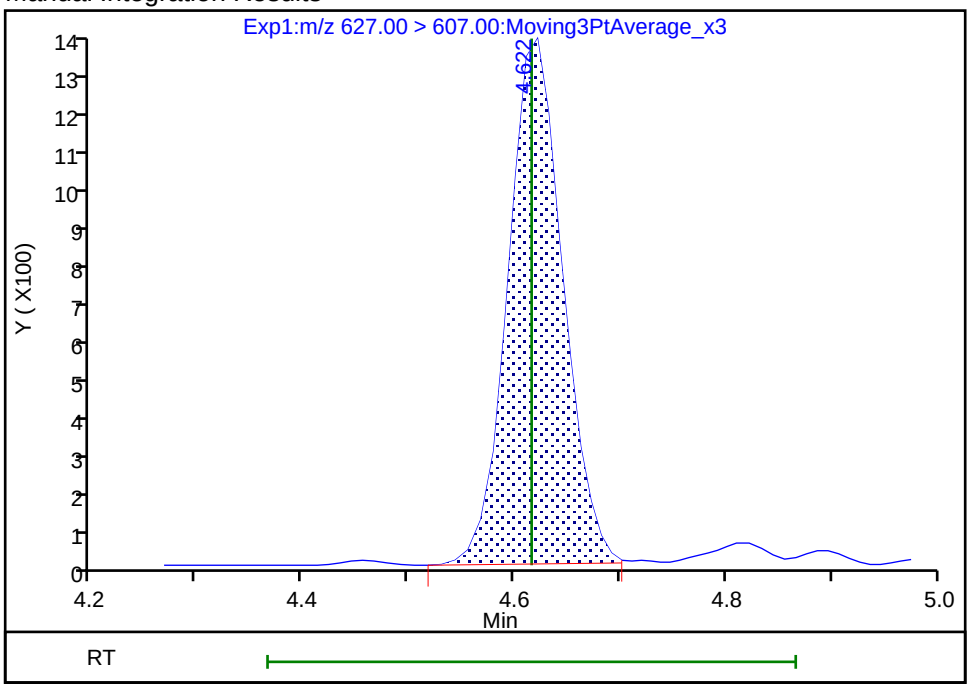
Processing Integration Results

RT: 4.62
Area: 4955
Amount: 0.048156
Amount Units: ng/ml




Manual Integration Results

RT: 4.62
Area: 4950
Amount: 0.048107
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:19:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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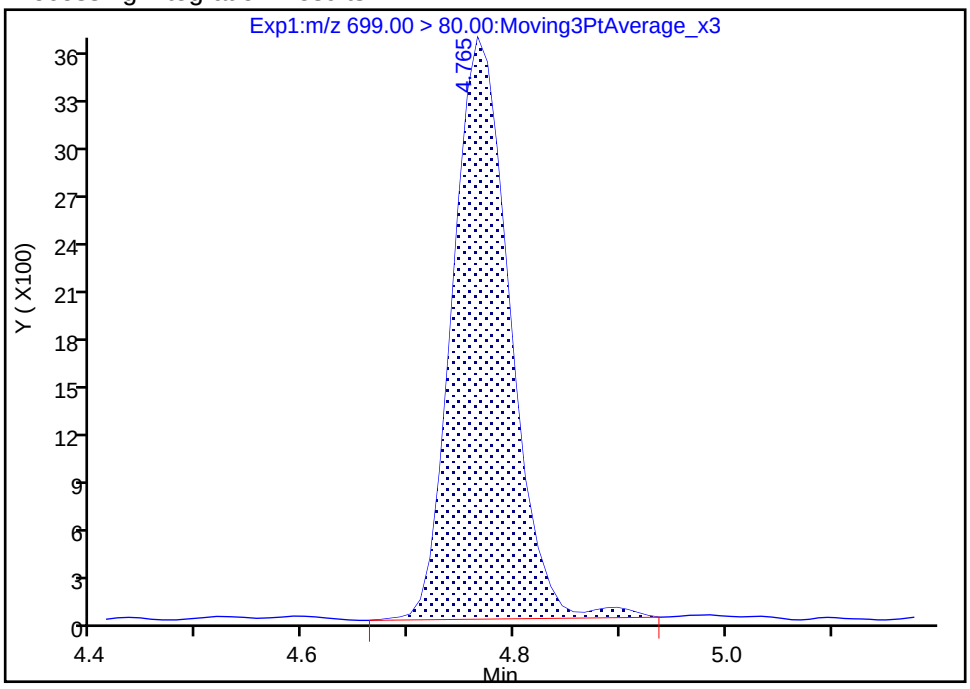
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

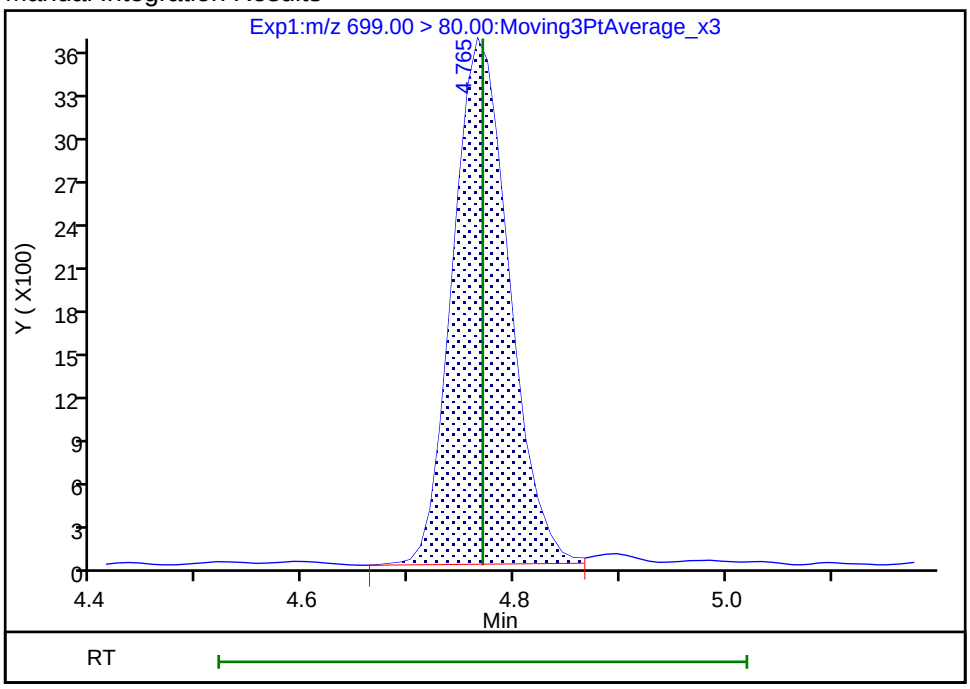
Processing Integration Results

RT: 4.77
Area: 13763
Amount: 0.061877
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 13599
Amount: 0.061139
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:01:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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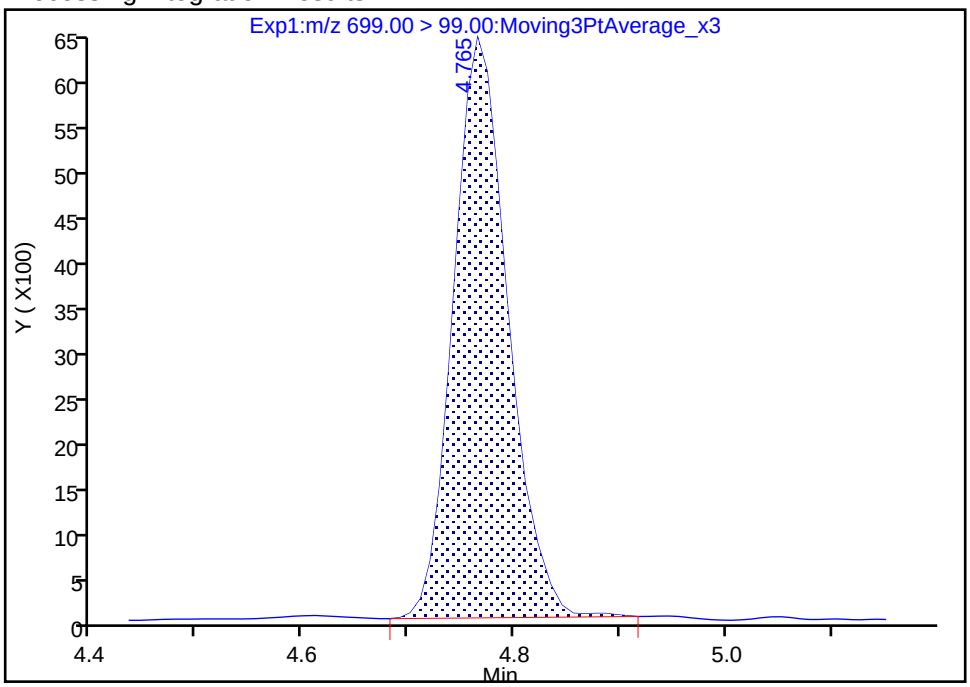
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

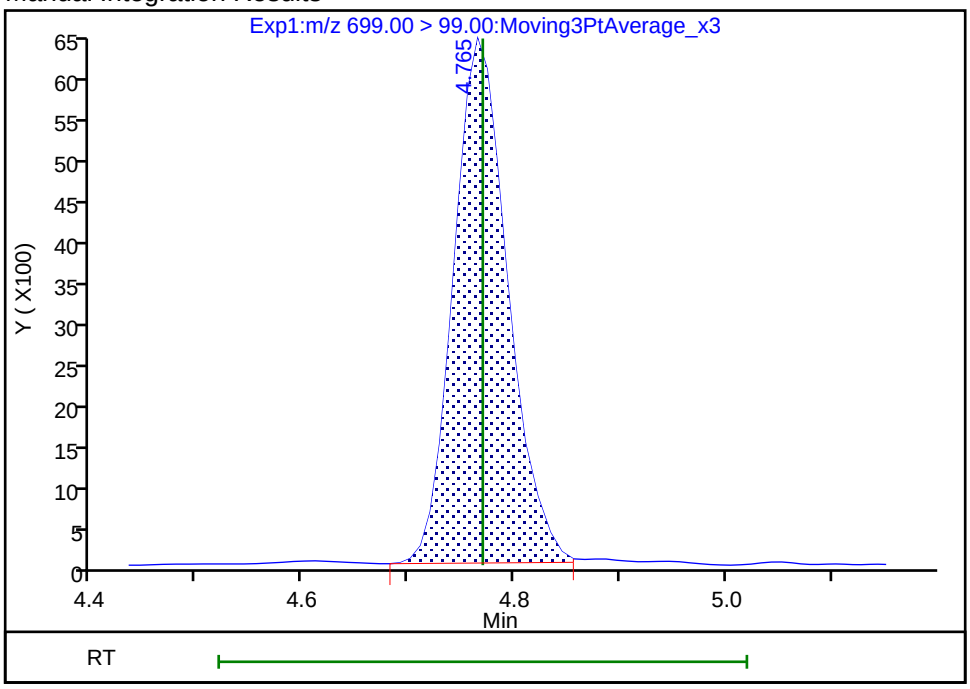
Processing Integration Results

RT: 4.77
Area: 22856
Amount: 0.061877
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 22764
Amount: 0.061139
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:01:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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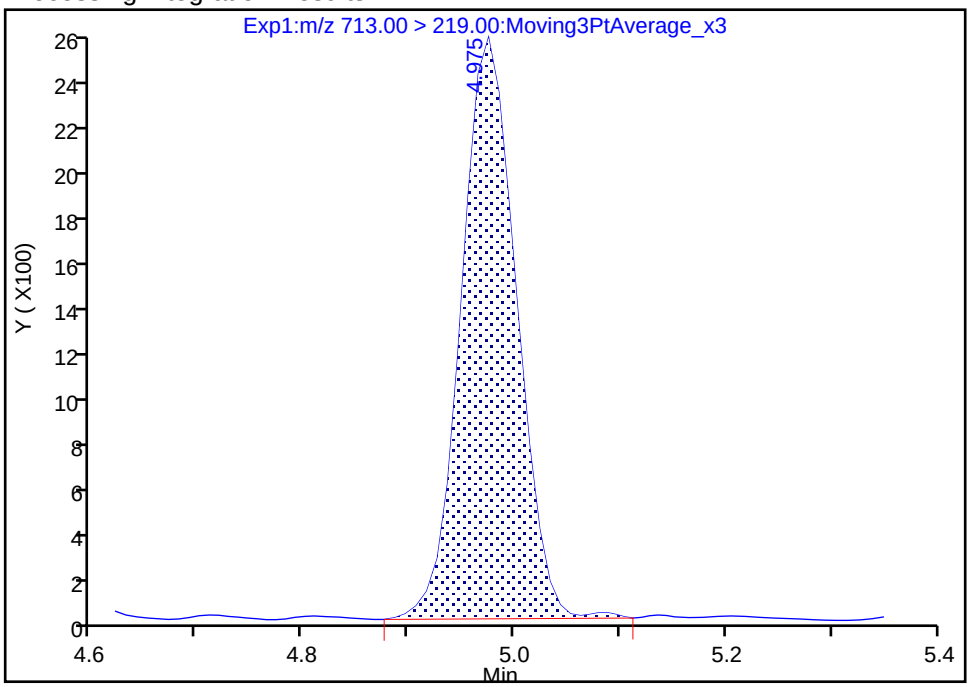
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

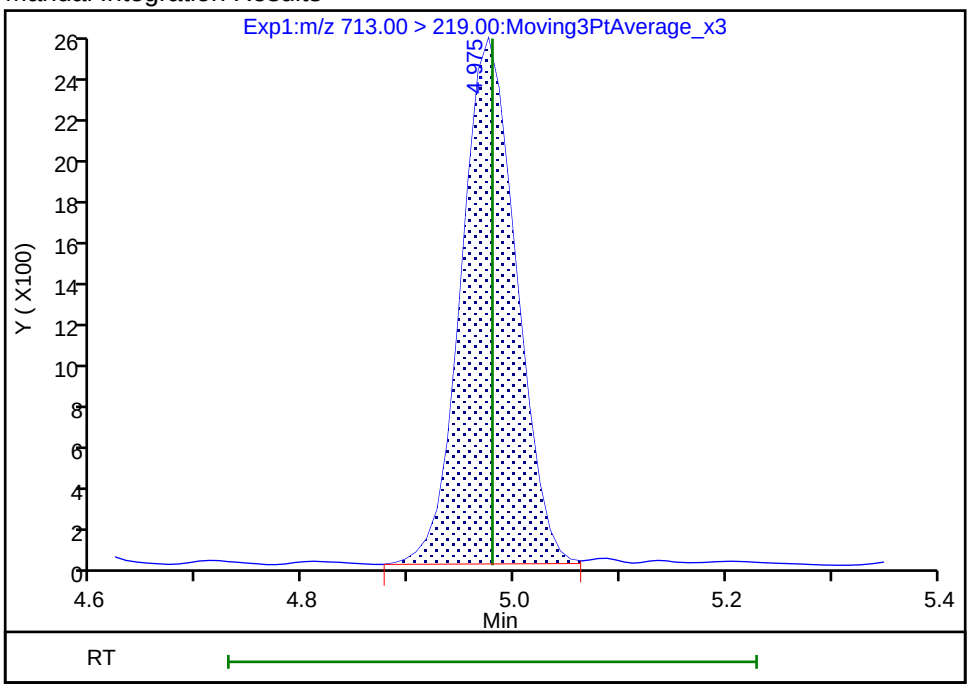
Processing Integration Results

RT: 4.98
Area: 9062
Amount: 0.049783
Amount Units: ng/ml




Manual Integration Results

RT: 4.98
Area: 9022
Amount: 0.049783
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:02:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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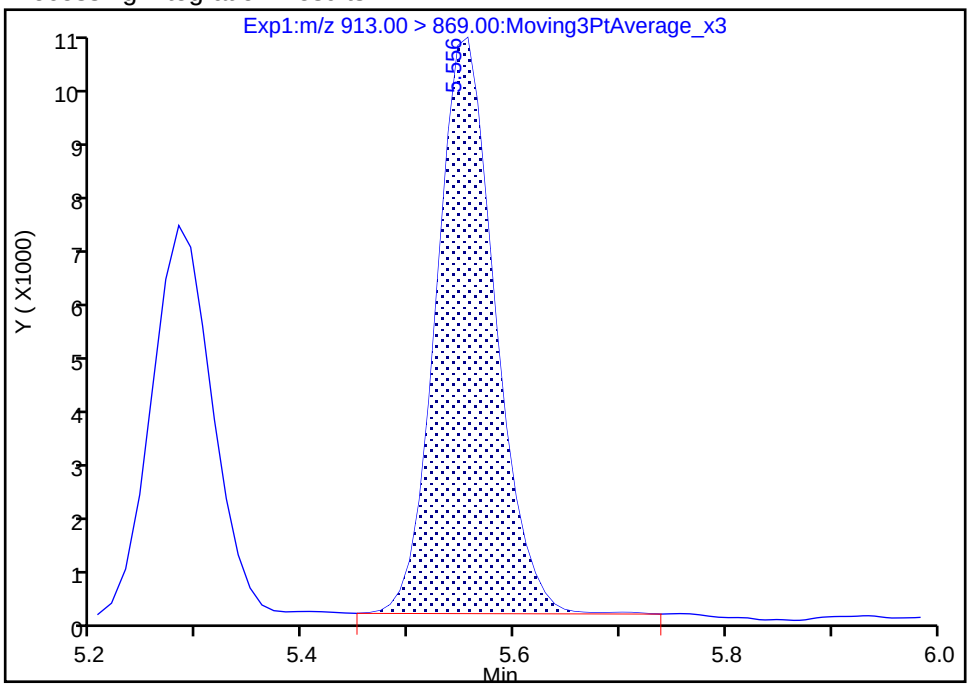
| Injection Date: | 04-Nov-2021 14:00:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

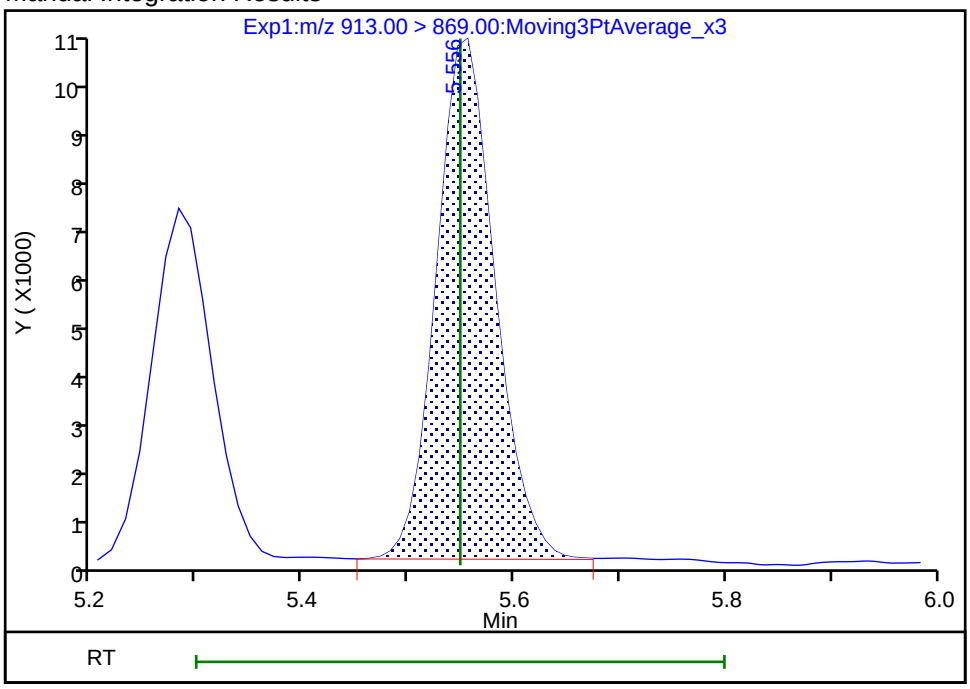
Processing Integration Results

RT: 5.56
Area: 40302
Amount: 0.044095
Amount Units: ng/ml




Manual Integration Results

RT: 5.56
Area: 40230
Amount: 0.044016
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:02:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVIS 200-173511/6  Calibration Date: 11/04/2021 14:09

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9095 | | 0.962 | 1.00 | -3.8 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.004 | | 1.00 | 1.00 | 0.2 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.996 | | 0.824 | 0.884 | -6.8 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.103 | | 0.923 | 0.934 | -1.2 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9442 | | 0.931 | 1.00 | -6.9 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.201 | | 0.935 | 0.938 | -0.3 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.470 | | 1.21 | 1.00 | 20.9 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.018 | | 0.843 | 0.910 | -7.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9285 | | 0.899 | 1.00 | -10.1 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.605 | | 0.970 | 0.942 | 3.0 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.266 | | 0.946 | 0.948 | -0.2 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.230 | | 0.940 | 0.952 | -1.3 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.016 | | 0.955 | 1.00 | -4.5 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.032 | | 0.883 | 0.928 | -4.8 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9612 | | 0.983 | 1.00 | -1.7 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.460 | | 0.832 | 0.932 | -10.7 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7987 | | 0.907 | 0.960 | -5.5 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9401 | | 0.936 | 1.00 | -6.4 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7748 | | 0.887 | 0.958 | -7.4 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9130 | | 0.961 | 1.00 | -3.9 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8006 | | 1.02 | 1.00 | 1.9 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6043 | | 0.886 | 0.964 | -8.0 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.090 | | 1.02 | 1.00 | 2.3 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8371 | | 0.977 | 1.00 | -2.3 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.851 | | 0.903 | 0.942 | -4.1 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9389 | | 0.959 | 1.00 | -4.1 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4006 | | 0.999 | 0.964 | 3.6 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2722 | | 1.09 | 0.968 | 12.6 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVIS 200-173511/6  Calibration Date: 11/04/2021 14:09

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8529 | | 1.01 | 1.00 | 1.0 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1662 | | 1.05 | 1.00 | 5.3 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9569 | | 1.10 | 1.00 | 10.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7236 | | 0.858 | 1.00 | -14.2 | |
| 13C4 PFBA | Ave | 1.012 | 1.063 | | 1.31 | 1.25 | 5.0 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.8773 | | 1.29 | 1.25 | 2.9 | |
| 13C3 PFBS | Ave | 1.154 | 1.102 | | 1.11 | 1.16 | -4.5 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0973 | | 1.29 | 1.17 | 10.7 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9046 | | 1.26 | 1.25 | 1.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0178 | | 0.943 | 1.25 | -24.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9792 | | 1.30 | 1.25 | 4.0 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8181 | | 1.15 | 1.18 | -2.4 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1479 | | 1.33 | 1.19 | 11.9 | |
| 13C4 PFOA | Ave | 1.029 | 1.014 | | 1.23 | 1.25 | -1.5 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.5996 | | 1.18 | 1.20 | -1.0 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.003 | | 1.22 | 1.25 | -2.2 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.012 | | 1.22 | 1.25 | -2.1 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1717 | | 1.37 | 1.20 | 14.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.025 | | 1.28 | 1.25 | 2.7 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1082 | | 1.33 | 1.25 | 6.4 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7369 | | 1.14 | 1.25 | -8.6 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1037 | | 1.36 | 1.25 | 8.8 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8610 | | 1.24 | 1.25 | -0.7 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.7073 | | 1.32 | 1.25 | 5.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.7086 | | 1.50 | 1.25 | 19.7 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Nov-2021 14:09:09 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048291-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: khanphomeea Date: 05-Nov-2021 10:06:48
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.082 | 0.0 | 0.596 | 1948119 | 1.31 | | 105 | 10313 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.082 | 0.0 | 1.000 | 1417459 | 0.9619 | | 96.2 | 176 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.401 | 2.401 | 0.0 | 0.687 | 1607476 | 1.29 | | 103 | 2906 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.401 | 2.401 | 0.0 | 1.000 | 1290984 | 1.00 | | 100 | 53.3 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.427 | 2.427 | 0.0 | 0.695 | 1878214 | 1.11 | | 95.5 | 138878 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.427 | 2.427 | 0.0 | 1.000 | 1422076 | 0.8241 | Target=2.32 | 93.2 | 773 | M |
| 298.90 > 99.00 | 2.427 | 2.427 | 0.0 | 1.000 | 685004 | | 2.08(1.16-3.48) | | 300 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.723 | 2.723 | 0.0 | 0.779 | 166604 | 1.29 | | 111 | 85.5 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.735 | 2.735 | 0.0 | 1.004 | 280289 | 0.9228 | | 98.8 | 697 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.759 | 0.0 | 0.790 | 1657580 | 1.26 | | 101 | 2112 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.771 | 2.771 | 0.0 | 1.004 | 1252051 | 0.9310 | Target=12.09 | 93.1 | 181 | |
| 313.00 > 119.00 | 2.771 | 2.771 | 0.0 | 1.004 | 101118 | | 12.38(6.04-18.13) | | 159 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.771 | 2.771 | 0.0 | 0.885 | 1350857 | 0.9354 | Target=3.03 | 99.7 | 731 | |
| 349.00 > 99.00 | 2.771 | 2.771 | 0.0 | 0.885 | 455223 | | 2.97(1.52-4.55) | | 379 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.869 | 2.869 | 0.0 | 0.821 | 32569 | 0.9428 | | 75.4 | 208 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.881 | 2.881 | 0.0 | 1.004 | 142515 | 1.21 | | 121 | 39.0 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.133 | 0.0 | 0.897 | 1418022 | 1.15 | | 97.6 | 976 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.133 | 0.0 | 1.000 | 1111404 | 0.8430 | Target=3.55 | 92.6 | 483 | |
| 399.00 > 99.00 | 3.133 | 3.133 | 0.0 | 1.000 | 321098 | | 3.46(1.77-5.32) | | 251 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.133 | 3.133 | 0.0 | 0.897 | 1794212 | 1.30 | | 104 | 3336 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.144 | 3.144 | 0.0 | 1.003 | 1332788 | 0.8987 | Target=3.69 | 89.9 | 331 | |
| 363.00 > 169.00 | 3.144 | 3.144 | 0.0 | 1.003 | 370745 | | 3.59(1.84-5.53) | | 481 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.176 | 3.176 | 0.0 | 0.835 | 2984768 | 0.9702 | Target=2.56 | 103 | 952 | M |
| 377.00 > 85.00 | 3.176 | 3.176 | 0.0 | 0.835 | 1144281 | | 2.61(1.28-3.84) | | 662 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.484 | 3.484 | 0.0 | 1.000 | 260057 | 0.9461 | | 99.8 | 473 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.484 | 3.484 | 0.0 | 0.916 | 1029573 | 0.9396 | Target=4.88 | 98.7 | 646 | M |
| 449.00 > 99.00 | 3.475 | 3.484 | -0.009 | 0.913 | 204404 | | 5.04(2.44-7.32) | | 368 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.484 | 3.484 | 0.0 | 0.997 | 257406 | 1.33 | | 112 | 553 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.493 | 3.493 | 0.0 | 1.000 | 1857751 | 1.23 | | 98.5 | 2107 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.493 | 3.493 | 0.0 | | 1832341 | 1.25 | | | 664 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.493 | 3.493 | 0.0 | 1.000 | 1509324 | 0.9550 | Target=2.68 | 95.5 | 187 | |
| 413.00 > 169.00 | 3.493 | 3.493 | 0.0 | 1.000 | 571526 | | 2.64(1.34-4.02) | | 483 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.806 | 3.806 | 0.0 | 1.089 | 1050391 | 1.18 | | 99.0 | 651 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.806 | 3.806 | 0.0 | 1.000 | 842206 | 0.8830 | Target=4.69 | 95.2 | 241 | M |
| 499.00 > 99.00 | 3.806 | 3.806 | 0.0 | 1.000 | 177896 | | 4.73(2.35-7.04) | | 237 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.826 | 3.826 | 0.0 | 1.095 | 1837022 | 1.22 | | 97.8 | 2618 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.826 | 3.826 | 0.0 | 1.000 | 1412626 | 0.9825 | Target=7.29 | 98.3 | 231 | |
| 463.00 > 169.00 | 3.826 | 3.826 | 0.0 | 1.000 | 198897 | | 7.10(3.64-10.93) | | 440 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.967 | 3.967 | 0.0 | 1.042 | 1195760 | 0.8322 | | 89.3 | 530 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.095 | 4.095 | 0.0 | 1.076 | 673989 | 0.9072 | Target=2.35 | 94.5 | 477 | |
| 549.00 > 99.00 | 4.095 | 4.095 | 0.0 | 1.076 | 269746 | | 2.50(1.17-3.52) | | 370 | |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.118 | 4.118 | 0.0 | 1.179 | 1854934 | 1.22 | | 97.9 | 140 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.118 | 4.118 | 0.0 | 1.000 | 1395025 | 0.9356 | Target=8.95 | 93.6 | 286 | |
| 513.00 > 169.00 | 4.118 | 4.118 | 0.0 | 1.000 | 159438 | | 8.75(4.47-13.42) | | 260 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.129 | 4.129 | 0.0 | 1.182 | 301463 | 1.37 | | 115 | 203 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.129 | 4.129 | 0.0 | 1.000 | 186856 | 0.8873 | | 92.6 | 264 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.227 | 4.227 | 0.0 | 1.210 | 1878134 | 1.28 | | 103 | 1096 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.227 | 4.227 | 0.0 | 1.000 | 1371730 | 0.9613 | | 96.1 | 1369 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.260 | 4.260 | 0.0 | 1.219 | 198273 | 1.33 | | 106 | 231 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.260 | 4.260 | 0.0 | 1.000 | 126989 | 1.02 | | 102 | 133 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.351 | 4.351 | 0.0 | 1.143 | 512079 | 0.8865 | Target=2.47 | 92.0 | 1252 | |
| 599.00 > 99.00 | 4.351 | 4.351 | 0.0 | 1.143 | 206984 | | 2.47(1.23-3.70) | | 987 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.373 | 4.373 | 0.0 | 1.252 | 1350215 | 1.14 | | 91.4 | 962 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.373 | 4.373 | 0.0 | 1.000 | 1177880 | 1.02 | Target=9.24 | 102 | 415 | |
| 563.00 > 169.00 | 4.373 | 4.373 | 0.0 | 1.000 | 124954 | | 9.43(4.62-13.86) | | 507 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.384 | 4.384 | 0.0 | 1.255 | 190002 | 1.36 | | 109 | 965 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.395 | 4.395 | 0.0 | 1.003 | 127248 | 0.9770 | | 97.7 | 400 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.460 | 4.460 | 0.0 | 1.172 | 1532233 | 0.9030 | | 95.9 | 1789 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.595 | 4.595 | 0.0 | 1.316 | 1577714 | 1.24 | | 99.3 | 578 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.606 | 4.606 | 0.0 | 1.002 | 1185084 | 0.9590 | Target=7.04 | 95.9 | 197 | |
| 613.00 > 169.00 | 4.606 | 4.606 | 0.0 | 1.002 | 182121 | | 6.51(3.52-10.56) | | 1071 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.616 | 4.616 | 0.0 | 1.118 | 97212 | 1.00 | | 104 | 708 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.770 | 4.770 | 0.0 | 1.253 | 231629 | 1.09 | Target=0.49 | 113 | 2187 | |
| 699.00 > 99.00 | 4.770 | 4.770 | 0.0 | 1.253 | 396621 | | 0.58(0.25-0.74) | | 2225 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.797 | 4.797 | 0.0 | 1.044 | 1076512 | 1.01 | Target=4.68 | 101 | 227 | |
| 663.00 > 169.00 | 4.797 | 4.797 | 0.0 | 1.044 | 235544 | | 4.57(2.34-7.02) | | 1211 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.979 | 4.979 | 0.0 | 1.425 | 1295944 | 1.31 | | 105 | 1857 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.979 | 4.979 | 0.0 | 1.000 | 172360 | 1.05 | Target=1.01 | 105 | 1534 | |
| 713.00 > 219.00 | 4.969 | 4.979 | -0.010 | 0.998 | 169428 | | 1.02(0.51-1.52) | | 1633 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.284 | 5.284 | 0.0 | 1.513 | 1298478 | 1.50 | | 120 | 4161 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.284 | 5.284 | 0.0 | 1.000 | 993988 | 1.10 | Target=4.57 | 110 | 273 | |
| 813.00 > 169.00 | 5.284 | 5.284 | 0.0 | 1.000 | 206752 | | 4.81(2.29-6.86) | | 1676 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.549 | 5.549 | 0.0 | 1.050 | 751667 | 0.8580 | Target=4.27 | 85.8 | 287 | M |
| 913.00 > 169.00 | 5.549 | 5.549 | 0.0 | 1.050 | 163624 | | 4.59(2.14-6.41) | | 944 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 08-Nov-2021 11:22:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d

Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812

Lims ID: CCVIS

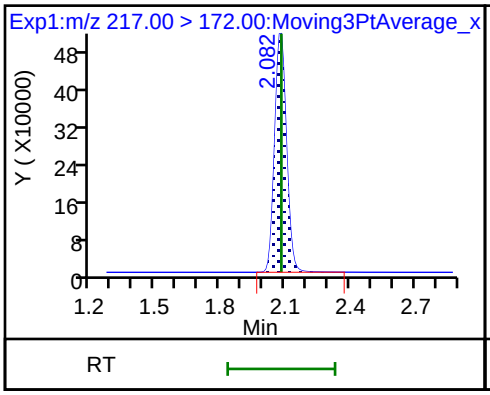
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

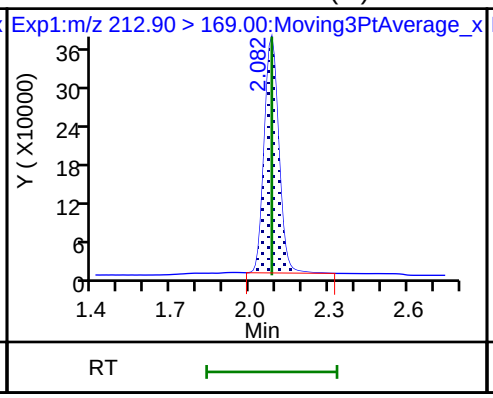
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

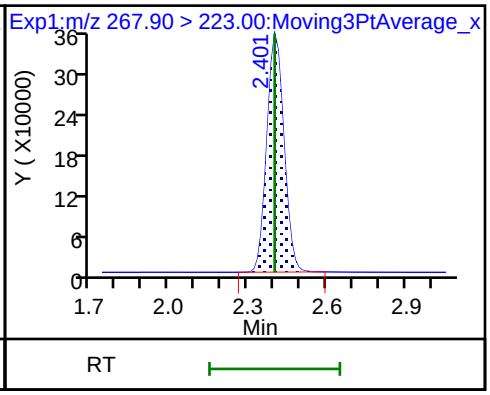
D 1 13C4 PFBA



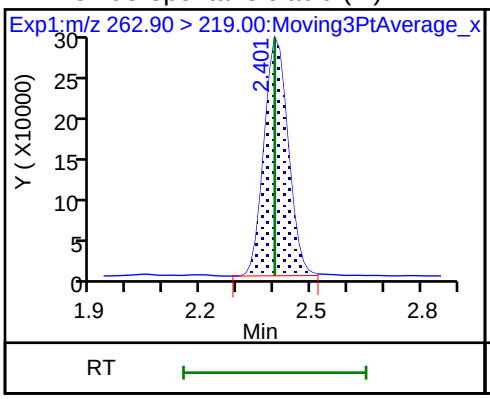

2 Perfluorobutanoic acid (M)



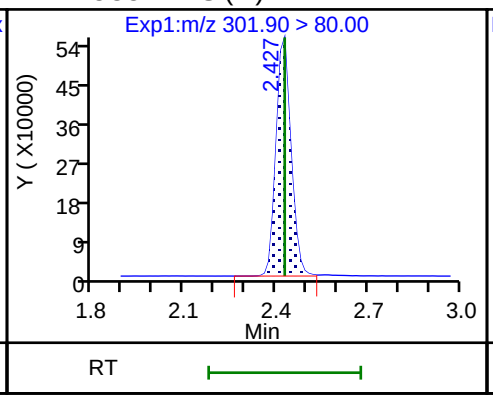

D 3 13C5 PFPeA



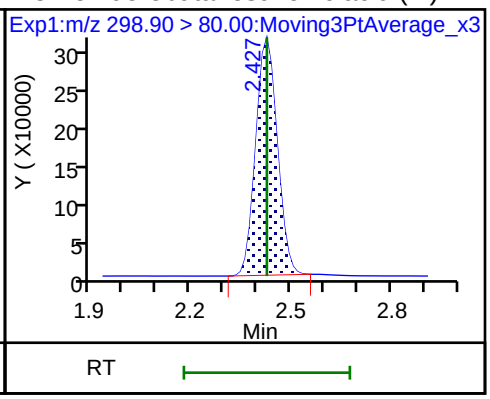

4 Perfluoropentanoic acid (M)



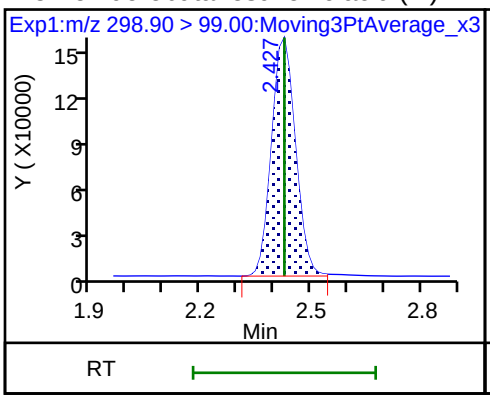

D 47 13C3 PFBS (M)



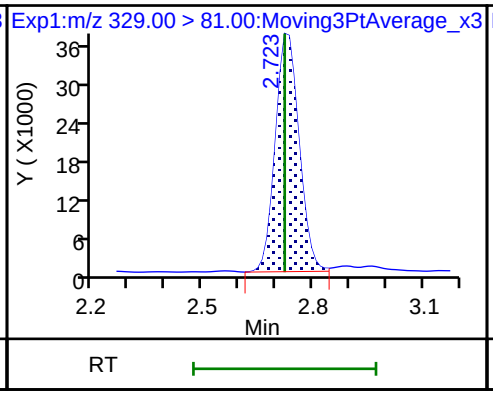

5 Perfluorobutanesulfonic acid (M)



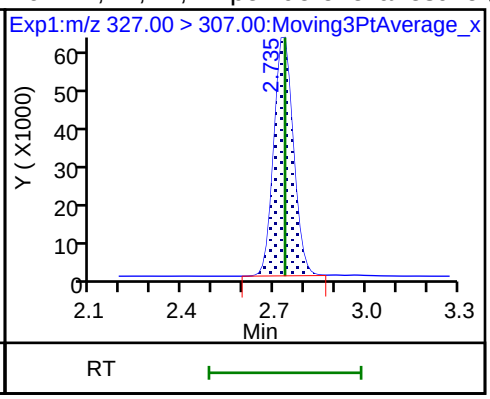

5 Perfluorobutanesulfonic acid (M)



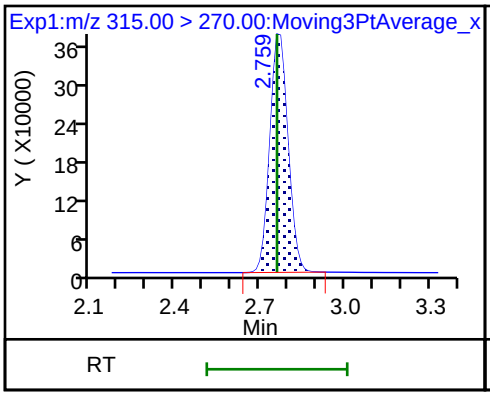

D 60 M2-4:2 FTS



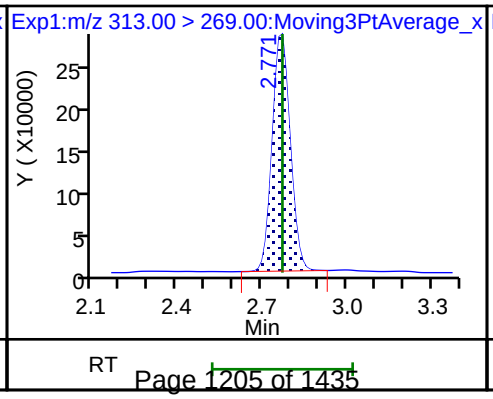

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



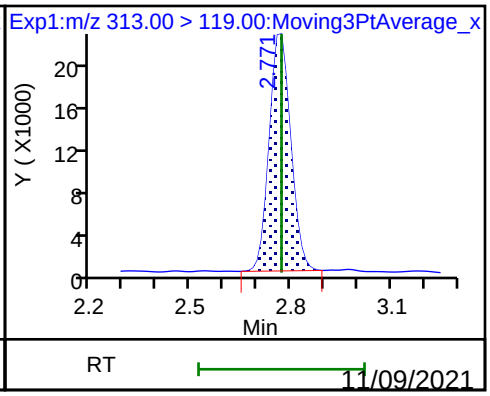

D 7 13C2 PFHxA



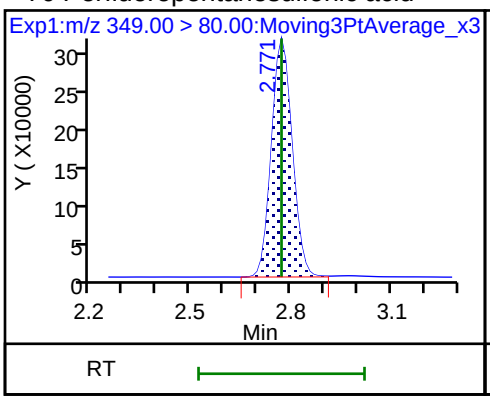

6 Perfluorohexanoic acid



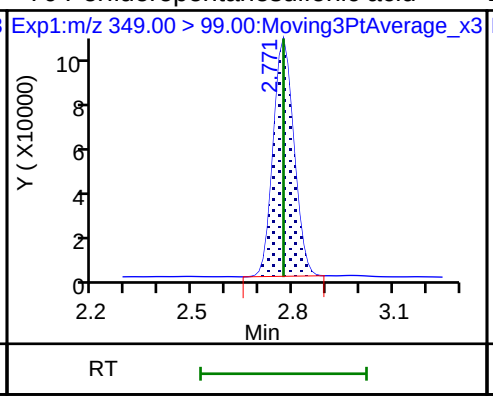

6 Perfluorohexanoic acid



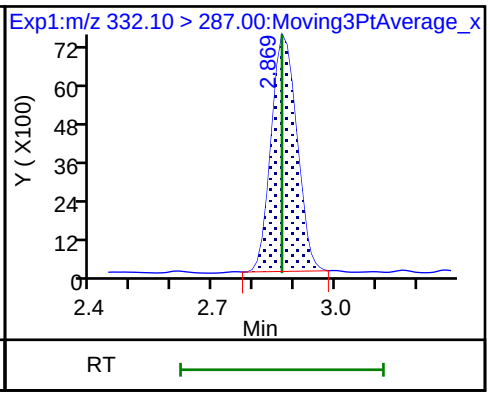
70 Perfluoropentanesulfonic acid



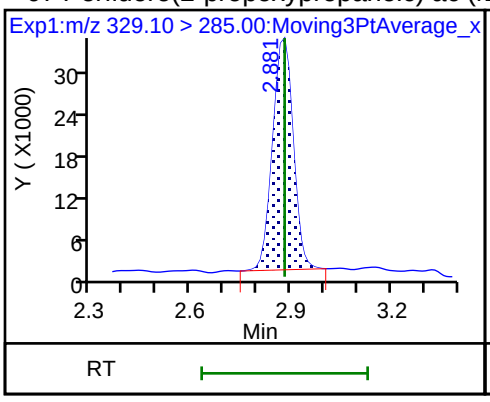

70 Perfluoropentanesulfonic acid



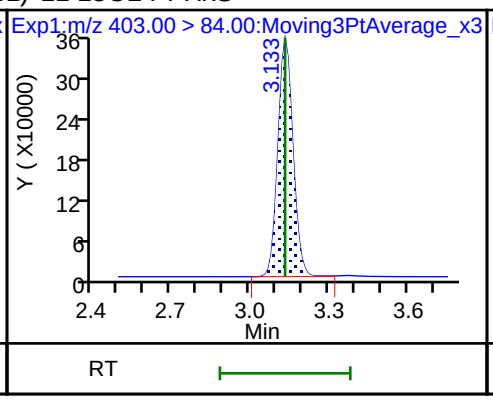

D 64 13C3 HFPO-DA



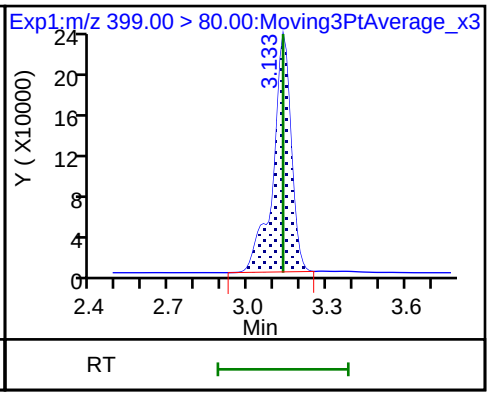

67 Perfluoro(2-propoxypropanoic) ac (M)



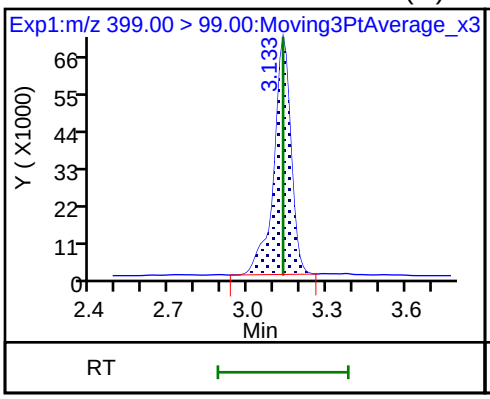

D 11 18O2 PFHxS



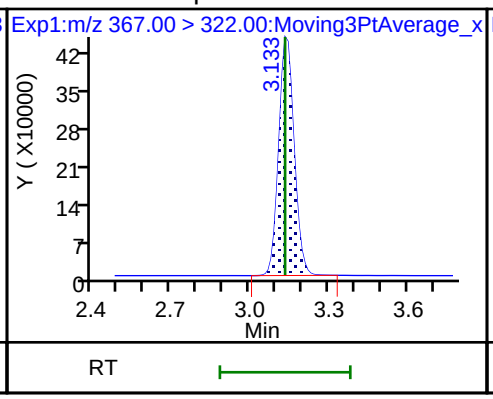

8 Perfluorohexanesulfonic acid



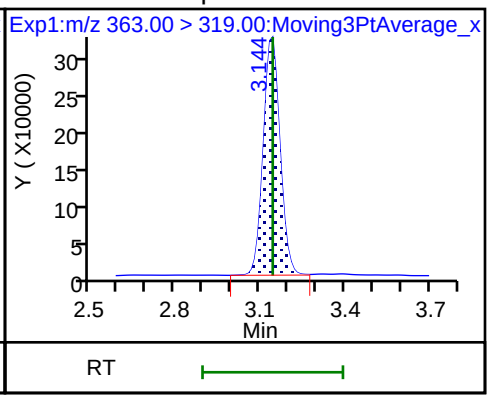

8 Perfluorohexanesulfonic acid (M)



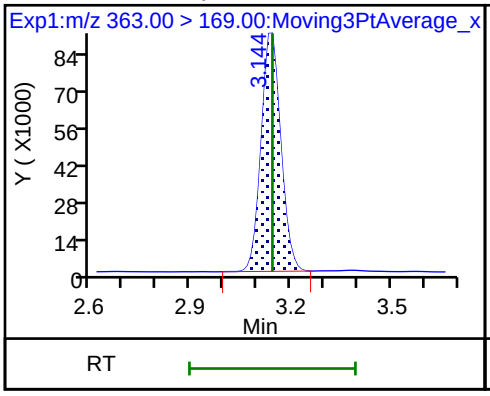

D 9 13C4 PFHpA



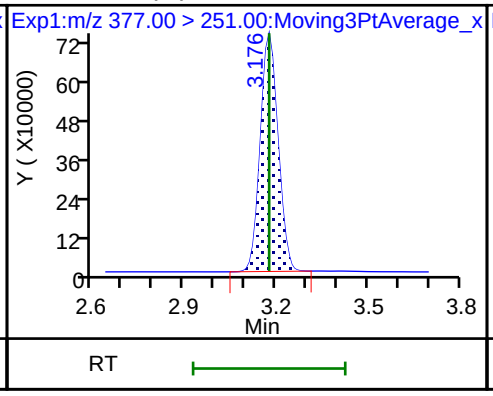

10 Perfluoroheptanoic acid



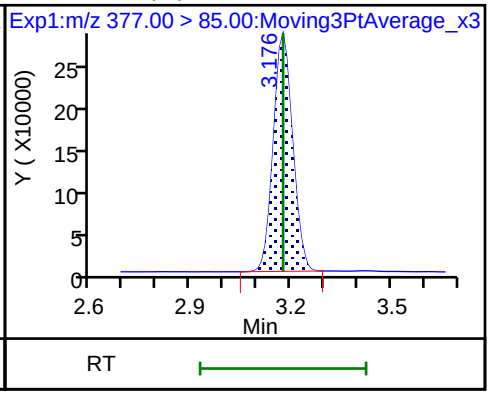

10 Perfluoroheptanoic acid



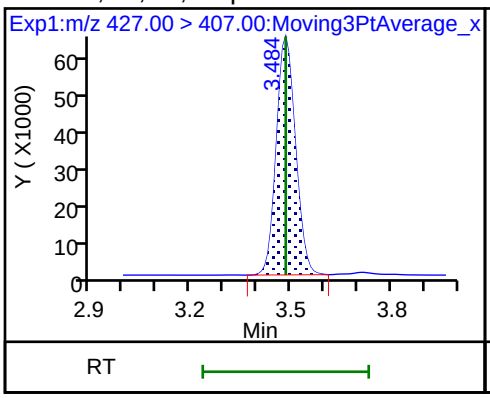

77 DONA (M)



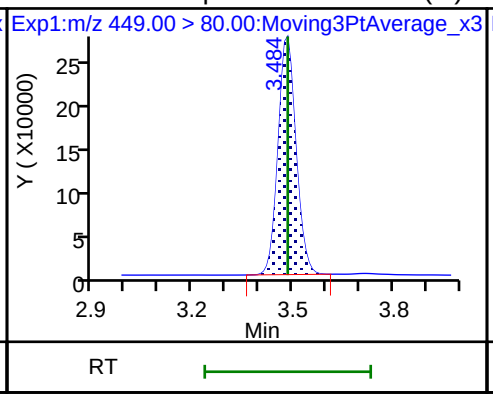

77 DONA (M)



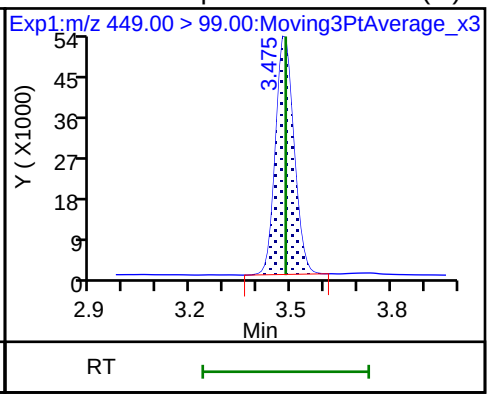
13 1H,1H,2H,2H-perfluorooctanesulfo



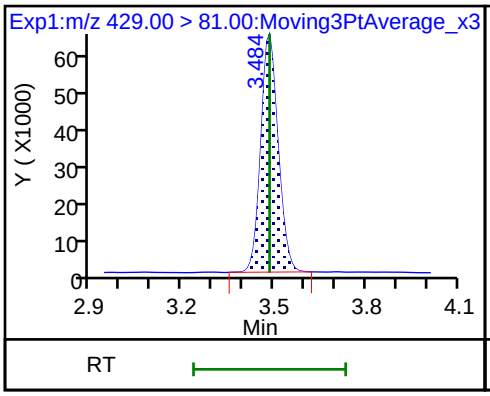

16 Perfluoroheptanesulfonic acid (M)



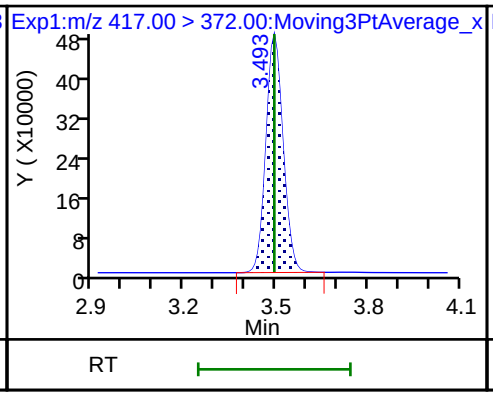

16 Perfluoroheptanesulfonic acid (M)



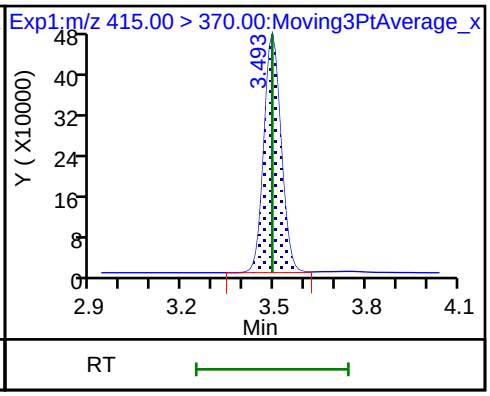

D 12 M2-6:2 FTS



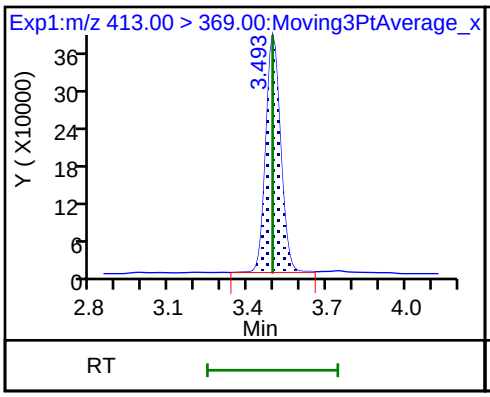

D 14 13C4 PFOA



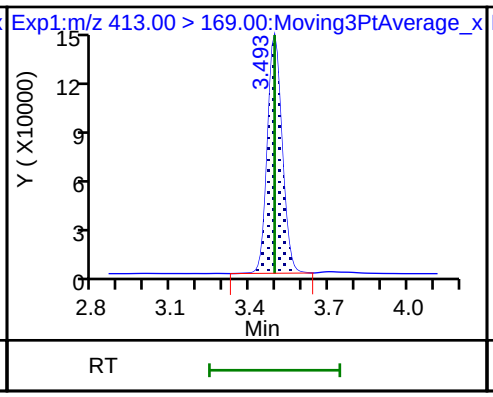

* 62 13C2 PFOA



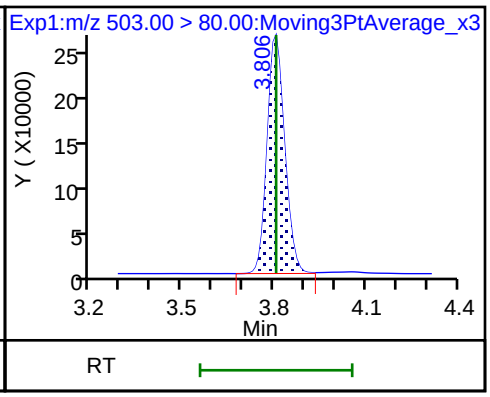

15 Perfluorooctanoic acid



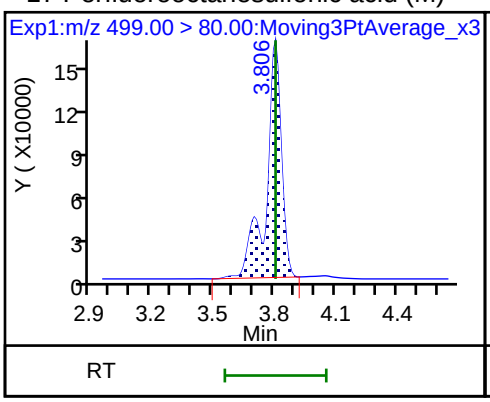

15 Perfluorooctanoic acid



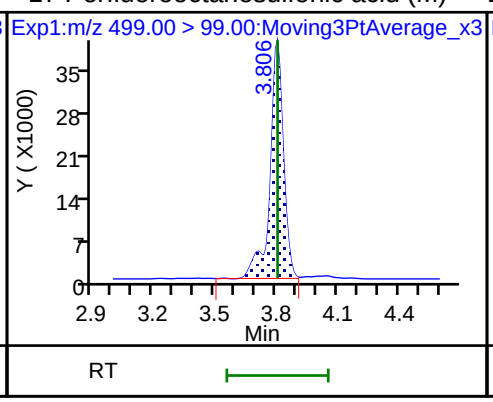

D 18 13C4 PFOS



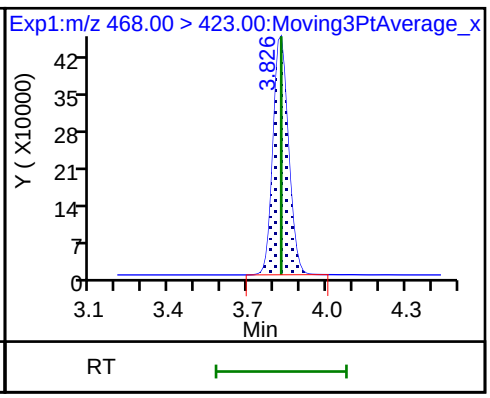

17 Perfluorooctanesulfonic acid (M)



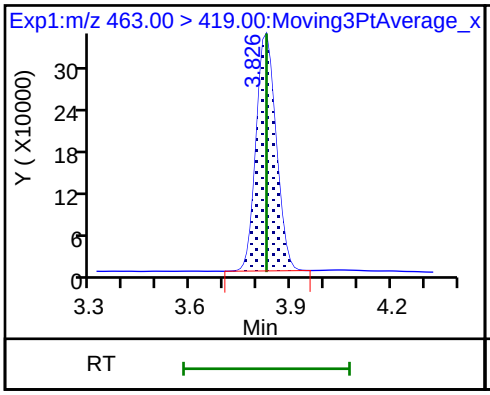

17 Perfluorooctanesulfonic acid (M)



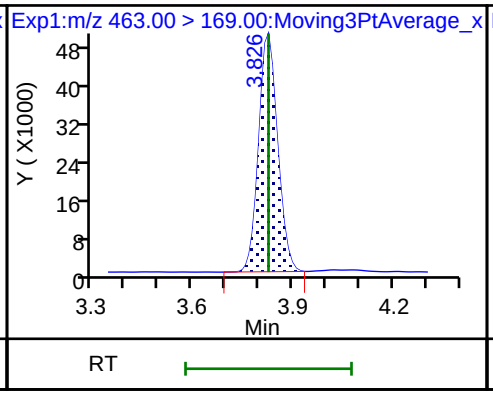

D 19 13C5 PFNA



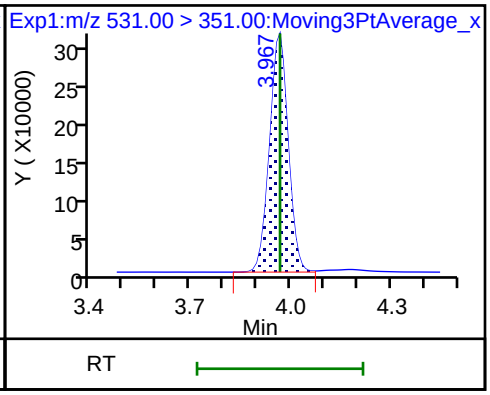
20 Perfluorononanoic acid



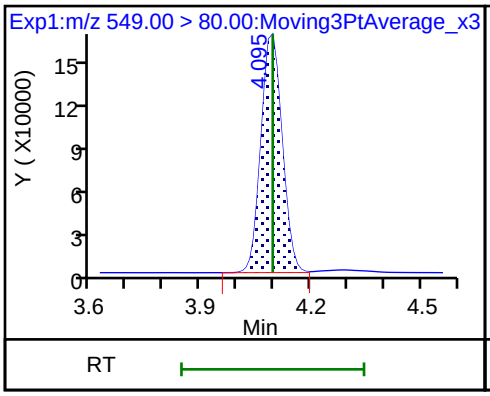

20 Perfluorononanoic acid



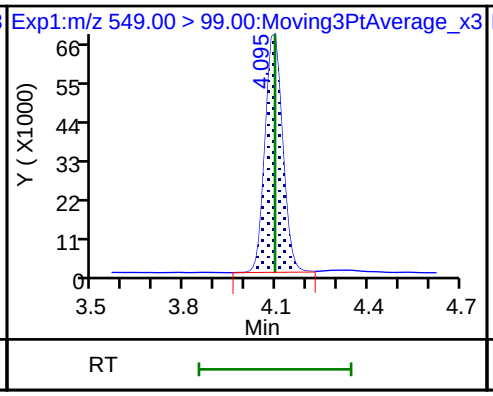

69 9-Chlorohexadecafluoro-3-oxanona



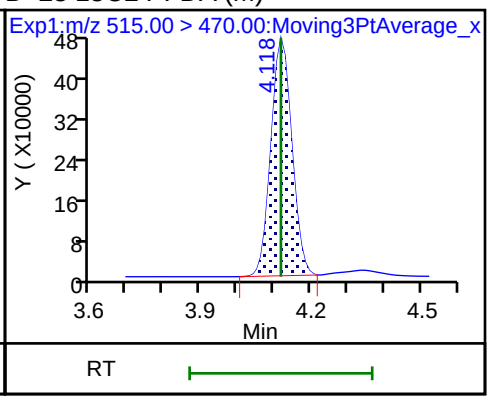

68 Perfluorononanesulfonic acid



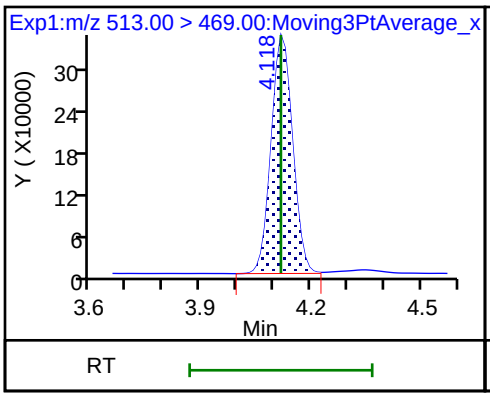

68 Perfluorononanesulfonic acid



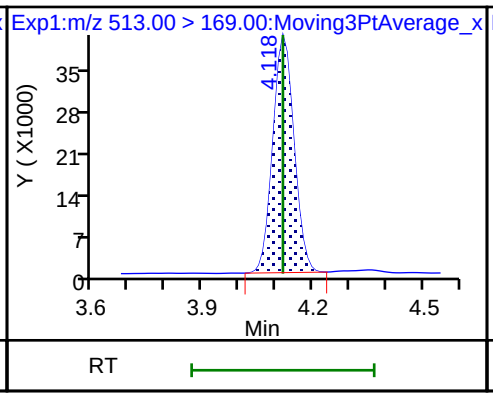

D 23 13C2 PFDA (M)



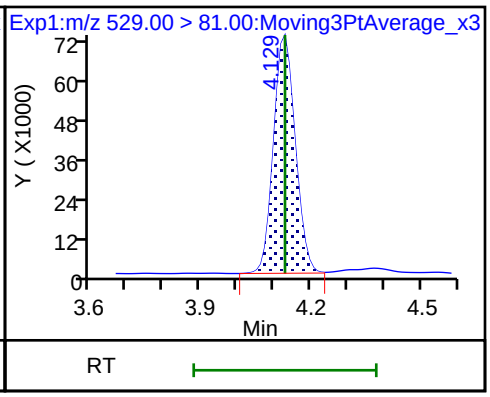

24 Perfluorodecanoic acid



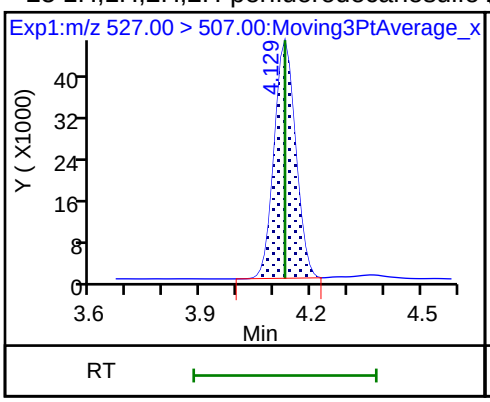

24 Perfluorodecanoic acid



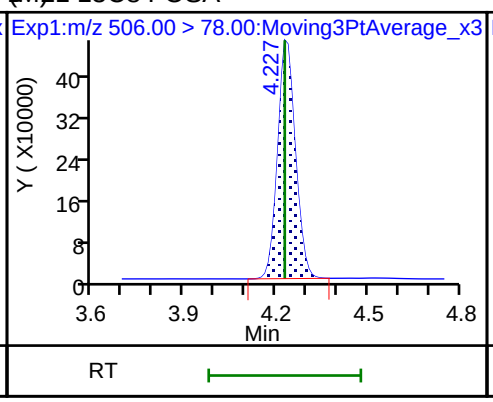

D 26 M2-8:2 FTS



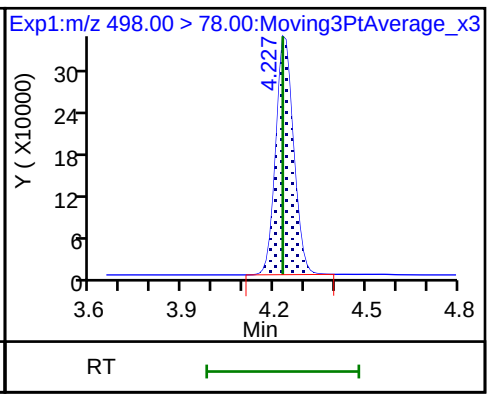

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



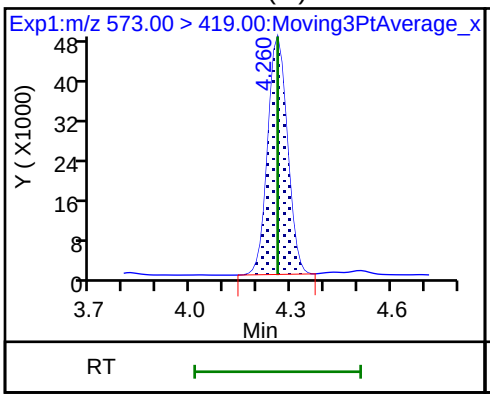

D 21 13C8 FOSA



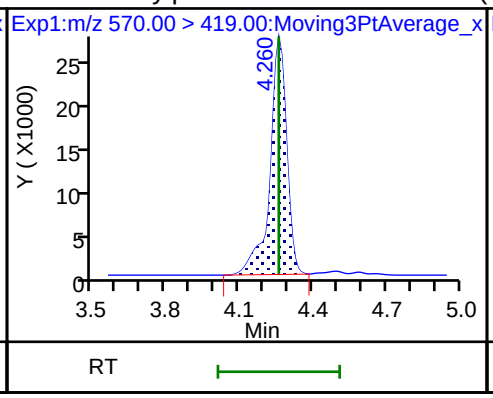

22 Perfluorooctanesulfonamide



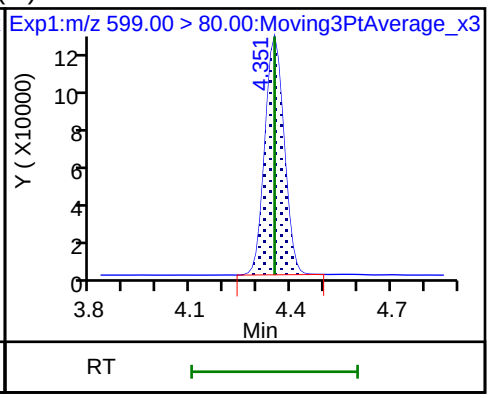
D 27 d3-NMeFOSAA (M)



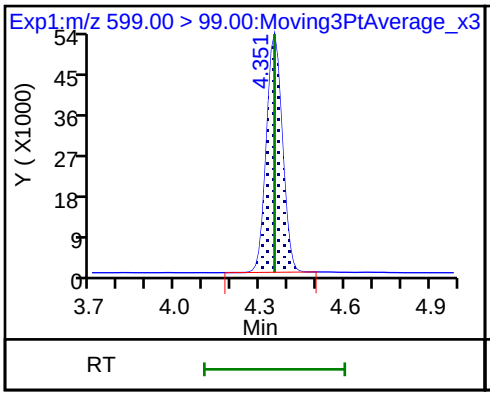

28 N-methylperfluorooctanesulfonami (M)



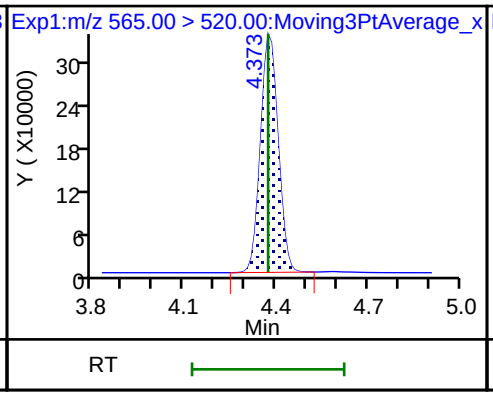

29 Perfluorodecanesulfonic acid



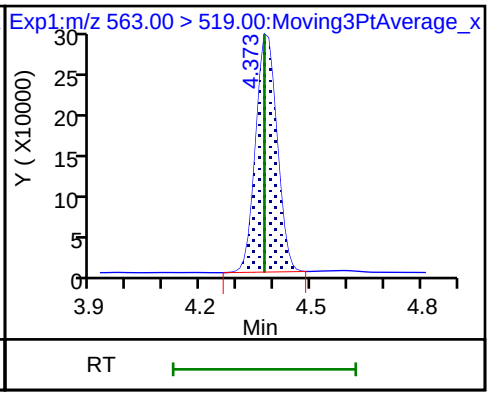

29 Perfluorodecanesulfonic acid



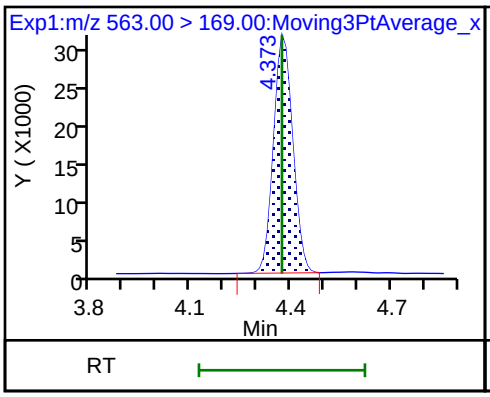

D 30 13C2 PFUnA



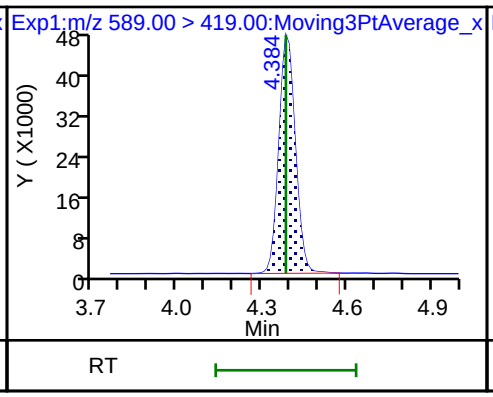

31 Perfluoroundecanoic acid



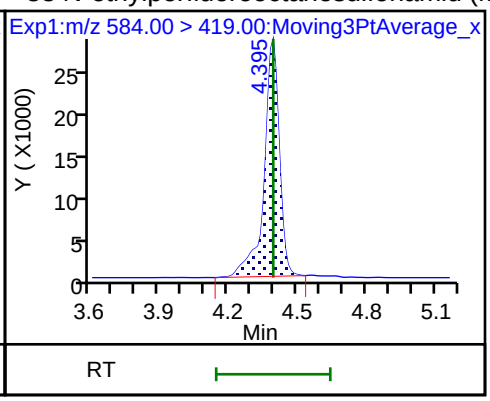

31 Perfluoroundecanoic acid



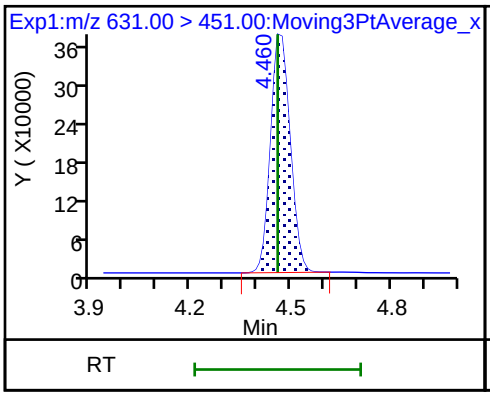

D 32 d5-NEtFOSAA



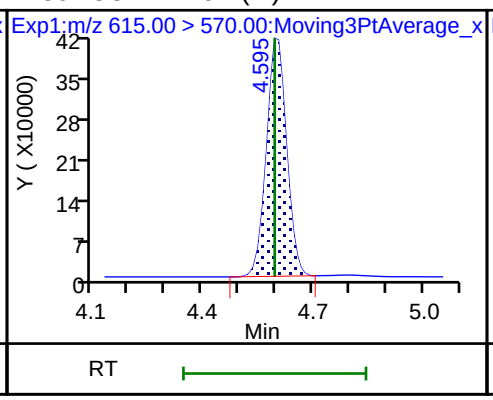

33 N-ethylperfluorooctanesulfonamid (M)



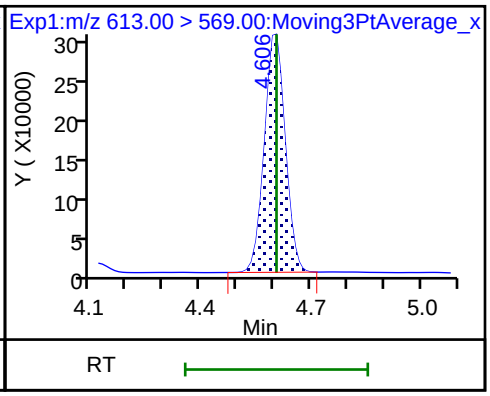

66 11-Chloroeicosafluoro-3-oxaundec



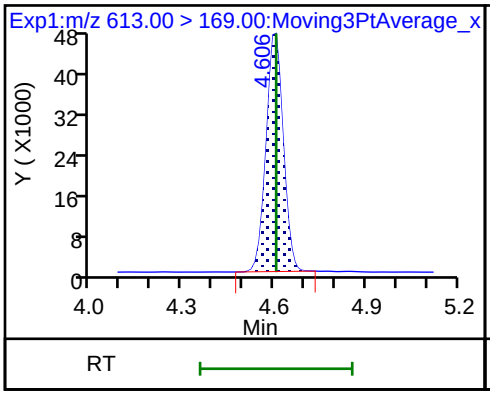

D 36 13C2 PFDoA (M)



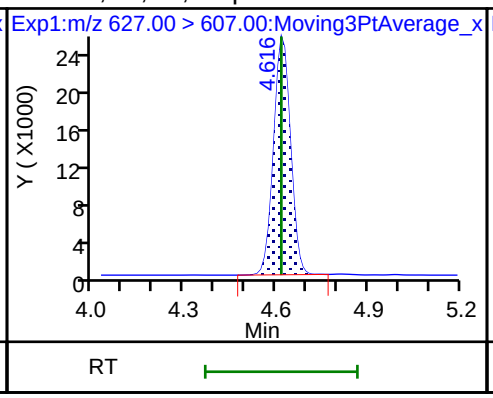

37 Perfluorododecanoic acid



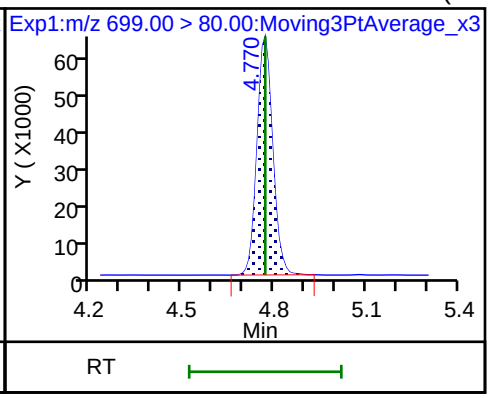
37 Perfluorododecanoic acid



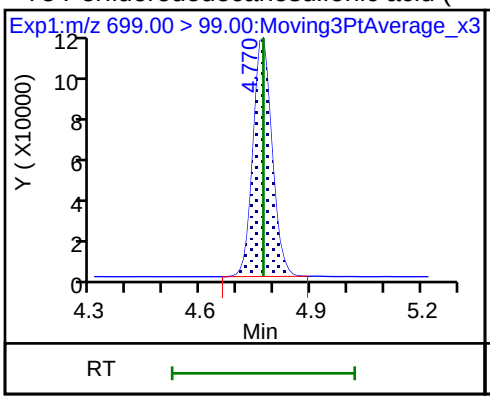

74 1H,1H,2H,2H-perfluorododecanesul



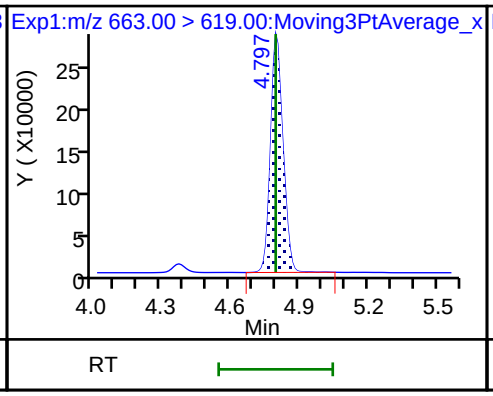

75 Perfluorododecanesulfonic acid (



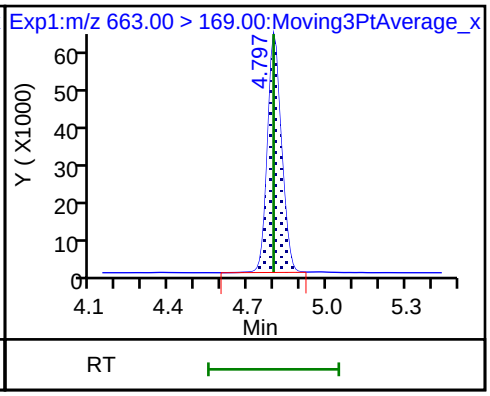

75 Perfluorododecanesulfonic acid (



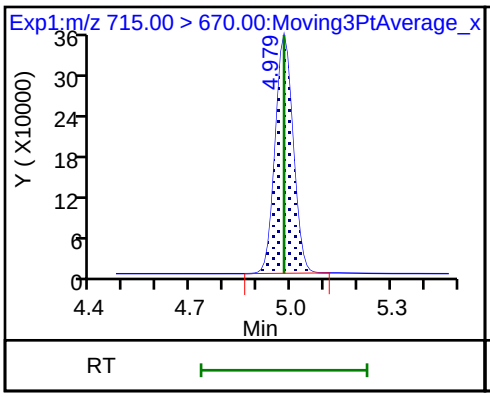

41 Perfluorotridecanoic acid



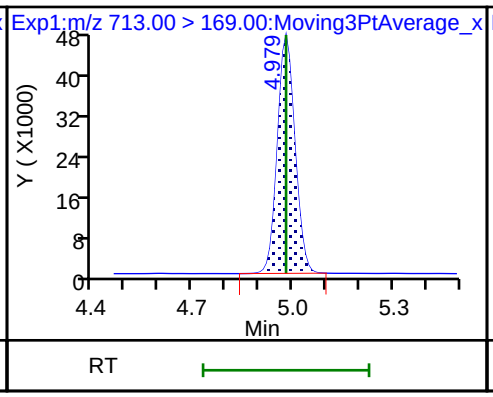

41 Perfluorotridecanoic acid



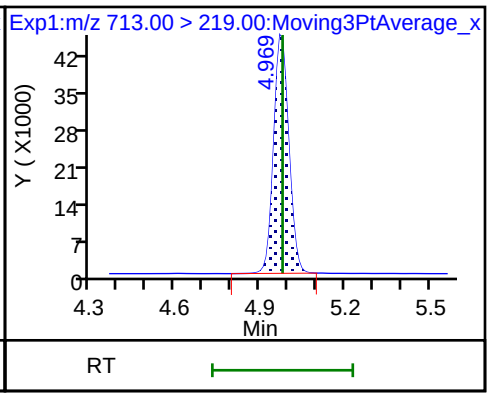

D 43 13C2 PFTeDA



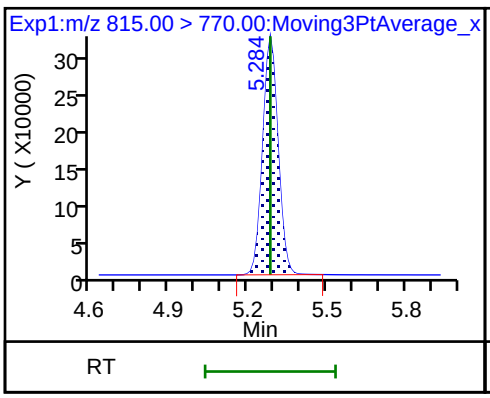

42 Perfluorotetradecanoic acid



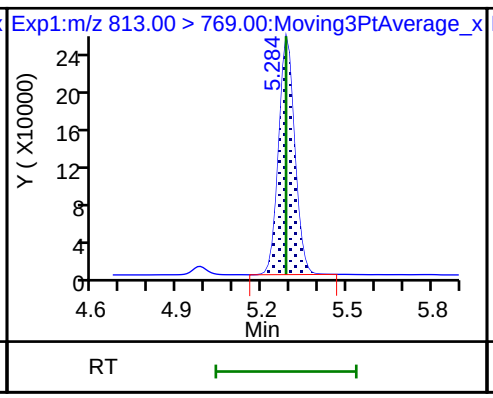

42 Perfluorotetradecanoic acid



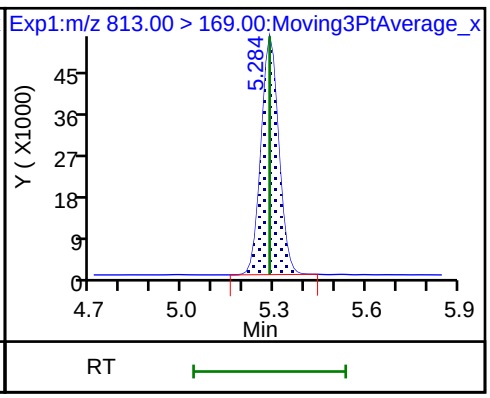

D 44 13C2 PFHxDA



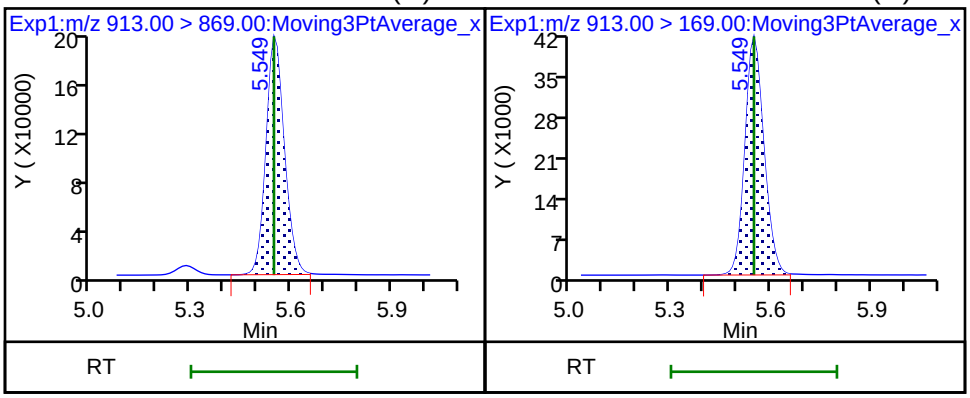

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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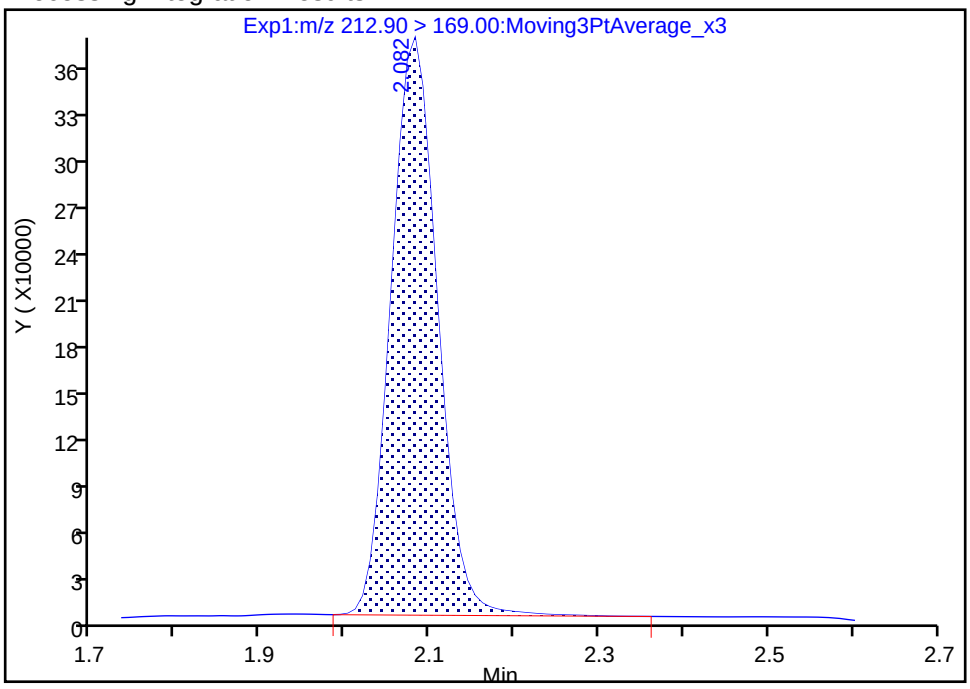
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

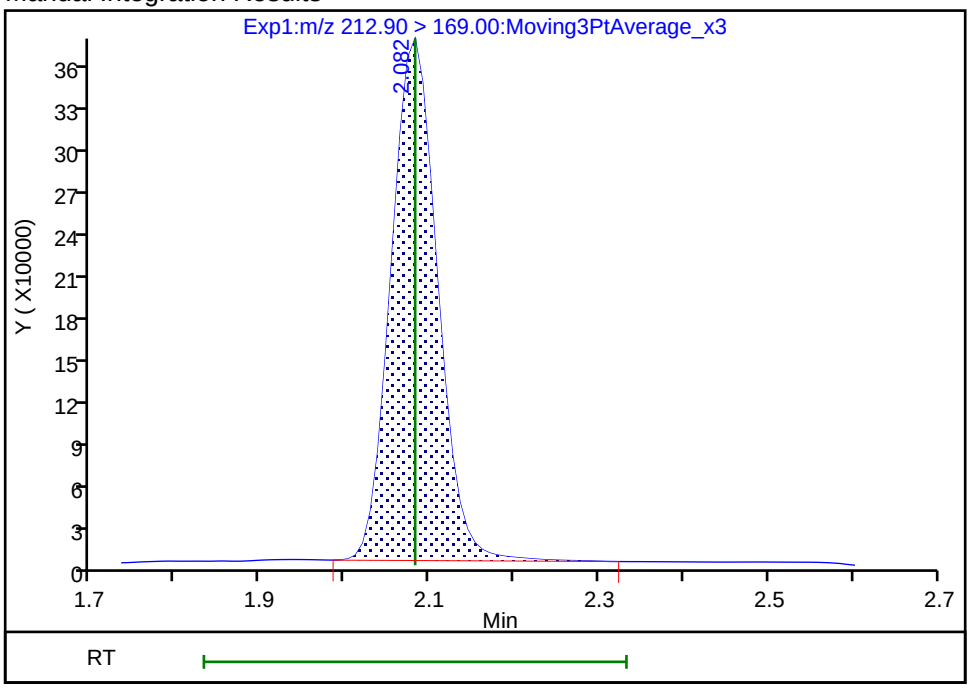
Processing Integration Results

RT: 2.08
Area: 1417689
Amount: 0.962026
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 1417459
Amount: 0.961870
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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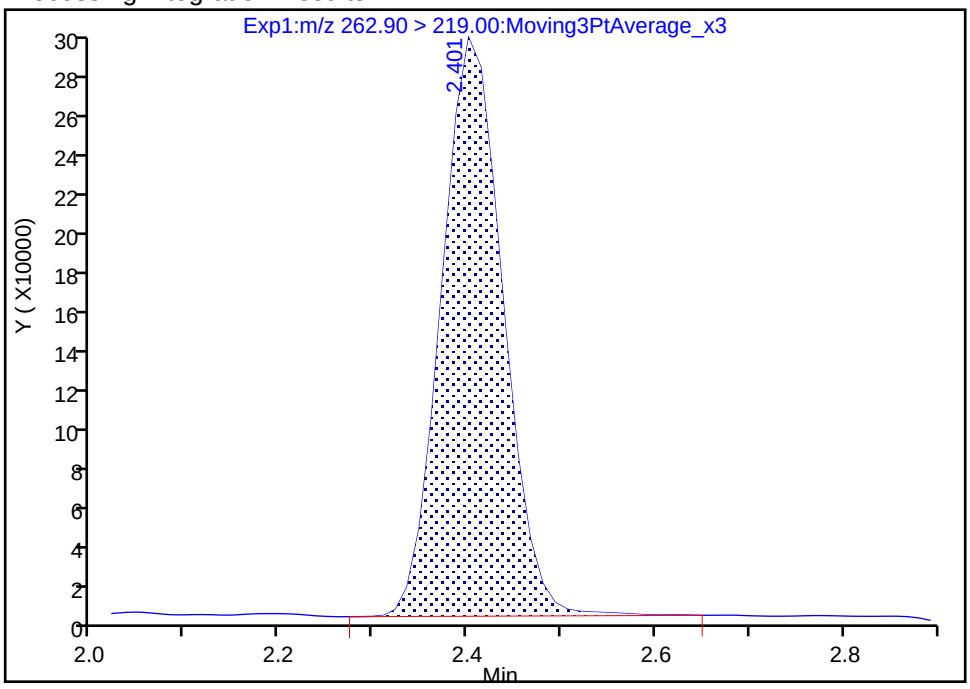
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

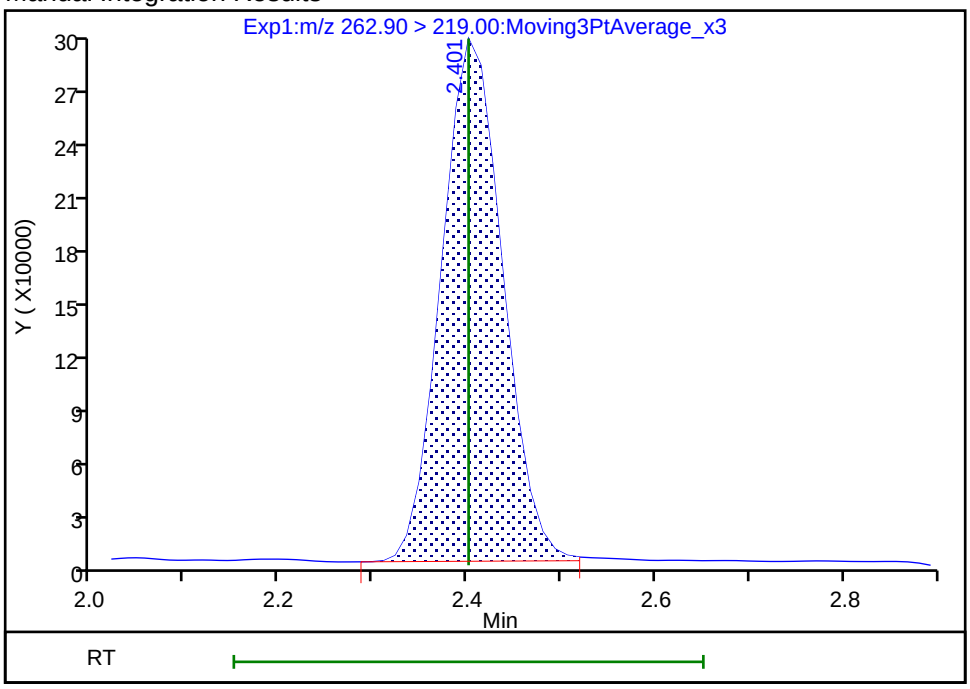
Processing Integration Results

RT: 2.40
Area: 1299255
Amount: 1.008580
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1290984
Amount: 1.002159
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

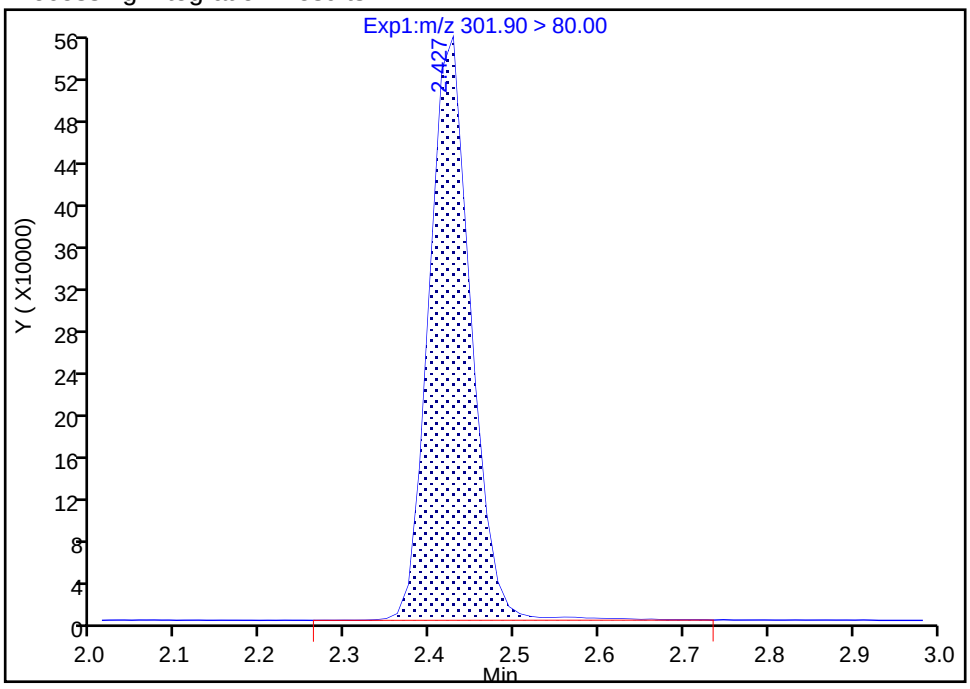
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

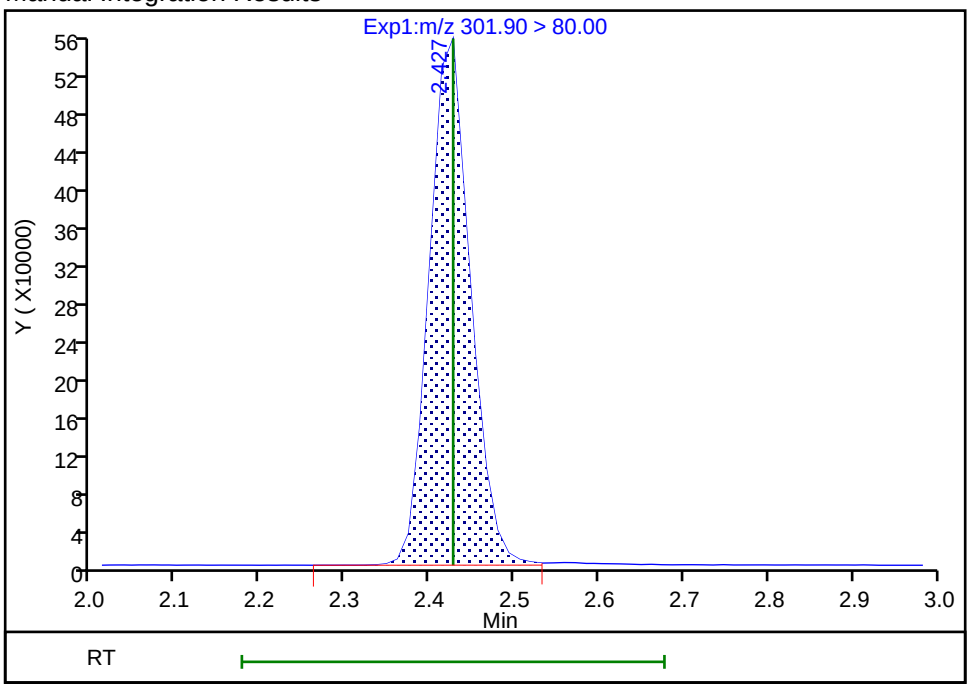
Processing Integration Results

RT: 2.43
Area: 1892463
Amount: 1.118910
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1878214
Amount: 1.110485
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

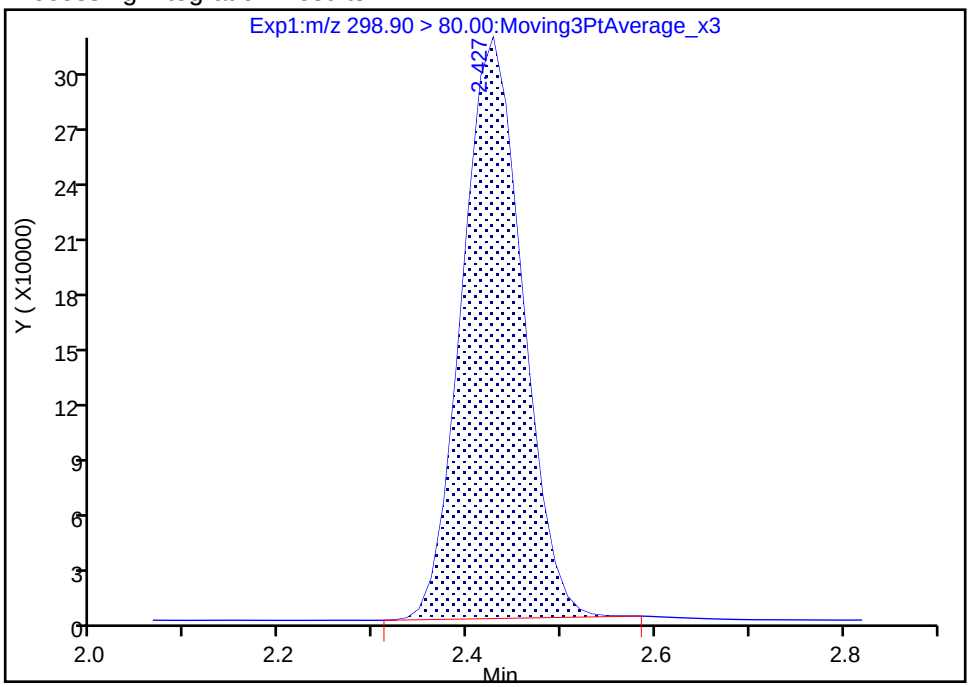
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

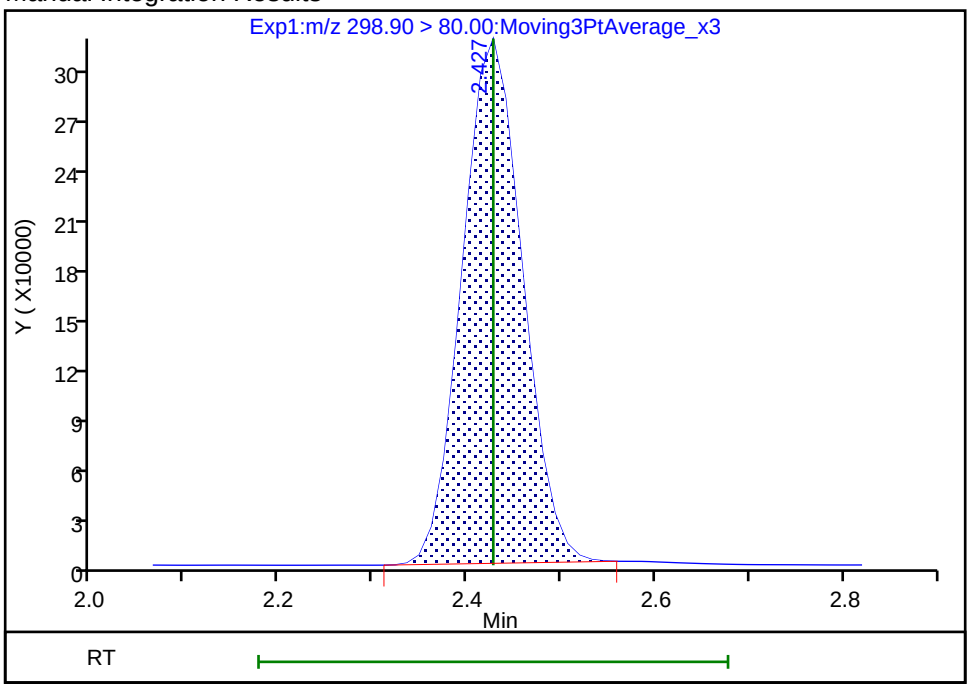
Processing Integration Results

RT: 2.43
Area: 1424605
Amount: 0.825554
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1422076
Amount: 0.824089
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

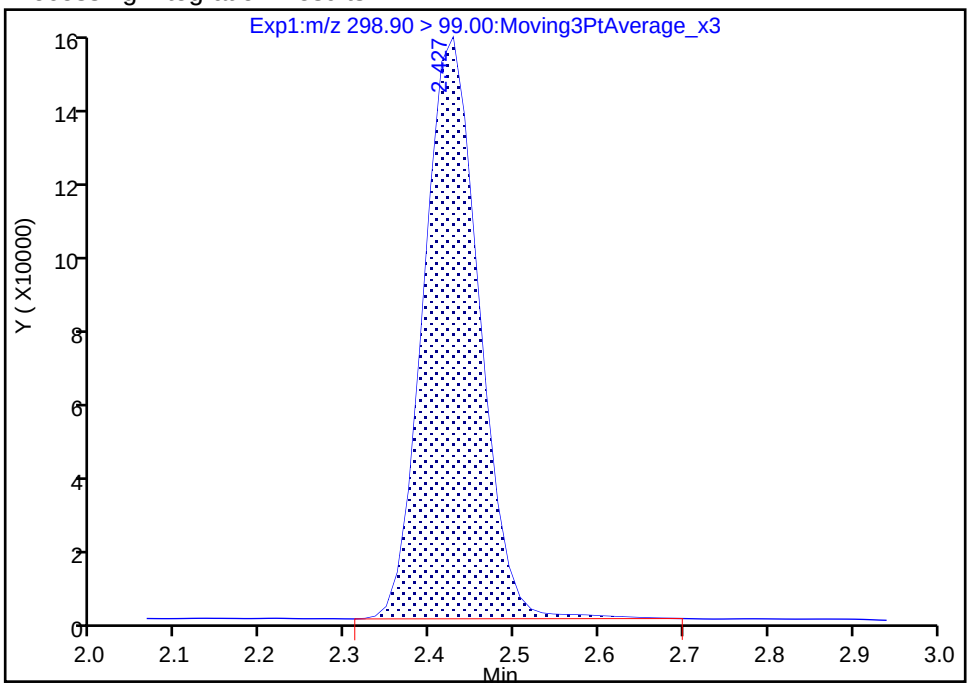
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

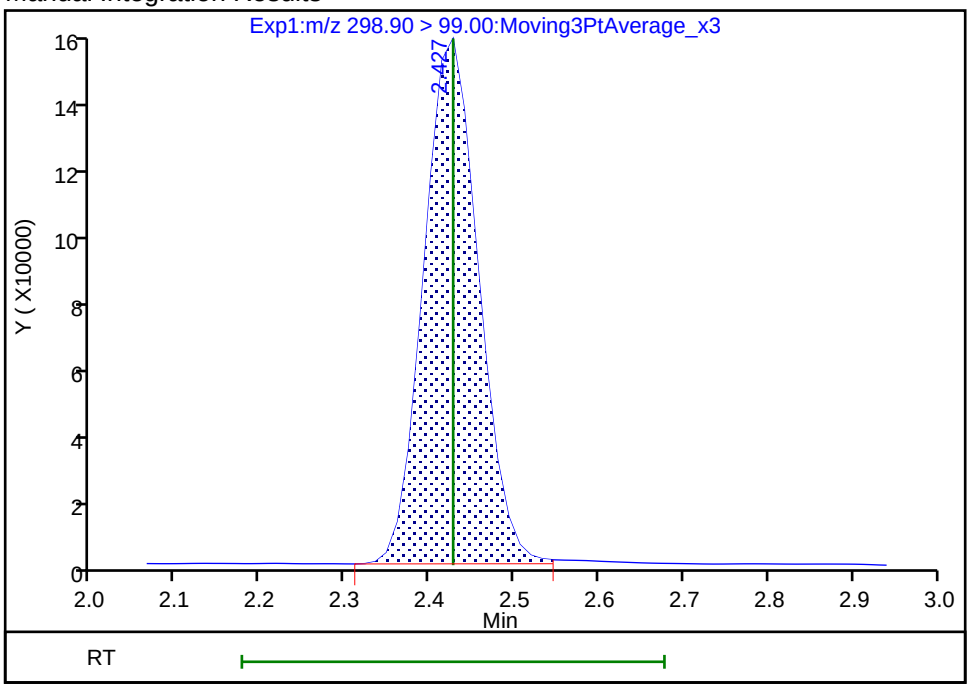
Processing Integration Results

RT: 2.43
Area: 689779
Amount: 0.825554
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 685004
Amount: 0.824089
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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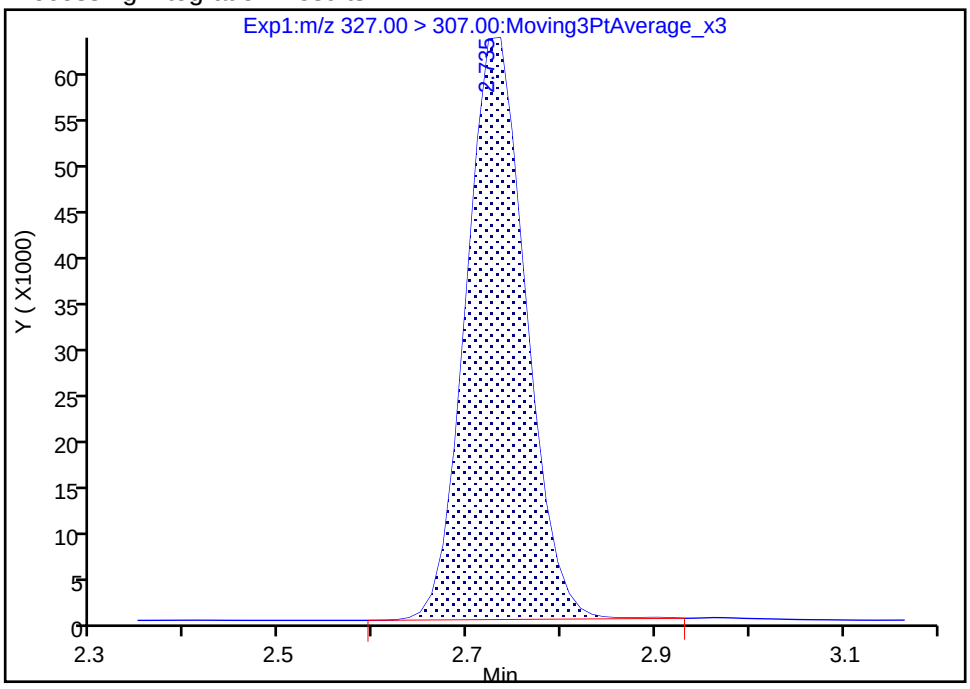
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 61 1H,1H,2H,2H-perfluorohexanesulfo, CAS: 757124-72-4

Signal: 1

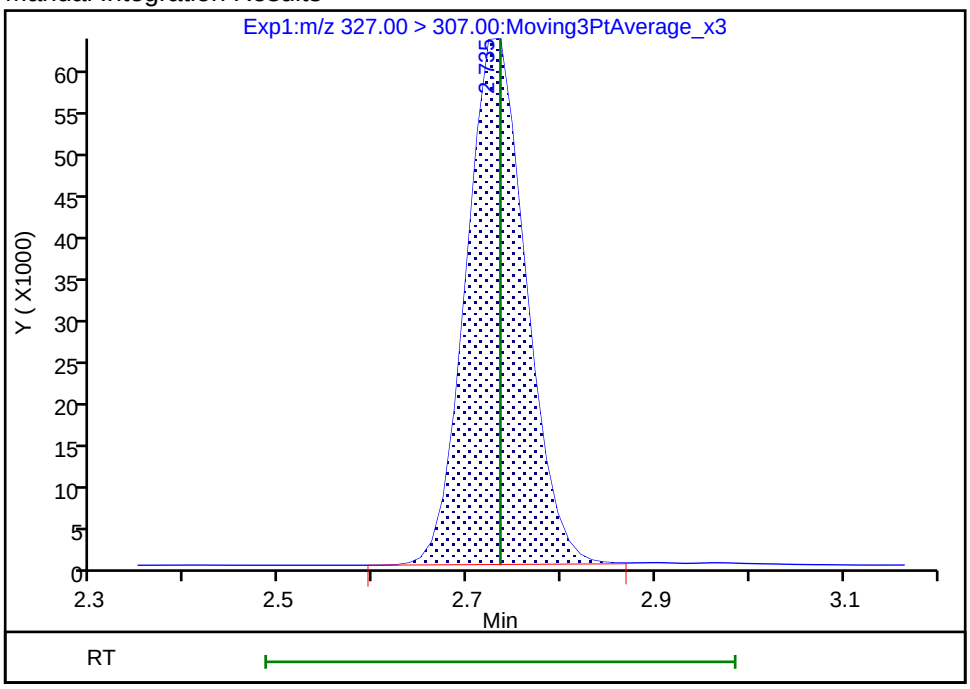
Processing Integration Results

RT: 2.73
Area: 280575
Amount: 0.923740
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 280289
Amount: 0.922798
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:04:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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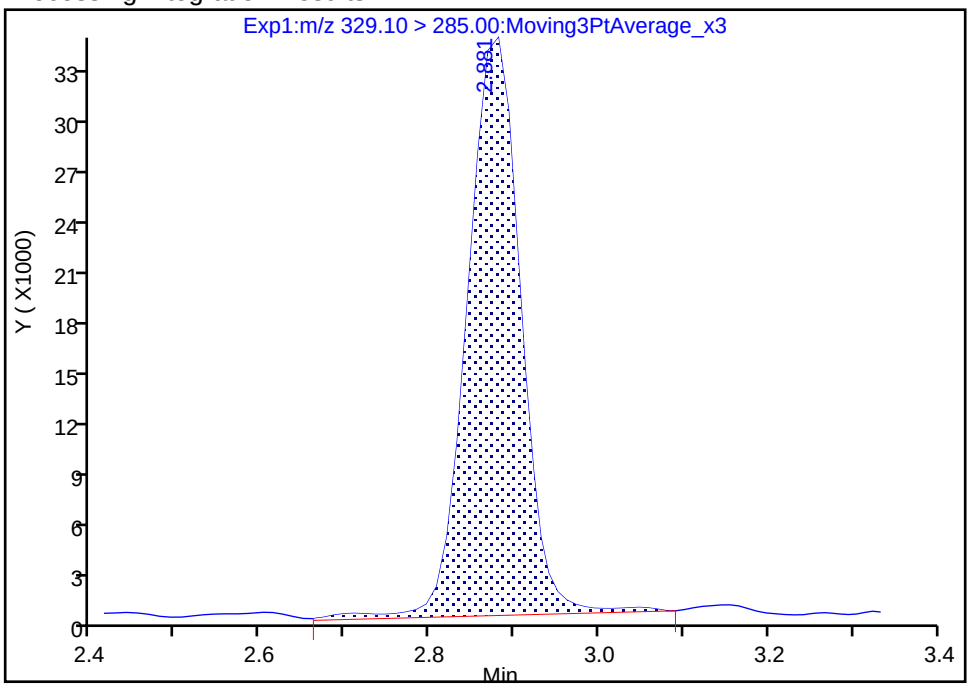
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

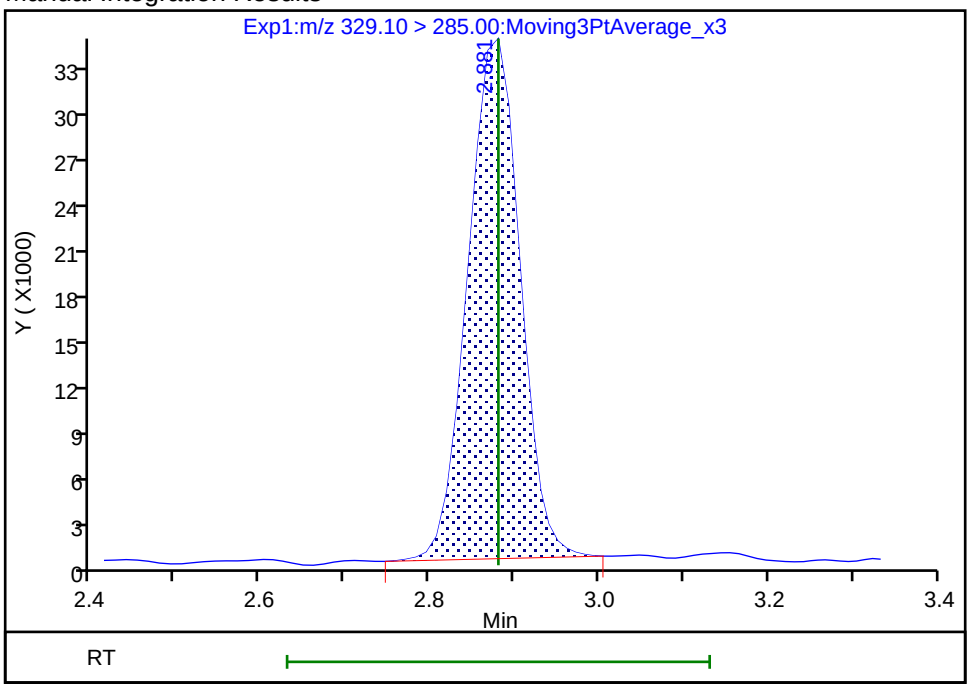
Processing Integration Results

RT: 2.88
Area: 148452
Amount: 1.259104
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 142515
Amount: 1.208749
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:05:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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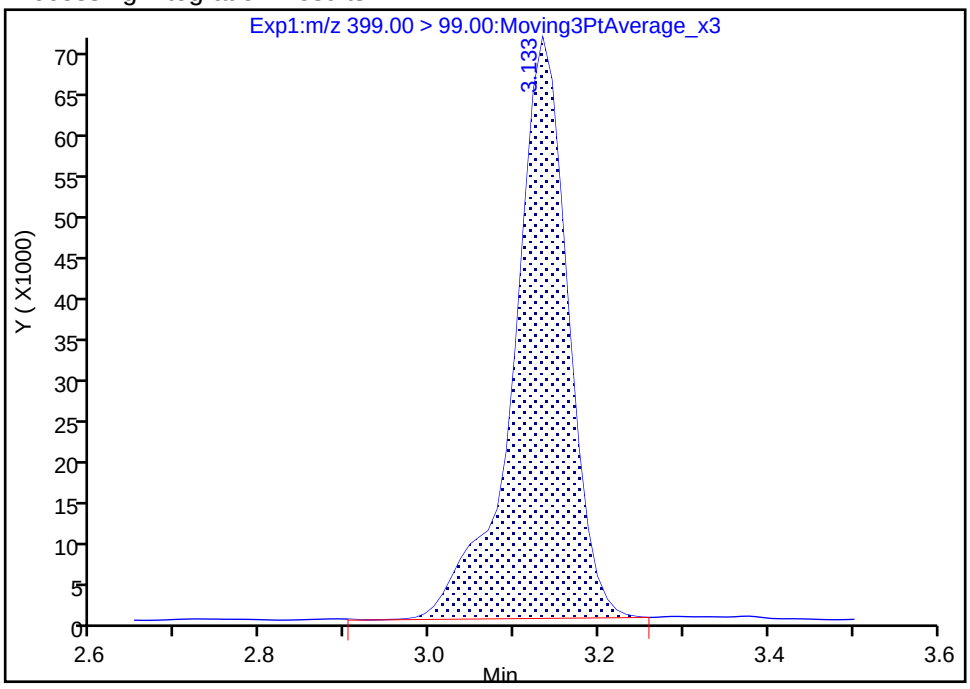
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

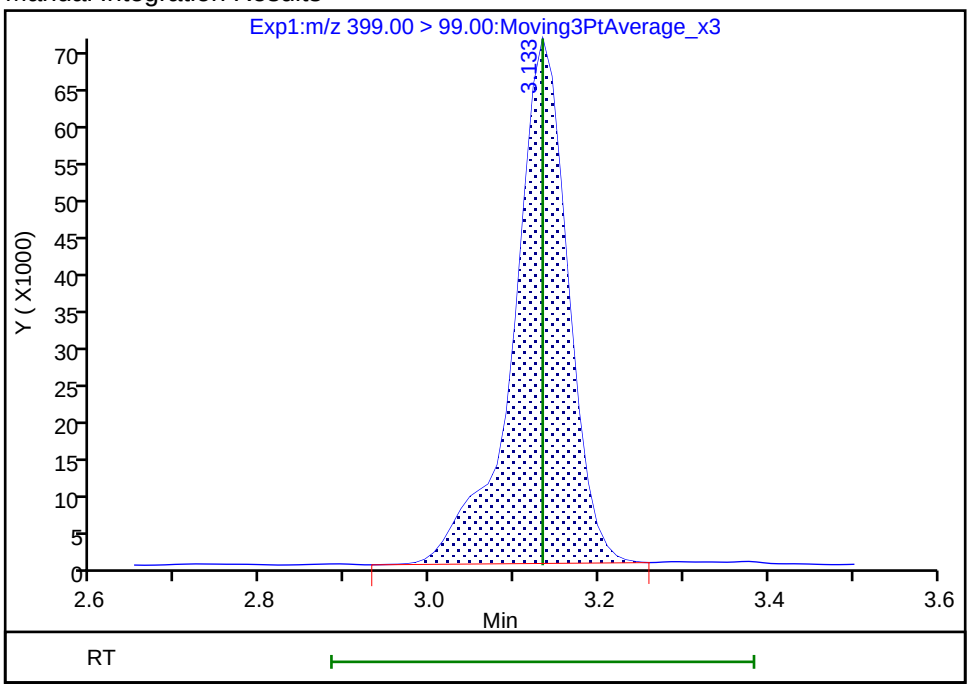
Processing Integration Results

RT: 3.13
Area: 321218
Amount: 0.842987
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 321098
Amount: 0.842987
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:05:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

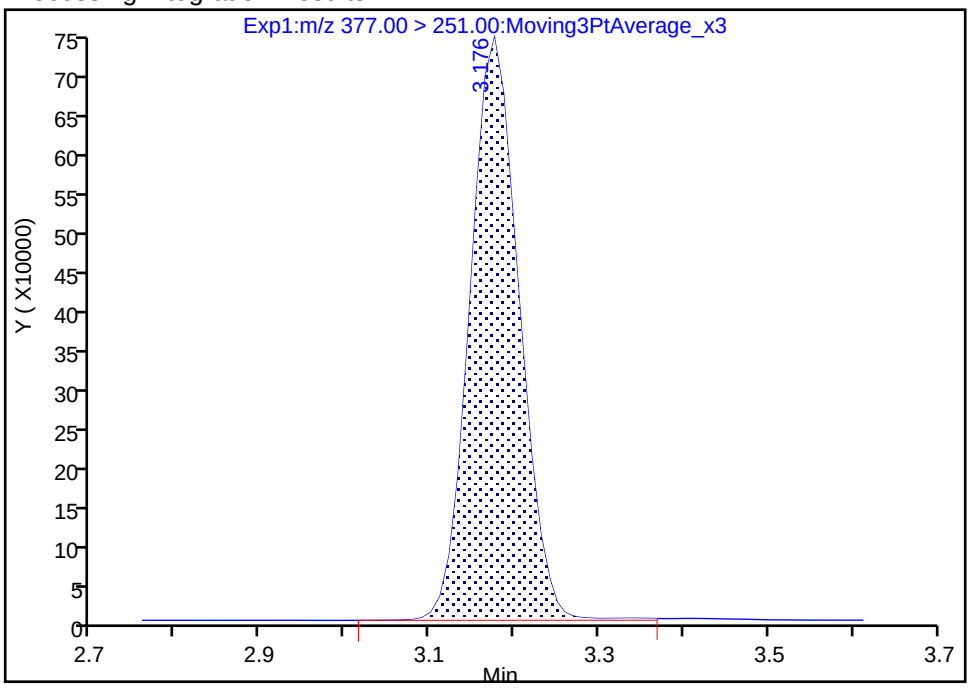
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 77 DONA, CAS: 919005-14-4

Signal: 1

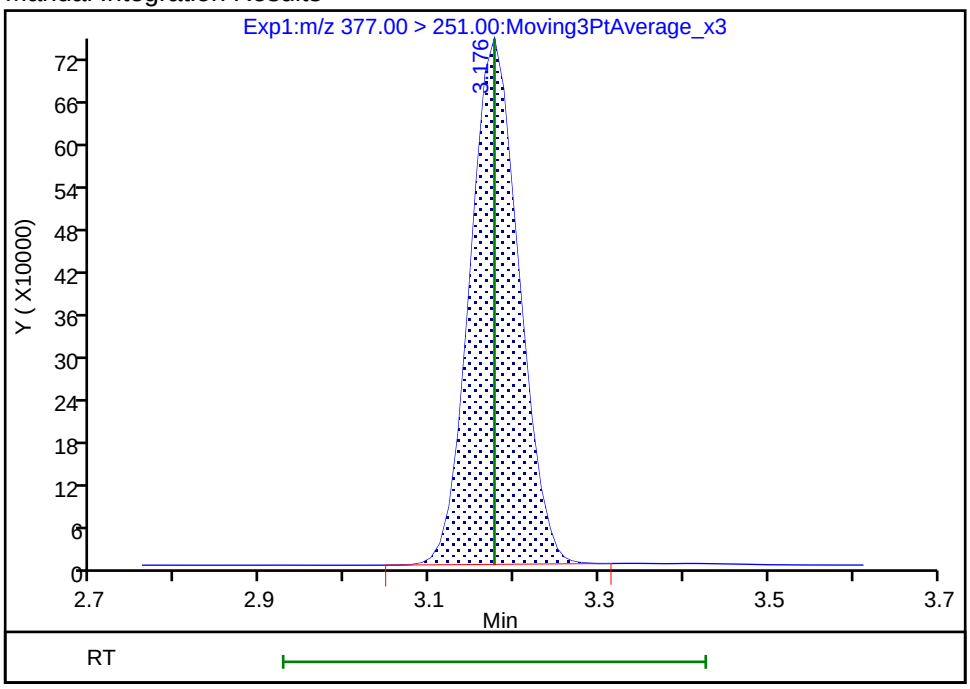
Processing Integration Results

RT: 3.18
Area: 3011394
Amount: 0.978861
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 2984768
Amount: 0.970206
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:20:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

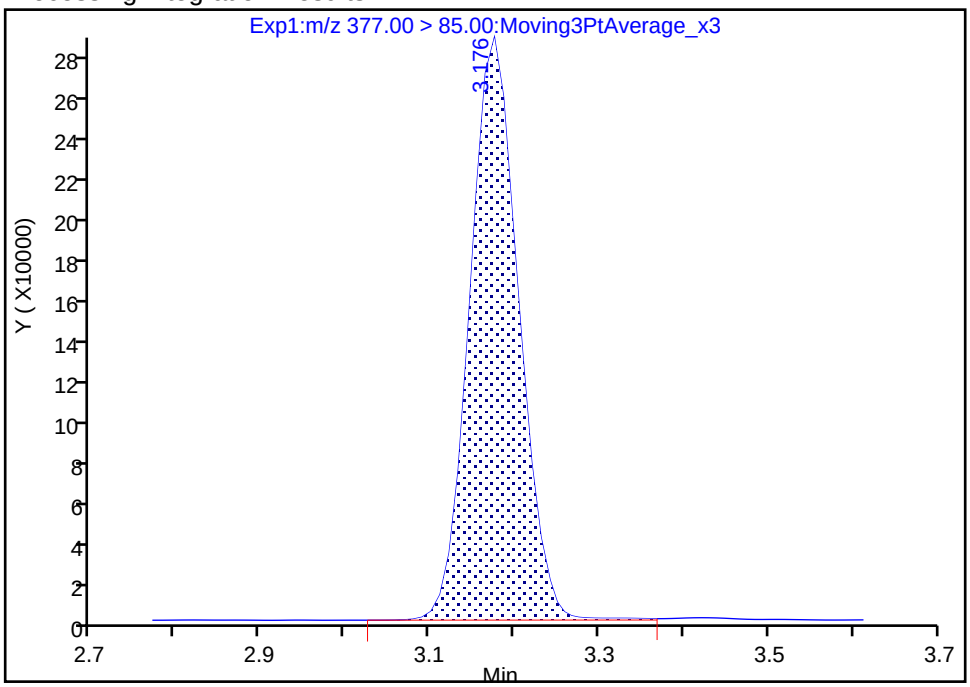
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

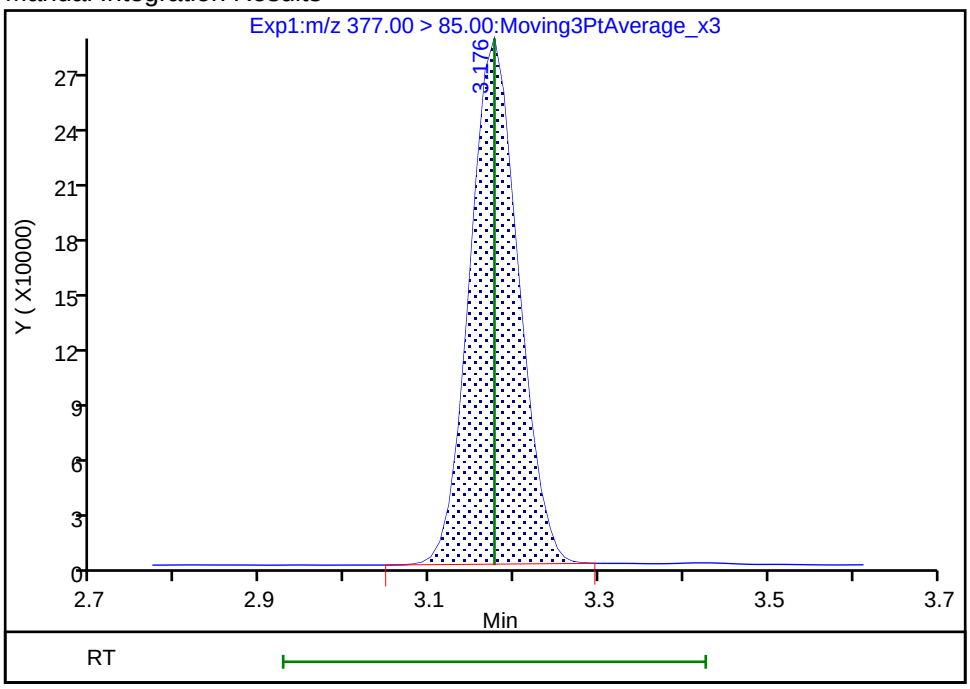
Processing Integration Results

RT: 3.18
Area: 1154516
Amount: 0.978861
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 1144281
Amount: 0.970206
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:21:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

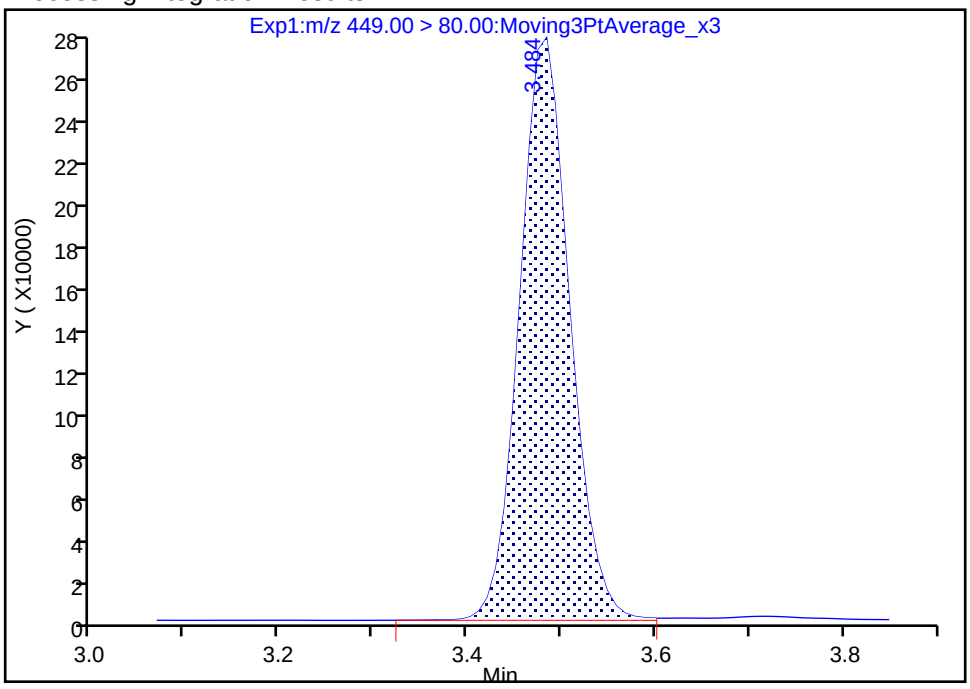
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

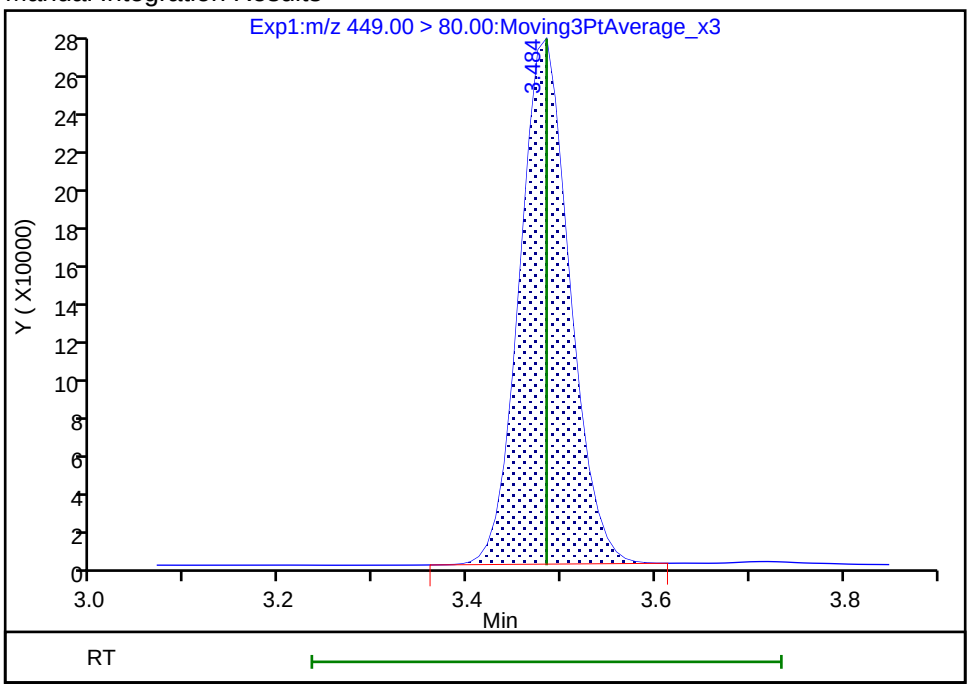
Processing Integration Results

RT: 3.48
Area: 1037628
Amount: 0.946943
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1029573
Amount: 0.939592
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:21:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

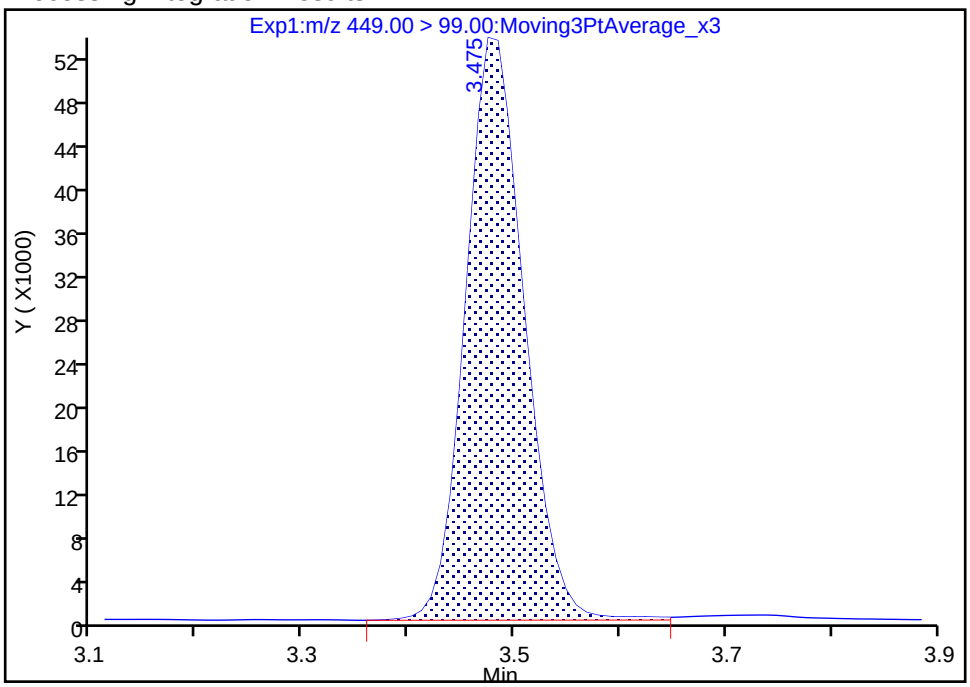
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

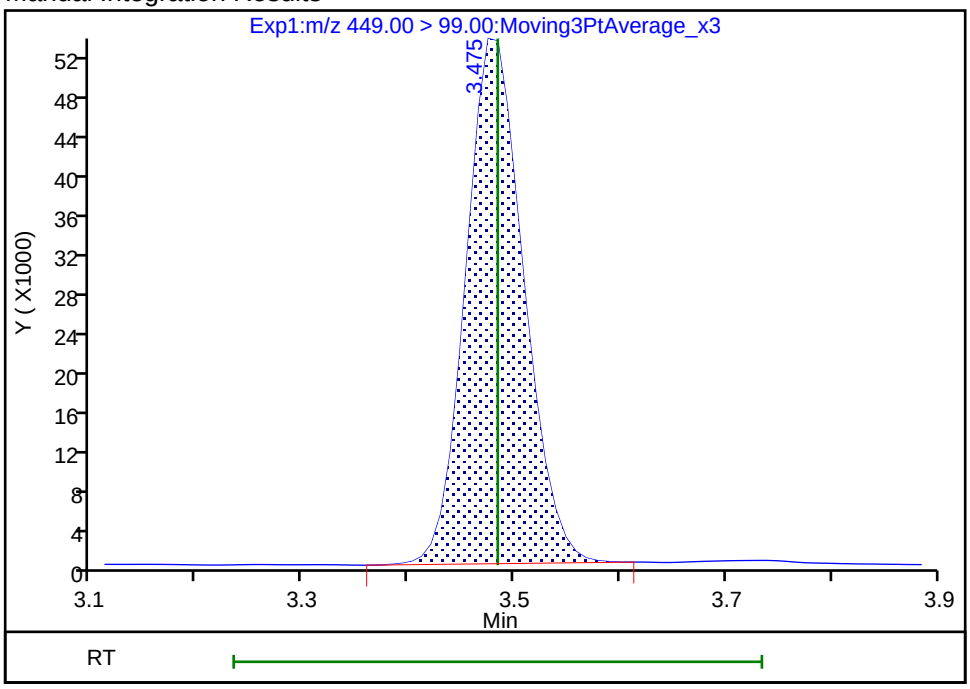
Processing Integration Results

RT: 3.48
Area: 207181
Amount: 0.946943
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 204404
Amount: 0.939592
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:21:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

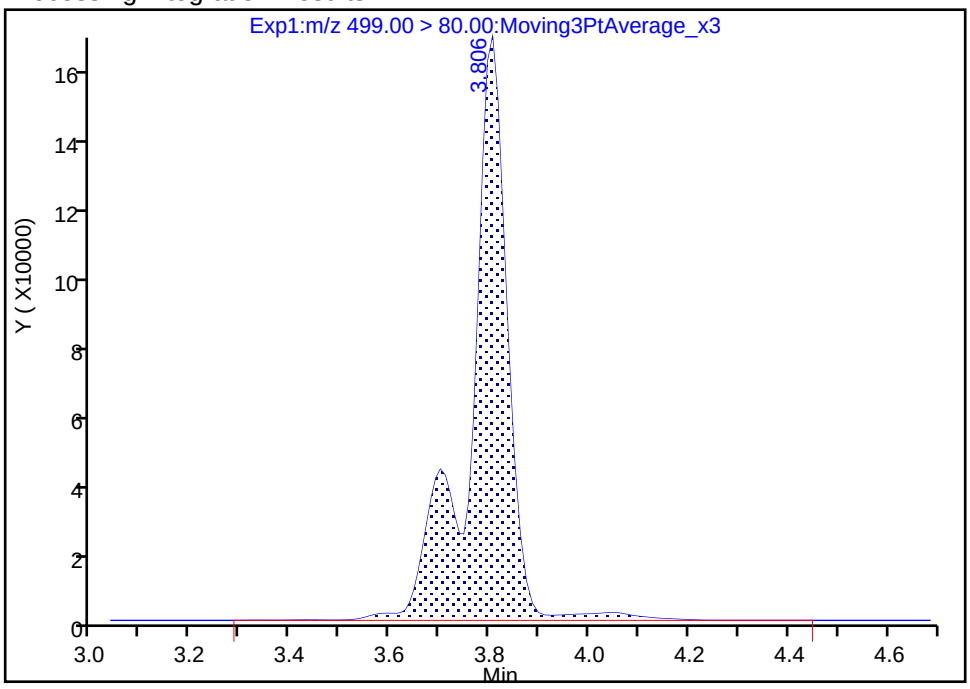
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

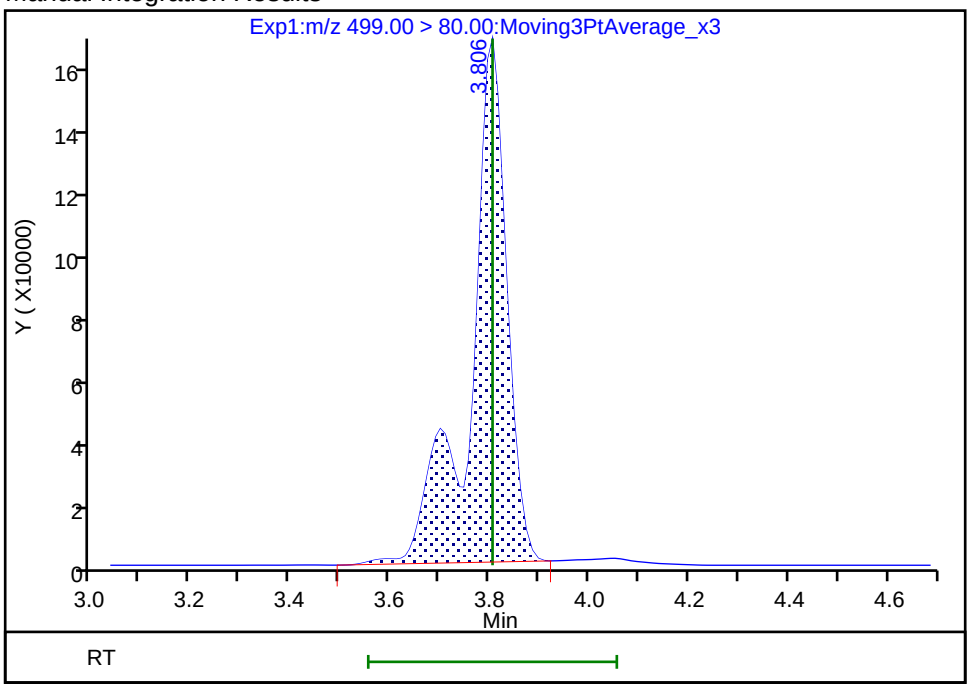
Processing Integration Results

RT: 3.81
Area: 882689
Amount: 0.925492
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 842206
Amount: 0.883046
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:21:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

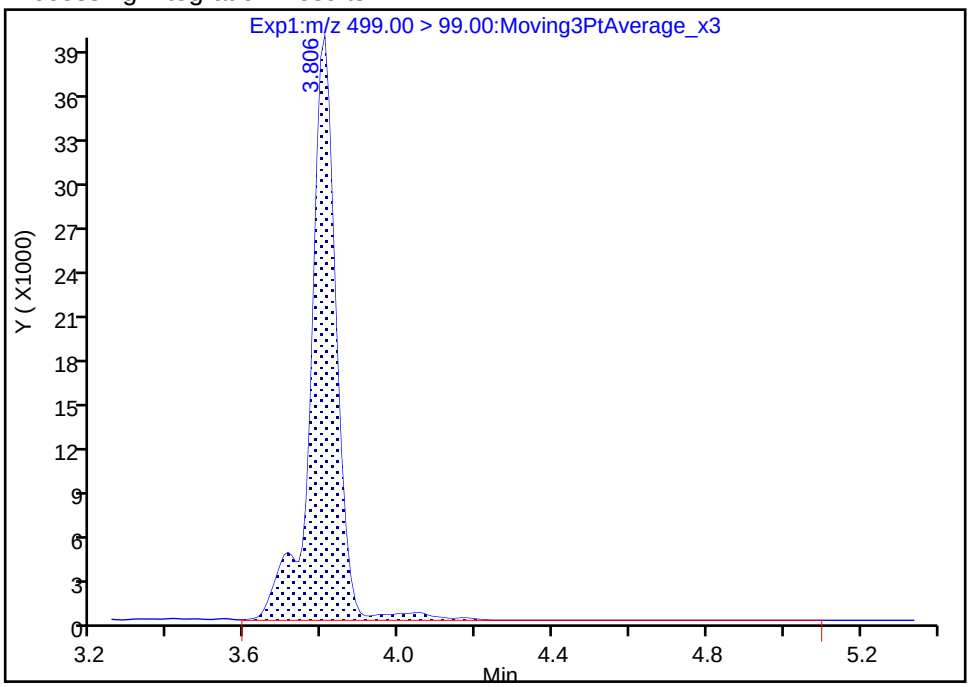
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

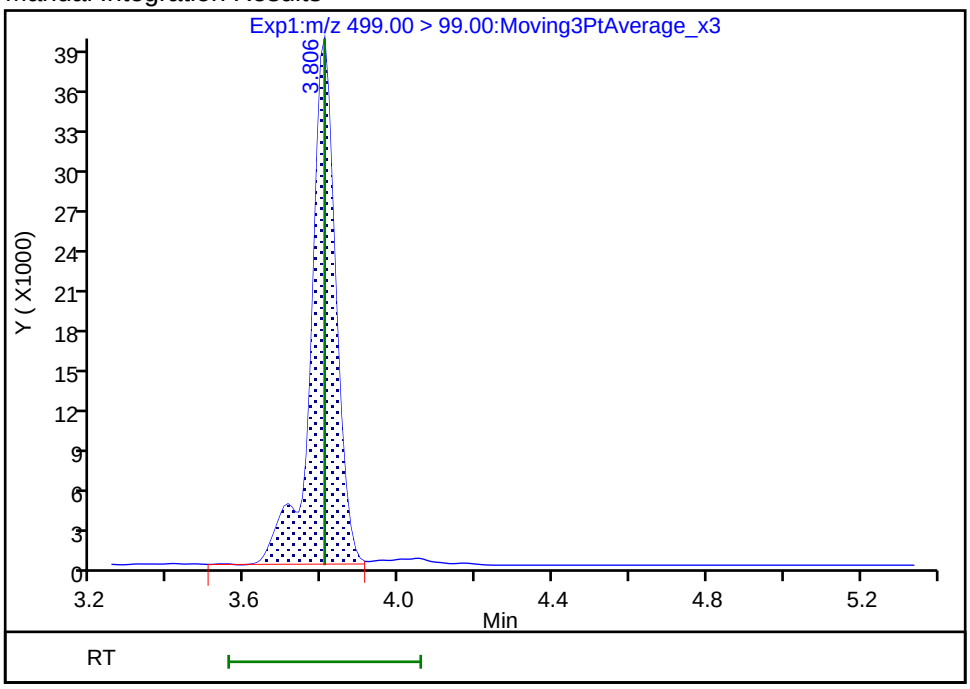
Processing Integration Results

RT: 3.81
Area: 184501
Amount: 0.925492
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 177896
Amount: 0.883046
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:22:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

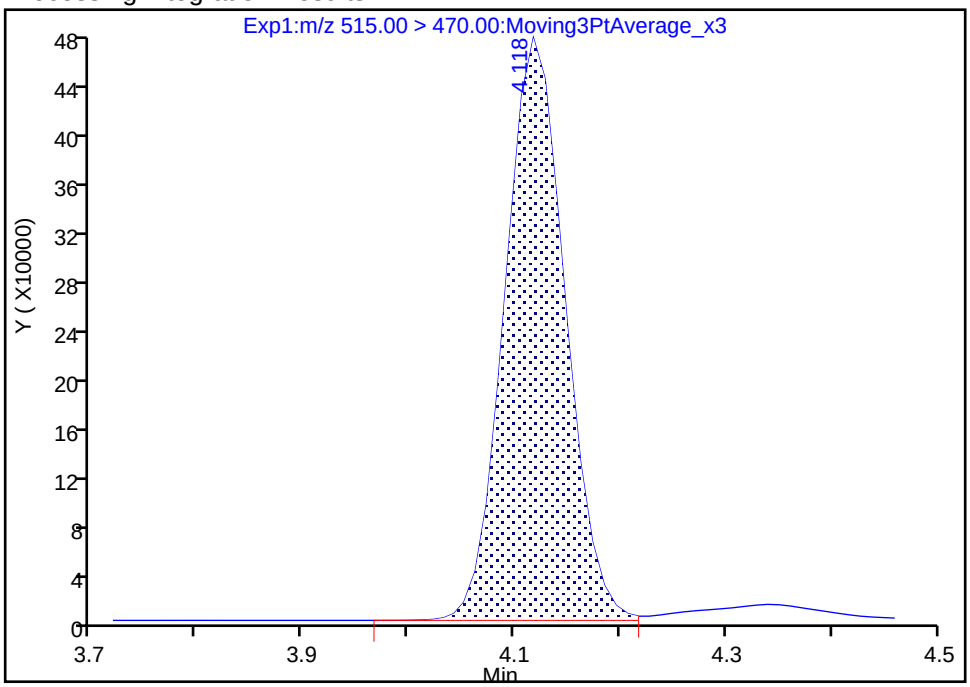
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

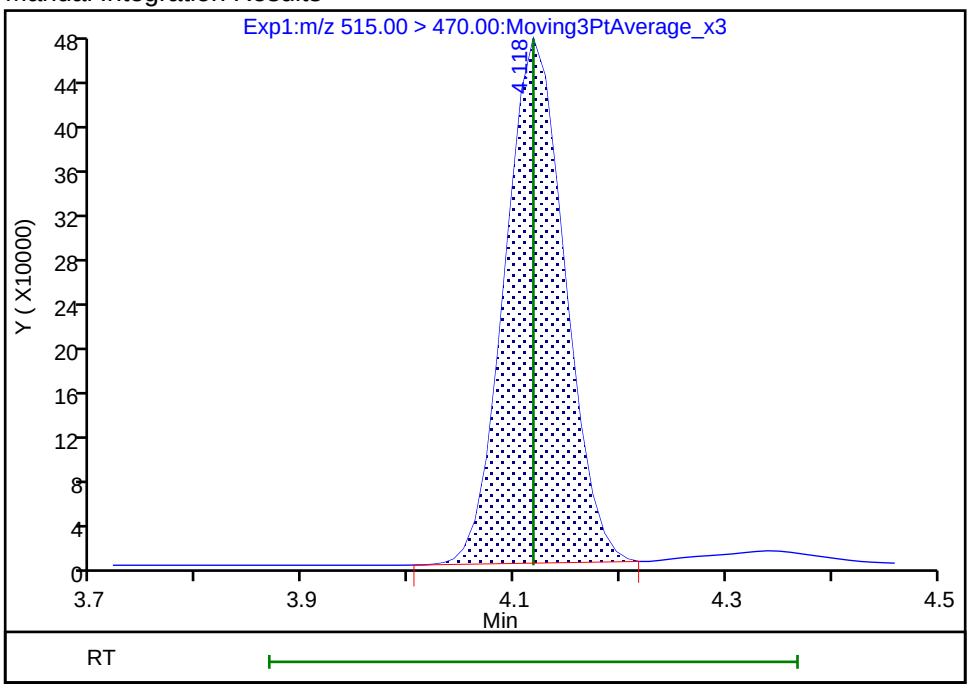
Processing Integration Results

RT: 4.12
Area: 1877674
Amount: 1.238401
Amount Units: ng/ml




Manual Integration Results

RT: 4.12
Area: 1854934
Amount: 1.223403
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:22:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

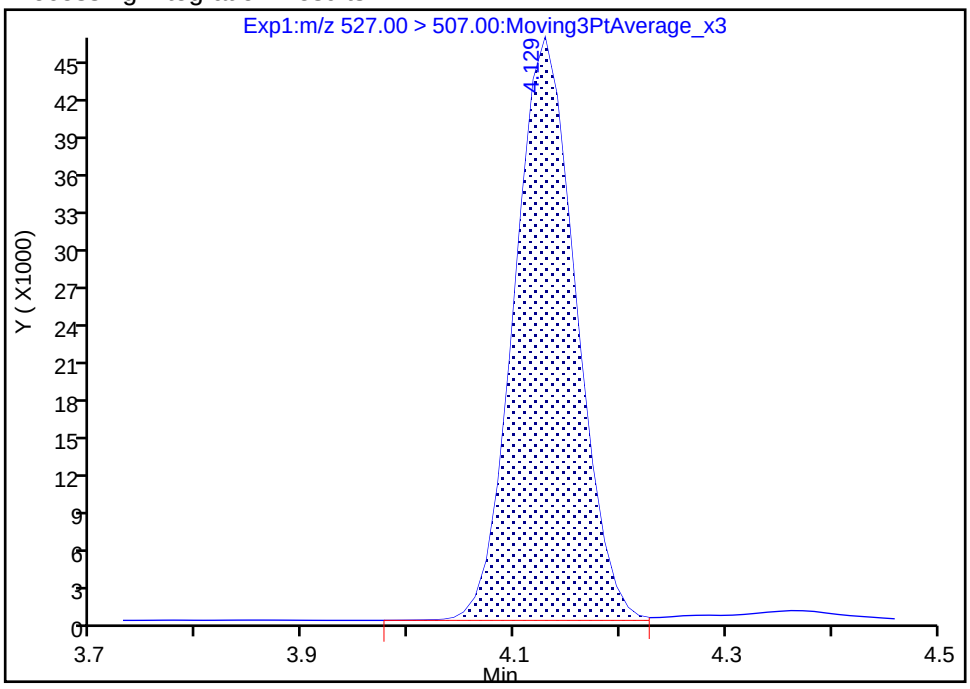
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

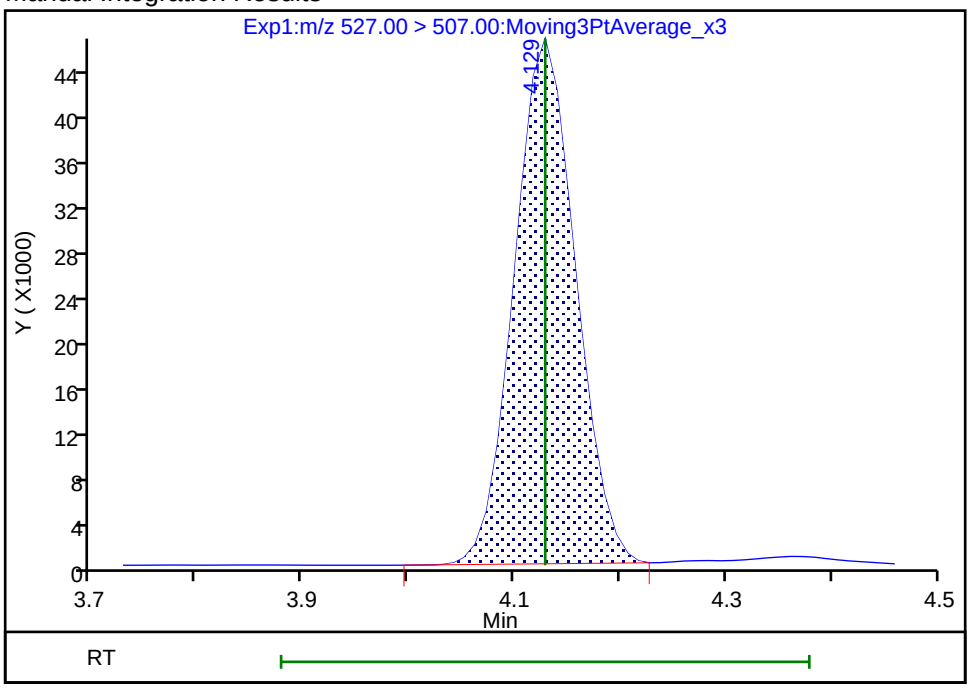
Processing Integration Results

RT: 4.13
Area: 188428
Amount: 0.894739
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 186856
Amount: 0.887274
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:22:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

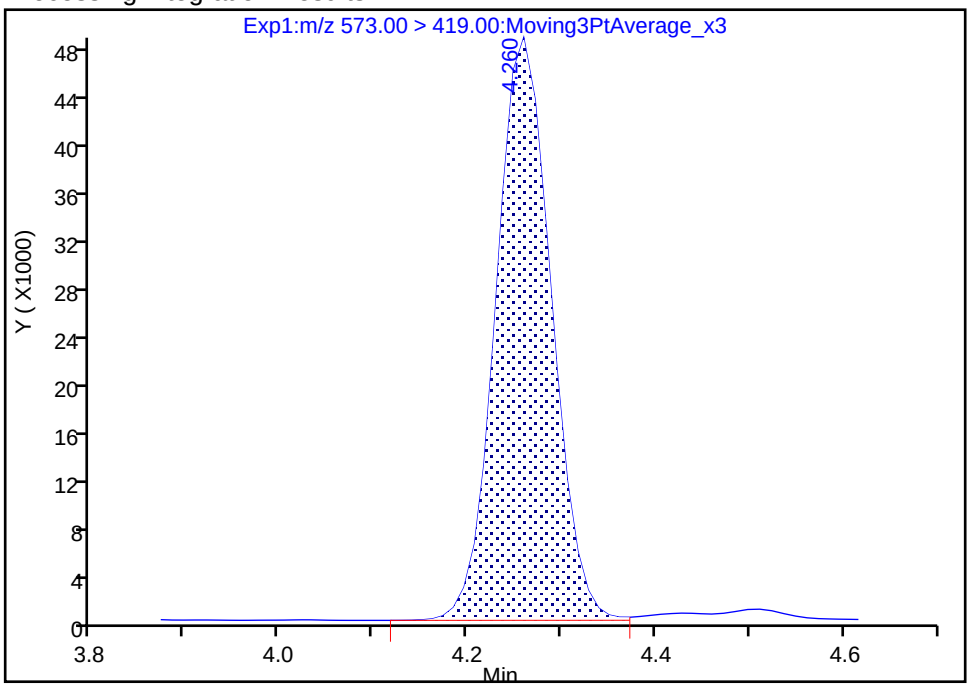
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

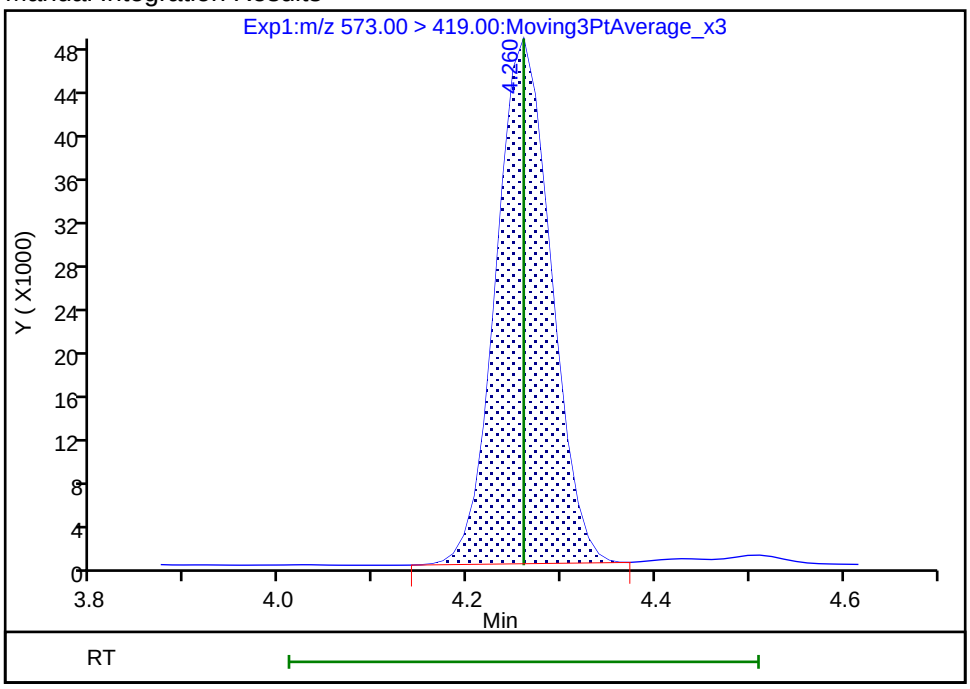
Processing Integration Results

RT: 4.26
Area: 200114
Amount: 1.341800
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 198273
Amount: 1.329456
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:22:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

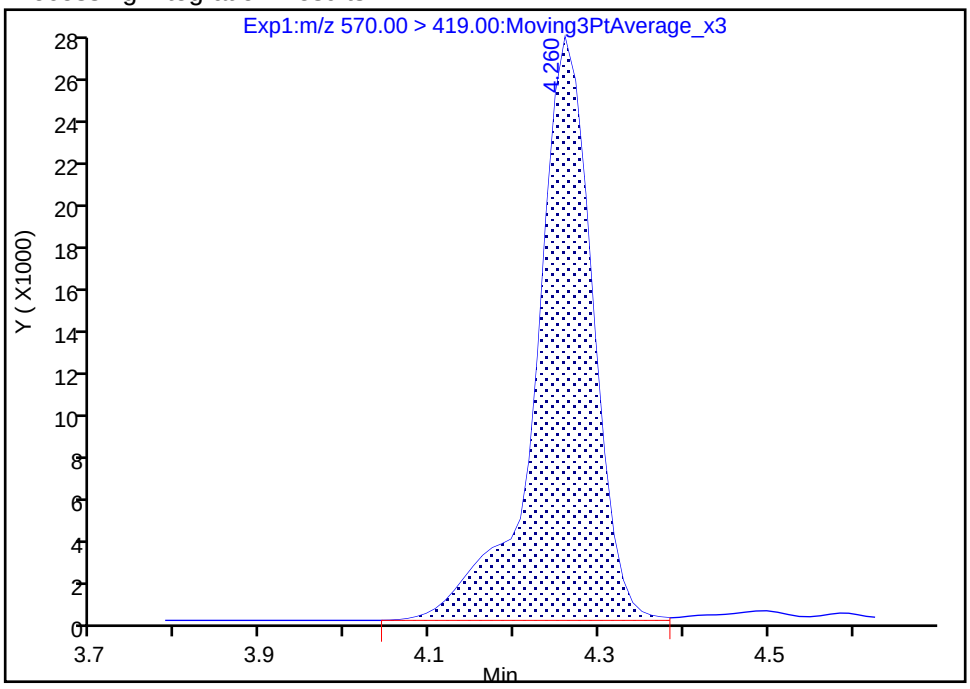
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

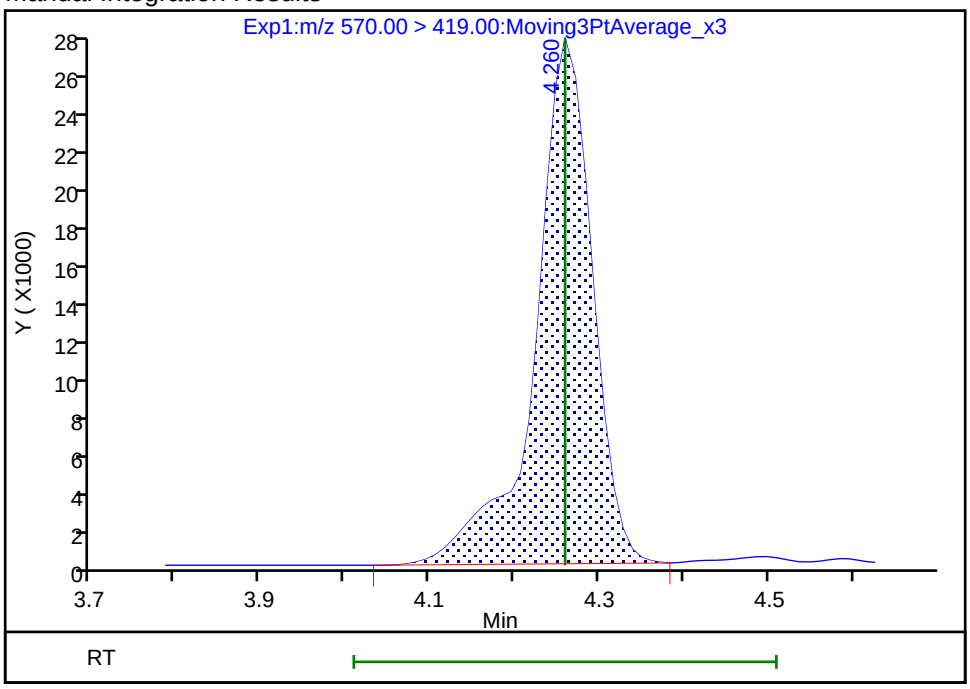
Processing Integration Results

RT: 4.26
Area: 128231
Amount: 1.029063
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 126989
Amount: 1.019096
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:22:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

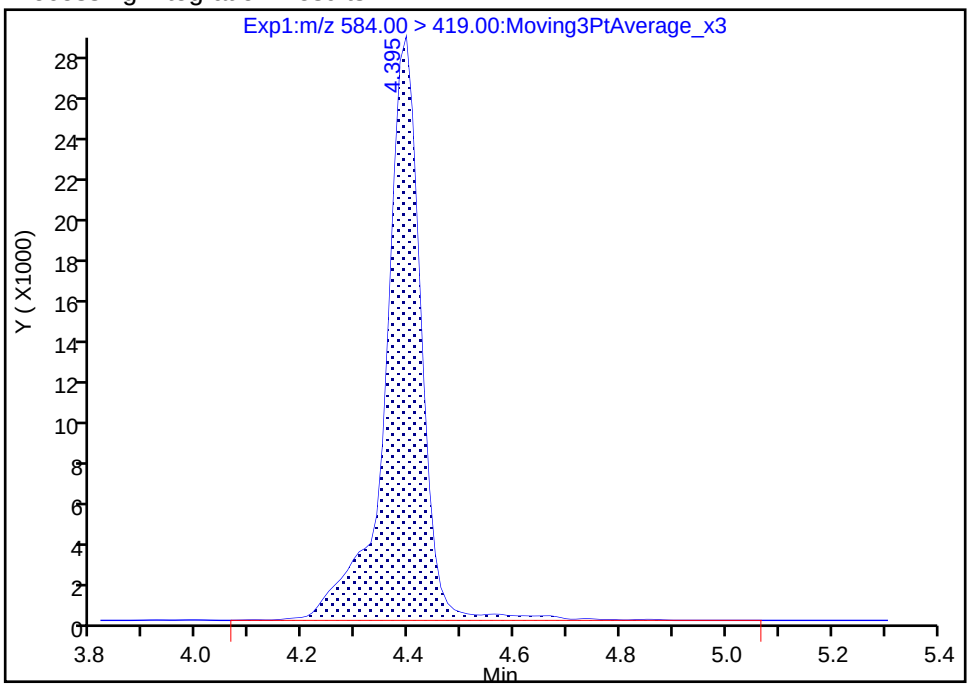
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

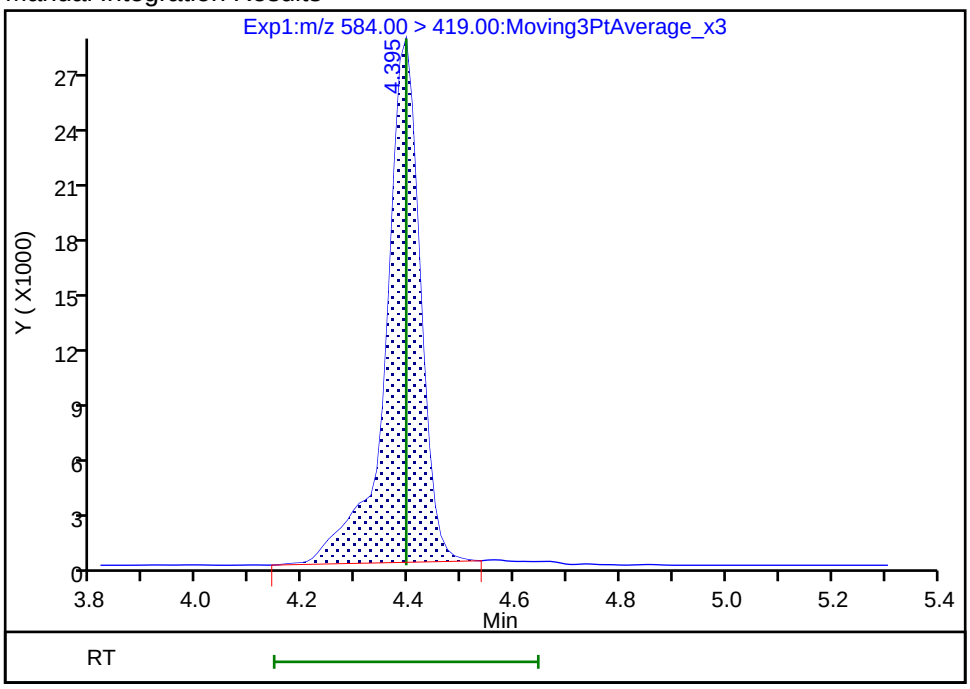
Processing Integration Results

RT: 4.39
Area: 132669
Amount: 1.018588
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 127248
Amount: 0.976967
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:23:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

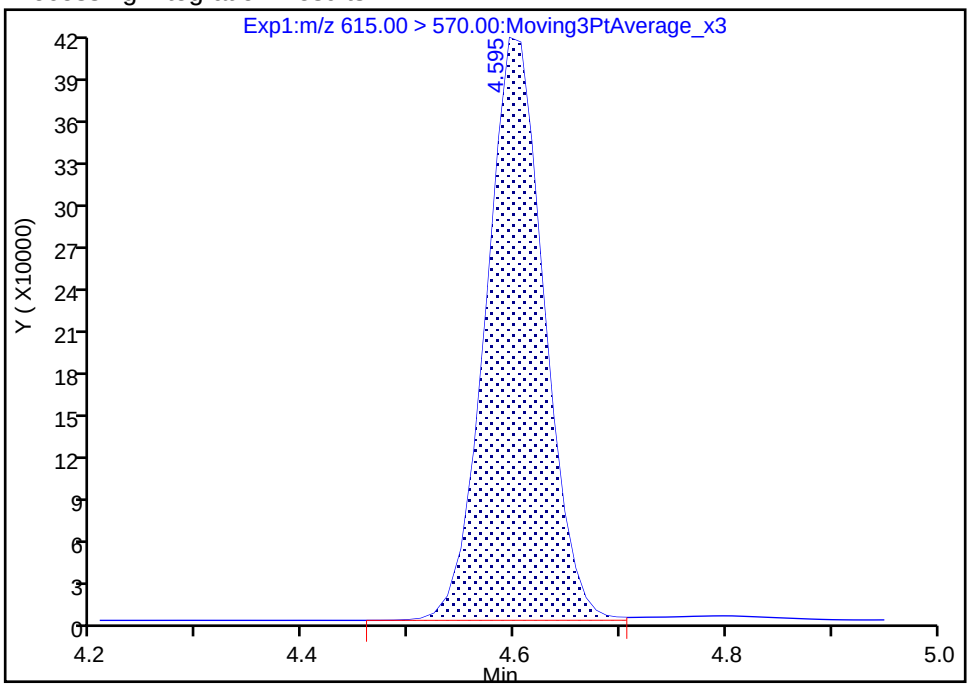
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d
Injection Date: 04-Nov-2021 14:09:09 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

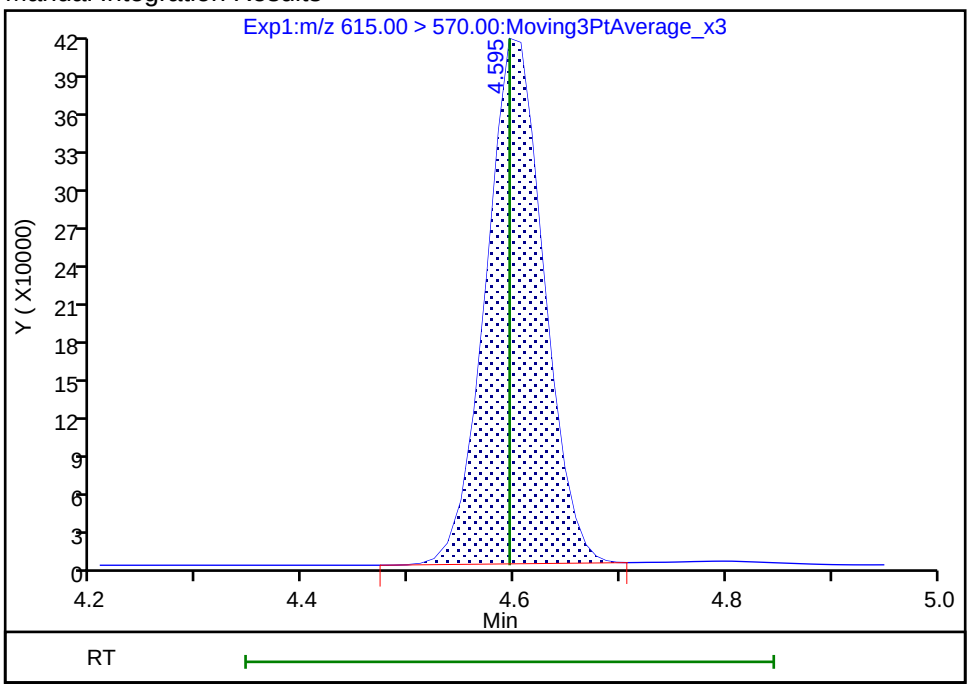
Processing Integration Results

RT: 4.60
Area: 1591511
Amount: 1.252021
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 1577714
Amount: 1.241167
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:23:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

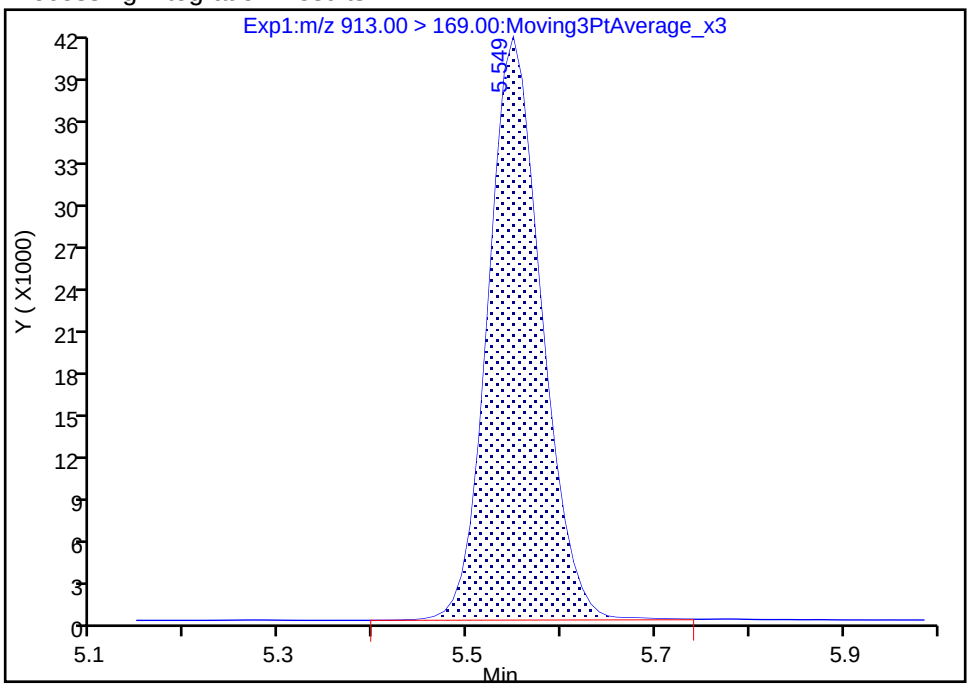
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

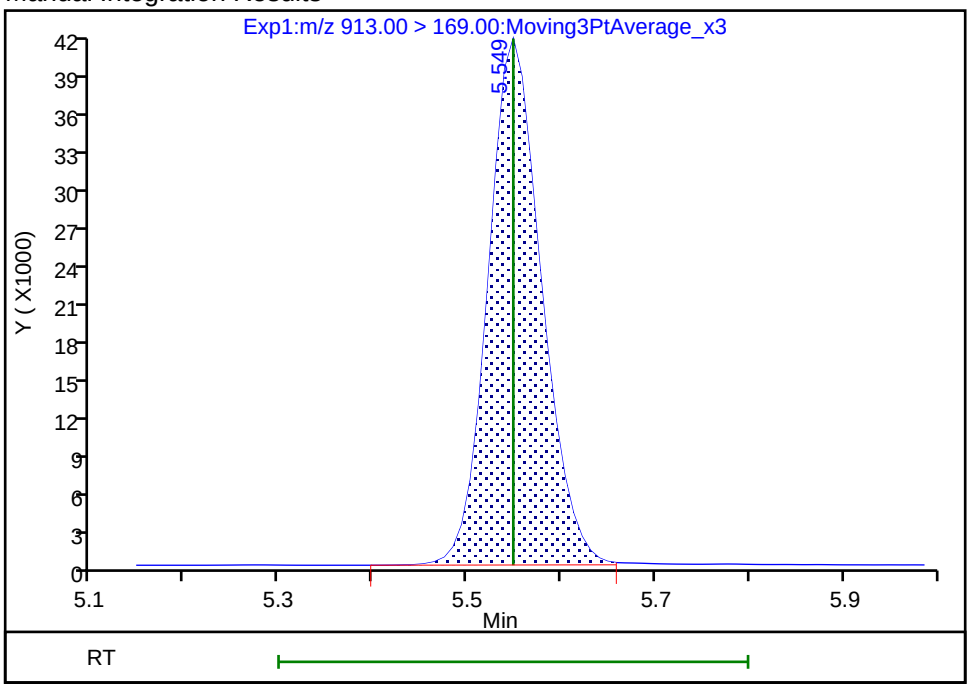
Processing Integration Results

RT: 5.55
Area: 164073
Amount: 0.858952
Amount Units: ng/ml




Manual Integration Results

RT: 5.55
Area: 163624
Amount: 0.858033
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:06:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

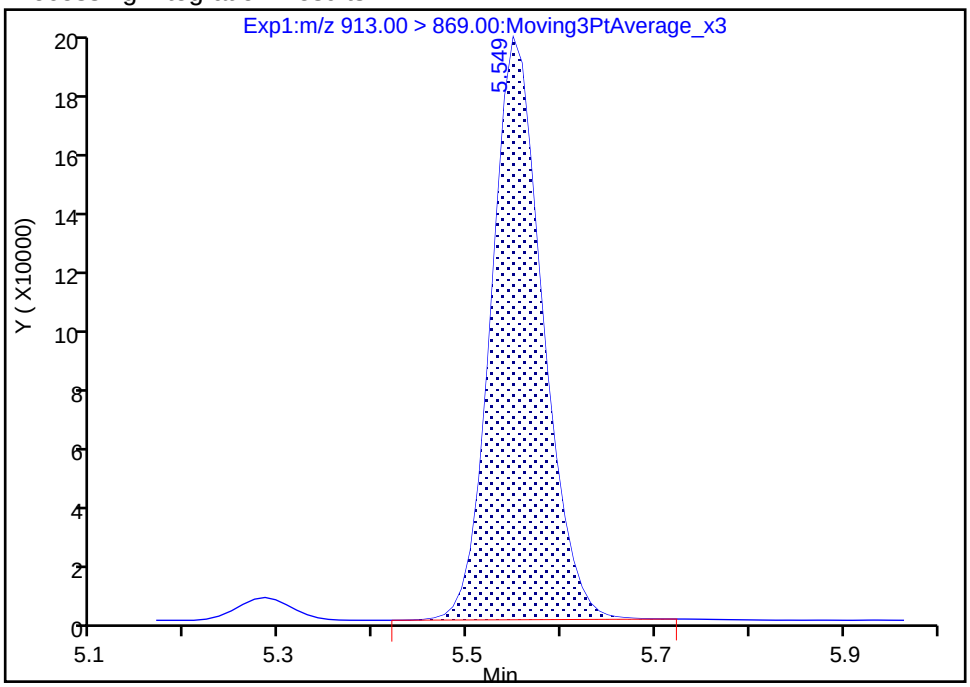
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A06.d | | | | |
| Injection Date: | 04-Nov-2021 14:09:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

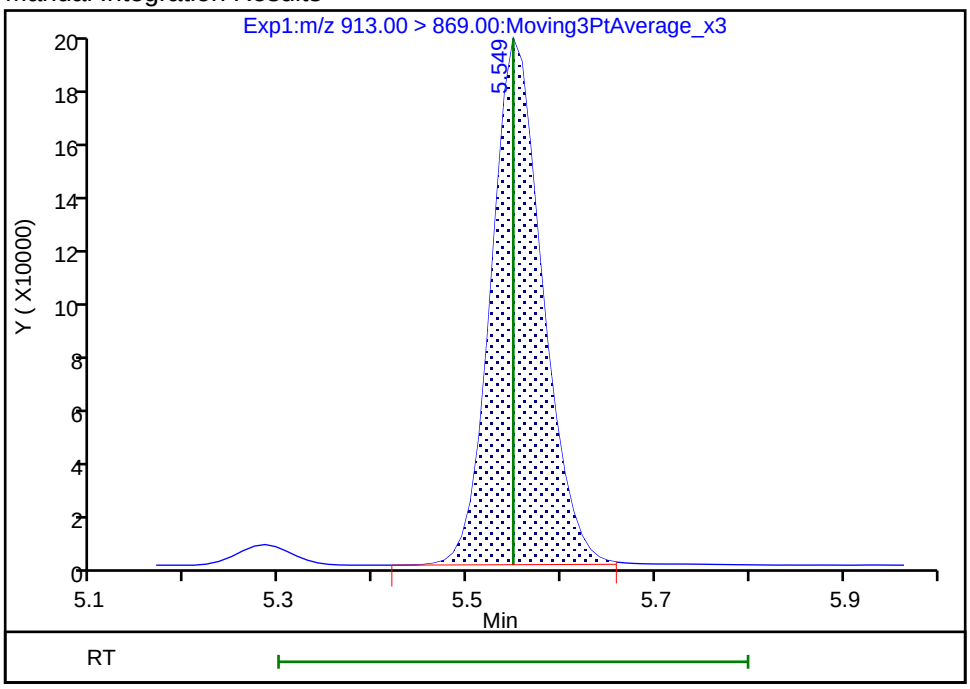
Processing Integration Results

RT: 5.55
Area: 752472
Amount: 0.858952
Amount Units: ng/ml




Manual Integration Results

RT: 5.55
Area: 751667
Amount: 0.858033
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:06:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173511/18  Calibration Date: 11/04/2021 15:48

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8984 | | 2.38 | 2.50 | -5.0 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9563 | | 2.39 | 2.50 | -4.5 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.066 | | 2.21 | 2.21 | -0.2 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 1.987 | | 2.18 | 2.34 | -6.6 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9834 | | 2.42 | 2.50 | -3.0 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.187 | | 2.31 | 2.35 | -1.4 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.167 | | 2.86 | 2.50 | 14.2 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9799 | | 2.37 | 2.50 | -5.2 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.041 | | 2.16 | 2.28 | -5.3 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.366 | | 2.27 | 2.36 | -3.8 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.291 | | 2.41 | 2.37 | 1.8 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.180 | | 2.25 | 2.38 | -5.3 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 0.9882 | | 2.32 | 2.50 | -7.1 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.056 | | 2.26 | 2.32 | -2.7 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9566 | | 2.45 | 2.50 | -2.2 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.539 | | 2.19 | 2.33 | -5.9 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8139 | | 2.31 | 2.40 | -3.7 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9895 | | 2.46 | 2.50 | -1.5 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7820 | | 2.24 | 2.40 | -6.5 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9404 | | 2.48 | 2.50 | -1.0 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7484 | | 2.38 | 2.50 | -4.7 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6247 | | 2.29 | 2.41 | -4.9 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.013 | | 2.38 | 2.50 | -5.0 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8118 | | 2.37 | 2.50 | -5.3 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.801 | | 2.20 | 2.36 | -6.7 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9145 | | 2.34 | 2.50 | -6.6 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3929 | | 2.45 | 2.41 | 1.7 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2773 | | 2.78 | 2.42 | 14.7 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173511/18  Calibration Date: 11/04/2021 15:48

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8048 | | 2.38 | 2.50 | -4.7 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1558 | | 2.47 | 2.50 | -1.3 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9176 | | 2.67 | 2.50 | 6.8 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7290 | | 2.16 | 2.50 | -13.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.069 | | 1.32 | 1.25 | 5.6 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.8869 | | 1.30 | 1.25 | 4.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.091 | | 1.10 | 1.16 | -5.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1039 | | 1.38 | 1.17 | 18.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.8852 | | 1.24 | 1.25 | -1.0 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0186 | | 0.986 | 1.25 | -21.1 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9082 | | 1.21 | 1.25 | -3.6 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8363 | | 1.18 | 1.18 | -0.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1391 | | 1.25 | 1.19 | 5.2 | |
| 13C4 PFOA | Ave | 1.029 | 1.030 | | 1.25 | 1.25 | 0.0 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6077 | | 1.20 | 1.20 | 0.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.022 | | 1.25 | 1.25 | -0.3 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.008 | | 1.22 | 1.25 | -2.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1847 | | 1.48 | 1.20 | 23.3 | |
| 13C8 FOSA | Ave | 0.998 | 1.060 | | 1.33 | 1.25 | 6.3 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1236 | | 1.52 | 1.25 | 21.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8060 | | 1.25 | 1.25 | -0.0 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1126 | | 1.48 | 1.25 | 18.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8855 | | 1.28 | 1.25 | 2.1 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6960 | | 1.29 | 1.25 | 3.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.6471 | | 1.37 | 1.25 | 9.3 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 04-Nov-2021 15:48:38 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048291-018 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 08-Nov-2021 11:22:49 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1616

First Level Reviewer: khanphomeea Date: 05-Nov-2021 10:25:28
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.082 | 0.0 | 0.595 | 1848915 | 1.32 | | 106 | 10484 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.082 | 0.009 | 1.004 | 3322261 | 2.38 | | 95.0 | 443 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.401 | 0.012 | 0.689 | 1533393 | 1.30 | | 104 | 3074 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.401 | 0.012 | 1.000 | 2932817 | 2.39 | | 95.5 | 126 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.693 | 1754290 | 1.10 | | 94.6 | 178992 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.005 | 3553834 | 2.20 | Target=2.32 | 99.8 | 1467 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 1604949 | | 2.21(1.16-3.48) | | 620 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.723 | 0.011 | 0.781 | 167791 | 1.38 | | 118 | 105 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.000 | 666870 | 2.18 | | 93.4 | 3566 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.791 | 1530619 | 1.24 | | 99.0 | 2350 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 3010336 | 2.42 | Target=12.09 | 97.0 | 510 | |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 244446 | | 12.31(6.04-18.13) | | 382 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.782 | 2.771 | 0.011 | 0.885 | 3220430 | 2.31 | Target=3.03 | 98.6 | 2266 | |
| 349.00 > 99.00 | 2.782 | 2.771 | 0.011 | 0.885 | 1071732 | | 3.00(1.52-4.55) | | 1024 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.869 | 0.011 | 0.823 | 32149 | 0.9862 | | 78.9 | 204 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.881 | -0.001 | 1.000 | 332249 | 2.85 | | 114 | 98.7 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.133 | 0.010 | 0.898 | 1367884 | 1.18 | | 99.8 | 713 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.133 | 0.010 | 1.000 | 2740424 | 2.15 | Target=3.55 | 94.7 | 1051 | M |
| 399.00 > 99.00 | 3.143 | 3.133 | 0.010 | 1.000 | 780583 | | 3.51(1.77-5.32) | | 491 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.898 | 1570278 | 1.21 | | 96.4 | 2518 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.144 | -0.001 | 1.000 | 3077434 | 2.37 | Target=3.69 | 94.8 | 769 | |
| 363.00 > 169.00 | 3.143 | 3.144 | -0.001 | 1.000 | 832488 | | 3.70(1.84-5.53) | | 1514 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.186 | 3.176 | 0.010 | 0.835 | 6664535 | 2.27 | Target=2.56 | 96.2 | 2300 | |
| 377.00 > 85.00 | 3.186 | 3.176 | 0.010 | 0.835 | 2672936 | | 2.49(1.28-3.84) | | 1696 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.492 | 3.484 | 0.008 | 1.000 | 588755 | 2.41 | | 102 | 720 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.492 | 3.484 | 0.008 | 0.916 | 2361089 | 2.25 | Target=4.88 | 94.7 | 1435 | |
| 449.00 > 99.00 | 3.483 | 3.484 | -0.001 | 0.913 | 486605 | | 4.85(2.44-7.32) | | 724 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.492 | 3.484 | 0.008 | 0.997 | 228449 | 1.25 | | 105 | 430 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.501 | 3.493 | 0.008 | 1.000 | 1780118 | 1.25 | | 100 | 2011 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.501 | 3.493 | 0.008 | | 1729025 | 1.25 | | | 611 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.501 | 3.493 | 0.008 | 1.000 | 3518325 | 2.32 | Target=2.68 | 92.9 | 399 | |
| 413.00 > 169.00 | 3.501 | 3.493 | 0.008 | 1.000 | 1373091 | | 2.56(1.34-4.02) | | 1009 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.814 | 3.806 | 0.008 | 1.089 | 1004561 | 1.20 | | 100 | 536 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.814 | 3.806 | 0.008 | 1.000 | 2058773 | 2.26 | Target=4.69 | 97.3 | 616 | M |
| 499.00 > 99.00 | 3.814 | 3.806 | 0.008 | 1.000 | 438039 | | 4.70(2.35-7.04) | | 407 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.836 | 3.826 | 0.010 | 1.096 | 1766314 | 1.25 | | 99.7 | 4877 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.836 | 3.826 | 0.010 | 1.000 | 3379482 | 2.44 | Target=7.29 | 97.8 | 531 | |
| 463.00 > 169.00 | 3.824 | 3.826 | -0.002 | 0.997 | 438715 | | 7.70(3.64-10.93) | | 852 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.973 | 3.967 | 0.006 | 1.042 | 3013877 | 2.19 | | 94.1 | 1034 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.092 | 4.095 | -0.003 | 1.073 | 1642109 | 2.31 | Target=2.35 | 96.3 | 998 | M |
| 549.00 > 99.00 | 4.092 | 4.095 | -0.003 | 1.073 | 676578 | | 2.43(1.17-3.52) | | 724 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.126 | 4.118 | 0.008 | 1.179 | 1742039 | 1.22 | | 97.4 | 164 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.126 | 4.118 | 0.008 | 1.000 | 3447625 | 2.46 | Target=8.95 | 98.5 | 638 | |
| 513.00 > 169.00 | 4.126 | 4.118 | 0.008 | 1.000 | 365122 | | 9.44(4.47-13.42) | | 597 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.137 | 4.129 | 0.008 | 1.182 | 305932 | 1.48 | | 123 | 188 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.137 | 4.129 | 0.008 | 1.000 | 478500 | 2.24 | | 93.5 | 541 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.234 | 4.227 | 0.007 | 1.210 | 1833589 | 1.33 | | 106 | 998 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.227 | 0.007 | 1.000 | 3448566 | 2.48 | | 99.0 | 1730 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.268 | 4.260 | 0.008 | 1.219 | 213677 | 1.52 | | 121 | 183 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.260 | 0.008 | 1.000 | 319843 | 2.38 | | 95.3 | 327 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.359 | 4.351 | 0.008 | 1.143 | 1265588 | 2.29 | Target=2.47 | 95.1 | 2618 | |
| 599.00 > 99.00 | 4.359 | 4.351 | 0.008 | 1.143 | 509282 | | 2.49(1.23-3.70) | | 1519 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.373 | 0.008 | 1.251 | 1393640 | 1.25 | | 100.0 | 720 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.381 | 4.373 | 0.008 | 1.000 | 2822832 | 2.38 | Target=9.24 | 95.0 | 811 | |
| 563.00 > 169.00 | 4.381 | 4.373 | 0.008 | 1.000 | 322538 | | 8.75(4.62-13.86) | | 899 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.392 | 4.384 | 0.008 | 1.254 | 194629 | 1.48 | | 118 | 641 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.403 | 4.395 | 0.008 | 1.003 | 315989 | 2.37 | | 94.7 | 510 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.460 | 0.007 | 1.171 | 3565684 | 2.20 | | 93.3 | 2713 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.595 | 0.007 | 1.314 | 1531083 | 1.28 | | 102 | 418 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.602 | 4.606 | -0.004 | 1.000 | 2800354 | 2.34 | Target=7.04 | 93.4 | 401 | |
| 613.00 > 169.00 | 4.602 | 4.606 | -0.004 | 1.000 | 417423 | | 6.71(3.52-10.56) | | 3112 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.622 | 4.616 | 0.006 | 1.117 | 241935 | 2.45 | | 102 | 1242 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.775 | 4.770 | 0.005 | 1.252 | 564207 | 2.78 | Target=0.49 | 115 | 2915 | |
| 699.00 > 99.00 | 4.775 | 4.770 | 0.005 | 1.252 | 967562 | | 0.58(0.25-0.74) | | 2125 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.802 | 4.797 | 0.005 | 1.043 | 2464577 | 2.38 | Target=4.68 | 95.3 | 484 | |
| 663.00 > 169.00 | 4.802 | 4.797 | 0.005 | 1.043 | 567337 | | 4.34(2.34-7.02) | | 1794 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.979 | 0.007 | 1.424 | 1203479 | 1.29 | | 103 | 3155 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.986 | 4.979 | 0.007 | 1.000 | 375055 | 2.47 | Target=1.01 | 98.7 | 2084 | |
| 713.00 > 219.00 | 4.986 | 4.979 | 0.007 | 1.000 | 383158 | | 0.98(0.51-1.52) | | 4636 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.284 | 0.009 | 1.512 | 1118778 | 1.37 | | 109 | 2965 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.284 | 0.009 | 1.000 | 2053274 | 2.67 | Target=4.57 | 107 | 528 | |
| 813.00 > 169.00 | 5.293 | 5.284 | 0.009 | 1.000 | 467923 | | 4.39(2.29-6.86) | | 2585 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.555 | 5.549 | 0.006 | 1.050 | 1631198 | 2.16 | Target=4.27 | 86.4 | 548 | M |
| 913.00 > 169.00 | 5.555 | 5.549 | 0.006 | 1.050 | 390955 | | 4.17(2.14-6.41) | | 1554 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00023 Amount Added: 100.00 Units: uL

Report Date: 08-Nov-2021 11:22:49 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d

Injection Date: 04-Nov-2021 15:48:38 Instrument ID: LC812

Lims ID: CCV L5

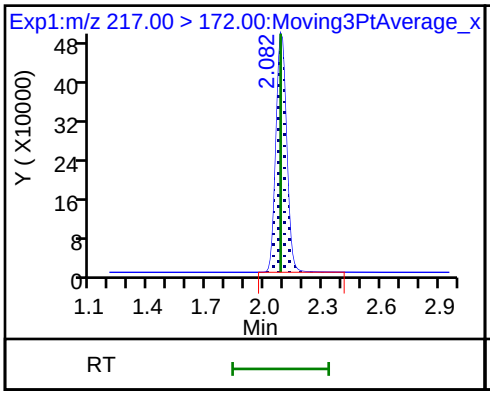
Client ID:

Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18

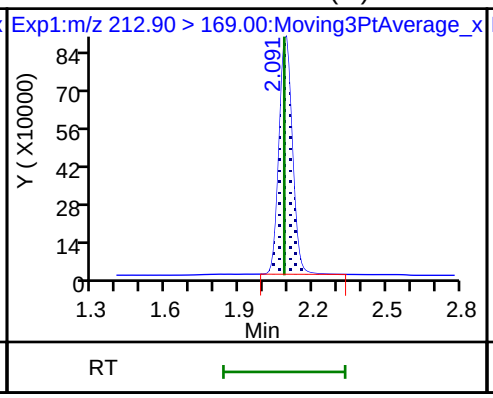
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

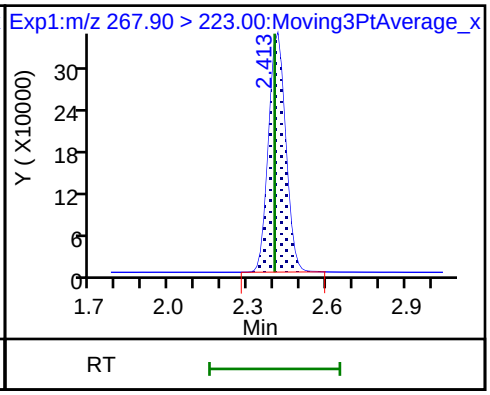
D 1 13C4 PFBA



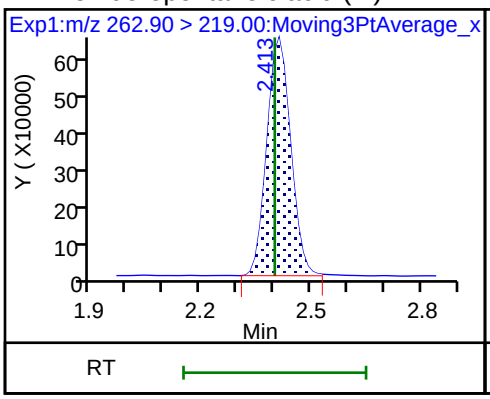

2 Perfluorobutanoic acid (M)



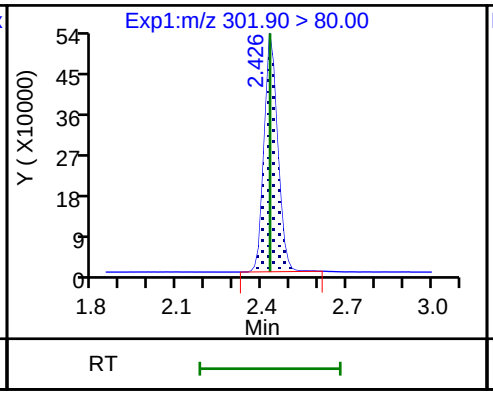

D 3 13C5 PFPeA



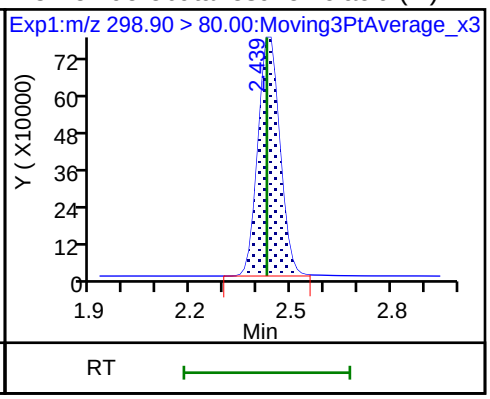

4 Perfluoropentanoic acid (M)



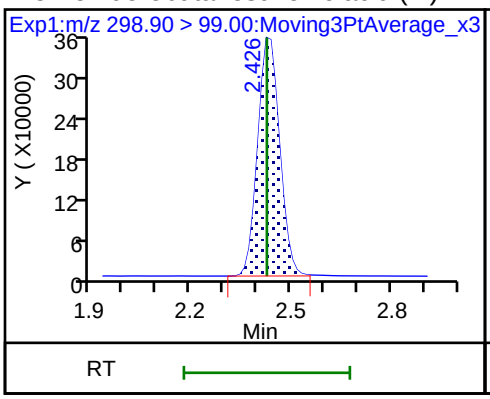

D 47 13C3 PFBS



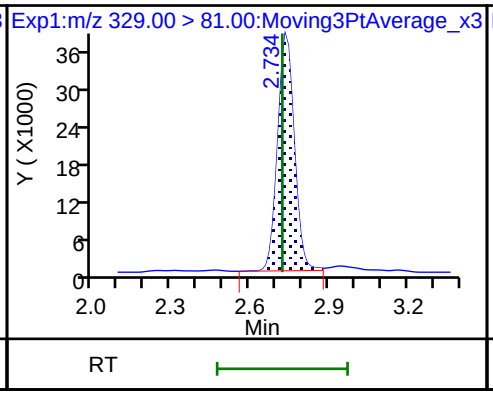

5 Perfluorobutanesulfonic acid (M)



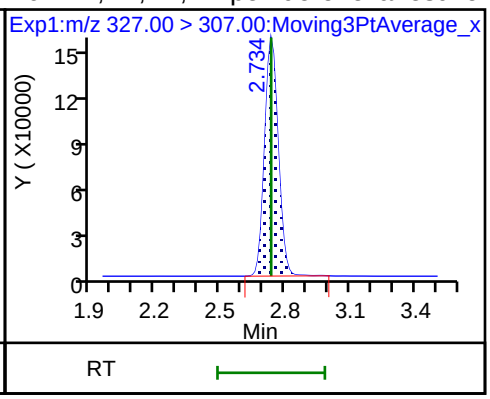

5 Perfluorobutanesulfonic acid (M)



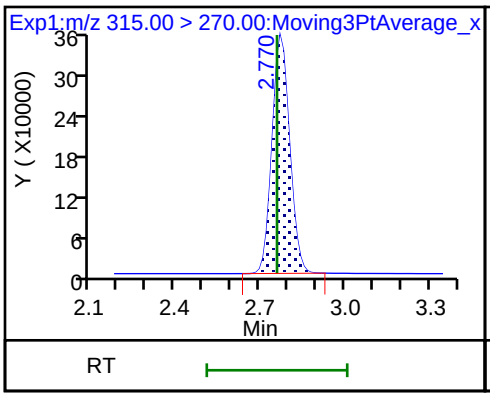

D 60 M2-4:2 FTS



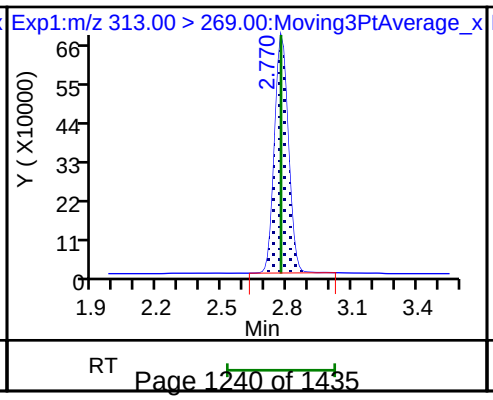

61 1H,1H,2H,2H-perfluorohexanesulfo



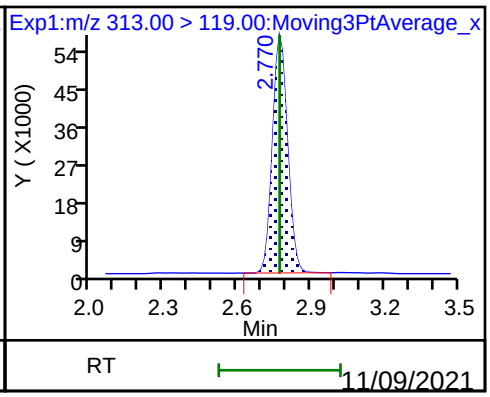

D 7 13C2 PFHxA



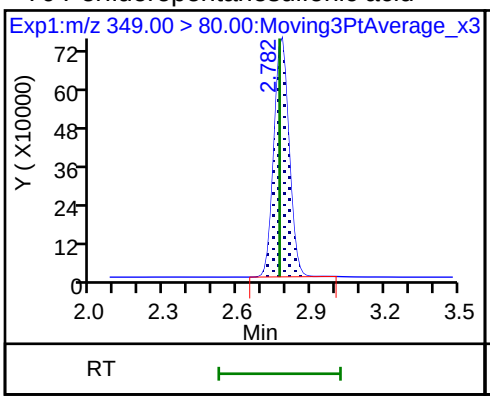

6 Perfluorohexanoic acid



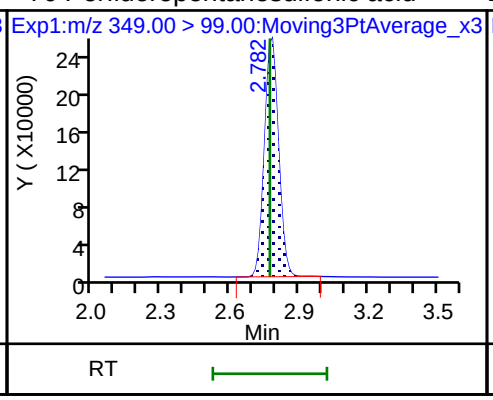

6 Perfluorohexanoic acid



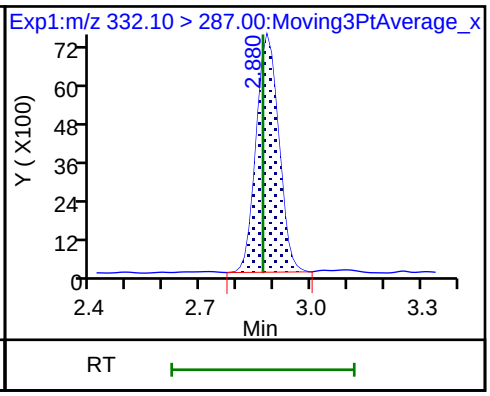
70 Perfluoropentanesulfonic acid



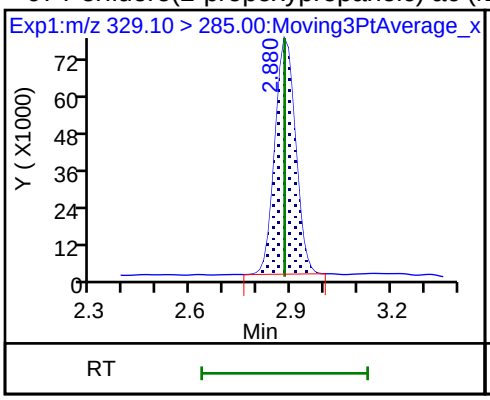

70 Perfluoropentanesulfonic acid



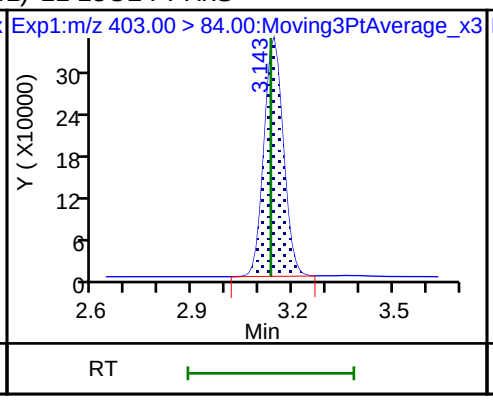

D 64 13C3 HFPO-DA



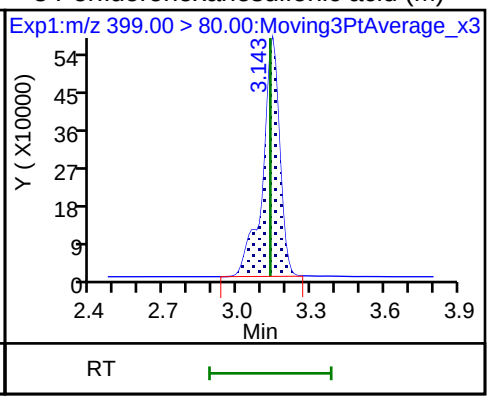

67 Perfluoro(2-propoxypropanoic) ac (M)



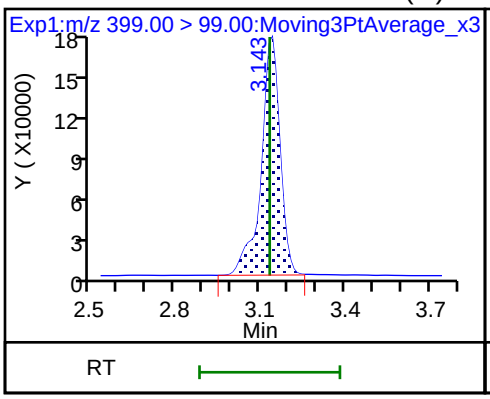

D 11 18O2 PFHxS



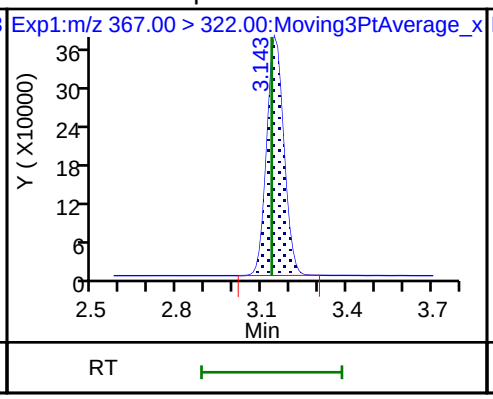

8 Perfluorohexanesulfonic acid (M)



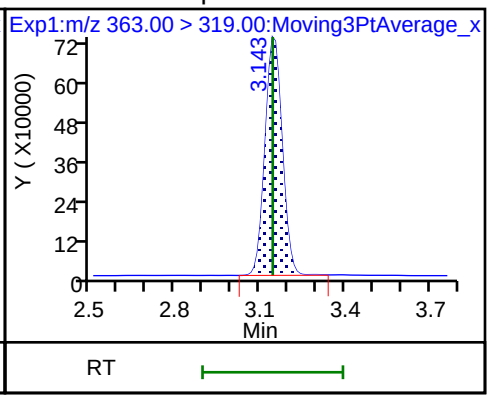

8 Perfluorohexanesulfonic acid (M)



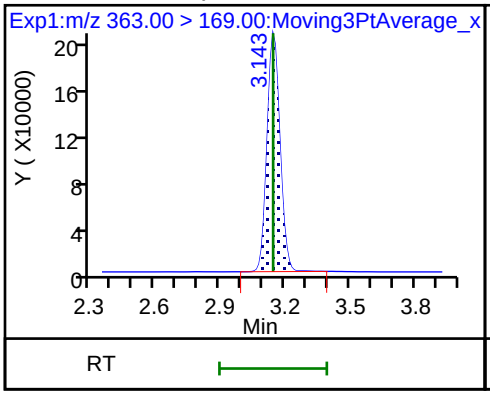

D 9 13C4 PFHpA



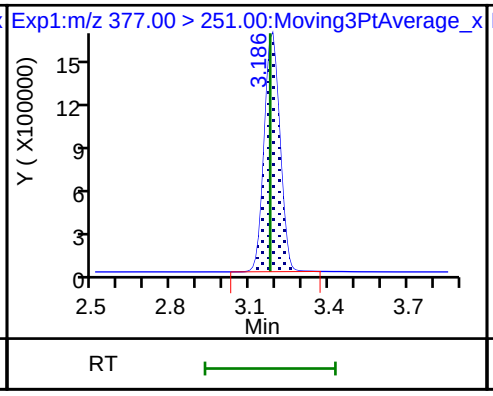

10 Perfluoroheptanoic acid



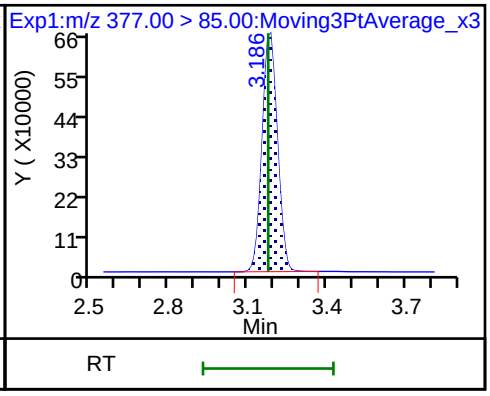

10 Perfluoroheptanoic acid



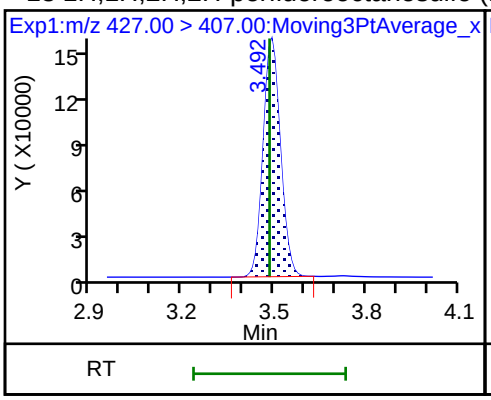

77 DONA



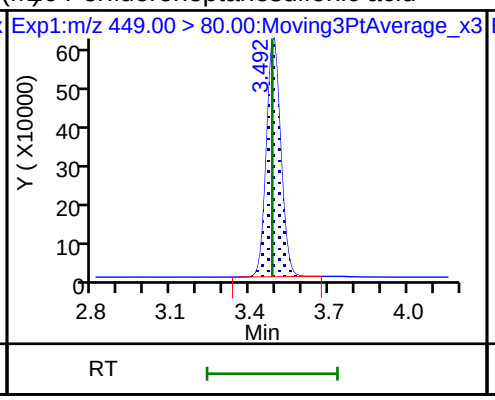

77 DONA



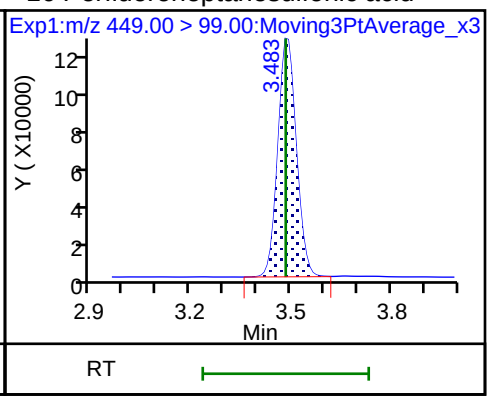
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



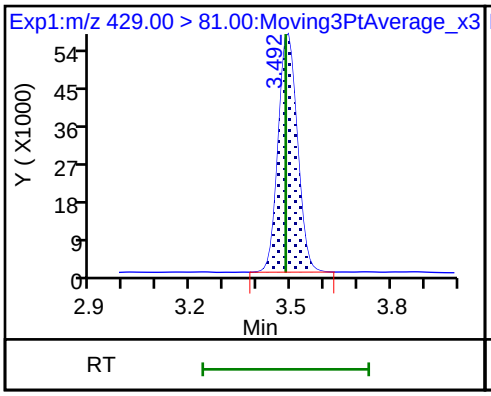

16 Perfluoroheptanesulfonic acid



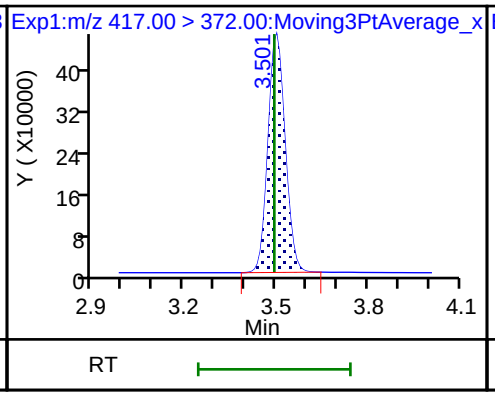

16 Perfluoroheptanesulfonic acid



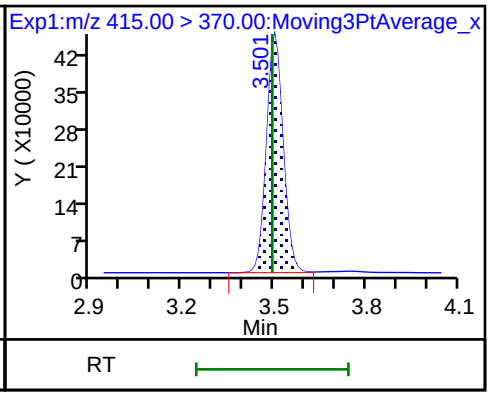

D 12 M2-6:2 FTS



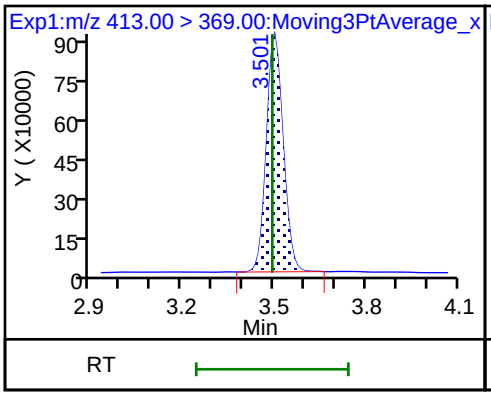

D 14 13C4 PFOA



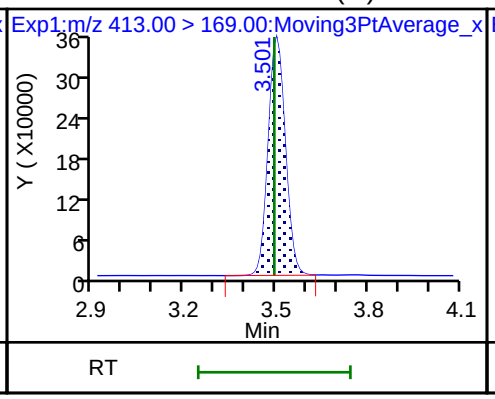

* 62 13C2 PFOA



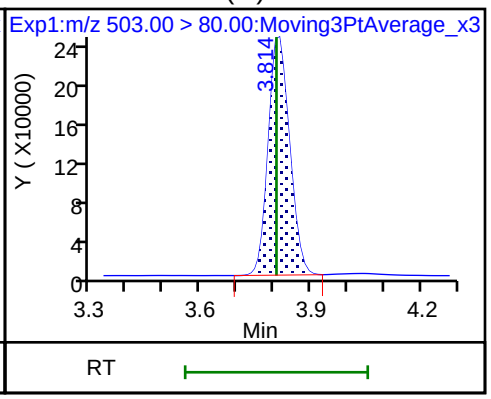

15 Perfluorooctanoic acid



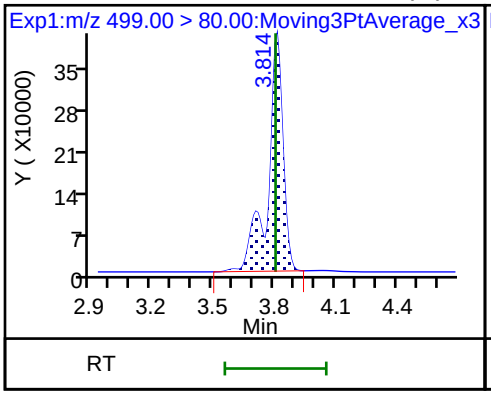

15 Perfluorooctanoic acid (M)



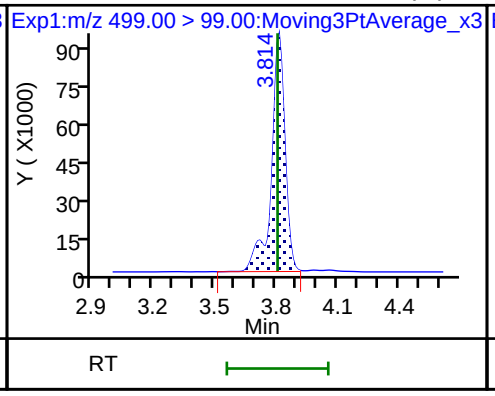

D 18 13C4 PFOS (M)



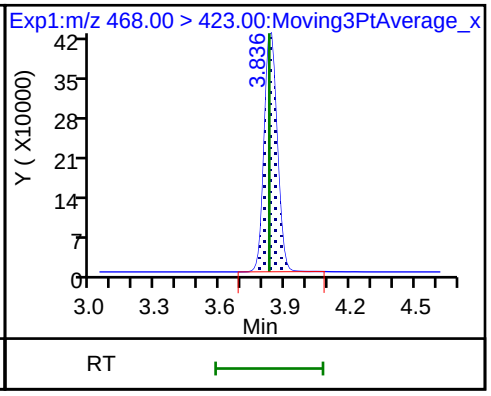

17 Perfluorooctanesulfonic acid (M)



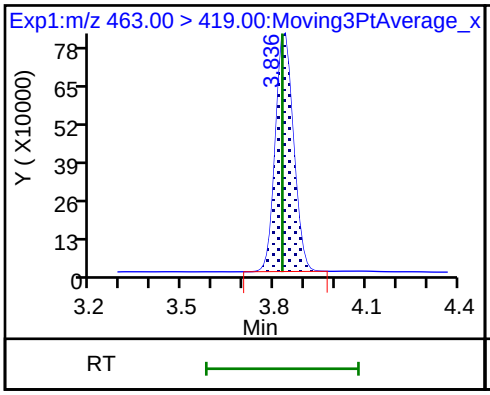

17 Perfluorooctanesulfonic acid (M)



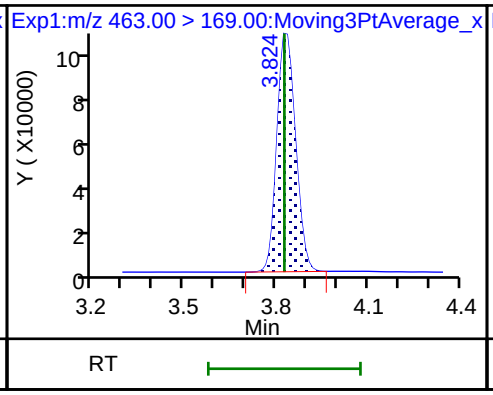

D 19 13C5 PFNA



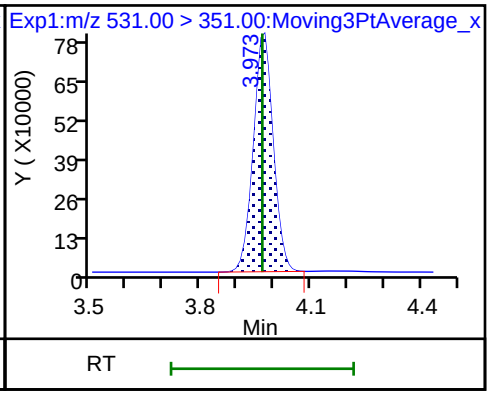
20 Perfluorononanoic acid



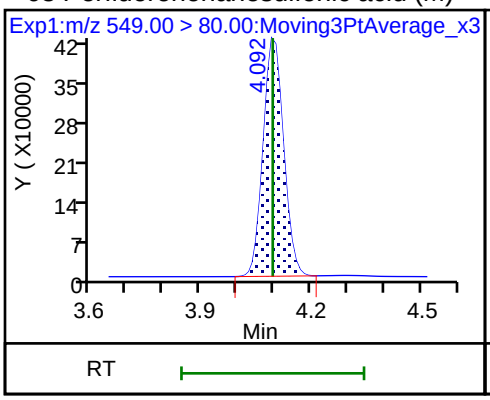

20 Perfluorononanoic acid



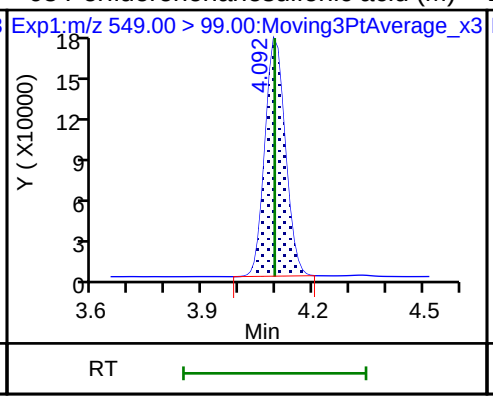

69 9-Chlorohexadecafluoro-3-oxanona (M)



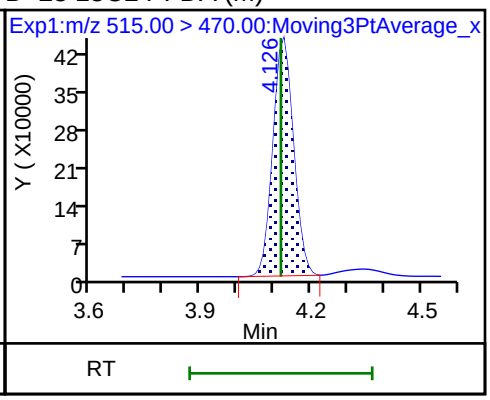

68 Perfluorononanesulfonic acid (M)



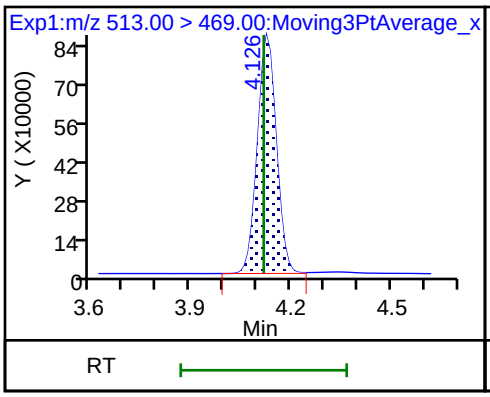

68 Perfluorononanesulfonic acid (M)



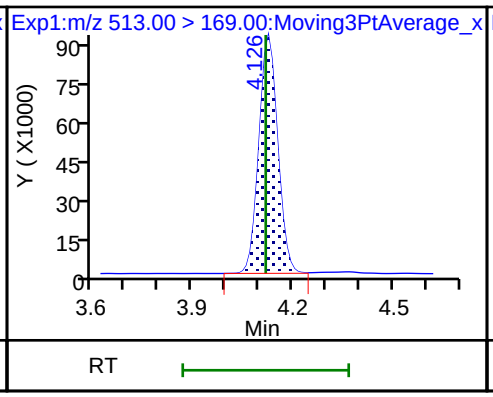

D 23 13C2 PFDA (M)



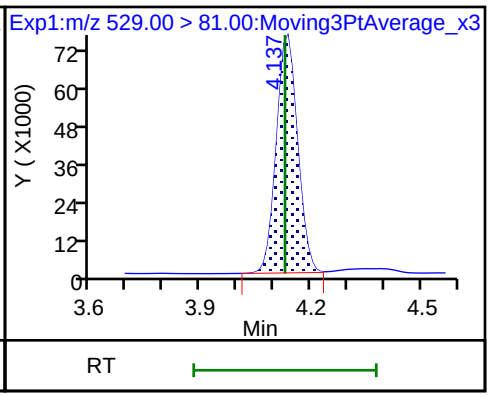

24 Perfluorodecanoic acid



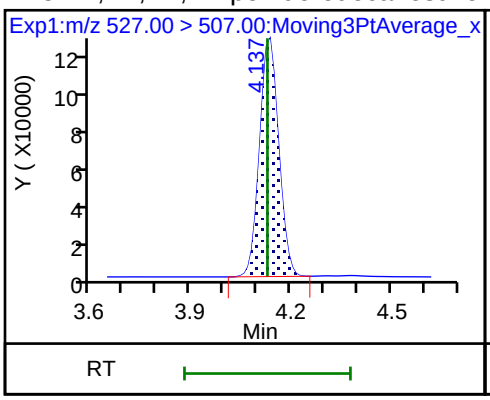

24 Perfluorodecanoic acid



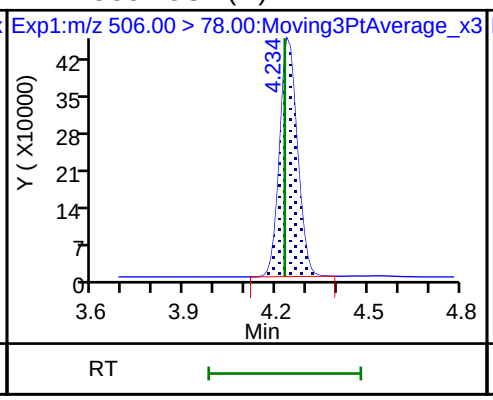

D 26 M2-8:2 FTS



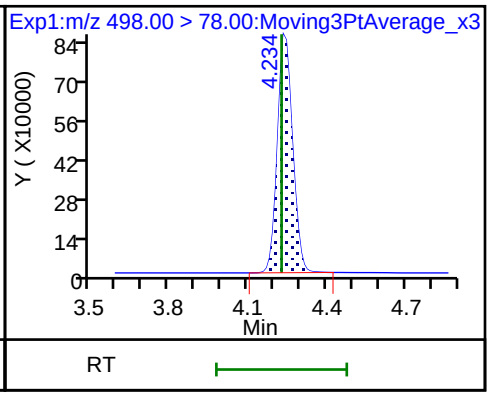

25 1H,1H,2H,2H-perfluorodecanesulfo



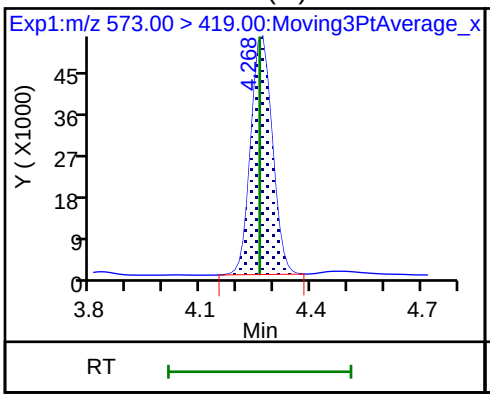

D 21 13C8 FOSA (M)



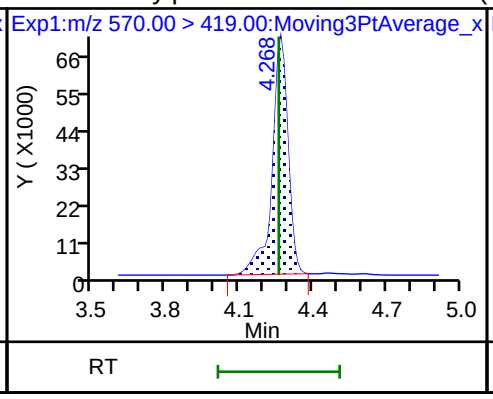

22 Perfluorooctanesulfonamide



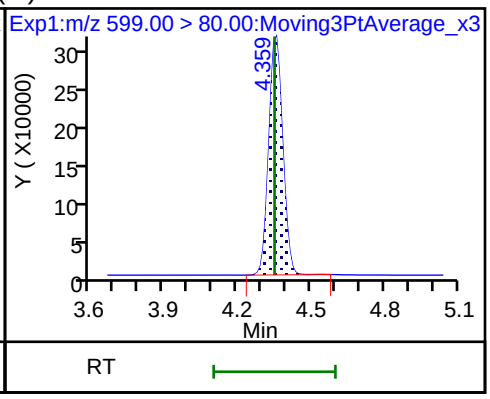
D 27 d3-NMeFOSAA (M)



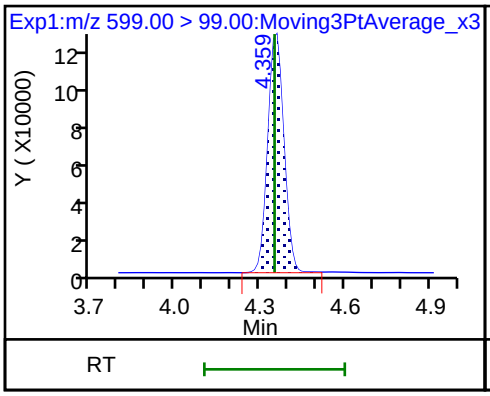

28 N-methylperfluorooctanesulfonami (M)



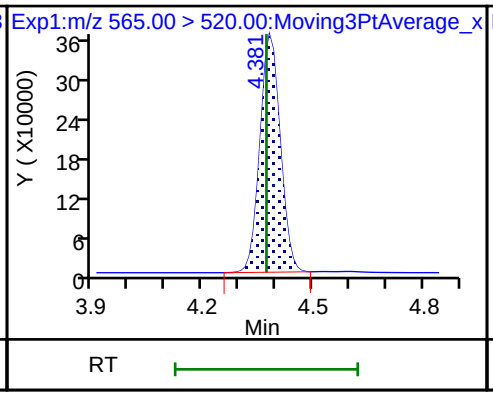

29 Perfluorodecanesulfonic acid



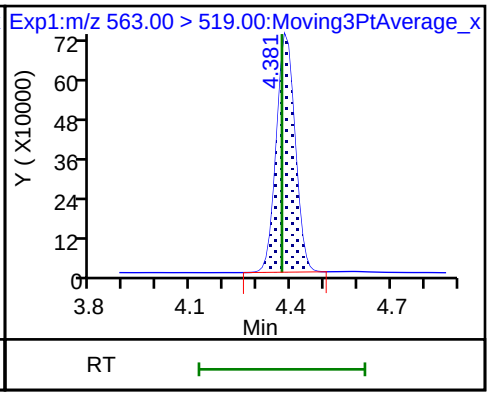

29 Perfluorodecanesulfonic acid



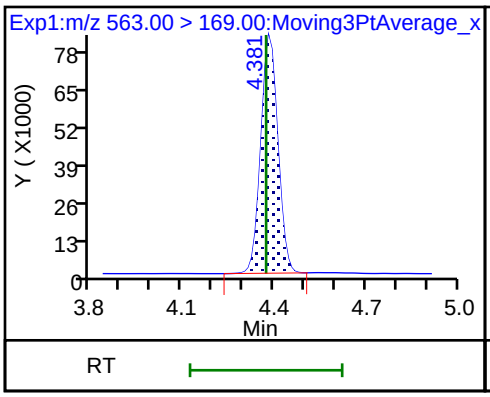

D 30 13C2 PFUnA



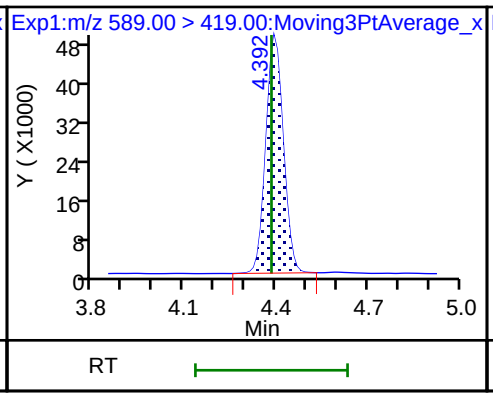

31 Perfluoroundecanoic acid



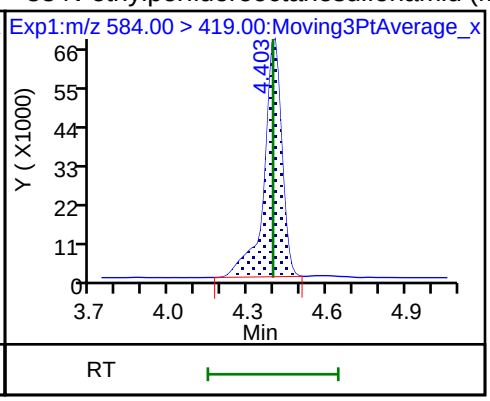

31 Perfluoroundecanoic acid



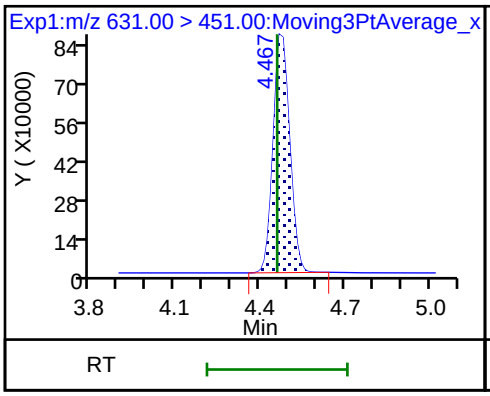

D 32 d5-NEtFOSAA



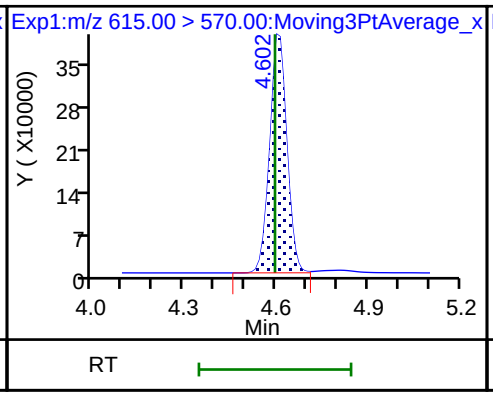

33 N-ethylperfluorooctanesulfonamid (M)



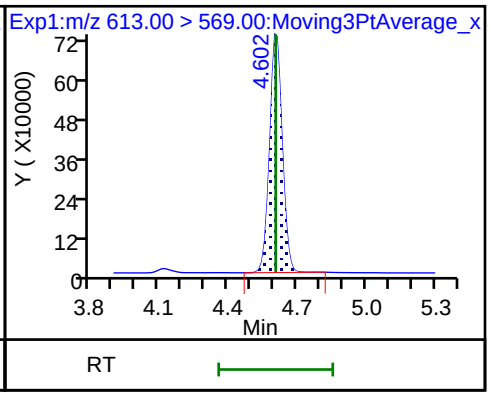

66 11-Chloroeicosafluoro-3-oxaundec



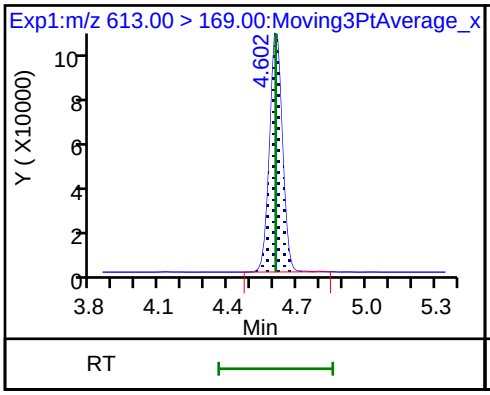

D 36 13C2 PFDoA



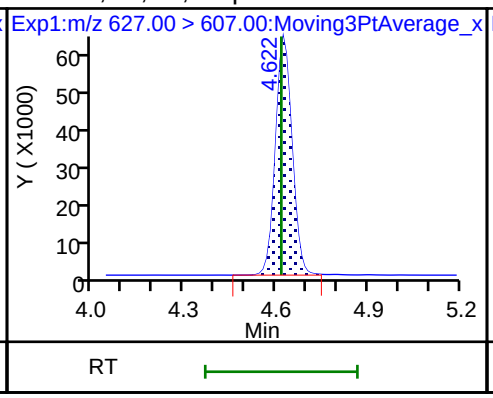

37 Perfluorododecanoic acid



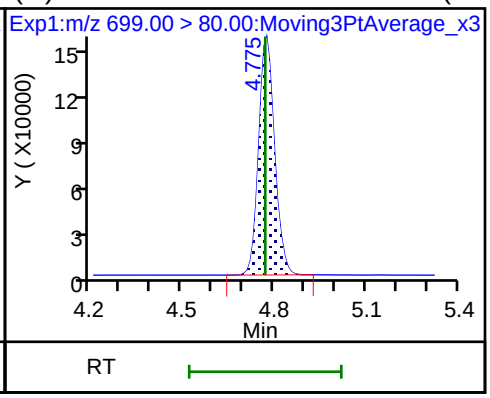
37 Perfluorododecanoic acid



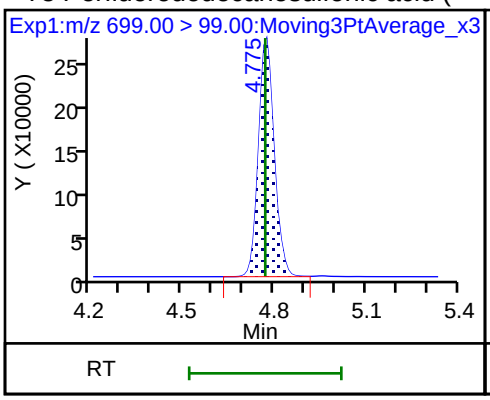

74 1H,1H,2H,2H-perfluorododecanesul (M)



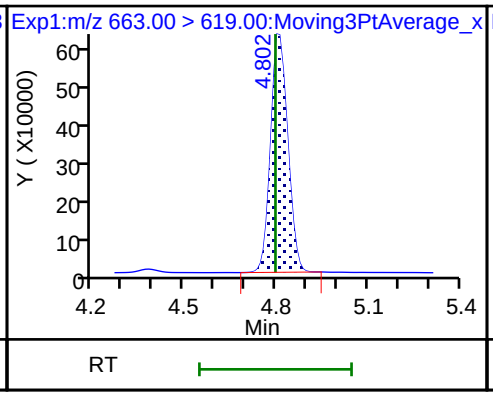

75 Perfluorododecanesulfonic acid (



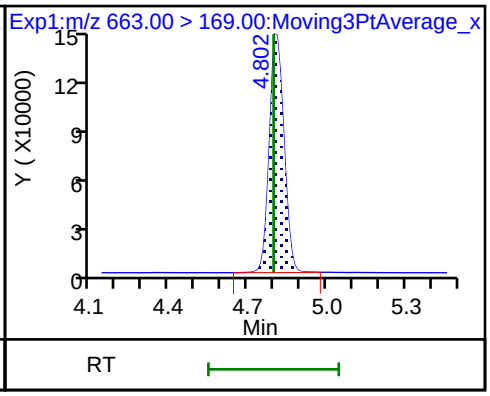

75 Perfluorododecanesulfonic acid (



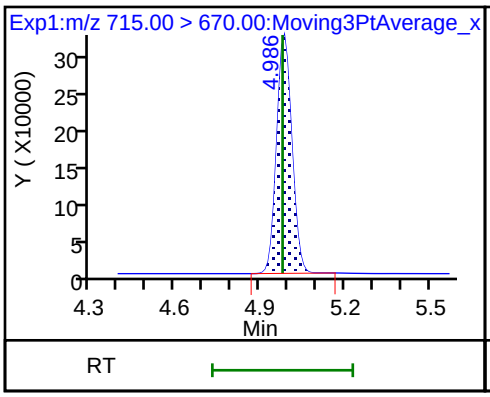

41 Perfluorotridecanoic acid



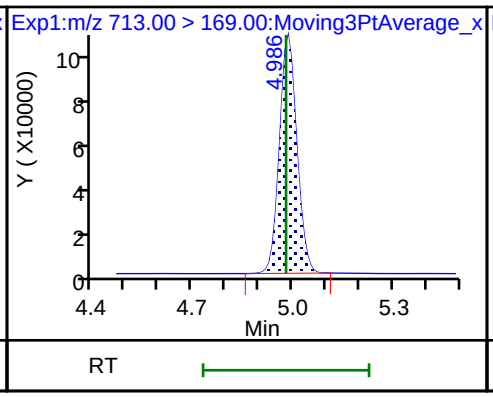

41 Perfluorotridecanoic acid



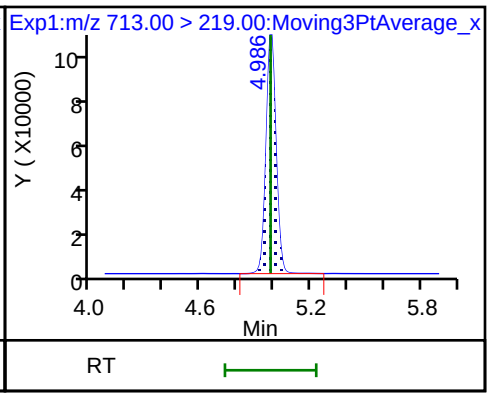

D 43 13C2 PFTeDA



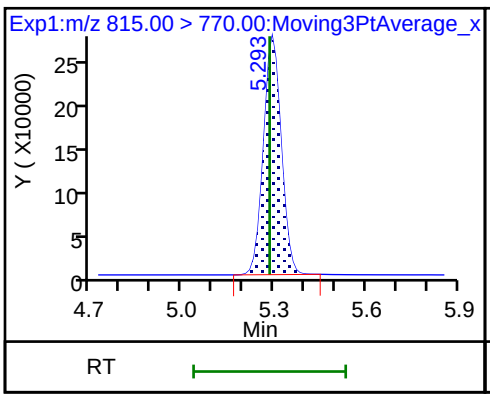

42 Perfluorotetradecanoic acid



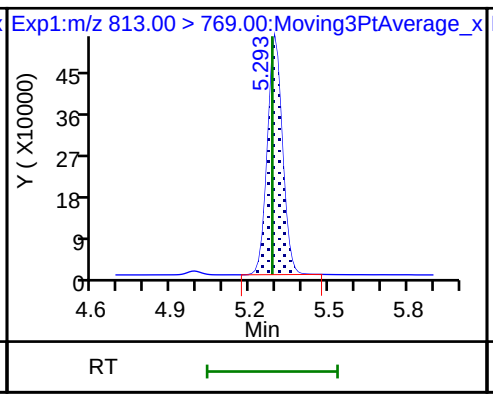

42 Perfluorotetradecanoic acid



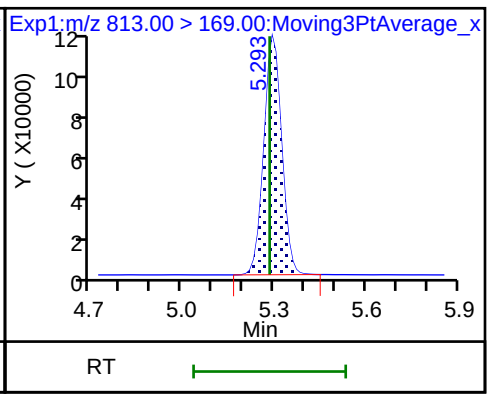

D 44 13C2 PFHxDA



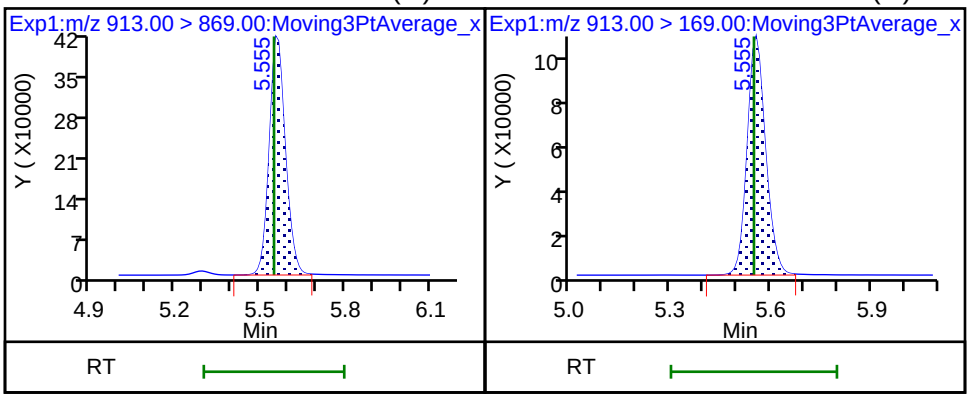

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

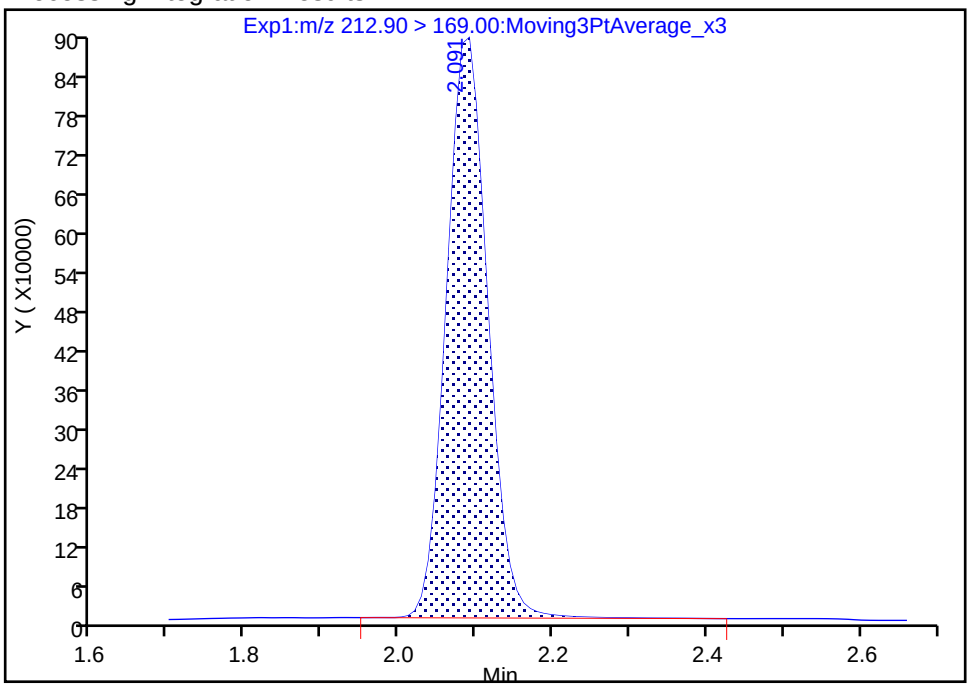
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d
Injection Date: 04-Nov-2021 15:48:38 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

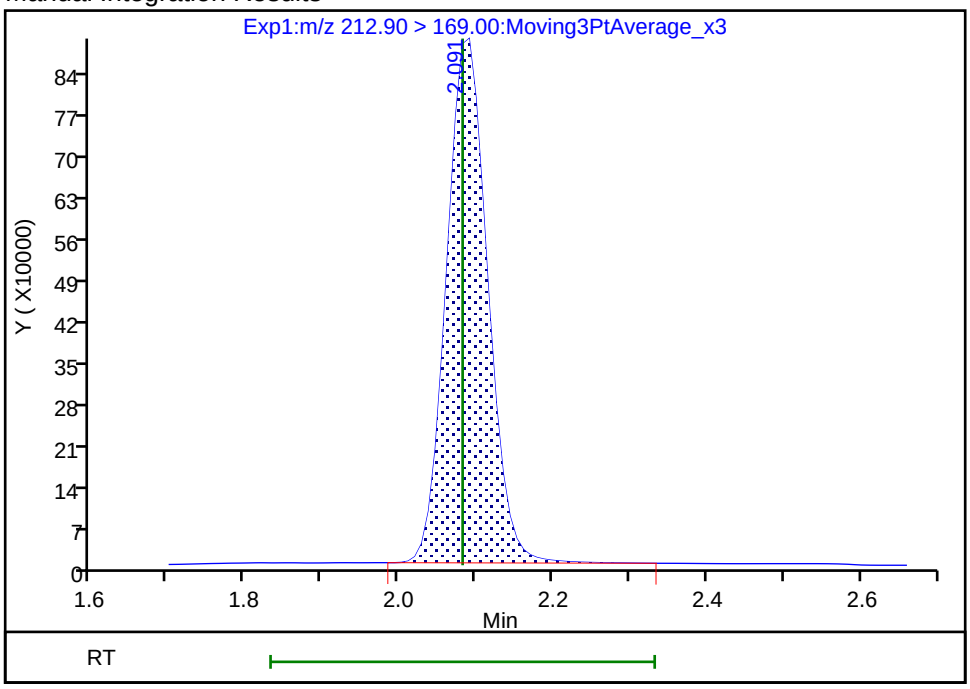
Processing Integration Results

RT: 2.09
Area: 3330639
Amount: 2.381398
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 3322261
Amount: 2.375408
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:23:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

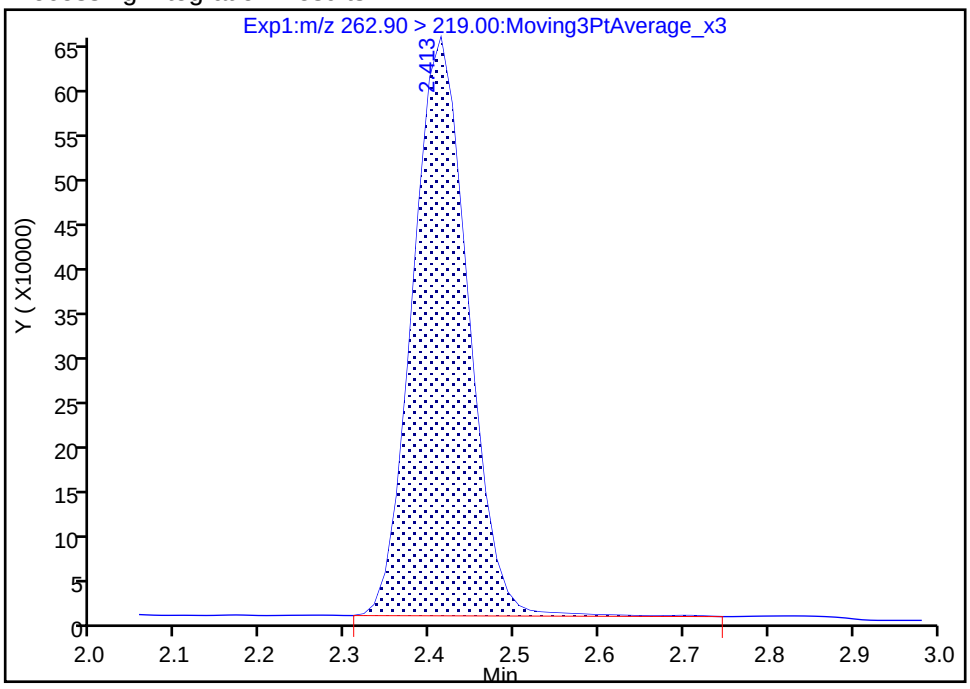
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

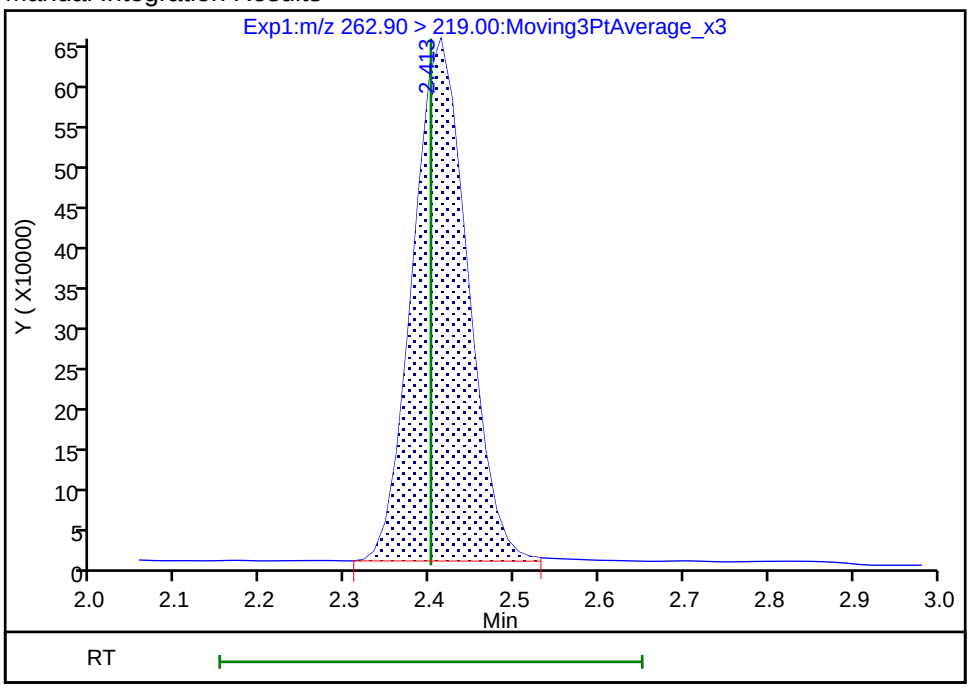
Processing Integration Results

RT: 2.41
Area: 2953931
Amount: 2.403849
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 2932817
Amount: 2.386667
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:23:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

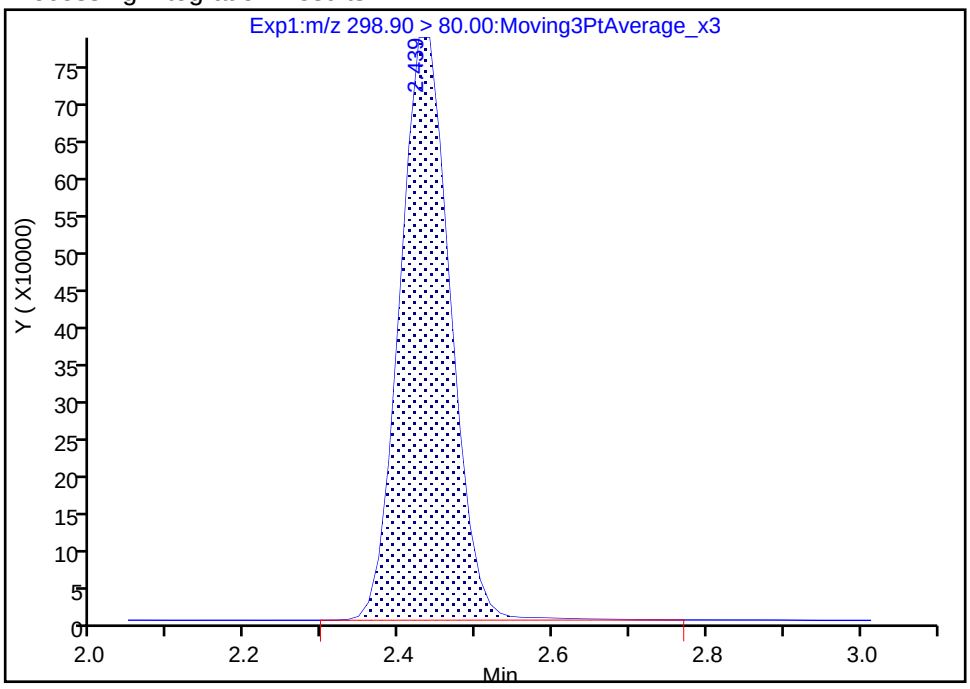
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d
Injection Date: 04-Nov-2021 15:48:38 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

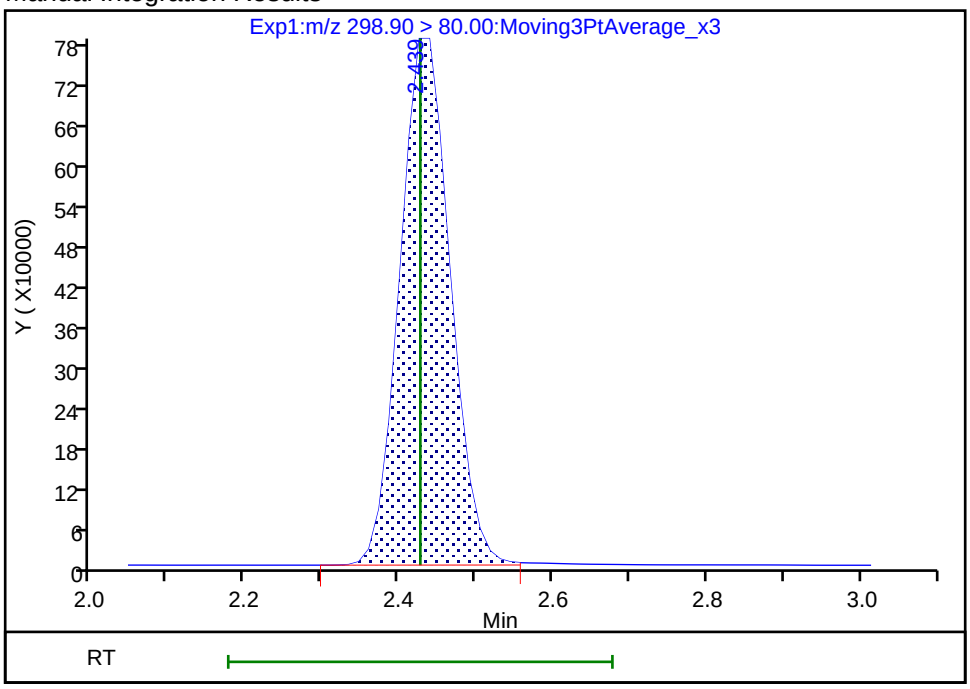
Processing Integration Results

RT: 2.44
Area: 3568975
Amount: 2.214310
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 3553834
Amount: 2.204916
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:23:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

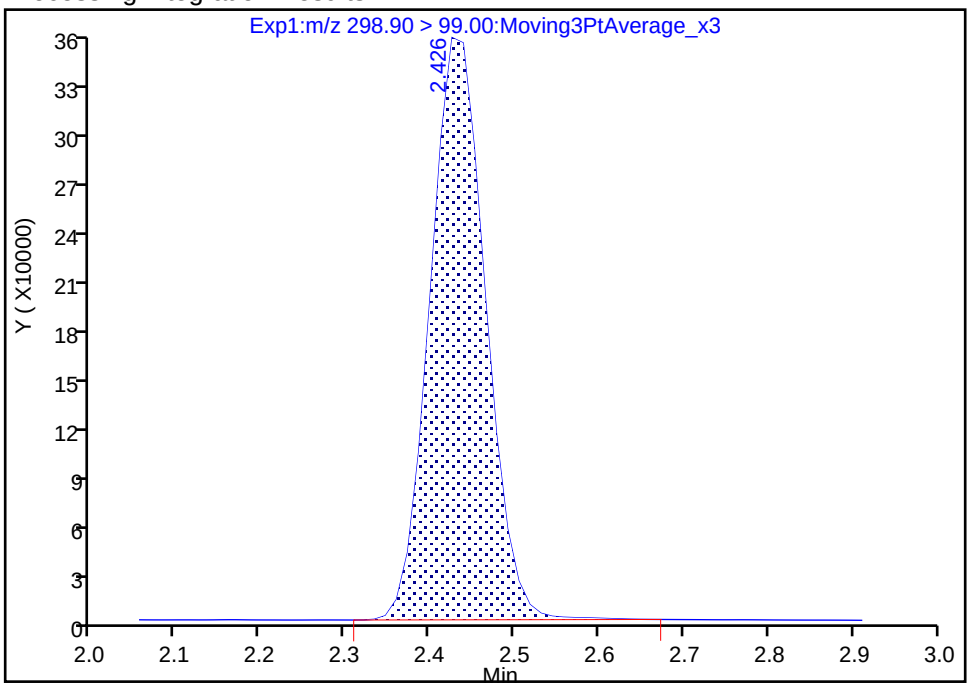
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d
Injection Date: 04-Nov-2021 15:48:38 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

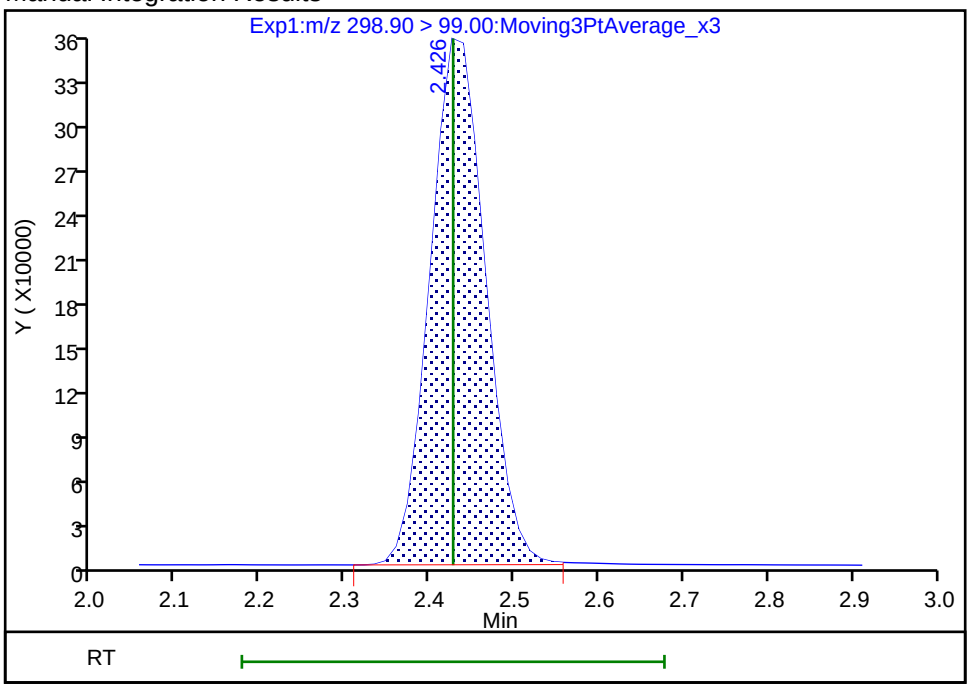
Processing Integration Results

RT: 2.43
Area: 1609094
Amount: 2.214310
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1604949
Amount: 2.204916
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:23:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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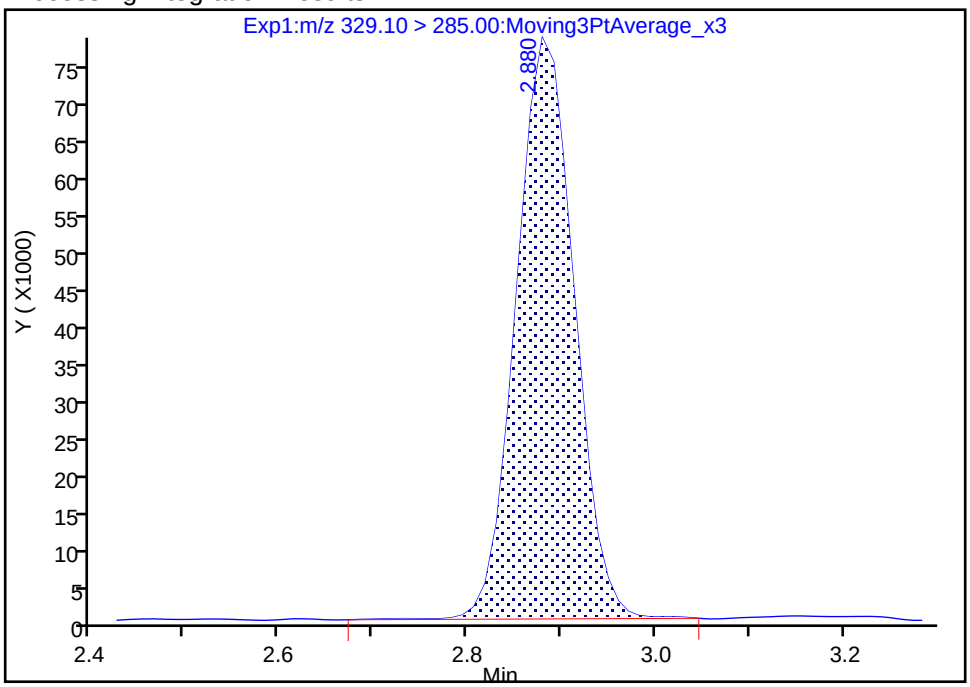
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

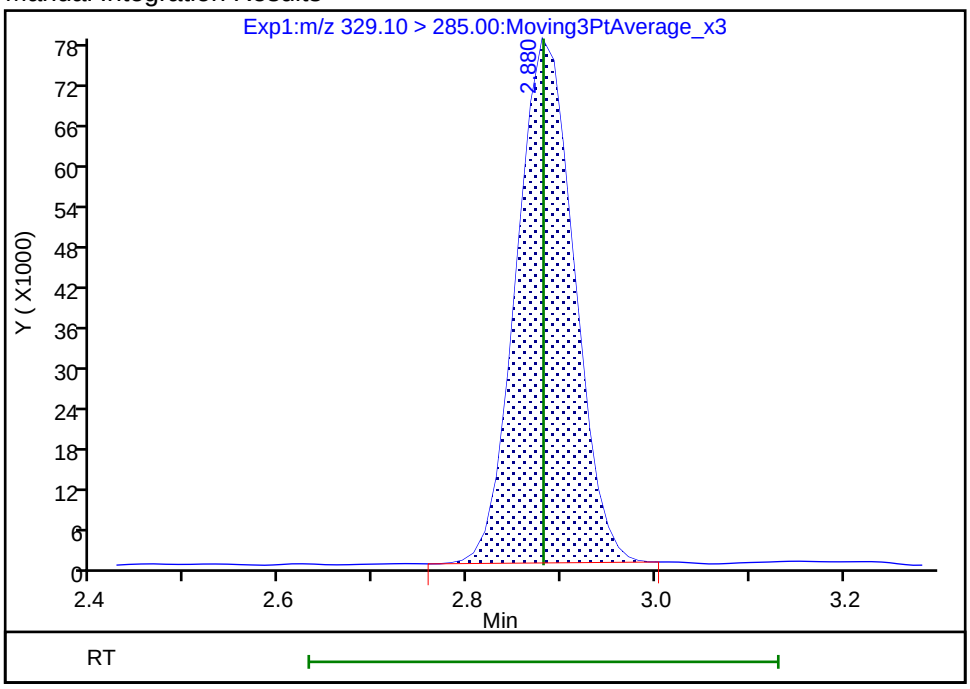
Processing Integration Results

RT: 2.88
Area: 335345
Amount: 2.881406
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 332249
Amount: 2.854804
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:23:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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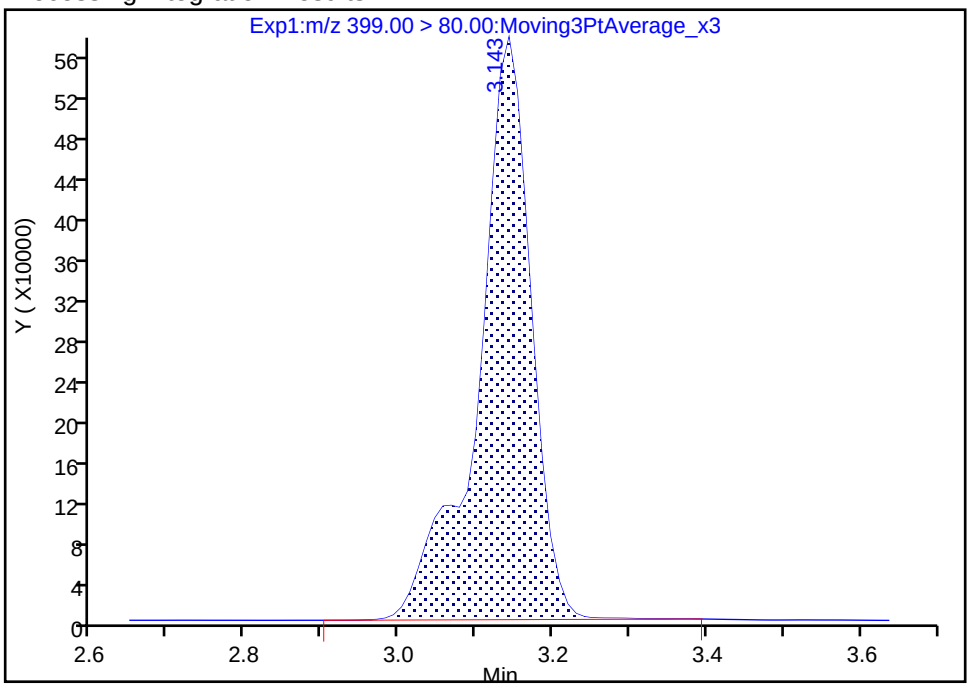
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

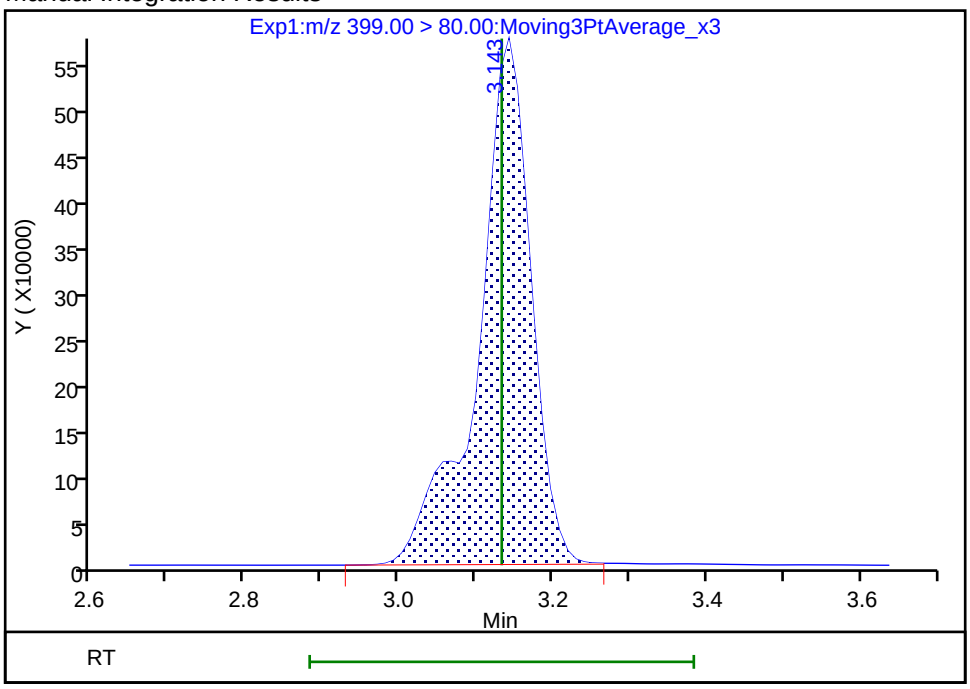
Processing Integration Results

RT: 3.14
Area: 2745855
Amount: 2.159038
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 2740424
Amount: 2.154767
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:24:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

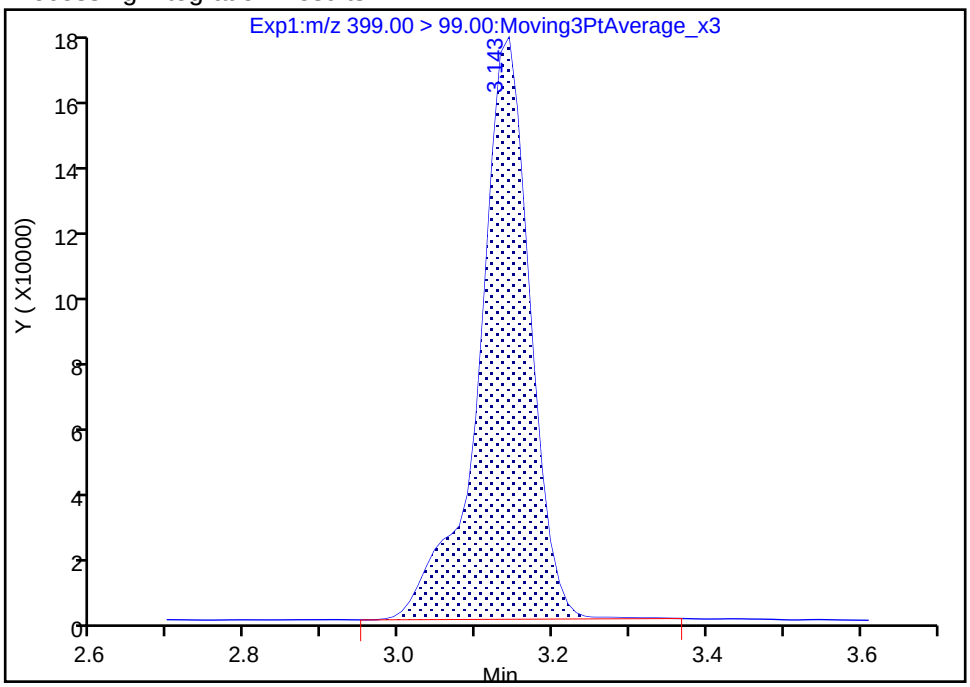
Data File: \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d
Injection Date: 04-Nov-2021 15:48:38 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

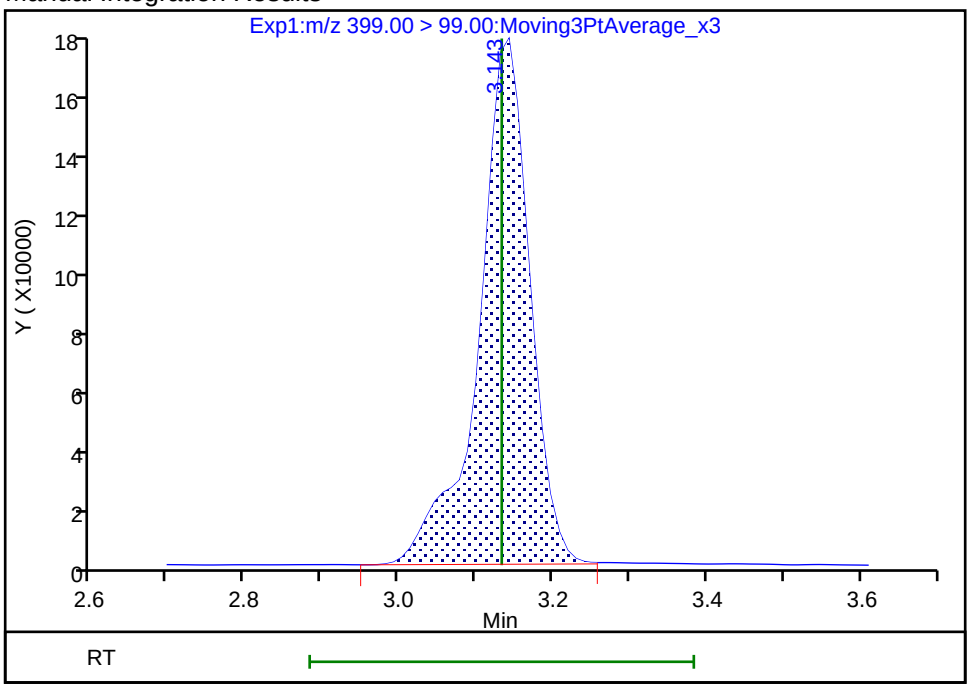
Processing Integration Results

RT: 3.14
Area: 782044
Amount: 2.159038
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 780583
Amount: 2.154767
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:24:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

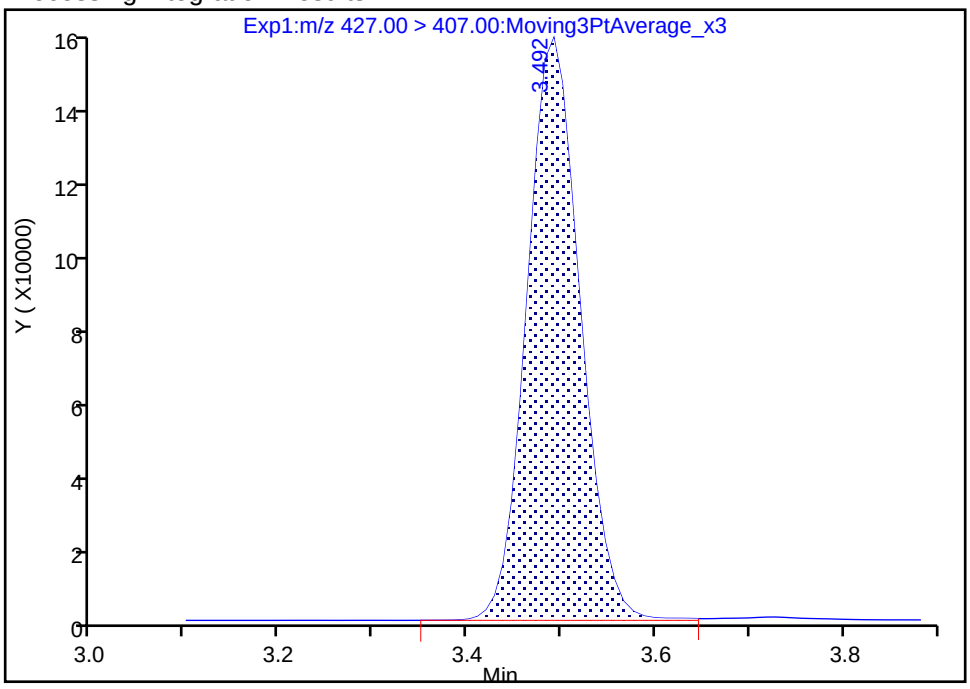
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

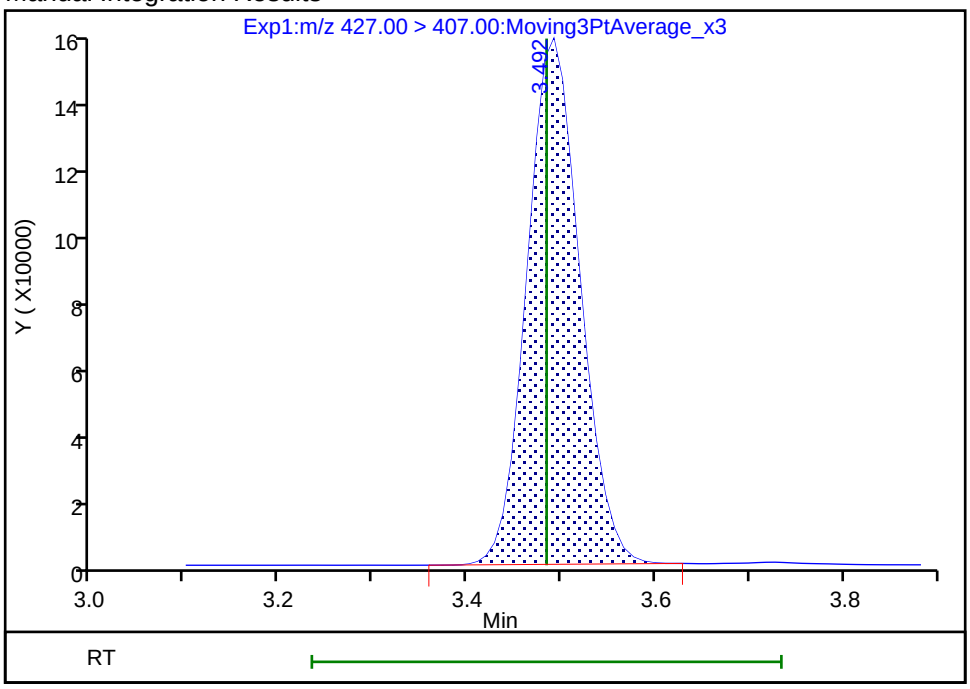
Processing Integration Results

RT: 3.49
Area: 593465
Amount: 2.432673
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 588755
Amount: 2.413366
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:24:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

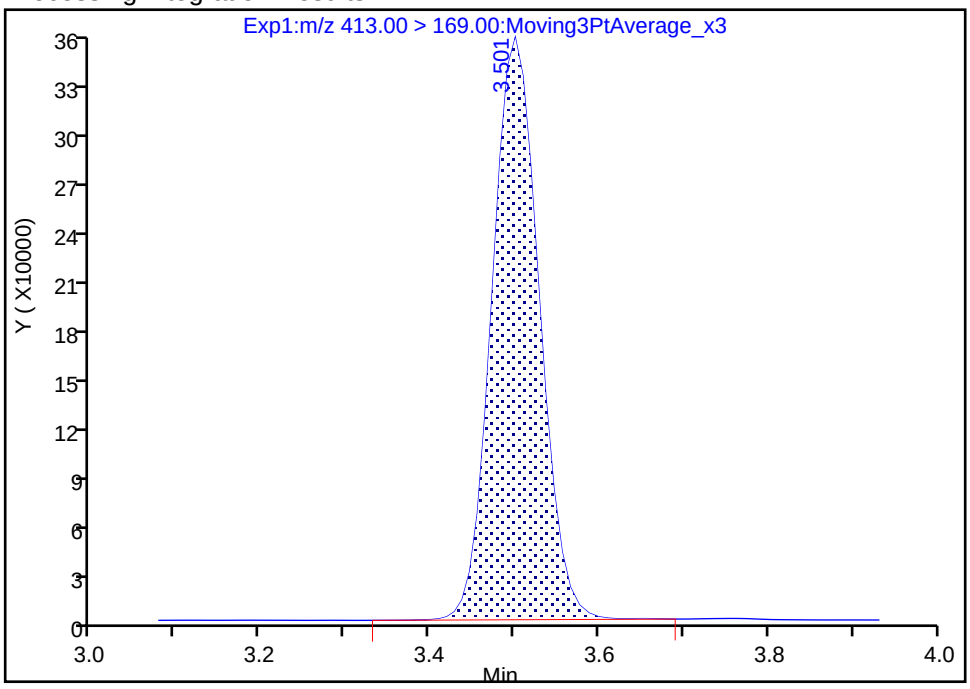
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 |
| Lims ID: | CCV L5 | | |
| Client ID: | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 Worklist Smp#: 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

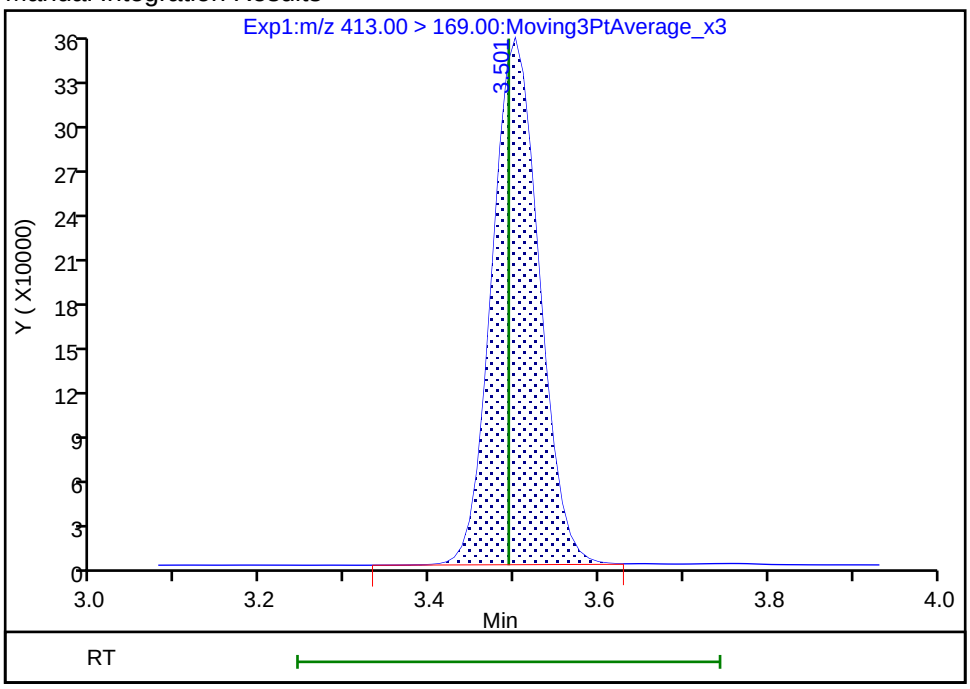
Processing Integration Results

RT: 3.50
Area: 1373940
Amount: 2.323192
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 1373091
Amount: 2.323192
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:24:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

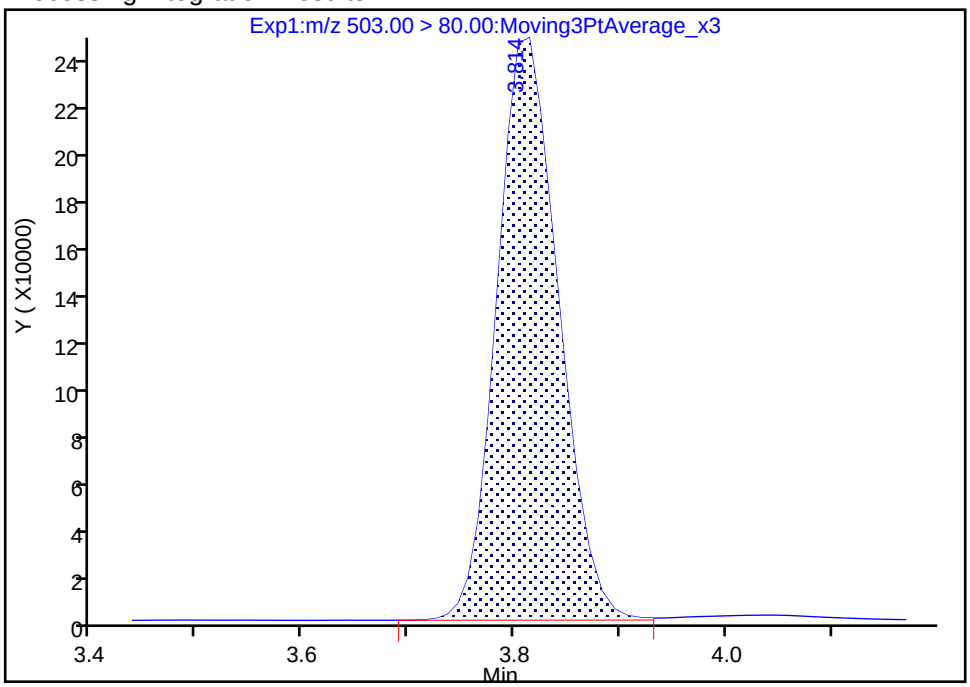
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

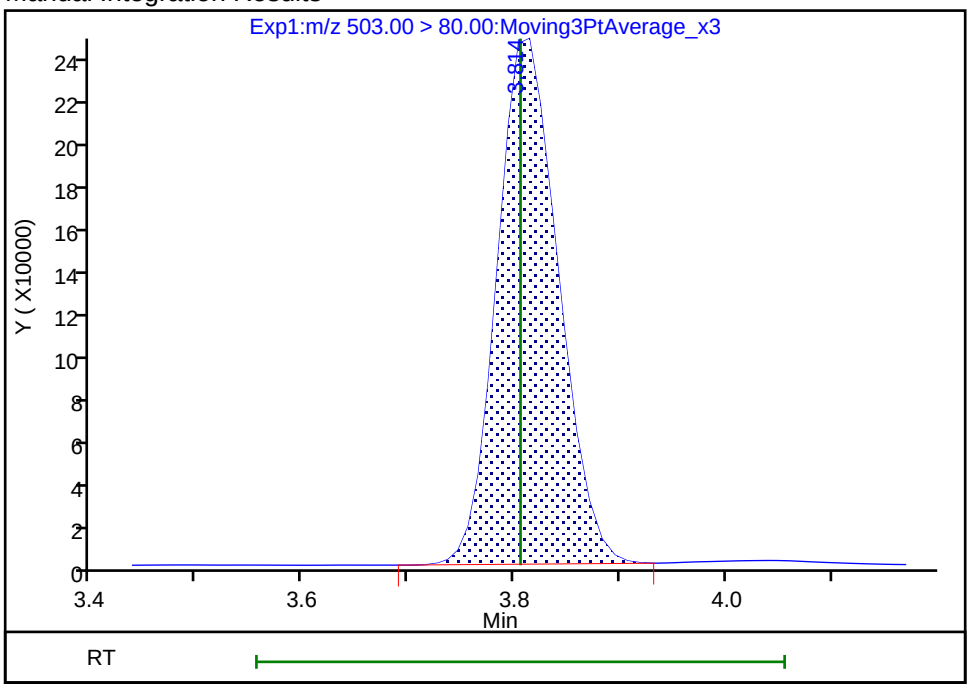
Processing Integration Results

RT: 3.81
Area: 1010495
Amount: 1.205966
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 1004561
Amount: 1.198884
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:24:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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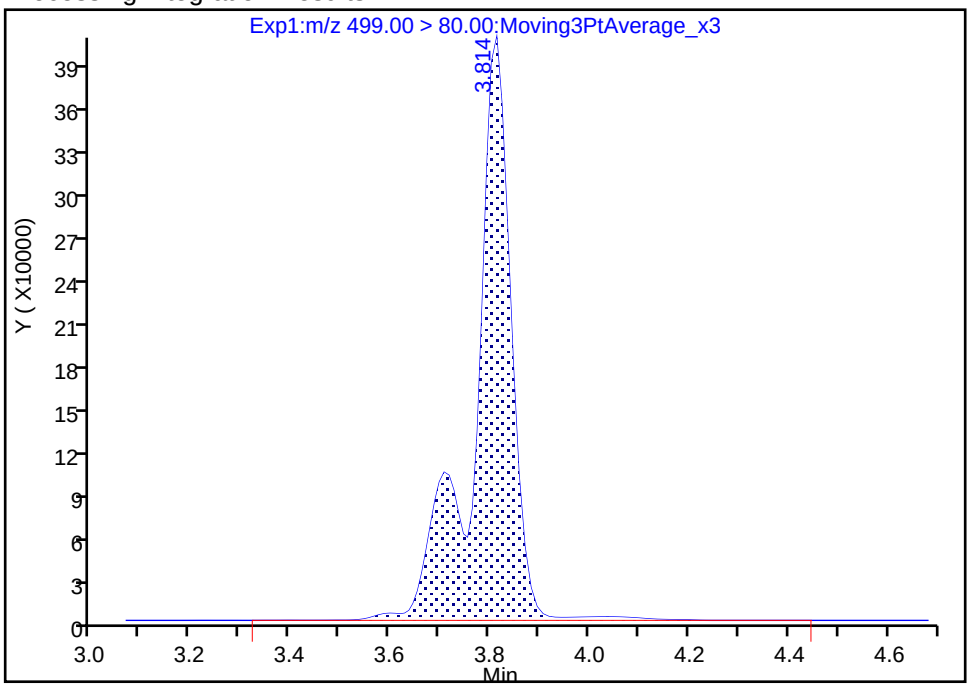
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

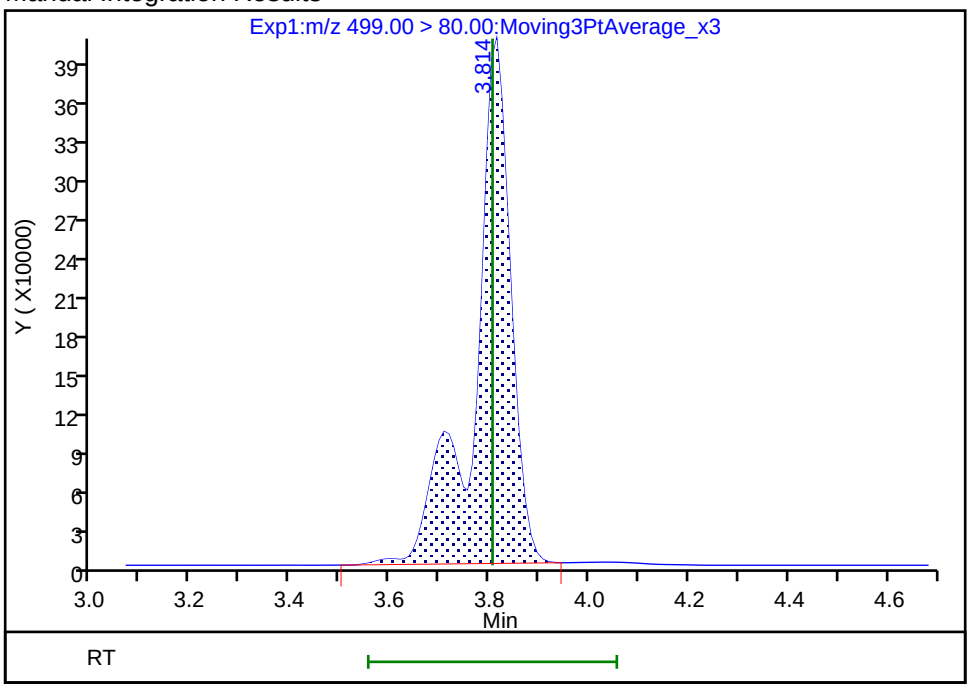
Processing Integration Results

RT: 3.81
Area: 2110944
Amount: 2.300692
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 2058773
Amount: 2.257086
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

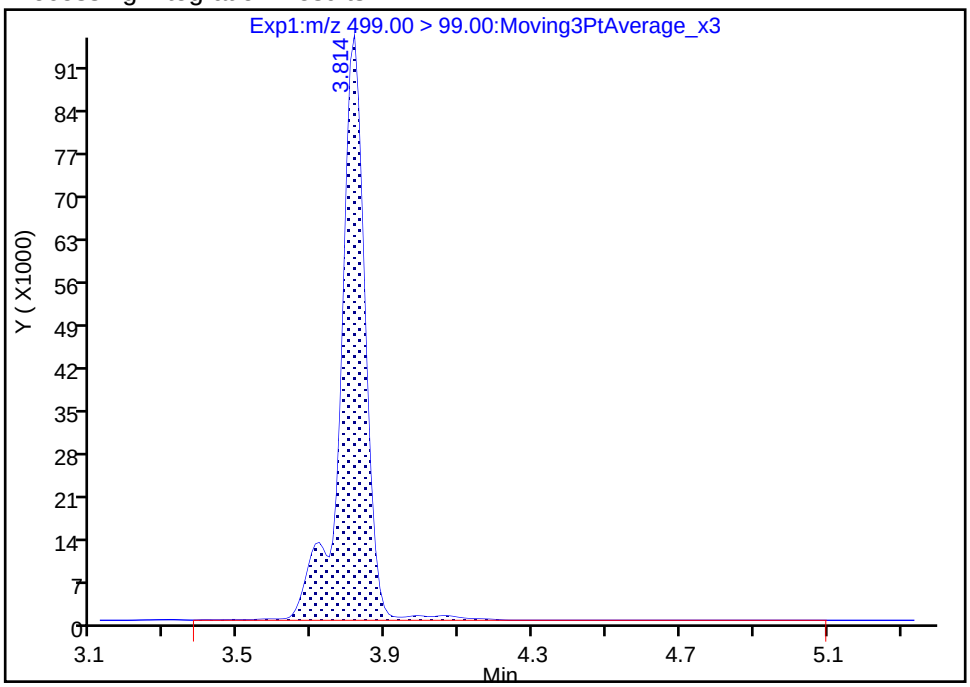
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

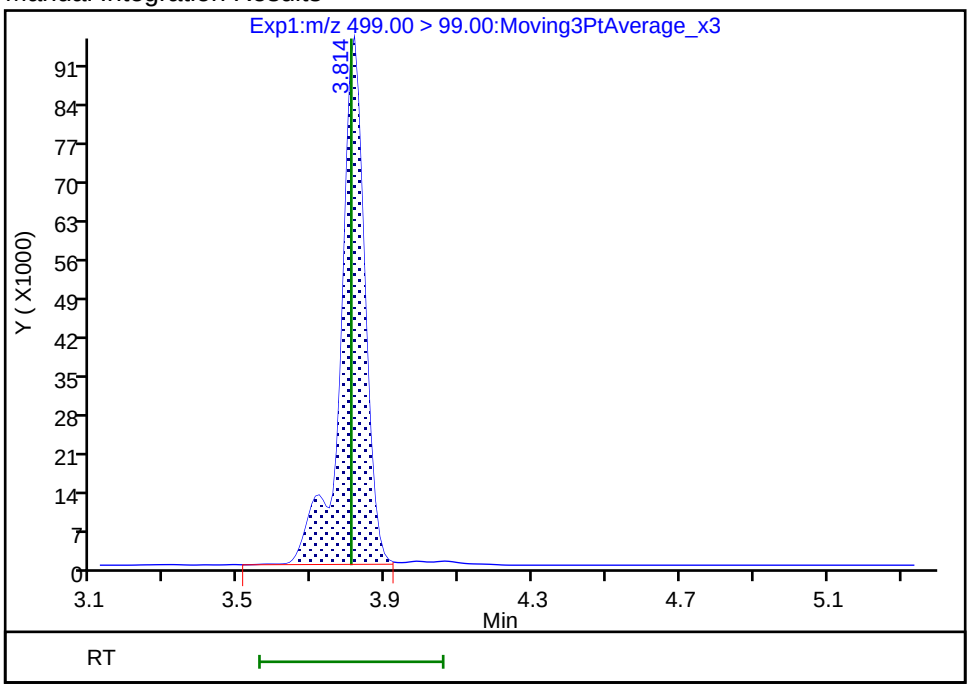
Processing Integration Results

RT: 3.81
Area: 449570
Amount: 2.300692
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 438039
Amount: 2.257086
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

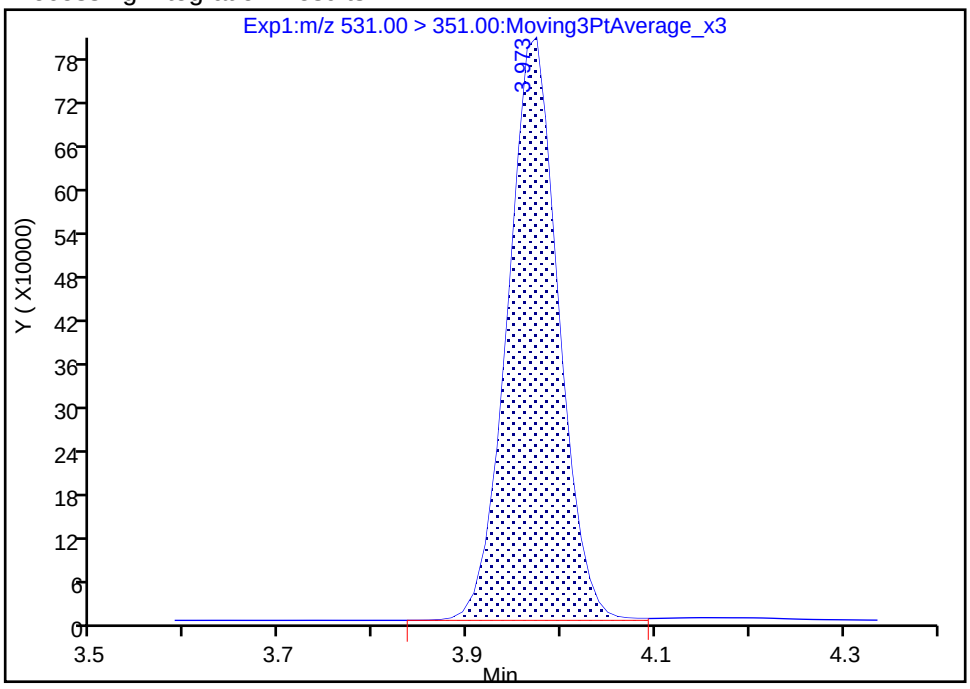
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

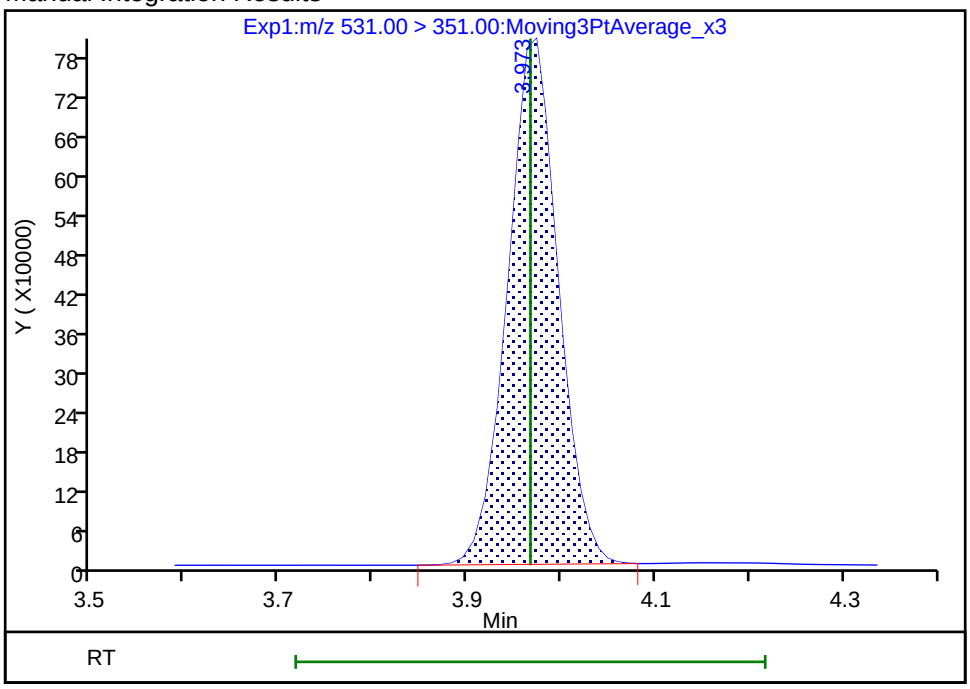
Processing Integration Results

RT: 3.97
Area: 3033506
Amount: 2.207525
Amount Units: ng/ml




Manual Integration Results

RT: 3.97
Area: 3013877
Amount: 2.193241
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

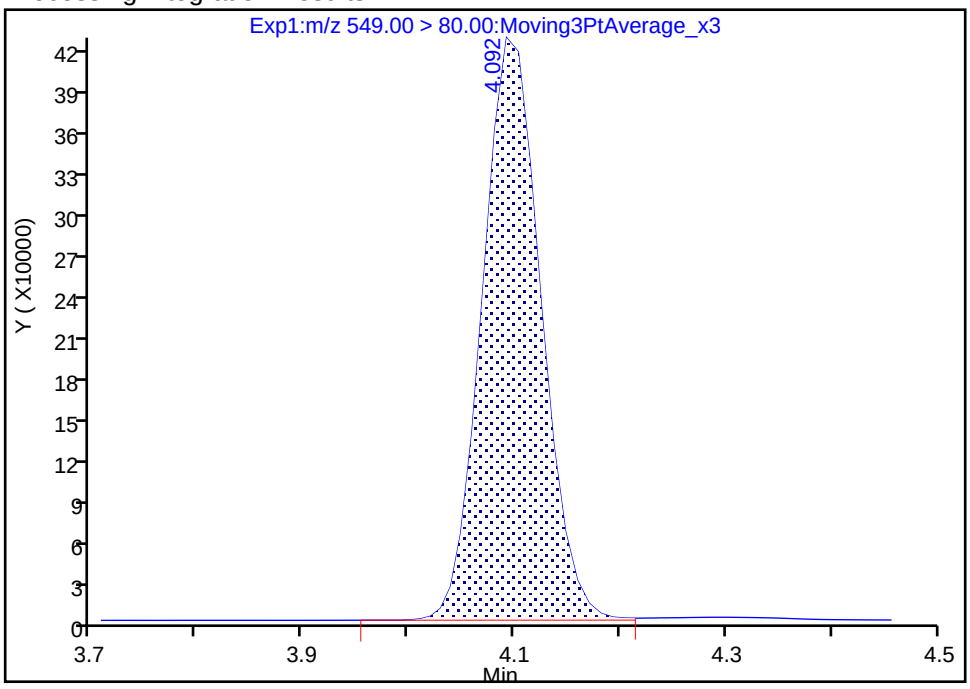
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

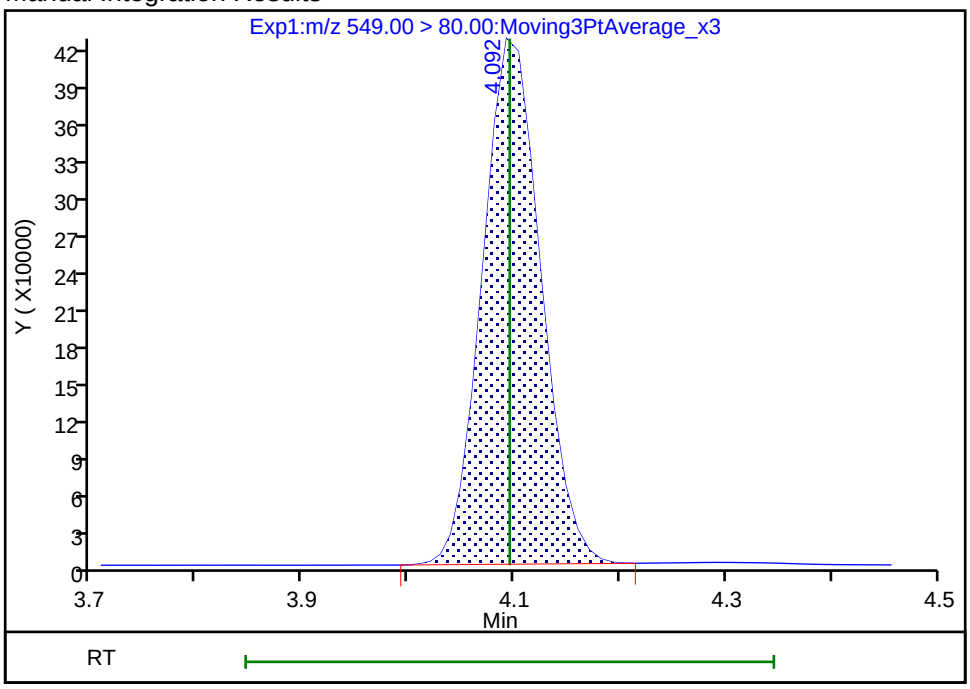
Processing Integration Results

RT: 4.09
Area: 1651634
Amount: 2.324563
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1642109
Amount: 2.311158
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

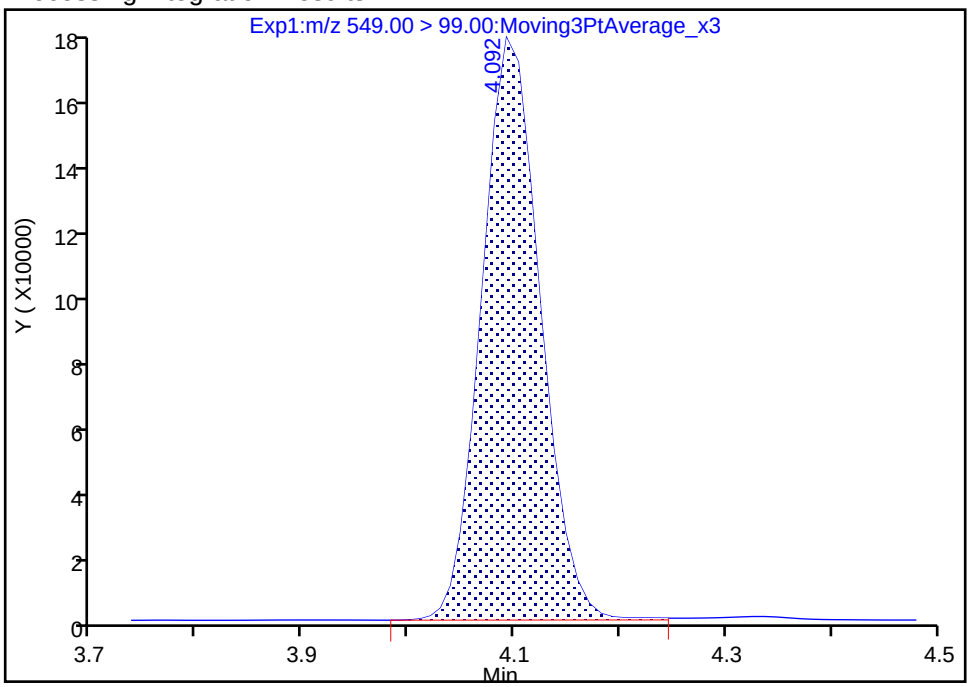
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

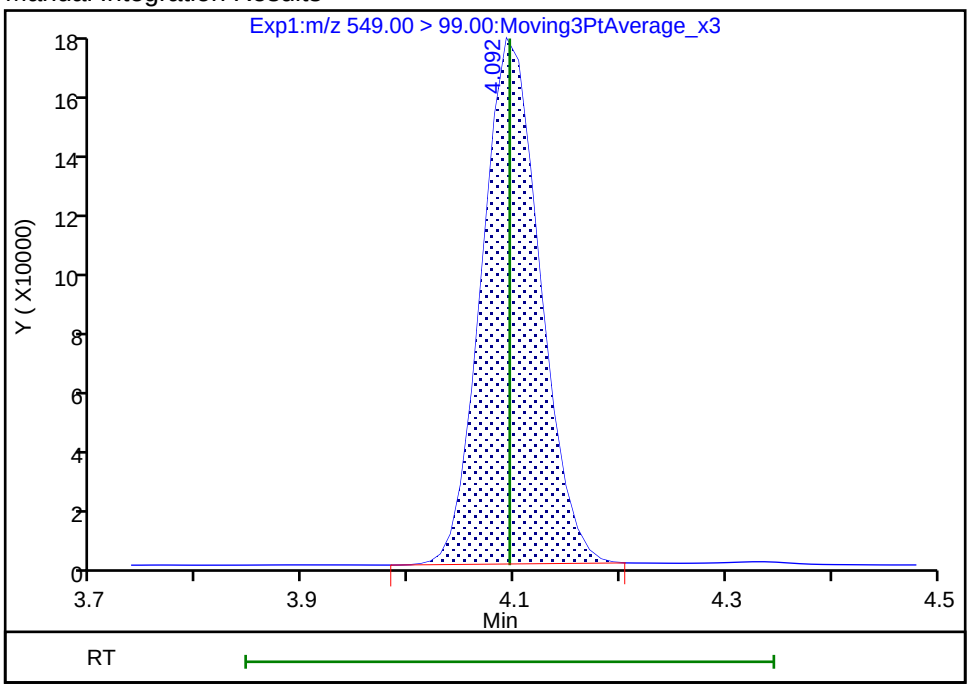
Processing Integration Results

RT: 4.09
Area: 682460
Amount: 2.324563
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 676578
Amount: 2.311158
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

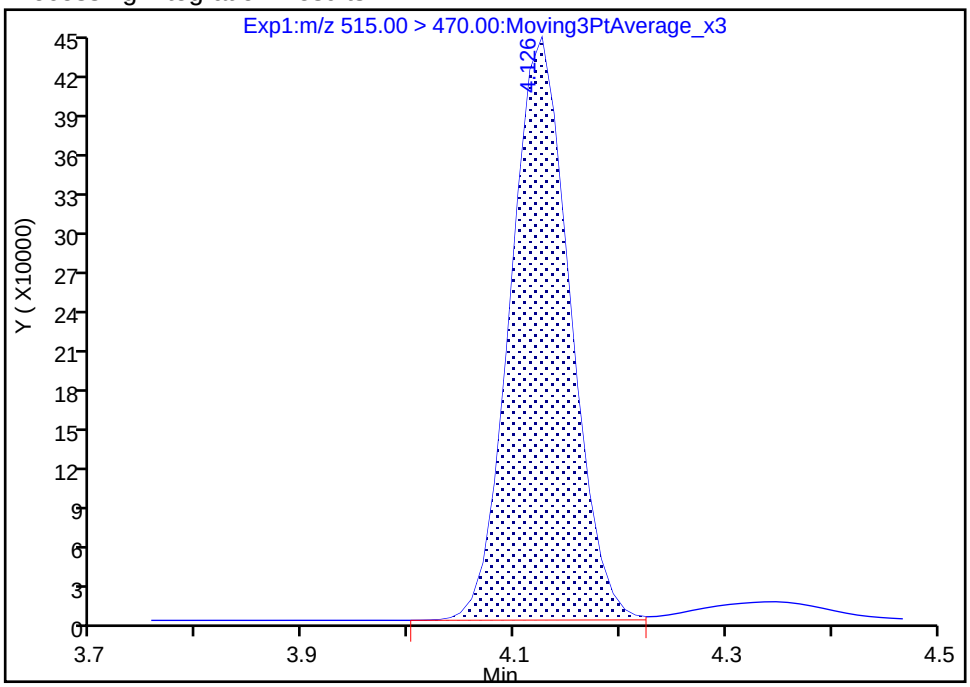
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

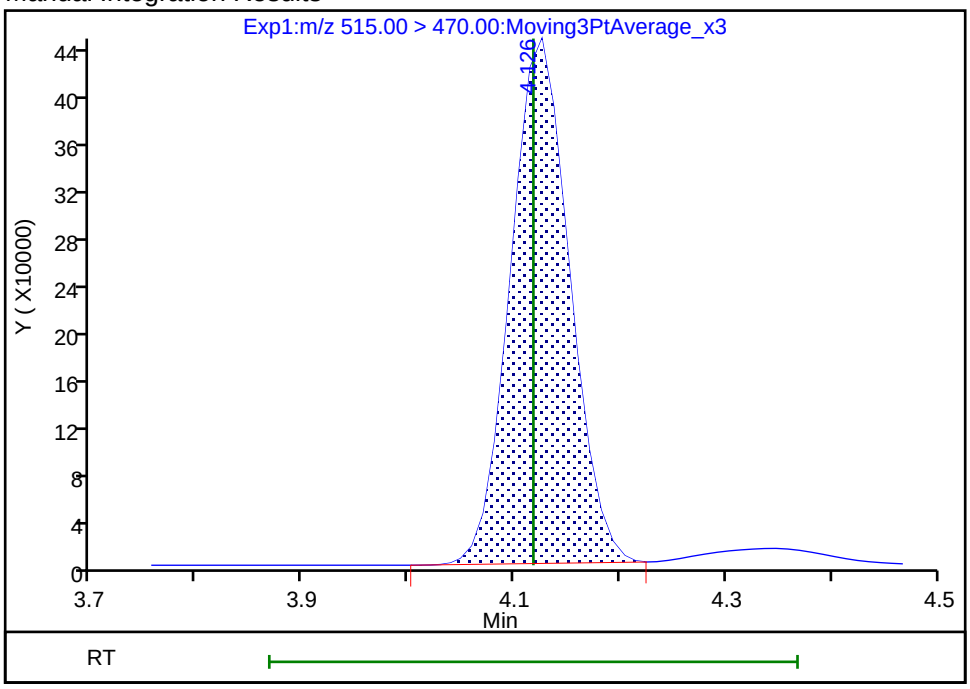
Processing Integration Results

RT: 4.13
Area: 1757868
Amount: 1.228662
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 1742039
Amount: 1.217598
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:25:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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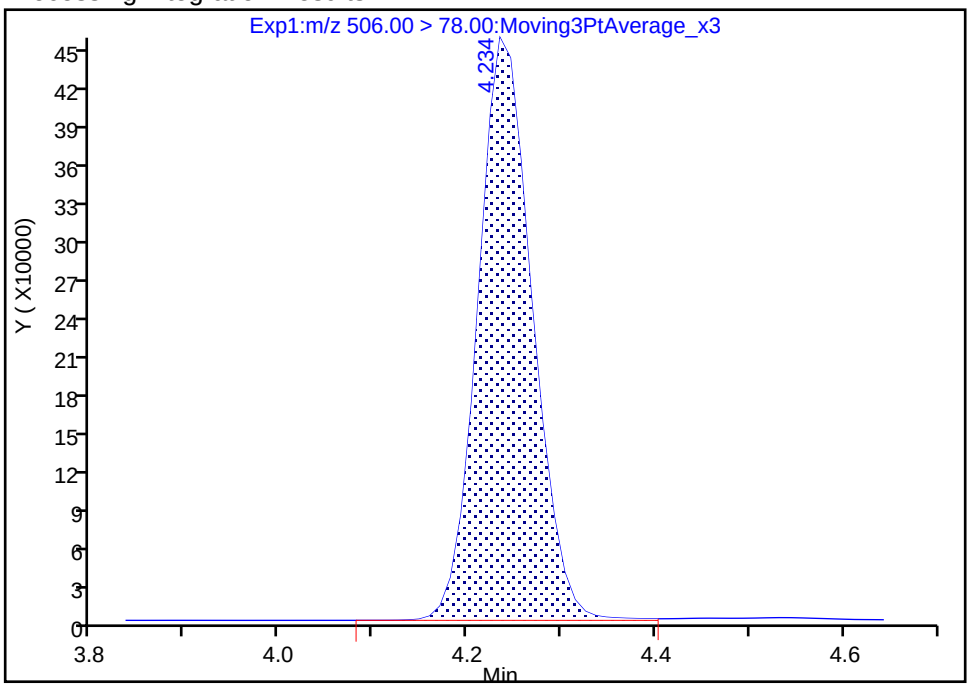
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

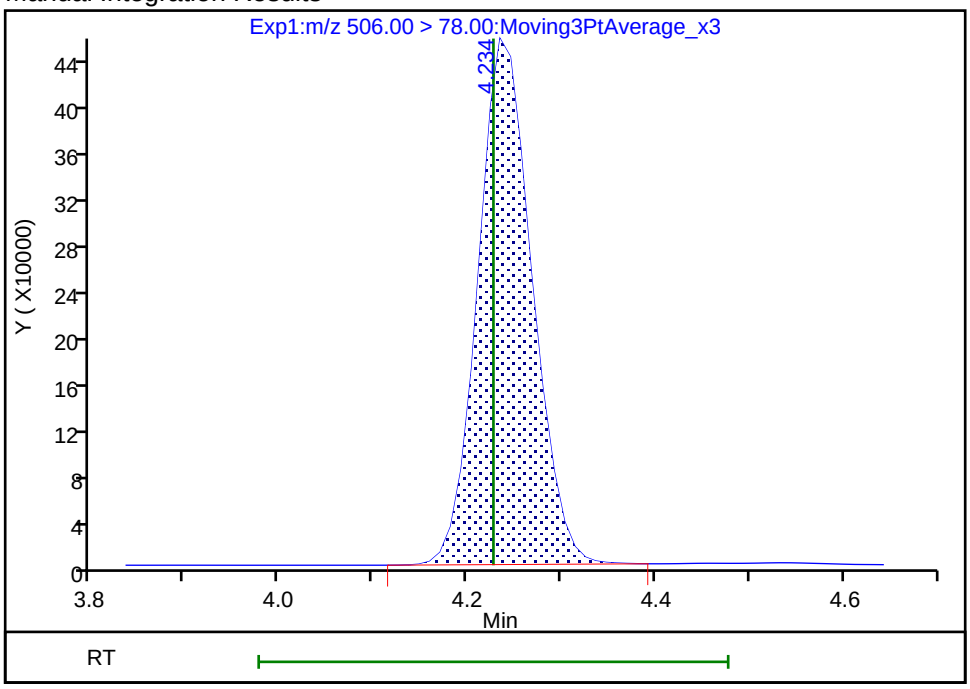
Processing Integration Results

RT: 4.23
Area: 1845181
Amount: 1.337100
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1833589
Amount: 1.328700
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:26:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

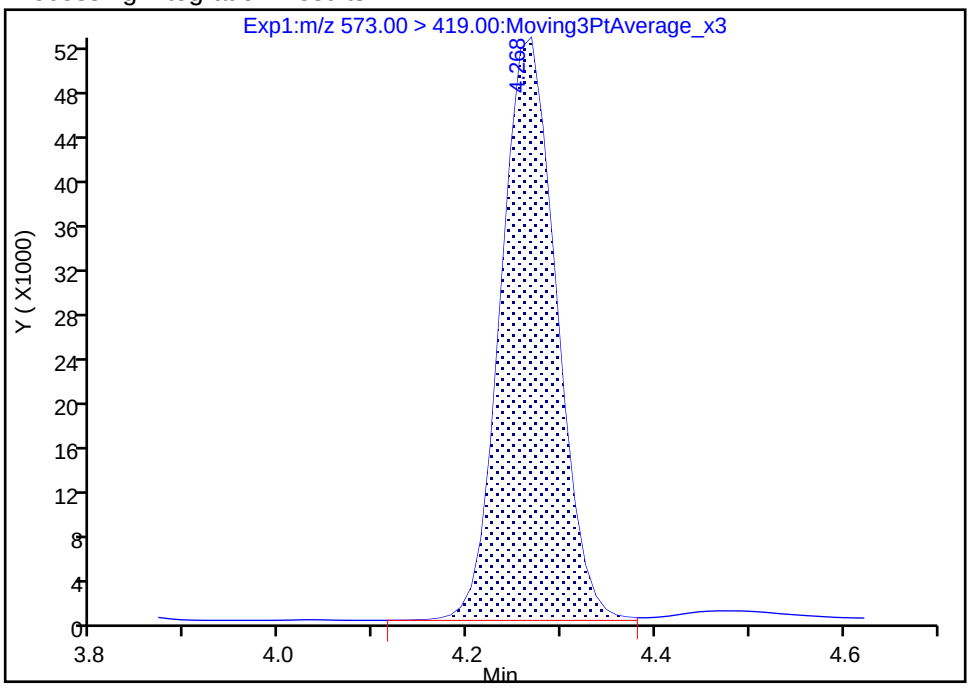
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

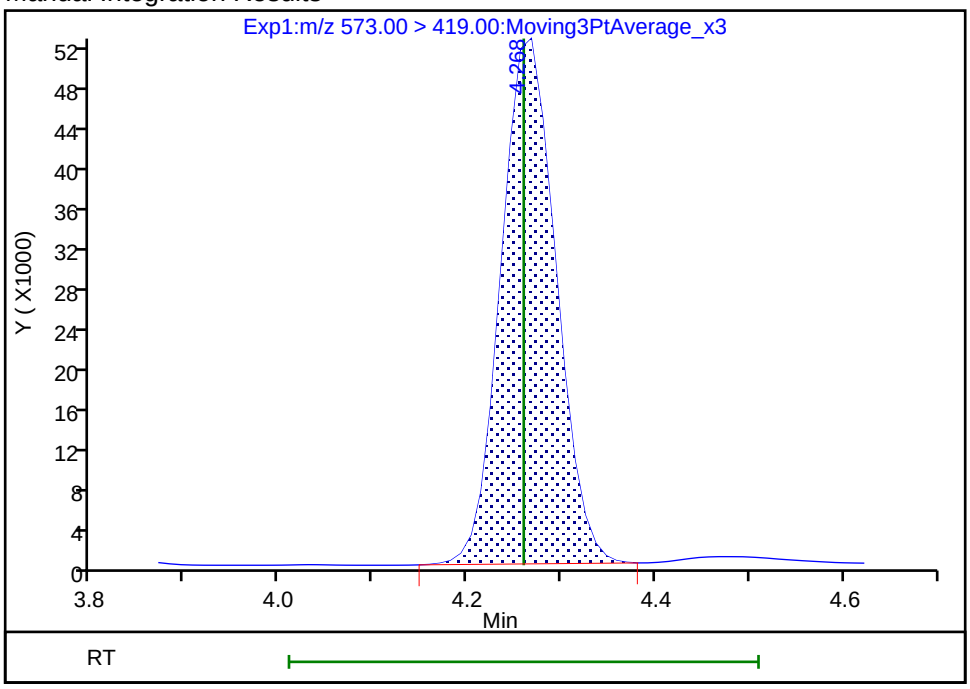
Processing Integration Results

RT: 4.27
Area: 215575
Amount: 1.531842
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 213677
Amount: 1.518355
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:26:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

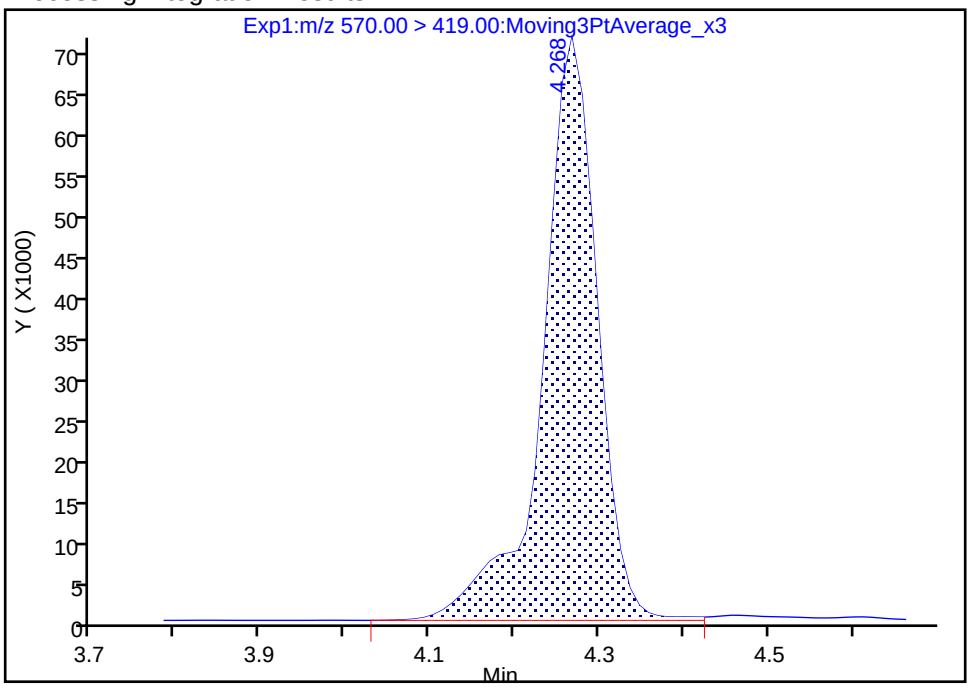
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

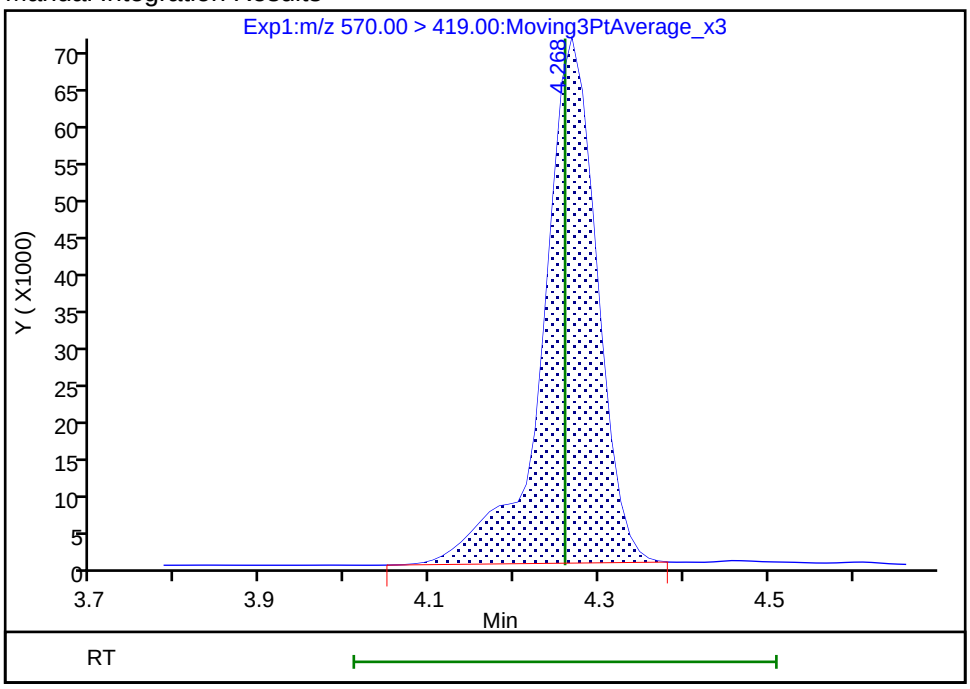
Processing Integration Results

RT: 4.27
Area: 325414
Amount: 2.423210
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 319843
Amount: 2.381725
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:26:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

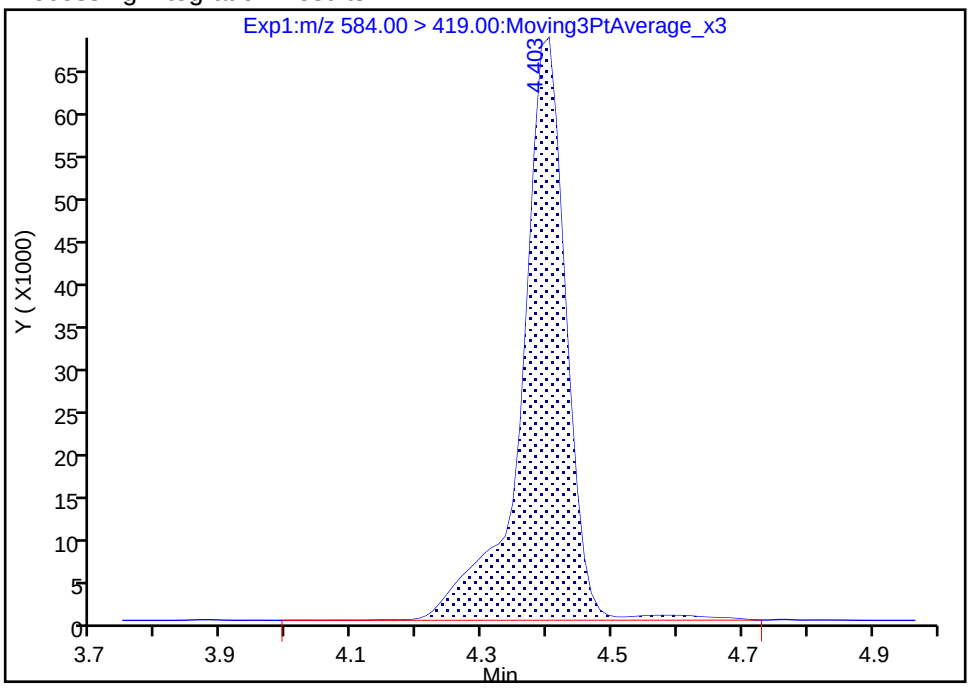
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

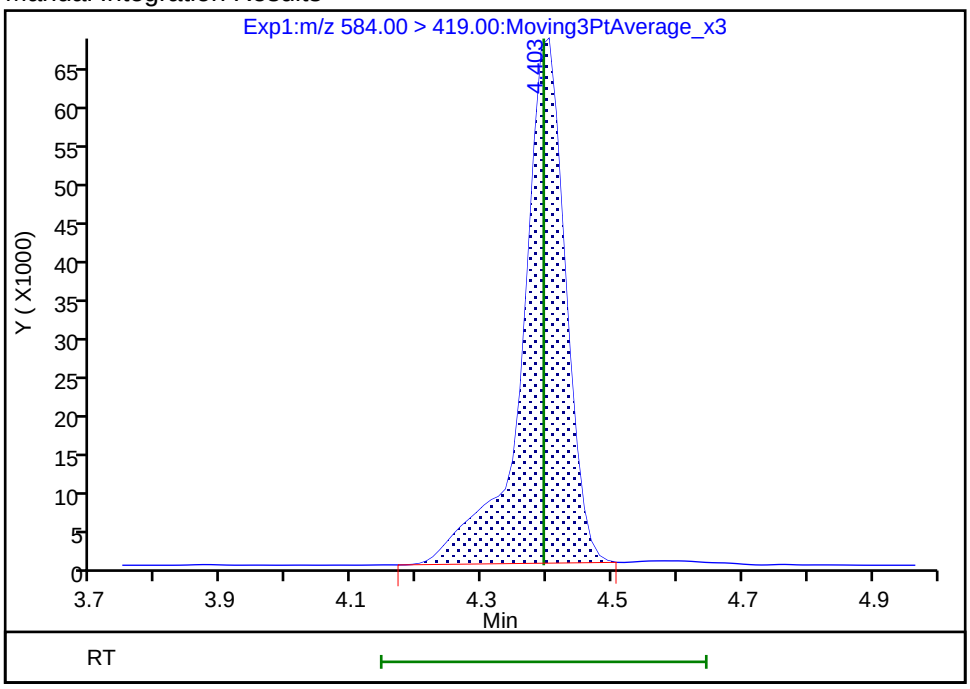
Processing Integration Results

RT: 4.40
Area: 324739
Amount: 2.433964
Amount Units: ng/ml




Manual Integration Results

RT: 4.40
Area: 315989
Amount: 2.368382
Amount Units: ng/ml




Reviewer: deannd, 05-Nov-2021 09:26:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

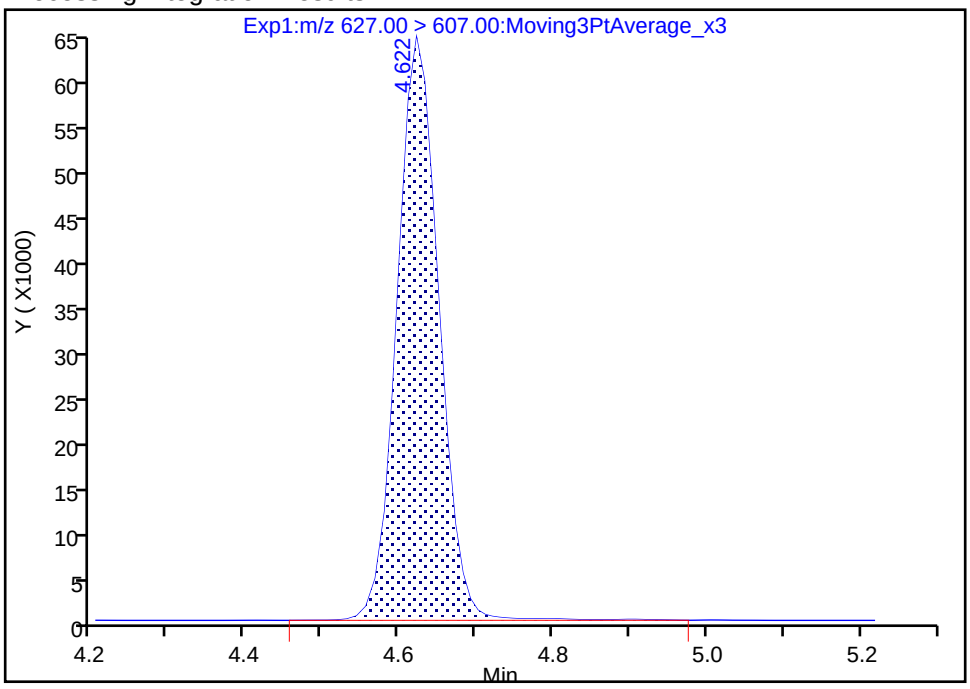
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

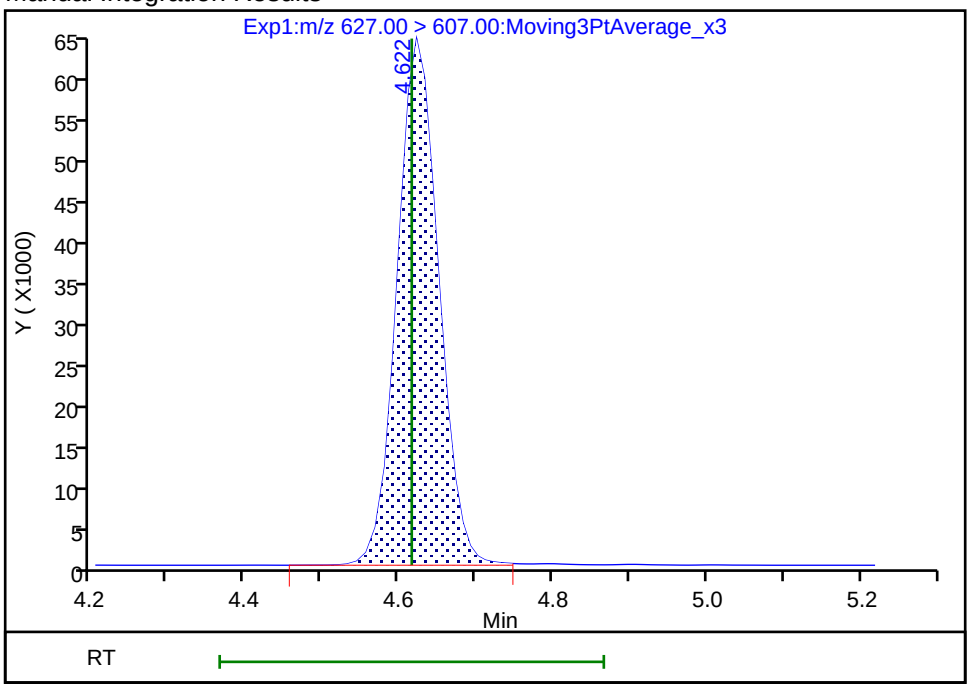
Processing Integration Results

RT: 4.62
Area: 243152
Amount: 2.462497
Amount Units: ng/ml




Manual Integration Results

RT: 4.62
Area: 241935
Amount: 2.450172
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:25:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

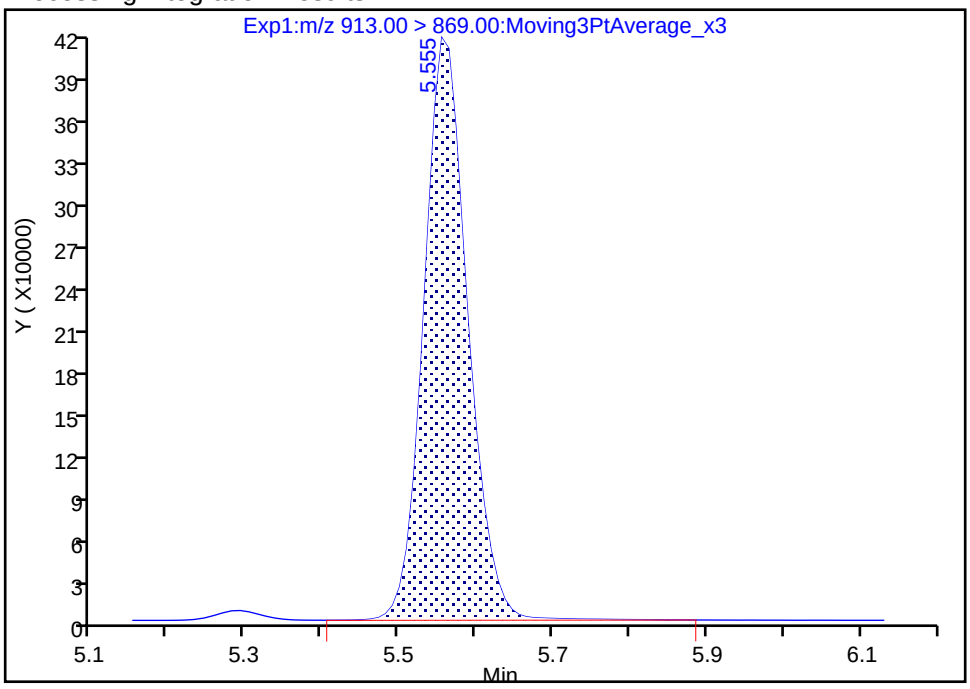
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

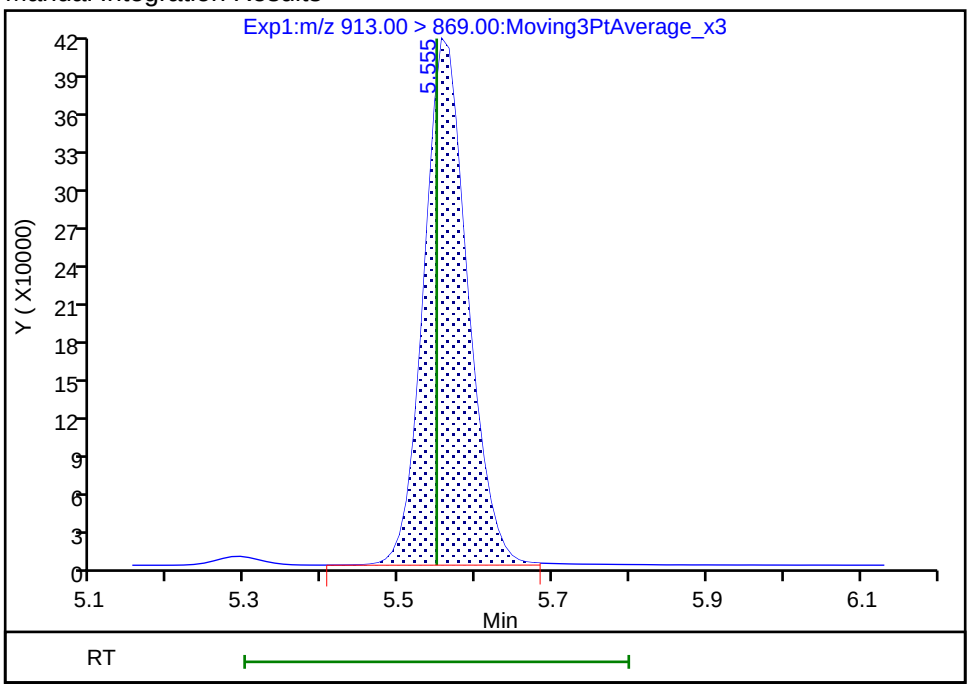
Processing Integration Results

RT: 5.56
Area: 1637415
Amount: 2.169341
Amount Units: ng/ml




Manual Integration Results

RT: 5.56
Area: 1631198
Amount: 2.161105
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:25:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

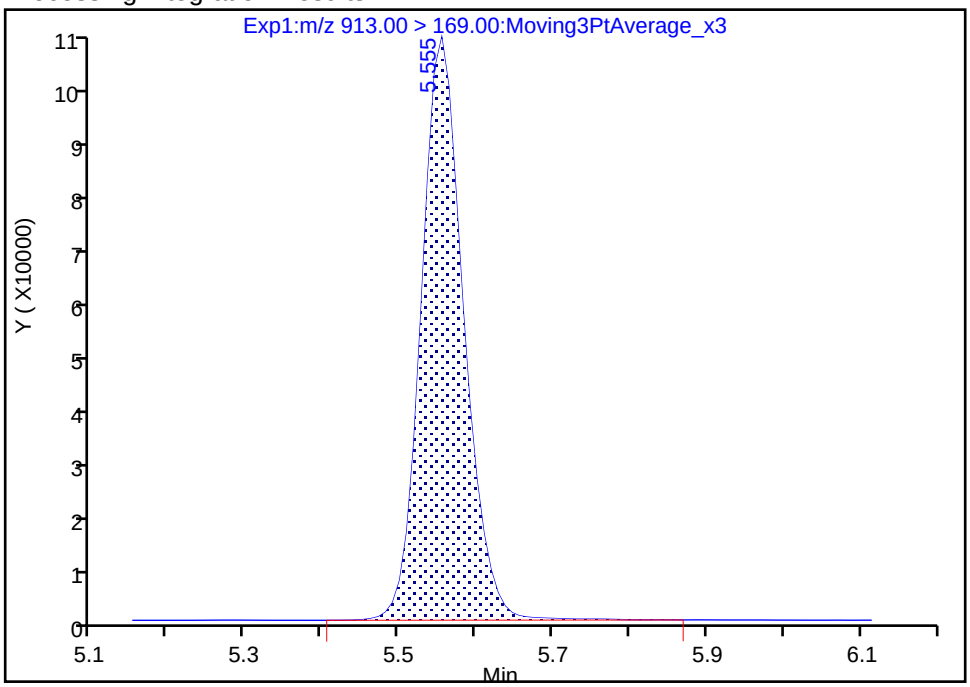
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211104-48291.b\PA211104A18.d | | | | |
| Injection Date: | 04-Nov-2021 15:48:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

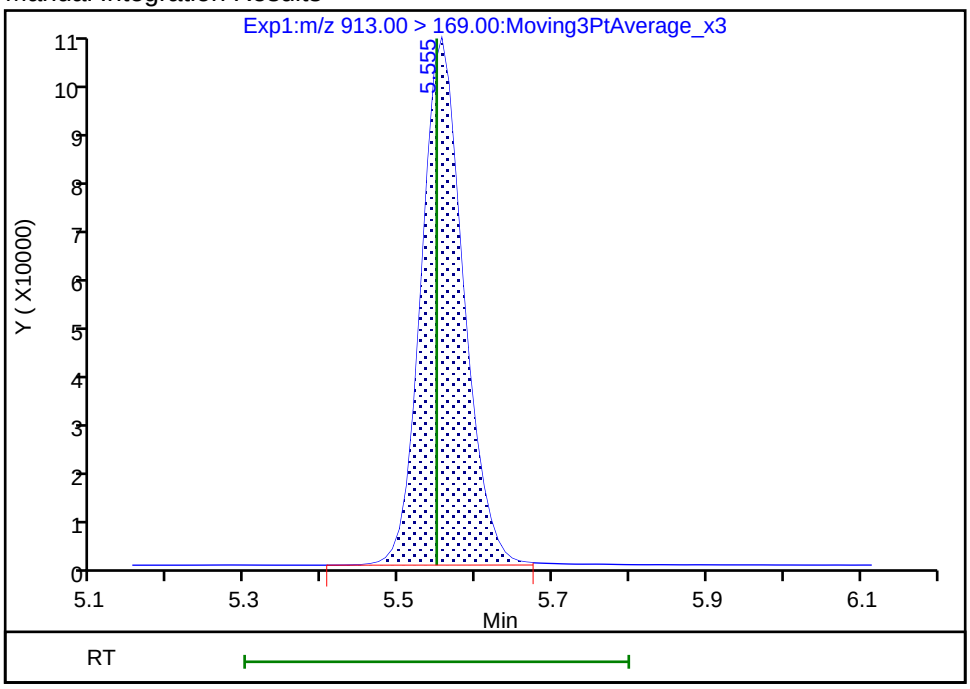
Processing Integration Results

RT: 5.56
Area: 392528
Amount: 2.169341
Amount Units: ng/ml




Manual Integration Results

RT: 5.56
Area: 390955
Amount: 2.161105
Amount Units: ng/ml




Reviewer: khanphomeea, 05-Nov-2021 10:25:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173414/1-A

Matrix: Water  Lab File ID: PA211103A10.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 13:59

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.25 | U | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.74 | U | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173414/1-A

Matrix: Water  Lab File ID: PA211103A10.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 13:59

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 91 | | 50-150 |
| STL01892 | 13C4 PFHpA | 96 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 95 | | 50-150 |
| STL00992 | 13C4 PFBA | 98 | | 25-150 |
| STL00993 | 13C2 PFHxA | 100 | | 50-150 |
| STL00996 | 13C2 PFDA | 93 | | 50-150 |
| STL00997 | 13C2 PFUnA | 83 | | 50-150 |
| STL00998 | 13C2 PFDoA | 87 | | 50-150 |
| STL01056 | 13C8 FOSA | 84 | | 25-150 |
| STL01893 | 13C5 PFPeA | 96 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 84 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 100 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 96 | | 50-150 |
| STL02279 | M2-6:2 FTS | 104 | | 25-150 |
| STL02280 | M2-8:2 FTS | 102 | | 25-150 |
| STL02337 | 13C3 PFBS | 86 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Lims ID: MB 200-173414/1-A
Client ID:
Sample Type: MB
Inject. Date: 03-Nov-2021 13:59:04 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: MB 200-173414/1-A
Misc. Info.: 200-0048270-010 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 08:47:12
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.064 | 2.065 | -0.001 | 0.596 | 1715675 | 1.22 | | 97.9 | 8374 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1414232 | 1.20 | | 95.8 | 1886 | |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.693 | 1602642 | 1.00 | | 86.3 | 65040 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 6371 | 0.004327 | Target=2.32 | | 1.9 | M |
| 298.90 > 99.00 | 2.413 | 2.401 | 0.012 | 1.005 | 2719 | | 2.34(1.16-3.48) | | 0.9 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.709 | 2.698 | 0.011 | 0.782 | 154282 | 1.27 | | 109 | 71.7 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.746 | 2.735 | 0.011 | 0.792 | 1550689 | 1.25 | | 100 | 1450 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | RM |
| 349.00 > 80.00 | 2.722 | 2.735 | -0.013 | 0.875 | 572 | 0.000451 | Target=3.03 | | 0.2 | RM |
| 349.00 > 99.00 | 2.697 | 2.735 | -0.038 | 0.867 | 850 | | 0.67(1.52-4.55) | | 0.4 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.855 | 2.844 | 0.011 | 0.824 | 36802 | 1.13 | | 90.2 | 116 | M |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.855 | 2.844 | 0.011 | 1.000 | 696 | 0.005224 | | | 0.3 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1244253 | 1.07 | | 90.6 | 288 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 3859 | 0.003336 | Target=3.55 | | 1.3 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1234 | | 3.13(1.77-5.32) | | 1.1 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1565028 | 1.20 | | 96.0 | 2451 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 0.997 | 154 | 0.000635 | | | 0.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 227018 | 1.24 | | 104 | 482 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1778348 | 1.25 | | 99.8 | 1052 | |
| * 62 13C2 PFOA | | | | | | | | | | M |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1731176 | 1.25 | | | 304 | M |
| 15 Perfluorooctanoic acid | | | | | | | | | | RM |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 4136 | 0.002734 | Target=2.68 | | 0.3 | RM |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 0.997 | 602 | | 6.87(1.34-4.02) | | 0.6 | M |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 997880 | 1.19 | | 99.5 | 457 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | RM |
| 499.00 > 80.00 | 3.785 | 3.767 | 0.018 | 1.003 | 2121 | 0.002341 | Target=4.69 | | 0.6 | RM |
| 499.00 > 99.00 | 3.577 | 3.767 | -0.190 | 0.947 | 7696 | | 0.28(2.35-7.04) | | 4.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.794 | 3.786 | 0.008 | 1.095 | 1692492 | 1.19 | | 95.4 | 2330 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.794 | 3.786 | 0.008 | 1.000 | 1335 | 0.001008 | Target=7.29 | | 0.3 | M |
| 463.00 > 169.00 | 3.804 | 3.786 | 0.018 | 1.003 | 290 | | 4.60(3.64-10.93) | | 0.6 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.919 | 3.922 | -0.003 | 1.038 | 601 | 0.000440 | | | 0.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.081 | 4.073 | 0.008 | 1.178 | 1663757 | 1.16 | | 92.9 | 102 | M |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.003 | 1058 | 0.000791 | Target=8.95 | | 0.2 | M |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.003 | 111 | | 9.53(4.47-13.42) | | 0.3 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 253518 | 1.22 | | 102 | 137 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.071 | 4.084 | -0.013 | 0.995 | 177 | 0.000999 | | | 0.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1442809 | 1.04 | | 83.5 | 588 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 1449 | 0.001322 | | | 1.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 176425 | 1.25 | | 100 | 184 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.215 | 4.217 | -0.002 | 0.998 | 161 | 0.001452 | | | 0.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1161004 | 1.04 | | 83.2 | 497 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.347 | 4.339 | 0.008 | 1.000 | 1085 | 0.001096 | Target=9.24 | | 0.6 | M |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 227 | | 4.78(4.62-13.86) | | 1.2 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 158885 | 1.20 | | 96.3 | 686 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.347 | 4.350 | -0.003 | 0.997 | 526 | 0.004829 | | | 1.7 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1299086 | 1.08 | | 86.5 | 303 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 1634 | 0.001606 | Target=7.04 | | 0.2 | RM |
| 613.00 > 169.00 | 4.556 | 4.562 | -0.006 | 0.997 | 99 | | 16.51(3.52-10.56) | | 0.7 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.591 | 4.574 | 0.017 | 1.122 | 64 | 0.000782 | | | 1.0 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.739 | 4.725 | 0.014 | 1.255 | 107 | 0.000530 | Target=0.49 | | 4.1 | M |
| 699.00 > 99.00 | 4.739 | 4.725 | 0.014 | 1.255 | 322 | | 0.33(0.25-0.74) | | 5.6 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | M |
| 715.00 > 670.00 | 4.947 | 4.940 | 0.007 | 1.428 | 979601 | 1.05 | | 84.1 | 1444 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.248 | -0.002 | 1.514 | 986595 | 1.20 | | 96.2 | 3246 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.258 | 5.248 | 0.010 | 1.002 | 7965 | -0.006957 | Target=4.57 | | 2.8 | M |
| 813.00 > 169.00 | 5.246 | 5.248 | -0.002 | 1.000 | 1814 | | 4.39(2.29-6.86) | | 36.0 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | RM |
| 913.00 > 869.00 | 5.509 | 5.503 | 0.006 | 1.050 | 892 | 0.001340 | Target=4.27 | | 0.7 | RM |
| 913.00 > 169.00 | 5.509 | 5.503 | 0.006 | 1.050 | 109 | | 8.18(2.14-6.41) | | 3.7 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:38 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d

Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812

Lims ID: MB 200-173414/1-A

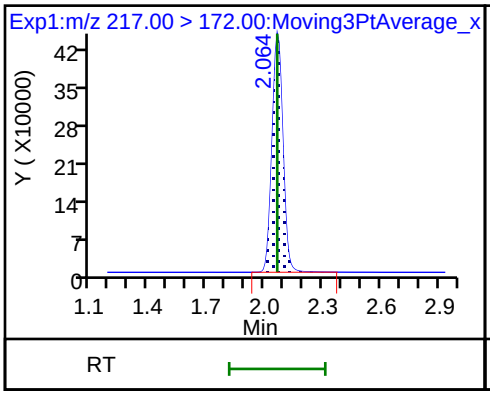
Client ID:

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10

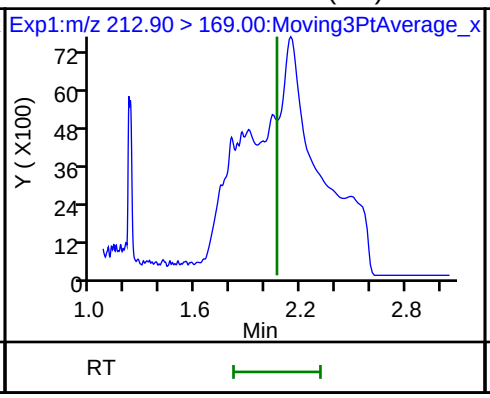
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

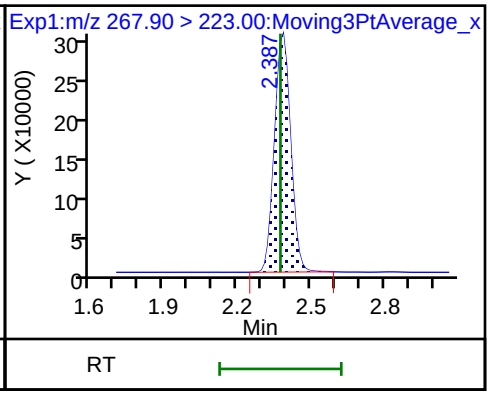
D 1 13C4 PFBA



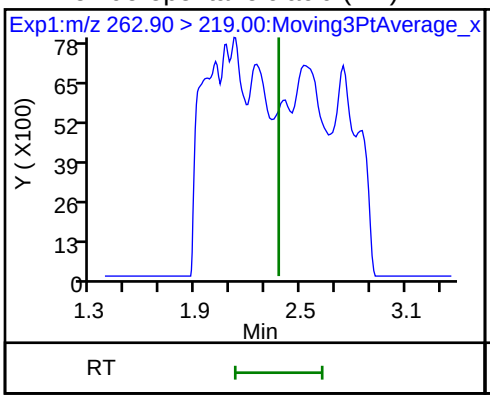

2 Perfluorobutanoic acid (ND)



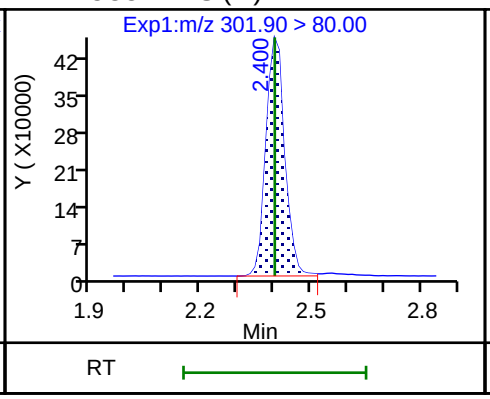

D 3 13C5 PFPeA



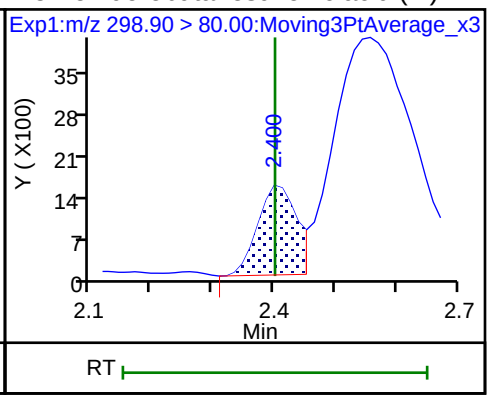

4 Perfluoropentanoic acid (ND)



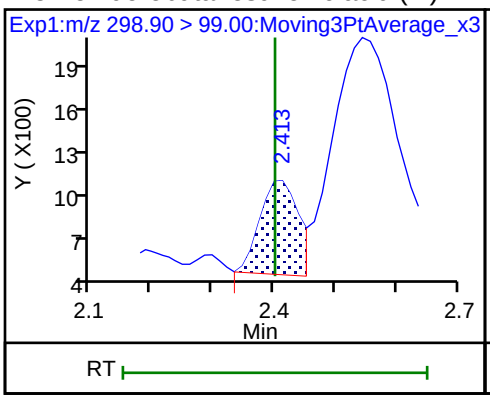

D 47 13C3 PFBS (M)



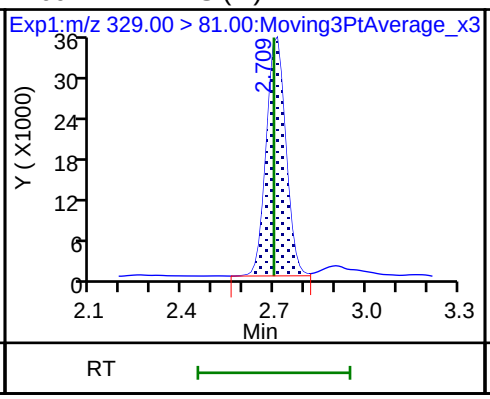

5 Perfluorobutanesulfonic acid (M)



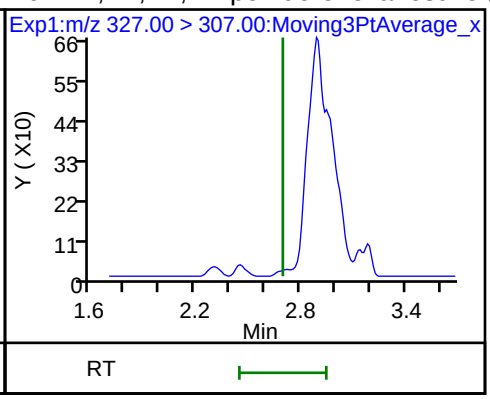

5 Perfluorobutanesulfonic acid (M)



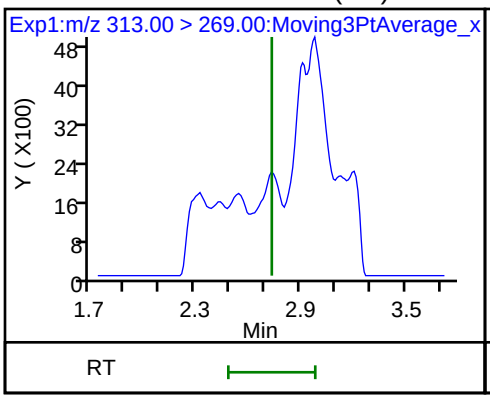

D 60 M2-4:2 FTS (M)



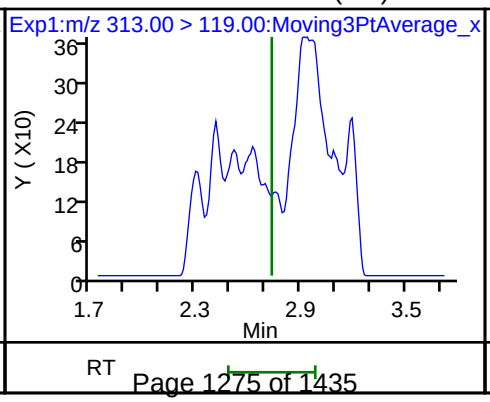

61 1H,1H,2H,2H-perfluorohexanesulfo (ND)



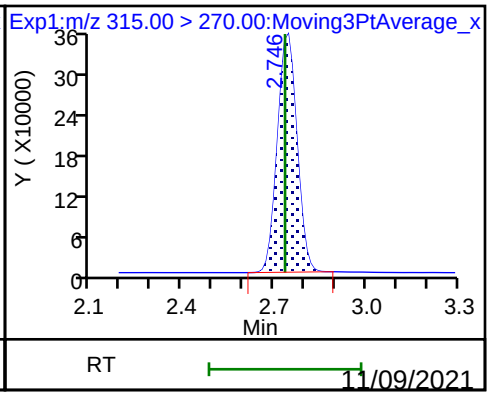

6 Perfluorohexanoic acid (ND)



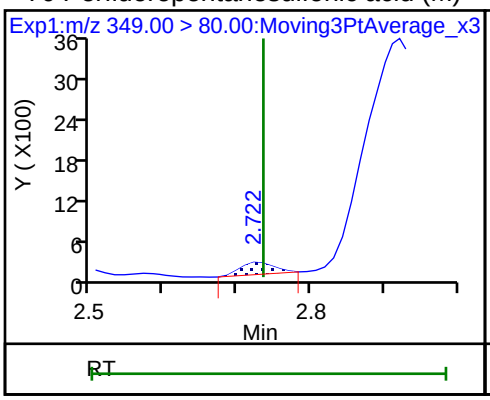

6 Perfluorohexanoic acid (ND)



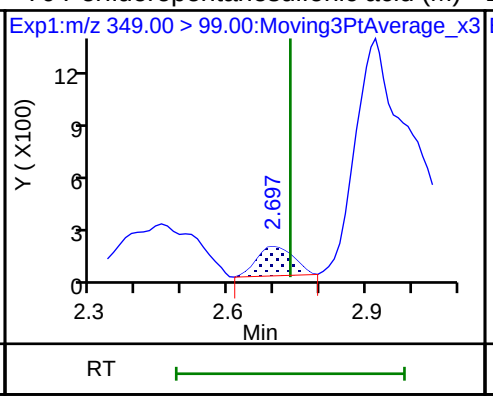

D 7 13C2 PFHxA



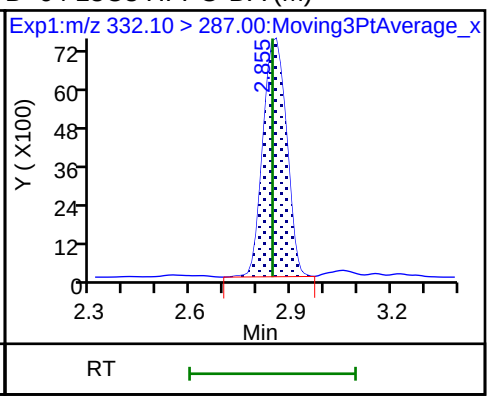
70 Perfluoropentanesulfonic acid (M)



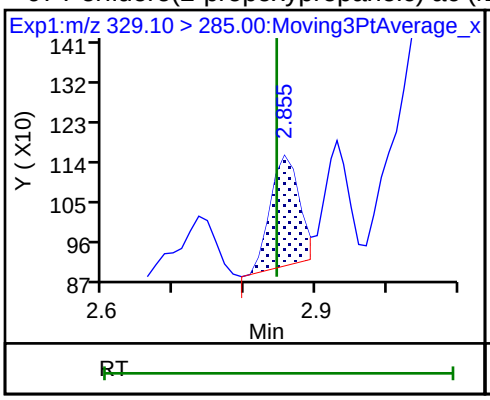

70 Perfluoropentanesulfonic acid (M)



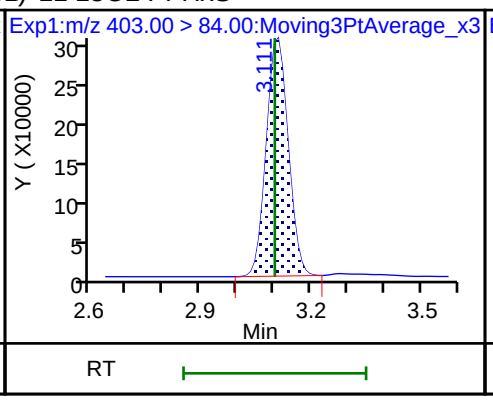

D 64 13C3 HFPO-DA (M)



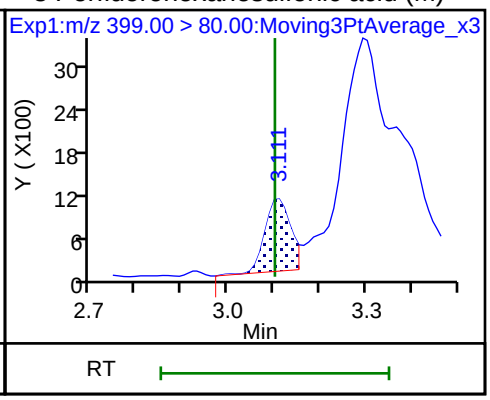

67 Perfluoro(2-propoxypropanoic) ac (M)



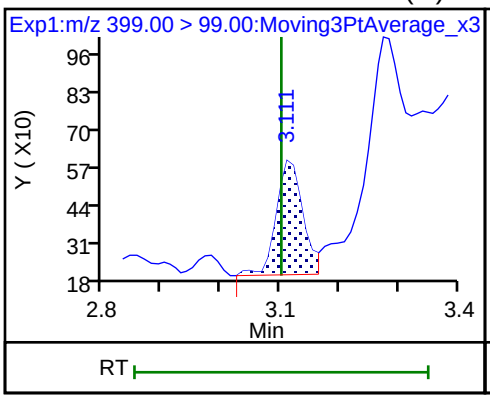

D 11 18O2 PFHxS



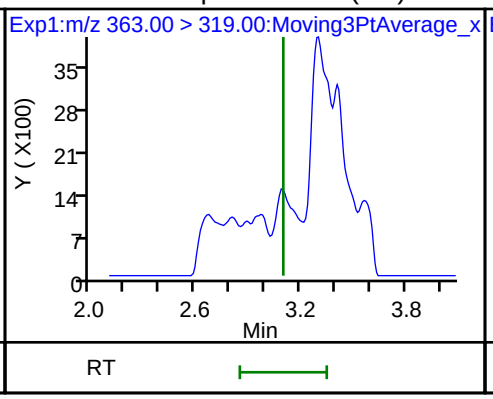

8 Perfluorohexanesulfonic acid (M)



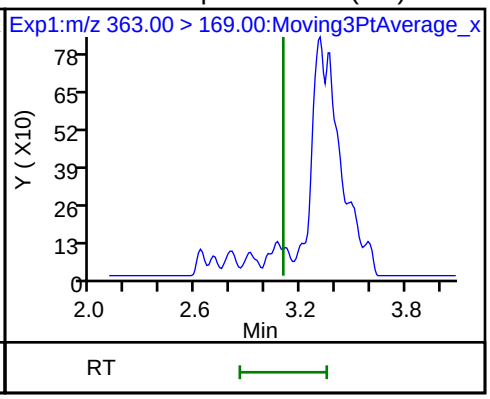

8 Perfluorohexanesulfonic acid (M)



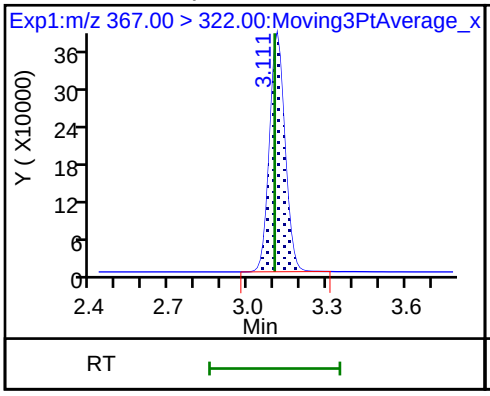

10 Perfluoroheptanoic acid (ND)



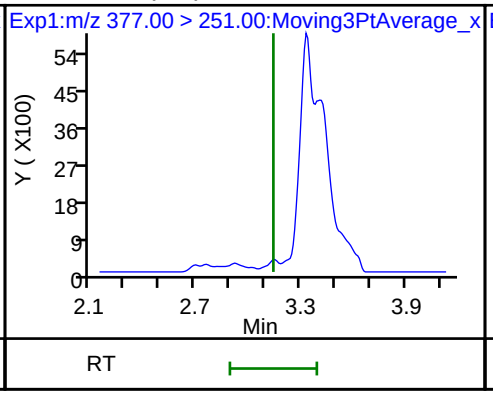

10 Perfluoroheptanoic acid (ND)



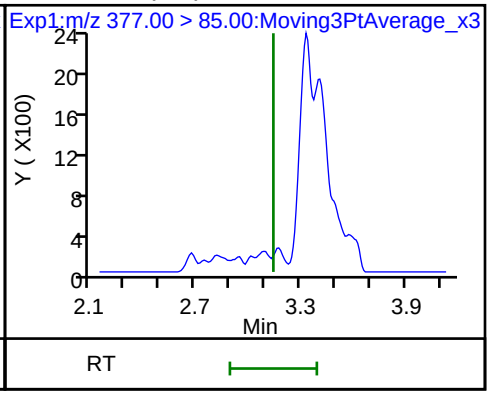

D 9 13C4 PFHpA



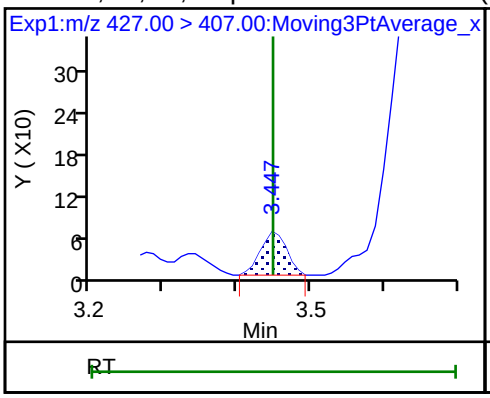

77 DONA (ND)



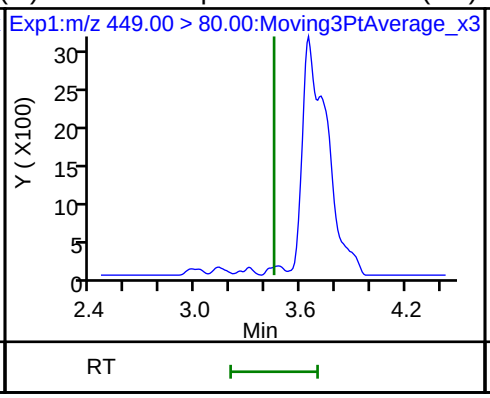

77 DONA (ND)



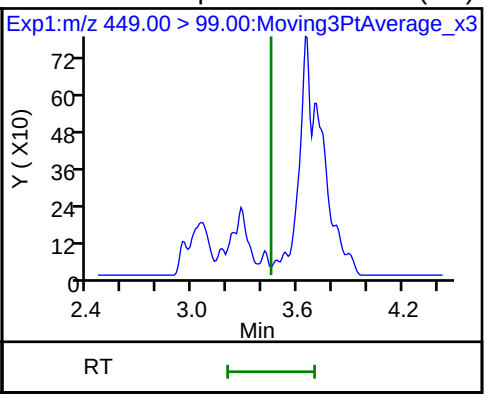
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



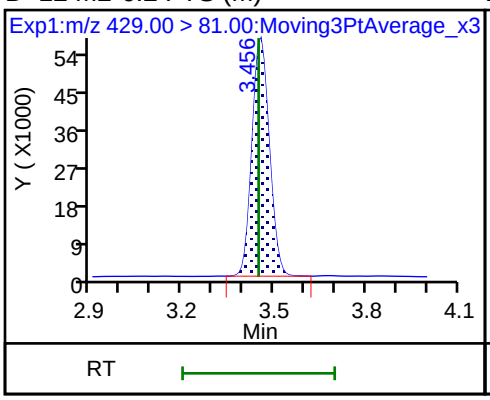

16 Perfluoroheptanesulfonic acid (ND)



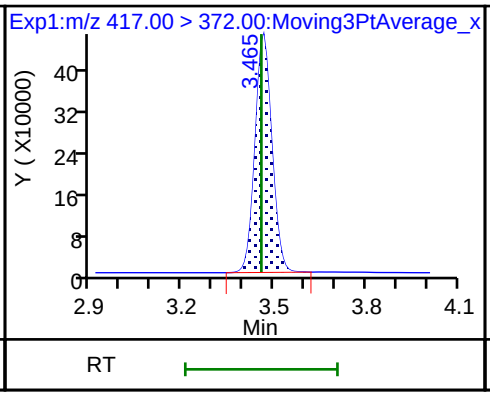

16 Perfluoroheptanesulfonic acid (ND)



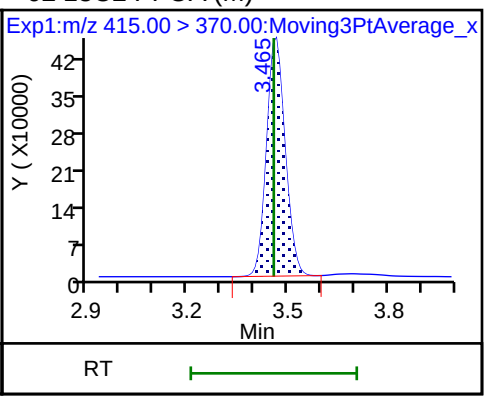

D 12 M2-6:2 FTS (M)



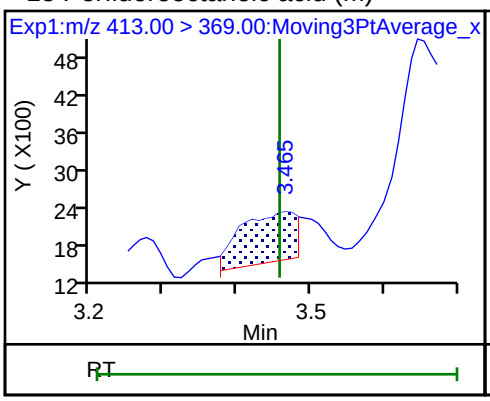

D 14 13C4 PFOA



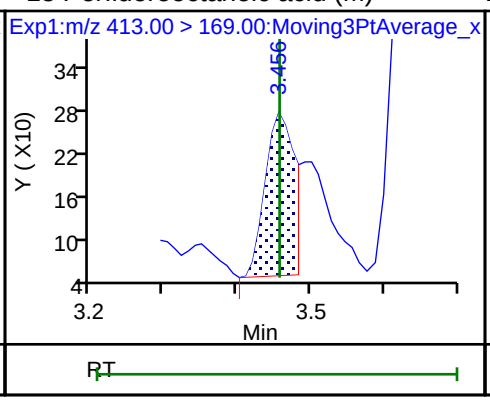

* 62 13C2 PFOA (M)



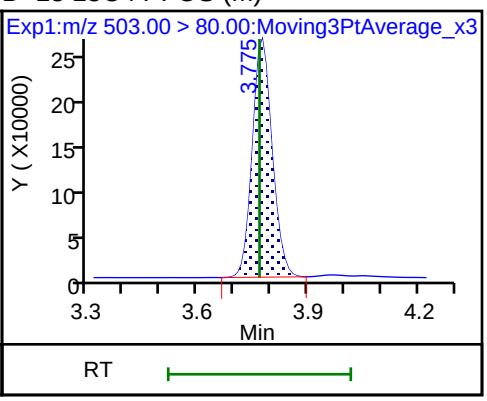

15 Perfluorooctanoic acid (M)



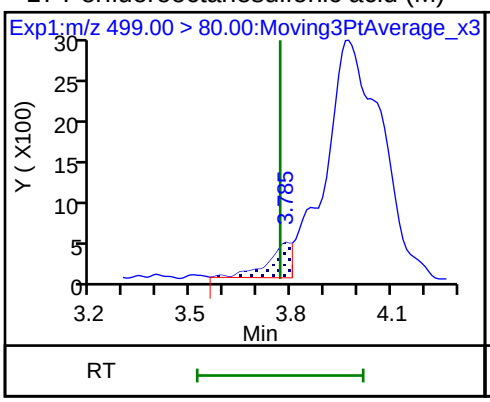

15 Perfluorooctanoic acid (M)



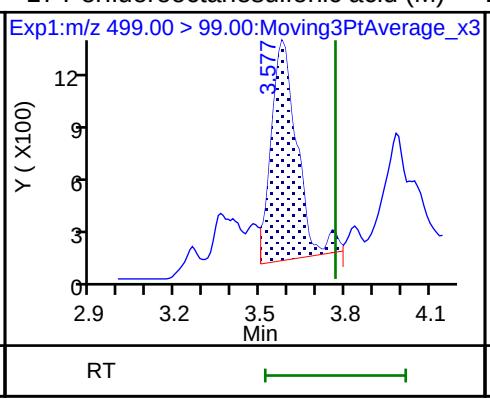

D 18 13C4 PFOS (M)



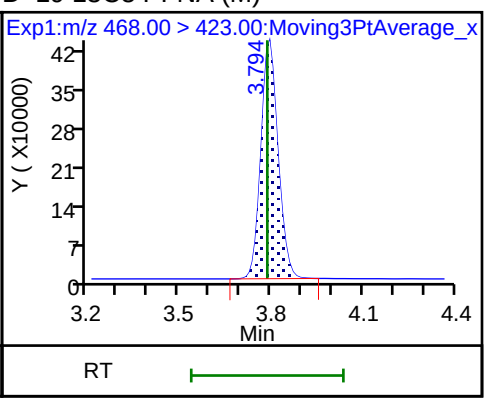

17 Perfluorooctanesulfonic acid (M)



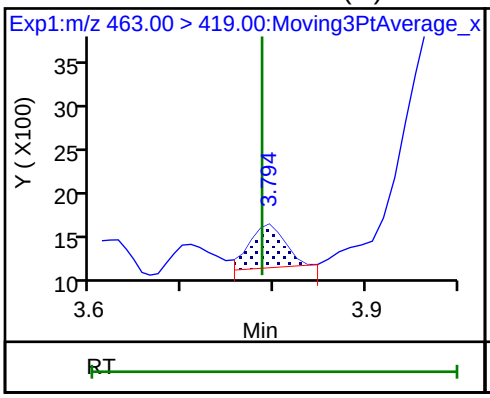

17 Perfluorooctanesulfonic acid (M)



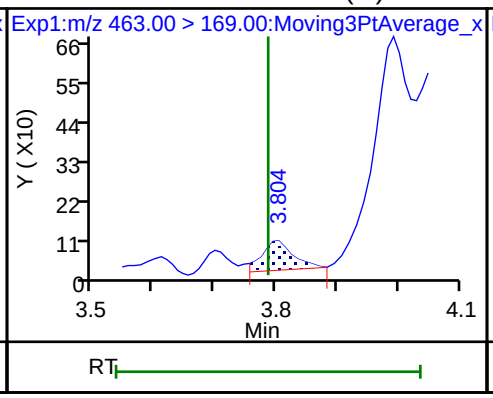

D 19 13C5 PFNA (M)



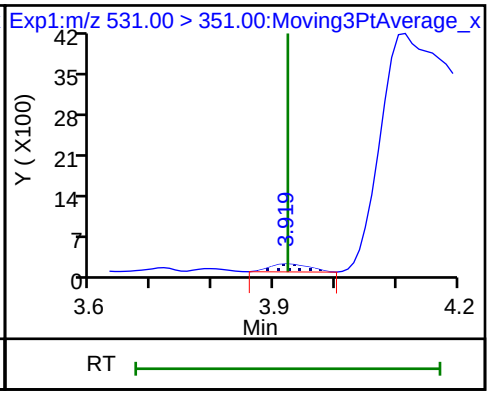
20 Perfluorononanoic acid (M)



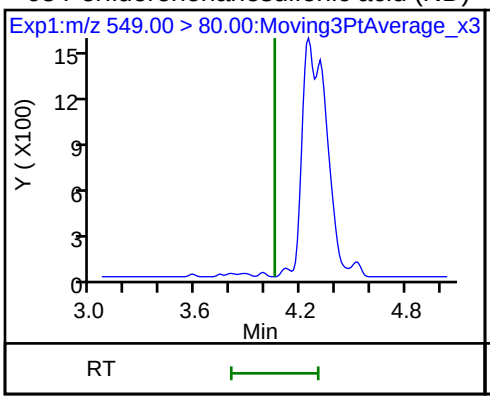

20 Perfluorononanoic acid (M)



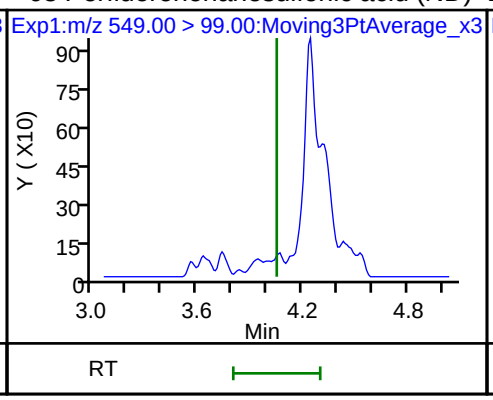

69 9-Chlorohexadecafluoro-3-oxanona (M)



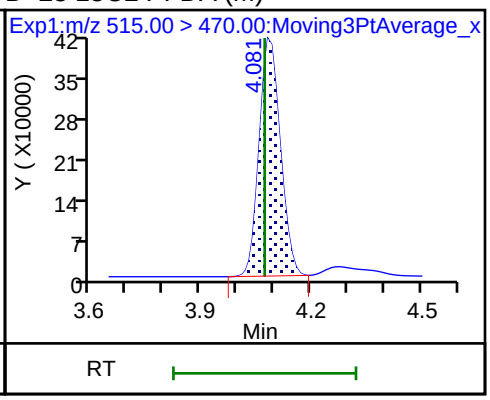

68 Perfluorononanesulfonic acid (ND)



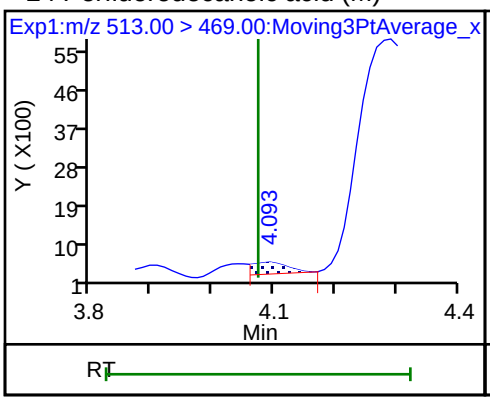

68 Perfluorononanesulfonic acid (ND)



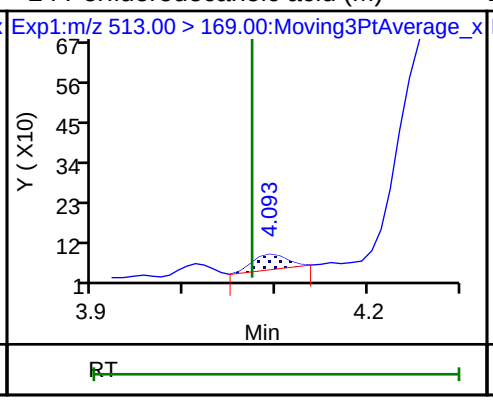

D 23 13C2 PFDA (M)



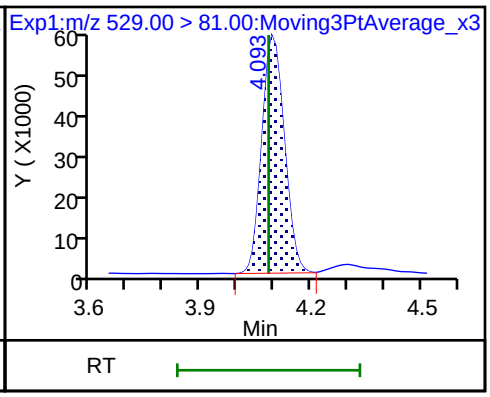

24 Perfluorodecanoic acid (M)



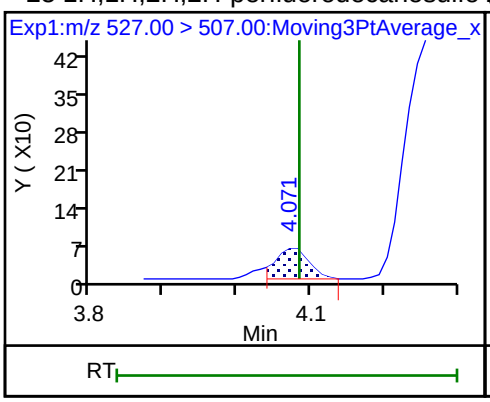

24 Perfluorodecanoic acid (M)



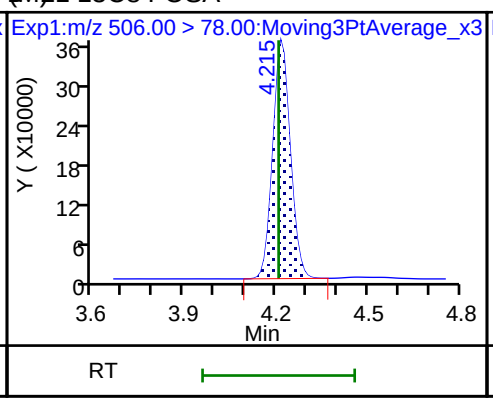

D 26 M2-8:2 FTS



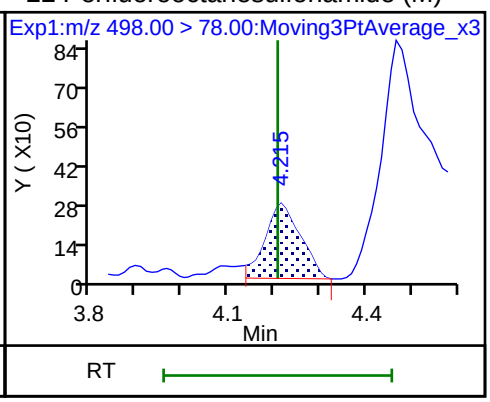

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



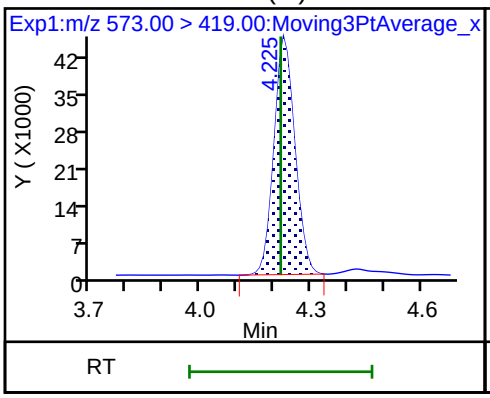

D 21 13C8 FOSA



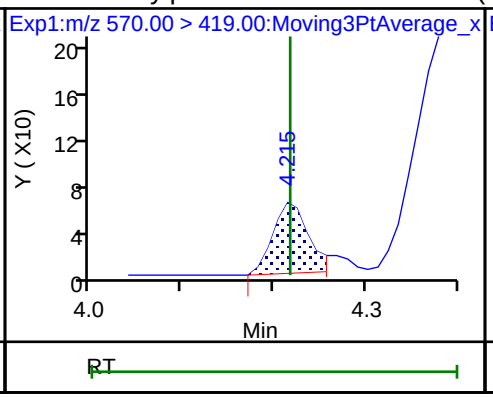

22 Perfluorooctanesulfonamide (M)



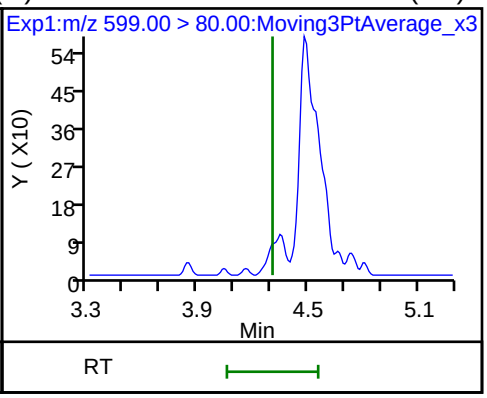
D 27 d3-NMeFOSAA (M)



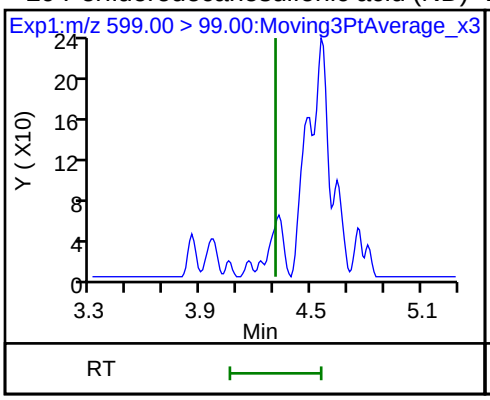

28 N-methylperfluorooctanesulfonami (M)



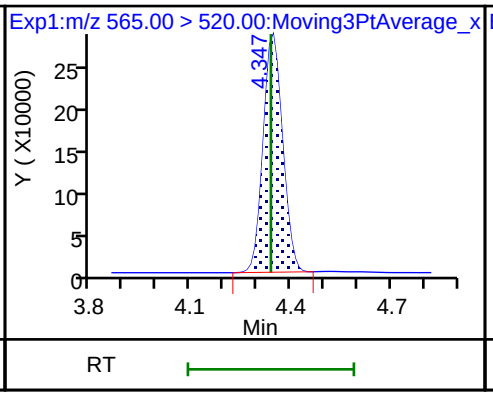

29 Perfluorodecanesulfonic acid (ND)



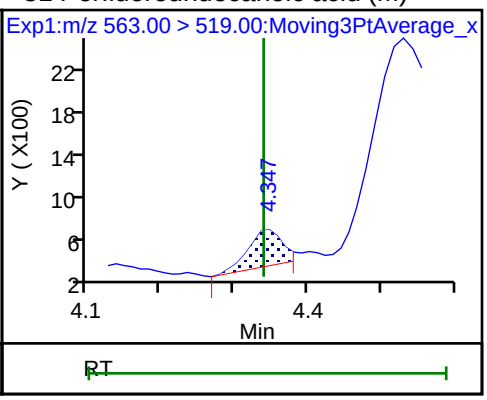

29 Perfluorodecanesulfonic acid (ND)



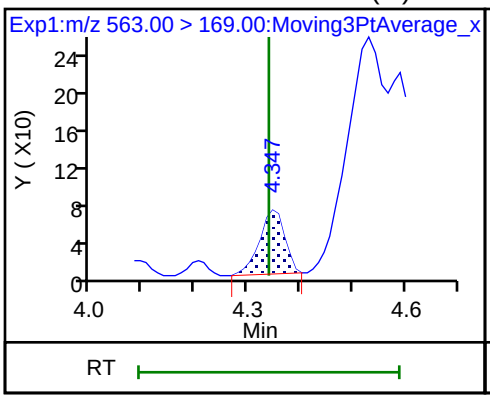

D 30 13C2 PFUnA



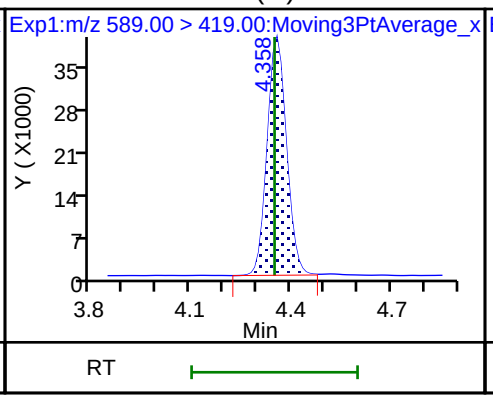

31 Perfluoroundecanoic acid (M)



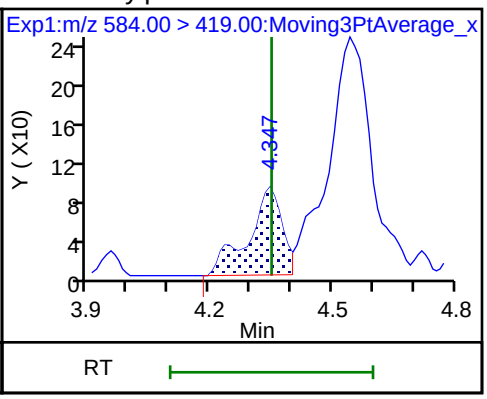

31 Perfluoroundecanoic acid (M)



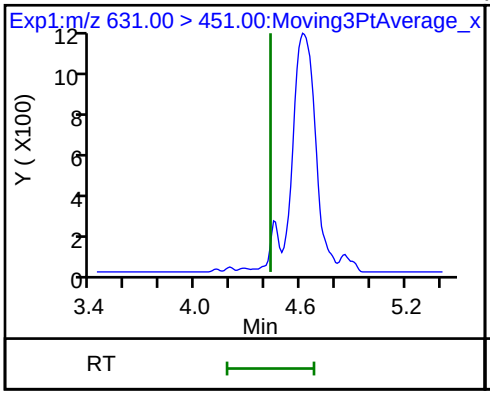

D 32 d5-NEtFOSAA (M)



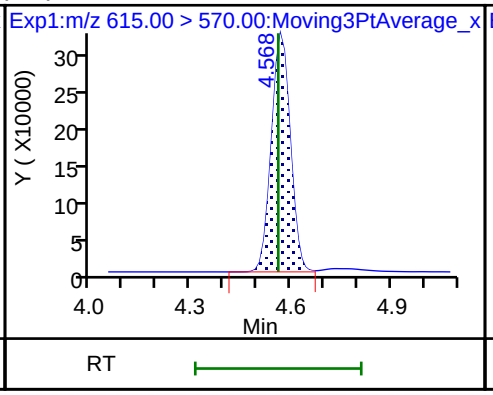

33 N-ethylperfluorooctanesulfonamid



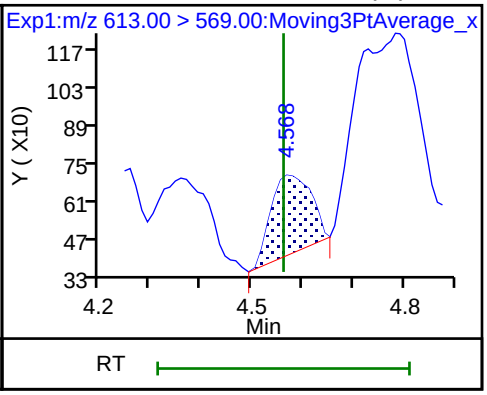

66 11-Chloroeicosafluoro-3-oxaundec (ND)



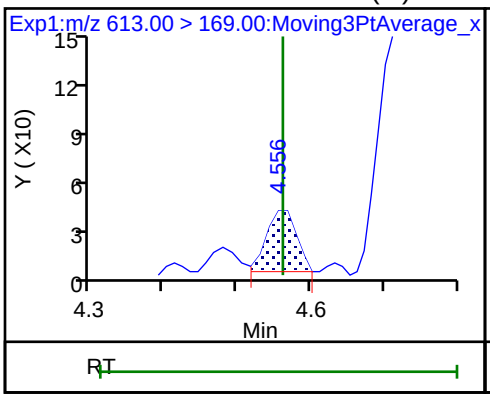

D 36 13C2 PFDoA



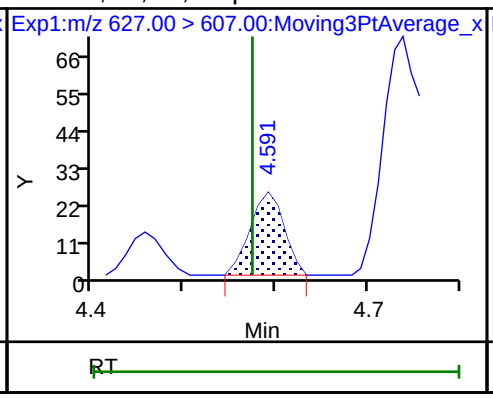

37 Perfluorododecanoic acid (M)



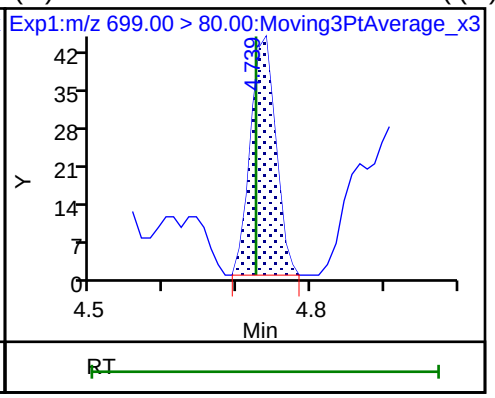
37 Perfluorododecanoic acid (M)



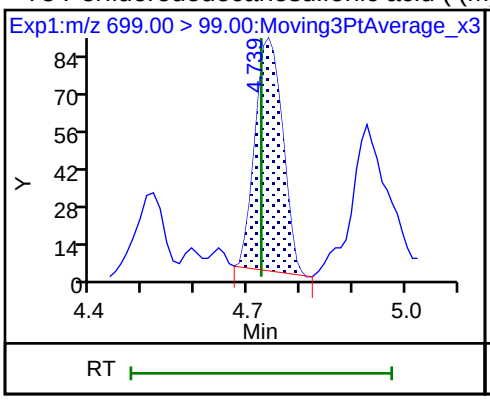

74 1H,1H,2H,2H-perfluorododecanesul (M)



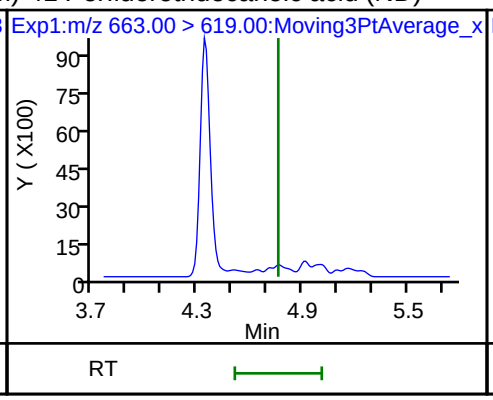

75 Perfluorododecanesulfonic acid ( (M)



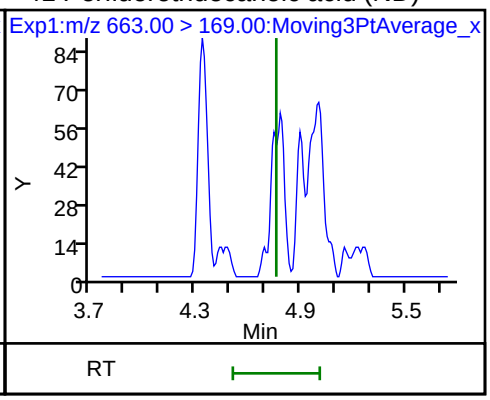

75 Perfluorododecanesulfonic acid ( (M)



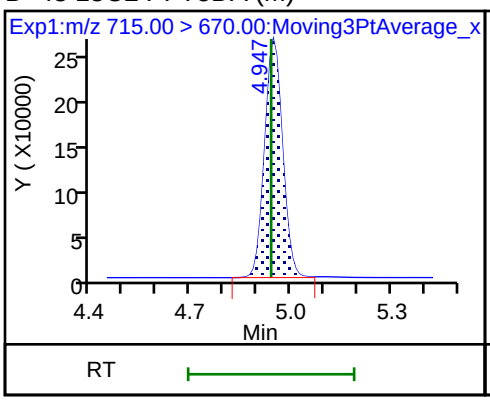

41 Perfluorotridecanoic acid (ND)



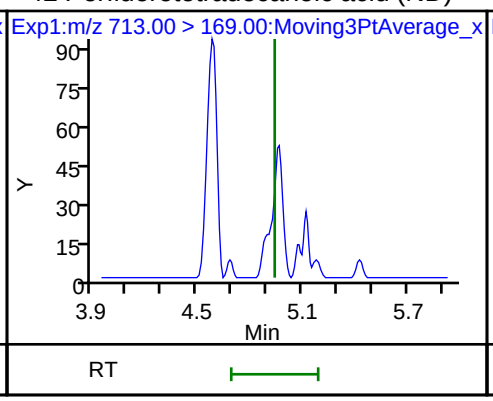

41 Perfluorotridecanoic acid (ND)



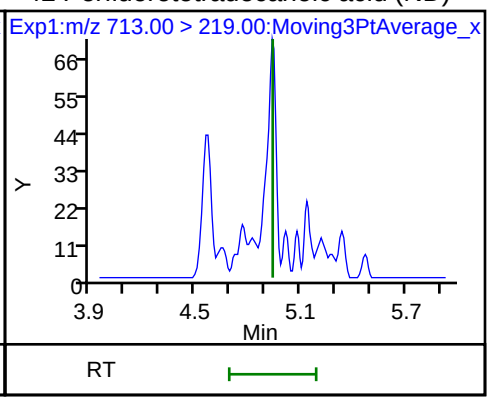

D 43 13C2 PFTeDA (M)



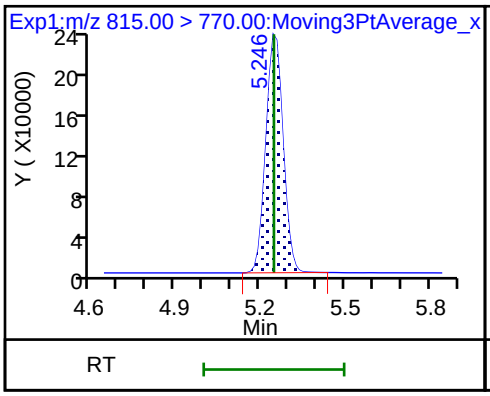

42 Perfluorotetradecanoic acid (ND)



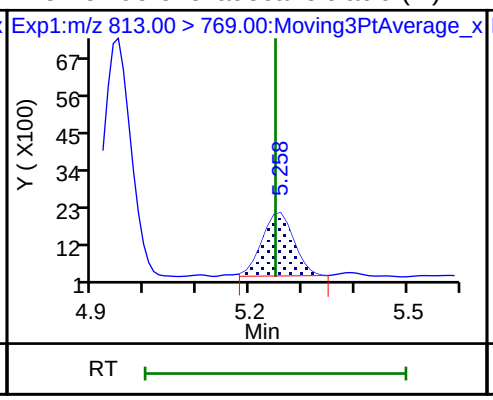

42 Perfluorotetradecanoic acid (ND)



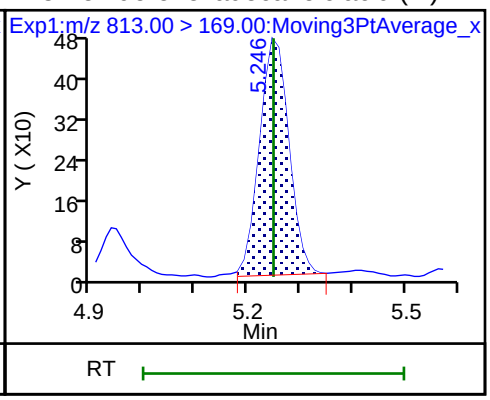

D 44 13C2 PFHxDA



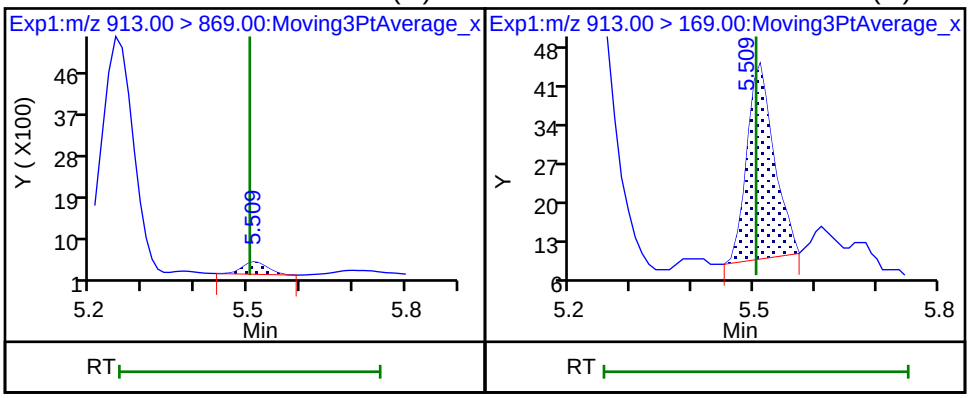

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

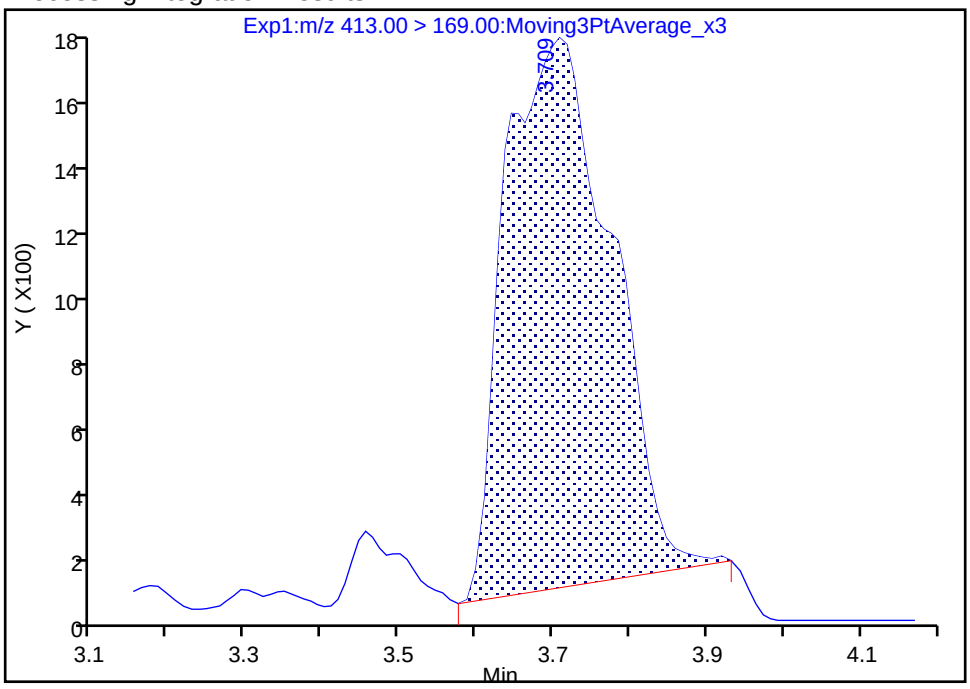
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

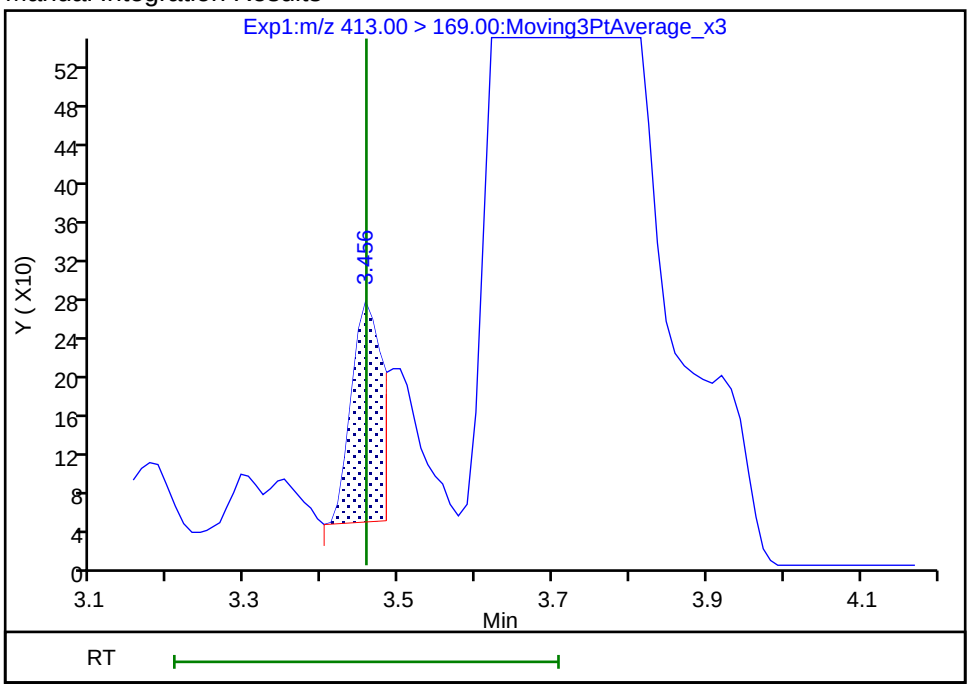
Processing Integration Results

RT: 3.71
Area: 16058
Amount: 0.017504
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 602
Amount: 0.002734
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:42:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

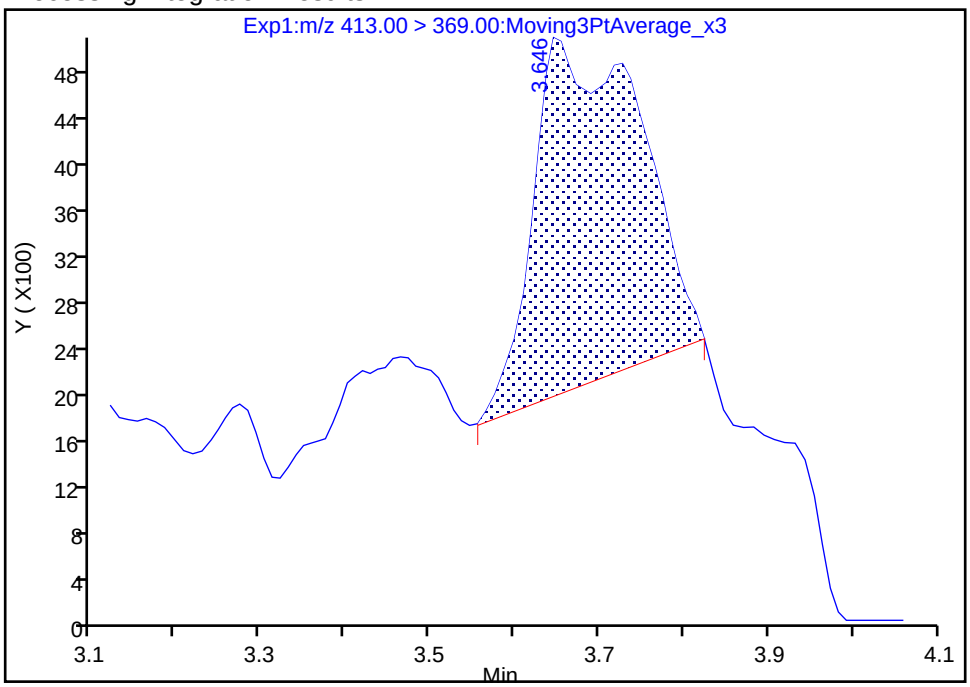
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

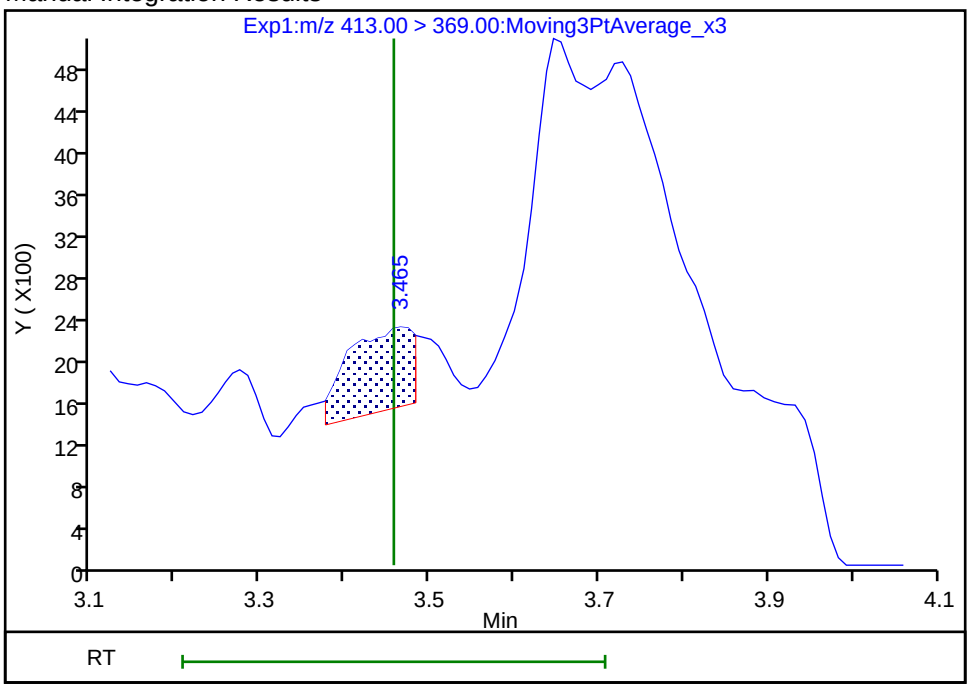
Processing Integration Results

RT: 3.65
Area: 26483
Amount: 0.017504
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 4136
Amount: 0.002734
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:43:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

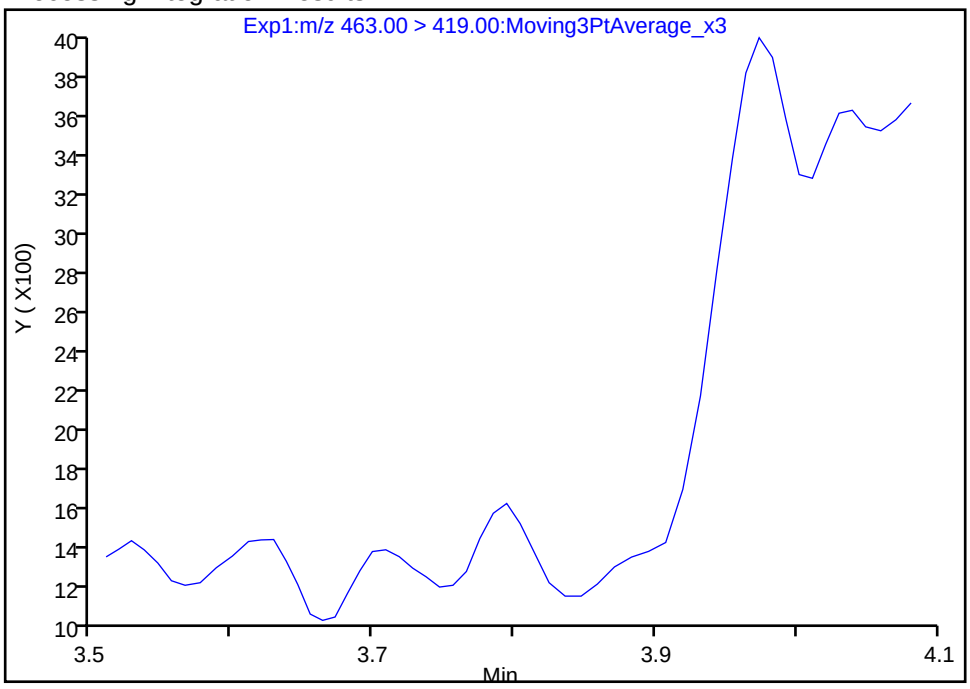
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

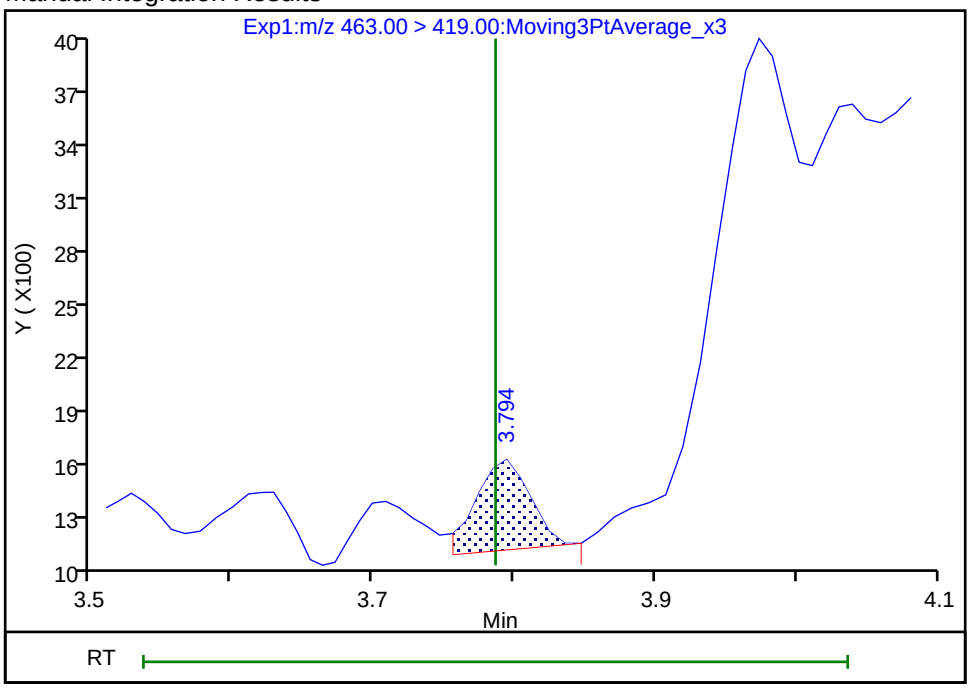
Not Detected
Expected RT: 3.79

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 1335
Amount: 0.001008
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:44:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

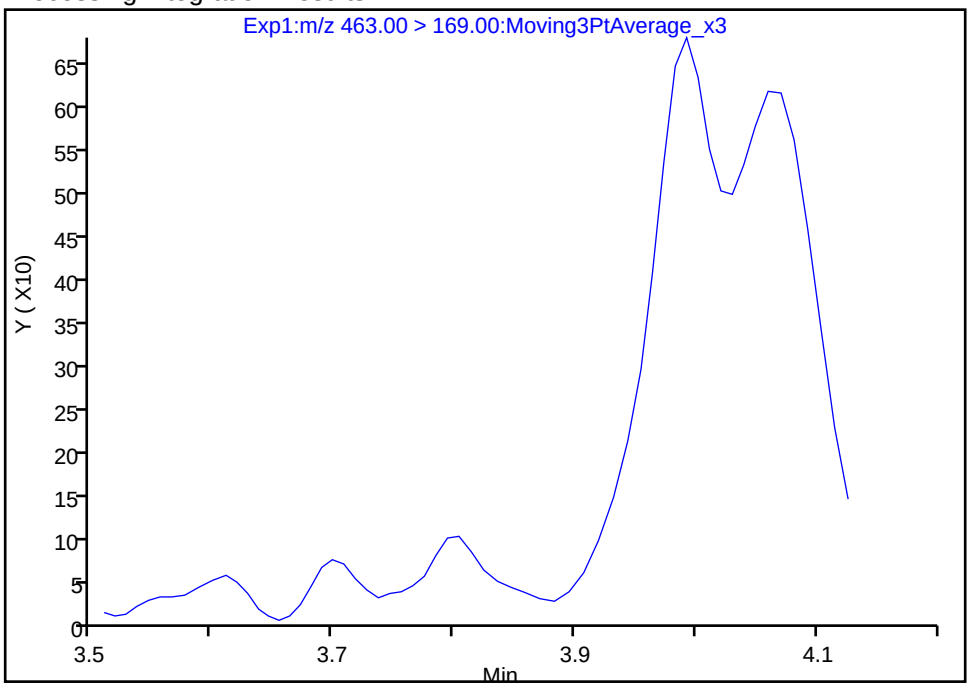
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

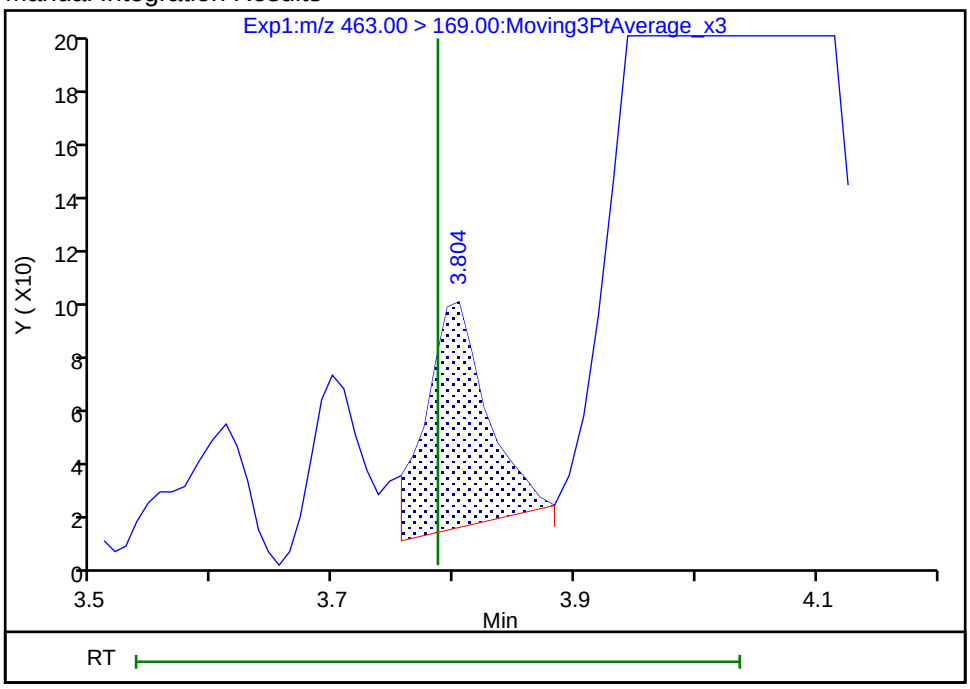
Not Detected
Expected RT: 3.79

Processing Integration Results




Manual Integration Results

RT: 3.80
Area: 290
Amount: 0.001008
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:44:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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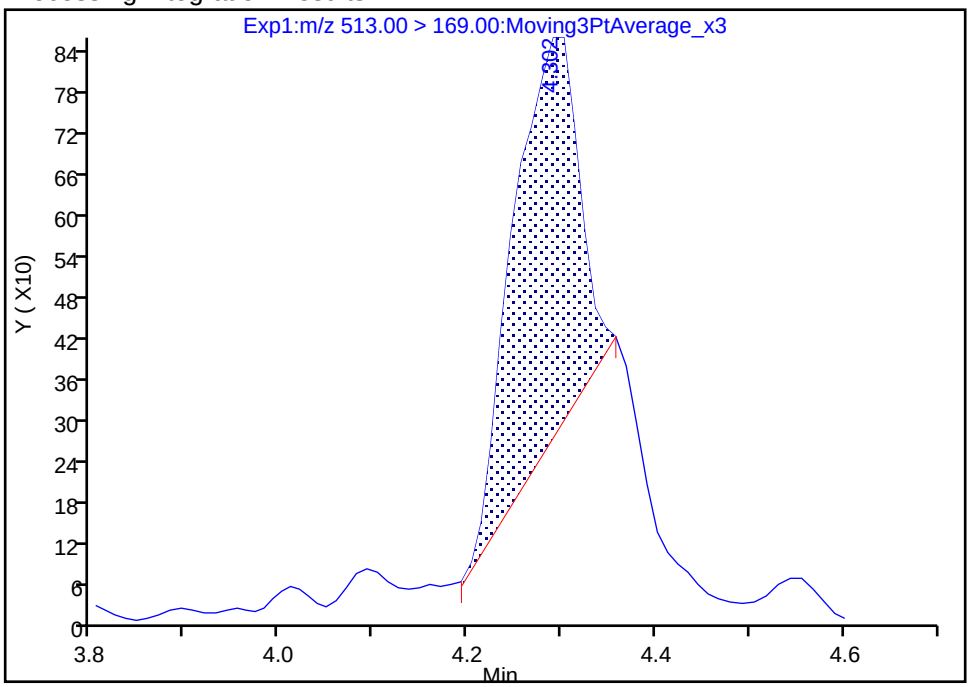
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

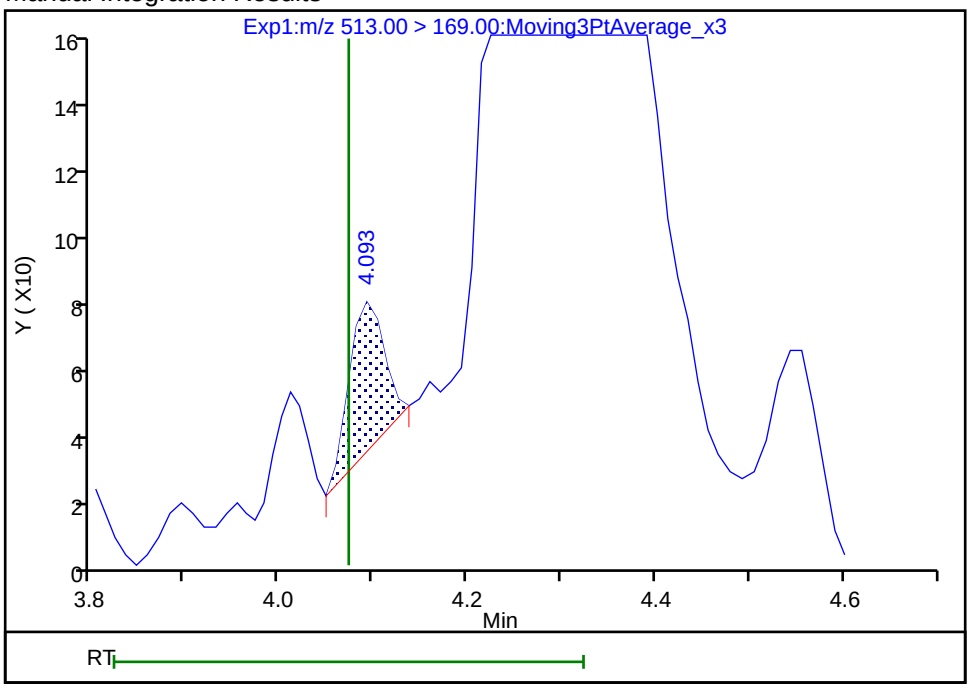
Processing Integration Results

RT: 4.30
Area: 2909
Amount: 0.030238
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 111
Amount: 0.000791
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:44:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

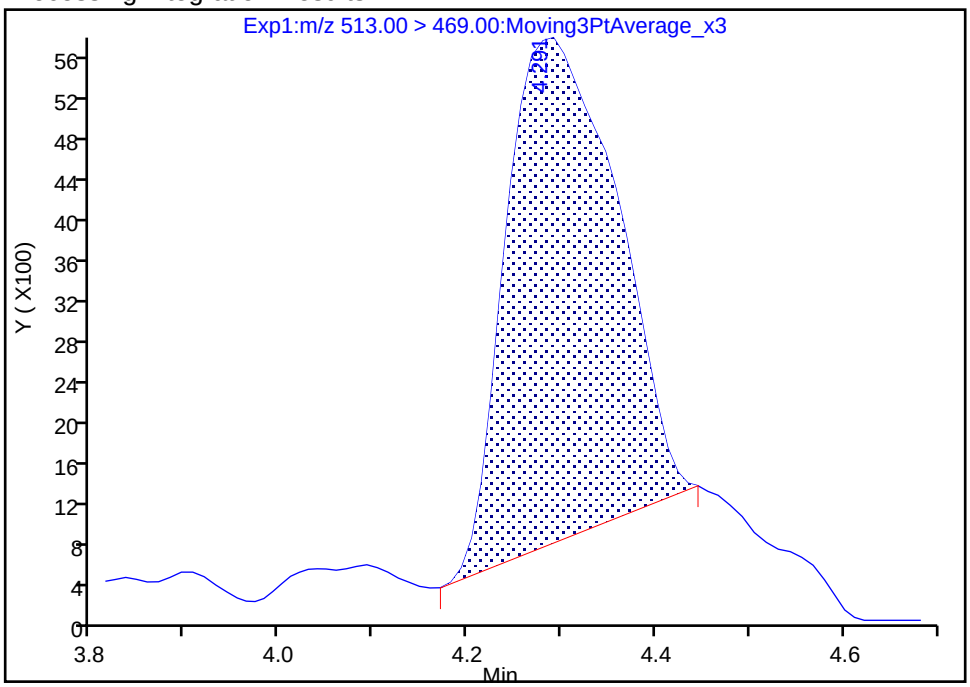
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

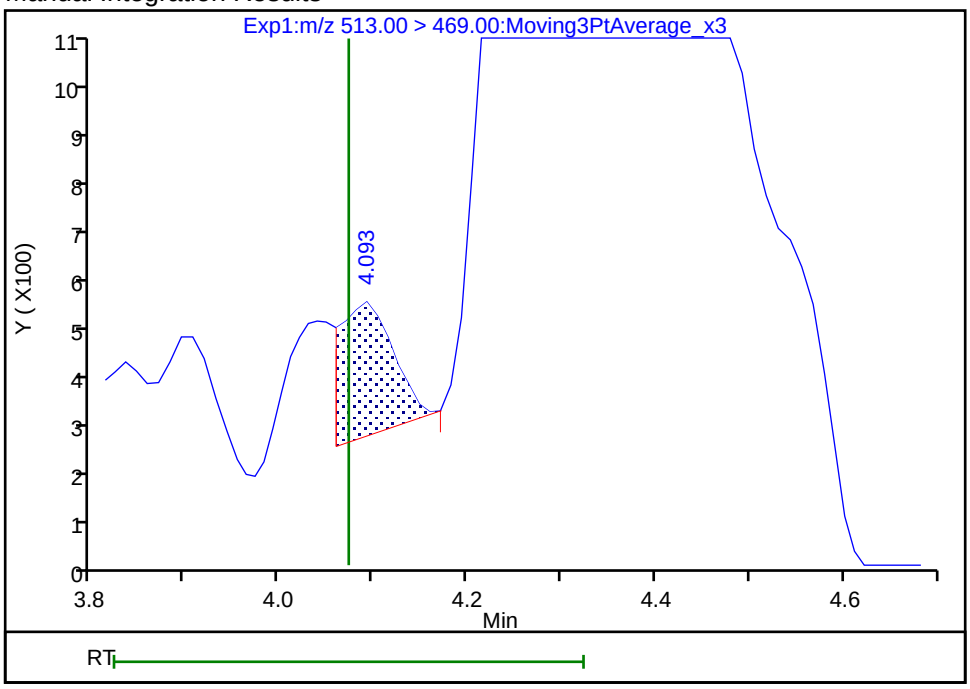
Processing Integration Results

RT: 4.29
Area: 40815
Amount: 0.030238
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 1058
Amount: 0.000791
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:44:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

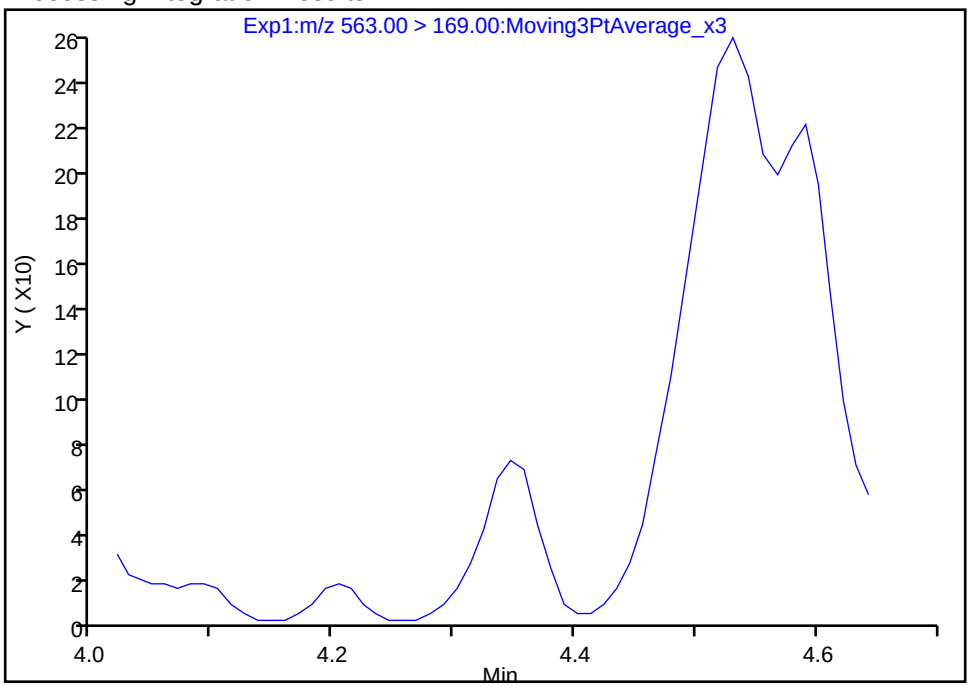
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

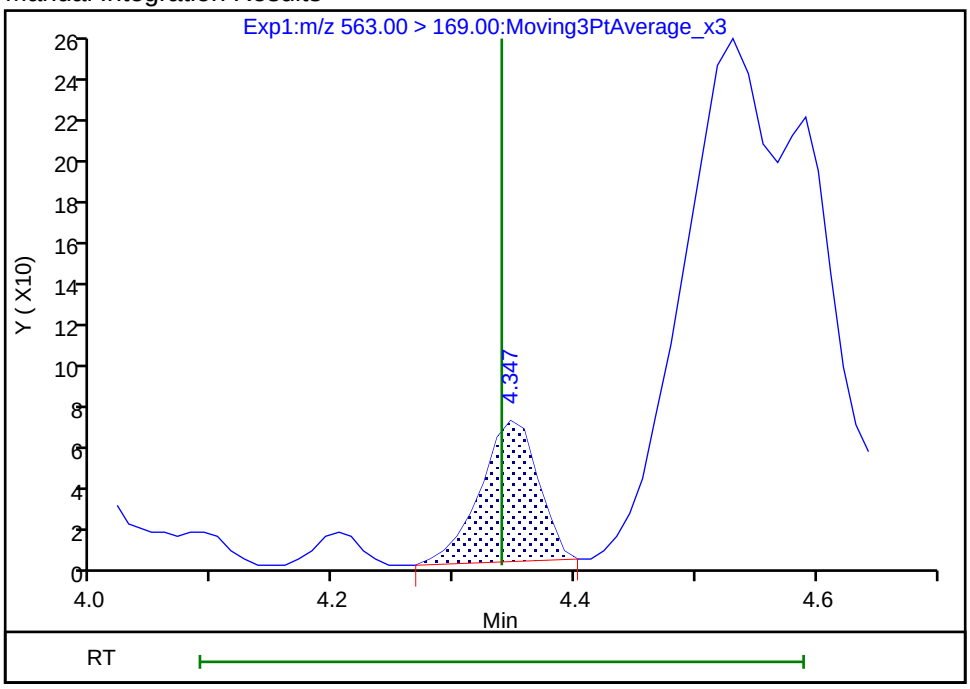
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 227
Amount: 0.001096
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:45:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

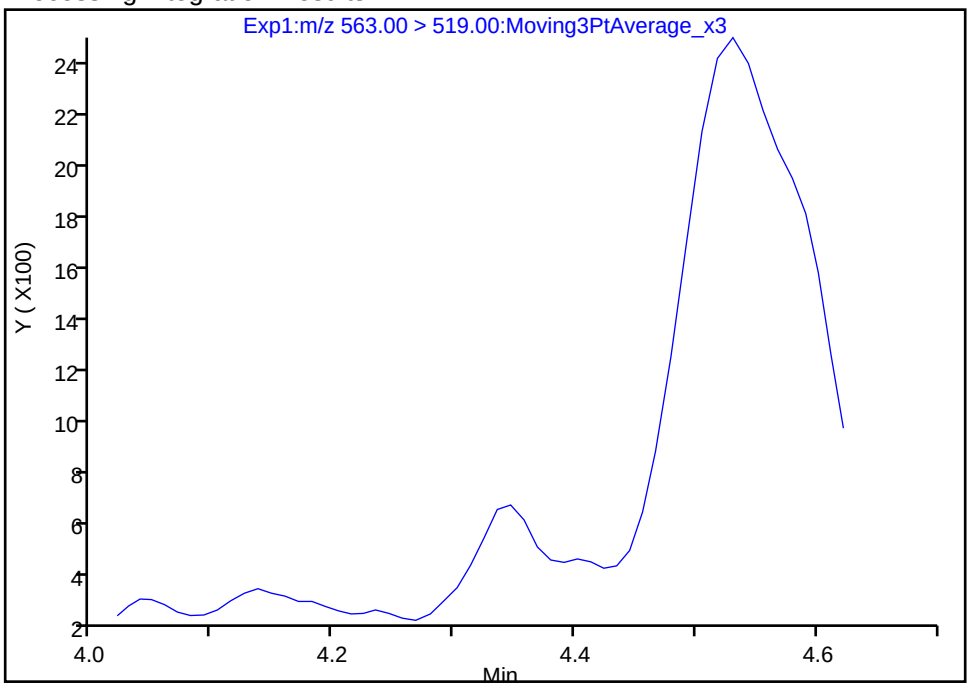
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

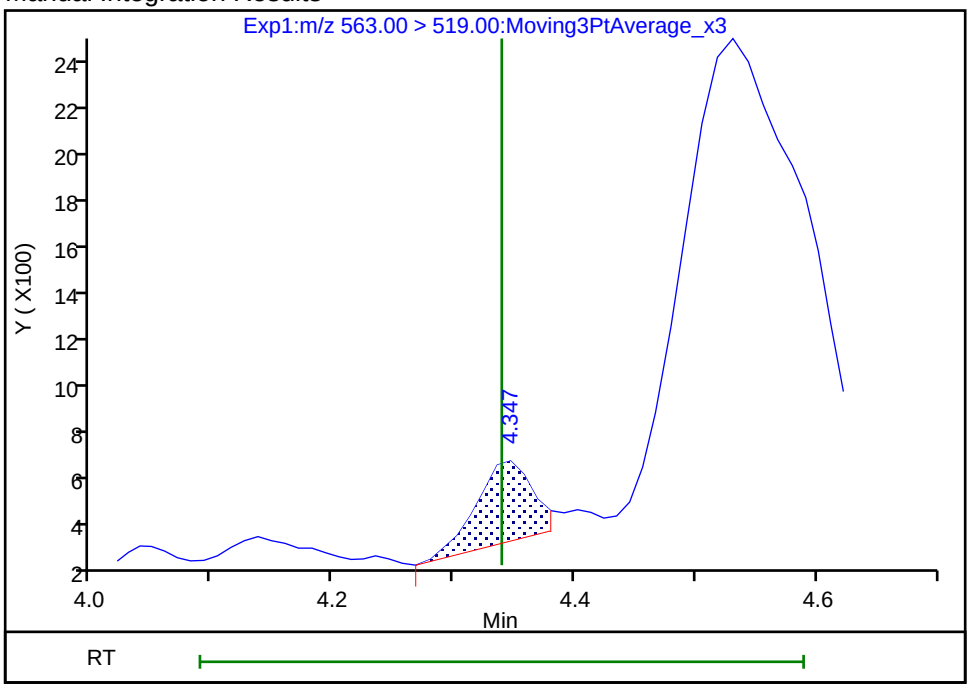
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 1085
Amount: 0.001096
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:45:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

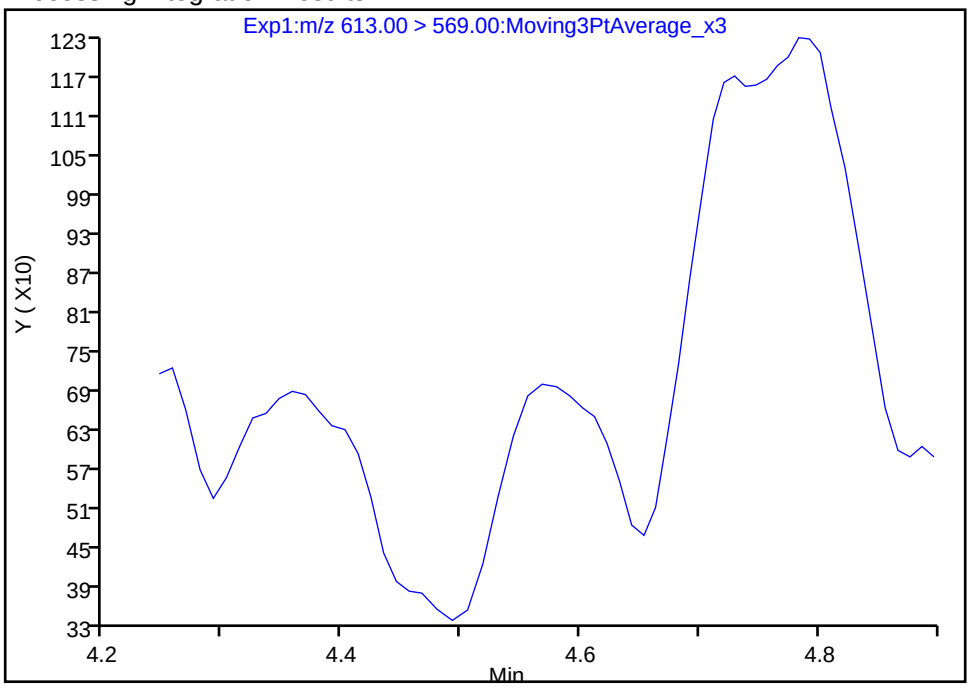
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

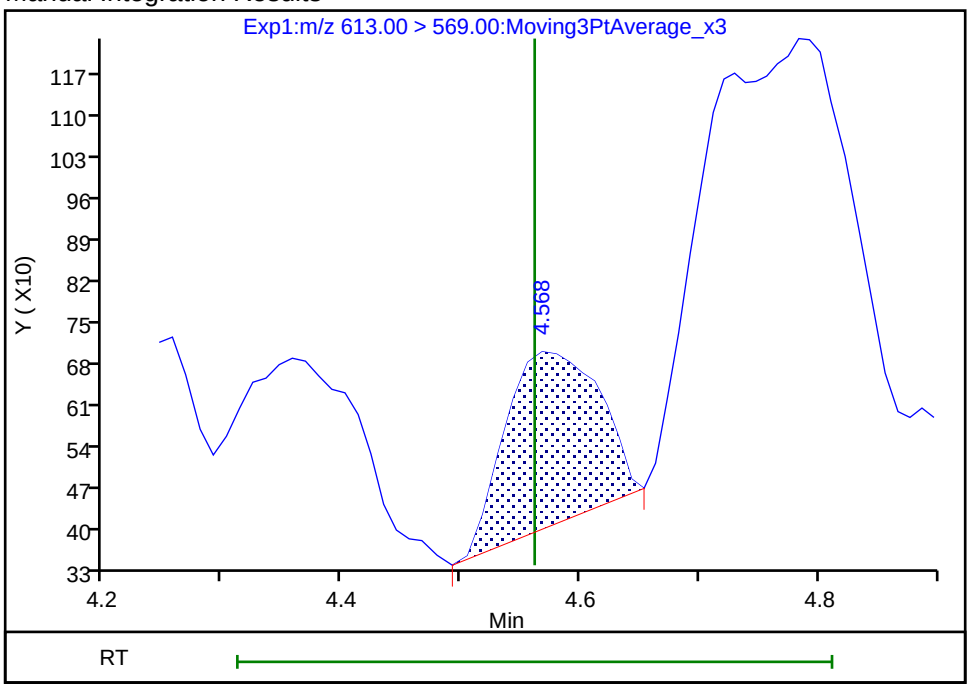
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.57
Area: 1634
Amount: 0.001606
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:46:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

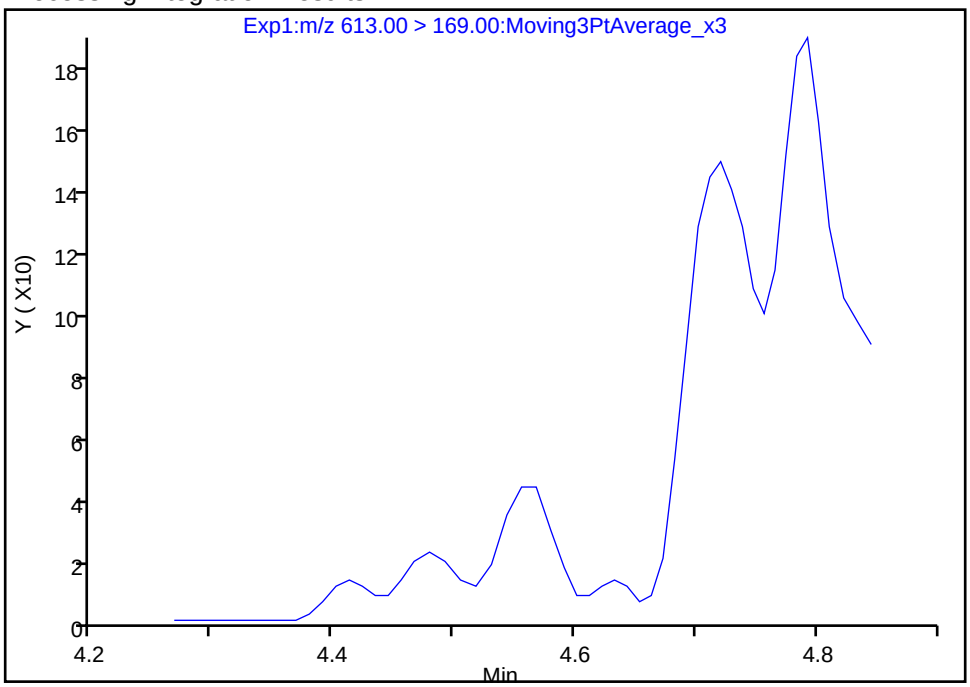
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

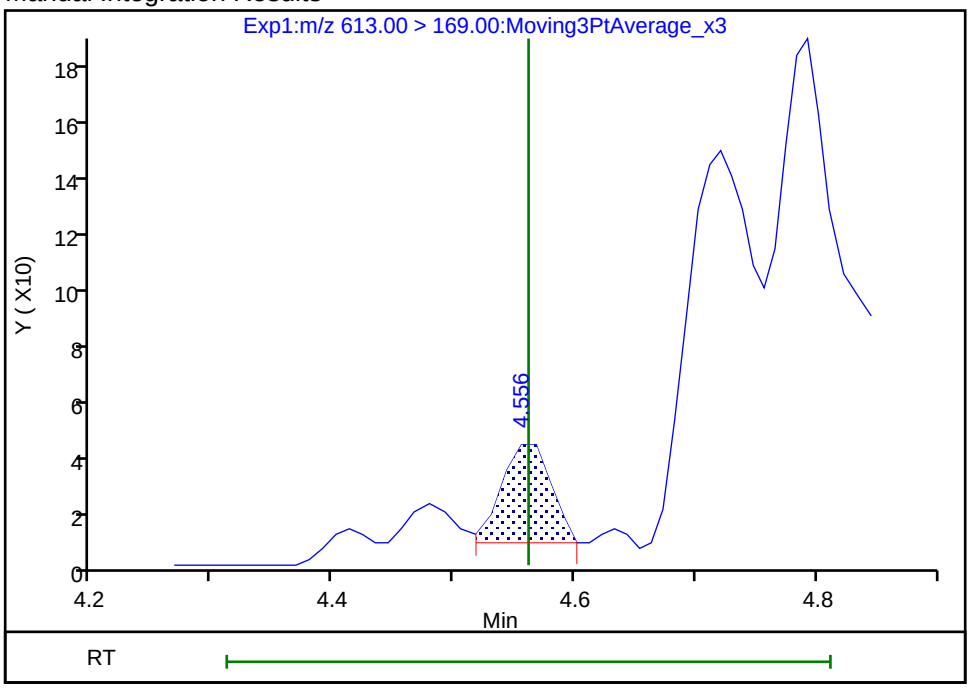
Not Detected
Expected RT: 4.56

Processing Integration Results




Manual Integration Results

RT: 4.56
Area: 99
Amount: 0.001606
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:46:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

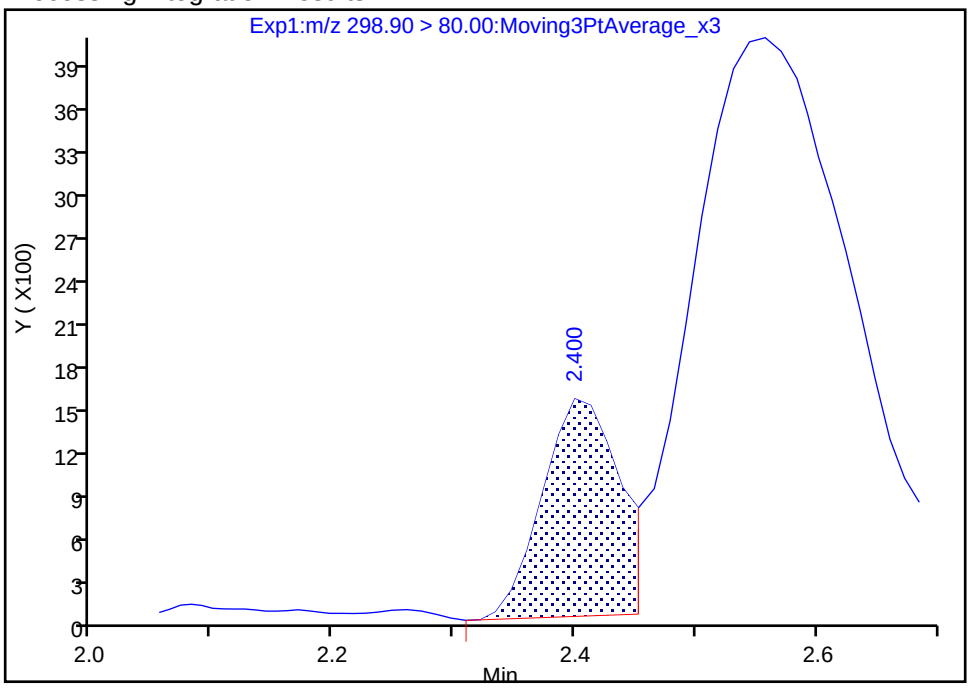
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

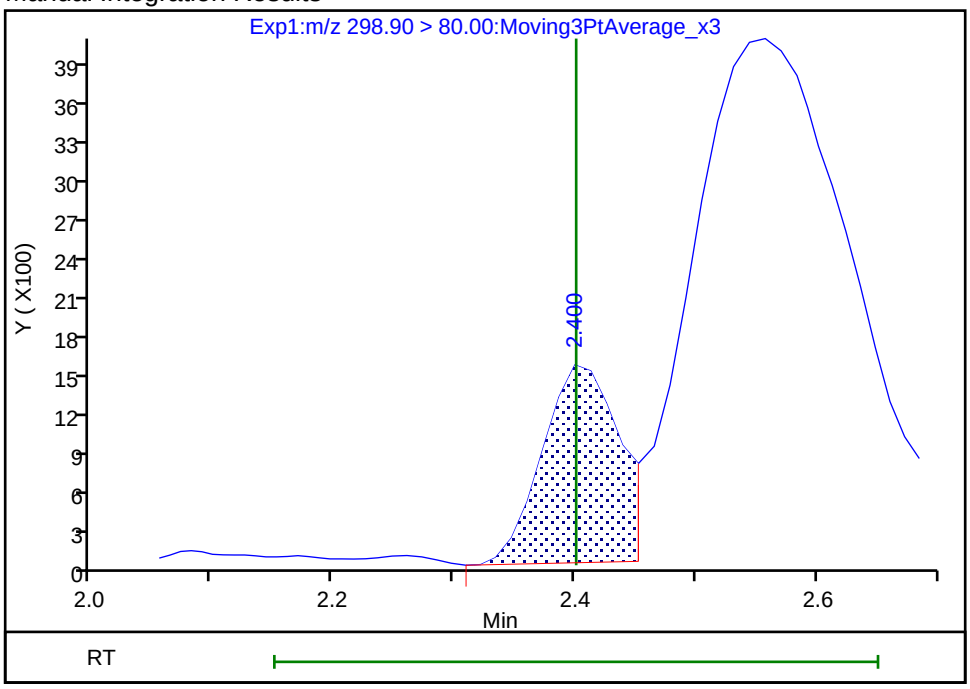
Processing Integration Results

RT: 2.40
Area: 6315
Amount: 0.004289
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 6371
Amount: 0.004327
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:39:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

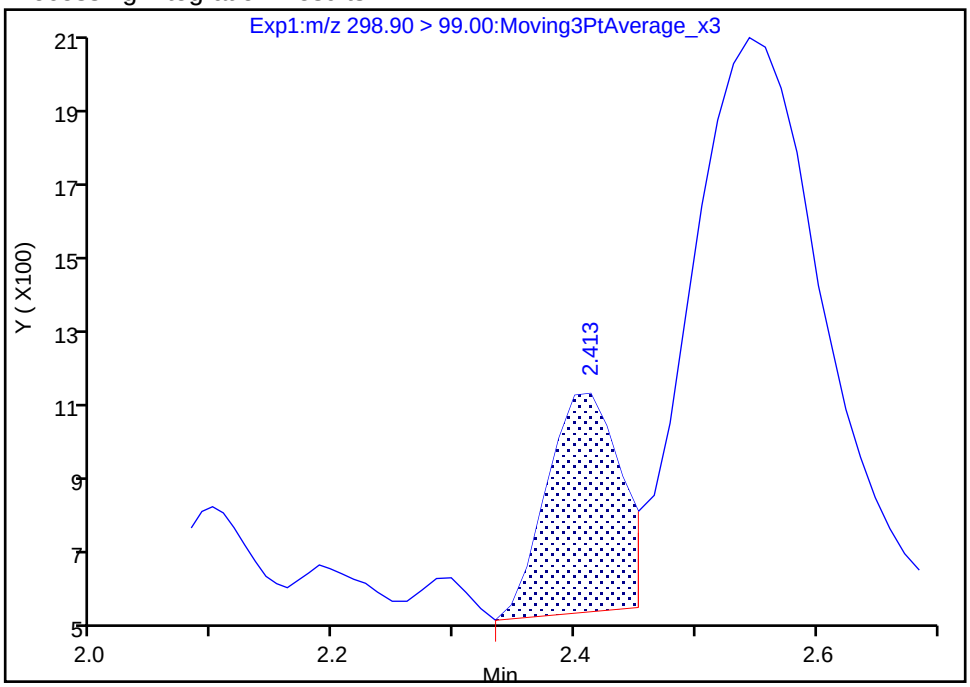
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

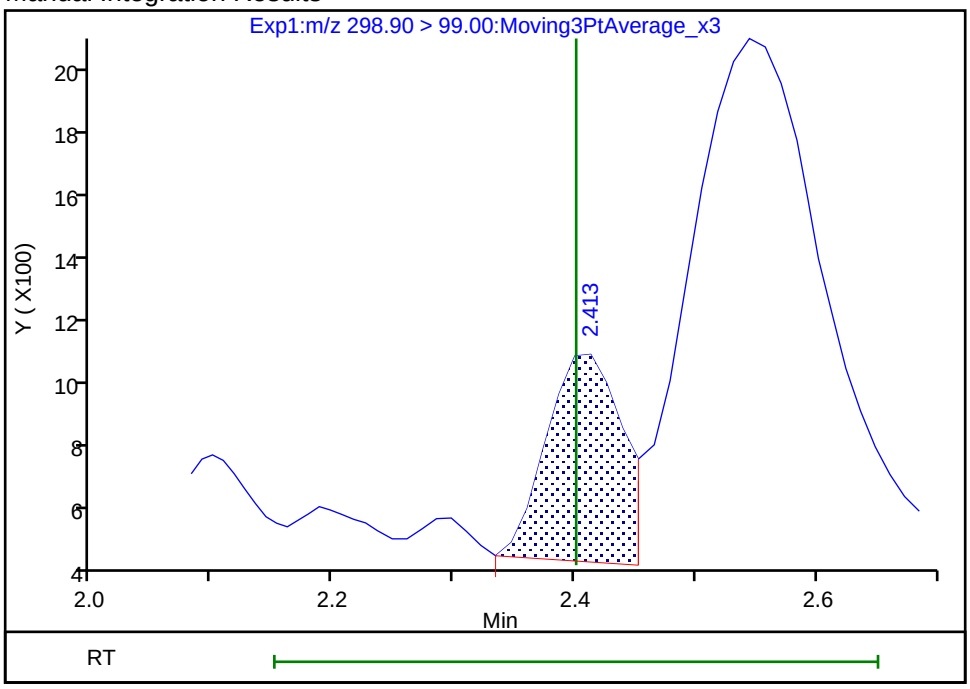
Processing Integration Results

RT: 2.41
Area: 2492
Amount: 0.004289
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 2719
Amount: 0.004327
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:39:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

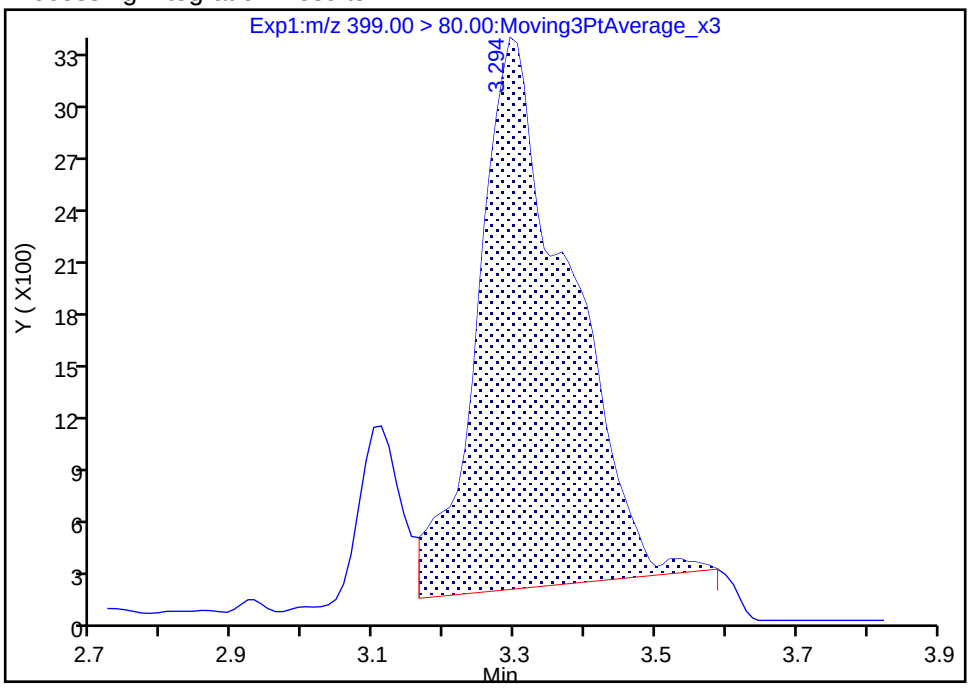
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

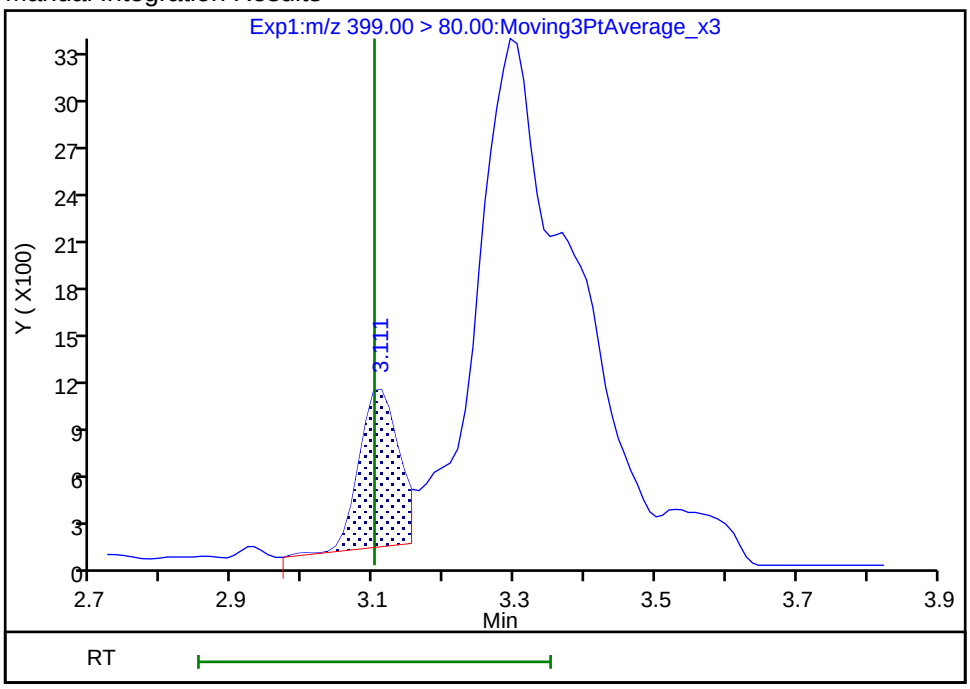
Processing Integration Results

RT: 3.29
Area: 28334
Amount: 0.024492
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 3859
Amount: 0.003336
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:40:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

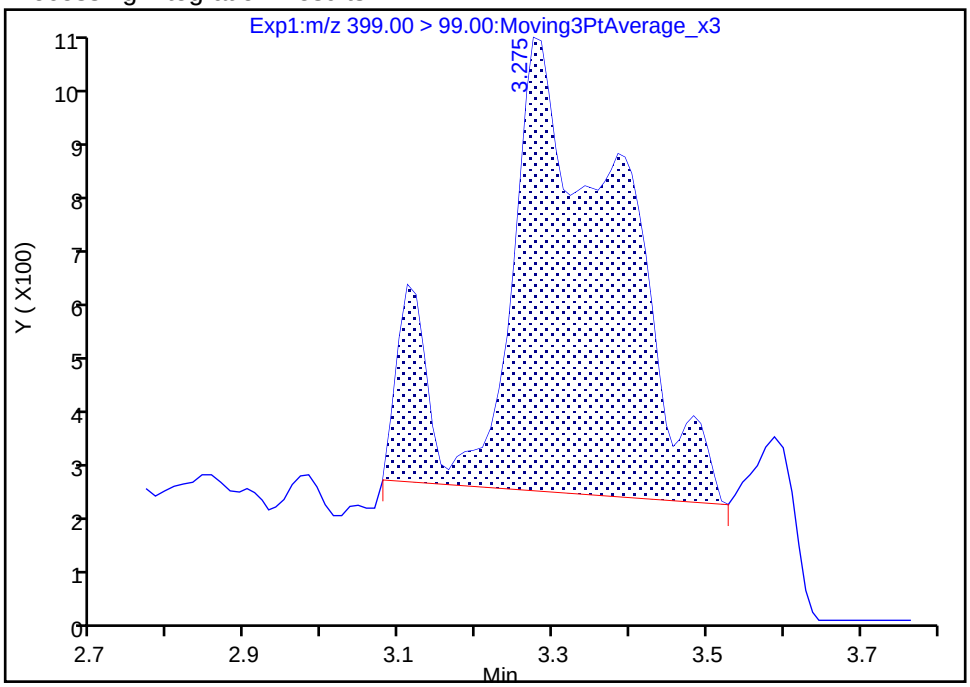
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

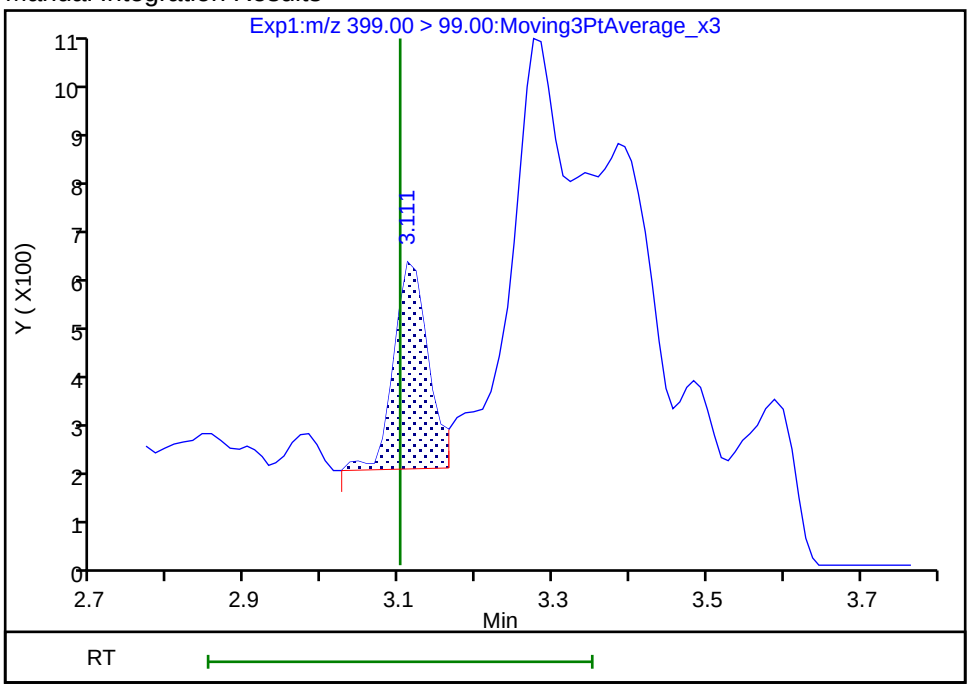
Processing Integration Results

RT: 3.27
Area: 8365
Amount: 0.024492
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1234
Amount: 0.003336
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:40:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

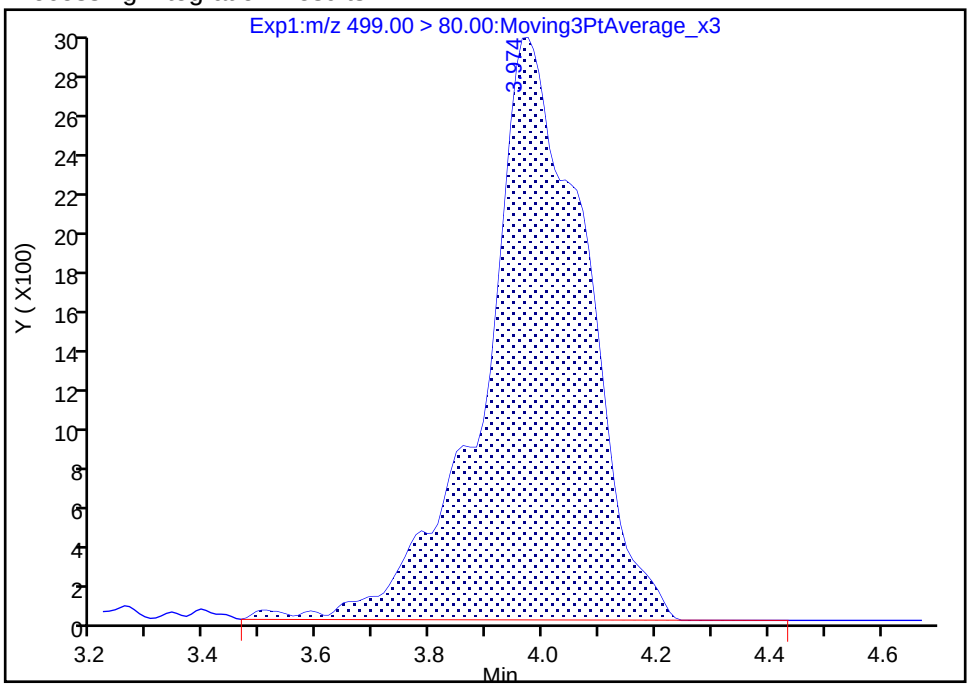
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

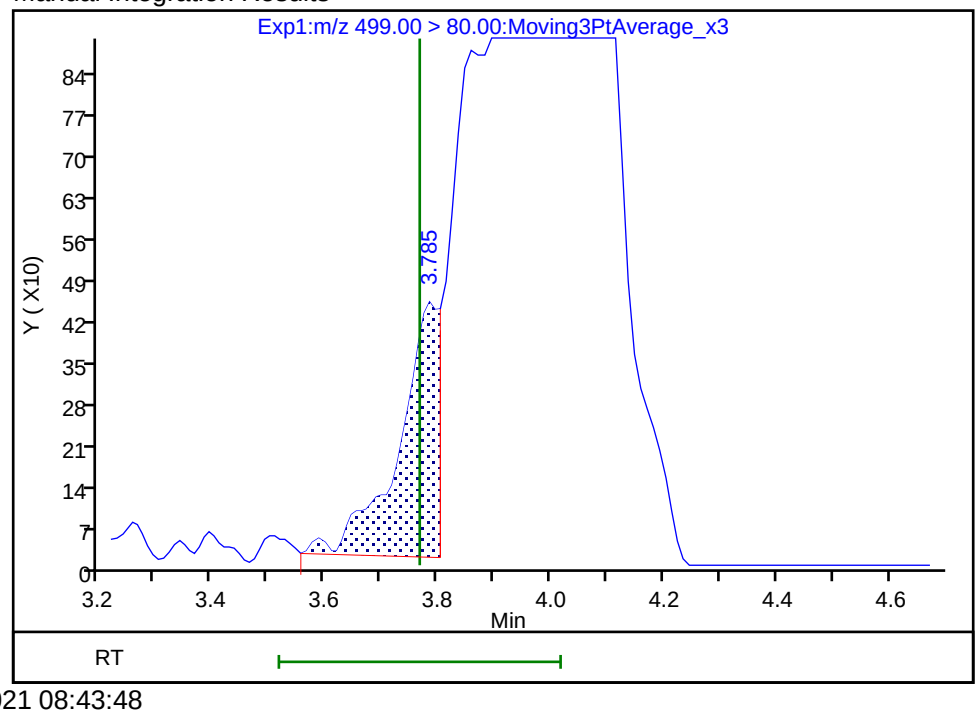
RT: 3.97
Area: 36695
Amount: 0.040499
Amount Units: ng/ml

Processing Integration Results




RT: 3.78
Area: 2121
Amount: 0.002341
Amount Units: ng/ml

Manual Integration Results




Reviewer: nampitakw, 04-Nov-2021 08:43:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

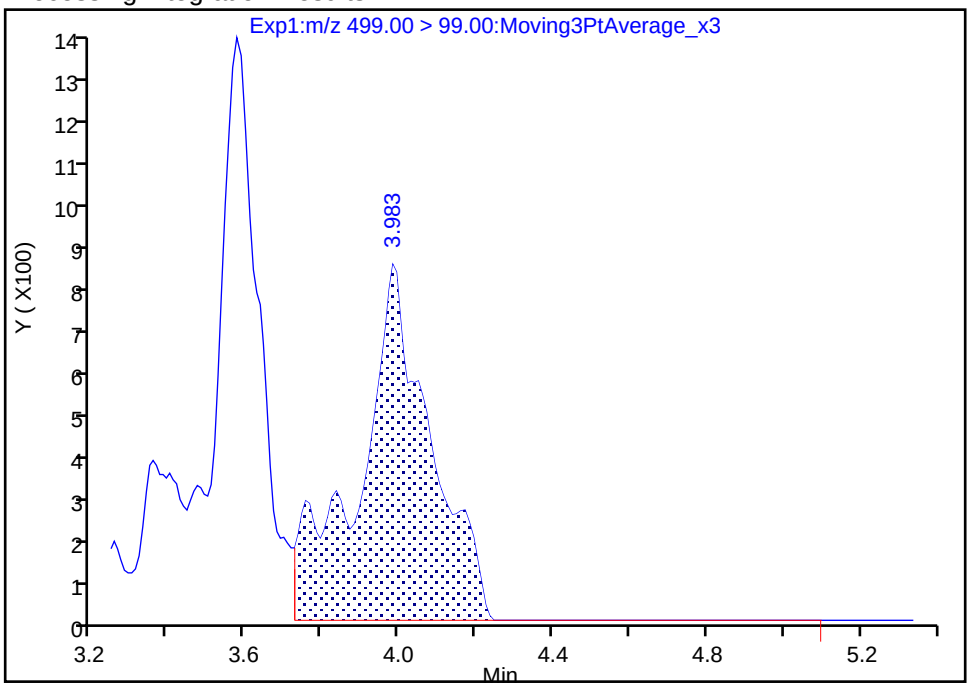
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

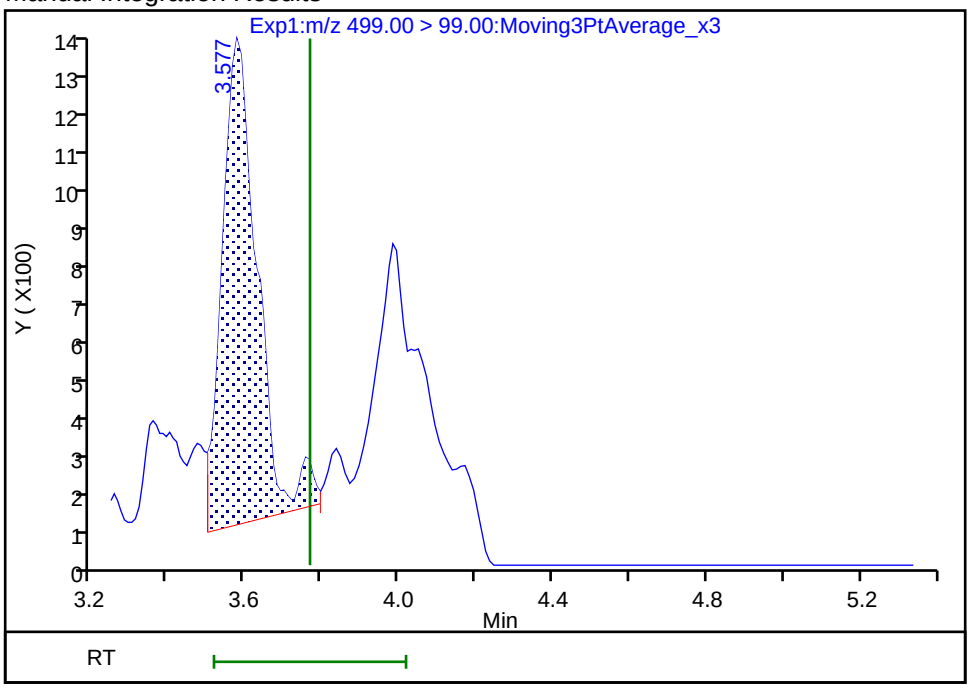
Processing Integration Results

RT: 3.98
Area: 10498
Amount: 0.040499
Amount Units: ng/ml




Manual Integration Results

RT: 3.58
Area: 7696
Amount: 0.002341
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:43:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

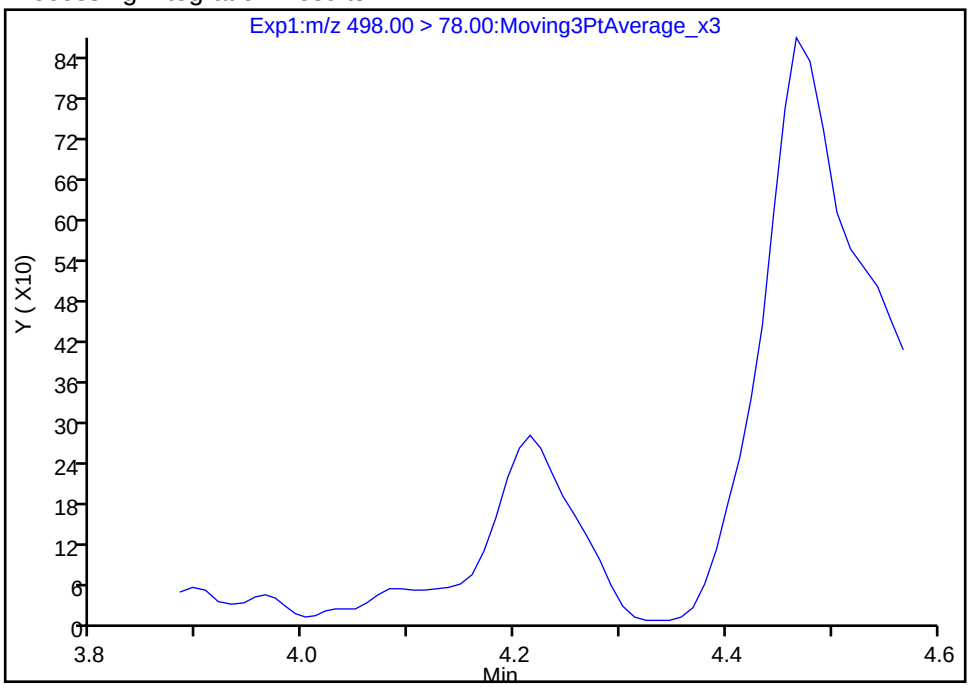
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

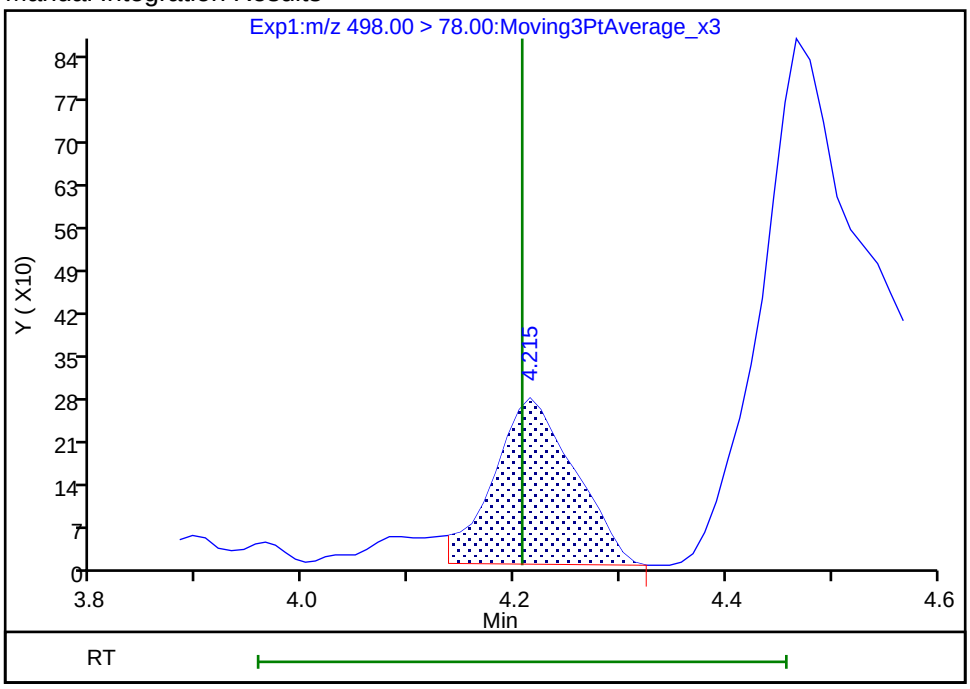
Not Detected
Expected RT: 4.21

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 1449
Amount: 0.001322
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:45:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

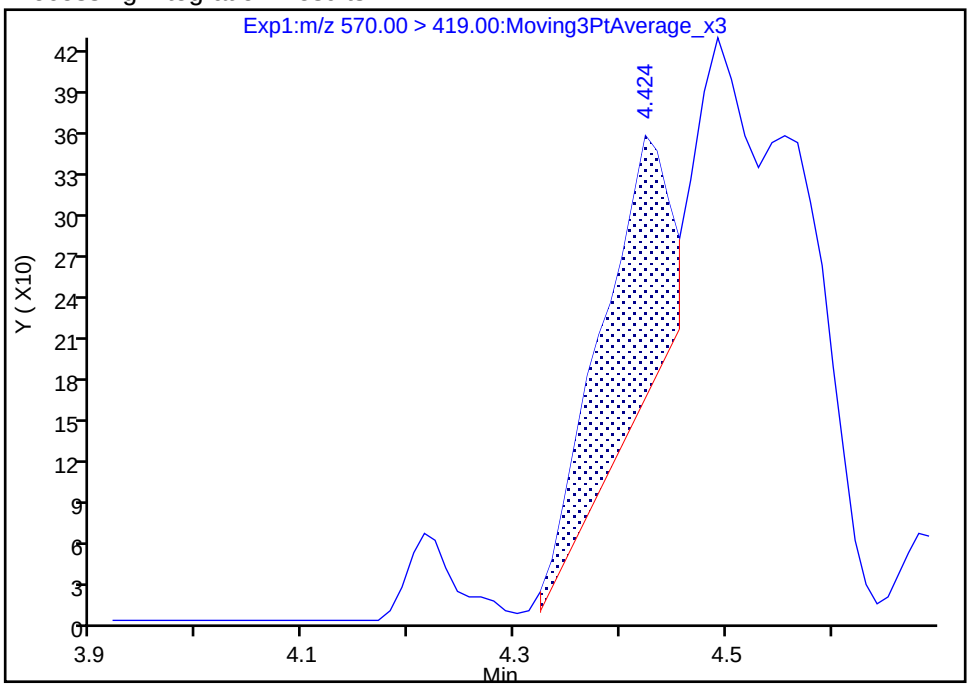
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

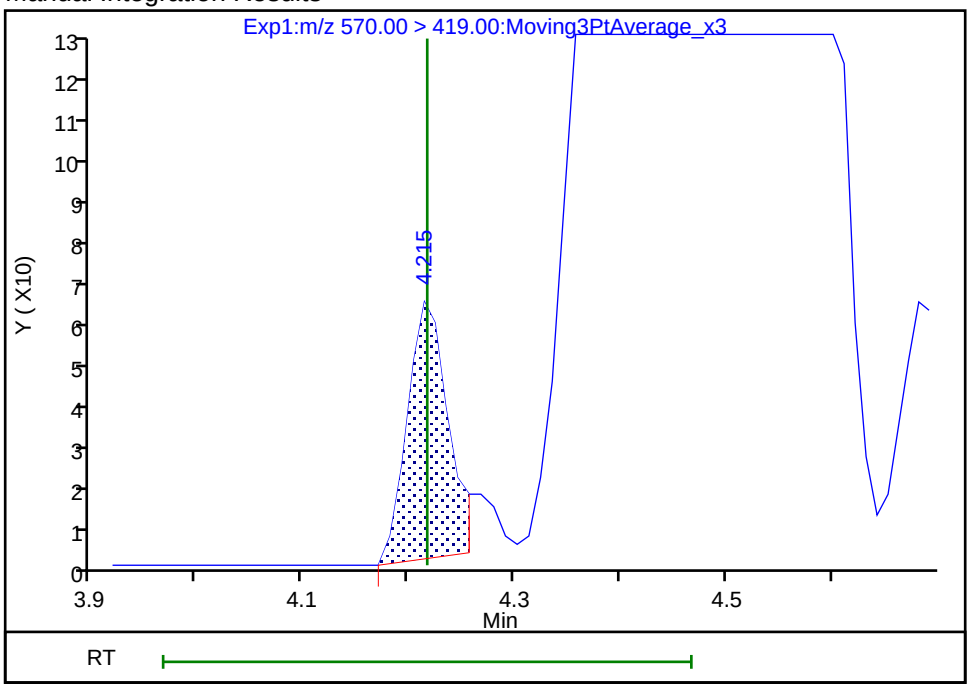
Processing Integration Results

RT: 4.42
Area: 834
Amount: 0.007466
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 161
Amount: 0.001452
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:45:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

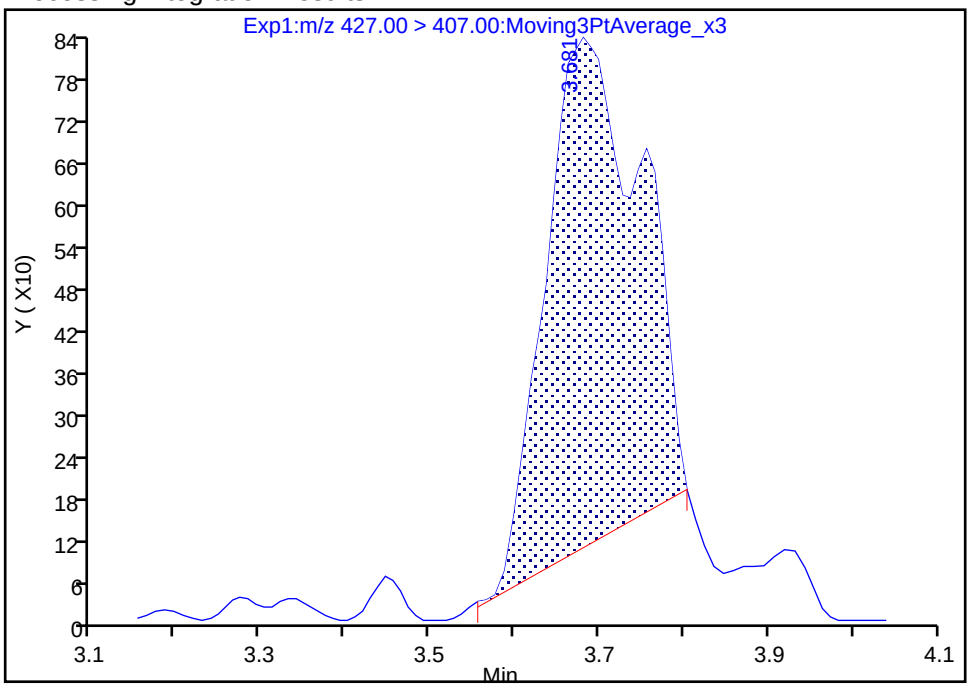
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

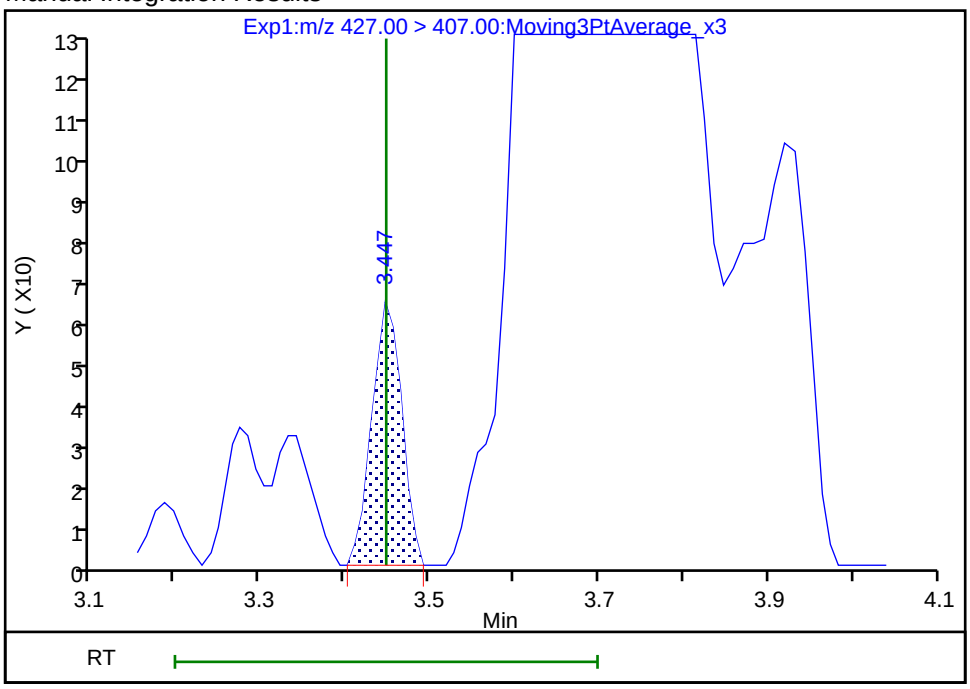
Processing Integration Results

RT: 3.68
Area: 5661
Amount: 0.023351
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 154
Amount: 0.000635
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:41:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

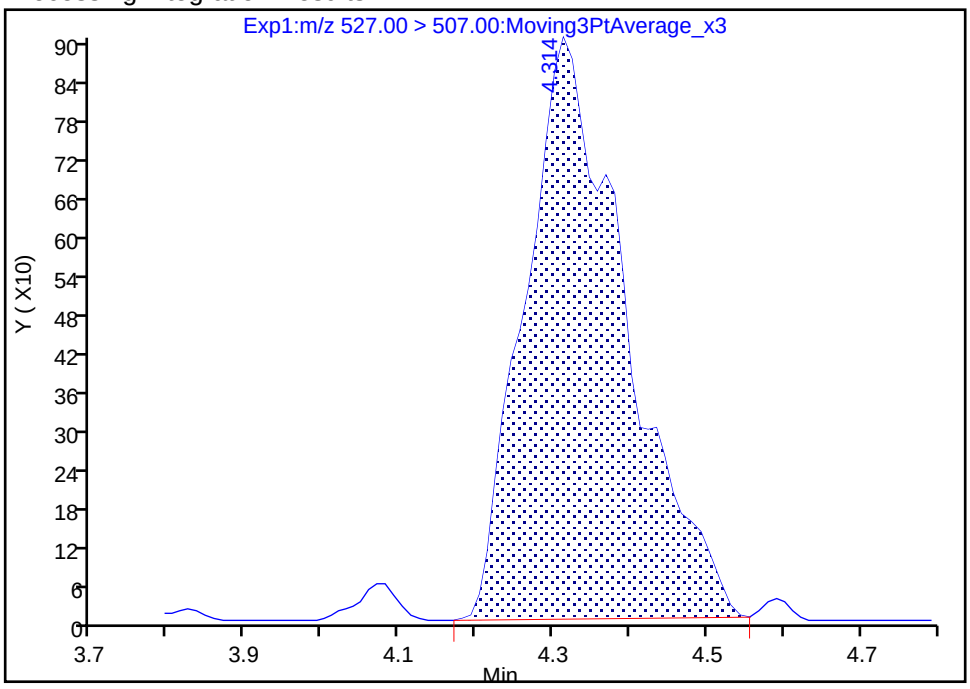
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

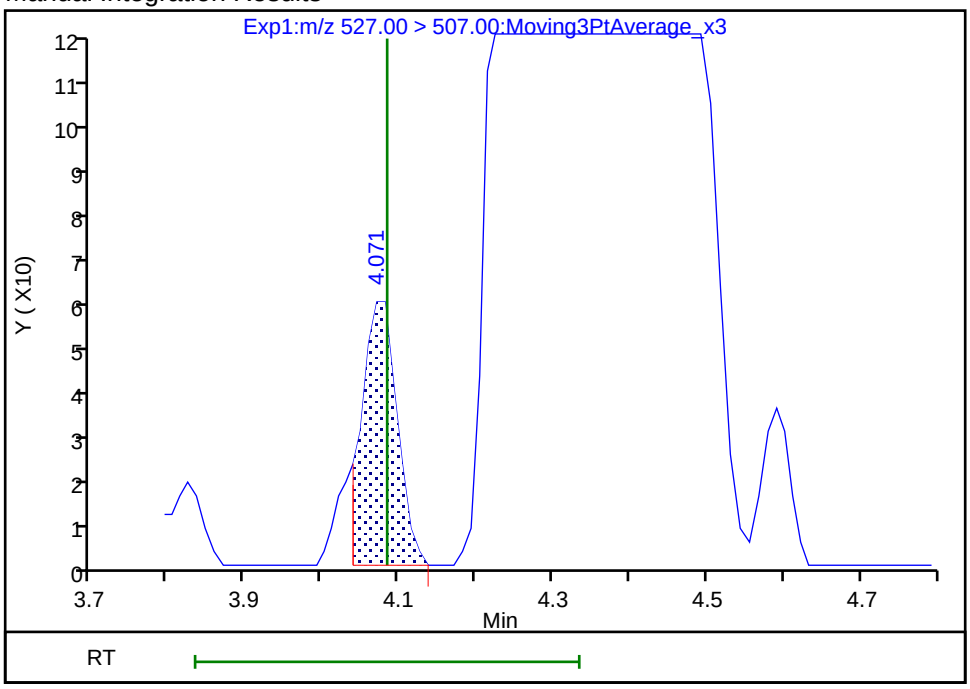
Processing Integration Results

RT: 4.31
Area: 8280
Amount: 0.046753
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 177
Amount: 0.000999
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:45:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

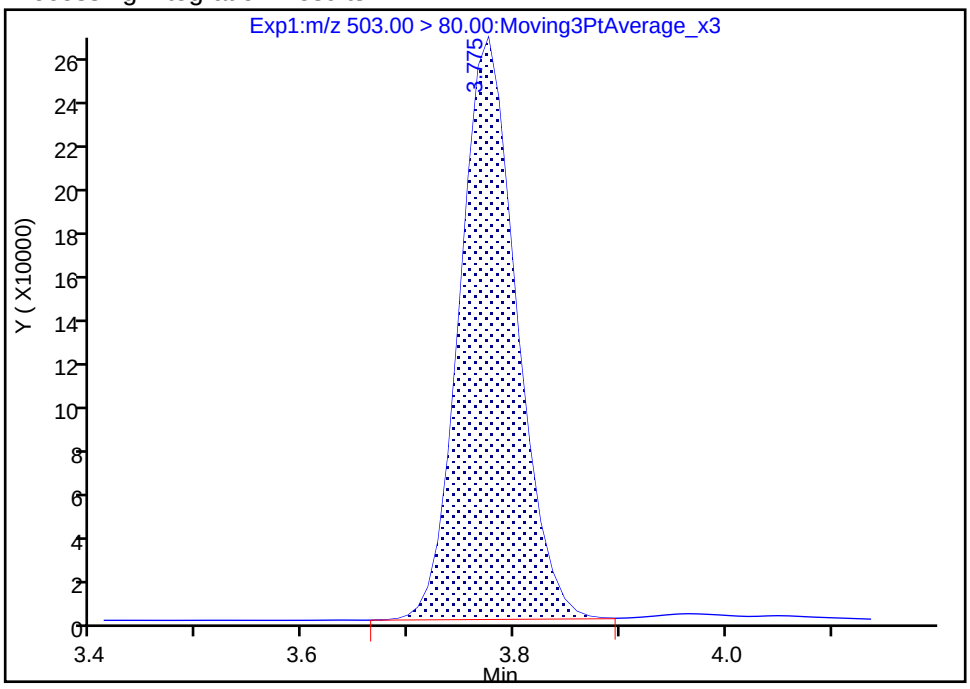
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

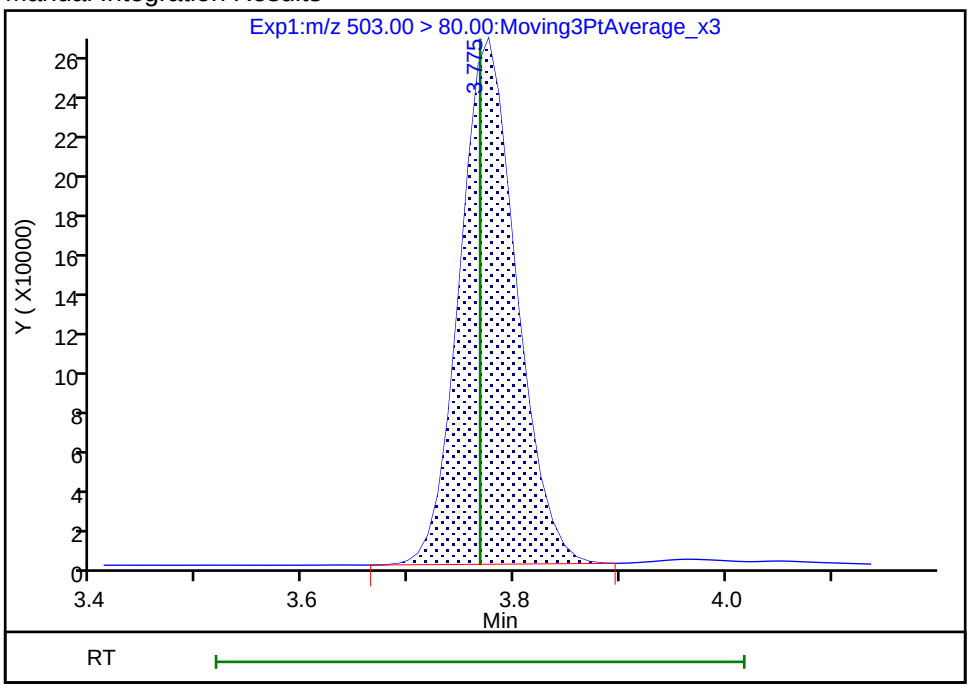
Processing Integration Results

RT: 3.78
Area: 999275
Amount: 1.180097
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 997880
Amount: 1.189431
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:38:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

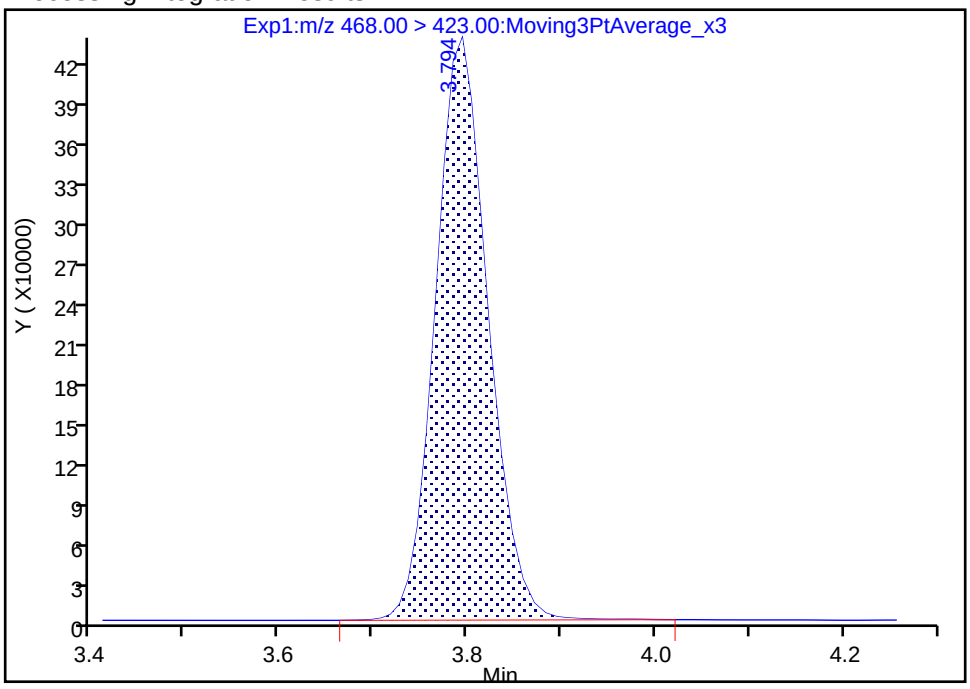
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

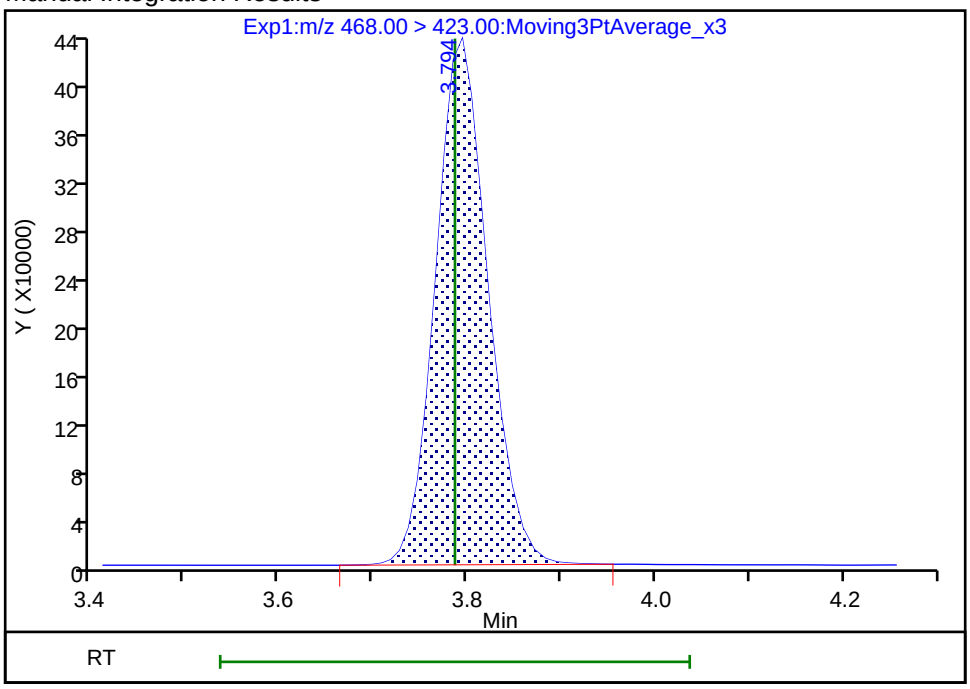
Processing Integration Results

RT: 3.79
Area: 1696952
Amount: 1.184491
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1692492
Amount: 1.192386
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:38:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

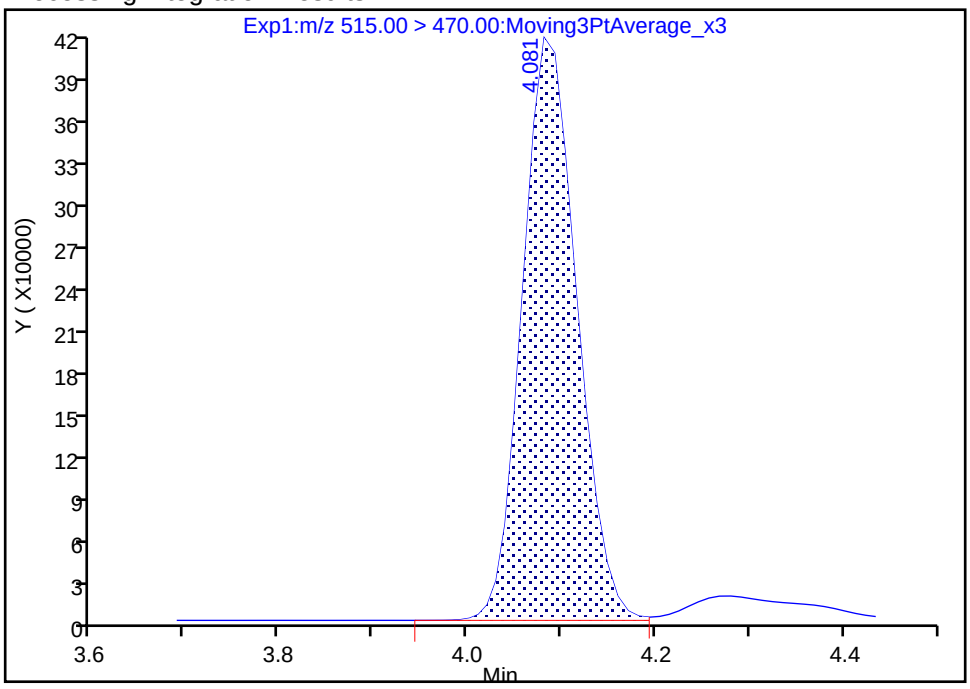
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

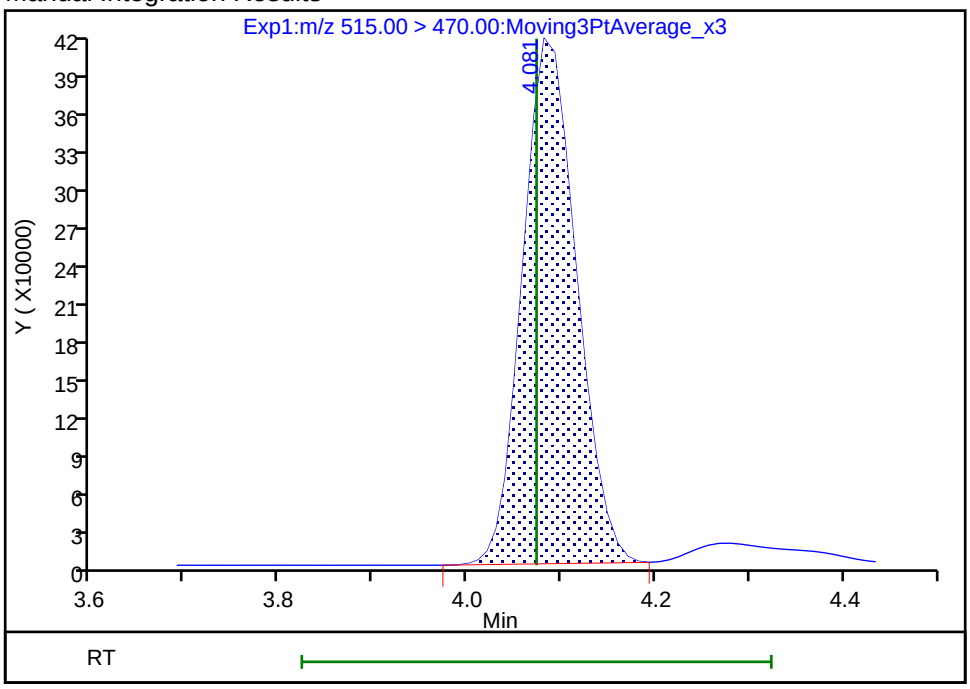
Processing Integration Results

RT: 4.08
Area: 1679148
Amount: 1.172182
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1663757
Amount: 1.161438
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:34:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

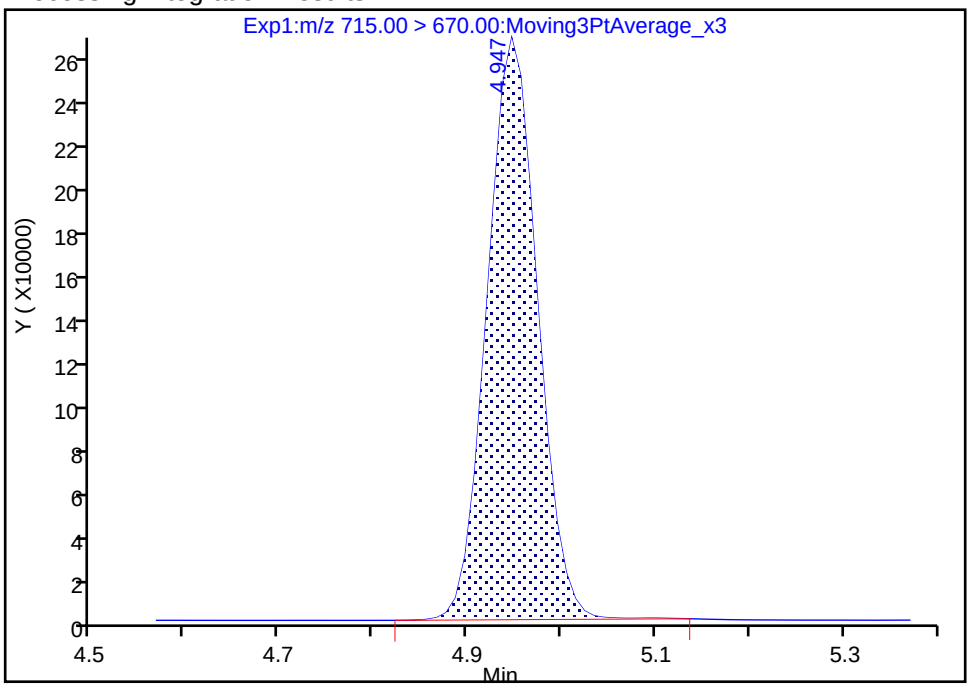
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 43 13C2 PFTeDA, CAS: STL02116

Signal: 1

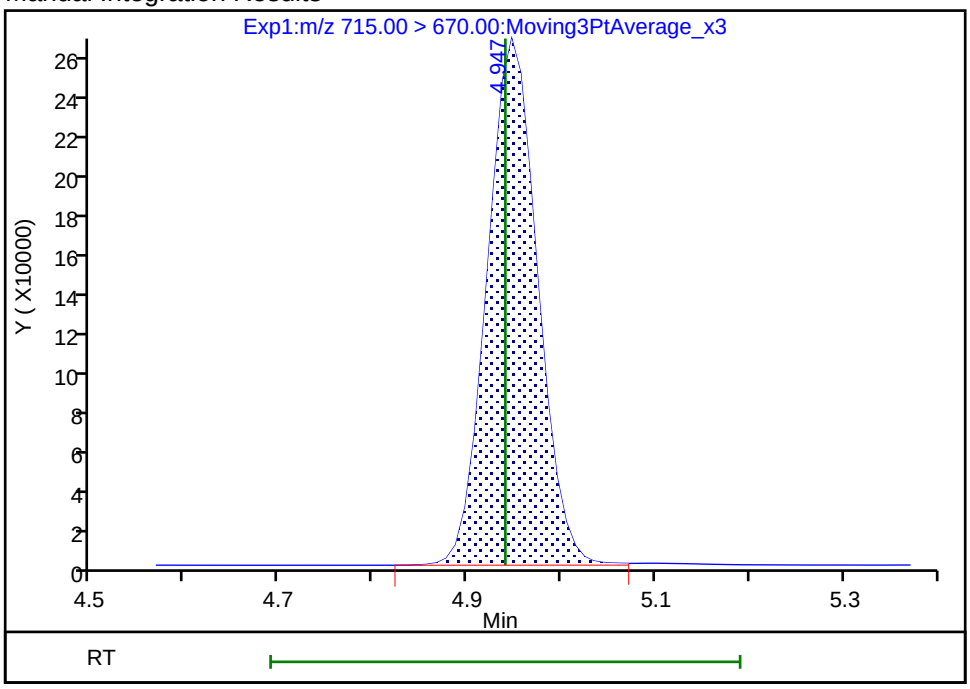
Processing Integration Results

RT: 4.95
Area: 976847
Amount: 1.039059
Amount Units: ng/ml




Manual Integration Results

RT: 4.95
Area: 979601
Amount: 1.051698
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:39:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

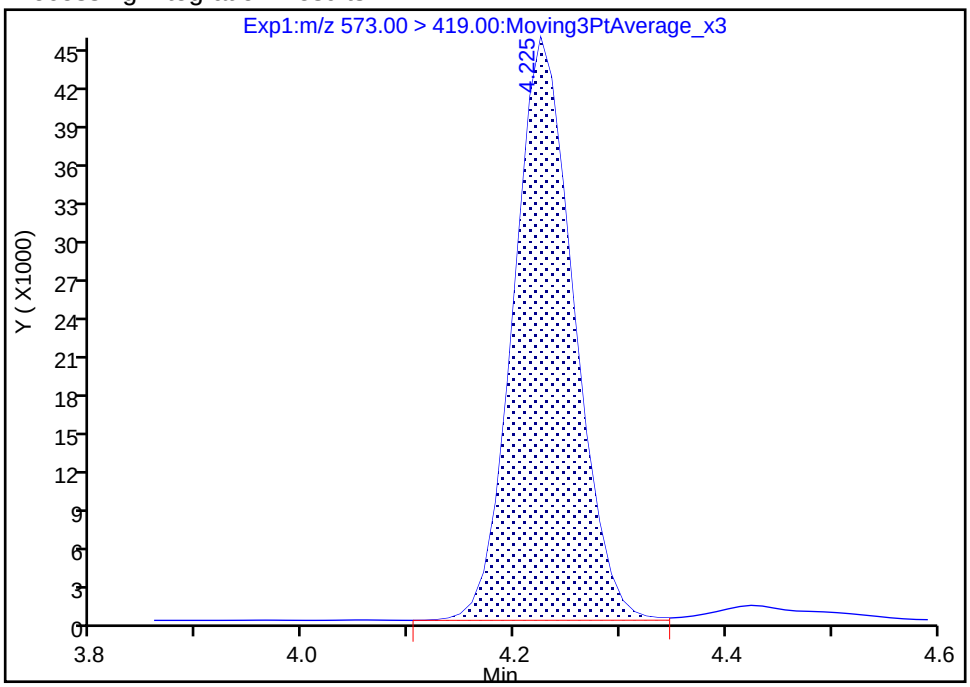
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

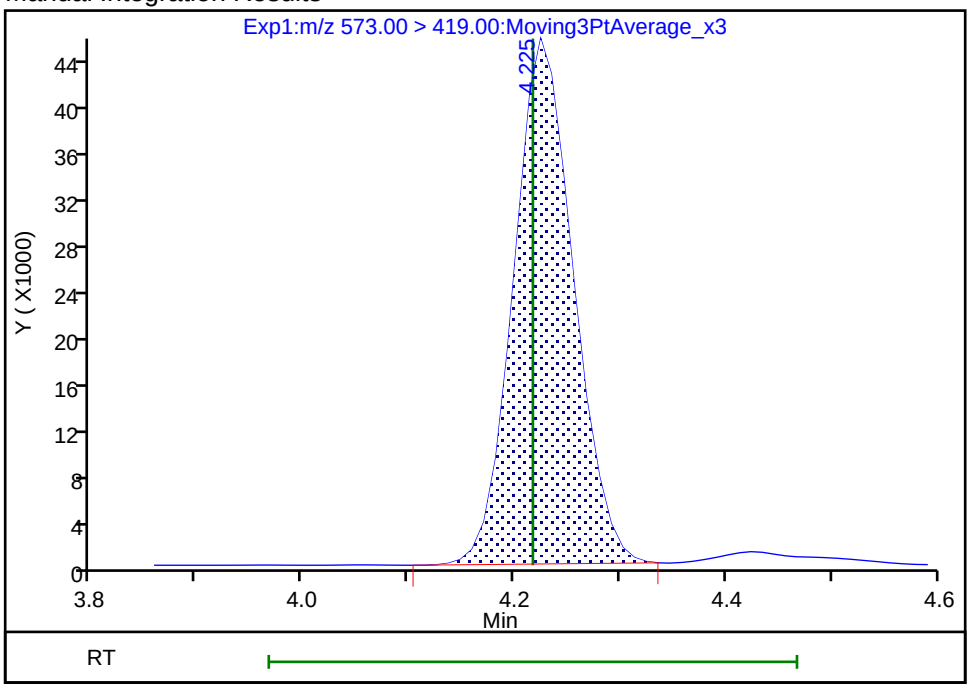
Processing Integration Results

RT: 4.22
Area: 177884
Amount: 1.250789
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 176425
Amount: 1.252090
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:34:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

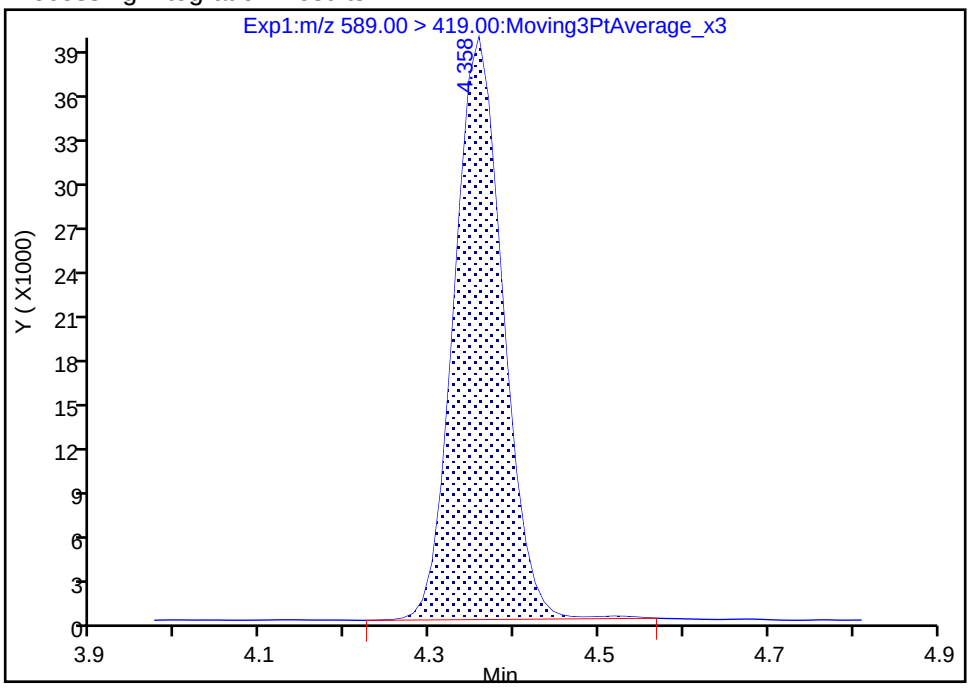
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

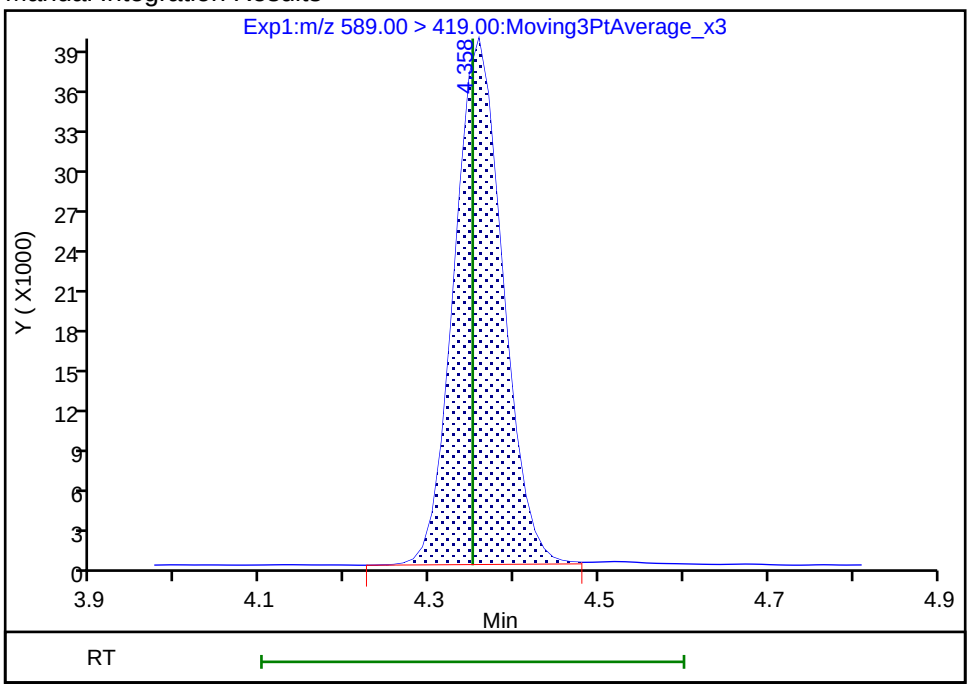
Processing Integration Results

RT: 4.36
Area: 159435
Amount: 1.196820
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 158885
Amount: 1.203806
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:38:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

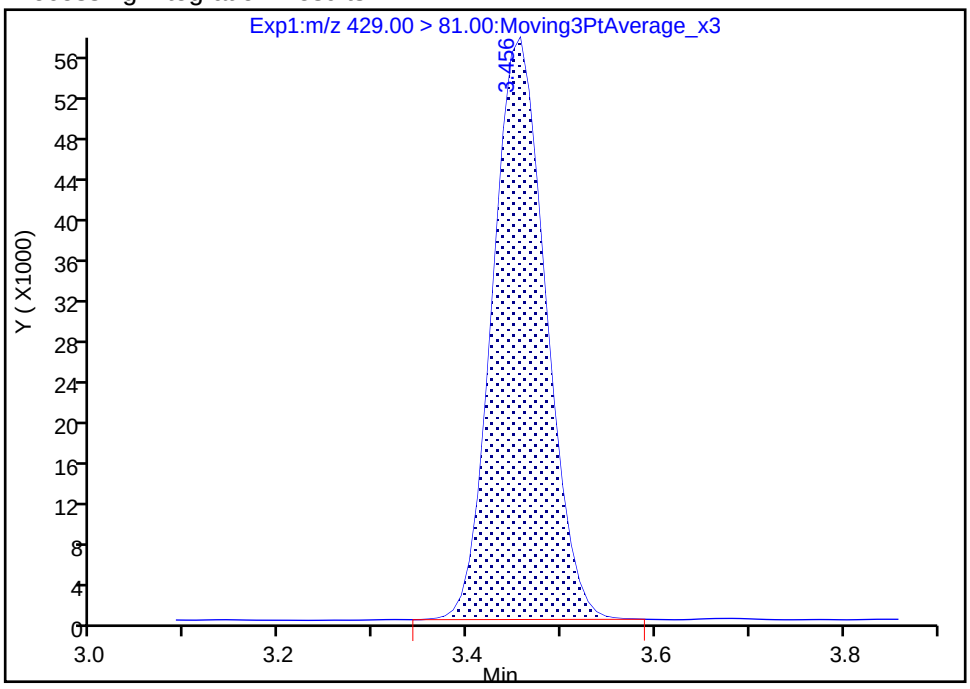
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d | | | | |
| Injection Date: | 03-Nov-2021 13:59:04 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173414/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

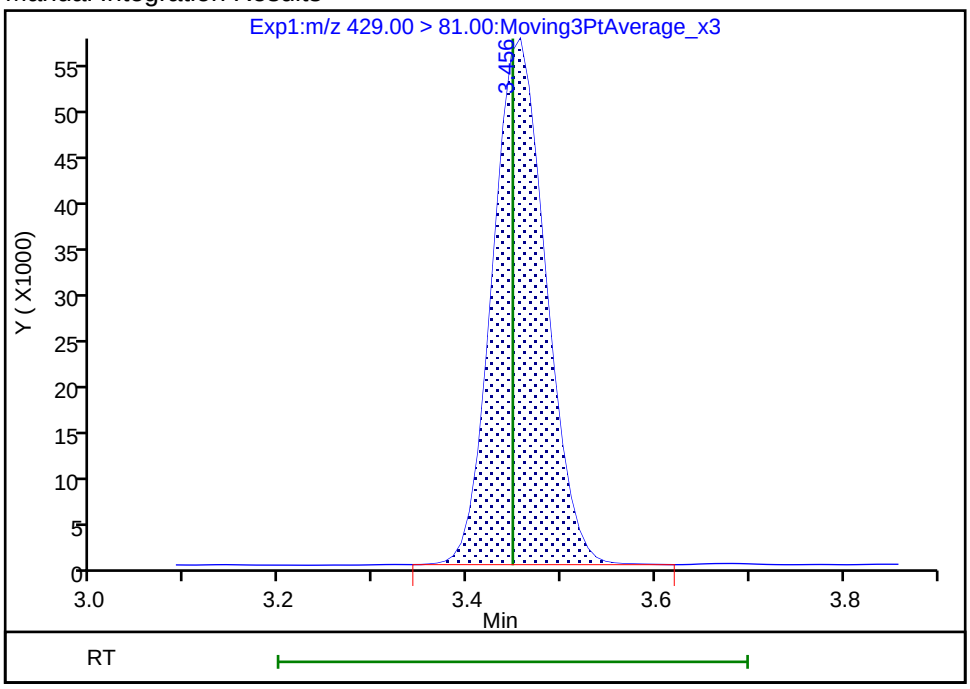
Processing Integration Results

RT: 3.46
Area: 226633
Amount: 1.226452
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 227018
Amount: 1.239983
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:38:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

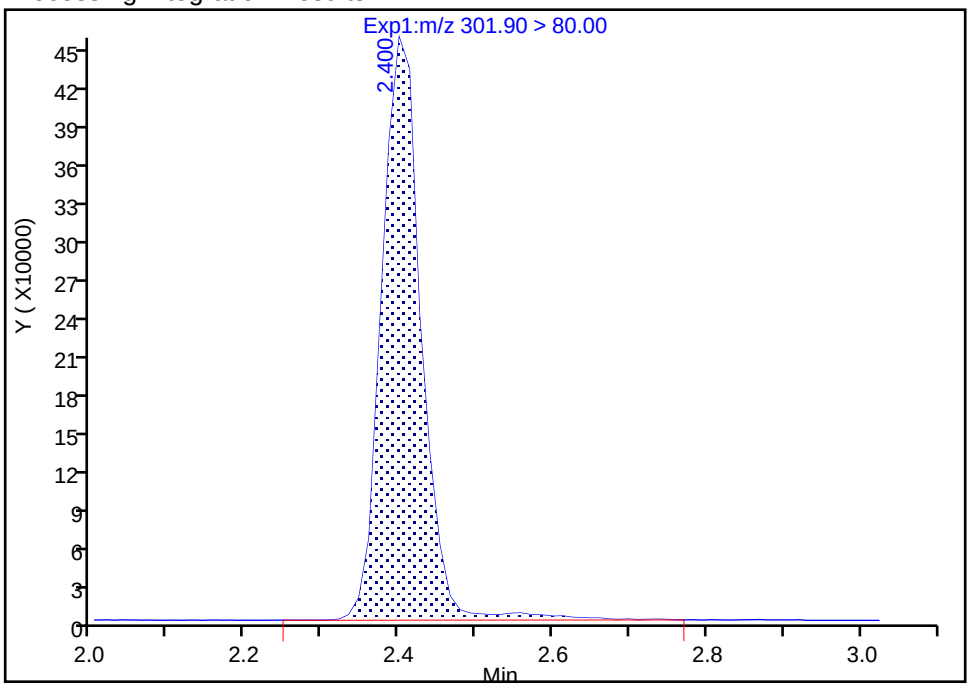
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

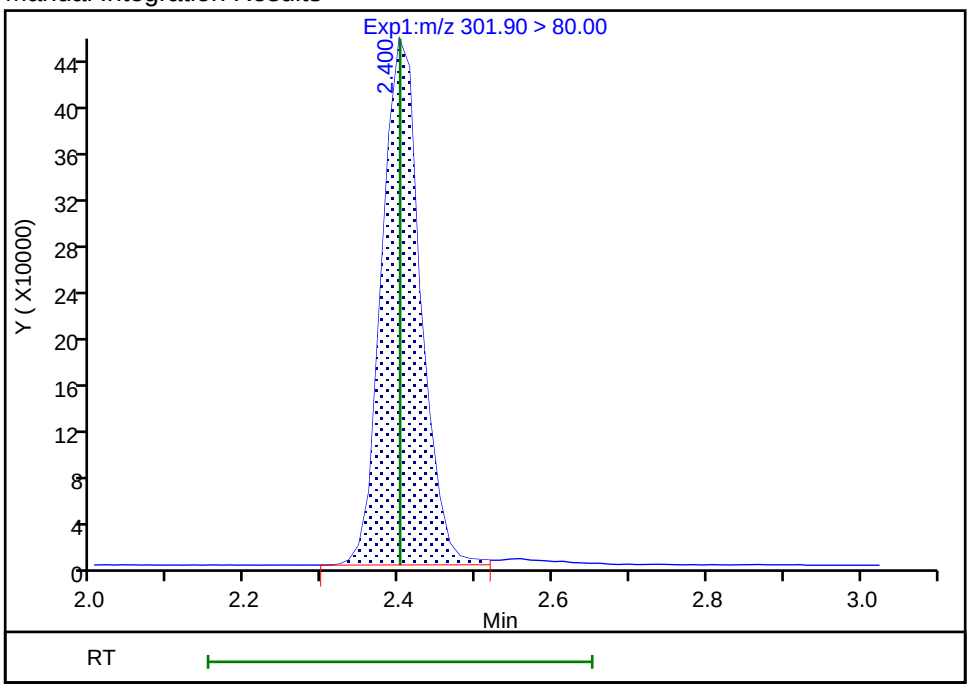
Processing Integration Results

RT: 2.40
Area: 1636163
Amount: 1.014451
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1602642
Amount: 1.002927
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:37:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

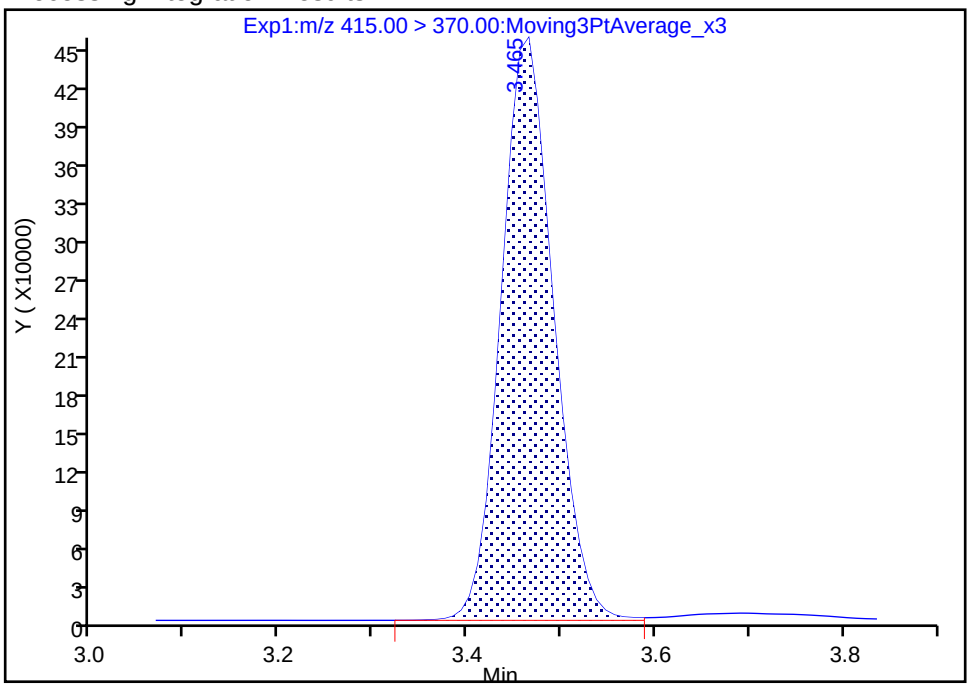
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A10.d
Injection Date: 03-Nov-2021 13:59:04 Instrument ID: LC812
Lims ID: MB 200-173414/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## * 62 13C2 PFOA, CAS: STL00623

Signal: 1

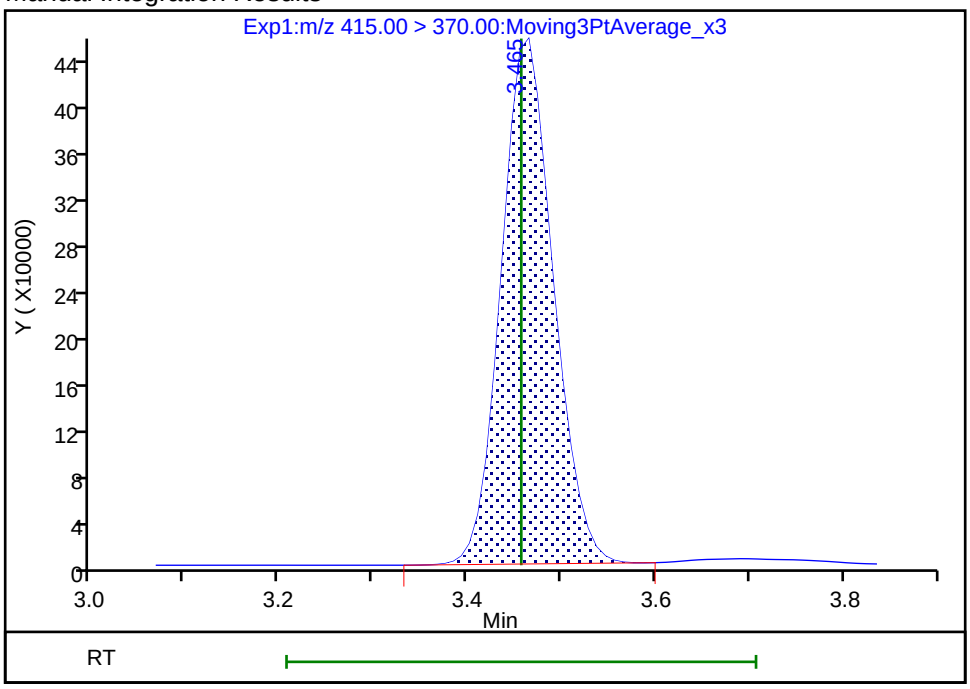
Processing Integration Results

RT: 3.47
Area: 1747308
Amount: 1.250000
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1731176
Amount: 1.250000
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:33:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: ICB 200-173158/8

Matrix: Water  Lab File ID: PA211027ICAL08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/27/2021 14:35

Con. Extract Vol.:  Dilution Factor: 1

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

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

Analysis Batch No.: 173158  Units: ng/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.022 | U | 0.13 | 0.022 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.012 | U | 0.050 | 0.012 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.011 | U | 0.050 | 0.011 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.0060 | U | 0.050 | 0.0060 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.011 | U | 0.050 | 0.011 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.0070 | U | 0.050 | 0.0070 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.00660 | J | 0.050 | 0.0062 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.0086 | U | 0.050 | 0.0086 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.0096 | U | 0.050 | 0.0096 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.0074 | U | 0.050 | 0.0074 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.012 | U | 0.050 | 0.012 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.0046 | U | 0.050 | 0.0046 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.00748 | J | 0.050 | 0.0071 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.0059 | U | 0.050 | 0.0059 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.0073 | U | 0.050 | 0.0073 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.0058 | U | 0.050 | 0.0058 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.00878 | J | 0.050 | 0.0084 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.0935 | J | 0.13 | 0.019 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.0743 | J | 0.13 | 0.019 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.015 | U | 0.13 | 0.015 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.0080 | U | 0.050 | 0.0080 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: ICB 200-173158/8

Matrix: Water  Lab File ID: PA211027ICAL08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/27/2021 14:35

Con. Extract Vol.:  Dilution Factor: 1

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

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

Analysis Batch No.: 173158  Units: ng/mL

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 103 | | 50-150 |
| STL01892 | 13C4 PFHpA | 101 | | 50-150 |
| STL00990 | 13C4 PFOA | 104 | | 50-150 |
| STL00991 | 13C4 PFOS | 106 | | 50-150 |
| STL00995 | 13C5 PFNA | 104 | | 50-150 |
| STL00992 | 13C4 PFBA | 99 | | 25-150 |
| STL00993 | 13C2 PFHxA | 103 | | 50-150 |
| STL00996 | 13C2 PFDA | 106 | | 50-150 |
| STL00997 | 13C2 PFUnA | 105 | | 50-150 |
| STL00998 | 13C2 PFDoA | 104 | | 50-150 |
| STL01056 | 13C8 FOSA | 97 | | 25-150 |
| STL01893 | 13C5 PFPeA | 100 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 105 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 105 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 104 | | 50-150 |
| STL02279 | M2-6:2 FTS | 104 | | 25-150 |
| STL02280 | M2-8:2 FTS | 110 | | 25-150 |
| STL02337 | 13C3 PFBS | 101 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 27-Oct-2021 14:35:58 ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: 200-0048181-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:05:53 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:47:57
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.074 | 2.080 | -0.006 | 0.595 | 1984170 | 1.24 | | 99.3 | 6860 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.401 | 2.398 | 0.003 | 0.689 | 1690461 | 1.26 | | 100 | 2766 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.401 | 2.398 | 0.003 | 1.000 | 8383 | 0.006188 | | | 0.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.414 | 2.424 | -0.010 | 0.693 | 2132555 | 1.17 | | 101 | 208360 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.414 | 2.424 | -0.010 | 1.000 | 8817 | 0.004500 | Target=2.32 | | 9.5 | |
| 298.90 > 99.00 | 2.414 | 2.424 | -0.010 | 1.000 | 4857 | | 1.82(1.16-3.48) | | 1.7 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.723 | 2.720 | 0.003 | 0.781 | 161559 | 1.16 | | 99.7 | 138 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.711 | 2.720 | -0.009 | 0.996 | 1017 | 0.003453 | | | 13.5 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.759 | 2.756 | 0.003 | 1.000 | 9115 | 0.006201 | Target=12.09 | | 1.3 | M |
| 313.00 > 119.00 | 2.759 | 2.756 | 0.003 | 1.000 | 876 | | 10.41(6.04-18.13) | | 1.2 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.756 | 0.003 | 0.792 | 1811798 | 1.28 | | 103 | 2657 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.759 | 2.768 | -0.009 | 0.884 | 6304 | 0.003852 | Target=3.03 | | 11.1 | M |
| 349.00 > 99.00 | 2.759 | 2.768 | -0.009 | 0.884 | 1872 | | 3.37(1.52-4.55) | | 2.4 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.869 | 2.865 | 0.004 | 0.823 | 52249 | 1.40 | | 112 | 448 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.123 | 3.122 | 0.001 | 0.896 | 1607190 | 1.21 | | 103 | 3129 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.123 | 3.122 | 0.001 | 1.000 | 11184 | 0.007484 | Target=3.55 | | 23.8 | |
| 399.00 > 99.00 | 3.123 | 3.122 | 0.001 | 1.000 | 3452 | | 3.24(1.77-5.32) | | 3.1 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.123 | 3.132 | -0.009 | 1.000 | 5708 | 0.003662 | Target=3.69 | | 1.7 | |
| 363.00 > 169.00 | 3.123 | 3.132 | -0.009 | 1.000 | 2188 | | 2.61(1.84-5.53) | | 4.6 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.123 | 3.132 | -0.009 | 0.896 | 1885648 | 1.27 | | 101 | 3551 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.836 | 12515 | 0.003538 | Target=2.56 | | 16.3 | |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.836 | 5434 | | 2.30(1.28-3.84) | | 6.3 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.466 | 3.474 | -0.008 | 0.915 | 5265 | 0.004179 | Target=4.88 | | 18.2 | M |
| 449.00 > 99.00 | 3.475 | 3.474 | 0.001 | 0.917 | 1139 | | 4.62(2.44-7.32) | | 3.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.466 | 3.474 | -0.008 | 0.995 | 258055 | 1.24 | | 104 | 510 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.457 | 3.474 | -0.017 | 0.997 | 1085 | 0.003937 | | | 13.9 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.475 | 3.483 | -0.008 | 0.997 | 2102754 | 1.29 | | 104 | 5962 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.484 | 3.483 | 0.001 | | 1973814 | 1.25 | | | 2729 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.475 | 3.483 | -0.008 | 1.000 | 11160 | 0.006238 | Target=2.68 | | 1.6 | M |
| 413.00 > 169.00 | 3.475 | 3.483 | -0.008 | 1.000 | 3481 | | 3.21(1.34-4.02) | | 4.3 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.788 | 3.794 | -0.006 | 1.087 | 1207750 | 1.26 | | 106 | 4596 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.788 | 3.794 | -0.006 | 1.000 | 4955 | 0.004518 | Target=4.69 | | 6.6 | M |
| 499.00 > 99.00 | 3.818 | 3.794 | 0.024 | 1.008 | 1637 | | 3.03(2.35-7.04) | | 2.0 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.807 | 3.814 | -0.007 | 1.093 | 2096587 | 1.30 | | 104 | 5844 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.807 | 3.814 | -0.007 | 1.000 | 8447 | 0.005148 | Target=7.29 | | 2.0 | M |
| 463.00 > 169.00 | 3.807 | 3.814 | -0.007 | 1.000 | 1356 | | 6.23(3.64-10.93) | | 7.5 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.948 | 3.955 | -0.007 | 1.042 | 6749 | 0.004085 | | | 23.3 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.075 | 4.071 | 0.004 | 1.076 | 4963 | 0.005810 | Target=2.35 | | 28.0 | M |
| 549.00 > 99.00 | 4.086 | 4.071 | 0.015 | 1.079 | 1795 | | 2.76(1.17-3.52) | | 5.8 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.097 | 4.104 | -0.007 | 1.176 | 2173697 | 1.33 | | 106 | 3806 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.097 | 4.104 | -0.007 | 1.000 | 11533 | 0.006600 | Target=8.95 | | 6.2 | M |
| 513.00 > 169.00 | 4.119 | 4.104 | 0.015 | 1.005 | 966 | | 11.94(4.47-13.42) | | 4.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.108 | 4.115 | -0.007 | 1.179 | 312017 | 1.32 | | 110 | 803 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.108 | 4.115 | -0.007 | 1.000 | 726 | 0.003331 | | | 9.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.219 | 4.225 | -0.006 | 1.211 | 1905834 | 1.21 | | 96.8 | 2854 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.219 | 4.235 | -0.016 | 1.000 | 12710 | 0.008778 | | | 25.0 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.240 | 4.246 | -0.006 | 1.217 | 209985 | 1.31 | | 105 | 1448 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.240 | 4.246 | -0.006 | 1.000 | 12334 | 0.0935 | | | 52.2 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.331 | 4.336 | -0.005 | 1.143 | 2995 | 0.004509 | Target=2.47 | | 27.8 | M |
| 599.00 > 99.00 | 4.320 | 4.336 | -0.016 | 1.140 | 1324 | | 2.26(1.23-3.70) | | 7.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.353 | 4.358 | -0.005 | 1.249 | 1665317 | 1.31 | | 105 | 5461 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.364 | 4.358 | 0.006 | 1.003 | 9245 | 0.006510 | Target=9.24 | | 6.5 | M |
| 563.00 > 169.00 | 4.353 | 4.358 | -0.005 | 1.000 | 850 | | 10.88(4.62-13.86) | | 8.3 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.364 | 4.369 | -0.005 | 1.253 | 196477 | 1.31 | | 104 | 1298 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.375 | 4.380 | -0.005 | 1.003 | 10005 | 0.0743 | | | 107 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.452 | 4.445 | 0.007 | 1.175 | 8224 | 0.004215 | | | 61.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.577 | 4.580 | -0.003 | 1.314 | 1782721 | 1.30 | | 104 | 739 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.577 | 4.580 | -0.003 | 1.000 | 10015 | 0.007172 | Target=7.04 | | 2.0 | |
| 613.00 > 169.00 | 4.577 | 4.580 | -0.003 | 1.000 | 1612 | | 6.21(3.52-10.56) | | 13.4 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.598 | 4.601 | -0.003 | 1.119 | 359 | 0.003565 | | | 7.0 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.745 | 4.748 | -0.003 | 1.253 | 1165 | 0.004769 | Target=0.49 | | 24.2 | M |
| 699.00 > 99.00 | 4.745 | 4.748 | -0.003 | 1.253 | 1760 | | 0.66(0.25-0.74) | | 17.1 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.772 | 4.775 | -0.003 | 1.043 | 8163 | 0.006781 | Target=4.68 | | 2.4 | M |
| 663.00 > 169.00 | 4.772 | 4.775 | -0.003 | 1.043 | 1698 | | 4.81(2.34-7.02) | | 20.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.952 | 4.957 | -0.004 | 1.421 | 1388228 | 1.31 | | 105 | 3372 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.952 | 4.957 | -0.004 | 1.000 | 1191 | 0.006795 | Target=1.01 | | 19.6 | |
| 713.00 > 219.00 | 4.952 | 4.957 | -0.004 | 1.000 | 1663 | | 0.72(0.51-1.52) | | 34.5 | |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.255 | 5.258 | -0.003 | 1.508 | 1143798 | 1.22 | | 97.8 | 3043 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.255 | 5.258 | -0.003 | 1.000 | 18251 | 0.004595 | Target=4.57 | | 4.5 | M |
| 813.00 > 169.00 | 5.255 | 5.258 | -0.003 | 1.000 | 4045 | | 4.51(2.29-6.86) | | 56.9 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.516 | 5.519 | -0.003 | 1.050 | 9926 | 0.0129 | Target=4.27 | | 5.3 | M |
| 913.00 > 169.00 | 5.516 | 5.519 | -0.003 | 1.050 | 2588 | | 3.84(2.14-6.41) | | 40.3 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCBLK20_00013 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:06:32 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d

Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812

Lims ID: ICB

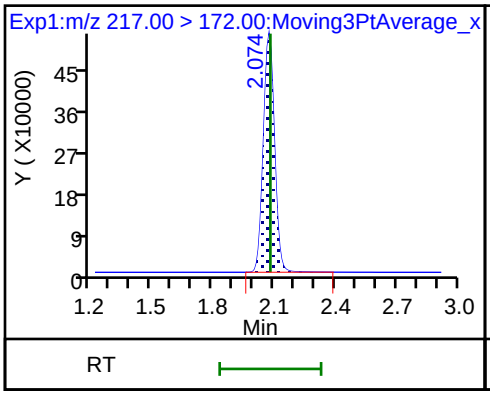
Client ID:

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8

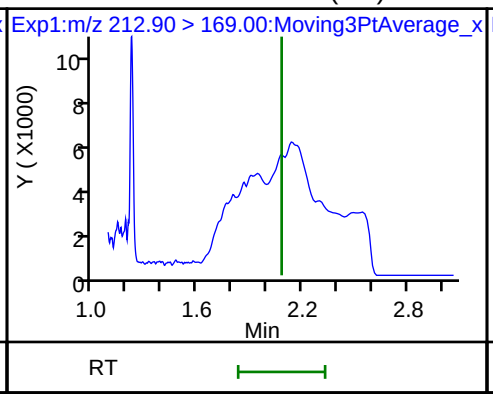
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

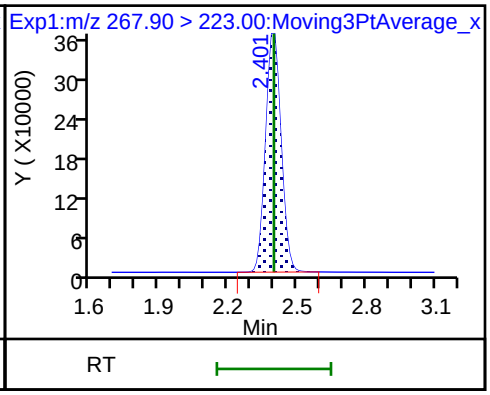
D 1 13C4 PFBA



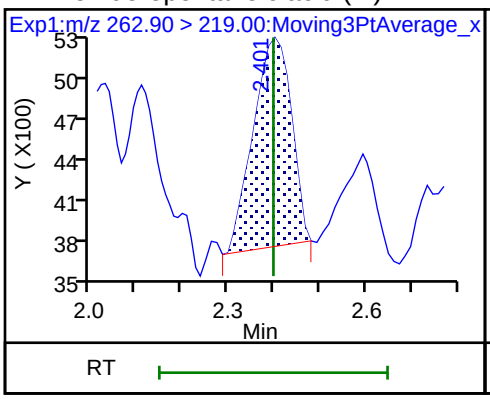

2 Perfluorobutanoic acid (ND)



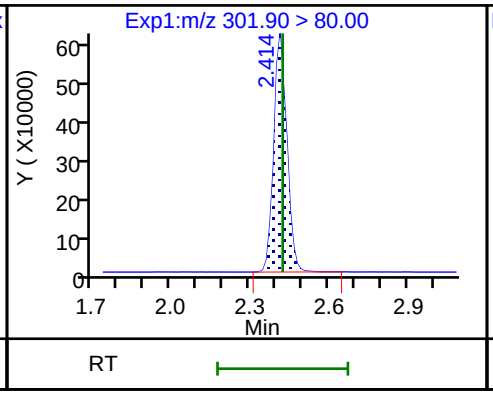

D 3 13C5 PFPeA



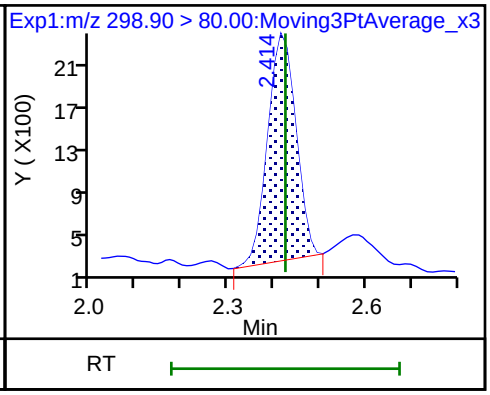

4 Perfluoropentanoic acid (M)



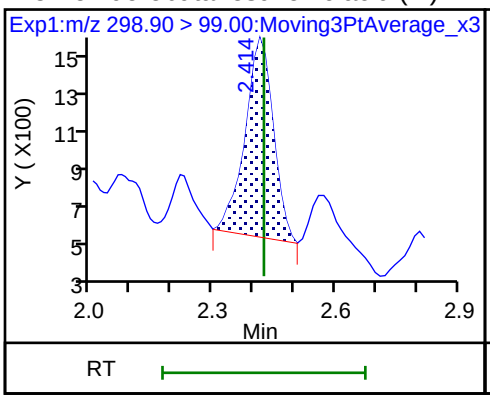

D 47 13C3 PFBS



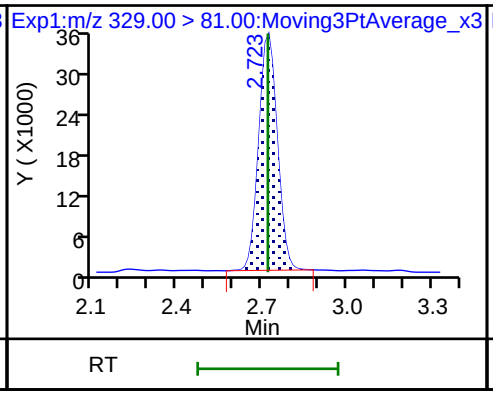

5 Perfluorobutanesulfonic acid



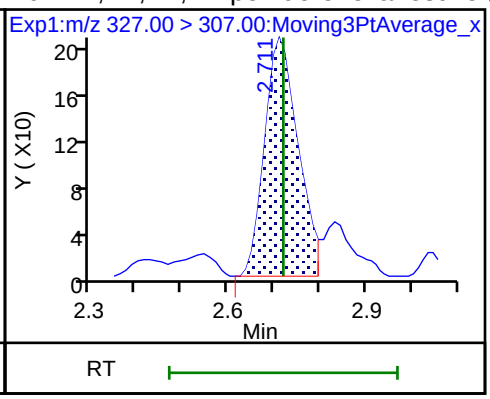

5 Perfluorobutanesulfonic acid (M)



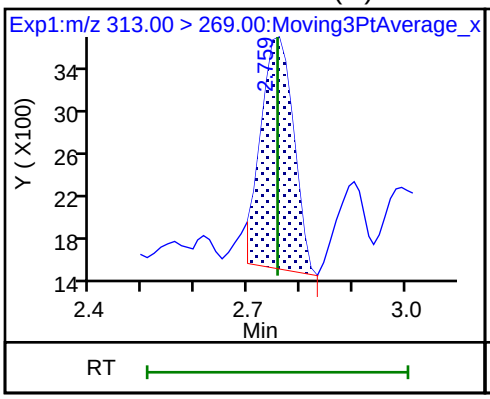

D 60 M2-4:2 FTS



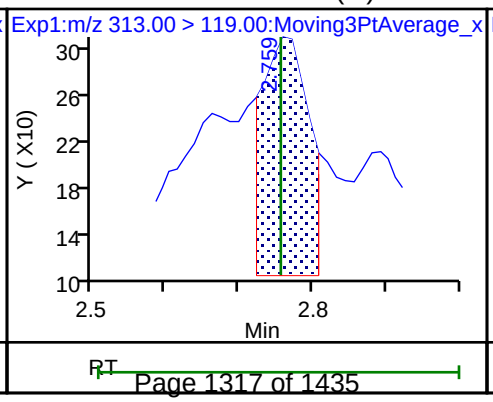

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



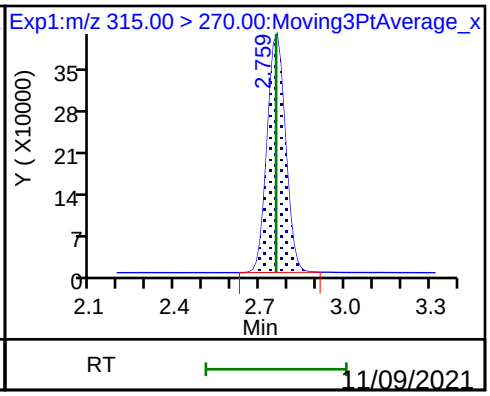

6 Perfluorohexanoic acid (M)



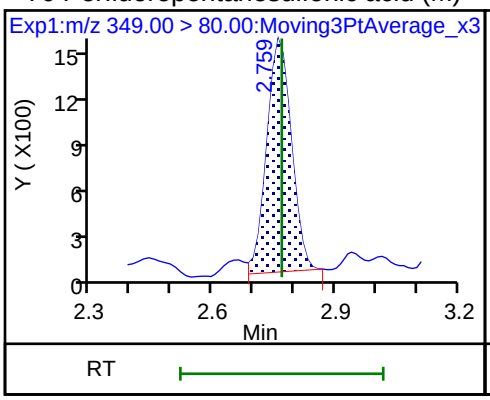

6 Perfluorohexanoic acid (M)



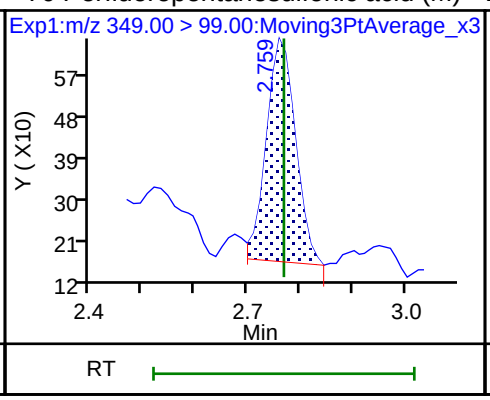

D 7 13C2 PFHxA



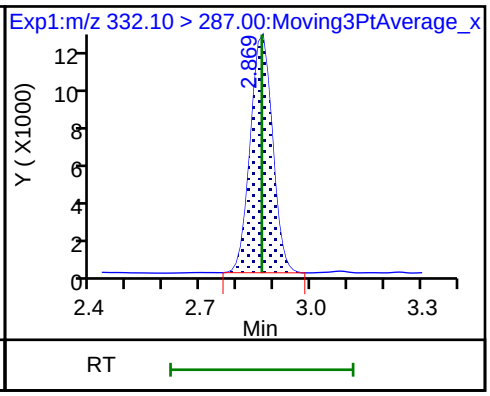
70 Perfluoropentanesulfonic acid (M)



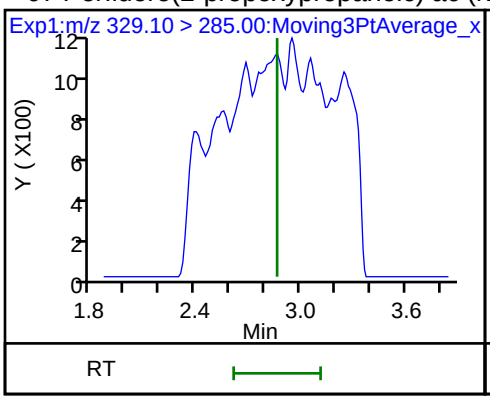

70 Perfluoropentanesulfonic acid (M)



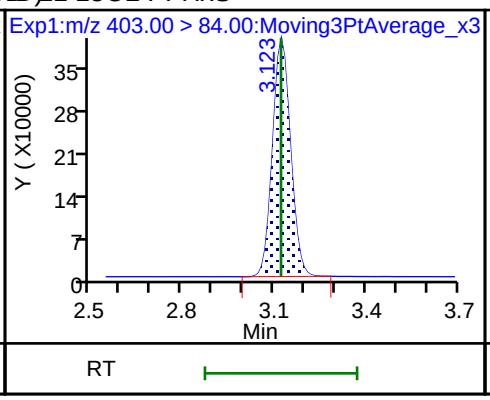

D 64 13C3 HFPO-DA



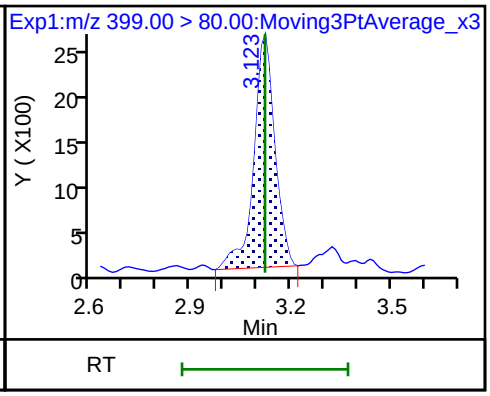

67 Perfluoro(2-propoxypropanoic) ac (M)



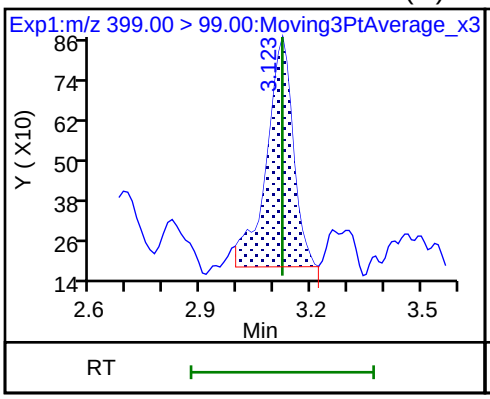

D 11 18O2 PFHxS



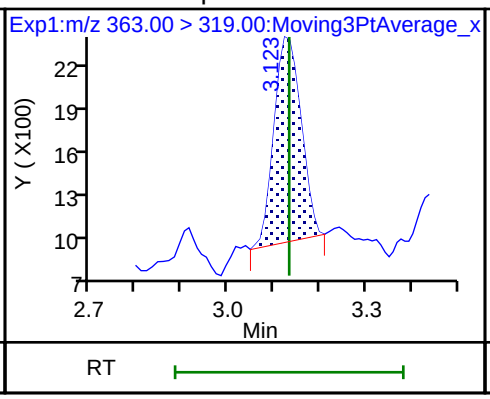

8 Perfluorohexanesulfonic acid



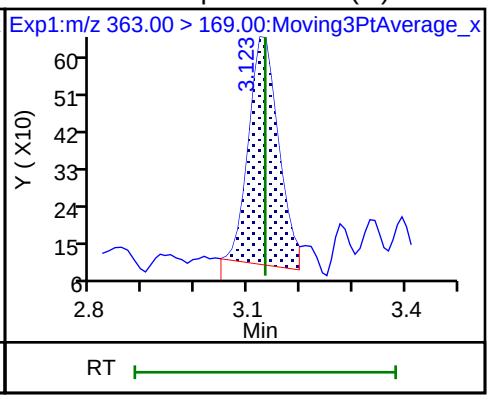

8 Perfluorohexanesulfonic acid (M)



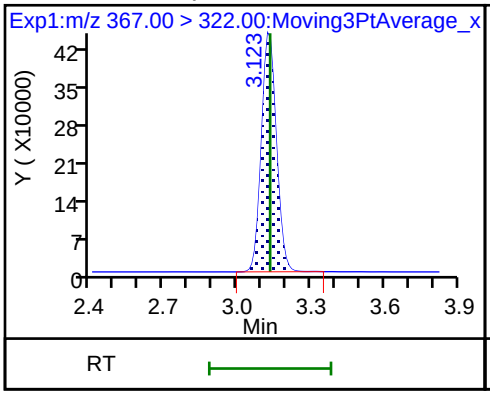

10 Perfluoroheptanoic acid



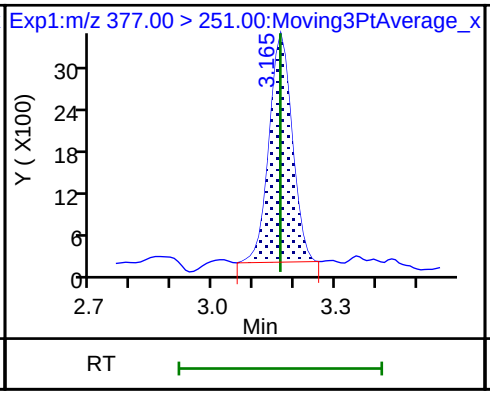

10 Perfluoroheptanoic acid (M)



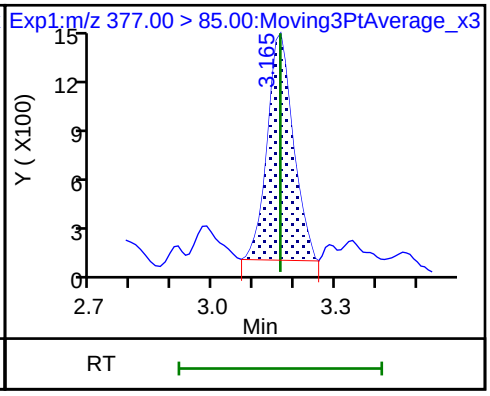

D 9 13C4 PFHpA



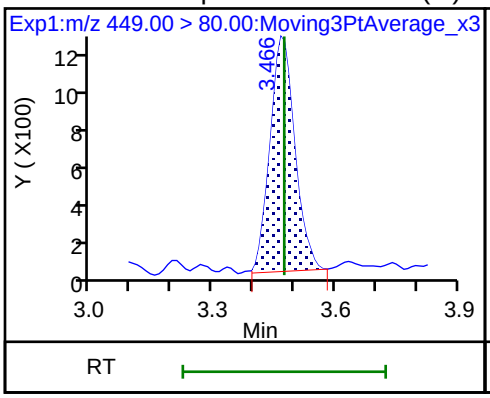

77 DONA



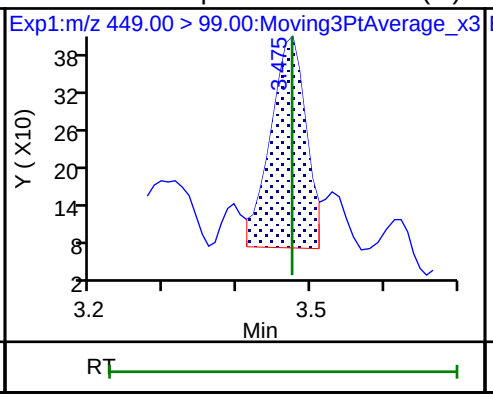

77 DONA



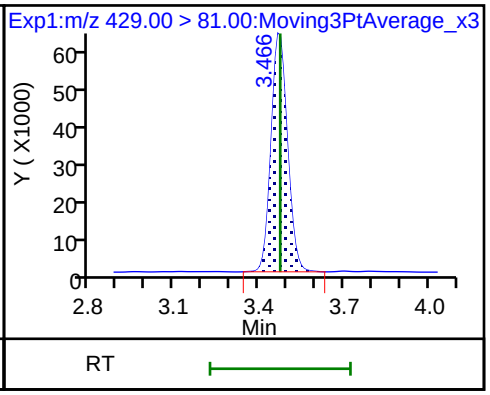
16 Perfluoroheptanesulfonic acid (M)



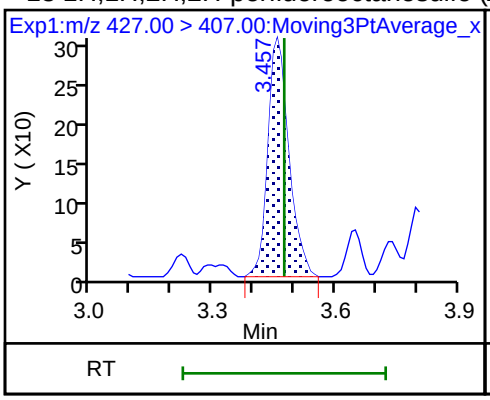

16 Perfluoroheptanesulfonic acid (M)



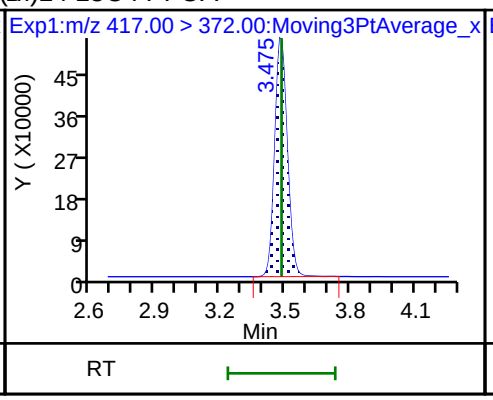

D 12 M2-6:2 FTS



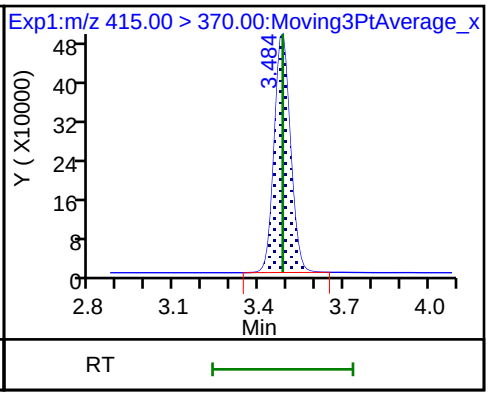

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



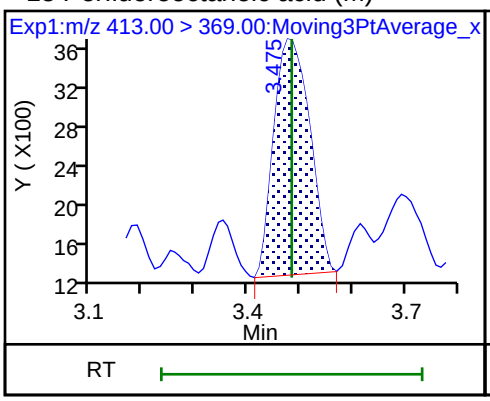

14 13C4 PFOA



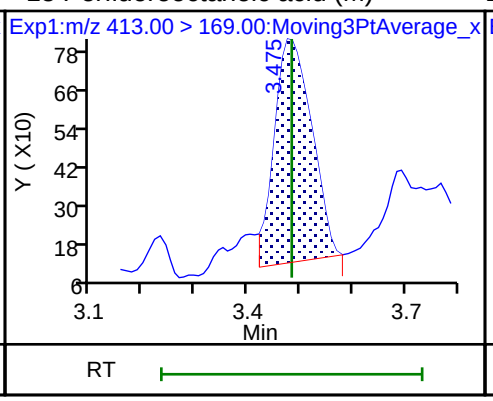

* 62 13C2 PFOA



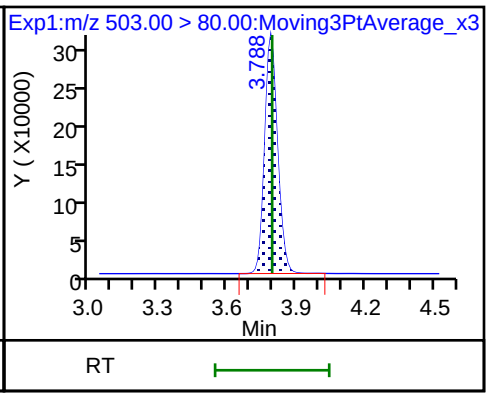

15 Perfluorooctanoic acid (M)



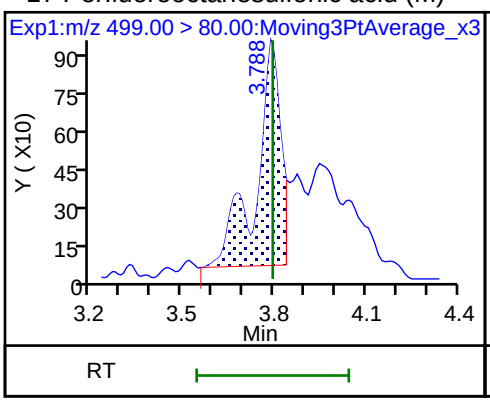

15 Perfluorooctanoic acid (M)



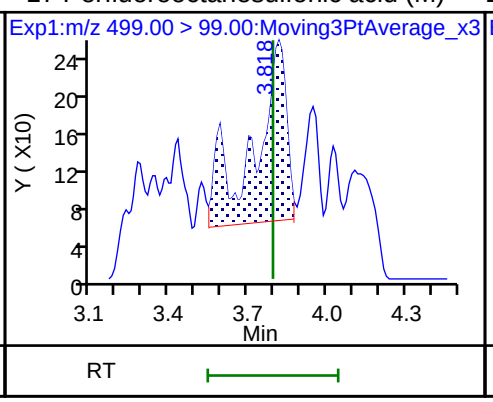

D 18 13C4 PFOS



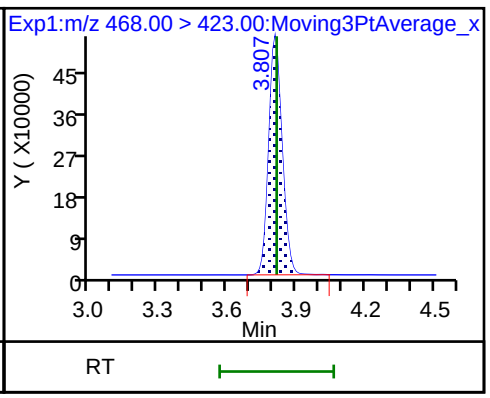

17 Perfluorooctanesulfonic acid (M)



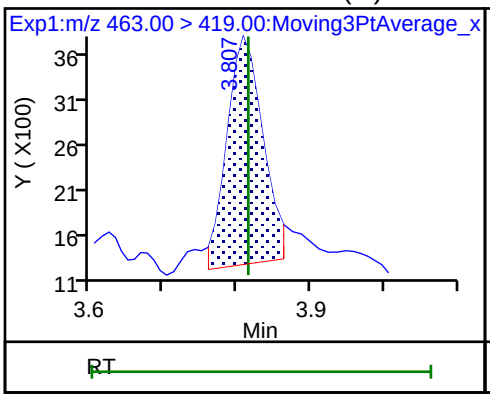

17 Perfluorooctanesulfonic acid (M)



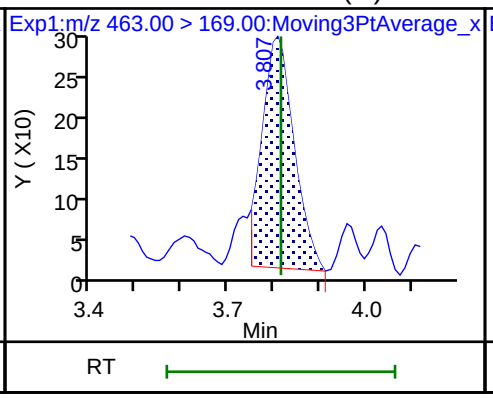

D 19 13C5 PFNA



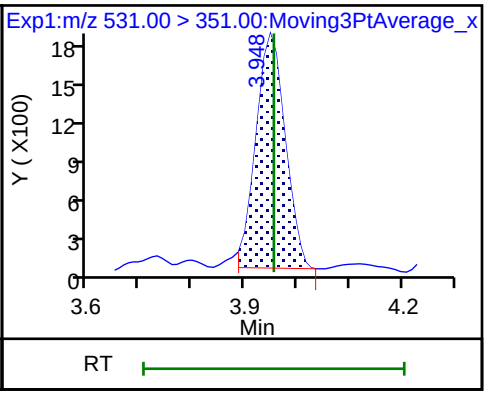
20 Perfluorononanoic acid (M)



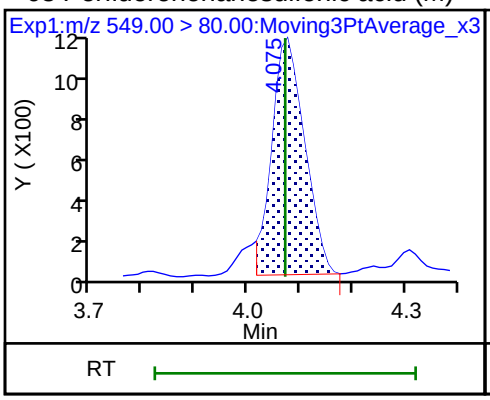

20 Perfluorononanoic acid (M)



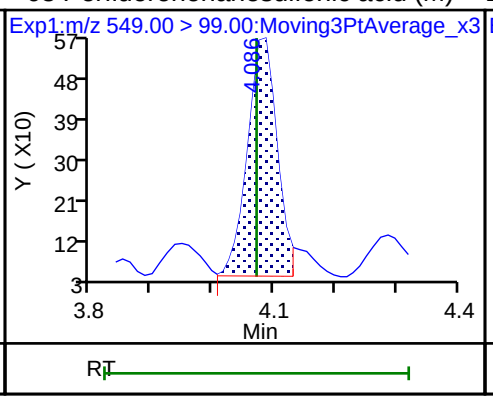

69 9-Chlorohexadecafluoro-3-oxanona (M)



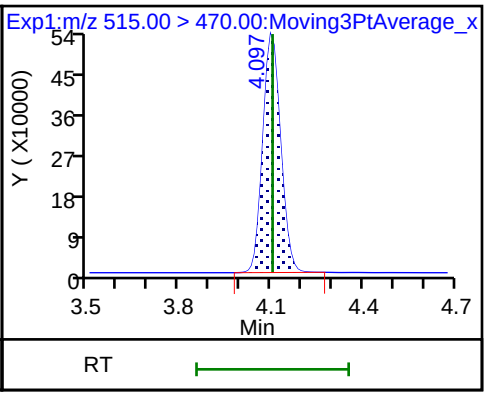

68 Perfluorononanesulfonic acid (M)



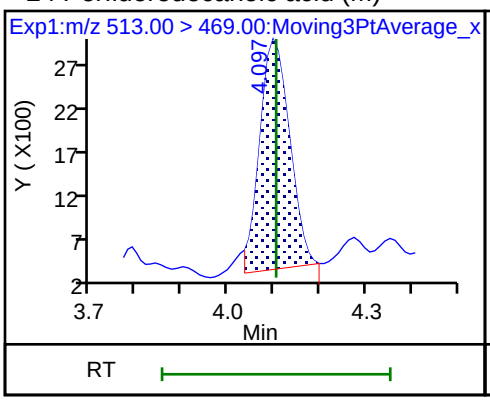

68 Perfluorononanesulfonic acid (M)



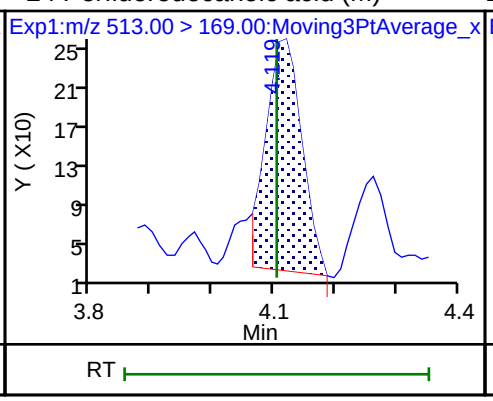

D 23 13C2 PFDA



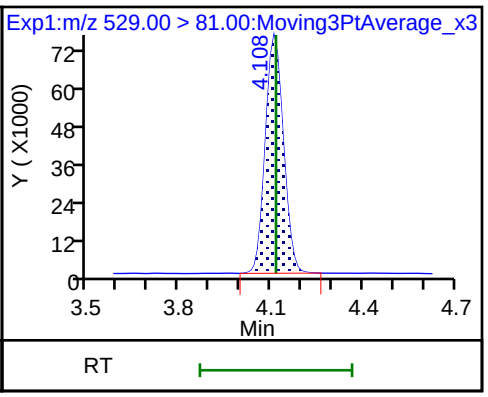

24 Perfluorodecanoic acid (M)



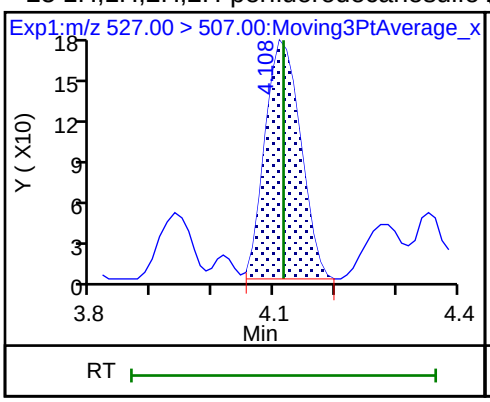

24 Perfluorodecanoic acid (M)



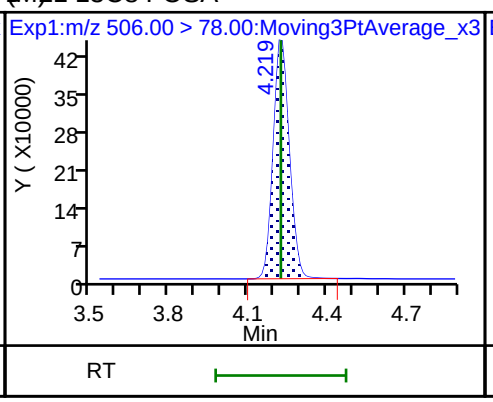

D 26 M2-8:2 FTS



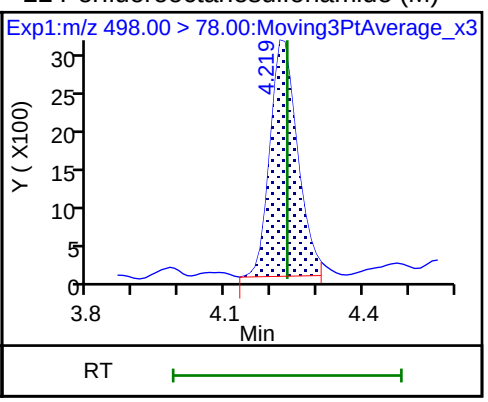

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



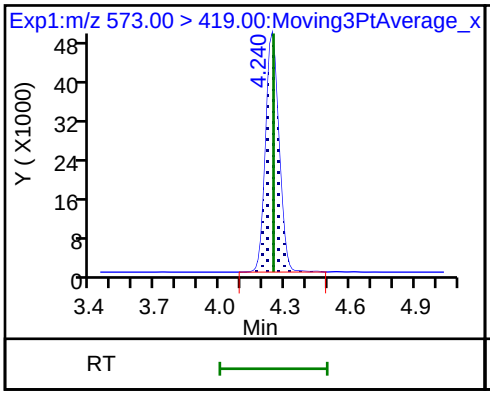

D 21 13C8 FOSA



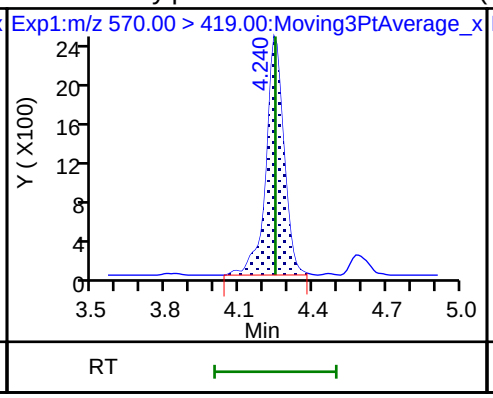

22 Perfluorooctanesulfonamide (M)



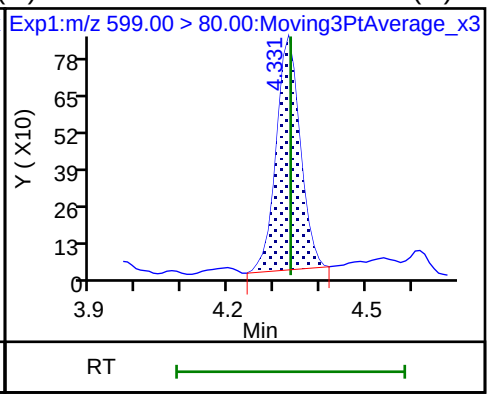
D 27 d3-NMeFOSAA



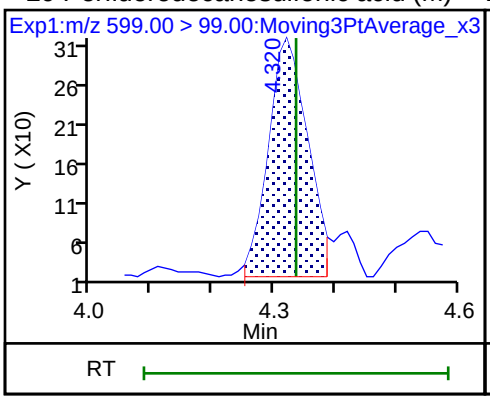

28 N-methylperfluorooctanesulfonami (M)



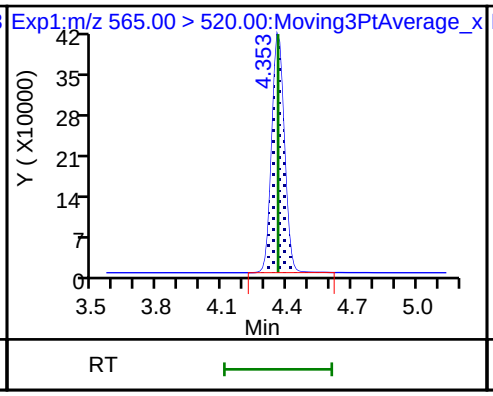

29 Perfluorodecanesulfonic acid (M)



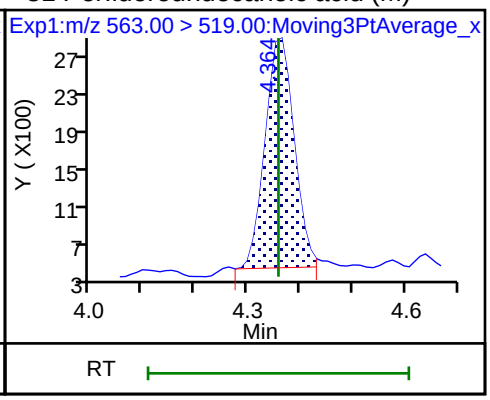

29 Perfluorodecanesulfonic acid (M)



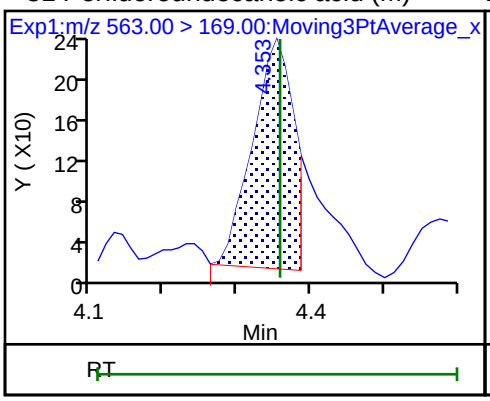

D 30 13C2 PFUnA



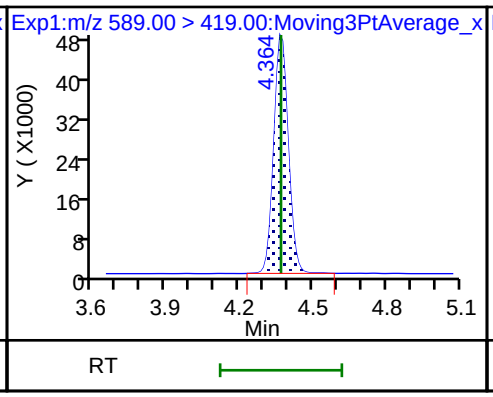

31 Perfluoroundecanoic acid (M)



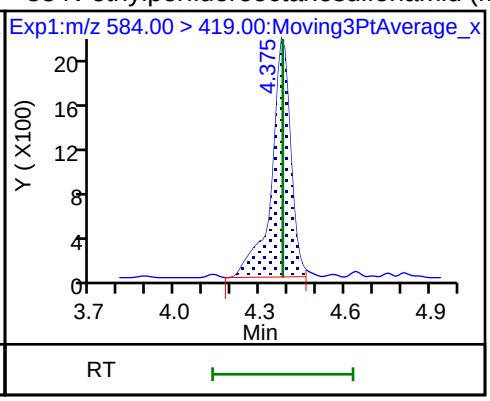

31 Perfluoroundecanoic acid (M)



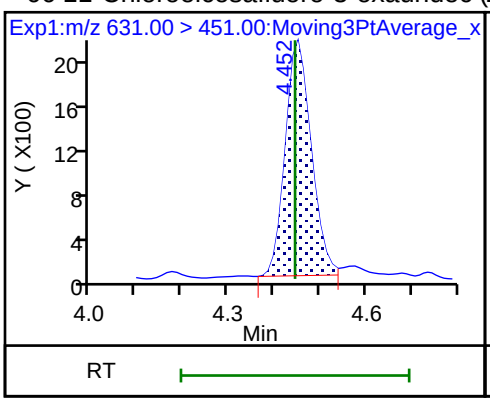

D 32 d5-NEtFOSAA



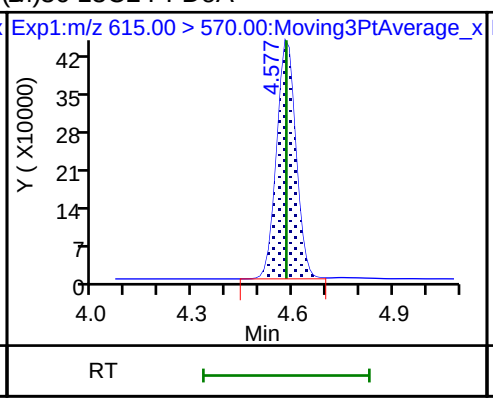

33 N-ethylperfluorooctanesulfonamid (M)



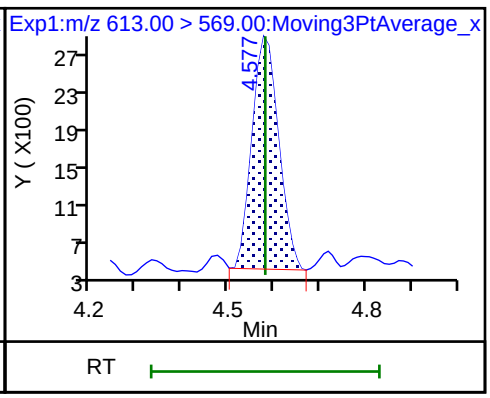

66 11-Chloroeicosafluoro-3-oxaundec (M)



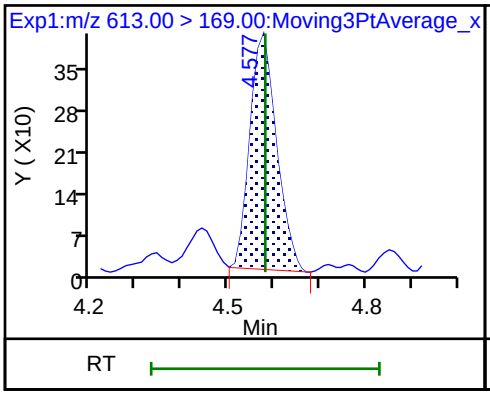

D 36 13C2 PFDoA



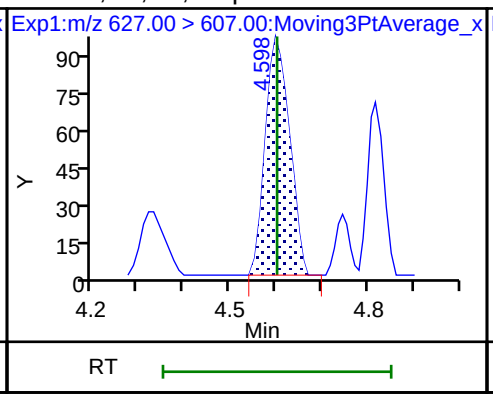

37 Perfluorododecanoic acid



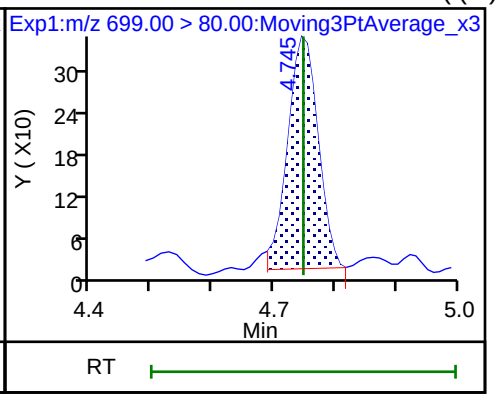
37 Perfluorododecanoic acid



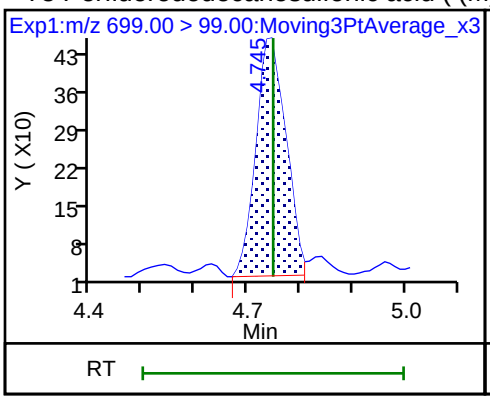

74 1H,1H,2H,2H-perfluorododecanesul



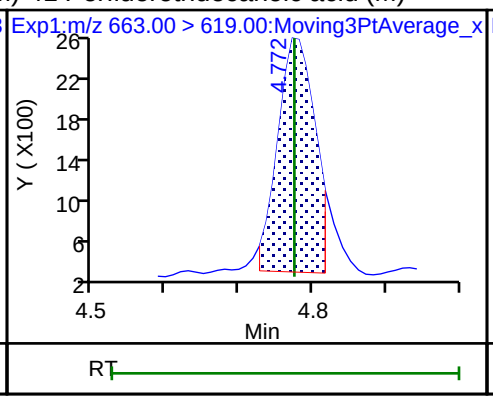

75 Perfluorododecanesulfonic acid ( (M)



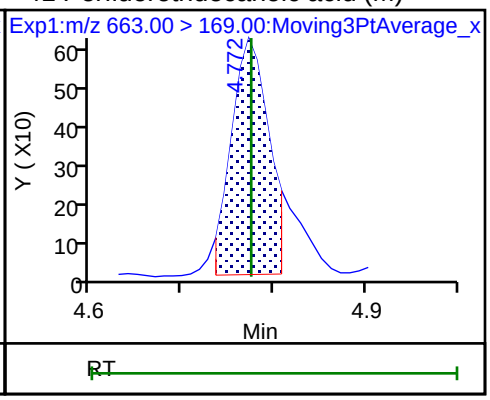

75 Perfluorododecanesulfonic acid ( (M)



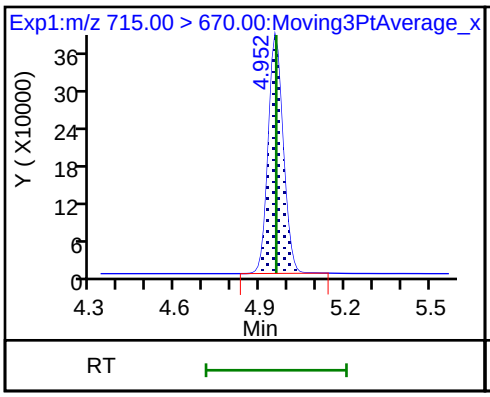

41 Perfluorotridecanoic acid (M)



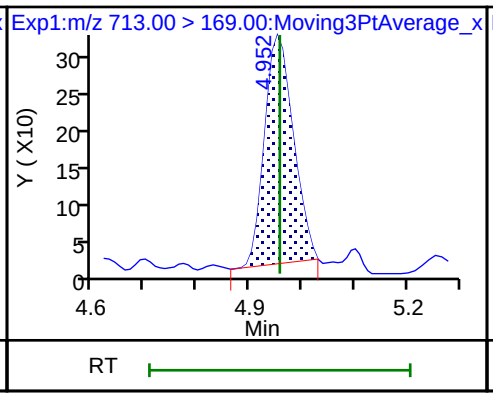

41 Perfluorotridecanoic acid (M)



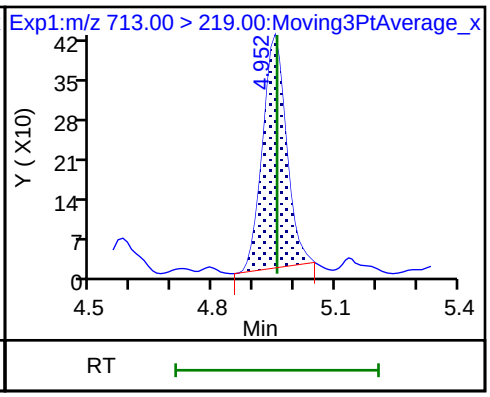

D 43 13C2 PFTeDA



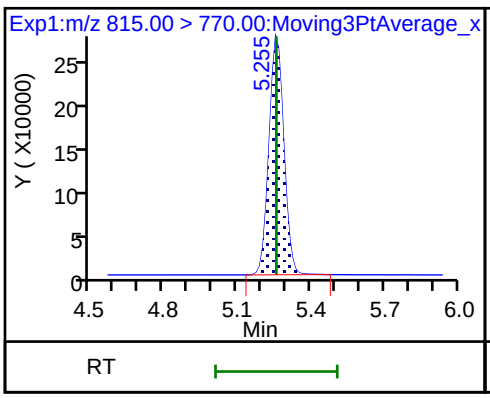

42 Perfluorotetradecanoic acid



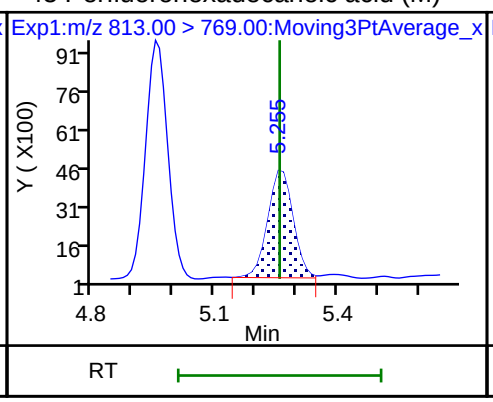

42 Perfluorotetradecanoic acid



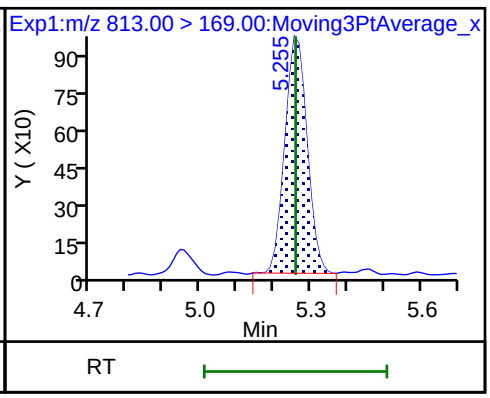

D 44 13C2 PFHxDA



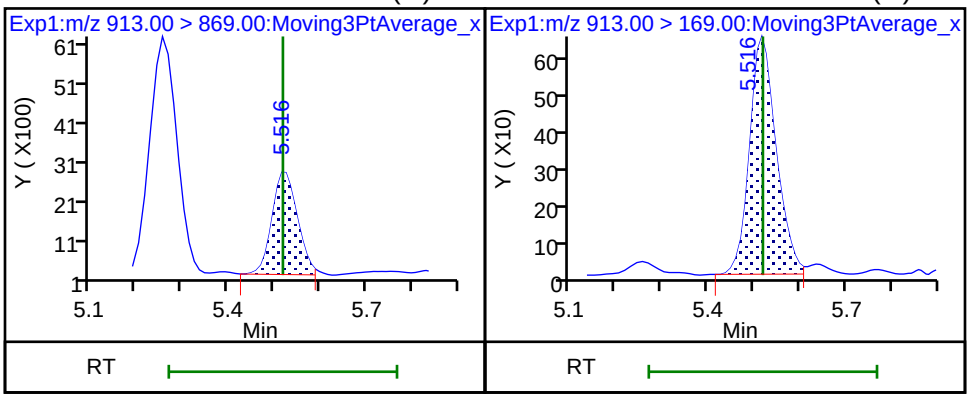

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

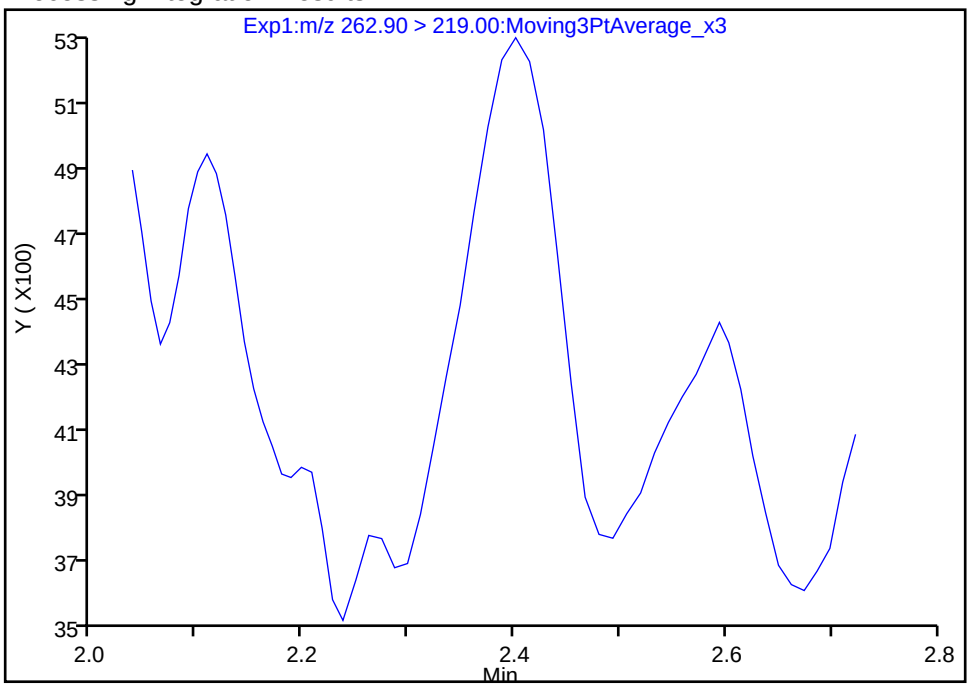
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

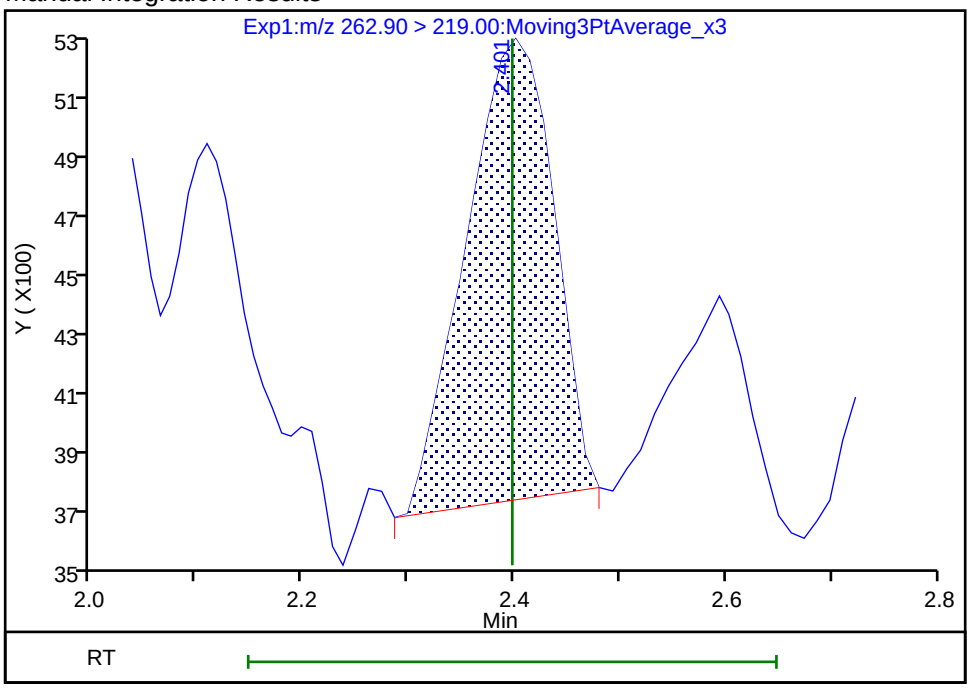
Not Detected
Expected RT: 2.40

Processing Integration Results




Manual Integration Results

RT: 2.40
Area: 8383
Amount: 0.006188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:49:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

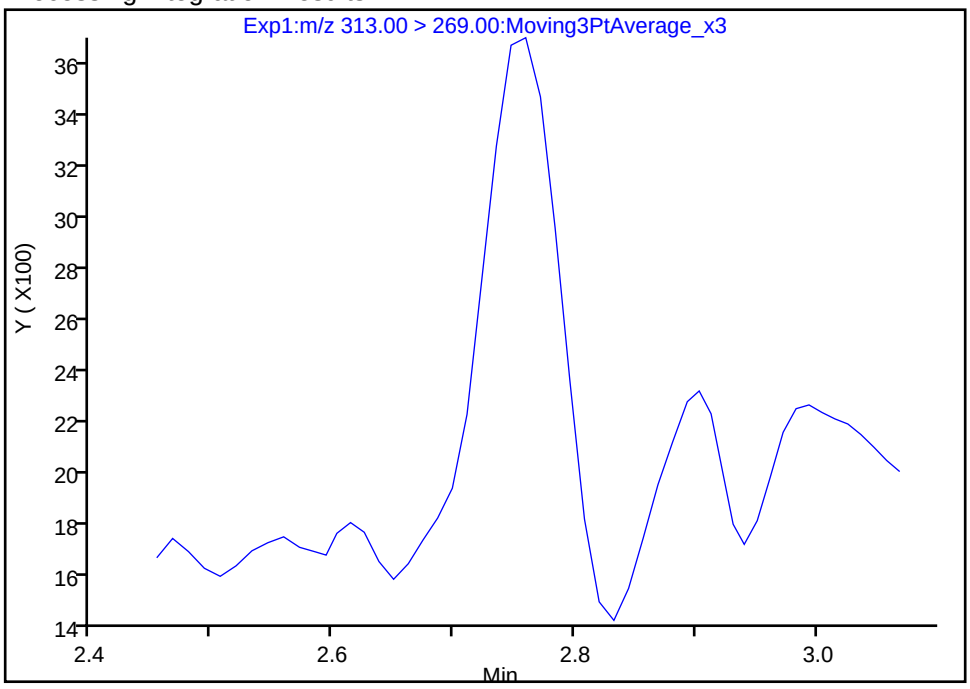
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

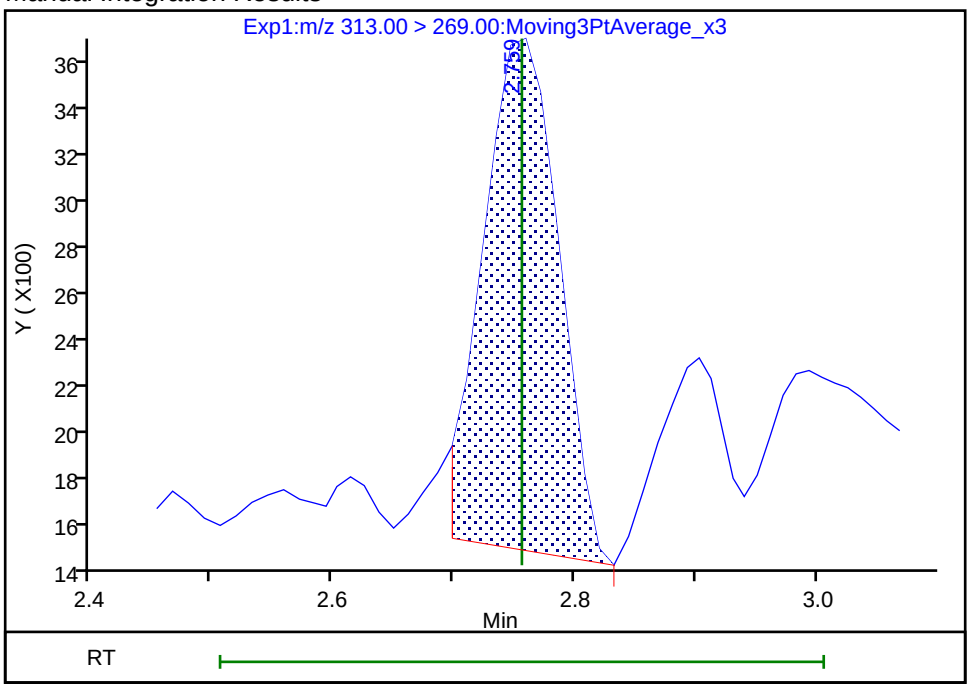
Not Detected
Expected RT: 2.76

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 9115
Amount: 0.006201
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:50:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

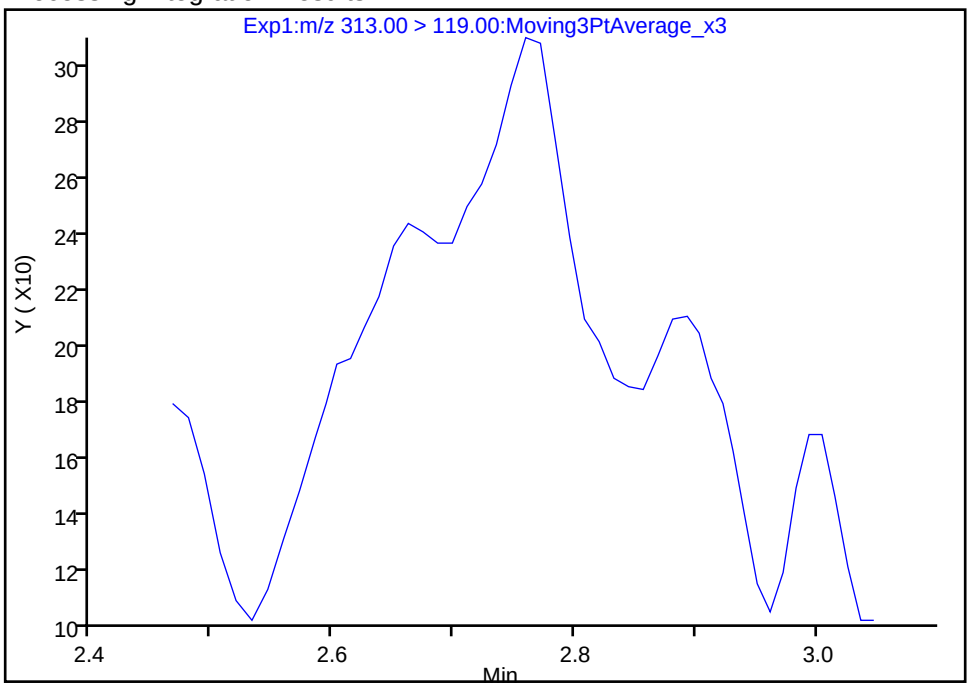
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

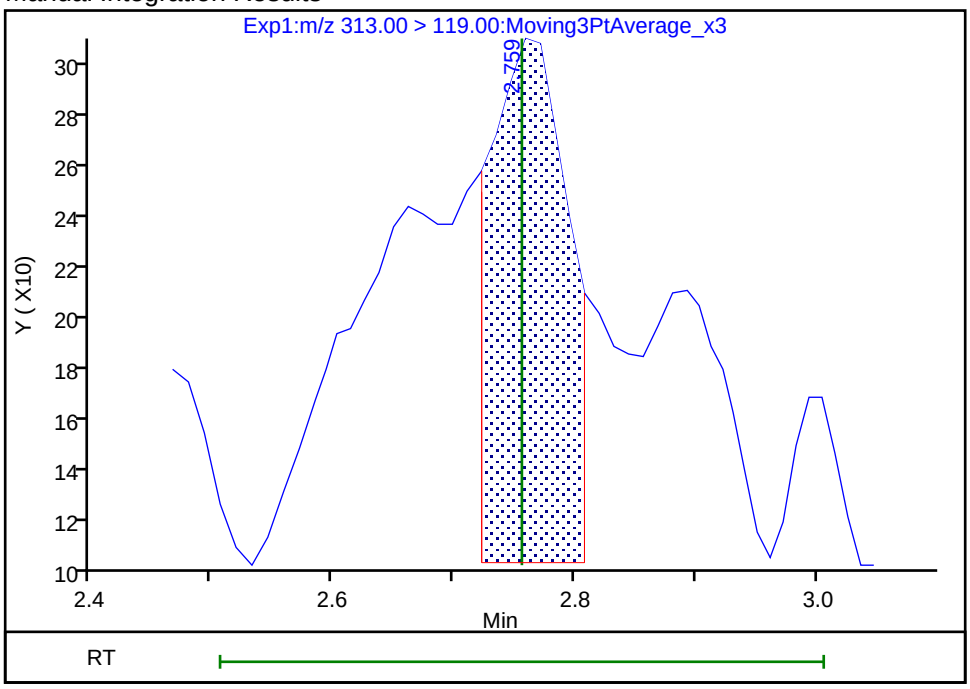
Not Detected
Expected RT: 2.76

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 876
Amount: 0.006201
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:50:27
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

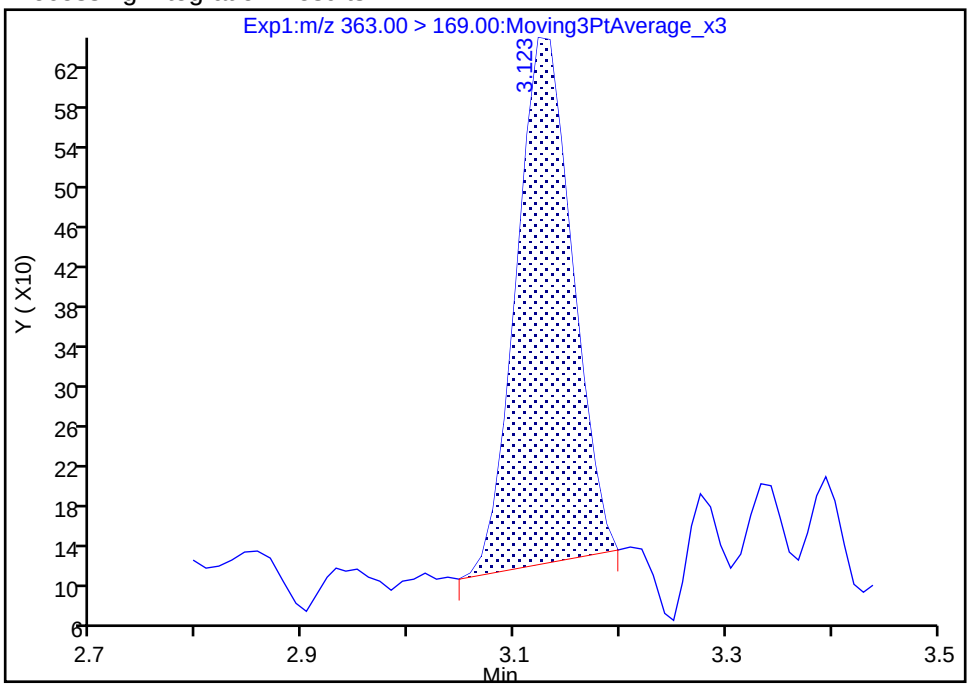
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

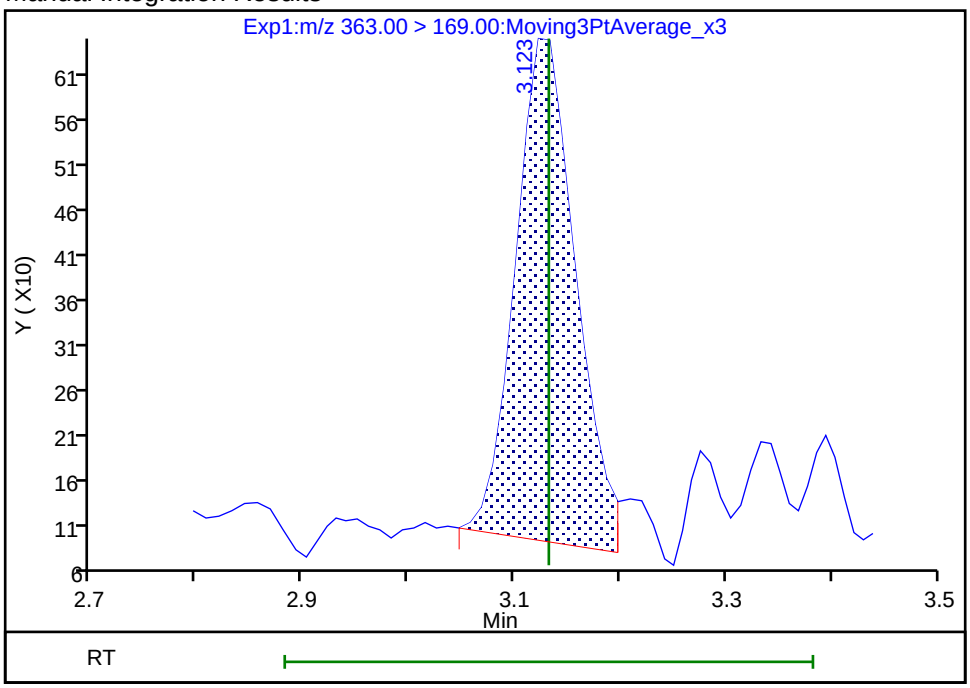
Processing Integration Results

RT: 3.12
Area: 1935
Amount: 0.003662
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 2188
Amount: 0.003662
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

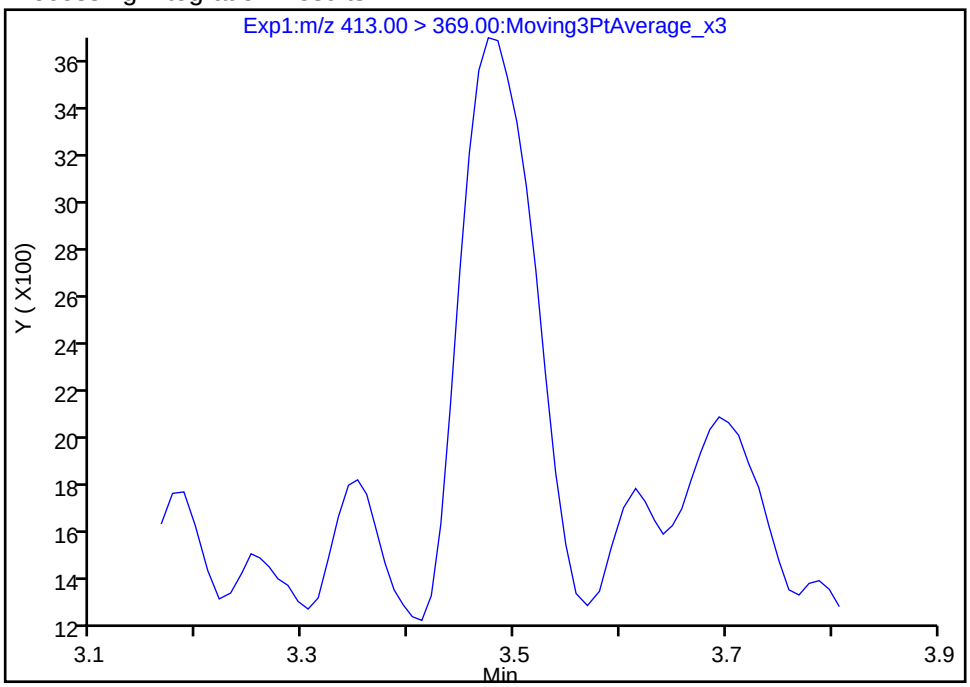
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

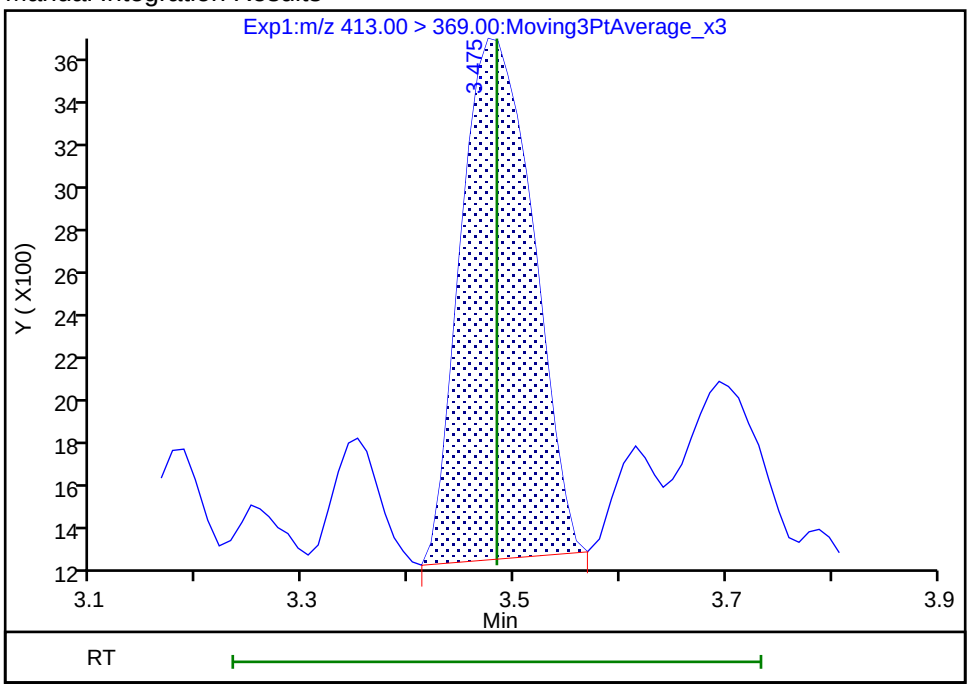
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 11160
Amount: 0.006238
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:06
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

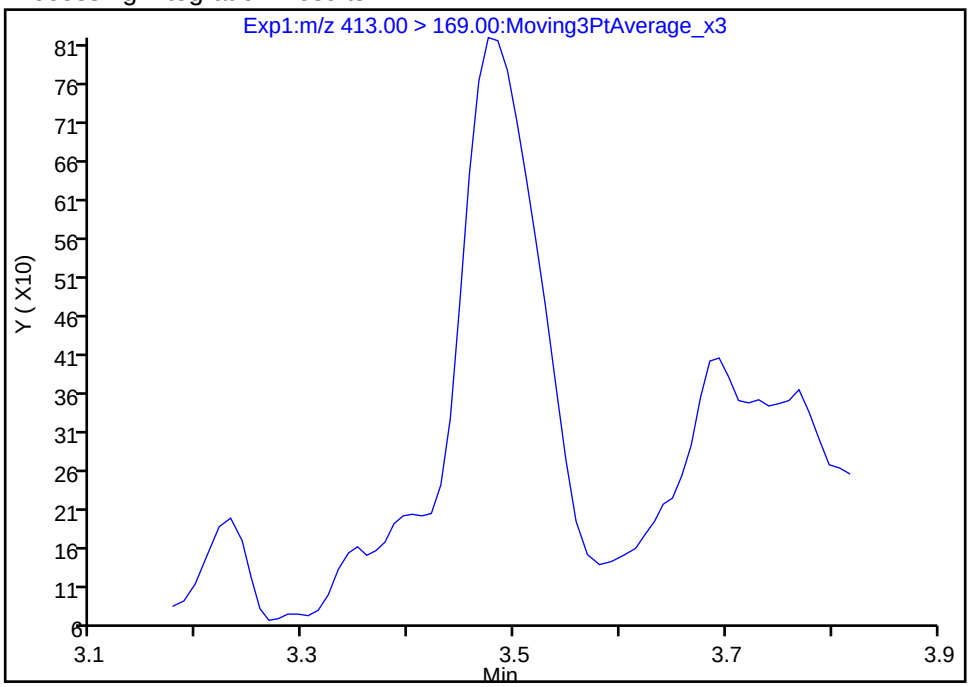
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

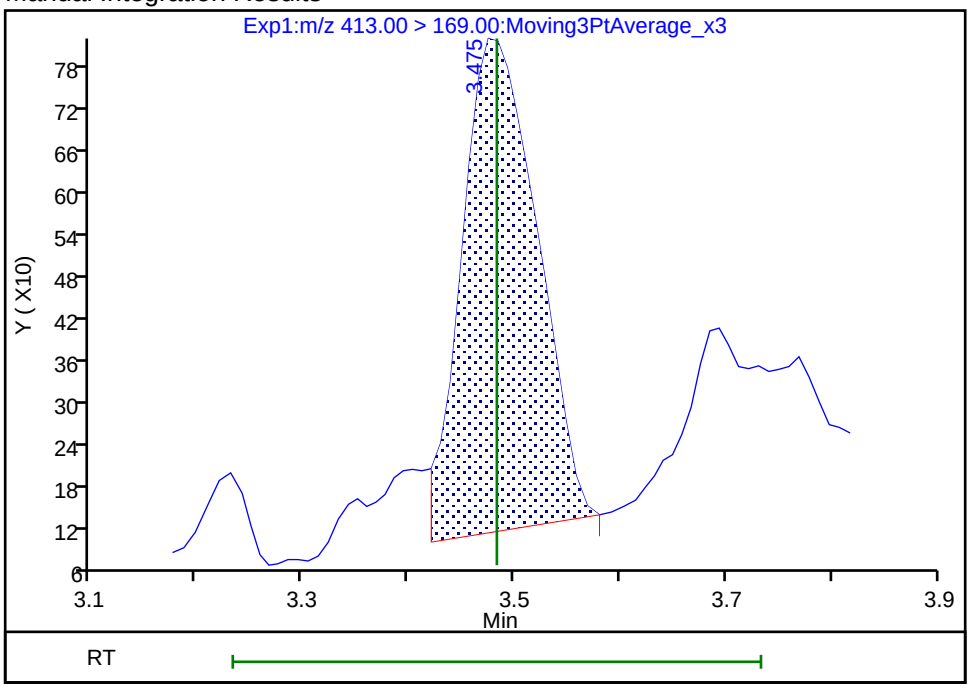
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 3481
Amount: 0.006238
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:15
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

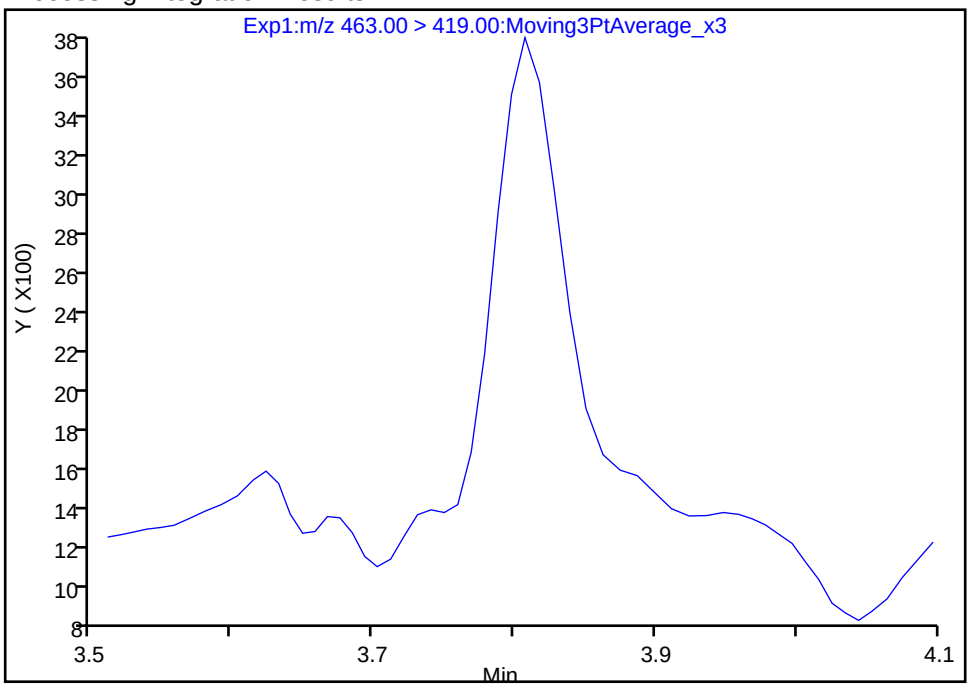
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

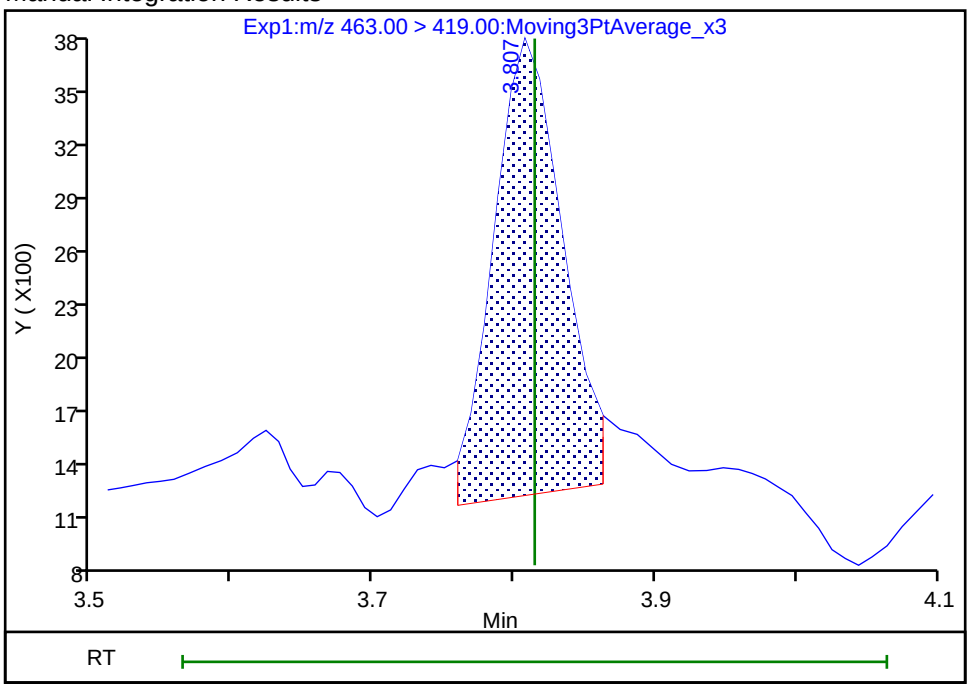
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 8447
Amount: 0.005148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:53:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

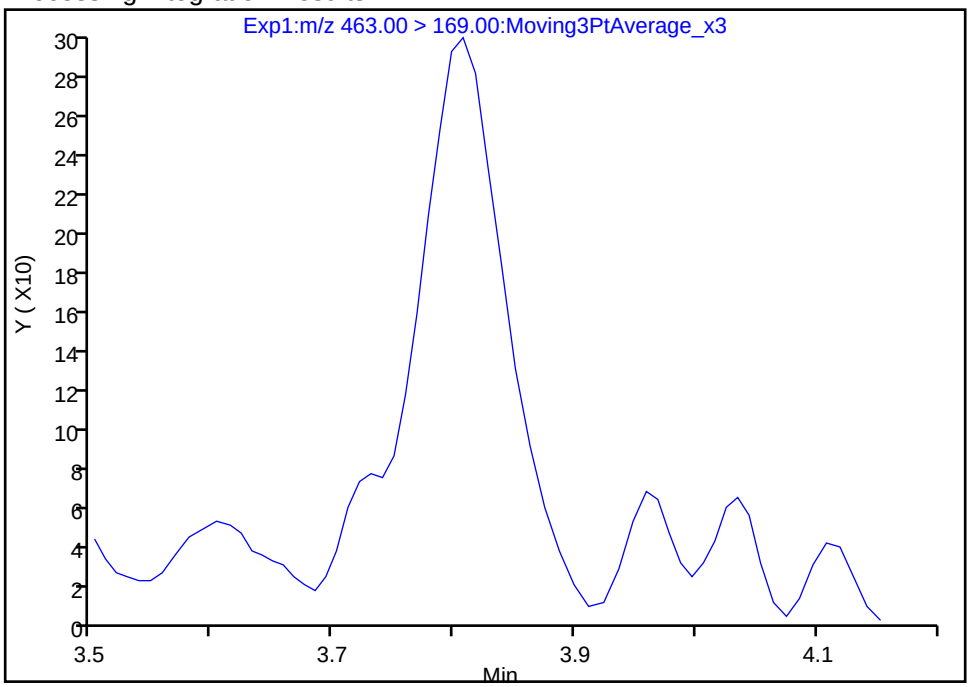
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

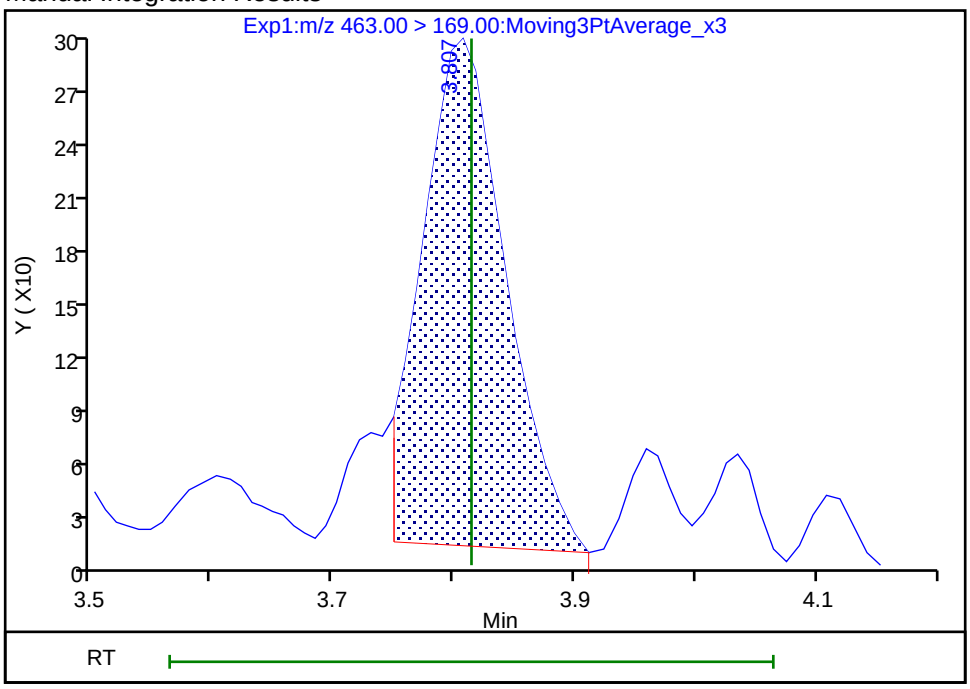
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 1356
Amount: 0.005148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:53:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

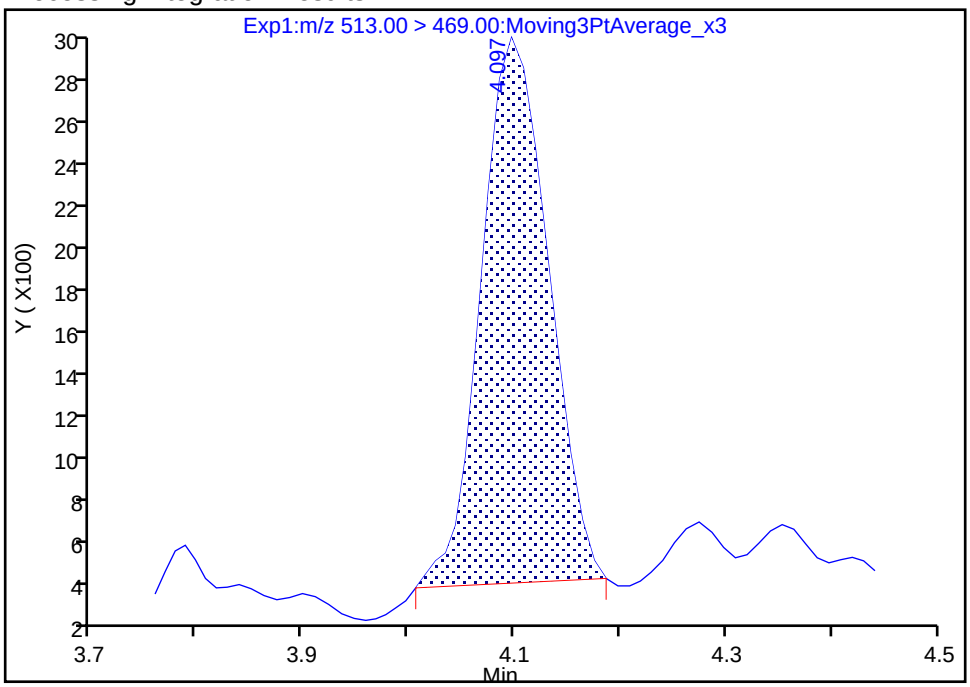
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

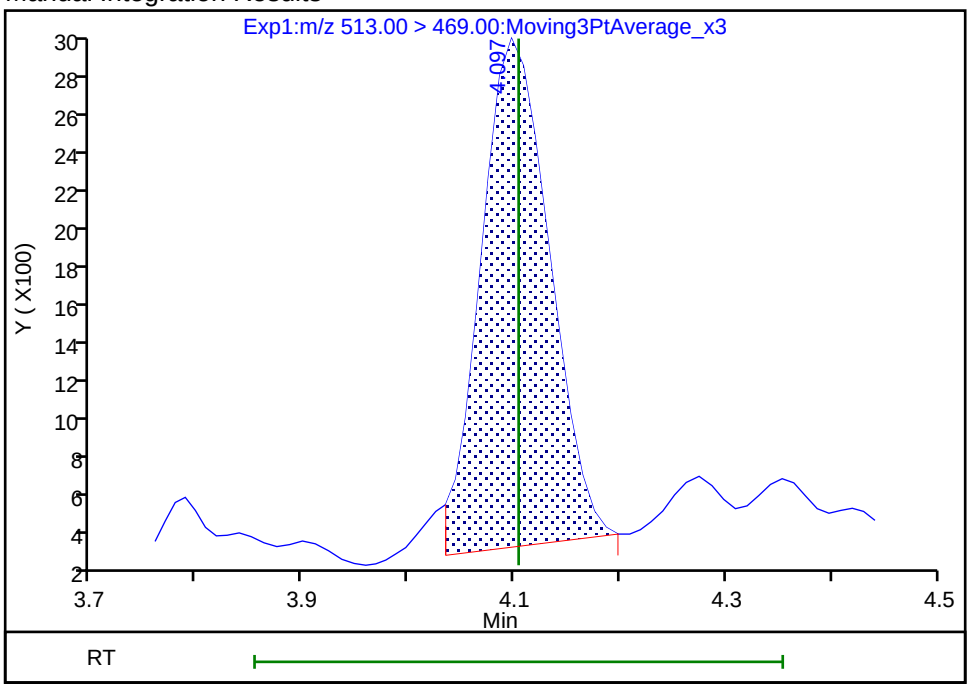
Processing Integration Results

RT: 4.10
Area: 10998
Amount: 0.006294
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 11533
Amount: 0.006600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

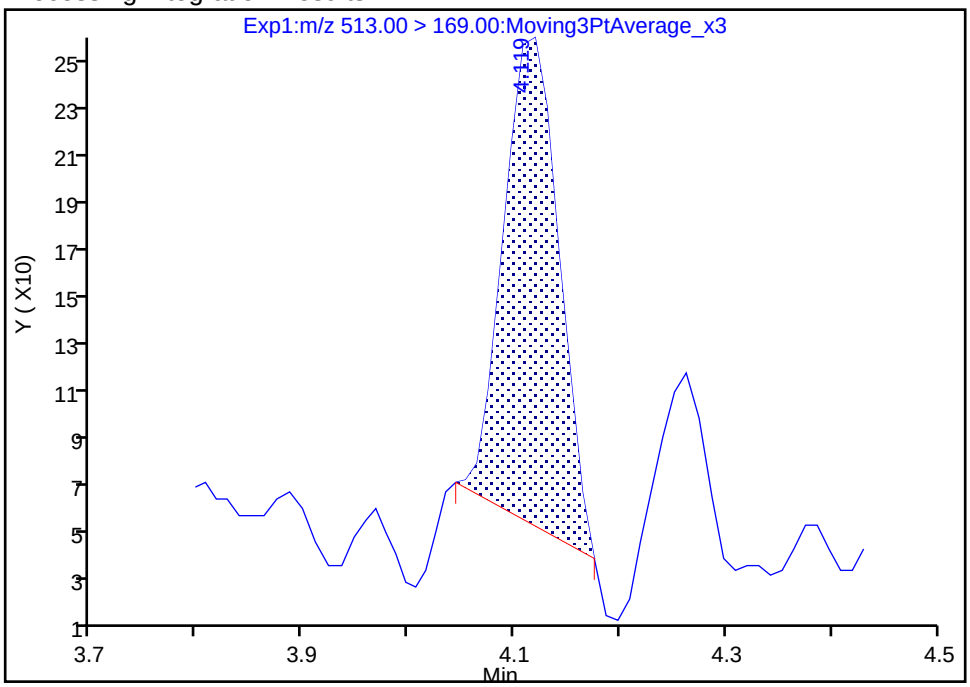
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

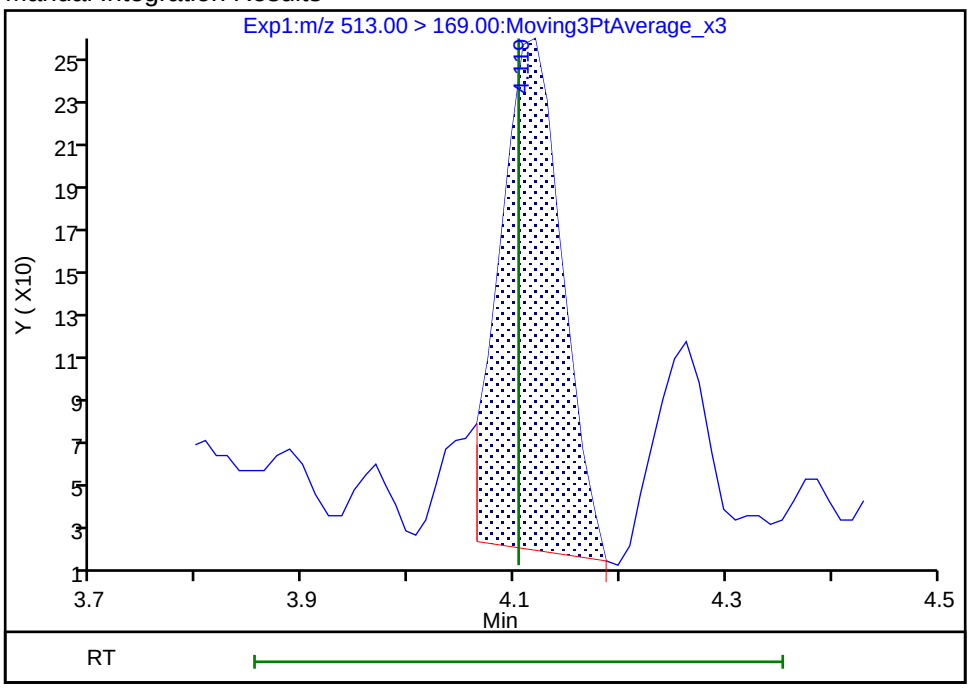
Processing Integration Results

RT: 4.12
Area: 747
Amount: 0.006294
Amount Units: ng/ml




Manual Integration Results

RT: 4.12
Area: 966
Amount: 0.006600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

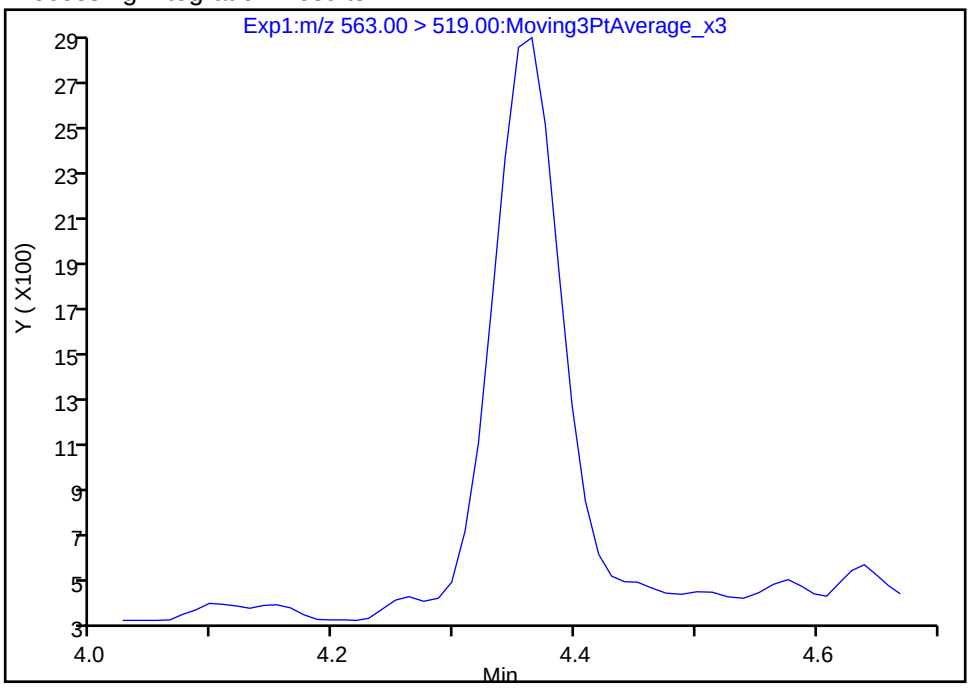
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

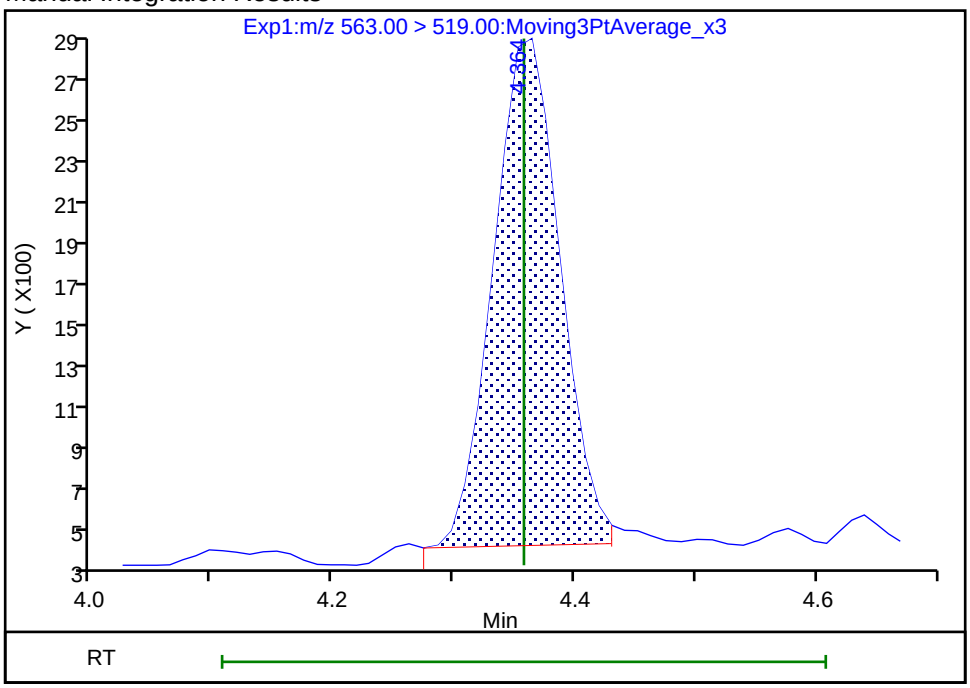
Not Detected
Expected RT: 4.36

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 9245
Amount: 0.006510
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

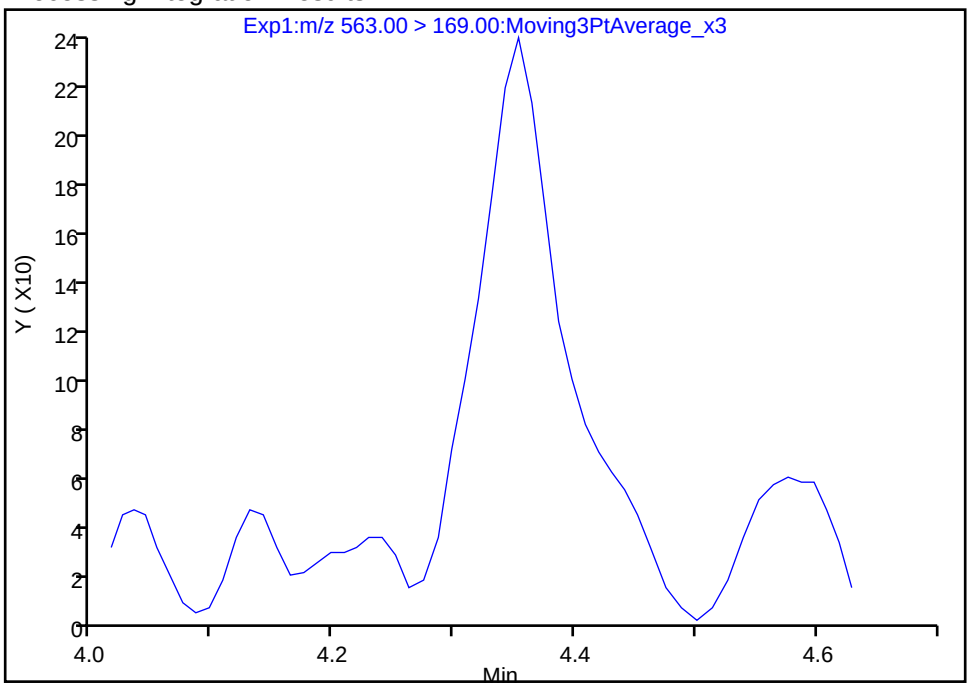
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

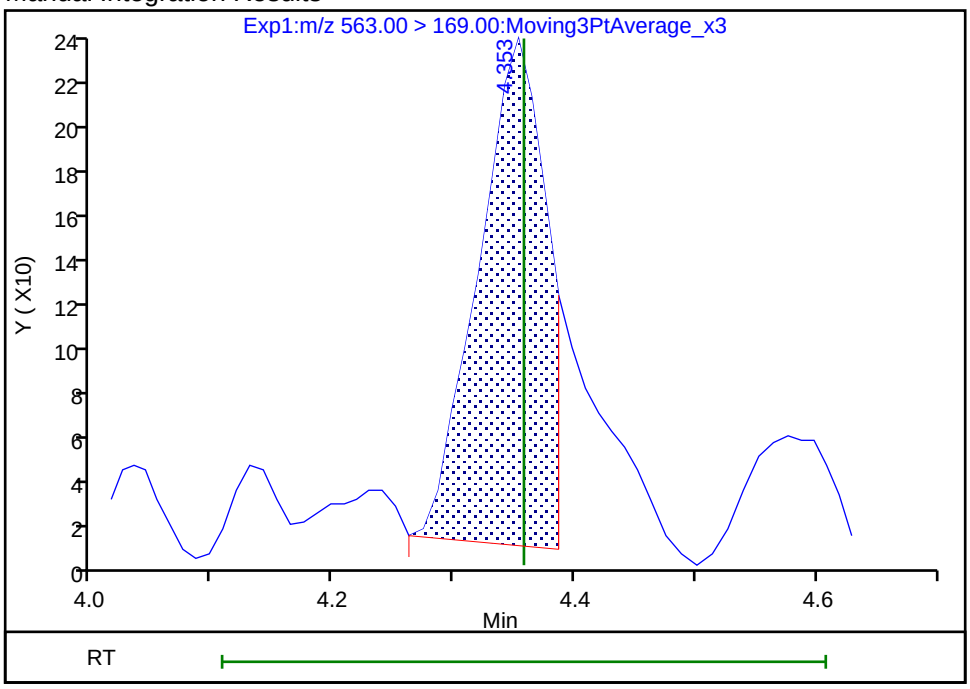
Not Detected
Expected RT: 4.36

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 850
Amount: 0.006510
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:24
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

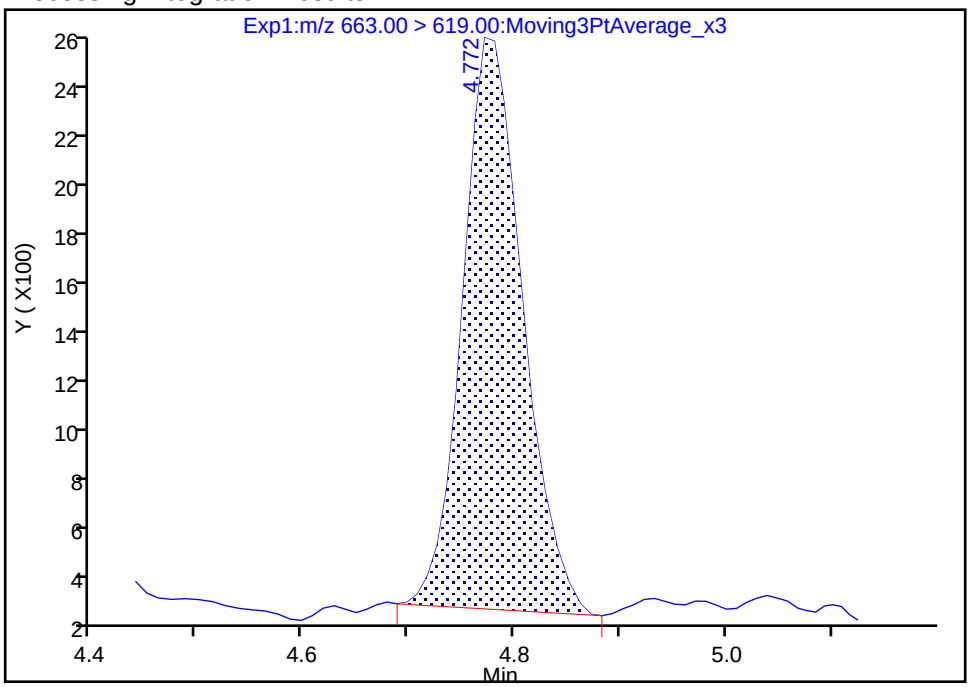
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

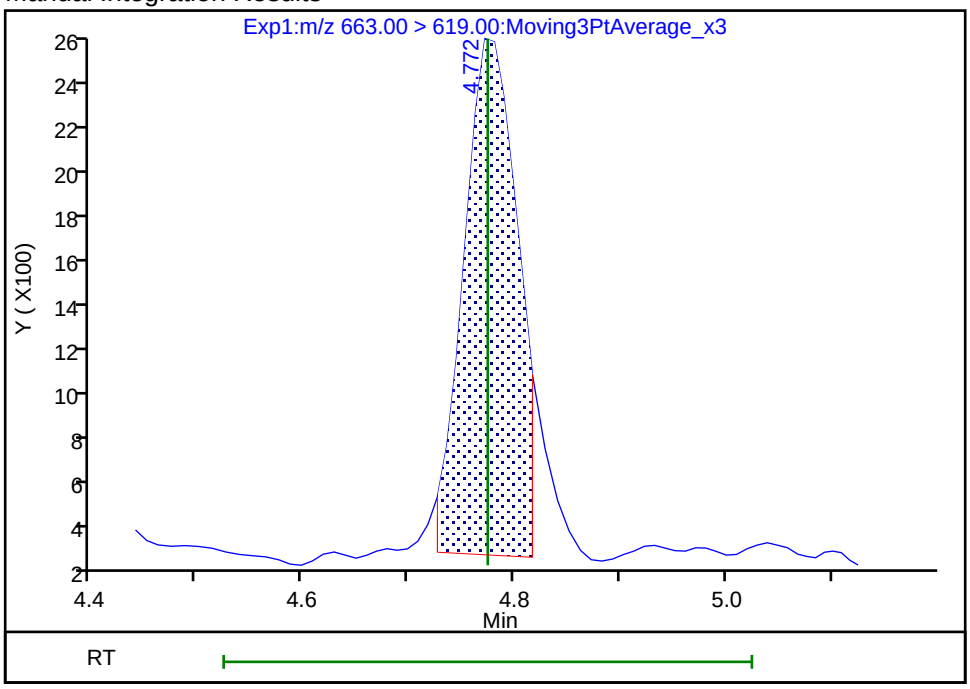
Processing Integration Results

RT: 4.77
Area: 9243
Amount: 0.007678
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 8163
Amount: 0.006781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:57:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

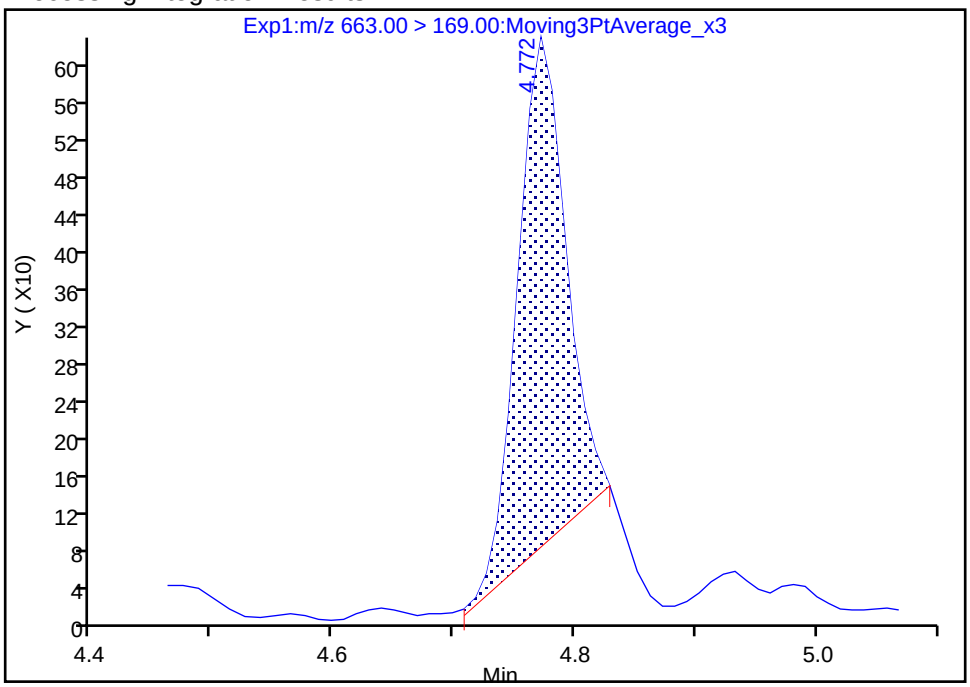
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

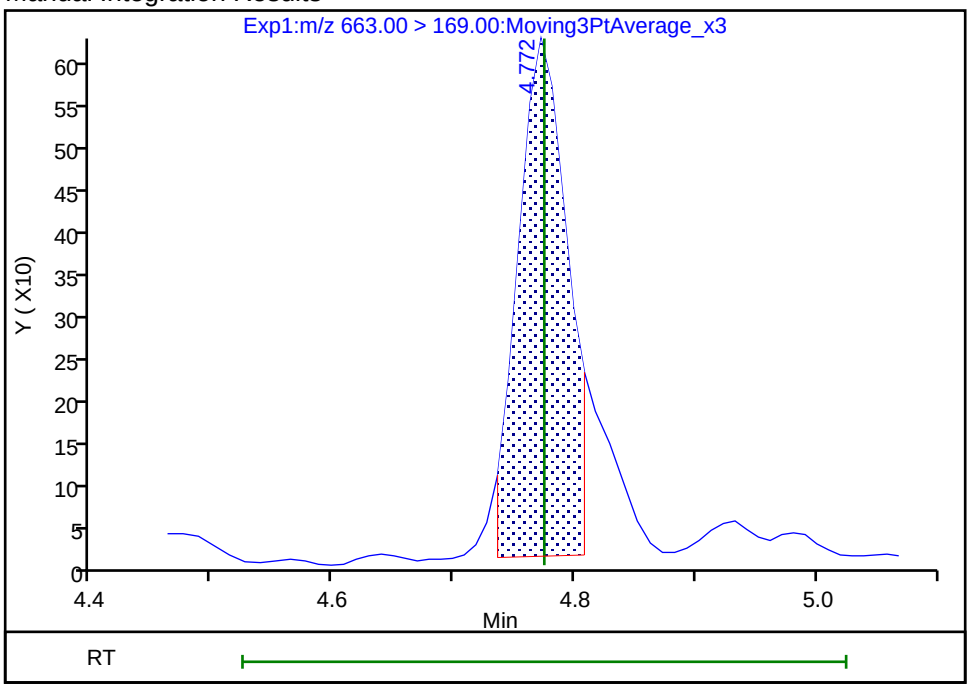
Processing Integration Results

RT: 4.77
Area: 1506
Amount: 0.007678
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 1698
Amount: 0.006781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:57:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

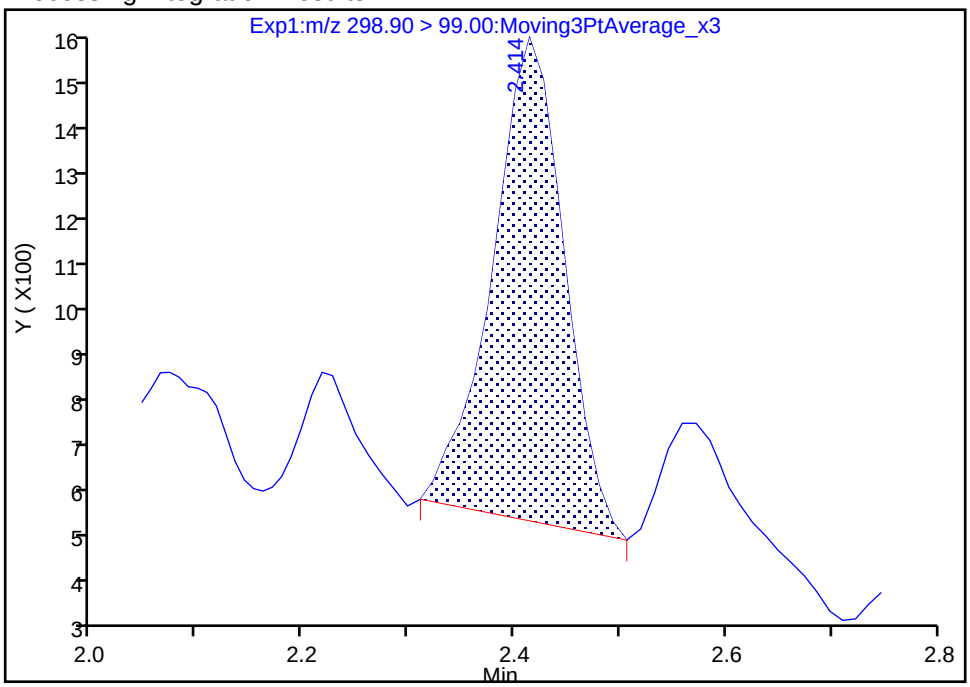
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

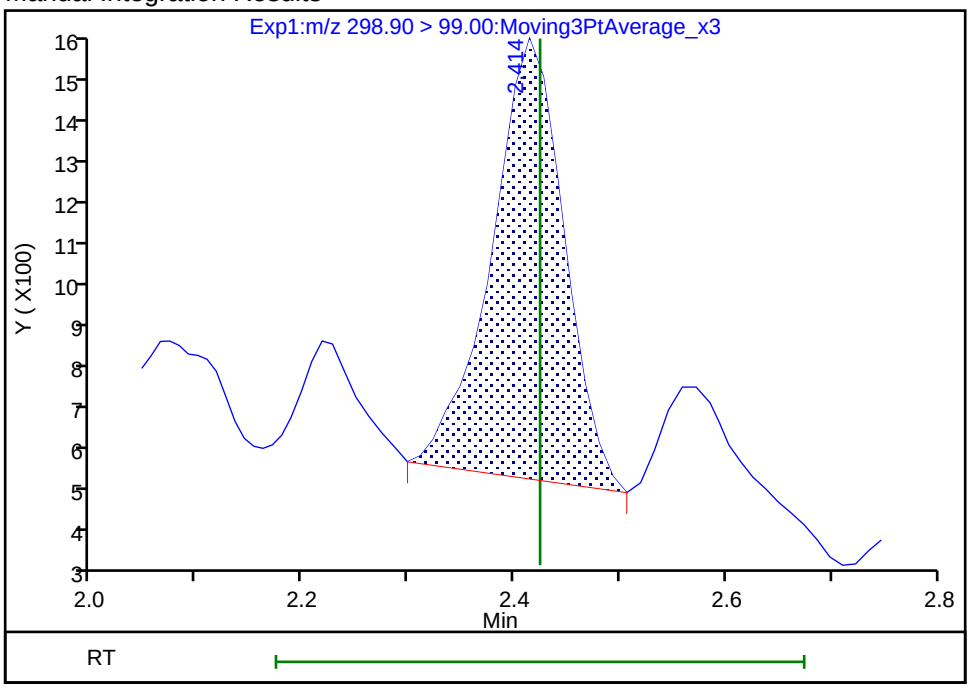
Processing Integration Results

RT: 2.41
Area: 4744
Amount: 0.004500
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 4857
Amount: 0.004500
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:49:48
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

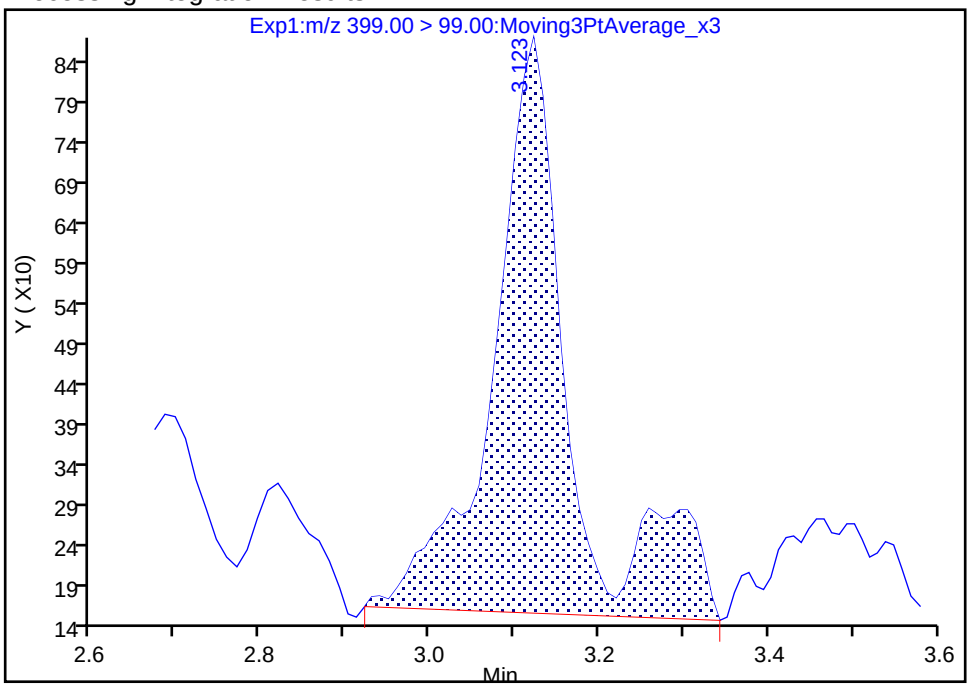
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

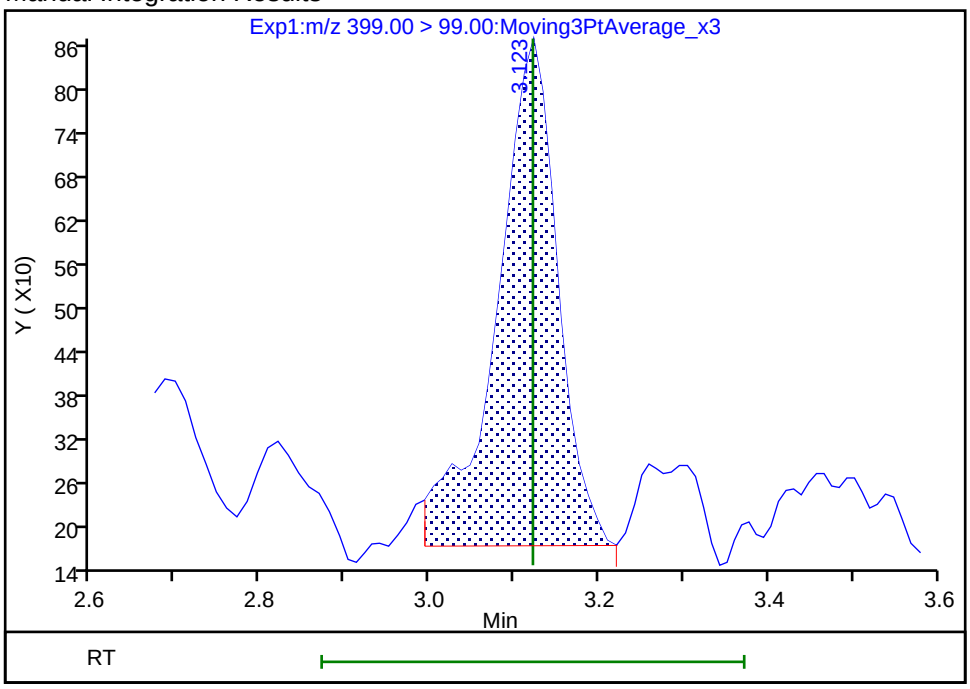
Processing Integration Results

RT: 3.12
Area: 4511
Amount: 0.007484
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 3452
Amount: 0.007484
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

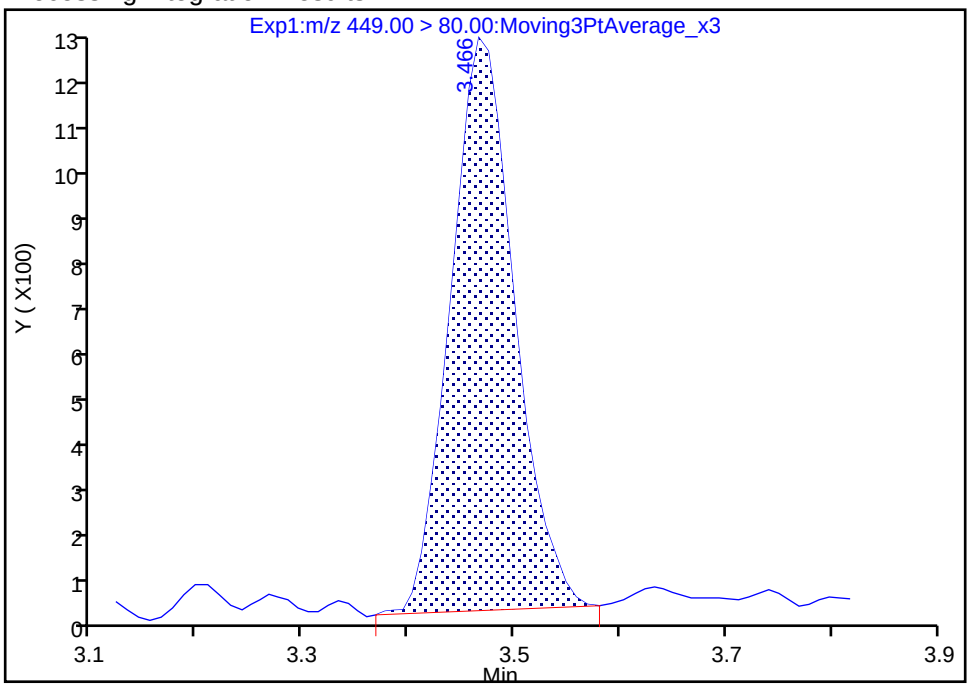
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

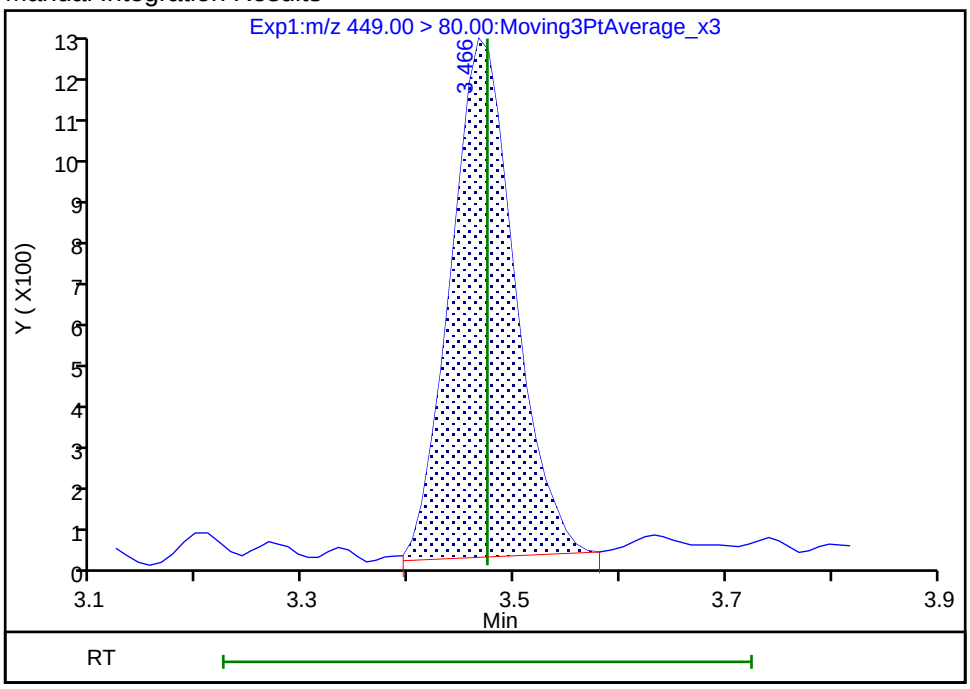
Processing Integration Results

RT: 3.47
Area: 5256
Amount: 0.004172
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 5265
Amount: 0.004179
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

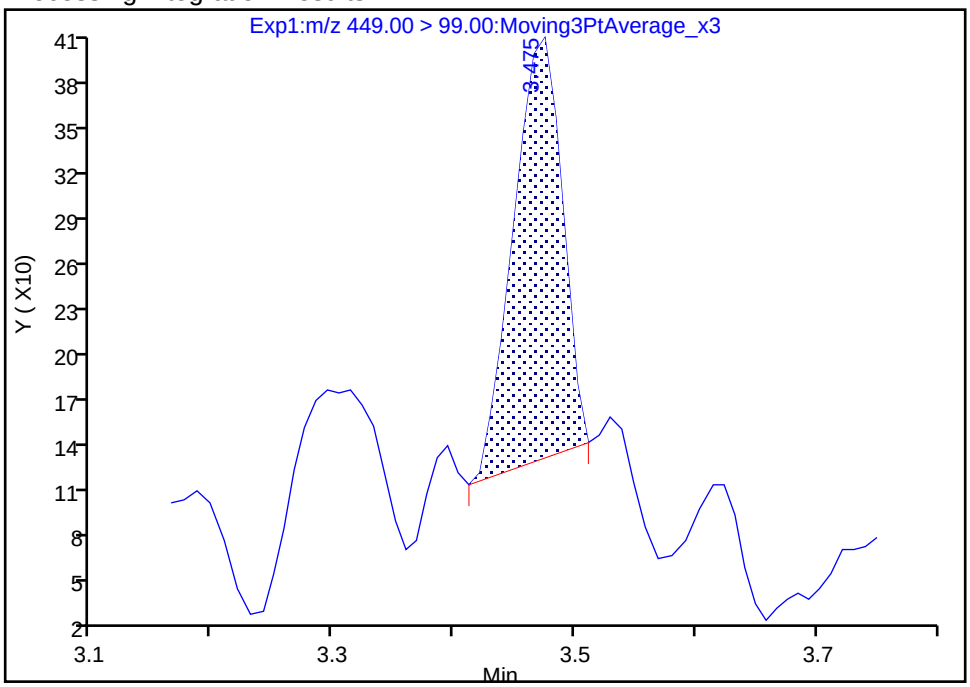
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

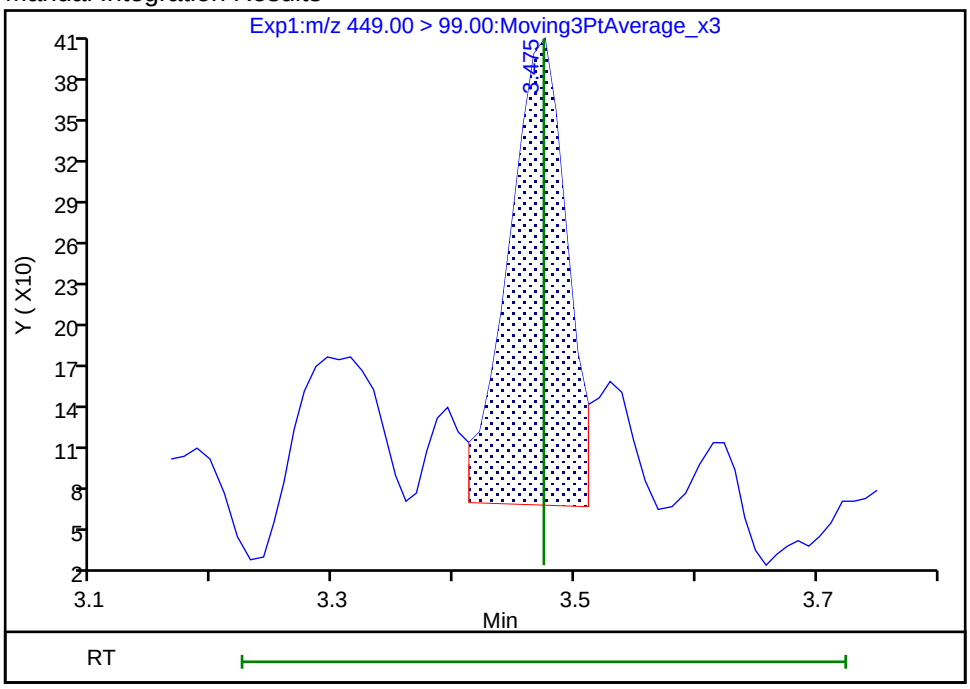
Processing Integration Results

RT: 3.48
Area: 786
Amount: 0.004172
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1139
Amount: 0.004179
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

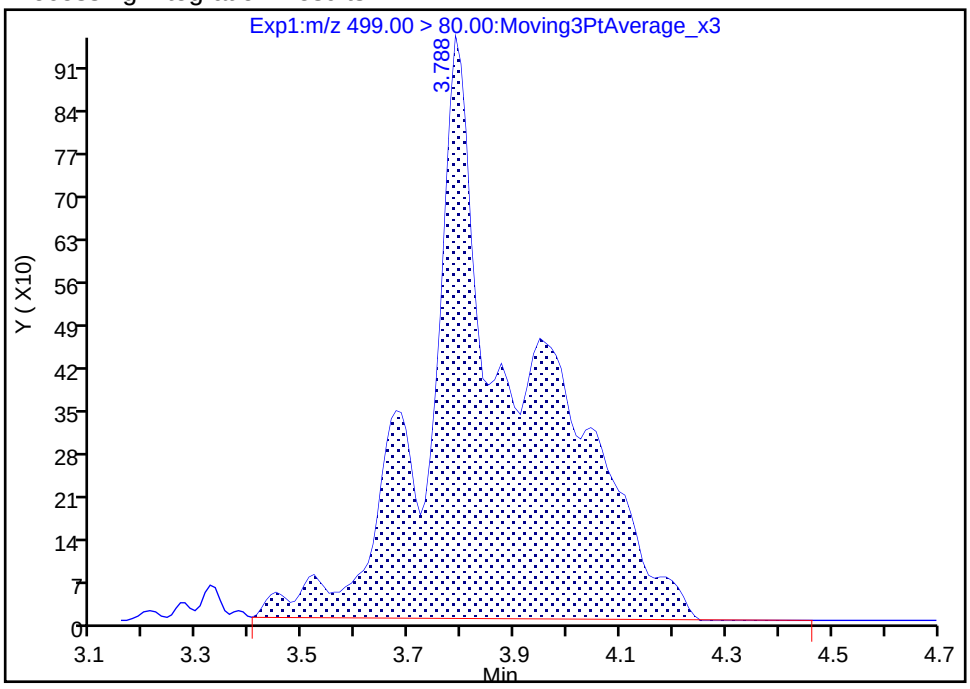
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

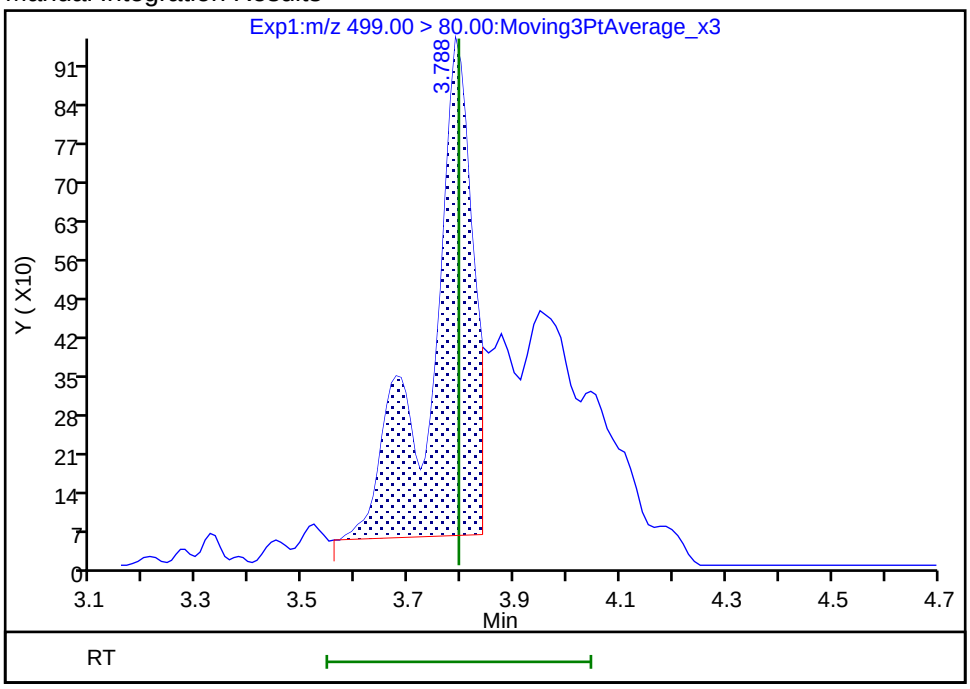
Processing Integration Results

RT: 3.79
Area: 12436
Amount: 0.011340
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 4955
Amount: 0.004518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

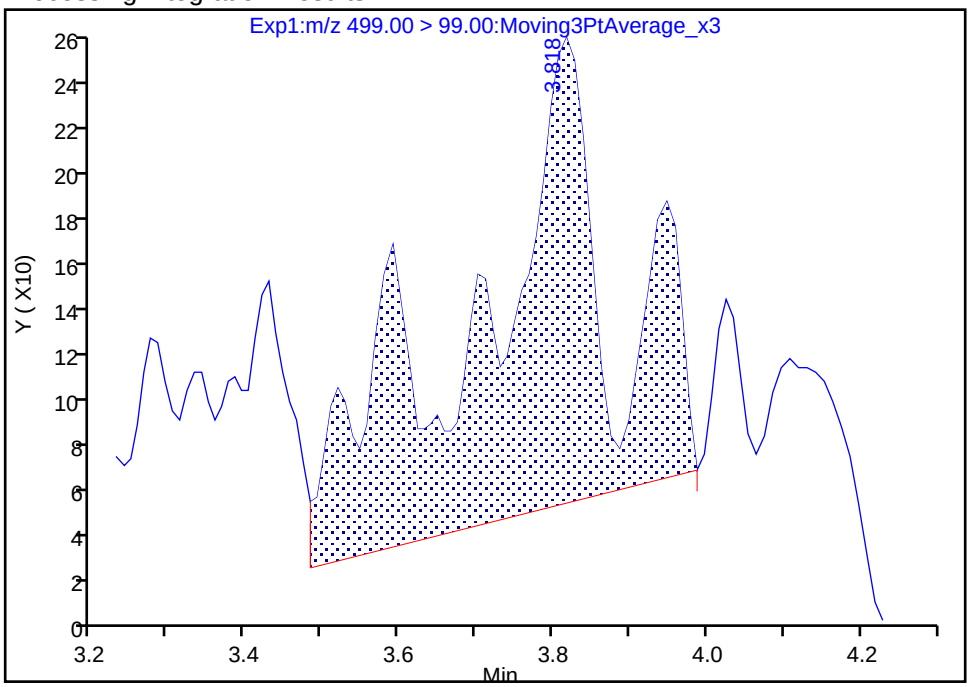
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

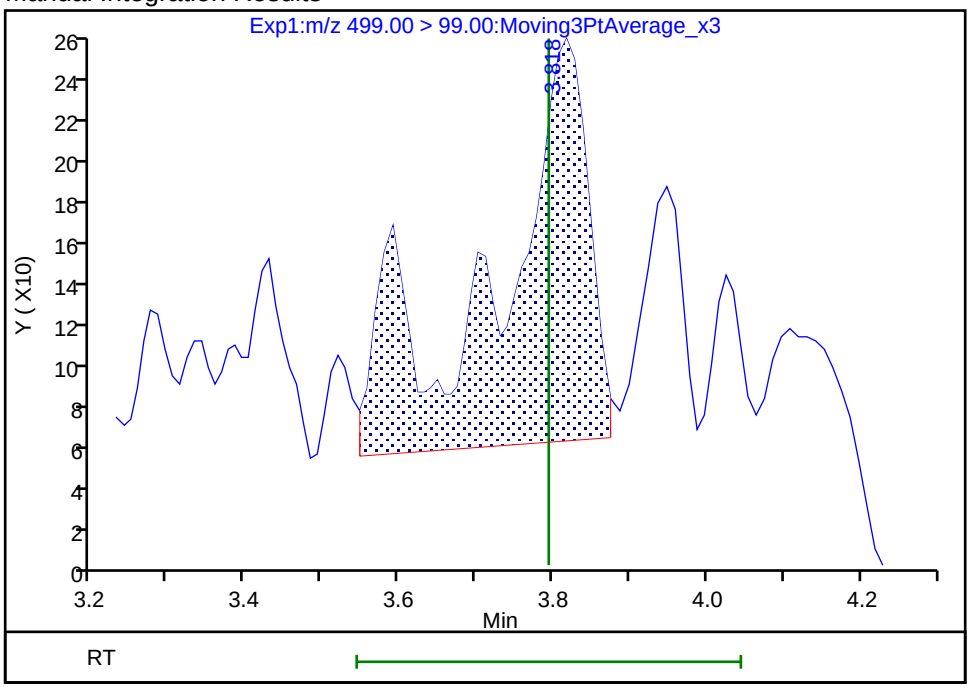
Processing Integration Results

RT: 3.82
Area: 2579
Amount: 0.011340
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 1637
Amount: 0.004518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

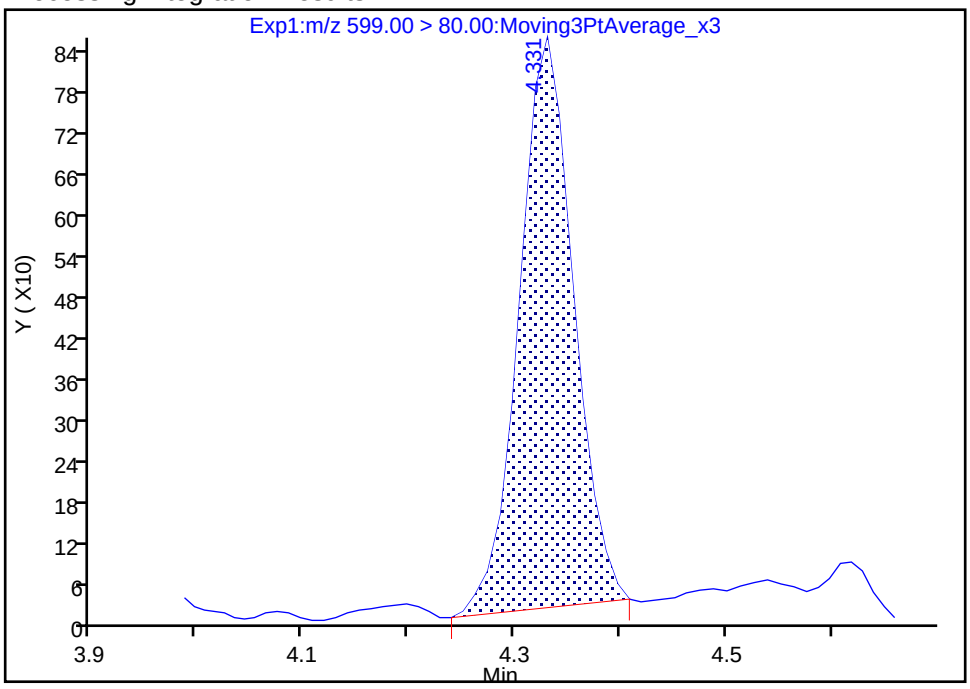
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

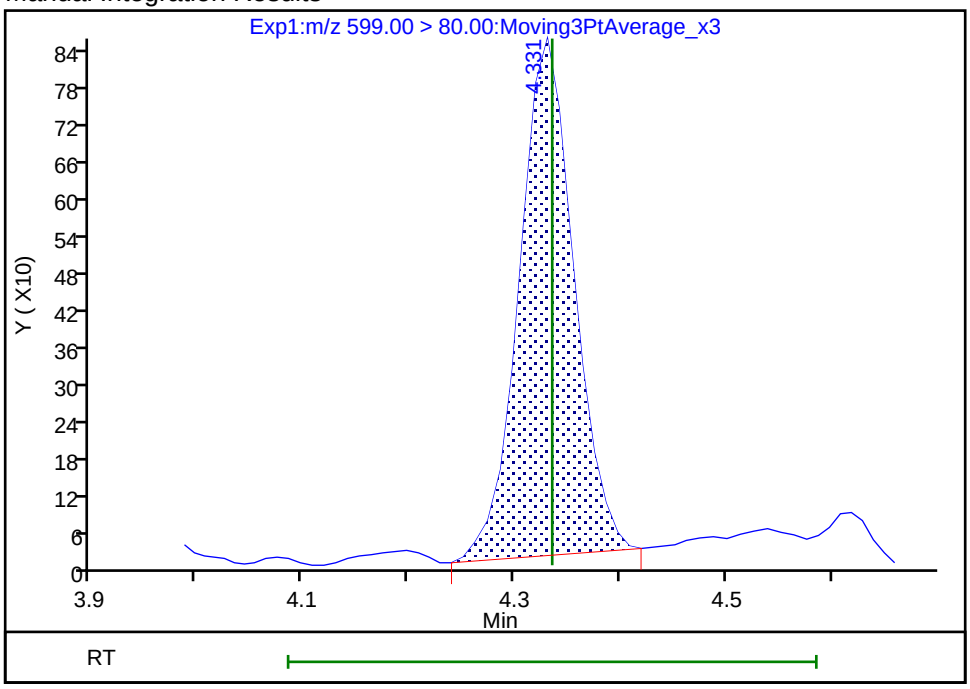
Processing Integration Results

RT: 4.33
Area: 2966
Amount: 0.004466
Amount Units: ng/ml




Manual Integration Results

RT: 4.33
Area: 2995
Amount: 0.004509
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d

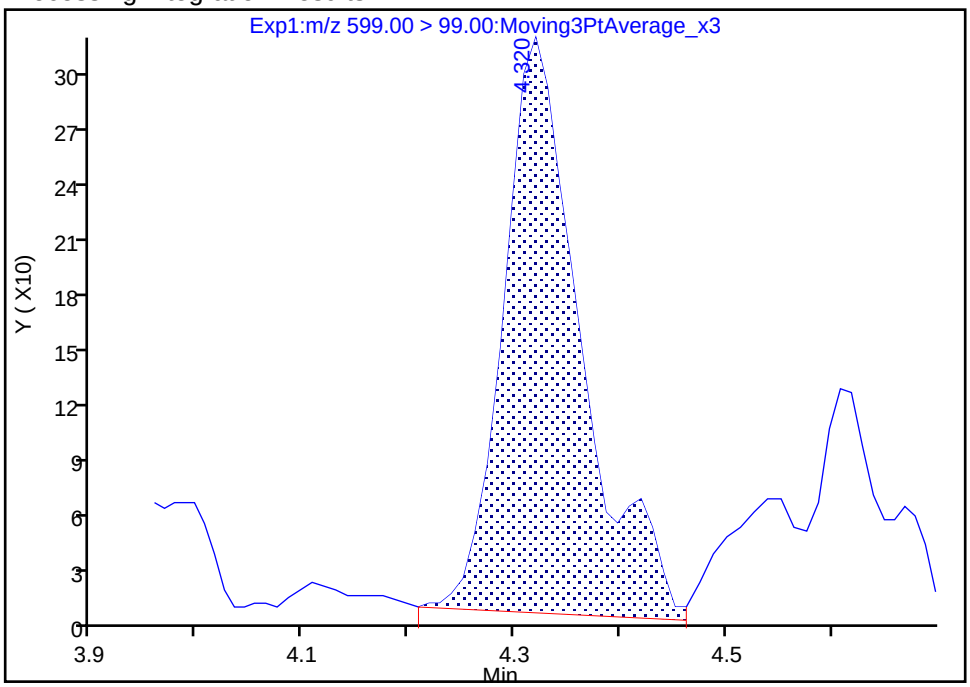
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

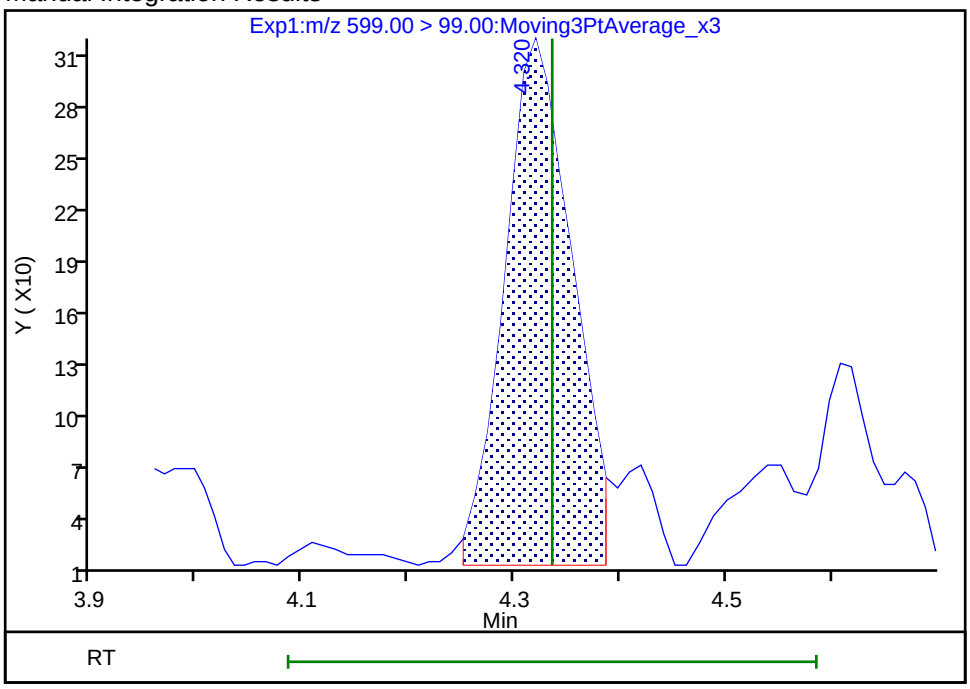
Processing Integration Results

RT: 4.32
Area: 1547
Amount: 0.004466
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 1324
Amount: 0.004509
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

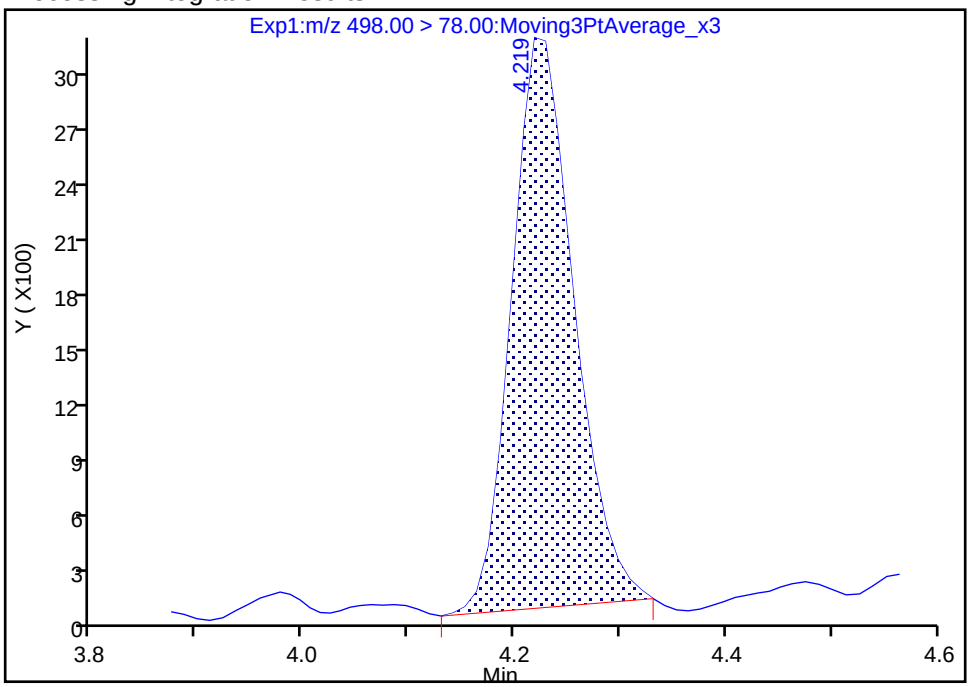
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

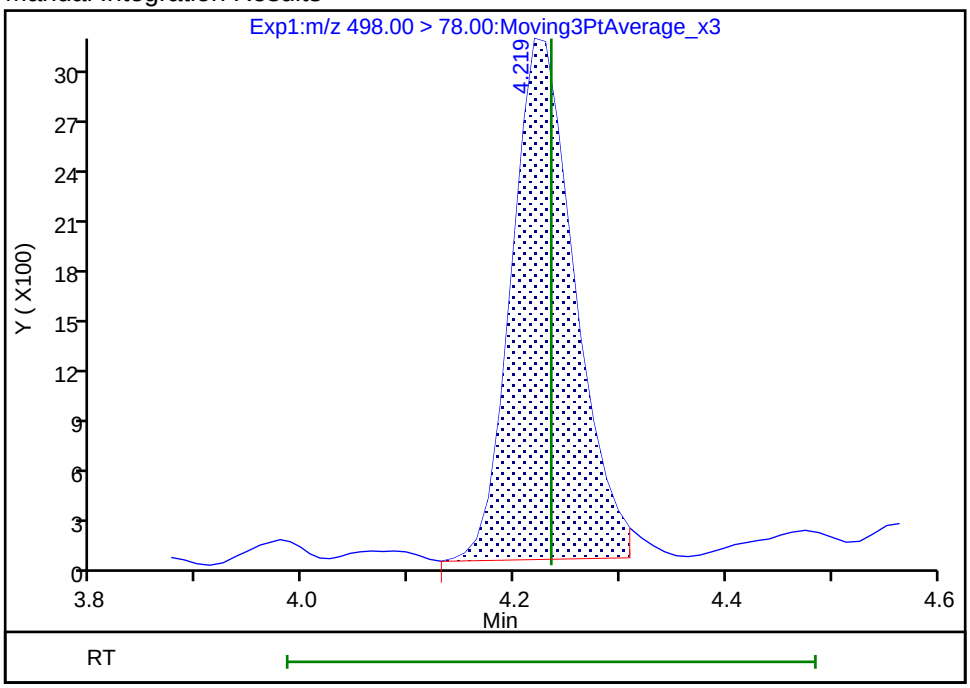
Processing Integration Results

RT: 4.22
Area: 12451
Amount: 0.008599
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 12710
Amount: 0.008778
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

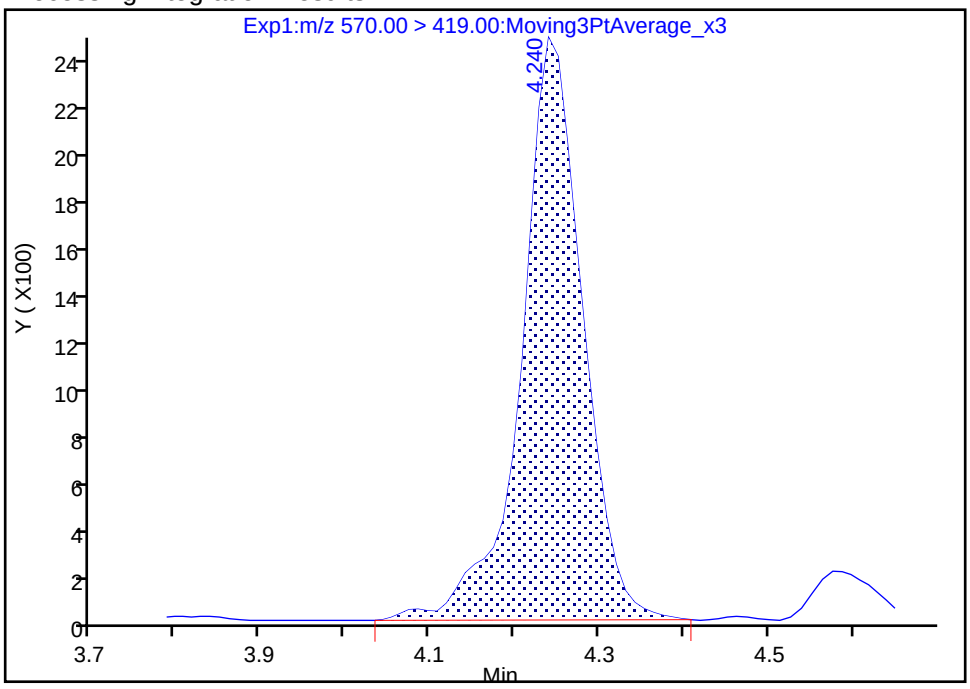
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

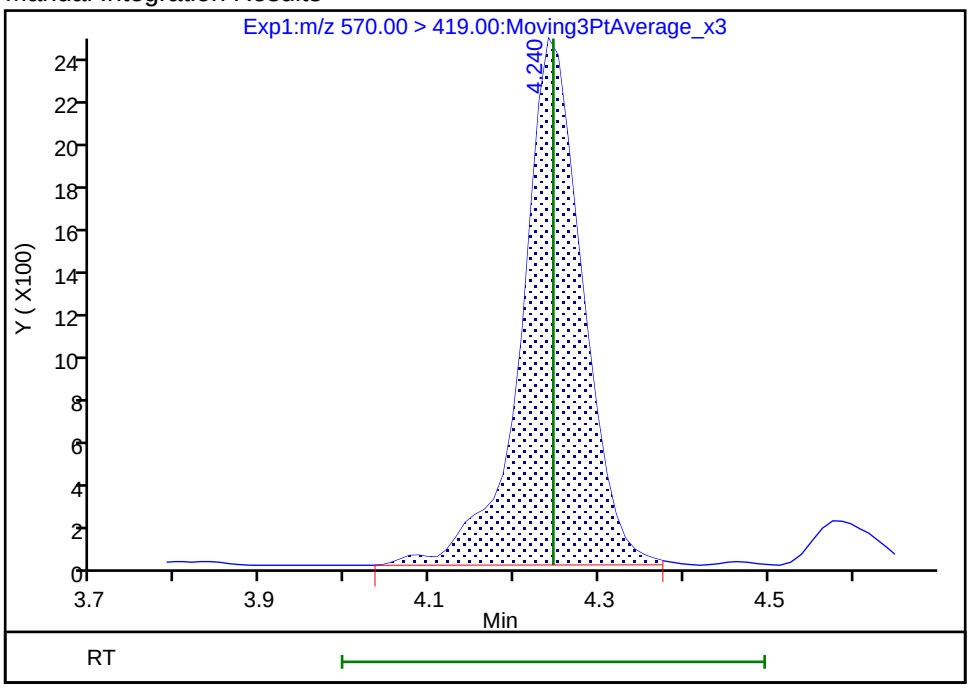
Processing Integration Results

RT: 4.24
Area: 12342
Amount: 0.093521
Amount Units: ng/ml




Manual Integration Results

RT: 4.24
Area: 12334
Amount: 0.093461
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:47:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

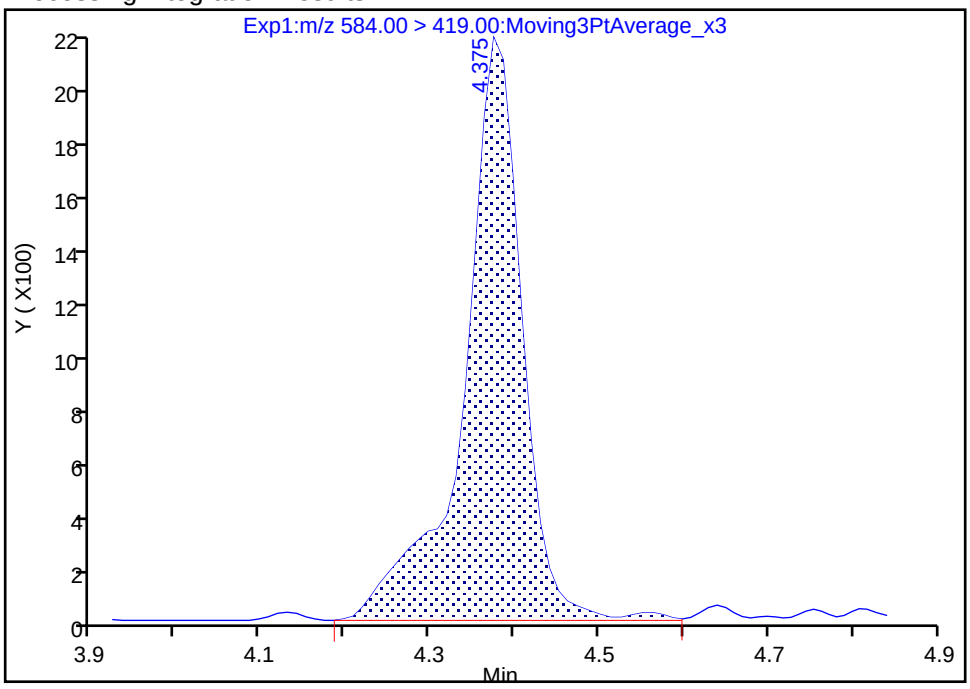
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

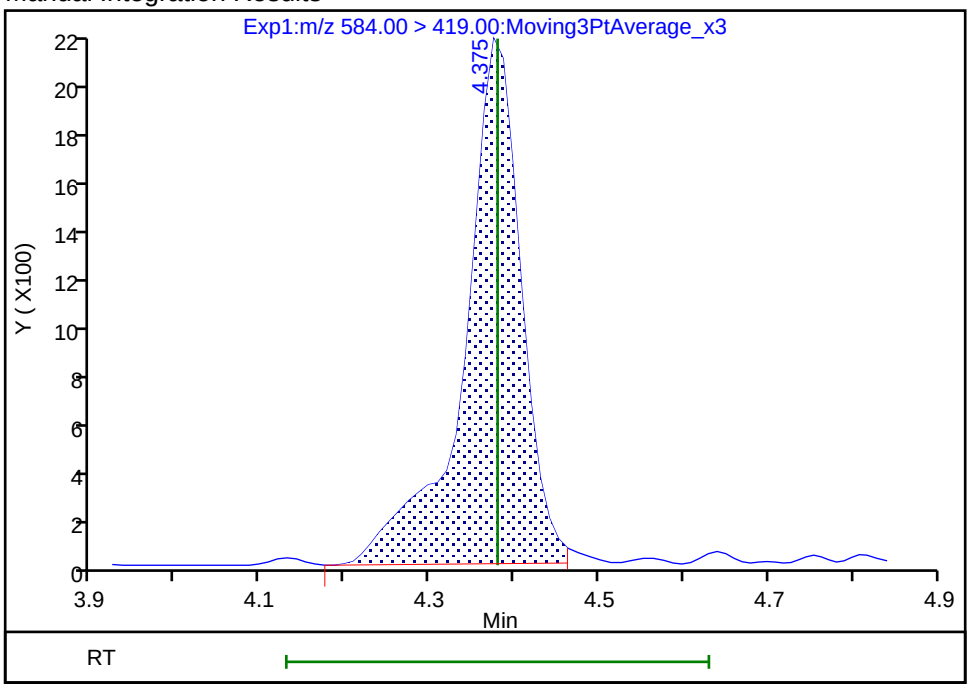
Processing Integration Results

RT: 4.38
Area: 10286
Amount: 0.076370
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 10005
Amount: 0.074284
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:56:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

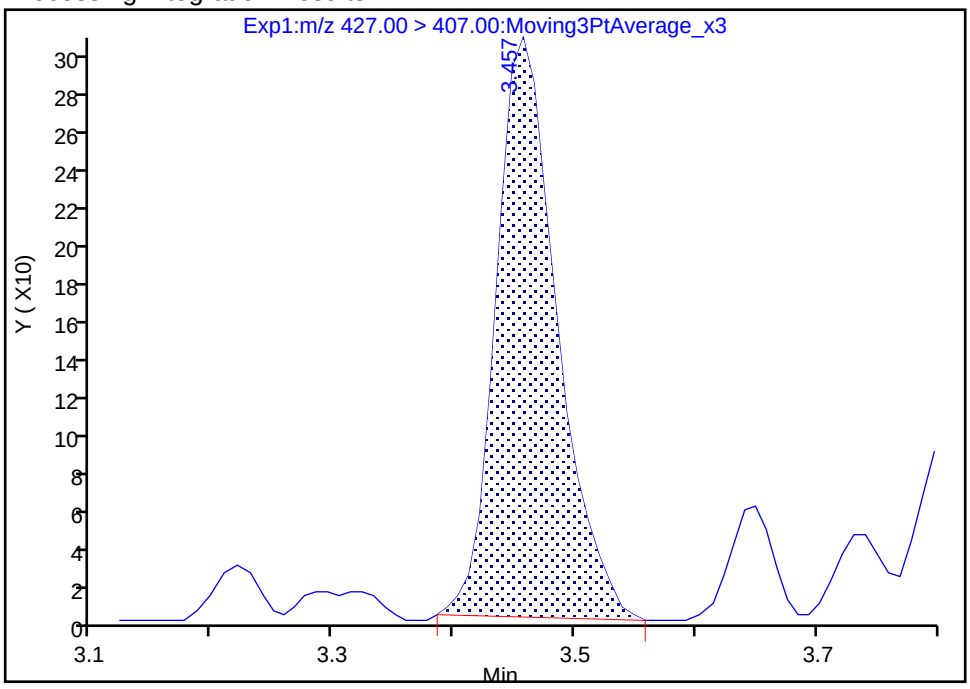
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

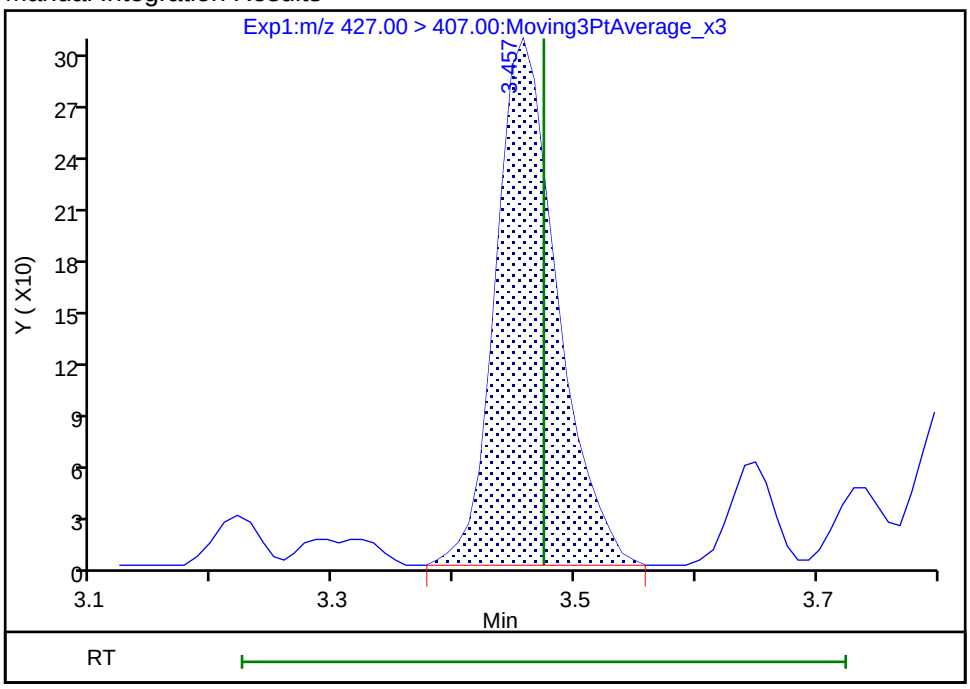
Processing Integration Results

RT: 3.46
Area: 1068
Amount: 0.003876
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1085
Amount: 0.003937
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

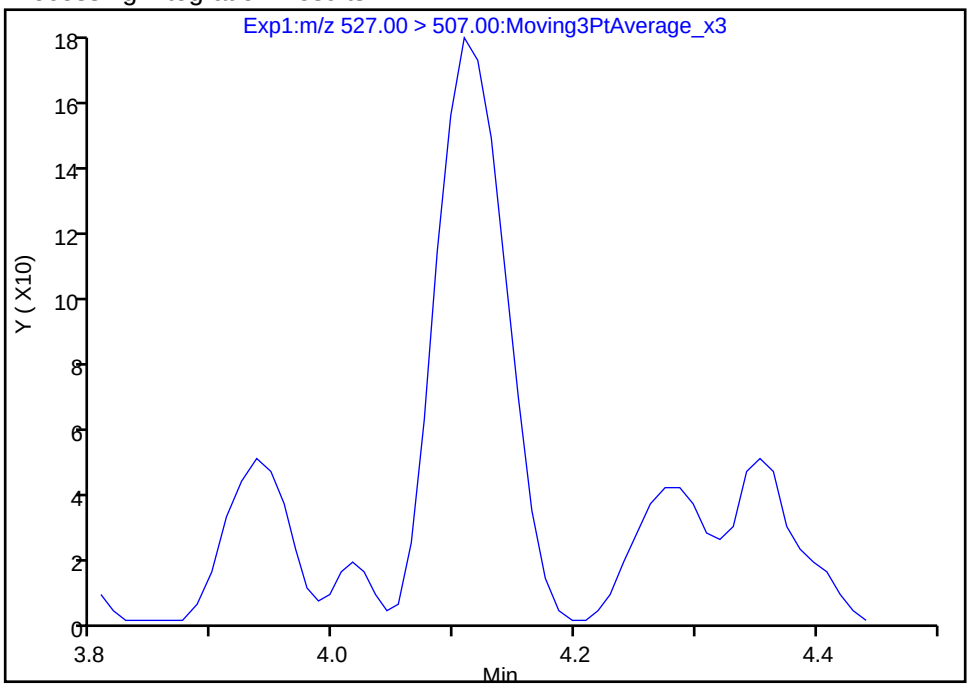
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

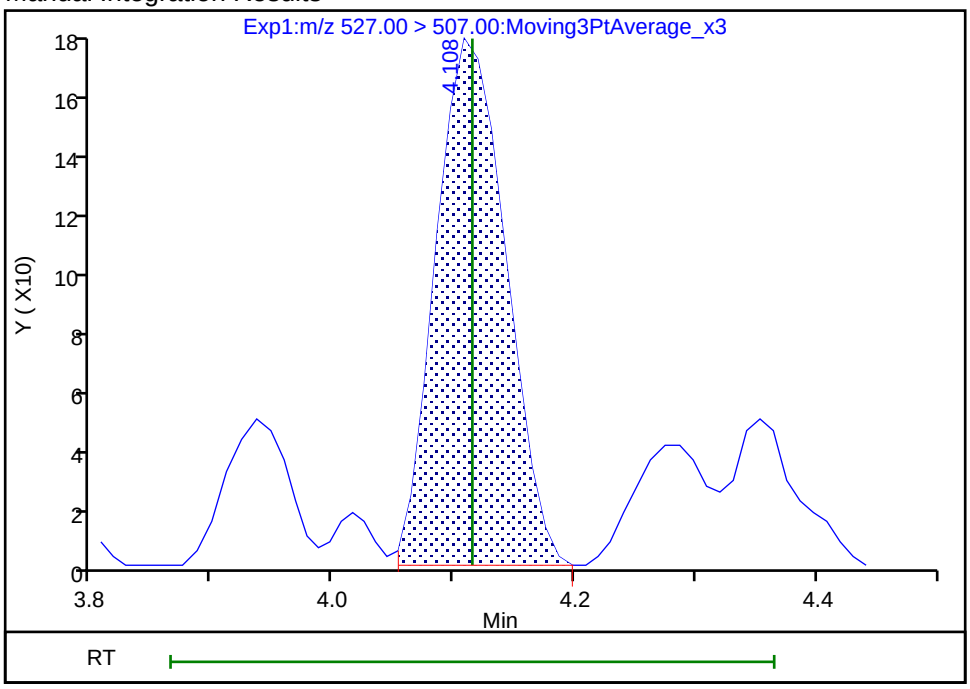
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 726
Amount: 0.003331
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173414/2-A

Matrix: Water  Lab File ID: PA211103A11.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 14:07

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 44.19 | | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 44.23 | | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 41.40 | | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 41.47 | | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 41.29 | | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 46.49 | | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 46.44 | | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 43.43 | | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 47.54 | | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 46.15 | | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 43.14 | | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 41.16 | | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 40.11 | | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 43.81 | | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 38.92 | | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 39.52 | | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 44.57 | | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 45.50 | | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 42.38 | | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 40.62 | | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.67 | | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173414/2-A

Matrix: Water  Lab File ID: PA211103A11.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 14:07

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 96 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 92 | | 50-150 |
| STL00995 | 13C5 PFNA | 88 | | 50-150 |
| STL00992 | 13C4 PFBA | 99 | | 25-150 |
| STL00993 | 13C2 PFHxA | 103 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 88 | | 50-150 |
| STL00998 | 13C2 PFDoA | 82 | | 50-150 |
| STL01056 | 13C8 FOSA | 87 | | 25-150 |
| STL01893 | 13C5 PFPeA | 100 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 90 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 108 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 104 | | 50-150 |
| STL02279 | M2-6:2 FTS | 102 | | 25-150 |
| STL02280 | M2-8:2 FTS | 104 | | 25-150 |
| STL02337 | 13C3 PFBS | 89 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Lims ID: LCS 200-173414/2-A
Client ID:
Sample Type: LCS
Inject. Date: 03-Nov-2021 14:07:20 ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 200-173414/2-A
Misc. Info.: 200-0048270-011 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 08:51:15
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.062 | 2.065 | -0.003 | 0.597 | 1729408 | 1.23 | | 98.7 | 9037 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.071 | 2.065 | 0.006 | 1.004 | 1445155 | 1.10 | | 110 | 174 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.385 | 2.375 | 0.010 | 0.690 | 1469652 | 1.24 | | 99.5 | 2256 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.385 | 2.375 | 0.010 | 1.000 | 1302442 | 1.11 | | 111 | 50.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.411 | 2.401 | 0.010 | 0.698 | 1651381 | 1.03 | | 88.9 | 68275 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.411 | 2.401 | 0.010 | 1.000 | 1561162 | 1.03 | Target=2.32 | 116 | 438 | M |
| 298.90 > 99.00 | 2.411 | 2.401 | 0.010 | 1.000 | 717740 | | 2.18(1.16-3.48) | | 250 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.707 | 2.698 | 0.009 | 0.783 | 143517 | 1.18 | | 101 | 65.5 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.707 | 2.698 | 0.009 | 1.000 | 276052 | 1.06 | | 113 | 350 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.744 | 2.735 | 0.009 | 1.000 | 1334660 | 1.03 | Target=12.09 | 103 | 149 | |
| 313.00 > 119.00 | 2.744 | 2.735 | 0.009 | 1.000 | 111042 | | 12.02(6.04-18.13) | | 136 | |
| D 7 13C2 PFHxA | | | | | | | | | | M |
| 315.00 > 270.00 | 2.744 | 2.735 | 0.009 | 0.794 | 1589443 | 1.28 | | 103 | 1437 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.744 | 2.735 | 0.009 | 0.882 | 1498237 | 1.16 | Target=3.03 | 123 | 392 | M |
| 349.00 > 99.00 | 2.744 | 2.735 | 0.009 | 0.882 | 473170 | | 3.17(1.52-4.55) | | 263 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.841 | 2.844 | -0.003 | 0.822 | 30340 | 0.9293 | | 74.3 | 145 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.853 | 2.844 | 0.009 | 1.004 | 137379 | 1.25 | | 125 | 33.1 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.900 | 1271566 | 1.10 | | 92.6 | 275 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.100 | 3.101 | -0.001 | 0.997 | 1185569 | 1.00 | Target=3.55 | 110 | 254 | |
| 399.00 > 99.00 | 3.100 | 3.101 | -0.001 | 0.997 | 344431 | | 3.44(1.77-5.32) | | 171 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1343888 | 1.04 | Target=3.69 | 104 | 205 | |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 368300 | | 3.65(1.84-5.53) | | 297 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.900 | 1568310 | 1.20 | | 96.2 | 2248 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.143 | 3.144 | -0.001 | 0.832 | 3045186 | 1.12 | Target=2.56 | 119 | 449 | M |
| 377.00 > 85.00 | 3.143 | 3.144 | -0.001 | 0.832 | 1172950 | | 2.60(1.28-3.84) | | 356 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.448 | -0.001 | 1.000 | 239488 | 1.02 | | 107 | 188 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.447 | 3.448 | -0.001 | 0.913 | 1057573 | 1.10 | Target=4.88 | 115 | 332 | |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 213075 | | 4.96(2.44-7.32) | | 261 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.447 | 3.448 | -0.001 | 0.997 | 220850 | 1.21 | | 102 | 487 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.003 | 1708446 | 1.20 | | 95.9 | 879 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.456 | 3.457 | -0.001 | | 1731652 | 1.25 | | | 349 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1500511 | 1.03 | Target=2.68 | 103 | 161 | |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 0.997 | 567727 | | 2.64(1.34-4.02) | | 279 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.776 | 3.767 | 0.009 | 1.092 | 925613 | 1.10 | | 92.3 | 454 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.776 | 3.767 | 0.009 | 1.000 | 817794 | 0.9730 | Target=4.69 | 105 | 197 | M |
| 499.00 > 99.00 | 3.766 | 3.767 | -0.001 | 0.997 | 183177 | | 4.46(2.35-7.04) | | 161 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.795 | 3.786 | 0.009 | 1.098 | 1564793 | 1.10 | | 88.2 | 1976 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.795 | 3.786 | 0.009 | 1.000 | 1423333 | 1.16 | Target=7.29 | 116 | 185 | |
| 463.00 > 169.00 | 3.795 | 3.786 | 0.009 | 1.000 | 182856 | | 7.78(3.64-10.93) | | 254 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.932 | 3.922 | 0.010 | 1.041 | 1274508 | 1.01 | | 108 | 350 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.060 | 4.052 | 0.008 | 1.075 | 690020 | 1.05 | Target=2.35 | 110 | 331 | M |
| 549.00 > 99.00 | 4.060 | 4.052 | 0.008 | 1.075 | 266877 | | 2.59(1.17-3.52) | | 324 | M |
| D 23 13C2 PFDA | | | | | | | | | | M |
| 515.00 > 470.00 | 4.082 | 4.073 | 0.009 | 1.181 | 1600450 | 1.12 | | 89.4 | 80.7 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.082 | 4.073 | 0.009 | 1.000 | 1493580 | 1.16 | Target=8.95 | 116 | 232 | |
| 513.00 > 169.00 | 4.082 | 4.073 | 0.009 | 1.000 | 164948 | | 9.05(4.47-13.42) | | 249 | |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.184 | 257444 | 1.24 | | 104 | 157 | M |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 173869 | 0.9668 | | 101 | 199 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.219 | 1501025 | 1.09 | | 86.9 | 613 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 1270642 | 1.11 | | 111 | 1242 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.222 | 189815 | 1.35 | | 108 | 200 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.000 | 135693 | 1.14 | | 114 | 138 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.314 | 4.306 | 0.008 | 1.143 | 502963 | 0.9881 | Target=2.47 | 102 | 738 | |
| 599.00 > 99.00 | 4.325 | 4.306 | 0.019 | 1.145 | 203487 | | 2.47(1.23-3.70) | | 693 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.258 | 1233382 | 1.10 | | 88.4 | 756 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.339 | 0.008 | 1.000 | 1142155 | 1.09 | Target=9.24 | 109 | 423 | |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 134534 | | 8.49(4.62-13.86) | | 547 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.261 | 171990 | 1.30 | | 104 | 684 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 124919 | 1.06 | | 106 | 217 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.435 | 4.428 | 0.007 | 1.175 | 1552130 | 1.04 | | 110 | 1024 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.322 | 1228807 | 1.02 | | 81.8 | 325 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 1143850 | 1.19 | Target=7.04 | 119 | 177 | |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.000 | 166785 | | 6.86(3.52-10.56) | | 677 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.591 | 4.574 | 0.017 | 1.122 | 84157 | 1.01 | | 105 | 575 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.738 | 4.725 | 0.013 | 1.255 | 208849 | 1.12 | Target=0.49 | 115 | 1783 | |
| 699.00 > 99.00 | 4.729 | 4.725 | 0.004 | 1.253 | 390413 | | 0.53(0.25-0.74) | | 1745 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.765 | 4.761 | 0.004 | 1.043 | 957358 | 1.15 | Target=4.68 | 115 | 226 | M |
| 663.00 > 169.00 | 4.765 | 4.761 | 0.004 | 1.043 | 207740 | | 4.61(2.34-7.02) | | 1302 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.431 | 1053152 | 1.13 | | 90.4 | 1664 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.946 | 4.940 | 0.006 | 1.000 | 143425 | 1.08 | Target=1.01 | 108 | 1427 | |
| 713.00 > 219.00 | 4.937 | 4.940 | -0.003 | 0.998 | 153077 | | 0.94(0.51-1.52) | | 1534 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.248 | -0.003 | 1.518 | 989112 | 1.21 | | 96.4 | 3390 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.245 | 5.248 | -0.003 | 1.000 | 754295 | 1.10 | Target=4.57 | 110 | 213 | |
| 813.00 > 169.00 | 5.245 | 5.248 | -0.003 | 1.000 | 166578 | | 4.53(2.29-6.86) | | 1489 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.510 | 5.503 | 0.007 | 1.050 | 715860 | 1.07 | Target=4.27 | 107 | 367 | |
| 913.00 > 169.00 | 5.510 | 5.503 | 0.007 | 1.050 | 158636 | | 4.51(2.14-6.41) | | 1429 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d

Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812

Lims ID: LCS 200-173414/2-A

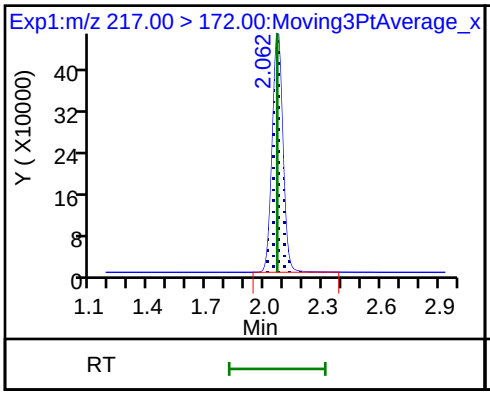
Client ID:

Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11

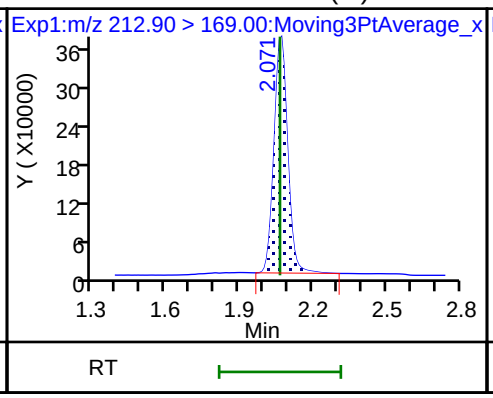
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

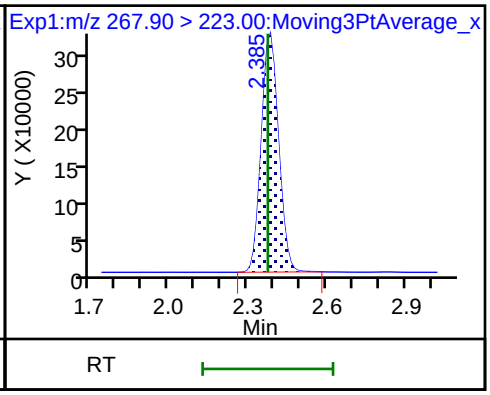
D 1 13C4 PFBA



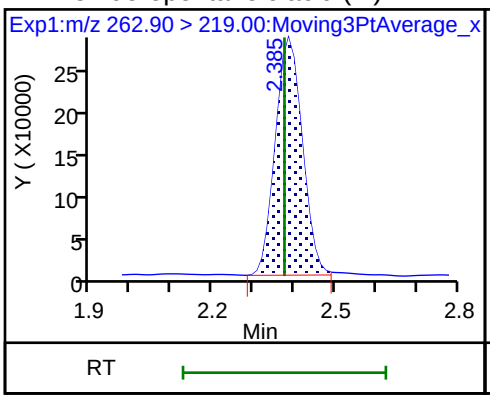

2 Perfluorobutanoic acid (M)



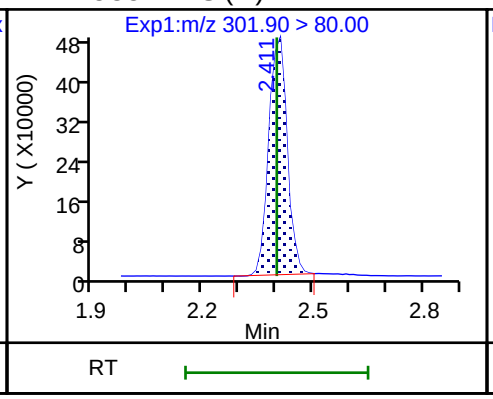

D 3 13C5 PFPeA



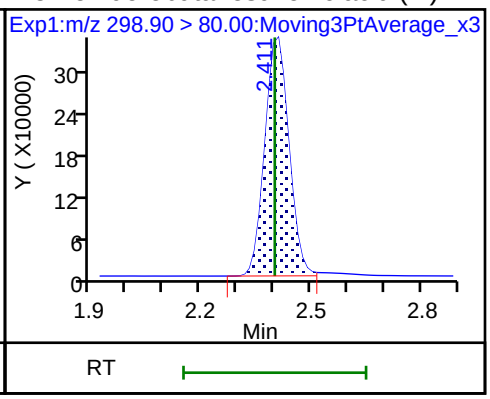

4 Perfluoropentanoic acid (M)



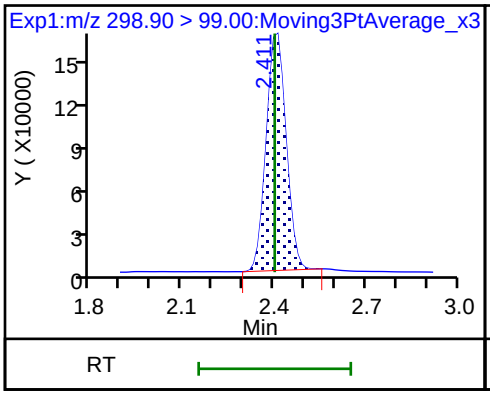

D 47 13C3 PFBS (M)



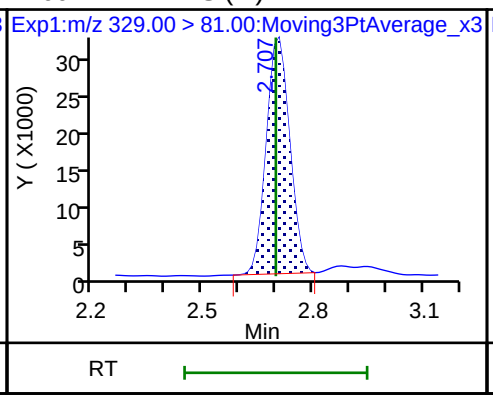

5 Perfluorobutanesulfonic acid (M)



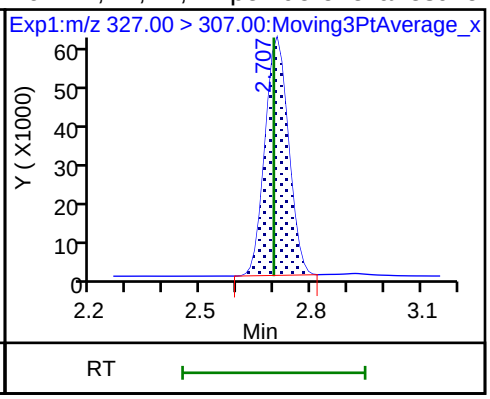

5 Perfluorobutanesulfonic acid



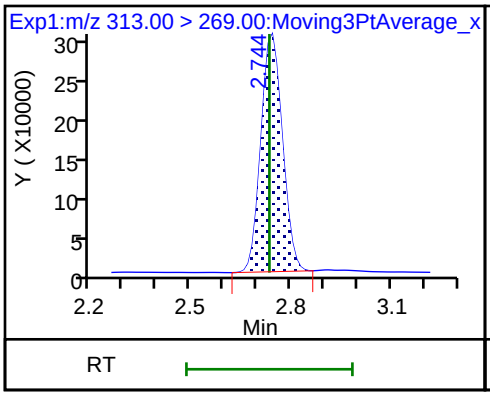

D 60 M2-4:2 FTS (M)



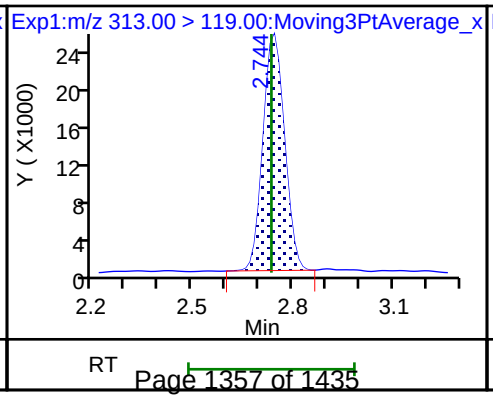

61 1H,1H,2H,2H-perfluorohexanesulfo



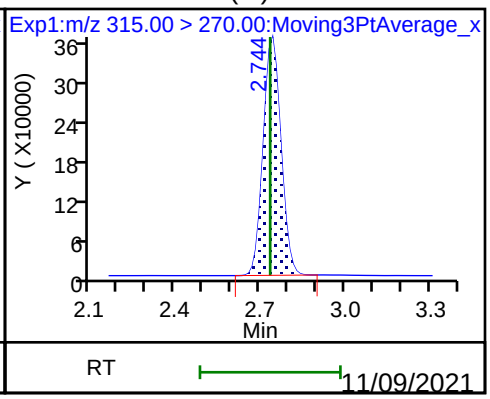

6 Perfluorohexanoic acid



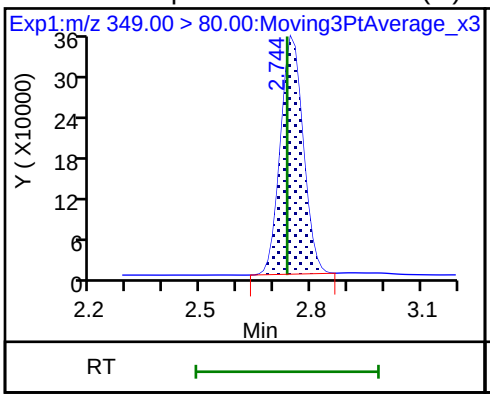

6 Perfluorohexanoic acid



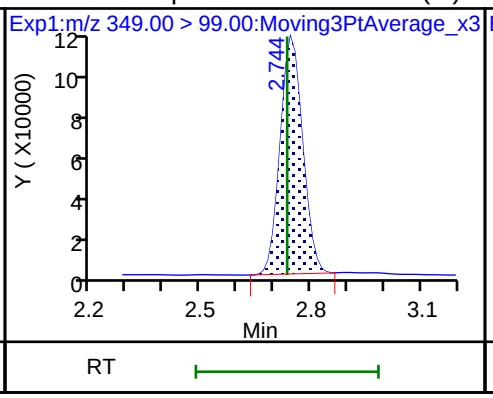

D 7 13C2 PFHxA (M)



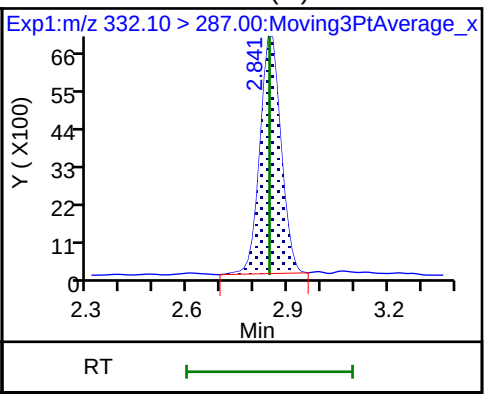
70 Perfluoropentanesulfonic acid (M)



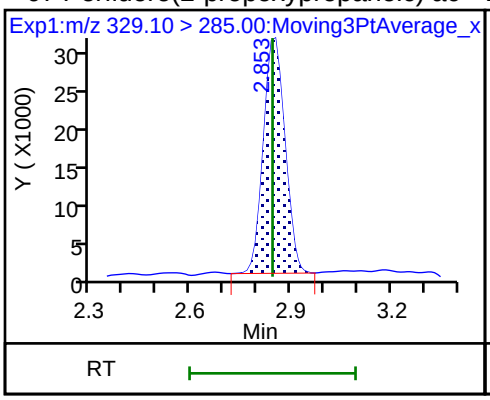

70 Perfluoropentanesulfonic acid (M)



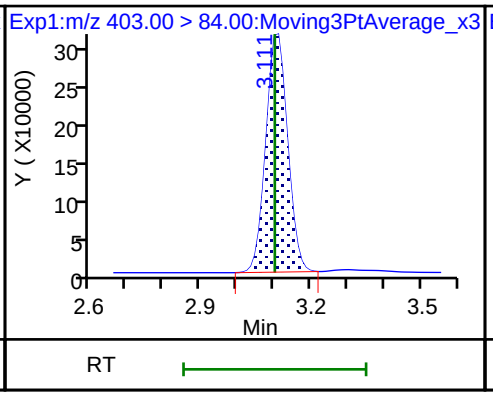

D 64 13C3 HFPO-DA (M)



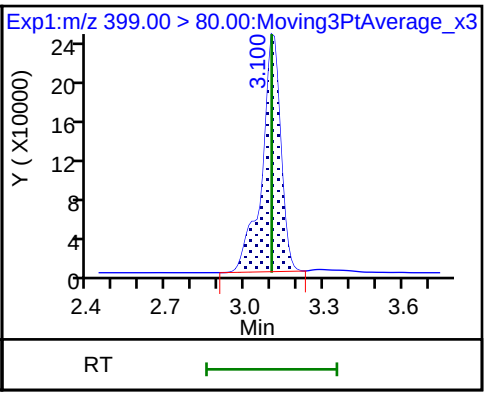

67 Perfluoro(2-propoxypropanoic) ac



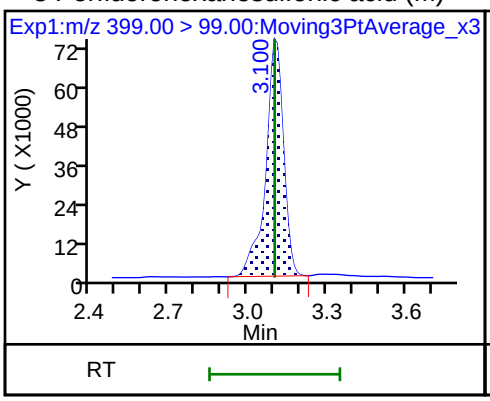

D 11 18O2 PFHxS



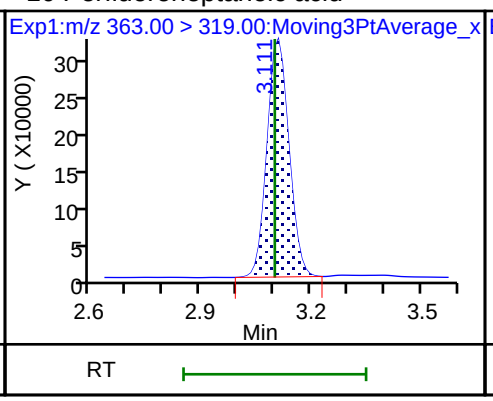

8 Perfluorohexanesulfonic acid



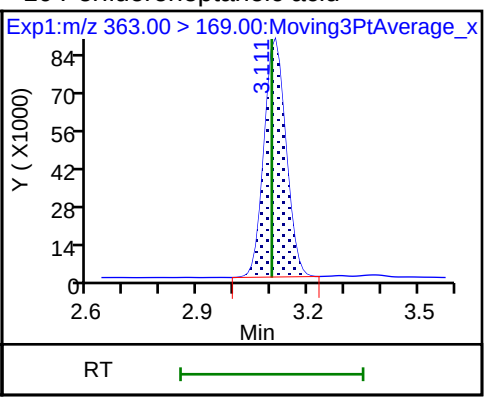

8 Perfluorohexanesulfonic acid (M)



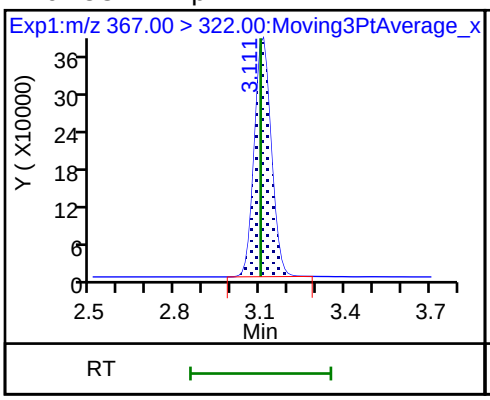

10 Perfluoroheptanoic acid



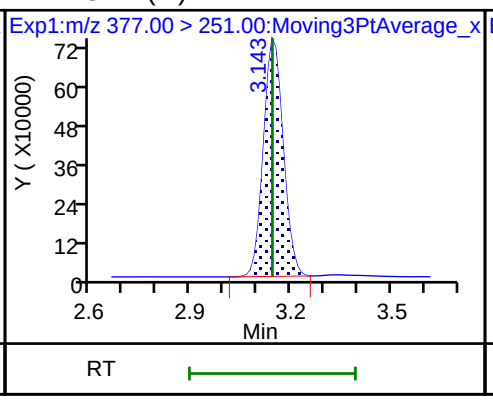

10 Perfluoroheptanoic acid



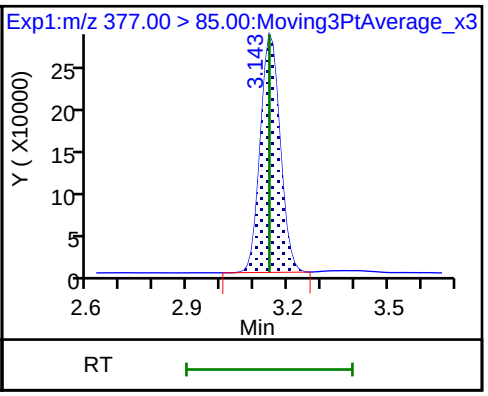

D 9 13C4 PFHpA



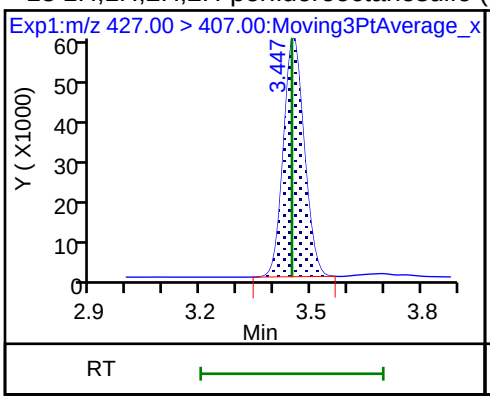

77 DONA (M)



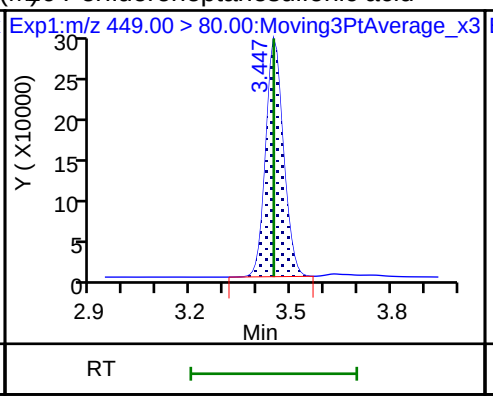

77 DONA



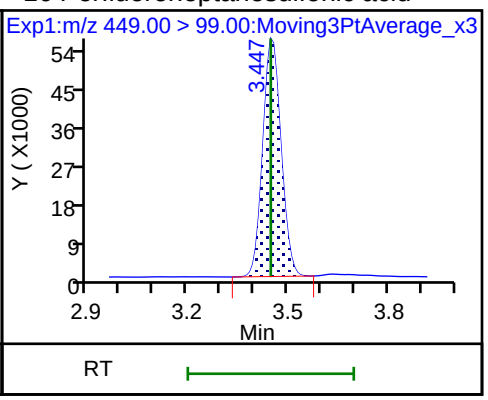
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



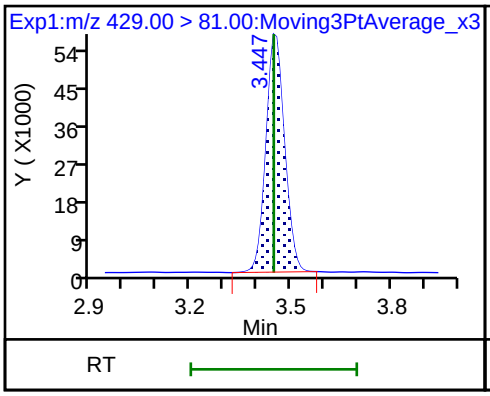

16 Perfluoroheptanesulfonic acid



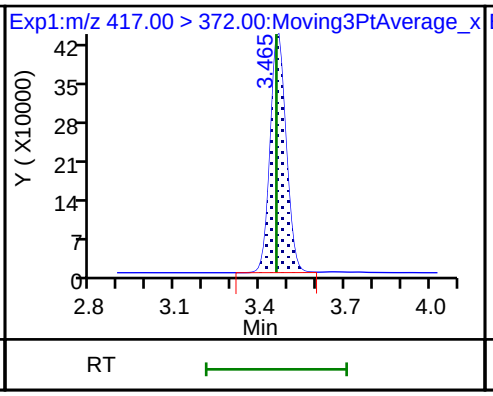

16 Perfluoroheptanesulfonic acid



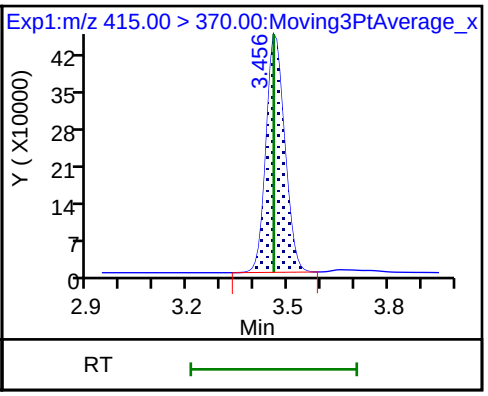

D 12 M2-6:2 FTS



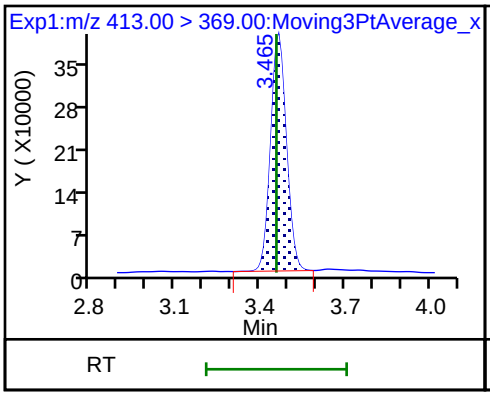

D 14 13C4 PFOA



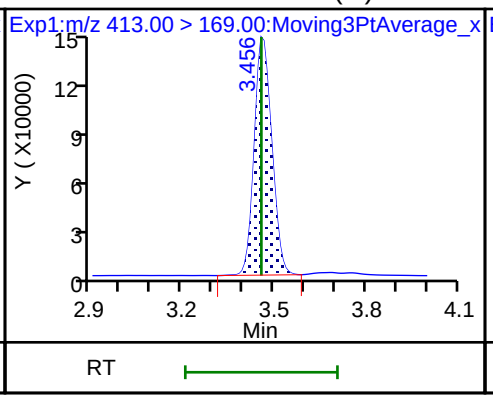

* 62 13C2 PFOA



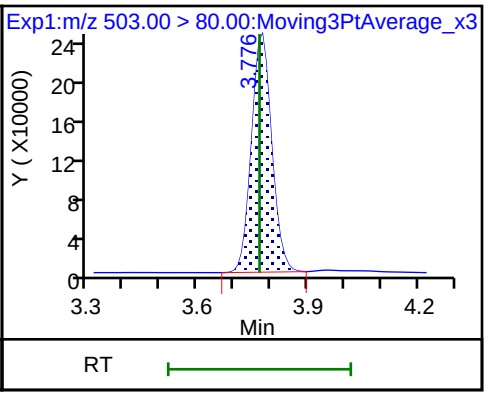

15 Perfluorooctanoic acid



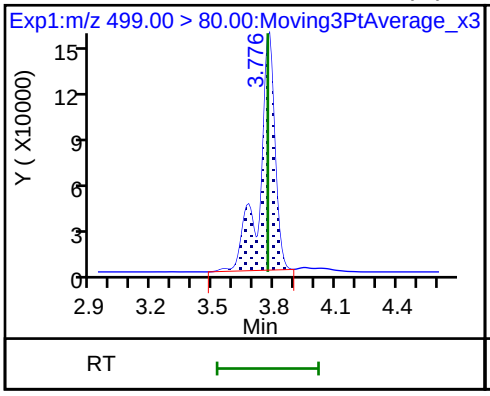

15 Perfluorooctanoic acid (M)



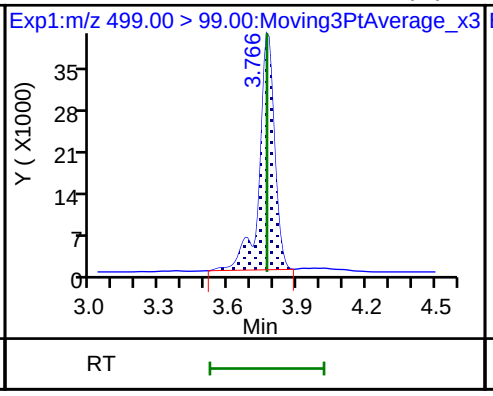

D 18 13C4 PFOS



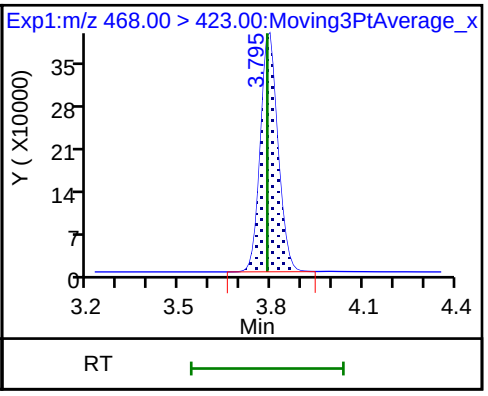

17 Perfluorooctanesulfonic acid (M)



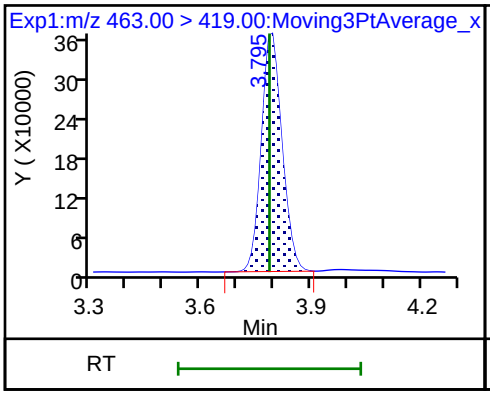

17 Perfluorooctanesulfonic acid (M)



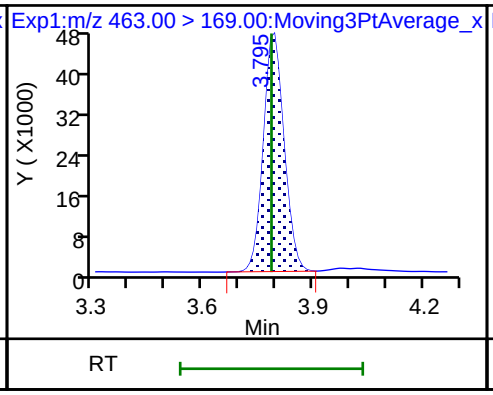

D 19 13C5 PFNA



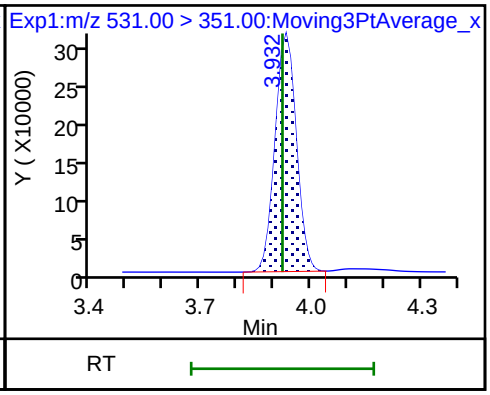
20 Perfluorononanoic acid



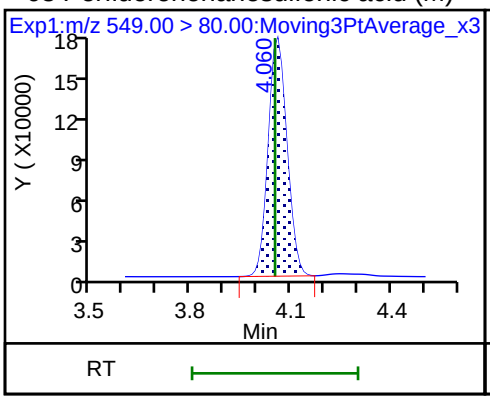

20 Perfluorononanoic acid



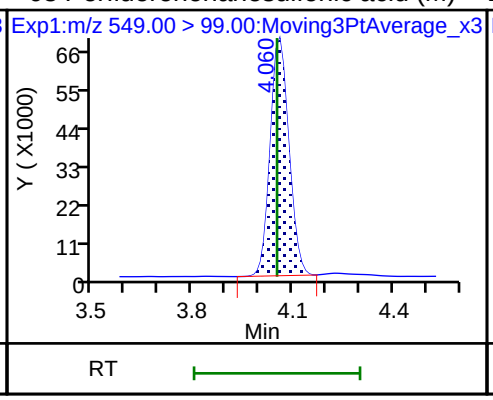

69 9-Chlorohexadecafluoro-3-oxanona



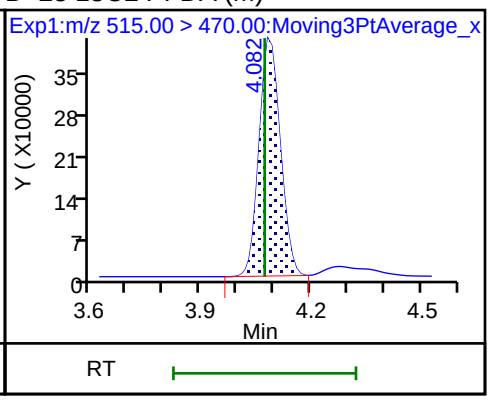

68 Perfluorononanesulfonic acid (M)



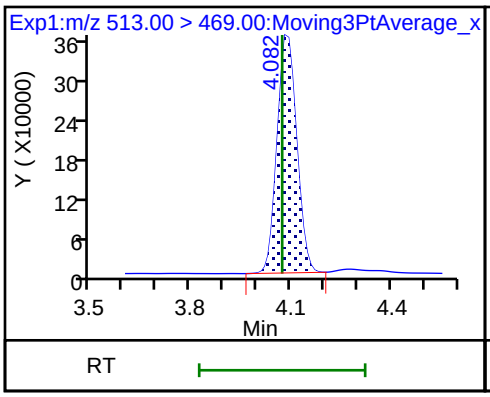

68 Perfluorononanesulfonic acid (M)



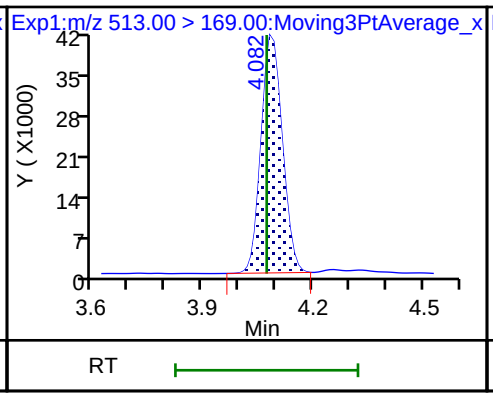

D 23 13C2 PFDA (M)



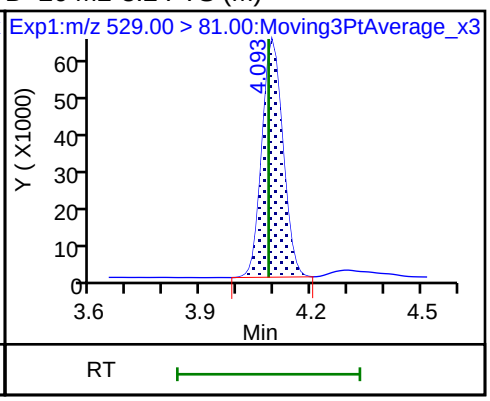

24 Perfluorodecanoic acid



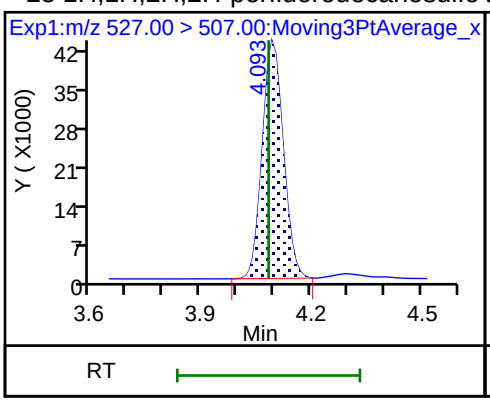

24 Perfluorodecanoic acid



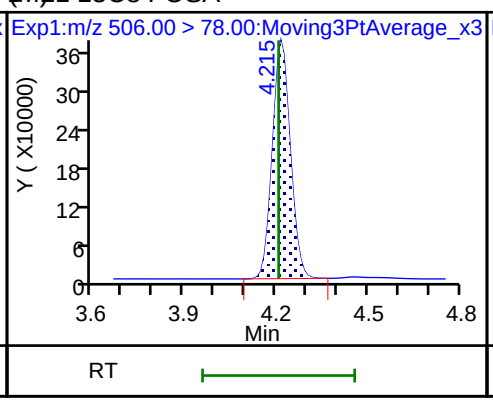

D 26 M2-8:2 FTS (M)



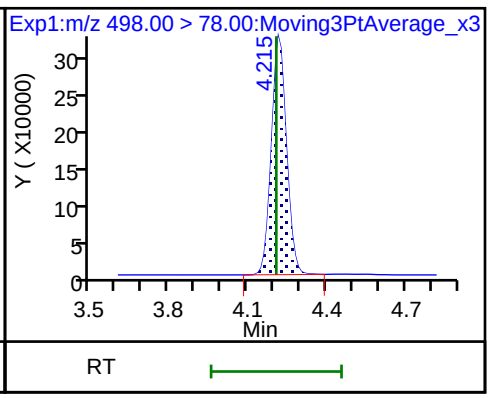

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



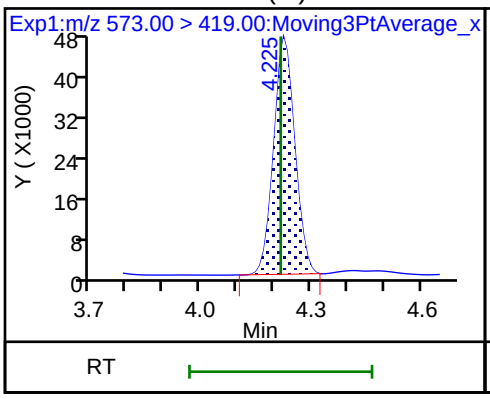

D 21 13C8 FOSA



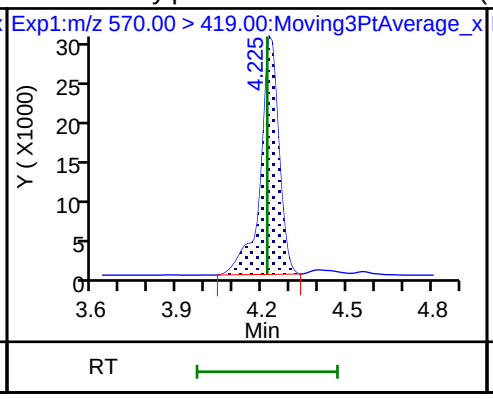

22 Perfluorooctanesulfonamide



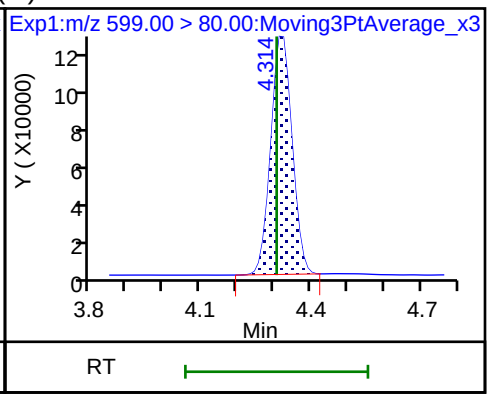
D 27 d3-NMeFOSAA (M)



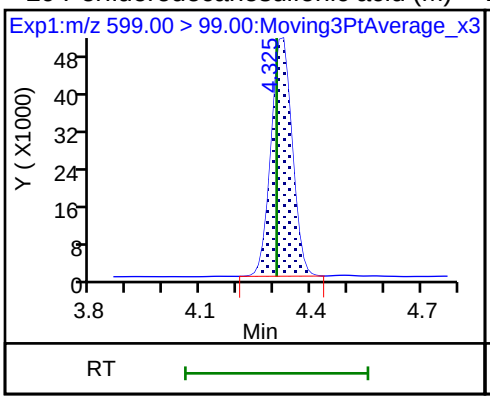

28 N-methylperfluorooctanesulfonami (M)



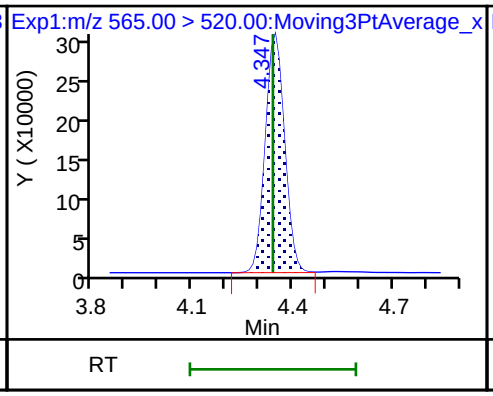

29 Perfluorodecanesulfonic acid



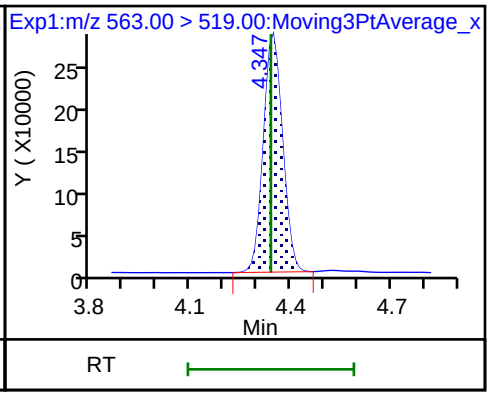

29 Perfluorodecanesulfonic acid (M)



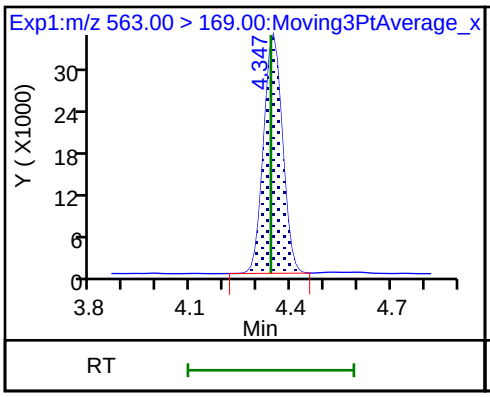

D 30 13C2 PFUnA



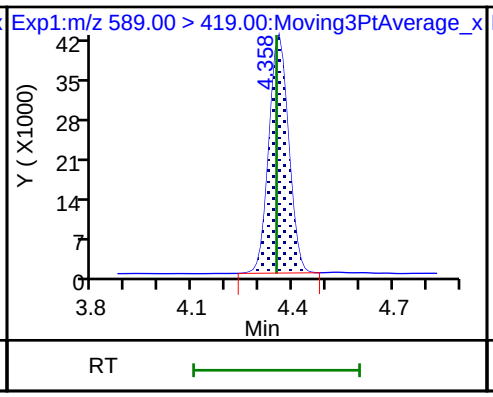

31 Perfluoroundecanoic acid



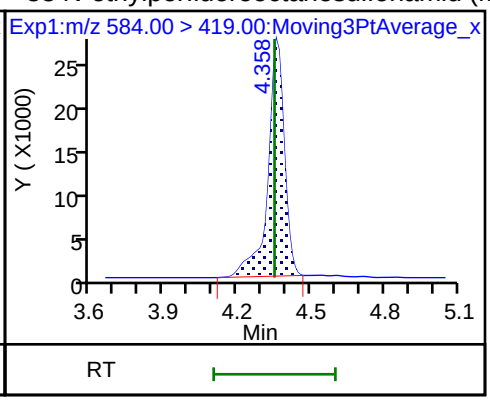

31 Perfluoroundecanoic acid



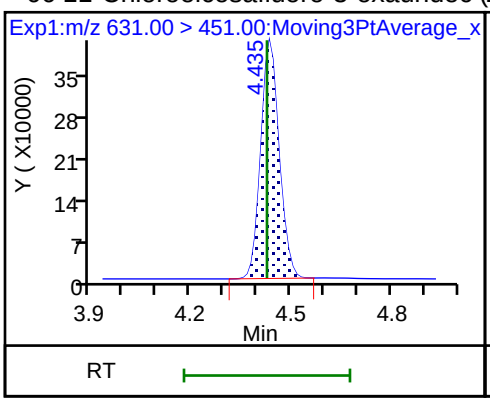

D 32 d5-NEtFOSAA



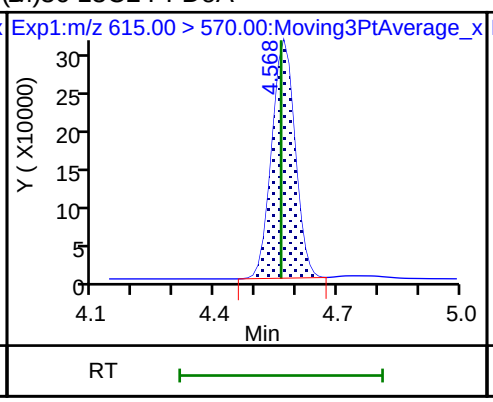

33 N-ethylperfluorooctanesulfonamid (M)



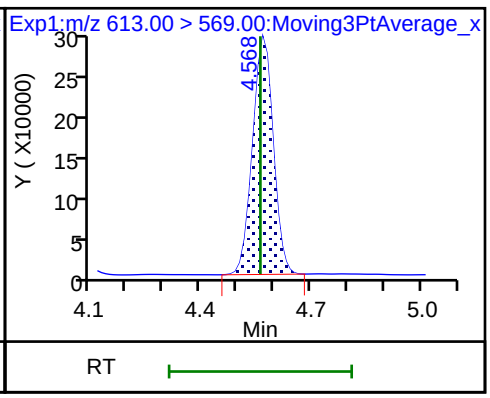

66 11-Chloroeicosafluoro-3-oxaundec (M)



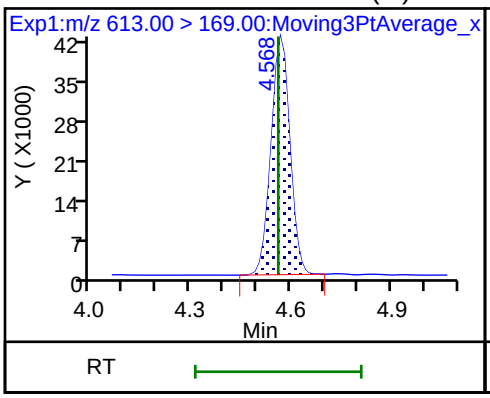

D 36 13C2 PFDoA



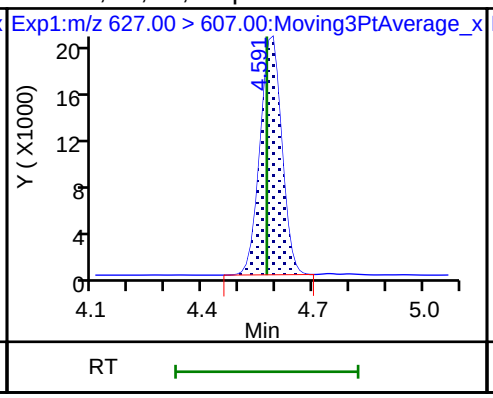

37 Perfluorododecanoic acid



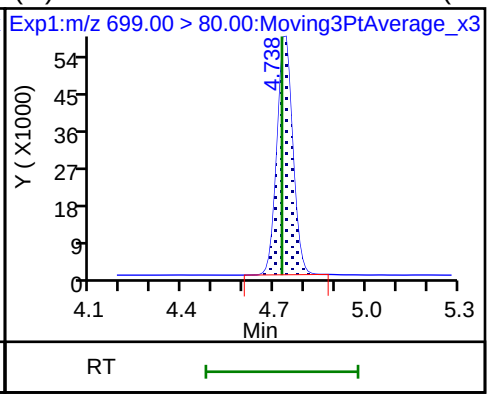
37 Perfluorododecanoic acid (M)



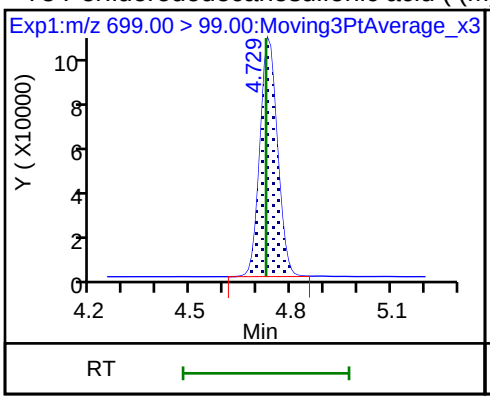

74 1H,1H,2H,2H-perfluorododecanesul (M)



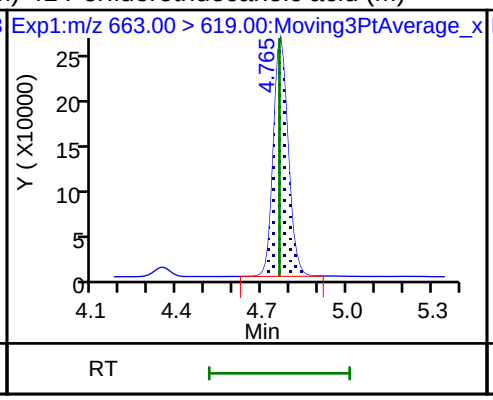

75 Perfluorododecanesulfonic acid (



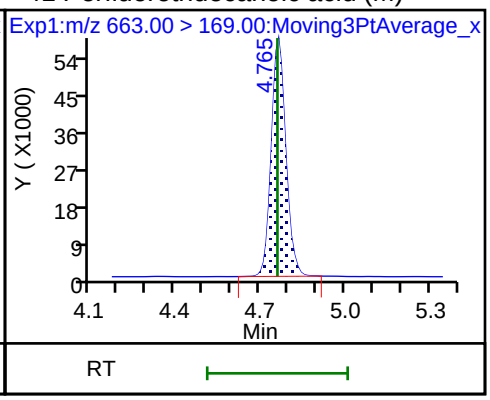

75 Perfluorododecanesulfonic acid ( (M)



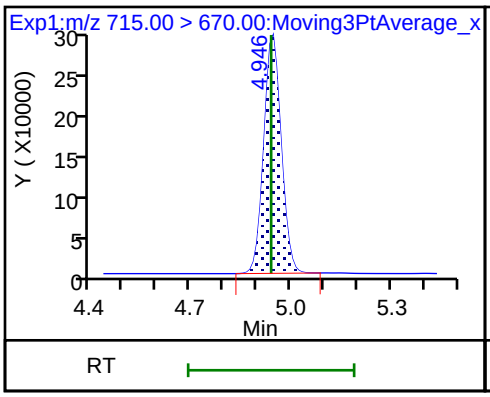

41 Perfluorotridecanoic acid (M)



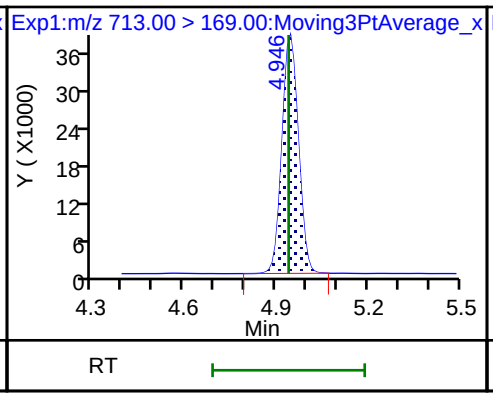

41 Perfluorotridecanoic acid (M)



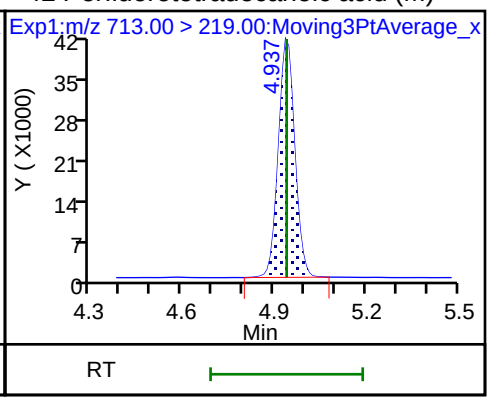

D 43 13C2 PFTeDA



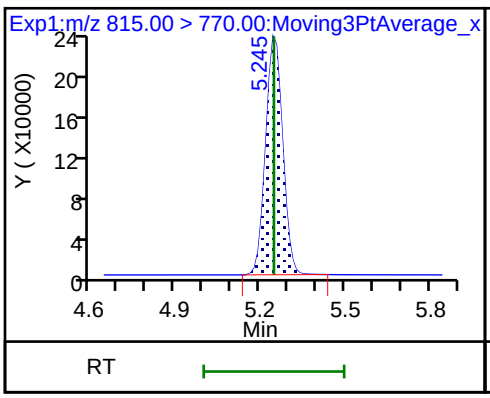

42 Perfluorotetradecanoic acid



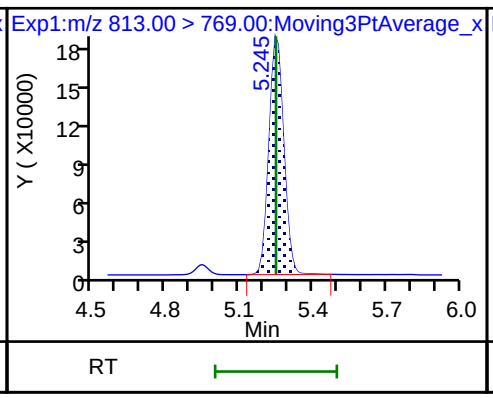

42 Perfluorotetradecanoic acid (M)



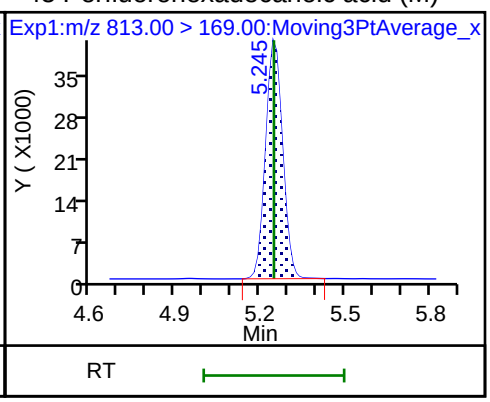

D 44 13C2 PFHxDA



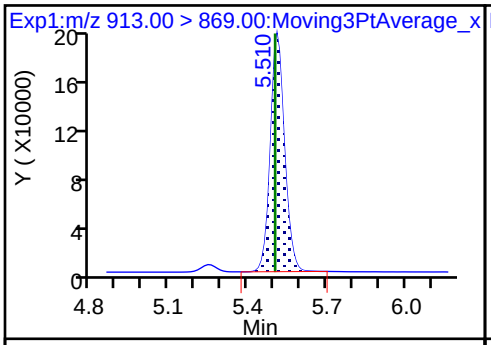

45 Perfluorohexadecanoic acid



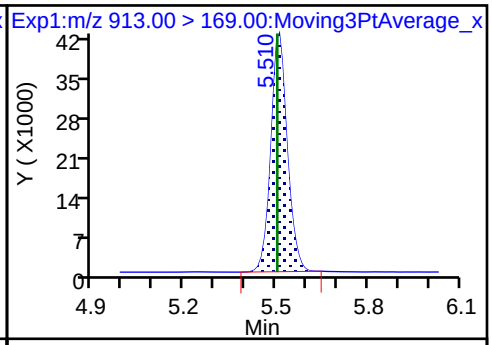

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

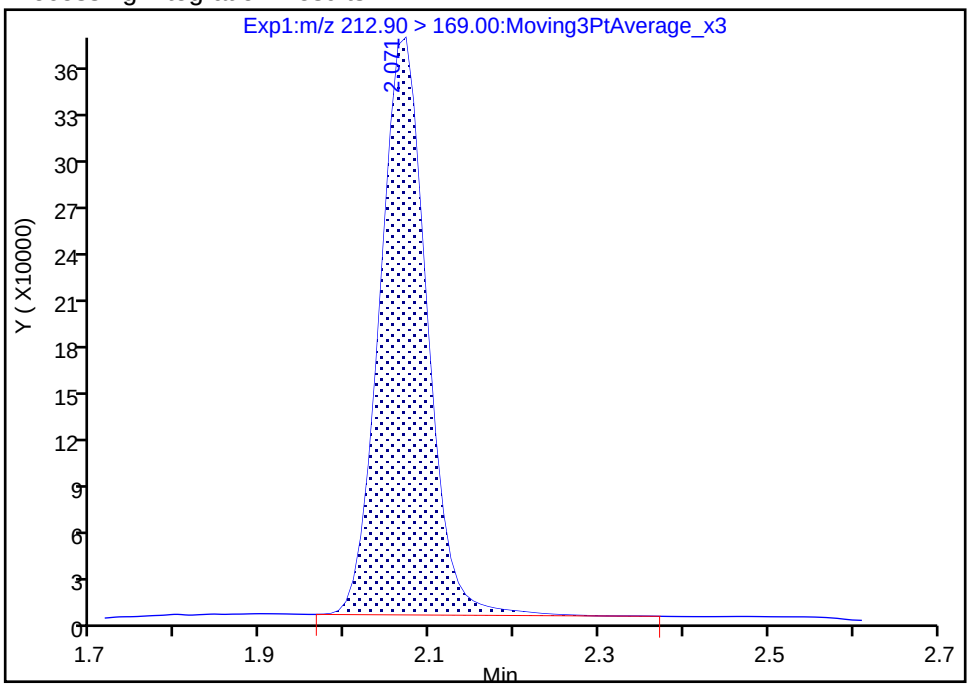
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

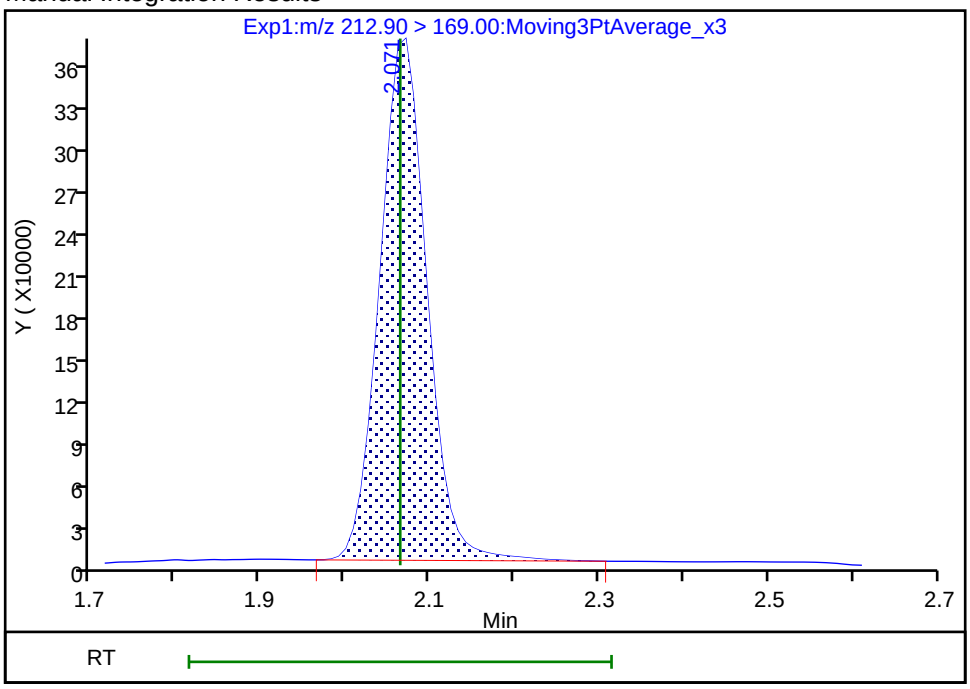
Processing Integration Results

RT: 2.07
Area: 1445723
Amount: 1.105119
Amount Units: ng/ml




Manual Integration Results

RT: 2.07
Area: 1445155
Amount: 1.104685
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:48:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

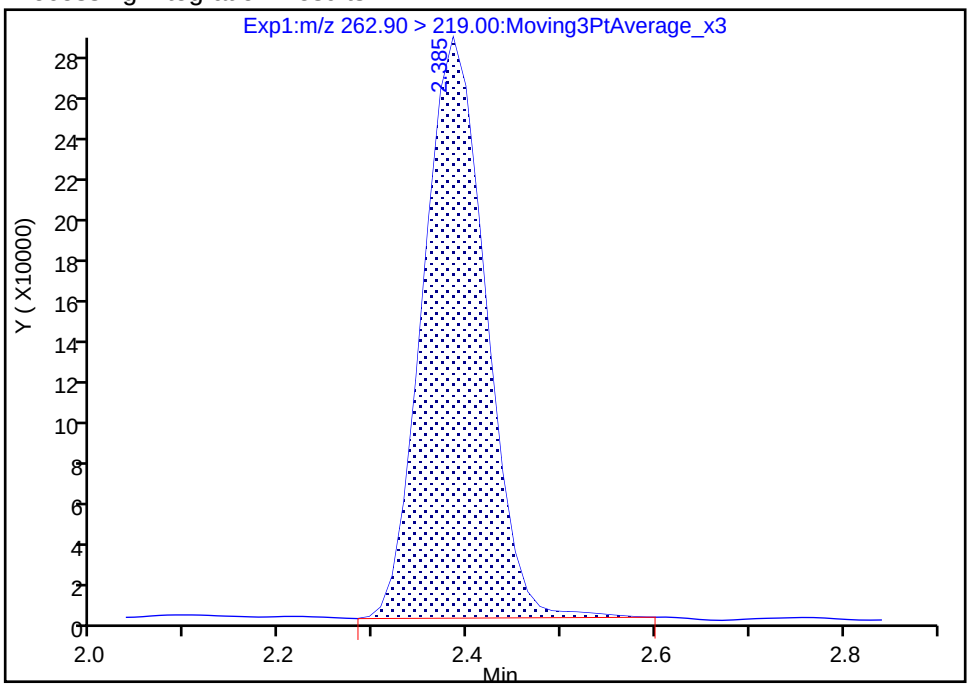
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

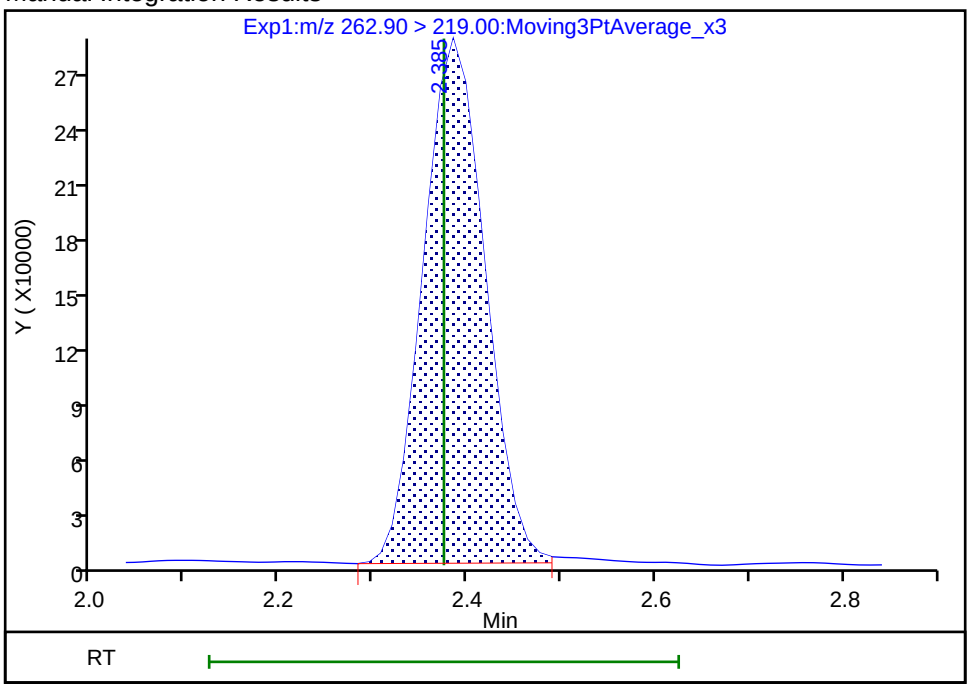
Processing Integration Results

RT: 2.38
Area: 1312641
Amount: 1.114530
Amount Units: ng/ml




Manual Integration Results

RT: 2.38
Area: 1302442
Amount: 1.105870
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:48:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

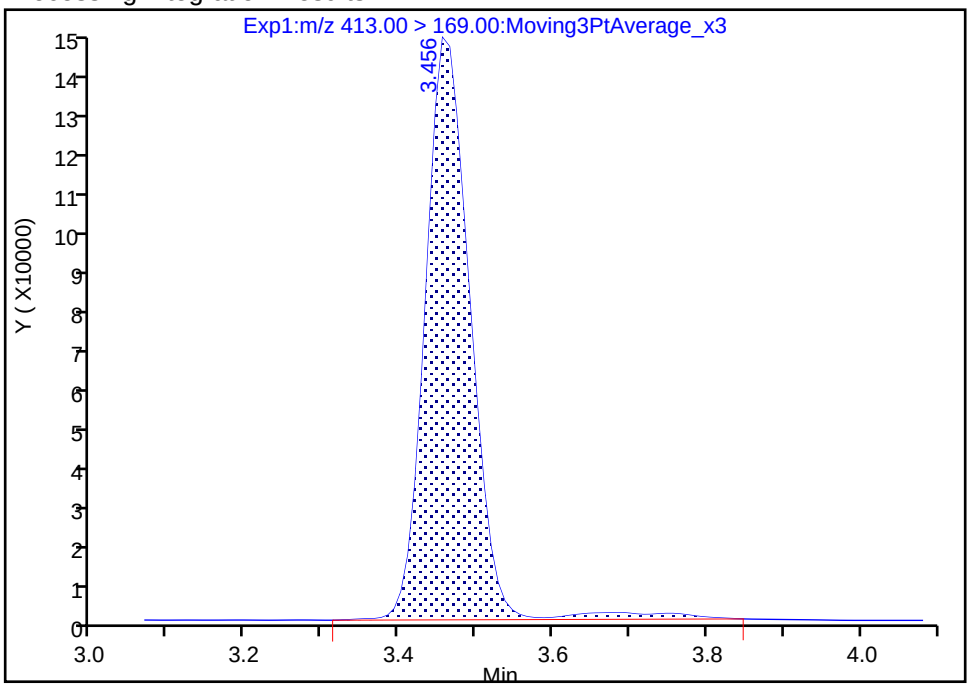
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

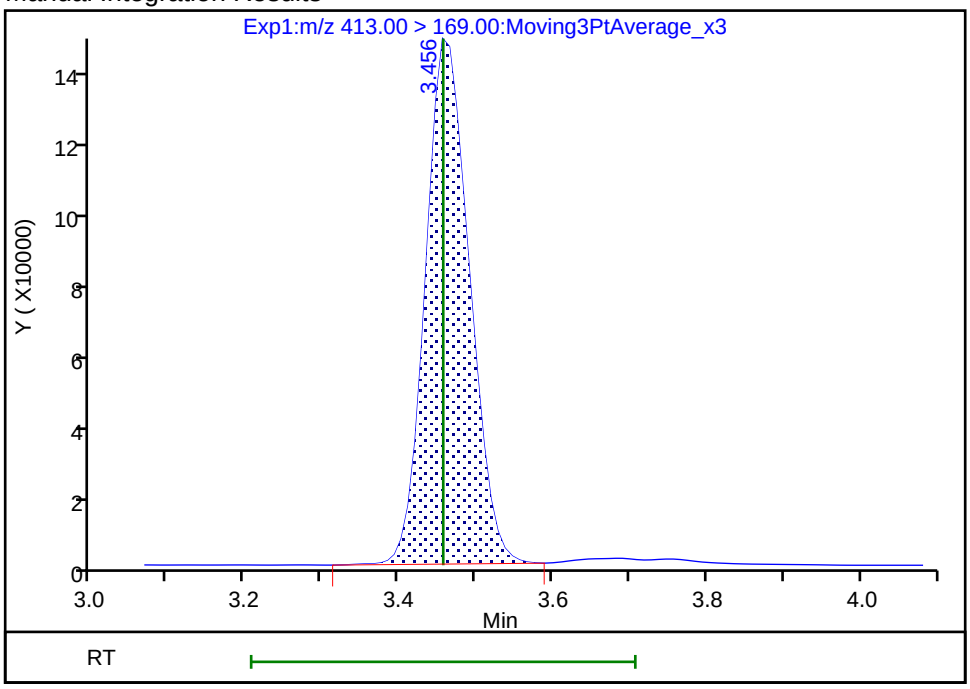
Processing Integration Results

RT: 3.46
Area: 586139
Amount: 1.032371
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 567727
Amount: 1.032371
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:49:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

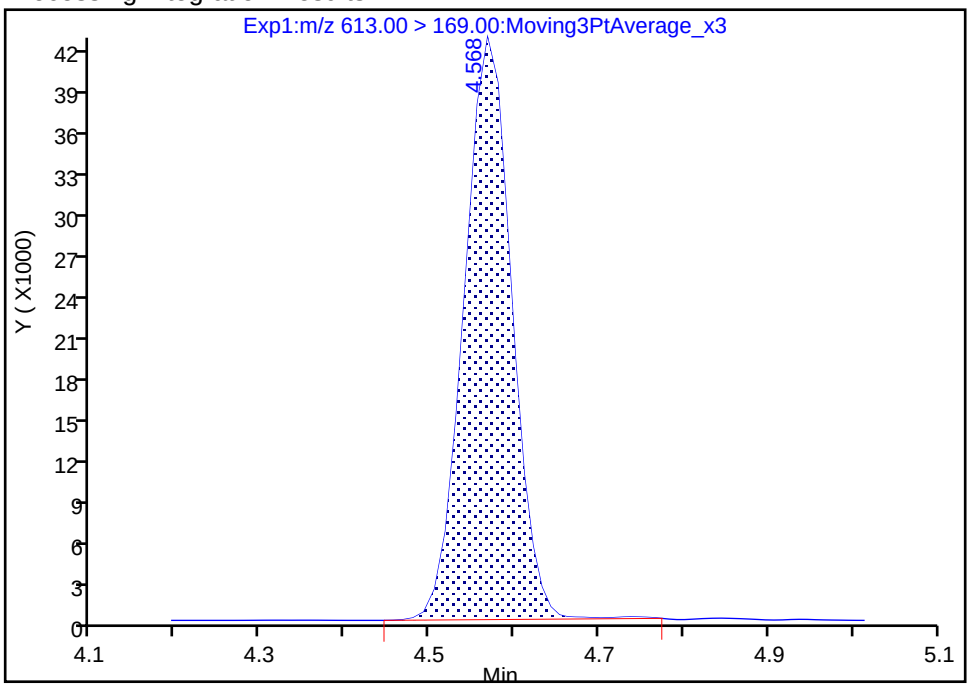
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d | | | | |
| Injection Date: | 03-Nov-2021 14:07:20 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173414/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

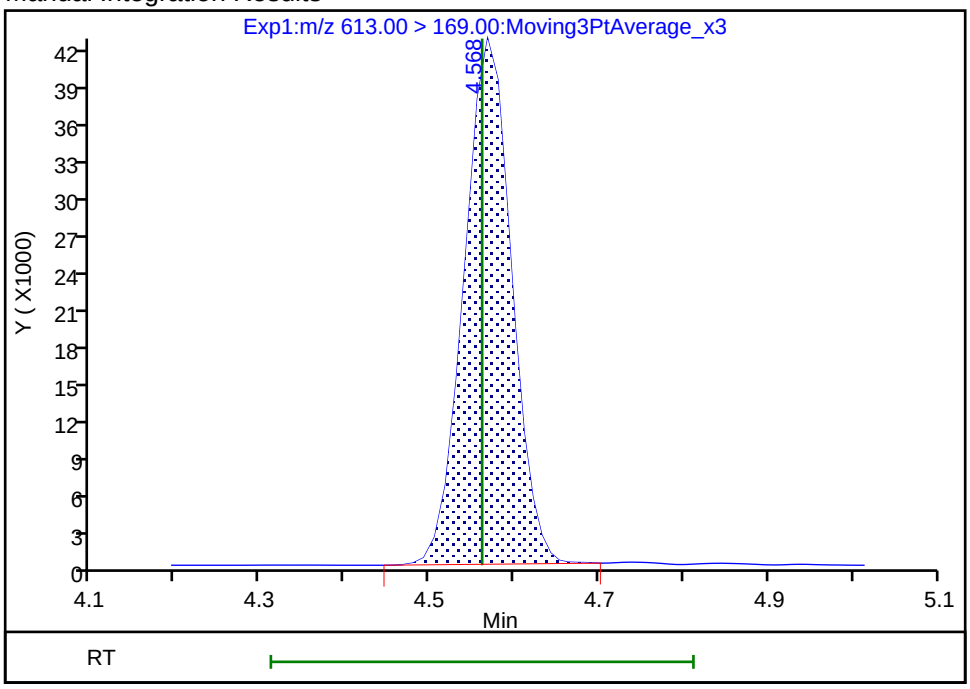
Processing Integration Results

RT: 4.57
Area: 167569
Amount: 1.188469
Amount Units: ng/ml




Manual Integration Results

RT: 4.57
Area: 166785
Amount: 1.188469
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:50:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

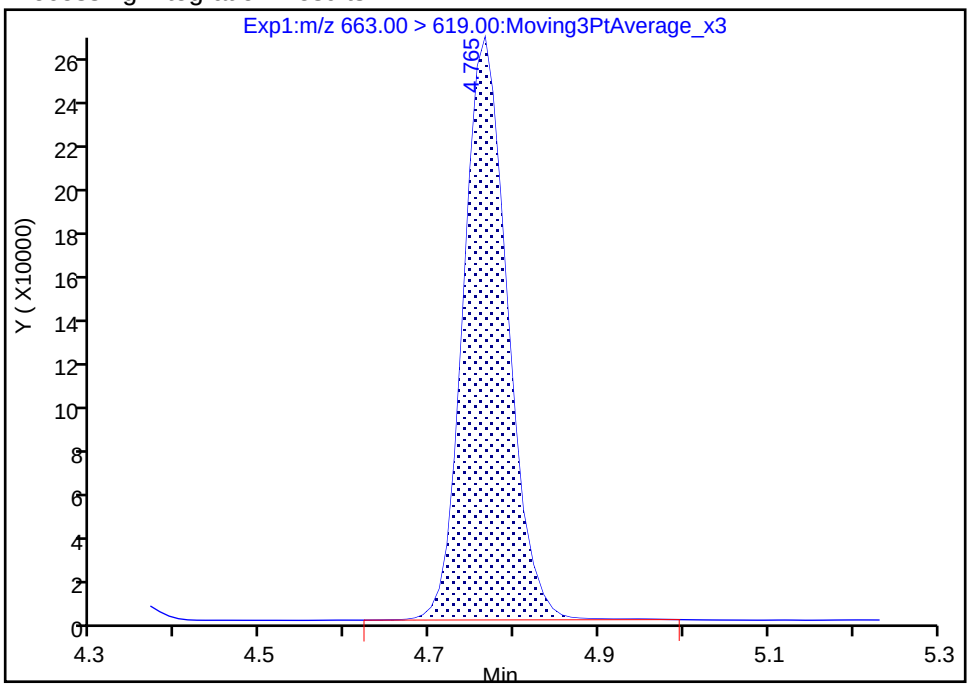
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

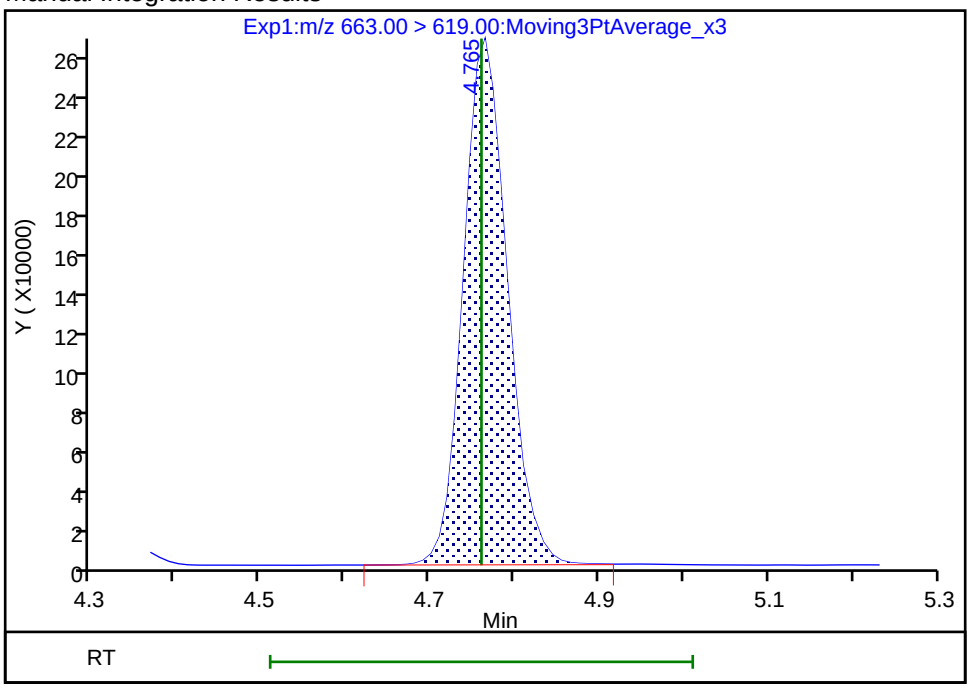
Processing Integration Results

RT: 4.77
Area: 958257
Amount: 1.154818
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 957358
Amount: 1.153735
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:50:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

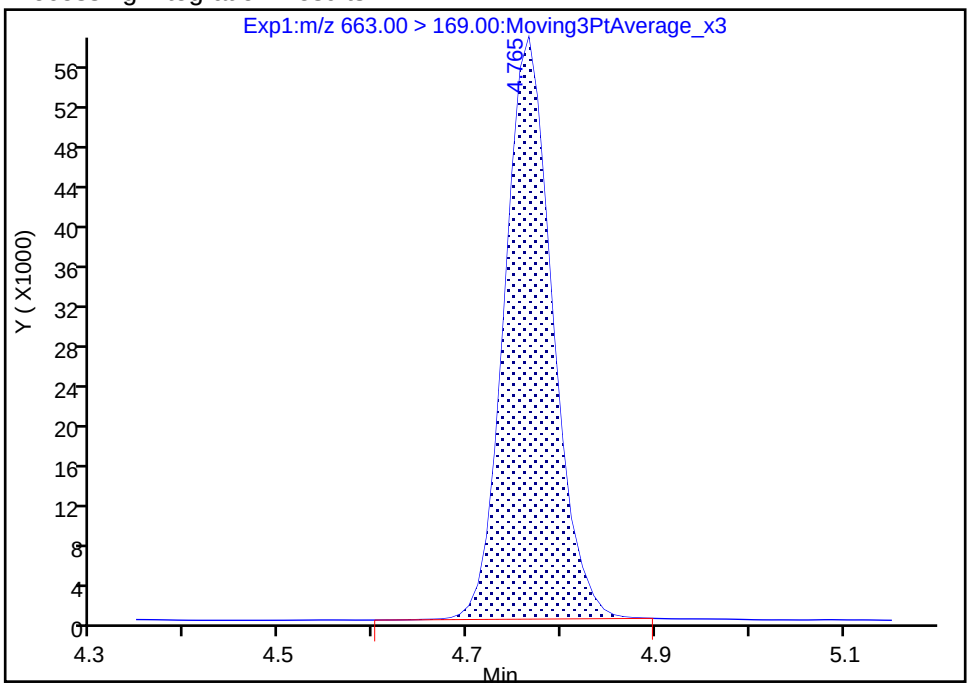
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

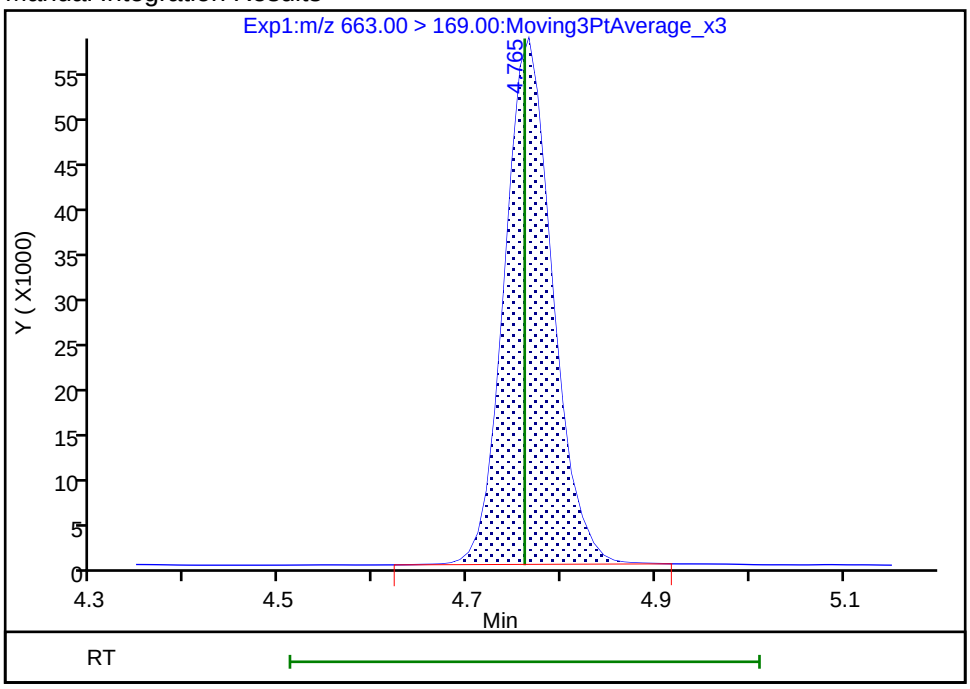
Processing Integration Results

RT: 4.77
Area: 207290
Amount: 1.154818
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 207740
Amount: 1.153735
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:50:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

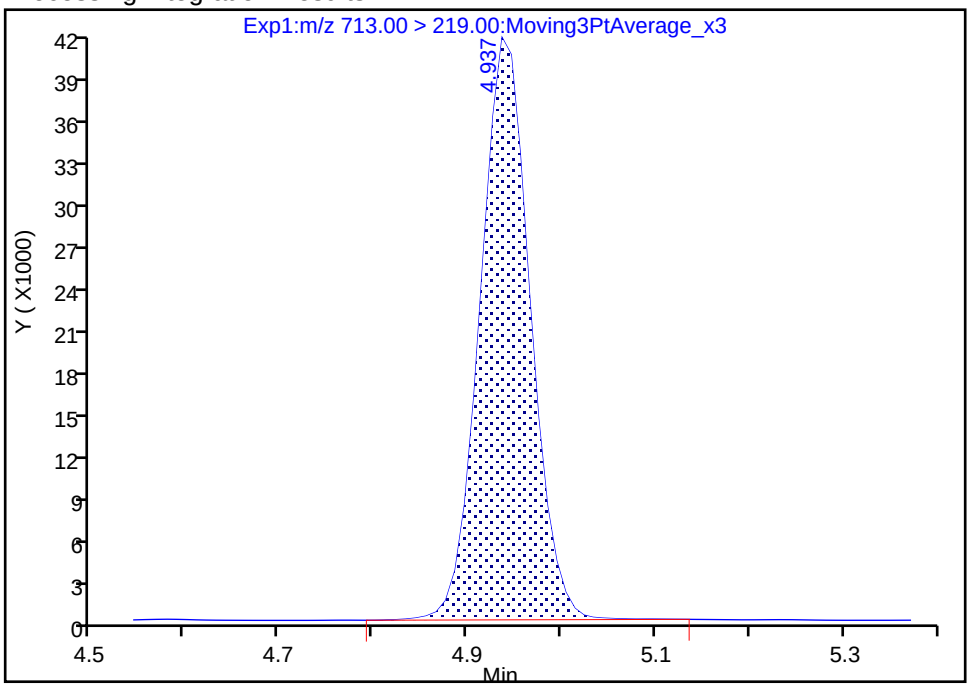
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

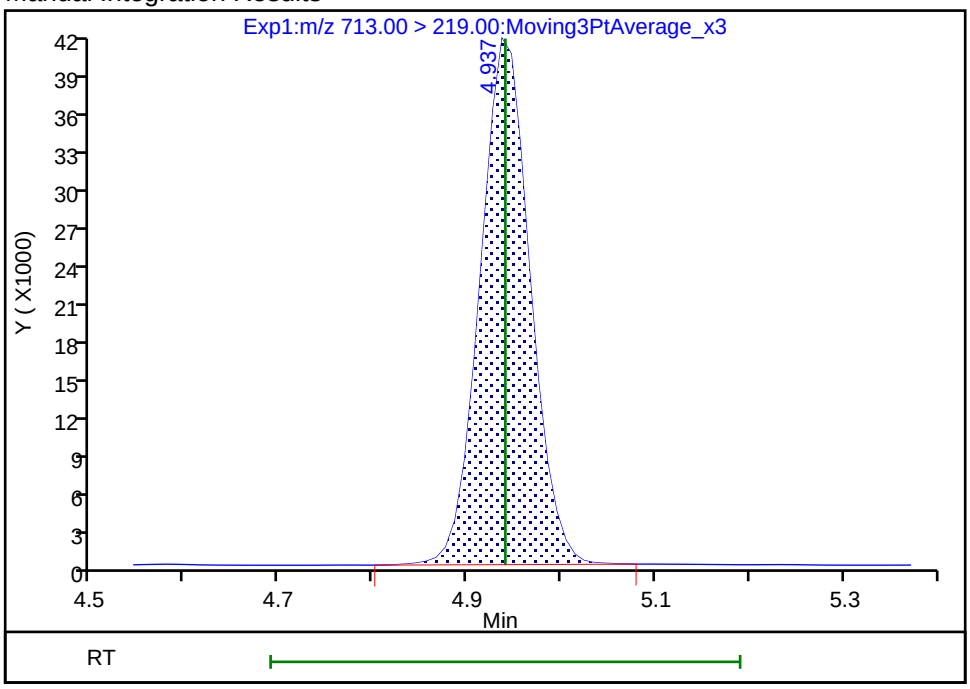
Processing Integration Results

RT: 4.94
Area: 153341
Amount: 1.078608
Amount Units: ng/ml




Manual Integration Results

RT: 4.94
Area: 153077
Amount: 1.078608
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:51:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

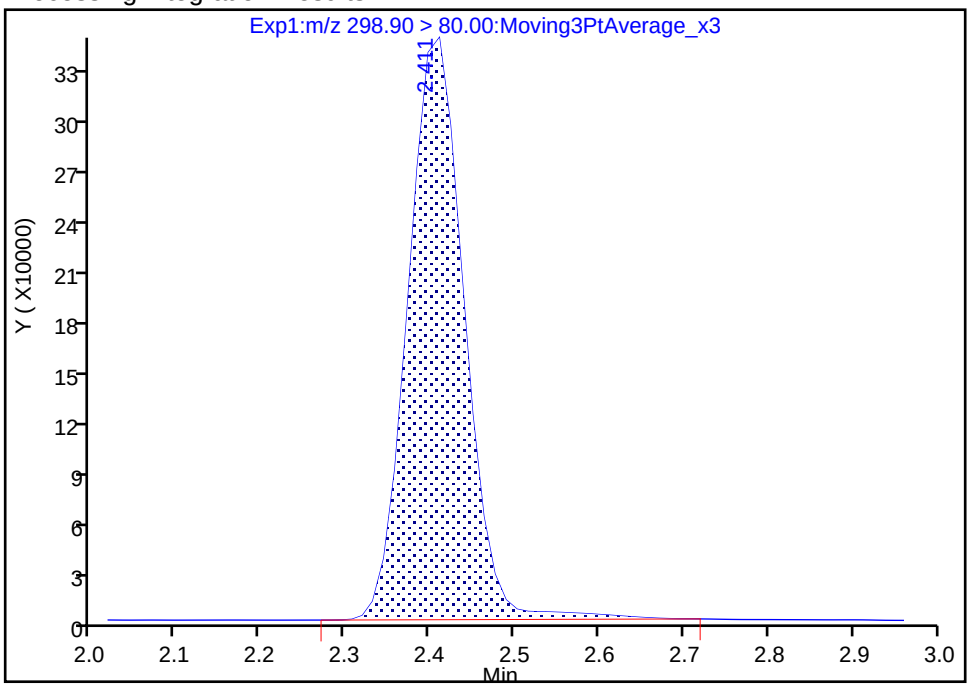
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

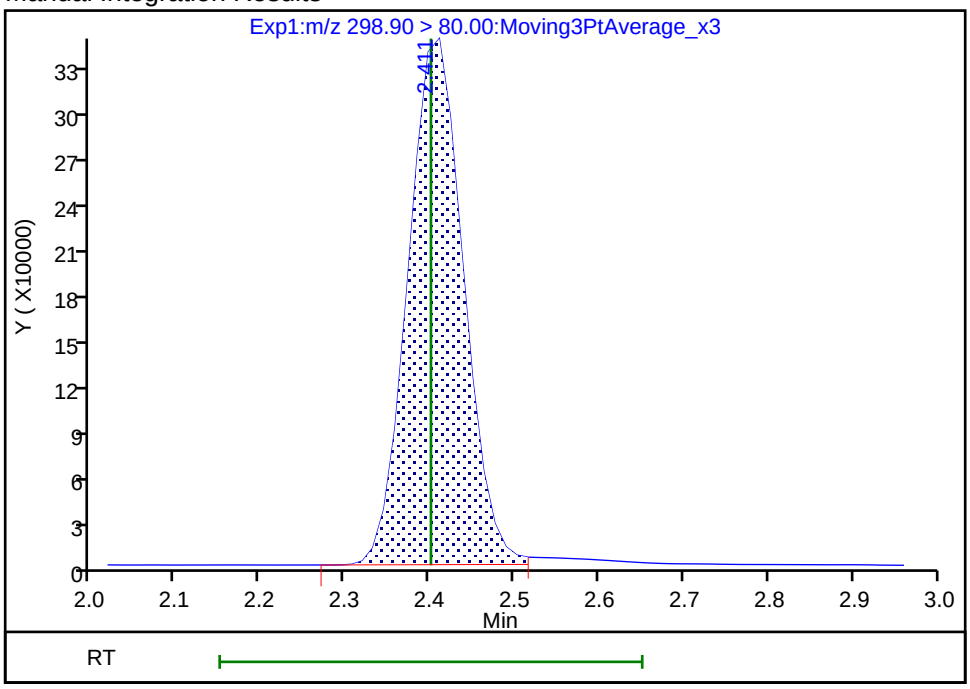
Processing Integration Results

RT: 2.41
Area: 1587769
Amount: 1.027158
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1561162
Amount: 1.028956
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:48:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

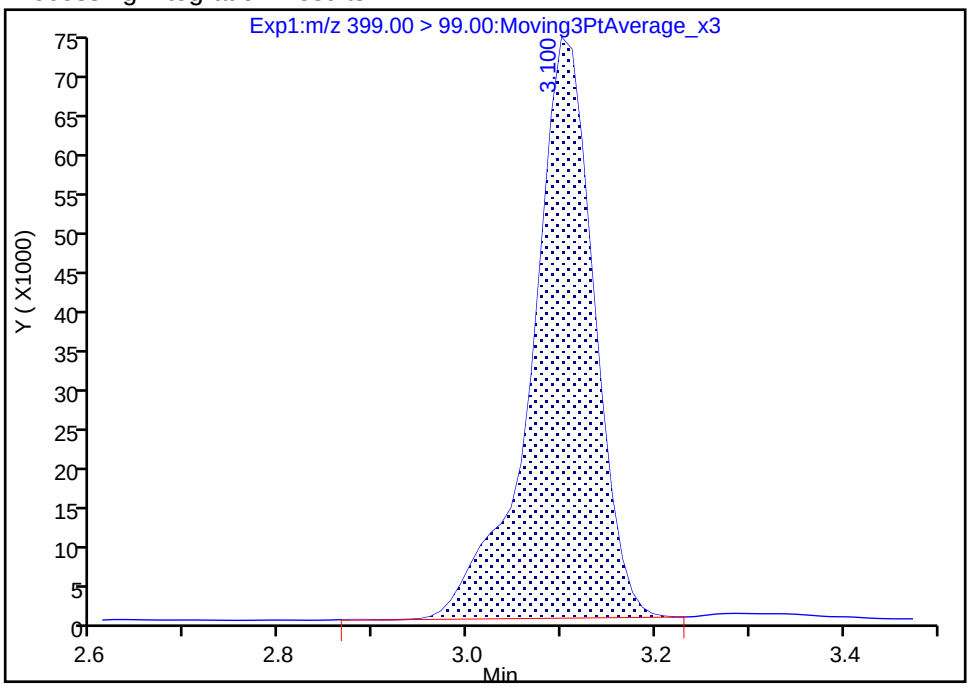
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

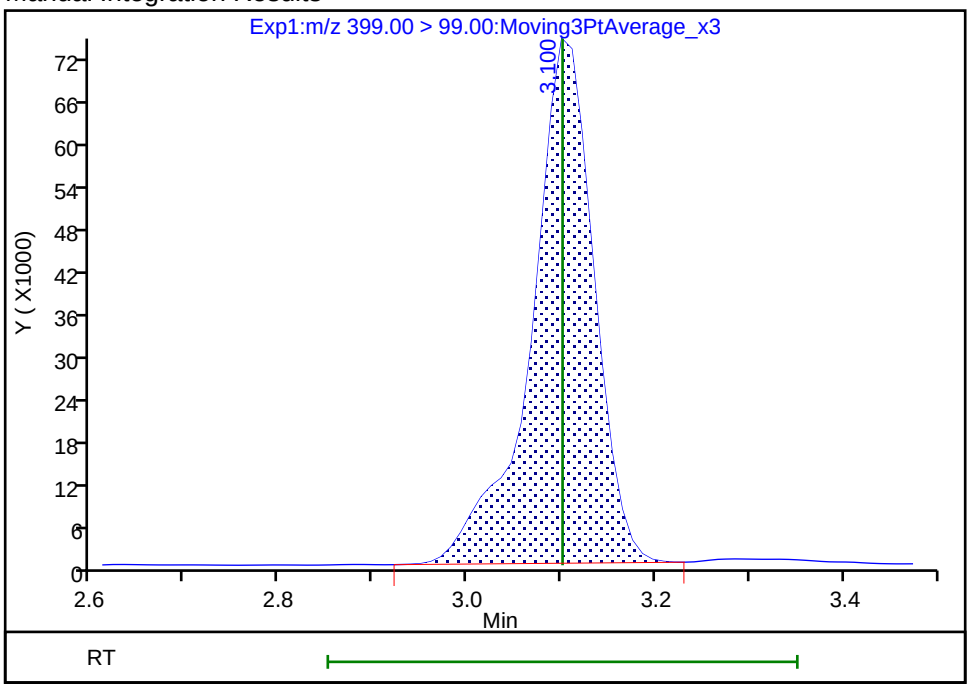
Processing Integration Results

RT: 3.10
Area: 344611
Amount: 1.002813
Amount Units: ng/ml




Manual Integration Results

RT: 3.10
Area: 344431
Amount: 1.002813
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:48:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
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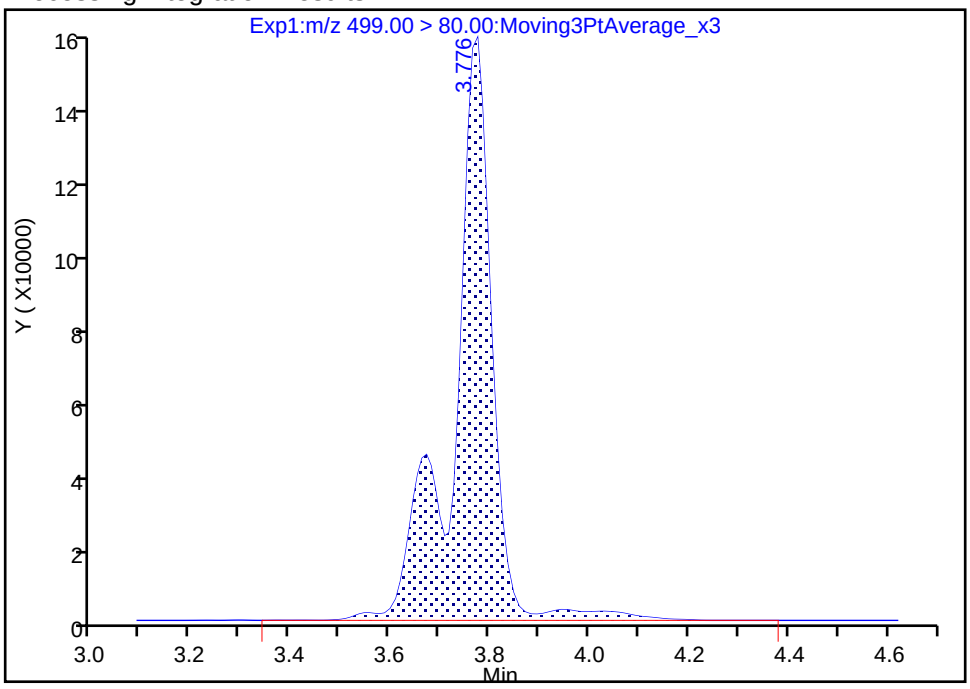
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

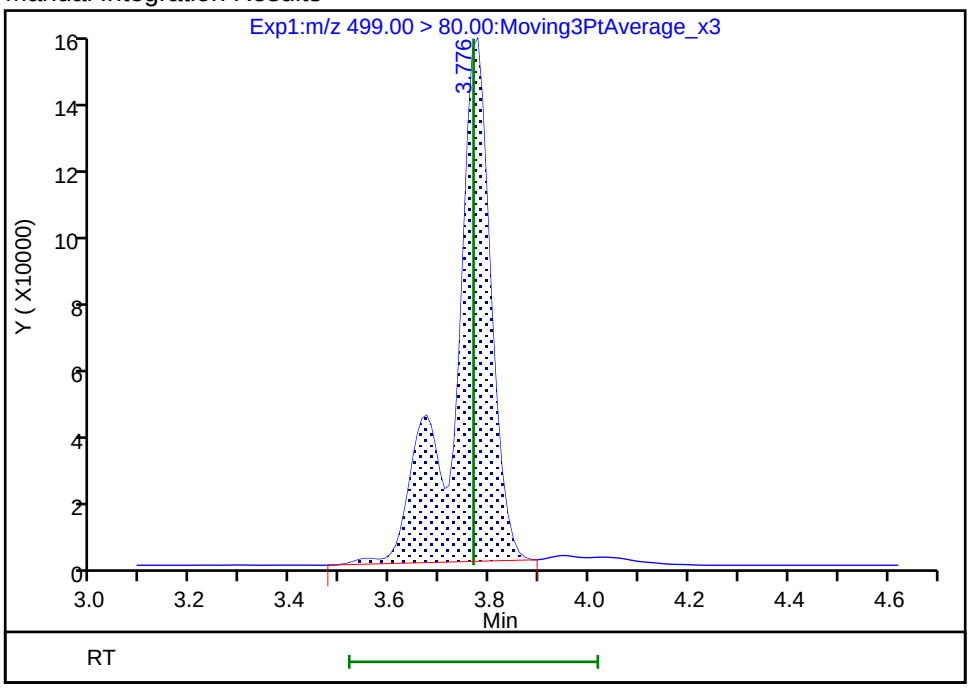
Processing Integration Results

RT: 3.78
Area: 870460
Amount: 1.035703
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 817794
Amount: 0.973039
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:49:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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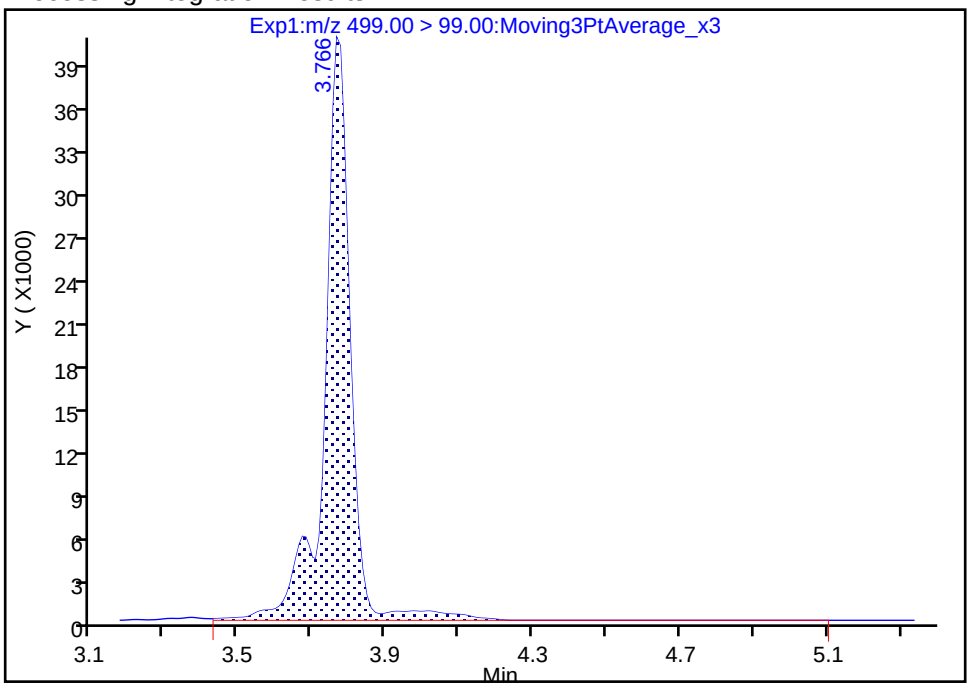
| Injection Date: | 03-Nov-2021 14:07:20 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173414/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

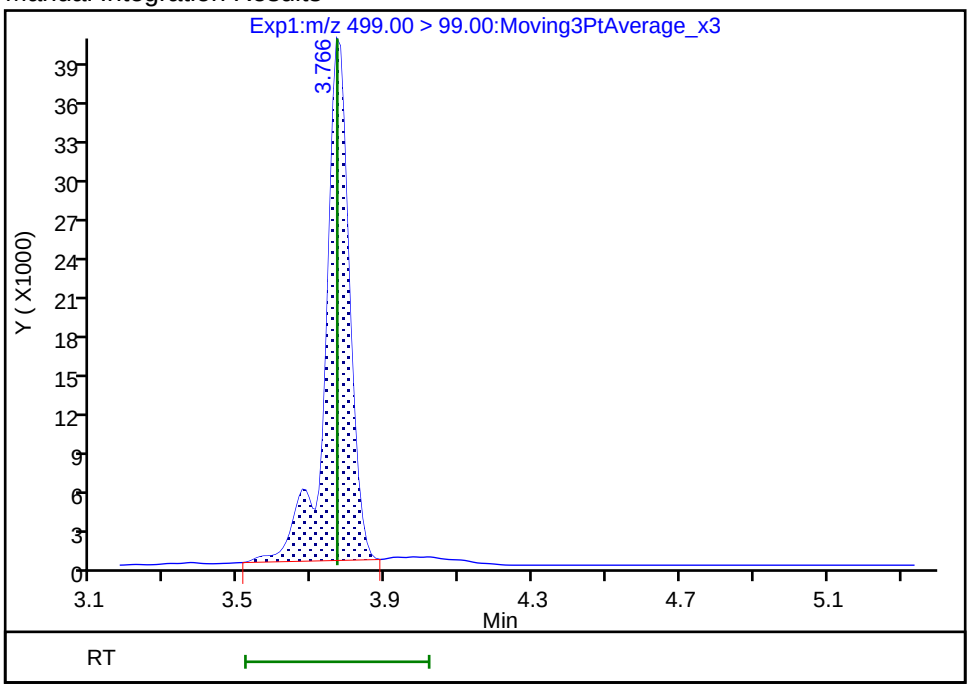
Processing Integration Results

RT: 3.77
Area: 199520
Amount: 1.035703
Amount Units: ng/ml




Manual Integration Results

RT: 3.77
Area: 183177
Amount: 0.973039
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:49:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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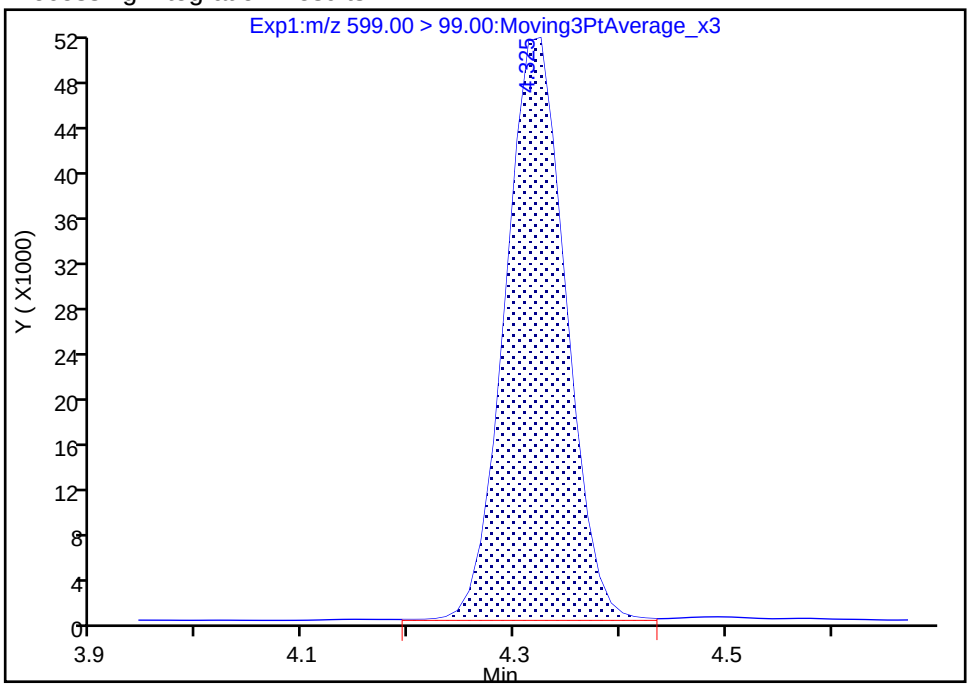
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d | | | | |
| Injection Date: | 03-Nov-2021 14:07:20 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173414/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

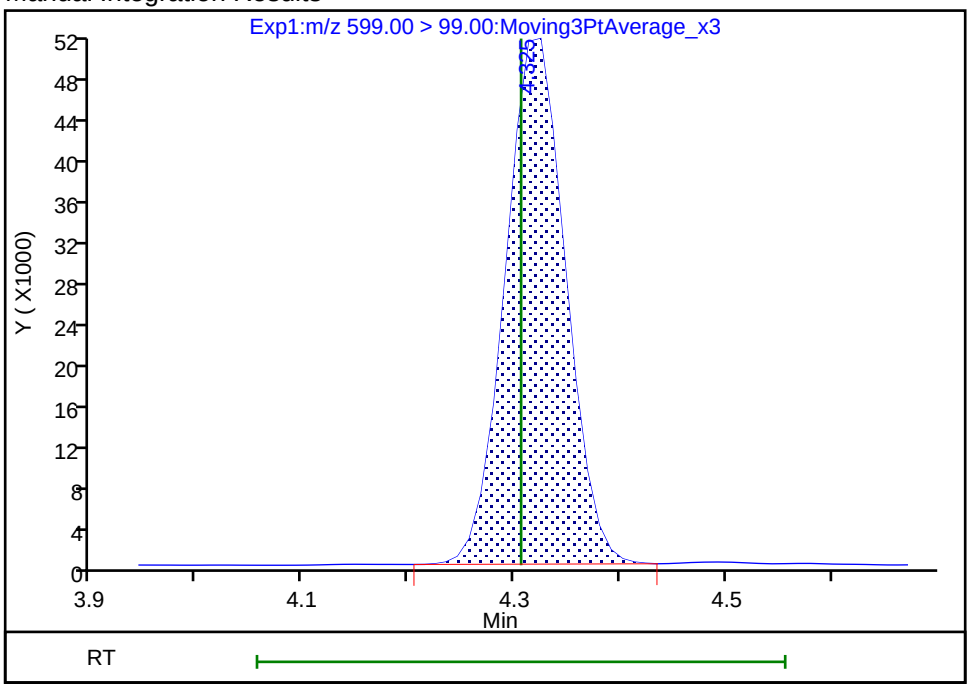
Processing Integration Results

RT: 4.32
Area: 205042
Amount: 0.988095
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 203487
Amount: 0.988095
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:50:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

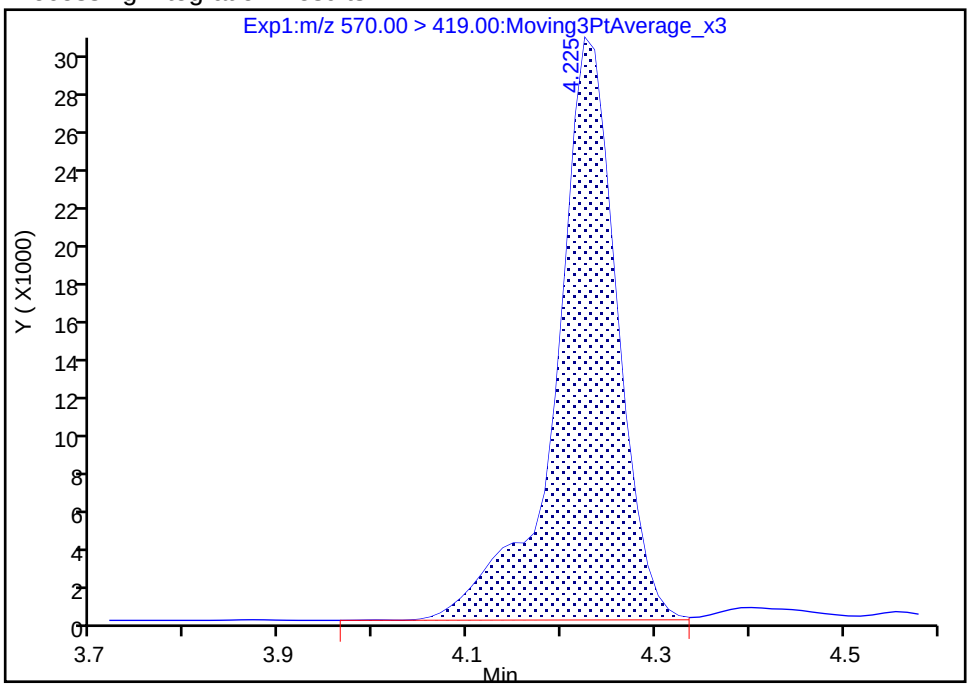
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

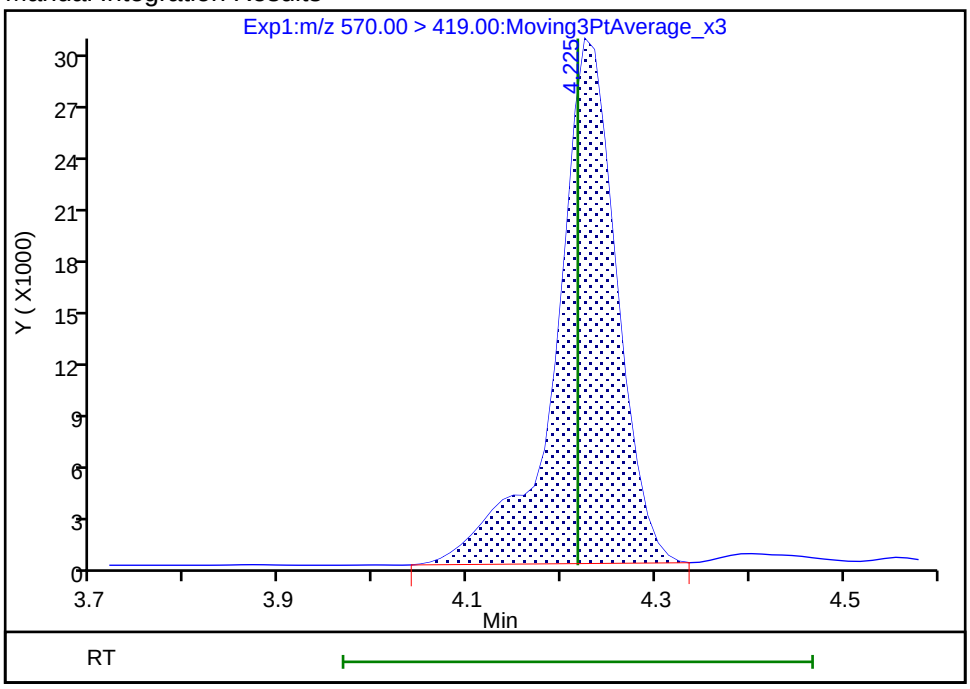
Processing Integration Results

RT: 4.22
Area: 136839
Amount: 1.134382
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 135693
Amount: 1.137469
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:37:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

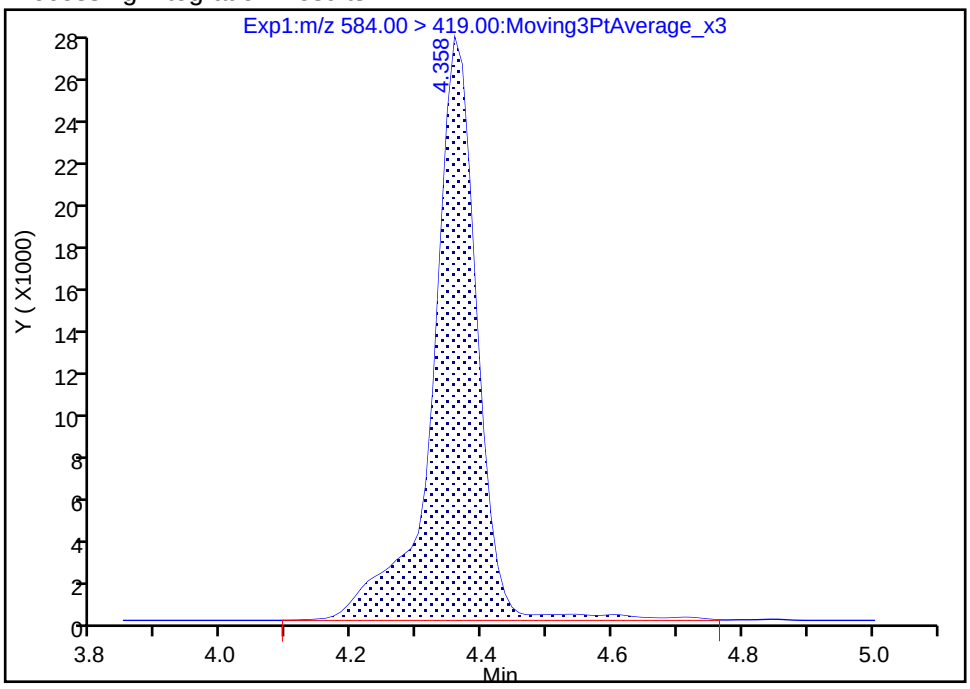
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

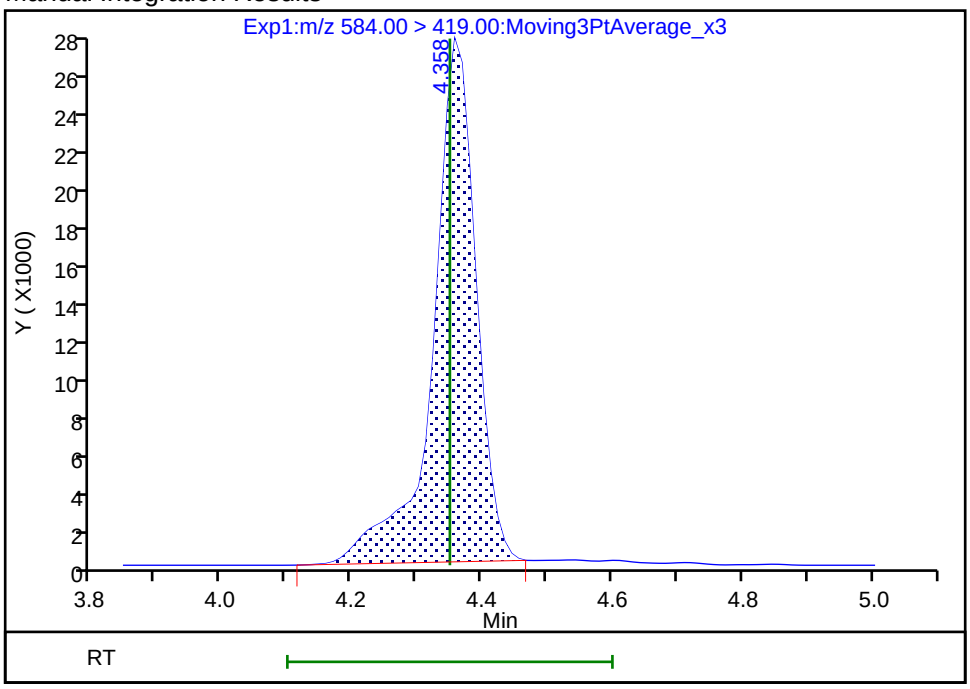
Processing Integration Results

RT: 4.36
Area: 130944
Amount: 1.110631
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 124919
Amount: 1.059528
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:38:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

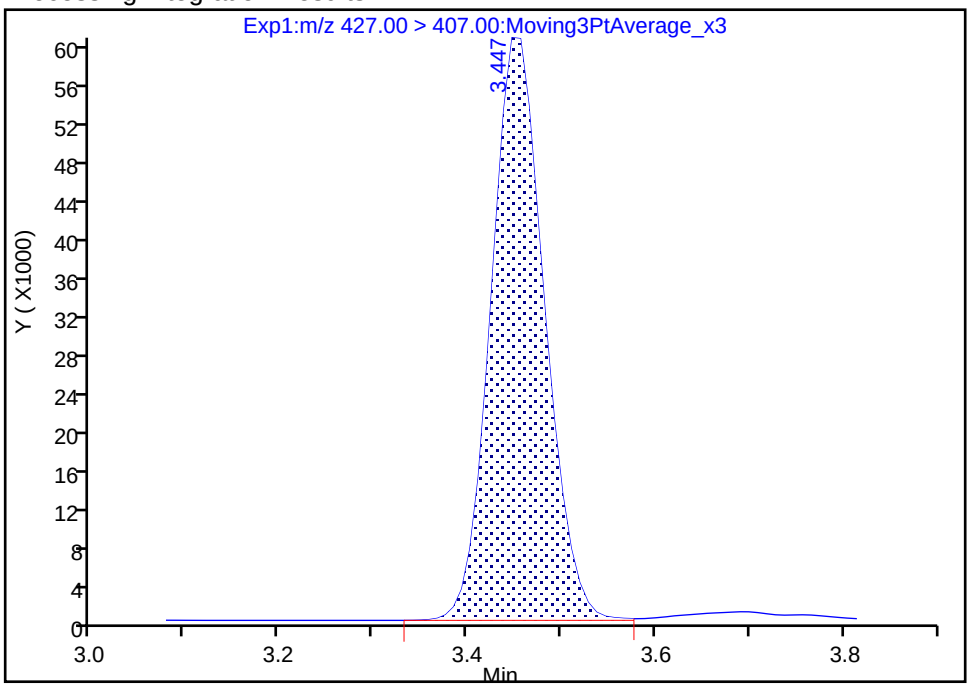
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

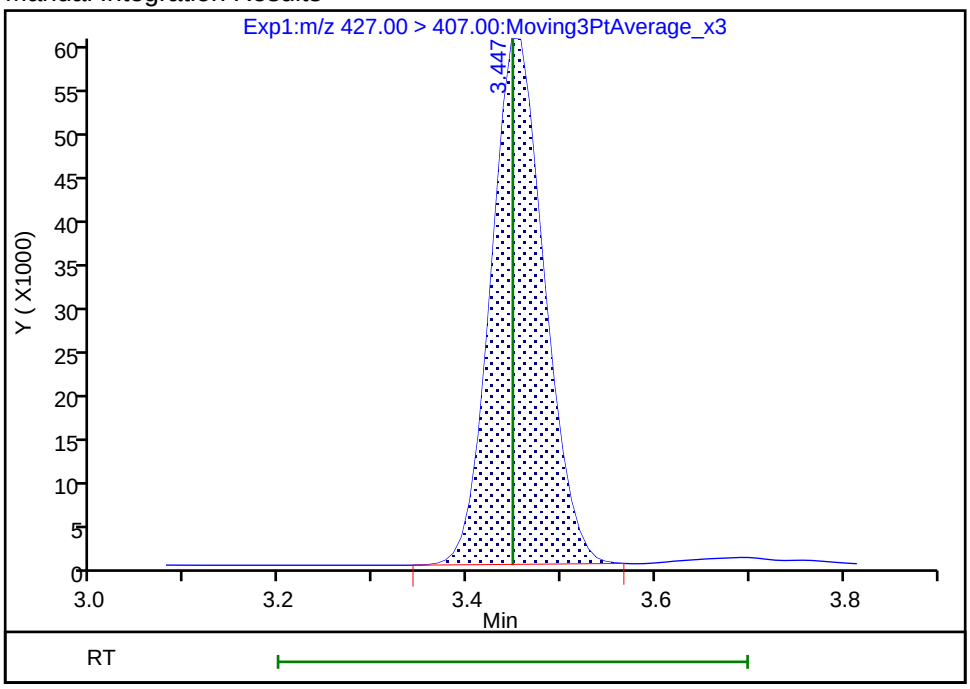
Processing Integration Results

RT: 3.45
Area: 241026
Amount: 1.021985
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 239488
Amount: 1.015463
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:36:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

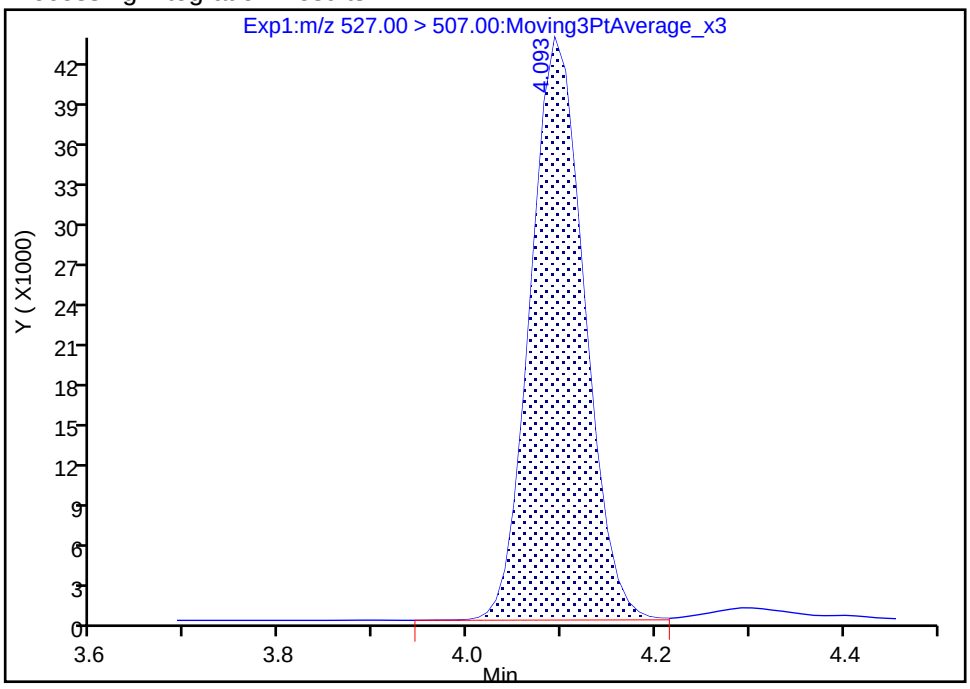
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

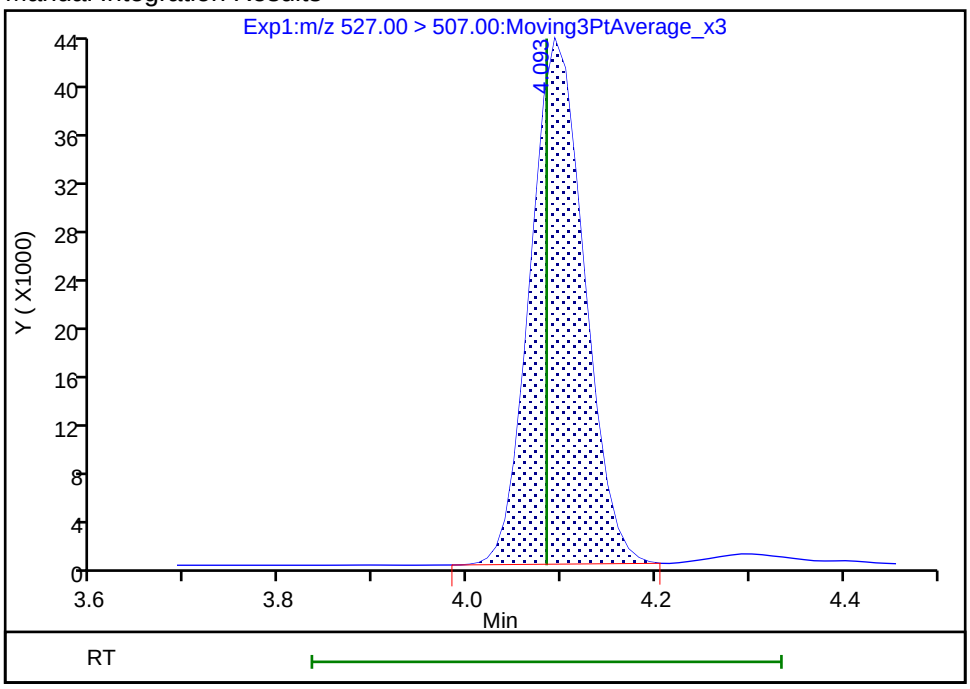
Processing Integration Results

RT: 4.09
Area: 174838
Amount: 0.972160
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 173869
Amount: 0.966772
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:37:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

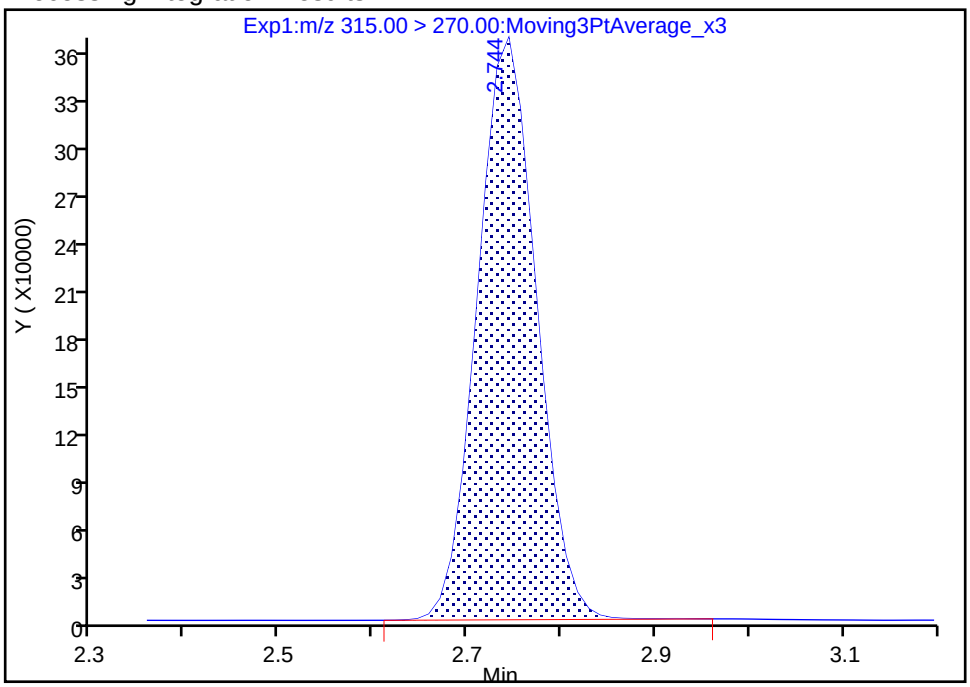
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d | | | | |
| Injection Date: | 03-Nov-2021 14:07:20 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173414/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 7 13C2 PFHxA, CAS: STL00993

Signal: 1

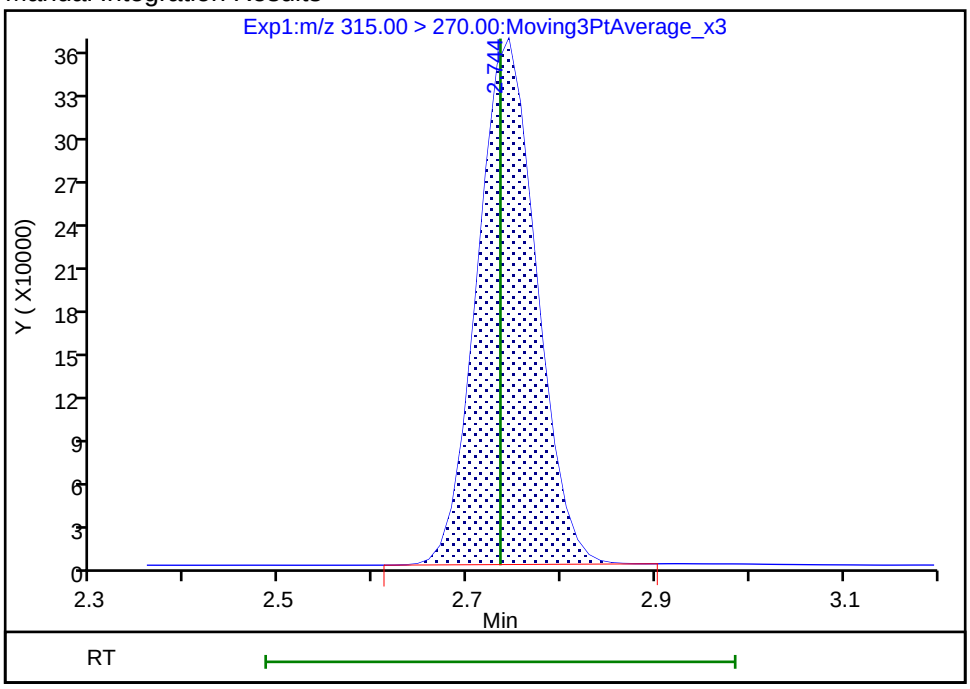
Processing Integration Results

RT: 2.74
Area: 1592285
Amount: 1.284883
Amount Units: ng/ml




Manual Integration Results

RT: 2.74
Area: 1589443
Amount: 1.282589
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:47:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

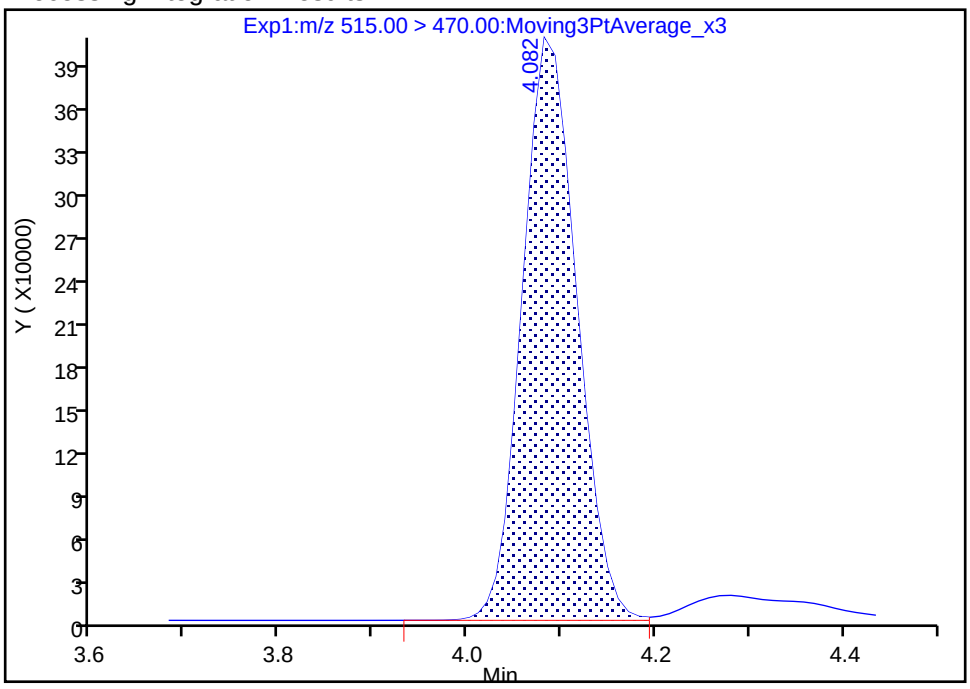
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 23 13C2 PFDA, CAS: STL00996

Signal: 1

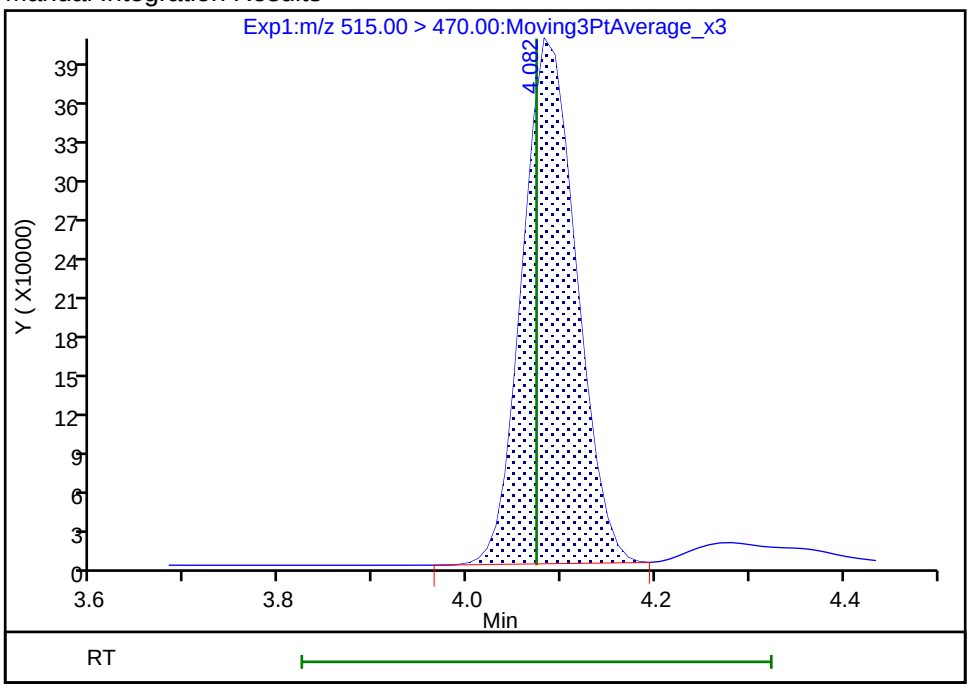
Processing Integration Results

RT: 4.08
Area: 1614889
Amount: 1.127014
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1600450
Amount: 1.116938
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:37:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

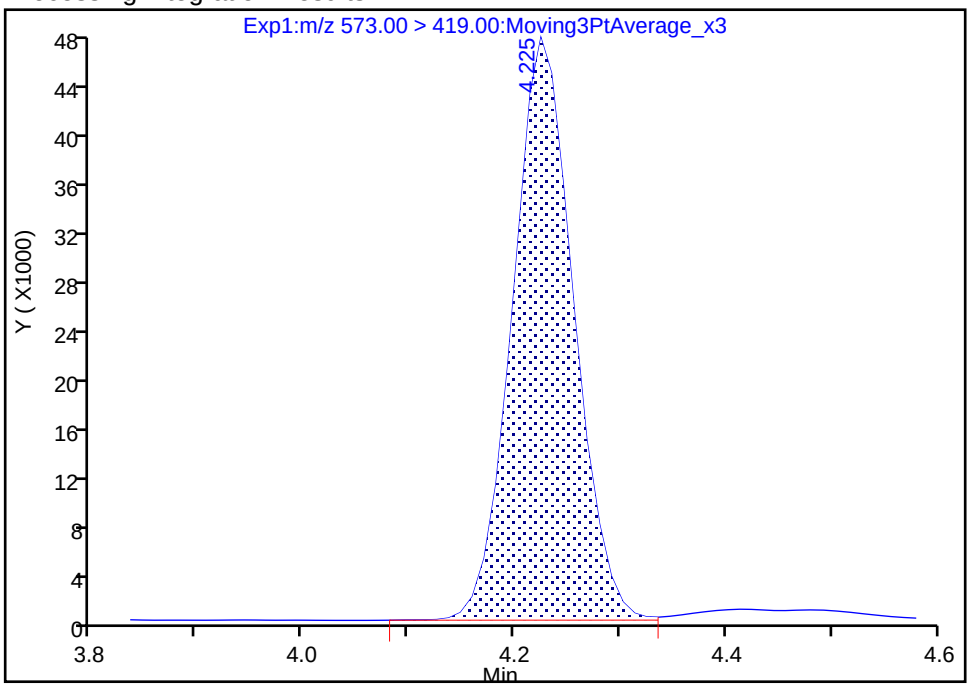
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d | | | | |
| Injection Date: | 03-Nov-2021 14:07:20 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173414/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

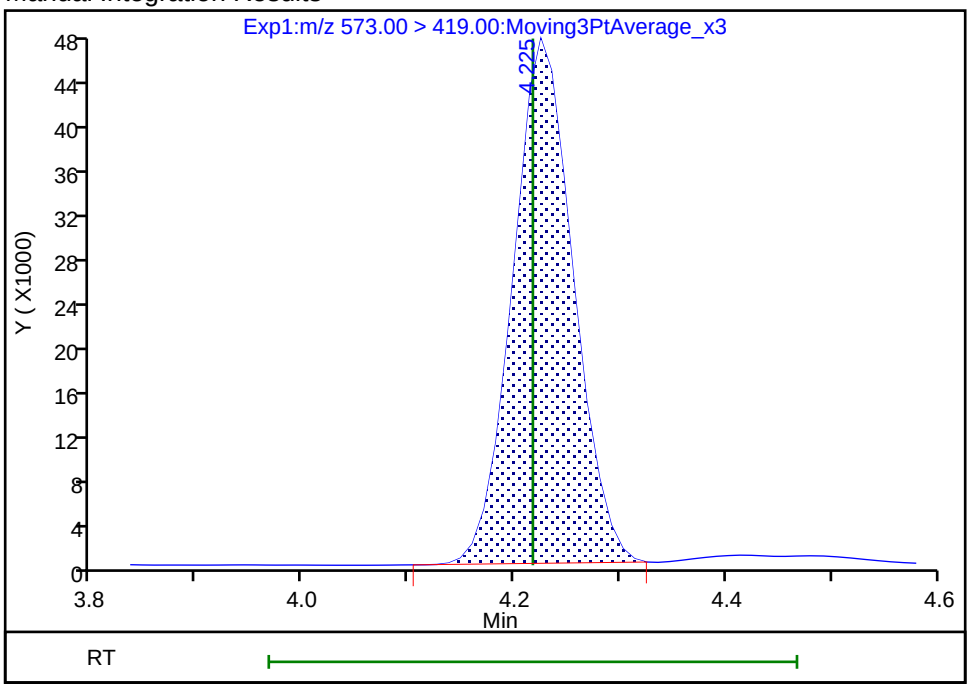
Processing Integration Results

RT: 4.22
Area: 191939
Amount: 1.361819
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 189815
Amount: 1.346749
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:37:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

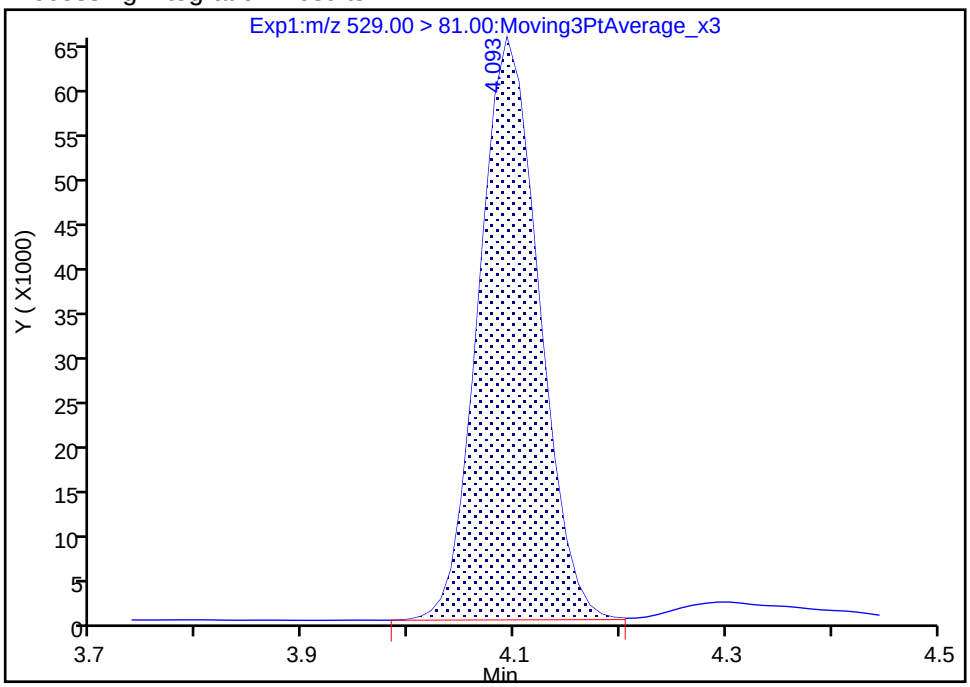
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

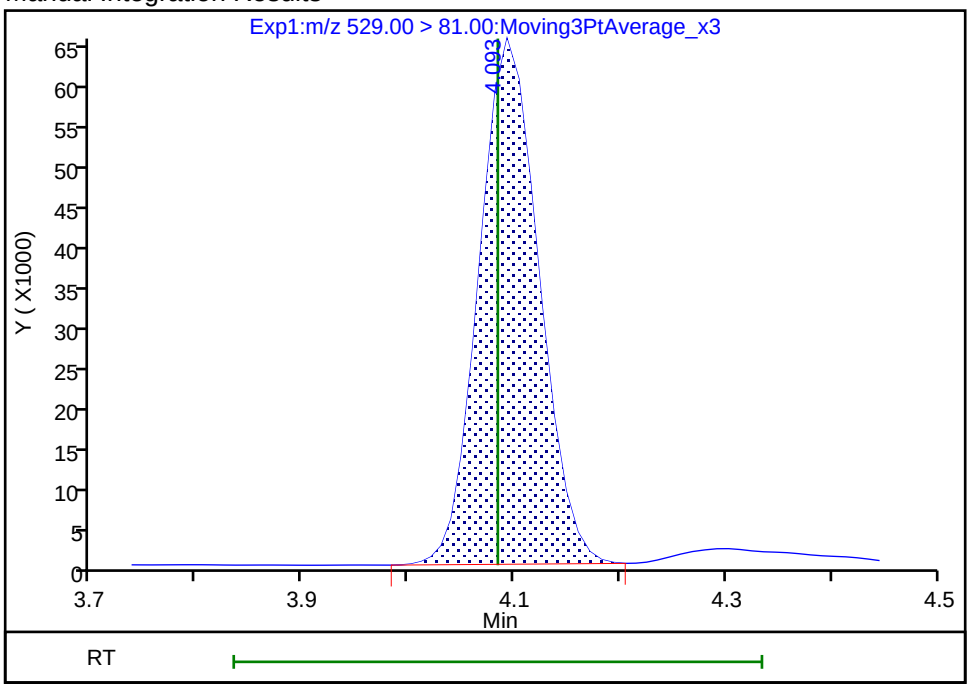
Processing Integration Results

RT: 4.09
Area: 258372
Amount: 1.244714
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 257444
Amount: 1.240243
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:37:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

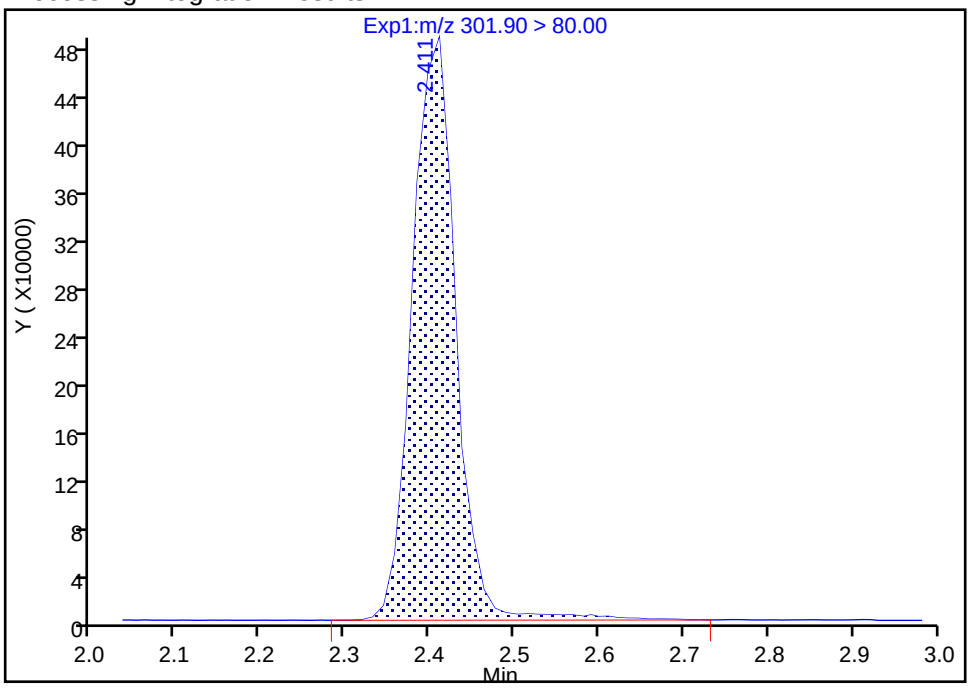
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A11.d
Injection Date: 03-Nov-2021 14:07:20 Instrument ID: LC812
Lims ID: LCS 200-173414/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

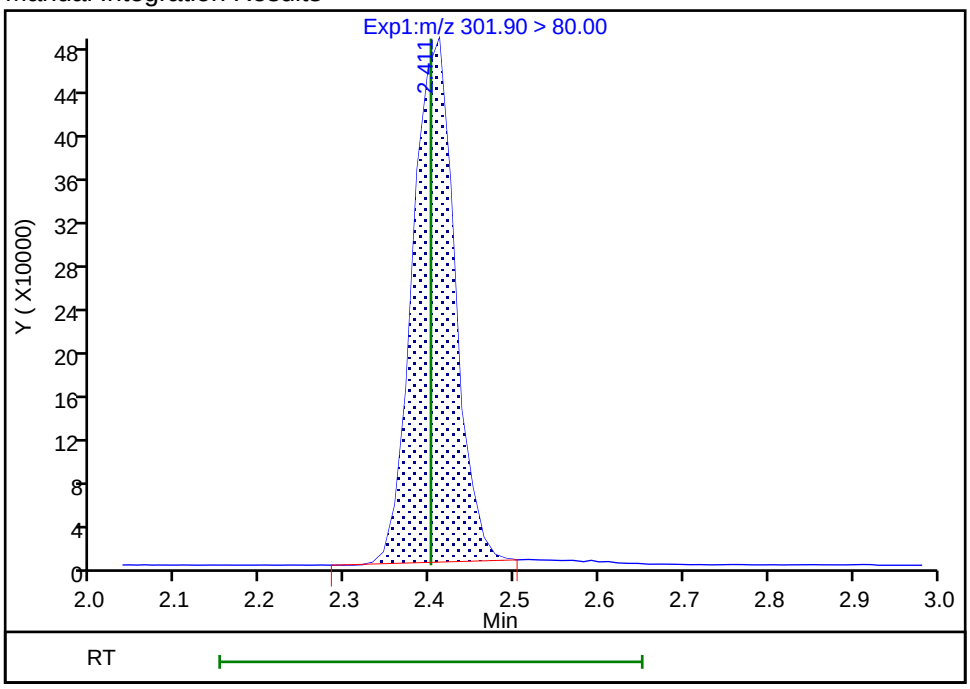
Processing Integration Results

RT: 2.41
Area: 1715454
Amount: 1.073229
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1651381
Amount: 1.033144
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:36:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 200-173414/3-A

Matrix: Water  Lab File ID: PA211103A12.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 14:15

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 42.56 | | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 46.03 | | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 43.85 | | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 42.27 | | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 43.64 | | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 45.20 | | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 47.07 | | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 46.30 | | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 48.19 | | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 45.33 | | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 48.29 | | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 40.49 | | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 39.53 | | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 43.07 | | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 39.45 | | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 38.80 | | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 43.00 | | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 45.87 | | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 46.00 | | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 43.94 | | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 42.23 | | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 200-173414/3-A

Matrix: Water  Lab File ID: PA211103A12.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/02/2021 14:20

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 14:15

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

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

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

Analysis Batch No.: 173453  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 90 | | 50-150 |
| STL01892 | 13C4 PFHpA | 89 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 93 | | 50-150 |
| STL00995 | 13C5 PFNA | 90 | | 50-150 |
| STL00992 | 13C4 PFBA | 101 | | 25-150 |
| STL00993 | 13C2 PFHxA | 94 | | 50-150 |
| STL00996 | 13C2 PFDA | 88 | | 50-150 |
| STL00997 | 13C2 PFUnA | 78 | | 50-150 |
| STL00998 | 13C2 PFDoA | 80 | | 50-150 |
| STL01056 | 13C8 FOSA | 83 | | 25-150 |
| STL01893 | 13C5 PFPeA | 97 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 84 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 104 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 92 | | 50-150 |
| STL02279 | M2-6:2 FTS | 98 | | 25-150 |
| STL02280 | M2-8:2 FTS | 102 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Lims ID: LCSD 200-173414/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 03-Nov-2021 14:15:38 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 200-173414/3-A
Misc. Info.: 200-0048270-012 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 04-Nov-2021 15:14:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1610

First Level Reviewer: nampitakw Date: 04-Nov-2021 08:59:48
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.065 | 2.065 | 0.0 | 0.596 | 1855950 | 1.26 | | 101 | 9346 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.065 | 2.065 | 0.0 | 1.000 | 1493851 | 1.06 | | 106 | 180 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.387 | 2.375 | 0.012 | 0.689 | 1507168 | 1.21 | | 96.9 | 1561 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.387 | 2.375 | 0.012 | 1.000 | 1389931 | 1.15 | | 115 | 58.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.400 | 2.401 | -0.001 | 0.693 | 1819460 | 1.08 | | 93.0 | 60591 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.400 | 2.401 | -0.001 | 1.000 | 1692145 | 1.01 | Target=2.32 | 115 | 501 | M |
| 298.90 > 99.00 | 2.400 | 2.401 | -0.001 | 1.000 | 753097 | | 2.25(1.16-3.48) | | 252 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.697 | 2.698 | -0.001 | 0.778 | 138414 | 1.08 | | 92.4 | 59.7 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.697 | 2.698 | -0.001 | 1.000 | 281840 | 1.12 | | 120 | 339 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.746 | 2.735 | 0.011 | 1.000 | 1359843 | 1.10 | Target=12.09 | 110 | 159 | |
| 313.00 > 119.00 | 2.746 | 2.735 | 0.011 | 1.000 | 107479 | | 12.65(6.04-18.13) | | 130 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.746 | 2.735 | 0.011 | 0.792 | 1528972 | 1.17 | | 93.7 | 1634 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.746 | 2.735 | 0.011 | 0.883 | 1376258 | 1.04 | Target=3.03 | 111 | 320 | M |
| 349.00 > 99.00 | 2.746 | 2.735 | 0.011 | 0.883 | 458292 | | 3.00(1.52-4.55) | | 253 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.855 | 2.844 | 0.011 | 0.824 | 42656 | 1.24 | | 99.2 | 205 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.843 | 2.844 | -0.001 | 0.996 | 172685 | 1.12 | | 112 | 45.0 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1302349 | 1.06 | | 90.0 | 265 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1196755 | 0.9883 | Target=3.55 | 109 | 247 | M |
| 399.00 > 99.00 | 3.111 | 3.101 | 0.010 | 1.000 | 341165 | | 3.51(1.77-5.32) | | 164 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.111 | 3.101 | 0.010 | 1.000 | 1338368 | 1.06 | Target=3.69 | 106 | 203 | |
| 363.00 > 169.00 | 3.111 | 3.101 | 0.010 | 1.000 | 350519 | | 3.82(1.84-5.53) | | 294 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.111 | 3.101 | 0.010 | 0.898 | 1532227 | 1.11 | | 89.2 | 2345 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.143 | 3.144 | -0.001 | 0.832 | 3008494 | 1.04 | Target=2.56 | 111 | 435 | M |
| 377.00 > 85.00 | 3.143 | 3.144 | -0.001 | 0.832 | 1190261 | | 2.53(1.28-3.84) | | 360 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.456 | 3.448 | 0.008 | 1.000 | 263098 | 1.10 | | 116 | 232 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.456 | 3.448 | 0.008 | 0.915 | 1106562 | 1.08 | Target=4.88 | 113 | 357 | M |
| 449.00 > 99.00 | 3.447 | 3.448 | -0.001 | 0.913 | 230824 | | 4.79(2.44-7.32) | | 236 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.456 | 3.448 | 0.008 | 0.997 | 224304 | 1.16 | | 97.9 | 514 | M |
| D 14 13C4 PFOA | | | | | | | | | | M |
| 417.00 > 372.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1755959 | 1.17 | | 93.6 | 1096 | M |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.465 | 3.457 | 0.008 | | 1824139 | 1.25 | | | 230 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.465 | 3.457 | 0.008 | 1.000 | 1629792 | 1.09 | Target=2.68 | 109 | 172 | |
| 413.00 > 169.00 | 3.456 | 3.457 | -0.001 | 0.997 | 607140 | | 2.68(1.34-4.02) | | 308 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.090 | 985078 | 1.11 | | 93.2 | 400 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.767 | 0.008 | 1.000 | 882073 | 0.9862 | Target=4.69 | 106 | 226 | M |
| 499.00 > 99.00 | 3.775 | 3.767 | 0.008 | 1.000 | 194529 | | 4.53(2.35-7.04) | | 182 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.785 | 3.786 | -0.001 | 1.092 | 1674692 | 1.12 | | 89.6 | 1972 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.794 | 3.786 | 0.008 | 1.003 | 1481012 | 1.13 | Target=7.29 | 113 | 198 | |
| 463.00 > 169.00 | 3.794 | 3.786 | 0.008 | 1.003 | 190695 | | 7.77(3.64-10.93) | | 311 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.932 | 3.922 | 0.010 | 1.041 | 1322874 | 0.9817 | | 105 | 355 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.060 | 4.052 | 0.008 | 1.075 | 749581 | 1.08 | Target=2.35 | 112 | 529 | |
| 549.00 > 99.00 | 4.060 | 4.052 | 0.008 | 1.075 | 304479 | | 2.46(1.17-3.52) | | 401 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.093 | 4.073 | 0.020 | 1.181 | 1651749 | 1.09 | | 87.5 | 84.5 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.093 | 4.073 | 0.020 | 1.000 | 1562538 | 1.18 | Target=8.95 | 118 | 254 | |
| 513.00 > 169.00 | 4.093 | 4.073 | 0.020 | 1.000 | 170615 | | 9.16(4.47-13.42) | | 248 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.093 | 4.084 | 0.009 | 1.181 | 266980 | 1.22 | | 102 | 172 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.093 | 4.084 | 0.009 | 1.000 | 196917 | 1.06 | | 110 | 205 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.216 | 1519124 | 1.04 | | 83.5 | 654 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.207 | 0.008 | 1.000 | 1240822 | 1.08 | | 108 | 852 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.225 | 4.217 | 0.008 | 1.219 | 193843 | 1.31 | | 104 | 191 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.217 | 0.018 | 1.002 | 139691 | 1.15 | | 115 | 192 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.313 | 4.306 | 0.007 | 1.143 | 525454 | 0.9700 | Target=2.47 | 101 | 781 | |
| 599.00 > 99.00 | 4.325 | 4.306 | 0.018 | 1.145 | 206390 | | 2.55(1.23-3.70) | | 734 | |
| D 30 13C2 PFUnA | | | | | | | | | | M |
| 565.00 > 520.00 | 4.347 | 4.339 | 0.008 | 1.254 | 1147309 | 0.9752 | | 78.0 | 603 | M |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.339 | 0.008 | 1.000 | 1132625 | 1.16 | Target=9.24 | 116 | 409 | |
| 563.00 > 169.00 | 4.347 | 4.339 | 0.008 | 1.000 | 134637 | | 8.41(4.62-13.86) | | 444 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.258 | 160637 | 1.16 | | 92.4 | 683 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.358 | 4.350 | 0.008 | 1.000 | 126630 | 1.15 | | 115 | 387 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.435 | 4.428 | 0.006 | 1.175 | 1515694 | 0.9524 | | 101 | 1055 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.562 | 0.006 | 1.318 | 1260276 | 1.00 | | 79.7 | 325 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.568 | 4.562 | 0.006 | 1.000 | 1189205 | 1.20 | Target=7.04 | 120 | 172 | |
| 613.00 > 169.00 | 4.568 | 4.562 | 0.006 | 1.000 | 171490 | | 6.93(3.52-10.56) | | 800 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.590 | 4.574 | 0.016 | 1.122 | 83377 | 0.9676 | | 100 | 712 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.738 | 4.725 | 0.013 | 1.255 | 224165 | 1.13 | Target=0.49 | 116 | 1997 | M |
| 699.00 > 99.00 | 4.729 | 4.725 | 0.004 | 1.253 | 385772 | | 0.58(0.25-0.74) | | 2580 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.765 | 4.761 | 0.004 | 1.043 | 964409 | 1.13 | Target=4.68 | 113 | 228 | M |
| 663.00 > 169.00 | 4.765 | 4.761 | 0.004 | 1.043 | 209423 | | 4.61(2.34-7.02) | | 1032 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.940 | 0.006 | 1.427 | 1025600 | 1.04 | | 83.6 | 1592 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.946 | 4.940 | 0.006 | 1.000 | 156324 | 1.21 | Target=1.01 | 121 | 1360 | |
| 713.00 > 219.00 | 4.946 | 4.940 | 0.006 | 1.000 | 148028 | | 1.06(0.51-1.52) | | 1449 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.248 | -0.003 | 1.514 | 992567 | 1.15 | | 91.9 | 3653 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.257 | 5.248 | 0.009 | 1.002 | 790840 | 1.15 | Target=4.57 | 115 | 217 | |
| 813.00 > 169.00 | 5.257 | 5.248 | 0.009 | 1.002 | 185352 | | 4.27(2.29-6.86) | | 1606 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.510 | 5.503 | 0.007 | 1.050 | 688385 | 1.03 | Target=4.27 | 103 | 347 | |
| 913.00 > 169.00 | 5.510 | 5.503 | 0.007 | 1.050 | 154018 | | 4.47(2.14-6.41) | | 1407 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 04-Nov-2021 15:14:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d

Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812

Lims ID: LCSD 200-173414/3-A

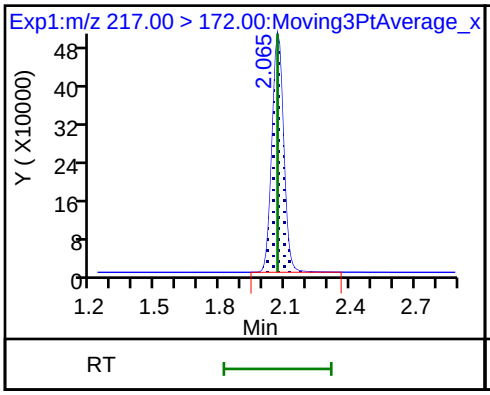
Client ID:

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12

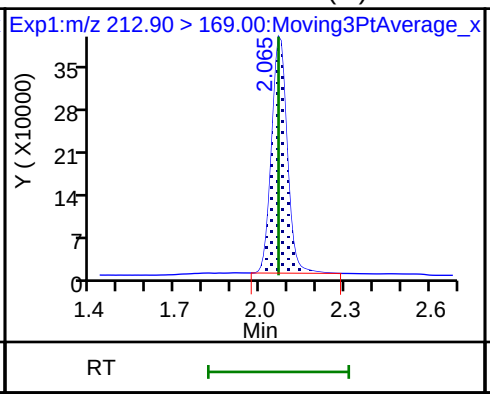
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

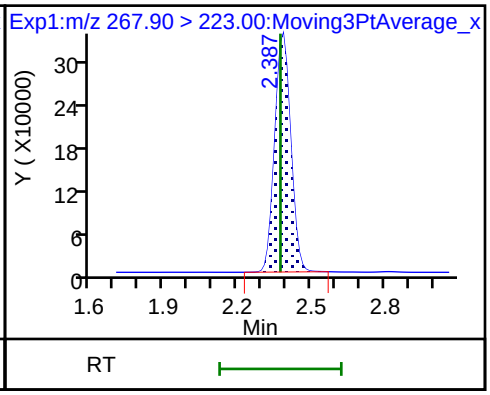
D 1 13C4 PFBA



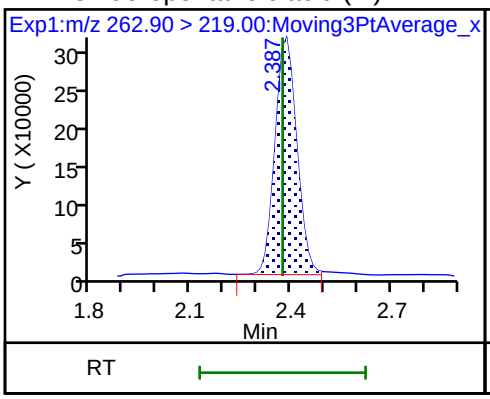

2 Perfluorobutanoic acid (M)



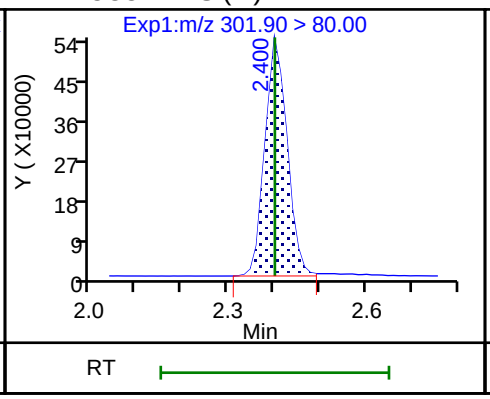

D 3 13C5 PFPeA



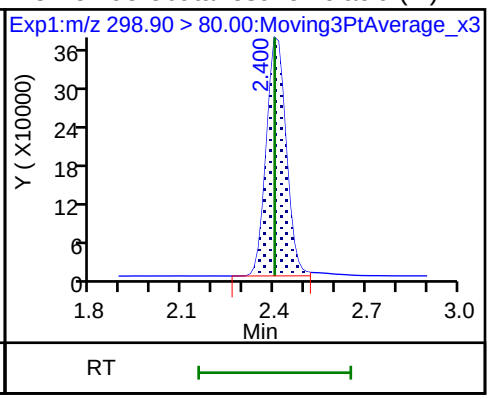

4 Perfluoropentanoic acid (M)



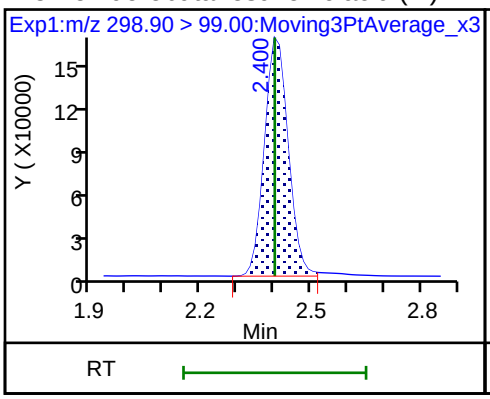

D 47 13C3 PFBS (M)



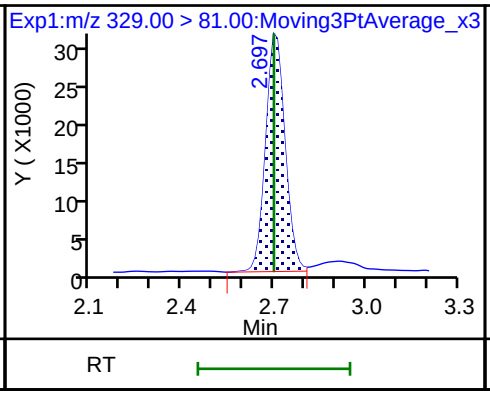

5 Perfluorobutanesulfonic acid (M)



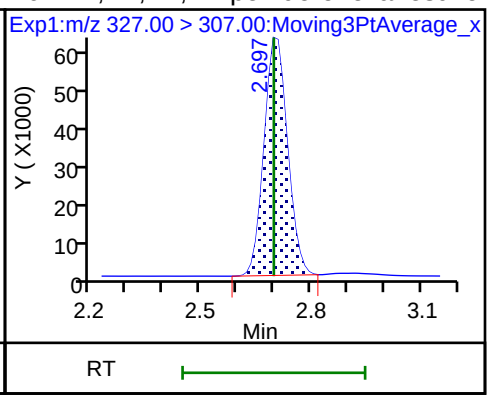

5 Perfluorobutanesulfonic acid (M)



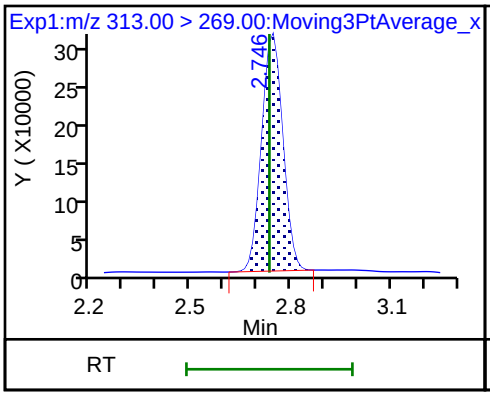

D 60 M2-4:2 FTS



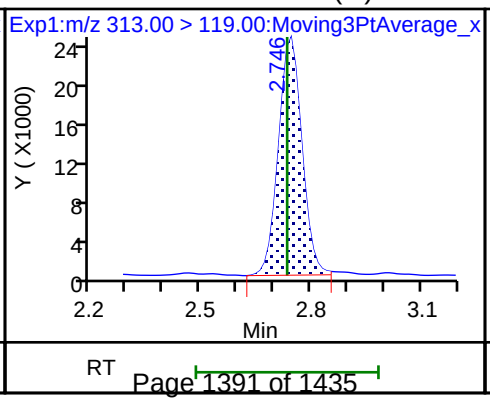

61 1H,1H,2H,2H-perfluorohexanesulfo



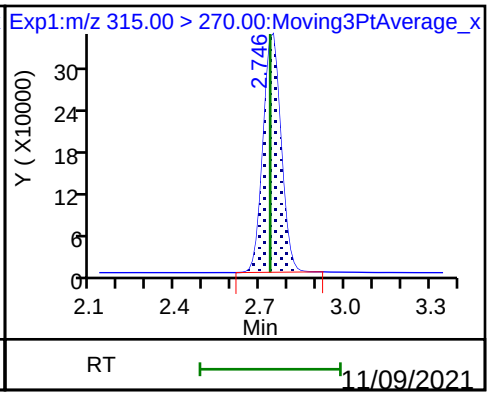

6 Perfluorohexanoic acid



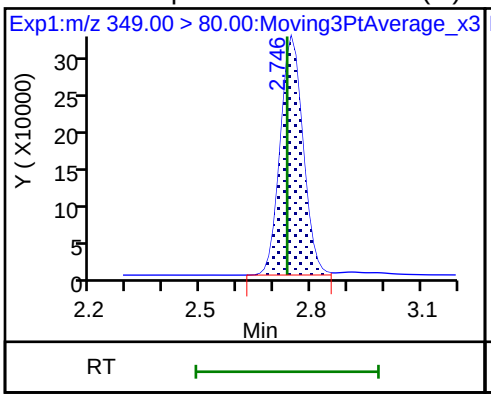

6 Perfluorohexanoic acid (M)



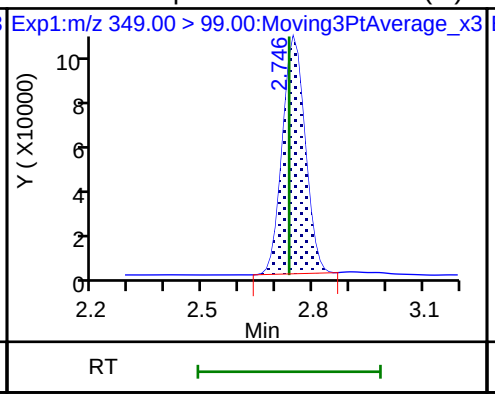

D 7 13C2 PFHxA



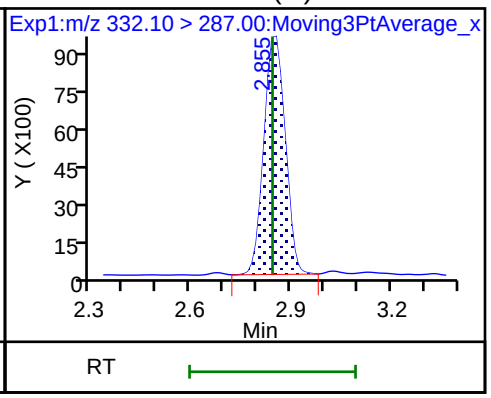
70 Perfluoropentanesulfonic acid (M)



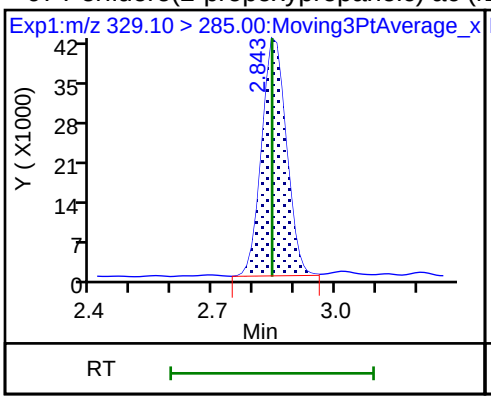

70 Perfluoropentanesulfonic acid (M)



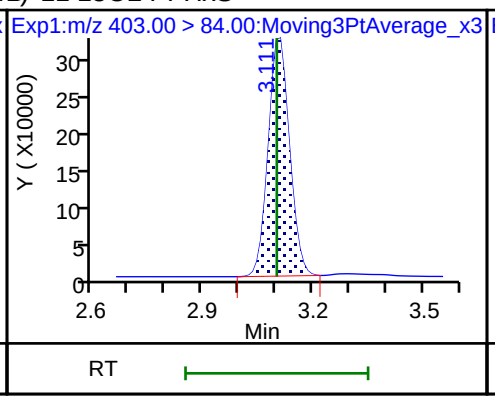

D 64 13C3 HFPO-DA (M)



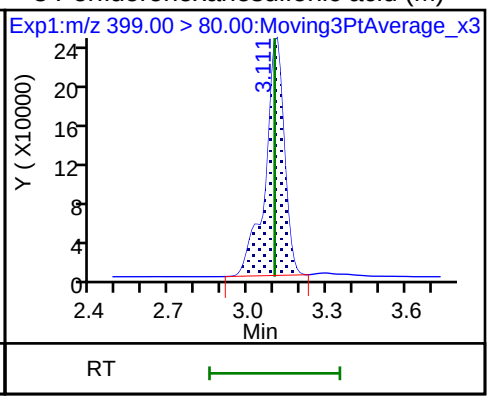

67 Perfluoro(2-propoxypropanoic) ac (M)



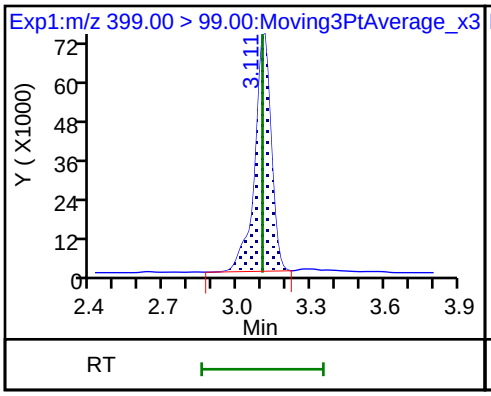

D 11 18O2 PFHxS



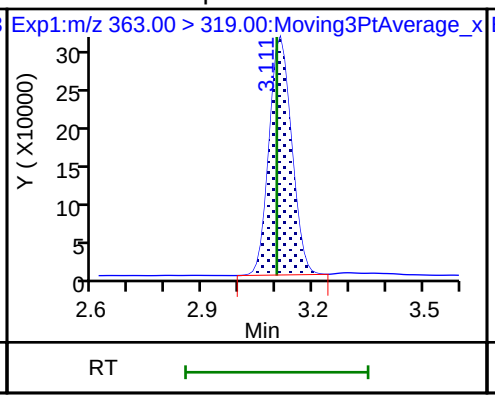

8 Perfluorohexanesulfonic acid (M)



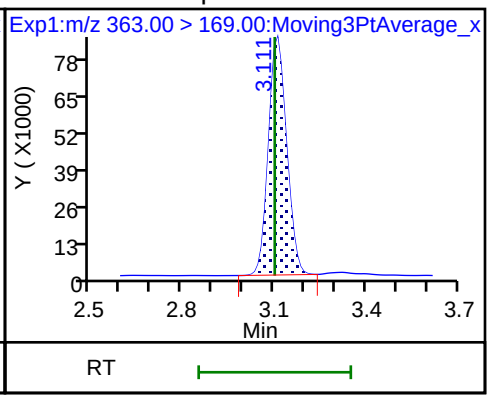

8 Perfluorohexanesulfonic acid



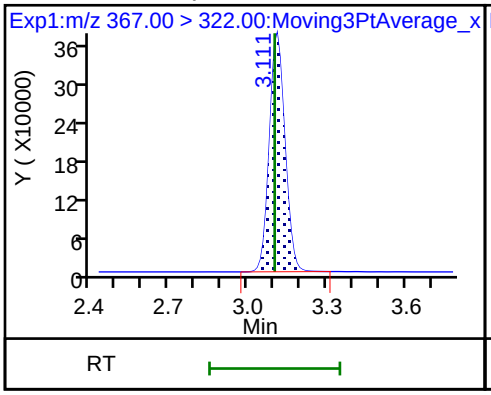

10 Perfluoroheptanoic acid



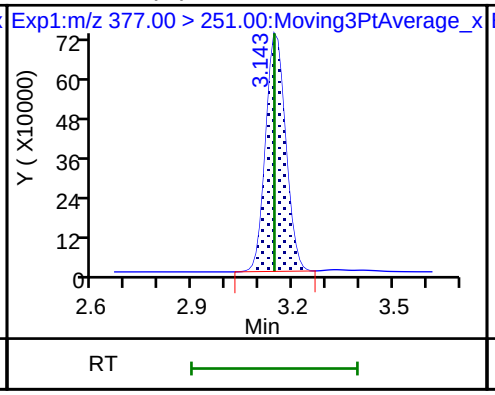

10 Perfluoroheptanoic acid



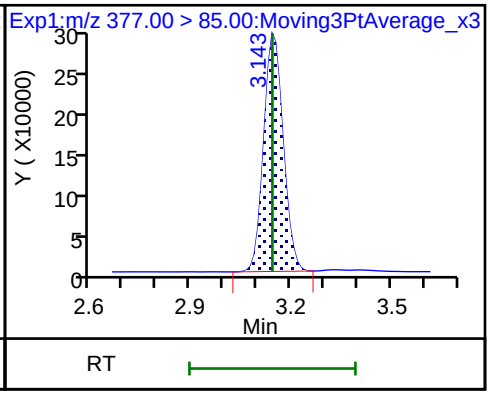

D 9 13C4 PFHpA



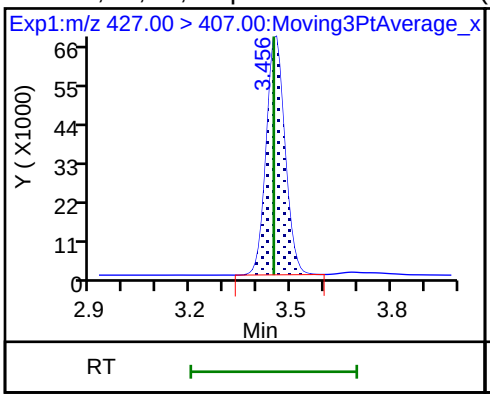

77 DONA (M)



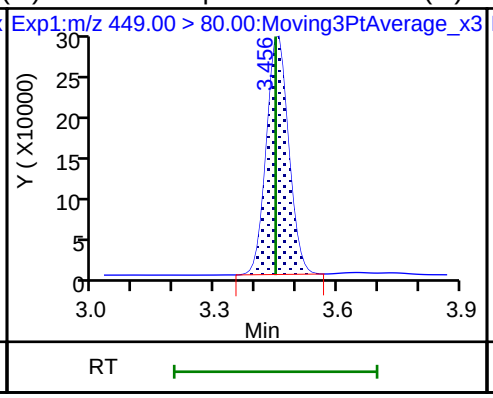

77 DONA



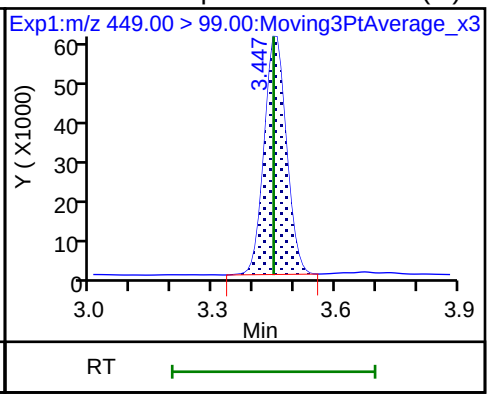
13 1H,1H,2H,2H-perfluorooctanesulfo (M)



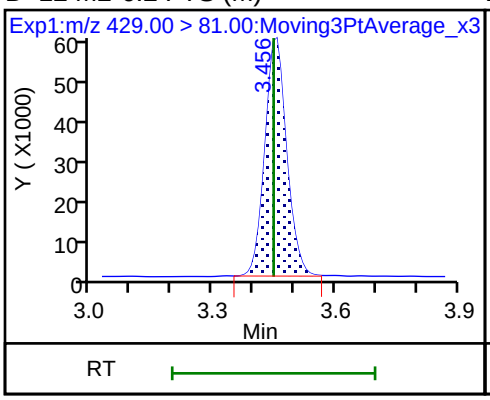

16 Perfluoroheptanesulfonic acid (M)



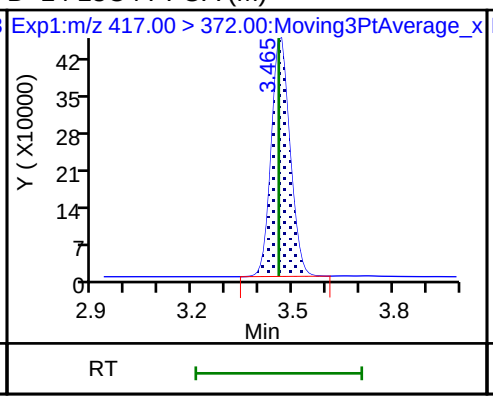

16 Perfluoroheptanesulfonic acid (M)



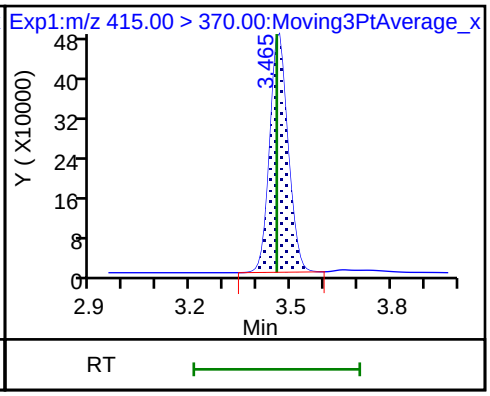

D 12 M2-6:2 FTS (M)



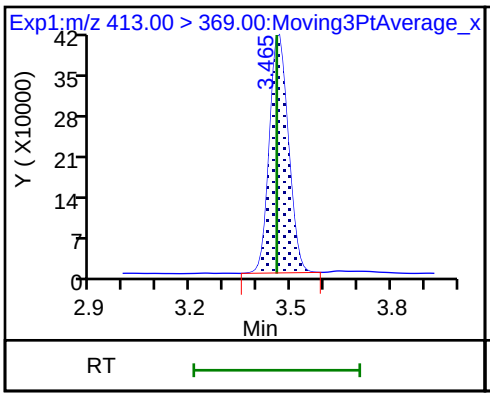

D 14 13C4 PFOA (M)



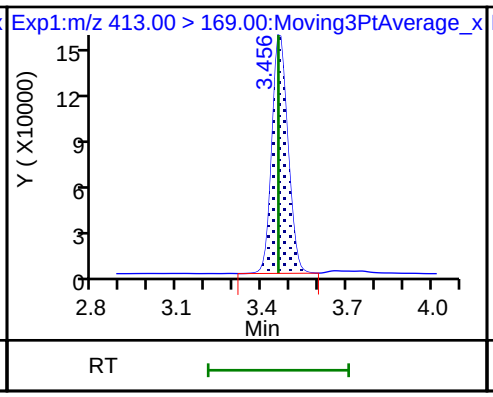

* 62 13C2 PFOA



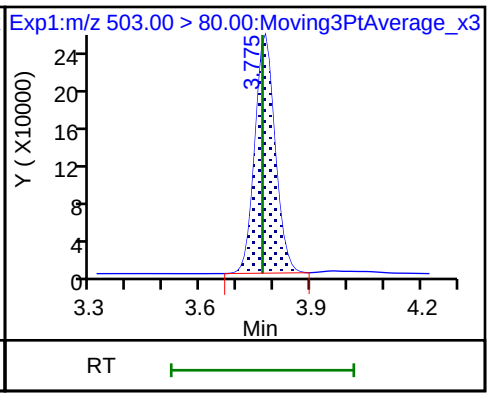

15 Perfluorooctanoic acid



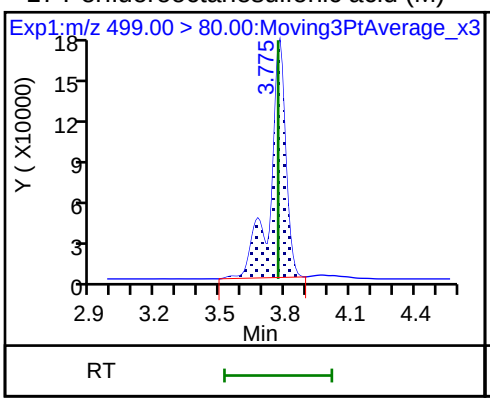

15 Perfluorooctanoic acid



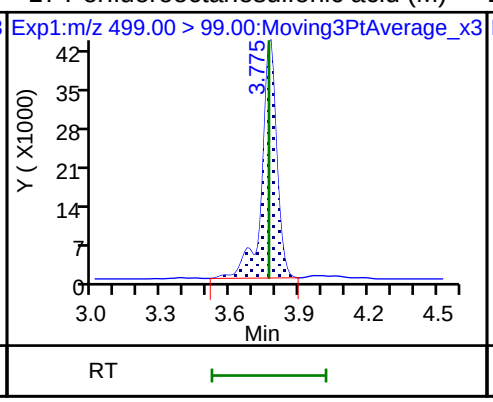

D 18 13C4 PFOS



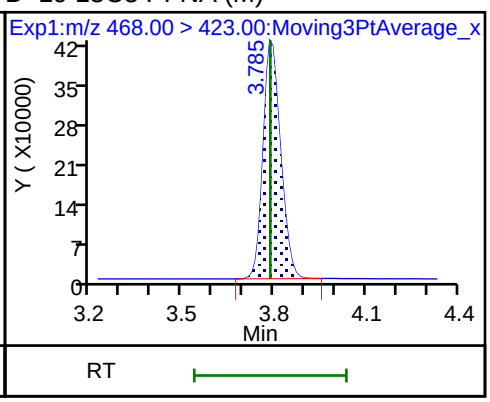

17 Perfluorooctanesulfonic acid (M)



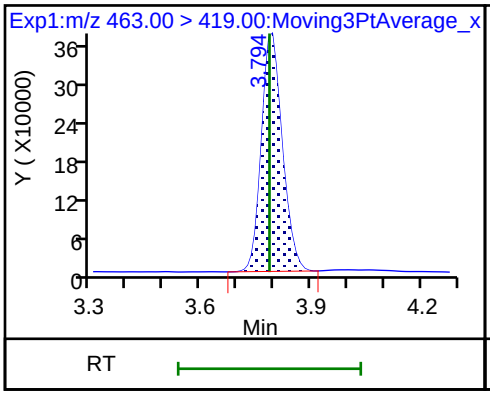

17 Perfluorooctanesulfonic acid (M)



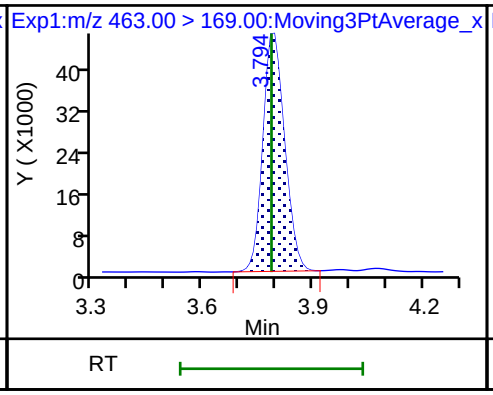

D 19 13C5 PFNA (M)



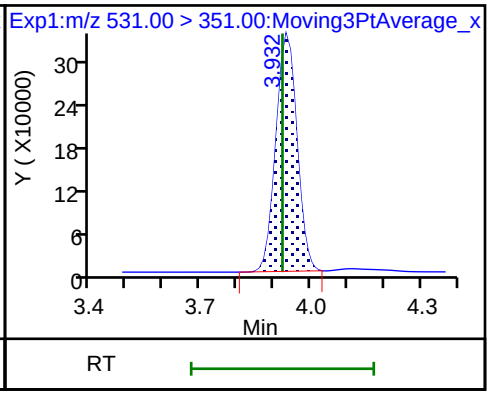
20 Perfluorononanoic acid



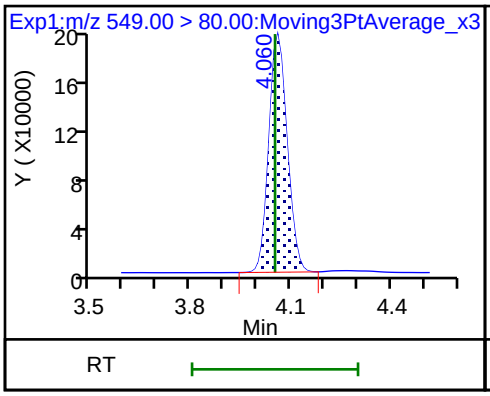

20 Perfluorononanoic acid



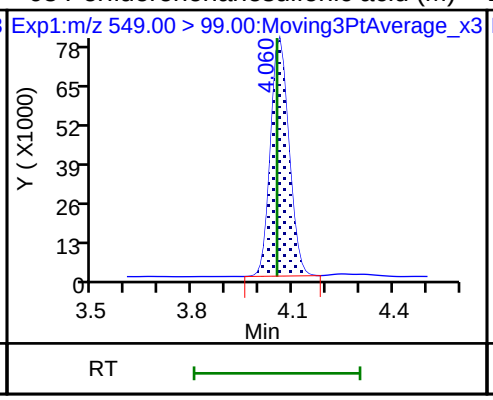

69 9-Chlorohexadecafluoro-3-oxanona (M)



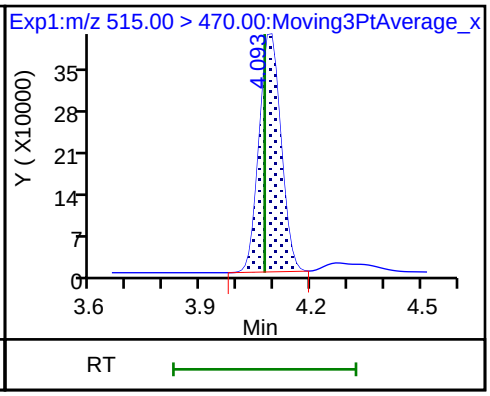

68 Perfluorononanesulfonic acid



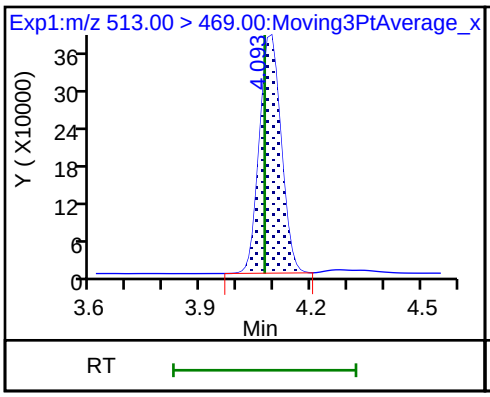

68 Perfluorononanesulfonic acid (M)



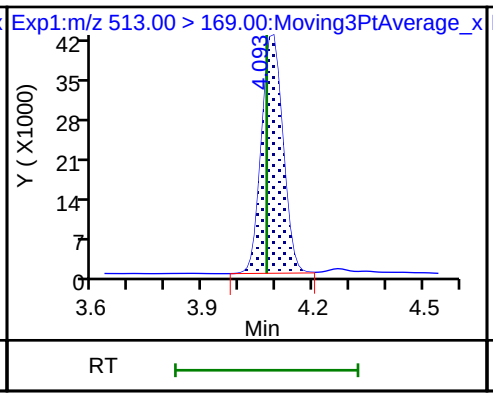

D 23 13C2 PFDA



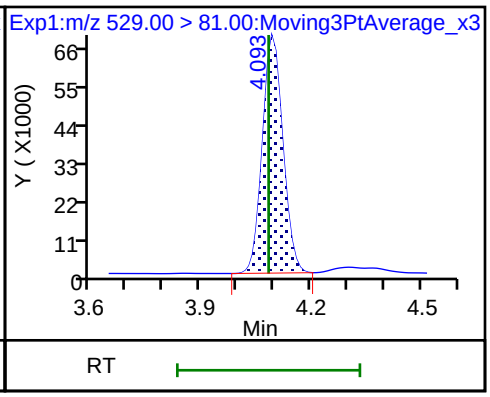

24 Perfluorodecanoic acid



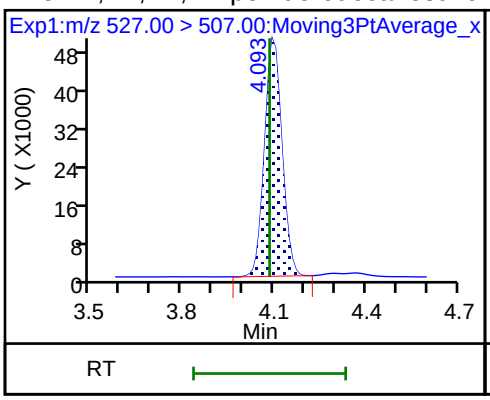

24 Perfluorodecanoic acid



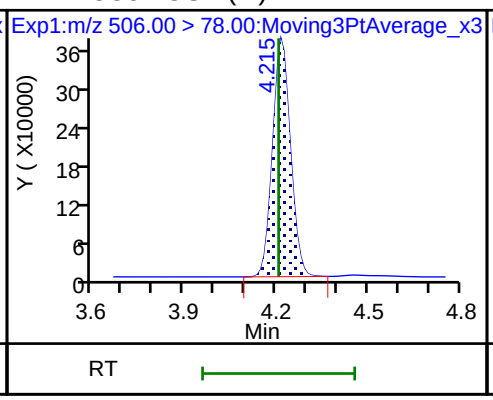

D 26 M2-8:2 FTS



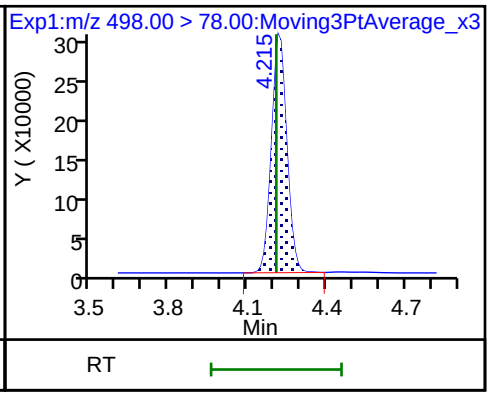

25 1H,1H,2H,2H-perfluorodecanesulfo



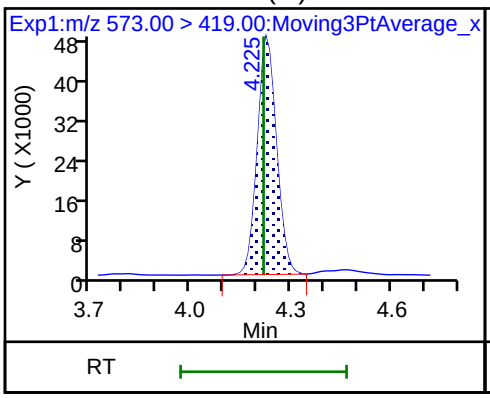

D 21 13C8 FOSA (M)



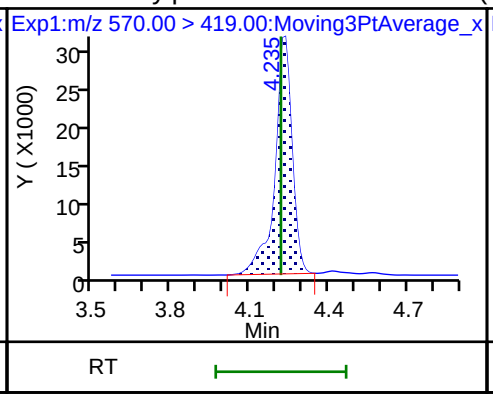

22 Perfluorooctanesulfonamide



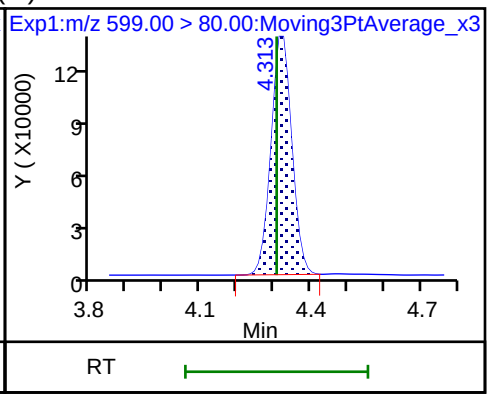
D 27 d3-NMeFOSAA (M)




28 N-methylperfluorooctanesulfonami (M)




29 Perfluorodecanesulfonic acid

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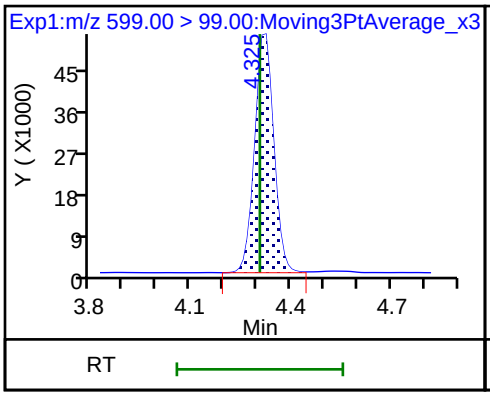
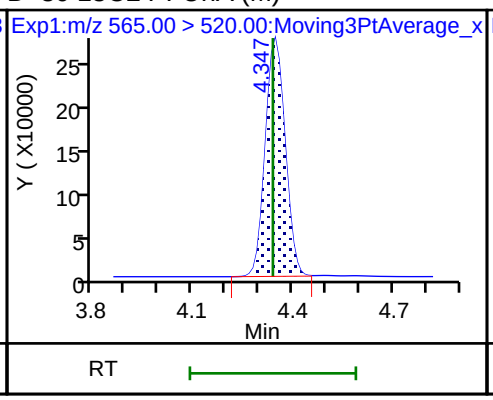
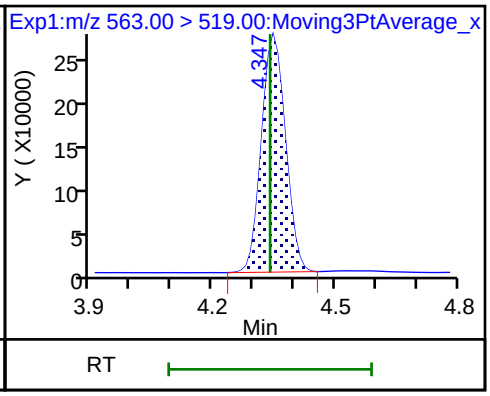


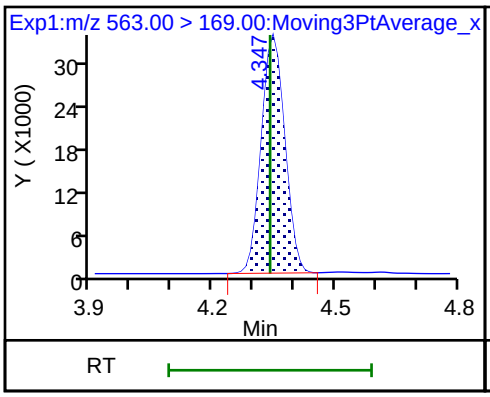

D 30 13C2 PFUnA (M)



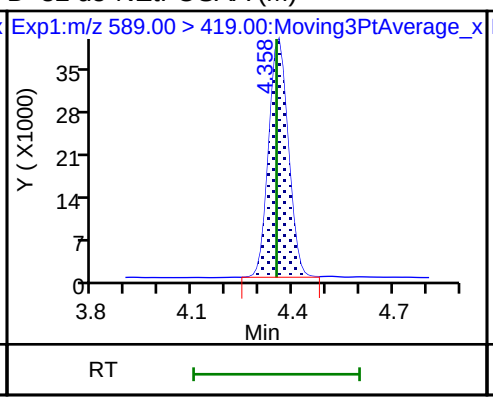

31 Perfluoroundecanoic acid



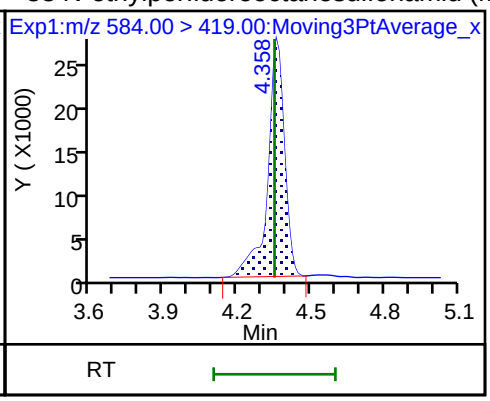

31 Perfluoroundecanoic acid



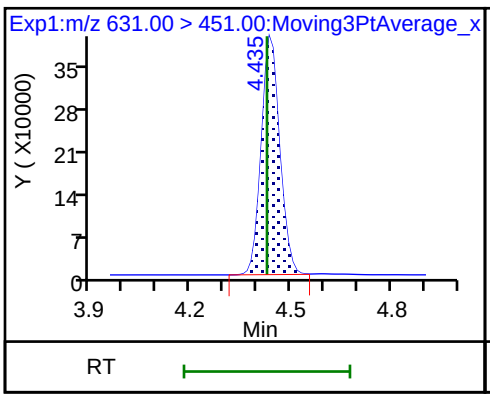

D 32 d5-NEtFOSAA (M)



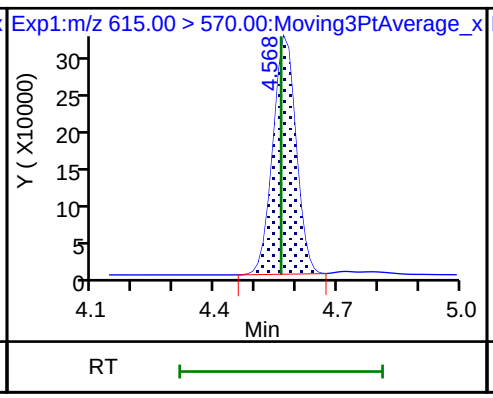

33 N-ethylperfluorooctanesulfonamid (M)



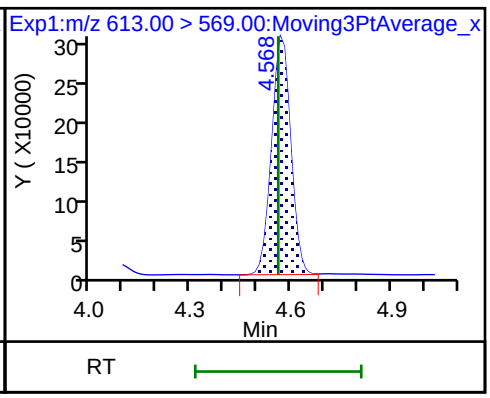

66 11-Chloroeicosafluoro-3-oxaundec



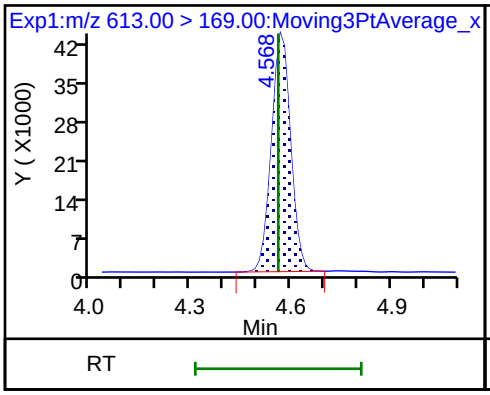

D 36 13C2 PFDoA



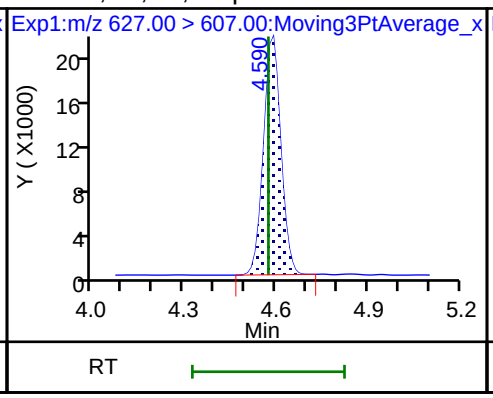

37 Perfluorododecanoic acid



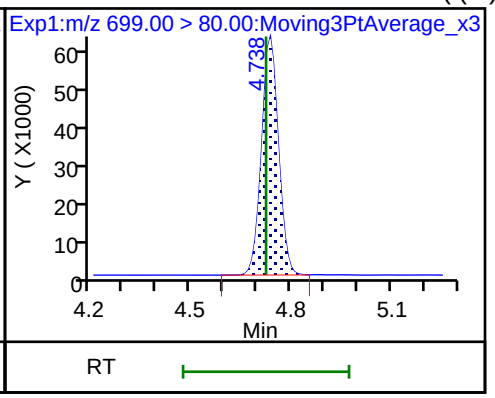
37 Perfluorododecanoic acid



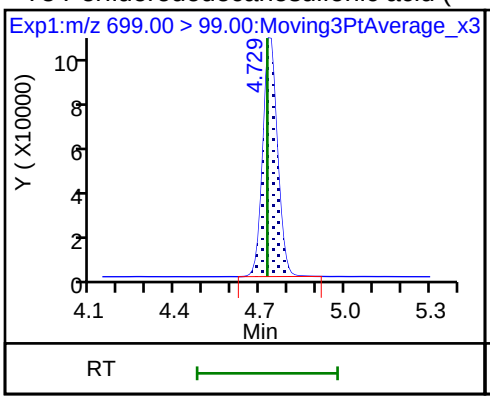

74 1H,1H,2H,2H-perfluorododecanesul



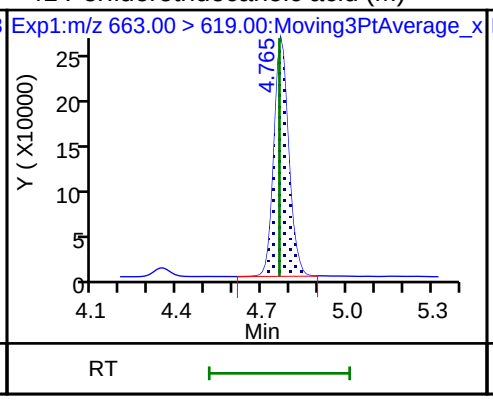

75 Perfluorododecanesulfonic acid ( (M)



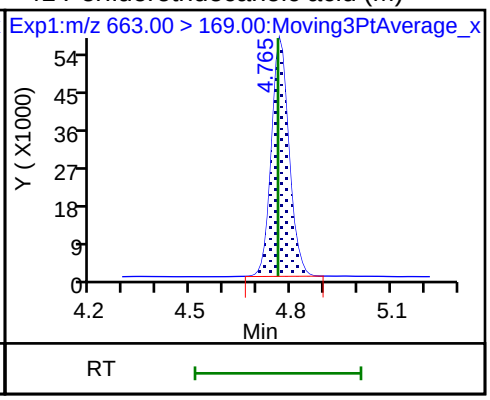

75 Perfluorododecanesulfonic acid (



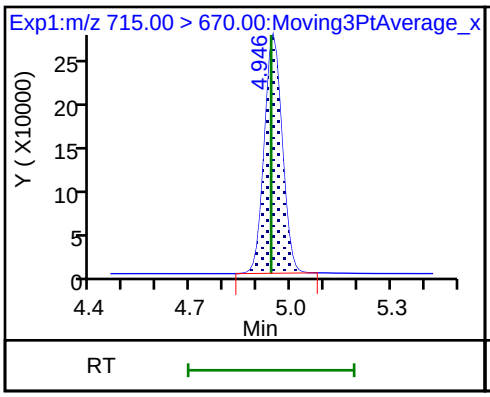

41 Perfluorotridecanoic acid (M)



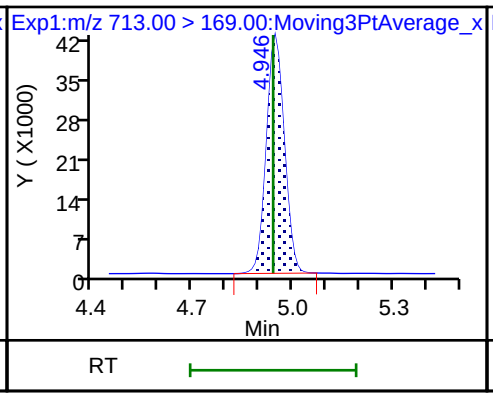

41 Perfluorotridecanoic acid (M)



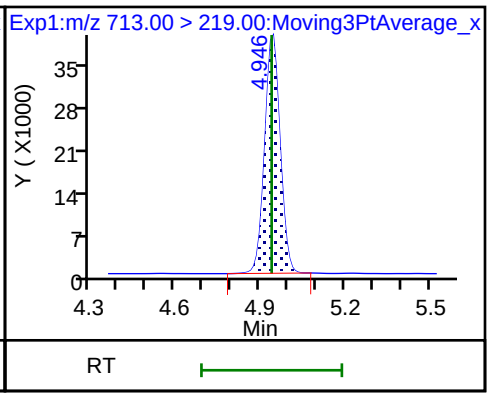

D 43 13C2 PFTeDA



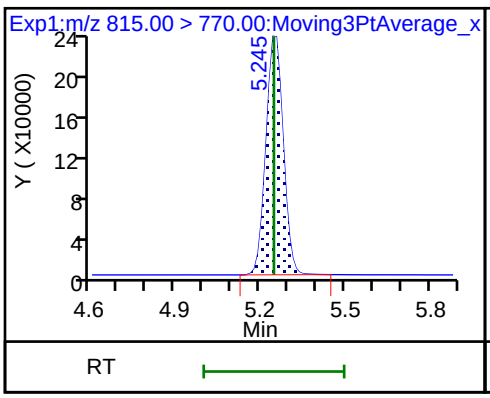

42 Perfluorotetradecanoic acid



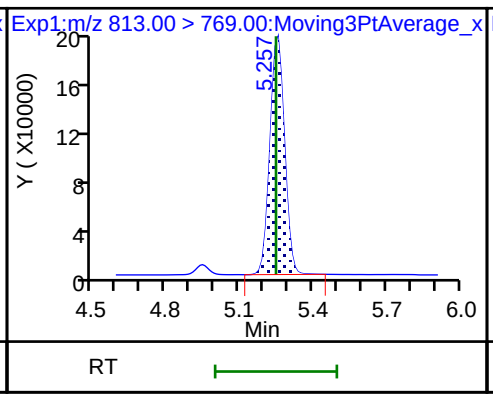

42 Perfluorotetradecanoic acid



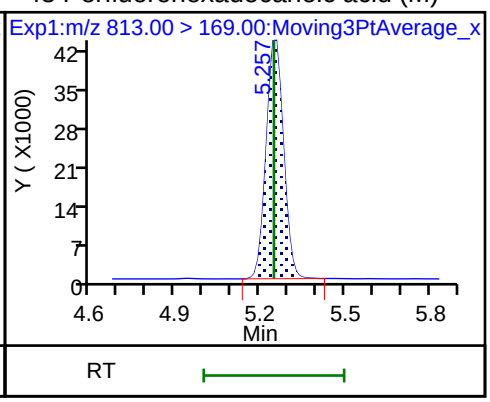

D 44 13C2 PFHxDA



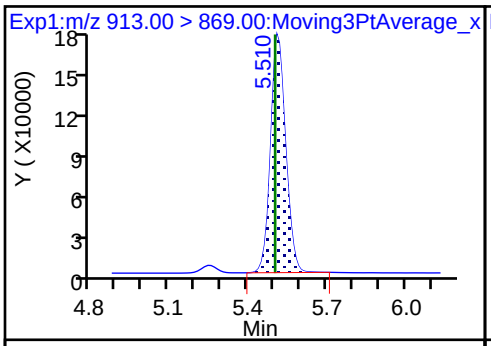

45 Perfluorohexadecanoic acid



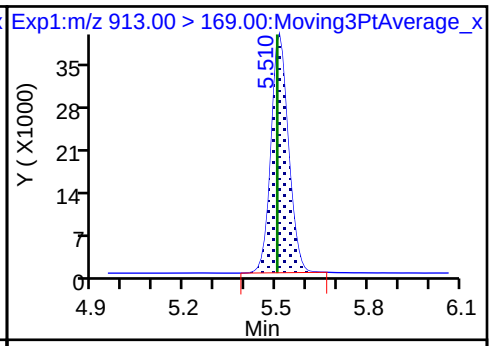

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

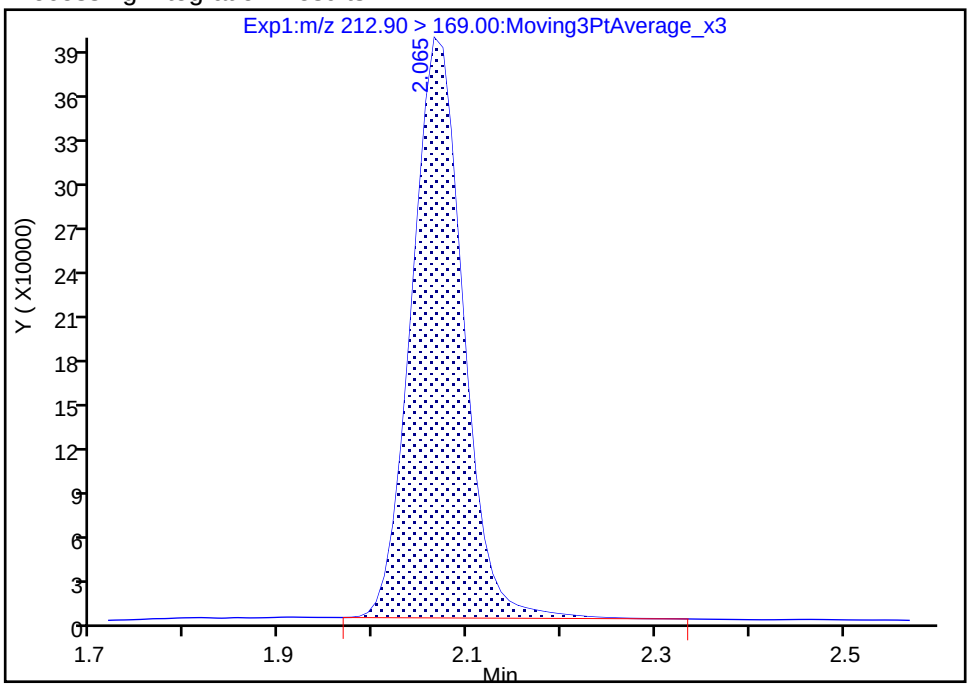
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

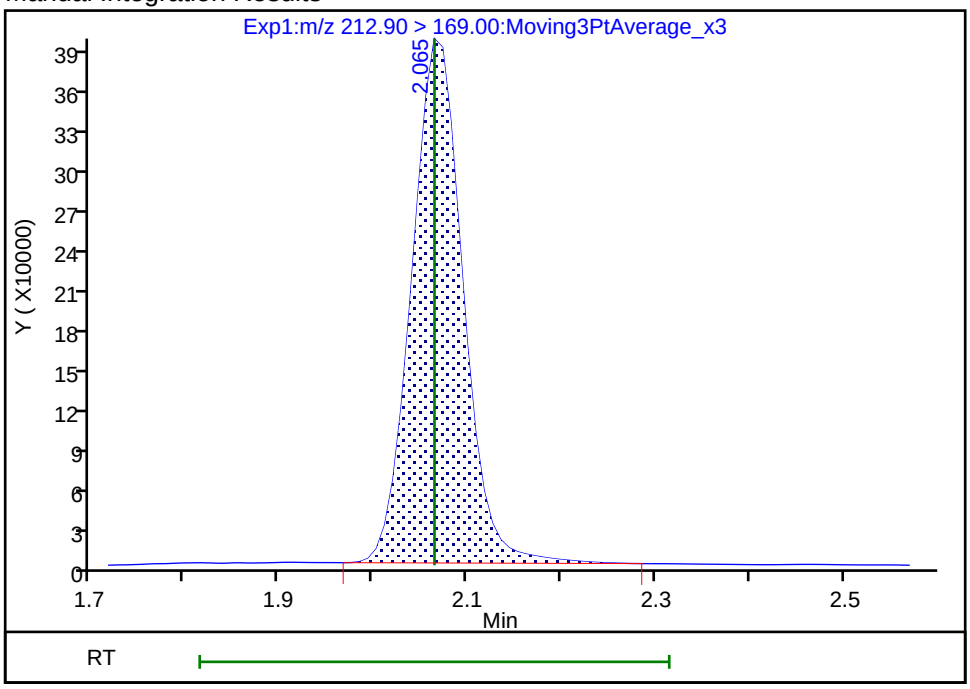
Processing Integration Results

RT: 2.06
Area: 1495383
Amount: 1.065142
Amount Units: ng/ml




Manual Integration Results

RT: 2.06
Area: 1493851
Amount: 1.064051
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:56:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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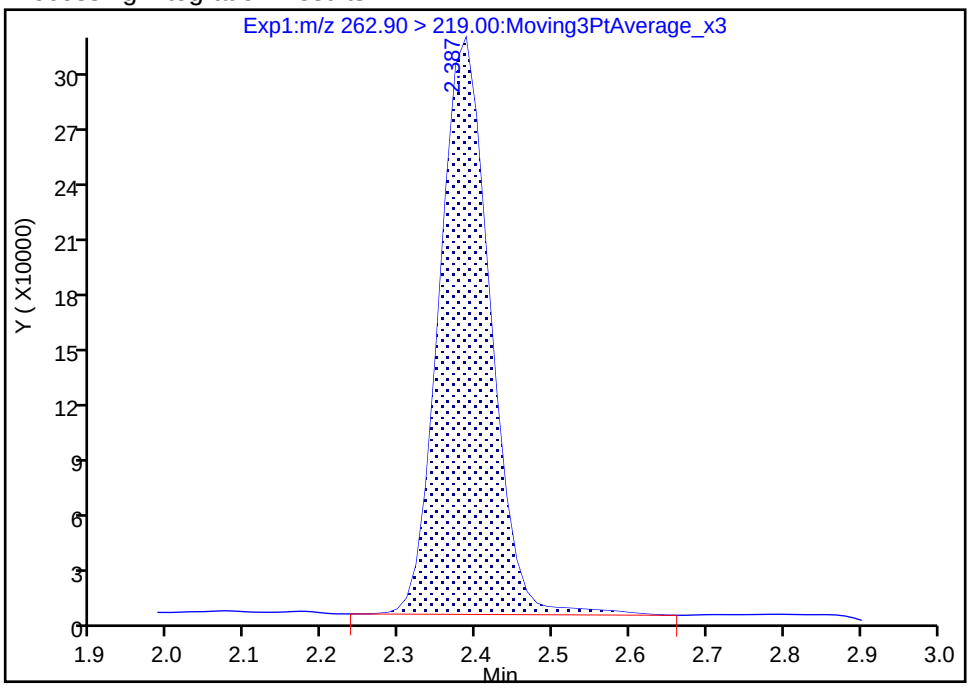
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

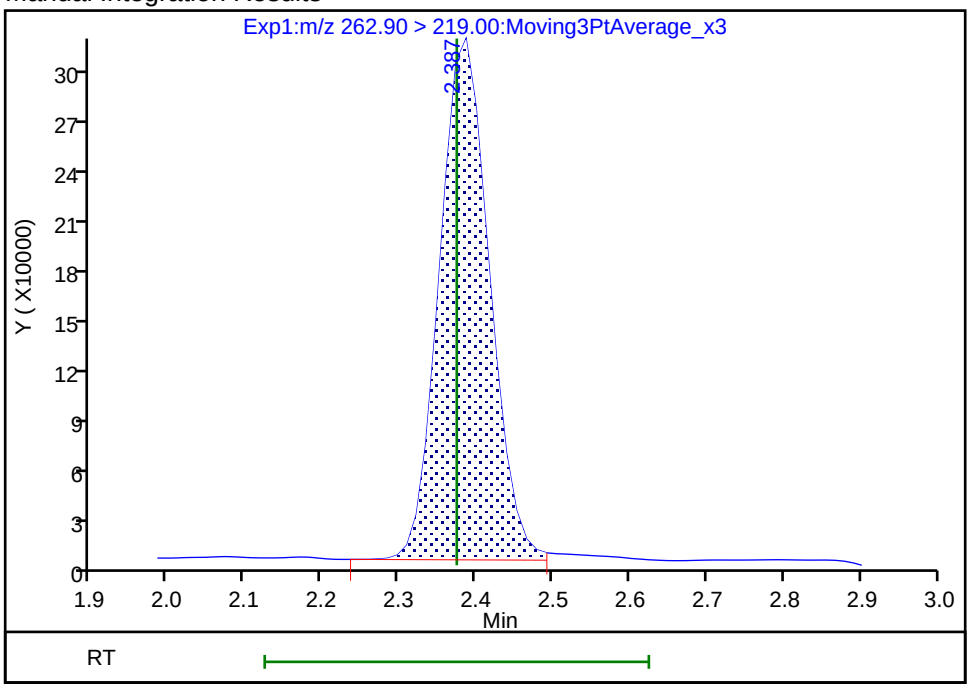
Processing Integration Results

RT: 2.39
Area: 1410341
Amount: 1.167677
Amount Units: ng/ml




Manual Integration Results

RT: 2.39
Area: 1389931
Amount: 1.150779
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:56:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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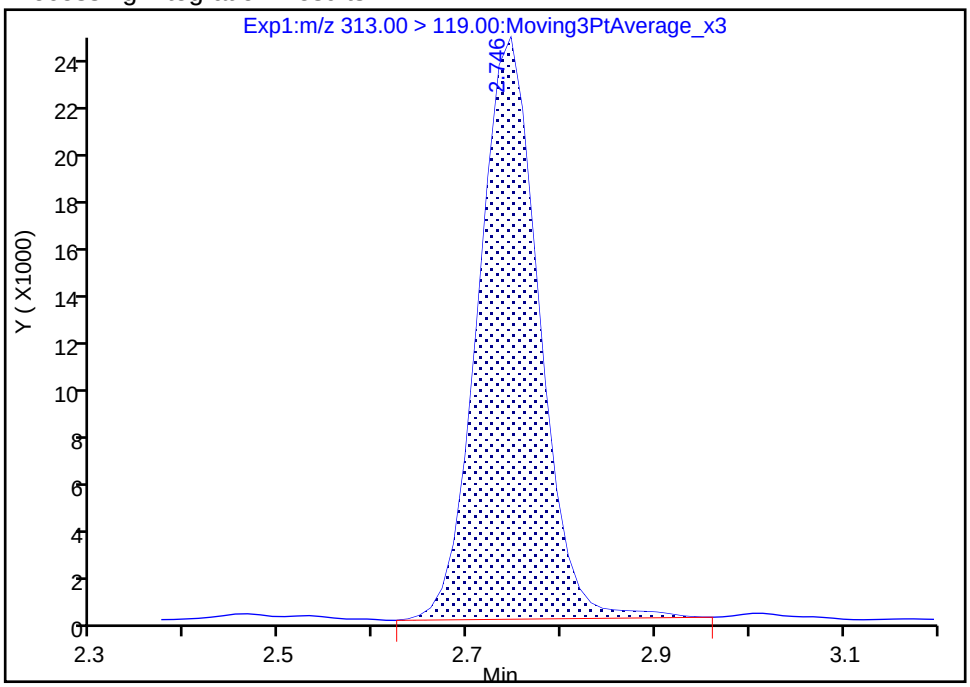
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

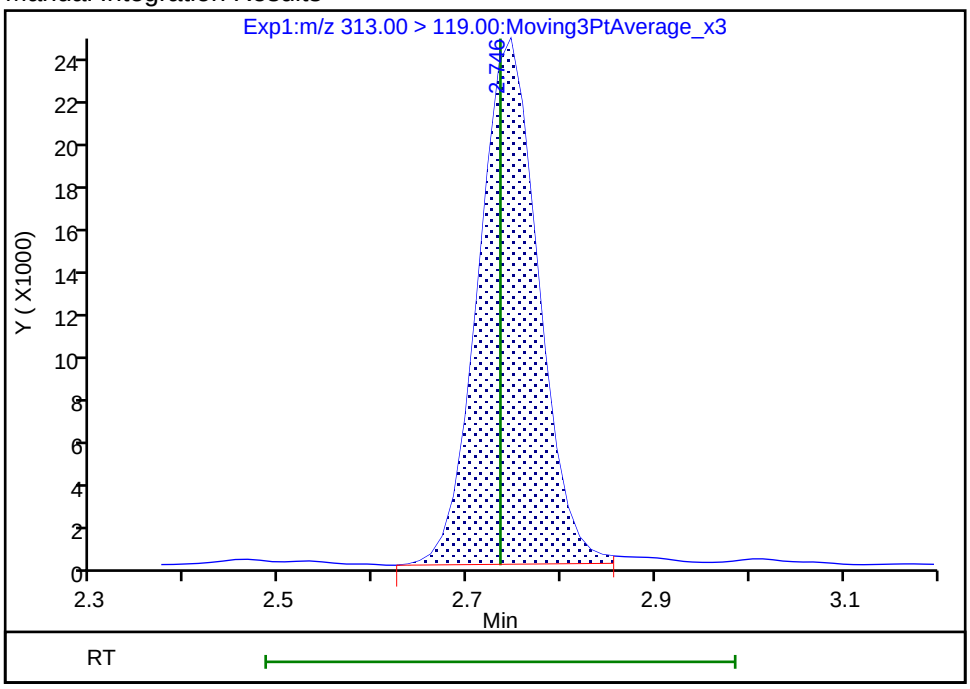
Processing Integration Results

RT: 2.75
Area: 108534
Amount: 1.096191
Amount Units: ng/ml




Manual Integration Results

RT: 2.75
Area: 107479
Amount: 1.096191
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:56:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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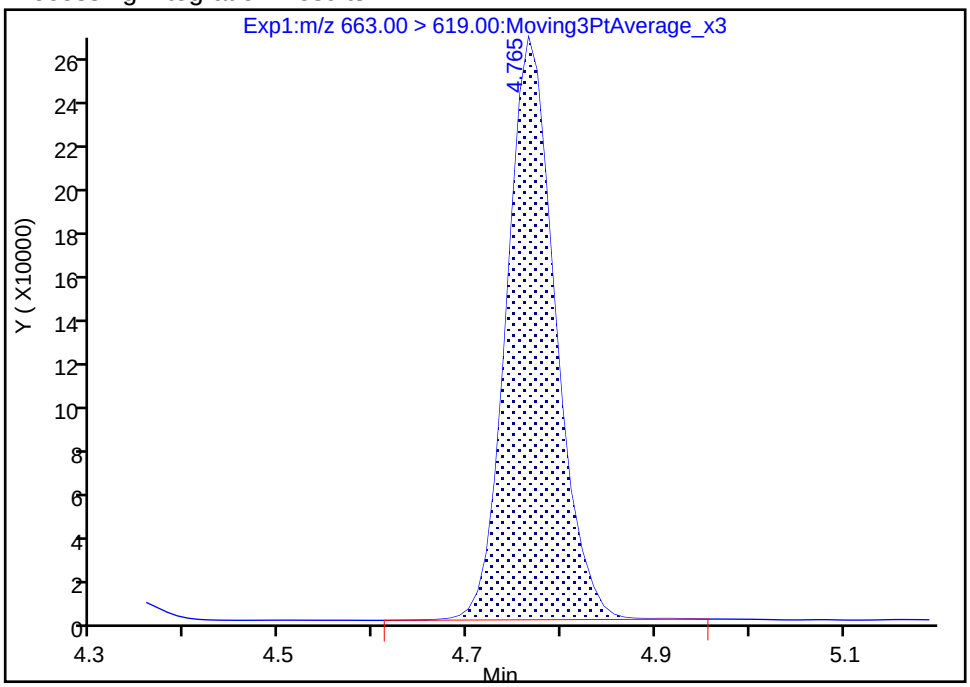
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

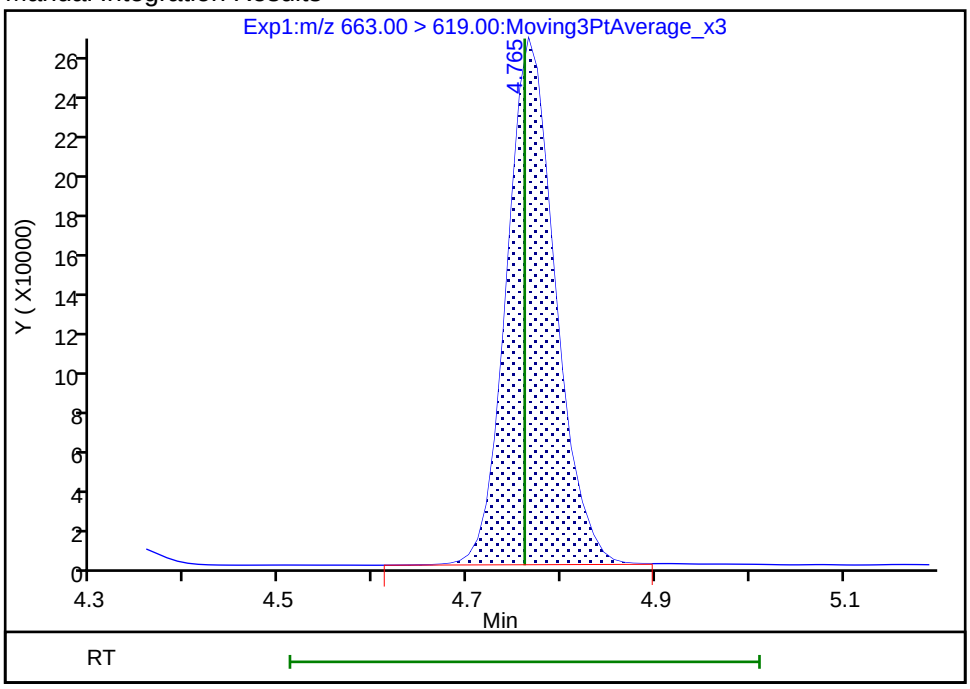
Processing Integration Results

RT: 4.76
Area: 965029
Amount: 1.133940
Amount Units: ng/ml




Manual Integration Results

RT: 4.76
Area: 964409
Amount: 1.133211
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:59:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

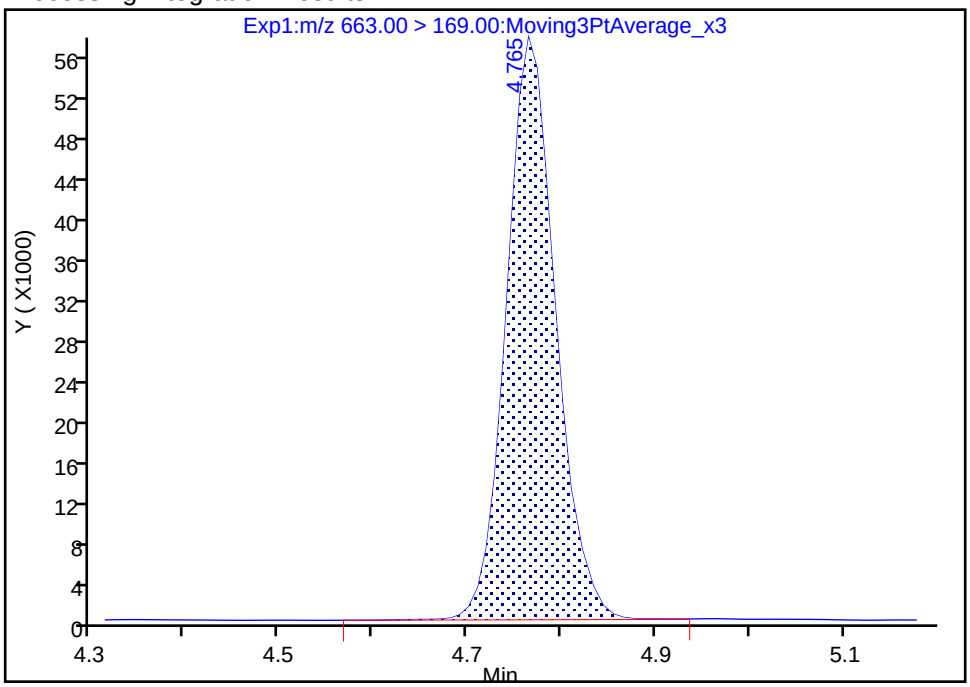
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

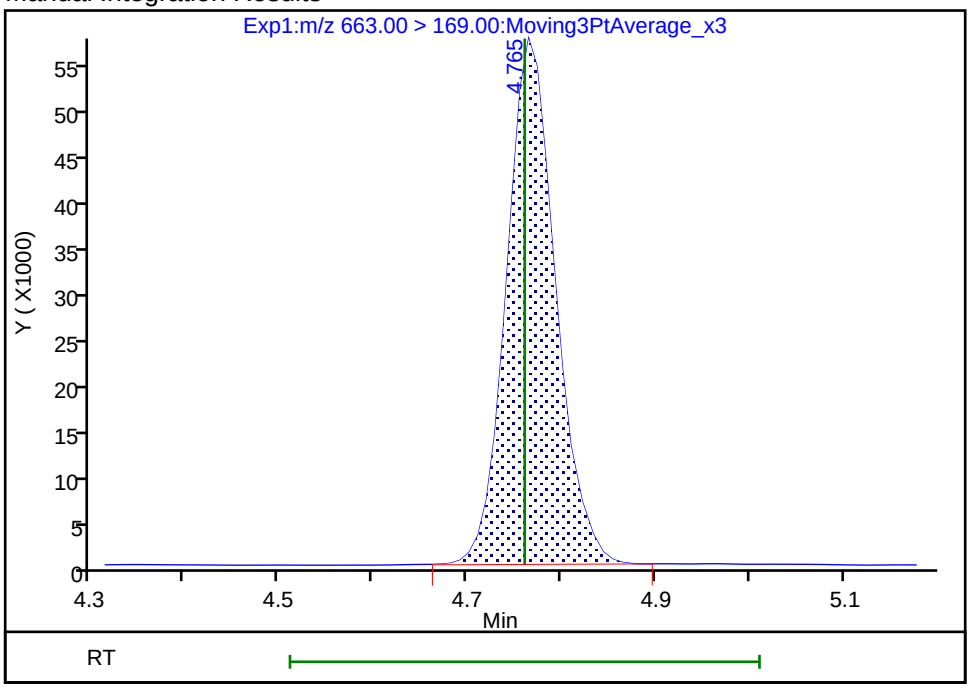
Processing Integration Results

RT: 4.76
Area: 210261
Amount: 1.133940
Amount Units: ng/ml




Manual Integration Results

RT: 4.76
Area: 209423
Amount: 1.133211
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:59:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

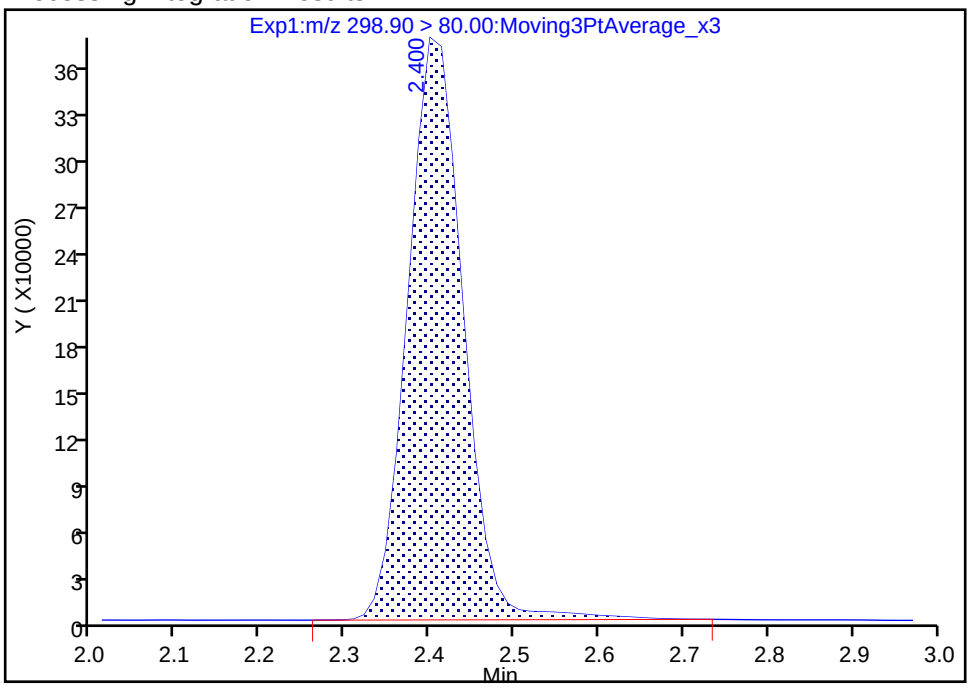
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

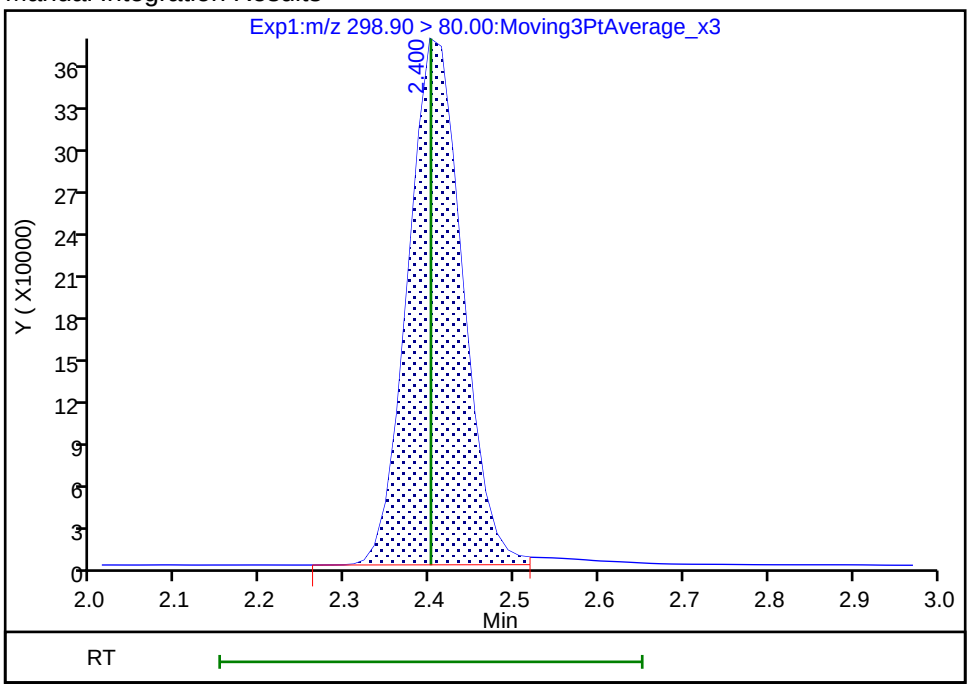
Processing Integration Results

RT: 2.40
Area: 1720326
Amount: 1.029116
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1692145
Amount: 1.012258
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:56:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

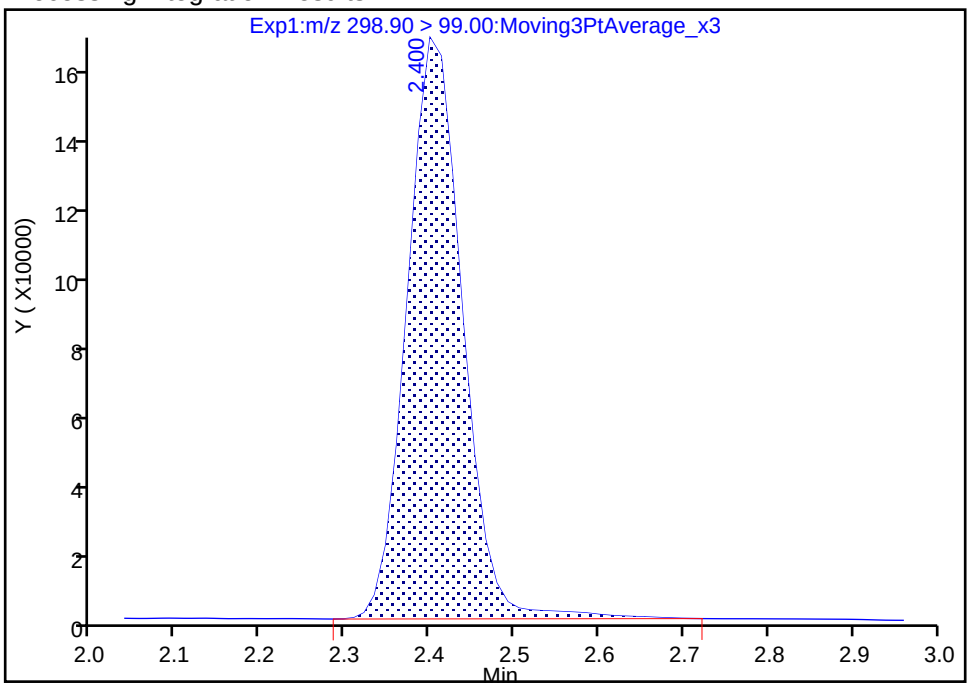
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

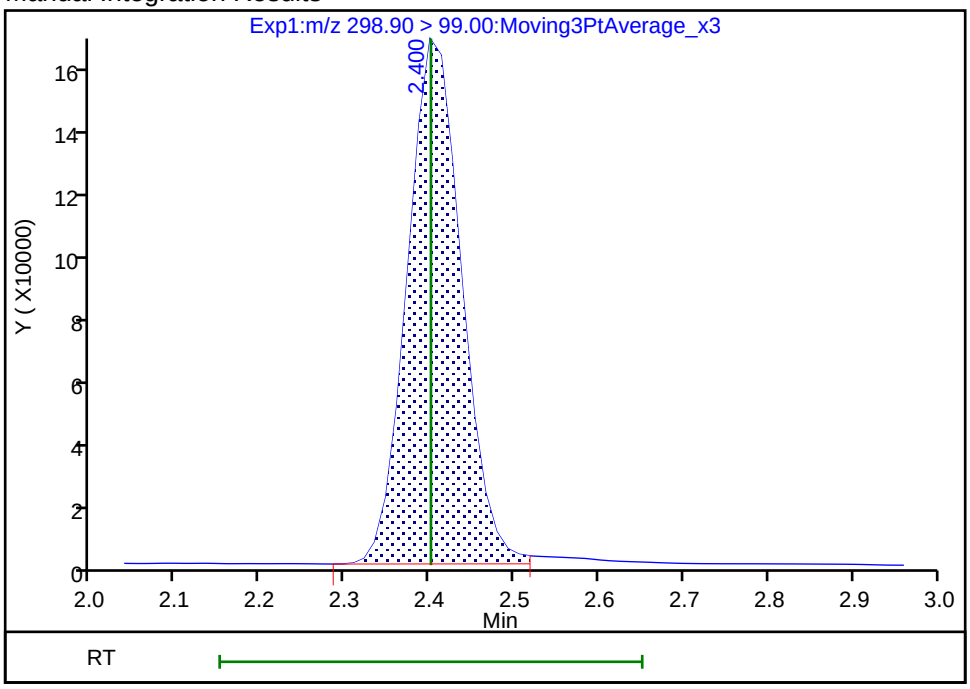
Processing Integration Results

RT: 2.40
Area: 766323
Amount: 1.029116
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 753097
Amount: 1.012258
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:56:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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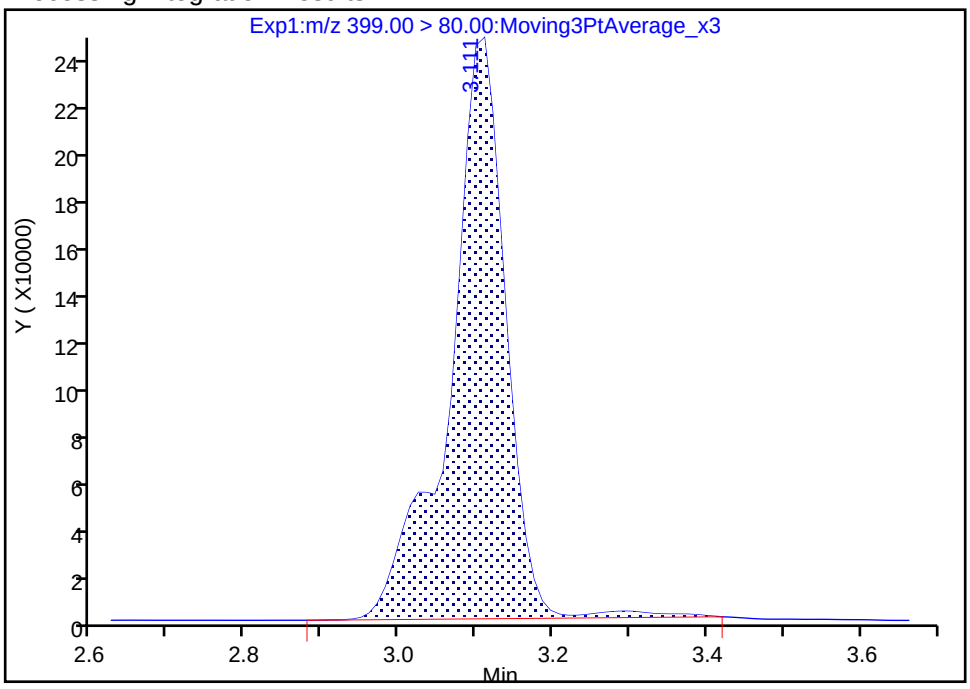
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

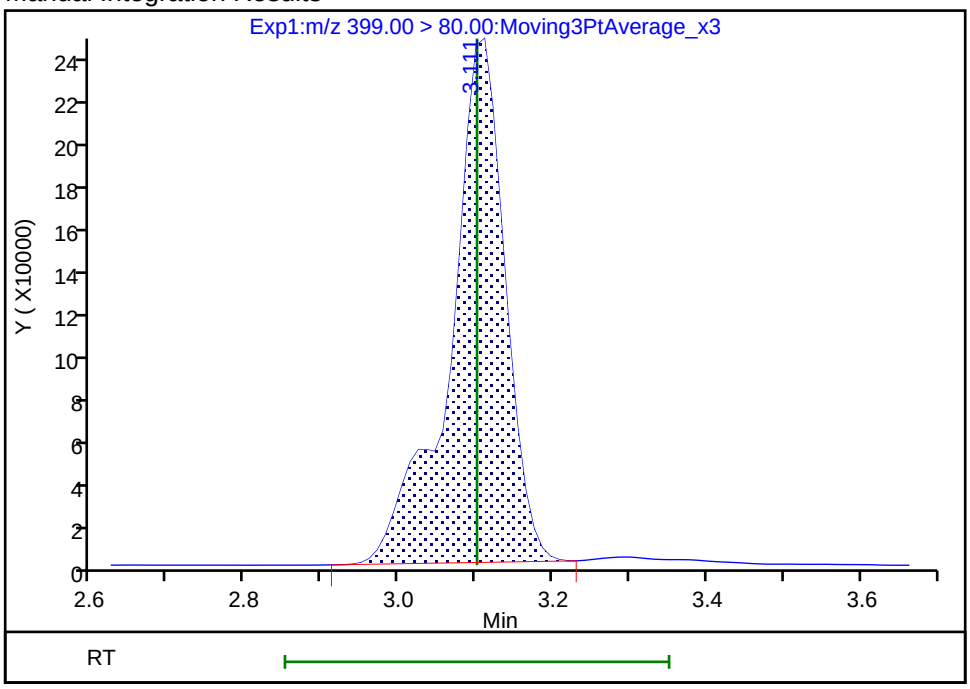
Processing Integration Results

RT: 3.11
Area: 1224697
Amount: 1.011424
Amount Units: ng/ml




Manual Integration Results

RT: 3.11
Area: 1196755
Amount: 0.988348
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:57:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

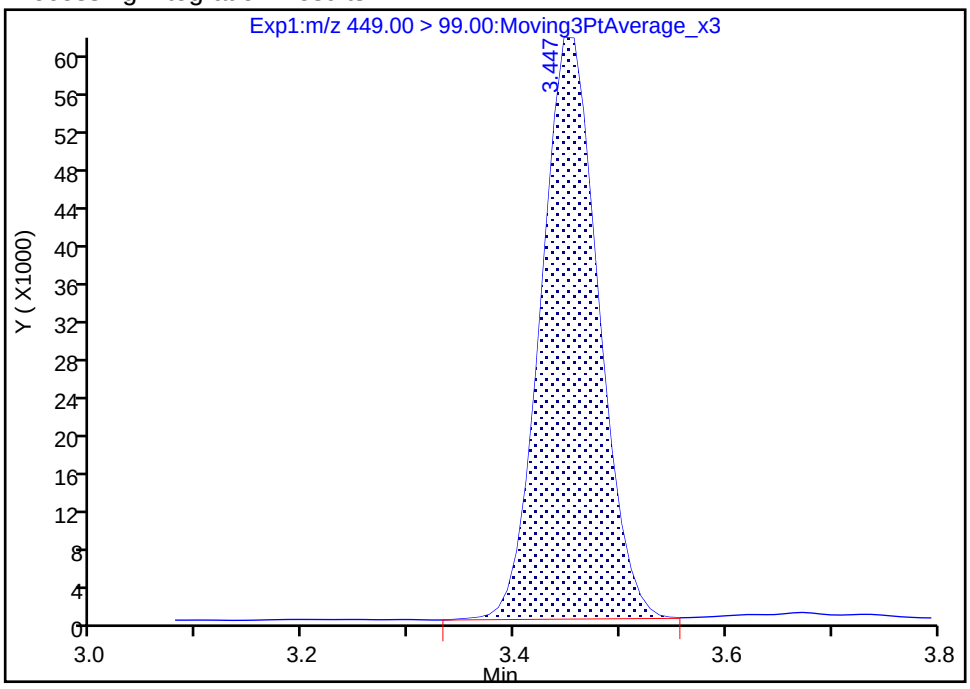
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

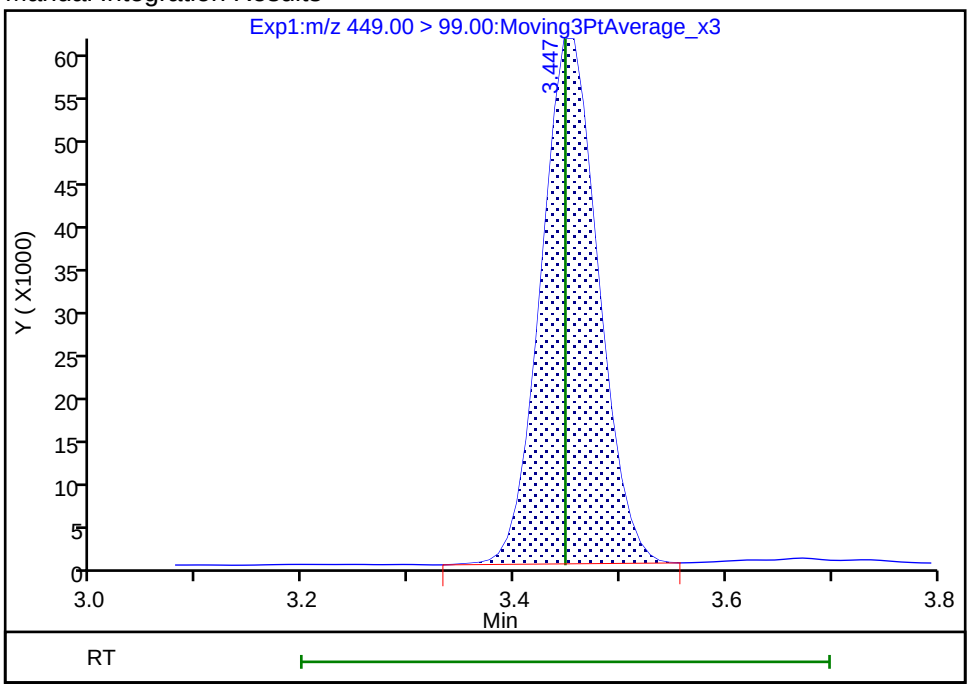
Processing Integration Results

RT: 3.45
Area: 231228
Amount: 1.084934
Amount Units: ng/ml




Manual Integration Results

RT: 3.45
Area: 230824
Amount: 1.076808
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:57:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

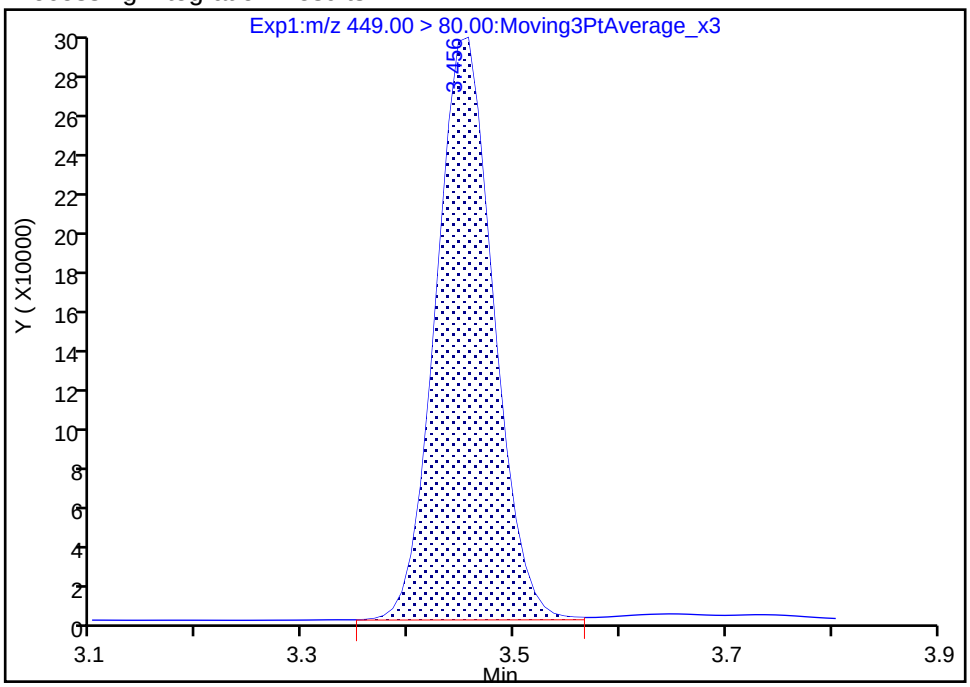
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

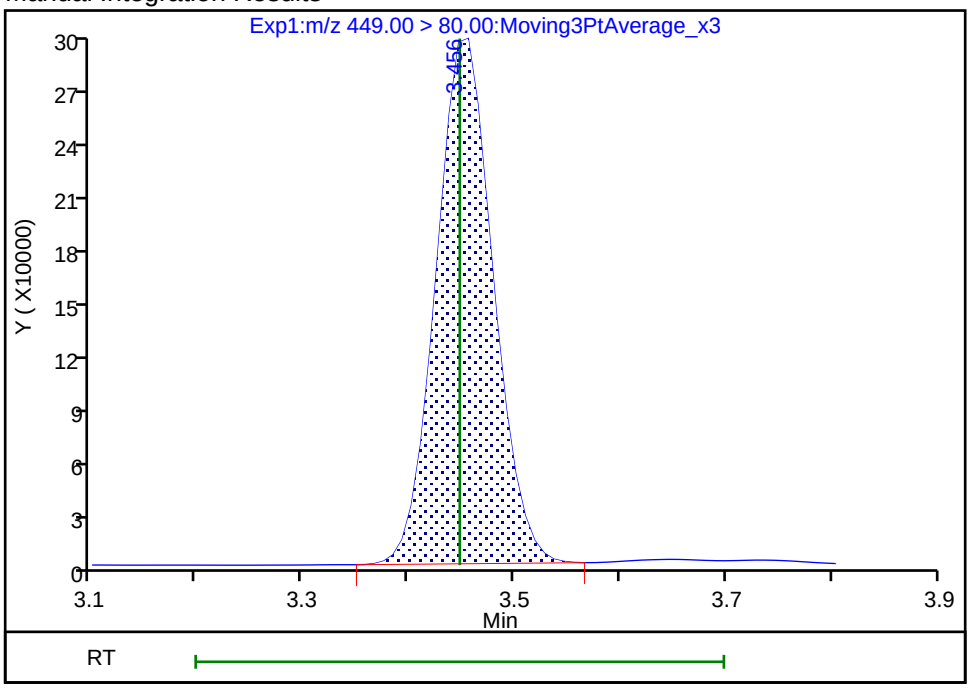
Processing Integration Results

RT: 3.46
Area: 1114912
Amount: 1.084934
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1106562
Amount: 1.076808
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:39:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

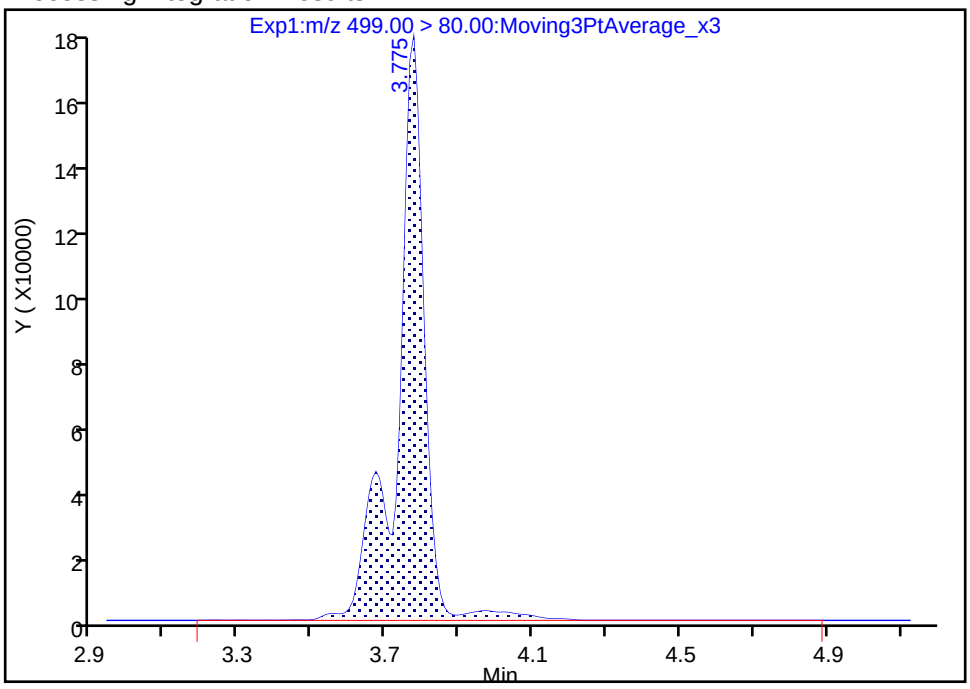
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

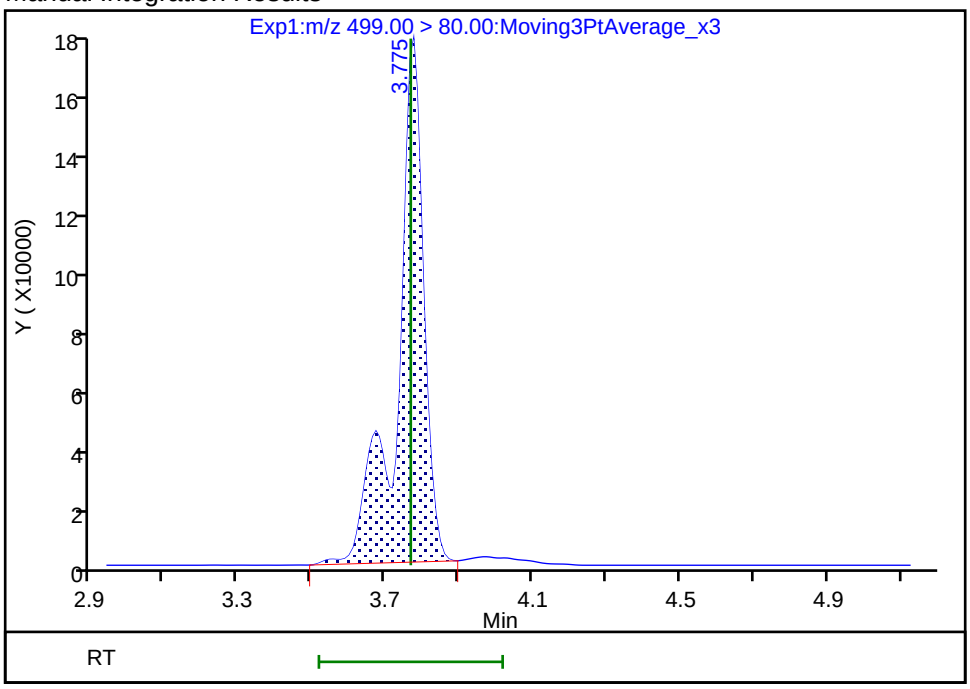
Processing Integration Results

RT: 3.78
Area: 932818
Amount: 1.042899
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 882073
Amount: 0.986166
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:58:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

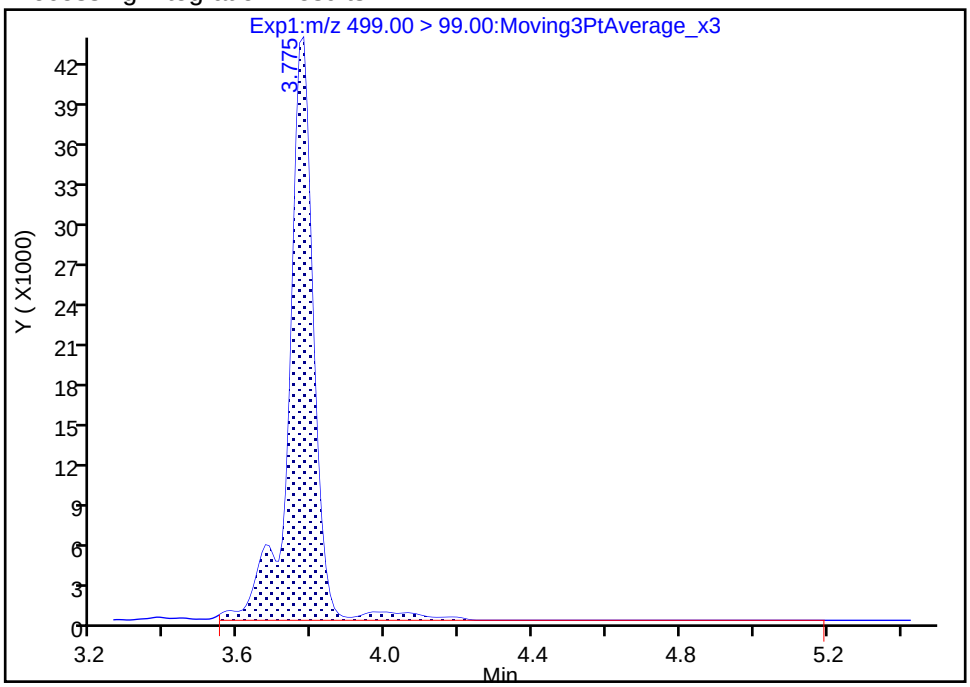
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

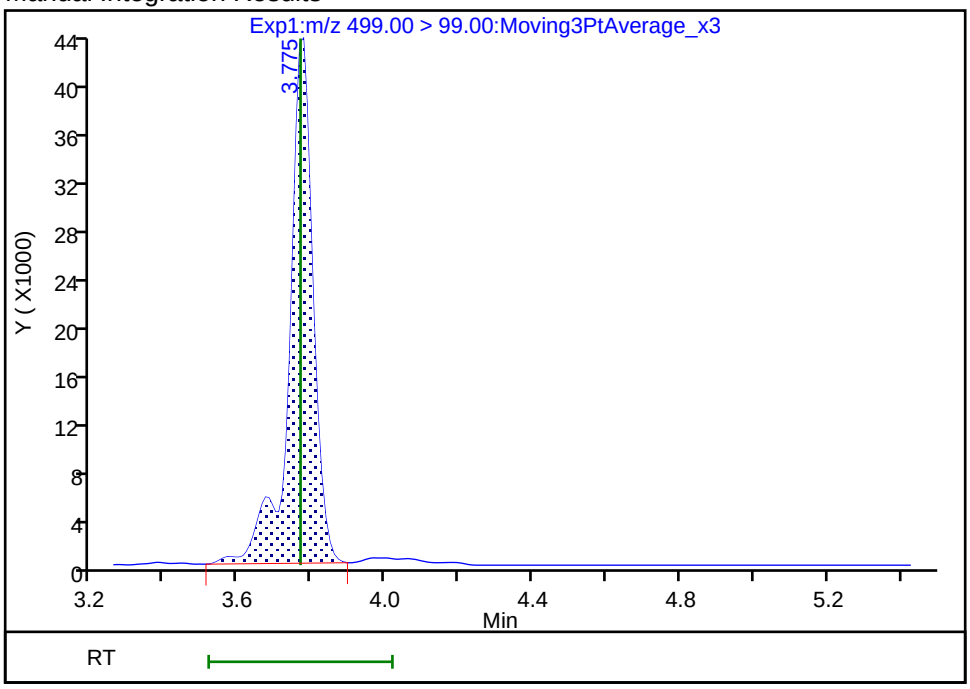
Processing Integration Results

RT: 3.78
Area: 204747
Amount: 1.042899
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 194529
Amount: 0.986166
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:58:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

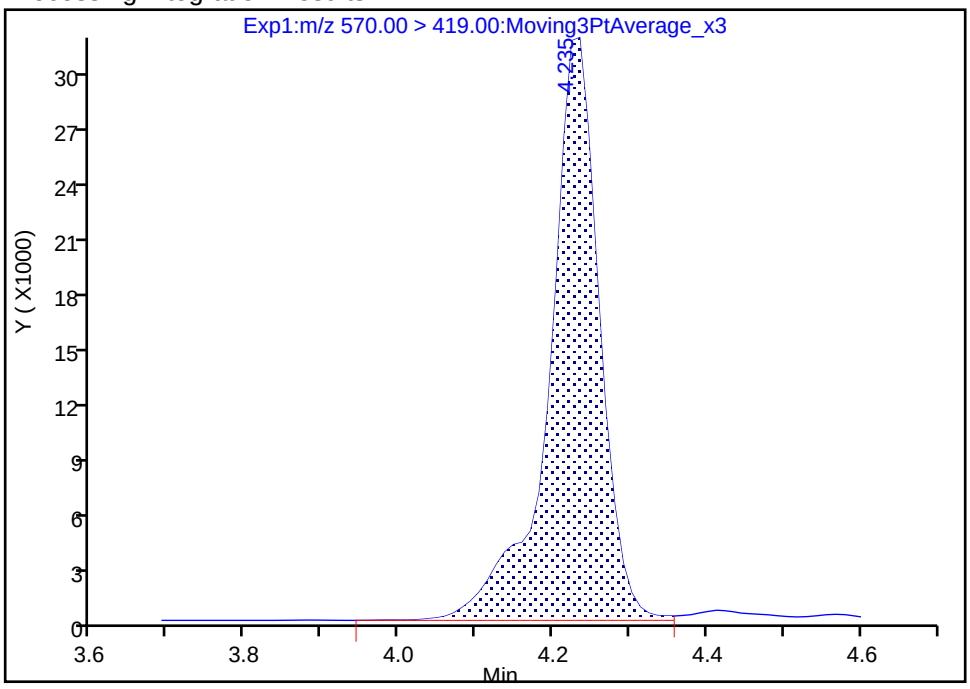
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

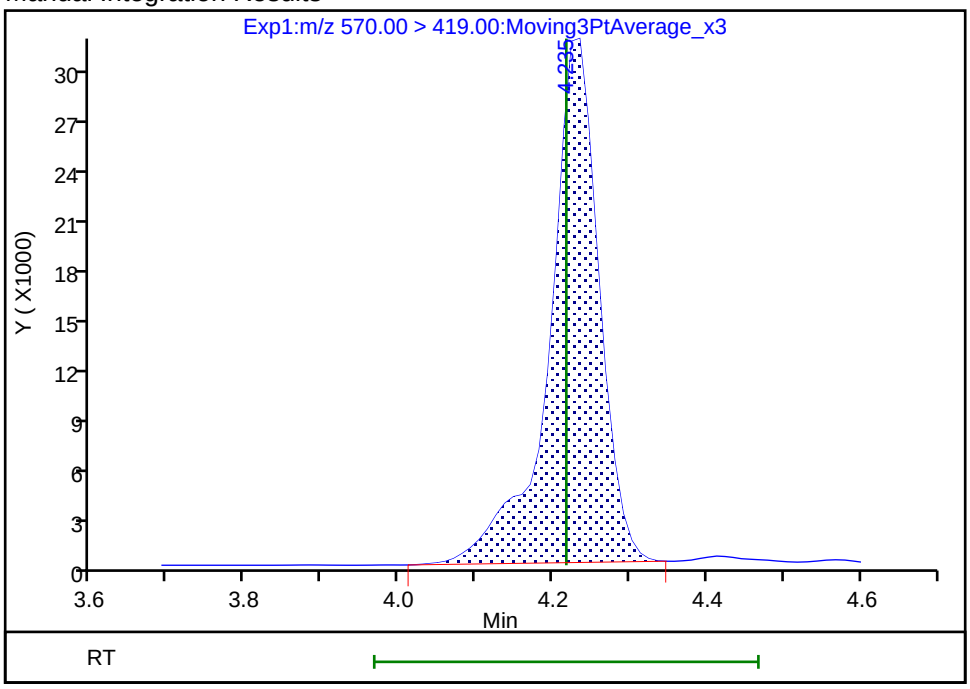
Processing Integration Results

RT: 4.23
Area: 142432
Amount: 1.161385
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 139691
Amount: 1.146650
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:40:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

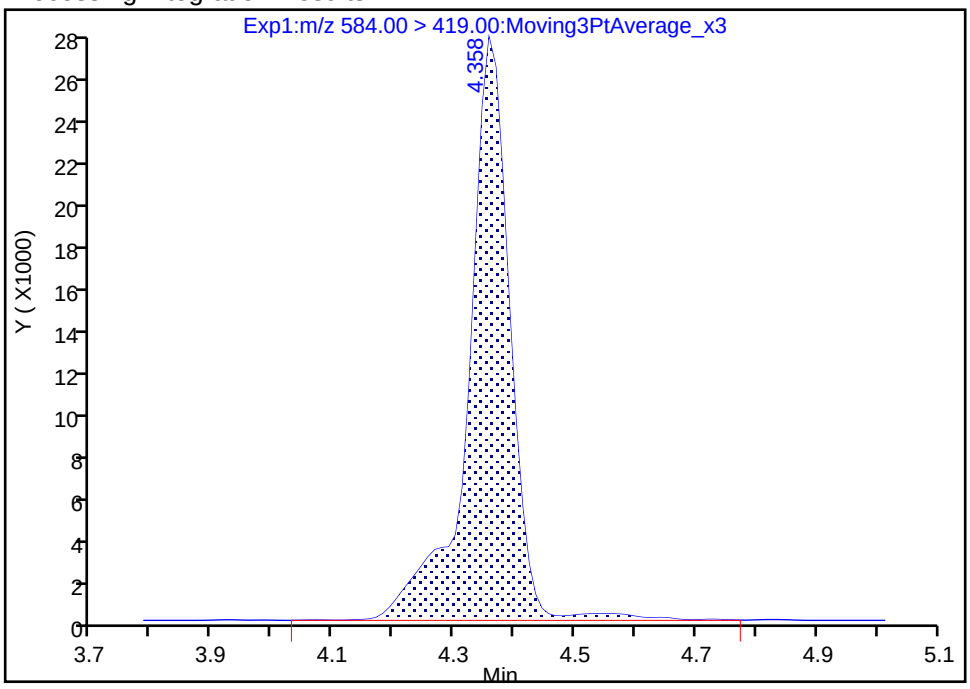
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

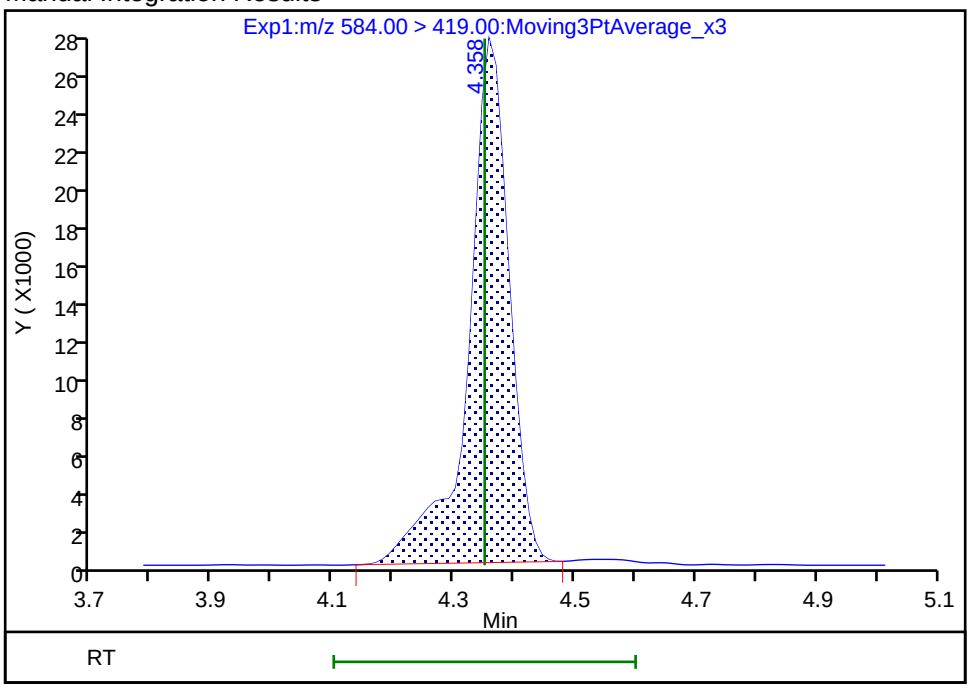
Processing Integration Results

RT: 4.36
Area: 131643
Amount: 1.195472
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 126630
Amount: 1.149948
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:40:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

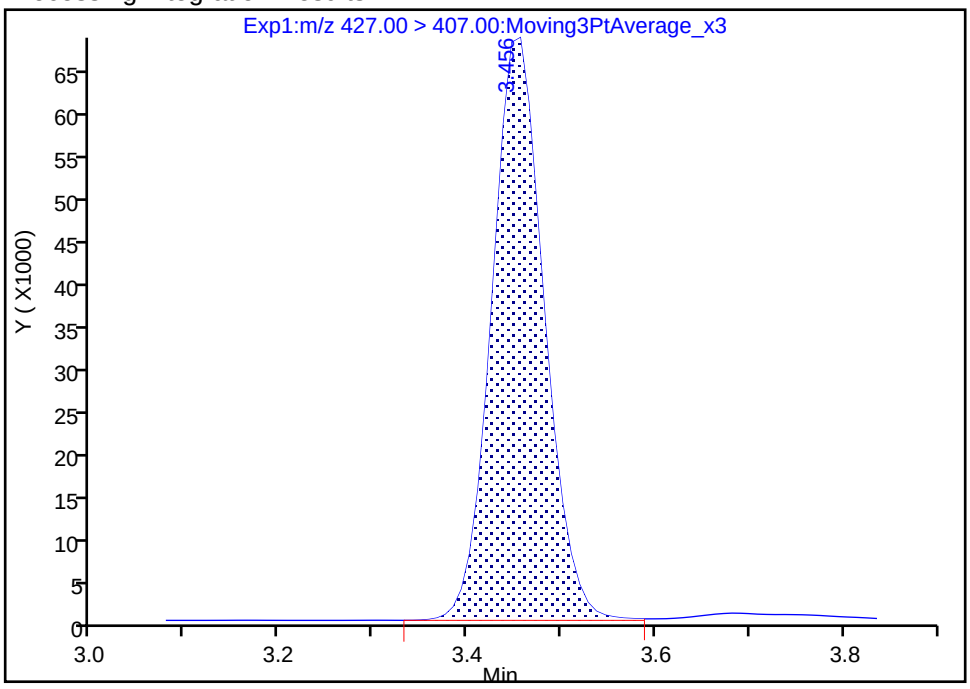
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

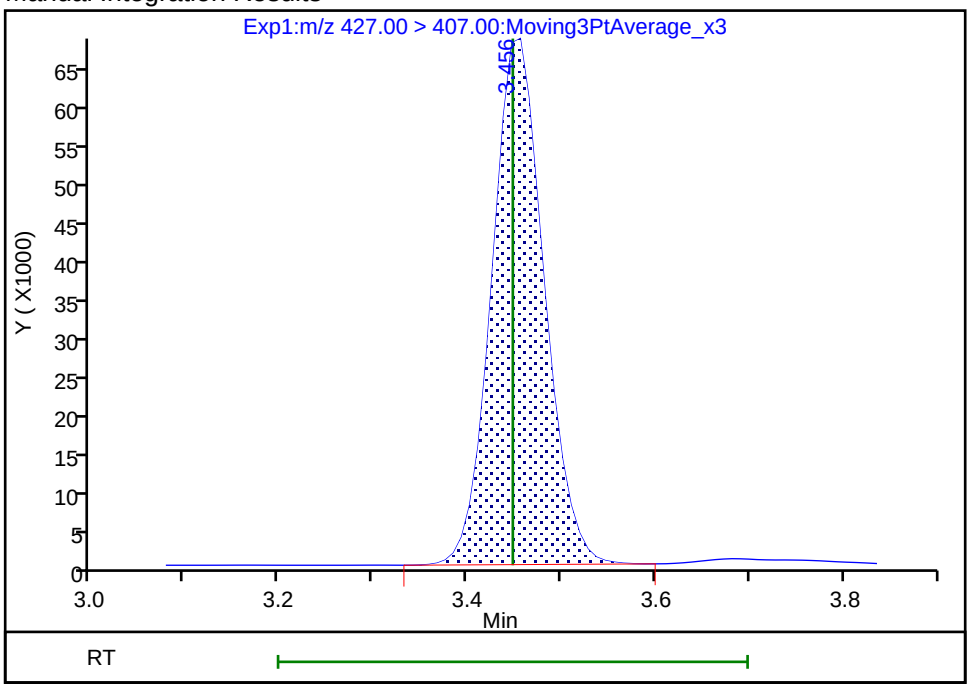
Processing Integration Results

RT: 3.46
Area: 264422
Amount: 1.103922
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 263098
Amount: 1.098395
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:57:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

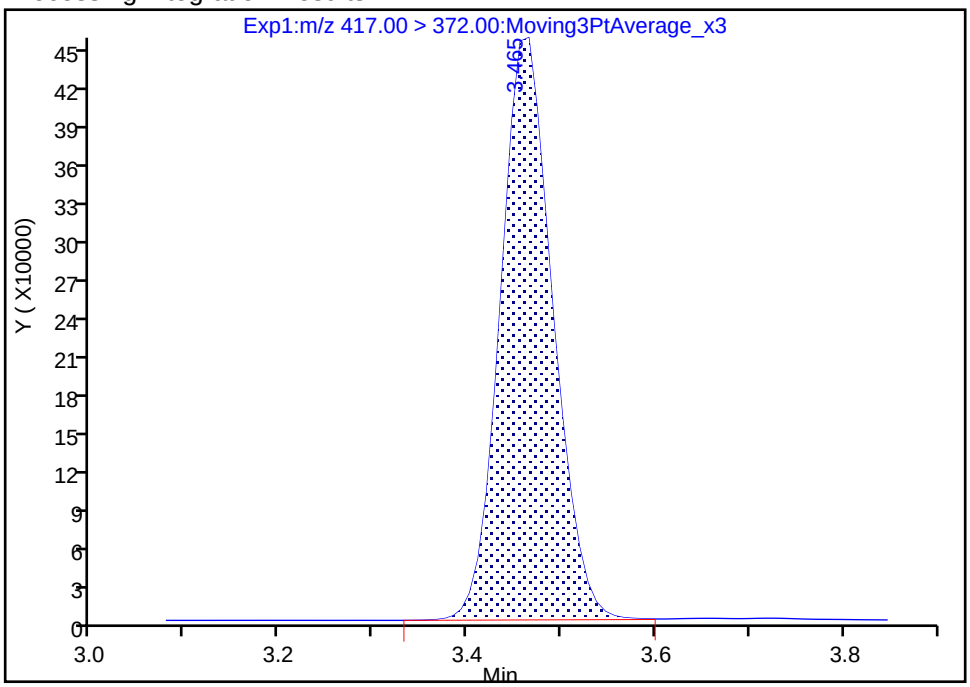
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 14 13C4 PFOA, CAS: STL00990

Signal: 1

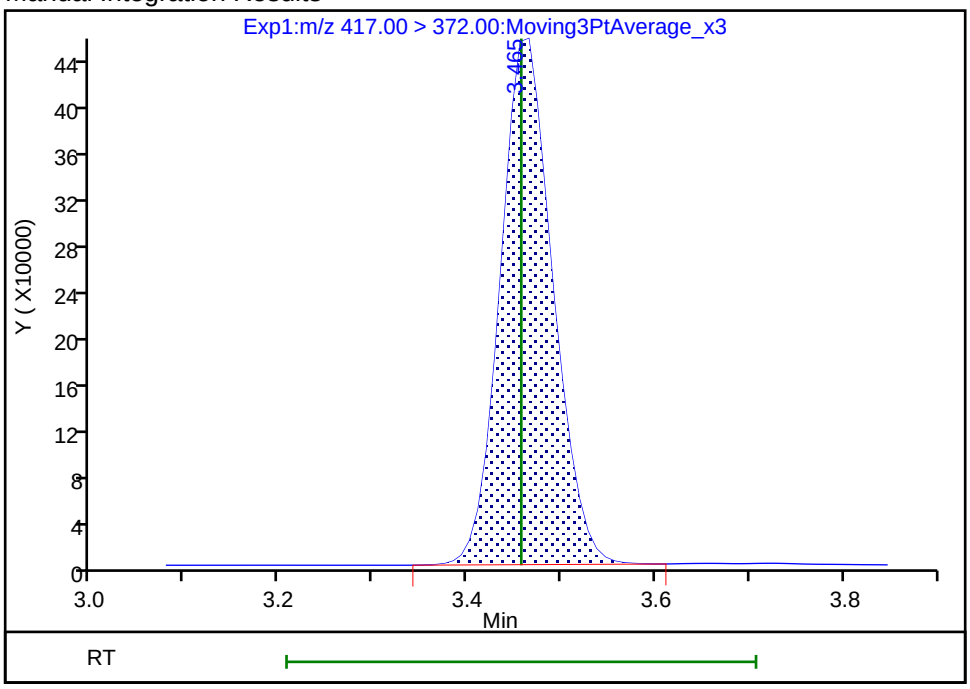
Processing Integration Results

RT: 3.47
Area: 1758771
Amount: 1.171411
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1755959
Amount: 1.169538
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:55:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

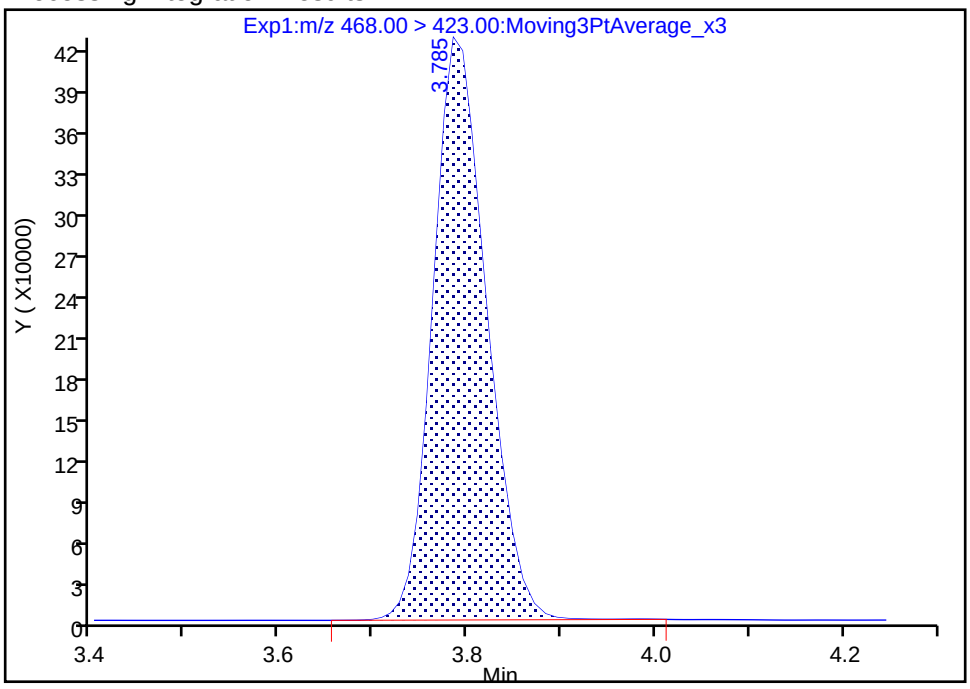
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

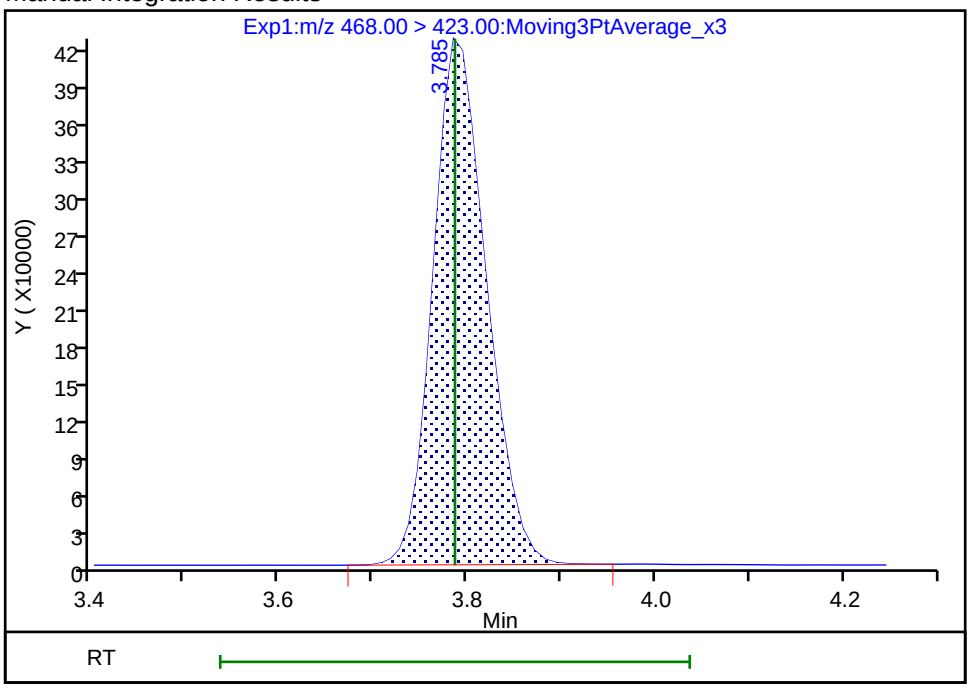
Processing Integration Results

RT: 3.78
Area: 1677134
Amount: 1.121350
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1674692
Amount: 1.119718
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:55:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

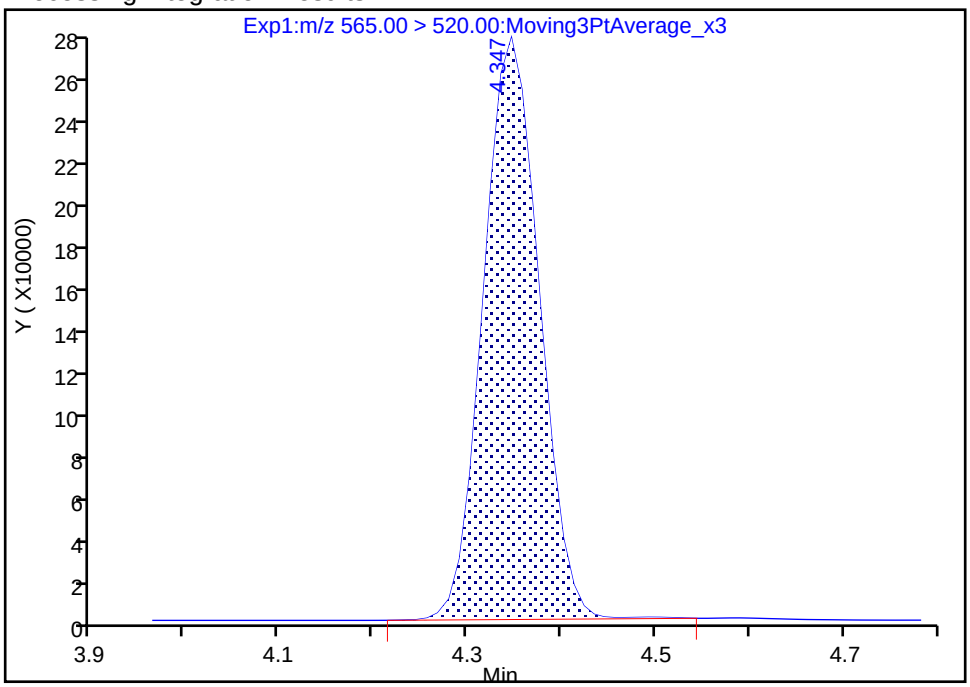
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 30 13C2 PFUnA, CAS: STL00997

Signal: 1

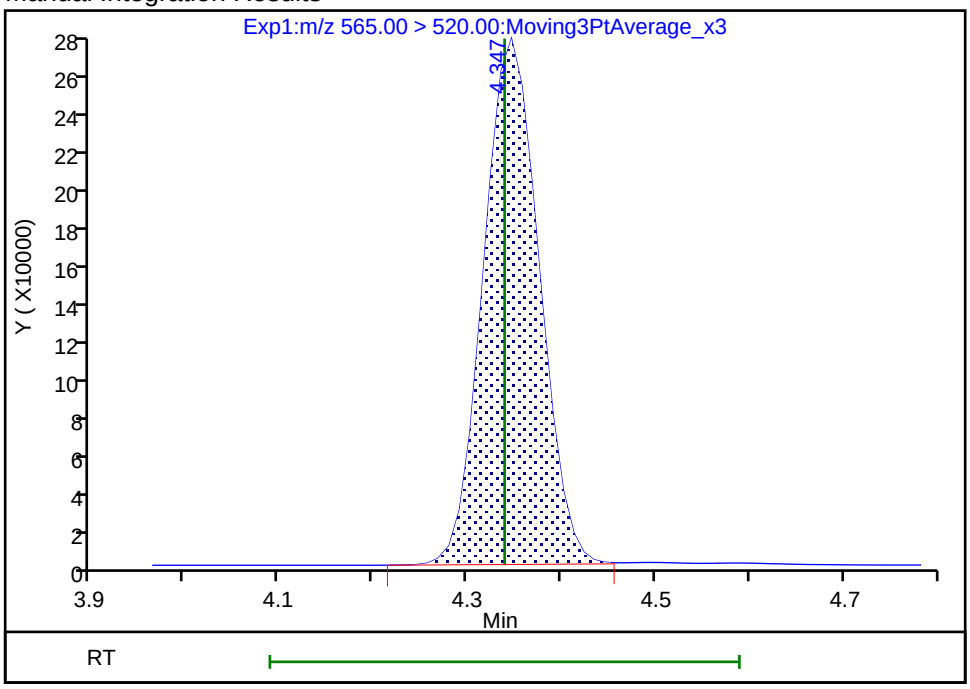
Processing Integration Results

RT: 4.35
Area: 1149732
Amount: 0.977304
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 1147309
Amount: 0.975245
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:55:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

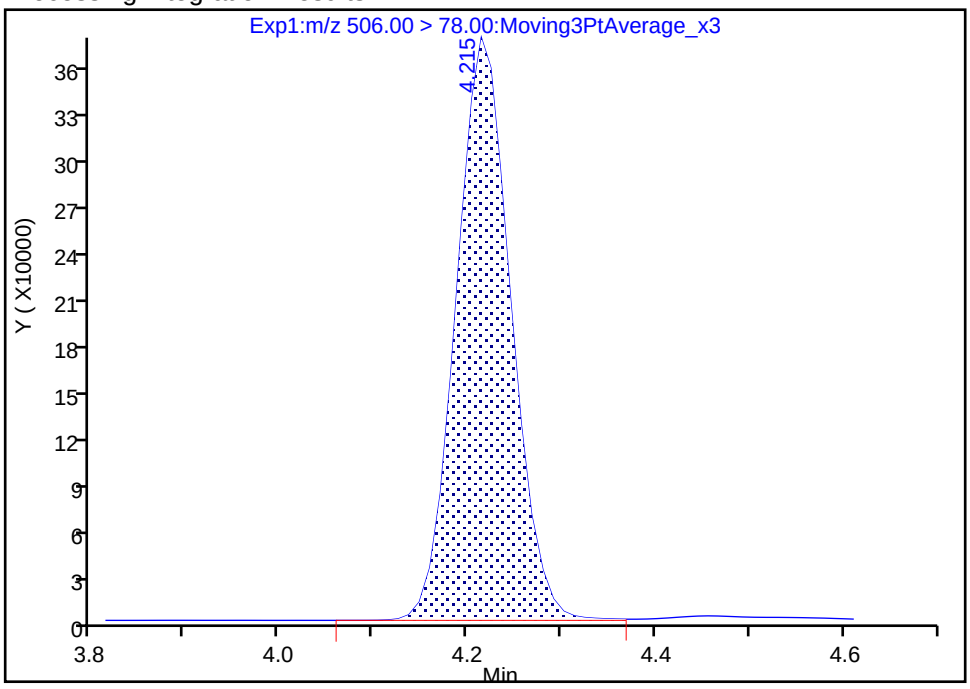
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

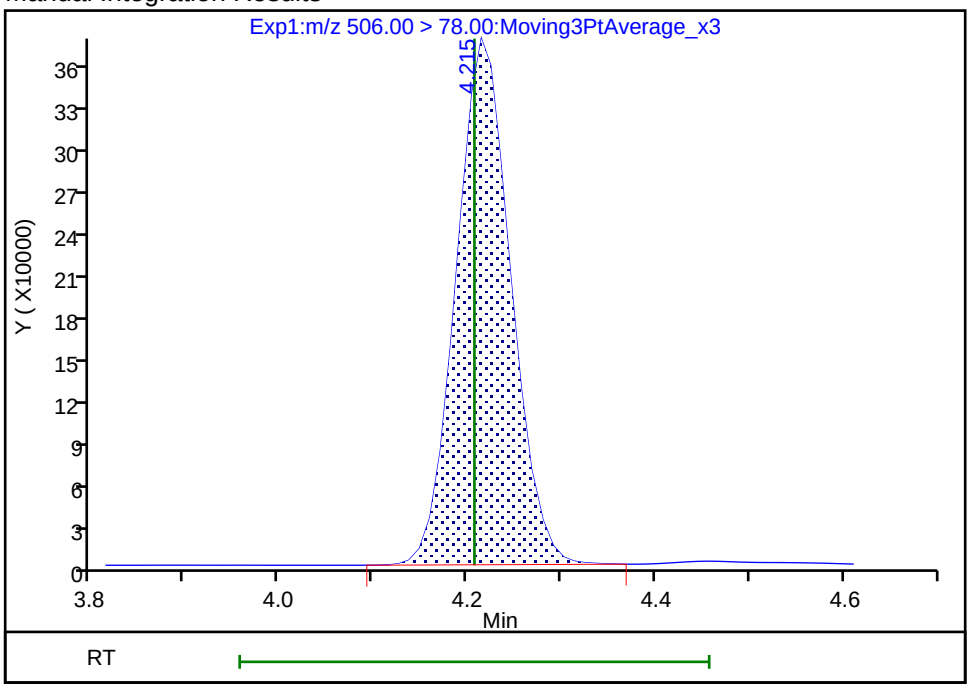
Processing Integration Results

RT: 4.21
Area: 1525413
Amount: 1.047745
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1519124
Amount: 1.043425
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:40:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

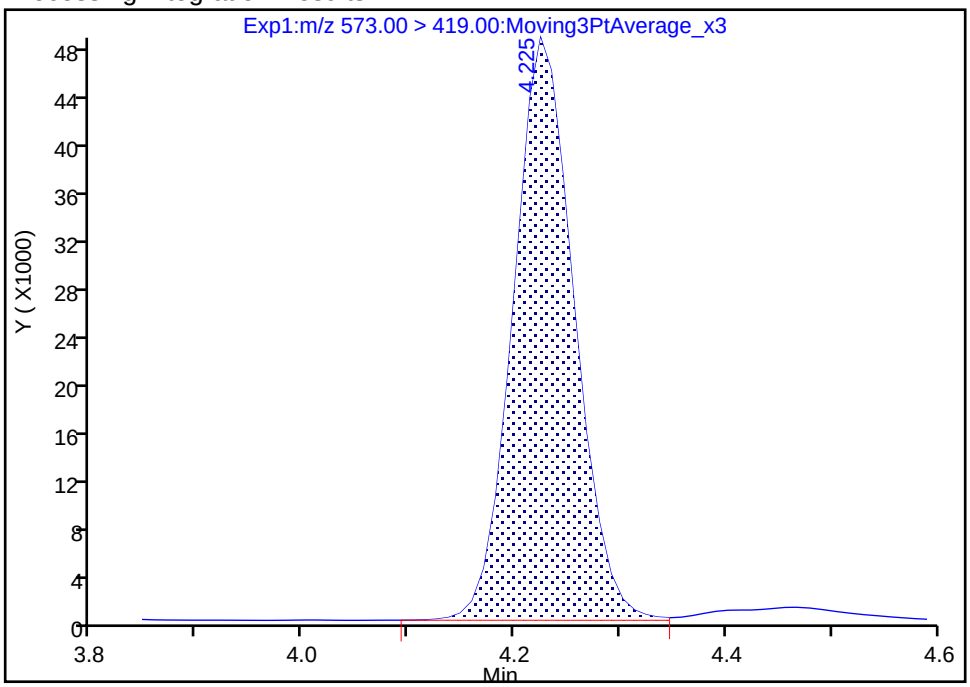
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

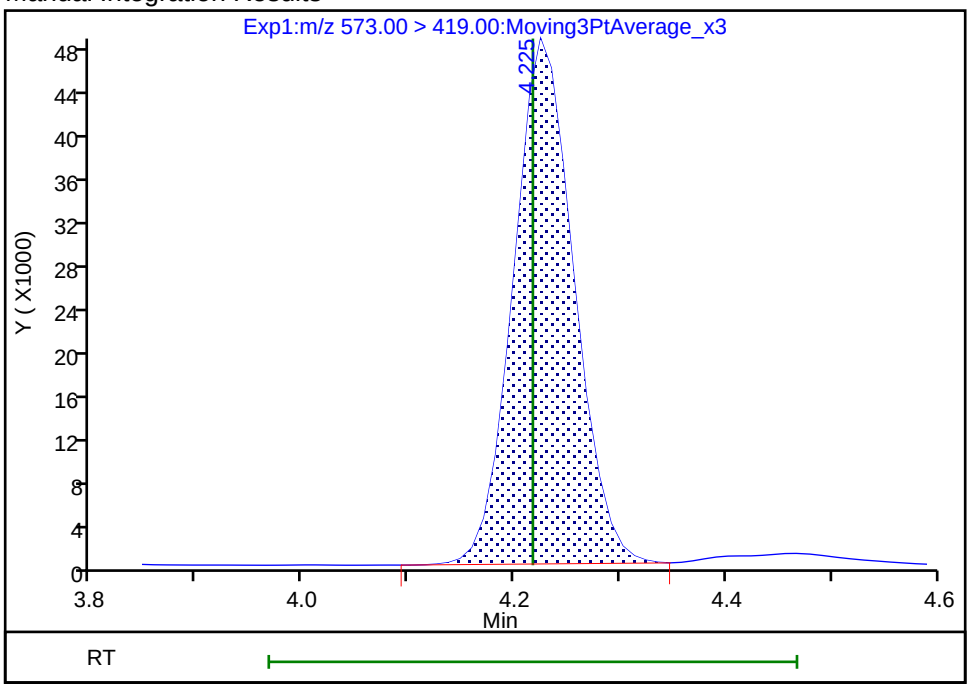
Processing Integration Results

RT: 4.22
Area: 195451
Amount: 1.316427
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 193843
Amount: 1.305596
Amount Units: ng/ml




Reviewer: deannd, 04-Nov-2021 12:40:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

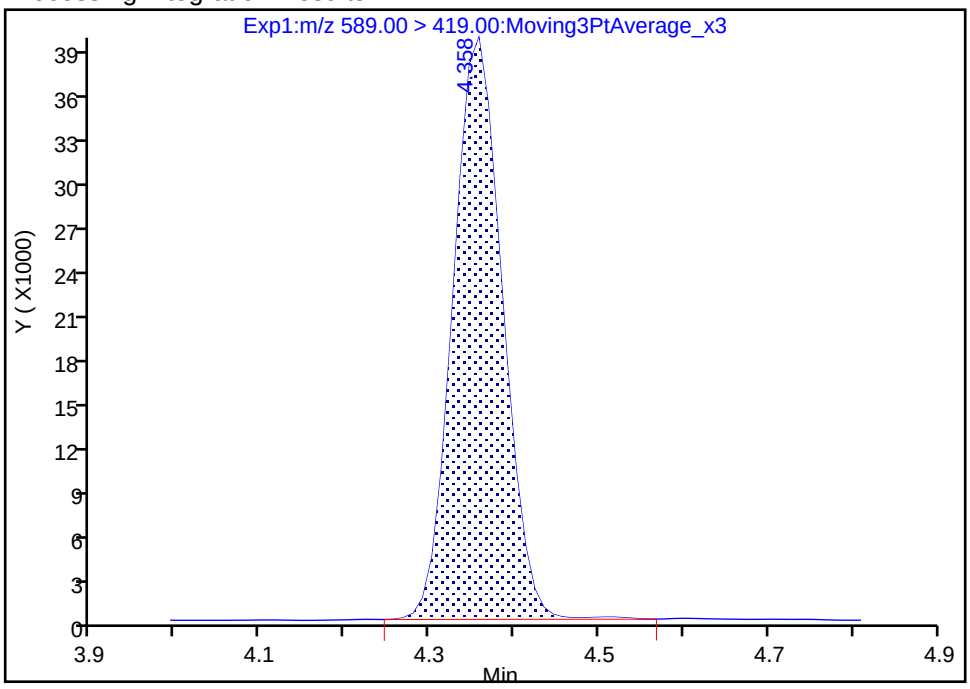
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

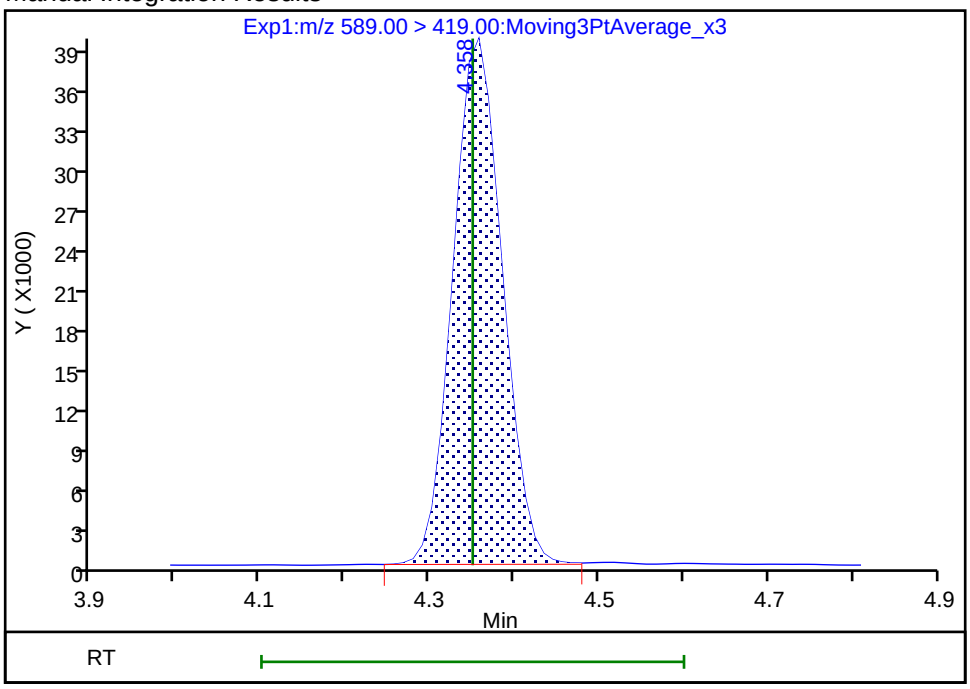
Processing Integration Results

RT: 4.36
Area: 161075
Amount: 1.158204
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 160637
Amount: 1.155054
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:55:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

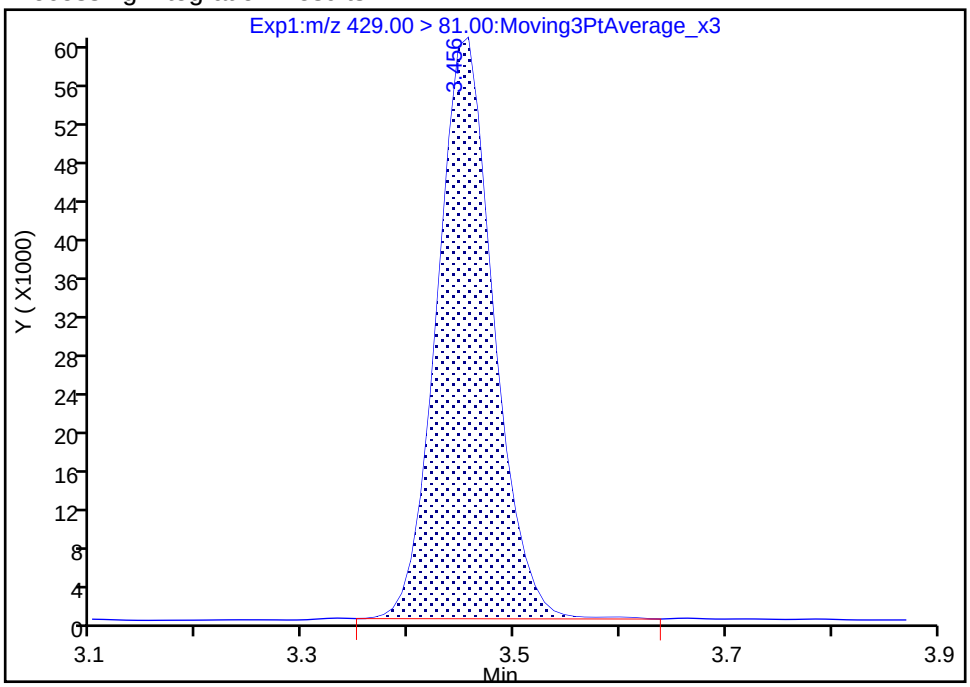
Data File: \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d
Injection Date: 03-Nov-2021 14:15:38 Instrument ID: LC812
Lims ID: LCSD 200-173414/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

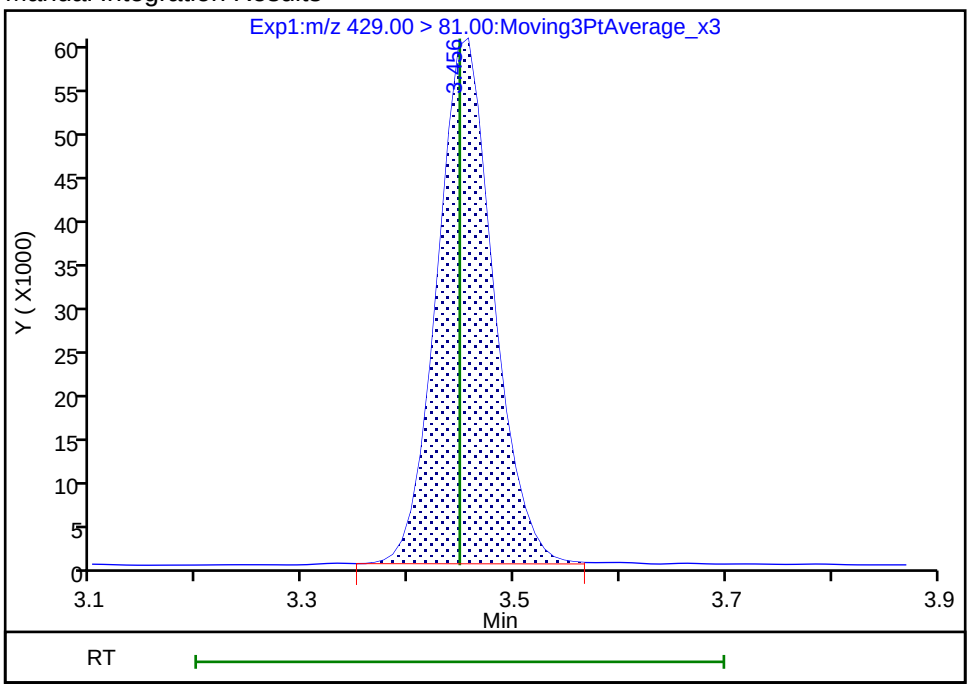
Processing Integration Results

RT: 3.46
Area: 224830
Amount: 1.165449
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 224304
Amount: 1.162722
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:55:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

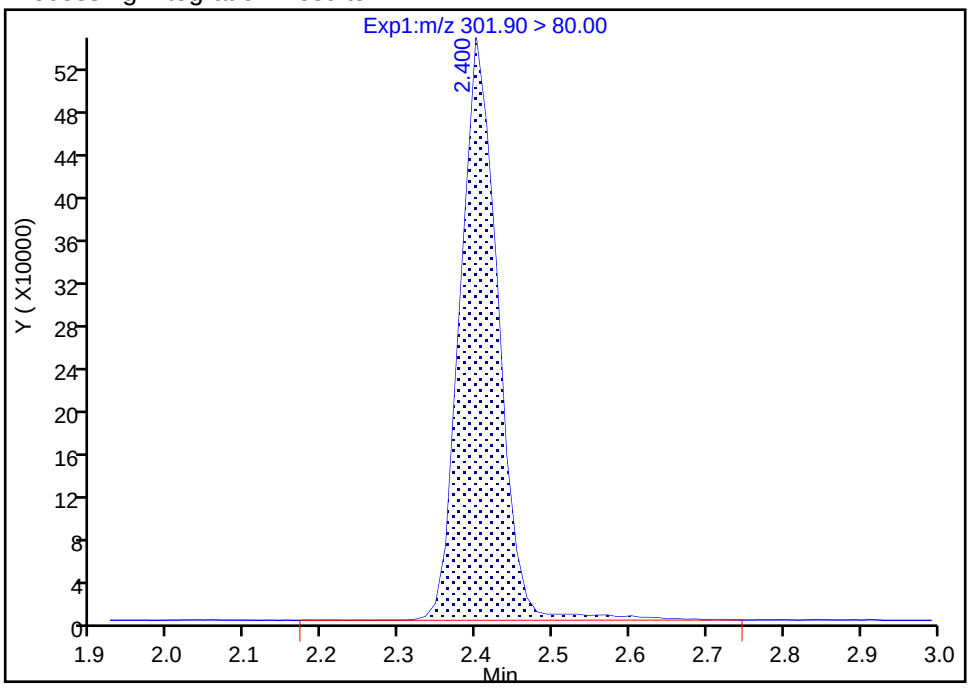
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211103-48270.b\PA211103A12.d | | | | |
| Injection Date: | 03-Nov-2021 14:15:38 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173414/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

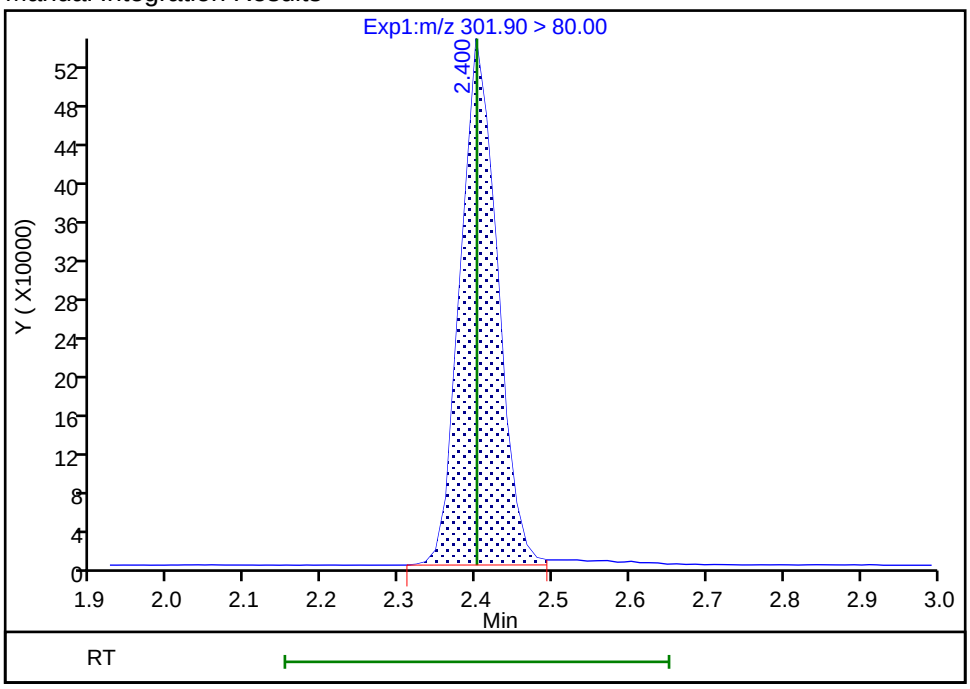
Processing Integration Results

RT: 2.40
Area: 1860963
Amount: 1.105233
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1819460
Amount: 1.080584
Amount Units: ng/ml




Reviewer: nampitakw, 04-Nov-2021 08:54:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Instrument ID: LC812  Start Date: 10/27/2021 13:37

Analysis Batch Number: 173158  End Date: 10/27/2021 14:52

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/27/2021 13:37 | 1 | | C-18 4.6(mm) |
| IC 200-173158/2 | | 10/27/2021 13:46 | 1 | PA211027ICAL02.d | C-18 4.6(mm) |
| IC 200-173158/3 | | 10/27/2021 13:54 | 1 | PA211027ICAL03.d | C-18 4.6(mm) |
| IC 200-173158/4 | | 10/27/2021 14:02 | 1 | PA211027ICAL04.d | C-18 4.6(mm) |
| ICIS 200-173158/5 | | 10/27/2021 14:11 | 1 | PA211027ICAL05.d | C-18 4.6(mm) |
| IC 200-173158/6 | | 10/27/2021 14:19 | 1 | PA211027ICAL06.d | C-18 4.6(mm) |
| IC 200-173158/7 | | 10/27/2021 14:27 | 1 | PA211027ICAL07.d | C-18 4.6(mm) |
| ICB 200-173158/8 | | 10/27/2021 14:35 | 1 | PA211027ICAL08.d | C-18 4.6(mm) |
| ICV 200-173158/9 | | 10/27/2021 14:44 | 1 | PA211027ICAL09.d | C-18 4.6(mm) |
| ZZZZZ | | 10/27/2021 14:52 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Instrument ID: LC812  Start Date: 11/03/2021 12:44

Analysis Batch Number: 173453  End Date: 11/03/2021 17:26

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/03/2021 12:44 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 12:52 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 13:01 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 13:09 | 1 | | C-18 4.6(mm) |
| CCVL 200-173453/5 | | 11/03/2021 13:17 | 1 | PA211103A05.d | C-18 4.6(mm) |
| CCVIS 200-173453/6 | | 11/03/2021 13:25 | 1 | PA211103A06.d | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 13:34 | 2 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 13:42 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 13:50 | 1 | | C-18 4.6(mm) |
| MB 200-173414/1-A | | 11/03/2021 13:59 | 1 | PA211103A10.d | C-18 4.6(mm) |
| LCS 200-173414/2-A | | 11/03/2021 14:07 | 1 | PA211103A11.d | C-18 4.6(mm) |
| LCSD 200-173414/3-A | | 11/03/2021 14:15 | 1 | PA211103A12.d | C-18 4.6(mm) |
| 460-246027-1 | EB-01-20211025 | 11/03/2021 14:23 | 1 | PA211103A13.d | C-18 4.6(mm) |
| 460-246027-2 | MHP-MW-3D-20211025 | 11/03/2021 14:32 | 1 | PA211103A14.d | C-18 4.6(mm) |
| 460-246027-3 | MHP-MW-4S-20211025 | 11/03/2021 14:40 | 1 | PA211103A15.d | C-18 4.6(mm) |
| 460-246027-4 | MHP-MW-3S-20211027 | 11/03/2021 14:48 | 1 | PA211103A16.d | C-18 4.6(mm) |
| 460-246027-5 | DUP-01-20211027 | 11/03/2021 14:57 | 1 | PA211103A17.d | C-18 4.6(mm) |
| CCV 200-173453/18 | | 11/03/2021 15:05 | 1 | PA211103A18.d | C-18 4.6(mm) |
| 460-246027-6 | MH-103D-20211027 | 11/03/2021 15:13 | 1 | PA211103A19.d | C-18 4.6(mm) |
| 460-246027-7 | MH-105S-20211027 | 11/03/2021 15:21 | 1 | PA211103A20.d | C-18 4.6(mm) |
| 460-246027-8 | MH-105D-20211027 | 11/03/2021 15:30 | 1 | PA211103A21.d | C-18 4.6(mm) |
| 460-246027-9 | MH-103S-20211027 | 11/03/2021 15:38 | 1 | PA211103A22.d | C-18 4.6(mm) |
| 460-246027-10 | MH-104-20211027 | 11/03/2021 15:46 | 1 | PA211103A23.d | C-18 4.6(mm) |
| 460-246027-11 | MH-101-20211027 | 11/03/2021 15:55 | 1 | PA211103A24.d | C-18 4.6(mm) |
| CCV 200-173453/25 | | 11/03/2021 16:03 | 1 | PA211103A25.d | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:11 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:19 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:28 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:36 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:44 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 16:52 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 17:01 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 17:09 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/03/2021 17:17 | 1 | | C-18 4.6(mm) |
| CCV 200-173453/35 | | 11/03/2021 17:26 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Instrument ID: LC812  Start Date: 11/04/2021 13:27

Analysis Batch Number: 173511  End Date: 11/04/2021 17:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/04/2021 13:27 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 13:36 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 13:44 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 13:52 | 1 | | C-18 4.6(mm) |
| CCVL 200-173511/5 | | 11/04/2021 14:00 | 1 | PA211104A05.d | C-18 4.6(mm) |
| CCVIS 200-173511/6 | | 11/04/2021 14:09 | 1 | PA211104A06.d | C-18 4.6(mm) |
| 460-246027-4 DL | MHP-MW-3S-20211027 DL | 11/04/2021 14:17 | 5 | PA211104A07.d | C-18 4.6(mm) |
| 460-246027-5 DL | DUP-01-20211027 DL | 11/04/2021 14:25 | 5 | PA211104A08.d | C-18 4.6(mm) |
| 460-246027-10 DL | MH-104-20211027 DL | 11/04/2021 14:34 | 2 | PA211104A09.d | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 14:42 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 14:50 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 14:58 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:07 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:15 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:23 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:32 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:40 | 1 | | C-18 4.6(mm) |
| CCV 200-173511/18 | | 11/04/2021 15:48 | 1 | PA211104A18.d | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 15:56 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:05 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:13 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:21 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:30 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:38 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:46 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:54 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 17:03 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/04/2021 17:11 | 1 | | C-18 4.6(mm) |
| CCV 200-173511/29 | | 11/04/2021 17:19 | 1 | | C-18 4.6(mm) |

537 (modified)

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246027-1

SDG No.:

Batch Number: 173414  Batch Start Date: 11/02/21 14:20  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/02/21 18:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | LCMPFCIDA21 00040 | LCPFC32MTXStk 00038 |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173414/1 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | |
| LCS 200-173414/2 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | 25 uL |
| LCSD 200-173414/3 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | 25 uL |
| 460-246027-A-1 | EB-01-20211025 | 3535, 537 (modified) | T | 307.00 g | 27.18 g | 279.8 mL | 10 mL | 100 uL | |
| 460-246027-A-2 | MHP-MW-3D-20211025 | 3535, 537 (modified) | T | 304.35 g | 27.33 g | 277 mL | 10 mL | 100 uL | |
| 460-246027-A-3 | MHP-MW-4S-20211025 | 3535, 537 (modified) | T | 300.30 g | 26.97 g | 273.3 mL | 10 mL | 100 uL | |
| 460-246027-A-4 | MHP-MW-3S-20211027 | 3535, 537 (modified) | T | 298.05 g | 27.22 g | 270.8 mL | 10 mL | 100 uL | |
| 460-246027-A-5 | DUP-01-20211027 | 3535, 537 (modified) | T | 295.17 g | 27.18 g | 268 mL | 10 mL | 100 uL | |
| 460-246027-A-6 | MH-103D-20211027 | 3535, 537 (modified) | T | 322.18 g | 26.97 g | 295.2 mL | 10 mL | 100 uL | |
| 460-246027-A-7 | MH-105S-20211027 | 3535, 537 (modified) | T | 288.79 g | 26.84 g | 262 mL | 10 mL | 100 uL | |
| 460-246027-A-8 | MH-105D-20211027 | 3535, 537 (modified) | T | 267.56 g | 26.74 g | 240.8 mL | 10 mL | 100 uL | |
| 460-246027-A-9 | MH-103S-20211027 | 3535, 537 (modified) | T | 286.41 g | 26.85 g | 259.6 mL | 10 mL | 100 uL | |
| 460-246027-A-10 | MH-104-20211027 | 3535, 537 (modified) | T | 305.69 g | 27.04 g | 278.7 mL | 10 mL | 100 uL | |
| 460-246027-A-11 | MH-101-20211027 | 3535, 537 (modified) | T | 306.97 g | 27.35 g | 279.6 mL | 10 mL | 100 uL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00038 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173414/1 | | 3535, 537 (modified) | | 100 uL | | | | | |
| LCS 200-173414/2 | | 3535, 537 (modified) | | 100 uL | | | | | |
| LCSD 200-173414/3 | | 3535, 537 (modified) | | 100 uL | | | | | |
| 460-246027-A-1 | EB-01-20211025 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-2 | MHP-MW-3D-20211025 | 3535, 537 (modified) | T | 100 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246027-1

SDG No.:

Batch Number: 173414  Batch Start Date: 11/02/21 14:20  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/02/21 18:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00038 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 460-246027-A-3 | MHP-MW-4S-20211025 | 3535, 537 (modified) | T | 100 uL | 273.03g sample extracted, remaining sediment discarded. | | | | |
| 460-246027-A-4 | MHP-MW-3S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-5 | DUP-01-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-6 | MH-103D-20211027 | 3535, 537 (modified) | T | 100 uL | 294.72g sample extracted, remaining sediment discarded. | | | | |
| 460-246027-A-7 | MH-105S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-8 | MH-105D-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-9 | MH-103S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246027-A-10 | MH-104-20211027 | 3535, 537 (modified) | T | 100 uL | 278.45g sample extracted, remaining sediment discarded. | | | | |
| 460-246027-A-11 | MH-101-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246027-1

SDG No.:

Batch Number: 173414  Batch Start Date: 11/02/21 14:20  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/02/21 18:30

| Batch Notes | |
|---|---|
| SPE Cartridge Type | Strata PFAS (WAX/GBC) 500mg/50mg/6mg |
| SPE Cartridge Lot ID | Sorbent Lot: W0705/1252 Prod Lot: D01936 |
| Balance ID | M02926 |
| Manifold ID | IDA 3&4 |
| Pipette/Syringe/Dispenser ID | QH77727 |
| Solvent Name | Methanol (0.3% NH4OH) |
| Solvent Lot # | 1556090 |
| Rinse Solvent Name | 30% MeOH |
| Rinse Solvent Lot | 1557744 |
| Analyst ID - Spike Analyst | CMS |
| Analyst ID - Spike Witness Analyst | NDD |
| Batch Comment | IDA:C MTX:H IS:G |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Subcontract Data

# Shipping and Receiving Documents

# Chain of Custody Record

552587

eurofins | Environment Testing TestAmerica

246027

Address: _____

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

| Client Contact | Project Manager: Tim Rieper | Site Contact: | Date: | COC No: |
|---|---|---|---|---|
| Company Name: Cornerstone / Tetra Tech | Tel/Email: tim.rieper@tetratech.com | Lab Contact: | Carrier: | _____ of _____ COCs |
| Address: 100 Crystal Run Rd | **Analysis Turnaround Time** | | | Sampler: |
| City/State/Zip: Middletown NY 10941 | ☒ CALENDAR DAYS ☐ WORKING DAYS | | | **For Lab Use Only:** |
| Phone: 845.695.0200 | TAT if different from Below _____ | | | Walk-in Client: |
| Fax: | ☒ 2 weeks | | | Lab Sampling: |
| Project Name: NEPERA | ☐ 1 week | | | |
| Site: NEPERA, Harriman NY | ☐ 2 days | | | Job / SDG No.: |
| PO# 204421 3584-004 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | PFC_IDA_PFAS_STAND 45 | 8270D SIM 1-4 DIOX |
|---|---|---|---|---|---|---|---|---|---|
| EB-01-20211025 | 10/25/21 | 1540 | G | DW | 4 | N | N | X | X |
| MHP-MW-3D-20211025 | 10/25/21 | 1600 | G | GW | 4 | N | N | X | X |
| MHP-MW-4S-20211025 | 10/25/21 | 1610 | G | GW | 4 | N | N | X | X |
| MHP-MW-3S-20211027 | 10/27/21 | 0930 | G | GW | 4 | N | N | X | X |
| DUP-01-20211027 | 10/27/21 | 1200 | G | GW | 4 | N | N | X | X |
| MH-103D-20211027 | 10/27/21 | 0950 | G | GW | 4 | N | N | X | X |
| MH-105S-20211027 | 10/27/21 | 0940 | G | GW | 4 | N | N | X | X |
| MH-105D-20211027 | 10/27/21 | 1140 | G | GW | 4 | N | N | X | X |
| MH-103S-20211027 | 10/27/21 | 1210 | G | GW | 4 | N | N | X | X |
| MH-104-20211027 | 10/27/21 | 1225 | G | GW | 4 | N | N | X | X |
| MH-101-20211027 | 10/27/21 | 1340 | G | GW | 4 | N | N | X | X |

460-246027 Chain of Custody

Notes:

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | | Therm ID No.: _____ |
|---|---|---|---|---|---|
| Relinquished by: David Wheeler | Company: CEG/TT | Date/Time: 10/21/21 1350 | Received by: | Company: ETA | Date/Time: 10-27-21 13:50 |
| Relinquished by: | Company: ETA | Date/Time: 10-27-21 1500 | Received by: | Company: | Date/Time: 10/27/21 1700 |
| Relinquished by: | Company: TT | Date/Time: 10/27/21 1930 | Received in Laboratory by: | Company: TT | Date/Time: 10/27/21 1930 |

**Eurofins TestAmerica Edison**
**Receipt Temperature and pH Log**



Job Number: 241627

Number of Coolers: 2 IR Gun # 9

## Cooler Temperatures

| | RAW | CORRECTED | | RAW | CORRECTED | | RAW | CORRECTED |
|---|---|---|---|---|---|---|---|---|
| Cooler #1: | 2.0 °C | 1.5 °C | Cooler #4: | °C | °C | Cooler #7: | °C | °C |
| Cooler #2: | 2.1 °C | 1.1 °C | Cooler #5: | °C | °C | Cooler #8: | °C | °C |
| Cooler #3: | °C | °C | Cooler #6: | °C | °C | Cooler #9: | °C | °C |

| TALS Sample Number | Ammonia (pH<2) | COD (pH<2) | Nitrate Nitrite (pH<2) | Metals* (pH<2) | Hardness (pH<2) | Pest (pH 5-9) | EPH or QAM (pH<2) | Phenols (pH<2) | Sulfide (pH>9) | TKN (pH<2) | TOC (pH<2) | Total Cyanide (pH>12) | Total Phos (pH<2) | Other | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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**If pH adjustments are required record the information below:**

**Sample No(s). adjusted:** _____

**Preservative Name/Conc.:** _____ Volume of Preservative used (ml): _____

**Lot # of Preservative(s):** _____ Expiration Date: _____

*The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.*

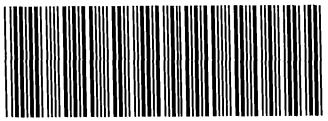
** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

**Initials:** Jamal **Date:** 10/27/21

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record



460-246027 Chain of Custody

eurofins | Environment Testing America

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Cruz, Maria Luisa | | No: 460-63224.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New Jersey | Page: Page 1 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | | Job #: 460-246027-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/8/2021 | | | |
| City: South Burlington | TAT Requested (days): | | | |
| State, Zip: VT, 05403 | | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample - Perform MS/MSD (Yes or No) | Perform MS/MSD (Yes or No) | PFC_IDA/3535_IWWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | |
| EB-01-20211025 (460-246027-1) | 10/25/21 | 15:40 Eastern | | Water | | | X | |
| MHP-MW-3D-20211025 (460-246027-2) | 10/25/21 | 16:00 Eastern | | Water | | | X | |
| MHP-MW-4S-20211025 (460-246027-3) | 10/25/21 | 16:10 Eastern | | Water | | | X | |
| MHP-MW-3S-20211027 (460-246027-4) | 10/27/21 | 09:30 Eastern | | Water | | | X | |
| DUP-01-20211027 (460-246027-5) | 10/27/21 | 12:00 Eastern | | Water | | | X | |
| MH-103D-20211027 (460-246027-6) | 10/27/21 | 09:50 Eastern | | Water | | | X | |
| MH-105S-20211027 (460-246027-7) | 10/27/21 | 09:40 Eastern | | Water | | | X | |
| MH-105D-20211027 (460-246027-8) | 10/27/21 | 11:40 Eastern | | Water | | | X | |
| MH-103S-20211027 (460-246027-9) | 10/27/21 | 12:10 Eastern | | Water | | | X | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |
| Empty Kit Relinquished by: Date: | Time: Method of Shipment: |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: 10/29/21 1900 | Company ETA | Received by: | Date/Time: 10/30/21 1000 | Company ETA |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | |
|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: |
| | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record

eurofins | Environment Testing America

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Cruz, Maria Luisa | Carrier Tracking No(s): | COC No: 460-63224.2 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New Jersey | Page: Page 2 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | | Job #: 460-246027-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/8/2021 | | | |
| City: South Burlington | TAT Requested (days): | | | |
| State, Zip: VT, 05403 | | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | PFC_IDA/3535_IWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|
| MH-104-20211027 (460-246027-10) | 10/27/21 | 12:25 Eastern | | Water | X | |
| MH-101-20211027 (460-246027-11) | 10/27/21 | 13:40 Eastern | | Water | X | |
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Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: | 10/29/21 1400 | EA | NA SCW | 10/29/21 1000 | EA Buffalo |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021



11/09/2021

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 29OCT21
ACTWGT: 50.60 LB
CAD: 0358159/CAFE3507

BILL SENDER

**SHIPPING/RECEIVING**
**TESTAMERICA LABORATORIES, INC.**
**530 COMMUNITY DRIVE**
**SUITE 11**
**SOUTH BURLINGTON VT 05403**

(802) 660 – 1990 REF: S460 – 148720
PO: YES

FedEx Express

J211020121101uv

1 of 2

K# 1161 6405 5263
01

MASTER ##

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO BTVA

05403
VT – US BTV

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 29OCT21
ACTWGT: 44.60 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO **SHIPPING/RECEIVING**
**TESTAMERICA LABORATORIES, INC.**
**530 COMMUNITY DRIVE**
**SUITE 11**
**SOUTH BURLINGTON VT 05403**

(802) 660 – 1990 REF: S460 – 148720
PO: YES

FedEx Express

J211020121101uv

2 of 2

MPS# 0263 1161 6405 5274

Mstr# 1161 6405 5263

0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO BTVA

05403
VT – US BTV

# Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-246027-1

**Login Number: 246027**
**List Number: 1**
**Creator: Khlungprakhon, Sukanya**

**List Source: Eurofins TestAmerica, Edison**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-246027-1

**Login Number: 246027**
**List Number: 2**
**Creator: Cunningham, Caroline R**

**List Source: Eurofins TestAmerica, Burlington**
**List Creation: 10/30/21 11:22 AM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | 1487421, 1487422 |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.6ºC, 1.8ºC |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# ANALYTICAL REPORT

Job Number: 460-246277-1

Job Description: NEPERA - Harriman, NY

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, NY 10941

Attention: Dr. Tim Roeper

Approved for release.
Maria Luisa Cruz
Project Manager II
11/12/2021 2:51 PM

Maria Luisa Cruz, Project Manager II
777 New Durham Road, Edison, NJ, 08817
(732)549-3900
luisa.cruz@testamericainc.com
11/12/2021

cc: Mr. Daniel Wheeler

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Edison Project Manager.

Eurofins TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

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

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

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# CASE NARRATIVE

## Client: Cornerstone Environmental Group, LLC

## Project: NEPERA - Harriman, NY

## Report Number: 460-246277-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**

The samples were received on 10/29/2021 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.1º C, 2.2º C, 2.4º C and 2.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

**SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE**

Samples MH-102-20211027 (460-246277-1), AP-101-20211027 (460-246277-2), AMW-2-20211027 (460-246277-3), AMW-1-20211027 (460-246277-4), MW-202S-20211027 (460-246277-5), MW-202D-20211027 (460-246277-6), MW-9S-20211027 (460-246277-7), MW-24S-20211027 (460-246277-8), BP-101-20211028 (460-246277-9), EP-02-20211028 (460-246277-10), MW-23S-20211028 (460-246277-11), MW-37AQ-20211028 (460-246277-12), AMW-5-20211028 (460-246277-13), MW-5S-20211028 (460-246277-14), MW-34-20211028 (460-246277-15), MW-1S-20211028 (460-246277-16), MW-102-20211028 (460-246277-17), MW-26S-20211028 (460-246277-18), MW-7S-20211028 (460-246277-19), AMW-4-20211028 (460-246277-20), AMW-11-20211028 (460-246277-21), AMW-6-20211028 (460-246277-22), AMW-3-20211028 (460-246277-23), DUP-02-20211028 (460-246277-24), MW-201-20211028 (460-246277-25), MW-4S-20211029 (460-246277-26), MW-3S-20211029 (460-246277-27), AMW-8-20211029 (460-246277-28), AMW-9-20211029 (460-246277-29), AMW-7-20211029 (460-246277-30), AMW-10-20211029 (460-246277-31) and MW-53S-20211029 (460-246277-32) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared on 11/03/2021 and analyzed on 11/03/2021 and 11/04/2021.

1,4-Dioxane failed the recovery criteria high for the MS of sample MW-24S-20211027MS (460-246277-8) in batch 460-811092.

1,4-Dioxane exceeded the RPD limit for the MSD of sample MW-24S-20211027MSD (460-246277-8) in batch 460-811092.

Refer to the QC report for details.

No other difficulties were encountered during the 1,4 Dioxane analysis.

All other quality control parameters were within the acceptance limits.

**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

Samples MH-102-20211027 (460-246277-1), AP-101-20211027 (460-246277-2), AMW-2-20211027 (460-246277-3), AMW-1-20211027 (460-246277-4), MW-202S-20211027 (460-246277-5), MW-202D-20211027 (460-246277-6), MW-9S-20211027 (460-246277-7), MW-24S-20211027 (460-246277-8), BP-101-20211028 (460-246277-9), EP-02-20211028 (460-246277-10), MW-23S-20211028 (460-246277-11), MW-37AQ-20211028 (460-246277-12), AMW-5-20211028 (460-246277-13), MW-5S-20211028 (460-246277-14), MW-34-20211028 (460-246277-15), MW-1S-20211028 (460-246277-16), MW-102-20211028 (460-246277-17), MW-26S-20211028 (460-246277-18), MW-7S-20211028 (460-246277-19), AMW-4-20211028 (460-246277-20), AMW-11-20211028 (460-246277-21), AMW-6-20211028 (460-246277-22), AMW-3-20211028 (460-246277-23), DUP-02-20211028 (460-246277-24), MW-201-20211028 (460-246277-25), MW-4S-20211029 (460-246277-26), MW-3S-20211029 (460-246277-27), AMW-8-20211029 (460-246277-28), AMW-9-20211029 (460-246277-29), AMW-7-20211029 (460-246277-30), AMW-10-20211029 (460-246277-31) and MW-53S-20211029 (460-246277-32) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on

11/04/2021 and 11/05/2021 and analyzed on 11/08/2021, 11/09/2021 and 11/10/2021.

N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) was detected in method blank MB 200-173528/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Perfluorobutanesulfonic acid (PFBS) was detected in method blank MB 200-173541/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The method blank for preparation batch 200-173528 and analytical batch 200-173682 contained N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Method 537 (modified): The “I” qualifier associated with samples MW-202D-20211027 (460-246277-6) and MW-34-20211028 (460-246277-15) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: MW-34-20211028 (460-246277-15). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: MW-34-20211028 (460-246277-15). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: AMW-3-20211028 (460-246277-23) and AMW-9-20211029 (460-246277-29). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The method blank for preparation batch 200-173541 and analytical batch 200-173694 contained Perfluorobutanesulfonic acid (PFBS) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and/or re-analysis of samples was not performed.

The “I” qualifier associated with samples MW-7S-20211028 (460-246277-19), DUP-02-20211028 (460-246277-24) and AMW-9-20211029 (460-246277-29) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Results for sample AP-101-20211027 (460-246277-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Results for samples AMW-8-20211029 (460-246277-28) and AMW-10-20211029 (460-246277-31) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Perfluorooctanesulfonic acid (PFOS) failed the recovery criteria low for the MSD of sample MW-26S-20211028MSD (460-246277-18) in batch 200-173682.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

# Sample Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 460-246277-1 | MH-102-20211027 | Water | 10/27/21 15:35 | 10/29/21 19:00 |
| 460-246277-2 | AP-101-20211027 | Water | 10/27/21 17:50 | 10/29/21 19:00 |
| 460-246277-3 | AMW-2-20211027 | Water | 10/27/21 15:55 | 10/29/21 19:00 |
| 460-246277-4 | AMW-1-20211027 | Water | 10/27/21 17:50 | 10/29/21 19:00 |
| 460-246277-5 | MW-202S-20211027 | Water | 10/27/21 15:45 | 10/29/21 19:00 |
| 460-246277-6 | MW-202D-20211027 | Water | 10/27/21 14:00 | 10/29/21 19:00 |
| 460-246277-7 | MW-9S-20211027 | Water | 10/27/21 17:25 | 10/29/21 19:00 |
| 460-246277-8 | MW-24S-20211027 | Water | 10/27/21 14:00 | 10/29/21 19:00 |
| 460-246277-9 | BP-101-20211028 | Water | 10/28/21 10:55 | 10/29/21 19:00 |
| 460-246277-10 | EP-02-20211028 | Water | 10/28/21 08:00 | 10/29/21 19:00 |
| 460-246277-11 | MW-23S-20211028 | Water | 10/28/21 08:55 | 10/29/21 19:00 |
| 460-246277-12 | MW-37AQ-20211028 | Water | 10/28/21 13:45 | 10/29/21 19:00 |
| 460-246277-13 | AMW-5-20211028 | Water | 10/28/21 15:40 | 10/29/21 19:00 |
| 460-246277-14 | MW-5S-20211028 | Water | 10/28/21 17:05 | 10/29/21 19:00 |
| 460-246277-15 | MW-34-20211028 | Water | 10/28/21 17:45 | 10/29/21 19:00 |
| 460-246277-16 | MW-1S-20211028 | Water | 10/28/21 16:05 | 10/29/21 19:00 |
| 460-246277-17 | MW-102-20211028 | Water | 10/28/21 13:05 | 10/29/21 19:00 |
| 460-246277-18 | MW-26S-20211028 | Water | 10/28/21 10:55 | 10/29/21 19:00 |
| 460-246277-19 | MW-7S-20211028 | Water | 10/28/21 09:15 | 10/29/21 19:00 |
| 460-246277-20 | AMW-4-20211028 | Water | 10/28/21 17:10 | 10/29/21 19:00 |
| 460-246277-21 | AMW-11-20211028 | Water | 10/28/21 14:50 | 10/29/21 19:00 |
| 460-246277-22 | AMW-6-20211028 | Water | 10/28/21 13:00 | 10/29/21 19:00 |
| 460-246277-23 | AMW-3-20211028 | Water | 10/28/21 11:20 | 10/29/21 19:00 |
| 460-246277-24 | DUP-02-20211028 | Water | 10/28/21 12:00 | 10/29/21 19:00 |
| 460-246277-25 | MW-201-20211028 | Water | 10/28/21 09:30 | 10/29/21 19:00 |
| 460-246277-26 | MW-4S-20211029 | Water | 10/29/21 09:20 | 10/29/21 19:00 |
| 460-246277-27 | MW-3S-20211029 | Water | 10/29/21 10:50 | 10/29/21 19:00 |
| 460-246277-28 | AMW-8-20211029 | Water | 10/29/21 10:40 | 10/29/21 19:00 |
| 460-246277-29 | AMW-9-20211029 | Water | 10/29/21 08:50 | 10/29/21 19:00 |
| 460-246277-30 | AMW-7-20211029 | Water | 10/29/21 12:25 | 10/29/21 19:00 |
| 460-246277-31 | AMW-10-20211029 | Water | 10/29/21 10:55 | 10/29/21 19:00 |
| 460-246277-32 | MW-53S-20211029 | Water | 10/29/21 09:15 | 10/29/21 19:00 |

# Detection Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

## Client Sample ID: MH-102-20211027 — Lab Sample ID: 460-246277-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.67 | J | 4.54 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.92 | | 1.82 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 2.58 | | 1.82 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.85 | J | 1.82 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 3.57 | | 1.82 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.98 | | 1.82 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 33.7 | | 1.82 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.07 | J | 1.82 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 69.5 | | 1.82 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AP-101-20211027 — Lab Sample ID: 460-246277-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.15 | J | 0.20 | 0.016 | ug/L | 1 | | 8270E SIM ID | Total/NA |
| Perfluorobutanoic acid (PFBA) | 14.2 | | 4.64 | 0.83 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 23.4 | | 1.86 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 95.9 | | 1.86 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 9.62 | | 1.86 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 36.5 | | 1.86 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.48 | J | 1.86 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 45.9 | | 1.86 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 36.4 | | 1.86 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) - DL | 474 | D | 9.29 | 1.40 | ng/L | 5 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 840 | D | 9.29 | 1.35 | ng/L | 5 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-2-20211027 — Lab Sample ID: 460-246277-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 7.16 | | 4.67 | 0.83 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 3.13 | | 1.87 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 3.52 | | 1.87 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.13 | | 1.87 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 13.4 | | 1.87 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.49 | J | 1.87 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 5.60 | | 1.87 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 23.1 | | 1.87 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.34 | J | 1.87 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 11.7 | | 1.87 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-1-20211027 — Lab Sample ID: 460-246277-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 13.9 | | 4.56 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 11.7 | | 1.82 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 14.4 | | 1.82 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 6.31 | | 1.82 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 30.7 | | 1.82 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.59 | J | 1.82 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.78 | J | 1.82 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: AMW-1-20211027 (Continued) — Lab Sample ID: 460-246277-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | 0.37 | J | 1.82 | 0.31 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 12.1 | | 1.82 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 81.5 | | 1.82 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.05 | J | 1.82 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 25.0 | | 1.82 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.79 | J B | 4.56 | 0.68 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 3.15 | J | 4.56 | 1.00 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-202S-20211027 — Lab Sample ID: 460-246277-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 10.2 | | 4.85 | 0.87 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 4.50 | | 1.94 | 0.46 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 7.57 | | 1.94 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 3.59 | | 1.94 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 22.0 | | 1.94 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.92 | J | 1.94 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.66 | J | 1.94 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 7.19 | | 1.94 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 33.8 | | 1.94 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.69 | J | 1.94 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 23.5 | | 1.94 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-202D-20211027 — Lab Sample ID: 460-246277-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.44 | J | 4.56 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.79 | J | 1.83 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 2.36 | | 1.83 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.65 | J | 1.83 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 9.48 | | 1.83 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.35 | J I | 1.83 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.09 | | 1.83 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 13.9 | | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.36 | J | 1.83 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 9.57 | | 1.83 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-9S-20211027 — Lab Sample ID: 460-246277-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.93 | J | 4.08 | 0.73 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 0.92 | J | 1.63 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 0.75 | J | 1.63 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.60 | J | 1.63 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 6.00 | | 1.63 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 1.51 | J | 1.63 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 3.86 | | 1.63 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.20 | J | 1.63 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-9S-20211027 (Continued)
## Lab Sample ID: 460-246277-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorooctanesulfonic acid (PFOS) | 5.28 | | 1.63 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-24S-20211027
## Lab Sample ID: 460-246277-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.43 | F1 F2 | 0.20 | 0.016 | ug/L | 1 | | 8270E SIM ID | Total/NA |
| Perfluorobutanoic acid (PFBA) | 9.47 | | 4.28 | 0.76 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 9.60 | | 1.71 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 12.6 | | 1.71 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 7.05 | | 1.71 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 31.6 | | 1.71 | 0.36 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 3.31 | | 1.71 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 1.14 | J | 1.71 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 1.71 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 41.2 | | 1.71 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.29 | J | 1.71 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 45.2 | | 1.71 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: BP-101-20211028
## Lab Sample ID: 460-246277-9

No Detections.

## Client Sample ID: EP-02-20211028
## Lab Sample ID: 460-246277-10

No Detections.

## Client Sample ID: MW-23S-20211028
## Lab Sample ID: 460-246277-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 6.35 | | 4.70 | 0.84 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.48 | | 1.88 | 0.45 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 2.01 | | 1.88 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.81 | J | 1.88 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 9.36 | | 1.88 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.16 | J | 1.88 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.78 | J | 1.88 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 1.39 | J | 1.88 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 0.64 | J | 1.88 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 3.09 | | 1.88 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-37AQ-20211028
## Lab Sample ID: 460-246277-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 6.52 | | 4.51 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 7.06 | | 1.80 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 12.4 | | 1.80 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 4.04 | | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 15.1 | | 1.80 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.31 | J | 1.80 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.72 | J | 1.80 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 6.43 | | 1.80 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 73.2 | | 1.80 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-37AQ-20211028 (Continued)
## Lab Sample ID: 460-246277-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroheptanesulfonic Acid (PFHpS) | 2.86 | | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 194 | | 1.80 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-5-20211028
## Lab Sample ID: 460-246277-13

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.80 | | 4.46 | 0.80 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 3.62 | | 1.78 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 5.17 | | 1.78 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.57 | | 1.78 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 18.3 | | 1.78 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.66 | J | 1.78 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.98 | | 1.78 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 24.6 | | 1.78 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.91 | J | 1.78 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 17.6 | | 1.78 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-5S-20211028
## Lab Sample ID: 460-246277-14

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 5.49 | | 4.81 | 0.86 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.59 | J | 1.92 | 0.46 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 1.65 | J | 1.92 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 0.85 | J | 1.92 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 5.84 | | 1.92 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 4.34 | | 1.92 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 14.5 | | 1.92 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.76 | J | 1.92 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 28.9 | | 1.92 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-34-20211028
## Lab Sample ID: 460-246277-15

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.55 | | 4.38 | 0.78 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 6.83 | | 1.75 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 17.4 | | 1.75 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 5.26 | | 1.75 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 43.1 | | 1.75 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.61 | J | 1.75 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.49 | J | 1.75 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 12.3 | I | 1.75 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 63.4 | | 1.75 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 2.19 | | 1.75 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 56.2 | | 1.75 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.06 | J B | 4.38 | 0.65 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 2.59 | J | 4.38 | 0.96 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

## Client Sample ID: MW-1S-20211028 — Lab Sample ID: 460-246277-16

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 6.97 | | 4.51 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 4.40 | | 1.80 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 15.2 | | 1.80 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 3.00 | | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 12.4 | | 1.80 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.29 | J | 1.80 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 1.80 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 67.0 | | 1.80 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 3.71 | | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 220 | | 1.80 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-102-20211028 — Lab Sample ID: 460-246277-17

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.42 | | 4.16 | 0.74 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 1.98 | | 1.66 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 4.85 | | 1.66 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.22 | J | 1.66 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 4.50 | | 1.66 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 5.11 | | 1.66 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 13.8 | | 1.66 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.46 | J | 1.66 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 13.1 | | 1.66 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-26S-20211028 — Lab Sample ID: 460-246277-18

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.28 | | 4.33 | 0.77 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 11.0 | | 1.73 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 15.3 | | 1.73 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 5.29 | | 1.73 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 14.7 | | 1.73 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.61 | J | 1.73 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.50 | J | 1.73 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 8.59 | | 1.73 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | | 1.73 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 5.03 | | 1.73 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 286 | | 1.73 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-7S-20211028 — Lab Sample ID: 460-246277-19

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.00 | J | 4.07 | 0.73 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 0.54 | J | 1.63 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 0.43 | J | 1.63 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 0.45 | J | 1.63 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 0.98 | J B | 1.63 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 8.86 | | 1.63 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.32 | J | 1.63 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-7S-20211028 (Continued)
## Lab Sample ID: 460-246277-19

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorooctanesulfonic acid (PFOS) | 7.87 | I | 1.63 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-4-20211028
## Lab Sample ID: 460-246277-20

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.20 | J | 4.56 | 0.81 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 3.46 | | 1.82 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 4.17 | | 1.82 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.65 | | 1.82 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 18.4 | | 1.82 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.29 | J | 1.82 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.48 | J | 1.82 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.48 | B | 1.82 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 31.2 | | 1.82 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.70 | J | 1.82 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 110 | | 1.82 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-11-20211028
## Lab Sample ID: 460-246277-21

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 5.32 | | 4.49 | 0.80 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.24 | | 1.79 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 1.88 | | 1.79 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.09 | J | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 7.70 | | 1.79 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.60 | J | 1.79 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.07 | B | 1.79 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 10.2 | | 1.79 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.41 | J | 1.79 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 11.2 | | 1.79 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-6-20211028
## Lab Sample ID: 460-246277-22

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 4.92 | | 4.49 | 0.80 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.56 | | 1.80 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 3.62 | | 1.80 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.80 | | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 14.3 | | 1.80 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.72 | J | 1.80 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.28 | J | 1.80 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 5.62 | B | 1.80 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 46.4 | | 1.80 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.45 | J | 1.80 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 44.3 | | 1.80 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-3-20211028
## Lab Sample ID: 460-246277-23

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.59 | | 4.59 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 6.99 | | 1.83 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: AMW-3-20211028 (Continued)
## Lab Sample ID: 460-246277-23

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanoic acid (PFHxA) | 5.57 | | 1.83 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.51 | | 1.83 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 15.9 | | 1.83 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.67 | J | 1.83 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.89 | J | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.25 | B | 1.83 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 22.1 | | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.68 | J | 1.83 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 63.5 | | 1.83 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: DUP-02-20211028
## Lab Sample ID: 460-246277-24

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.17 | | 4.57 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 7.30 | | 1.83 | 0.43 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 5.51 | I | 1.83 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.88 | | 1.83 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 15.6 | | 1.83 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.49 | J | 1.83 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 1.03 | J | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroundecanoic acid (PFUnA) | 0.36 | J | 1.83 | 0.31 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 3.28 | B | 1.83 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 22.8 | | 1.83 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.57 | J | 1.83 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 62.9 | | 1.83 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.79 | J | 4.57 | 0.68 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-201-20211028
## Lab Sample ID: 460-246277-25

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.54 | | 4.60 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 6.51 | | 1.84 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 5.30 | | 1.84 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.88 | | 1.84 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 14.0 | | 1.84 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.63 | J | 1.84 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.69 | J | 1.84 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 4.39 | B | 1.84 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 32.2 | | 1.84 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.46 | J | 1.84 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 57.3 | | 1.84 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.70 | J | 4.60 | 0.68 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-4S-20211029
## Lab Sample ID: 460-246277-26

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 7.01 | | 4.36 | 0.78 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 8.28 | | 1.74 | 0.41 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 21.7 | | 1.74 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-4S-20211029 (Continued)
## Lab Sample ID: 460-246277-26

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroheptanoic acid (PFHpA) | 4.47 | | 1.74 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 11.7 | | 1.74 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 0.33 | J | 1.74 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 19.0 | B | 1.74 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 97.7 | | 1.74 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 4.06 | | 1.74 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 247 | | 1.74 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-3S-20211029
## Lab Sample ID: 460-246277-27

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 3.95 | J | 4.66 | 0.83 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.64 | | 1.86 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 3.47 | | 1.86 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 1.96 | | 1.86 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 6.19 | | 1.86 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 5.05 | B | 1.86 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 16.1 | | 1.86 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.60 | J | 1.86 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 26.0 | | 1.86 | 0.27 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.92 | J | 4.66 | 0.84 | ng/L | 1 | | 537 (modified) | Total/NA |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.87 | J | 4.66 | 0.69 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-8-20211029
## Lab Sample ID: 460-246277-28

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 25.8 | | 4.26 | 0.76 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 18.1 | | 1.70 | 0.40 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 33.1 | | 1.70 | 0.38 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 8.84 | | 1.70 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 48.8 | | 1.70 | 0.36 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.42 | J | 1.70 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 25.4 | B | 1.70 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 29.6 | | 1.70 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.93 | J | 4.26 | 0.93 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) - DL | 920 | D | 8.51 | 1.29 | ng/L | 5 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 833 | D | 8.51 | 1.24 | ng/L | 5 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-9-20211029
## Lab Sample ID: 460-246277-29

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 36.2 | | 4.10 | 0.73 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 9.30 | | 1.64 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 32.0 | | 1.64 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 6.89 | | 1.64 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 30.9 | | 1.64 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: AMW-9-20211029 (Continued)
## Lab Sample ID: 460-246277-29

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorononanoic acid (PFNA) | 1.79 | | 1.64 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.46 | J I | 1.64 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 41.0 | B | 1.64 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 240 | | 1.64 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 8.68 | | 1.64 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 214 | | 1.64 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-7-20211029
## Lab Sample ID: 460-246277-30

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.21 | | 4.11 | 0.73 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 7.12 | | 1.65 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 12.0 | | 1.65 | 0.37 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 4.93 | | 1.65 | 0.20 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 33.1 | | 1.65 | 0.35 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 2.01 | | 1.65 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.33 | J | 1.65 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 7.60 | B | 1.65 | 0.21 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 54.0 | | 1.65 | 0.25 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 2.04 | | 1.65 | 0.19 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 60.9 | | 1.65 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |

## Client Sample ID: AMW-10-20211029
## Lab Sample ID: 460-246277-31

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 11.2 | | 4.60 | 0.82 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 9.08 | | 1.84 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 28.5 | | 1.84 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 5.93 | | 1.84 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 21.9 | | 1.84 | 0.39 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 2.25 | | 1.84 | 0.26 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 1.55 | J | 1.84 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 22.6 | B | 1.84 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 200 | | 1.84 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanesulfonic Acid (PFHpS) | 12.3 | | 1.84 | 0.22 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) - DL | 485 | D | 3.68 | 0.54 | ng/L | 2 | | 537 (modified) | Total/NA |

## Client Sample ID: MW-53S-20211029
## Lab Sample ID: 460-246277-32

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 5.64 | | 4.90 | 0.87 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 4.07 | | 1.96 | 0.46 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 6.07 | | 1.96 | 0.44 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluoroheptanoic acid (PFHpA) | 2.64 | | 1.96 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanoic acid (PFOA) | 13.9 | | 1.96 | 0.42 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorononanoic acid (PFNA) | 1.49 | J | 1.96 | 0.28 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorodecanoic acid (PFDA) | 0.89 | J | 1.96 | 0.30 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorobutanesulfonic acid (PFBS) | 2.77 | B | 1.96 | 0.24 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 26.5 | | 1.96 | 0.30 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-53S-20211029 (Continued)
## Lab Sample ID: 460-246277-32

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.33 | J | 1.96 | 0.23 | ng/L | 1 | | 537 (modified) | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 75.0 | | 1.96 | 0.29 | ng/L | 1 | | 537 (modified) | Total/NA |

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

## Client Sample ID: MH-102-20211027
**Lab Sample ID: 460-246277-1**

**Date Collected: 10/27/21 15:35**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 17:59 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *42* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 17:59* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.67** | **J** | 4.54 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.92** | | 1.82 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **2.58** | | 1.82 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.85** | **J** | 1.82 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **3.57** | | 1.82 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorononanoic acid (PFNA) | 0.26 | U | 1.82 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.82 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.82 | 0.57 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.98** | | 1.82 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **33.7** | | 1.82 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.07** | **J** | 1.82 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **69.5** | | 1.82 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.82 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.54 | 0.82 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.54 | 0.67 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.0 | U | 4.54 | 1.0 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 04:36 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C4 PFHpA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C4 PFOS* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C5 PFNA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C4 PFBA* | *104* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C2 PFHxA* | *103* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C2 PFDA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C2 PFUnA* | *79* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C2 PFDoA* | *75* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C5 PFPeA* | *102* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C2 PFTeDA* | *70* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *d3-NMeFOSAA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *d5-NEtFOSAA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |

## Client Sample ID: MH-102-20211027
**Lab Sample ID: 460-246277-1**
**Date Collected: 10/27/21 15:35**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *108* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *M2-8:2 FTS* | *103* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |
| *13C3 PFBS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:36* | *1* |

## Client Sample ID: AP-101-20211027
**Lab Sample ID: 460-246277-2**
**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | **0.15** | **J** | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 18:15 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *39* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 18:15* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **14.2** | | 4.64 | 0.83 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **23.4** | | 1.86 | 0.44 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **95.9** | | 1.86 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **9.62** | | 1.86 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **36.5** | | 1.86 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.48** | **J** | 1.86 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.86 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.86 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.86 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.86 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.86 | 0.59 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **45.9** | | 1.86 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **36.4** | | 1.86 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.86 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.86 | 0.54 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.64 | 0.84 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.64 | 0.69 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.64 | 1.02 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.86 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 04:44 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFHpA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C4 PFOS* | *86* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C5 PFNA* | *86* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C4 PFBA* | *104* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C2 PFHxA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C2 PFDA* | *76* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C2 PFUnA* | *65* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C2 PFDoA* | *58* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |

## Client Sample ID: AP-101-20211027
**Lab Sample ID: 460-246277-2**

**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C8 FOSA* | *84* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C5 PFPeA* | *102* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C2 PFTeDA* | *60* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *d3-NMeFOSAA* | *76* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *d5-NEtFOSAA* | *70* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *M2-6:2 FTS* | *105* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *M2-8:2 FTS* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:44* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorohexanesulfonic acid (PFHxS)** | **474** | **D** | 9.29 | 1.40 | ng/L | | 11/04/21 17:16 | 11/08/21 16:52 | 5 |
| **Perfluorooctanesulfonic acid (PFOS)** | **840** | **D** | 9.29 | 1.35 | ng/L | | 11/04/21 17:16 | 11/08/21 16:52 | 5 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/08/21 16:52* | *5* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/08/21 16:52* | *5* |

## Client Sample ID: AMW-2-20211027
**Lab Sample ID: 460-246277-3**

**Date Collected: 10/27/21 15:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 18:31 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *37* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 18:31* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **7.16** | | 4.67 | 0.83 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **3.13** | | 1.87 | 0.44 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **3.52** | | 1.87 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.13** | | 1.87 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **13.4** | | 1.87 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.49** | **J** | 1.87 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.87 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.87 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.87 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.87 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.87 | 0.59 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **5.60** | | 1.87 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **23.1** | | 1.87 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.34** | **J** | 1.87 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **11.7** | | 1.87 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.87 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |

## Client Sample ID: AMW-2-20211027
**Lab Sample ID: 460-246277-3**
**Date Collected: 10/27/21 15:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.87 | 0.54 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.67 | 0.84 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.67 | 0.69 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.67 | 1.02 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.87 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:01 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C4 PFOS* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C5 PFNA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C4 PFBA* | *92* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C2 PFDA* | *90* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C2 PFUnA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C2 PFDoA* | *80* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C8 FOSA* | *93* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C5 PFPeA* | *98* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C2 PFTeDA* | *75* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *d3-NMeFOSAA* | *88* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *d5-NEtFOSAA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *M2-6:2 FTS* | *112* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *M2-8:2 FTS* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |
| *13C3 PFBS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:01* | *1* |

## Client Sample ID: AMW-1-20211027
**Lab Sample ID: 460-246277-4**
**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 18:47 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *36* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 18:47* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **13.9** | | 4.56 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **11.7** | | 1.82 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **14.4** | | 1.82 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **6.31** | | 1.82 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **30.7** | | 1.82 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.59** | **J** | 1.82 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.78** | **J** | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluoroundecanoic acid (PFUnA)** | **0.37** | **J** | 1.82 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |

## Client Sample ID: AMW-1-20211027
**Lab Sample ID: 460-246277-4**

**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.82 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.82 | 0.58 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **12.1** | | 1.82 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **81.5** | | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.05** | **J** | 1.82 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **25.0** | | 1.82 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.82 | 0.53 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **0.79** | **J B** | 4.56 | 0.68 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| **1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)** | **3.15** | **J** | 4.56 | 1.00 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.82 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:09 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C4 PFHpA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C4 PFOA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C4 PFOS* | *104* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C5 PFNA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C4 PFBA* | *75* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C2 PFHxA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C2 PFDA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C2 PFUnA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C2 PFDoA* | *91* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C5 PFPeA* | *89* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C2 PFTeDA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *d3-NMeFOSAA* | *107* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *d5-NEtFOSAA* | *115* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *M2-6:2 FTS* | *126* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *M2-8:2 FTS* | *143* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |
| *13C3 PFBS* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:09* | *1* |

## Client Sample ID: MW-202S-20211027
**Lab Sample ID: 460-246277-5**

**Date Collected: 10/27/21 15:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 19:03 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *36* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 19:03* | *1* |

## Client Sample ID: MW-202S-20211027
**Lab Sample ID: 460-246277-5**

**Date Collected: 10/27/21 15:45**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **10.2** | | 4.85 | 0.87 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **4.50** | | 1.94 | 0.46 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **7.57** | | 1.94 | 0.44 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **3.59** | | 1.94 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **22.0** | | 1.94 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.92** | **J** | 1.94 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.66** | **J** | 1.94 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.94 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.94 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.94 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.94 | 0.61 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **7.19** | | 1.94 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **33.8** | | 1.94 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.69** | **J** | 1.94 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **23.5** | | 1.94 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.30 | U | 1.94 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.56 | U | 1.94 | 0.56 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.88 | U | 4.85 | 0.88 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.72 | U | 4.85 | 0.72 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.06 | U | 4.85 | 1.06 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.94 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 05:17 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C4 PFBA* | *79* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C2 PFHxA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C2 PFUnA* | *85* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C2 PFDoA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C8 FOSA* | *88* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C5 PFPeA* | *88* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C2 PFTeDA* | *76* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *d3-NMeFOSAA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *d5-NEtFOSAA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *M2-6:2 FTS* | *119* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *M2-8:2 FTS* | *119* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:17* | *1* |

## Client Sample ID: MW-202D-20211027
**Lab Sample ID: 460-246277-6**

**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 19:19 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *38* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 19:19* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.44** | **J** | 4.56 | 0.82 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.79** | **J** | 1.83 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **2.36** | | 1.83 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.65** | **J** | 1.83 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **9.48** | | 1.83 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.35** | **J I** | 1.83 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.83 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.09** | | 1.83 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **13.9** | | 1.83 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.36** | **J** | 1.83 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **9.57** | | 1.83 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.56 | 0.68 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.56 | 1.00 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:25 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C4 PFHpA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C4 PFOS* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C4 PFBA* | *94* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C2 PFHxA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C2 PFUnA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C2 PFDoA* | *77* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C8 FOSA* | *95* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C5 PFPeA* | *97* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C2 PFTeDA* | *75* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *d3-NMeFOSAA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *d5-NEtFOSAA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |

## Client Sample ID: MW-202D-20211027
**Lab Sample ID: 460-246277-6**

**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *M2-8:2 FTS* | *120* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:25* | *1* |

## Client Sample ID: MW-9S-20211027
**Lab Sample ID: 460-246277-7**

**Date Collected: 10/27/21 17:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 19:34 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *41* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 19:34* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.93** | **J** | 4.08 | 0.73 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **0.92** | **J** | 1.63 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **0.75** | **J** | 1.63 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.60** | **J** | 1.63 | 0.19 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **6.00** | | 1.63 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorononanoic acid (PFNA) | 0.23 | U | 1.63 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.63 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.63 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.31 | U | 1.63 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.35 | U | 1.63 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.63 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **1.51** | **J** | 1.63 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **3.86** | | 1.63 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.20** | **J** | 1.63 | 0.19 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **5.28** | | 1.63 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.63 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.63 | 0.47 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.08 | 0.74 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.08 | 0.61 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.89 | U | 4.08 | 0.89 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.63 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 05:34 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |
| *13C4 PFHpA* | *103* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |
| *13C4 PFOA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |
| *13C4 PFOS* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |
| *13C5 PFNA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |
| *13C4 PFBA* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:34* | *1* |

## Client Sample ID: MW-9S-20211027
**Lab Sample ID: 460-246277-7**

**Date Collected: 10/27/21 17:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 13C2 PFHxA | 102 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFDA | 88 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFUnA | 80 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFDoA | 73 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C8 FOSA | 91 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C5 PFPeA | 103 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFTeDA | 72 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| d3-NMeFOSAA | 95 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| d5-NEtFOSAA | 94 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| M2-6:2 FTS | 109 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| M2-8:2 FTS | 111 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C3 PFBS | 95 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |

## Client Sample ID: MW-24S-20211027
**Lab Sample ID: 460-246277-8**

**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | **0.43** | **F1 F2** | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 16:24 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 37 | | 10 - 150 | 11/03/21 07:59 | 11/03/21 16:24 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.47** | | 4.28 | 0.76 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **9.60** | | 1.71 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **12.6** | | 1.71 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **7.05** | | 1.71 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **31.6** | | 1.71 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorononanoic acid (PFNA)** | **3.31** | | 1.71 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **1.14** | **J** | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.71 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.71 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.71 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.71 | 0.54 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.46** | | 1.71 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **41.2** | | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.29** | **J** | 1.71 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **45.2** | | 1.71 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.71 | 0.49 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 4.28 | 0.77 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.28 | 0.64 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.94 | U | 4.28 | 0.94 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |

## Client Sample ID: MW-24S-20211027
**Lab Sample ID: 460-246277-8**

**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.71 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C4 PFOS* | *104* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C5 PFNA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C4 PFBA* | *82* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C2 PFHxA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C2 PFDA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C2 PFUnA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C2 PFDoA* | *91* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C8 FOSA* | *95* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C5 PFPeA* | *92* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C2 PFTeDA* | *90* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *d3-NMeFOSAA* | *108* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *d5-NEtFOSAA* | *116* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *M2-6:2 FTS* | *120* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *M2-8:2 FTS* | *130* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 05:42* | *1* |

## Client Sample ID: BP-101-20211028
**Lab Sample ID: 460-246277-9**

**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 19:50 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *34* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 19:50* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.80 | U | 4.47 | 0.80 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.42 | U | 1.79 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.40 | U | 1.79 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.21 | U | 1.79 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.38 | U | 1.79 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.22 | U | 1.79 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.79 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.79 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |

## Client Sample ID: BP-101-20211028
**Lab Sample ID: 460-246277-9**

**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:15 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C4 PFHpA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C5 PFNA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C4 PFBA* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C2 PFUnA* | *81* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C2 PFDoA* | *78* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C5 PFPeA* | *100* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C2 PFTeDA* | *72* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *d5-NEtFOSAA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *M2-6:2 FTS* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *M2-8:2 FTS* | *108* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:15* | *1* |

## Client Sample ID: EP-02-20211028
**Lab Sample ID: 460-246277-10**

**Date Collected: 10/28/21 08:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 20:06 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *37* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 20:06* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.81 | U | 4.54 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.43 | U | 1.82 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.41 | U | 1.82 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.22 | U | 1.82 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.39 | U | 1.82 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorononanoic acid (PFNA) | 0.26 | U | 1.82 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |

## Client Sample ID: EP-02-20211028
**Lab Sample ID: 460-246277-10**

**Date Collected: 10/28/21 08:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.82 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.82 | 0.57 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.23 | U | 1.82 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.82 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.82 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.82 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.82 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.54 | 0.82 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.54 | 0.67 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.0 | U | 4.54 | 1.0 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:23 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C4 PFHpA* | *102* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C4 PFOS* | *100* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C5 PFNA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C4 PFBA* | *120* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C2 PFHxA* | *100* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C2 PFDA* | *90* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C2 PFUnA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C2 PFDoA* | *73* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C8 FOSA* | *83* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C5 PFPeA* | *105* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C2 PFTeDA* | *64* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *d5-NEtFOSAA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *M2-6:2 FTS* | *112* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *M2-8:2 FTS* | *114* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |
| *13C3 PFBS* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:23* | *1* |

## Client Sample ID: MW-23S-20211028
**Lab Sample ID: 460-246277-11**

**Date Collected: 10/28/21 08:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 20:22 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *39* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 20:22* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **6.35** | | 4.70 | 0.84 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **2.48** | | 1.88 | 0.45 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |

## Client Sample ID: MW-23S-20211028
**Lab Sample ID: 460-246277-11**

**Date Collected: 10/28/21 08:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorohexanoic acid (PFHxA)** | **2.01** | | 1.88 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.81** | **J** | 1.88 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **9.36** | | 1.88 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.16** | **J** | 1.88 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.78** | **J** | 1.88 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.88 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.88 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.88 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.88 | 0.59 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **1.39** | **J** | 1.88 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **0.64** | **J** | 1.88 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.22 | U | 1.88 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **3.09** | | 1.88 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.88 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.88 | 0.54 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.85 | U | 4.70 | 0.85 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.70 | U | 4.70 | 0.70 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.03 | U | 4.70 | 1.03 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.88 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 06:31 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C4 PFHpA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C4 PFOS* | *100* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C4 PFBA* | *85* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C2 PFHxA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C2 PFDA* | *86* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C2 PFUnA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C2 PFDoA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C8 FOSA* | *88* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C5 PFPeA* | *94* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *d3-NMeFOSAA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *d5-NEtFOSAA* | *106* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *M2-8:2 FTS* | *113* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |
| *13C3 PFBS* | *90* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:31* | *1* |

## Client Sample ID: MW-37AQ-20211028
**Lab Sample ID: 460-246277-12**

**Date Collected: 10/28/21 13:45**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 20:38 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *34* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 20:38* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **6.52** | | 4.51 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **7.06** | | 1.80 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **12.4** | | 1.80 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **4.04** | | 1.80 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **15.1** | | 1.80 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.31** | **J** | 1.80 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.72** | **J** | 1.80 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **6.43** | | 1.80 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **73.2** | | 1.80 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **2.86** | | 1.80 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **194** | | 1.80 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:39 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C4 PFOS* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C5 PFNA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C4 PFBA* | *84* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C2 PFDA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C2 PFUnA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C2 PFDoA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C8 FOSA* | *92* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C5 PFPeA* | *99* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C2 PFTeDA* | *83* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *d3-NMeFOSAA* | *104* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *d5-NEtFOSAA* | *102* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |

## Client Sample ID: MW-37AQ-20211028
**Lab Sample ID: 460-246277-12**
**Date Collected: 10/28/21 13:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *118* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *M2-8:2 FTS* | *122* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |
| *13C3 PFBS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:39* | *1* |

## Client Sample ID: AMW-5-20211028
**Lab Sample ID: 460-246277-13**
**Date Collected: 10/28/21 15:40**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 20:54 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *33* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 20:54* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.80** | | 4.46 | 0.80 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **3.62** | | 1.78 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **5.17** | | 1.78 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.57** | | 1.78 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **18.3** | | 1.78 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.66** | **J** | 1.78 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.78 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.78 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.78 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.78 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.56 | U | 1.78 | 0.56 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.98** | | 1.78 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **24.6** | | 1.78 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.91** | **J** | 1.78 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **17.6** | | 1.78 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.78 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.51 | U | 1.78 | 0.51 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.80 | U | 4.46 | 0.80 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.46 | 0.66 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.46 | 0.98 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.78 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 06:47 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C4 PFHpA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C4 PFOS* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C5 PFNA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C4 PFBA* | *88* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |

## Client Sample ID: AMW-5-20211028
**Lab Sample ID: 460-246277-13**
**Date Collected: 10/28/21 15:40**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C2 PFHxA* | *102* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C2 PFDA* | *88* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C2 PFUnA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C2 PFDoA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C5 PFPeA* | *99* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *d3-NMeFOSAA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *d5-NEtFOSAA* | *99* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *M2-6:2 FTS* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *M2-8:2 FTS* | *116* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |
| *13C3 PFBS* | *91* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:47* | *1* |

## Client Sample ID: MW-5S-20211028
**Lab Sample ID: 460-246277-14**
**Date Collected: 10/28/21 17:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 21:10 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *42* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 21:10* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **5.49** | | 4.81 | 0.86 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.59** | **J** | 1.92 | 0.46 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **1.65** | **J** | 1.92 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **0.85** | **J** | 1.92 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **5.84** | | 1.92 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorononanoic acid (PFNA) | 0.27 | U | 1.92 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.92 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.92 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.92 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.92 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.92 | 0.61 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **4.34** | | 1.92 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **14.5** | | 1.92 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.76** | **J** | 1.92 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **28.9** | | 1.92 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.92 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.55 | U | 1.92 | 0.55 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.87 | U | 4.81 | 0.87 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.71 | U | 4.81 | 0.71 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.05 | U | 4.81 | 1.05 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |

## Client Sample ID: MW-5S-20211028
**Lab Sample ID: 460-246277-14**
**Date Collected: 10/28/21 17:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.92 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFHpA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFBA* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFHxA* | *100* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFDA* | *85* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFUnA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFDoA* | *78* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C8 FOSA* | *93* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C5 PFPeA* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFTeDA* | *69* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *d5-NEtFOSAA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *M2-8:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C3 PFBS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |

## Client Sample ID: MW-34-20211028
**Lab Sample ID: 460-246277-15**
**Date Collected: 10/28/21 17:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 21:25 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *28* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 21:25* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.55** | | 4.38 | 0.78 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.83** | | 1.75 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **17.4** | | 1.75 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.26** | | 1.75 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **43.1** | | 1.75 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.61** | **J** | 1.75 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.49** | **J** | 1.75 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.75 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.75 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.75 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.75 | 0.55 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **12.3** | **I** | 1.75 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **63.4** | | 1.75 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **2.19** | | 1.75 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |

## Client Sample ID: MW-34-20211028
**Lab Sample ID: 460-246277-15**
**Date Collected: 10/28/21 17:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **56.2** | | 1.75 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.75 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.51 | U | 1.75 | 0.51 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.79 | U | 4.38 | 0.79 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **1.06** | **J B** | 4.38 | 0.65 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)** | **2.59** | **J** | 4.38 | 0.96 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.75 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *108* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C4 PFHpA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C4 PFOA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C4 PFOS* | *110* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C4 PFBA* | *47* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C2 PFHxA* | *107* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C2 PFUnA* | *85* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C2 PFDoA* | *68* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C8 FOSA* | *59* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C5 PFPeA* | *98* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C2 PFTeDA* | *32* | *5- | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *d3-NMeFOSAA* | *129* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *d5-NEtFOSAA* | *142* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *M2-6:2 FTS* | *185* | *5+ | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *M2-8:2 FTS* | *186* | *5+ | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |
| *13C3 PFBS* | *122* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:04* | *1* |

## Client Sample ID: MW-1S-20211028
**Lab Sample ID: 460-246277-16**
**Date Collected: 10/28/21 16:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 21:41 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *39* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 21:41* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **6.97** | | 4.51 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **4.40** | | 1.80 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **15.2** | | 1.80 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **3.00** | | 1.80 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **12.4** | | 1.80 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.29** | **J** | 1.80 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.80 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |

## Client Sample ID: MW-1S-20211028
**Lab Sample ID: 460-246277-16**

**Date Collected: 10/28/21 16:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.46** | | 1.80 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **67.0** | | 1.80 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **3.71** | | 1.80 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **220** | | 1.80 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 07:12 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C4 PFHpA* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C4 PFOS* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C4 PFBA* | *95* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C2 PFHxA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C2 PFDA* | *85* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C2 PFUnA* | *86* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C2 PFDoA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C5 PFPeA* | *98* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C2 PFTeDA* | *77* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *d3-NMeFOSAA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *d5-NEtFOSAA* | *105* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *M2-8:2 FTS* | *116* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:12* | *1* |

## Client Sample ID: MW-102-20211028
**Lab Sample ID: 460-246277-17**

**Date Collected: 10/28/21 13:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 21:57 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *38* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 21:57* | *1* |

## Client Sample ID: MW-102-20211028
**Lab Sample ID: 460-246277-17**

**Date Collected: 10/28/21 13:05**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.42** | | 4.16 | 0.74 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **1.98** | | 1.66 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **4.85** | | 1.66 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.22** | **J** | 1.66 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **4.50** | | 1.66 | 0.35 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorononanoic acid (PFNA) | 0.23 | U | 1.66 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.66 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.66 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.66 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.66 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.53 | U | 1.66 | 0.53 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **5.11** | | 1.66 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **13.8** | | 1.66 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.46** | **J** | 1.66 | 0.19 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **13.1** | | 1.66 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.66 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.48 | U | 1.66 | 0.48 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.75 | U | 4.16 | 0.75 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.62 | U | 4.16 | 0.62 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.91 | U | 4.16 | 0.91 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.66 | 0.32 | ng/L | | 11/04/21 17:16 | 11/10/21 07:20 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C4 PFHpA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C4 PFOS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C5 PFNA* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C4 PFBA* | *98* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C2 PFHxA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C2 PFDA* | *83* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C2 PFUnA* | *79* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C2 PFDoA* | *73* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C8 FOSA* | *89* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C5 PFPeA* | *97* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C2 PFTeDA* | *68* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *d3-NMeFOSAA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *d5-NEtFOSAA* | *86* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *M2-6:2 FTS* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *M2-8:2 FTS* | *103* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:20* | *1* |

## Client Sample ID: MW-26S-20211028
## Lab Sample ID: 460-246277-18

**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 17:11 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *40* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 17:11* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **8.28** | | 4.33 | 0.77 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **11.0** | | 1.73 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **15.3** | | 1.73 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.29** | | 1.73 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **14.7** | | 1.73 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.61** | **J** | 1.73 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.50** | **J** | 1.73 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.73 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.73 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.73 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.73 | 0.55 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.59** | | 1.73 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **111** | | 1.73 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **5.03** | | 1.73 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **286** | | 1.73 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.73 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 1.73 | 0.50 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 4.33 | 0.78 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.33 | 0.64 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 4.33 | 0.95 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.73 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C5 PFNA* | *91* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFBA* | *75* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFHxA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFUnA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFDoA* | *78* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C8 FOSA* | *94* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C5 PFPeA* | *89* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFTeDA* | *65* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *d3-NMeFOSAA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *d5-NEtFOSAA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |

## Client Sample ID: MW-26S-20211028
**Lab Sample ID: 460-246277-18**
**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *115* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *M2-8:2 FTS* | *112* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C3 PFBS* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |

## Client Sample ID: MW-7S-20211028
**Lab Sample ID: 460-246277-19**
**Date Collected: 10/28/21 09:15**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 00:25 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *28* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 00:25* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.00** | **J** | 4.07 | 0.73 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **0.54** | **J** | 1.63 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **0.43** | **J** | 1.63 | 0.37 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.19 | U | 1.63 | 0.19 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **0.45** | **J** | 1.63 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorononanoic acid (PFNA) | 0.23 | U | 1.63 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.63 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.63 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.31 | U | 1.63 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.35 | U | 1.63 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.51 | U | 1.63 | 0.51 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **0.98** | **J B** | 1.63 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **8.86** | | 1.63 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.32** | **J** | 1.63 | 0.19 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **7.87** | **I** | 1.63 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.63 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.63 | 0.47 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.07 | 0.74 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.07 | 0.61 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.89 | U | 4.07 | 0.89 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.63 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 12:36 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |
| *13C4 PFHpA* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |
| *13C4 PFOA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |
| *13C4 PFOS* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |
| *13C5 PFNA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |
| *13C4 PFBA* | *111* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:36* | *1* |

## Client Sample ID: MW-7S-20211028
**Lab Sample ID: 460-246277-19**

**Date Collected: 10/28/21 09:15**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 13C2 PFHxA | 101 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C2 PFDA | 79 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C2 PFUnA | 79 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C2 PFDoA | 74 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C8 FOSA | 84 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C5 PFPeA | 104 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C2 PFTeDA | 74 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| d3-NMeFOSAA | 88 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| d5-NEtFOSAA | 98 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| M2-6:2 FTS | 106 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| M2-8:2 FTS | 103 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |
| 13C3 PFBS | 97 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:36 | 1 |

## Client Sample ID: AMW-4-20211028
**Lab Sample ID: 460-246277-20**

**Date Collected: 10/28/21 17:10**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 00:40 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 27 | | 10 - 150 | 11/03/21 10:58 | 11/04/21 00:40 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.20** | **J** | 4.56 | 0.81 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **3.46** | | 1.82 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **4.17** | | 1.82 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.65** | | 1.82 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **18.4** | | 1.82 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.29** | **J** | 1.82 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.48** | **J** | 1.82 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.82 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.82 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.48** | **B** | 1.82 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **31.2** | | 1.82 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.70** | **J** | 1.82 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **110** | | 1.82 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.82 | 0.53 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.56 | 0.68 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.56 | 1.00 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |

## Client Sample ID: AMW-4-20211028
**Lab Sample ID: 460-246277-20**
**Date Collected: 10/28/21 17:10**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.82 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 12:44 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C4 PFOS* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C5 PFNA* | *93* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C4 PFBA* | *87* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C2 PFUnA* | *85* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C2 PFDoA* | *81* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C8 FOSA* | *88* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C5 PFPeA* | *93* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C2 PFTeDA* | *80* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *d3-NMeFOSAA* | *90* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *d5-NEtFOSAA* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *M2-6:2 FTS* | *113* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *M2-8:2 FTS* | *122* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |
| *13C3 PFBS* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:44* | *1* |

## Client Sample ID: AMW-11-20211028
**Lab Sample ID: 460-246277-21**
**Date Collected: 10/28/21 14:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 00:56 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *27* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 00:56* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **5.32** | | 4.49 | 0.80 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **2.24** | | 1.79 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **1.88** | | 1.79 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.09** | **J** | 1.79 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **7.70** | | 1.79 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.60** | **J** | 1.79 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.07** | **B** | 1.79 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **10.2** | | 1.79 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.41** | **J** | 1.79 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |

## Client Sample ID: AMW-11-20211028
**Lab Sample ID: 460-246277-21**

**Date Collected: 10/28/21 14:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorooctanesulfonic acid (PFOS)** | **11.2** | | 1.79 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.49 | 0.98 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 12:52 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C4 PFHpA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C4 PFOS* | *101* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C4 PFBA* | *108* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C2 PFHxA* | *104* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C2 PFDA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C2 PFUnA* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C2 PFDoA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C8 FOSA* | *91* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C5 PFPeA* | *102* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *d3-NMeFOSAA* | *101* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *d5-NEtFOSAA* | *106* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *M2-6:2 FTS* | *108* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *M2-8:2 FTS* | *112* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |
| *13C3 PFBS* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 12:52* | *1* |

## Client Sample ID: AMW-6-20211028
**Lab Sample ID: 460-246277-22**

**Date Collected: 10/28/21 13:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 01:12 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *28* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 01:12* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **4.92** | | 4.49 | 0.80 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **2.56** | | 1.80 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **3.62** | | 1.80 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.80** | | 1.80 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **14.3** | | 1.80 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.72** | **J** | 1.80 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.28** | **J** | 1.80 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |

## Client Sample ID: AMW-6-20211028
**Lab Sample ID: 460-246277-22**

**Date Collected: 10/28/21 13:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **5.62** | **B** | 1.80 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **46.4** | | 1.80 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.45** | **J** | 1.80 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **44.3** | | 1.80 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.49 | 0.99 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:00 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *101* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C4 PFOS* | *107* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C5 PFNA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C4 PFBA* | *86* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C2 PFHxA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C2 PFDA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C2 PFUnA* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C2 PFDoA* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C8 FOSA* | *85* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C5 PFPeA* | *95* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C2 PFTeDA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *d3-NMeFOSAA* | *108* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *d5-NEtFOSAA* | *120* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *M2-6:2 FTS* | *134* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *M2-8:2 FTS* | *139* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |
| *13C3 PFBS* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:00* | *1* |

## Client Sample ID: AMW-3-20211028
**Lab Sample ID: 460-246277-23**

**Date Collected: 10/28/21 11:20**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 01:28 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *24* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 01:28* | *1* |

## Client Sample ID: AMW-3-20211028
**Lab Sample ID: 460-246277-23**

**Date Collected: 10/28/21 11:20**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.59** | | 4.59 | 0.82 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.99** | | 1.83 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **5.57** | | 1.83 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.51** | | 1.83 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **15.9** | | 1.83 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.67** | **J** | 1.83 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.89** | **J** | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.83 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.25** | **B** | 1.83 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **22.1** | | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.68** | **J** | 1.83 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **63.5** | | 1.83 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.59 | 0.83 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.59 | 0.68 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.59 | 1.01 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:09 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *106* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C4 PFHpA* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C4 PFOS* | *108* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C5 PFNA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C4 PFBA* | *71* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C2 PFHxA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C2 PFDA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C2 PFUnA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C2 PFDoA* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C8 FOSA* | *83* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C5 PFPeA* | *90* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C2 PFTeDA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *d3-NMeFOSAA* | *135* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *d5-NEtFOSAA* | *149* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *M2-6:2 FTS* | *158* | **5+* | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *M2-8:2 FTS* | *164* | **5+* | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |
| *13C3 PFBS* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:09* | *1* |

## Client Sample ID: DUP-02-20211028
**Lab Sample ID: 460-246277-24**

**Date Collected: 10/28/21 12:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 01:44 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *30* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 01:44* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.17** | | 4.57 | 0.82 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **7.30** | | 1.83 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **5.51** | **I** | 1.83 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.88** | | 1.83 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **15.6** | | 1.83 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.49** | **J** | 1.83 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **1.03** | **J** | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluoroundecanoic acid (PFUnA)** | **0.36** | **J** | 1.83 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **3.28** | **B** | 1.83 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **22.8** | | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.57** | **J** | 1.83 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **62.9** | | 1.83 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.57 | 0.83 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **0.79** | **J** | 4.57 | 0.68 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.57 | 1.00 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:17 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *101* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C4 PFHpA* | *101* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C4 PFOS* | *105* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C5 PFNA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C4 PFBA* | *75* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C2 PFHxA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C2 PFDA* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C2 PFUnA* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C2 PFDoA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C8 FOSA* | *83* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C5 PFPeA* | *92* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *13C2 PFTeDA* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |
| *d3-NMeFOSAA* | *133* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:17* | *1* |

## Client Sample ID: DUP-02-20211028
**Lab Sample ID: 460-246277-24**

**Date Collected: 10/28/21 12:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| d5-NEtFOSAA | 140 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| M2-6:2 FTS | 145 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| M2-8:2 FTS | 149 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 13:17 | 1 |
| 13C3 PFBS | 100 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:17 | 1 |

## Client Sample ID: MW-201-20211028
**Lab Sample ID: 460-246277-25**

**Date Collected: 10/28/21 09:30**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 01:59 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 27 | | 10 - 150 | 11/03/21 10:58 | 11/04/21 01:59 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.54** | | 4.60 | 0.82 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.51** | | 1.84 | 0.44 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **5.30** | | 1.84 | 0.42 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **2.88** | | 1.84 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **14.0** | | 1.84 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.63** | **J** | 1.84 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.69** | **J** | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.84 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.84 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.84 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.84 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **4.39** | **B** | 1.84 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **32.2** | | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.46** | **J** | 1.84 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **57.3** | | 1.84 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.84 | 0.53 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.60 | 0.83 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **0.70** | **J** | 4.60 | 0.68 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.60 | 1.01 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.84 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:25 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 94 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 13C4 PFHpA | 93 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 13C4 PFOA | 95 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 13C4 PFOS | 102 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:25 | 1 |
| 13C5 PFNA | 97 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 13:25 | 1 |

## Client Sample ID: MW-201-20211028
**Lab Sample ID: 460-246277-25**

**Date Collected: 10/28/21 09:30**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFBA* | *71* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C2 PFHxA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C2 PFDA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C2 PFUnA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C2 PFDoA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C8 FOSA* | *85* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C5 PFPeA* | *89* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C2 PFTeDA* | *83* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *d3-NMeFOSAA* | *110* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *d5-NEtFOSAA* | *114* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *M2-6:2 FTS* | *130* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *M2-8:2 FTS* | *126* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |
| *13C3 PFBS* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:25* | *1* |

## Client Sample ID: MW-4S-20211029
**Lab Sample ID: 460-246277-26**

**Date Collected: 10/29/21 09:20**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 02:15 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *30* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 02:15* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **7.01** | | 4.36 | 0.78 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **8.28** | | 1.74 | 0.41 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **21.7** | | 1.74 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **4.47** | | 1.74 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **11.7** | | 1.74 | 0.37 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorononanoic acid (PFNA)** | **0.33** | **J** | 1.74 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.74 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.74 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.74 | 0.34 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.74 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.74 | 0.55 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **19.0** | **B** | 1.74 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **97.7** | | 1.74 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **4.06** | | 1.74 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **247** | | 1.74 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.74 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 1.74 | 0.50 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.79 | U | 4.36 | 0.79 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.65 | U | 4.36 | 0.65 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |

## Client Sample ID: MW-4S-20211029
**Lab Sample ID: 460-246277-26**
**Date Collected: 10/29/21 09:20**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.96 | U | 4.36 | 0.96 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.74 | 0.34 | ng/L | | 11/05/21 09:47 | 11/10/21 13:33 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C4 PFOS* | *90* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C5 PFNA* | *85* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C4 PFBA* | *109* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C2 PFHxA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C2 PFDA* | *75* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C2 PFUnA* | *66* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C2 PFDoA* | *62* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C8 FOSA* | *82* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C5 PFPeA* | *100* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C2 PFTeDA* | *62* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *d3-NMeFOSAA* | *82* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *d5-NEtFOSAA* | *81* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *M2-6:2 FTS* | *105* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *M2-8:2 FTS* | *91* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |
| *13C3 PFBS* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:33* | *1* |

## Client Sample ID: MW-3S-20211029
**Lab Sample ID: 460-246277-27**
**Date Collected: 10/29/21 10:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 02:31 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *27* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 02:31* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **3.95** | **J** | 4.66 | 0.83 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **2.64** | | 1.86 | 0.44 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **3.47** | | 1.86 | 0.42 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **1.96** | | 1.86 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **6.19** | | 1.86 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorononanoic acid (PFNA) | 0.26 | U | 1.86 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.86 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.86 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.86 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.86 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.86 | 0.59 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **5.05** | **B** | 1.86 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **16.1** | | 1.86 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |

## Client Sample ID: MW-3S-20211029
**Lab Sample ID: 460-246277-27**

**Date Collected: 10/29/21 10:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **0.60** | **J** | 1.86 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **26.0** | | 1.86 | 0.27 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.86 | 0.29 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.86 | 0.54 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)** | **0.92** | **J** | 4.66 | 0.84 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **0.87** | **J** | 4.66 | 0.69 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.66 | 1.02 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.86 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:49 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C4 PFOS* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C5 PFNA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C4 PFBA* | *113* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C2 PFHxA* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C2 PFDA* | *75* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C2 PFUnA* | *68* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C2 PFDoA* | *61* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C8 FOSA* | *88* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C5 PFPeA* | *103* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C2 PFTeDA* | *65* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *d3-NMeFOSAA* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *d5-NEtFOSAA* | *79* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *M2-6:2 FTS* | *106* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *M2-8:2 FTS* | *96* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |
| *13C3 PFBS* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:49* | *1* |

## Client Sample ID: AMW-8-20211029
**Lab Sample ID: 460-246277-28**

**Date Collected: 10/29/21 10:40**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 02:47 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *25* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 02:47* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **25.8** | | 4.26 | 0.76 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **18.1** | | 1.70 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **33.1** | | 1.70 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **8.84** | | 1.70 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **48.8** | | 1.70 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |

## Client Sample ID: AMW-8-20211029
**Lab Sample ID: 460-246277-28**

**Date Collected: 10/29/21 10:40**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorononanoic acid (PFNA)** | **1.42** | **J** | 1.70 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.26 | U | 1.70 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.70 | 0.29 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.70 | 0.33 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.70 | 0.37 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.70 | 0.54 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **25.4** | **B** | 1.70 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **29.6** | | 1.70 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.70 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.70 | 0.49 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 4.26 | 0.77 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.63 | U | 4.26 | 0.63 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| **1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)** | **0.93** | **J** | 4.26 | 0.93 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.70 | 0.33 | ng/L | | 11/05/21 09:47 | 11/10/21 14:22 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C4 PFHpA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C4 PFOA* | *93* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C4 PFOS* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C5 PFNA* | *85* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C4 PFBA* | *64* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C2 PFHxA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C2 PFDA* | *75* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C2 PFUnA* | *77* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C2 PFDoA* | *67* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C8 FOSA* | *70* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C5 PFPeA* | *95* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C2 PFTeDA* | *62* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *d3-NMeFOSAA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *d5-NEtFOSAA* | *109* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *M2-6:2 FTS* | *129* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *M2-8:2 FTS* | *118* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |
| *13C3 PFBS* | *96* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:22* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorohexanesulfonic acid (PFHxS)** | **920** | **D** | 8.51 | 1.29 | ng/L | | 11/05/21 09:47 | 11/09/21 13:07 | 5 |
| **Perfluorooctanesulfonic acid (PFOS)** | **833** | **D** | 8.51 | 1.24 | ng/L | | 11/05/21 09:47 | 11/09/21 13:07 | 5 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/09/21 13:07* | *5* |
| *13C4 PFOS* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/09/21 13:07* | *5* |

## Client Sample ID: AMW-9-20211029
**Lab Sample ID: 460-246277-29**

**Date Collected: 10/29/21 08:50**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 03:02 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *29* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 03:02* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **36.2** | | 4.10 | 0.73 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **9.30** | | 1.64 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **32.0** | | 1.64 | 0.37 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **6.89** | | 1.64 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **30.9** | | 1.64 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.79** | | 1.64 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.46** | **J I** | 1.64 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.64 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.64 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.64 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.64 | 0.52 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **41.0** | **B** | 1.64 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **240** | | 1.64 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **8.68** | | 1.64 | 0.19 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **214** | | 1.64 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.64 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.64 | 0.47 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.10 | 0.74 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.10 | 0.61 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.90 | U | 4.10 | 0.90 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.64 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 13:58 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *110* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C4 PFHpA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C4 PFOS* | *111* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C5 PFNA* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C4 PFBA* | *68* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C2 PFHxA* | *104* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C2 PFUnA* | *88* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C2 PFDoA* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C8 FOSA* | *67* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C5 PFPeA* | *92* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C2 PFTeDA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *d3-NMeFOSAA* | *129* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *d5-NEtFOSAA* | *149* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |

## Client Sample ID: AMW-9-20211029
**Lab Sample ID: 460-246277-29**
**Date Collected: 10/29/21 08:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *M2-6:2 FTS* | *165* | **5+* | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *M2-8:2 FTS* | *180* | **5+* | *25 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |
| *13C3 PFBS* | *110* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 13:58* | *1* |

## Client Sample ID: AMW-7-20211029
**Lab Sample ID: 460-246277-30**
**Date Collected: 10/29/21 12:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 03:18 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *89* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 03:18* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **8.21** | | 4.11 | 0.73 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **7.12** | | 1.65 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **12.0** | | 1.65 | 0.37 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **4.93** | | 1.65 | 0.20 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **33.1** | | 1.65 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorononanoic acid (PFNA)** | **2.01** | | 1.65 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.33** | **J** | 1.65 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.65 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.65 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.65 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.65 | 0.52 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **7.60** | **B** | 1.65 | 0.21 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **54.0** | | 1.65 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **2.04** | | 1.65 | 0.19 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **60.9** | | 1.65 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.65 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.65 | 0.47 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.11 | 0.74 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.11 | 0.61 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.90 | U | 4.11 | 0.90 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.65 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 14:06 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C4 PFHpA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C4 PFOA* | *94* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C4 PFOS* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C4 PFBA* | *81* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |

## Client Sample ID: AMW-7-20211029
**Lab Sample ID: 460-246277-30**

**Date Collected: 10/29/21 12:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C2 PFHxA* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C2 PFDA* | *91* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C2 PFUnA* | *89* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C2 PFDoA* | *85* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C8 FOSA* | *78* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C5 PFPeA* | *93* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C2 PFTeDA* | *82* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *d3-NMeFOSAA* | *99* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *d5-NEtFOSAA* | *107* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *M2-6:2 FTS* | *125* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *M2-8:2 FTS* | *125* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |
| *13C3 PFBS* | *95* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:06* | *1* |

## Client Sample ID: AMW-10-20211029
**Lab Sample ID: 460-246277-31**

**Date Collected: 10/29/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 03:34 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *94* | | *10 - 150* | *11/03/21 10:58* | *11/04/21 03:34* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **11.2** | | 4.60 | 0.82 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **9.08** | | 1.84 | 0.44 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **28.5** | | 1.84 | 0.42 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.93** | | 1.84 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **21.9** | | 1.84 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorononanoic acid (PFNA)** | **2.25** | | 1.84 | 0.26 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **1.55** | **J** | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.84 | 0.32 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.84 | 0.35 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.84 | 0.40 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.84 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **22.6** | **B** | 1.84 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **200** | | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **12.3** | | 1.84 | 0.22 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.84 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.84 | 0.53 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.60 | 0.83 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.60 | 0.68 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.60 | 1.01 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.84 | 0.36 | ng/L | | 11/05/21 09:47 | 11/10/21 14:14 | 1 |

## Client Sample ID: AMW-10-20211029
**Lab Sample ID: 460-246277-31**

**Date Collected: 10/29/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 99 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C4 PFHpA | 100 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C4 PFOA | 100 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C4 PFOS | 100 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C5 PFNA | 96 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C4 PFBA | 79 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C2 PFHxA | 101 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C2 PFDA | 94 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C2 PFUnA | 96 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C2 PFDoA | 88 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C8 FOSA | 85 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C5 PFPeA | 93 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C2 PFTeDA | 93 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| d3-NMeFOSAA | 105 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| d5-NEtFOSAA | 117 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| M2-6:2 FTS | 126 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| M2-8:2 FTS | 127 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |
| 13C3 PFBS | 93 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 14:14 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorooctanesulfonic acid (PFOS) | 485 | D | 3.68 | 0.54 | ng/L | | 11/05/21 09:47 | 11/09/21 13:14 | 2 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 94 | | 50 - 150 | 11/05/21 09:47 | 11/09/21 13:14 | 2 |
| 13C4 PFOS | 95 | | 50 - 150 | 11/05/21 09:47 | 11/09/21 13:14 | 2 |

## Client Sample ID: MW-53S-20211029
**Lab Sample ID: 460-246277-32**

**Date Collected: 10/29/21 09:15**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/04/21 03:50 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 101 | | 10 - 150 | 11/03/21 10:58 | 11/04/21 03:50 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 5.64 | | 4.90 | 0.87 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluoropentanoic acid (PFPeA) | 4.07 | | 1.96 | 0.46 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorohexanoic acid (PFHxA) | 6.07 | | 1.96 | 0.44 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 2.64 | | 1.96 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorooctanoic acid (PFOA) | 13.9 | | 1.96 | 0.42 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorononanoic acid (PFNA) | 1.49 | J | 1.96 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.89 | J | 1.96 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 1.96 | 0.34 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.38 | U | 1.96 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 1.96 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.62 | U | 1.96 | 0.62 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |

## Client Sample ID: MW-53S-20211029
**Lab Sample ID: 460-246277-32**

**Date Collected: 10/29/21 09:15**
**Matrix: Water**

**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanesulfonic acid (PFBS)** | **2.77** | **B** | 1.96 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **26.5** | | 1.96 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.33** | **J** | 1.96 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **75.0** | | 1.96 | 0.29 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.30 | U | 1.96 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.57 | U | 1.96 | 0.57 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.88 | U | 4.90 | 0.88 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.73 | U | 4.90 | 0.73 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.07 | U | 4.90 | 1.07 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.96 | 0.38 | ng/L | | 11/05/21 09:47 | 11/10/21 14:39 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *103* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C4 PFHpA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C4 PFOA* | *97* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C4 PFOS* | *100* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C5 PFNA* | *93* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C4 PFBA* | *103* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C2 PFHxA* | *103* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C2 PFDA* | *85* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C2 PFUnA* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C2 PFDoA* | *90* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C8 FOSA* | *85* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C5 PFPeA* | *103* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C2 PFTeDA* | *86* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *d3-NMeFOSAA* | *98* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *d5-NEtFOSAA* | *102* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *M2-6:2 FTS* | *116* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *M2-8:2 FTS* | *107* | | *25 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |
| *13C3 PFBS* | *102* | | *50 - 150* | *11/05/21 09:47* | *11/10/21 14:39* | *1* |

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | DXE (10-150) | | | | | | | |
| 460-246277-1 | MH-102-20211027 | 42 | | | | | | | |
| 460-246277-2 | AP-101-20211027 | 39 | | | | | | | |
| 460-246277-3 | AMW-2-20211027 | 37 | | | | | | | |
| 460-246277-4 | AMW-1-20211027 | 36 | | | | | | | |
| 460-246277-5 | MW-202S-20211027 | 36 | | | | | | | |
| 460-246277-6 | MW-202D-20211027 | 38 | | | | | | | |
| 460-246277-7 | MW-9S-20211027 | 41 | | | | | | | |
| 460-246277-8 | MW-24S-20211027 | 37 | | | | | | | |
| 460-246277-8 MS | MW-24S-20211027 | 26 | | | | | | | |
| 460-246277-8 MSD | MW-24S-20211027 | 32 | | | | | | | |
| 460-246277-9 | BP-101-20211028 | 34 | | | | | | | |
| 460-246277-10 | EP-02-20211028 | 37 | | | | | | | |
| 460-246277-11 | MW-23S-20211028 | 39 | | | | | | | |
| 460-246277-12 | MW-37AQ-20211028 | 34 | | | | | | | |
| 460-246277-13 | AMW-5-20211028 | 33 | | | | | | | |
| 460-246277-14 | MW-5S-20211028 | 42 | | | | | | | |
| 460-246277-15 | MW-34-20211028 | 28 | | | | | | | |
| 460-246277-16 | MW-1S-20211028 | 39 | | | | | | | |
| 460-246277-17 | MW-102-20211028 | 38 | | | | | | | |
| 460-246277-18 | MW-26S-20211028 | 40 | | | | | | | |
| 460-246277-18 MS | MW-26S-20211028 | 32 | | | | | | | |
| 460-246277-18 MSD | MW-26S-20211028 | 32 | | | | | | | |
| 460-246277-19 | MW-7S-20211028 | 28 | | | | | | | |
| 460-246277-20 | AMW-4-20211028 | 27 | | | | | | | |
| 460-246277-21 | AMW-11-20211028 | 27 | | | | | | | |
| 460-246277-22 | AMW-6-20211028 | 28 | | | | | | | |
| 460-246277-23 | AMW-3-20211028 | 24 | | | | | | | |
| 460-246277-24 | DUP-02-20211028 | 30 | | | | | | | |
| 460-246277-25 | MW-201-20211028 | 27 | | | | | | | |
| 460-246277-26 | MW-4S-20211029 | 30 | | | | | | | |
| 460-246277-27 | MW-3S-20211029 | 27 | | | | | | | |
| 460-246277-28 | AMW-8-20211029 | 25 | | | | | | | |
| 460-246277-29 | AMW-9-20211029 | 29 | | | | | | | |
| 460-246277-30 | AMW-7-20211029 | 89 | | | | | | | |
| 460-246277-31 | AMW-10-20211029 | 94 | | | | | | | |
| 460-246277-32 | MW-53S-20211029 | 101 | | | | | | | |
| LCS 460-811052/2-A | Lab Control Sample | 22 | | | | | | | |
| LCS 460-811103/2-A | Lab Control Sample | 29 | | | | | | | |
| LCSD 460-811052/3-A | Lab Control Sample Dup | 23 | | | | | | | |
| LCSD 460-811103/3-A | Lab Control Sample Dup | 33 | | | | | | | |
| MB 460-811052/1-A | Method Blank | 26 | | | | | | | |
| MB 460-811103/1-A | Method Blank | 33 | | | | | | | |

**Surrogate Legend**

DXE = 1,4-Dioxane-d8

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PFHxS (50-150) | C4PFHA (50-150) | PFOA (50-150) | PFOS (50-150) | PFNA (50-150) | PFBA (25-150) | PFHxA (50-150) | PFDA (50-150) |
| 460-246277-1 | MH-102-20211027 | 95 | 99 | 97 | 99 | 94 | 104 | 103 | 82 |
| 460-246277-2 - DL | AP-101-20211027 | 98 | | | 96 | | | | |
| 460-246277-2 | AP-101-20211027 | | 92 | 94 | 86 | 86 | 104 | 101 | 76 |
| 460-246277-3 | AMW-2-20211027 | 95 | 97 | 96 | 99 | 96 | 92 | 99 | 90 |
| 460-246277-4 | AMW-1-20211027 | 96 | 96 | 98 | 104 | 99 | 75 | 97 | 98 |
| 460-246277-5 | MW-202S-20211027 | 92 | 97 | 93 | 96 | 92 | 79 | 96 | 87 |
| 460-246277-6 | MW-202D-20211027 | 92 | 96 | 96 | 98 | 92 | 94 | 96 | 89 |
| 460-246277-7 | MW-9S-20211027 | 98 | 103 | 98 | 99 | 95 | 107 | 102 | 88 |
| 460-246277-8 | MW-24S-20211027 | 96 | 97 | 97 | 104 | 95 | 82 | 96 | 93 |
| 460-246277-8 MS | MW-24S-20211027 | 94 | 95 | 94 | 100 | 95 | 79 | 97 | 88 |
| 460-246277-8 MSD | MW-24S-20211027 | 93 | 92 | 90 | 98 | 93 | 76 | 91 | 87 |
| 460-246277-9 | BP-101-20211028 | 93 | 95 | 93 | 96 | 89 | 110 | 99 | 87 |
| 460-246277-10 | EP-02-20211028 | 96 | 102 | 93 | 100 | 94 | 120 | 100 | 90 |
| 460-246277-11 | MW-23S-20211028 | 95 | 95 | 95 | 100 | 92 | 85 | 98 | 86 |
| 460-246277-12 | MW-37AQ-20211028 | 96 | 97 | 95 | 101 | 94 | 84 | 99 | 92 |
| 460-246277-13 | AMW-5-20211028 | 94 | 96 | 94 | 99 | 96 | 88 | 102 | 88 |
| 460-246277-14 | MW-5S-20211028 | 98 | 101 | 95 | 96 | 92 | 111 | 100 | 85 |
| 460-246277-15 | MW-34-20211028 | 108 | 95 | 92 | 110 | 92 | 47 | 107 | 87 |
| 460-246277-16 | MW-1S-20211028 | 93 | 98 | 94 | 97 | 92 | 95 | 97 | 85 |
| 460-246277-17 | MW-102-20211028 | 95 | 95 | 93 | 93 | 93 | 98 | 95 | 83 |
| 460-246277-18 | MW-26S-20211028 | 94 | 97 | 95 | 96 | 91 | 75 | 92 | 89 |
| 460-246277-18 MS | MW-26S-20211028 | 97 | 99 | 96 | 99 | 96 | 77 | 96 | 92 |
| 460-246277-18 MSD | MW-26S-20211028 | 99 | 98 | 100 | 107 | 104 | 82 | 99 | 95 |
| 460-246277-19 | MW-7S-20211028 | 97 | 100 | 98 | 92 | 91 | 111 | 101 | 79 |
| 460-246277-20 | AMW-4-20211028 | 96 | 97 | 97 | 99 | 93 | 87 | 99 | 89 |
| 460-246277-21 | AMW-11-20211028 | 100 | 99 | 96 | 101 | 92 | 108 | 104 | 91 |
| 460-246277-22 | AMW-6-20211028 | 101 | 97 | 93 | 107 | 97 | 86 | 99 | 94 |
| 460-246277-23 | AMW-3-20211028 | 106 | 100 | 97 | 108 | 94 | 71 | 97 | 99 |
| 460-246277-24 | DUP-02-20211028 | 101 | 101 | 96 | 105 | 98 | 75 | 98 | 95 |
| 460-246277-25 | MW-201-20211028 | 94 | 93 | 95 | 102 | 97 | 71 | 91 | 91 |
| 460-246277-26 | MW-4S-20211029 | 97 | 97 | 94 | 90 | 85 | 109 | 98 | 75 |
| 460-246277-27 | MW-3S-20211029 | 98 | 97 | 95 | 94 | 89 | 113 | 100 | 75 |
| 460-246277-28 - DL | AMW-8-20211029 | 91 | | | 86 | | | | |
| 460-246277-28 | AMW-8-20211029 | | 89 | 93 | 86 | 85 | 64 | 94 | 75 |
| 460-246277-29 | AMW-9-20211029 | 110 | 94 | 94 | 111 | 95 | 68 | 104 | 87 |
| 460-246277-30 | AMW-7-20211029 | 95 | 94 | 94 | 97 | 92 | 81 | 95 | 91 |
| 460-246277-31 - DL | AMW-10-20211029 | 94 | | | 95 | | | | |
| 460-246277-31 | AMW-10-20211029 | 99 | 100 | 100 | 100 | 96 | 79 | 101 | 94 |
| 460-246277-32 | MW-53S-20211029 | 103 | 98 | 97 | 100 | 93 | 103 | 103 | 85 |
| LCS 200-173528/2-A | Lab Control Sample | 97 | 98 | 95 | 96 | 92 | 122 | 106 | 85 |
| LCS 200-173541/2-A | Lab Control Sample | 104 | | | 101 | | | | |
| LCS 200-173541/2-A | Lab Control Sample | 98 | 100 | 97 | 99 | 91 | 117 | 102 | 87 |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 104 | | | 100 | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 100 | 103 | 100 | 101 | 97 | 124 | 108 | 87 |
| MB 200-173528/1-A | Method Blank | 94 | 101 | 96 | 97 | 96 | 118 | 104 | 87 |
| MB 200-173541/1-A | Method Blank | 98 | | | 91 | | | | |
| MB 200-173541/1-A | Method Blank | 95 | 98 | 94 | 94 | 92 | 117 | 101 | 83 |

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

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PFUnA (50-150) | PFDoA (50-150) | PFOSA (25-150) | PFPeA (25-150) | PFTDA (50-150) | d3NMFOS (50-150) | d5NEFOS (50-150) | M262FTS (25-150) |
| 460-246277-1 | MH-102-20211027 | 79 | 75 | 91 | 102 | 70 | 84 | 87 | 108 |
| 460-246277-2 - DL | AP-101-20211027 | | | | | | | | |
| 460-246277-2 | AP-101-20211027 | 65 | 58 | 84 | 102 | 60 | 76 | 70 | 105 |
| 460-246277-3 | AMW-2-20211027 | 84 | 80 | 93 | 98 | 75 | 88 | 97 | 112 |
| 460-246277-4 | AMW-1-20211027 | 95 | 91 | 91 | 89 | 84 | 107 | 115 | 126 |
| 460-246277-5 | MW-202S-20211027 | 85 | 82 | 88 | 88 | 76 | 98 | 99 | 119 |
| 460-246277-6 | MW-202D-20211027 | 87 | 77 | 95 | 97 | 75 | 96 | 97 | 110 |
| 460-246277-7 | MW-9S-20211027 | 80 | 73 | 91 | 103 | 72 | 95 | 94 | 109 |
| 460-246277-8 | MW-24S-20211027 | 97 | 91 | 95 | 92 | 90 | 108 | 116 | 120 |
| 460-246277-8 MS | MW-24S-20211027 | 90 | 84 | 90 | 90 | 81 | 104 | 106 | 116 |
| 460-246277-8 MSD | MW-24S-20211027 | 91 | 85 | 88 | 88 | 84 | 100 | 106 | 112 |
| 460-246277-9 | BP-101-20211028 | 81 | 78 | 91 | 100 | 72 | 94 | 97 | 107 |
| 460-246277-10 | EP-02-20211028 | 87 | 73 | 83 | 105 | 64 | 94 | 95 | 112 |
| 460-246277-11 | MW-23S-20211028 | 87 | 84 | 88 | 94 | 82 | 98 | 106 | 110 |
| 460-246277-12 | MW-37AQ-20211028 | 89 | 93 | 92 | 99 | 83 | 104 | 102 | 118 |
| 460-246277-13 | AMW-5-20211028 | 87 | 82 | 91 | 99 | 82 | 97 | 99 | 111 |
| 460-246277-14 | MW-5S-20211028 | 82 | 78 | 93 | 107 | 69 | 94 | 89 | 110 |
| 460-246277-15 | MW-34-20211028 | 85 | 68 | 59 | 98 | 32 *5- | 129 | 142 | 185 *5+ |
| 460-246277-16 | MW-1S-20211028 | 86 | 82 | 91 | 98 | 77 | 96 | 105 | 110 |
| 460-246277-17 | MW-102-20211028 | 79 | 73 | 89 | 97 | 68 | 87 | 86 | 107 |
| 460-246277-18 | MW-26S-20211028 | 84 | 78 | 94 | 89 | 65 | 101 | 101 | 115 |
| 460-246277-18 MS | MW-26S-20211028 | 85 | 79 | 93 | 92 | 63 | 100 | 102 | 120 |
| 460-246277-18 MSD | MW-26S-20211028 | 91 | 86 | 97 | 95 | 73 | 107 | 108 | 127 |
| 460-246277-19 | MW-7S-20211028 | 79 | 74 | 84 | 104 | 74 | 88 | 98 | 106 |
| 460-246277-20 | AMW-4-20211028 | 85 | 81 | 88 | 93 | 80 | 90 | 96 | 113 |
| 460-246277-21 | AMW-11-20211028 | 92 | 89 | 91 | 102 | 82 | 101 | 106 | 108 |
| 460-246277-22 | AMW-6-20211028 | 95 | 92 | 85 | 95 | 91 | 108 | 120 | 134 |
| 460-246277-23 | AMW-3-20211028 | 97 | 100 | 83 | 90 | 98 | 135 | 149 | 158 *5+ |
| 460-246277-24 | DUP-02-20211028 | 96 | 94 | 83 | 92 | 92 | 133 | 140 | 145 |
| 460-246277-25 | MW-201-20211028 | 94 | 89 | 85 | 89 | 83 | 110 | 114 | 130 |
| 460-246277-26 | MW-4S-20211029 | 66 | 62 | 82 | 100 | 62 | 82 | 81 | 105 |
| 460-246277-27 | MW-3S-20211029 | 68 | 61 | 88 | 103 | 65 | 86 | 79 | 106 |
| 460-246277-28 - DL | AMW-8-20211029 | | | | | | | | |
| 460-246277-28 | AMW-8-20211029 | 77 | 67 | 70 | 95 | 62 | 99 | 109 | 129 |
| 460-246277-29 | AMW-9-20211029 | 88 | 86 | 67 | 92 | 94 | 129 | 149 | 165 *5+ |
| 460-246277-30 | AMW-7-20211029 | 89 | 85 | 78 | 93 | 82 | 99 | 107 | 125 |
| 460-246277-31 - DL | AMW-10-20211029 | | | | | | | | |
| 460-246277-31 | AMW-10-20211029 | 96 | 88 | 85 | 93 | 93 | 105 | 117 | 126 |
| 460-246277-32 | MW-53S-20211029 | 86 | 90 | 85 | 103 | 86 | 98 | 102 | 116 |
| LCS 200-173528/2-A | Lab Control Sample | 80 | 68 | 78 | 109 | 64 | 94 | 89 | 106 |
| LCS 200-173541/2-A | Lab Control Sample | | | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | 83 | 78 | 75 | 107 | 74 | 106 | 93 | 113 |
| LCSD 200-173541/3-A | Lab Control Sample Dup | | | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 81 | 76 | 74 | 110 | 77 | 101 | 90 | 111 |
| MB 200-173528/1-A | Method Blank | 84 | 77 | 82 | 107 | 71 | 95 | 96 | 111 |
| MB 200-173541/1-A | Method Blank | | | | | | | | |
| MB 200-173541/1-A | Method Blank | 75 | 69 | 66 | 103 | 69 | 90 | 88 | 109 |

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water**
**Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | M282FTS (25-150) | C3PFBS (50-150) | | | | | | |
| 460-246277-1 | MH-102-20211027 | 103 | 94 | | | | | | |
| 460-246277-2 - DL | AP-101-20211027 | | | | | | | | |
| 460-246277-2 | AP-101-20211027 | 91 | 92 | | | | | | |
| 460-246277-3 | AMW-2-20211027 | 111 | 94 | | | | | | |
| 460-246277-4 | AMW-1-20211027 | 143 | 97 | | | | | | |
| 460-246277-5 | MW-202S-20211027 | 119 | 92 | | | | | | |
| 460-246277-6 | MW-202D-20211027 | 120 | 92 | | | | | | |
| 460-246277-7 | MW-9S-20211027 | 111 | 95 | | | | | | |
| 460-246277-8 | MW-24S-20211027 | 130 | 92 | | | | | | |
| 460-246277-8 MS | MW-24S-20211027 | 124 | 90 | | | | | | |
| 460-246277-8 MSD | MW-24S-20211027 | 124 | 88 | | | | | | |
| 460-246277-9 | BP-101-20211028 | 108 | 92 | | | | | | |
| 460-246277-10 | EP-02-20211028 | 114 | 95 | | | | | | |
| 460-246277-11 | MW-23S-20211028 | 113 | 90 | | | | | | |
| 460-246277-12 | MW-37AQ-20211028 | 122 | 93 | | | | | | |
| 460-246277-13 | AMW-5-20211028 | 116 | 91 | | | | | | |
| 460-246277-14 | MW-5S-20211028 | 110 | 93 | | | | | | |
| 460-246277-15 | MW-34-20211028 | 186 *5+ | 122 | | | | | | |
| 460-246277-16 | MW-1S-20211028 | 116 | 92 | | | | | | |
| 460-246277-17 | MW-102-20211028 | 103 | 92 | | | | | | |
| 460-246277-18 | MW-26S-20211028 | 112 | 89 | | | | | | |
| 460-246277-18 MS | MW-26S-20211028 | 118 | 90 | | | | | | |
| 460-246277-18 MSD | MW-26S-20211028 | 115 | 93 | | | | | | |
| 460-246277-19 | MW-7S-20211028 | 103 | 97 | | | | | | |
| 460-246277-20 | AMW-4-20211028 | 122 | 92 | | | | | | |
| 460-246277-21 | AMW-11-20211028 | 112 | 96 | | | | | | |
| 460-246277-22 | AMW-6-20211028 | 139 | 96 | | | | | | |
| 460-246277-23 | AMW-3-20211028 | 164 *5+ | 99 | | | | | | |
| 460-246277-24 | DUP-02-20211028 | 149 | 100 | | | | | | |
| 460-246277-25 | MW-201-20211028 | 126 | 95 | | | | | | |
| 460-246277-26 | MW-4S-20211029 | 91 | 95 | | | | | | |
| 460-246277-27 | MW-3S-20211029 | 96 | 97 | | | | | | |
| 460-246277-28 - DL | AMW-8-20211029 | | | | | | | | |
| 460-246277-28 | AMW-8-20211029 | 118 | 96 | | | | | | |
| 460-246277-29 | AMW-9-20211029 | 180 *5+ | 110 | | | | | | |
| 460-246277-30 | AMW-7-20211029 | 125 | 95 | | | | | | |
| 460-246277-31 - DL | AMW-10-20211029 | | | | | | | | |
| 460-246277-31 | AMW-10-20211029 | 127 | 93 | | | | | | |
| 460-246277-32 | MW-53S-20211029 | 107 | 102 | | | | | | |
| LCS 200-173528/2-A | Lab Control Sample | 108 | 98 | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | | | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | 112 | 95 | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | | | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 111 | 99 | | | | | | |
| MB 200-173528/1-A | Method Blank | 111 | 93 | | | | | | |
| MB 200-173541/1-A | Method Blank | | | | | | | | |
| MB 200-173541/1-A | Method Blank | 104 | 94 | | | | | | |

**Surrogate Legend**

PFHxS = 18O2 PFHxS

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

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

**Lab Sample ID: MB 460-811052/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 15:36 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *26* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 15:36* | *1* |

**Lab Sample ID: LCS 460-811052/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 1.60 | 1.66 | | ug/L | | 104 | 50 - 142 | | |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *22* | | *10 - 150* |

**Lab Sample ID: LCSD 460-811052/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 1.60 | 1.63 | | ug/L | | 102 | 50 - 142 | 2 | 20 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *23* | | *10 - 150* |

**Lab Sample ID: 460-246277-8 MS**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.43 | F1 F2 | 1.60 | 2.81 | F1 | ug/L | | 149 | 50 - 142 | | |

| *Isotope Dilution* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *26* | | *10 - 150* |

**Lab Sample ID: 460-246277-8 MSD**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.43 | F1 F2 | 1.60 | 2.20 | F2 | ug/L | | 111 | 50 - 142 | 24 | 20 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *32* | | *10 - 150* |

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

**Lab Sample ID: 460-246277-18 MS**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 1.60 | 2.21 | | ug/L | | 138 | 50 - 142 |

| *Isotope Dilution* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *32* | | *10 - 150* |

**Lab Sample ID: 460-246277-18 MSD**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 1.60 | 2.00 | | ug/L | | 125 | 50 - 142 | 10 | 20 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *32* | | *10 - 150* |

**Lab Sample ID: MB 460-811103/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811217**
**Prep Batch: 811103**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 10:58 | 11/03/21 23:37 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *33* | | *10 - 150* | *11/03/21 10:58* | *11/03/21 23:37* | *1* |

**Lab Sample ID: LCS 460-811103/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811217**
**Prep Batch: 811103**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.35 | | ug/L | | 84 | 50 - 142 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *29* | | *10 - 150* |

**Lab Sample ID: LCSD 460-811103/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811217**
**Prep Batch: 811103**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.20 | | ug/L | | 75 | 50 - 142 | 12 | 20 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *33* | | *10 - 150* |

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

**Lab Sample ID: MB 200-173528/1-A**
**Matrix: Water**
**Analysis Batch: 173682**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 173528**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.25 | U | 2.00 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.879 | J | 5.00 | 0.74 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 04:20 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C4 PFHpA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C4 PFOA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C4 PFOS* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C5 PFNA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C4 PFBA* | *118* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C2 PFHxA* | *104* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C2 PFDA* | *87* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C2 PFUnA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C2 PFDoA* | *77* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C8 FOSA* | *82* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C5 PFPeA* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C2 PFTeDA* | *71* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *d3-NMeFOSAA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *d5-NEtFOSAA* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *M2-6:2 FTS* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *M2-8:2 FTS* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |
| *13C3 PFBS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 04:20* | *1* |

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

**Lab Sample ID: LCS 200-173528/2-A**
**Matrix: Water**
**Analysis Batch: 173682**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 173528**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 37.84 | | ng/L | | 95 | 70 - 130 |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 39.66 | | ng/L | | 99 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 37.97 | | ng/L | | 95 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 38.04 | | ng/L | | 95 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | 40.0 | 39.00 | | ng/L | | 98 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | 40.0 | 39.16 | | ng/L | | 98 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | 40.0 | 40.75 | | ng/L | | 102 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 38.08 | | ng/L | | 95 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 39.05 | | ng/L | | 98 | 70 - 130 |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 40.59 | | ng/L | | 101 | 70 - 130 |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 42.44 | | ng/L | | 106 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 33.15 | | ng/L | | 94 | 70 - 130 |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 34.29 | | ng/L | | 94 | 70 - 130 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 37.23 | | ng/L | | 98 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 36.65 | | ng/L | | 99 | 70 - 130 |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 29.98 | | ng/L | | 78 | 70 - 130 |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 38.90 | | ng/L | | 97 | 70 - 130 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 40.27 | | ng/L | | 101 | 70 - 130 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 37.13 | | ng/L | | 93 | 70 - 130 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 39.29 | | ng/L | | 104 | 60 - 140 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 35.90 | | ng/L | | 94 | 70 - 130 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *97* | | *50 - 150* |
| *13C4 PFHpA* | *98* | | *50 - 150* |
| *13C4 PFOA* | *95* | | *50 - 150* |
| *13C4 PFOS* | *96* | | *50 - 150* |
| *13C5 PFNA* | *92* | | *50 - 150* |
| *13C4 PFBA* | *122* | | *25 - 150* |
| *13C2 PFHxA* | *106* | | *50 - 150* |
| *13C2 PFDA* | *85* | | *50 - 150* |
| *13C2 PFUnA* | *80* | | *50 - 150* |
| *13C2 PFDoA* | *68* | | *50 - 150* |
| *13C8 FOSA* | *78* | | *25 - 150* |
| *13C5 PFPeA* | *109* | | *25 - 150* |
| *13C2 PFTeDA* | *64* | | *50 - 150* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* |
| *d5-NEtFOSAA* | *89* | | *50 - 150* |

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

**Lab Sample ID: LCS 200-173528/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| M2-6:2 FTS | 106 | | 25 - 150 |
| M2-8:2 FTS | 108 | | 25 - 150 |
| 13C3 PFBS | 98 | | 50 - 150 |

**Lab Sample ID: 460-246277-8 MS**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.47 | | 34.8 | 42.93 | | ng/L | | 96 | 60 - 140 |
| Perfluoropentanoic acid (PFPeA) | 9.60 | | 34.8 | 44.56 | | ng/L | | 101 | 60 - 140 |
| Perfluorohexanoic acid (PFHxA) | 12.6 | | 34.8 | 46.19 | | ng/L | | 97 | 60 - 140 |
| Perfluoroheptanoic acid (PFHpA) | 7.05 | | 34.8 | 40.94 | | ng/L | | 97 | 60 - 140 |
| Perfluorooctanoic acid (PFOA) | 31.6 | | 34.8 | 67.61 | | ng/L | | 104 | 60 - 140 |
| Perfluorononanoic acid (PFNA) | 3.31 | | 34.8 | 37.59 | | ng/L | | 99 | 60 - 140 |
| Perfluorodecanoic acid (PFDA) | 1.14 | J | 34.8 | 36.50 | | ng/L | | 102 | 60 - 140 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 34.8 | 34.22 | | ng/L | | 98 | 60 - 140 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 34.8 | 36.87 | | ng/L | | 106 | 60 - 140 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 34.8 | 35.18 | | ng/L | | 101 | 60 - 140 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 34.8 | 39.35 | | ng/L | | 113 | 60 - 140 |
| Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 30.7 | 39.11 | | ng/L | | 100 | 60 - 140 |
| Perfluorohexanesulfonic acid (PFHxS) | 41.2 | | 31.6 | 72.79 | | ng/L | | 100 | 60 - 140 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.29 | J | 33.1 | 33.70 | | ng/L | | 98 | 60 - 140 |
| Perfluorooctanesulfonic acid (PFOS) | 45.2 | | 32.3 | 78.61 | | ng/L | | 104 | 60 - 140 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 33.5 | 31.54 | | ng/L | | 94 | 60 - 140 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 34.8 | 36.00 | | ng/L | | 104 | 60 - 140 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 34.8 | 34.54 | | ng/L | | 99 | 60 - 140 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 34.8 | 34.35 | | ng/L | | 99 | 60 - 140 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.94 | U | 33.0 | 33.87 | | ng/L | | 103 | 50 - 150 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 33.3 | 32.60 | | ng/L | | 98 | 60 - 140 |

| Isotope Dilution | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 18O2 PFHxS | 94 | | 50 - 150 |
| 13C4 PFHpA | 95 | | 50 - 150 |
| 13C4 PFOA | 94 | | 50 - 150 |
| 13C4 PFOS | 100 | | 50 - 150 |
| 13C5 PFNA | 95 | | 50 - 150 |
| 13C4 PFBA | 79 | | 25 - 150 |

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

**Lab Sample ID: 460-246277-8 MS**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Isotope Dilution | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 13C2 PFHxA | 97 | | 50 - 150 |
| 13C2 PFDA | 88 | | 50 - 150 |
| 13C2 PFUnA | 90 | | 50 - 150 |
| 13C2 PFDoA | 84 | | 50 - 150 |
| 13C8 FOSA | 90 | | 25 - 150 |
| 13C5 PFPeA | 90 | | 25 - 150 |
| 13C2 PFTeDA | 81 | | 50 - 150 |
| d3-NMeFOSAA | 104 | | 50 - 150 |
| d5-NEtFOSAA | 106 | | 50 - 150 |
| M2-6:2 FTS | 116 | | 25 - 150 |
| M2-8:2 FTS | 124 | | 25 - 150 |
| 13C3 PFBS | 90 | | 50 - 150 |

**Lab Sample ID: 460-246277-8 MSD**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 9.47 | | 32.9 | 40.13 | | ng/L | | 93 | 60 - 140 | 7 | 30 |
| Perfluoropentanoic acid (PFPeA) | 9.60 | | 32.9 | 42.80 | | ng/L | | 101 | 60 - 140 | 4 | 30 |
| Perfluorohexanoic acid (PFHxA) | 12.6 | | 32.9 | 43.59 | | ng/L | | 94 | 60 - 140 | 6 | 30 |
| Perfluoroheptanoic acid (PFHpA) | 7.05 | | 32.9 | 39.65 | | ng/L | | 99 | 60 - 140 | 3 | 30 |
| Perfluorooctanoic acid (PFOA) | 31.6 | | 32.9 | 65.50 | | ng/L | | 103 | 60 - 140 | 3 | 30 |
| Perfluorononanoic acid (PFNA) | 3.31 | | 32.9 | 36.58 | | ng/L | | 101 | 60 - 140 | 3 | 30 |
| Perfluorodecanoic acid (PFDA) | 1.14 | J | 32.9 | 36.20 | | ng/L | | 107 | 60 - 140 | 1 | 30 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 32.9 | 32.08 | | ng/L | | 97 | 60 - 140 | 6 | 30 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 32.9 | 34.45 | | ng/L | | 105 | 60 - 140 | 7 | 30 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 32.9 | 34.43 | | ng/L | | 105 | 60 - 140 | 2 | 30 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 32.9 | 34.96 | | ng/L | | 106 | 60 - 140 | 12 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 29.1 | 36.56 | | ng/L | | 97 | 60 - 140 | 7 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 41.2 | | 29.9 | 68.73 | | ng/L | | 92 | 60 - 140 | 6 | 30 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.29 | J | 31.3 | 31.55 | | ng/L | | 97 | 60 - 140 | 7 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 45.2 | | 30.5 | 75.64 | | ng/L | | 100 | 60 - 140 | 4 | 30 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 31.7 | 30.42 | | ng/L | | 96 | 60 - 140 | 4 | 30 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 32.9 | 34.68 | | ng/L | | 105 | 60 - 140 | 4 | 30 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 32.9 | 36.37 | | ng/L | | 111 | 60 - 140 | 5 | 30 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 32.9 | 33.22 | | ng/L | | 101 | 60 - 140 | 3 | 30 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.94 | U | 31.2 | 32.07 | | ng/L | | 103 | 50 - 150 | 5 | 30 |

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

**Lab Sample ID: 460-246277-8 MSD** — **Client Sample ID: MW-24S-20211027**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 173682** — **Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 31.5 | 30.33 | | ng/L | | 96 | 60 - 140 | 7 | 30 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *93* | | *50 - 150* |
| *13C4 PFHpA* | *92* | | *50 - 150* |
| *13C4 PFOA* | *90* | | *50 - 150* |
| *13C4 PFOS* | *98* | | *50 - 150* |
| *13C5 PFNA* | *93* | | *50 - 150* |
| *13C4 PFBA* | *76* | | *25 - 150* |
| *13C2 PFHxA* | *91* | | *50 - 150* |
| *13C2 PFDA* | *87* | | *50 - 150* |
| *13C2 PFUnA* | *91* | | *50 - 150* |
| *13C2 PFDoA* | *85* | | *50 - 150* |
| *13C8 FOSA* | *88* | | *25 - 150* |
| *13C5 PFPeA* | *88* | | *25 - 150* |
| *13C2 PFTeDA* | *84* | | *50 - 150* |
| *d3-NMeFOSAA* | *100* | | *50 - 150* |
| *d5-NEtFOSAA* | *106* | | *50 - 150* |
| *M2-6:2 FTS* | *112* | | *25 - 150* |
| *M2-8:2 FTS* | *124* | | *25 - 150* |
| *13C3 PFBS* | *88* | | *50 - 150* |

**Lab Sample ID: 460-246277-18 MS** — **Client Sample ID: MW-26S-20211028**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 173682** — **Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.28 | | 35.5 | 41.81 | | ng/L | | 94 | 60 - 140 |
| Perfluoropentanoic acid (PFPeA) | 11.0 | | 35.5 | 47.57 | | ng/L | | 103 | 60 - 140 |
| Perfluorohexanoic acid (PFHxA) | 15.3 | | 35.5 | 49.87 | | ng/L | | 97 | 60 - 140 |
| Perfluoroheptanoic acid (PFHpA) | 5.29 | | 35.5 | 39.75 | | ng/L | | 97 | 60 - 140 |
| Perfluorooctanoic acid (PFOA) | 14.7 | | 35.5 | 49.31 | | ng/L | | 97 | 60 - 140 |
| Perfluorononanoic acid (PFNA) | 1.61 | J | 35.5 | 36.14 | | ng/L | | 97 | 60 - 140 |
| Perfluorodecanoic acid (PFDA) | 0.50 | J | 35.5 | 39.09 | | ng/L | | 109 | 60 - 140 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 35.5 | 37.19 | | ng/L | | 105 | 60 - 140 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 35.5 | 38.33 | | ng/L | | 108 | 60 - 140 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 35.5 | 34.46 | | ng/L | | 97 | 60 - 140 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 35.5 | 43.86 | | ng/L | | 123 | 60 - 140 |
| Perfluorobutanesulfonic acid (PFBS) | 8.59 | | 31.4 | 40.15 | | ng/L | | 100 | 60 - 140 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | | 32.3 | 144.7 | | ng/L | | 105 | 60 - 140 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 5.03 | | 33.8 | 39.41 | | ng/L | | 102 | 60 - 140 |
| Perfluorooctanesulfonic acid (PFOS) | 286 | | 33.0 | 310.2 | 4 | ng/L | | 73 | 60 - 140 |

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

**Lab Sample ID: 460-246277-18 MS**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 34.3 | 31.90 | | ng/L | | 93 | 60 - 140 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 35.5 | 37.04 | | ng/L | | 104 | 60 - 140 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 35.5 | 37.07 | | ng/L | | 104 | 60 - 140 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 35.5 | 35.60 | | ng/L | | 100 | 60 - 140 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 33.7 | 35.29 | | ng/L | | 105 | 50 - 150 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 34.0 | 31.77 | | ng/L | | 93 | 60 - 140 |

| *Isotope Dilution* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *97* | | *50 - 150* |
| *13C4 PFHpA* | *99* | | *50 - 150* |
| *13C4 PFOA* | *96* | | *50 - 150* |
| *13C4 PFOS* | *99* | | *50 - 150* |
| *13C5 PFNA* | *96* | | *50 - 150* |
| *13C4 PFBA* | *77* | | *25 - 150* |
| *13C2 PFHxA* | *96* | | *50 - 150* |
| *13C2 PFDA* | *92* | | *50 - 150* |
| *13C2 PFUnA* | *85* | | *50 - 150* |
| *13C2 PFDoA* | *79* | | *50 - 150* |
| *13C8 FOSA* | *93* | | *25 - 150* |
| *13C5 PFPeA* | *92* | | *25 - 150* |
| *13C2 PFTeDA* | *63* | | *50 - 150* |
| *d3-NMeFOSAA* | *100* | | *50 - 150* |
| *d5-NEtFOSAA* | *102* | | *50 - 150* |
| *M2-6:2 FTS* | *120* | | *25 - 150* |
| *M2-8:2 FTS* | *118* | | *25 - 150* |
| *13C3 PFBS* | *90* | | *50 - 150* |

**Lab Sample ID: 460-246277-18 MSD**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 8.28 | | 35.0 | 40.84 | | ng/L | | 93 | 60 - 140 | 2 | 30 |
| Perfluoropentanoic acid (PFPeA) | 11.0 | | 35.0 | 45.98 | | ng/L | | 100 | 60 - 140 | 3 | 30 |
| Perfluorohexanoic acid (PFHxA) | 15.3 | | 35.0 | 50.09 | | ng/L | | 99 | 60 - 140 | 0 | 30 |
| Perfluoroheptanoic acid (PFHpA) | 5.29 | | 35.0 | 41.22 | | ng/L | | 103 | 60 - 140 | 4 | 30 |
| Perfluorooctanoic acid (PFOA) | 14.7 | | 35.0 | 50.07 | | ng/L | | 101 | 60 - 140 | 2 | 30 |
| Perfluorononanoic acid (PFNA) | 1.61 | J | 35.0 | 34.33 | | ng/L | | 93 | 60 - 140 | 5 | 30 |
| Perfluorodecanoic acid (PFDA) | 0.50 | J | 35.0 | 37.42 | | ng/L | | 105 | 60 - 140 | 4 | 30 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 35.0 | 36.86 | | ng/L | | 105 | 60 - 140 | 1 | 30 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 35.0 | 36.73 | | ng/L | | 105 | 60 - 140 | 4 | 30 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 35.0 | 35.38 | | ng/L | | 101 | 60 - 140 | 3 | 30 |

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

**Lab Sample ID: 460-246277-18 MSD**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 35.0 | 41.92 | | ng/L | | 120 | 60 - 140 | 5 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 8.59 | | 30.9 | 40.34 | | ng/L | | 103 | 60 - 140 | 0 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | | 31.9 | 145.6 | | ng/L | | 109 | 60 - 140 | 1 | 30 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 5.03 | | 33.3 | 38.53 | | ng/L | | 101 | 60 - 140 | 2 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 286 | | 32.5 | 299.7 | 4 | ng/L | | 42 | 60 - 140 | 3 | 30 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 33.7 | 31.13 | | ng/L | | 92 | 60 - 140 | 2 | 30 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 35.0 | 36.45 | | ng/L | | 104 | 60 - 140 | 2 | 30 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 35.0 | 38.91 | | ng/L | | 111 | 60 - 140 | 5 | 30 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 35.0 | 35.40 | | ng/L | | 101 | 60 - 140 | 1 | 30 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 33.2 | 35.17 | | ng/L | | 106 | 50 - 150 | 0 | 30 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 33.5 | 31.16 | | ng/L | | 93 | 60 - 140 | 2 | 30 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *99* | | *50 - 150* |
| *13C4 PFHpA* | *98* | | *50 - 150* |
| *13C4 PFOA* | *100* | | *50 - 150* |
| *13C4 PFOS* | *107* | | *50 - 150* |
| *13C5 PFNA* | *104* | | *50 - 150* |
| *13C4 PFBA* | *82* | | *25 - 150* |
| *13C2 PFHxA* | *99* | | *50 - 150* |
| *13C2 PFDA* | *95* | | *50 - 150* |
| *13C2 PFUnA* | *91* | | *50 - 150* |
| *13C2 PFDoA* | *86* | | *50 - 150* |
| *13C8 FOSA* | *97* | | *25 - 150* |
| *13C5 PFPeA* | *95* | | *25 - 150* |
| *13C2 PFTeDA* | *73* | | *50 - 150* |
| *d3-NMeFOSAA* | *107* | | *50 - 150* |
| *d5-NEtFOSAA* | *108* | | *50 - 150* |
| *M2-6:2 FTS* | *127* | | *25 - 150* |
| *M2-8:2 FTS* | *115* | | *25 - 150* |
| *13C3 PFBS* | *93* | | *50 - 150* |

**Lab Sample ID: MB 200-173541/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173621**
**Prep Batch: 173541**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/05/21 09:47 | 11/08/21 17:13 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 | ng/L | | 11/05/21 09:47 | 11/08/21 17:13 | 1 |

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

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 98 | | 50 - 150 | 11/05/21 09:47 | 11/08/21 17:13 | 1 |
| 13C4 PFOS | 91 | | 50 - 150 | 11/05/21 09:47 | 11/08/21 17:13 | 1 |

**Lab Sample ID: MB 200-173541/1-A**
**Matrix: Water**
**Analysis Batch: 173694**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 173541**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | 0.585 | J | 2.00 | 0.25 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.74 | U | 5.00 | 0.74 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 | ng/L | | 11/05/21 09:47 | 11/10/21 12:11 | 1 |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 18O2 PFHxS | 95 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C4 PFHpA | 98 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C4 PFOA | 94 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C4 PFOS | 94 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C5 PFNA | 92 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C4 PFBA | 117 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C2 PFHxA | 101 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C2 PFDA | 83 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C2 PFUnA | 75 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C2 PFDoA | 69 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C8 FOSA | 66 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C5 PFPeA | 103 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| 13C2 PFTeDA | 69 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| d3-NMeFOSAA | 90 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| d5-NEtFOSAA | 88 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| M2-6:2 FTS | 109 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |
| M2-8:2 FTS | 104 | | 25 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |

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

**Lab Sample ID: MB 200-173541/1-A**
**Matrix: Water**
**Analysis Batch: 173694**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 173541**

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 13C3 PFBS | 94 | | 50 - 150 | 11/05/21 09:47 | 11/10/21 12:11 | 1 |

**Lab Sample ID: LCS 200-173541/2-A**
**Matrix: Water**
**Analysis Batch: 173621**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 173541**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 36.72 | | ng/L | | 101 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 36.76 | | ng/L | | 99 | 70 - 130 |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 18O2 PFHxS | 104 | | 50 - 150 |
| 13C4 PFOS | 101 | | 50 - 150 |

**Lab Sample ID: LCS 200-173541/2-A**
**Matrix: Water**
**Analysis Batch: 173694**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 173541**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 40.49 | | ng/L | | 101 | 70 - 130 |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 40.85 | | ng/L | | 102 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 41.12 | | ng/L | | 103 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 40.56 | | ng/L | | 101 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | 40.0 | 39.86 | | ng/L | | 100 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | 40.0 | 42.15 | | ng/L | | 105 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | 40.0 | 43.54 | | ng/L | | 109 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 40.50 | | ng/L | | 101 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 41.34 | | ng/L | | 103 | 70 - 130 |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 40.19 | | ng/L | | 100 | 70 - 130 |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 42.83 | | ng/L | | 107 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 36.02 | | ng/L | | 102 | 70 - 130 |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 36.74 | | ng/L | | 101 | 70 - 130 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 39.61 | | ng/L | | 104 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 37.69 | | ng/L | | 102 | 70 - 130 |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 34.08 | | ng/L | | 88 | 70 - 130 |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 41.27 | | ng/L | | 103 | 70 - 130 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 38.08 | | ng/L | | 95 | 70 - 130 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 41.75 | | ng/L | | 104 | 70 - 130 |

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

**Lab Sample ID: LCS 200-173541/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173694**
**Prep Batch: 173541**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | | 37.9 | 38.87 | | ng/L | | 102 | 60 - 140 | | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | | 38.3 | 36.42 | | ng/L | | 95 | 70 - 130 | | |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* |
| *13C4 PFHpA* | *100* | | *50 - 150* |
| *13C4 PFOA* | *97* | | *50 - 150* |
| *13C4 PFOS* | *99* | | *50 - 150* |
| *13C5 PFNA* | *91* | | *50 - 150* |
| *13C4 PFBA* | *117* | | *25 - 150* |
| *13C2 PFHxA* | *102* | | *50 - 150* |
| *13C2 PFDA* | *87* | | *50 - 150* |
| *13C2 PFUnA* | *83* | | *50 - 150* |
| *13C2 PFDoA* | *78* | | *50 - 150* |
| *13C8 FOSA* | *75* | | *25 - 150* |
| *13C5 PFPeA* | *107* | | *25 - 150* |
| *13C2 PFTeDA* | *74* | | *50 - 150* |
| *d3-NMeFOSAA* | *106* | | *50 - 150* |
| *d5-NEtFOSAA* | *93* | | *50 - 150* |
| *M2-6:2 FTS* | *113* | | *25 - 150* |
| *M2-8:2 FTS* | *112* | | *25 - 150* |
| *13C3 PFBS* | *95* | | *50 - 150* |

**Lab Sample ID: LCSD 200-173541/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173621**
**Prep Batch: 173541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | | | 36.4 | 36.57 | | ng/L | | 100 | 70 - 130 | 0 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | | | 37.1 | 37.25 | | ng/L | | 100 | 70 - 130 | 1 | 30 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *104* | | *50 - 150* |
| *13C4 PFOS* | *100* | | *50 - 150* |

**Lab Sample ID: LCSD 200-173541/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173694**
**Prep Batch: 173541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | | | 40.0 | 39.23 | | ng/L | | 98 | 70 - 130 | 3 | 30 |
| Perfluoropentanoic acid (PFPeA) | | | 40.0 | 41.05 | | ng/L | | 103 | 70 - 130 | 0 | 30 |
| Perfluorohexanoic acid (PFHxA) | | | 40.0 | 39.67 | | ng/L | | 99 | 70 - 130 | 4 | 30 |
| Perfluoroheptanoic acid (PFHpA) | | | 40.0 | 39.42 | | ng/L | | 99 | 70 - 130 | 3 | 30 |
| Perfluorooctanoic acid (PFOA) | | | 40.0 | 39.57 | | ng/L | | 99 | 70 - 130 | 1 | 30 |
| Perfluorononanoic acid (PFNA) | | | 40.0 | 41.69 | | ng/L | | 104 | 70 - 130 | 1 | 30 |

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

**Lab Sample ID: LCSD 200-173541/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173694**
**Prep Batch: 173541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorodecanoic acid (PFDA) | | | 40.0 | 41.40 | | ng/L | | 103 | 70 - 130 | 5 | 30 |
| Perfluoroundecanoic acid (PFUnA) | | | 40.0 | 41.32 | | ng/L | | 103 | 70 - 130 | 2 | 30 |
| Perfluorododecanoic acid (PFDoA) | | | 40.0 | 40.53 | | ng/L | | 101 | 70 - 130 | 2 | 30 |
| Perfluorotridecanoic acid (PFTriA) | | | 40.0 | 39.10 | | ng/L | | 98 | 70 - 130 | 3 | 30 |
| Perfluorotetradecanoic acid (PFTeA) | | | 40.0 | 42.23 | | ng/L | | 106 | 70 - 130 | 1 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | | | 35.4 | 36.26 | | ng/L | | 103 | 70 - 130 | 1 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | | | 36.4 | 37.02 | | ng/L | | 102 | 70 - 130 | 1 | 30 |
| Perfluoroheptanesulfonic Acid (PFHpS) | | | 38.1 | 38.69 | | ng/L | | 102 | 70 - 130 | 2 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | | | 37.1 | 37.99 | | ng/L | | 102 | 70 - 130 | 1 | 30 |
| Perfluorodecanesulfonic acid (PFDS) | | | 38.6 | 31.70 | | ng/L | | 82 | 70 - 130 | 7 | 30 |
| Perfluorooctanesulfonamide (PFOSA) | | | 40.0 | 39.08 | | ng/L | | 98 | 70 - 130 | 5 | 30 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | | 40.0 | 42.69 | | ng/L | | 107 | 70 - 130 | 11 | 30 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | | 40.0 | 40.45 | | ng/L | | 101 | 70 - 130 | 3 | 30 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | | 37.9 | 40.24 | | ng/L | | 106 | 60 - 140 | 3 | 30 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | | 38.3 | 37.96 | | ng/L | | 99 | 70 - 150 | 4 | 30 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *100* | | *50 - 150* |
| *13C4 PFHpA* | *103* | | *50 - 150* |
| *13C4 PFOA* | *100* | | *50 - 150* |
| *13C4 PFOS* | *101* | | *50 - 150* |
| *13C5 PFNA* | *97* | | *50 - 150* |
| *13C4 PFBA* | *124* | | *25 - 150* |
| *13C2 PFHxA* | *108* | | *50 - 150* |
| *13C2 PFDA* | *87* | | *50 - 150* |
| *13C2 PFUnA* | *81* | | *50 - 150* |
| *13C2 PFDoA* | *76* | | *50 - 150* |
| *13C8 FOSA* | *74* | | *25 - 150* |
| *13C5 PFPeA* | *110* | | *25 - 150* |
| *13C2 PFTeDA* | *77* | | *50 - 150* |
| *d3-NMeFOSAA* | *101* | | *50 - 150* |
| *d5-NEtFOSAA* | *90* | | *50 - 150* |
| *M2-6:2 FTS* | *111* | | *25 - 150* |
| *M2-8:2 FTS* | *111* | | *25 - 150* |
| *13C3 PFBS* | *99* | | *50 - 150* |

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| F2 | MS/MSD RPD exceeds control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

### LCMS

| Qualifier | Qualifier Description |
|---|---|
| *5- | Isotope dilution analyte is outside acceptance limits, low biased. |
| *5+ | Isotope dilution analyte is outside acceptance limits, high biased. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B | Compound was found in the blank and sample. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| I | Value is EMPC (estimated maximum possible concentration). |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

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

## GC/MS Semi VOA

### Prep Batch: 811052

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-1 | MH-102-20211027 | Total/NA | Water | 3510C | |
| 460-246277-2 | AP-101-20211027 | Total/NA | Water | 3510C | |
| 460-246277-3 | AMW-2-20211027 | Total/NA | Water | 3510C | |
| 460-246277-4 | AMW-1-20211027 | Total/NA | Water | 3510C | |
| 460-246277-5 | MW-202S-20211027 | Total/NA | Water | 3510C | |
| 460-246277-6 | MW-202D-20211027 | Total/NA | Water | 3510C | |
| 460-246277-7 | MW-9S-20211027 | Total/NA | Water | 3510C | |
| 460-246277-8 | MW-24S-20211027 | Total/NA | Water | 3510C | |
| 460-246277-9 | BP-101-20211028 | Total/NA | Water | 3510C | |
| 460-246277-10 | EP-02-20211028 | Total/NA | Water | 3510C | |
| 460-246277-11 | MW-23S-20211028 | Total/NA | Water | 3510C | |
| 460-246277-12 | MW-37AQ-20211028 | Total/NA | Water | 3510C | |
| 460-246277-13 | AMW-5-20211028 | Total/NA | Water | 3510C | |
| 460-246277-14 | MW-5S-20211028 | Total/NA | Water | 3510C | |
| 460-246277-15 | MW-34-20211028 | Total/NA | Water | 3510C | |
| 460-246277-16 | MW-1S-20211028 | Total/NA | Water | 3510C | |
| 460-246277-17 | MW-102-20211028 | Total/NA | Water | 3510C | |
| 460-246277-18 | MW-26S-20211028 | Total/NA | Water | 3510C | |
| MB 460-811052/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 460-811052/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 460-811052/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |
| 460-246277-8 MS | MW-24S-20211027 | Total/NA | Water | 3510C | |
| 460-246277-8 MSD | MW-24S-20211027 | Total/NA | Water | 3510C | |
| 460-246277-18 MS | MW-26S-20211028 | Total/NA | Water | 3510C | |
| 460-246277-18 MSD | MW-26S-20211028 | Total/NA | Water | 3510C | |

### Analysis Batch: 811092

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-1 | MH-102-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-2 | AP-101-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-3 | AMW-2-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-4 | AMW-1-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-5 | MW-202S-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-6 | MW-202D-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-7 | MW-9S-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-8 | MW-24S-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-9 | BP-101-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-10 | EP-02-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-11 | MW-23S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-12 | MW-37AQ-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-13 | AMW-5-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-14 | MW-5S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-15 | MW-34-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-16 | MW-1S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-17 | MW-102-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-18 | MW-26S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| MB 460-811052/1-A | Method Blank | Total/NA | Water | 8270E SIM ID | 811052 |
| LCS 460-811052/2-A | Lab Control Sample | Total/NA | Water | 8270E SIM ID | 811052 |
| LCSD 460-811052/3-A | Lab Control Sample Dup | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-8 MS | MW-24S-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-8 MSD | MW-24S-20211027 | Total/NA | Water | 8270E SIM ID | 811052 |

## GC/MS Semi VOA (Continued)

### Analysis Batch: 811092 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-18 MS | MW-26S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |
| 460-246277-18 MSD | MW-26S-20211028 | Total/NA | Water | 8270E SIM ID | 811052 |

### Prep Batch: 811103

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-19 | MW-7S-20211028 | Total/NA | Water | 3510C | |
| 460-246277-20 | AMW-4-20211028 | Total/NA | Water | 3510C | |
| 460-246277-21 | AMW-11-20211028 | Total/NA | Water | 3510C | |
| 460-246277-22 | AMW-6-20211028 | Total/NA | Water | 3510C | |
| 460-246277-23 | AMW-3-20211028 | Total/NA | Water | 3510C | |
| 460-246277-24 | DUP-02-20211028 | Total/NA | Water | 3510C | |
| 460-246277-25 | MW-201-20211028 | Total/NA | Water | 3510C | |
| 460-246277-26 | MW-4S-20211029 | Total/NA | Water | 3510C | |
| 460-246277-27 | MW-3S-20211029 | Total/NA | Water | 3510C | |
| 460-246277-28 | AMW-8-20211029 | Total/NA | Water | 3510C | |
| 460-246277-29 | AMW-9-20211029 | Total/NA | Water | 3510C | |
| 460-246277-30 | AMW-7-20211029 | Total/NA | Water | 3510C | |
| 460-246277-31 | AMW-10-20211029 | Total/NA | Water | 3510C | |
| 460-246277-32 | MW-53S-20211029 | Total/NA | Water | 3510C | |
| MB 460-811103/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 460-811103/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 460-811103/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |

### Analysis Batch: 811217

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-19 | MW-7S-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-20 | AMW-4-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-21 | AMW-11-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-22 | AMW-6-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-23 | AMW-3-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-24 | DUP-02-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-25 | MW-201-20211028 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-26 | MW-4S-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-27 | MW-3S-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-28 | AMW-8-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-29 | AMW-9-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-30 | AMW-7-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-31 | AMW-10-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| 460-246277-32 | MW-53S-20211029 | Total/NA | Water | 8270E SIM ID | 811103 |
| MB 460-811103/1-A | Method Blank | Total/NA | Water | 8270E SIM ID | 811103 |
| LCS 460-811103/2-A | Lab Control Sample | Total/NA | Water | 8270E SIM ID | 811103 |
| LCSD 460-811103/3-A | Lab Control Sample Dup | Total/NA | Water | 8270E SIM ID | 811103 |

## LCMS

### Prep Batch: 173528

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-1 | MH-102-20211027 | Total/NA | Water | 3535 | |
| 460-246277-2 - DL | AP-101-20211027 | Total/NA | Water | 3535 | |
| 460-246277-2 | AP-101-20211027 | Total/NA | Water | 3535 | |
| 460-246277-3 | AMW-2-20211027 | Total/NA | Water | 3535 | |

## LCMS (Continued)

### Prep Batch: 173528 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-4 | AMW-1-20211027 | Total/NA | Water | 3535 | |
| 460-246277-5 | MW-202S-20211027 | Total/NA | Water | 3535 | |
| 460-246277-6 | MW-202D-20211027 | Total/NA | Water | 3535 | |
| 460-246277-7 | MW-9S-20211027 | Total/NA | Water | 3535 | |
| 460-246277-8 | MW-24S-20211027 | Total/NA | Water | 3535 | |
| 460-246277-9 | BP-101-20211028 | Total/NA | Water | 3535 | |
| 460-246277-10 | EP-02-20211028 | Total/NA | Water | 3535 | |
| 460-246277-11 | MW-23S-20211028 | Total/NA | Water | 3535 | |
| 460-246277-12 | MW-37AQ-20211028 | Total/NA | Water | 3535 | |
| 460-246277-13 | AMW-5-20211028 | Total/NA | Water | 3535 | |
| 460-246277-14 | MW-5S-20211028 | Total/NA | Water | 3535 | |
| 460-246277-15 | MW-34-20211028 | Total/NA | Water | 3535 | |
| 460-246277-16 | MW-1S-20211028 | Total/NA | Water | 3535 | |
| 460-246277-17 | MW-102-20211028 | Total/NA | Water | 3535 | |
| 460-246277-18 | MW-26S-20211028 | Total/NA | Water | 3535 | |
| MB 200-173528/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 200-173528/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| 460-246277-8 MS | MW-24S-20211027 | Total/NA | Water | 3535 | |
| 460-246277-8 MSD | MW-24S-20211027 | Total/NA | Water | 3535 | |
| 460-246277-18 MS | MW-26S-20211028 | Total/NA | Water | 3535 | |
| 460-246277-18 MSD | MW-26S-20211028 | Total/NA | Water | 3535 | |

### Prep Batch: 173541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-19 | MW-7S-20211028 | Total/NA | Water | 3535 | |
| 460-246277-20 | AMW-4-20211028 | Total/NA | Water | 3535 | |
| 460-246277-21 | AMW-11-20211028 | Total/NA | Water | 3535 | |
| 460-246277-22 | AMW-6-20211028 | Total/NA | Water | 3535 | |
| 460-246277-23 | AMW-3-20211028 | Total/NA | Water | 3535 | |
| 460-246277-24 | DUP-02-20211028 | Total/NA | Water | 3535 | |
| 460-246277-25 | MW-201-20211028 | Total/NA | Water | 3535 | |
| 460-246277-26 | MW-4S-20211029 | Total/NA | Water | 3535 | |
| 460-246277-27 | MW-3S-20211029 | Total/NA | Water | 3535 | |
| 460-246277-28 | AMW-8-20211029 | Total/NA | Water | 3535 | |
| 460-246277-28 - DL | AMW-8-20211029 | Total/NA | Water | 3535 | |
| 460-246277-29 | AMW-9-20211029 | Total/NA | Water | 3535 | |
| 460-246277-30 | AMW-7-20211029 | Total/NA | Water | 3535 | |
| 460-246277-31 - DL | AMW-10-20211029 | Total/NA | Water | 3535 | |
| 460-246277-31 | AMW-10-20211029 | Total/NA | Water | 3535 | |
| 460-246277-32 | MW-53S-20211029 | Total/NA | Water | 3535 | |
| MB 200-173541/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 200-173541/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |

### Analysis Batch: 173621

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-2 - DL | AP-101-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| MB 200-173541/1-A | Method Blank | Total/NA | Water | 537 (modified) | 173541 |
| LCS 200-173541/2-A | Lab Control Sample | Total/NA | Water | 537 (modified) | 173541 |
| LCSD 200-173541/3-A | Lab Control Sample Dup | Total/NA | Water | 537 (modified) | 173541 |

## LCMS

### Analysis Batch: 173663

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-28 - DL | AMW-8-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-31 - DL | AMW-10-20211029 | Total/NA | Water | 537 (modified) | 173541 |

### Analysis Batch: 173682

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-1 | MH-102-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-2 | AP-101-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-3 | AMW-2-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-4 | AMW-1-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-5 | MW-202S-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-6 | MW-202D-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-7 | MW-9S-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-8 | MW-24S-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-9 | BP-101-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-10 | EP-02-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-11 | MW-23S-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-12 | MW-37AQ-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-13 | AMW-5-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-14 | MW-5S-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-15 | MW-34-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-16 | MW-1S-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-17 | MW-102-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-18 | MW-26S-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| MB 200-173528/1-A | Method Blank | Total/NA | Water | 537 (modified) | 173528 |
| LCS 200-173528/2-A | Lab Control Sample | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-8 MS | MW-24S-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-8 MSD | MW-24S-20211027 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-18 MS | MW-26S-20211028 | Total/NA | Water | 537 (modified) | 173528 |
| 460-246277-18 MSD | MW-26S-20211028 | Total/NA | Water | 537 (modified) | 173528 |

### Analysis Batch: 173694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 460-246277-19 | MW-7S-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-20 | AMW-4-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-21 | AMW-11-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-22 | AMW-6-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-23 | AMW-3-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-24 | DUP-02-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-25 | MW-201-20211028 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-26 | MW-4S-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-27 | MW-3S-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-28 | AMW-8-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-29 | AMW-9-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-30 | AMW-7-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-31 | AMW-10-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| 460-246277-32 | MW-53S-20211029 | Total/NA | Water | 537 (modified) | 173541 |
| MB 200-173541/1-A | Method Blank | Total/NA | Water | 537 (modified) | 173541 |
| LCS 200-173541/2-A | Lab Control Sample | Total/NA | Water | 537 (modified) | 173541 |
| LCSD 200-173541/3-A | Lab Control Sample Dup | Total/NA | Water | 537 (modified) | 173541 |

## Client Sample ID: MH-102-20211027
**Lab Sample ID: 460-246277-1**
**Date Collected: 10/27/21 15:35**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 17:59 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 04:36 | BWC | TAL BUR |

## Client Sample ID: AP-101-20211027
**Lab Sample ID: 460-246277-2**
**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 18:15 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | DL | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 5 | 173621 | 11/08/21 16:52 | ND | TAL BUR |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 04:44 | BWC | TAL BUR |

## Client Sample ID: AMW-2-20211027
**Lab Sample ID: 460-246277-3**
**Date Collected: 10/27/21 15:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 18:31 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:01 | BWC | TAL BUR |

## Client Sample ID: AMW-1-20211027
**Lab Sample ID: 460-246277-4**
**Date Collected: 10/27/21 17:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 18:47 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:09 | BWC | TAL BUR |

## Client Sample ID: MW-202S-20211027
**Lab Sample ID: 460-246277-5**
**Date Collected: 10/27/21 15:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 19:03 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:17 | BWC | TAL BUR |

## Client Sample ID: MW-202D-20211027
**Lab Sample ID: 460-246277-6**
**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 19:19 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:25 | BWC | TAL BUR |

## Client Sample ID: MW-9S-20211027
**Lab Sample ID: 460-246277-7**
**Date Collected: 10/27/21 17:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 19:34 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:34 | BWC | TAL BUR |

## Client Sample ID: MW-24S-20211027
**Lab Sample ID: 460-246277-8**
**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 16:24 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 05:42 | BWC | TAL BUR |

## Client Sample ID: BP-101-20211028
**Lab Sample ID: 460-246277-9**
**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 19:50 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:15 | BWC | TAL BUR |

## Client Sample ID: EP-02-20211028
**Lab Sample ID: 460-246277-10**
**Date Collected: 10/28/21 08:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 20:06 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:23 | BWC | TAL BUR |

## Client Sample ID: MW-23S-20211028
**Lab Sample ID: 460-246277-11**
**Date Collected: 10/28/21 08:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 20:22 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:31 | BWC | TAL BUR |

## Client Sample ID: MW-37AQ-20211028
**Lab Sample ID: 460-246277-12**
**Date Collected: 10/28/21 13:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 20:38 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:39 | BWC | TAL BUR |

## Client Sample ID: AMW-5-20211028
**Lab Sample ID: 460-246277-13**
**Date Collected: 10/28/21 15:40**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 20:54 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:47 | BWC | TAL BUR |

## Client Sample ID: MW-5S-20211028
**Lab Sample ID: 460-246277-14**
**Date Collected: 10/28/21 17:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 21:10 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 06:55 | BWC | TAL BUR |

## Client Sample ID: MW-34-20211028
**Lab Sample ID: 460-246277-15**
**Date Collected: 10/28/21 17:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 21:25 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 07:04 | BWC | TAL BUR |

## Client Sample ID: MW-1S-20211028
**Lab Sample ID: 460-246277-16**
**Date Collected: 10/28/21 16:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 21:41 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 07:12 | BWC | TAL BUR |

## Client Sample ID: MW-102-20211028
**Lab Sample ID: 460-246277-17**
**Date Collected: 10/28/21 13:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 21:57 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 07:20 | BWC | TAL BUR |

## Client Sample ID: MW-26S-20211028
**Lab Sample ID: 460-246277-18**
**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811052 | 11/03/21 07:59 | DXD | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811092 | 11/03/21 17:11 | DAN | TAL EDI |
| Total/NA | Prep | 3535 | | | 173528 | 11/04/21 17:16 | EK | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173682 | 11/10/21 07:28 | BWC | TAL BUR |

## Client Sample ID: MW-7S-20211028
**Lab Sample ID: 460-246277-19**
**Date Collected: 10/28/21 09:15**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 00:25 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 12:36 | ND | TAL BUR |

## Client Sample ID: AMW-4-20211028
**Lab Sample ID: 460-246277-20**
**Date Collected: 10/28/21 17:10**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 00:40 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 12:44 | ND | TAL BUR |

## Client Sample ID: AMW-11-20211028
**Lab Sample ID: 460-246277-21**
**Date Collected: 10/28/21 14:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 00:56 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 12:52 | ND | TAL BUR |

## Client Sample ID: AMW-6-20211028
**Lab Sample ID: 460-246277-22**
**Date Collected: 10/28/21 13:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 01:12 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:00 | ND | TAL BUR |

## Client Sample ID: AMW-3-20211028
**Lab Sample ID: 460-246277-23**
**Date Collected: 10/28/21 11:20**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 01:28 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:09 | ND | TAL BUR |

## Client Sample ID: DUP-02-20211028
**Lab Sample ID: 460-246277-24**
**Date Collected: 10/28/21 12:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 01:44 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:17 | ND | TAL BUR |

## Client Sample ID: MW-201-20211028
**Lab Sample ID: 460-246277-25**
**Date Collected: 10/28/21 09:30**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 01:59 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:25 | ND | TAL BUR |

## Client Sample ID: MW-4S-20211029
**Lab Sample ID: 460-246277-26**
**Date Collected: 10/29/21 09:20**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 02:15 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:33 | ND | TAL BUR |

## Client Sample ID: MW-3S-20211029
**Lab Sample ID: 460-246277-27**
**Date Collected: 10/29/21 10:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 02:31 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:49 | ND | TAL BUR |

## Client Sample ID: AMW-8-20211029
**Lab Sample ID: 460-246277-28**
**Date Collected: 10/29/21 10:40**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 02:47 | MME | TAL EDI |
| Total/NA | Prep | 3535 | DL | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 5 | 173663 | 11/09/21 13:07 | ND | TAL BUR |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 14:22 | ND | TAL BUR |

## Client Sample ID: AMW-9-20211029
**Lab Sample ID: 460-246277-29**
**Date Collected: 10/29/21 08:50**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 03:02 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 13:58 | ND | TAL BUR |

## Client Sample ID: AMW-7-20211029
**Lab Sample ID: 460-246277-30**
**Date Collected: 10/29/21 12:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 03:18 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 14:06 | ND | TAL BUR |

## Client Sample ID: AMW-10-20211029
## Lab Sample ID: 460-246277-31

**Date Collected: 10/29/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 03:34 | MME | TAL EDI |
| Total/NA | Prep | 3535 | DL | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | DL | 2 | 173663 | 11/09/21 13:14 | ND | TAL BUR |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 14:14 | ND | TAL BUR |

## Client Sample ID: MW-53S-20211029
## Lab Sample ID: 460-246277-32

**Date Collected: 10/29/21 09:15**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 811103 | 11/03/21 10:58 | OTS | TAL EDI |
| Total/NA | Analysis | 8270E SIM ID | | 1 | 811217 | 11/04/21 03:50 | MME | TAL EDI |
| Total/NA | Prep | 3535 | | | 173541 | 11/05/21 09:47 | CM | TAL BUR |
| Total/NA | Analysis | 537 (modified) | | 1 | 173694 | 11/10/21 14:39 | ND | TAL BUR |

**Laboratory References:**

TAL BUR = Eurofins TestAmerica, Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

# Accreditation/Certification Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

## Laboratory: Eurofins TestAmerica, Edison

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| New Jersey | NELAP | 12028 | 06-30-22 |

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| ANAB | Dept. of Defense ELAP | L2336 | 02-25-23 |
| Connecticut | State | PH-0751 | 09-30-21 * |
| DE Haz. Subst. Cleanup Act (HSCA) | State | N/A | 05-17-22 |
| Florida | NELAP | E87467 | 06-30-22 |
| Minnesota | NELAP | 050-999-436 | 12-31-21 |
| New Hampshire | NELAP | 2006 | 12-18-21 |
| New Jersey | NELAP | VT972 | 06-30-22 |
| New York | NELAP | 10391 | 04-01-22 |
| Pennsylvania | NELAP | 68-00489 | 04-30-22 |
| Rhode Island | State | LAO00298 | 12-30-21 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-22 |
| USDA | US Federal Programs | P330-17-00272 | 10-30-23 |
| Vermont | State | VT4000 | 02-10-22 |
| Virginia | NELAP | 460209 | 12-14-21 |
| Wisconsin | State | 399133350 | 08-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# 8270E_SIM_MS_ID

## Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rtxi-5Sil M ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DXE # |
|---|---|---|
| MH-102-20211027 | 460-246277-1 | 42 |
| AP-101-20211027 | 460-246277-2 | 39 |
| AMW-2-20211027 | 460-246277-3 | 37 |
| AMW-1-20211027 | 460-246277-4 | 36 |
| MW-202S-20211027 | 460-246277-5 | 36 |
| MW-202D-20211027 | 460-246277-6 | 38 |
| MW-9S-20211027 | 460-246277-7 | 41 |
| MW-24S-20211027 | 460-246277-8 | 37 |
| BP-101-20211028 | 460-246277-9 | 34 |
| EP-02-20211028 | 460-246277-10 | 37 |
| MW-23S-20211028 | 460-246277-11 | 39 |
| MW-37AQ-20211028 | 460-246277-12 | 34 |
| AMW-5-20211028 | 460-246277-13 | 33 |
| MW-5S-20211028 | 460-246277-14 | 42 |
| MW-34-20211028 | 460-246277-15 | 28 |
| MW-1S-20211028 | 460-246277-16 | 39 |
| MW-102-20211028 | 460-246277-17 | 38 |
| MW-26S-20211028 | 460-246277-18 | 40 |
| MW-7S-20211028 | 460-246277-19 | 28 |
| AMW-4-20211028 | 460-246277-20 | 27 |
| AMW-11-20211028 | 460-246277-21 | 27 |
| AMW-6-20211028 | 460-246277-22 | 28 |
| AMW-3-20211028 | 460-246277-23 | 24 |
| DUP-02-20211028 | 460-246277-24 | 30 |
| MW-201-20211028 | 460-246277-25 | 27 |
| MW-4S-20211029 | 460-246277-26 | 30 |
| MW-3S-20211029 | 460-246277-27 | 27 |
| AMW-8-20211029 | 460-246277-28 | 25 |
| AMW-9-20211029 | 460-246277-29 | 29 |
| AMW-7-20211029 | 460-246277-30 | 89 |
| AMW-10-20211029 | 460-246277-31 | 94 |
| MW-53S-20211029 | 460-246277-32 | 101 |
| | MB 460-811052/1-A | 26 |
| | MB 460-811103/1-A | 33 |

| | QC LIMITS |
|---|---|
| DXE = 1,4-Dioxane-d8 | 10-150 |

# Column to be used to flag recovery values

FORM II 8270E SIM ID

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

GC Column (1): Rtxi-5Sil M  ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DXE # |
|---|---|---|
| | LCS 460-811052/2-A | 22 |
| | LCS 460-811103/2-A | 29 |
| | LCSD 460-811052/3-A | 23 |
| | LCSD 460-811103/3-A | 33 |
| MW-24S-20211027 MS | 460-246277-8 MS | 26 |
| MW-26S-20211028 MS | 460-246277-18 MS | 32 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | 32 |
| MW-26S-20211028 MSD | 460-246277-18 MSD | 32 |

| | QC LIMITS |
|---|---|
| DXE = 1,4-Dioxane-d8 | 10-150 |

# Column to be used to flag recovery values

FORM II 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268816.d

Lab ID: LCS 460-811052/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.66 | 104 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 6.97 | 22 | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268851.d

Lab ID: LCS 460-811103/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.35 | 84 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 9.41 | 29 | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: h268817.d

Lab ID: LCSD 460-811052/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.63 | 102 | 2 | 20 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 7.28 | 23 | | | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268852.d

Lab ID: LCSD 460-811103/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.20 | 75 | 12 | 20 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 10.7 | 33 | | | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268819.d

Lab ID: 460-246277-8 MS Client ID: MW-24S-20211027 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 0.43 | 2.81 | 149 | 50-142 | F1 |
| 1,4-Dioxane-d8 | 32.0 | 12 | 8.31 | 26 | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268822.d

Lab ID: 460-246277-18 MS Client ID: MW-26S-20211028 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 0.016 U | 2.21 | 138 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 13 | 10.1 | 32 | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268820.d

Lab ID: 460-246277-8 MSD Client ID: MW-24S-20211027 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 2.20 | 111 | 24 | 20 | 50-142 | F2 |
| 1,4-Dioxane-d8 | 32.0 | 10.3 | 32 | | | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Matrix: Water Level: Low Lab File ID: h268823.d

Lab ID: 460-246277-18 MSD Client ID: MW-26S-20211028 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 2.00 | 125 | 10 | 20 | 50-142 | |
| 1,4-Dioxane-d8 | 32.0 | 10.2 | 32 | | | 10-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8270E SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab File ID: h268815a.d  Lab Sample ID: MB 460-811052/1-A

Matrix: Water  Date Extracted: 11/03/2021 07:59

Instrument ID: CBNAMS9  Date Analyzed: 11/03/2021 15:36

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 460-811052/2-A | h268816.d | 11/03/2021 15:52 |
| | LCSD 460-811052/3-A | h268817.d | 11/03/2021 16:08 |
| MW-24S-20211027 | 460-246277-8 | h268818.d | 11/03/2021 16:24 |
| MW-24S-20211027 MS | 460-246277-8 MS | h268819.d | 11/03/2021 16:40 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | h268820.d | 11/03/2021 16:56 |
| MW-26S-20211028 | 460-246277-18 | h268821.d | 11/03/2021 17:11 |
| MW-26S-20211028 MS | 460-246277-18 MS | h268822.d | 11/03/2021 17:27 |
| MW-26S-20211028 MSD | 460-246277-18 MSD | h268823.d | 11/03/2021 17:43 |
| MH-102-20211027 | 460-246277-1 | h268824.d | 11/03/2021 17:59 |
| AP-101-20211027 | 460-246277-2 | h268825.d | 11/03/2021 18:15 |
| AMW-2-20211027 | 460-246277-3 | h268826.d | 11/03/2021 18:31 |
| AMW-1-20211027 | 460-246277-4 | h268827.d | 11/03/2021 18:47 |
| MW-202S-20211027 | 460-246277-5 | h268828.d | 11/03/2021 19:03 |
| MW-202D-20211027 | 460-246277-6 | h268829.d | 11/03/2021 19:19 |
| MW-9S-20211027 | 460-246277-7 | h268830.d | 11/03/2021 19:34 |
| BP-101-20211028 | 460-246277-9 | h268831.d | 11/03/2021 19:50 |
| EP-02-20211028 | 460-246277-10 | h268832.d | 11/03/2021 20:06 |
| MW-23S-20211028 | 460-246277-11 | h268833.d | 11/03/2021 20:22 |
| MW-37AQ-20211028 | 460-246277-12 | h268834.d | 11/03/2021 20:38 |
| AMW-5-20211028 | 460-246277-13 | h268835.d | 11/03/2021 20:54 |
| MW-5S-20211028 | 460-246277-14 | h268836.d | 11/03/2021 21:10 |
| MW-34-20211028 | 460-246277-15 | h268837.d | 11/03/2021 21:25 |
| MW-1S-20211028 | 460-246277-16 | h268838.d | 11/03/2021 21:41 |
| MW-102-20211028 | 460-246277-17 | h268839.d | 11/03/2021 21:57 |

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab File ID: h268850.d  Lab Sample ID: MB 460-811103/1-A

Matrix: Water  Date Extracted: 11/03/2021 10:58

Instrument ID: CBNAMS9  Date Analyzed: 11/03/2021 23:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 460-811103/2-A | h268851.d | 11/03/2021 23:53 |
| | LCSD 460-811103/3-A | h268852.d | 11/04/2021 00:09 |
| MW-7S-20211028 | 460-246277-19 | h268853.d | 11/04/2021 00:25 |
| AMW-4-20211028 | 460-246277-20 | h268854.d | 11/04/2021 00:40 |
| AMW-11-20211028 | 460-246277-21 | h268855.d | 11/04/2021 00:56 |
| AMW-6-20211028 | 460-246277-22 | h268856.d | 11/04/2021 01:12 |
| AMW-3-20211028 | 460-246277-23 | h268857.d | 11/04/2021 01:28 |
| DUP-02-20211028 | 460-246277-24 | h268858.d | 11/04/2021 01:44 |
| MW-201-20211028 | 460-246277-25 | h268859.d | 11/04/2021 01:59 |
| MW-4S-20211029 | 460-246277-26 | h268860.d | 11/04/2021 02:15 |
| MW-3S-20211029 | 460-246277-27 | h268861.d | 11/04/2021 02:31 |
| AMW-8-20211029 | 460-246277-28 | h268862.d | 11/04/2021 02:47 |
| AMW-9-20211029 | 460-246277-29 | h268863.d | 11/04/2021 03:02 |
| AMW-7-20211029 | 460-246277-30 | h268864.d | 11/04/2021 03:18 |
| AMW-10-20211029 | 460-246277-31 | h268865.d | 11/04/2021 03:34 |
| MW-53S-20211029 | 460-246277-32 | h268866.d | 11/04/2021 03:50 |

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab File ID: h266841.d  DFTPP Injection Date: 07/13/2021

Instrument ID: CBNAMS9  DFTPP Injection Time: 13:30

Analysis Batch No.: 790012

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 68 | Less than 2% of m/z 69 | 0.0 | (0.0) 1 |
| 69 | Present | 35.6 | |
| 70 | Less than 2% of m/z 69 | 0.1 | (0.3) 1 |
| 197 | Less than 2% of m/z 198 | 0.0 | |
| 198 | Base Peak | 100.0 | |
| 199 | 5-9% of m/z 198 | 7.0 | |
| 365 | Greater than 1% of Base Peak | 2.8 | |
| 441 | Less than 150% of m/z 443 | 13.0 | (73.5) 3 |
| 442 | Present | 88.4 | |
| 443 | 15-24% of m/z 442 | 17.7 | (20.1) 2 |

1-Value is % mass 69  2-Value is % mass 442  3-Value is % mass 443

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

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | ICIS 460-790012/2 | h266842.d | 07/13/2021 | 13:46 |
| | STD9 460-790012/3 | h266843.d | 07/13/2021 | 14:01 |
| | STD8 460-790012/4 | h266844.d | 07/13/2021 | 14:17 |
| | STD7 460-790012/5 | h266845.d | 07/13/2021 | 14:33 |
| | STD6 460-790012/6 | h266846.d | 07/13/2021 | 14:49 |
| | STD4 460-790012/7 | h266847.d | 07/13/2021 | 15:05 |
| | STD3 460-790012/8 | h266848.d | 07/13/2021 | 15:21 |
| | STD2 460-790012/9 | h266849.d | 07/13/2021 | 15:37 |
| | STD1 460-790012/10 | h266850.d | 07/13/2021 | 15:53 |
| | ICV 460-790012/11 | h266851.d | 07/13/2021 | 16:09 |

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Sample No.: ICIS 460-790012/2  Date Analyzed: 07/13/2021 13:46

Instrument ID: CBNAMS9  GC Column: Rtxi-5Sil MS  ID: 0.25(mm)

Lab File ID (Standard): h266842.d  Heated Purge: (Y/N) N

Calibration ID: 86285

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| INITIAL CALIBRATION MID-POINT | | 14777 | 5.37 | | | | |
| UPPER LIMIT | | 29554 | 5.87 | | | | |
| LOWER LIMIT | | 7389 | 4.87 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 460-790012/11 | | 18820 | 5.37 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270E SIM ID

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 460-811092/2  Date Analyzed: 11/03/2021 10:28

Instrument ID: CBNAMS9  GC Column: Rtxi-5Sil MS  ID: 0.25(mm)

Lab File ID (Standard): h268796.d  Heated Purge: (Y/N) N

Calibration ID: 86285

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 9386 | 5.72 | | | | |
| UPPER LIMIT | | 18772 | 6.22 | | | | |
| LOWER LIMIT | | 4693 | 5.22 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 460-811052/1-A | | 9594 | 5.72 | | | | |
| LCS 460-811052/2-A | | 9637 | 5.72 | | | | |
| LCSD 460-811052/3-A | | 9184 | 5.72 | | | | |
| 460-246277-8 | MW-24S-20211027 | 11917 | 5.72 | | | | |
| 460-246277-8 MS | MW-24S-20211027 MS | 14401 | 5.72 | | | | |
| 460-246277-8 MSD | MW-24S-20211027 MSD | 14505 | 5.72 | | | | |
| 460-246277-18 | MW-26S-20211028 | 13118 | 5.72 | | | | |
| 460-246277-18 MS | MW-26S-20211028 MS | 13621 | 5.72 | | | | |
| 460-246277-18 MSD | MW-26S-20211028 MSD | 12100 | 5.72 | | | | |
| 460-246277-1 | MH-102-20211027 | 12956 | 5.72 | | | | |
| 460-246277-2 | AP-101-20211027 | 13242 | 5.72 | | | | |
| 460-246277-3 | AMW-2-20211027 | 14142 | 5.72 | | | | |
| 460-246277-4 | AMW-1-20211027 | 14486 | 5.72 | | | | |
| 460-246277-5 | MW-202S-20211027 | 13264 | 5.72 | | | | |
| 460-246277-6 | MW-202D-20211027 | 11581 | 5.72 | | | | |
| 460-246277-7 | MW-9S-20211027 | 11951 | 5.72 | | | | |
| 460-246277-9 | BP-101-20211028 | 11605 | 5.72 | | | | |
| 460-246277-10 | EP-02-20211028 | 13222 | 5.72 | | | | |
| 460-246277-11 | MW-23S-20211028 | 10765 | 5.72 | | | | |
| 460-246277-12 | MW-37AQ-20211028 | 12164 | 5.72 | | | | |
| 460-246277-13 | AMW-5-20211028 | 11487 | 5.72 | | | | |
| 460-246277-14 | MW-5S-20211028 | 10993 | 5.72 | | | | |
| 460-246277-15 | MW-34-20211028 | 13593 | 5.72 | | | | |
| 460-246277-16 | MW-1S-20211028 | 12080 | 5.72 | | | | |
| 460-246277-17 | MW-102-20211028 | 11738 | 5.72 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270E SIM ID

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

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 460-811217/2  Date Analyzed: 11/03/2021 23:22

Instrument ID: CBNAMS9  GC Column: Rtxi-5Sil MS  ID: 0.25(mm)

Lab File ID (Standard): h268849.d  Heated Purge: (Y/N) N

Calibration ID: 86285

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 11686 | 5.72 | | | | |
| UPPER LIMIT | | 23372 | 6.22 | | | | |
| LOWER LIMIT | | 5843 | 5.22 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 460-811103/1-A | | 11526 | 5.72 | | | | |
| LCS 460-811103/2-A | | 10781 | 5.72 | | | | |
| LCSD 460-811103/3-A | | 11447 | 5.72 | | | | |
| 460-246277-19 | MW-7S-20211028 | 11855 | 5.72 | | | | |
| 460-246277-20 | AMW-4-20211028 | 10644 | 5.72 | | | | |
| 460-246277-21 | AMW-11-20211028 | 10635 | 5.72 | | | | |
| 460-246277-22 | AMW-6-20211028 | 11470 | 5.72 | | | | |
| 460-246277-23 | AMW-3-20211028 | 11525 | 5.72 | | | | |
| 460-246277-24 | DUP-02-20211028 | 11995 | 5.72 | | | | |
| 460-246277-25 | MW-201-20211028 | 11862 | 5.72 | | | | |
| 460-246277-26 | MW-4S-20211029 | 10620 | 5.72 | | | | |
| 460-246277-27 | MW-3S-20211029 | 10780 | 5.72 | | | | |
| 460-246277-28 | AMW-8-20211029 | 11843 | 5.72 | | | | |
| 460-246277-29 | AMW-9-20211029 | 11892 | 5.72 | | | | |
| 460-246277-30 | AMW-7-20211029 | 11854 | 5.72 | | | | |
| 460-246277-31 | AMW-10-20211029 | 11785 | 5.72 | | | | |
| 460-246277-32 | MW-53S-20211029 | 11349 | 5.72 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270E SIM ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MH-102-20211027  Lab Sample ID: 460-246277-1

Matrix: Water  Lab File ID: h268824.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 15:35

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 17:59

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 42 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268824.d
Lims ID: 460-246277-A-1-A
Client ID: MH-102-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 17:59:30 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-030
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:18:42

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 11 | 26035 | 1.67 | 41.7 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 12956 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

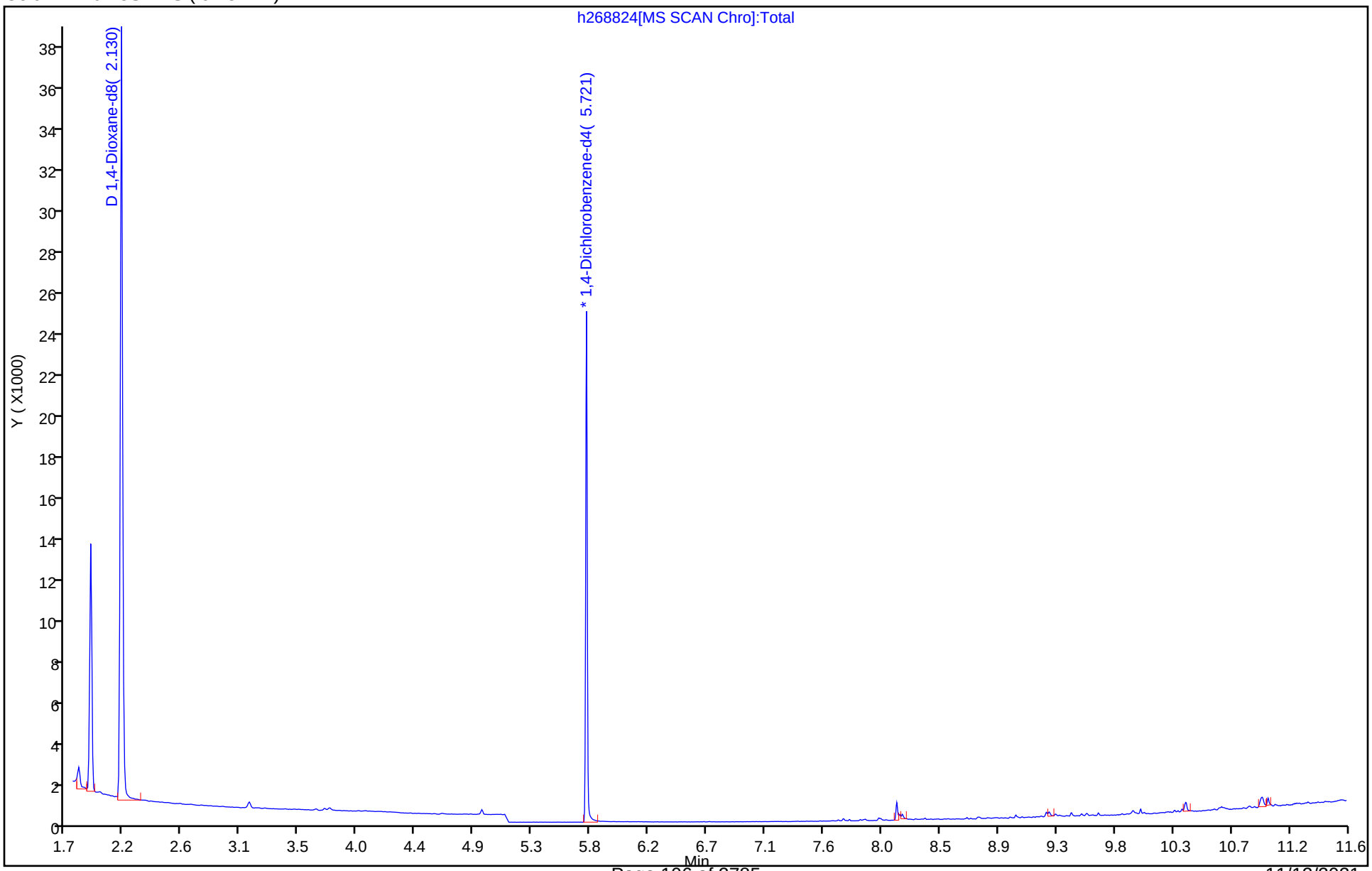
Report Date: 04-Nov-2021 10:18:42 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268824.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 17:59:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-1-A | Lab Sample ID: | 460-246277-1 | Worklist Smp#: | 30 |
| Client ID: | MH-102-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)

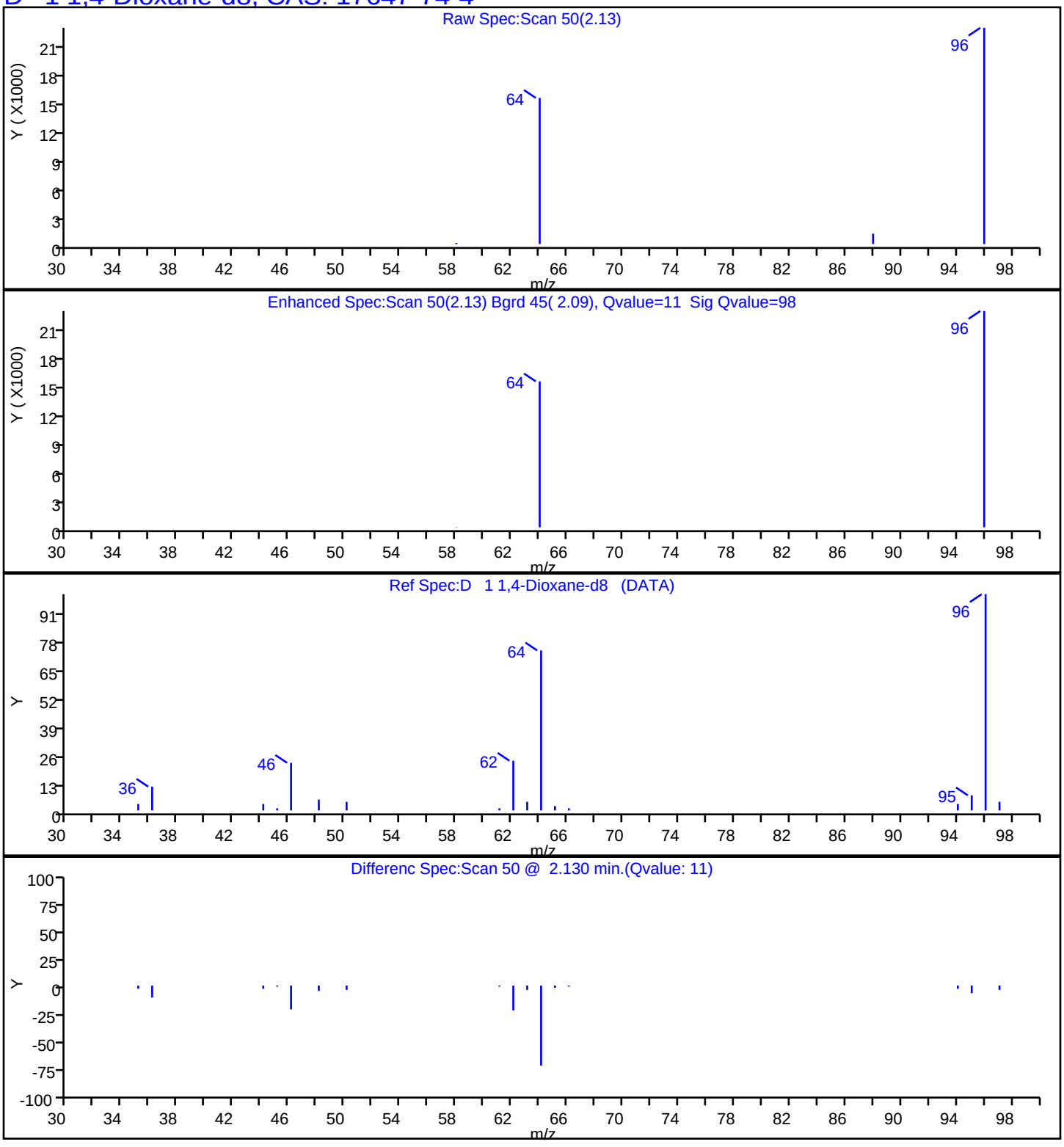


Report Date: 04-Nov-2021 10:18:42 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268824.d | | | | |
| Injection Date: | 03-Nov-2021 17:59:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-1-A | Lab Sample ID: | 460-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AP-101-20211027  Lab Sample ID: 460-246277-2

Matrix: Water  Lab File ID: h268825.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 17:50

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 18:15

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.15 | J | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 39 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268825.d
Lims ID: 460-246277-A-2-A
Client ID: AP-101-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 18:15:30 ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-031
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:18:57

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 24723 | 1.55 | 38.8 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 8 | 138 | 0.0189 | | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 13242 | 0.2000 | | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

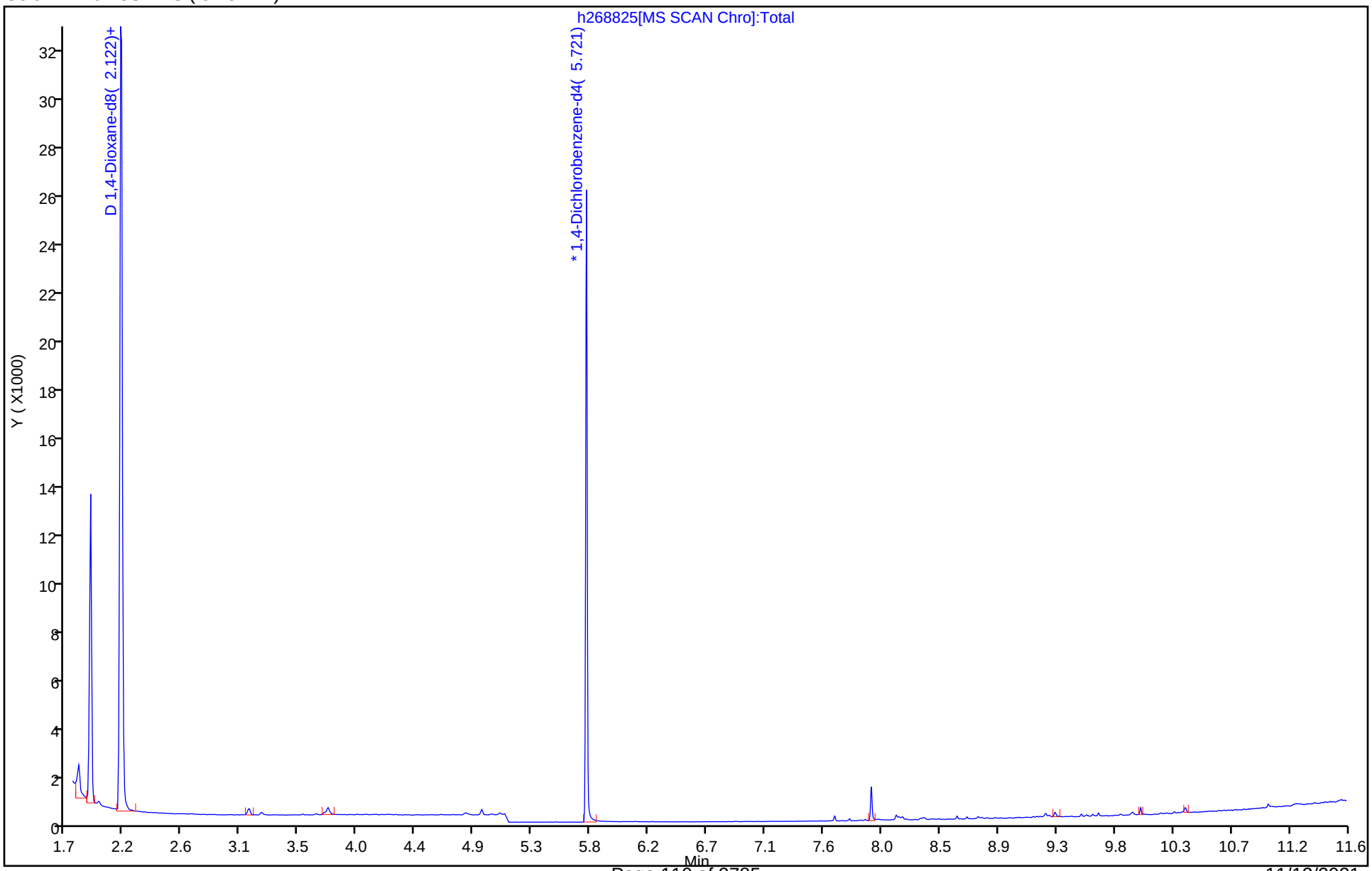
Report Date: 04-Nov-2021 10:18:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268825.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 18:15:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-2-A | Lab Sample ID: | 460-246277-2 | Worklist Smp#: | 31 |
| Client ID: | AP-101-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

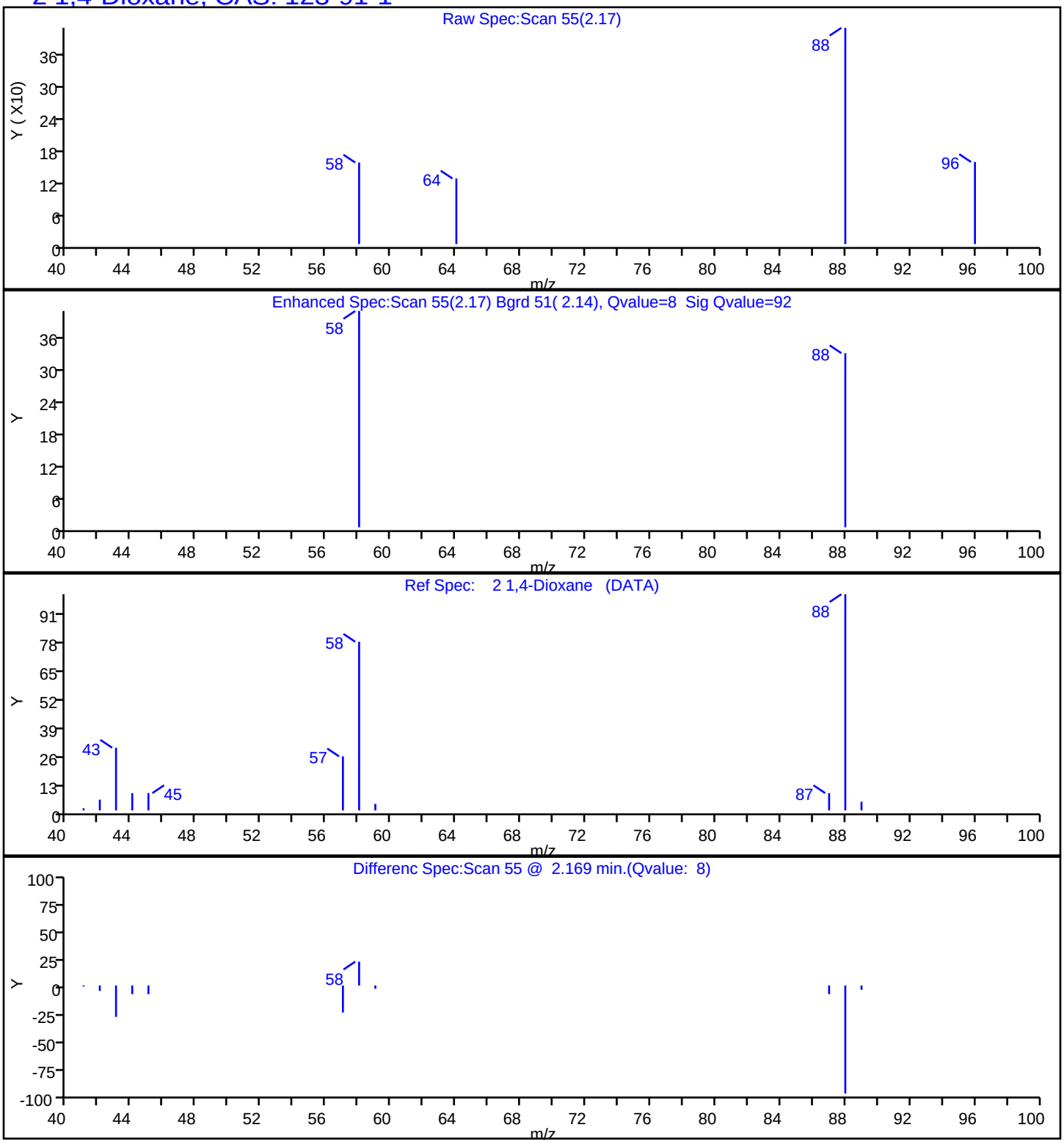
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268825.d | | | | |
| Injection Date: | 03-Nov-2021 18:15:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-2-A | Lab Sample ID: | 460-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

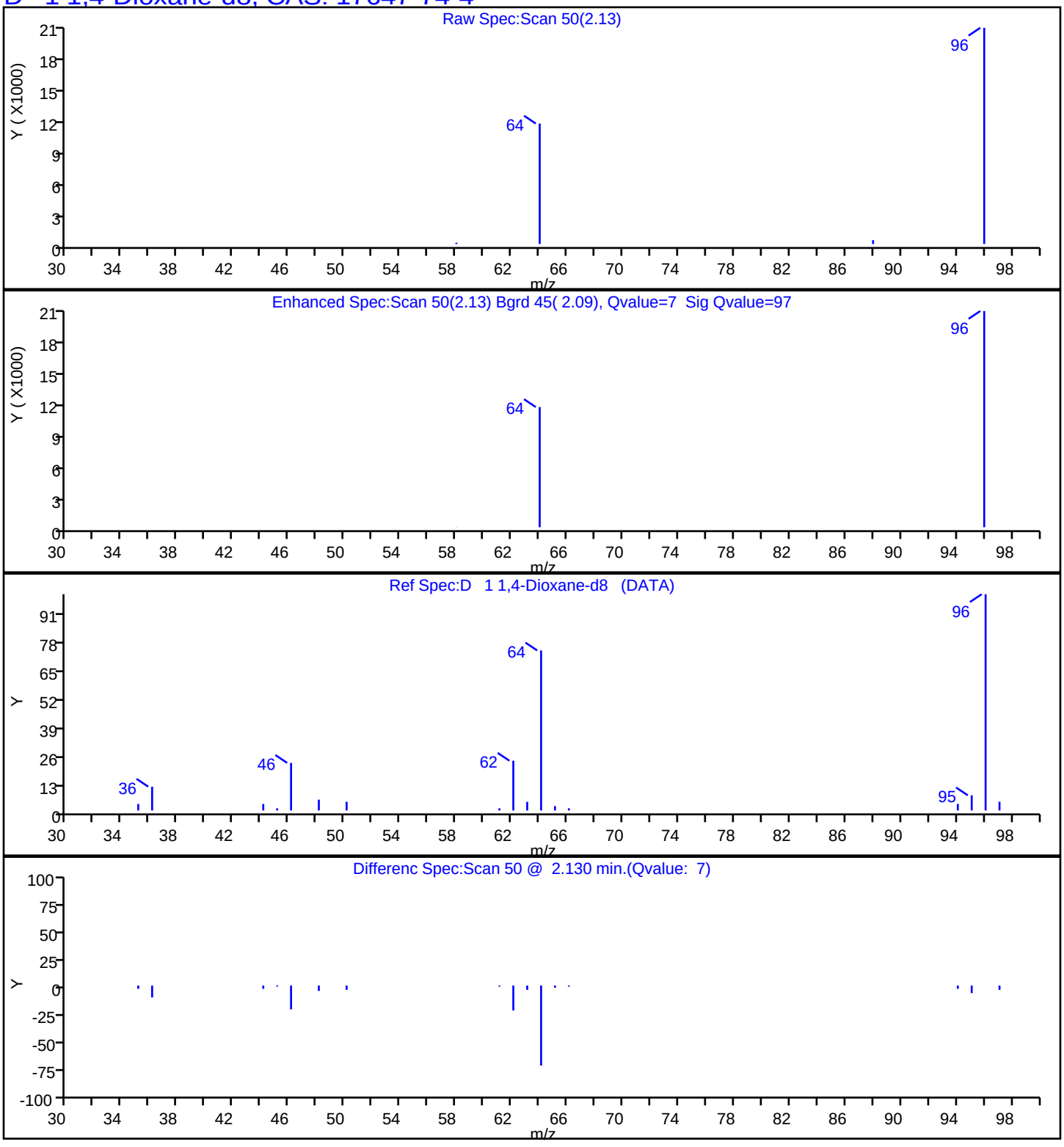
## 2 1,4-Dioxane, CAS: 123-91-1



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268825.d | | | | |
| Injection Date: | 03-Nov-2021 18:15:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-2-A | Lab Sample ID: | 460-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-2-20211027  Lab Sample ID: 460-246277-3

Matrix: Water  Lab File ID: h268826.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 15:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 18:31

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 37 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268826.d
Lims ID: 460-246277-B-3-A
Client ID: AMW-2-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 18:31:30 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-032
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:09

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 25520 | 1.50 | 37.5 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 14142 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

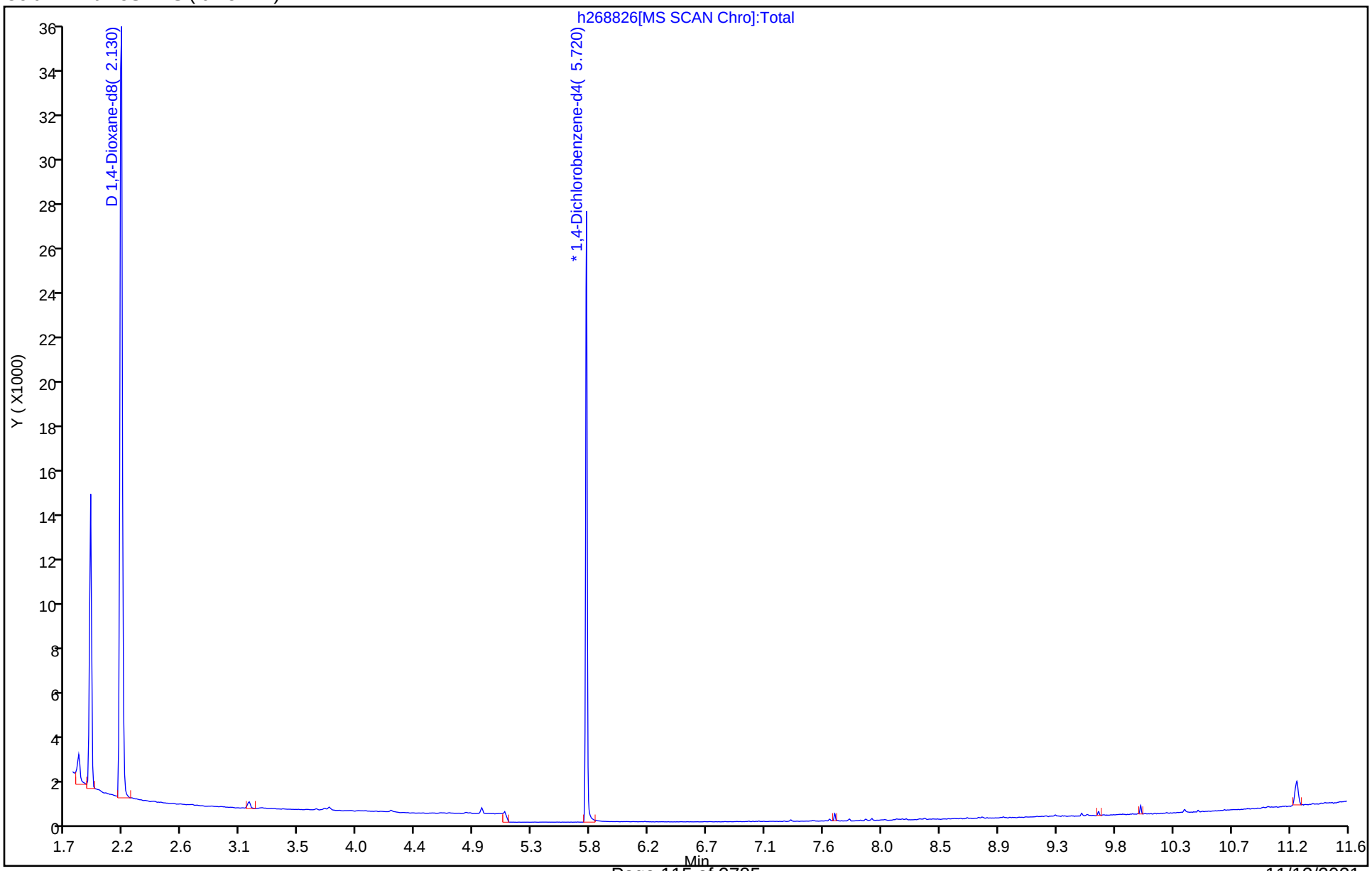
Report Date: 04-Nov-2021 10:19:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268826.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 18:31:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-3-A | Lab Sample ID: | 460-246277-3 | Worklist Smp#: | 32 |
| Client ID: | AMW-2-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

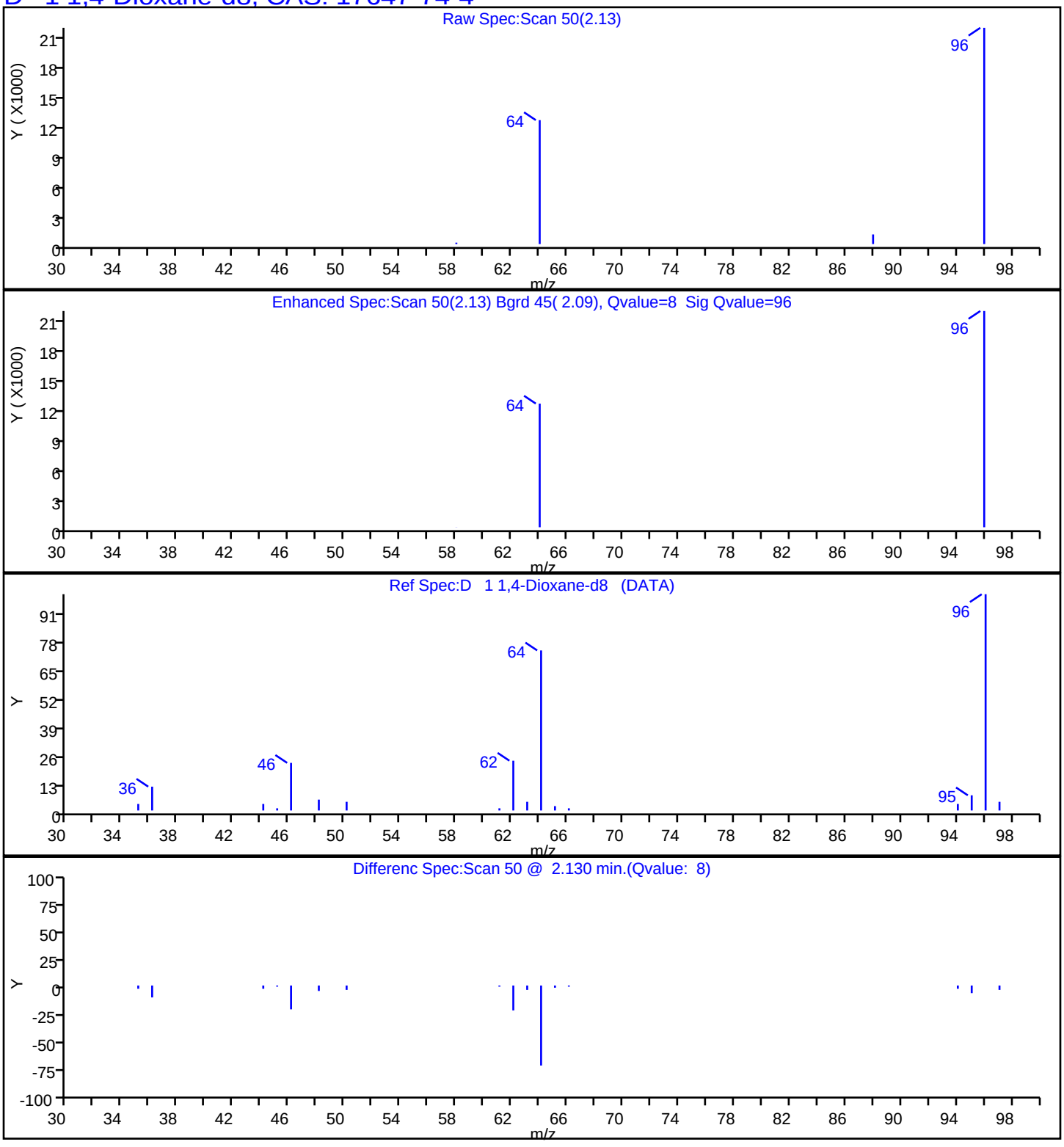
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268826.d | | | | |
| Injection Date: | 03-Nov-2021 18:31:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-3-A | Lab Sample ID: | 460-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-1-20211027  Lab Sample ID: 460-246277-4

Matrix: Water  Lab File ID: h268827.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 17:50

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 18:47

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 36 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268827.d
Lims ID: 460-246277-B-4-A
Client ID: AMW-1-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 18:47:30 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-033
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:17

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 24794 | 1.42 | 35.6 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 14486 | 0.2000 | | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

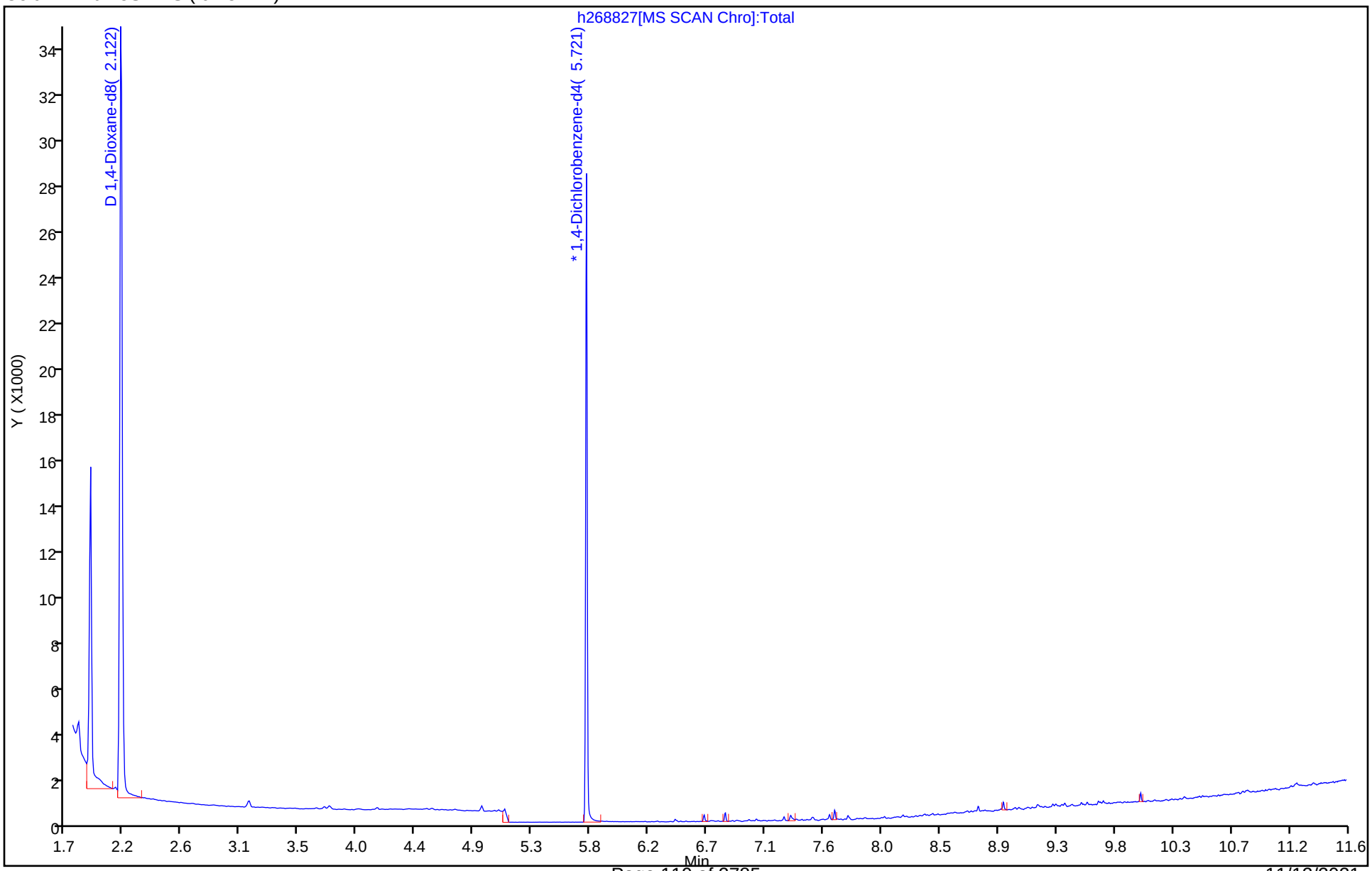
Report Date: 04-Nov-2021 10:19:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268827.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 18:47:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-4-A | Lab Sample ID: | 460-246277-4 | Worklist Smp#: | 33 |
| Client ID: | AMW-1-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

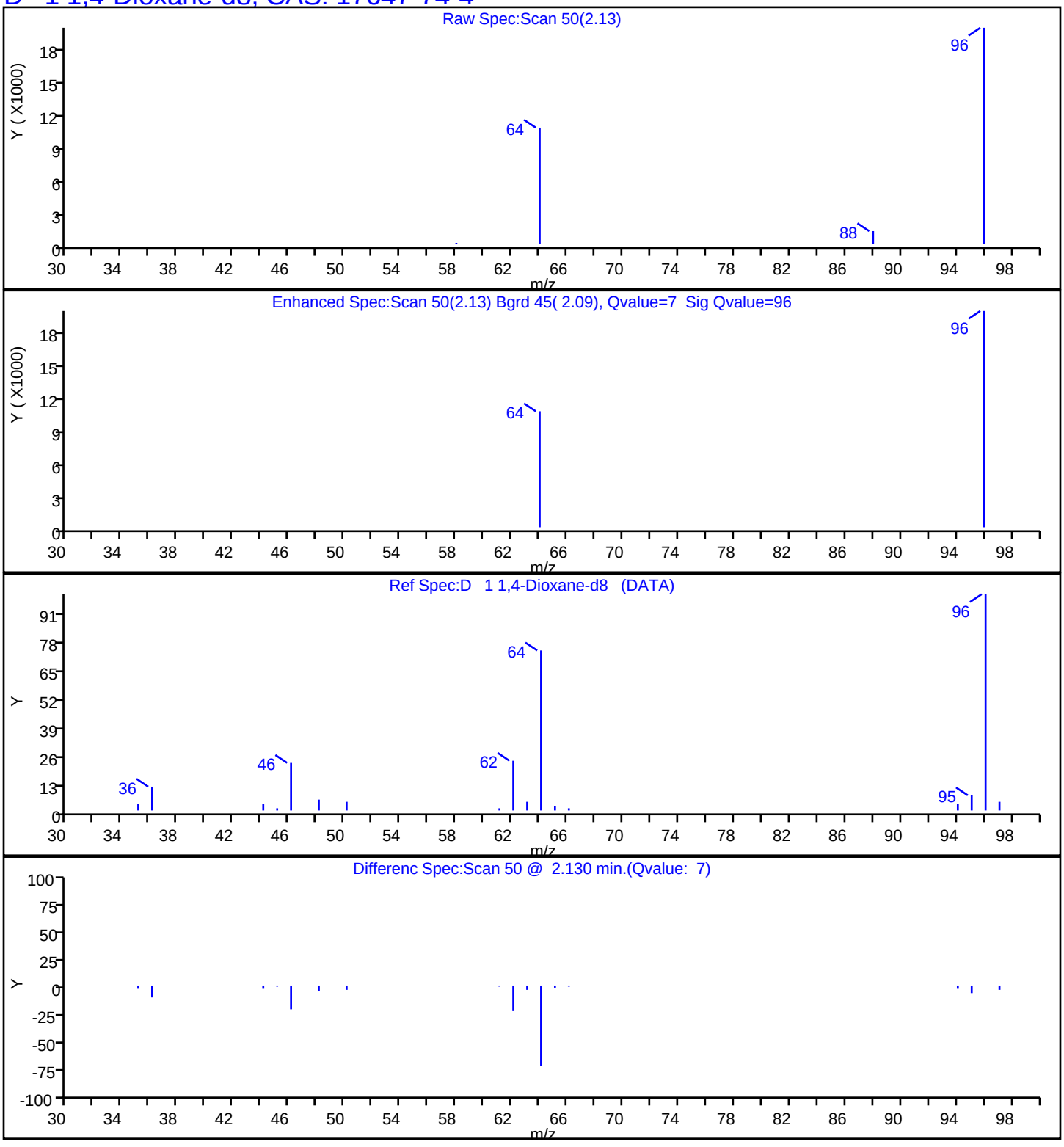
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268827.d | | | | |
| Injection Date: | 03-Nov-2021 18:47:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-4-A | Lab Sample ID: | 460-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202S-20211027  Lab Sample ID: 460-246277-5

Matrix: Water  Lab File ID: h268828.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 15:45

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 19:03

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 36 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268828.d
Lims ID: 460-246277-B-5-A
Client ID: MW-202S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 19:03:30 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-034
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:26

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 22964 | 1.44 | 36.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 13264 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

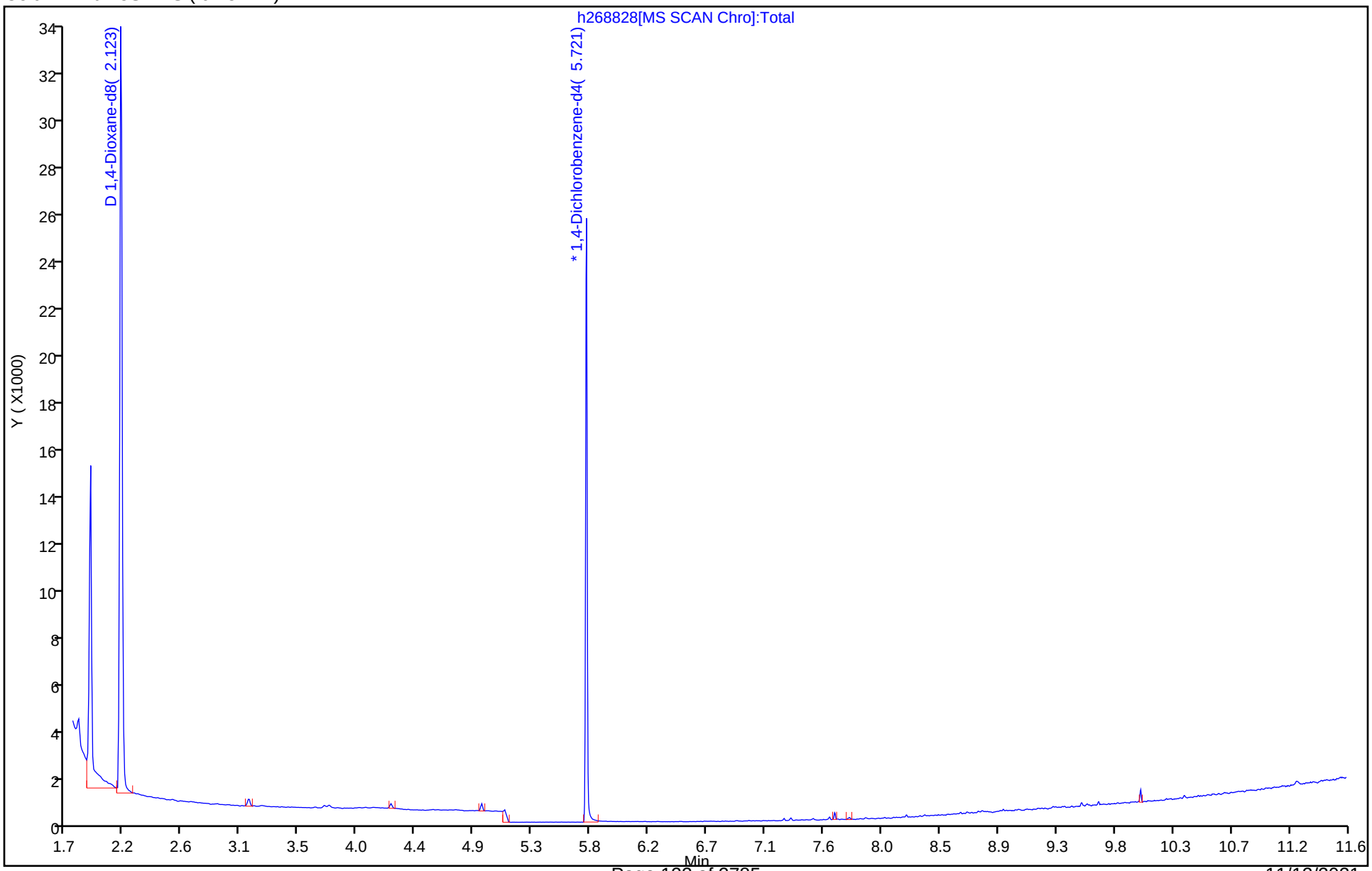
Report Date: 04-Nov-2021 10:19:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268828.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 19:03:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-5-A | Lab Sample ID: | 460-246277-5 | Worklist Smp#: | 34 |
| Client ID: | MW-202S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 34 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

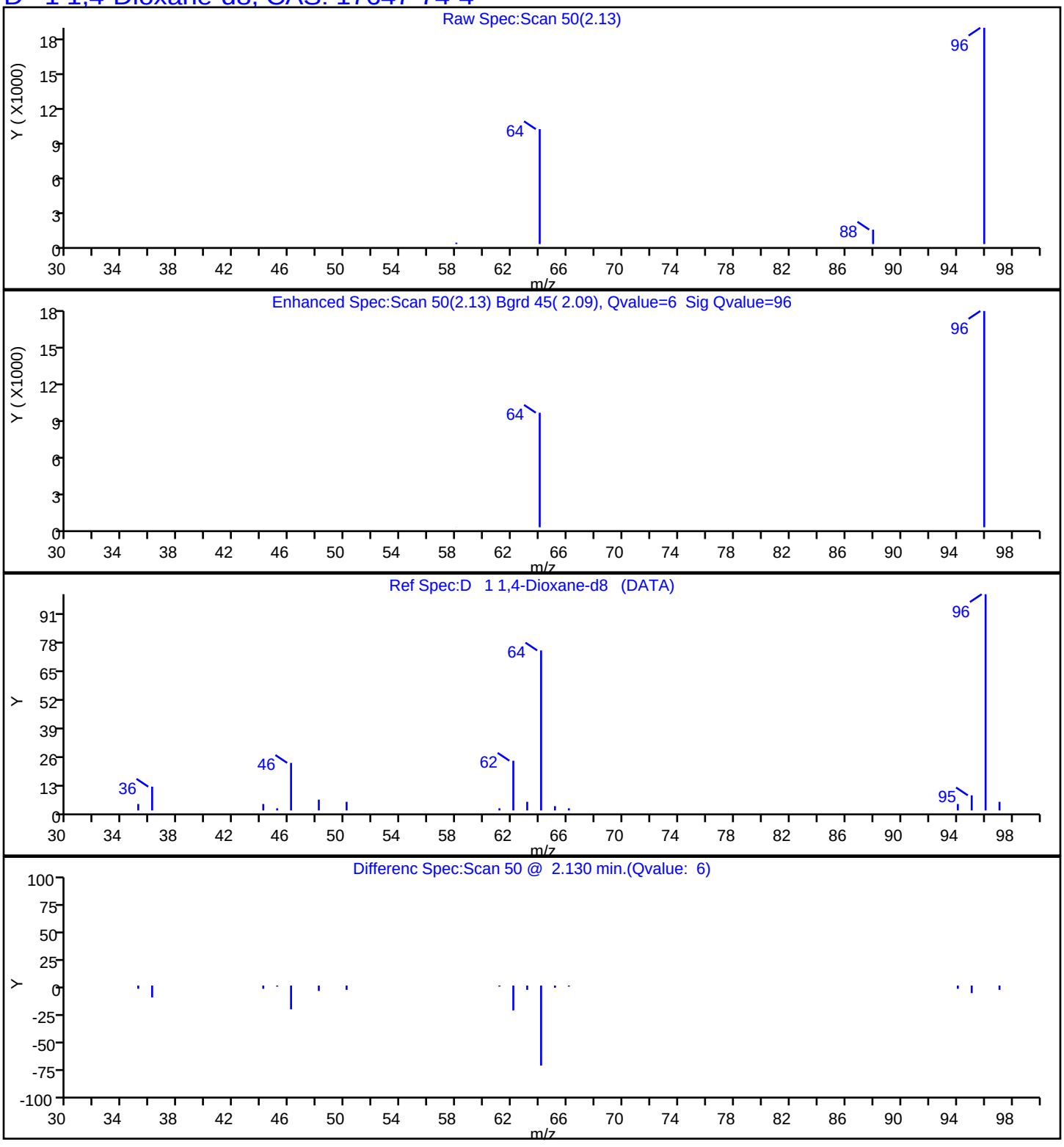
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268828.d | | | | |
| Injection Date: | 03-Nov-2021 19:03:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-5-A | Lab Sample ID: | 460-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202D-20211027  Lab Sample ID: 460-246277-6

Matrix: Water  Lab File ID: h268829.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 14:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 19:19

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 38 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268829.d
Lims ID: 460-246277-A-6-A
Client ID: MW-202D-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 19:19:30 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-035
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:35

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 9 | 21339 | 1.53 | 38.3 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11581 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

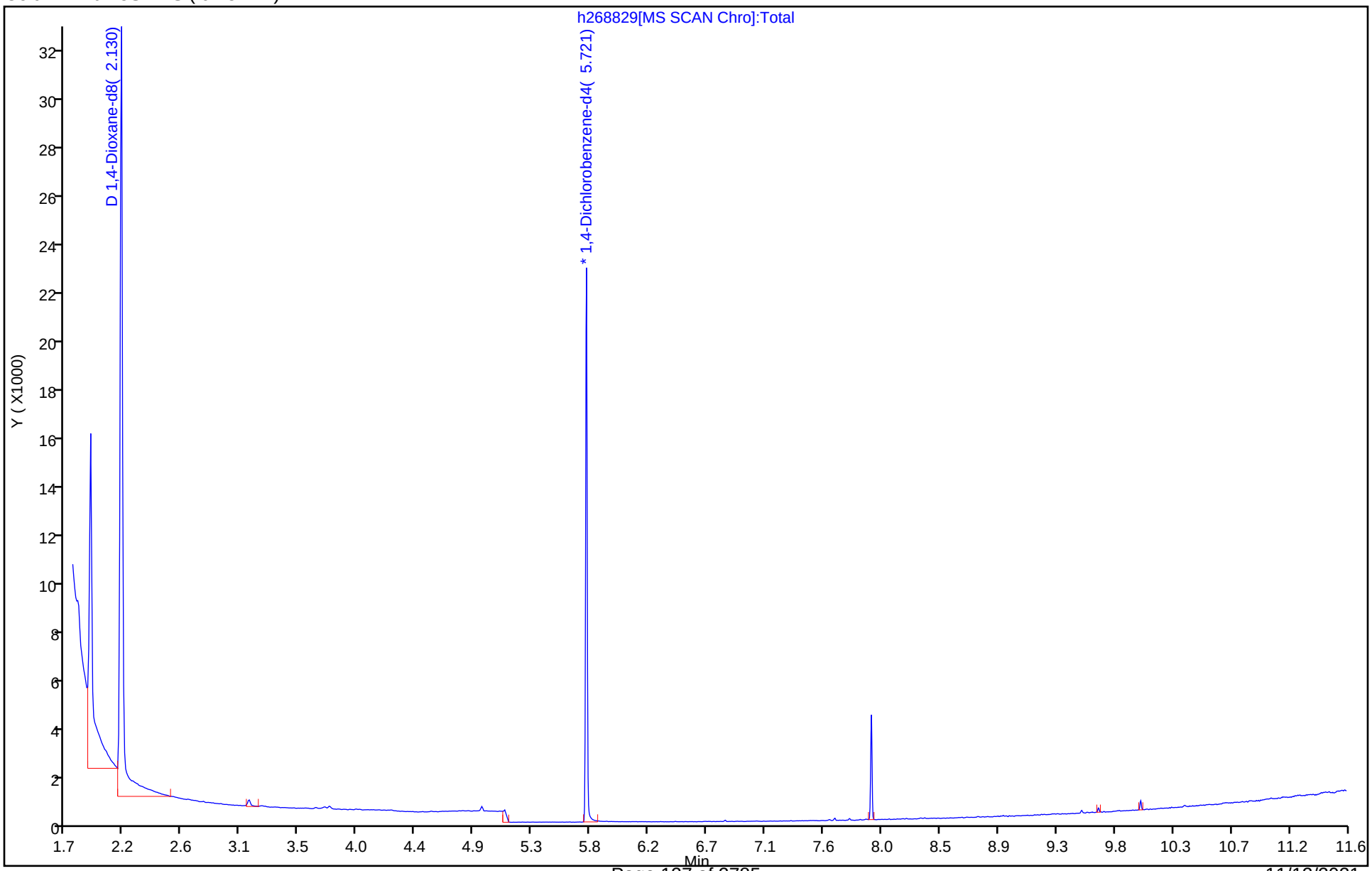
Report Date: 04-Nov-2021 10:19:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268829.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 19:19:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-6-A | Lab Sample ID: | 460-246277-6 | Worklist Smp#: | 35 |
| Client ID: | MW-202D-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 35 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

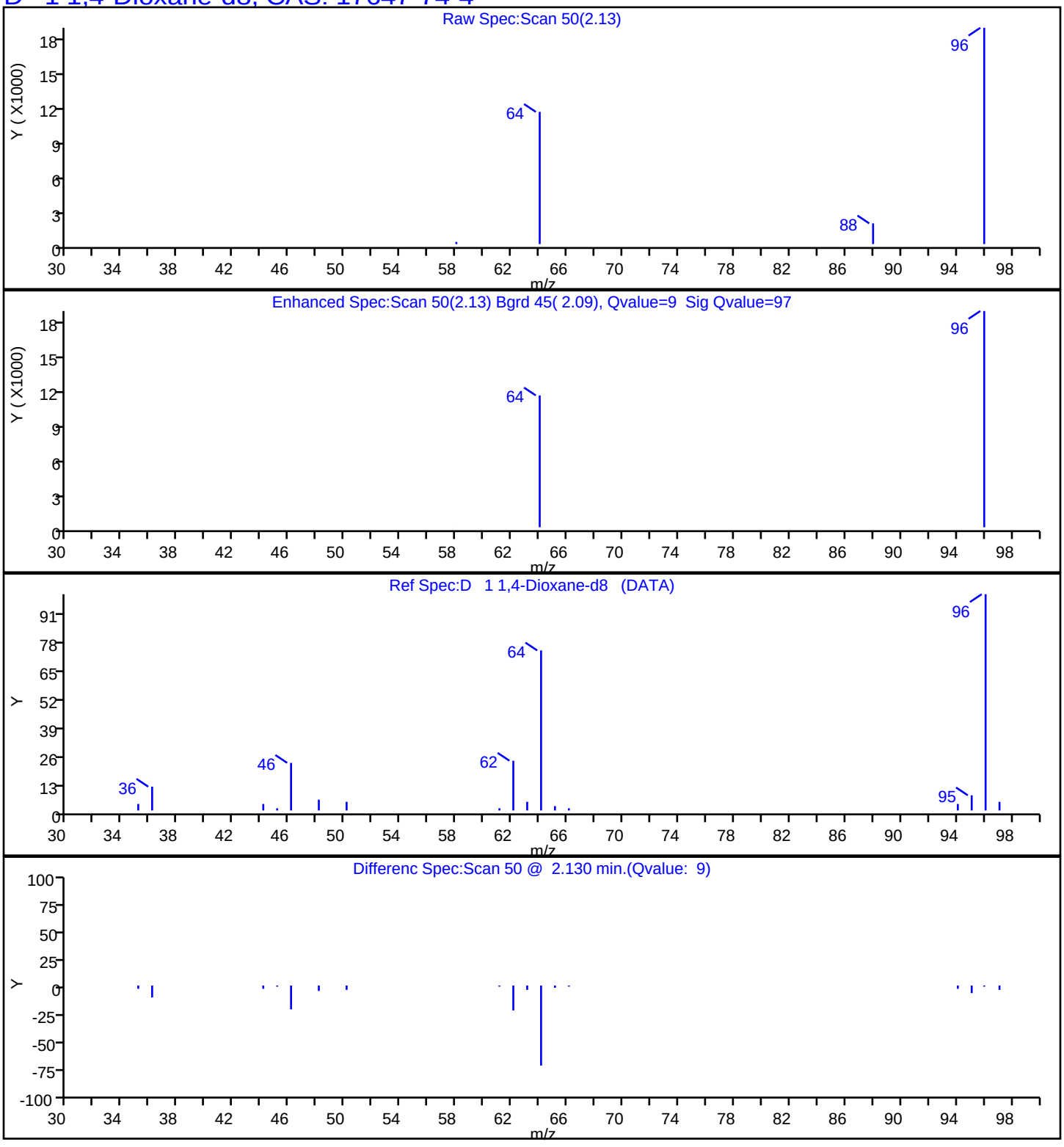
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268829.d | | | | |
| Injection Date: | 03-Nov-2021 19:19:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-6-A | Lab Sample ID: | 460-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-9S-20211027  Lab Sample ID: 460-246277-7

Matrix: Water  Lab File ID: h268830.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 17:25

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 19:34

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 41 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268830.d
Lims ID: 460-246277-A-7-A
Client ID: MW-9S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 19:34:30 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-036
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:44

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 23541 | 1.64 | 40.9 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11951 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

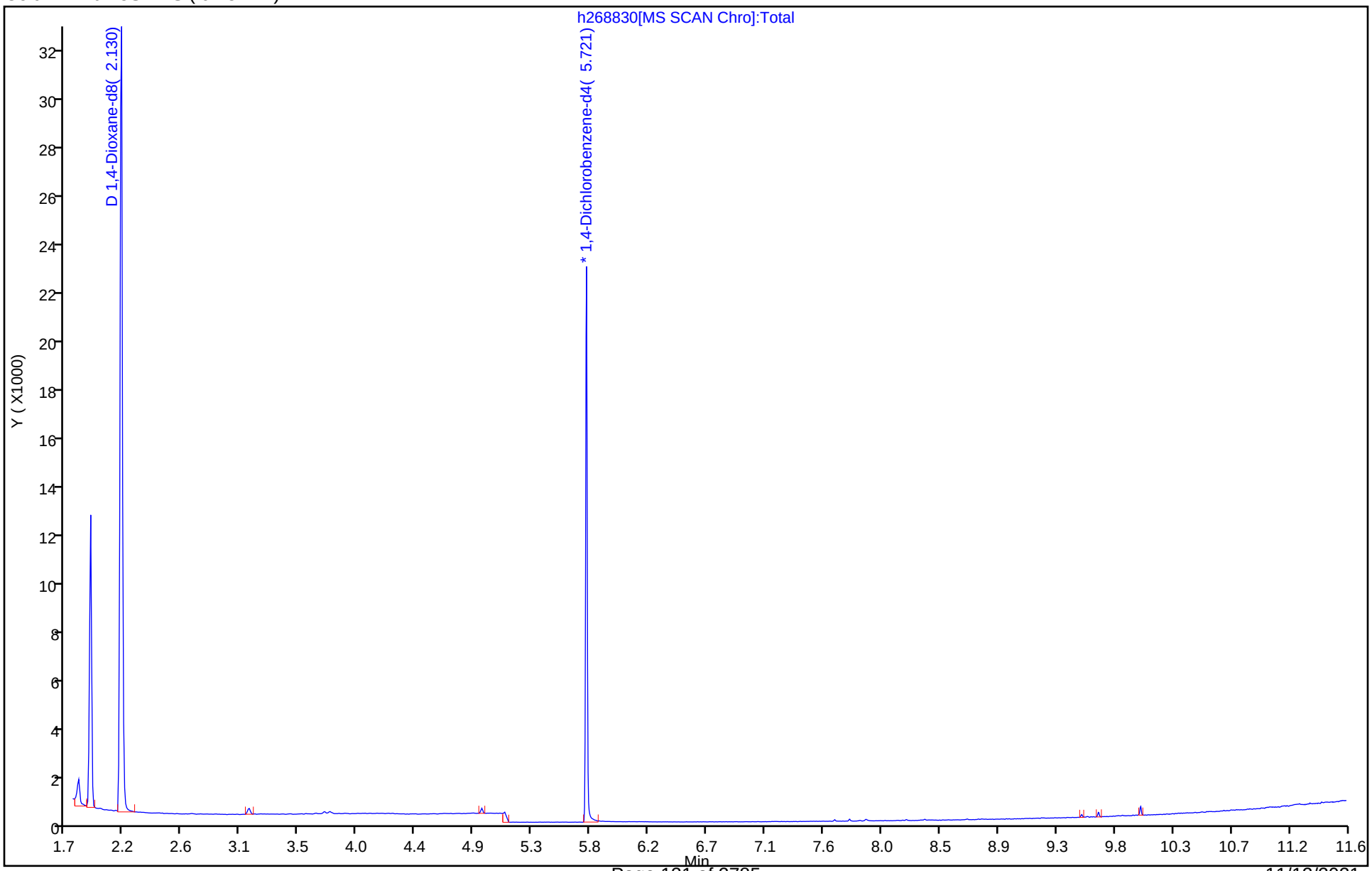
Report Date: 04-Nov-2021 10:19:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268830.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 19:34:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-7-A | Lab Sample ID: | 460-246277-7 | Worklist Smp#: | 36 |
| Client ID: | MW-9S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 36 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

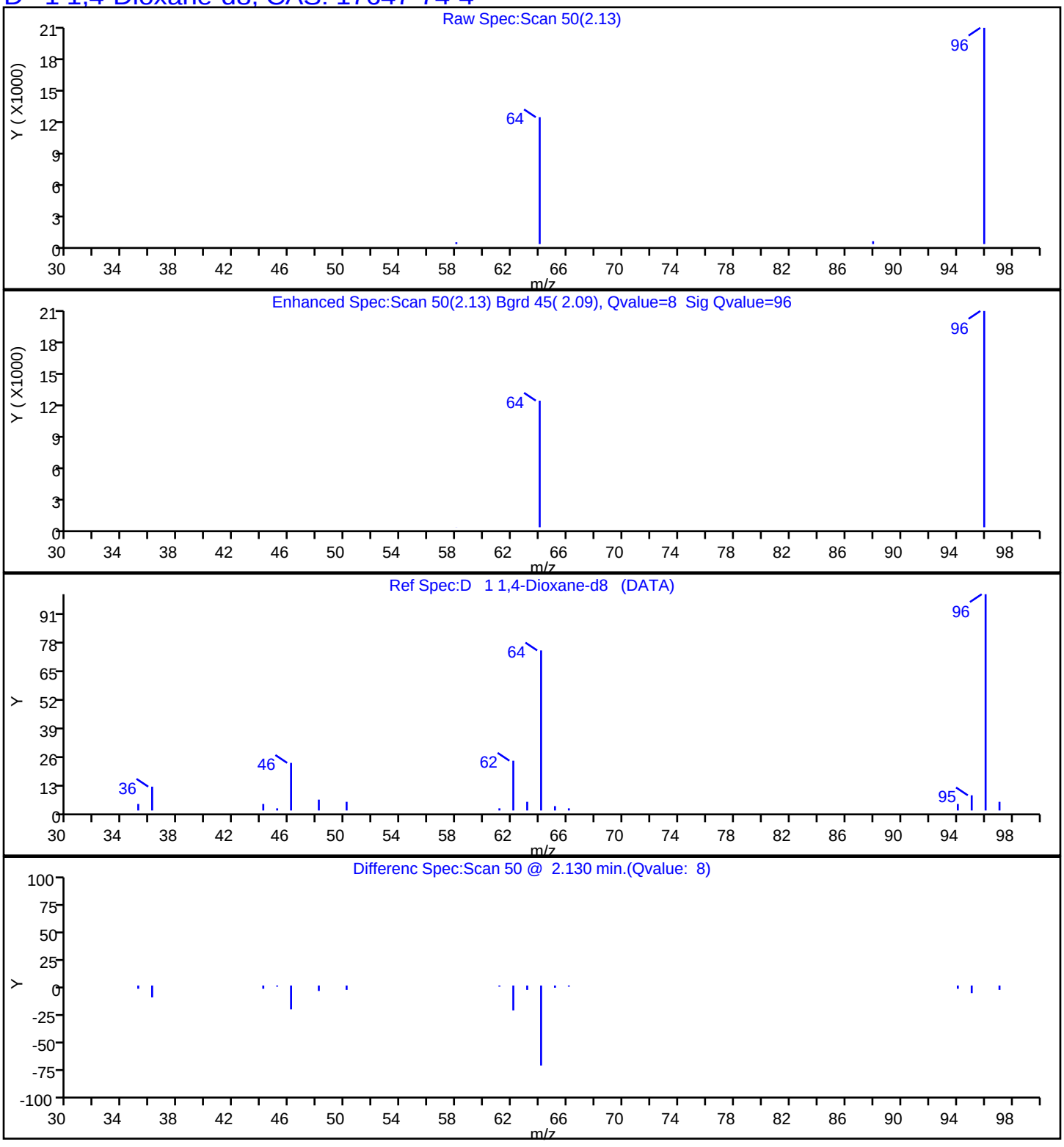
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268830.d | | | | |
| Injection Date: | 03-Nov-2021 19:34:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-7-A | Lab Sample ID: | 460-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027  Lab Sample ID: 460-246277-8

Matrix: Water  Lab File ID: h268818.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 14:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 16:24

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.43 | F1 F2 | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 37 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268818.d
Lims ID: 460-246277-A-8-A
Client ID: MW-24S-20211027
Sample Type: Client
Inject. Date: 03-Nov-2021 16:24:30 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-024
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:24

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 21077 | 1.47 | 36.7 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 22 | 337 | 0.0540 | | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11917 | 0.2000 | | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

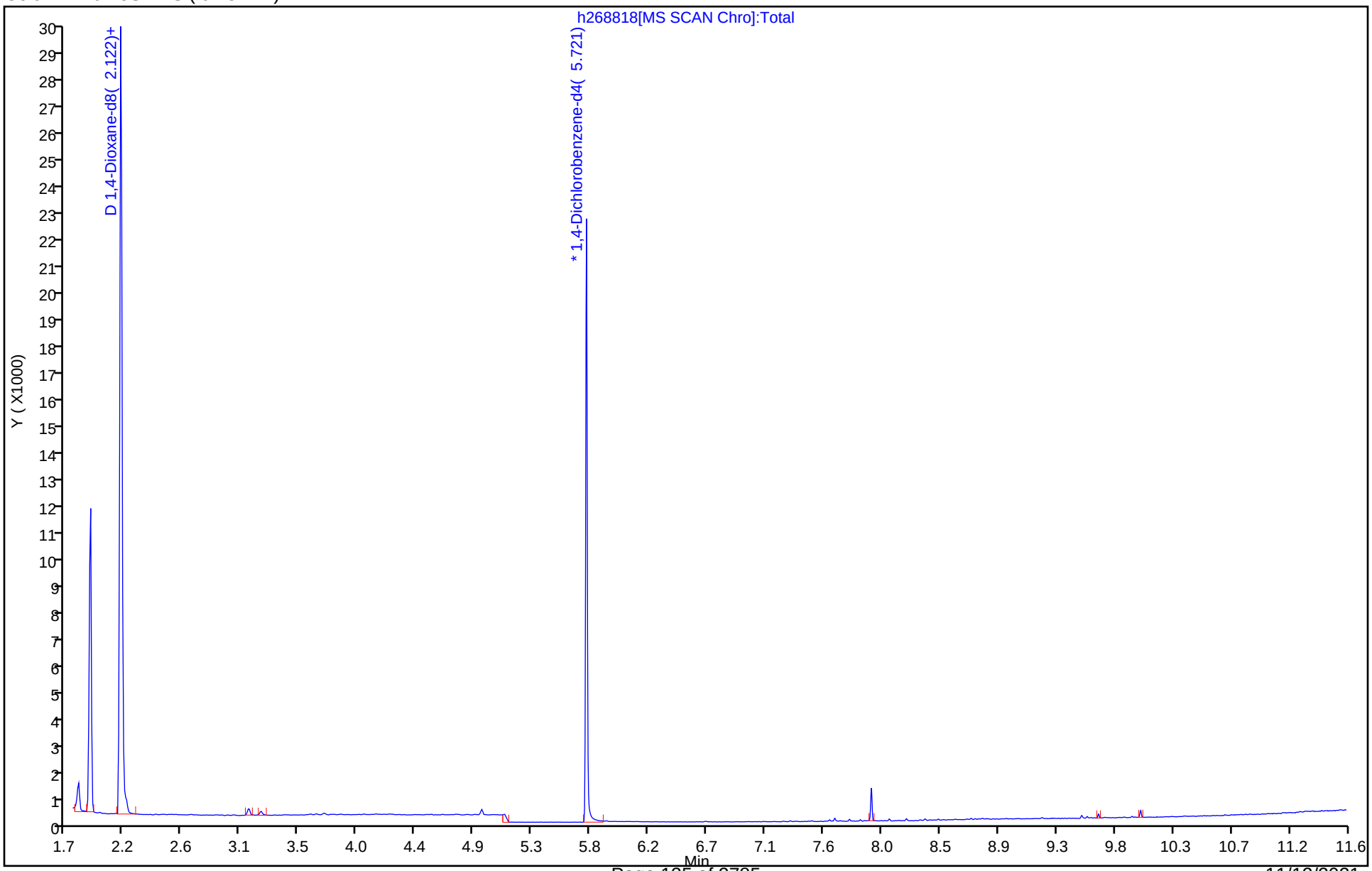
Report Date: 04-Nov-2021 10:16:24 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268818.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 16:24:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-8-A | Lab Sample ID: | 460-246277-8 | Worklist Smp#: | 24 |
| Client ID: | MW-24S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

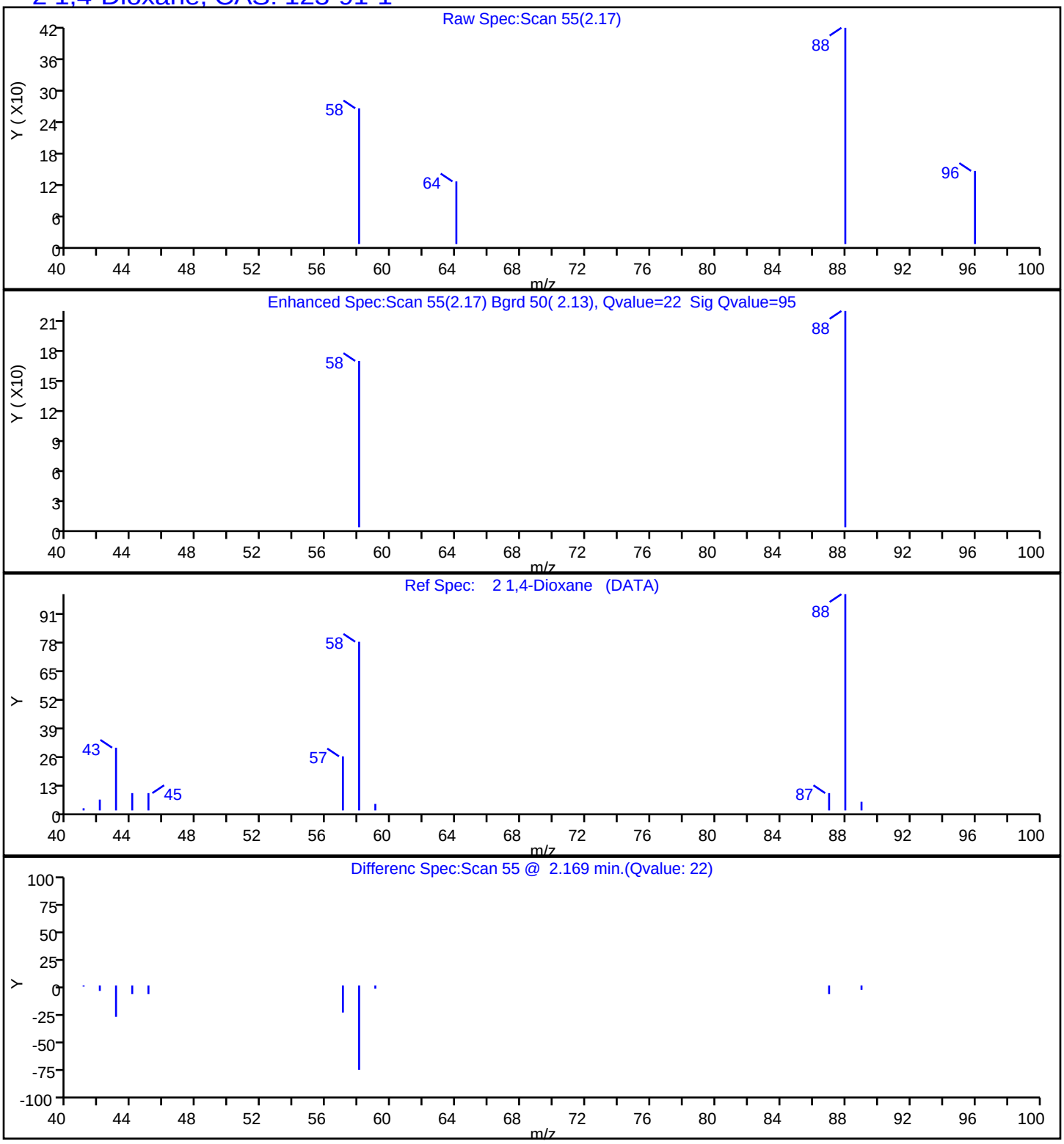
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268818.d | | | | |
| Injection Date: | 03-Nov-2021 16:24:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-8-A | Lab Sample ID: | 460-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

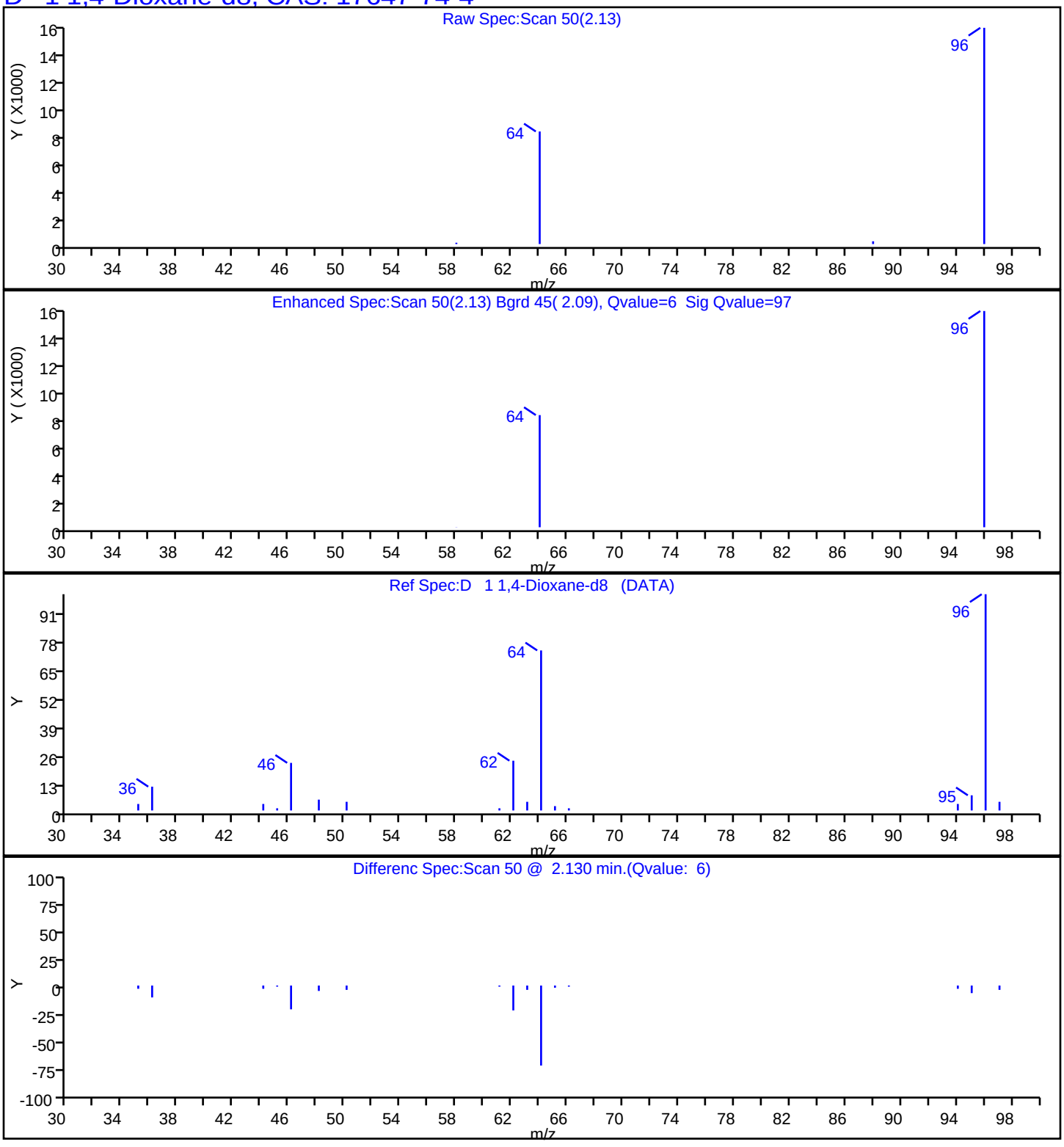
## 2 1,4-Dioxane, CAS: 123-91-1



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268818.d | | | | |
| Injection Date: | 03-Nov-2021 16:24:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-8-A | Lab Sample ID: | 460-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: BP-101-20211028  Lab Sample ID: 460-246277-9

Matrix: Water  Lab File ID: h268831.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 10:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 19:50

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 34 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268831.d
Lims ID: 460-246277-A-9-A
Client ID: BP-101-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 19:50:30 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-037
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:19:54

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 19143 | 1.37 | 34.3 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11605 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

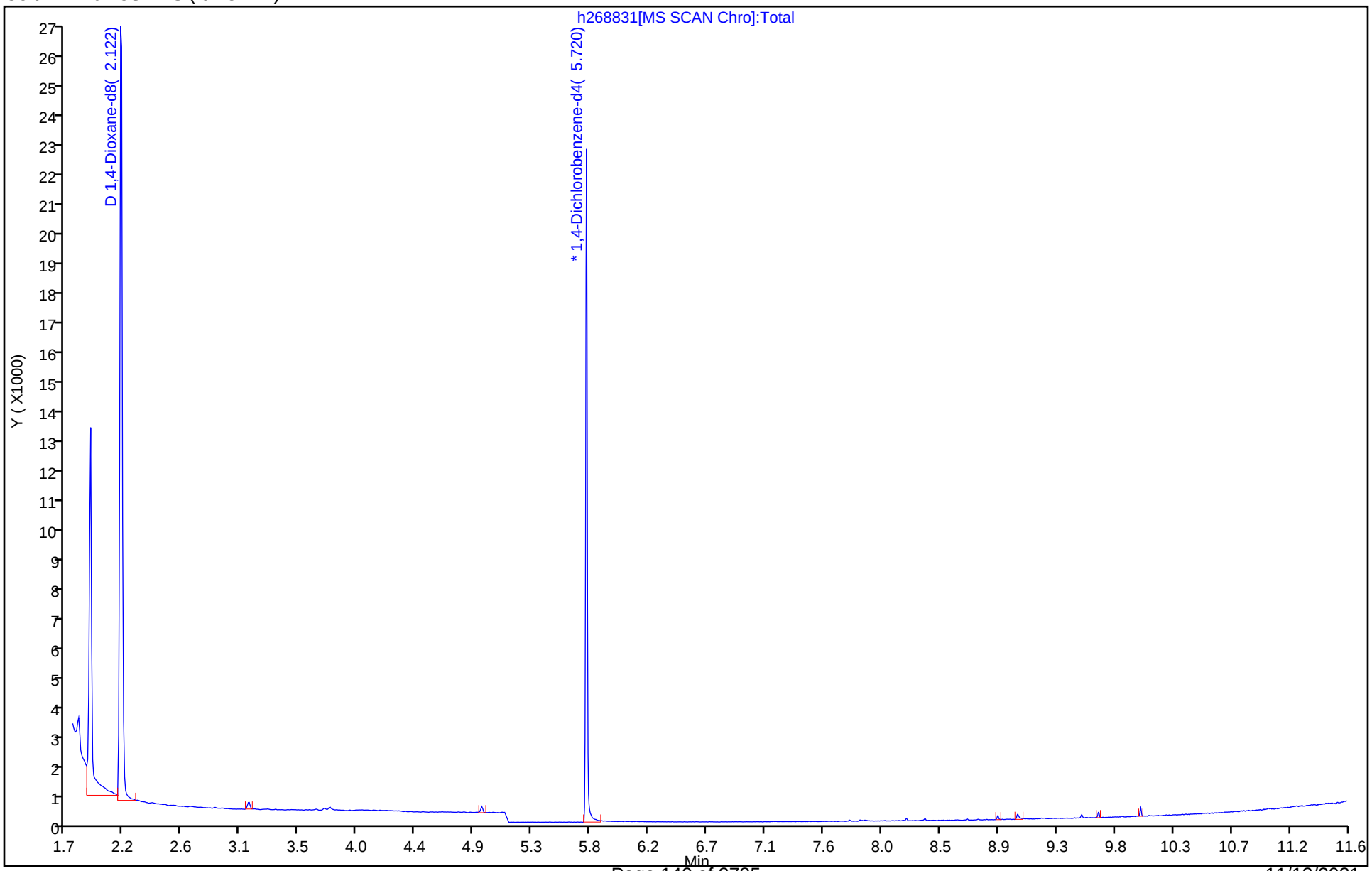
Report Date: 04-Nov-2021 10:19:54 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268831.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 19:50:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-9-A | Lab Sample ID: | 460-246277-9 | Worklist Smp#: | 37 |
| Client ID: | BP-101-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 37 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

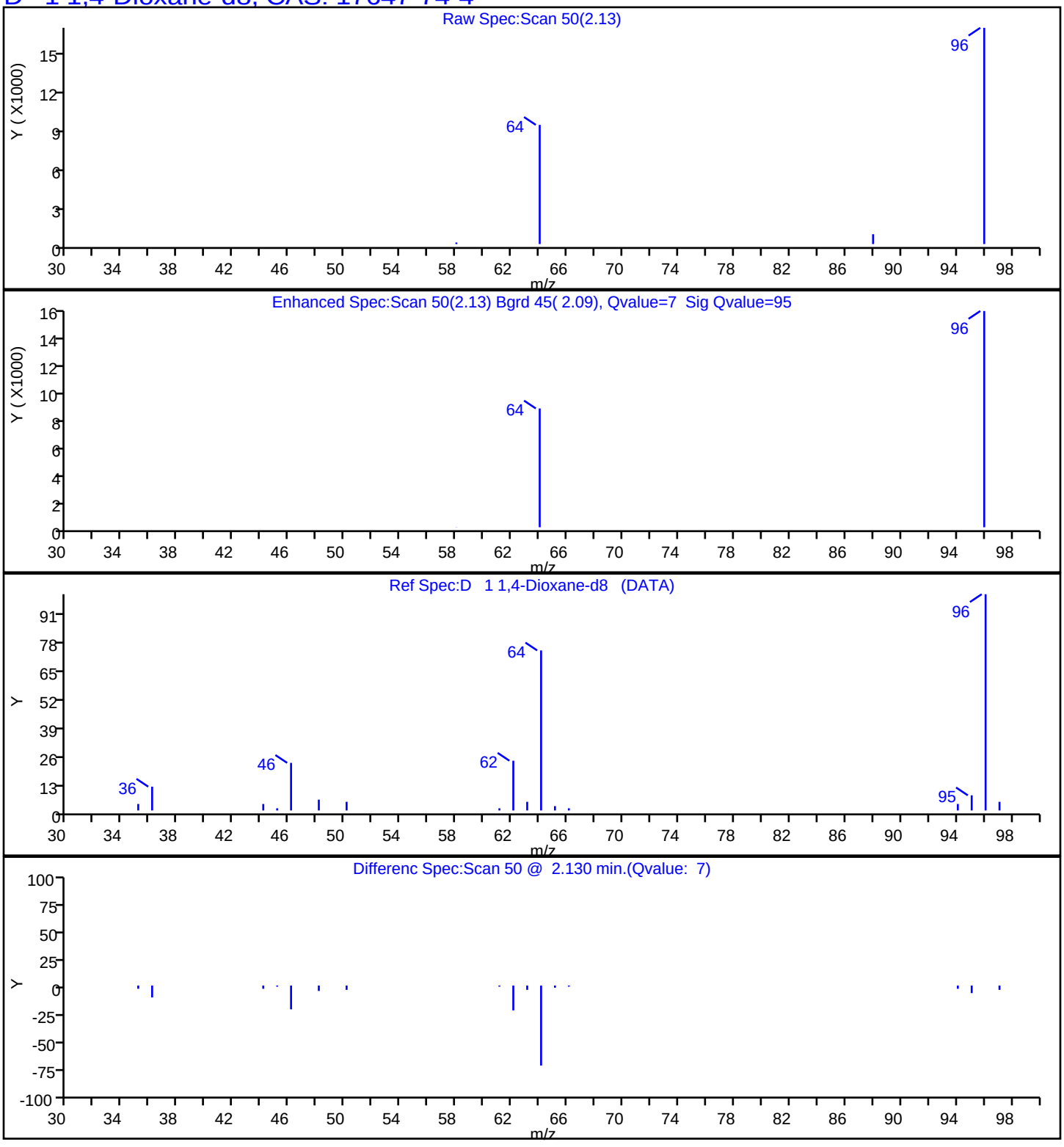
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268831.d | | | | |
| Injection Date: | 03-Nov-2021 19:50:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-9-A | Lab Sample ID: | 460-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: EP-02-20211028  Lab Sample ID: 460-246277-10

Matrix: Water  Lab File ID: h268832.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 08:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 20:06

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 37 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268832.d
Lims ID: 460-246277-B-10-A
Client ID: EP-02-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 20:06:30 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-038
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:20:03

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 23479 | 1.48 | 36.9 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | -0.001 | 1 | 13222 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

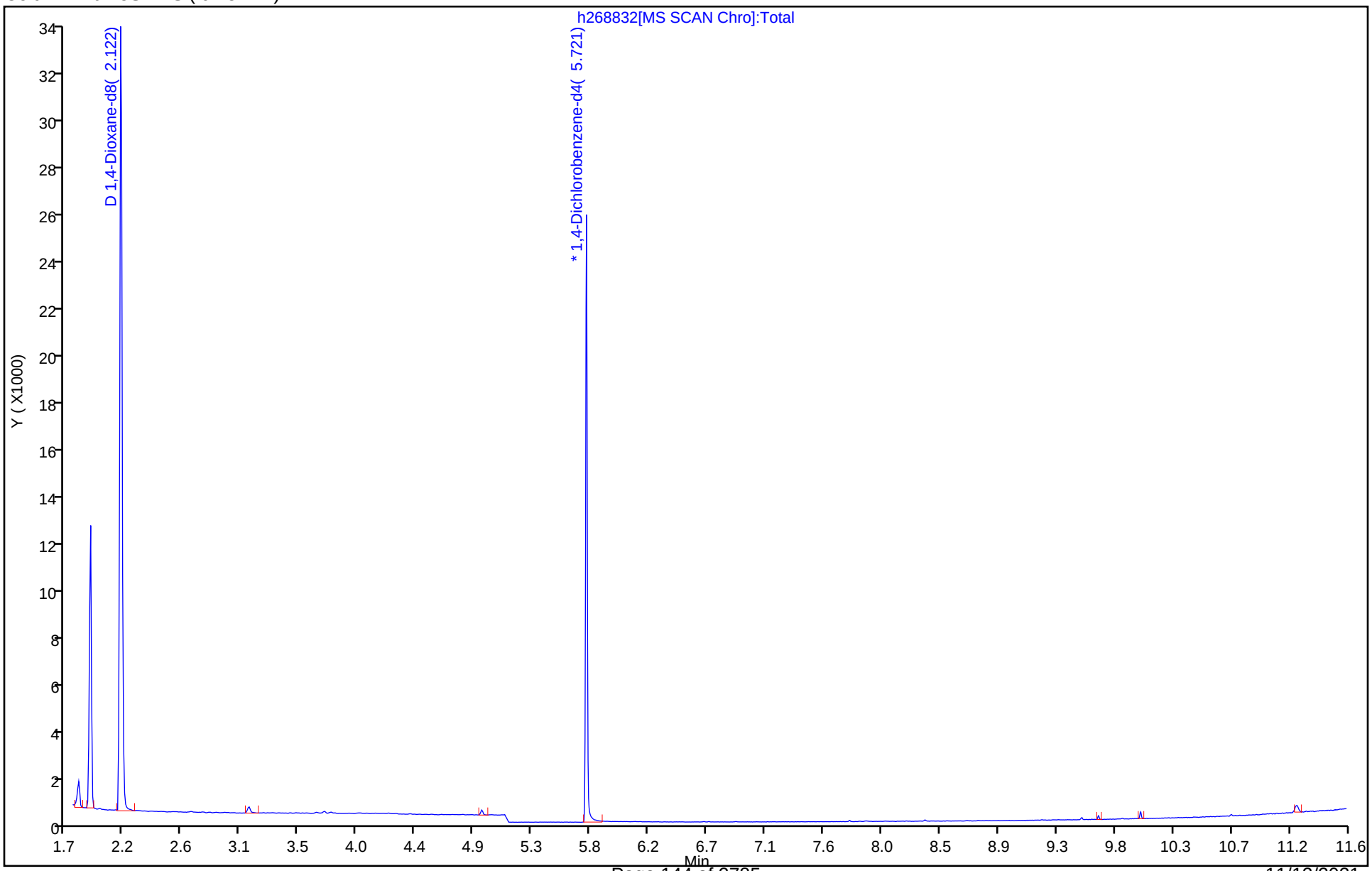
Report Date: 04-Nov-2021 10:20:03 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268832.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 20:06:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-10-A | Lab Sample ID: | 460-246277-10 | Worklist Smp#: | 38 |
| Client ID: | EP-02-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 38 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

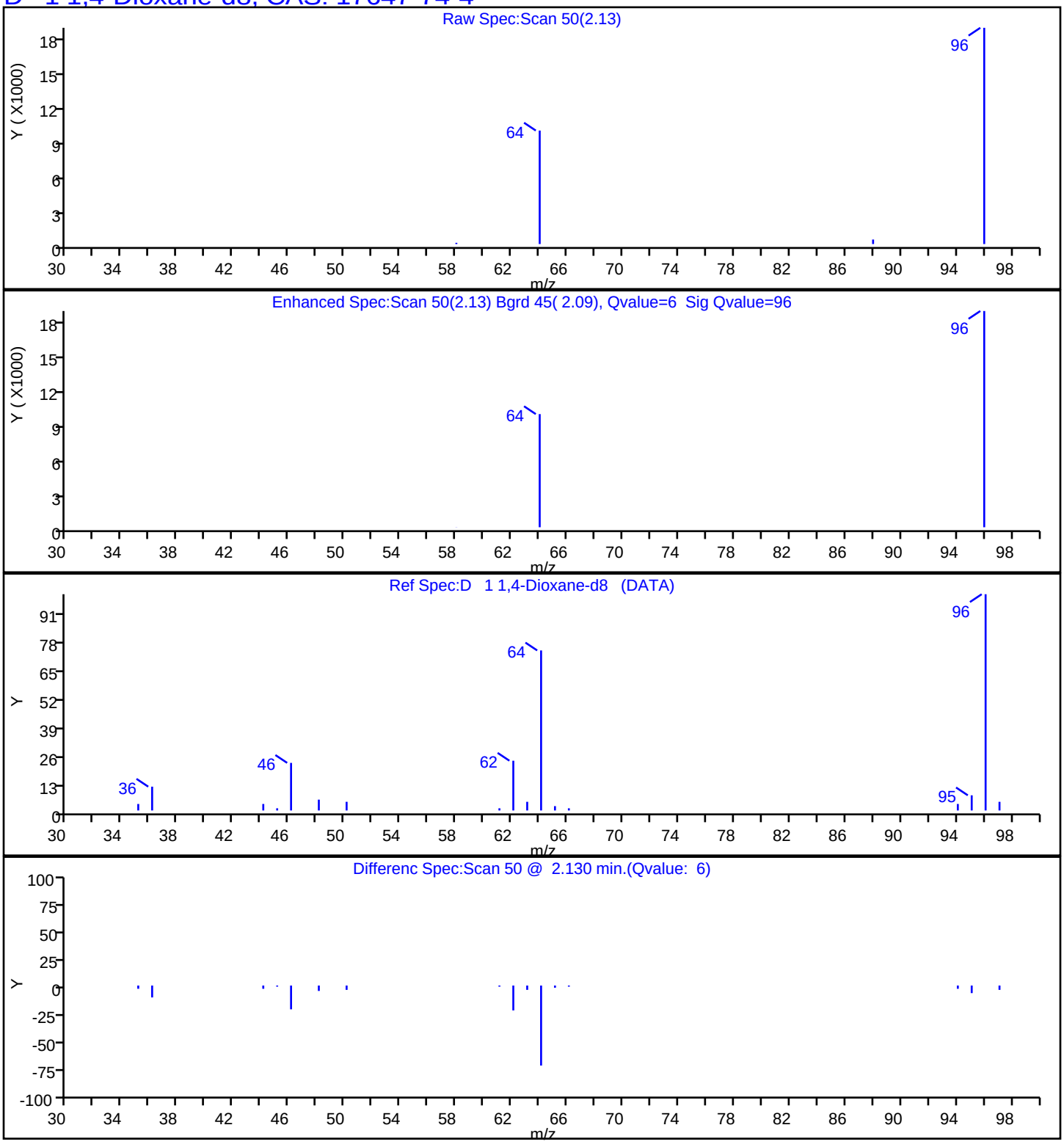
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268832.d | | | | |
| Injection Date: | 03-Nov-2021 20:06:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-10-A | Lab Sample ID: | 460-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 38 | Worklist Smp#: | 38 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-23S-20211028  Lab Sample ID: 460-246277-11

Matrix: Water  Lab File ID: h268833.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 08:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 20:22

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 39 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268833.d
Lims ID: 460-246277-A-11-A
Client ID: MW-23S-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 20:22:30 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-039
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:20:13

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 13 | 20214 | 1.56 | 39.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 10765 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

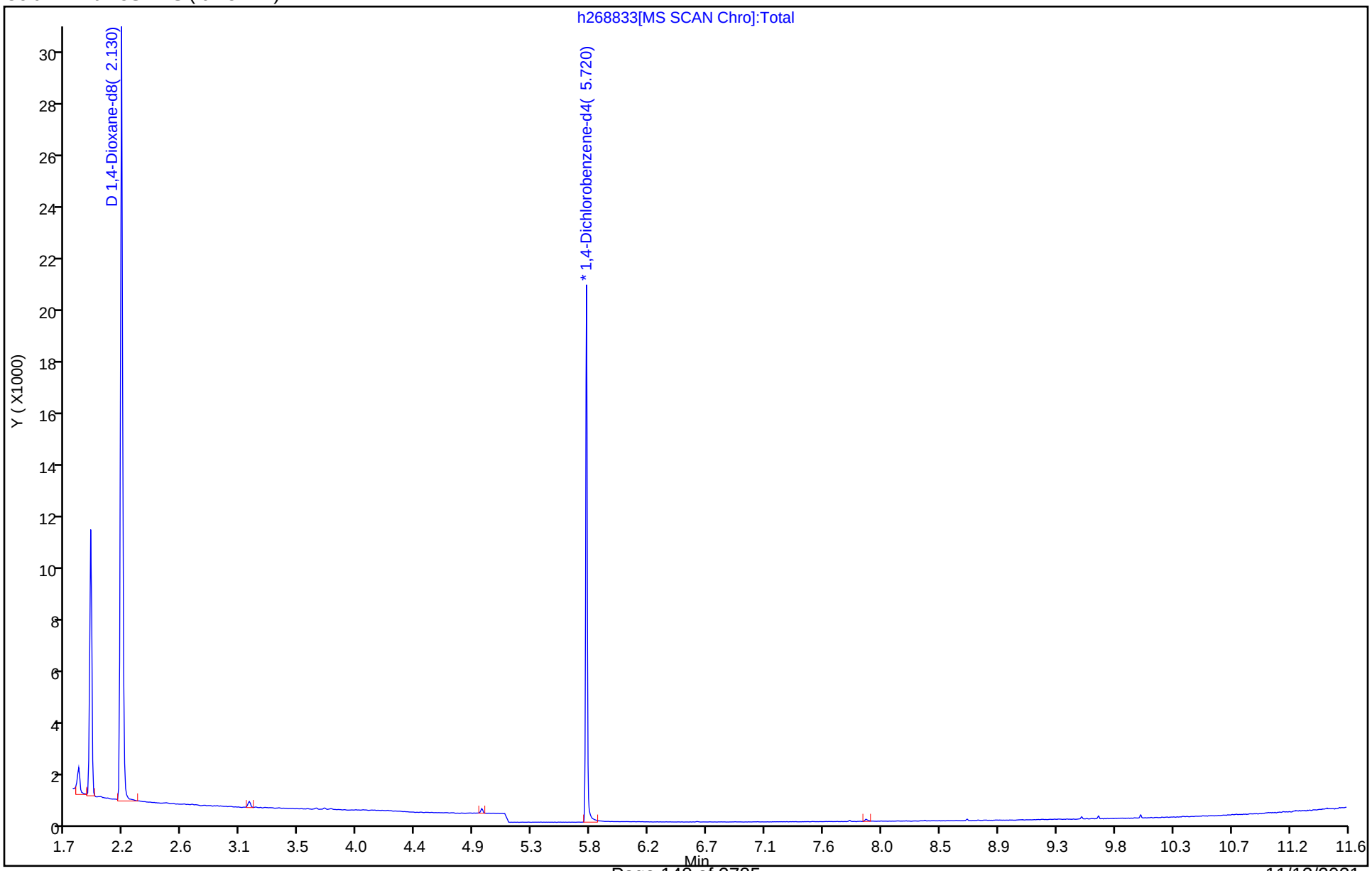
Report Date: 04-Nov-2021 10:20:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268833.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 20:22:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-11-A | Lab Sample ID: | 460-246277-11 | Worklist Smp#: | 39 |
| Client ID: | MW-23S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 39 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

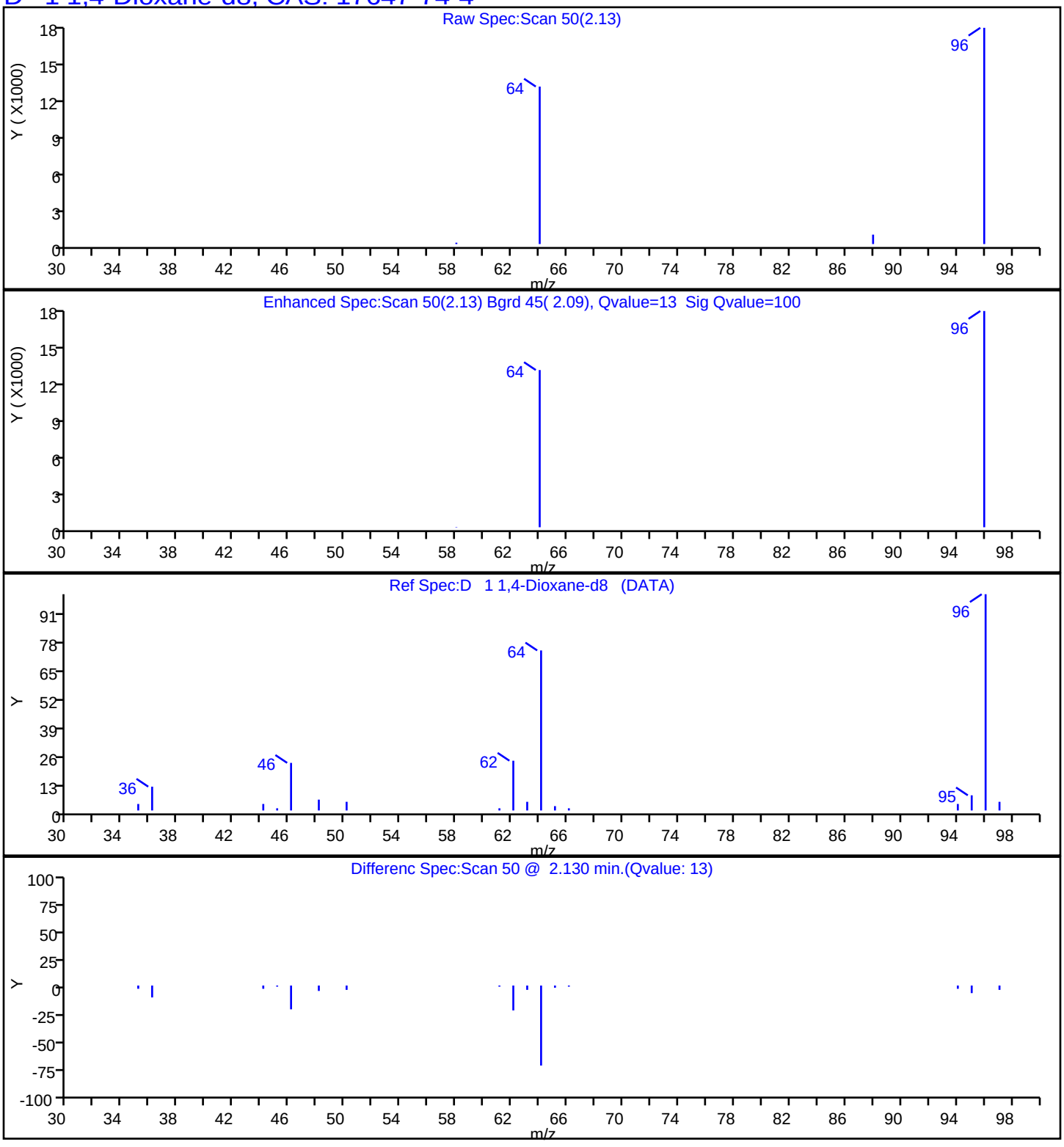
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268833.d | | | | |
| Injection Date: | 03-Nov-2021 20:22:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-11-A | Lab Sample ID: | 460-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 39 | Worklist Smp#: | 39 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-37AQ-20211028  Lab Sample ID: 460-246277-12

Matrix: Water  Lab File ID: h268834.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 13:45

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 20:38

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 34 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268834.d
Lims ID: 460-246277-B-12-A
Client ID: MW-37AQ-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 20:38:30 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-040
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:20:22

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 19914 | 1.36 | 34.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 12164 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

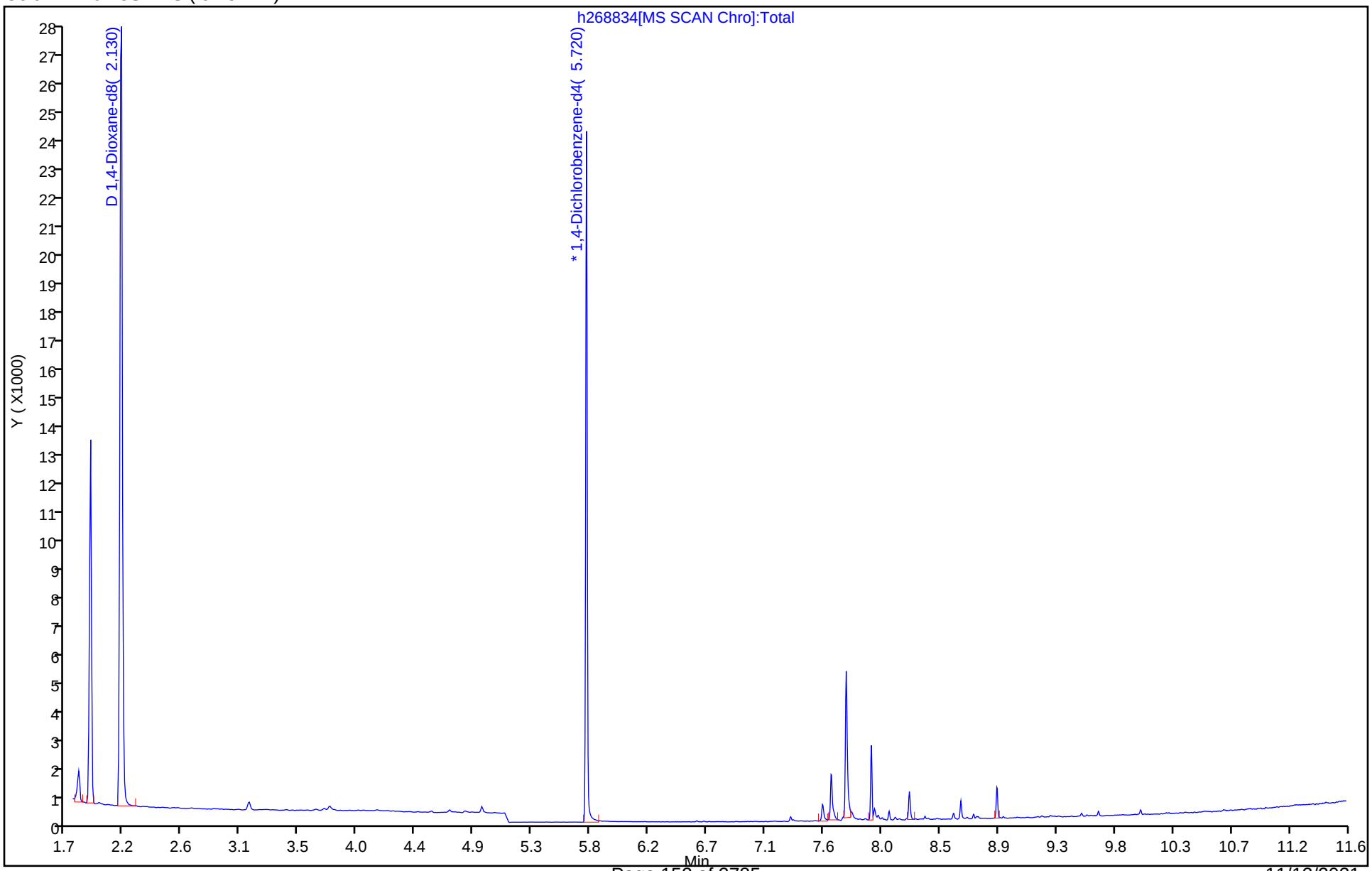
Report Date: 04-Nov-2021 10:20:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268834.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 20:38:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-12-A | Lab Sample ID: | 460-246277-12 | Worklist Smp#: | 40 |
| Client ID: | MW-37AQ-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 40 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

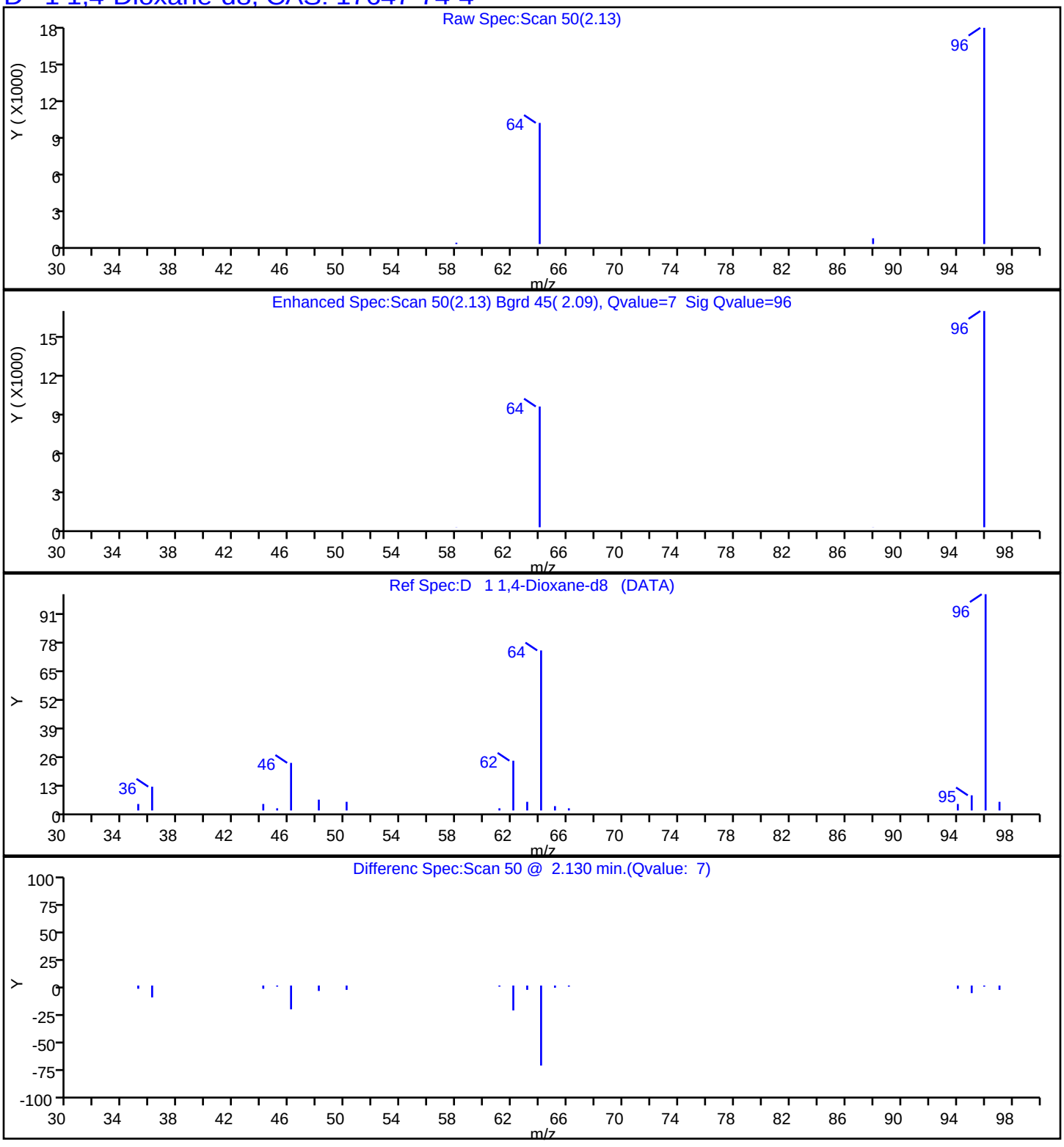
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268834.d | | | | |
| Injection Date: | 03-Nov-2021 20:38:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-12-A | Lab Sample ID: | 460-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 40 | Worklist Smp#: | 40 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-5-20211028  Lab Sample ID: 460-246277-13

Matrix: Water  Lab File ID: h268835.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 15:40

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 20:54

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 33 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268835.d
Lims ID: 460-246277-A-13-A
Client ID: AMW-5-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 20:54:30 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-041
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:20:28 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:20:34

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 18133 | 1.31 | 32.8 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11487 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

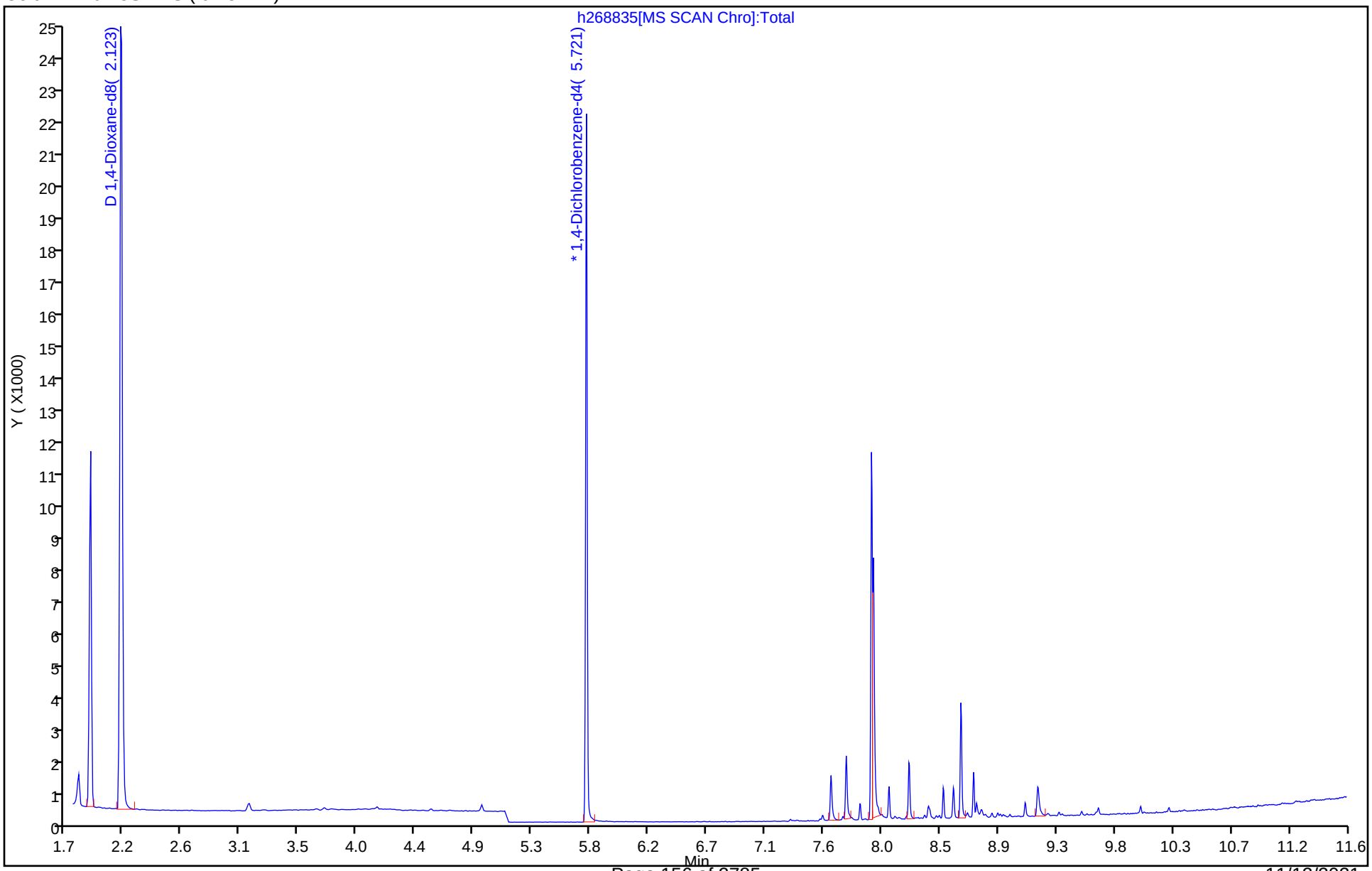
Report Date: 04-Nov-2021 10:20:34 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268835.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 20:54:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-13-A | Lab Sample ID: | 460-246277-13 | Worklist Smp#: | 41 |
| Client ID: | AMW-5-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 41 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

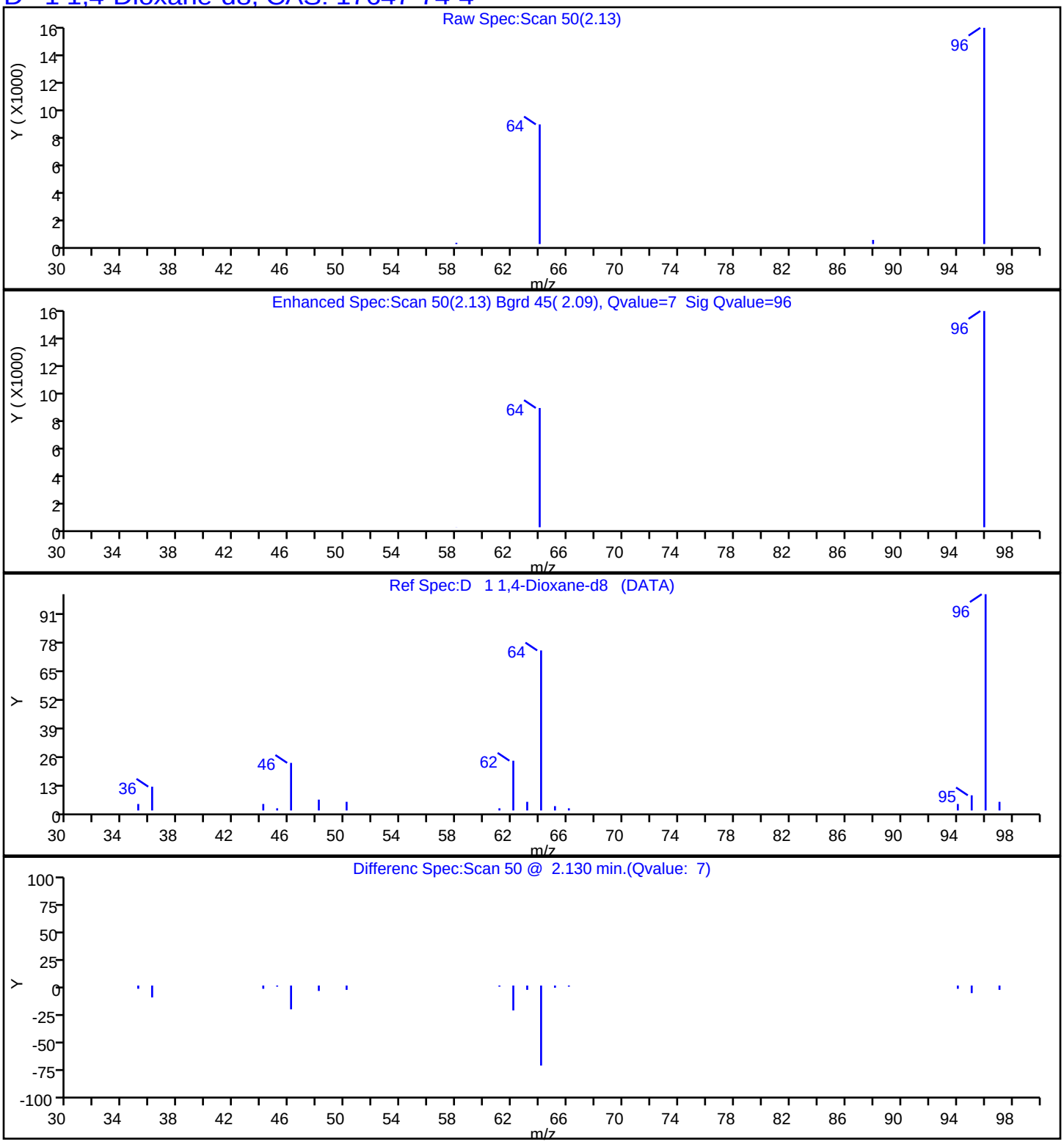
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268835.d | | | | |
| Injection Date: | 03-Nov-2021 20:54:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-13-A | Lab Sample ID: | 460-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 41 | Worklist Smp#: | 41 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



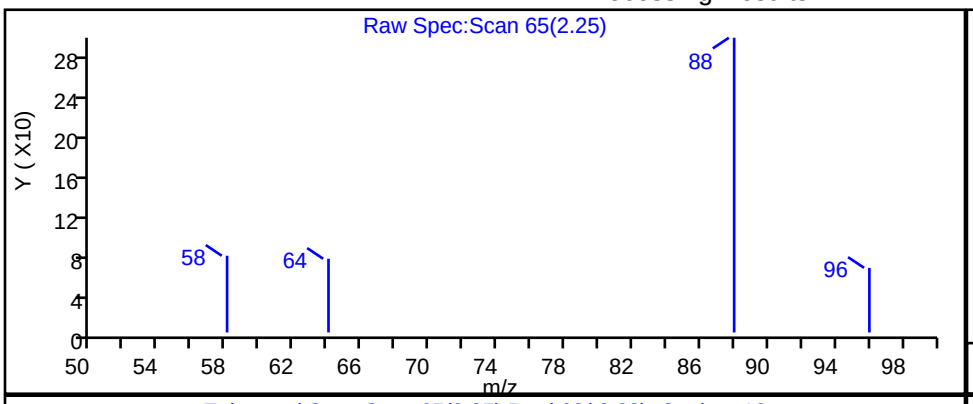
User Disabled Compound Report

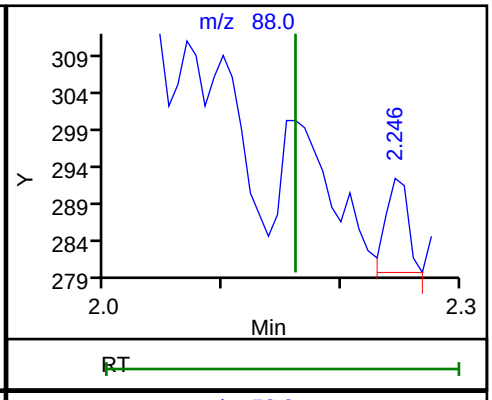
Eurofins TestAmerica, Edison

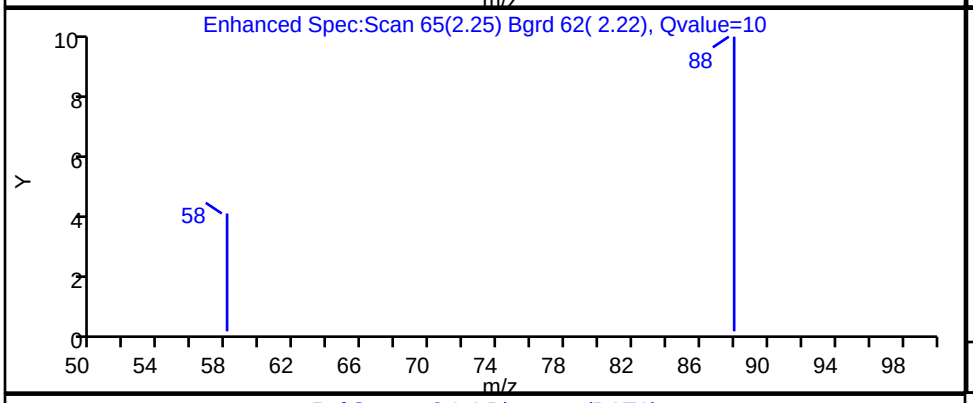
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268835.d | | | | |
| Injection Date: | 03-Nov-2021 20:54:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-13-A | Lab Sample ID: | 460-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 41 | Worklist Smp#: | 41 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

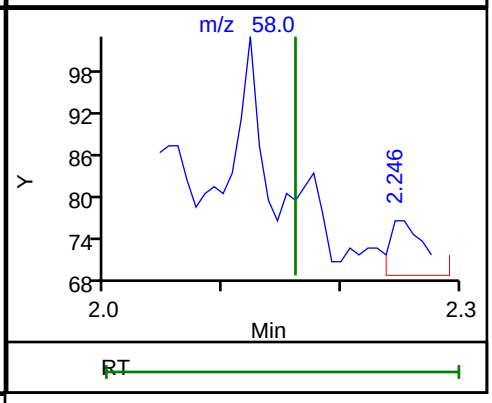
## 2 1,4-Dioxane, CAS: 123-91-1

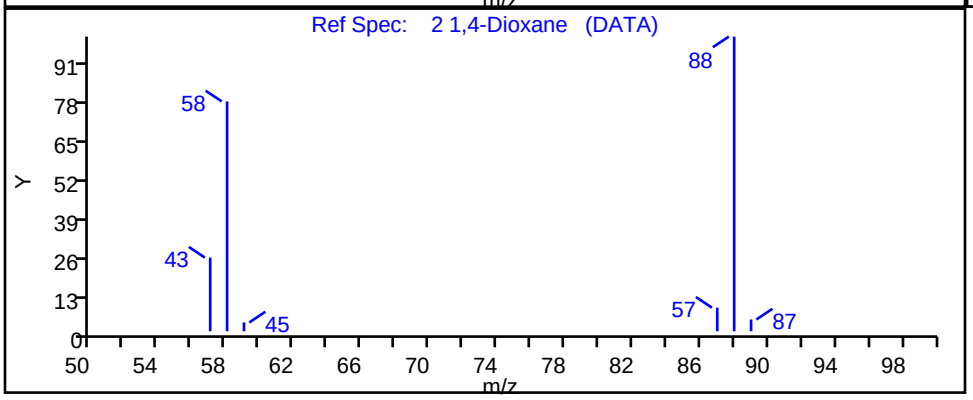
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.25 | 88.00 | 17 | 0.003169 |
| 2.25 | 58.00 | 16 | |

Reviewer: khlungprakhons, 04-Nov-2021 10:20:25

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-5S-20211028  Lab Sample ID: 460-246277-14

Matrix: Water  Lab File ID: h268836.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 17:05

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 21:10

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 42 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268836.d
Lims ID: 460-246277-B-14-A
Client ID: MW-5S-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 21:10:30 ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-042
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:20:28 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:20:43

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 13 | 22279 | 1.68 | 42.1 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 10993 | 0.2000 | | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

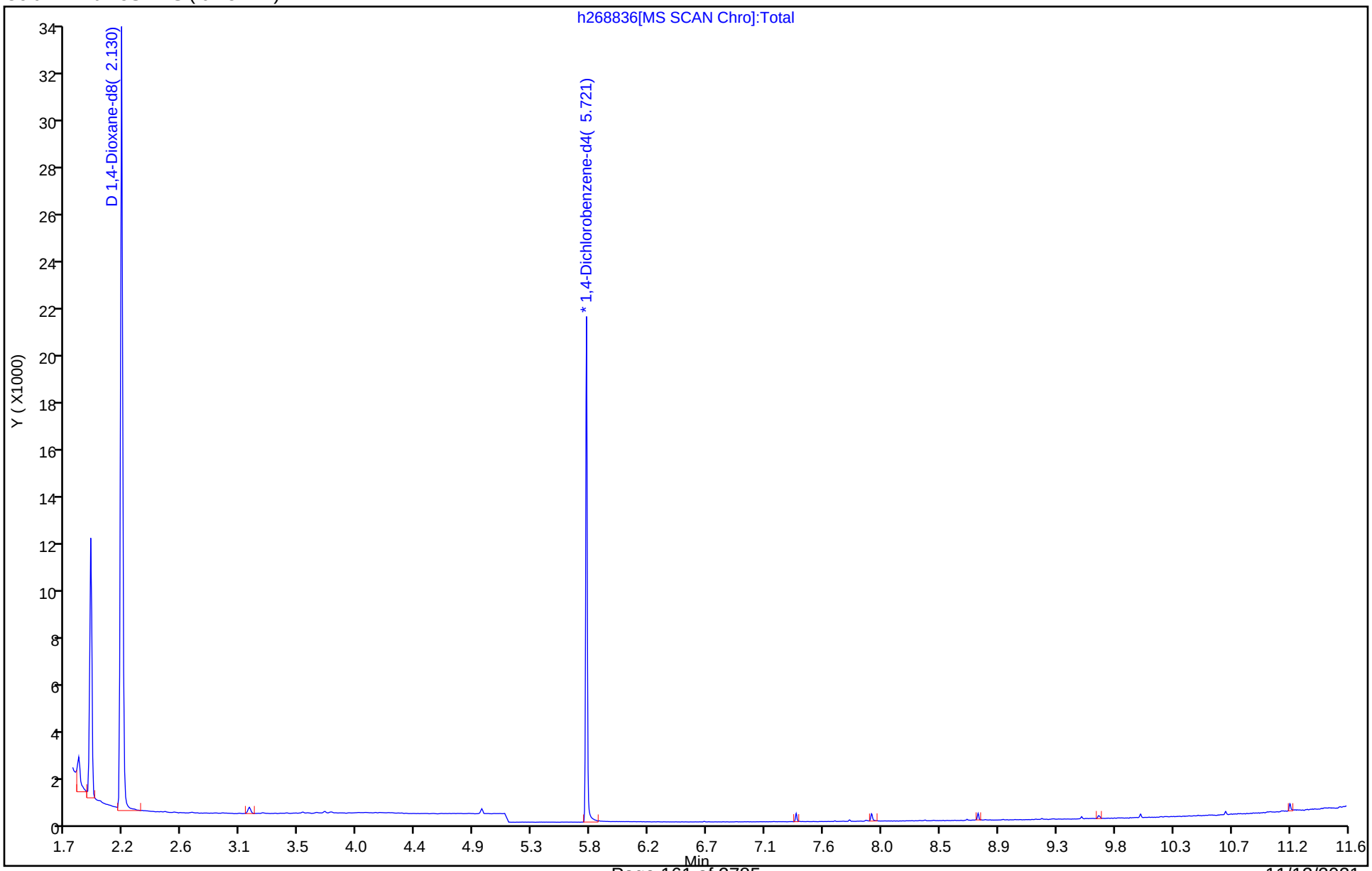
Report Date: 04-Nov-2021 10:20:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268836.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 21:10:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-14-A | Lab Sample ID: | 460-246277-14 | Worklist Smp#: | 42 |
| Client ID: | MW-5S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 42 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

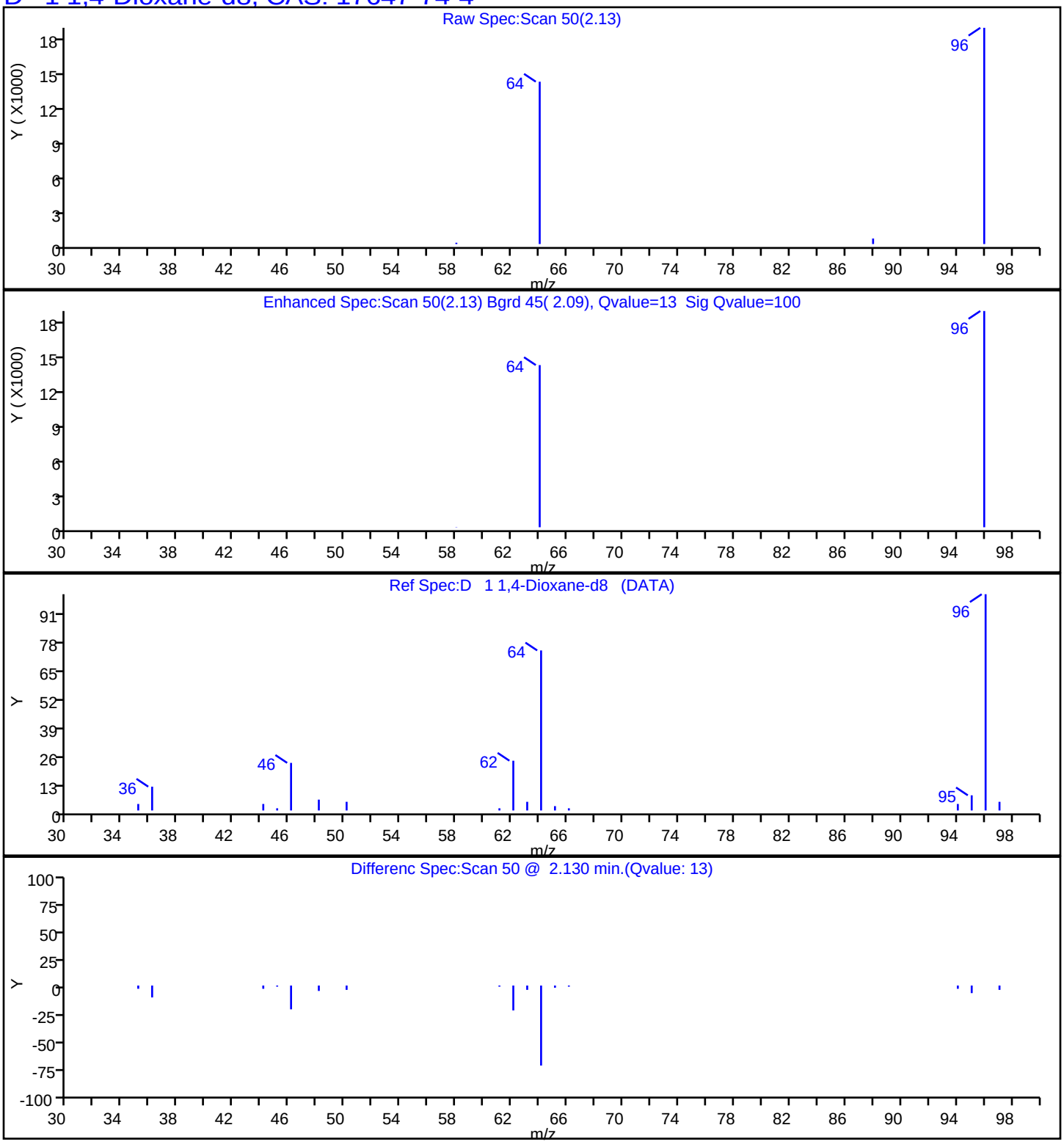
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268836.d | | |
| Injection Date: | 03-Nov-2021 21:10:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246277-B-14-A | Lab Sample ID: | 460-246277-14 |
| Client ID: | MW-5S-20211028 | | |
| Operator ID: | | ALS Bottle#: | 42 Worklist Smp#: 42 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-34-20211028  Lab Sample ID: 460-246277-15

Matrix: Water  Lab File ID: h268837.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 17:45

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 21:25

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 28 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268837.d
Lims ID: 460-246277-B-15-A
Client ID: MW-34-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 21:25:30 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-043
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:20:28 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:21:00

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 11 | 18322 | 1.12 | 28.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.717 | 5.721 | -0.004 | 1 | 13593 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

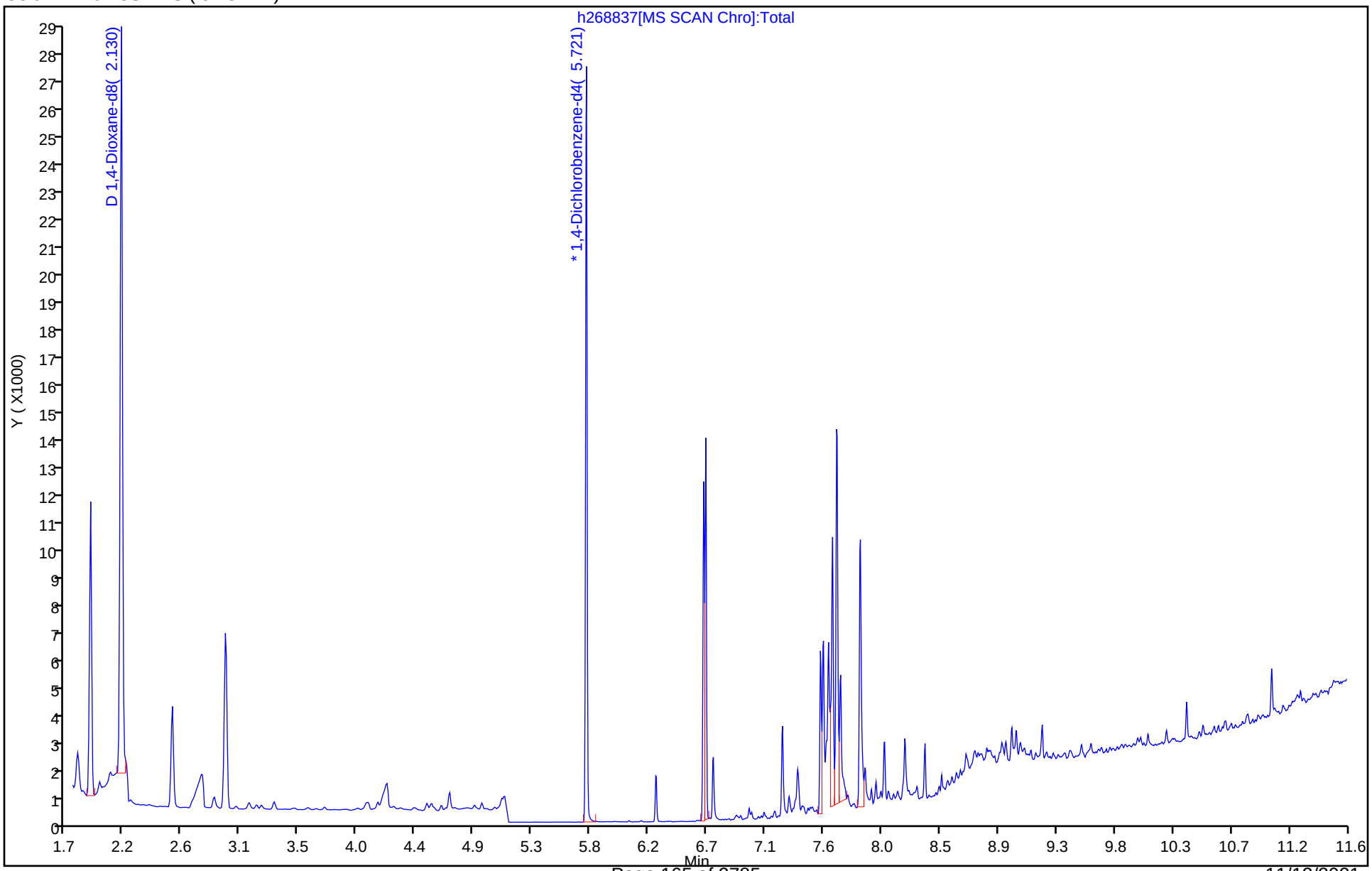
Report Date: 04-Nov-2021 10:21:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268837.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 21:25:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-15-A | Lab Sample ID: | 460-246277-15 | Worklist Smp#: | 43 |
| Client ID: | MW-34-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 43 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

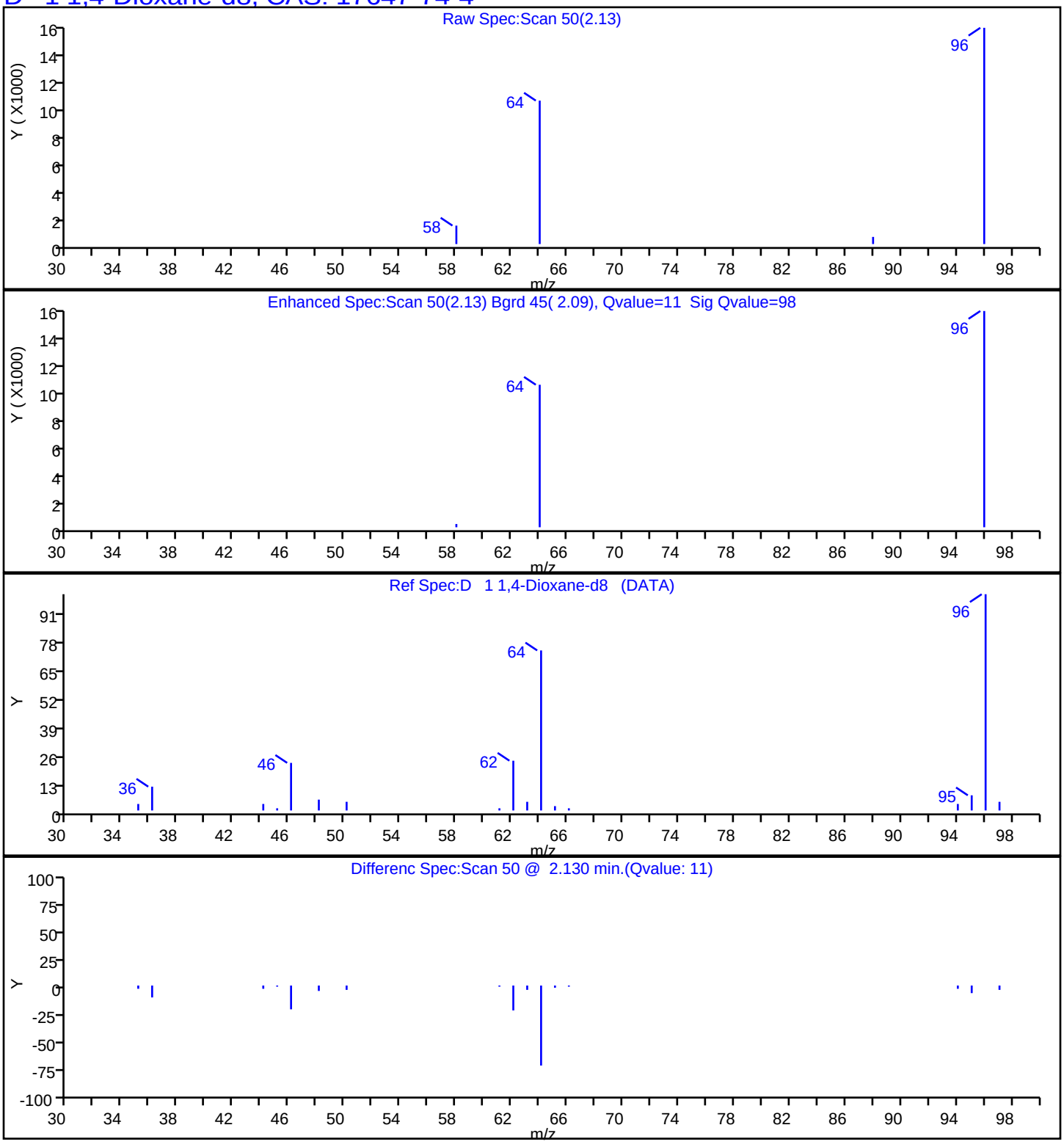
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268837.d | | | | |
| Injection Date: | 03-Nov-2021 21:25:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-B-15-A | Lab Sample ID: | 460-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 43 | Worklist Smp#: | 43 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-1S-20211028  Lab Sample ID: 460-246277-16

Matrix: Water  Lab File ID: h268838.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 16:05

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 21:41

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 39 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268838.d
Lims ID: 460-246277-A-16-A
Client ID: MW-1S-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 21:41:30 ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-044
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:20:28 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:21:10

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 22782 | 1.57 | 39.2 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 12080 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

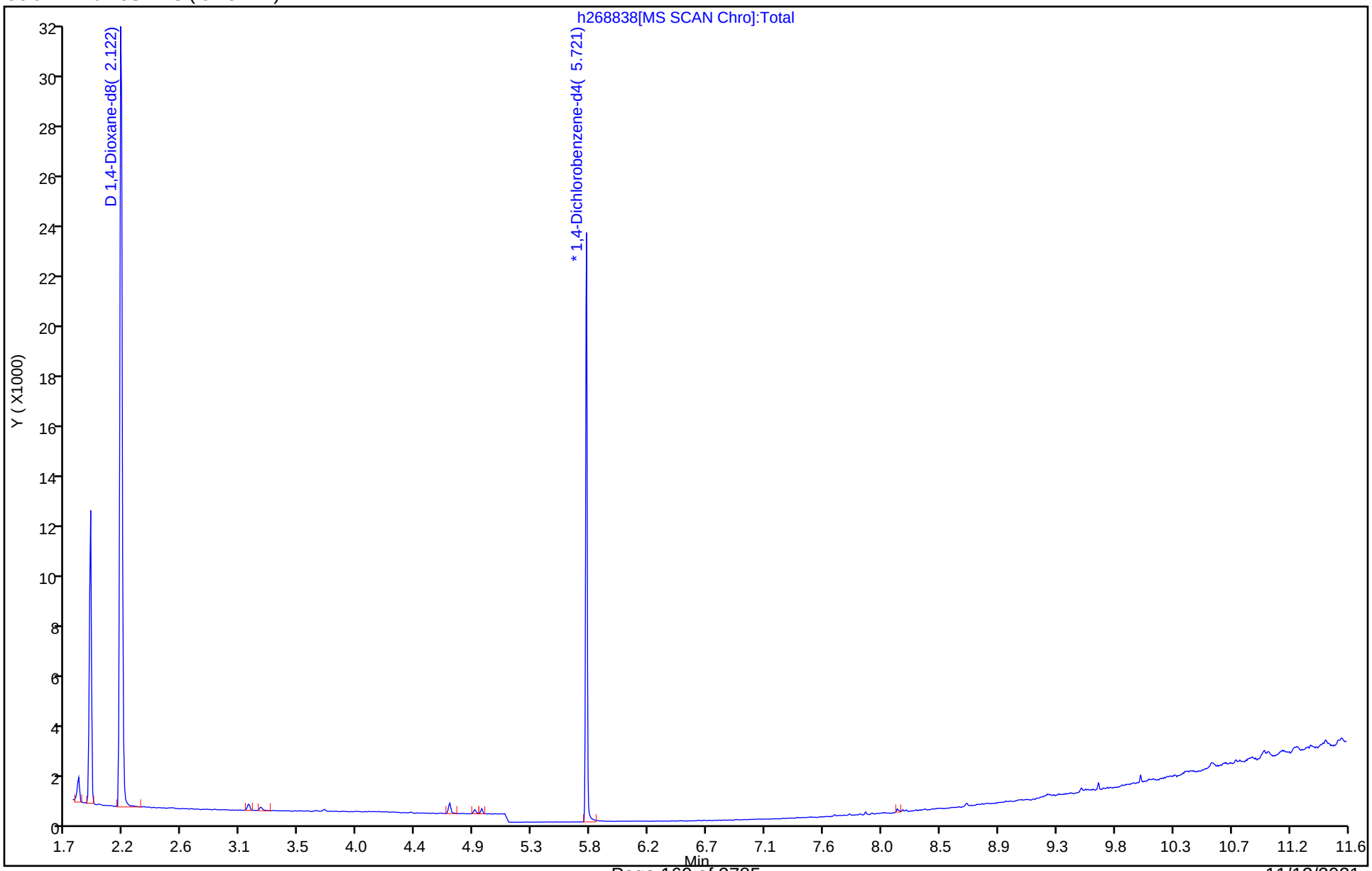
Report Date: 04-Nov-2021 10:21:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268838.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 21:41:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-16-A | Lab Sample ID: | 460-246277-16 | Worklist Smp#: | 44 |
| Client ID: | MW-1S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 44 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

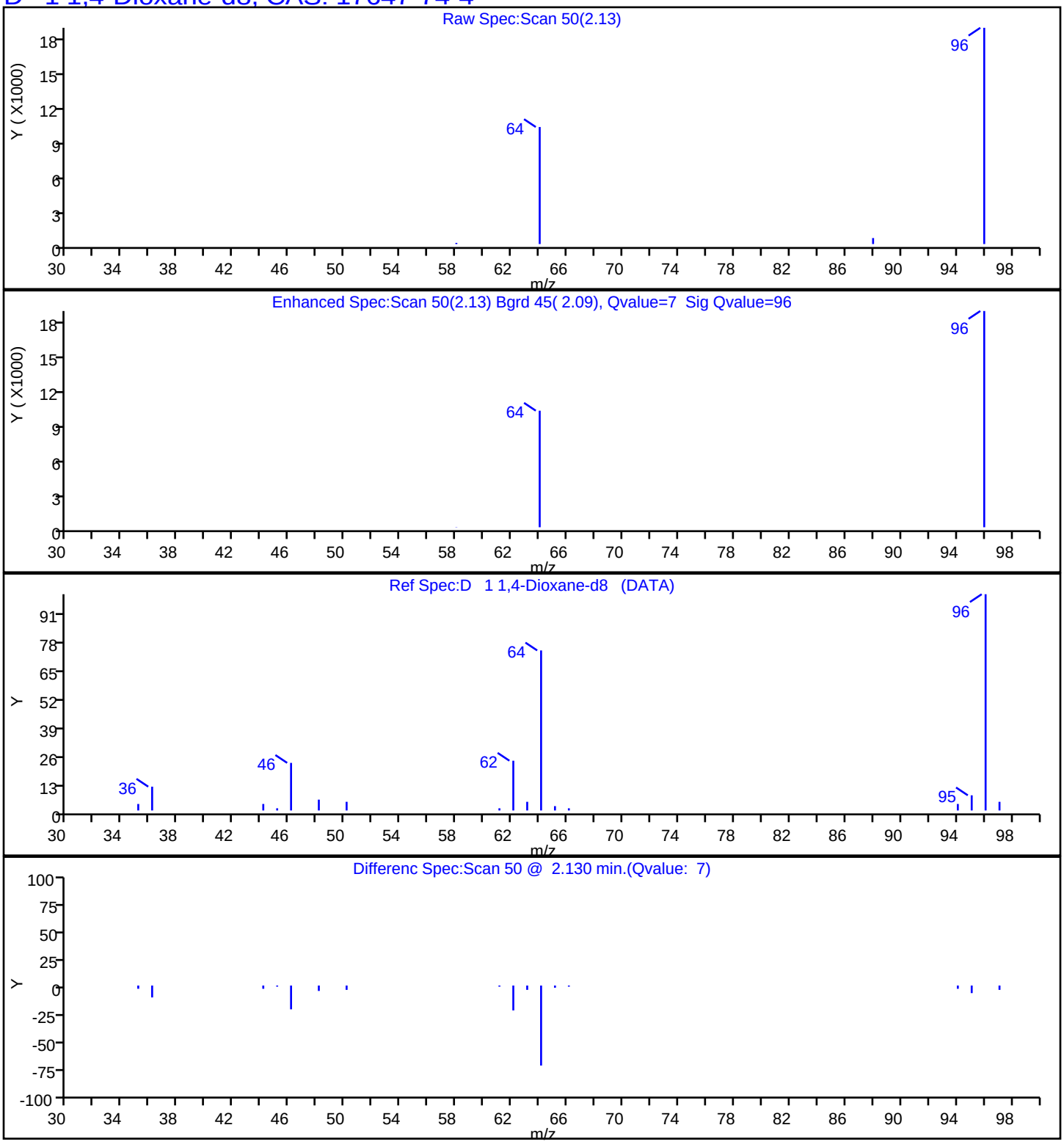
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268838.d | | | | |
| Injection Date: | 03-Nov-2021 21:41:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-16-A | Lab Sample ID: | 460-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 44 | Worklist Smp#: | 44 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-102-20211028  Lab Sample ID: 460-246277-17

Matrix: Water  Lab File ID: h268839.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 13:05

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 21:57

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 38 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268839.d
Lims ID: 460-246277-A-17-A
Client ID: MW-102-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 21:57:30 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-045
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:20:28 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:21:22

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 21428 | 1.52 | 37.9 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11738 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

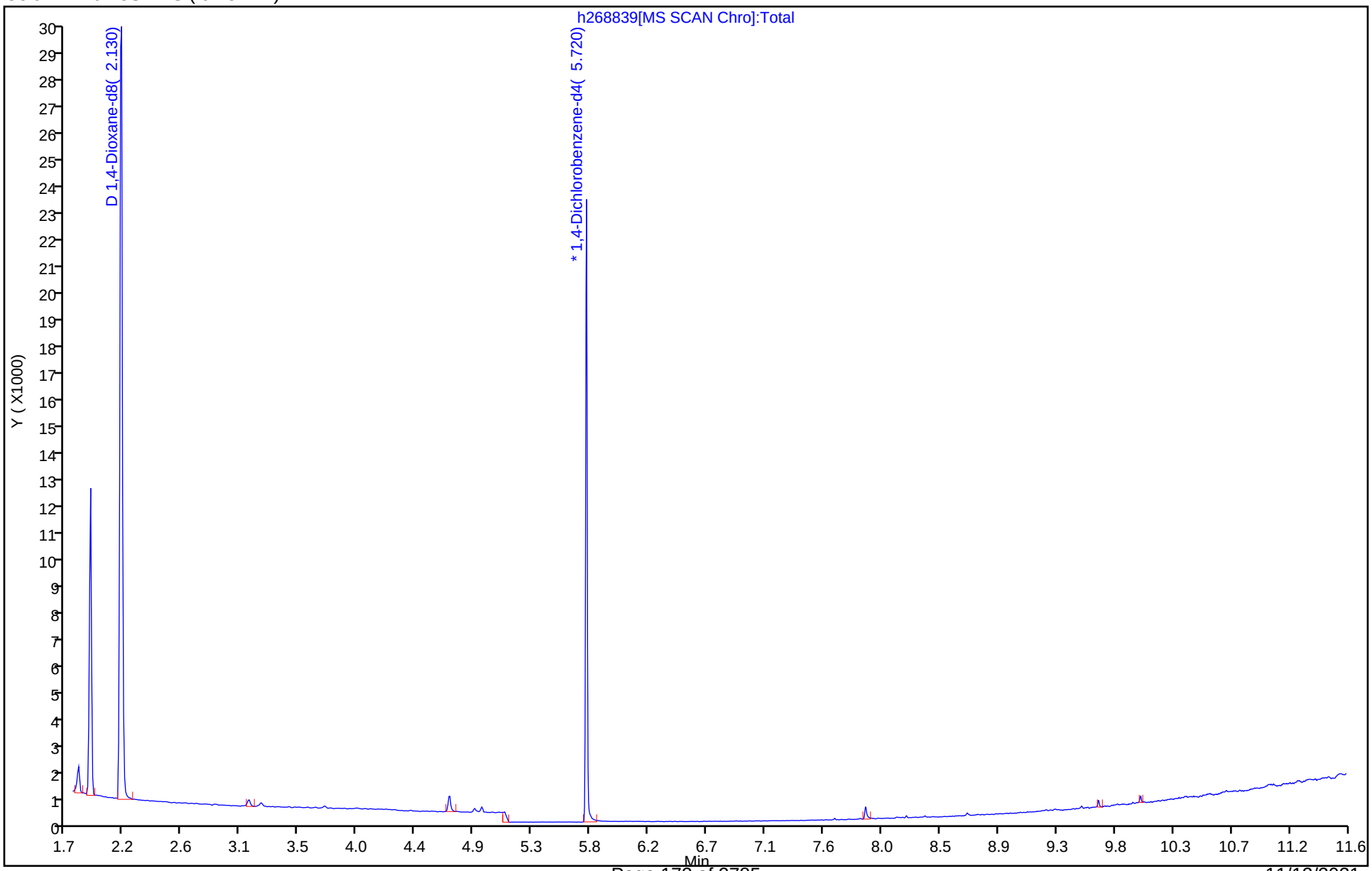
Report Date: 04-Nov-2021 10:21:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268839.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 21:57:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-17-A | Lab Sample ID: | 460-246277-17 | Worklist Smp#: | 45 |
| Client ID: | MW-102-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 45 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

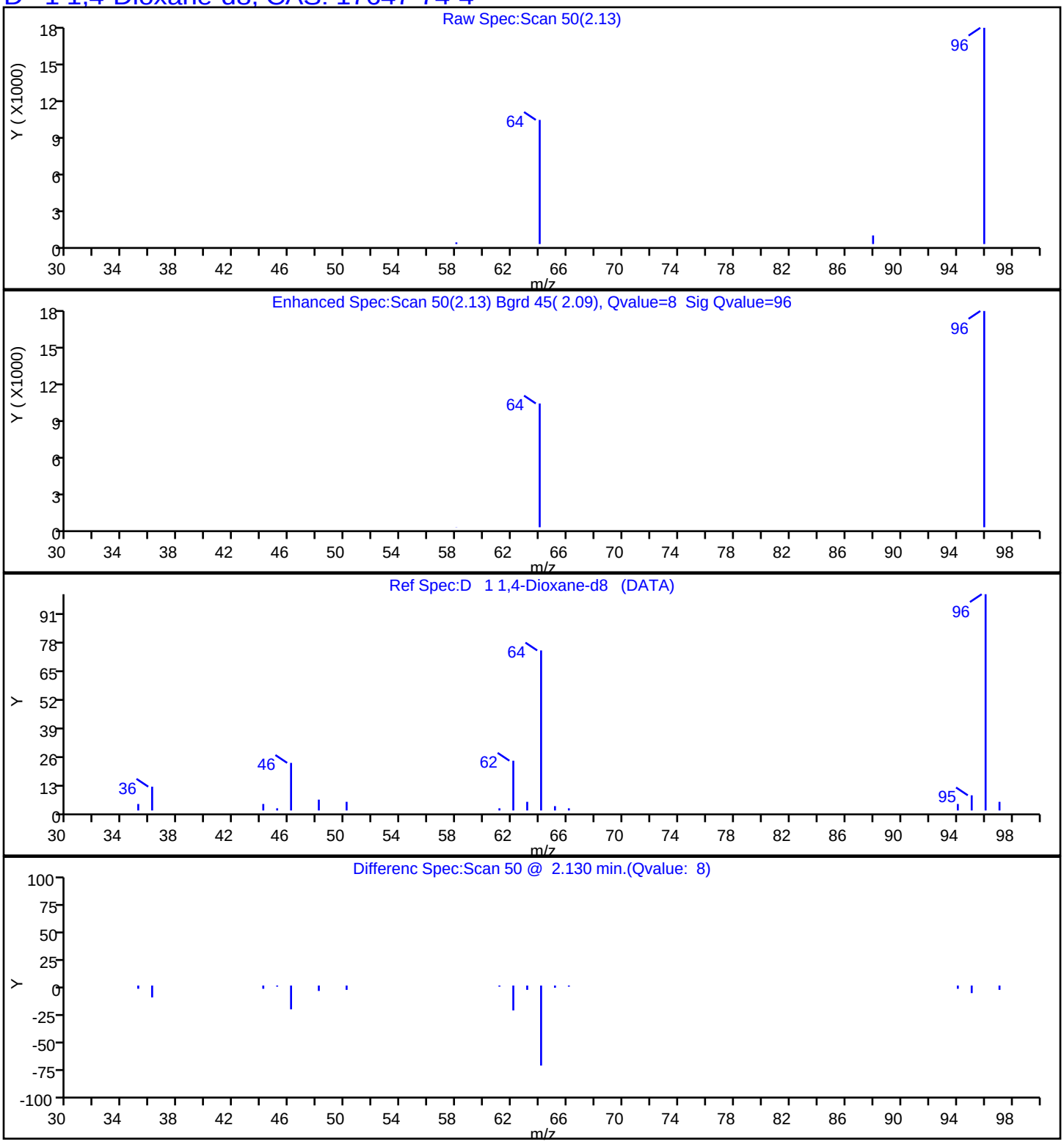
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268839.d | | |
| Injection Date: | 03-Nov-2021 21:57:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246277-A-17-A | Lab Sample ID: | 460-246277-17 |
| Client ID: | MW-102-20211028 | | |
| Operator ID: | | ALS Bottle#: | 45 Worklist Smp#: 45 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028  Lab Sample ID: 460-246277-18

Matrix: Water  Lab File ID: h268821.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 10:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 17:11

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 40 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268821.d
Lims ID: 460-246277-A-18-C
Client ID: MW-26S-20211028
Sample Type: Client
Inject. Date: 03-Nov-2021 17:11:30 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-027
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:57

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 25006 | 1.58 | 39.6 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 13118 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

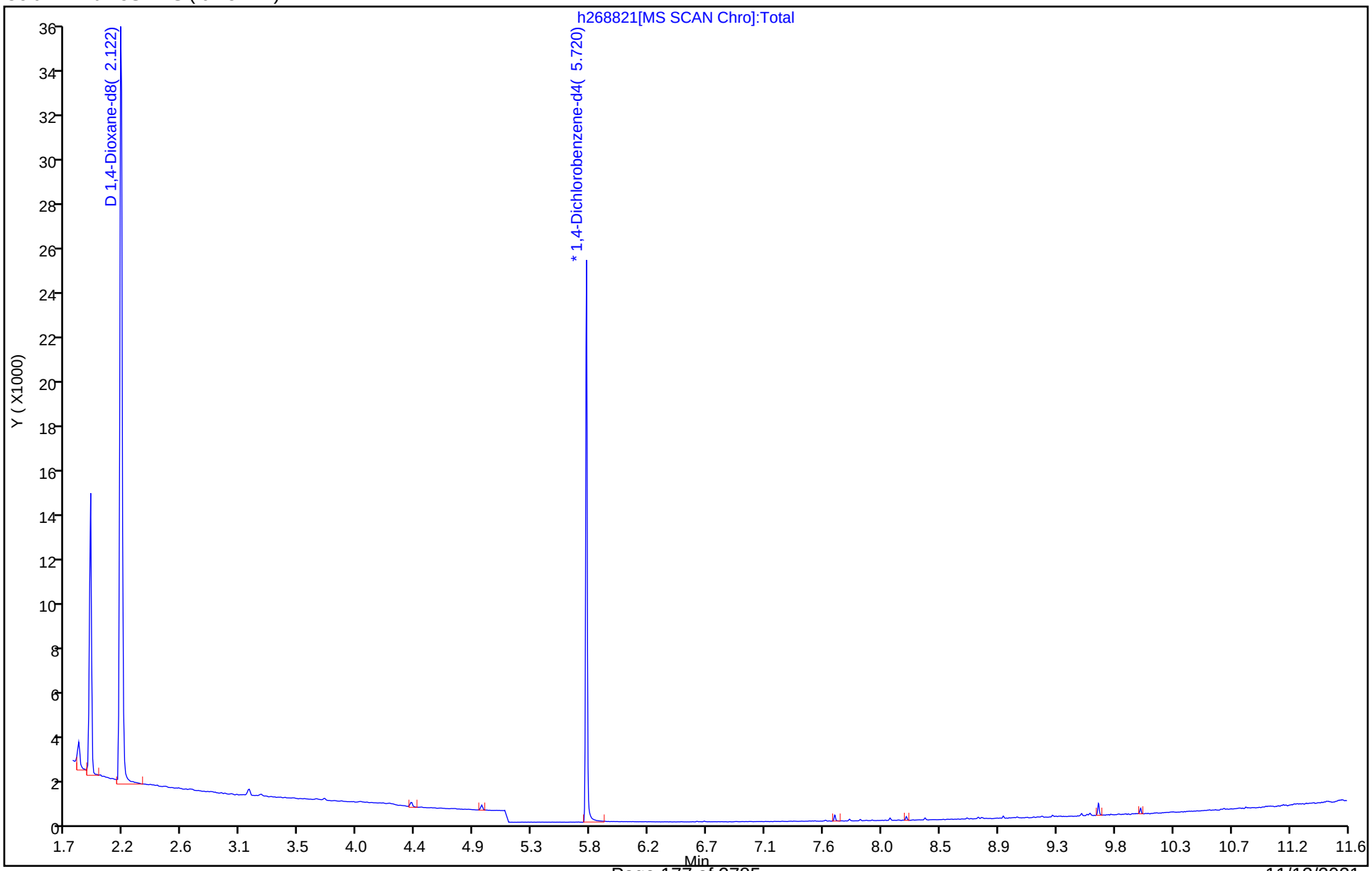
Report Date: 04-Nov-2021 10:16:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268821.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 17:11:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-18-C | Lab Sample ID: | 460-246277-18 | Worklist Smp#: | 27 |
| Client ID: | MW-26S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

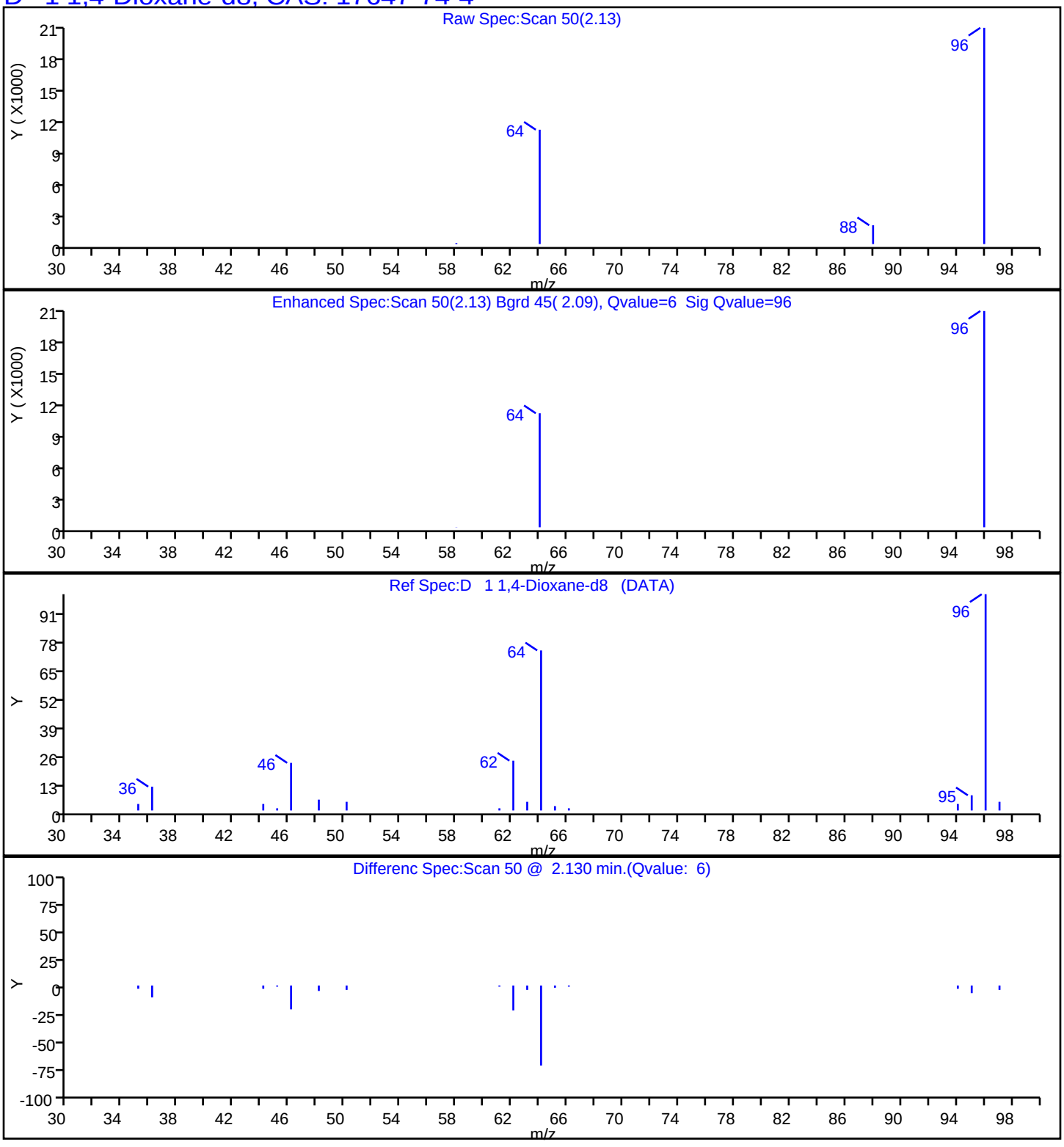
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268821.d | | | | |
| Injection Date: | 03-Nov-2021 17:11:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-18-C | Lab Sample ID: | 460-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-7S-20211028  Lab Sample ID: 460-246277-19

Matrix: Water  Lab File ID: h268853.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 09:15

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 00:25

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 28 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268853.d
Lims ID: 460-246277-A-19-B
Client ID: MW-7S-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 00:25:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-006
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 03-Nov-2021 22:54:37 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 11:58:54

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 10 | 16028 | 1.12 | 28.1 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11855 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

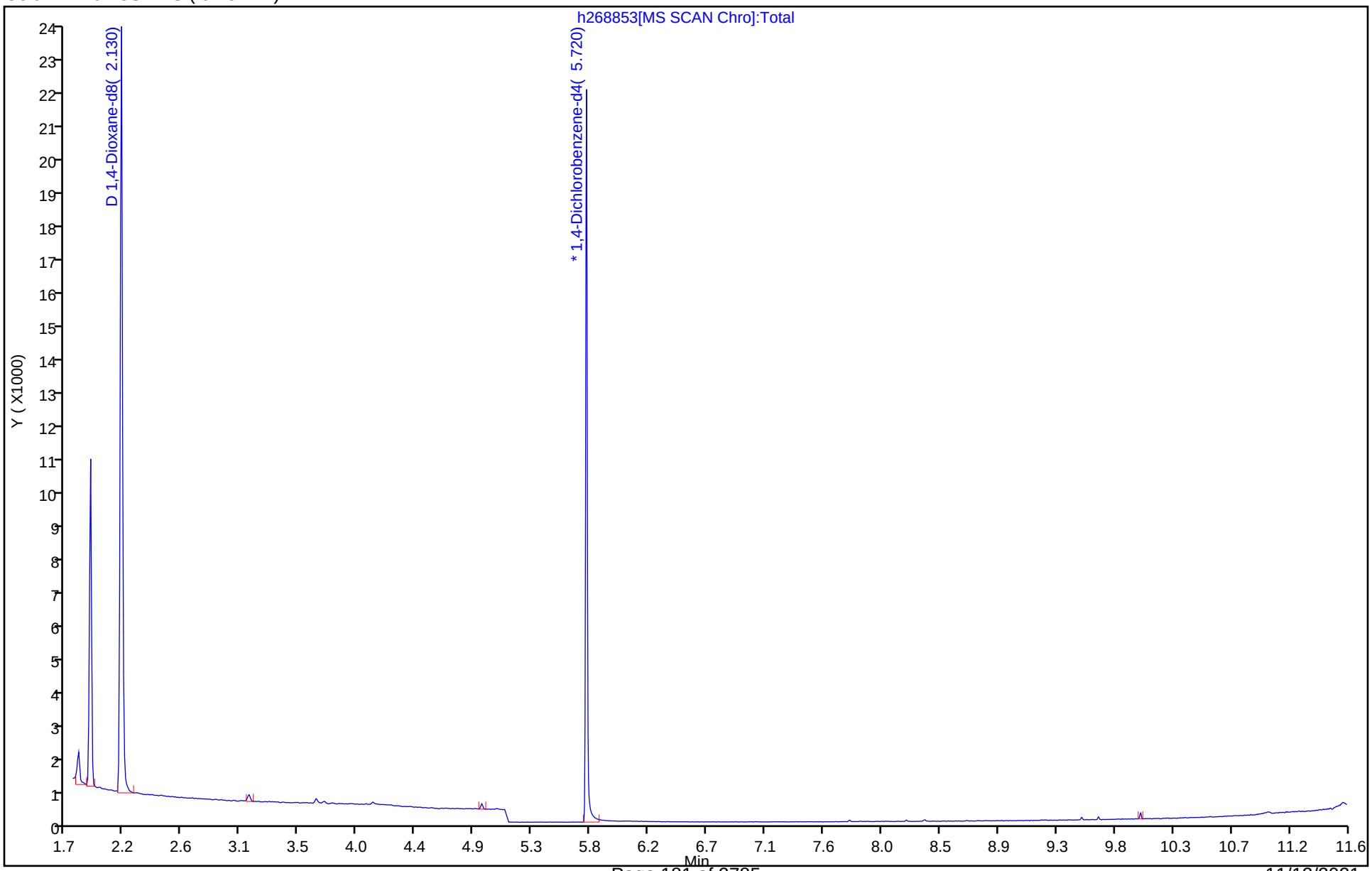
Report Date: 04-Nov-2021 11:58:54 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268853.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 00:25:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-19-B | Lab Sample ID: | 460-246277-19 | Worklist Smp#: | 6 |
| Client ID: | MW-7S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

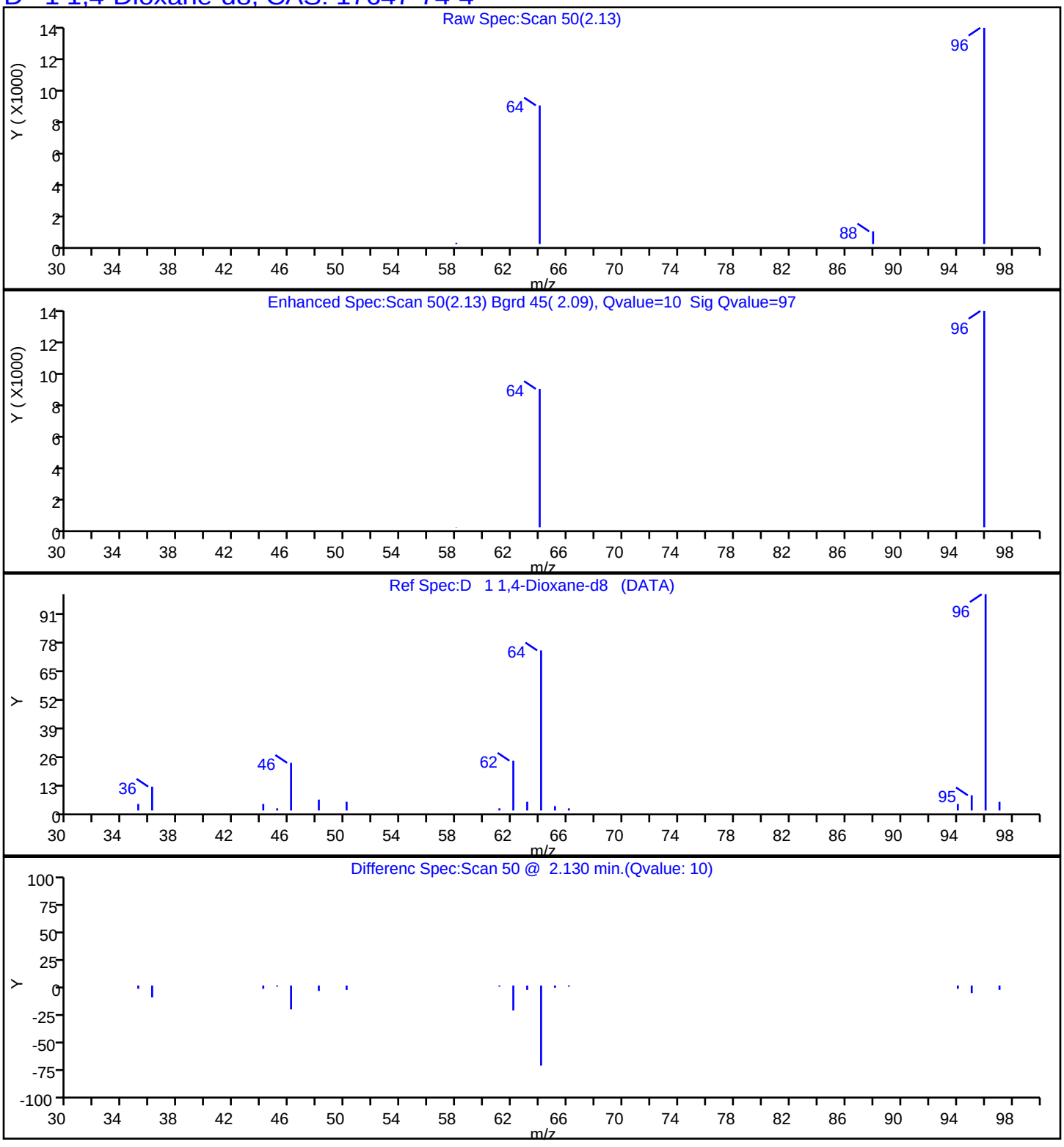
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268853.d | | | | |
| Injection Date: | 04-Nov-2021 00:25:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-19-B | Lab Sample ID: | 460-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 6 | Worklist Smp#: | 6 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-4-20211028  Lab Sample ID: 460-246277-20

Matrix: Water  Lab File ID: h268854.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 17:10

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 00:40

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 27 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268854.d | | | | |
| Lims ID: | 460-246277-A-20-B | | | | |
| Client ID: | AMW-4-20211028 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 00:40:30 | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0137070-007 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 03-Nov-2021 22:54:37 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1626 | | | | |
| First Level Reviewer: maheseep | | Date: | 04-Nov-2021 11:59:01 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 11 | 13623 | 1.06 | 26.6 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 10644 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

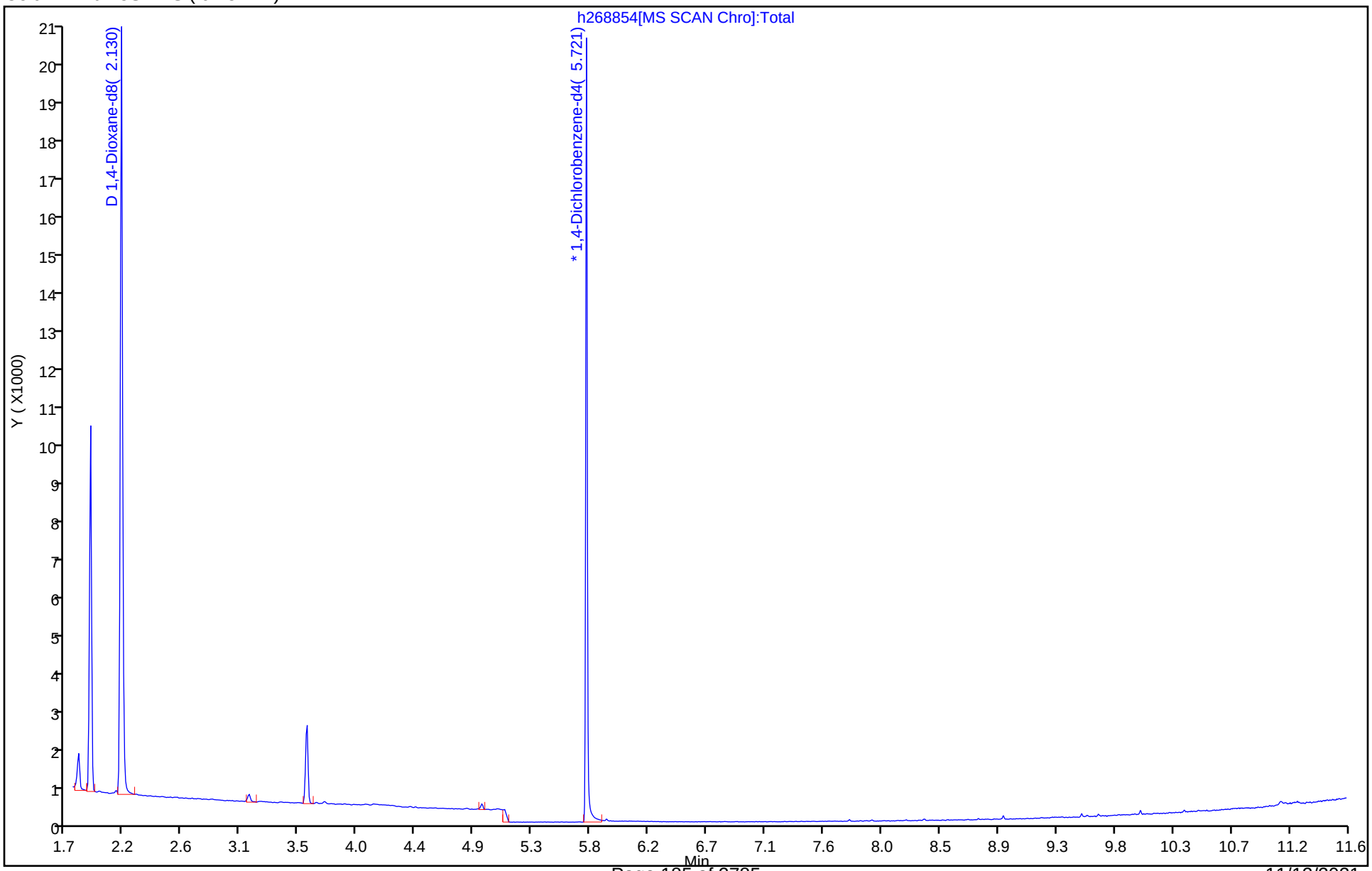
Report Date: 04-Nov-2021 11:59:01 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268854.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 00:40:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-20-B | Lab Sample ID: | 460-246277-20 | Worklist Smp#: | 7 |
| Client ID: | AMW-4-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

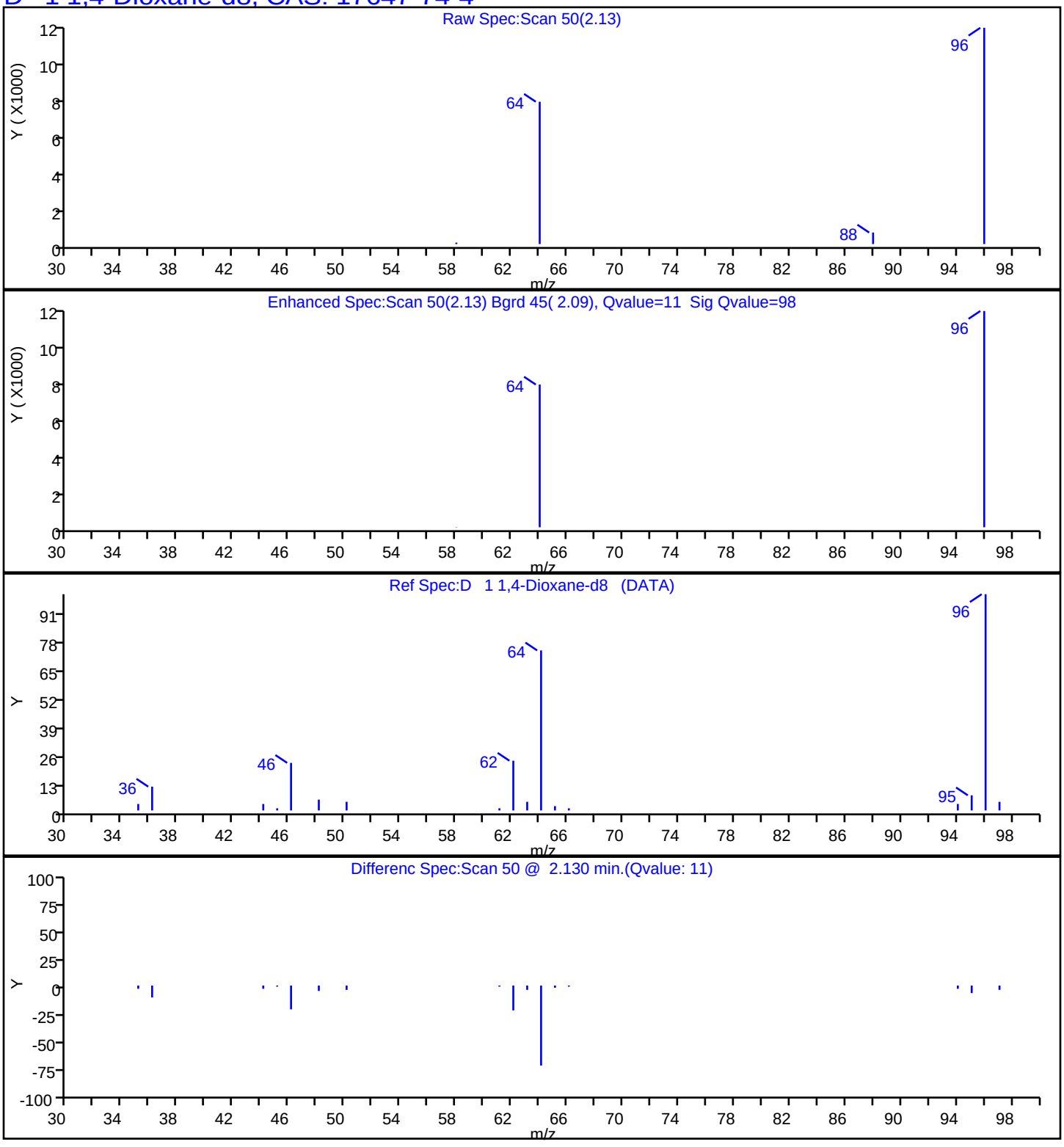
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268854.d | | |
| Injection Date: | 04-Nov-2021 00:40:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246277-A-20-B | Lab Sample ID: | 460-246277-20 |
| Client ID: | AMW-4-20211028 | | |
| Operator ID: | | ALS Bottle#: | 7 Worklist Smp#: 7 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-11-20211028  Lab Sample ID: 460-246277-21

Matrix: Water  Lab File ID: h268855.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 14:50

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 00:56

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 27 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268855.d
Lims ID: 460-246277-A-21-B
Client ID: AMW-11-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 00:56:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-008
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 03-Nov-2021 23:26:32 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 12:36:26

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 13 | 13841 | 1.08 | 27.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 10635 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

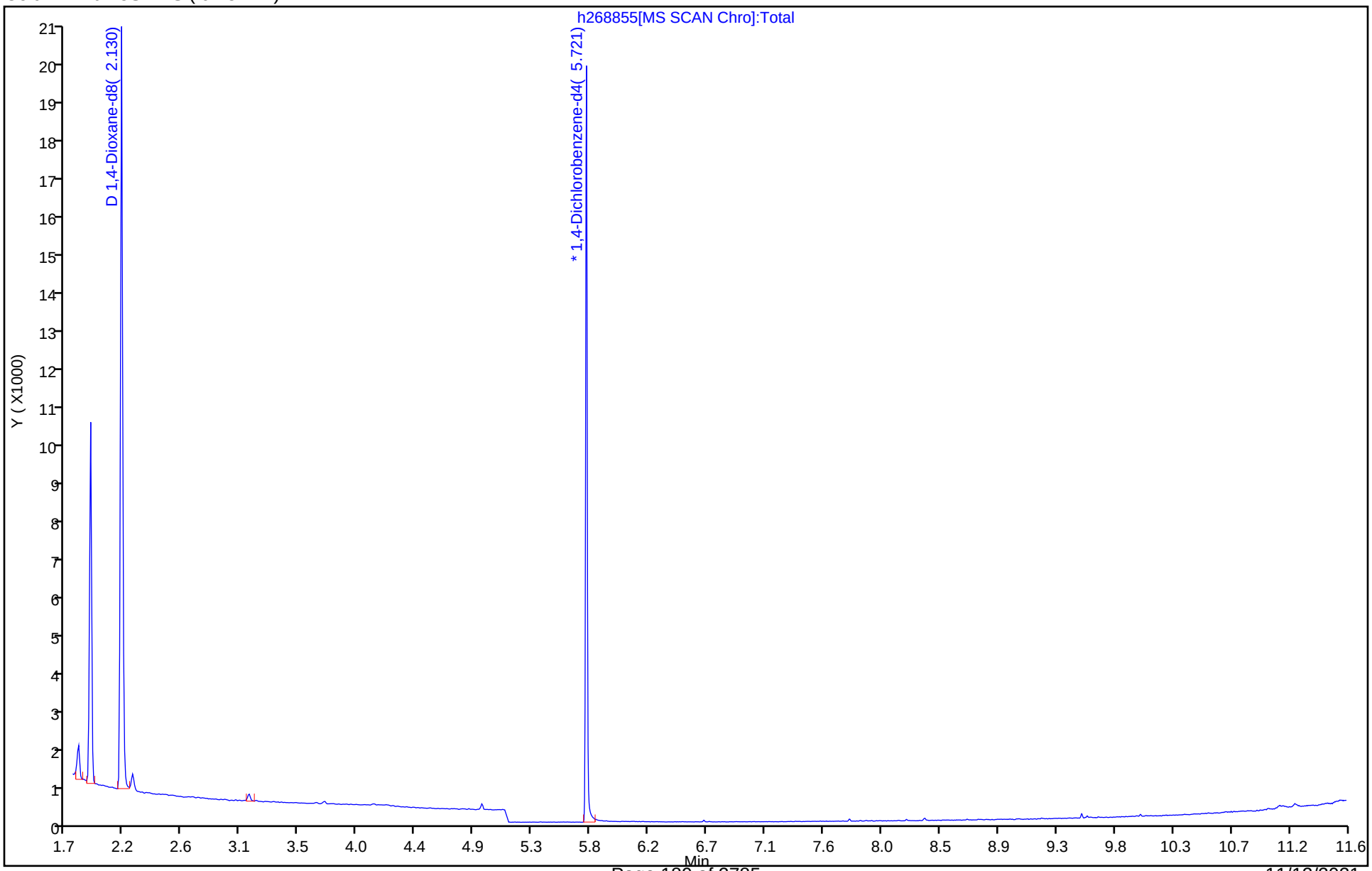
Report Date: 04-Nov-2021 12:36:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268855.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 00:56:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-21-B | Lab Sample ID: | 460-246277-21 | Worklist Smp#: | 8 |
| Client ID: | AMW-11-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

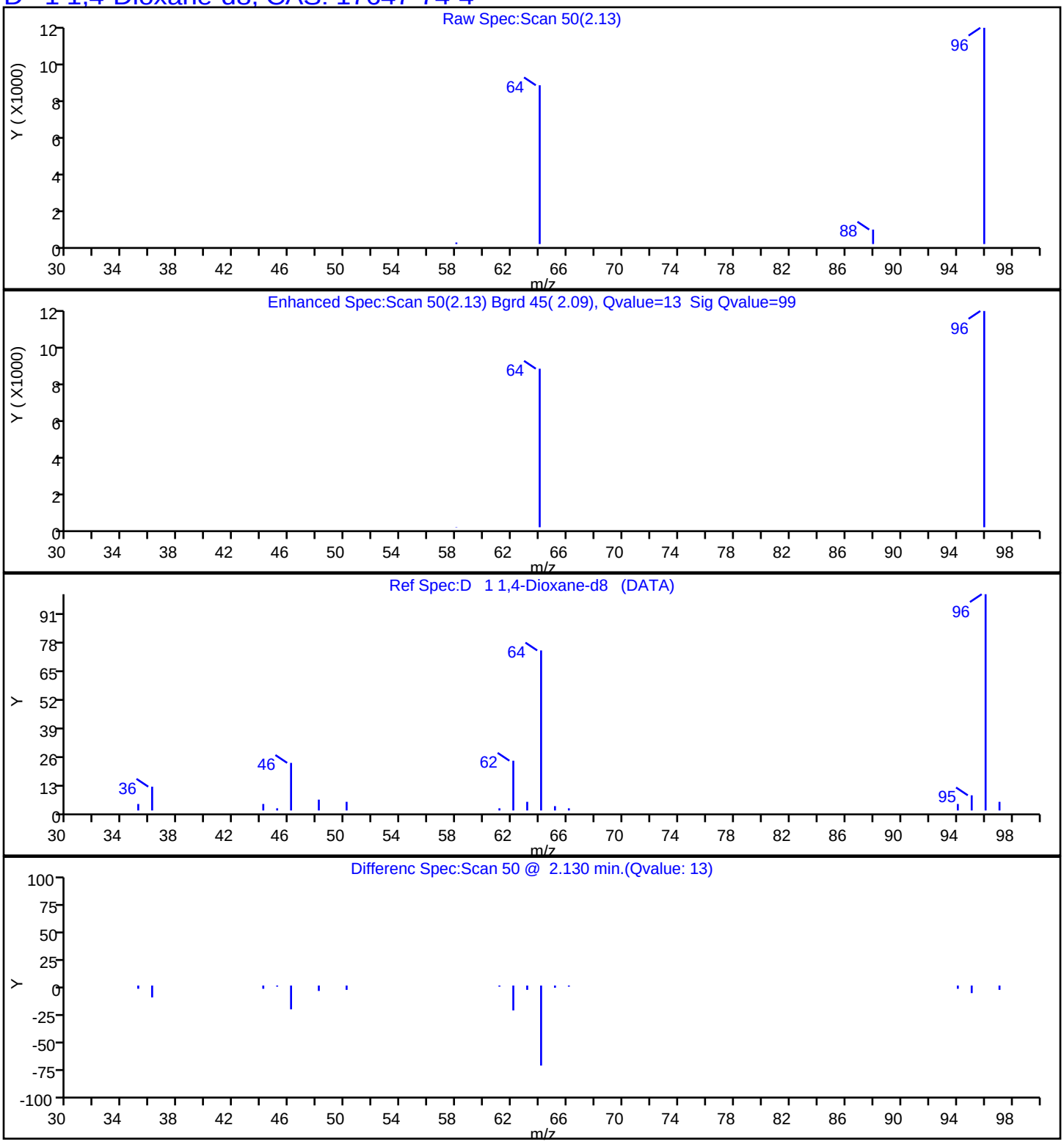
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268855.d | | | | |
| Injection Date: | 04-Nov-2021 00:56:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-21-B | Lab Sample ID: | 460-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-6-20211028  Lab Sample ID: 460-246277-22

Matrix: Water  Lab File ID: h268856.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 13:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 01:12

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 28 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268856.d
Lims ID: 460-246277-A-22-B
Client ID: AMW-6-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 01:12:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-009
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 12:36:34 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 12:36:34

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 15679 | 1.14 | 28.4 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11470 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

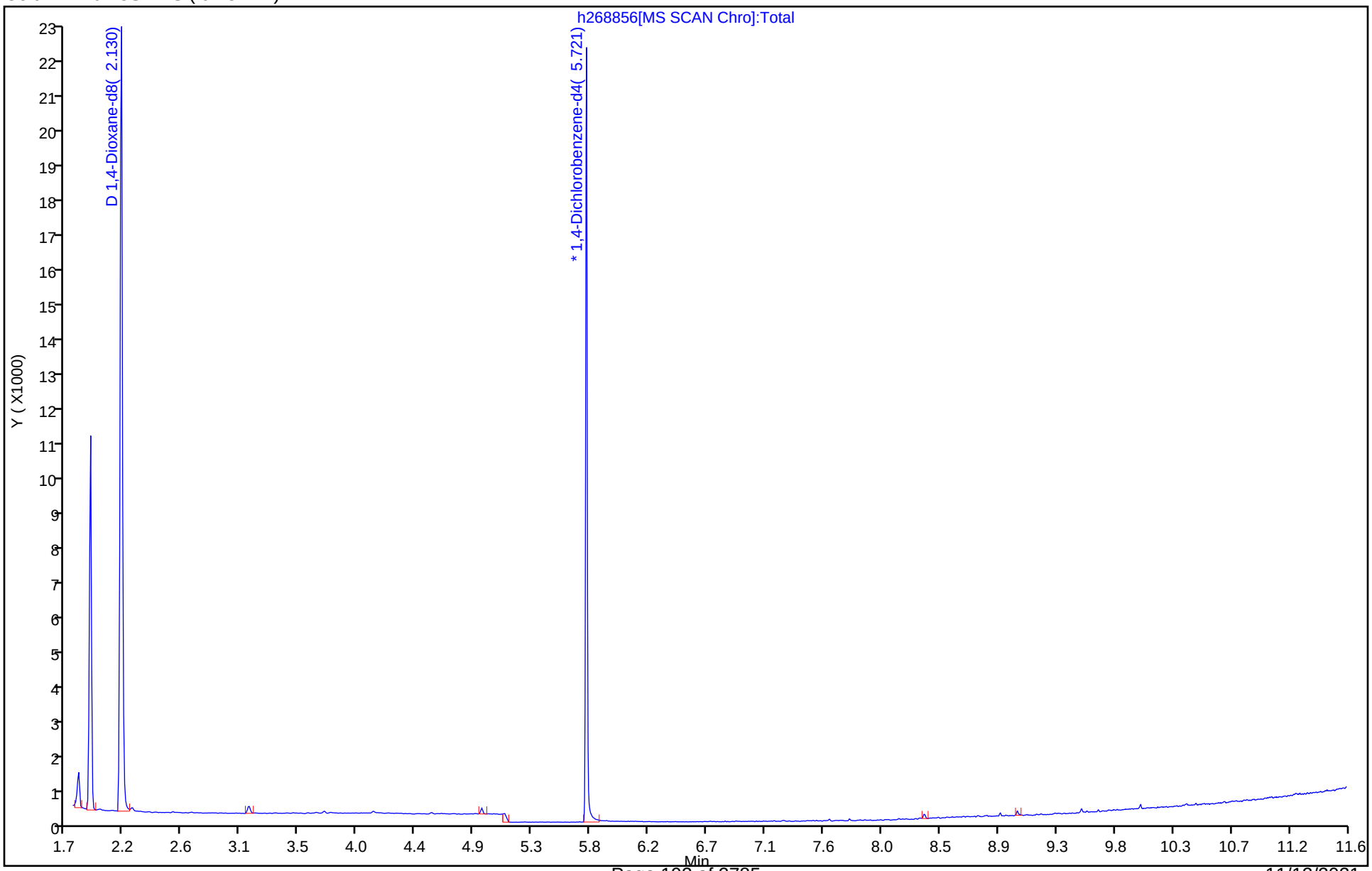
Report Date: 04-Nov-2021 12:36:34 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268856.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 01:12:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-22-B | Lab Sample ID: | 460-246277-22 | Worklist Smp#: | 9 |
| Client ID: | AMW-6-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

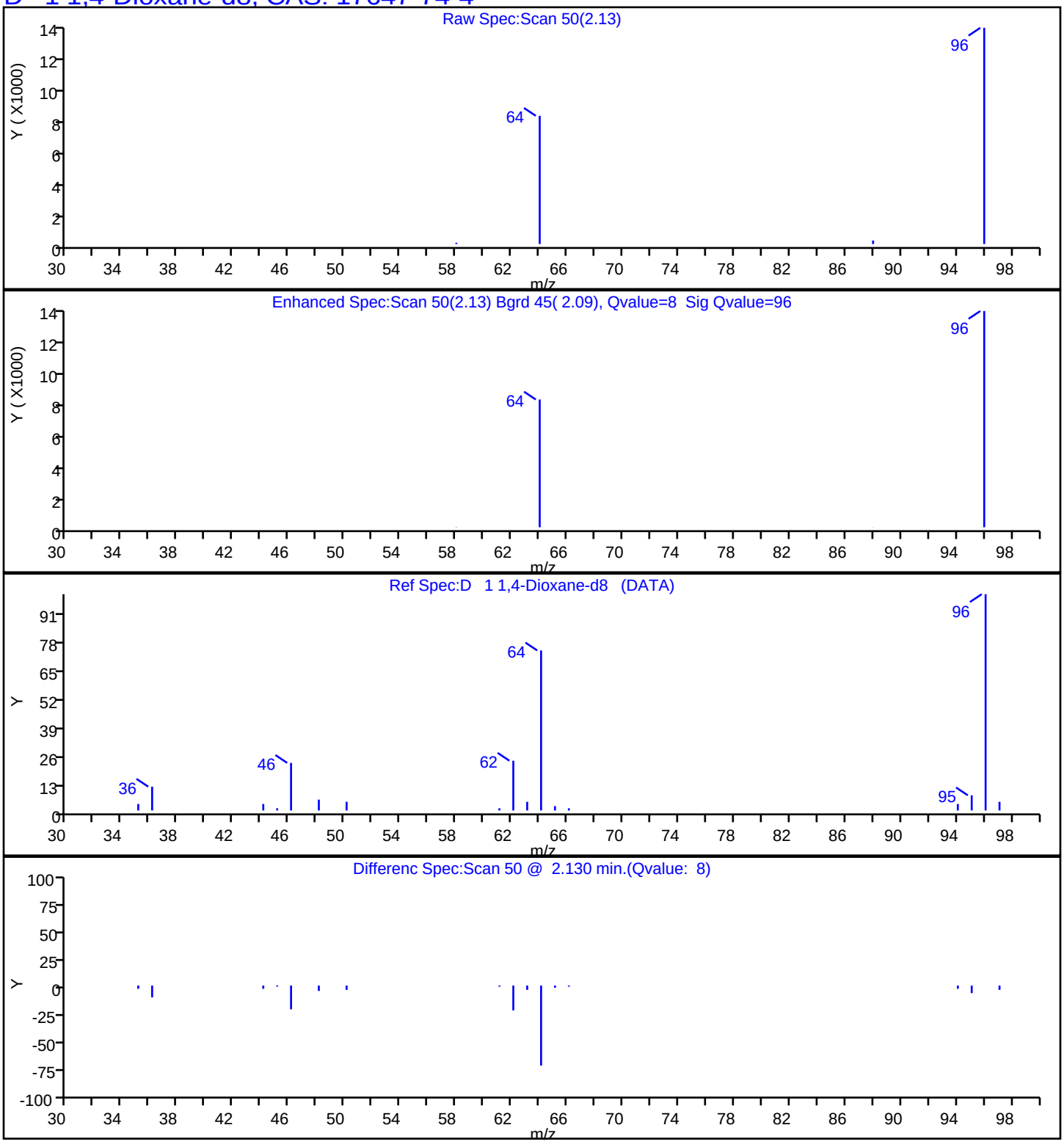
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268856.d | | | | |
| Injection Date: | 04-Nov-2021 01:12:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-22-B | Lab Sample ID: | 460-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



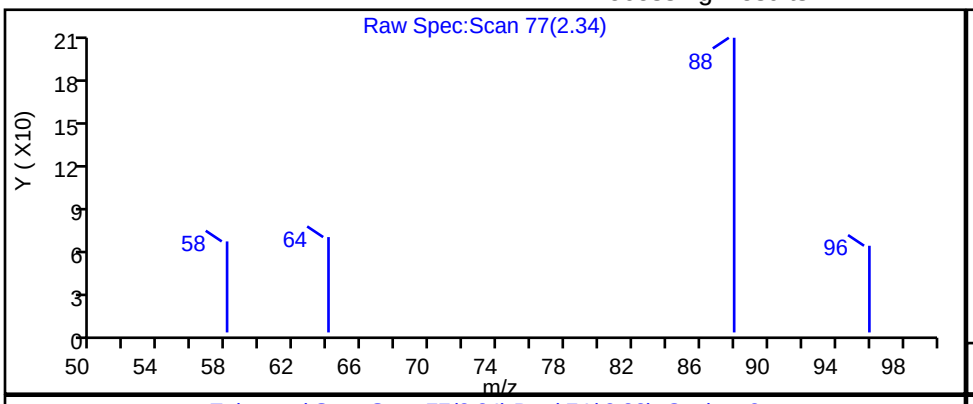
User Disabled Compound Report

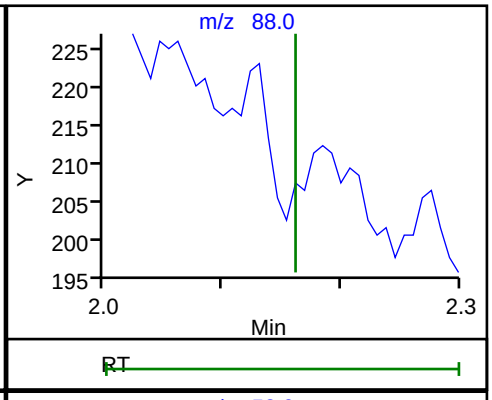
Eurofins TestAmerica, Edison

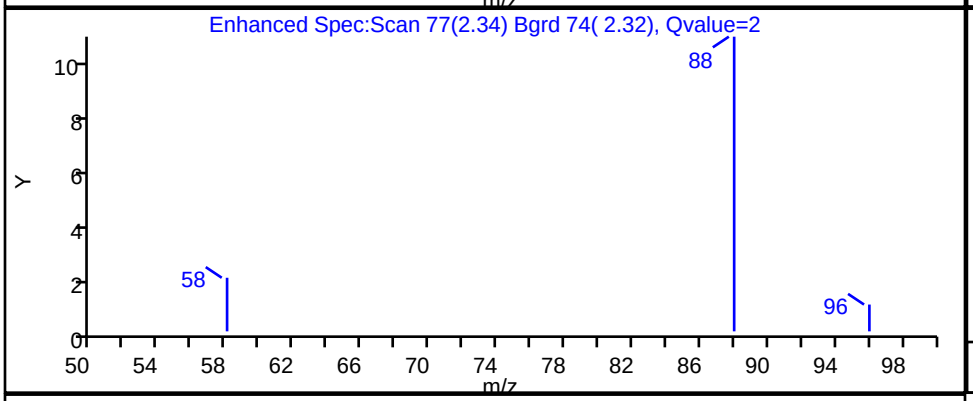
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268856.d | | |
| Injection Date: | 04-Nov-2021 01:12:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246277-A-22-B | Lab Sample ID: | 460-246277-22 |
| Client ID: | AMW-6-20211028 | | |
| Operator ID: | | ALS Bottle#: | 9 Worklist Smp#: 9 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

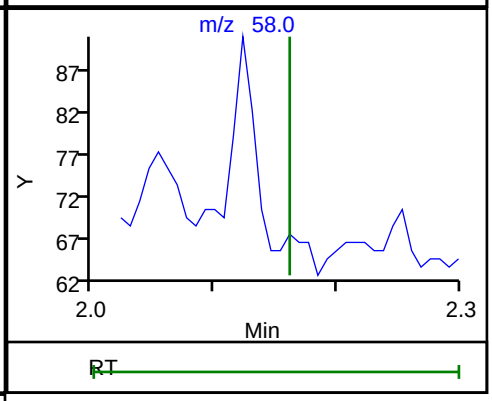
## 2 1,4-Dioxane, CAS: 123-91-1

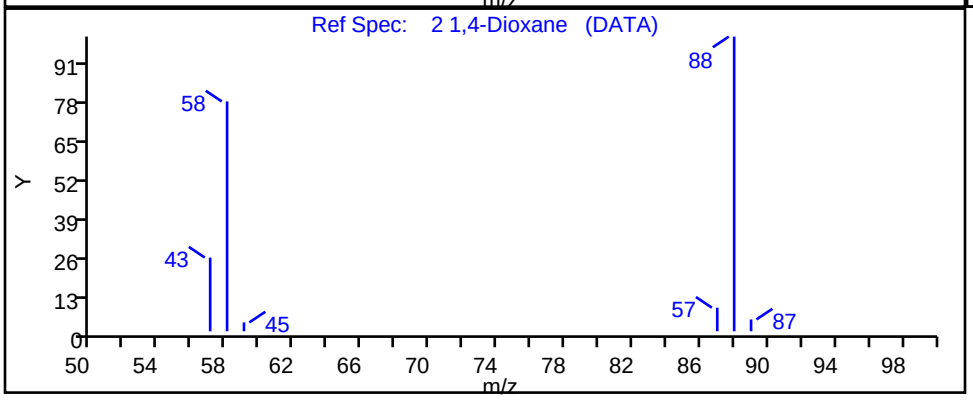
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.34 | 88.00 | 30 | 0.006468 |
| 2.33 | 58.00 | 6 | |

Reviewer: maheseep, 04-Nov-2021 12:36:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-3-20211028  Lab Sample ID: 460-246277-23

Matrix: Water  Lab File ID: h268857.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 11:20

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 01:28

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 24 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268857.d
Lims ID: 460-246277-A-23-B
Client ID: AMW-3-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 01:28:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-010
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 03-Nov-2021 23:40:46 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 12:52:08

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 13 | 13356 | 0.9629 | 24.1 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11525 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

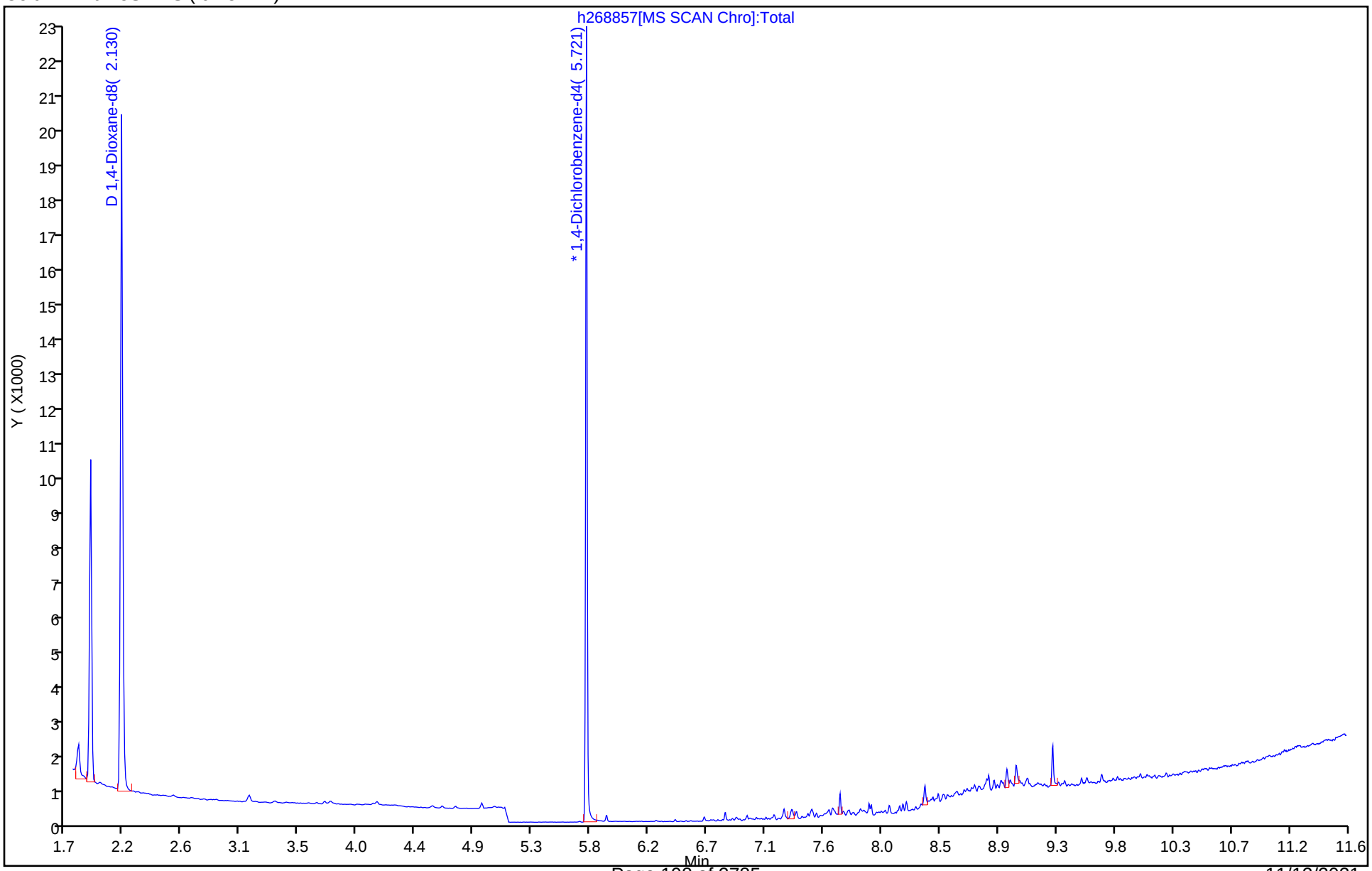
Report Date: 04-Nov-2021 12:52:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268857.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 01:28:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-23-B | Lab Sample ID: | 460-246277-23 | Worklist Smp#: | 10 |
| Client ID: | AMW-3-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

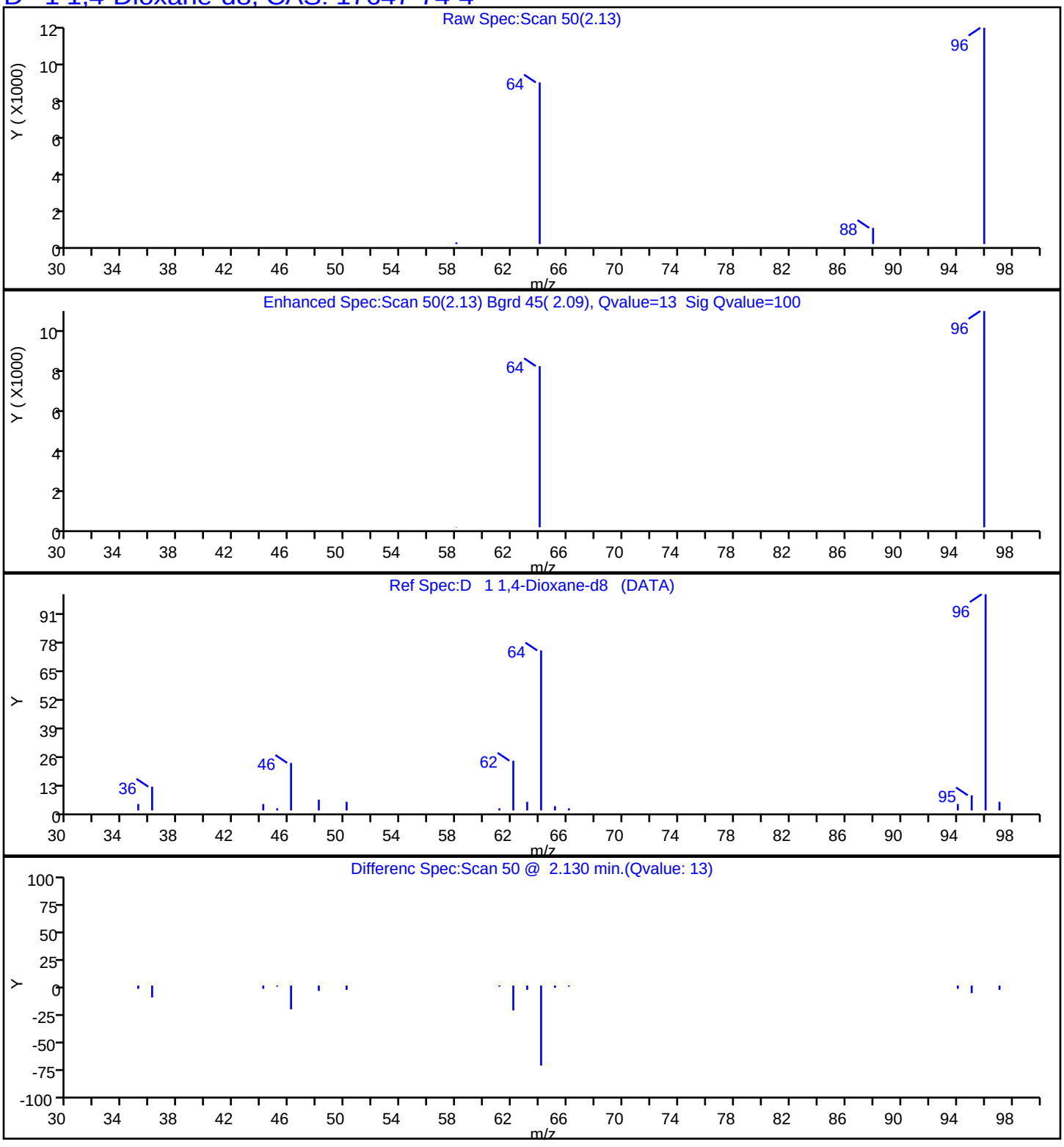
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268857.d | | | | |
| Injection Date: | 04-Nov-2021 01:28:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-23-B | Lab Sample ID: | 460-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: DUP-02-20211028  Lab Sample ID: 460-246277-24

Matrix: Water  Lab File ID: h268858.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 12:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 01:44

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 30 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268858.d
Lims ID: 460-246277-A-24-B
Client ID: DUP-02-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 01:44:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-011
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 00:44:39 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 13:57:40

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 17092 | 1.18 | 29.6 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11995 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

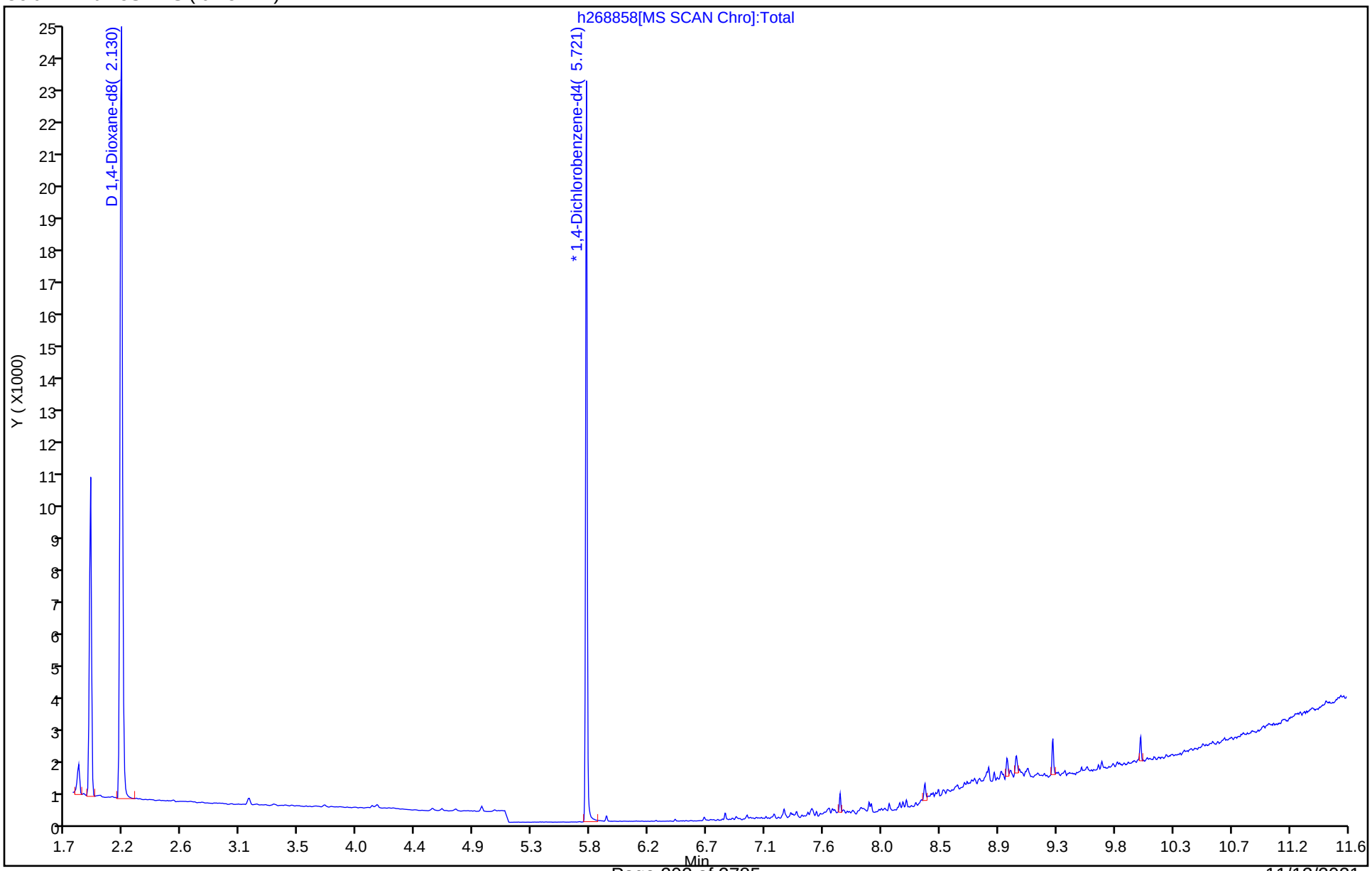
Report Date: 04-Nov-2021 13:57:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268858.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 01:44:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-24-B | Lab Sample ID: | 460-246277-24 | Worklist Smp#: | 11 |
| Client ID: | DUP-02-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

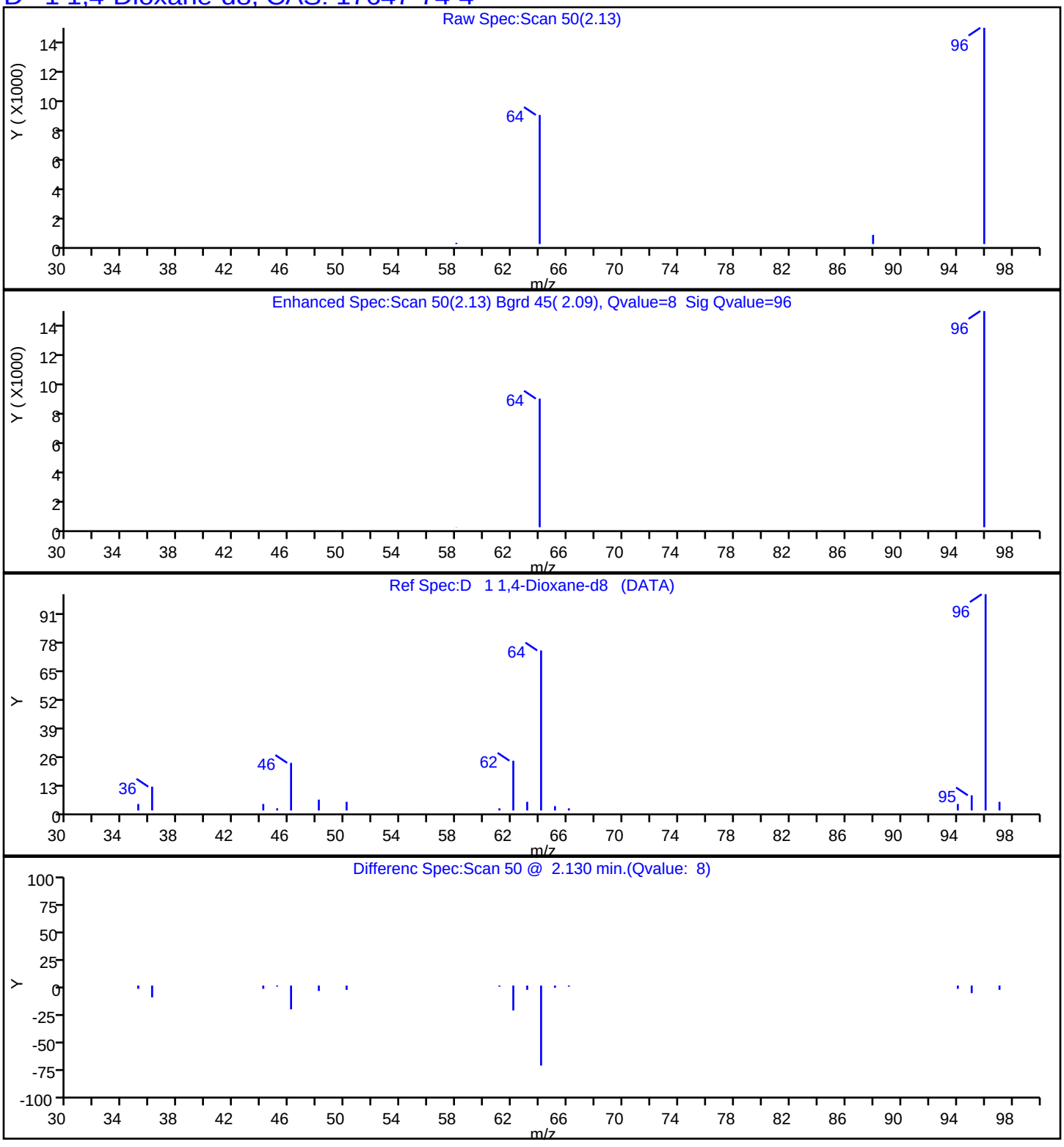
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268858.d | | | | |
| Injection Date: | 04-Nov-2021 01:44:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-24-B | Lab Sample ID: | 460-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-201-20211028  Lab Sample ID: 460-246277-25

Matrix: Water  Lab File ID: h268859.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 09:30

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 01:59

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 27 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268859.d
Lims ID: 460-246277-A-25-B
Client ID: MW-201-20211028
Sample Type: Client
Inject. Date: 04-Nov-2021 01:59:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-012
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 00:44:39 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 13:57:46

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 8 | 15645 | 1.10 | 27.4 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11862 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

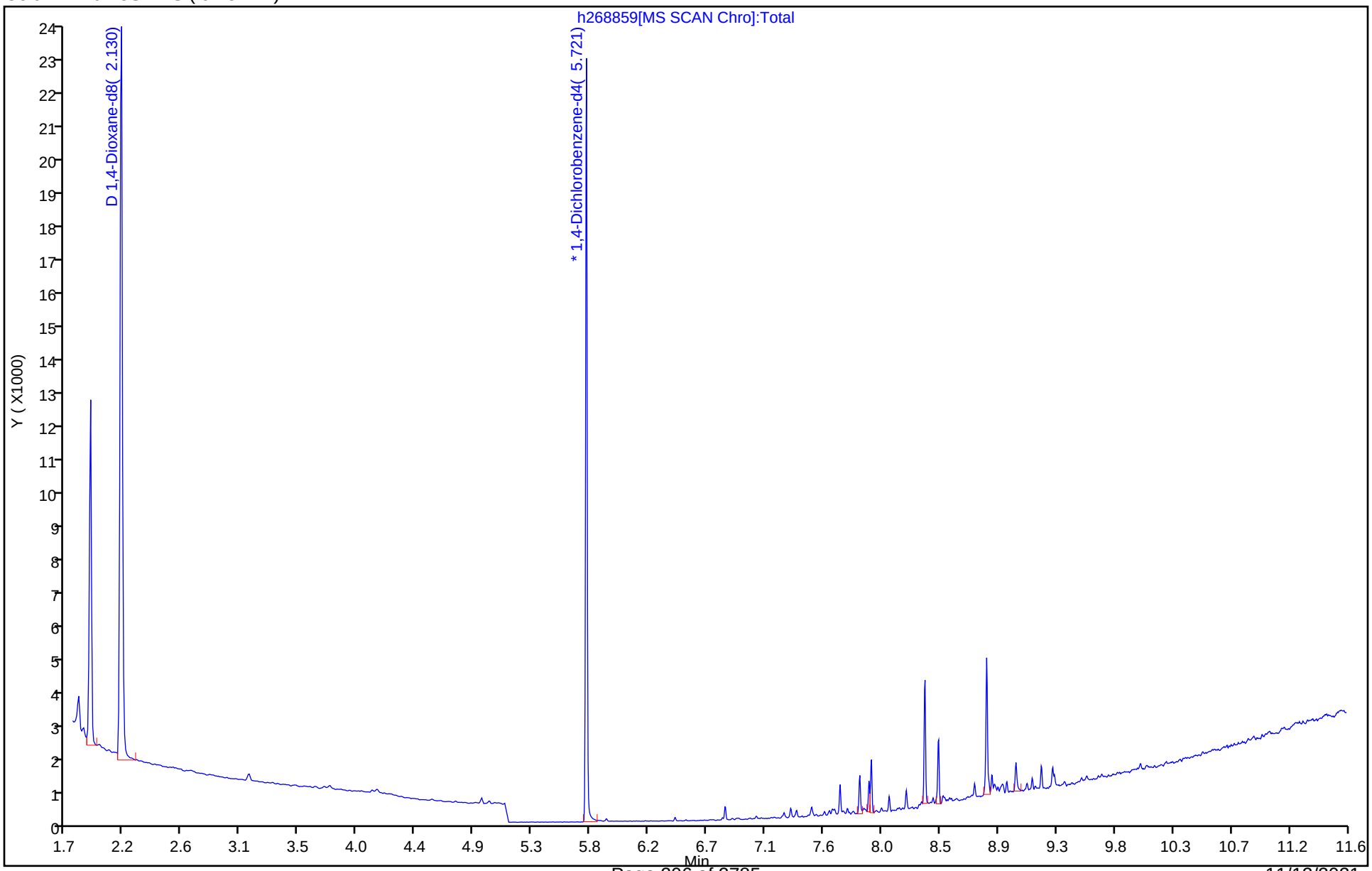
Report Date: 04-Nov-2021 13:57:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268859.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 01:59:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-25-B | Lab Sample ID: | 460-246277-25 | Worklist Smp#: | 12 |
| Client ID: | MW-201-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

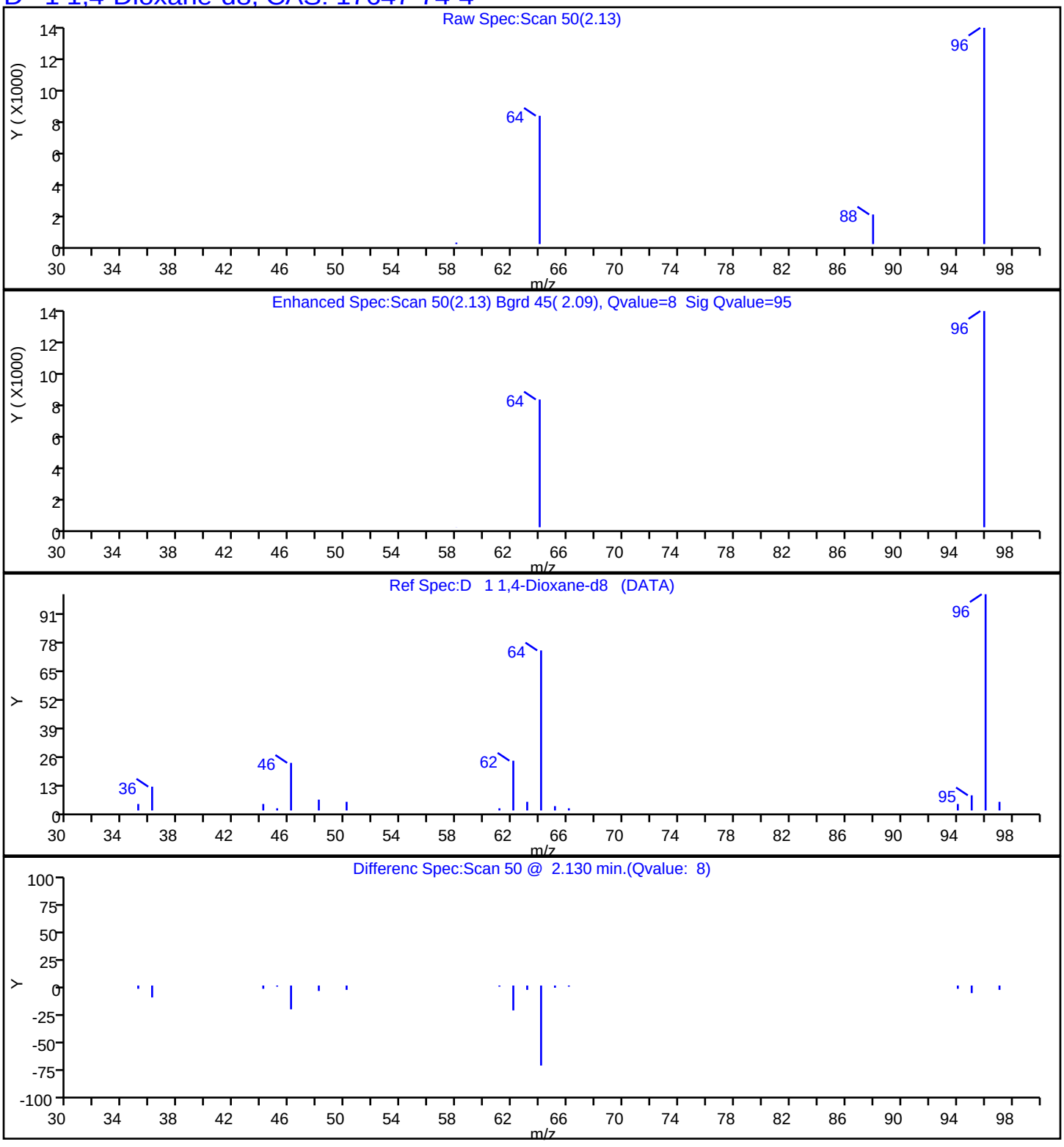
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268859.d | | | | |
| Injection Date: | 04-Nov-2021 01:59:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-25-B | Lab Sample ID: | 460-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-4S-20211029  Lab Sample ID: 460-246277-26

Matrix: Water  Lab File ID: h268860.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 09:20

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 02:15

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 30 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268860.d
Lims ID: 460-246277-A-26-B
Client ID: MW-4S-20211029
Sample Type: Client
Inject. Date: 04-Nov-2021 02:15:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-013
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 00:44:39 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 13:57:51

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 10 | 15504 | 1.21 | 30.3 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 10620 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

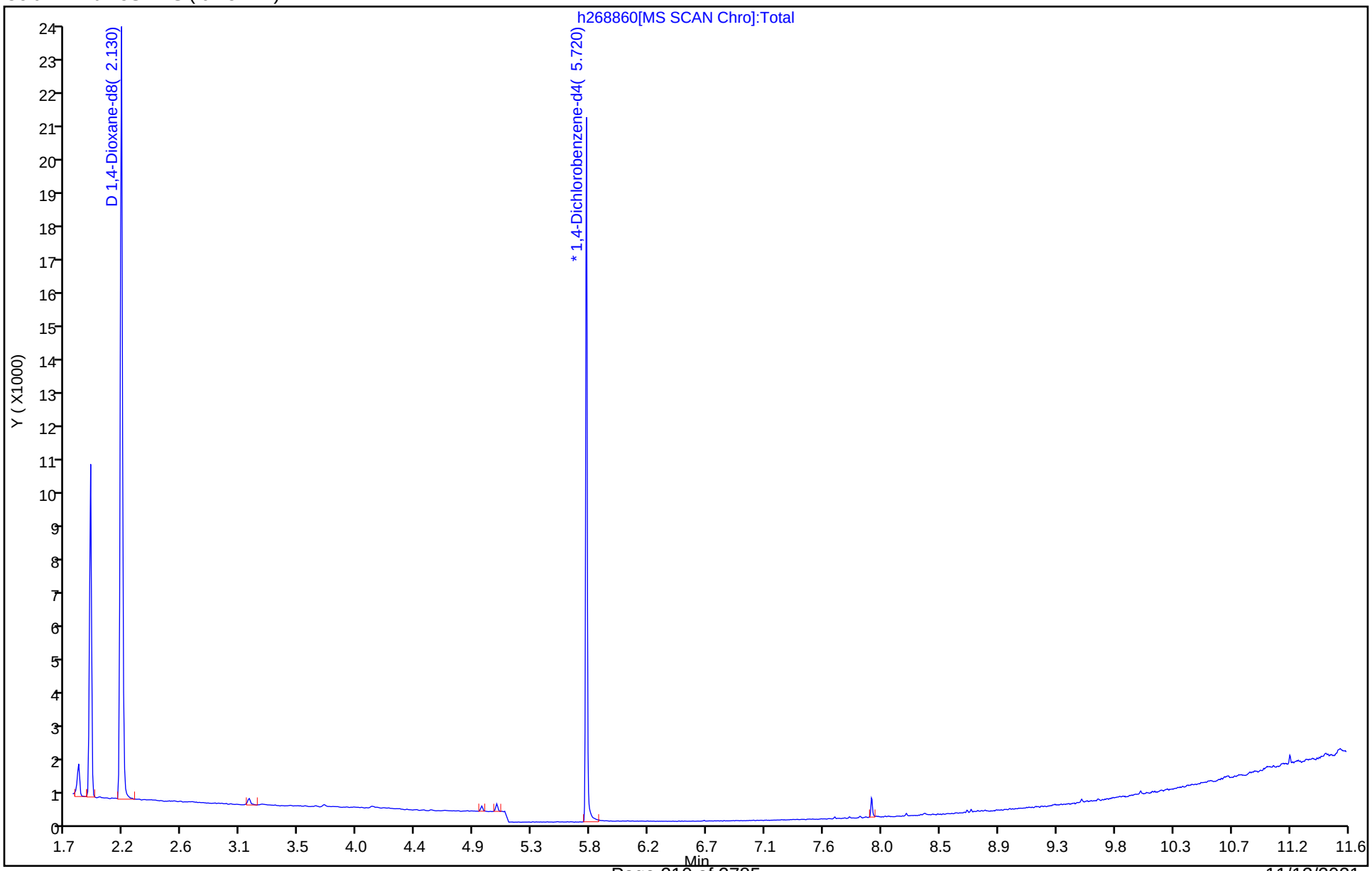
Report Date: 04-Nov-2021 13:57:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268860.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 02:15:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-26-B | Lab Sample ID: | 460-246277-26 | Worklist Smp#: | 13 |
| Client ID: | MW-4S-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

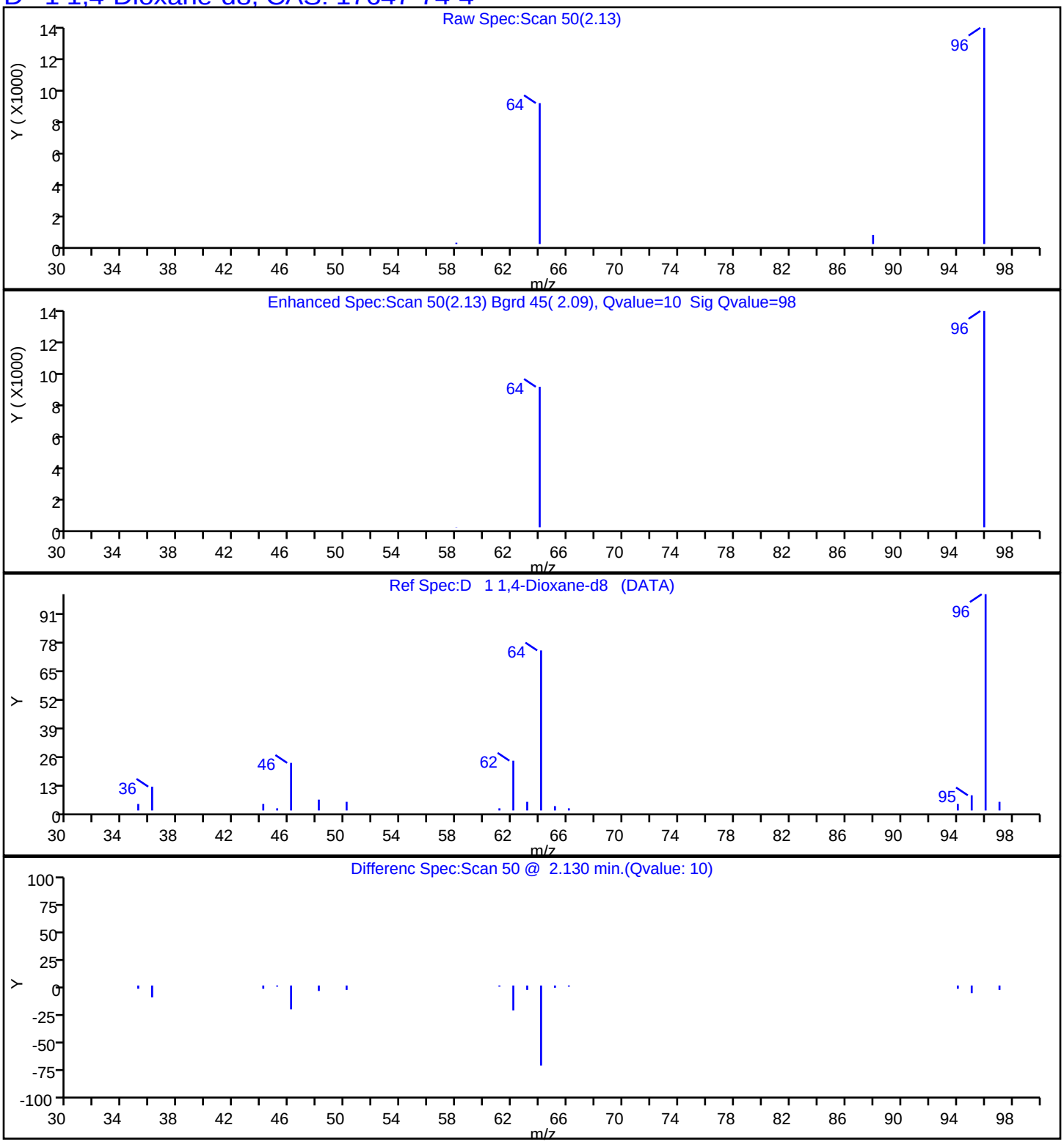
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268860.d | | | | |
| Injection Date: | 04-Nov-2021 02:15:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-26-B | Lab Sample ID: | 460-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-3S-20211029  Lab Sample ID: 460-246277-27

Matrix: Water  Lab File ID: h268861.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 10:50

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 02:31

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 27 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268861.d
Lims ID: 460-246277-A-27-B
Client ID: MW-3S-20211029
Sample Type: Client
Inject. Date: 04-Nov-2021 02:31:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-014
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 00:44:39 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 13:57:56

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 11 | 14235 | 1.10 | 27.4 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 10780 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

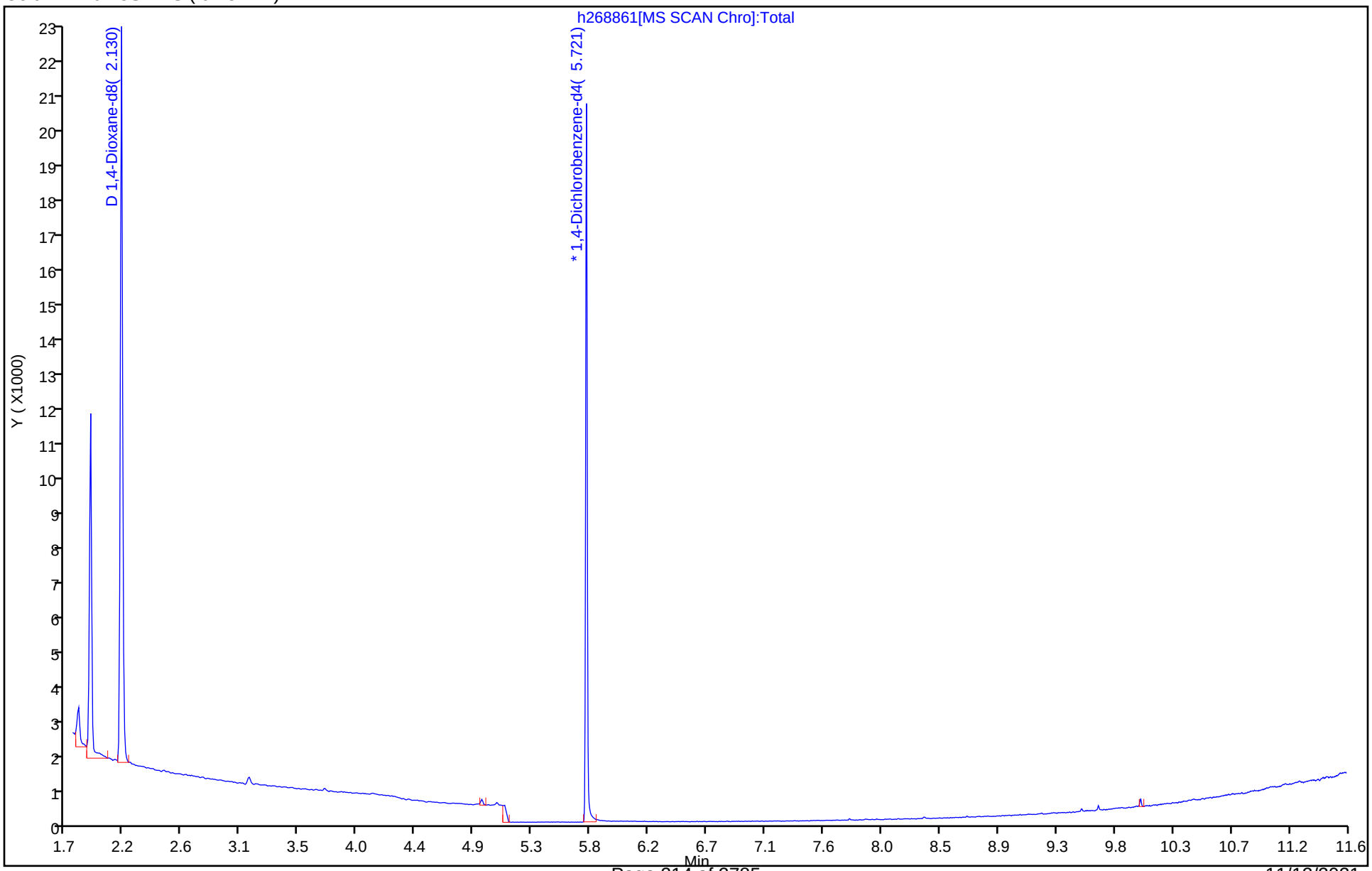
Report Date: 04-Nov-2021 13:57:56 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268861.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 02:31:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-27-B | Lab Sample ID: | 460-246277-27 | Worklist Smp#: | 14 |
| Client ID: | MW-3S-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

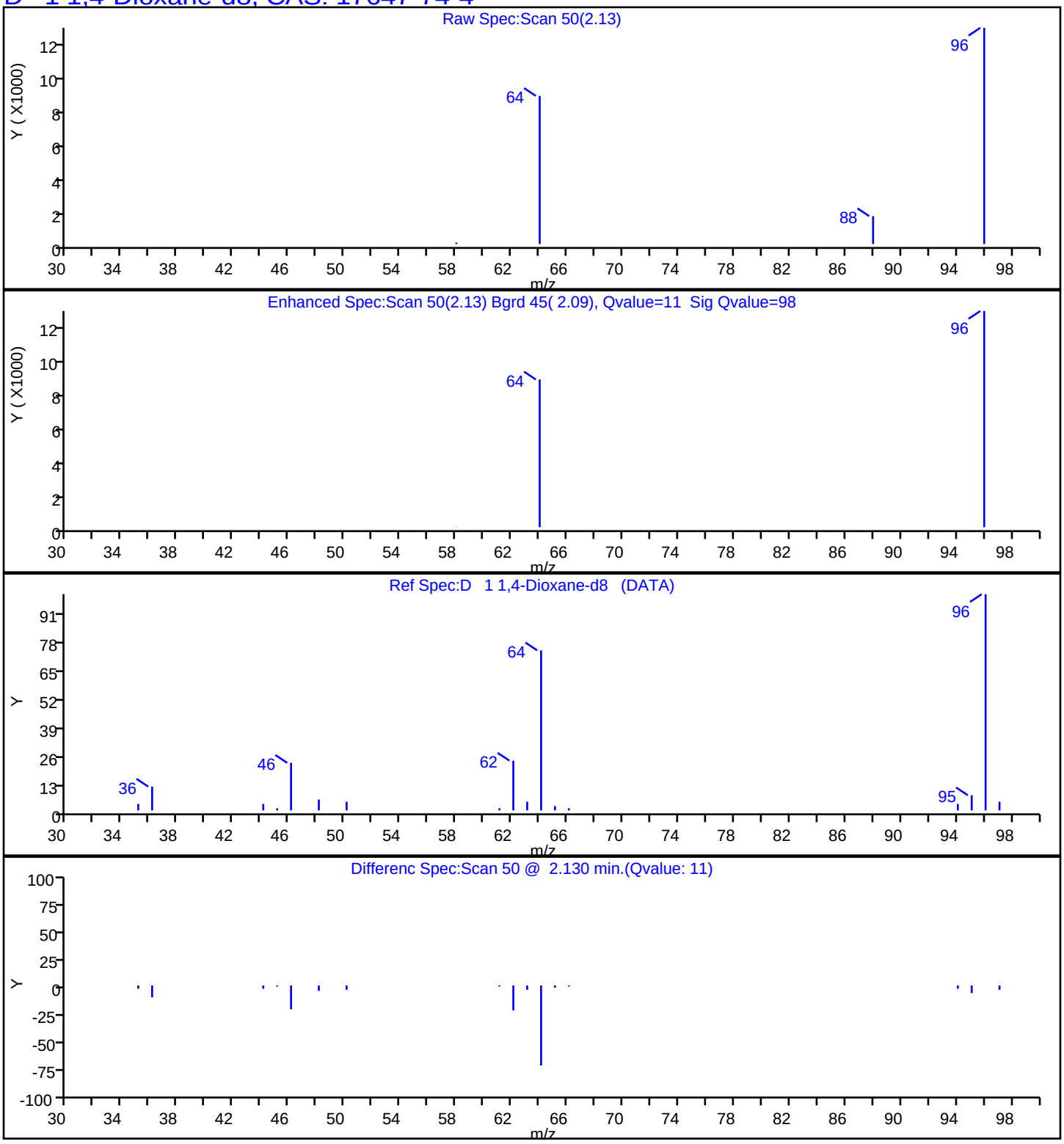
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268861.d | | | | |
| Injection Date: | 04-Nov-2021 02:31:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-27-B | Lab Sample ID: | 460-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-8-20211029  Lab Sample ID: 460-246277-28

Matrix: Water  Lab File ID: h268862.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 10:40

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 02:47

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 25 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268862.d | | | | |
| Lims ID: | 460-246277-A-28-B | | | | |
| Client ID: | AMW-8-20211029 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 02:47:30 | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0137070-015 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 04-Nov-2021 02:02:19 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1626 | | | | |
| First Level Reviewer: maheseep | | Date: | 04-Nov-2021 15:45:54 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 9 | 14395 | 1.01 | 25.2 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11843 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

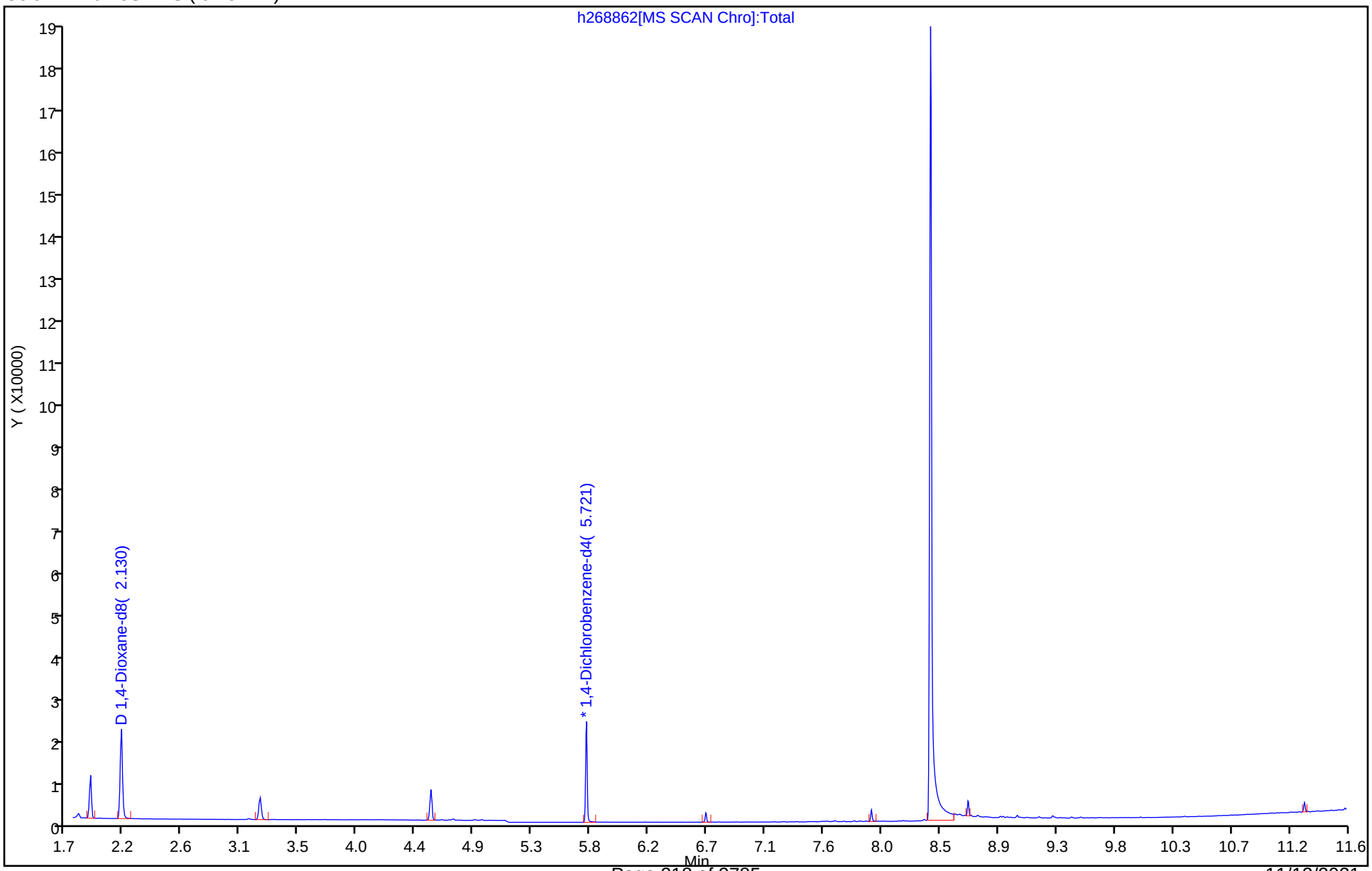
Report Date: 04-Nov-2021 15:45:54 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268862.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 02:47:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-28-B | Lab Sample ID: | 460-246277-28 | Worklist Smp#: | 15 |
| Client ID: | AMW-8-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

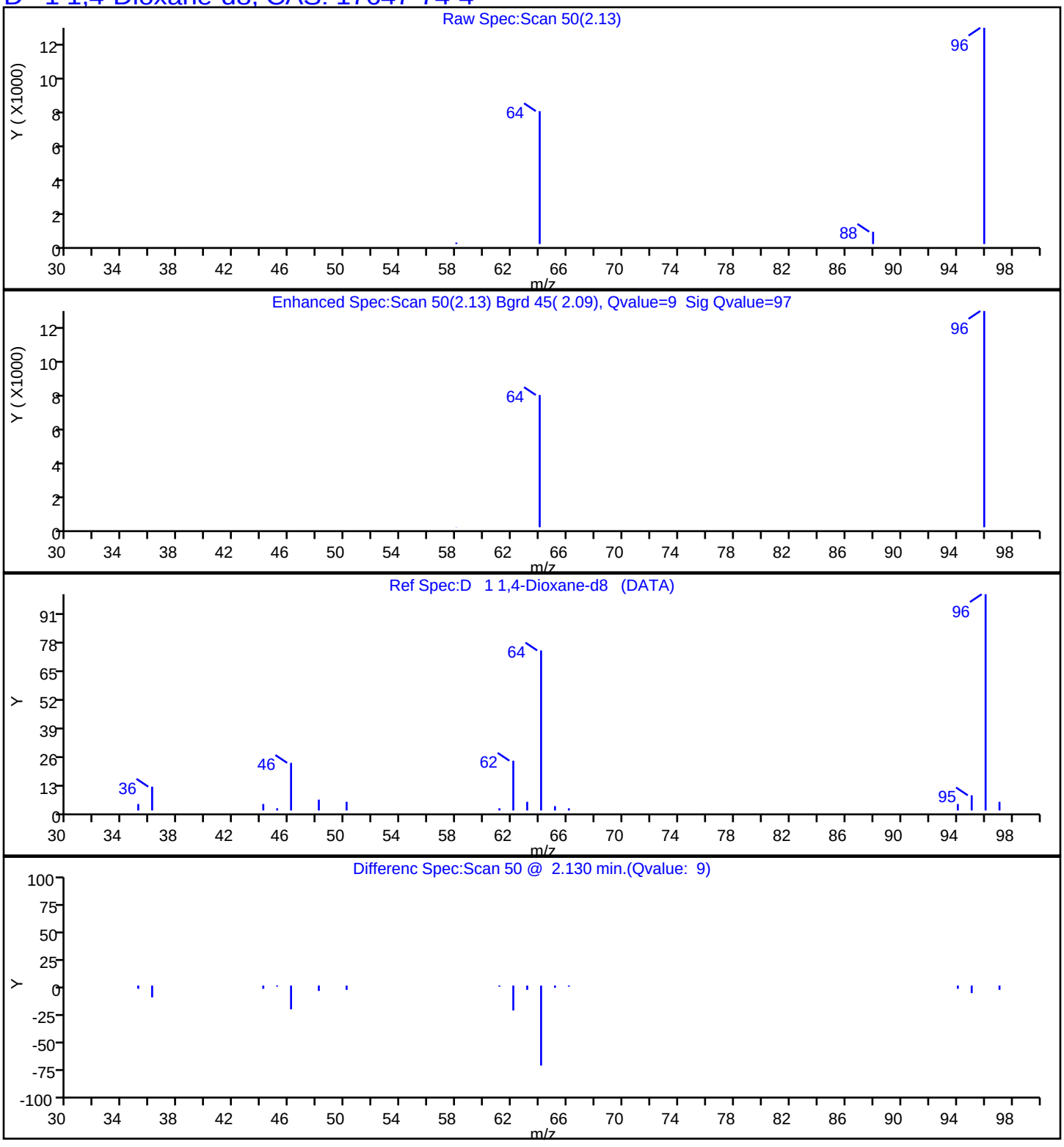
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268862.d | | | | |
| Injection Date: | 04-Nov-2021 02:47:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-28-B | Lab Sample ID: | 460-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-9-20211029  Lab Sample ID: 460-246277-29

Matrix: Water  Lab File ID: h268863.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 08:50

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 03:02

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 29 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268863.d
Lims ID: 460-246277-A-29-B
Client ID: AMW-9-20211029
Sample Type: Client
Inject. Date: 04-Nov-2021 03:02:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-016
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 02:02:19 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1626

First Level Reviewer: maheseep Date: 04-Nov-2021 15:45:59

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 16615 | 1.16 | 29.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.717 | 5.721 | -0.004 | 1 | 11892 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

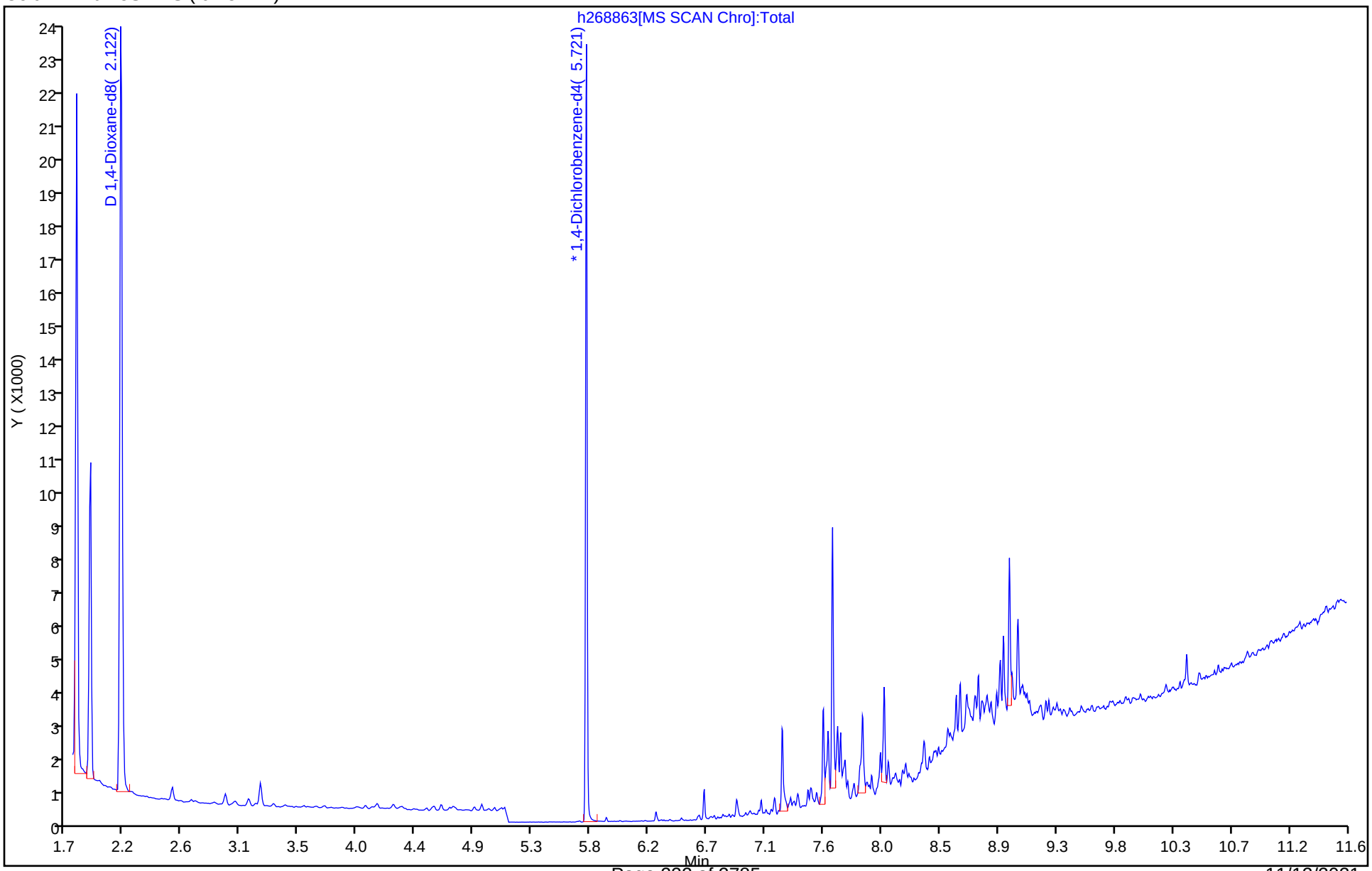
Report Date: 04-Nov-2021 15:45:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268863.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 03:02:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-29-B | Lab Sample ID: | 460-246277-29 | Worklist Smp#: | 16 |
| Client ID: | AMW-9-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

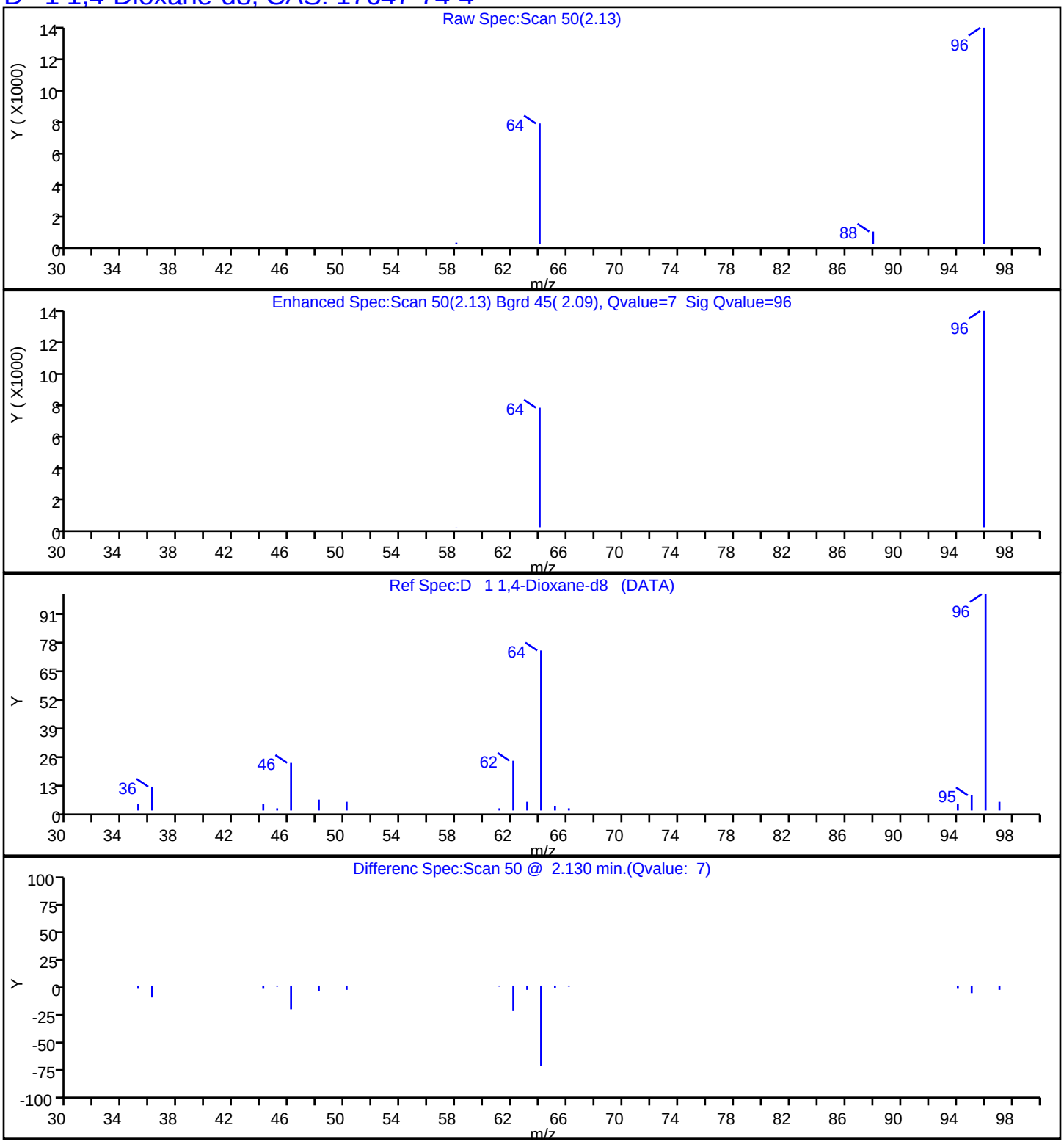
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268863.d | | | | |
| Injection Date: | 04-Nov-2021 03:02:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-29-B | Lab Sample ID: | 460-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-7-20211029  Lab Sample ID: 460-246277-30

Matrix: Water  Lab File ID: h268864.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 12:25

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 03:18

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 89 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268864.d | | | | |
| Lims ID: | 460-246277-A-30-B | | | | |
| Client ID: | AMW-7-20211029 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 03:18:30 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0137070-017 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 04-Nov-2021 02:02:19 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1626 | | | | |
| First Level Reviewer: maheseep | | Date: | 04-Nov-2021 15:46:05 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 50794 | 3.56 | 89.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11854 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

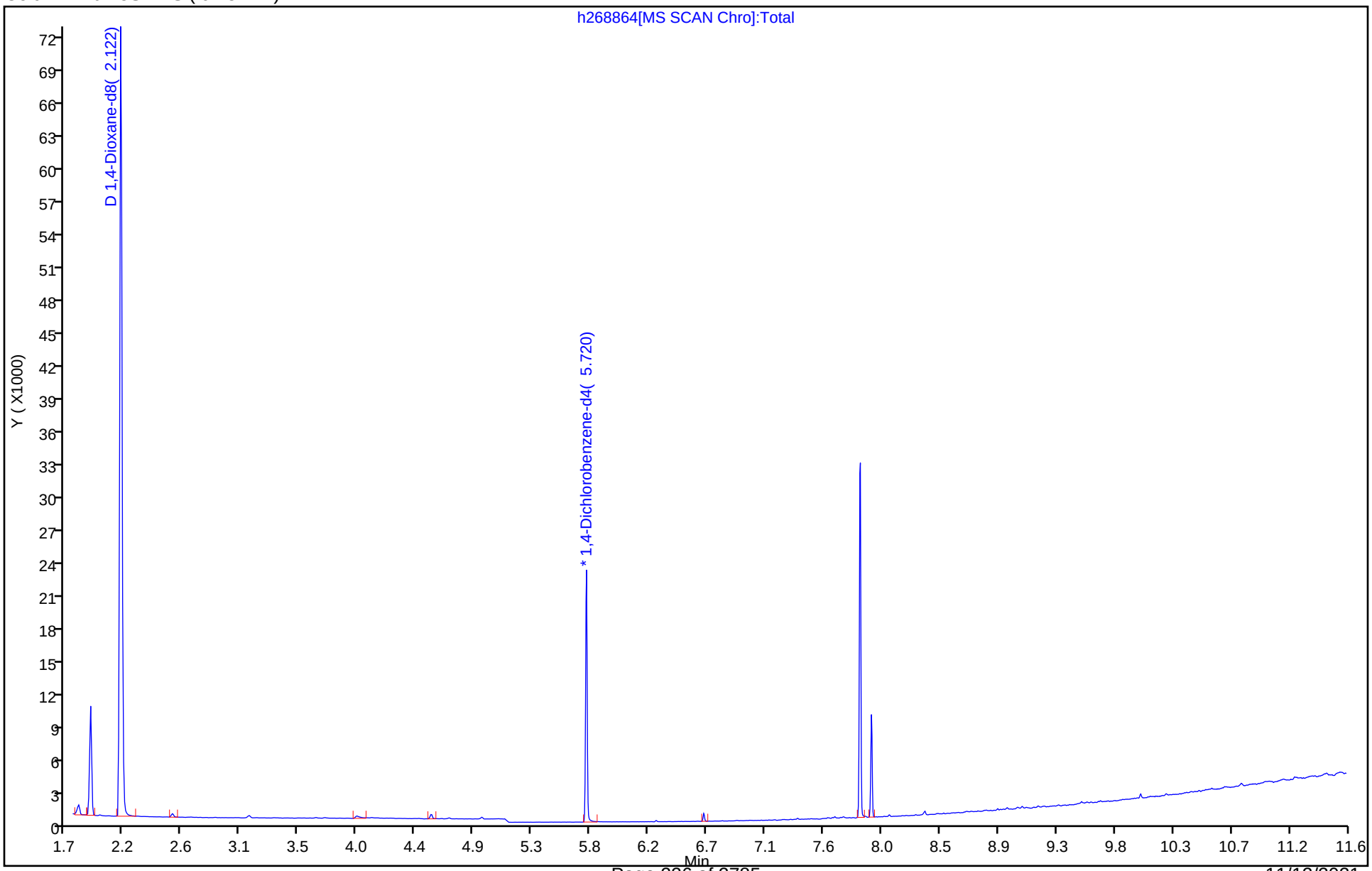
Report Date: 04-Nov-2021 15:46:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268864.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 03:18:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-30-B | Lab Sample ID: | 460-246277-30 | Worklist Smp#: | 17 |
| Client ID: | AMW-7-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

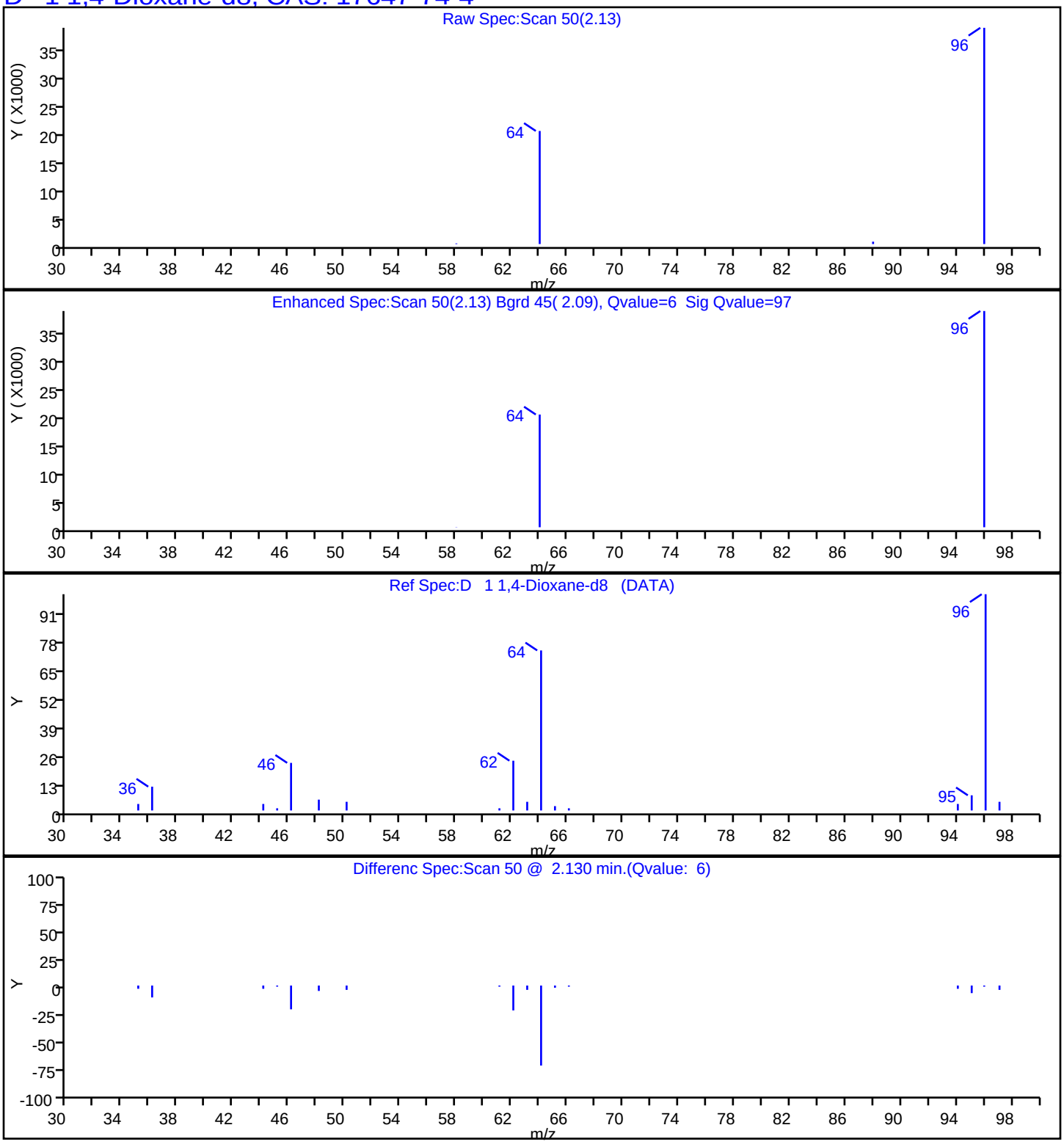
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268864.d | | | | |
| Injection Date: | 04-Nov-2021 03:18:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-30-B | Lab Sample ID: | 460-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-10-20211029  Lab Sample ID: 460-246277-31

Matrix: Water  Lab File ID: h268865.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 10:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 03:34

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 94 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268865.d
Lims ID: 460-246277-A-31-B
Client ID: AMW-10-20211029
Sample Type: Client
Inject. Date: 04-Nov-2021 03:34:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-018
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 15:46:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1613

First Level Reviewer: maheseep Date: 04-Nov-2021 15:46:12

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.122 | 2.122 | 0.000 | 8 | 53456 | 3.77 | 94.2 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11785 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

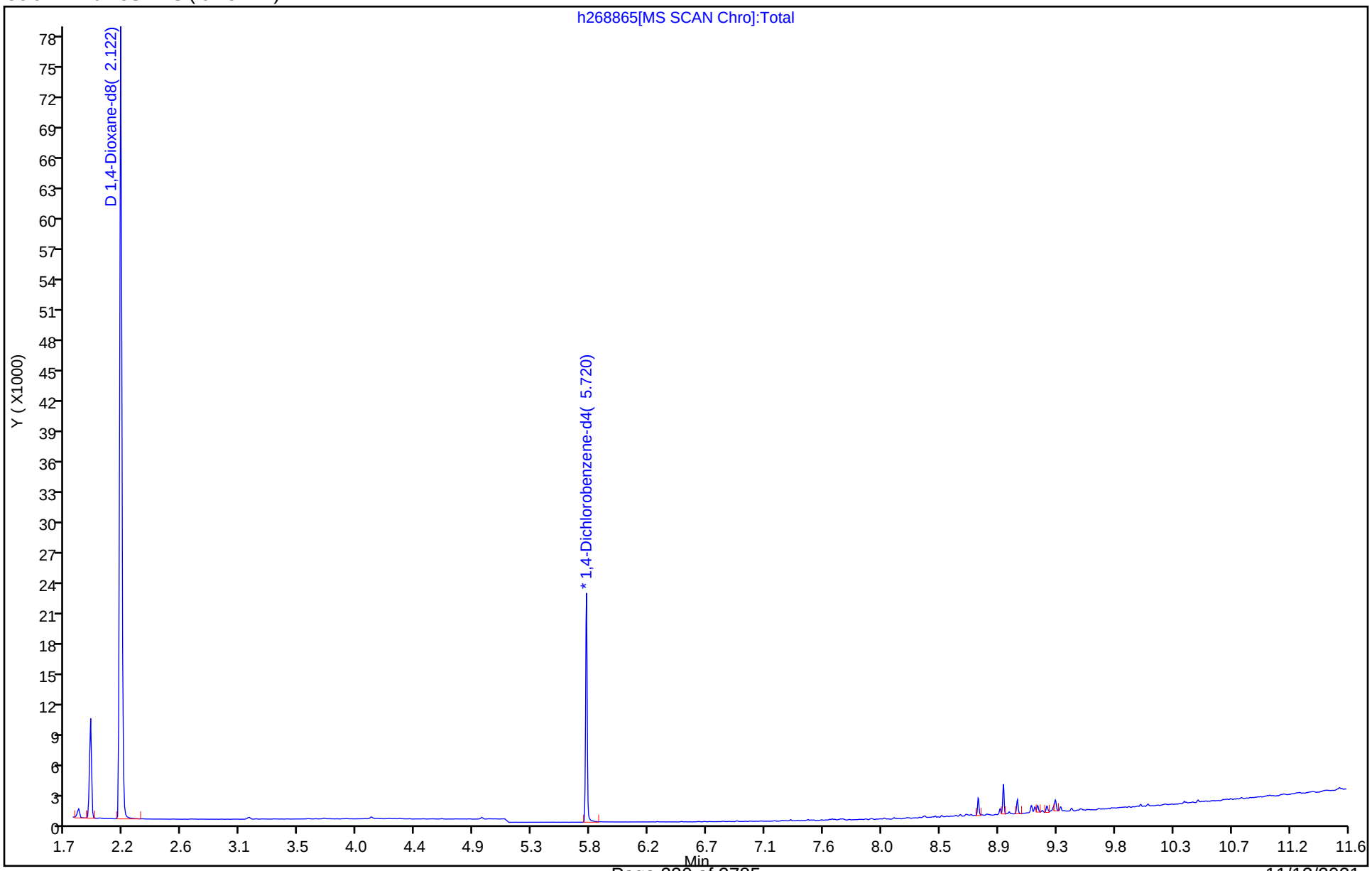
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 04-Nov-2021 06:28:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268865.d | | | | |
| Injection Date: | 04-Nov-2021 03:34:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-31-B | Lab Sample ID: | 460-246277-31 | Worklist Smp#: | 18 |
| Client ID: | AMW-10-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

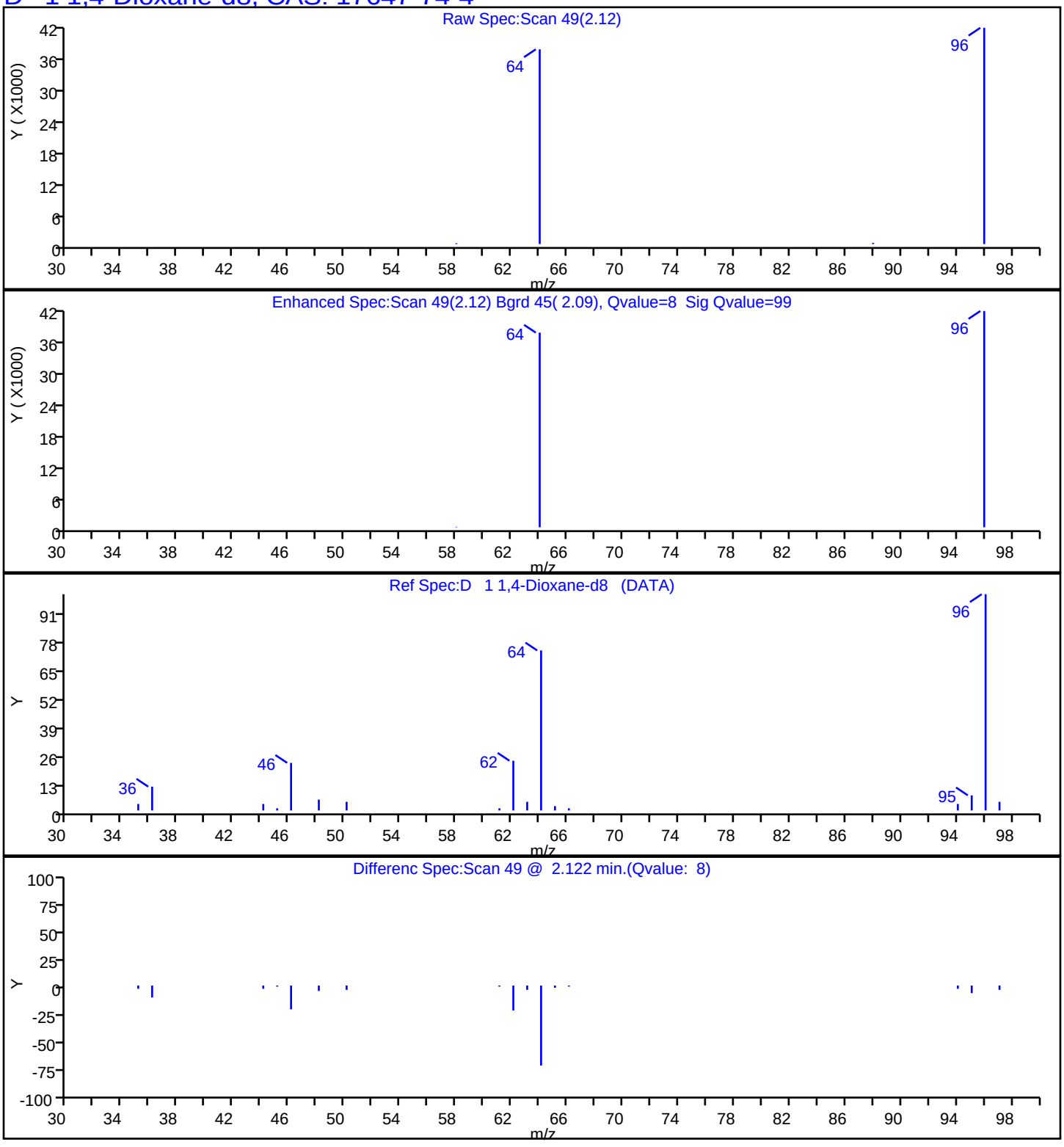
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268865.d | | | | |
| Injection Date: | 04-Nov-2021 03:34:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-31-B | Lab Sample ID: | 460-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



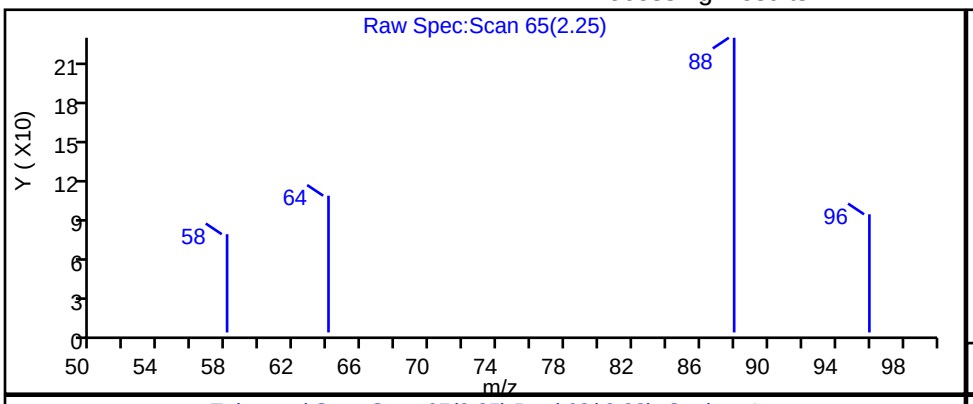
User Disabled Compound Report

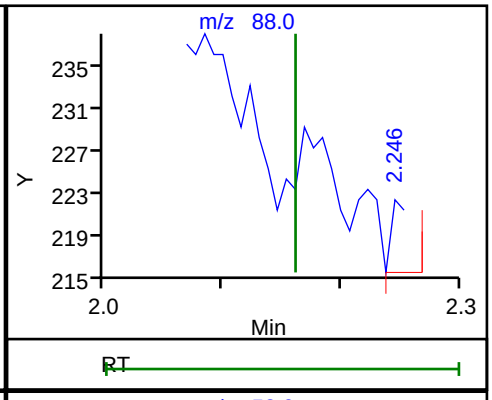
Eurofins TestAmerica, Edison

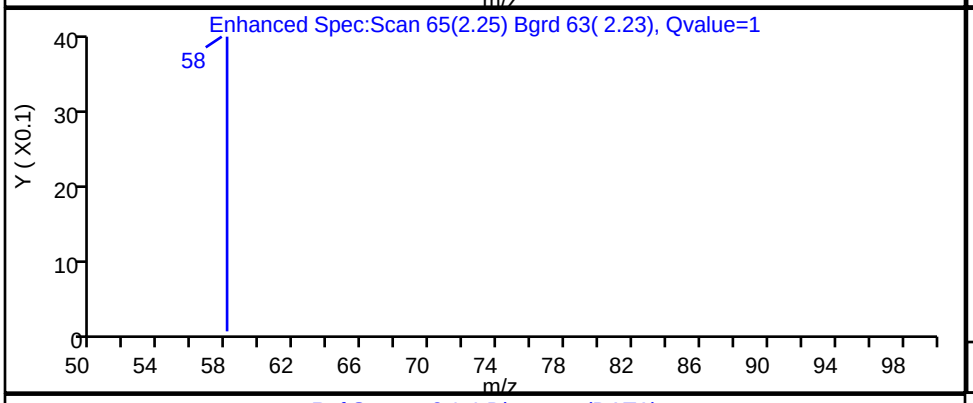
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268865.d | | |
| Injection Date: | 04-Nov-2021 03:34:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | 460-246277-A-31-B | Lab Sample ID: | 460-246277-31 |
| Client ID: | AMW-10-20211029 | | |
| Operator ID: | | ALS Bottle#: | 18 Worklist Smp#: 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

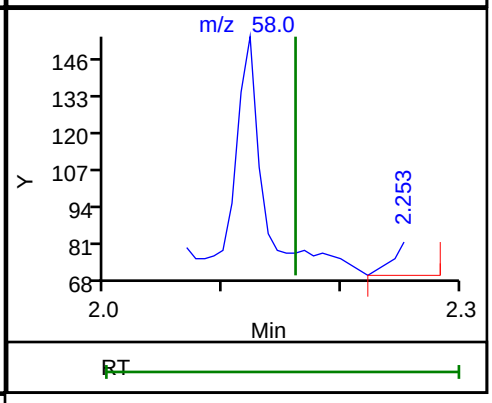
## 2 1,4-Dioxane, CAS: 123-91-1

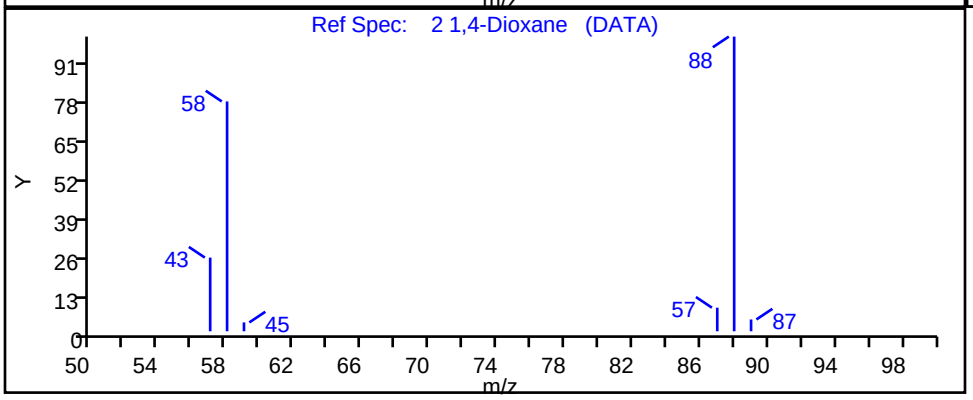
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.25 | 88.00 | 6 | 0.000379 |
| 2.25 | 58.00 | 20 | |

Reviewer: maheseep, 04-Nov-2021 15:46:08

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-53S-20211029  Lab Sample ID: 460-246277-32

Matrix: Water  Lab File ID: h268866.d

Analysis Method: 8270E SIM ID  Date Collected: 10/29/2021 09:15

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 03:50

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 101 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268866.d | | | | |
| Lims ID: | 460-246277-A-32-B | | | | |
| Client ID: | MW-53S-20211029 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 03:50:30 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0137070-019 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 04-Nov-2021 15:46:12 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | RT Order ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1626 | | | | |
| First Level Reviewer: maheseep | | Date: | 04-Nov-2021 15:46:17 | | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/ml | %Rec | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 6 | 55435 | 4.06 | 101 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11349 | 0.2000 | | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

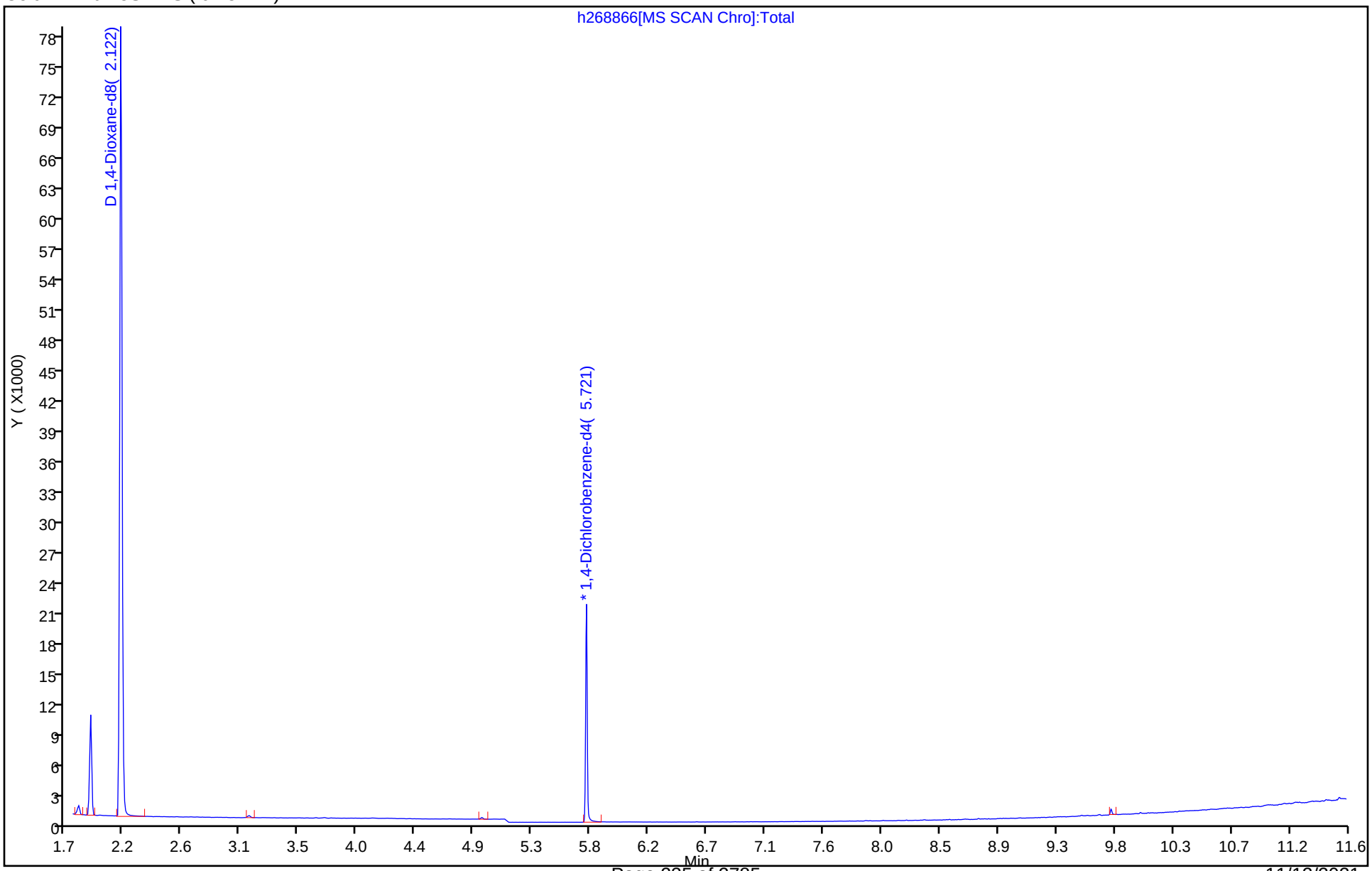
Report Date: 04-Nov-2021 15:46:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268866.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 03:50:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-32-B | Lab Sample ID: | 460-246277-32 | Worklist Smp#: | 19 |
| Client ID: | MW-53S-20211029 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

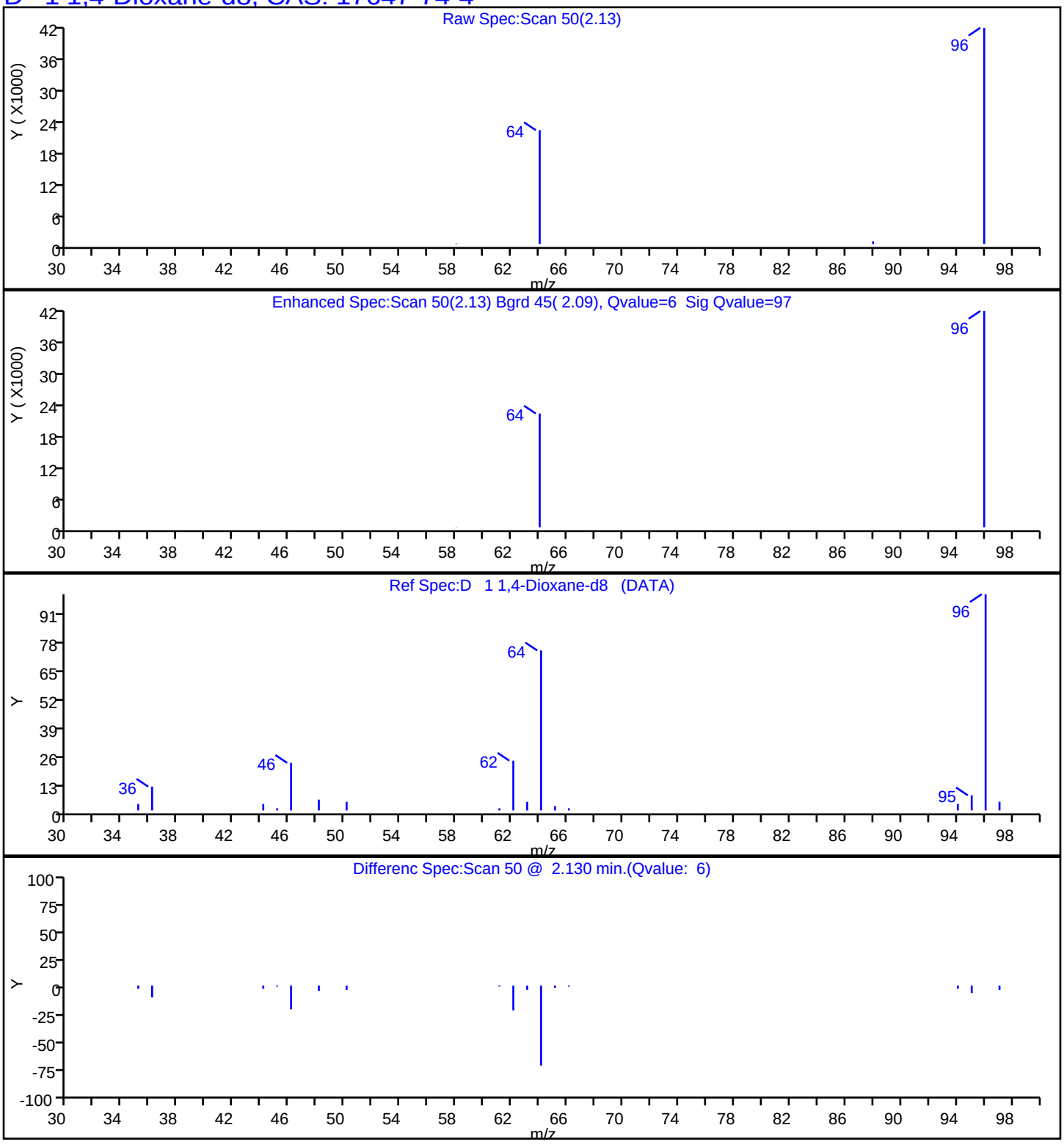
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268866.d | | | | |
| Injection Date: | 04-Nov-2021 03:50:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | 460-246277-A-32-B | Lab Sample ID: | 460-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



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

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1 Analy Batch No.: 790012

SDG No.:

Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2021 13:46 Calibration End Date: 07/13/2021 15:53 Calibration ID: 86285

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 460-790012/10 | h266850.d |
| Level 2 | STD2 460-790012/9 | h266849.d |
| Level 3 | STD3 460-790012/8 | h266848.d |
| Level 4 | STD4 460-790012/7 | h266847.d |
| Level 5 | ICIS 460-790012/2 | h266842.d |
| Level 6 | STD6 460-790012/6 | h266846.d |
| Level 7 | STD7 460-790012/5 | h266845.d |
| Level 8 | STD8 460-790012/4 | h266844.d |
| Level 9 | STD9 460-790012/3 | h266843.d |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 1,4-Dioxane | 1.0636 1.1160 | 1.3124 1.1683 | 1.1308 1.2235 | 1.1332 1.2067 | 1.2959 | AveID | | 1.1834 | | | | 7.1 | | 50.0 | | | |
| 1,4-Dioxane-d8 | 0.2815 0.2497 | 0.2534 0.2519 | 0.2791 0.2140 | 0.2421 0.1881 | 0.2065 | Ave | | 0.2407 | | | | 13.3 | | | | | |

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

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

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1 Analy Batch No.: 790012

SDG No.:

Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2021 13:46 Calibration End Date: 07/13/2021 15:53 Calibration ID: 86285

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 460-790012/10 | h266850.d |
| Level 2 | STD2 460-790012/9 | h266849.d |
| Level 3 | STD3 460-790012/8 | h266848.d |
| Level 4 | STD4 460-790012/7 | h266847.d |
| Level 5 | ICIS 460-790012/2 | h266842.d |
| Level 6 | STD6 460-790012/6 | h266846.d |
| Level 7 | STD7 460-790012/5 | h266845.d |
| Level 8 | STD8 460-790012/4 | h266844.d |
| Level 9 | STD9 460-790012/3 | h266843.d |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 |
| 1,4-Dioxane | | AveID | 361 | 909 | 1918 | 4126 | 9885 | 0.0200 | 0.0400 | 0.100 | 0.200 | 0.500 |
| | | | 19299 | 39264 | 211101 | 1706791 | | 1.00 | 2.00 | 10.0 | 100 | |
| 1,4-Dioxane-d8 | DCBd4 | Ave | 67882 | 69262 | 67848 | 72823 | 61022 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| | | | 69170 | 67214 | 69015 | 56577 | | 4.00 | 4.00 | 4.00 | 4.00 | |

Curve Type Legend

Ave = Average ISTD
AveID = Average isotope dilution

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266842.d
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 13-Jul-2021 13:46:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-002
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:57 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: zhaoc Date: 13-Jul-2021 14:05:15

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 5 | 61022 | 4.00 | 3.43 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.742 | 0.000 | 21 | 9885 | 0.5000 | 0.5476 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 14777 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_ISOTOPL5_00008 Amount Added: 1.00 Units: mL

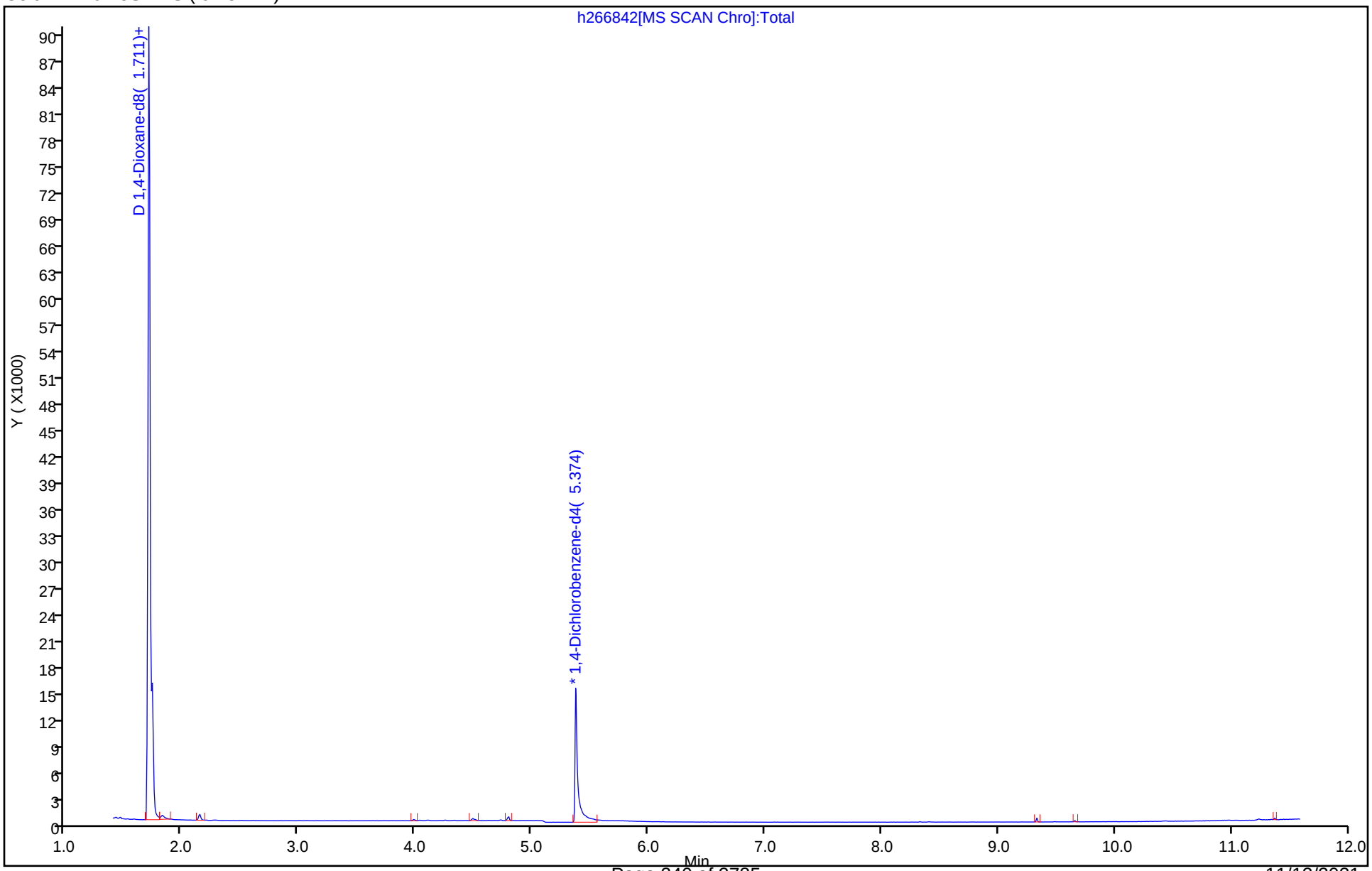
Report Date: 14-Jul-2021 10:34:57 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266842.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 13:46:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | icis | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 13-Jul-2021 14:01:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-003
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:02:37

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.703 | 1.719 | -0.016 | 1 | 56577 | 4.00 | 3.13 | a |
| | 2 1,4-Dioxane | 88 | 1.726 | 1.742 | -0.016 | 16 | 1706791 | 100.0 | 102.0 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 15040 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

## Reagents:

SM_ISOTOPL9_00002 Amount Added: 1.00 Units: mL

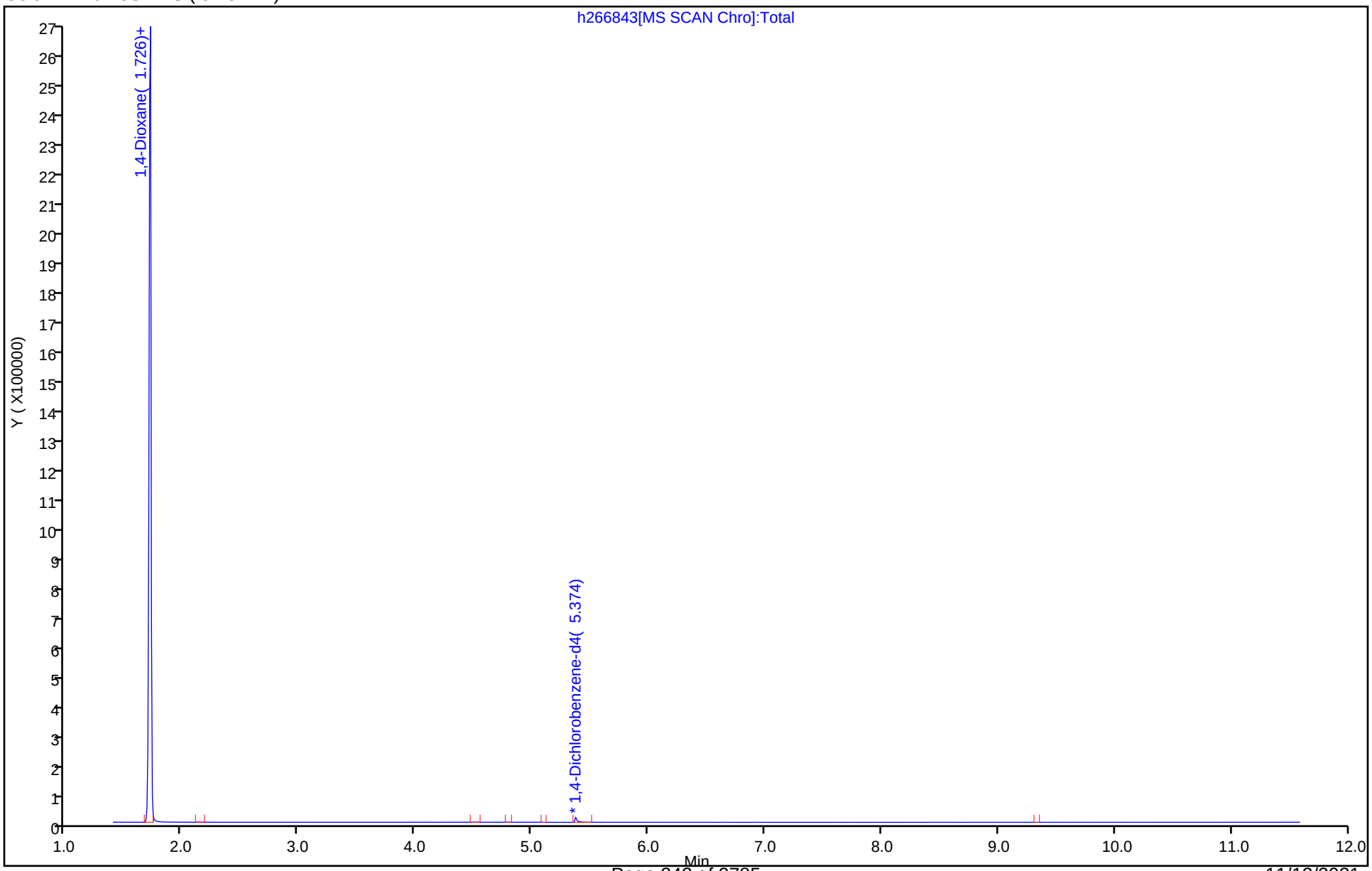
Report Date: 14-Jul-2021 10:34:58 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:01:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD9 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Edison

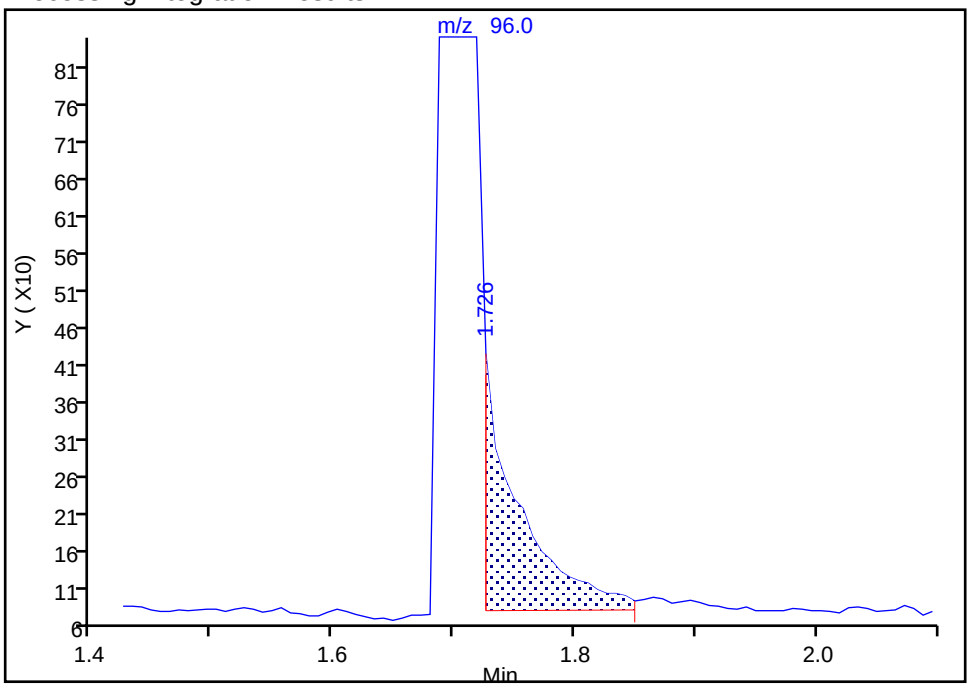
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266843.d | | | | |
| Injection Date: | 13-Jul-2021 14:01:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | STD9 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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

Signal: 1

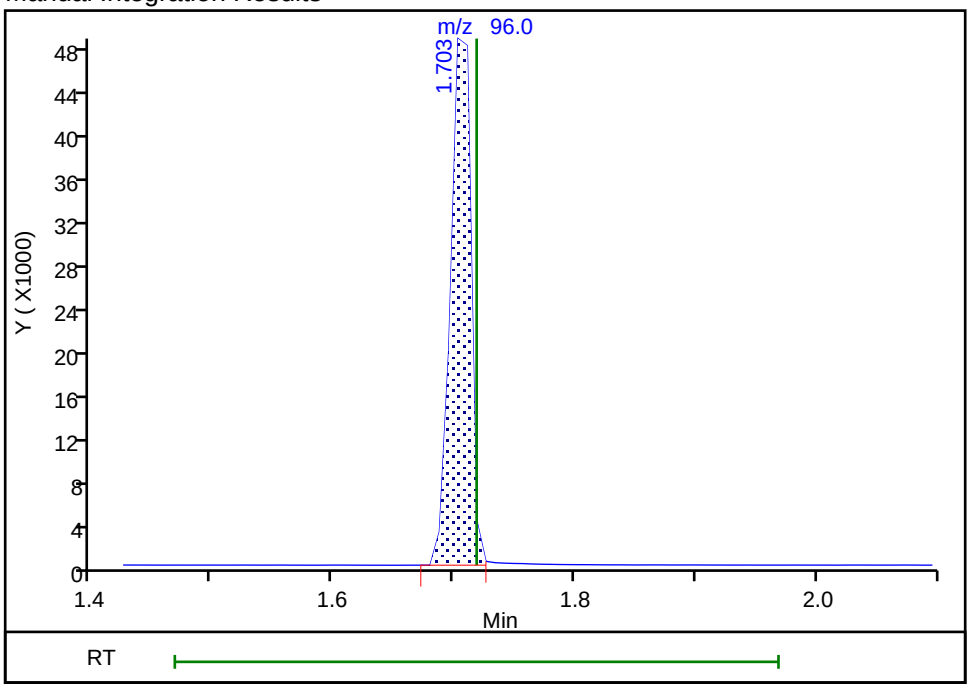
Processing Integration Results

RT: 1.73
Area: 716
Amount: 0.043116
Amount Units: ug/ml




Manual Integration Results

RT: 1.70
Area: 56577
Amount: 3.125605
Amount Units: ug/ml




Reviewer: nimerd, 13-Jul-2021 17:02:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266844.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Jul-2021 14:17:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-004
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 5 | 69015 | 4.00 | 3.56 | |
| | 2 1,4-Dioxane | 88 | 1.734 | 1.742 | -0.008 | 14 | 211101 | 10.0 | 10.3 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 16123 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL8_00007 Amount Added: 1.00 Units: mL

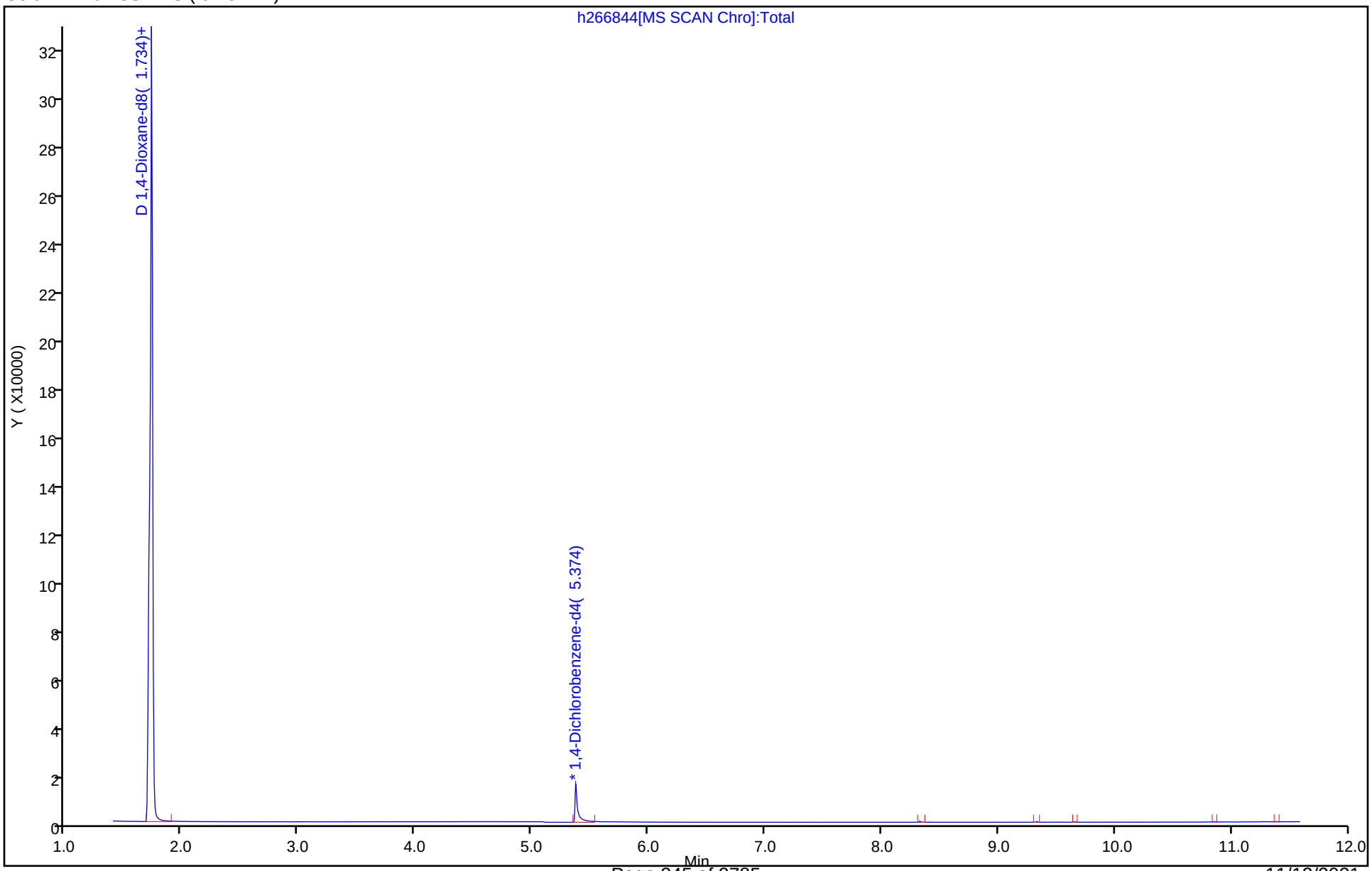
Report Date: 14-Jul-2021 10:34:58 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266844.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:17:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD8 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266845.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Jul-2021 14:33:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-005
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:58 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 8 | 67214 | 4.00 | 4.19 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.742 | 0.000 | 21 | 39264 | 2.00 | 1.97 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 13340 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL7_00007 Amount Added: 1.00 Units: mL

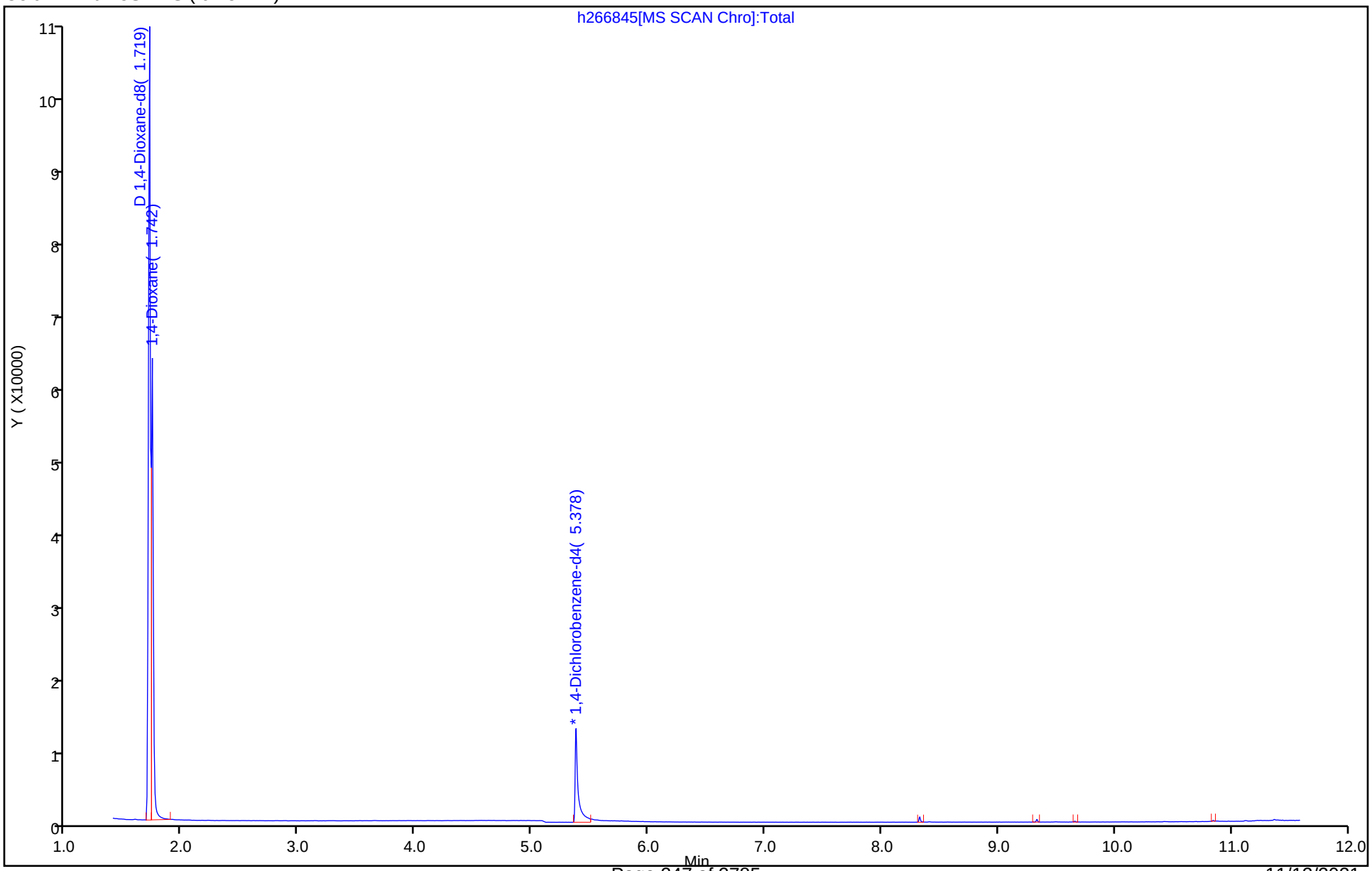
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266845.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:33:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD7 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266846.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Jul-2021 14:49:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-006
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:59 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:02:46

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 10 | 69170 | 4.00 | 4.15 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.742 | 0.007 | 15 | 19299 | 1.00 | 0.9431 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 13850 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_ISOTOPL6_00008 Amount Added: 1.00 Units: mL

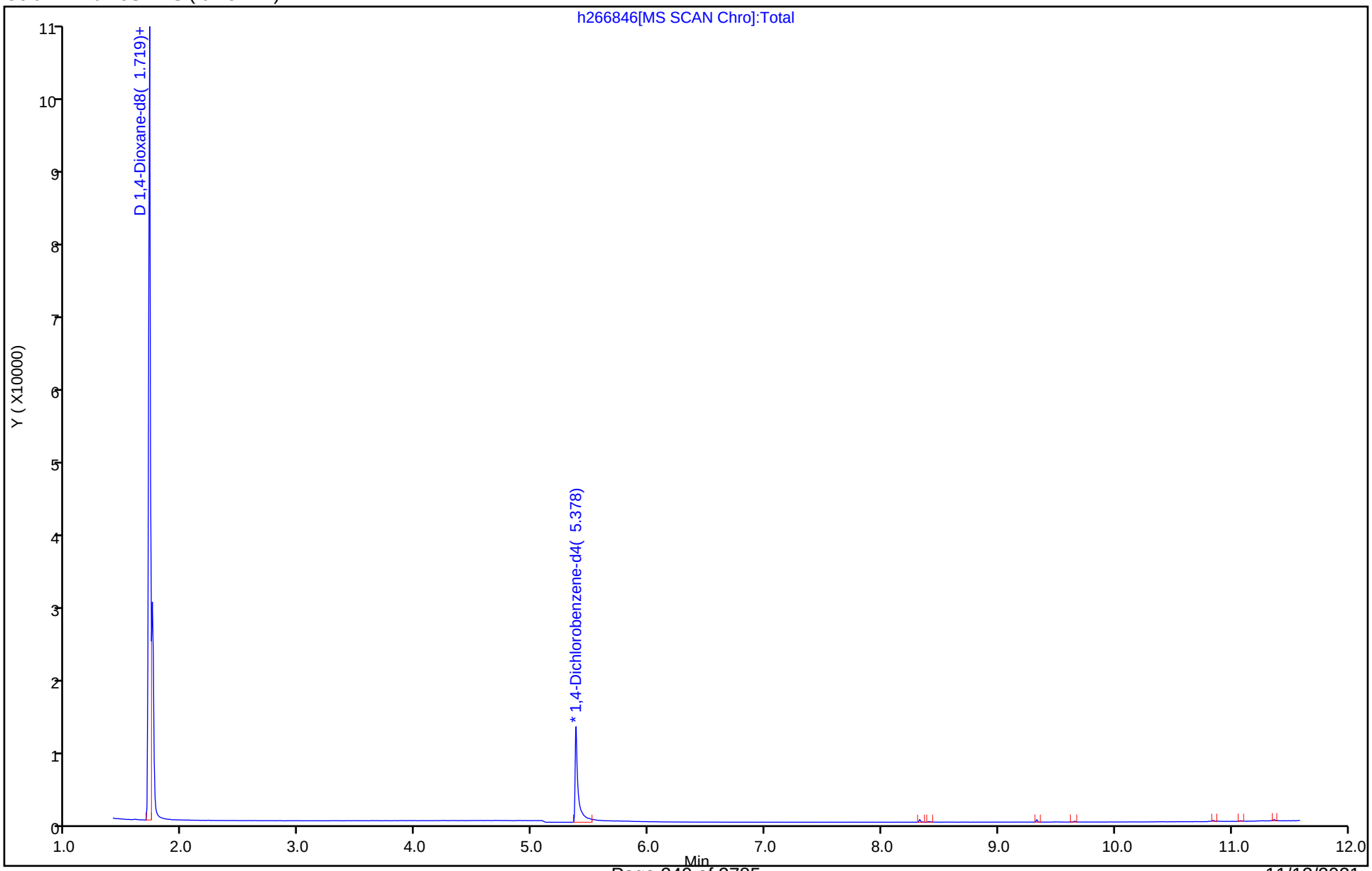
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266846.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 14:49:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD6 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266847.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Jul-2021 15:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-007
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:34:59 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.719 | 1.719 | 0.000 | 13 | 72823 | 4.00 | 4.02 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.742 | 0.007 | 22 | 4126 | 0.2000 | 0.1915 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.374 | 0.000 | 1 | 15038 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL4_00007 Amount Added: 1.00 Units: mL

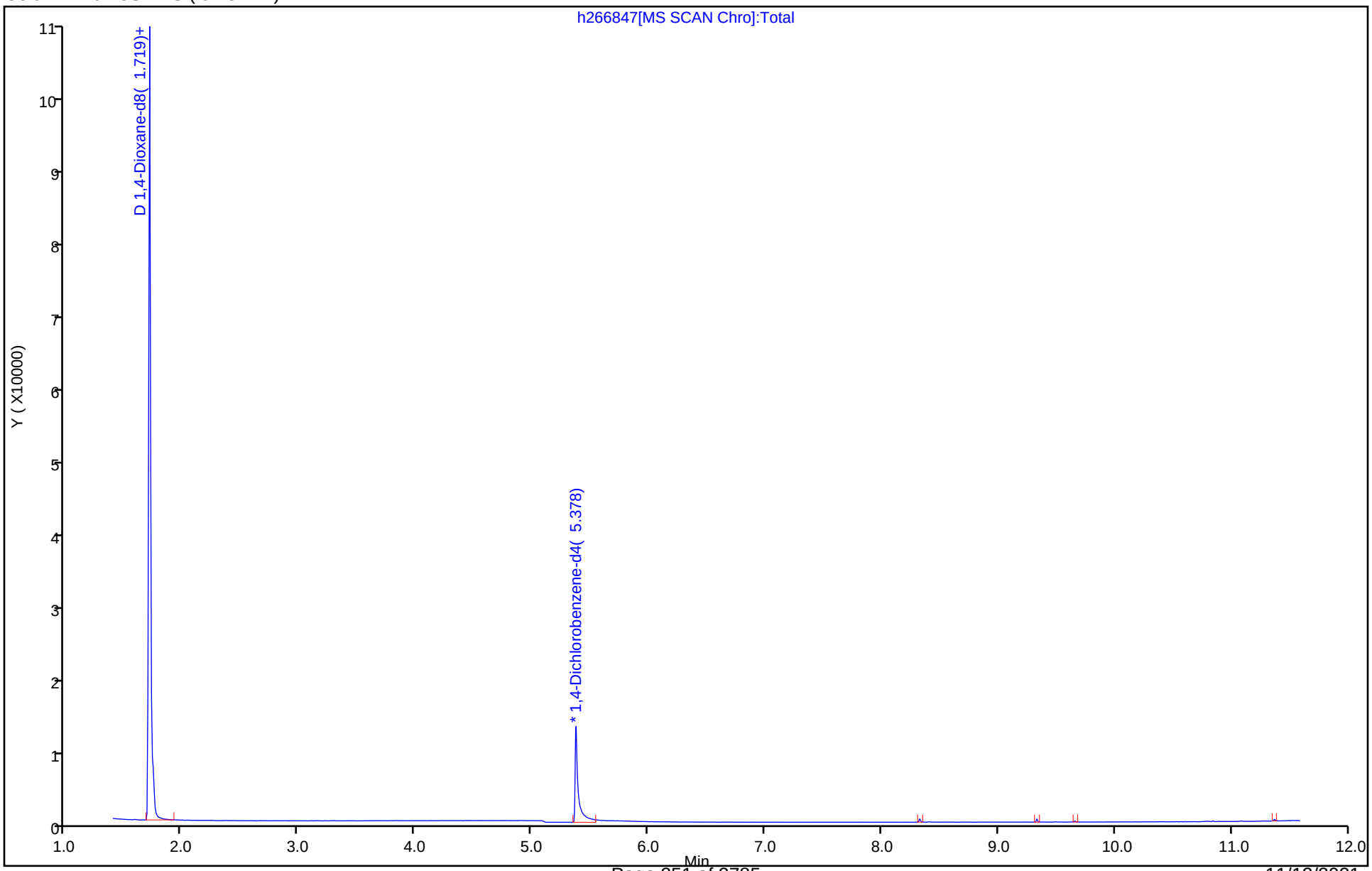
Report Date: 14-Jul-2021 10:34:59 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266847.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:05:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD4 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266848.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Jul-2021 15:21:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-008
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:00 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 12 | 67848 | 4.00 | 4.64 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 21 | 1918 | 0.1000 | 0.0956 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 12156 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL3_00007 Amount Added: 1.00 Units: mL

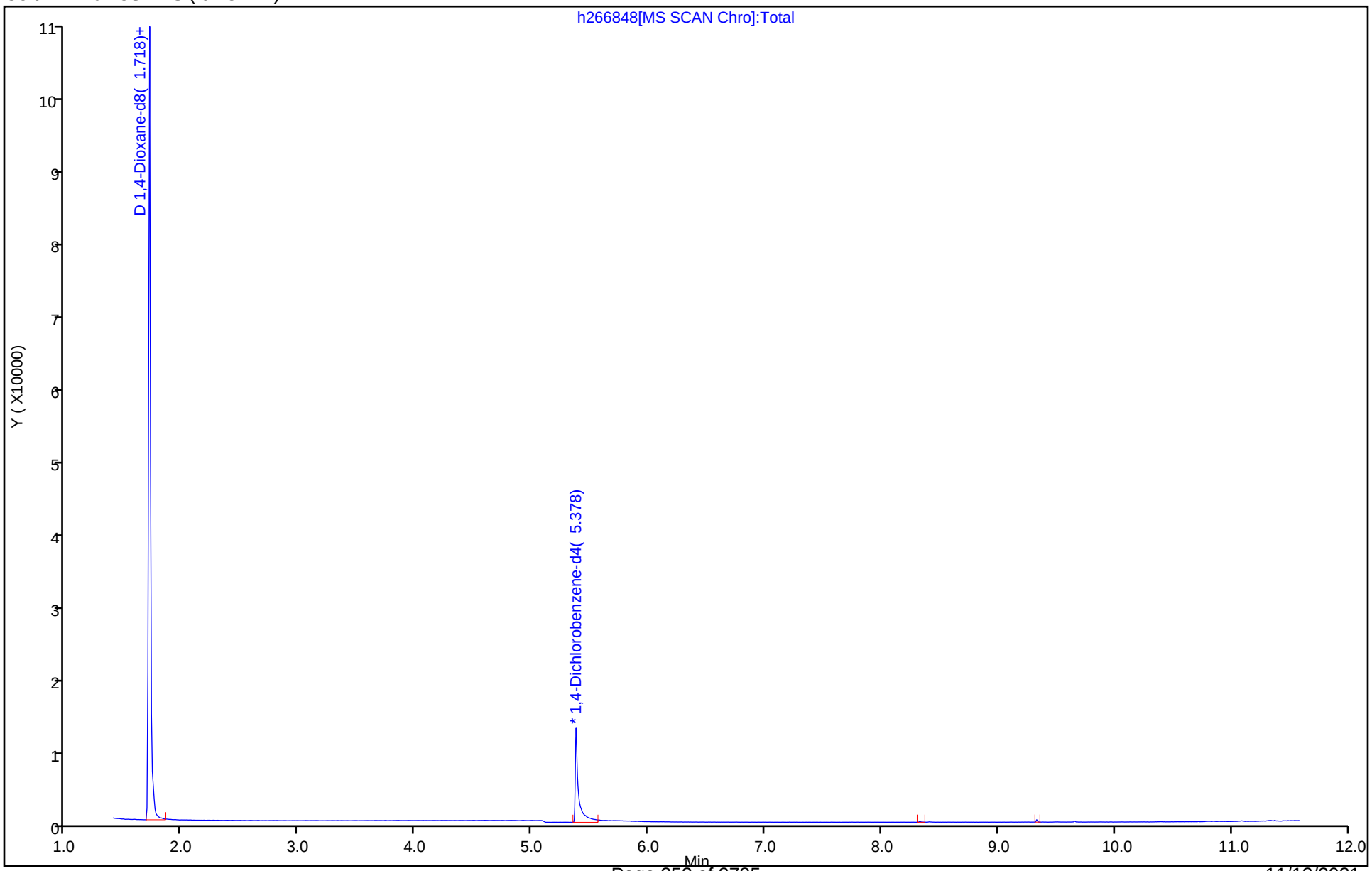
Report Date: 14-Jul-2021 10:35:00 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266848.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:21:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD3 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266849.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Jul-2021 15:37:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-009
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:00 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 7 | 69262 | 4.00 | 4.21 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 20 | 909 | 0.0400 | 0.0444 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 13664 | 0.2000 | 0.2000 | |

## Reagents:

SM_ISOTOPL2_00007 Amount Added: 1.00 Units: mL

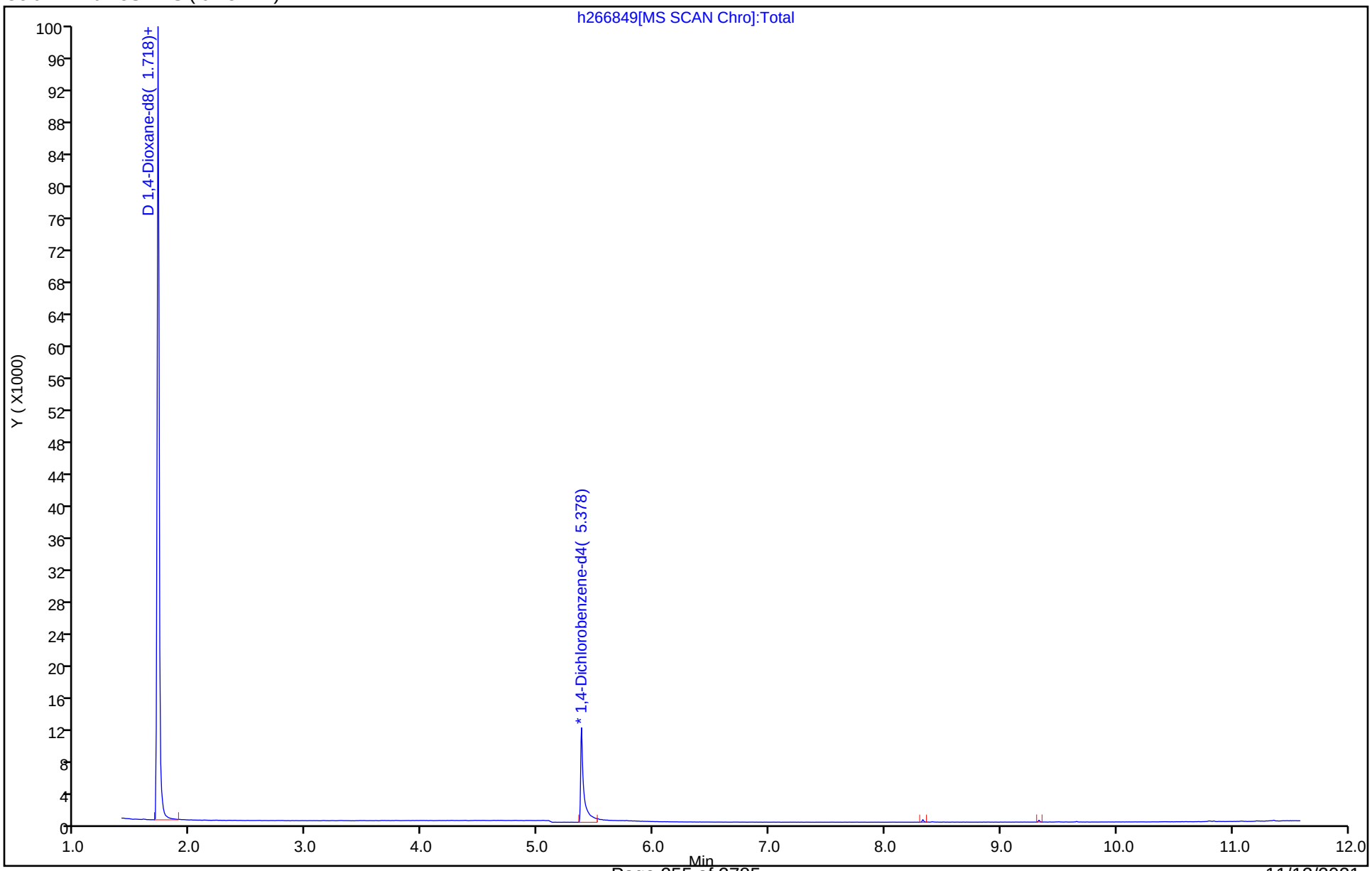
Report Date: 14-Jul-2021 10:35:00 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266849.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:37:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD2 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Jul-2021 15:53:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-010
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-Jul-2021 10:35:01 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1605

First Level Reviewer: nimerd Date: 13-Jul-2021 17:03:01

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 11 | 67882 | 4.00 | 4.68 | |
| | 2 1,4-Dioxane | 88 | 1.749 | 1.749 | 0.000 | 13 | 361 | 0.0200 | 0.0180 | M |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.378 | 5.378 | 0.000 | 1 | 12058 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

SM_ISOTOPL1_00008 Amount Added: 1.00 Units: mL

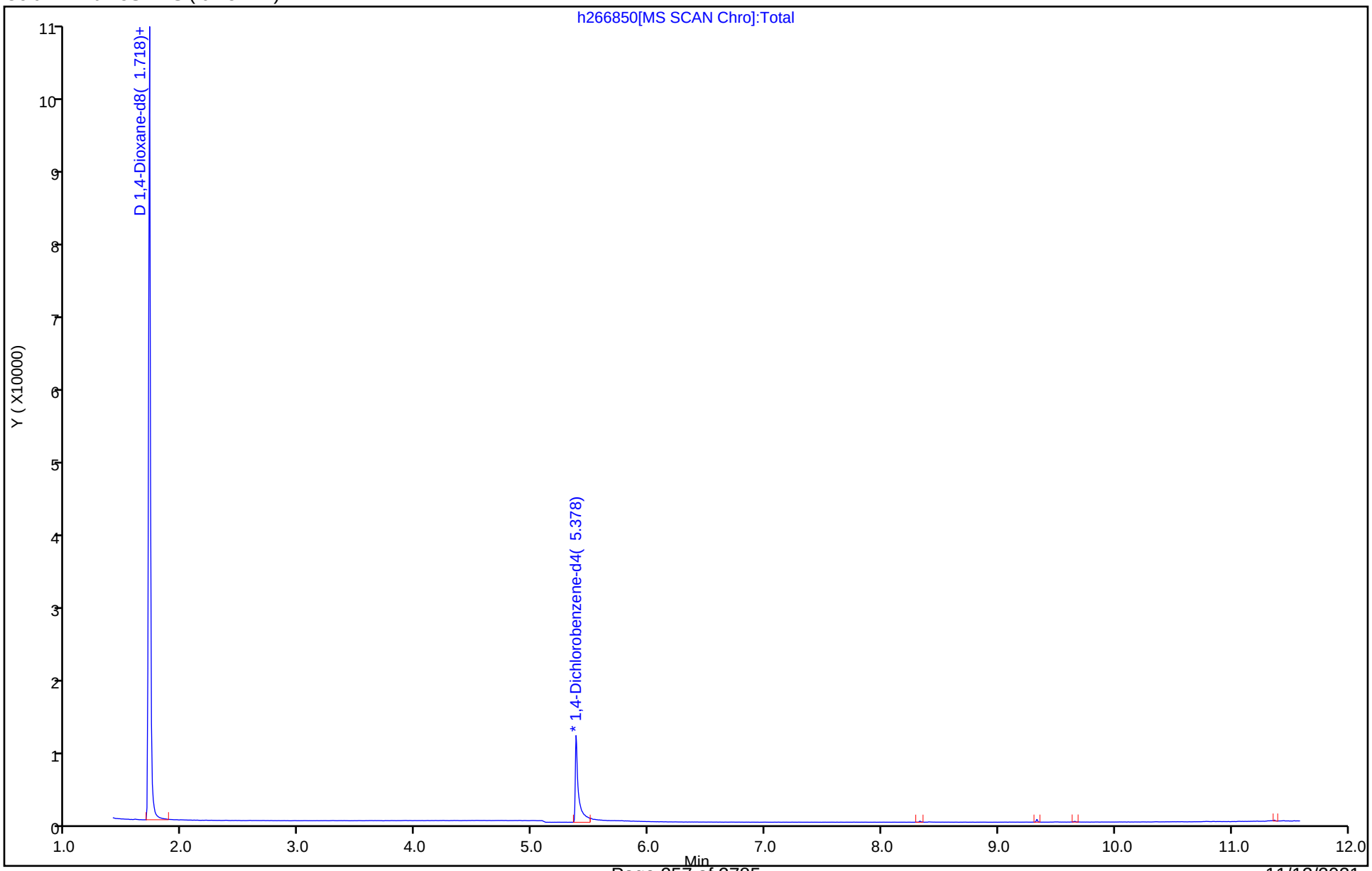
Report Date: 14-Jul-2021 10:35:01 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 15:53:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | STD1 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Edison

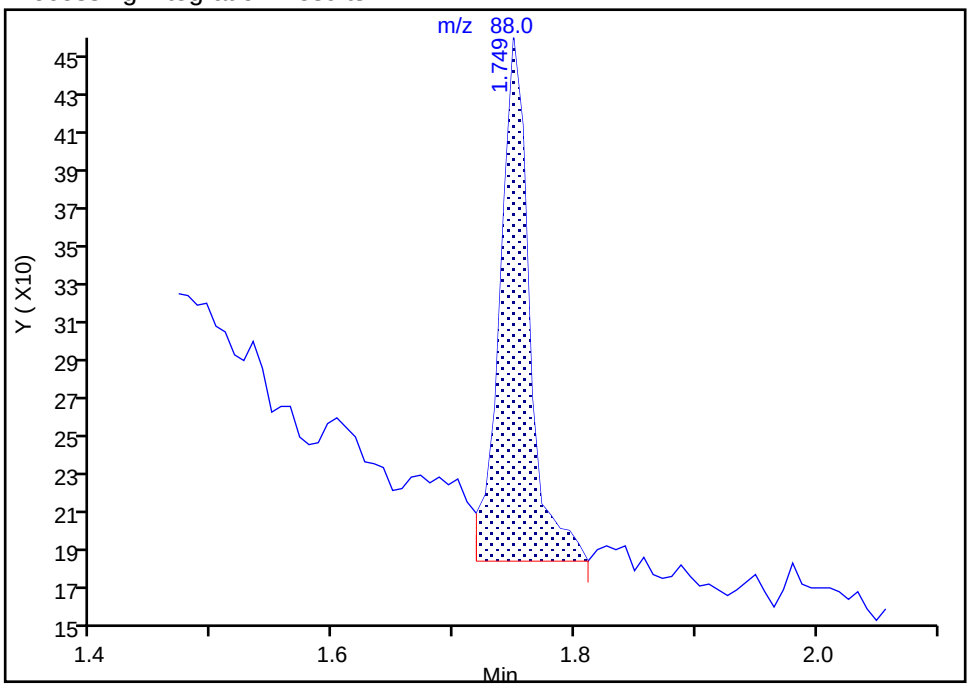
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Injection Date: | 13-Jul-2021 15:53:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | STD1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

## 2 1,4-Dioxane, CAS: 123-91-1

Signal: 1

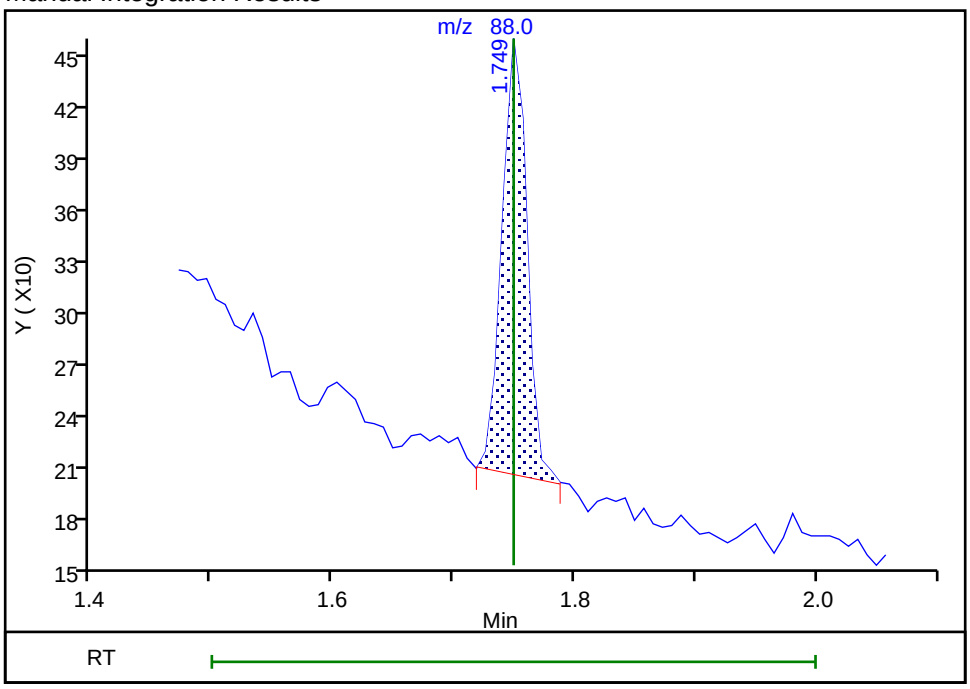
Processing Integration Results

RT: 1.75
Area: 469
Amount: 0.022687
Amount Units: ug/ml




Manual Integration Results

RT: 1.75
Area: 361
Amount: 0.017976
Amount Units: ug/ml




Reviewer: nimerd, 13-Jul-2021 17:02:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

## Calibration / 1,4-Dioxane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

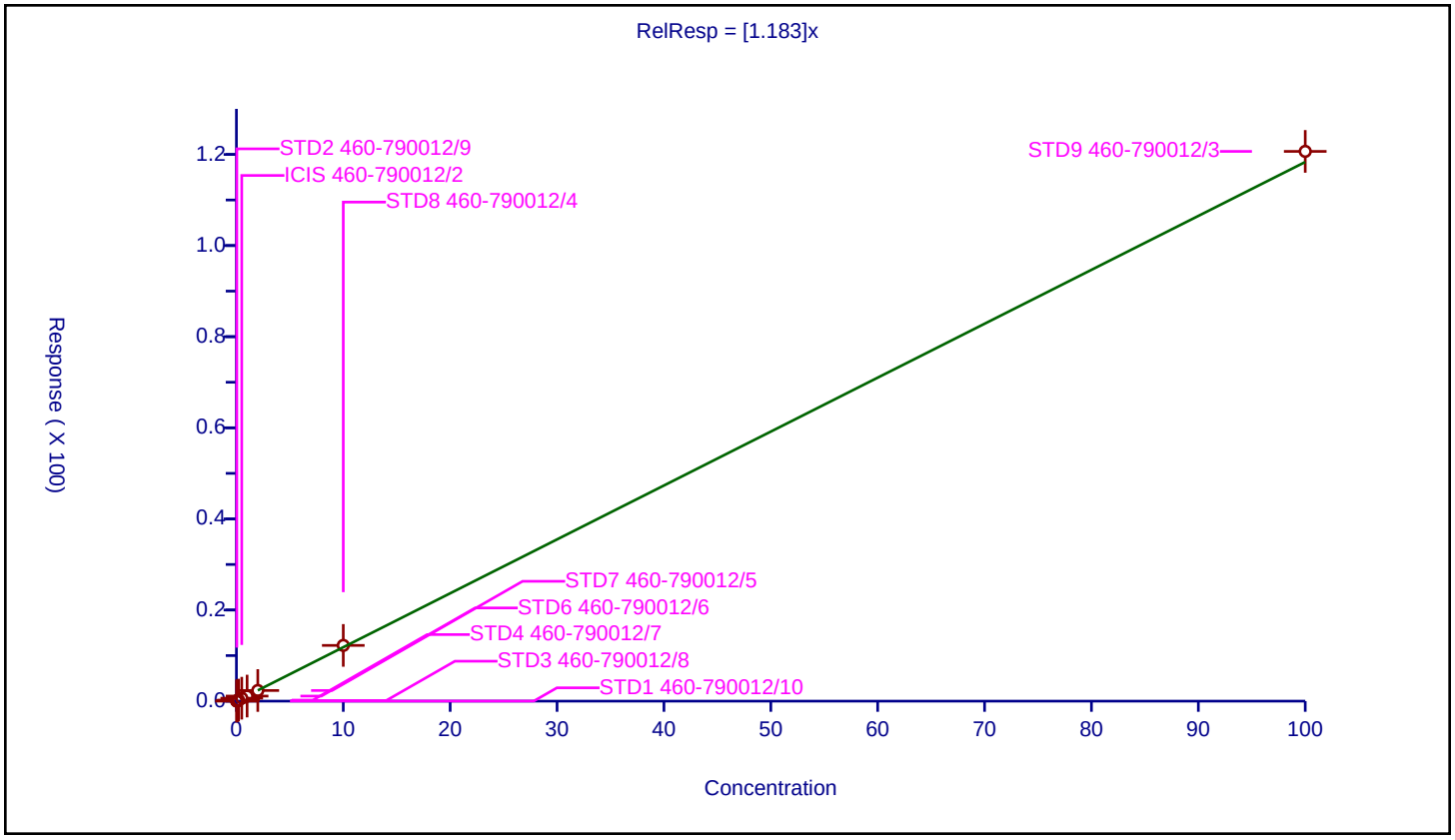
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.183 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 608000 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | STD1 460-790012/10 | 0.02 | 0.021272 | 4.0 | 67882.0 | 1.06361 | Y |
| 2 | STD2 460-790012/9 | 0.04 | 0.052496 | 4.0 | 69262.0 | 1.312408 | Y |
| 3 | STD3 460-790012/8 | 0.1 | 0.113076 | 4.0 | 67848.0 | 1.130763 | Y |
| 4 | STD4 460-790012/7 | 0.2 | 0.226632 | 4.0 | 72823.0 | 1.133158 | Y |
| 5 | ICIS 460-790012/2 | 0.5 | 0.647963 | 4.0 | 61022.0 | 1.295926 | Y |
| 6 | STD6 460-790012/6 | 1.0 | 1.116033 | 4.0 | 69170.0 | 1.116033 | Y |
| 7 | STD7 460-790012/5 | 2.0 | 2.336656 | 4.0 | 67214.0 | 1.168328 | Y |
| 8 | STD8 460-790012/4 | 10.0 | 12.235079 | 4.0 | 69015.0 | 1.223508 | Y |
| 9 | STD9 460-790012/3 | 100.0 | 120.670308 | 4.0 | 56577.0 | 1.206703 | Y |



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: ICV 460-790012/11  Calibration Date: 07/13/2021 16:09

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h266851.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.053 | | 178 | 200 | -11.0 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.2274 | | 3780 | 4000 | -5.5 | 50.0 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266851.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 13-Jul-2021 16:09:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0131740-011
Operator ID: Instrument ID: CBNAMS9
Sublist:

Method: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 15-Jul-2021 05:30:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1685

First Level Reviewer: kluseys Date: 13-Jul-2021 17:52:49

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 1.718 | 1.718 | 0.000 | 3 | 85612 | 4.00 | 3.78 | |
| | 2 1,4-Dioxane | 88 | 1.742 | 1.749 | -0.007 | 18 | 4507 | 0.2000 | 0.1779 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.374 | 5.378 | -0.004 | 1 | 18820 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_SIMICV_LVI_00033 Amount Added: 1.00 Units: mL

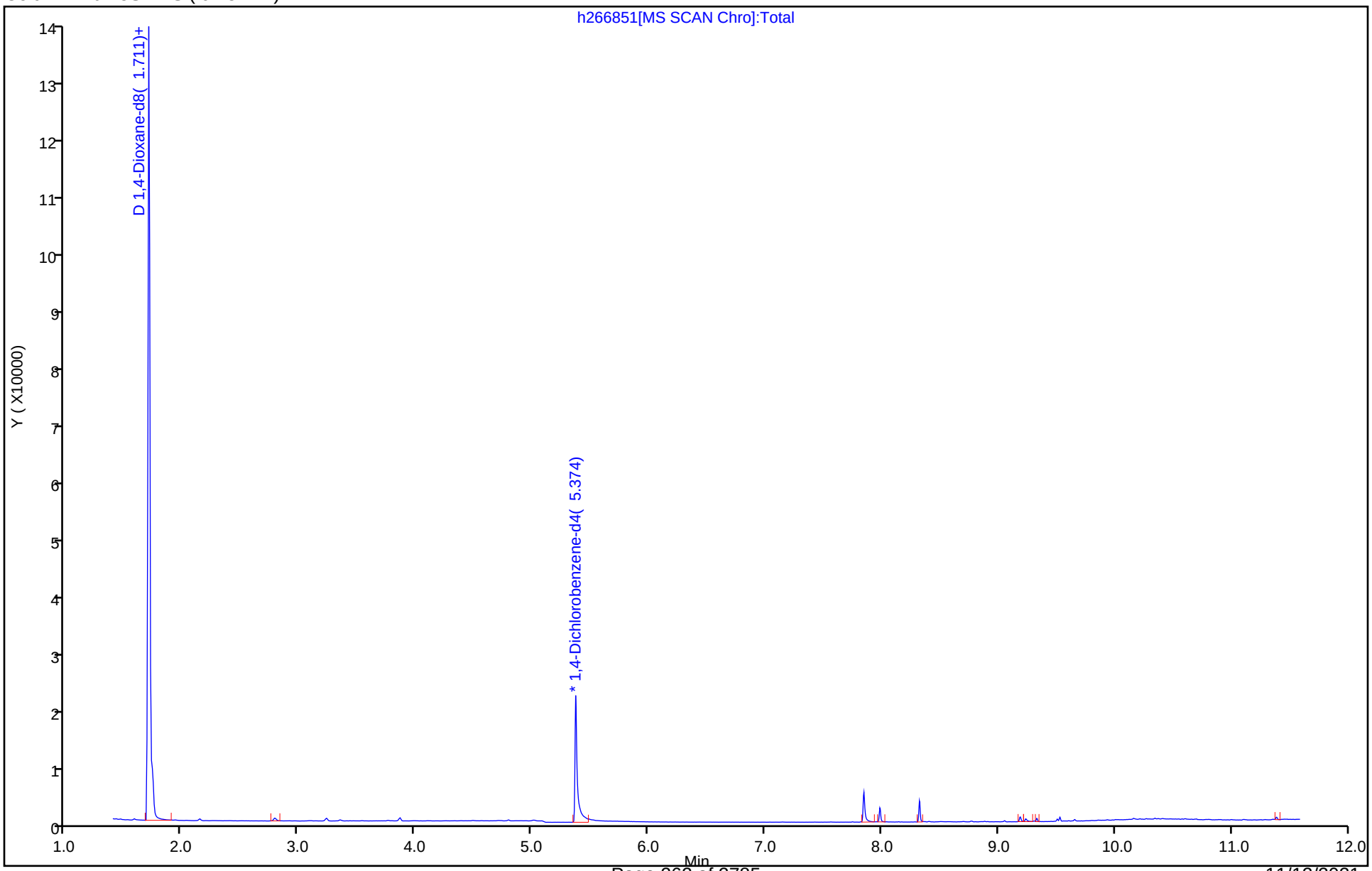
Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266851.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 16:09:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | icv | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 460-811092/2  Calibration Date: 11/03/2021 10:28

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h268796.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.293 | | 546 | 500 | 9.2 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.1943 | | 3230 | 4000 | -19.3 | 50.0 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268796.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Nov-2021 10:28:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-002
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:12:21 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:12:21

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.122 | 2.122 | 0.000 | 13 | 36481 | 4.00 | 3.23 | |
| | 2 1,4-Dioxane | 88 | 2.161 | 2.161 | 0.000 | 21 | 5895 | 0.5000 | 0.5462 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 9386 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_ISOTOPL5_00008 Amount Added: 1.00 Units: mL

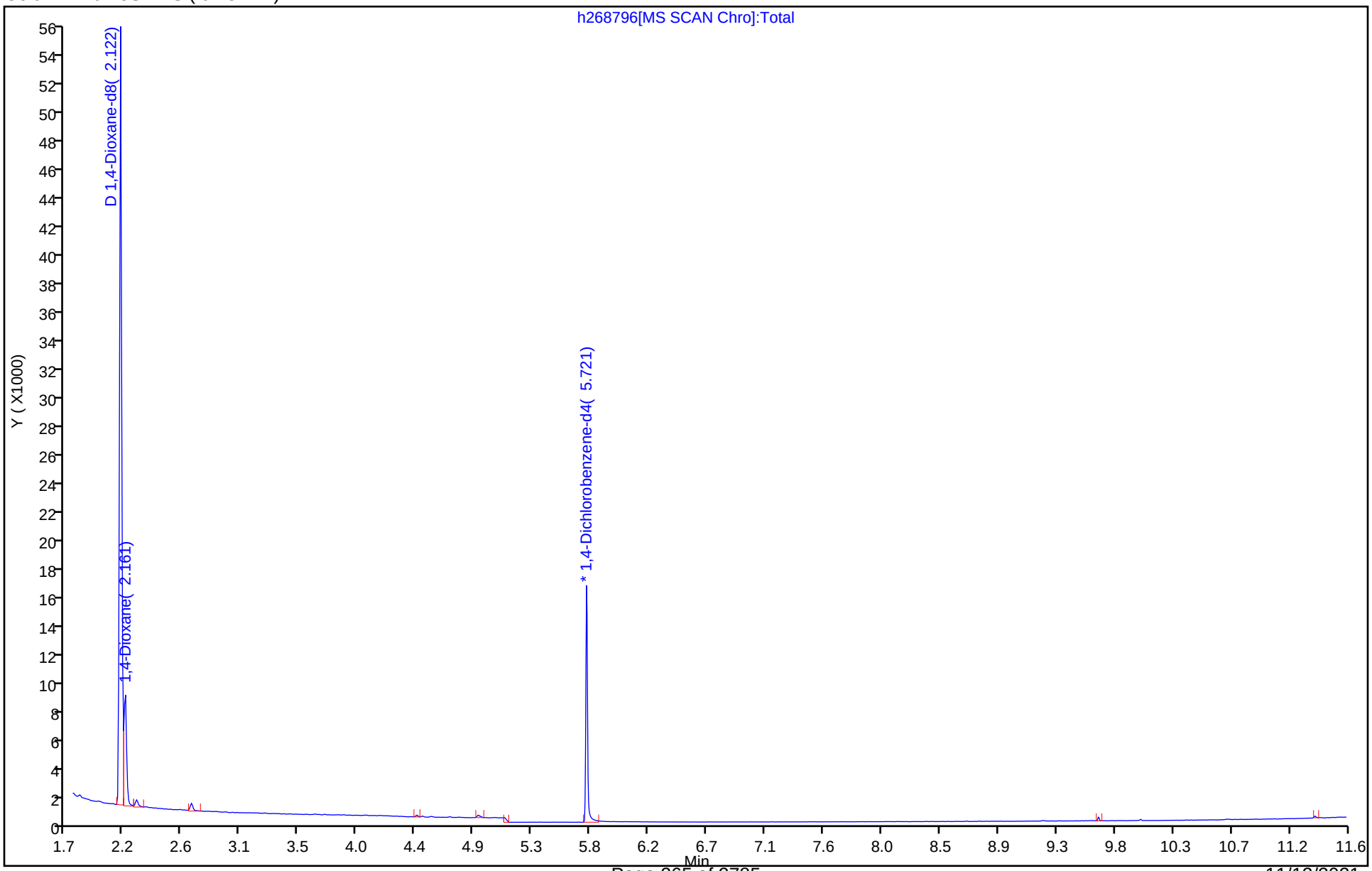
Report Date: 04-Nov-2021 10:12:21 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268796.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 10:28:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | ccvis | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 460-811217/2  Calibration Date: 11/03/2021 23:22

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h268849.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.284 | | 543 | 500 | 8.5 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.1716 | | 2850 | 4000 | -28.7 | 50.0 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268849.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Nov-2021 23:22:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-002
Operator ID: Instrument ID: CBNAMS9
Sublist: chrom-8270_Iso*sub1

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 11:26:41 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1646

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 11:26:41

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.122 | 2.122 | 0.000 | 9 | 40101 | 4.00 | 2.85 | |
| | 2 1,4-Dioxane | 88 | 2.161 | 2.161 | 0.000 | 17 | 6438 | 0.5000 | 0.5427 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11686 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_ISOTOPL5_00008 Amount Added: 1.00 Units: mL

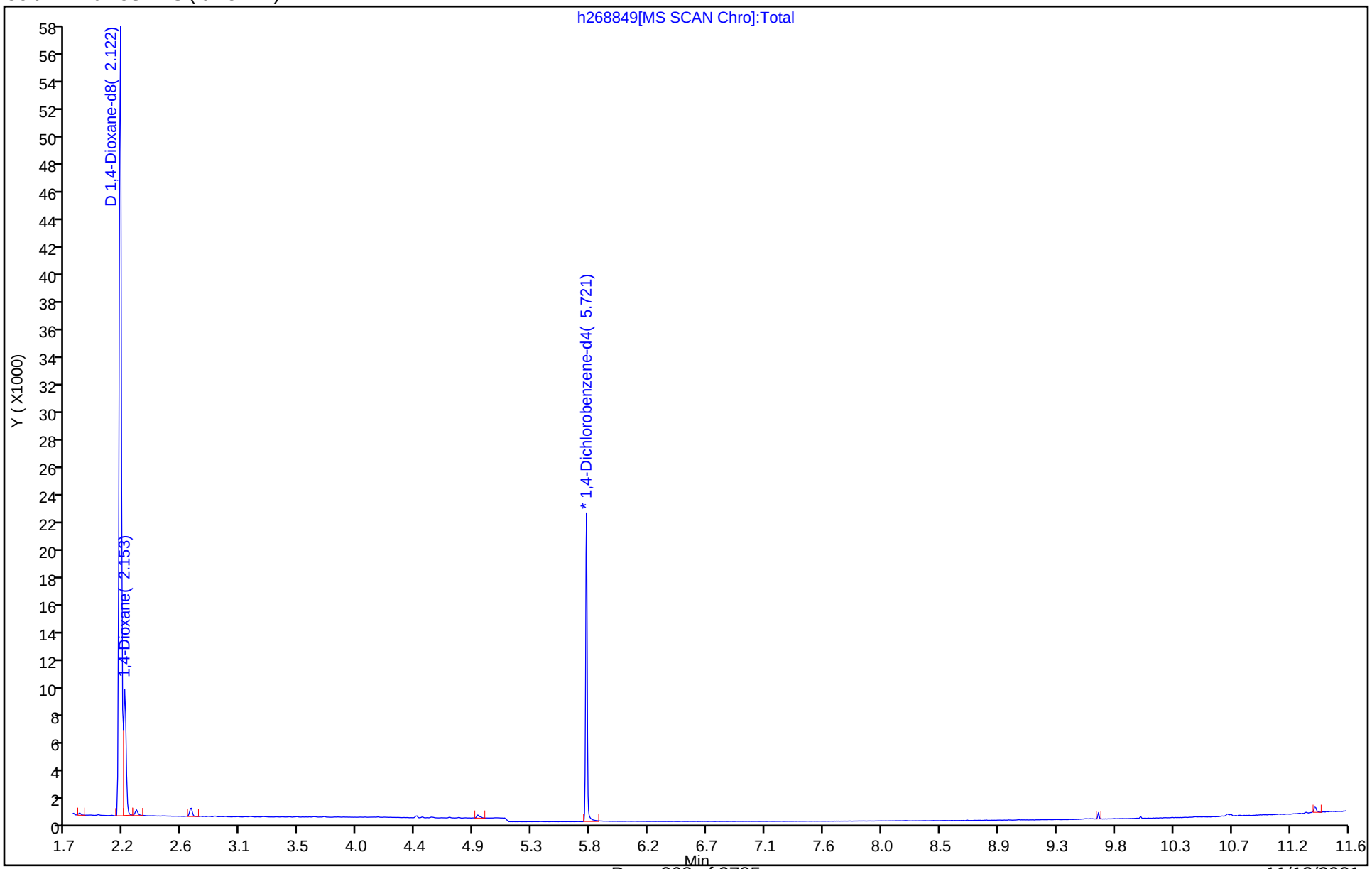
Report Date: 04-Nov-2021 11:26:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268849.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 23:22:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | ccvis | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d | | | | |
| Lims ID: | DFTPP | | | | |
| Client ID: | | | | | |
| Sample Type: | DFTPP | | | | |
| Inject. Date: | 13-Jul-2021 13:30:30 | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 460-0131740-001 | | | | |
| Operator ID: | | Instrument ID: | CBNAMS9 | | |
| Method: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\8270_Iso.m | | | | |
| Limit Group: | MSS 8270 Isotope Dilution IS | | | | |
| Last Update: | 15-Jul-2021 05:30:12 | Calib Date: | 13-Jul-2021 15:53:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Isotopic Dilution | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d | | | | |
| Column 1 : | Rtxi-5Sil MS ( 0.25 mm) | | Det: MS SCAN | | |
| Process Host: | CTX1685 | | | | |
| First Level Reviewer: nimerd | | Date: | 13-Jul-2021 17:19:31 | | |

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|

3 DFTPP

## QC Flag Legend

Processing Flags

## Reagents:

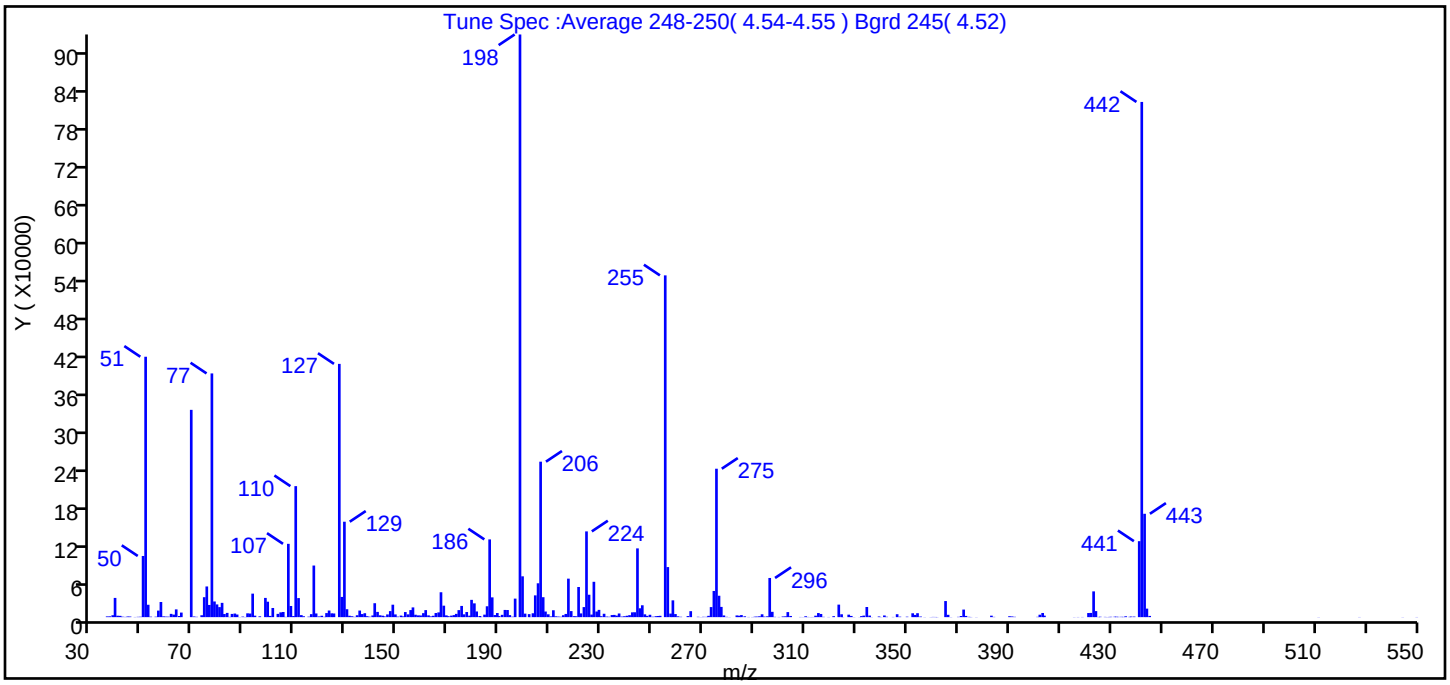
SMDFTP_CH_00032 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d
Injection Date: 13-Jul-2021 13:30:30 Instrument ID: CBNAMS9
Lims ID: DFTPP
Client ID:
Operator ID: ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270_Iso Limit Group: MSS 8270 Isotope Dilution IS
Tune Method: DFTPP Method 8270E, BP 198

3 DFTPP




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 198 | Base peak or present | 100.0 |
| 68 | <2% of m/z 69 | 0.0 (0.0) |
| 69 | Present | 35.6 |
| 70 | <2% of m/z 69 | 0.1 (0.3) |
| 197 | <2% of m/z 198 | 0.0 |
| 199 | 5-9% of m/z 198 | 7.0 |
| 365 | >1% of m/z 198 | 2.8 |
| 441 | <150% of m/z 443 | 13.0 (73.5) |
| 442 | Present | 88.4 |
| 443 | 15-24% of m/z 442 | 17.7 (20.1) |

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1173 | 131.00 | 2199 | 217.00 | 61144 | 314.00 | 2284 |
| 37.00 | 1292 | 132.00 | 1420 | 218.00 | 9604 | 315.00 | 6513 |
| 38.00 | 3018 | 133.00 | 444 | 219.00 | 1526 | 316.00 | 5030 |
| 39.00 | 30536 | 134.00 | 2985 | 220.00 | 1353 | 317.00 | 475 |
| 40.00 | 2254 | 135.00 | 10452 | 221.00 | 47872 | 319.00 | 280 |
| 41.00 | 2072 | 136.00 | 4870 | 222.00 | 5941 | 321.00 | 1550 |
| 42.00 | 749 | 137.00 | 6217 | 223.00 | 15962 | 323.00 | 19880 |
| 43.00 | 401 | 138.00 | 1494 | 224.00 | 136192 | 324.00 | 4561 |
| 44.00 | 1037 | 139.00 | 731 | 225.00 | 35584 | 325.00 | 237 |
| 45.00 | 936 | 140.00 | 2672 | 226.00 | 4066 | 327.00 | 3945 |
| 47.00 | 273 | 141.00 | 22112 | 227.00 | 56144 | 328.00 | 1920 |
| 48.00 | 500 | 142.00 | 8325 | 228.00 | 8925 | 329.00 | 212 |
| 49.00 | 669 | 143.00 | 2946 | 229.00 | 11545 | 331.00 | 185 |
| 50.00 | 97128 | 144.00 | 2283 | 230.00 | 1474 | 332.00 | 1664 |
| 51.00 | 413568 | 145.00 | 1268 | 231.00 | 5355 | 333.00 | 2430 |
| 52.00 | 19664 | 146.00 | 4309 | 232.00 | 855 | 334.00 | 16105 |
| 53.00 | 772 | 147.00 | 9563 | 233.00 | 628 | 335.00 | 2486 |
| 55.00 | 722 | 148.00 | 19768 | 234.00 | 3312 | 336.00 | 202 |
| 56.00 | 10379 | 149.00 | 4316 | 235.00 | 3548 | 339.00 | 1051 |
| 57.00 | 24040 | 150.00 | 851 | 236.00 | 2442 | 340.00 | 197 |
| 58.00 | 1221 | 151.00 | 2462 | 237.00 | 5802 | 341.00 | 2657 |
| 59.00 | 882 | 152.00 | 1143 | 238.00 | 919 | 342.00 | 593 |
| 60.00 | 781 | 153.00 | 8092 | 239.00 | 1450 | 344.00 | 317 |
| 61.00 | 5209 | 154.00 | 4402 | 240.00 | 2218 | 346.00 | 4638 |
| 62.00 | 4013 | 155.00 | 11219 | 241.00 | 3124 | 347.00 | 755 |
| 63.00 | 12335 | 156.00 | 15470 | 242.00 | 7609 | 350.00 | 732 |
| 64.00 | 1814 | 157.00 | 3806 | 243.00 | 7741 | 352.00 | 6138 |
| 65.00 | 7259 | 158.00 | 2809 | 244.00 | 109200 | 353.00 | 3537 |
| 67.00 | 25 | 159.00 | 2649 | 245.00 | 14080 | 354.00 | 6258 |
| 69.00 | 329216 | 160.00 | 6344 | 246.00 | 18848 | 355.00 | 981 |
| 70.00 | 1024 | 161.00 | 11166 | 247.00 | 4479 | 357.00 | 193 |
| 71.00 | 522 | 162.00 | 2827 | 248.00 | 2042 | 359.00 | 212 |
| 73.00 | 2996 | 163.00 | 1219 | 249.00 | 3791 | 360.00 | 358 |

Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40
Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 74.00 | 31672 | 164.00 | 2196 | 250.00 | 690 | 361.00 | 303 |
| 75.00 | 48728 | 165.00 | 6561 | 251.00 | 1476 | 362.00 | 233 |
| 76.00 | 19360 | 166.00 | 7546 | 252.00 | 1830 | 365.00 | 25544 |
| 77.00 | 387072 | 167.00 | 39528 | 253.00 | 2105 | 366.00 | 3717 |
| 78.00 | 24888 | 168.00 | 18208 | 255.00 | 542784 | 367.00 | 220 |
| 79.00 | 20200 | 169.00 | 2809 | 256.00 | 79504 | 370.00 | 463 |
| 80.00 | 15930 | 170.00 | 1558 | 257.00 | 5629 | 371.00 | 1808 |
| 81.00 | 22688 | 171.00 | 2405 | 258.00 | 26688 | 372.00 | 12032 |
| 82.00 | 4942 | 172.00 | 3236 | 259.00 | 4894 | 373.00 | 1935 |
| 83.00 | 6758 | 173.00 | 5184 | 260.00 | 1314 | 374.00 | 482 |
| 84.00 | 428 | 174.00 | 11142 | 261.00 | 583 | 375.00 | 259 |
| 85.00 | 5125 | 175.00 | 17808 | 264.00 | 1710 | 377.00 | 195 |
| 86.00 | 5695 | 176.00 | 4477 | 265.00 | 9486 | 383.00 | 2329 |
| 87.00 | 4143 | 177.00 | 8133 | 268.00 | 583 | 384.00 | 407 |
| 88.00 | 196 | 178.00 | 2312 | 269.00 | 211 | 390.00 | 1473 |
| 89.00 | 868 | 179.00 | 27456 | 270.00 | 547 | 391.00 | 1102 |
| 90.00 | 289 | 180.00 | 21888 | 271.00 | 499 | 392.00 | 545 |
| 91.00 | 6057 | 181.00 | 9014 | 272.00 | 2071 | 401.00 | 484 |
| 92.00 | 5725 | 182.00 | 1768 | 273.00 | 15974 | 402.00 | 3855 |
| 93.00 | 37328 | 183.00 | 747 | 274.00 | 41584 | 403.00 | 6596 |
| 94.00 | 2337 | 184.00 | 3966 | 275.00 | 235712 | 404.00 | 2378 |
| 96.00 | 1302 | 185.00 | 17272 | 276.00 | 33984 | 416.00 | 207 |
| 98.00 | 30536 | 186.00 | 123464 | 277.00 | 16260 | 417.00 | 258 |
| 99.00 | 24496 | 187.00 | 31416 | 278.00 | 2666 | 419.00 | 275 |
| 100.00 | 1973 | 188.00 | 3337 | 279.00 | 515 | 421.00 | 6525 |
| 101.00 | 14544 | 189.00 | 6556 | 280.00 | 220 | 422.00 | 6695 |
| 103.00 | 5192 | 190.00 | 1729 | 283.00 | 2699 | 423.00 | 40928 |
| 104.00 | 7604 | 191.00 | 3659 | 284.00 | 2273 | 424.00 | 9595 |
| 105.00 | 8184 | 192.00 | 11444 | 285.00 | 3288 | 425.00 | 335 |
| 106.00 | 456 | 193.00 | 11313 | 286.00 | 1324 | 426.00 | 645 |
| 107.00 | 116440 | 194.00 | 3202 | 288.00 | 305 | 428.00 | 402 |
| 108.00 | 17720 | 195.00 | 690 | 289.00 | 259 | 428.00 | 190 |
| 109.00 | 1698 | 196.00 | 29424 | 290.00 | 731 | 429.00 | 367 |
| 110.00 | 208064 | 198.00 | 925376 | 291.00 | 860 | 430.00 | 541 |

Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40
Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d\8270_Iso.rslt\spectra.d
Injection Date: 13-Jul-2021 13:30:30
Spectrum: Tune Spec :Average 248-250( 4.54-4.55 ) Bgrd 245( 4.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 340

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 111.00 | 30280 | 199.00 | 64832 | 292.00 | 1371 | 431.00 | 713 |
| 112.00 | 3189 | 200.00 | 5576 | 293.00 | 4533 | 432.00 | 667 |
| 113.00 | 1402 | 202.00 | 4787 | 294.00 | 874 | 433.00 | 494 |
| 115.00 | 755 | 202.00 | 129 | 295.00 | 1314 | 434.00 | 548 |
| 116.00 | 4745 | 203.00 | 6161 | 296.00 | 62216 | 435.00 | 425 |
| 117.00 | 81960 | 204.00 | 34576 | 297.00 | 8449 | 436.00 | 1373 |
| 118.00 | 5843 | 205.00 | 53776 | 298.00 | 480 | 437.00 | 453 |
| 119.00 | 1126 | 206.00 | 246912 | 300.00 | 309 | 438.00 | 941 |
| 120.00 | 2177 | 207.00 | 31672 | 301.00 | 1082 | 439.00 | 898 |
| 121.00 | 525 | 208.00 | 8905 | 302.00 | 1334 | 441.00 | 120648 |
| 122.00 | 6457 | 209.00 | 4506 | 303.00 | 8019 | 442.00 | 818240 |
| 123.00 | 10505 | 210.00 | 1193 | 304.00 | 1883 | 443.00 | 164160 |
| 124.00 | 6046 | 211.00 | 10931 | 308.00 | 291 | 444.00 | 13512 |
| 125.00 | 5820 | 212.00 | 1251 | 309.00 | 192 | 445.00 | 1953 |
| 127.00 | 402240 | 213.00 | 911 | 310.00 | 1392 | 511.00 | 206 |
| 128.00 | 32104 | 214.00 | 587 | 311.00 | 355 | 527.00 | 251 |
| 129.00 | 151552 | 215.00 | 3053 | 312.00 | 221 | 544.00 | 186 |
| 130.00 | 12587 | 216.00 | 5089 | 313.00 | 273 | 550.00 | 242 |

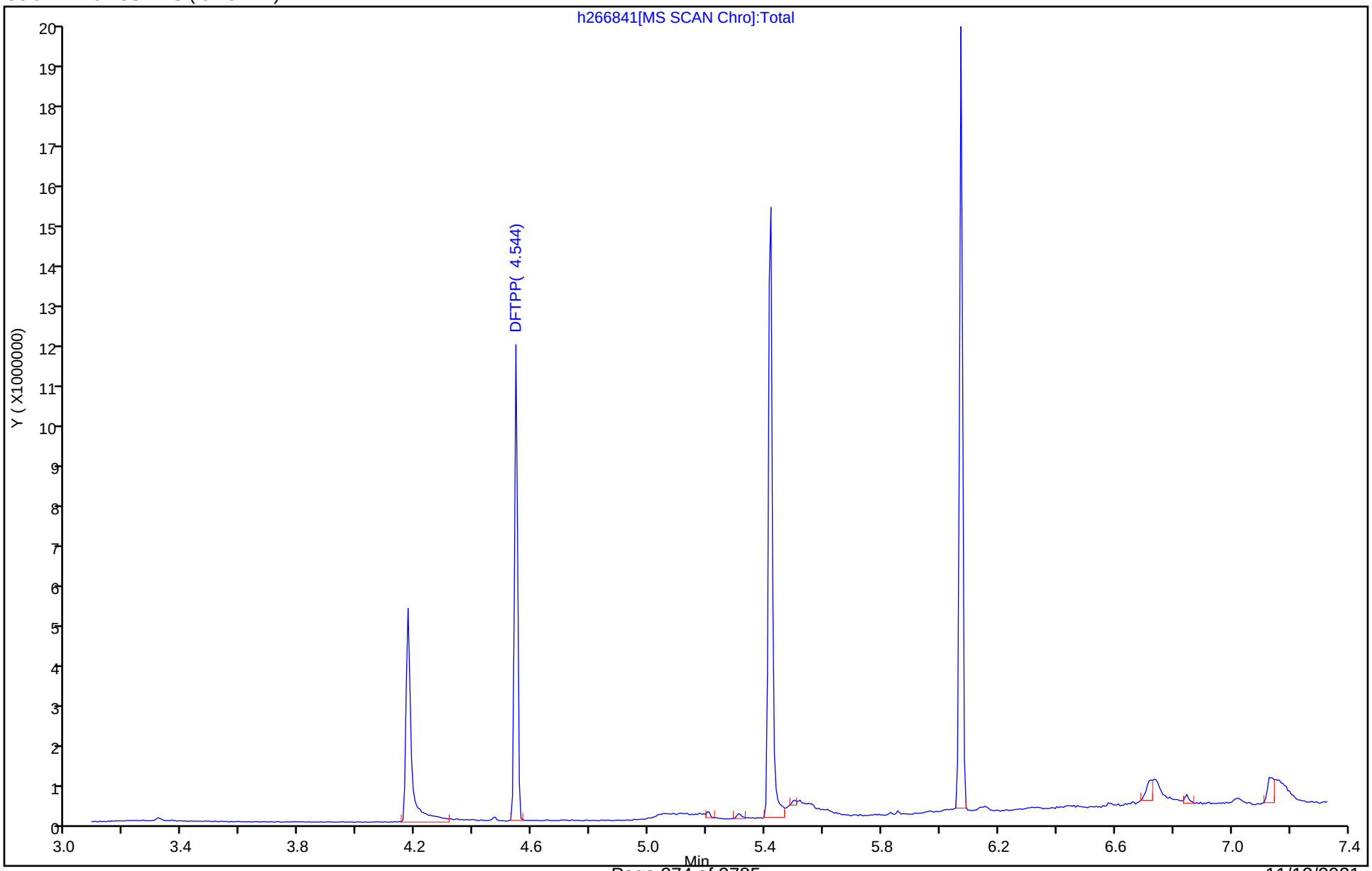
Report Date: 15-Jul-2021 05:30:12 Chrom Revision: 2.3 13-May-2021 07:57:40

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266841.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 13-Jul-2021 13:30:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | DFTPP | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 460-811052/1-A

Matrix: Water  Lab File ID: h268815a.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 15:36

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 26 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268815a.d
Lims ID: MB 460-811052/1-A
Client ID:
Sample Type: MB
Inject. Date: 03-Nov-2021 15:36:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-021
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:14:35 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:15:41

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| D 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 10 | 12101 | 4.00 | 1.05 | |
| * 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 9594 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

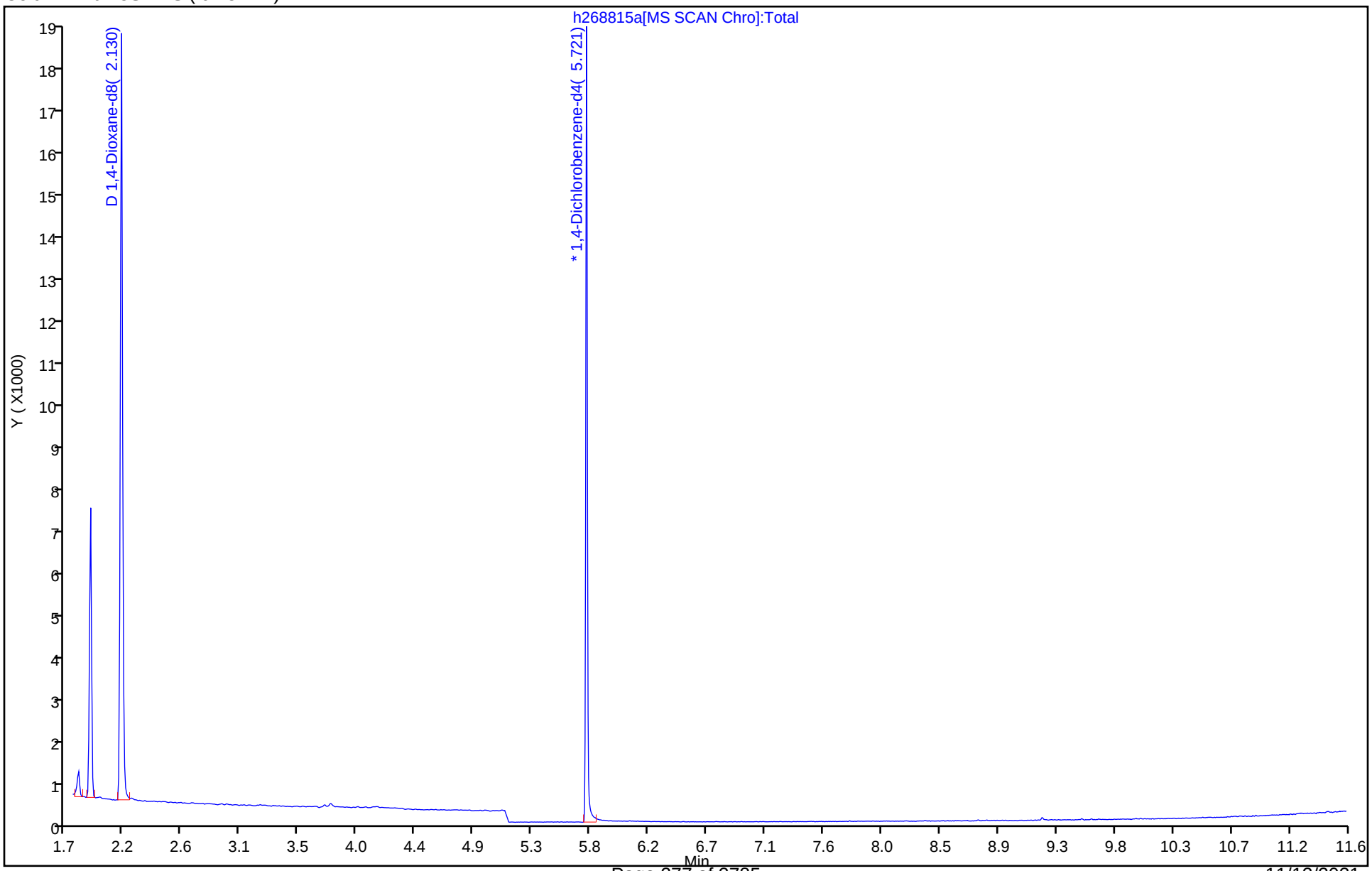
Report Date: 04-Nov-2021 10:15:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268815a.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 15:36:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | MB 460-811052/1-A | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

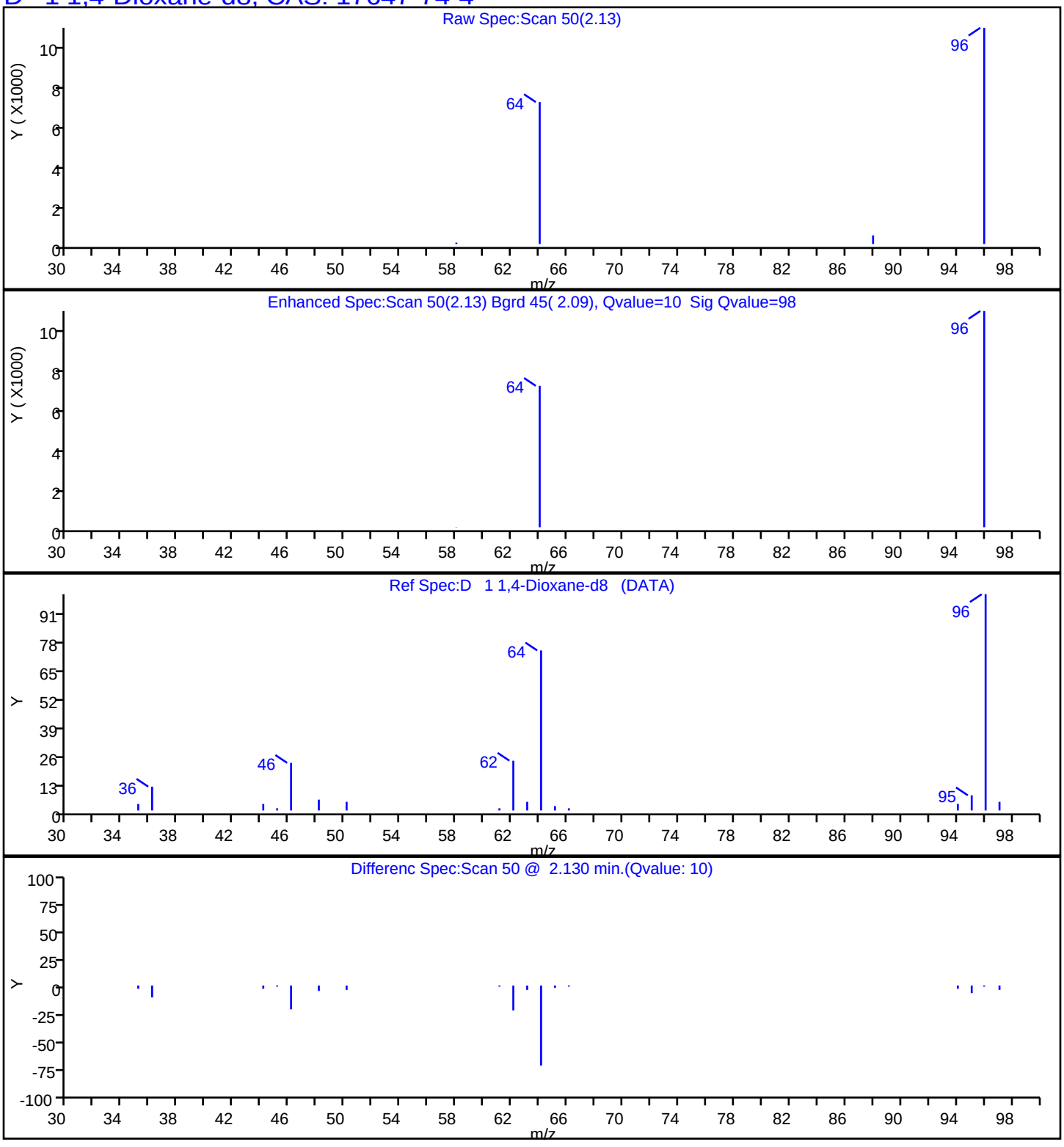
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268815a.d | | | | |
| Injection Date: | 03-Nov-2021 15:36:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | MB 460-811052/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 460-811103/1-A

Matrix: Water  Lab File ID: h268850.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 23:37

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 33 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268850.d
Lims ID: MB 460-811103/1-A
Client ID:
Sample Type: MB
Inject. Date: 03-Nov-2021 23:37:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-003
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 11:26:41 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1646

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 11:26:57

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| D 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 12 | 18356 | 4.00 | 1.32 | |
| * 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 11526 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

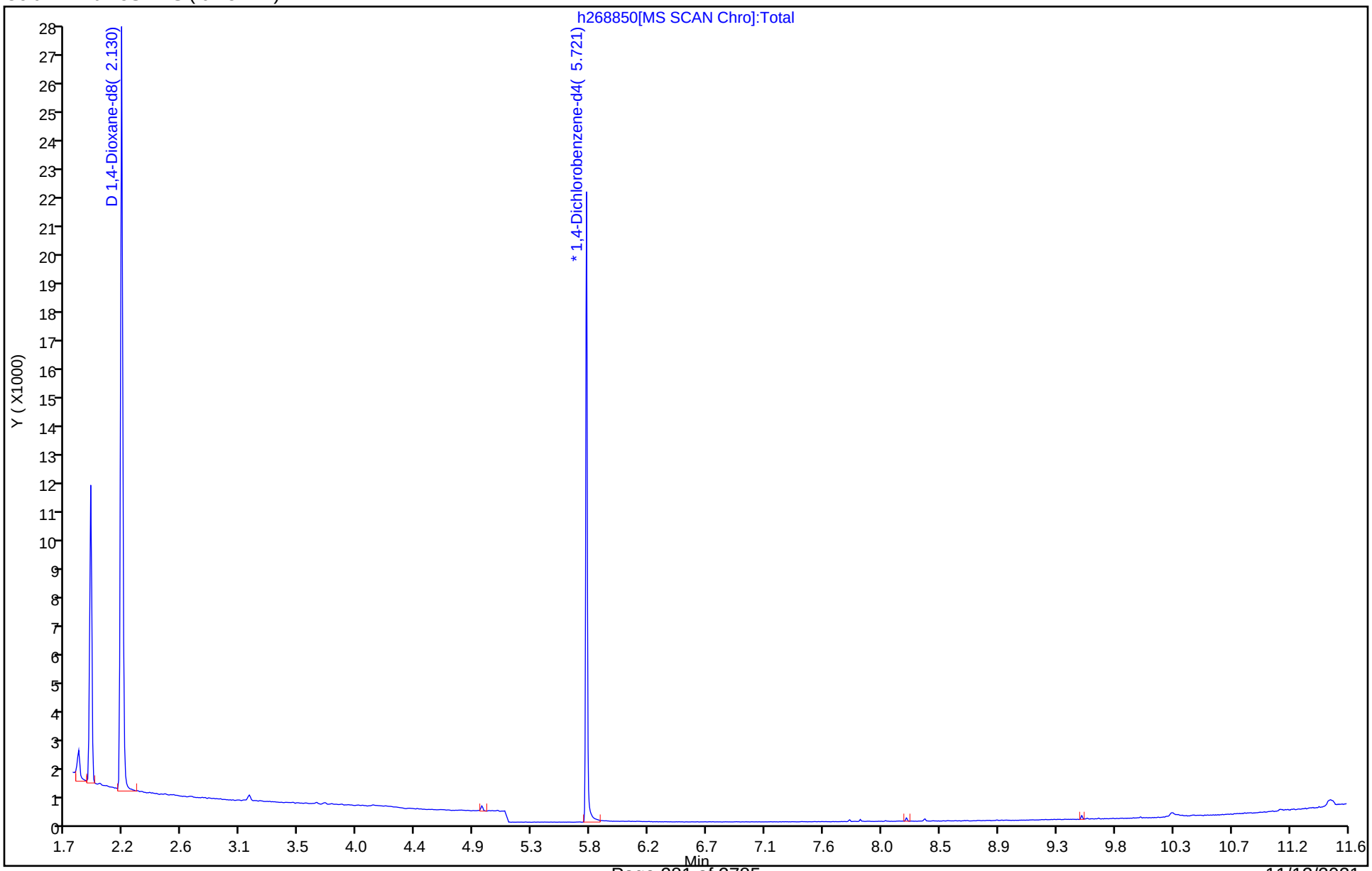
Report Date: 04-Nov-2021 11:26:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268850.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 23:37:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | MB 460-811103/1-A | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

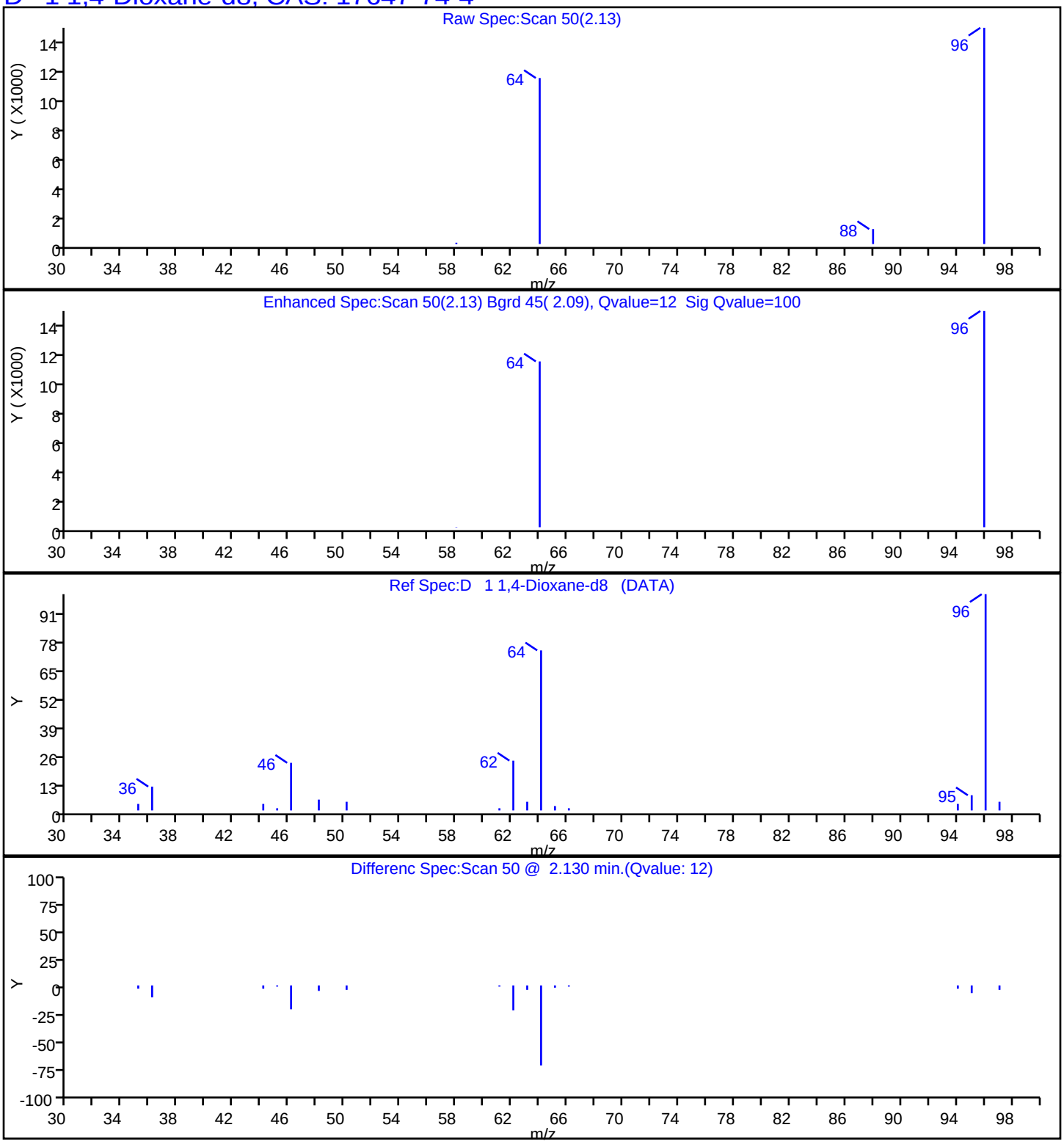
Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268850.d | | | | |
| Injection Date: | 03-Nov-2021 23:37:30 | Instrument ID: | CBNAMS9 | | |
| Lims ID: | MB 460-811103/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN | | |

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 460-811052/2-A

Matrix: Water  Lab File ID: h268816.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 15:52

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.66 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 22 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268816.d
Lims ID: LCS 460-811052/2-A
Client ID:
Sample Type: LCS
Inject. Date: 03-Nov-2021 15:52:30 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-022
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:14:35 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:00

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 12 | 10102 | 4.00 | 0.8710 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 18 | 620 | 0.2000 | 0.2075 | M |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 9637 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

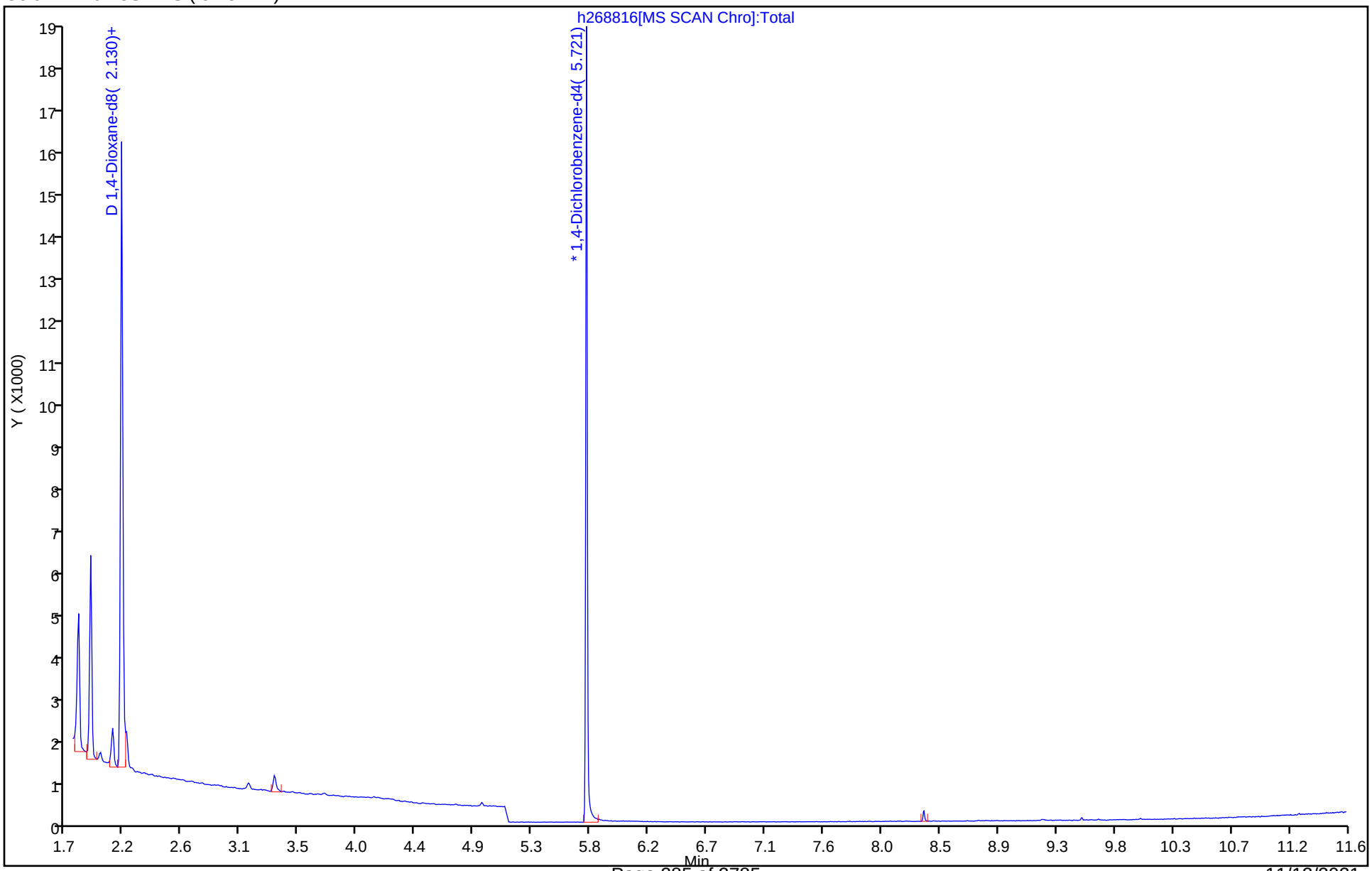
Report Date: 04-Nov-2021 10:16:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268816.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 15:52:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCS 460-811052/2-A | | | Worklist Smp#: | 22 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



Eurofins TestAmerica, Edison

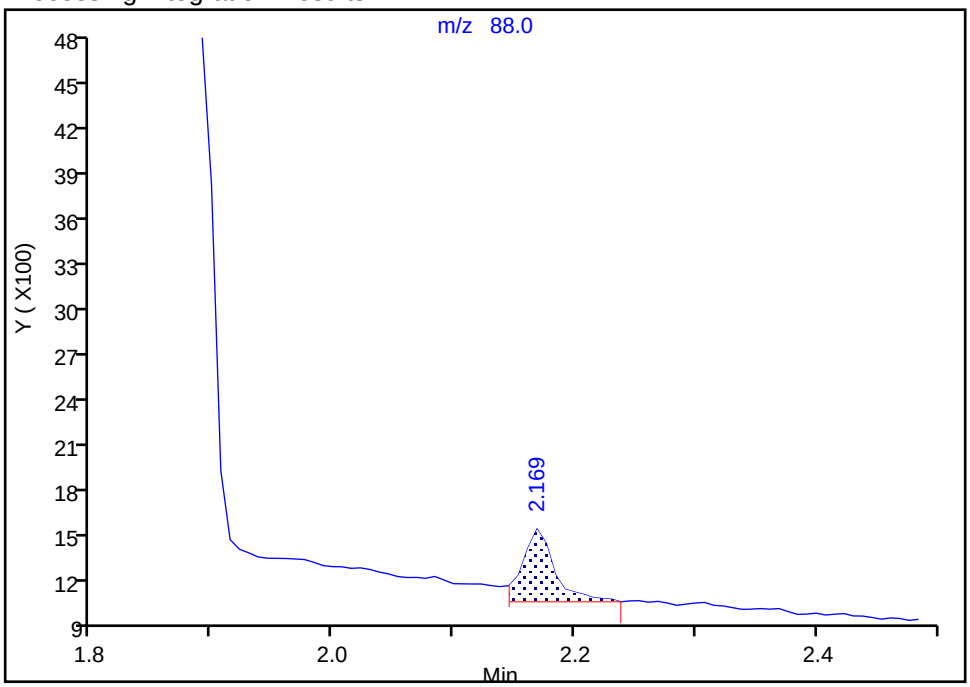
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268816.d | | |
| Injection Date: | 03-Nov-2021 15:52:30 | Instrument ID: | CBNAMS9 |
| Lims ID: | LCS 460-811052/2-A | | |
| Client ID: | | | |
| Operator ID: | | ALS Bottle#: | 22 Worklist Smp#: 22 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS |
| Column: | Rtxi-5Sil MS ( 0.25 mm) | Detector | MS SCAN |

## 2 1,4-Dioxane, CAS: 123-91-1

Signal: 1

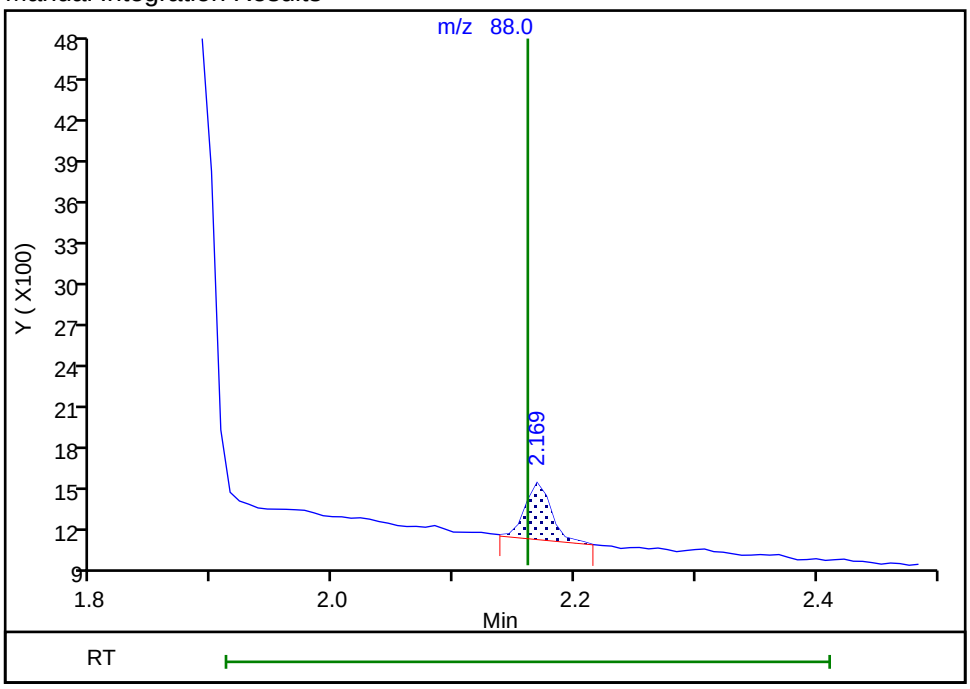
Processing Integration Results

RT: 2.17
Area: 884
Amount: 0.295788
Amount Units: ug/ml




Manual Integration Results

RT: 2.17
Area: 620
Amount: 0.207453
Amount Units: ug/ml




Reviewer: nimerd, 03-Nov-2021 16:30:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 460-811103/2-A

Matrix: Water  Lab File ID: h268851.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 23:53

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.35 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 29 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268851.d
Lims ID: LCS 460-811103/2-A
Client ID:
Sample Type: LCS
Inject. Date: 03-Nov-2021 23:53:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-004
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 11:27:13 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1646

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 11:27:21

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 13 | 15267 | 4.00 | 1.18 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 22 | 762 | 0.2000 | 0.1687 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 10781 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

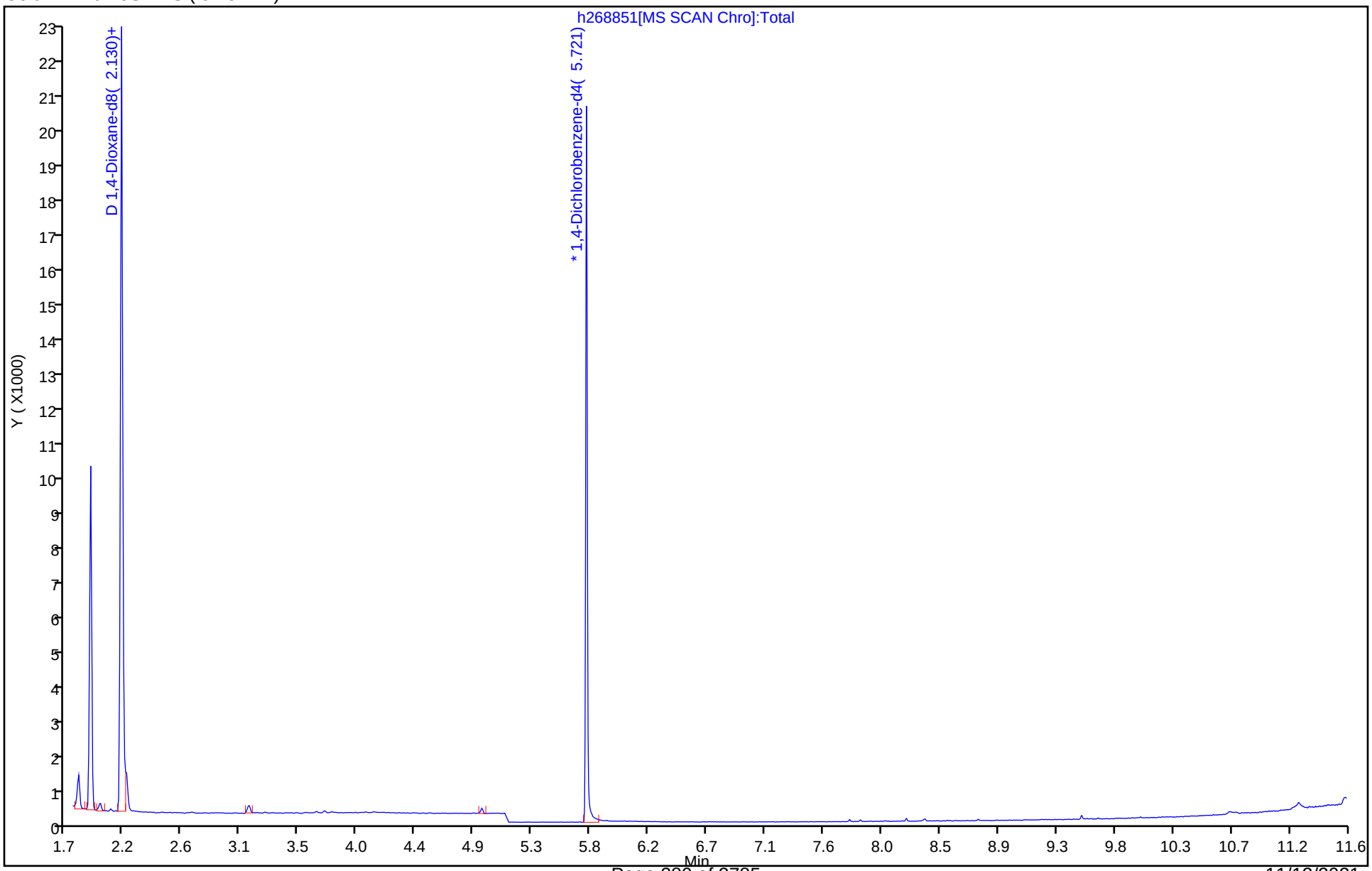
Report Date: 04-Nov-2021 11:27:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268851.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 23:53:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCS 460-811103/2-A | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 460-811052/3-A

Matrix: Water  Lab File ID: h268817.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 16:08

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.63 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 23 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268817.d
Lims ID: LCSD 460-811052/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 03-Nov-2021 16:08:30 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-023
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:12

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 11 | 10054 | 4.00 | 0.9096 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 20 | 607 | 0.2000 | 0.2041 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 9184 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

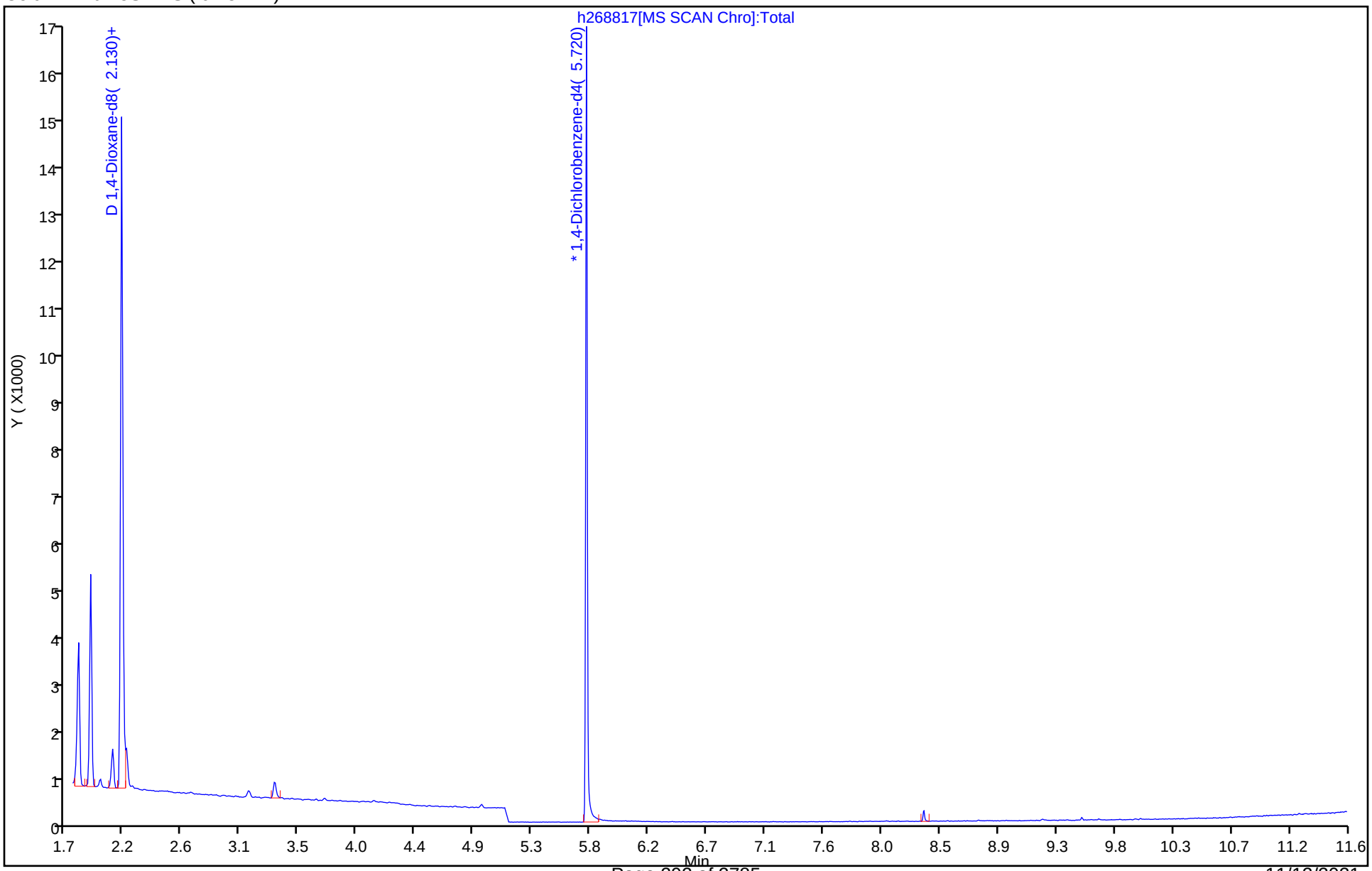
Report Date: 04-Nov-2021 10:16:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268817.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 16:08:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCSD 460-811052/3-A | | | Worklist Smp#: | 23 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 460-811103/3-A

Matrix: Water  Lab File ID: h268852.d

Analysis Method: 8270E SIM ID  Date Collected:

Extract. Method: 3510C  Date Extracted: 11/03/2021 10:58

Sample wt/vol: 250(mL)  Date Analyzed: 11/04/2021 00:09

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811217  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 1.20 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 33 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268852.d
Lims ID: LCSD 460-811103/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 04-Nov-2021 00:09:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137070-005
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 11:27:33 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1646

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 11:27:33

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 10 | 18383 | 4.00 | 1.33 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 21 | 817 | 0.2000 | 0.1502 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 11447 | 0.2000 | 0.2000 | |

## QC Flag Legend
Processing Flags

## Reagents:
SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

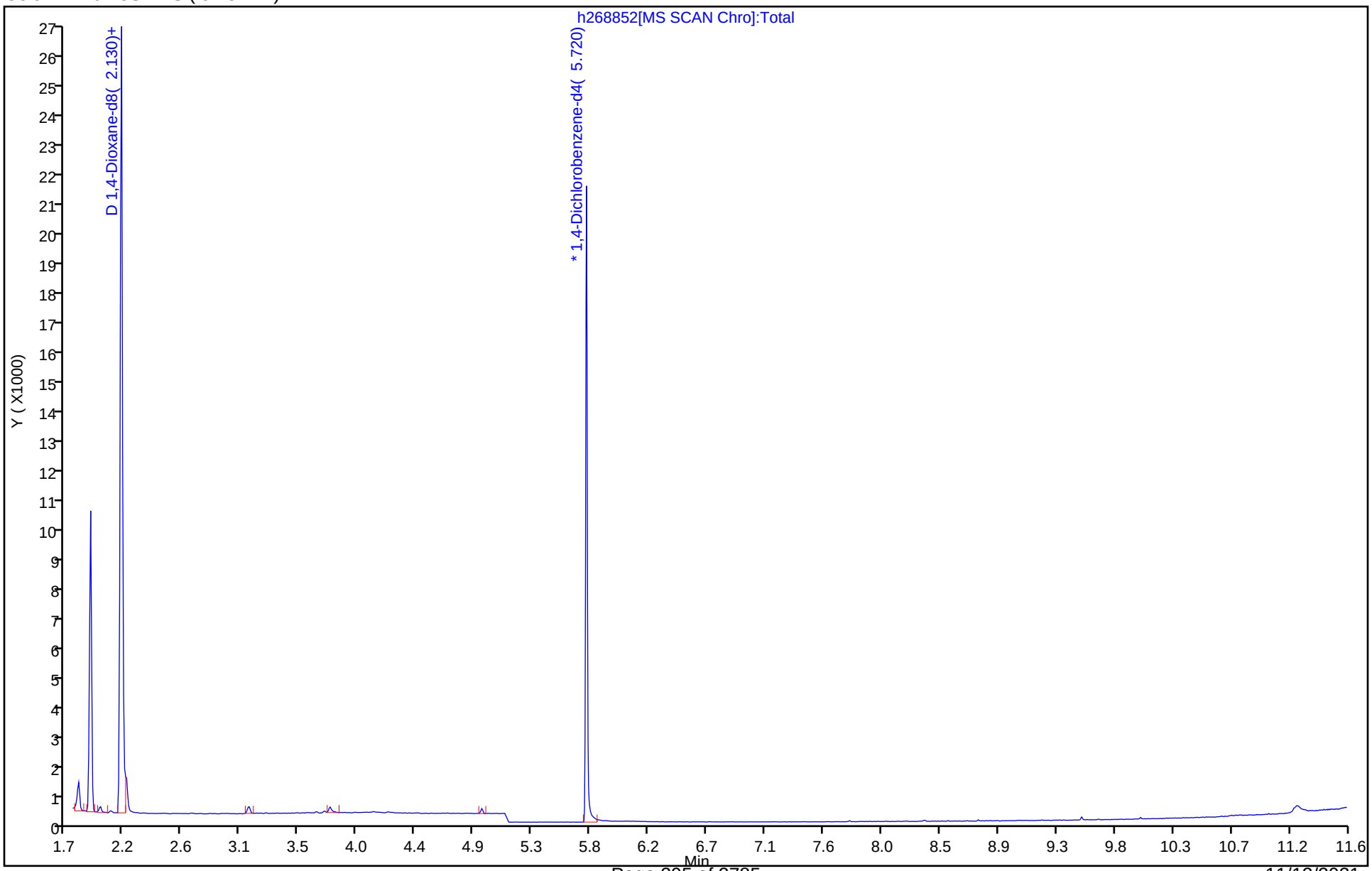
Report Date: 04-Nov-2021 11:27:33 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137070.b\h268852.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2021 00:09:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | LCSD 460-811103/3-A | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MS  Lab Sample ID: 460-246277-8 MS

Matrix: Water  Lab File ID: h268819.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 14:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 16:40

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 2.81 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 26 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268819.d
Lims ID: 460-246277-B-8-A MS
Client ID: MW-24S-20211027
Sample Type: MS
Inject. Date: 03-Nov-2021 16:40:30 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-025
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:35

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 7 | 18000 | 4.00 | 1.04 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 19 | 1870 | 0.2000 | 0.3512 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 14401 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

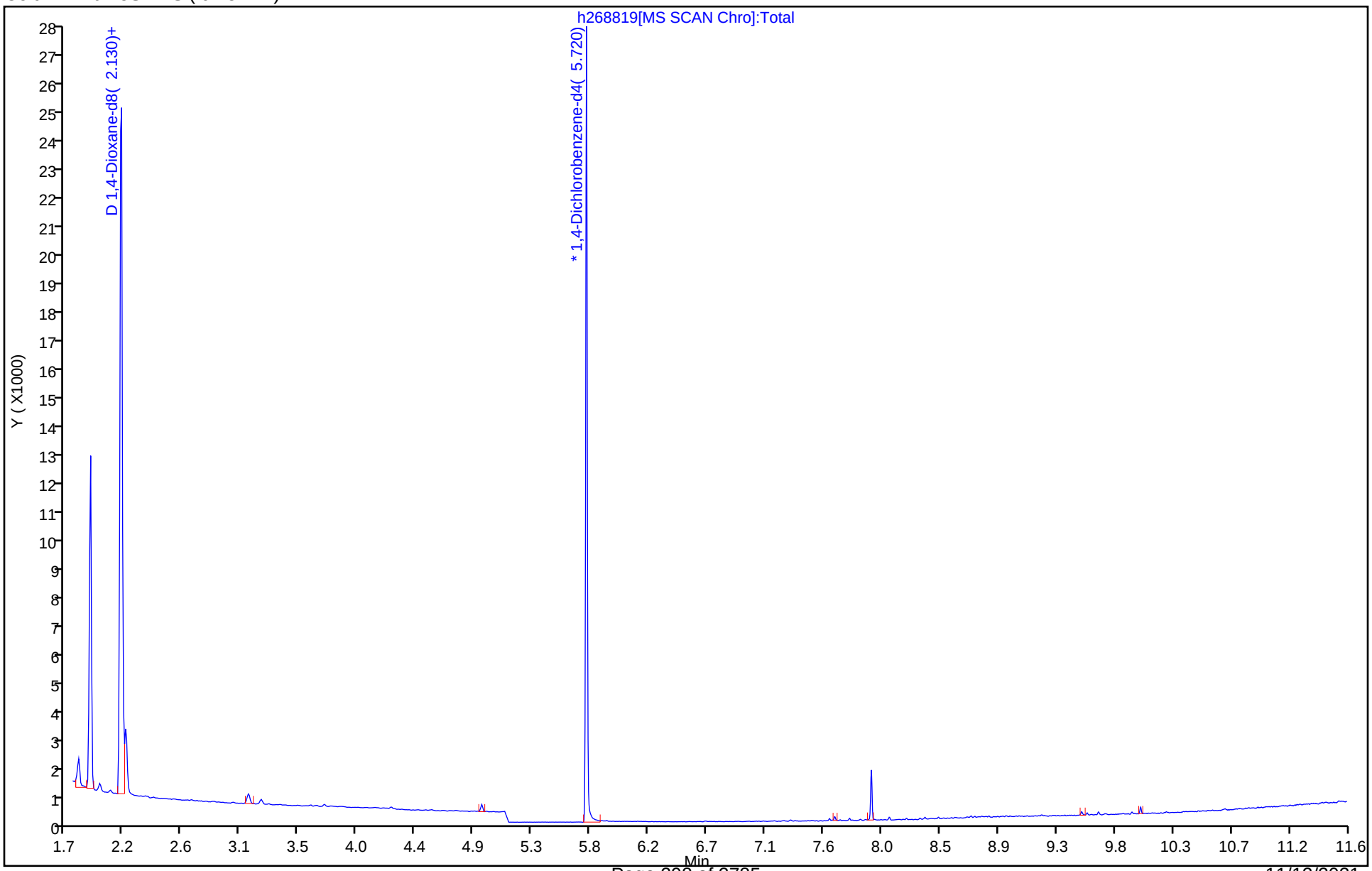
Report Date: 04-Nov-2021 10:16:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268819.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 16:40:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-8-A MS | | | Worklist Smp#: | 25 |
| Client ID: | MW-24S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MS  Lab Sample ID: 460-246277-18 MS

Matrix: Water  Lab File ID: h268822.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 10:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 17:27

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 2.21 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 32 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268822.d
Lims ID: 460-246277-A-18-A MS
Client ID: MW-26S-20211028
Sample Type: MS
Inject. Date: 03-Nov-2021 17:27:30 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-028
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:17:10

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 10 | 20751 | 4.00 | 1.27 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 21 | 1698 | 0.2000 | 0.2766 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 13621 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

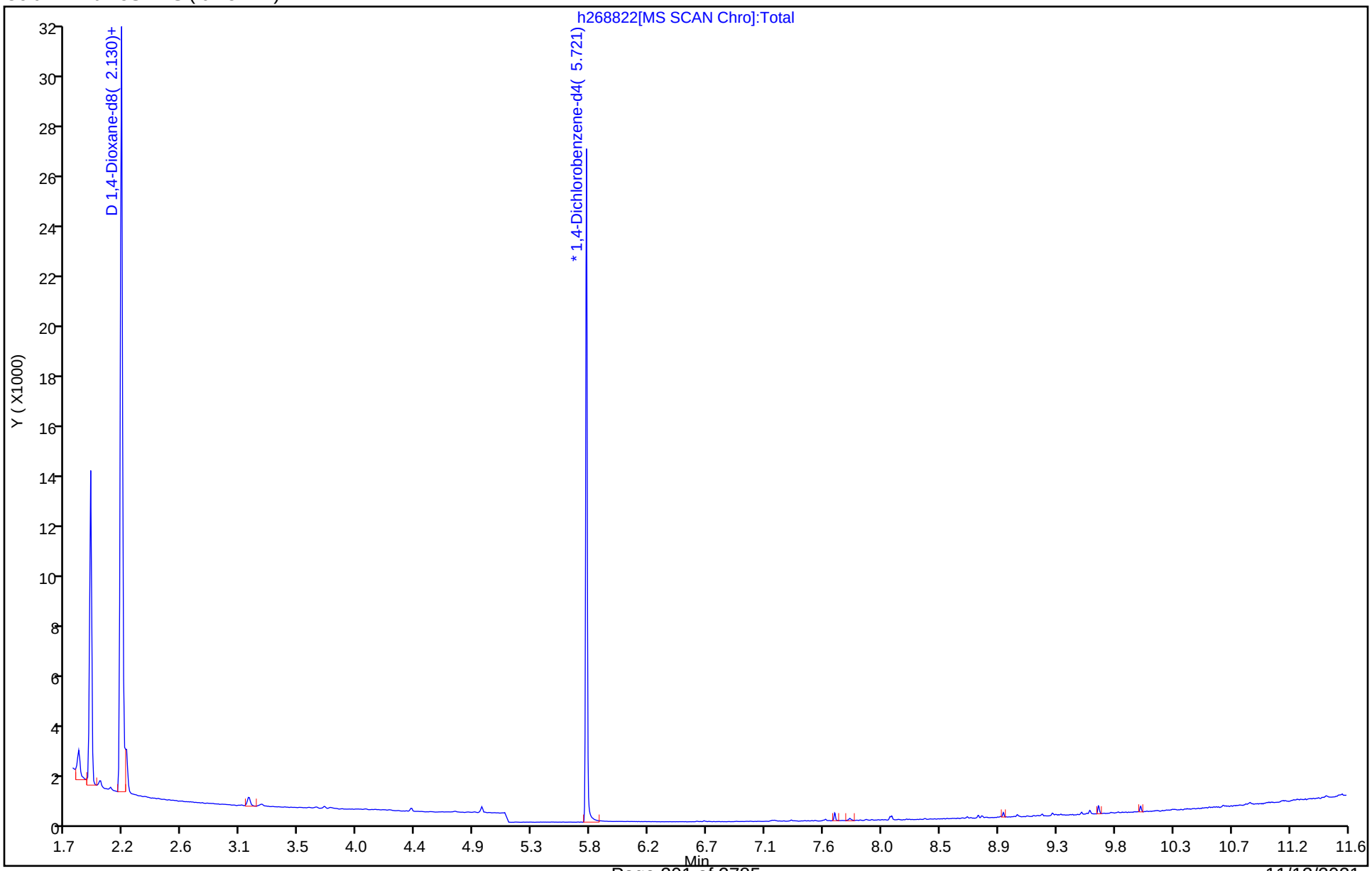
Report Date: 04-Nov-2021 10:17:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268822.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 17:27:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-18-A MS | | | Worklist Smp#: | 28 |
| Client ID: | MW-26S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MSD  Lab Sample ID: 460-246277-8 MSD

Matrix: Water  Lab File ID: h268820.d

Analysis Method: 8270E SIM ID  Date Collected: 10/27/2021 14:00

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 16:56

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 2.20 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 32 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268820.d
Lims ID: 460-246277-B-8-B MSD
Client ID: MW-24S-20211027
Sample Type: MSD
Inject. Date: 03-Nov-2021 16:56:30 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-026
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:16:46

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 9 | 22555 | 4.00 | 1.29 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 19 | 1837 | 0.2000 | 0.2753 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.721 | 5.721 | 0.000 | 1 | 14505 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

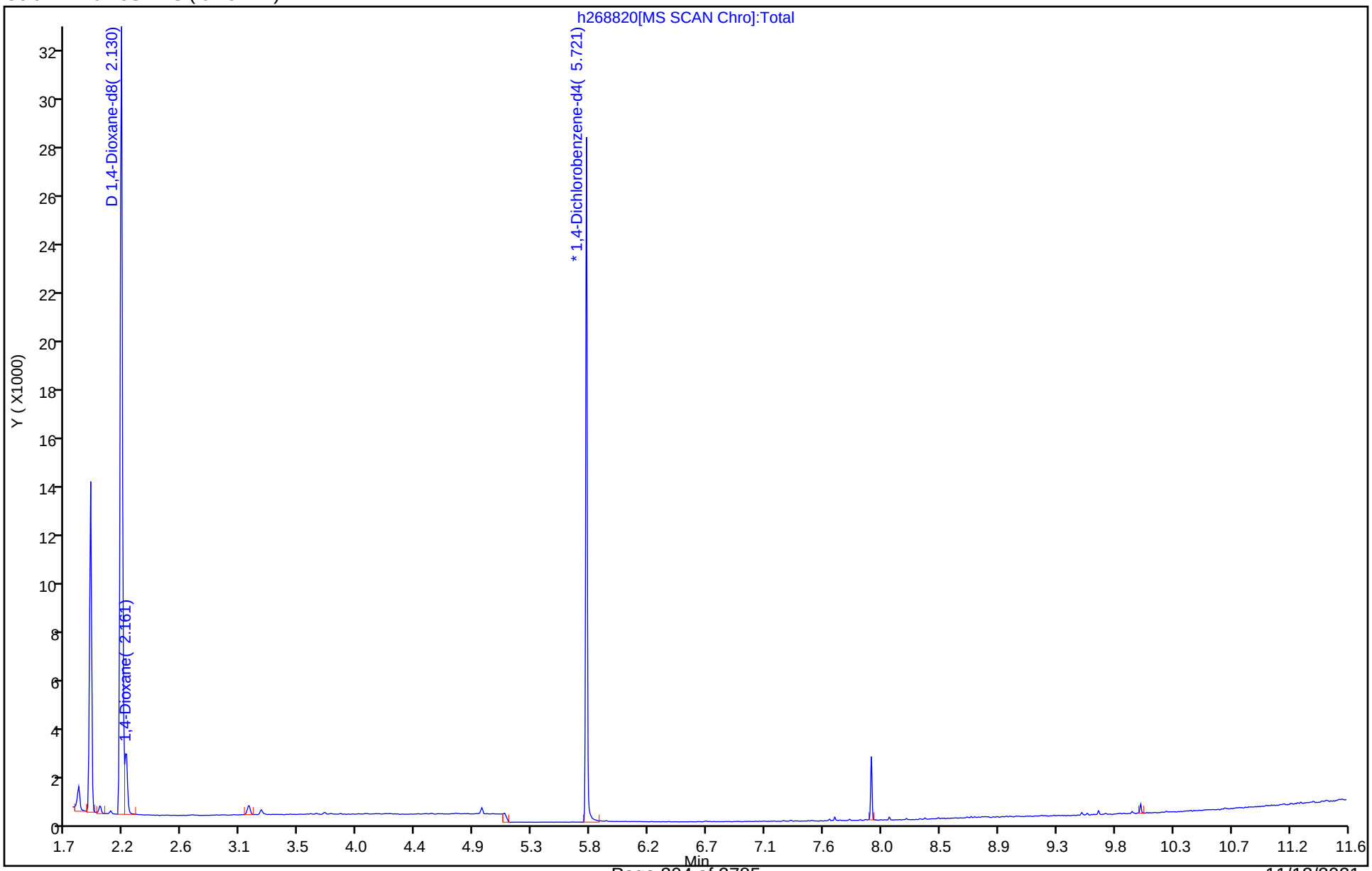
Report Date: 04-Nov-2021 10:16:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268820.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 16:56:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-B-8-B MSD | | | Worklist Smp#: | 26 |
| Client ID: | MW-24S-20211027 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MSD  Lab Sample ID: 460-246277-18 MSD

Matrix: Water  Lab File ID: h268823.d

Analysis Method: 8270E SIM ID  Date Collected: 10/28/2021 10:55

Extract. Method: 3510C  Date Extracted: 11/03/2021 07:59

Sample wt/vol: 250(mL)  Date Analyzed: 11/03/2021 17:43

Con. Extract Vol.: 2(mL)  Dilution Factor: 1

Injection Volume: 5(uL)  Level: (low/med) Low

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

Analysis Batch No.: 811092  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 123-91-1 | 1,4-Dioxane | 2.00 | | 0.20 | 0.016 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17647-74-4 | 1,4-Dioxane-d8 | 32 | | 10-150 |

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268823.d
Lims ID: 460-246277-A-18-B MSD
Client ID: MW-26S-20211028
Sample Type: MSD
Inject. Date: 03-Nov-2021 17:43:30 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0137049-029
Operator ID: Instrument ID: CBNAMS9

Method: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\8270_Iso.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 04-Nov-2021 10:16:12 Calib Date: 13-Jul-2021 15:53:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAMS9\20210713-131740.b\h266850.d

Column 1 : Rtxi-5Sil MS ( 0.25 mm) Det: MS SCAN
Process Host: CTX1670

First Level Reviewer: khlungprakhons Date: 04-Nov-2021 10:17:21

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 1 1,4-Dioxane-d8 | 96 | 2.130 | 2.122 | 0.008 | 12 | 18647 | 4.00 | 1.28 | |
| | 2 1,4-Dioxane | 88 | 2.169 | 2.161 | 0.008 | 20 | 1377 | 0.2000 | 0.2496 | |
| * | 4 1,4-Dichlorobenzene-d4 | 150 | 5.720 | 5.721 | -0.001 | 1 | 12100 | 0.2000 | 0.2000 | |

## QC Flag Legend

Processing Flags

## Reagents:

SM_iso_d4istd_00008 Amount Added: 20.00 Units: uL Run Reagent

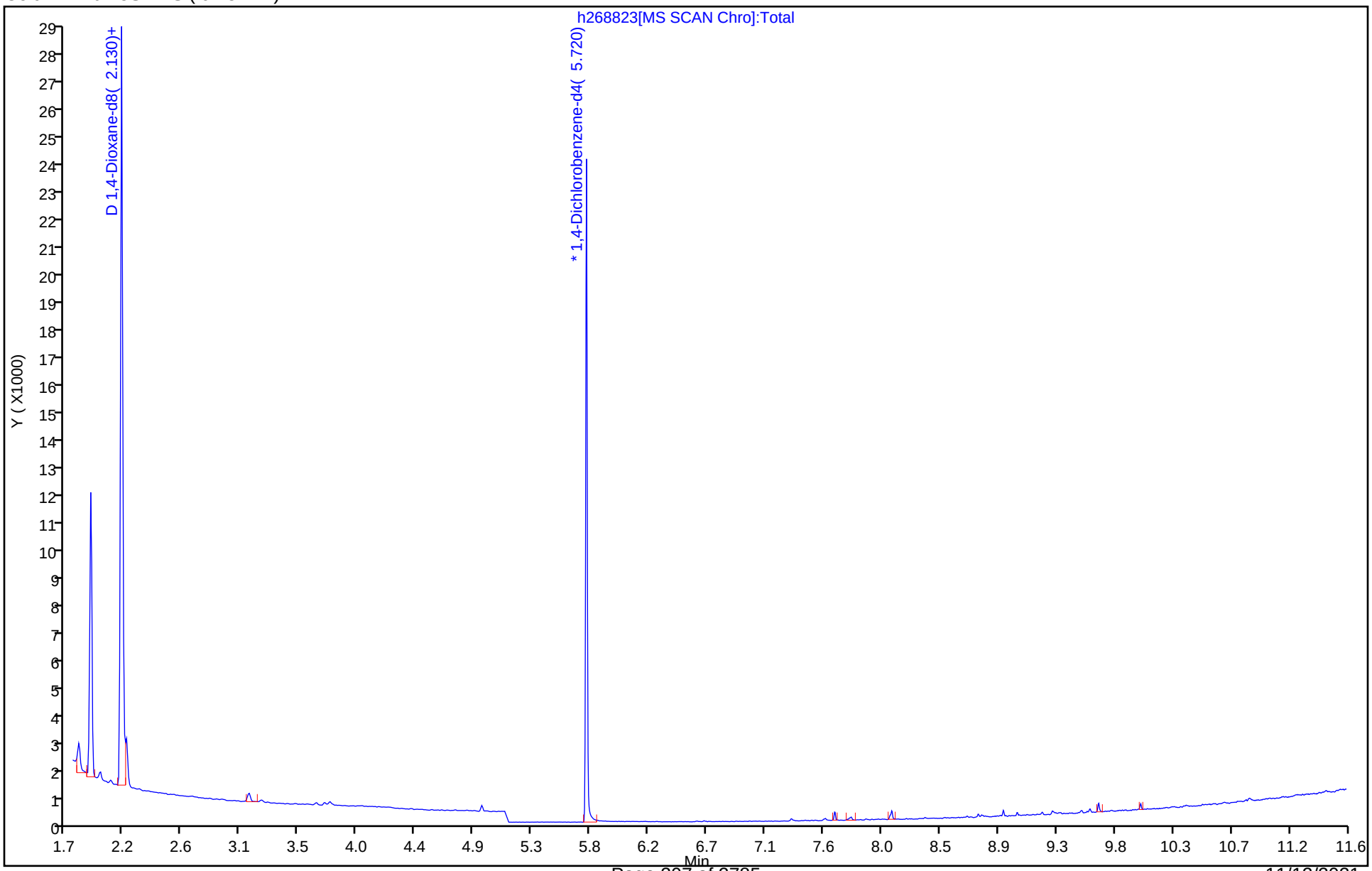
Report Date: 04-Nov-2021 10:17:21 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAMS9\20211103-137049.b\h268823.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2021 17:43:30 | Instrument ID: | CBNAMS9 | Operator ID: | |
| Lims ID: | 460-246277-A-18-B MSD | | | Worklist Smp#: | 29 |
| Client ID: | MW-26S-20211028 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | 8270_Iso | Limit Group: | MSS 8270 Isotope Dilution IS | | |

Column: Rtxi-5Sil MS ( 0.25 mm)



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Instrument ID: CBNAMS9 Start Date: 07/13/2021 13:30

Analysis Batch Number: 790012 End Date: 07/13/2021 16:09

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| DFTPP 460-790012/1 | | 07/13/2021 13:30 | 1 | h266841.d | Rtxi-5Sil MS 0.25(mm) |
| ICIS 460-790012/2 | | 07/13/2021 13:46 | 1 | h266842.d | Rtxi-5Sil MS 0.25(mm) |
| STD9 460-790012/3 IC | | 07/13/2021 14:01 | 1 | h266843.d | Rtxi-5Sil MS 0.25(mm) |
| STD8 460-790012/4 IC | | 07/13/2021 14:17 | 1 | h266844.d | Rtxi-5Sil MS 0.25(mm) |
| STD7 460-790012/5 IC | | 07/13/2021 14:33 | 1 | h266845.d | Rtxi-5Sil MS 0.25(mm) |
| STD6 460-790012/6 IC | | 07/13/2021 14:49 | 1 | h266846.d | Rtxi-5Sil MS 0.25(mm) |
| STD4 460-790012/7 IC | | 07/13/2021 15:05 | 1 | h266847.d | Rtxi-5Sil MS 0.25(mm) |
| STD3 460-790012/8 IC | | 07/13/2021 15:21 | 1 | h266848.d | Rtxi-5Sil MS 0.25(mm) |
| STD2 460-790012/9 IC | | 07/13/2021 15:37 | 1 | h266849.d | Rtxi-5Sil MS 0.25(mm) |
| STD1 460-790012/10 IC | | 07/13/2021 15:53 | 1 | h266850.d | Rtxi-5Sil MS 0.25(mm) |
| ICV 460-790012/11 | | 07/13/2021 16:09 | 1 | h266851.d | Rtxi-5Sil MS 0.25(mm) |

8270E SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Instrument ID: CBNAMS9 Start Date: 11/03/2021 10:28

Analysis Batch Number: 811092 End Date: 11/03/2021 21:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVIS 460-811092/2 | | 11/03/2021 10:28 | 1 | h268796.d | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 10:44 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 11:00 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 11:15 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 11:31 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 11:47 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 12:03 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 12:19 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 12:35 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 12:51 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 13:06 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 13:23 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 13:38 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 13:54 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 14:10 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 14:26 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 14:42 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 14:58 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| ZZZZZ | | 11/03/2021 15:14 | 1 | | Rtxi-5Sil MS 0.25(mm) |
| MB 460-811052/1-A | | 11/03/2021 15:36 | 1 | h268815a.d | Rtxi-5Sil MS 0.25(mm) |
| LCS 460-811052/2-A | | 11/03/2021 15:52 | 1 | h268816.d | Rtxi-5Sil MS 0.25(mm) |
| LCSD 460-811052/3-A | | 11/03/2021 16:08 | 1 | h268817.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-8 | MW-24S-20211027 | 11/03/2021 16:24 | 1 | h268818.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-8 MS | MW-24S-20211027 MS | 11/03/2021 16:40 | 1 | h268819.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-8 MSD | MW-24S-20211027 MSD | 11/03/2021 16:56 | 1 | h268820.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-18 | MW-26S-20211028 | 11/03/2021 17:11 | 1 | h268821.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-18 MS | MW-26S-20211028 MS | 11/03/2021 17:27 | 1 | h268822.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-18 MSD | MW-26S-20211028 MSD | 11/03/2021 17:43 | 1 | h268823.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-1 | MH-102-20211027 | 11/03/2021 17:59 | 1 | h268824.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-2 | AP-101-20211027 | 11/03/2021 18:15 | 1 | h268825.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-3 | AMW-2-20211027 | 11/03/2021 18:31 | 1 | h268826.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-4 | AMW-1-20211027 | 11/03/2021 18:47 | 1 | h268827.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-5 | MW-202S-20211027 | 11/03/2021 19:03 | 1 | h268828.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-6 | MW-202D-20211027 | 11/03/2021 19:19 | 1 | h268829.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-7 | MW-9S-20211027 | 11/03/2021 19:34 | 1 | h268830.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-9 | BP-101-20211028 | 11/03/2021 19:50 | 1 | h268831.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-10 | EP-02-20211028 | 11/03/2021 20:06 | 1 | h268832.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-11 | MW-23S-20211028 | 11/03/2021 20:22 | 1 | h268833.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-12 | MW-37AQ-20211028 | 11/03/2021 20:38 | 1 | h268834.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-13 | AMW-5-20211028 | 11/03/2021 20:54 | 1 | h268835.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-14 | MW-5S-20211028 | 11/03/2021 21:10 | 1 | h268836.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-15 | MW-34-20211028 | 11/03/2021 21:25 | 1 | h268837.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-16 | MW-1S-20211028 | 11/03/2021 21:41 | 1 | h268838.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-17 | MW-102-20211028 | 11/03/2021 21:57 | 1 | h268839.d | Rtxi-5Sil MS 0.25(mm) |

8270E SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Instrument ID: CBNAMS9 Start Date: 11/03/2021 23:22

Analysis Batch Number: 811217 End Date: 11/04/2021 03:50

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVIS 460-811217/2 | | 11/03/2021 23:22 | 1 | h268849.d | Rtxi-5Sil MS 0.25(mm) |
| MB 460-811103/1-A | | 11/03/2021 23:37 | 1 | h268850.d | Rtxi-5Sil MS 0.25(mm) |
| LCS 460-811103/2-A | | 11/03/2021 23:53 | 1 | h268851.d | Rtxi-5Sil MS 0.25(mm) |
| LCSD 460-811103/3-A | | 11/04/2021 00:09 | 1 | h268852.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-19 | MW-7S-20211028 | 11/04/2021 00:25 | 1 | h268853.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-20 | AMW-4-20211028 | 11/04/2021 00:40 | 1 | h268854.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-21 | AMW-11-20211028 | 11/04/2021 00:56 | 1 | h268855.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-22 | AMW-6-20211028 | 11/04/2021 01:12 | 1 | h268856.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-23 | AMW-3-20211028 | 11/04/2021 01:28 | 1 | h268857.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-24 | DUP-02-20211028 | 11/04/2021 01:44 | 1 | h268858.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-25 | MW-201-20211028 | 11/04/2021 01:59 | 1 | h268859.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-26 | MW-4S-20211029 | 11/04/2021 02:15 | 1 | h268860.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-27 | MW-3S-20211029 | 11/04/2021 02:31 | 1 | h268861.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-28 | AMW-8-20211029 | 11/04/2021 02:47 | 1 | h268862.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-29 | AMW-9-20211029 | 11/04/2021 03:02 | 1 | h268863.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-30 | AMW-7-20211029 | 11/04/2021 03:18 | 1 | h268864.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-31 | AMW-10-20211029 | 11/04/2021 03:34 | 1 | h268865.d | Rtxi-5Sil MS 0.25(mm) |
| 460-246277-32 | MW-53S-20211029 | 11/04/2021 03:50 | 1 | h268866.d | Rtxi-5Sil MS 0.25(mm) |

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Batch Number: 811052  Batch Start Date: 11/03/21 07:59  Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | ReceivedpH | FirstAdjustpH | SecondAdjustpH | OP_1,4-DX_SP 00006 |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-811052/1 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| LCS 460-811052/2 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| LCSD 460-811052/3 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-B-8 MS | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-B-8 MSD | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-A-18 MS | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-A-18 MSD | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-A-1 | MH-102-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-2 | AP-101-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-3 | AMW-2-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-4 | AMW-1-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-5 | MW-202S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-6 | MW-202D-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-7 | MW-9S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-8 | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-9 | BP-101-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-10 | EP-02-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 5 SU | <2 SU | >12 SU | |
| 460-246277-A-11 | MW-23S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-12 | MW-37AQ-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-13 | AMW-5-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-B-14 | MW-5S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Batch Number: 811052  Batch Start Date: 11/03/21 07:59  Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | ReceivedpH | FirstAdjustpH | SecondAdjustpH | OP_1,4-DX_SP 00006 |
|---|---|---|---|---|---|---|---|---|---|
| 460-246277-B-15 | MW-34-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-16 | MW-1S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-17 | MW-102-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-18 | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-811052/1 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| LCS 460-811052/2 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| LCSD 460-811052/3 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| 460-246277-B-8 MS | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-8 MSD | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-18 MS | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-18 MSD | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-1 | MH-102-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-2 | AP-101-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-3 | AMW-2-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-4 | AMW-1-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-5 | MW-202S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-6 | MW-202D-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-7 | MW-9S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-8 | MW-24S-20211027 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Batch Number: 811052 Batch Start Date: 11/03/21 07:59 Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 460-246277-A-9 | BP-101-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-10 | EP-02-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-11 | MW-23S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-12 | MW-37AQ-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-13 | AMW-5-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-14 | MW-5S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-B-15 | MW-34-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-16 | MW-1S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-17 | MW-102-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-18 | MW-26S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Batch Number: 811052  Batch Start Date: 11/03/21 07:59  Batch Analyst: Dekkar, Djedjiga X

Batch Method: 3510C  Batch End Date:

| Batch Notes | |
|---|---|
| Method/Fraction | 3510C LVI / 8270ISOTOPE |
| pH Indicator ID | HC-022887 |
| Analyst ID - Extraction | dd |
| Analyst ID - Spike Analyst | dd |
| Analyst ID - Spike Witness Analyst | zh |
| Sufficient Volume for Batch QC | Yes |
| Acid Used for pH Adjustment ID | 276386 |
| Base Used to Adjust pH ID | OP3031 |
| Prep Solvent ID | Methylene Chloride: 2110 862010 |
| Prep Solvent Volume Used | 180 mL |
| Na2SO4 ID | 204081 |
| Analyst ID - Concentration | dd |
| Equipment ID - Concentration 1 | 31869 |
| Thermometer ID - Concentration 1 | 31869 |
| Concentration 1 Uncorrected Temperature | 35 Degrees C |
| Concentration 1 Corrected Temperature | 35 Degrees C |
| Vial Lot Number | 20046103 |
| Batch Comment | BNA ISOTOPE |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Batch Number: 811103  Batch Start Date: 11/03/21 10:58  Batch Analyst: Santos, Omar T

Batch Method: 3510C  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | ReceivedpH | FirstAdjustpH | SecondAdjustpH | OP_1,4-DX_SP 00006 |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-811103/1 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| LCS 460-811103/2 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| LCSD 460-811103/3 | | 3510C, 8270E SIM ID | | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | 200 uL |
| 460-246277-A-19 | MW-7S-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-20 | AMW-4-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-21 | AMW-11-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-22 | AMW-6-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-23 | AMW-3-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-24 | DUP-02-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 7 SU | <2 SU | >12 SU | |
| 460-246277-A-25 | MW-201-20211028 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-26 | MW-4S-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-27 | MW-3S-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-28 | AMW-8-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-29 | AMW-9-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-30 | AMW-7-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-31 | AMW-10-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |
| 460-246277-A-32 | MW-53S-20211029 | 3510C, 8270E SIM ID | T | 250 mL | 2 mL | 6 SU | <2 SU | >12 SU | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 460-811103/1 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| LCS 460-811103/2 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-246277-1

SDG No.:

Batch Number: 811103 Batch Start Date: 11/03/21 10:58 Batch Analyst: Santos, Omar T

Batch Method: 3510C Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | OP_14-DX_surr 00010 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCSD 460-811103/3 | | 3510C, 8270E SIM ID | | 20 uL | | | | | |
| 460-246277-A-19 | MW-7S-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-20 | AMW-4-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-21 | AMW-11-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-22 | AMW-6-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-23 | AMW-3-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-24 | DUP-02-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-25 | MW-201-20211028 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-26 | MW-4S-20211029 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-27 | MW-3S-20211029 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-28 | AMW-8-20211029 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-29 | AMW-9-20211029 | 3510C, 8270E SIM ID | T | 20 uL | | | | | |
| 460-246277-A-30 | AMW-7-20211029 | 3510C, 8270E SIM ID | T | 20 uL | Possible 2x surrogate | | | | |
| 460-246277-A-31 | AMW-10-20211029 | 3510C, 8270E SIM ID | T | 20 uL | Possible 2x surrogate | | | | |
| 460-246277-A-32 | MW-53S-20211029 | 3510C, 8270E SIM ID | T | 20 uL | Possible 2x surrogate | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Batch Number: 811103  Batch Start Date: 11/03/21 10:58  Batch Analyst: Santos, Omar T

Batch Method: 3510C  Batch End Date:

| Batch Notes | |
|---|---|
| Method/Fraction | 3510C LVI / 8270E_SIM_MS_ID |
| pH Indicator ID | HC-022887 |
| Analyst ID - Extraction | OS |
| Analyst ID - Spike Analyst | OS |
| Analyst ID - Spike Witness Analyst | DD |
| Sufficient Volume for Batch QC | Yes |
| Acid Used for pH Adjustment ID | 276386 |
| Base Used to Adjust pH ID | OP3027 |
| Prep Solvent ID | Methylene Chloride: 862010 |
| Prep Solvent Volume Used | 180 mL |
| Na2SO4 ID | 204081 |
| Analyst ID - Concentration | OS |
| Equipment ID - Concentration 1 | 31869 |
| Thermometer ID - Concentration 1 | 31869 |
| Concentration 1 Uncorrected Temperature | 35 Degrees C |
| Concentration 1 Corrected Temperature | 35 Degrees C |
| Vial Lot Number | 20046103 |
| Batch Comment | Isotope Water |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E SIM ID

# Method PFC IDA

## Fluorinated Hydrocarbons by Method PFAS IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFBA # | PFPeA # | C3PFBS # | PFHxA # | C4PFHA # | M262FTS # | PFOA # | PFOS # |
|---|---|---|---|---|---|---|---|---|---|
| AP-101-20211027 | 460-246277-2 | 104 | 102 | 92 | 101 | 92 | 105 | 94 | 86 |
| AMW-8-20211029 | 460-246277-28 | 64 | 95 | 96 | 94 | 89 | 129 | 93 | 86 |

| | QC LIMITS |
|---|---|
| PFBA = 13C4 PFBA | 25-150 |
| PFPeA = 13C5 PFPeA | 25-150 |
| C3PFBS = 13C3 PFBS | 50-150 |
| PFHxA = 13C2 PFHxA | 50-150 |
| C4PFHA = 13C4 PFHpA | 50-150 |
| M262FTS = M2-6:2 FTS | 25-150 |
| PFOA = 13C4 PFOA | 50-150 |
| PFOS = 13C4 PFOS | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFNA # | PFDA # | M282FTS # | PFOSA # | d3NMFOS # | PFUnA # | d5NEFOS # | PFDoA # |
|---|---|---|---|---|---|---|---|---|---|
| AP-101-20211027 | 460-246277-2 | 86 | 76 | 91 | 84 | 76 | 65 | 70 | 58 |
| AMW-8-20211029 | 460-246277-28 | 85 | 75 | 118 | 70 | 99 | 77 | 109 | 67 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFTDA # |
|---|---|---|
| AP-101-20211027 | 460-246277-2 | 60 |
| AMW-8-20211029 | 460-246277-28 | 62 |

| | QC LIMITS |
|---|---|
| PFTDA = 13C2 PFTeDA | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFBA # | PFPeA # | C3PFBS # | PFHxA # | C4PFHA # | PFHxS # | M262FTS # | PFOA # |
|---|---|---|---|---|---|---|---|---|---|
| MH-102-20211027 | 460-246277-1 | 104 | 102 | 94 | 103 | 99 | 95 | 108 | 97 |
| AMW-2-20211027 | 460-246277-3 | 92 | 98 | 94 | 99 | 97 | 95 | 112 | 96 |
| AMW-1-20211027 | 460-246277-4 | 75 | 89 | 97 | 97 | 96 | 96 | 126 | 98 |
| MW-202S-20211027 | 460-246277-5 | 79 | 88 | 92 | 96 | 97 | 92 | 119 | 93 |
| MW-202D-20211027 | 460-246277-6 | 94 | 97 | 92 | 96 | 96 | 92 | 110 | 96 |
| MW-9S-20211027 | 460-246277-7 | 107 | 103 | 95 | 102 | 103 | 98 | 109 | 98 |
| MW-24S-20211027 | 460-246277-8 | 82 | 92 | 92 | 96 | 97 | 96 | 120 | 97 |
| BP-101-20211028 | 460-246277-9 | 110 | 100 | 92 | 99 | 95 | 93 | 107 | 93 |
| EP-02-20211028 | 460-246277-10 | 120 | 105 | 95 | 100 | 102 | 96 | 112 | 93 |
| MW-23S-20211028 | 460-246277-11 | 85 | 94 | 90 | 98 | 95 | 95 | 110 | 95 |
| MW-37AQ-20211028 | 460-246277-12 | 84 | 99 | 93 | 99 | 97 | 96 | 118 | 95 |
| AMW-5-20211028 | 460-246277-13 | 88 | 99 | 91 | 102 | 96 | 94 | 111 | 94 |
| MW-5S-20211028 | 460-246277-14 | 111 | 107 | 93 | 100 | 101 | 98 | 110 | 95 |
| MW-34-20211028 | 460-246277-15 | 47 | 98 | 122 | 107 | 95 | 108 | 185 *5+ | 92 |
| MW-1S-20211028 | 460-246277-16 | 95 | 98 | 92 | 97 | 98 | 93 | 110 | 94 |
| MW-102-20211028 | 460-246277-17 | 98 | 97 | 92 | 95 | 95 | 95 | 107 | 93 |
| MW-26S-20211028 | 460-246277-18 | 75 | 89 | 89 | 92 | 97 | 94 | 115 | 95 |
| MW-7S-20211028 | 460-246277-19 | 111 | 104 | 97 | 101 | 100 | 97 | 106 | 98 |
| AMW-4-20211028 | 460-246277-20 | 87 | 93 | 92 | 99 | 97 | 96 | 113 | 97 |
| AMW-11-20211028 | 460-246277-21 | 108 | 102 | 96 | 104 | 99 | 100 | 108 | 96 |
| AMW-6-20211028 | 460-246277-22 | 86 | 95 | 96 | 99 | 97 | 101 | 134 | 93 |
| AMW-3-20211028 | 460-246277-23 | 71 | 90 | 99 | 97 | 100 | 106 | 158 *5+ | 97 |
| DUP-02-20211028 | 460-246277-24 | 75 | 92 | 100 | 98 | 101 | 101 | 145 | 96 |
| MW-201-20211028 | 460-246277-25 | 71 | 89 | 95 | 91 | 93 | 94 | 130 | 95 |
| MW-4S-20211029 | 460-246277-26 | 109 | 100 | 95 | 98 | 97 | 97 | 105 | 94 |
| MW-3S-20211029 | 460-246277-27 | 113 | 103 | 97 | 100 | 97 | 98 | 106 | 95 |
| AMW-9-20211029 | 460-246277-29 | 68 | 92 | 110 | 104 | 94 | 110 | 165 *5+ | 94 |
| AMW-7-20211029 | 460-246277-30 | 81 | 93 | 95 | 95 | 94 | 95 | 125 | 94 |
| AMW-10-20211029 | 460-246277-31 | 79 | 93 | 93 | 101 | 100 | 99 | 126 | 100 |
| MW-53S-20211029 | 460-246277-32 | 103 | 103 | 102 | 103 | 98 | 103 | 116 | 97 |
|  | MB 200-173528/1-A | 118 | 107 | 93 | 104 | 101 | 94 | 111 | 96 |
|  | MB 200-173541/1-A | 117 | 103 | 94 | 101 | 98 | 95 | 109 | 94 |
|  | LCS 200-173528/2-A | 122 | 109 | 98 | 106 | 98 | 97 | 106 | 95 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFBA # | PFPeA # | C3PFBS # | PFHxA # | C4PFHA # | PFHxS # | M262FTS # | PFOA # |
|---|---|---|---|---|---|---|---|---|---|
| | LCS 200-173541/2-A | 117 | 107 | 95 | 102 | 100 | 98 | 113 | 97 |
| | LCSD 200-173541/3-A | 124 | 110 | 99 | 108 | 103 | 100 | 111 | 100 |
| MW-24S-20211027 MS | 460-246277-8 MS | 79 | 90 | 90 | 97 | 95 | 94 | 116 | 94 |
| MW-26S-20211028 MS | 460-246277-18 MS | 77 | 92 | 90 | 96 | 99 | 97 | 120 | 96 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | 76 | 88 | 88 | 91 | 92 | 93 | 112 | 90 |
| MW-26S-20211028 MSD | 460-246277-18 MSD | 82 | 95 | 93 | 99 | 98 | 99 | 127 | 100 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFOS # | PFNA # | PFDA # | M282FTS # | PFOSA # | d3NMFOS # | PFUnA # | d5NEFOS # |
|---|---|---|---|---|---|---|---|---|---|
| MH-102-20211027 | 460-246277-1 | 99 | 94 | 82 | 103 | 91 | 84 | 79 | 87 |
| AMW-2-20211027 | 460-246277-3 | 99 | 96 | 90 | 111 | 93 | 88 | 84 | 97 |
| AMW-1-20211027 | 460-246277-4 | 104 | 99 | 98 | 143 | 91 | 107 | 95 | 115 |
| MW-202S-20211027 | 460-246277-5 | 96 | 92 | 87 | 119 | 88 | 98 | 85 | 99 |
| MW-202D-20211027 | 460-246277-6 | 98 | 92 | 89 | 120 | 95 | 96 | 87 | 97 |
| MW-9S-20211027 | 460-246277-7 | 99 | 95 | 88 | 111 | 91 | 95 | 80 | 94 |
| MW-24S-20211027 | 460-246277-8 | 104 | 95 | 93 | 130 | 95 | 108 | 97 | 116 |
| BP-101-20211028 | 460-246277-9 | 96 | 89 | 87 | 108 | 91 | 94 | 81 | 97 |
| EP-02-20211028 | 460-246277-10 | 100 | 94 | 90 | 114 | 83 | 94 | 87 | 95 |
| MW-23S-20211028 | 460-246277-11 | 100 | 92 | 86 | 113 | 88 | 98 | 87 | 106 |
| MW-37AQ-20211028 | 460-246277-12 | 101 | 94 | 92 | 122 | 92 | 104 | 89 | 102 |
| AMW-5-20211028 | 460-246277-13 | 99 | 96 | 88 | 116 | 91 | 97 | 87 | 99 |
| MW-5S-20211028 | 460-246277-14 | 96 | 92 | 85 | 110 | 93 | 94 | 82 | 89 |
| MW-34-20211028 | 460-246277-15 | 110 | 92 | 87 | 186 *5+ | 59 | 129 | 85 | 142 |
| MW-1S-20211028 | 460-246277-16 | 97 | 92 | 85 | 116 | 91 | 96 | 86 | 105 |
| MW-102-20211028 | 460-246277-17 | 93 | 93 | 83 | 103 | 89 | 87 | 79 | 86 |
| MW-26S-20211028 | 460-246277-18 | 96 | 91 | 89 | 112 | 94 | 101 | 84 | 101 |
| MW-7S-20211028 | 460-246277-19 | 92 | 91 | 79 | 103 | 84 | 88 | 79 | 98 |
| AMW-4-20211028 | 460-246277-20 | 99 | 93 | 89 | 122 | 88 | 90 | 85 | 96 |
| AMW-11-20211028 | 460-246277-21 | 101 | 92 | 91 | 112 | 91 | 101 | 92 | 106 |
| AMW-6-20211028 | 460-246277-22 | 107 | 97 | 94 | 139 | 85 | 108 | 95 | 120 |
| AMW-3-20211028 | 460-246277-23 | 108 | 94 | 99 | 164 *5+ | 83 | 135 | 97 | 149 |
| DUP-02-20211028 | 460-246277-24 | 105 | 98 | 95 | 149 | 83 | 133 | 96 | 140 |
| MW-201-20211028 | 460-246277-25 | 102 | 97 | 91 | 126 | 85 | 110 | 94 | 114 |
| MW-4S-20211029 | 460-246277-26 | 90 | 85 | 75 | 91 | 82 | 82 | 66 | 81 |
| MW-3S-20211029 | 460-246277-27 | 94 | 89 | 75 | 96 | 88 | 86 | 68 | 79 |
| AMW-9-20211029 | 460-246277-29 | 111 | 95 | 87 | 180 *5+ | 67 | 129 | 88 | 149 |
| AMW-7-20211029 | 460-246277-30 | 97 | 92 | 91 | 125 | 78 | 99 | 89 | 107 |
| AMW-10-20211029 | 460-246277-31 | 100 | 96 | 94 | 127 | 85 | 105 | 96 | 117 |
| MW-53S-20211029 | 460-246277-32 | 100 | 93 | 85 | 107 | 85 | 98 | 86 | 102 |
|  | MB 200-173528/1-A | 97 | 96 | 87 | 111 | 82 | 95 | 84 | 96 |
|  | MB 200-173541/1-A | 94 | 92 | 83 | 104 | 66 | 90 | 75 | 88 |
|  | LCS 200-173528/2-A | 96 | 92 | 85 | 108 | 78 | 94 | 80 | 89 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFOS # | PFNA # | PFDA # | M282FTS # | PFOSA # | d3NMFOS # | PFUnA # | d5NEFOS # |
|---|---|---|---|---|---|---|---|---|---|
| | LCS 200-173541/2-A | 99 | 91 | 87 | 112 | 75 | 106 | 83 | 93 |
| | LCSD 200-173541/3-A | 101 | 97 | 87 | 111 | 74 | 101 | 81 | 90 |
| MW-24S-20211027 MS | 460-246277-8 MS | 100 | 95 | 88 | 124 | 90 | 104 | 90 | 106 |
| MW-26S-20211028 MS | 460-246277-18 MS | 99 | 96 | 92 | 118 | 93 | 100 | 85 | 102 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | 98 | 93 | 87 | 124 | 88 | 100 | 91 | 106 |
| MW-26S-20211028 MSD | 460-246277-18 MSD | 107 | 104 | 95 | 115 | 97 | 107 | 91 | 108 |

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

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFDoA # | PFTDA # |
|---|---|---|---|
| MH-102-20211027 | 460-246277-1 | 75 | 70 |
| AMW-2-20211027 | 460-246277-3 | 80 | 75 |
| AMW-1-20211027 | 460-246277-4 | 91 | 84 |
| MW-202S-20211027 | 460-246277-5 | 82 | 76 |
| MW-202D-20211027 | 460-246277-6 | 77 | 75 |
| MW-9S-20211027 | 460-246277-7 | 73 | 72 |
| MW-24S-20211027 | 460-246277-8 | 91 | 90 |
| BP-101-20211028 | 460-246277-9 | 78 | 72 |
| EP-02-20211028 | 460-246277-10 | 73 | 64 |
| MW-23S-20211028 | 460-246277-11 | 84 | 82 |
| MW-37AQ-20211028 | 460-246277-12 | 93 | 83 |
| AMW-5-20211028 | 460-246277-13 | 82 | 82 |
| MW-5S-20211028 | 460-246277-14 | 78 | 69 |
| MW-34-20211028 | 460-246277-15 | 68 | 32 *5- |
| MW-1S-20211028 | 460-246277-16 | 82 | 77 |
| MW-102-20211028 | 460-246277-17 | 73 | 68 |
| MW-26S-20211028 | 460-246277-18 | 78 | 65 |
| MW-7S-20211028 | 460-246277-19 | 74 | 74 |
| AMW-4-20211028 | 460-246277-20 | 81 | 80 |
| AMW-11-20211028 | 460-246277-21 | 89 | 82 |
| AMW-6-20211028 | 460-246277-22 | 92 | 91 |
| AMW-3-20211028 | 460-246277-23 | 100 | 98 |
| DUP-02-20211028 | 460-246277-24 | 94 | 92 |
| MW-201-20211028 | 460-246277-25 | 89 | 83 |
| MW-4S-20211029 | 460-246277-26 | 62 | 62 |
| MW-3S-20211029 | 460-246277-27 | 61 | 65 |
| AMW-9-20211029 | 460-246277-29 | 86 | 94 |
| AMW-7-20211029 | 460-246277-30 | 85 | 82 |
| AMW-10-20211029 | 460-246277-31 | 88 | 93 |
| MW-53S-20211029 | 460-246277-32 | 90 | 86 |
|  | MB 200-173528/1-A | 77 | 71 |
|  | MB 200-173541/1-A | 69 | 69 |
|  | LCS 200-173528/2-A | 68 | 64 |

| | QC LIMITS |
|---|---|
| PFDoA = 13C2 PFDoA | 50-150 |
| PFTDA = 13C2 PFTeDA | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFDoA # | PFTDA # |
|---|---|---|---|
| | LCS 200-173541/2-A | 78 | 74 |
| | LCSD 200-173541/3-A | 76 | 77 |
| MW-24S-20211027 MS | 460-246277-8 MS | 84 | 81 |
| MW-26S-20211028 MS | 460-246277-18 MS | 79 | 63 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | 85 | 84 |
| MW-26S-20211028 MSD | 460-246277-18 MSD | 86 | 73 |

| | QC LIMITS |
|---|---|
| PFDoA = 13C2 PFDoA | 50-150 |
| PFTDA = 13C2 PFTeDA | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low

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

| Client Sample ID | Lab Sample ID | PFHxS # | PFOS # |
|---|---|---|---|
| AP-101-20211027 DL | 460-246277-2 DL | 98 | 96 |
| AMW-8-20211029 DL | 460-246277-28 DL | 91 | 86 |
| AMW-10-20211029 DL | 460-246277-31 DL | 94 | 95 |
| | MB 200-173541/1-A | 98 | 91 |
| | LCS 200-173541/2-A | 104 | 101 |
| | LCSD 200-173541/3-A | 104 | 100 |

| | QC LIMITS |
|---|---|
| PFHxS = 18O2 PFHxS | 50-150 |
| PFOS = 13C4 PFOS | 50-150 |

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D03.d

Lab ID: LCS 200-173528/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 37.84 | 95 | 70-130 | |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 39.66 | 99 | 70-130 | |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 37.97 | 95 | 70-130 | |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 38.04 | 95 | 70-130 | |
| Perfluorooctanoic acid (PFOA) | 40.0 | 39.00 | 98 | 70-130 | |
| Perfluorononanoic acid (PFNA) | 40.0 | 39.16 | 98 | 70-130 | |
| Perfluorodecanoic acid (PFDA) | 40.0 | 40.75 | 102 | 70-130 | |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 38.08 | 95 | 70-130 | |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 39.05 | 98 | 70-130 | |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 40.59 | 101 | 70-130 | |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 42.44 | 106 | 70-130 | |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 33.15 | 94 | 70-130 | |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 34.29 | 94 | 70-130 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 37.23 | 98 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 36.65 | 99 | 70-130 | |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 29.98 | 78 | 70-130 | |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 38.90 | 97 | 70-130 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 40.27 | 101 | 70-130 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 37.13 | 93 | 70-130 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 39.29 | 104 | 60-140 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 35.90 | 94 | 70-130 | |
| 18O2 PFHxS | 47.3 | 46.09 | 97 | 50-150 | |
| 13C4 PFHpA | 50.0 | 48.98 | 98 | 50-150 | |
| 13C4 PFOA | 50.0 | 47.54 | 95 | 50-150 | |
| 13C4 PFOS | 47.8 | 46.09 | 96 | 50-150 | |
| 13C5 PFNA | 50.0 | 46.23 | 92 | 50-150 | |
| 13C4 PFBA | 50.0 | 60.95 | 122 | 25-150 | |
| 13C2 PFHxA | 50.0 | 52.88 | 106 | 50-150 | |
| 13C2 PFDA | 50.0 | 42.46 | 85 | 50-150 | |
| 13C2 PFUnA | 50.0 | 39.84 | 80 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D03.d

Lab ID: LCS 200-173528/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 13C2 PFDoA | 50.0 | 33.79 | 68 | 50-150 | |
| 13C8 FOSA | 50.0 | 38.83 | 78 | 25-150 | |
| 13C5 PFPeA | 50.0 | 54.48 | 109 | 25-150 | |
| 13C2 PFTeDA | 50.0 | 31.90 | 64 | 50-150 | |
| d3-NMeFOSAA | 50.0 | 47.05 | 94 | 50-150 | |
| d5-NEtFOSAA | 50.0 | 44.37 | 89 | 50-150 | |
| M2-6:2 FTS | 47.5 | 50.14 | 106 | 25-150 | |
| M2-8:2 FTS | 47.9 | 51.90 | 108 | 25-150 | |
| 13C3 PFBS | 46.5 | 45.35 | 98 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211108A14.d

Lab ID: LCS 200-173541/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 36.72 | 101 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 36.76 | 99 | 70-130 | |
| 18O2 PFHxS | 47.3 | 49.21 | 104 | 50-150 | |
| 13C4 PFOS | 47.8 | 48.34 | 101 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211110A08.d

Lab ID: LCS 200-173541/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 40.49 | 101 | 70-130 | |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 40.85 | 102 | 70-130 | |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 41.12 | 103 | 70-130 | |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 40.56 | 101 | 70-130 | |
| Perfluorooctanoic acid (PFOA) | 40.0 | 39.86 | 100 | 70-130 | |
| Perfluorononanoic acid (PFNA) | 40.0 | 42.15 | 105 | 70-130 | |
| Perfluorodecanoic acid (PFDA) | 40.0 | 43.54 | 109 | 70-130 | |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 40.50 | 101 | 70-130 | |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 41.34 | 103 | 70-130 | |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 40.19 | 100 | 70-130 | |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 42.83 | 107 | 70-130 | |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 36.02 | 102 | 70-130 | |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 36.74 | 101 | 70-130 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 39.61 | 104 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 37.69 | 102 | 70-130 | |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 34.08 | 88 | 70-130 | |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 41.27 | 103 | 70-130 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 38.08 | 95 | 70-130 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 41.75 | 104 | 70-130 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 38.87 | 102 | 60-140 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 36.42 | 95 | 70-130 | |
| 18O2 PFHxS | 47.3 | 46.29 | 98 | 50-150 | |
| 13C4 PFHpA | 50.0 | 50.04 | 100 | 50-150 | |
| 13C4 PFOA | 50.0 | 48.33 | 97 | 50-150 | |
| 13C4 PFOS | 47.8 | 47.13 | 99 | 50-150 | |
| 13C5 PFNA | 50.0 | 45.57 | 91 | 50-150 | |
| 13C4 PFBA | 50.0 | 58.26 | 117 | 25-150 | |
| 13C2 PFHxA | 50.0 | 51.21 | 102 | 50-150 | |
| 13C2 PFDA | 50.0 | 43.65 | 87 | 50-150 | |
| 13C2 PFUnA | 50.0 | 41.51 | 83 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211110A08.d

Lab ID: LCS 200-173541/2-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCS CONCENTRATION (ng/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 13C2 PFDoA | 50.0 | 38.88 | 78 | 50-150 | |
| 13C8 FOSA | 50.0 | 37.73 | 75 | 25-150 | |
| 13C5 PFPeA | 50.0 | 53.38 | 107 | 25-150 | |
| 13C2 PFTeDA | 50.0 | 37.11 | 74 | 50-150 | |
| d3-NMeFOSAA | 50.0 | 53.16 | 106 | 50-150 | |
| d5-NEtFOSAA | 50.0 | 46.46 | 93 | 50-150 | |
| M2-6:2 FTS | 47.5 | 53.74 | 113 | 25-150 | |
| M2-8:2 FTS | 47.9 | 53.84 | 112 | 25-150 | |
| 13C3 PFBS | 46.5 | 44.23 | 95 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211108A15.d

Lab ID: LCSD 200-173541/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCSD CONCENTRATION (ng/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 36.57 | 100 | 0 | 30 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 37.25 | 100 | 1 | 30 | 70-130 | |
| 18O2 PFHxS | 47.3 | 49.10 | 104 | | | 50-150 | |
| 13C4 PFOS | 47.8 | 47.91 | 100 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211110A09.d

Lab ID: LCSD 200-173541/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCSD CONCENTRATION (ng/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 40.0 | 39.23 | 98 | 3 | 30 | 70-130 | |
| Perfluoropentanoic acid (PFPeA) | 40.0 | 41.05 | 103 | 0 | 30 | 70-130 | |
| Perfluorohexanoic acid (PFHxA) | 40.0 | 39.67 | 99 | 4 | 30 | 70-130 | |
| Perfluoroheptanoic acid (PFHpA) | 40.0 | 39.42 | 99 | 3 | 30 | 70-130 | |
| Perfluorooctanoic acid (PFOA) | 40.0 | 39.57 | 99 | 1 | 30 | 70-130 | |
| Perfluorononanoic acid (PFNA) | 40.0 | 41.69 | 104 | 1 | 30 | 70-130 | |
| Perfluorodecanoic acid (PFDA) | 40.0 | 41.40 | 103 | 5 | 30 | 70-130 | |
| Perfluoroundecanoic acid (PFUnA) | 40.0 | 41.32 | 103 | 2 | 30 | 70-130 | |
| Perfluorododecanoic acid (PFDoA) | 40.0 | 40.53 | 101 | 2 | 30 | 70-130 | |
| Perfluorotridecanoic acid (PFTriA) | 40.0 | 39.10 | 98 | 3 | 30 | 70-130 | |
| Perfluorotetradecanoic acid (PFTeA) | 40.0 | 42.23 | 106 | 1 | 30 | 70-130 | |
| Perfluorobutanesulfonic acid (PFBS) | 35.4 | 36.26 | 103 | 1 | 30 | 70-130 | |
| Perfluorohexanesulfonic acid (PFHxS) | 36.4 | 37.02 | 102 | 1 | 30 | 70-130 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 38.1 | 38.69 | 102 | 2 | 30 | 70-130 | |
| Perfluorooctanesulfonic acid (PFOS) | 37.1 | 37.99 | 102 | 1 | 30 | 70-130 | |
| Perfluorodecanesulfonic acid (PFDS) | 38.6 | 31.70 | 82 | 7 | 30 | 70-130 | |
| Perfluorooctanesulfonamide (PFOSA) | 40.0 | 39.08 | 98 | 5 | 30 | 70-130 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0 | 42.69 | 107 | 11 | 30 | 70-130 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.0 | 40.45 | 101 | 3 | 30 | 70-130 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 37.9 | 40.24 | 106 | 3 | 30 | 60-140 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 38.3 | 37.96 | 99 | 4 | 30 | 70-130 | |
| 18O2 PFHxS | 47.3 | 47.41 | 100 | | | 50-150 | |
| 13C4 PFHpA | 50.0 | 51.69 | 103 | | | 50-150 | |
| 13C4 PFOA | 50.0 | 49.77 | 100 | | | 50-150 | |
| 13C4 PFOS | 47.8 | 48.30 | 101 | | | 50-150 | |
| 13C5 PFNA | 50.0 | 48.50 | 97 | | | 50-150 | |
| 13C4 PFBA | 50.0 | 61.87 | 124 | | | 25-150 | |
| 13C2 PFHxA | 50.0 | 53.94 | 108 | | | 50-150 | |
| 13C2 PFDA | 50.0 | 43.54 | 87 | | | 50-150 | |
| 13C2 PFUnA | 50.0 | 40.72 | 81 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211110A09.d

Lab ID: LCSD 200-173541/3-A  Client ID:

| COMPOUND | SPIKE ADDED (ng/L) | LCSD CONCENTRATION (ng/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 13C2 PFDoA | 50.0 | 38.14 | 76 | | | 50-150 | |
| 13C8 FOSA | 50.0 | 37.10 | 74 | | | 25-150 | |
| 13C5 PFPeA | 50.0 | 55.13 | 110 | | | 25-150 | |
| 13C2 PFTeDA | 50.0 | 38.31 | 77 | | | 50-150 | |
| d3-NMeFOSAA | 50.0 | 50.51 | 101 | | | 50-150 | |
| d5-NEtFOSAA | 50.0 | 44.87 | 90 | | | 50-150 | |
| M2-6:2 FTS | 47.5 | 52.58 | 111 | | | 25-150 | |
| M2-8:2 FTS | 47.9 | 53.15 | 111 | | | 25-150 | |
| 13C3 PFBS | 46.5 | 46.23 | 99 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D13.d

Lab ID: 460-246277-8 MS  Client ID: MW-24S-20211027 MS

| COMPOUND | SPIKE ADDED (ng/L) | SAMPLE CONCENTRATION (ng/L) | MS CONCENTRATION (ng/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 34.8 | 9.47 | 42.93 | 96 | 60-140 | |
| Perfluoropentanoic acid (PFPeA) | 34.8 | 9.60 | 44.56 | 101 | 60-140 | |
| Perfluorohexanoic acid (PFHxA) | 34.8 | 12.6 | 46.19 | 97 | 60-140 | |
| Perfluoroheptanoic acid (PFHpA) | 34.8 | 7.05 | 40.94 | 97 | 60-140 | |
| Perfluorooctanoic acid (PFOA) | 34.8 | 31.6 | 67.61 | 104 | 60-140 | |
| Perfluorononanoic acid (PFNA) | 34.8 | 3.31 | 37.59 | 99 | 60-140 | |
| Perfluorodecanoic acid (PFDA) | 34.8 | 1.14 J | 36.50 | 102 | 60-140 | |
| Perfluoroundecanoic acid (PFUnA) | 34.8 | 0.29 U | 34.22 | 98 | 60-140 | |
| Perfluorododecanoic acid (PFDoA) | 34.8 | 0.33 U | 36.87 | 106 | 60-140 | |
| Perfluorotridecanoic acid (PFTriA) | 34.8 | 0.37 U | 35.18 | 101 | 60-140 | |
| Perfluorotetradecanoic acid (PFTeA) | 34.8 | 0.54 U | 39.35 | 113 | 60-140 | |
| Perfluorobutanesulfonic acid (PFBS) | 30.7 | 8.46 | 39.11 | 100 | 60-140 | |
| Perfluorohexanesulfonic acid (PFHxS) | 31.6 | 41.2 | 72.79 | 100 | 60-140 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 33.1 | 1.29 J | 33.70 | 98 | 60-140 | |
| Perfluorooctanesulfonic acid (PFOS) | 32.3 | 45.2 | 78.61 | 104 | 60-140 | |
| Perfluorodecanesulfonic acid (PFDS) | 33.5 | 0.26 U | 31.54 | 94 | 60-140 | |
| Perfluorooctanesulfonamide (PFOSA) | 34.8 | 0.49 U | 36.00 | 104 | 60-140 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 34.8 | 0.77 U | 34.54 | 99 | 60-140 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 34.8 | 0.64 U | 34.35 | 99 | 60-140 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 33.0 | 0.94 U | 33.87 | 103 | 50-150 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 33.3 | 0.33 U | 32.60 | 98 | 60-140 | |
| 18O2 PFHxS | 41.1 | 38.8 | 38.55 | 94 | 50-150 | |
| 13C4 PFHpA | 43.5 | 41.3 | 41.49 | 95 | 50-150 | |
| 13C4 PFOA | 43.5 | 41.5 | 40.92 | 94 | 50-150 | |
| 13C4 PFOS | 41.6 | 42.3 | 41.47 | 100 | 50-150 | |
| 13C5 PFNA | 43.5 | 40.7 | 41.21 | 95 | 50-150 | |
| 13C4 PFBA | 43.5 | 34.9 | 34.29 | 79 | 25-150 | |
| 13C2 PFHxA | 43.5 | 41.0 | 42.21 | 97 | 50-150 | |
| 13C2 PFDA | 43.5 | 39.6 | 38.35 | 88 | 50-150 | |
| 13C2 PFUnA | 43.5 | 41.3 | 39.30 | 90 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D13.d

Lab ID: 460-246277-8 MS  Client ID: MW-24S-20211027 MS

| COMPOUND | SPIKE ADDED (ng/L) | SAMPLE CONCENTRATION (ng/L) | MS CONCENTRATION (ng/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 13C2 PFDoA | 43.5 | 39.0 | 36.64 | 84 | 50-150 | |
| 13C8 FOSA | 43.5 | 40.5 | 39.07 | 90 | 25-150 | |
| 13C5 PFPeA | 43.5 | 39.4 | 39.02 | 90 | 25-150 | |
| 13C2 PFTeDA | 43.5 | 38.3 | 35.08 | 81 | 50-150 | |
| d3-NMeFOSAA | 43.5 | 46.2 | 45.01 | 104 | 50-150 | |
| d5-NEtFOSAA | 43.5 | 49.8 | 46.25 | 106 | 50-150 | |
| M2-6:2 FTS | 41.3 | 48.9 | 47.95 | 116 | 25-150 | |
| M2-8:2 FTS | 41.6 | 53.4 | 51.83 | 124 | 25-150 | |
| 13C3 PFBS | 40.4 | 36.5 | 36.19 | 90 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D26.d

Lab ID: 460-246277-18 MS  Client ID: MW-26S-20211028 MS

| COMPOUND | SPIKE ADDED (ng/L) | SAMPLE CONCENTRATION (ng/L) | MS CONCENTRATION (ng/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 35.5 | 8.28 | 41.81 | 94 | 60-140 | |
| Perfluoropentanoic acid (PFPeA) | 35.5 | 11.0 | 47.57 | 103 | 60-140 | |
| Perfluorohexanoic acid (PFHxA) | 35.5 | 15.3 | 49.87 | 97 | 60-140 | |
| Perfluoroheptanoic acid (PFHpA) | 35.5 | 5.29 | 39.75 | 97 | 60-140 | |
| Perfluorooctanoic acid (PFOA) | 35.5 | 14.7 | 49.31 | 97 | 60-140 | |
| Perfluorononanoic acid (PFNA) | 35.5 | 1.61 J | 36.14 | 97 | 60-140 | |
| Perfluorodecanoic acid (PFDA) | 35.5 | 0.50 J | 39.09 | 109 | 60-140 | |
| Perfluoroundecanoic acid (PFUnA) | 35.5 | 0.30 U | 37.19 | 105 | 60-140 | |
| Perfluorododecanoic acid (PFDoA) | 35.5 | 0.33 U | 38.33 | 108 | 60-140 | |
| Perfluorotridecanoic acid (PFTriA) | 35.5 | 0.38 U | 34.46 | 97 | 60-140 | |
| Perfluorotetradecanoic acid (PFTeA) | 35.5 | 0.55 U | 43.86 | 123 | 60-140 | |
| Perfluorobutanesulfonic acid (PFBS) | 31.4 | 8.59 | 40.15 | 100 | 60-140 | |
| Perfluorohexanesulfonic acid (PFHxS) | 32.3 | 111 | 144.7 | 105 | 60-140 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 33.8 | 5.03 | 39.41 | 102 | 60-140 | |
| Perfluorooctanesulfonic acid (PFOS) | 33.0 | 286 | 310.2 | 73 | 60-140 | 4 |
| Perfluorodecanesulfonic acid (PFDS) | 34.3 | 0.27 U | 31.90 | 93 | 60-140 | |
| Perfluorooctanesulfonamide (PFOSA) | 35.5 | 0.50 U | 37.04 | 104 | 60-140 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 35.5 | 0.78 U | 37.07 | 104 | 60-140 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 35.5 | 0.64 U | 35.60 | 100 | 60-140 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 33.7 | 0.95 U | 35.29 | 105 | 50-150 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 34.0 | 0.34 U | 31.77 | 93 | 60-140 | |
| 18O2 PFHxS | 42.0 | 38.7 | 40.95 | 97 | 50-150 | |
| 13C4 PFHpA | 44.4 | 42.0 | 43.85 | 99 | 50-150 | |
| 13C4 PFOA | 44.4 | 41.1 | 42.83 | 96 | 50-150 | |
| 13C4 PFOS | 42.5 | 39.7 | 42.12 | 99 | 50-150 | |
| 13C5 PFNA | 44.4 | 39.6 | 42.78 | 96 | 50-150 | |
| 13C4 PFBA | 44.4 | 32.4 | 34.11 | 77 | 25-150 | |
| 13C2 PFHxA | 44.4 | 40.0 | 42.53 | 96 | 50-150 | |
| 13C2 PFDA | 44.4 | 38.7 | 40.73 | 92 | 50-150 | |
| 13C2 PFUnA | 44.4 | 36.4 | 37.73 | 85 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D26.d

Lab ID: 460-246277-18 MS  Client ID: MW-26S-20211028 MS

| COMPOUND | SPIKE ADDED (ng/L) | SAMPLE CONCENTRATION (ng/L) | MS CONCENTRATION (ng/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 13C2 PFDoA | 44.4 | 33.7 | 35.14 | 79 | 50-150 | |
| 13C8 FOSA | 44.4 | 40.9 | 41.24 | 93 | 25-150 | |
| 13C5 PFPeA | 44.4 | 38.5 | 41.04 | 92 | 25-150 | |
| 13C2 PFTeDA | 44.4 | 28.1 | 28.03 | 63 | 50-150 | |
| d3-NMeFOSAA | 44.4 | 43.7 | 44.22 | 100 | 50-150 | |
| d5-NEtFOSAA | 44.4 | 43.7 | 45.42 | 102 | 50-150 | |
| M2-6:2 FTS | 42.2 | 47.2 | 50.51 | 120 | 25-150 | |
| M2-8:2 FTS | 42.6 | 46.4 | 50.14 | 118 | 25-150 | |
| 13C3 PFBS | 41.3 | 35.8 | 37.36 | 90 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D14.d

Lab ID: 460-246277-8 MSD  Client ID: MW-24S-20211027 MSD

| COMPOUND | SPIKE ADDED (ng/L) | MSD CONCENTRATION (ng/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 32.9 | 40.13 | 93 | 7 | 30 | 60-140 | |
| Perfluoropentanoic acid (PFPeA) | 32.9 | 42.80 | 101 | 4 | 30 | 60-140 | |
| Perfluorohexanoic acid (PFHxA) | 32.9 | 43.59 | 94 | 6 | 30 | 60-140 | |
| Perfluoroheptanoic acid (PFHpA) | 32.9 | 39.65 | 99 | 3 | 30 | 60-140 | |
| Perfluorooctanoic acid (PFOA) | 32.9 | 65.50 | 103 | 3 | 30 | 60-140 | |
| Perfluorononanoic acid (PFNA) | 32.9 | 36.58 | 101 | 3 | 30 | 60-140 | |
| Perfluorodecanoic acid (PFDA) | 32.9 | 36.20 | 107 | 1 | 30 | 60-140 | |
| Perfluoroundecanoic acid (PFUnA) | 32.9 | 32.08 | 97 | 6 | 30 | 60-140 | |
| Perfluorododecanoic acid (PFDoA) | 32.9 | 34.45 | 105 | 7 | 30 | 60-140 | |
| Perfluorotridecanoic acid (PFTriA) | 32.9 | 34.43 | 105 | 2 | 30 | 60-140 | |
| Perfluorotetradecanoic acid (PFTeA) | 32.9 | 34.96 | 106 | 12 | 30 | 60-140 | |
| Perfluorobutanesulfonic acid (PFBS) | 29.1 | 36.56 | 97 | 7 | 30 | 60-140 | |
| Perfluorohexanesulfonic acid (PFHxS) | 29.9 | 68.73 | 92 | 6 | 30 | 60-140 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 31.3 | 31.55 | 97 | 7 | 30 | 60-140 | |
| Perfluorooctanesulfonic acid (PFOS) | 30.5 | 75.64 | 100 | 4 | 30 | 60-140 | |
| Perfluorodecanesulfonic acid (PFDS) | 31.7 | 30.42 | 96 | 4 | 30 | 60-140 | |
| Perfluorooctanesulfonamide (PFOSA) | 32.9 | 34.68 | 105 | 4 | 30 | 60-140 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 32.9 | 36.37 | 111 | 5 | 30 | 60-140 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 32.9 | 33.22 | 101 | 3 | 30 | 60-140 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 31.2 | 32.07 | 103 | 5 | 30 | 50-150 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 31.5 | 30.33 | 96 | 7 | 30 | 60-140 | |
| 18O2 PFHxS | 38.9 | 36.16 | 93 | | | 50-150 | |
| 13C4 PFHpA | 41.1 | 38.03 | 92 | | | 50-150 | |
| 13C4 PFOA | 41.1 | 36.85 | 90 | | | 50-150 | |
| 13C4 PFOS | 39.3 | 38.70 | 98 | | | 50-150 | |
| 13C5 PFNA | 41.1 | 38.25 | 93 | | | 50-150 | |
| 13C4 PFBA | 41.1 | 31.19 | 76 | | | 25-150 | |
| 13C2 PFHxA | 41.1 | 37.55 | 91 | | | 50-150 | |
| 13C2 PFDA | 41.1 | 35.64 | 87 | | | 50-150 | |
| 13C2 PFUnA | 41.1 | 37.28 | 91 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D14.d

Lab ID: 460-246277-8 MSD  Client ID: MW-24S-20211027 MSD

| COMPOUND | SPIKE ADDED (ng/L) | MSD CONCENTRATION (ng/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 13C2 PFDoA | 41.1 | 34.81 | 85 | | | 50-150 | |
| 13C8 FOSA | 41.1 | 36.17 | 88 | | | 25-150 | |
| 13C5 PFPeA | 41.1 | 36.24 | 88 | | | 25-150 | |
| 13C2 PFTeDA | 41.1 | 34.56 | 84 | | | 50-150 | |
| d3-NMeFOSAA | 41.1 | 41.15 | 100 | | | 50-150 | |
| d5-NEtFOSAA | 41.1 | 43.55 | 106 | | | 50-150 | |
| M2-6:2 FTS | 39.1 | 43.58 | 112 | | | 25-150 | |
| M2-8:2 FTS | 39.4 | 48.92 | 124 | | | 25-150 | |
| 13C3 PFBS | 38.3 | 33.74 | 88 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D27.d

Lab ID: 460-246277-18 MSD  Client ID: MW-26S-20211028 MSD

| COMPOUND | SPIKE ADDED (ng/L) | MSD CONCENTRATION (ng/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 35.0 | 40.84 | 93 | 2 | 30 | 60-140 | |
| Perfluoropentanoic acid (PFPeA) | 35.0 | 45.98 | 100 | 3 | 30 | 60-140 | |
| Perfluorohexanoic acid (PFHxA) | 35.0 | 50.09 | 99 | 0 | 30 | 60-140 | |
| Perfluoroheptanoic acid (PFHpA) | 35.0 | 41.22 | 103 | 4 | 30 | 60-140 | |
| Perfluorooctanoic acid (PFOA) | 35.0 | 50.07 | 101 | 2 | 30 | 60-140 | |
| Perfluorononanoic acid (PFNA) | 35.0 | 34.33 | 93 | 5 | 30 | 60-140 | |
| Perfluorodecanoic acid (PFDA) | 35.0 | 37.42 | 105 | 4 | 30 | 60-140 | |
| Perfluoroundecanoic acid (PFUnA) | 35.0 | 36.86 | 105 | 1 | 30 | 60-140 | |
| Perfluorododecanoic acid (PFDoA) | 35.0 | 36.73 | 105 | 4 | 30 | 60-140 | |
| Perfluorotridecanoic acid (PFTriA) | 35.0 | 35.38 | 101 | 3 | 30 | 60-140 | |
| Perfluorotetradecanoic acid (PFTeA) | 35.0 | 41.92 | 120 | 5 | 30 | 60-140 | |
| Perfluorobutanesulfonic acid (PFBS) | 30.9 | 40.34 | 103 | 0 | 30 | 60-140 | |
| Perfluorohexanesulfonic acid (PFHxS) | 31.9 | 145.6 | 109 | 1 | 30 | 60-140 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 33.3 | 38.53 | 101 | 2 | 30 | 60-140 | |
| Perfluorooctanesulfonic acid (PFOS) | 32.5 | 299.7 | 42 | 3 | 30 | 60-140 | 4 |
| Perfluorodecanesulfonic acid (PFDS) | 33.7 | 31.13 | 92 | 2 | 30 | 60-140 | |
| Perfluorooctanesulfonamide (PFOSA) | 35.0 | 36.45 | 104 | 2 | 30 | 60-140 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 35.0 | 38.91 | 111 | 5 | 30 | 60-140 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 35.0 | 35.40 | 101 | 1 | 30 | 60-140 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 33.2 | 35.17 | 106 | 0 | 30 | 50-150 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 33.5 | 31.16 | 93 | 2 | 30 | 60-140 | |
| 18O2 PFHxS | 41.4 | 41.16 | 99 | | | 50-150 | |
| 13C4 PFHpA | 43.8 | 42.86 | 98 | | | 50-150 | |
| 13C4 PFOA | 43.8 | 43.85 | 100 | | | 50-150 | |
| 13C4 PFOS | 41.8 | 44.76 | 107 | | | 50-150 | |
| 13C5 PFNA | 43.8 | 45.34 | 104 | | | 50-150 | |
| 13C4 PFBA | 43.8 | 35.79 | 82 | | | 25-150 | |
| 13C2 PFHxA | 43.8 | 43.46 | 99 | | | 50-150 | |
| 13C2 PFDA | 43.8 | 41.78 | 95 | | | 50-150 | |
| 13C2 PFUnA | 43.8 | 39.64 | 91 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
PFAS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: PA211109D27.d

Lab ID: 460-246277-18 MSD  Client ID: MW-26S-20211028 MSD

| COMPOUND | SPIKE ADDED (ng/L) | MSD CONCENTRATION (ng/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 13C2 PFDoA | 43.8 | 37.76 | 86 | | | 50-150 | |
| 13C8 FOSA | 43.8 | 42.23 | 97 | | | 25-150 | |
| 13C5 PFPeA | 43.8 | 41.40 | 95 | | | 25-150 | |
| 13C2 PFTeDA | 43.8 | 31.75 | 73 | | | 50-150 | |
| d3-NMeFOSAA | 43.8 | 46.98 | 107 | | | 50-150 | |
| d5-NEtFOSAA | 43.8 | 47.05 | 108 | | | 50-150 | |
| M2-6:2 FTS | 41.6 | 52.83 | 127 | | | 25-150 | |
| M2-8:2 FTS | 41.9 | 48.35 | 115 | | | 25-150 | |
| 13C3 PFBS | 40.7 | 37.93 | 93 | | | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab File ID: PA211109D02.d  Lab Sample ID: MB 200-173528/1-A

Matrix: Water  Date Extracted: 11/04/2021 17:16

Instrument ID: LC812  Date Analyzed: 11/10/2021 04:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 200-173528/2-A | PA211109D03.d | 11/10/2021 04:28 |
| MH-102-20211027 | 460-246277-1 | PA211109D04.d | 11/10/2021 04:36 |
| AP-101-20211027 | 460-246277-2 | PA211109D05.d | 11/10/2021 04:44 |
| AMW-2-20211027 | 460-246277-3 | PA211109D07.d | 11/10/2021 05:01 |
| AMW-1-20211027 | 460-246277-4 | PA211109D08.d | 11/10/2021 05:09 |
| MW-202S-20211027 | 460-246277-5 | PA211109D09.d | 11/10/2021 05:17 |
| MW-202D-20211027 | 460-246277-6 | PA211109D10.d | 11/10/2021 05:25 |
| MW-9S-20211027 | 460-246277-7 | PA211109D11.d | 11/10/2021 05:34 |
| MW-24S-20211027 | 460-246277-8 | PA211109D12.d | 11/10/2021 05:42 |
| MW-24S-20211027 MS | 460-246277-8 MS | PA211109D13.d | 11/10/2021 05:50 |
| MW-24S-20211027 MSD | 460-246277-8 MSD | PA211109D14.d | 11/10/2021 05:58 |
| BP-101-20211028 | 460-246277-9 | PA211109D16.d | 11/10/2021 06:15 |
| EP-02-20211028 | 460-246277-10 | PA211109D17.d | 11/10/2021 06:23 |
| MW-23S-20211028 | 460-246277-11 | PA211109D18.d | 11/10/2021 06:31 |
| MW-37AQ-20211028 | 460-246277-12 | PA211109D19.d | 11/10/2021 06:39 |
| AMW-5-20211028 | 460-246277-13 | PA211109D20.d | 11/10/2021 06:47 |
| MW-5S-20211028 | 460-246277-14 | PA211109D21.d | 11/10/2021 06:55 |
| MW-34-20211028 | 460-246277-15 | PA211109D22.d | 11/10/2021 07:04 |
| MW-1S-20211028 | 460-246277-16 | PA211109D23.d | 11/10/2021 07:12 |
| MW-102-20211028 | 460-246277-17 | PA211109D24.d | 11/10/2021 07:20 |
| MW-26S-20211028 | 460-246277-18 | PA211109D25.d | 11/10/2021 07:28 |
| MW-26S-20211028 MS | 460-246277-18 MS | PA211109D26.d | 11/10/2021 07:36 |

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab File ID: PA211109D02.d  Lab Sample ID: MB 200-173528/1-A

Matrix: Water  Date Extracted: 11/04/2021 17:16

Instrument ID: LC812  Date Analyzed: 11/10/2021 04:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| MW-26S-20211028 MSD | 460-246277-18 MSD | PA211109D27.d | 11/10/2021 07:45 |

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab File ID: PA211108A13.d  Lab Sample ID: MB 200-173541/1-A

Matrix: Water  Date Extracted: 11/05/2021 09:47

Instrument ID: LC812  Date Analyzed: 11/08/2021 17:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 200-173541/2-A | PA211108A14.d | 11/08/2021 17:21 |
| | LCSD 200-173541/3-A | PA211108A15.d | 11/08/2021 17:28 |
| AMW-8-20211029 DL | 460-246277-28 DL | PA211109A07.d | 11/09/2021 13:07 |
| AMW-10-20211029 DL | 460-246277-31 DL | PA211109A08.d | 11/09/2021 13:14 |

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab File ID: PA211110A07.d  Lab Sample ID: MB 200-173541/1-A

Matrix: Water  Date Extracted: 11/05/2021 09:47

Instrument ID: LC812  Date Analyzed: 11/10/2021 12:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 200-173541/2-A | PA211110A08.d | 11/10/2021 12:19 |
| | LCSD 200-173541/3-A | PA211110A09.d | 11/10/2021 12:28 |
| MW-7S-20211028 | 460-246277-19 | PA211110A10.d | 11/10/2021 12:36 |
| AMW-4-20211028 | 460-246277-20 | PA211110A11.d | 11/10/2021 12:44 |
| AMW-11-20211028 | 460-246277-21 | PA211110A12.d | 11/10/2021 12:52 |
| AMW-6-20211028 | 460-246277-22 | PA211110A13.d | 11/10/2021 13:00 |
| AMW-3-20211028 | 460-246277-23 | PA211110A14.d | 11/10/2021 13:09 |
| DUP-02-20211028 | 460-246277-24 | PA211110A15.d | 11/10/2021 13:17 |
| MW-201-20211028 | 460-246277-25 | PA211110A16.d | 11/10/2021 13:25 |
| MW-4S-20211029 | 460-246277-26 | PA211110A17.d | 11/10/2021 13:33 |
| MW-3S-20211029 | 460-246277-27 | PA211110A19.d | 11/10/2021 13:49 |
| AMW-9-20211029 | 460-246277-29 | PA211110A20.d | 11/10/2021 13:58 |
| AMW-7-20211029 | 460-246277-30 | PA211110A21.d | 11/10/2021 14:06 |
| AMW-10-20211029 | 460-246277-31 | PA211110A22.d | 11/10/2021 14:14 |
| AMW-8-20211029 | 460-246277-28 | PA211110A23.d | 11/10/2021 14:22 |
| MW-53S-20211029 | 460-246277-32 | PA211110A25.d | 11/10/2021 14:39 |

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Sample No.: ICIS 200-173158/5  Date Analyzed: 10/27/2021 14:11

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211027ICAL05.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| INITIAL CALIBRATION MID-POINT | | 2078811 | 3.48 | | | | |
| UPPER LIMIT | | 3118217 | 3.68 | | | | |
| LOWER LIMIT | | 1039406 | 3.28 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICB 200-173158/8 | | 1973814 | 3.48 | | | | |
| ICV 200-173158/9 | | 2588794 | 3.48 | | | | |
| CCVL 200-173621/5 | | 1558450 | 3.48 | | | | |
| CCVIS 200-173621/6 | | 1257573 | 3.48 | | | | |
| CCVL 200-173663/5 | | 1401965 | 3.48 | | | | |
| CCVIS 200-173663/6 | | 1369630 | 3.48 | | | | |
| CCVL 200-173679/2 | | 1426024 | 3.49 | | | | |
| CCVIS 200-173679/3 | | 1738261 | 3.49 | | | | |
| CCVL 200-173694/5 | | 1807269 | 3.49 | | | | |
| CCVIS 200-173694/6 | | 1426960 | 3.48 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 200-173621/6  Date Analyzed: 11/08/2021 16:23

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211108A06.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1257573 | 3.48 | | | | |
| UPPER LIMIT | | 1886360 | 3.68 | | | | |
| LOWER LIMIT | | 628787 | 3.28 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| 460-246277-2 DL | AP-101-20211027 DL | 254208*3 | 3.48 | | | | |
| CCV 200-173621/12 | | 1286889 | 3.48 | | | | |
| MB 200-173541/1-A | | 1633444 | 3.47 | | | | |
| LCS 200-173541/2-A | | 1300520 | 3.48 | | | | |
| LCSD 200-173541/3-A | | 1524999 | 3.47 | | | | |
| CCV 200-173621/26 | | 1195300 | 3.47 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 200-173663/6  Date Analyzed: 11/09/2021 13:00

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211109A06.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1369630 | 3.48 | | | | |
| UPPER LIMIT | | 2054445 | 3.68 | | | | |
| LOWER LIMIT | | 684815 | 3.28 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| 460-246277-28 DL | AMW-8-20211029 DL | 341691*3 | 3.48 | | | | |
| 460-246277-31 DL | AMW-10-20211029 DL | 673519*3 | 3.48 | | | | |
| CCV 200-173663/13 | | 1705965 | 3.48 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 200-173679/3  Date Analyzed: 11/09/2021 17:33

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211109AA03.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1738261 | 3.49 | | | | |
| UPPER LIMIT | | 2607392 | 3.69 | | | | |
| LOWER LIMIT | | 869131 | 3.29 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| CCV 200-173682/1 | | 1392927 | 3.49 | | | | |
| MB 200-173528/1-A | | 1745010 | 3.49 | | | | |
| LCS 200-173528/2-A | | 1376973 | 3.49 | | | | |
| 460-246277-1 | MH-102-20211027 | 1712862 | 3.49 | | | | |
| 460-246277-2 | AP-101-20211027 | 1444235 | 3.50 | | | | |
| 460-246277-3 | AMW-2-20211027 | 1570037 | 3.49 | | | | |
| 460-246277-4 | AMW-1-20211027 | 1430924 | 3.48 | | | | |
| 460-246277-5 | MW-202S-20211027 | 1481391 | 3.49 | | | | |
| 460-246277-6 | MW-202D-20211027 | 1659955 | 3.49 | | | | |
| 460-246277-7 | MW-9S-20211027 | 1432078 | 3.49 | | | | |
| 460-246277-8 | MW-24S-20211027 | 1570910 | 3.49 | | | | |
| 460-246277-8 MS | MW-24S-20211027 MS | 1586012 | 3.49 | | | | |
| 460-246277-8 MSD | MW-24S-20211027 MSD | 1656727 | 3.49 | | | | |
| CCV 200-173682/15 | | 1440362 | 3.49 | | | | |
| 460-246277-9 | BP-101-20211028 | 1785348 | 3.48 | | | | |
| 460-246277-10 | EP-02-20211028 | 1536993 | 3.49 | | | | |
| 460-246277-11 | MW-23S-20211028 | 1764381 | 3.50 | | | | |
| 460-246277-12 | MW-37AQ-20211028 | 1624794 | 3.49 | | | | |
| 460-246277-13 | AMW-5-20211028 | 1690465 | 3.49 | | | | |
| 460-246277-14 | MW-5S-20211028 | 1399069 | 3.49 | | | | |
| 460-246277-15 | MW-34-20211028 | 1054666 | 3.48 | | | | |
| 460-246277-16 | MW-1S-20211028 | 1624011 | 3.49 | | | | |
| 460-246277-17 | MW-102-20211028 | 1740892 | 3.49 | | | | |
| 460-246277-18 | MW-26S-20211028 | 1525736 | 3.49 | | | | |
| 460-246277-18 MS | MW-26S-20211028 MS | 1513860 | 3.49 | | | | |
| 460-246277-18 MSD | MW-26S-20211028 MSD | 1385979 | 3.49 | | | | |
| CCV 200-173682/28 | | 1700684 | 3.49 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Sample No.: CCVIS 200-173694/6  Date Analyzed: 11/10/2021 12:03

Instrument ID: LC812  GC Column: C-18  ID: 4.6(mm)

Lab File ID (Standard): PA211110A06.d  Heated Purge: (Y/N) N

Calibration ID: 46975

| | | 13PFOA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1426960 | 3.48 | | | | |
| UPPER LIMIT | | 2140440 | 3.68 | | | | |
| LOWER LIMIT | | 713480 | 3.28 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 200-173541/1-A | | 1785267 | 3.48 | | | | |
| LCS 200-173541/2-A | | 1784654 | 3.49 | | | | |
| LCSD 200-173541/3-A | | 1692736 | 3.49 | | | | |
| 460-246277-19 | MW-7S-20211028 | 1416772 | 3.48 | | | | |
| 460-246277-20 | AMW-4-20211028 | 1641921 | 3.48 | | | | |
| 460-246277-21 | AMW-11-20211028 | 1357898 | 3.49 | | | | |
| 460-246277-22 | AMW-6-20211028 | 1516317 | 3.49 | | | | |
| 460-246277-23 | AMW-3-20211028 | 1353813 | 3.49 | | | | |
| 460-246277-24 | DUP-02-20211028 | 1139226 | 3.49 | | | | |
| 460-246277-25 | MW-201-20211028 | 1535007 | 3.49 | | | | |
| 460-246277-26 | MW-4S-20211029 | 1405731 | 3.49 | | | | |
| CCV 200-173694/18 | | 1742707 | 3.49 | | | | |
| 460-246277-27 | MW-3S-20211029 | 1410098 | 3.49 | | | | |
| 460-246277-29 | AMW-9-20211029 | 1160927 | 3.49 | | | | |
| 460-246277-30 | AMW-7-20211029 | 1252160 | 3.49 | | | | |
| 460-246277-31 | AMW-10-20211029 | 1570503 | 3.49 | | | | |
| 460-246277-28 | AMW-8-20211029 | 1292717 | 3.49 | | | | |
| 460-246277-32 | MW-53S-20211029 | 1309832 | 3.49 | | | | |
| CCV 200-173694/30 | | 1760267 | 3.49 | | | | |

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MH-102-20211027  Lab Sample ID: 460-246277-1

Matrix: Water  Lab File ID: PA211109D04.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:35

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 275.2(mL)  Date Analyzed: 11/10/2021 04:36

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.67 | J | 4.54 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.92 | | 1.82 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 2.58 | | 1.82 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.85 | J | 1.82 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 3.57 | | 1.82 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.26 | U | 1.82 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.82 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.82 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.82 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.98 | | 1.82 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 33.7 | | 1.82 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.07 | J | 1.82 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 69.5 | | 1.82 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.82 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.54 | 0.82 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.54 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.0 | U | 4.54 | 1.0 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.82 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MH-102-20211027  Lab Sample ID: 460-246277-1

Matrix: Water  Lab File ID: PA211109D04.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:35

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 275.2(mL)  Date Analyzed: 11/10/2021 04:36

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 99 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 94 | | 50-150 |
| STL00992 | 13C4 PFBA | 104 | | 25-150 |
| STL00993 | 13C2 PFHxA | 103 | | 50-150 |
| STL00996 | 13C2 PFDA | 82 | | 50-150 |
| STL00997 | 13C2 PFUnA | 79 | | 50-150 |
| STL00998 | 13C2 PFDoA | 75 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 102 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 70 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 84 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 87 | | 50-150 |
| STL02279 | M2-6:2 FTS | 108 | | 25-150 |
| STL02280 | M2-8:2 FTS | 103 | | 25-150 |
| STL02337 | 13C3 PFBS | 94 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d
Lims ID: 460-246277-C-1-A
Client ID: MH-102-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 04:36:45 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-1-A
Misc. Info.: 200-0048356-004 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 10-Nov-2021 16:52:15
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.098 | 2.100 | -0.002 | 0.601 | 1811090 | 1.31 | | 104 | 9952 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.098 | 2.100 | -0.002 | 1.000 | 138267 | 0.1009 | | | 18.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.411 | 2.413 | -0.002 | 0.690 | 1482836 | 1.27 | | 102 | 2738 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.411 | 2.413 | -0.002 | 1.000 | 62886 | 0.0529 | | | 2.1 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.437 | 2.426 | 0.011 | 0.698 | 1719295 | 1.09 | | 93.5 | 78665 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.437 | 2.439 | -0.002 | 1.000 | 172807 | 0.1094 | Target=2.32 | | 27.8 | |
| 298.90 > 99.00 | 2.437 | 2.439 | -0.002 | 1.000 | 82748 | | 2.09(1.16-3.48) | | 30.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.768 | 2.770 | -0.002 | 0.793 | 1581795 | 1.29 | | 103 | 3477 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.768 | 2.770 | -0.002 | 1.000 | 91282 | 0.0711 | Target=12.09 | | 10.5 | |
| 313.00 > 119.00 | 2.768 | 2.770 | -0.002 | 1.000 | 8555 | | 10.67(6.04-18.13) | | 8.7 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.132 | 0.001 | 1.000 | 1107702 | 0.9267 | Target=3.55 | | 733 | M |
| 399.00 > 99.00 | 3.133 | 3.132 | 0.001 | 1.000 | 294188 | | 3.77(1.77-5.32) | | 296 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.132 | 0.001 | 0.897 | 1285627 | 1.12 | | 94.7 | 3591 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1597373 | 1.24 | | 99.0 | 3667 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 30955 | 0.0234 | Target=3.69 | | 6.2 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 8141 | | 3.80(1.84-5.53) | | 13.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 29992 | 0.0294 | Target=4.88 | | 25.9 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 5758 | | 5.21(2.44-7.32) | | 15.8 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 0.997 | 395 | 0.001586 | | | 6.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 233184 | 1.29 | | 108 | 272 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1708948 | 1.21 | | 97.0 | 3310 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1712862 | 1.25 | | | 4723 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 142747 | 0.0982 | Target=2.68 | | 14.5 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 58821 | | 2.43(1.34-4.02) | | 96.9 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 977541 | 1.18 | | 98.5 | 2292 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1697199 | 1.91 | Target=4.69 | | 1501 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 363122 | | 4.67(2.35-7.04) | | 788 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.814 | 0.011 | 1.095 | 1647233 | 1.17 | | 93.8 | 4545 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.836 | 3.814 | 0.022 | 1.003 | 8959 | 0.006949 | Target=7.29 | | 1.7 | M |
| 463.00 > 169.00 | 3.825 | 3.814 | 0.011 | 1.000 | 1158 | | 7.74(3.64-10.93) | | 5.3 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1454129 | 1.03 | | 82.1 | 3590 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.003 | 1241 | 0.001062 | Target=8.95 | | 1.2 | RM |
| 513.00 > 169.00 | 4.104 | 4.115 | -0.011 | 0.997 | 476 | | 2.61(4.47-13.42) | | 2.8 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 253453 | 1.23 | | 103 | 616 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.149 | 4.126 | 0.023 | 1.005 | 178 | 0.001005 | | | 2.6 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1556937 | 1.14 | | 91.1 | 4401 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 1263 | 0.001068 | | | 6.7 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 146084 | 1.05 | | 83.8 | 1349 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 293 | 0.003191 | | | 3.4 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.358 | 4.346 | 0.012 | 1.146 | 503 | 0.000936 | Target=2.47 | | 3.3 | M |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.143 | 144 | | 3.49(1.23-3.70) | | 1.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1095690 | 0.99 | | 79.3 | 3960 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.358 | 4.369 | -0.010 | 0.995 | 1180 | 0.001263 | Target=9.24 | | 0.9 | RM |
| 563.00 > 169.00 | 4.358 | 4.369 | -0.010 | 0.995 | 35 | | 33.71(4.62-13.86) | | 0.7 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 141887 | 1.09 | | 86.9 | 957 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.380 | -0.011 | 0.995 | 136 | 0.001398 | | | 2.1 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.317 | 1109595 | 0.9338 | | 74.7 | 1542 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.591 | 4.591 | 0.0 | 0.998 | 1497 | 0.001723 | Target=7.04 | | 0.5 | RM |
| 613.00 > 169.00 | 4.611 | 4.591 | 0.020 | 1.002 | 87 | | 17.21(3.52-10.56) | | 1.7 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.810 | 4.792 | 0.018 | 1.046 | 646 | 0.000862 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.810 | 4.792 | 0.018 | 1.046 | 173 | | 3.73(2.34-7.02) | | 2.4 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 802871 | 0.8712 | | 69.7 | 1838 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.966 | 4.966 | 0.0 | 0.998 | 278 | 0.002742 | Target=1.01 | | 7.1 | M |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 313 | | 0.89(0.51-1.52) | | 12.9 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:25:53 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d

Injection Date: 10-Nov-2021 04:36:45 Instrument ID: LC812

Lims ID: 460-246277-C-1-A Lab Sample ID: 200-246277-1

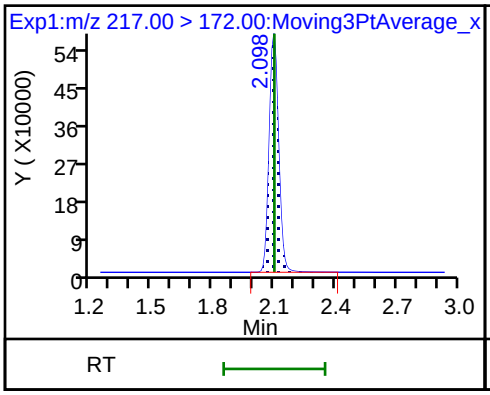
Client ID: MH-102-20211027

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 4

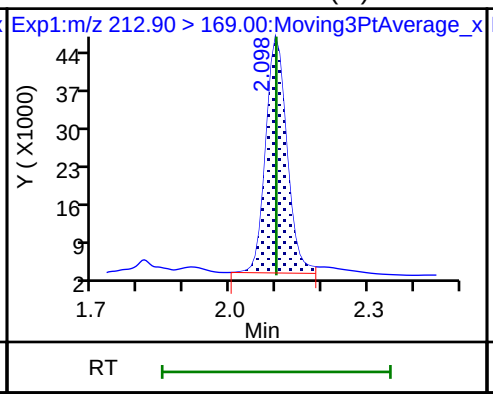
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

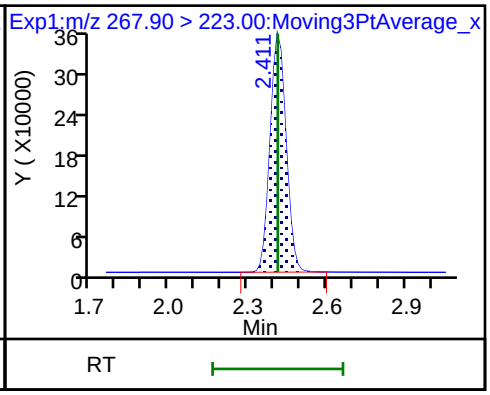
D 1 13C4 PFBA



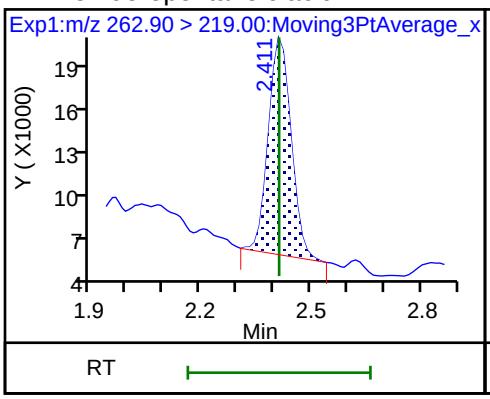

2 Perfluorobutanoic acid (M)



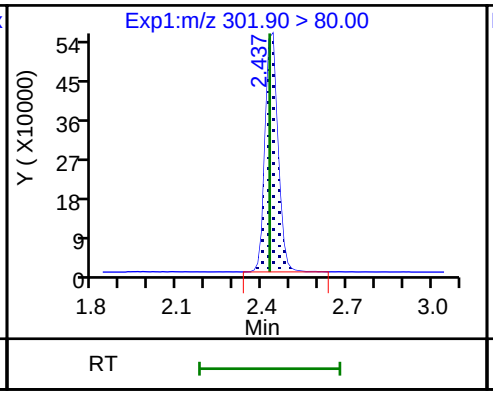

D 3 13C5 PFPeA



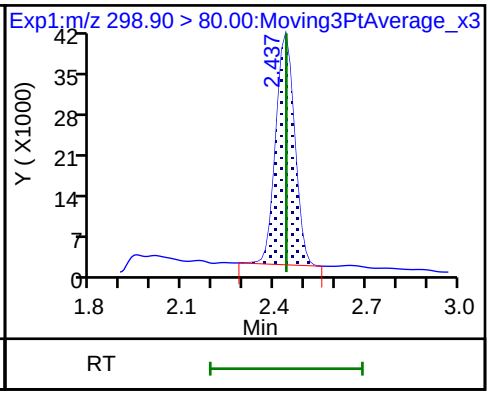

4 Perfluoropentanoic acid



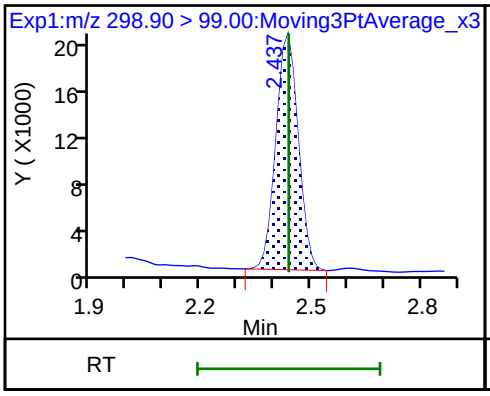

D 47 13C3 PFBS



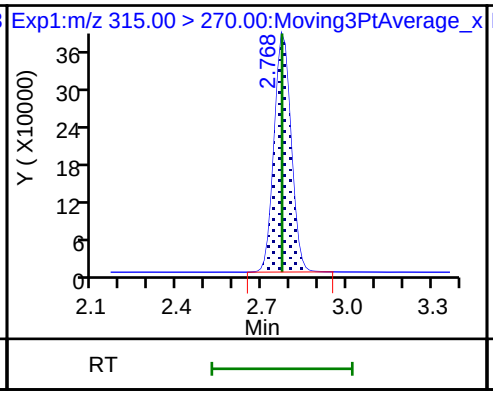

5 Perfluorobutanesulfonic acid



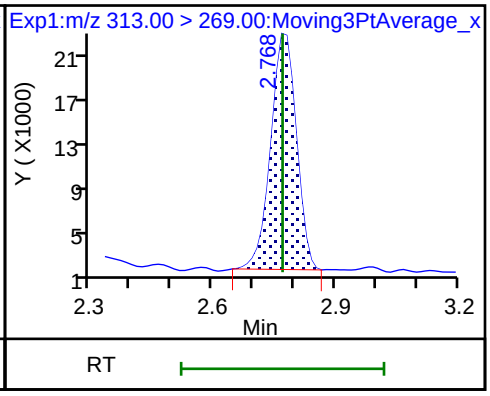

5 Perfluorobutanesulfonic acid



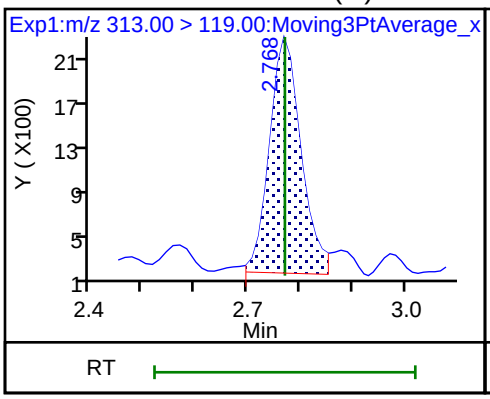

D 7 13C2 PFHxA



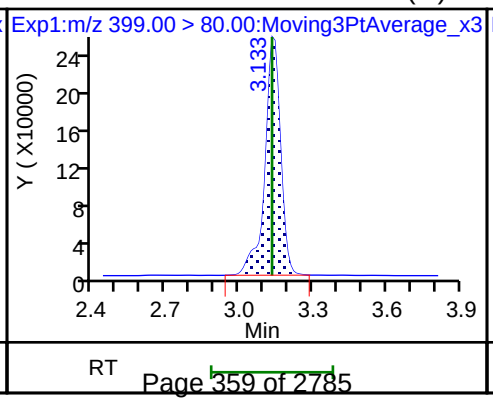

6 Perfluorohexanoic acid



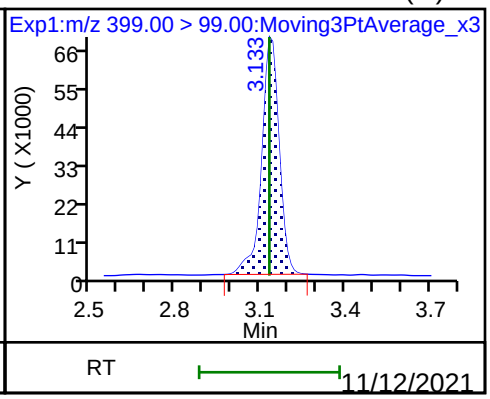

6 Perfluorohexanoic acid (M)



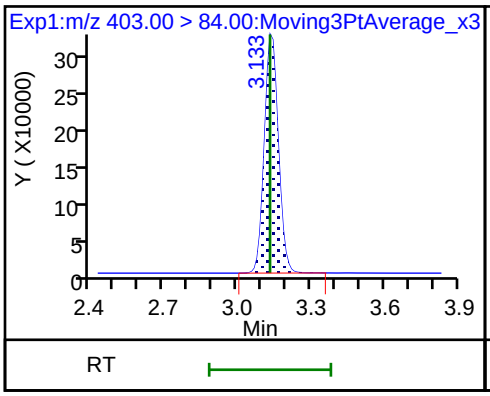

8 Perfluorohexanesulfonic acid (M)



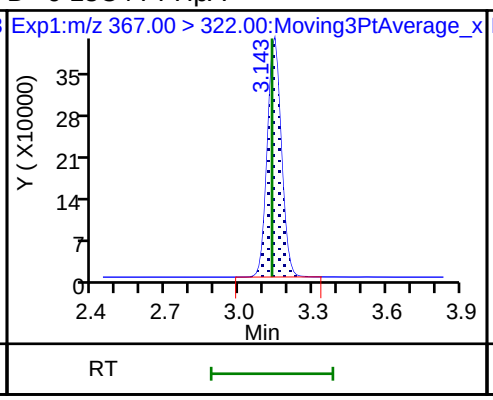

8 Perfluorohexanesulfonic acid (M)



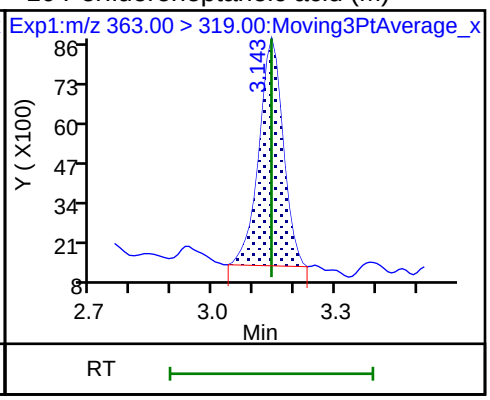
D 11 18O2 PFHxS



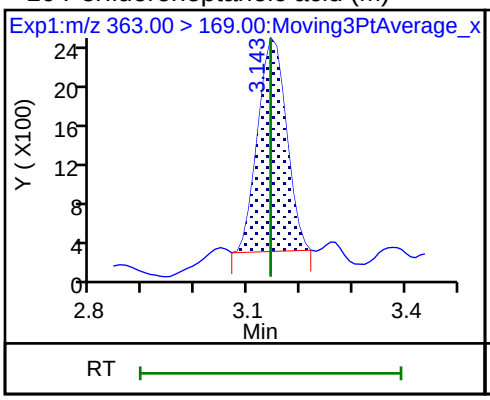

D 9 13C4 PFHpA



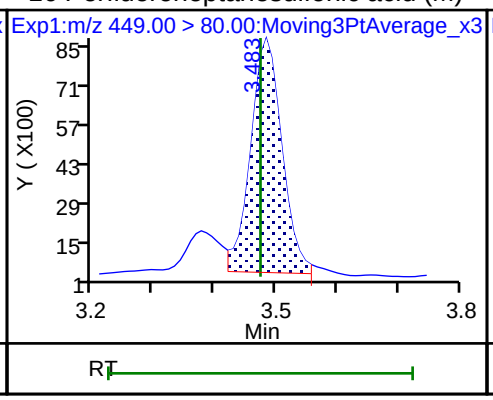

10 Perfluoroheptanoic acid (M)



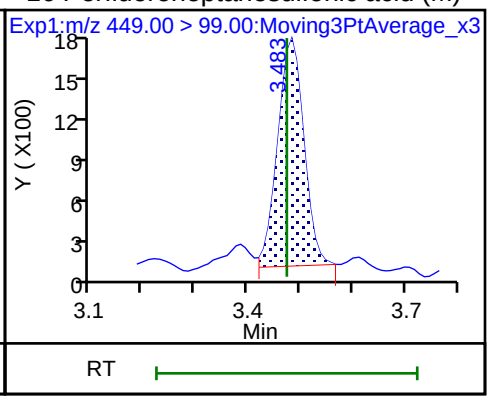

10 Perfluoroheptanoic acid (M)



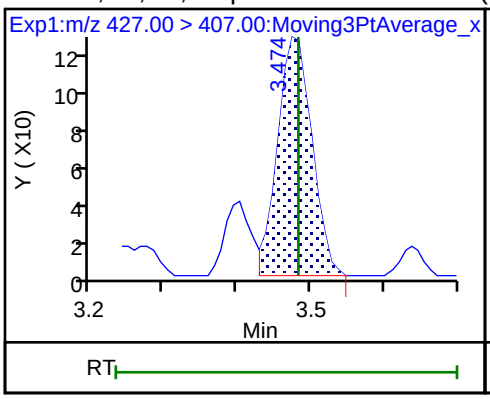

16 Perfluoroheptanesulfonic acid (M)



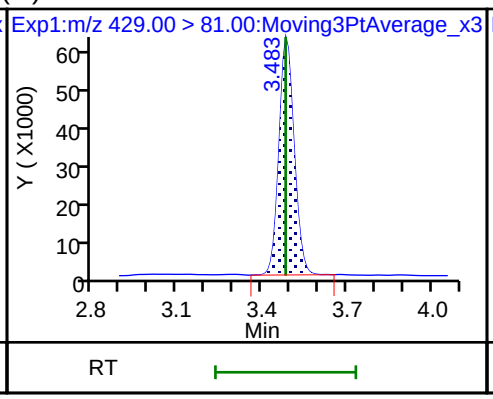

16 Perfluoroheptanesulfonic acid (M)



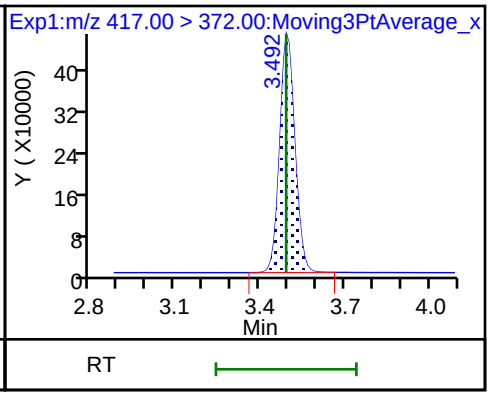

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



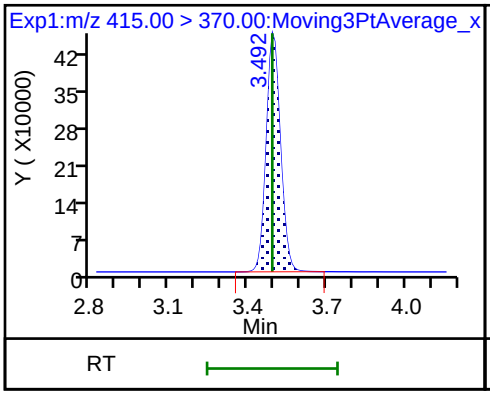

D 12 M2-6:2 FTS



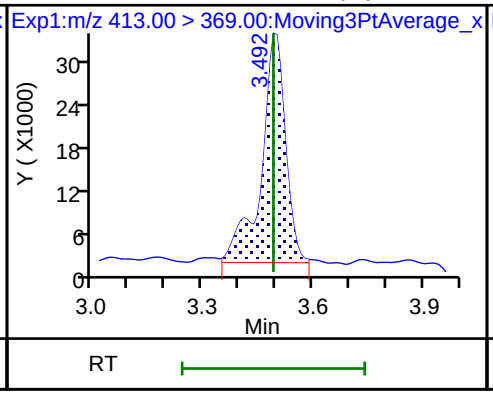

D 14 13C4 PFOA



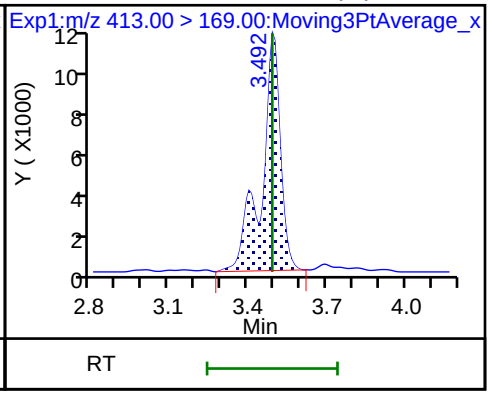

* 62 13C2 PFOA



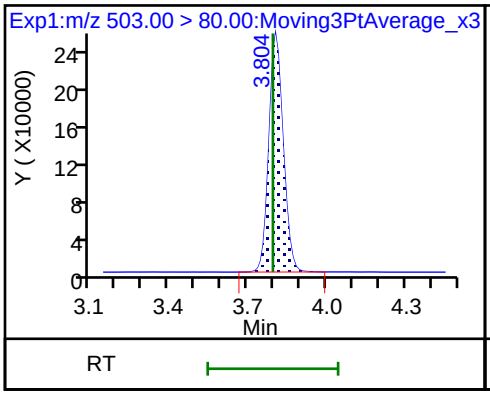

15 Perfluorooctanoic acid (M)



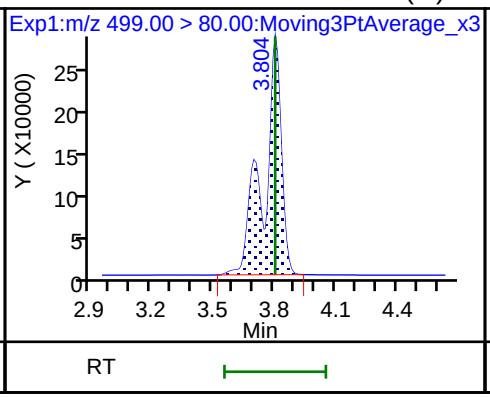

15 Perfluorooctanoic acid (M)



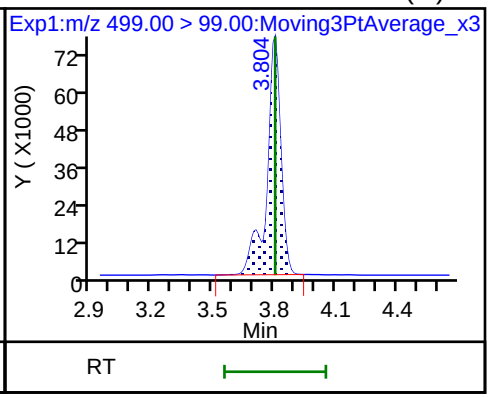
D 18 13C4 PFOS



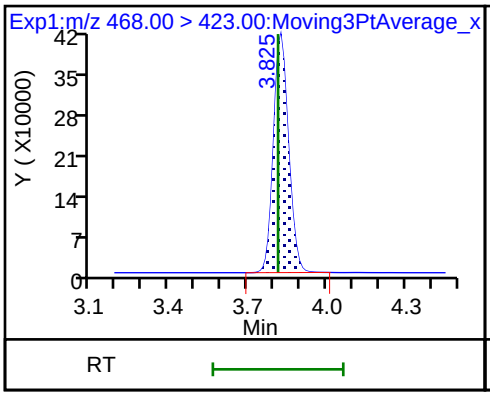

17 Perfluorooctanesulfonic acid (M)



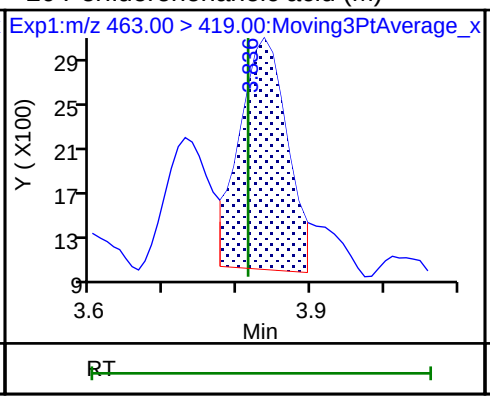

17 Perfluorooctanesulfonic acid (M)



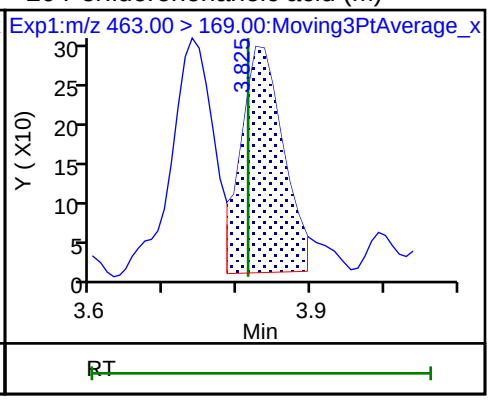

D 19 13C5 PFNA



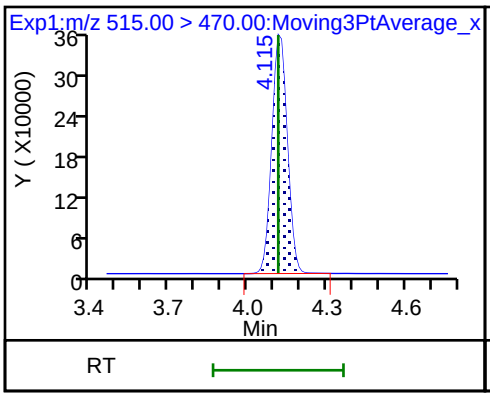

20 Perfluorononanoic acid (M)



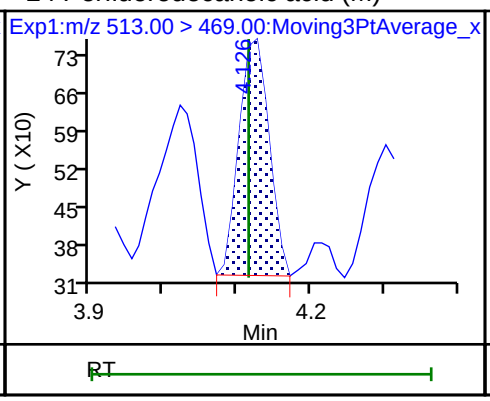

20 Perfluorononanoic acid (M)



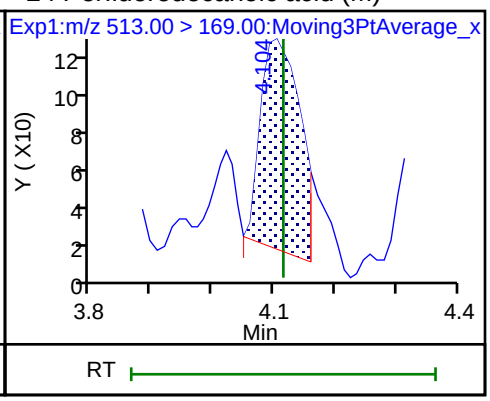

D 23 13C2 PFDA



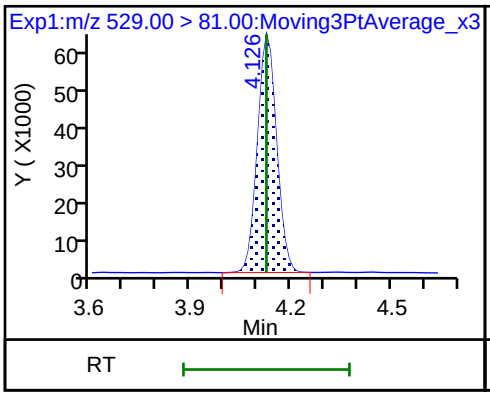

24 Perfluorodecanoic acid (M)



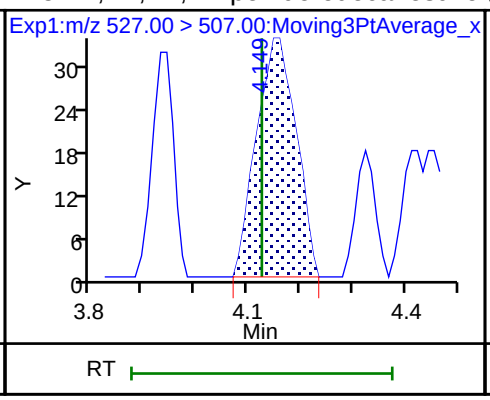

24 Perfluorodecanoic acid (M)



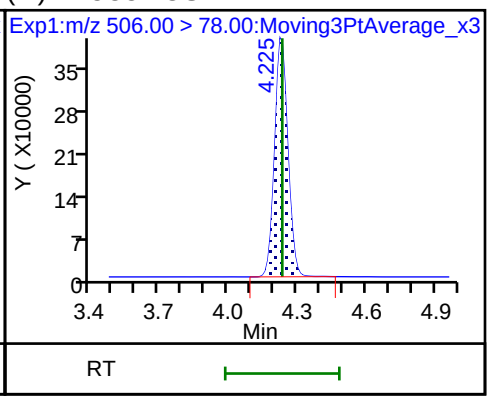

D 26 M2-8:2 FTS



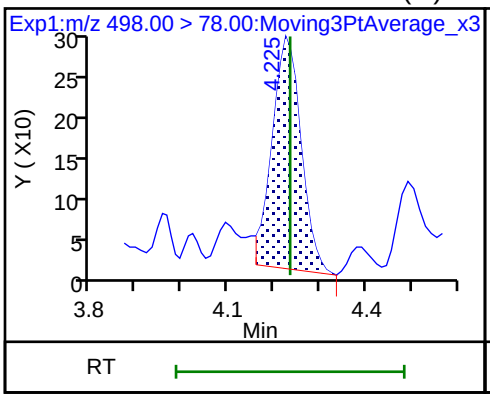

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



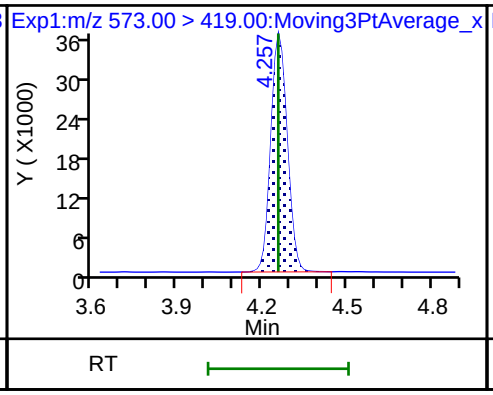

21 13C8 FOSA



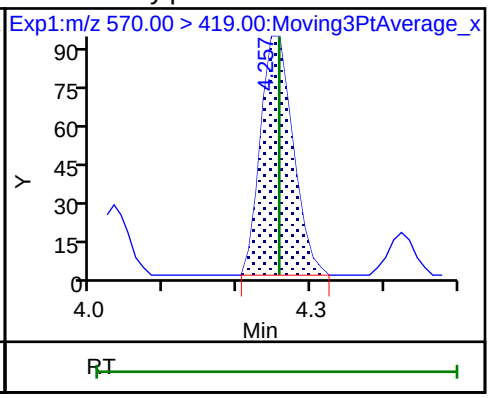
22 Perfluorooctanesulfonamide (M)



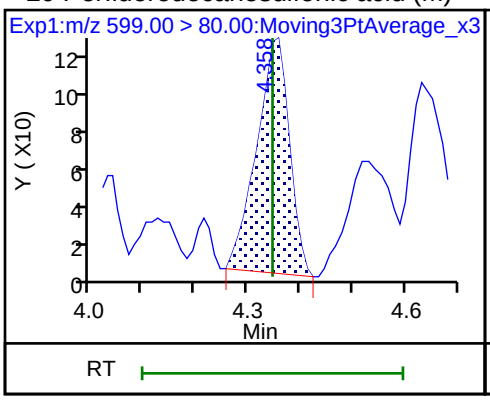

D 27 d3-NMeFOSAA



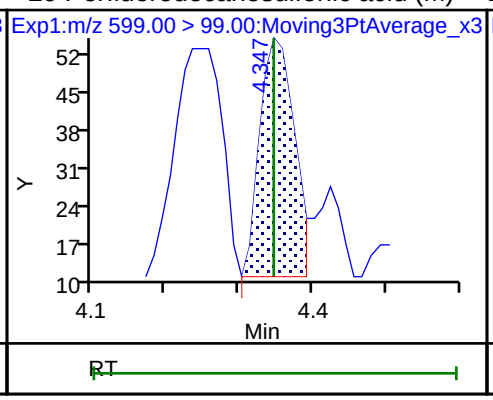

28 N-methylperfluorooctanesulfonami



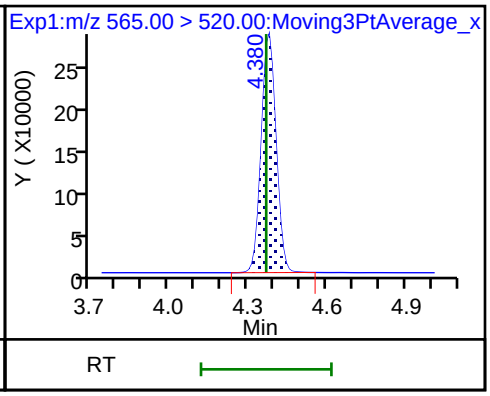

29 Perfluorodecanesulfonic acid (M)



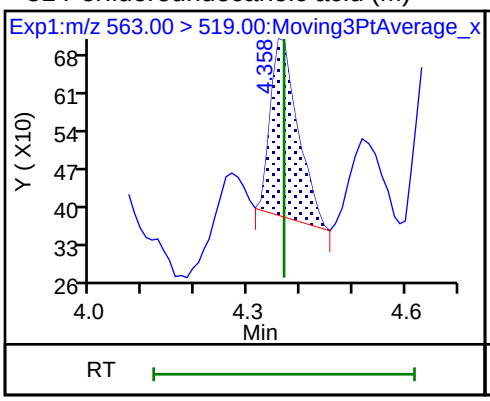

29 Perfluorodecanesulfonic acid (M)



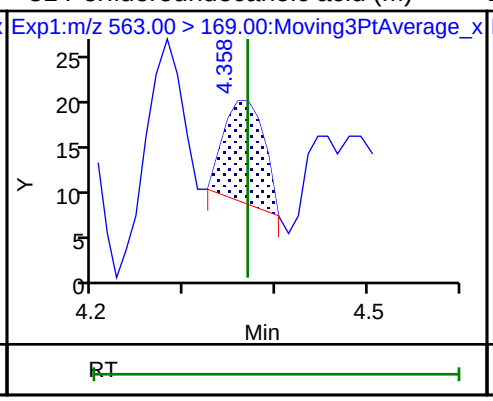

D 30 13C2 PFUnA



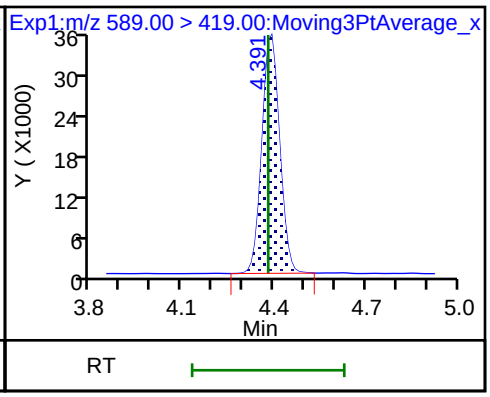

31 Perfluoroundecanoic acid (M)



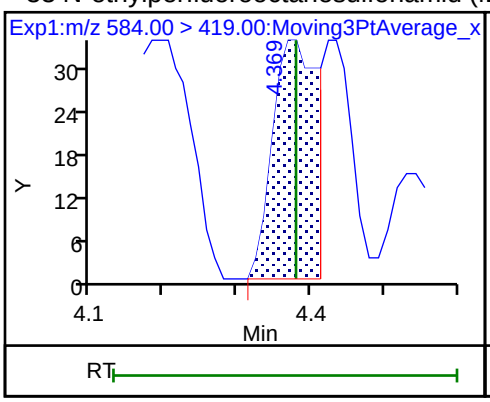

31 Perfluoroundecanoic acid (M)



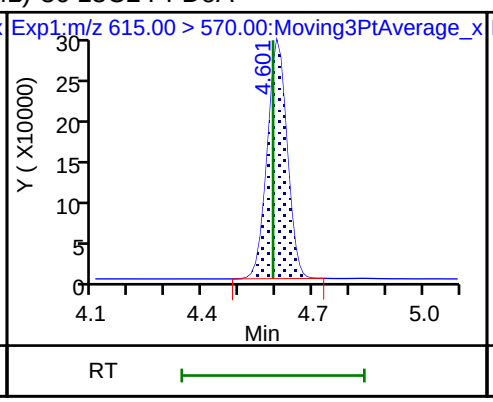

D 32 d5-NEtFOSAA



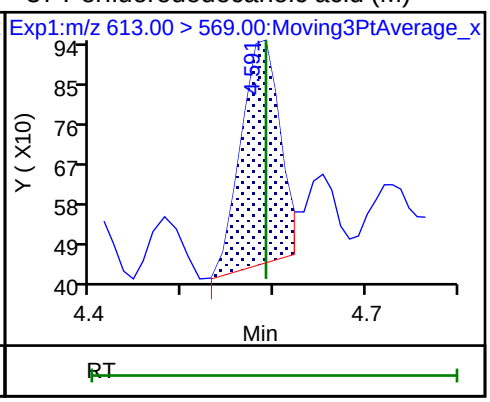

33 N-ethylperfluorooctanesulfonamid (M)



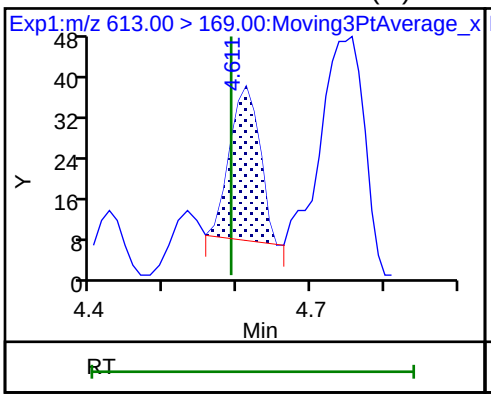

D 36 13C2 PFDoA



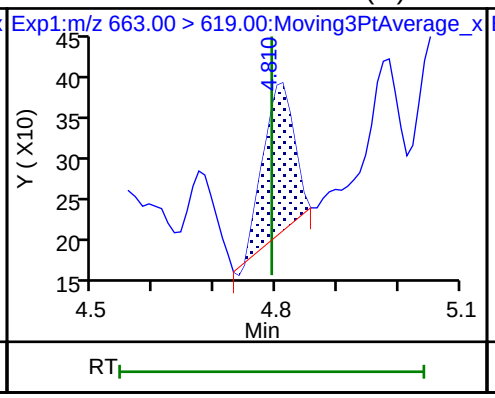

37 Perfluorododecanoic acid (M)



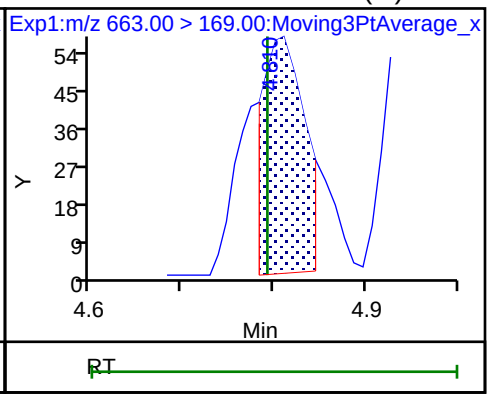
37 Perfluorododecanoic acid (M)



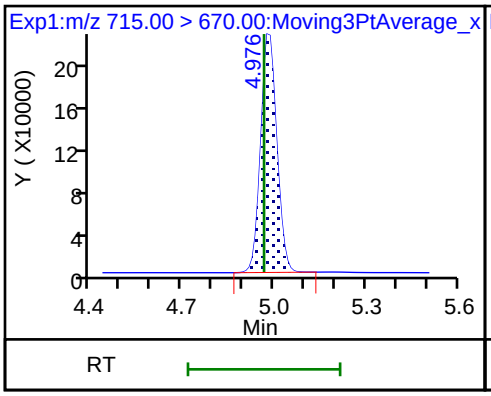

41 Perfluorotridecanoic acid (M)



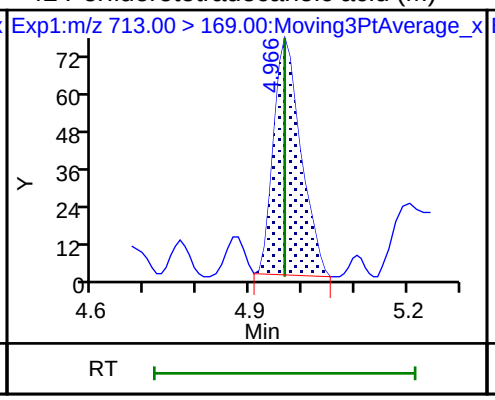

41 Perfluorotridecanoic acid (M)



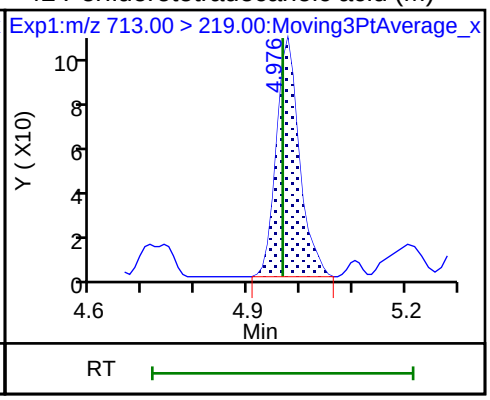

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

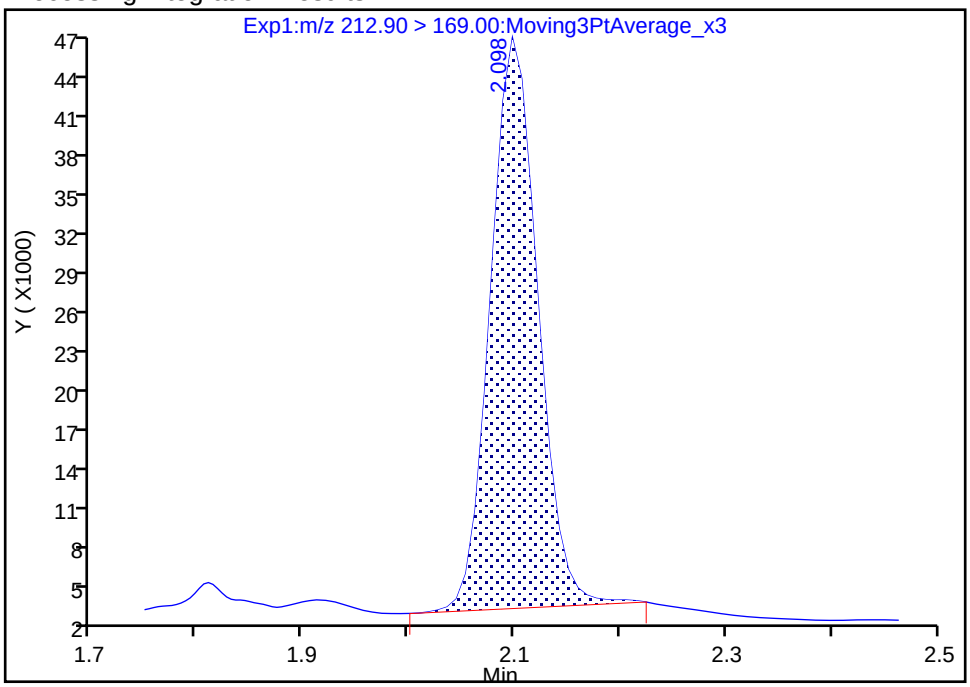
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

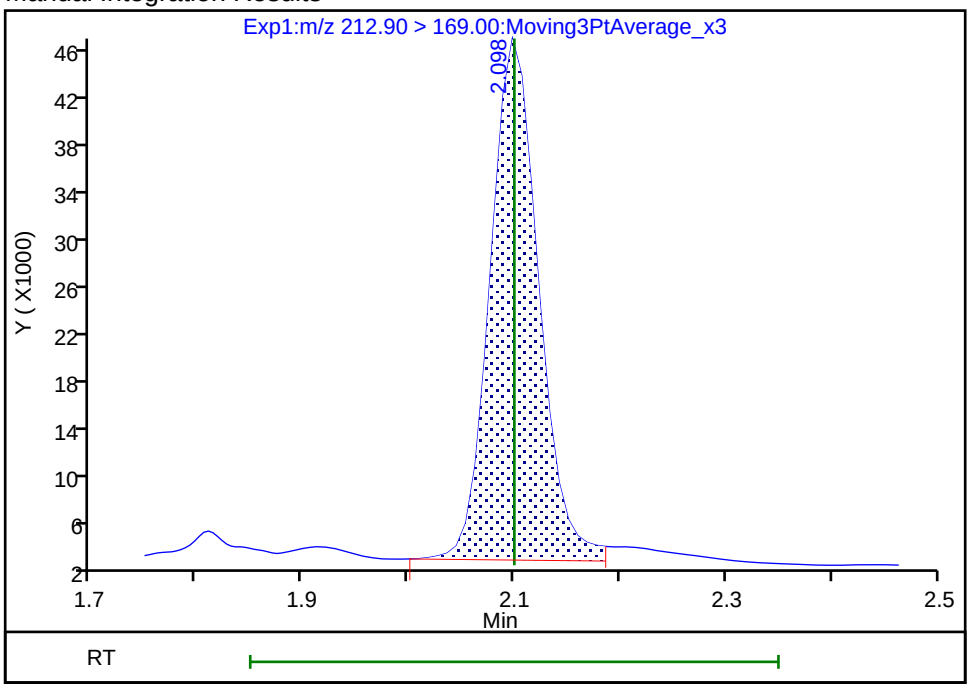
Processing Integration Results

RT: 2.10
Area: 133873
Amount: 0.097718
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 138267
Amount: 0.100925
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:22:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

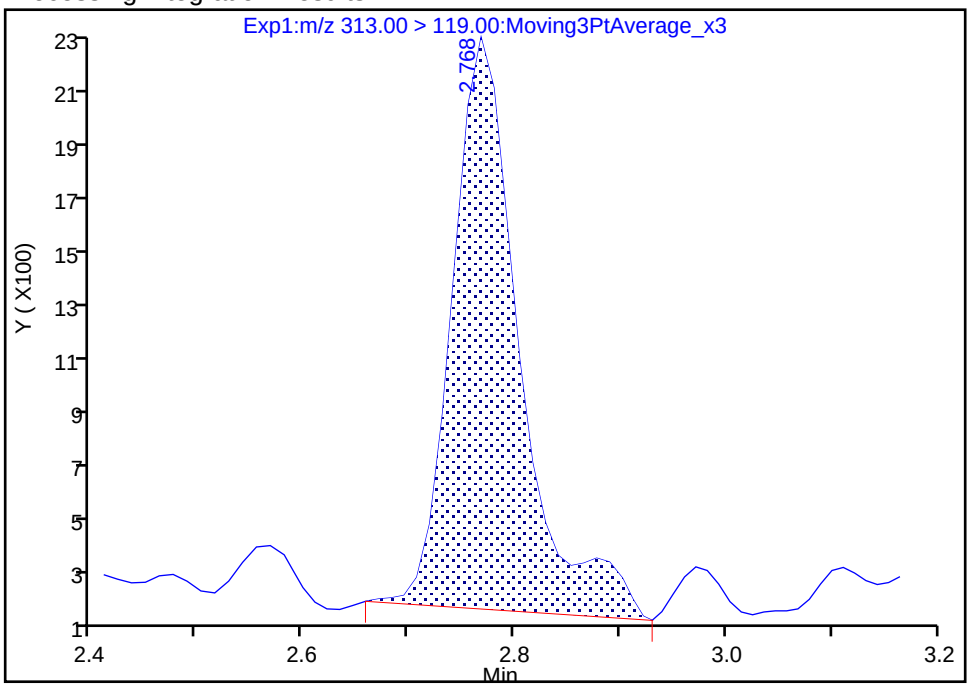
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

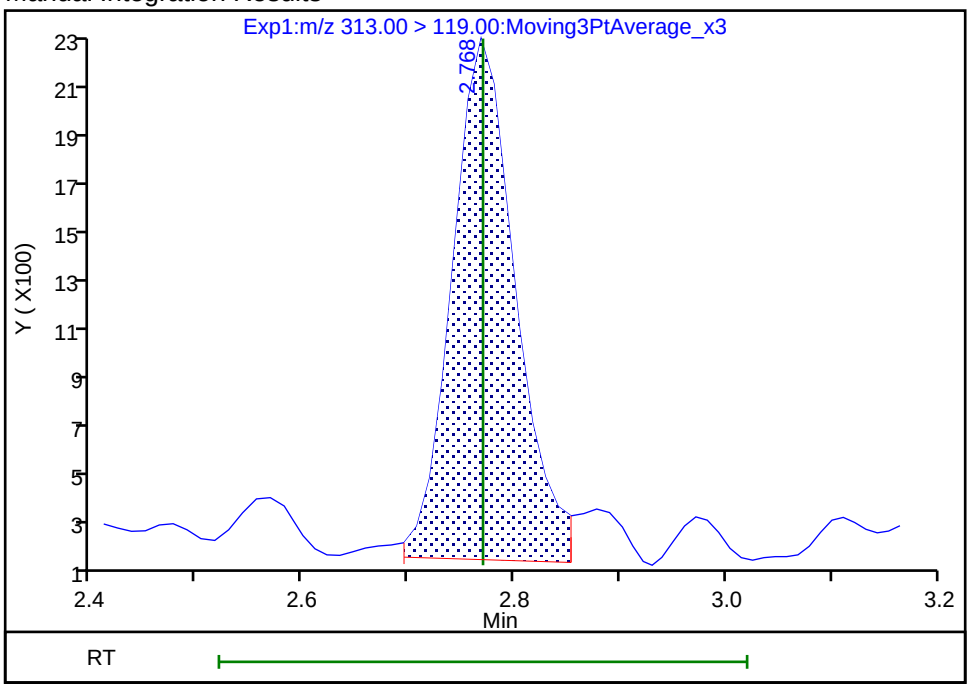
Processing Integration Results

RT: 2.77
Area: 9064
Amount: 0.071127
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 8555
Amount: 0.071127
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:48:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

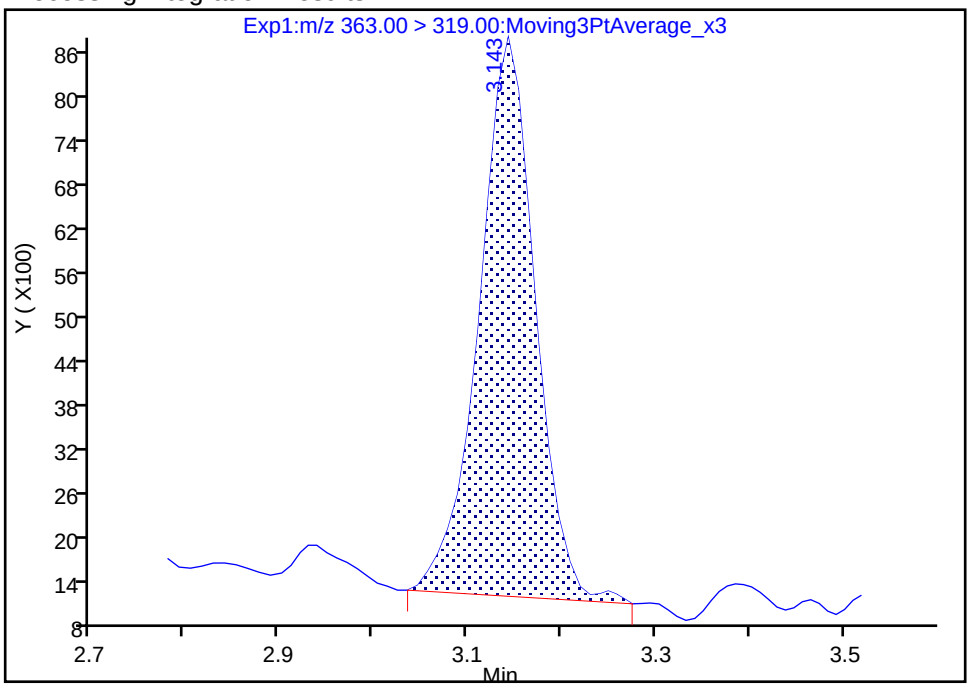
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

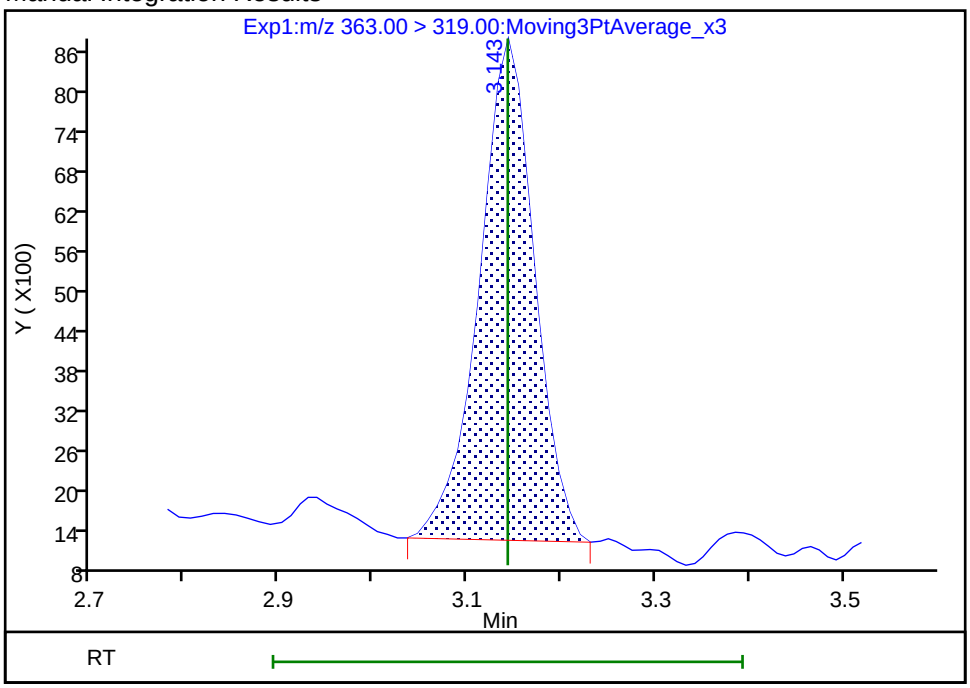
Processing Integration Results

RT: 3.14
Area: 31727
Amount: 0.024029
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 30955
Amount: 0.023445
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

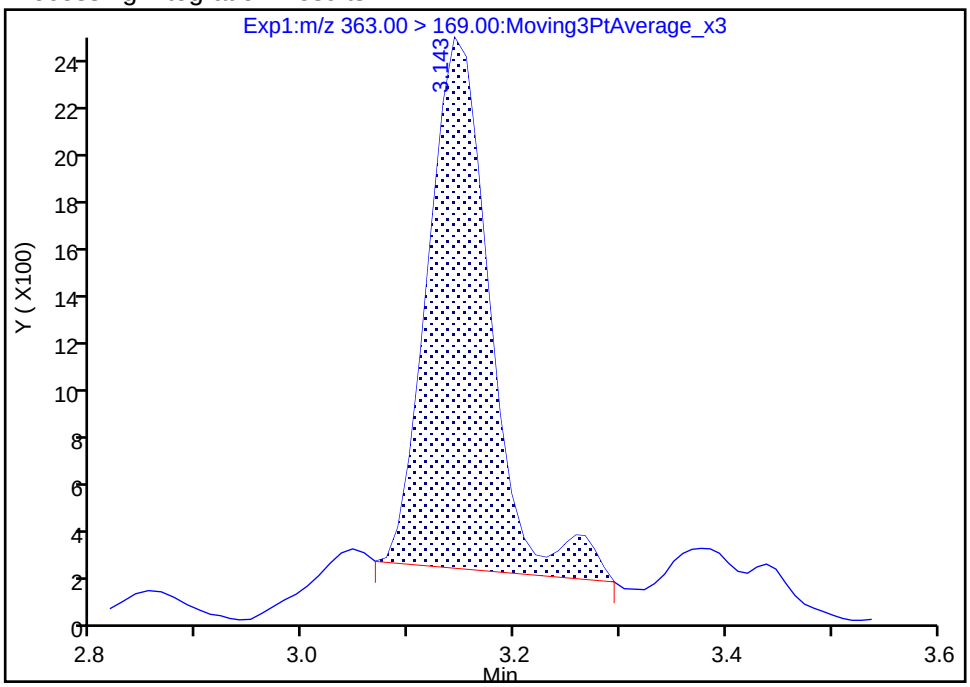
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

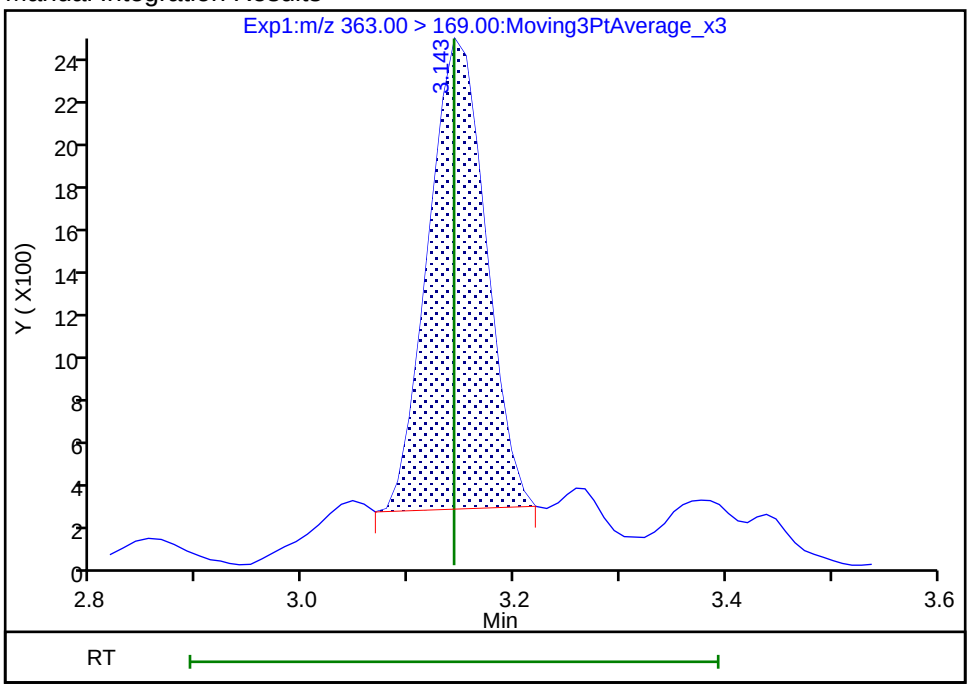
Processing Integration Results

RT: 3.14
Area: 9017
Amount: 0.024029
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 8141
Amount: 0.023445
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

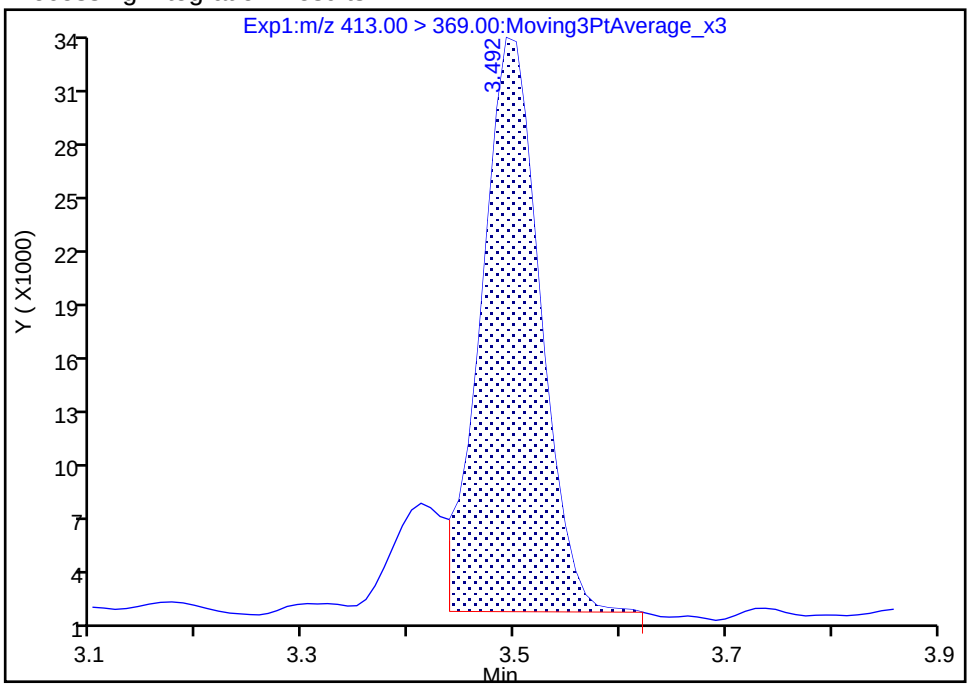
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

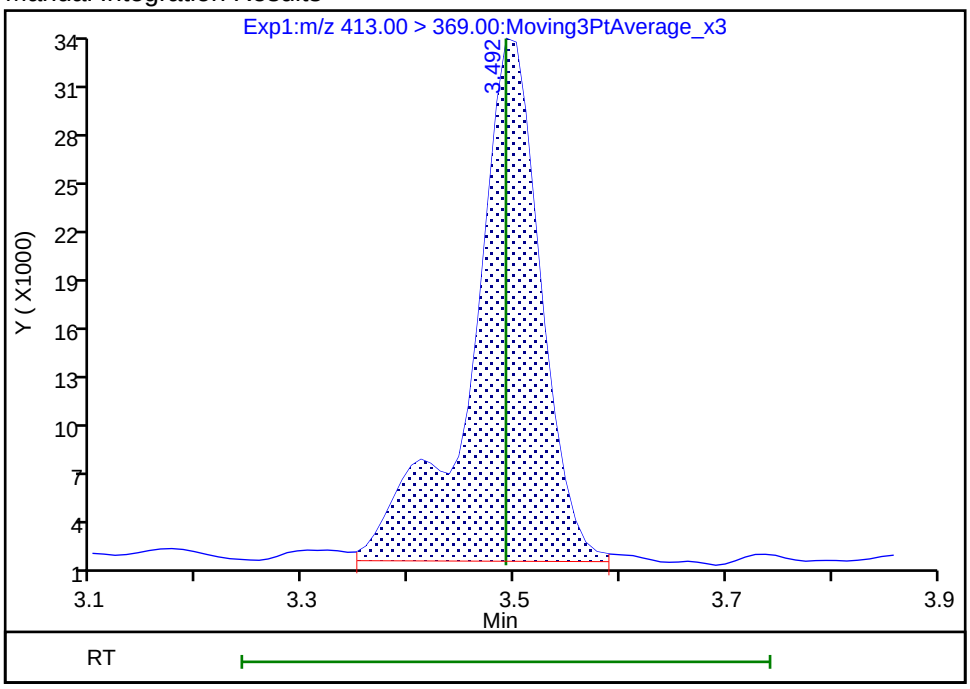
Processing Integration Results

RT: 3.49
Area: 119971
Amount: 0.082517
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 142747
Amount: 0.098183
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

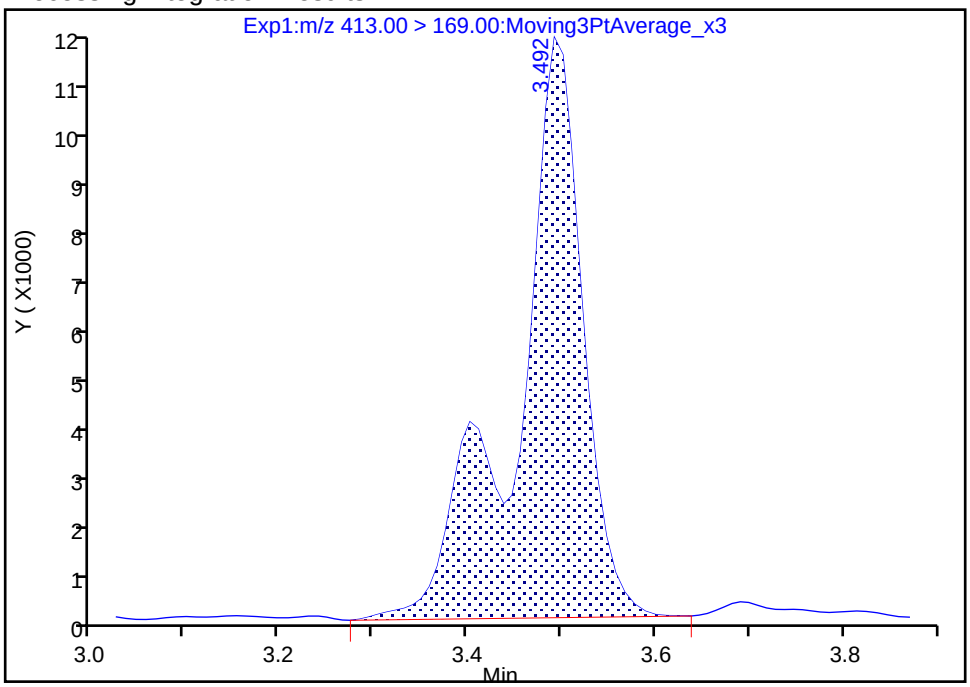
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

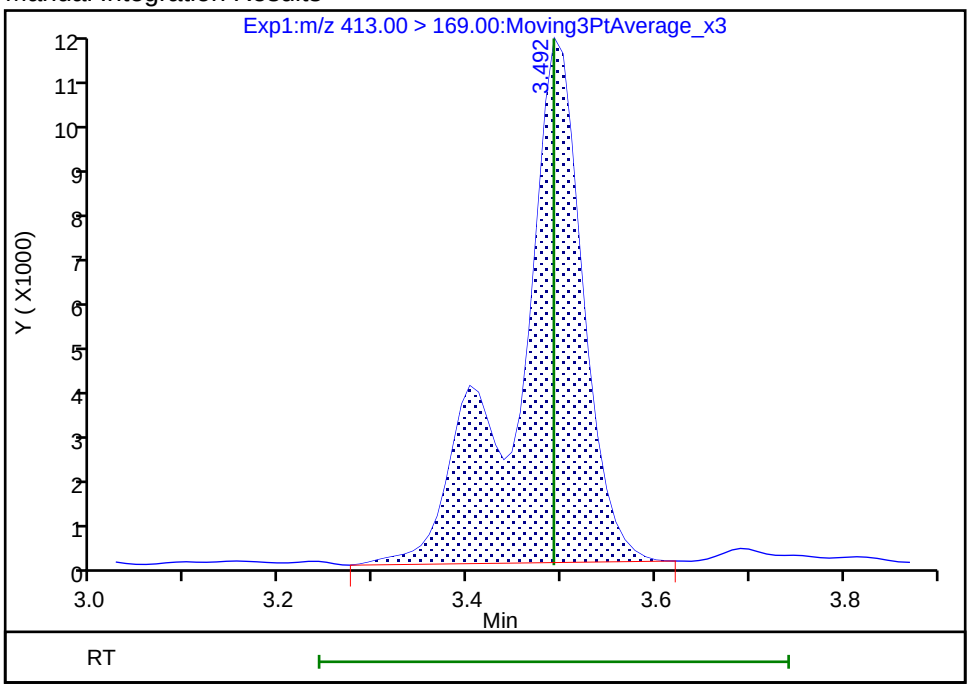
Processing Integration Results

RT: 3.49
Area: 58932
Amount: 0.082517
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 58821
Amount: 0.098183
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

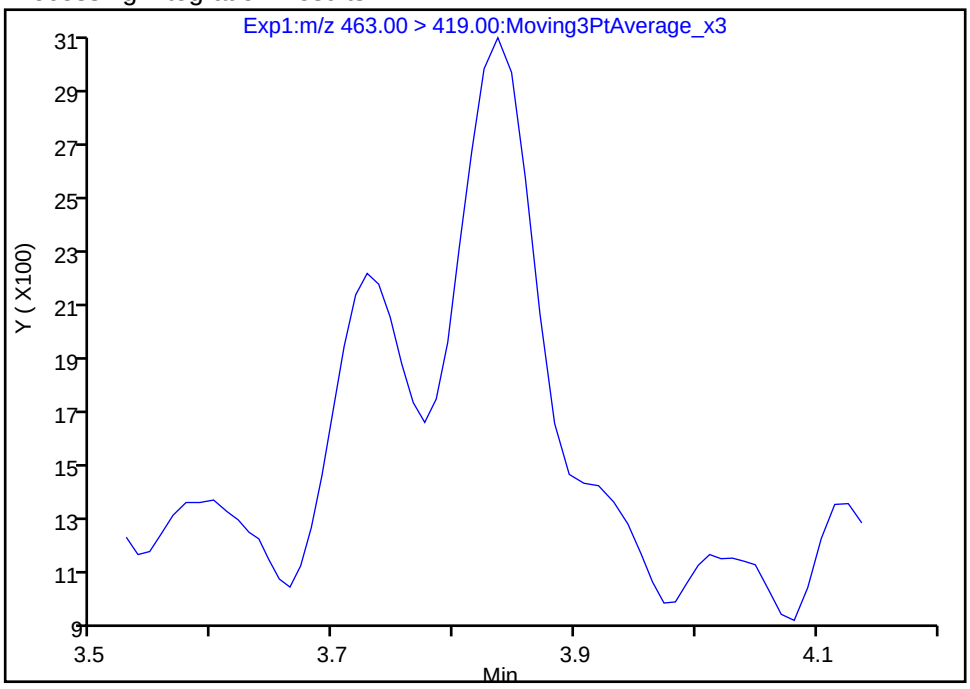
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

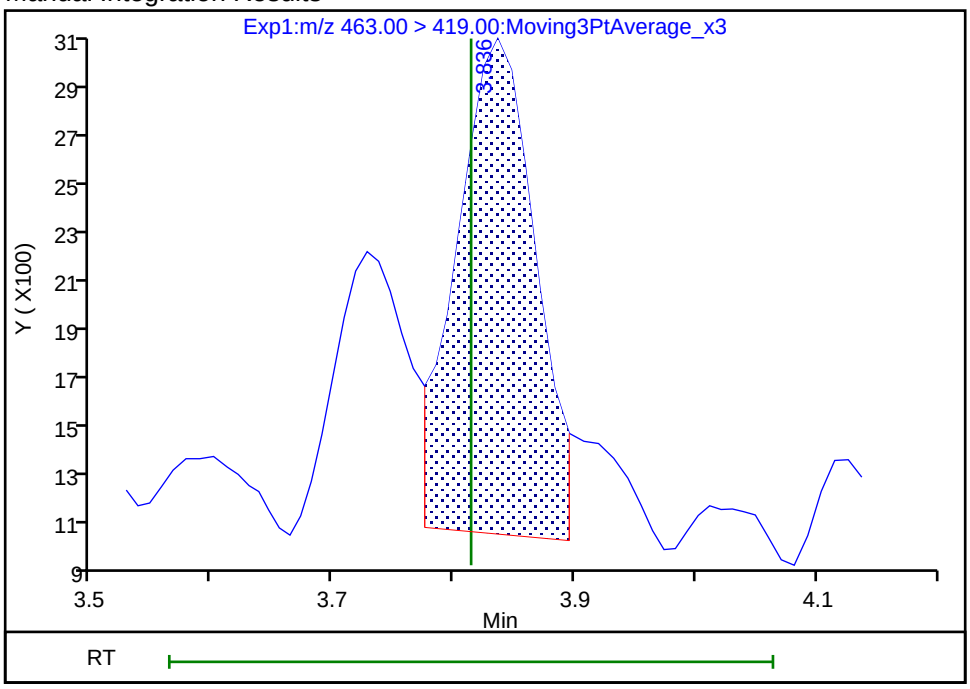
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.84
Area: 8959
Amount: 0.006949
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

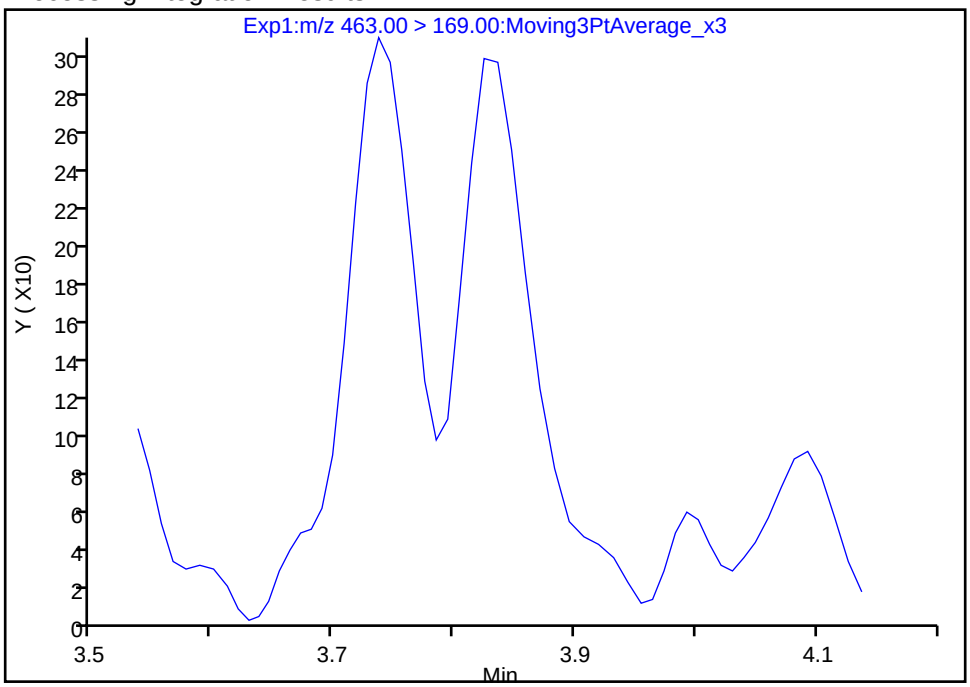
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

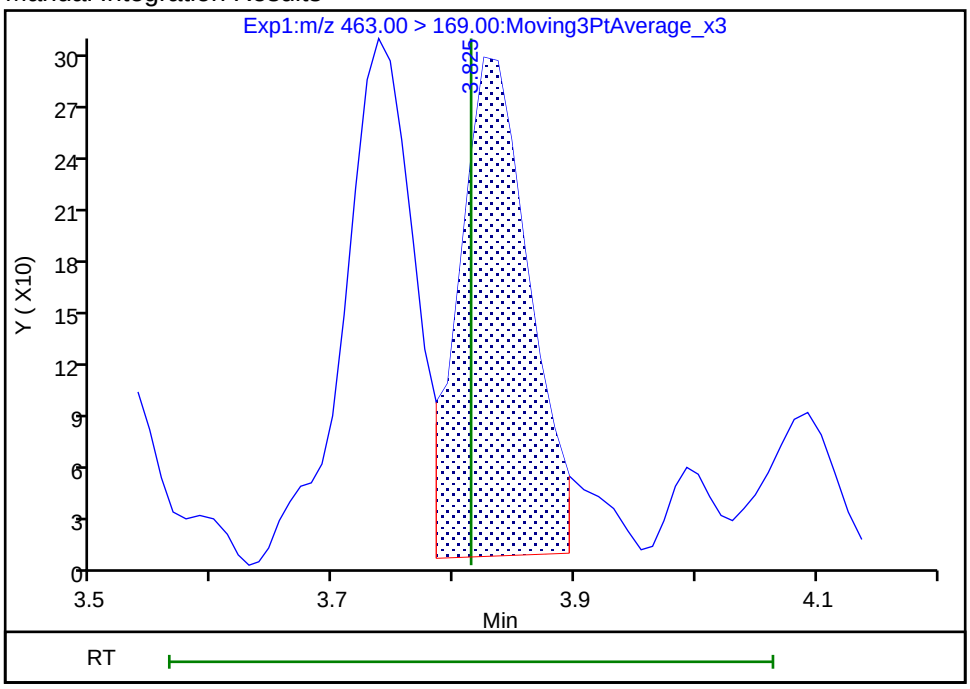
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1158
Amount: 0.006949
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

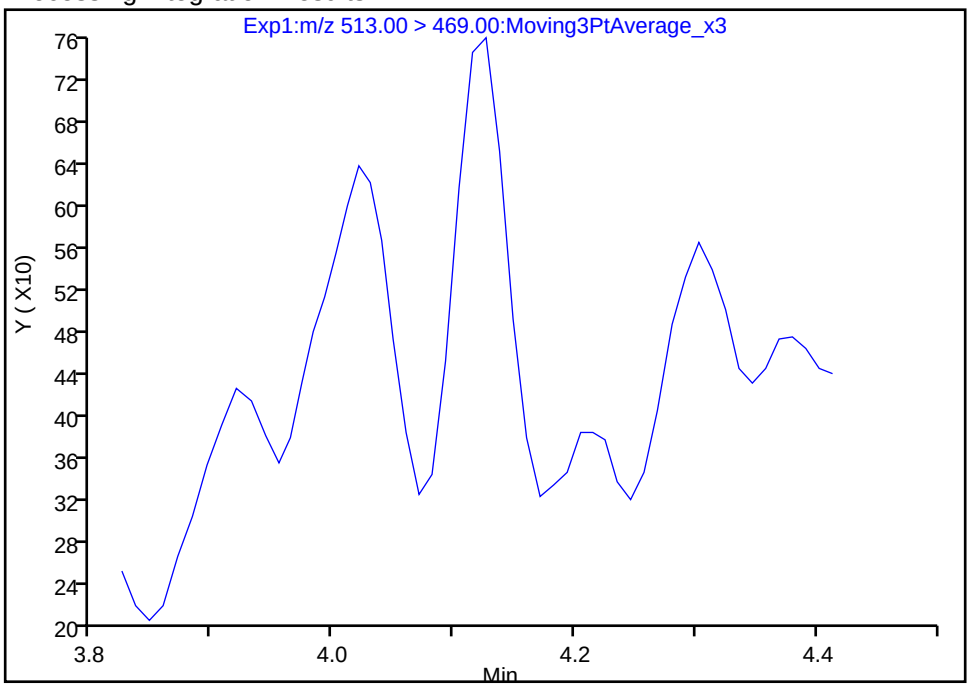
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

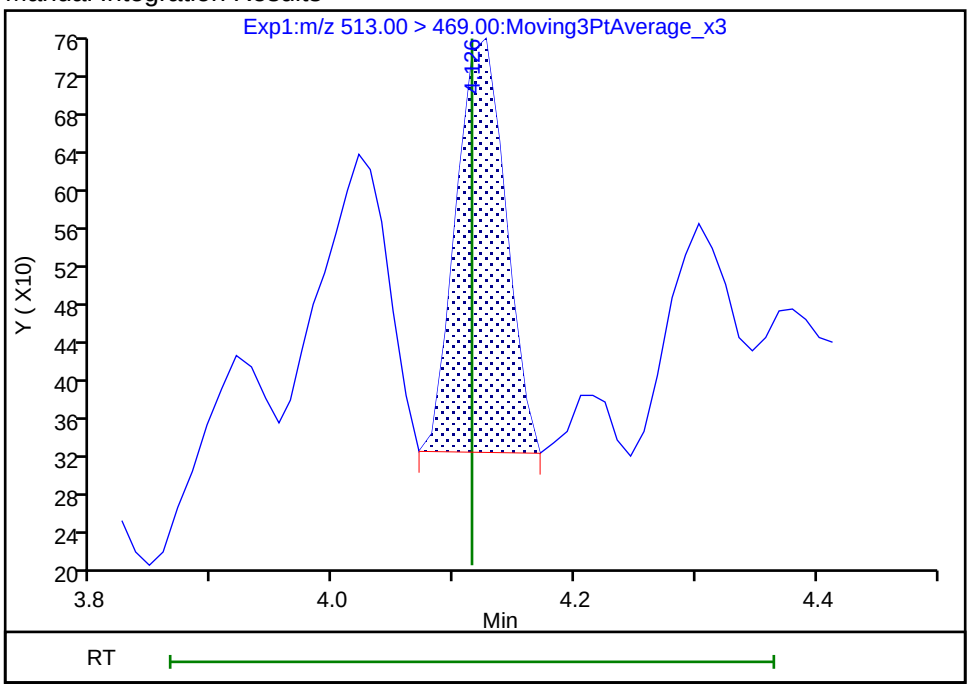
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 1241
Amount: 0.001062
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

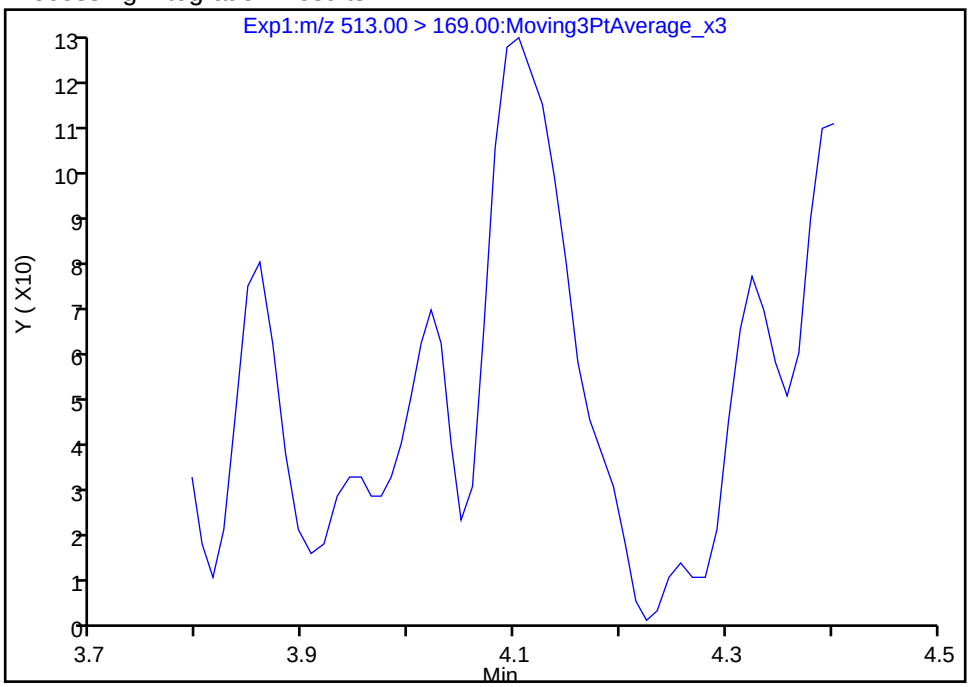
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

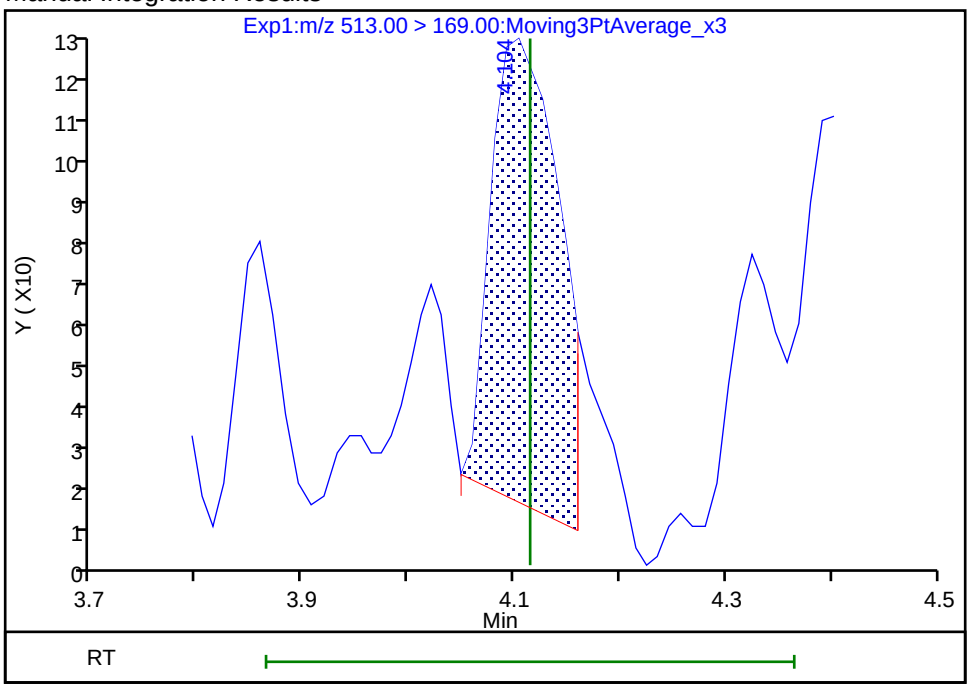
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 476
Amount: 0.001062
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

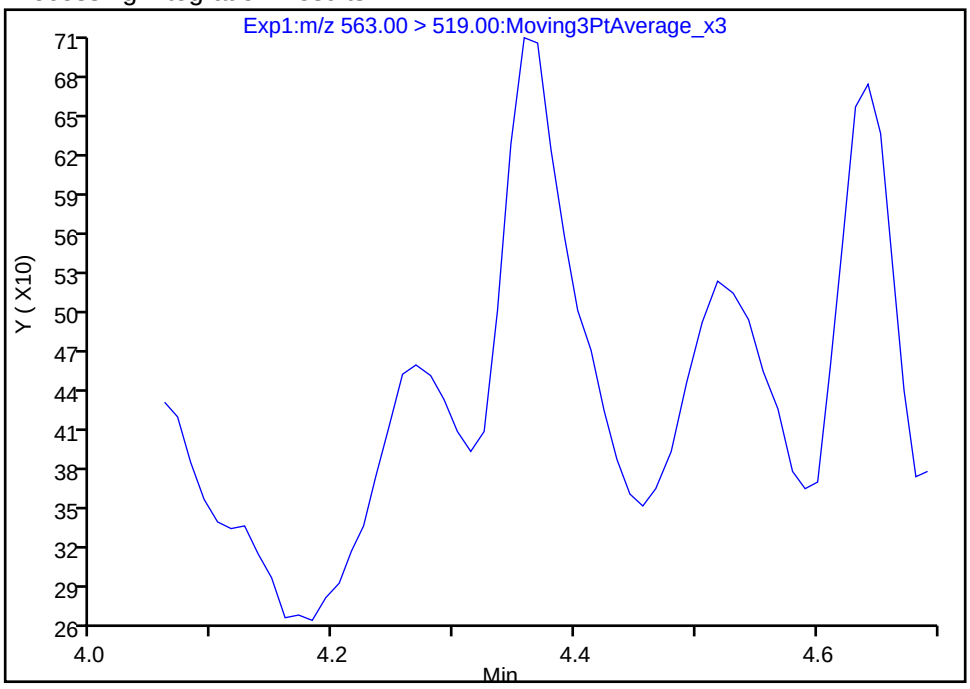
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

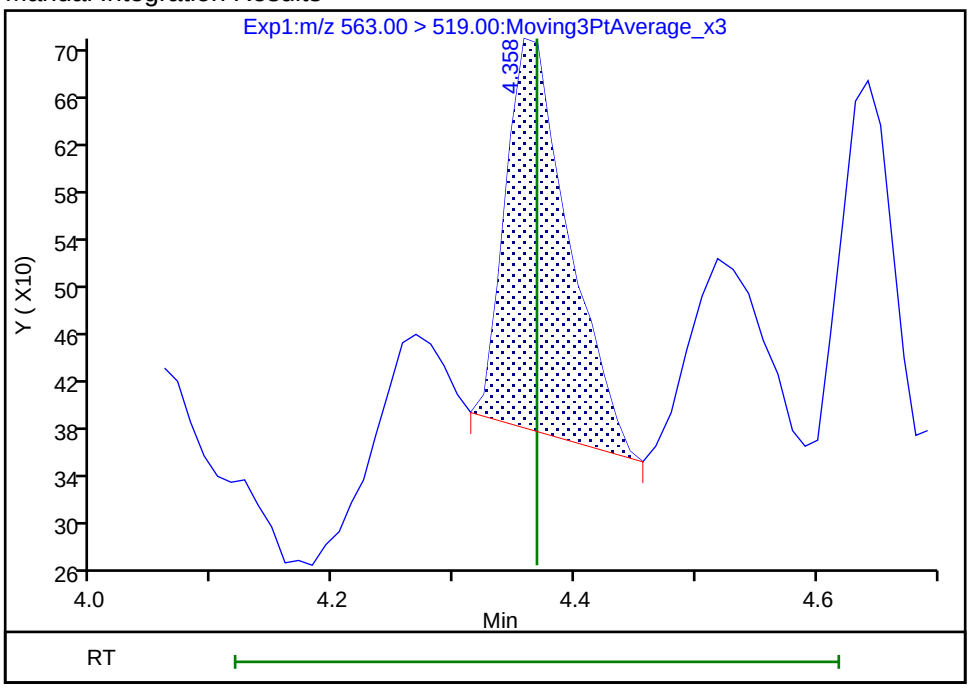
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 1180
Amount: 0.001263
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

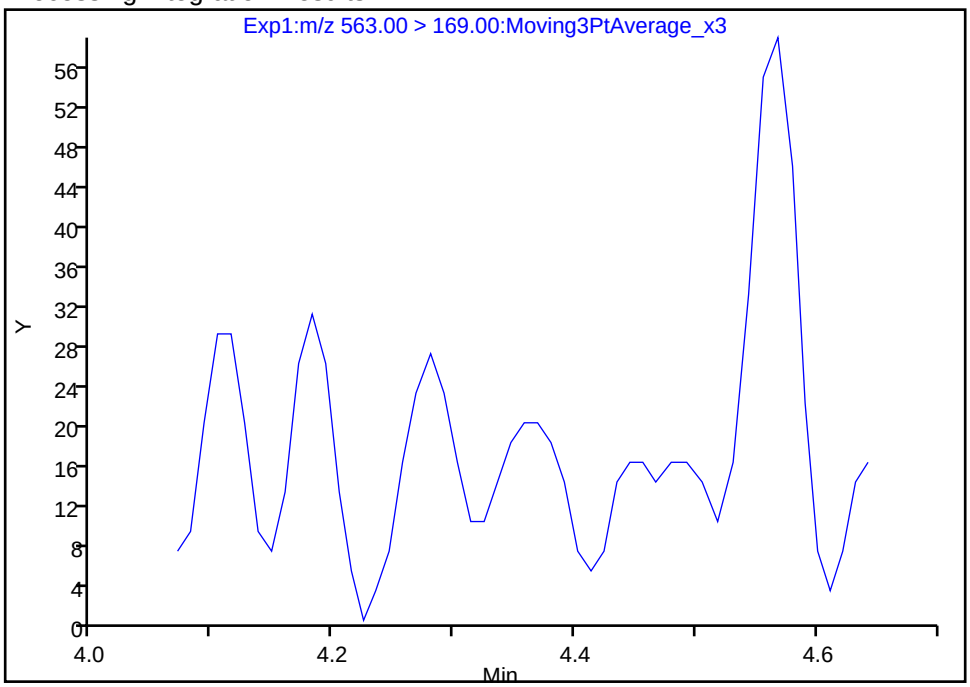
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

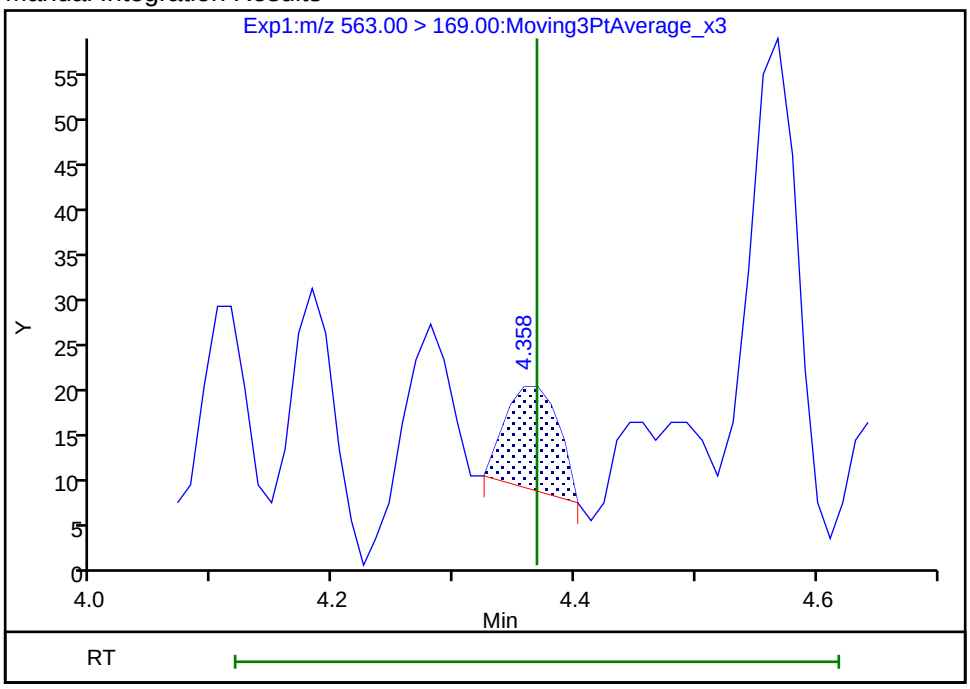
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 35
Amount: 0.001263
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

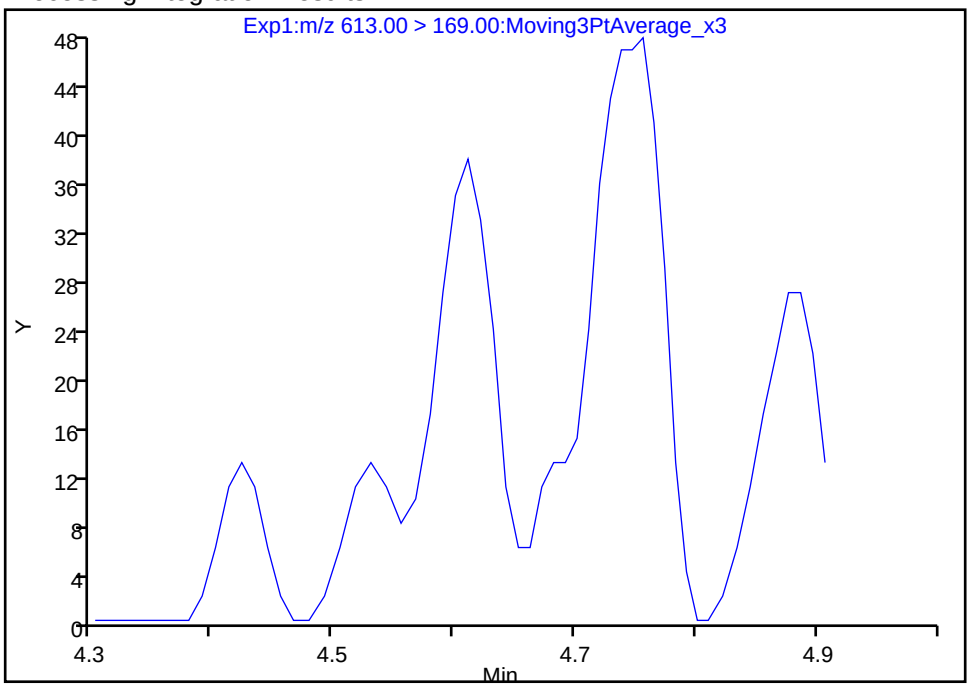
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

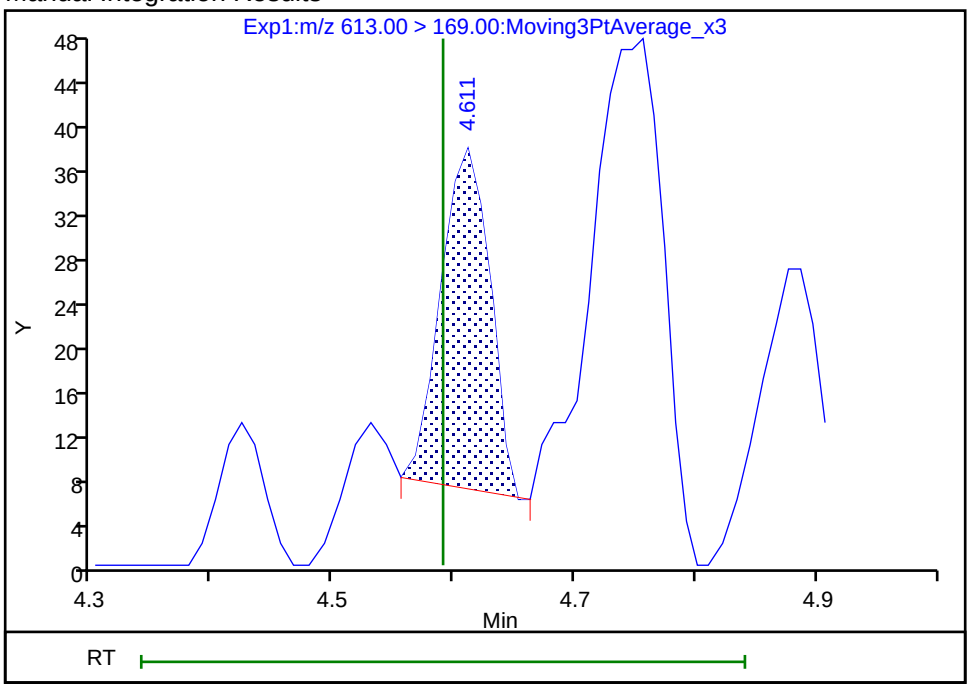
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 87
Amount: 0.001723
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

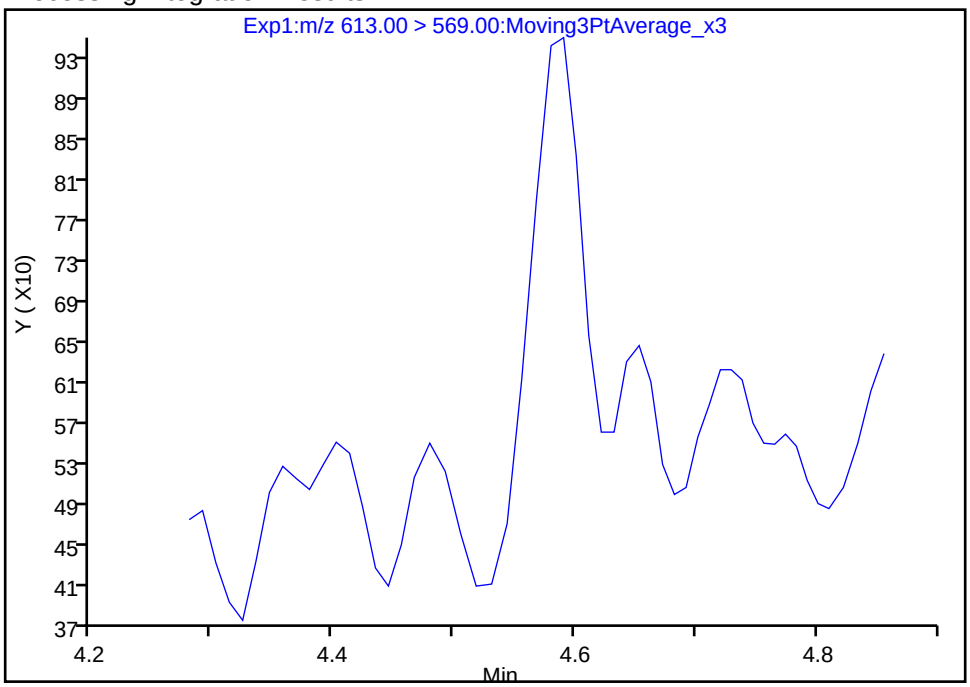
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

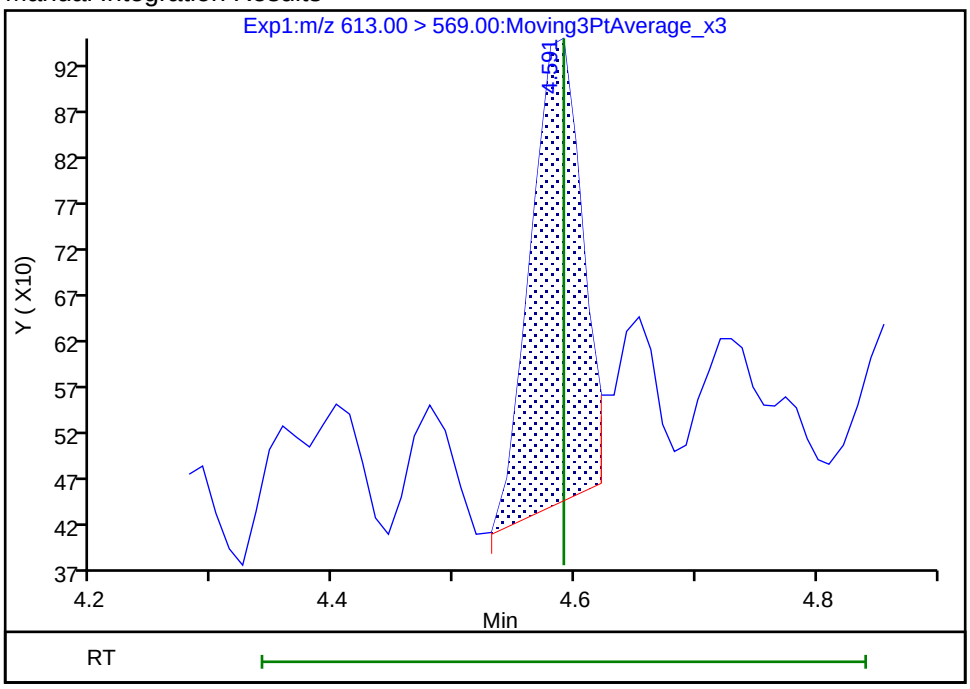
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 1497
Amount: 0.001723
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

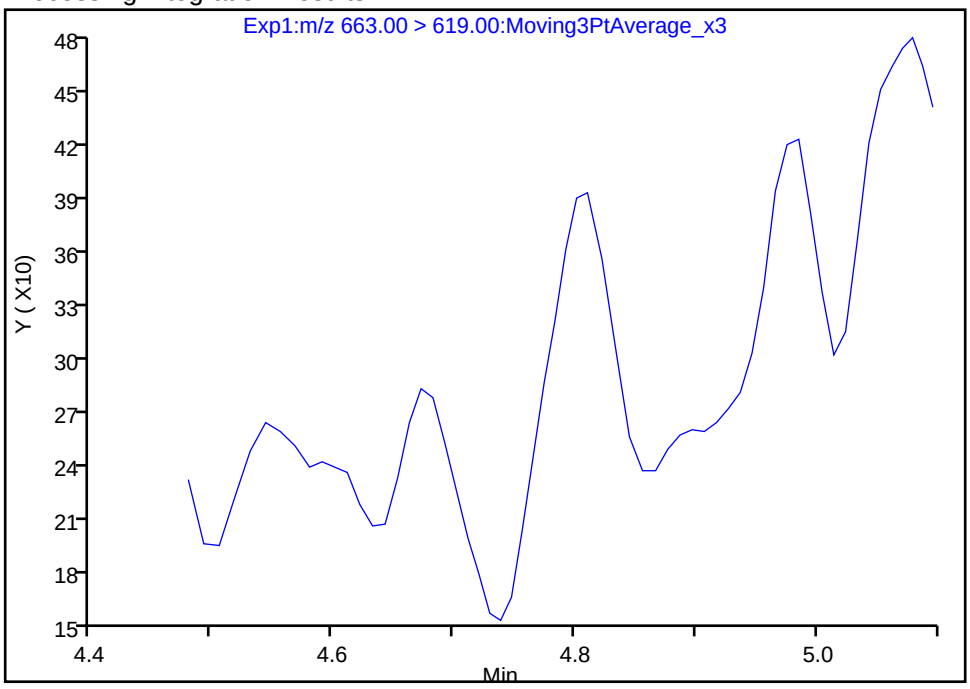
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

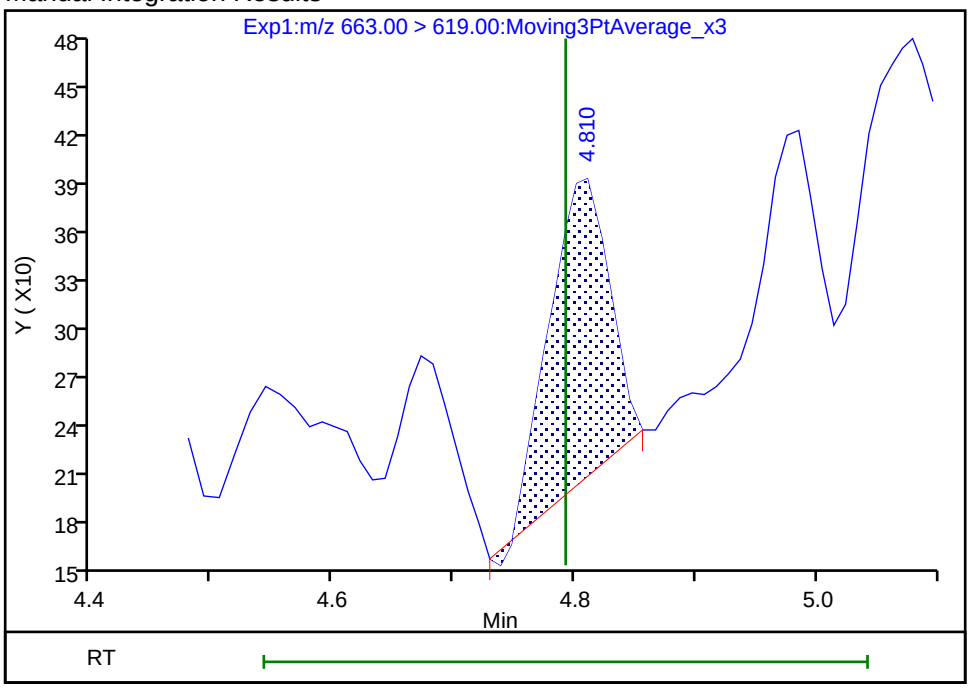
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 646
Amount: 0.000862
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:23:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

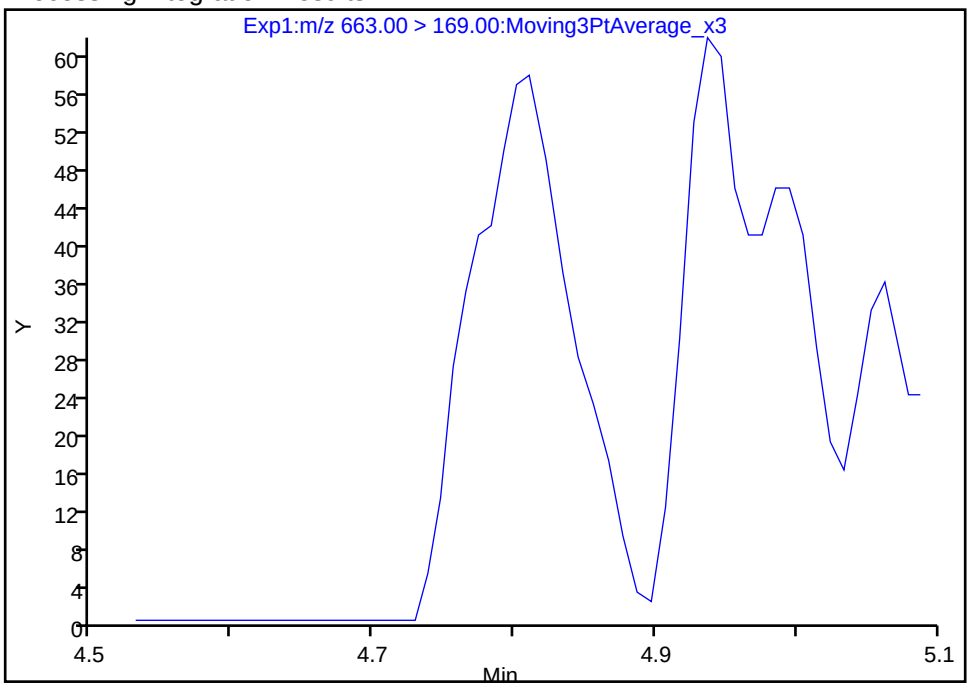
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

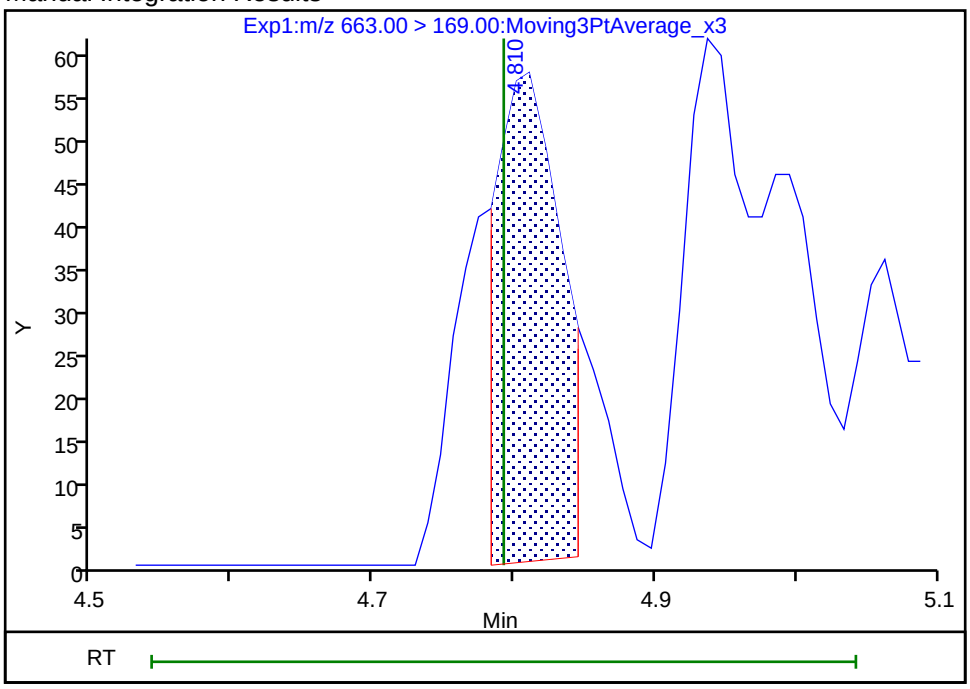
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 173
Amount: 0.000862
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:23:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

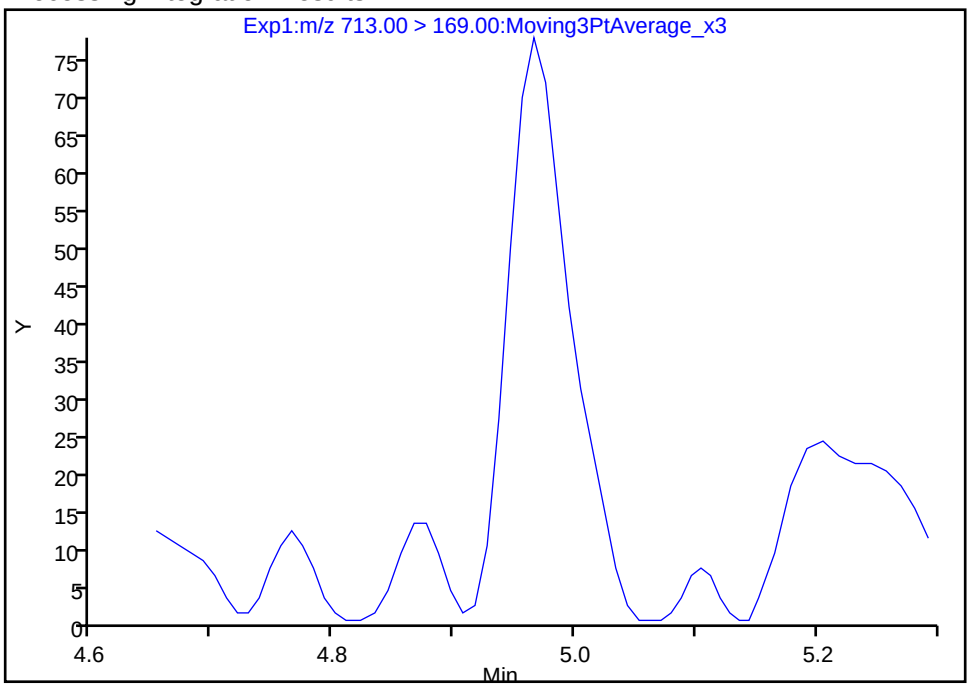
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

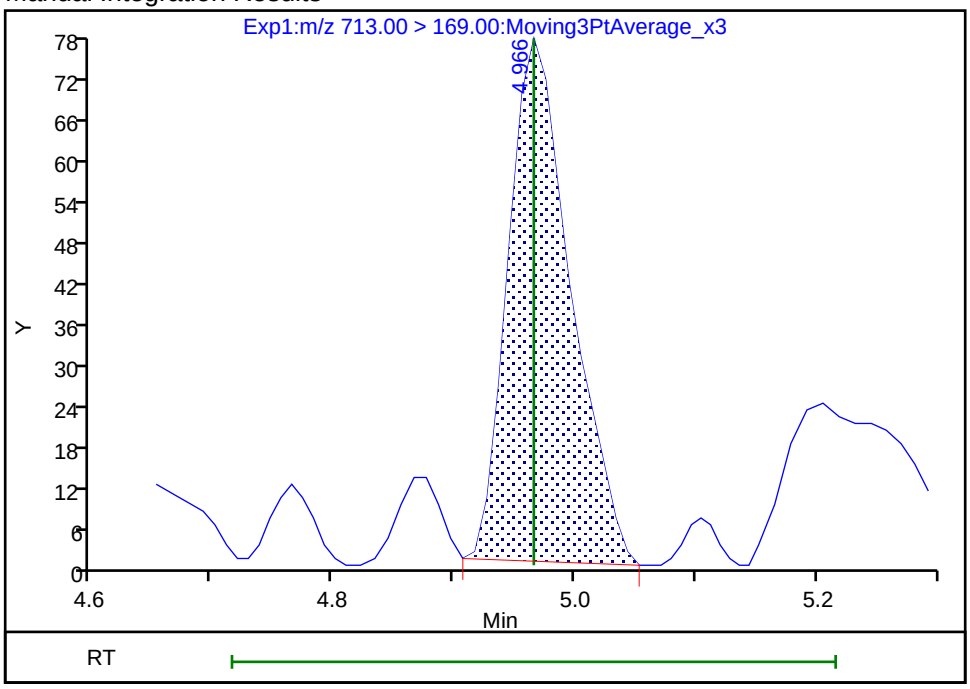
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 278
Amount: 0.002742
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:52:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

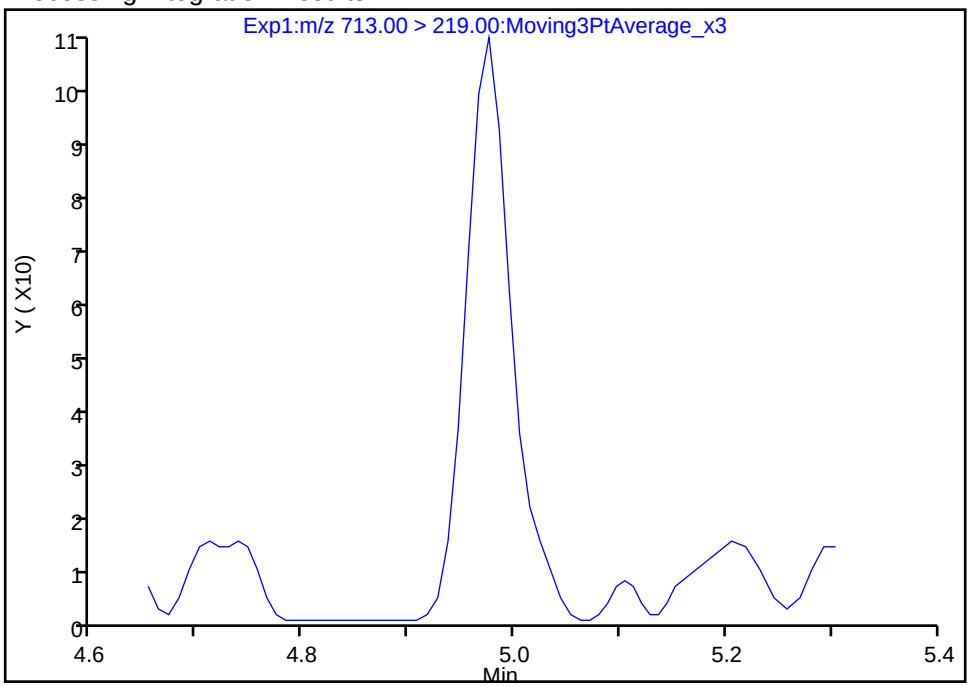
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

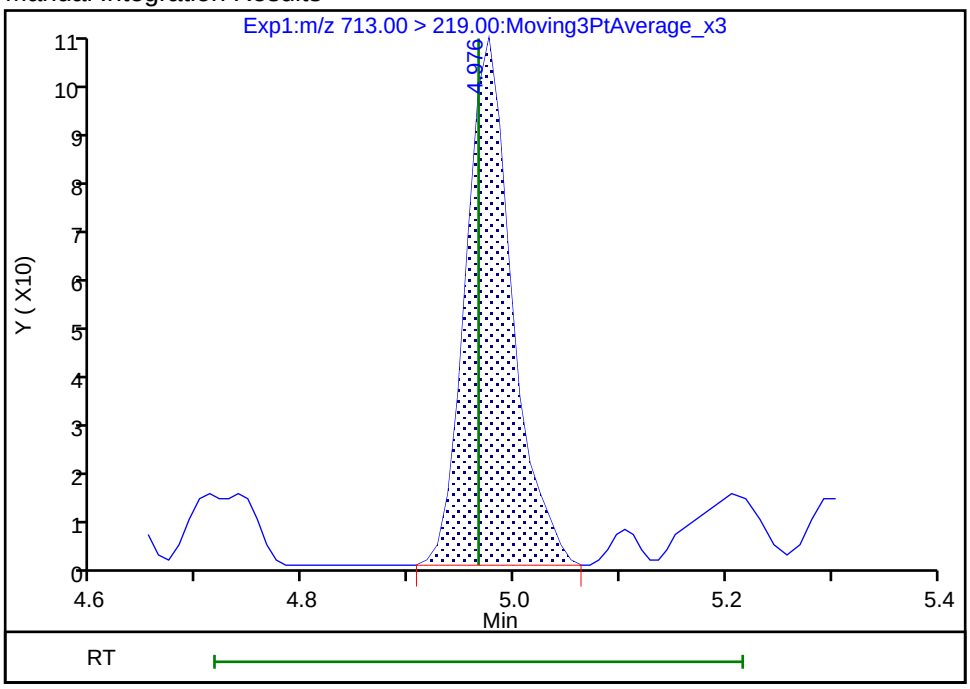
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 313
Amount: 0.002742
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:52:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

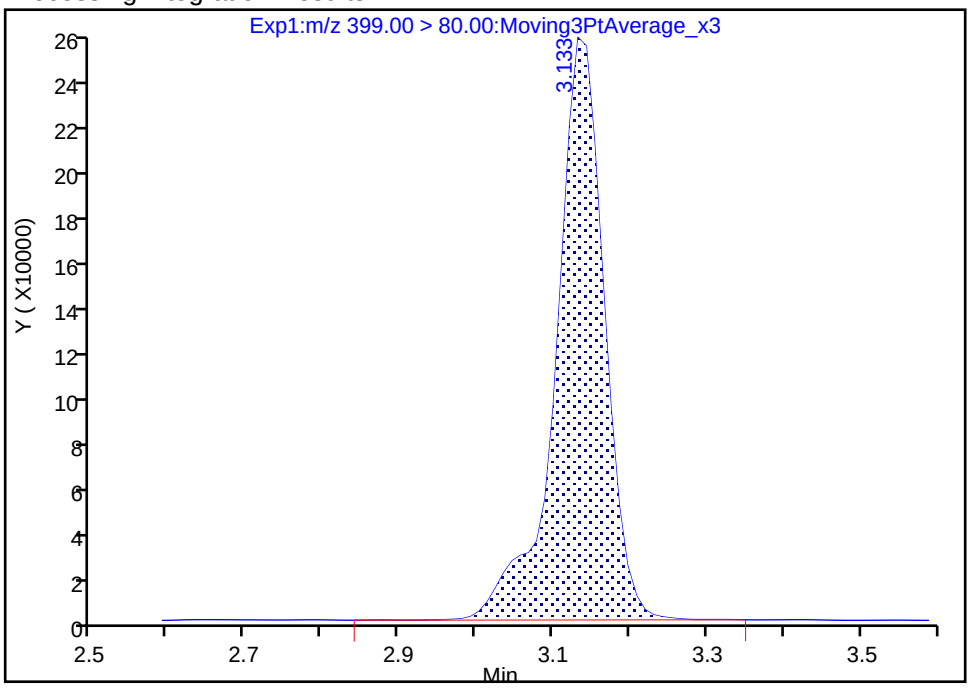
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

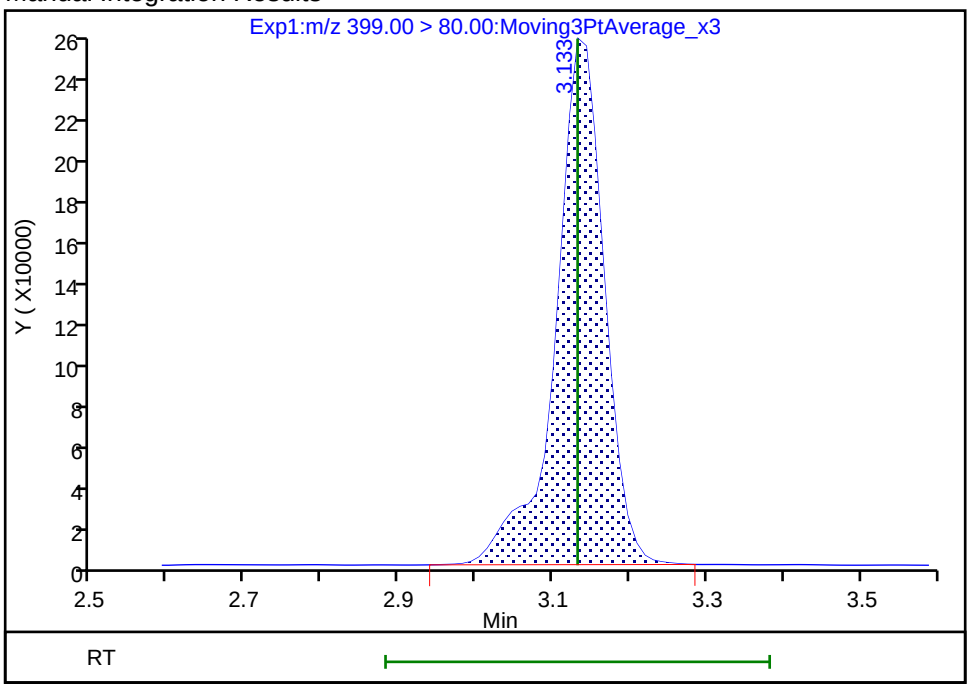
Processing Integration Results

RT: 3.13
Area: 1110553
Amount: 0.929087
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1107702
Amount: 0.926701
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

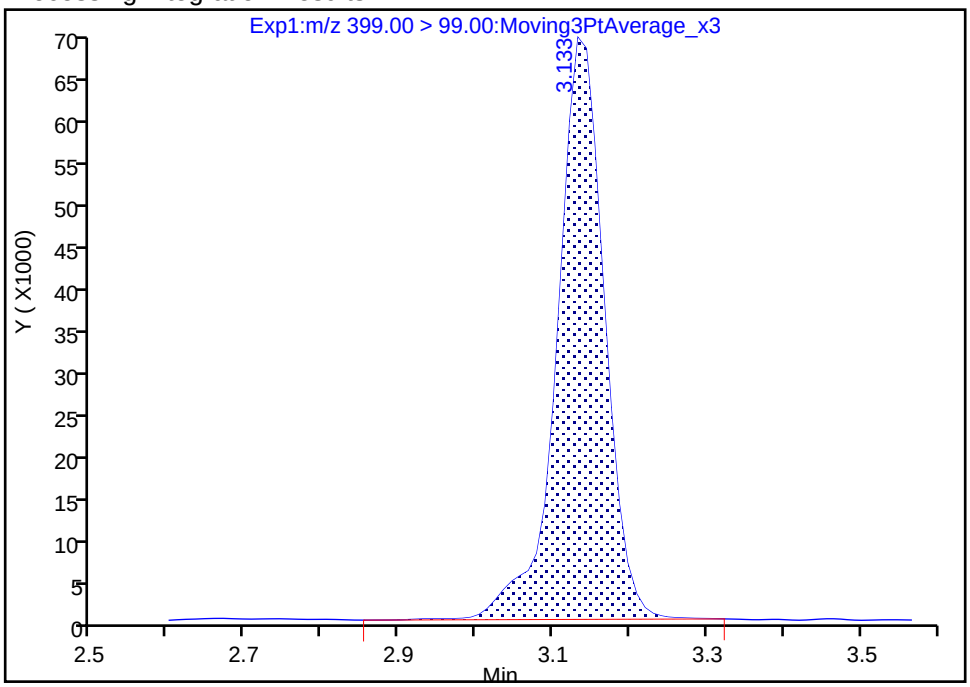
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

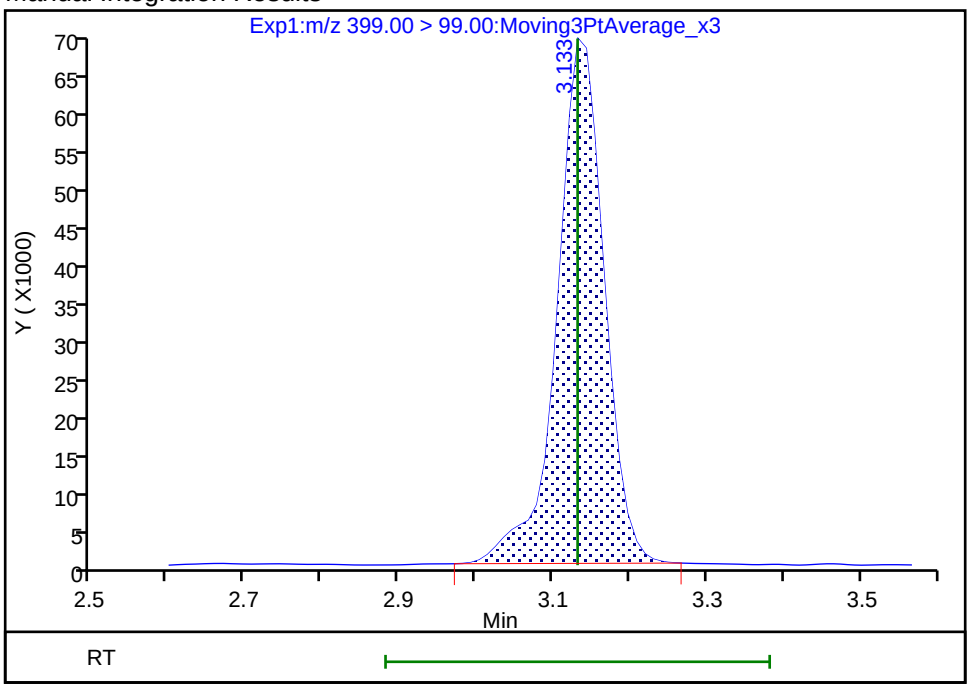
Processing Integration Results

RT: 3.13
Area: 297117
Amount: 0.929087
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 294188
Amount: 0.926701
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

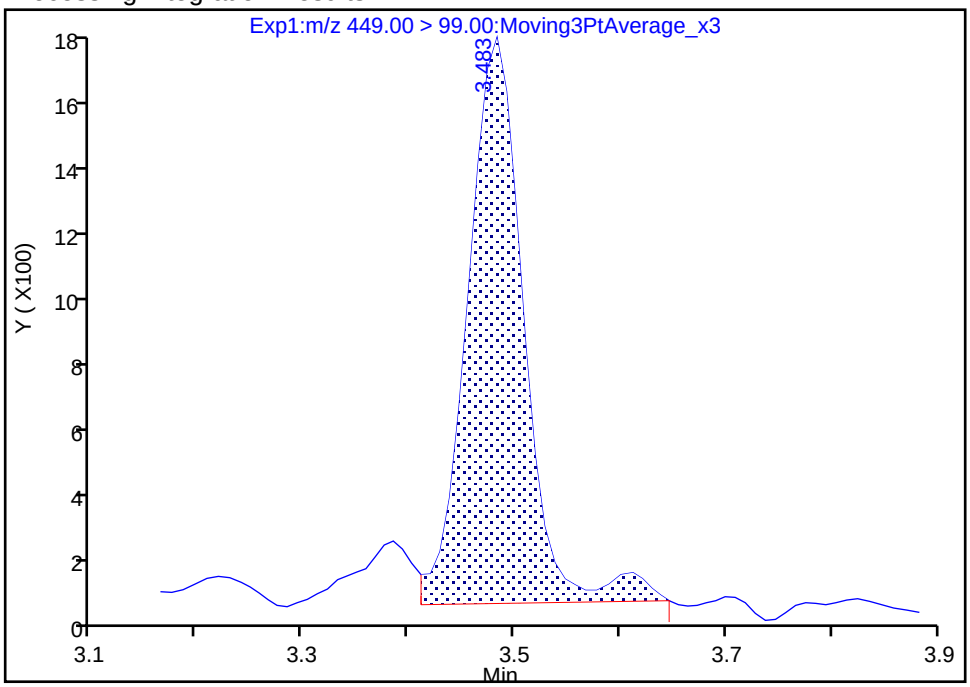
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

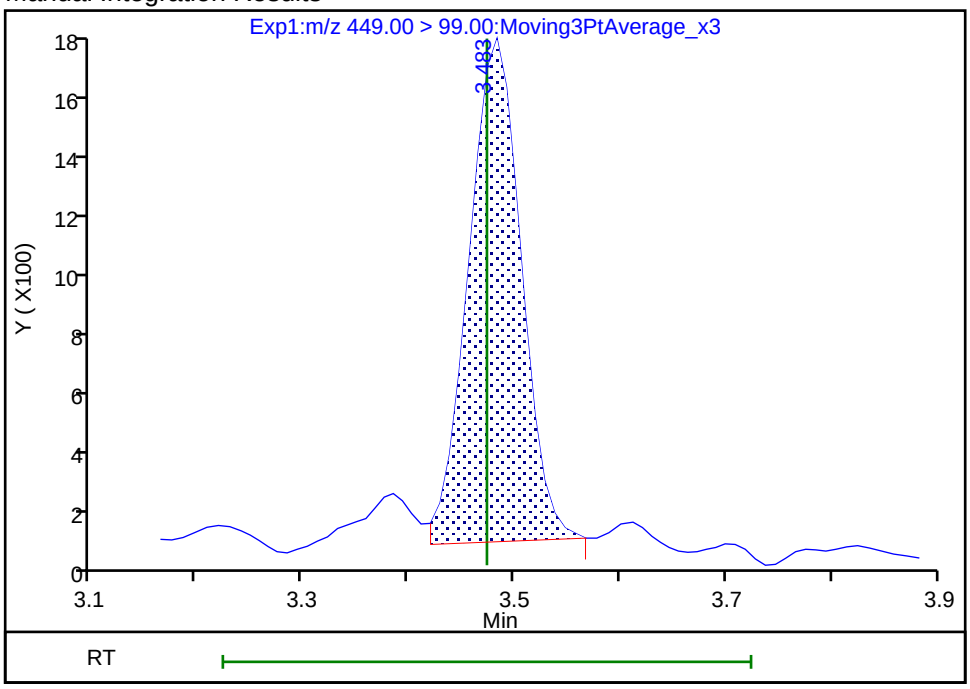
Processing Integration Results

RT: 3.48
Area: 6297
Amount: 0.030263
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 5758
Amount: 0.029411
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

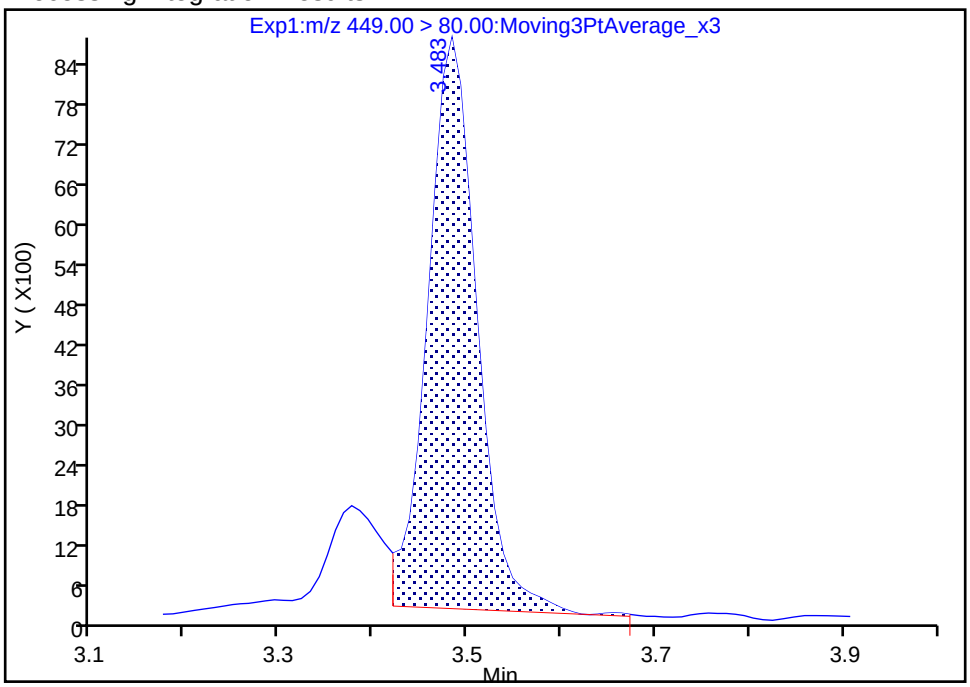
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

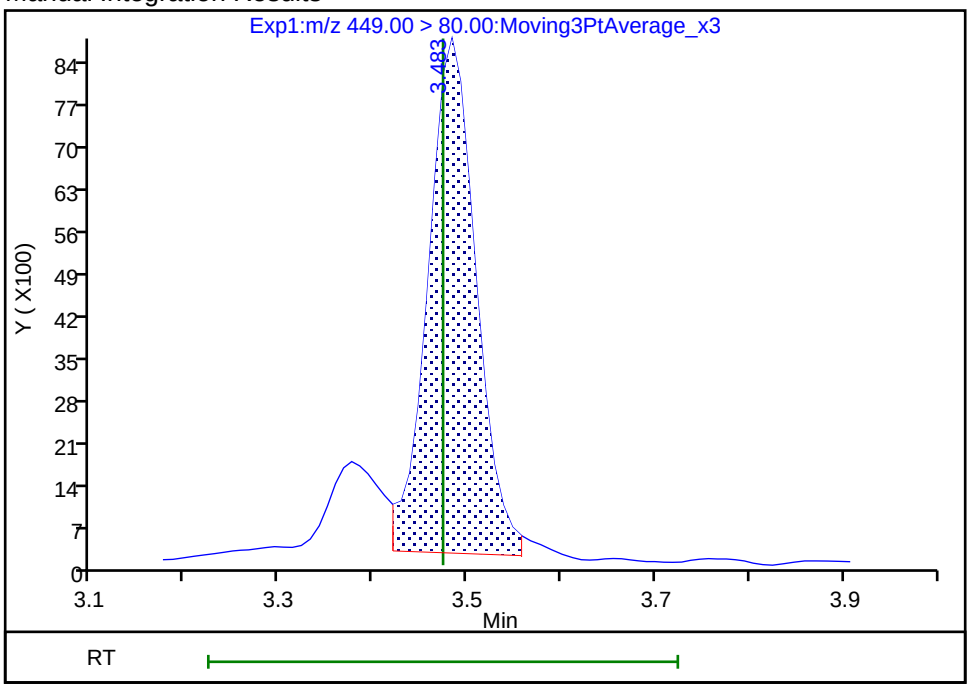
Processing Integration Results

RT: 3.48
Area: 30861
Amount: 0.030263
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 29992
Amount: 0.029411
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

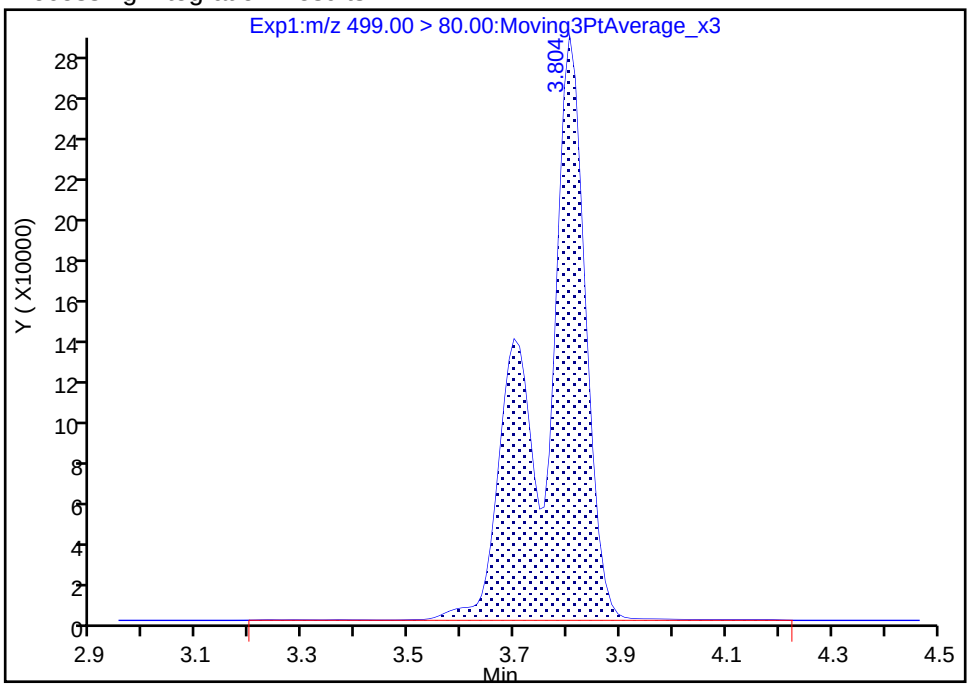
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

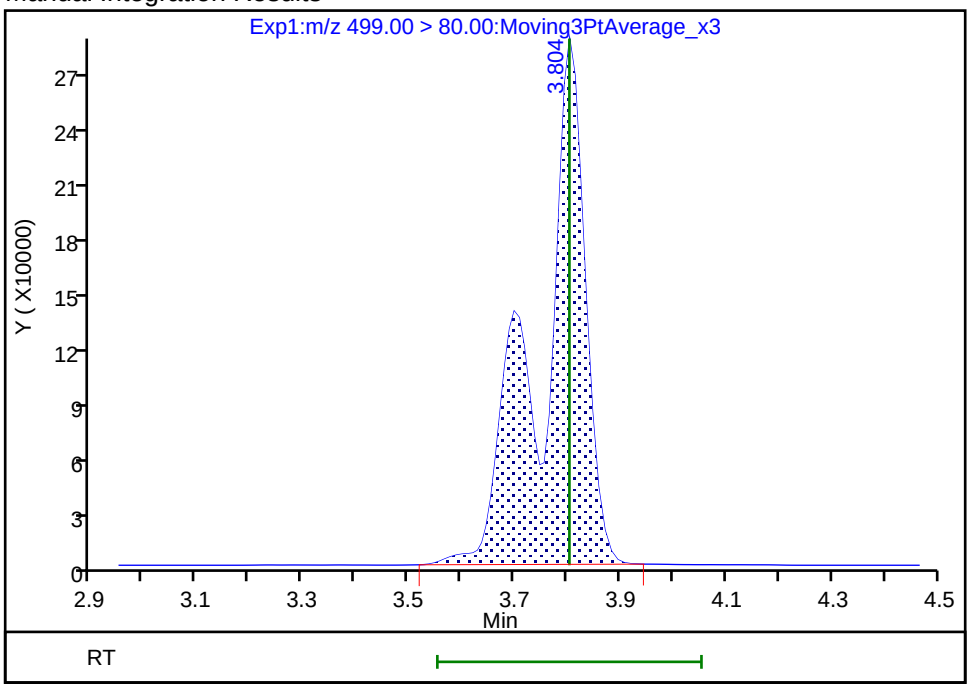
Processing Integration Results

RT: 3.80
Area: 1713983
Amount: 1.931023
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1697199
Amount: 1.912114
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

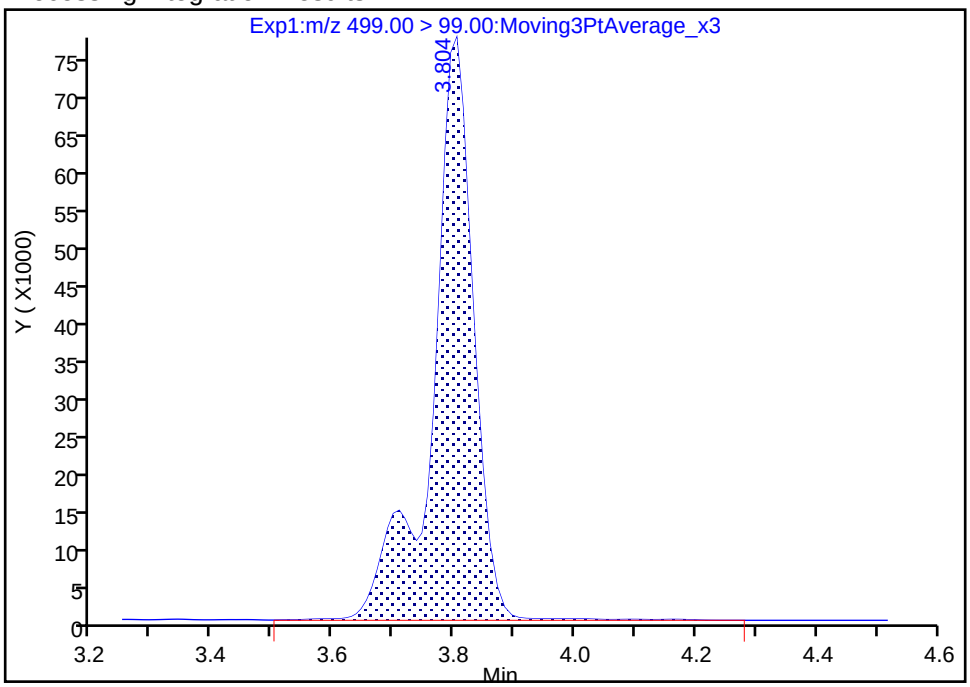
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

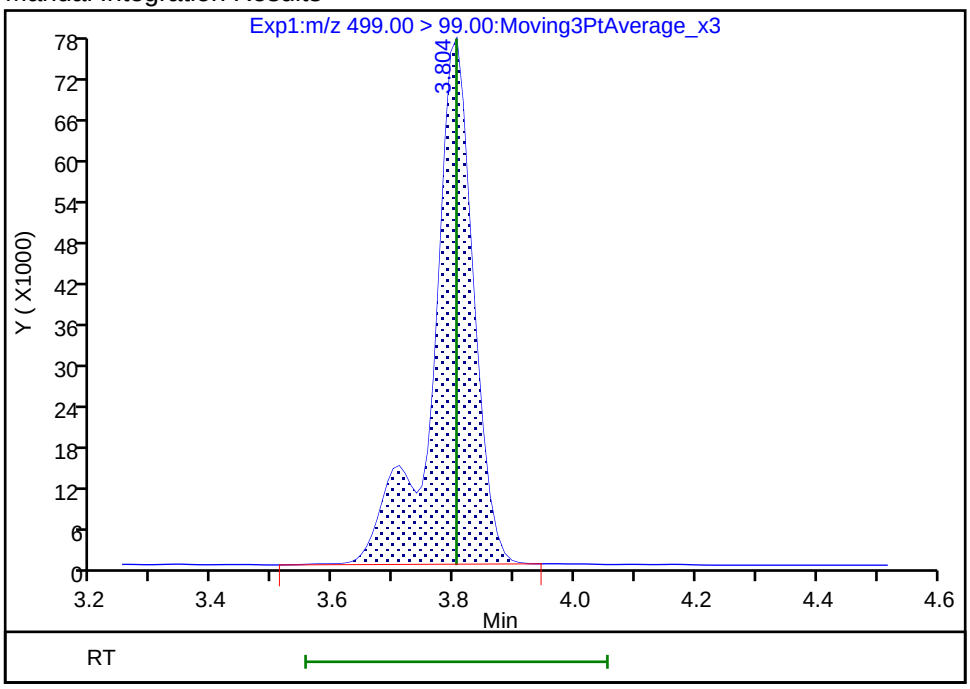
Processing Integration Results

RT: 3.80
Area: 368307
Amount: 1.931023
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 363122
Amount: 1.912114
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

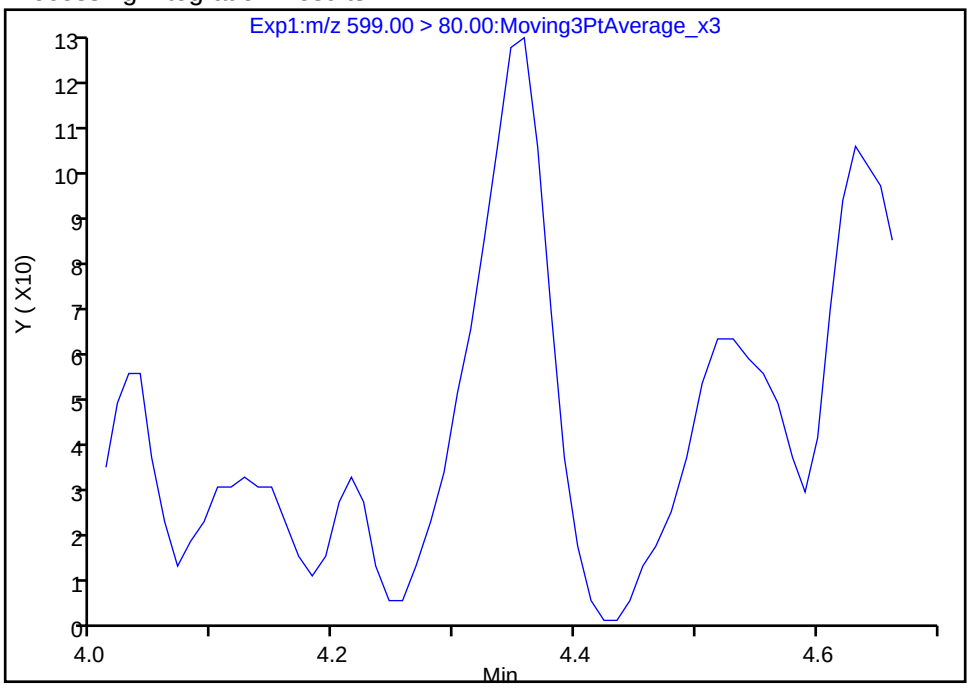
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

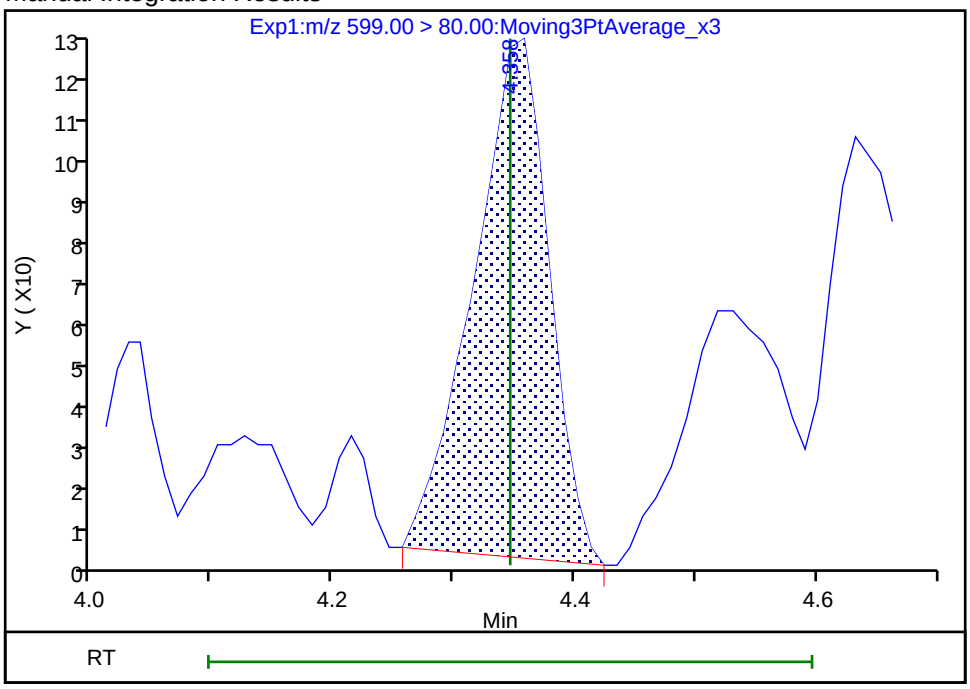
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 503
Amount: 0.000936
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

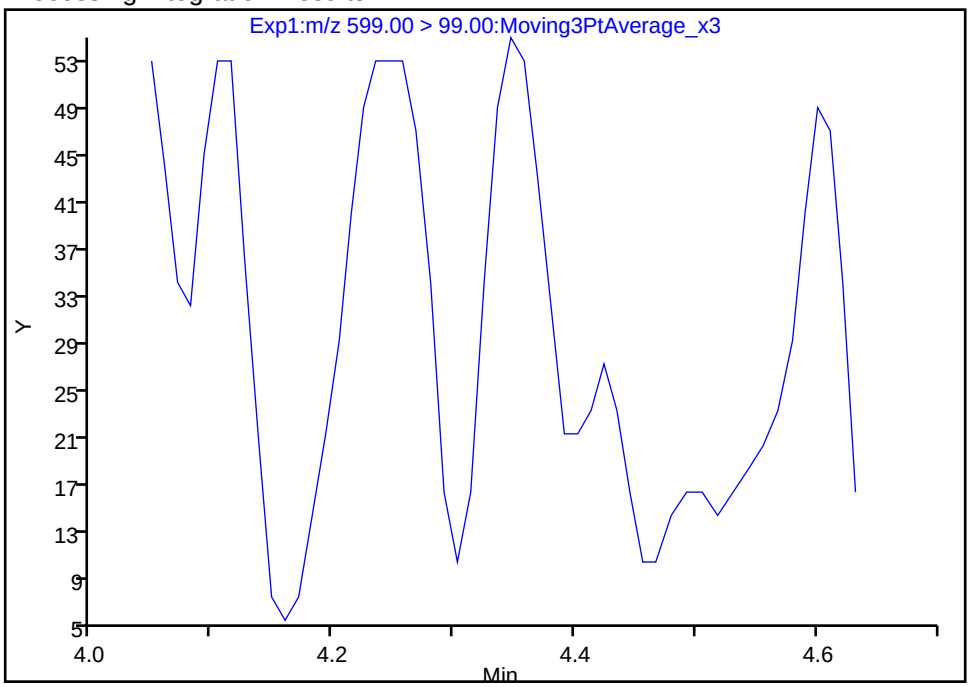
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

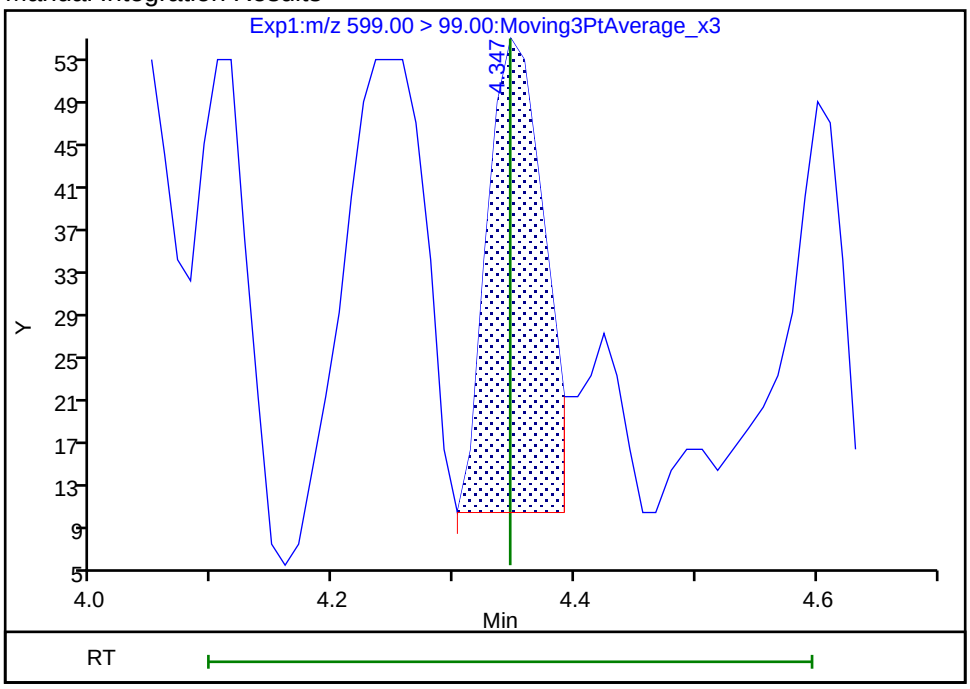
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 144
Amount: 0.000936
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

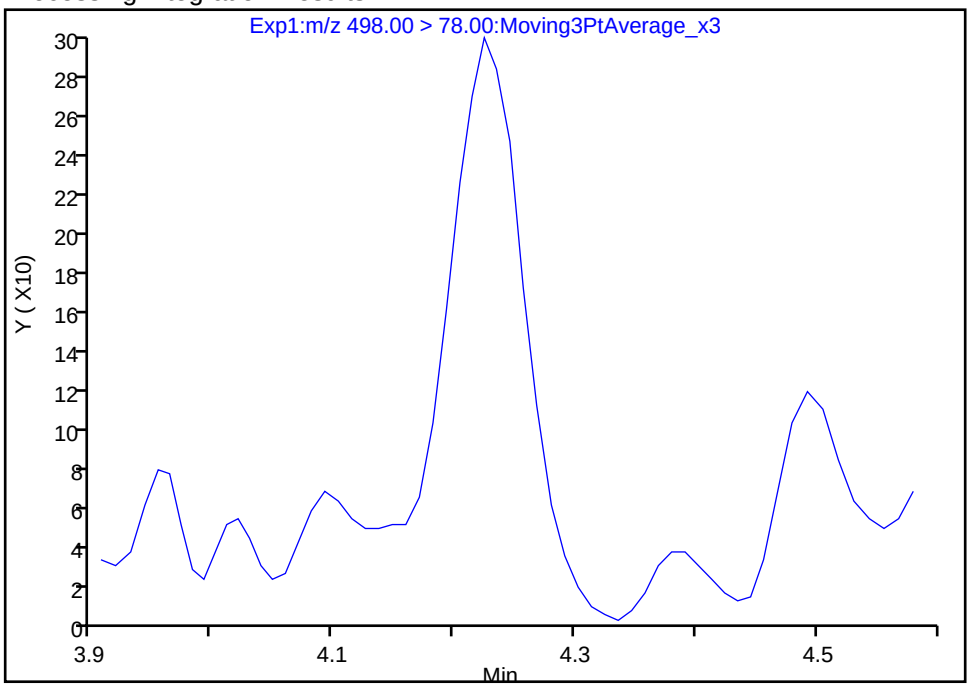
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

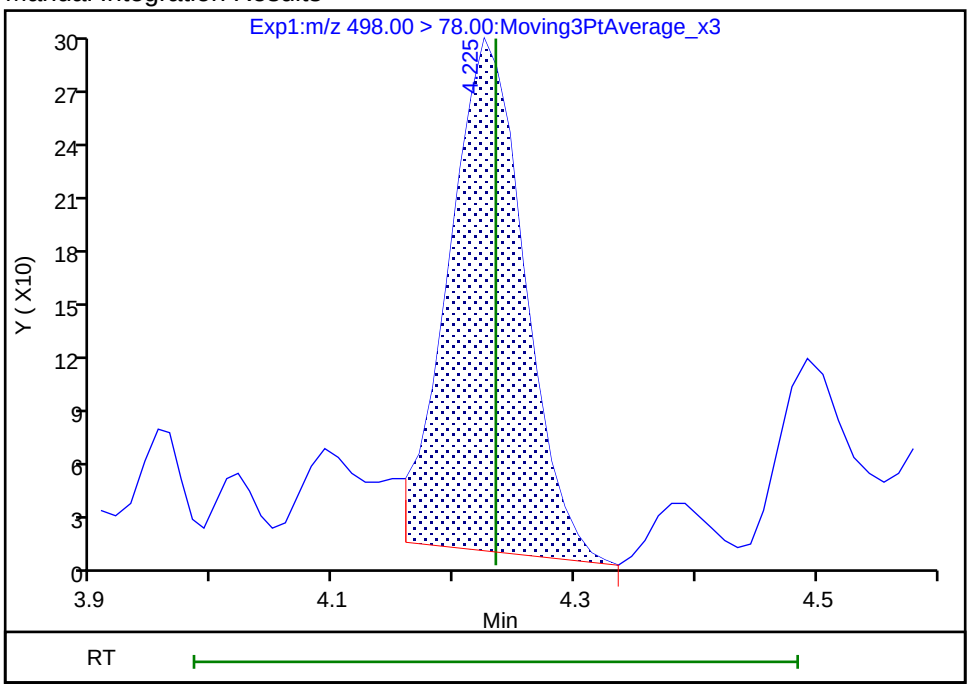
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 1263
Amount: 0.001068
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

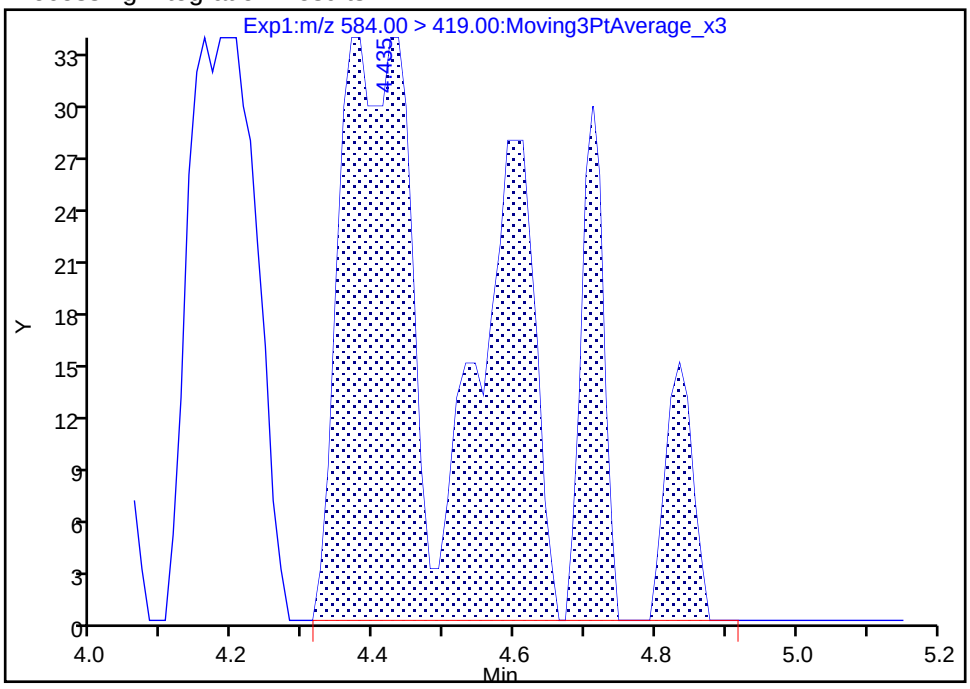
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

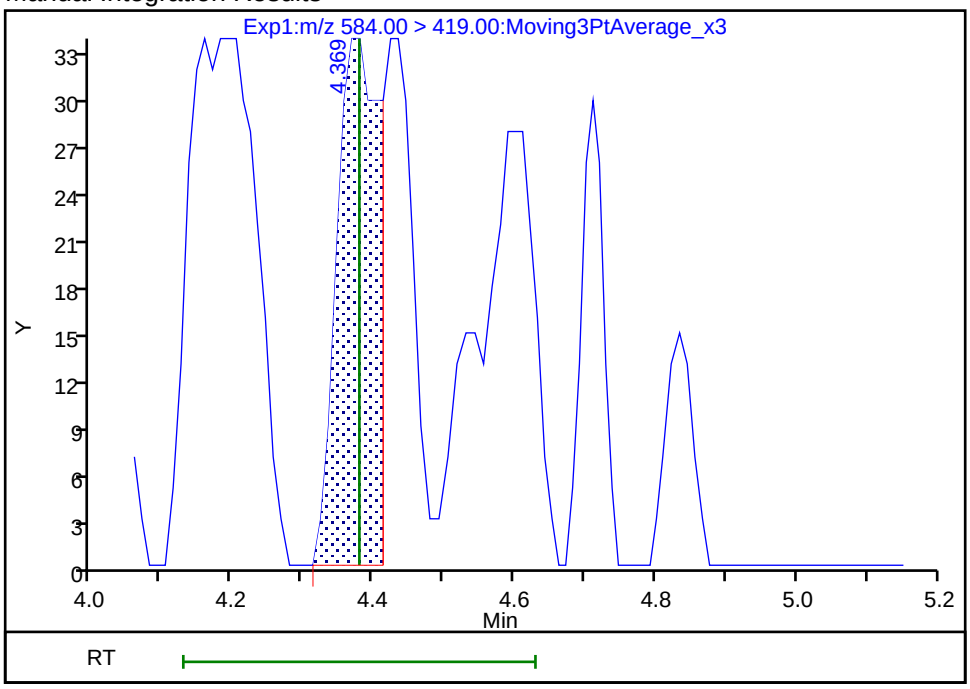
Processing Integration Results

RT: 4.43
Area: 497
Amount: 0.005110
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 136
Amount: 0.001398
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:51:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

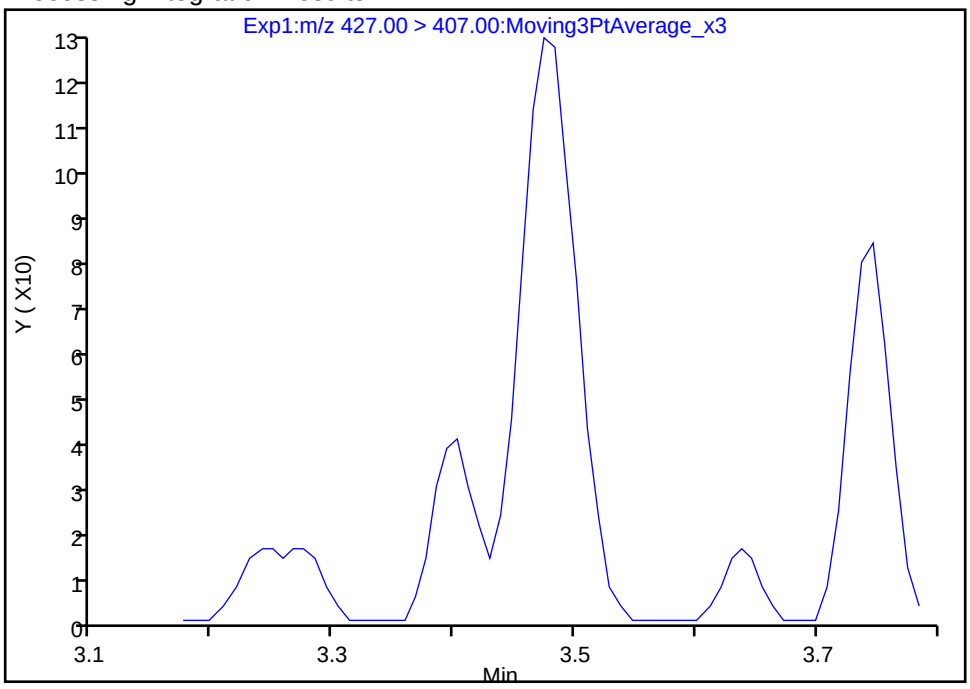
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

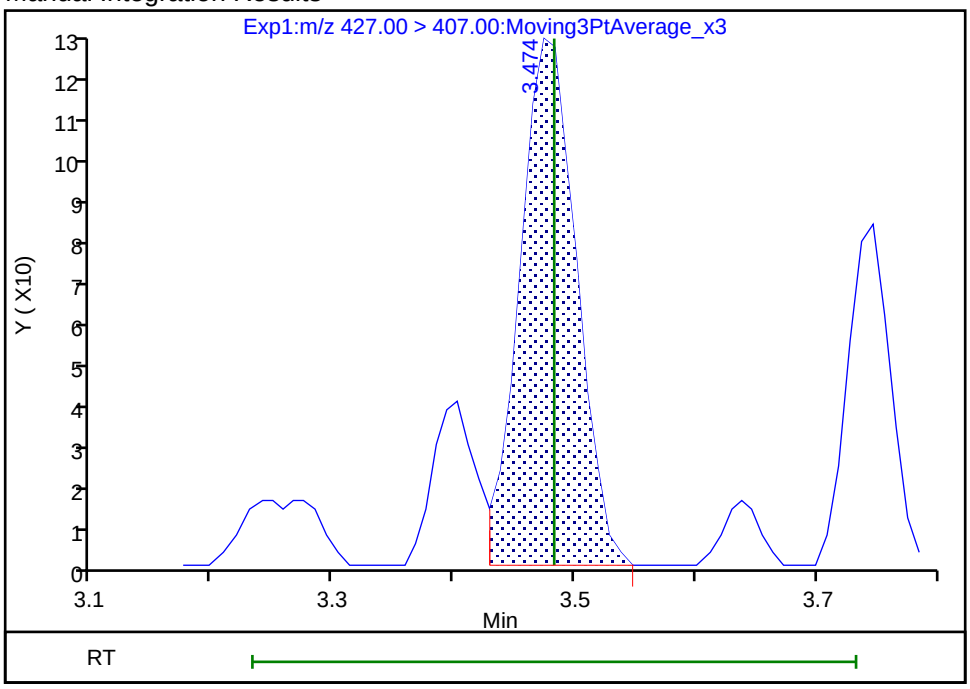
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 395
Amount: 0.001586
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:49:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

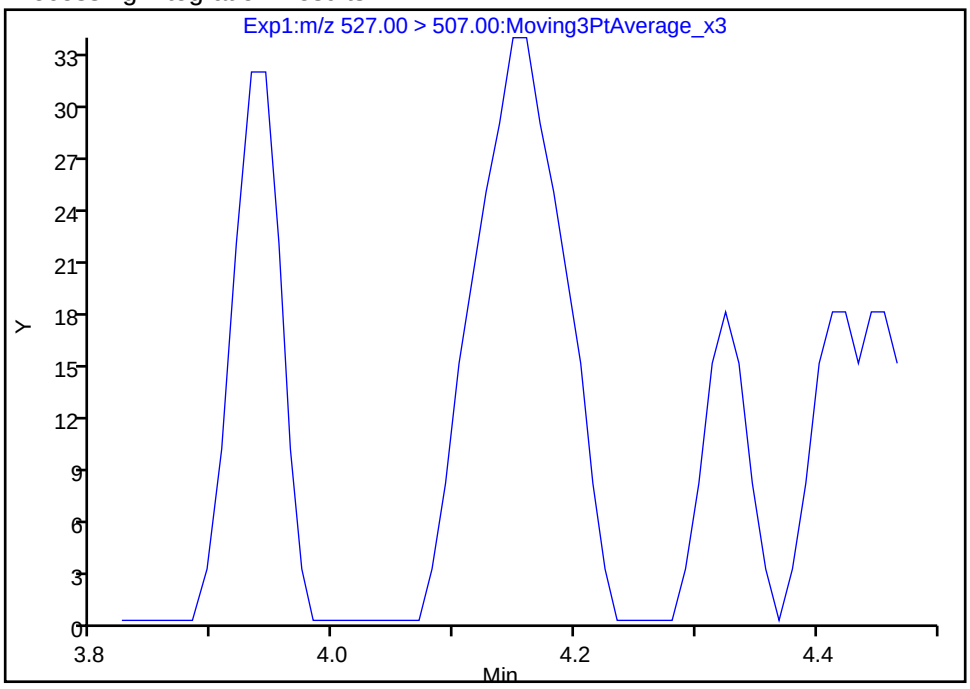
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D04.d | | | | |
| Injection Date: | 10-Nov-2021 04:36:45 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-1-A | Lab Sample ID: | 200-246277-1 | | |
| Client ID: | MH-102-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

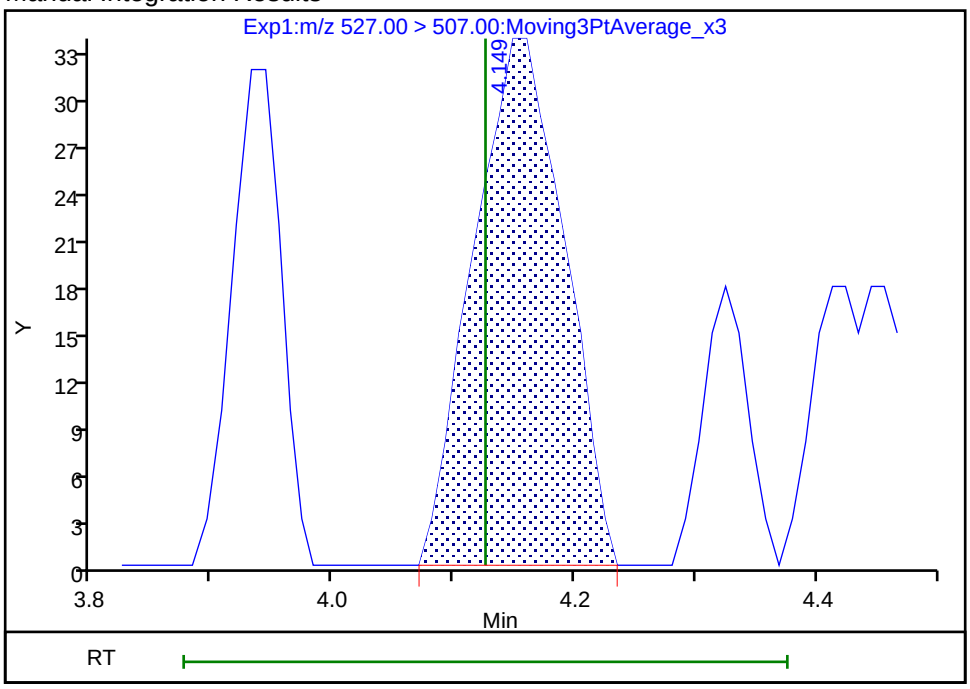
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.15
Area: 178
Amount: 0.001005
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:50:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AP-101-20211027  Lab Sample ID: 460-246277-2

Matrix: Water  Lab File ID: PA211109D05.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:50

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 269.2(mL)  Date Analyzed: 11/10/2021 04:44

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 14.2 | | 4.64 | 0.83 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 23.4 | | 1.86 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 95.9 | | 1.86 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 9.62 | | 1.86 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 36.5 | | 1.86 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.48 | J | 1.86 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.86 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.86 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.86 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.86 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.86 | 0.59 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 45.9 | | 1.86 | 0.23 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 36.4 | | 1.86 | 0.22 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.86 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.86 | 0.54 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.64 | 0.84 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.64 | 0.69 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.64 | 1.02 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.86 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AP-101-20211027  Lab Sample ID: 460-246277-2

Matrix: Water  Lab File ID: PA211109D05.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:50

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 269.2(mL)  Date Analyzed: 11/10/2021 04:44

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL01892 | 13C4 PFHpA | 92 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 86 | | 50-150 |
| STL00995 | 13C5 PFNA | 86 | | 50-150 |
| STL00992 | 13C4 PFBA | 104 | | 25-150 |
| STL00993 | 13C2 PFHxA | 101 | | 50-150 |
| STL00996 | 13C2 PFDA | 76 | | 50-150 |
| STL00997 | 13C2 PFUnA | 65 | | 50-150 |
| STL00998 | 13C2 PFDoA | 58 | | 50-150 |
| STL01056 | 13C8 FOSA | 84 | | 25-150 |
| STL01893 | 13C5 PFPeA | 102 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 60 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 76 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 70 | | 50-150 |
| STL02279 | M2-6:2 FTS | 105 | | 25-150 |
| STL02280 | M2-8:2 FTS | 91 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d
Lims ID: 460-246277-C-2-A
Client ID: AP-101-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 04:44:56 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-2-A
Misc. Info.: 200-0048356-005 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 13:38:51
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.098 | 2.100 | -0.002 | 0.599 | 1523611 | 1.30 | | 104 | 4722 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.098 | 2.100 | -0.002 | 1.000 | 440576 | 0.3823 | | | 51.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.411 | 2.413 | -0.002 | 0.689 | 1260709 | 1.28 | | 102 | 1779 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.411 | 2.413 | -0.002 | 1.000 | 635313 | 0.6288 | | | 14.5 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.437 | 2.426 | 0.011 | 0.696 | 1431547 | 1.07 | | 92.4 | 45676 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.437 | 2.439 | -0.002 | 1.000 | 1625183 | 1.24 | Target=2.32 | | 138 | M |
| 298.90 > 99.00 | 2.437 | 2.439 | -0.002 | 1.000 | 748796 | | 2.17(1.16-3.48) | | 218 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.768 | 2.770 | -0.002 | 0.791 | 1300546 | 1.26 | | 101 | 3019 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.768 | 2.770 | -0.002 | 1.000 | 2725492 | 2.58 | Target=12.09 | | 224 | |
| 313.00 > 119.00 | 2.768 | 2.770 | -0.002 | 1.000 | 193841 | | 14.06(6.04-18.13) | | 157 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | E |
| 399.00 > 80.00 | 3.143 | 3.132 | 0.011 | 1.000 | 12196296 | 12.4 | Target=3.55 | | 4794 | E |
| 399.00 > 99.00 | 3.143 | 3.132 | 0.011 | 1.000 | 3188004 | | 3.83(1.77-5.32) | | 2446 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.132 | 0.011 | 0.898 | 1055732 | 1.09 | | 92.2 | 2883 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.898 | 1249147 | 1.15 | | 91.8 | 3037 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 267359 | 0.2589 | Target=3.69 | | 33.5 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 66862 | | 4.00(1.84-5.53) | | 51.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 731451 | 0.9791 | Target=4.88 | | 29.4 | |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 171001 | | 4.28(2.44-7.32) | | 56.7 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 656 | 0.003223 | | | 13.1 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.995 | 190628 | 1.25 | | 105 | 253 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 0.997 | 1401724 | 1.18 | | 94.3 | 5148 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.501 | 3.492 | 0.009 | | 1444235 | 1.25 | | | 3007 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1170464 | 0.9815 | Target=2.68 | | 118 | |
| 413.00 > 169.00 | 3.501 | 3.492 | 0.009 | 1.003 | 488267 | | 2.40(1.34-4.02) | | 799 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.087 | 716159 | 1.02 | | 85.6 | 1820 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 14535883 | 22.4 | Target=4.69 | | 3252 | EM |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 3288750 | | 4.42(2.35-7.04) | | 2400 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.092 | 1277391 | 1.08 | | 86.3 | 2578 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 13007 | 0.0130 | Target=7.29 | | 2.6 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 1327 | | 9.80(3.64-10.93) | | 5.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.115 | 0.011 | 1.179 | 1129626 | 0.9452 | | 75.6 | 4361 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.000 | 3870 | 0.004262 | Target=8.95 | | 2.5 | RM |
| 513.00 > 169.00 | 4.126 | 4.115 | 0.011 | 1.000 | 199 | | 19.45(4.47-13.42) | | 1.4 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.179 | 189379 | 1.09 | | 91.3 | 569 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.149 | 4.126 | 0.022 | 1.005 | 177 | 0.001338 | | | 3.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.210 | 1215191 | 1.05 | | 84.3 | 2284 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.000 | 1664 | 0.001802 | | | 5.7 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.216 | 111824 | 0.9513 | | 76.1 | 1071 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 104 | 0.001480 | | | 0.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.251 | 751963 | 0.8073 | | 64.6 | 2518 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 2185 | 0.003407 | Target=9.24 | | 1.5 | RM |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 0.997 | 41 | | 53.29(4.62-13.86) | | 1.1 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.254 | 95787 | 0.8699 | | 69.6 | 710 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | a |
| 584.00 > 419.00 | 4.692 | 4.380 | 0.312 | 1.068 | 325 | 0.004950 | | | 5.6 | a |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.314 | 729225 | 0.7278 | | 58.2 | 1446 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.622 | 4.591 | 0.031 | 1.005 | 964 | 0.001688 | Target=7.04 | | 0.4 | M |
| 613.00 > 169.00 | 4.611 | 4.591 | 0.020 | 1.002 | 249 | | 3.87(3.52-10.56) | | 4.1 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.810 | 4.792 | 0.018 | 1.045 | 547 | 0.001111 | Target=4.68 | | 0.3 | RM |
| 663.00 > 169.00 | 4.810 | 4.792 | 0.018 | 1.045 | 55 | | 9.95(2.34-7.02) | | 1.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.424 | 581026 | 0.7477 | | 59.8 | 1476 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.975 | 4.966 | 0.009 | 0.998 | 211 | 0.002876 | Target=1.01 | | 7.4 | M |
| 713.00 > 219.00 | 4.975 | 4.966 | 0.009 | 0.998 | 148 | | 1.43(0.51-1.52) | | 4.4 | M |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- E - Exceeded Maximum Amount

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Report Date: 11-Nov-2021 11:25:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d

Injection Date: 10-Nov-2021 04:44:56 Instrument ID: LC812

Lims ID: 460-246277-C-2-A Lab Sample ID: 200-246277-2

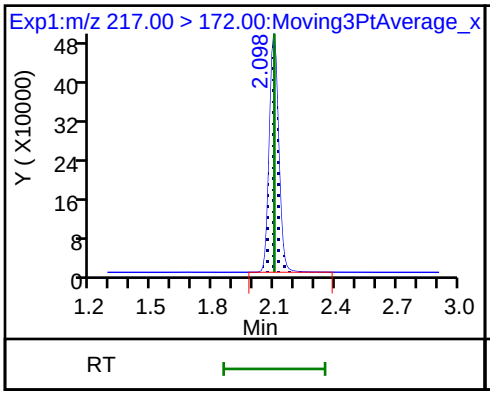
Client ID: AP-101-20211027

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 5

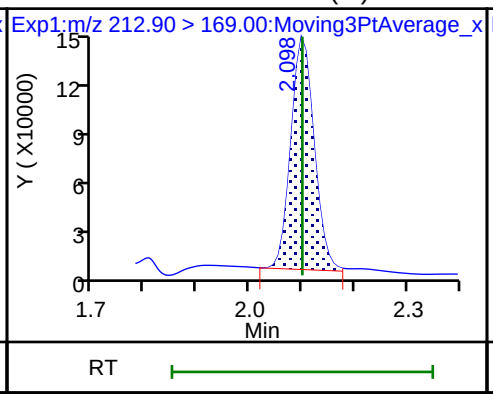
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

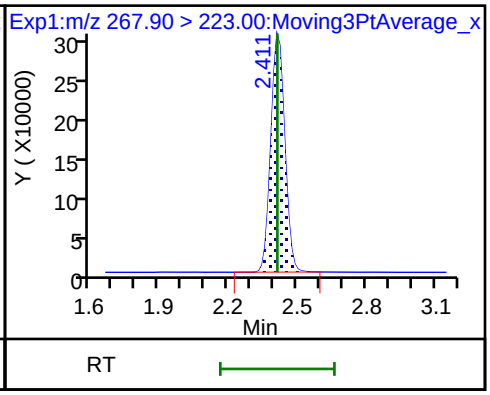
D 1 13C4 PFBA



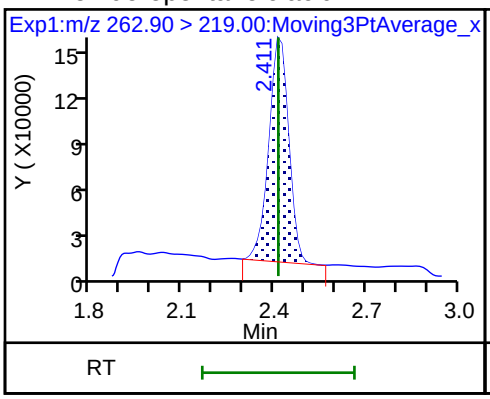

2 Perfluorobutanoic acid (M)



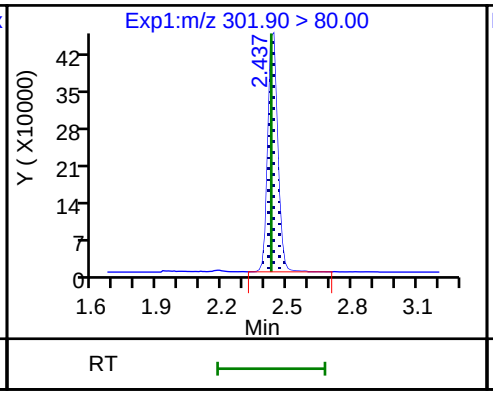

D 3 13C5 PFPeA



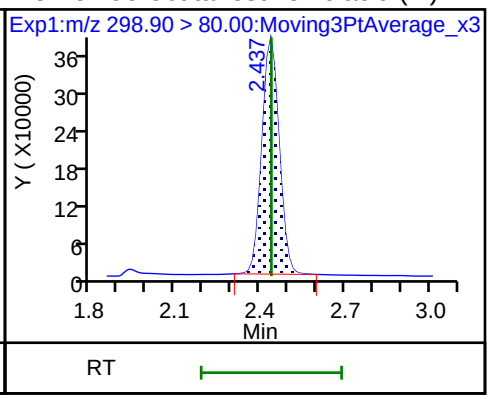

4 Perfluoropentanoic acid



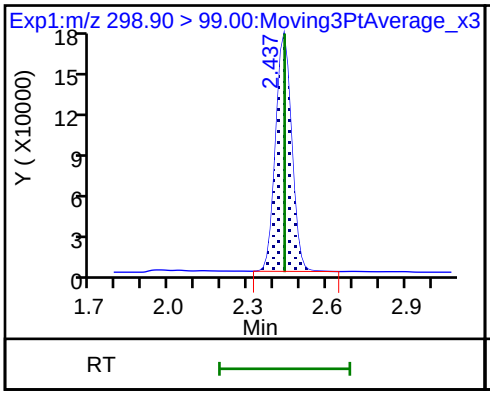

D 47 13C3 PFBS



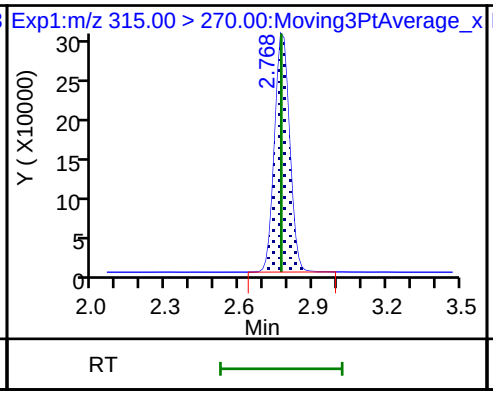

5 Perfluorobutanesulfonic acid (M)



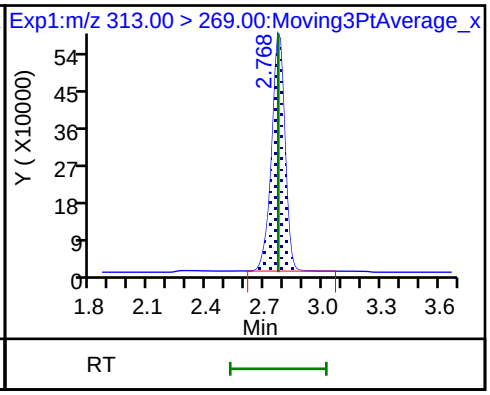

5 Perfluorobutanesulfonic acid



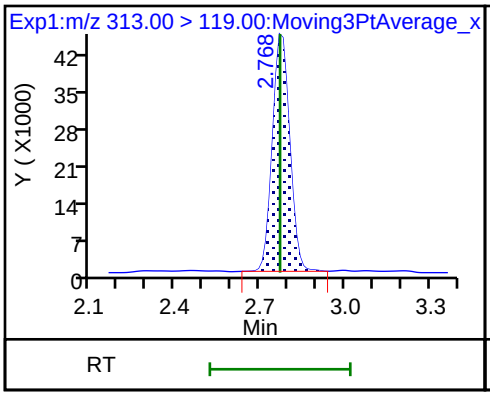

D 7 13C2 PFHxA



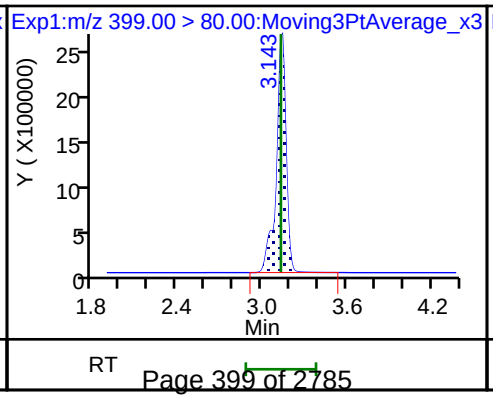

6 Perfluorohexanoic acid



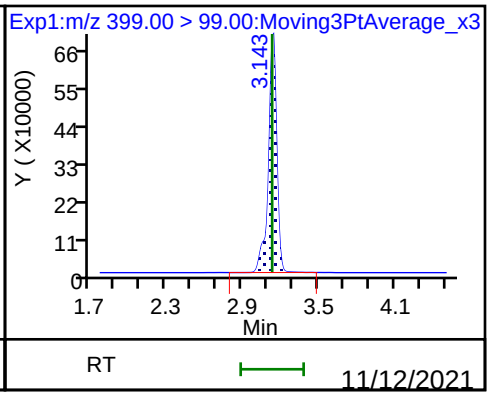

6 Perfluorohexanoic acid



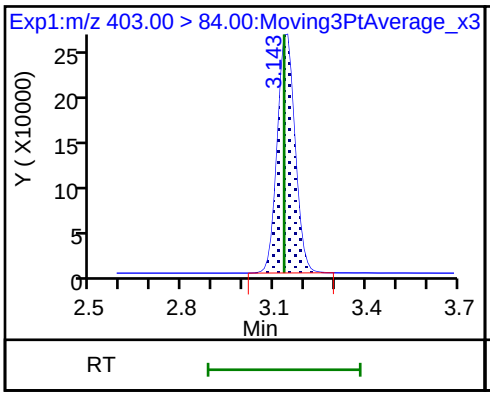

8 Perfluorohexanesulfonic acid



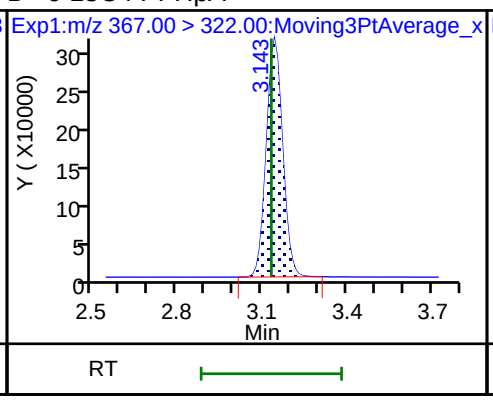

8 Perfluorohexanesulfonic acid



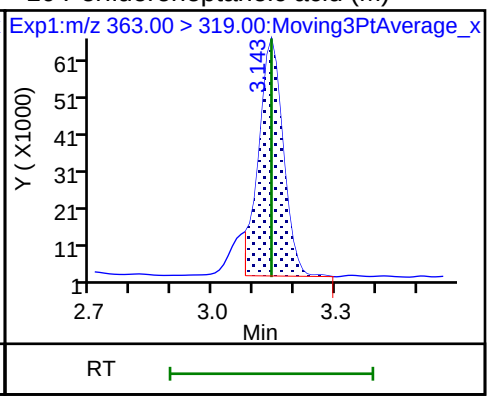
D 11 18O2 PFHxS



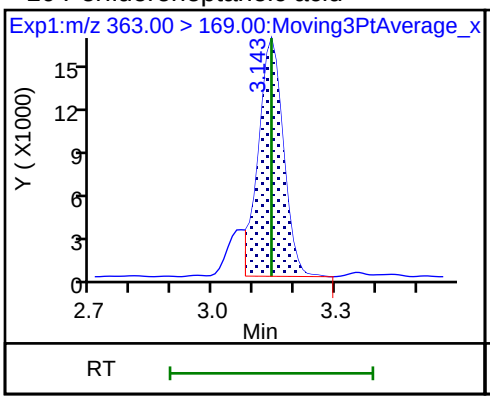

D 9 13C4 PFHpA



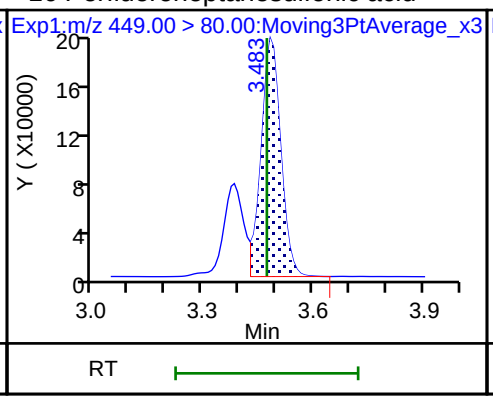

10 Perfluoroheptanoic acid (M)



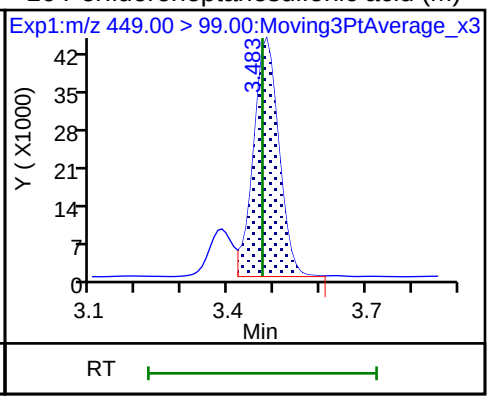

10 Perfluoroheptanoic acid



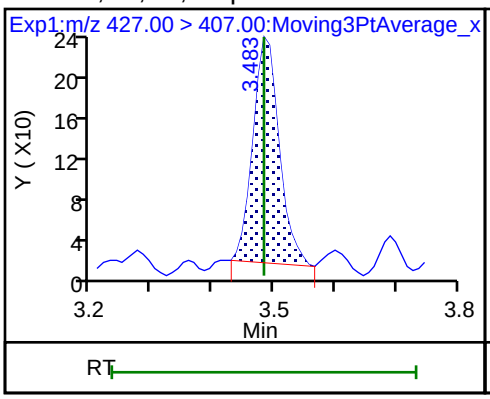

16 Perfluoroheptanesulfonic acid



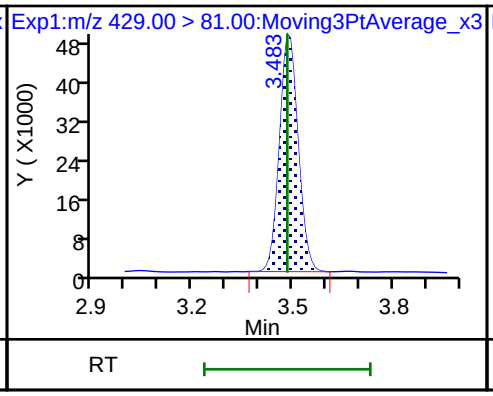

16 Perfluoroheptanesulfonic acid (M)



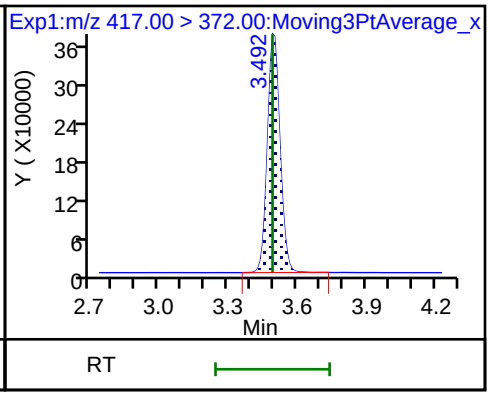

13 1H,1H,2H,2H-perfluorooctanesulfo



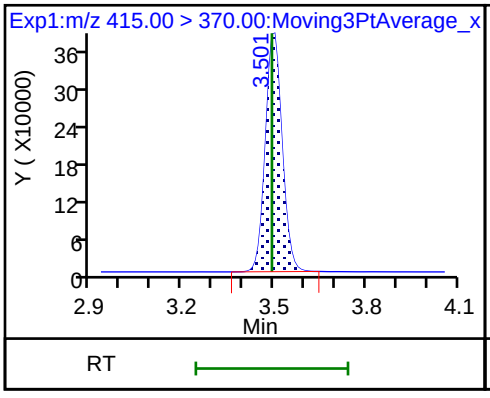

D 12 M2-6:2 FTS



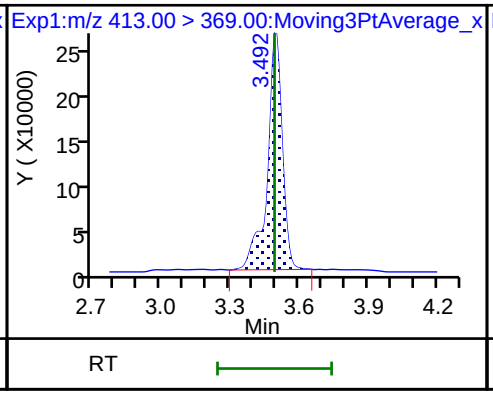

D 14 13C4 PFOA



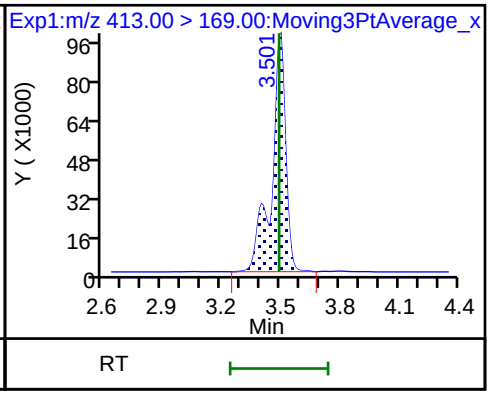

* 62 13C2 PFOA



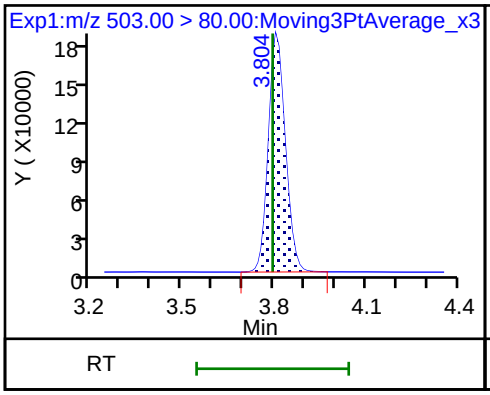

15 Perfluorooctanoic acid



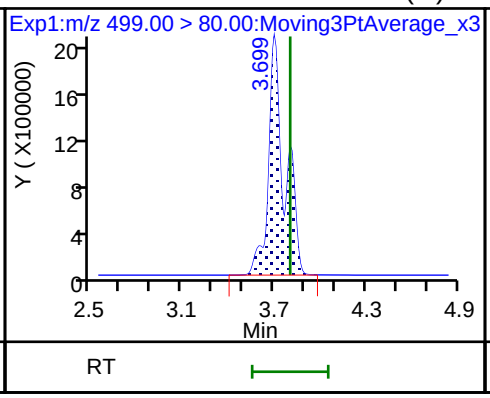

15 Perfluorooctanoic acid



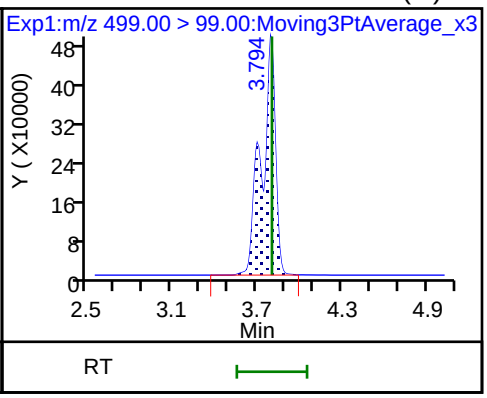
D 18 13C4 PFOS



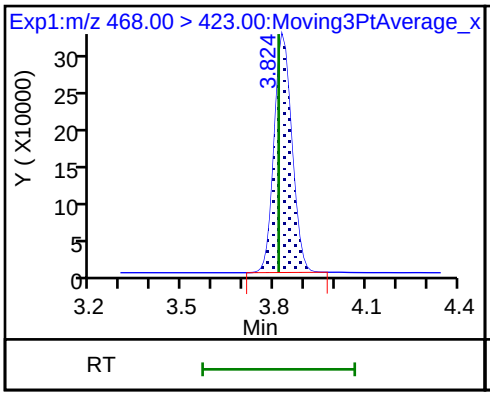

17 Perfluorooctanesulfonic acid (M)



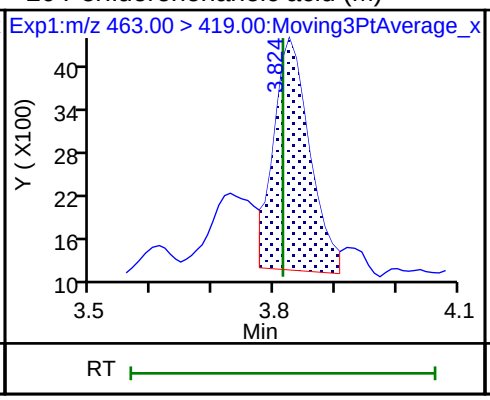

17 Perfluorooctanesulfonic acid (M)



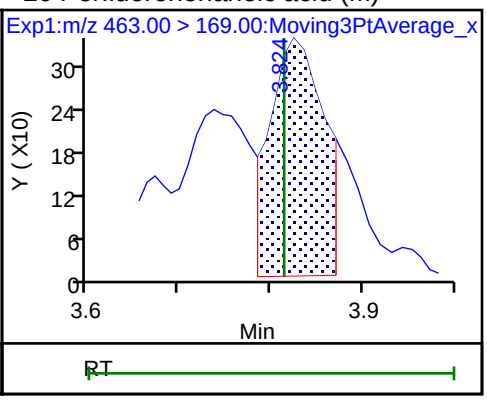

D 19 13C5 PFNA



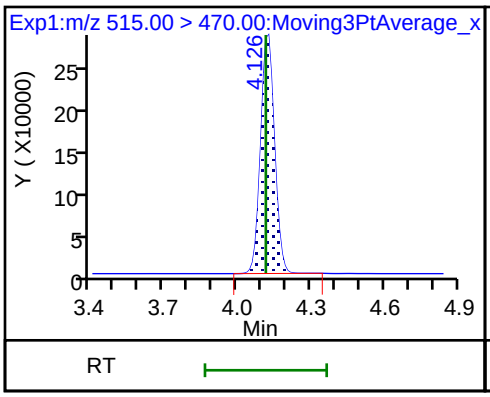

20 Perfluorononanoic acid (M)



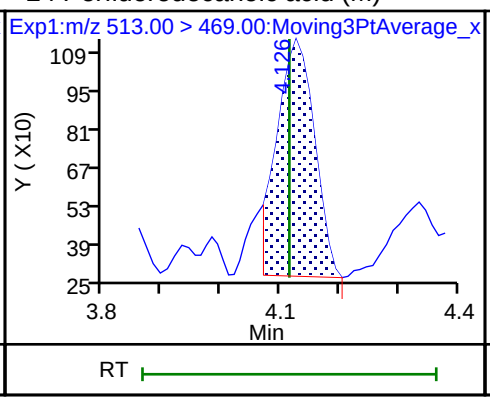

20 Perfluorononanoic acid (M)



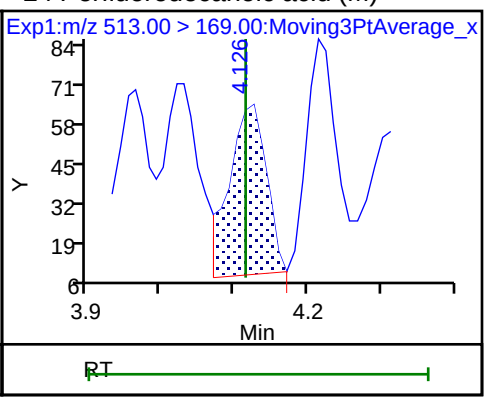

D 23 13C2 PFDA



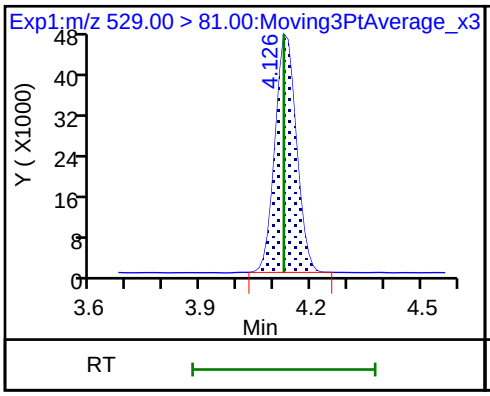

24 Perfluorodecanoic acid (M)



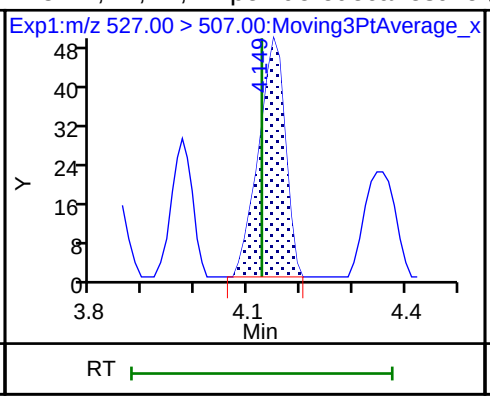

24 Perfluorodecanoic acid (M)



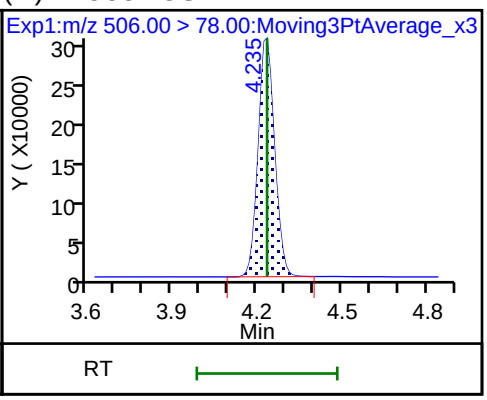

D 26 M2-8:2 FTS



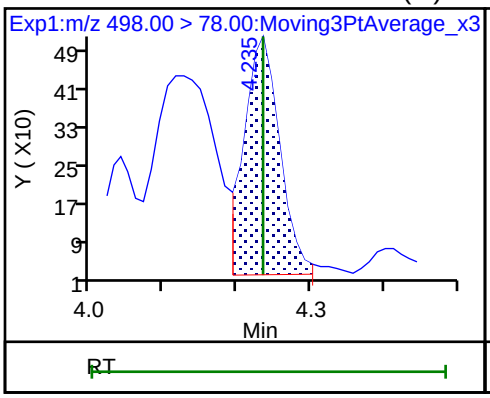

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



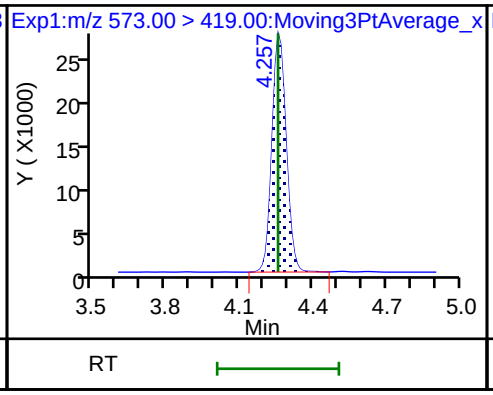

21 13C8 FOSA



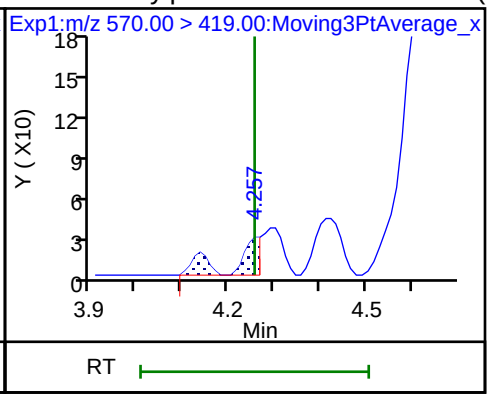
22 Perfluorooctanesulfonamide (M)



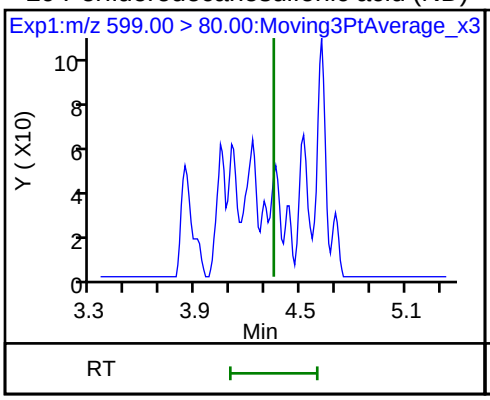

D 27 d3-NMeFOSAA



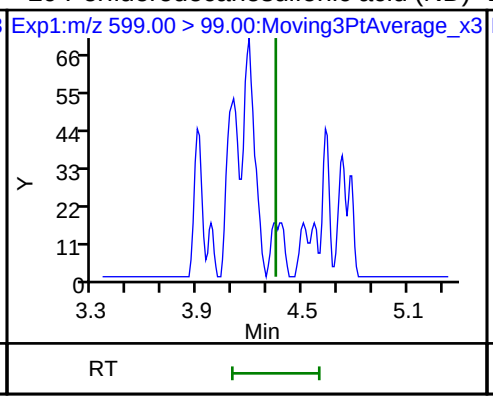

28 N-methylperfluorooctanesulfonami (M)



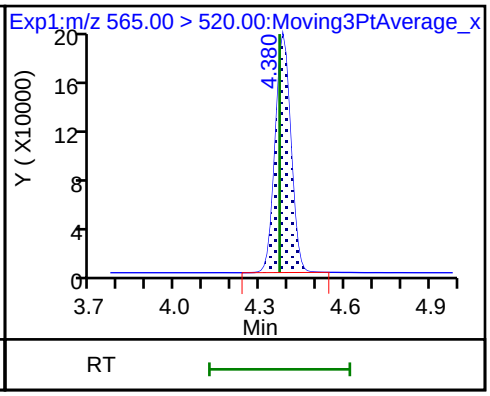

29 Perfluorodecanesulfonic acid (ND)



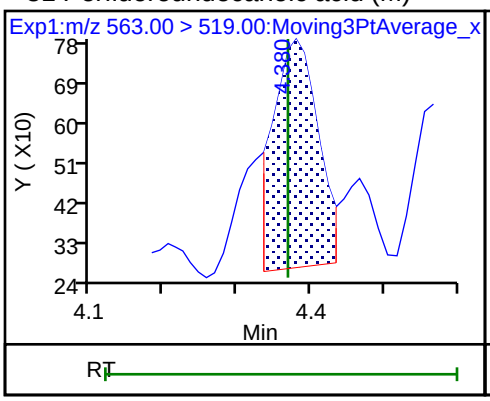

29 Perfluorodecanesulfonic acid (ND)



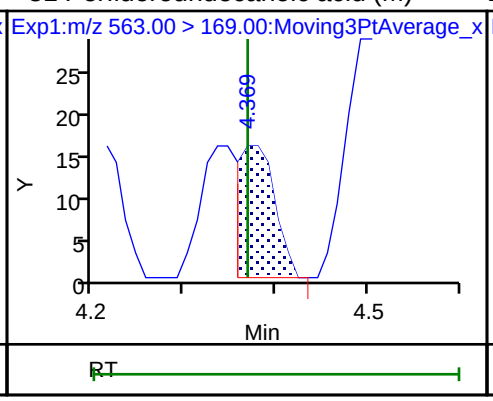

D 30 13C2 PFUnA



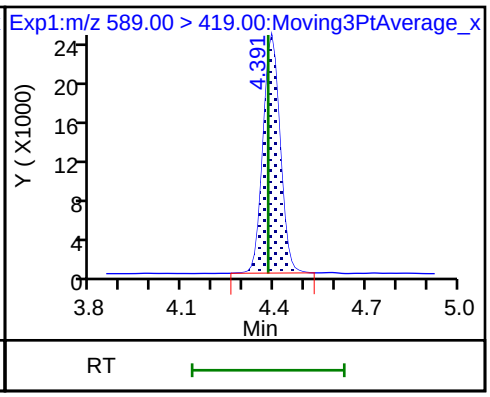

31 Perfluoroundecanoic acid (M)



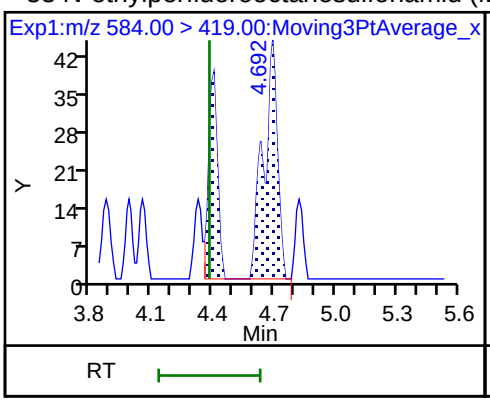

31 Perfluoroundecanoic acid (M)



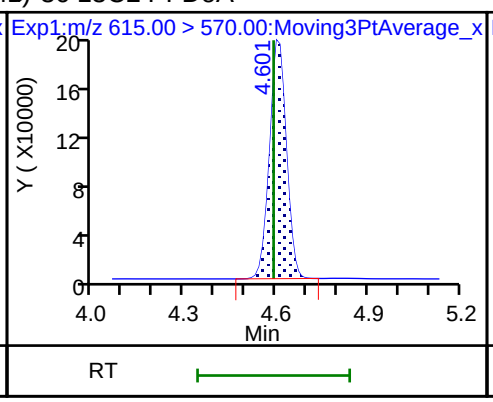

D 32 d5-NEtFOSAA



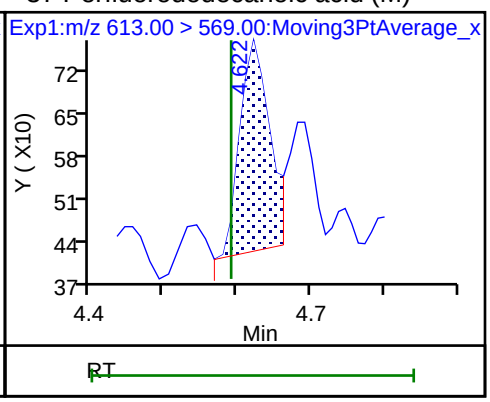

33 N-ethylperfluorooctanesulfonamid (ND)



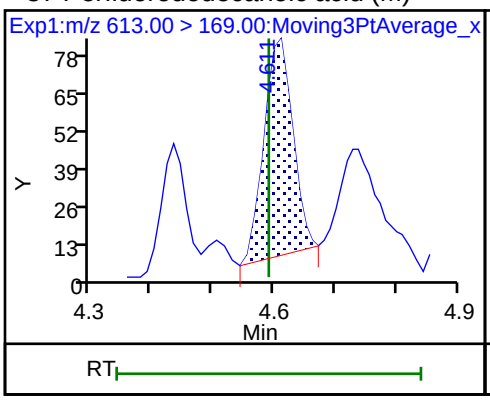

D 36 13C2 PFDoA



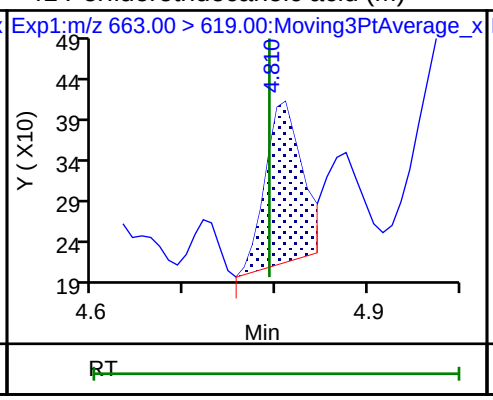

37 Perfluorododecanoic acid (M)



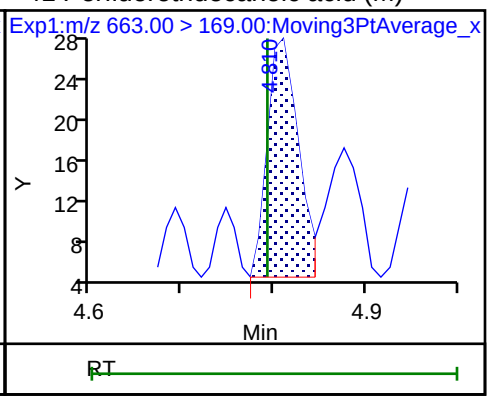
37 Perfluorododecanoic acid (M)



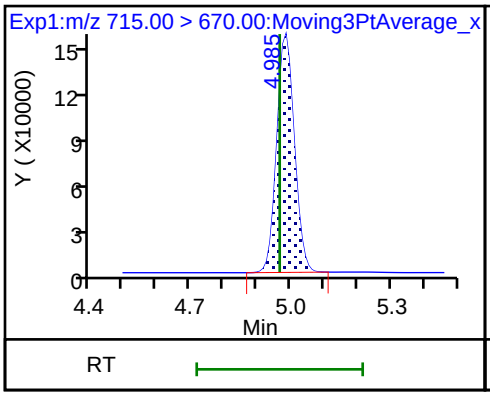

41 Perfluorotridecanoic acid (M)



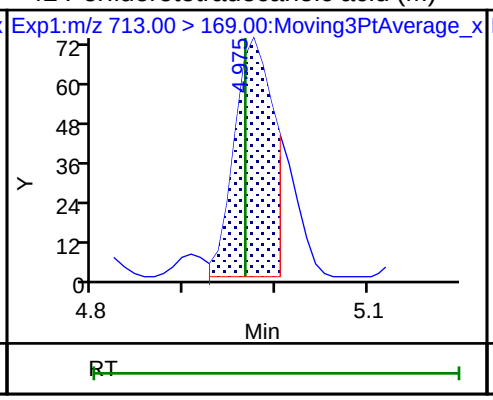

41 Perfluorotridecanoic acid (M)



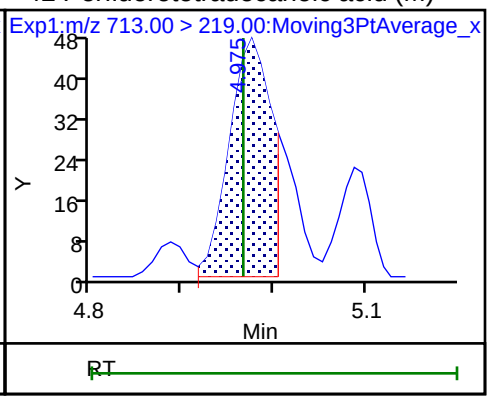

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

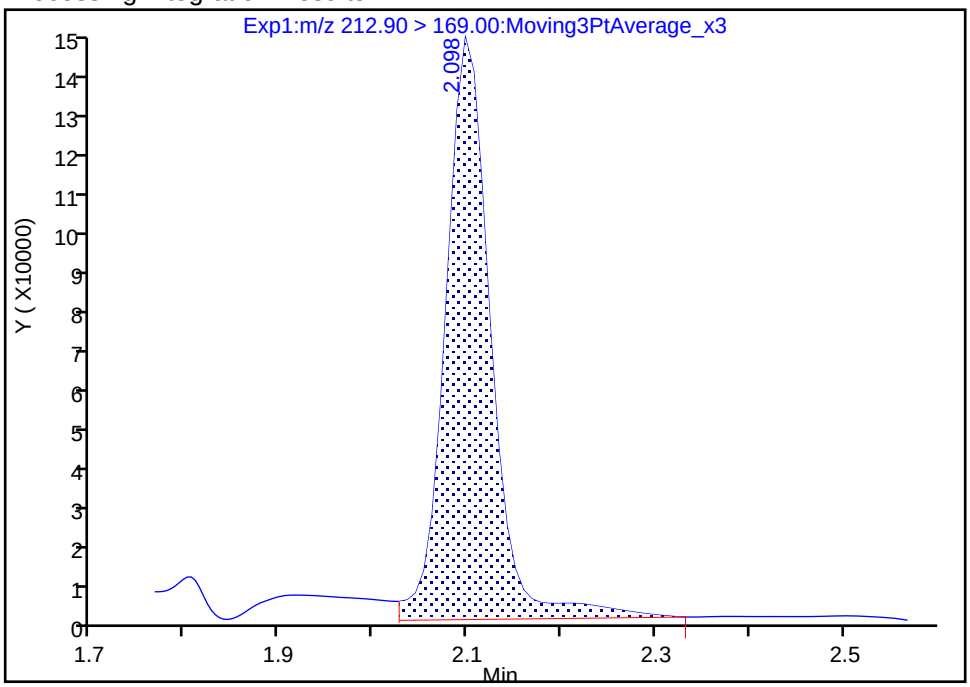
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

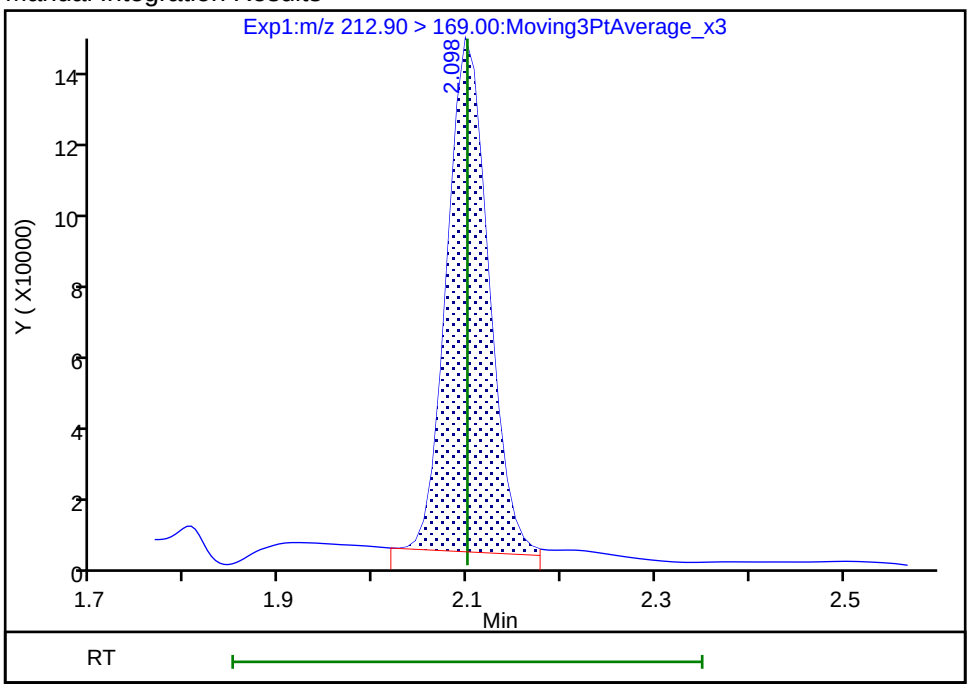
Processing Integration Results

RT: 2.10
Area: 492993
Amount: 0.427748
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 440576
Amount: 0.382268
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:29:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

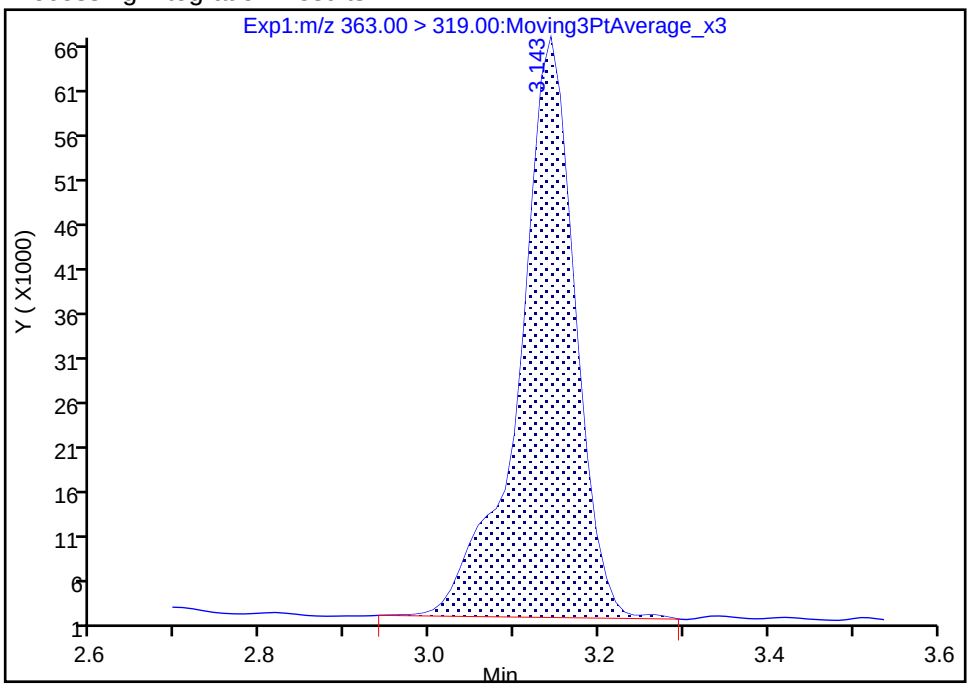
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

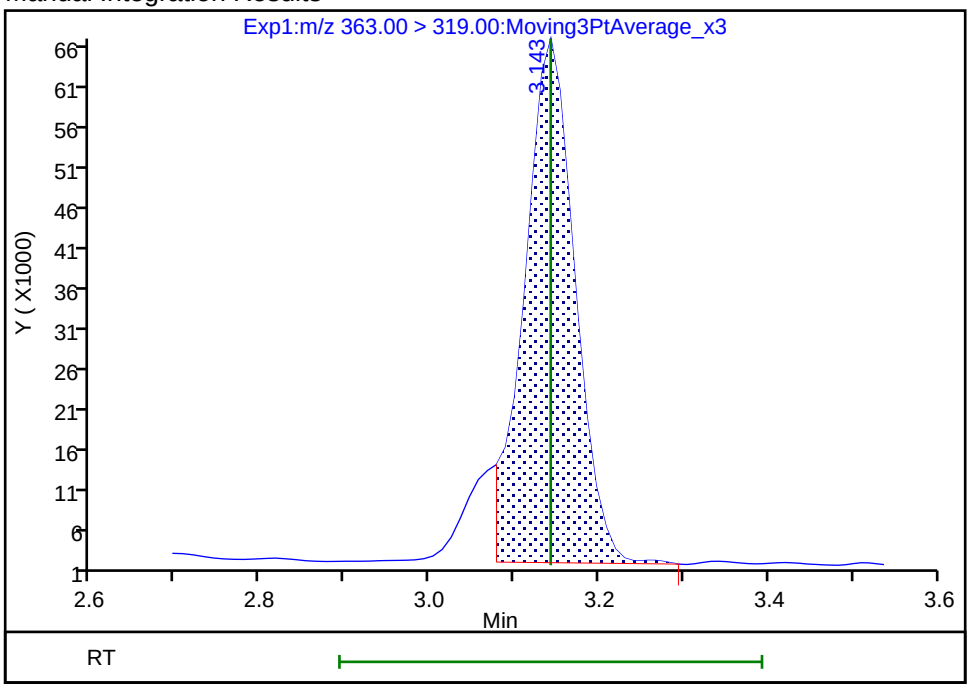
Processing Integration Results

RT: 3.14
Area: 297324
Amount: 0.287962
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 267359
Amount: 0.258940
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:30:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

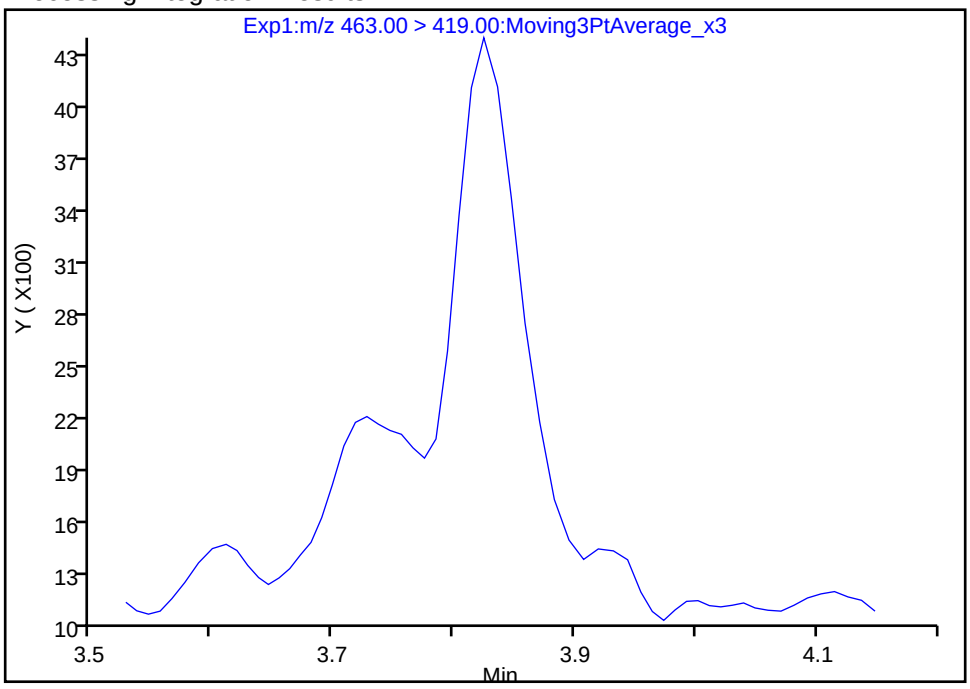
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

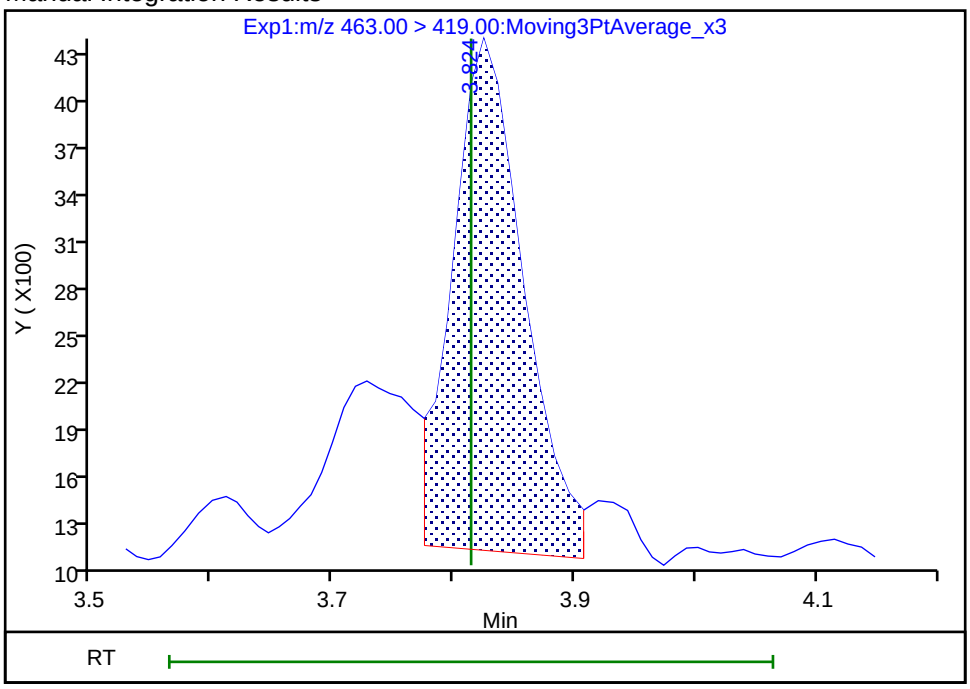
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 13007
Amount: 0.013010
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:34:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

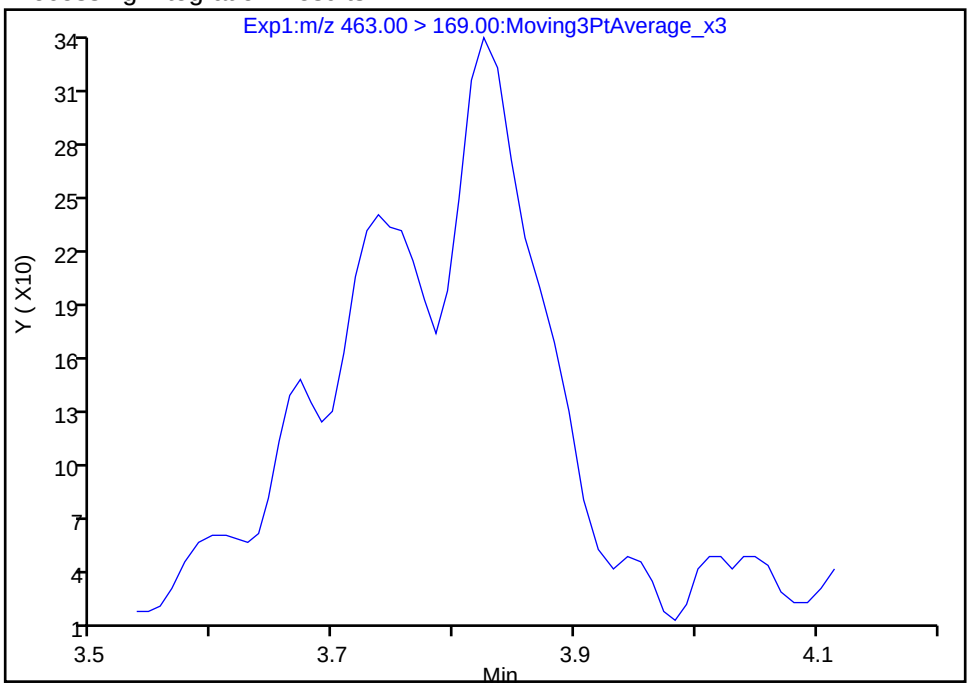
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

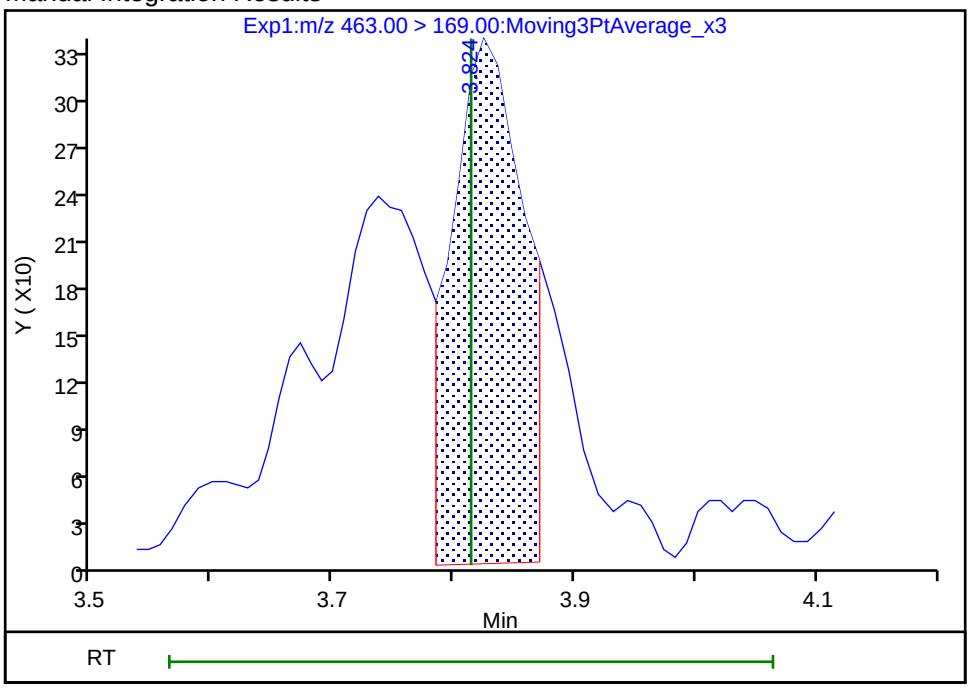
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1327
Amount: 0.013010
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:35:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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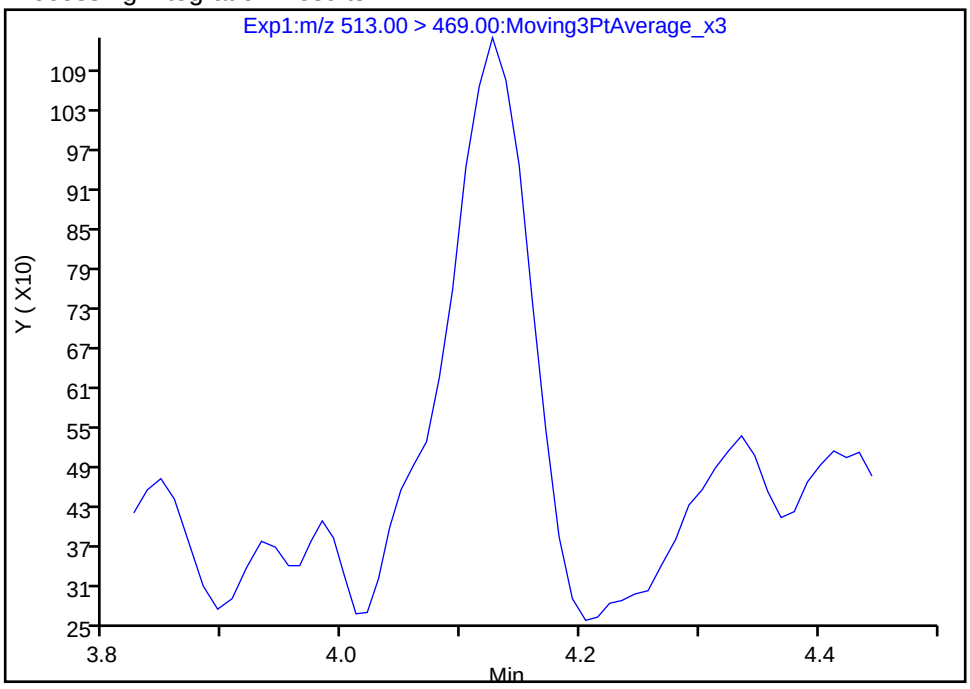
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

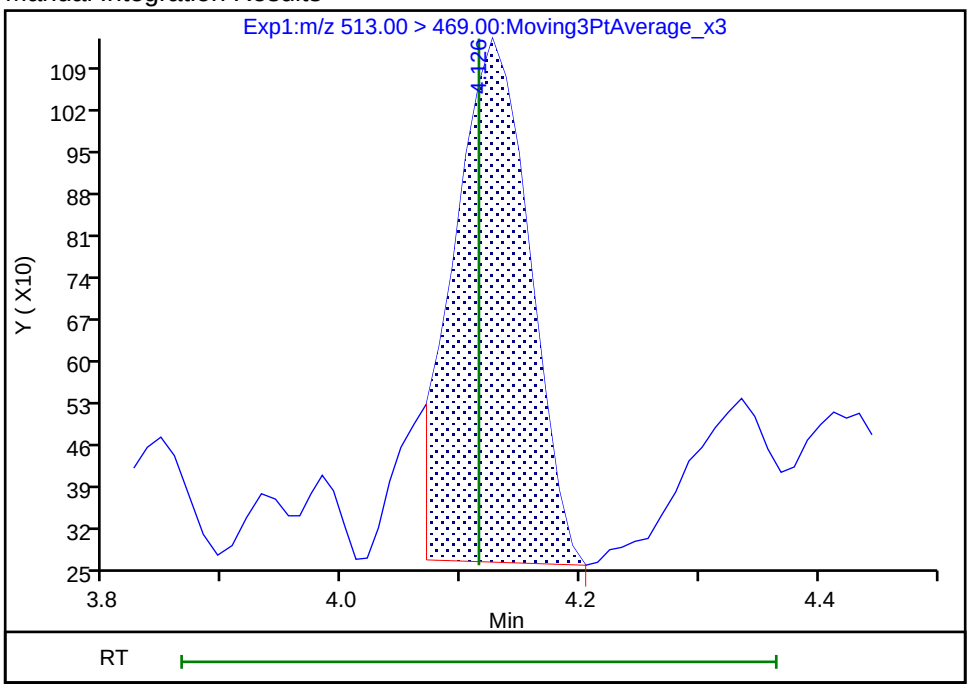
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 3870
Amount: 0.004262
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:35:27
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

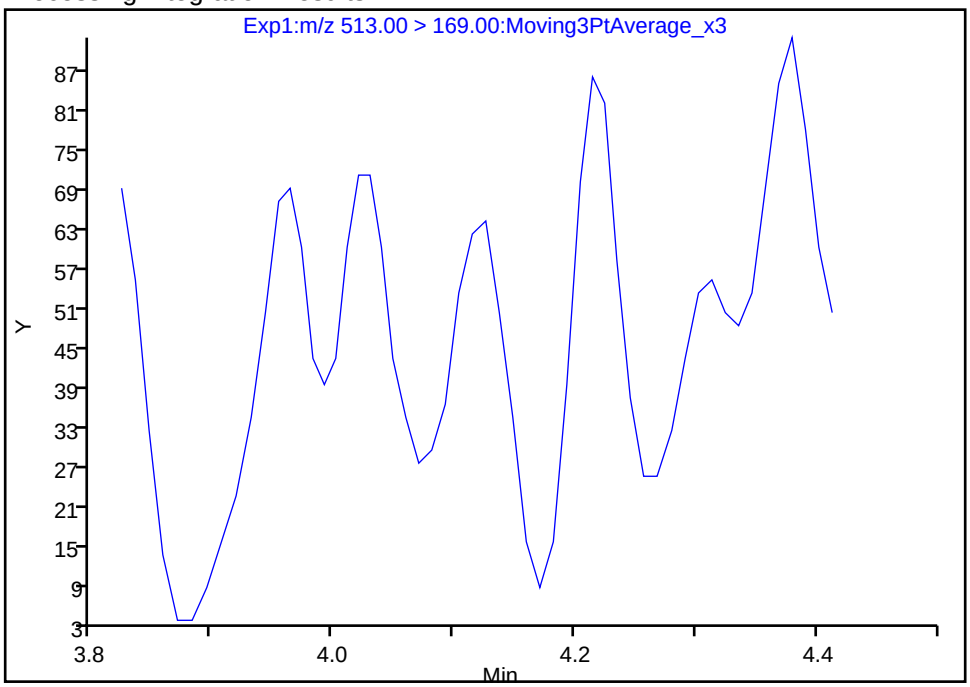
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

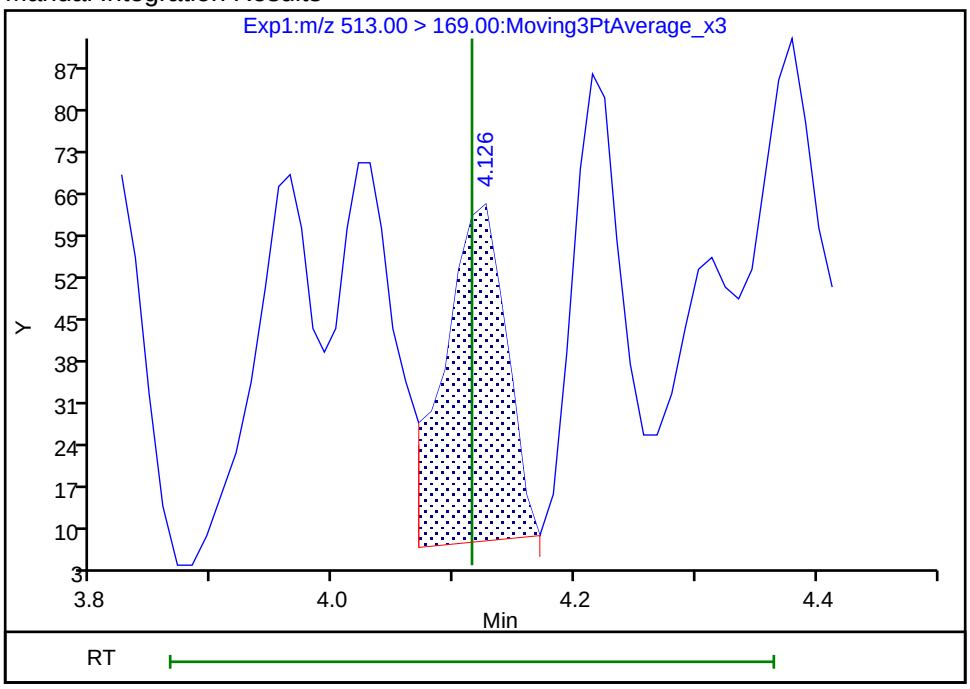
Processing Integration Results

Not Detected
Expected RT: 4.11




Manual Integration Results

RT: 4.13
Area: 199
Amount: 0.004262
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:35:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

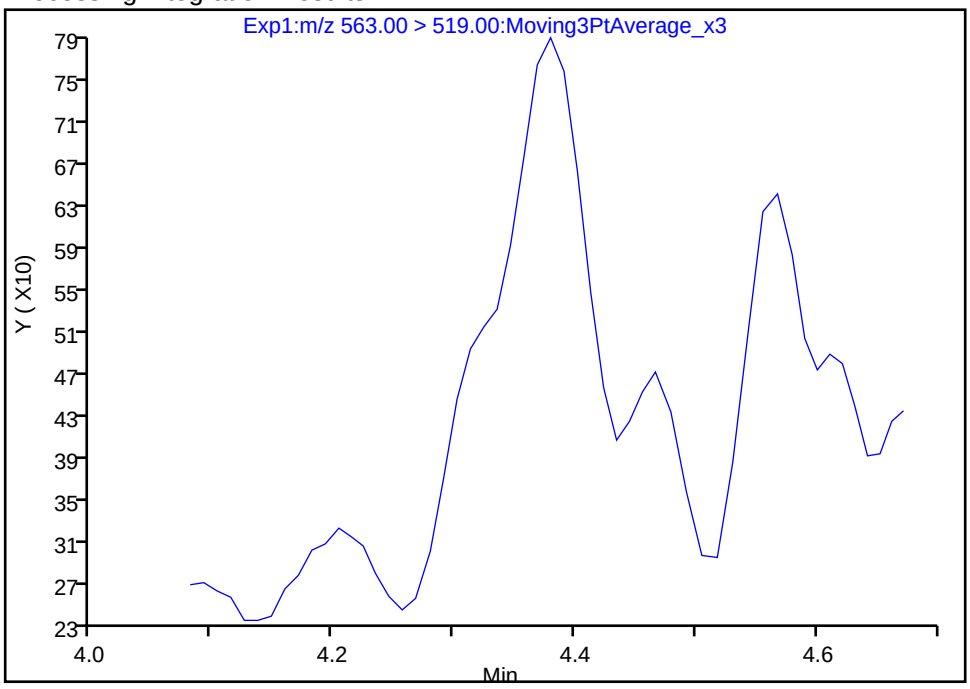
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

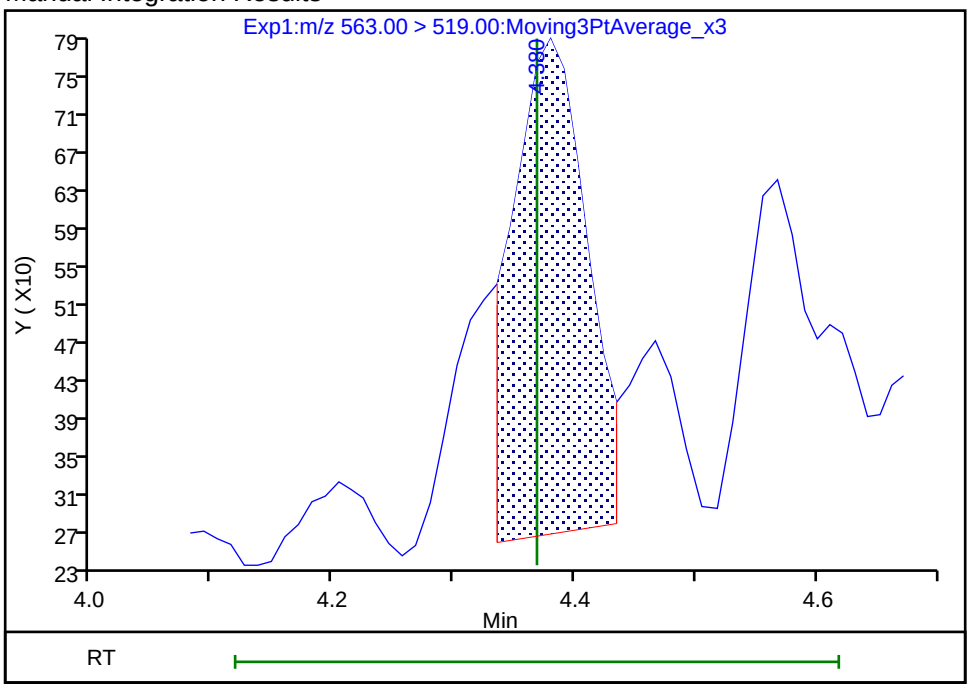
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 2185
Amount: 0.003407
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:36:49
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

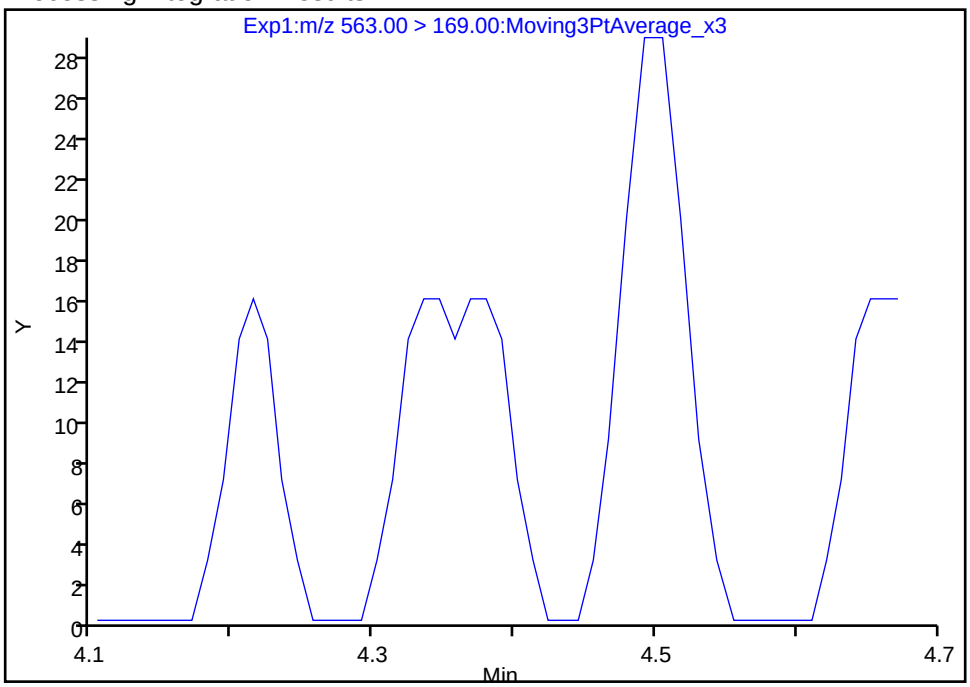
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

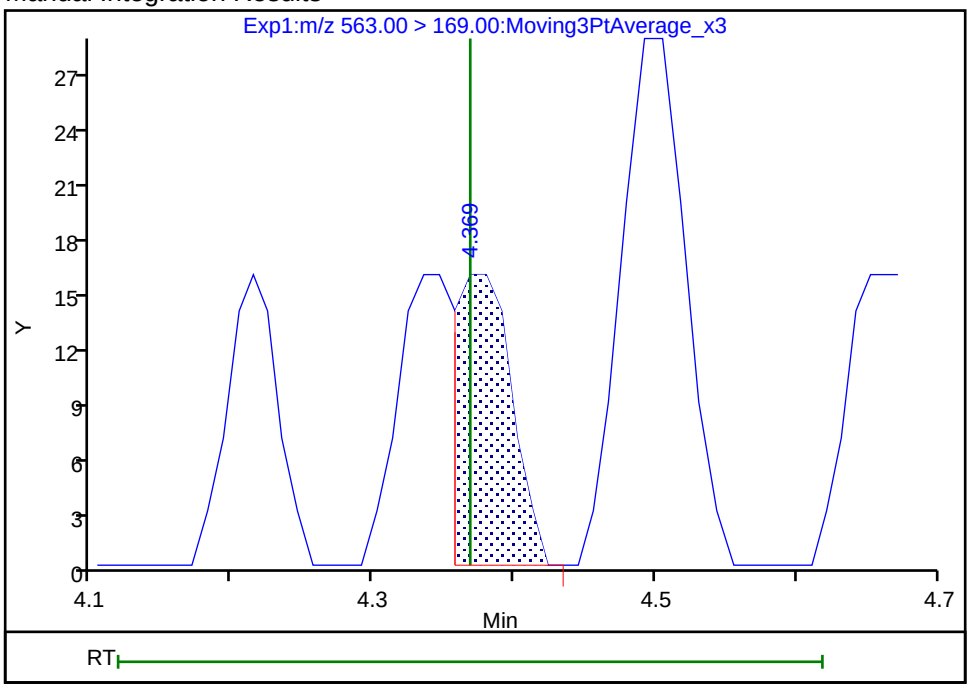
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 41
Amount: 0.003407
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:36:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

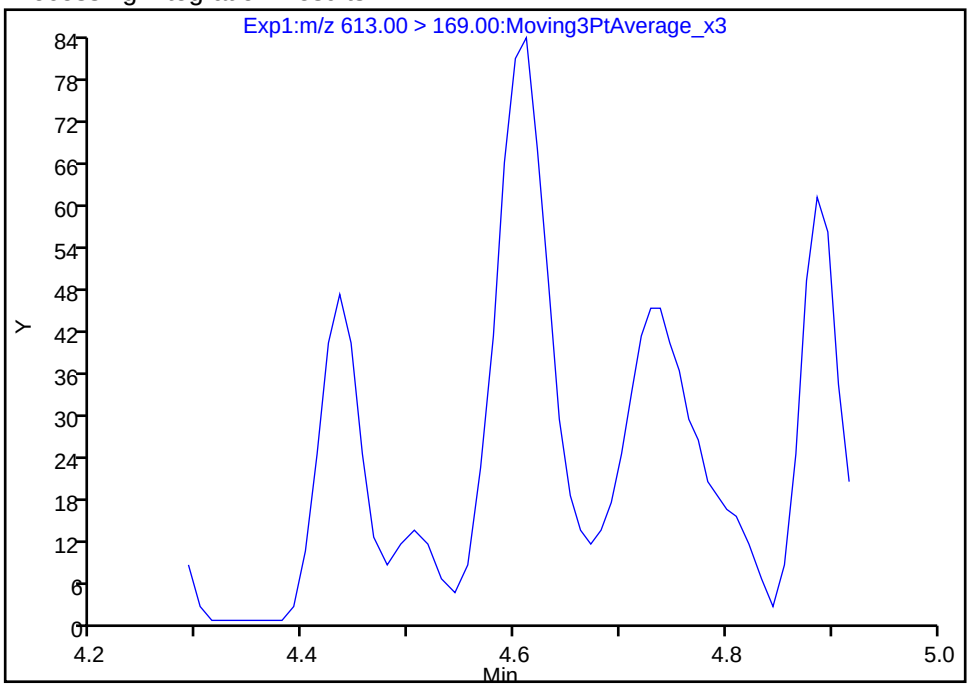
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

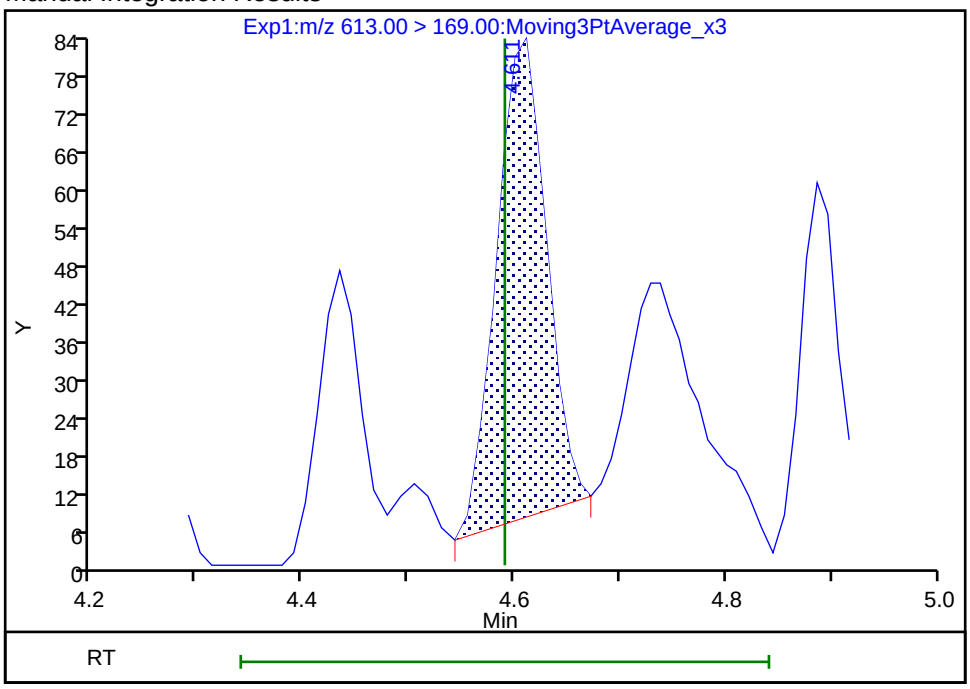
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 249
Amount: 0.001688
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:37:24
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

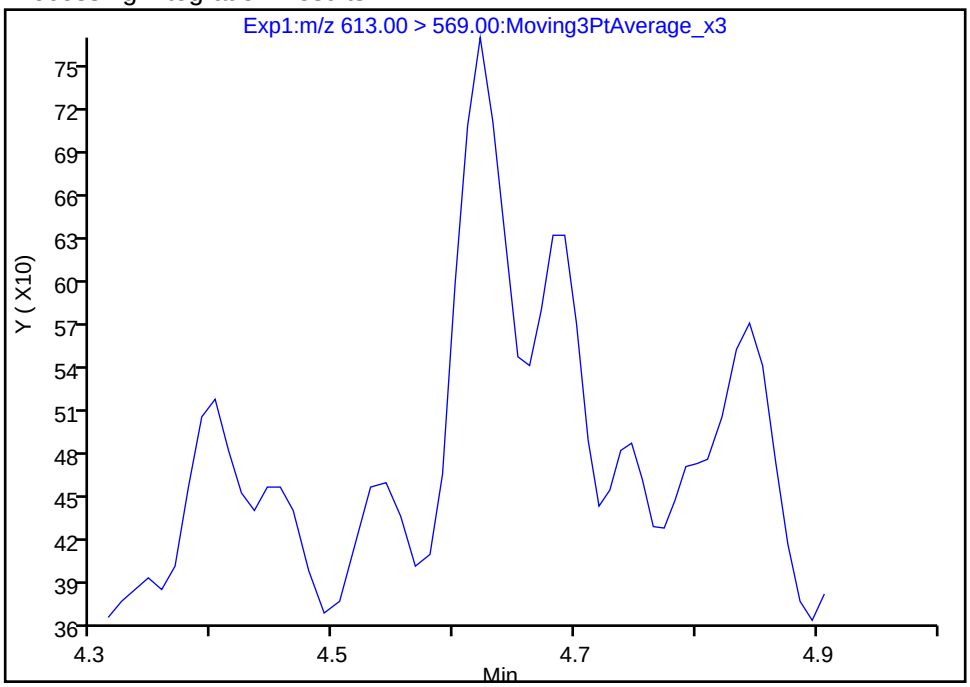
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

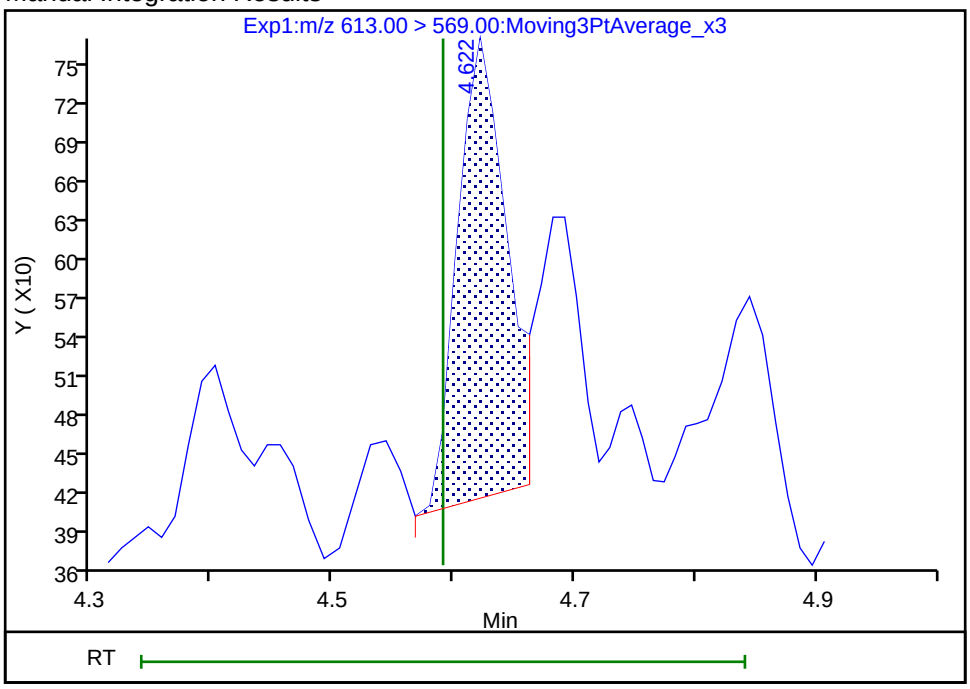
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.62
Area: 964
Amount: 0.001688
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:37:28
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

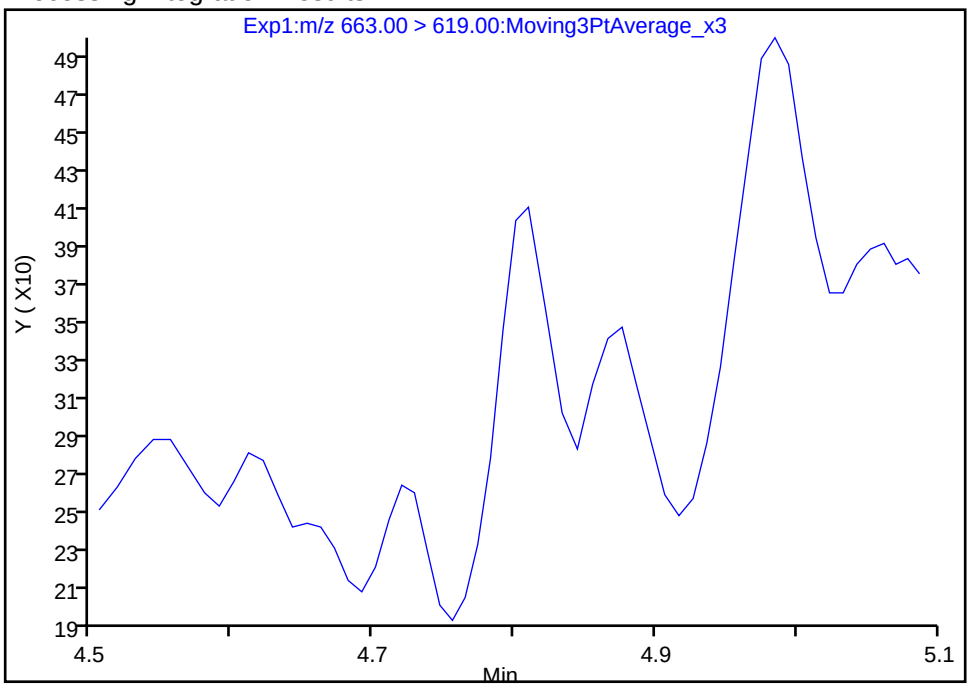
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

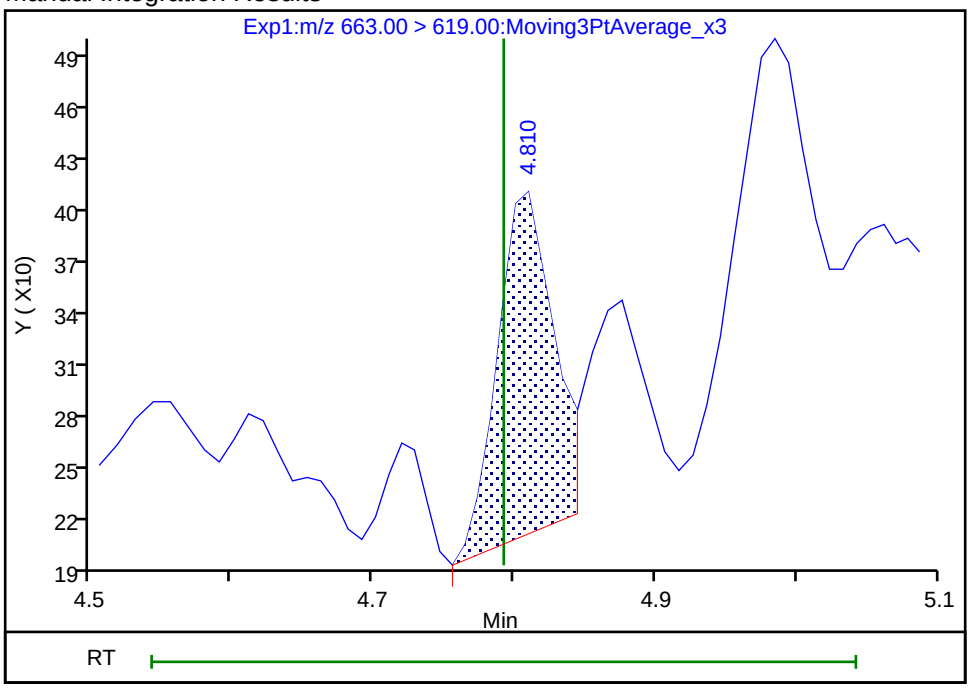
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 547
Amount: 0.001111
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:37:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

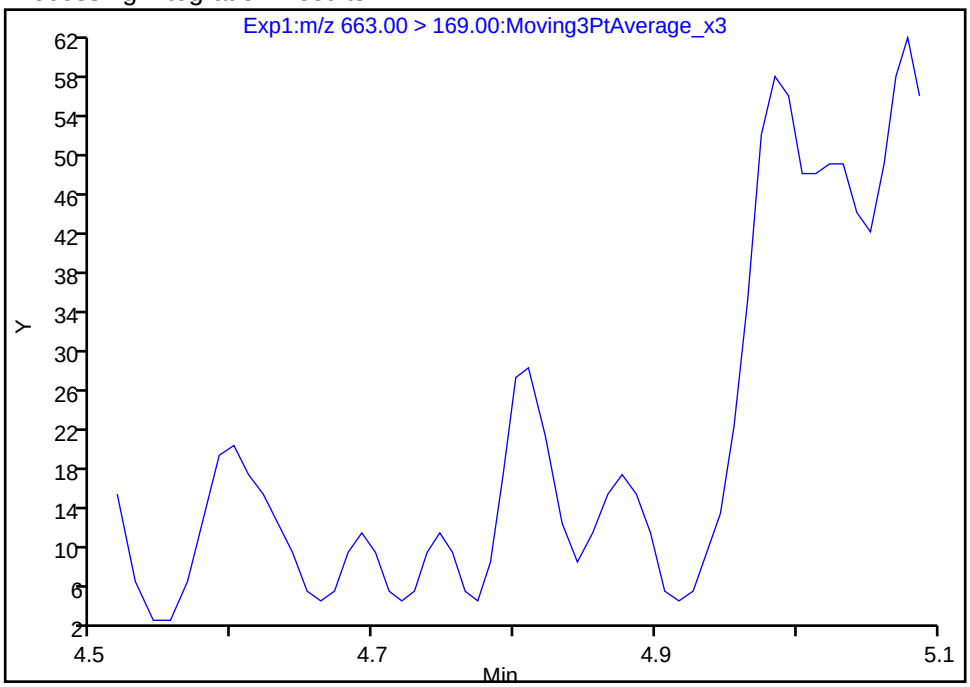
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

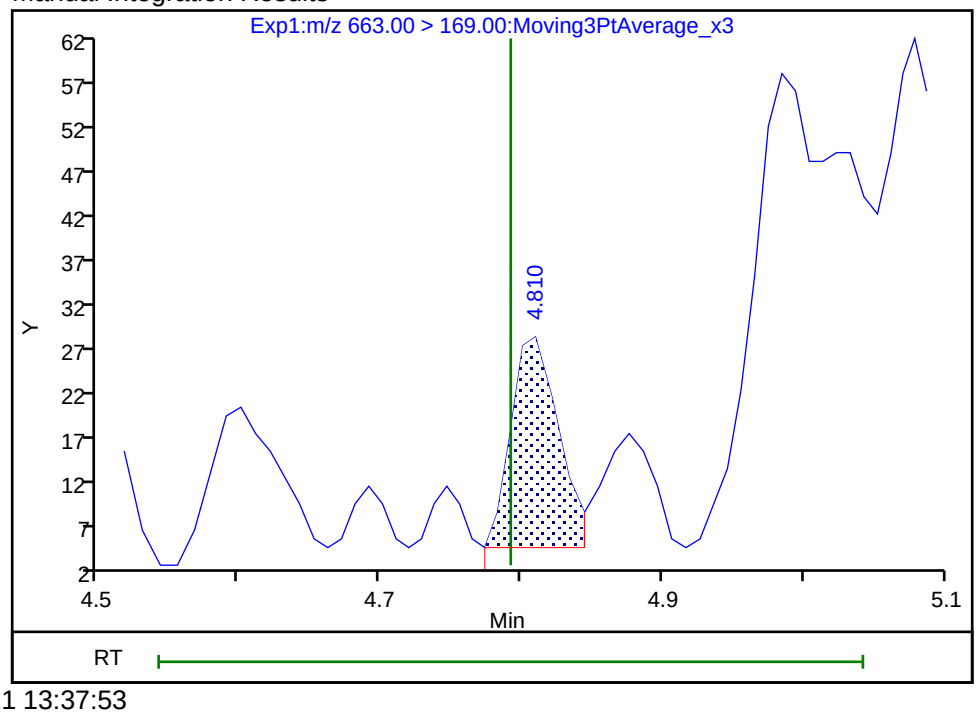
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 55
Amount: 0.001111
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:37:53
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

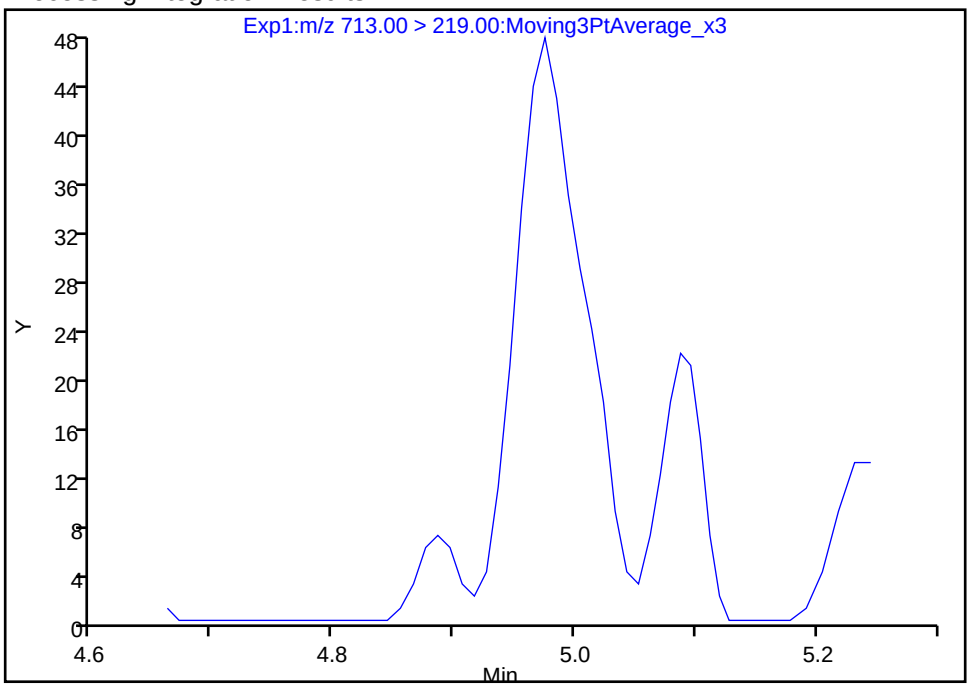
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

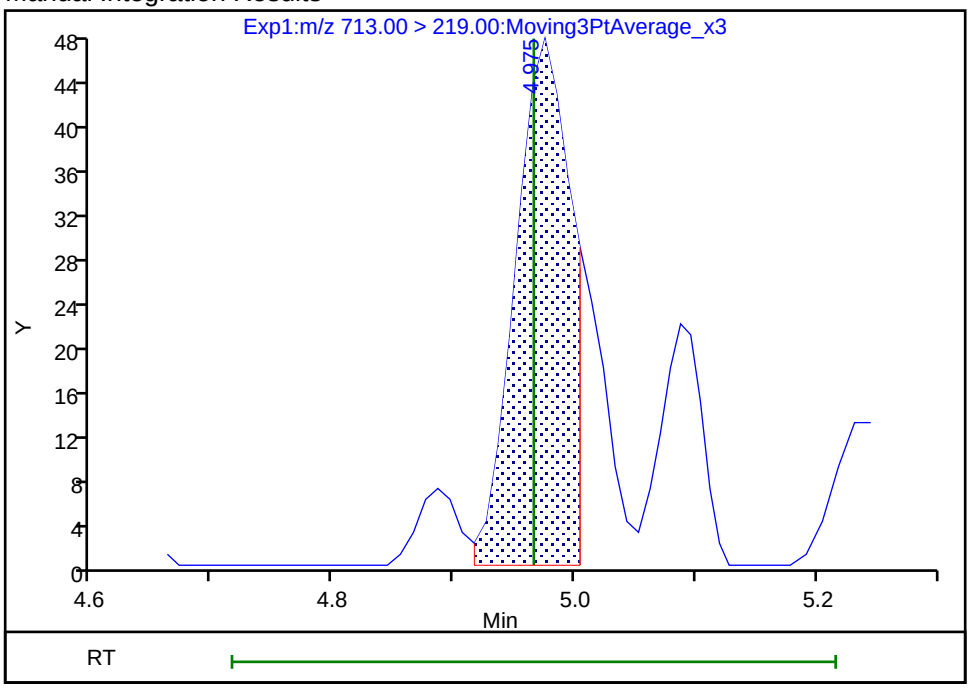
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 148
Amount: 0.002876
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:38:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

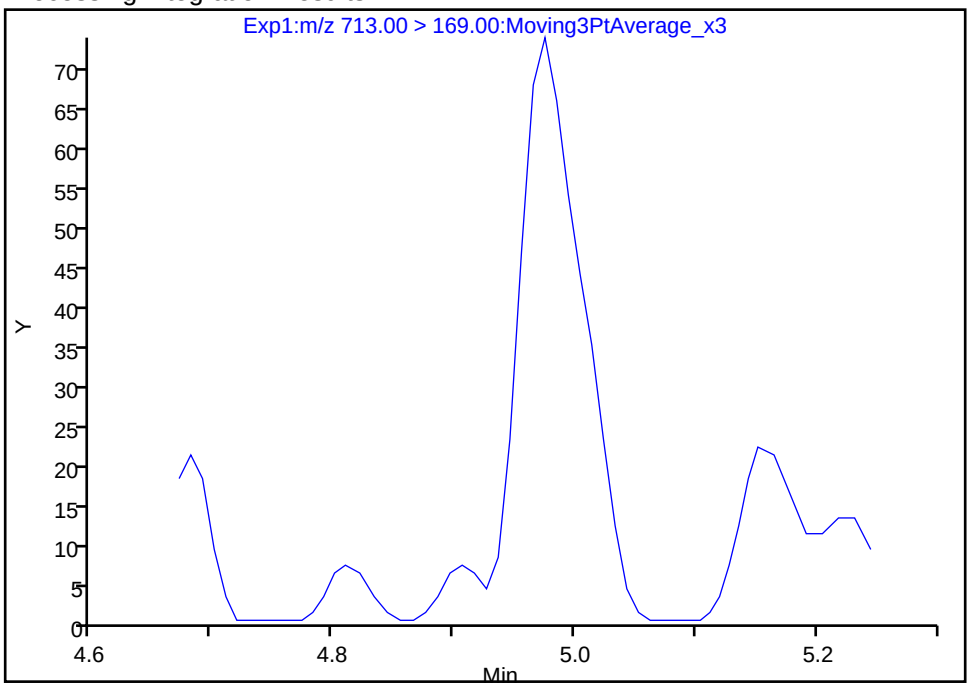
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

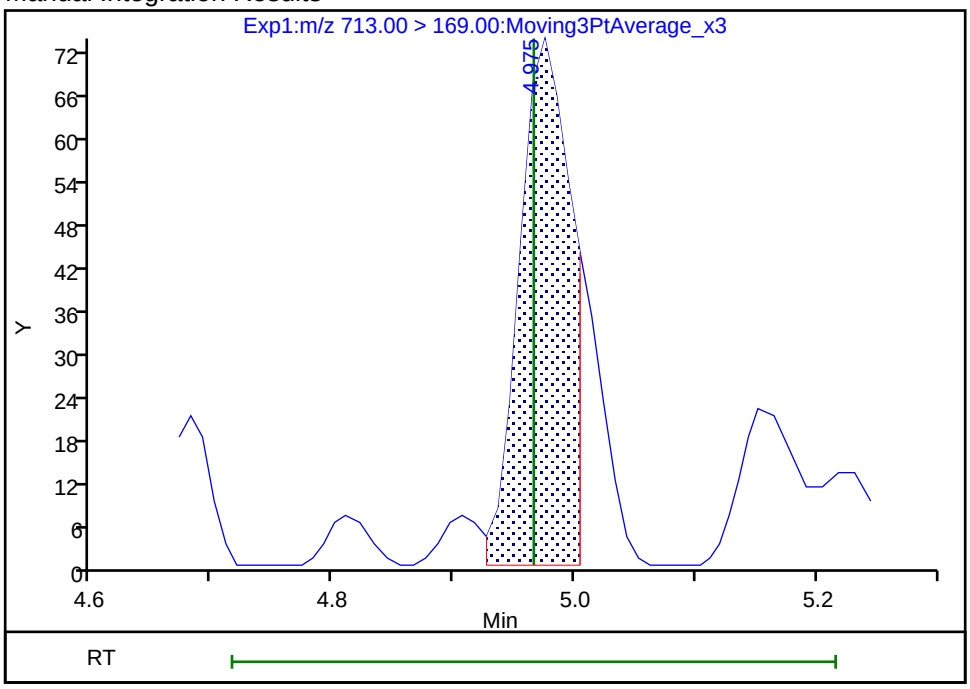
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 211
Amount: 0.002876
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:38:22
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

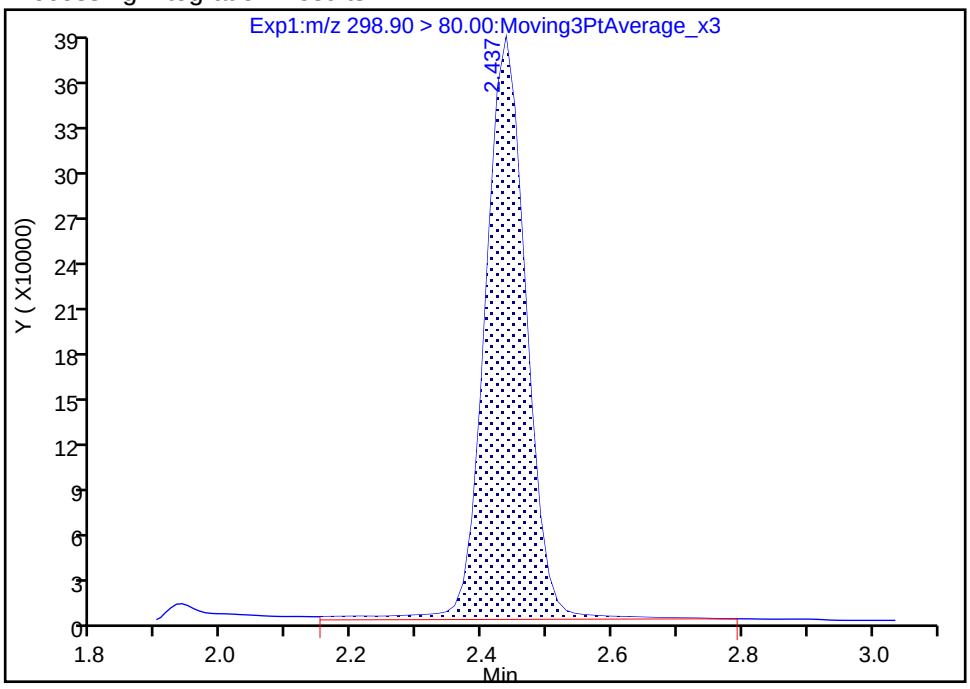
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

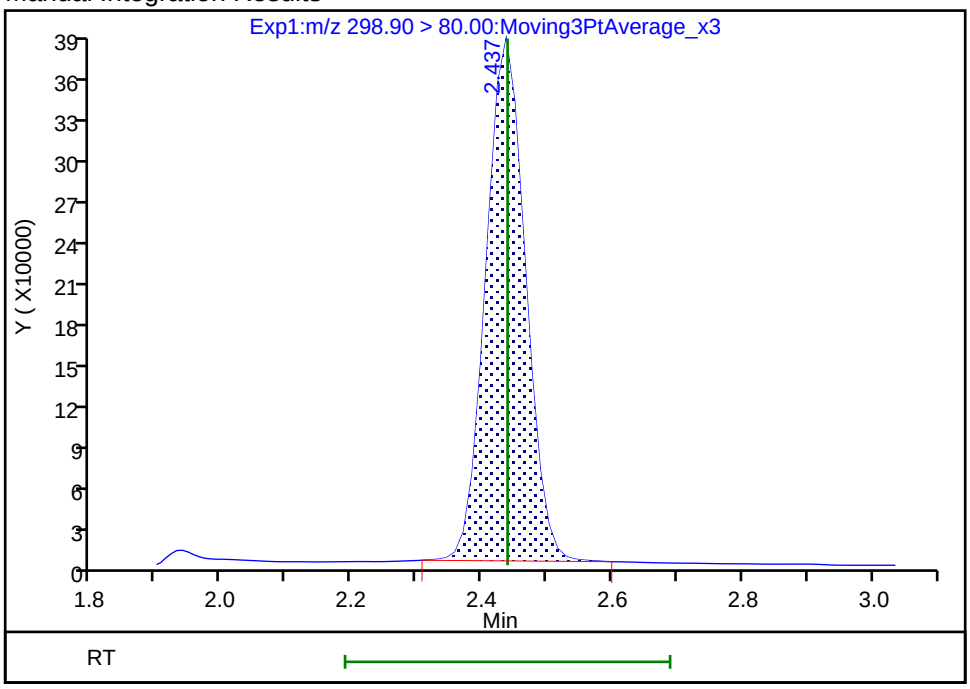
Processing Integration Results

RT: 2.44
Area: 1700126
Amount: 1.292623
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 1625183
Amount: 1.235643
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:30:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

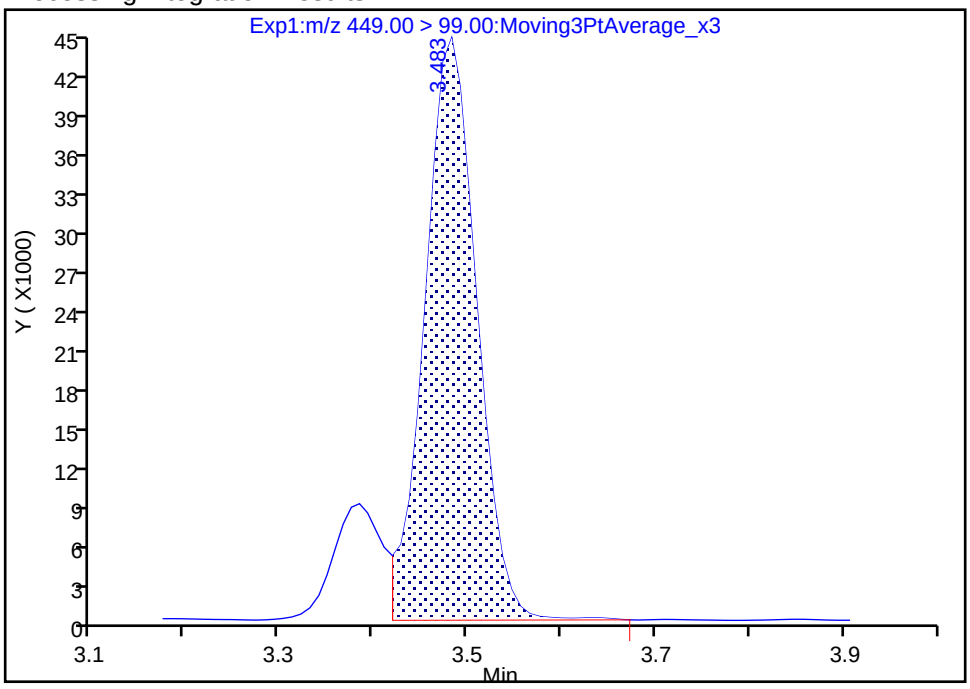
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

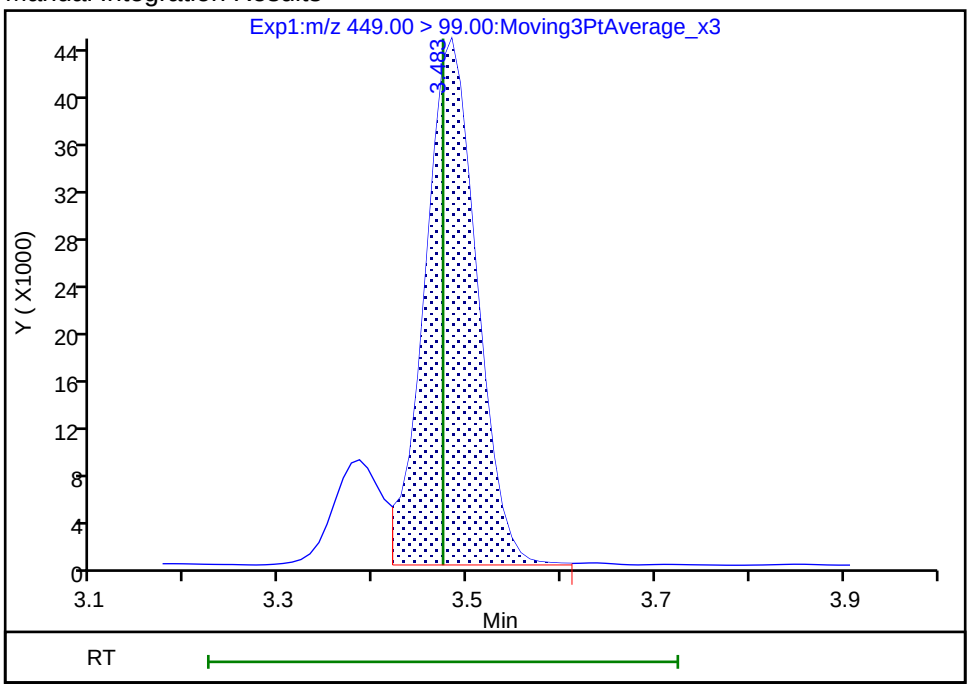
Processing Integration Results

RT: 3.48
Area: 171482
Amount: 0.979059
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 171001
Amount: 0.979059
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:32:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

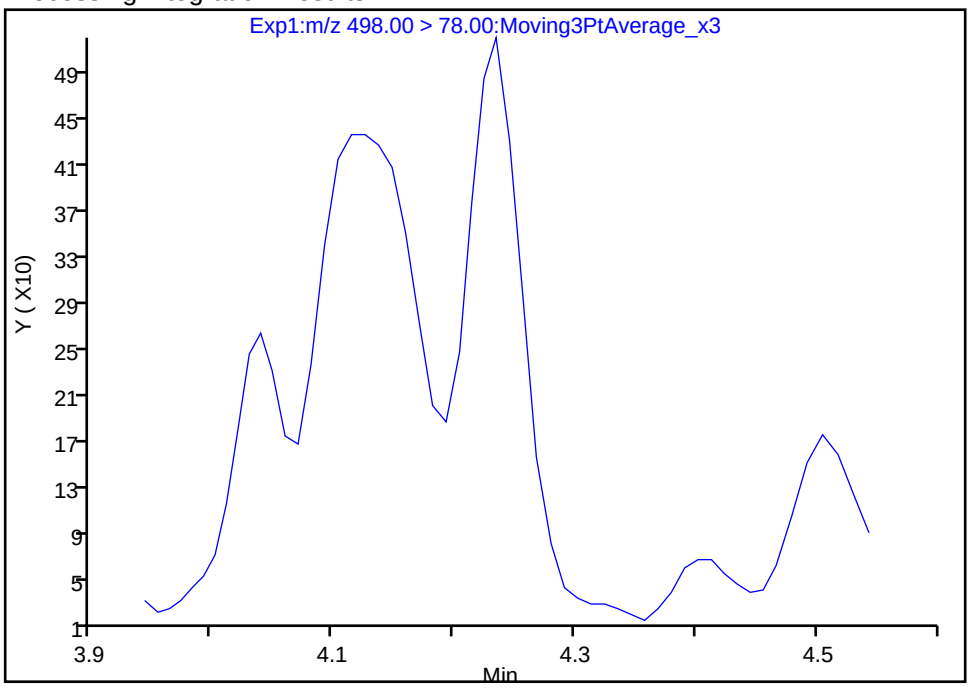
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

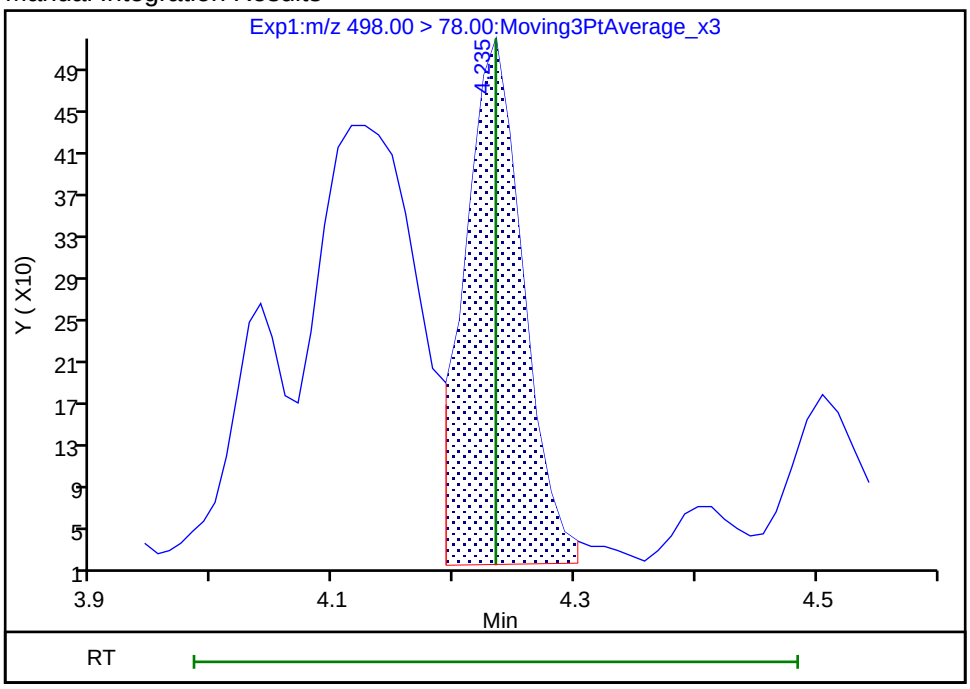
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 1664
Amount: 0.001802
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:35:56
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

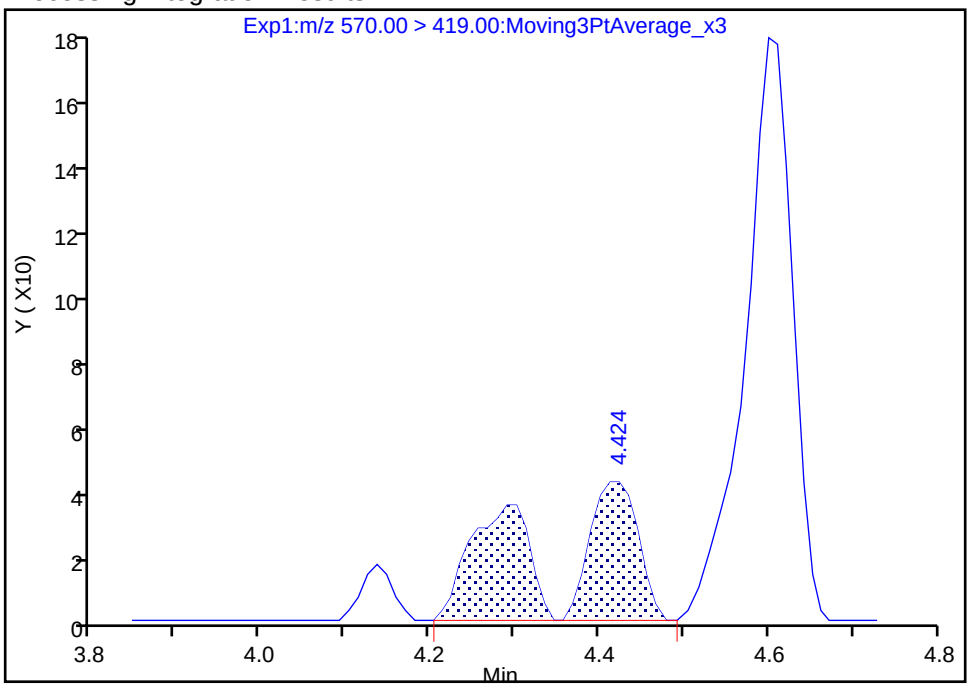
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

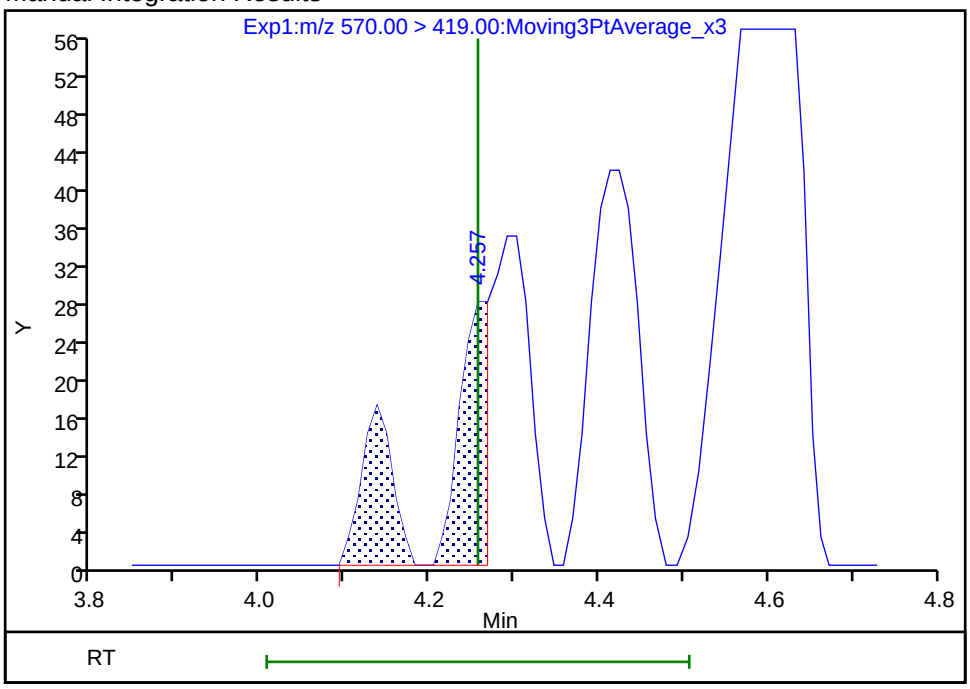
Processing Integration Results

RT: 4.42
Area: 336
Amount: 0.004781
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 104
Amount: 0.001480
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:36:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

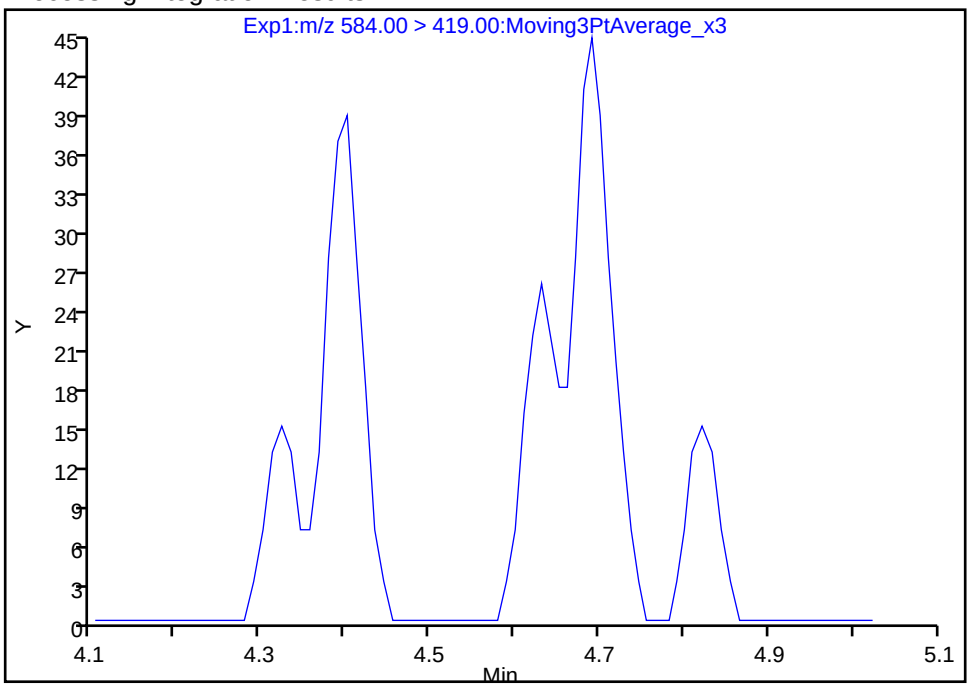
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

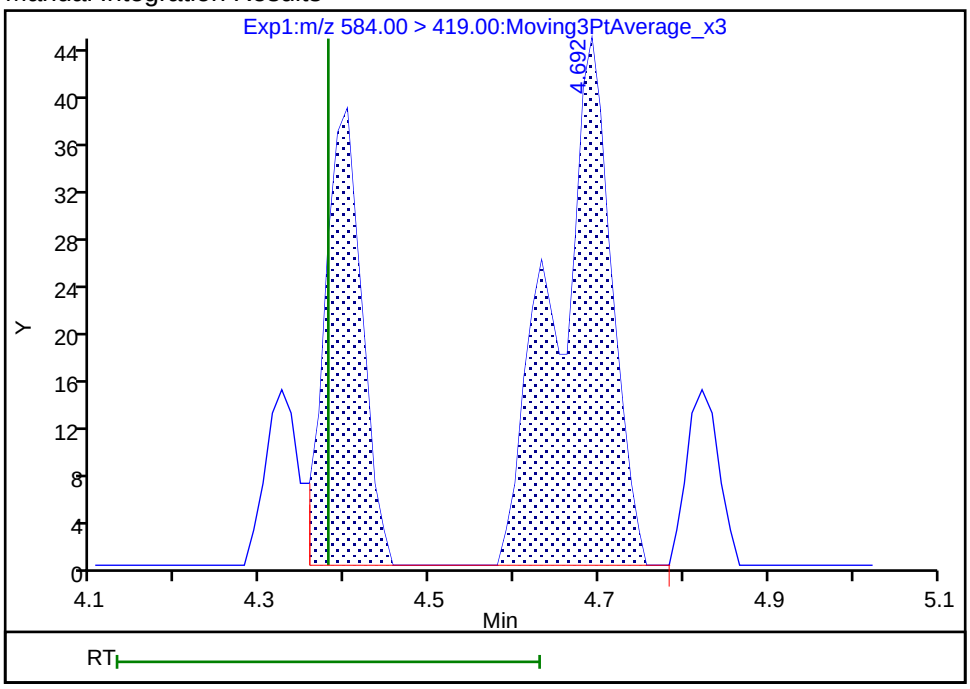
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.69
Area: 325
Amount: 0.004950
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:37:12
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

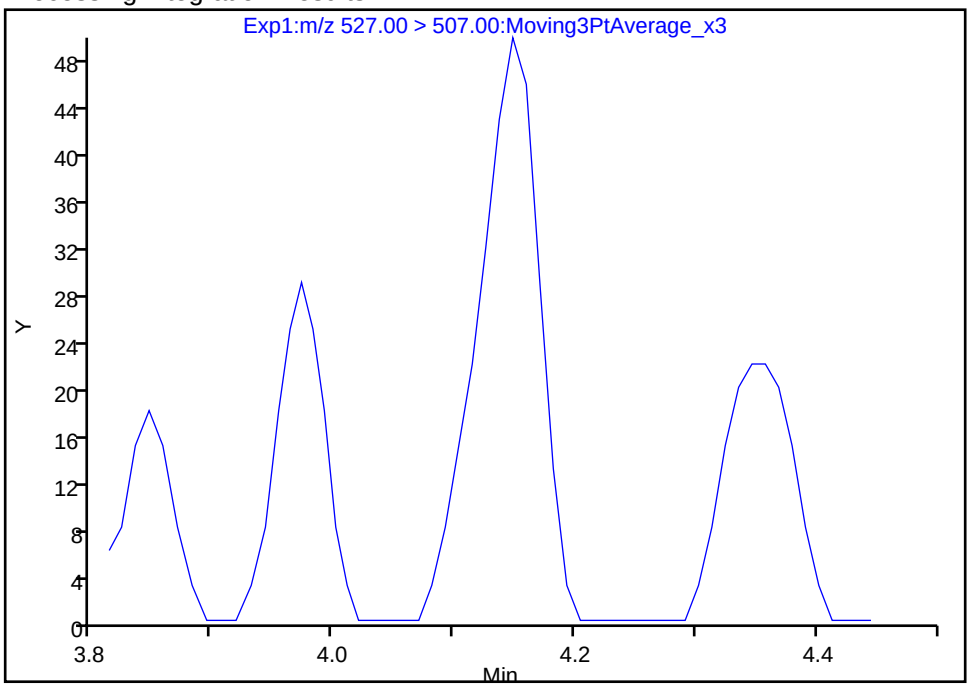
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D05.d | | | | |
| Injection Date: | 10-Nov-2021 04:44:56 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

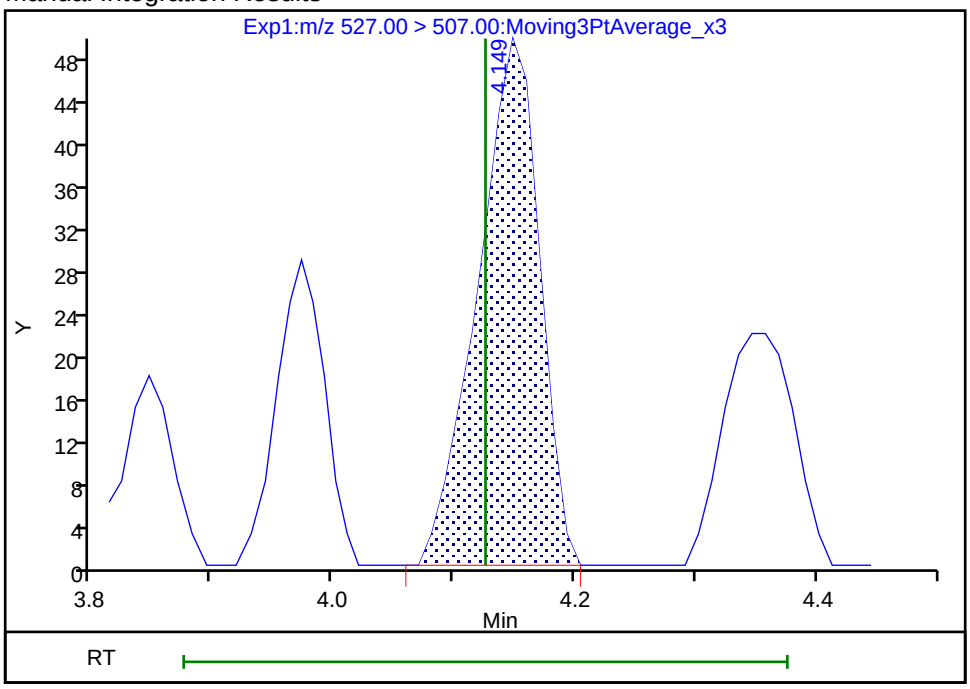
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.15
Area: 177
Amount: 0.001338
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:35:40
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AP-101-20211027 DL  Lab Sample ID: 460-246277-2 DL

Matrix: Water  Lab File ID: PA211108A10.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:50

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 269.2(mL)  Date Analyzed: 11/08/2021 16:52

Con. Extract Vol.: 10(mL)  Dilution Factor: 5

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

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

Analysis Batch No.: 173621  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 474 | D | 9.29 | 1.40 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 840 | D | 9.29 | 1.35 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A10.d
Lims ID: 460-246277-C-2-A
Client ID: AP-101-20211027
Sample Type: Client
Inject. Date: 08-Nov-2021 16:52:13 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 5.0000
Sample Info: 460-246277-C-2-A
Misc. Info.: 200-0048331-010 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:07:23 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:17:42
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.207 | 2.226 | -0.019 | 0.634 | 309095 | 0.3003 | | 120 | 311 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.217 | 2.236 | -0.019 | 1.004 | 88385 | 0.0756 | | | 10.2 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.466 | 2.479 | -0.013 | 0.708 | 235935 | 0.2721 | | 109 | 451 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.466 | 2.479 | -0.013 | 1.000 | 113408 | 0.1200 | | | 5.1 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.479 | 2.479 | 0.0 | 0.712 | 286780 | 0.2444 | | 105 | 13450 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.479 | 2.492 | -0.013 | 1.000 | 314242 | 0.2385 | Target=2.32 | | 50.2 | M |
| 298.90 > 99.00 | 2.479 | 2.492 | -0.013 | 1.000 | 142605 | | 2.20(1.16-3.48) | | 46.6 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.782 | 2.795 | -0.013 | 0.799 | 232869 | 0.2560 | | 102 | 885 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.782 | 2.795 | -0.013 | 1.000 | 511225 | 0.5412 | Target=12.09 | | 74.6 | M |
| 313.00 > 119.00 | 2.782 | 2.795 | -0.013 | 1.000 | 35557 | | 14.38(6.04-18.13) | | 28.1 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2337215 | 2.55 | Target=3.55 | | 865 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 632719 | | 3.69(1.77-5.32) | | 697 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 196839 | 0.2309 | | 97.6 | 1934 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.902 | 239699 | 0.2503 | | 100 | 1261 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 0.997 | 50762 | 0.0512 | Target=3.69 | | 15.8 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 0.997 | 12486 | | 4.07(1.84-5.53) | | 25.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.916 | 145826 | 0.1984 | Target=4.88 | | 29.2 | |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.916 | 32473 | | 4.49(2.44-7.32) | | 46.3 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.465 | 3.474 | -0.009 | 0.997 | 665 | 0.003590 | | | 10.5 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 34692 | 0.2581 | | 109 | 103 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.474 | 0.009 | 1.000 | 245989 | 0.2351 | | 94.1 | 1940 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 254208 | 0.2500 | | | 1458 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 206754 | 0.1976 | Target=2.68 | | 41.2 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 89663 | | 2.31(1.34-4.02) | | 208 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 140948 | 0.2288 | | 95.7 | 915 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.681 | 3.785 | -0.104 | 0.973 | 2893813 | 4.52 | Target=4.69 | | 2083 | M |
| 499.00 > 99.00 | 3.775 | 3.785 | -0.010 | 0.997 | 655648 | | 4.41(2.35-7.04) | | 1213 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 230795 | 0.2215 | | 88.6 | 2298 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 2174 | 0.002407 | Target=7.29 | | 0.5 | M |
| 463.00 > 169.00 | 3.814 | 3.804 | 0.010 | 1.003 | 429 | | 5.07(3.64-10.93) | | 4.3 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.093 | 4.092 | 0.001 | 1.175 | 195999 | 0.1864 | | 74.5 | 762 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.178 | 30659 | 0.2012 | | 84.0 | 153 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.093 | 4.104 | -0.011 | 0.997 | 176 | 0.001643 | | | 4.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.215 | 0.010 | 1.213 | 271038 | 0.2672 | | 107 | 991 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.246 | 4.215 | 0.031 | 1.005 | 429 | 0.000417 | | | 2.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.216 | 17894 | 0.1730 | | 69.2 | 274 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.215 | 4.235 | -0.020 | 0.995 | 120 | 0.002134 | | | 3.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.347 | 0.011 | 1.251 | 136899 | 0.1670 | | 66.8 | 1092 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.358 | 4.347 | 0.011 | 1.000 | 1236 | 0.002117 | Target=9.24 | | 1.0 | M |
| 563.00 > 169.00 | 4.347 | 4.347 | 0.0 | 0.997 | 154 | | 8.03(4.62-13.86) | | 4.0 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.358 | 0.011 | 1.254 | 12805 | 0.1321 | | 52.9 | 142 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.336 | 4.369 | -0.033 | 0.992 | 81 | 0.001846 | | | 1.9 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.568 | 0.012 | 1.315 | 125643 | 0.1425 | | 57.0 | 163 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.946 | 0.001 | 1.420 | 111226 | 0.1626 | | 65.1 | 432 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.956 | 4.946 | 0.010 | 1.002 | 188 | 0.002677 | Target=1.01 | | 6.1 | M |
| 713.00 > 219.00 | 4.947 | 4.946 | 0.001 | 1.000 | 155 | | 1.21(0.51-1.52) | | 4.6 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 15:07:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A10.d

Injection Date: 08-Nov-2021 16:52:13 Instrument ID: LC812

Lims ID: 460-246277-C-2-A Lab Sample ID: 200-246277-2

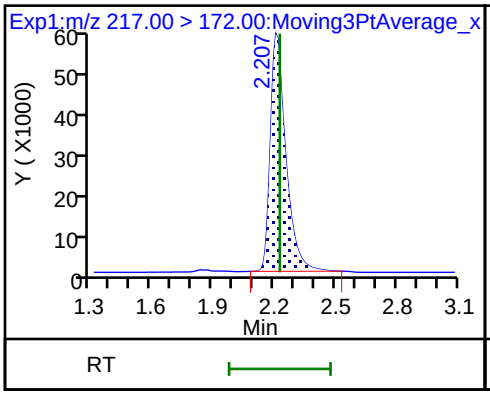
Client ID: AP-101-20211027

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10

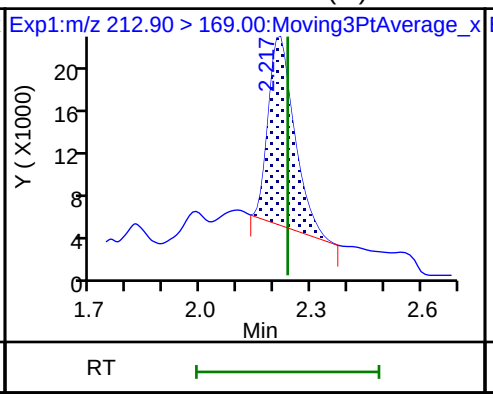
Injection Vol: 20.0 ul Dil. Factor: 5.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

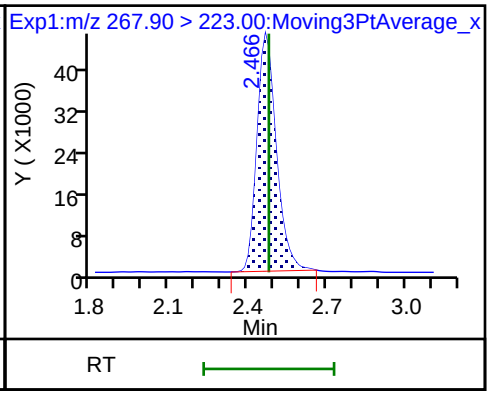
D 1 13C4 PFBA



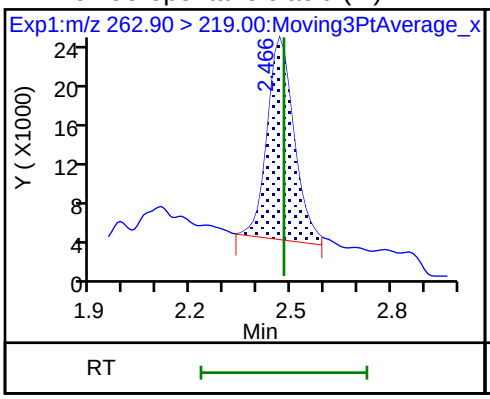

2 Perfluorobutanoic acid (M)



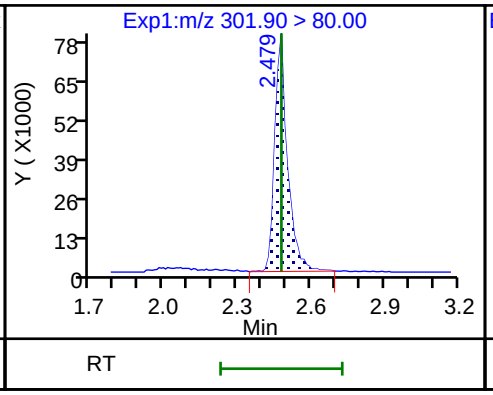

D 3 13C5 PFPeA



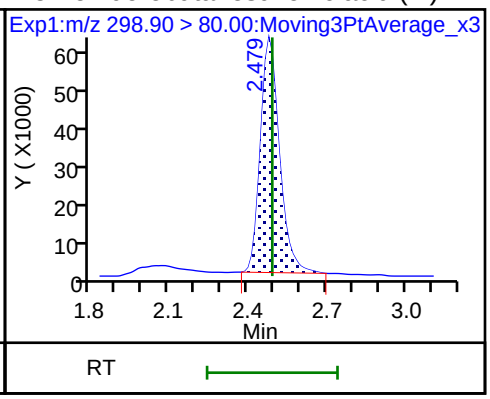

4 Perfluoropentanoic acid (M)



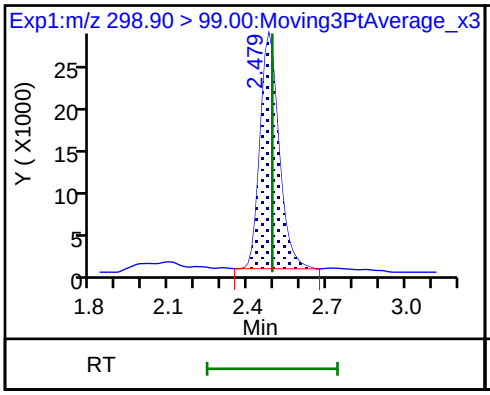

D 47 13C3 PFBS



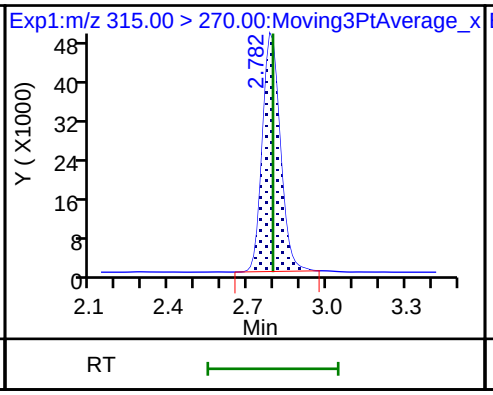

5 Perfluorobutanesulfonic acid (M)



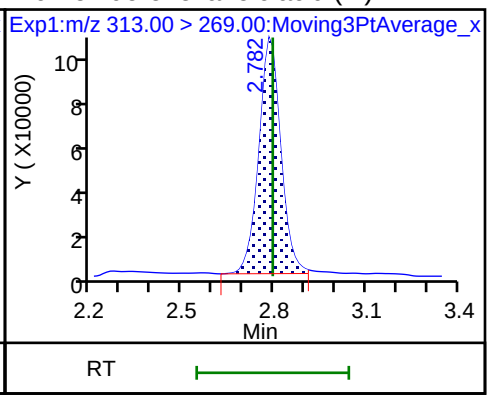

5 Perfluorobutanesulfonic acid



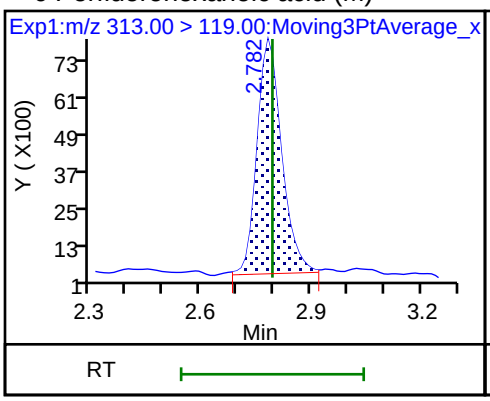

D 7 13C2 PFHxA



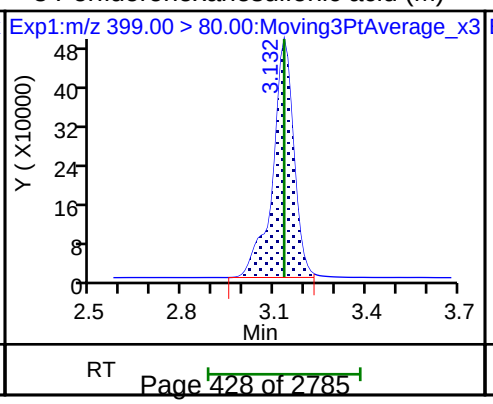

6 Perfluorohexanoic acid (M)



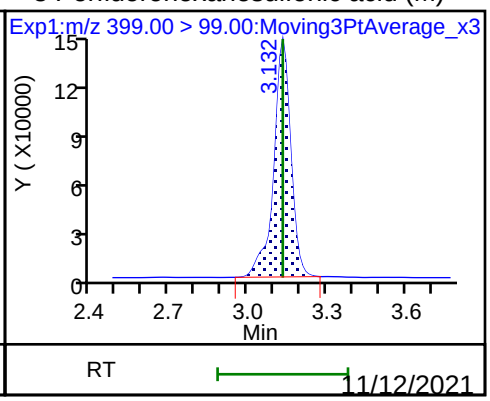

6 Perfluorohexanoic acid (M)



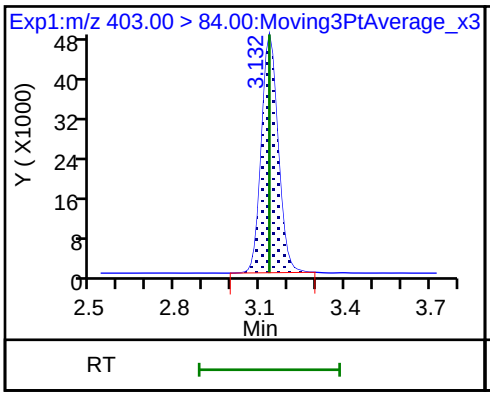

8 Perfluorohexanesulfonic acid (M)



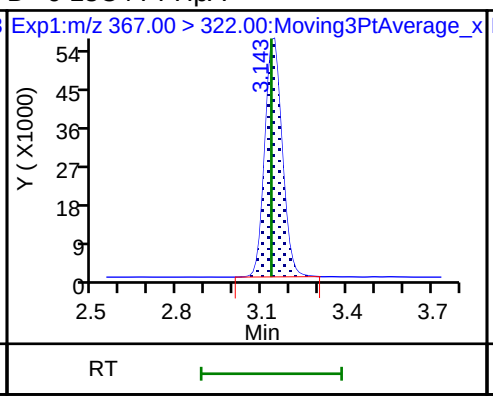

8 Perfluorohexanesulfonic acid (M)



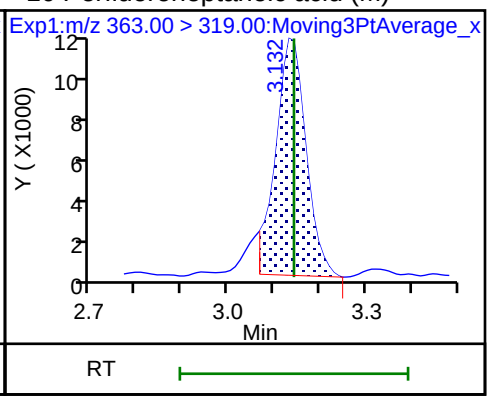
D 11 18O2 PFHxS



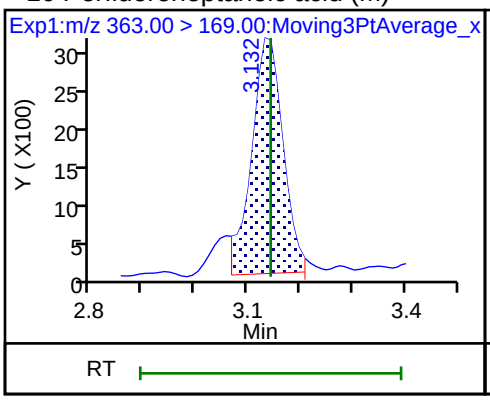

D 9 13C4 PFHpA



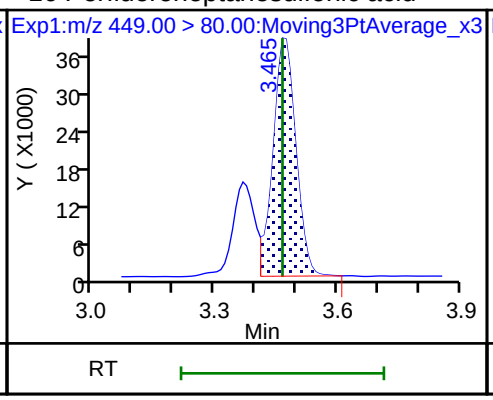

10 Perfluoroheptanoic acid (M)



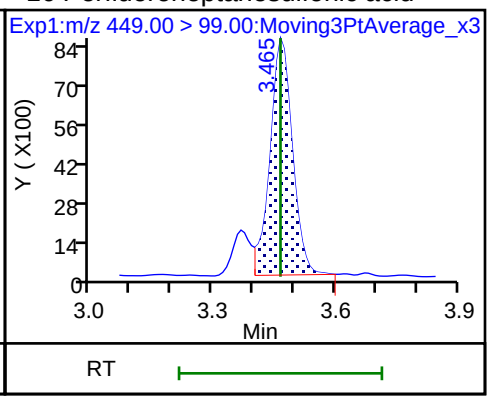

10 Perfluoroheptanoic acid (M)



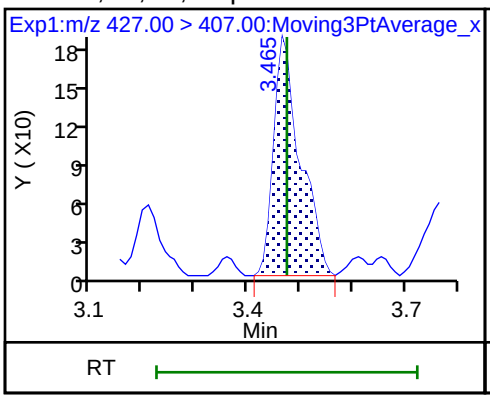

16 Perfluoroheptanesulfonic acid



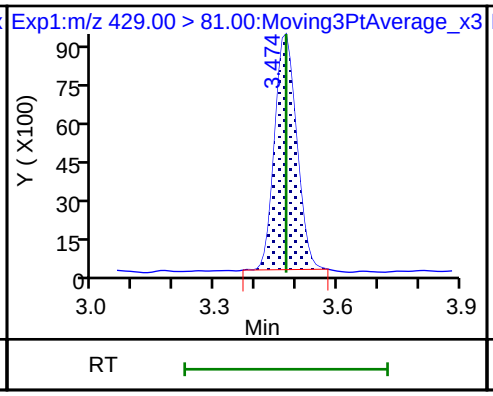

16 Perfluoroheptanesulfonic acid



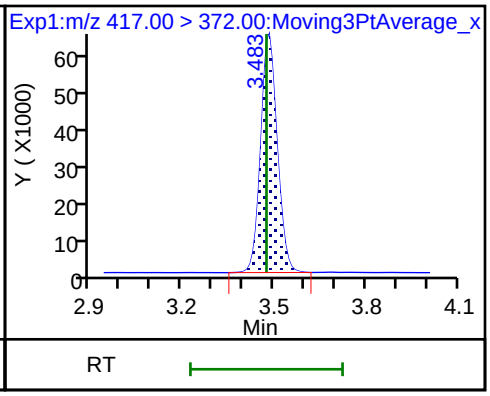

13 1H,1H,2H,2H-perfluorooctanesulfo



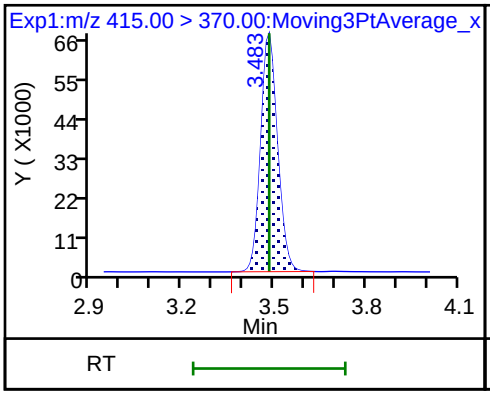

D 12 M2-6:2 FTS



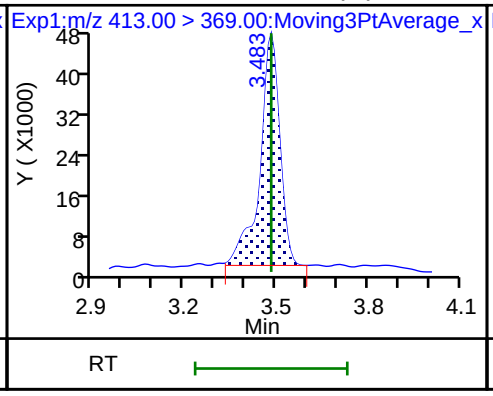

D 14 13C4 PFOA



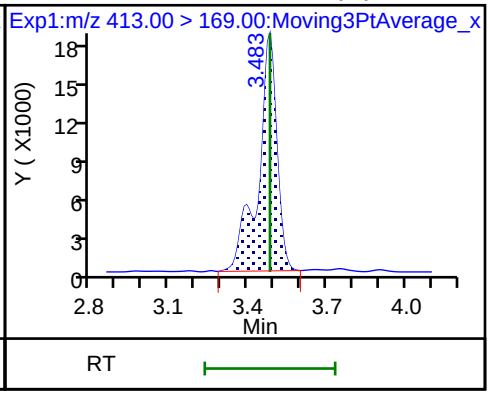

* 62 13C2 PFOA



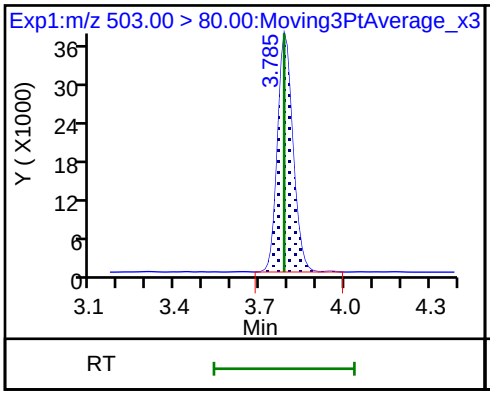

15 Perfluorooctanoic acid (M)



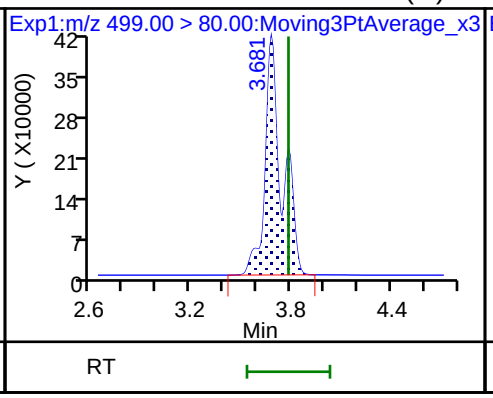

15 Perfluorooctanoic acid (M)



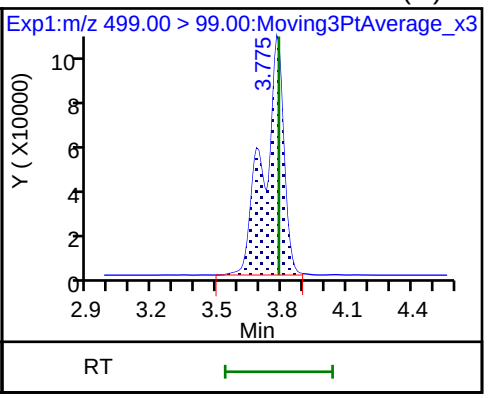
D 18 13C4 PFOS



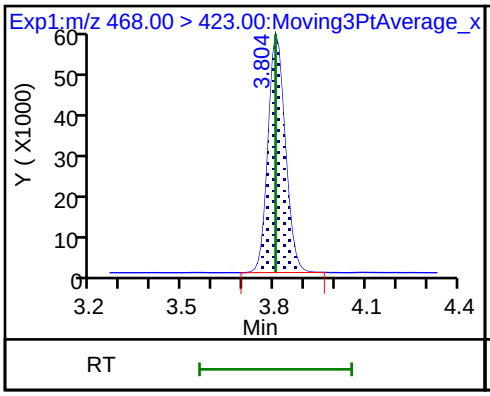

17 Perfluorooctanesulfonic acid (M)



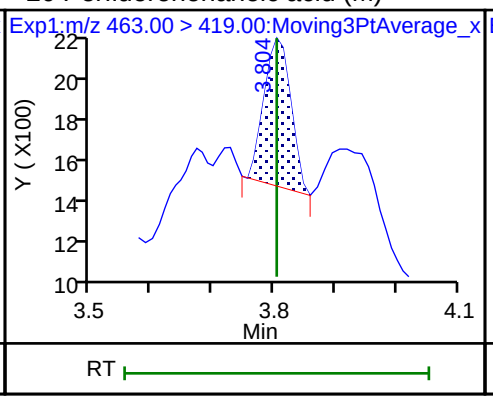

17 Perfluorooctanesulfonic acid (M)



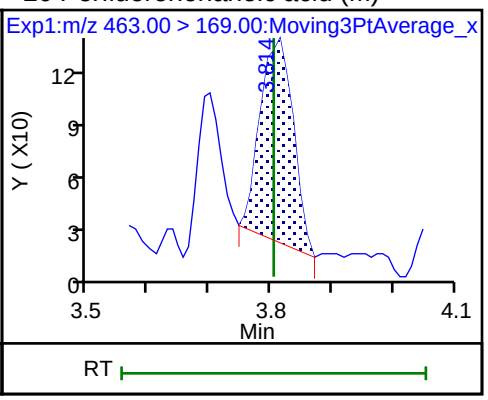

D 19 13C5 PFNA



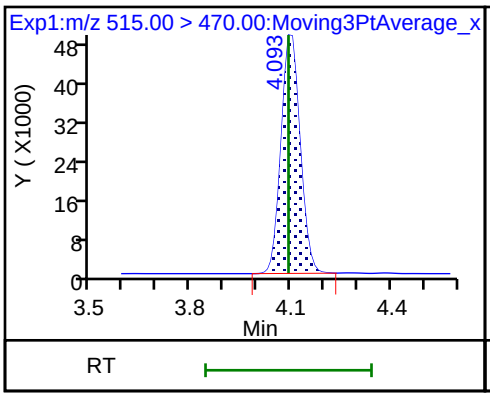

20 Perfluorononanoic acid (M)



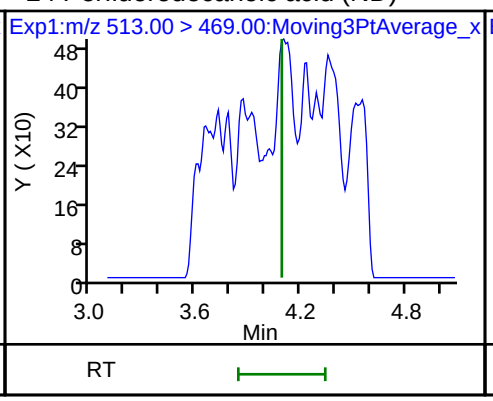

20 Perfluorononanoic acid (M)



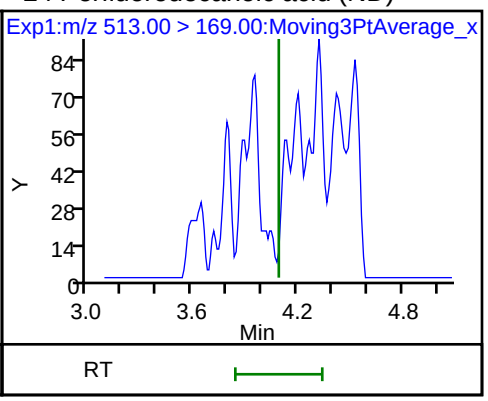

D 23 13C2 PFDA



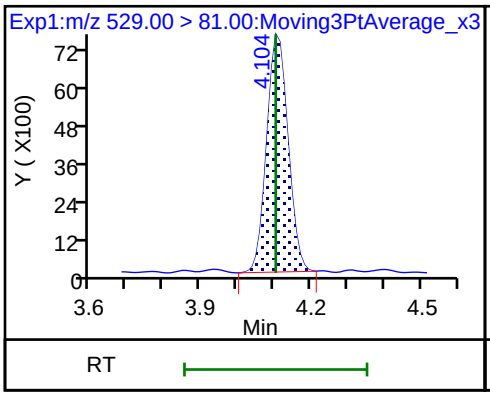

24 Perfluorodecanoic acid (ND)



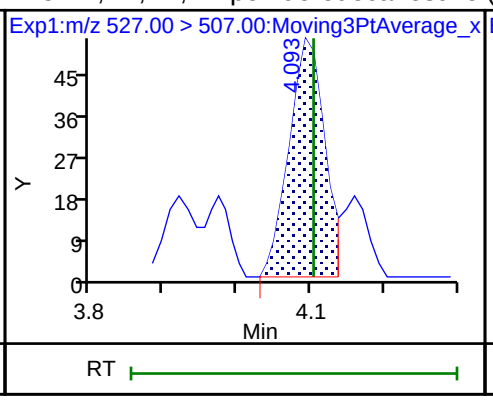

24 Perfluorodecanoic acid (ND)



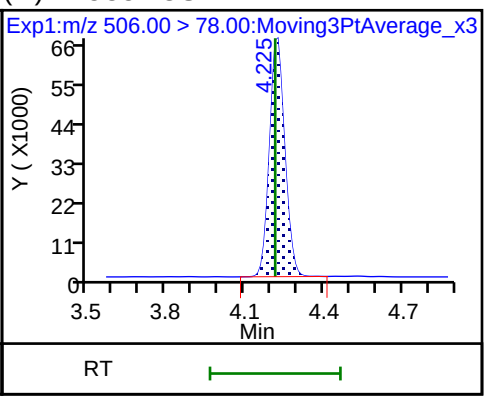

D 26 M2-8:2 FTS



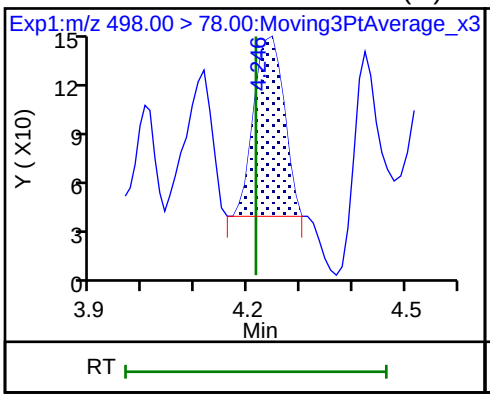

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



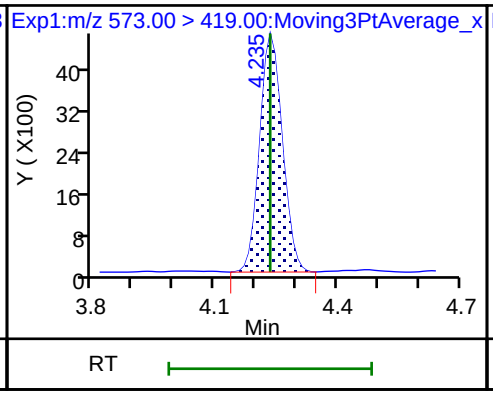

D 21 13C8 FOSA



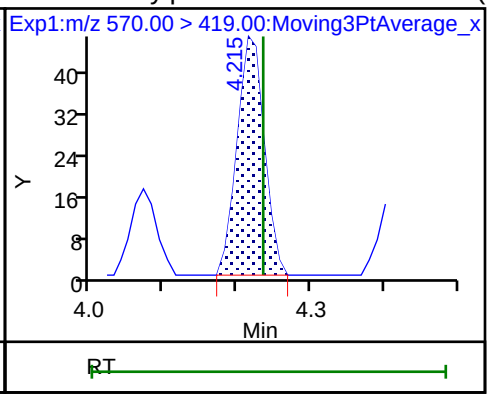
22 Perfluorooctanesulfonamide (M)



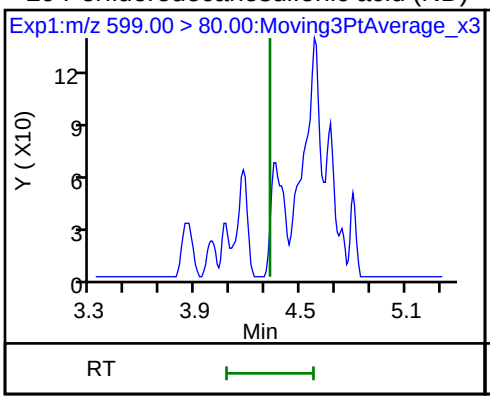

D 27 d3-NMeFOSAA



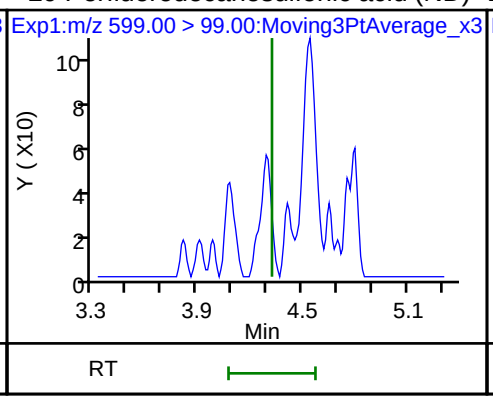

28 N-methylperfluorooctanesulfonami (M)



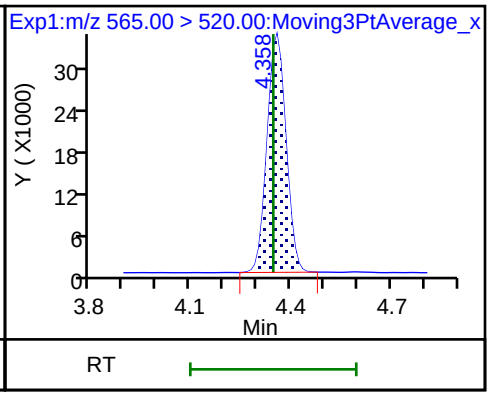

29 Perfluorodecanesulfonic acid (ND)



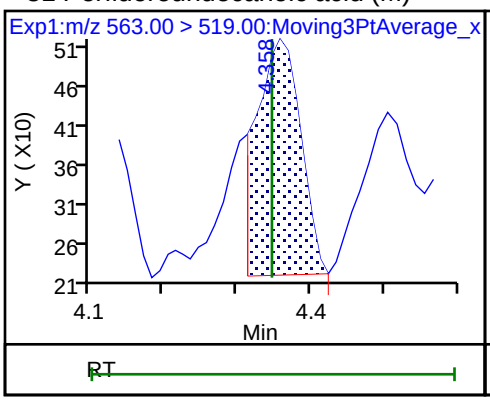

29 Perfluorodecanesulfonic acid (ND)



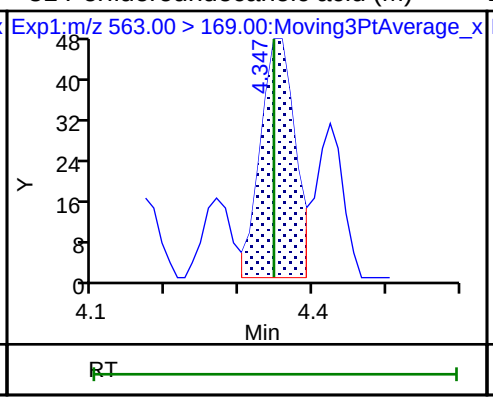

D 30 13C2 PFUnA



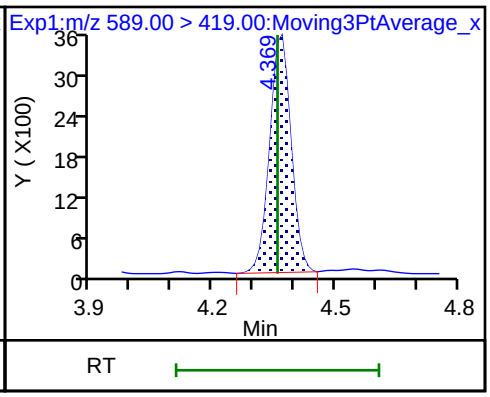

31 Perfluoroundecanoic acid (M)



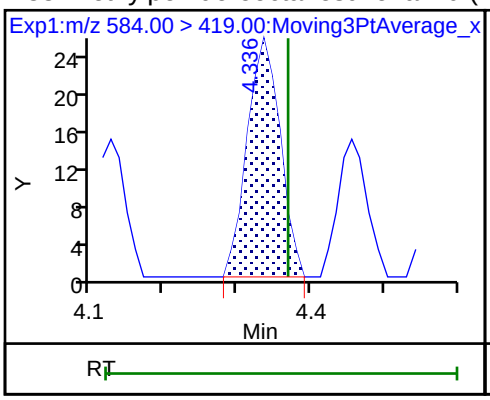

31 Perfluoroundecanoic acid (M)



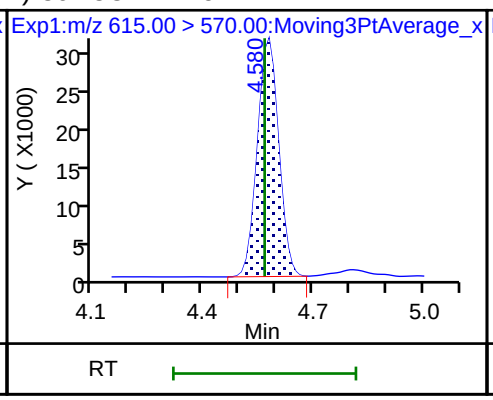

D 32 d5-NEtFOSAA



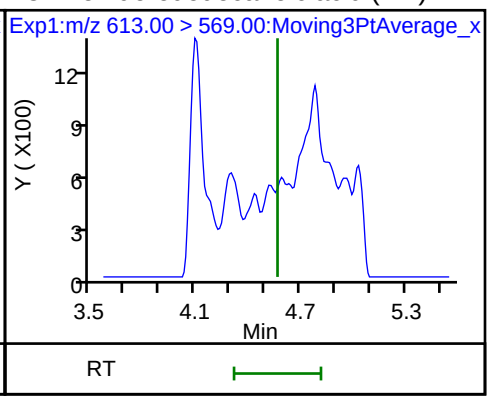

33 N-ethylperfluorooctanesulfonamid (ND)



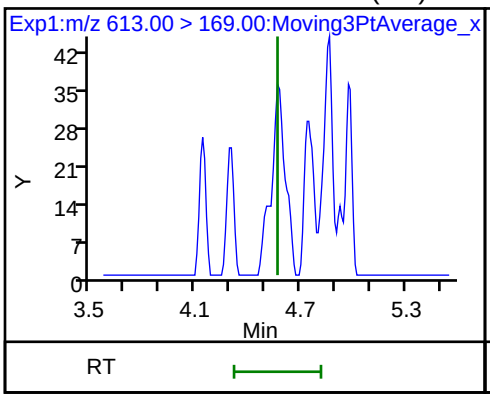

D 36 13C2 PFDoA



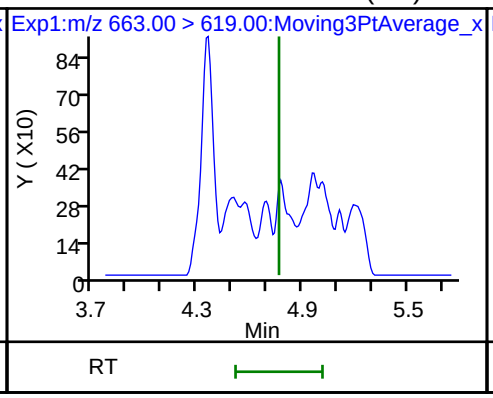

37 Perfluorododecanoic acid (ND)



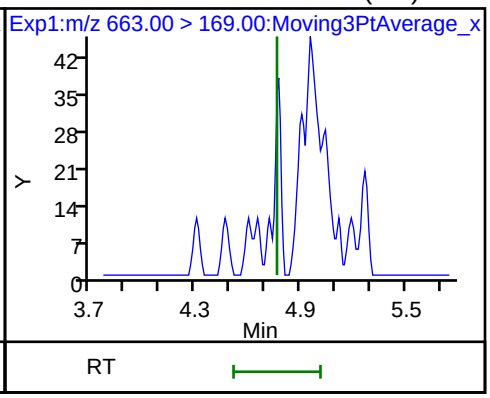
37 Perfluorododecanoic acid (ND)



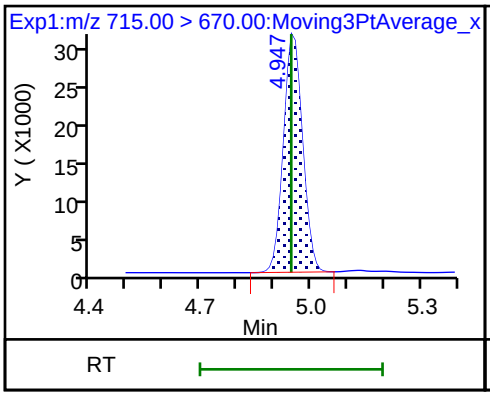

41 Perfluorotridecanoic acid (ND)



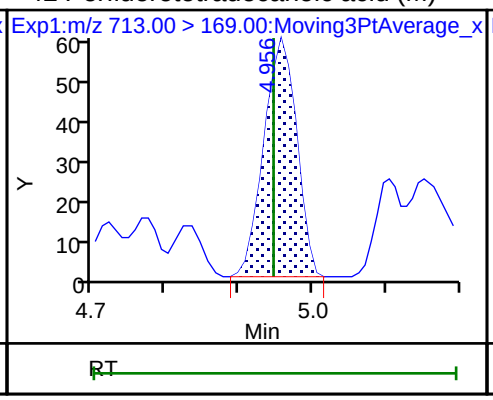

41 Perfluorotridecanoic acid (ND)



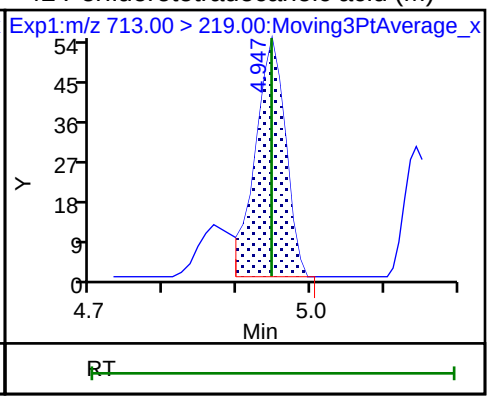

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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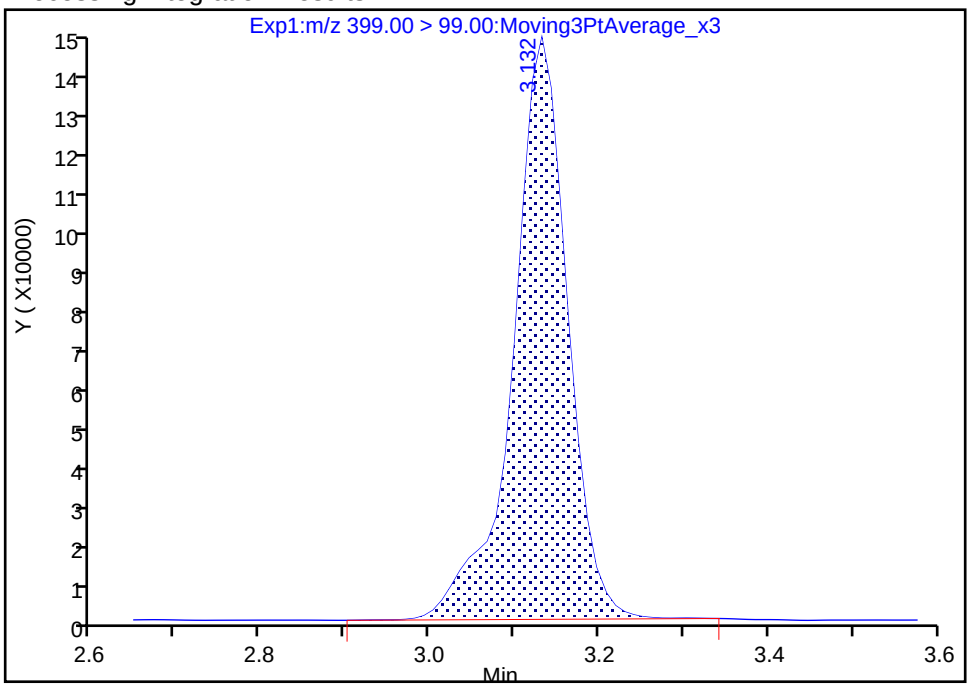
| Injection Date: | 08-Nov-2021 16:52:13 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

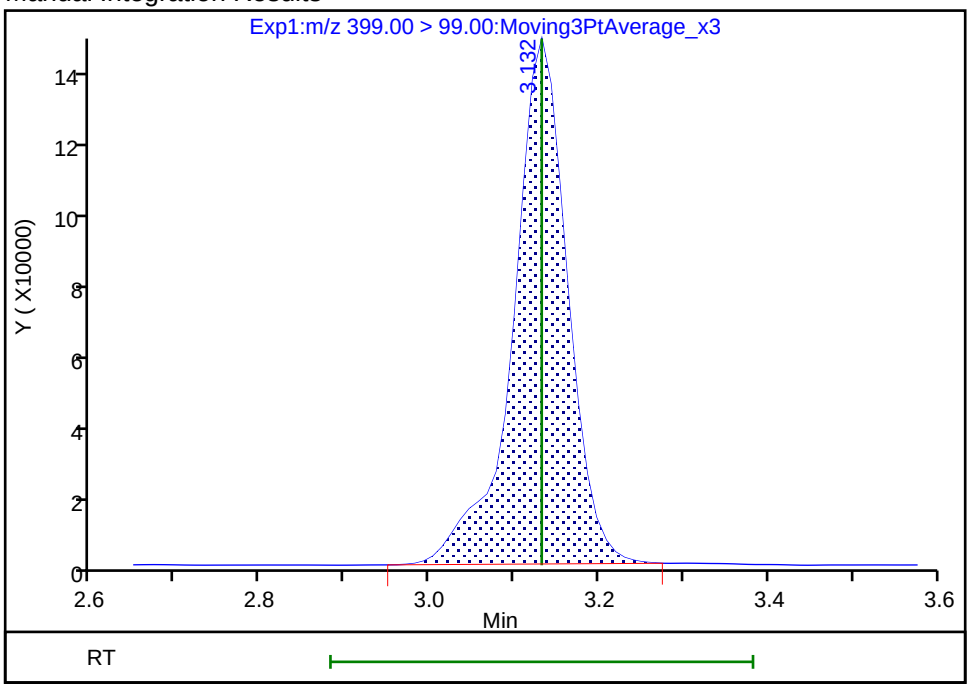
Processing Integration Results

RT: 3.13
Area: 634889
Amount: 2.574040
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 632719
Amount: 2.554168
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:24:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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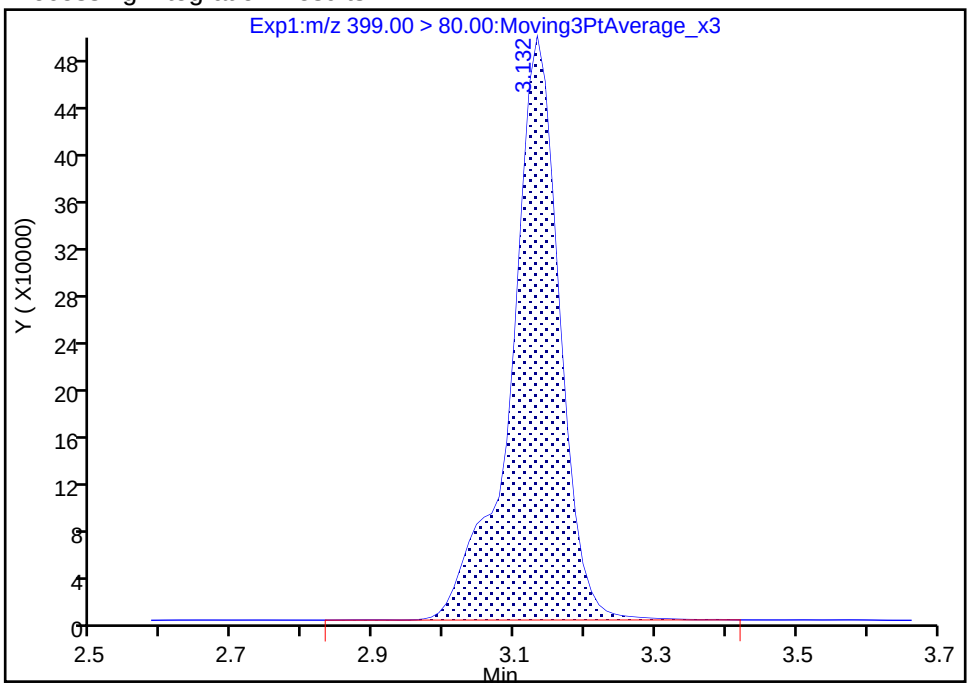
| Injection Date: | 08-Nov-2021 16:52:13 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

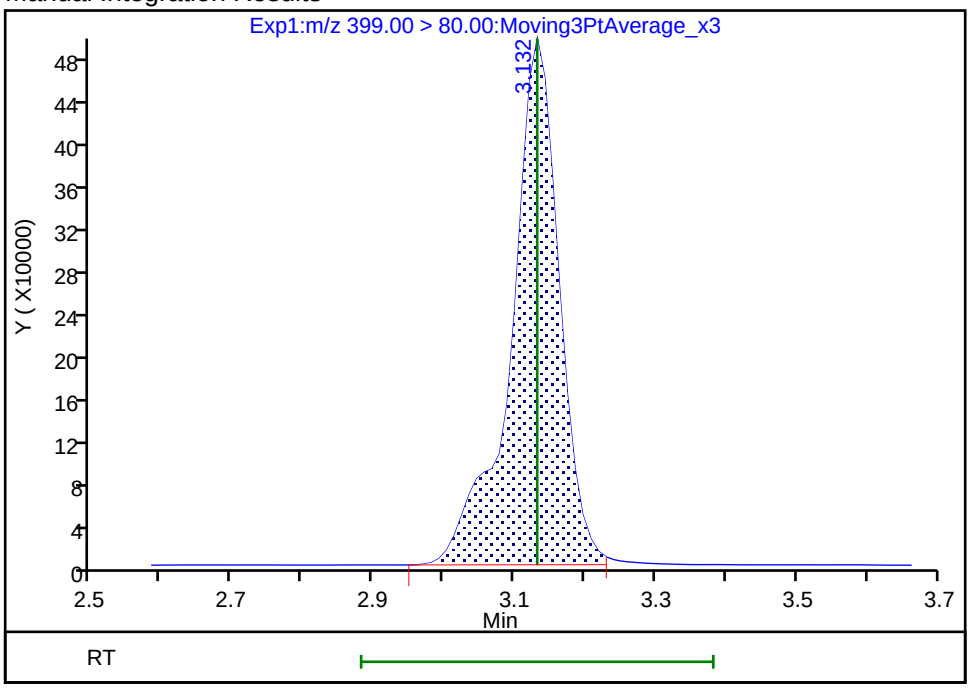
Processing Integration Results

RT: 3.13
Area: 2355399
Amount: 2.574040
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2337215
Amount: 2.554168
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:24:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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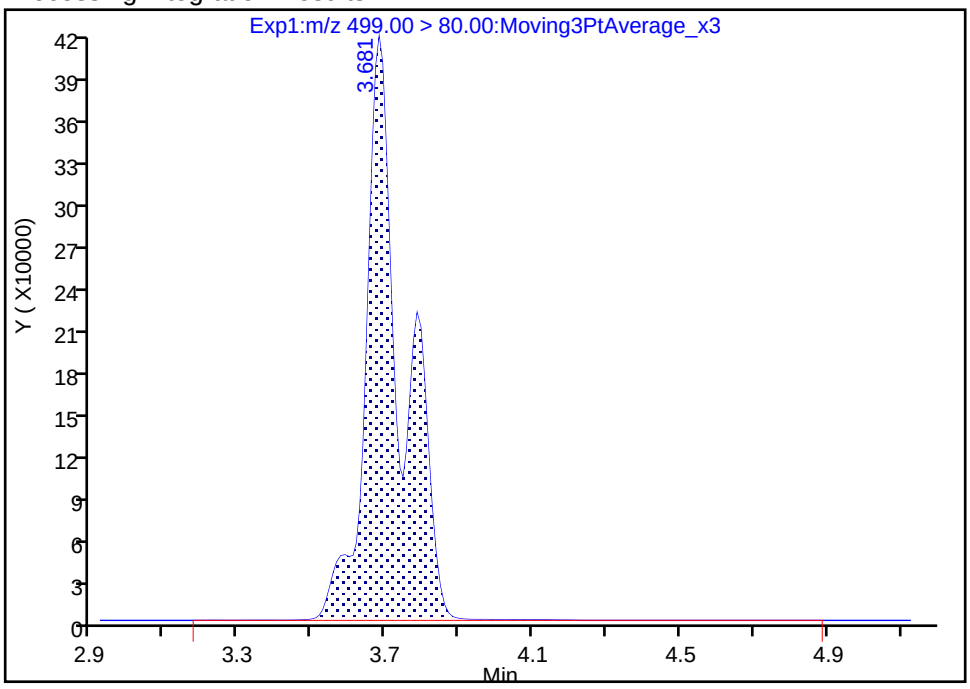
| Injection Date: | 08-Nov-2021 16:52:13 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

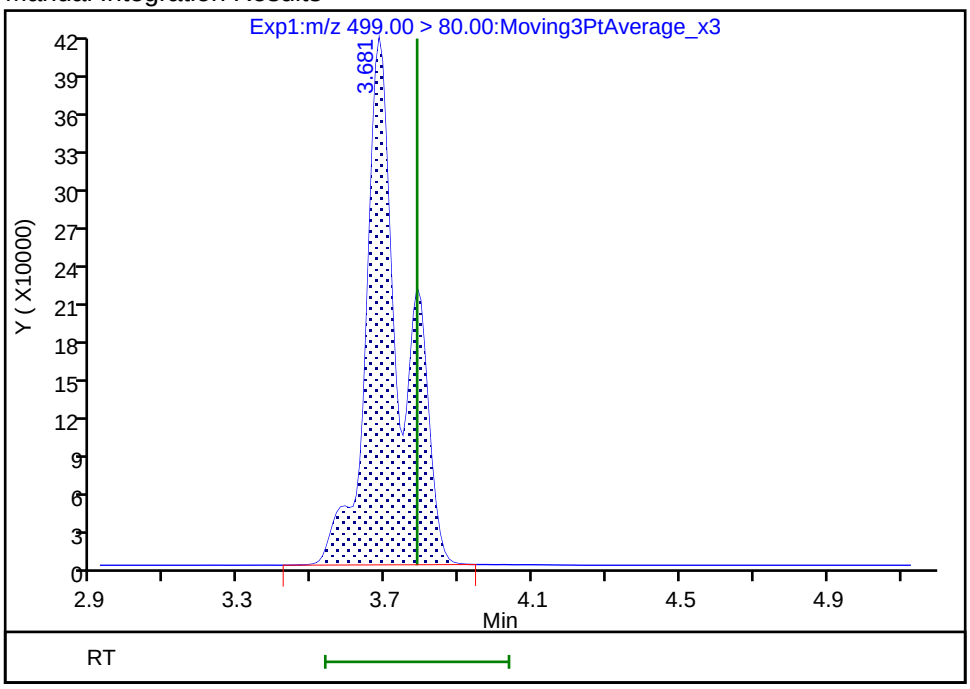
Processing Integration Results

RT: 3.68
Area: 2909746
Amount: 4.547179
Amount Units: ng/ml




Manual Integration Results

RT: 3.68
Area: 2893813
Amount: 4.522280
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:25:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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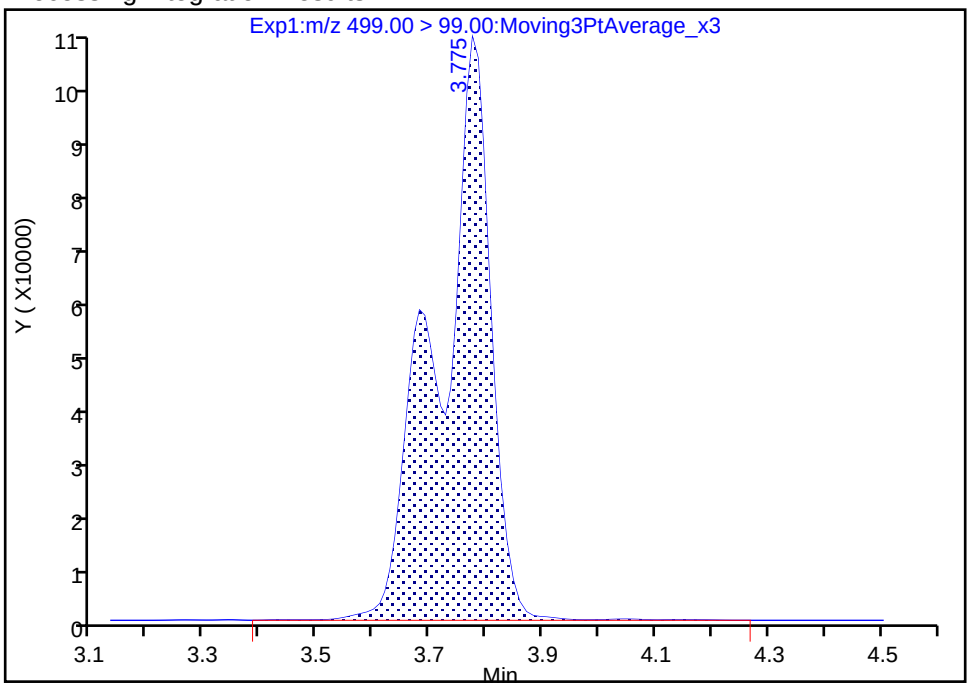
| Injection Date: | 08-Nov-2021 16:52:13 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-2-A | Lab Sample ID: | 200-246277-2 | | |
| Client ID: | AP-101-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

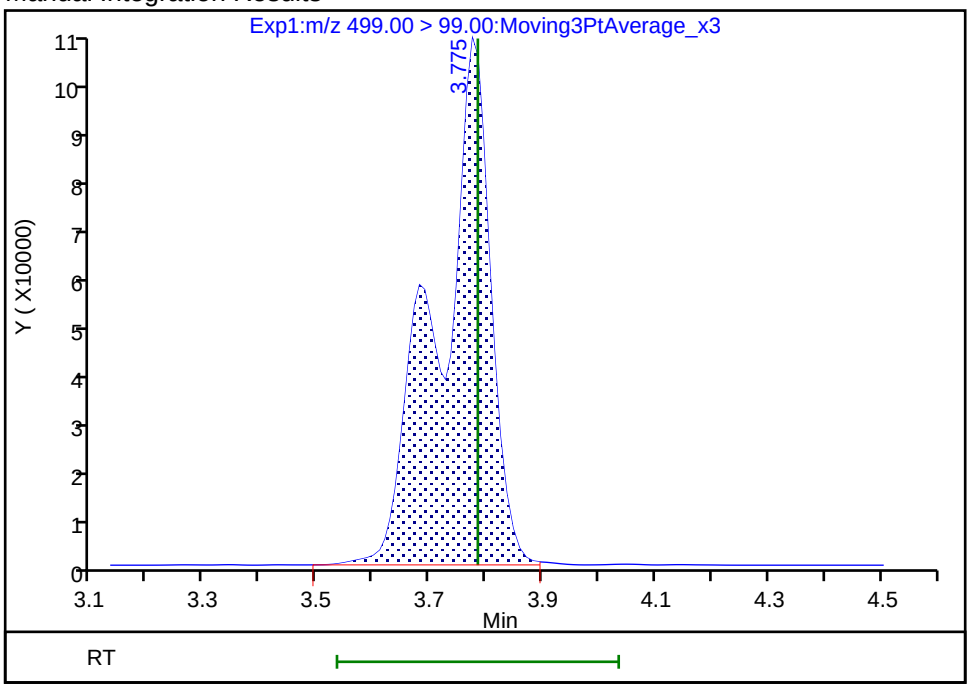
Processing Integration Results

RT: 3.78
Area: 660072
Amount: 4.547179
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 655648
Amount: 4.522280
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:25:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-2-20211027  Lab Sample ID: 460-246277-3

Matrix: Water  Lab File ID: PA211109D07.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 267.8(mL)  Date Analyzed: 11/10/2021 05:01

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 7.16 | | 4.67 | 0.83 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 3.13 | | 1.87 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 3.52 | | 1.87 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.13 | | 1.87 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 13.4 | | 1.87 | 0.40 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.49 | J | 1.87 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.87 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.87 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.87 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.87 | 0.41 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.87 | 0.59 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 5.60 | | 1.87 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 23.1 | | 1.87 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.34 | J | 1.87 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 11.7 | | 1.87 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.87 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.87 | 0.54 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.84 | U | 4.67 | 0.84 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.69 | U | 4.67 | 0.69 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.67 | 1.02 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.87 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-2-20211027  Lab Sample ID: 460-246277-3

Matrix: Water  Lab File ID: PA211109D07.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 267.8(mL)  Date Analyzed: 11/10/2021 05:01

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 96 | | 50-150 |
| STL00992 | 13C4 PFBA | 92 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 90 | | 50-150 |
| STL00997 | 13C2 PFUnA | 84 | | 50-150 |
| STL00998 | 13C2 PFDoA | 80 | | 50-150 |
| STL01056 | 13C8 FOSA | 93 | | 25-150 |
| STL01893 | 13C5 PFPeA | 98 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 75 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 88 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 97 | | 50-150 |
| STL02279 | M2-6:2 FTS | 112 | | 25-150 |
| STL02280 | M2-8:2 FTS | 111 | | 25-150 |
| STL02337 | 13C3 PFBS | 94 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d
Lims ID: 460-246277-C-3-A
Client ID: AMW-2-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:01:18 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-3-A
Misc. Info.: 200-0048356-007 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 13:57:22
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1469297 | 1.16 | | 92.5 | 3231 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 213100 | 0.1917 | | | 19.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1309155 | 1.22 | | 97.8 | 929 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 87971 | 0.0839 | | | 0.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1577208 | 1.09 | | 93.6 | 36344 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 217499 | 0.1501 | Target=2.32 | | 10.9 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 94283 | | 2.31(1.16-3.48) | | 16.4 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1396769 | 1.24 | | 99.5 | 2865 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 106768 | 0.0942 | Target=12.09 | | 3.6 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 7991 | | 13.36(6.04-18.13) | | 5.3 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 682464 | 0.6192 | Target=3.55 | | 156 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 178456 | | 3.82(1.77-5.32) | | 136 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1185530 | 1.13 | | 95.2 | 3494 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1437228 | 1.22 | | 97.2 | 2980 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 67867 | 0.0571 | Target=3.69 | | 4.4 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 17170 | | 3.95(1.84-5.53) | | 23.6 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.492 | 3.474 | 0.018 | 0.918 | 8663 | 0.009207 | Target=4.88 | | 4.1 | M |
| 449.00 > 99.00 | 3.492 | 3.474 | 0.018 | 0.918 | 2993 | | 2.89(2.44-7.32) | | 3.3 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 0.997 | 291 | 0.001235 | | | 4.1 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 220683 | 1.33 | | 112 | 137 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1551953 | 1.20 | | 96.1 | 3925 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1570037 | 1.25 | | | 5143 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 474240 | 0.3592 | Target=2.68 | | 32.1 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 201213 | | 2.36(1.34-4.02) | | 300 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 901963 | 1.19 | | 99.2 | 964 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 256878 | 0.3137 | Target=4.69 | | 129 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 44694 | | 5.75(2.35-7.04) | | 62.8 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1539621 | 1.20 | | 95.7 | 4661 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 15778 | 0.0131 | Target=7.29 | | 2.6 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 2501 | | 6.31(3.64-10.93) | | 12.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1457965 | 1.12 | | 89.8 | 4182 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.003 | 6130 | 0.005230 | Target=8.95 | | 2.4 | |
| 513.00 > 169.00 | 4.137 | 4.115 | 0.022 | 1.005 | 483 | | 12.69(4.47-13.42) | | 3.3 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 250050 | 1.33 | | 111 | 469 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 46 | 0.000263 | | | 1.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1458524 | 1.16 | | 93.1 | 3018 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.002 | 1217 | 0.001098 | | | 5.9 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 140269 | 1.10 | | 87.8 | 1242 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 175 | 0.001985 | | | 0.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1069446 | 1.06 | | 84.5 | 2824 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 145420 | 1.21 | | 97.2 | 1054 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.000 | 377 | 0.003782 | | | 2.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1088060 | 1.00 | | 79.9 | 2072 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.793 | 4.792 | 0.0 | 1.042 | 988 | 0.001345 | Target=4.68 | | 0.3 | M |
| 663.00 > 169.00 | 4.793 | 4.792 | 0.0 | 1.042 | 229 | | 4.31(2.34-7.02) | | 3.6 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.966 | 0.020 | 1.428 | 793389 | 0.9392 | | 75.1 | 1697 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 0.998 | 95 | 0.000948 | Target=1.01 | | 2.5 | RM |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 0.998 | 276 | | 0.34(0.51-1.52) | | 9.9 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:25:58 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d

Injection Date: 10-Nov-2021 05:01:18 Instrument ID: LC812

Lims ID: 460-246277-C-3-A Lab Sample ID: 200-246277-3

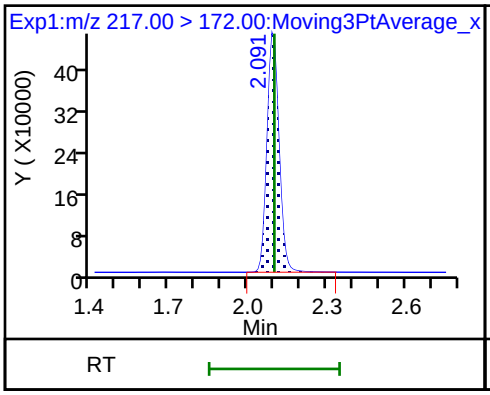
Client ID: AMW-2-20211027

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 7

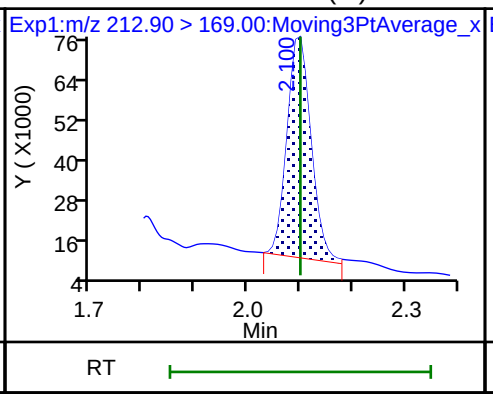
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

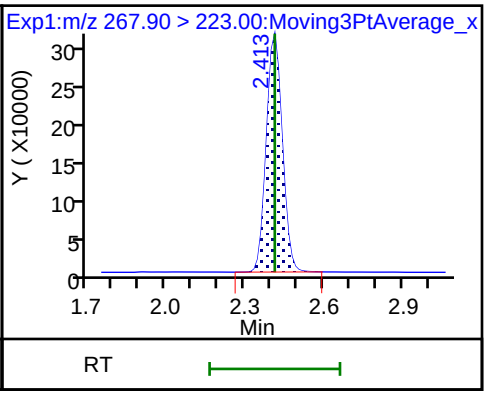
D 1 13C4 PFBA



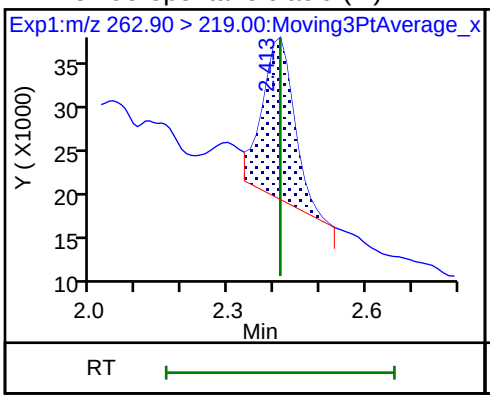

2 Perfluorobutanoic acid (M)



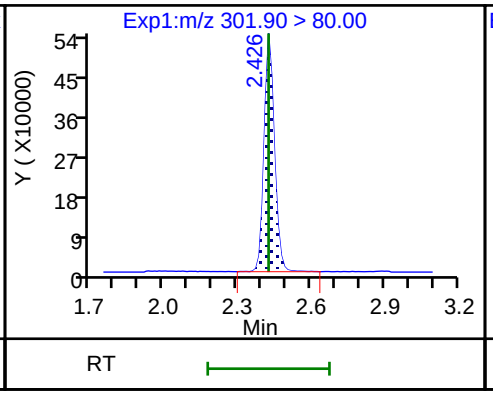

D 3 13C5 PFPeA



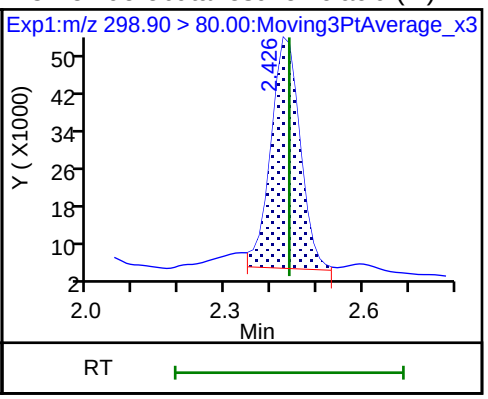

4 Perfluoropentanoic acid (M)



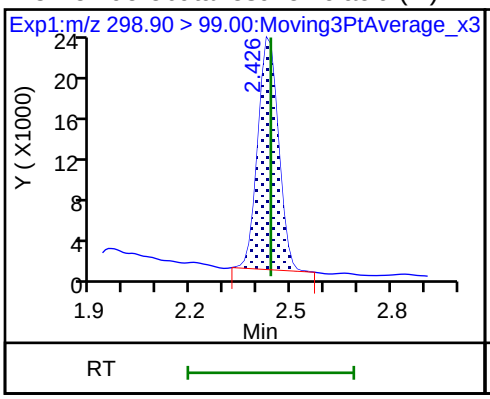

D 47 13C3 PFBS



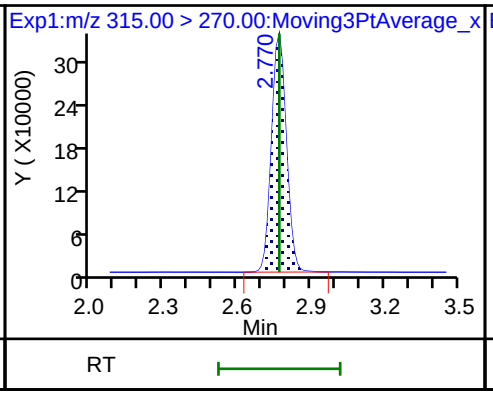

5 Perfluorobutanesulfonic acid (M)



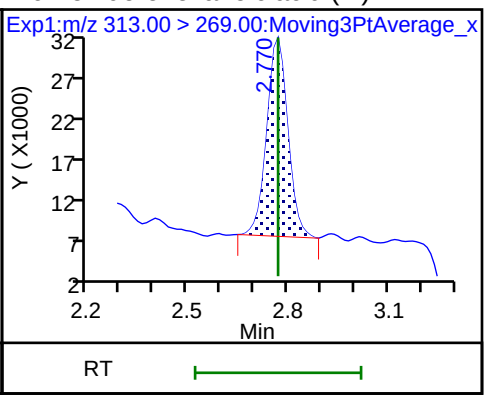

5 Perfluorobutanesulfonic acid (M)



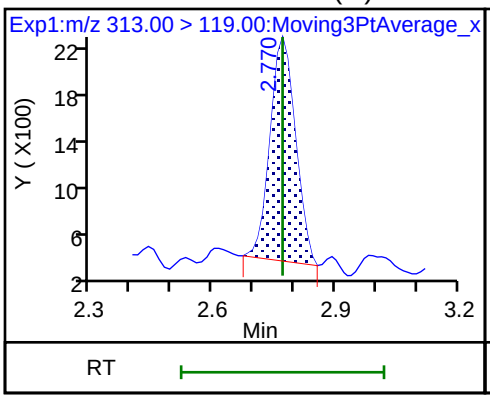

D 7 13C2 PFHxA



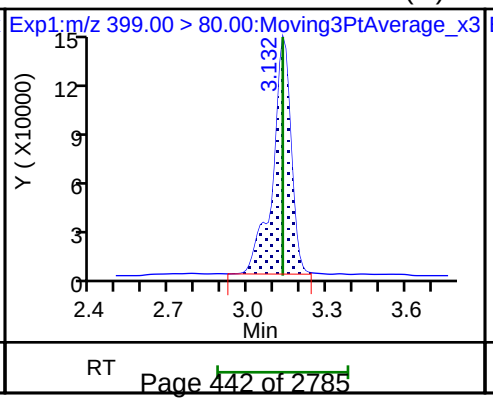

6 Perfluorohexanoic acid (M)



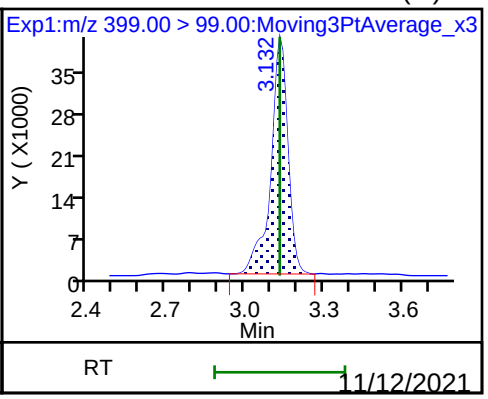

6 Perfluorohexanoic acid (M)



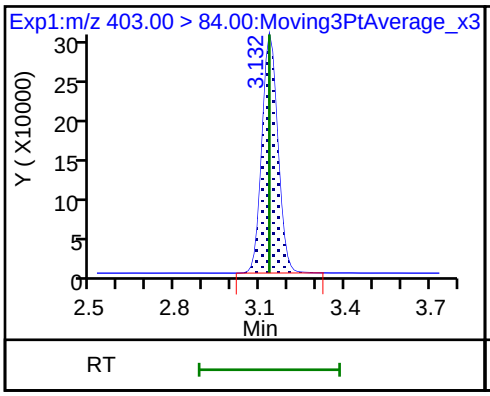

8 Perfluorohexanesulfonic acid (M)



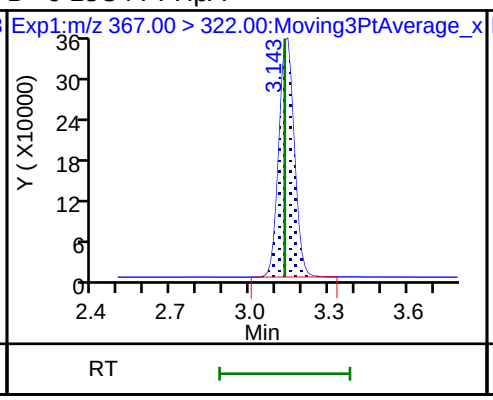

8 Perfluorohexanesulfonic acid (M)



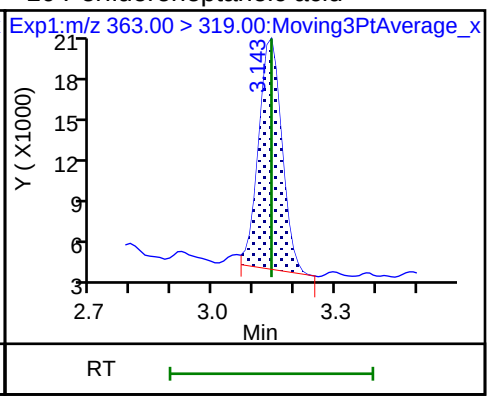
D 11 18O2 PFHxS



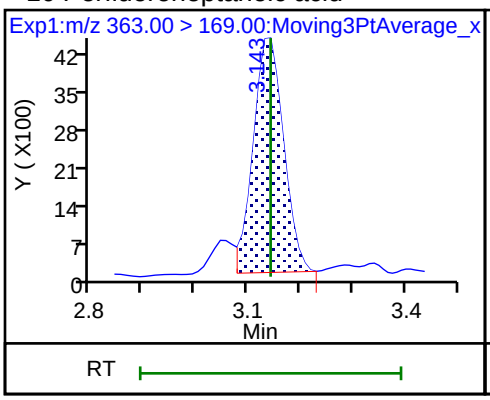

D 9 13C4 PFHpA



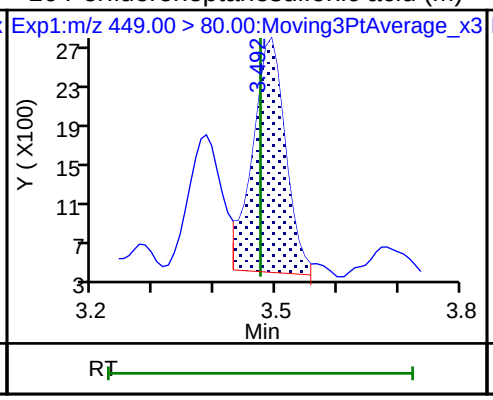

10 Perfluoroheptanoic acid



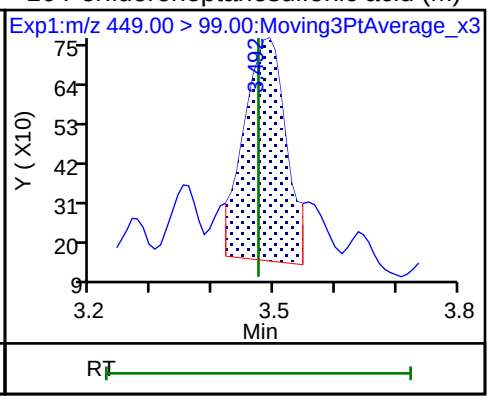

10 Perfluoroheptanoic acid



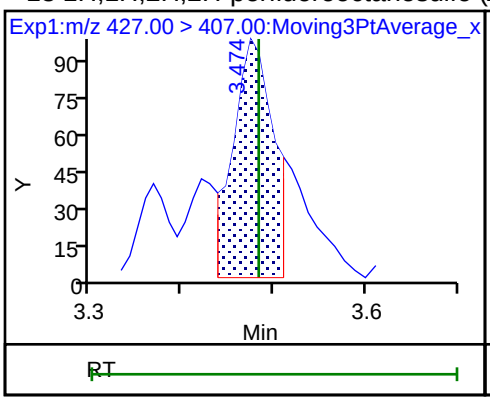

16 Perfluoroheptanesulfonic acid (M)



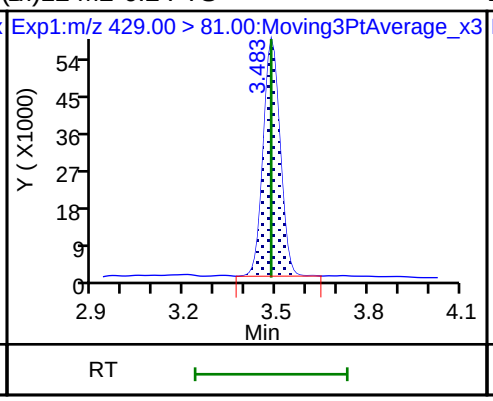

16 Perfluoroheptanesulfonic acid (M)



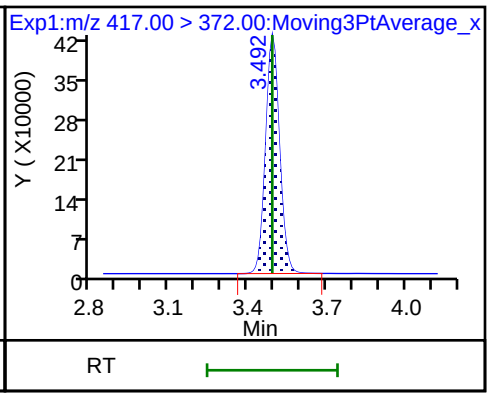

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



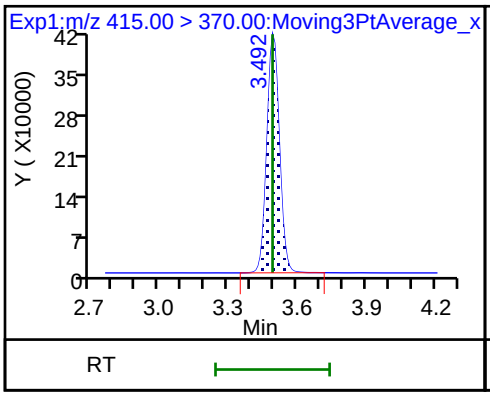

12 M2-6:2 FTS



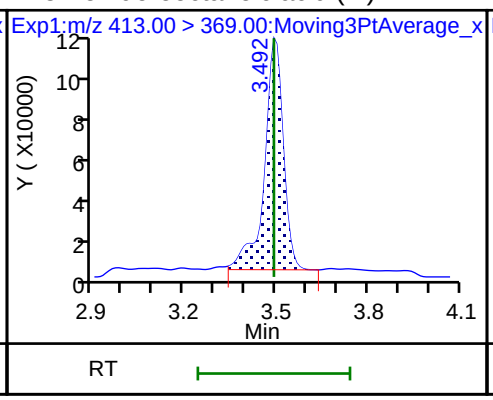

D 14 13C4 PFOA



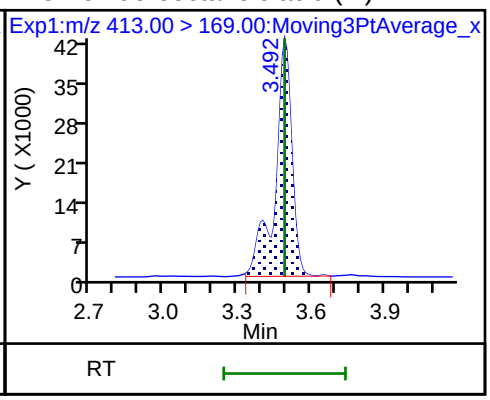

* 62 13C2 PFOA



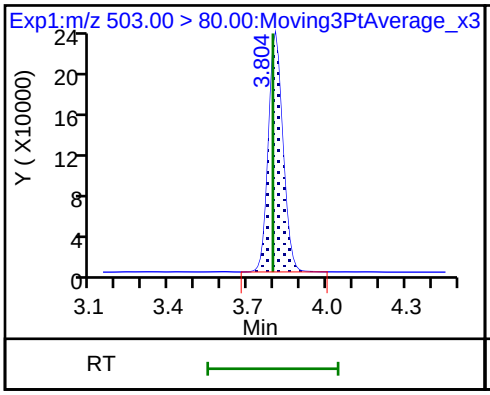

15 Perfluorooctanoic acid (M)



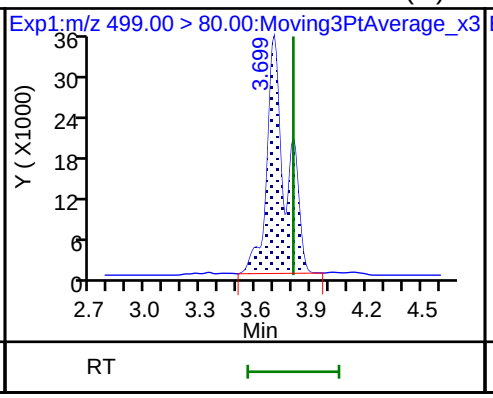

15 Perfluorooctanoic acid (M)



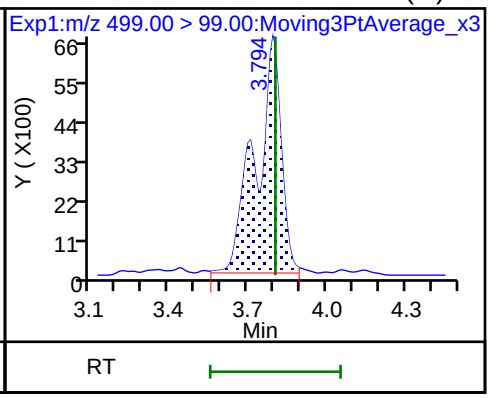
D 18 13C4 PFOS



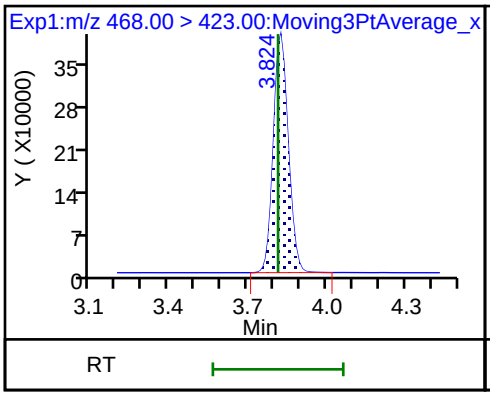

17 Perfluorooctanesulfonic acid (M)



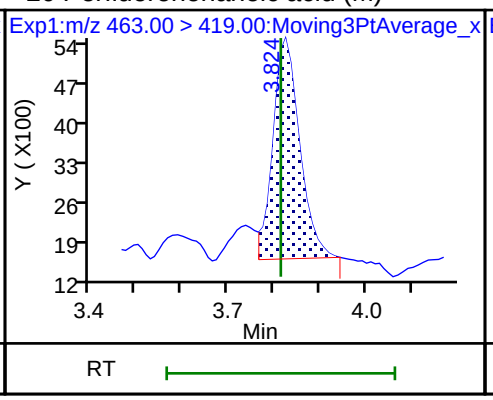

17 Perfluorooctanesulfonic acid (M)



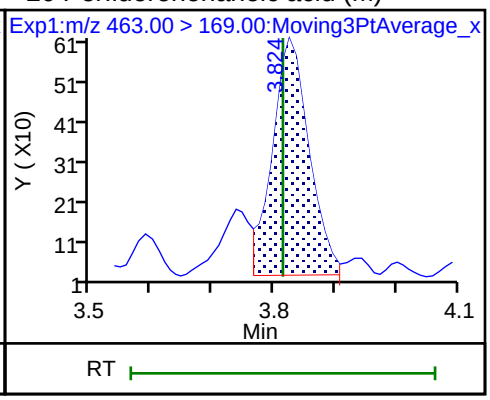

D 19 13C5 PFNA



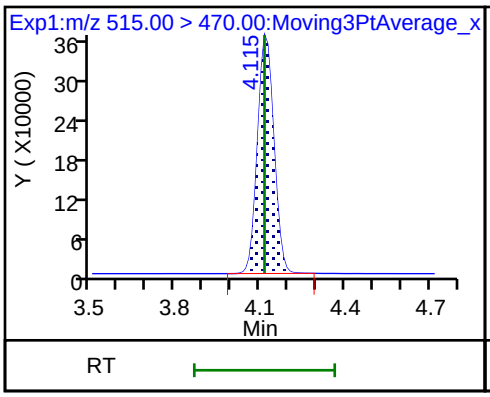

20 Perfluorononanoic acid (M)



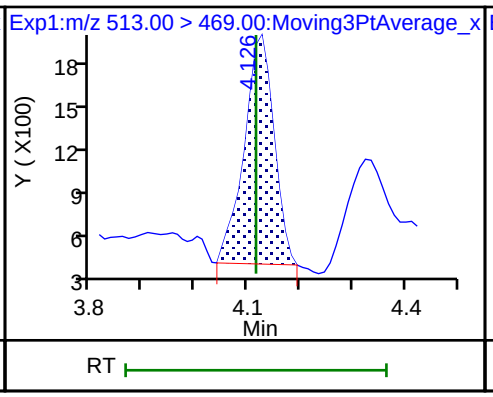

20 Perfluorononanoic acid (M)



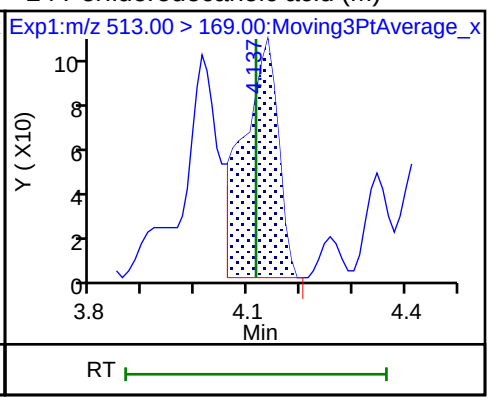

D 23 13C2 PFDA



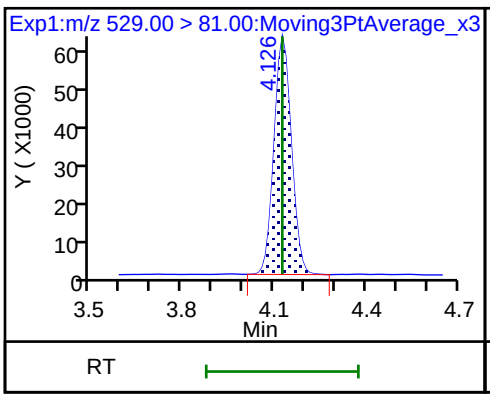

24 Perfluorodecanoic acid



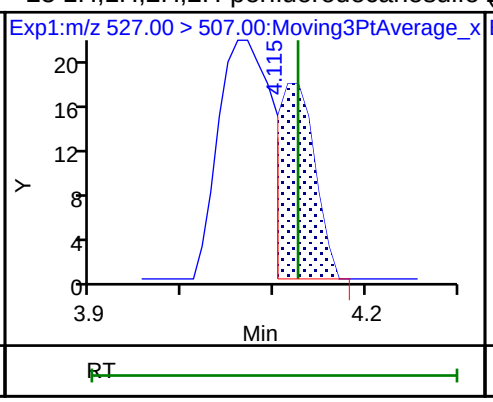

24 Perfluorodecanoic acid (M)



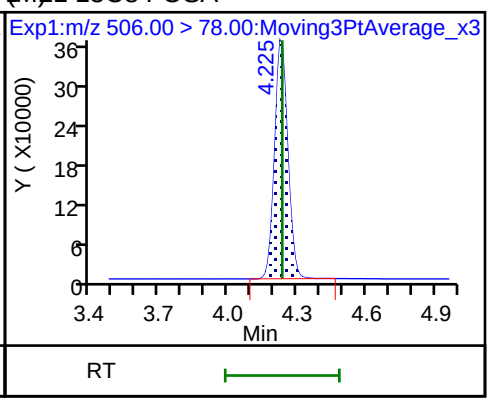

D 26 M2-8:2 FTS



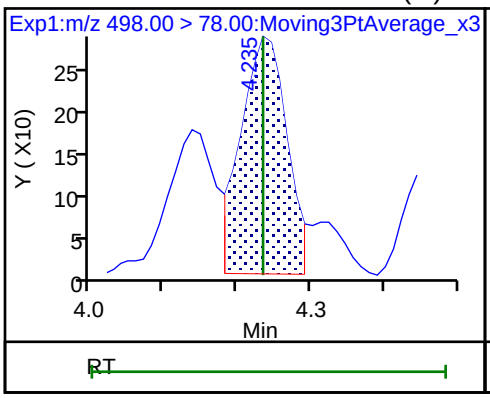

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



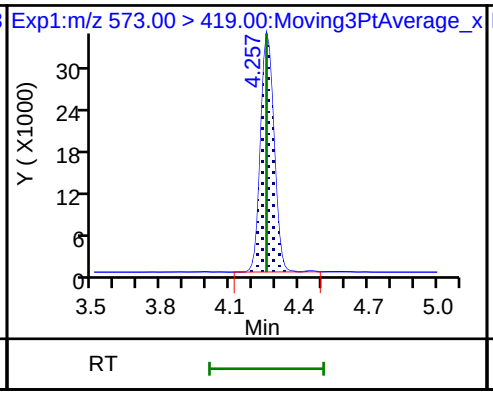

21 13C8 FOSA



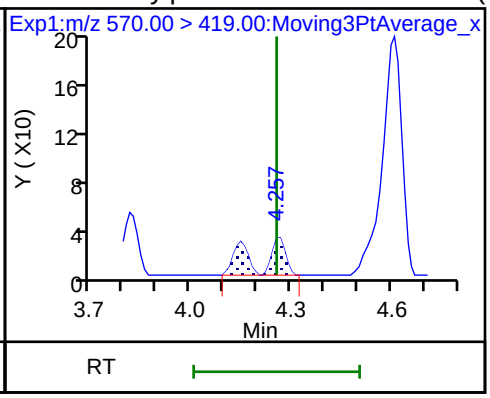
22 Perfluorooctanesulfonamide (M)



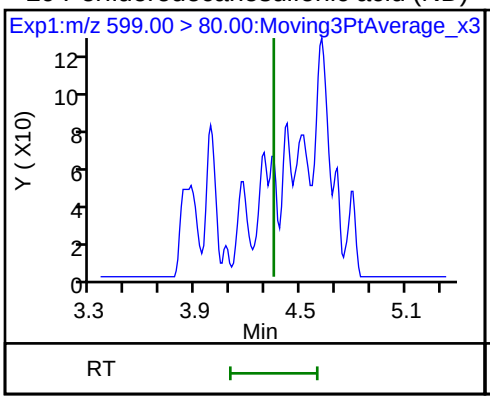

D 27 d3-NMeFOSAA



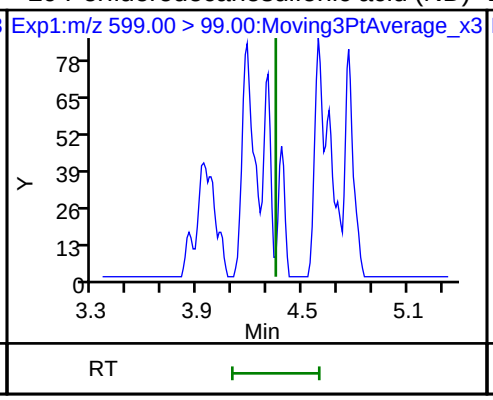

28 N-methylperfluorooctanesulfonami (M)



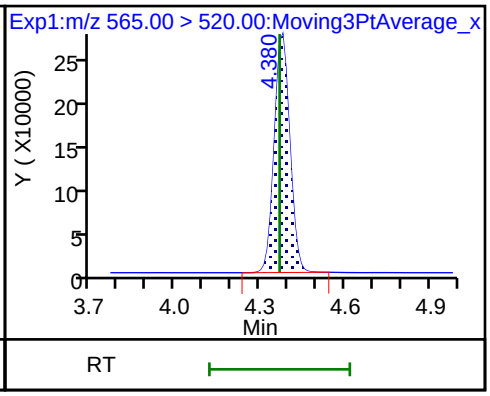

29 Perfluorodecanesulfonic acid (ND)



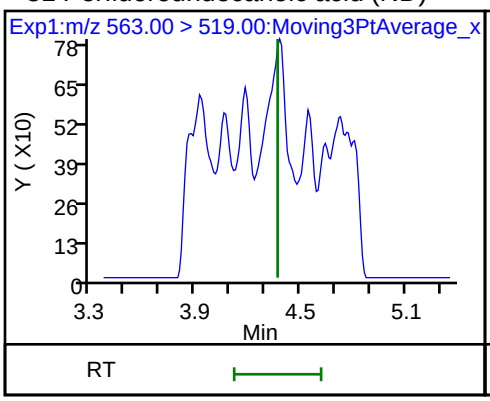

29 Perfluorodecanesulfonic acid (ND)



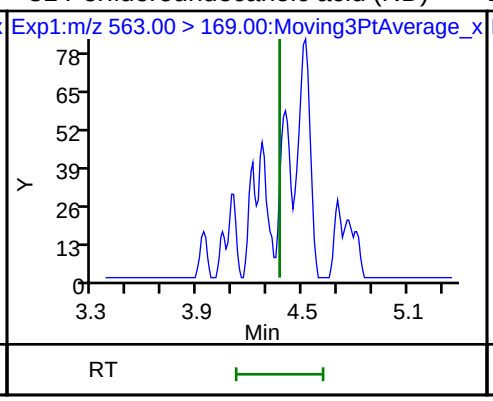

D 30 13C2 PFUnA



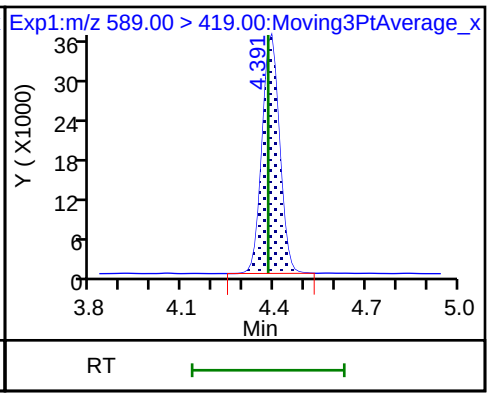

31 Perfluoroundecanoic acid (ND)



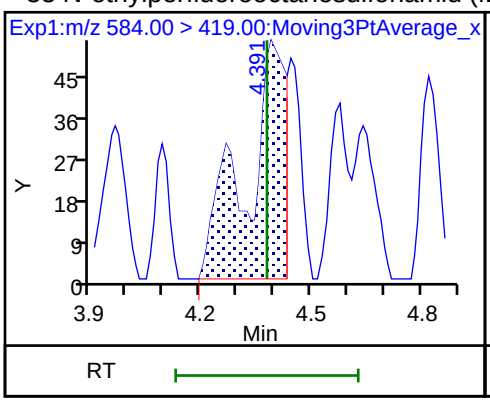

31 Perfluoroundecanoic acid (ND)



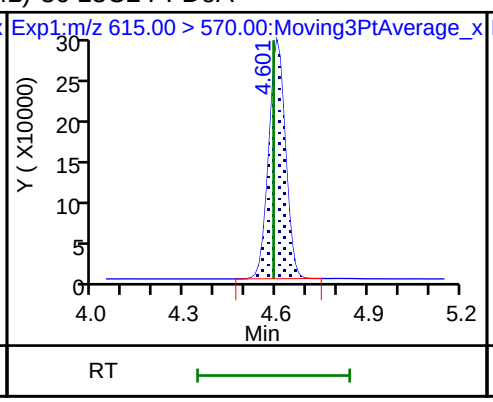

D 32 d5-NEtFOSAA



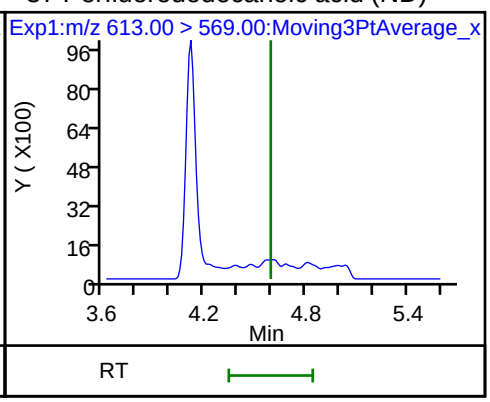

33 N-ethylperfluorooctanesulfonamid (ND)



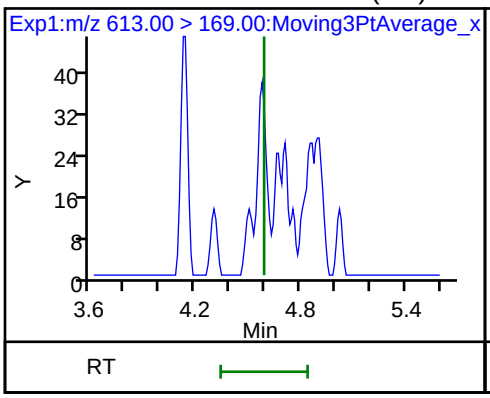

D 36 13C2 PFDoA



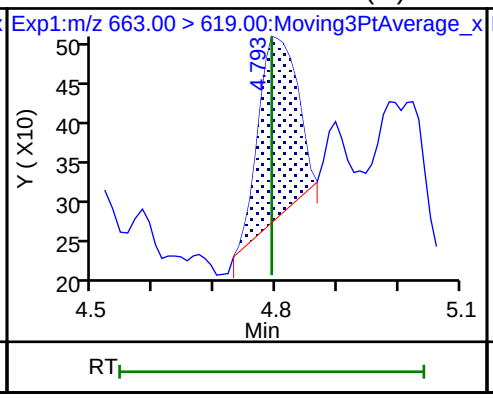

37 Perfluorododecanoic acid (ND)



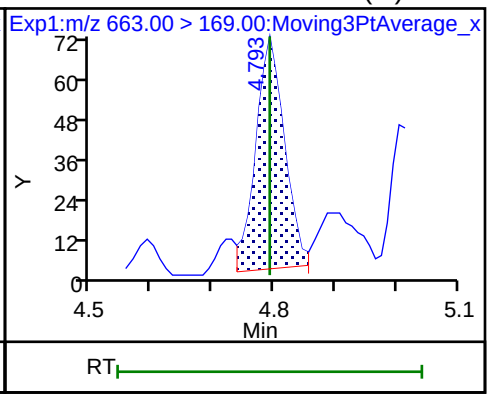
37 Perfluorododecanoic acid (ND)



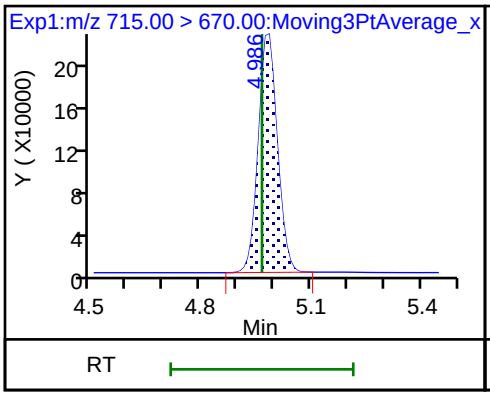

41 Perfluorotridecanoic acid (M)



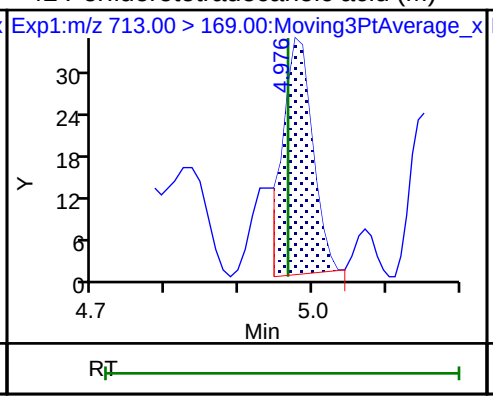

41 Perfluorotridecanoic acid (M)



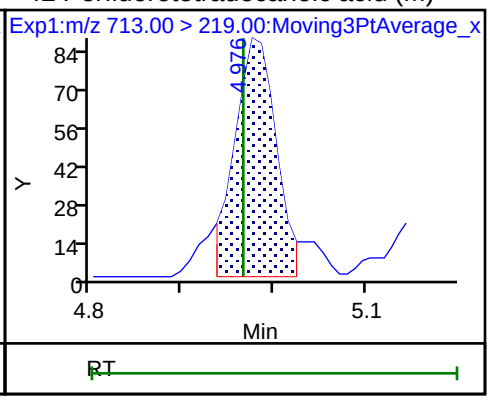

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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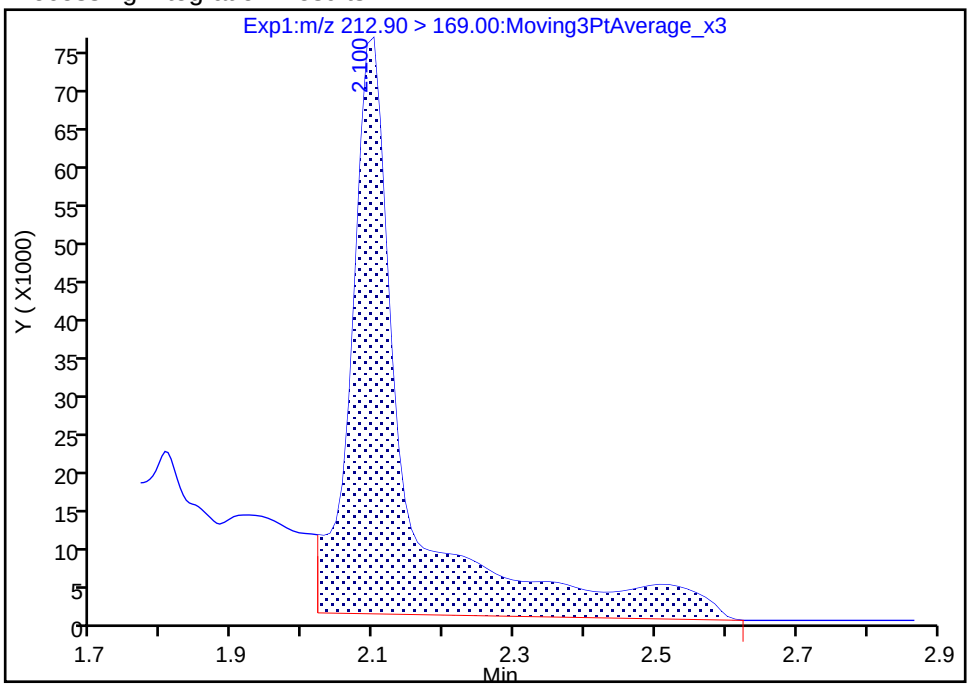
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

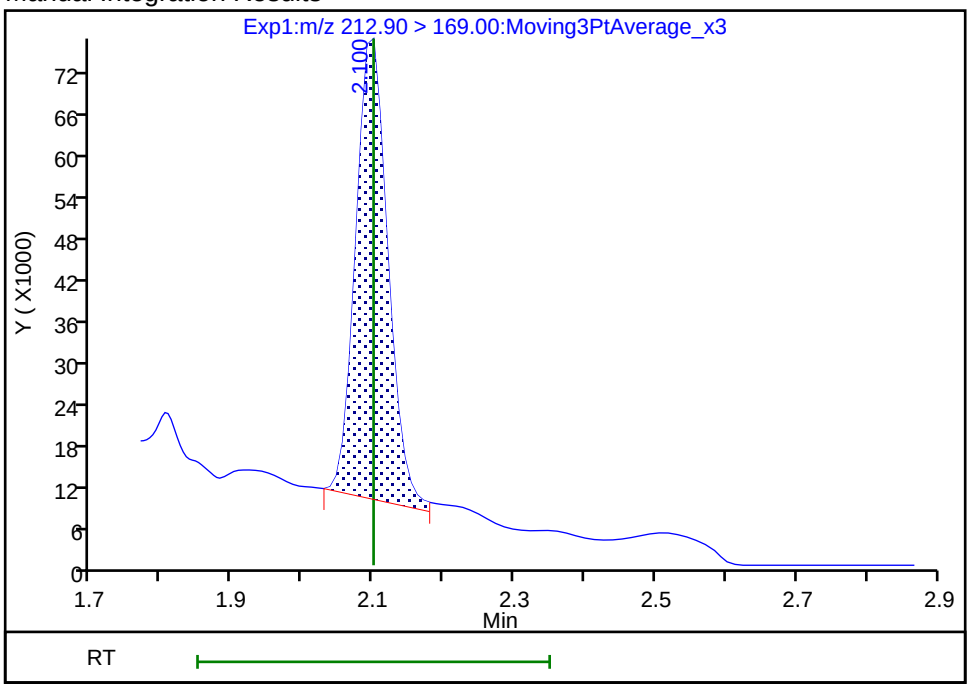
Processing Integration Results

RT: 2.10
Area: 415674
Amount: 0.373994
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 213100
Amount: 0.191732
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:39:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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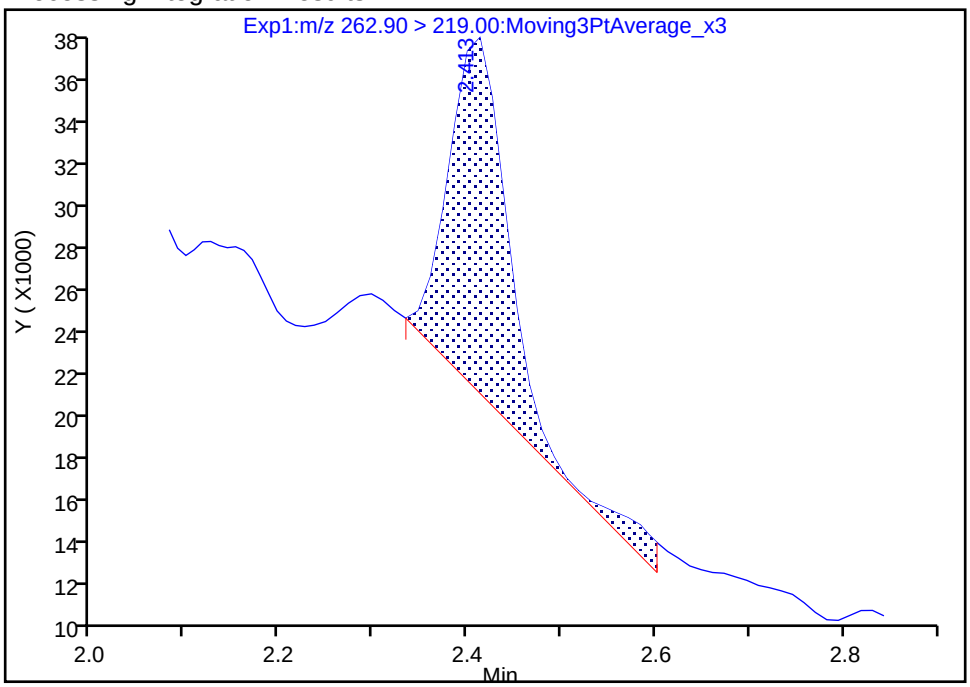
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

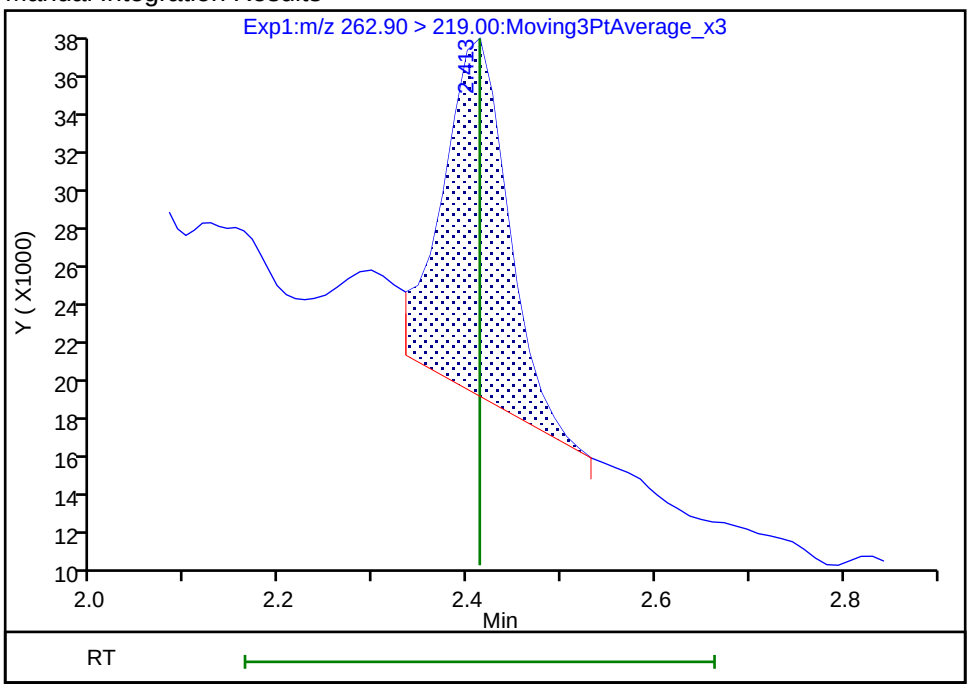
Processing Integration Results

RT: 2.41
Area: 74155
Amount: 0.070682
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 87971
Amount: 0.083851
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:39:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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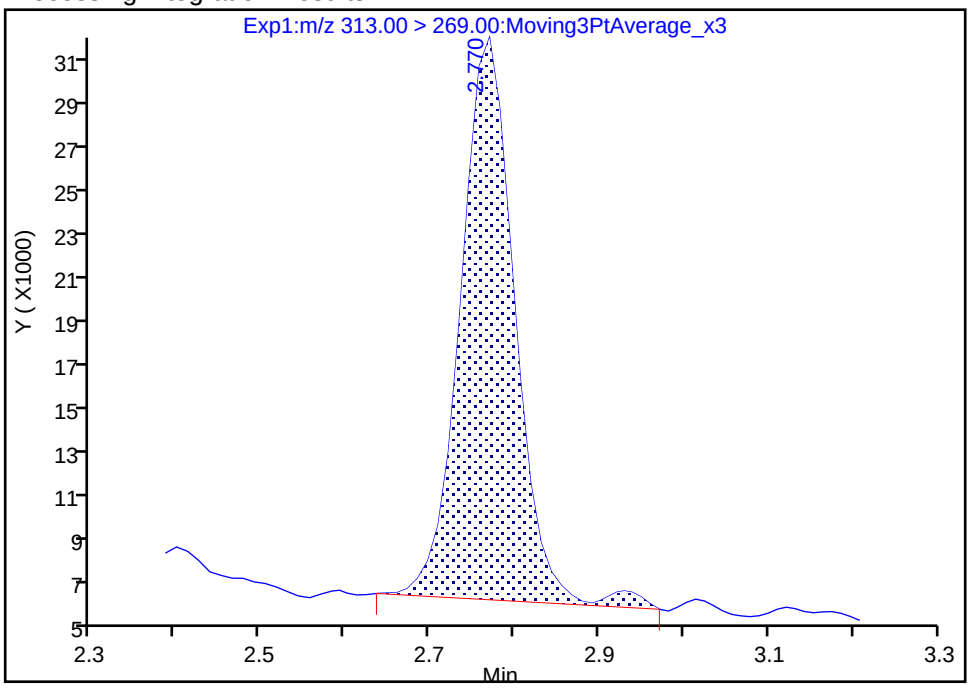
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

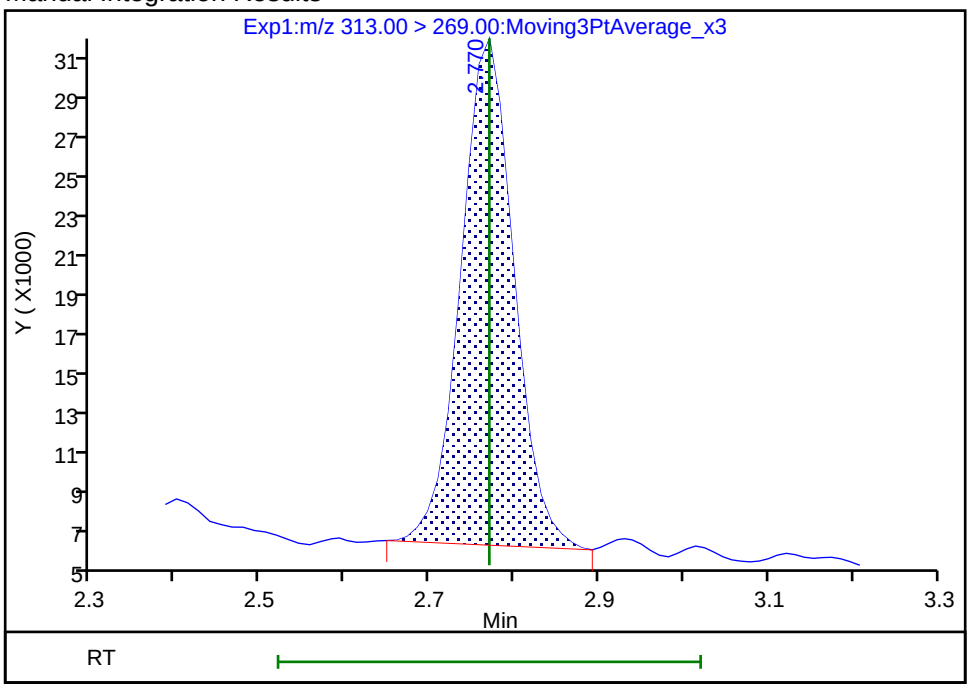
Processing Integration Results

RT: 2.77
Area: 109821
Amount: 0.096908
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 106768
Amount: 0.094214
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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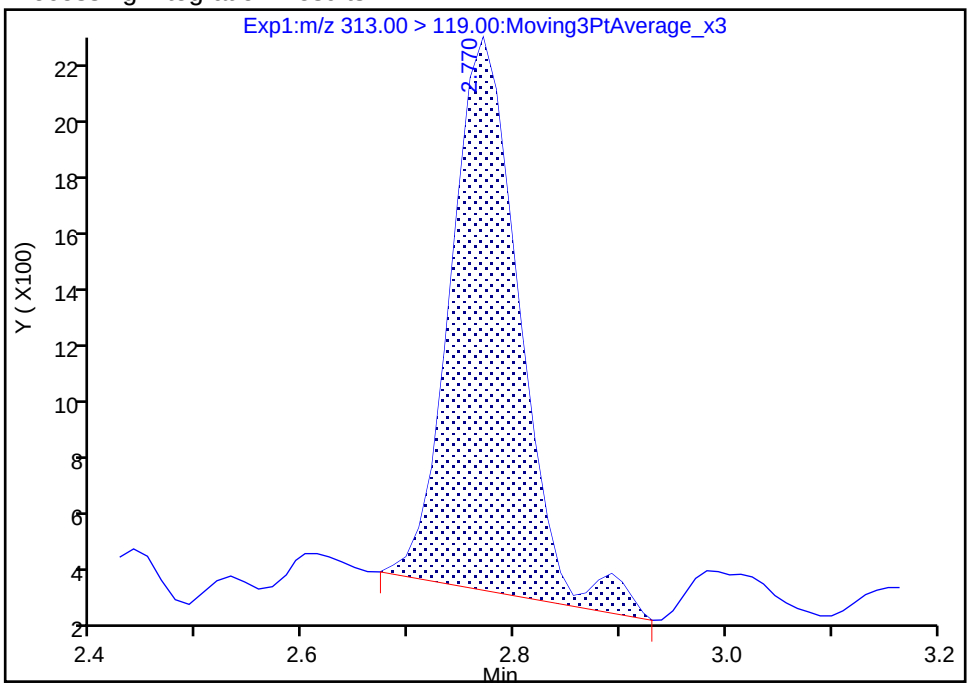
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

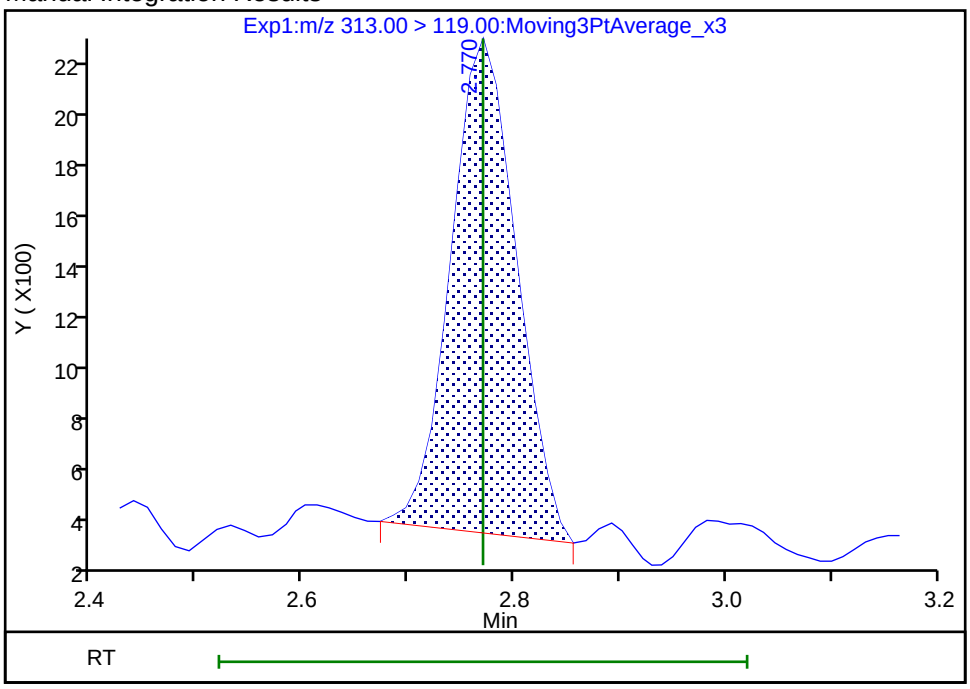
Processing Integration Results

RT: 2.77
Area: 8514
Amount: 0.096908
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 7991
Amount: 0.094214
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

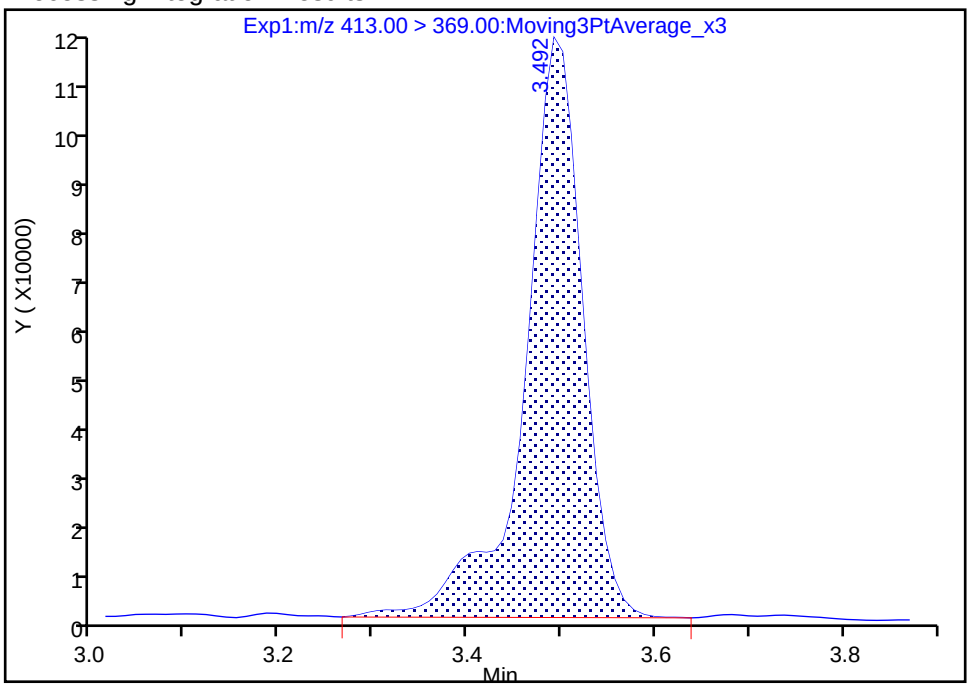
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

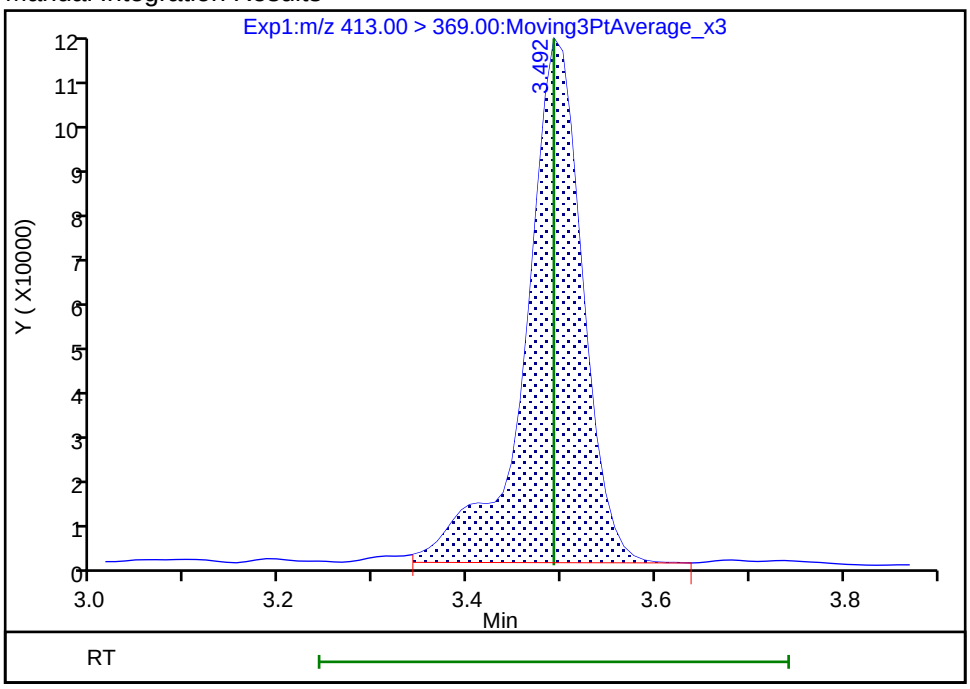
Processing Integration Results

RT: 3.49
Area: 478486
Amount: 0.362400
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 474240
Amount: 0.359184
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:43:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

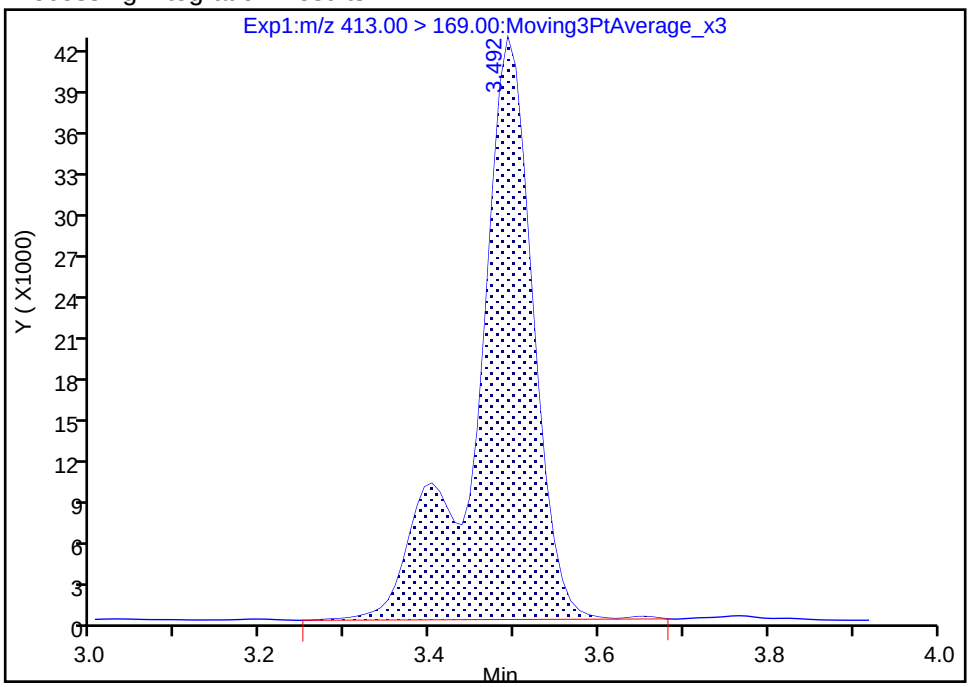
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

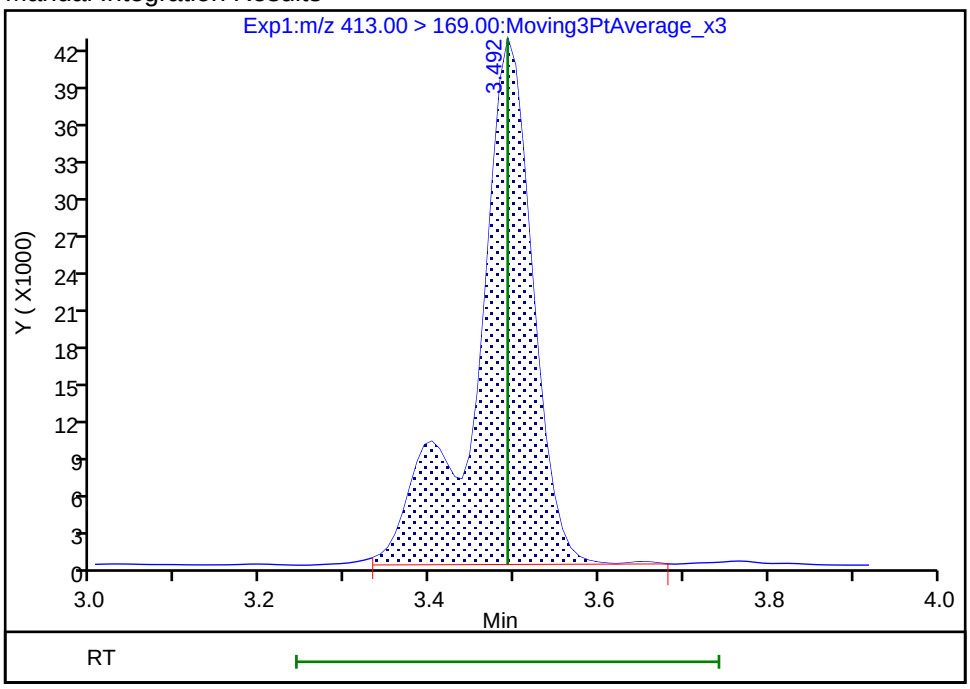
Processing Integration Results

RT: 3.49
Area: 202018
Amount: 0.362400
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 201213
Amount: 0.359184
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:43:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

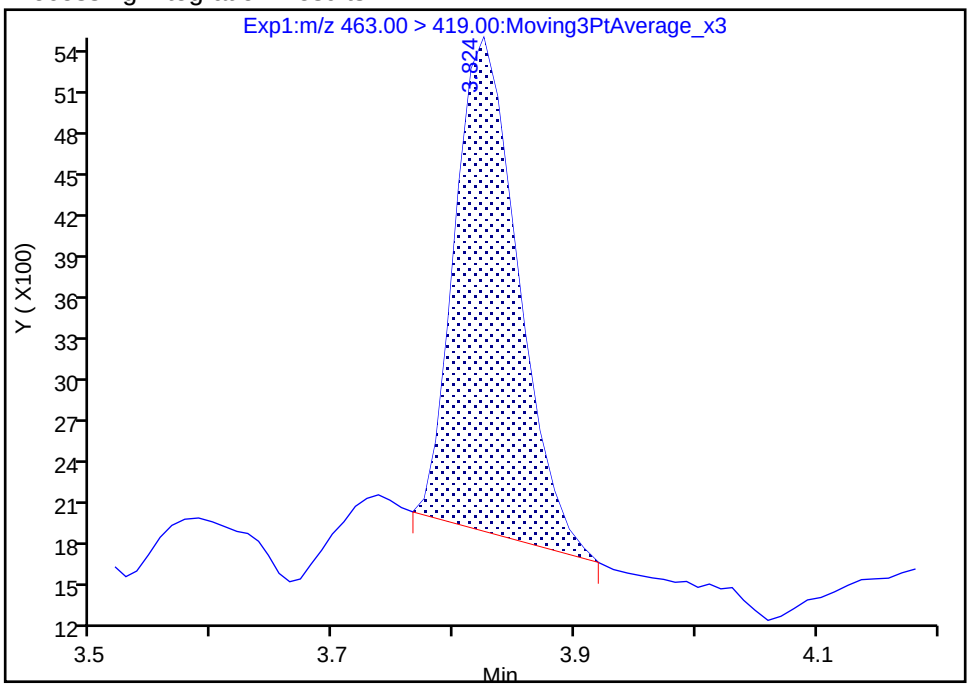
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

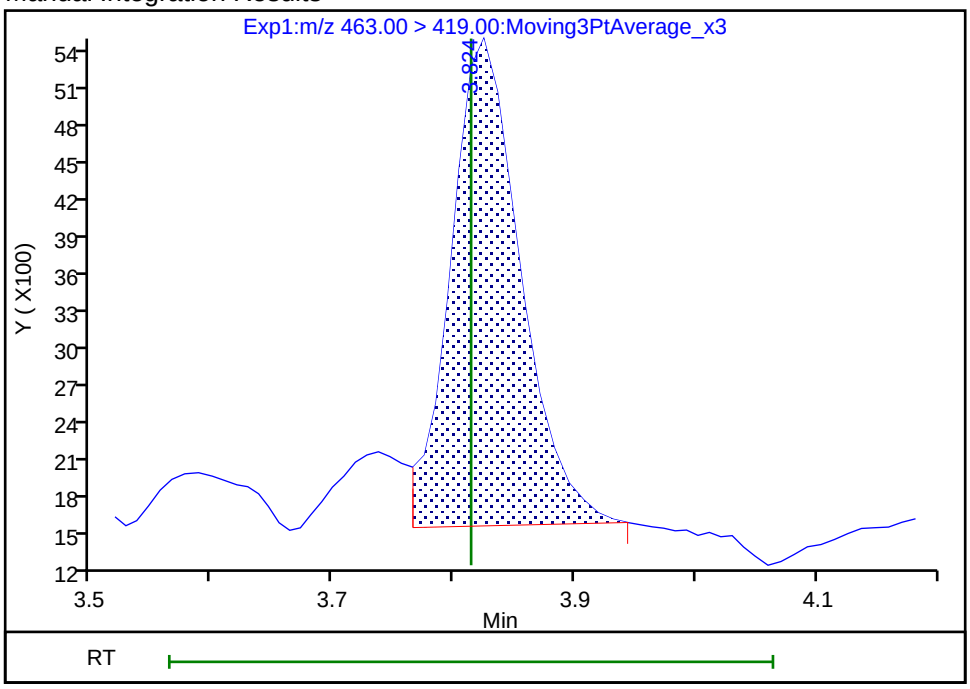
Processing Integration Results

RT: 3.82
Area: 13098
Amount: 0.010870
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 15778
Amount: 0.013094
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:43:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

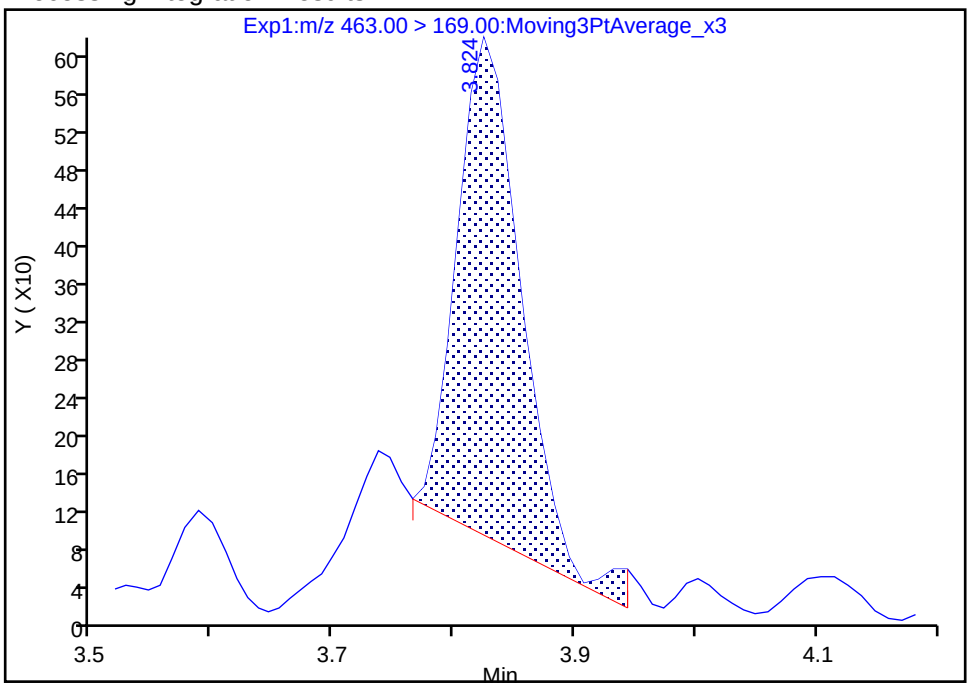
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

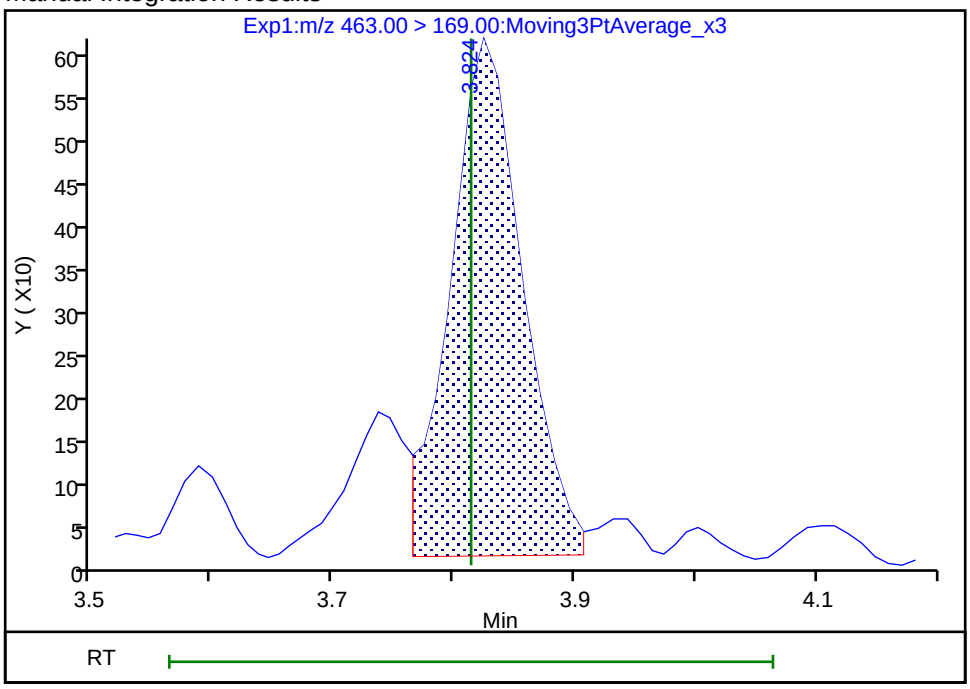
Processing Integration Results

RT: 3.82
Area: 1947
Amount: 0.010870
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 2501
Amount: 0.013094
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:43:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

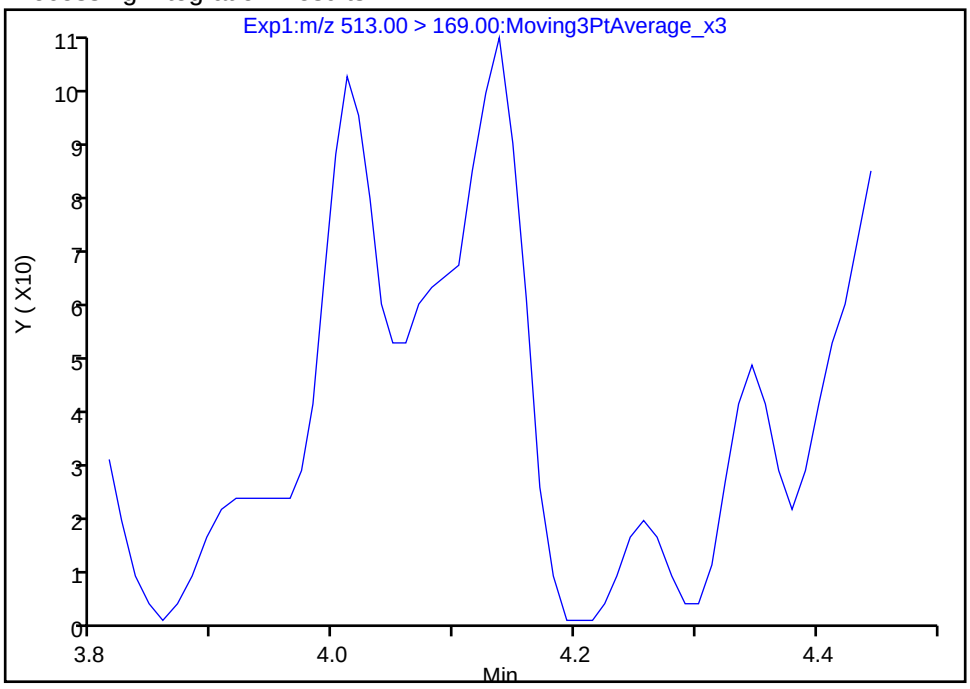
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

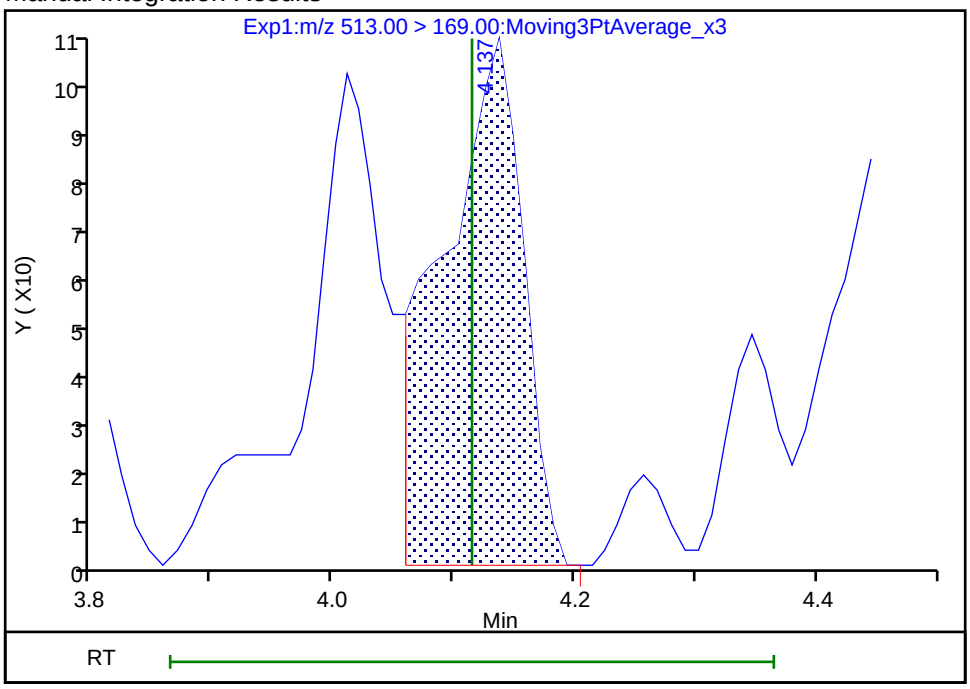
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 483
Amount: 0.005230
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:55:35
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

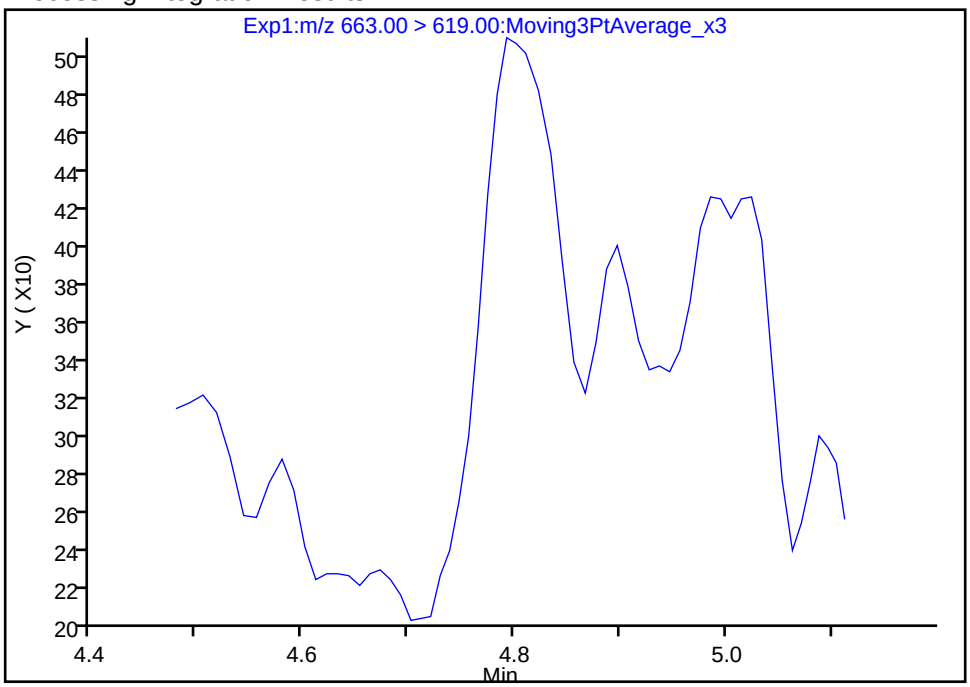
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

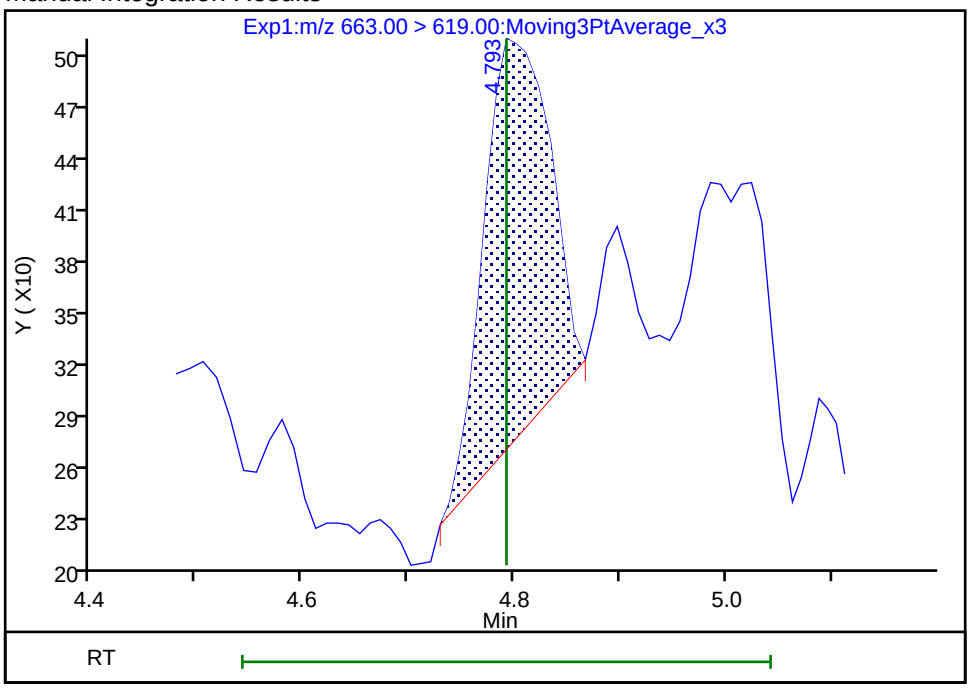
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 988
Amount: 0.001345
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:57:02
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

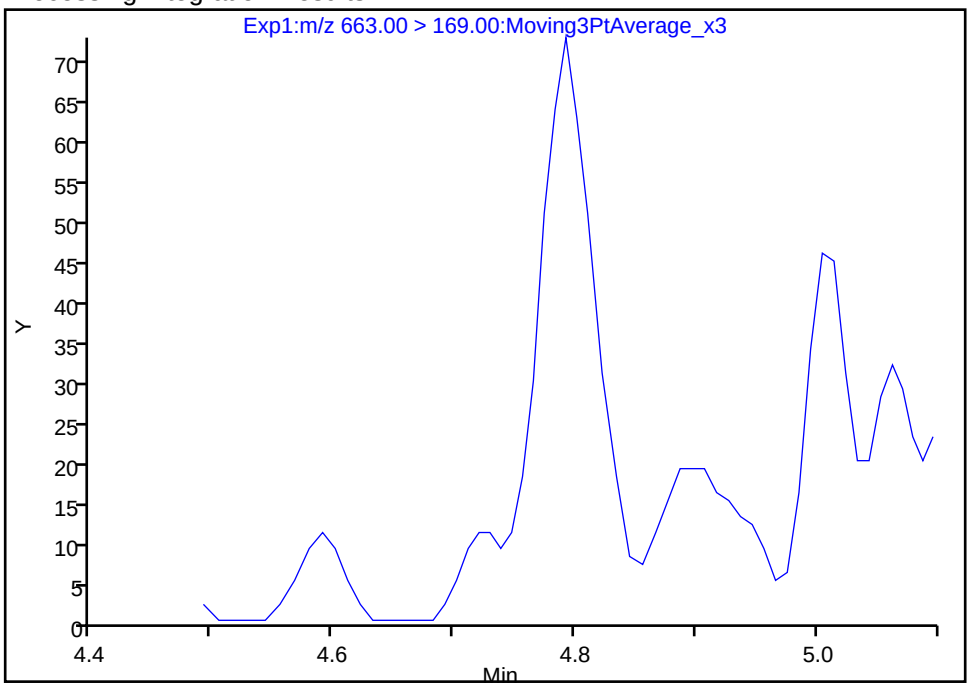
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

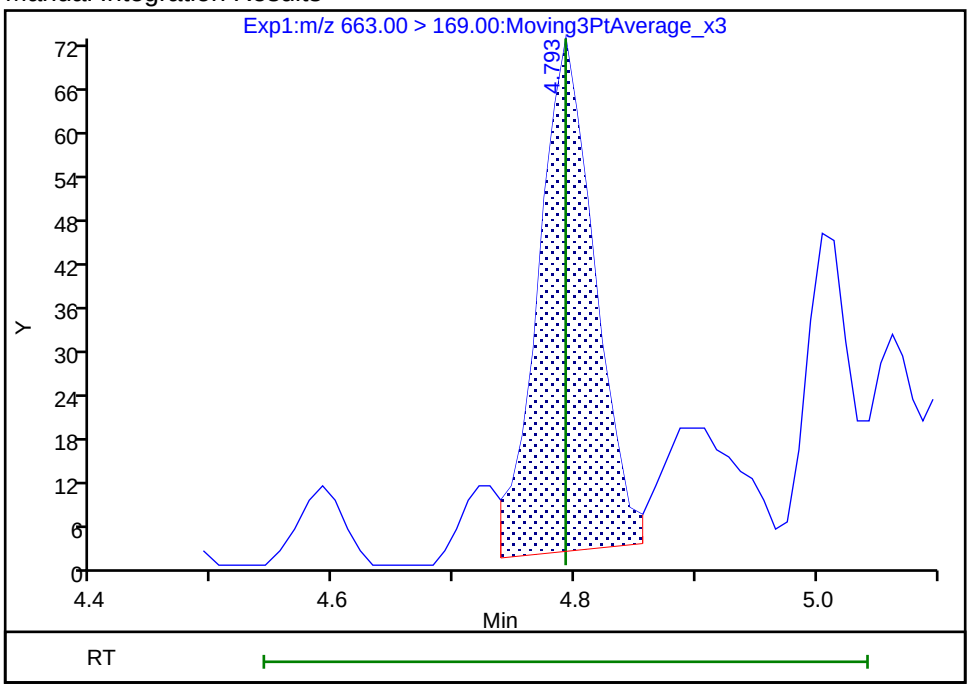
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 229
Amount: 0.001345
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:57:12
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

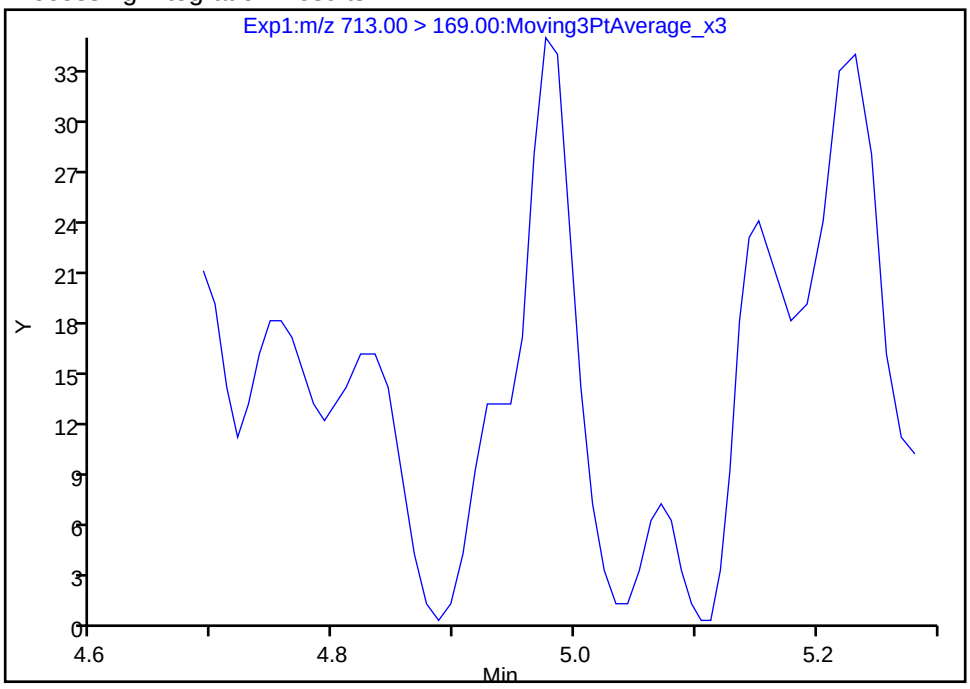
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

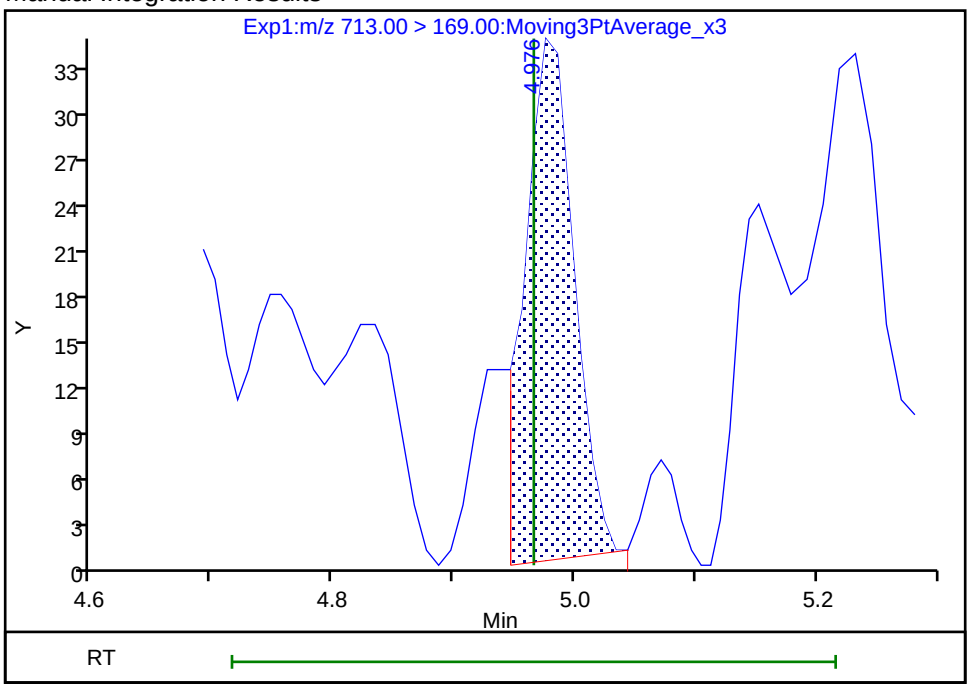
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 95
Amount: 0.000948
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:56:46
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

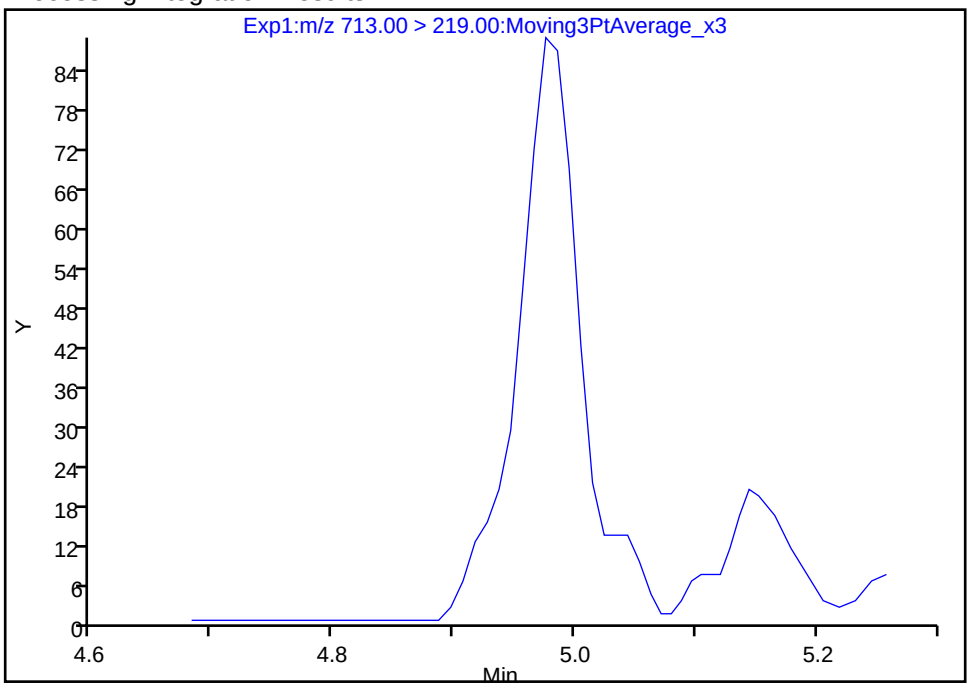
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

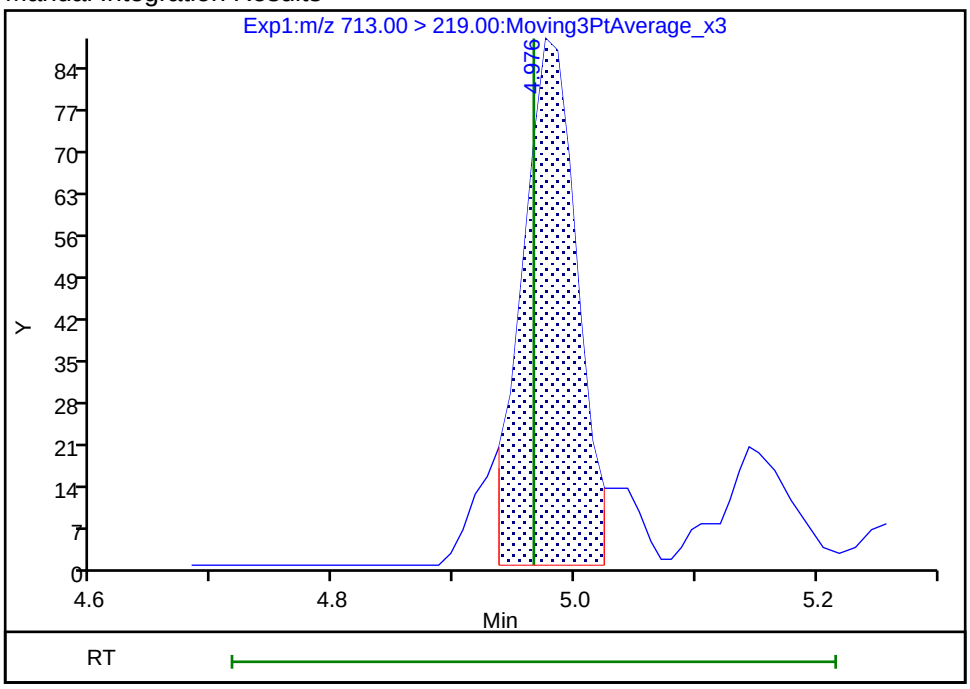
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 276
Amount: 0.000948
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:56:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

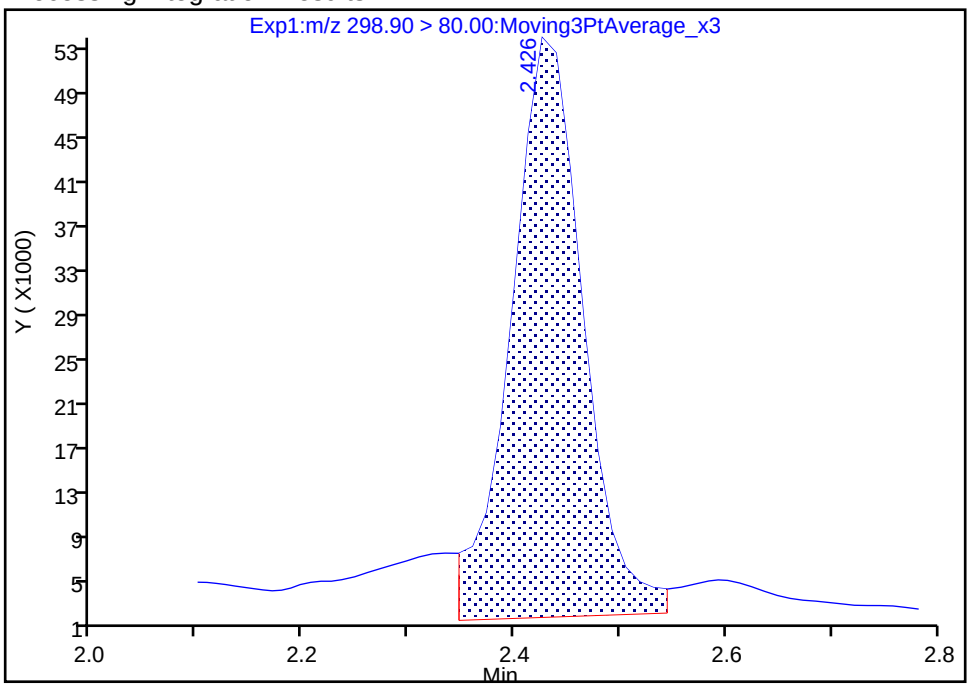
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

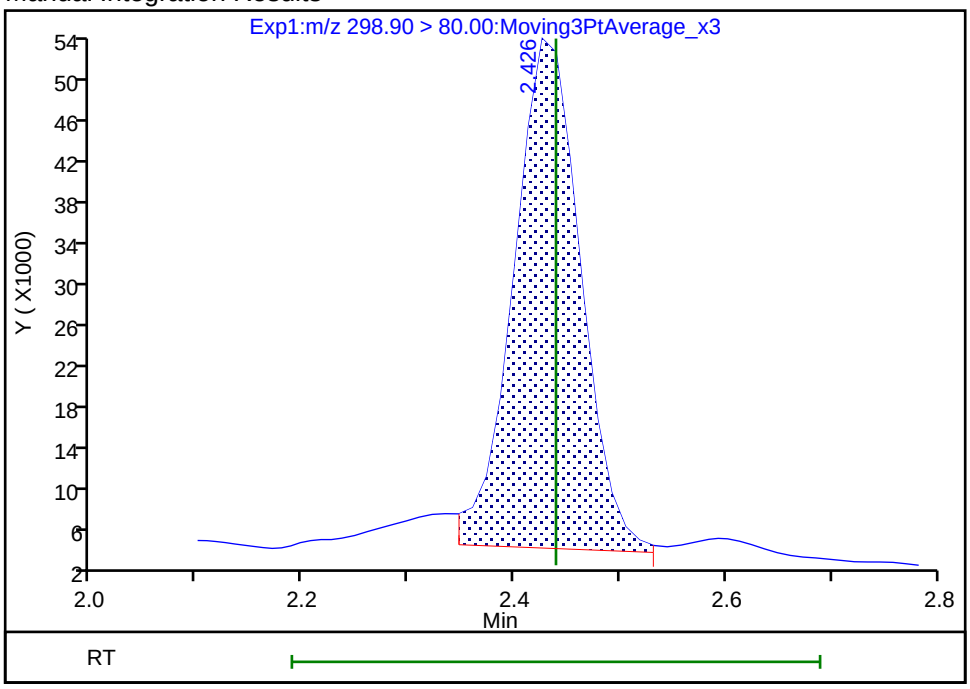
Processing Integration Results

RT: 2.43
Area: 244873
Amount: 0.168985
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 217499
Amount: 0.150094
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

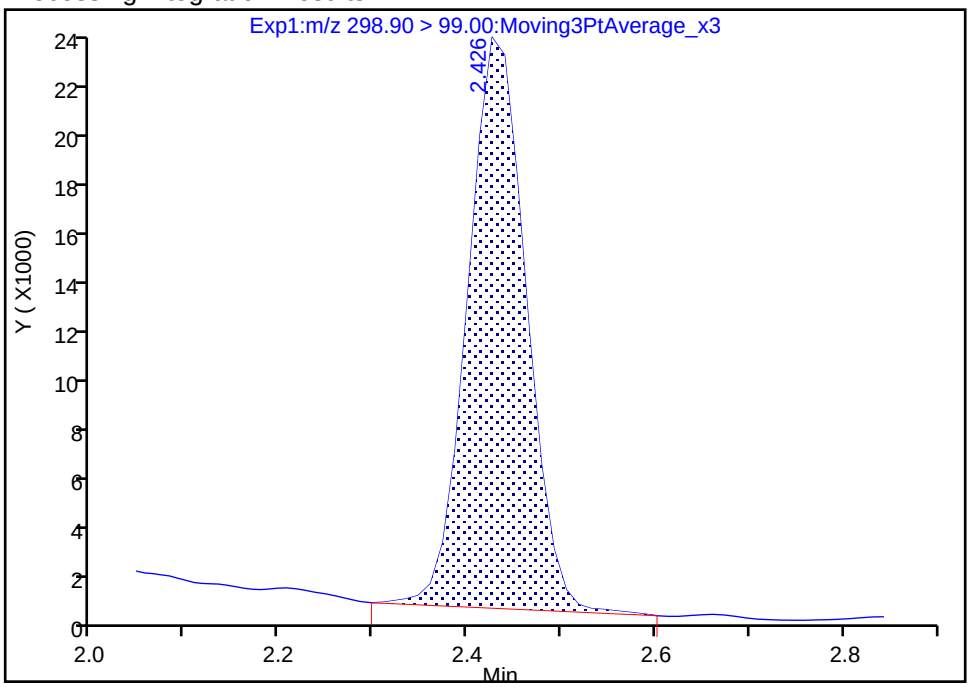
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

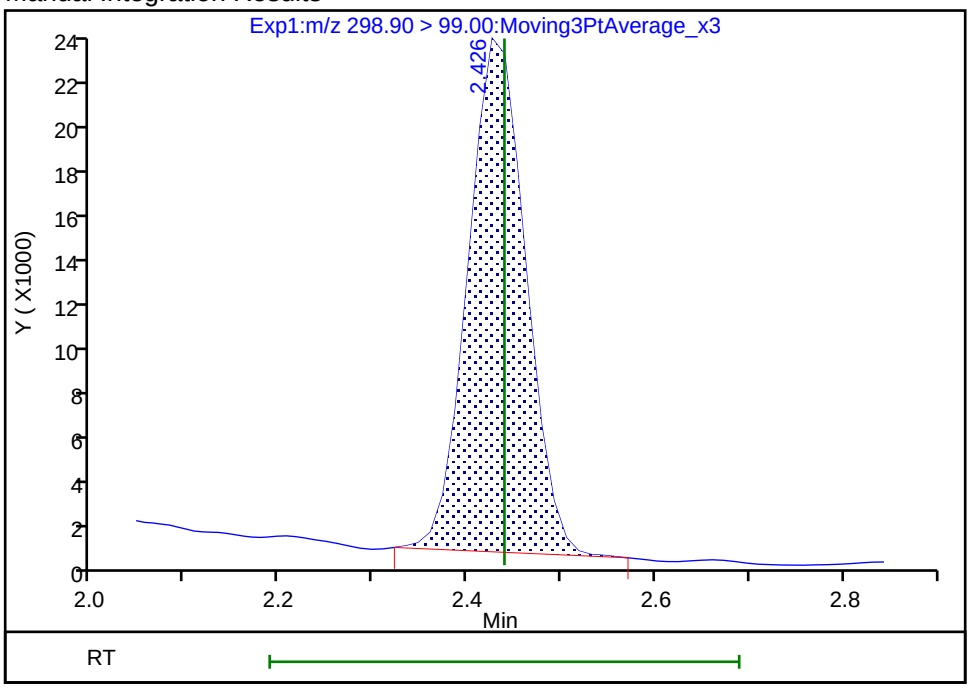
Processing Integration Results

RT: 2.43
Area: 95990
Amount: 0.168985
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 94283
Amount: 0.150094
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

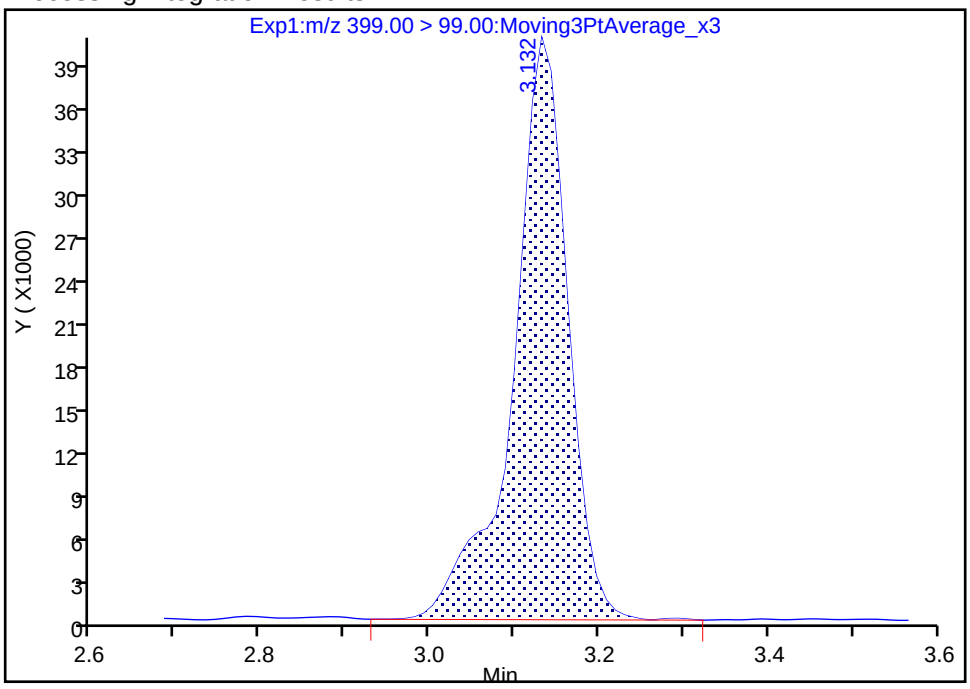
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

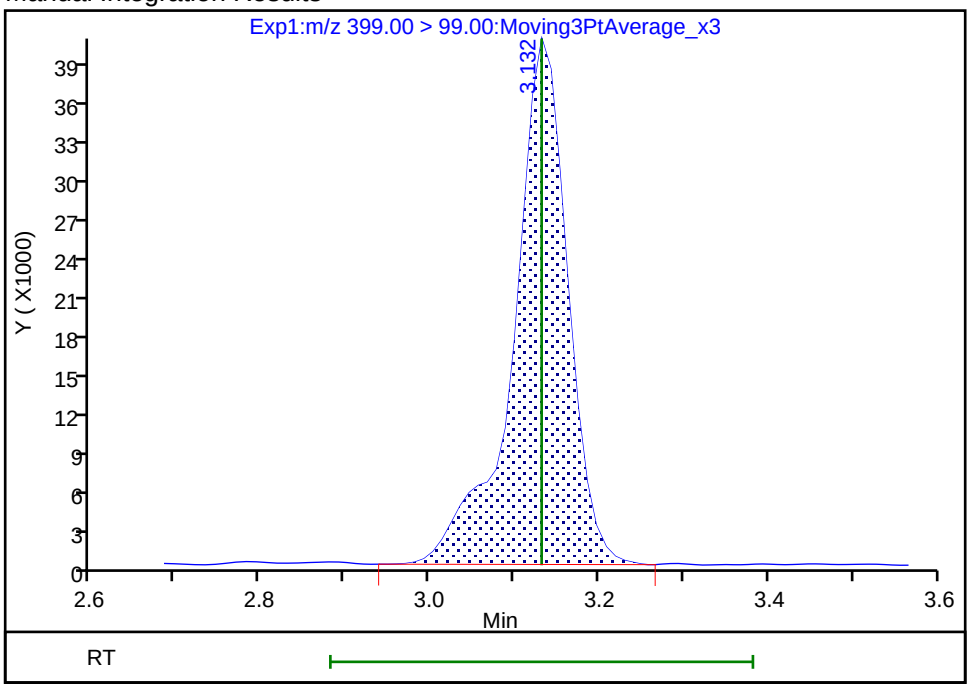
Processing Integration Results

RT: 3.13
Area: 178973
Amount: 0.635341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 178456
Amount: 0.619155
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

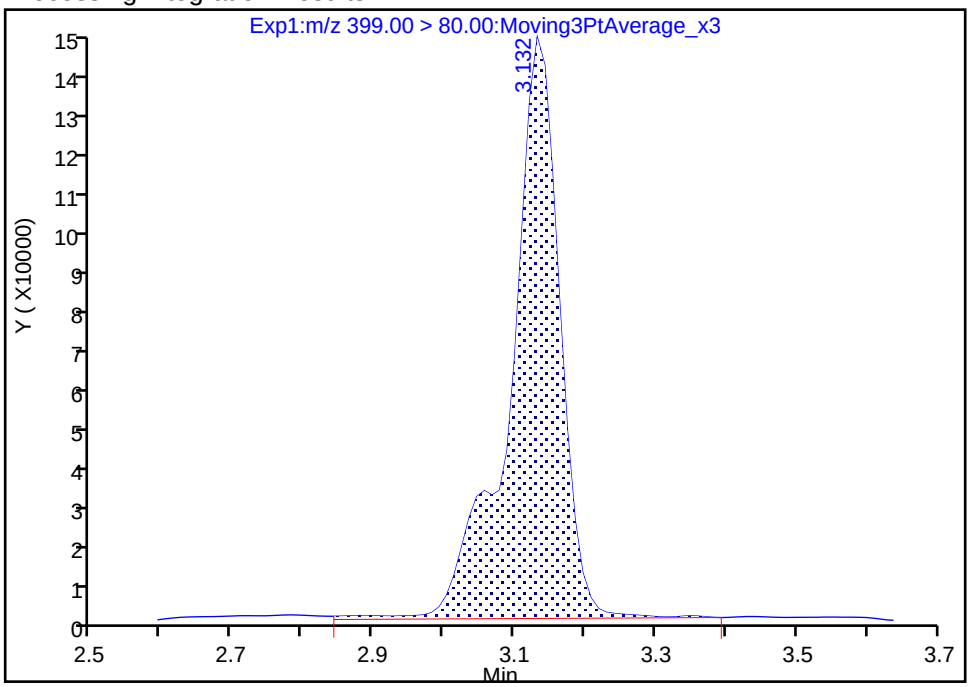
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

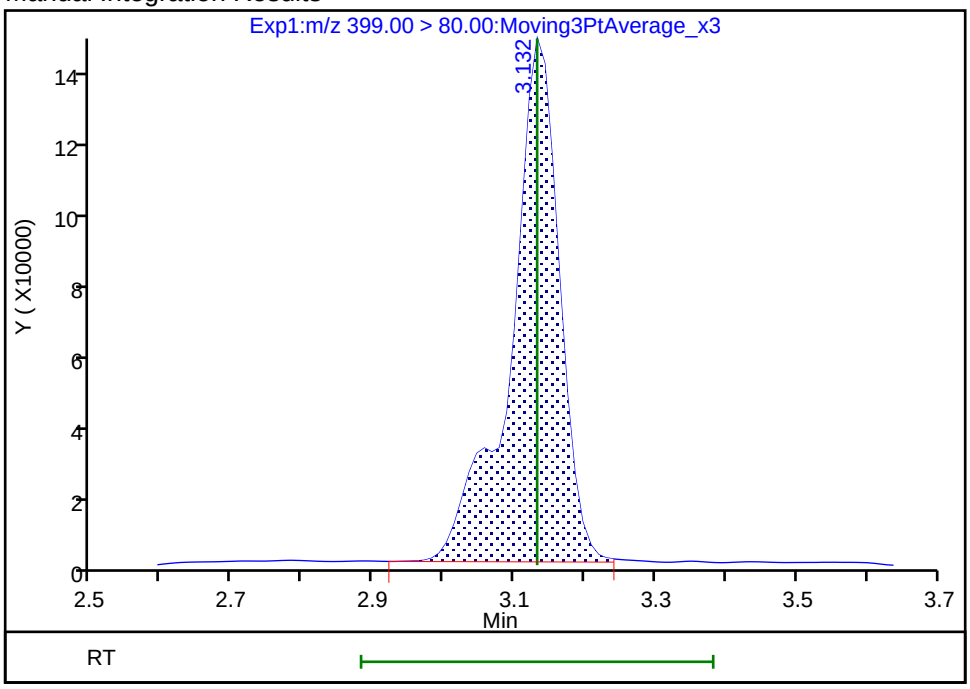
Processing Integration Results

RT: 3.13
Area: 700306
Amount: 0.635341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 682464
Amount: 0.619155
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:40:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

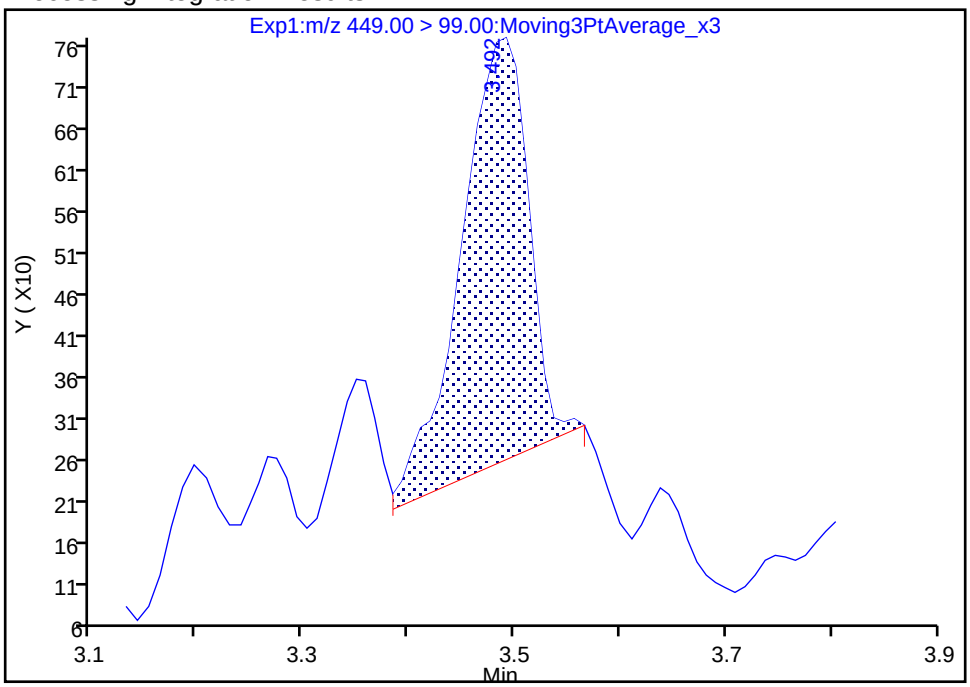
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

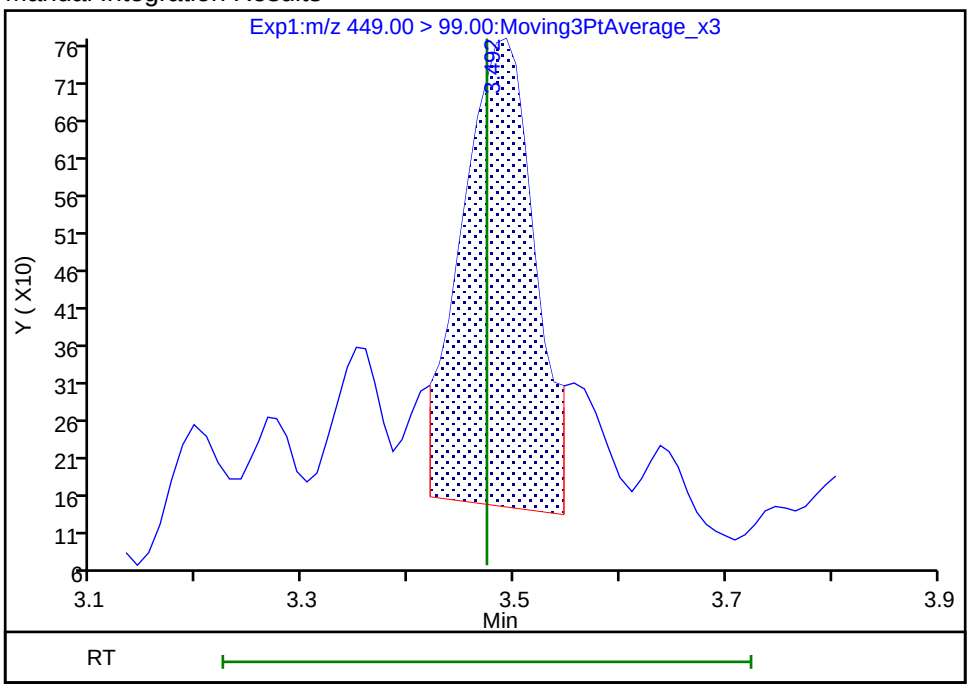
Processing Integration Results

RT: 3.49
Area: 2285
Amount: 0.008549
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 2993
Amount: 0.009207
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:41:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

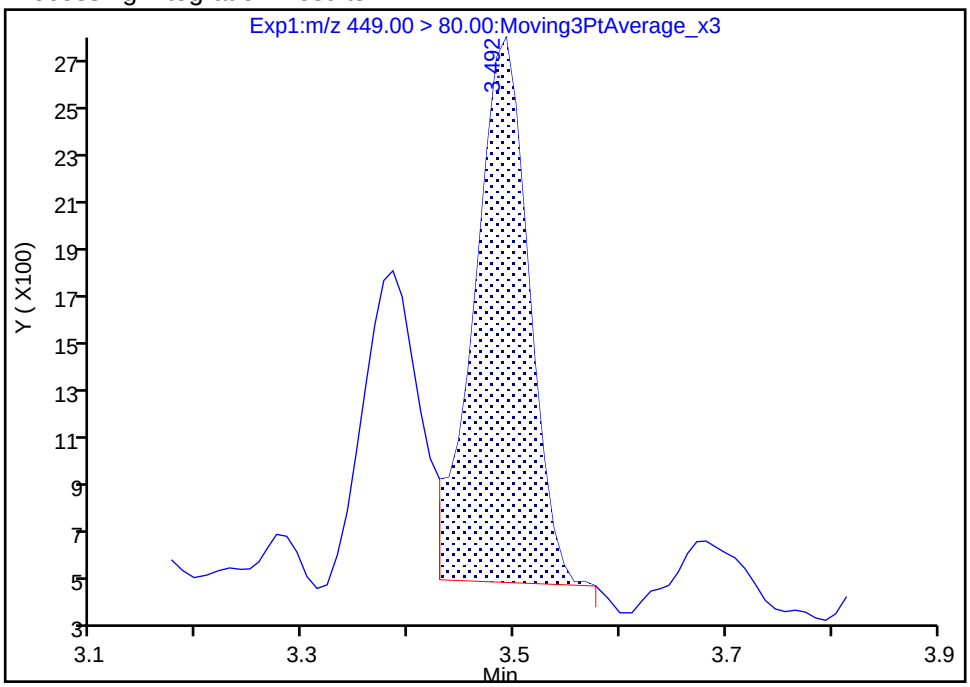
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

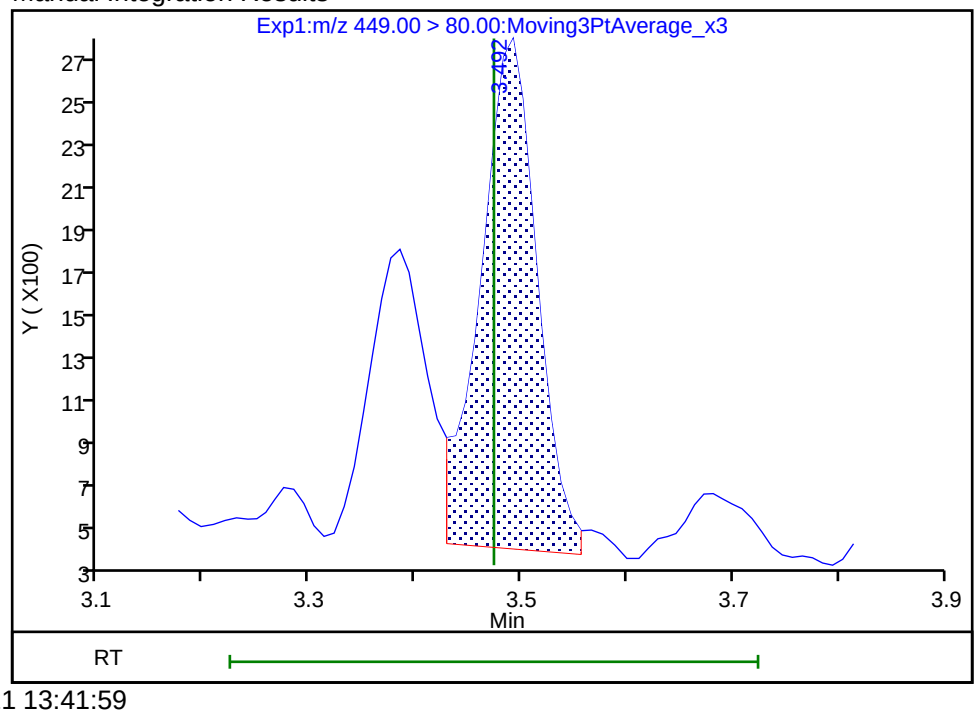
Processing Integration Results

RT: 3.49
Area: 8044
Amount: 0.008549
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 8663
Amount: 0.009207
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:41:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

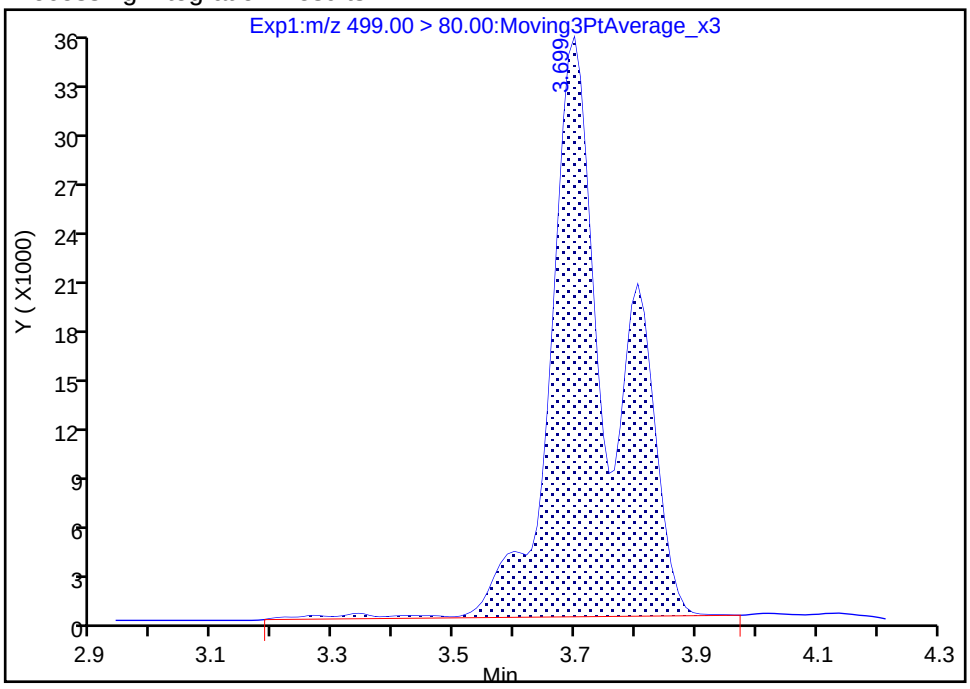
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

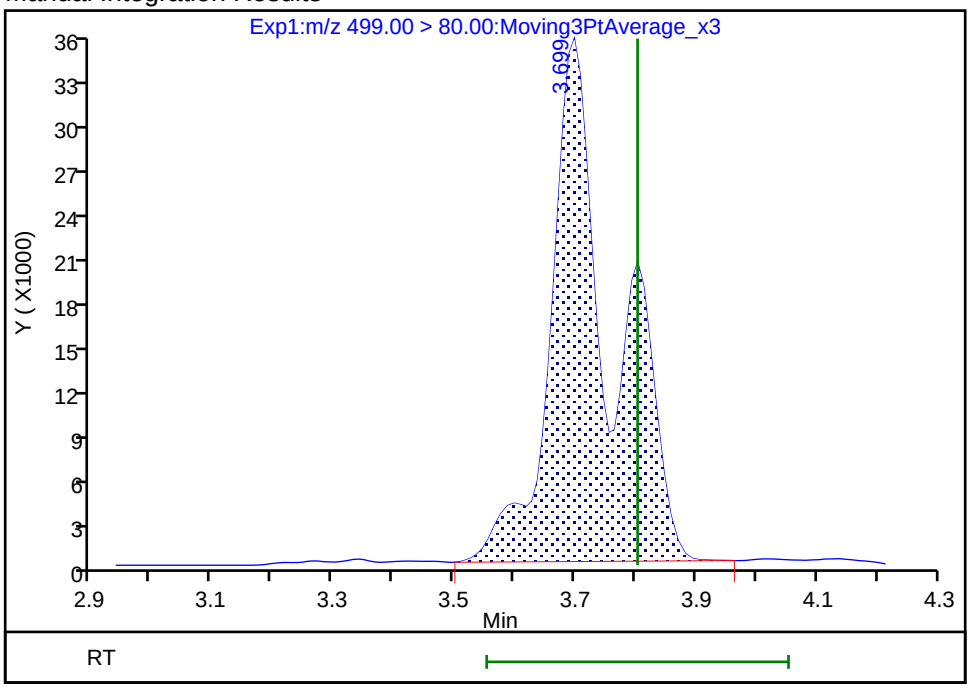
Processing Integration Results

RT: 3.70
Area: 260402
Amount: 0.317959
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 256878
Amount: 0.313656
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:42:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

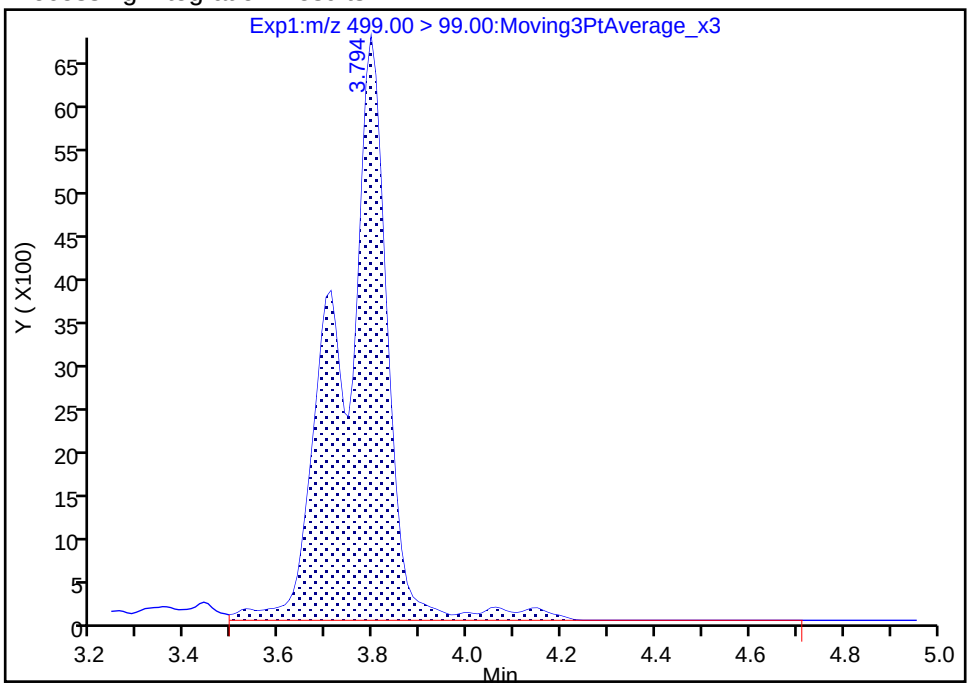
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

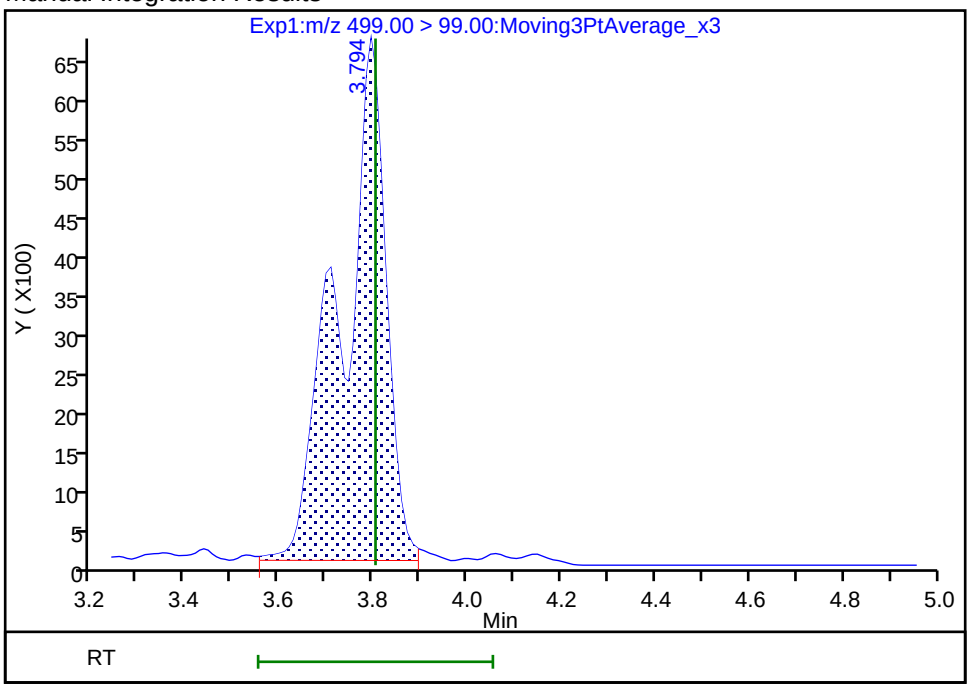
Processing Integration Results

RT: 3.79
Area: 48361
Amount: 0.317959
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 44694
Amount: 0.313656
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:43:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

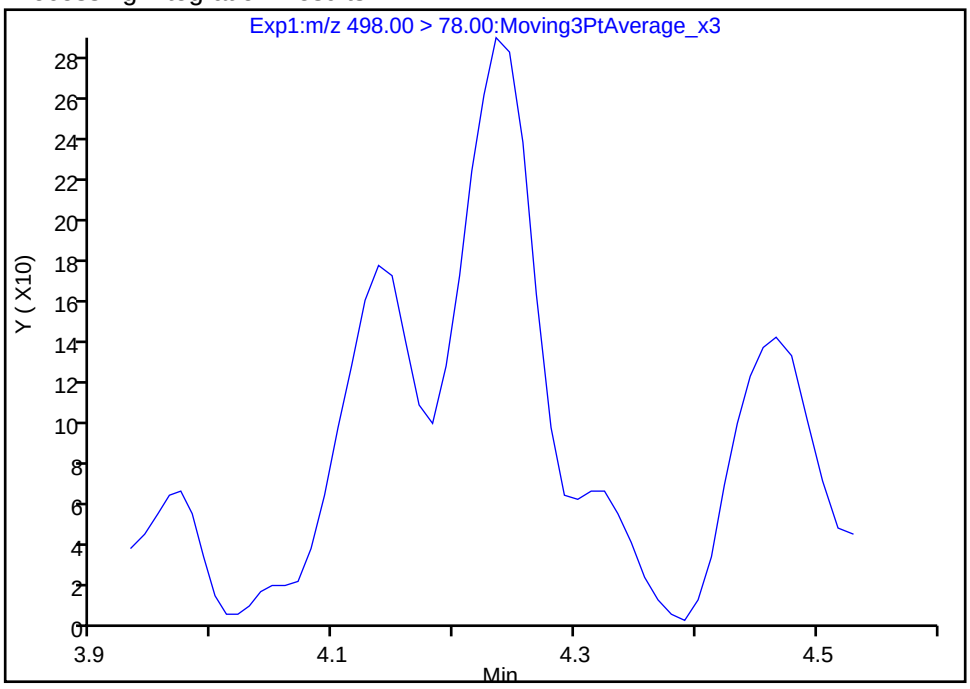
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

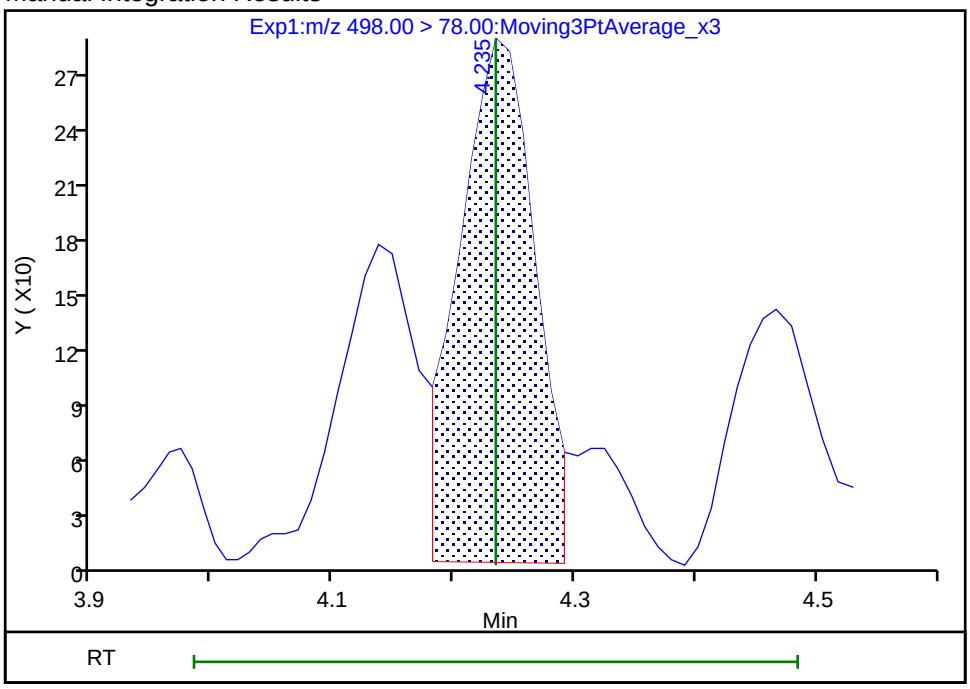
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 1217
Amount: 0.001098
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:56:05
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

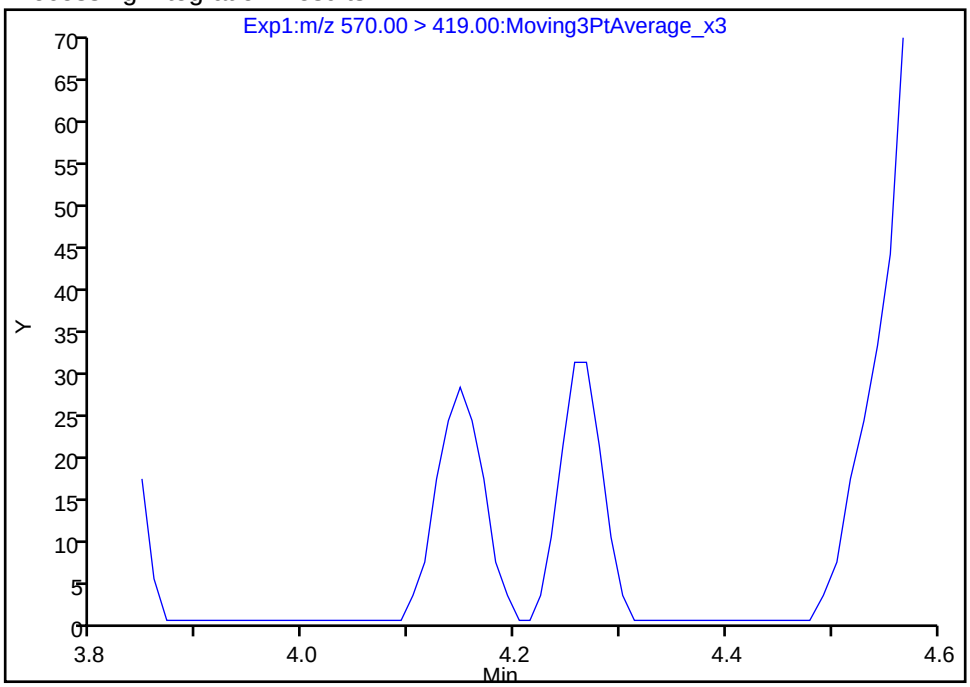
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

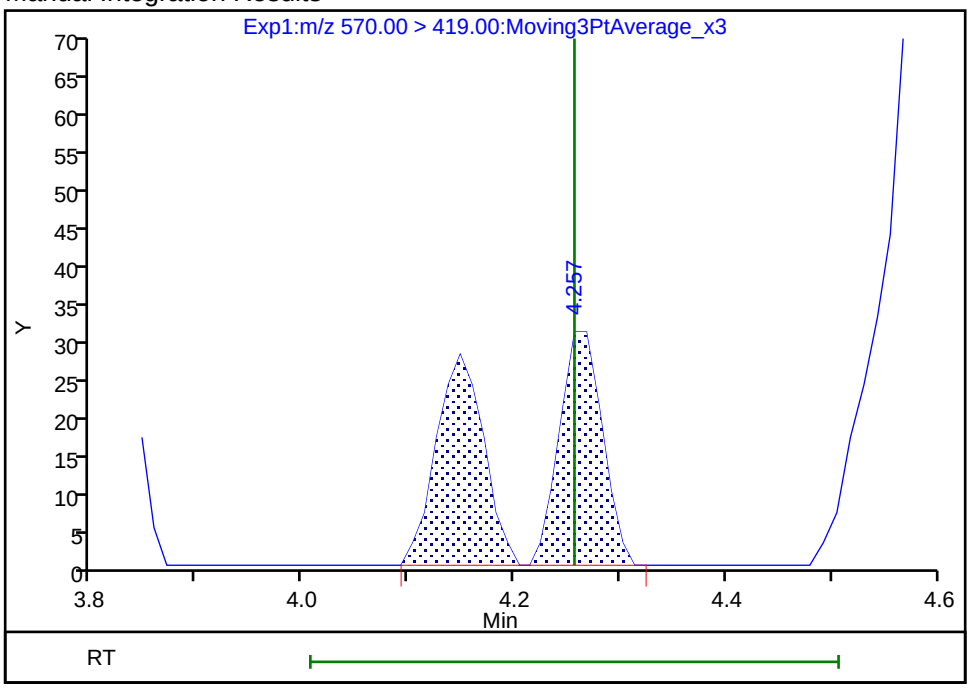
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.26
Area: 175
Amount: 0.001985
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:56:13
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

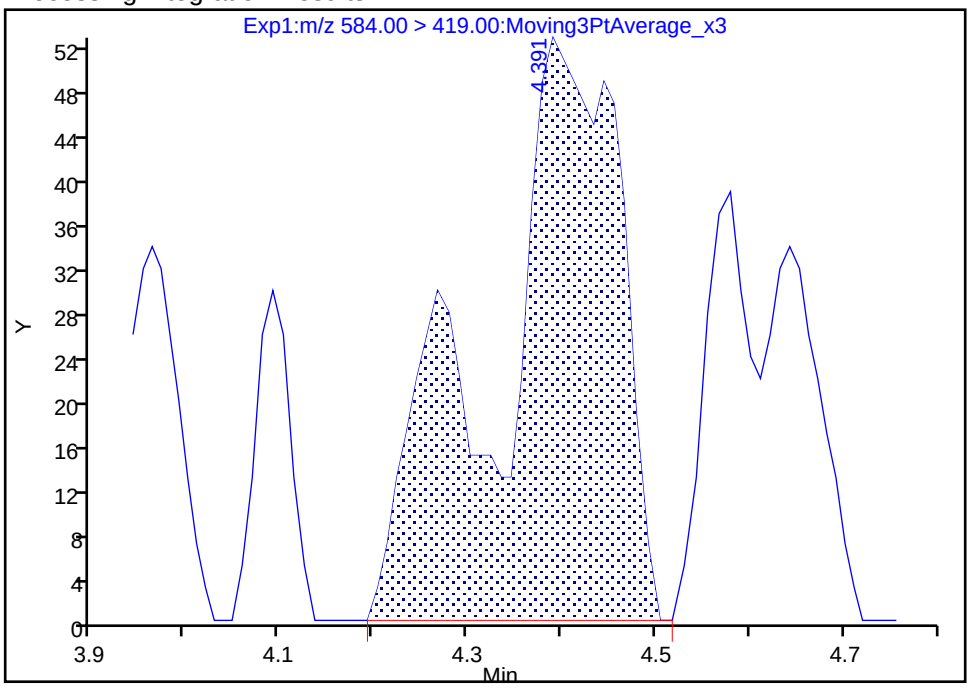
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

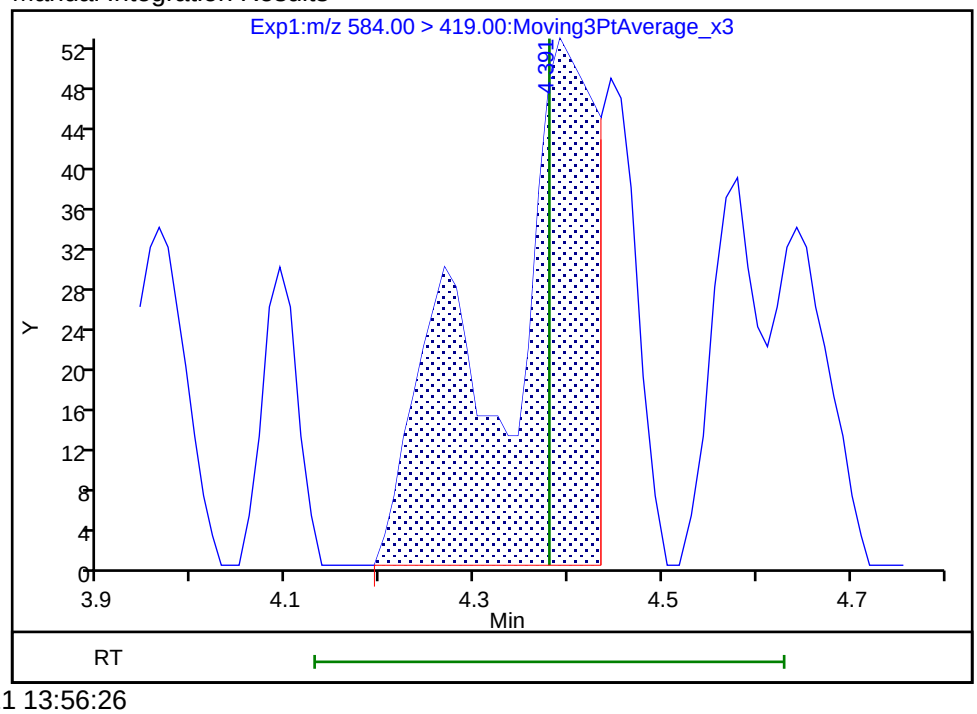
Processing Integration Results

RT: 4.39
Area: 500
Amount: 0.005016
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 377
Amount: 0.003782
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:56:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

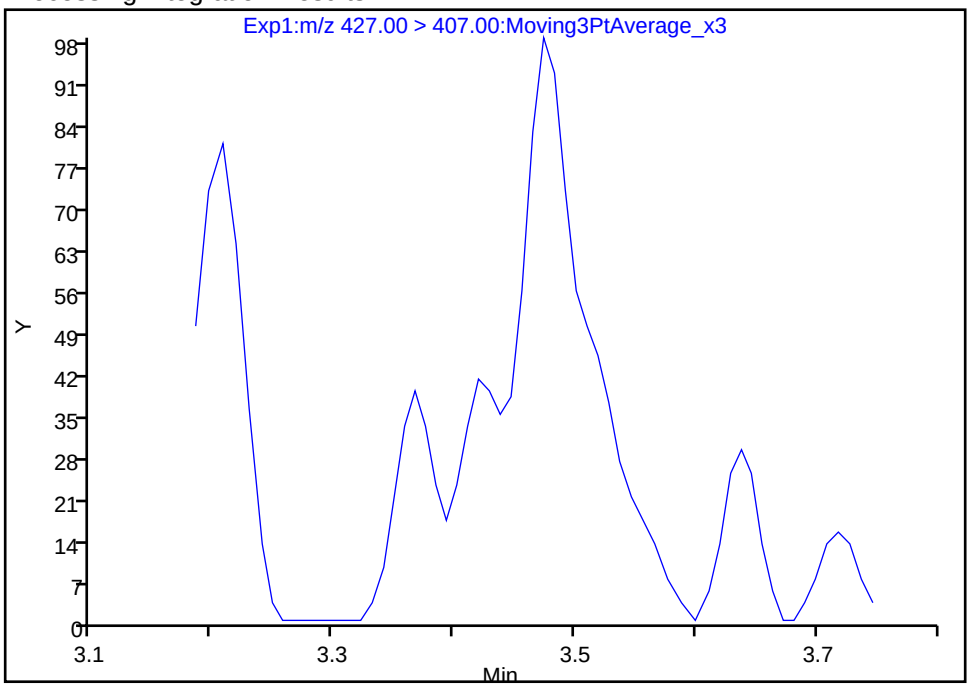
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

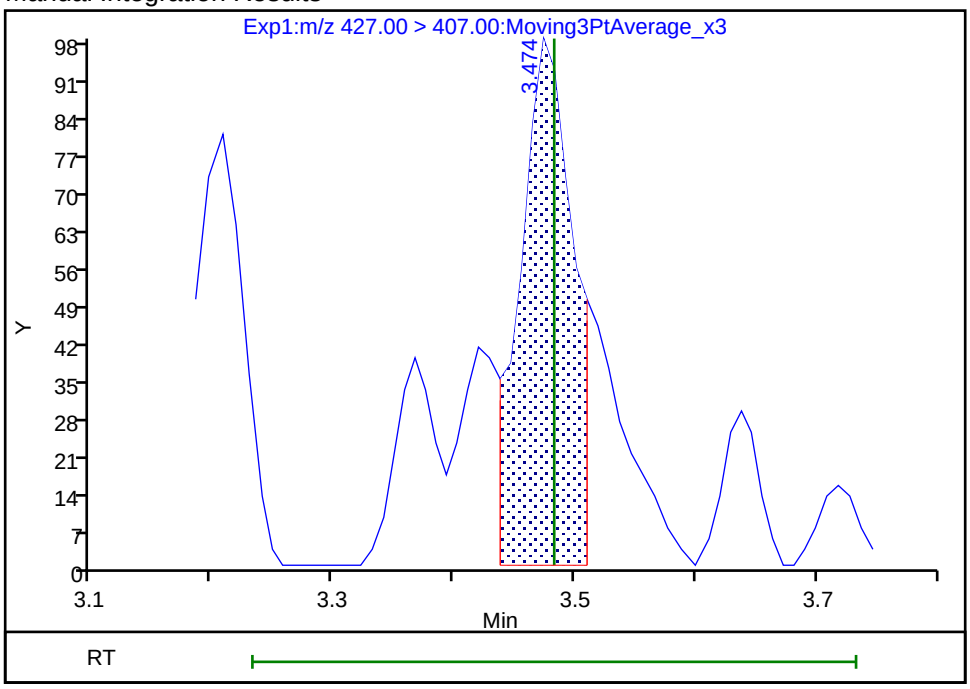
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 291
Amount: 0.001235
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:42:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

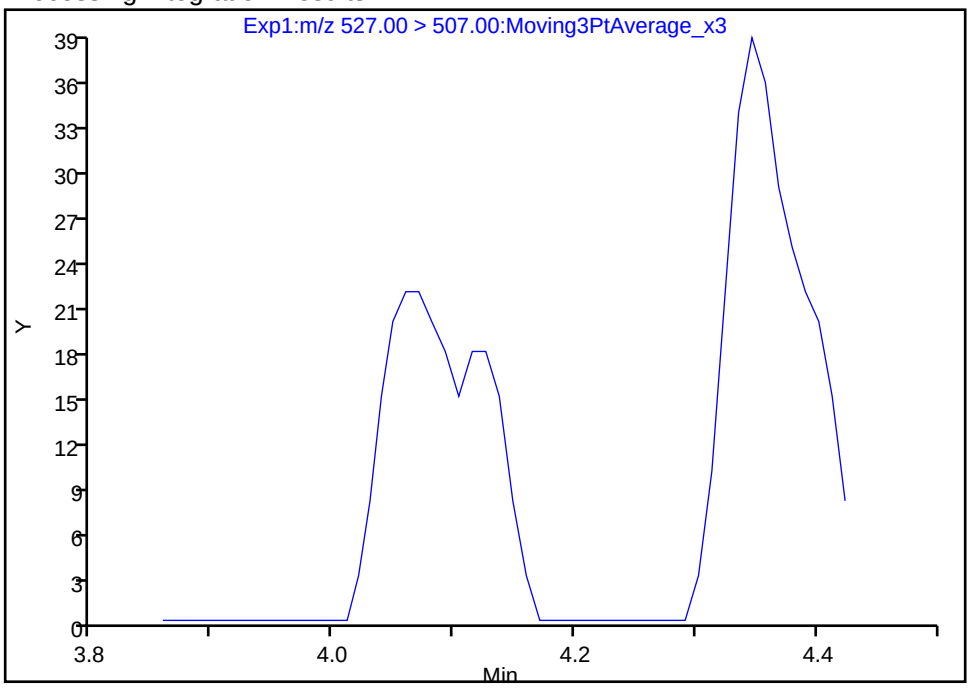
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D07.d | | | | |
| Injection Date: | 10-Nov-2021 05:01:18 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-3-A | Lab Sample ID: | 200-246277-3 | | |
| Client ID: | AMW-2-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

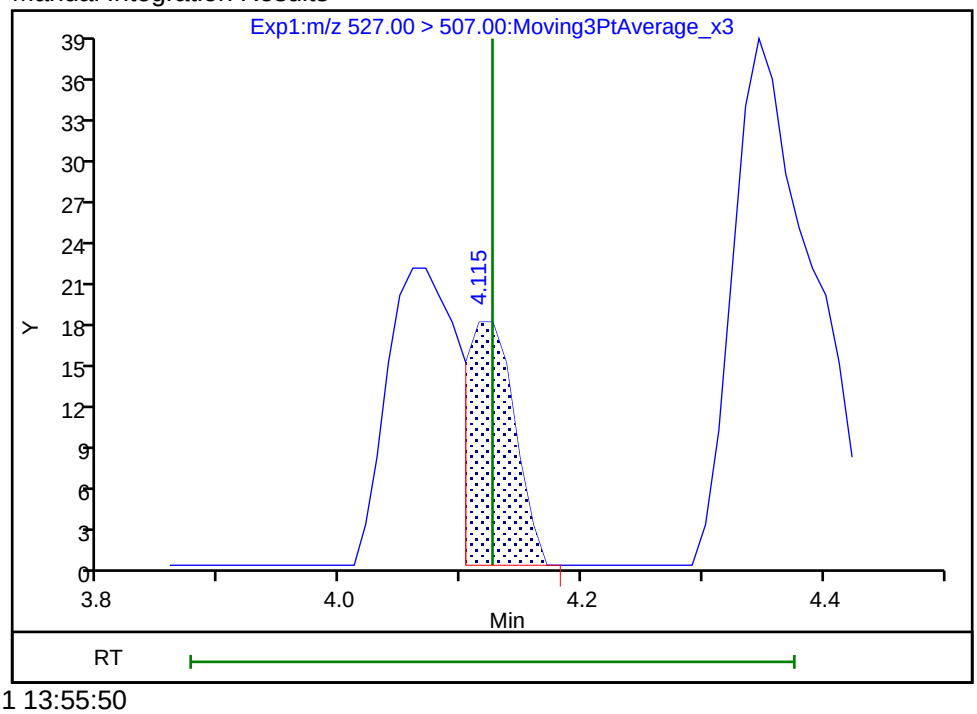
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 46
Amount: 0.000263
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:55:50
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-1-20211027  Lab Sample ID: 460-246277-4

Matrix: Water  Lab File ID: PA211109D08.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:50

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 274.2(mL)  Date Analyzed: 11/10/2021 05:09

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 13.9 | | 4.56 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 11.7 | | 1.82 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 14.4 | | 1.82 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 6.31 | | 1.82 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 30.7 | | 1.82 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.59 | J | 1.82 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.78 | J | 1.82 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.37 | J | 1.82 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.82 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.82 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 12.1 | | 1.82 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 81.5 | | 1.82 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.05 | J | 1.82 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 25.0 | | 1.82 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.82 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.79 | J B | 4.56 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 3.15 | J | 4.56 | 1.00 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.82 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-1-20211027  Lab Sample ID: 460-246277-4

Matrix: Water  Lab File ID: PA211109D08.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:50

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 274.2(mL)  Date Analyzed: 11/10/2021 05:09

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 96 | | 50-150 |
| STL01892 | 13C4 PFHpA | 96 | | 50-150 |
| STL00990 | 13C4 PFOA | 98 | | 50-150 |
| STL00991 | 13C4 PFOS | 104 | | 50-150 |
| STL00995 | 13C5 PFNA | 99 | | 50-150 |
| STL00992 | 13C4 PFBA | 75 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 98 | | 50-150 |
| STL00997 | 13C2 PFUnA | 95 | | 50-150 |
| STL00998 | 13C2 PFDoA | 91 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 89 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 84 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 107 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 115 | | 50-150 |
| STL02279 | M2-6:2 FTS | 126 | | 25-150 |
| STL02280 | M2-8:2 FTS | 143 | | 25-150 |
| STL02337 | 13C3 PFBS | 97 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d
Lims ID: 460-246277-C-4-A
Client ID: AMW-1-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:09:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-4-A
Misc. Info.: 200-0048356-008 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 14:43:32
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.600 | 1087427 | 0.9385 | | 75.1 | 1842 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 313657 | 0.3813 | | | 14.8 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.413 | -0.013 | 0.689 | 1085391 | 1.11 | | 89.0 | 335 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.005 | 278747 | 0.3205 | | | 1.1 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.697 | 1493310 | 1.13 | | 97.3 | 24747 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 455123 | 0.3317 | Target=2.32 | | 8.5 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 186126 | | 2.45(1.16-3.48) | | 17.0 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.770 | -0.012 | 0.792 | 1243111 | 1.21 | | 97.1 | 1801 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.770 | -0.012 | 1.000 | 397009 | 0.3936 | Target=12.09 | | 3.9 | M |
| 313.00 > 119.00 | 2.758 | 2.770 | -0.012 | 1.000 | 28388 | | 13.99(6.04-18.13) | | 11.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2271767 | 2.23 | Target=3.55 | | 191 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 605618 | | 3.75(1.77-5.32) | | 260 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1093251 | 1.14 | | 96.3 | 2514 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1295298 | 1.20 | | 96.1 | 3027 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 185192 | 0.1730 | Target=3.69 | | 5.2 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 47185 | | 3.92(1.84-5.53) | | 51.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 25919 | 0.0289 | Target=4.88 | | 3.6 | M |
| 449.00 > 99.00 | 3.465 | 3.474 | -0.009 | 0.913 | 7860 | | 3.30(2.44-7.32) | | 5.0 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.003 | 20917 | 0.0865 | | | 266 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.997 | 226513 | 1.50 | | 126 | 55.3 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 1.000 | 1447456 | 1.23 | | 98.3 | 2355 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.492 | -0.009 | | 1430924 | 1.25 | | | 3886 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.003 | 1038074 | 0.8430 | Target=2.68 | | 33.1 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.003 | 430330 | | 2.41(1.34-4.02) | | 430 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 859515 | 1.24 | | 104 | 275 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.804 | -0.010 | 1.000 | 535603 | 0.6863 | Target=4.69 | | 79.2 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 104321 | | 5.13(2.35-7.04) | | 76.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 1449432 | 1.24 | | 98.8 | 2920 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 49525 | 0.0437 | Target=7.29 | | 4.3 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 5656 | | 8.76(3.64-10.93) | | 16.4 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.181 | 1447892 | 1.22 | | 97.8 | 4813 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 24870 | 0.0214 | Target=8.95 | | 3.8 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 3423 | | 7.27(4.47-13.42) | | 15.9 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.185 | 294128 | 1.71 | | 143 | 179 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 795 | 0.003869 | | | 14.4 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.213 | 1292090 | 1.13 | | 90.5 | 2364 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 12868 | 0.0131 | | | 18.1 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.222 | 155278 | 1.33 | | 107 | 1029 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.257 | -0.011 | 0.997 | 797 | 0.008167 | | | 3.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.369 | 0.002 | 1.255 | 1096804 | 1.19 | | 95.1 | 6053 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.370 | 4.369 | 0.002 | 1.000 | 9400 | 0.0100 | Target=9.24 | | 2.7 | M |
| 563.00 > 169.00 | 4.370 | 4.369 | 0.002 | 1.000 | 1949 | | 4.82(4.62-13.86) | | 11.7 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.258 | 156664 | 1.44 | | 115 | 1025 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.000 | 2326 | 0.0217 | | | 12.1 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.591 | 0.0 | 1.318 | 1129189 | 1.14 | | 91.0 | 2204 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.429 | 811731 | 1.05 | | 84.3 | 3547 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.986 | 4.966 | 0.020 | 1.002 | 172 | 0.001678 | Target=1.01 | | 4.5 | RM |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 358 | | 0.48(0.51-1.52) | | 9.7 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d

Injection Date: 10-Nov-2021 05:09:30 Instrument ID: LC812

Lims ID: 460-246277-C-4-A Lab Sample ID: 200-246277-4

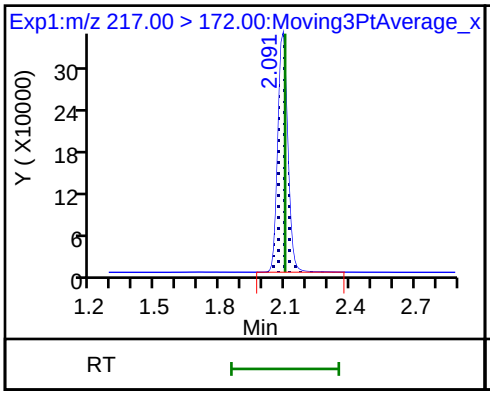
Client ID: AMW-1-20211027

Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 8

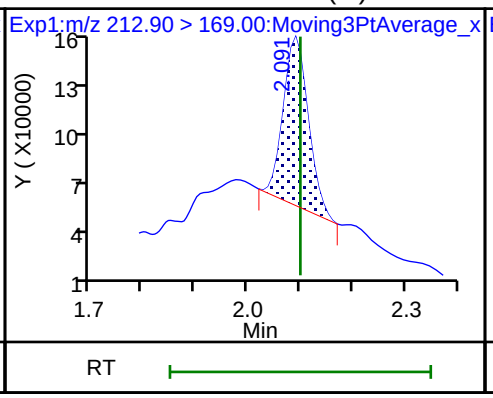
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

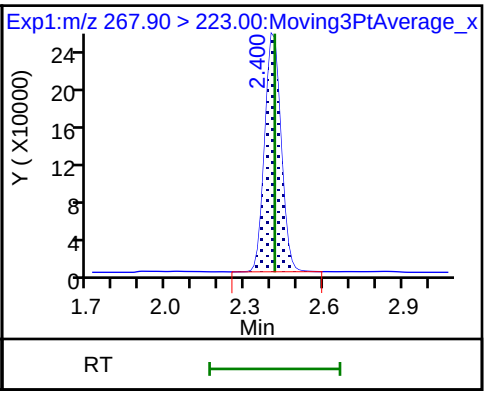
D 1 13C4 PFBA



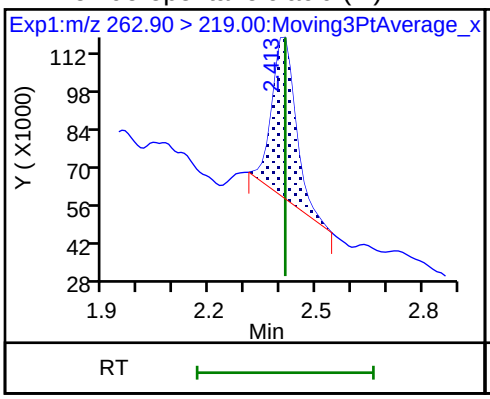

2 Perfluorobutanoic acid (M)



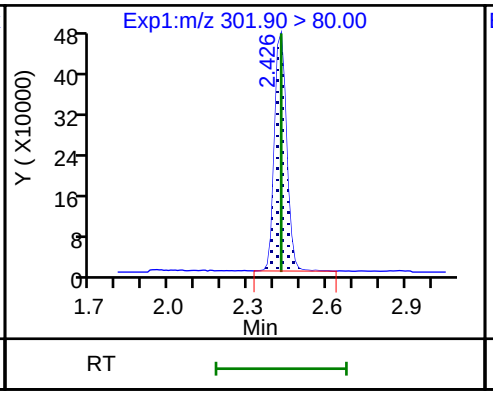

D 3 13C5 PFPeA



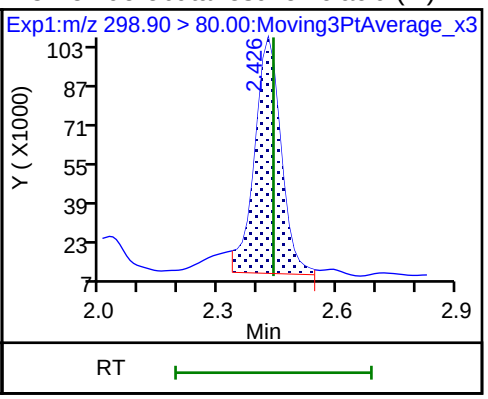

4 Perfluoropentanoic acid (M)



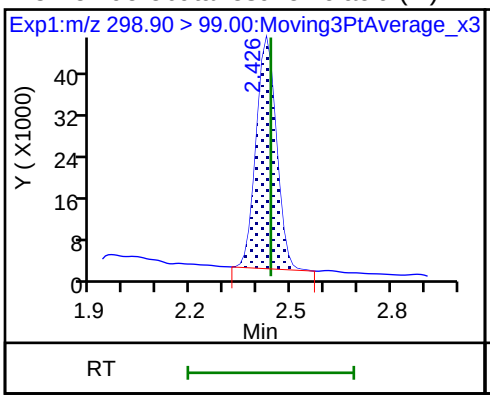

D 47 13C3 PFBS



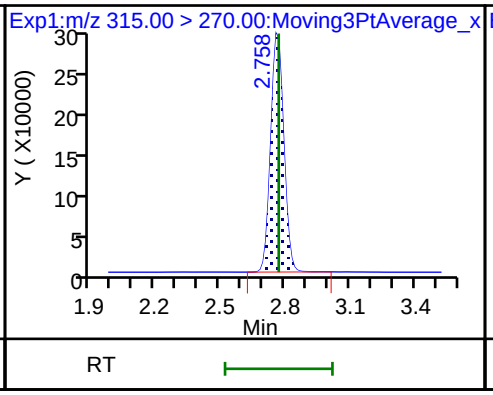

5 Perfluorobutanesulfonic acid (M)



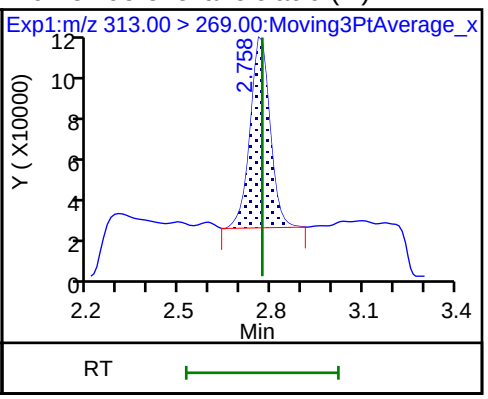

5 Perfluorobutanesulfonic acid (M)



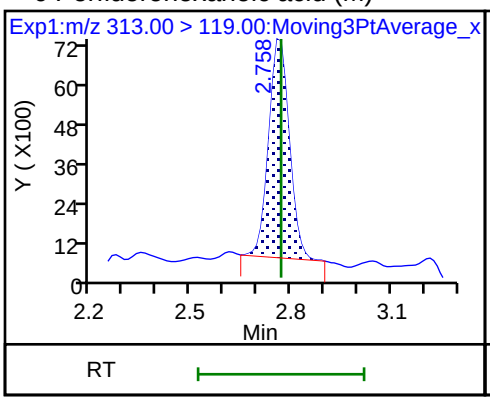

D 7 13C2 PFHxA



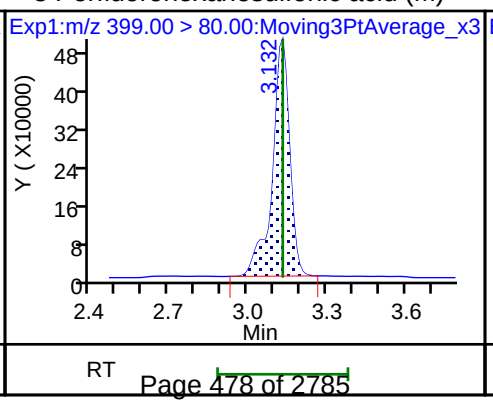

6 Perfluorohexanoic acid (M)



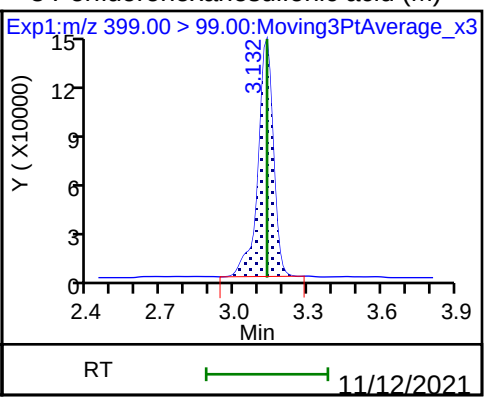

6 Perfluorohexanoic acid (M)



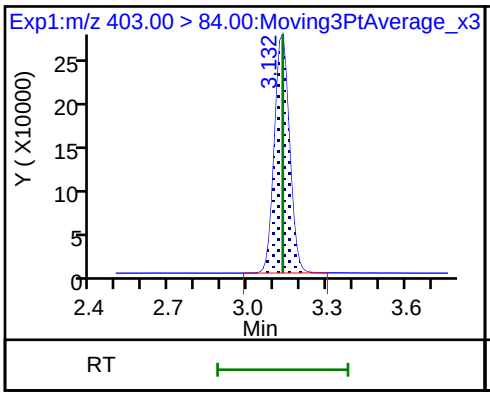

8 Perfluorohexanesulfonic acid (M)



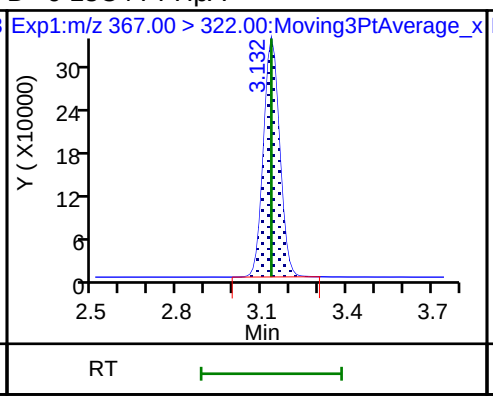

8 Perfluorohexanesulfonic acid (M)



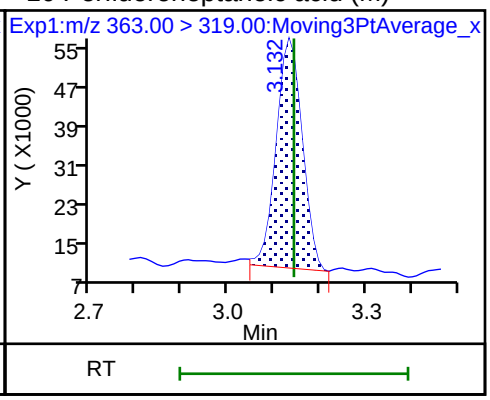
D 11 18O2 PFHxS



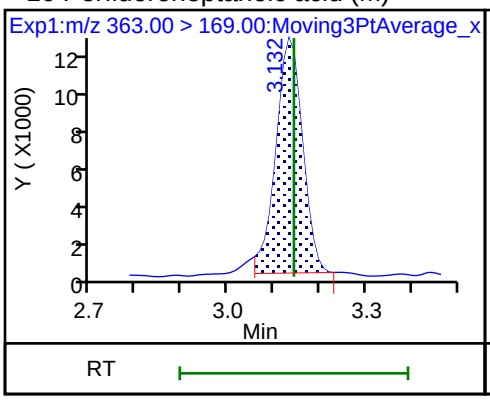

D 9 13C4 PFHpA



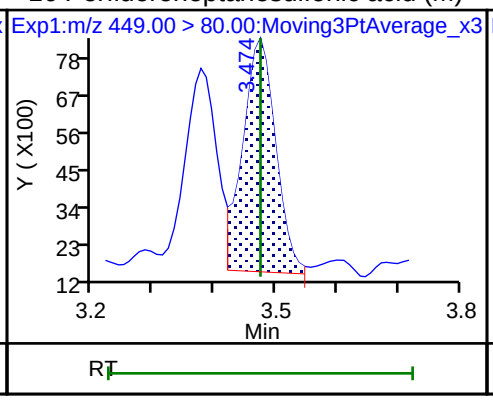

10 Perfluoroheptanoic acid (M)



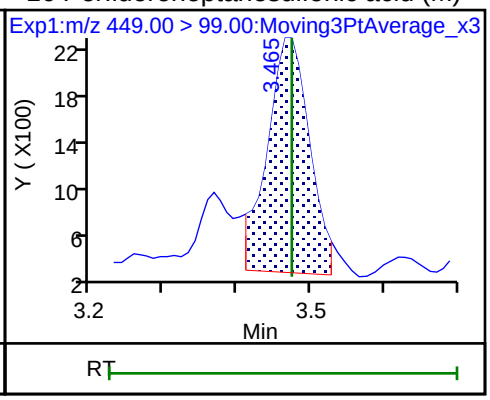

10 Perfluoroheptanoic acid (M)



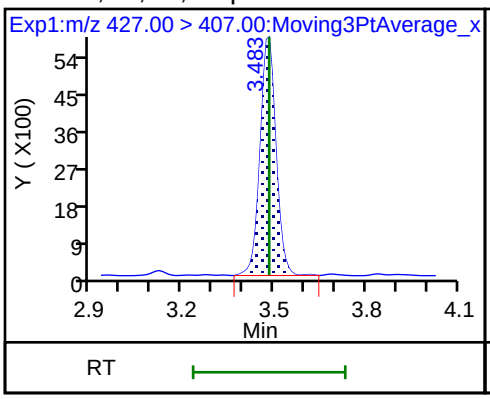

16 Perfluoroheptanesulfonic acid (M)



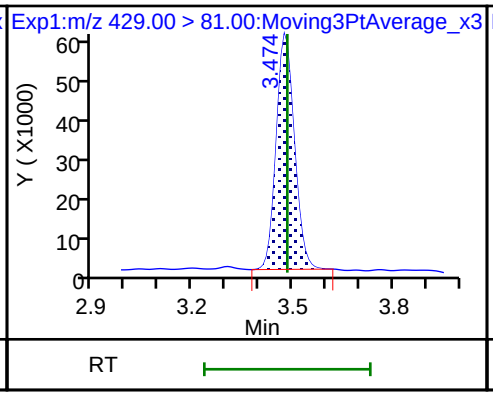

16 Perfluoroheptanesulfonic acid (M)



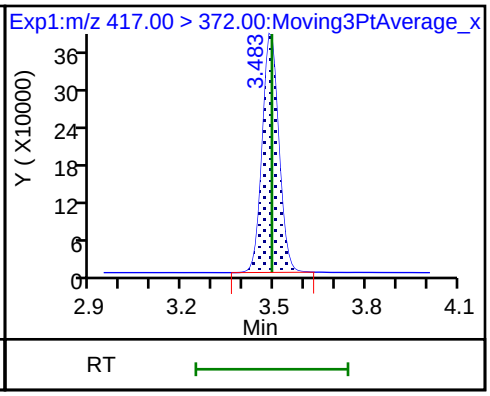

13 1H,1H,2H,2H-perfluorooctanesulfo



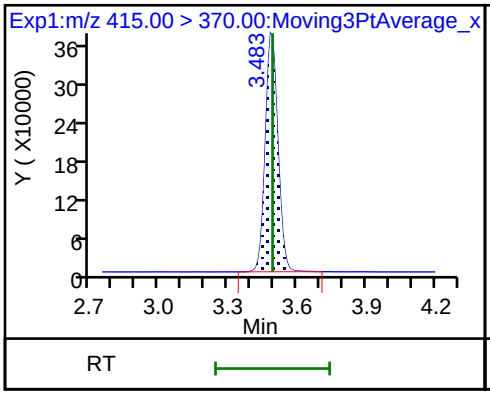

D 12 M2-6:2 FTS



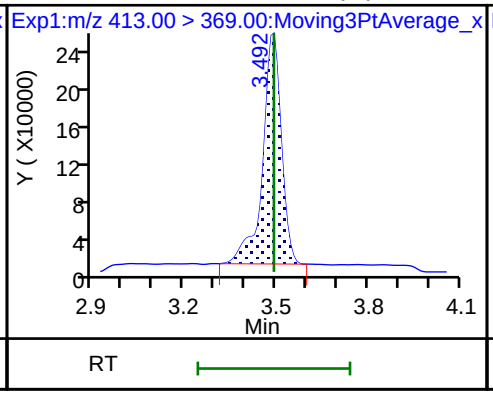

D 14 13C4 PFOA



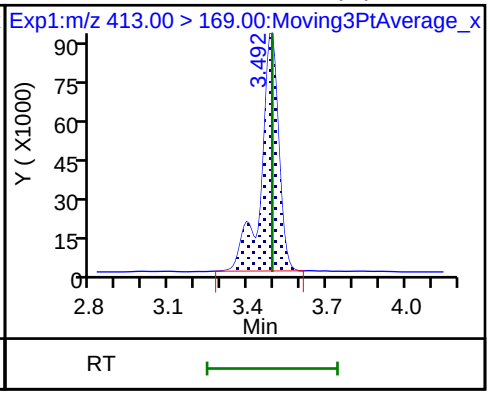

* 62 13C2 PFOA



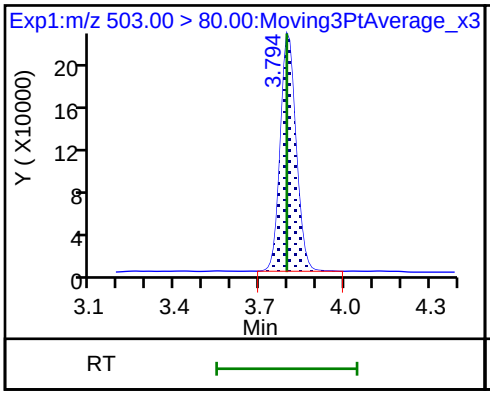

15 Perfluorooctanoic acid (M)



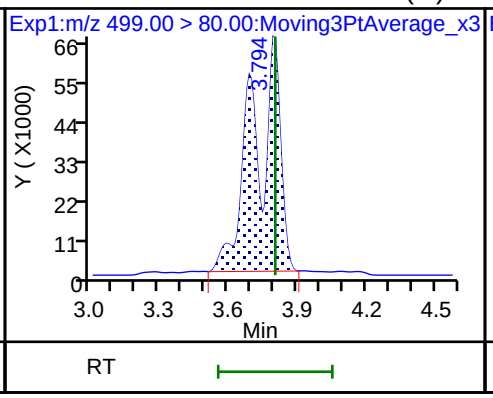

15 Perfluorooctanoic acid (M)



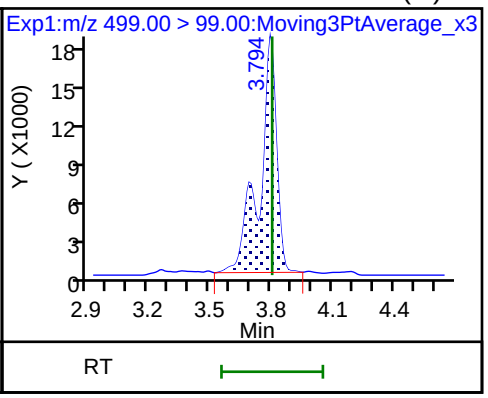
D 18 13C4 PFOS



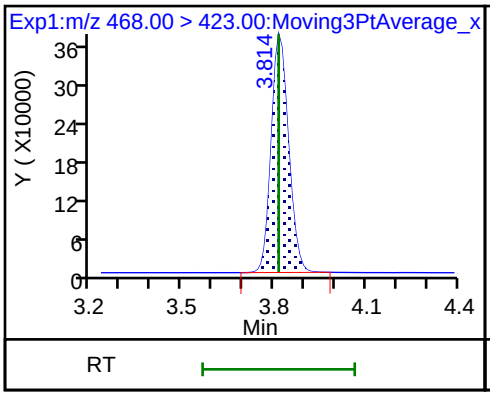

17 Perfluorooctanesulfonic acid (M)



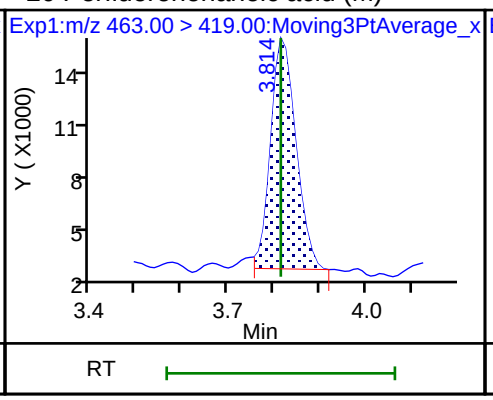

17 Perfluorooctanesulfonic acid (M)



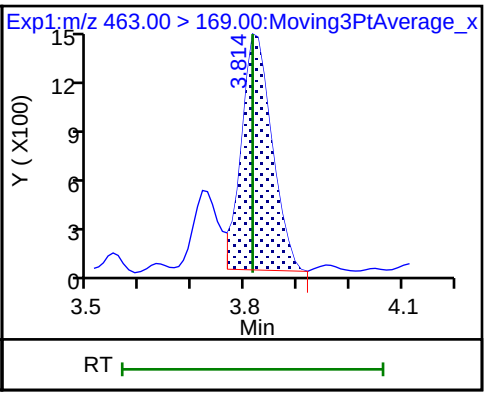

D 19 13C5 PFNA



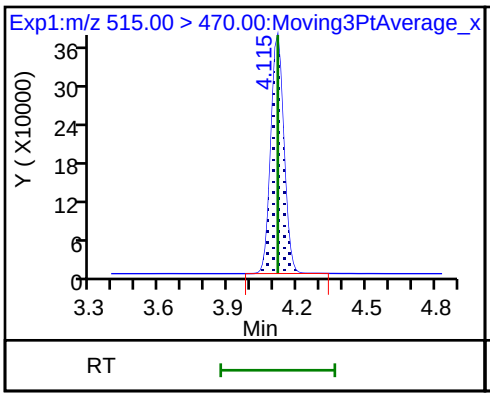

20 Perfluorononanoic acid (M)



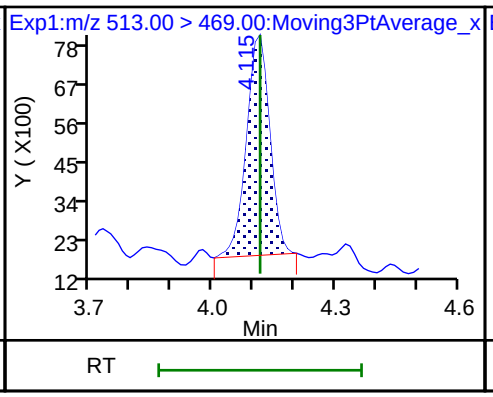

20 Perfluorononanoic acid



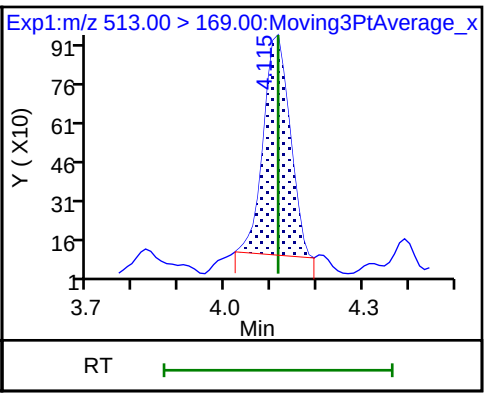

D 23 13C2 PFDA



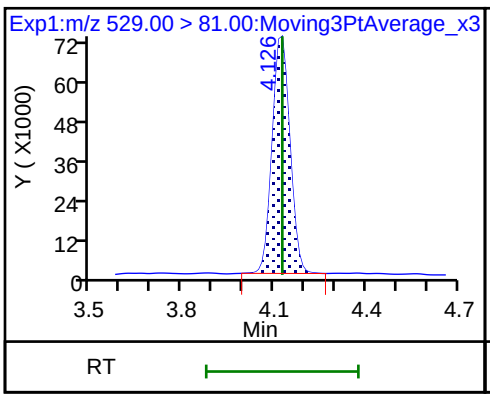

24 Perfluorodecanoic acid



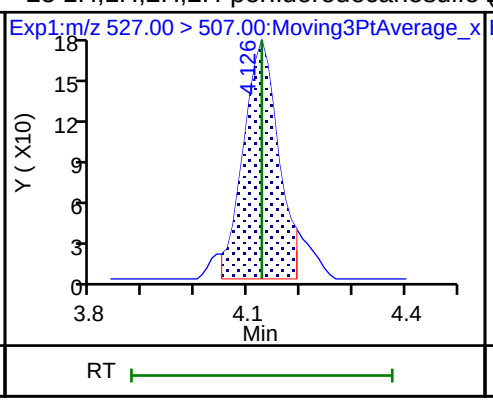

24 Perfluorodecanoic acid



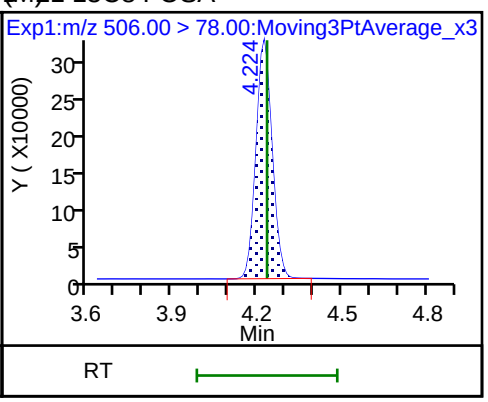

D 26 M2-8:2 FTS



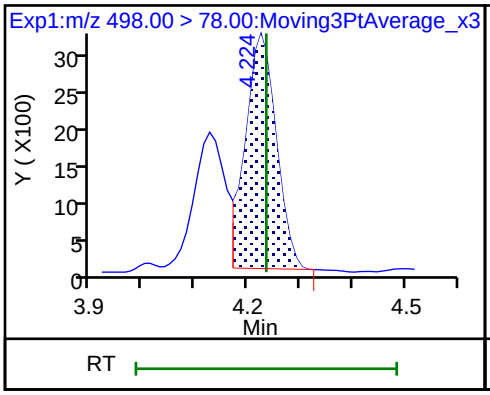

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



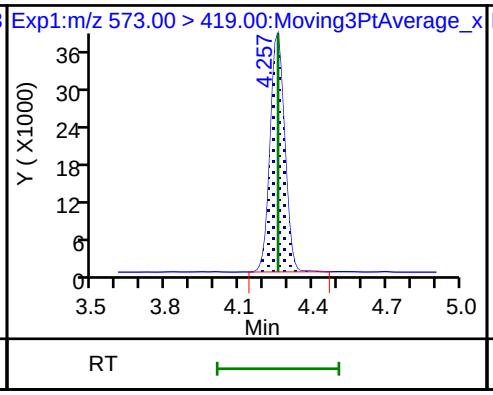

D 21 13C8 FOSA



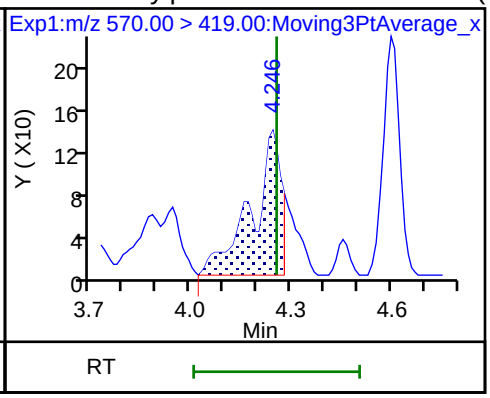
22 Perfluorooctanesulfonamide



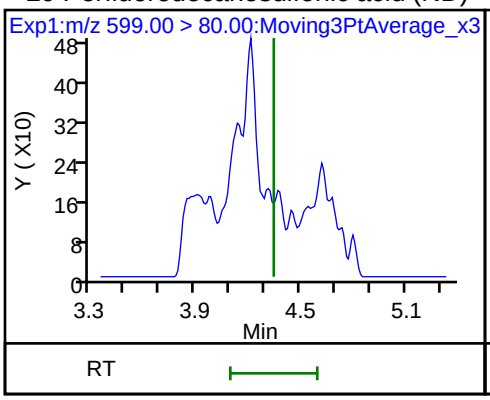

D 27 d3-NMeFOSAA



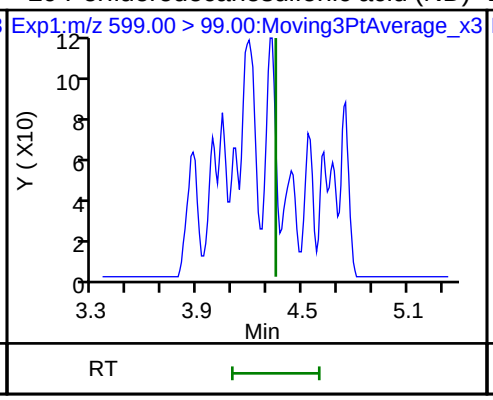

28 N-methylperfluorooctanesulfonami (M)



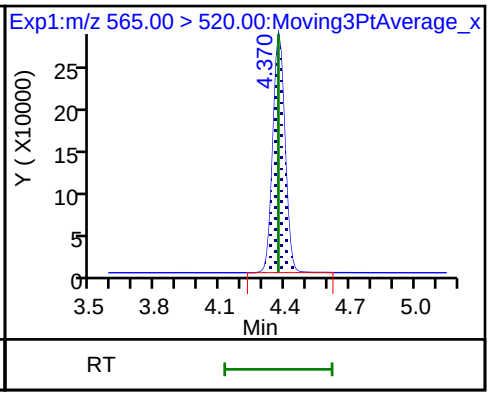

29 Perfluorodecanesulfonic acid (ND)



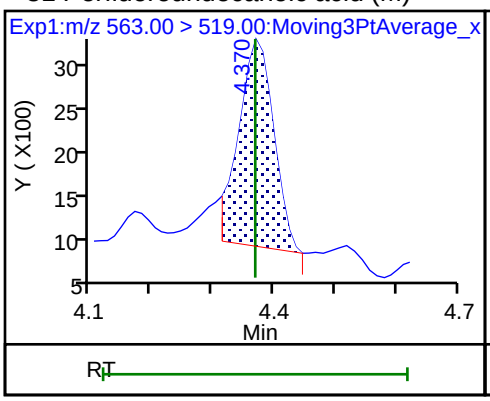

29 Perfluorodecanesulfonic acid (ND)



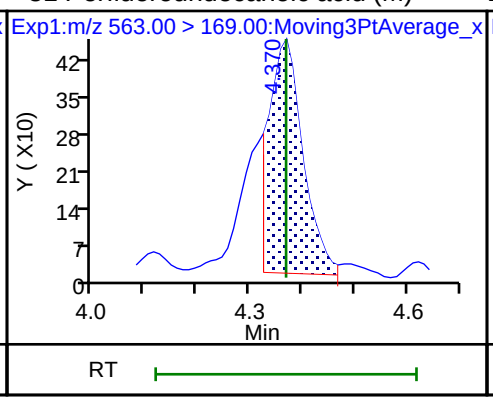

D 30 13C2 PFUnA



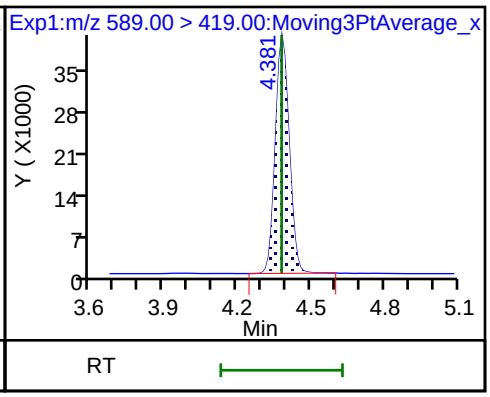

31 Perfluoroundecanoic acid (M)



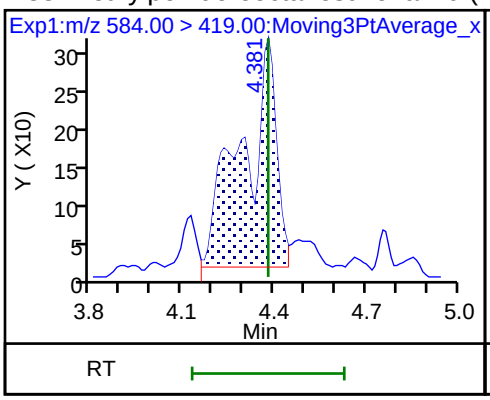

31 Perfluoroundecanoic acid (M)



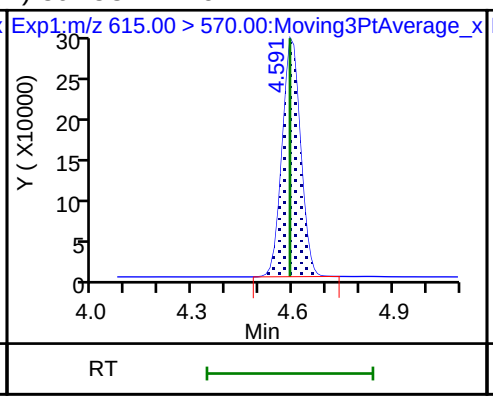

D 32 d5-NEtFOSAA



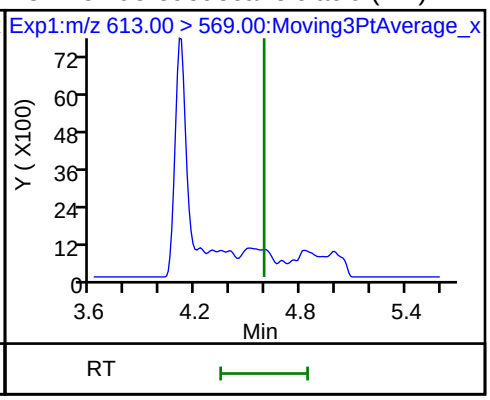

33 N-ethylperfluorooctanesulfonamid (ND)



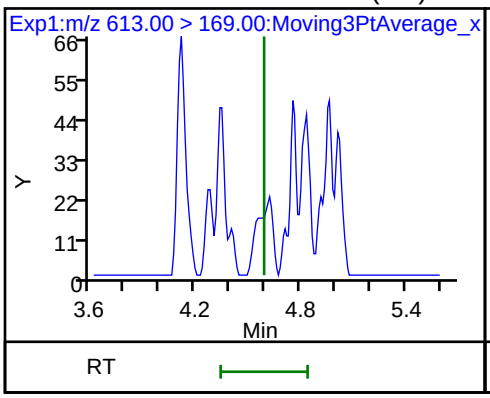

D 36 13C2 PFDoA



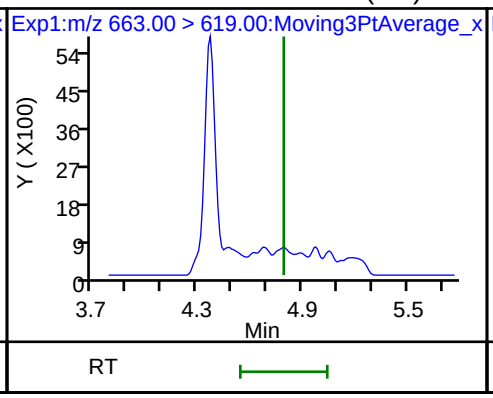

37 Perfluorododecanoic acid (ND)



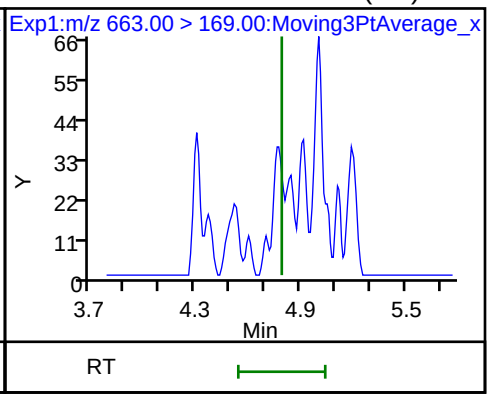
37 Perfluorododecanoic acid (ND)



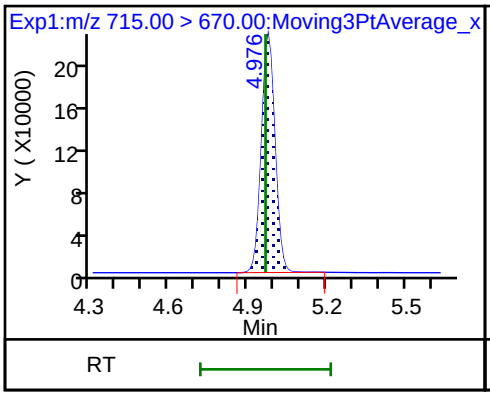

41 Perfluorotridecanoic acid (ND)



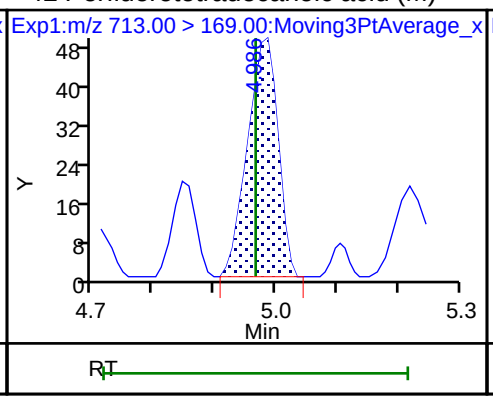

41 Perfluorotridecanoic acid (ND)



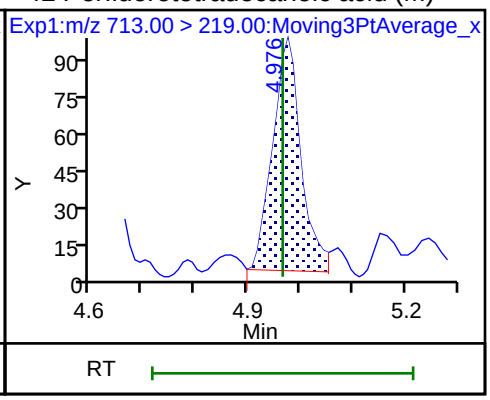

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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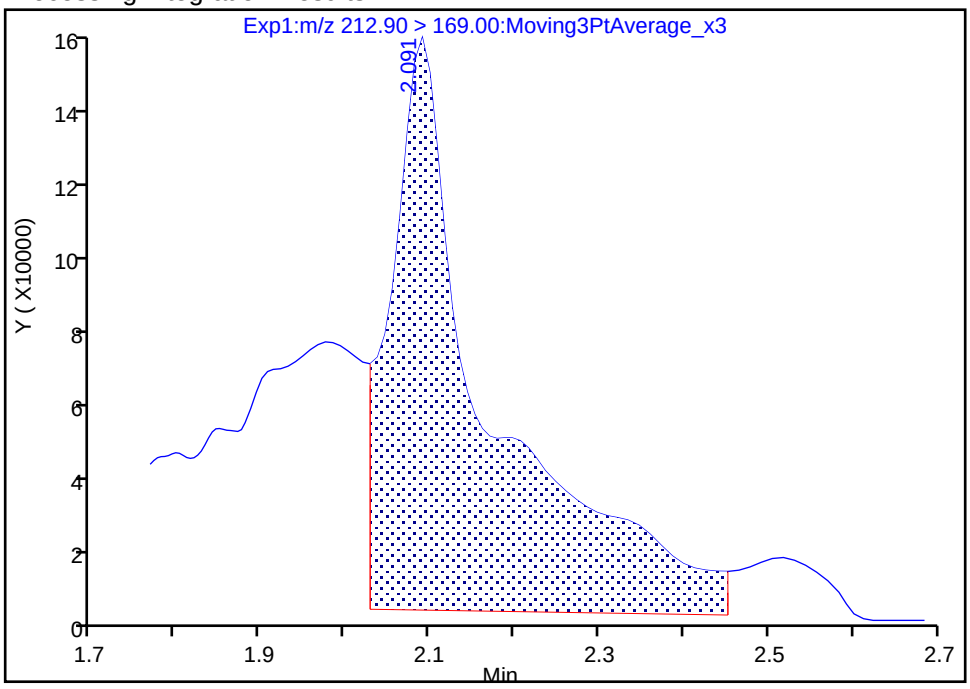
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

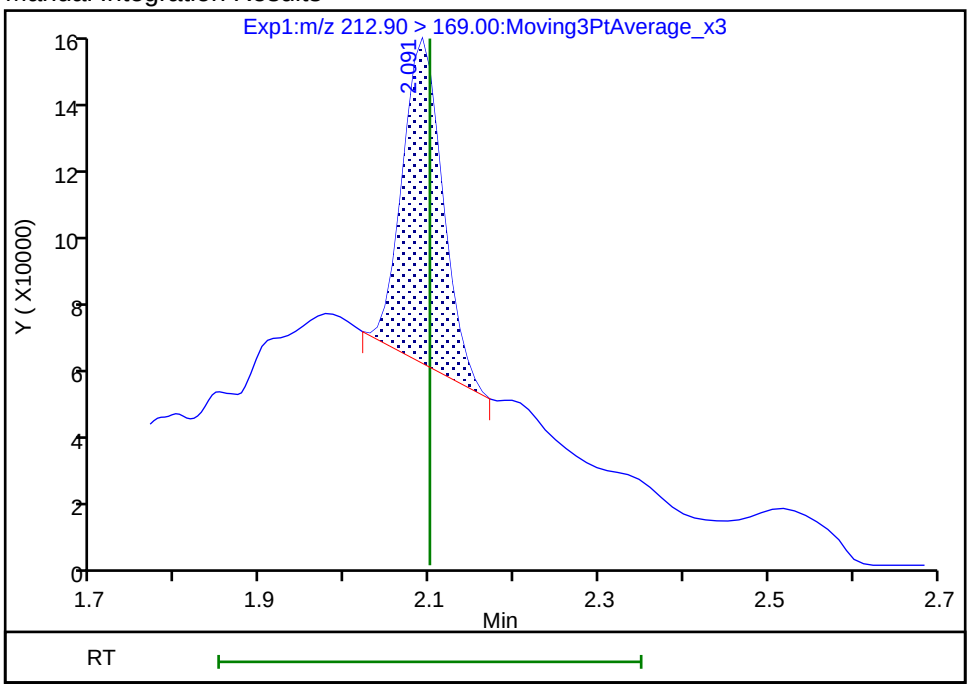
Processing Integration Results

RT: 2.09
Area: 1240512
Amount: 1.508073
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 313657
Amount: 0.381308
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:35:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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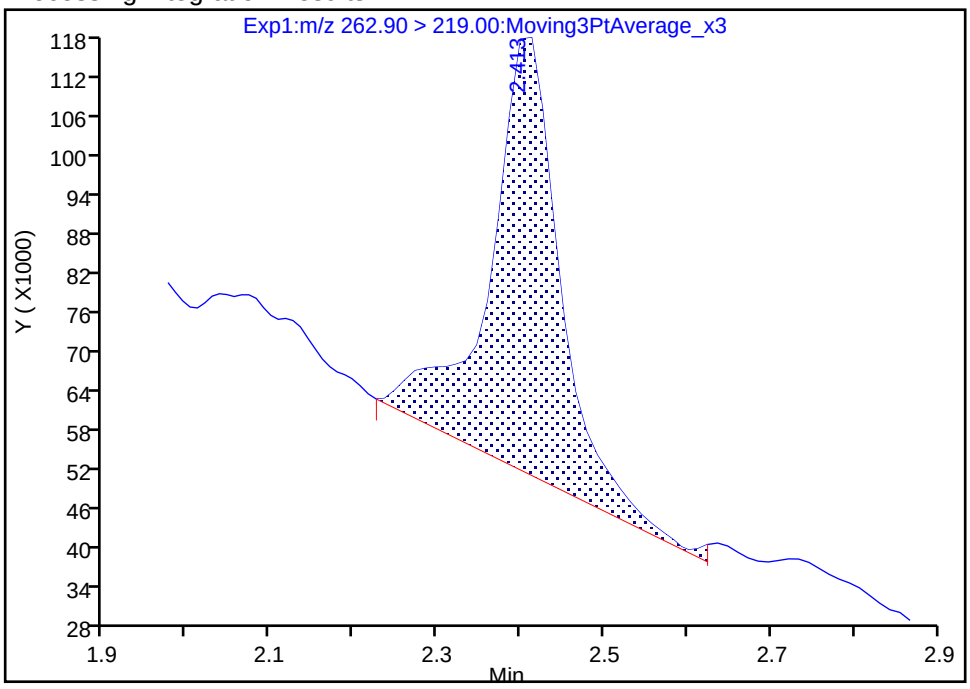
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

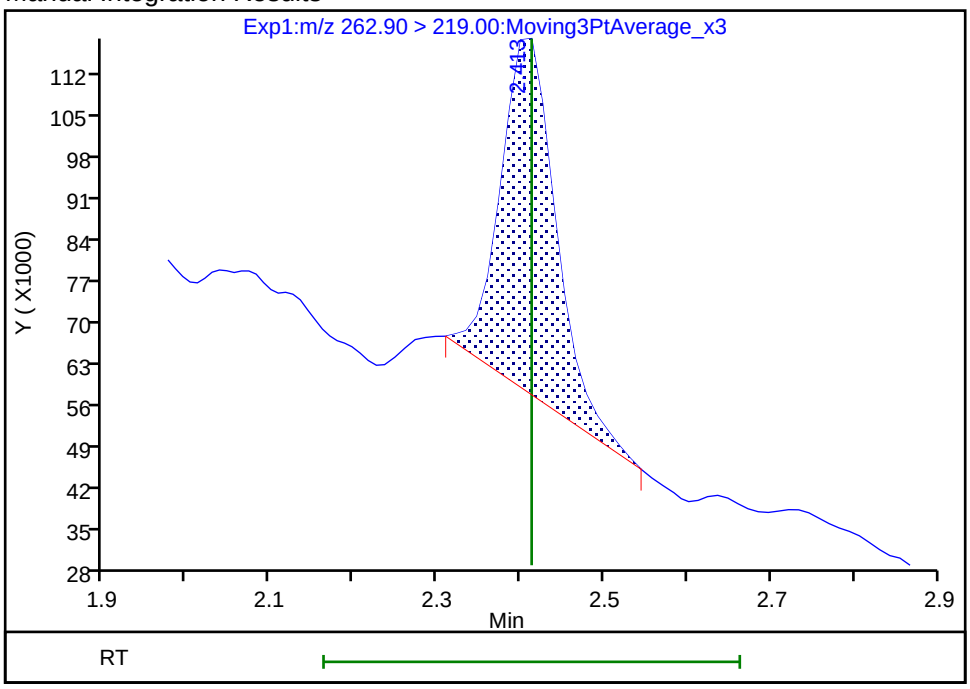
Processing Integration Results

RT: 2.41
Area: 400541
Amount: 0.460491
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 278747
Amount: 0.320468
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:35:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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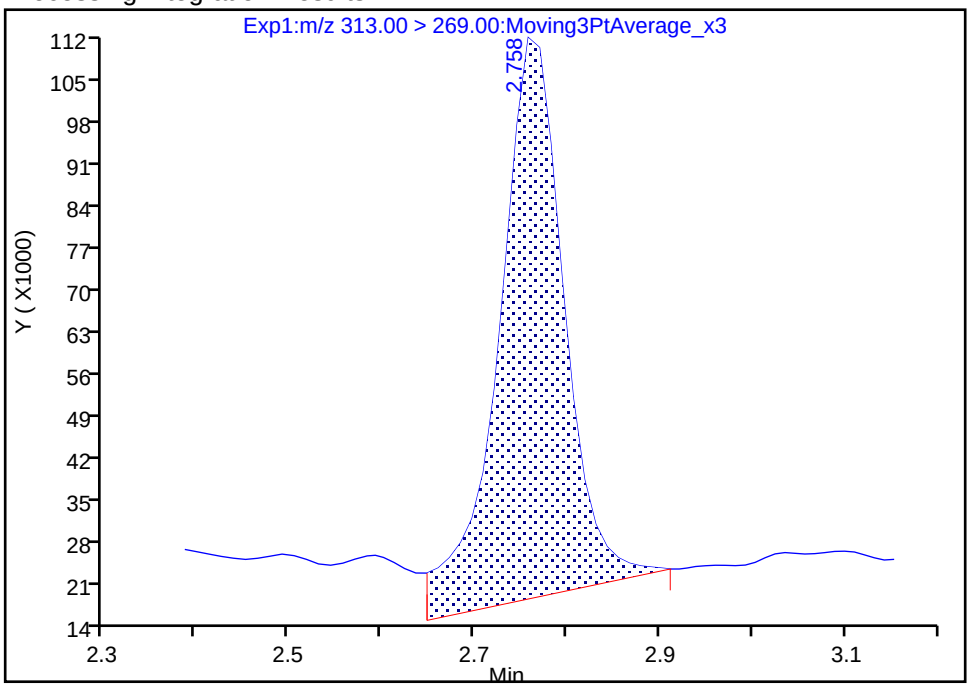
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

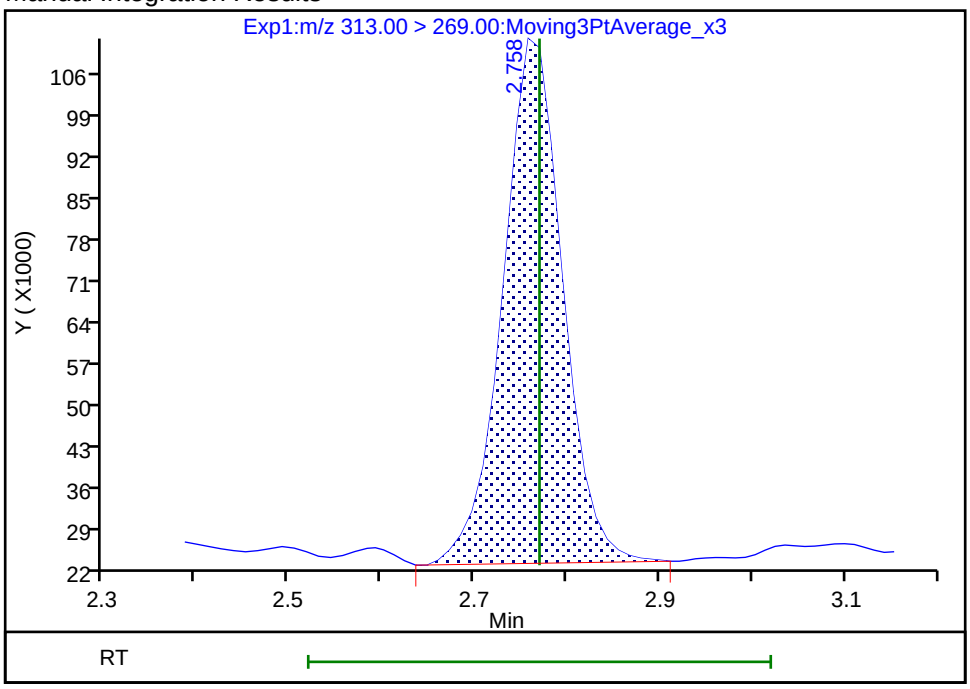
Processing Integration Results

RT: 2.76
Area: 459284
Amount: 0.455374
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 397009
Amount: 0.393629
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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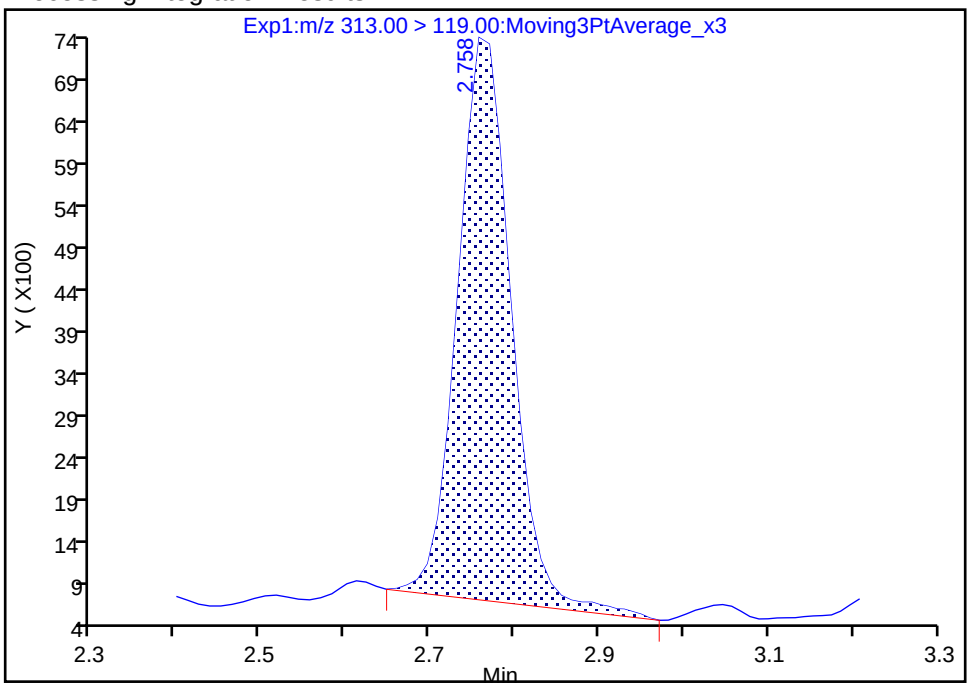
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

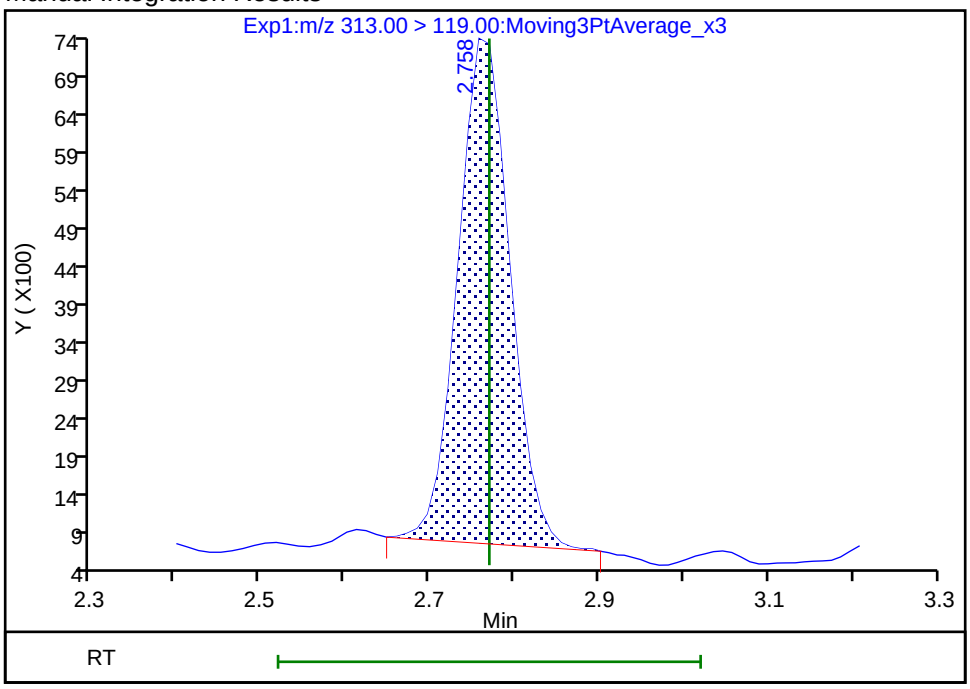
Processing Integration Results

RT: 2.76
Area: 29428
Amount: 0.455374
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 28388
Amount: 0.393629
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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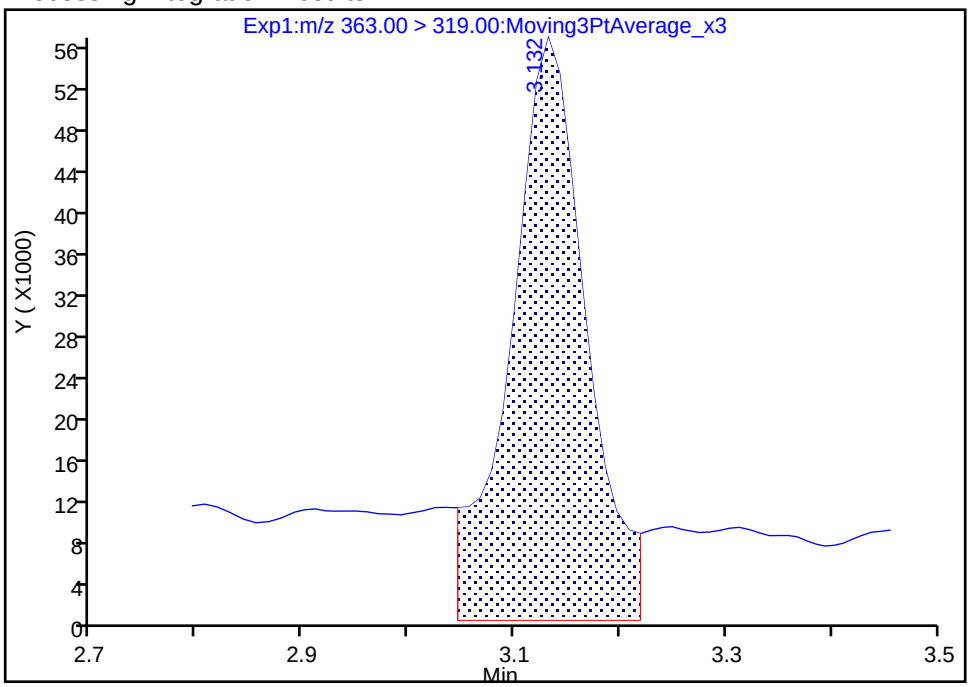
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

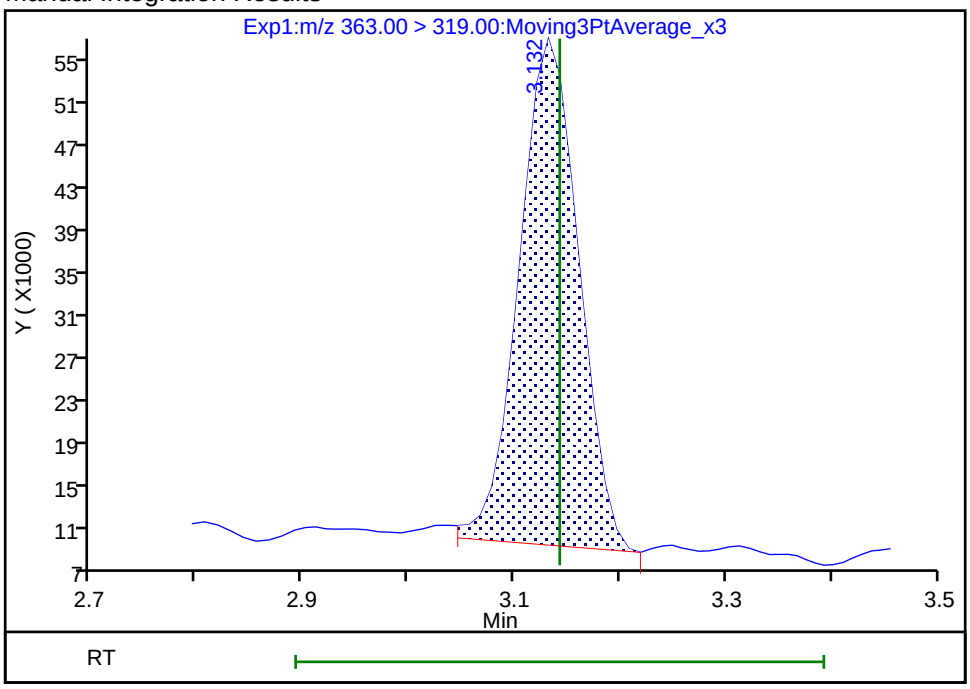
Processing Integration Results

RT: 3.13
Area: 279417
Amount: 0.260976
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 185192
Amount: 0.172970
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

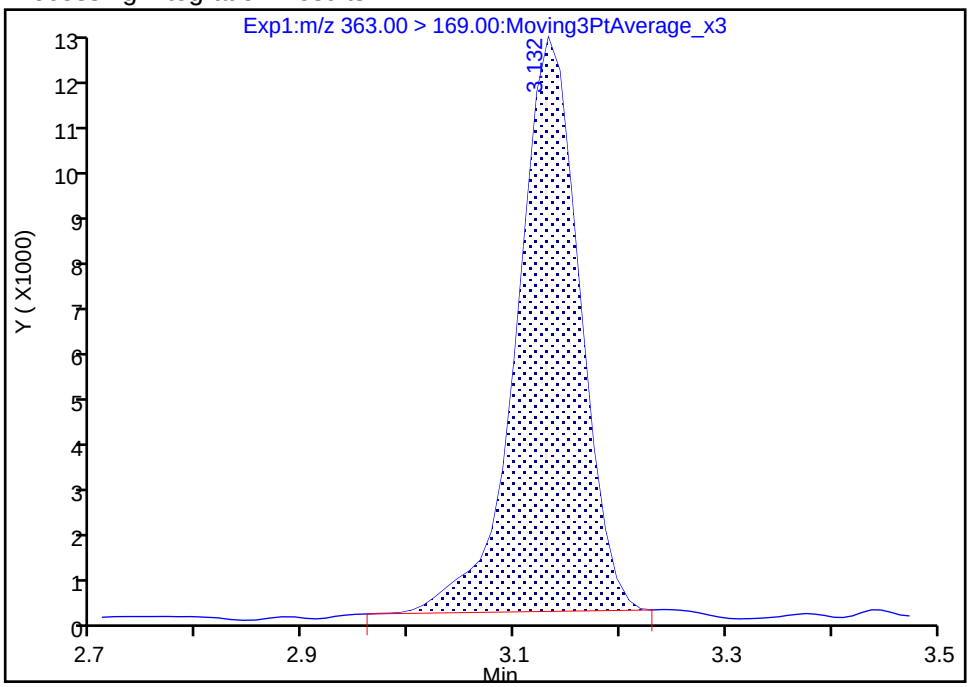
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

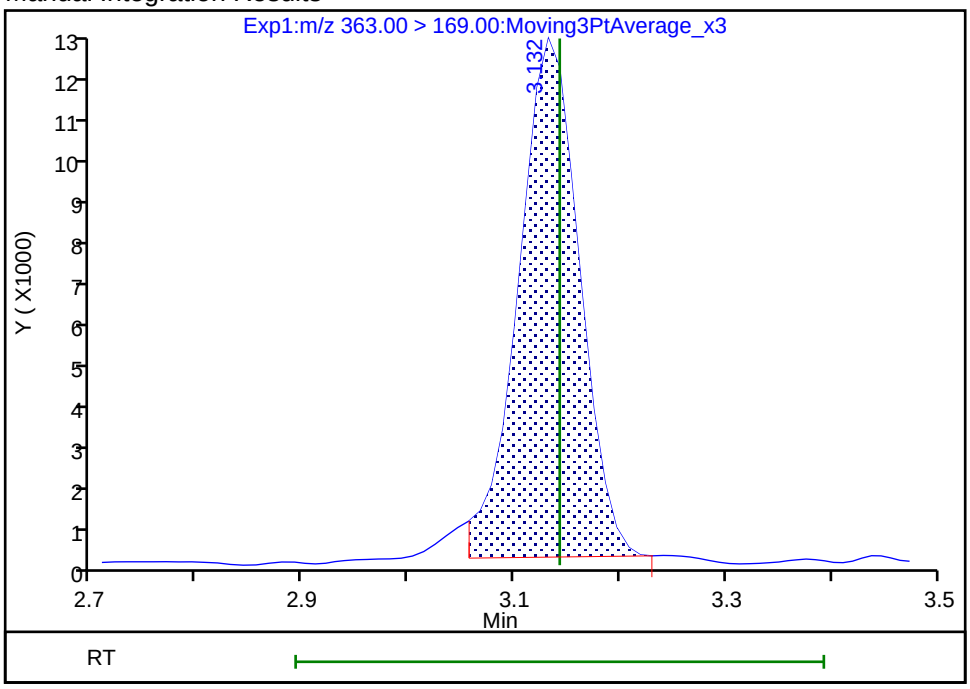
Processing Integration Results

RT: 3.13
Area: 48617
Amount: 0.260976
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 47185
Amount: 0.172970
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

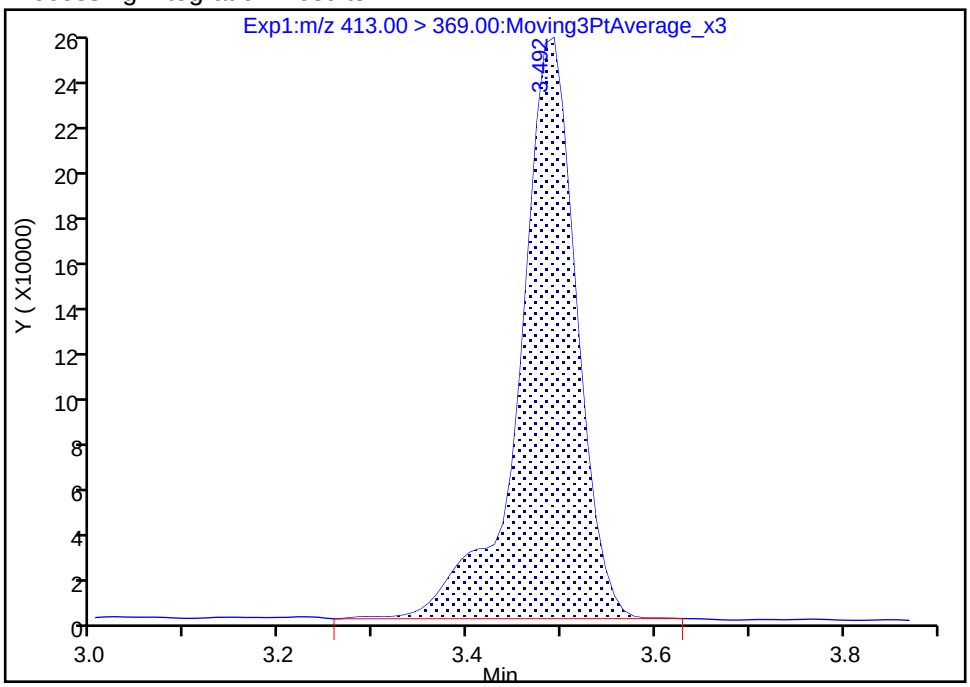
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

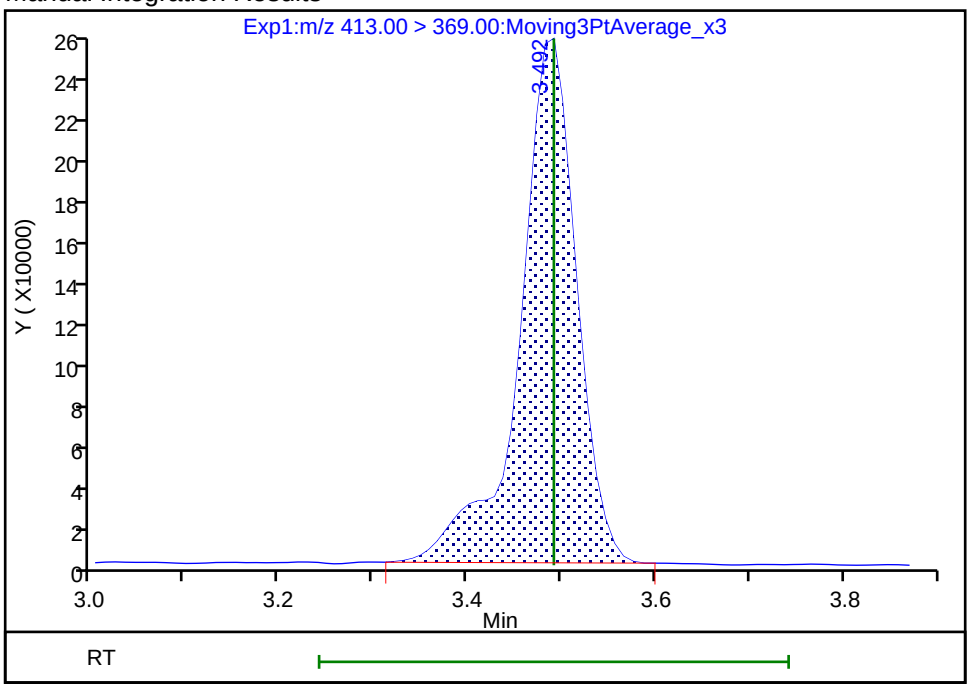
Processing Integration Results

RT: 3.49
Area: 1048458
Amount: 0.851419
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1038074
Amount: 0.842987
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:38:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

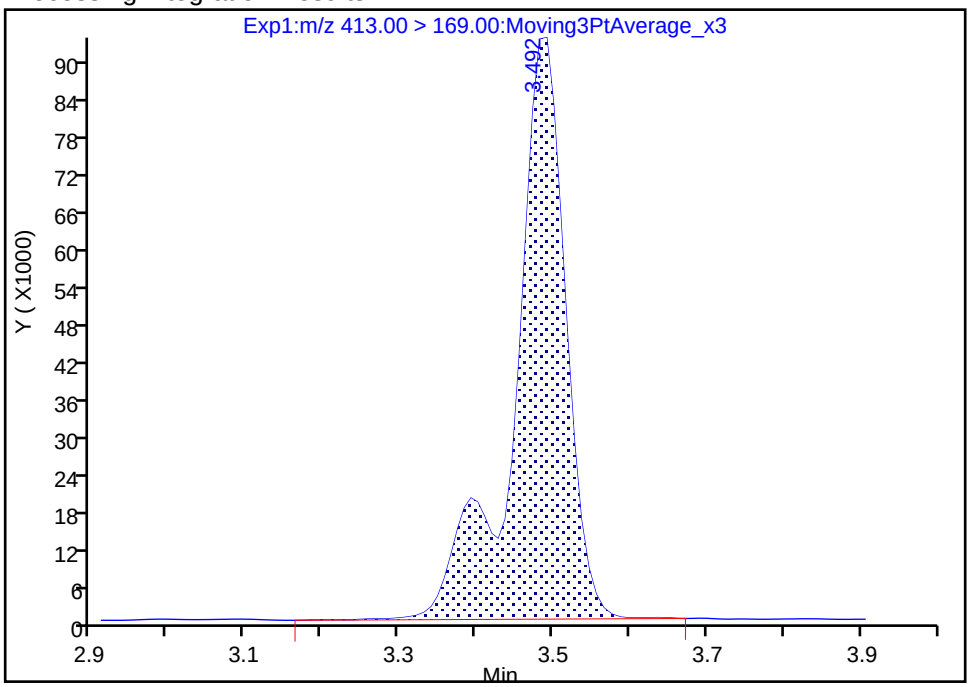
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

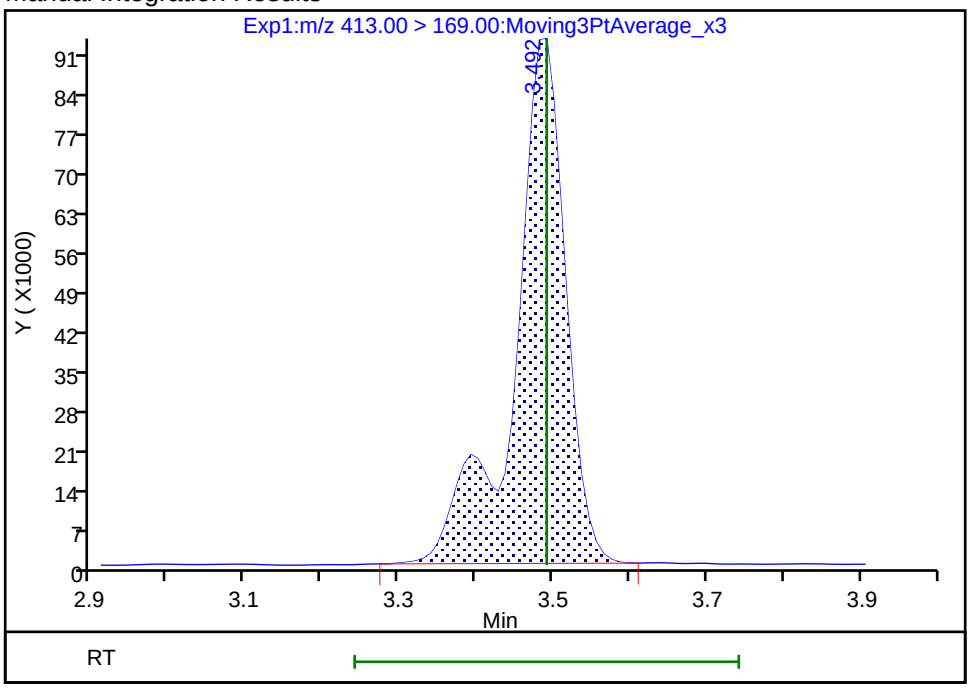
Processing Integration Results

RT: 3.49
Area: 433934
Amount: 0.851419
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 430330
Amount: 0.842987
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:38:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

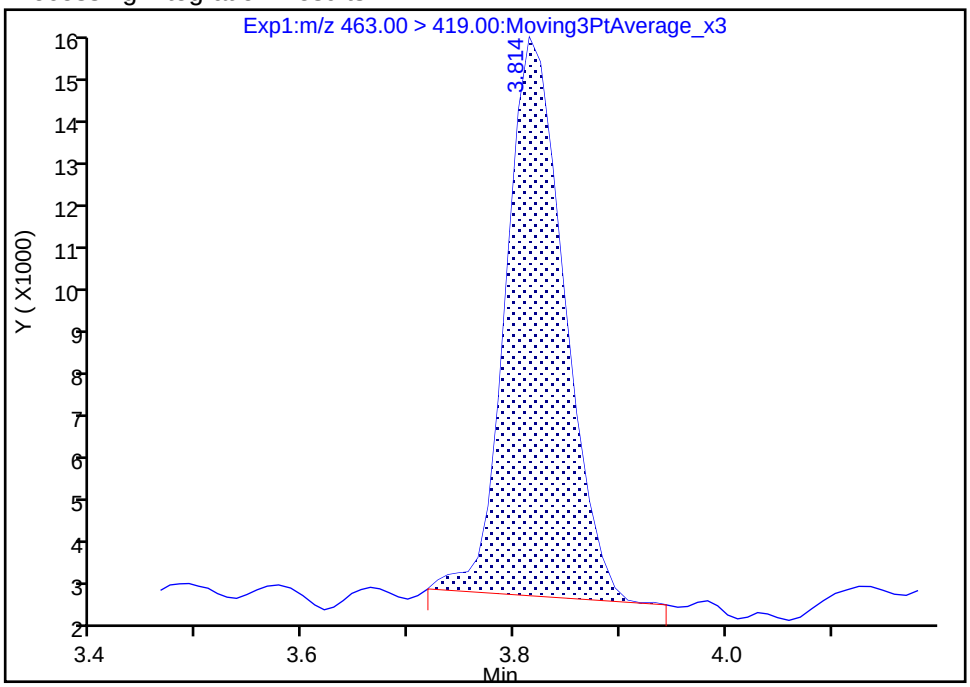
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

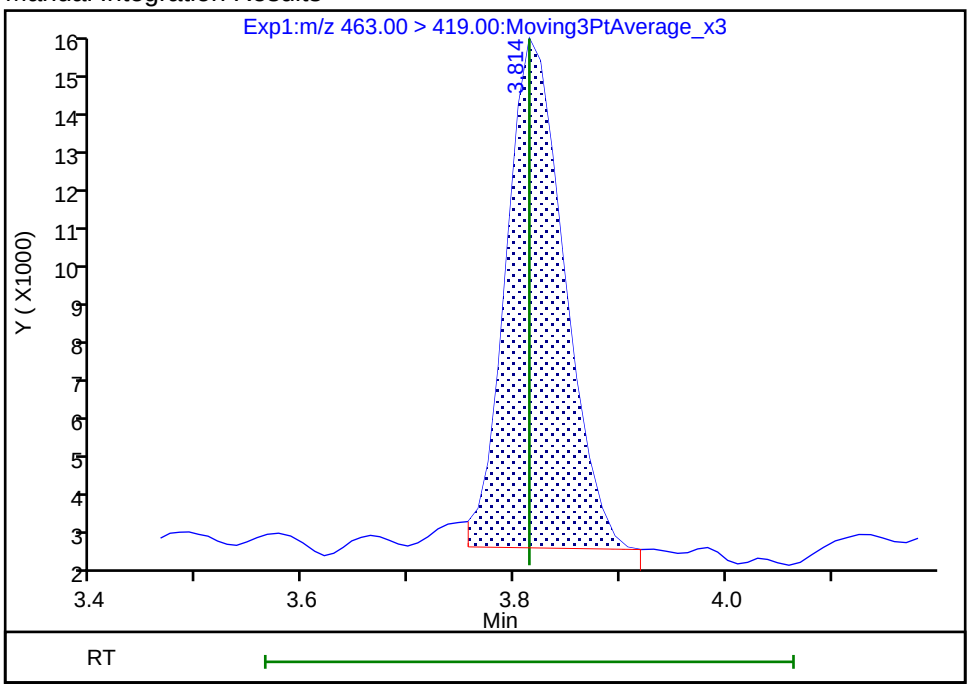
Processing Integration Results

RT: 3.81
Area: 49310
Amount: 0.043467
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 49525
Amount: 0.043657
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:39:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

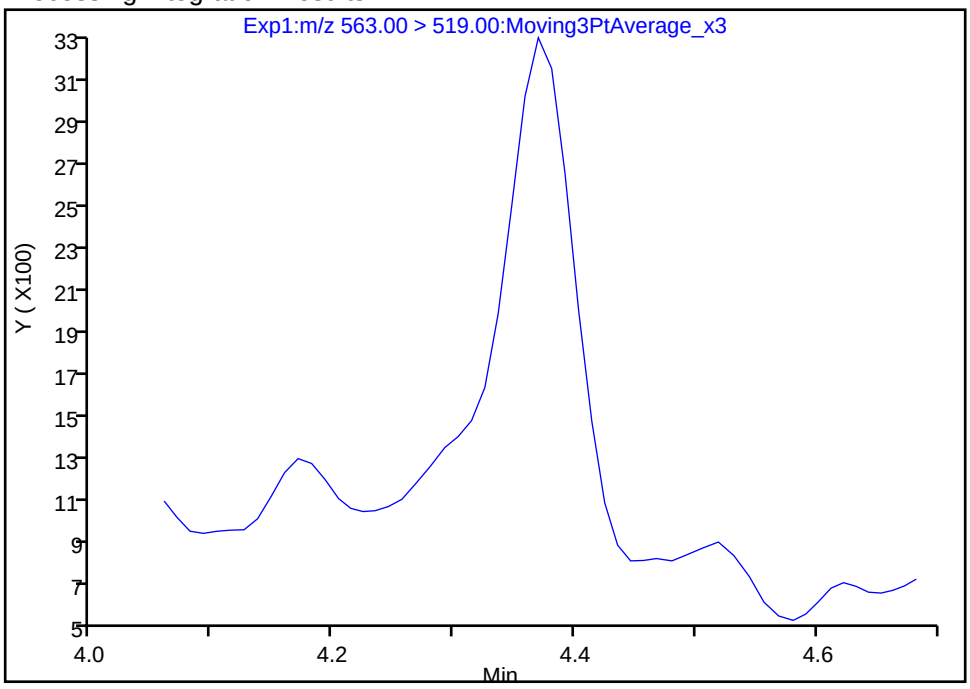
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

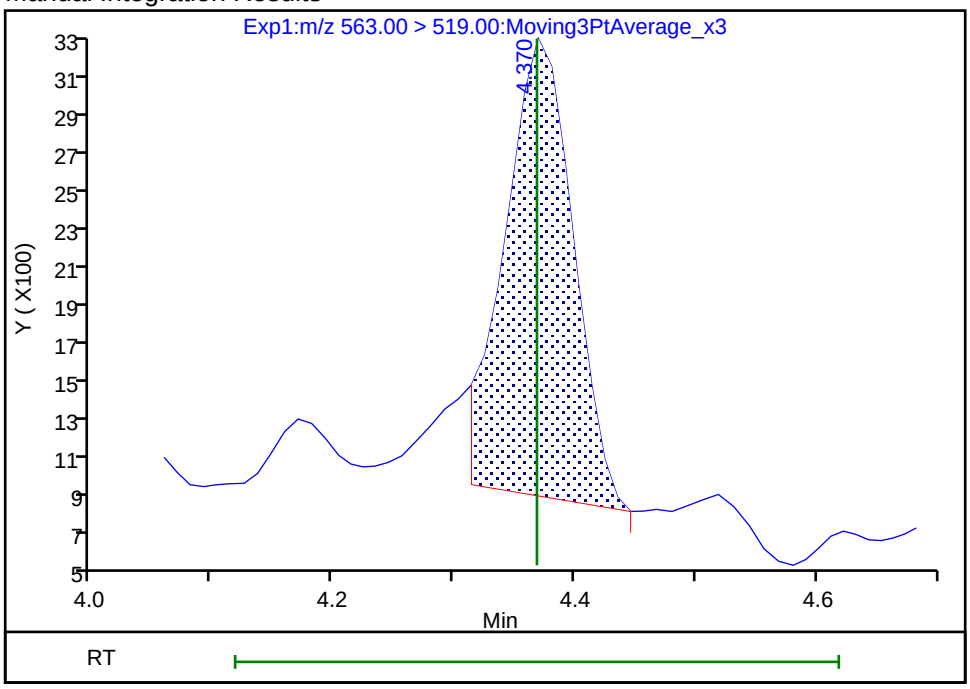
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 9400
Amount: 0.010049
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:42:10
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

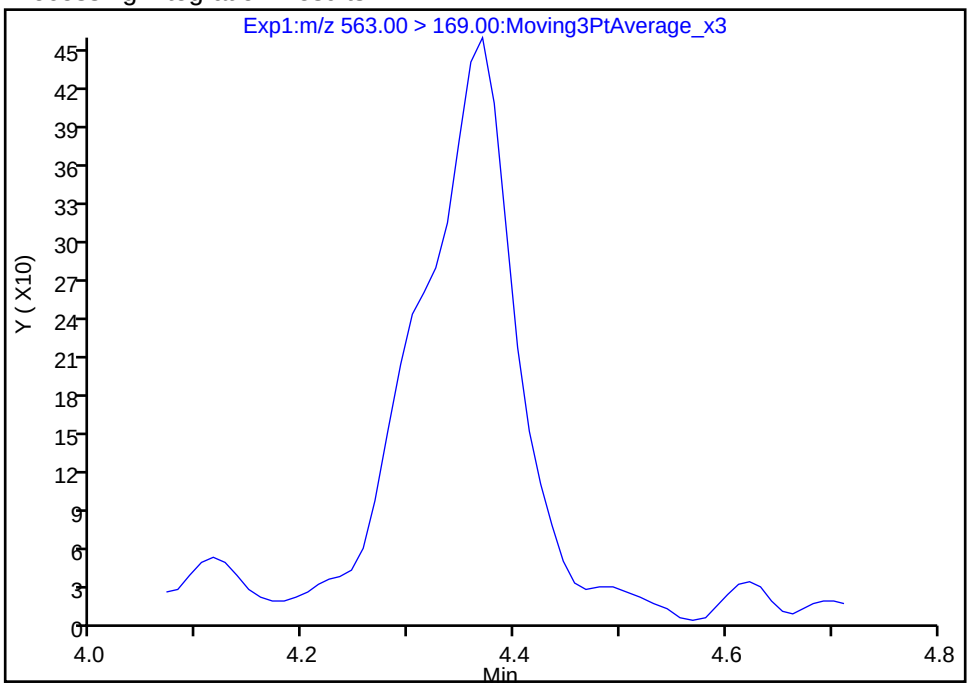
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

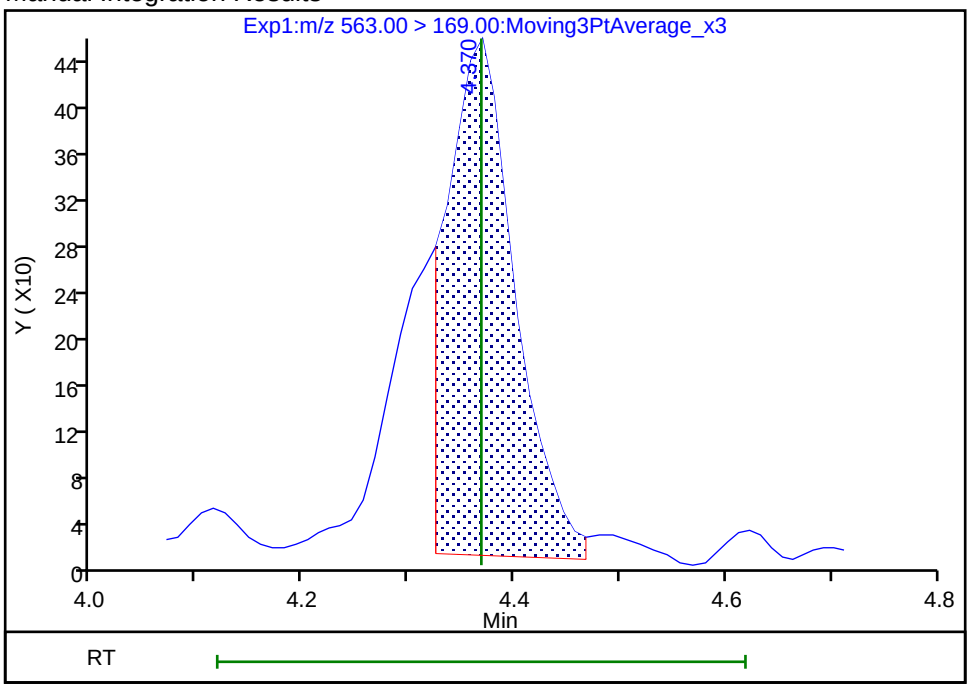
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1949
Amount: 0.010049
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:42:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

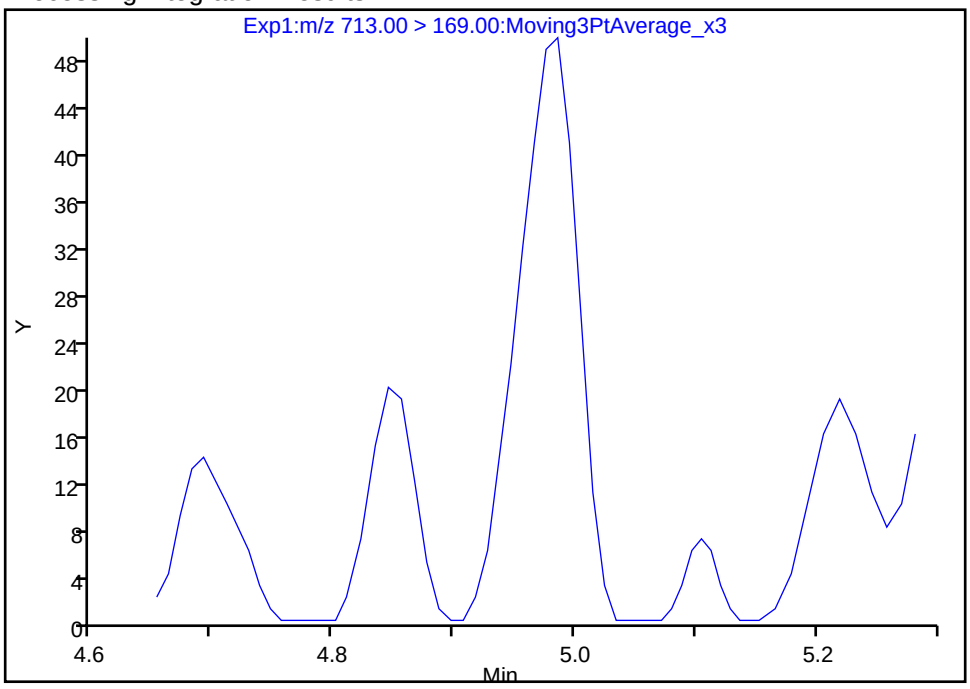
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

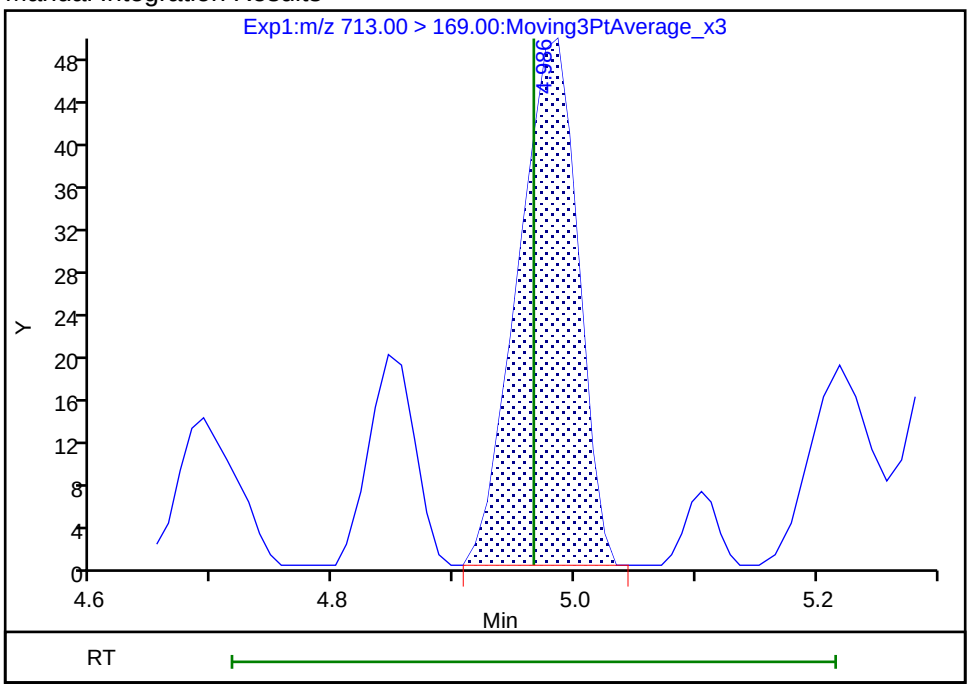
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 172
Amount: 0.001678
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:42:55
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

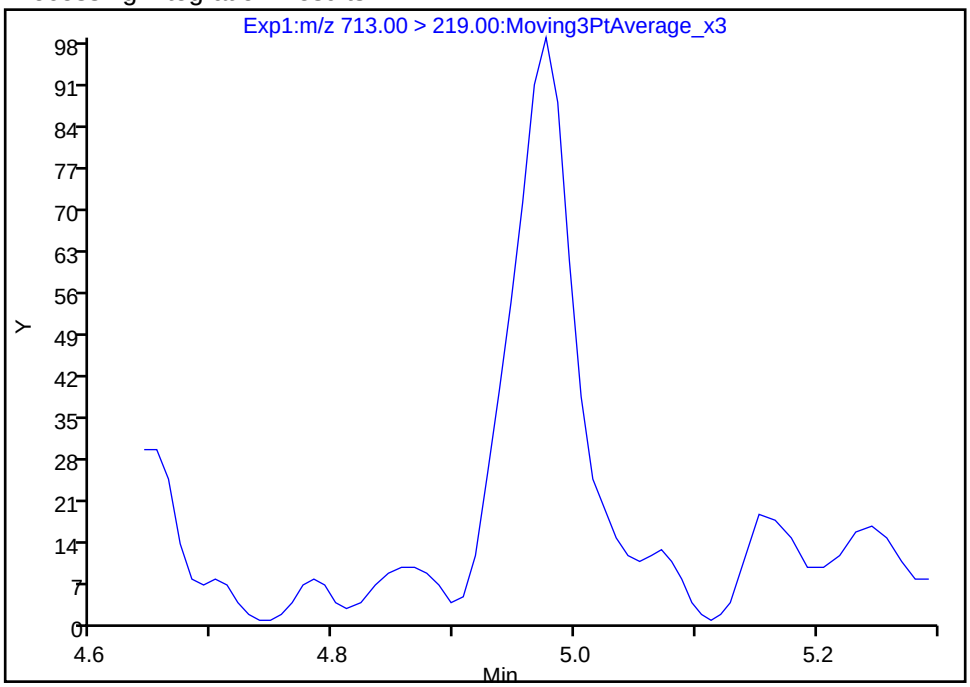
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

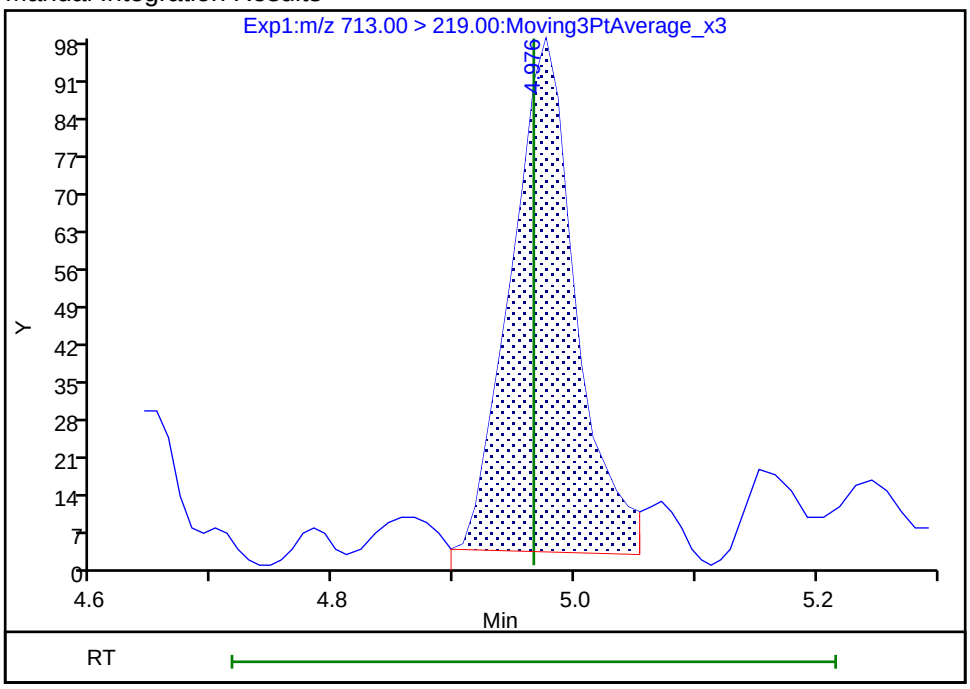
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 358
Amount: 0.001678
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:43:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

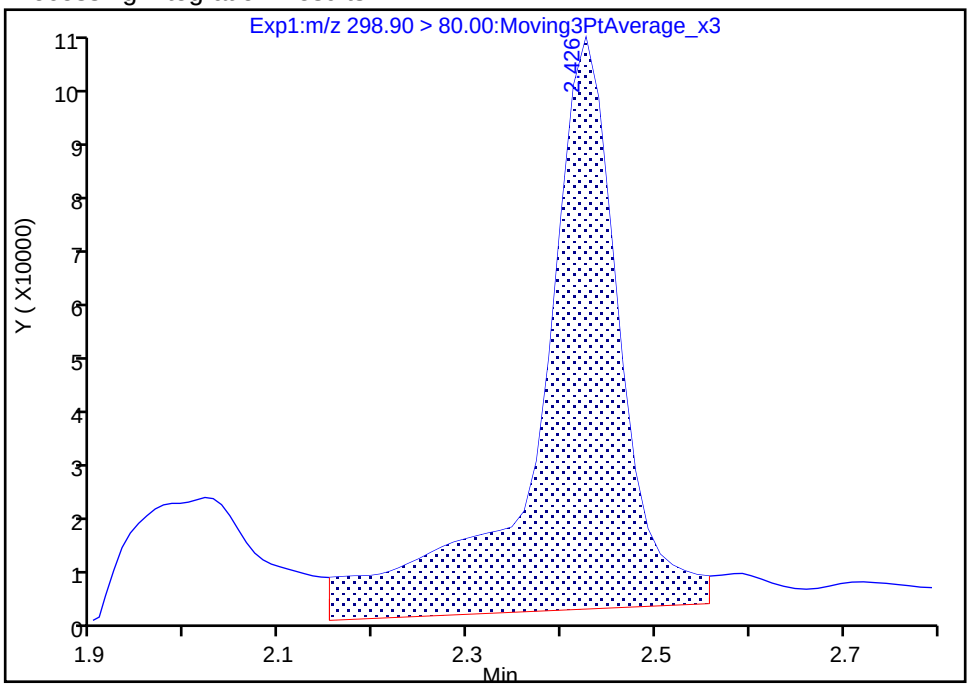
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

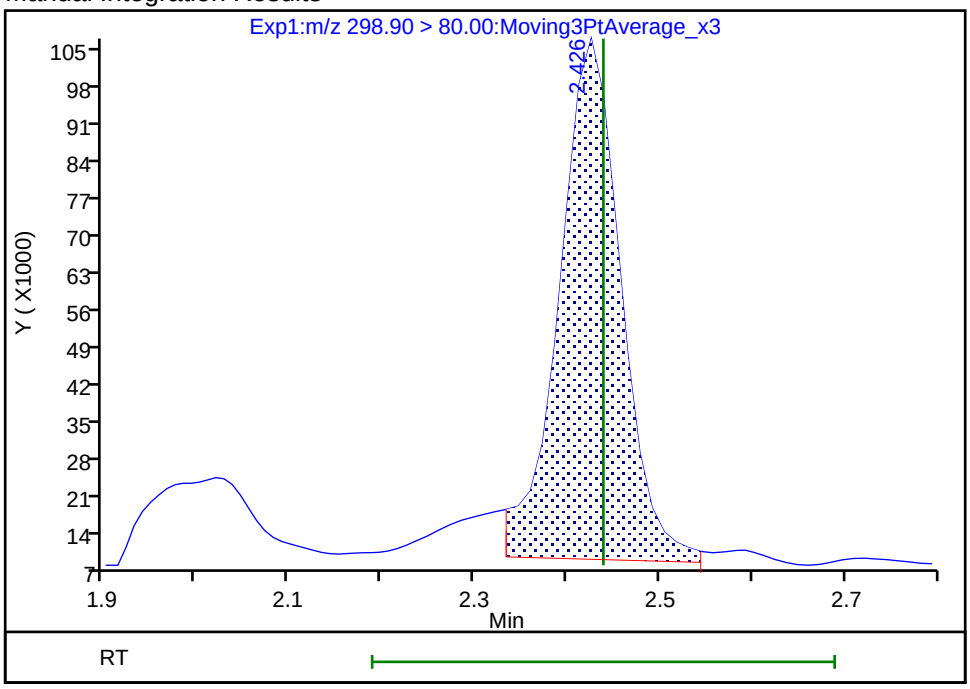
Processing Integration Results

RT: 2.43
Area: 631433
Amount: 0.460229
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 455123
Amount: 0.331723
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:35:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

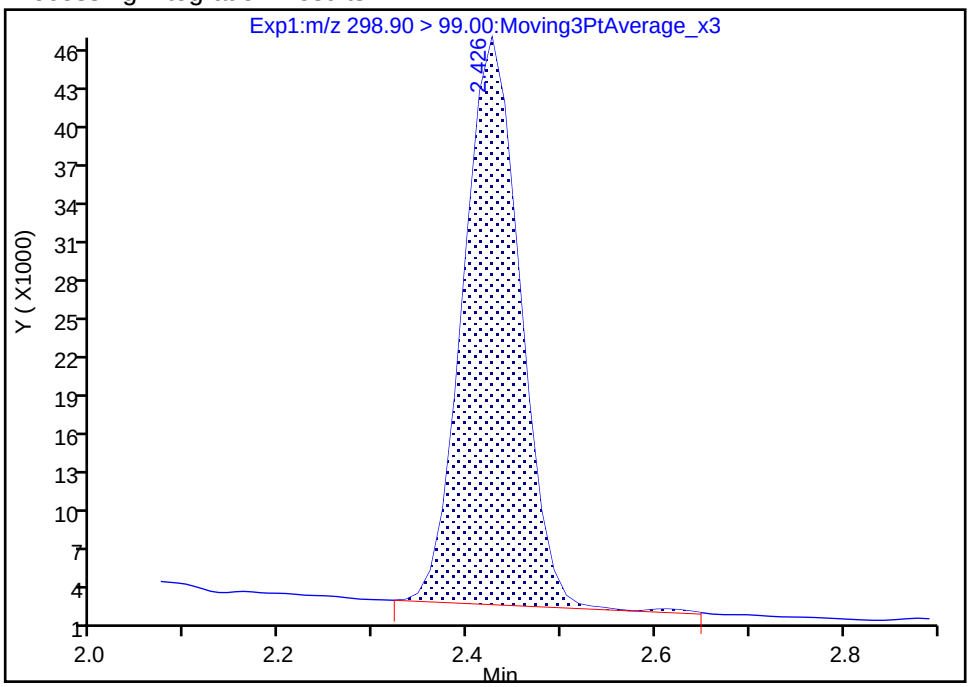
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

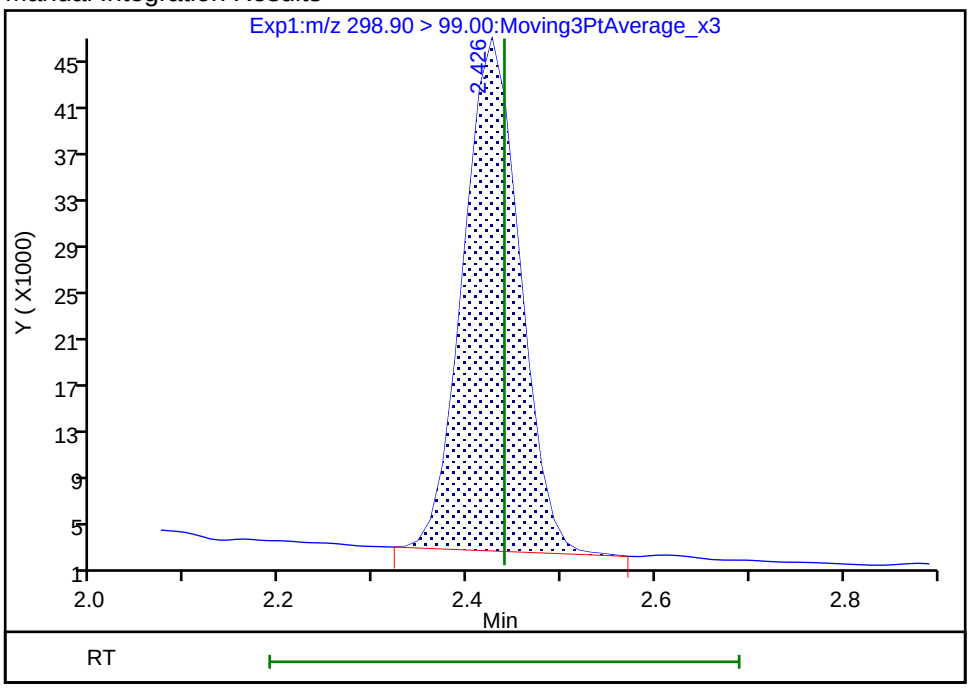
Processing Integration Results

RT: 2.43
Area: 187086
Amount: 0.460229
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 186126
Amount: 0.331723
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:35:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

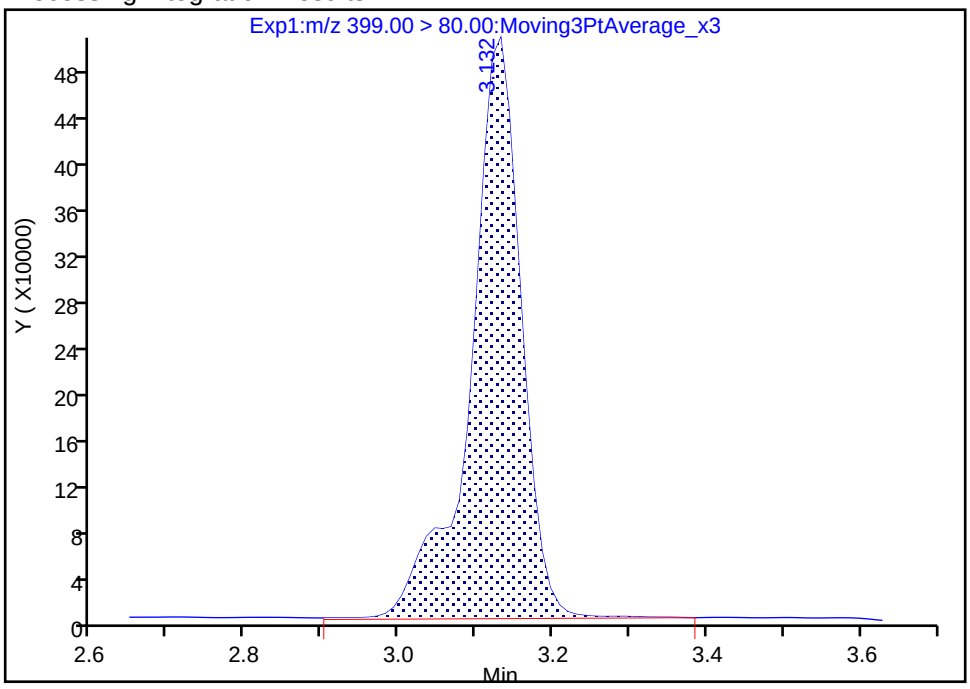
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

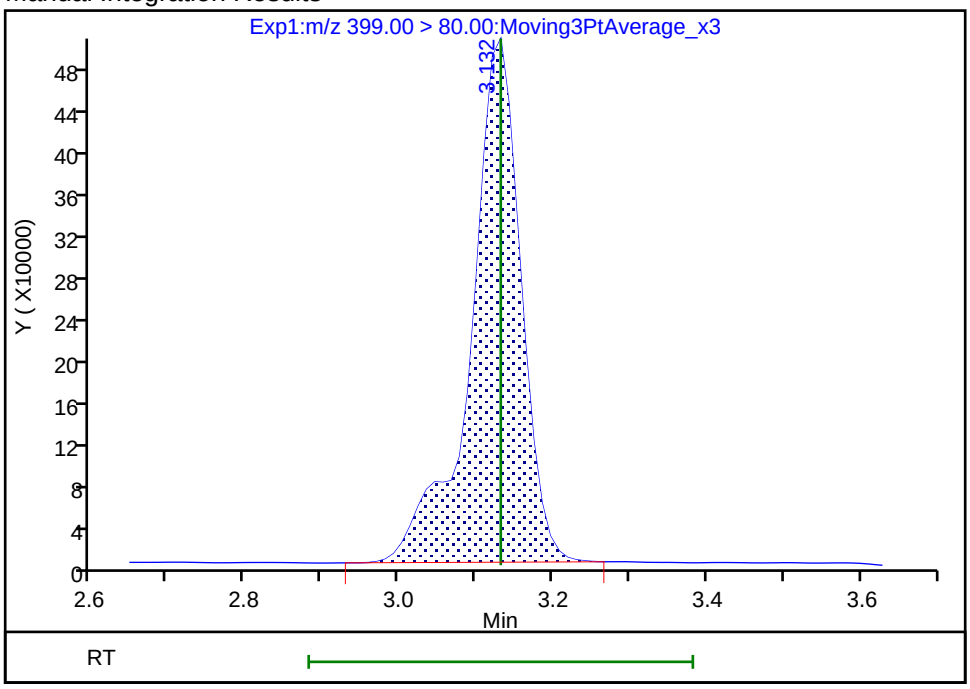
Processing Integration Results

RT: 3.13
Area: 2308207
Amount: 2.270841
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2271767
Amount: 2.234991
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

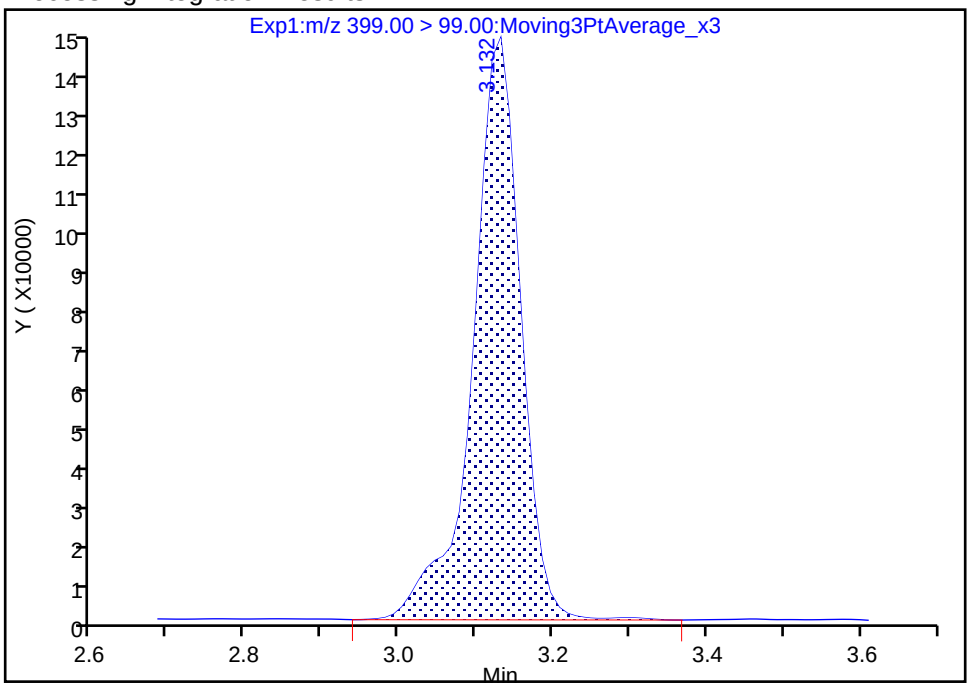
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

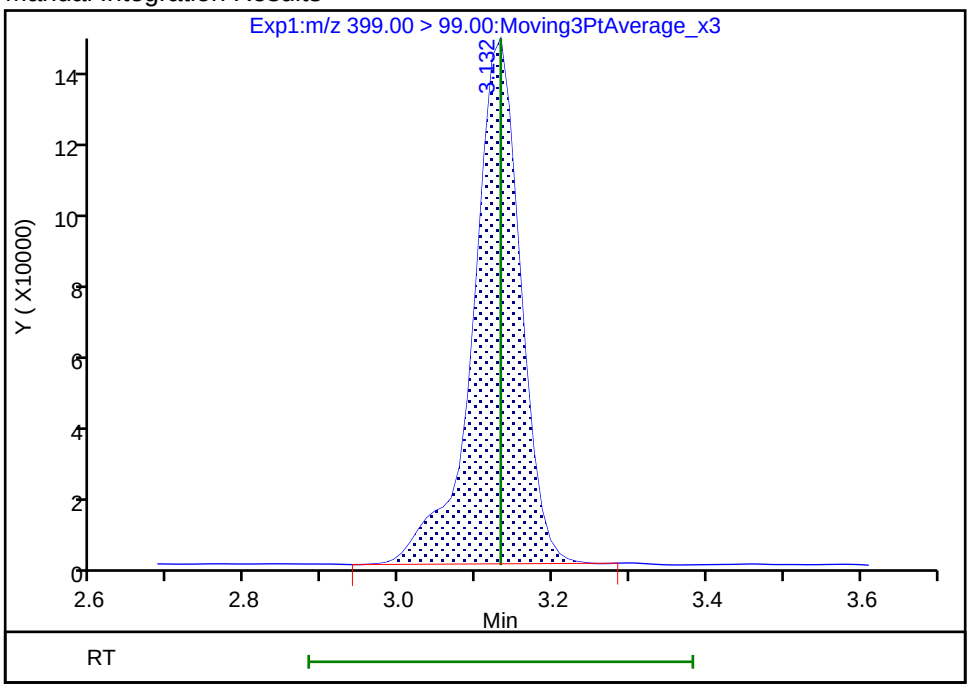
Processing Integration Results

RT: 3.13
Area: 611685
Amount: 2.270841
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 605618
Amount: 2.234991
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:36:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

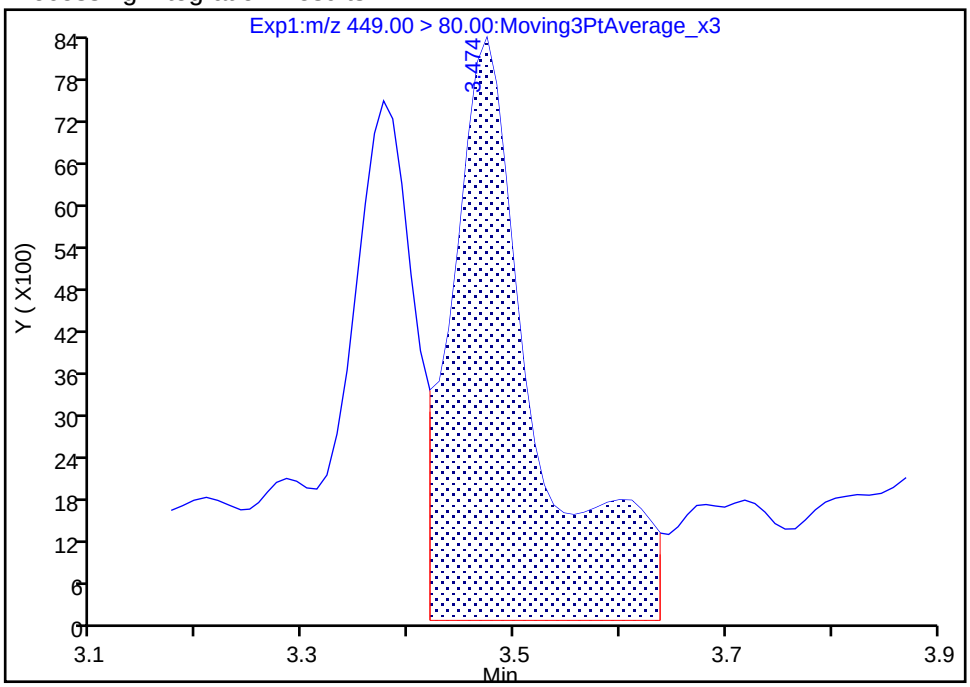
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

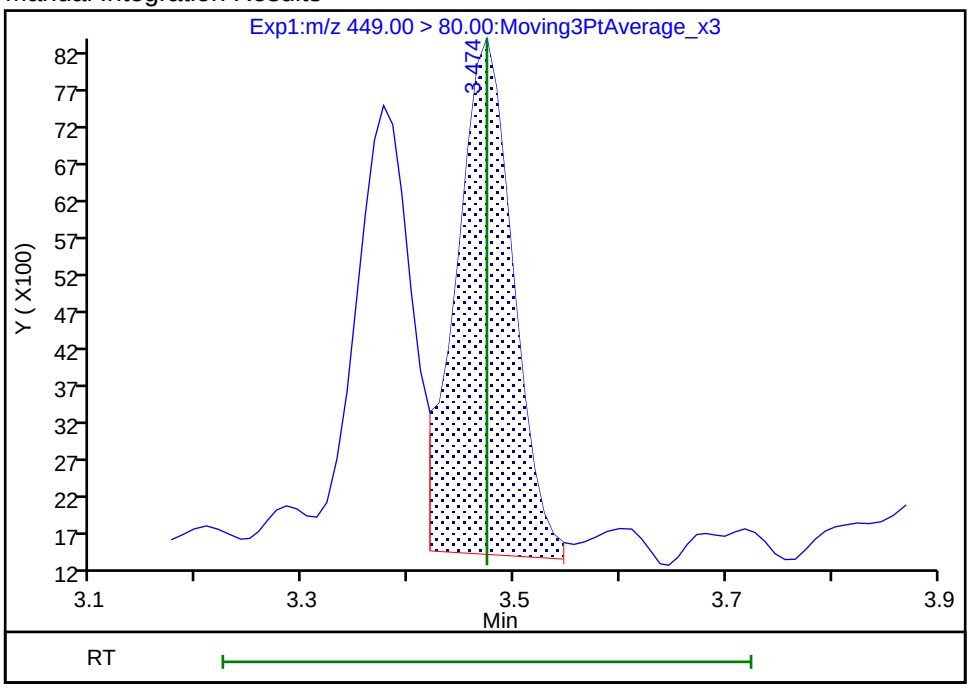
Processing Integration Results

RT: 3.47
Area: 45015
Amount: 0.050204
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 25919
Amount: 0.028907
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:37:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

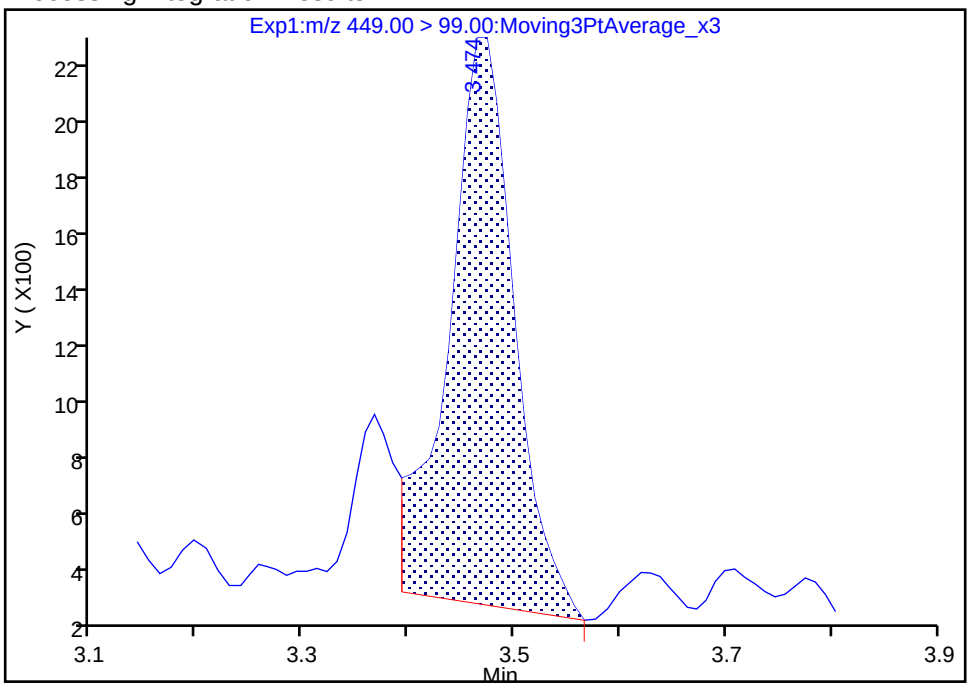
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

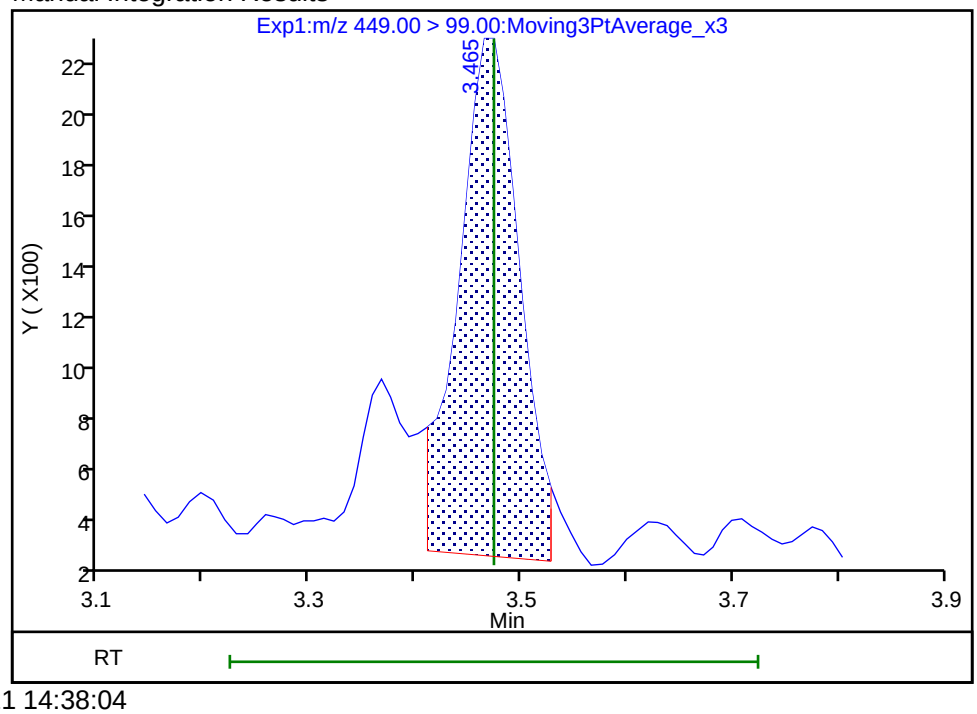
Processing Integration Results

RT: 3.47
Area: 8429
Amount: 0.050204
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 7860
Amount: 0.028907
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:38:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

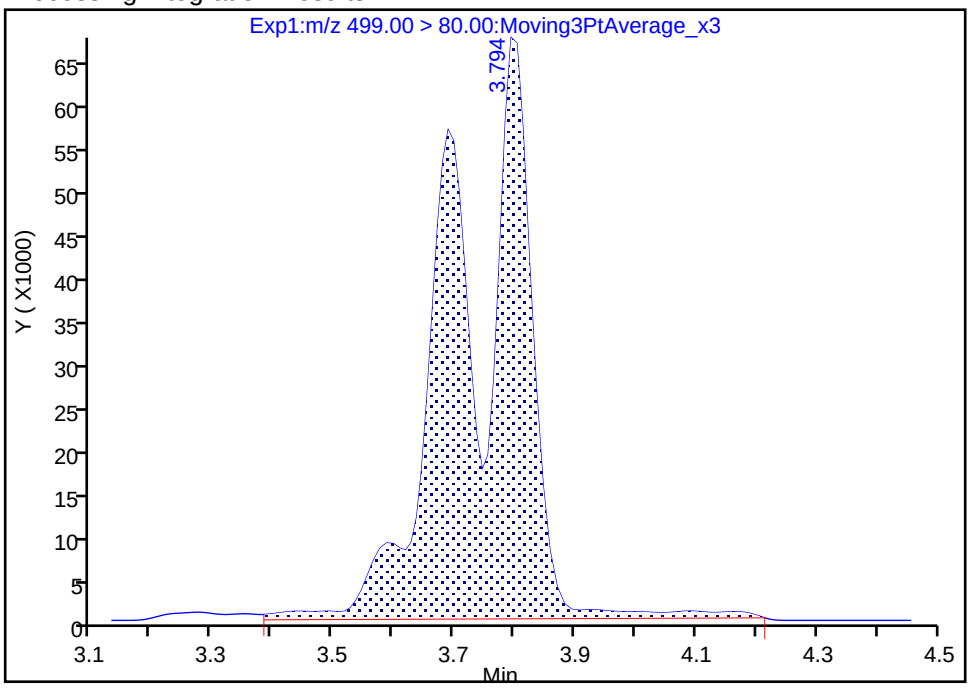
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

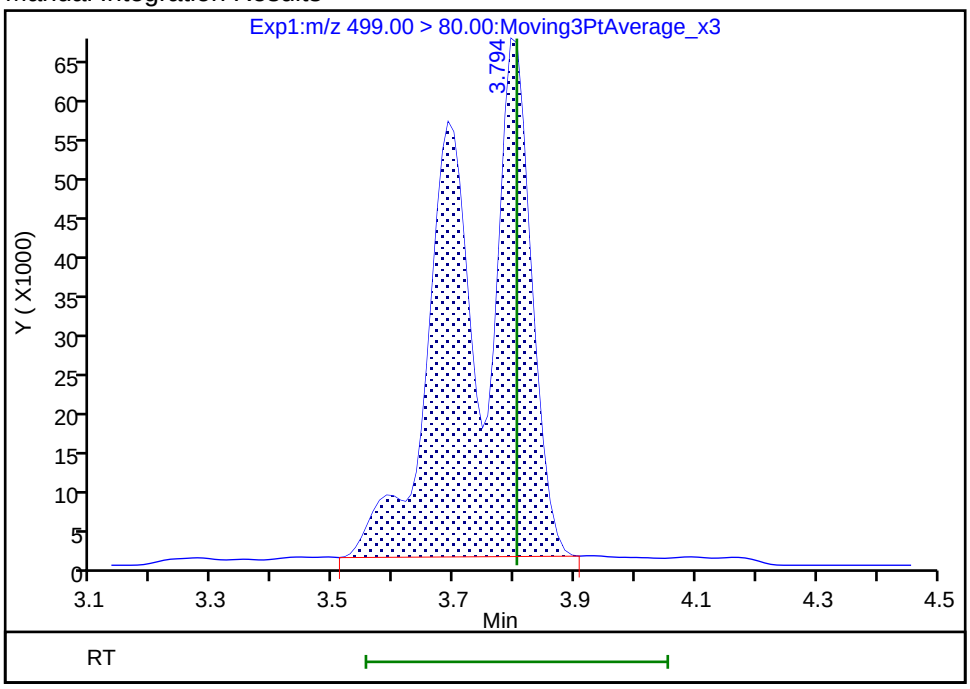
Processing Integration Results

RT: 3.79
Area: 577633
Amount: 0.740141
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 535603
Amount: 0.686287
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:39:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

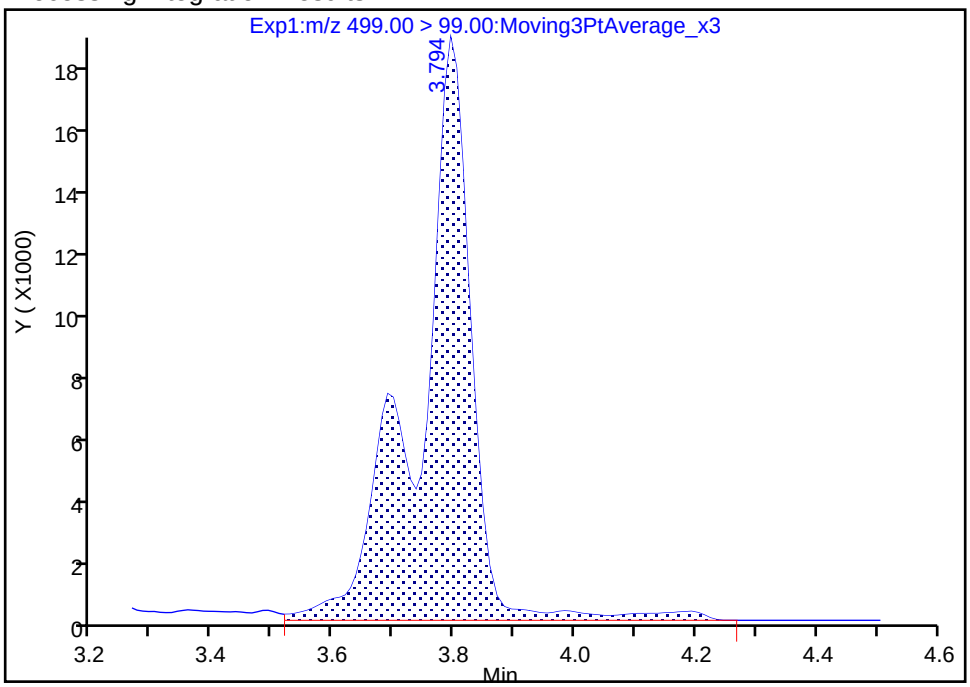
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

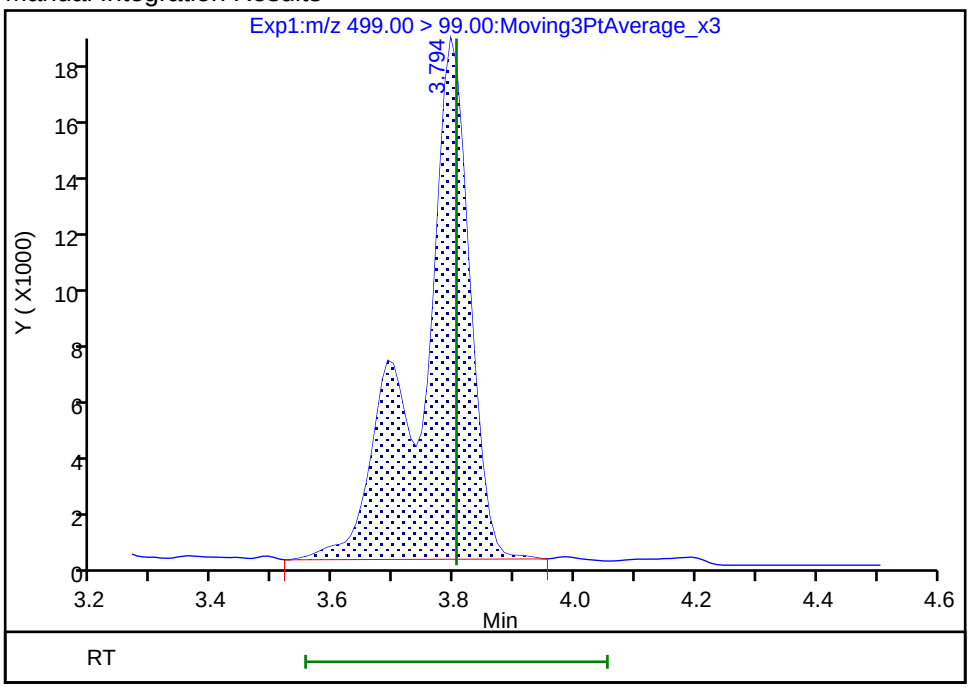
Processing Integration Results

RT: 3.79
Area: 113122
Amount: 0.740141
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 104321
Amount: 0.686287
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:39:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

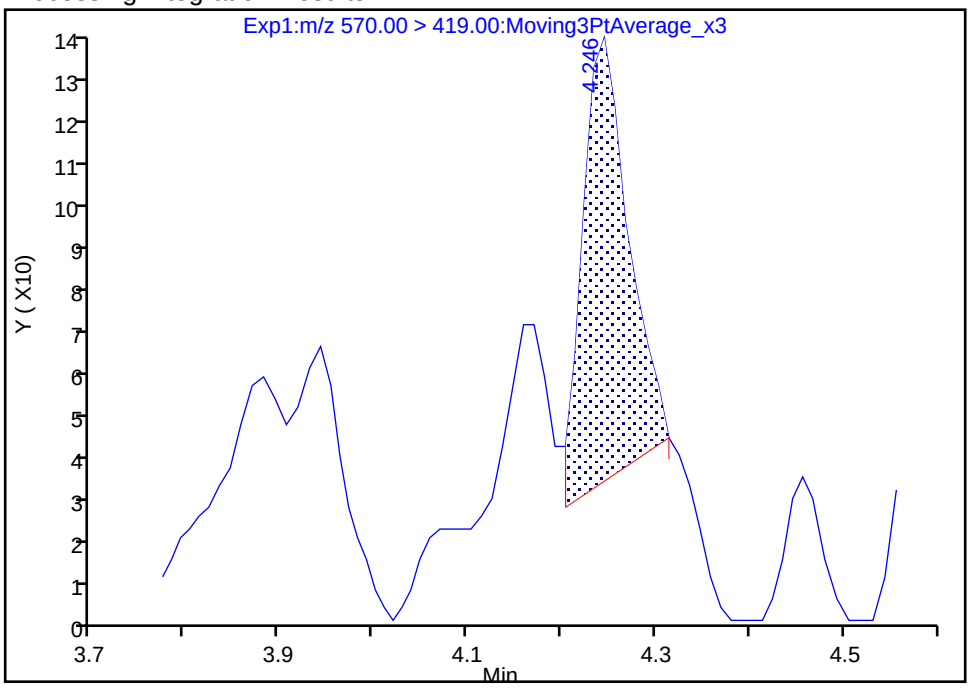
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

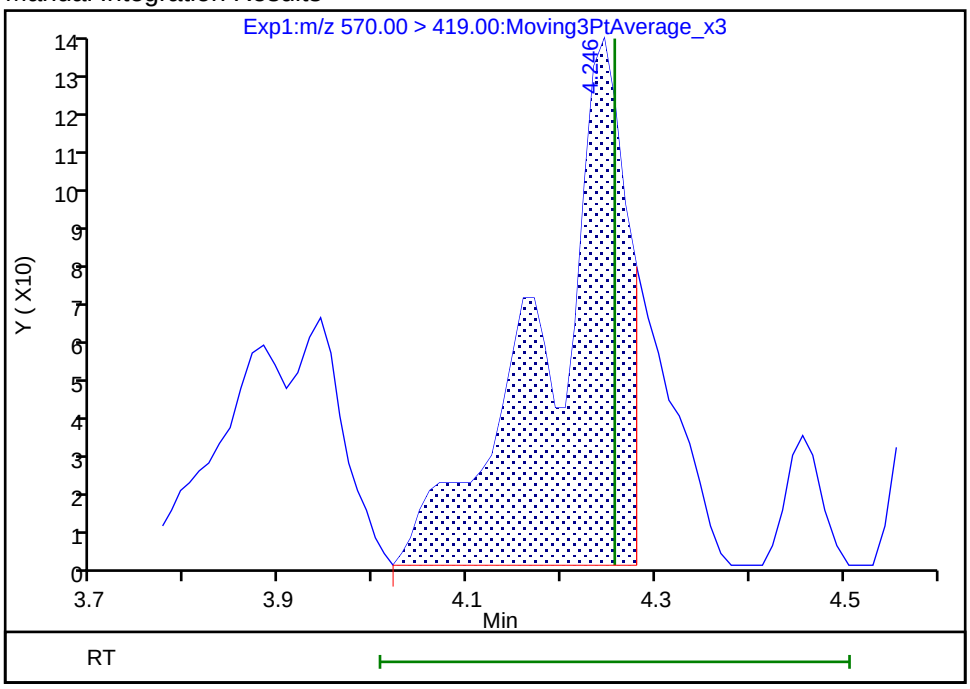
Processing Integration Results

RT: 4.25
Area: 345
Amount: 0.003535
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 797
Amount: 0.008167
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:41:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

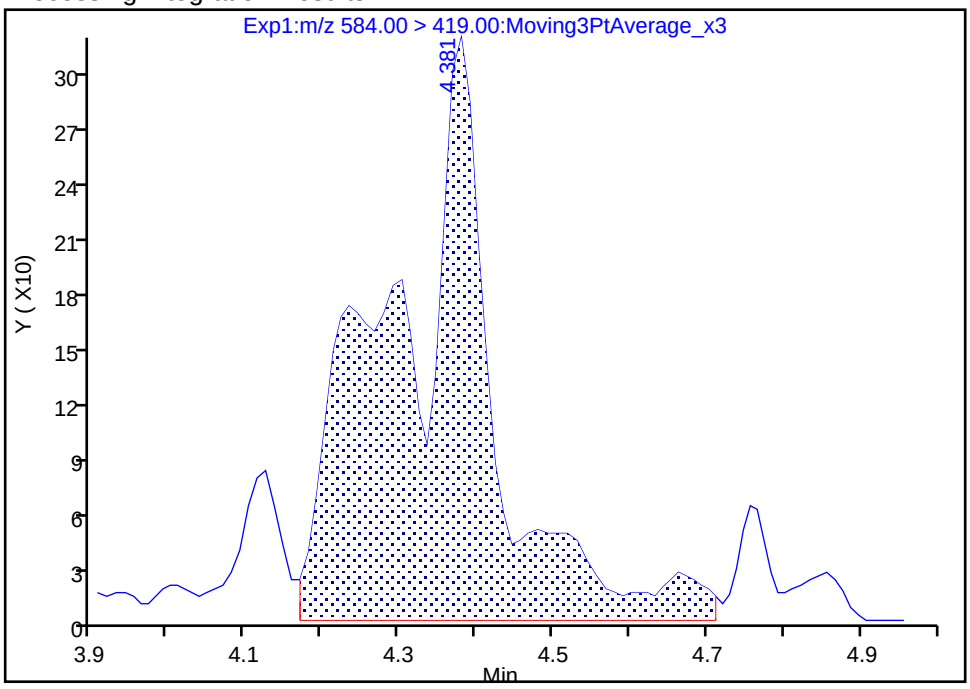
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

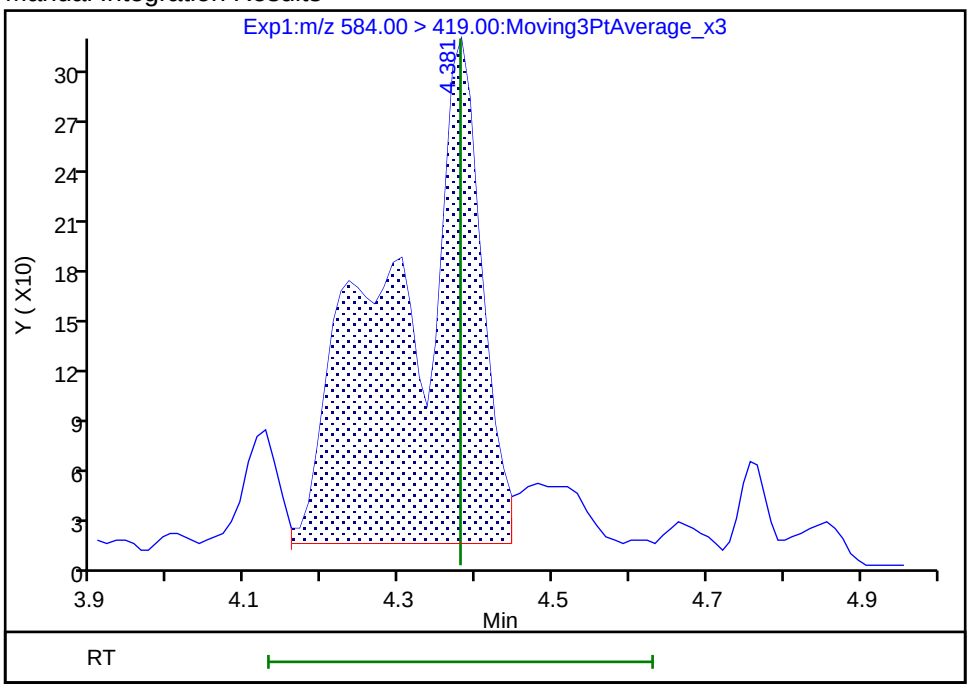
Processing Integration Results

RT: 4.38
Area: 2987
Amount: 0.027813
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 2326
Amount: 0.021658
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:42:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

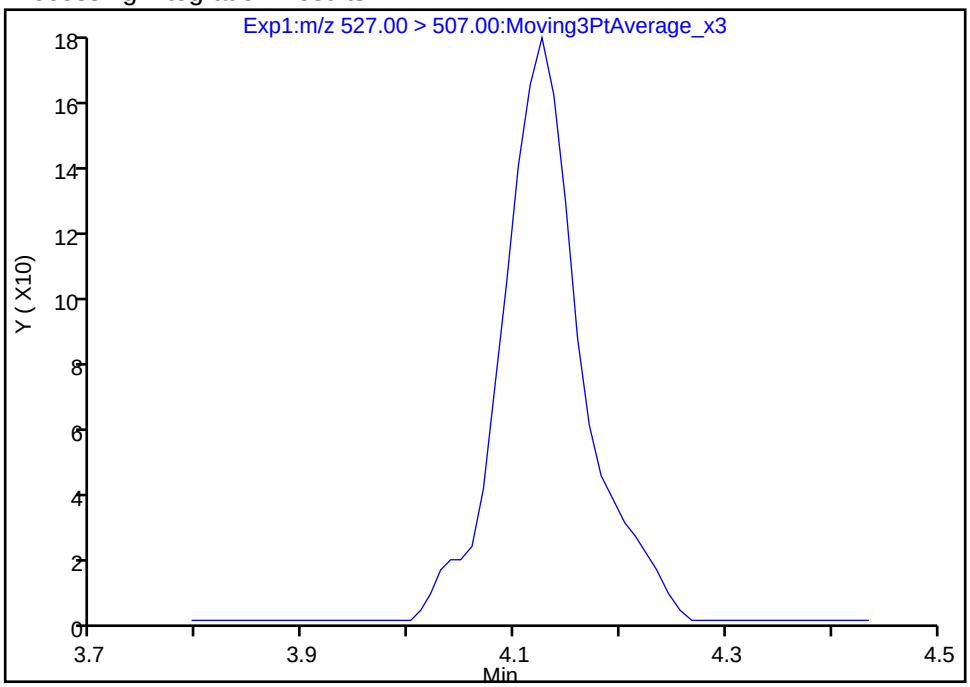
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D08.d | | | | |
| Injection Date: | 10-Nov-2021 05:09:30 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-4-A | Lab Sample ID: | 200-246277-4 | | |
| Client ID: | AMW-1-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

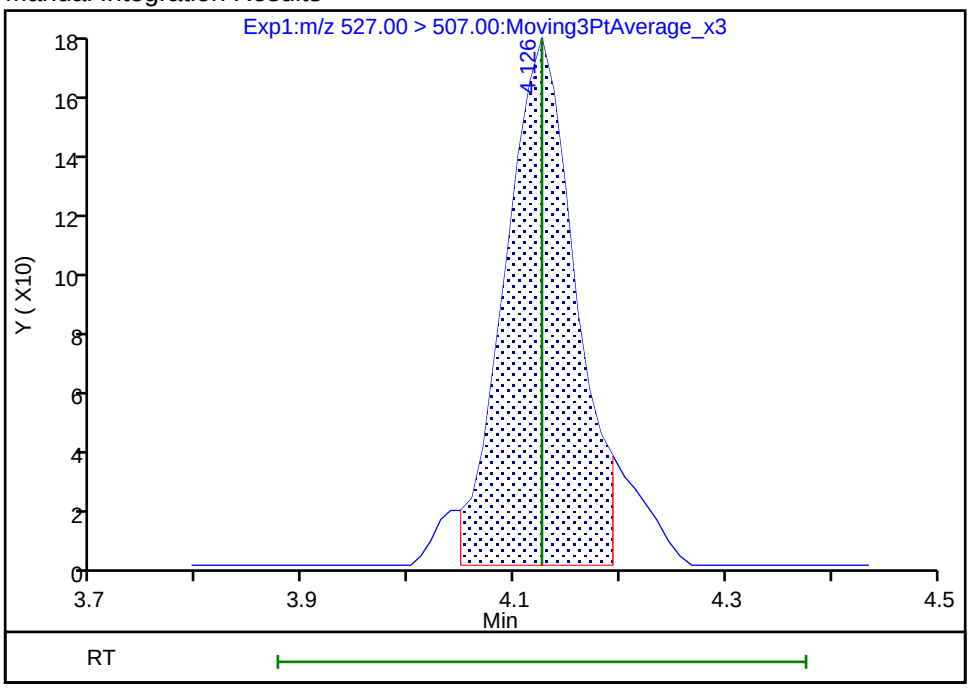
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 795
Amount: 0.003869
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 14:41:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202S-20211027  Lab Sample ID: 460-246277-5

Matrix: Water  Lab File ID: PA211109D09.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 257.8(mL)  Date Analyzed: 11/10/2021 05:17

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 10.2 | | 4.85 | 0.87 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 4.50 | | 1.94 | 0.46 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 7.57 | | 1.94 | 0.44 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 3.59 | | 1.94 | 0.23 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 22.0 | | 1.94 | 0.41 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.92 | J | 1.94 | 0.27 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.66 | J | 1.94 | 0.29 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.94 | 0.33 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.94 | 0.37 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.94 | 0.42 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.94 | 0.61 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 7.19 | | 1.94 | 0.24 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 33.8 | | 1.94 | 0.29 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.69 | J | 1.94 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 23.5 | | 1.94 | 0.28 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.30 | U | 1.94 | 0.30 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.56 | U | 1.94 | 0.56 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.88 | U | 4.85 | 0.88 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.72 | U | 4.85 | 0.72 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.06 | U | 4.85 | 1.06 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.94 | 0.38 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202S-20211027  Lab Sample ID: 460-246277-5

Matrix: Water  Lab File ID: PA211109D09.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 15:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 257.8(mL)  Date Analyzed: 11/10/2021 05:17

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 92 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 79 | | 25-150 |
| STL00993 | 13C2 PFHxA | 96 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 85 | | 50-150 |
| STL00998 | 13C2 PFDoA | 82 | | 50-150 |
| STL01056 | 13C8 FOSA | 88 | | 25-150 |
| STL01893 | 13C5 PFPeA | 88 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 76 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 98 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 99 | | 50-150 |
| STL02279 | M2-6:2 FTS | 119 | | 25-150 |
| STL02280 | M2-8:2 FTS | 119 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d
Lims ID: 460-246277-C-5-A
Client ID: MW-202S-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:17:40 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-5-A
Misc. Info.: 200-0048356-009 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 15:32:29
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1183441 | 0.9865 | | 78.9 | 2733 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 235328 | 0.2629 | | | 13.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1109556 | 1.10 | | 87.8 | 484 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 103238 | 0.1161 | | | 0.7 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1460022 | 1.07 | | 91.8 | 49549 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 248598 | 0.1853 | Target=2.32 | | 8.6 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 99427 | | 2.50(1.16-3.48) | | 12.0 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1267261 | 1.20 | | 95.6 | 2688 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 200579 | 0.1951 | Target=12.09 | | 3.6 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 16542 | | 12.13(6.04-18.13) | | 9.9 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 879507 | 0.8715 | Target=3.55 | | 119 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 230629 | | 3.81(1.77-5.32) | | 121 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1085464 | 1.09 | | 92.4 | 3332 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1354369 | 1.21 | | 97.1 | 3779 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 103626 | 0.0926 | Target=3.69 | | 4.4 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 26902 | | 3.85(1.84-5.53) | | 31.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 15464 | 0.0179 | Target=4.88 | | 4.1 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.913 | 4242 | | 3.65(2.44-7.32) | | 4.2 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 569 | 0.002416 | | | 5.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 220535 | 1.41 | | 119 | 94.8 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1420275 | 1.16 | | 93.2 | 4620 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1481391 | 1.25 | | | 3020 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 684588 | 0.5666 | Target=2.68 | | 34.6 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 285185 | | 2.40(1.34-4.02) | | 393 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 827482 | 1.15 | | 96.5 | 588 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 455498 | 0.6062 | Target=4.69 | | 139 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 86461 | | 5.27(2.35-7.04) | | 83.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1390085 | 1.14 | | 91.6 | 2733 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 53987 | 0.0496 | Target=7.29 | | 6.3 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 0.997 | 7303 | | 7.39(3.64-10.93) | | 27.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1340350 | 1.09 | | 87.5 | 3213 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 18234 | 0.0169 | Target=8.95 | | 5.1 | M |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 2500 | | 7.29(4.47-13.42) | | 13.1 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 252523 | 1.42 | | 119 | 316 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 46 | 0.000261 | | | 1.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1304431 | 1.10 | | 88.3 | 3493 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.002 | 1376 | 0.001388 | | | 3.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 147718 | 1.23 | | 98.0 | 1327 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.182 | 4.257 | -0.075 | 0.982 | 336 | 0.003619 | | | 1.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1011117 | 1.06 | | 84.7 | 7087 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 0.997 | 2611 | 0.003028 | Target=9.24 | | 1.1 | M |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 0.997 | 385 | | 6.78(4.62-13.86) | | 3.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 140112 | 1.24 | | 99.2 | 784 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.313 | 4.380 | -0.067 | 0.982 | 799 | 0.008319 | | | 3.9 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1057200 | 1.03 | | 82.3 | 1480 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.612 | 4.591 | 0.021 | 1.002 | 1374 | 0.001659 | Target=7.04 | | 0.4 | RM |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 127 | | 10.82(3.52-10.56) | | 2.5 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.792 | 4.792 | 0.0 | 1.042 | 1063 | 0.001489 | Target=4.68 | | 0.4 | RM |
| 663.00 > 169.00 | 4.783 | 4.792 | -0.009 | 1.040 | 33 | | 32.21(2.34-7.02) | | 0.6 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 758105 | 0.9511 | | 76.1 | 1729 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | Ma |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 164 | 0.001713 | Target=1.01 | | 5.8 | a |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.998 | 300 | | 0.55(0.51-1.52) | | 10.7 | |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Report Date: 11-Nov-2021 11:26:02 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d

Injection Date: 10-Nov-2021 05:17:40 Instrument ID: LC812

Lims ID: 460-246277-C-5-A Lab Sample ID: 200-246277-5

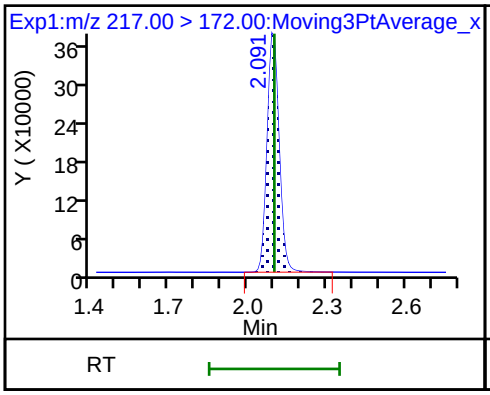
Client ID: MW-202S-20211027

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 9

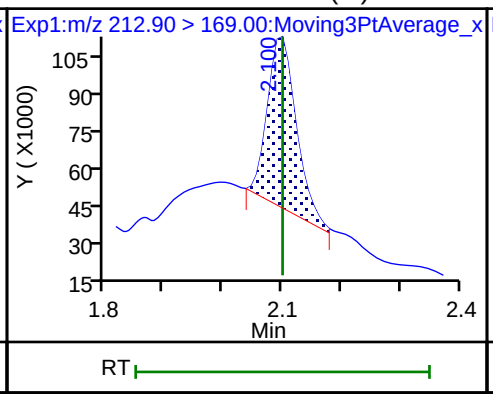
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

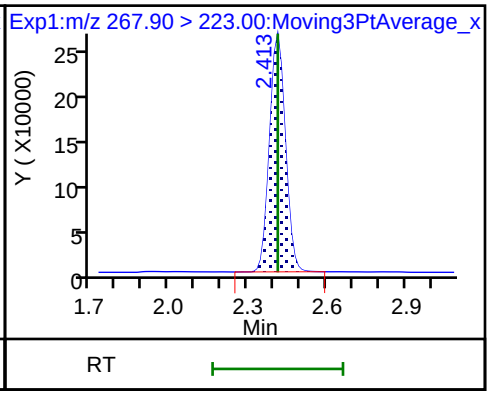
D 1 13C4 PFBA



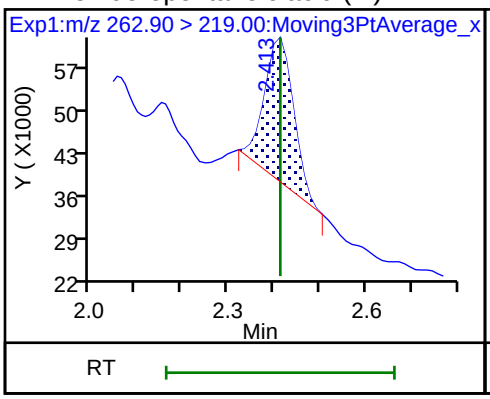

2 Perfluorobutanoic acid (M)



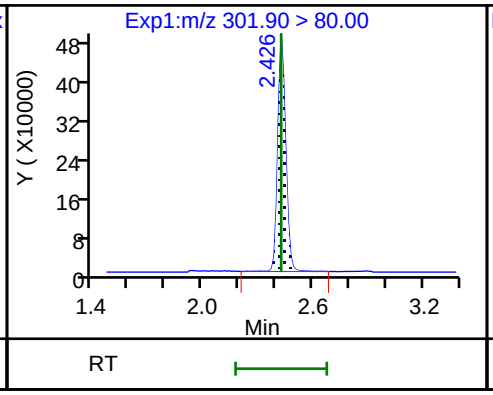

D 3 13C5 PFPeA



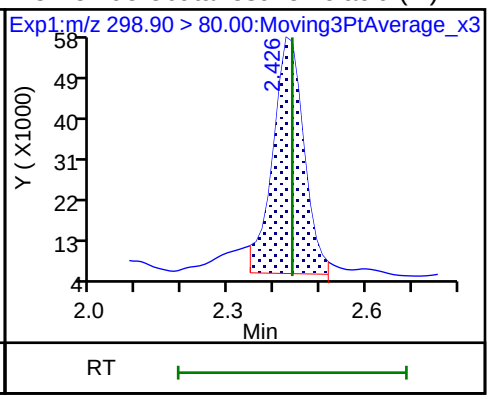

4 Perfluoropentanoic acid (M)



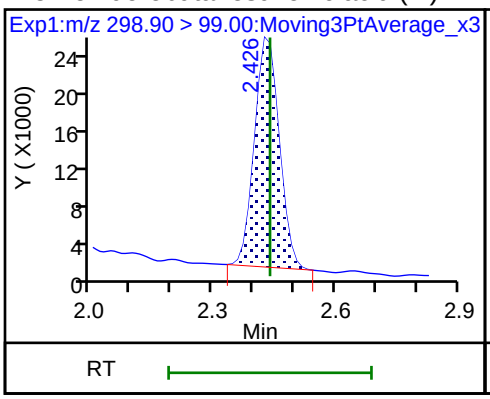

D 47 13C3 PFBS



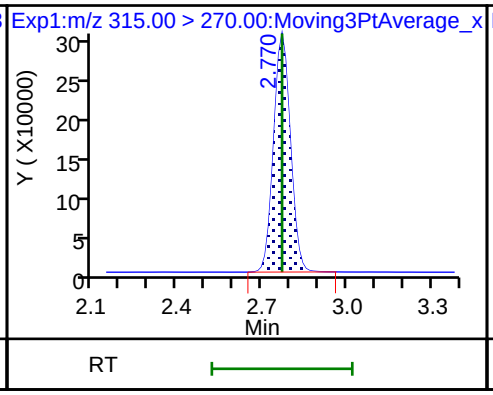

5 Perfluorobutanesulfonic acid (M)



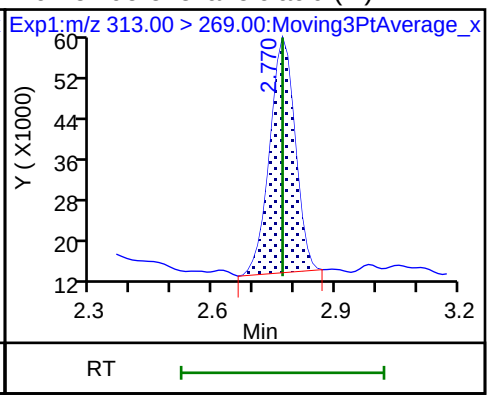

5 Perfluorobutanesulfonic acid (M)



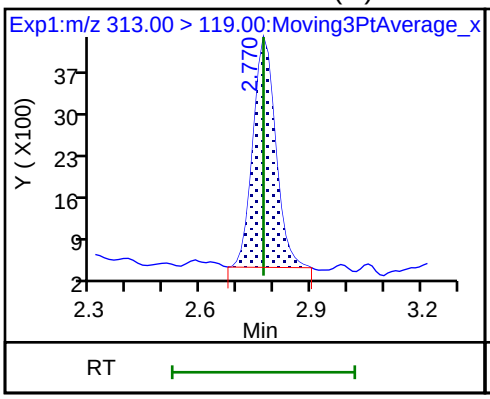

D 7 13C2 PFHxA




6 Perfluorohexanoic acid (M)




6 Perfluorohexanoic acid (M)

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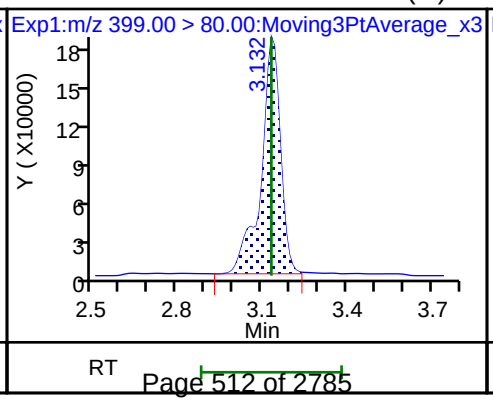
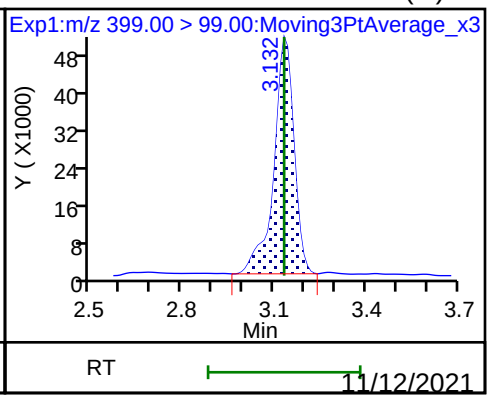
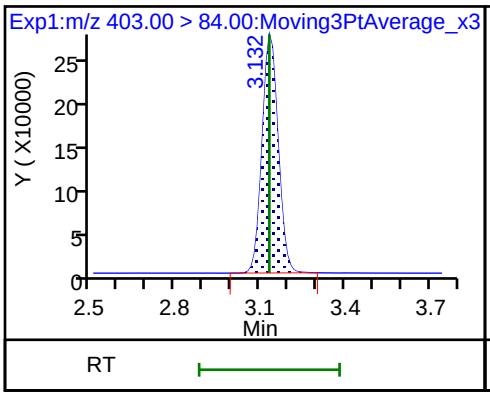


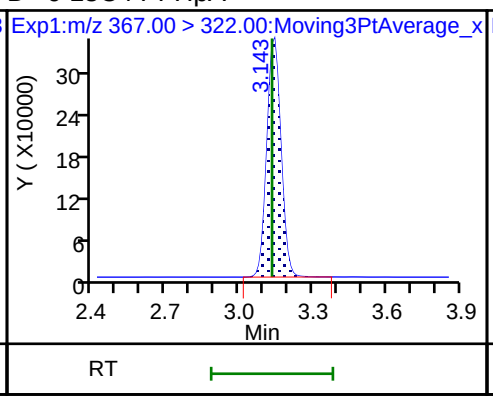

8 Perfluorohexanesulfonic acid (M)



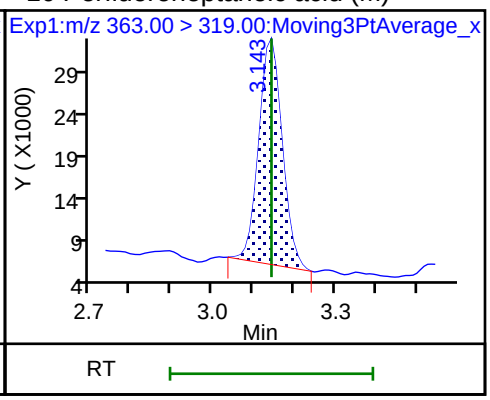
D 11 18O2 PFHxS



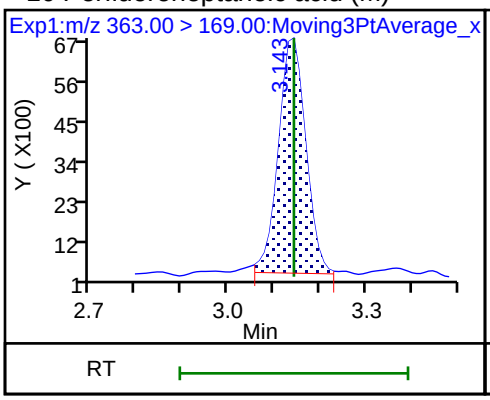

D 9 13C4 PFHpA



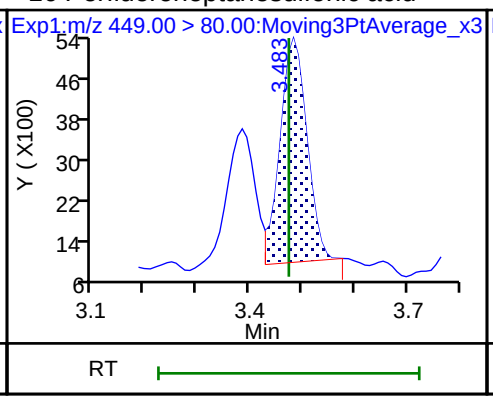

10 Perfluoroheptanoic acid (M)



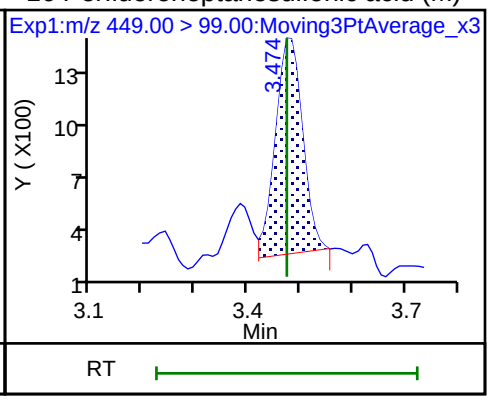

10 Perfluoroheptanoic acid (M)



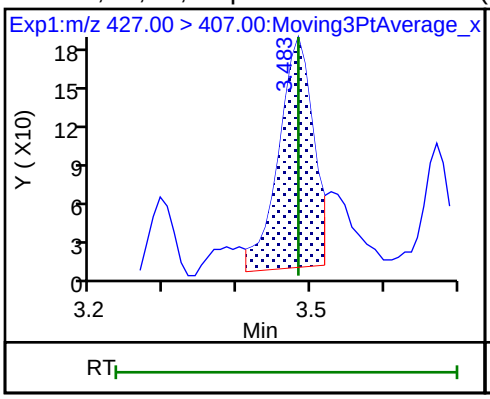

16 Perfluoroheptanesulfonic acid



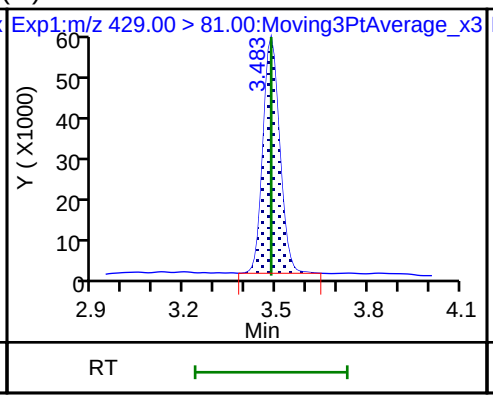

16 Perfluoroheptanesulfonic acid (M)



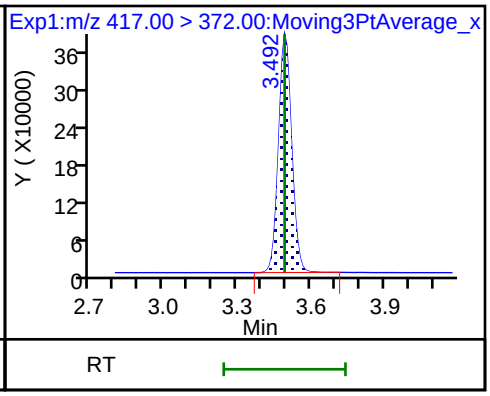

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



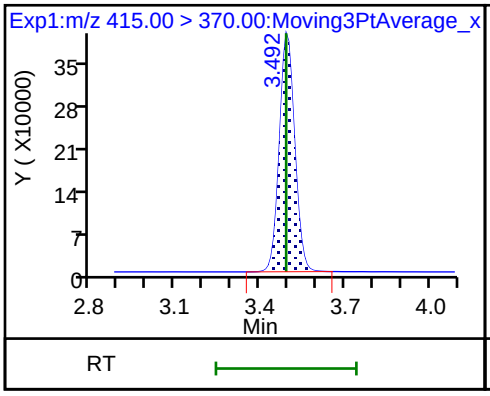

D 12 M2-6:2 FTS



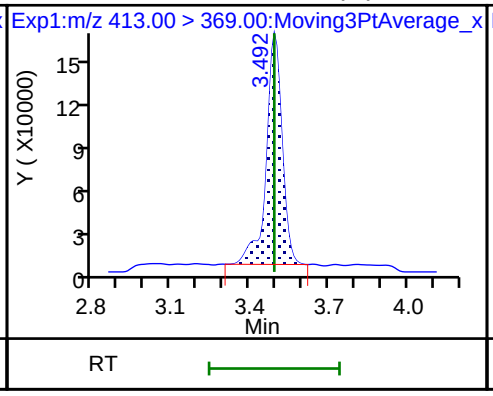

D 14 13C4 PFOA




* 62 13C2 PFOA




15 Perfluorooctanoic acid (M)

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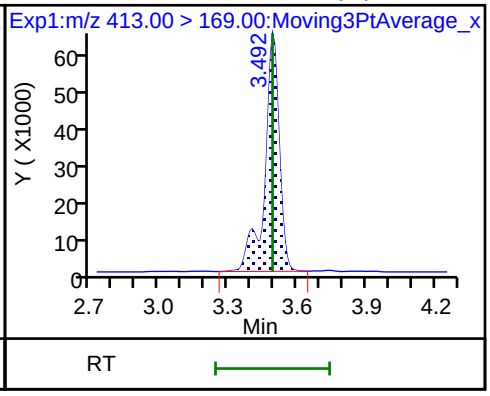
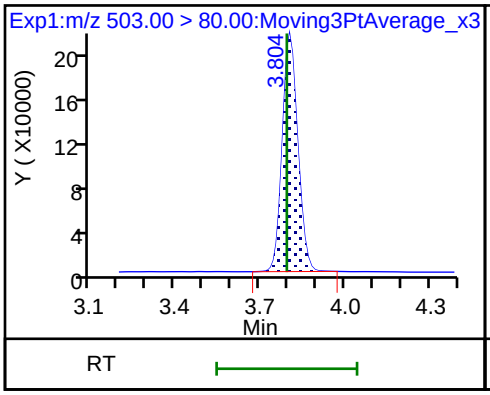
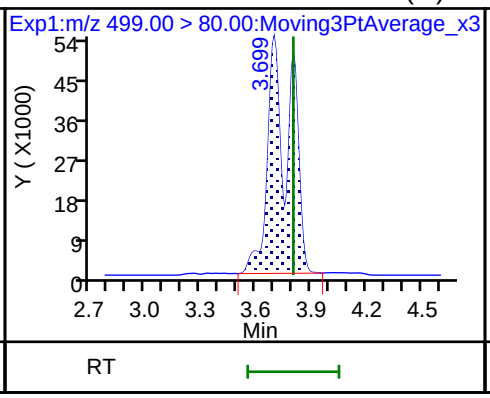


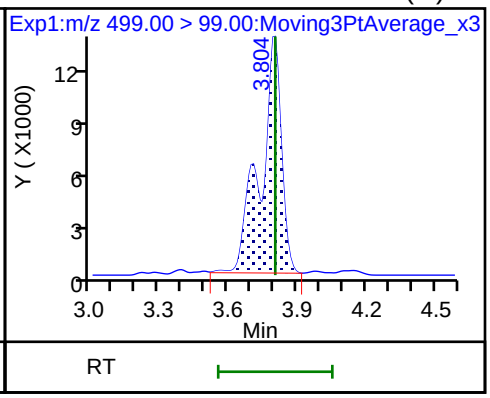
D 18 13C4 PFOS



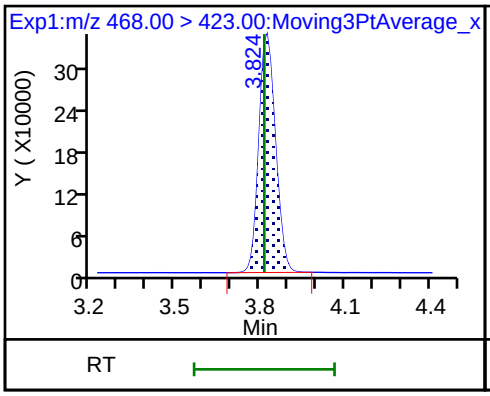

17 Perfluorooctanesulfonic acid (M)



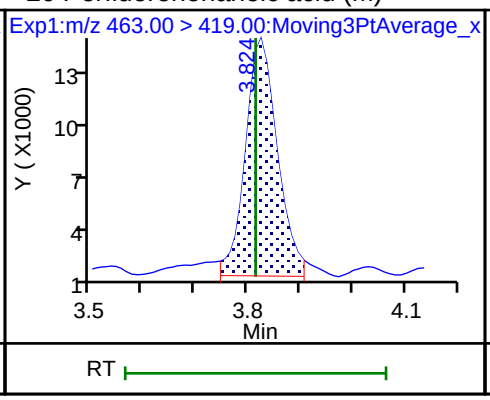

17 Perfluorooctanesulfonic acid (M)



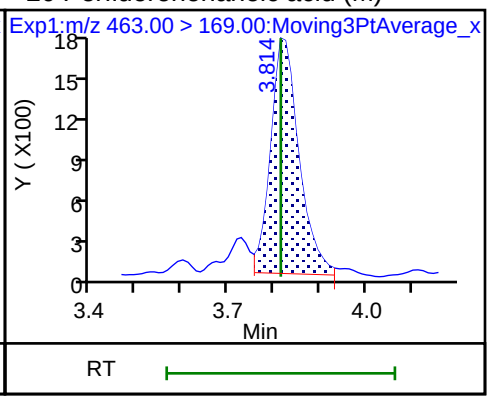

D 19 13C5 PFNA



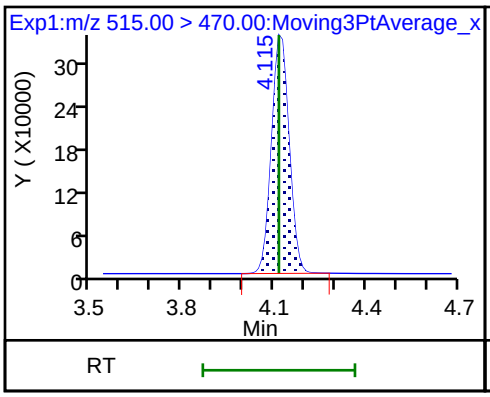

20 Perfluorononanoic acid (M)



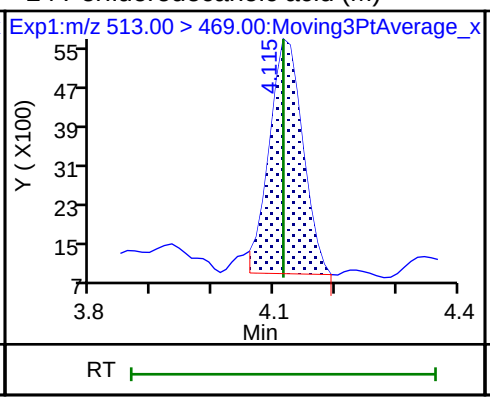

20 Perfluorononanoic acid (M)



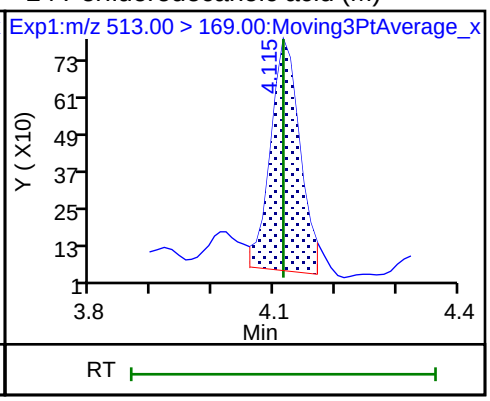

D 23 13C2 PFDA



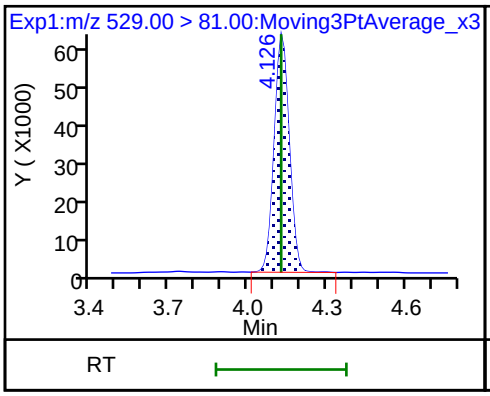

24 Perfluorodecanoic acid (M)



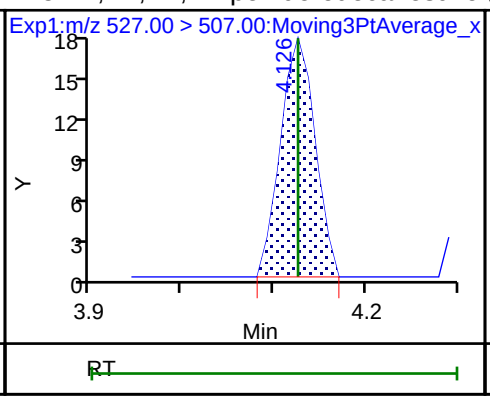

24 Perfluorodecanoic acid (M)



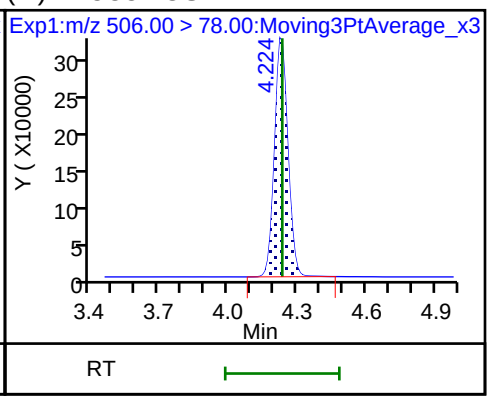

D 26 M2-8:2 FTS



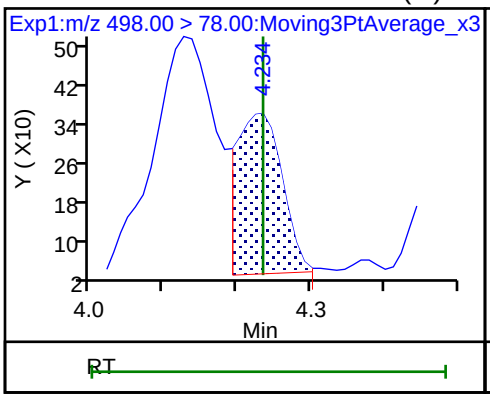

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



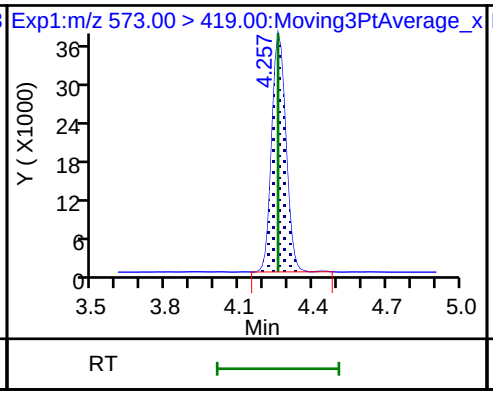

21 13C8 FOSA



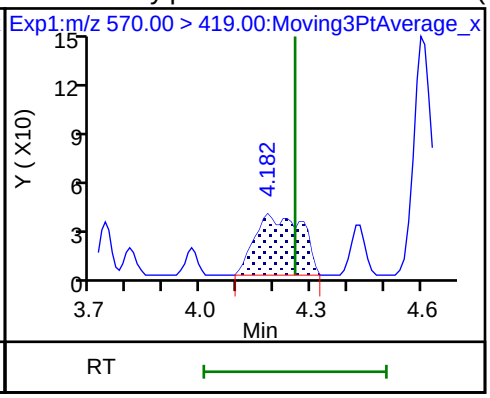
22 Perfluorooctanesulfonamide (M)



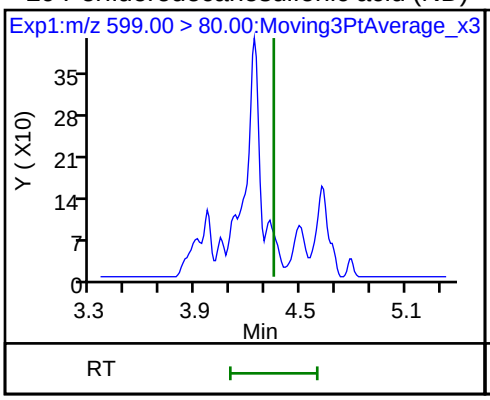

D 27 d3-NMeFOSAA



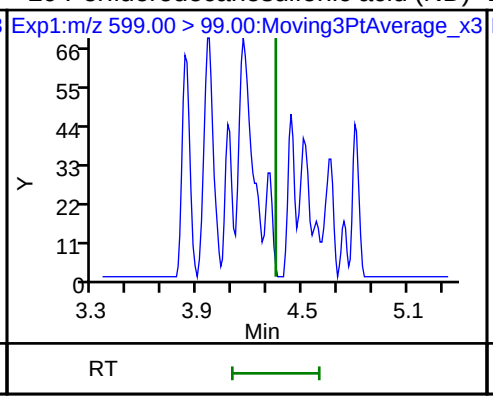

28 N-methylperfluorooctanesulfonami (M)



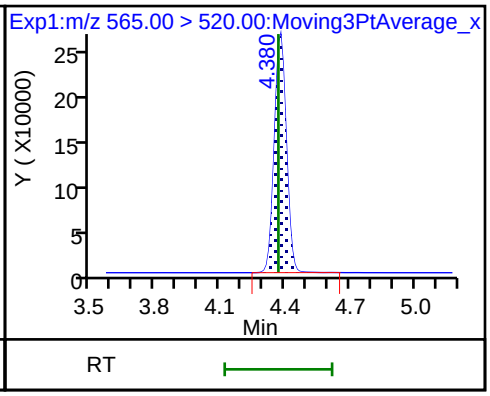

29 Perfluorodecanesulfonic acid (ND)



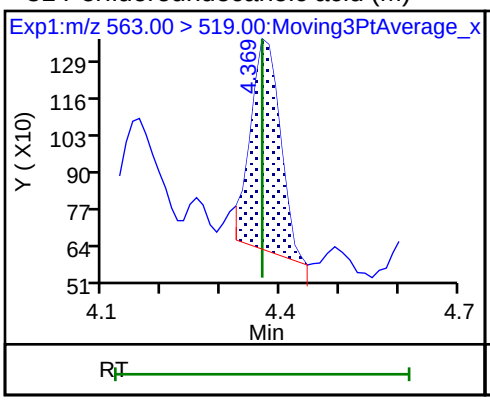

29 Perfluorodecanesulfonic acid (ND)



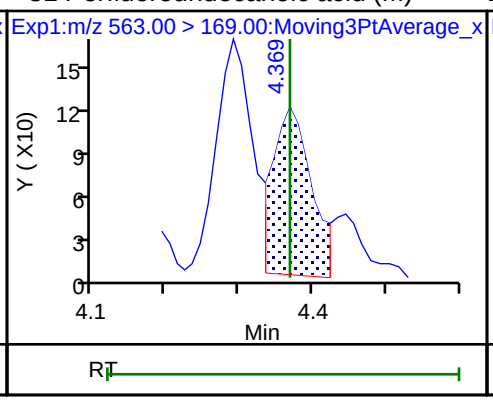

D 30 13C2 PFUnA



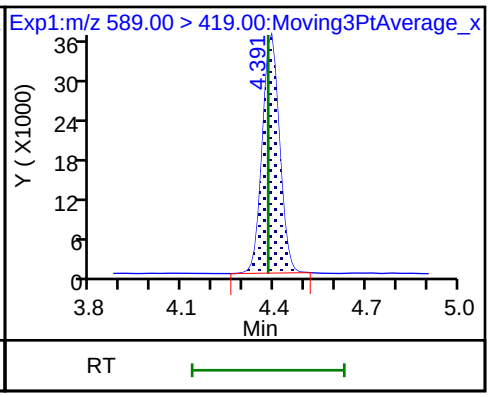

31 Perfluoroundecanoic acid (M)



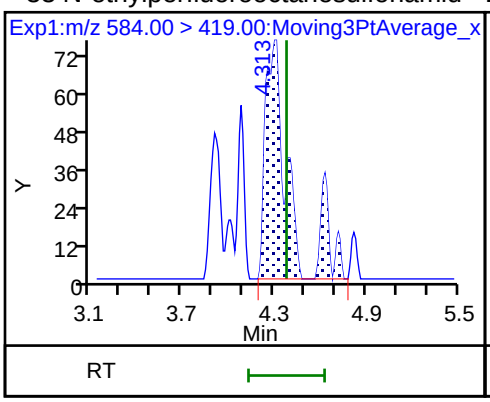

31 Perfluoroundecanoic acid (M)



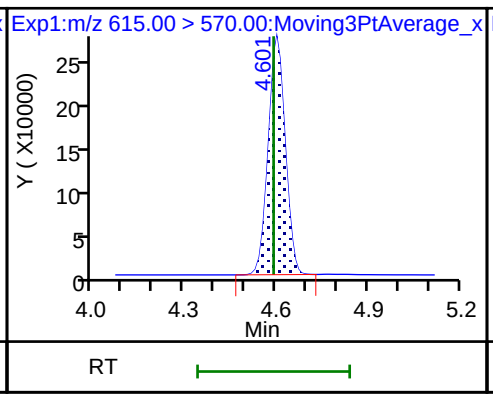

D 32 d5-NEtFOSAA



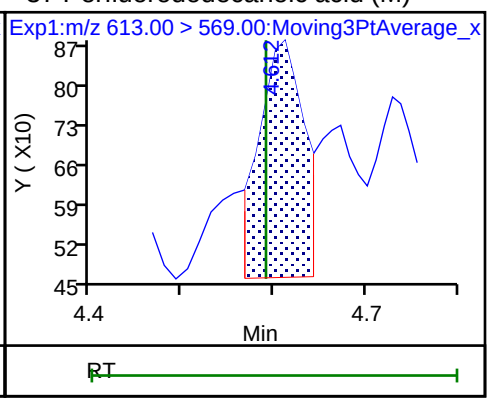

33 N-ethylperfluorooctanesulfonamid



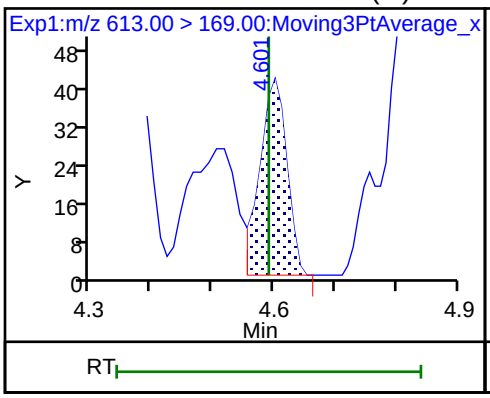

D 36 13C2 PFDoA



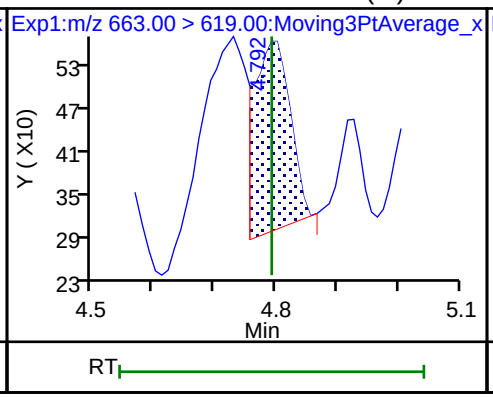

37 Perfluorododecanoic acid (M)



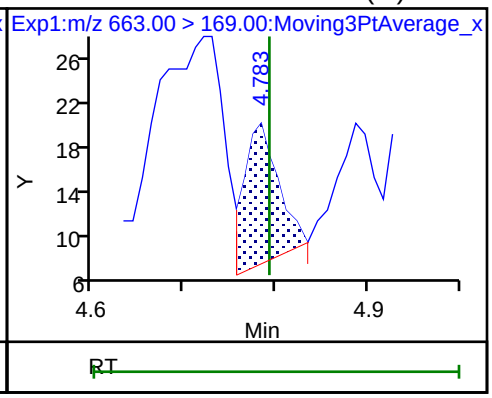
37 Perfluorododecanoic acid (M)



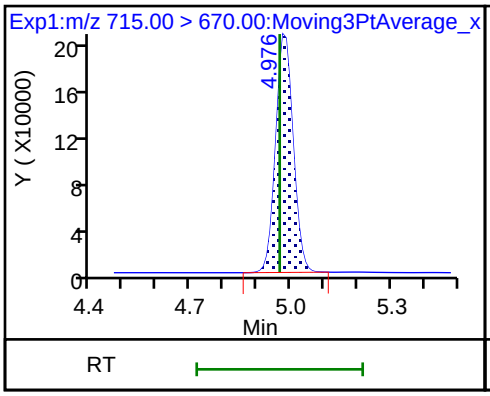

41 Perfluorotridecanoic acid (M)



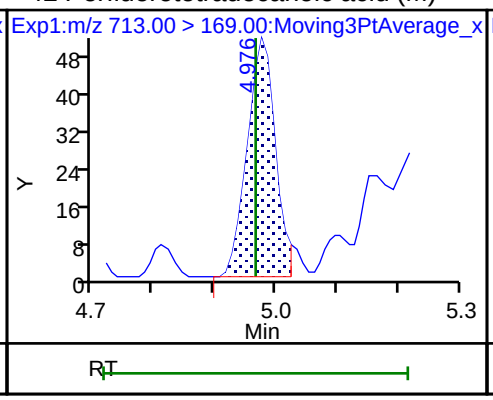

41 Perfluorotridecanoic acid (M)



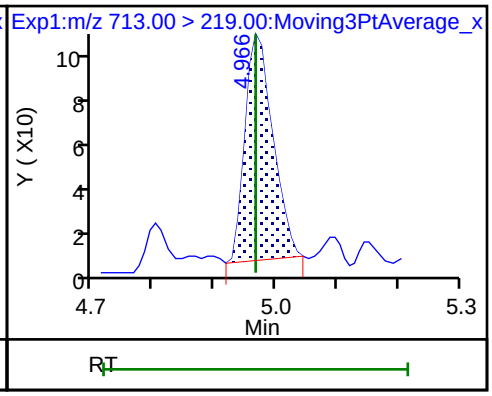

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid



Eurofins TestAmerica, Burlington

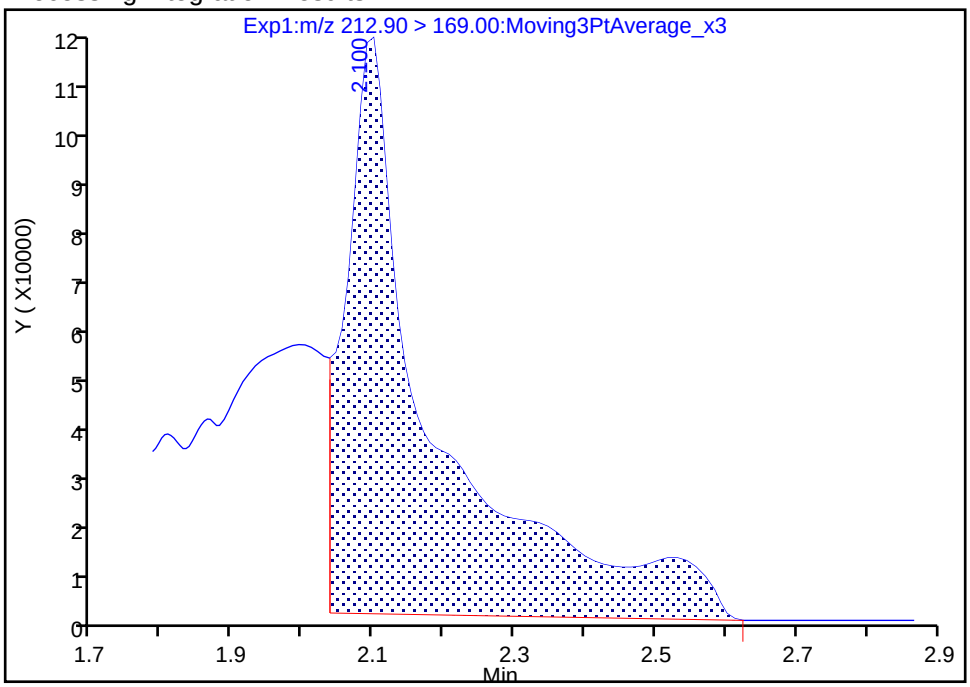
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

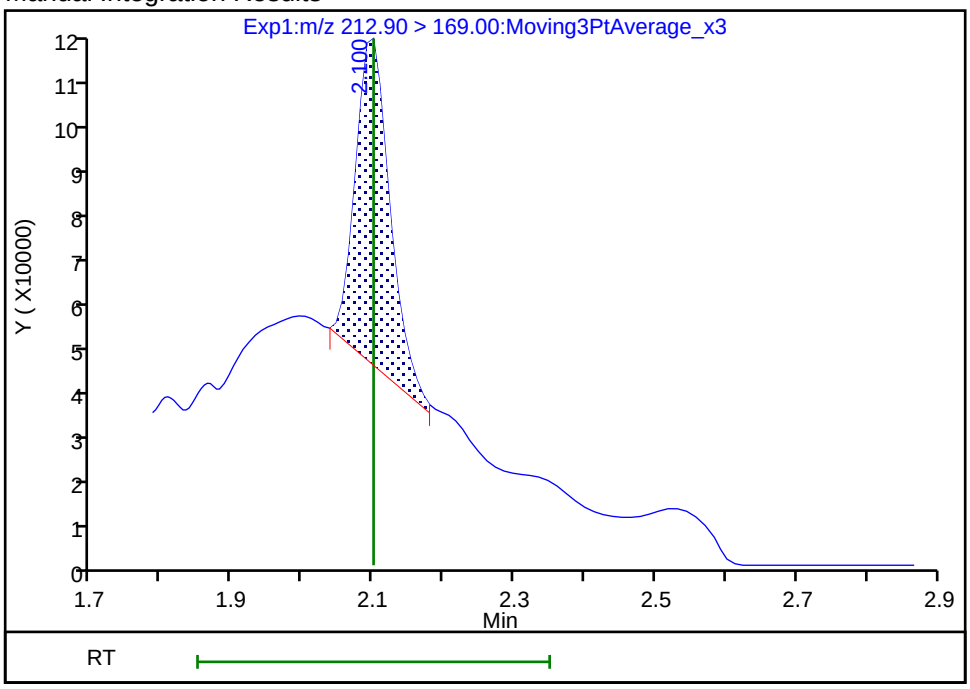
Processing Integration Results

RT: 2.10
Area: 977510
Amount: 1.091933
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 235328
Amount: 0.262874
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:24:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

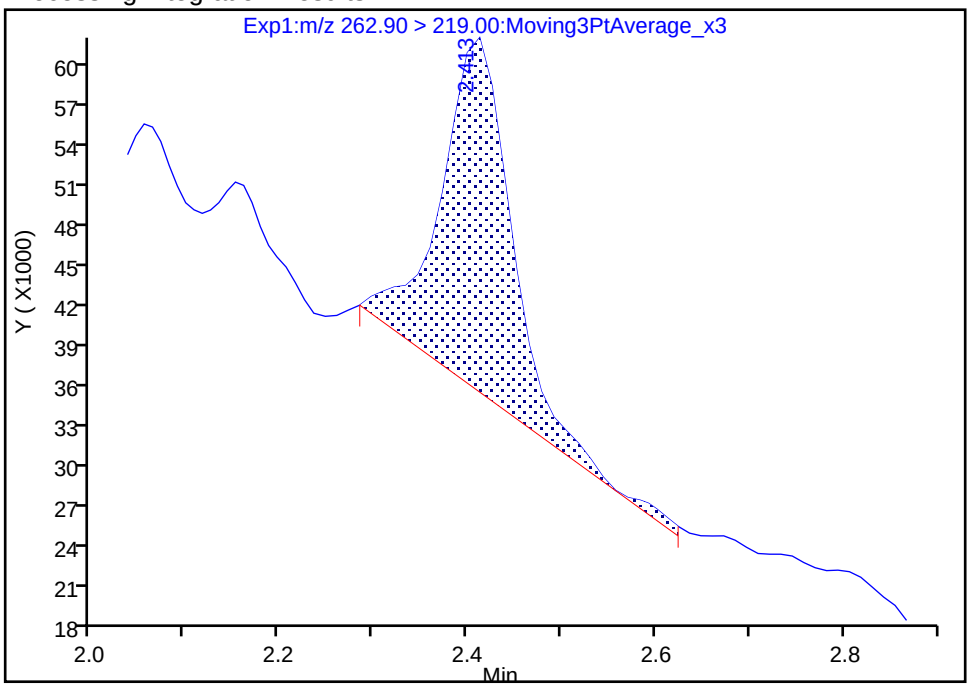
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

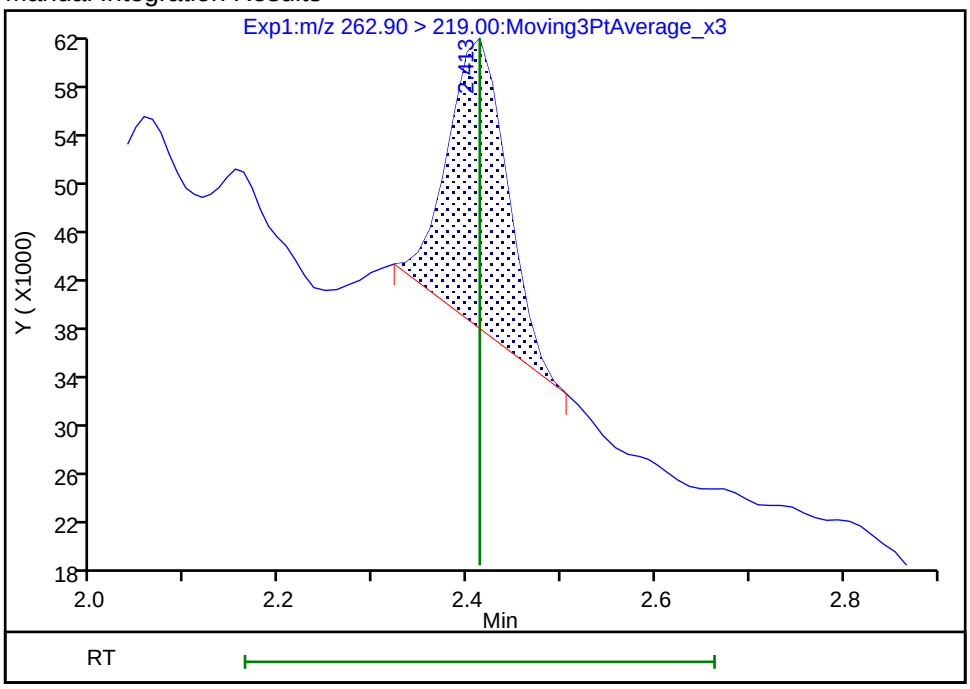
Processing Integration Results

RT: 2.41
Area: 139592
Amount: 0.156990
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 103238
Amount: 0.116105
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:24:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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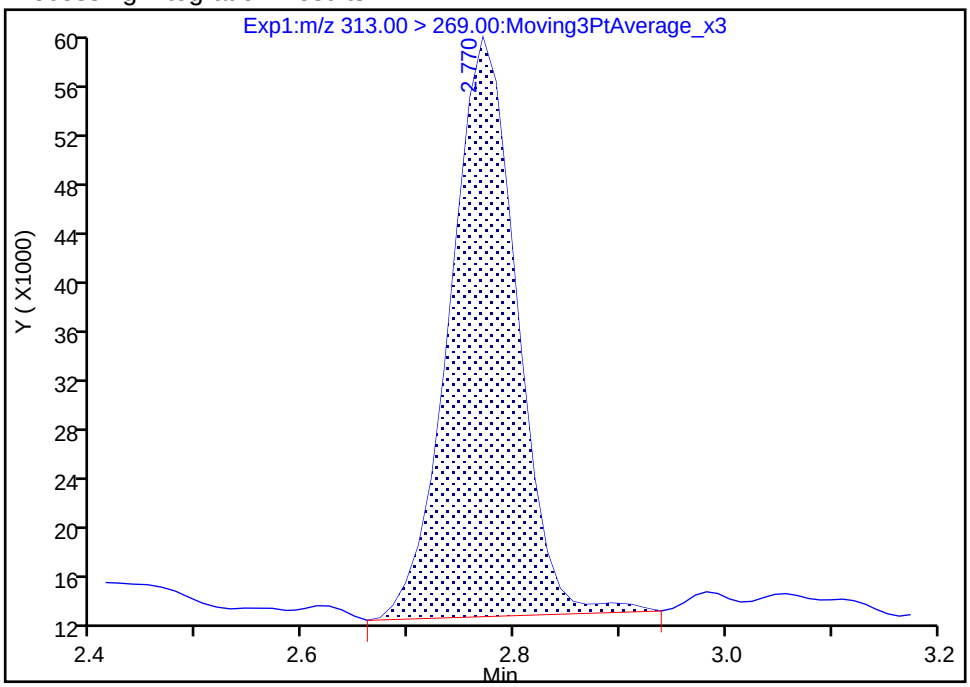
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

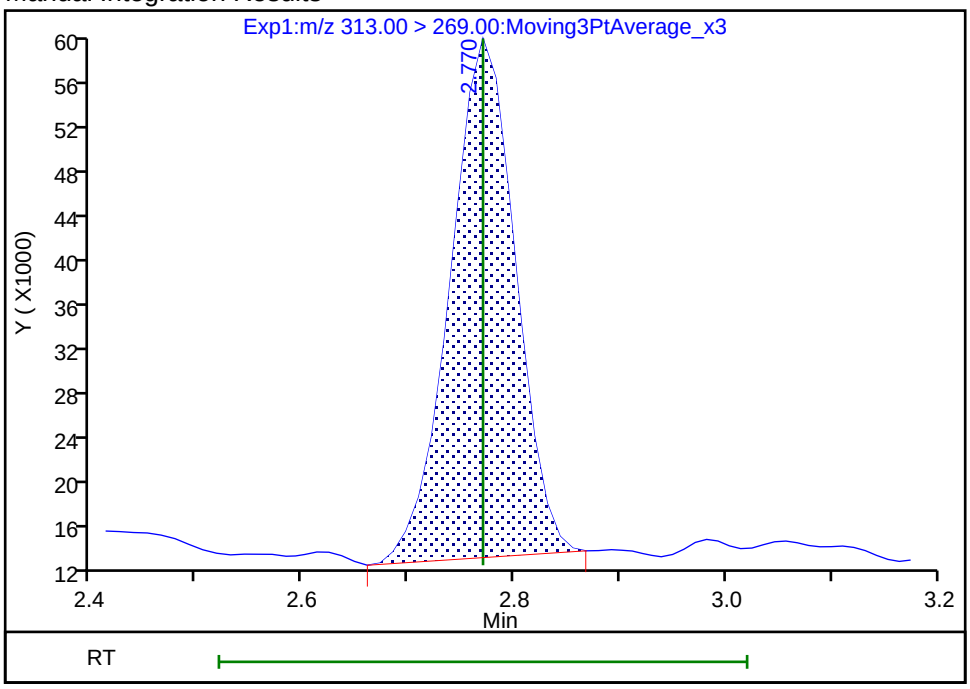
Processing Integration Results

RT: 2.77
Area: 207424
Amount: 0.201739
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 200579
Amount: 0.195082
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:25:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

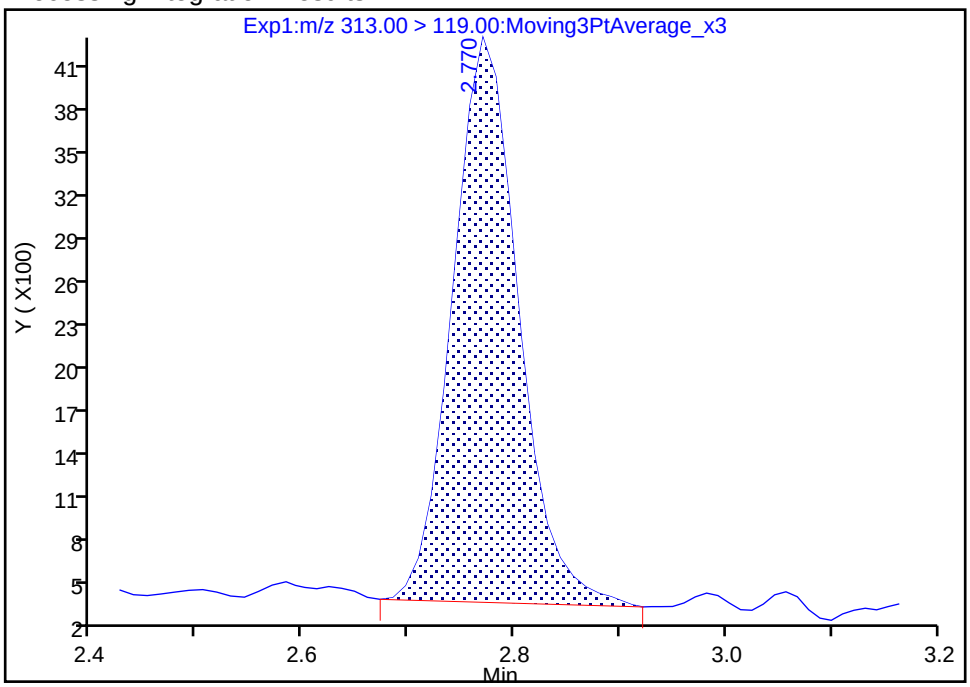
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

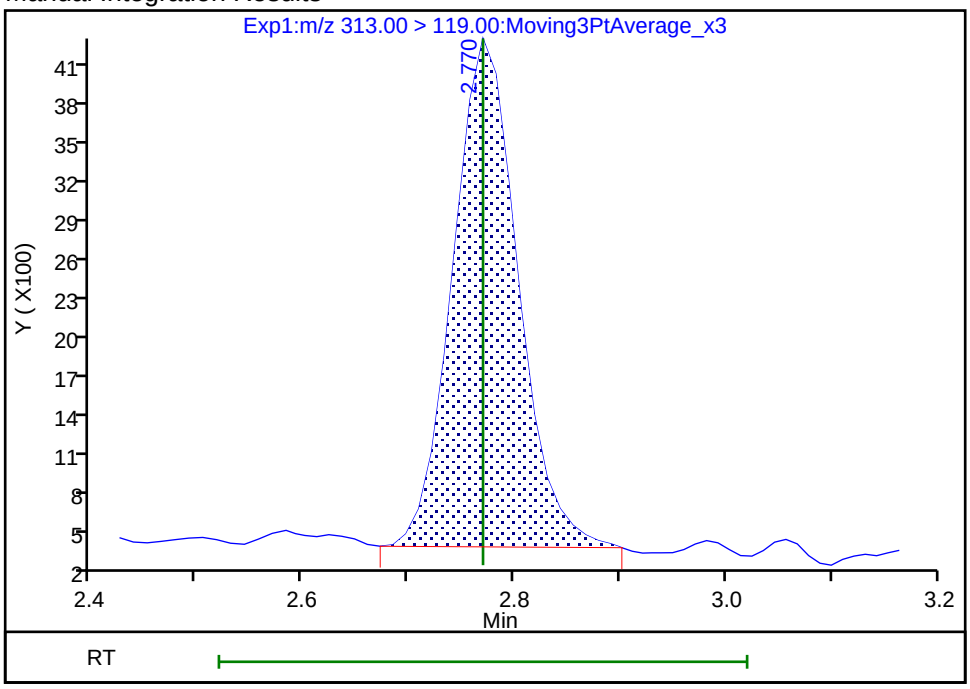
Processing Integration Results

RT: 2.77
Area: 16813
Amount: 0.201739
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 16542
Amount: 0.195082
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:25:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

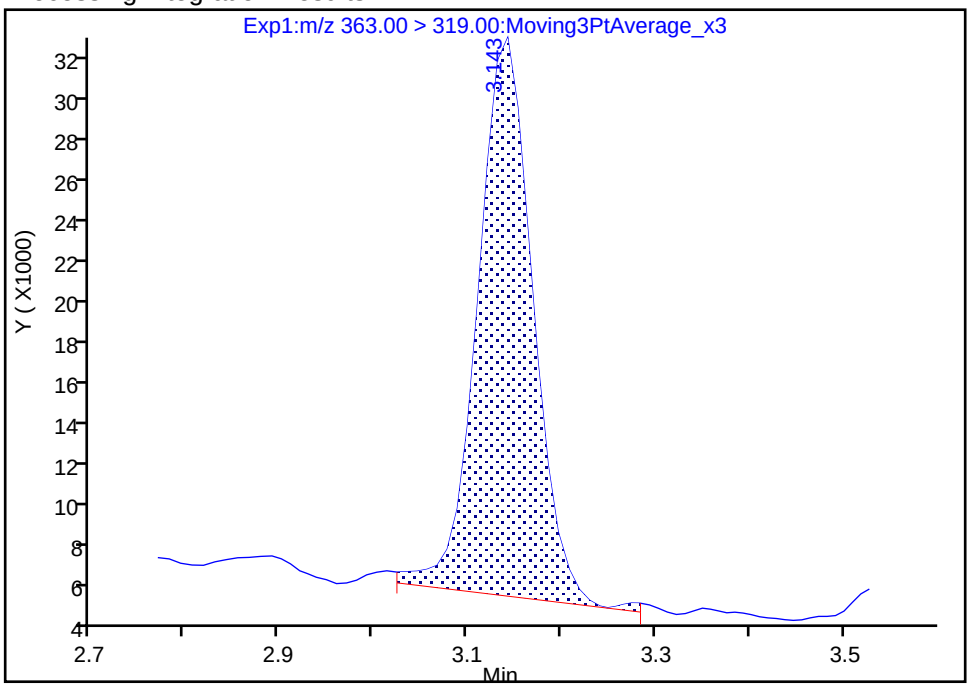
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

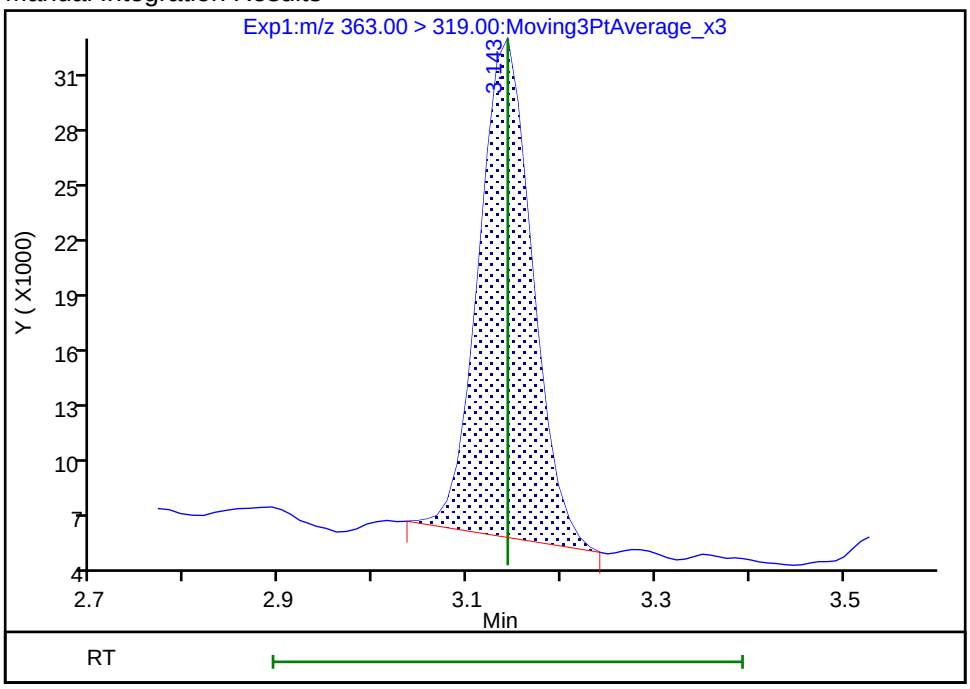
Processing Integration Results

RT: 3.14
Area: 108468
Amount: 0.096891
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 103626
Amount: 0.092566
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:27:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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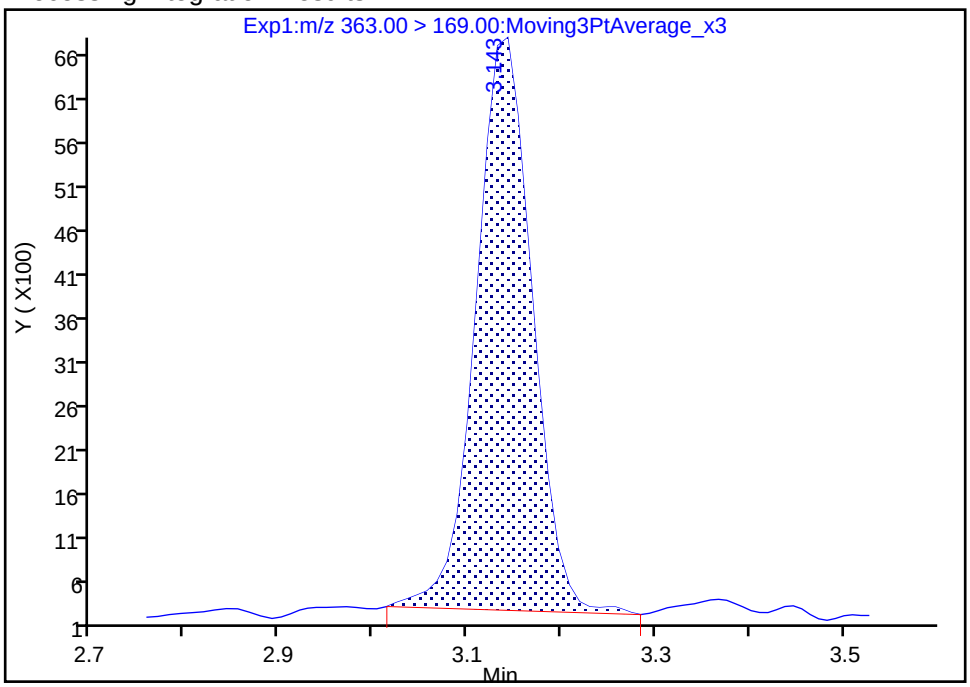
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

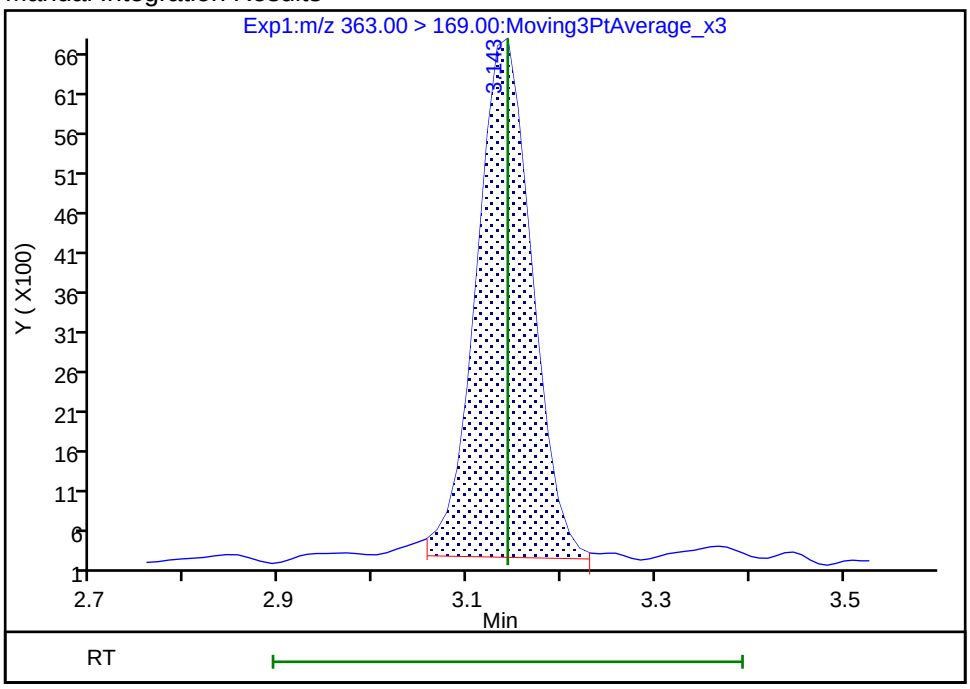
Processing Integration Results

RT: 3.14
Area: 27169
Amount: 0.096891
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 26902
Amount: 0.092566
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:27:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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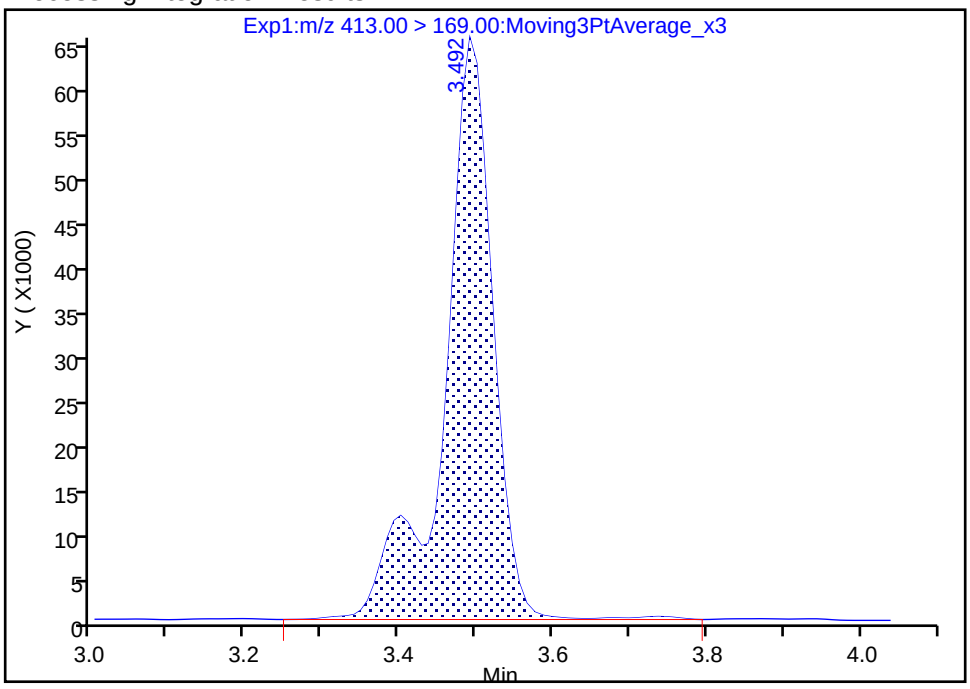
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

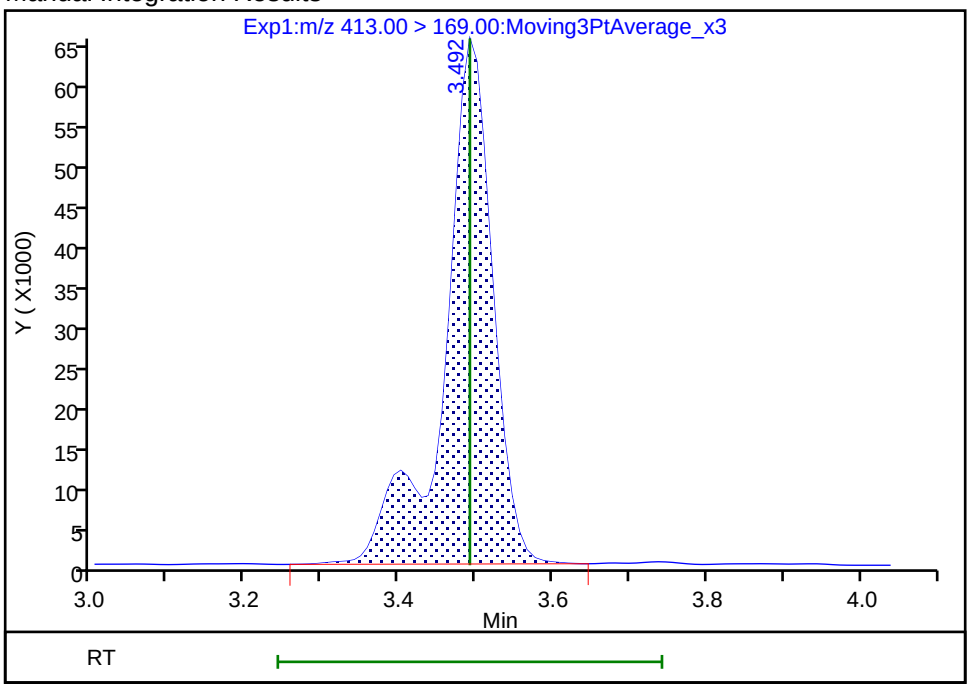
Processing Integration Results

RT: 3.49
Area: 287958
Amount: 0.579107
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 285185
Amount: 0.566571
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:28:42
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

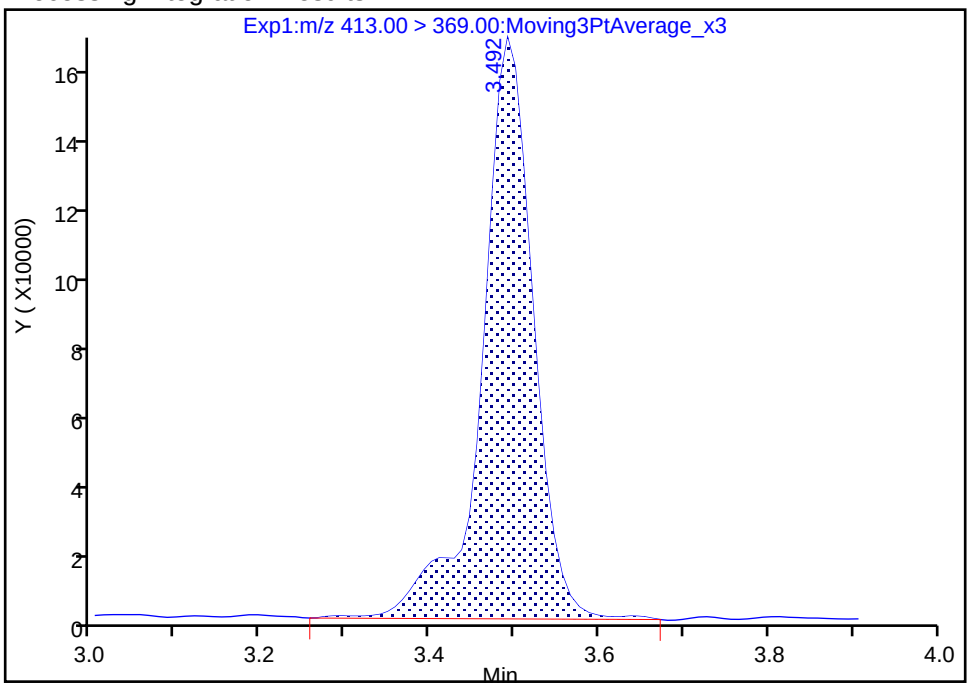
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

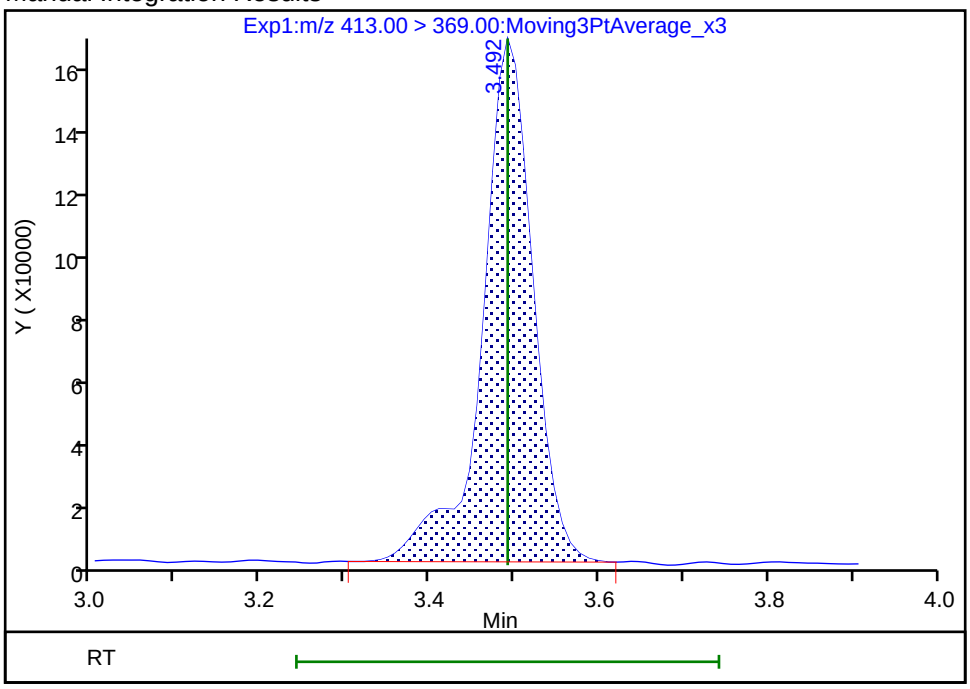
Processing Integration Results

RT: 3.49
Area: 699735
Amount: 0.579107
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 684588
Amount: 0.566571
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:28:46
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

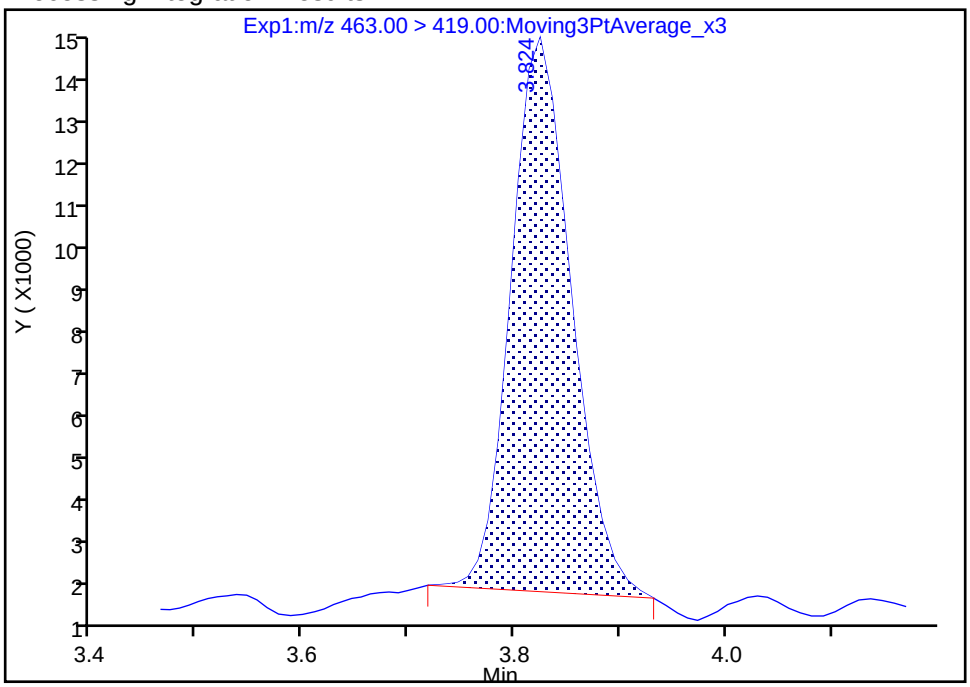
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

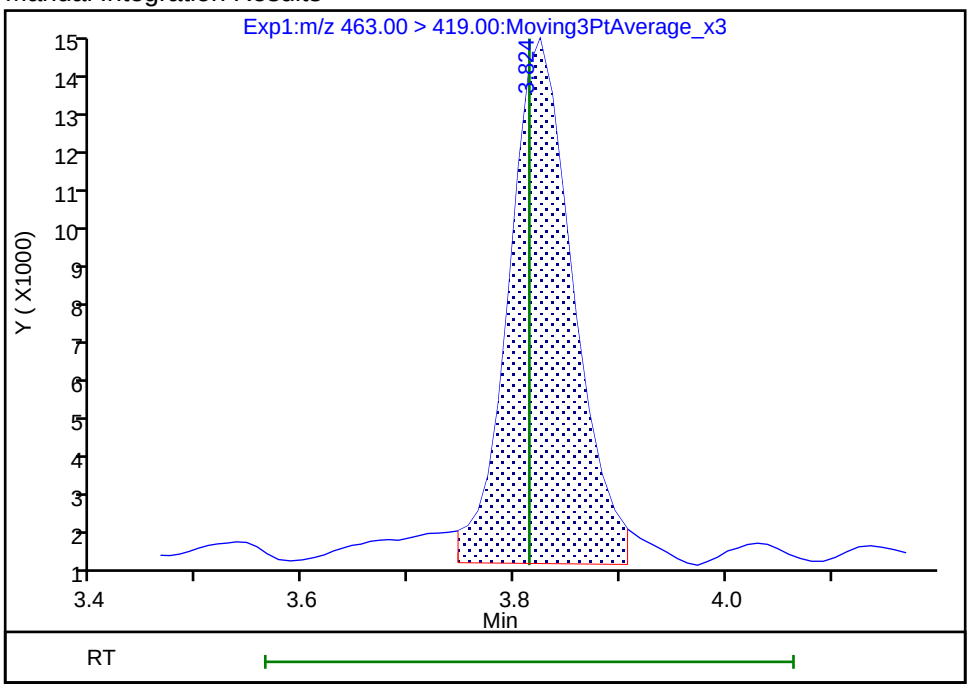
Processing Integration Results

RT: 3.82
Area: 48626
Amount: 0.044694
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 53987
Amount: 0.049622
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:29:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

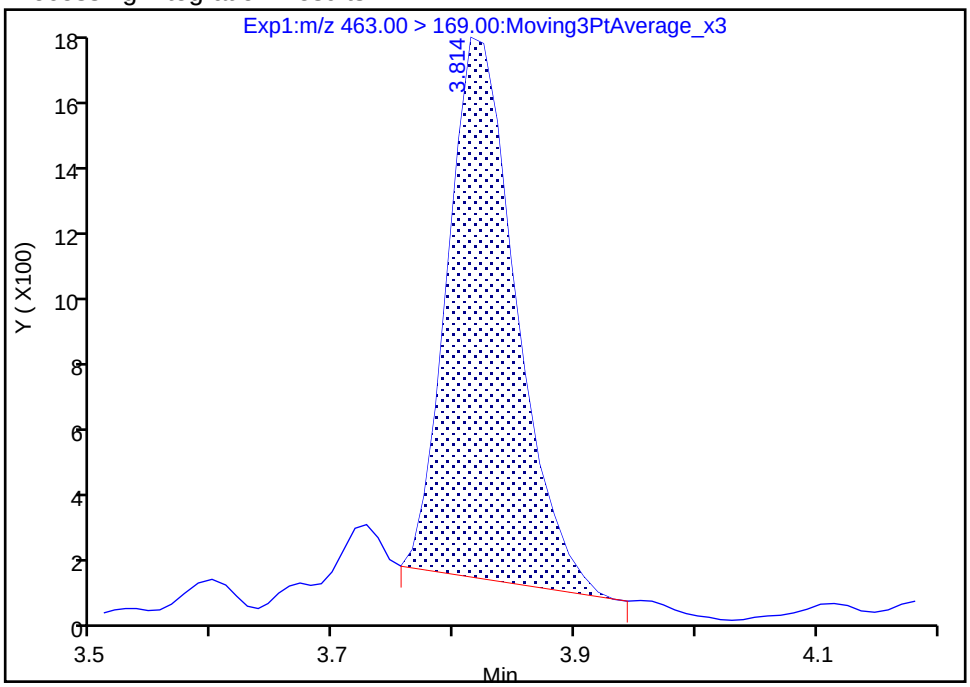
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

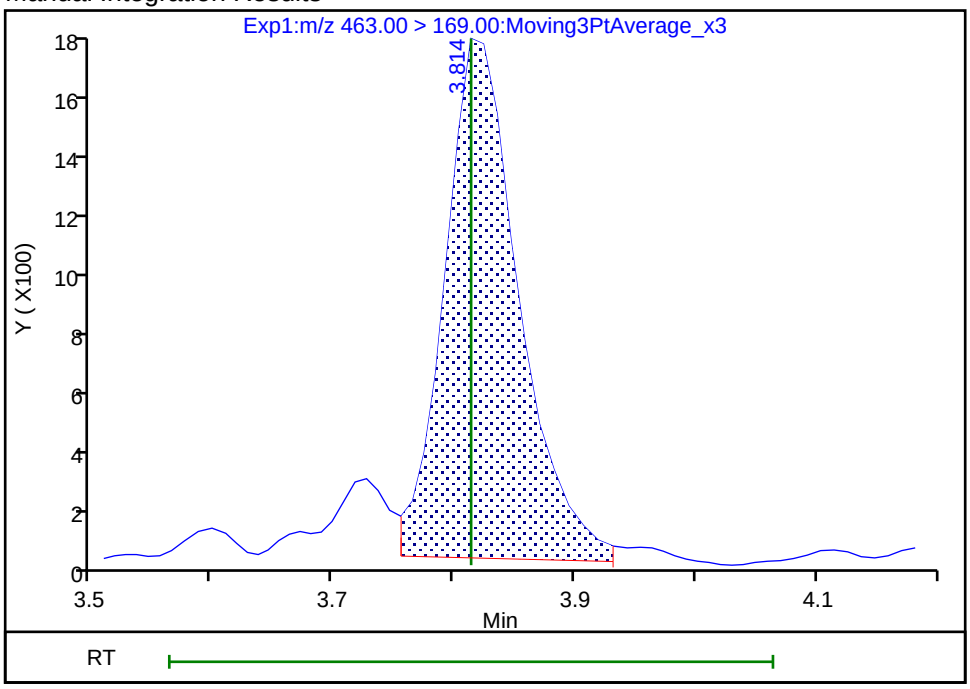
Processing Integration Results

RT: 3.81
Area: 6342
Amount: 0.044694
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 7303
Amount: 0.049622
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:29:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

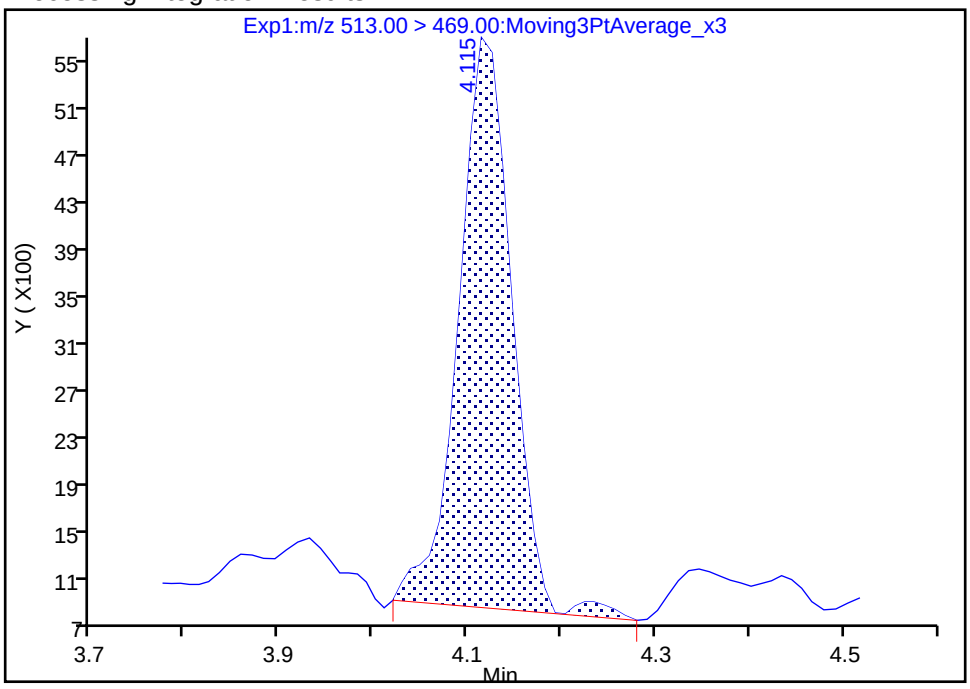
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

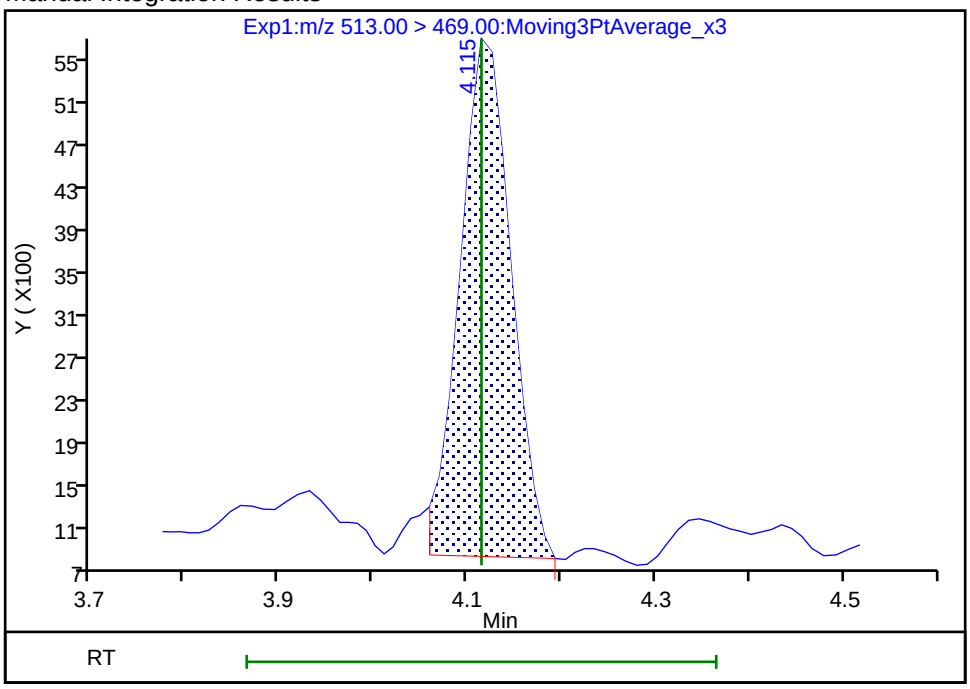
Processing Integration Results

RT: 4.11
Area: 18975
Amount: 0.017611
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 18234
Amount: 0.016923
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:30:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

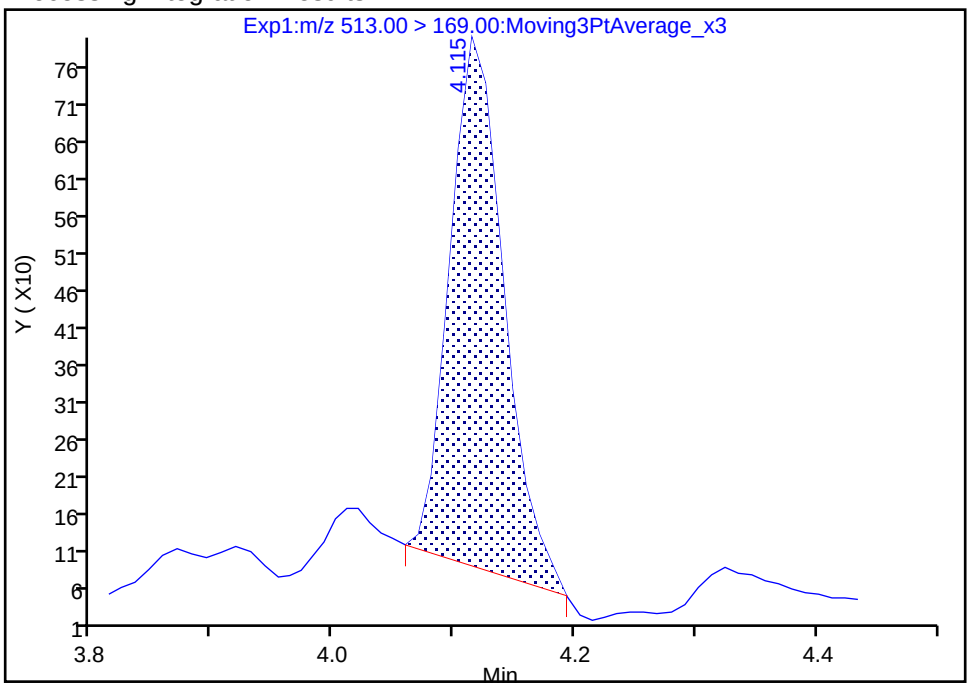
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

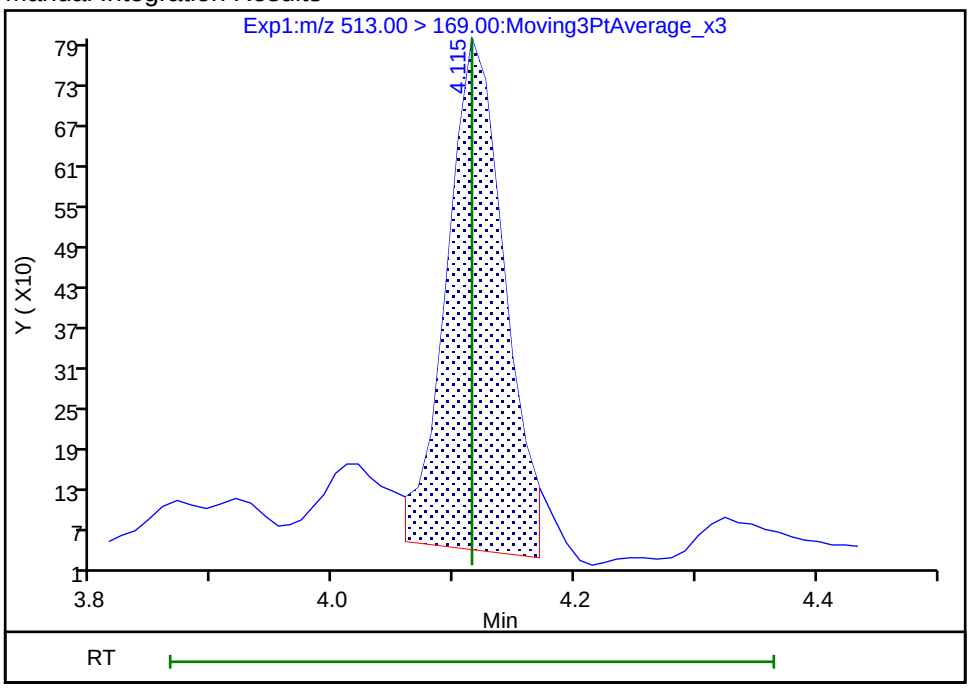
Processing Integration Results

RT: 4.11
Area: 2216
Amount: 0.017611
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 2500
Amount: 0.016923
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:30:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

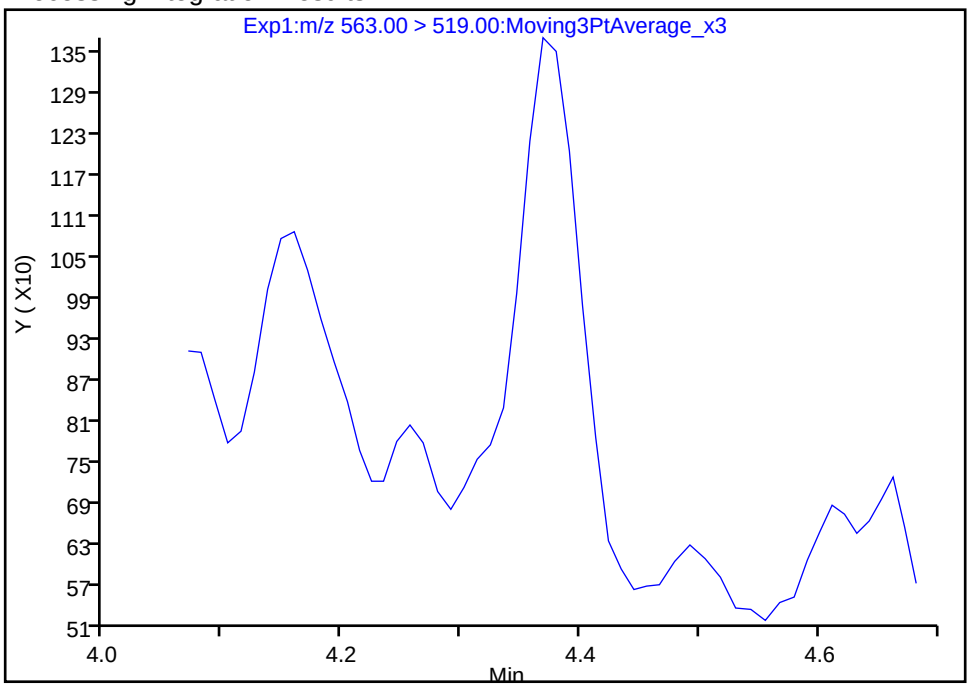
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

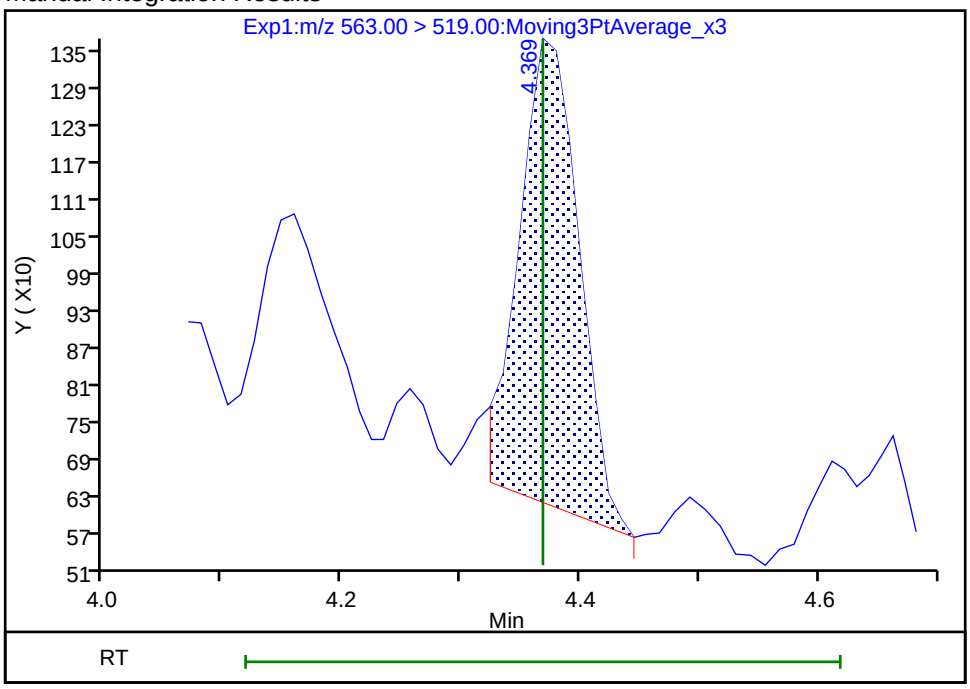
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 2611
Amount: 0.003028
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:31:07
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

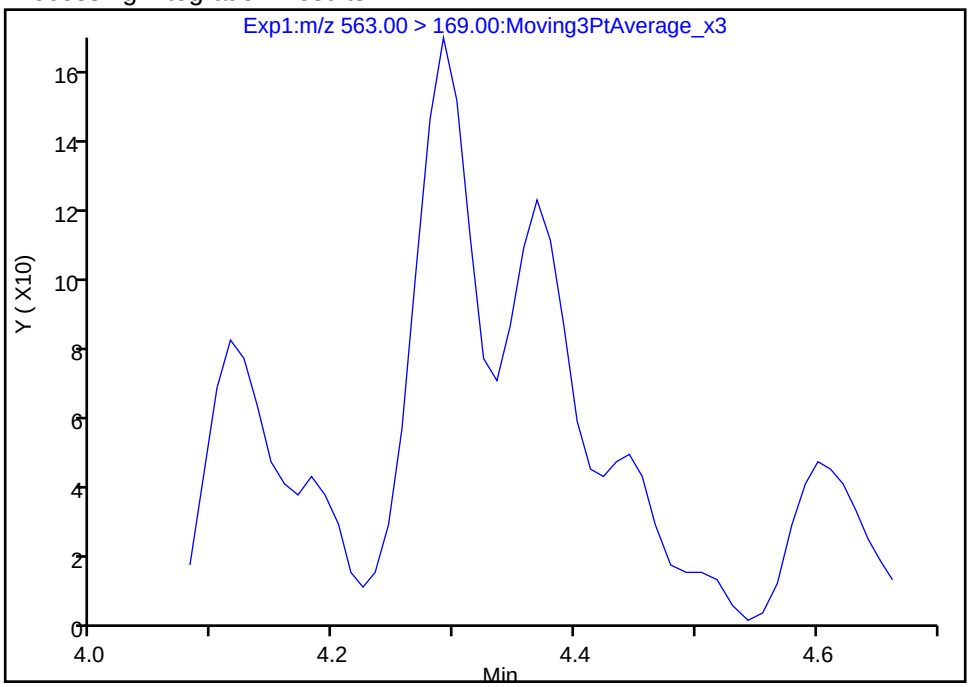
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

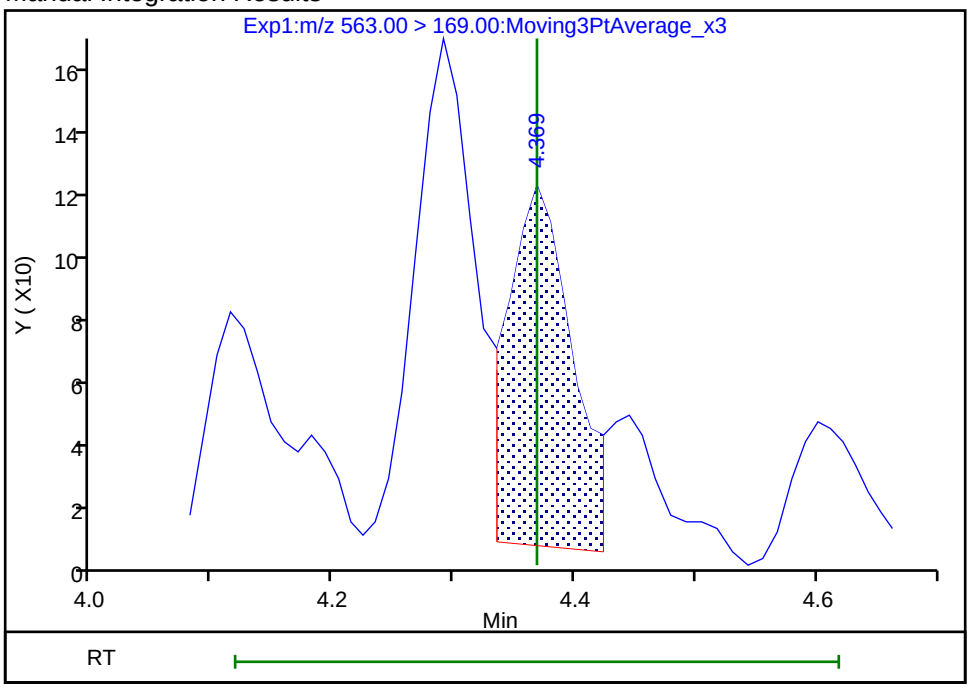
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 385
Amount: 0.003028
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:31:13
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

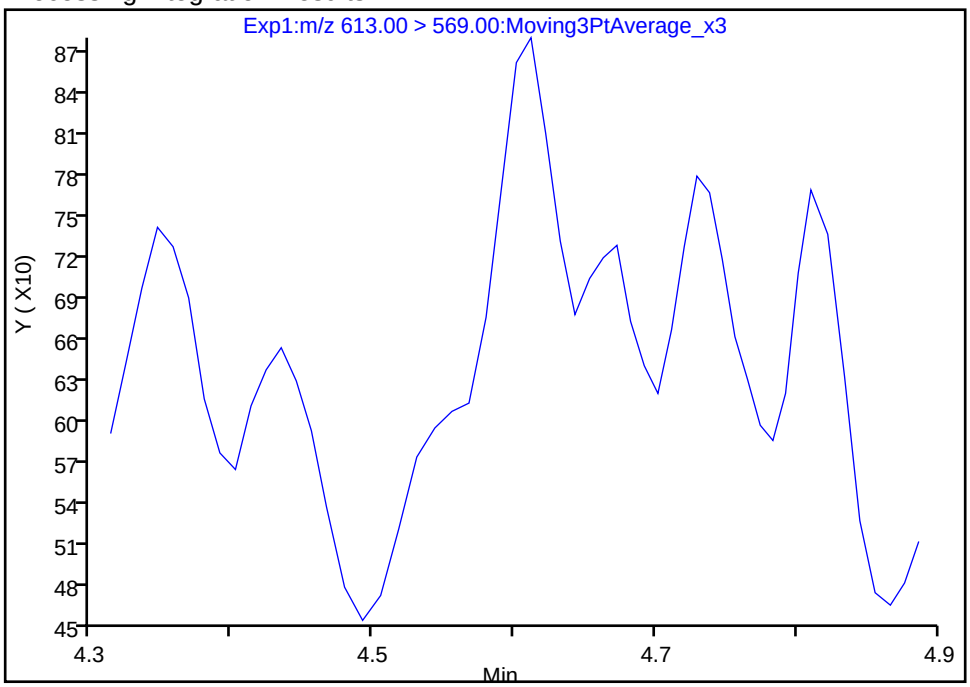
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

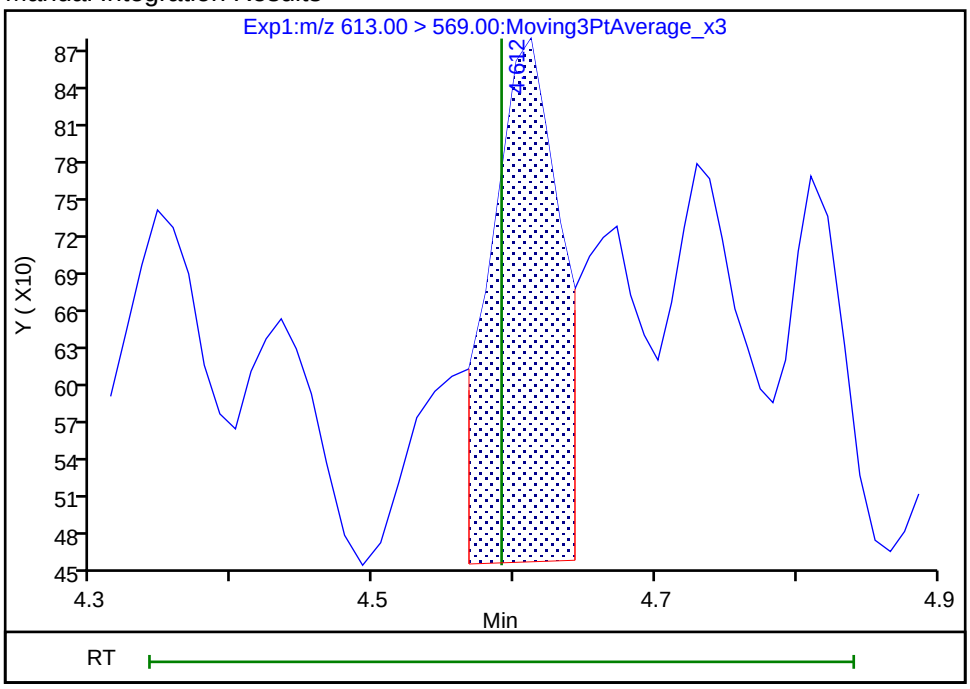
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 1374
Amount: 0.001659
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:31:37
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

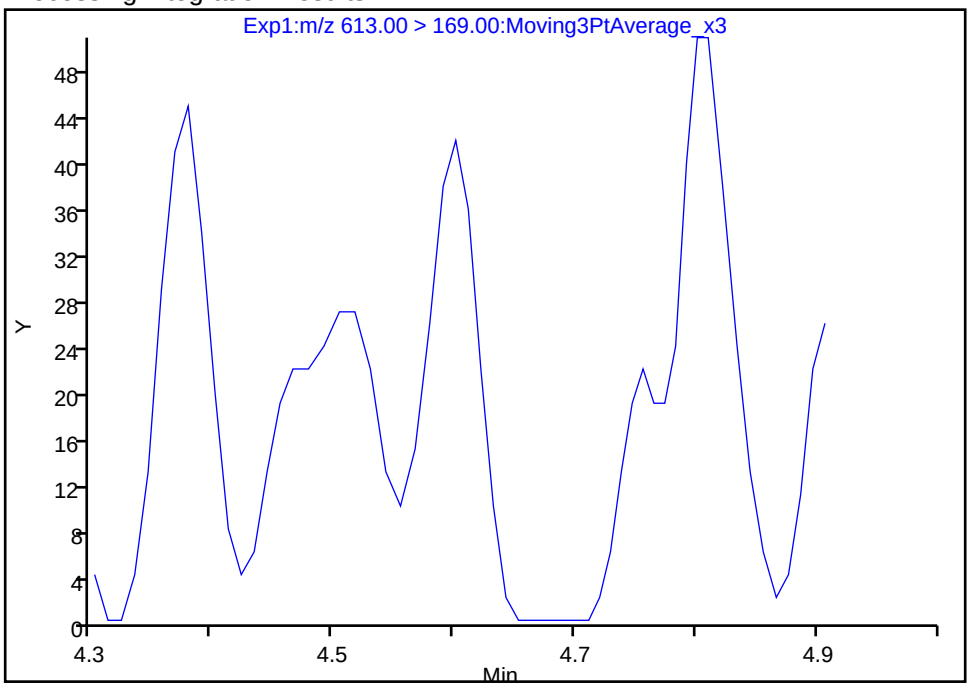
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

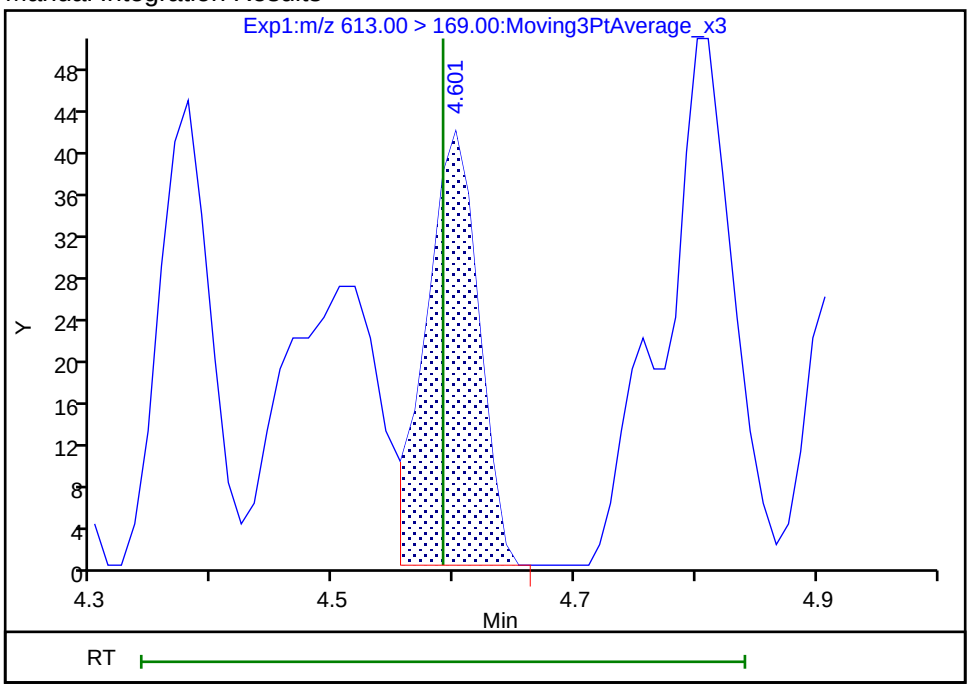
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 127
Amount: 0.001659
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:31:40
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

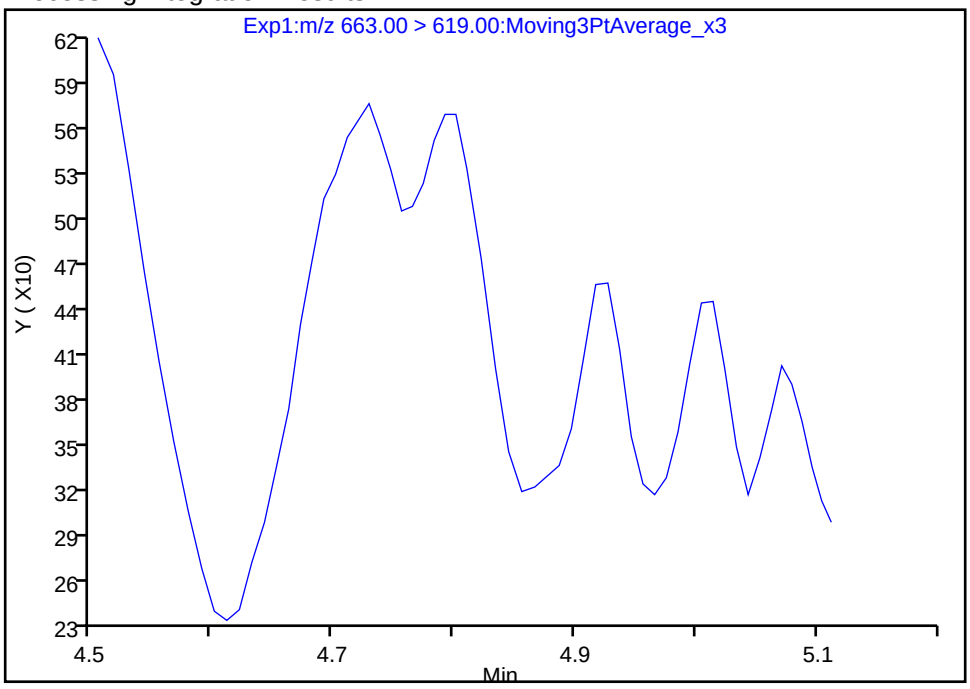
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

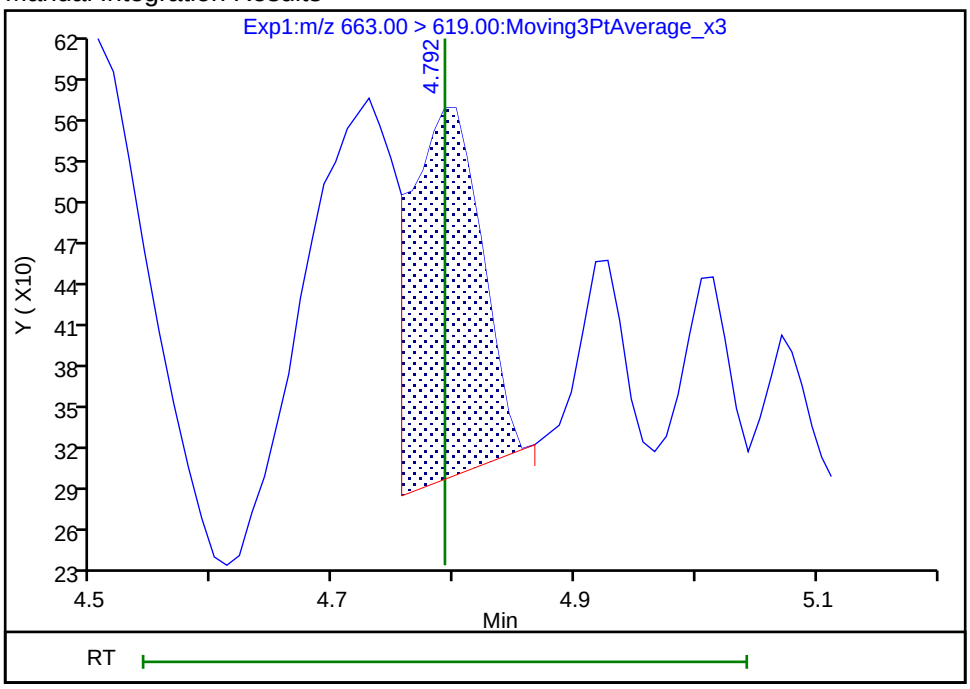
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 1063
Amount: 0.001489
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:31:58
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

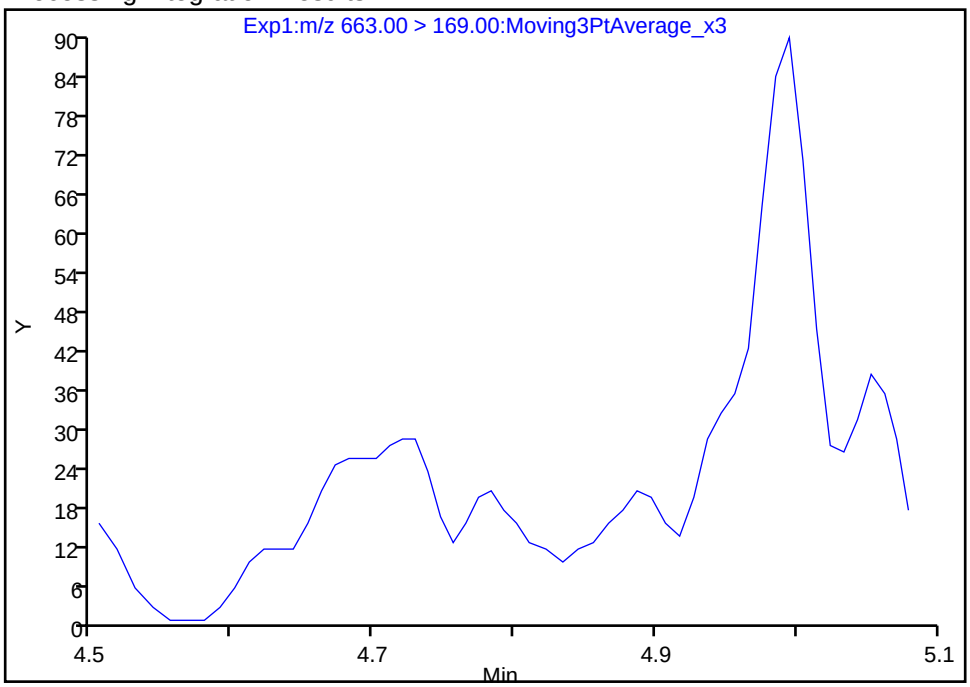
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

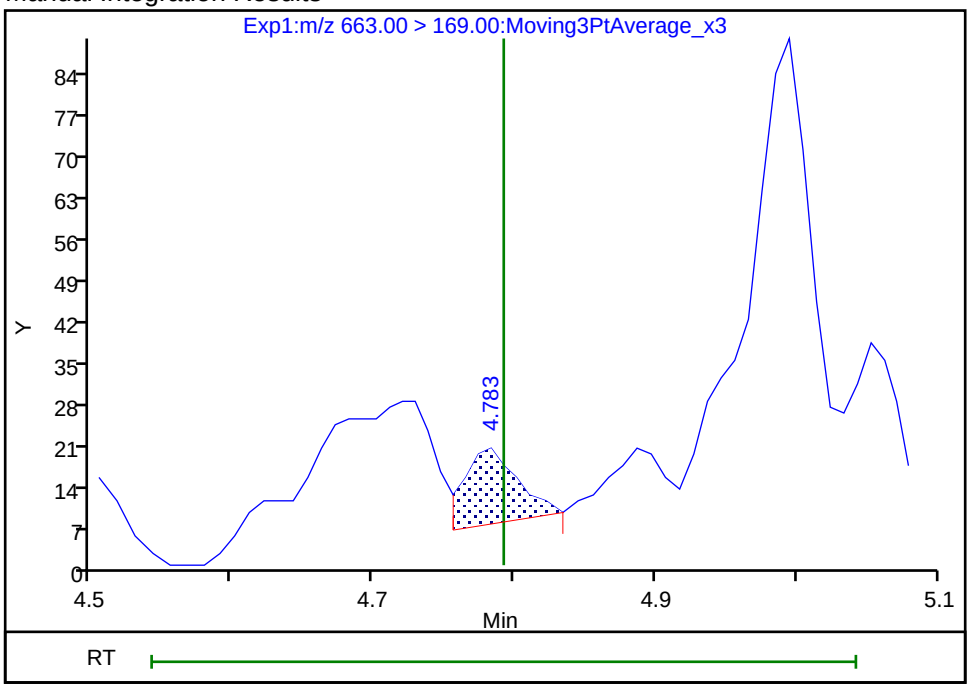
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 33
Amount: 0.001489
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:32:02
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

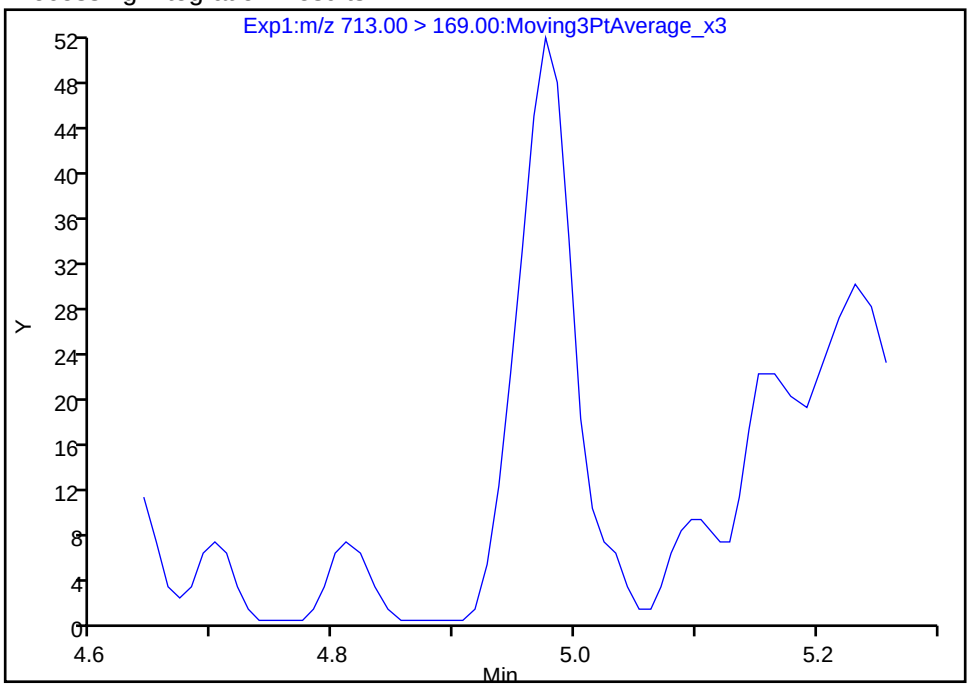
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

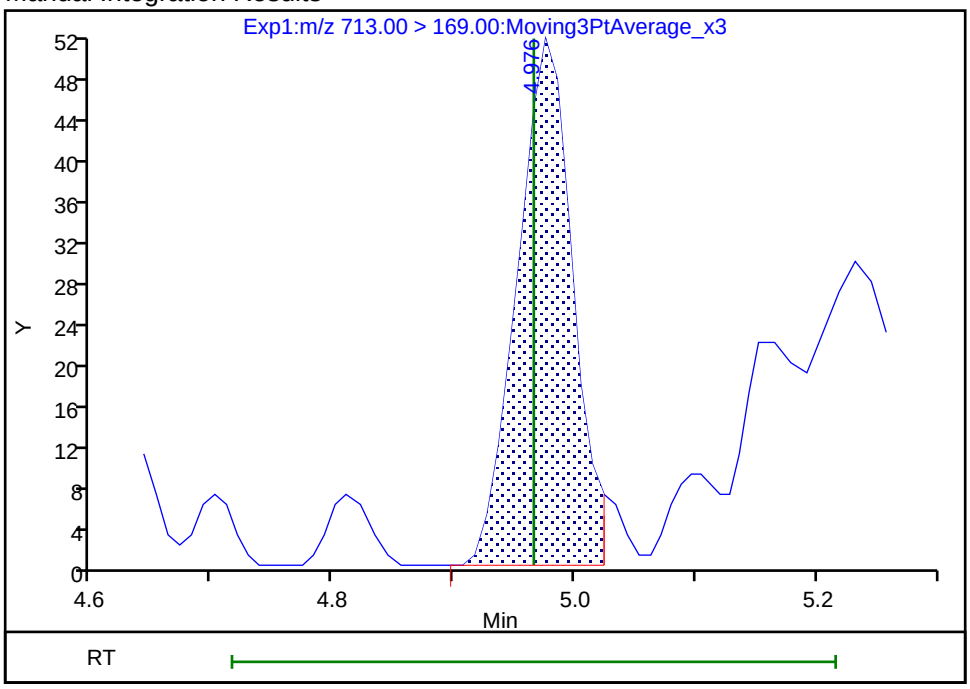
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 164
Amount: 0.001713
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:32:19
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

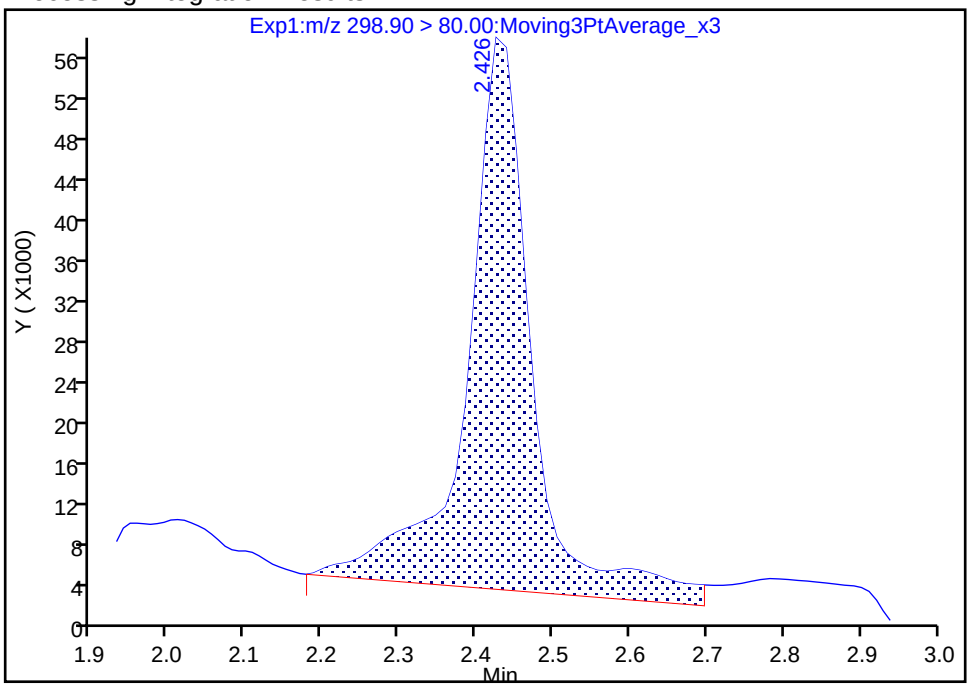
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

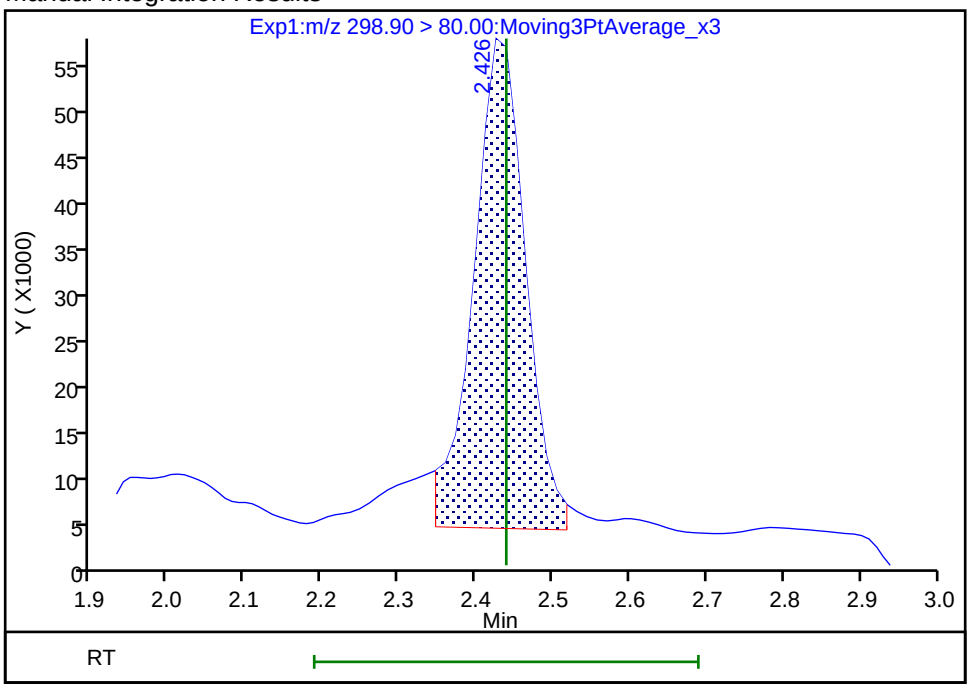
Processing Integration Results

RT: 2.43
Area: 319676
Amount: 0.238313
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 248598
Amount: 0.185325
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:25:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

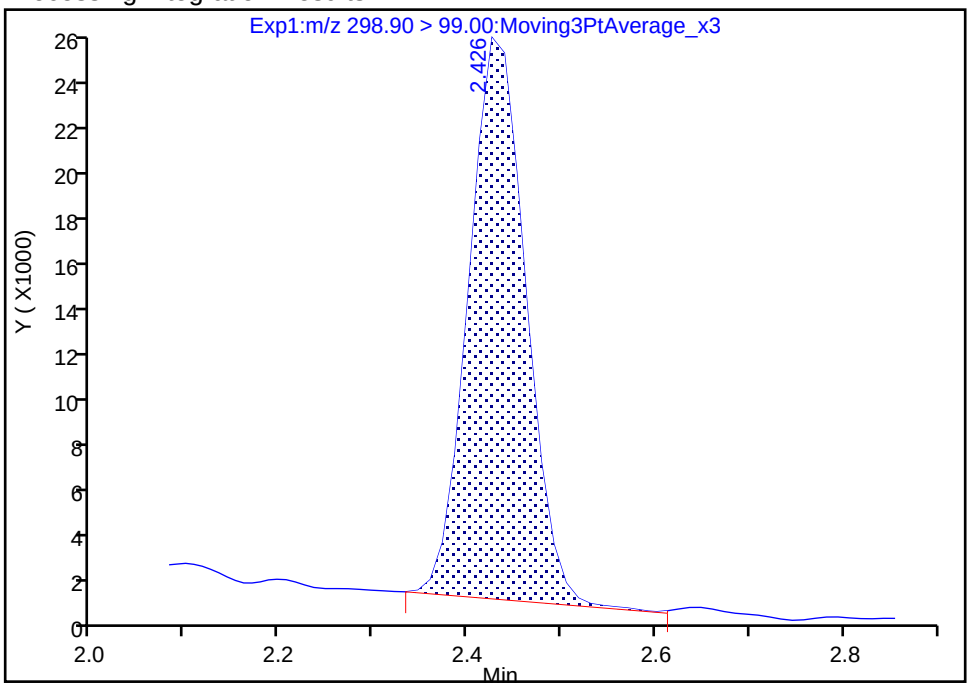
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

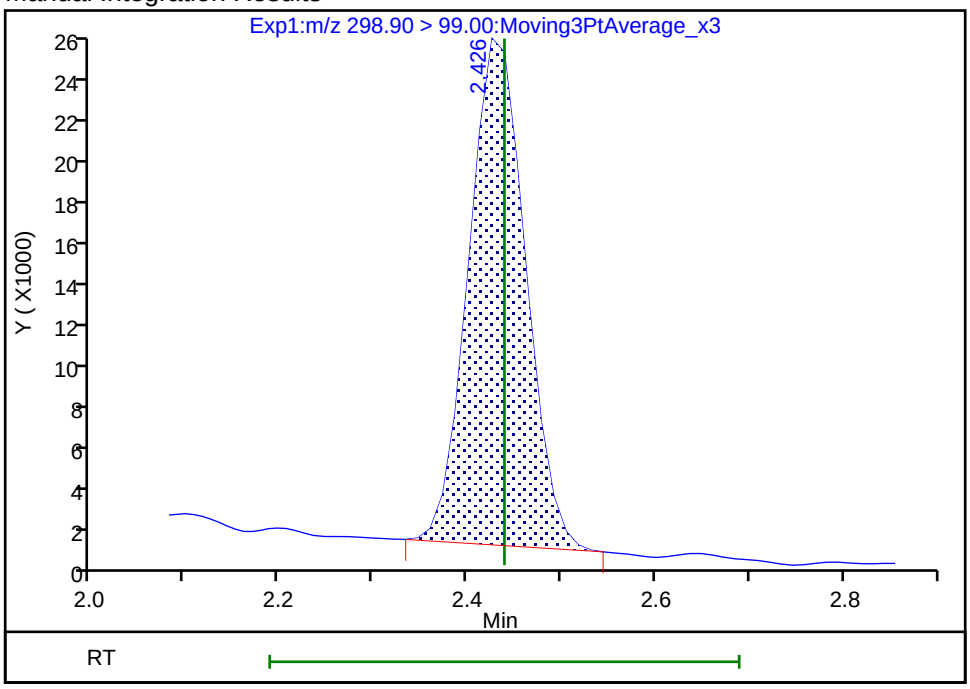
Processing Integration Results

RT: 2.43
Area: 100337
Amount: 0.238313
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 99427
Amount: 0.185325
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:25:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

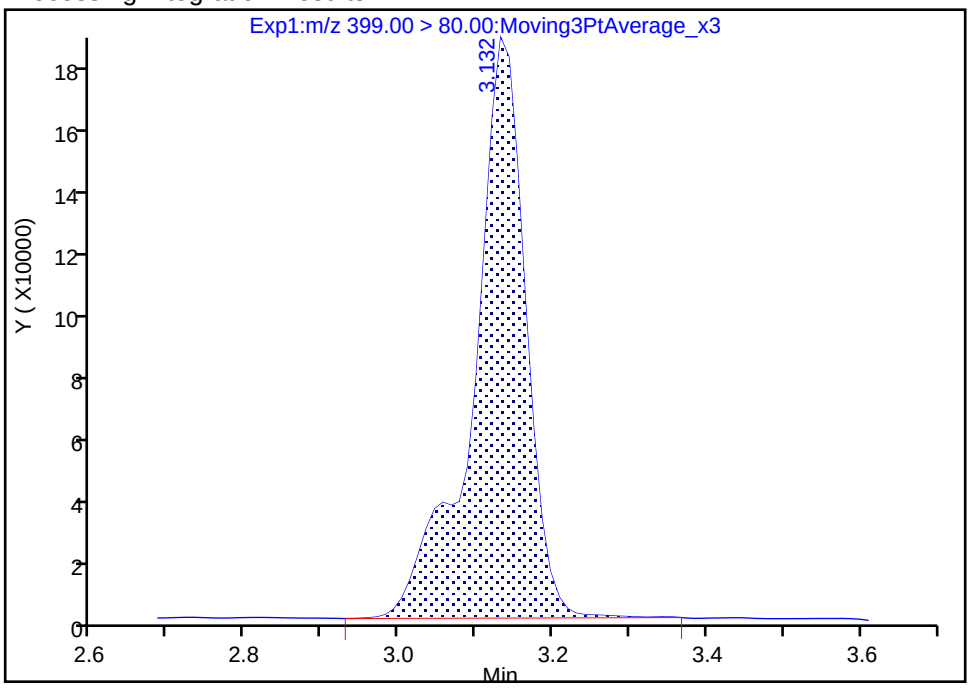
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

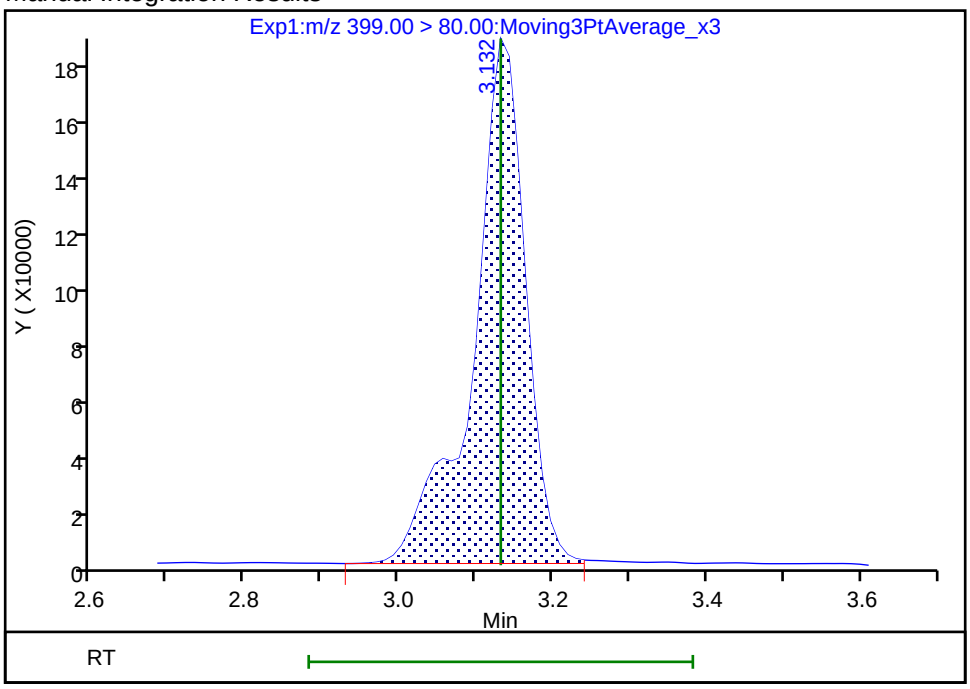
Processing Integration Results

RT: 3.13
Area: 881105
Amount: 0.873060
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 879507
Amount: 0.871477
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:26:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

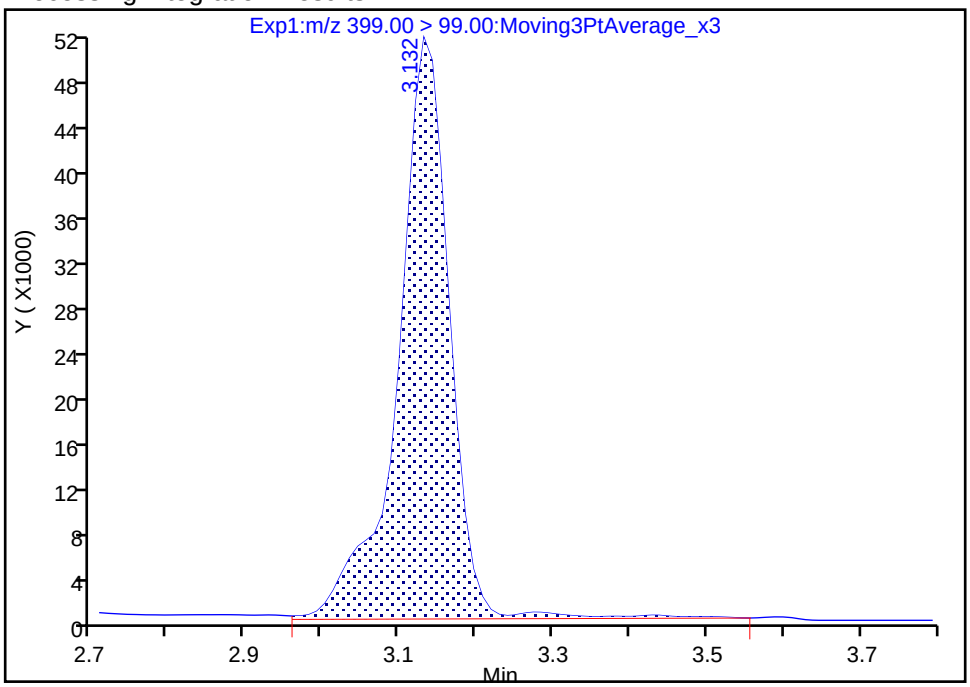
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

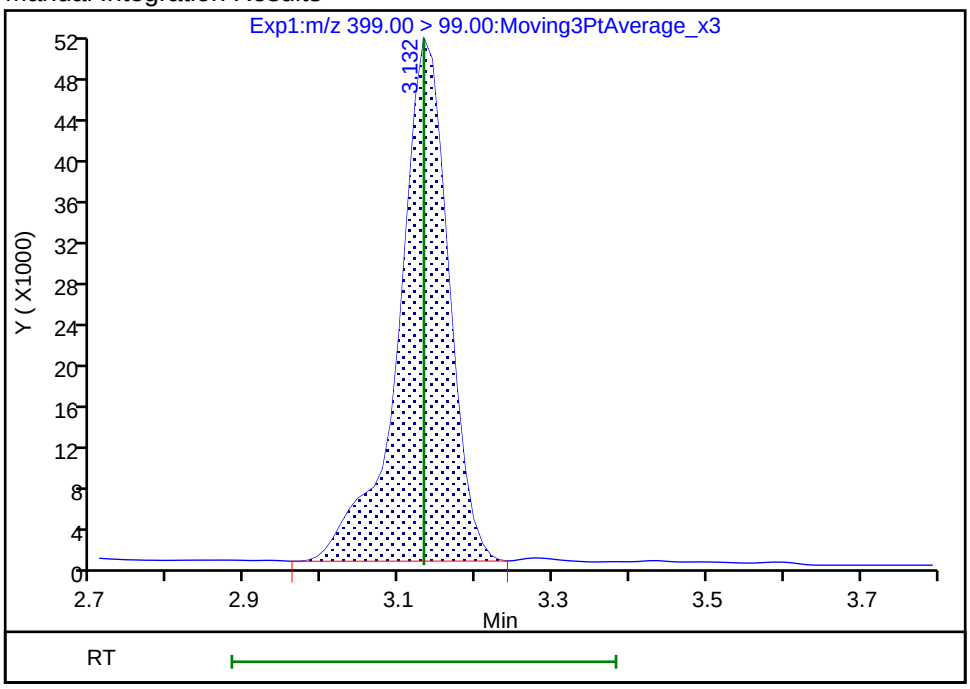
Processing Integration Results

RT: 3.13
Area: 239688
Amount: 0.873060
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 230629
Amount: 0.871477
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:26:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

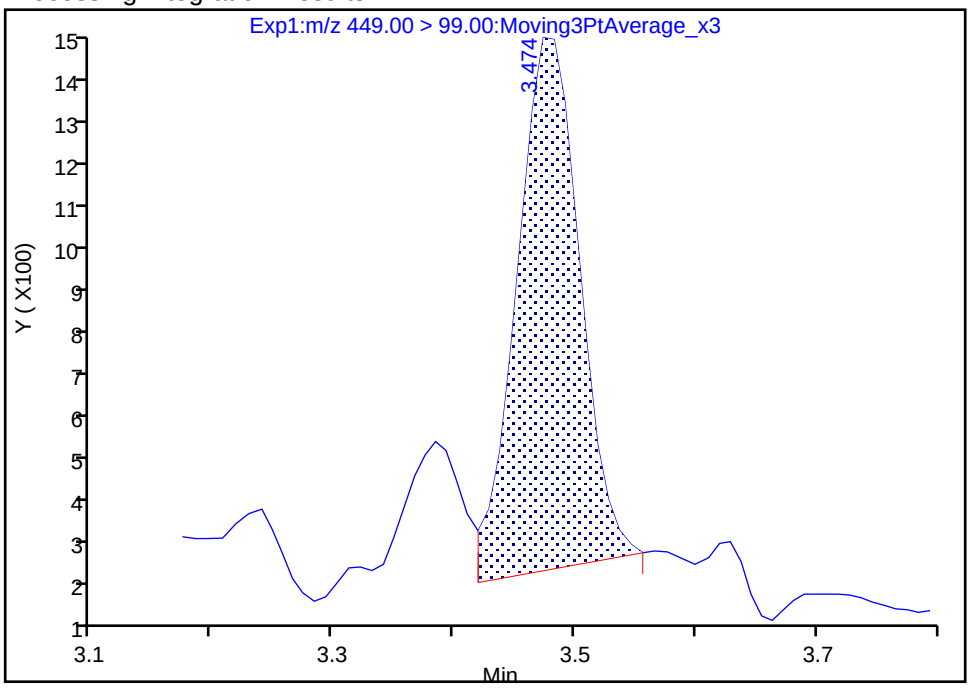
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

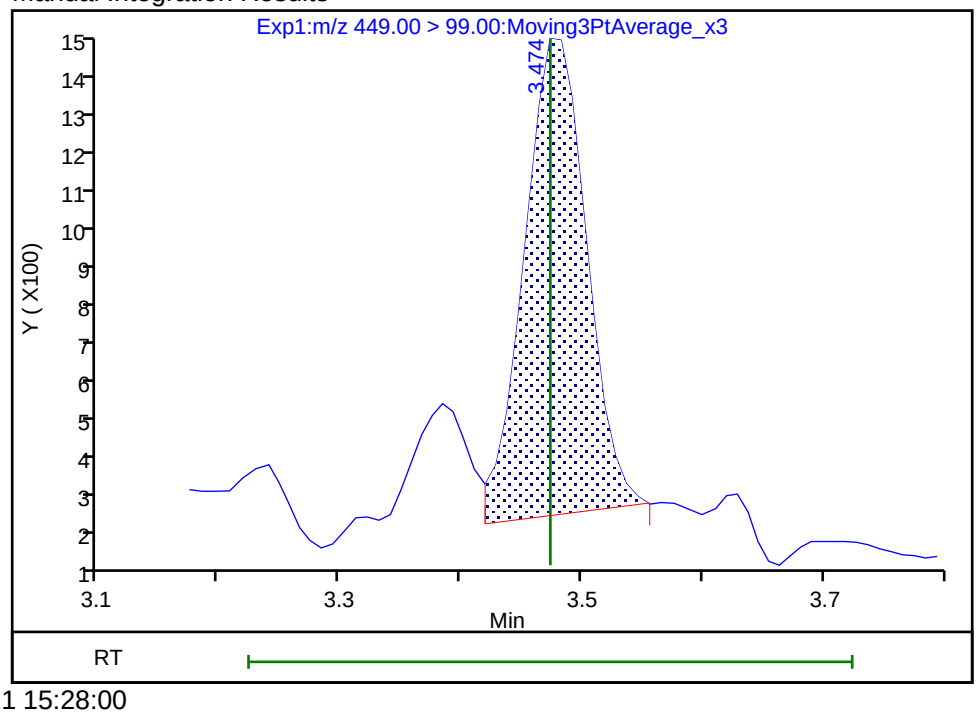
Processing Integration Results

RT: 3.47
Area: 4328
Amount: 0.017914
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 4242
Amount: 0.017914
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:28:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

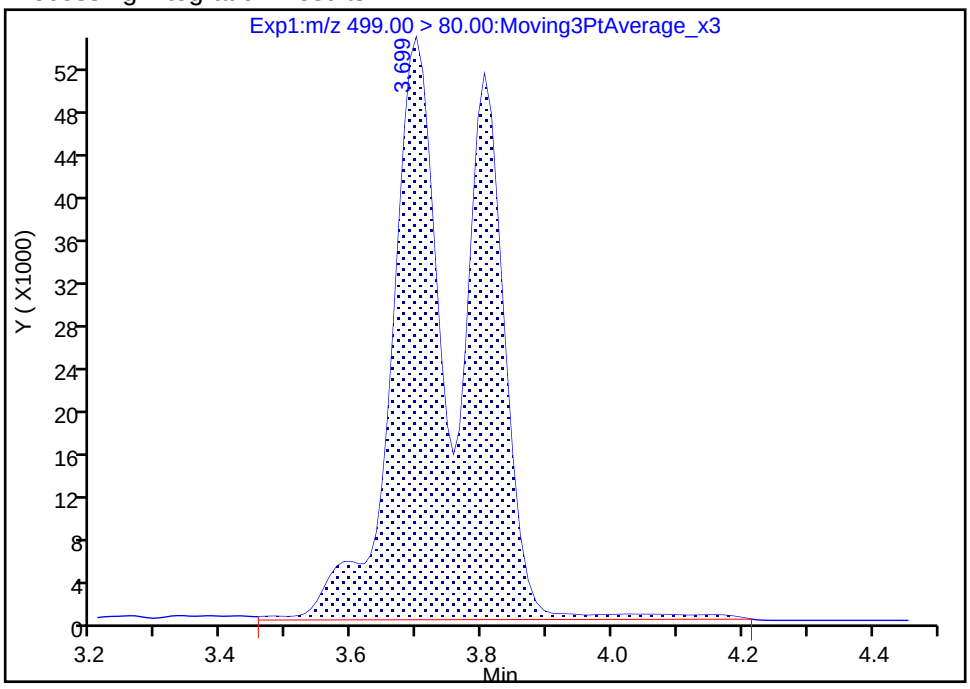
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

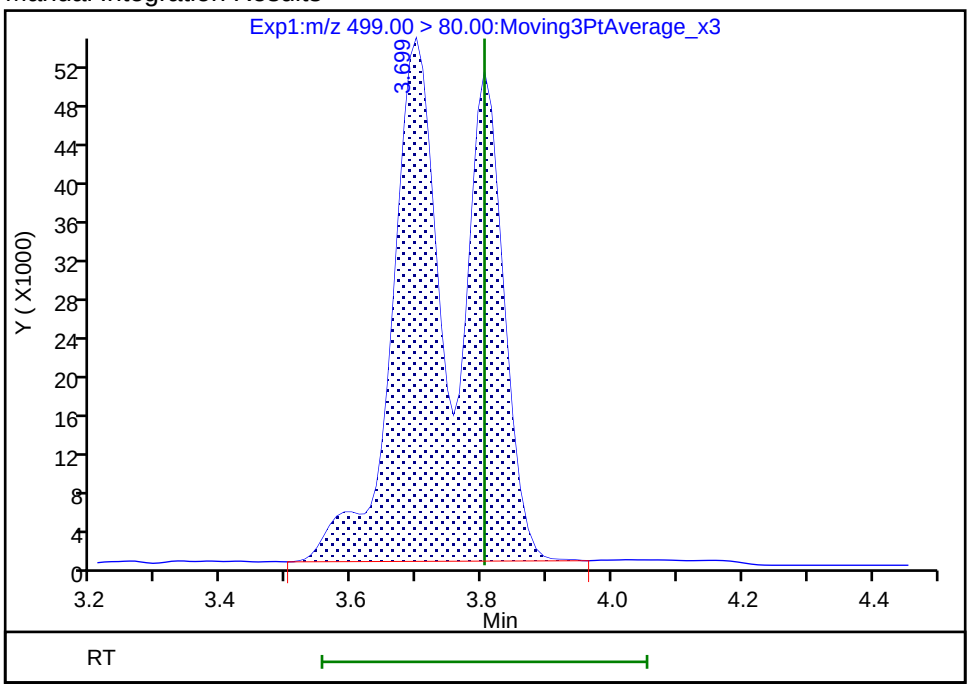
Processing Integration Results

RT: 3.70
Area: 471812
Amount: 0.627952
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 455498
Amount: 0.606239
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:29:09

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

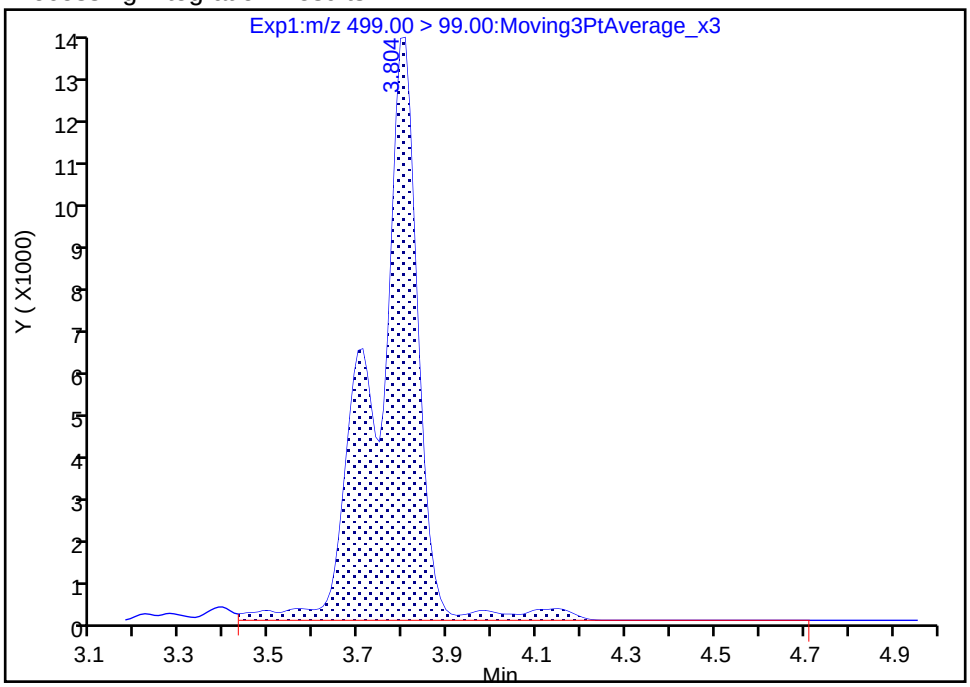
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

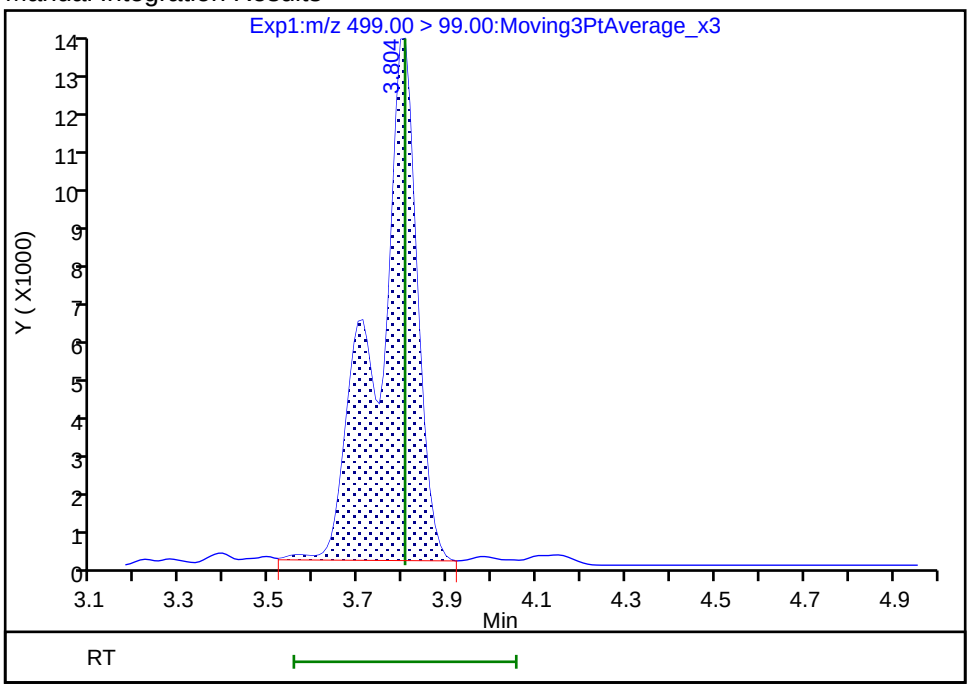
Processing Integration Results

RT: 3.80
Area: 93696
Amount: 0.627952
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 86461
Amount: 0.606239
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:29:21

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

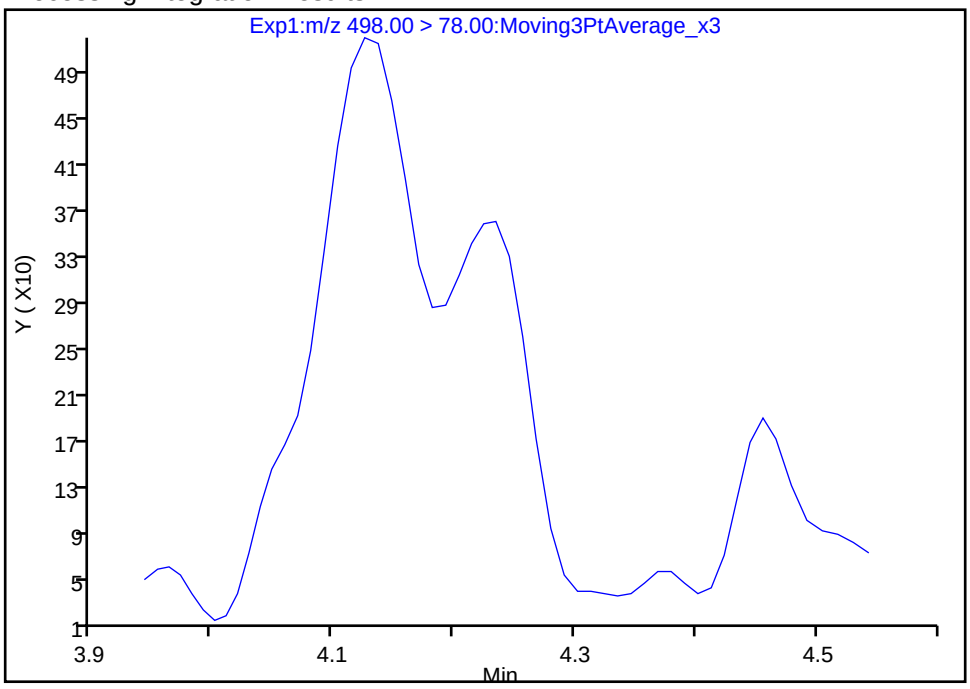
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

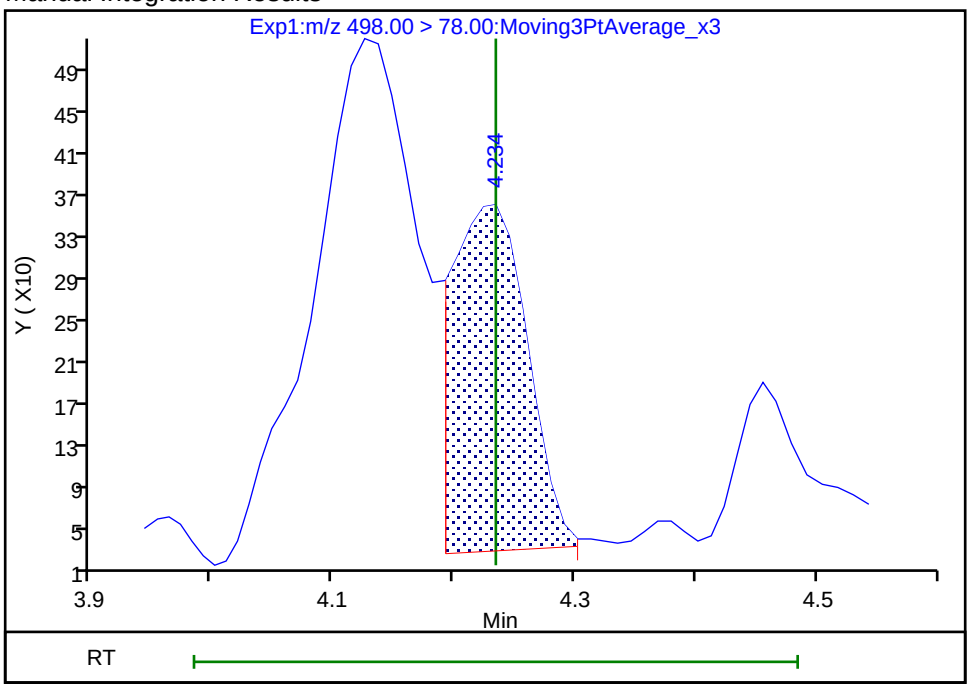
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 1376
Amount: 0.001388
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:30:47
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

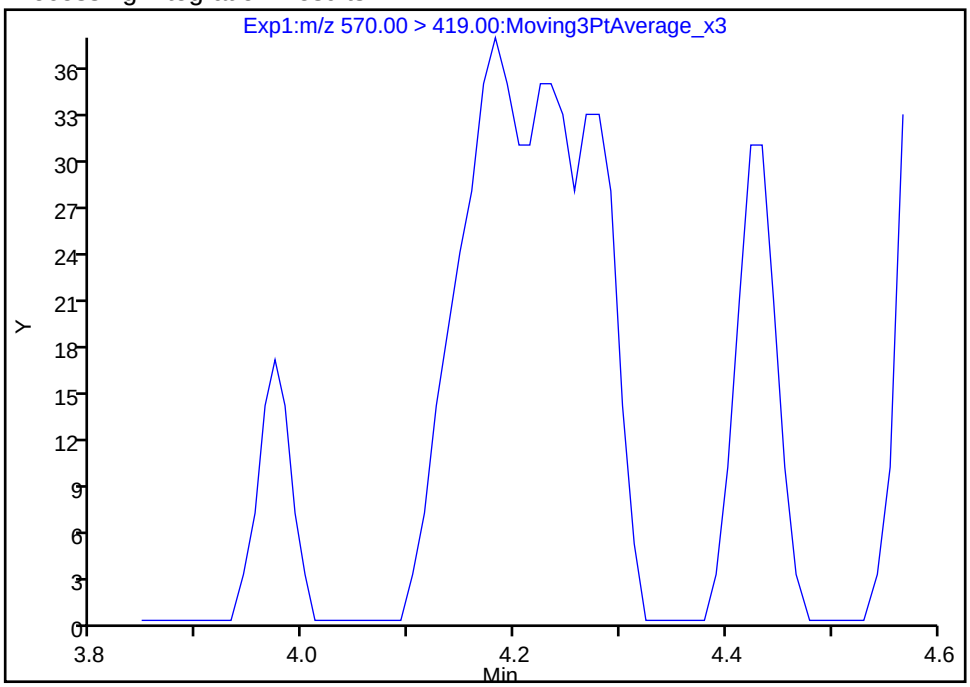
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

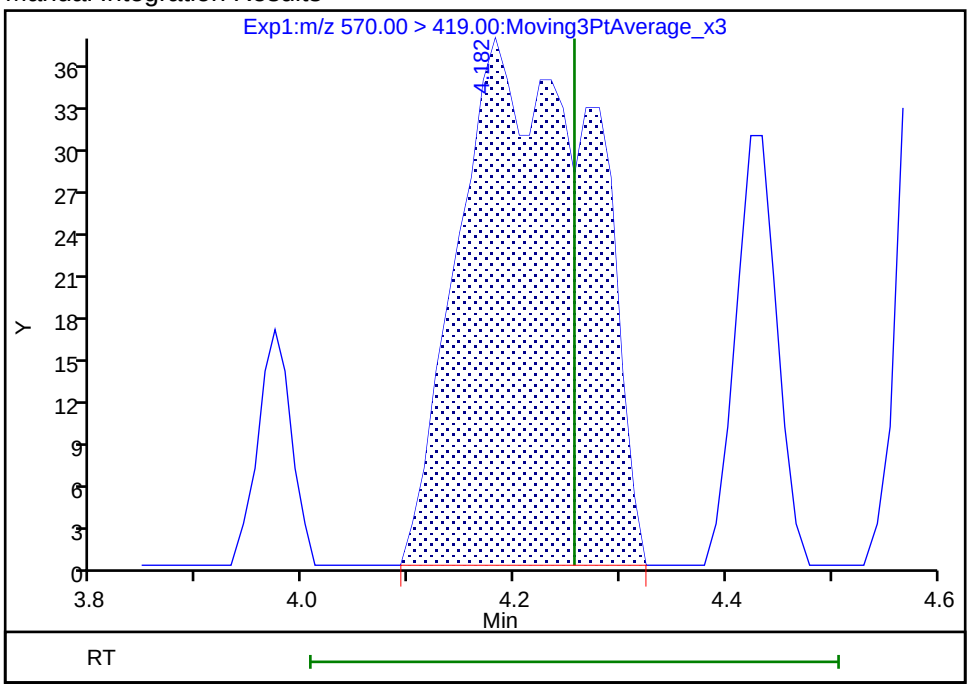
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.18
Area: 336
Amount: 0.003619
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:30:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

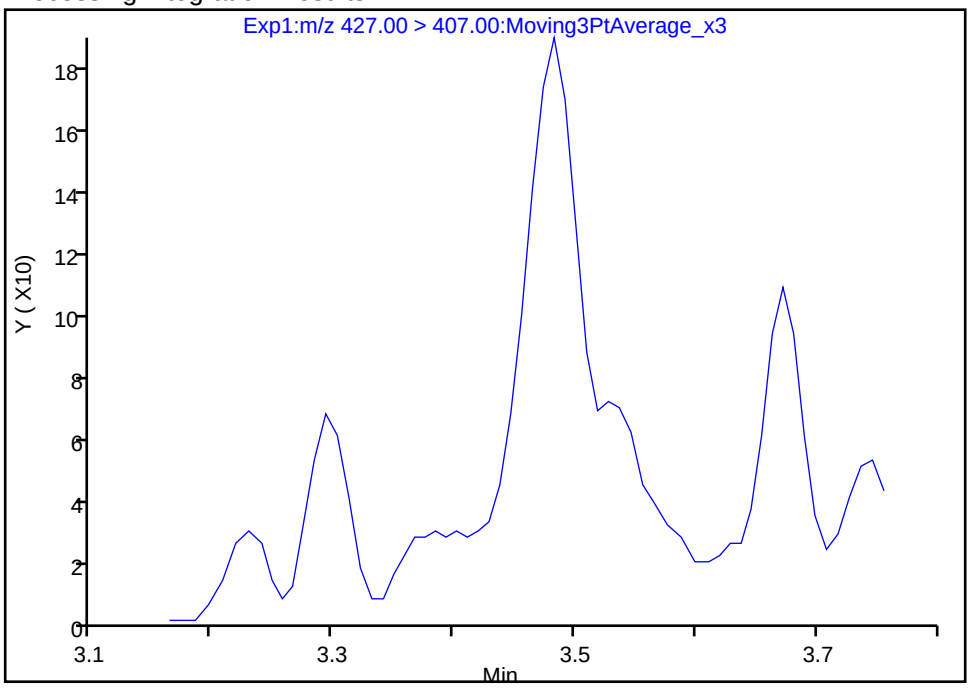
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

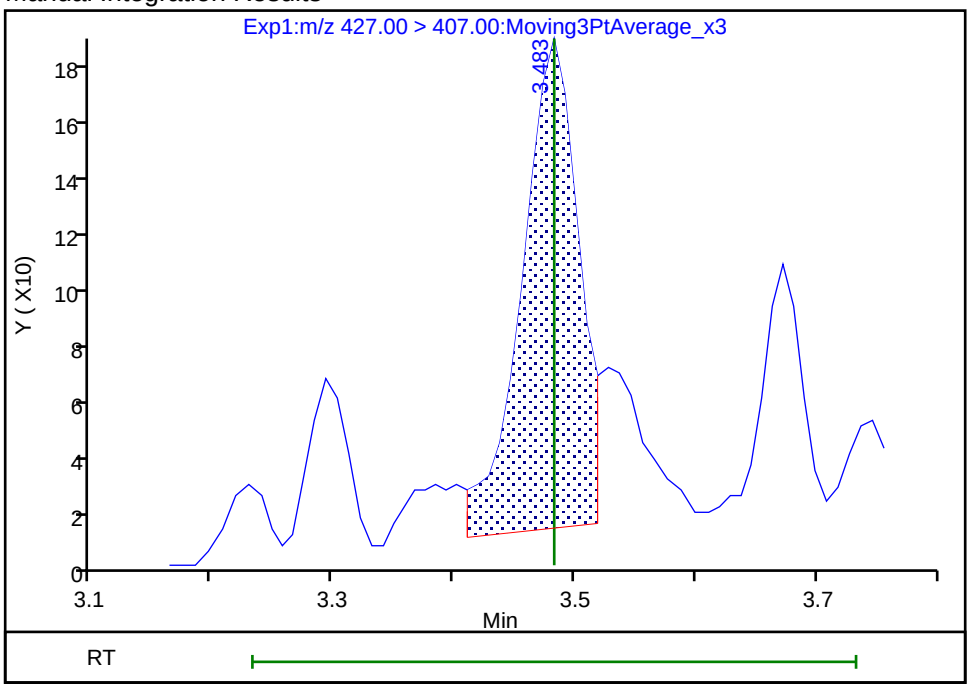
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 569
Amount: 0.002416
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:28:18
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

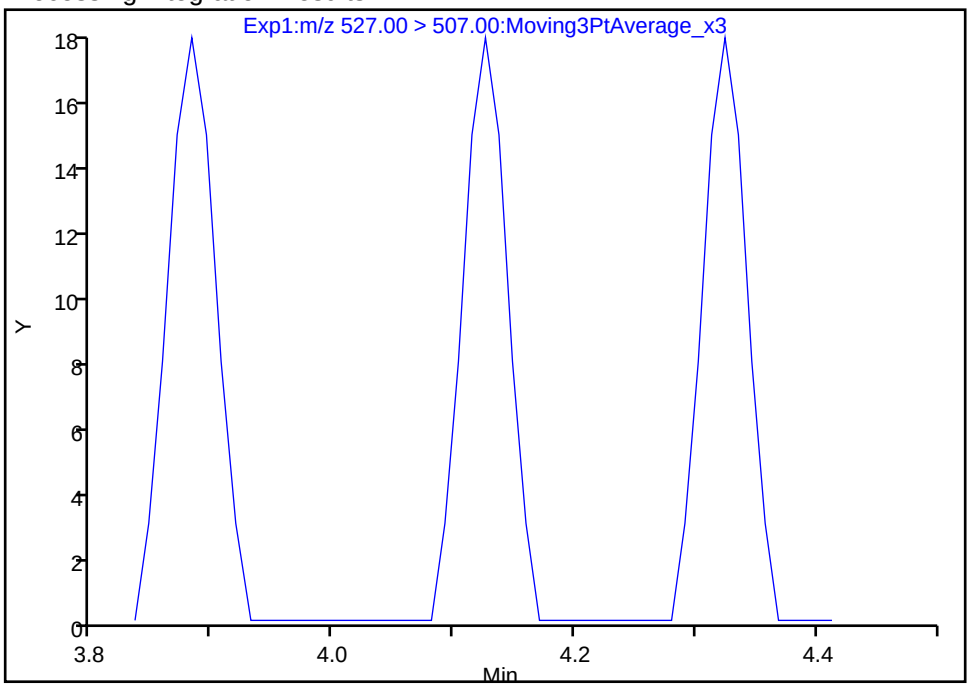
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D09.d | | | | |
| Injection Date: | 10-Nov-2021 05:17:40 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-5-A | Lab Sample ID: | 200-246277-5 | | |
| Client ID: | MW-202S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

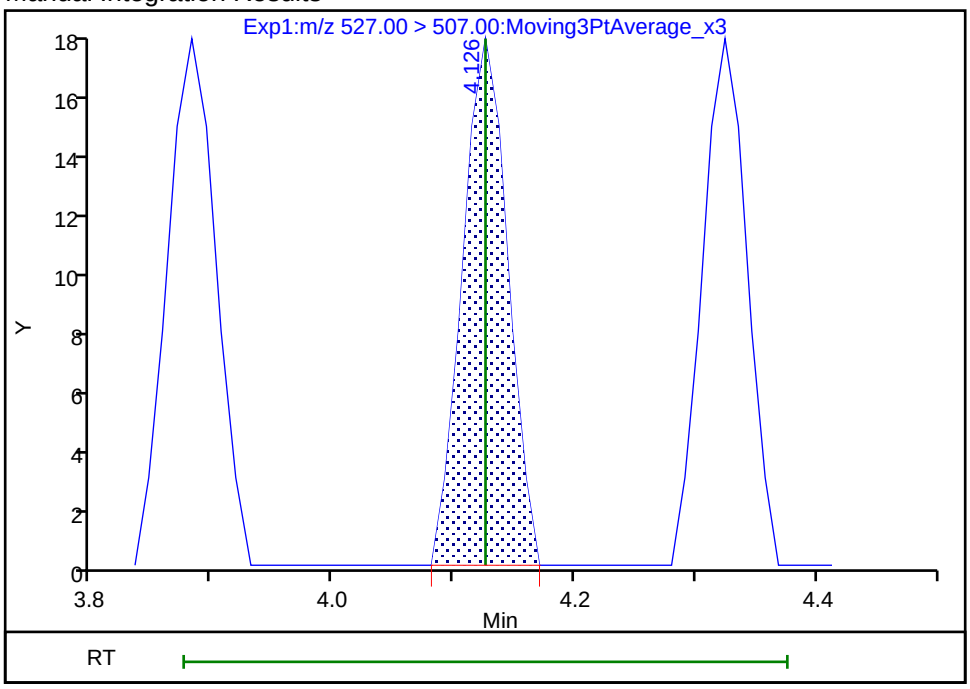
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 46
Amount: 0.000261
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:30:25
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202D-20211027  Lab Sample ID: 460-246277-6

Matrix: Water  Lab File ID: PA211109D10.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 273.9(mL)  Date Analyzed: 11/10/2021 05:25

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.44 | J | 4.56 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.79 | J | 1.83 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 2.36 | | 1.83 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.65 | J | 1.83 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 9.48 | | 1.83 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.35 | J I | 1.83 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.83 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.83 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.09 | | 1.83 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 13.9 | | 1.83 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.36 | J | 1.83 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 9.57 | | 1.83 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.56 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.56 | 1.00 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-202D-20211027  Lab Sample ID: 460-246277-6

Matrix: Water  Lab File ID: PA211109D10.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 273.9(mL)  Date Analyzed: 11/10/2021 05:25

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 92 | | 50-150 |
| STL01892 | 13C4 PFHpA | 96 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 98 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 94 | | 25-150 |
| STL00993 | 13C2 PFHxA | 96 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 87 | | 50-150 |
| STL00998 | 13C2 PFDoA | 77 | | 50-150 |
| STL01056 | 13C8 FOSA | 95 | | 25-150 |
| STL01893 | 13C5 PFPeA | 97 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 75 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 96 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 97 | | 50-150 |
| STL02279 | M2-6:2 FTS | 110 | | 25-150 |
| STL02280 | M2-8:2 FTS | 120 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d
Lims ID: 460-246277-C-6-A
Client ID: MW-202D-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:25:51 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-6-A
Misc. Info.: 200-0048356-010 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 15:38:48
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1571450 | 1.17 | | 93.5 | 5933 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 144519 | 0.1216 | | | 13.8 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1366044 | 1.21 | | 96.5 | 1238 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 53807 | 0.0492 | | | 0.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1633802 | 1.07 | | 91.7 | 59018 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 126928 | 0.0846 | Target=2.32 | | 11.8 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 56305 | | 2.25(1.16-3.48) | | 11.8 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1429462 | 1.20 | | 96.3 | 3115 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 75006 | 0.0647 | Target=12.09 | | 4.2 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 7279 | | 10.30(6.04-18.13) | | 5.7 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 427252 | 0.3812 | Target=3.55 | | 174 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 109985 | | 3.88(1.77-5.32) | | 99.1 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1205410 | 1.08 | | 91.6 | 2939 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1502308 | 1.20 | | 96.1 | 3250 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 56058 | 0.0451 | Target=3.69 | | 5.4 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 0.997 | 16031 | | 3.50(1.84-5.53) | | 26.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 9639 | 0.009841 | Target=4.88 | | 6.9 | M |
| 449.00 > 99.00 | 3.492 | 3.474 | 0.018 | 0.918 | 1473 | | 6.54(2.44-7.32) | | 3.8 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.483 | -0.018 | 0.995 | 361 | 0.001472 | | | 5.3 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 229656 | 1.31 | | 110 | 232 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1635464 | 1.20 | | 95.8 | 6280 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1659955 | 1.25 | | | 4537 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 361219 | 0.2596 | Target=2.68 | | 31.5 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 153137 | | 2.36(1.34-4.02) | | 259 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 938872 | 1.17 | | 97.7 | 1642 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 223424 | 0.2621 | Target=4.69 | | 201 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 41226 | | 5.42(2.35-7.04) | | 62.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1563570 | 1.15 | | 91.9 | 4209 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 11883 | 0.009710 | Target=7.29 | | 2.0 | RM |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 954 | | 12.46(3.64-10.93) | | 5.3 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1523747 | 1.11 | | 88.7 | 5964 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1867 | 0.001524 | Target=8.95 | | 1.2 | RM |
| 513.00 > 169.00 | 4.104 | 4.115 | -0.011 | 0.997 | 521 | | 3.58(4.47-13.42) | | 4.7 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 285123 | 1.43 | | 120 | 679 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 88 | 0.000442 | | | 3.1 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1568098 | 1.18 | | 94.7 | 3083 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 961 | 0.000807 | | | 6.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 162332 | 1.20 | | 96.1 | 1439 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.171 | 4.257 | -0.086 | 0.980 | 43 | 0.000421 | | | 0.4 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.358 | 4.346 | 0.012 | 1.146 | 310 | 0.000600 | Target=2.47 | | 2.4 | M |
| 599.00 > 99.00 | 4.325 | 4.346 | -0.021 | 1.137 | 243 | | 1.28(1.23-3.70) | | 4.2 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1169574 | 1.09 | | 87.4 | 2928 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.391 | 4.369 | 0.023 | 1.003 | 1609 | 0.001613 | Target=9.24 | | 1.1 | RM |
| 563.00 > 169.00 | 4.391 | 4.369 | 0.023 | 1.003 | 78 | | 20.63(4.62-13.86) | | 1.7 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 152748 | 1.21 | | 96.6 | 1154 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.314 | 4.380 | -0.066 | 0.982 | 78 | 0.000745 | | | 2.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1103621 | 0.9584 | | 76.7 | 1923 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.590 | 4.591 | -0.001 | 0.998 | 705 | 0.000816 | Target=7.04 | | 0.3 | M |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 185 | | 3.81(3.52-10.56) | | 3.8 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 427 | 0.000573 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.783 | 4.792 | -0.009 | 1.040 | 67 | | 6.37(2.34-7.02) | | 1.8 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.975 | 4.966 | 0.009 | 1.425 | 836403 | 0.9365 | | 74.9 | 2028 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.975 | 4.966 | 0.009 | 1.000 | 250 | 0.002367 | Target=1.01 | | 5.8 | RM |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.998 | 93 | | 2.69(0.51-1.52) | | 2.8 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d

Injection Date: 10-Nov-2021 05:25:51 Instrument ID: LC812

Lims ID: 460-246277-C-6-A Lab Sample ID: 200-246277-6

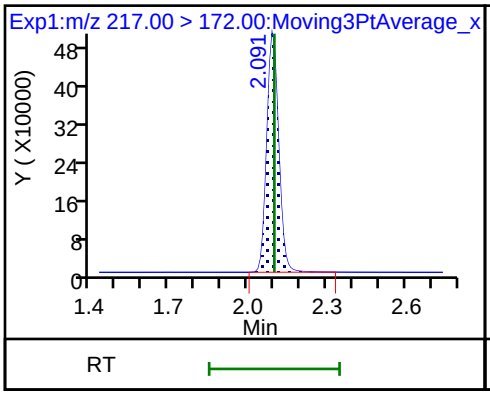
Client ID: MW-202D-20211027

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 10

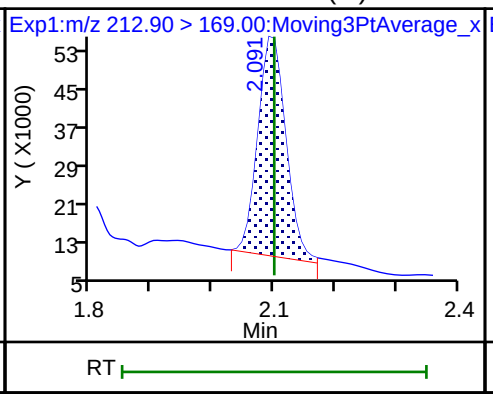
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

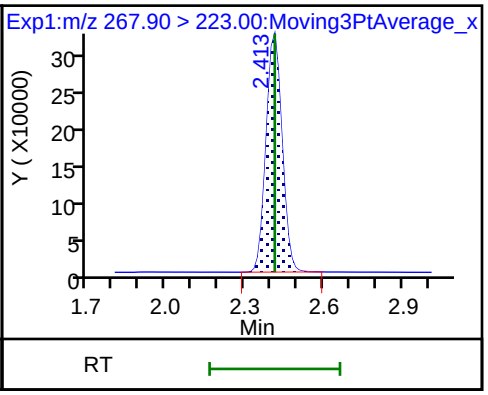
D 1 13C4 PFBA



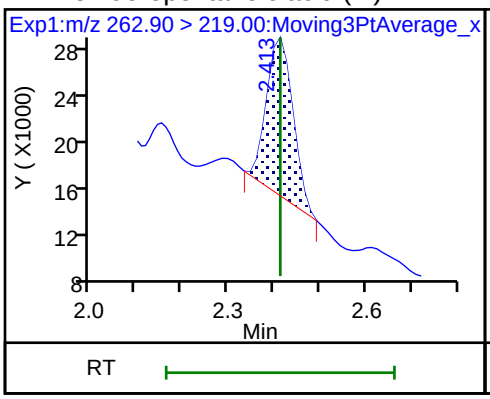

2 Perfluorobutanoic acid (M)



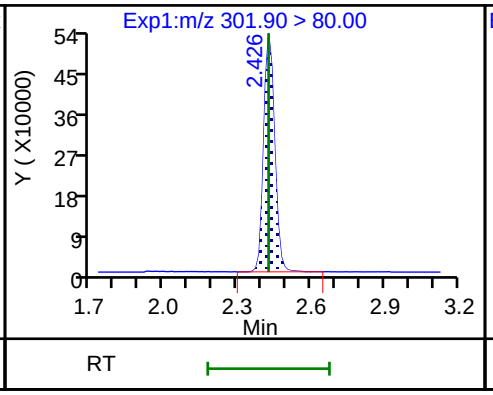

D 3 13C5 PFPeA



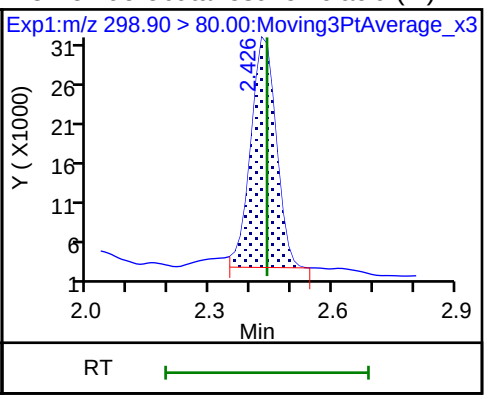

4 Perfluoropentanoic acid (M)



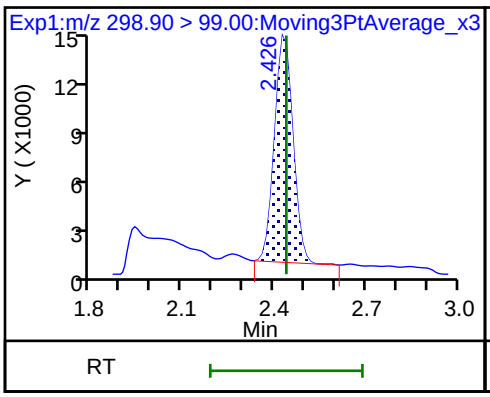

D 47 13C3 PFBS



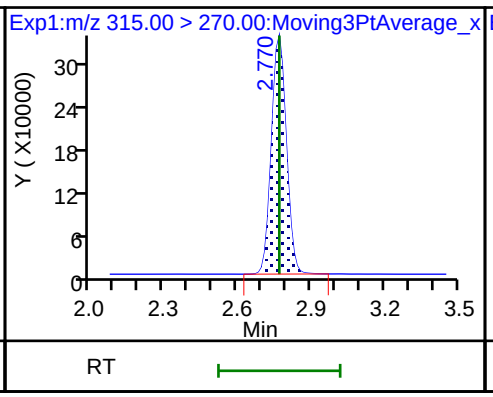

5 Perfluorobutanesulfonic acid (M)



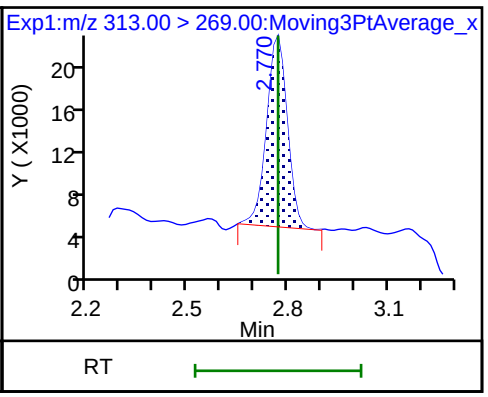

5 Perfluorobutanesulfonic acid



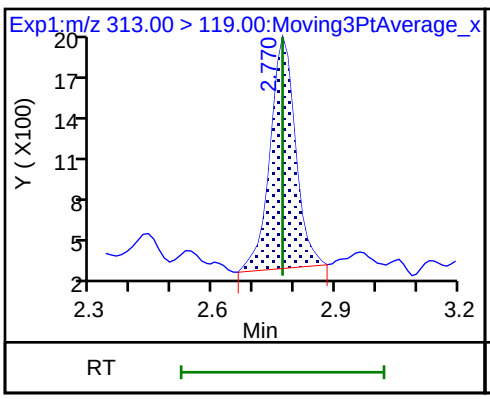

D 7 13C2 PFHxA



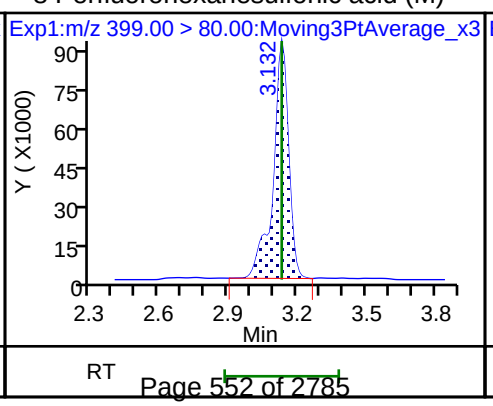

6 Perfluorohexanoic acid



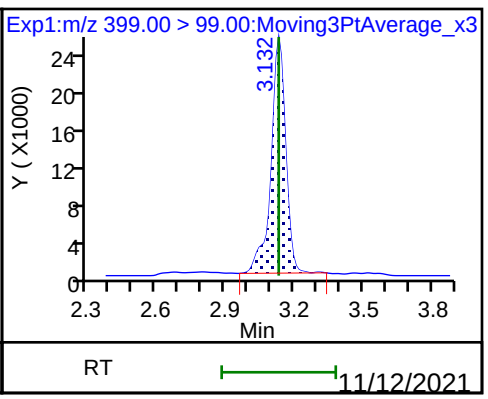

6 Perfluorohexanoic acid



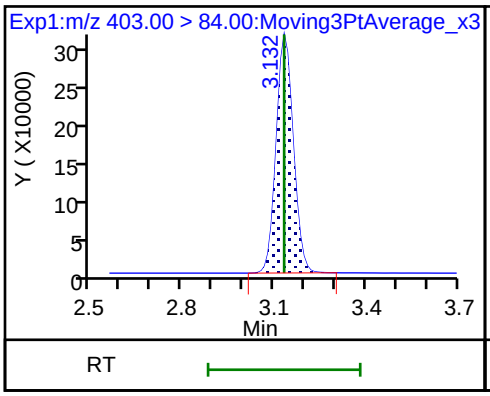

8 Perfluorohexanesulfonic acid (M)



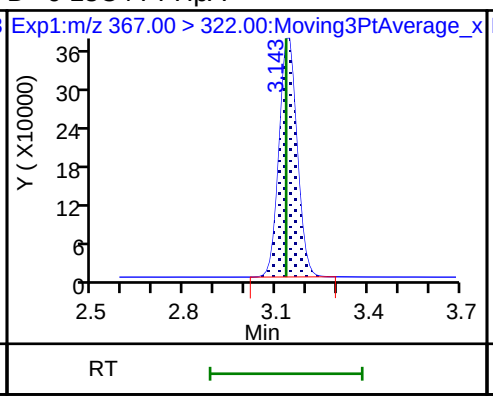

8 Perfluorohexanesulfonic acid



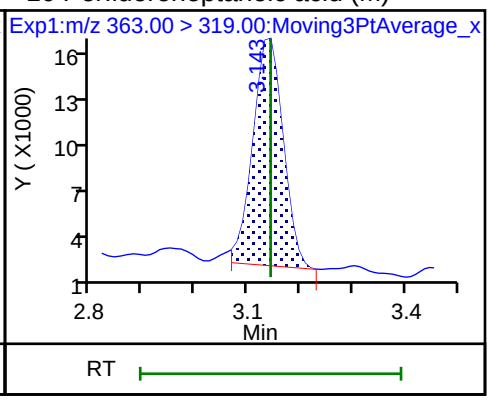
D 11 18O2 PFHxS



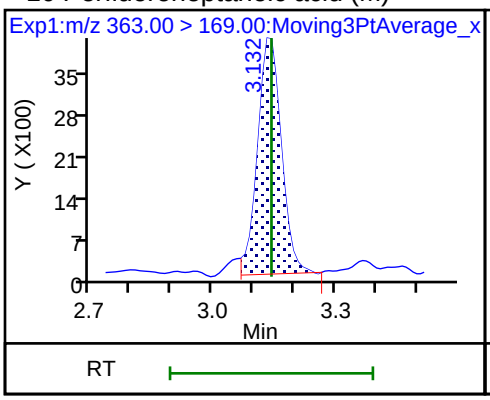

D 9 13C4 PFHpA



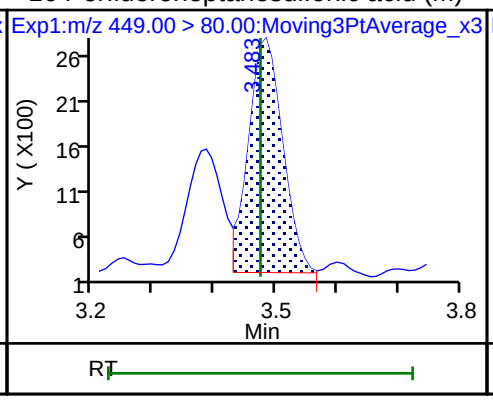

10 Perfluoroheptanoic acid (M)



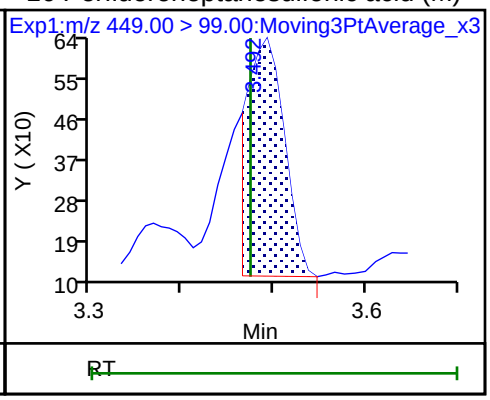

10 Perfluoroheptanoic acid (M)



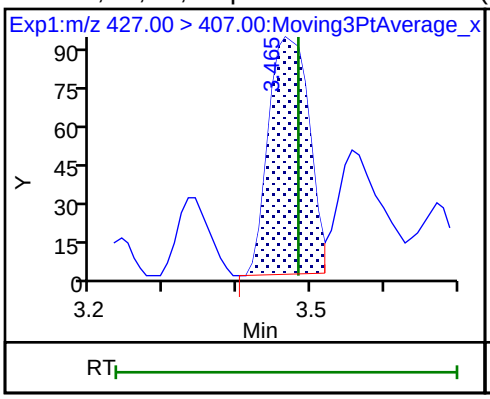

16 Perfluoroheptanesulfonic acid (M)



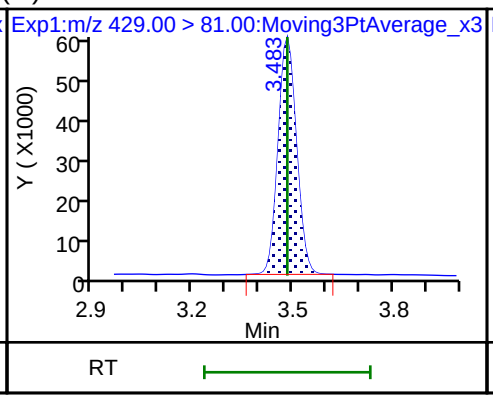

16 Perfluoroheptanesulfonic acid (M)



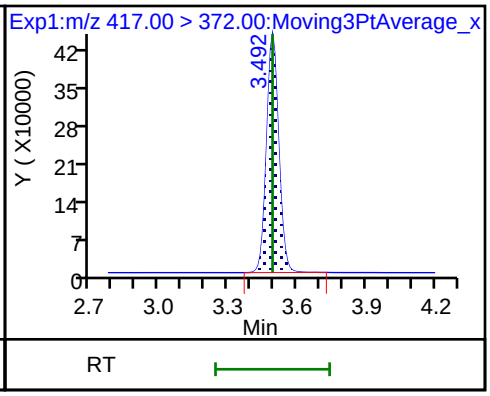

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



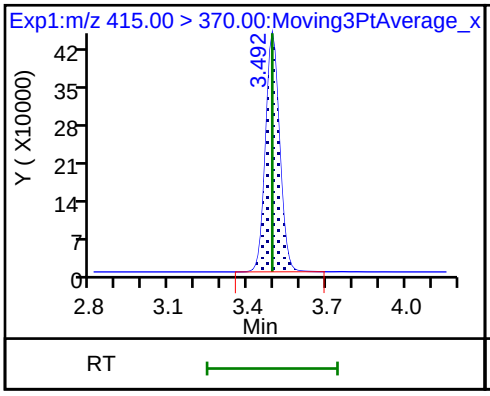

D 12 M2-6:2 FTS



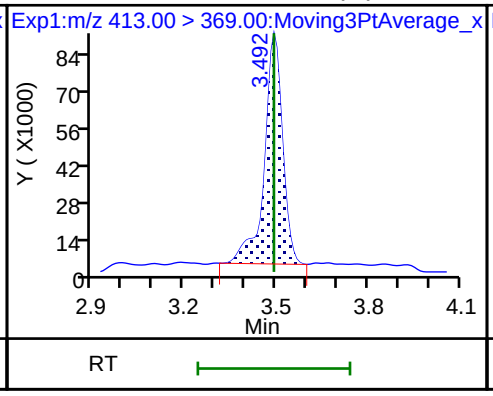

D 14 13C4 PFOA



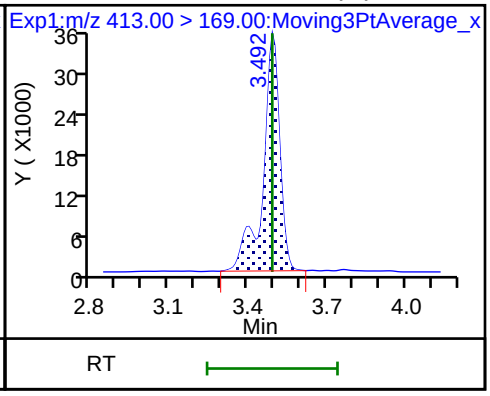

* 62 13C2 PFOA



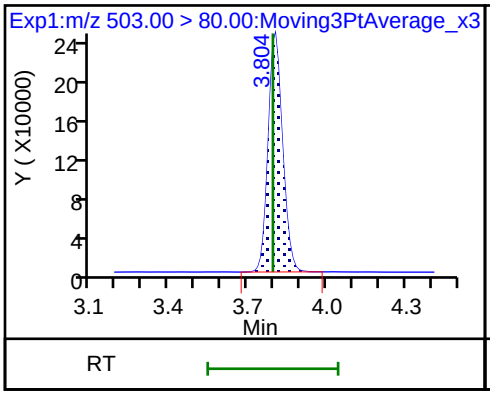

15 Perfluorooctanoic acid (M)



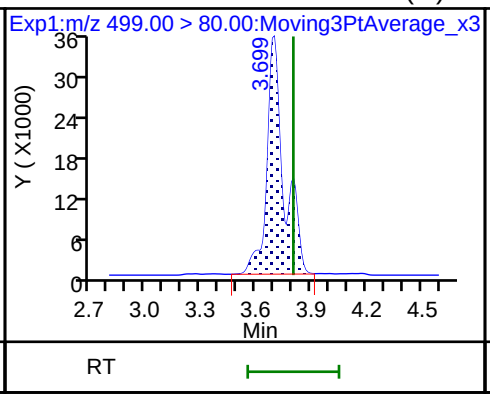

15 Perfluorooctanoic acid (M)



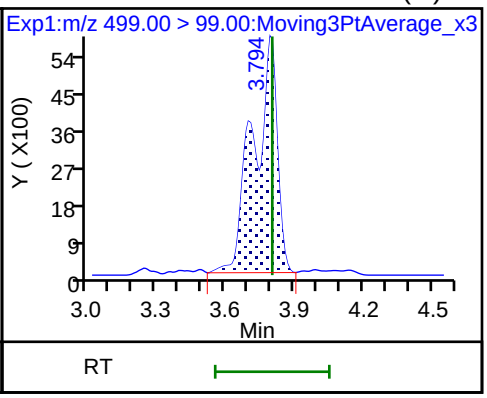
D 18 13C4 PFOS



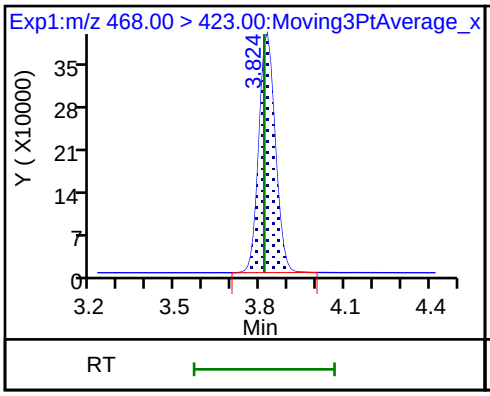

17 Perfluorooctanesulfonic acid (M)



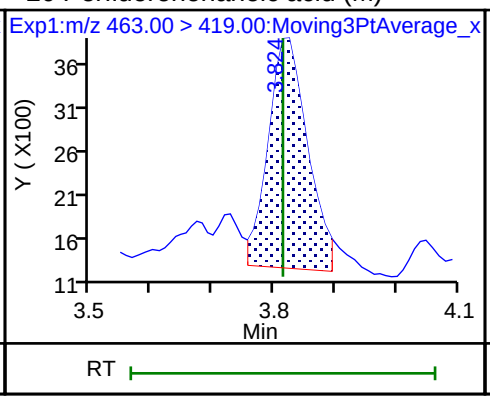

17 Perfluorooctanesulfonic acid (M)



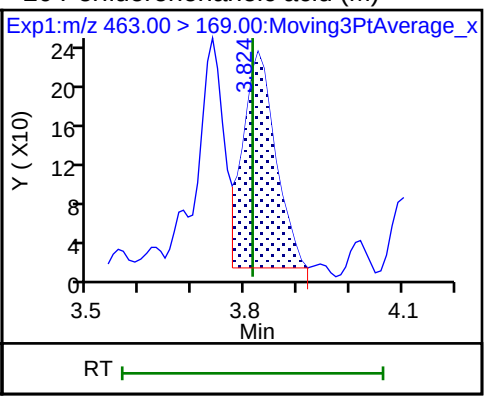

D 19 13C5 PFNA



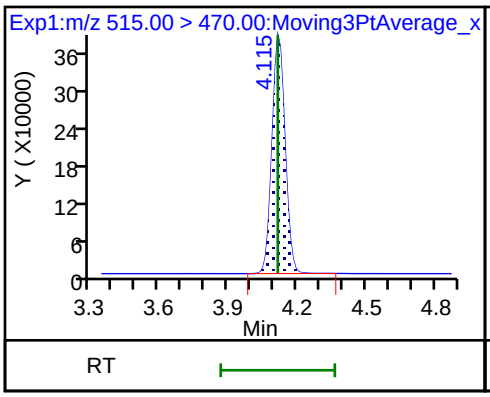

20 Perfluorononanoic acid (M)



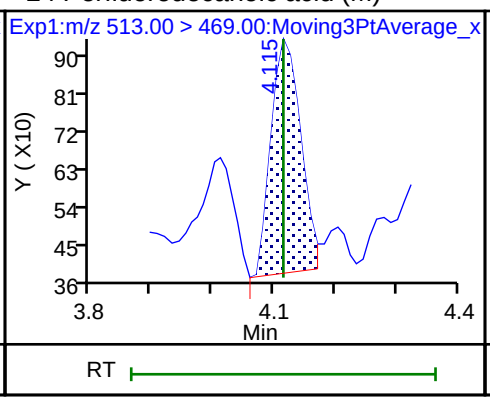

20 Perfluorononanoic acid (M)



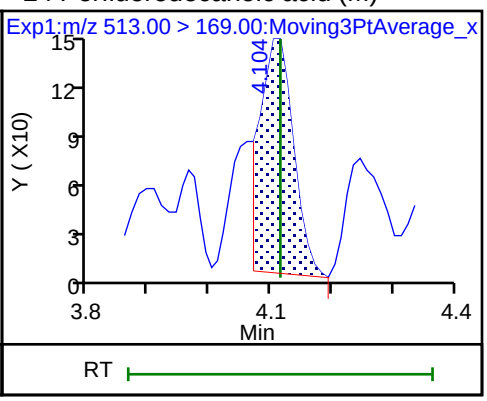

D 23 13C2 PFDA



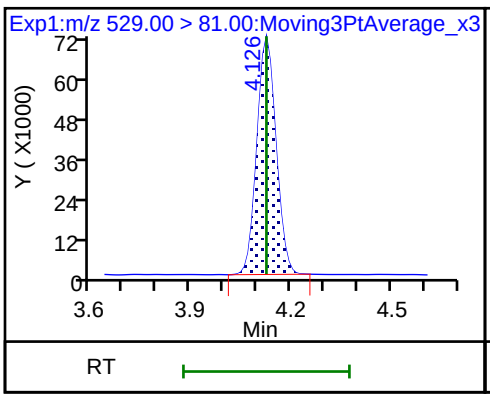

24 Perfluorodecanoic acid (M)



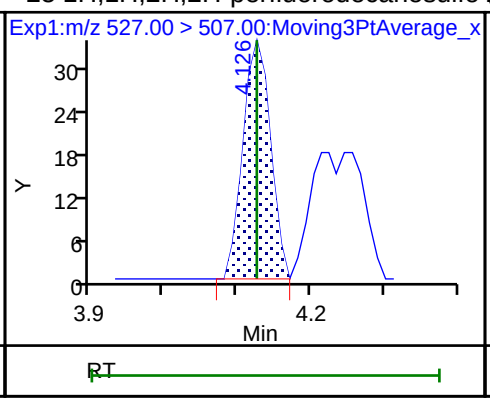

24 Perfluorodecanoic acid (M)



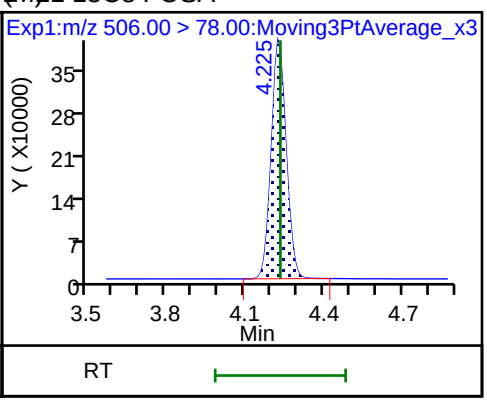

D 26 M2-8:2 FTS



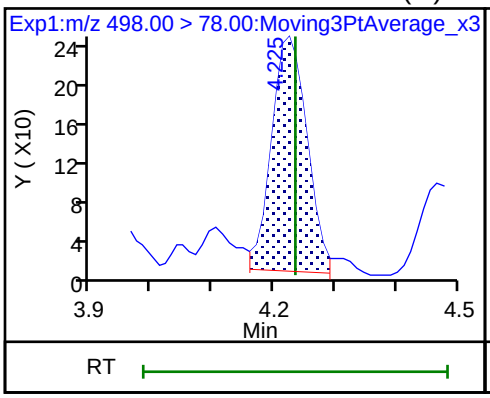

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



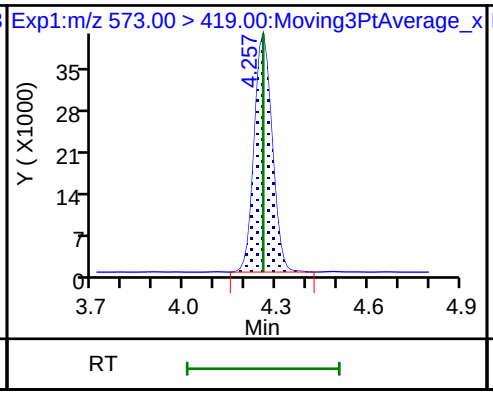

21 13C8 FOSA



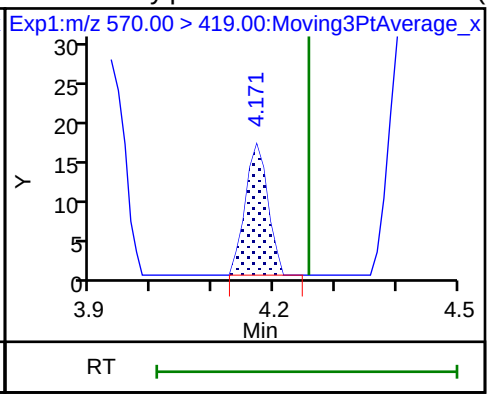
22 Perfluorooctanesulfonamide (M)



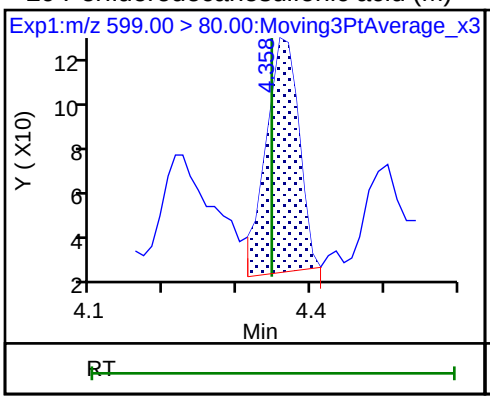

D 27 d3-NMeFOSAA



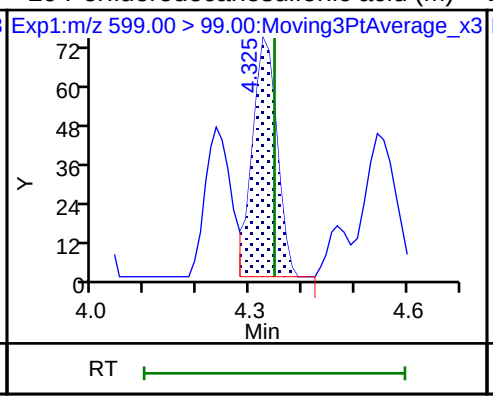

28 N-methylperfluorooctanesulfonami (M)



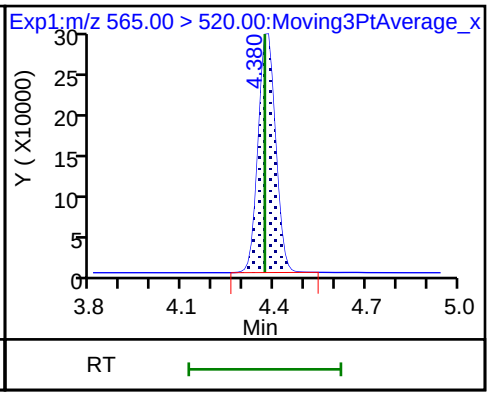

29 Perfluorodecanesulfonic acid (M)



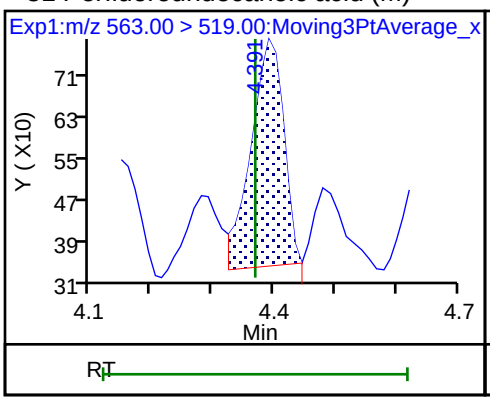

29 Perfluorodecanesulfonic acid (M)



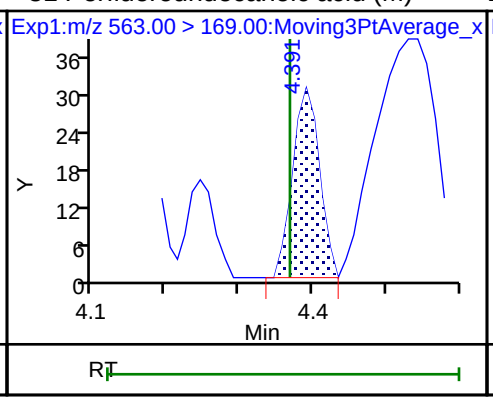

D 30 13C2 PFUnA



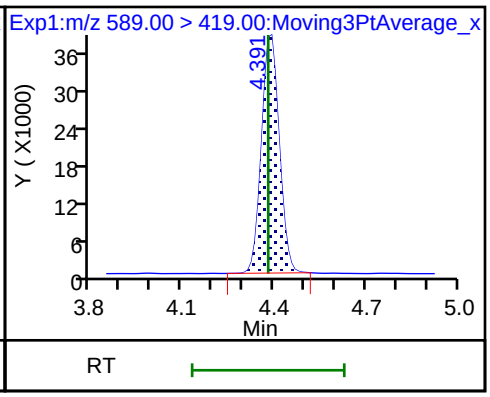

31 Perfluoroundecanoic acid (M)



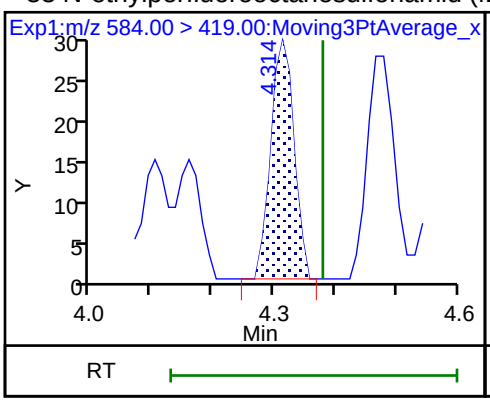

31 Perfluoroundecanoic acid (M)



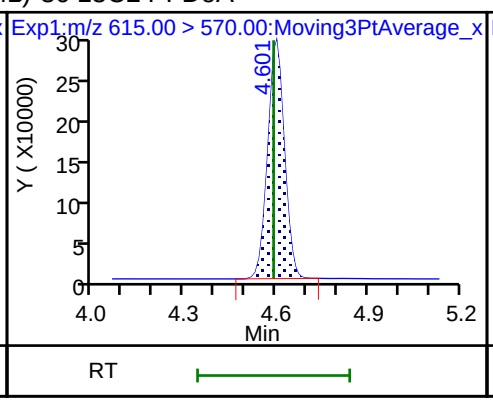

D 32 d5-NEtFOSAA



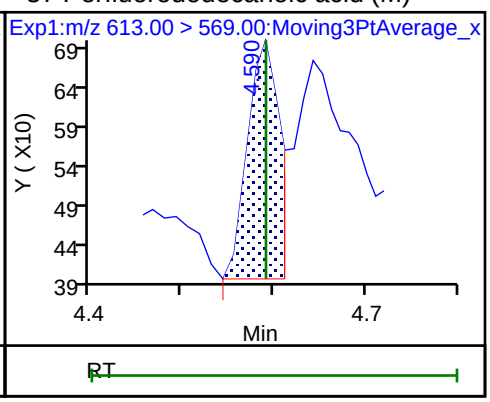

33 N-ethylperfluorooctanesulfonamid (M)



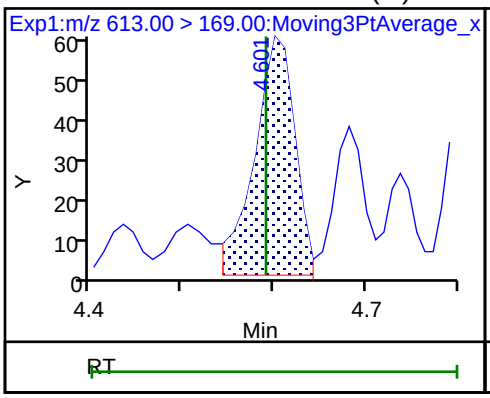

D 36 13C2 PFDoA



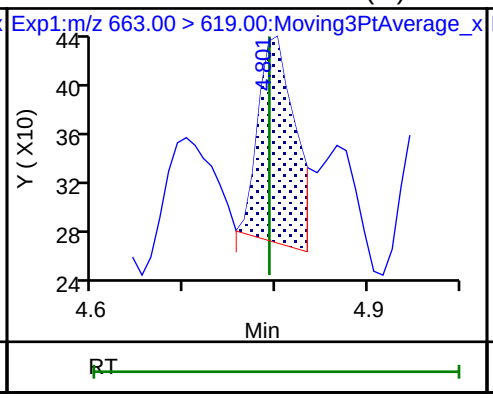

37 Perfluorododecanoic acid (M)



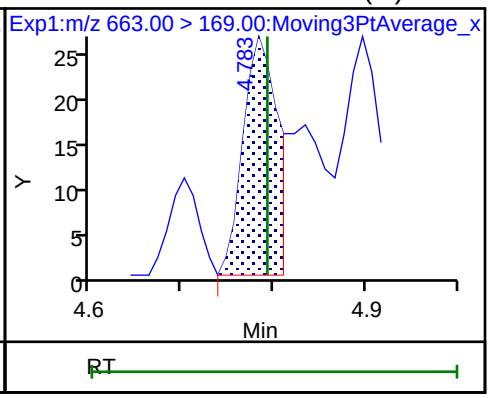
37 Perfluorododecanoic acid (M)



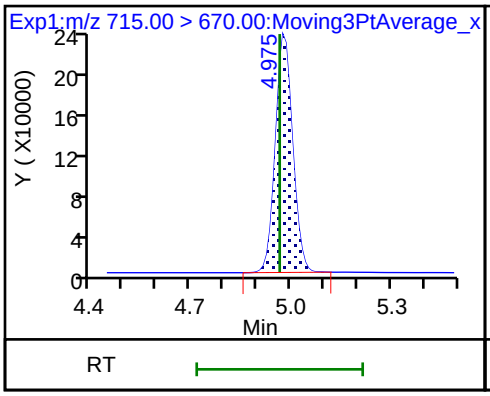

41 Perfluorotridecanoic acid (M)



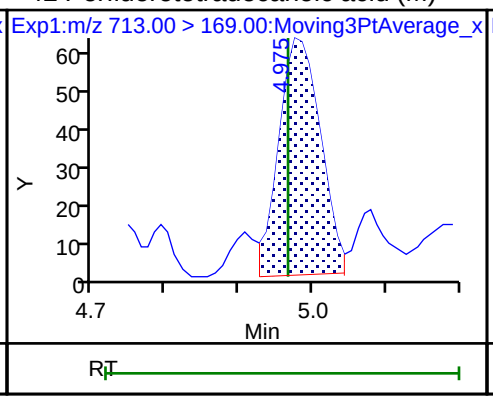

41 Perfluorotridecanoic acid (M)



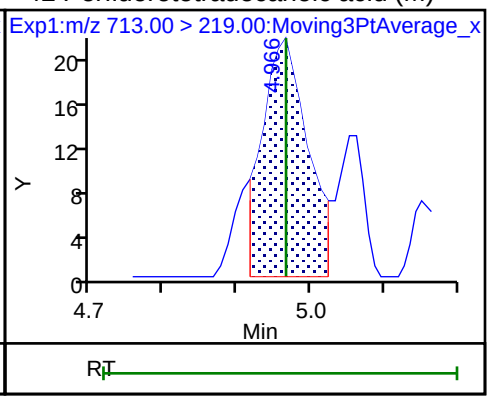

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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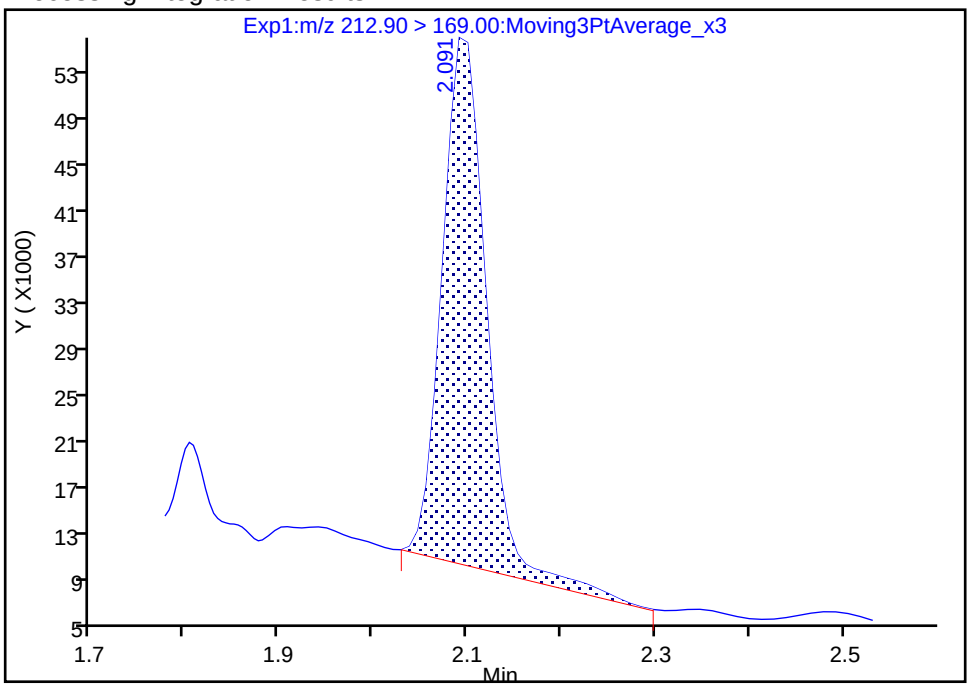
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

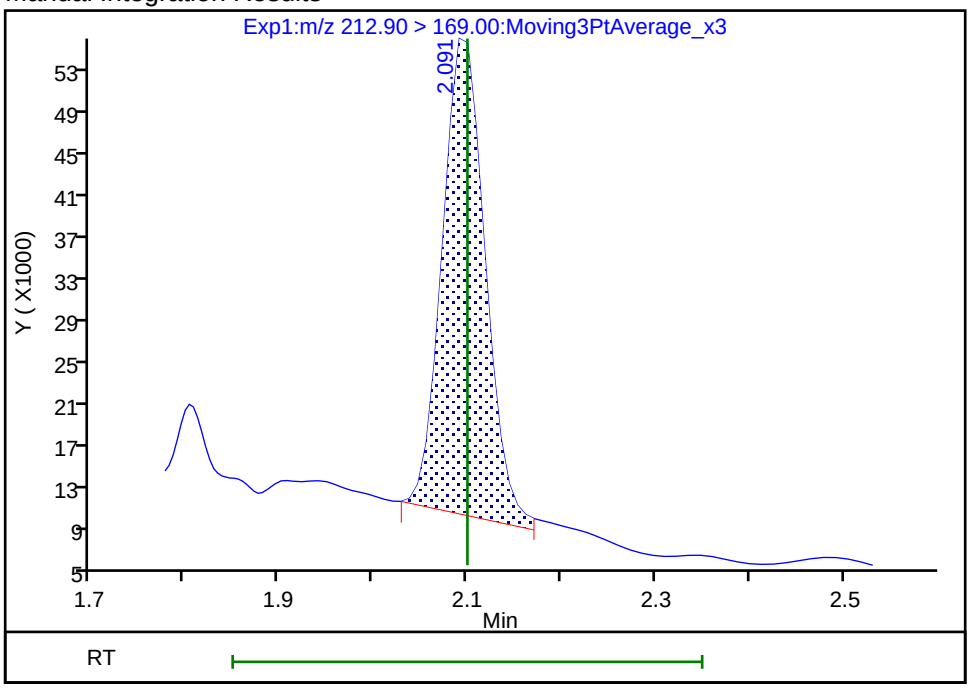
Processing Integration Results

RT: 2.09
Area: 149853
Amount: 0.126063
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 144519
Amount: 0.121575
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:33:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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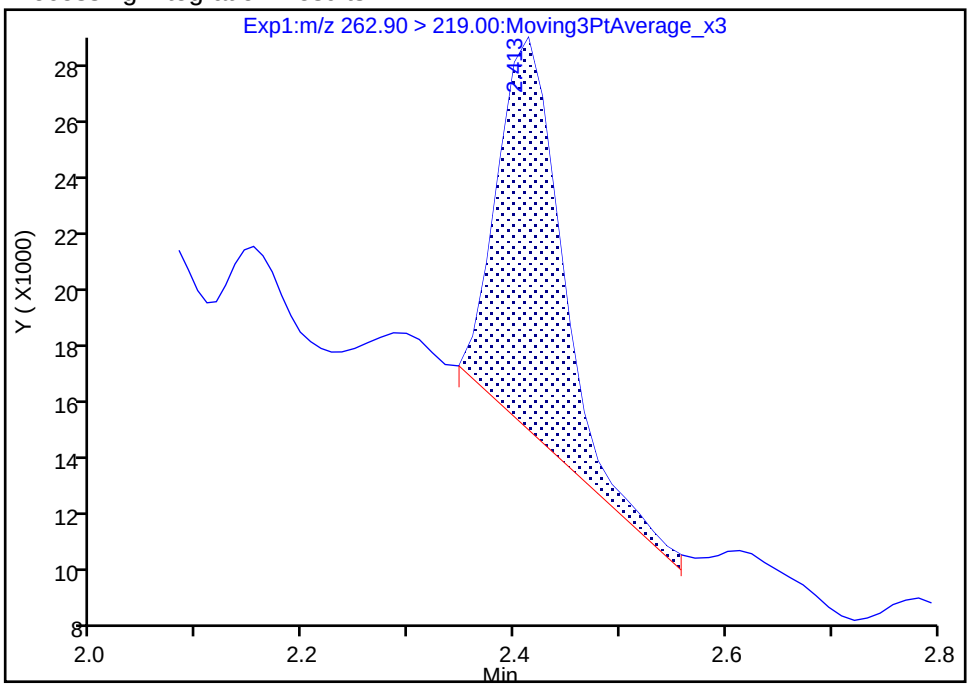
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

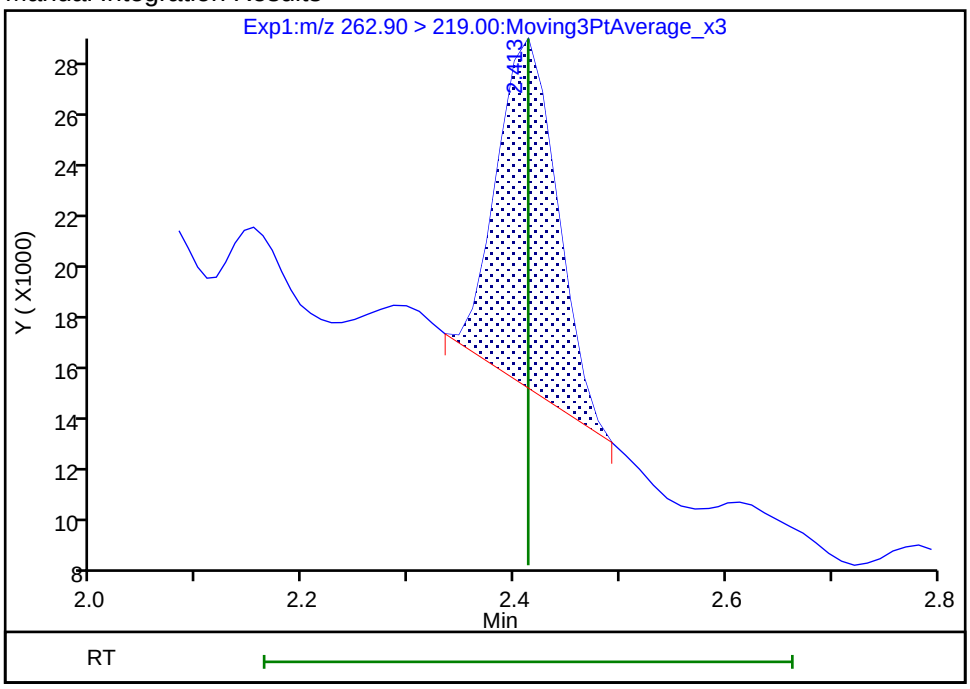
Processing Integration Results

RT: 2.41
Area: 57914
Amount: 0.052903
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 53807
Amount: 0.049151
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:33:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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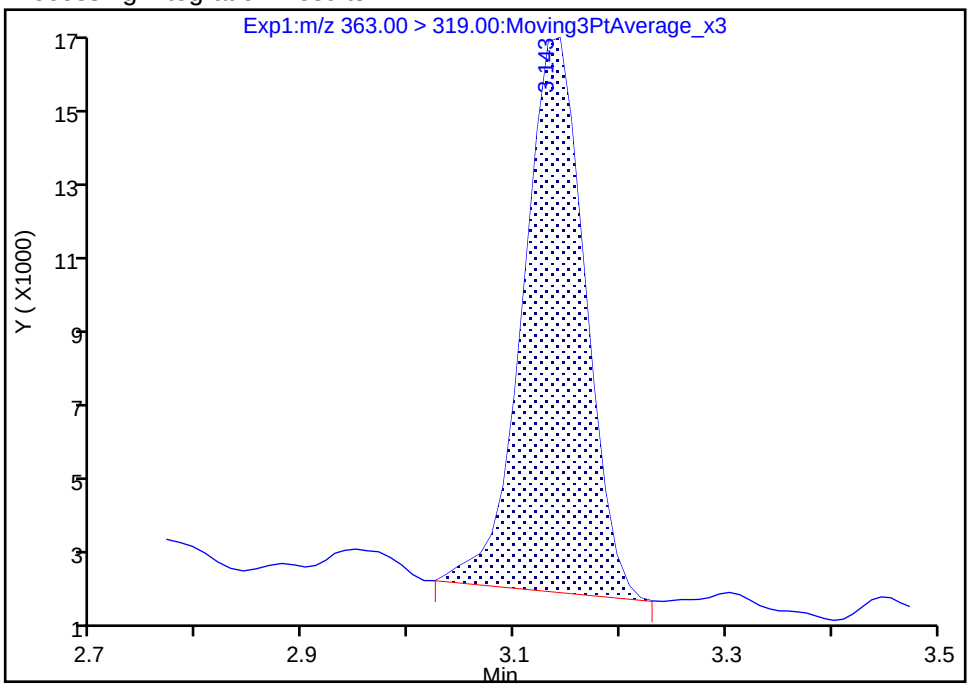
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

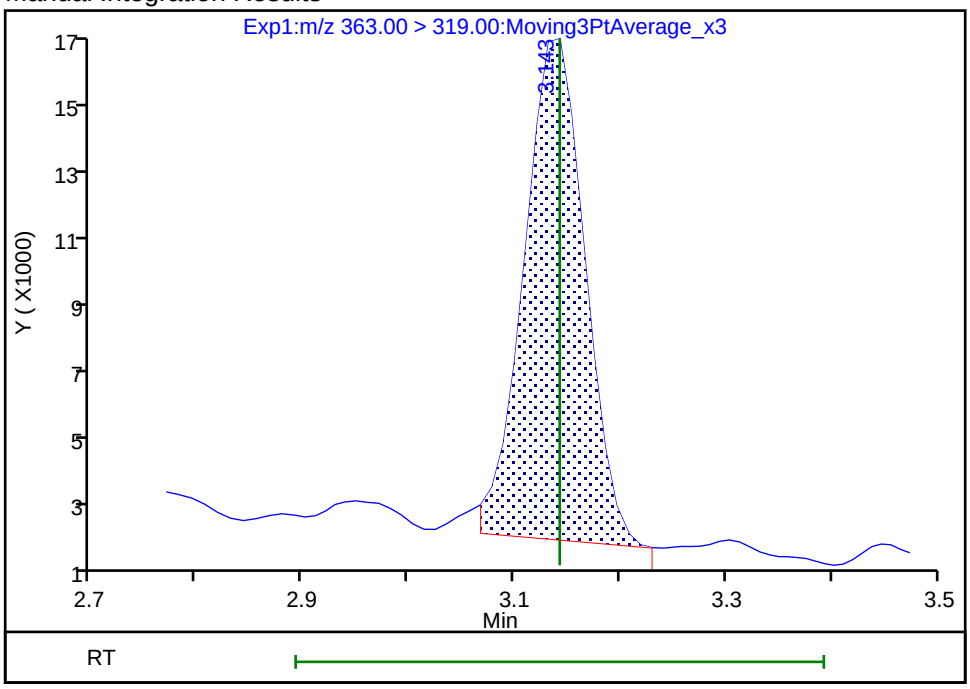
Processing Integration Results

RT: 3.14
Area: 57080
Amount: 0.045967
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 56058
Amount: 0.045144
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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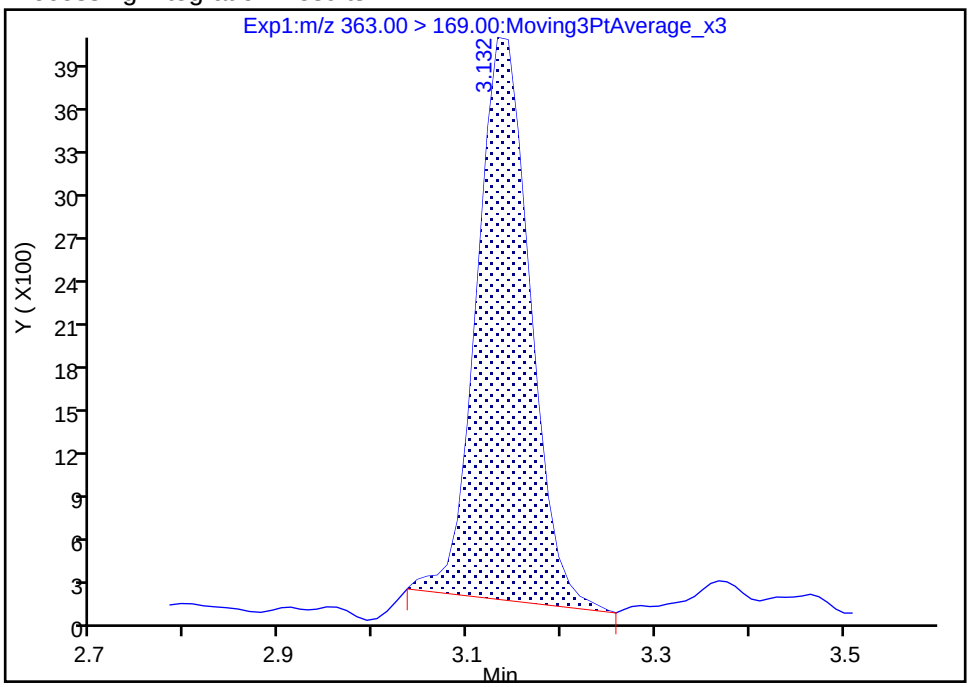
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

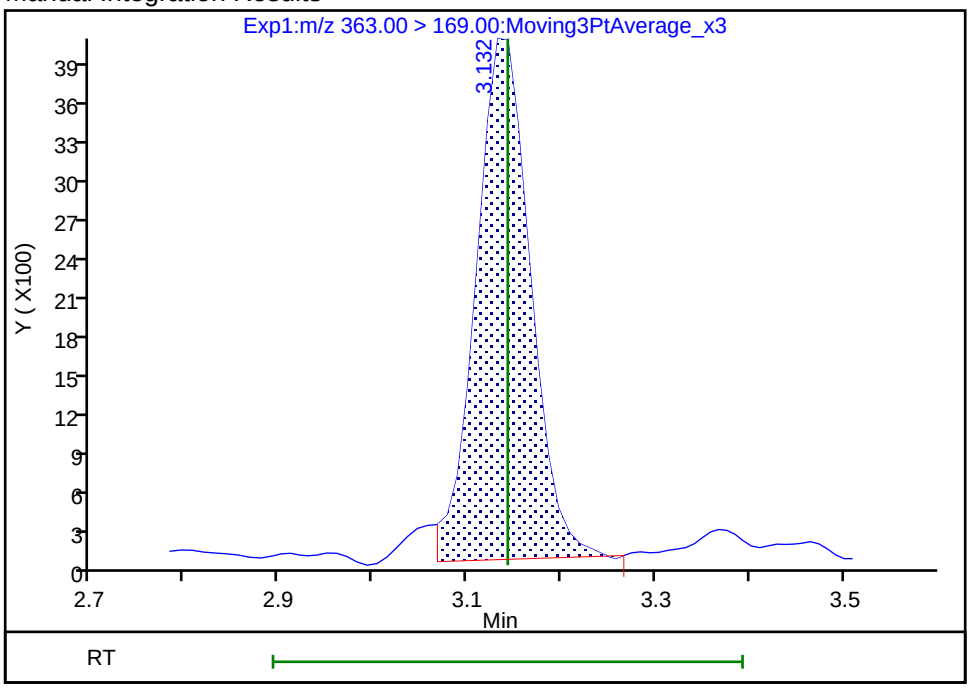
Processing Integration Results

RT: 3.13
Area: 15360
Amount: 0.045967
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 16031
Amount: 0.045144
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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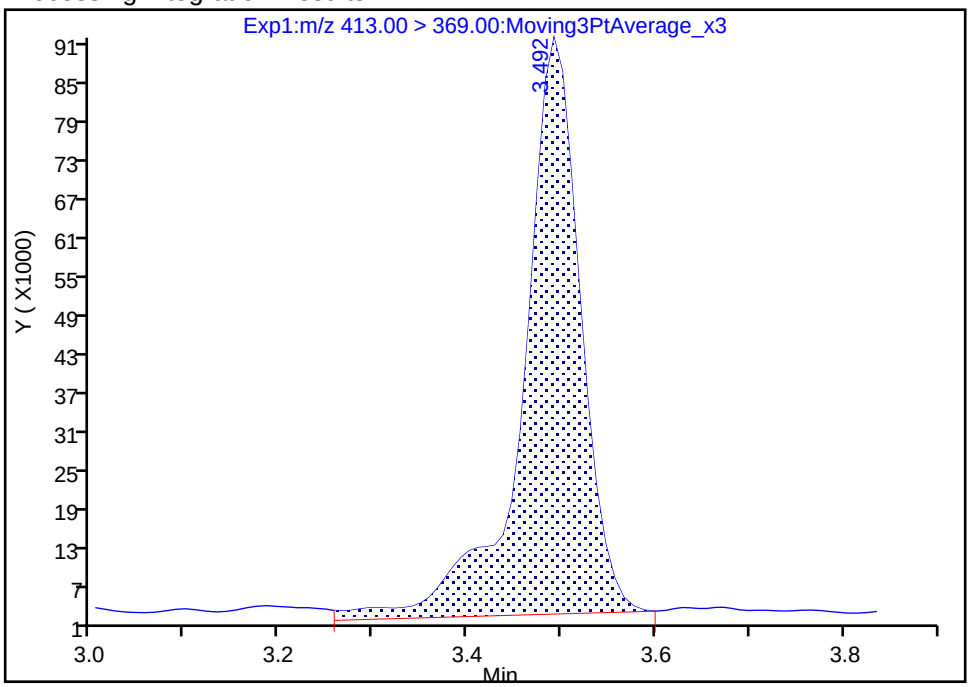
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

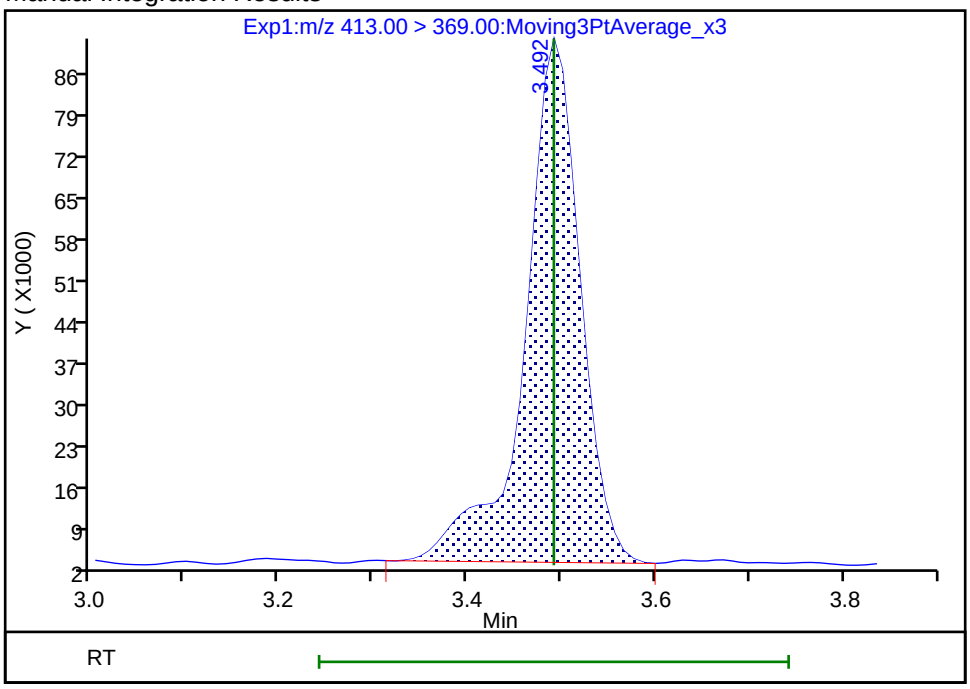
Processing Integration Results

RT: 3.49
Area: 380908
Amount: 0.273764
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 361219
Amount: 0.259614
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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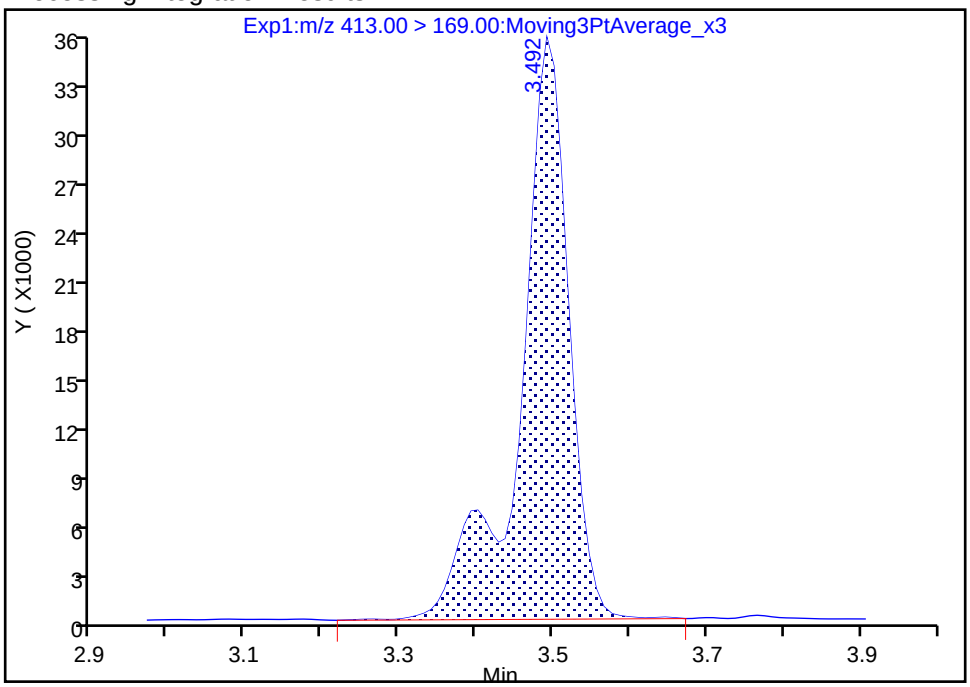
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

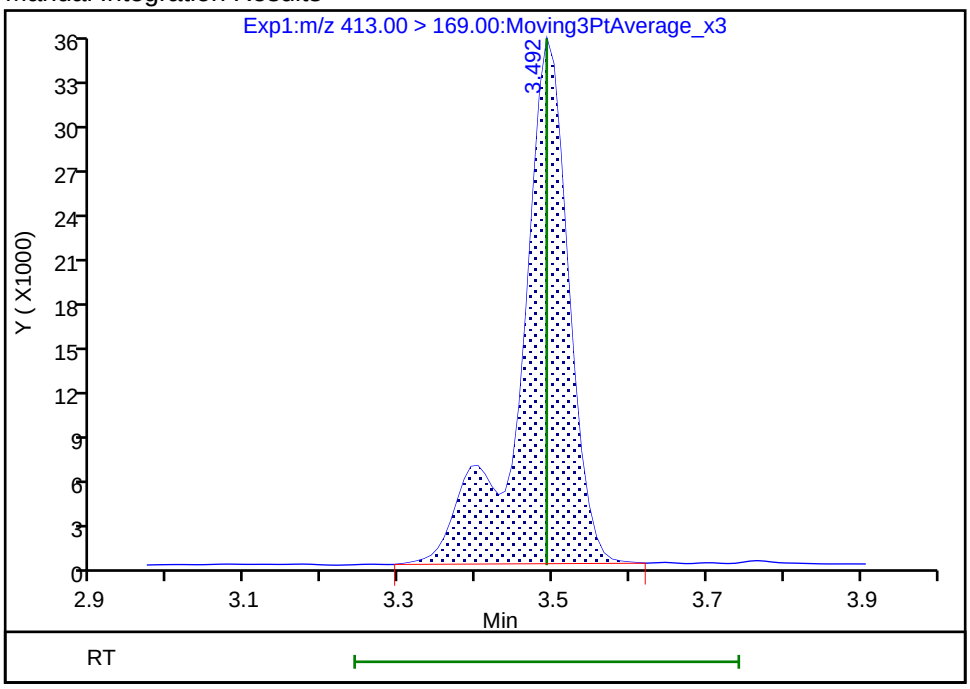
Processing Integration Results

RT: 3.49
Area: 154145
Amount: 0.273764
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 153137
Amount: 0.259614
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

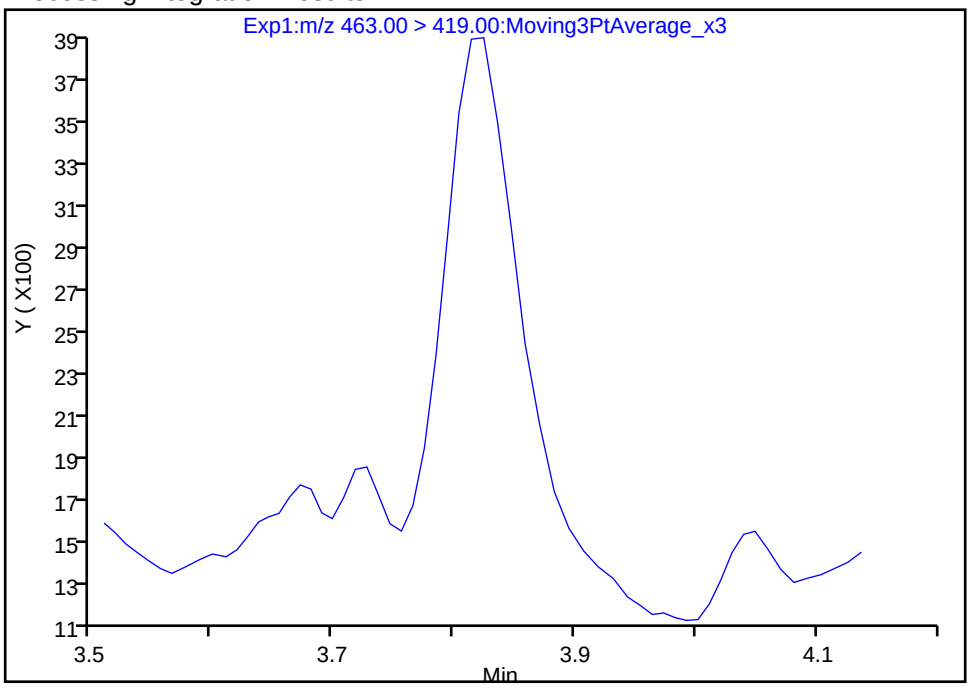
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

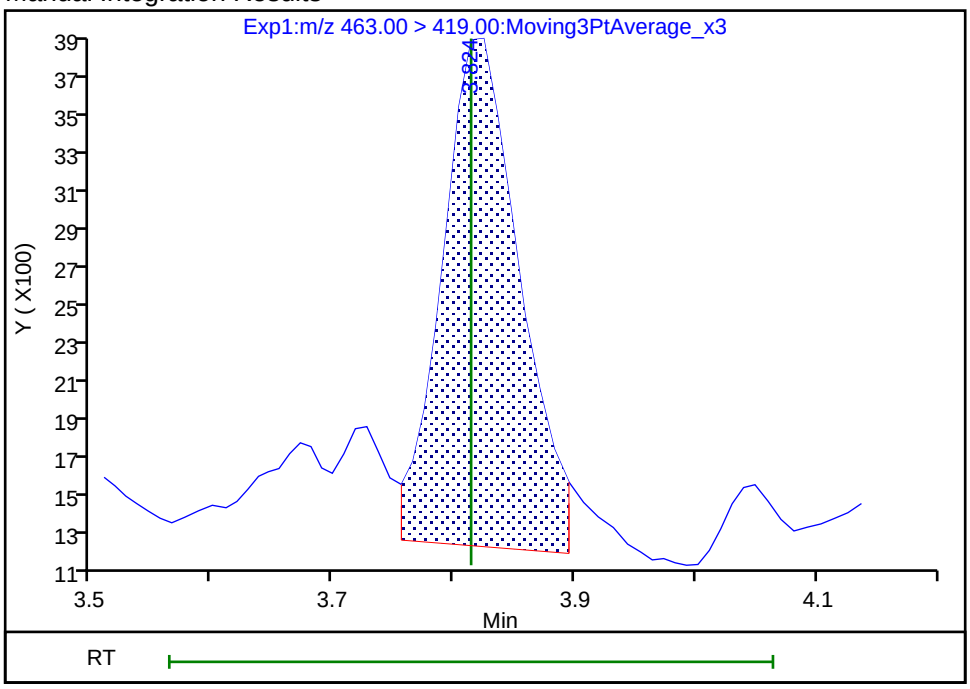
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 11883
Amount: 0.009710
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:35:39
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

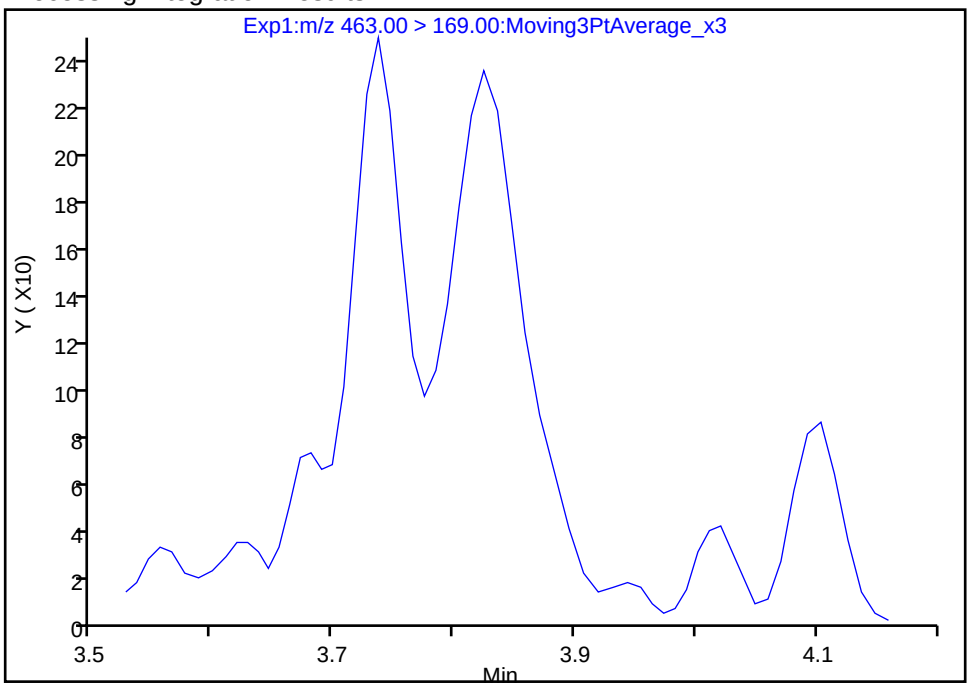
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

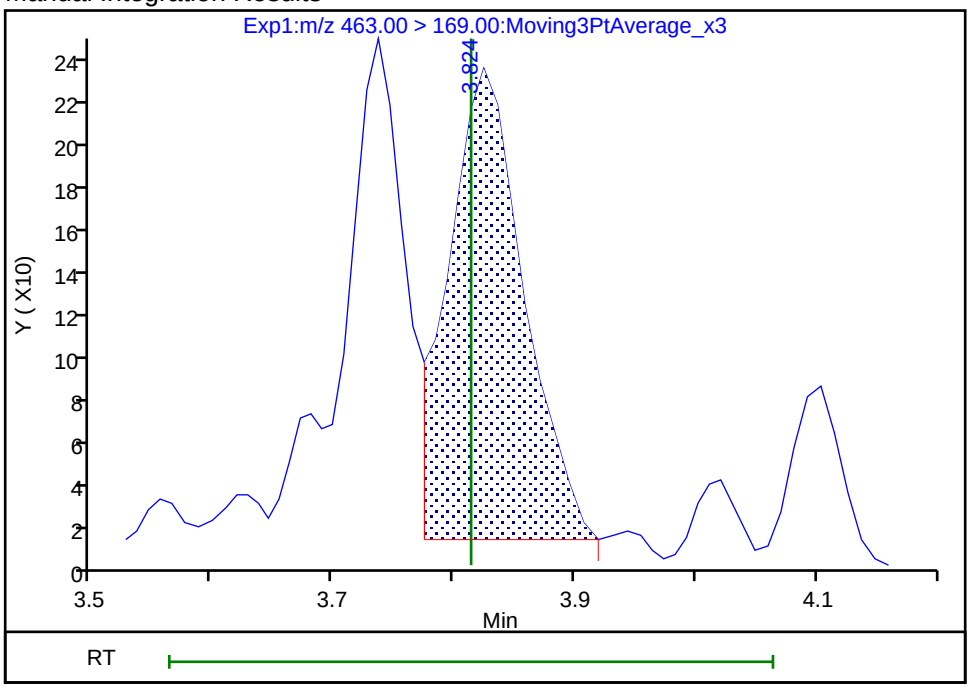
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 954
Amount: 0.009710
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:35:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

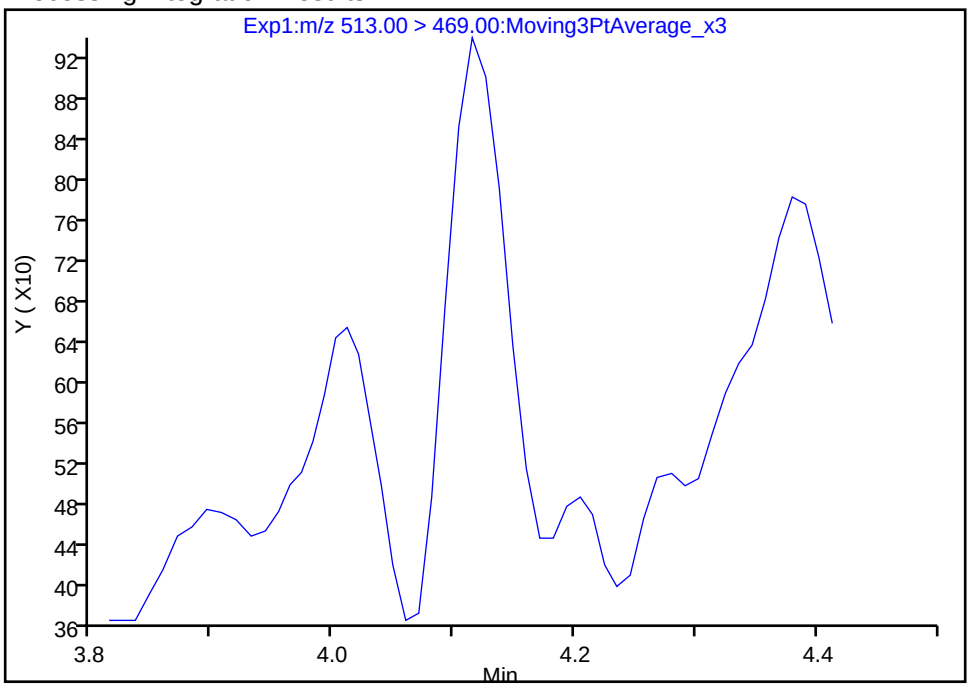
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

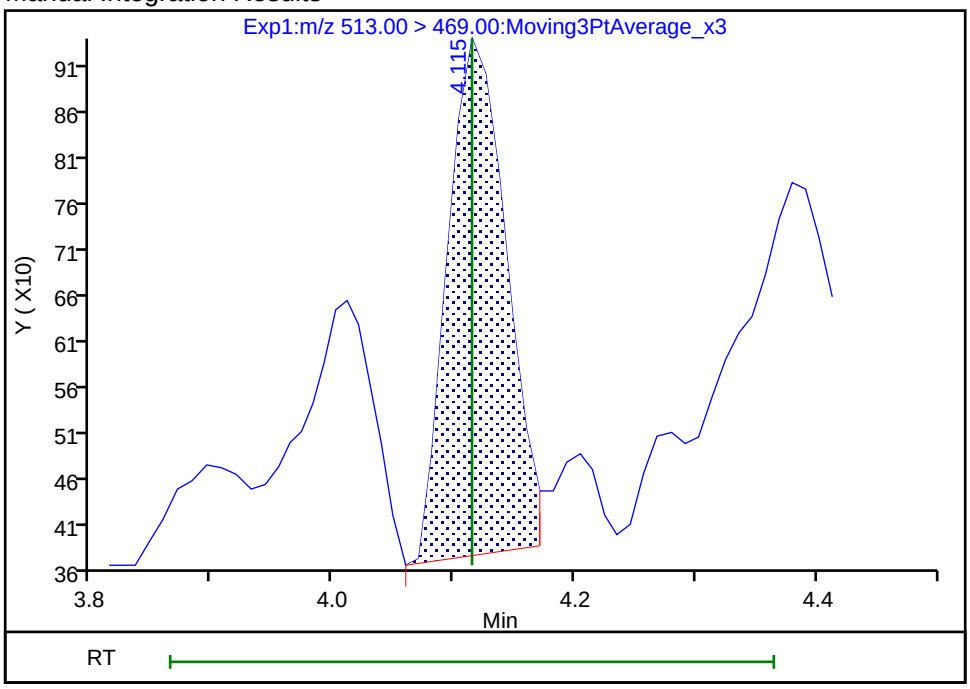
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 1867
Amount: 0.001524
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:08
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

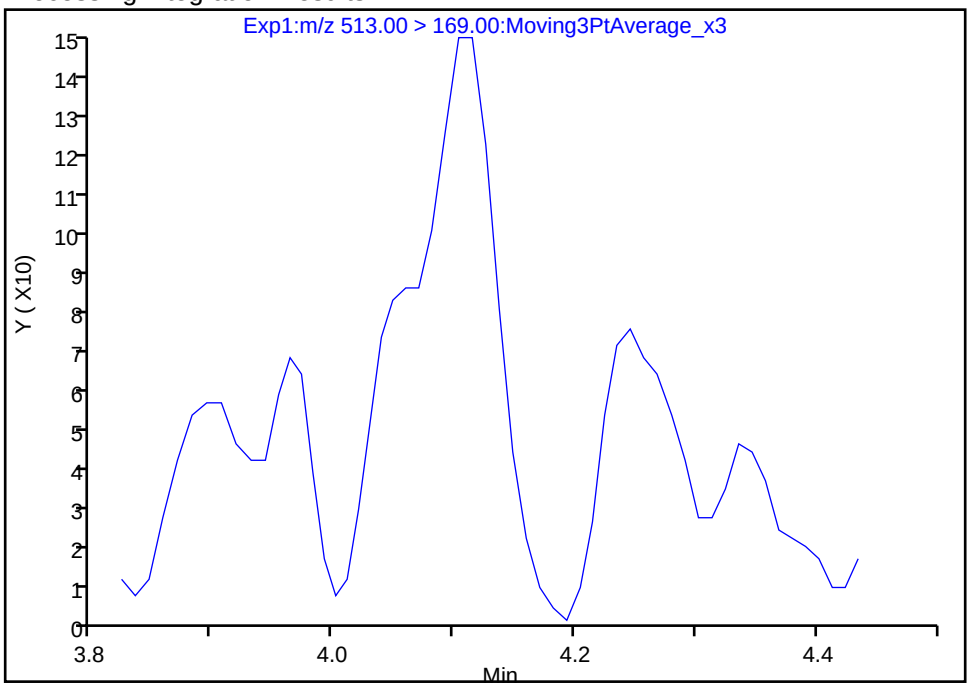
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

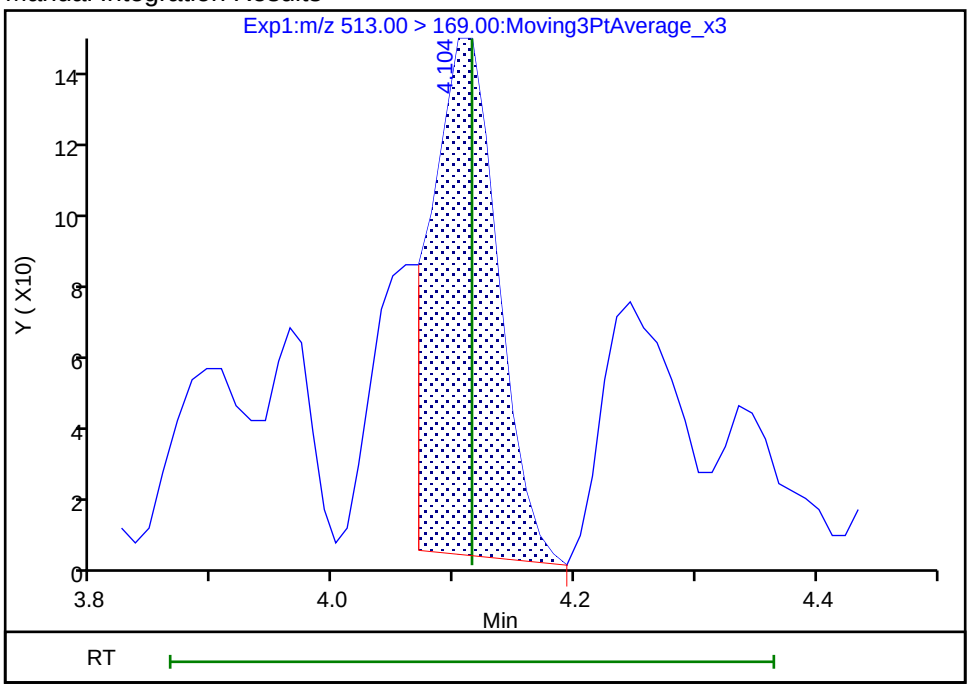
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 521
Amount: 0.001524
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:10
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

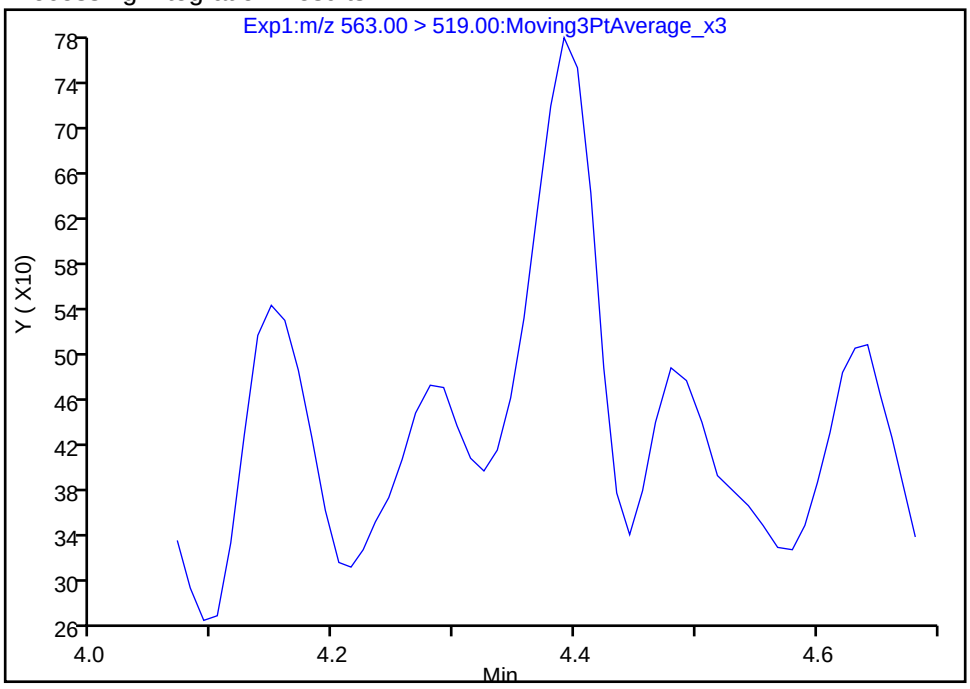
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

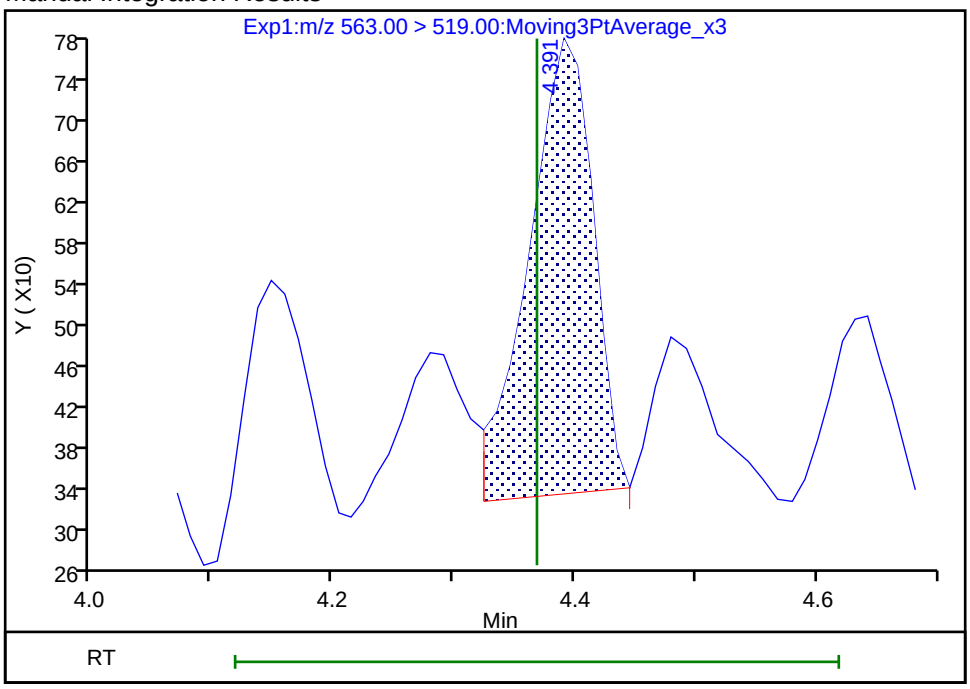
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.39
Area: 1609
Amount: 0.001613
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:37:06
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

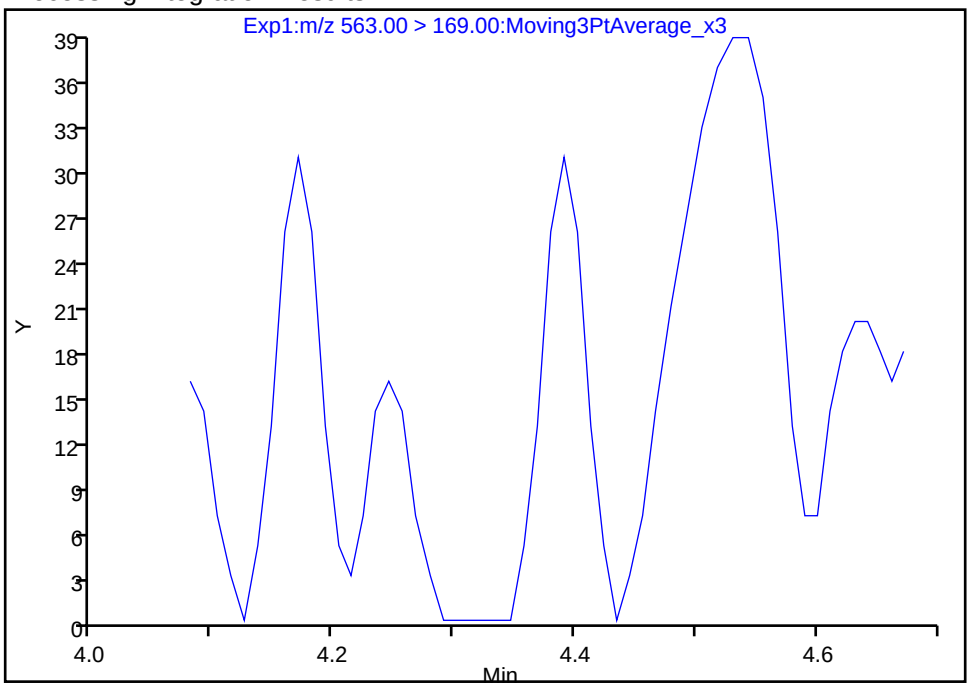
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

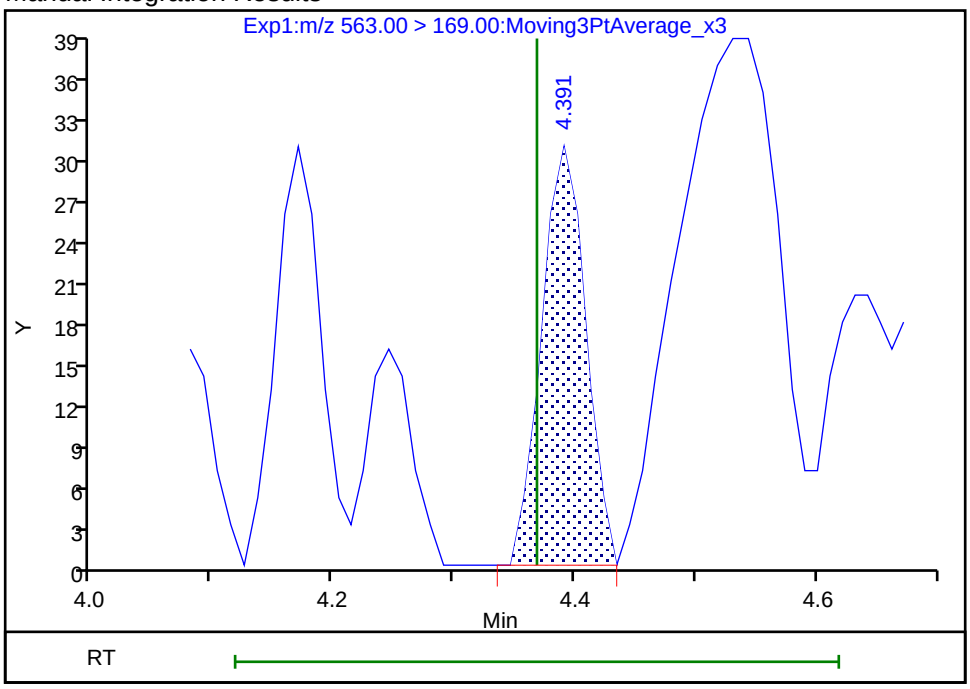
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.39
Area: 78
Amount: 0.001613
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:37:10
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

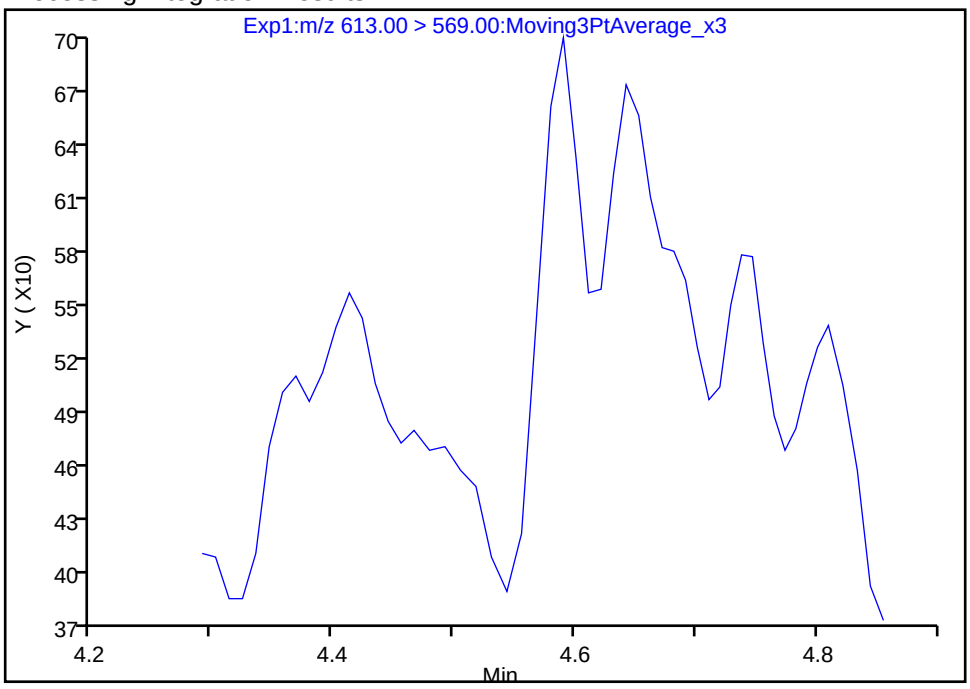
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

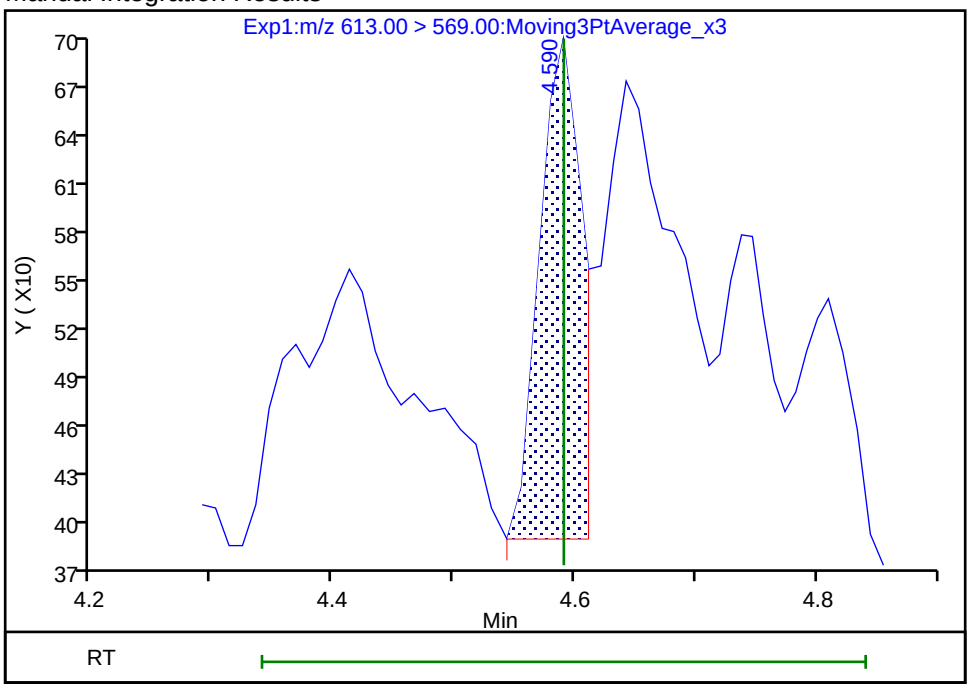
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 705
Amount: 0.000816
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:37:42
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

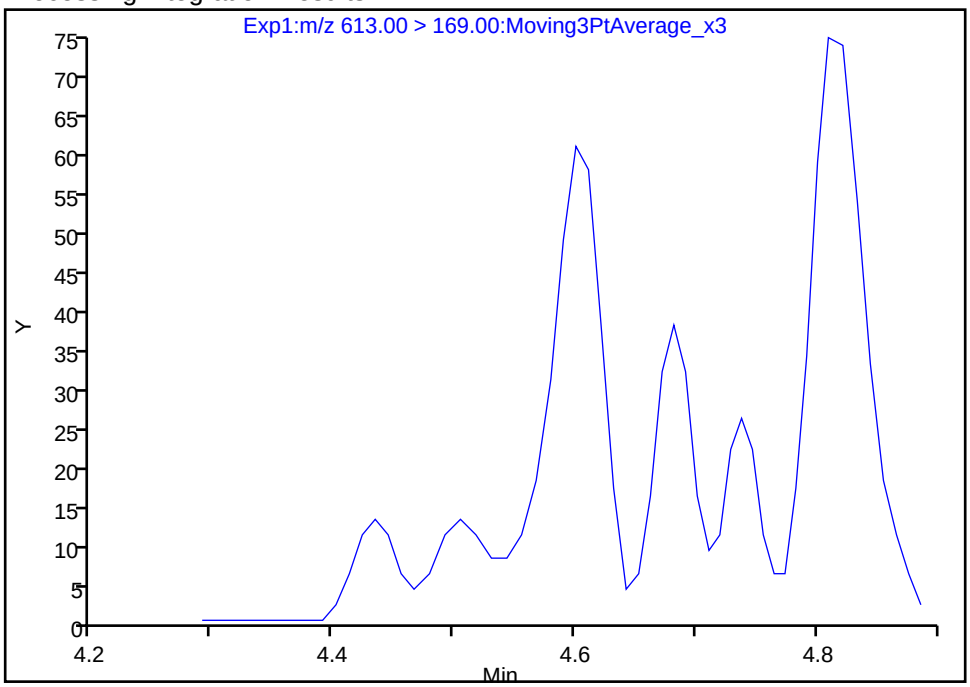
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

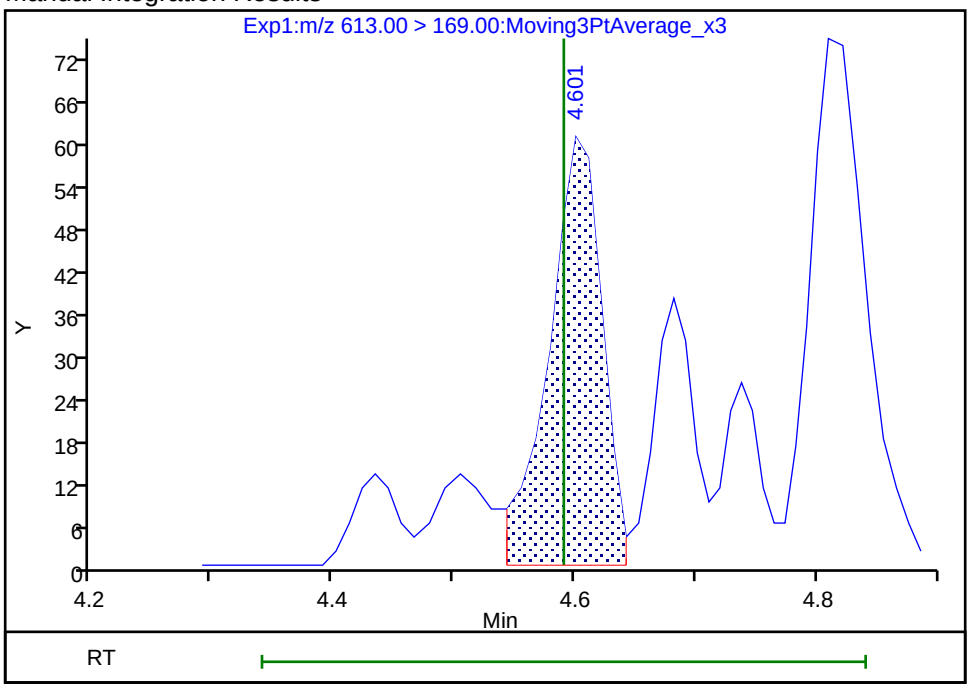
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 185
Amount: 0.000816
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:37:47
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

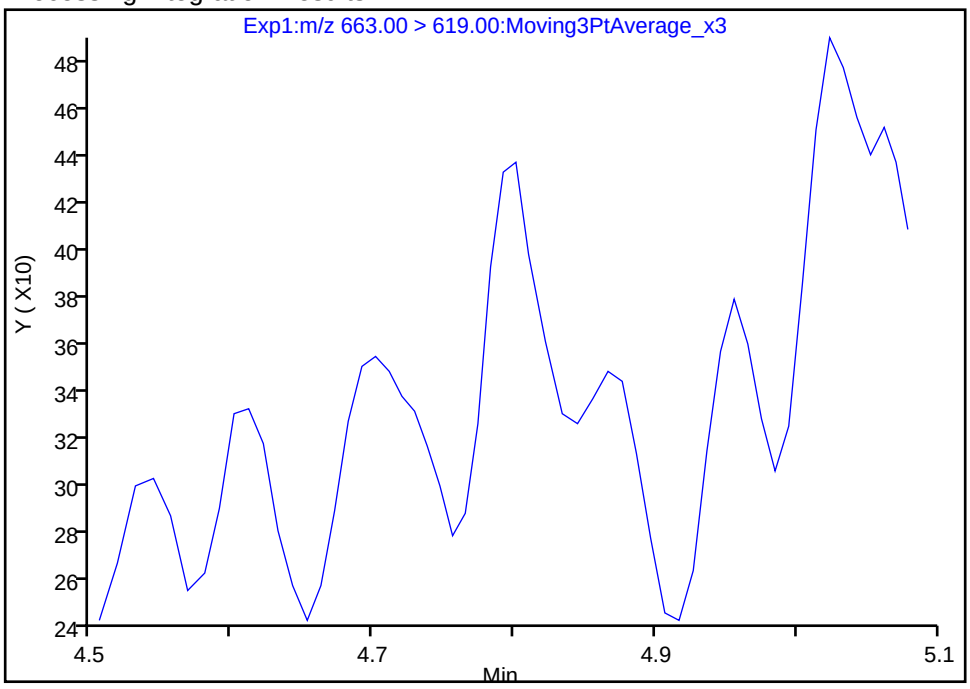
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

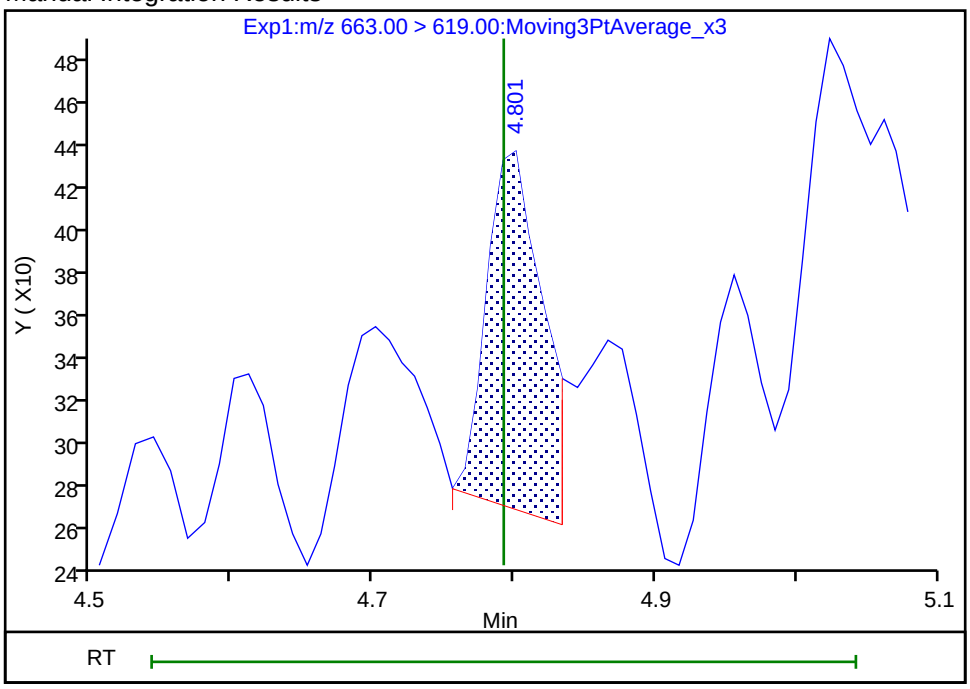
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 427
Amount: 0.000573
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:38:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

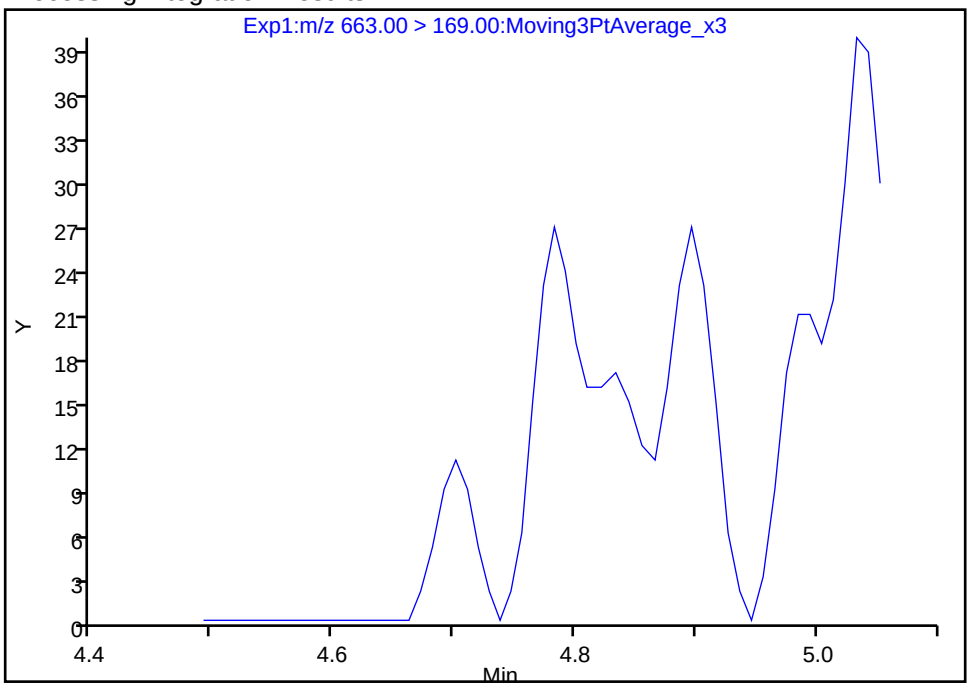
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

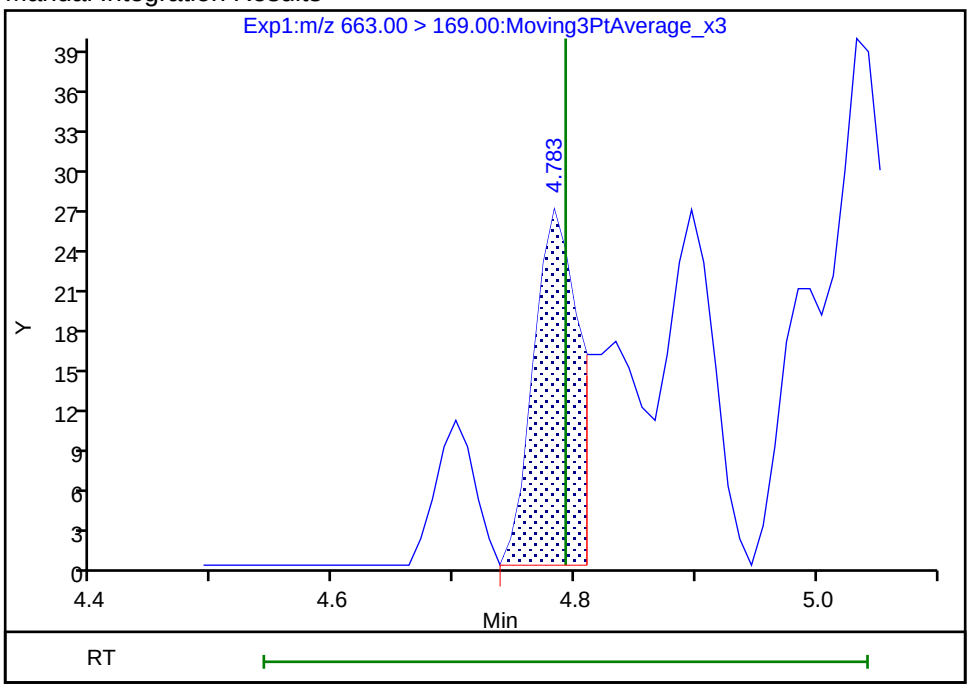
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 67
Amount: 0.000573
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:38:06
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

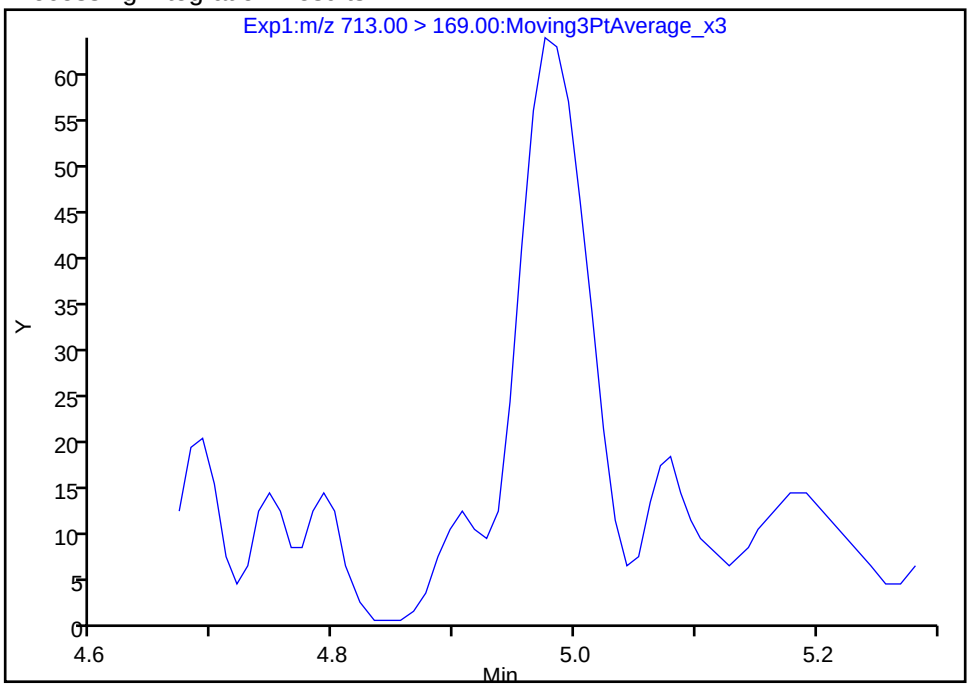
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

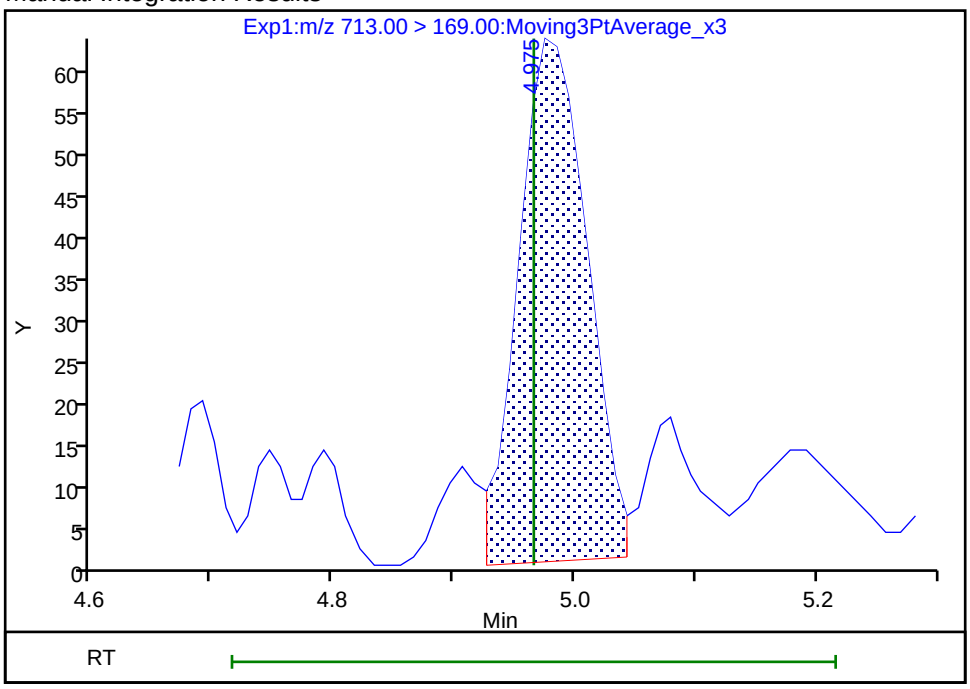
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 250
Amount: 0.002367
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:38:24
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

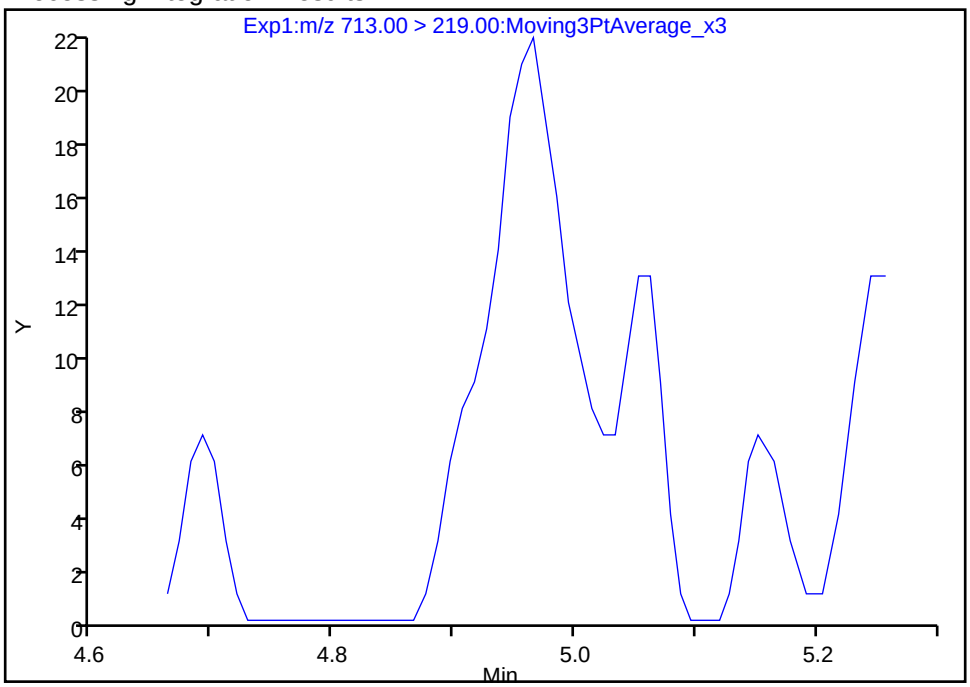
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

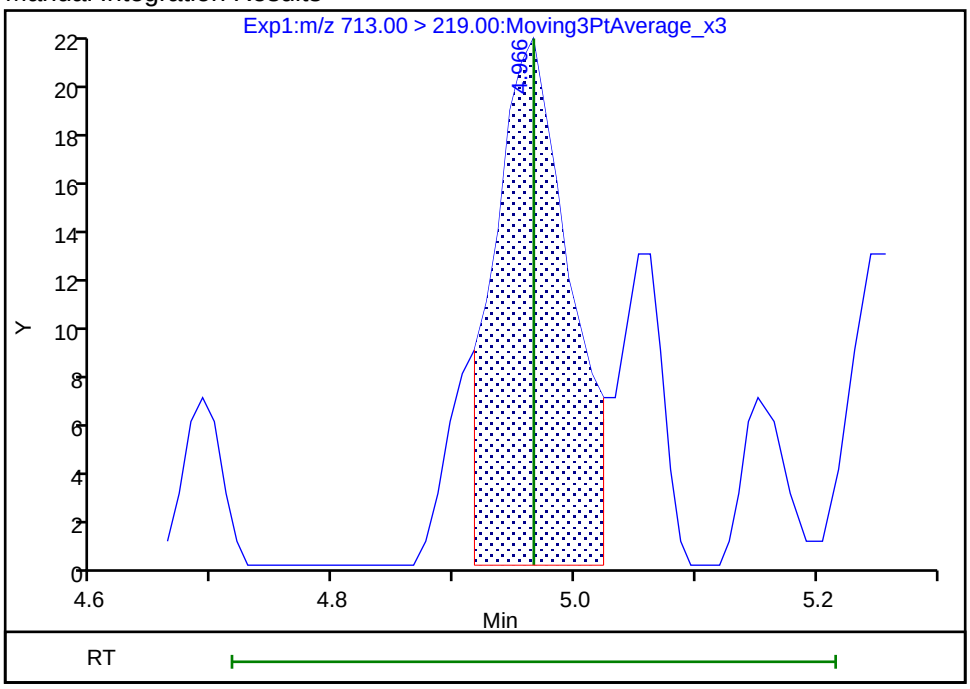
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 93
Amount: 0.002367
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:38:29
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

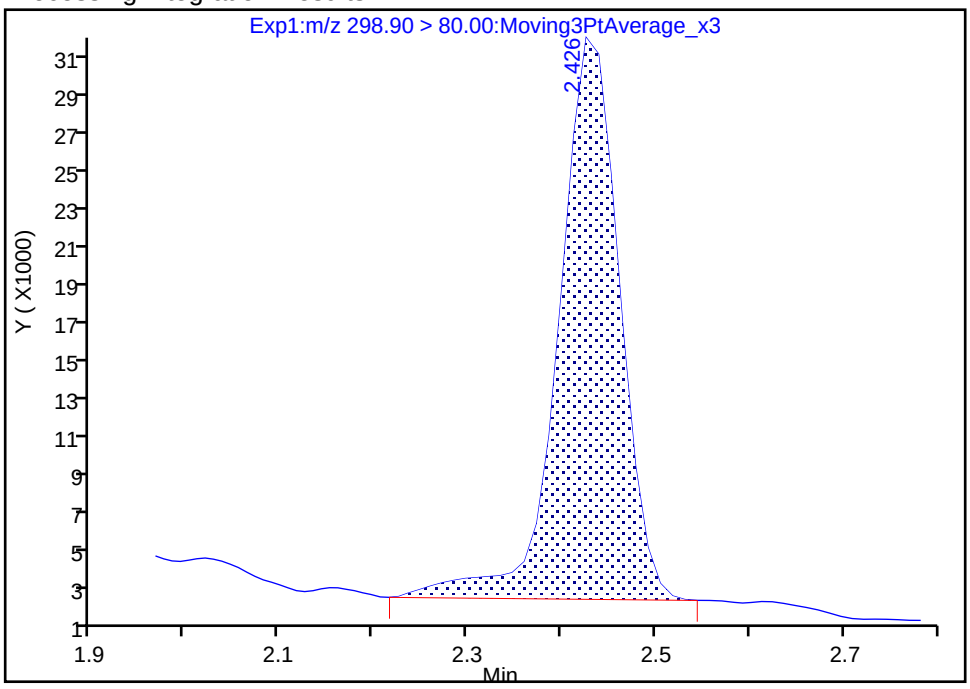
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

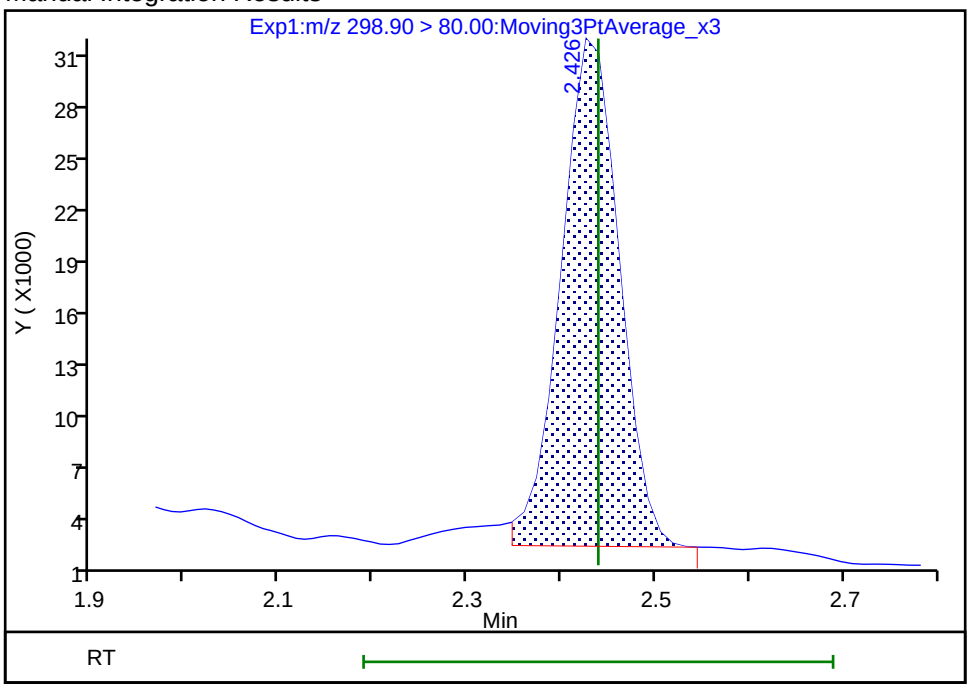
Processing Integration Results

RT: 2.43
Area: 132953
Amount: 0.088572
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 126928
Amount: 0.084558
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:33:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

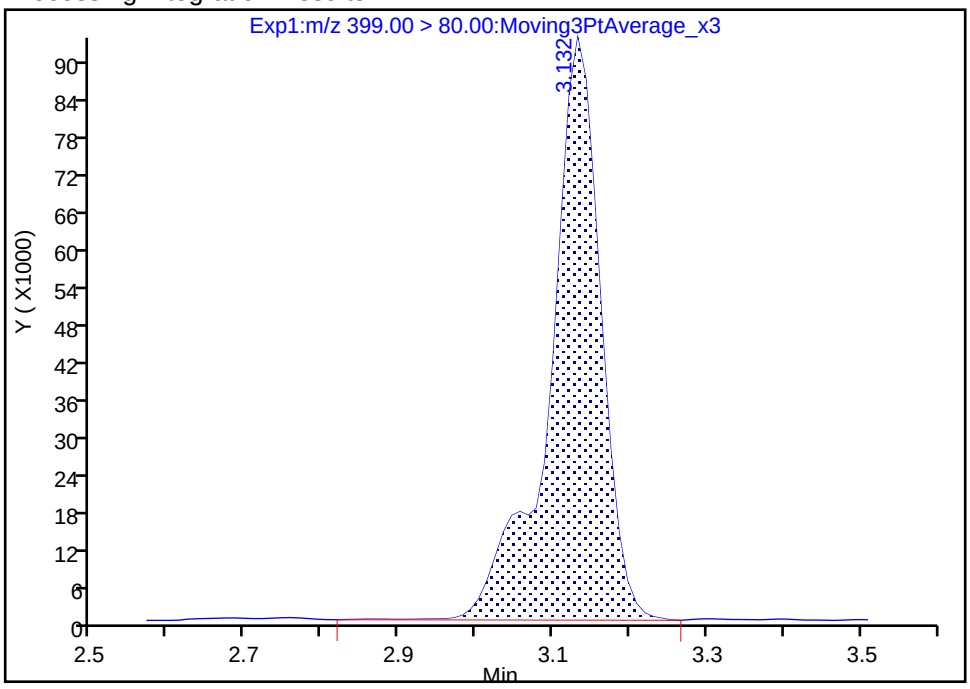
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

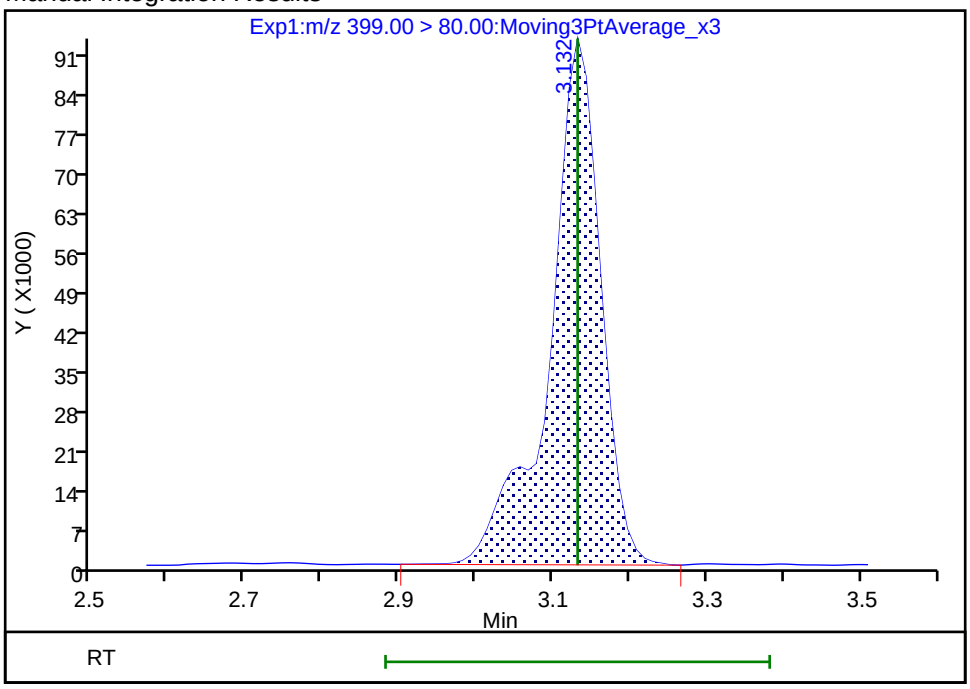
Processing Integration Results

RT: 3.13
Area: 428400
Amount: 0.382249
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 427252
Amount: 0.381225
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:33:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

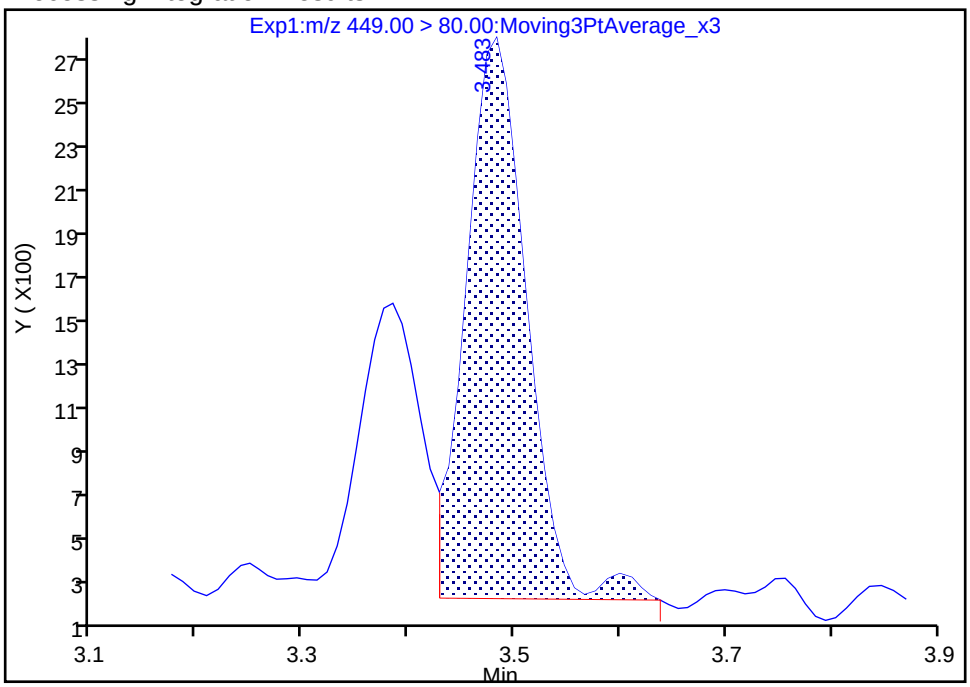
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

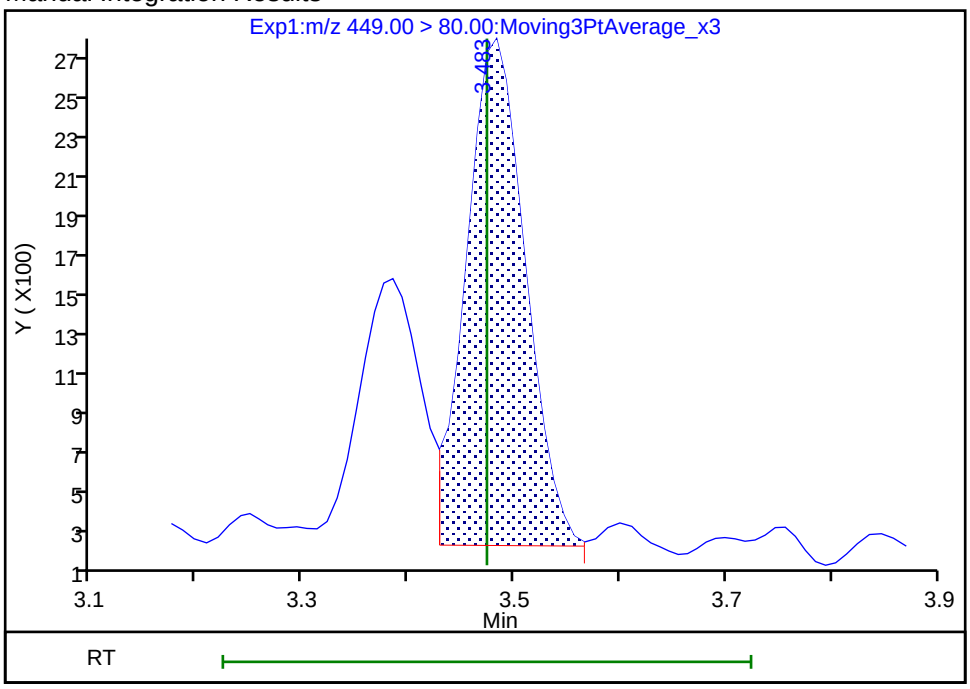
Processing Integration Results

RT: 3.48
Area: 9918
Amount: 0.010126
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 9639
Amount: 0.009841
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

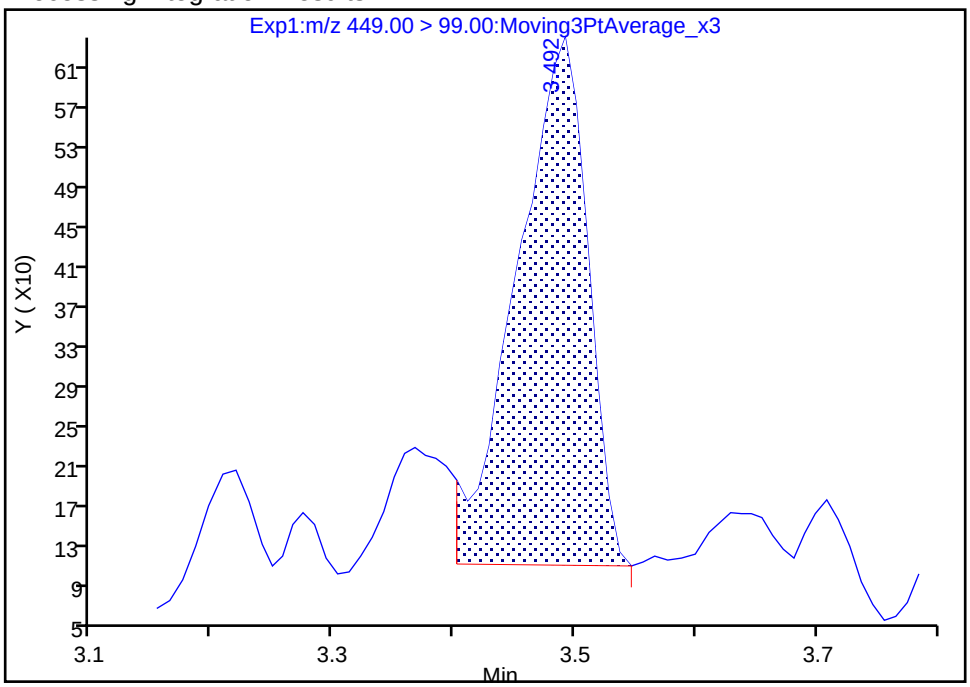
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

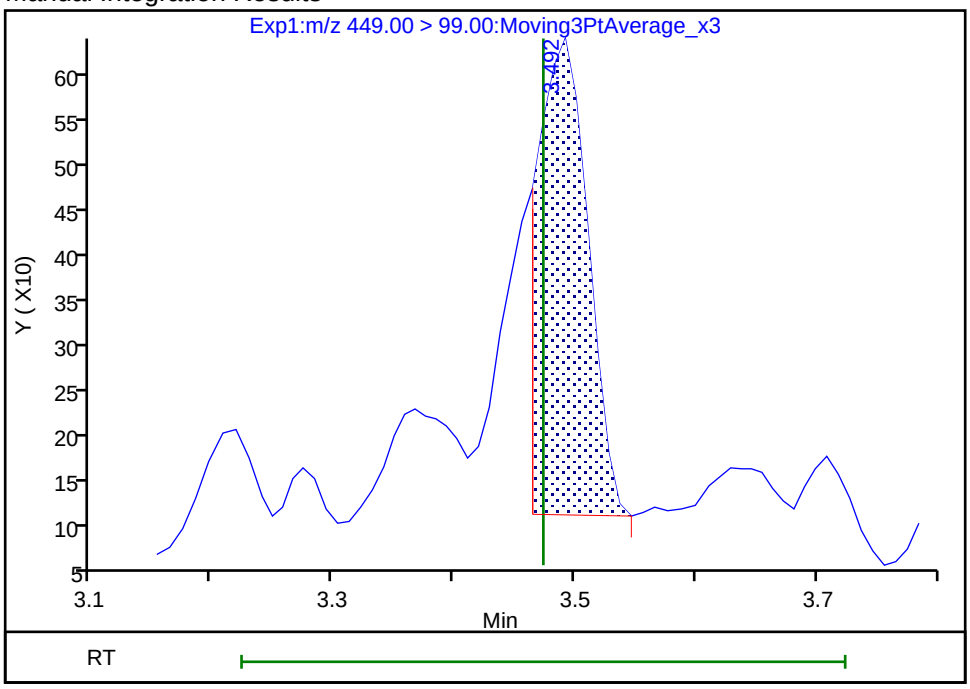
Processing Integration Results

RT: 3.49
Area: 2169
Amount: 0.010126
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1473
Amount: 0.009841
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

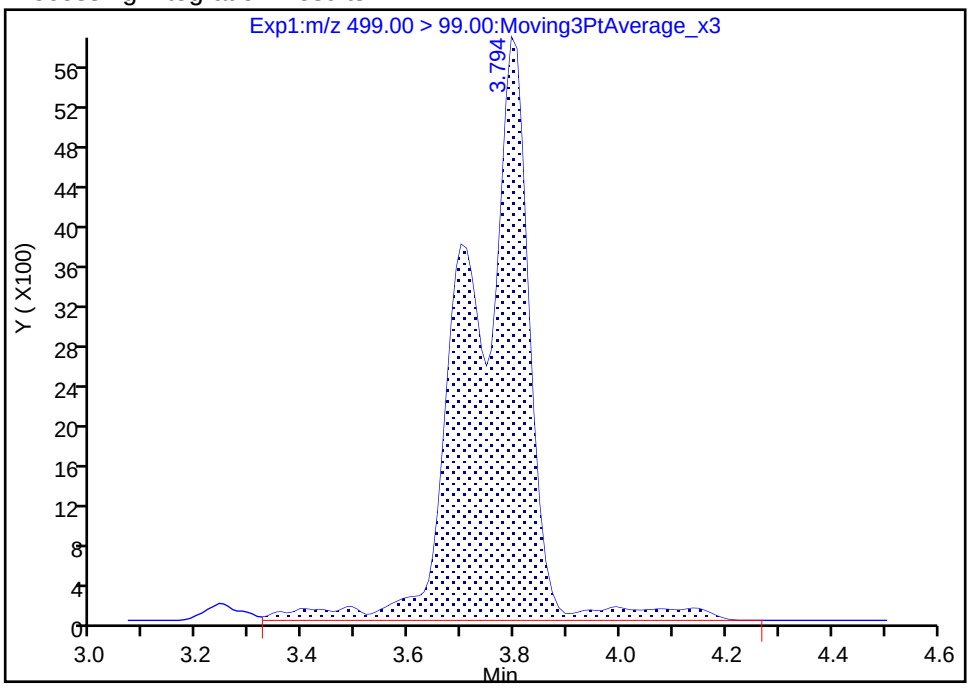
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

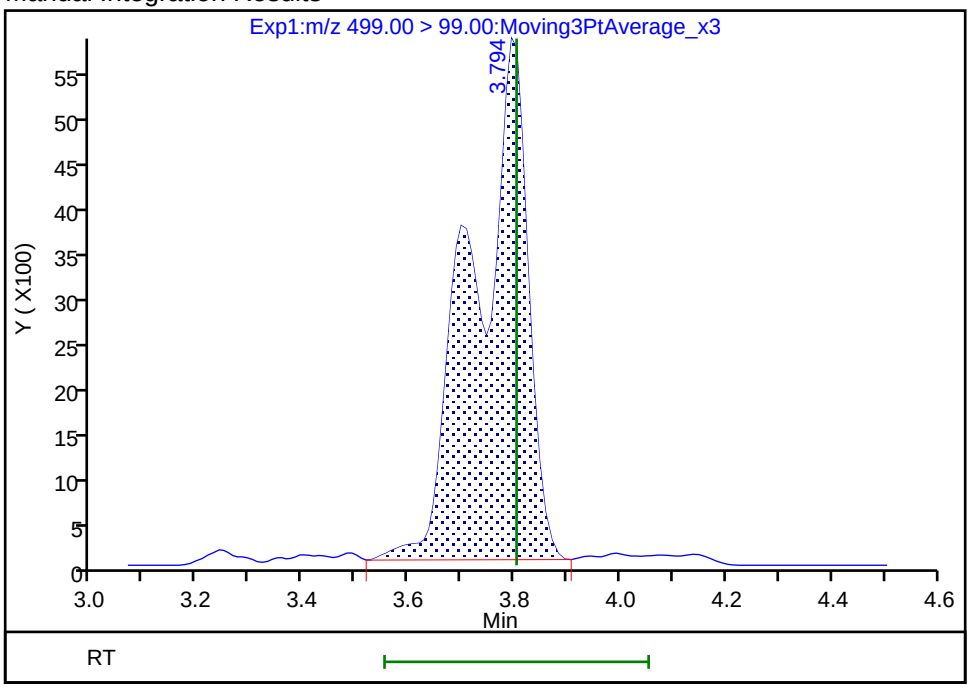
Processing Integration Results

RT: 3.79
Area: 45462
Amount: 0.270224
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 41226
Amount: 0.262083
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:35:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

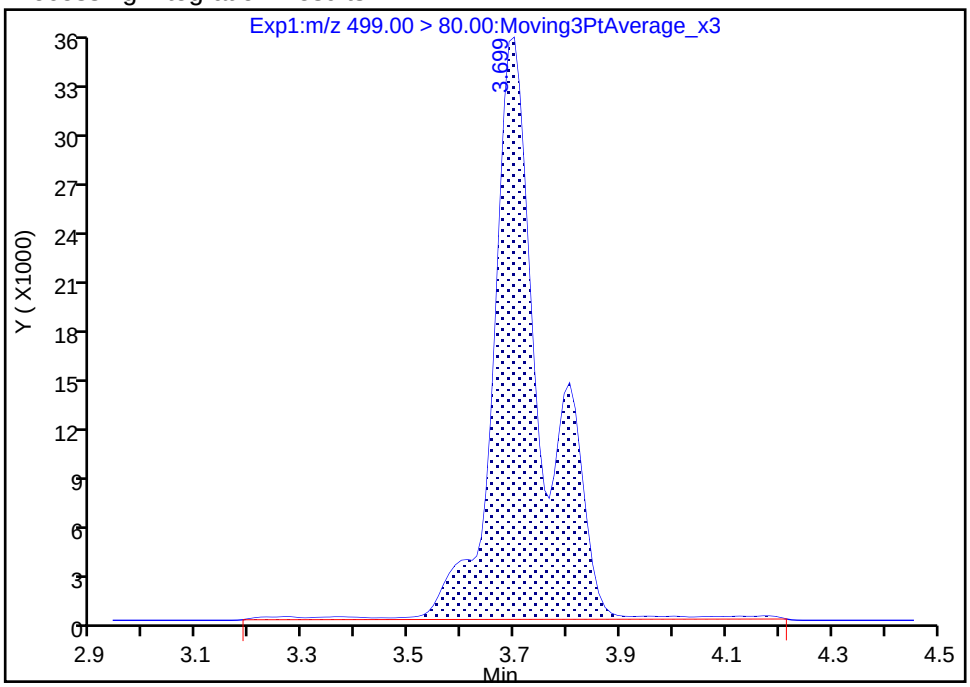
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

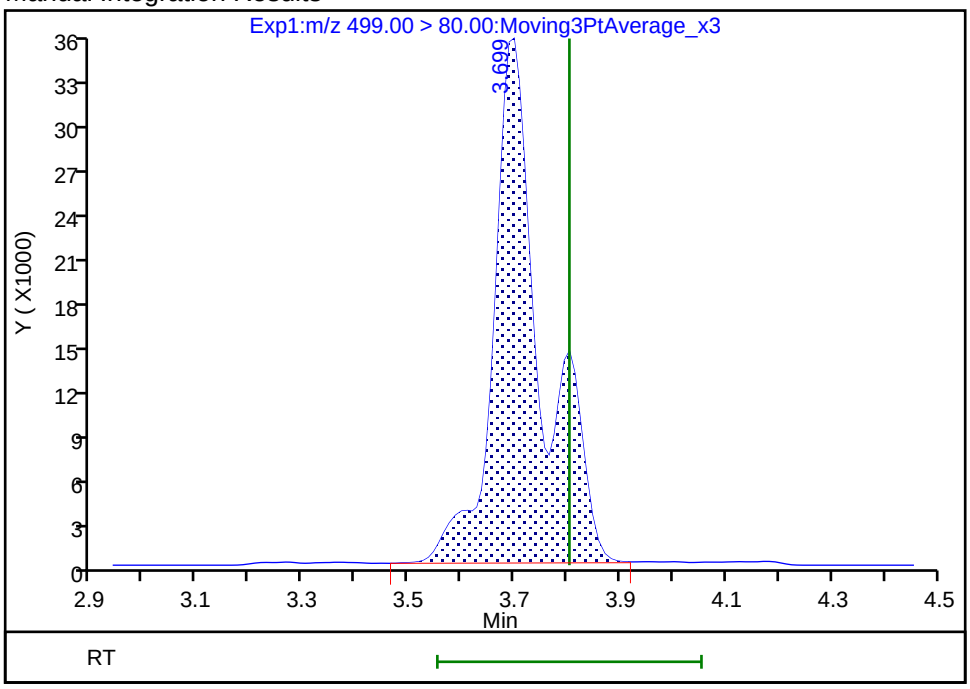
Processing Integration Results

RT: 3.70
Area: 230364
Amount: 0.270224
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 223424
Amount: 0.262083
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:35:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

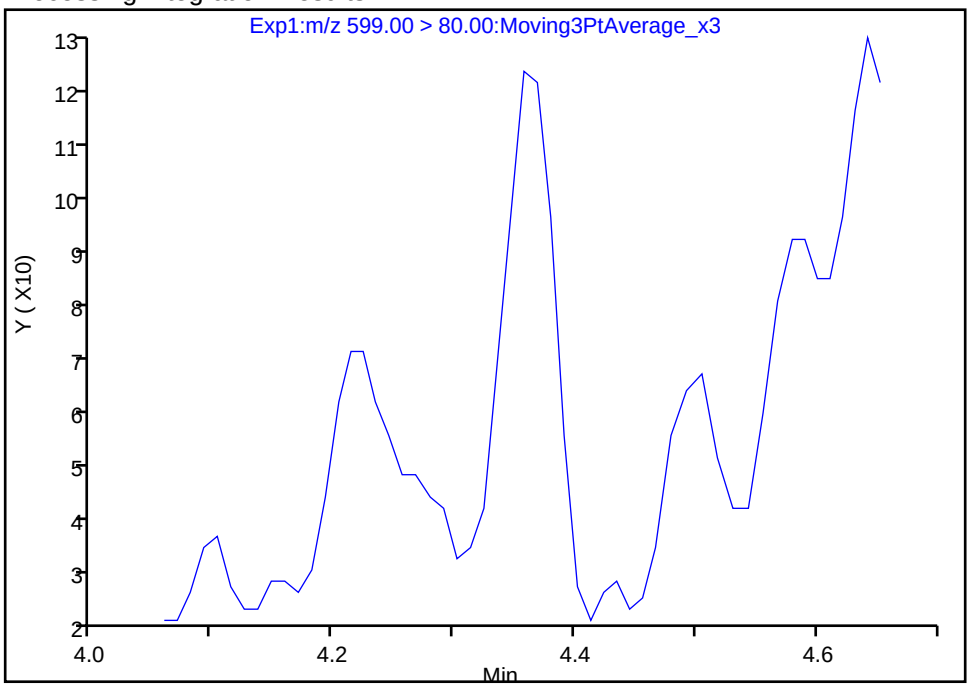
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

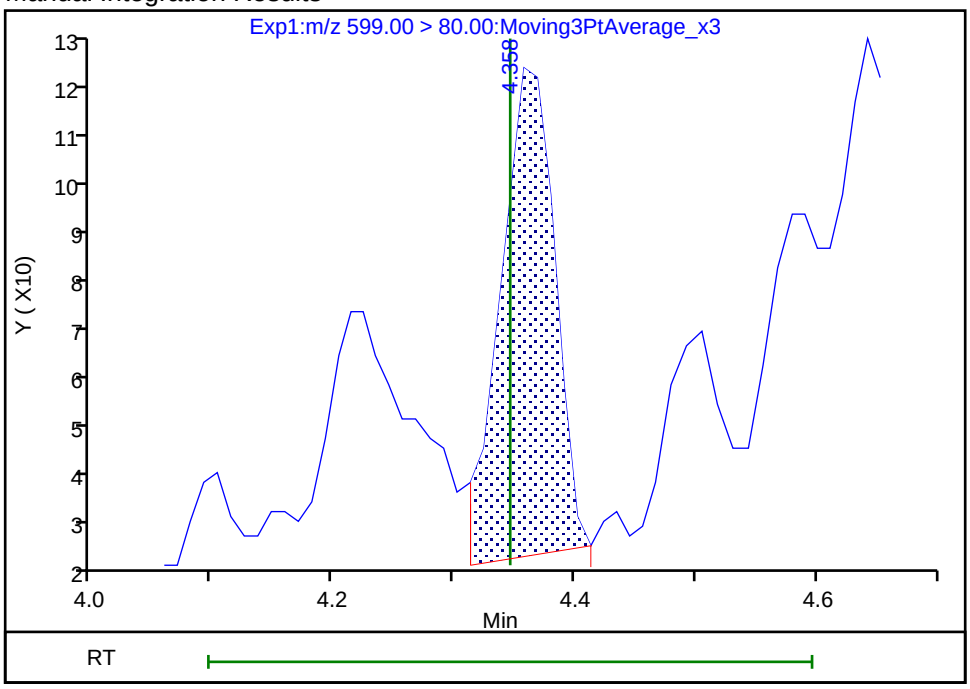
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 310
Amount: 0.000600
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:49
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

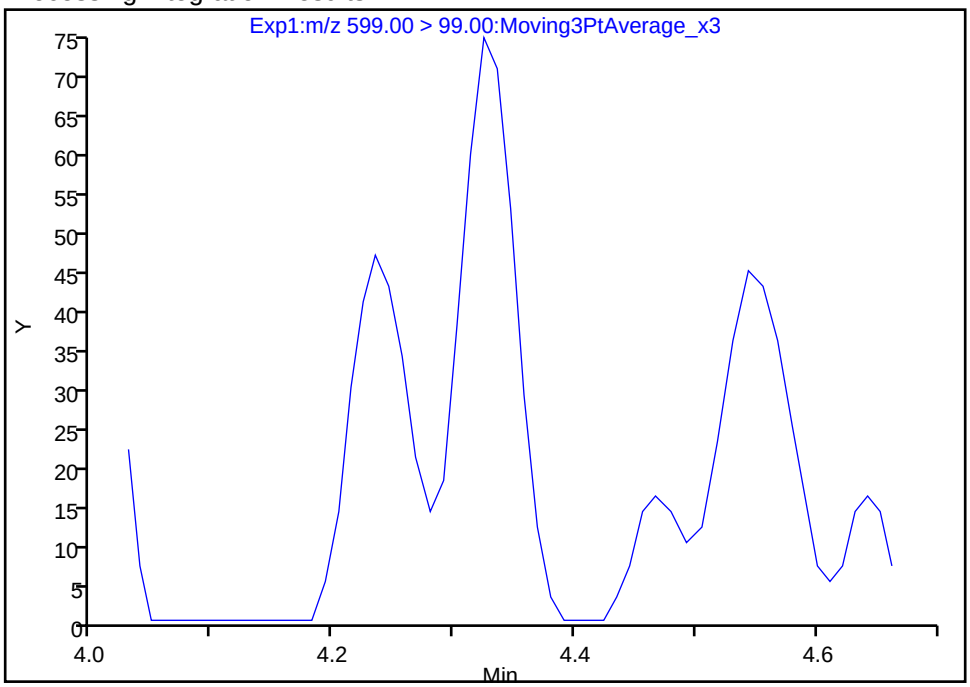
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

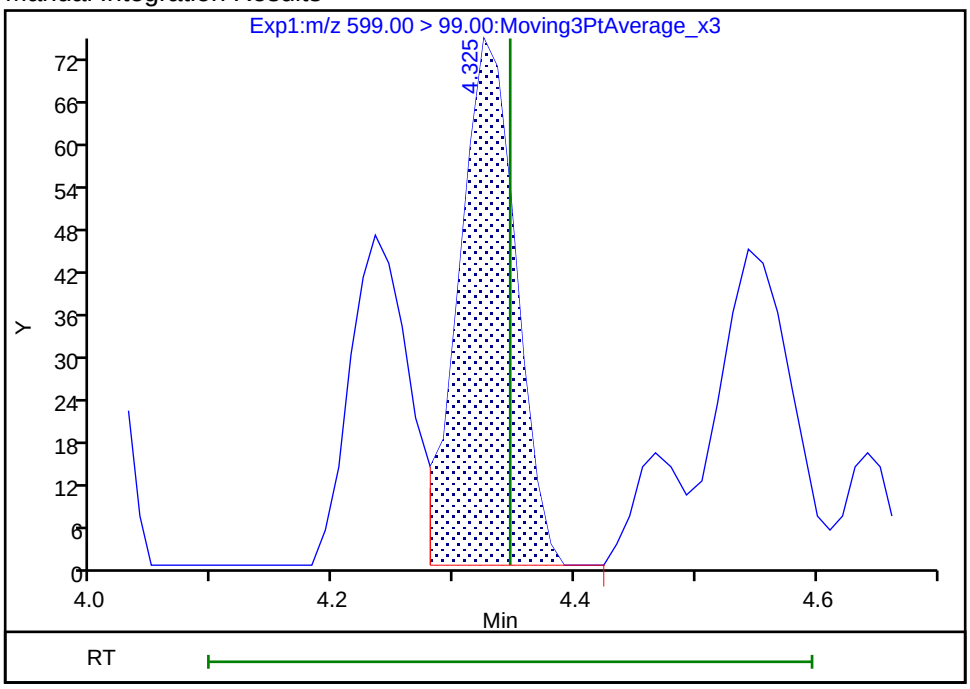
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 243
Amount: 0.000600
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

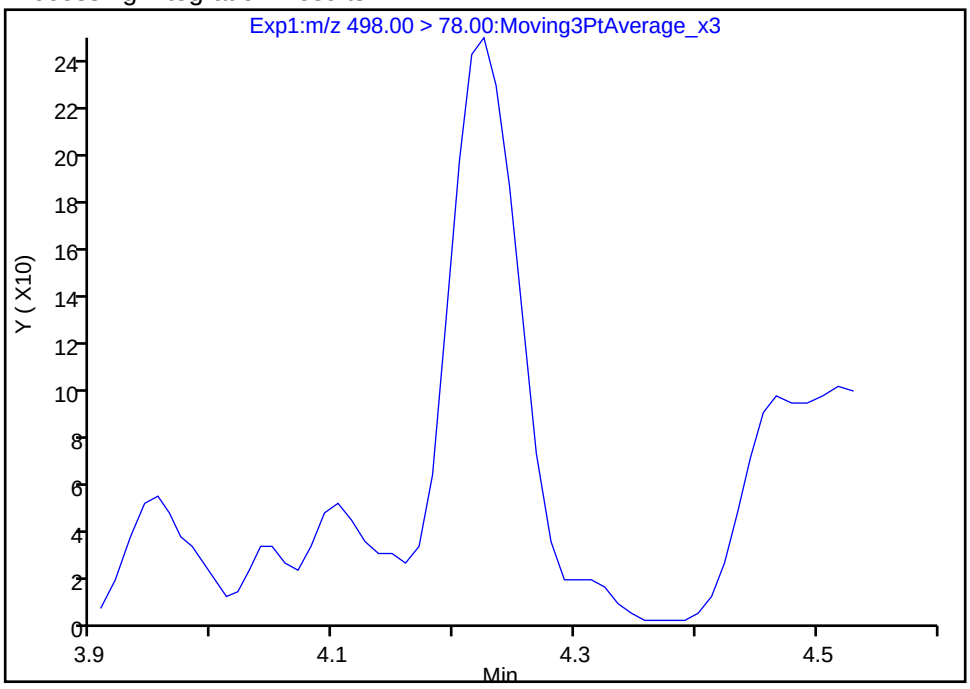
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

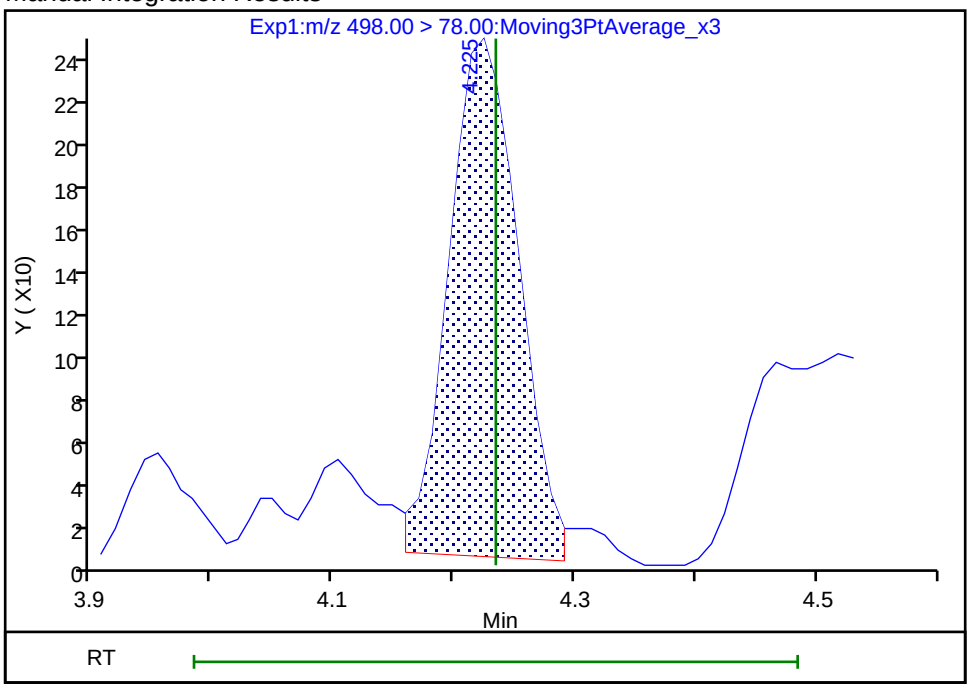
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 961
Amount: 0.000807
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

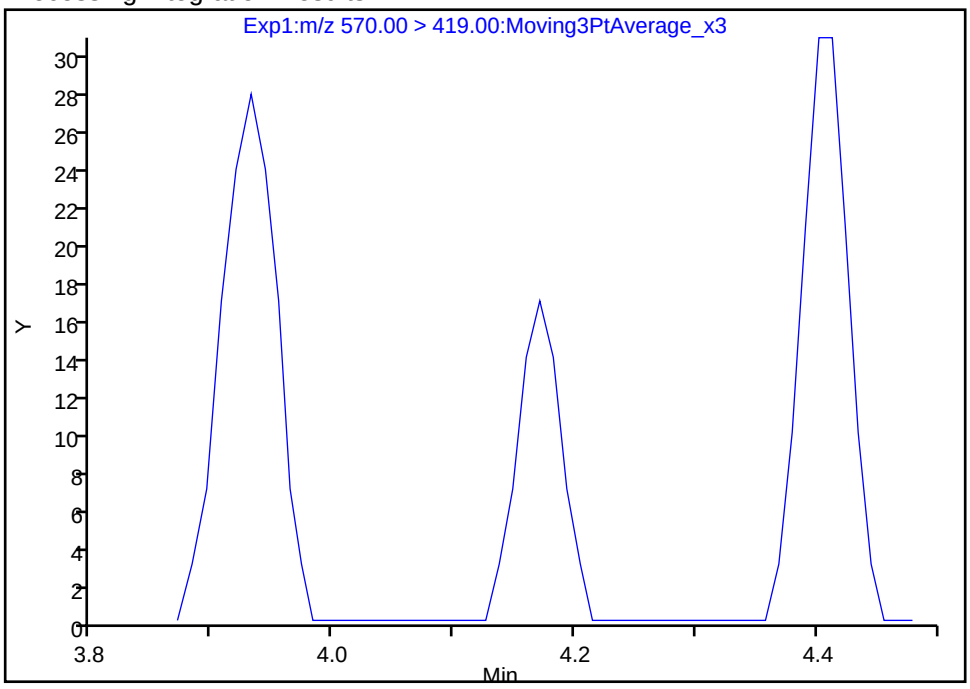
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

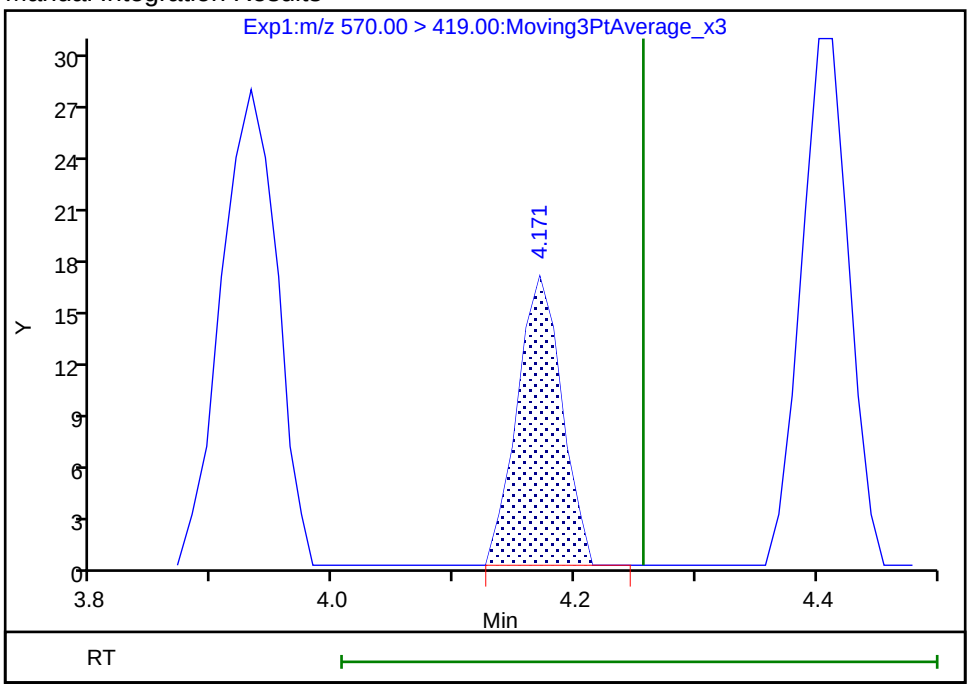
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.17
Area: 43
Amount: 0.000421
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:35
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

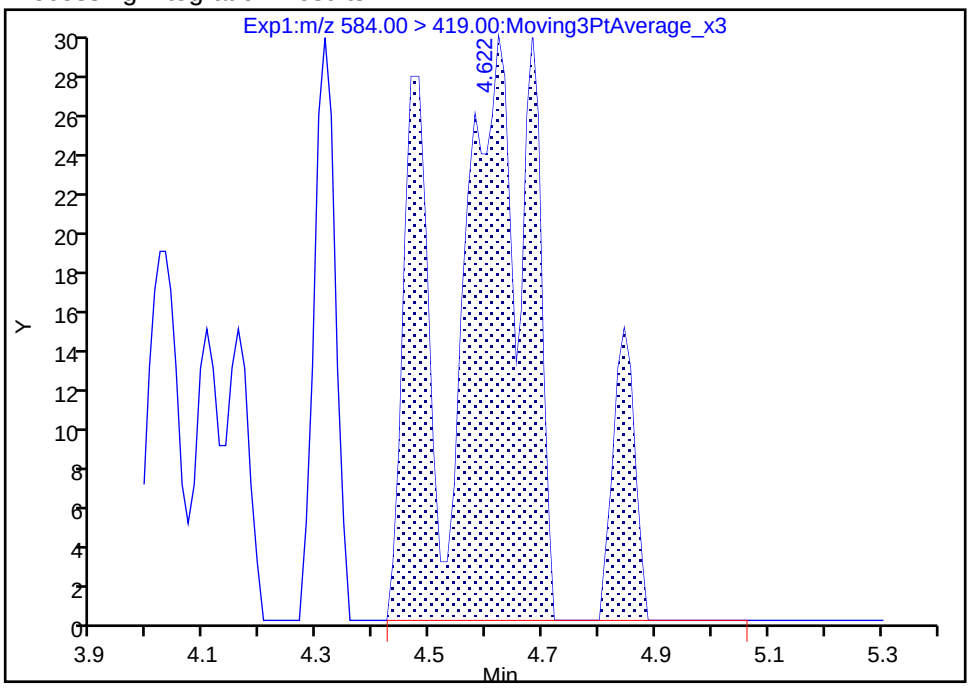
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

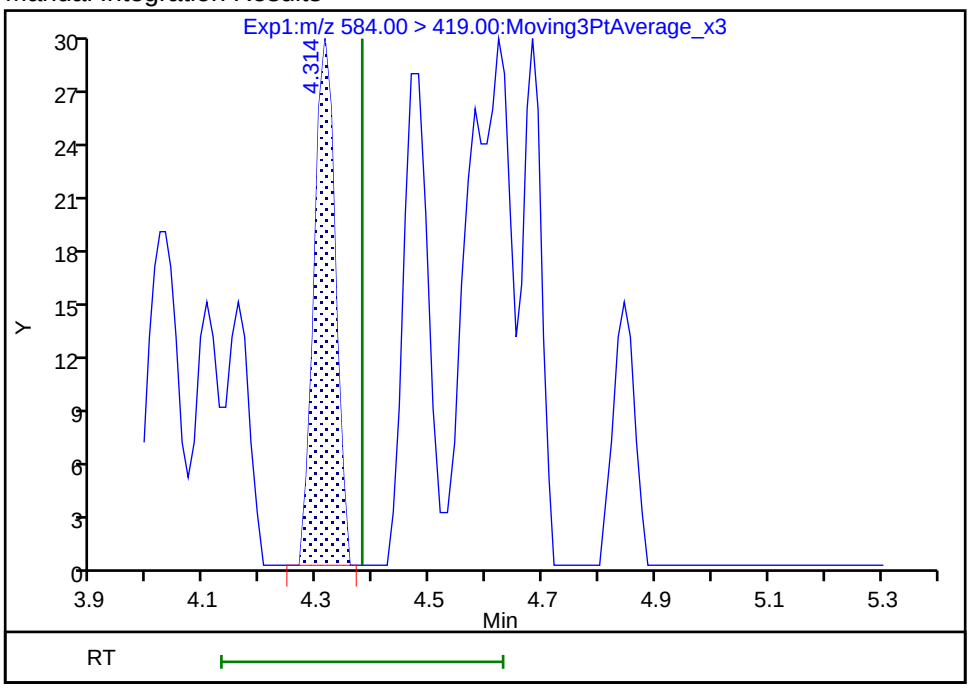
Processing Integration Results

RT: 4.62
Area: 349
Amount: 0.003333
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 78
Amount: 0.000745
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:37:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

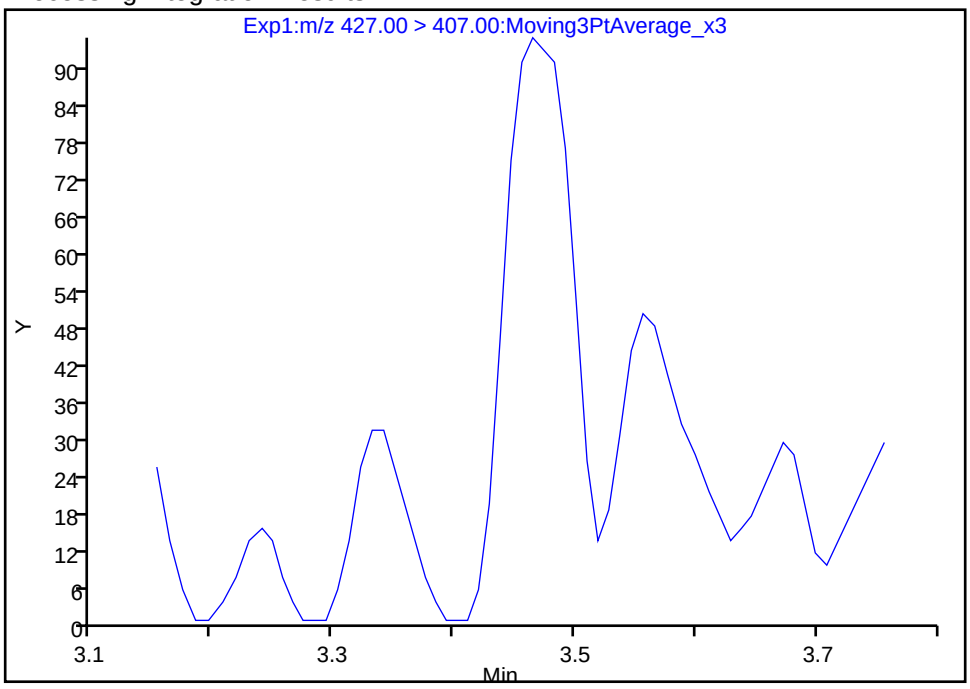
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

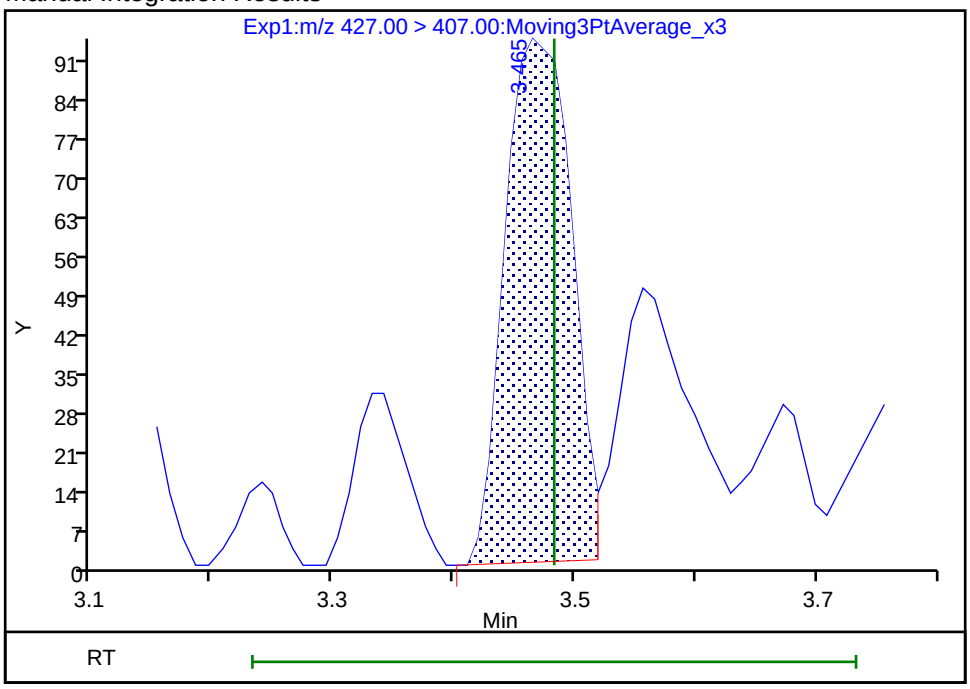
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 361
Amount: 0.001472
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:34:34
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

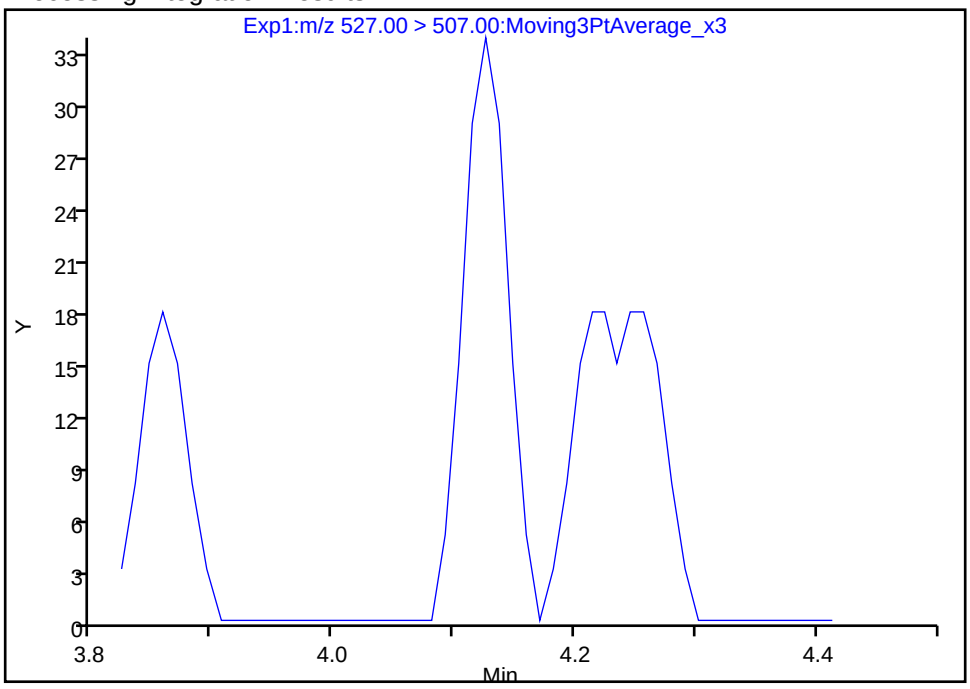
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D10.d | | | | |
| Injection Date: | 10-Nov-2021 05:25:51 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-6-A | Lab Sample ID: | 200-246277-6 | | |
| Client ID: | MW-202D-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

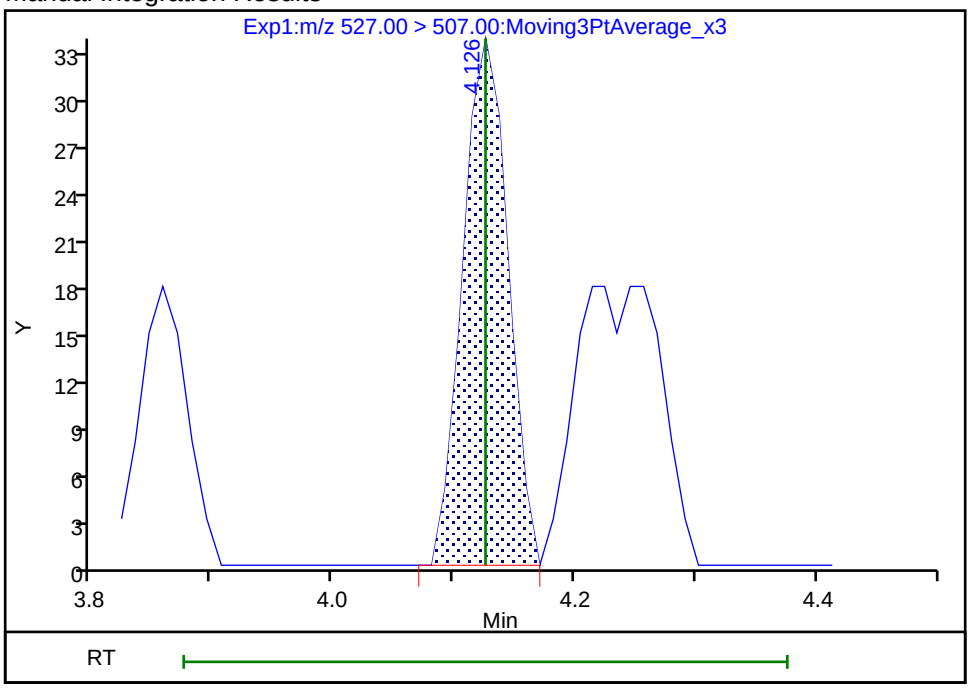
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 88
Amount: 0.000442
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:36:18
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-9S-20211027  Lab Sample ID: 460-246277-7

Matrix: Water  Lab File ID: PA211109D11.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:25

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 306.7(mL)  Date Analyzed: 11/10/2021 05:34

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.93 | J | 4.08 | 0.73 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.92 | J | 1.63 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.75 | J | 1.63 | 0.37 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.60 | J | 1.63 | 0.19 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 6.00 | | 1.63 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.23 | U | 1.63 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.63 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.63 | 0.28 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.31 | U | 1.63 | 0.31 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.35 | U | 1.63 | 0.35 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.63 | 0.52 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 1.51 | J | 1.63 | 0.20 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 3.86 | | 1.63 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.20 | J | 1.63 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 5.28 | | 1.63 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.63 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.63 | 0.47 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.08 | 0.74 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.08 | 0.61 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.89 | U | 4.08 | 0.89 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.63 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-9S-20211027  Lab Sample ID: 460-246277-7

Matrix: Water  Lab File ID: PA211109D11.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 17:25

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 306.7(mL)  Date Analyzed: 11/10/2021 05:34

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 103 | | 50-150 |
| STL00990 | 13C4 PFOA | 98 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 95 | | 50-150 |
| STL00992 | 13C4 PFBA | 107 | | 25-150 |
| STL00993 | 13C2 PFHxA | 102 | | 50-150 |
| STL00996 | 13C2 PFDA | 88 | | 50-150 |
| STL00997 | 13C2 PFUnA | 80 | | 50-150 |
| STL00998 | 13C2 PFDoA | 73 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 103 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 72 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 95 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 94 | | 50-150 |
| STL02279 | M2-6:2 FTS | 109 | | 25-150 |
| STL02280 | M2-8:2 FTS | 111 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d
Lims ID: 460-246277-C-7-A
Client ID: MW-9S-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:34:04 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-7-A
Misc. Info.: 200-0048356-011 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 15:44:28
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1555072 | 1.34 | | 107 | 8202 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 141660 | 0.1204 | | | 16.9 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.413 | -0.013 | 0.687 | 1256297 | 1.29 | | 103 | 2357 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.005 | 28260 | 0.0281 | | | 0.9 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1465692 | 1.11 | | 95.4 | 96547 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 62227 | 0.0462 | Target=2.32 | | 13.2 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 28705 | | 2.17(1.16-3.48) | | 10.8 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.770 | -0.012 | 0.790 | 1307111 | 1.28 | | 102 | 3629 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.004 | 24544 | 0.0231 | Target=12.09 | | 3.0 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.004 | 2548 | | 9.63(6.04-18.13) | | 1.9 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 122700 | 0.1185 | Target=3.55 | | 109 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 32810 | | 3.74(1.77-5.32) | | 38.9 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1113519 | 1.16 | | 98.1 | 3728 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1383155 | 1.28 | | 103 | 3488 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 21020 | 0.0184 | Target=3.69 | | 4.5 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 5807 | | 3.62(1.84-5.53) | | 8.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 5373 | 0.006281 | Target=4.88 | | 8.6 | |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.918 | 1203 | | 4.47(2.44-7.32) | | 2.1 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.483 | -0.018 | 0.997 | 219 | 0.001042 | | | 3.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.995 | 196837 | 1.30 | | 109 | 307 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 0.997 | 1443251 | 1.22 | | 98.0 | 4440 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1432078 | 1.25 | | | 4034 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.003 | 225964 | 0.1840 | Target=2.68 | | 26.0 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.003 | 89790 | | 2.52(1.34-4.02) | | 160 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 819963 | 1.18 | | 98.9 | 2251 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.690 | 3.804 | -0.114 | 0.973 | 120635 | 0.1620 | Target=4.69 | | 144 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 22627 | | 5.33(2.35-7.04) | | 53.0 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1387023 | 1.18 | | 94.5 | 4326 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 4673 | 0.004305 | Target=7.29 | | 1.1 | M |
| 463.00 > 169.00 | 3.794 | 3.814 | -0.020 | 0.995 | 504 | | 9.27(3.64-10.93) | | 3.4 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1304822 | 1.10 | | 88.1 | 2960 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1278 | 0.001218 | Target=8.95 | | 1.0 | RM |
| 513.00 > 169.00 | 4.081 | 4.115 | -0.034 | 0.992 | 342 | | 3.74(4.47-13.42) | | 1.8 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 228512 | 1.33 | | 111 | 700 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.126 | -0.022 | 0.995 | 90 | 0.000564 | | | 2.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1295822 | 1.13 | | 90.7 | 3054 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 458 | 0.000465 | | | 3.4 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 138907 | 1.19 | | 95.3 | 1634 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.257 | -0.011 | 0.997 | 173 | 0.001982 | | | 0.9 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.369 | 4.346 | 0.023 | 1.151 | 164 | 0.000364 | Target=2.47 | | 1.5 | RM |
| 599.00 > 99.00 | 4.336 | 4.346 | -0.010 | 1.143 | 140 | | 1.17(1.23-3.70) | | 1.8 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 919247 | 1.00 | | 79.6 | 3917 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.347 | 4.369 | -0.021 | 0.995 | 305 | 0.000389 | Target=9.24 | | 0.3 | M |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 1.000 | 38 | | 8.03(4.62-13.86) | | 1.1 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 128853 | 1.18 | | 94.4 | 877 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 907330 | 0.9133 | | 73.1 | 1764 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.590 | 4.591 | -0.001 | 0.998 | 1298 | 0.001826 | Target=7.04 | | 0.5 | M |
| 613.00 > 169.00 | 4.590 | 4.591 | -0.001 | 0.998 | 189 | | 6.87(3.52-10.56) | | 3.3 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.783 | 4.792 | -0.009 | 1.040 | 997 | 0.001627 | Target=4.68 | | 0.4 | RM |
| 663.00 > 169.00 | 4.845 | 4.792 | 0.053 | 1.053 | 79 | | 12.62(2.34-7.02) | | 1.1 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.975 | 4.966 | 0.009 | 1.425 | 690745 | 0.8965 | | 71.7 | 1543 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.975 | 4.966 | 0.009 | 1.000 | 235 | 0.002695 | Target=1.01 | | 5.9 | RM |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.998 | 141 | | 1.67(0.51-1.52) | | 4.8 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:06 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d

Injection Date: 10-Nov-2021 05:34:04 Instrument ID: LC812

Lims ID: 460-246277-C-7-A Lab Sample ID: 200-246277-7

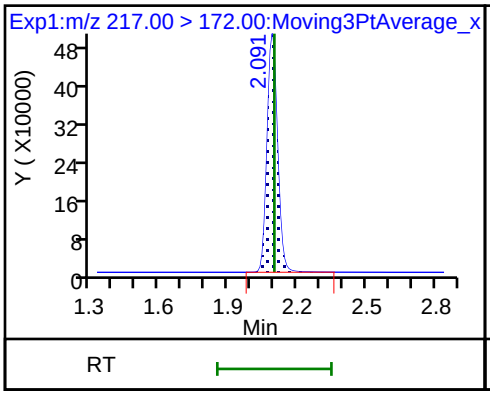
Client ID: MW-9S-20211027

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 11

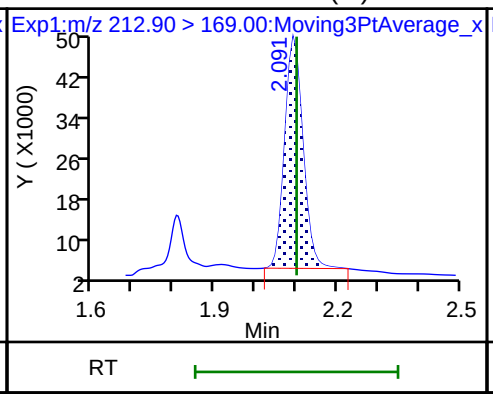
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

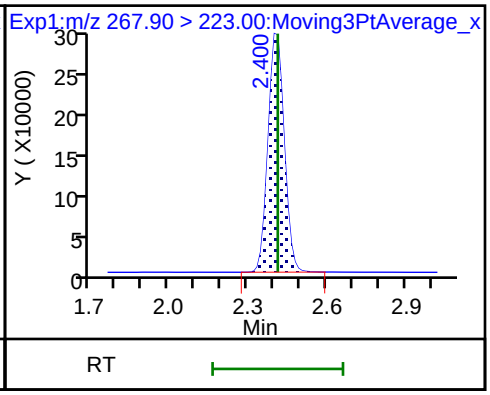
D 1 13C4 PFBA



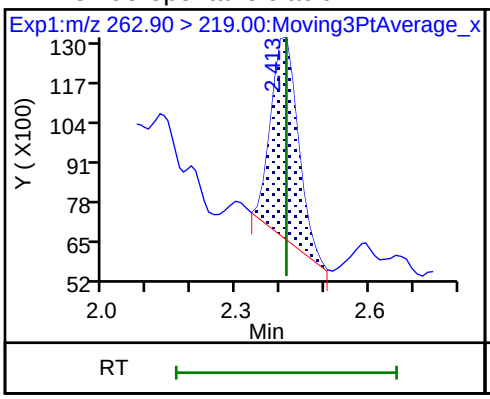

2 Perfluorobutanoic acid (M)



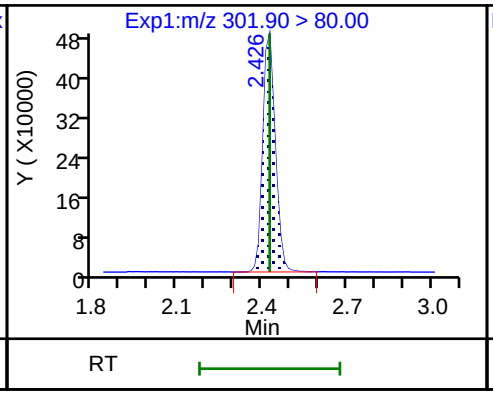

D 3 13C5 PFPeA



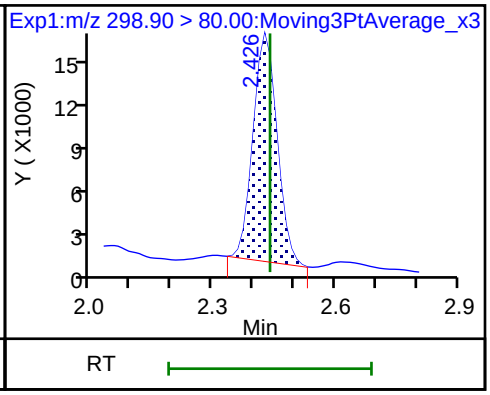

4 Perfluoropentanoic acid



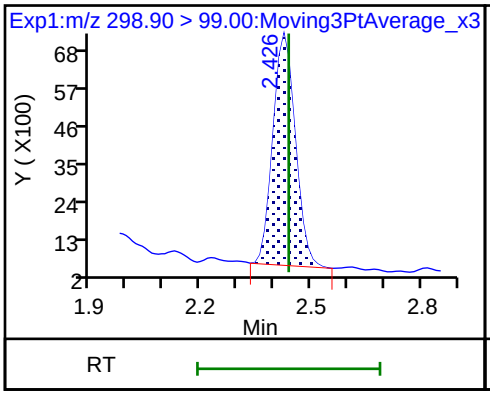

D 47 13C3 PFBS



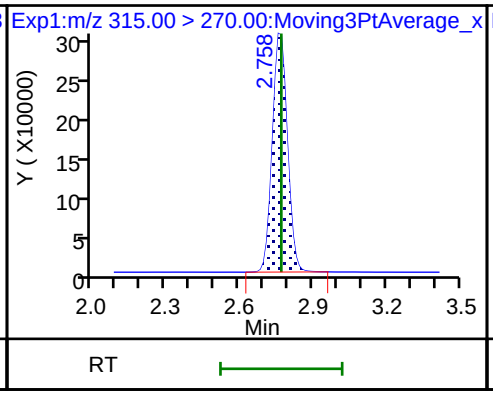

5 Perfluorobutanesulfonic acid



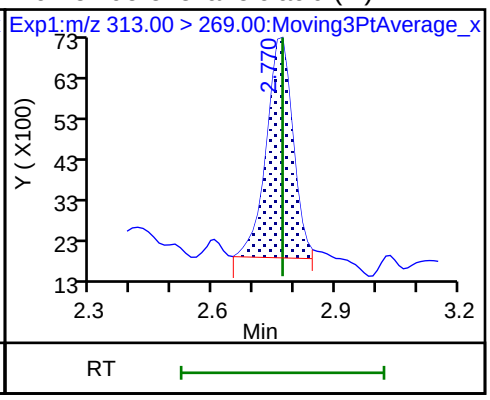

5 Perfluorobutanesulfonic acid



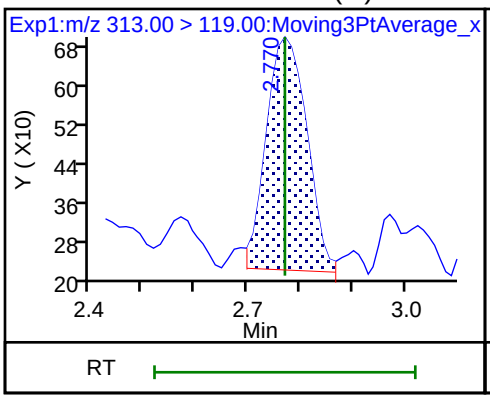

D 7 13C2 PFHxA



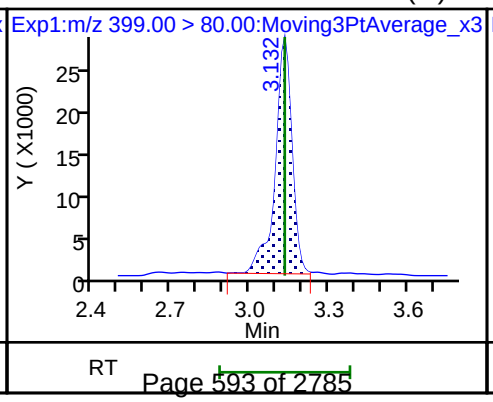

6 Perfluorohexanoic acid (M)



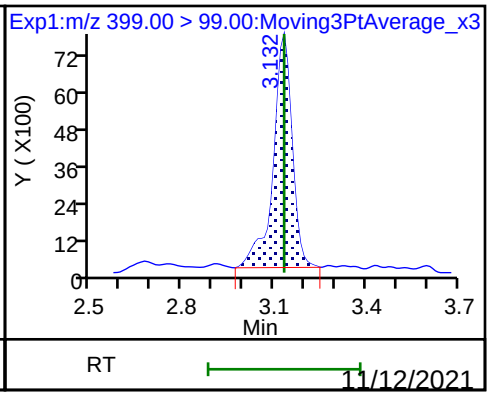

6 Perfluorohexanoic acid (M)



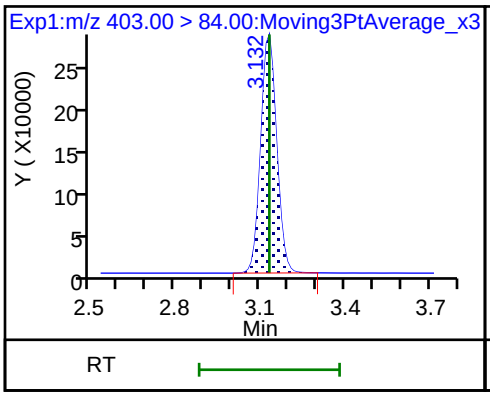

8 Perfluorohexanesulfonic acid (M)



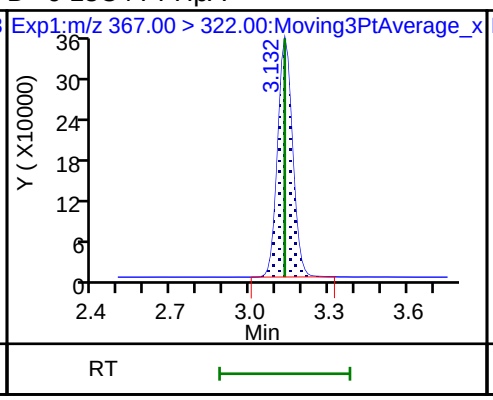

8 Perfluorohexanesulfonic acid



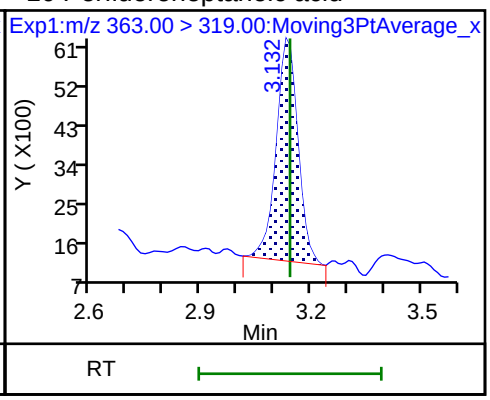
D 11 18O2 PFHxS



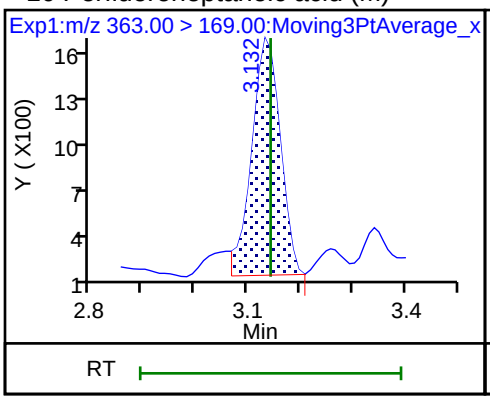

D 9 13C4 PFHpA



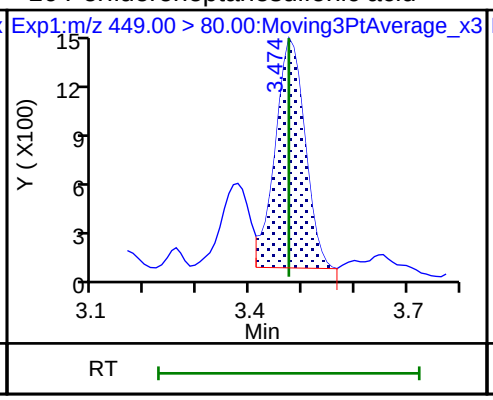

10 Perfluoroheptanoic acid



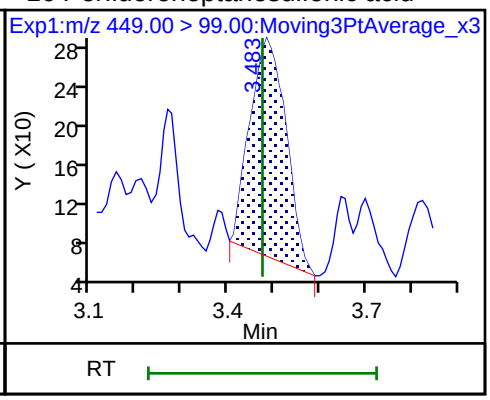

10 Perfluoroheptanoic acid (M)



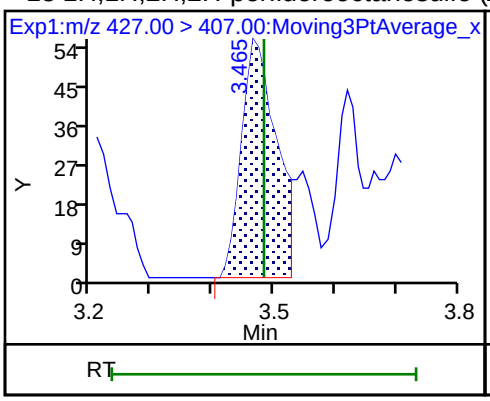

16 Perfluoroheptanesulfonic acid



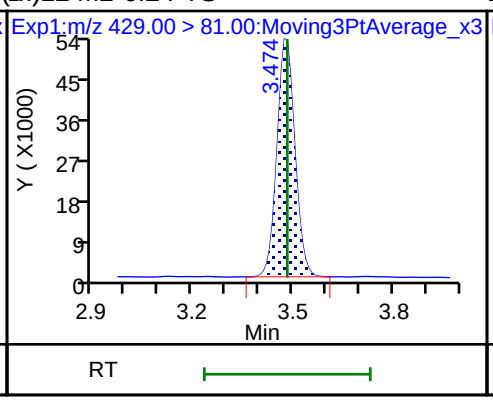

16 Perfluoroheptanesulfonic acid



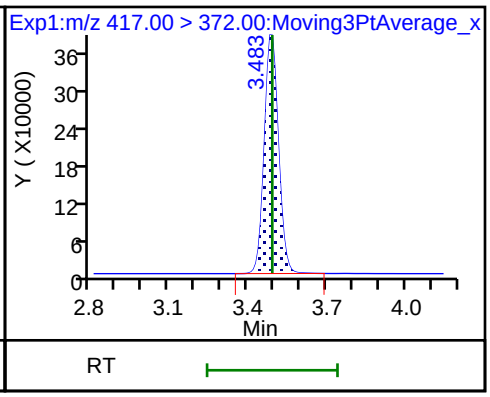

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



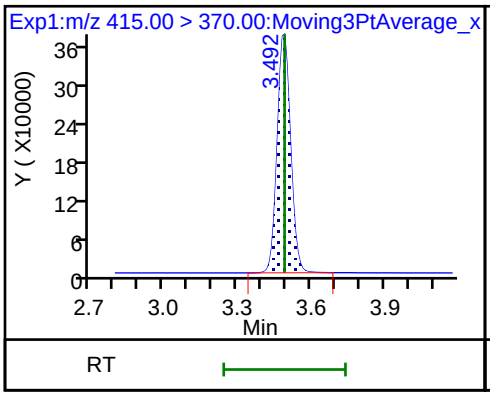

12 M2-6:2 FTS



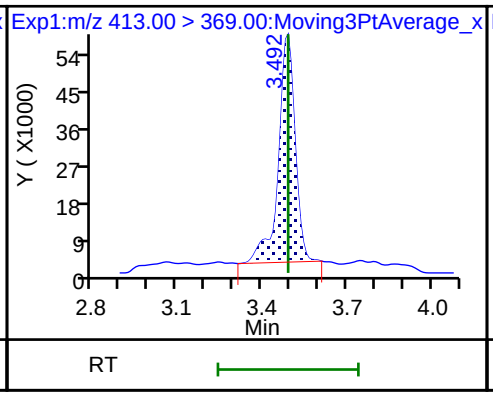

D 14 13C4 PFOA



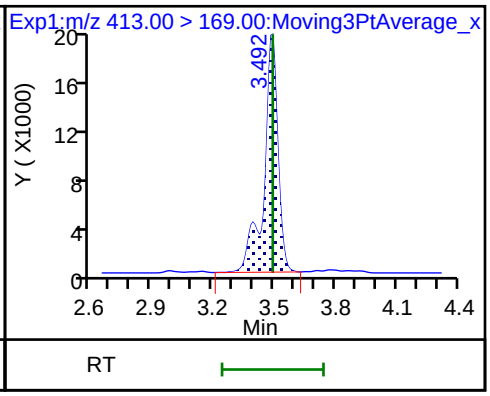

* 62 13C2 PFOA



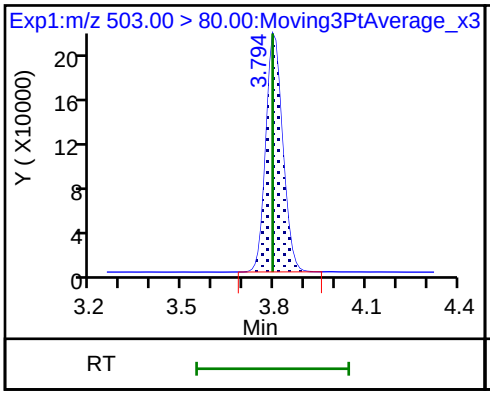

15 Perfluorooctanoic acid



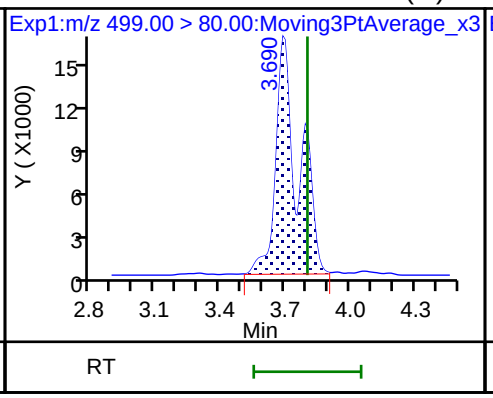

15 Perfluorooctanoic acid



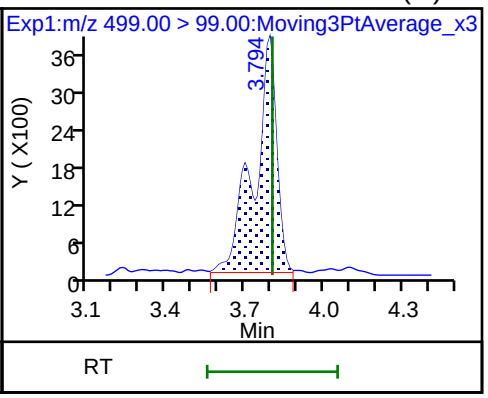
D 18 13C4 PFOS



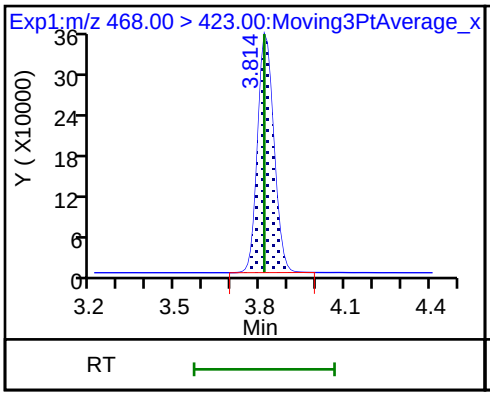

17 Perfluorooctanesulfonic acid (M)



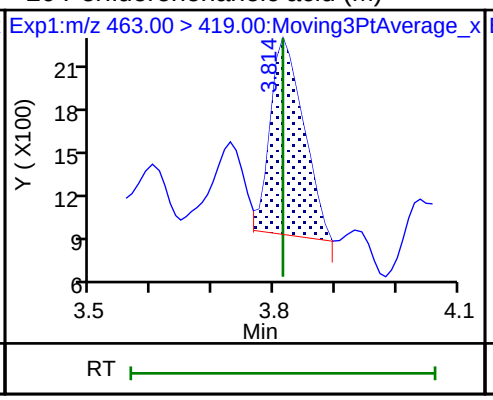

17 Perfluorooctanesulfonic acid (M)



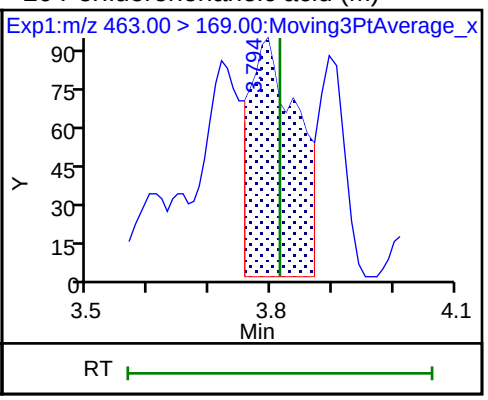

D 19 13C5 PFNA



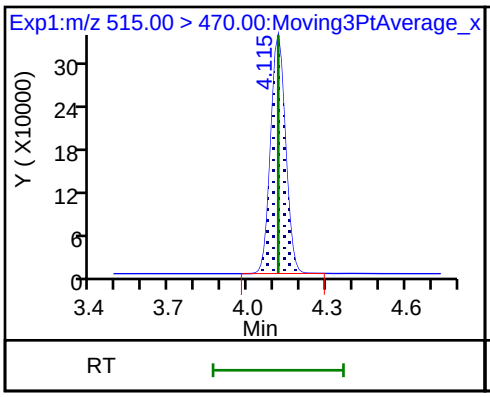

20 Perfluorononanoic acid (M)



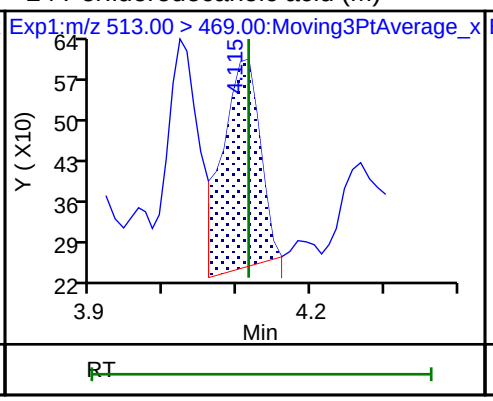

20 Perfluorononanoic acid (M)



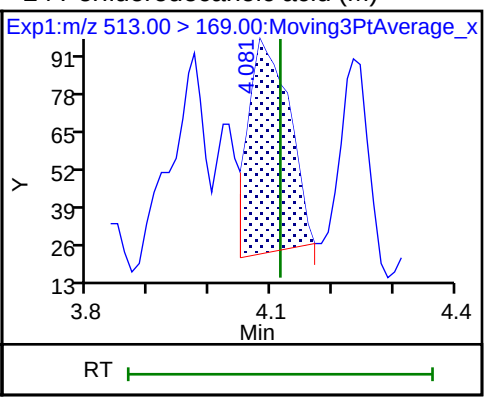

D 23 13C2 PFDA



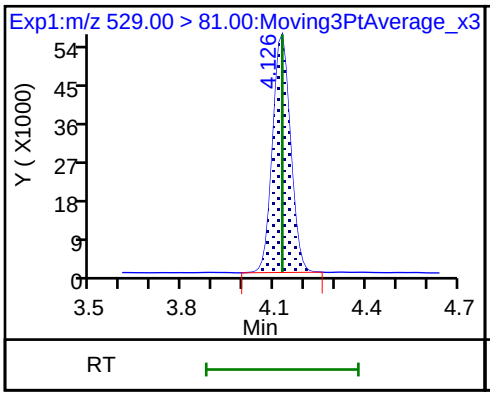

24 Perfluorodecanoic acid (M)



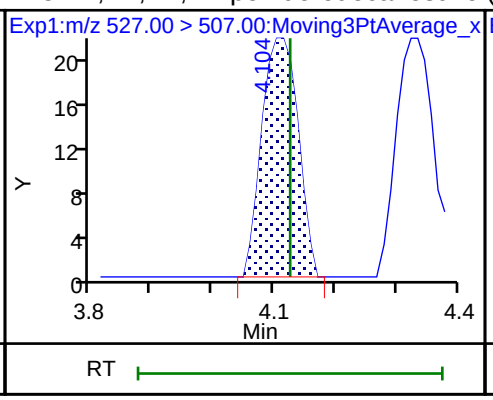

24 Perfluorodecanoic acid (M)



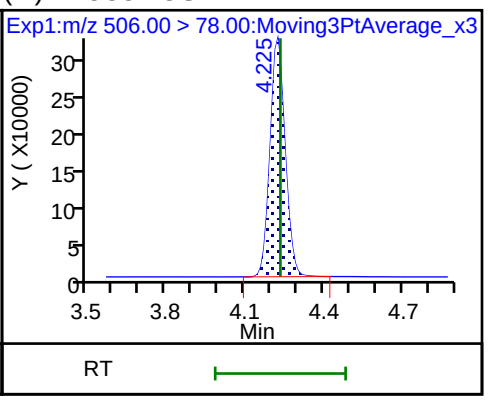

D 26 M2-8:2 FTS



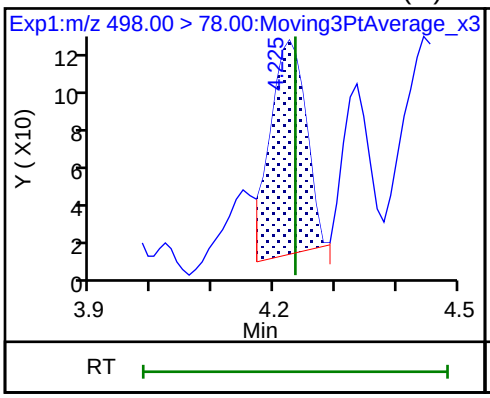

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



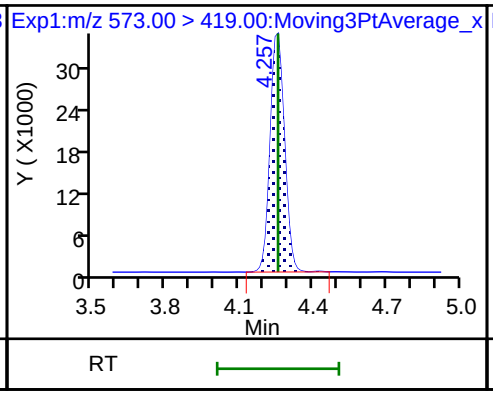

21 13C8 FOSA



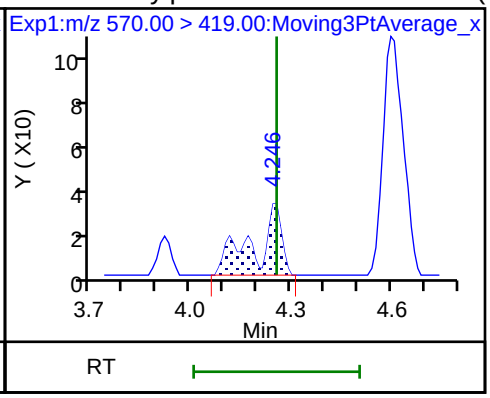
22 Perfluorooctanesulfonamide (M)



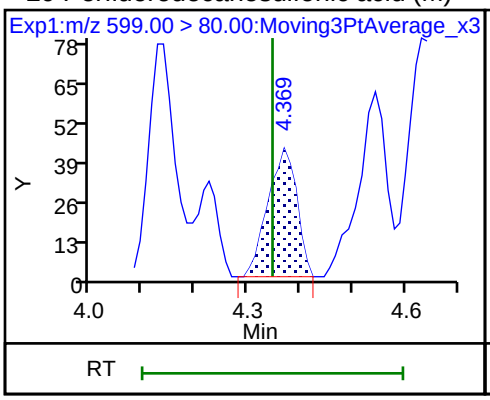

D 27 d3-NMeFOSAA



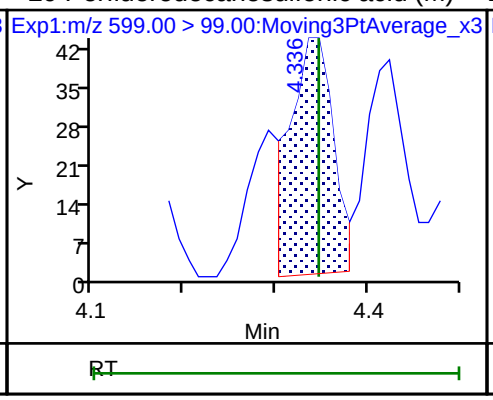

28 N-methylperfluorooctanesulfonami (M)



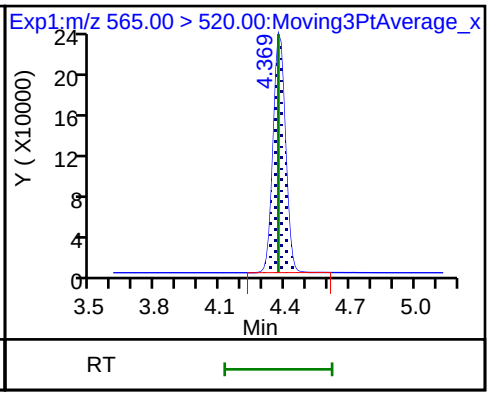

29 Perfluorodecanesulfonic acid (M)



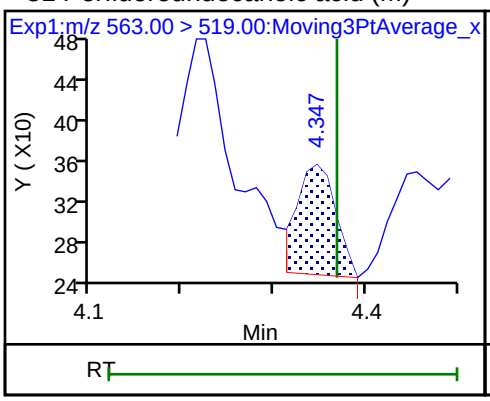

29 Perfluorodecanesulfonic acid (M)



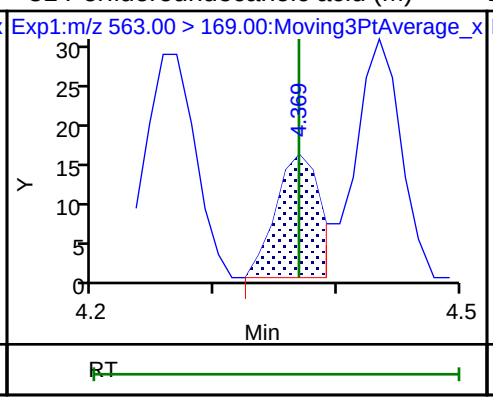

D 30 13C2 PFUnA



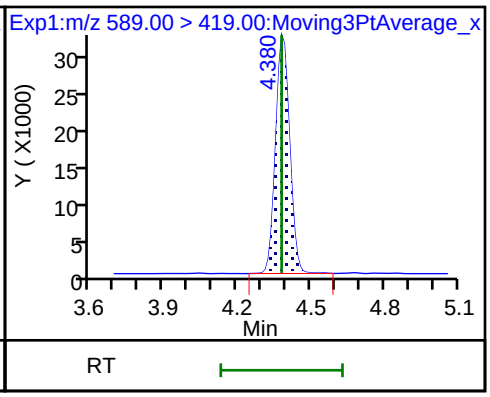

31 Perfluoroundecanoic acid (M)



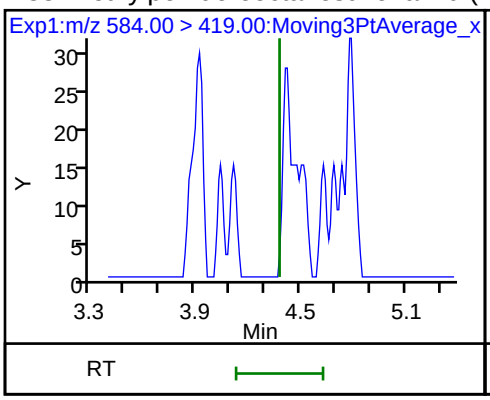

31 Perfluoroundecanoic acid (M)



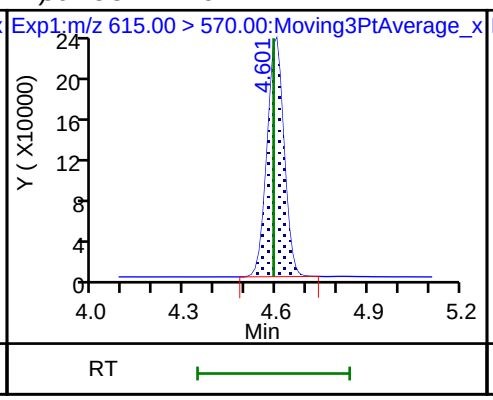

D 32 d5-NEtFOSAA



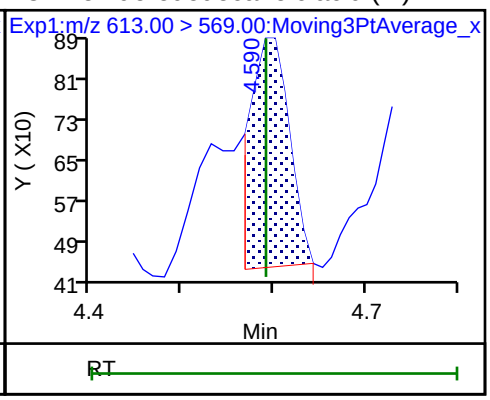

33 N-ethylperfluorooctanesulfonamid (ND)



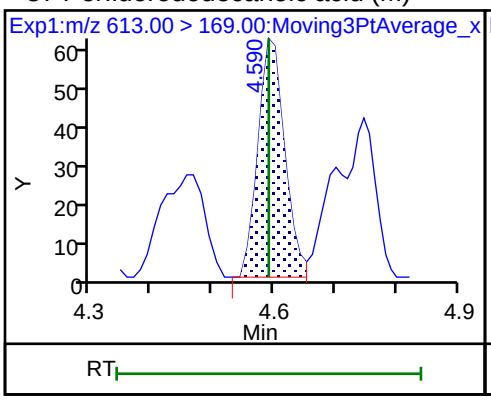

D 36 13C2 PFDoA



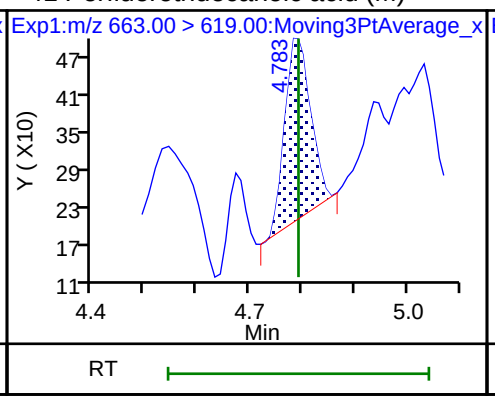

37 Perfluorododecanoic acid (M)



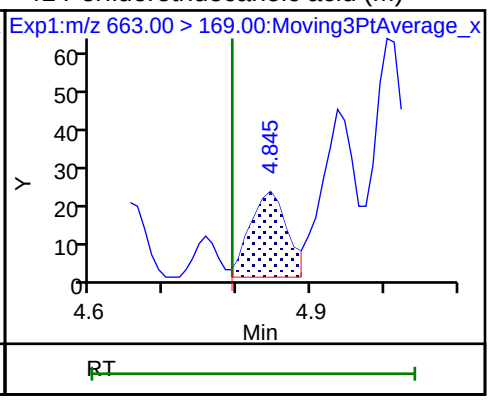
37 Perfluorododecanoic acid (M)



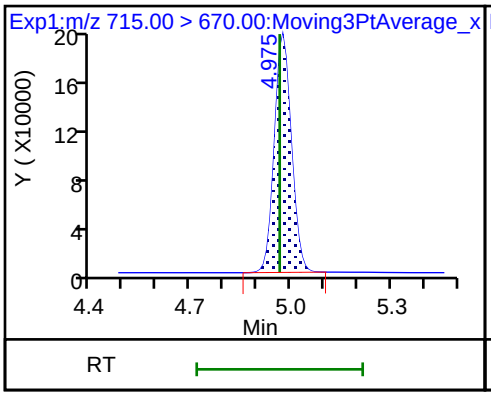

41 Perfluorotridecanoic acid (M)



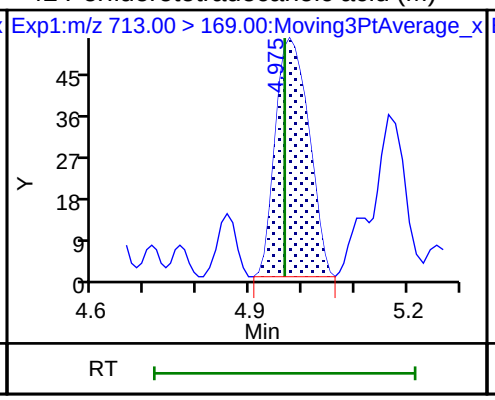

41 Perfluorotridecanoic acid (M)



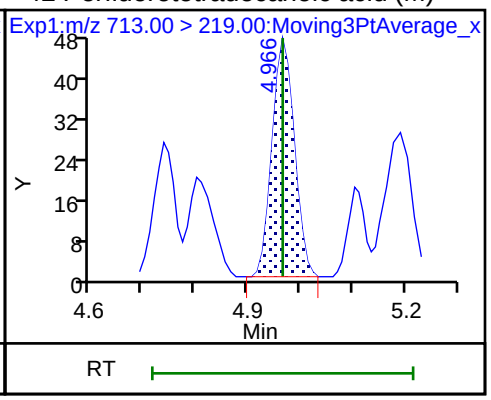

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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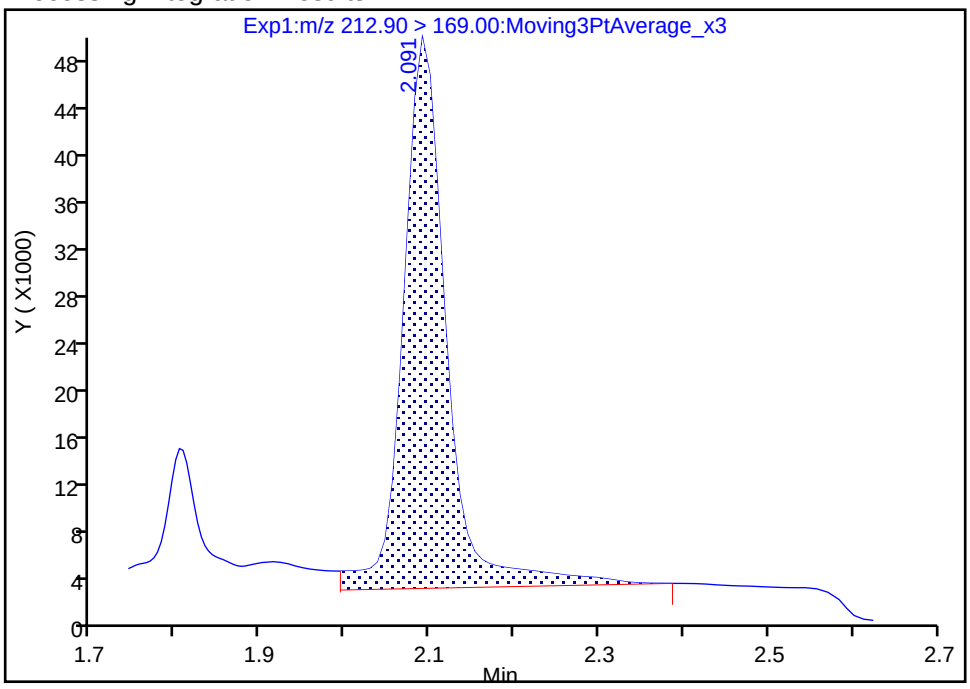
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

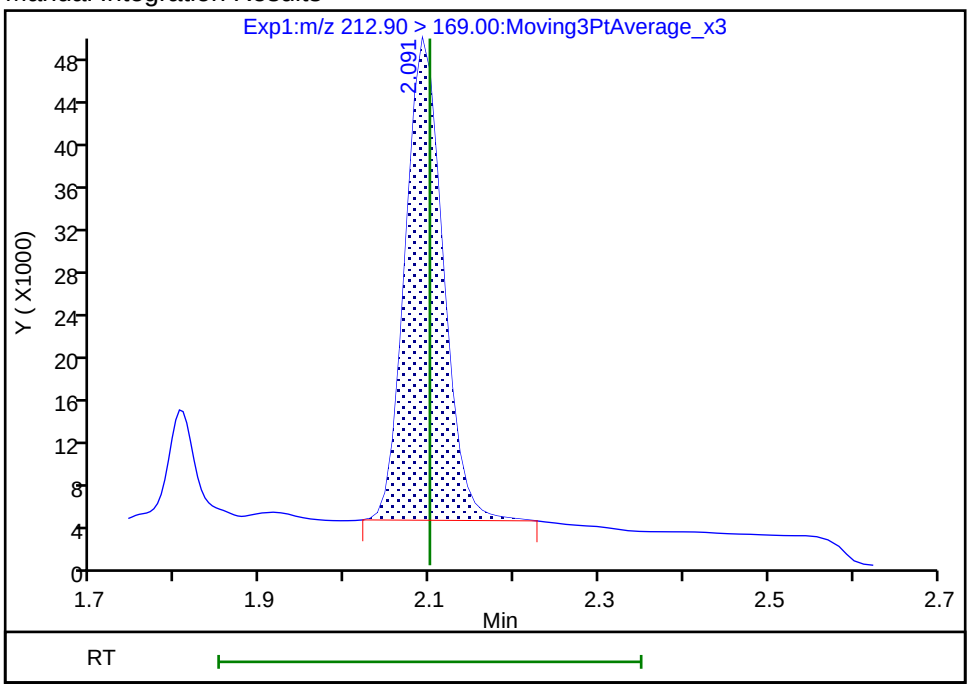
Processing Integration Results

RT: 2.09
Area: 167342
Amount: 0.142258
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 141660
Amount: 0.120425
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:39:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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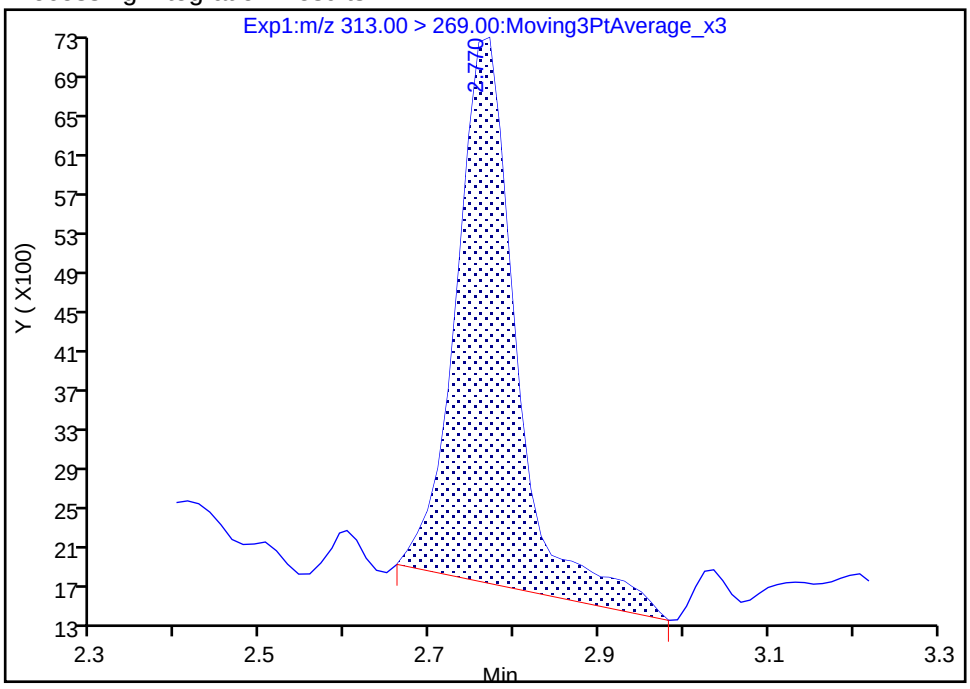
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

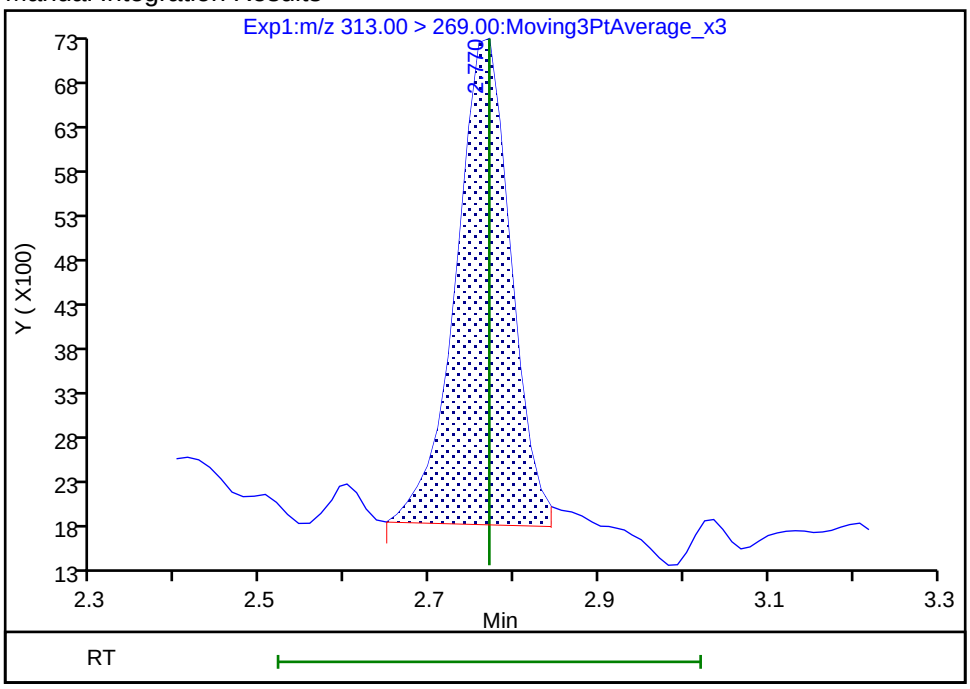
Processing Integration Results

RT: 2.77
Area: 27418
Amount: 0.025854
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 24544
Amount: 0.023144
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:40:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

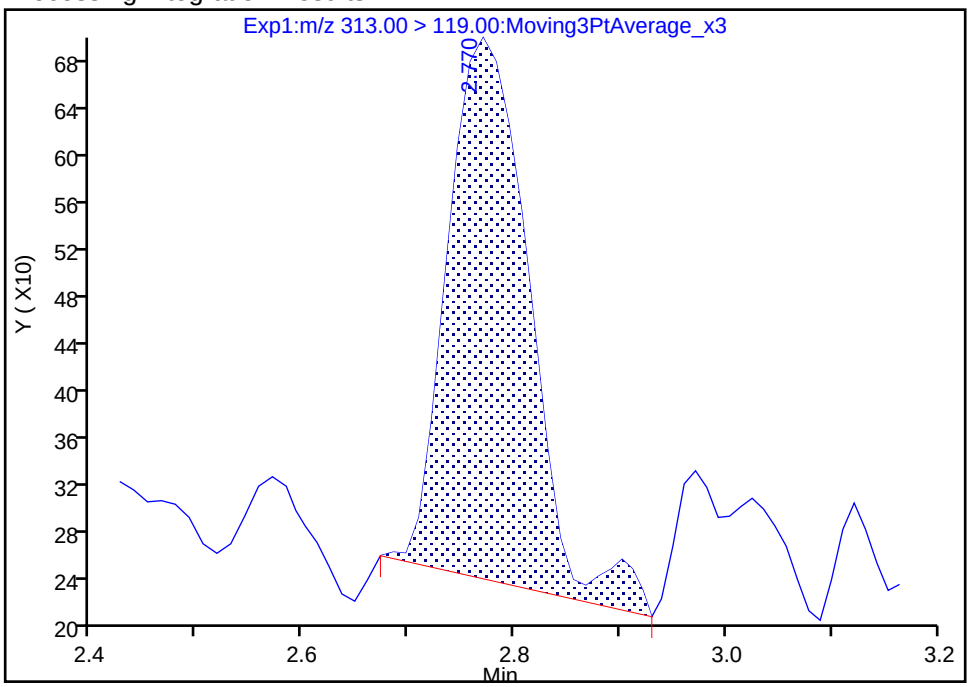
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

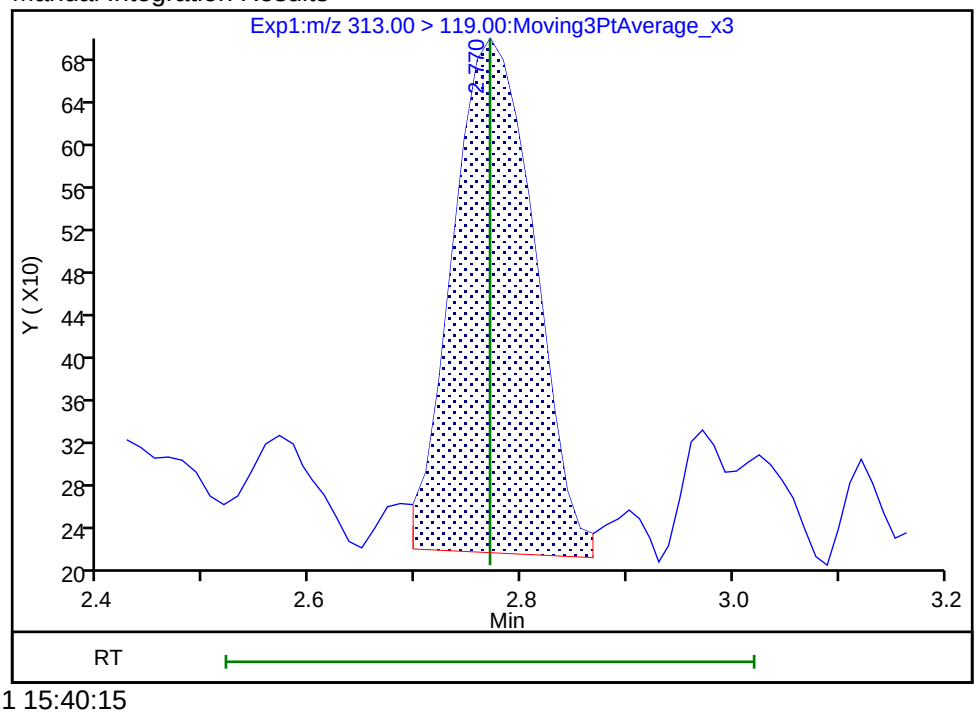
Processing Integration Results

RT: 2.77
Area: 2439
Amount: 0.025854
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 2548
Amount: 0.023144
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:40:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

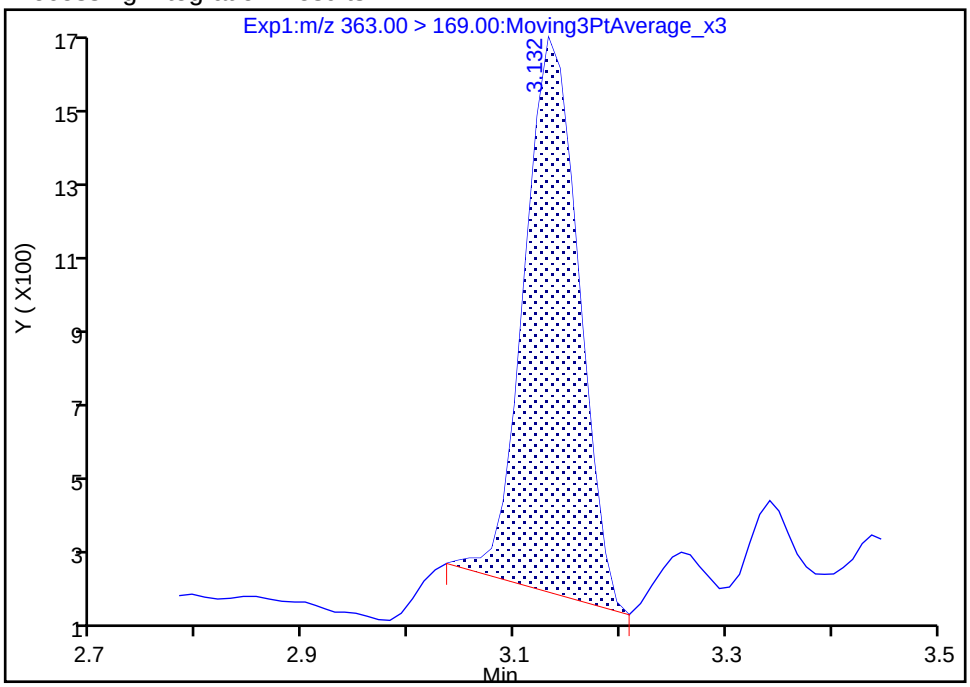
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

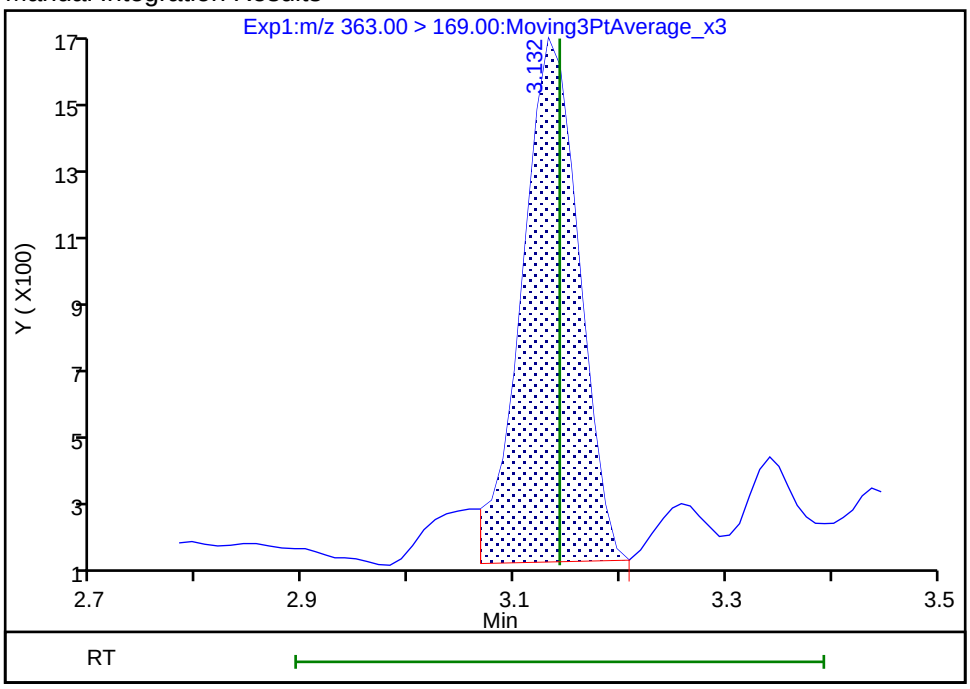
Processing Integration Results

RT: 3.13
Area: 5338
Amount: 0.018386
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 5807
Amount: 0.018386
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:40:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

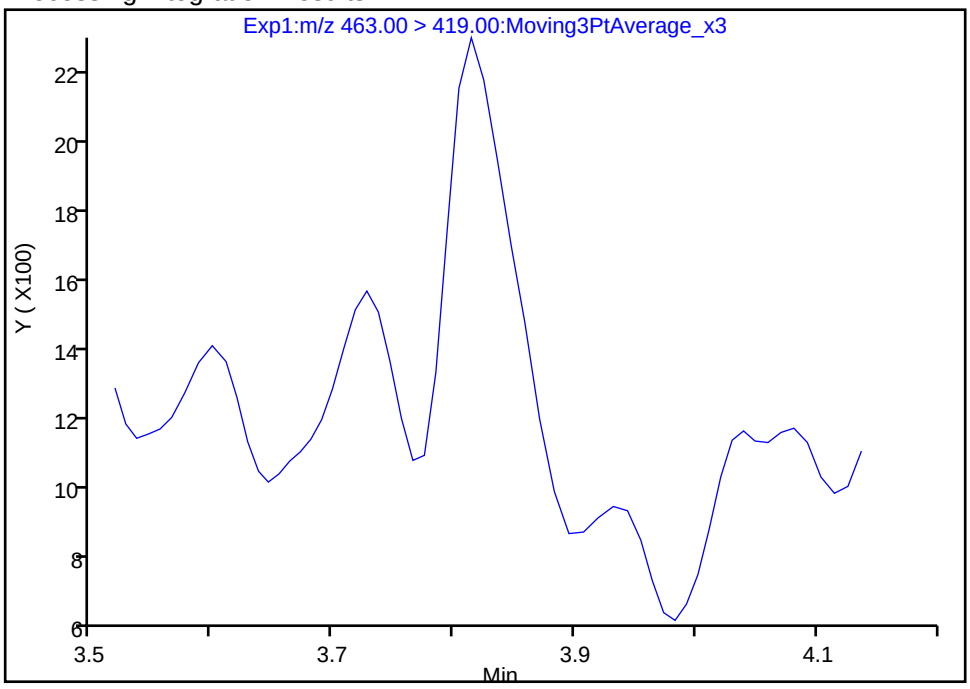
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

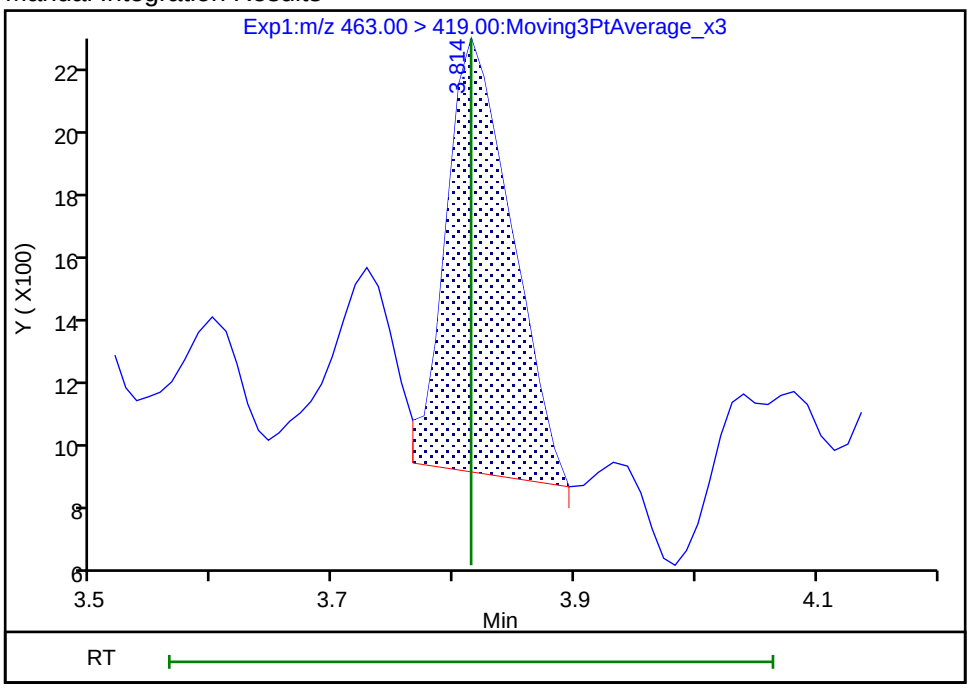
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 4673
Amount: 0.004305
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:41:58
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

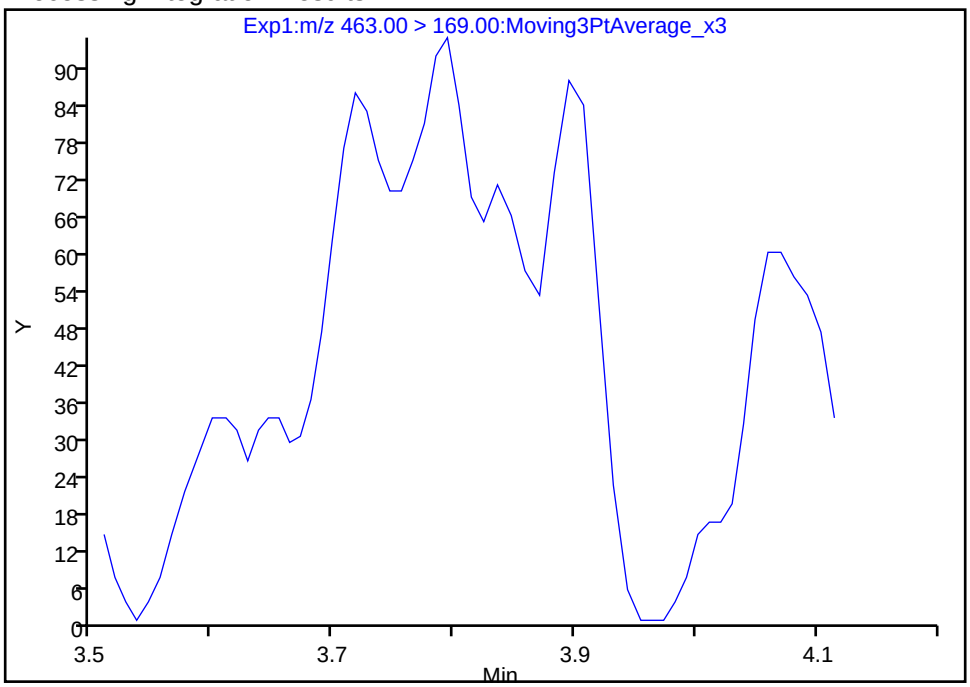
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

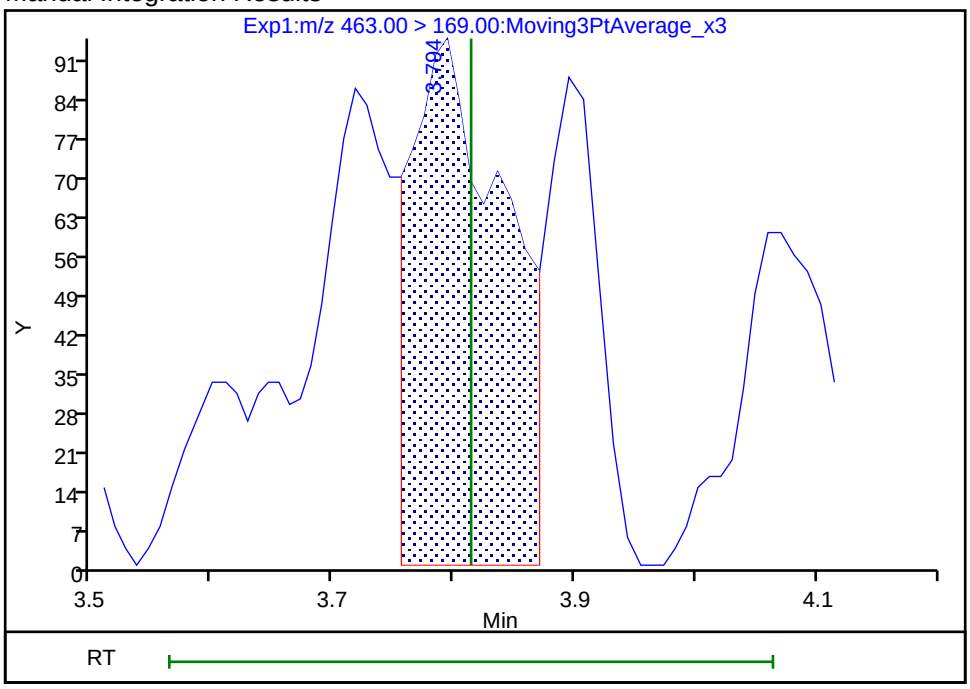
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 504
Amount: 0.004305
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

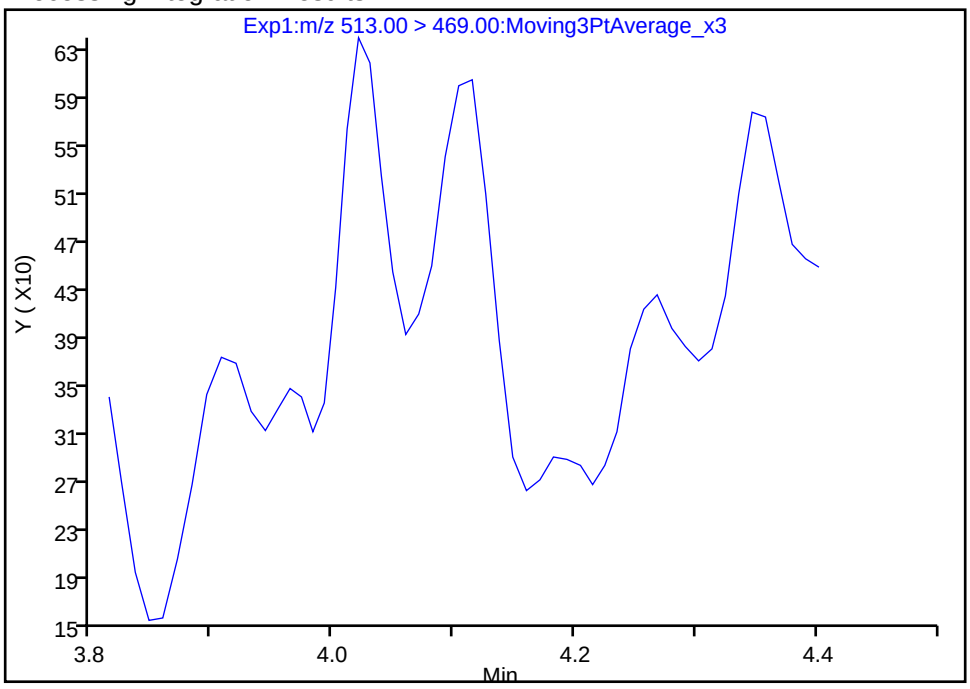
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

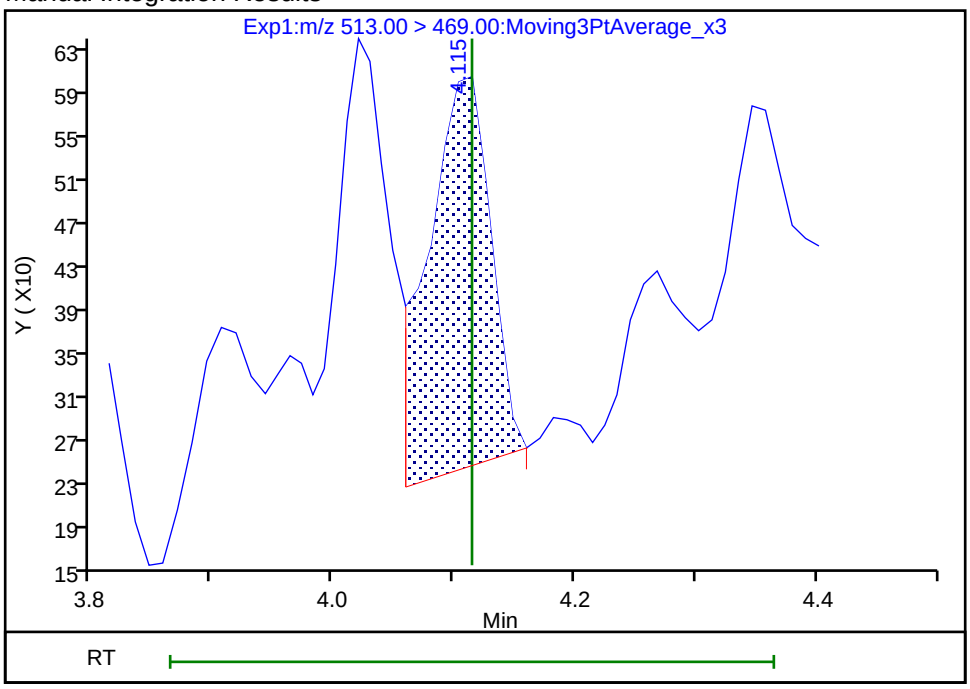
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 1278
Amount: 0.001218
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:24
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

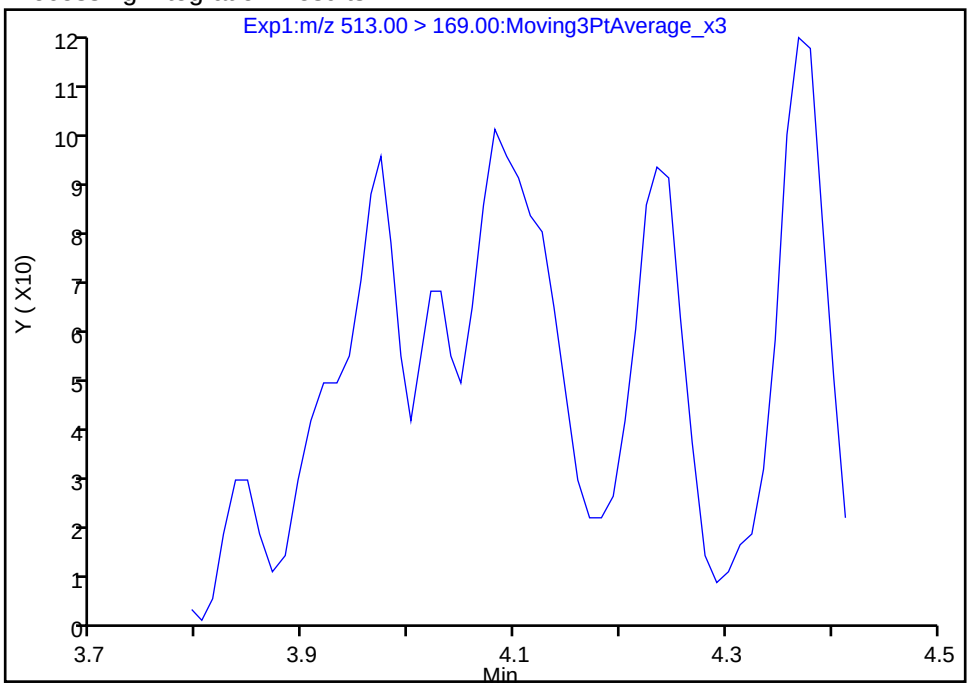
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

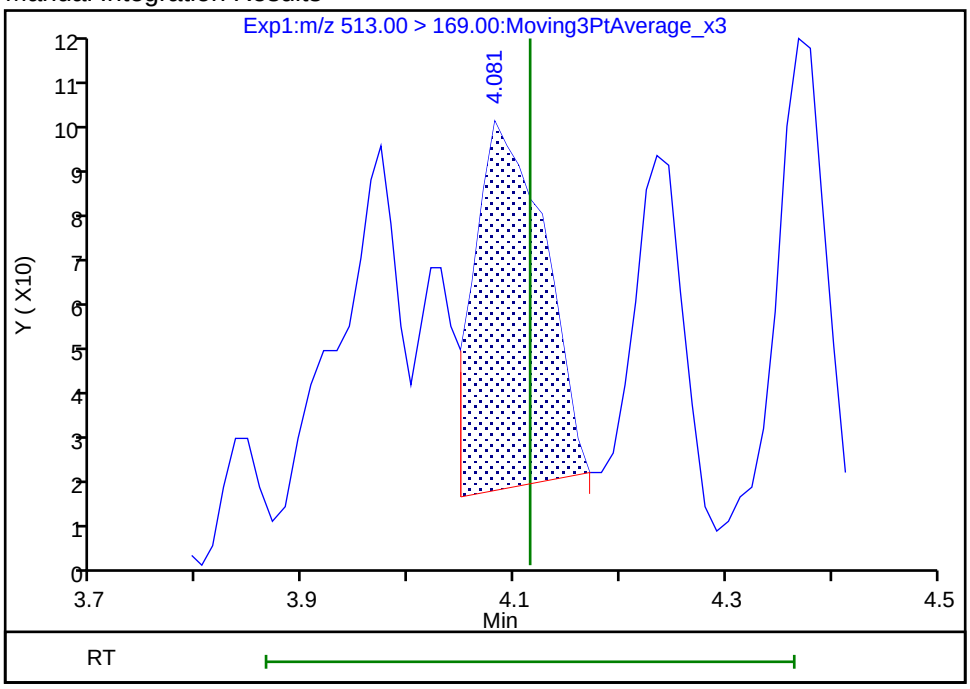
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.08
Area: 342
Amount: 0.001218
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:28
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

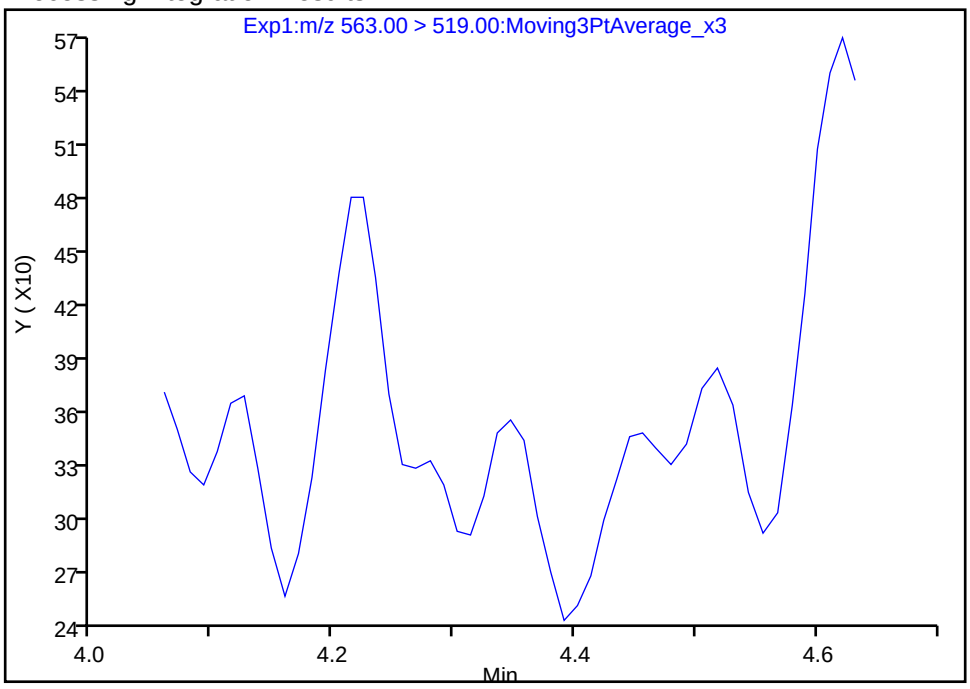
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

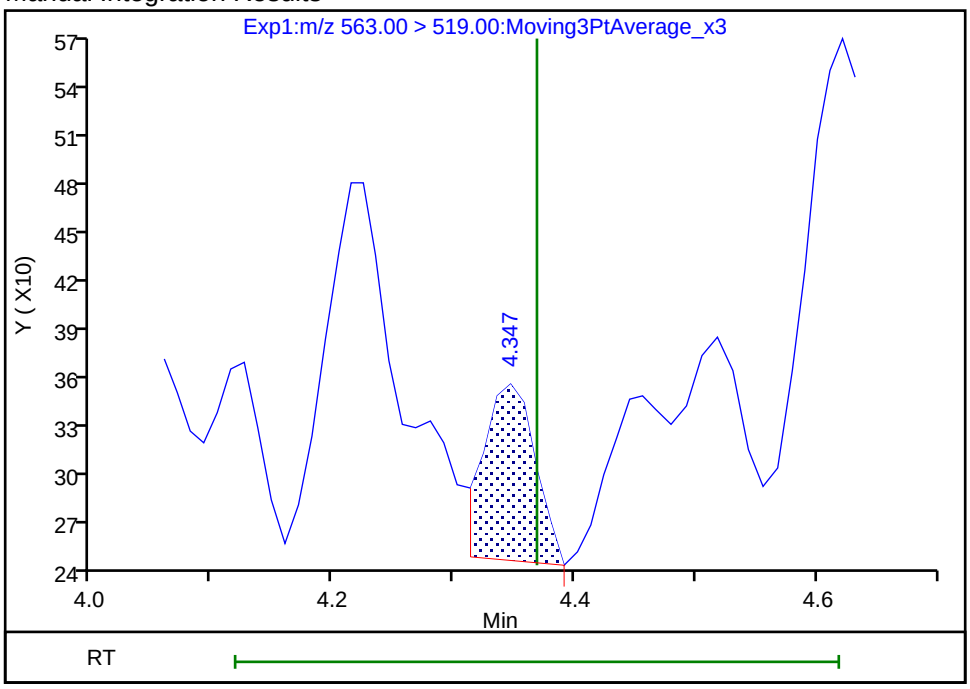
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 305
Amount: 0.000389
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:32
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

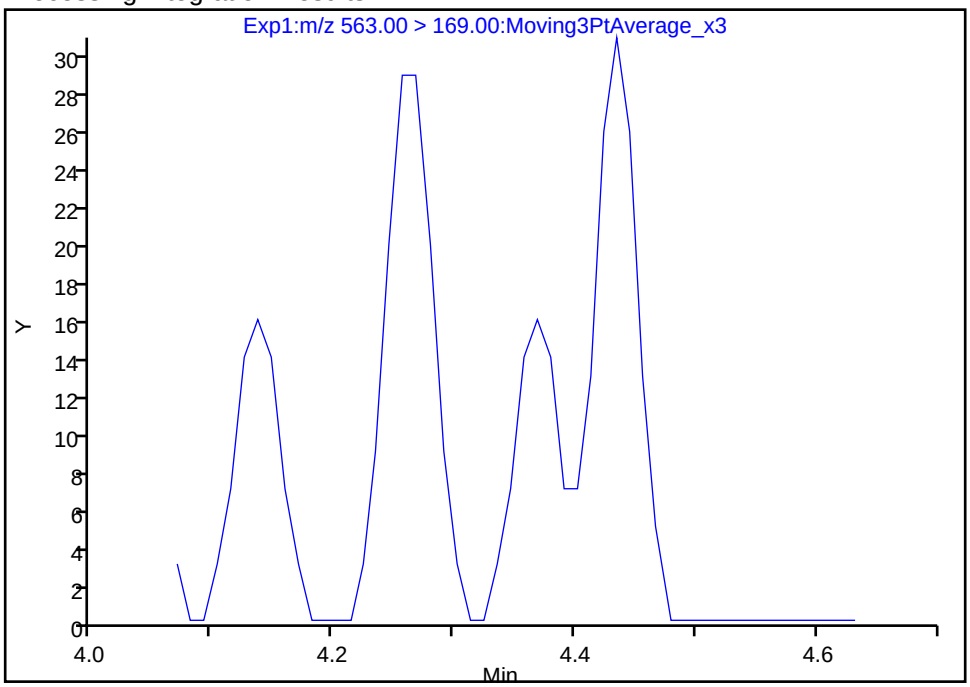
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

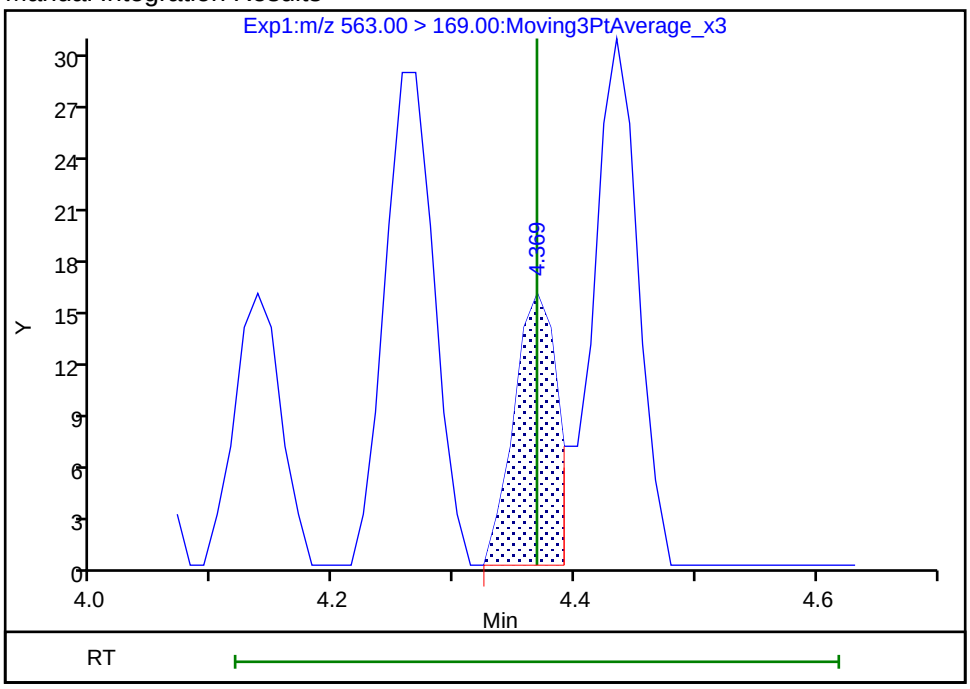
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 38
Amount: 0.000389
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:35
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

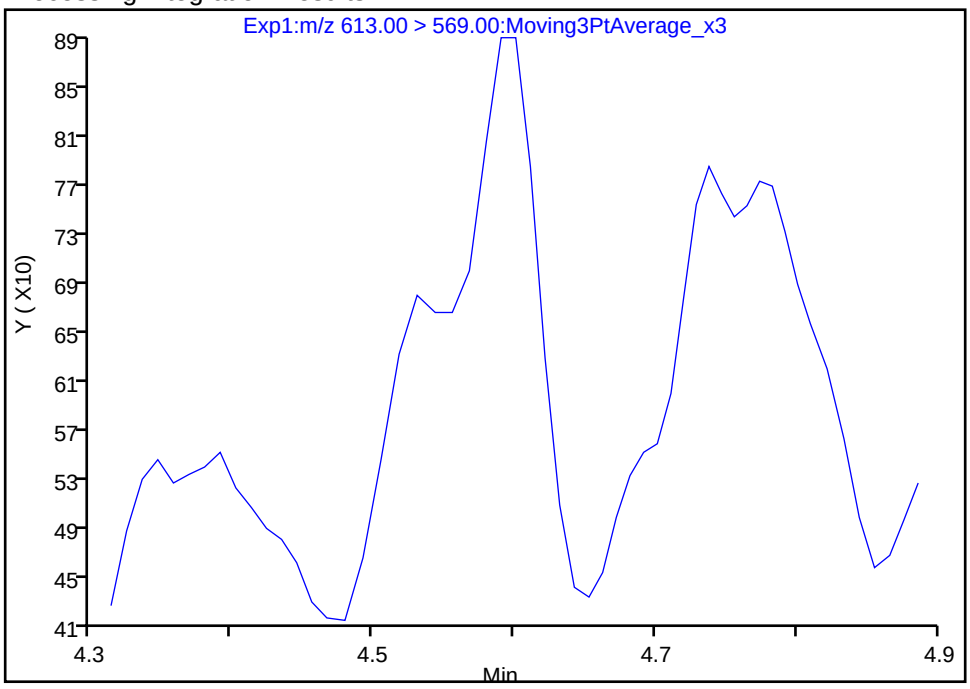
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

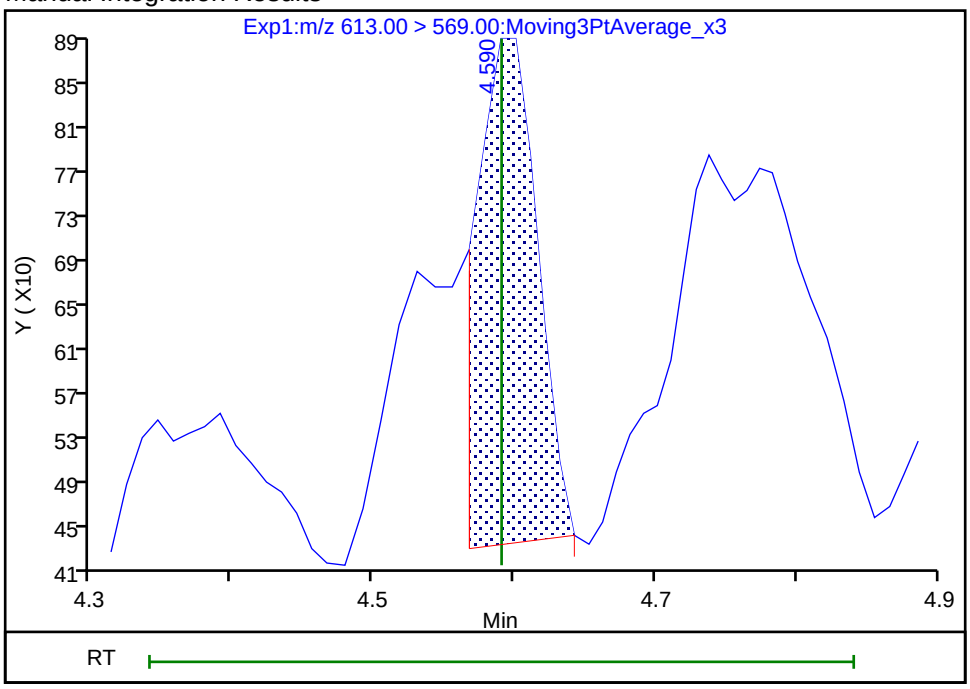
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 1298
Amount: 0.001826
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:51
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

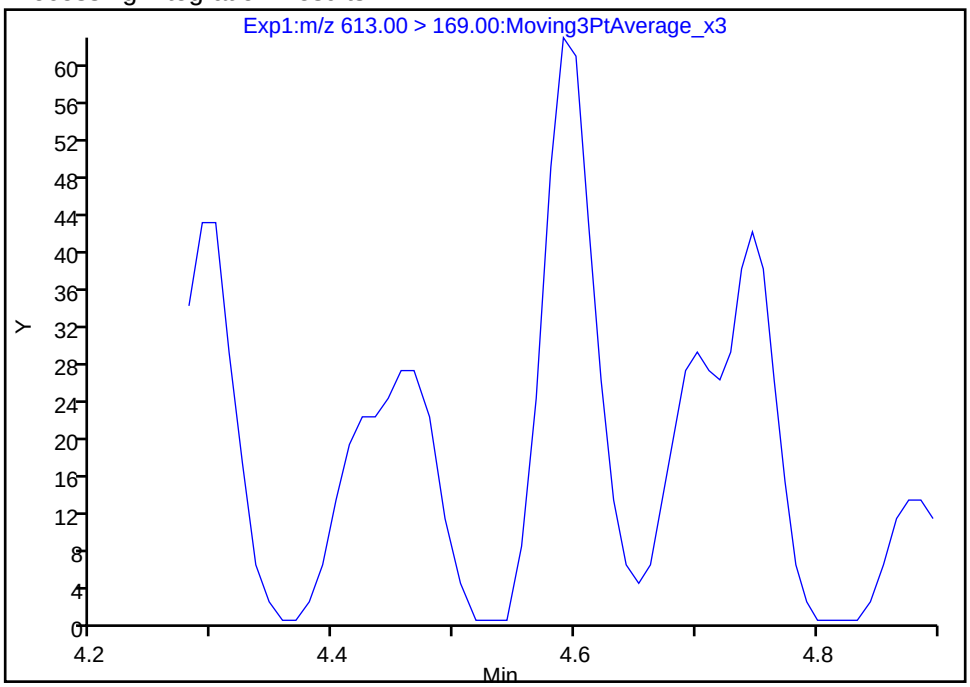
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

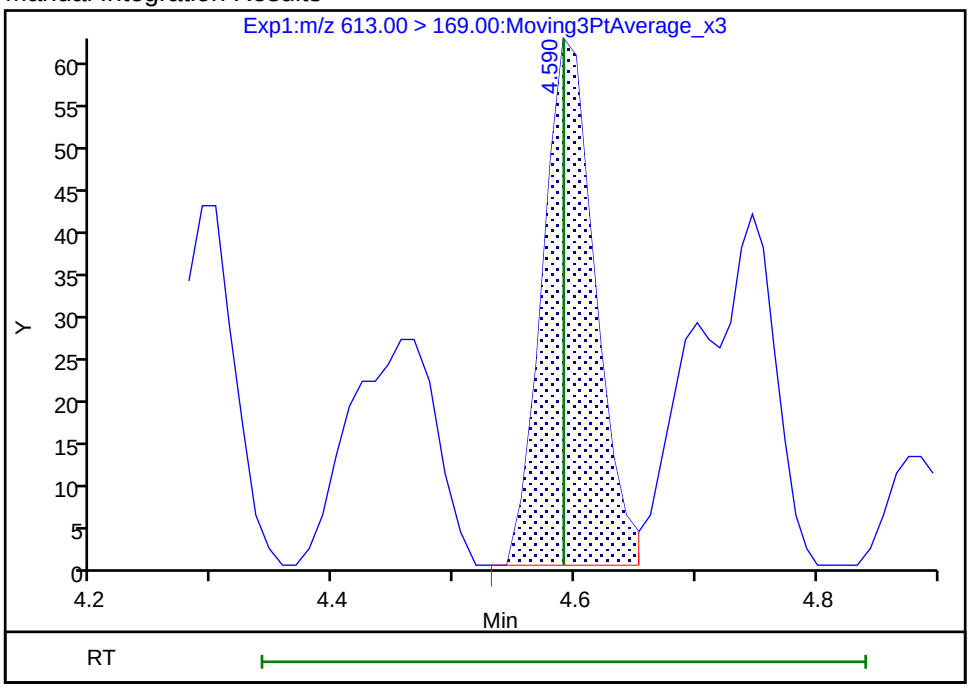
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 189
Amount: 0.001826
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:54
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

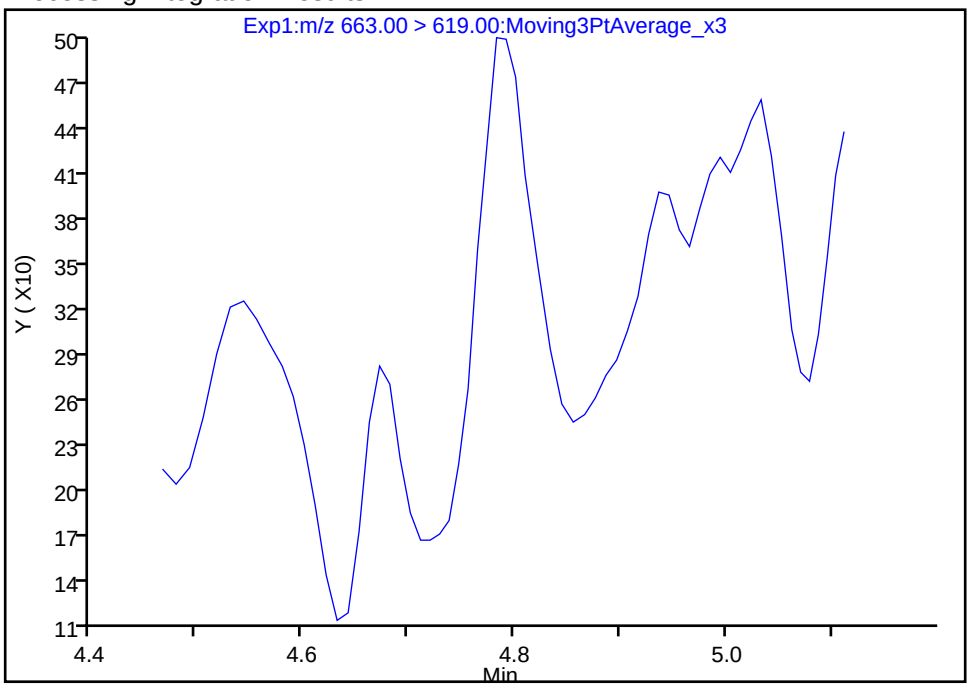
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

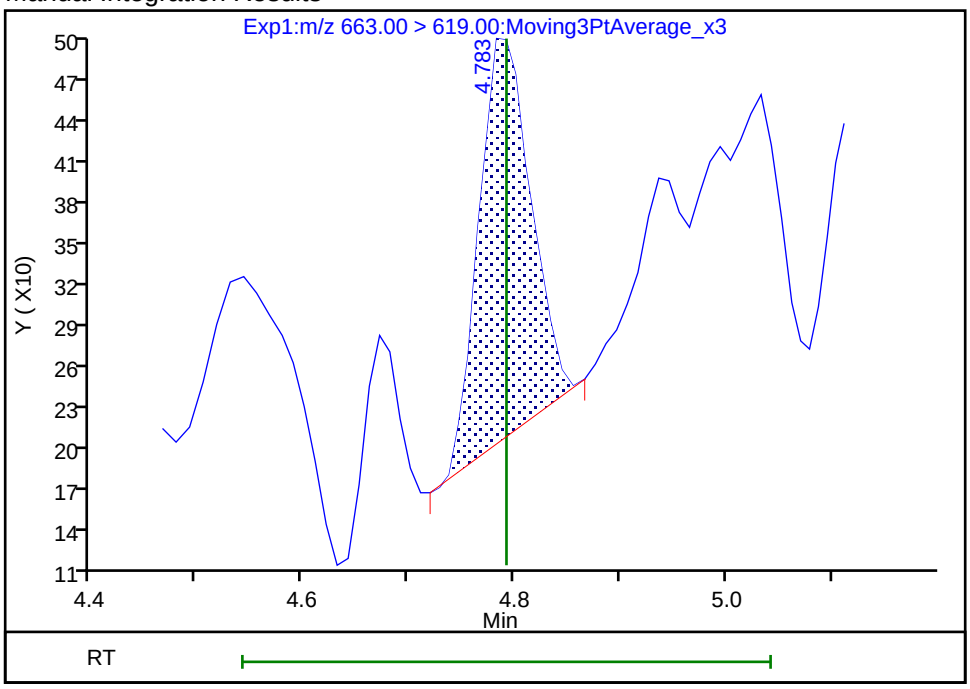
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 997
Amount: 0.001627
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:00
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

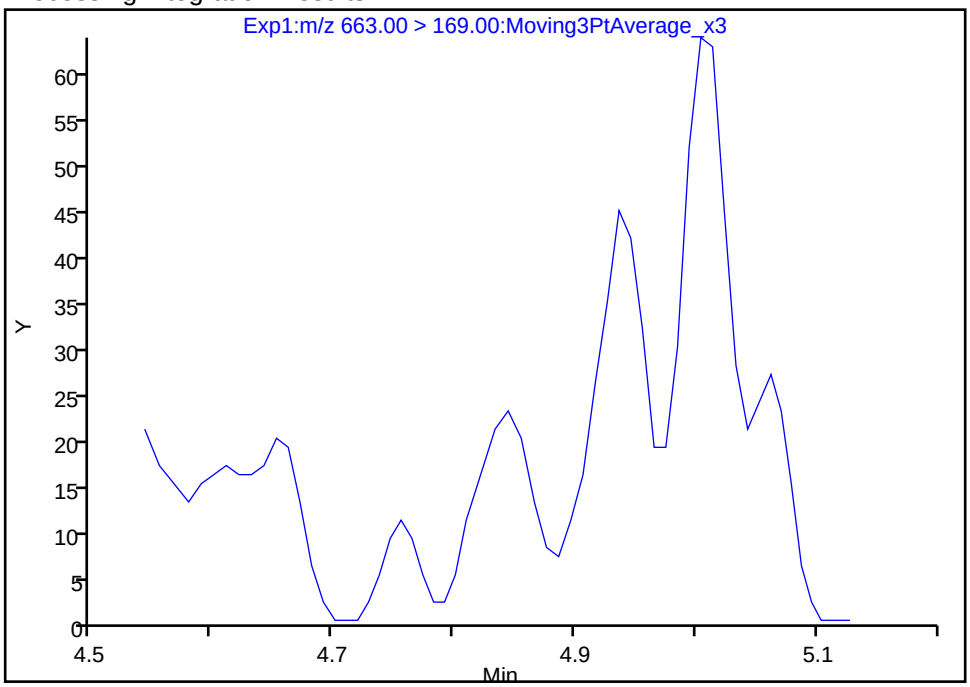
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

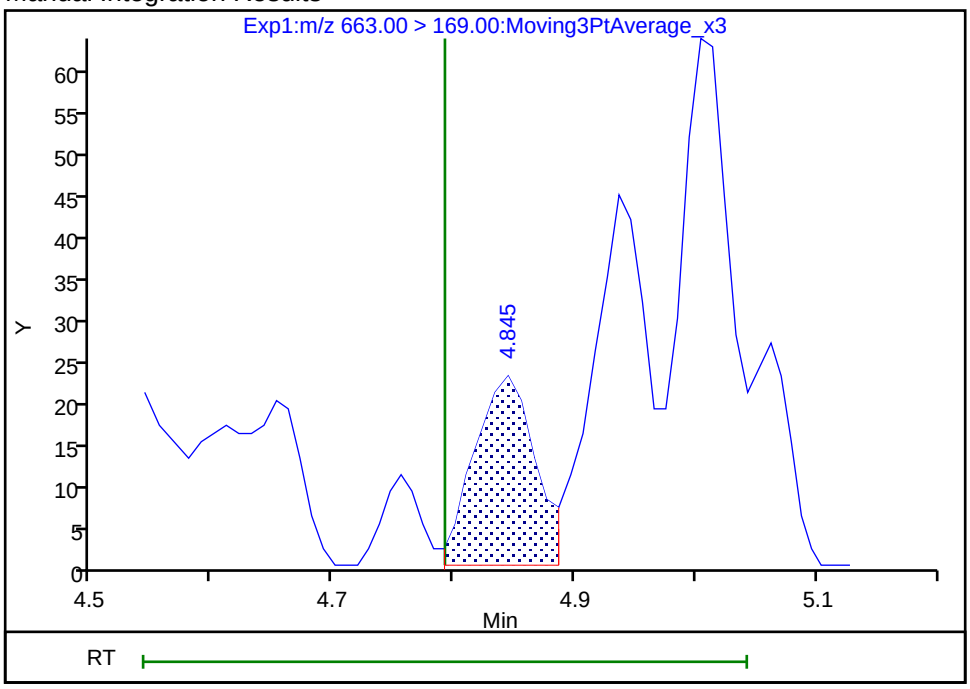
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.84
Area: 79
Amount: 0.001627
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:14
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

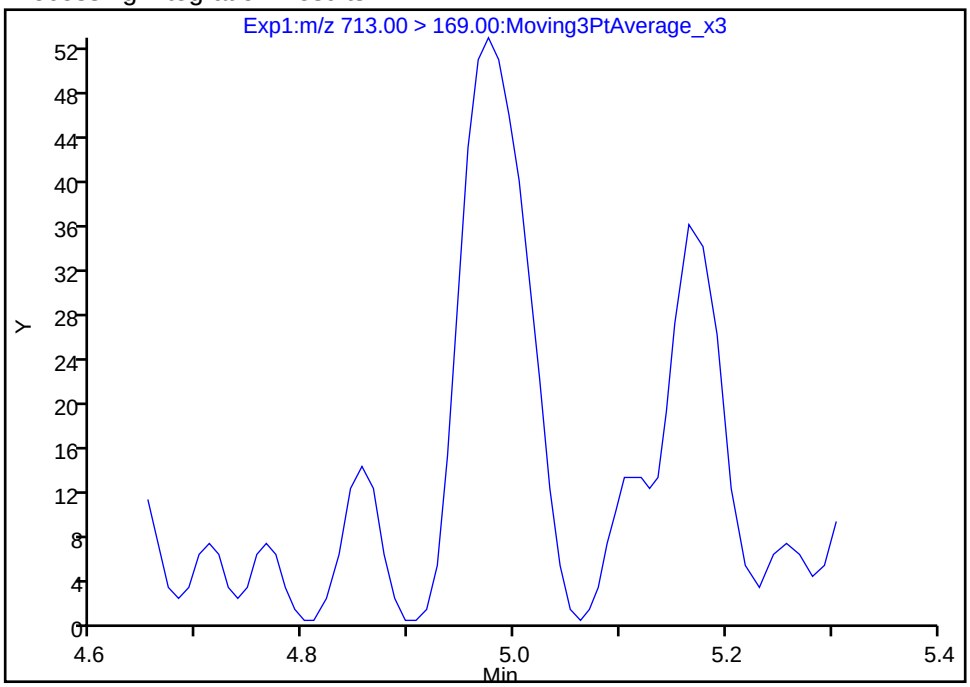
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

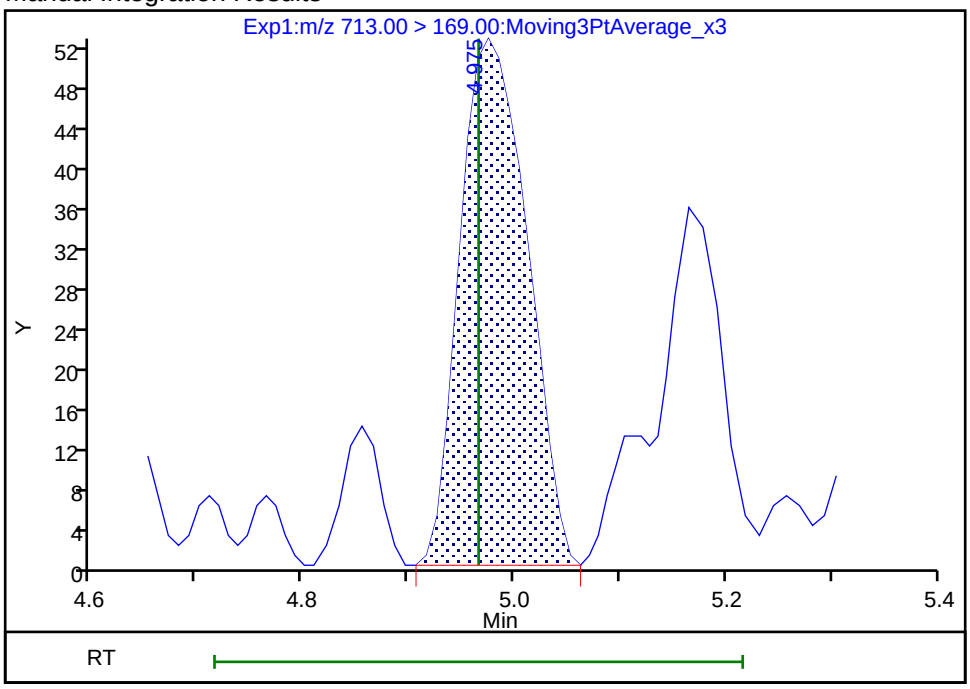
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 235
Amount: 0.002695
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

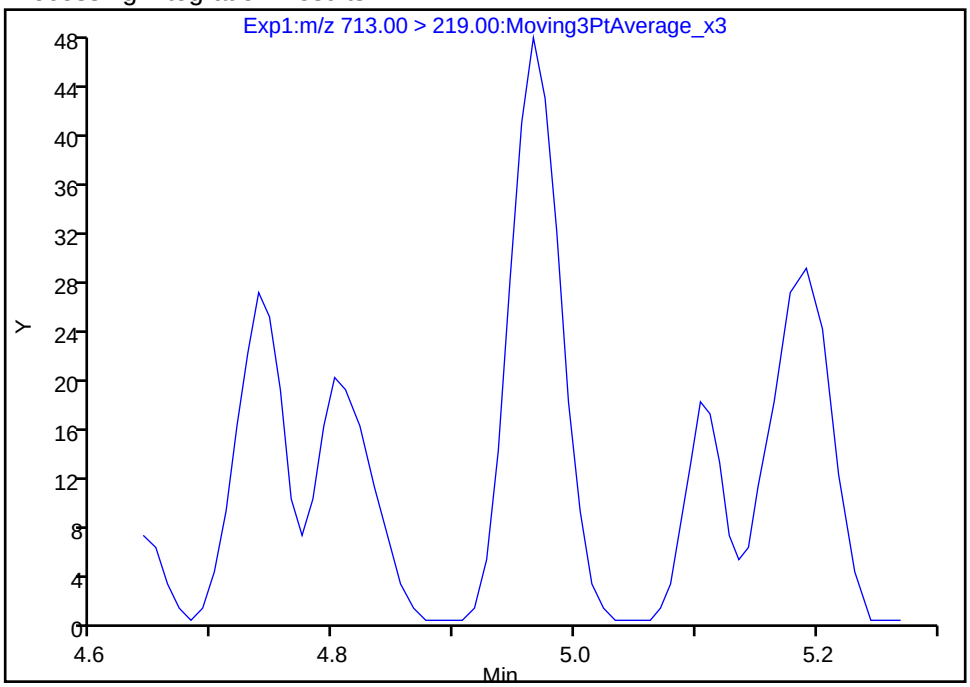
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

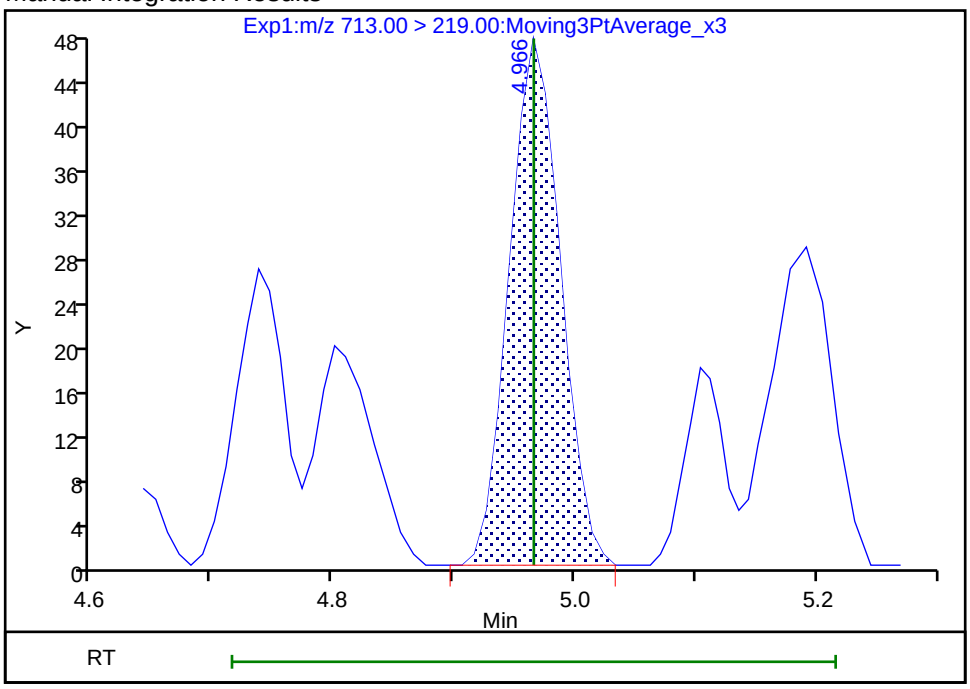
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 141
Amount: 0.002695
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:23
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

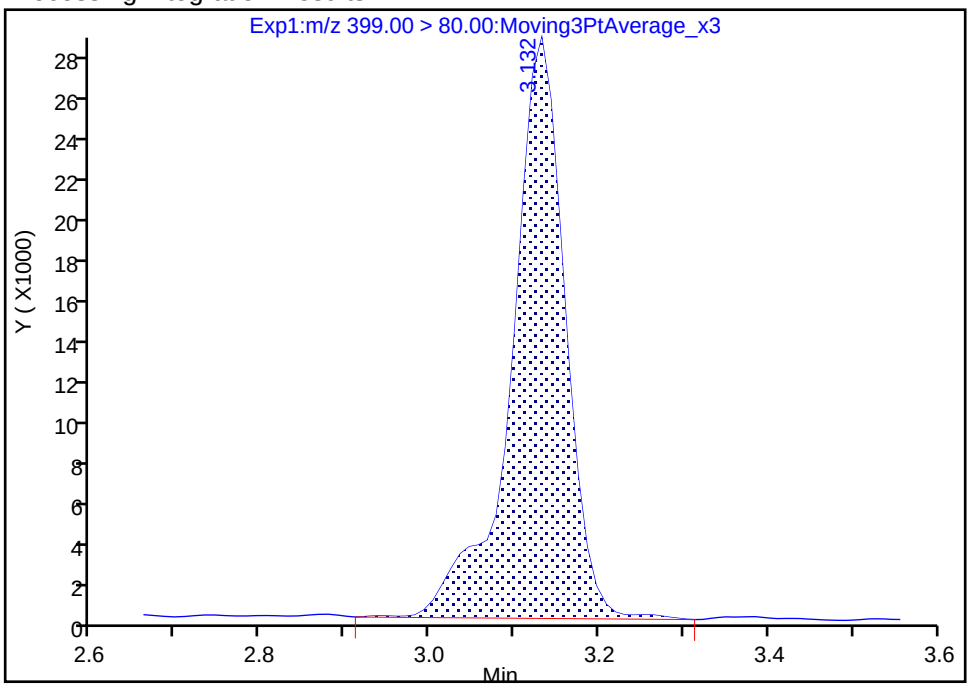
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

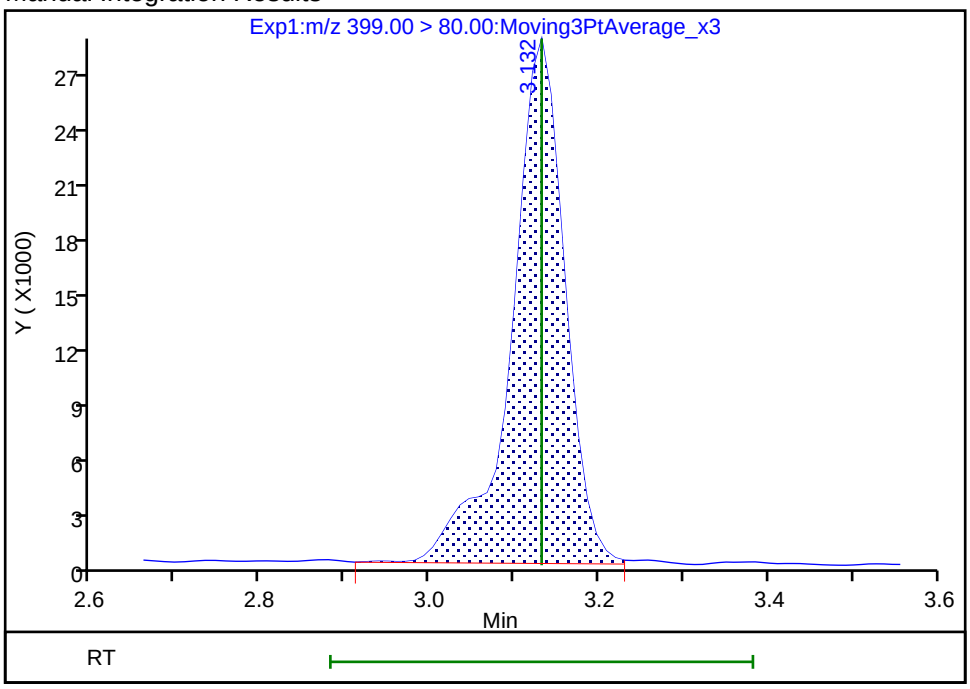
Processing Integration Results

RT: 3.13
Area: 123362
Amount: 0.119156
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 122700
Amount: 0.118517
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:40:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

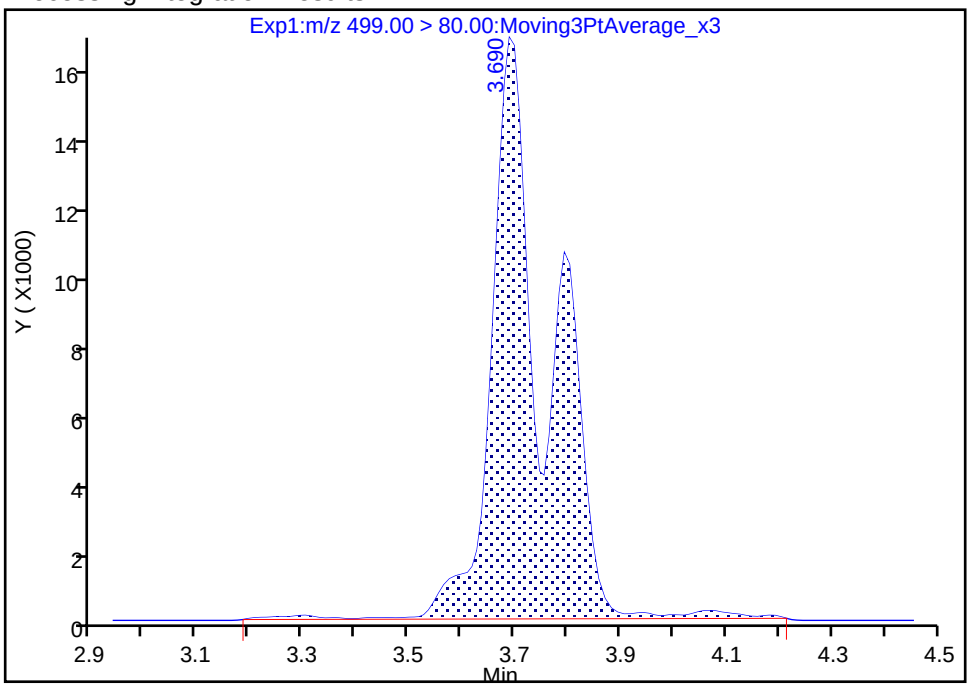
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

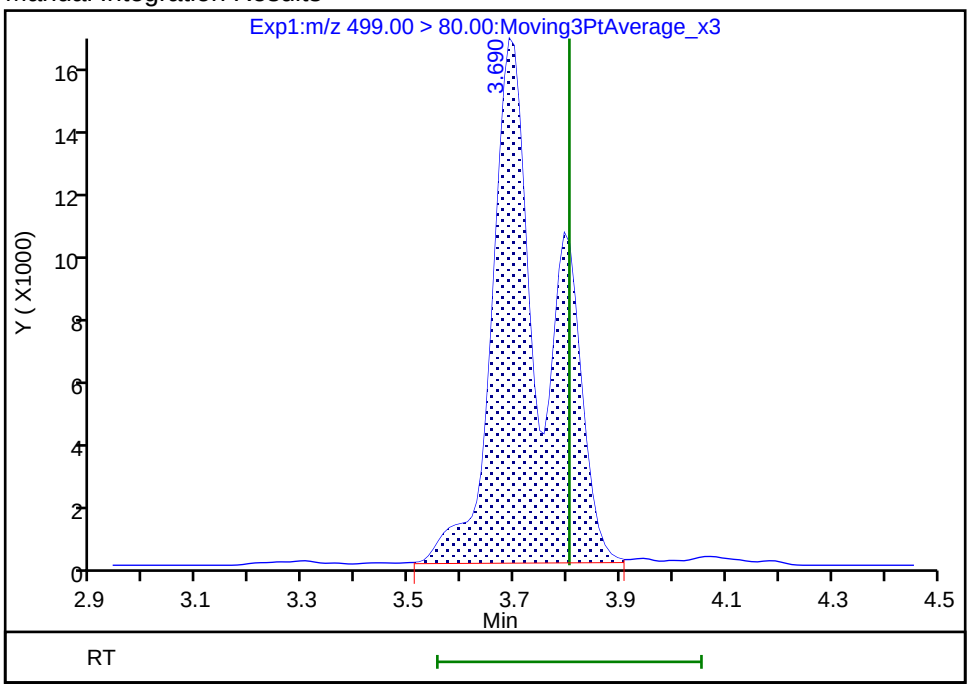
Processing Integration Results

RT: 3.69
Area: 124520
Amount: 0.167248
Amount Units: ng/ml




Manual Integration Results

RT: 3.69
Area: 120635
Amount: 0.162030
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:41:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

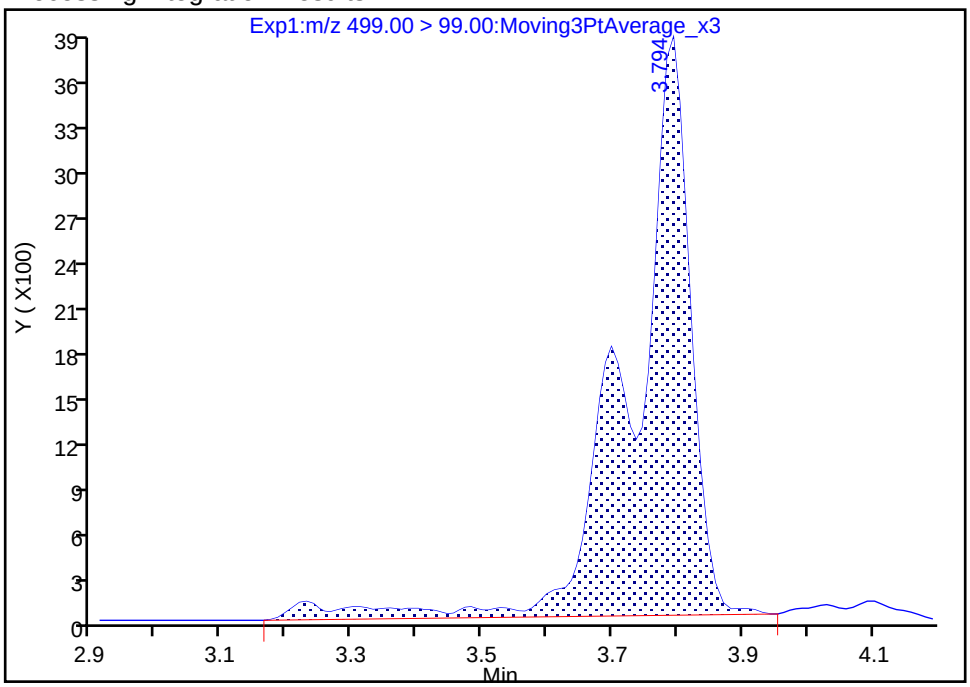
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

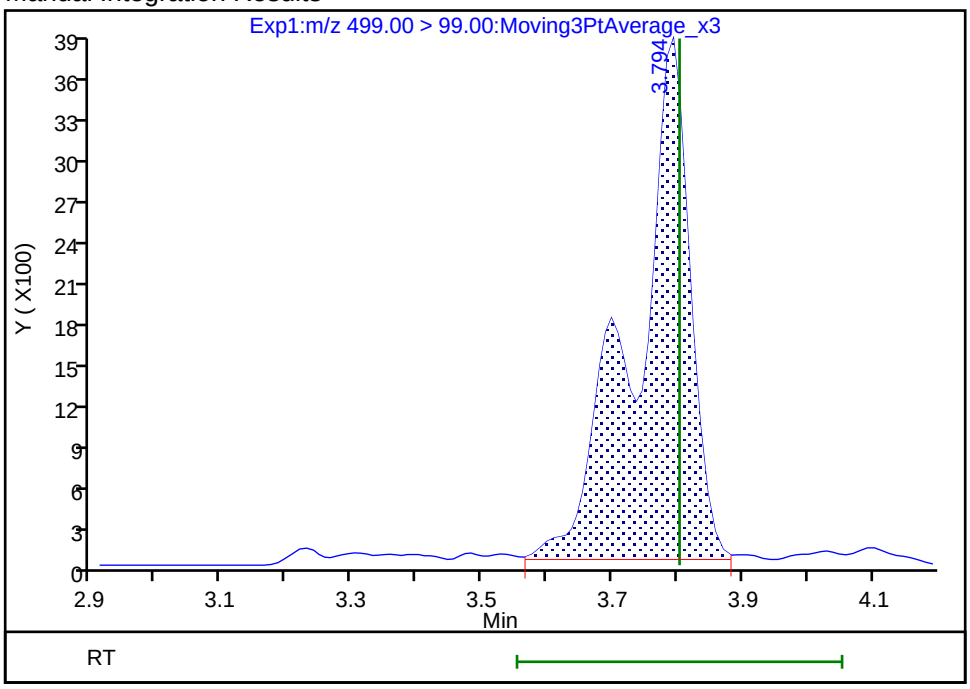
Processing Integration Results

RT: 3.79
Area: 24410
Amount: 0.167248
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 22627
Amount: 0.162030
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:41:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

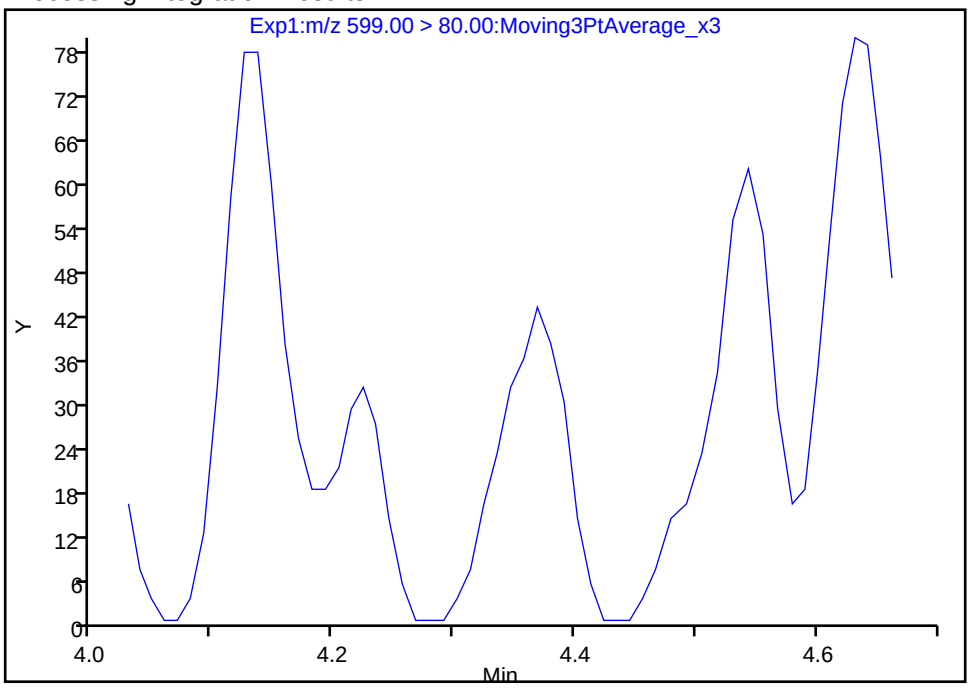
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

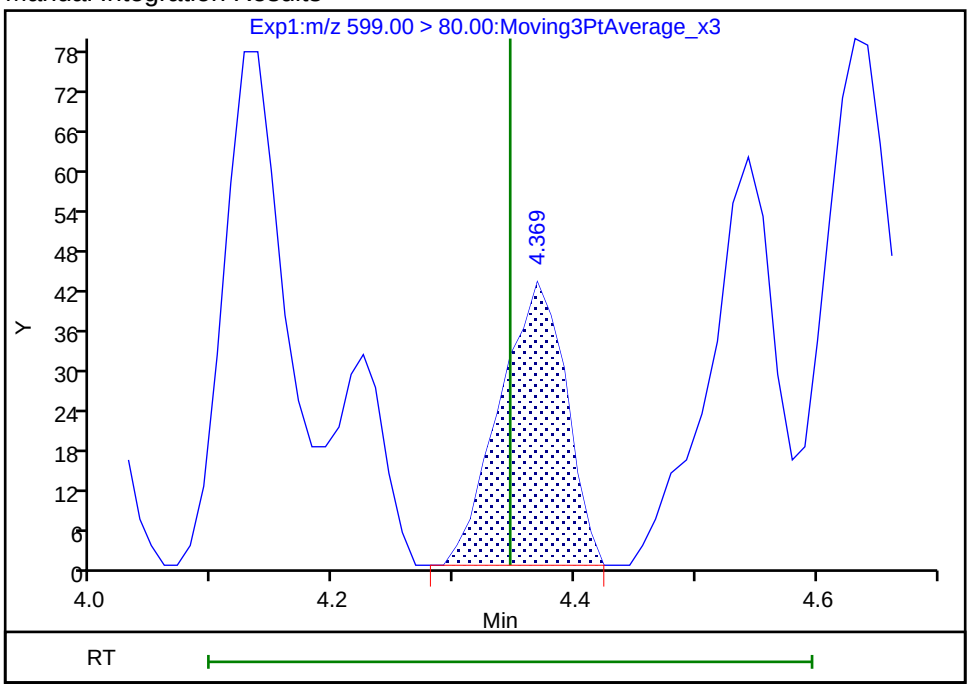
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 164
Amount: 0.000364
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

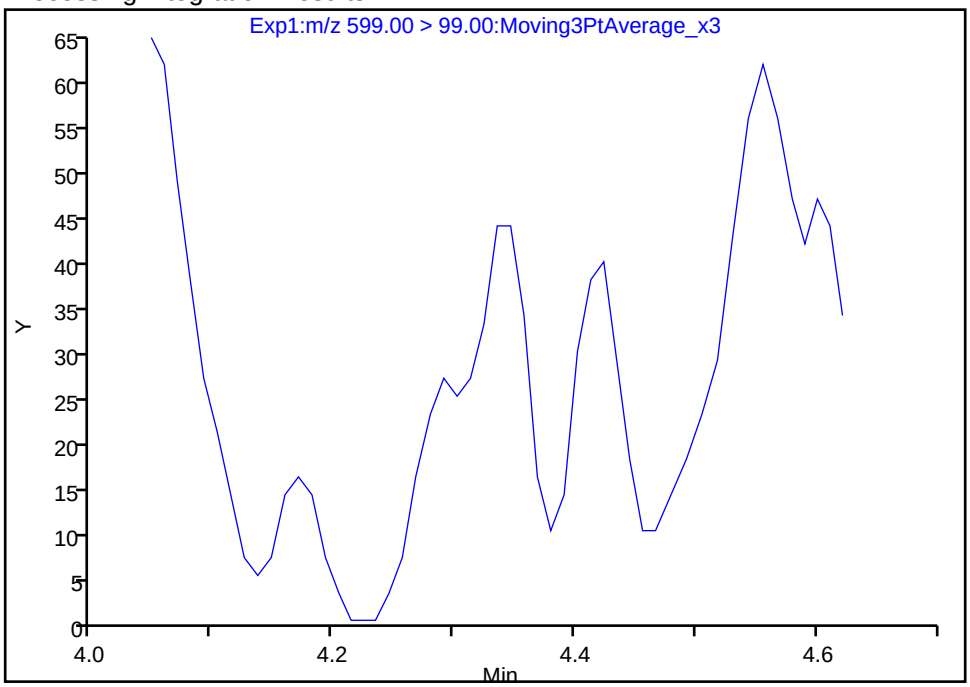
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

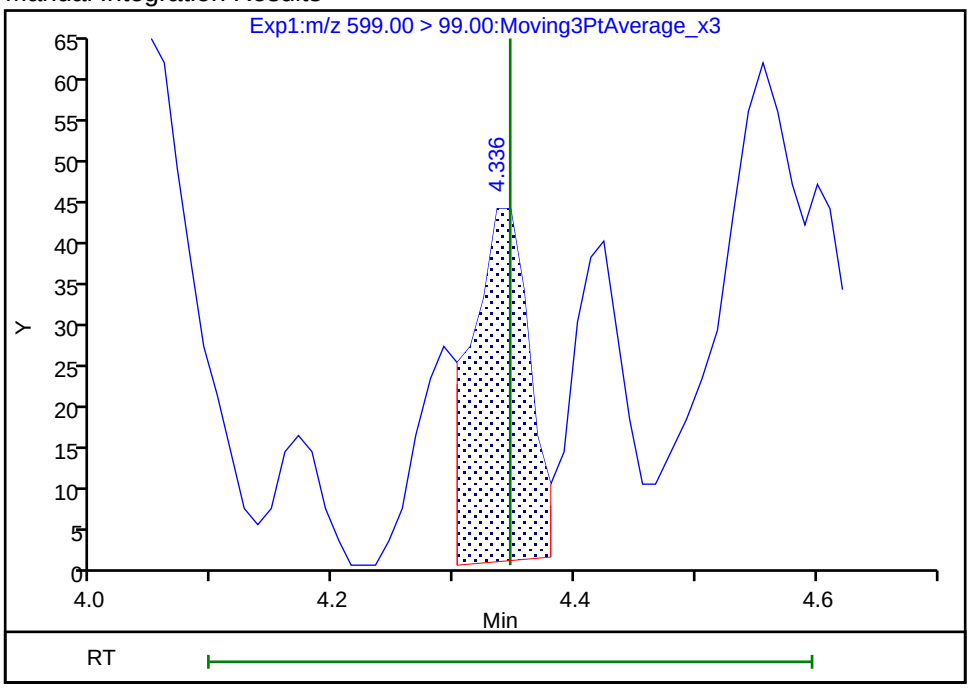
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 140
Amount: 0.000364
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:43:14
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

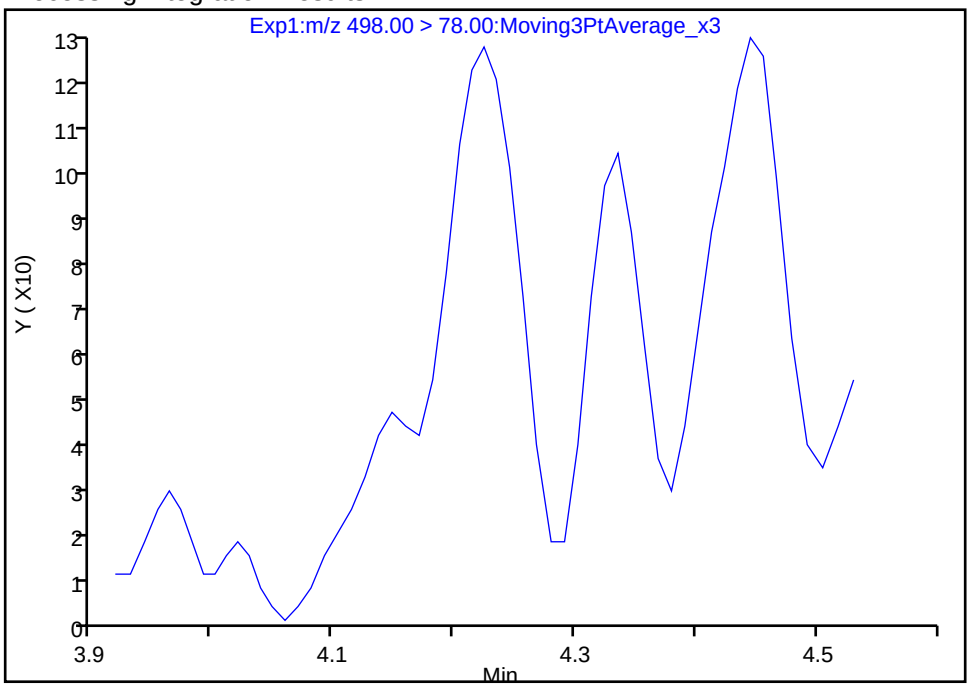
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

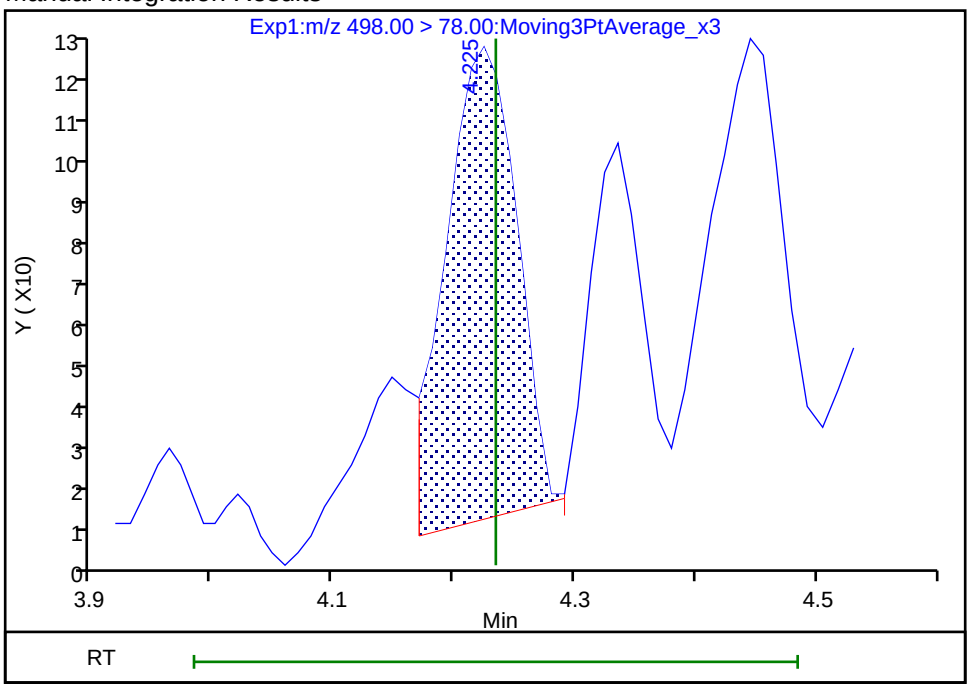
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 458
Amount: 0.000465
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

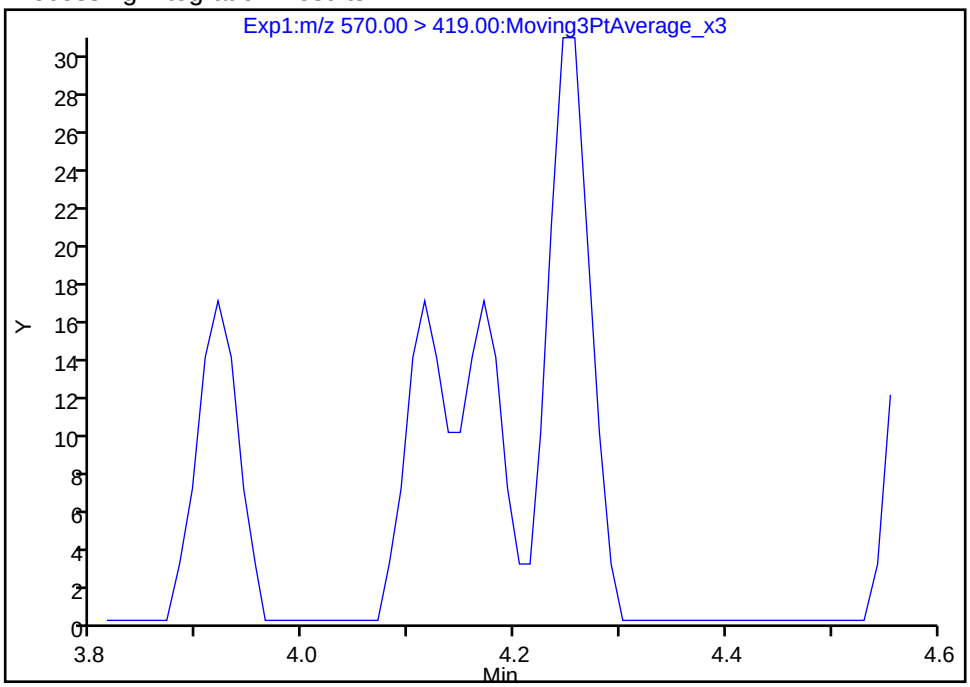
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

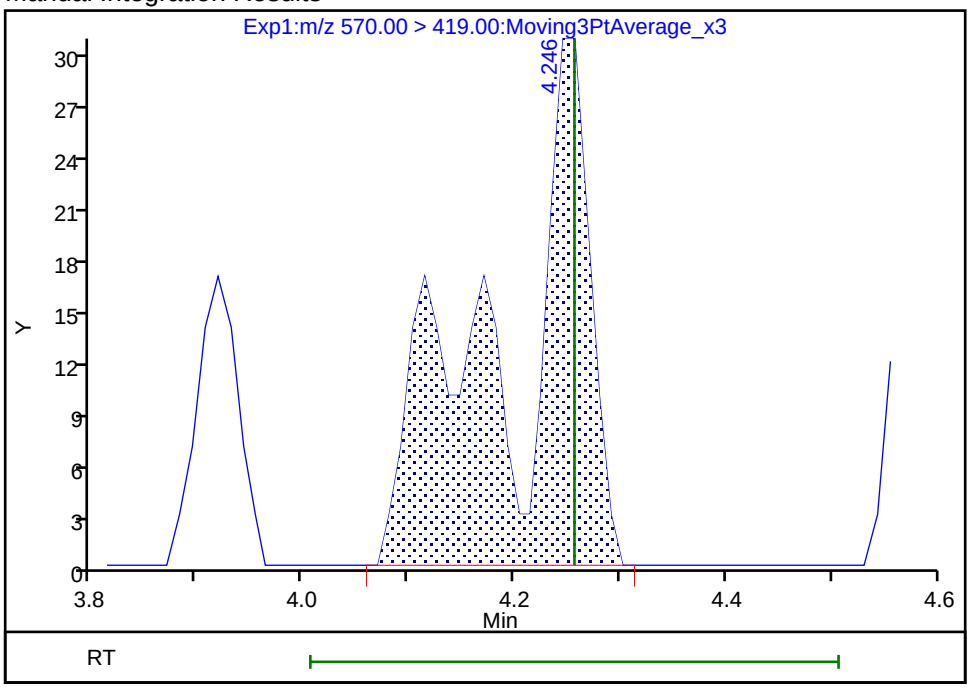
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 173
Amount: 0.001982
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:58
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

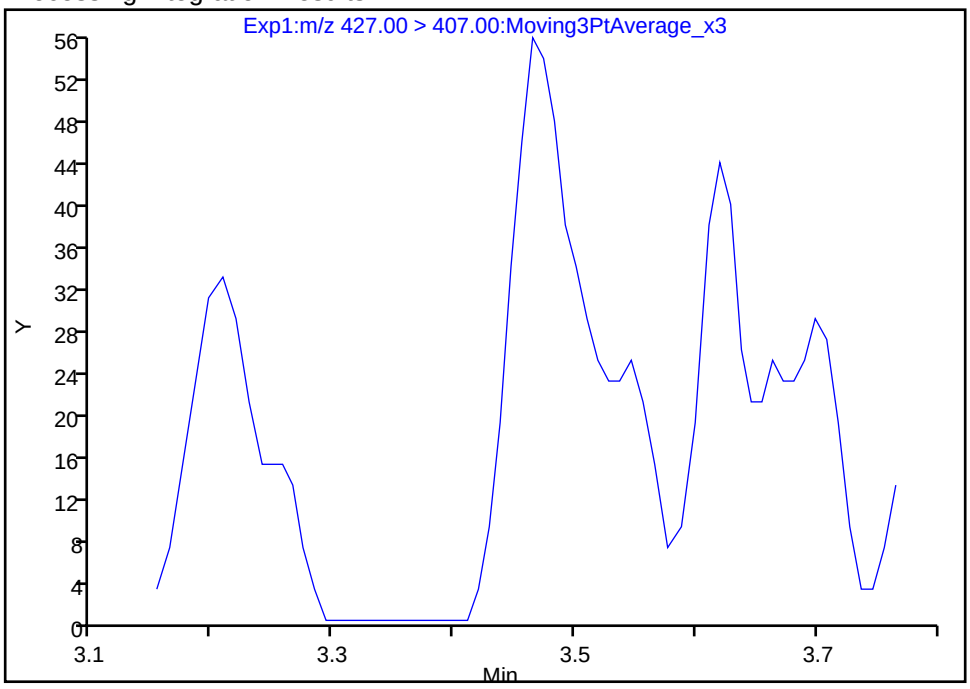
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

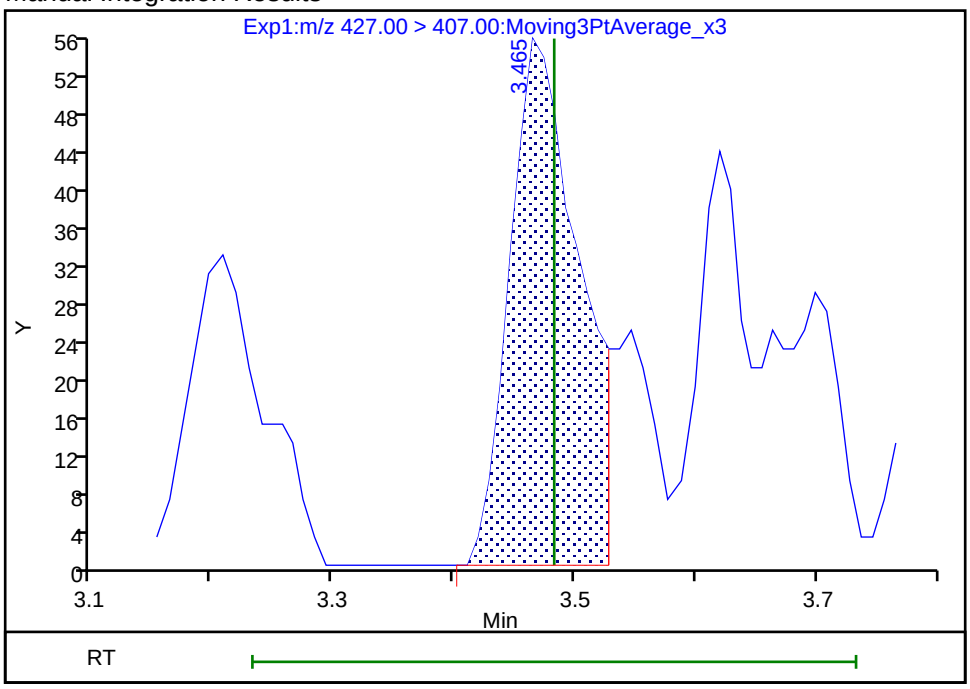
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.46
Area: 219
Amount: 0.001042
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:40:51
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

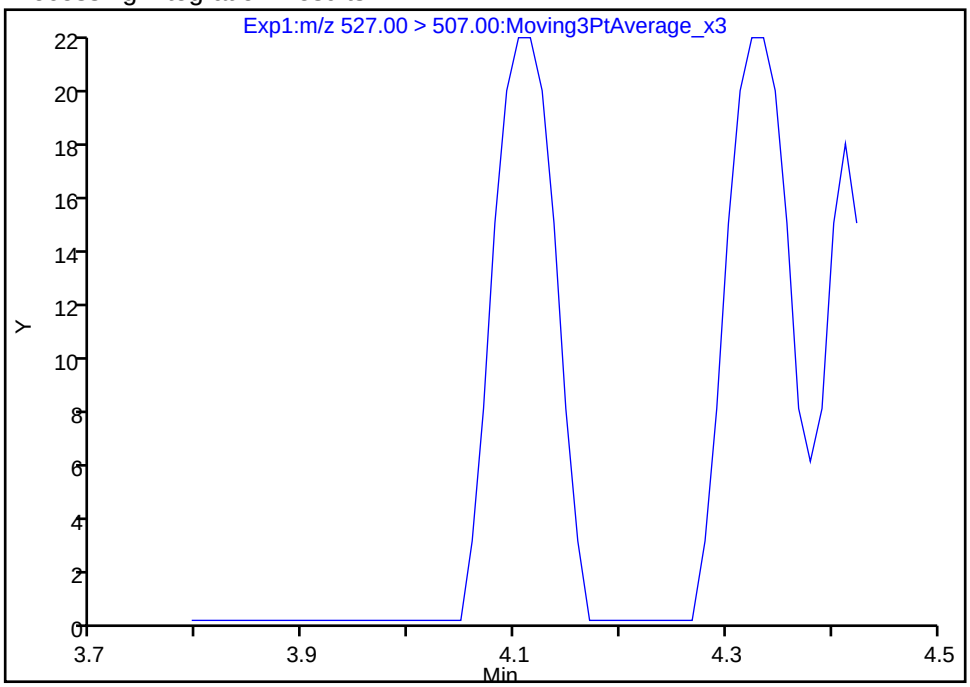
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D11.d | | | | |
| Injection Date: | 10-Nov-2021 05:34:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-7-A | Lab Sample ID: | 200-246277-7 | | |
| Client ID: | MW-9S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

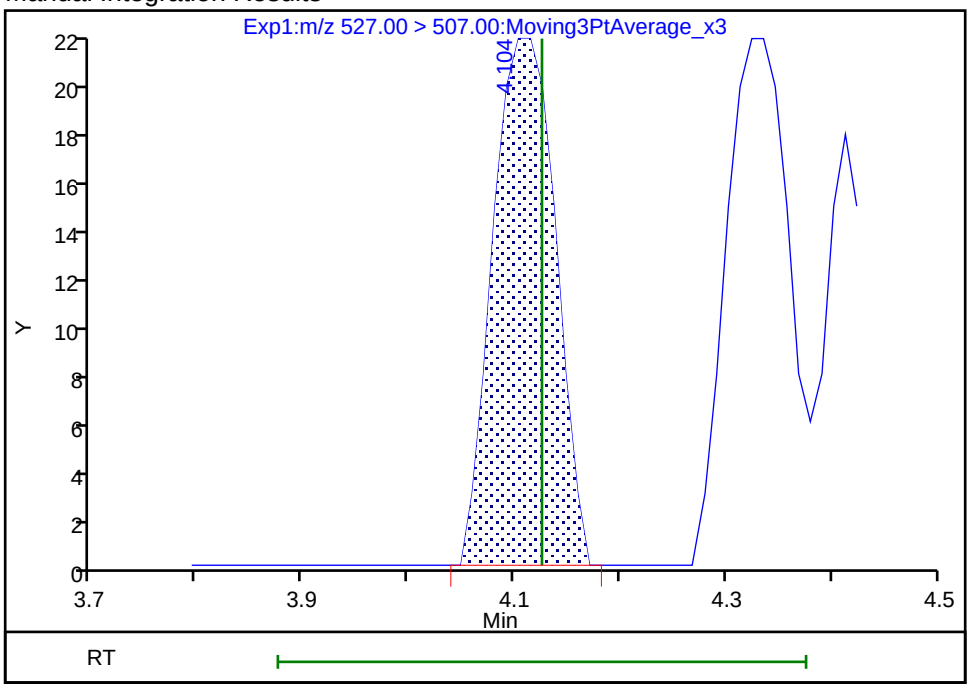
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 90
Amount: 0.000564
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:42:36
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027  Lab Sample ID: 460-246277-8

Matrix: Water  Lab File ID: PA211109D12.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 292.3(mL)  Date Analyzed: 11/10/2021 05:42

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 9.47 | | 4.28 | 0.76 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 9.60 | | 1.71 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 12.6 | | 1.71 | 0.39 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 7.05 | | 1.71 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 31.6 | | 1.71 | 0.36 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 3.31 | | 1.71 | 0.24 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 1.14 | J | 1.71 | 0.26 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.71 | 0.29 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.71 | 0.33 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.71 | 0.37 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.71 | 0.54 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 1.71 | 0.21 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 41.2 | | 1.71 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.29 | J | 1.71 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 45.2 | | 1.71 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.71 | 0.26 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.71 | 0.49 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 4.28 | 0.77 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.28 | 0.64 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.94 | U | 4.28 | 0.94 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.71 | 0.33 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027  Lab Sample ID: 460-246277-8

Matrix: Water  Lab File ID: PA211109D12.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 292.3(mL)  Date Analyzed: 11/10/2021 05:42

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 96 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 104 | | 50-150 |
| STL00995 | 13C5 PFNA | 95 | | 50-150 |
| STL00992 | 13C4 PFBA | 82 | | 25-150 |
| STL00993 | 13C2 PFHxA | 96 | | 50-150 |
| STL00996 | 13C2 PFDA | 93 | | 50-150 |
| STL00997 | 13C2 PFUnA | 97 | | 50-150 |
| STL00998 | 13C2 PFDoA | 91 | | 50-150 |
| STL01056 | 13C8 FOSA | 95 | | 25-150 |
| STL01893 | 13C5 PFPeA | 92 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 90 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 108 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 116 | | 50-150 |
| STL02279 | M2-6:2 FTS | 120 | | 25-150 |
| STL02280 | M2-8:2 FTS | 130 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d
Lims ID: 460-246277-C-8-A
Client ID: MW-24S-20211027
Sample Type: Client
Inject. Date: 10-Nov-2021 05:42:16 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-8-A
Misc. Info.: 200-0048356-012 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 15:54:36
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1297682 | 1.02 | | 81.6 | 2312 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 271598 | 0.2767 | | | 20.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1234650 | 1.15 | | 92.2 | 705 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 277598 | 0.2806 | | | 2.3 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1547352 | 1.07 | | 91.8 | 36286 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 351496 | 0.2472 | Target=2.32 | | 8.3 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 135384 | | 2.60(1.16-3.48) | | 16.8 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 166963 | 1.51 | | 129 | 16.0 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1348450 | 1.20 | | 96.0 | 2324 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 402386 | 0.3678 | Target=12.09 | | 8.2 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 29911 | | 13.45(6.04-18.13) | | 17.1 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 228012 | 0.1872 | Target=3.03 | | 14.9 | M |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 82448 | | 2.77(1.52-4.55) | | 17.4 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 25987 | 0.8774 | | 70.2 | 67.9 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.855 | 2.880 | -0.025 | 0.992 | 541 | 0.005751 | | | 0.1 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1339090 | 1.20 | Target=3.55 | | 128 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 346576 | | 3.86(1.77-5.32) | | 194 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1195819 | 1.14 | | 96.0 | 3745 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1429016 | 1.21 | | 96.6 | 2902 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 243406 | 0.2061 | Target=3.69 | | 10.8 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 64882 | | 3.75(1.84-5.53) | | 74.0 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 36935 | 0.0376 | Target=4.88 | | 6.7 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 7802 | | 4.73(2.44-7.32) | | 6.6 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1625 | 0.006410 | | | 16.6 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 237402 | 1.43 | | 120 | 75.2 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1568324 | 1.21 | | 97.0 | 4019 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1570910 | 1.25 | | | 3499 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1230524 | 0.9223 | Target=2.68 | | 64.5 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 483666 | | 2.54(1.34-4.02) | | 765 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 942244 | 1.24 | | 104 | 481 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1130069 | 1.32 | Target=4.69 | | 263 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 220832 | | 5.12(2.35-7.04) | | 238 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1533959 | 1.19 | | 95.3 | 3784 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 116129 | 0.0967 | Target=7.29 | | 13.6 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 15640 | | 7.43(3.64-10.93) | | 60.3 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.954 | 3.954 | 0.0 | 1.040 | 608 | 0.000472 | | | 1.1 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | RM |
| 549.00 > 80.00 | 4.104 | 4.081 | 0.023 | 1.079 | 485 | 0.000728 | Target=2.35 | | 0.5 | RM |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 823 | | 0.59(1.17-3.52) | | 1.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1504067 | 1.16 | | 92.6 | 5934 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 40363 | 0.0334 | Target=8.95 | | 9.8 | |
| 513.00 > 169.00 | 4.126 | 4.115 | 0.011 | 1.003 | 5699 | | 7.08(4.47-13.42) | | 20.8 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 293749 | 1.56 | | 130 | 233 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 178 | 0.000867 | | | 3.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1483670 | 1.18 | | 94.7 | 3033 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.002 | 1981 | 0.001757 | | | 4.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 172571 | 1.35 | | 108 | 1775 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 262 | 0.002416 | | | 3.3 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 207 | 0.000399 | Target=2.47 | | 0.7 | M |
| 599.00 > 99.00 | 4.359 | 4.346 | 0.013 | 1.146 | 119 | | 1.74(1.23-3.70) | | 1.2 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.369 | 0.013 | 1.255 | 1223227 | 1.21 | | 96.6 | 3560 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.370 | 4.369 | 0.002 | 0.997 | 1904 | 0.001825 | Target=9.24 | | 0.8 | M |
| 563.00 > 169.00 | 4.381 | 4.369 | 0.013 | 1.000 | 264 | | 7.21(4.62-13.86) | | 1.9 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.392 | 4.380 | 0.012 | 1.258 | 174260 | 1.45 | | 116 | 1038 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.214 | 4.380 | -0.166 | 0.960 | 152 | 0.001272 | | | 1.8 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.591 | 0.011 | 1.318 | 1243599 | 1.14 | | 91.3 | 1883 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.612 | 4.591 | 0.021 | 1.002 | 1164 | 0.001195 | Target=7.04 | | 0.3 | M |
| 613.00 > 169.00 | 4.557 | 4.591 | -0.035 | 0.990 | 115 | | 10.12(3.52-10.56) | | 1.5 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.966 | 0.020 | 1.428 | 947113 | 1.12 | | 89.6 | 3287 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.986 | 4.966 | 0.020 | 1.000 | 292 | 0.002442 | Target=1.01 | | 7.7 | RM |
| 713.00 > 219.00 | 4.986 | 4.966 | 0.020 | 1.000 | 172 | | 1.70(0.51-1.52) | | 5.1 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.270 | 0.023 | 1.516 | 822502 | 1.11 | | 88.4 | 3614 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.000 | 7382 | -0.005635 | Target=4.57 | | 2.8 | |
| 813.00 > 169.00 | 5.293 | 5.270 | 0.023 | 1.000 | 1767 | | 4.18(2.29-6.86) | | 60.0 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.546 | 5.527 | 0.019 | 1.048 | 228 | 0.000411 | Target=4.27 | | 0.1 | M |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.048 | 79 | | 2.89(2.14-6.41) | | 3.1 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d

Injection Date: 10-Nov-2021 05:42:16 Instrument ID: LC812

Lims ID: 460-246277-C-8-A Lab Sample ID: 200-246277-8

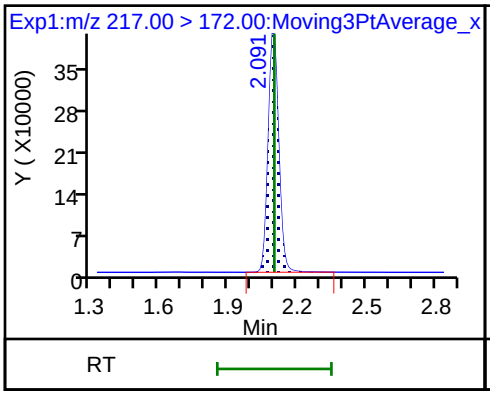
Client ID: MW-24S-20211027

Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 12

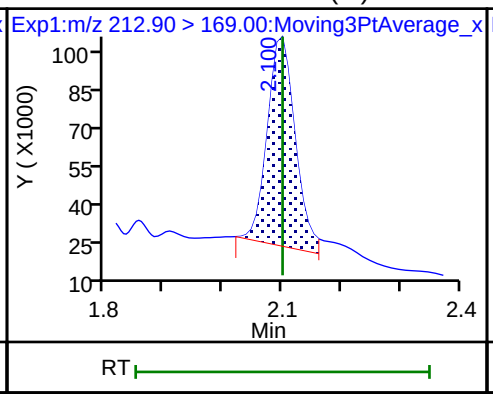
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

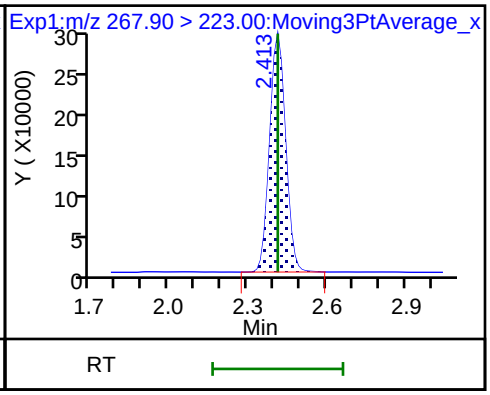
D 1 13C4 PFBA



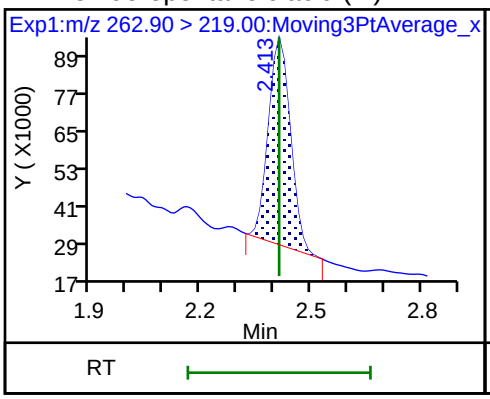

2 Perfluorobutanoic acid (M)



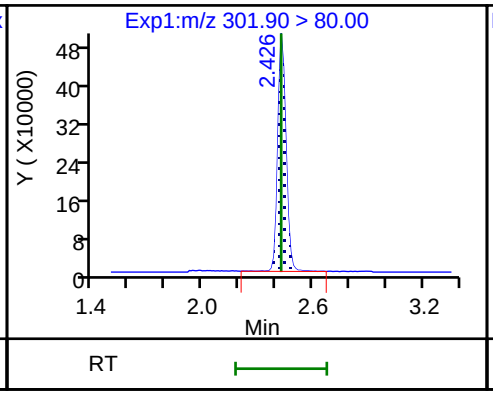

D 3 13C5 PFPeA



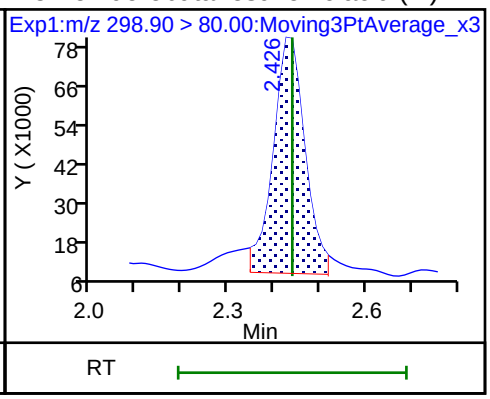

4 Perfluoropentanoic acid (M)



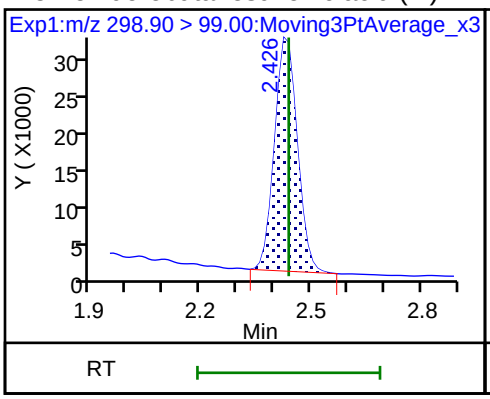

D 47 13C3 PFBS



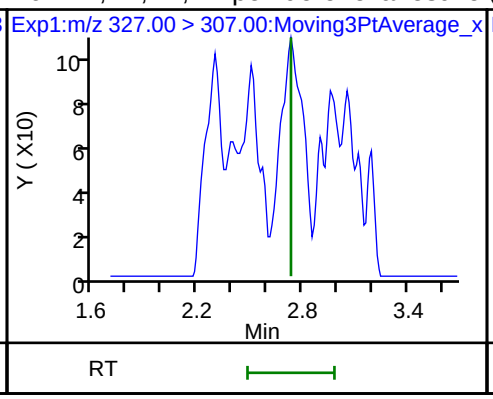

5 Perfluorobutanesulfonic acid (M)



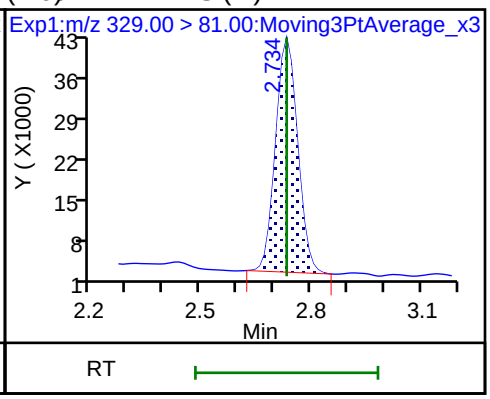

5 Perfluorobutanesulfonic acid (M)



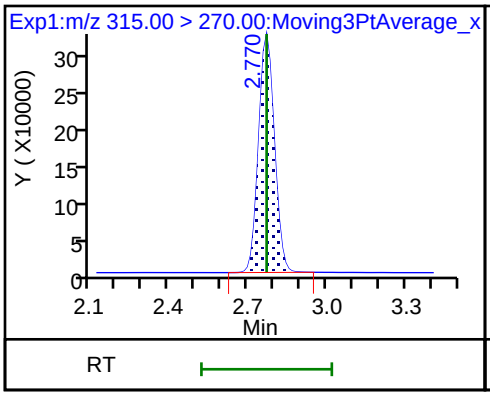

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



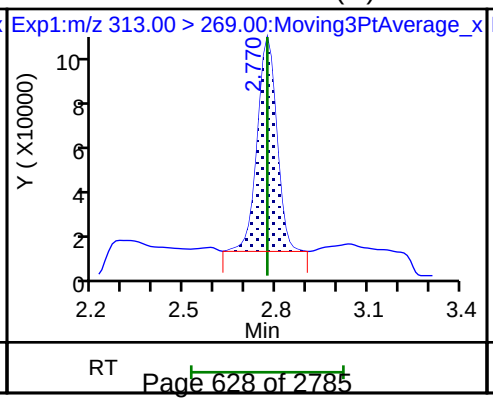

D 60 M2-4:2 FTS (M)



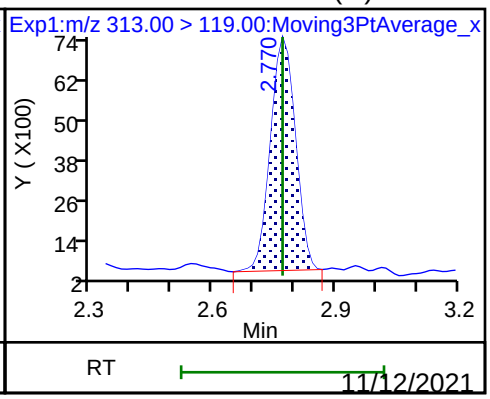

D 7 13C2 PFHxA



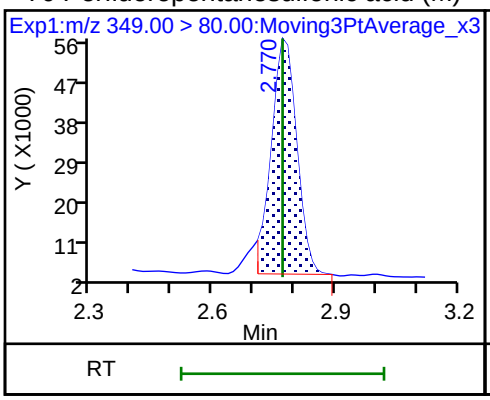

6 Perfluorohexanoic acid (M)



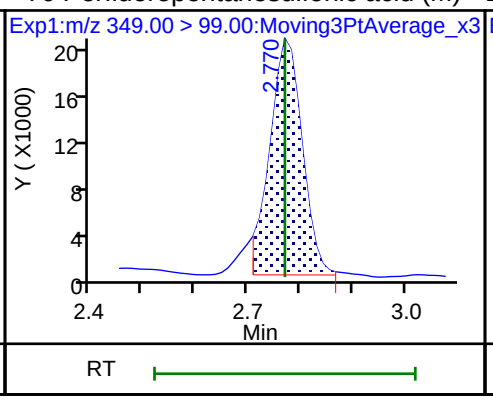

6 Perfluorohexanoic acid (M)



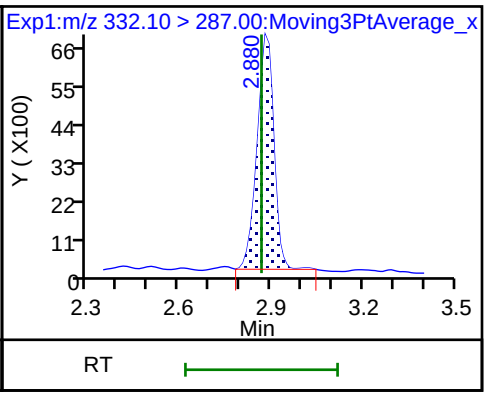
70 Perfluoropentanesulfonic acid (M)



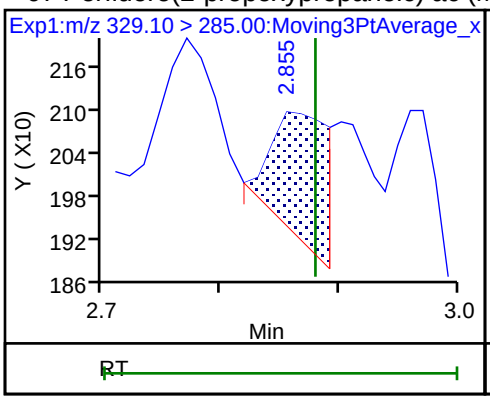

70 Perfluoropentanesulfonic acid (M)



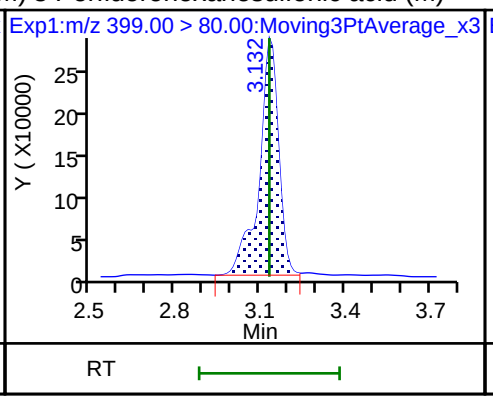

D 64 13C3 HFPO-DA



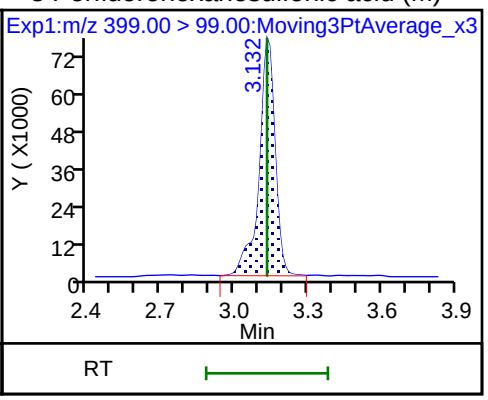

67 Perfluoro(2-propoxypropanoic) ac (M)



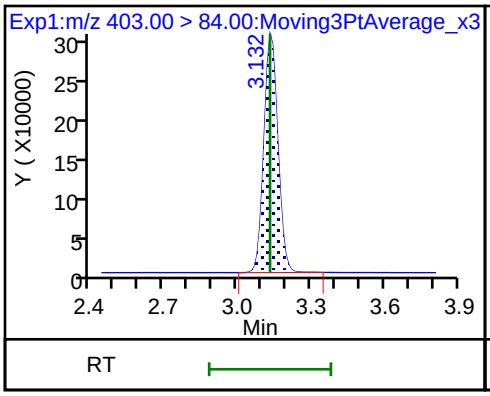

8 Perfluorohexanesulfonic acid (M)



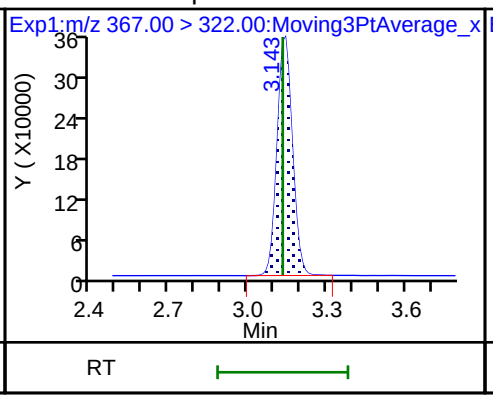

8 Perfluorohexanesulfonic acid (M)



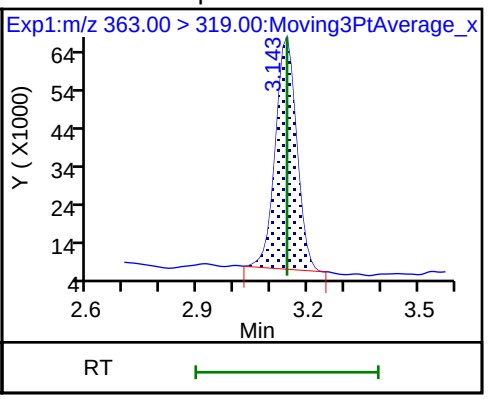

D 11 18O2 PFHxS



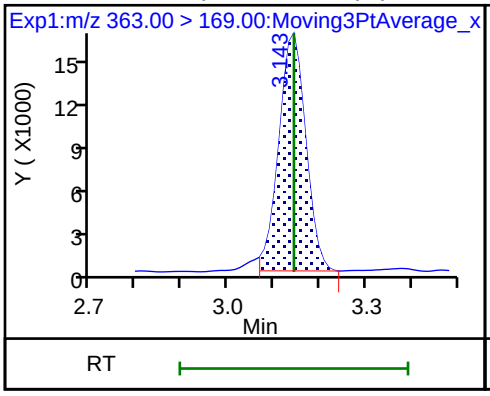

D 9 13C4 PFHpA



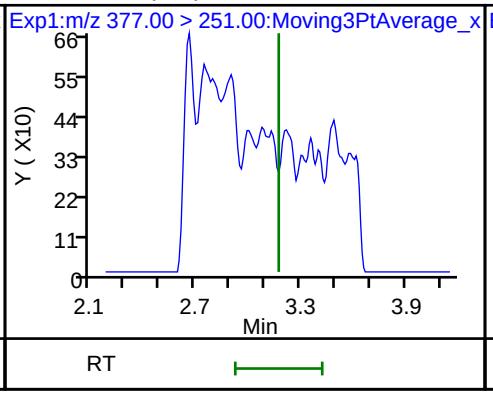

10 Perfluoroheptanoic acid



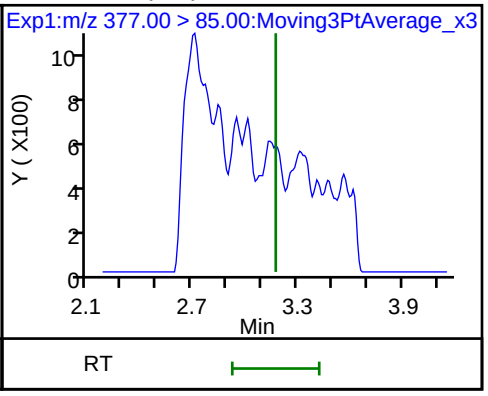

10 Perfluoroheptanoic acid (M)



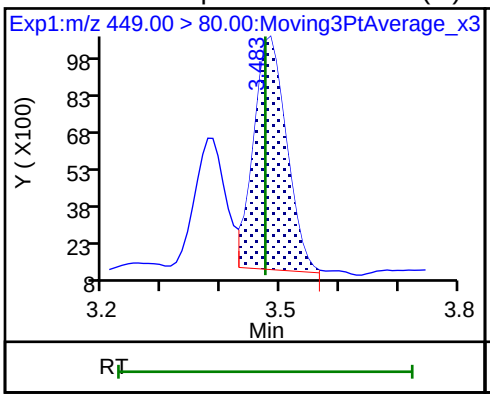

77 DONA (ND)



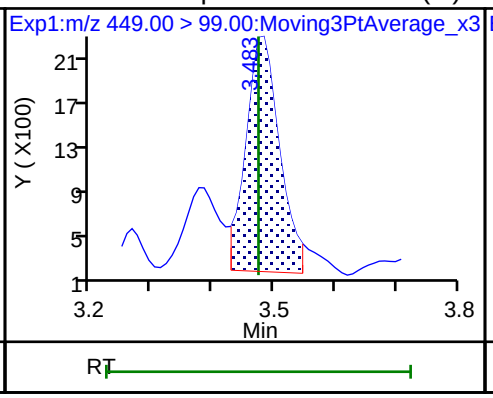

77 DONA (ND)



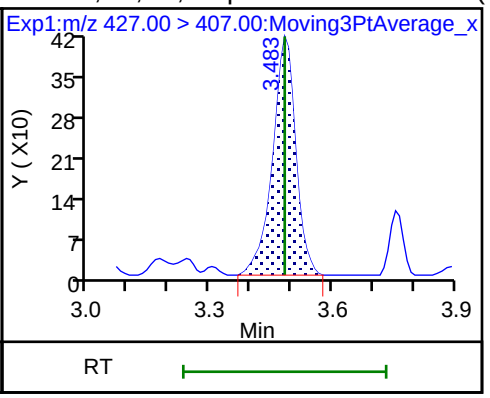
16 Perfluoroheptanesulfonic acid (M)



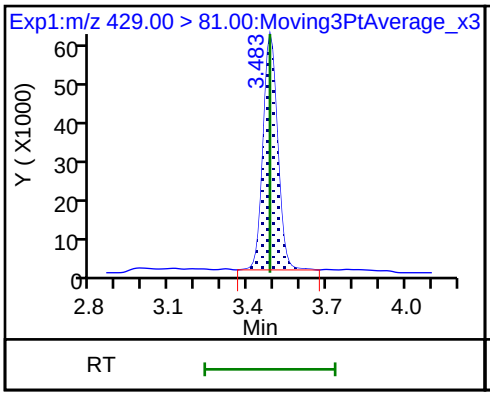

16 Perfluoroheptanesulfonic acid (M)



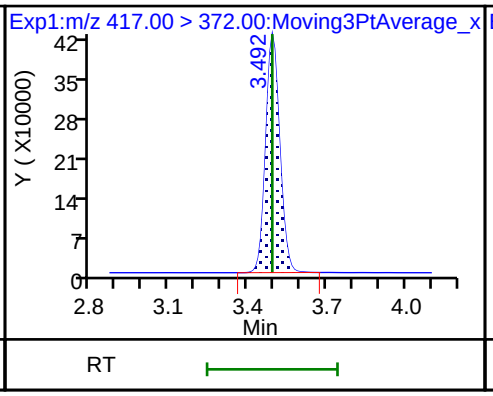

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



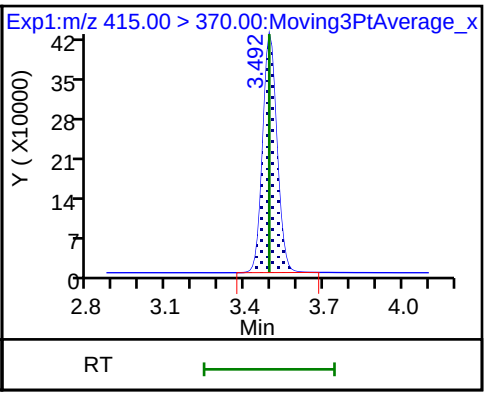

D 12 M2-6:2 FTS



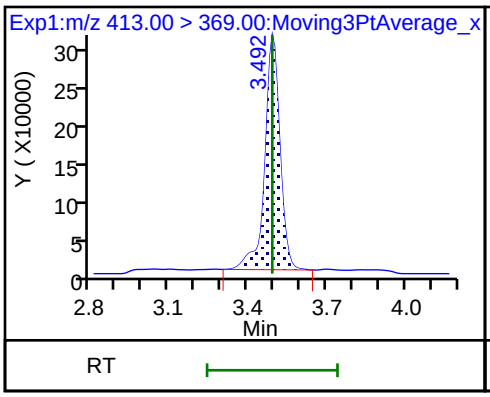

D 14 13C4 PFOA



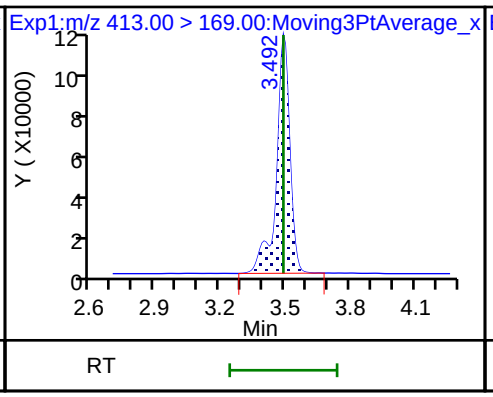

* 62 13C2 PFOA



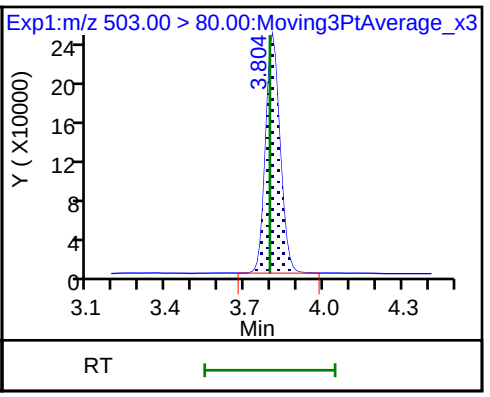

15 Perfluorooctanoic acid



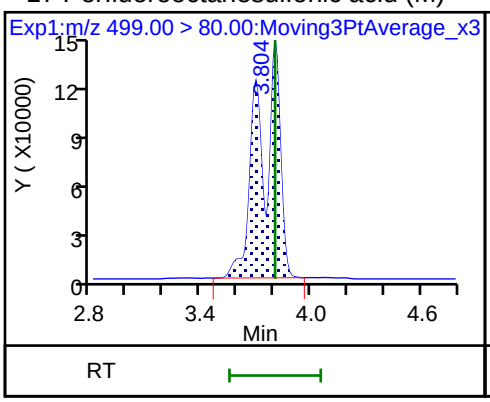

15 Perfluorooctanoic acid



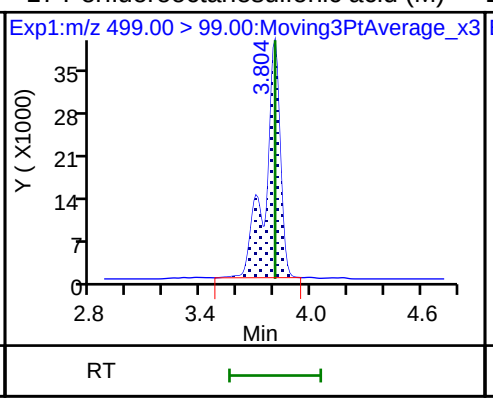

D 18 13C4 PFOS



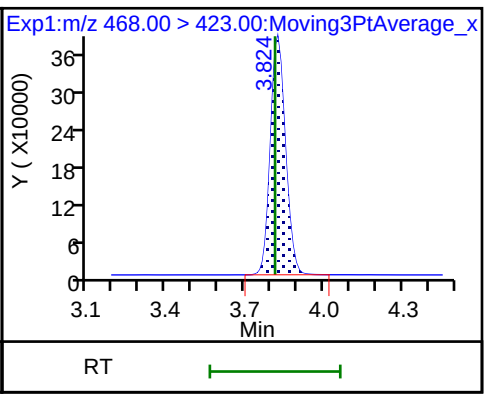

17 Perfluorooctanesulfonic acid (M)



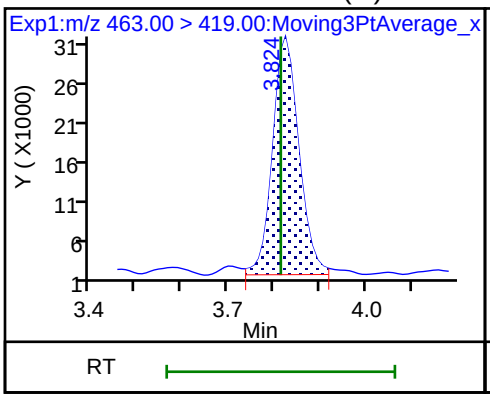

17 Perfluorooctanesulfonic acid (M)



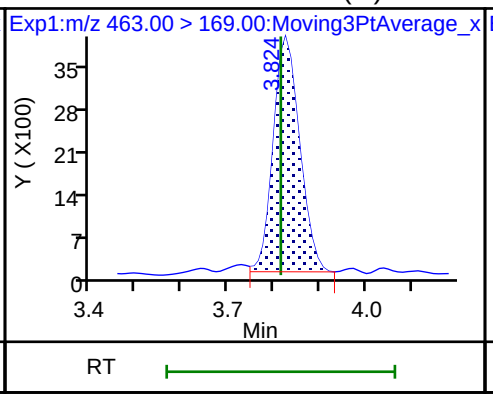

D 19 13C5 PFNA



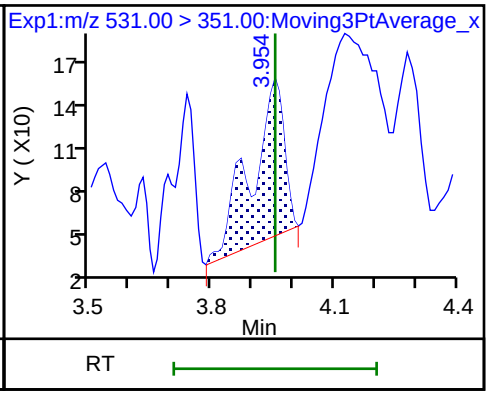
20 Perfluorononanoic acid (M)



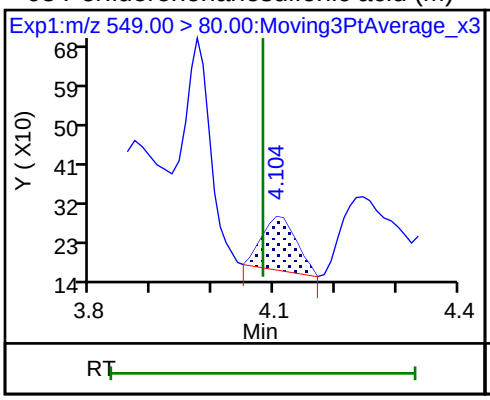

20 Perfluorononanoic acid (M)



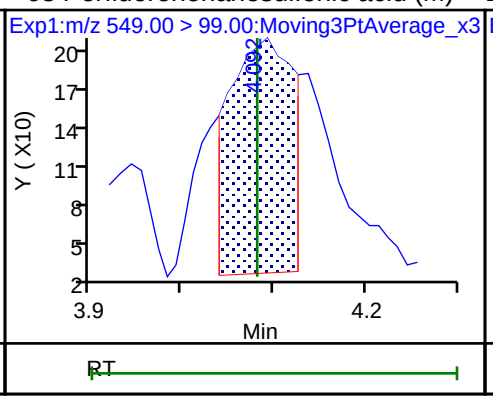

69 9-Chlorohexadecafluoro-3-oxanona (M)



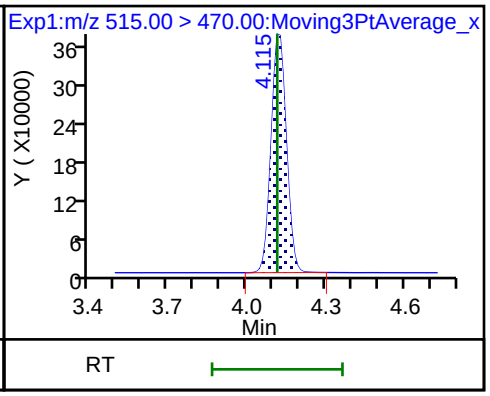

68 Perfluorononanesulfonic acid (M)



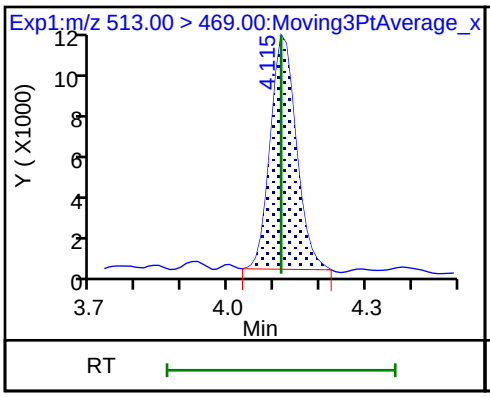

68 Perfluorononanesulfonic acid (M)



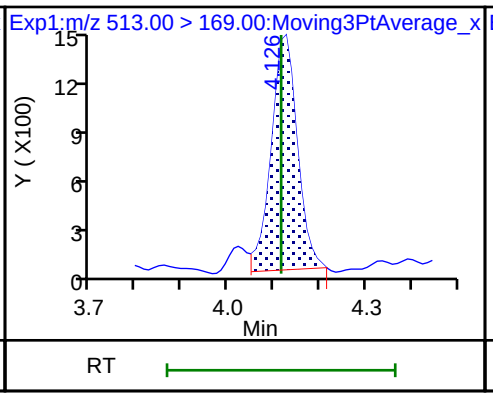

D 23 13C2 PFDA



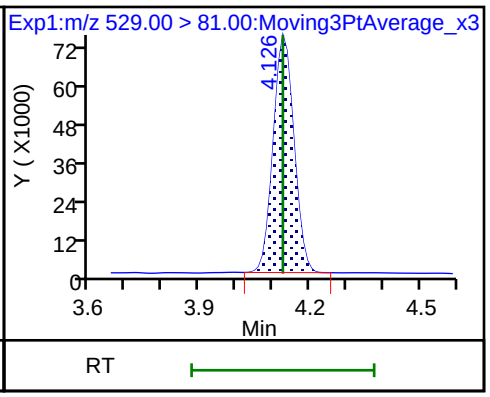

24 Perfluorodecanoic acid



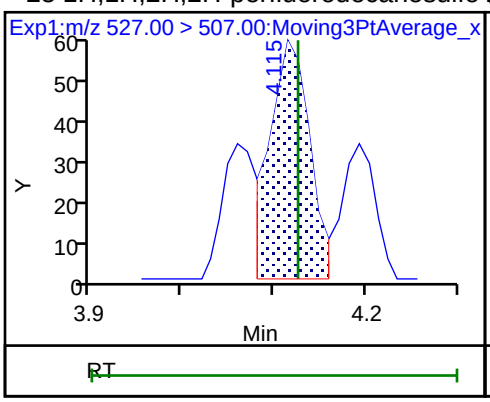

24 Perfluorodecanoic acid



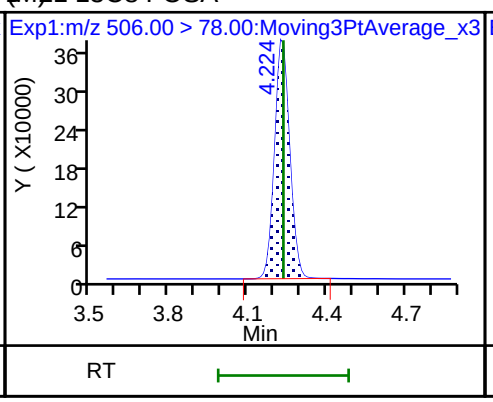

D 26 M2-8:2 FTS



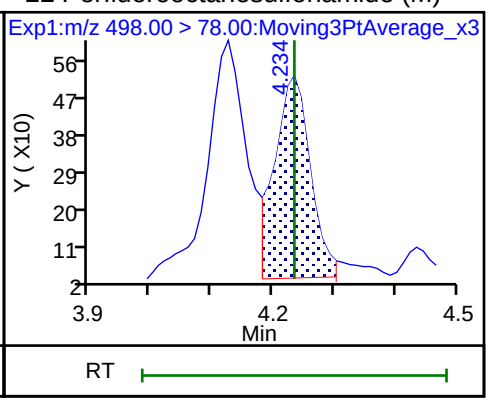

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



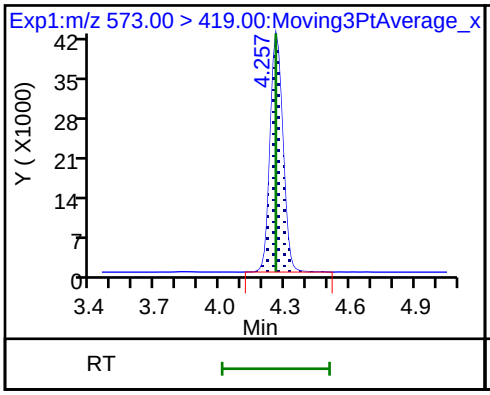

D 21 13C8 FOSA



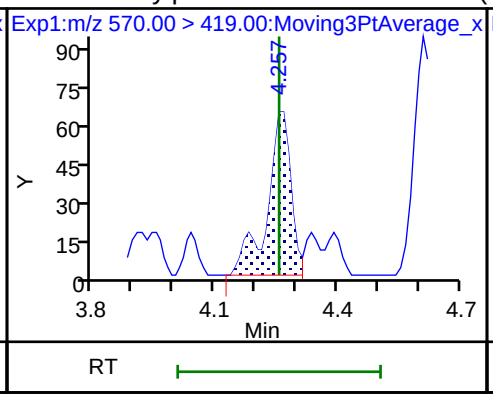

22 Perfluorooctanesulfonamide (M)



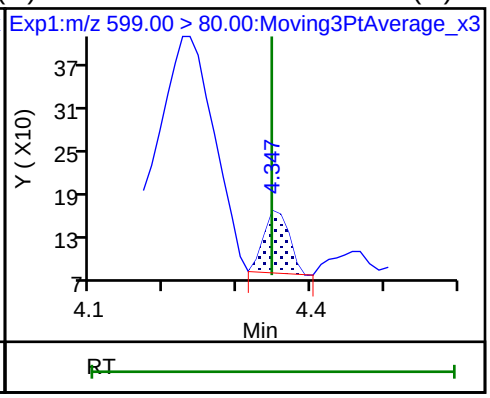
D 27 d3-NMeFOSAA



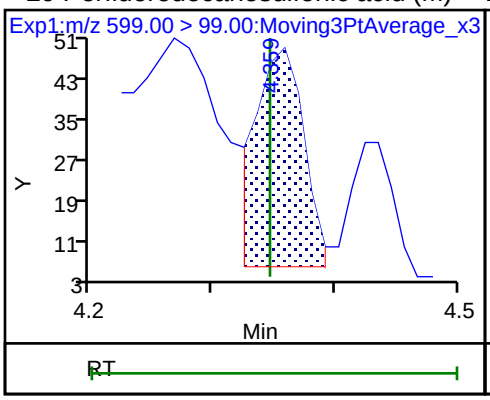

28 N-methylperfluorooctanesulfonami (M)



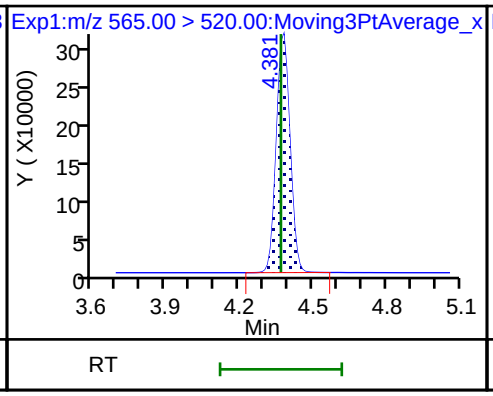

29 Perfluorodecanesulfonic acid (M)



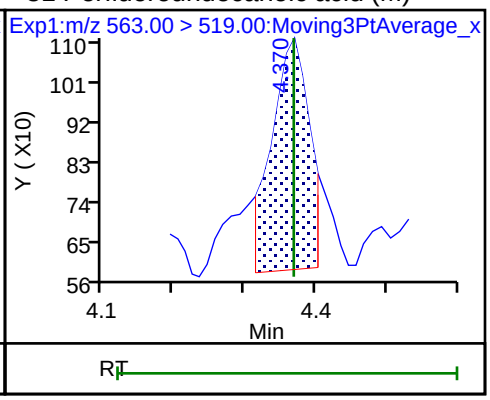

29 Perfluorodecanesulfonic acid (M)



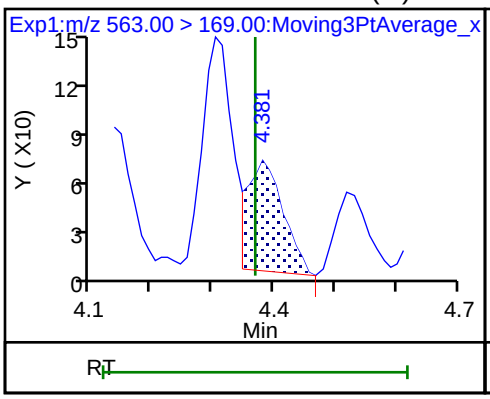

D 30 13C2 PFUnA



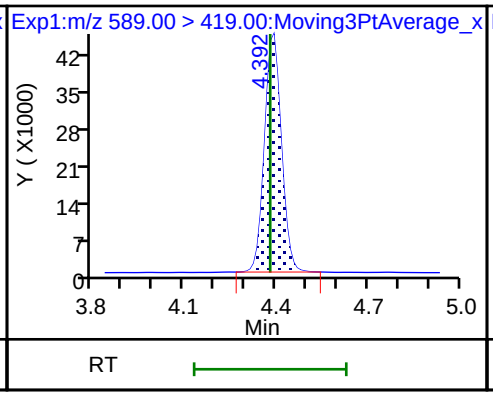

31 Perfluoroundecanoic acid (M)



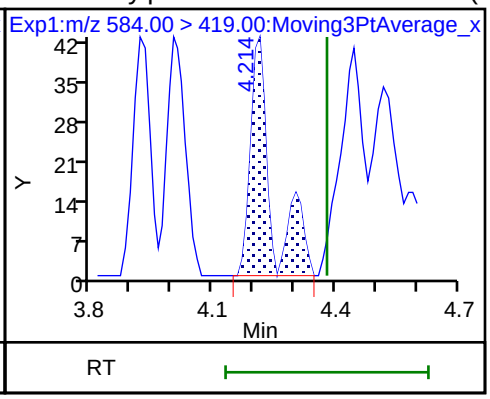

31 Perfluoroundecanoic acid (M)



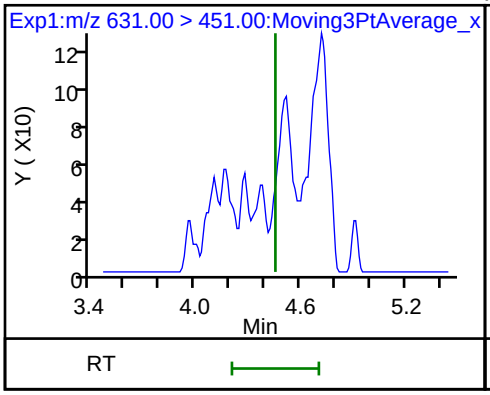

D 32 d5-NEtFOSAA



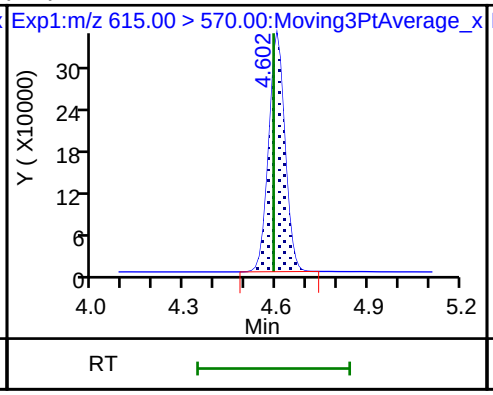

33 N-ethylperfluorooctanesulfonamid (M)



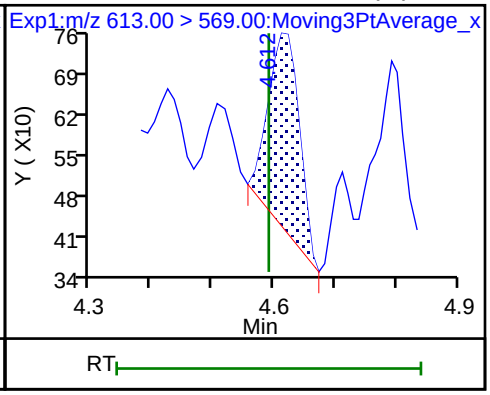

66 11-Chloroeicosafluoro-3-oxaundec (ND)



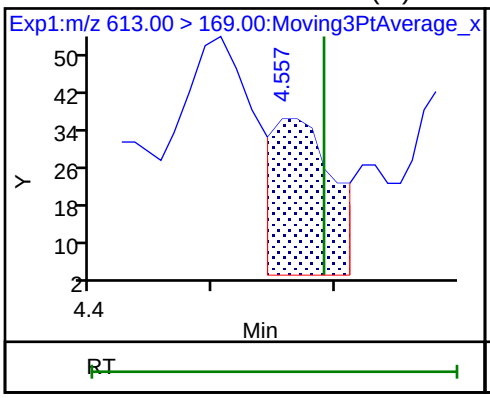

D 36 13C2 PFDoA



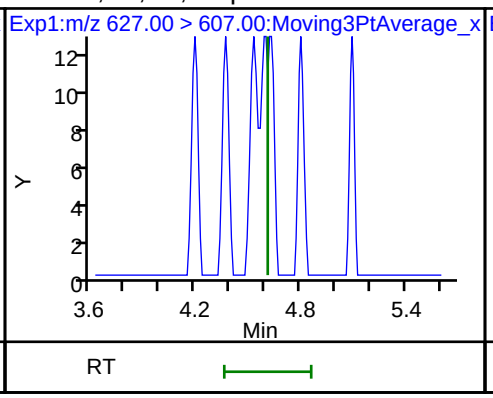

37 Perfluorododecanoic acid (M)



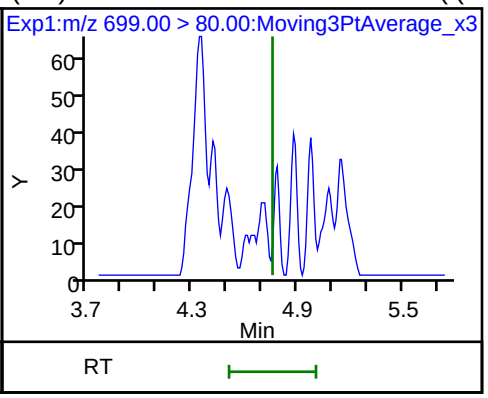
37 Perfluorododecanoic acid (M)



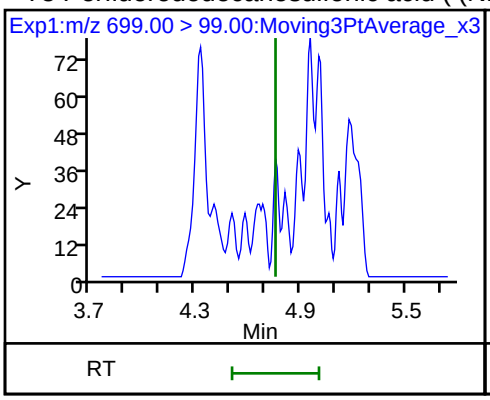

74 1H,1H,2H,2H-perfluorododecanesul (ND)



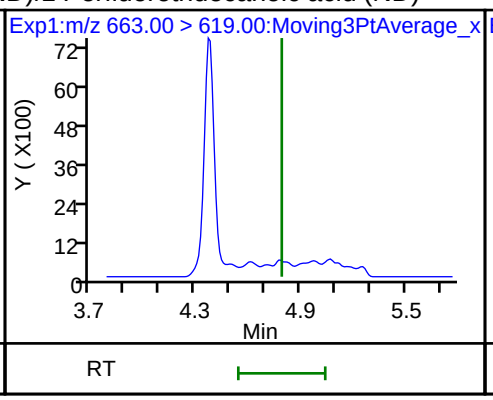

75 Perfluorododecanesulfonic acid ( (ND)



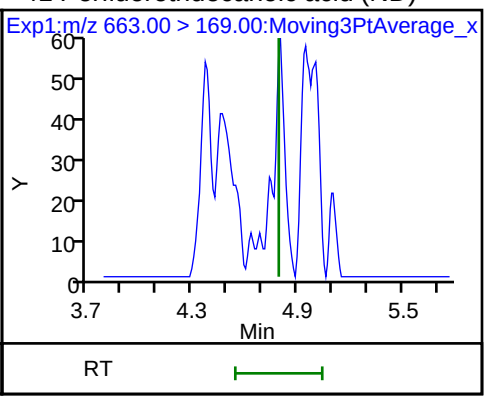

75 Perfluorododecanesulfonic acid ( (ND)



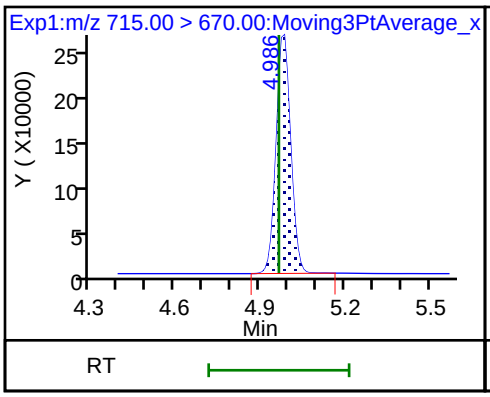

41 Perfluorotridecanoic acid (ND)



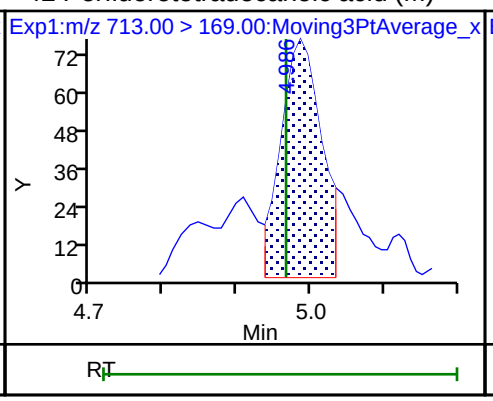

41 Perfluorotridecanoic acid (ND)



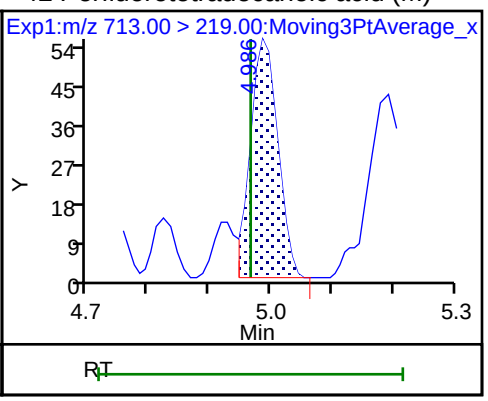

D 43 13C2 PFTeDA



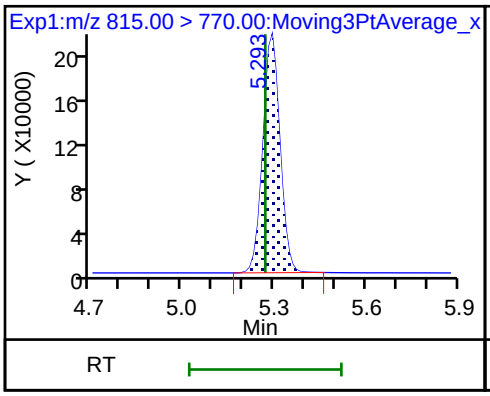

42 Perfluorotetradecanoic acid (M)



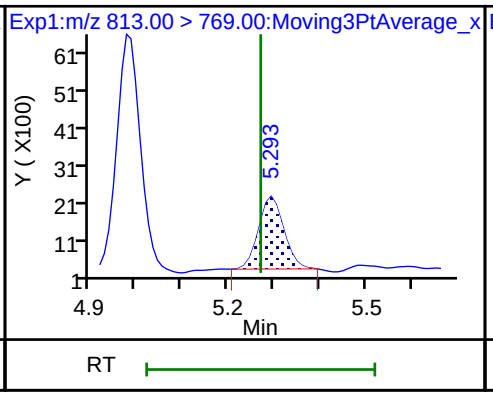

42 Perfluorotetradecanoic acid (M)



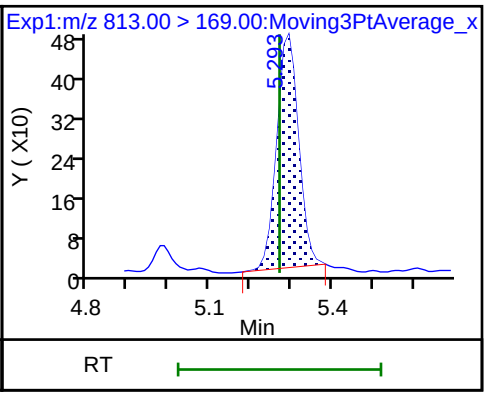

D 44 13C2 PFHxDA



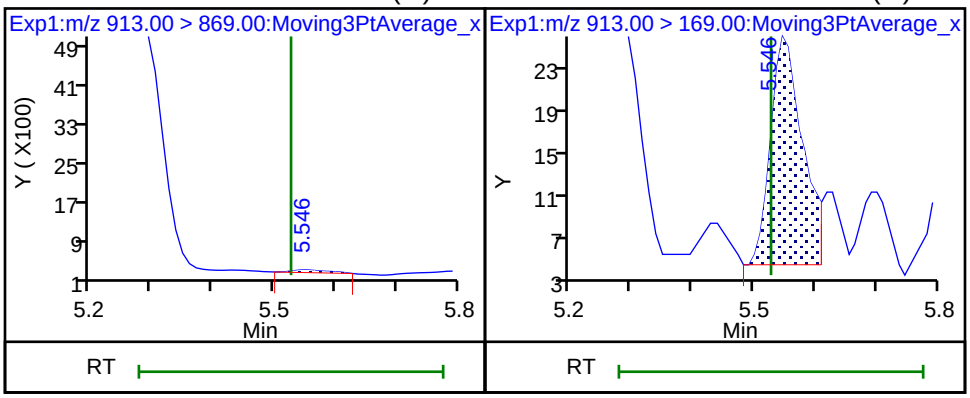

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

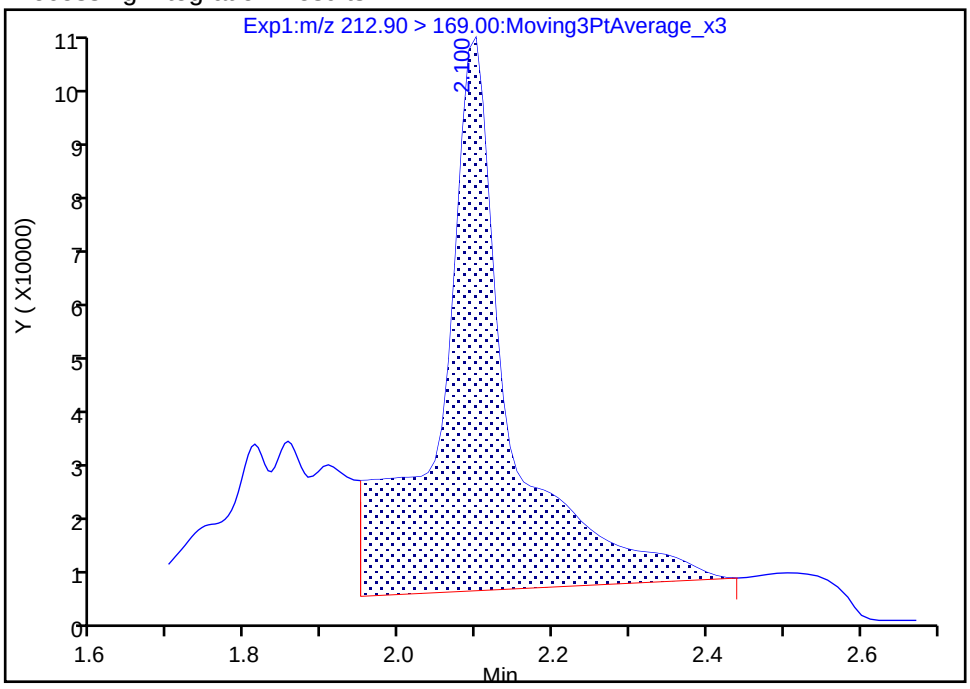
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

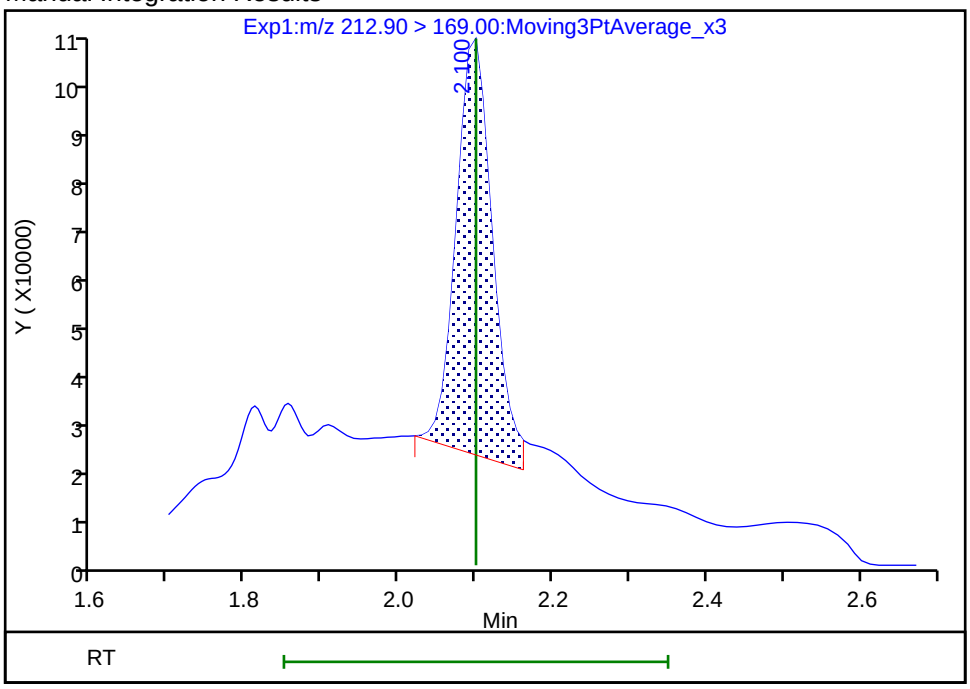
Processing Integration Results

RT: 2.10
Area: 637646
Amount: 0.649580
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 271598
Amount: 0.276681
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

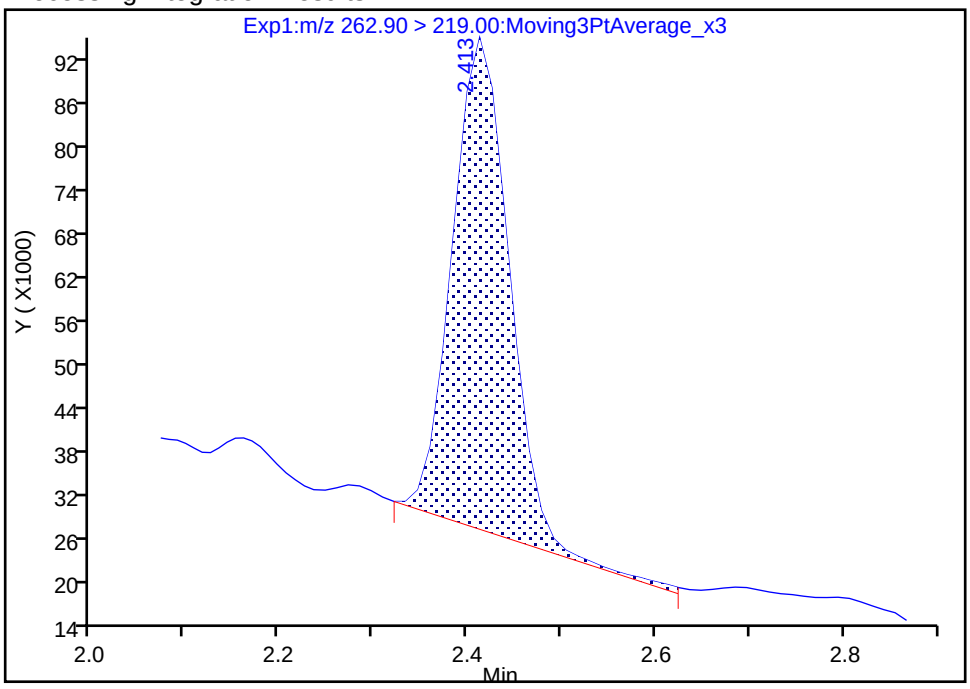
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

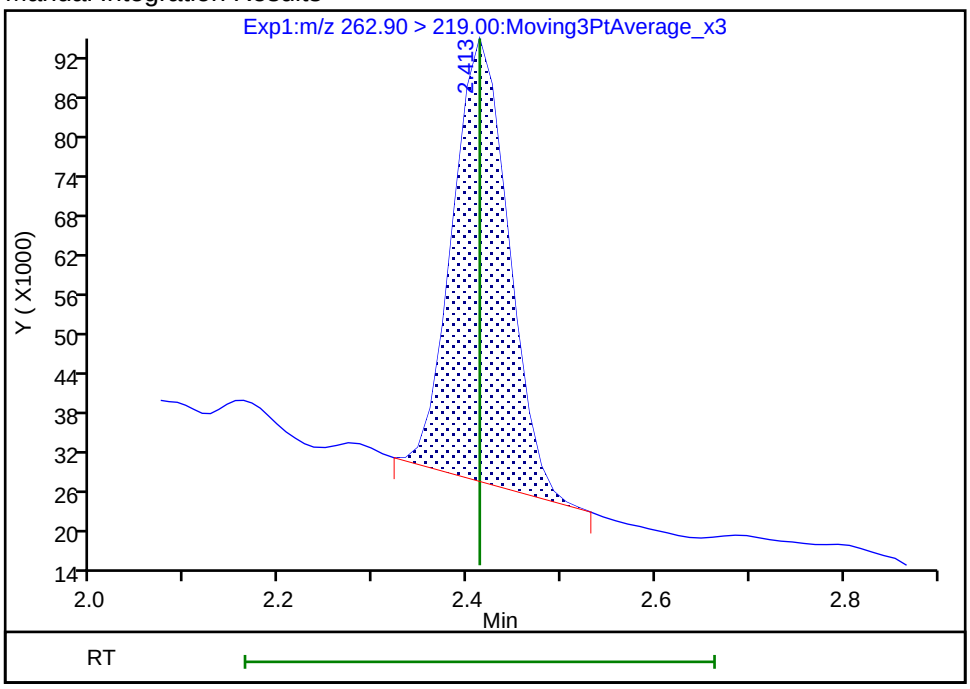
Processing Integration Results

RT: 2.41
Area: 283672
Amount: 0.286703
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 277598
Amount: 0.280565
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:44:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

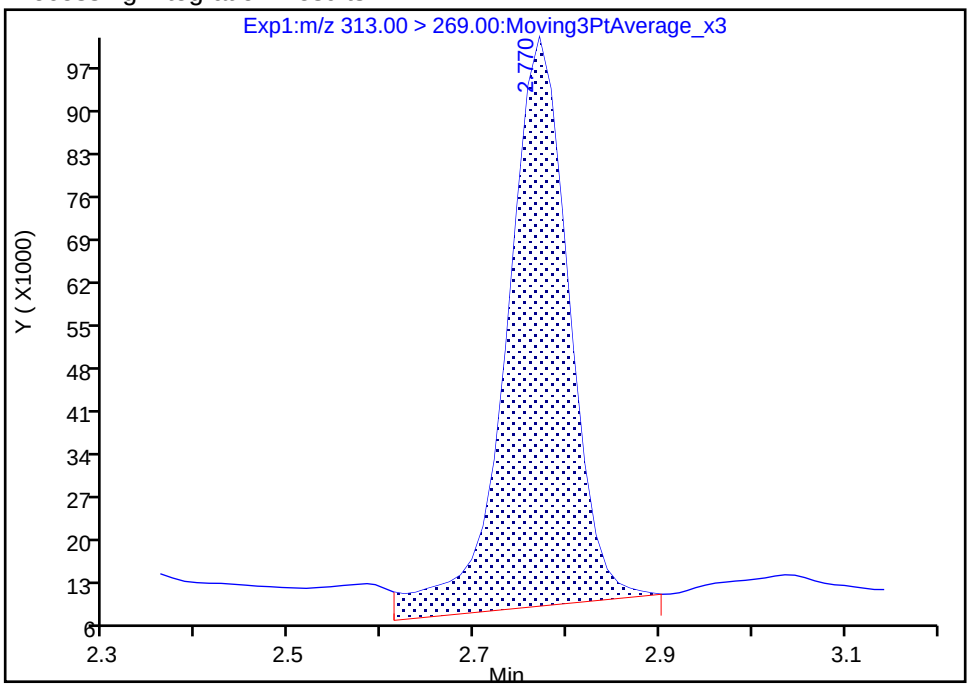
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

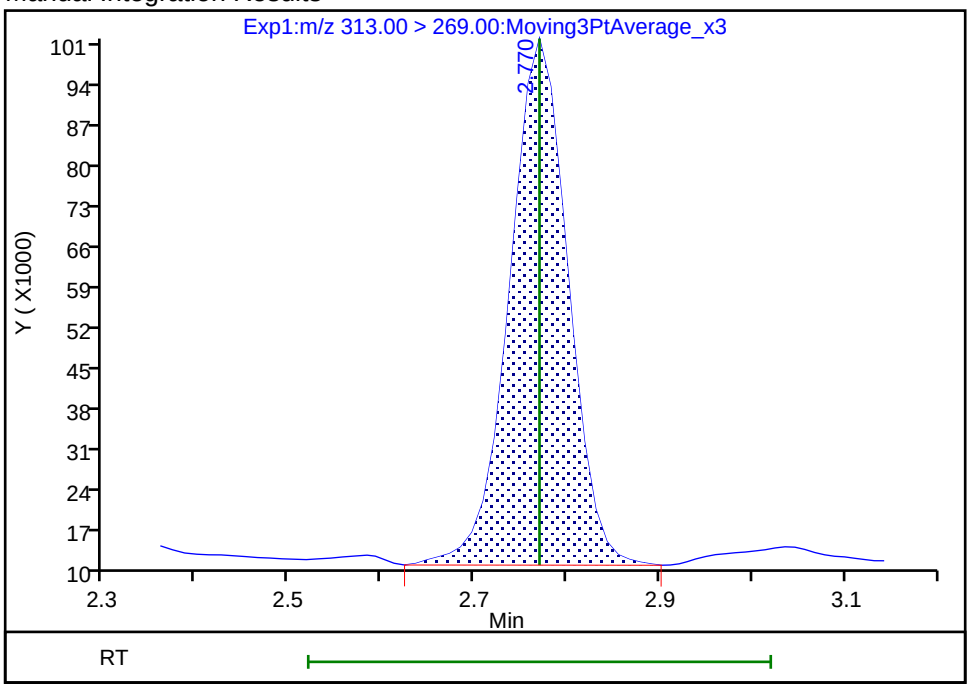
Processing Integration Results

RT: 2.77
Area: 440037
Amount: 0.402209
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 402386
Amount: 0.367794
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:45:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

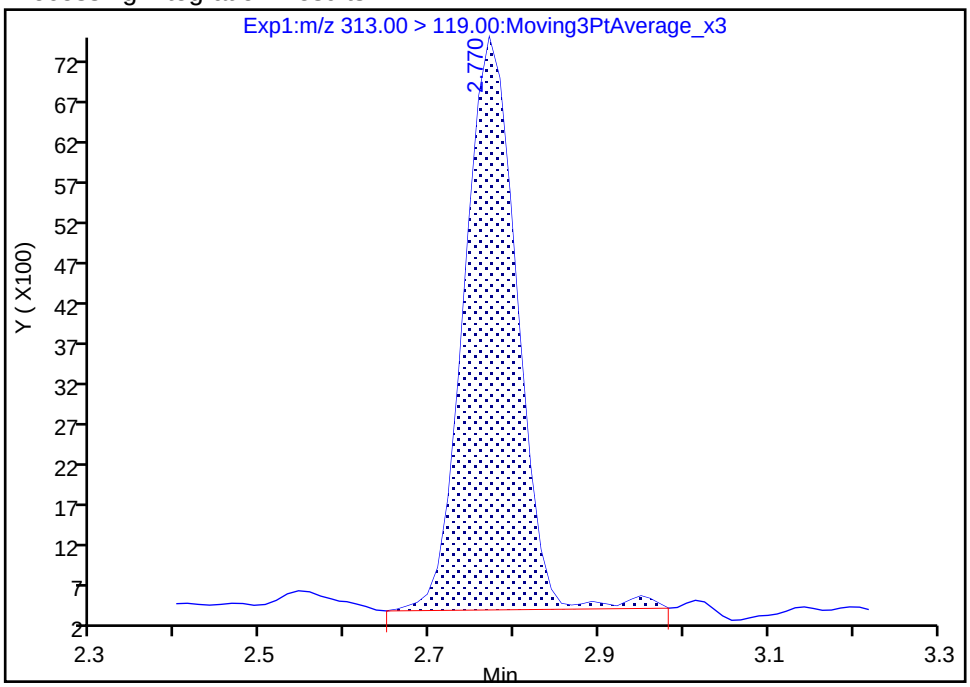
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

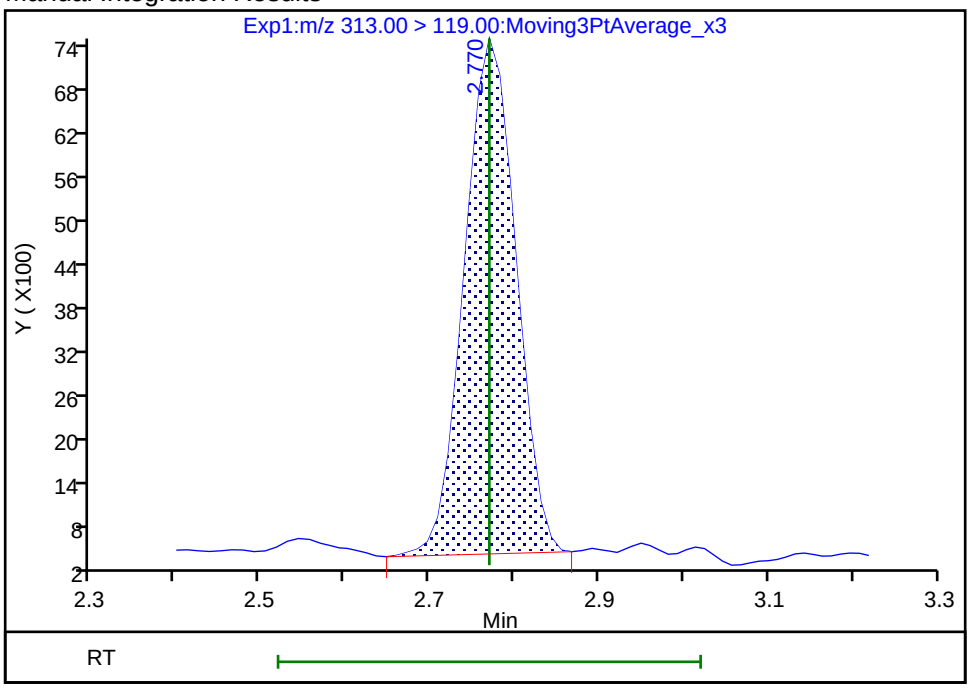
Processing Integration Results

RT: 2.77
Area: 30750
Amount: 0.402209
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 29911
Amount: 0.367794
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:45:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

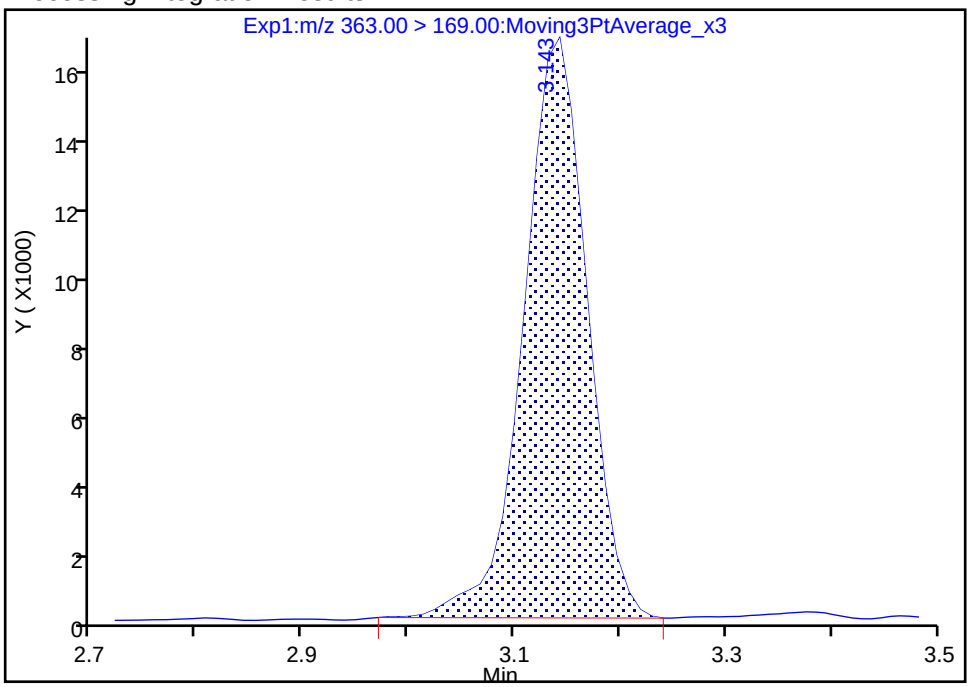
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

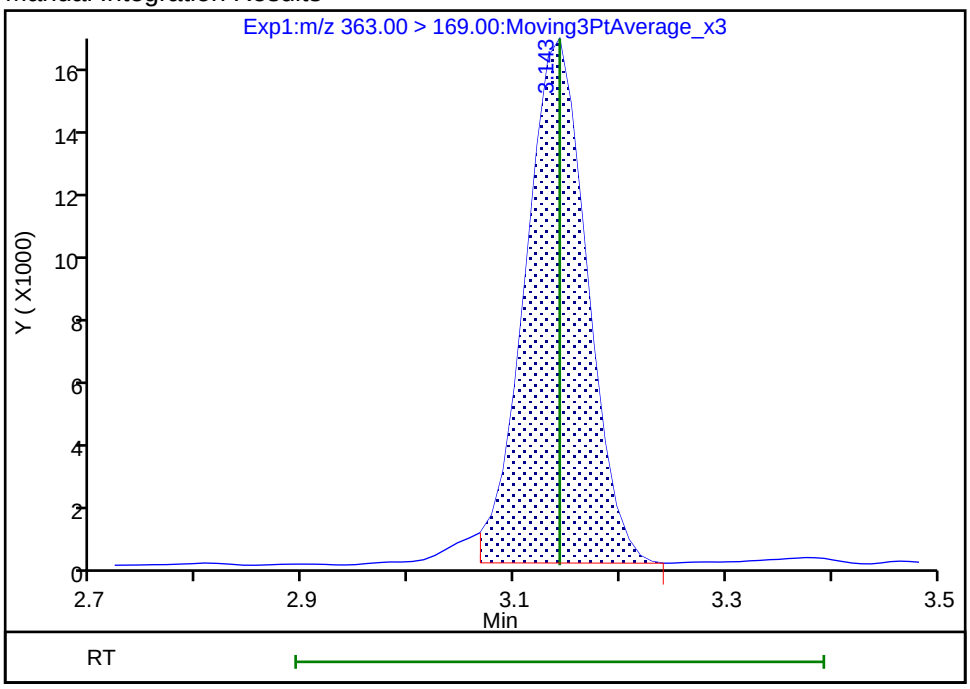
Processing Integration Results

RT: 3.14
Area: 66586
Amount: 0.206069
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 64882
Amount: 0.206069
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:46:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

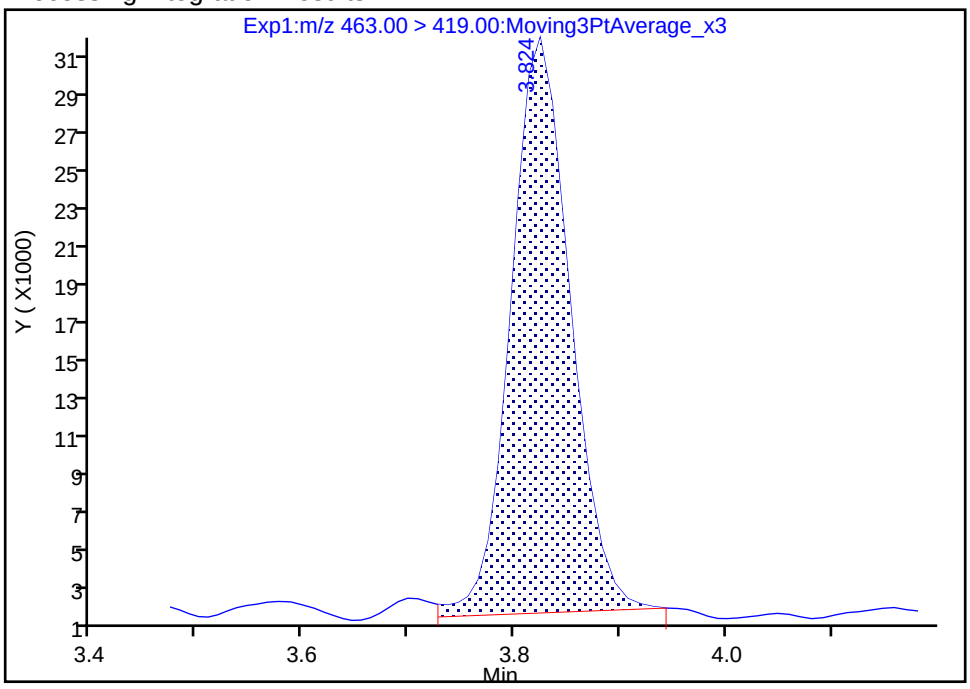
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

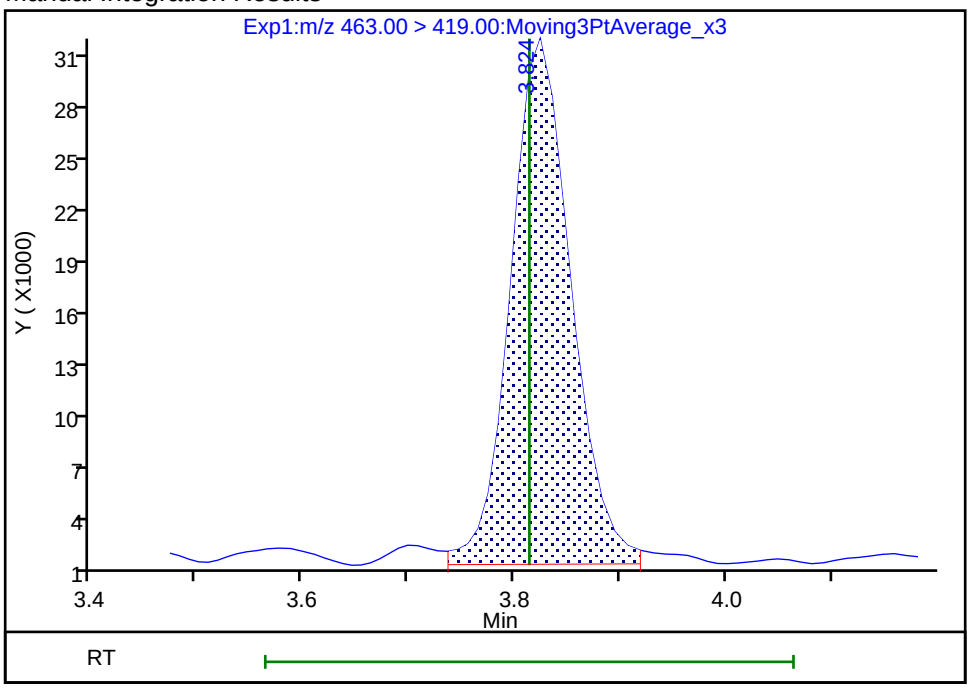
Processing Integration Results

RT: 3.82
Area: 113104
Amount: 0.094208
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 116129
Amount: 0.096728
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:48:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

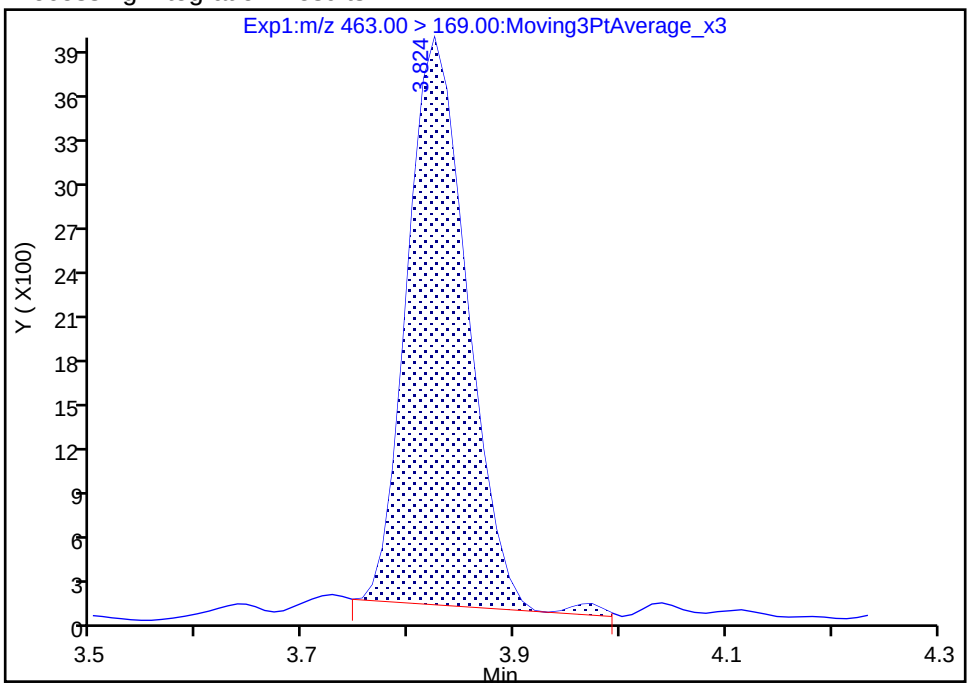
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

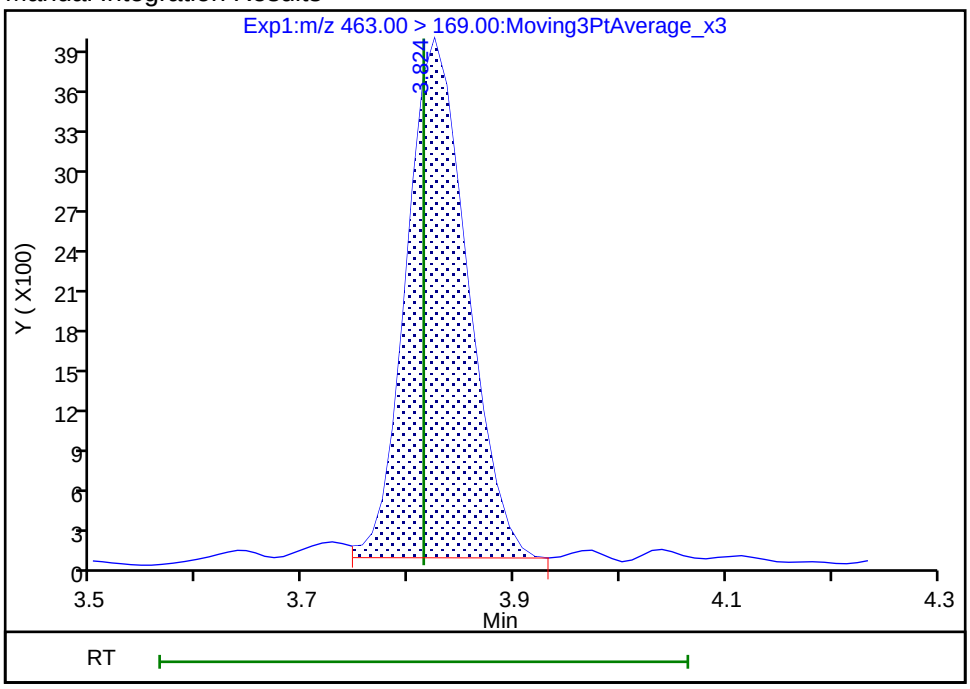
Processing Integration Results

RT: 3.82
Area: 15315
Amount: 0.094208
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 15640
Amount: 0.096728
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:48:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

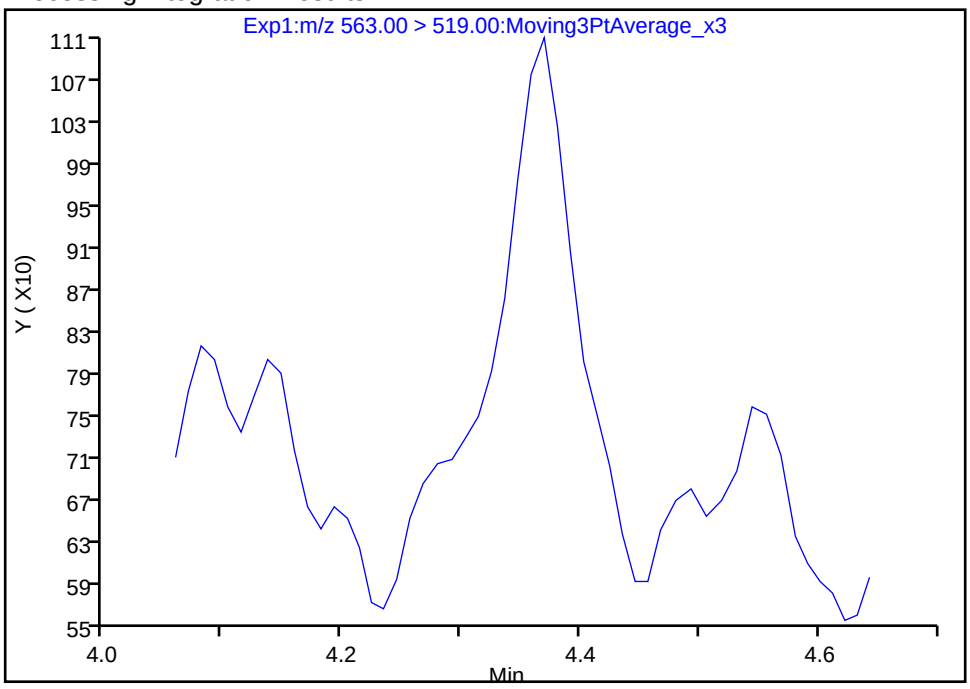
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

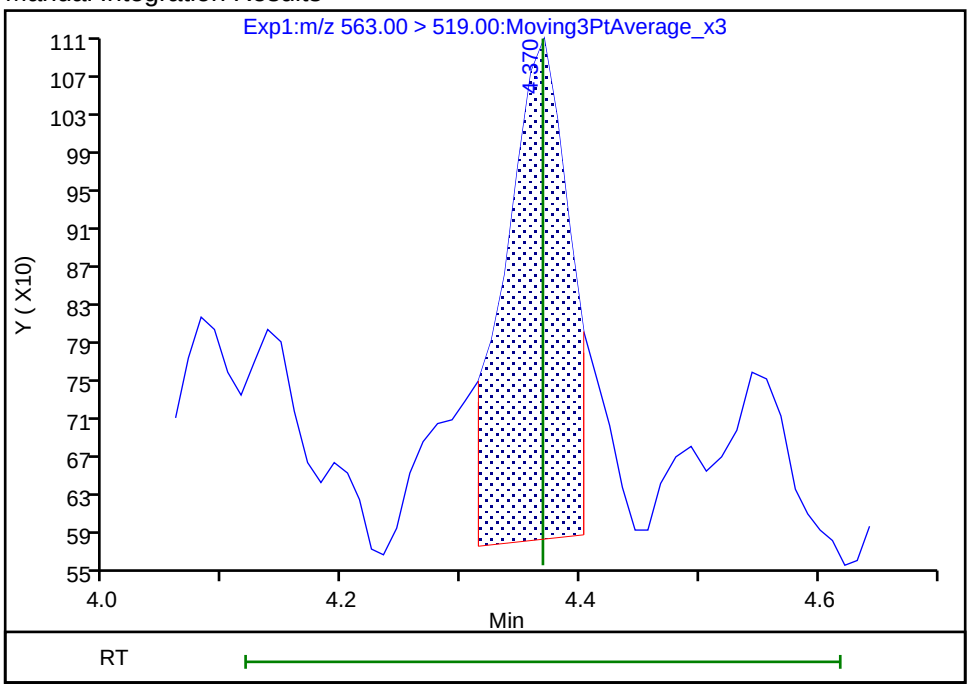
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1904
Amount: 0.001825
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:52:43
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

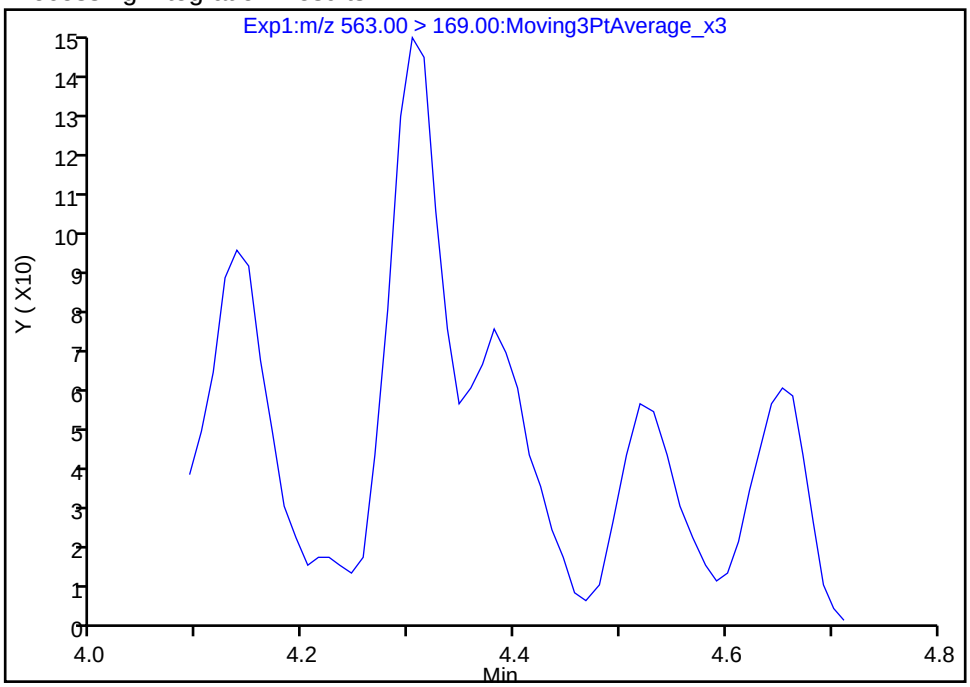
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

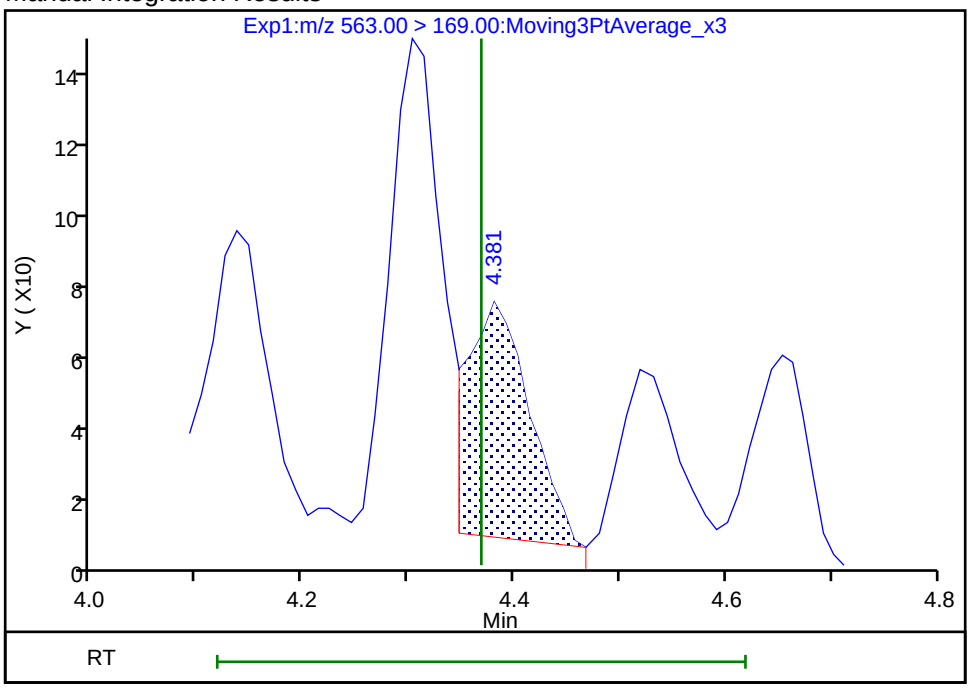
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 264
Amount: 0.001825
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:52:45
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

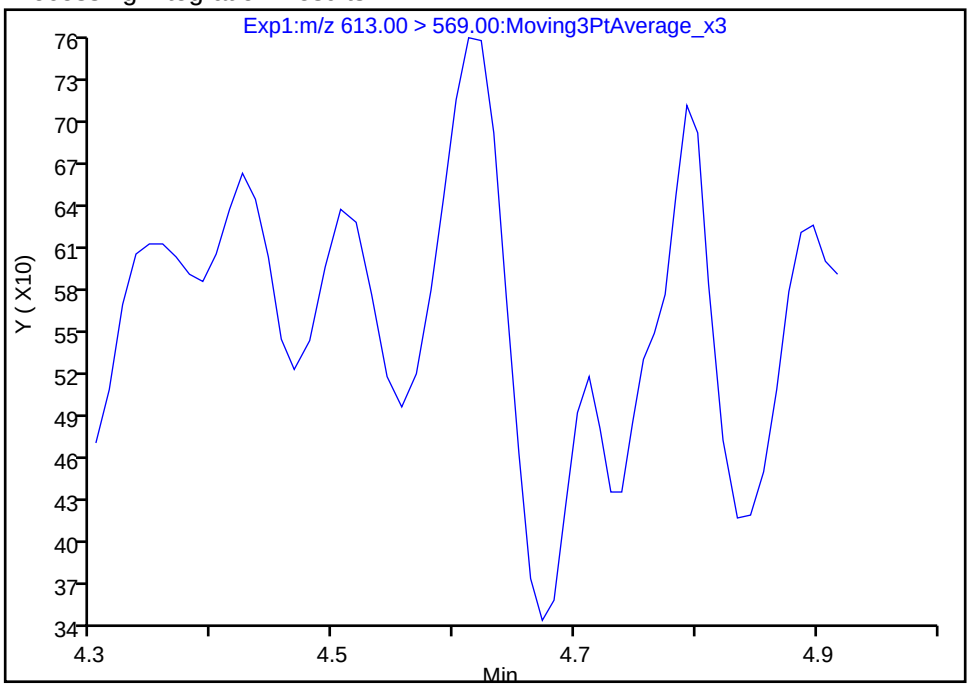
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

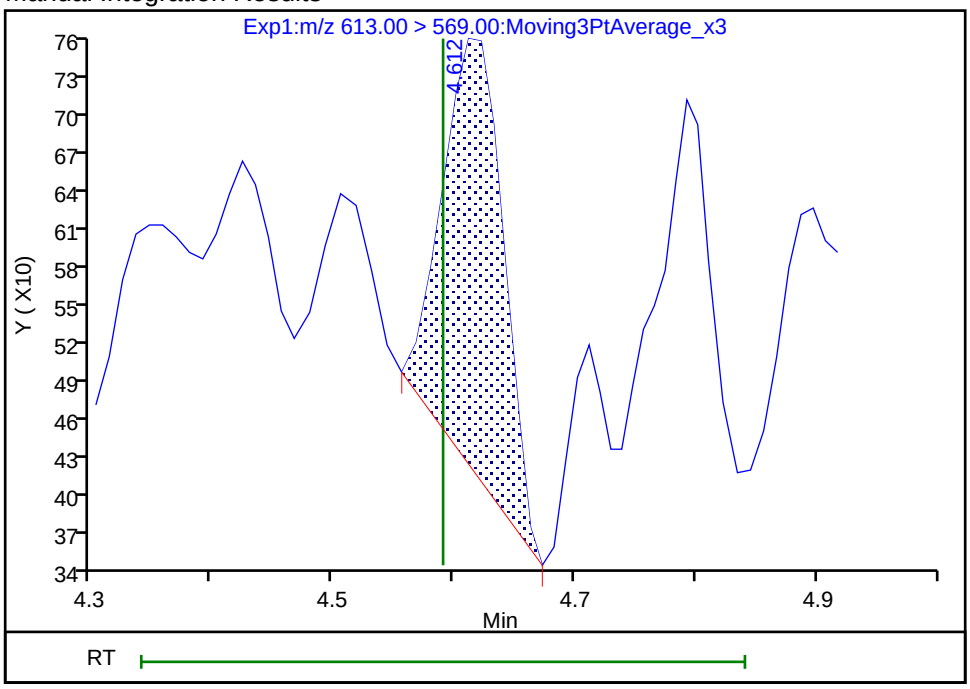
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 1164
Amount: 0.001195
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:53:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

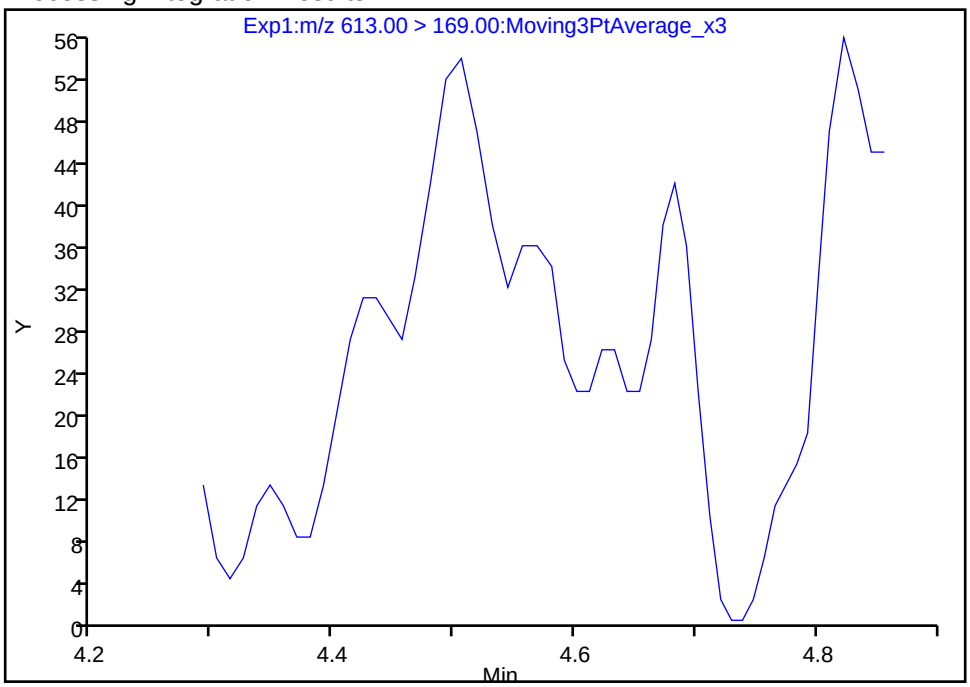
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

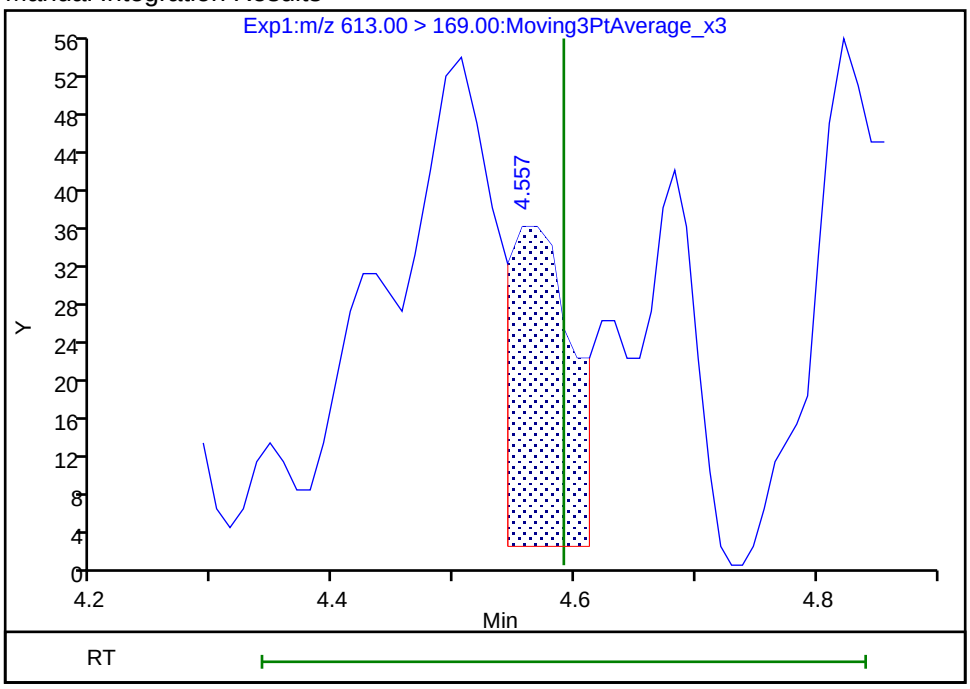
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.56
Area: 115
Amount: 0.001195
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:53:35
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

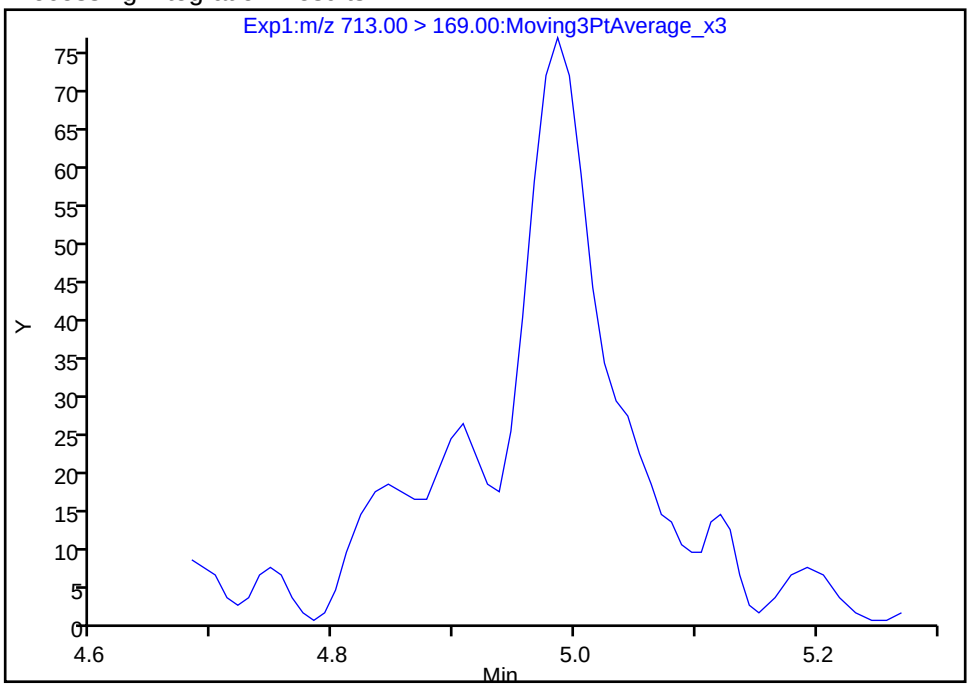
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

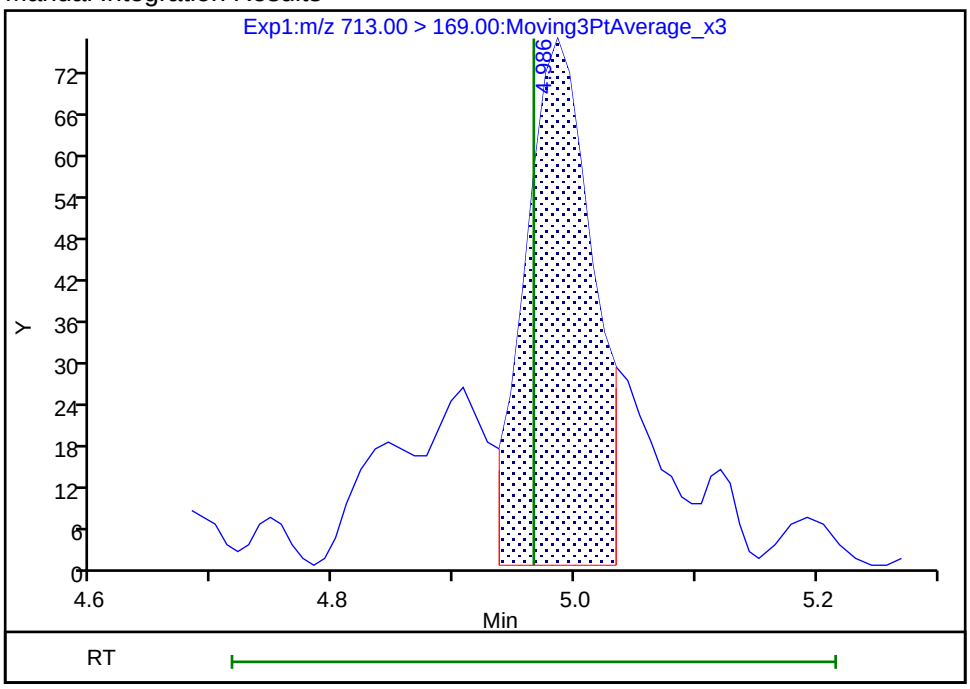
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 292
Amount: 0.002442
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:53:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

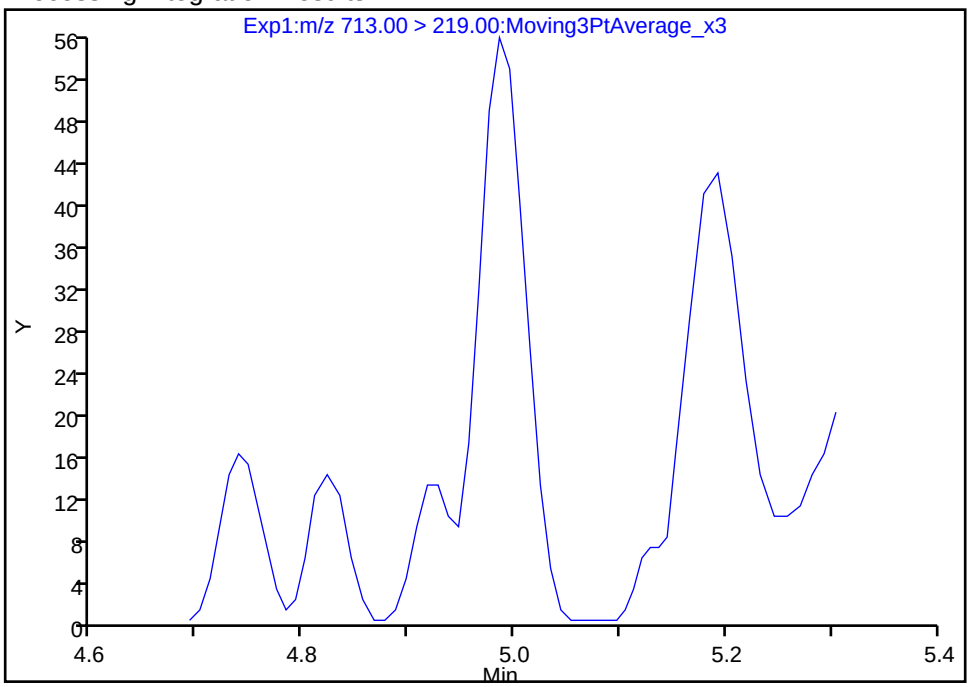
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

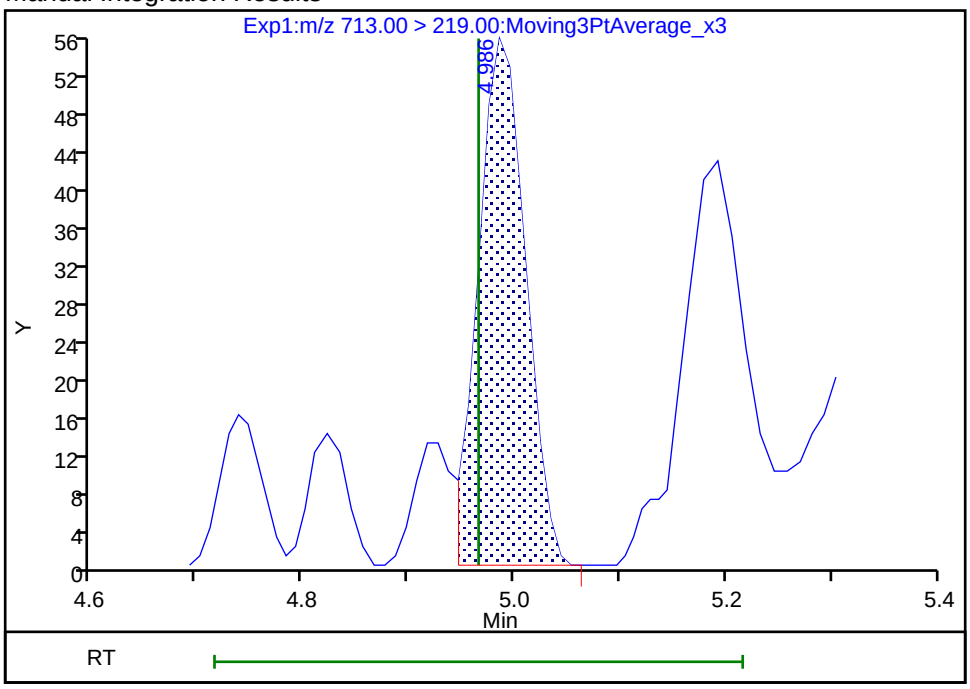
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 172
Amount: 0.002442
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:54:01
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

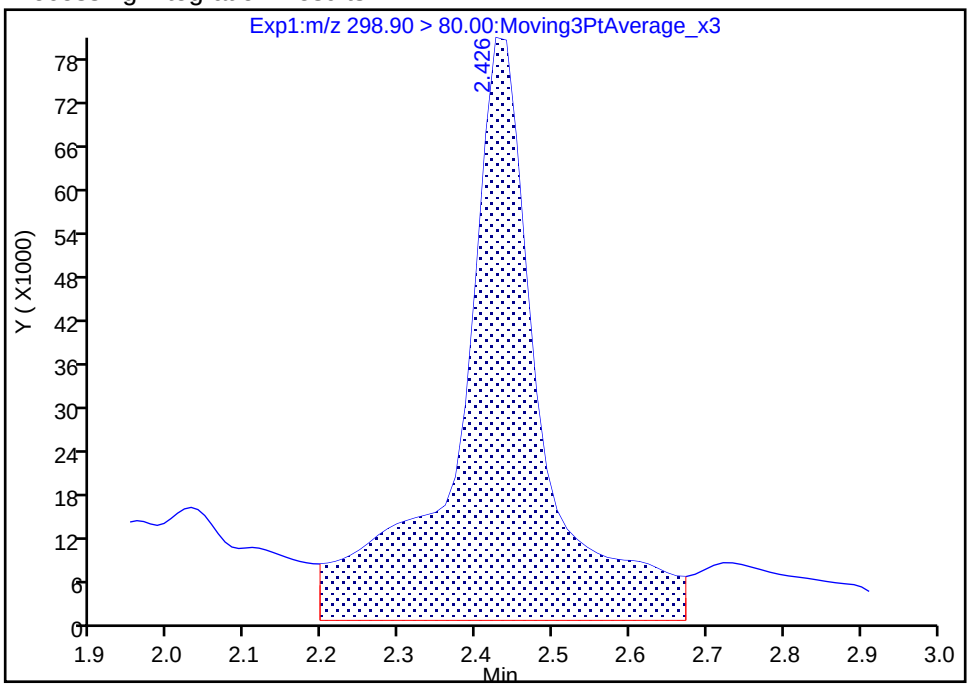
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

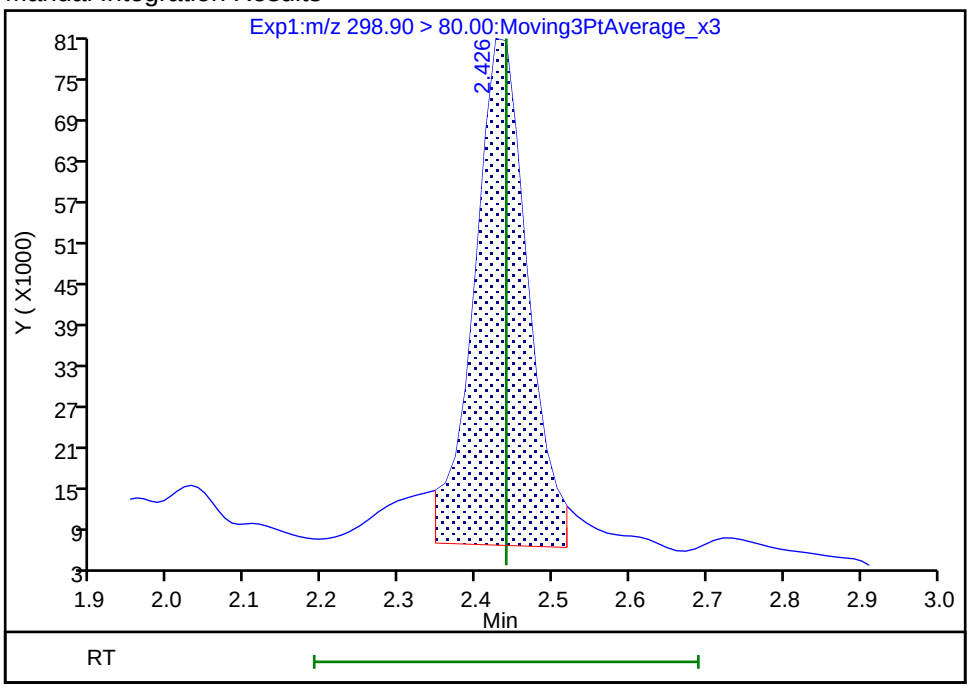
Processing Integration Results

RT: 2.43
Area: 602736
Amount: 0.423969
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 351496
Amount: 0.247245
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:45:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

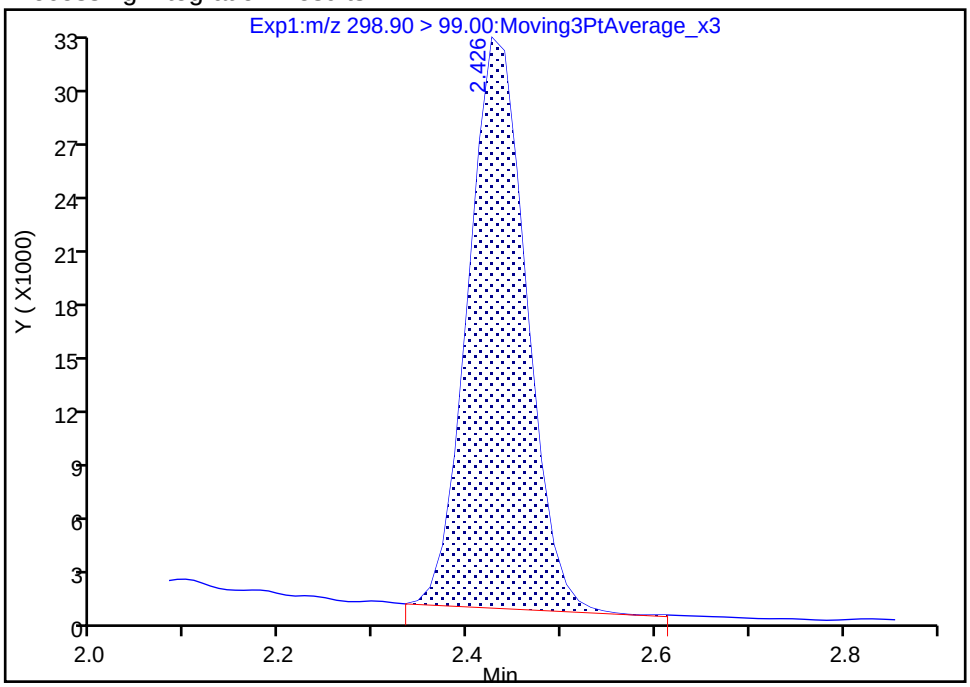
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

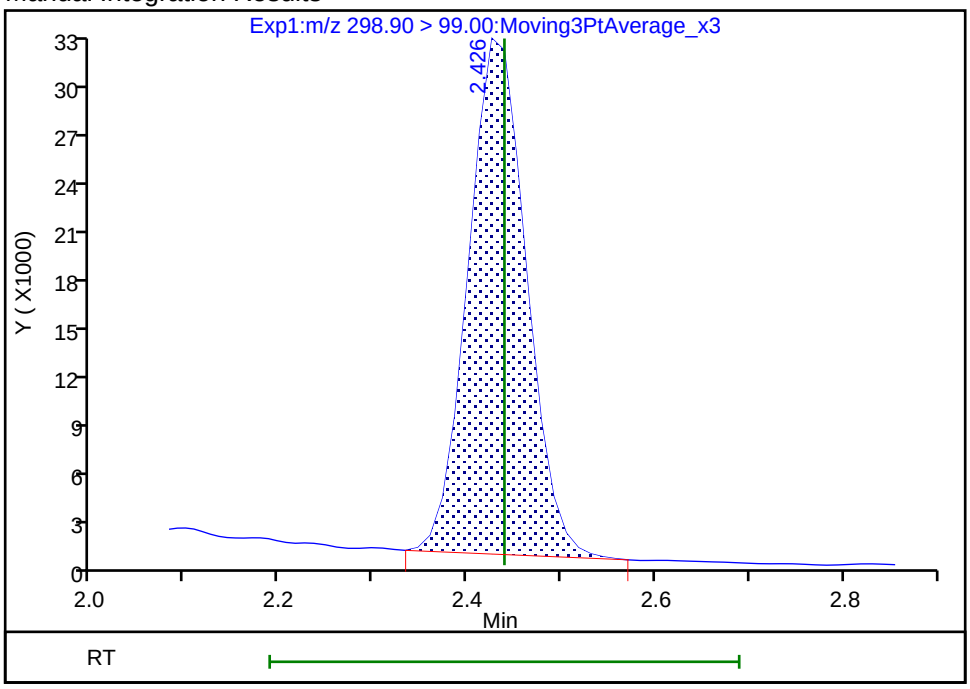
Processing Integration Results

RT: 2.43
Area: 135619
Amount: 0.423969
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 135384
Amount: 0.247245
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:45:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

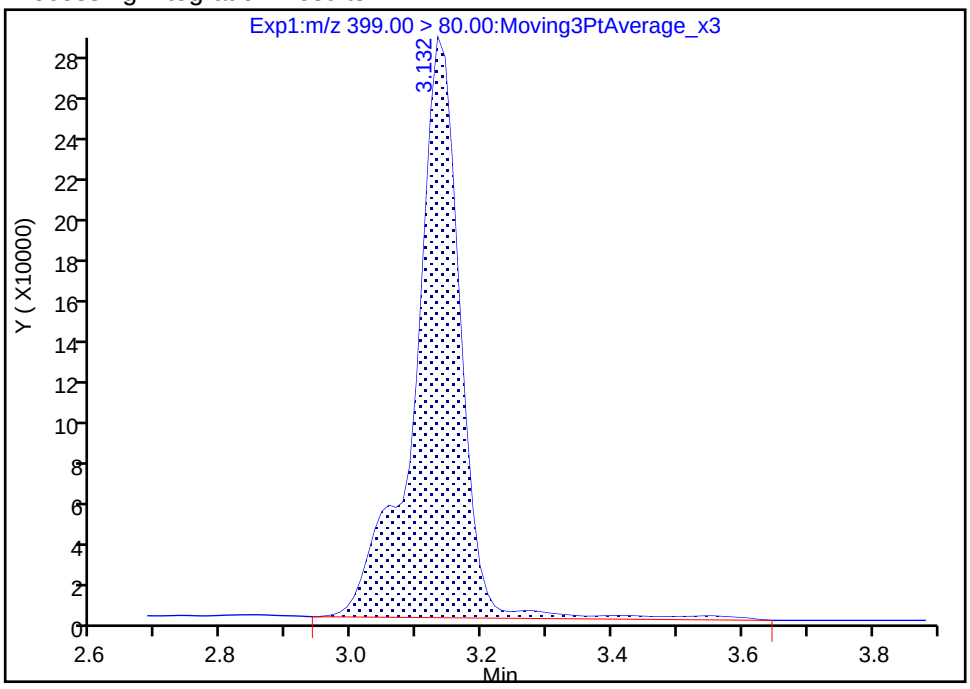
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

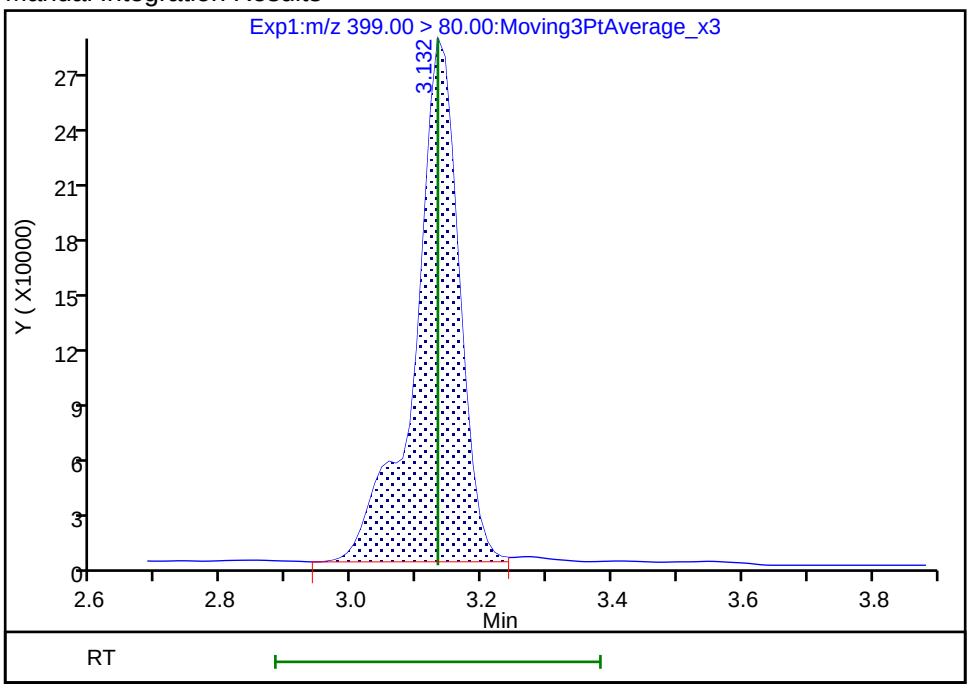
Processing Integration Results

RT: 3.13
Area: 1388463
Amount: 1.248823
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1339090
Amount: 1.204415
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:46:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

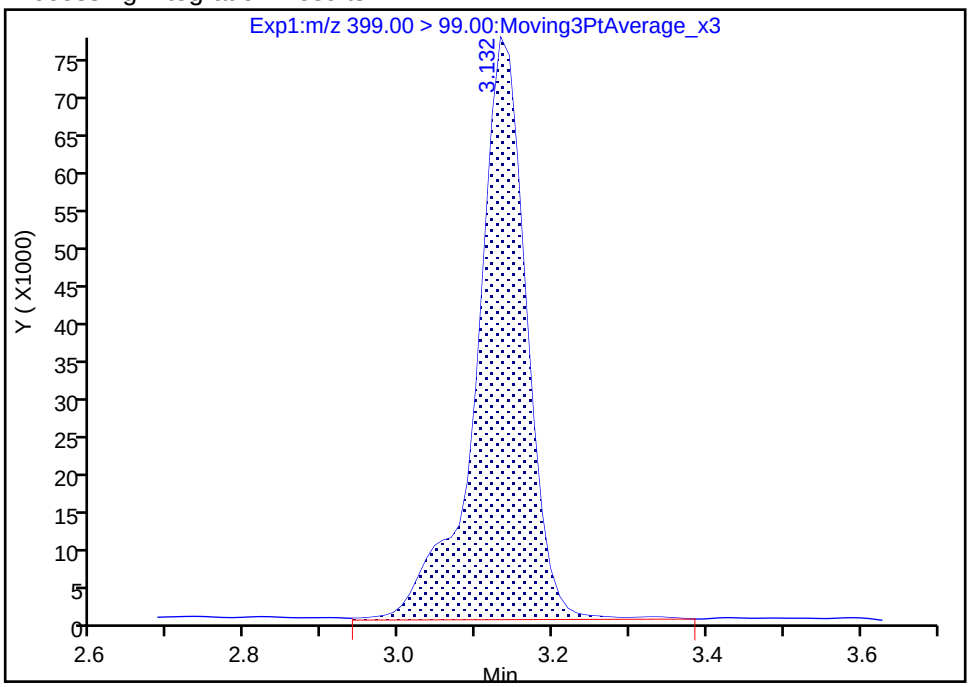
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

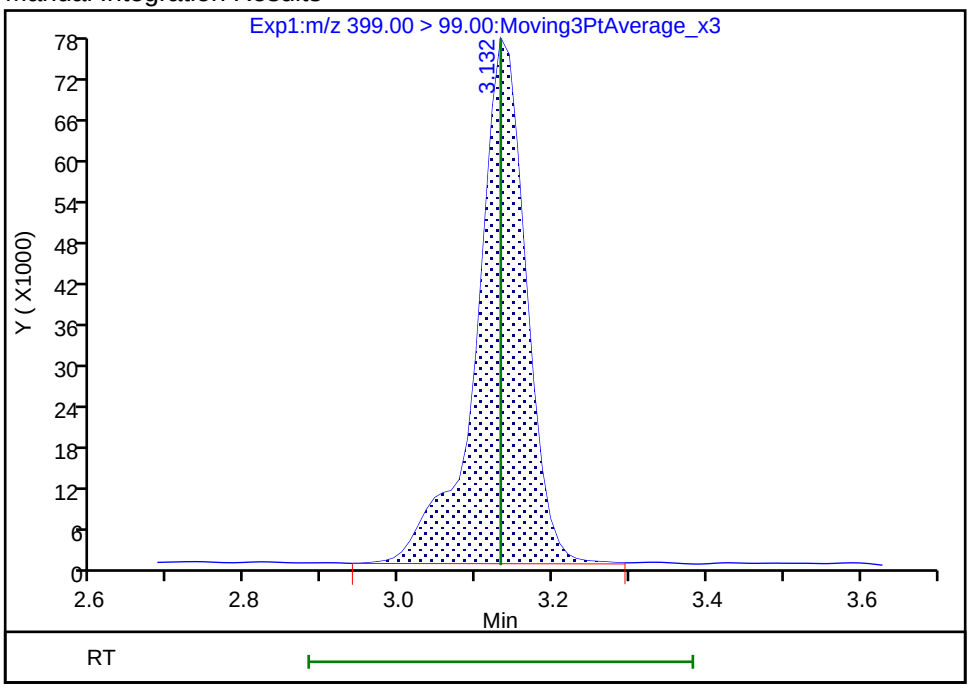
Processing Integration Results

RT: 3.13
Area: 350606
Amount: 1.248823
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 346576
Amount: 1.204415
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:46:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

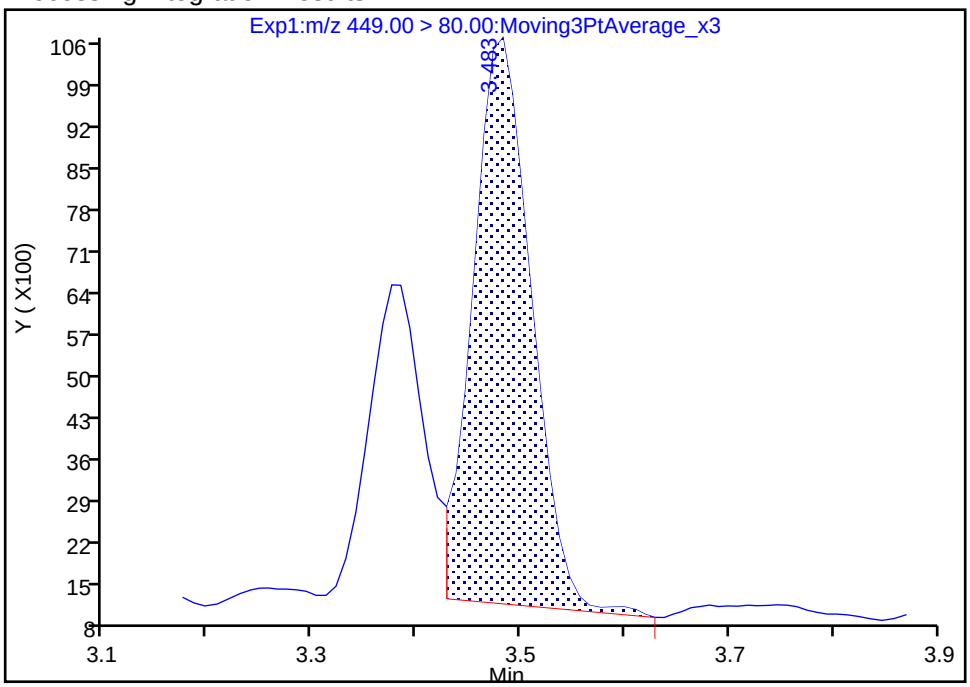
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 |
| Client ID: | MW-24S-20211027 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 Worklist Smp#: 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

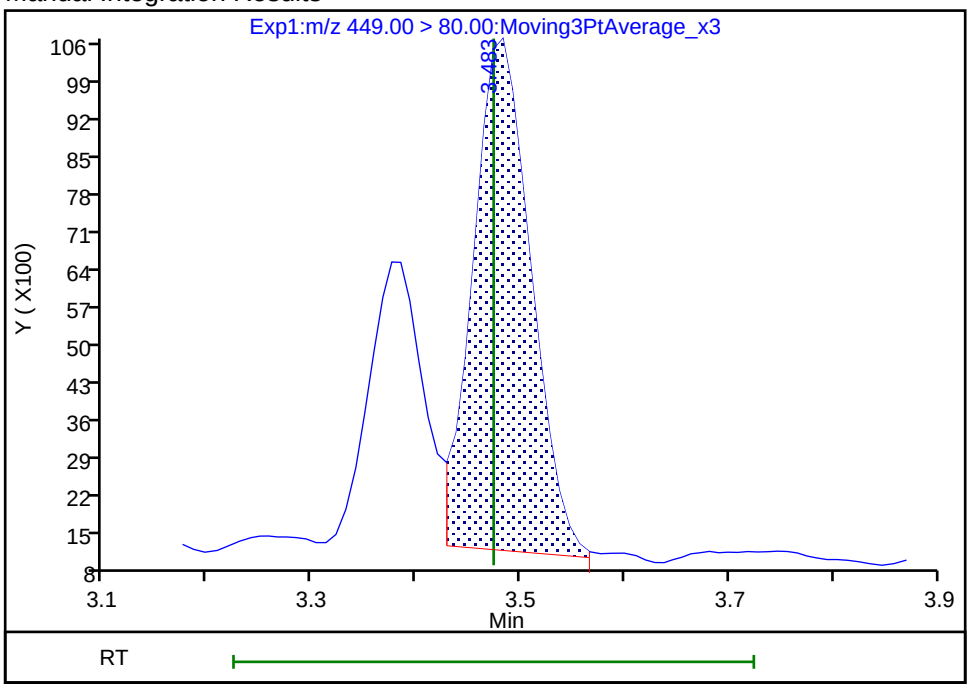
Processing Integration Results

RT: 3.48
Area: 37249
Amount: 0.037895
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 36935
Amount: 0.037576
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:47:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

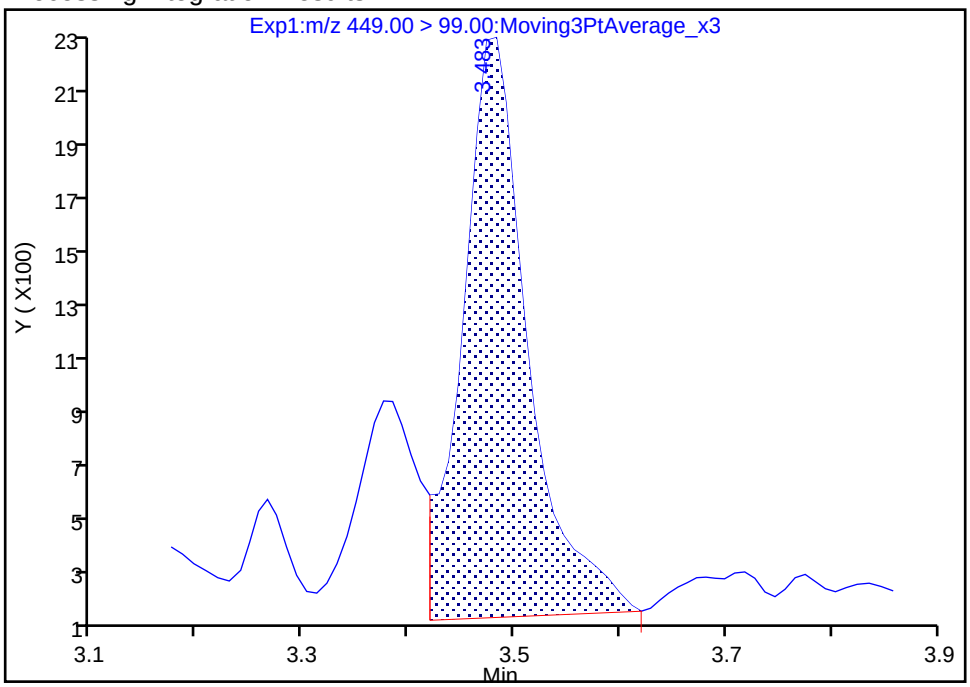
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

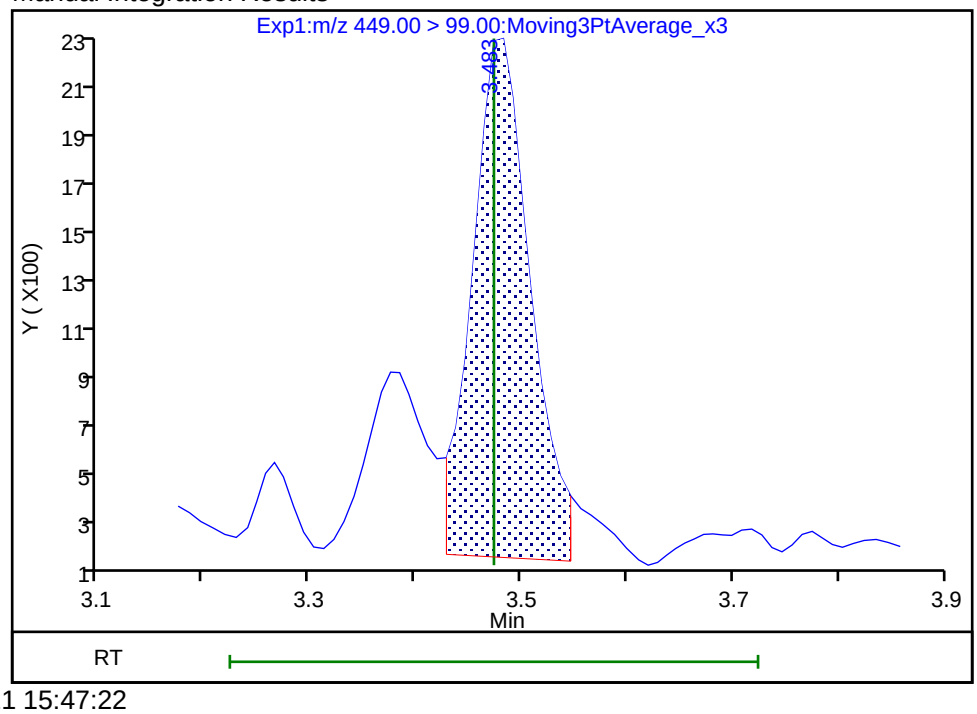
Processing Integration Results

RT: 3.48
Area: 9019
Amount: 0.037895
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 7802
Amount: 0.037576
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:47:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

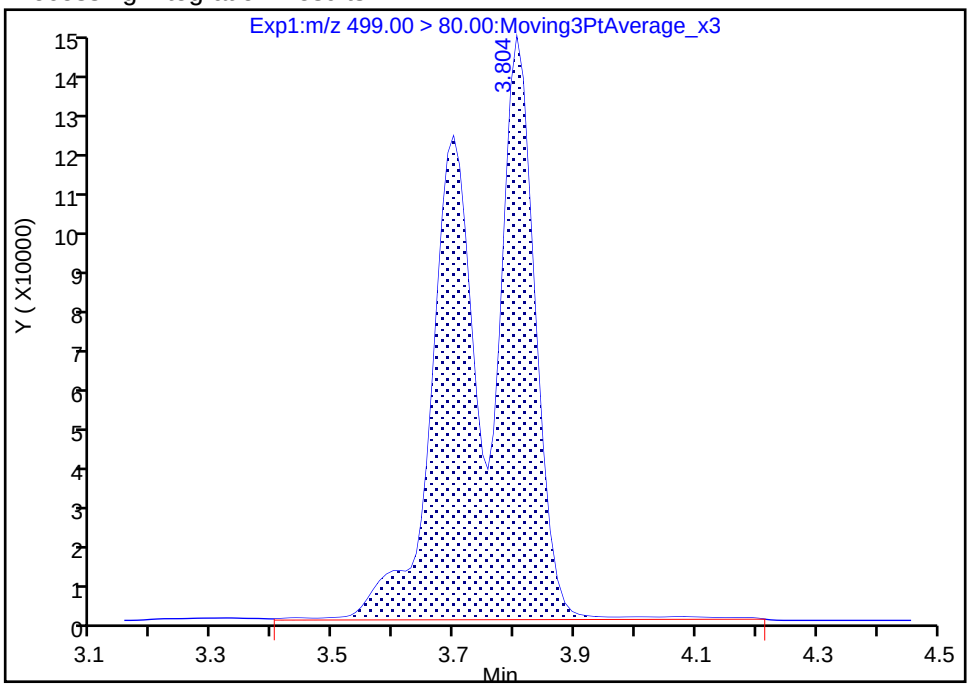
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

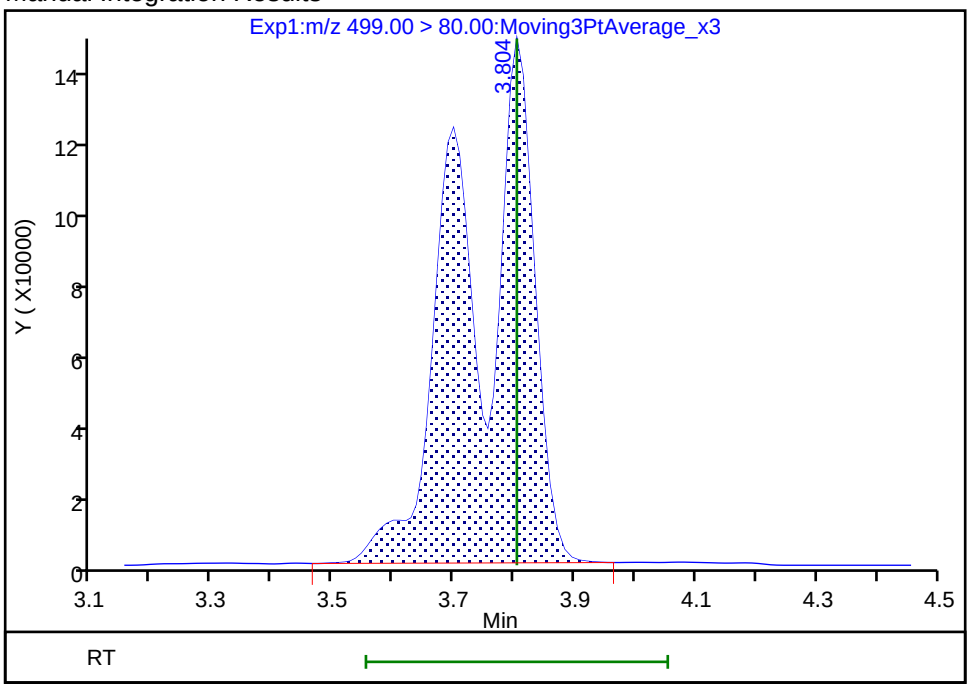
Processing Integration Results

RT: 3.80
Area: 1152197
Amount: 1.346726
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1130069
Amount: 1.320862
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:48:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

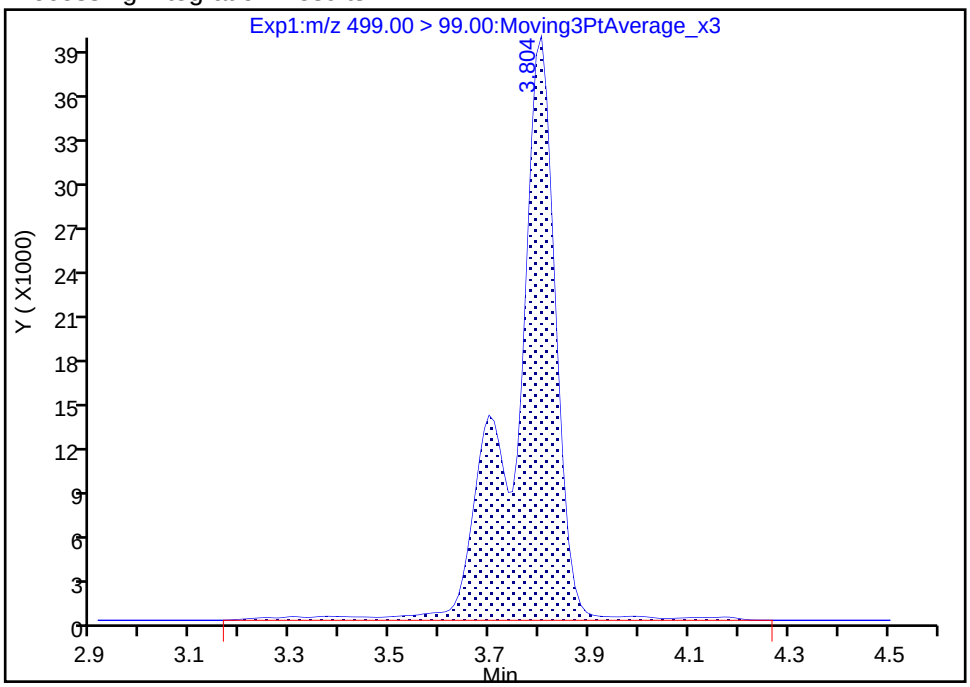
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

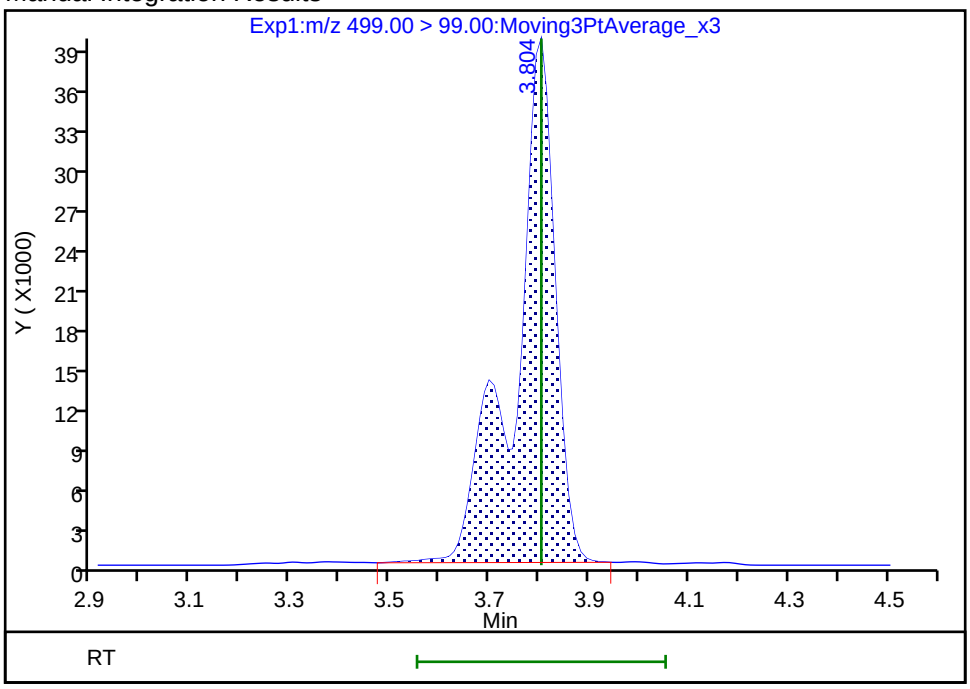
Processing Integration Results

RT: 3.80
Area: 232172
Amount: 1.346726
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 220832
Amount: 1.320862
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:48:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

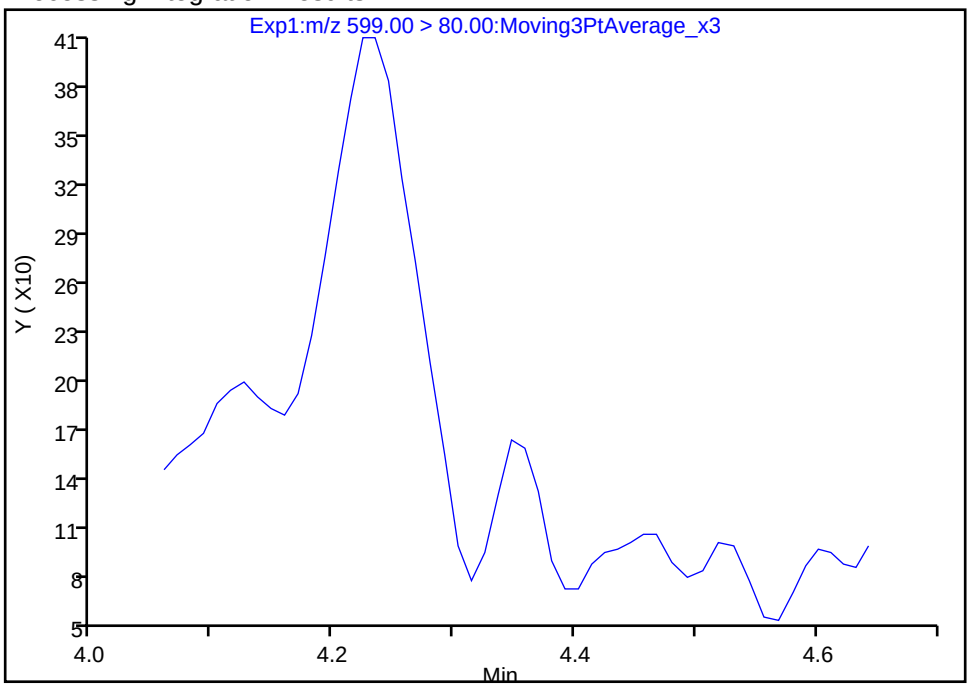
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

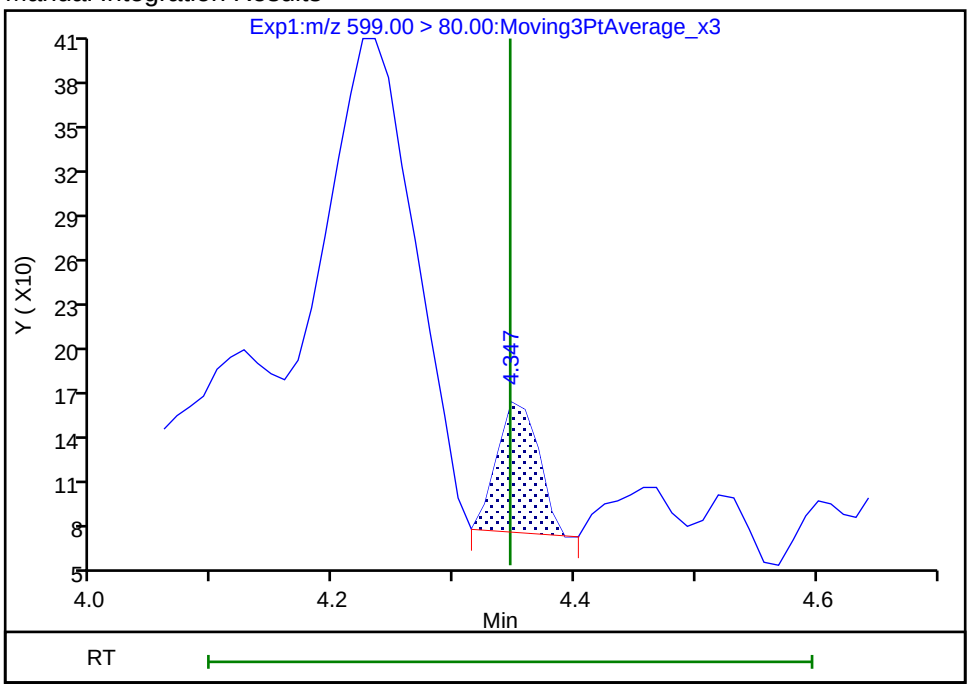
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 207
Amount: 0.000399
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:52:10
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

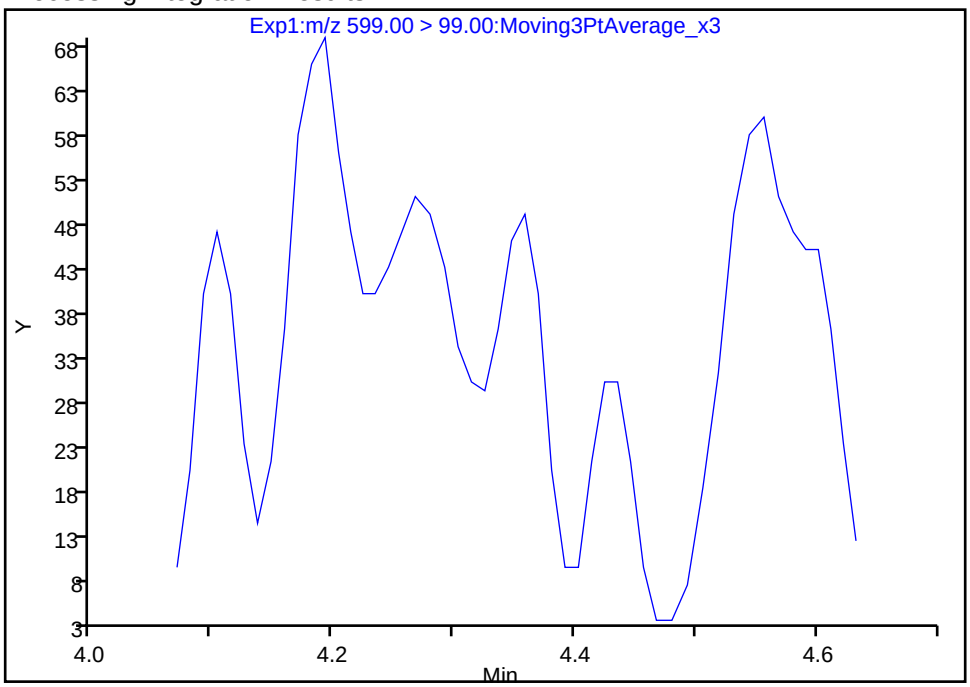
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

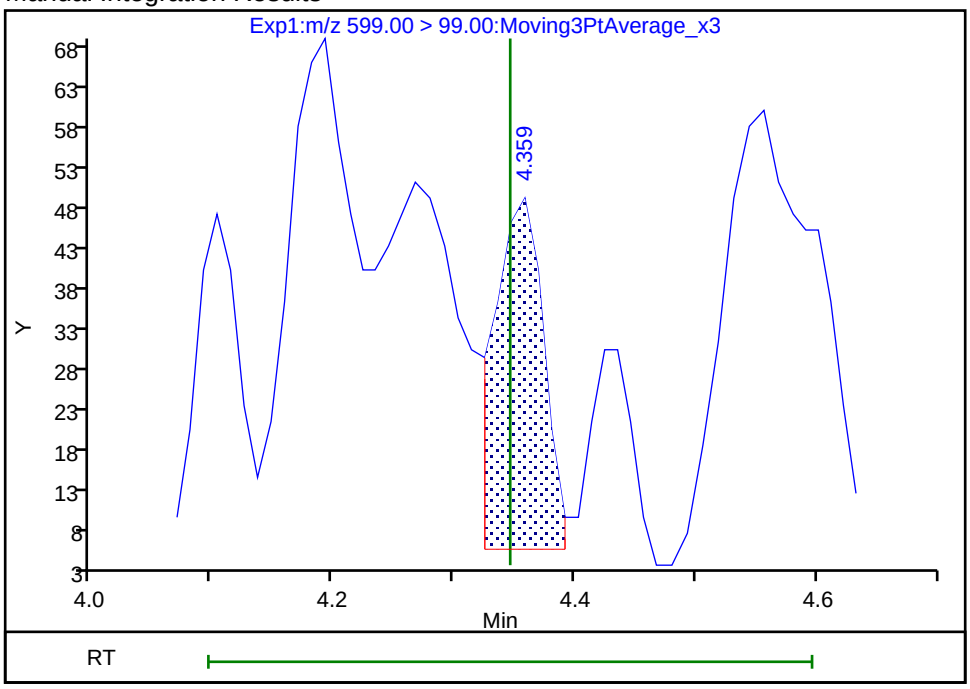
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 119
Amount: 0.000399
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:52:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

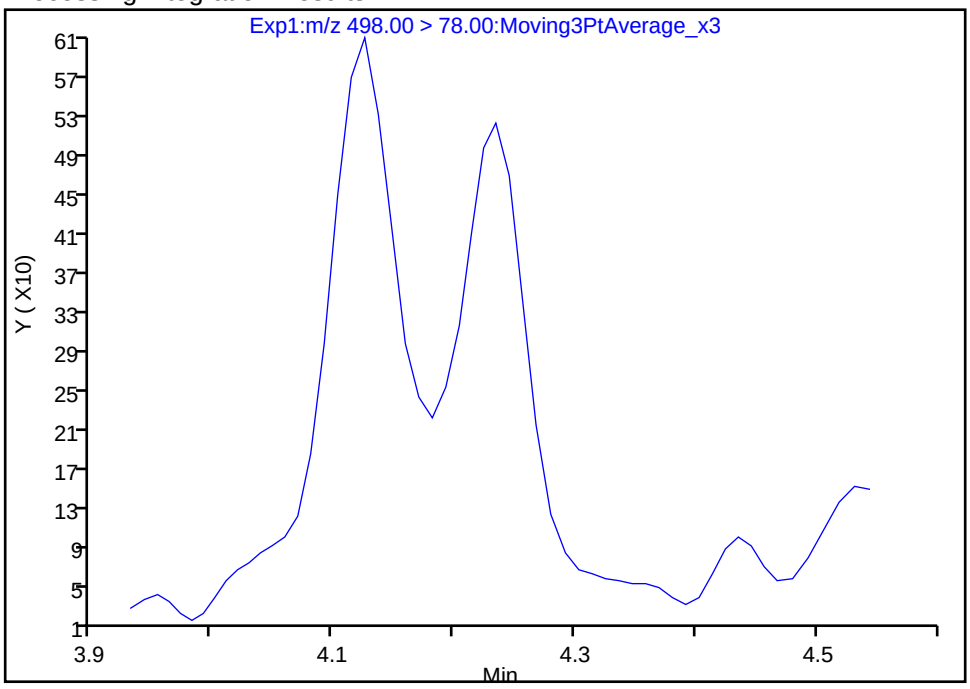
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

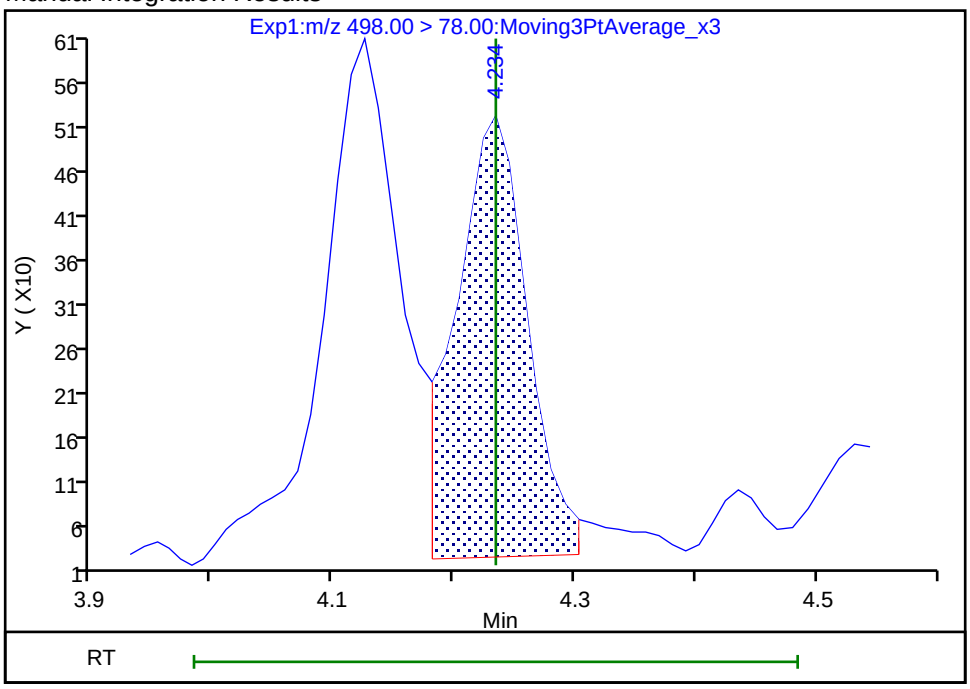
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 1981
Amount: 0.001757
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:51:00
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

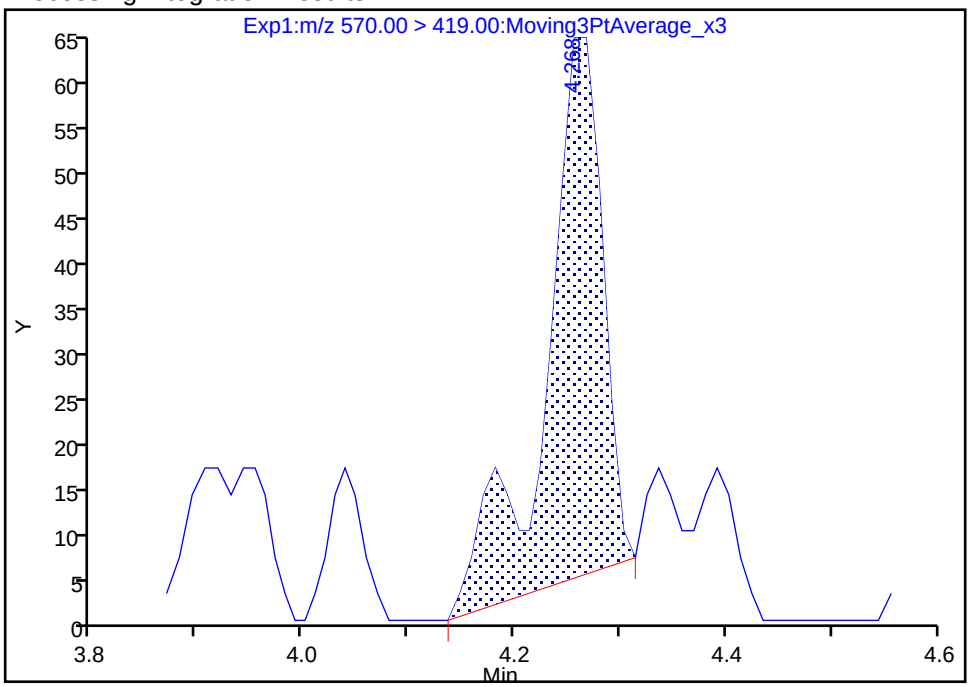
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

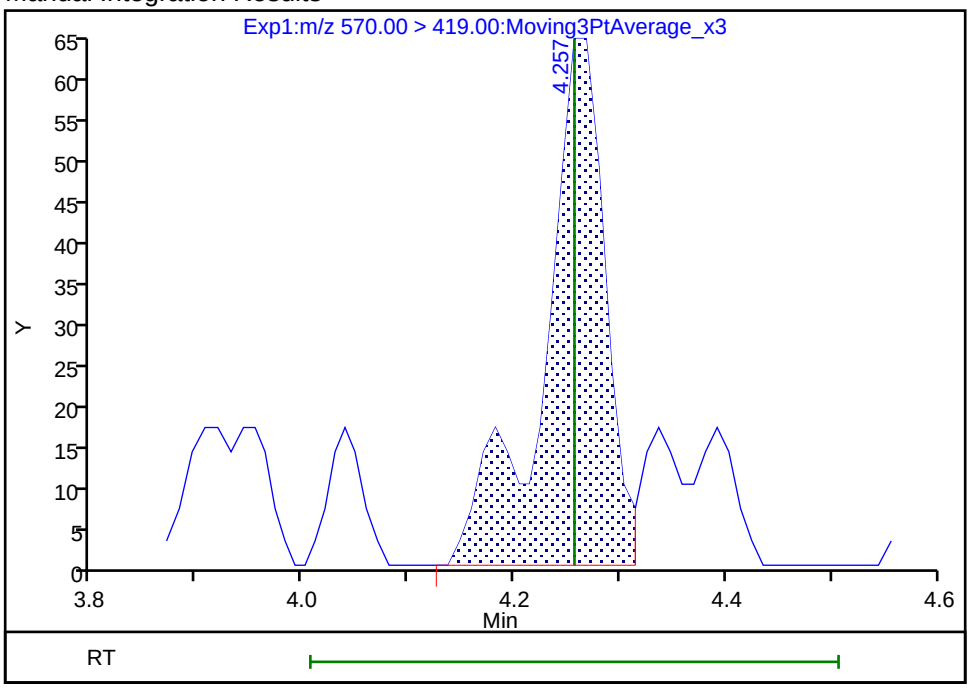
Processing Integration Results

RT: 4.27
Area: 224
Amount: 0.002065
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 262
Amount: 0.002416
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:51:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

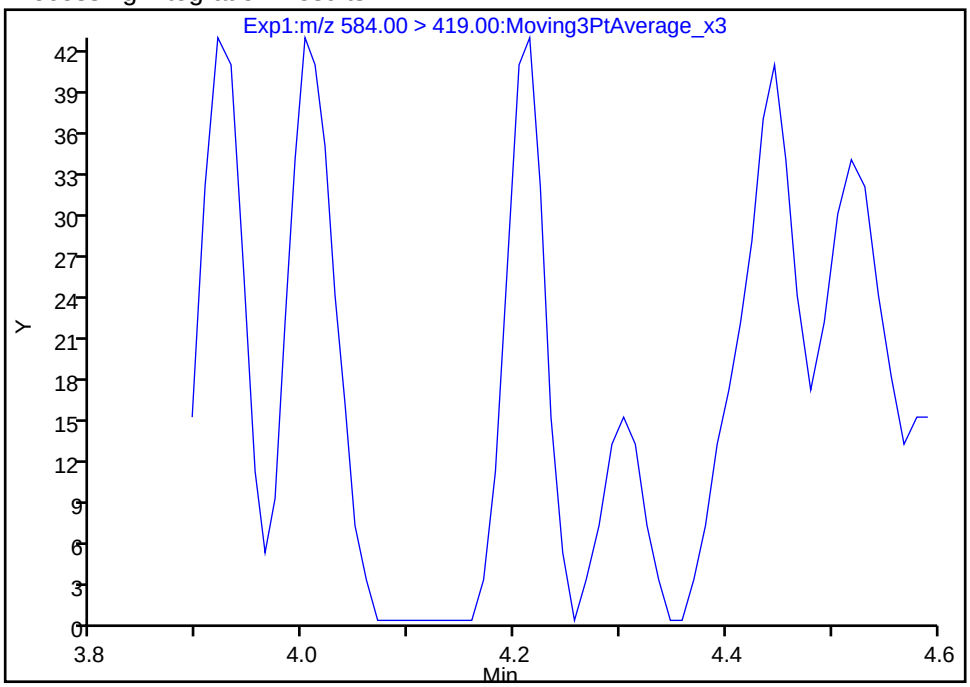
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

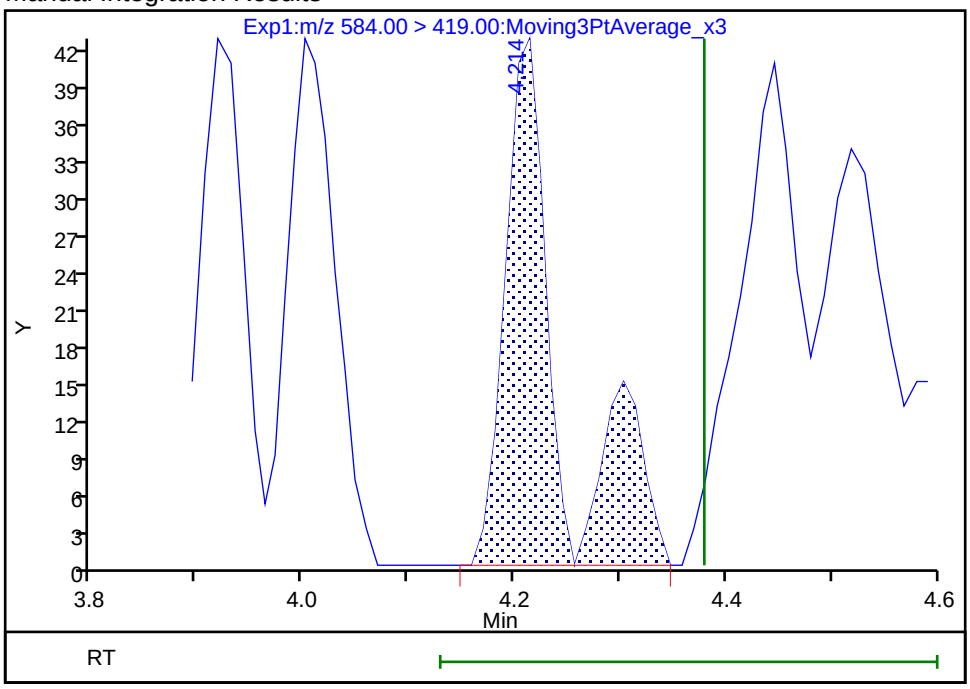
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 152
Amount: 0.001272
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:53:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

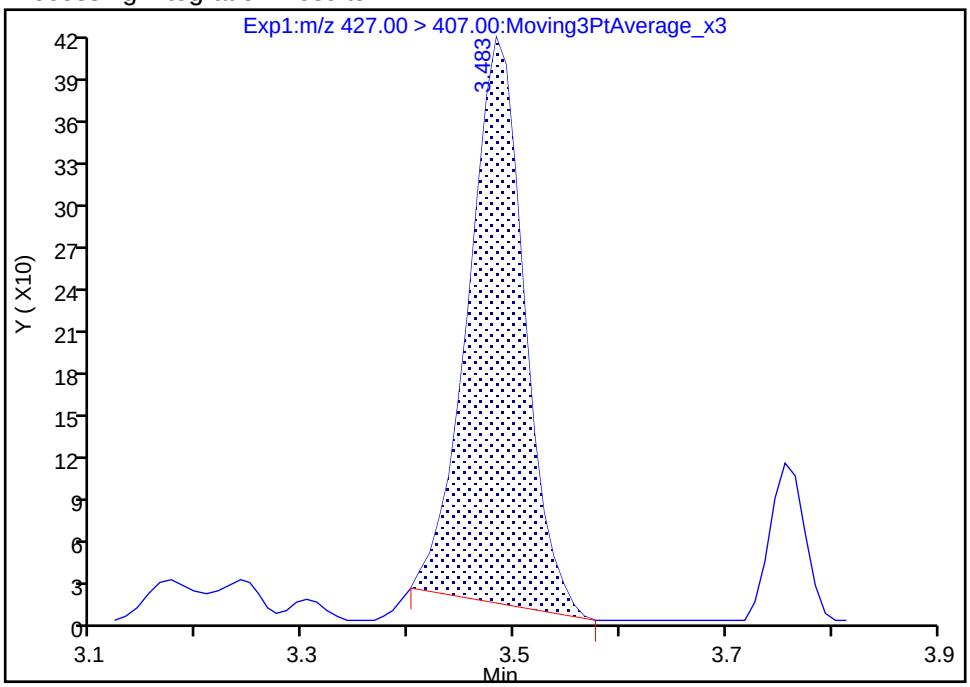
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

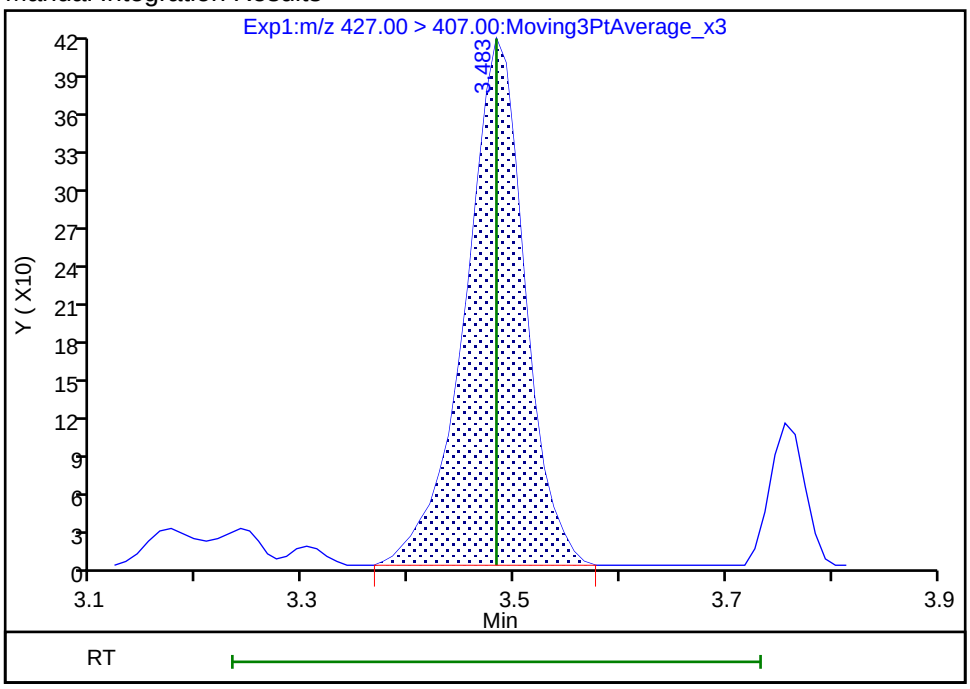
Processing Integration Results

RT: 3.48
Area: 1485
Amount: 0.005858
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1625
Amount: 0.006410
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:47:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

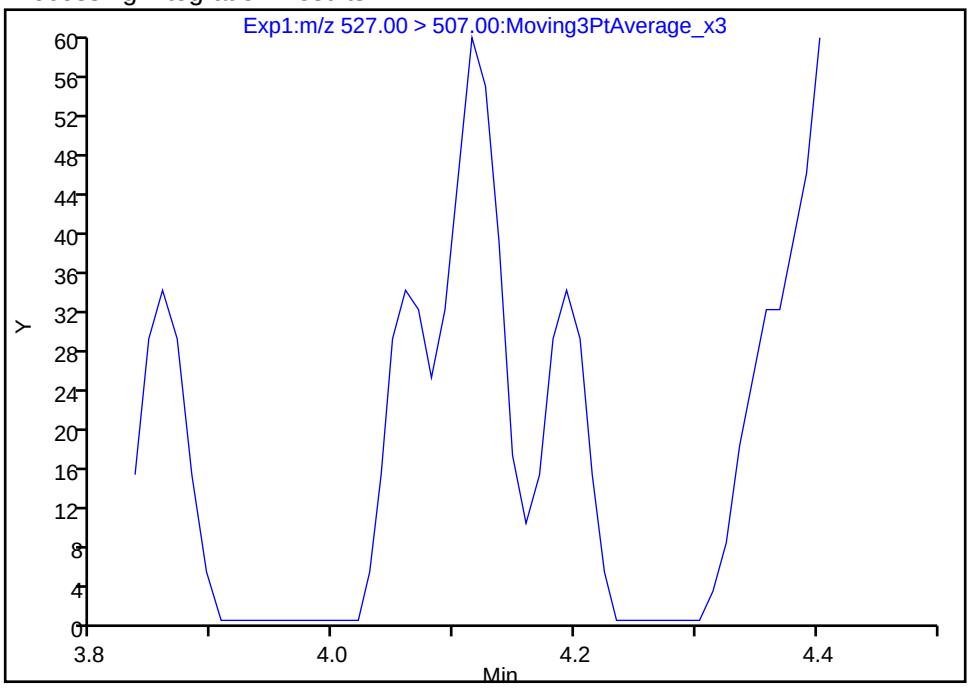
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D12.d | | | | |
| Injection Date: | 10-Nov-2021 05:42:16 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-8-A | Lab Sample ID: | 200-246277-8 | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

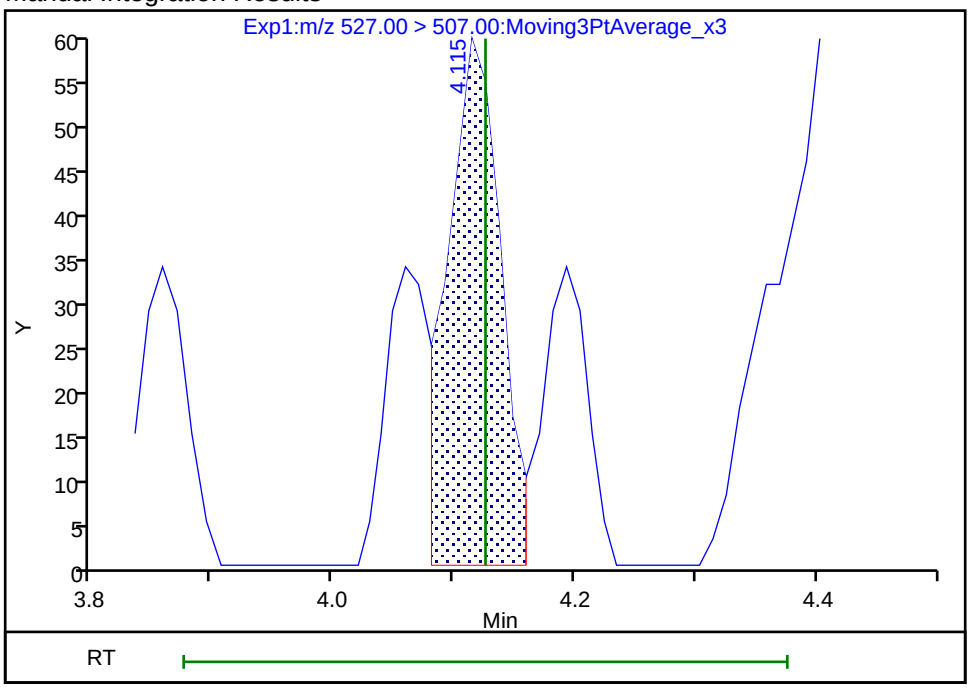
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 178
Amount: 0.000867
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:50:44
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: BP-101-20211028  Lab Sample ID: 460-246277-9

Matrix: Water  Lab File ID: PA211109D16.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 279.6(mL)  Date Analyzed: 11/10/2021 06:15

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.80 | U | 4.47 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.42 | U | 1.79 | 0.42 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.40 | U | 1.79 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.21 | U | 1.79 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.38 | U | 1.79 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.25 | U | 1.79 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.79 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.22 | U | 1.79 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.79 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.79 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.79 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.47 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.47 | 0.66 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.47 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: BP-101-20211028  Lab Sample ID: 460-246277-9

Matrix: Water  Lab File ID: PA211109D16.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 279.6(mL)  Date Analyzed: 11/10/2021 06:15

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 89 | | 50-150 |
| STL00992 | 13C4 PFBA | 110 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 81 | | 50-150 |
| STL00998 | 13C2 PFDoA | 78 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 100 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 72 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 94 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 97 | | 50-150 |
| STL02279 | M2-6:2 FTS | 107 | | 25-150 |
| STL02280 | M2-8:2 FTS | 108 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d
Lims ID: 460-246277-D-9-A
Client ID: BP-101-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:15:03 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-9-A
Misc. Info.: 200-0048356-016 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 16:08:26
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.600 | 1996392 | 1.38 | | 110 | 10103 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 16523 | 0.0109 | | | 1.8 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.413 | -0.013 | 0.689 | 1516192 | 1.24 | | 99.6 | 2976 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.005 | 5815 | 0.004786 | | | 0.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.697 | 1755545 | 1.07 | | 91.6 | 185275 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 8154 | 0.005055 | Target=2.32 | | 4.1 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 3709 | | 2.20(1.16-3.48) | | 1.8 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.770 | -0.012 | 0.792 | 1580713 | 1.24 | | 99.0 | 2973 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.004 | 6855 | 0.005345 | Target=12.09 | | 1.2 | M |
| 313.00 > 119.00 | 2.758 | 2.770 | -0.012 | 1.000 | 833 | | 8.23(6.04-18.13) | | 0.9 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | RM |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 6454 | 0.005278 | Target=3.55 | | 17.3 | RM |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3691 | | 1.75(1.77-5.32) | | 3.1 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1315136 | 1.10 | | 92.9 | 3615 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1593060 | 1.18 | | 94.8 | 5189 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 3489 | 0.002650 | Target=3.69 | | 1.2 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.003 | 1372 | | 2.54(1.84-5.53) | | 2.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 0.997 | 241 | 0.000938 | | | 4.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 1.000 | 240670 | 1.27 | | 107 | 539 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 1.000 | 1704501 | 1.16 | | 92.8 | 3561 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.492 | -0.009 | | 1785348 | 1.25 | | | 5976 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.492 | -0.009 | 1.000 | 12512 | 0.008628 | Target=2.68 | | 1.8 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.003 | 5408 | | 2.31(1.34-4.02) | | 12.4 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 992128 | 1.15 | | 96.0 | 3041 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.690 | 3.804 | -0.114 | 0.973 | 6045 | 0.006710 | Target=4.69 | | 7.7 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 1425 | | 4.24(2.35-7.04) | | 3.7 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 1634180 | 1.12 | | 89.3 | 5212 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.003 | 4666 | 0.003648 | Target=7.29 | | 0.9 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.003 | 433 | | 10.78(3.64-10.93) | | 2.8 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.181 | 1612463 | 1.09 | | 87.3 | 3831 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 2143 | 0.001653 | Target=8.95 | | 2.0 | RM |
| 513.00 > 169.00 | 4.092 | 4.115 | -0.023 | 0.995 | 619 | | 3.46(4.47-13.42) | | 3.9 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.185 | 276041 | 1.29 | | 108 | 988 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.137 | 4.126 | 0.011 | 1.003 | 46 | 0.000239 | | | 1.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.213 | 1612254 | 1.13 | | 90.5 | 3459 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.222 | 170330 | 1.17 | | 93.8 | 1505 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 544 | 0.005082 | | | 1.9 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.254 | 1163157 | 1.01 | | 80.8 | 2827 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 1.000 | 1804 | 0.001819 | Target=9.24 | | 1.0 | M |
| 563.00 > 169.00 | 4.380 | 4.369 | 0.012 | 1.003 | 237 | | 7.61(4.62-13.86) | | 4.0 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.257 | 165107 | 1.21 | | 97.0 | 962 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 645 | 0.005699 | | | 13.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.591 | 0.0 | 1.318 | 1206954 | 0.9745 | | 78.0 | 2182 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.591 | 4.591 | 0.0 | 1.000 | 1251 | 0.001323 | Target=7.04 | | 0.3 | R |
| 613.00 > 169.00 | 4.591 | 4.591 | 0.0 | 1.000 | 89 | | 14.06(3.52-10.56) | | 1.6 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.046 | 1114 | 0.001367 | Target=4.68 | | 0.4 | RM |
| 663.00 > 169.00 | 4.783 | 4.792 | -0.009 | 1.042 | 150 | | 7.43(2.34-7.02) | | 2.6 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.429 | 866422 | 0.9020 | | 72.2 | 1726 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 134 | 0.001225 | Target=1.01 | | 3.3 | M |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 240 | | 0.56(0.51-1.52) | | 8.3 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d

Injection Date: 10-Nov-2021 06:15:03 Instrument ID: LC812

Lims ID: 460-246277-D-9-A Lab Sample ID: 200-246277-9

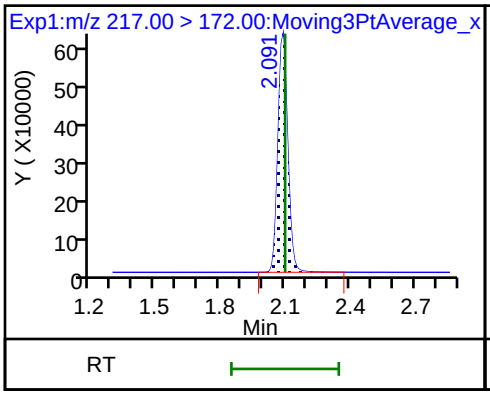
Client ID: BP-101-20211028

Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 16

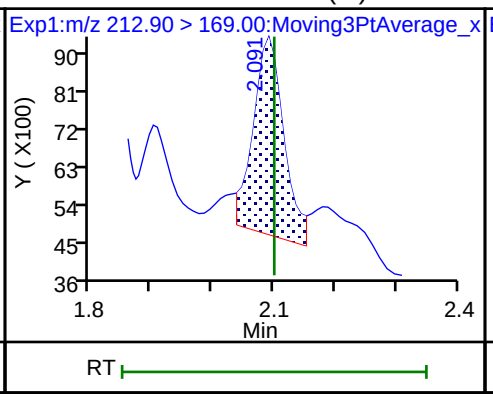
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

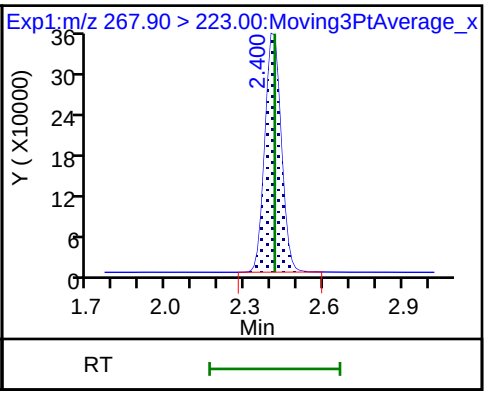
D 1 13C4 PFBA




2 Perfluorobutanoic acid (M)




D 3 13C5 PFPeA

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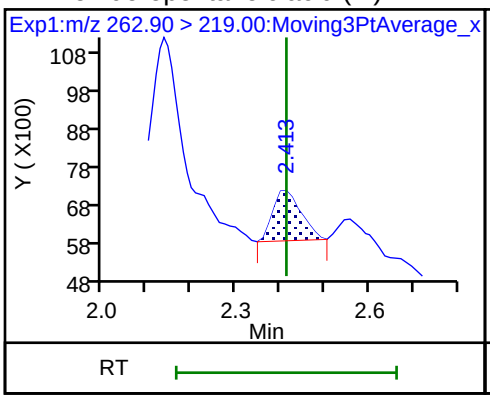
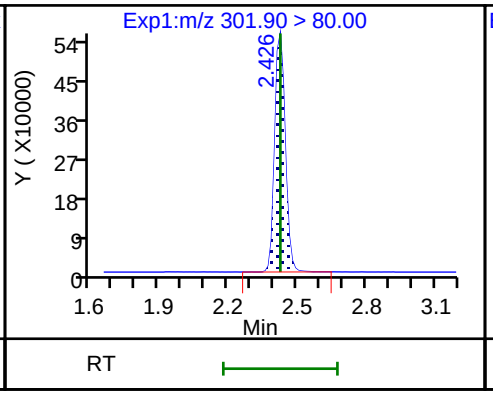
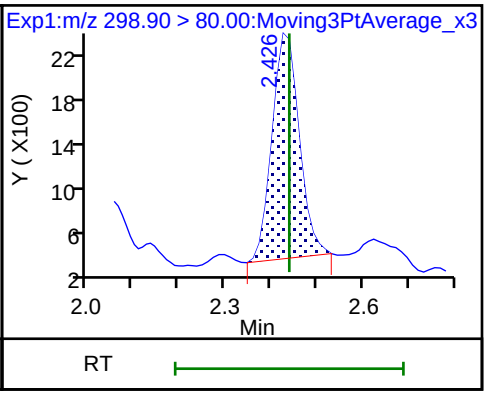


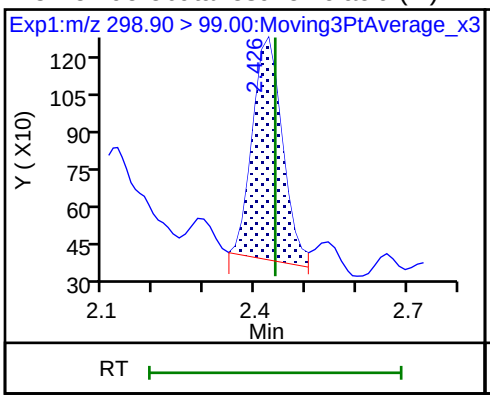

D 47 13C3 PFBS



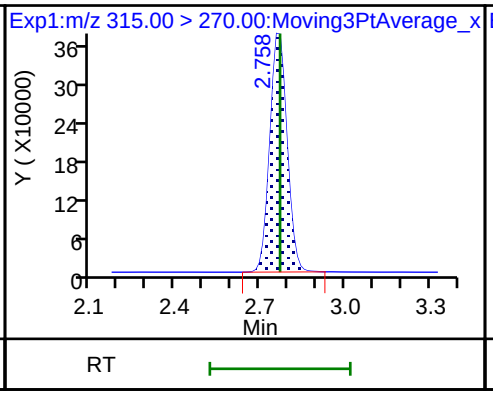

5 Perfluorobutanesulfonic acid



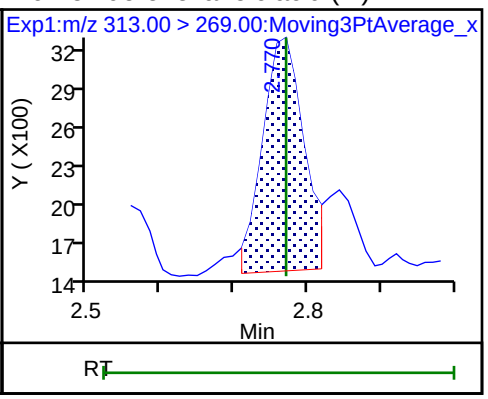

5 Perfluorobutanesulfonic acid (M)




D 7 13C2 PFHxA




6 Perfluorohexanoic acid (M)

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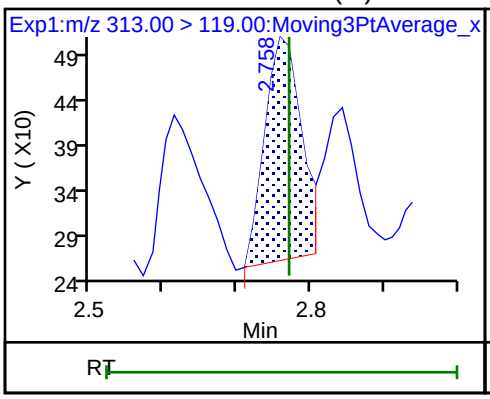
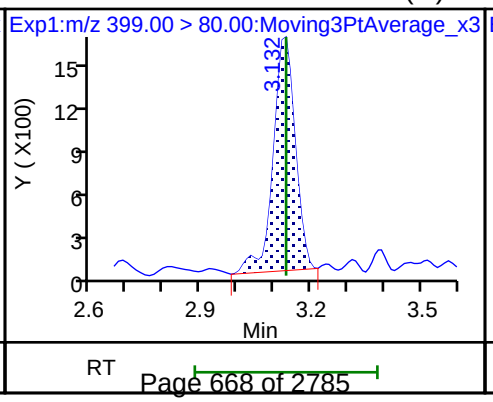



8 Perfluorohexanesulfonic acid (M)

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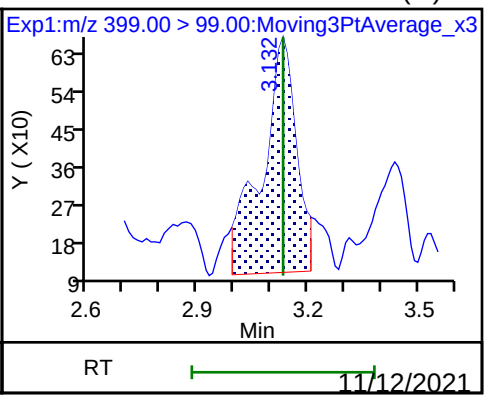
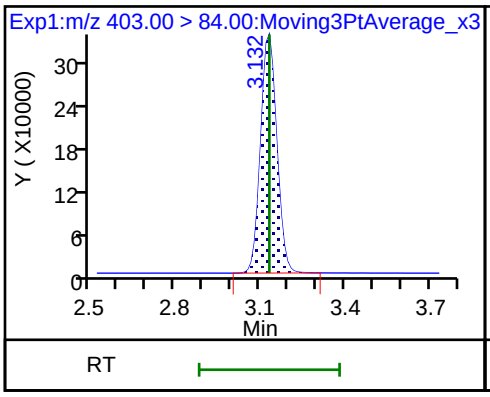


D 11 18O2 PFHxS

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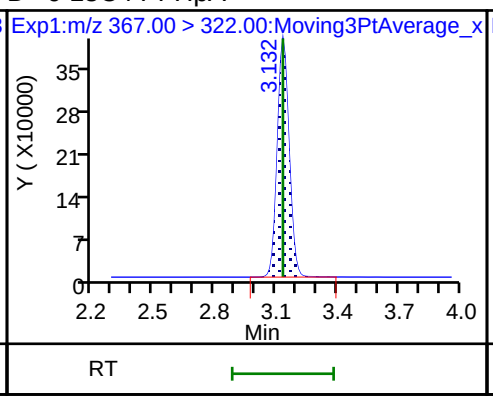
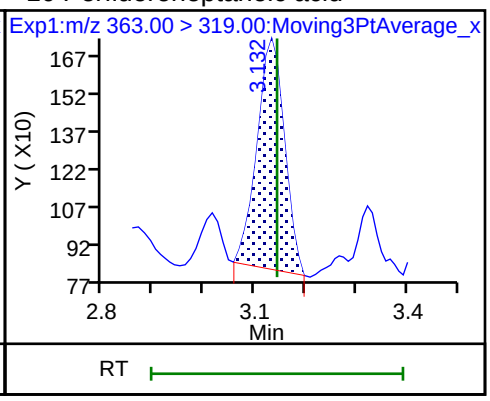



10 Perfluoroheptanoic acid

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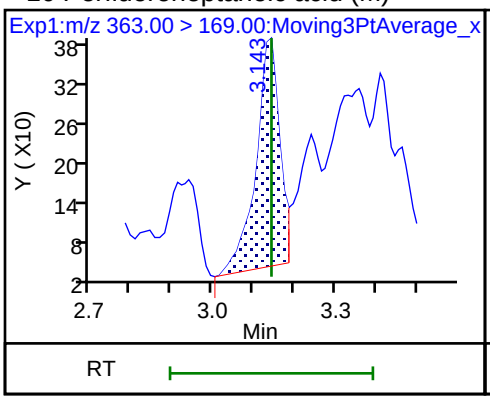


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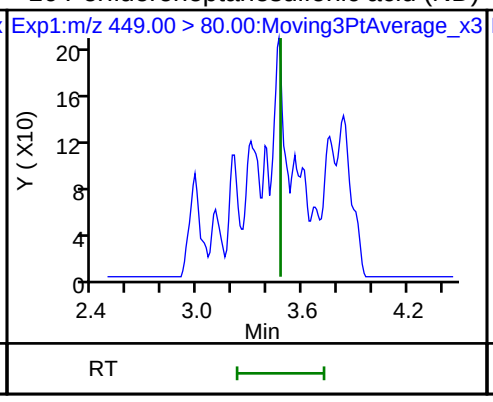
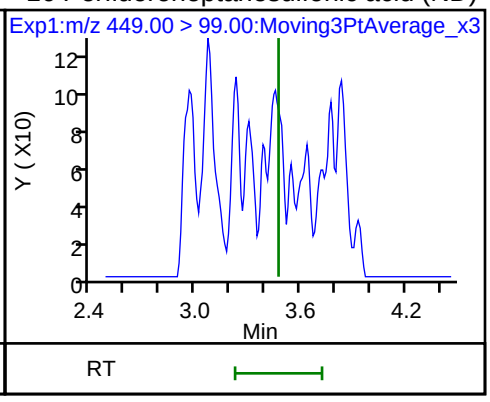
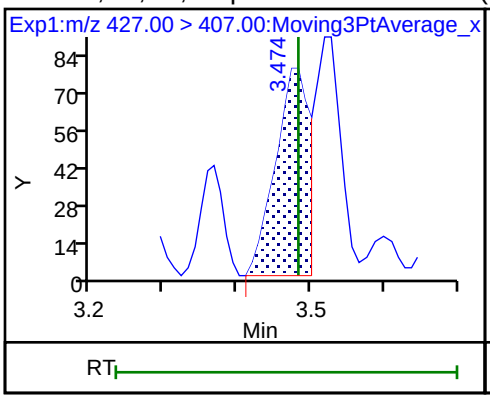


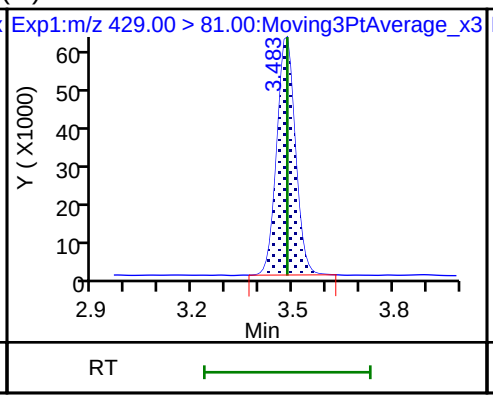

16 Perfluoroheptanesulfonic acid (ND)



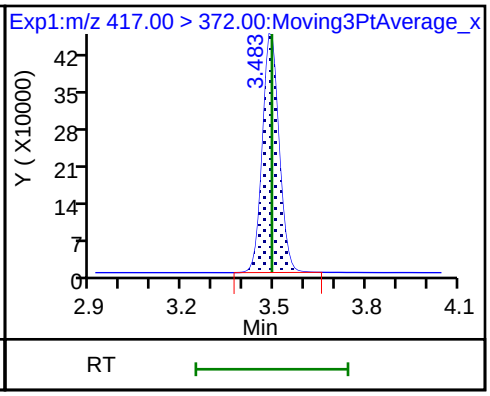

13 1H,1H,2H,2H-perfluorooctanesulfo (M)




D 12 M2-6:2 FTS




D 14 13C4 PFOA

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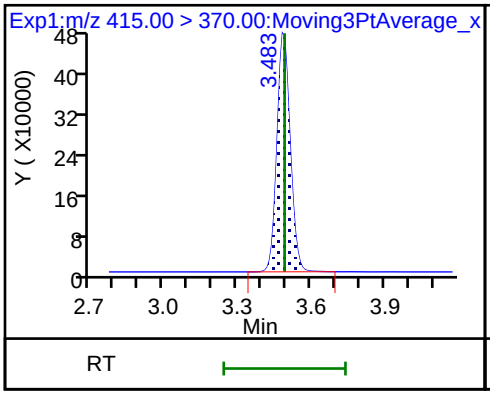
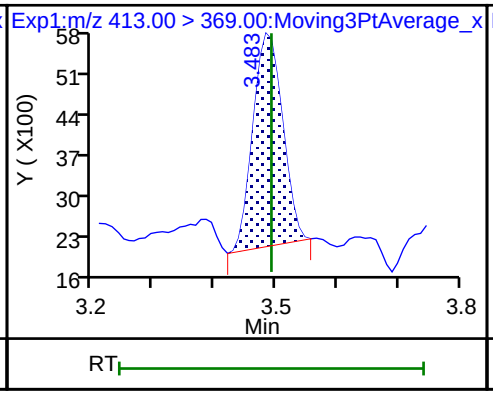



15 Perfluorooctanoic acid

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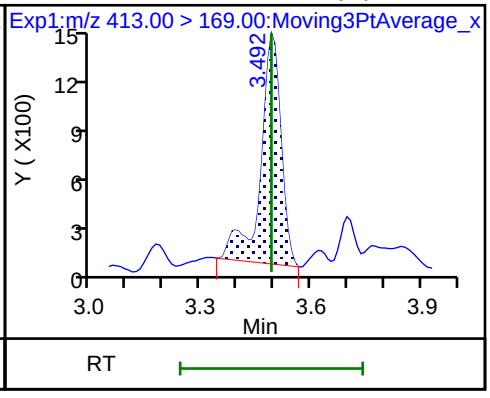
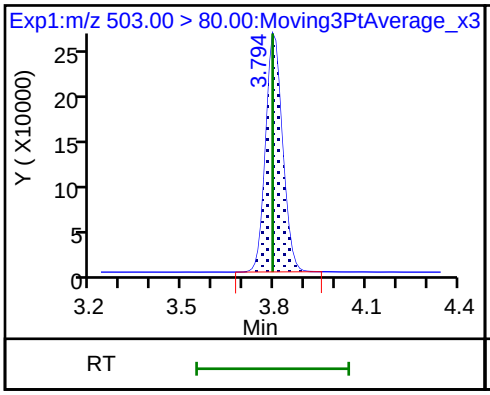


D 18 13C4 PFOS

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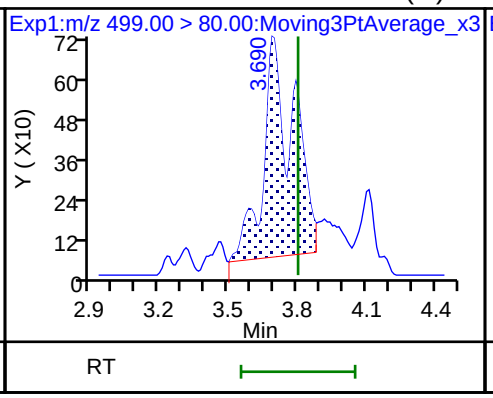
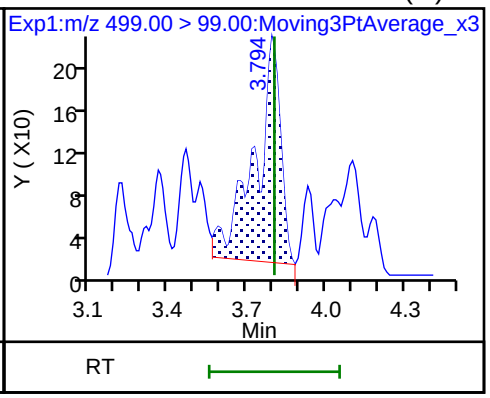



17 Perfluorooctanesulfonic acid (M)

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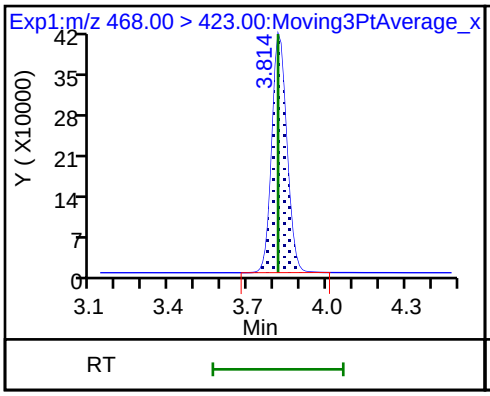


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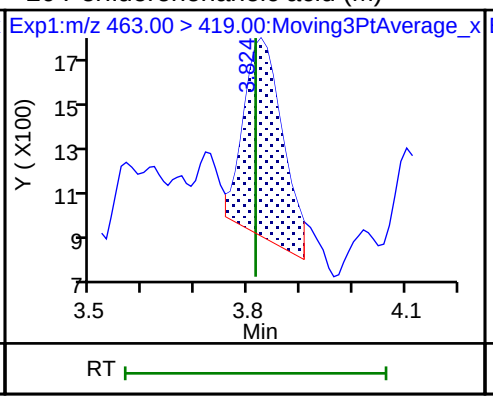


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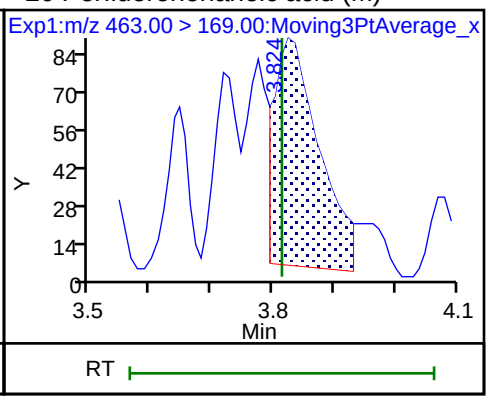
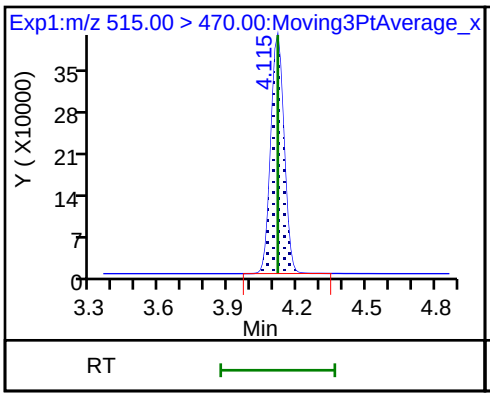
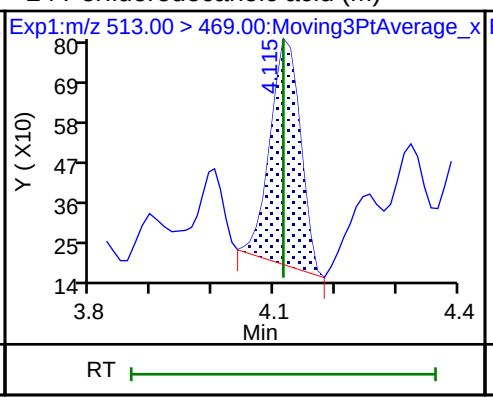



D 23 13C2 PFDA




24 Perfluorodecanoic acid (M)

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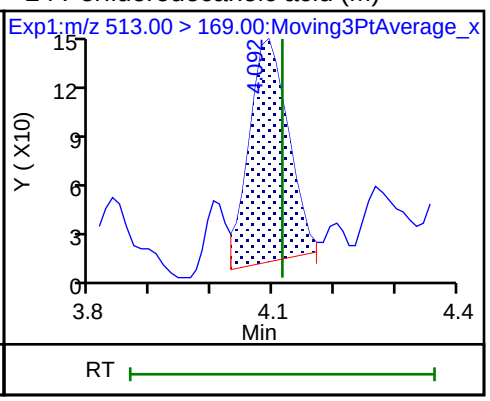
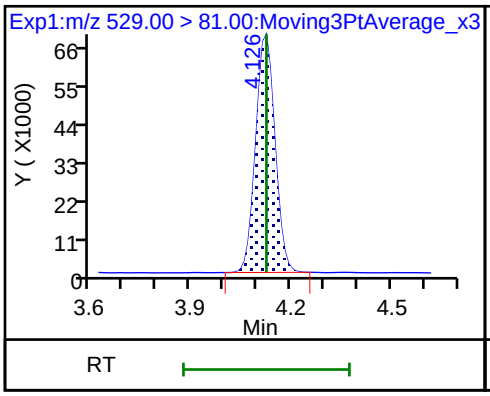
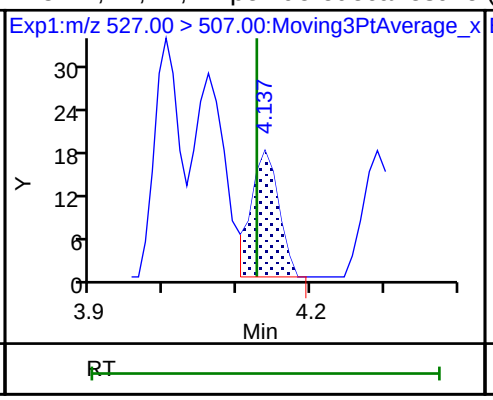



D 26 M2-8:2 FTS




25 1H,1H,2H,2H-perfluorodecanesulfo (M)

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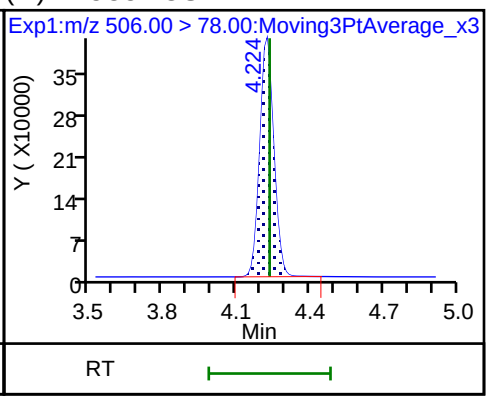
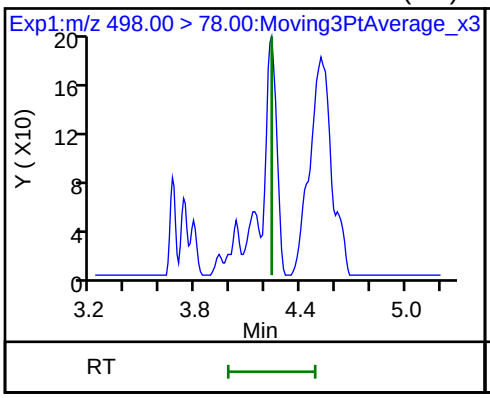
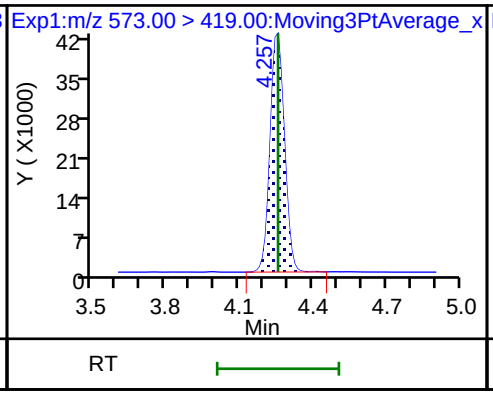


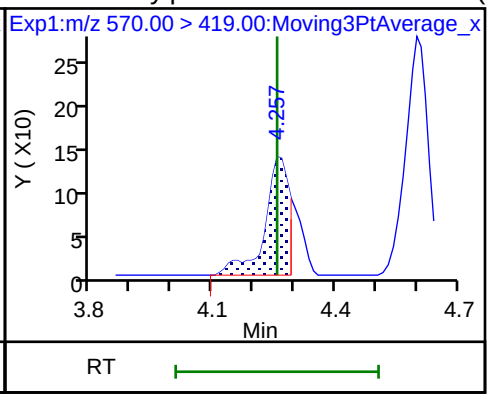
22 Perfluorooctanesulfonamide (ND)




D 27 d3-NMeFOSAA




28 N-methylperfluorooctanesulfonami (M)

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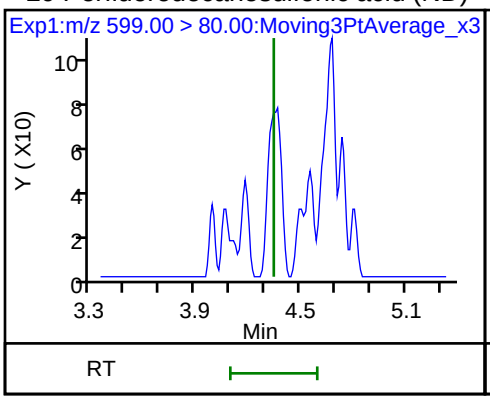


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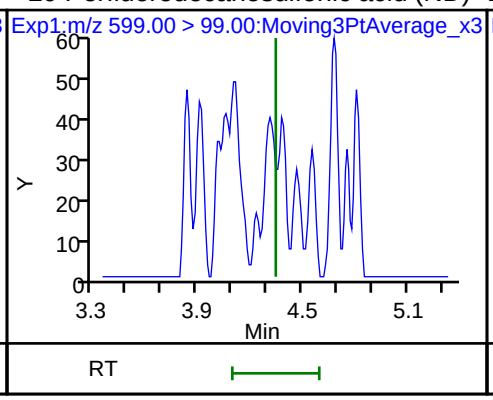
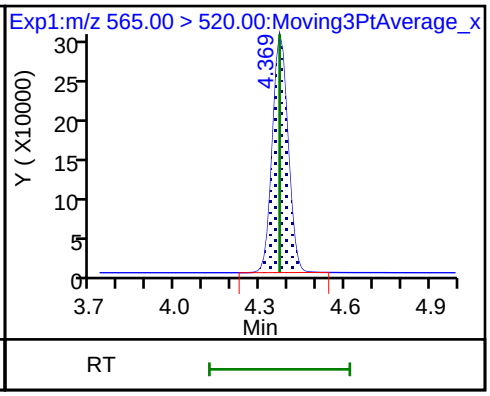
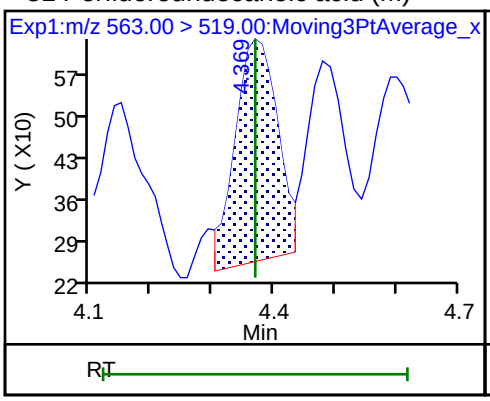



D 30 13C2 PFUnA




31 Perfluoroundecanoic acid (M)

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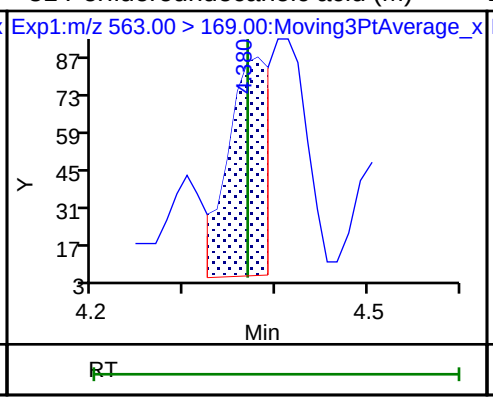
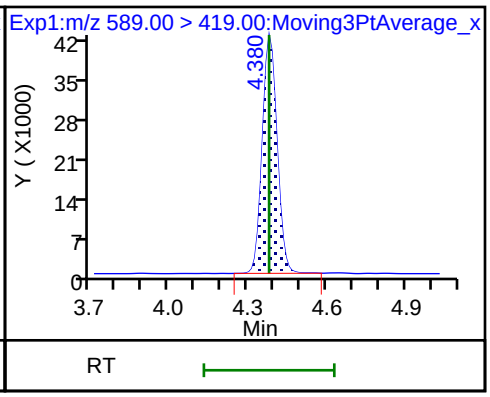
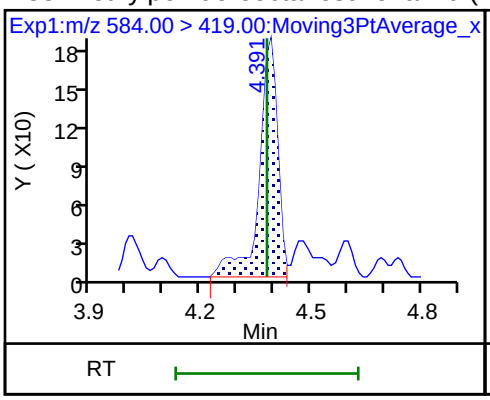


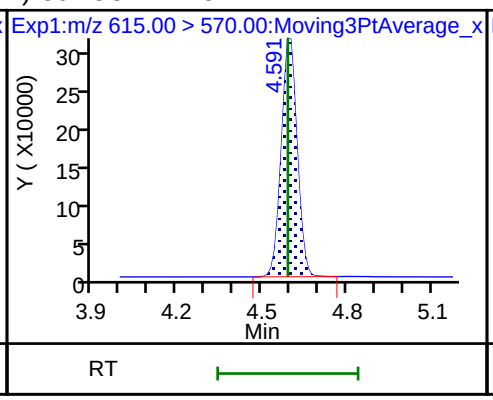

D 32 d5-NEtFOSAA



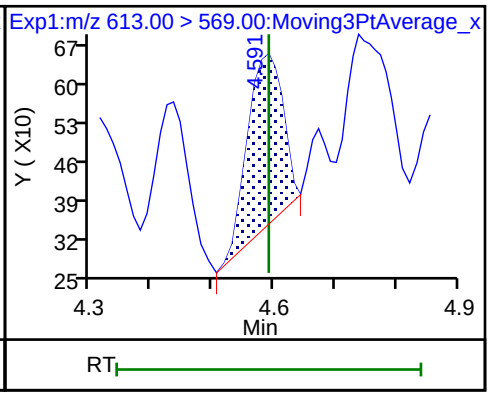

33 N-ethylperfluorooctanesulfonamid (ND)



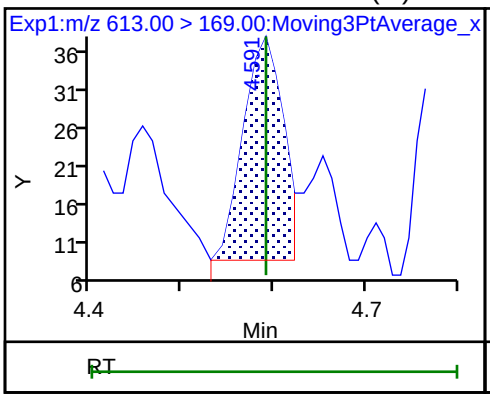

D 36 13C2 PFDoA



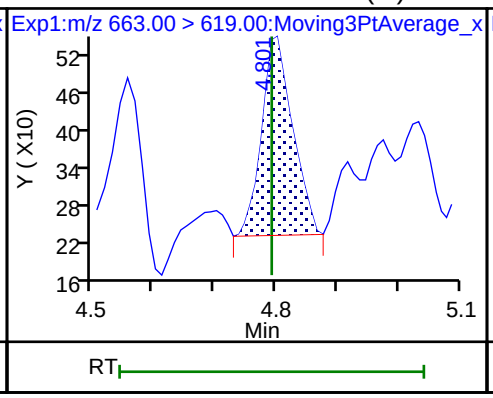

37 Perfluorododecanoic acid



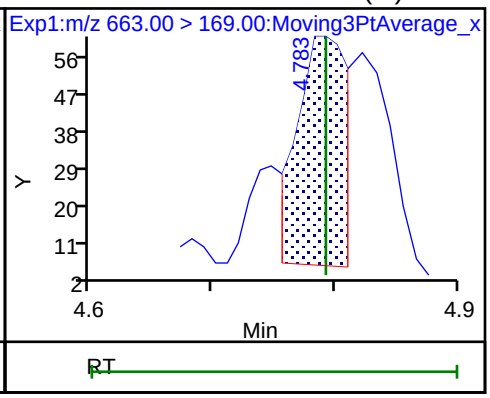
37 Perfluorododecanoic acid (M)




41 Perfluorotridecanoic acid (M)




41 Perfluorotridecanoic acid (M)

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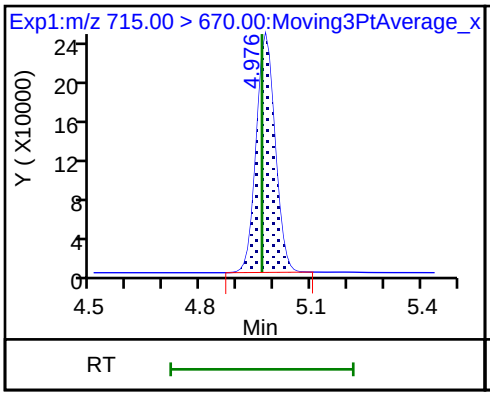
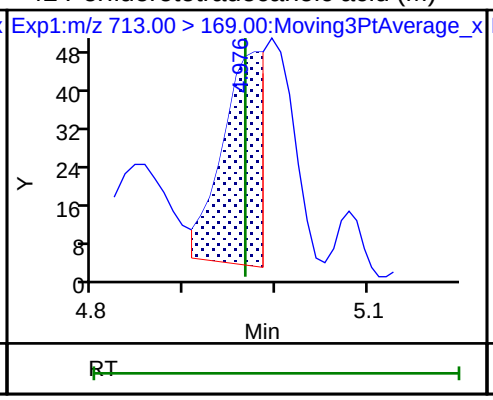
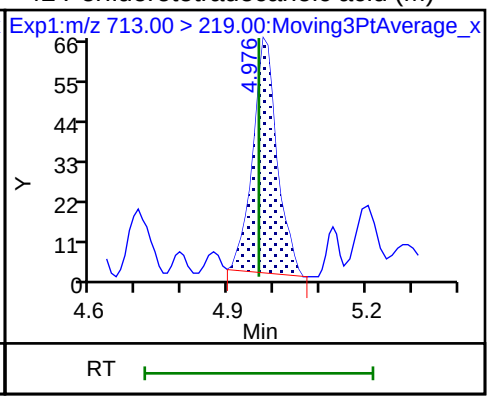



42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

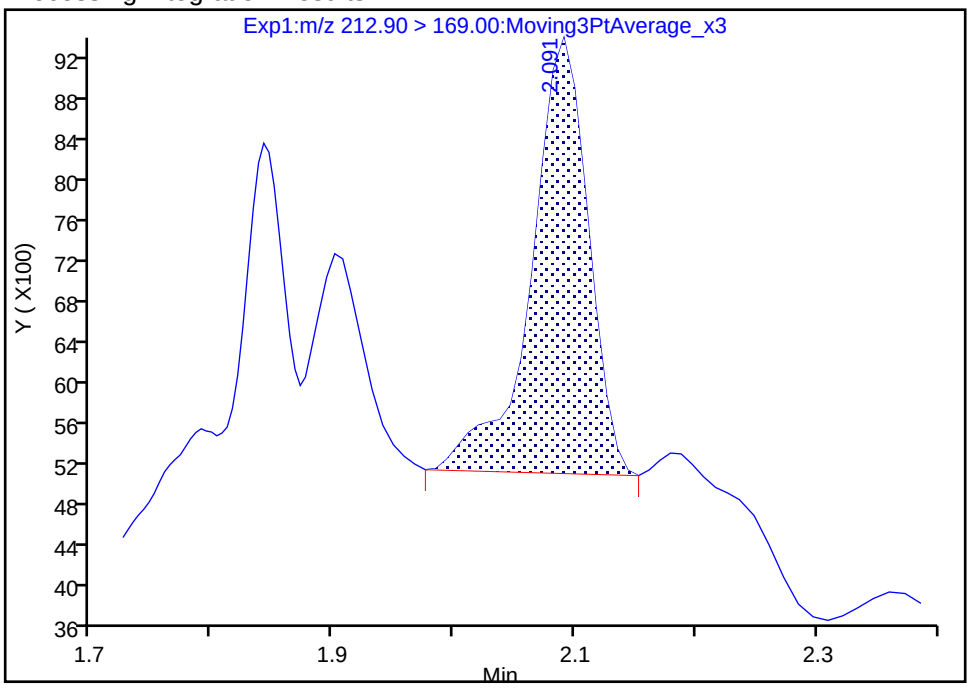
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

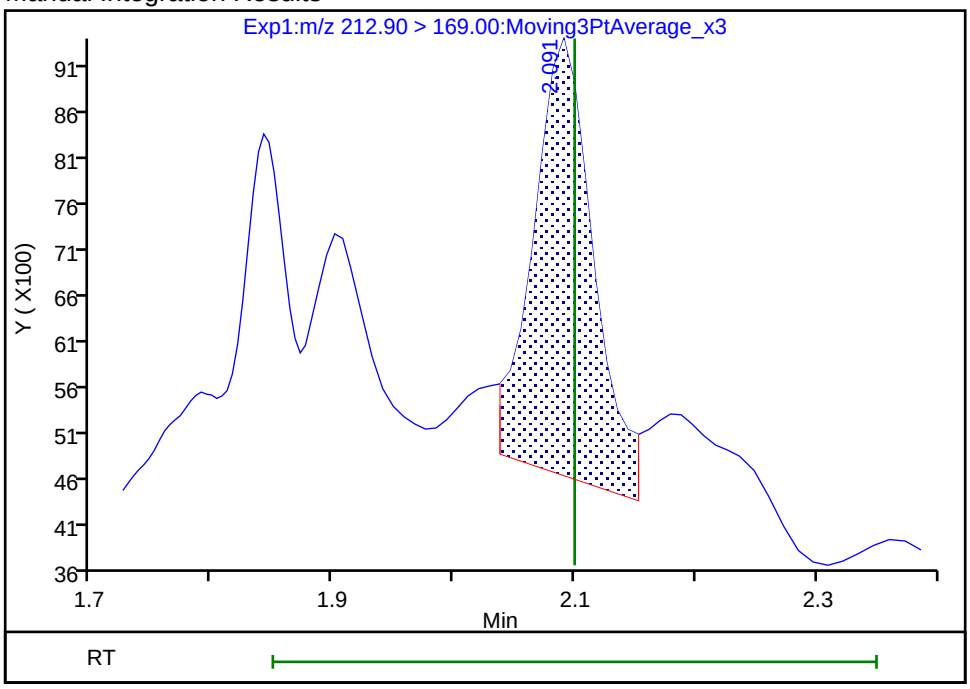
Processing Integration Results

RT: 2.09
Area: 14172
Amount: 0.009384
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 16523
Amount: 0.010941
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:02:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

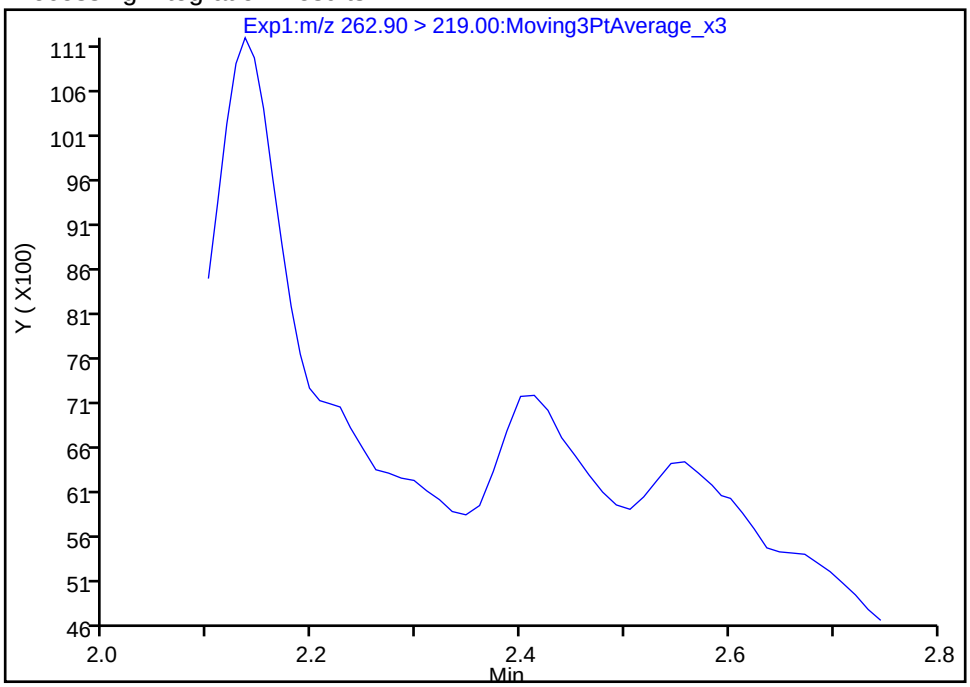
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

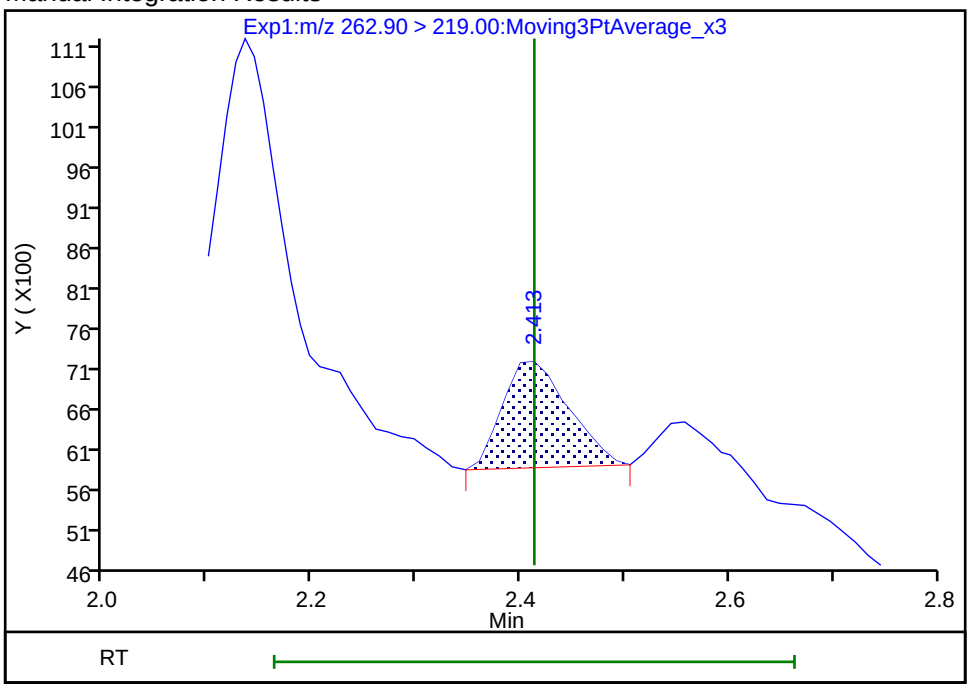
Not Detected
Expected RT: 2.41

Processing Integration Results




Manual Integration Results

RT: 2.41
Area: 5815
Amount: 0.004786
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:02
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

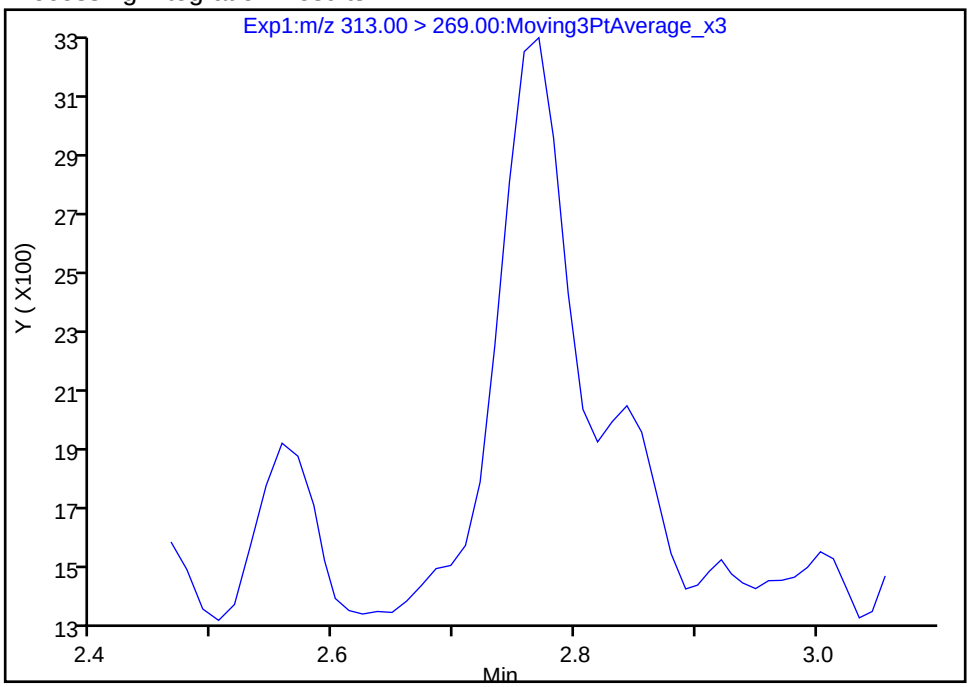
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

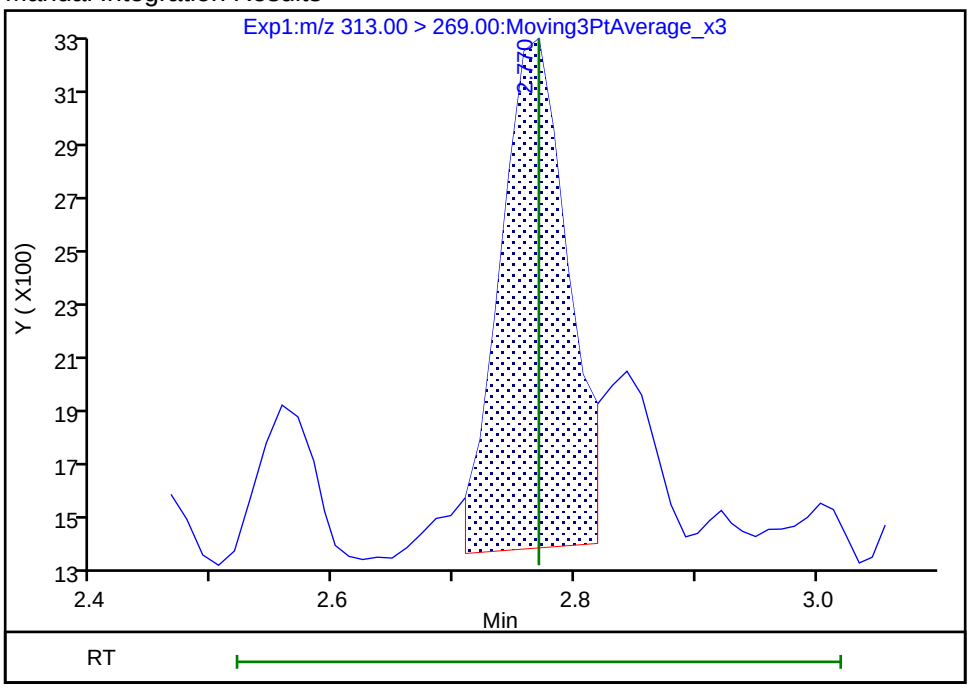
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.77
Area: 6855
Amount: 0.005345
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:33
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

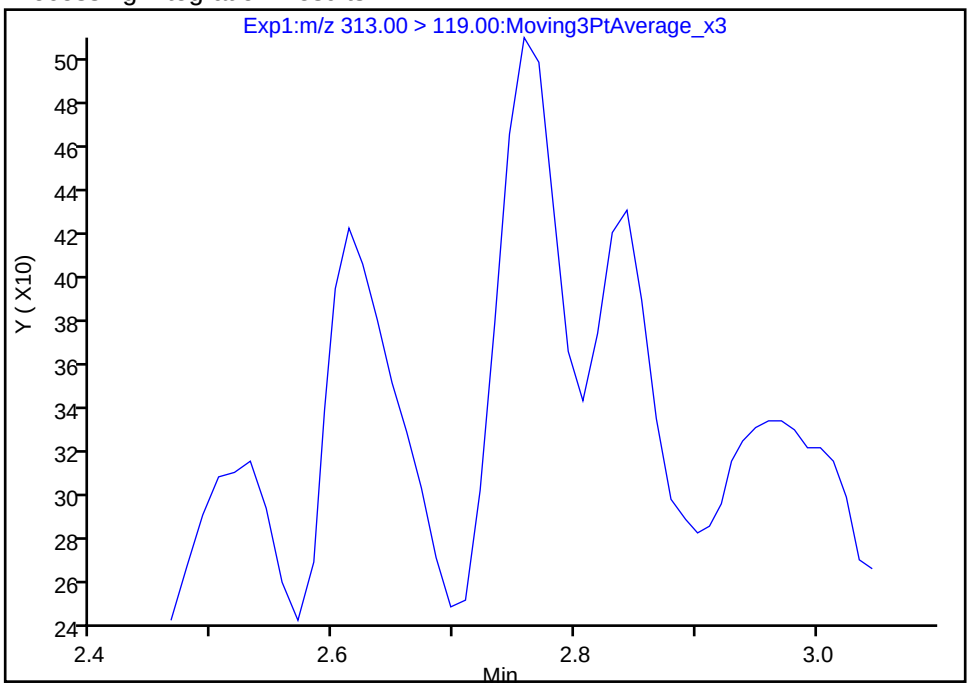
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

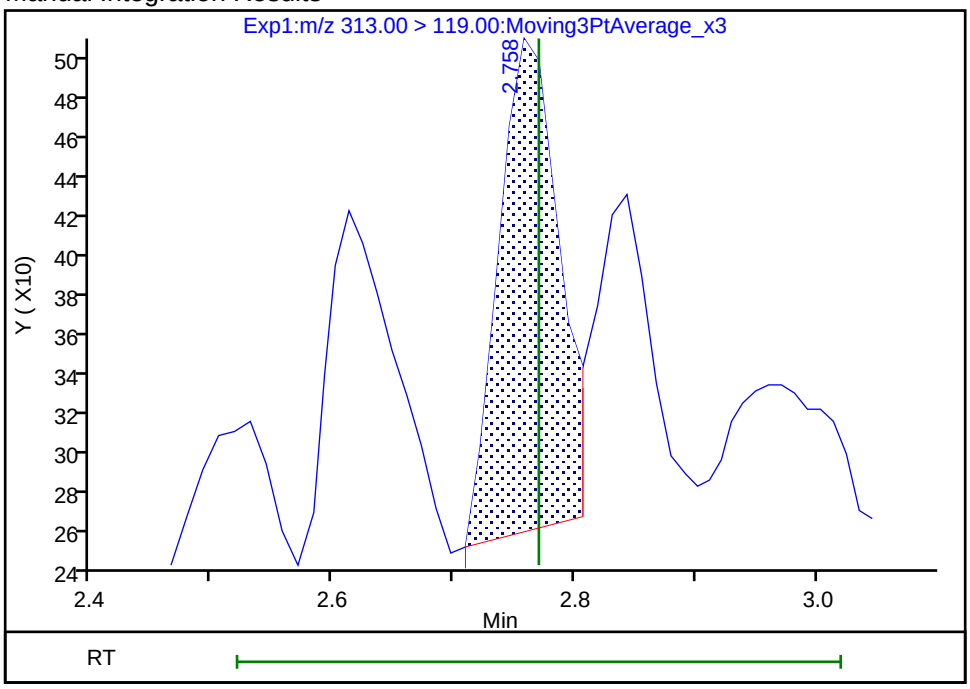
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 833
Amount: 0.005345
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:36
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

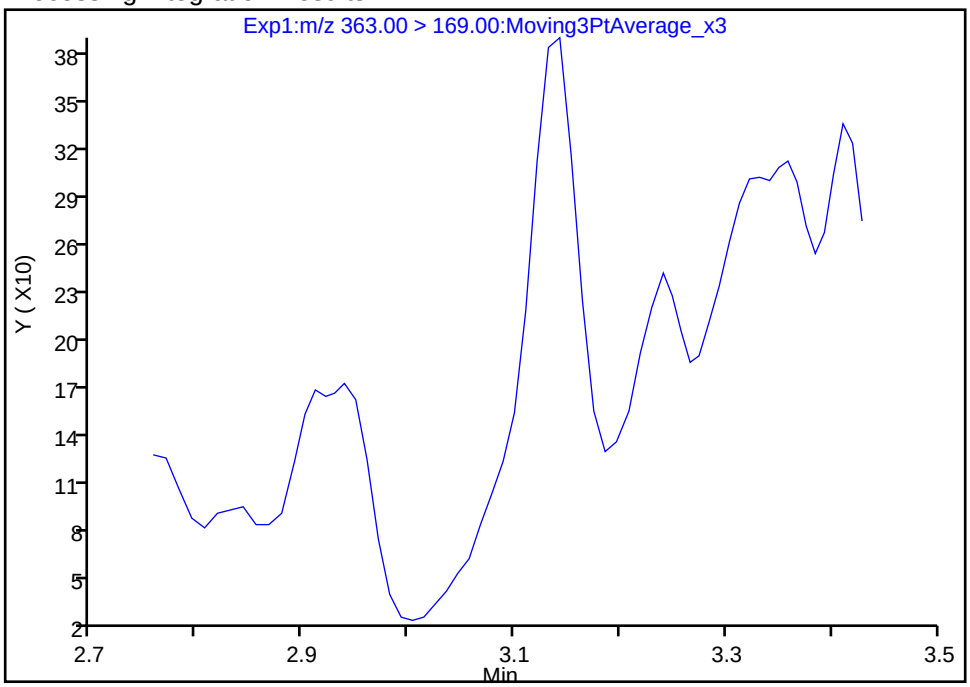
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 |
| Client ID: | BP-101-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 Worklist Smp#: 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

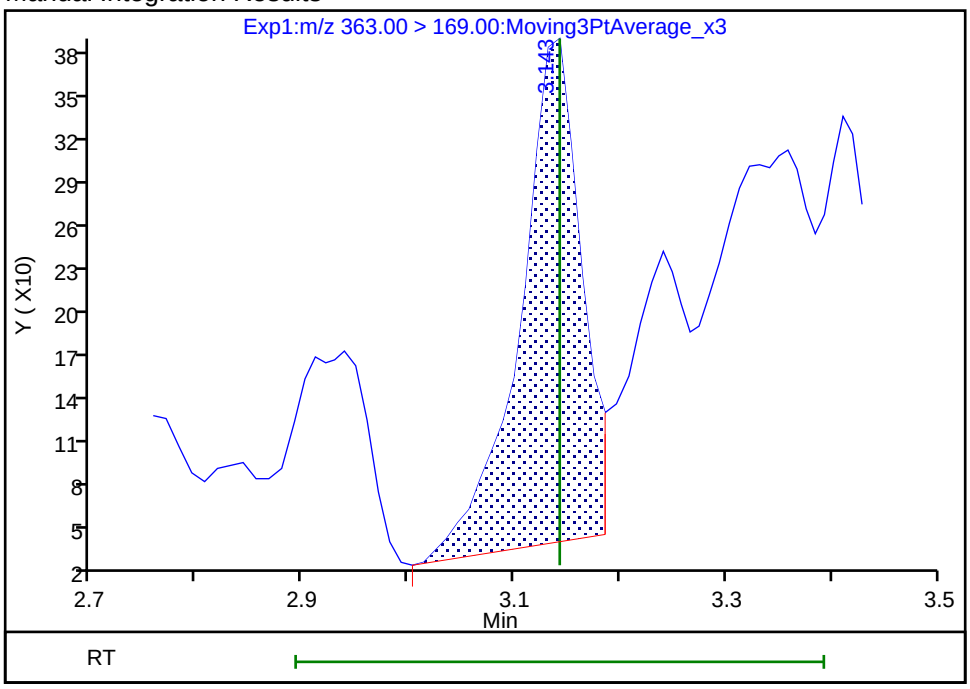
Not Detected
Expected RT: 3.14

Processing Integration Results




Manual Integration Results

RT: 3.14
Area: 1372
Amount: 0.002650
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:04:44
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

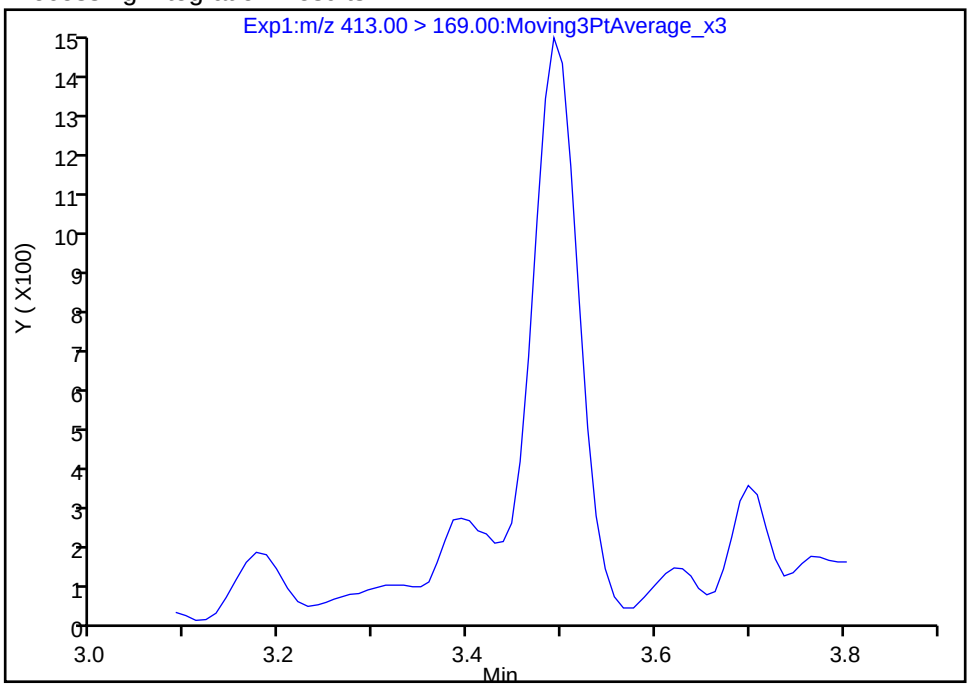
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

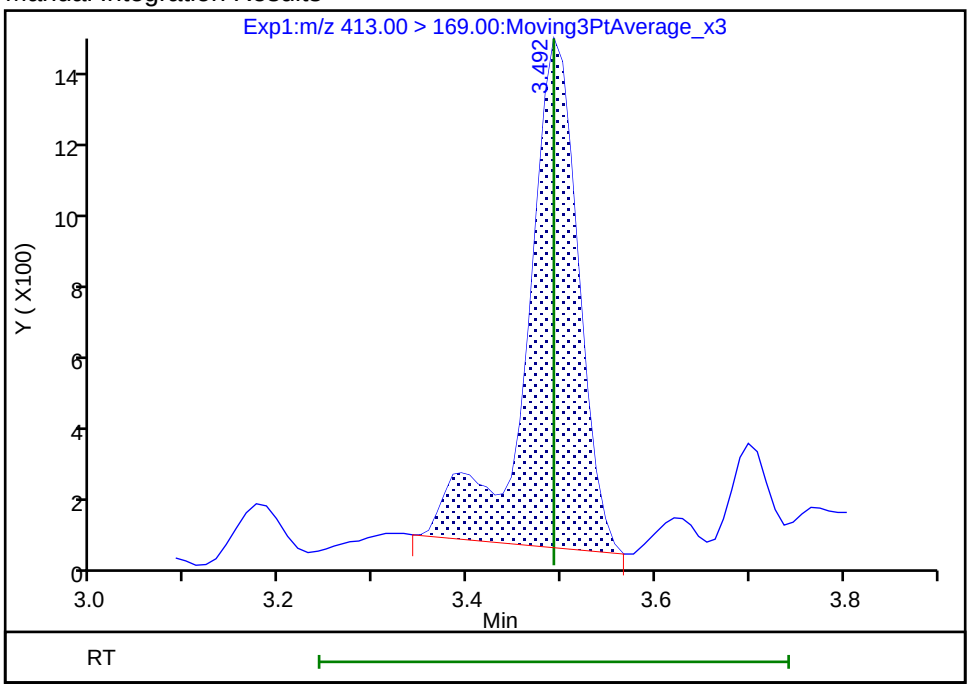
Not Detected
Expected RT: 3.49

Processing Integration Results




Manual Integration Results

RT: 3.49
Area: 5408
Amount: 0.008628
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:05:09
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

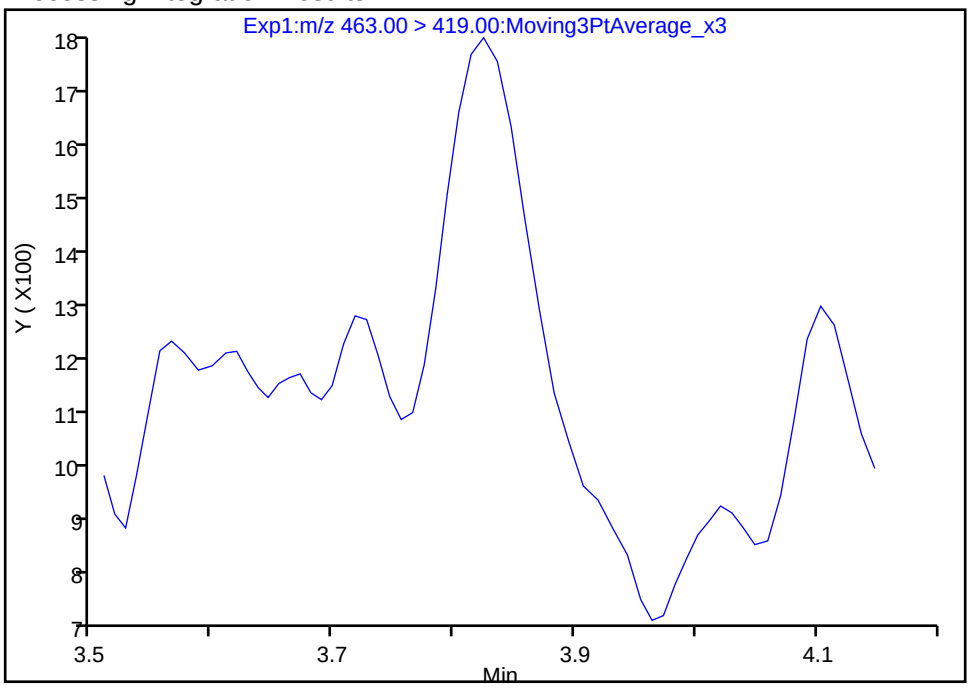
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

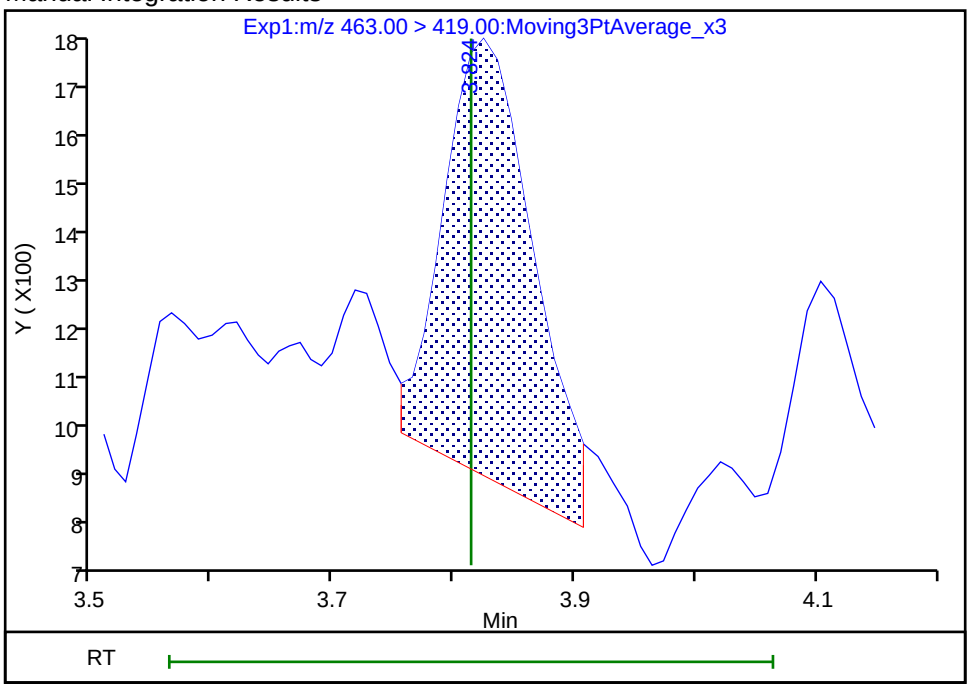
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 4666
Amount: 0.003648
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:05:55
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

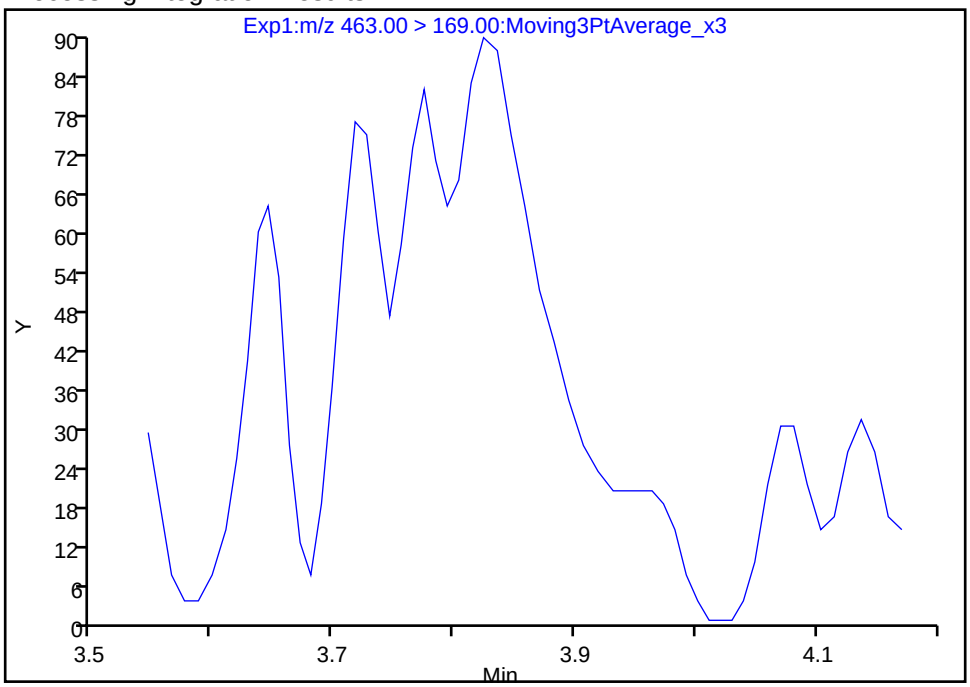
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

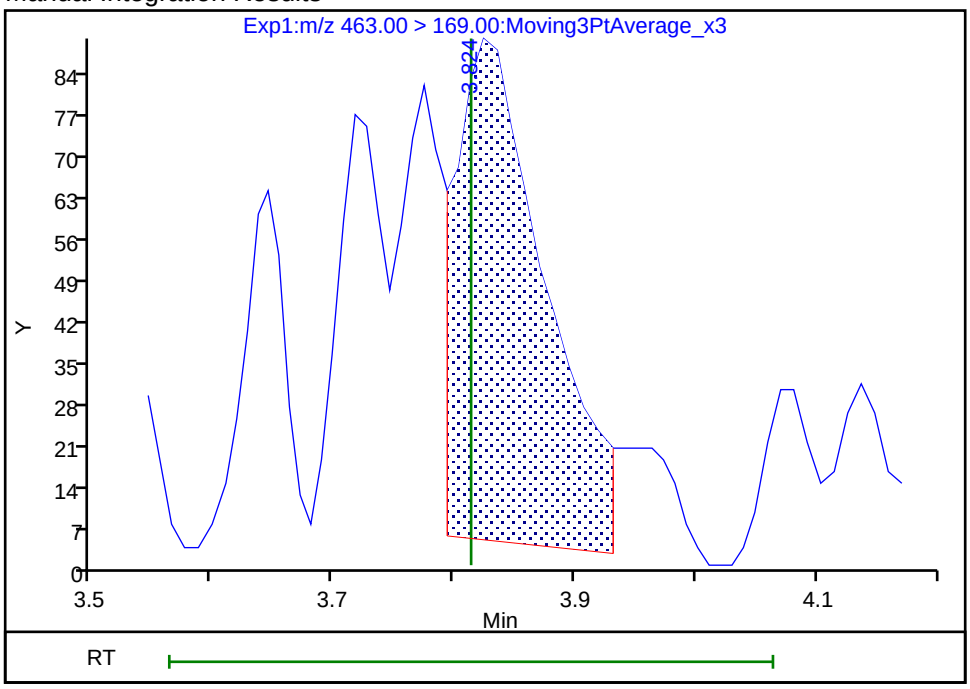
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 433
Amount: 0.003648
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:06:01
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

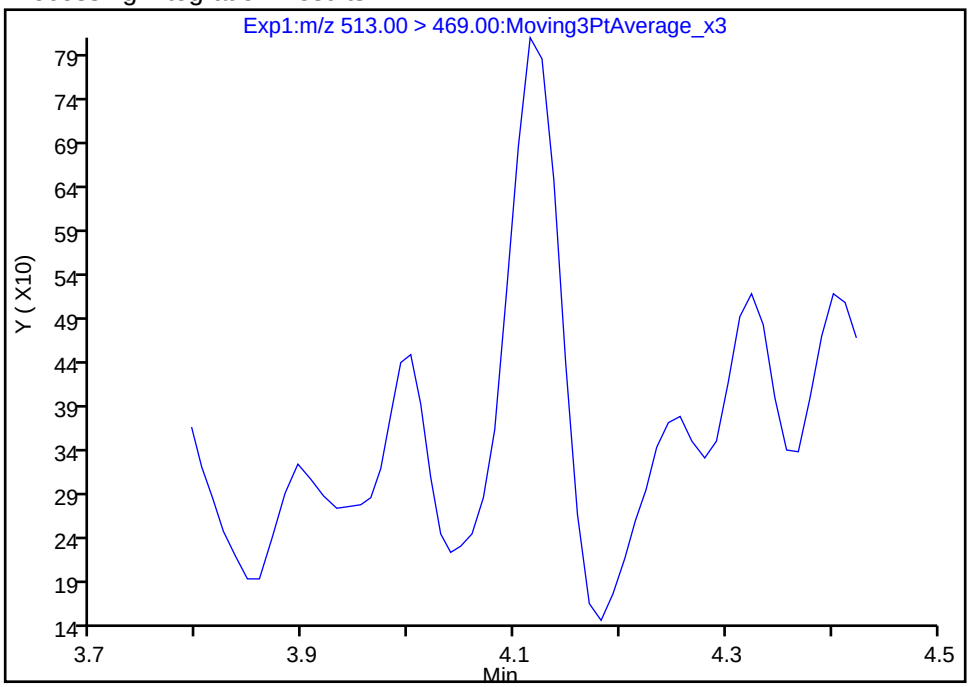
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 |
| Client ID: | BP-101-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 Worklist Smp#: 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

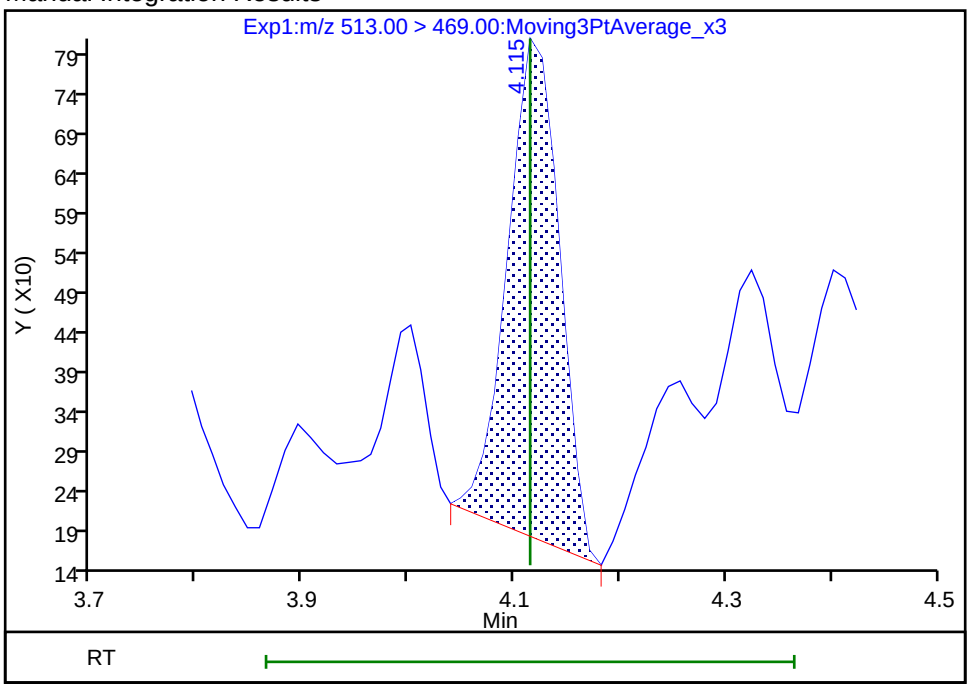
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 2143
Amount: 0.001653
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:06:07
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

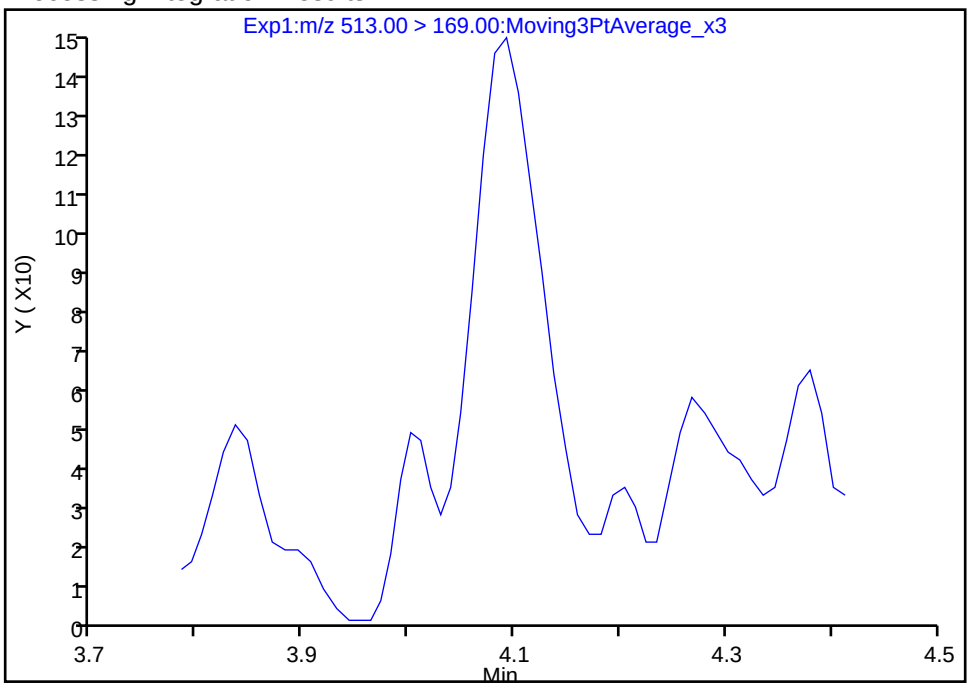
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

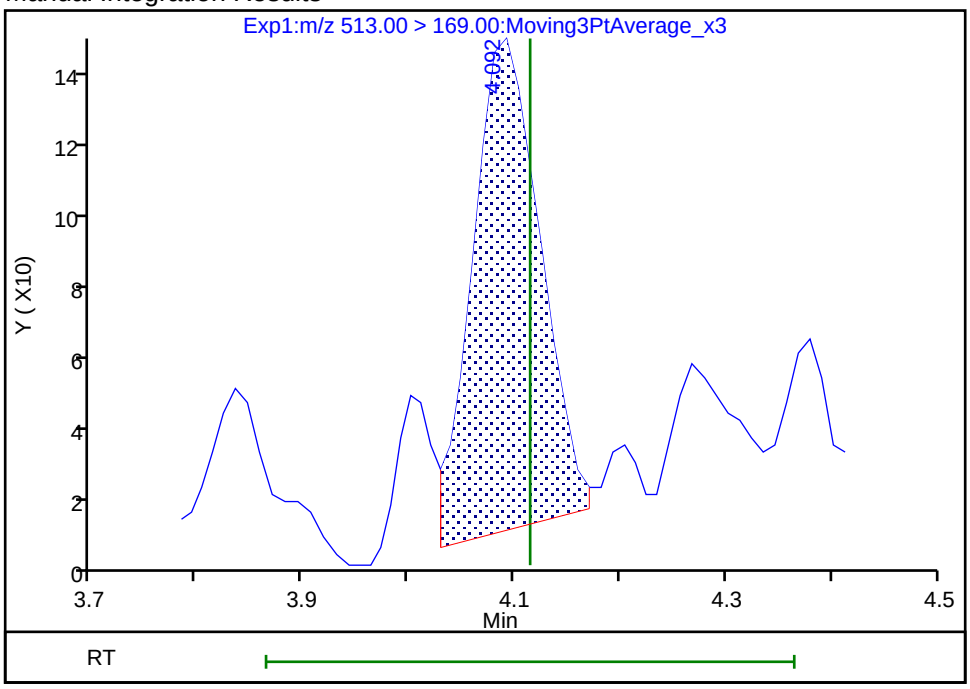
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.09
Area: 619
Amount: 0.001653
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:06:19
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

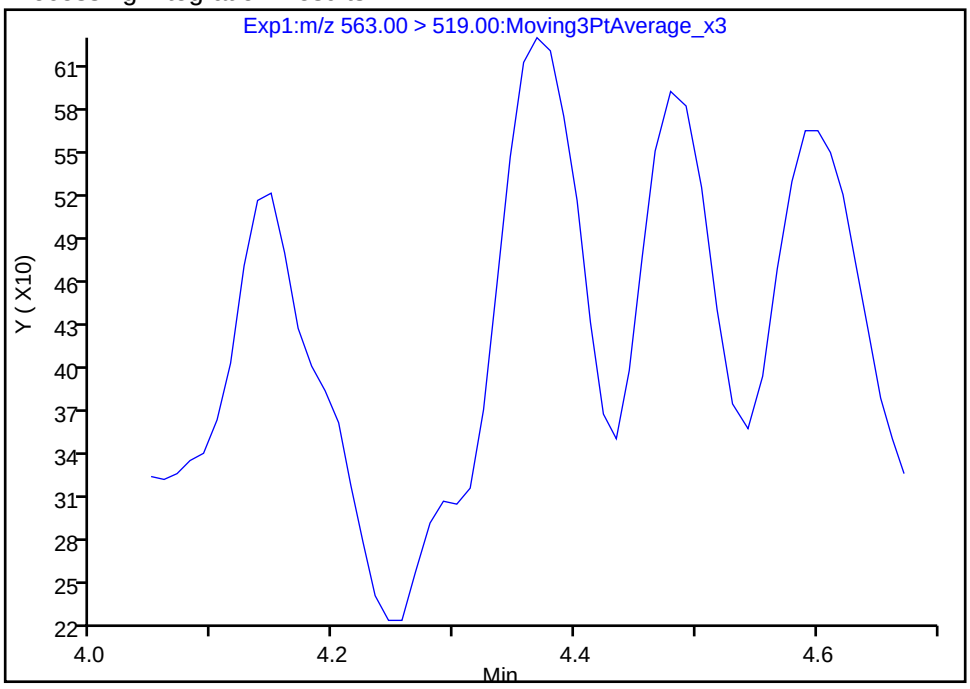
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

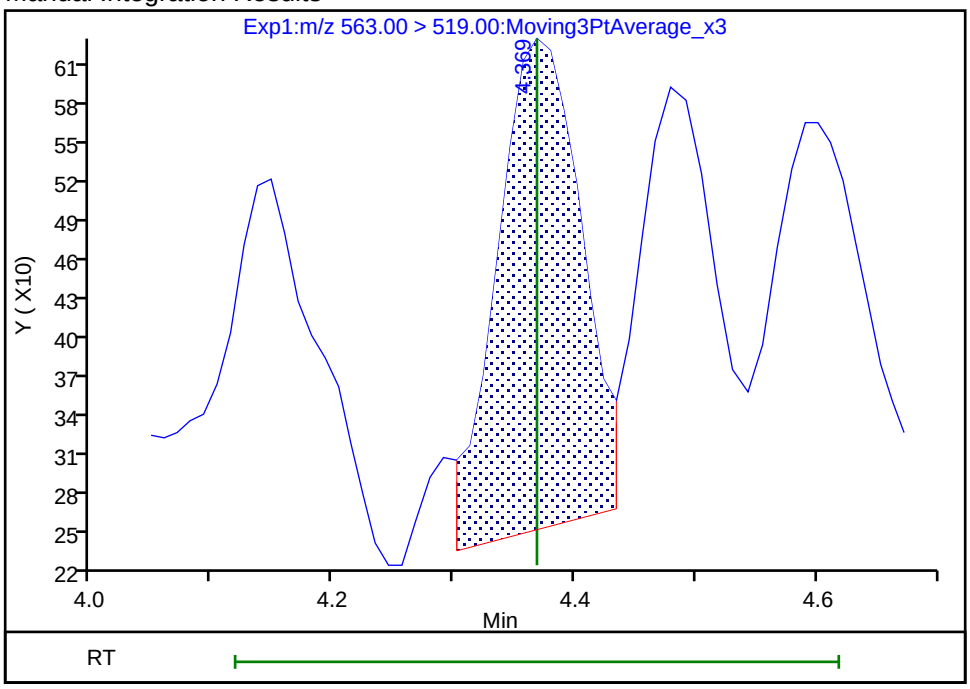
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1804
Amount: 0.001819
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:12
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

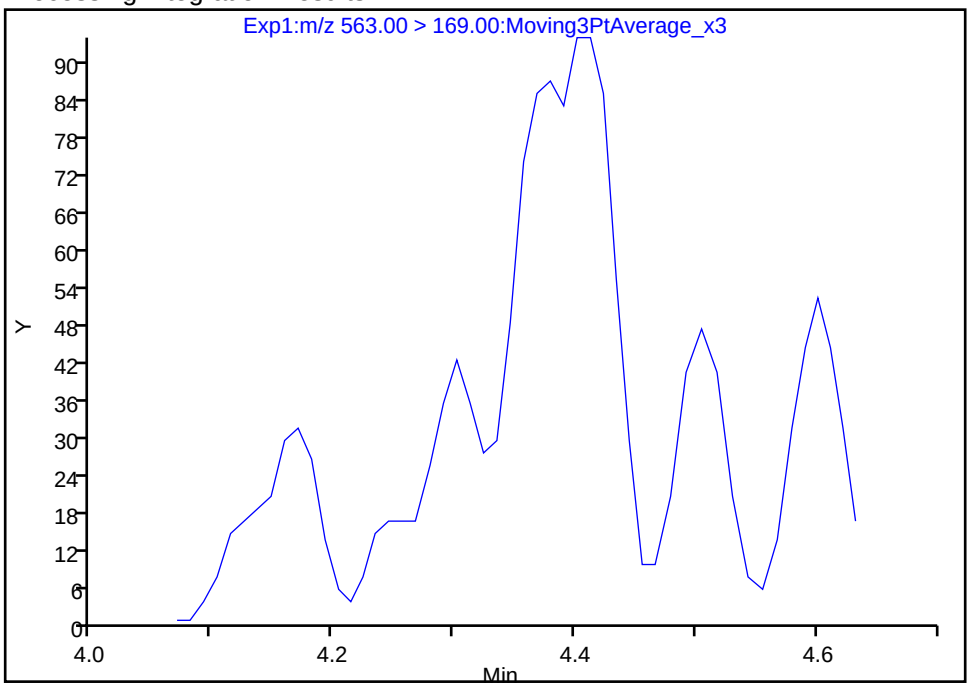
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

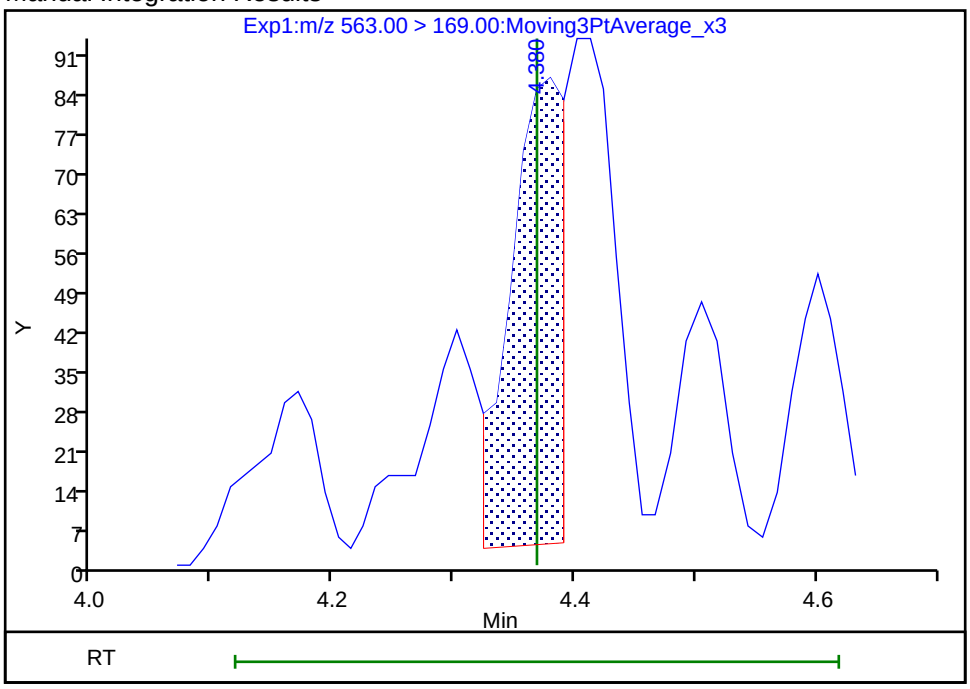
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 237
Amount: 0.001819
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:16
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

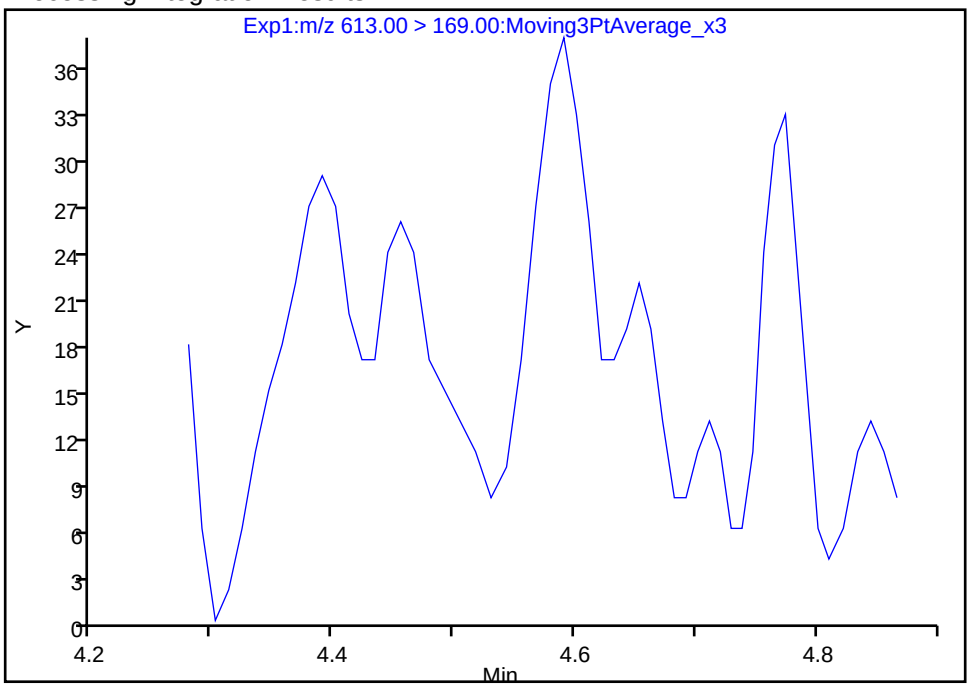
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

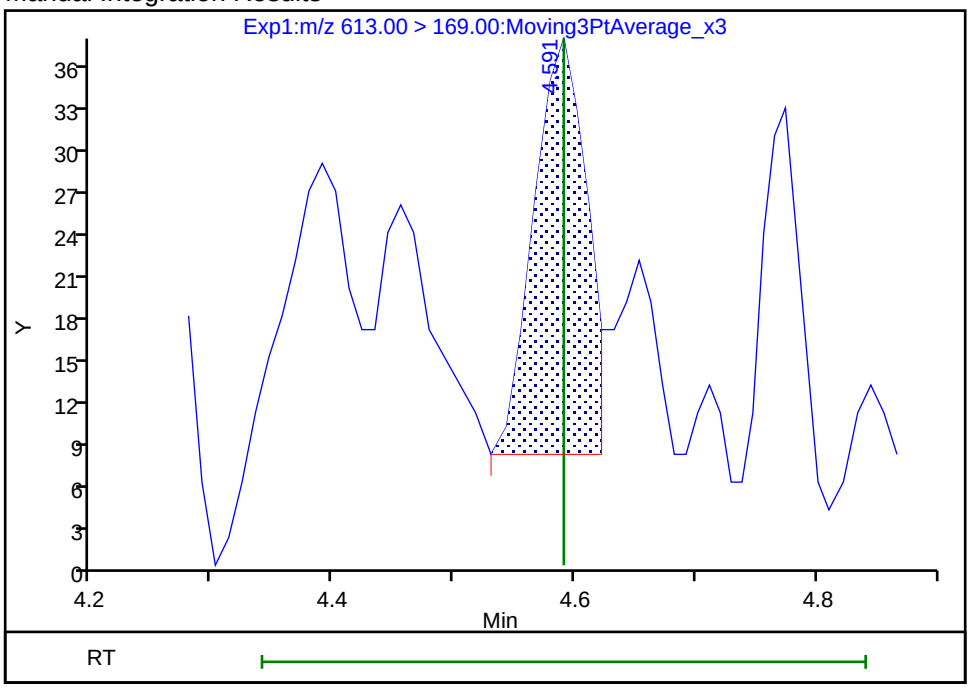
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 89
Amount: 0.001323
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:39
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

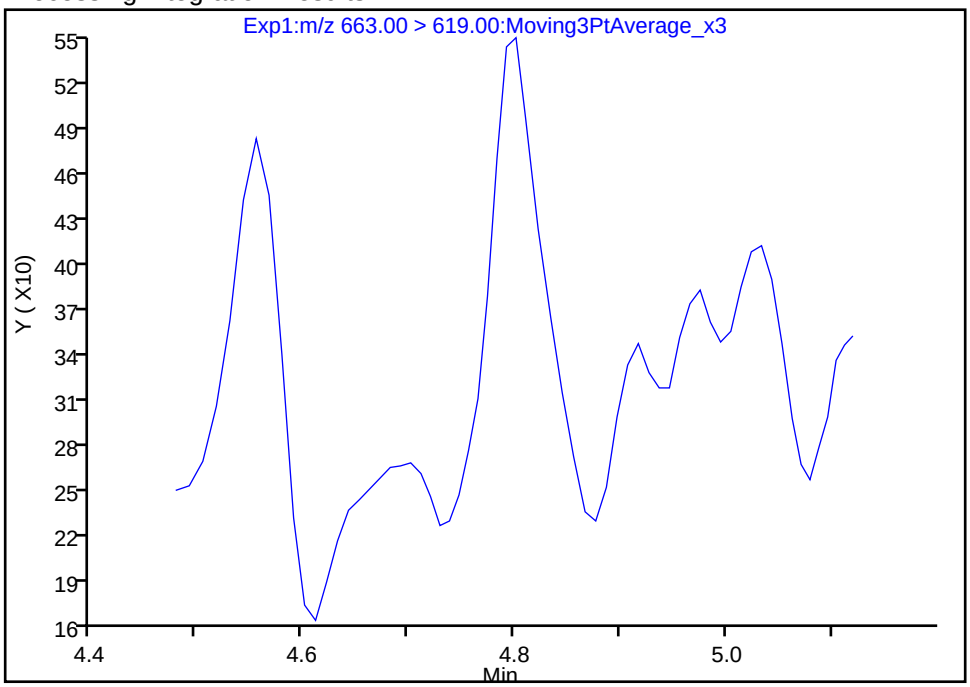
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

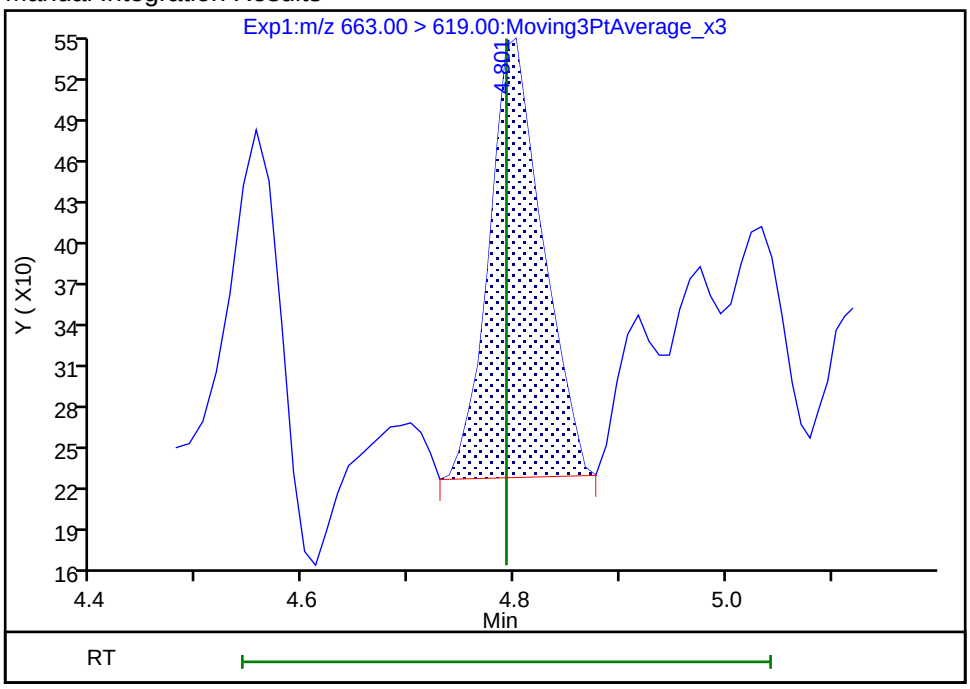
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 1114
Amount: 0.001367
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:45
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

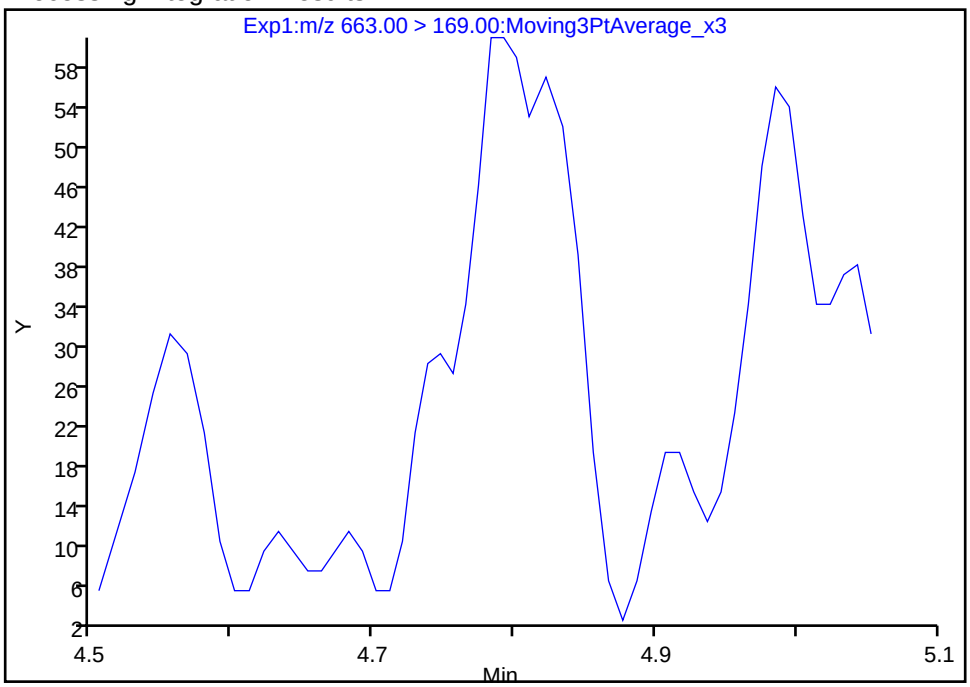
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

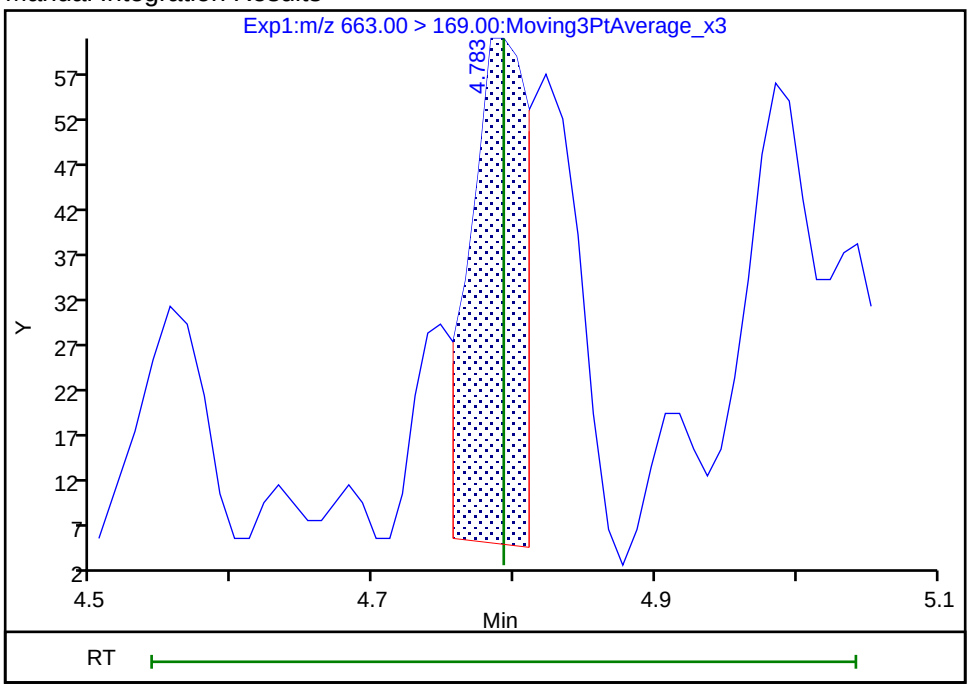
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 150
Amount: 0.001367
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:54
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

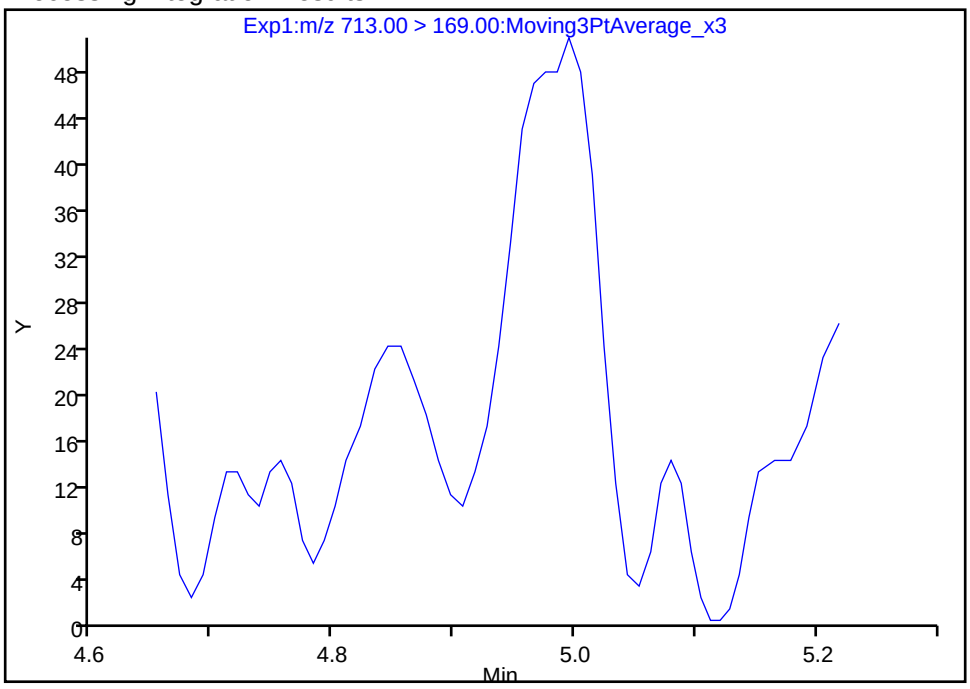
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 |
| Client ID: | BP-101-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 Worklist Smp#: 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

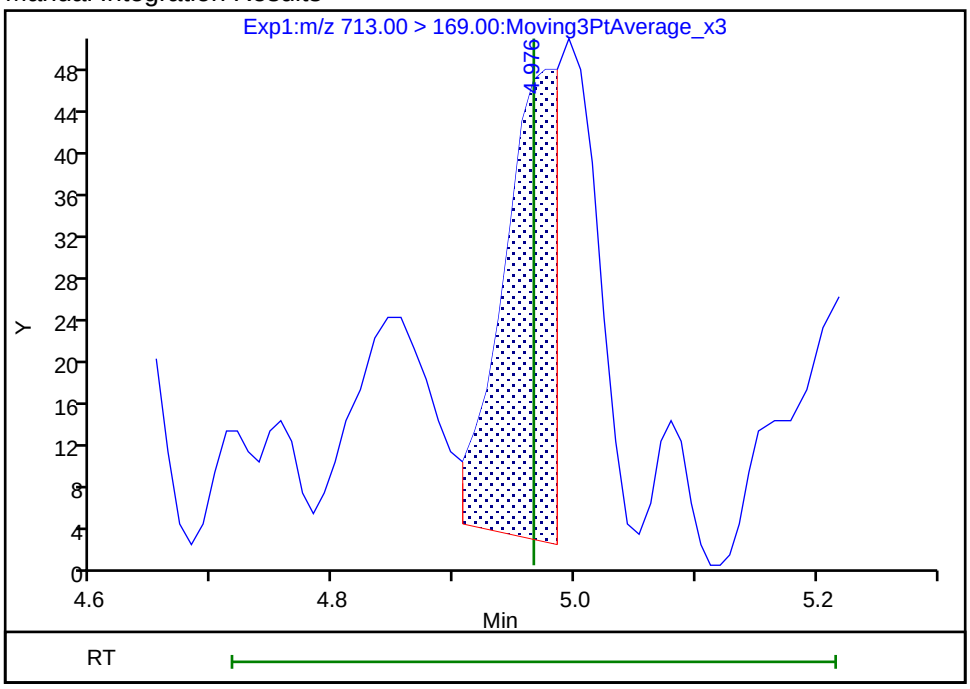
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 134
Amount: 0.001225
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:08:13
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

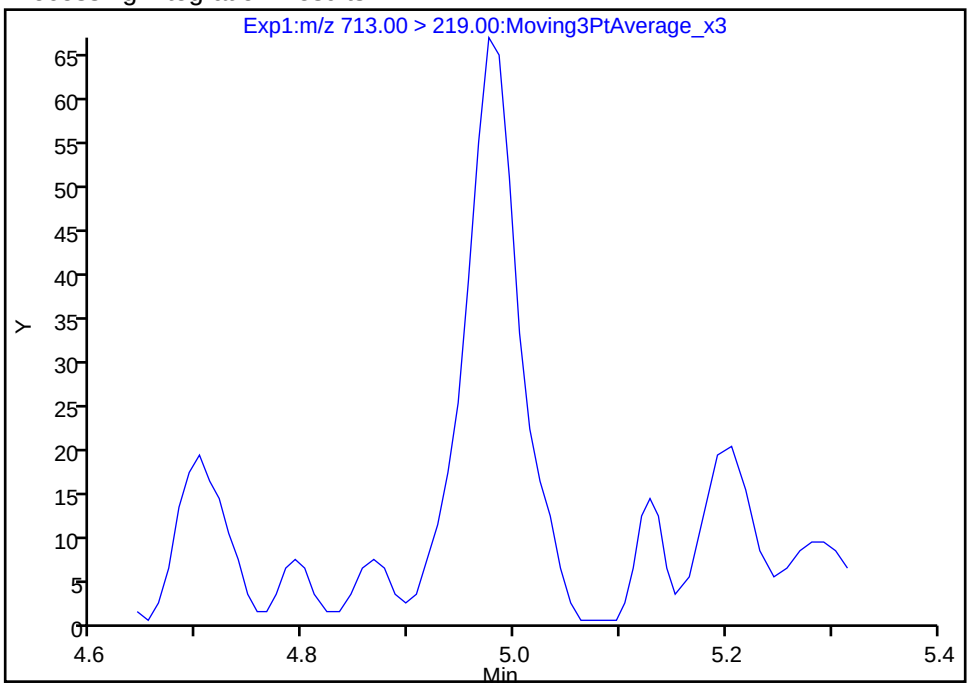
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

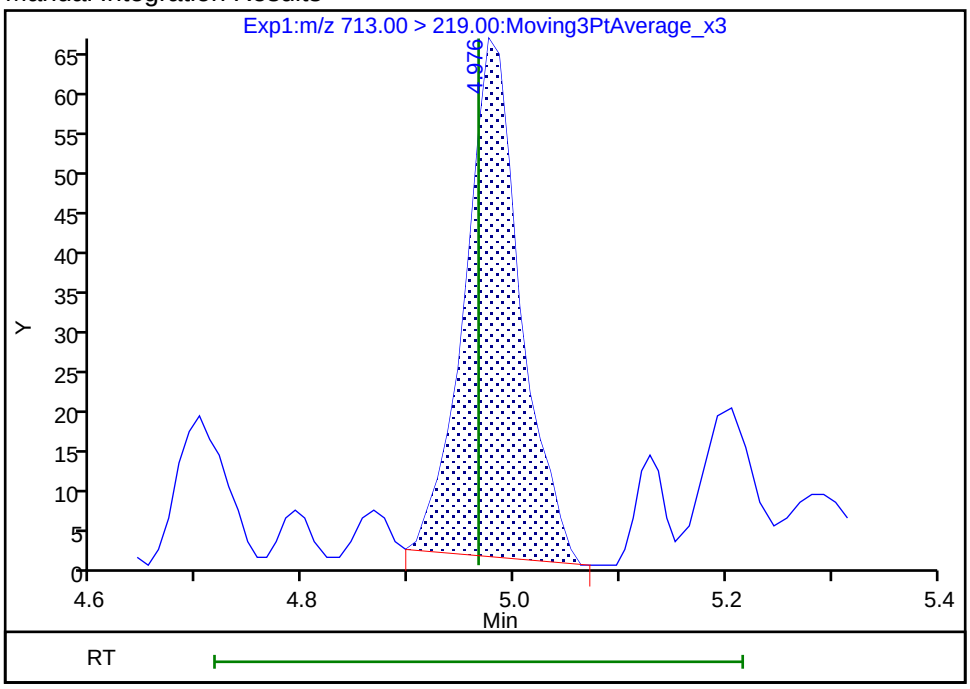
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 240
Amount: 0.001225
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:08:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

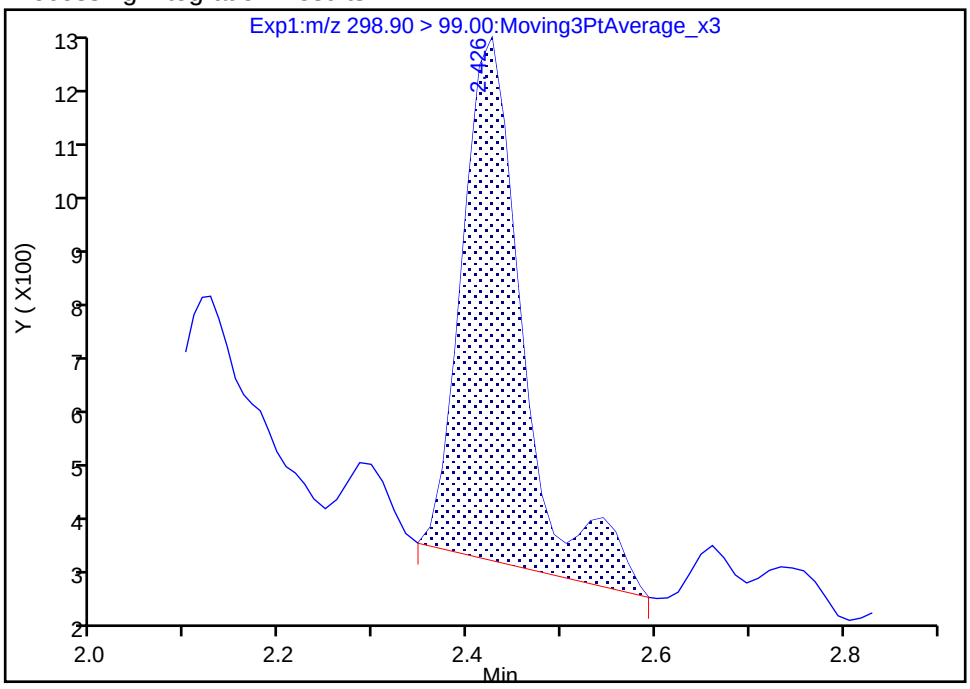
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

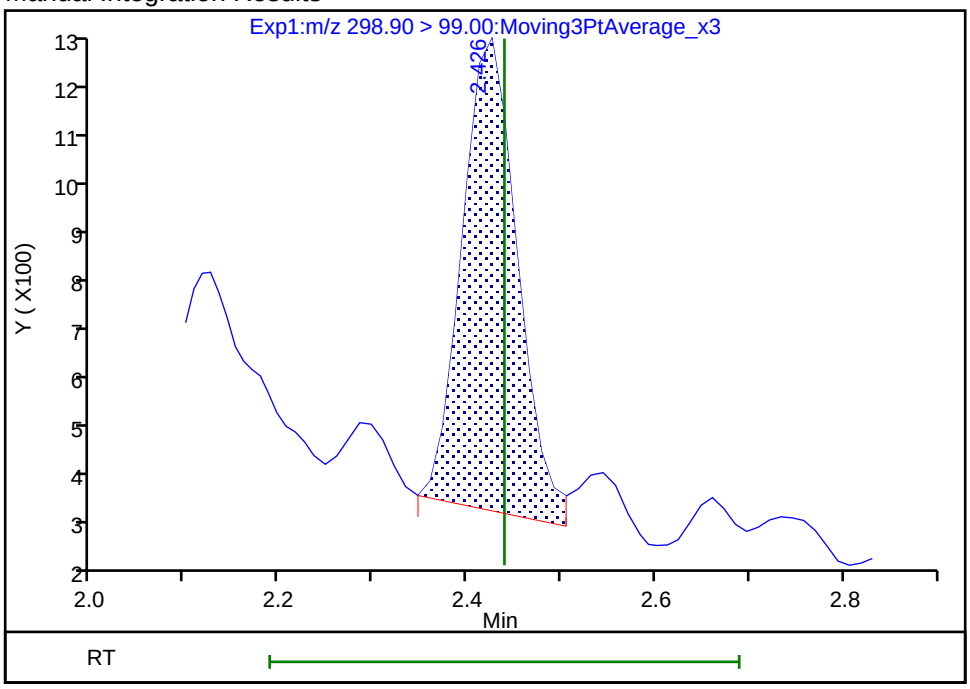
Processing Integration Results

RT: 2.43
Area: 4112
Amount: 0.005055
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 3709
Amount: 0.005055
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

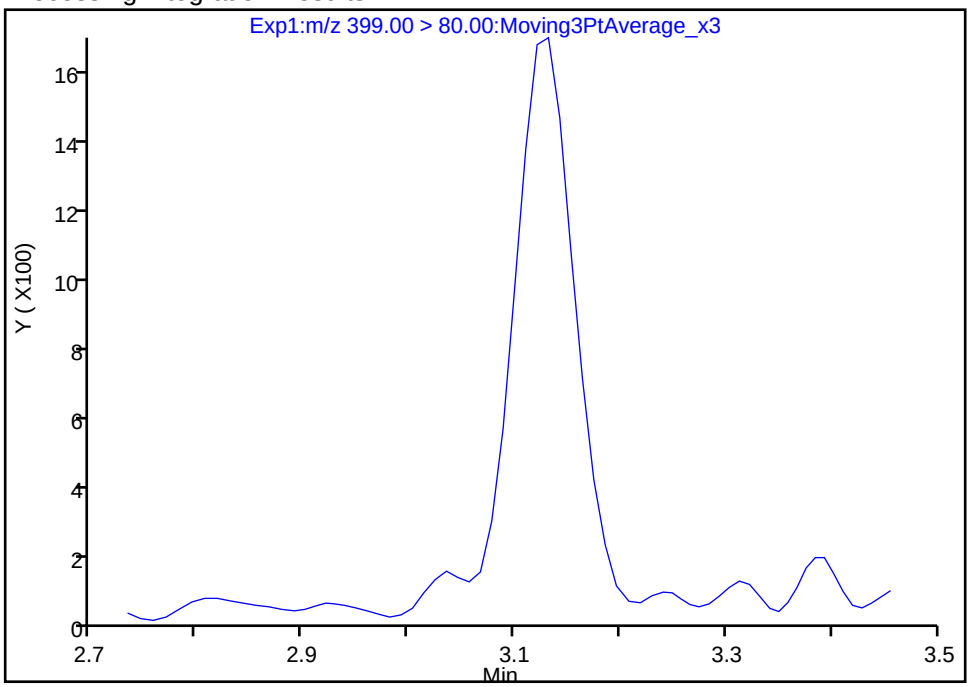
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

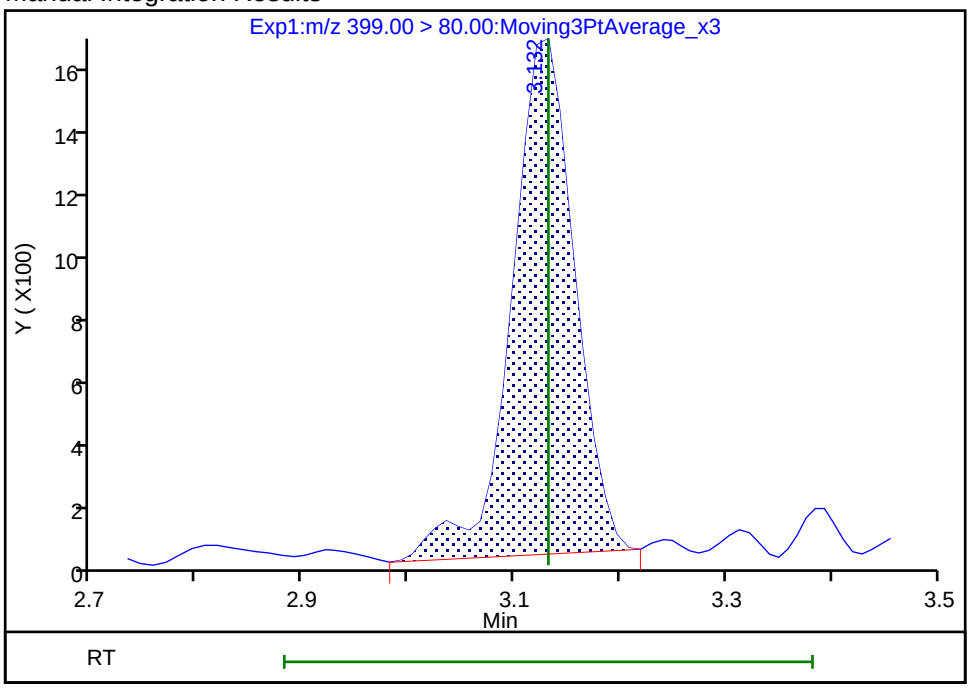
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 6454
Amount: 0.005278
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:45
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

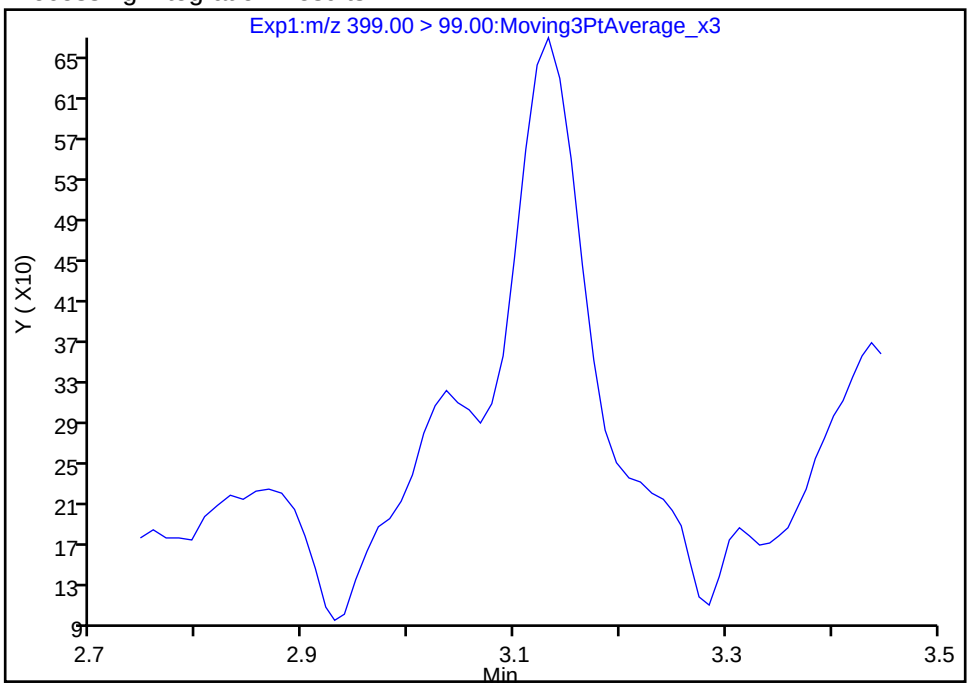
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

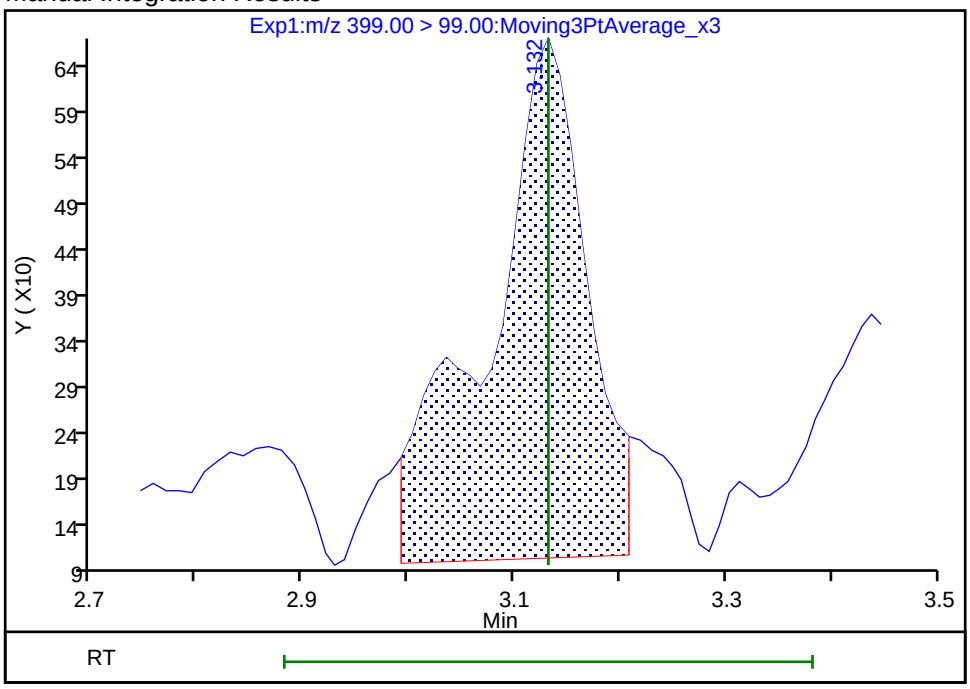
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 3691
Amount: 0.005278
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:03:55
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

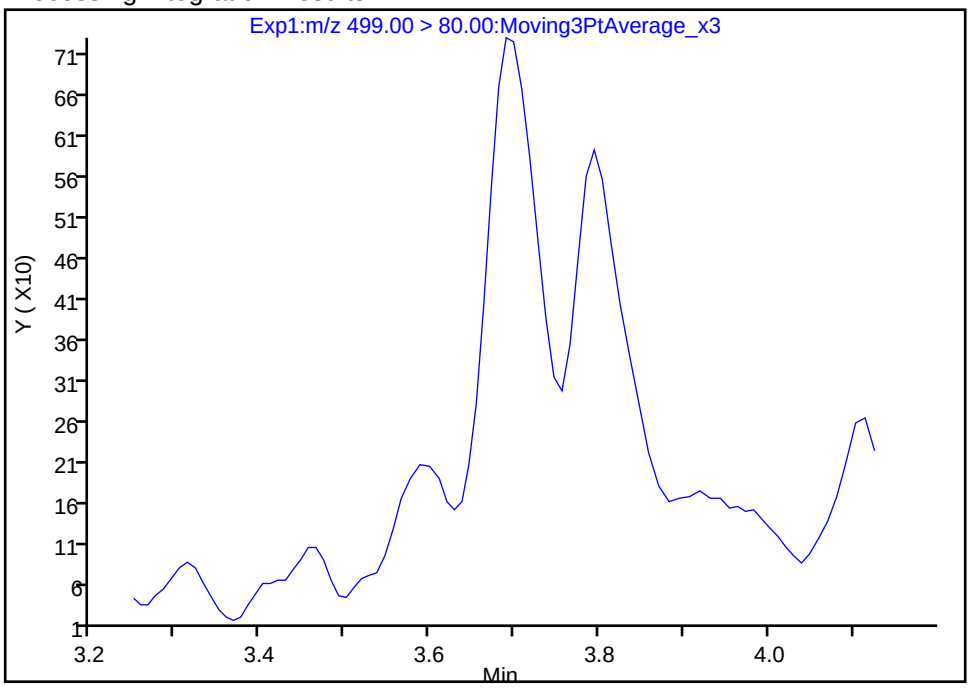
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

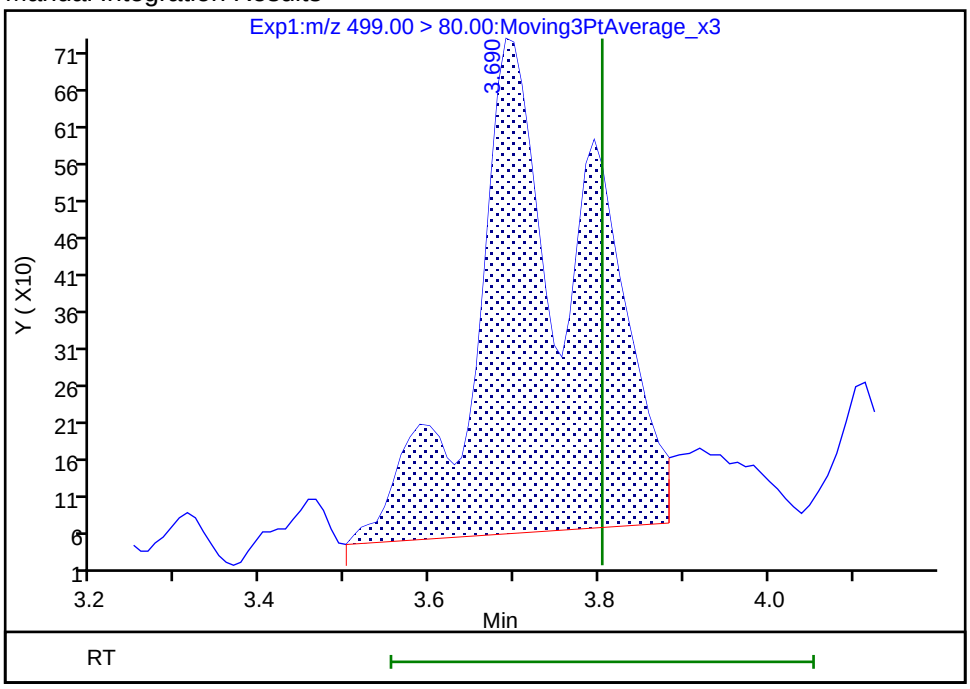
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.69
Area: 6045
Amount: 0.006710
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:05:26
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

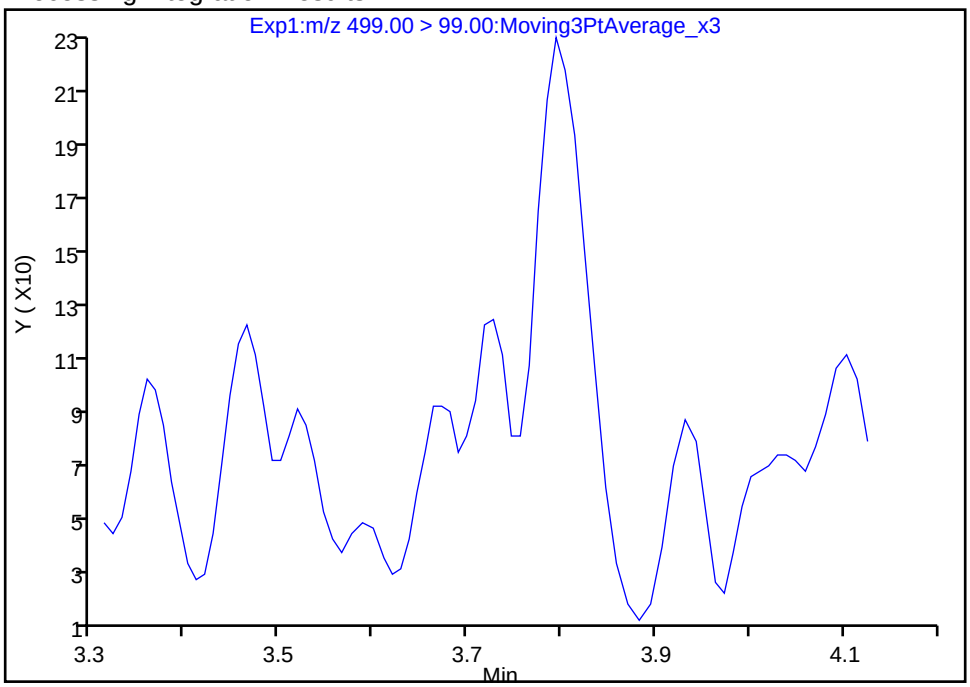
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

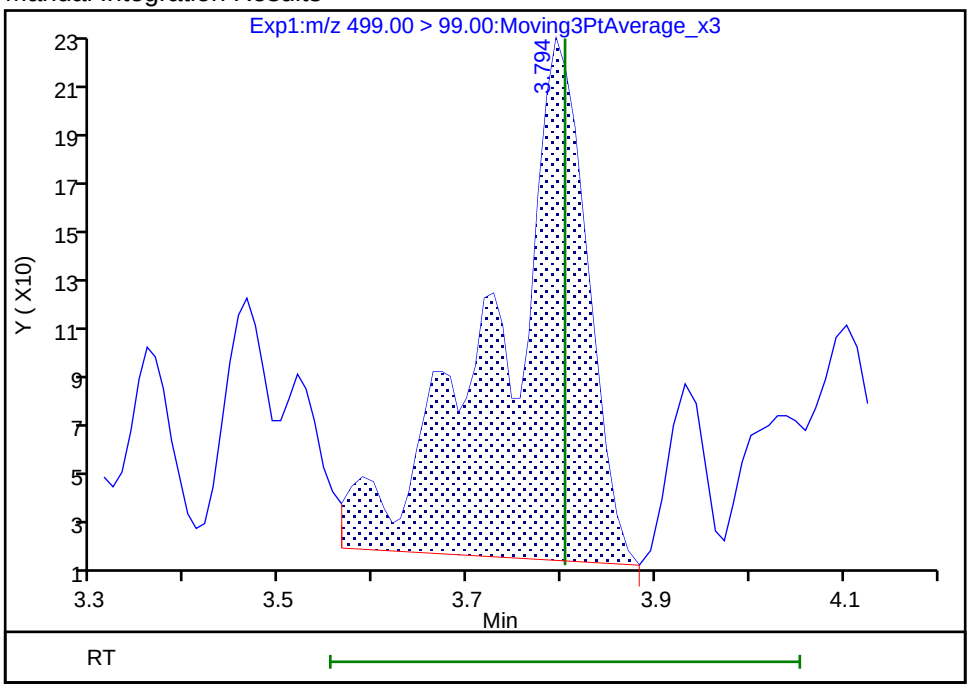
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 1425
Amount: 0.006710
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:05:31
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

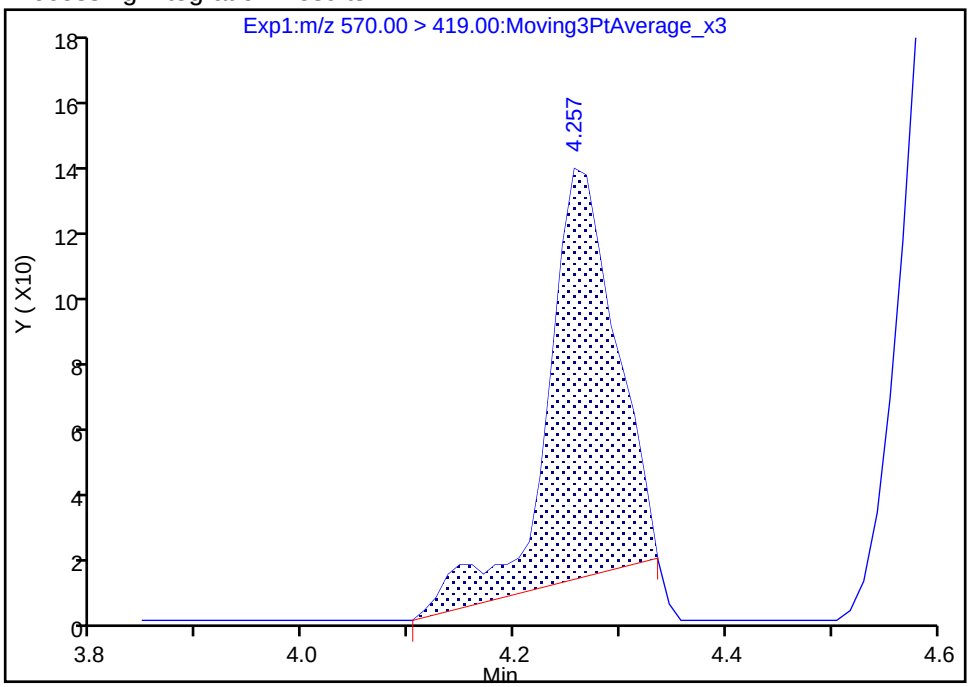
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

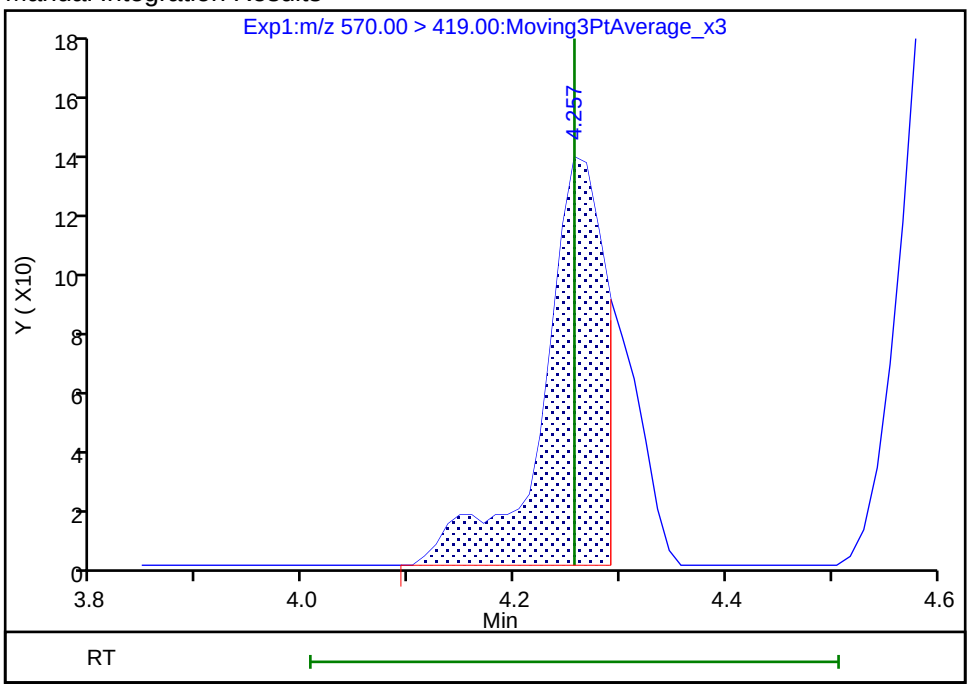
Processing Integration Results

RT: 4.26
Area: 569
Amount: 0.005315
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 544
Amount: 0.005082
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:06:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

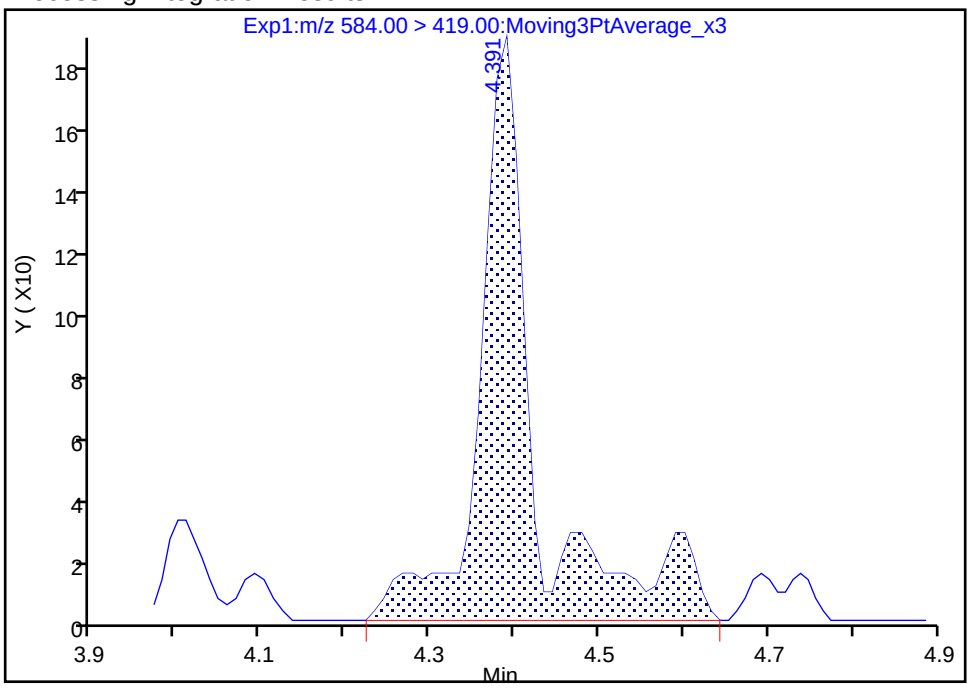
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

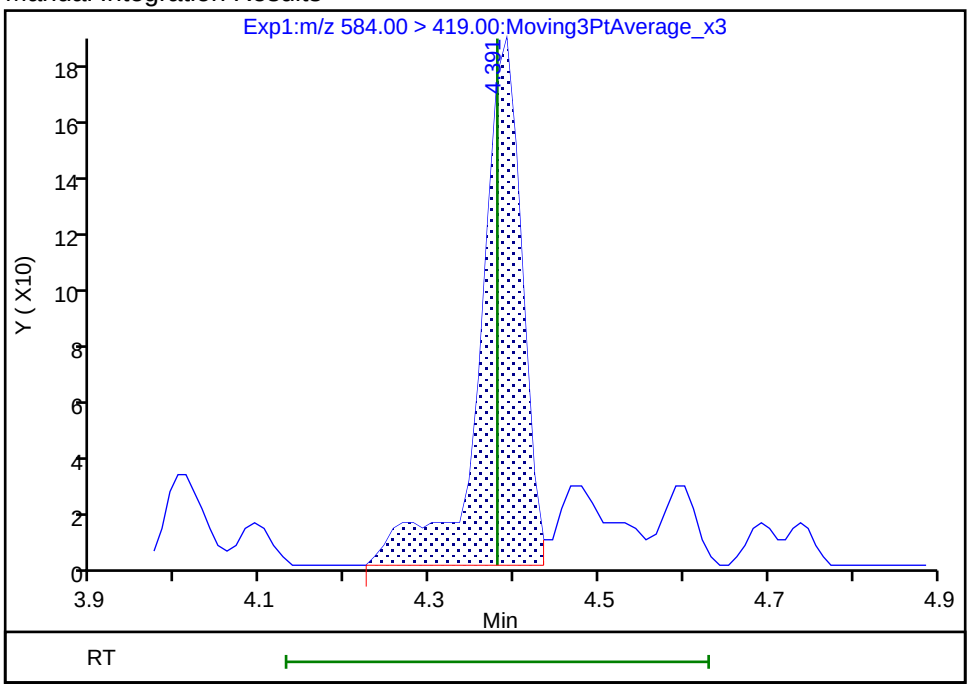
Processing Integration Results

RT: 4.39
Area: 854
Amount: 0.007545
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 645
Amount: 0.005699
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:07:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

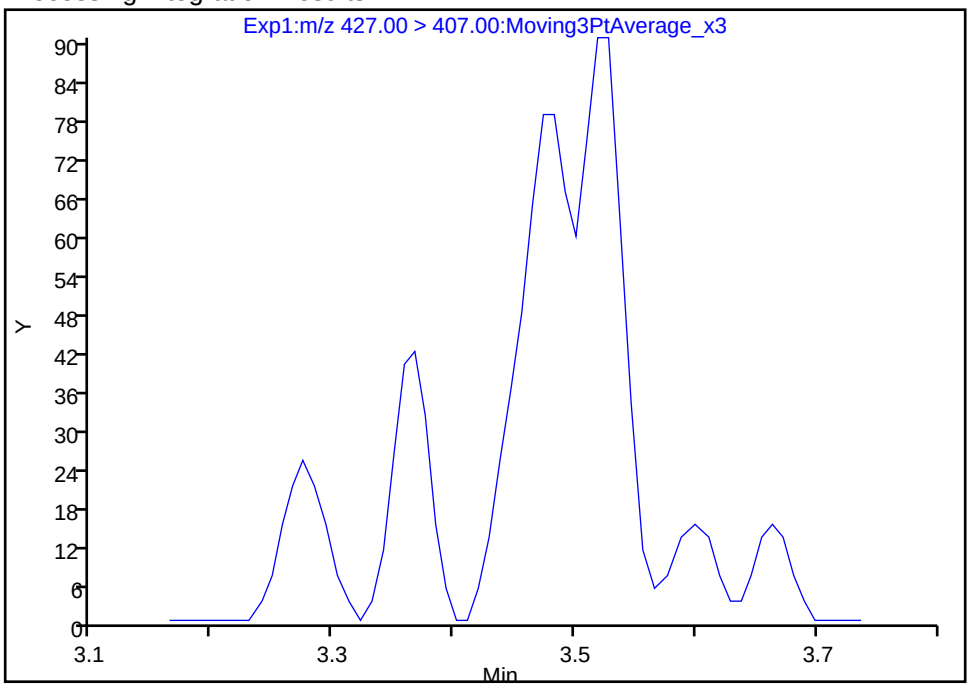
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

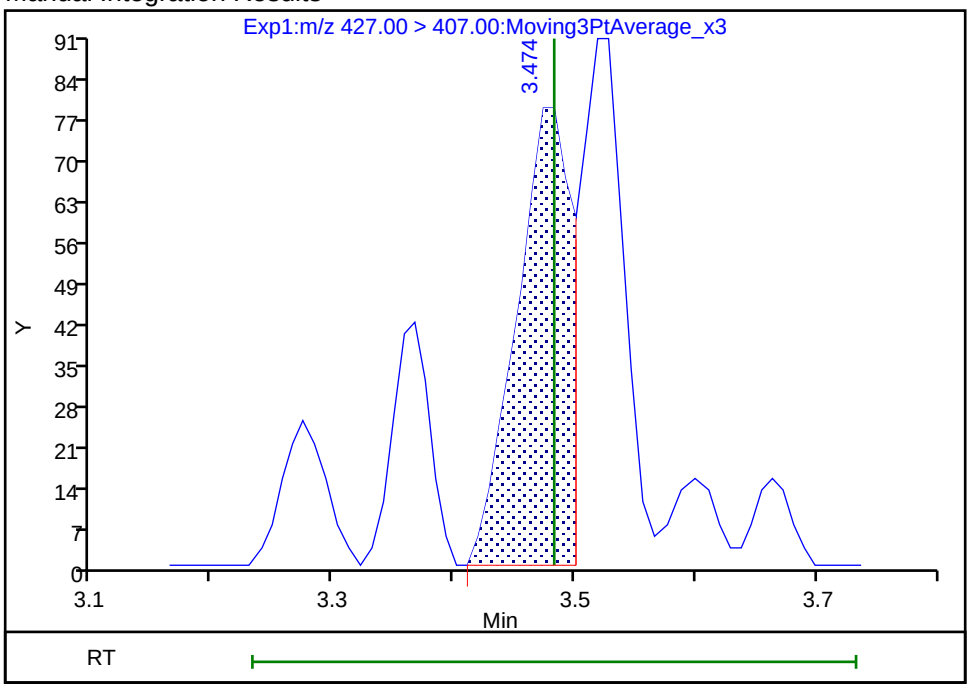
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 241
Amount: 0.000938
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:04:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

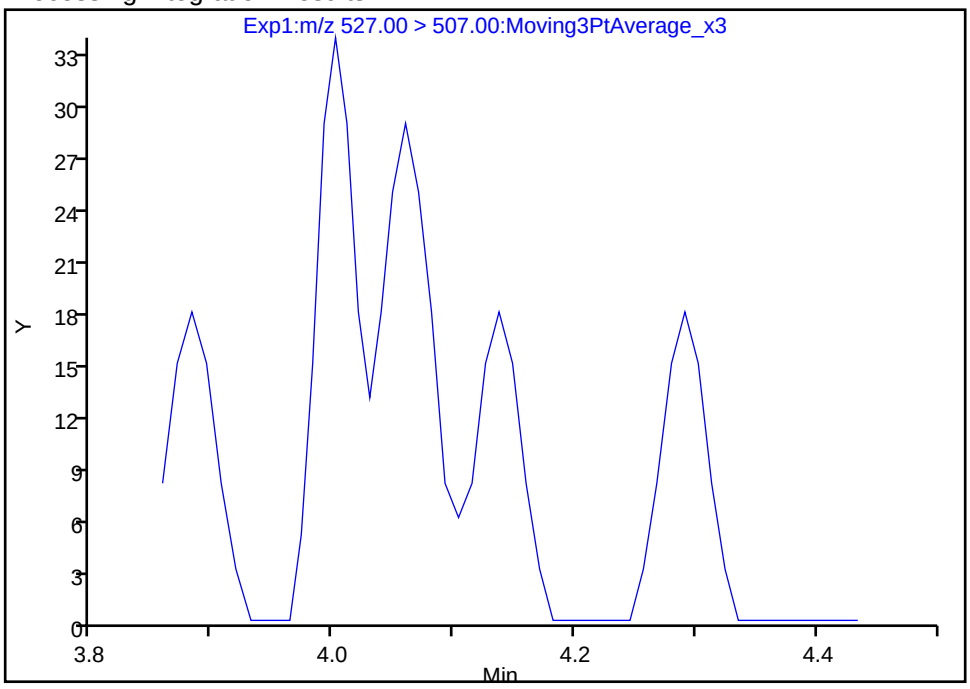
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D16.d | | | | |
| Injection Date: | 10-Nov-2021 06:15:03 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-9-A | Lab Sample ID: | 200-246277-9 | | |
| Client ID: | BP-101-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

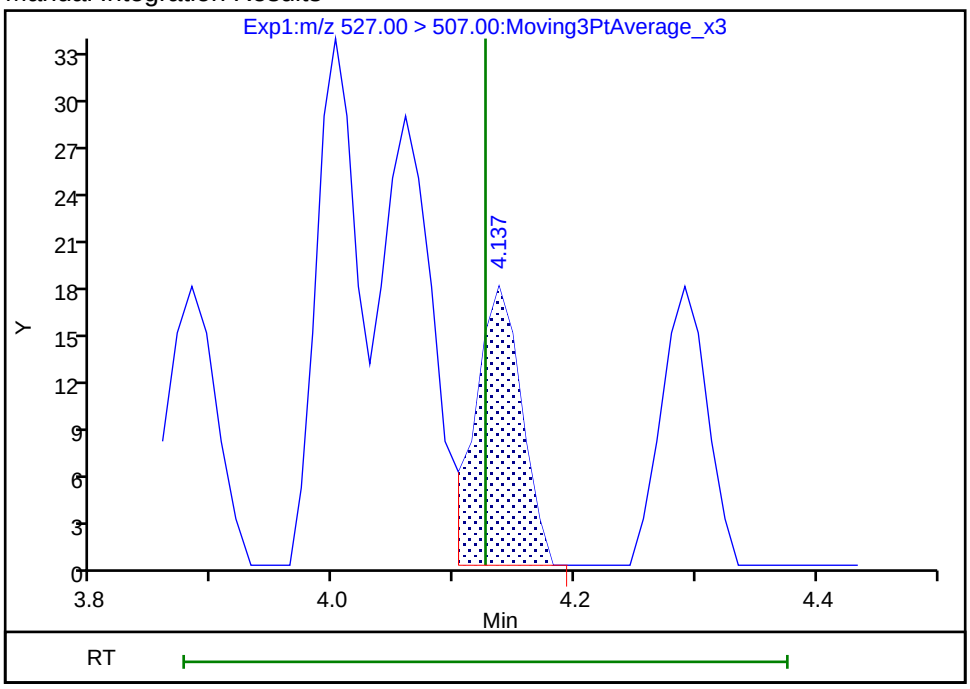
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 46
Amount: 0.000239
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:06:33
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: EP-02-20211028  Lab Sample ID: 460-246277-10

Matrix: Water  Lab File ID: PA211109D17.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 08:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 275.3(mL)  Date Analyzed: 11/10/2021 06:23

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.81 | U | 4.54 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.43 | U | 1.82 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.41 | U | 1.82 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.22 | U | 1.82 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.39 | U | 1.82 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.26 | U | 1.82 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.82 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.82 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.82 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.23 | U | 1.82 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.27 | U | 1.82 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.21 | U | 1.82 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.26 | U | 1.82 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.82 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.54 | 0.82 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.54 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.0 | U | 4.54 | 1.0 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.82 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: EP-02-20211028  Lab Sample ID: 460-246277-10

Matrix: Water  Lab File ID: PA211109D17.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 08:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 275.3(mL)  Date Analyzed: 11/10/2021 06:23

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 96 | | 50-150 |
| STL01892 | 13C4 PFHpA | 102 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 94 | | 50-150 |
| STL00992 | 13C4 PFBA | 120 | | 25-150 |
| STL00993 | 13C2 PFHxA | 100 | | 50-150 |
| STL00996 | 13C2 PFDA | 90 | | 50-150 |
| STL00997 | 13C2 PFUnA | 87 | | 50-150 |
| STL00998 | 13C2 PFDoA | 73 | | 50-150 |
| STL01056 | 13C8 FOSA | 83 | | 25-150 |
| STL01893 | 13C5 PFPeA | 105 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 64 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 94 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 95 | | 50-150 |
| STL02279 | M2-6:2 FTS | 112 | | 25-150 |
| STL02280 | M2-8:2 FTS | 114 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d
Lims ID: 460-246277-D-10-A
Client ID: EP-02-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:23:15 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-10-A
Misc. Info.: 200-0048356-017 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 16:13:10
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.100 | 0.0 | 0.601 | 1859840 | 1.49 | | 120 | 8145 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.100 | -0.018 | 0.992 | 8729 | 0.006205 | | | 0.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1374996 | 1.31 | | 105 | 2592 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.426 | 2.413 | 0.013 | 1.005 | 6302 | 0.005719 | | | 0.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1564123 | 1.10 | | 94.8 | 175835 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 3557 | 0.002475 | Target=2.32 | | 5.3 | |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.005 | 1569 | | 2.27(1.16-3.48) | | 1.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1379510 | 1.25 | | 100 | 4051 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | RM |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 2469 | 0.002206 | Target=12.09 | | 0.6 | RM |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 576 | | 4.29(6.04-18.13) | | 0.7 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.132 | 0.011 | 1.003 | 3555 | 0.003283 | Target=3.55 | | 12.9 | M |
| 399.00 > 99.00 | 3.153 | 3.132 | 0.021 | 1.007 | 1840 | | 1.93(1.77-5.32) | | 1.9 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1164600 | 1.13 | | 95.6 | 2479 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1478197 | 1.28 | | 102 | 3525 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 0.997 | 2107 | 0.001724 | Target=3.69 | | 0.7 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 0.997 | 1013 | | 2.08(1.84-5.53) | | 1.9 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 310 | 0.001338 | | | 9.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 217000 | 1.34 | | 112 | 663 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1473301 | 1.16 | | 93.2 | 3575 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1536993 | 1.25 | | | 3334 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 891114 | 1.20 | | 100 | 3205 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.766 | 3.804 | -0.038 | 0.990 | 2069 | 0.002557 | Target=4.69 | | 2.7 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 807 | | 2.56(2.35-7.04) | | 2.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1477589 | 1.17 | | 93.8 | 4964 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1429318 | 1.12 | | 89.9 | 2981 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 251719 | 1.37 | | 114 | 994 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 90 | 0.000512 | | | 1.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1266624 | 1.03 | | 82.6 | 3663 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 870 | 0.000904 | | | 5.9 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 147368 | 1.18 | | 94.2 | 1151 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 174 | 0.001879 | | | 1.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1077103 | 1.09 | | 86.9 | 3291 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 1970 | 0.002145 | Target=9.24 | | 1.6 | RM |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 0.997 | 122 | | 16.15(4.62-13.86) | | 1.8 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 138841 | 1.18 | | 94.8 | 891 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.402 | 4.380 | 0.022 | 1.003 | 270 | 0.002837 | | | 4.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 977852 | 0.9171 | | 73.4 | 1754 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 2192 | 0.002862 | Target=7.04 | | 0.5 | R |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 187 | | 11.72(3.52-10.56) | | 3.5 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.428 | 666590 | 0.8061 | | 64.5 | 2140 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.966 | 0.019 | 1.000 | 291 | 0.003458 | Target=1.01 | 12.3 | | M |
| 713.00 > 219.00 | 4.985 | 4.966 | 0.019 | 1.000 | 234 | | 1.24(0.51-1.52) | 9.9 | | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:19 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d

Injection Date: 10-Nov-2021 06:23:15 Instrument ID: LC812

Lims ID: 460-246277-D-10-A Lab Sample ID: 200-246277-10

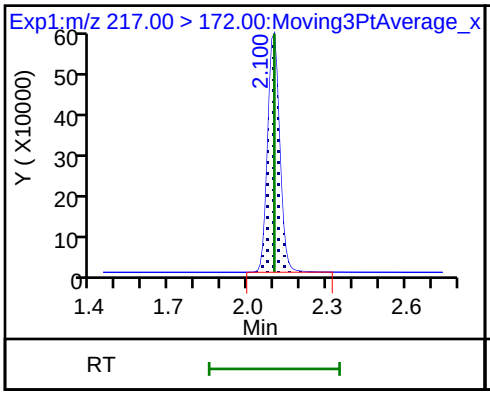
Client ID: EP-02-20211028

Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 17

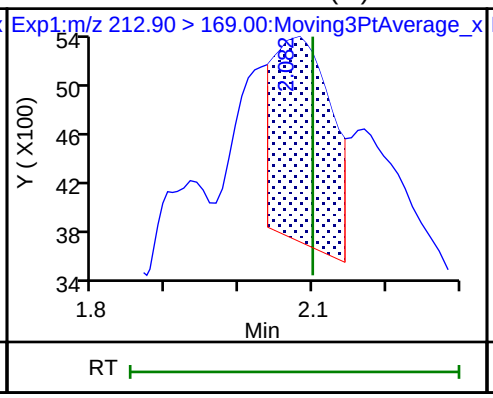
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

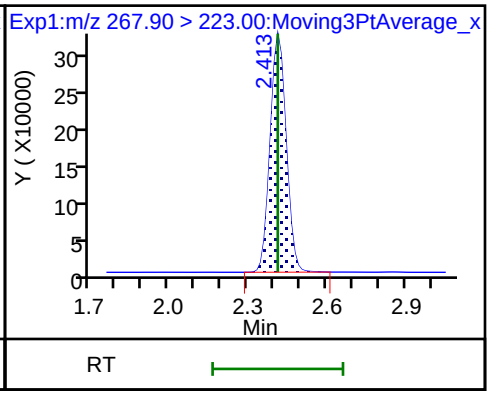
D 1 13C4 PFBA



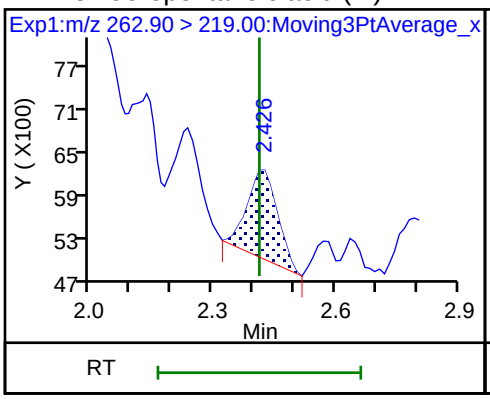

2 Perfluorobutanoic acid (M)



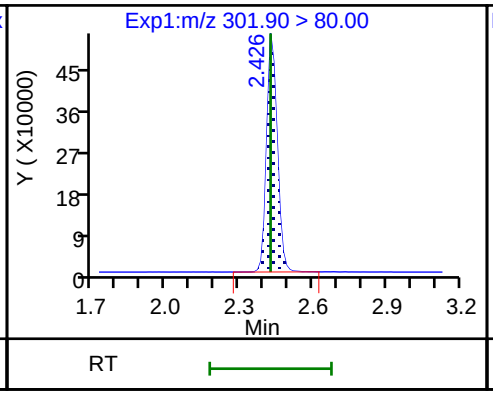

D 3 13C5 PFPeA



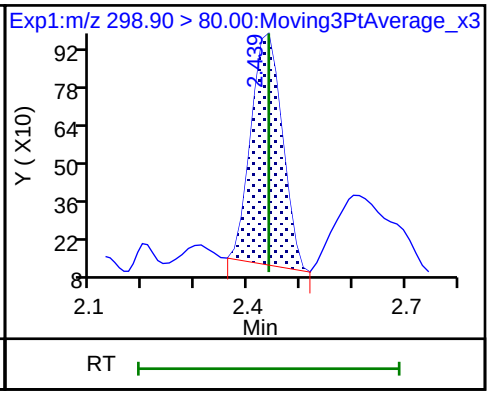

4 Perfluoropentanoic acid (M)



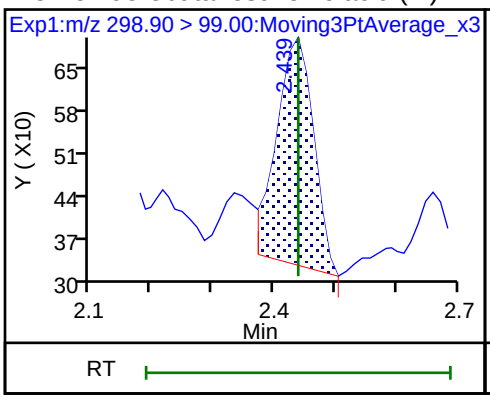

D 47 13C3 PFBS



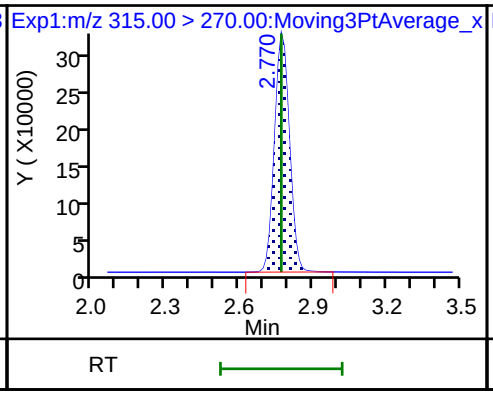

5 Perfluorobutanesulfonic acid



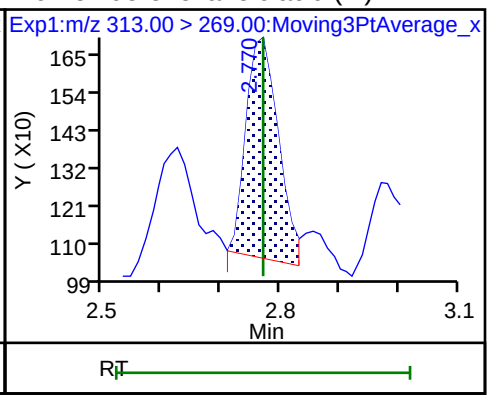

5 Perfluorobutanesulfonic acid (M)



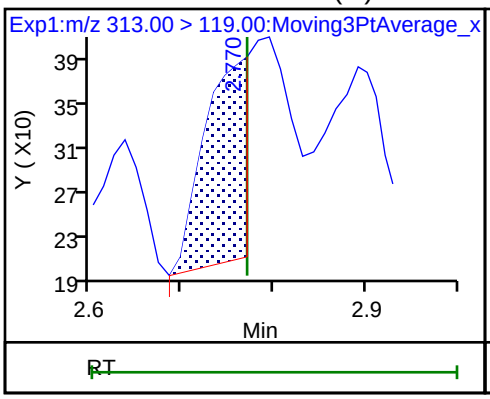

D 7 13C2 PFHxA



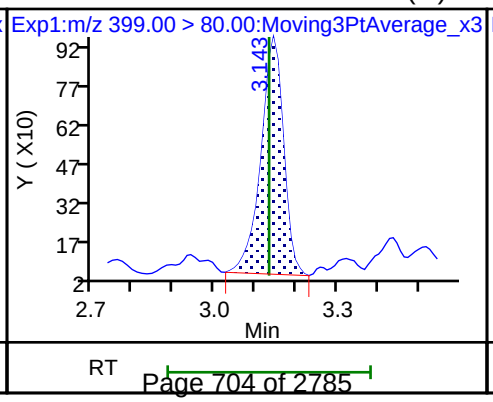

6 Perfluorohexanoic acid (M)



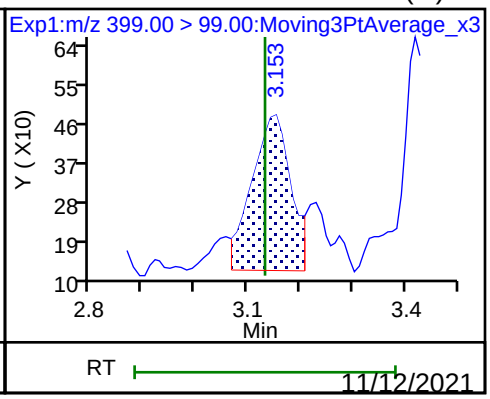

6 Perfluorohexanoic acid (M)



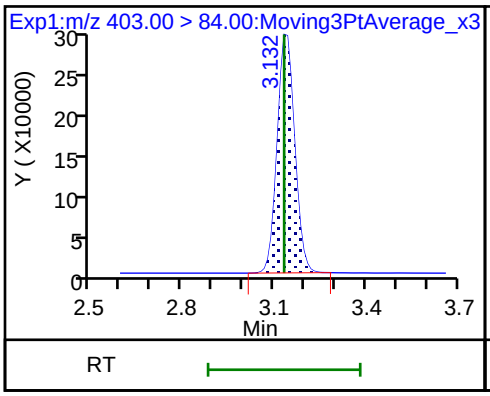

8 Perfluorohexanesulfonic acid (M)



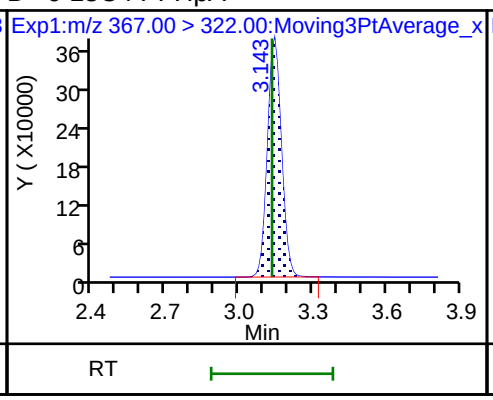

8 Perfluorohexanesulfonic acid (M)



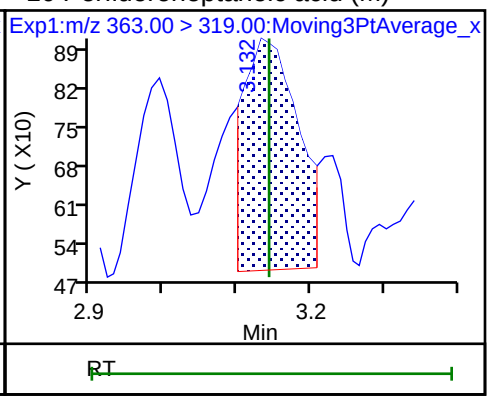
D 11 18O2 PFHxS



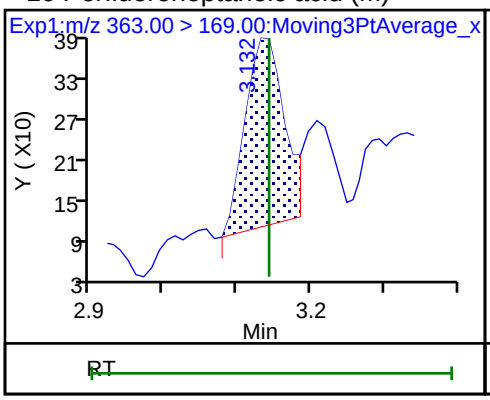

D 9 13C4 PFHpA



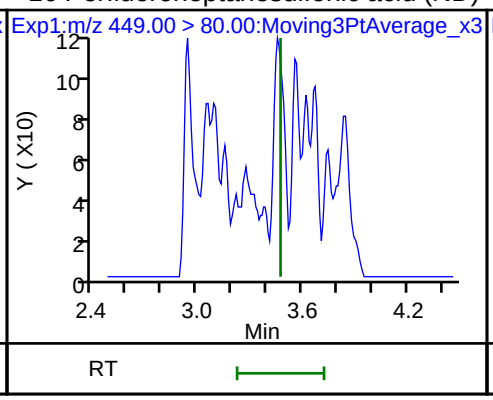

10 Perfluoroheptanoic acid (M)



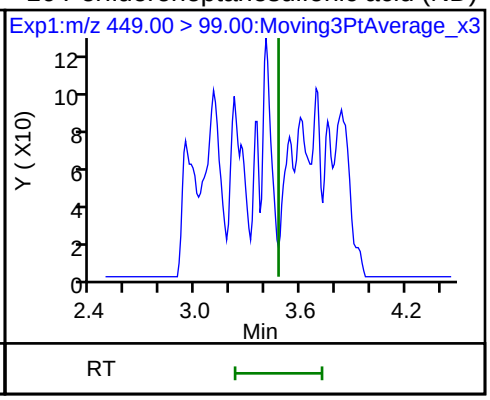

10 Perfluoroheptanoic acid (M)



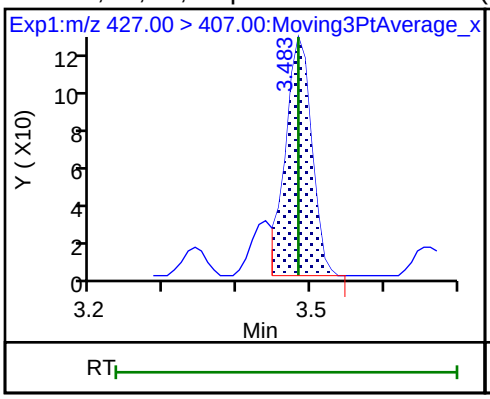

16 Perfluoroheptanesulfonic acid (ND)



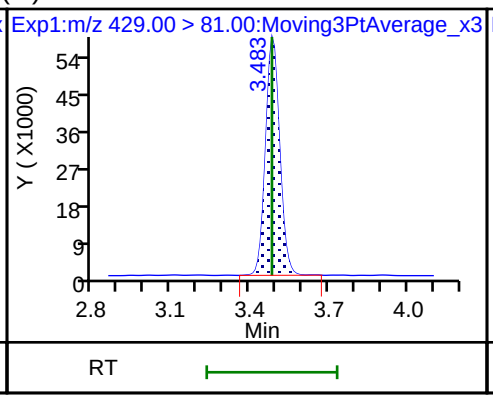

16 Perfluoroheptanesulfonic acid (ND)



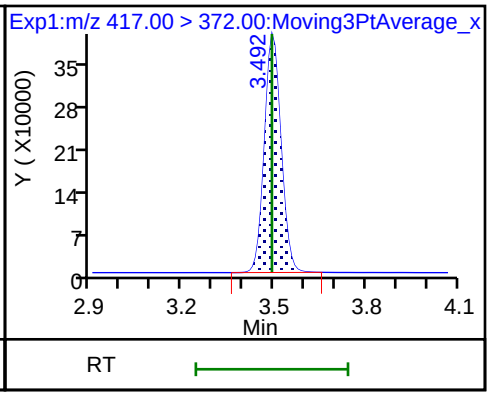

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



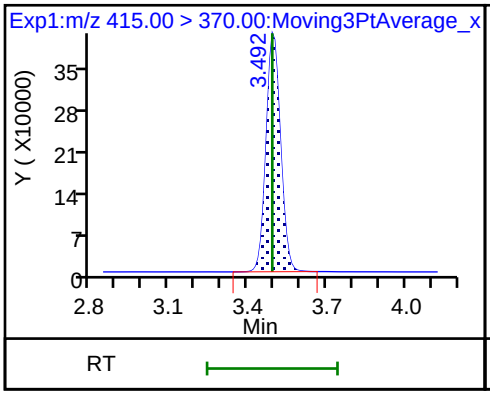

12 M2-6:2 FTS



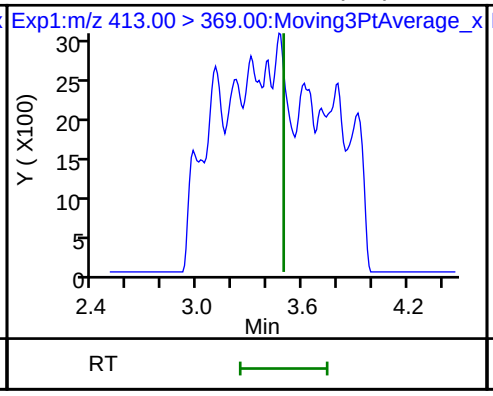

D 14 13C4 PFOA



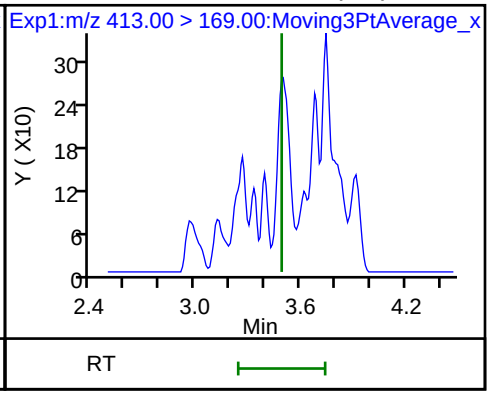

* 62 13C2 PFOA



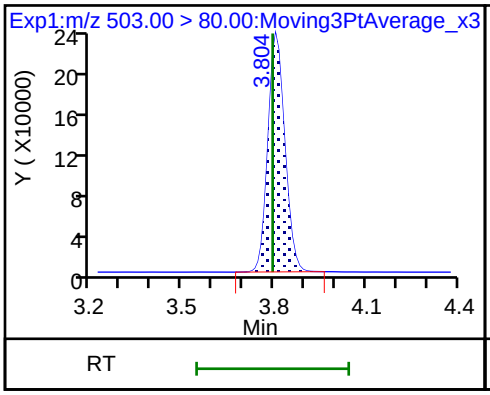

15 Perfluorooctanoic acid (ND)



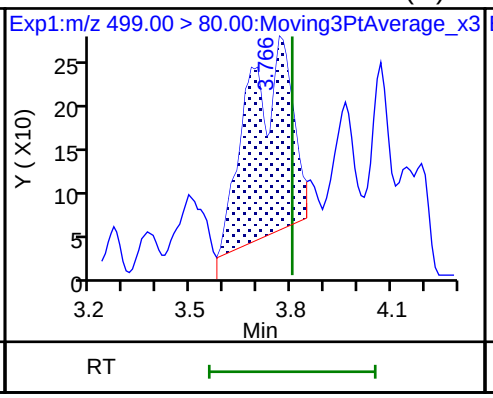

15 Perfluorooctanoic acid (ND)



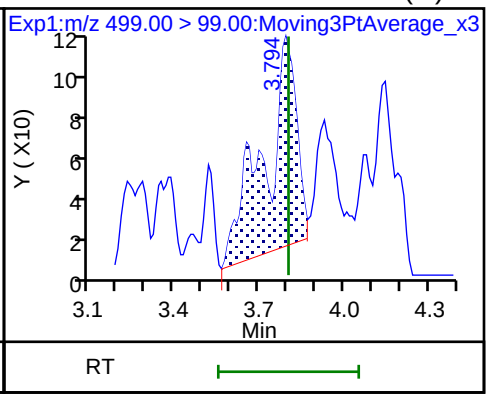
D 18 13C4 PFOS



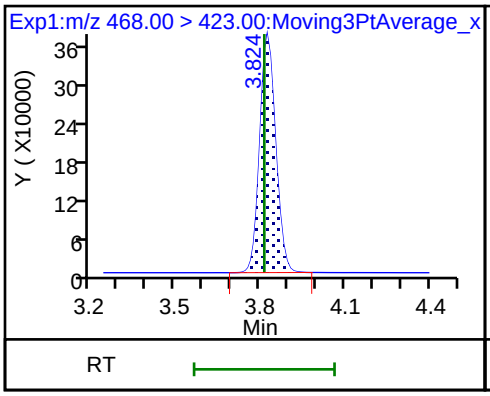

17 Perfluorooctanesulfonic acid (M)



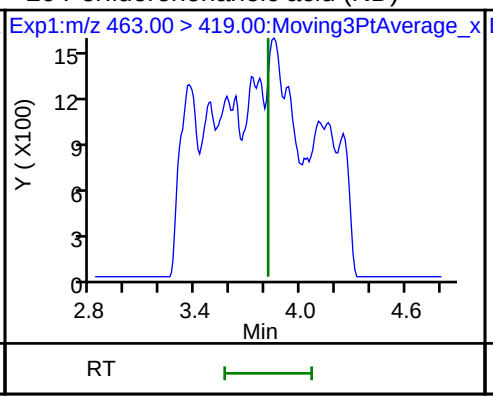

17 Perfluorooctanesulfonic acid (M)



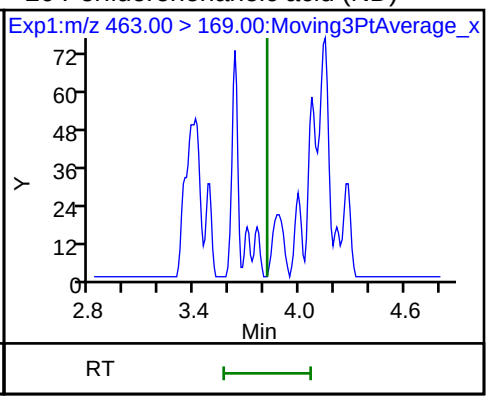

D 19 13C5 PFNA



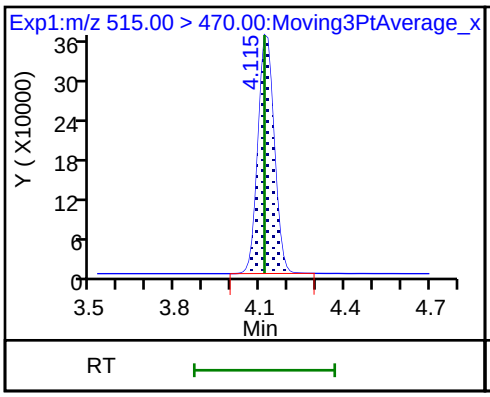

20 Perfluorononanoic acid (ND)



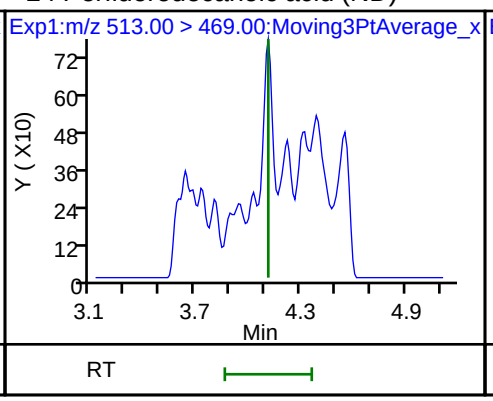

20 Perfluorononanoic acid (ND)



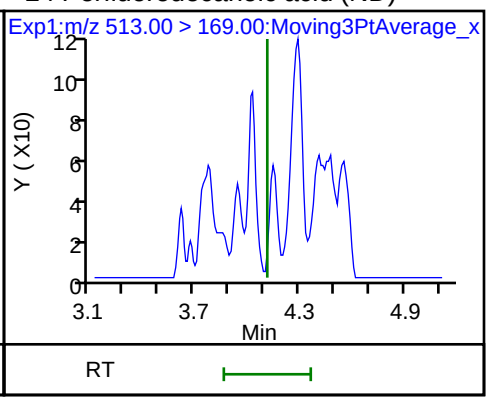

D 23 13C2 PFDA



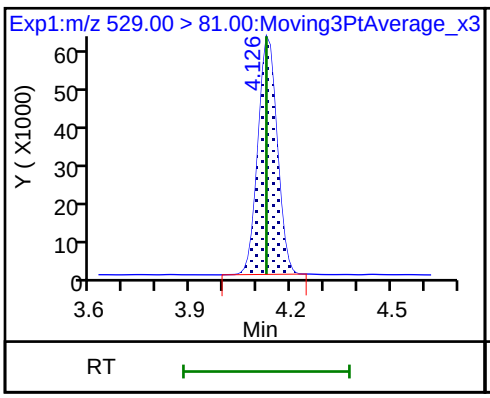

24 Perfluorodecanoic acid (ND)



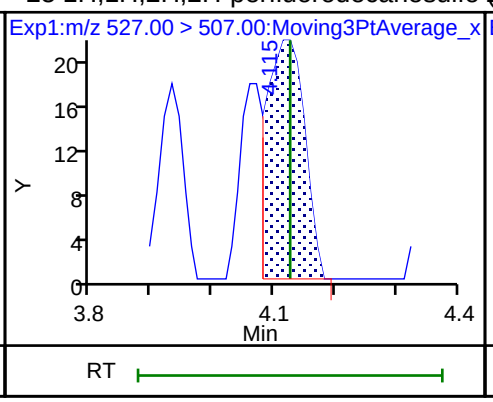

24 Perfluorodecanoic acid (ND)



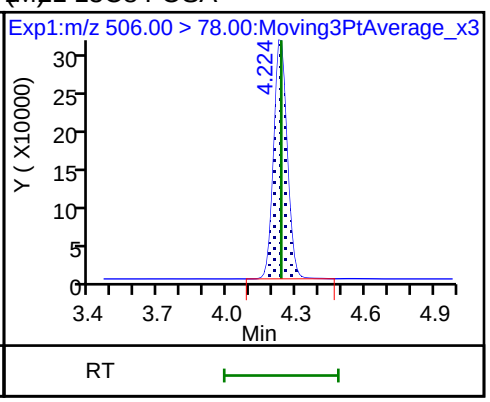

D 26 M2-8:2 FTS



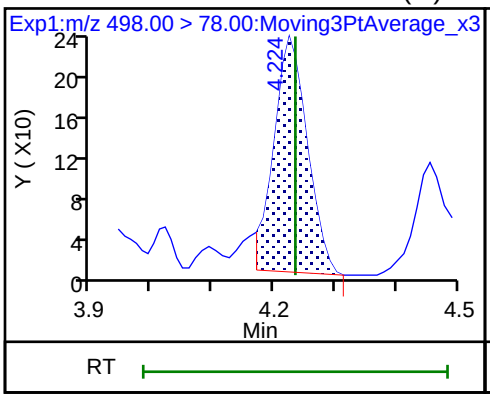

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



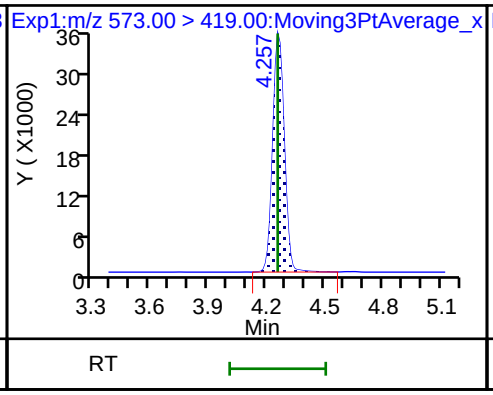

21 13C8 FOSA



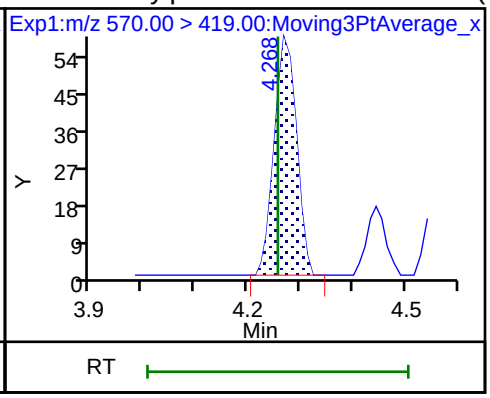
22 Perfluorooctanesulfonamide (M)



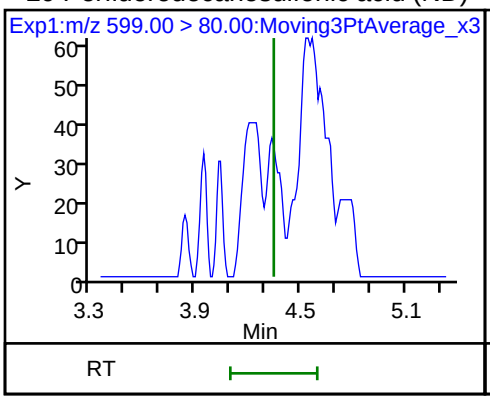

D 27 d3-NMeFOSAA



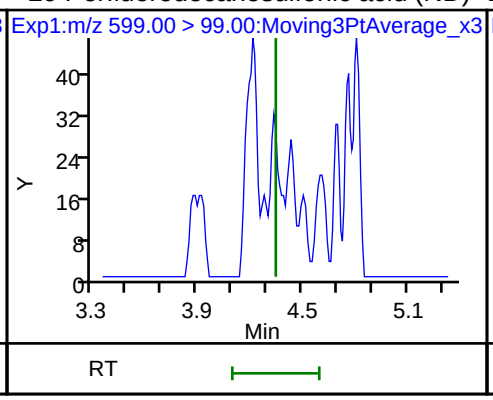

28 N-methylperfluorooctanesulfonami (M)



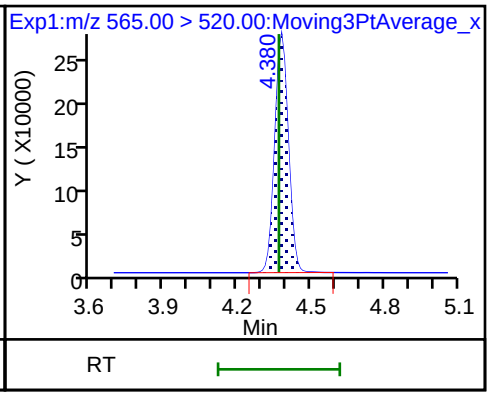

29 Perfluorodecanesulfonic acid (ND)



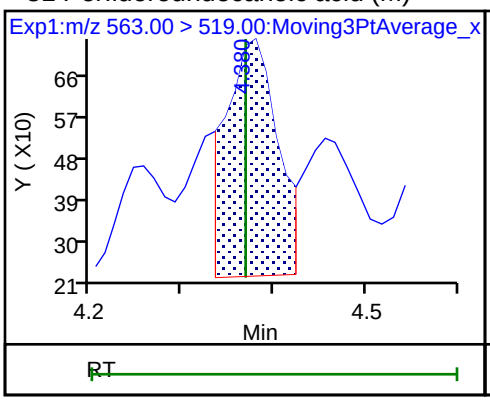

29 Perfluorodecanesulfonic acid (ND)



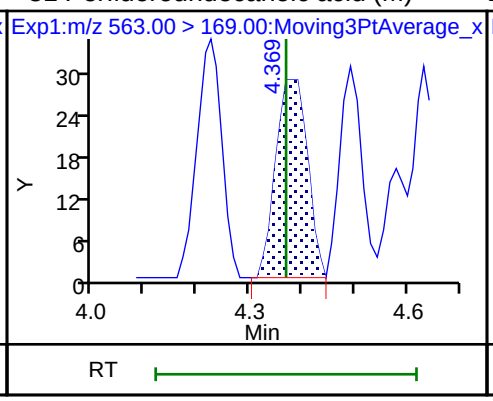

D 30 13C2 PFUnA



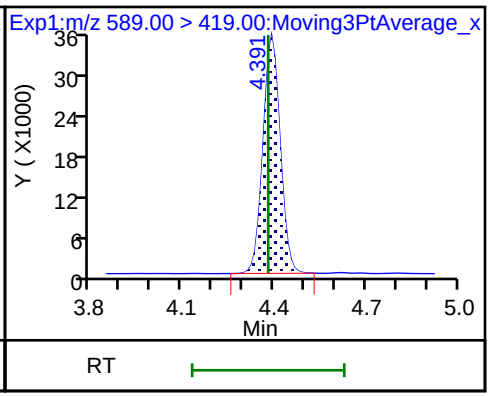

31 Perfluoroundecanoic acid (M)



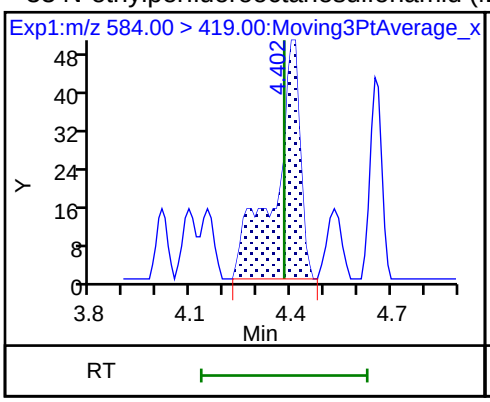

31 Perfluoroundecanoic acid (M)



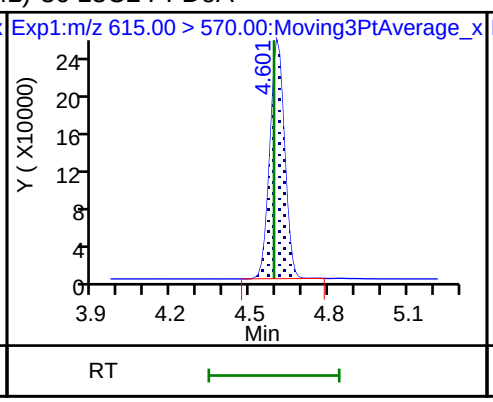

D 32 d5-NEtFOSAA



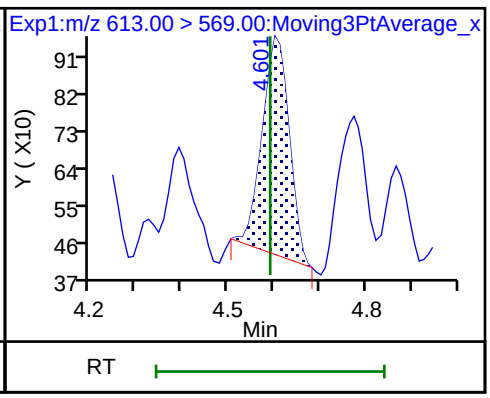

33 N-ethylperfluorooctanesulfonamid (ND)



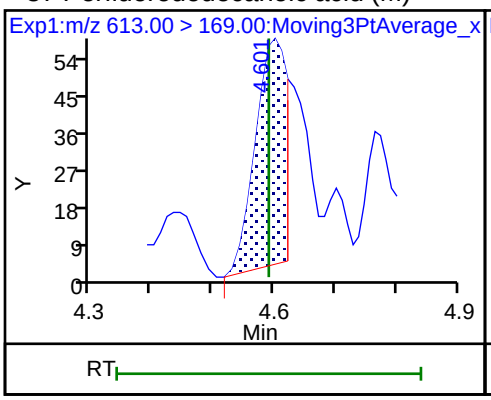

D 36 13C2 PFDoA



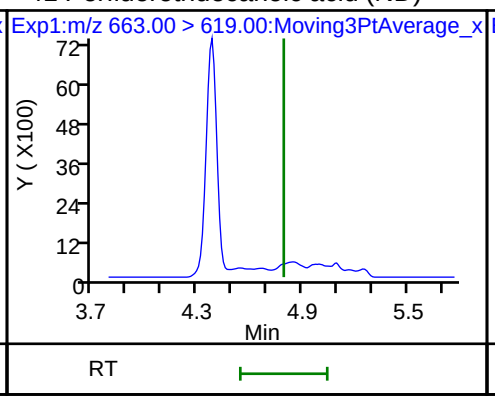

37 Perfluorododecanoic acid



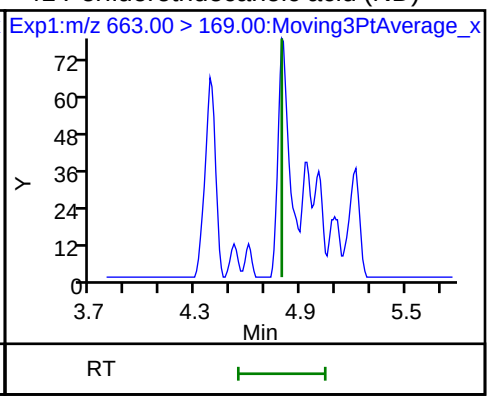
37 Perfluorododecanoic acid (M)



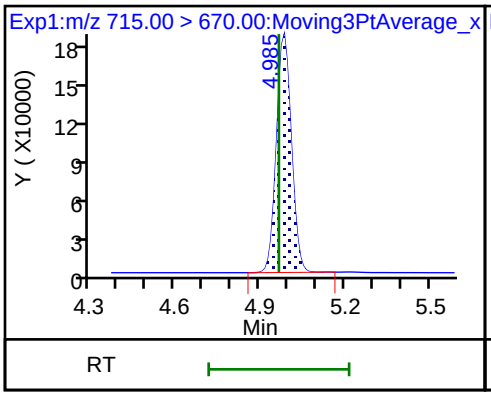

41 Perfluorotridecanoic acid (ND)



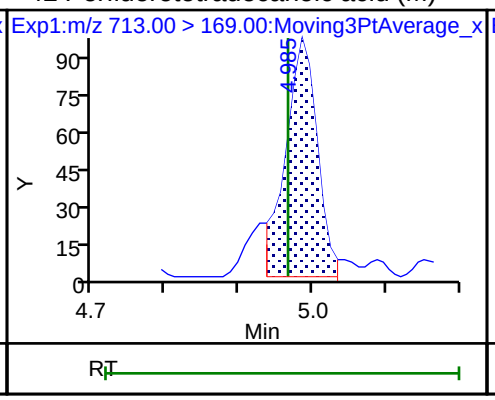

41 Perfluorotridecanoic acid (ND)



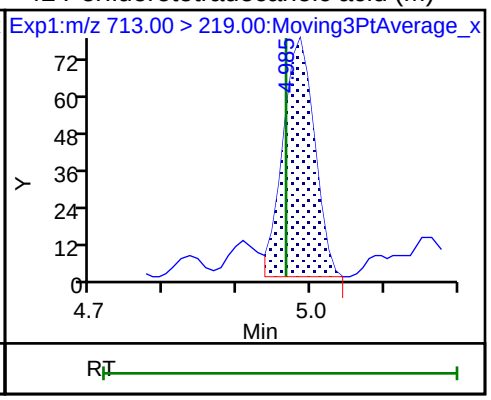

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

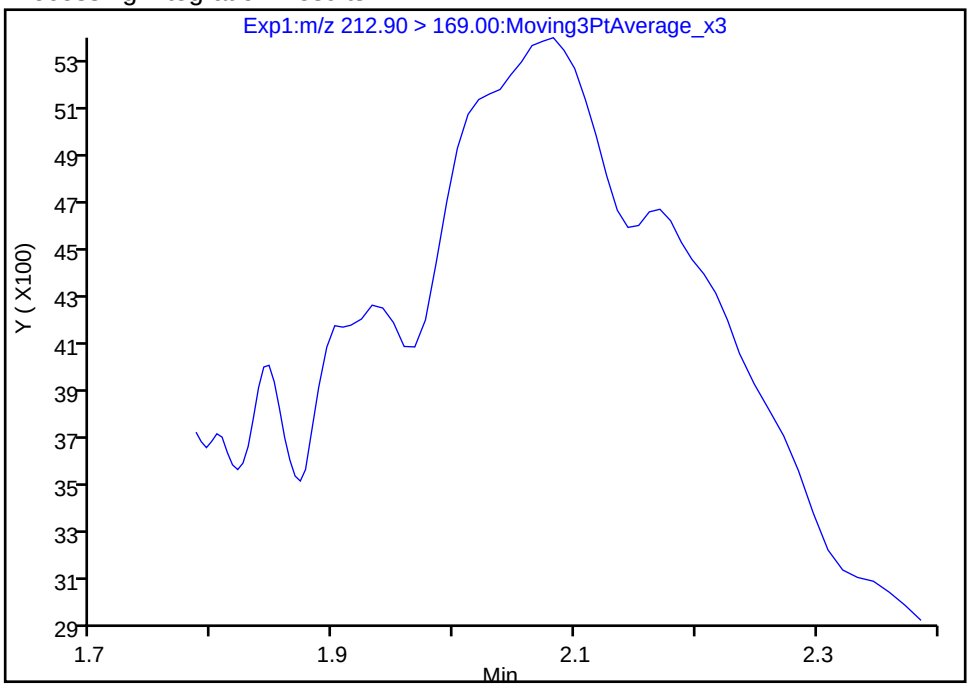
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

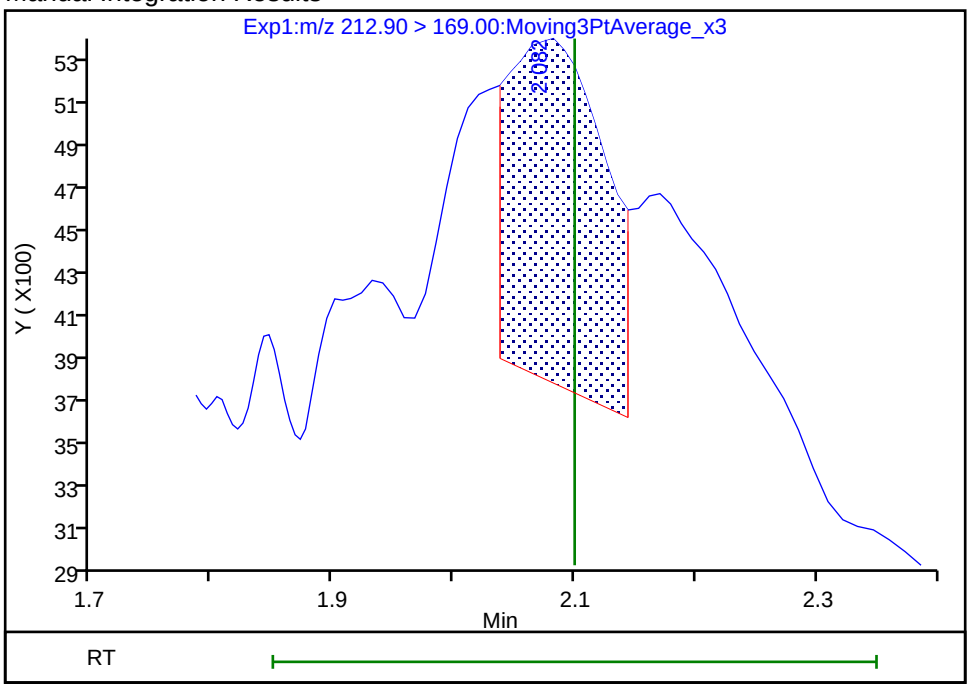
Not Detected
Expected RT: 2.10

Processing Integration Results




Manual Integration Results

RT: 2.08
Area: 8729
Amount: 0.006205
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:09:14
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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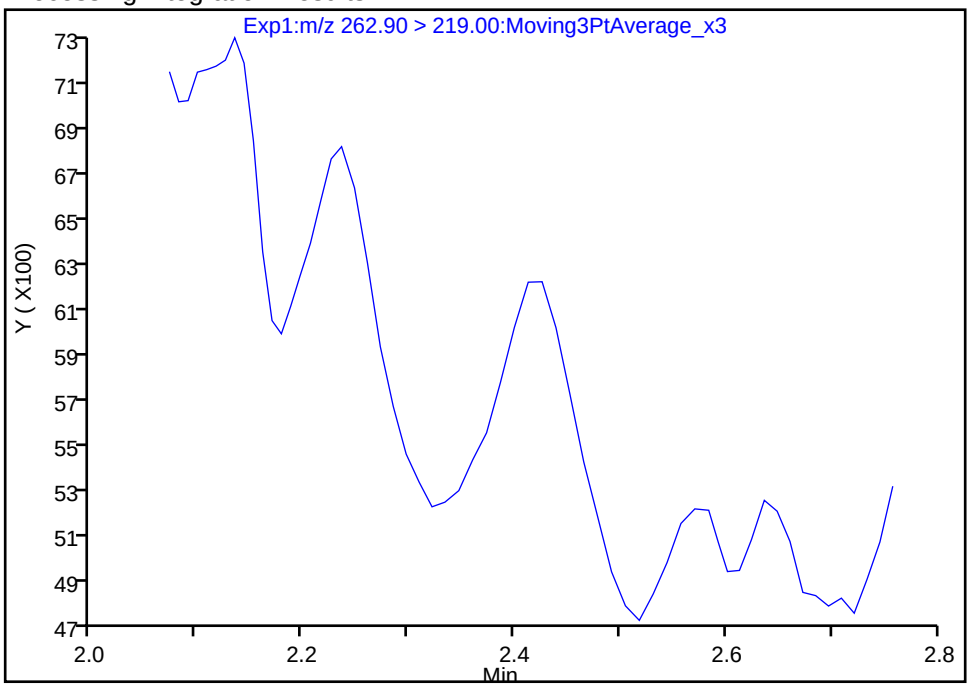
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

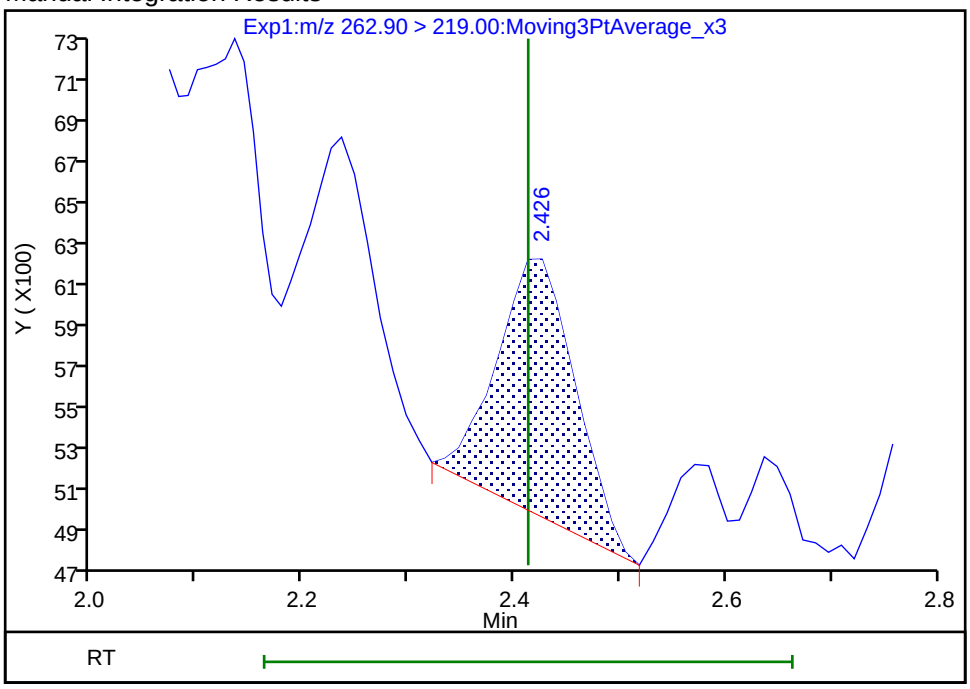
Not Detected
Expected RT: 2.41

Processing Integration Results




Manual Integration Results

RT: 2.43
Area: 6302
Amount: 0.005719
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:09:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

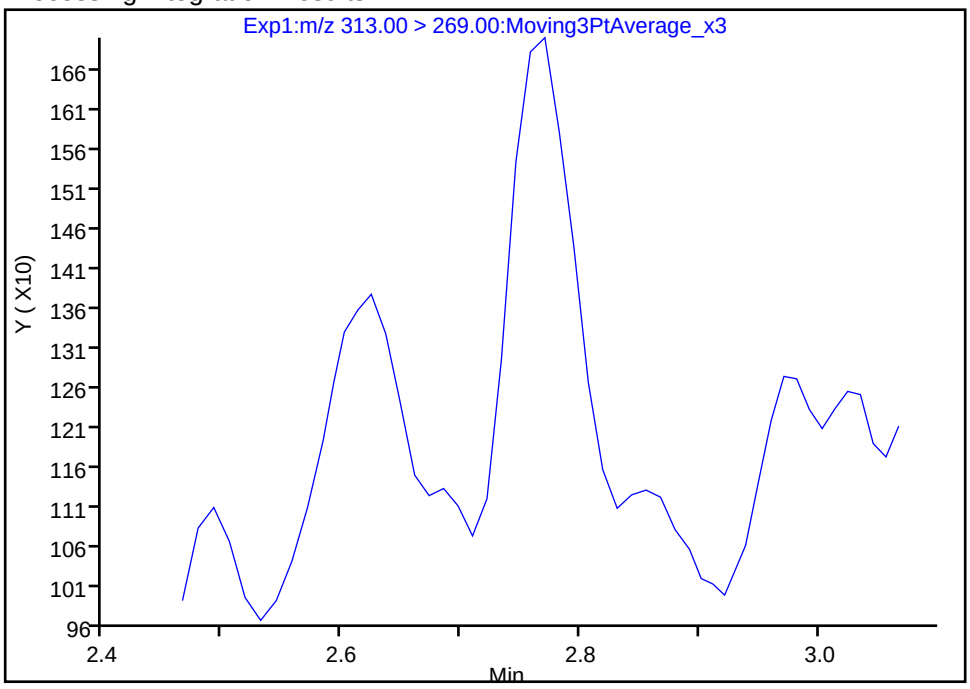
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

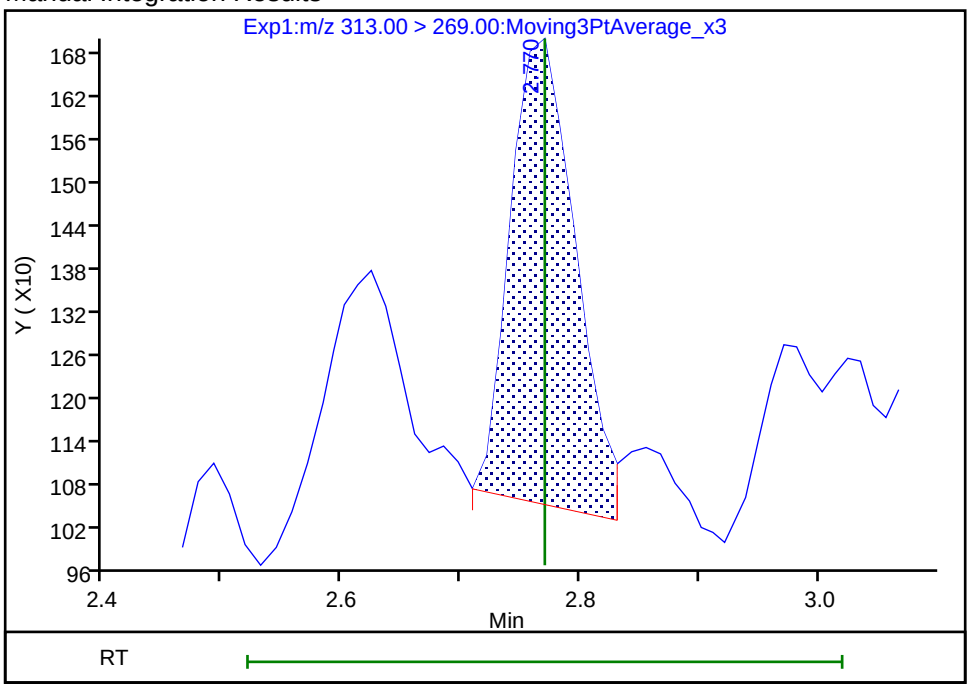
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.77
Area: 2469
Amount: 0.002206
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:09:46
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

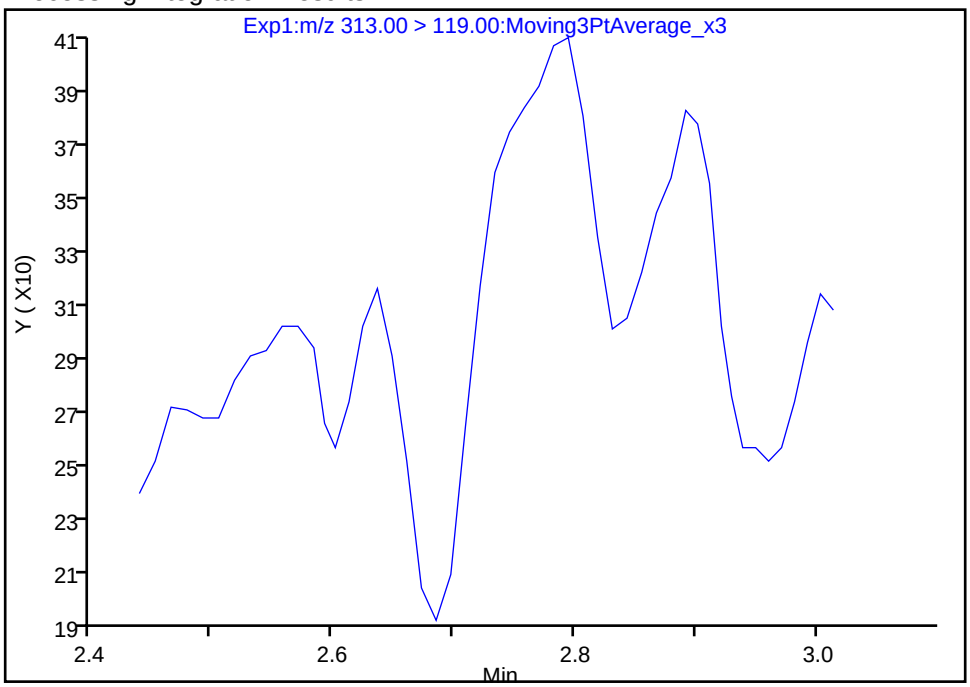
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

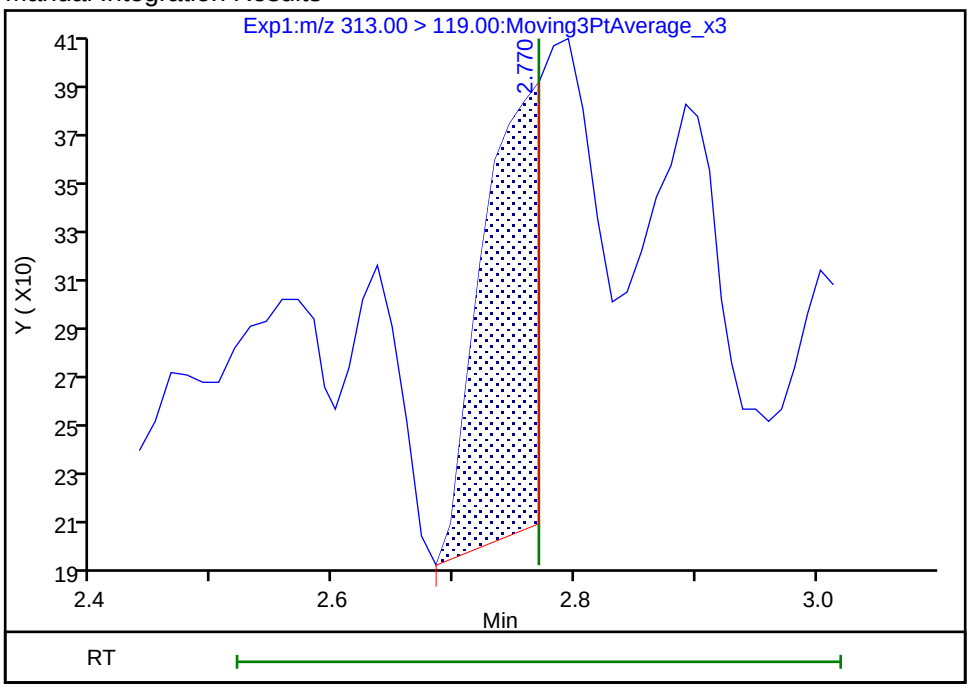
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.77
Area: 576
Amount: 0.002206
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:09:53
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

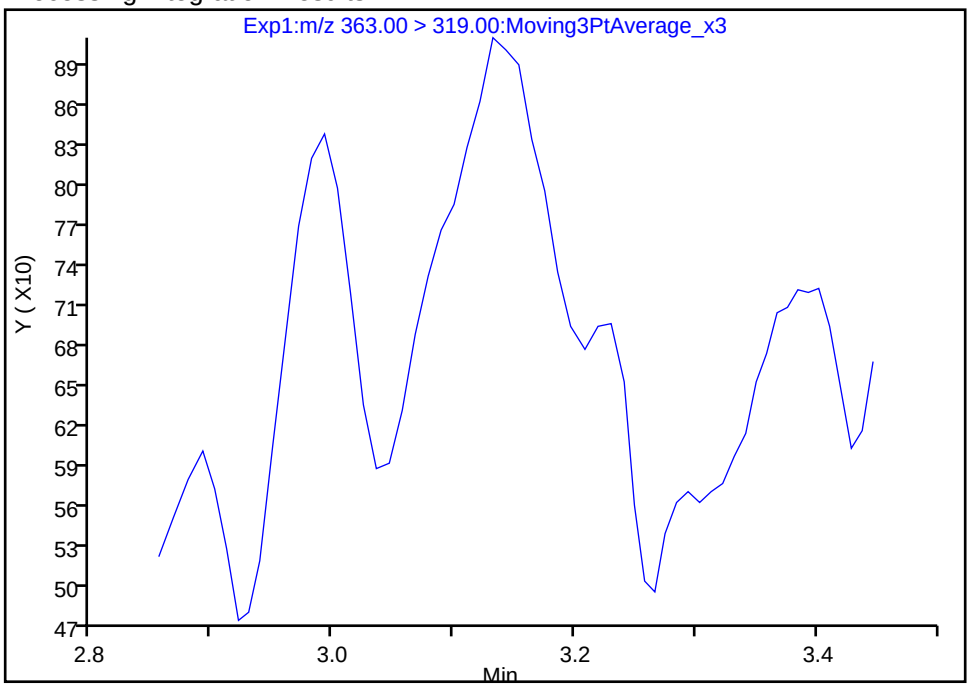
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

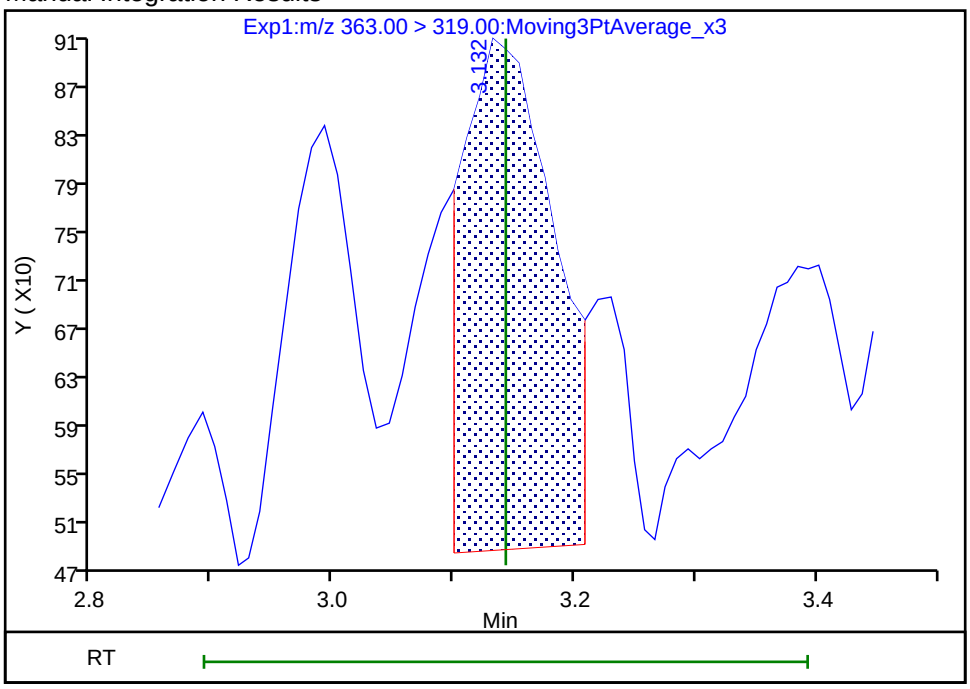
Not Detected
Expected RT: 3.14

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 2107
Amount: 0.001724
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:10:27
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

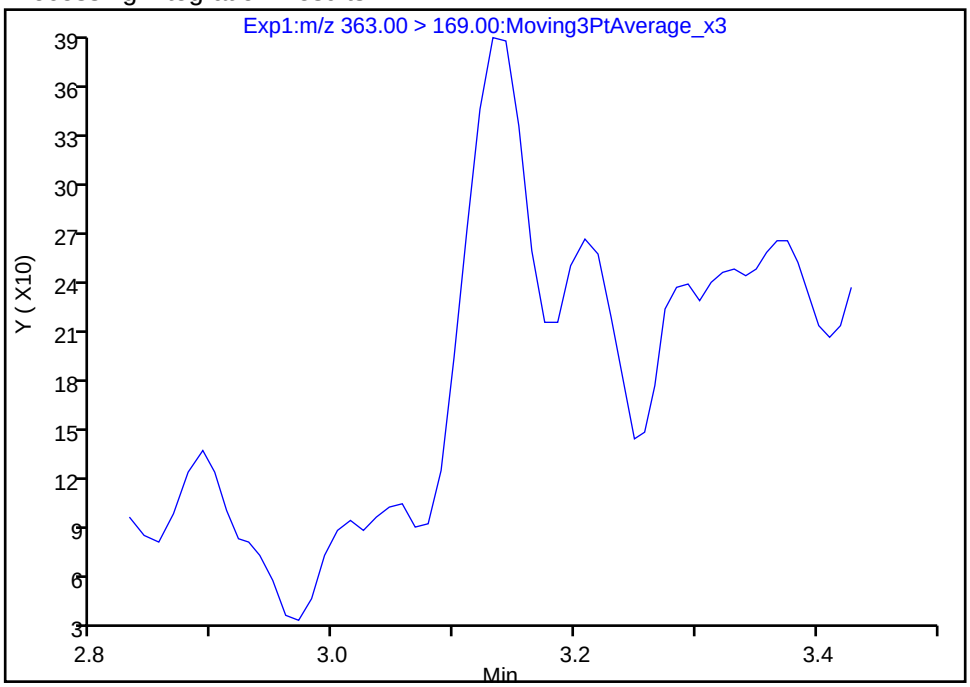
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

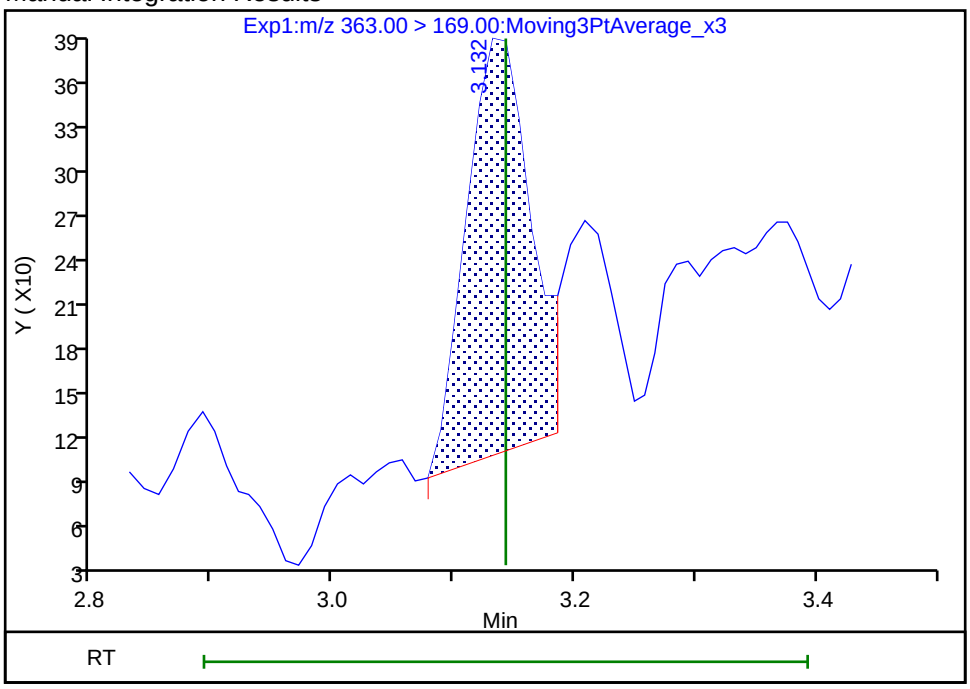
Not Detected
Expected RT: 3.14

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 1013
Amount: 0.001724
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:10:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

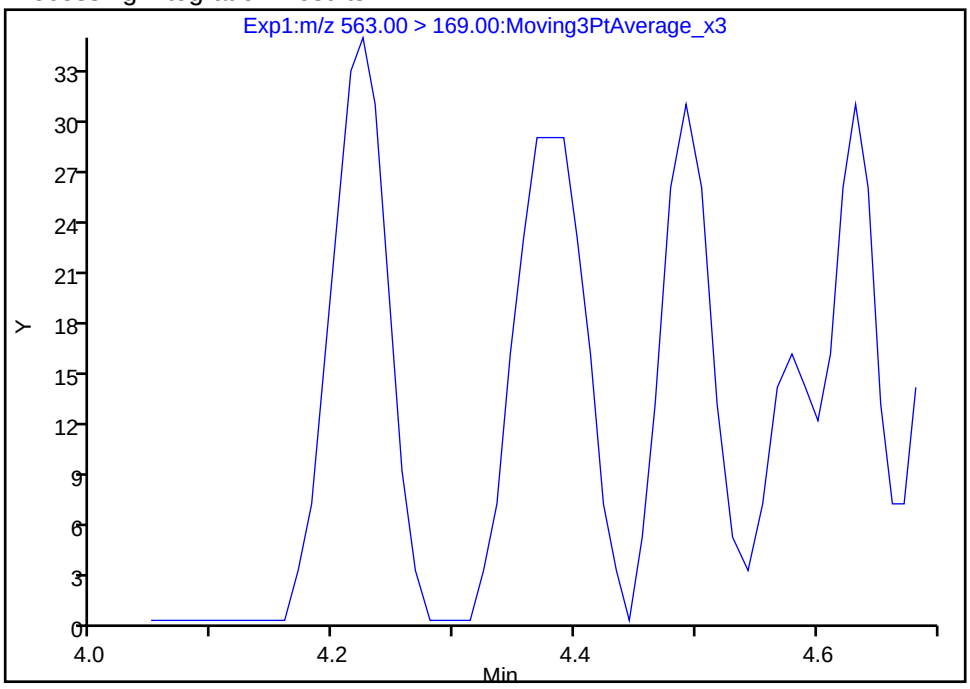
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

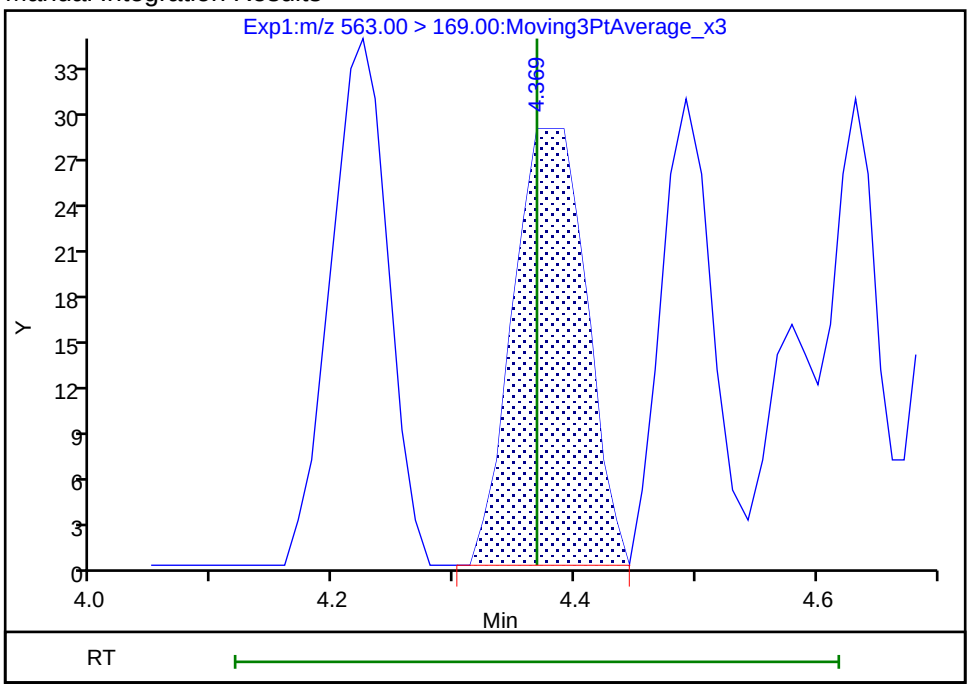
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 122
Amount: 0.002145
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

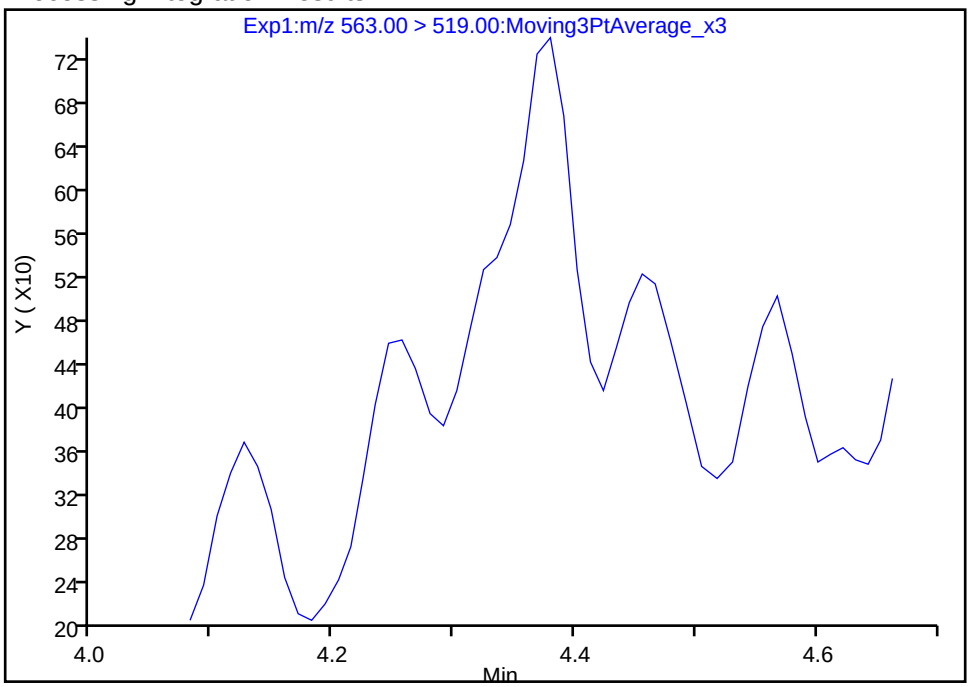
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

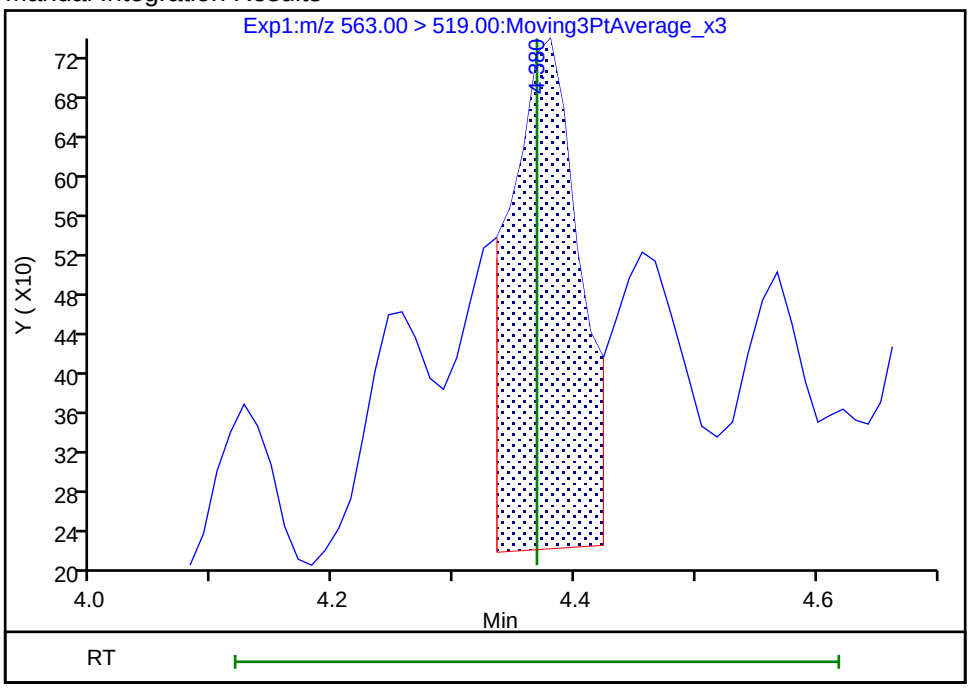
Processing Integration Results

Not Detected
Expected RT: 4.37




Manual Integration Results

RT: 4.38
Area: 1970
Amount: 0.002145
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:12:14
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

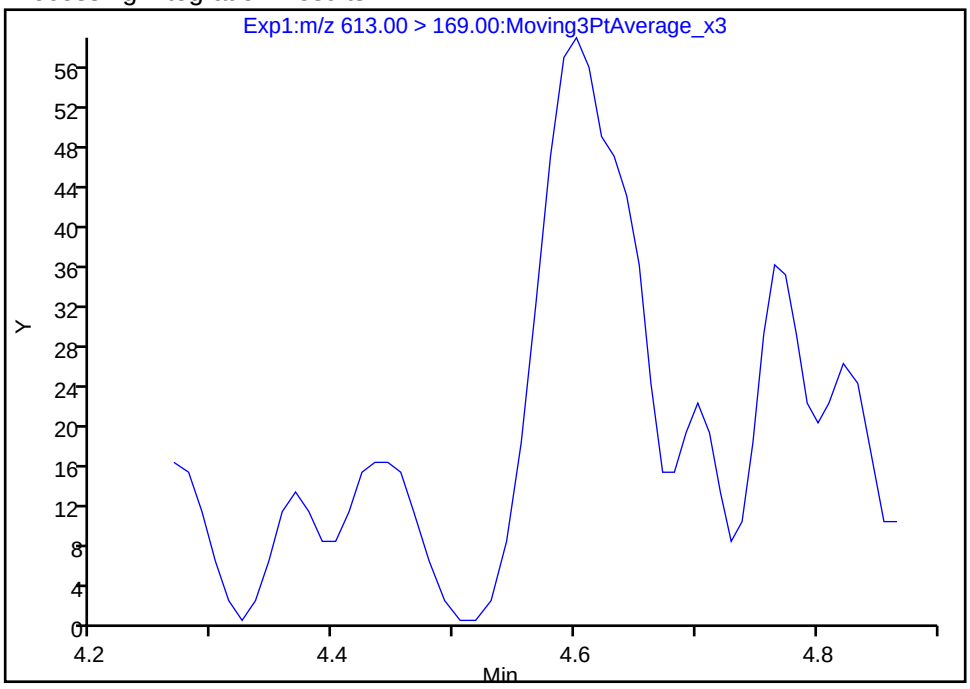
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

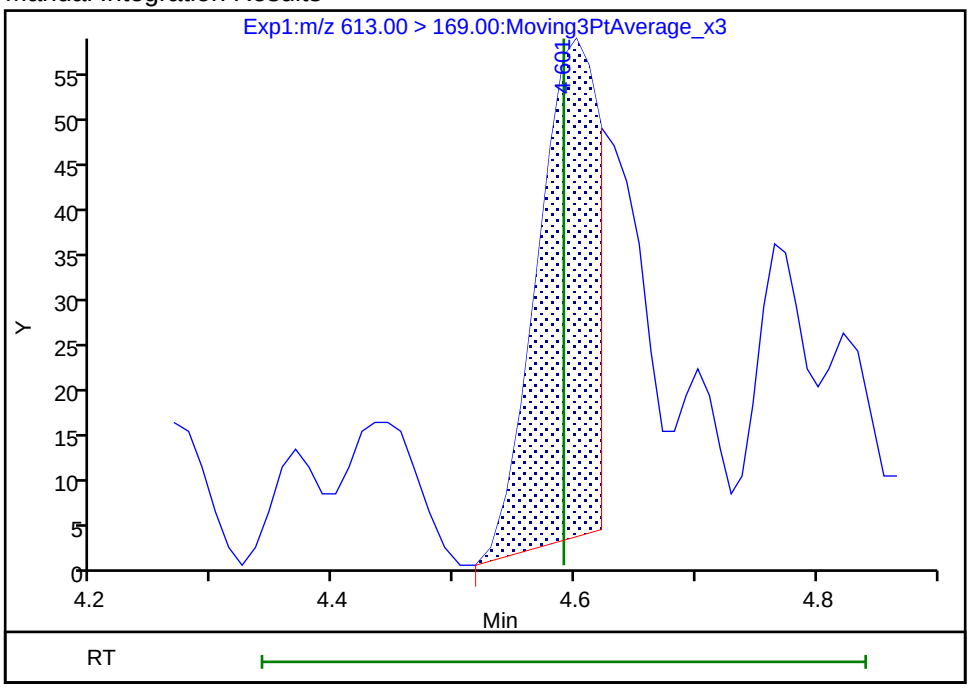
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 187
Amount: 0.002862
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:12:36
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

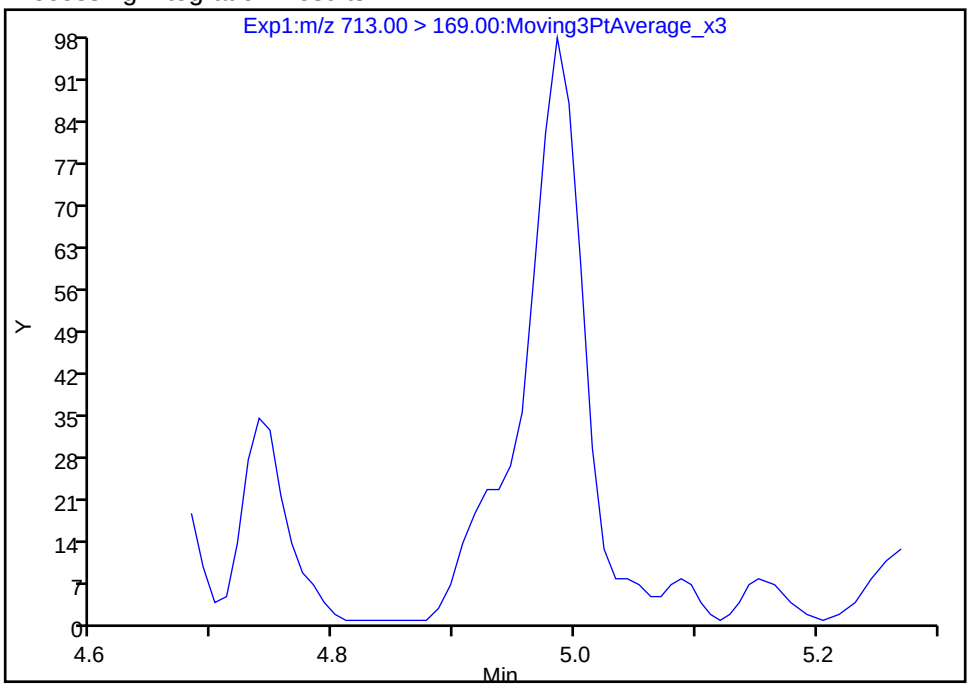
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

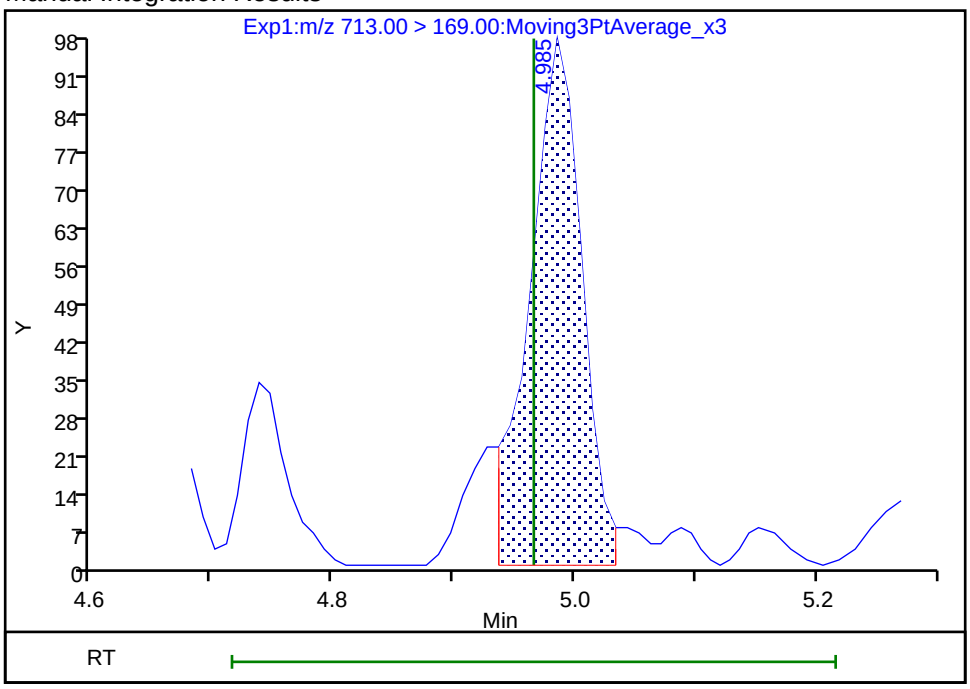
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 291
Amount: 0.003458
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:12:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

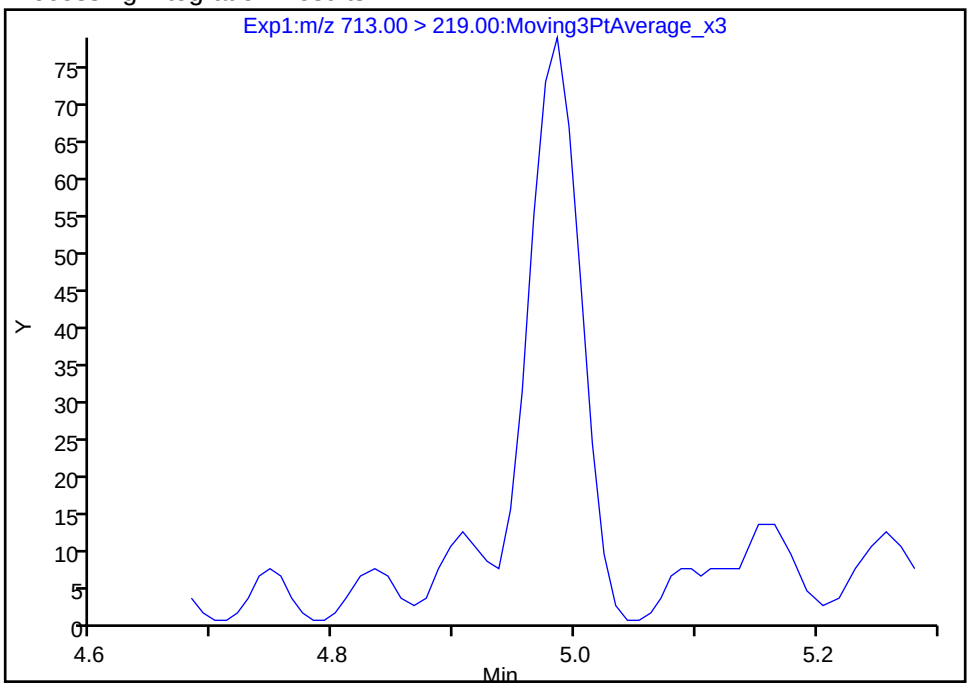
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

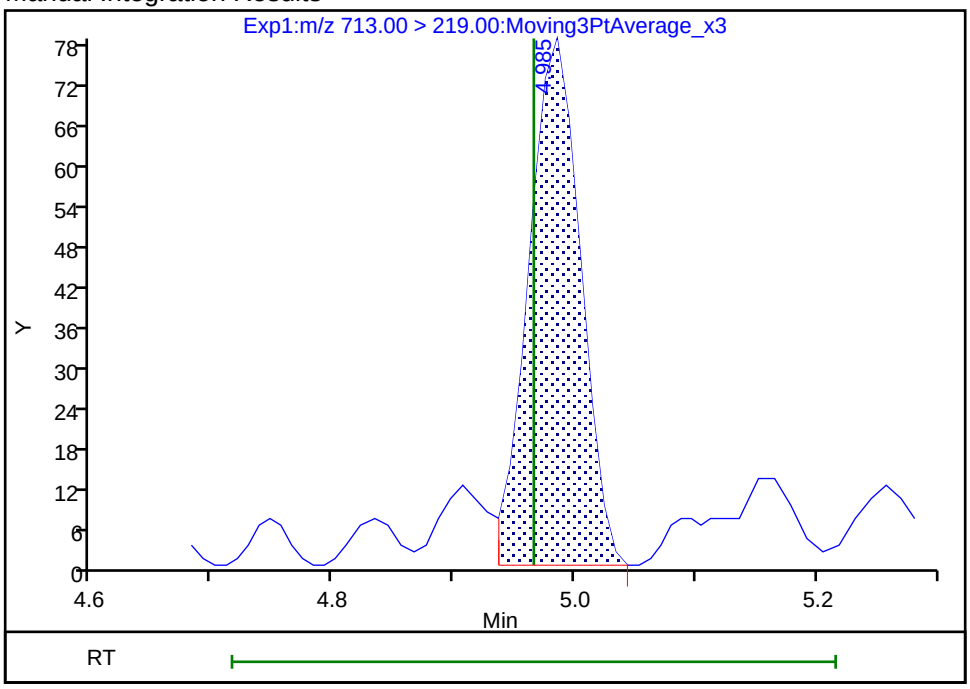
Processing Integration Results

Not Detected
Expected RT: 4.97




Manual Integration Results

RT: 4.99
Area: 234
Amount: 0.003458
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:13:02
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

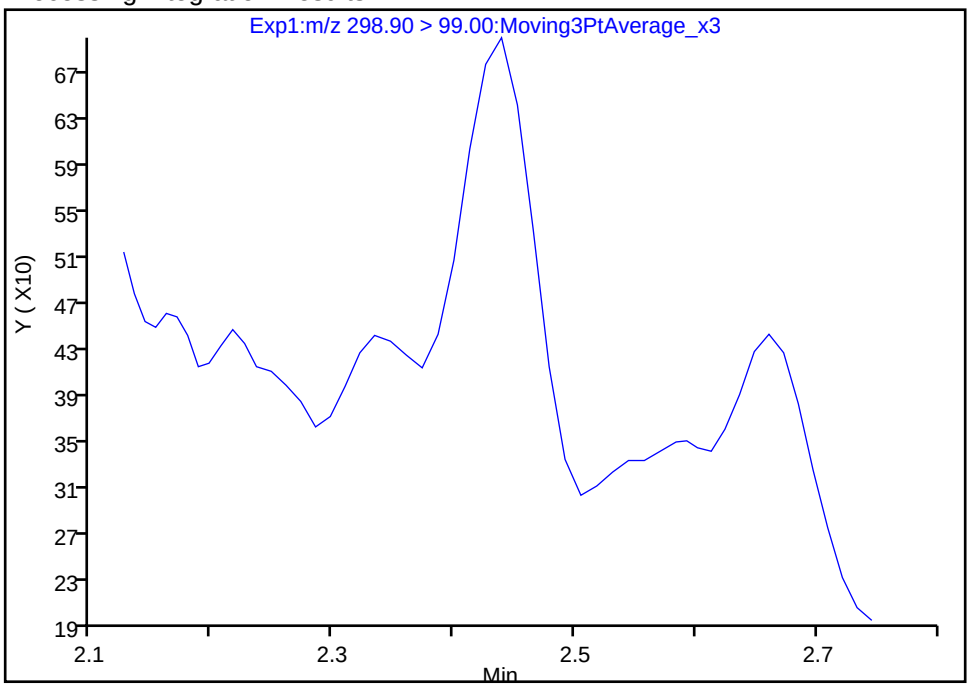
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

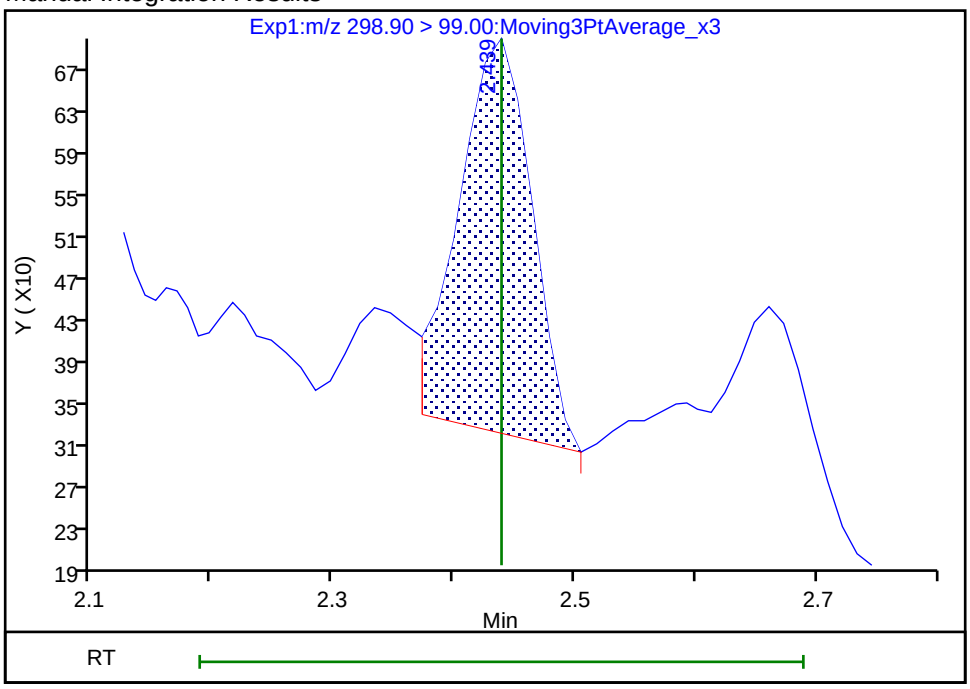
Not Detected
Expected RT: 2.44

Processing Integration Results




Manual Integration Results

RT: 2.44
Area: 1569
Amount: 0.002475
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:09:31
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

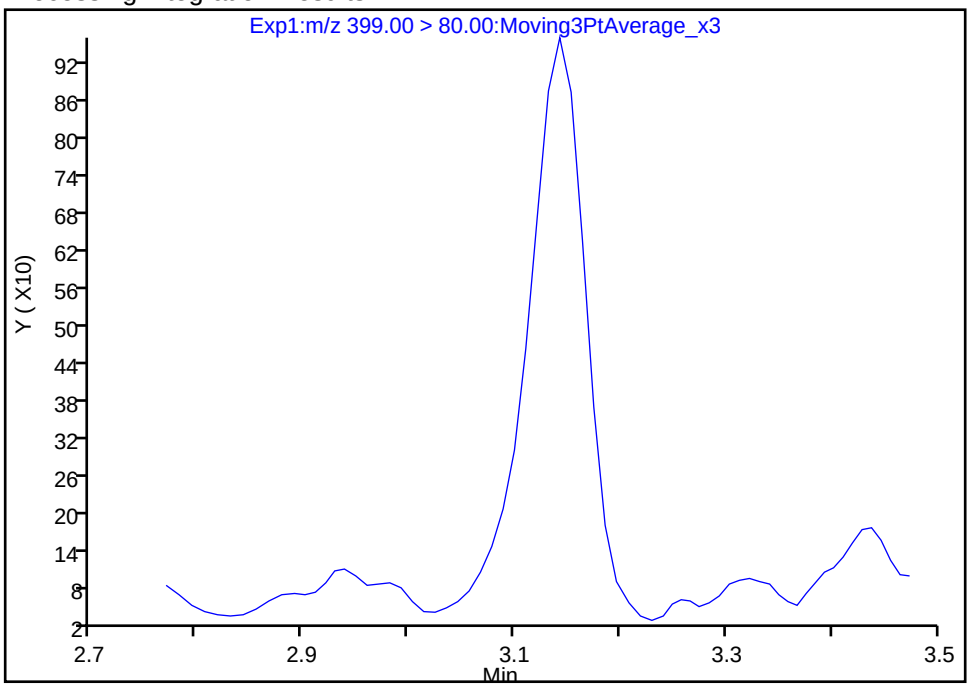
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

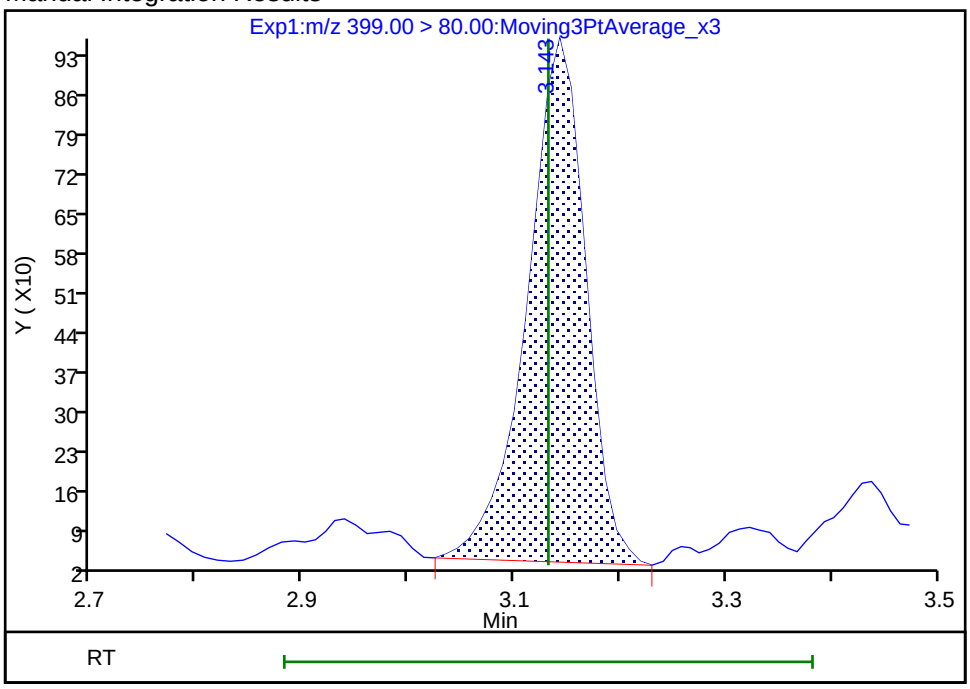
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.14
Area: 3555
Amount: 0.003283
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:10:00
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

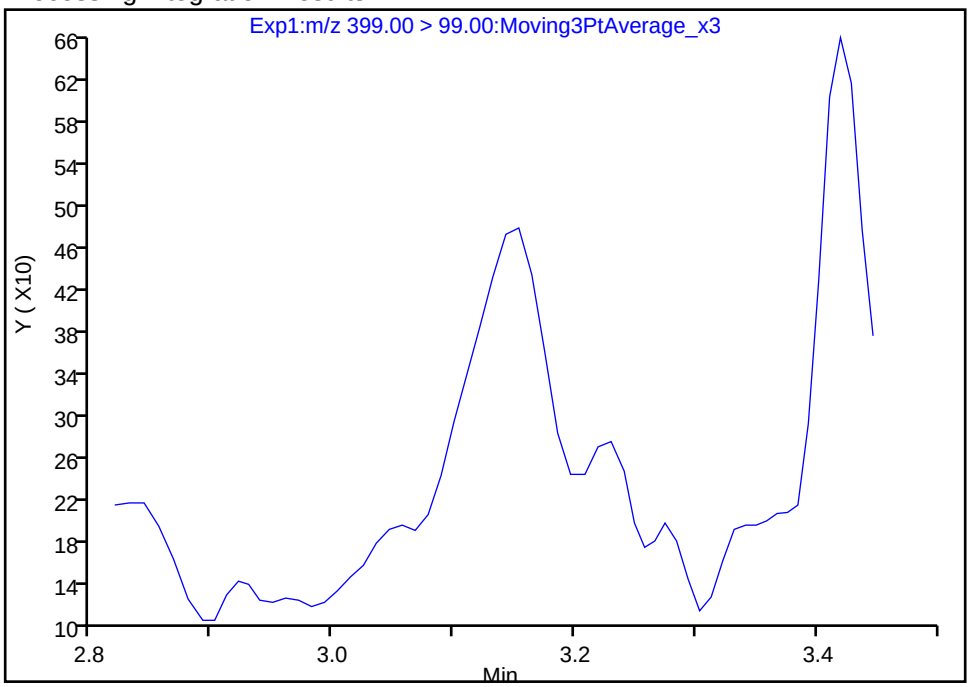
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

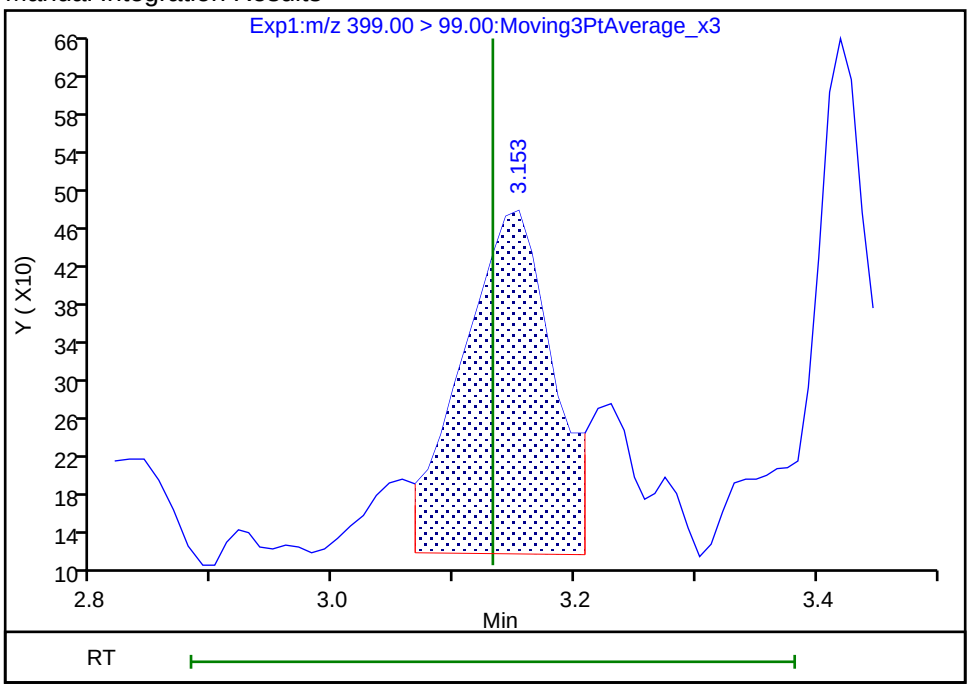
Processing Integration Results

Not Detected
Expected RT: 3.13




Manual Integration Results

RT: 3.15
Area: 1840
Amount: 0.003283
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:10:09
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

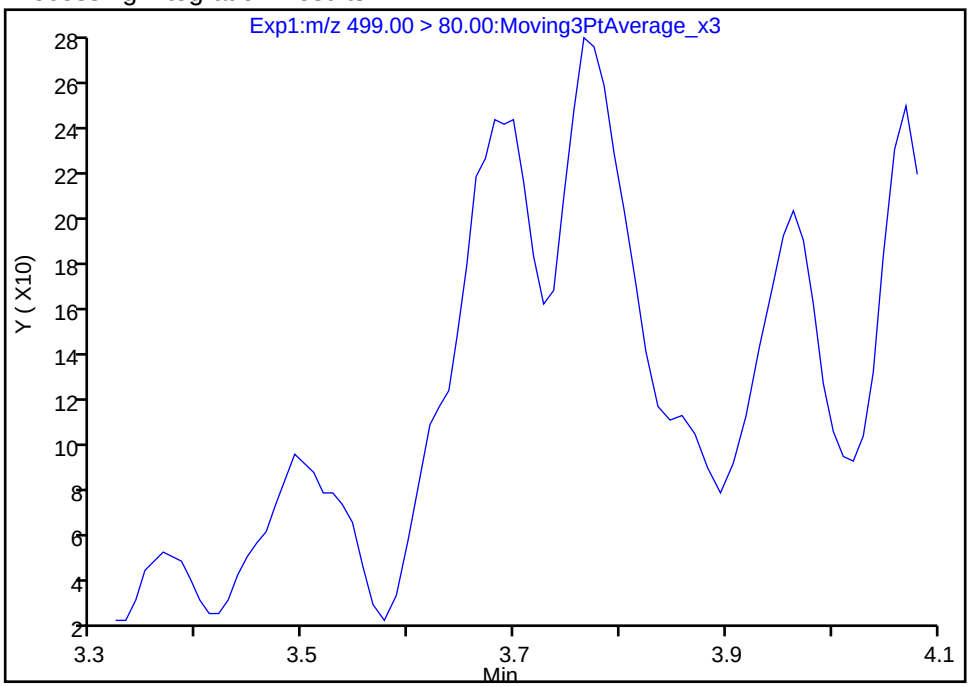
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

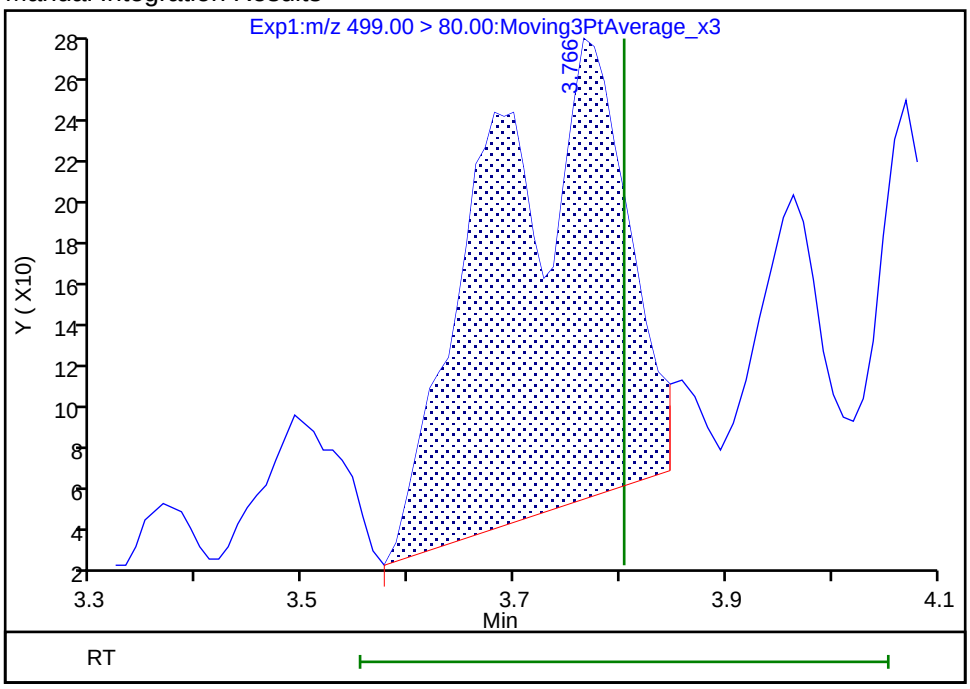
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.77
Area: 2069
Amount: 0.002557
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:11
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

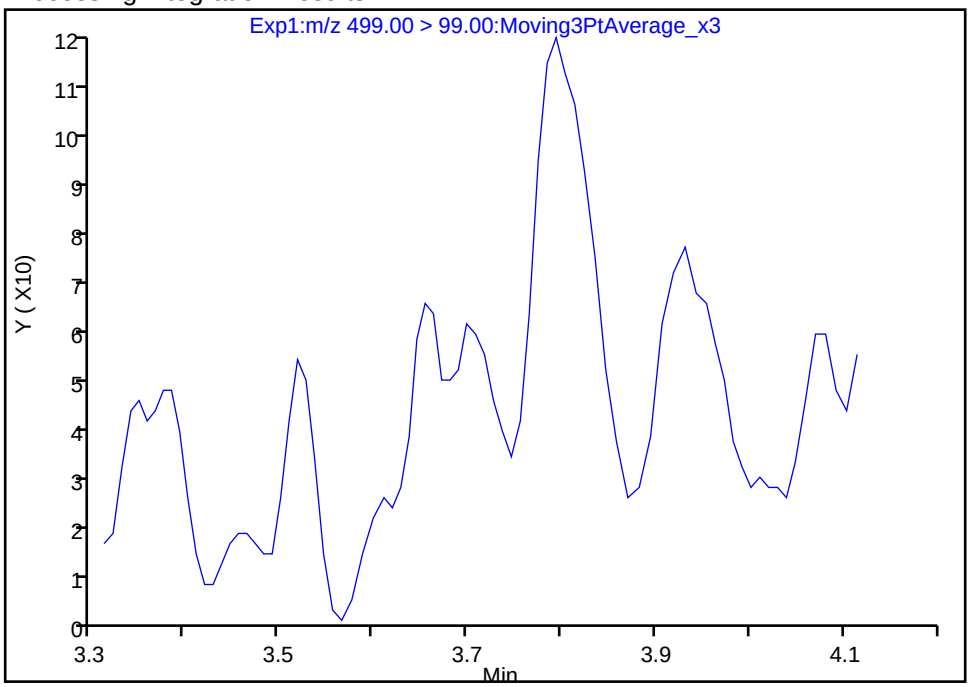
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

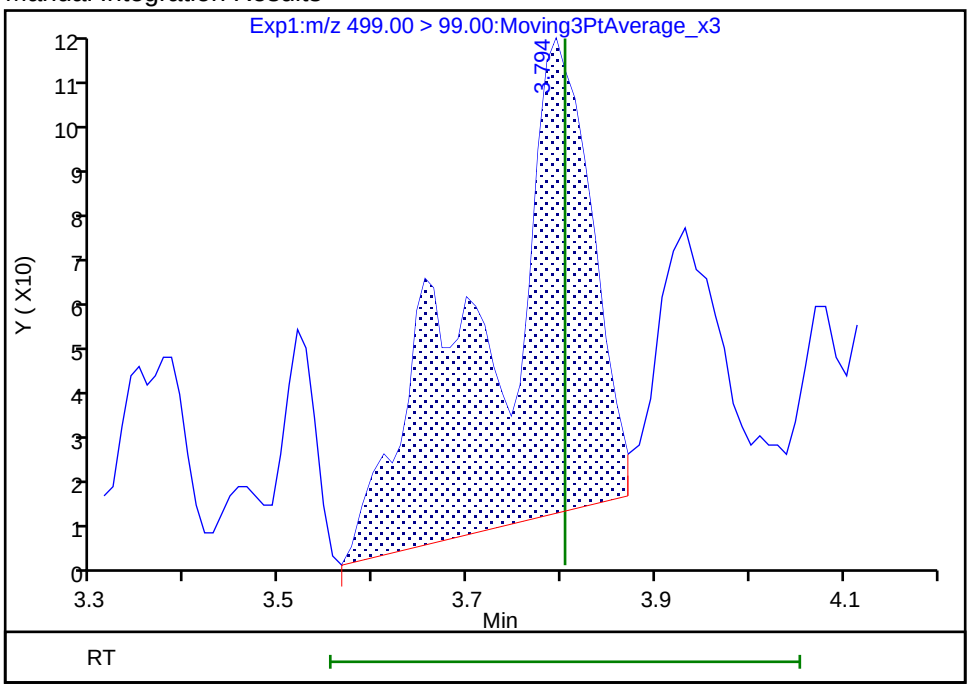
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.79
Area: 807
Amount: 0.002557
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:13
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

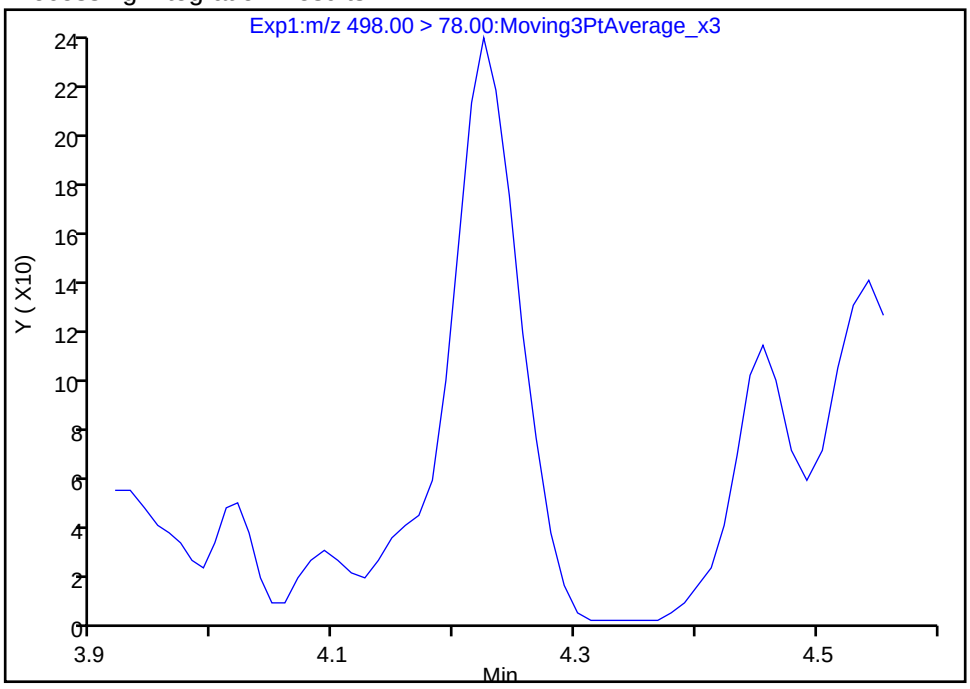
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

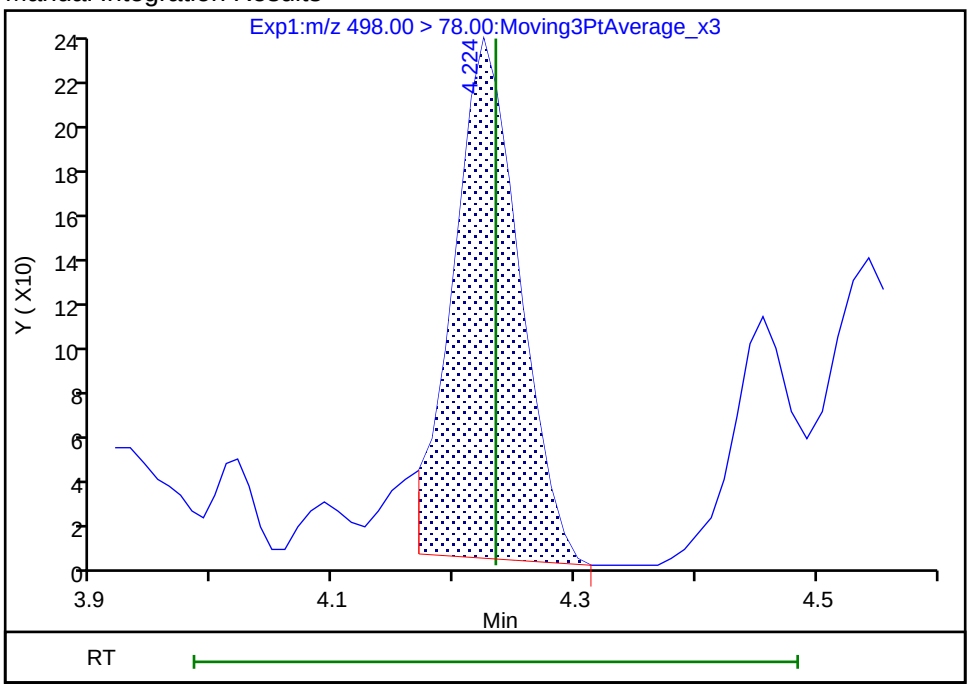
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 870
Amount: 0.000904
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:39
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

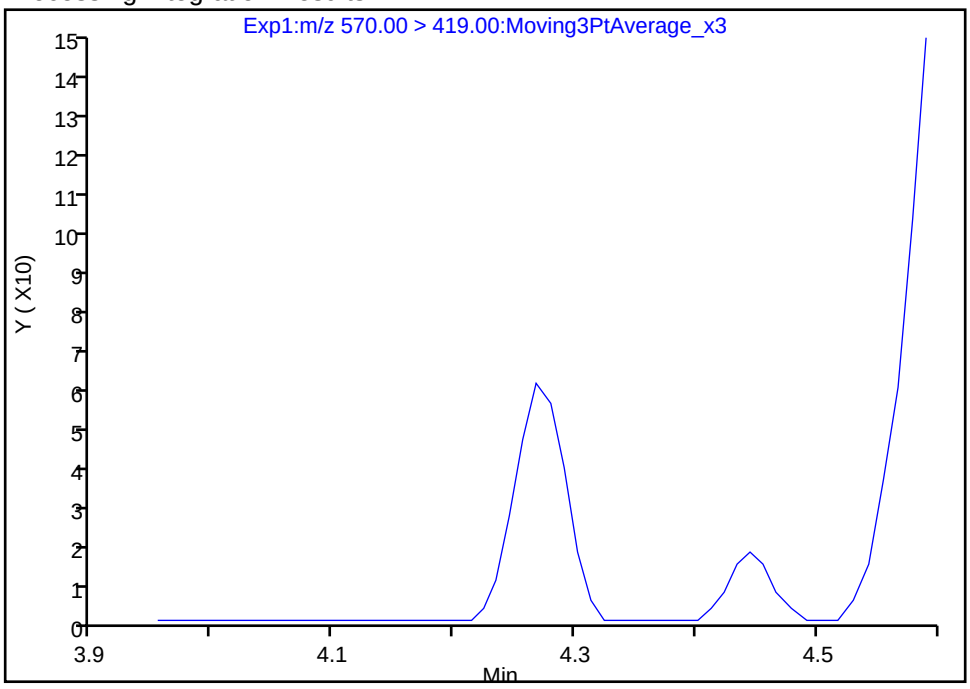
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

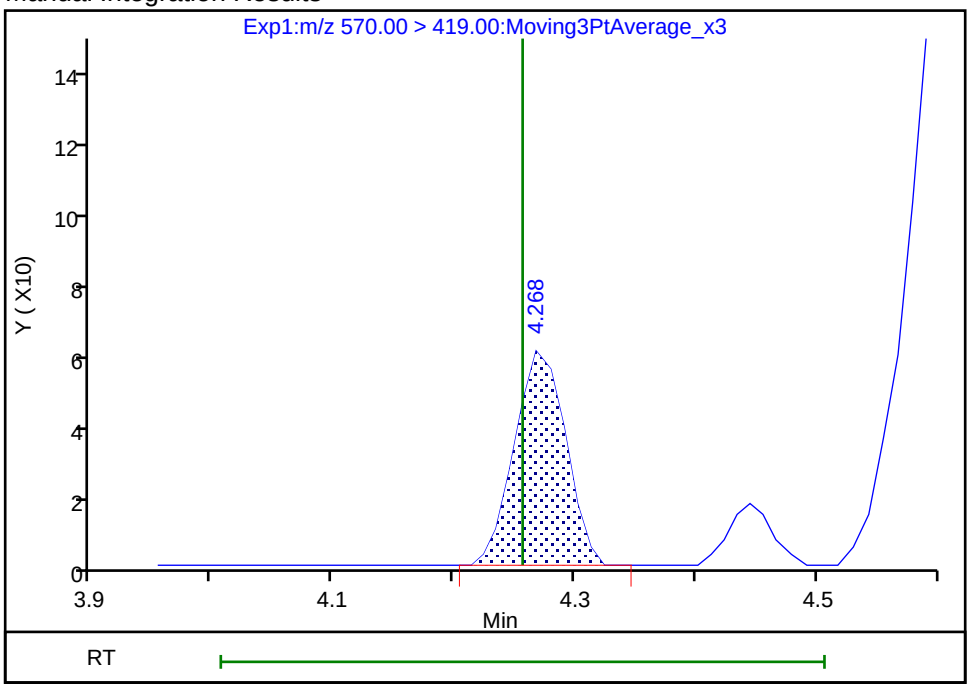
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.27
Area: 174
Amount: 0.001879
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:46
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

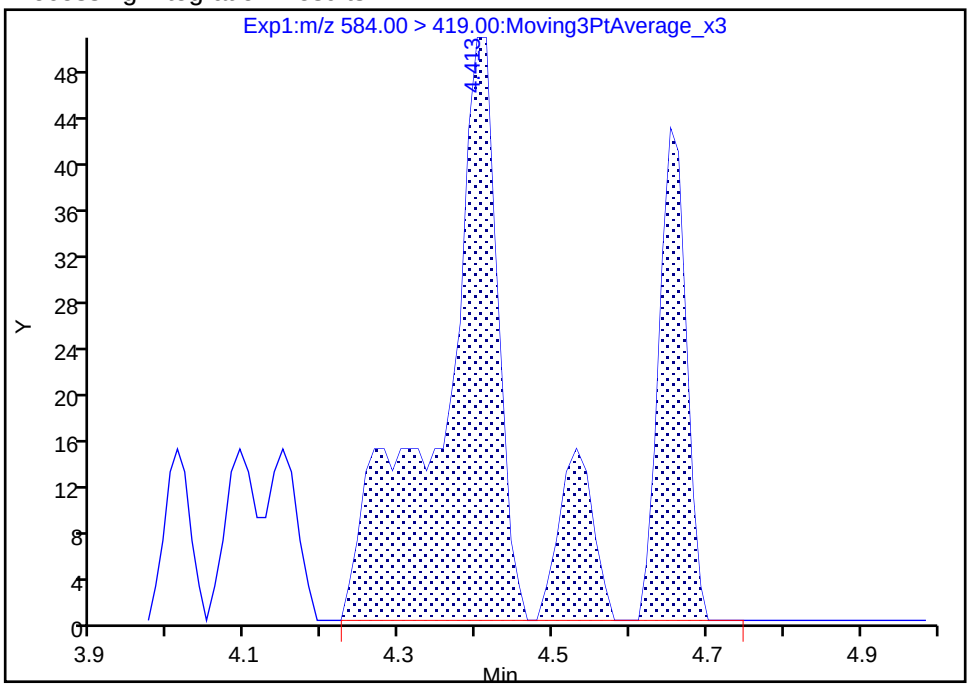
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

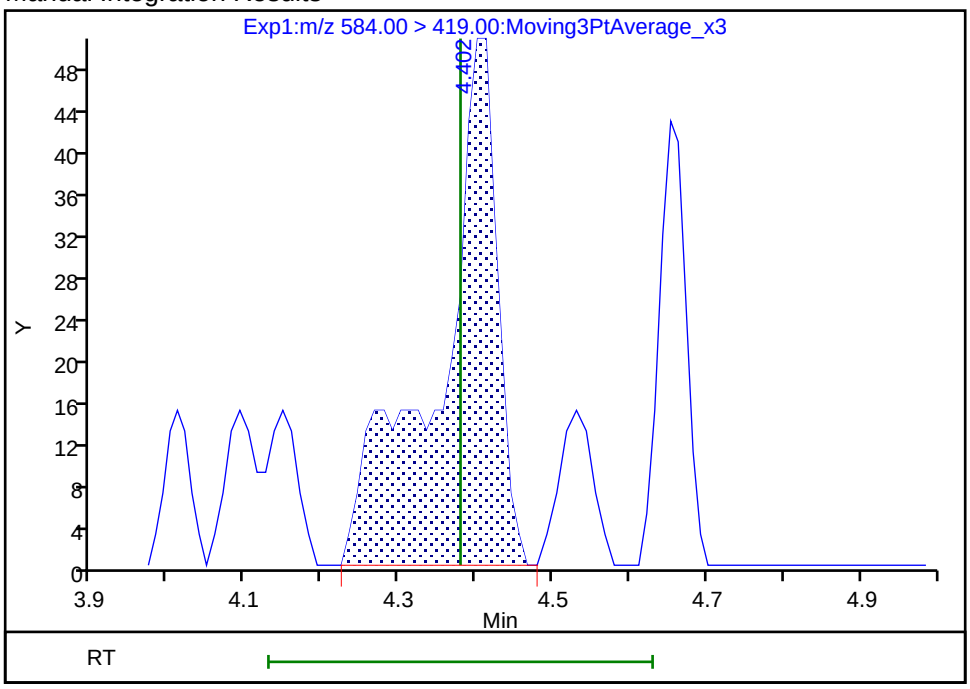
Processing Integration Results

RT: 4.41
Area: 422
Amount: 0.004434
Amount Units: ng/ml




Manual Integration Results

RT: 4.40
Area: 270
Amount: 0.002837
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:12:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

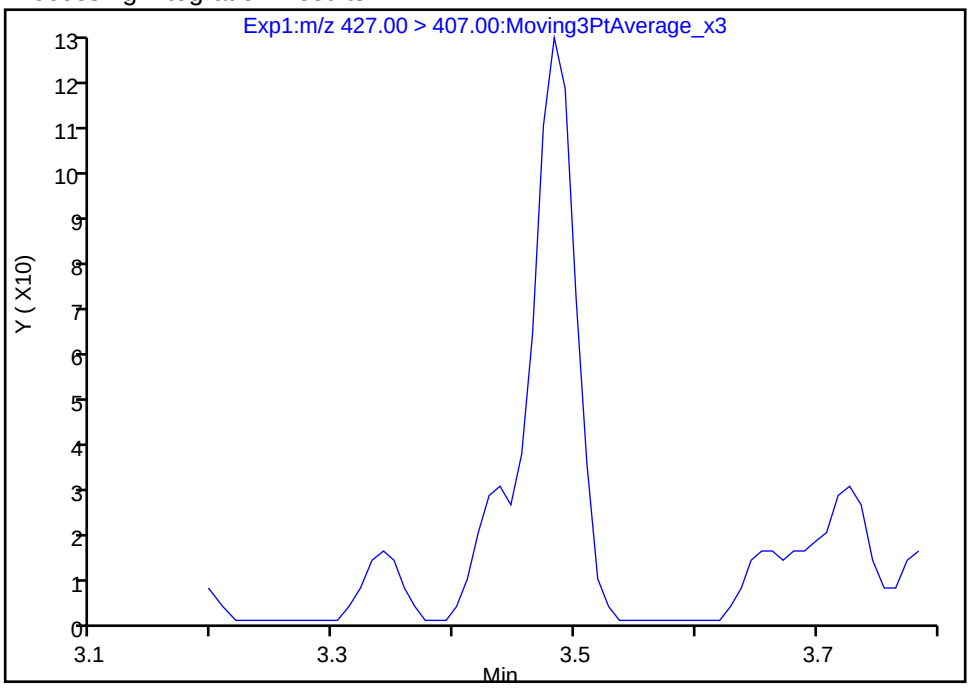
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

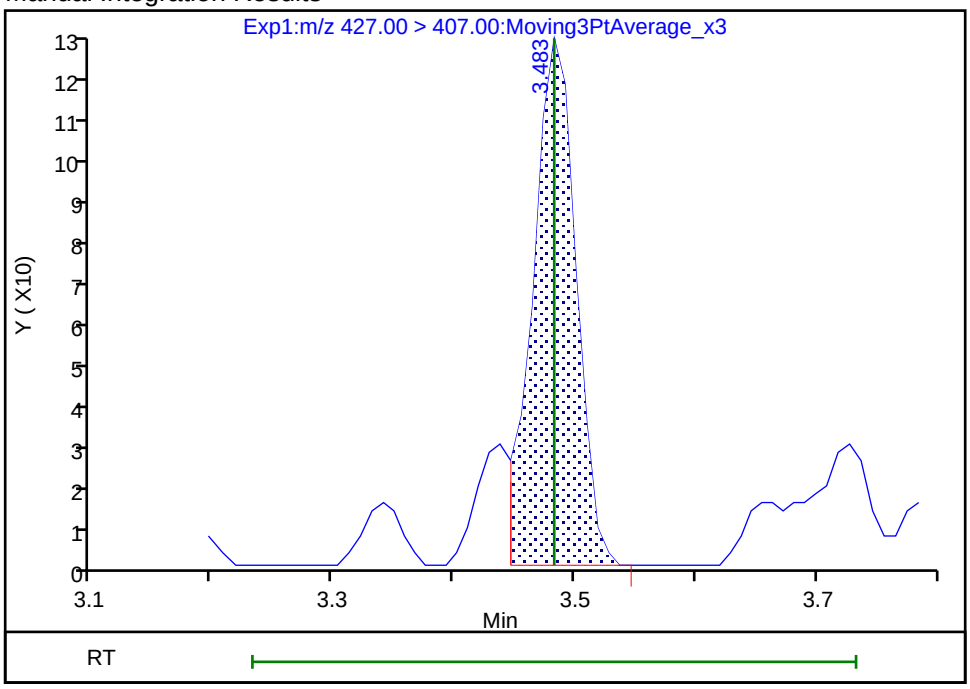
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 310
Amount: 0.001338
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:10:44
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

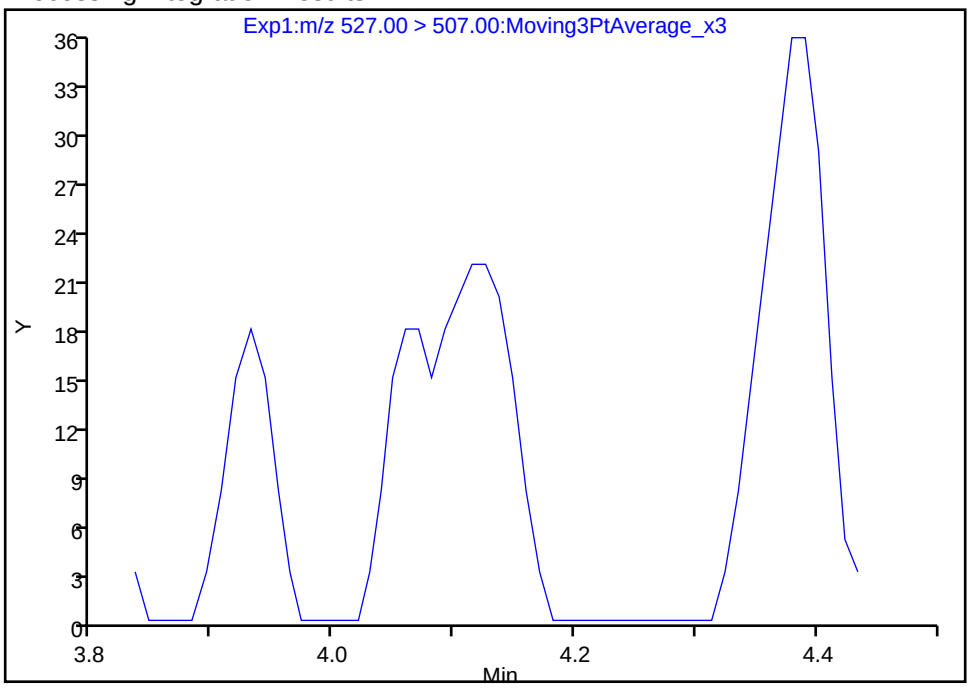
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D17.d | | | | |
| Injection Date: | 10-Nov-2021 06:23:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-10-A | Lab Sample ID: | 200-246277-10 | | |
| Client ID: | EP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

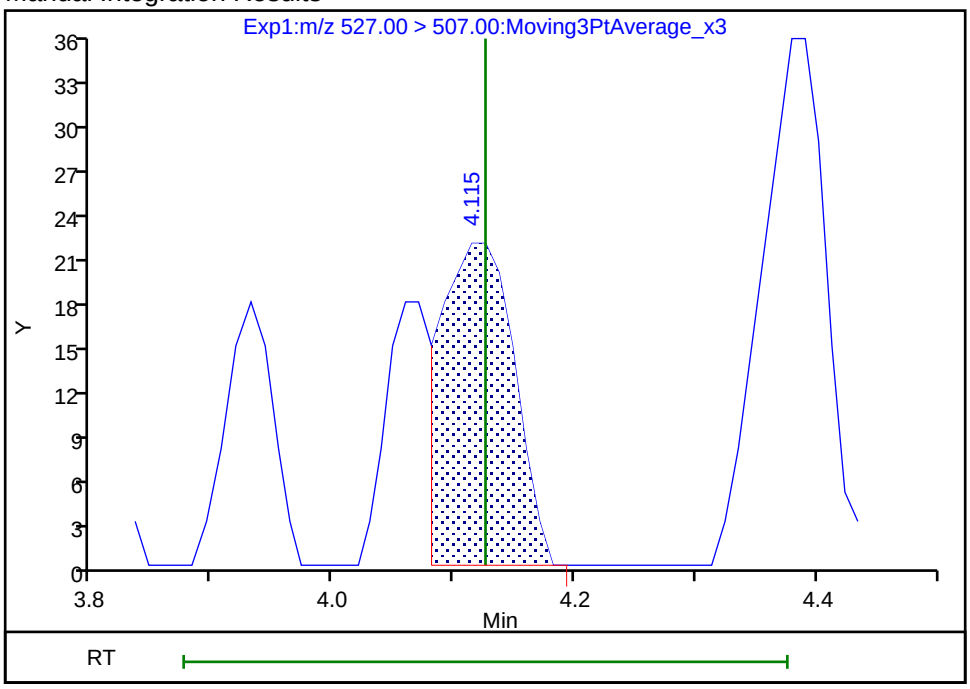
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 90
Amount: 0.000512
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:11:30
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-23S-20211028  Lab Sample ID: 460-246277-11

Matrix: Water  Lab File ID: PA211109D18.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 08:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 266.1(mL)  Date Analyzed: 11/10/2021 06:31

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 6.35 | | 4.70 | 0.84 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 2.48 | | 1.88 | 0.45 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 2.01 | | 1.88 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.81 | J | 1.88 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 9.36 | | 1.88 | 0.40 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.16 | J | 1.88 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.78 | J | 1.88 | 0.29 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.88 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.88 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.41 | U | 1.88 | 0.41 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.88 | 0.59 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 1.39 | J | 1.88 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.64 | J | 1.88 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.22 | U | 1.88 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 3.09 | | 1.88 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.88 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.88 | 0.54 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.85 | U | 4.70 | 0.85 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.70 | U | 4.70 | 0.70 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.03 | U | 4.70 | 1.03 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.88 | 0.37 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-23S-20211028  Lab Sample ID: 460-246277-11

Matrix: Water  Lab File ID: PA211109D18.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 08:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 266.1(mL)  Date Analyzed: 11/10/2021 06:31

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 85 | | 25-150 |
| STL00993 | 13C2 PFHxA | 98 | | 50-150 |
| STL00996 | 13C2 PFDA | 86 | | 50-150 |
| STL00997 | 13C2 PFUnA | 87 | | 50-150 |
| STL00998 | 13C2 PFDoA | 84 | | 50-150 |
| STL01056 | 13C8 FOSA | 88 | | 25-150 |
| STL01893 | 13C5 PFPeA | 94 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 98 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 106 | | 50-150 |
| STL02279 | M2-6:2 FTS | 110 | | 25-150 |
| STL02280 | M2-8:2 FTS | 113 | | 25-150 |
| STL02337 | 13C3 PFBS | 90 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d
Lims ID: 460-246277-D-11-A
Client ID: MW-23S-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:31:26 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-11-A
Misc. Info.: 200-0048356-018 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:30:55
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.100 | 0.0 | 0.600 | 1522833 | 1.07 | | 85.3 | 7087 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.000 | 194512 | 0.1689 | | | 19.2 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.689 | 1415805 | 1.18 | | 94.1 | 1196 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 74737 | 0.0659 | | | 1.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.693 | 1694719 | 1.04 | | 89.5 | 48109 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 57558 | 0.0370 | Target=2.32 | | 2.9 | M |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.005 | 25907 | | 2.22(1.16-3.48) | | 3.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.791 | 1544438 | 1.22 | | 97.9 | 3052 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 67153 | 0.0536 | Target=12.09 | | 2.6 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 5202 | | 12.91(6.04-18.13) | | 3.4 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 0.997 | 21013 | 0.0170 | Target=3.55 | | 3.9 | M |
| 399.00 > 99.00 | 3.143 | 3.132 | 0.011 | 1.000 | 6665 | | 3.15(1.77-5.32) | | 3.7 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.132 | 0.011 | 0.898 | 1332925 | 1.13 | | 95.3 | 2626 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.898 | 1576662 | 1.19 | | 94.9 | 3580 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 62755 | 0.0482 | Target=3.69 | | 4.6 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 17190 | | 3.65(1.84-5.53) | | 22.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | RM |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 600 | 0.000563 | Target=4.88 | | 0.3 | R |
| 449.00 > 99.00 | 3.492 | 3.474 | 0.018 | 0.918 | 300 | | 2.00(2.44-7.32) | | 0.7 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 498 | 0.001912 | | | 9.0 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.995 | 243934 | 1.31 | | 110 | 103 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 0.997 | 1717810 | 1.18 | | 94.6 | 4163 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.501 | 3.492 | 0.009 | | 1764381 | 1.25 | | | 4498 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.501 | 3.492 | 0.009 | 1.003 | 363843 | 0.2490 | Target=2.68 | | 26.4 | M |
| 413.00 > 169.00 | 3.501 | 3.492 | 0.009 | 1.003 | 138334 | | 2.63(1.34-4.02) | | 239 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.087 | 1021509 | 1.19 | | 100.0 | 559 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 76161 | 0.0821 | Target=4.69 | | 17.8 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 11582 | | 6.58(2.35-7.04) | | 12.9 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.092 | 1658206 | 1.15 | | 91.7 | 4658 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 40223 | 0.0310 | Target=7.29 | | 6.4 | |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 5705 | | 7.05(3.64-10.93) | | 30.8 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.115 | 0.011 | 1.179 | 1575911 | 1.08 | | 86.4 | 3043 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.000 | 26175 | 0.0207 | Target=8.95 | | 9.4 | M |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 0.997 | 2710 | | 9.66(4.47-13.42) | | 10.8 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.179 | 287399 | 1.36 | | 113 | 242 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.103 | 4.126 | -0.023 | 0.995 | 264 | 0.001315 | | | 4.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.210 | 1548368 | 1.10 | | 88.0 | 3284 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.000 | 3775 | 0.003209 | | | 16.6 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.216 | 175977 | 1.23 | | 98.0 | 1157 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 389 | 0.003517 | | | 1.9 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.369 | 0.013 | 1.251 | 1240817 | 1.09 | | 87.2 | 5564 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.381 | 4.369 | 0.013 | 1.000 | 7128 | 0.006736 | Target=9.24 | | 3.9 | M |
| 563.00 > 169.00 | 4.370 | 4.369 | 0.002 | 0.997 | 940 | | 7.58(4.62-13.86) | | 12.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.392 | 4.380 | 0.012 | 1.255 | 178673 | 1.33 | | 106 | 1028 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.370 | 4.380 | -0.010 | 0.995 | 163 | 0.001331 | | | 2.0 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.591 | 0.011 | 1.314 | 1279304 | 1.05 | | 83.6 | 2654 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.602 | 4.591 | 0.011 | 1.000 | 2965 | 0.002959 | Target=7.04 | | 0.3 | M |
| 613.00 > 169.00 | 4.602 | 4.591 | 0.011 | 1.000 | 336 | | 8.82(3.52-10.56) | | 3.4 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.802 | 4.792 | 0.010 | 1.043 | 1003 | 0.001161 | Target=4.68 | | 0.5 | RM |
| 663.00 > 169.00 | 4.811 | 4.792 | 0.019 | 1.045 | 93 | | 10.78(2.34-7.02) | | 2.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.966 | 0.020 | 1.424 | 973554 | 1.03 | | 82.0 | 2112 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.995 | 4.966 | 0.029 | 1.002 | 272 | 0.002213 | Target=1.01 | | 5.0 | M |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.996 | 219 | | 1.24(0.51-1.52) | | 8.5 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:21 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d

Injection Date: 10-Nov-2021 06:31:26 Instrument ID: LC812

Lims ID: 460-246277-D-11-A Lab Sample ID: 200-246277-11

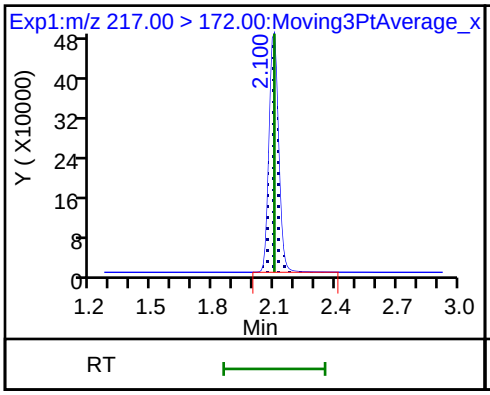
Client ID: MW-23S-20211028

Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 18

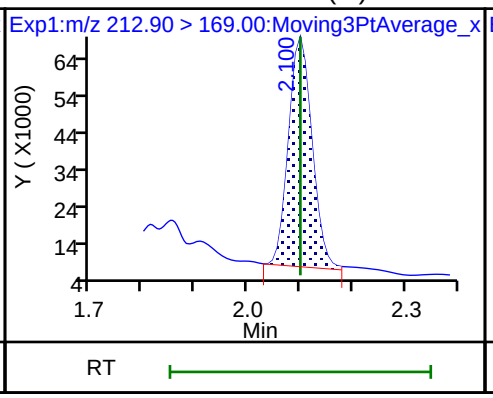
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

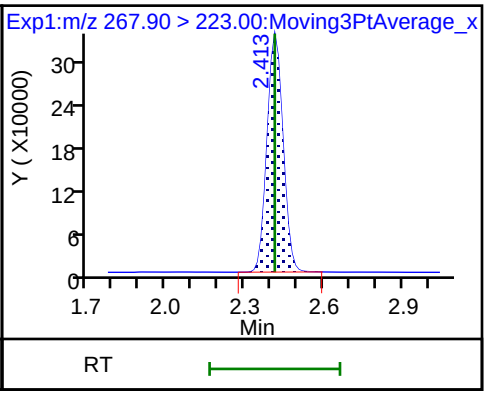
D 1 13C4 PFBA



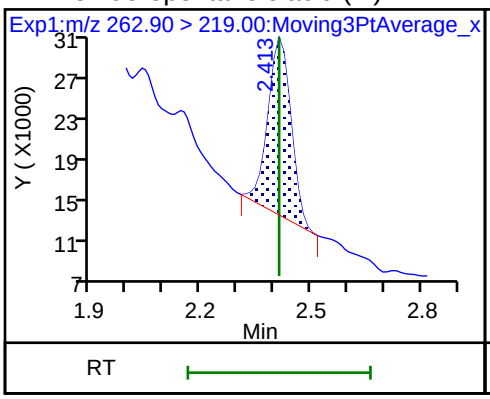

2 Perfluorobutanoic acid (M)



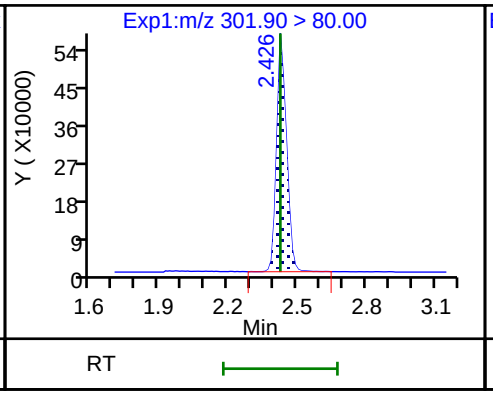

D 3 13C5 PFPeA



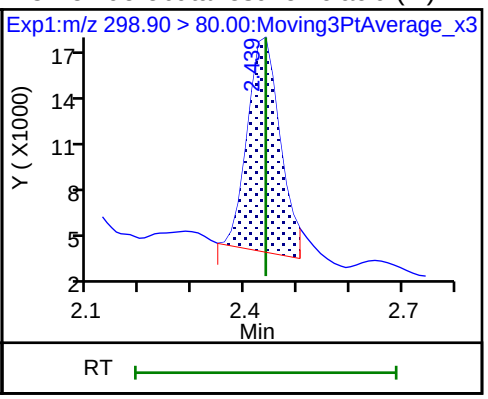

4 Perfluoropentanoic acid (M)



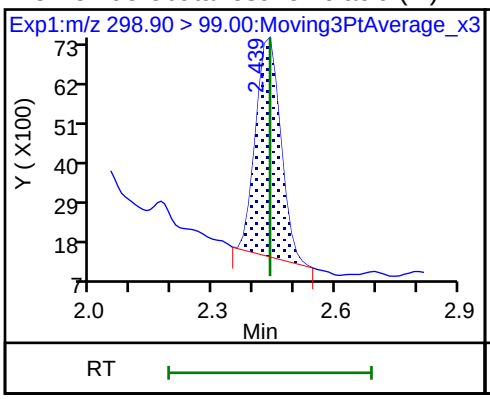

D 47 13C3 PFBS



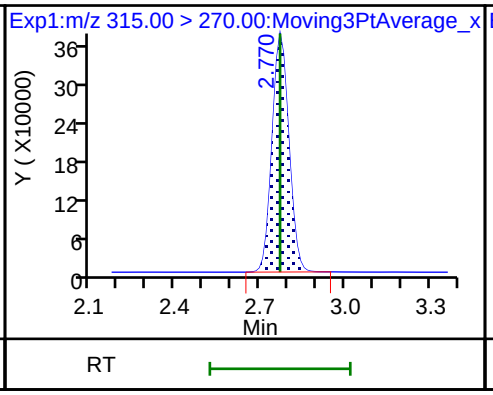

5 Perfluorobutanesulfonic acid (M)



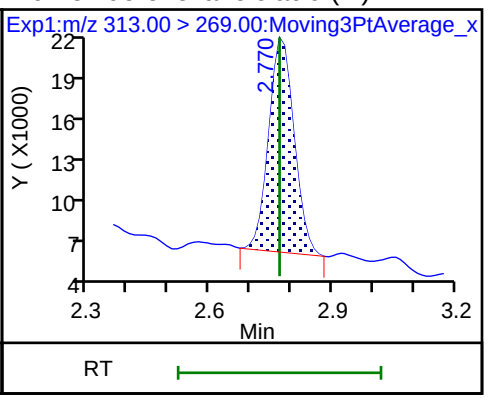

5 Perfluorobutanesulfonic acid (M)



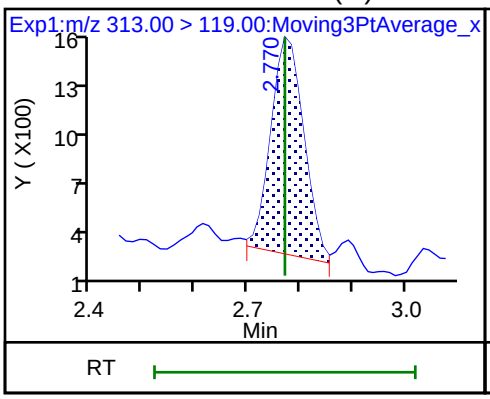

D 7 13C2 PFHxA



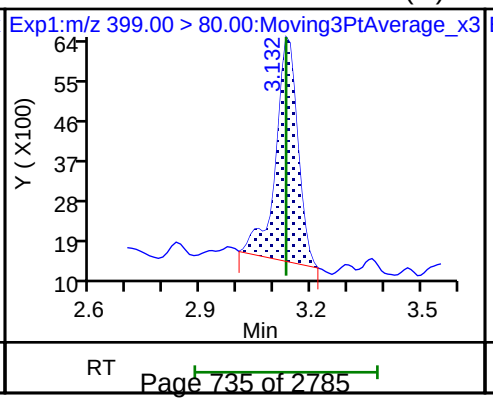

6 Perfluorohexanoic acid (M)



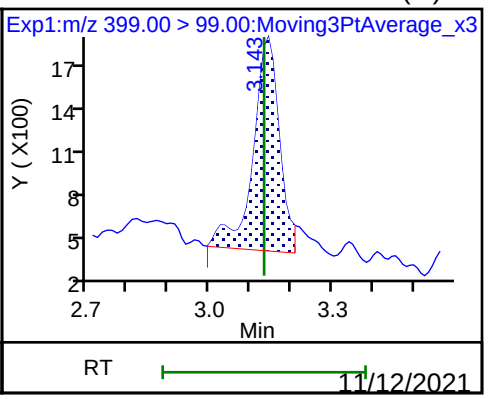

6 Perfluorohexanoic acid (M)



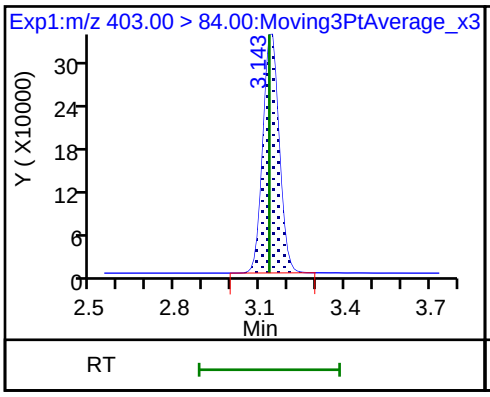

8 Perfluorohexanesulfonic acid (M)



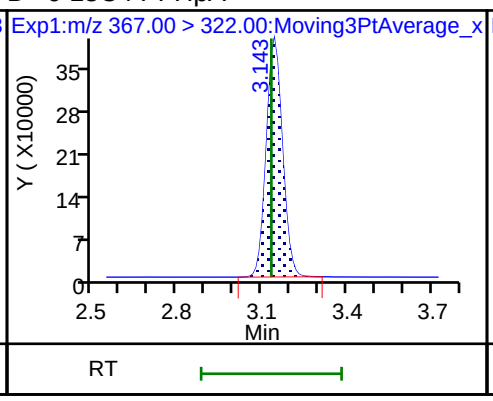

8 Perfluorohexanesulfonic acid (M)



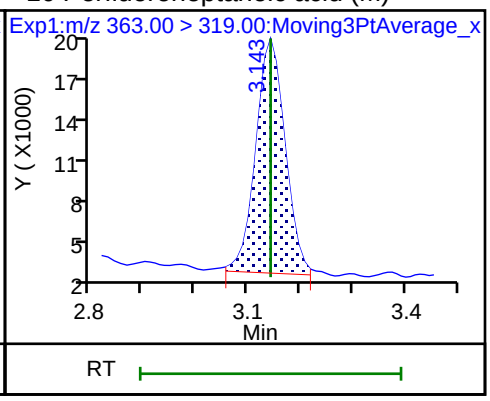
D 11 18O2 PFHxS



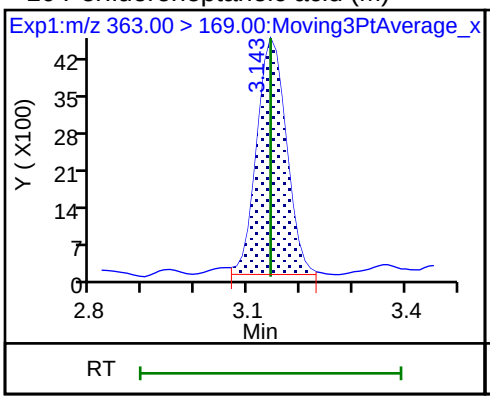

D 9 13C4 PFHpA



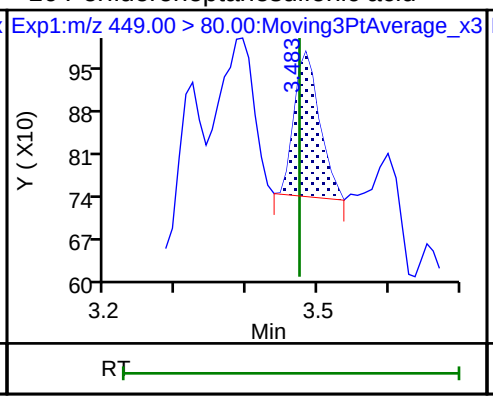

10 Perfluoroheptanoic acid (M)



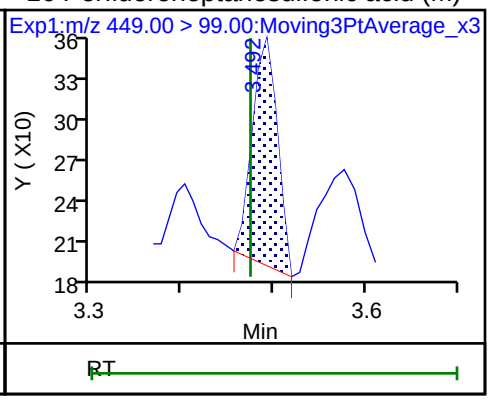

10 Perfluoroheptanoic acid (M)



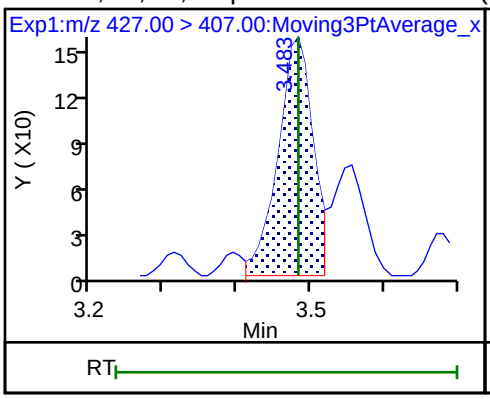

16 Perfluoroheptanesulfonic acid



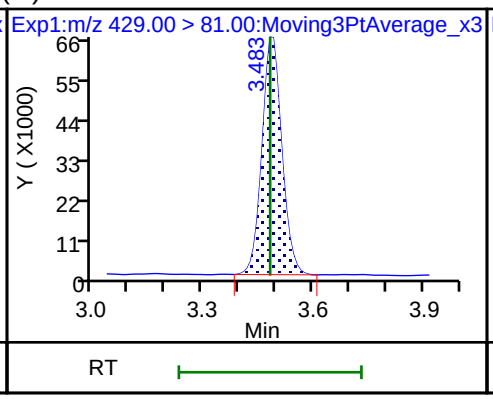

16 Perfluoroheptanesulfonic acid (M)



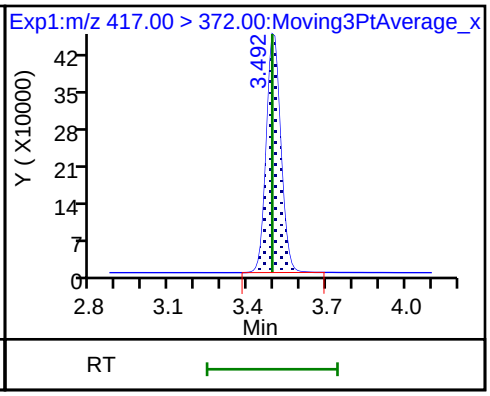

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



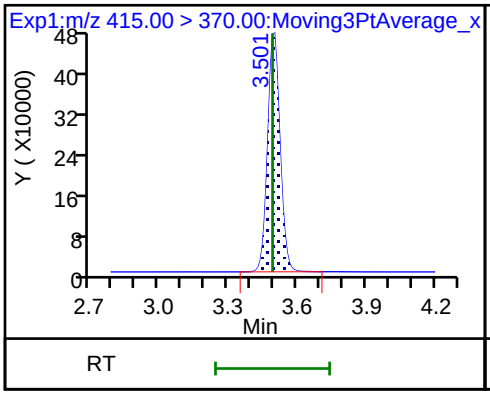

D 12 M2-6:2 FTS



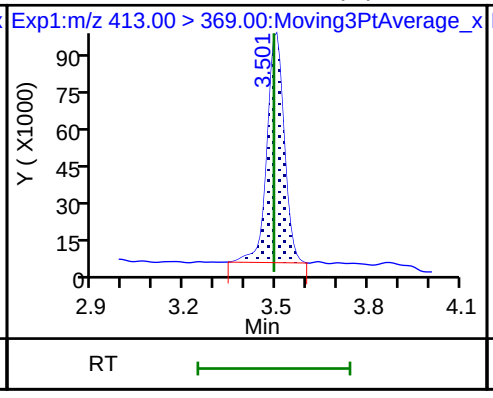

D 14 13C4 PFOA



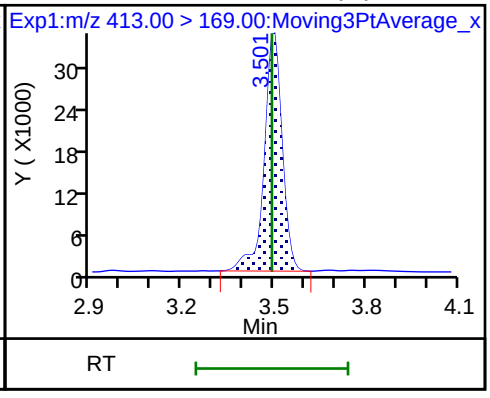

* 62 13C2 PFOA



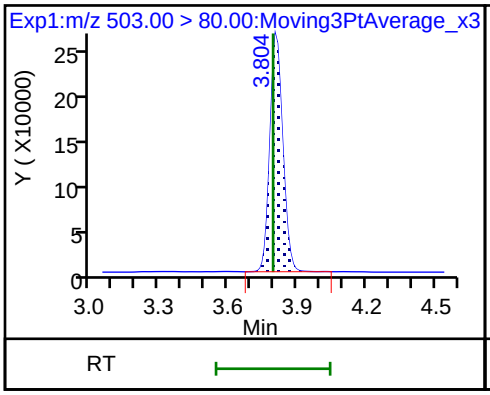

15 Perfluorooctanoic acid (M)



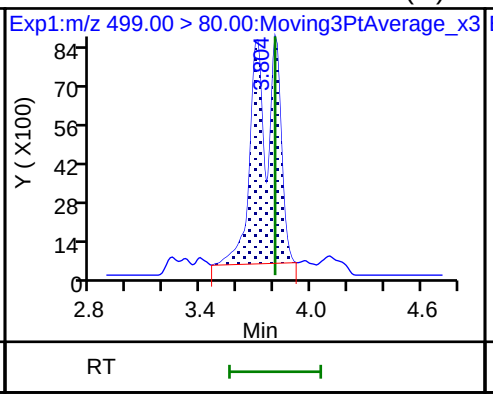

15 Perfluorooctanoic acid (M)



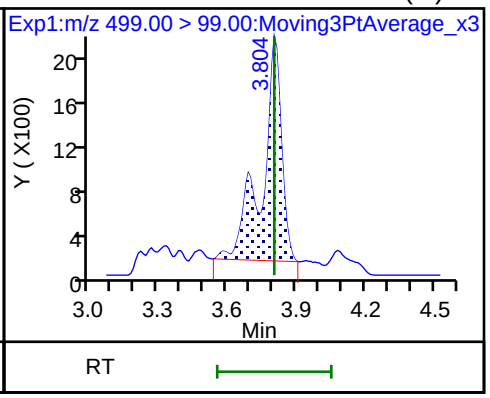
D 18 13C4 PFOS



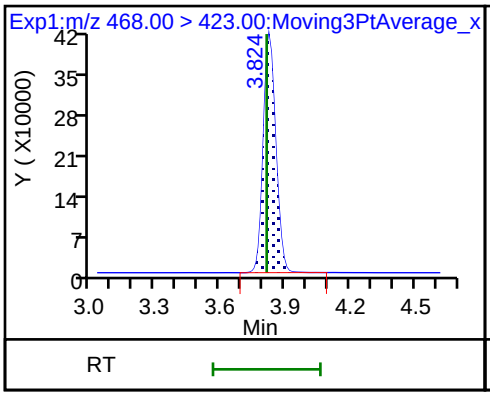

17 Perfluorooctanesulfonic acid (M)



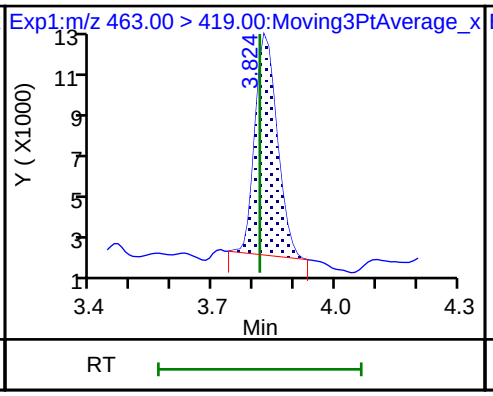

17 Perfluorooctanesulfonic acid (M)



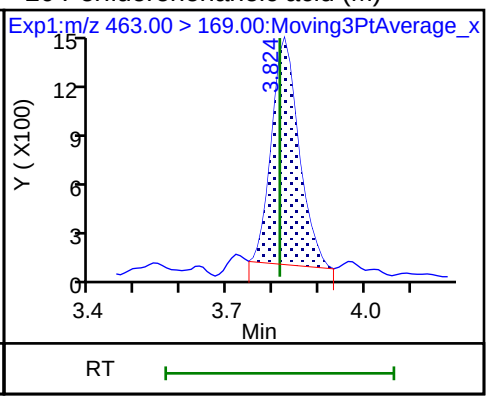

D 19 13C5 PFNA



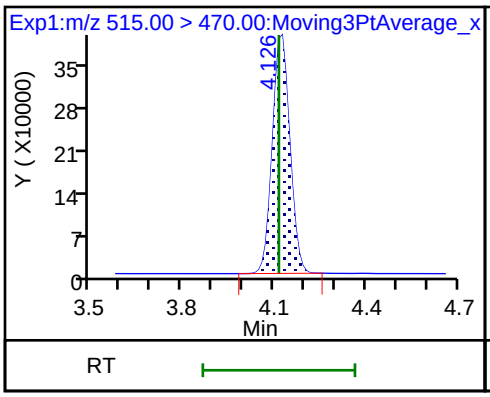

20 Perfluorononanoic acid



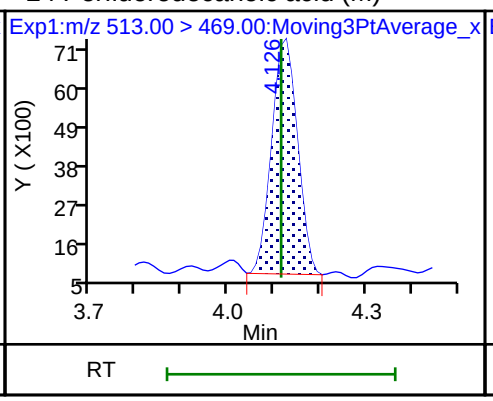

20 Perfluorononanoic acid (M)



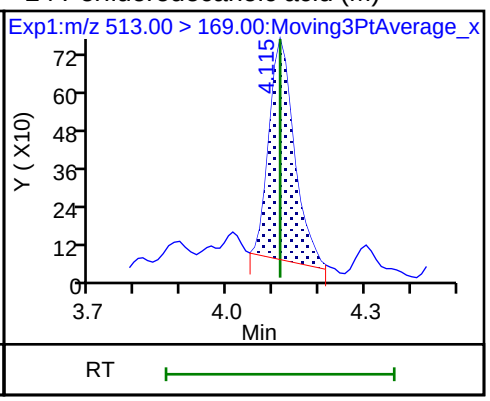

D 23 13C2 PFDA



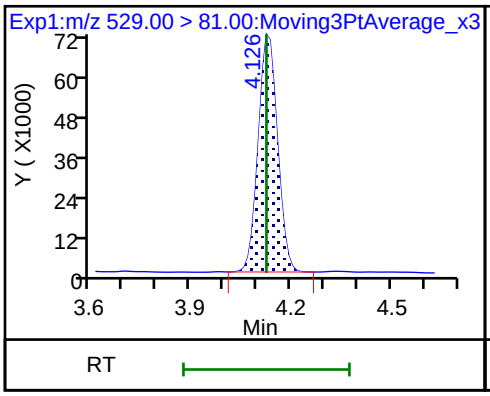

24 Perfluorodecanoic acid (M)



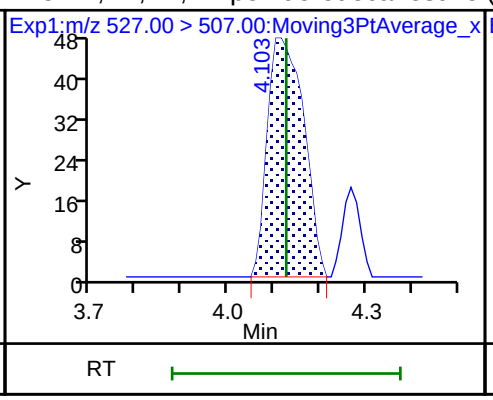

24 Perfluorodecanoic acid (M)



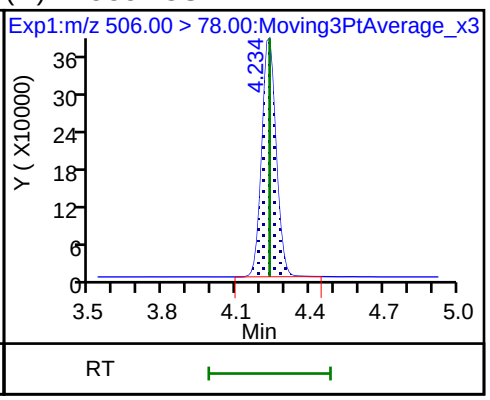

D 26 M2-8:2 FTS



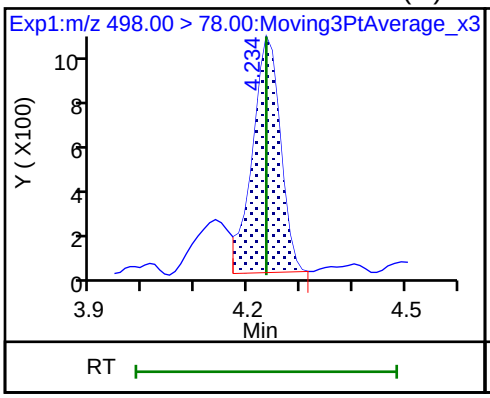

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



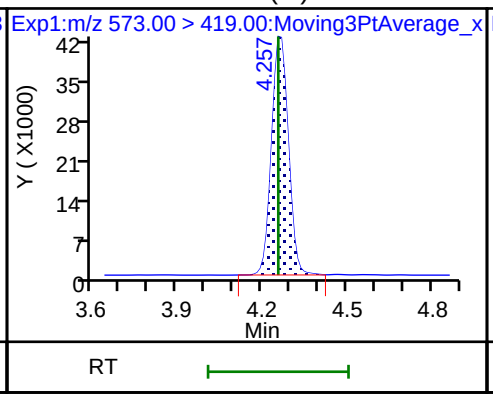

21 13C8 FOSA



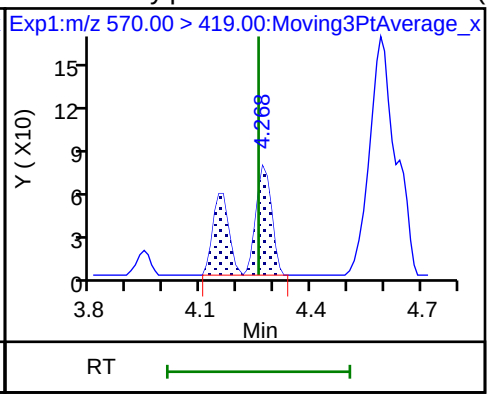
22 Perfluorooctanesulfonamide (M)



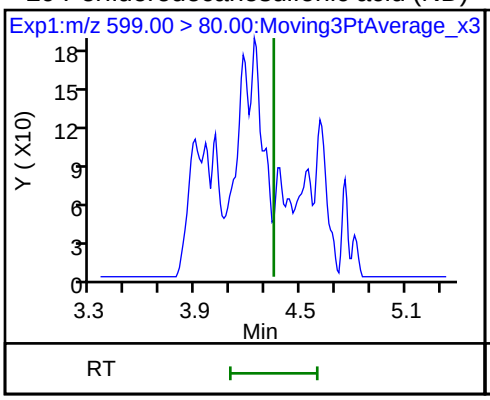

D 27 d3-NMeFOSAA (M)



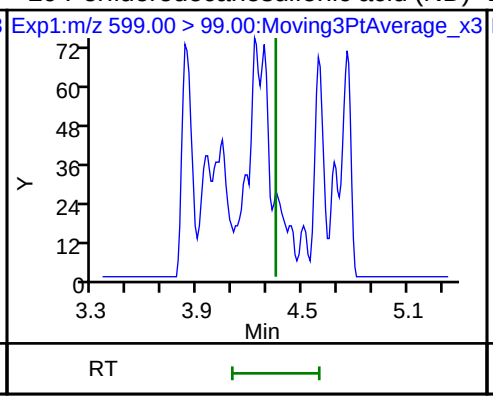

28 N-methylperfluorooctanesulfonami (M)



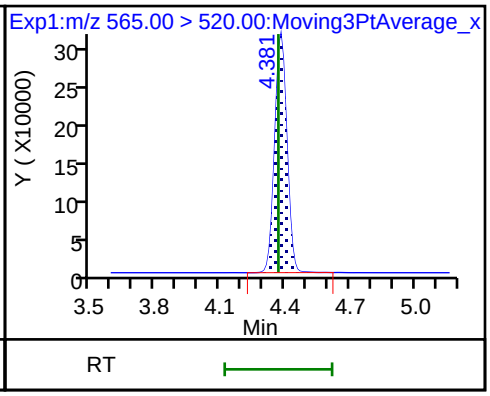

29 Perfluorodecanesulfonic acid (ND)



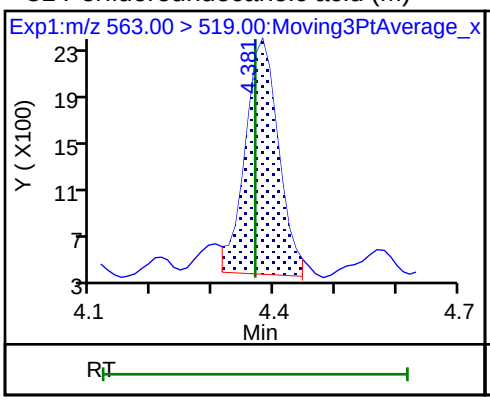

29 Perfluorodecanesulfonic acid (ND)



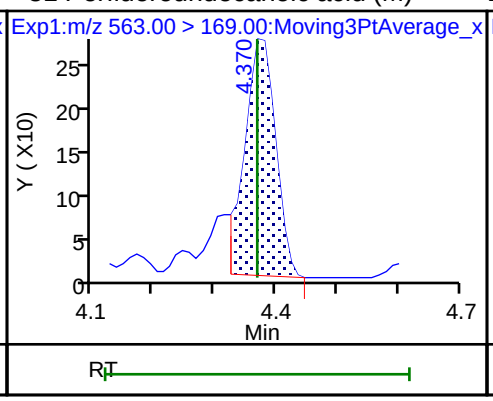

D 30 13C2 PFUnA



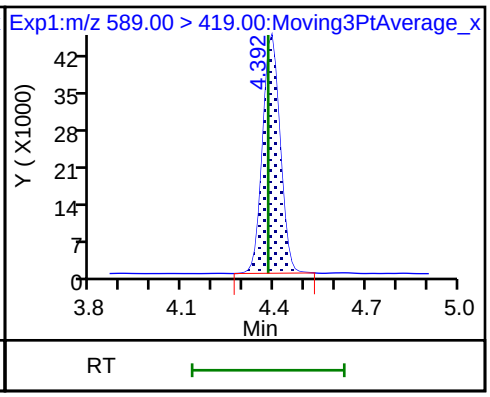

31 Perfluoroundecanoic acid (M)



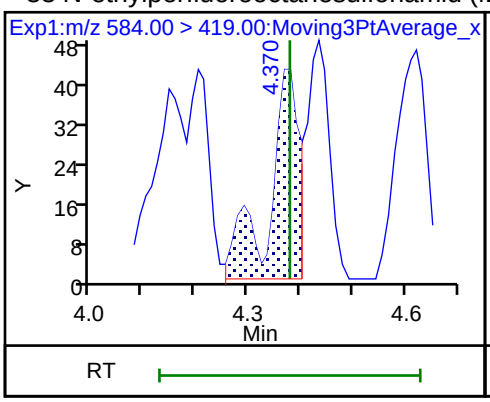

31 Perfluoroundecanoic acid (M)



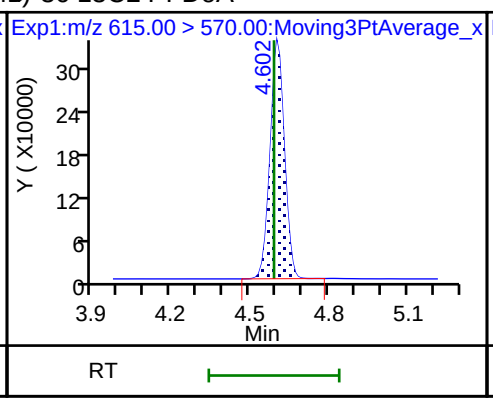

D 32 d5-NEtFOSAA



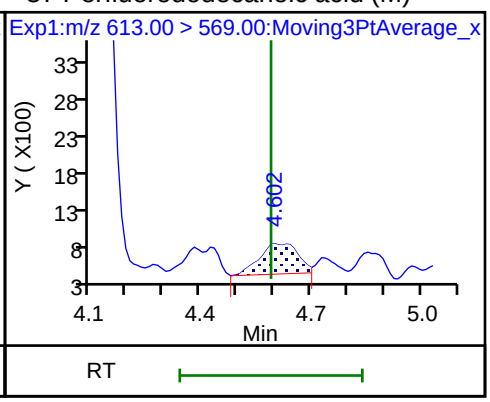

33 N-ethylperfluorooctanesulfonamid (ND)



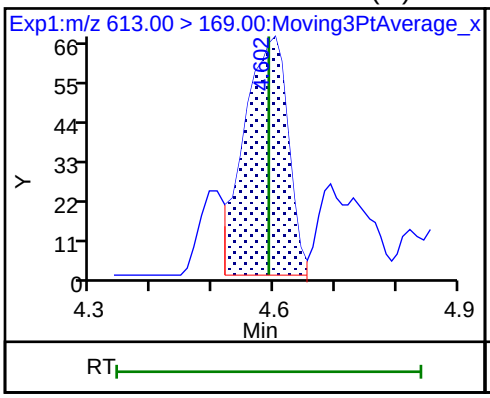

D 36 13C2 PFDoA



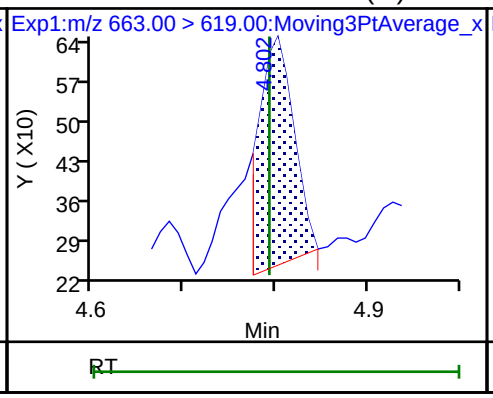

37 Perfluorododecanoic acid (M)



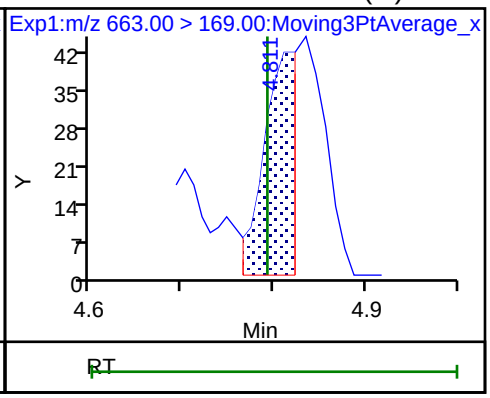
37 Perfluorododecanoic acid (M)



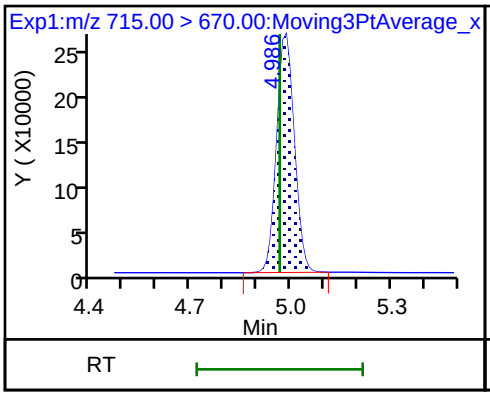

41 Perfluorotridecanoic acid (M)



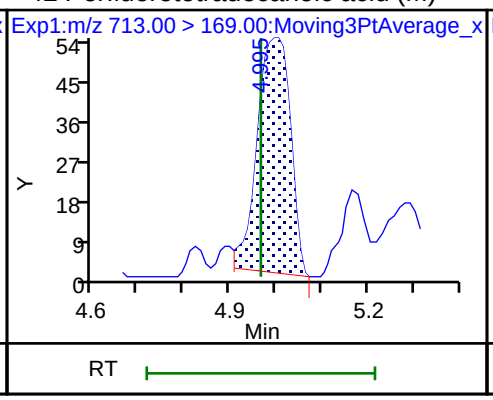

41 Perfluorotridecanoic acid (M)



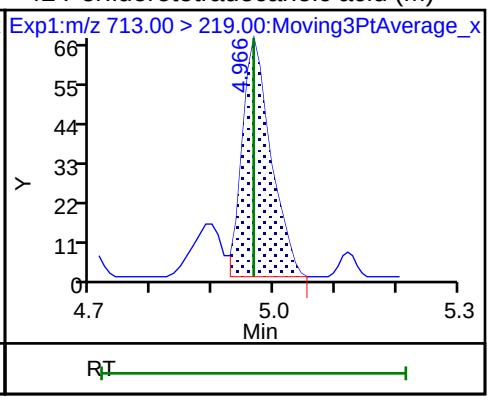

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

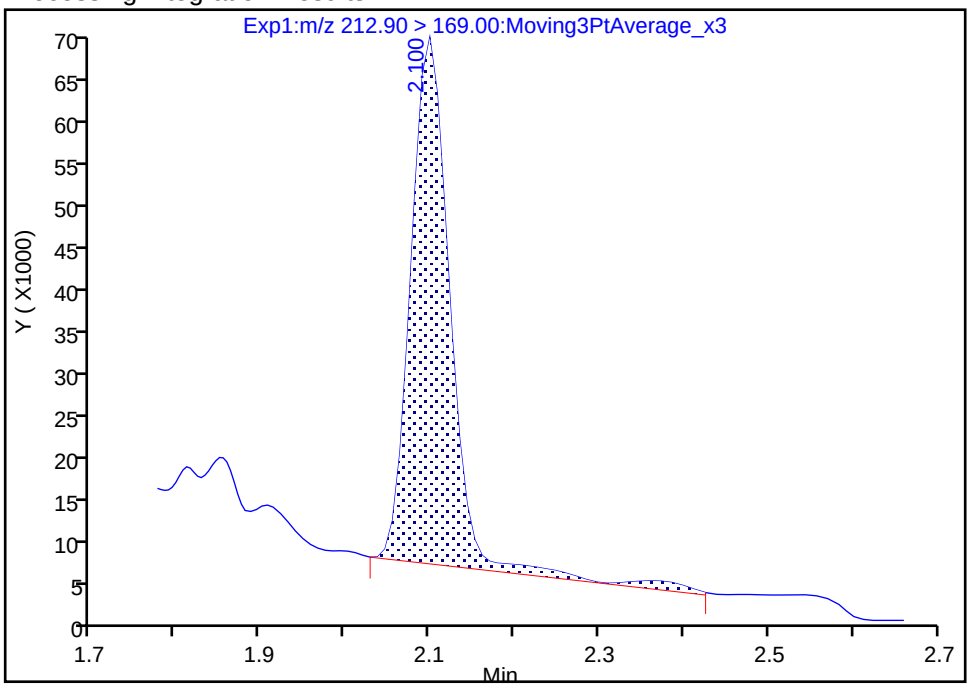
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

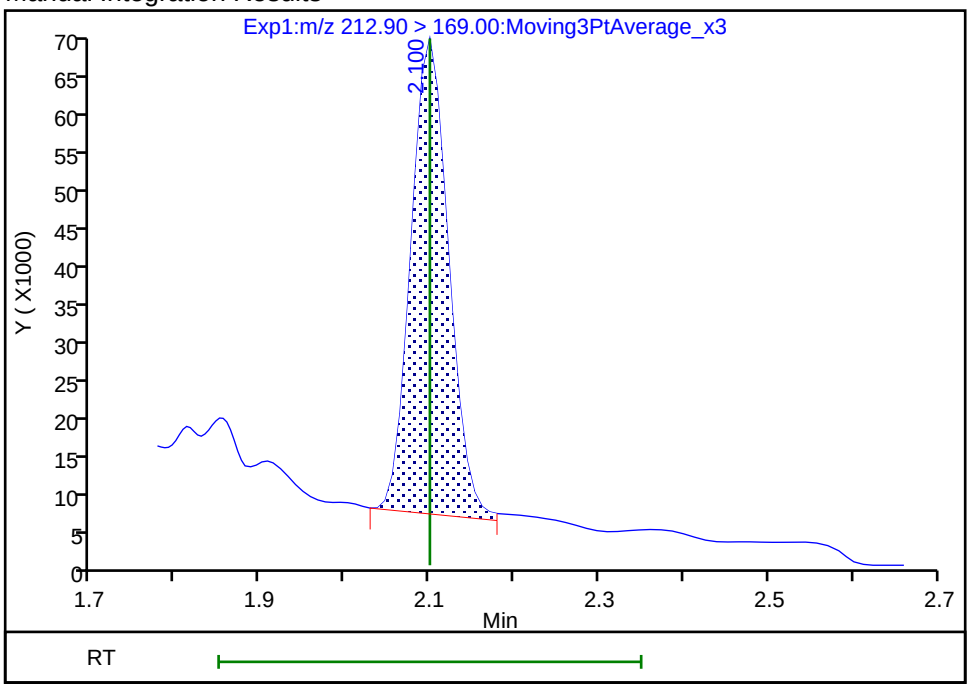
Processing Integration Results

RT: 2.10
Area: 205323
Amount: 0.178241
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 194512
Amount: 0.168856
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:26:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

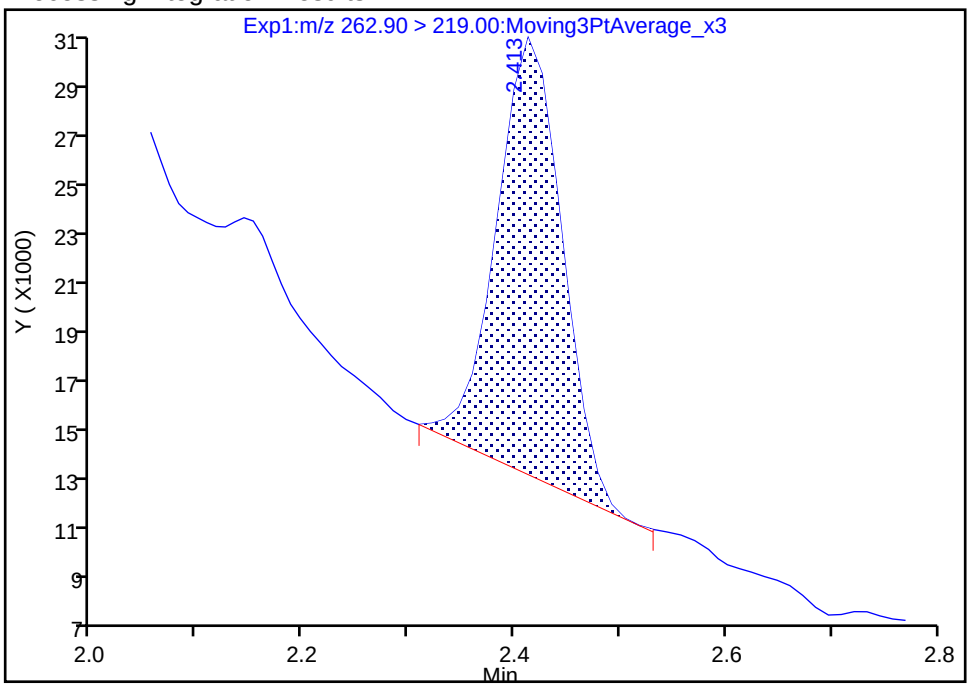
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

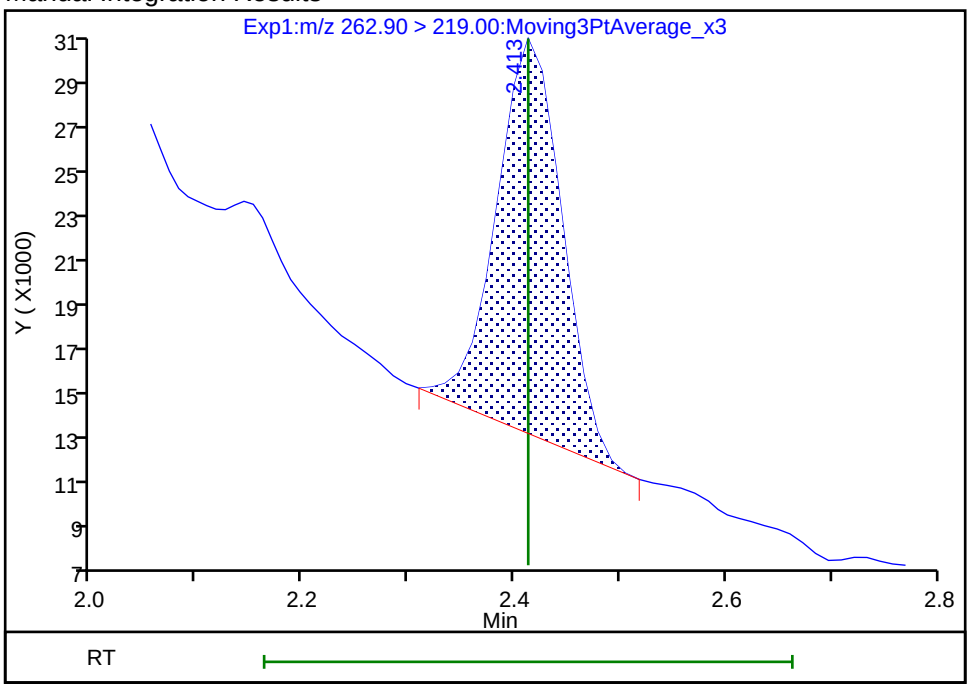
Processing Integration Results

RT: 2.41
Area: 74817
Amount: 0.065941
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 74737
Amount: 0.065871
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:26:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

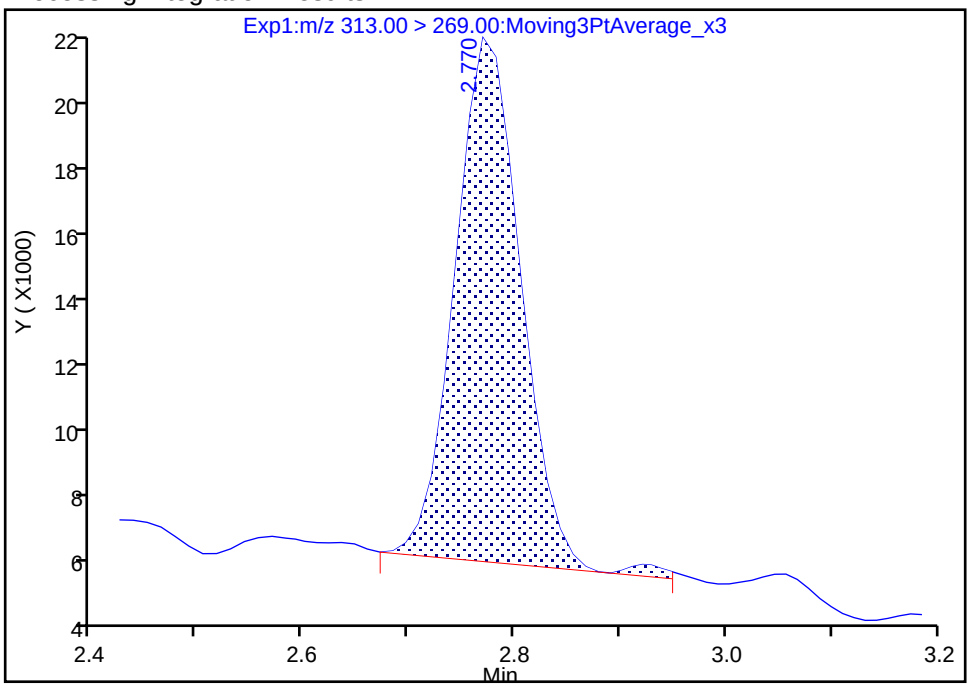
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

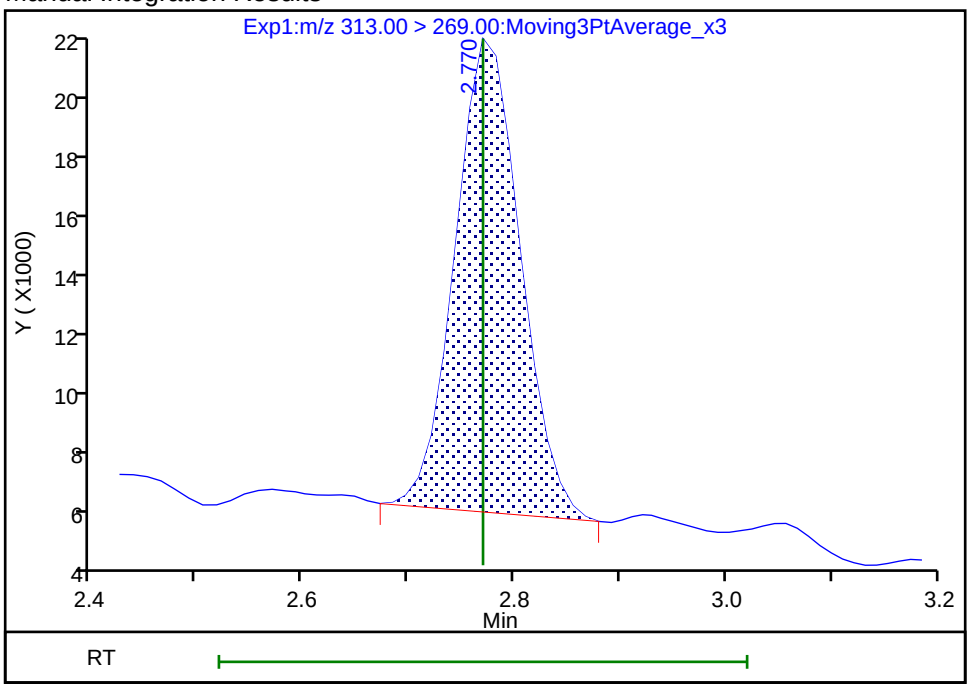
Processing Integration Results

RT: 2.77
Area: 68011
Amount: 0.054276
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 67153
Amount: 0.053591
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:26:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

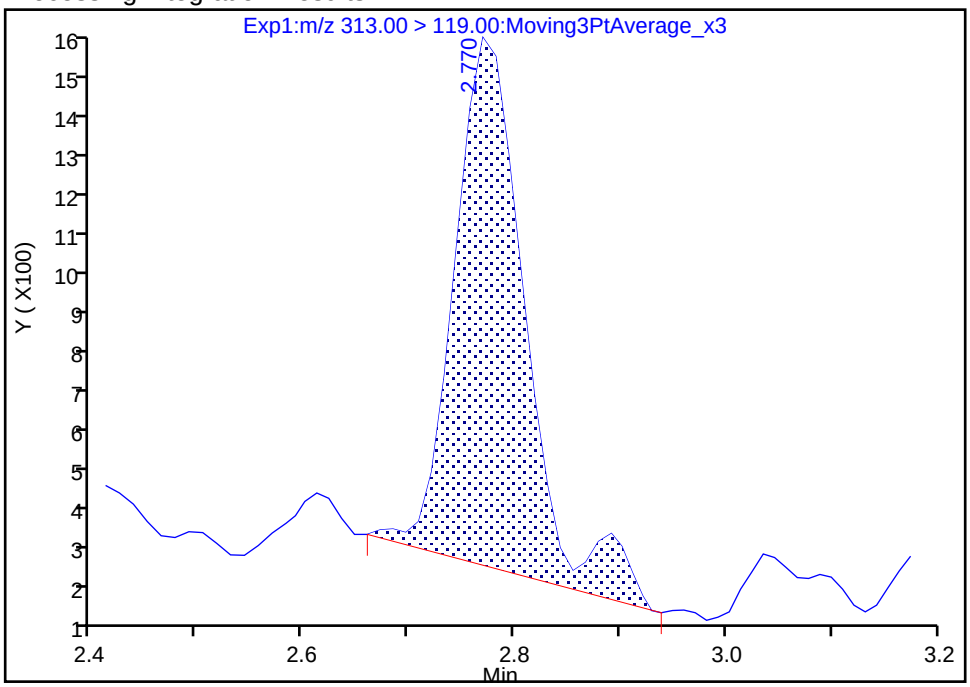
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

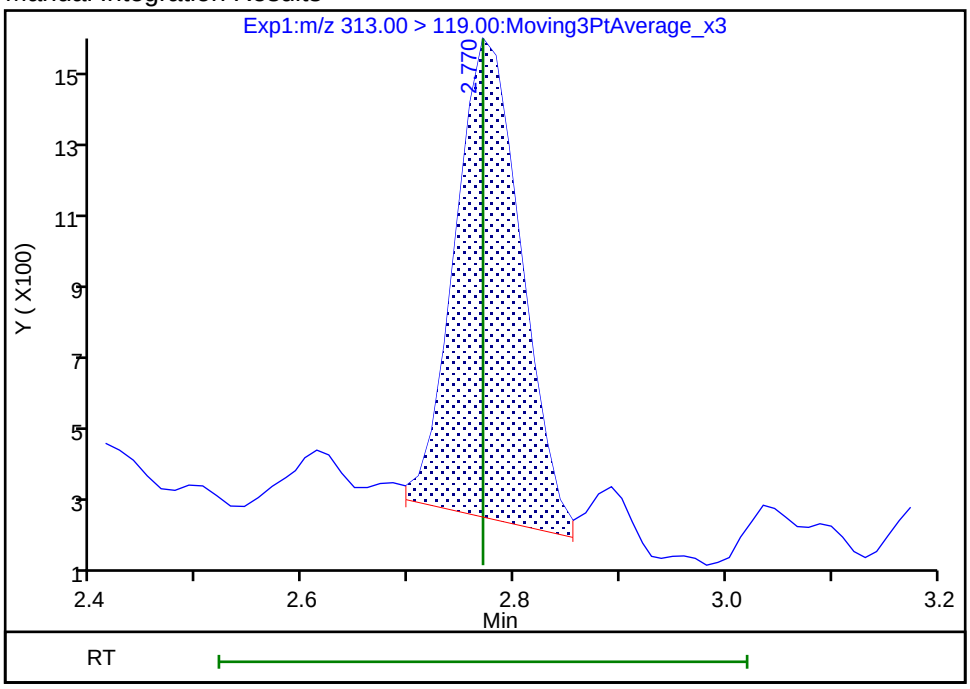
Processing Integration Results

RT: 2.77
Area: 5591
Amount: 0.054276
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 5202
Amount: 0.053591
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:27:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

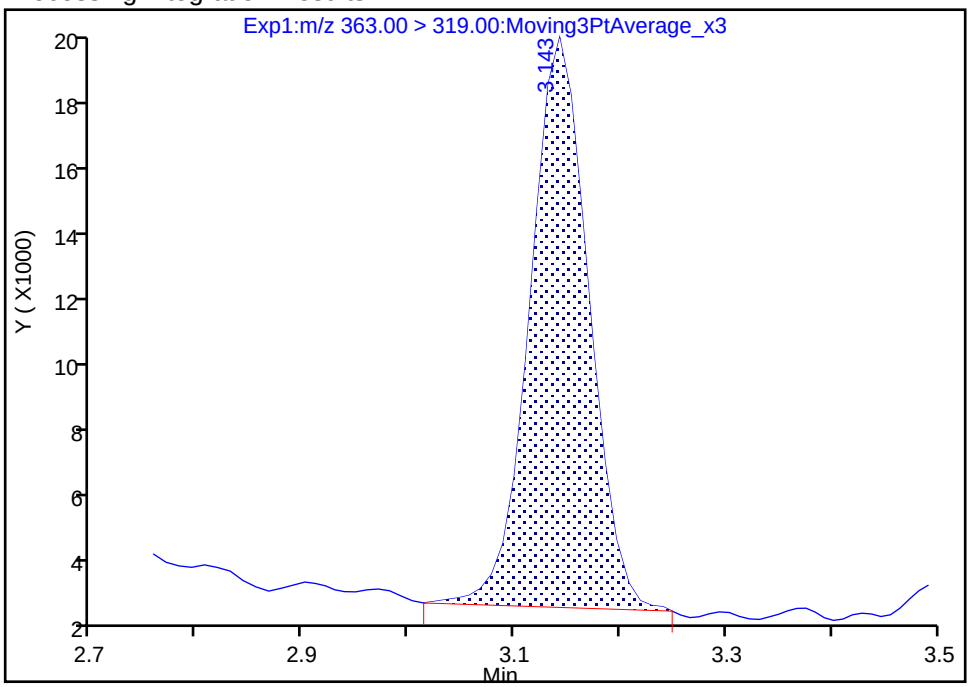
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

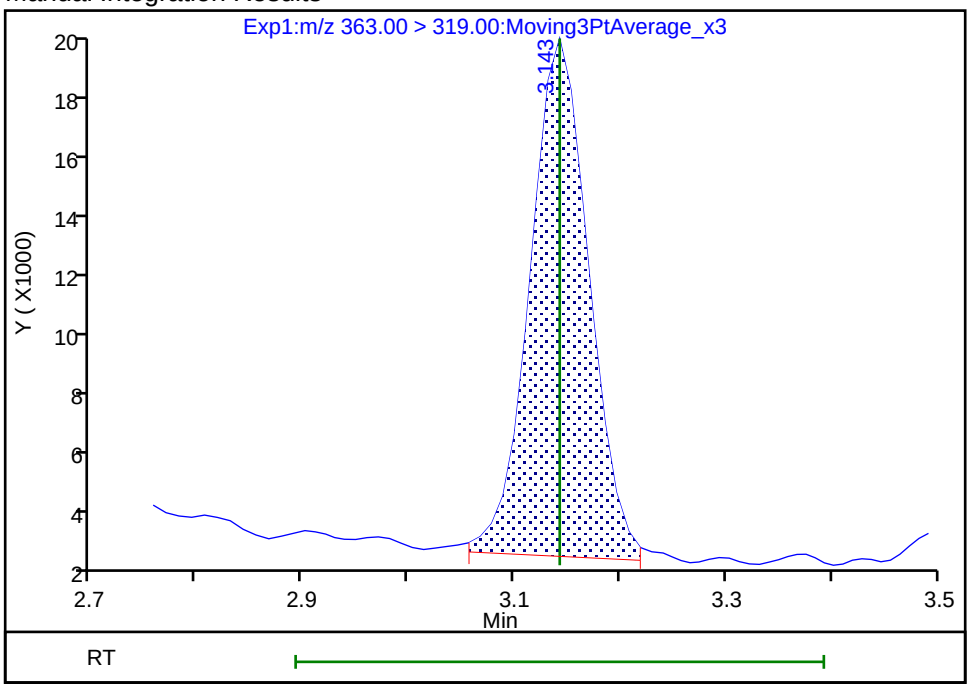
Processing Integration Results

RT: 3.14
Area: 62465
Amount: 0.047931
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 62755
Amount: 0.048153
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:27:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

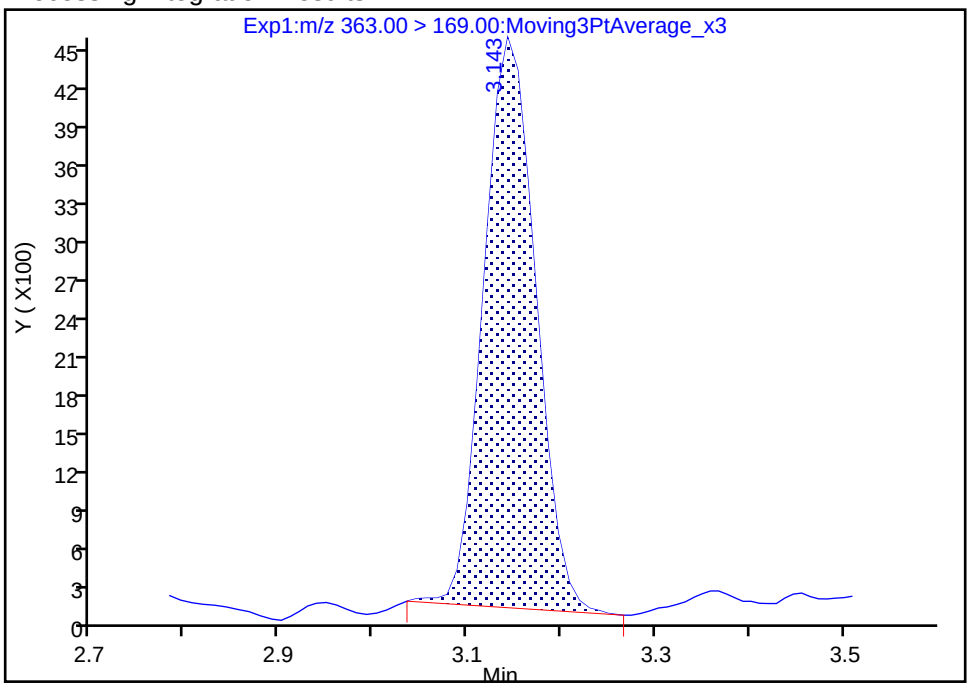
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

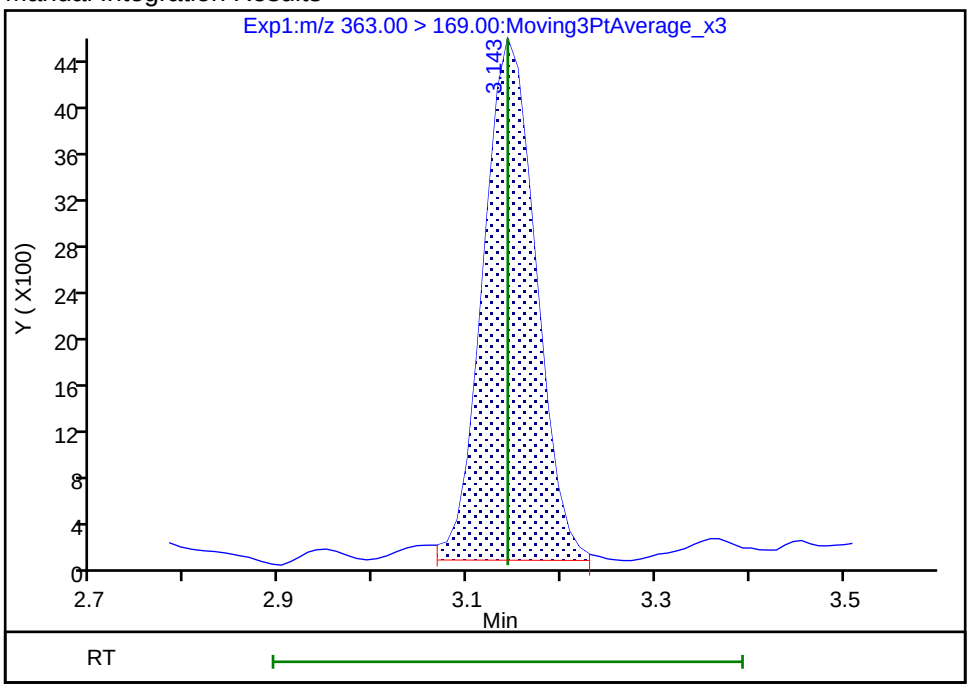
Processing Integration Results

RT: 3.14
Area: 16767
Amount: 0.047931
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 17190
Amount: 0.048153
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:27:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

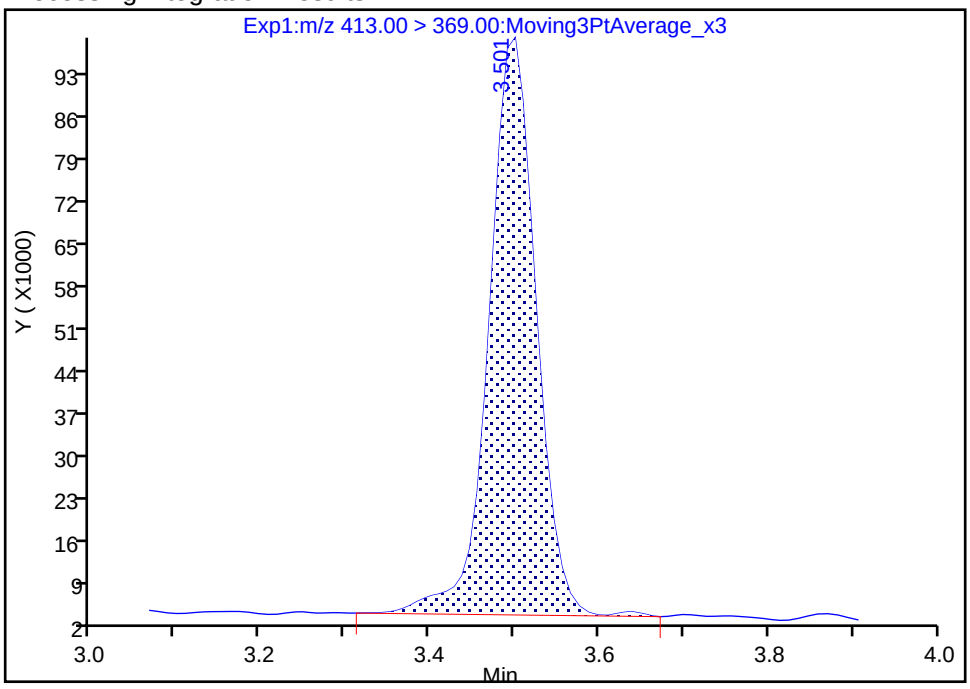
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

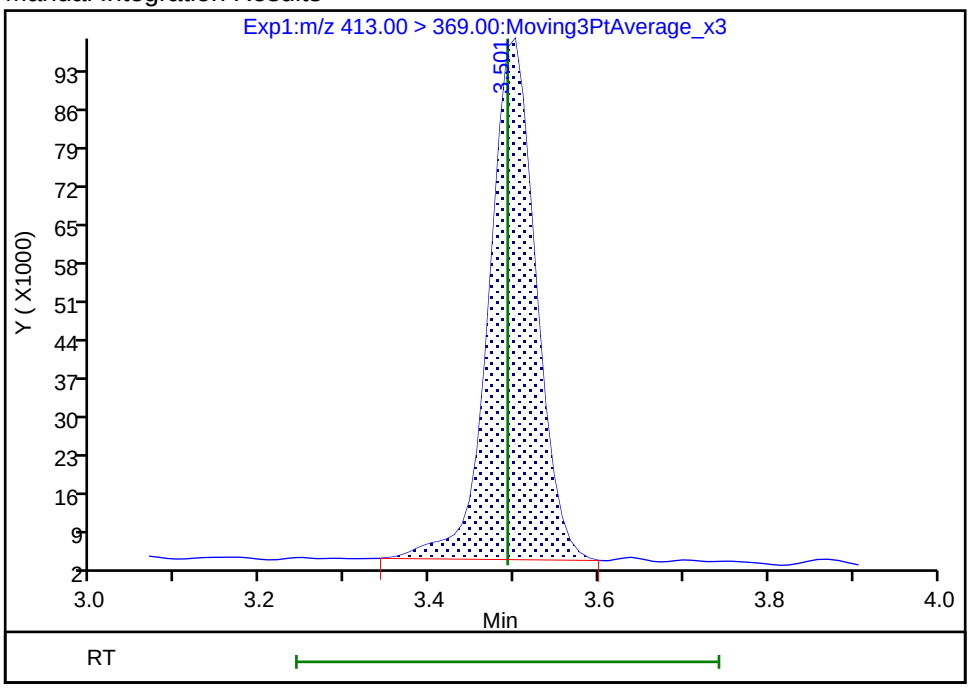
Processing Integration Results

RT: 3.50
Area: 367356
Amount: 0.251368
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 363843
Amount: 0.248964
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:28:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

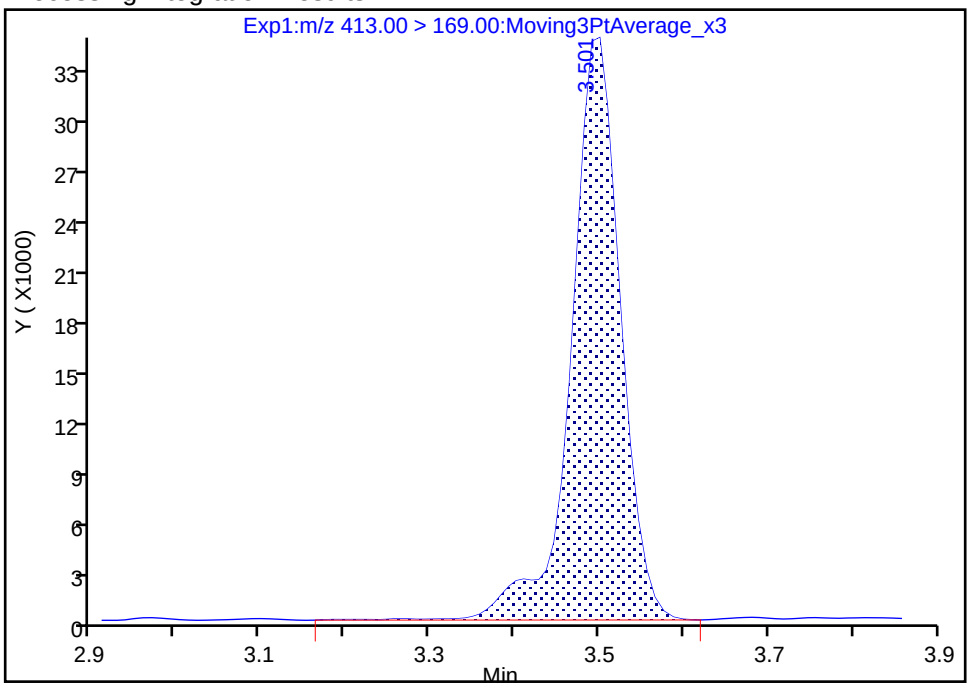
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

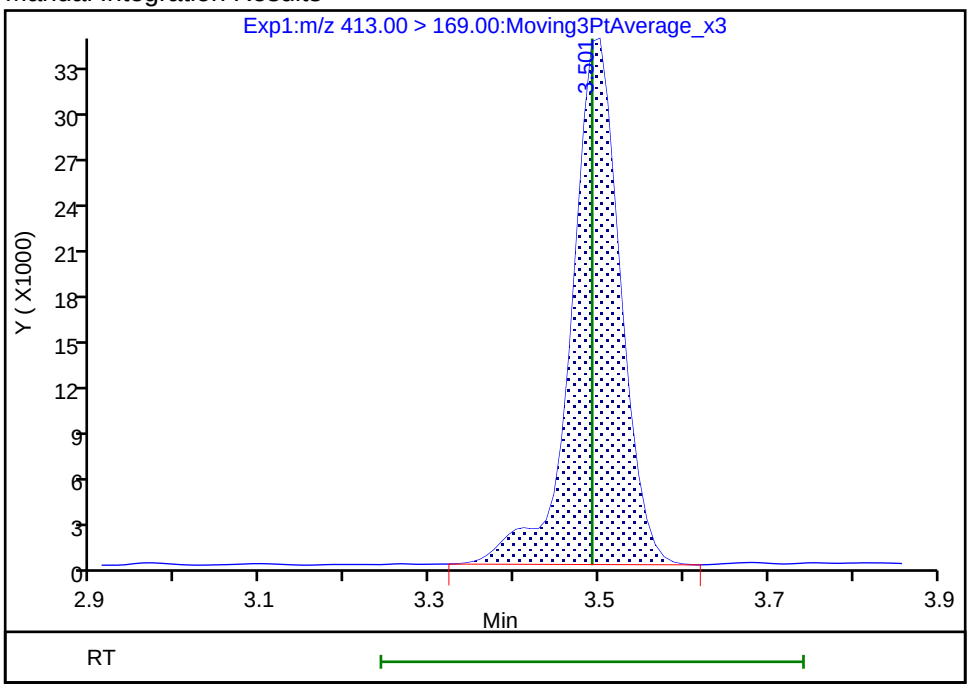
Processing Integration Results

RT: 3.50
Area: 139258
Amount: 0.251368
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 138334
Amount: 0.248964
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:28:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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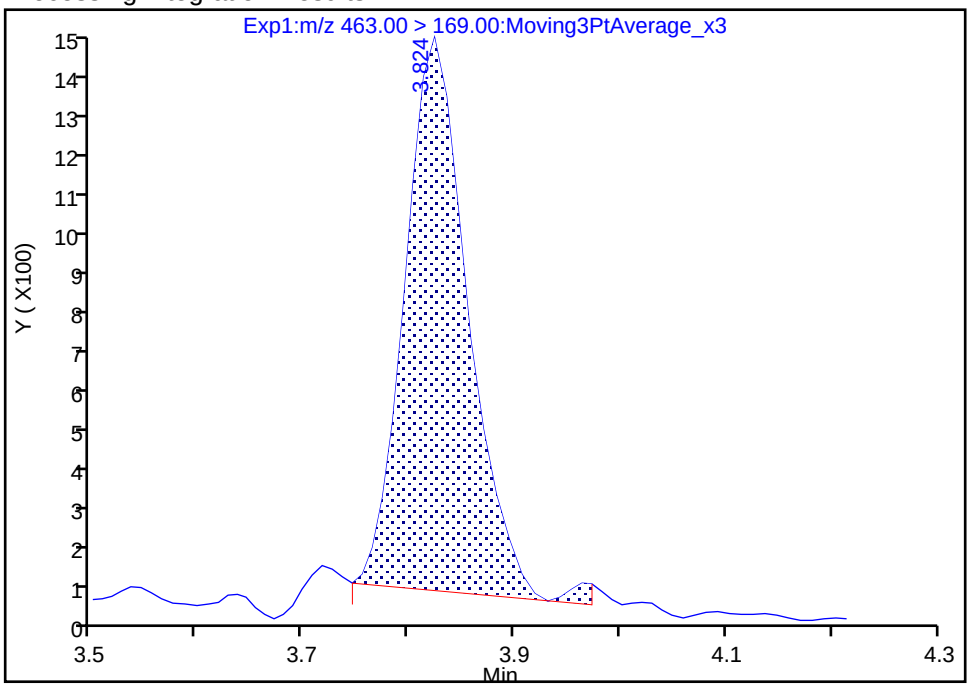
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

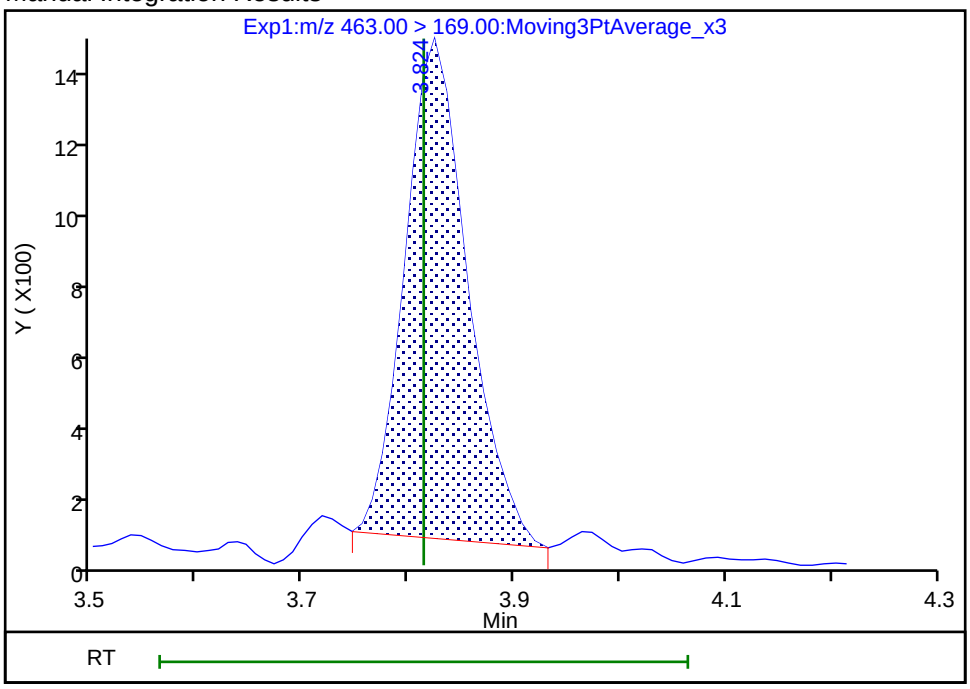
Processing Integration Results

RT: 3.82
Area: 5773
Amount: 0.030993
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 5705
Amount: 0.030993
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

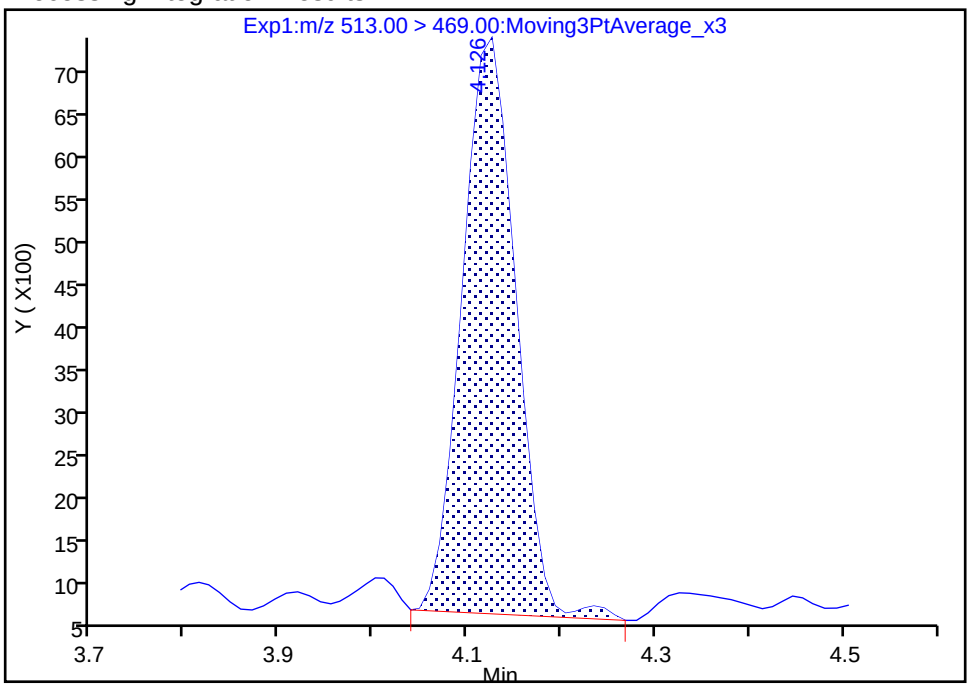
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

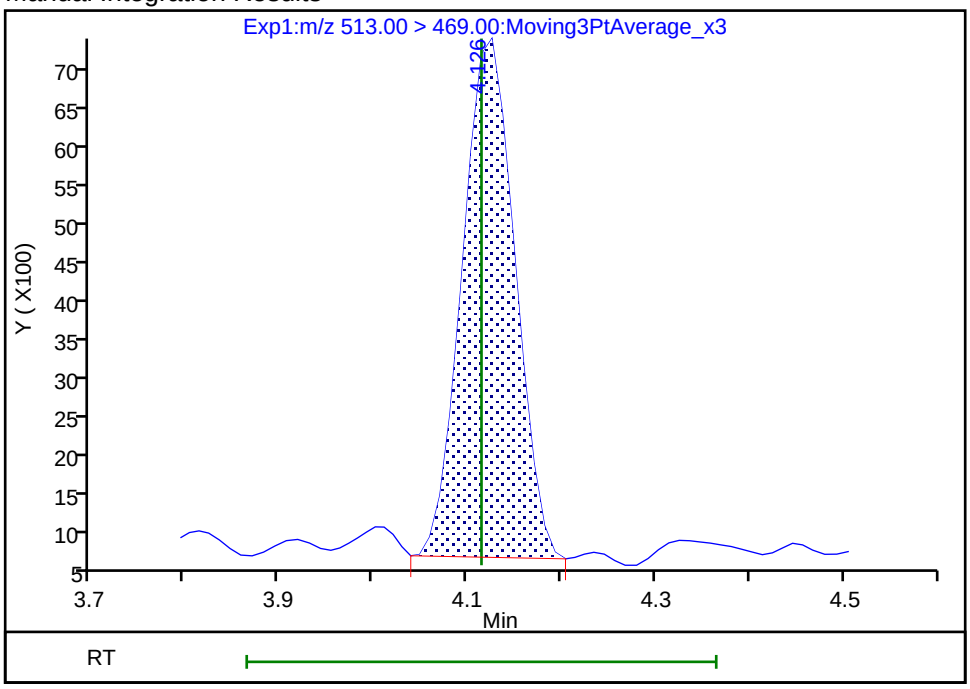
Processing Integration Results

RT: 4.13
Area: 26768
Amount: 0.021130
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 26175
Amount: 0.020662
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

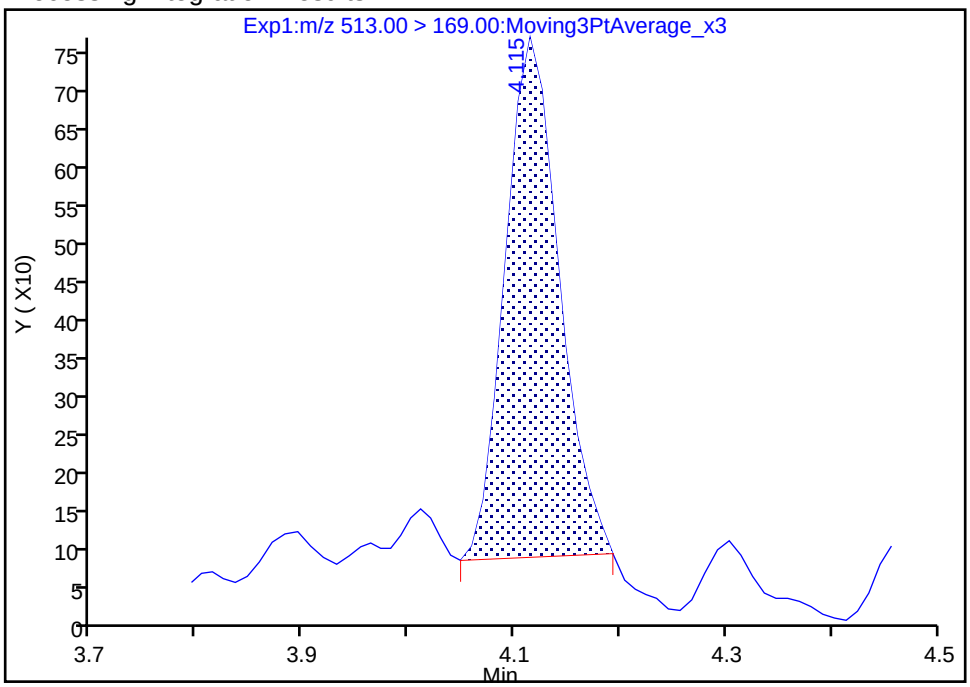
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

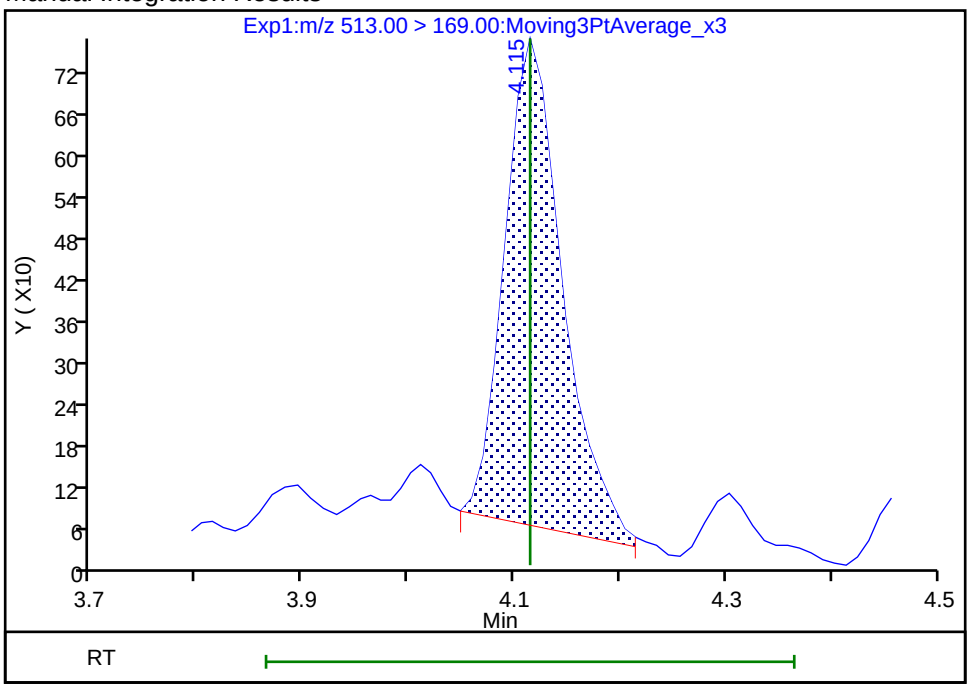
Processing Integration Results

RT: 4.11
Area: 2439
Amount: 0.021130
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 2710
Amount: 0.020662
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

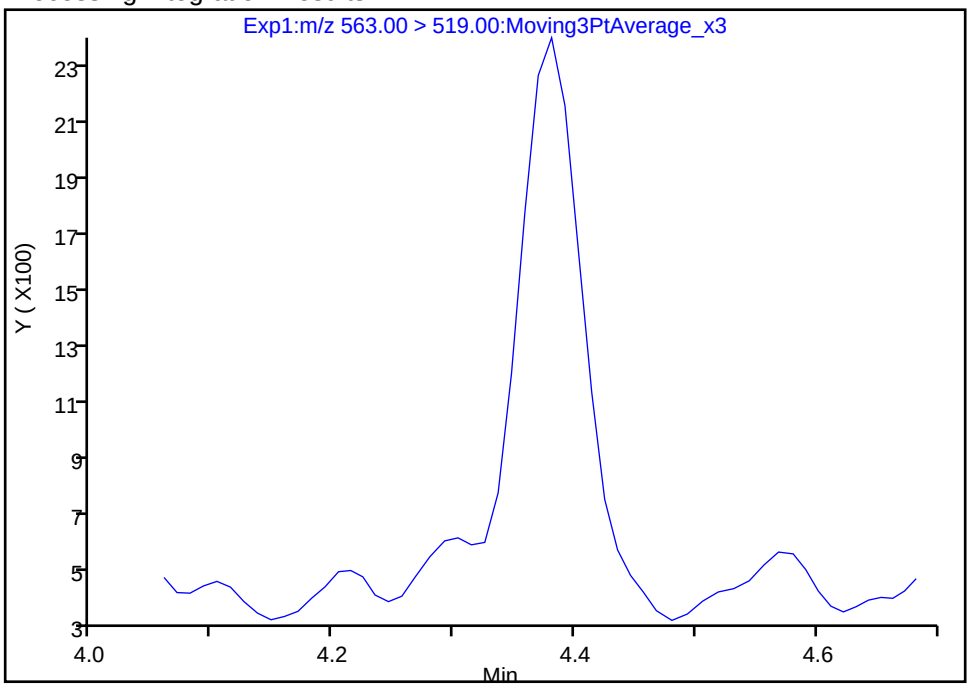
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

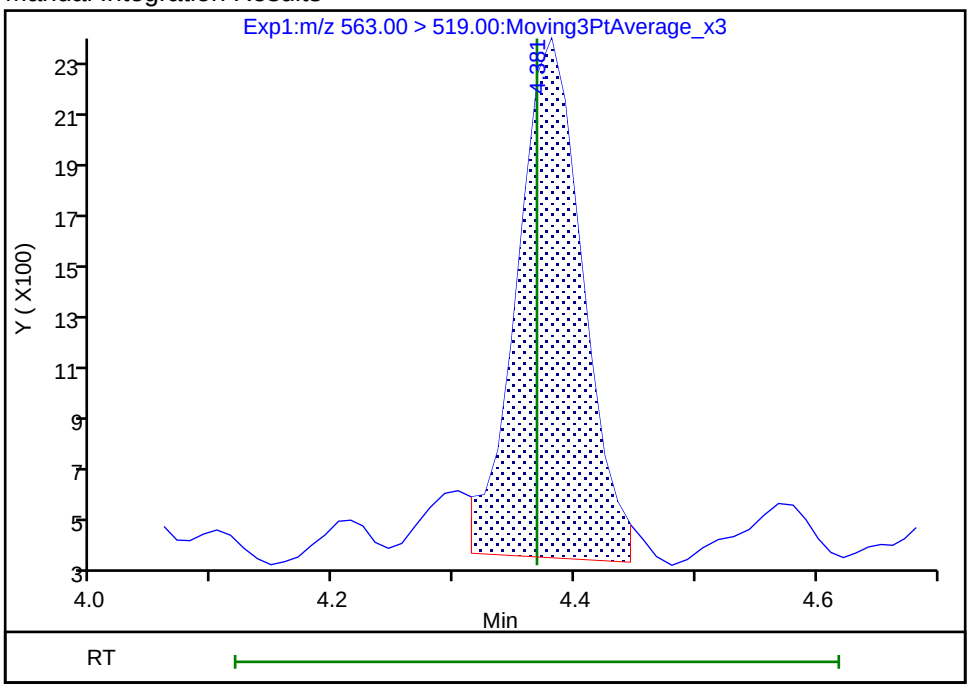
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 7128
Amount: 0.006736
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

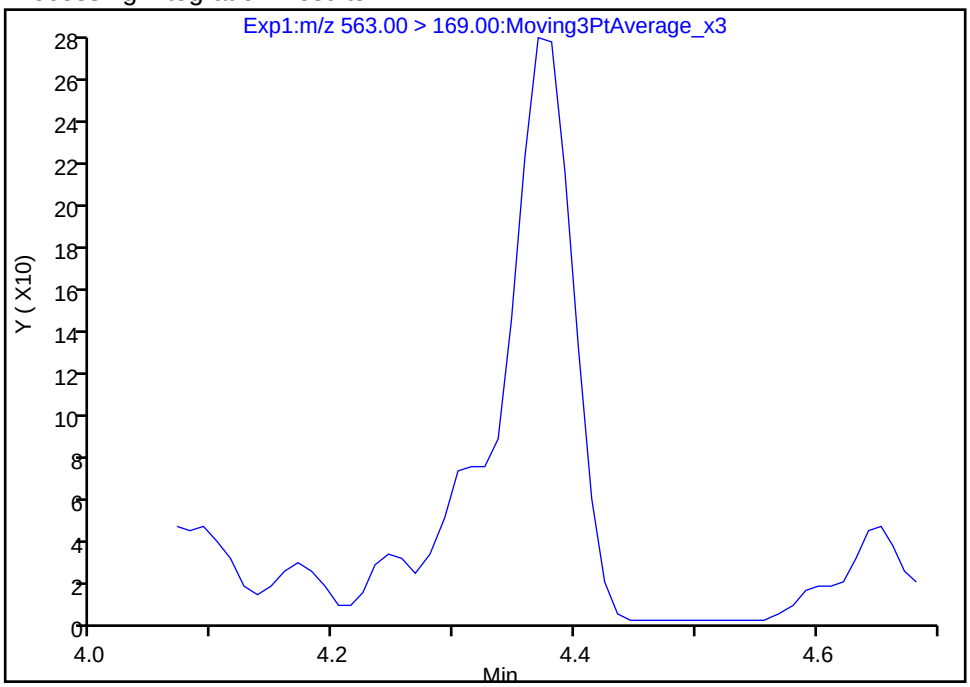
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

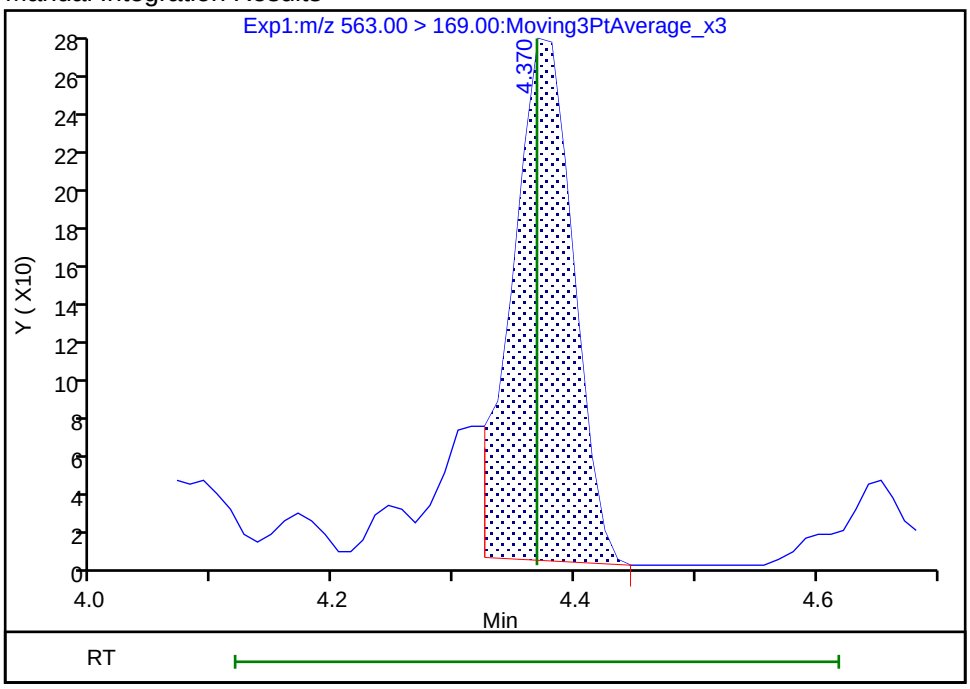
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 940
Amount: 0.006736
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

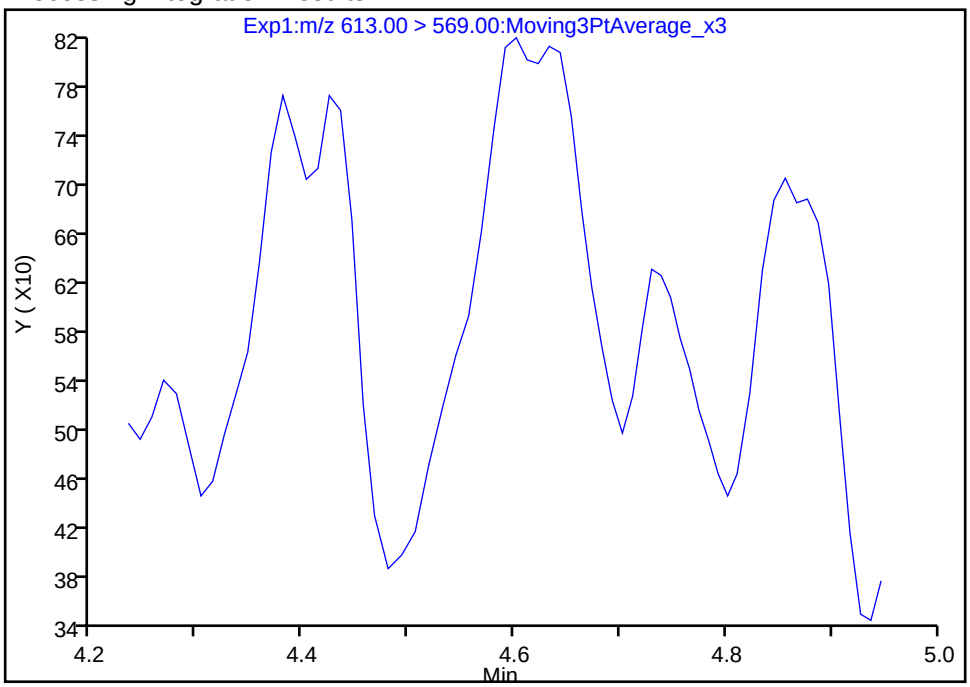
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

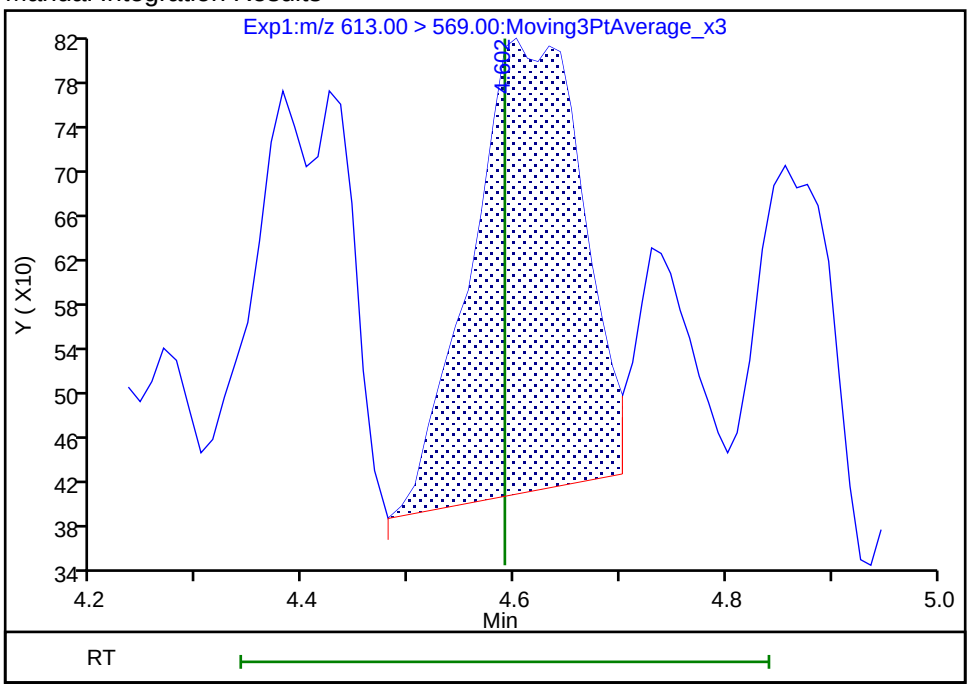
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 2965
Amount: 0.002959
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:08:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

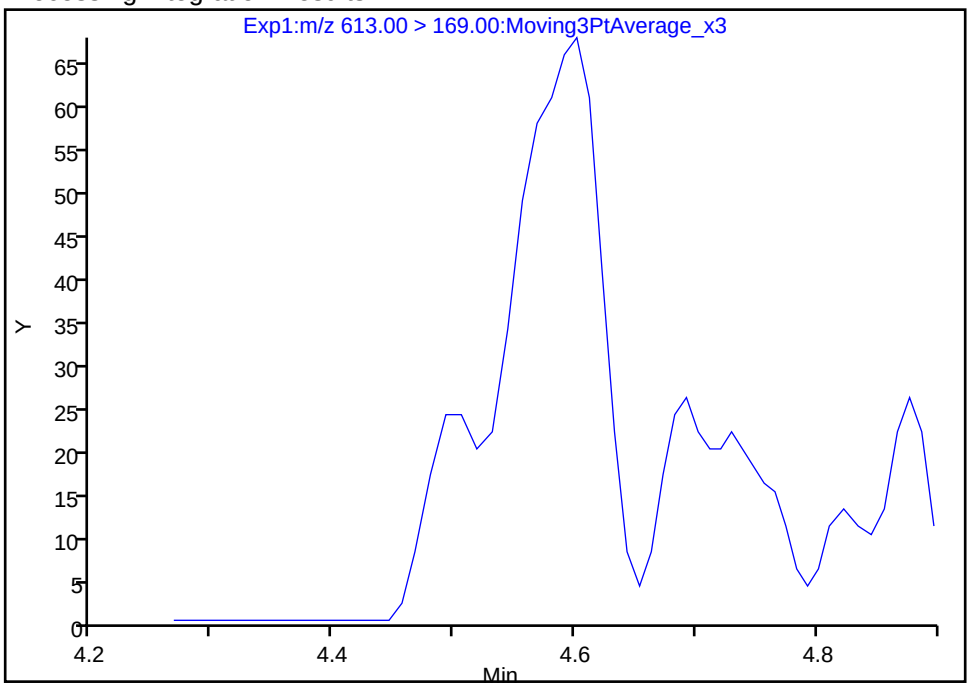
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

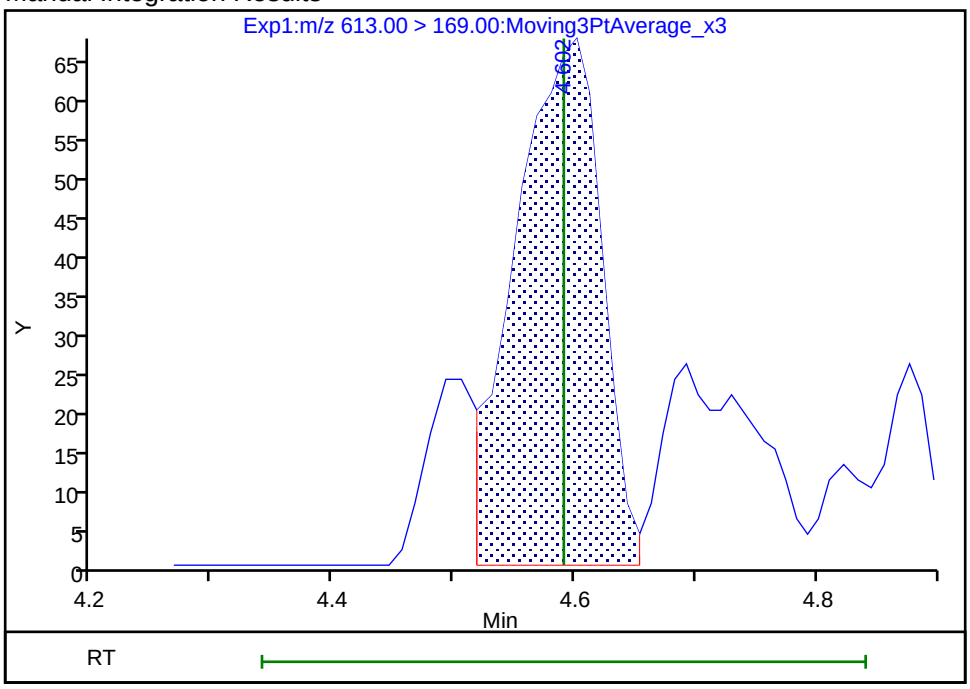
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 336
Amount: 0.002959
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:08:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

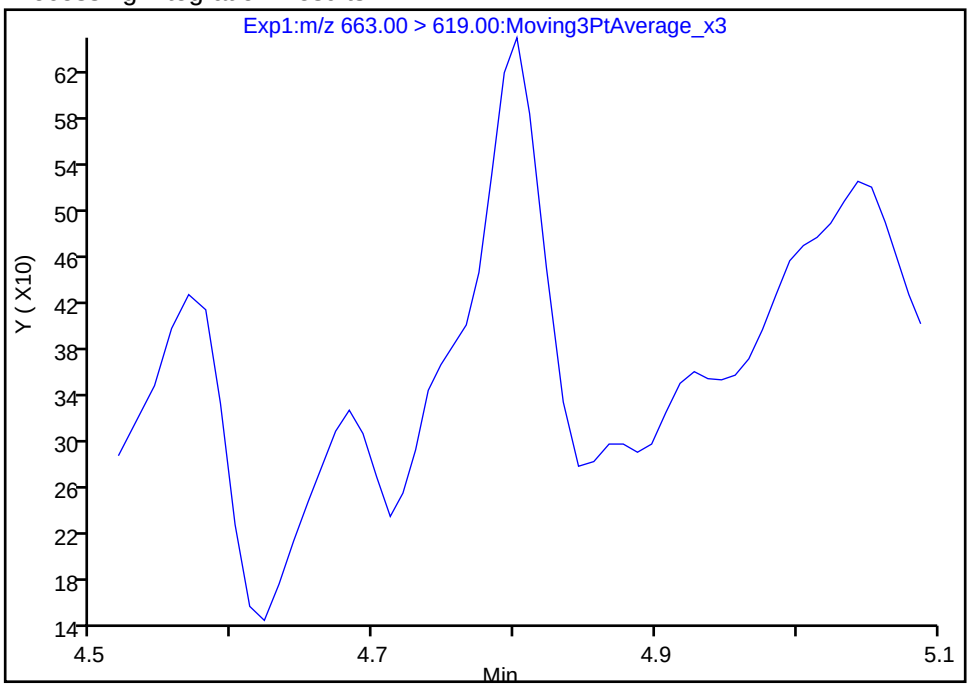
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

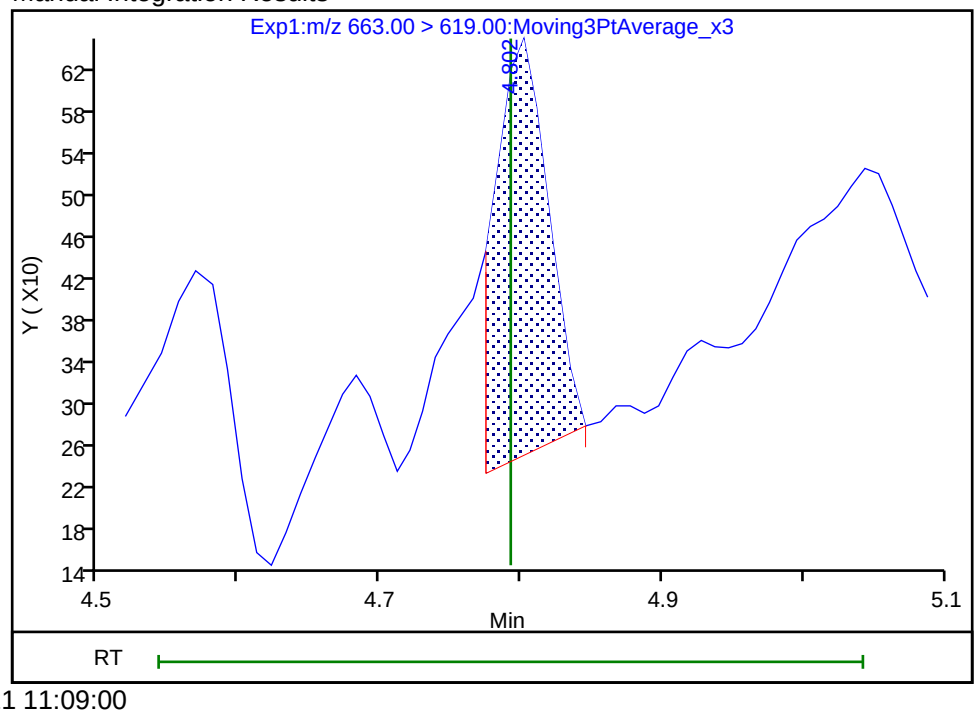
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 1003
Amount: 0.001161
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:09:00
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

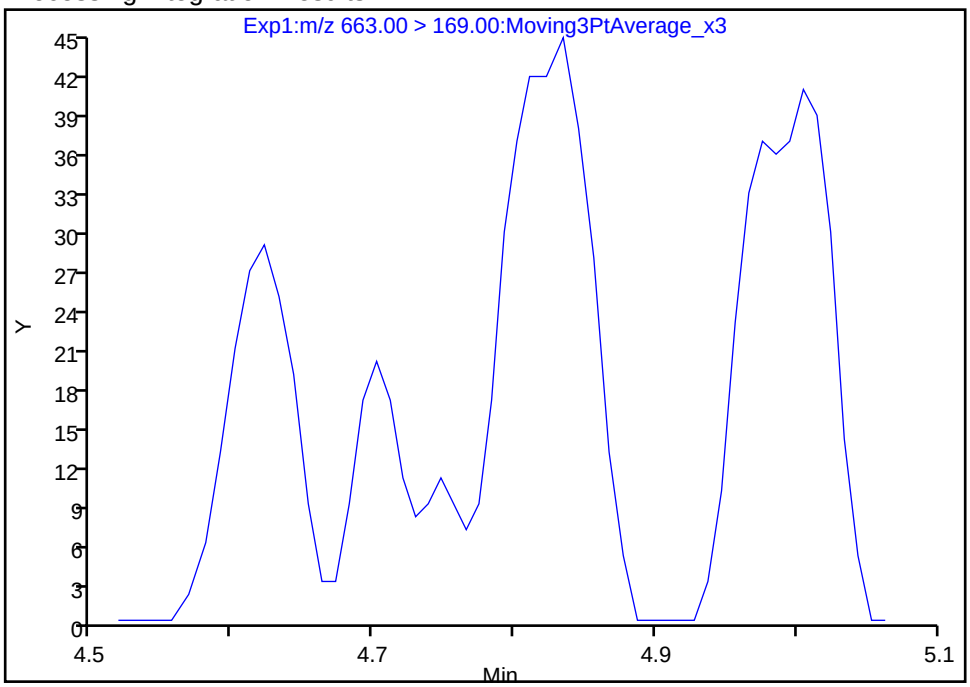
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

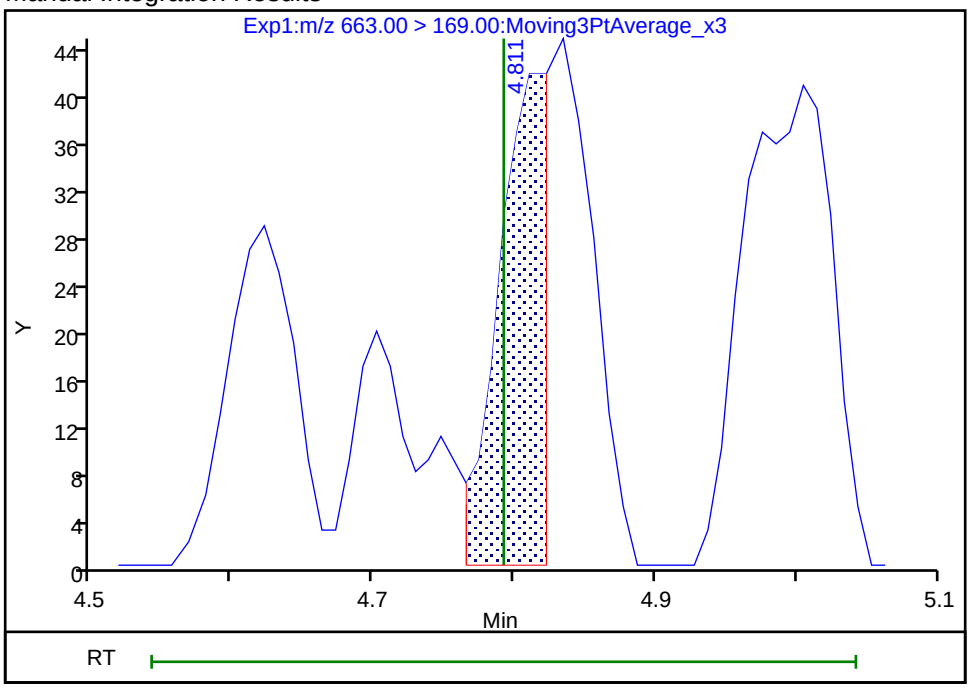
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 93
Amount: 0.001161
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:09:10
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

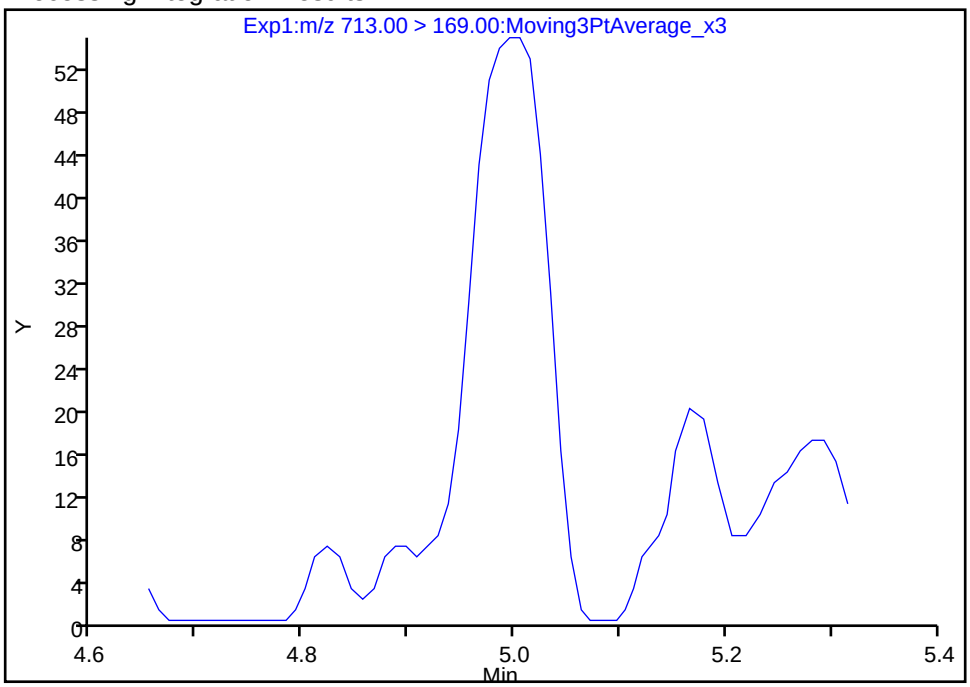
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

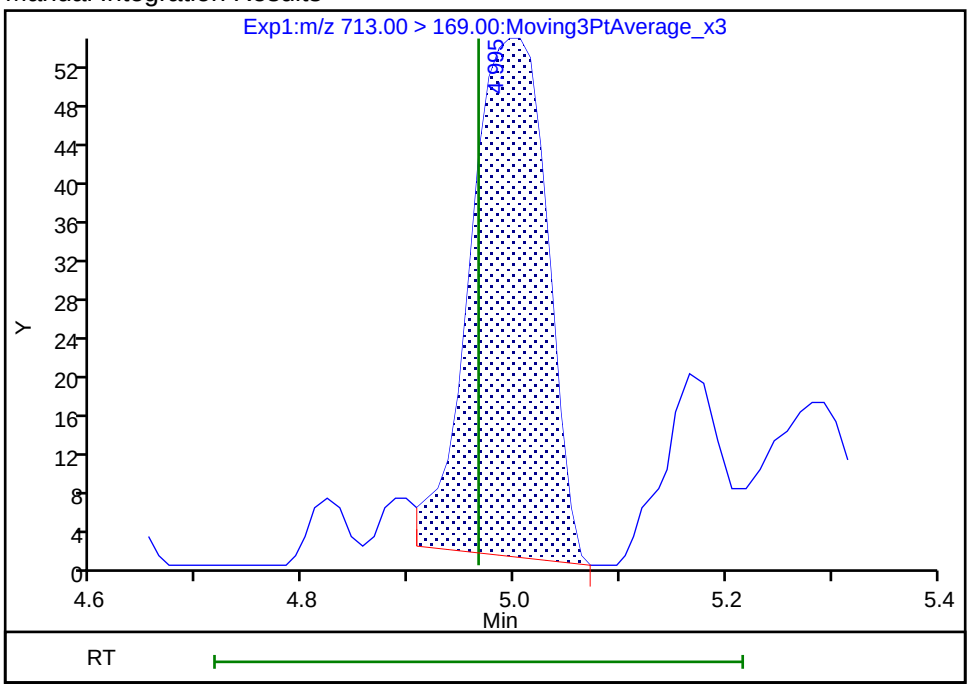
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 5.00
Area: 272
Amount: 0.002213
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

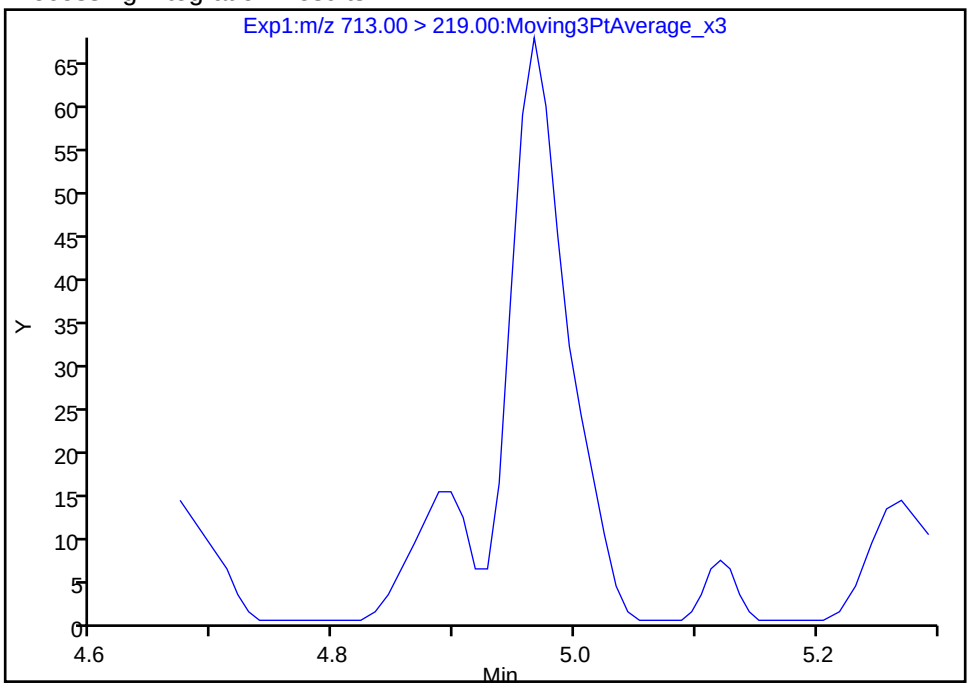
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

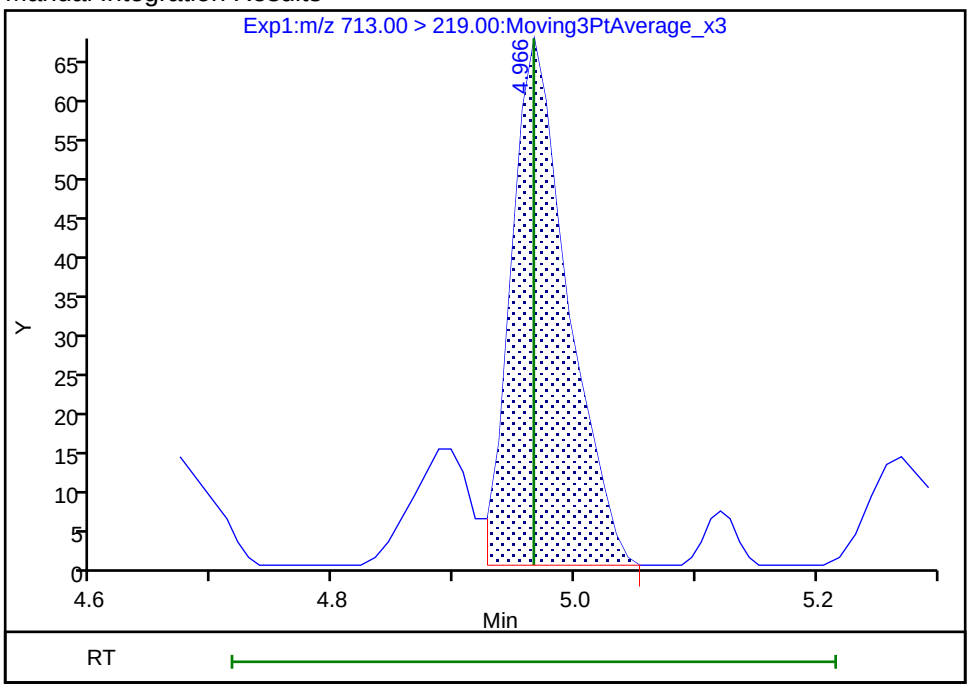
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 219
Amount: 0.002213
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

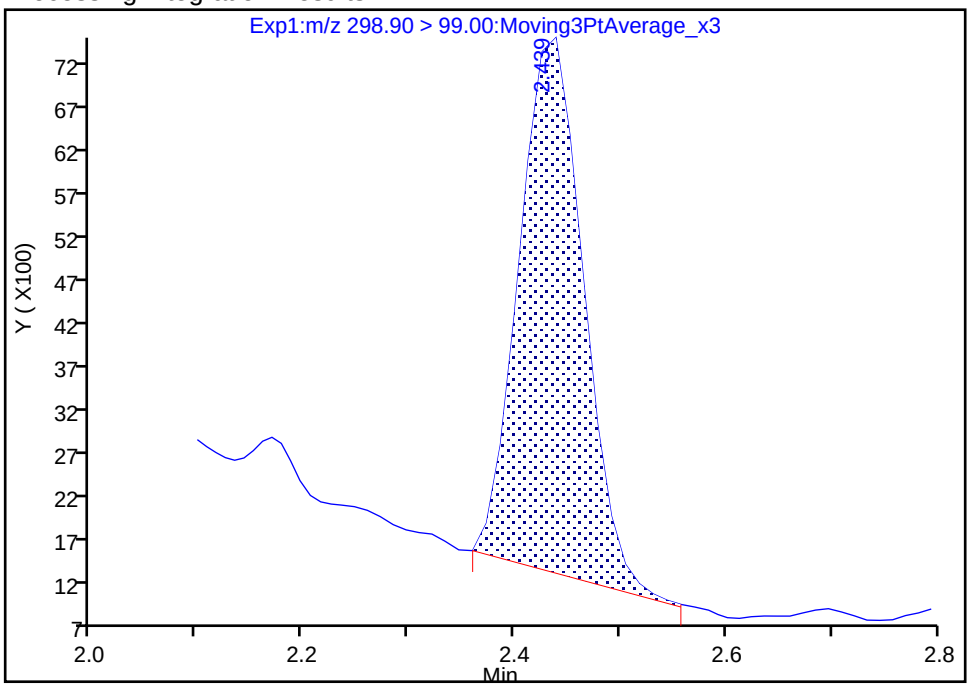
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

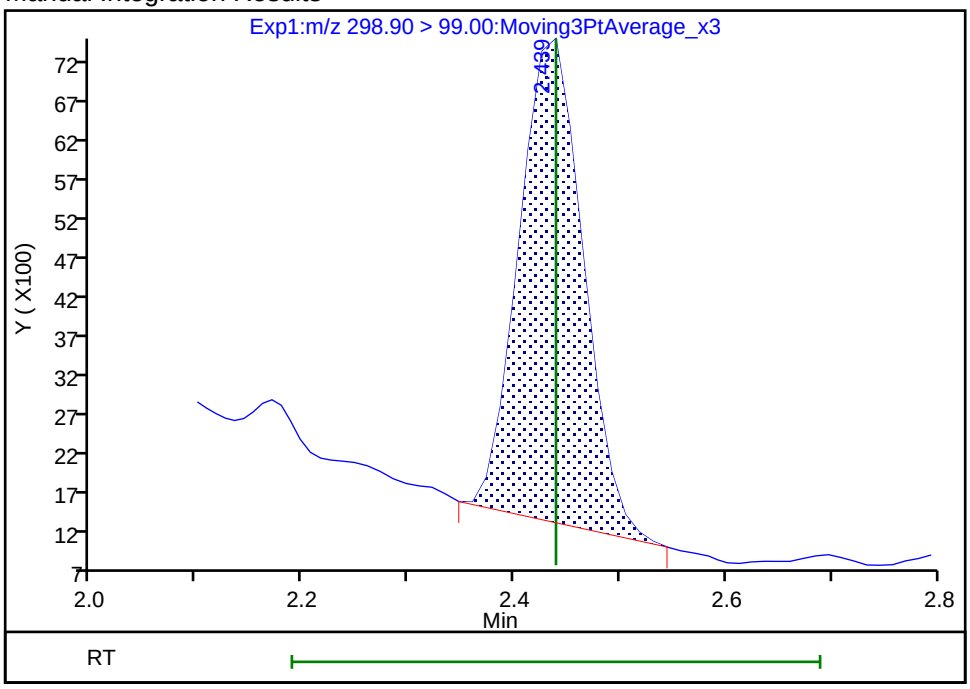
Processing Integration Results

RT: 2.44
Area: 25951
Amount: 0.058709
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 25907
Amount: 0.036966
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:26:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

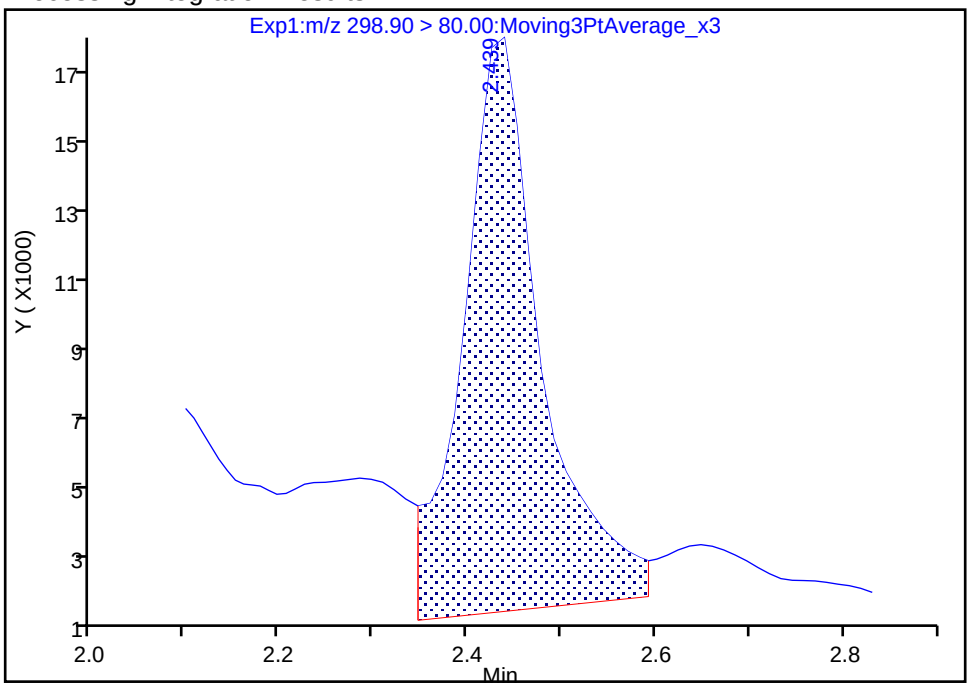
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

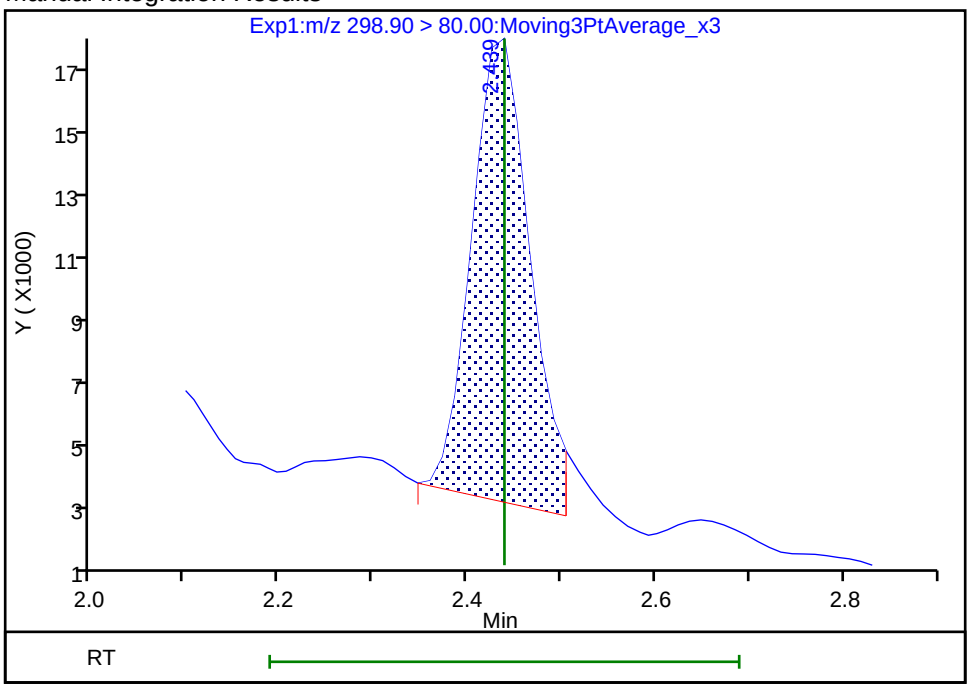
Processing Integration Results

RT: 2.44
Area: 91412
Amount: 0.058709
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 57558
Amount: 0.036966
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:06:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

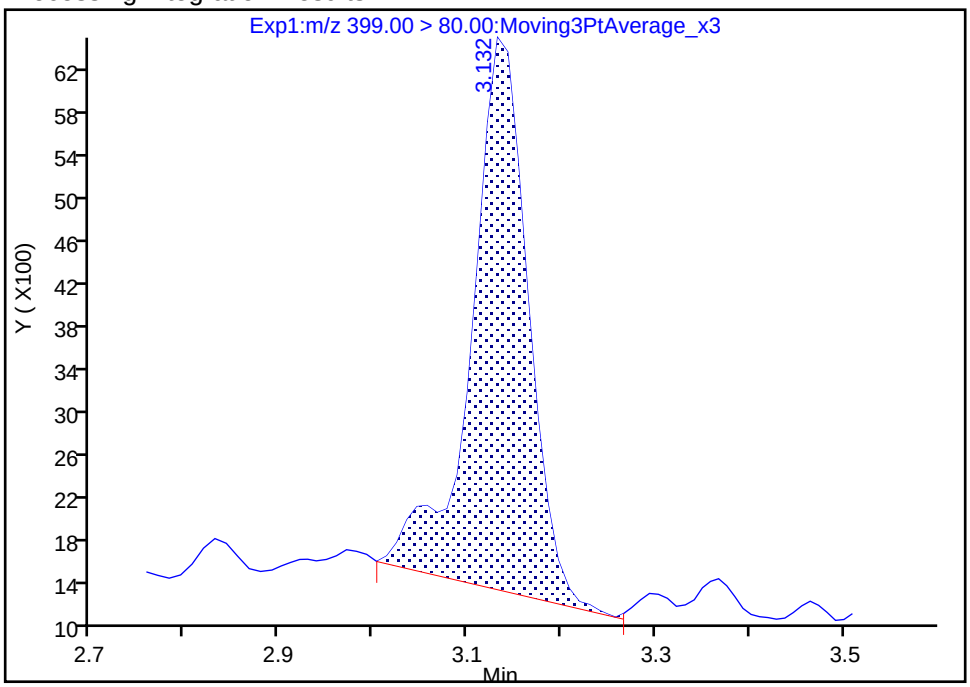
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

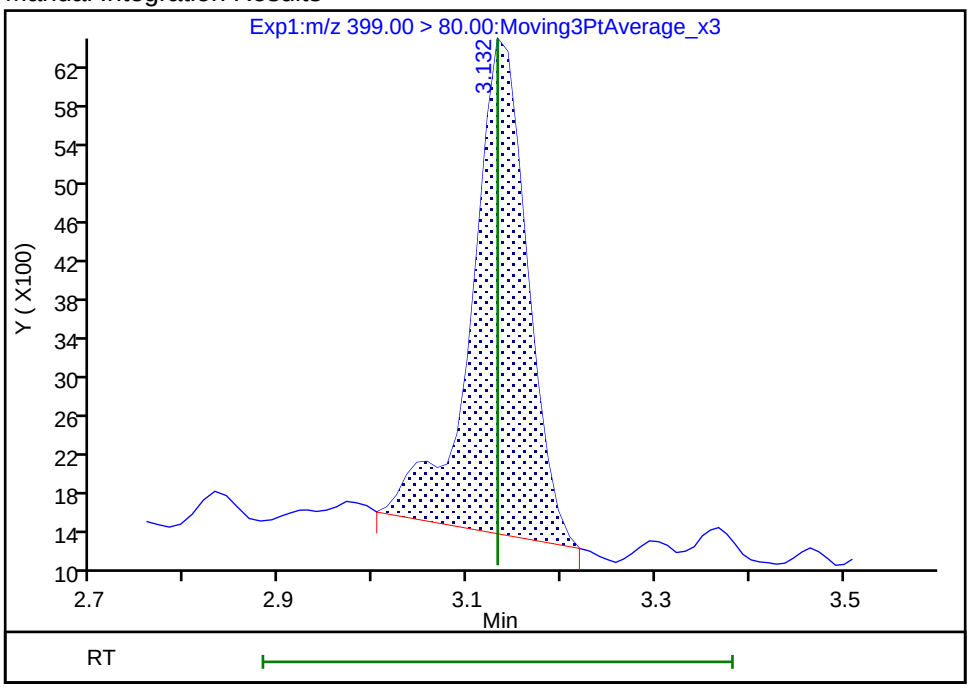
Processing Integration Results

RT: 3.13
Area: 21534
Amount: 0.017376
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 21013
Amount: 0.016956
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:27:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

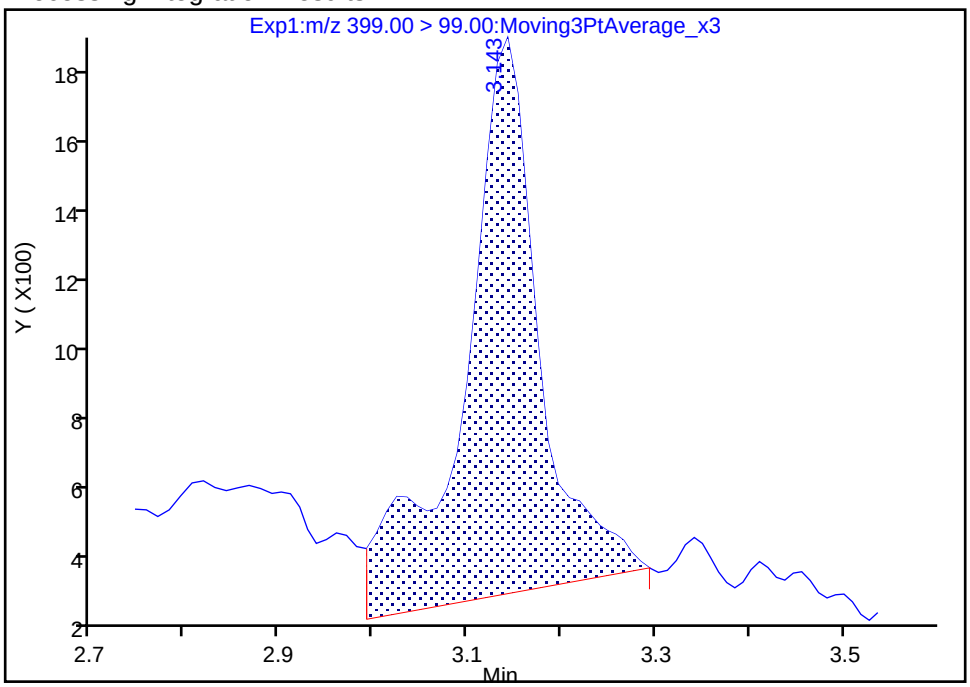
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

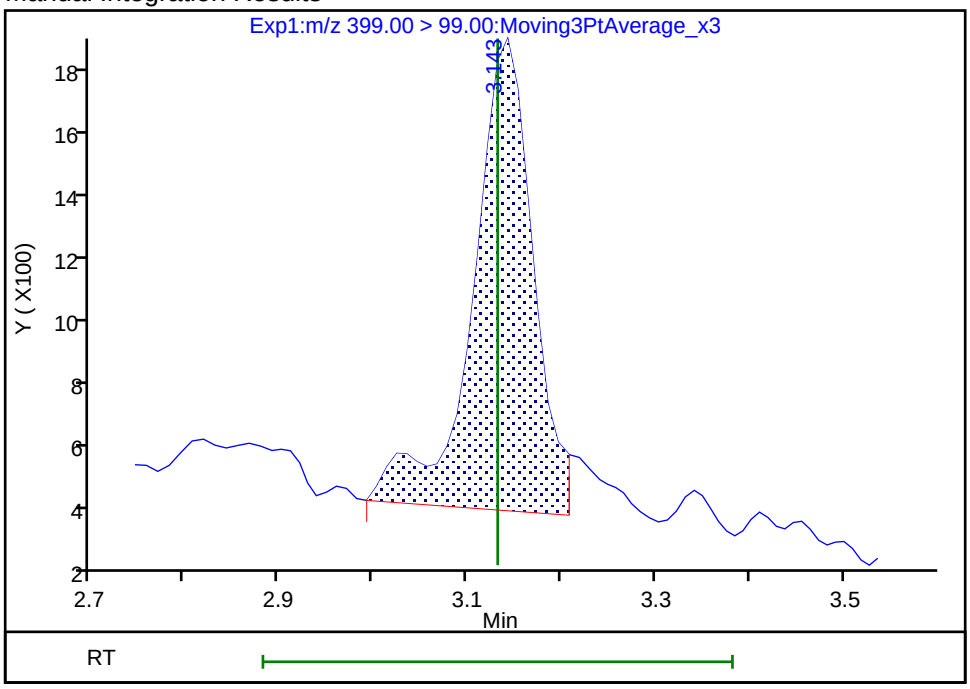
Processing Integration Results

RT: 3.14
Area: 8941
Amount: 0.017376
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 6665
Amount: 0.016956
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:27:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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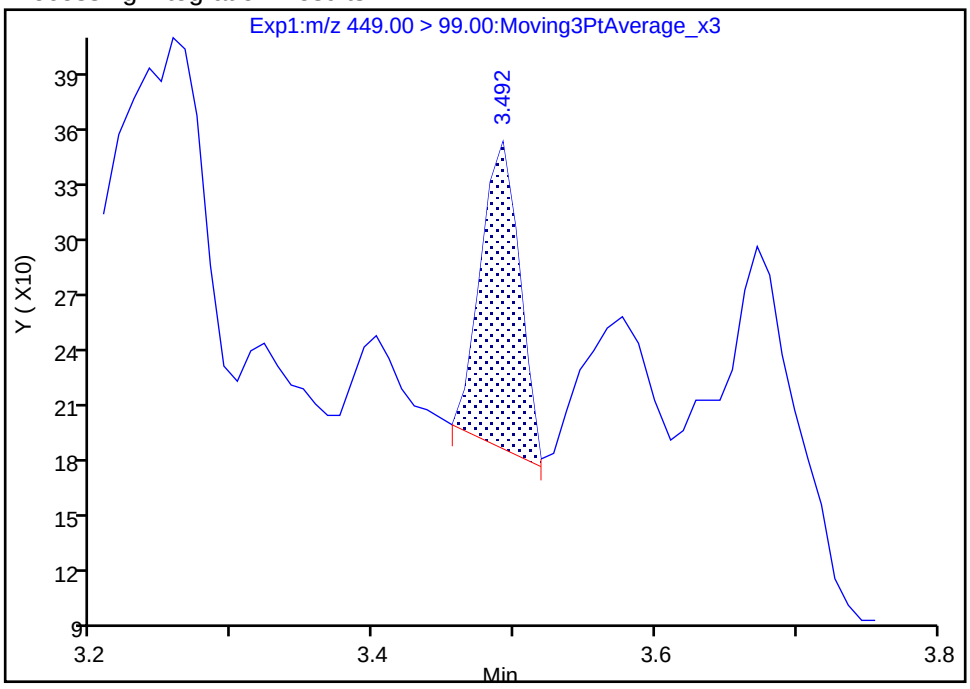
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

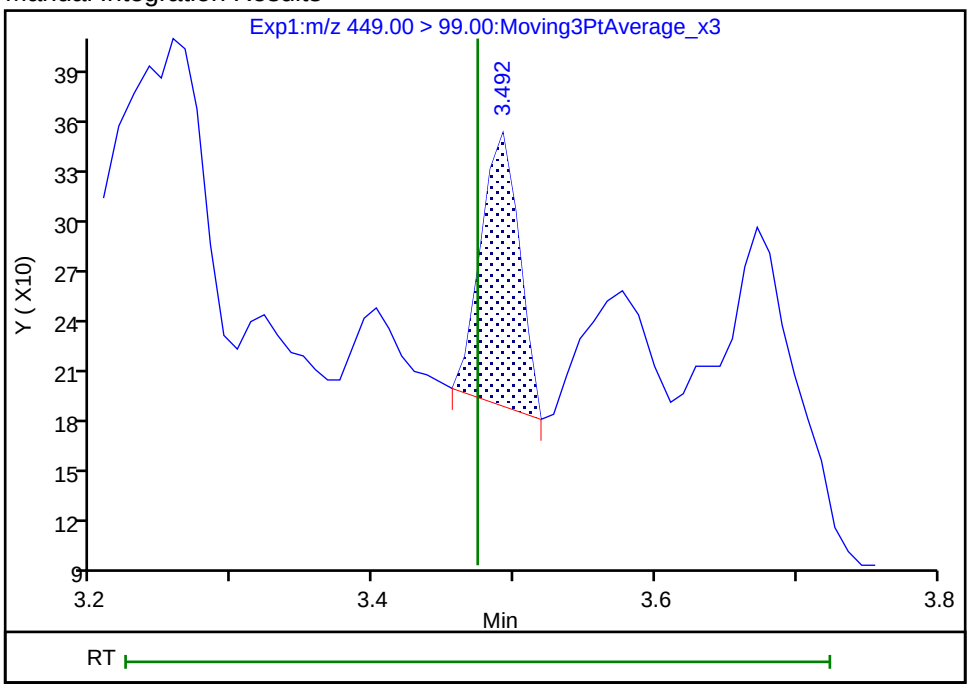
Processing Integration Results

RT: 3.49
Area: 307
Amount: 0.000563
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 300
Amount: 0.000563
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:28:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

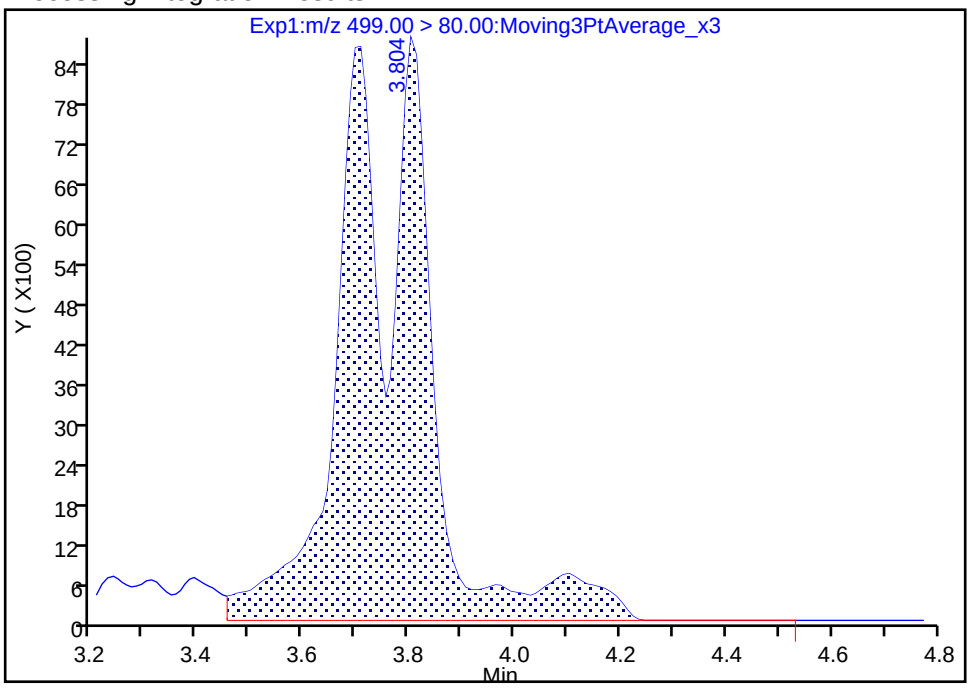
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

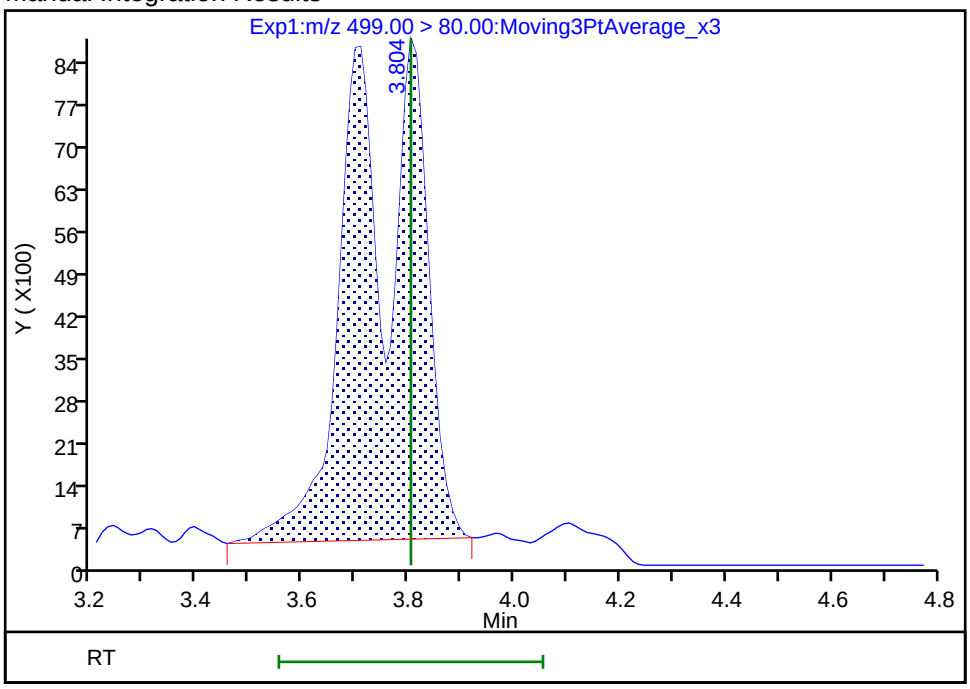
Processing Integration Results

RT: 3.80
Area: 96357
Amount: 0.103886
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 76161
Amount: 0.082112
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

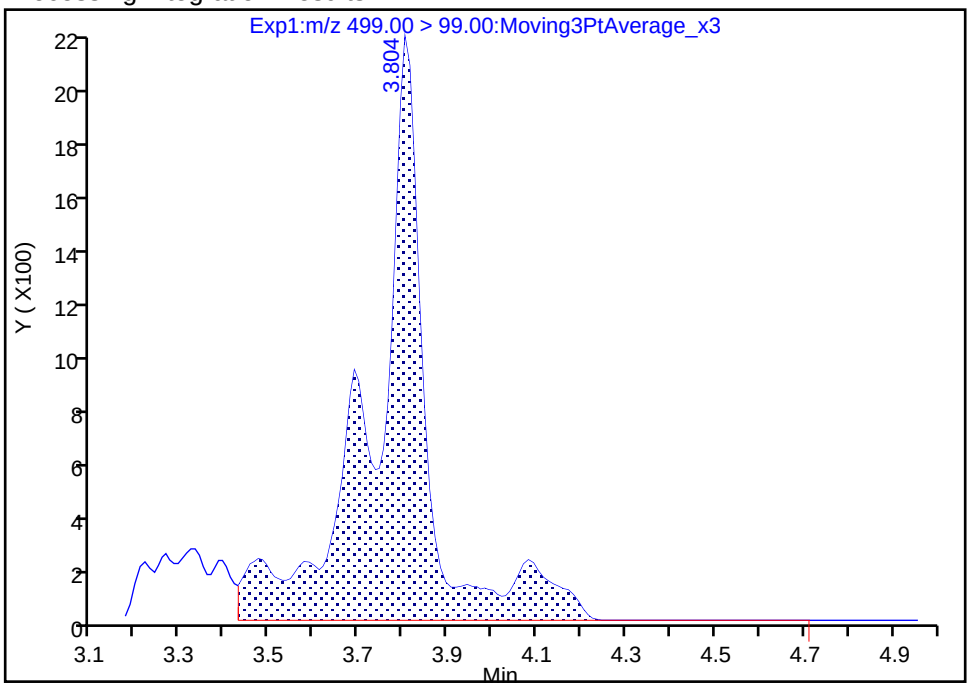
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

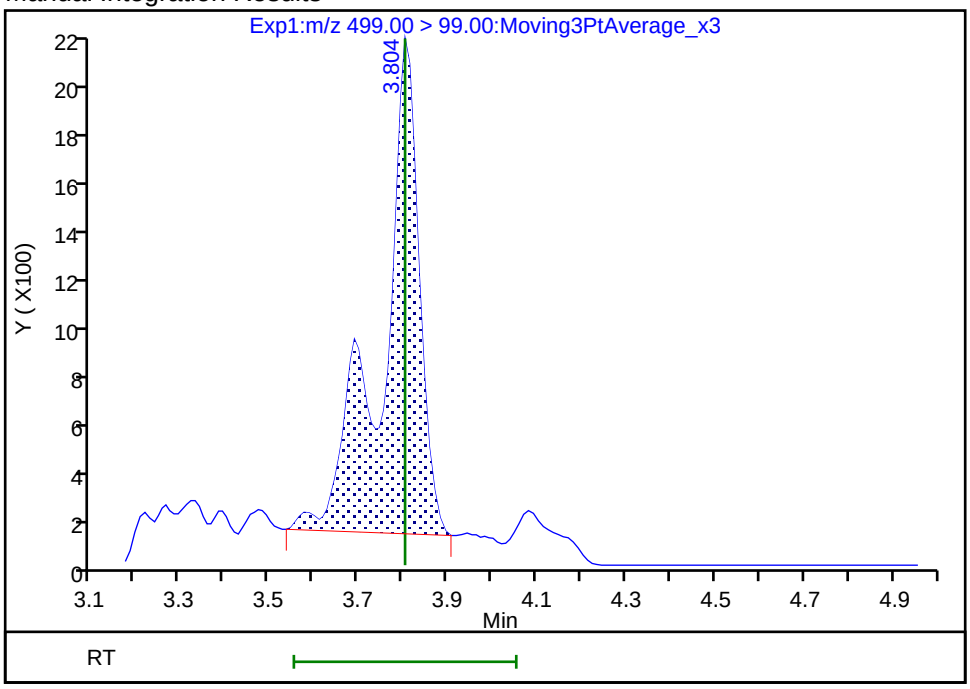
Processing Integration Results

RT: 3.80
Area: 17972
Amount: 0.103886
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 11582
Amount: 0.082112
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

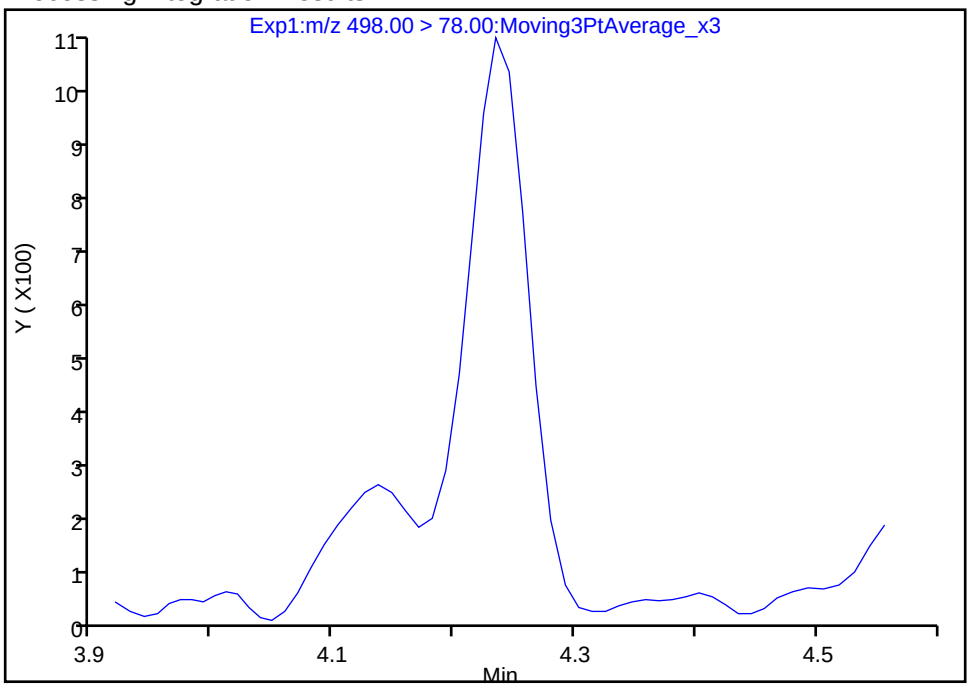
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

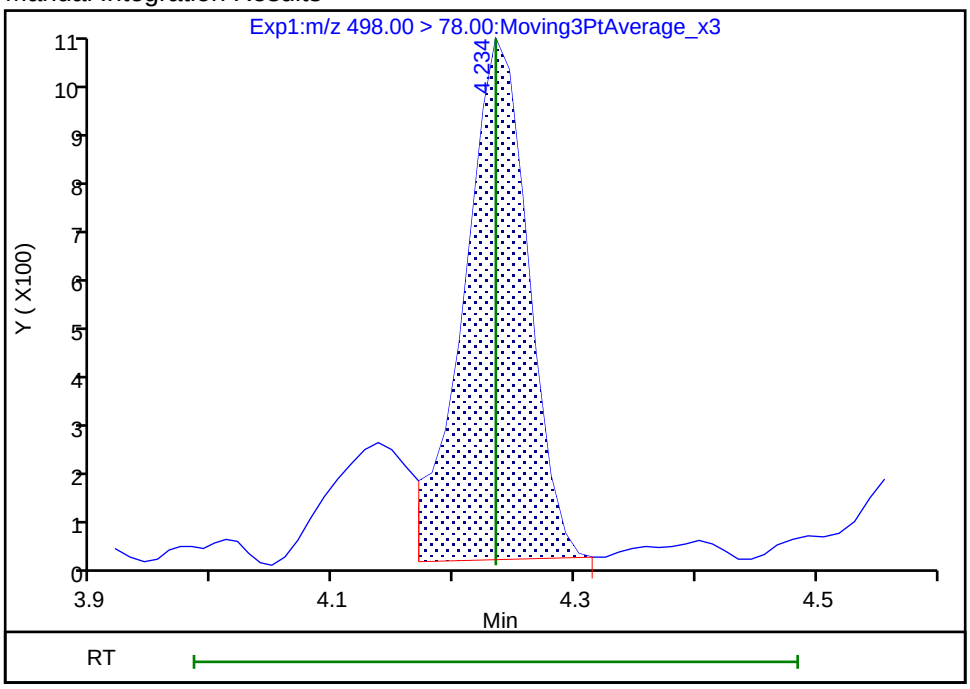
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 3775
Amount: 0.003209
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

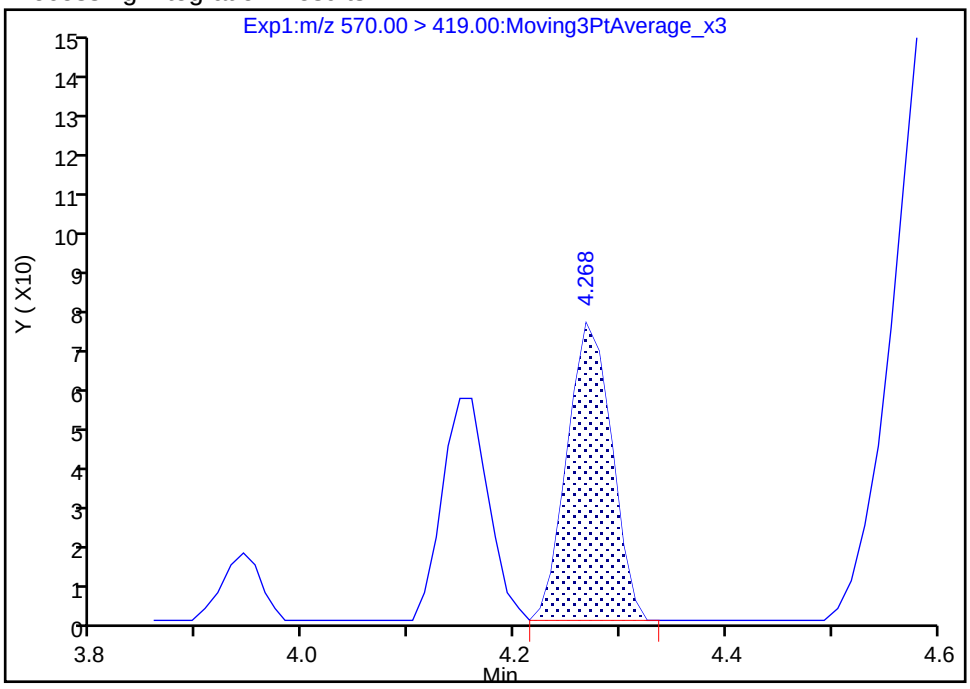
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

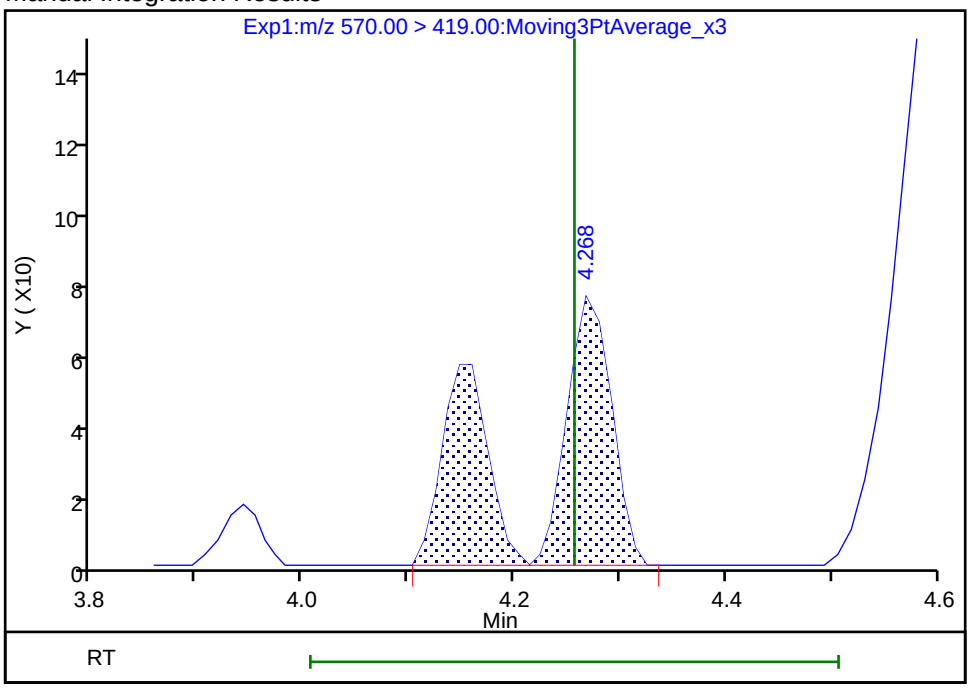
Processing Integration Results

RT: 4.27
Area: 219
Amount: 0.001980
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 389
Amount: 0.003517
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:07:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

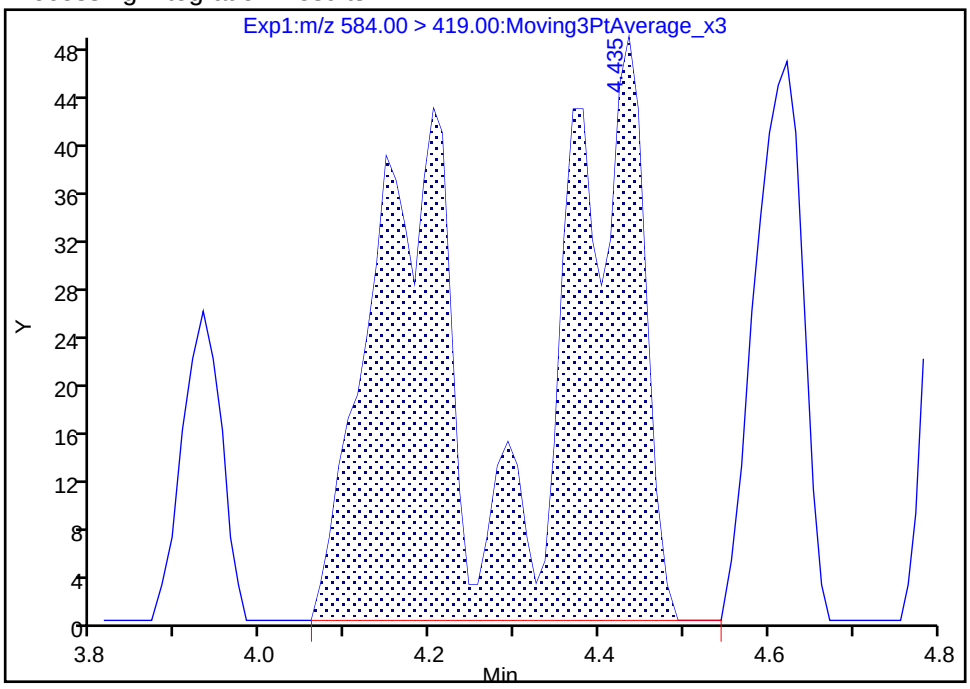
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

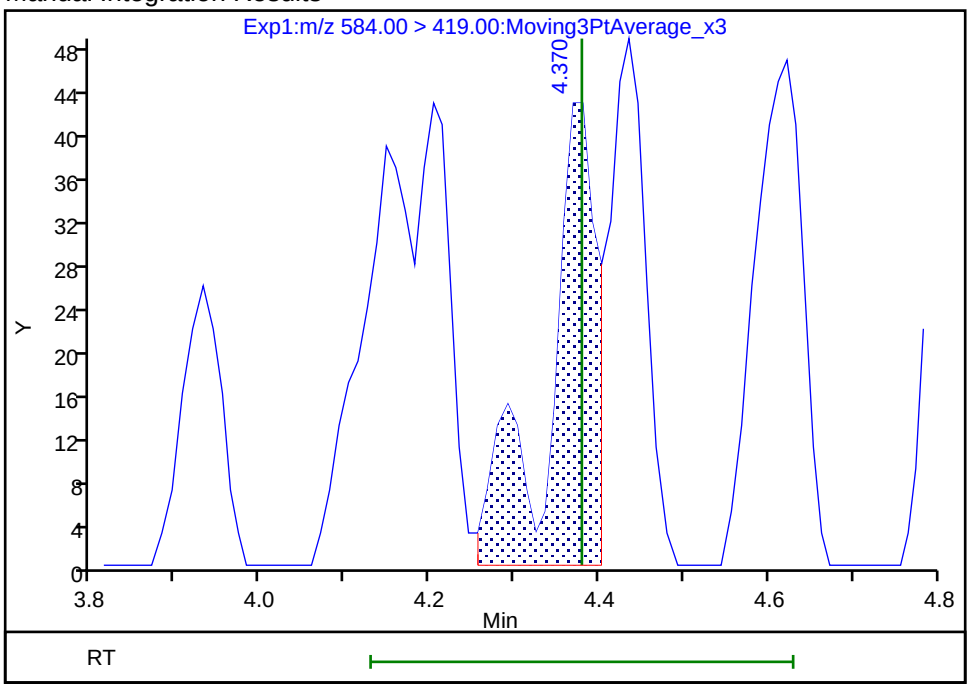
Processing Integration Results

RT: 4.44
Area: 578
Amount: 0.004719
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 163
Amount: 0.001331
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:30:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

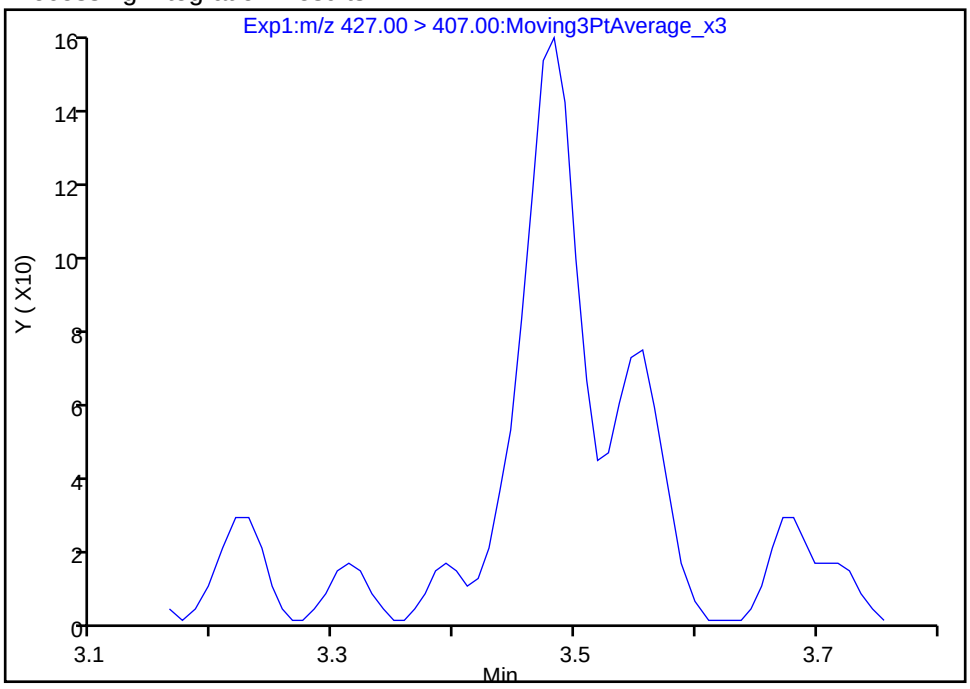
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

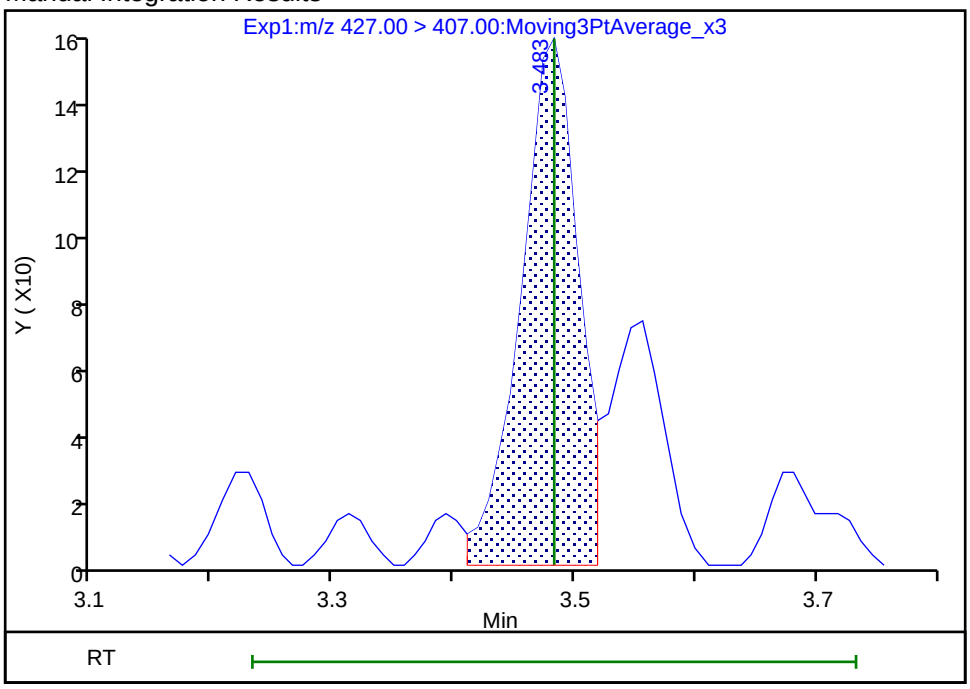
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 498
Amount: 0.001912
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:28:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

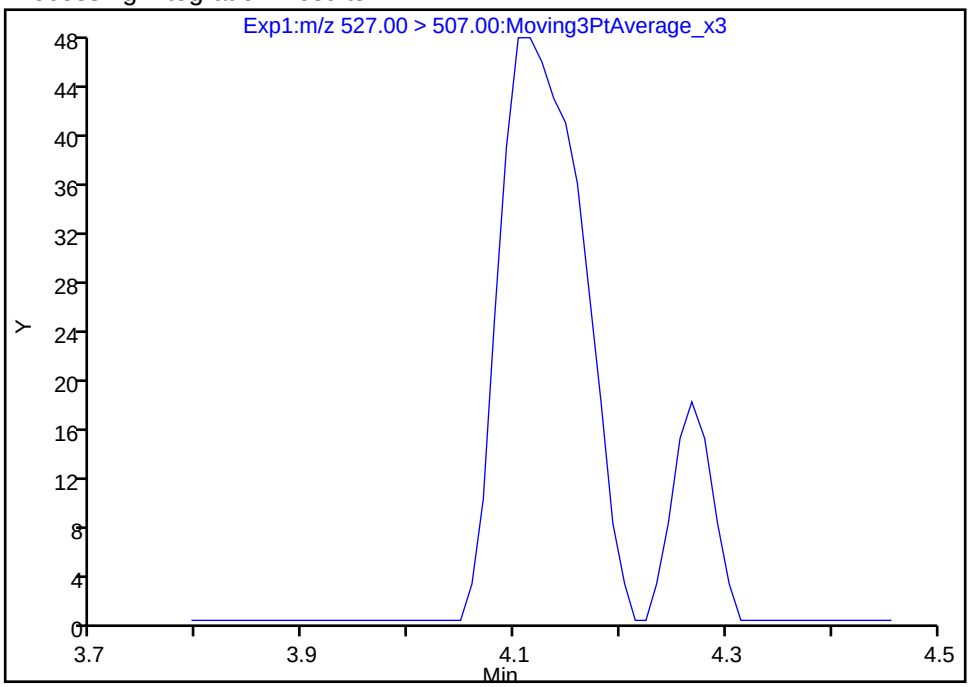
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

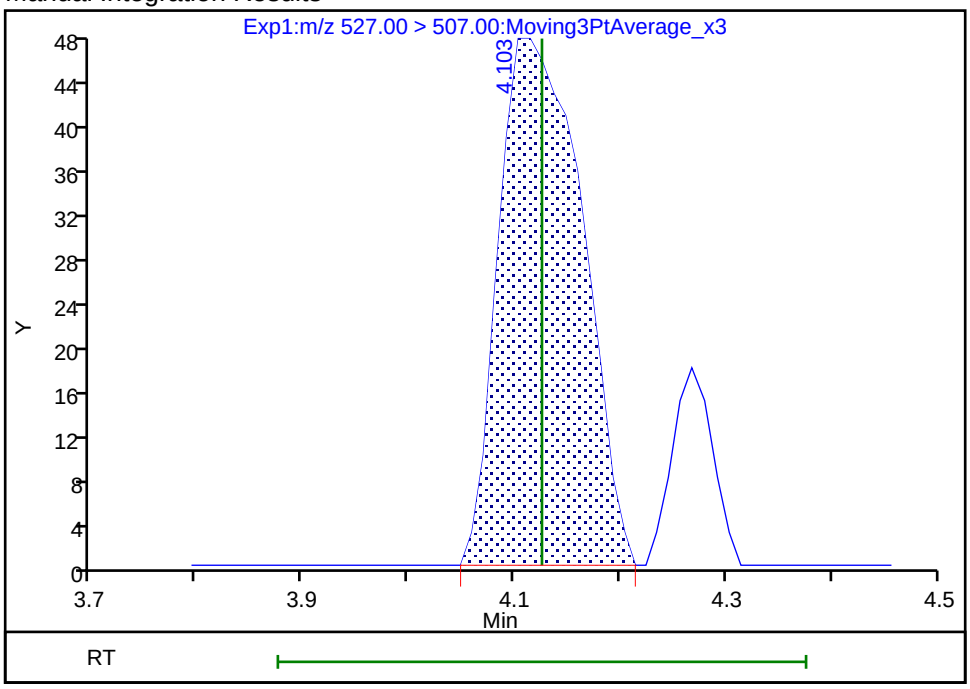
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 264
Amount: 0.001315
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:29:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

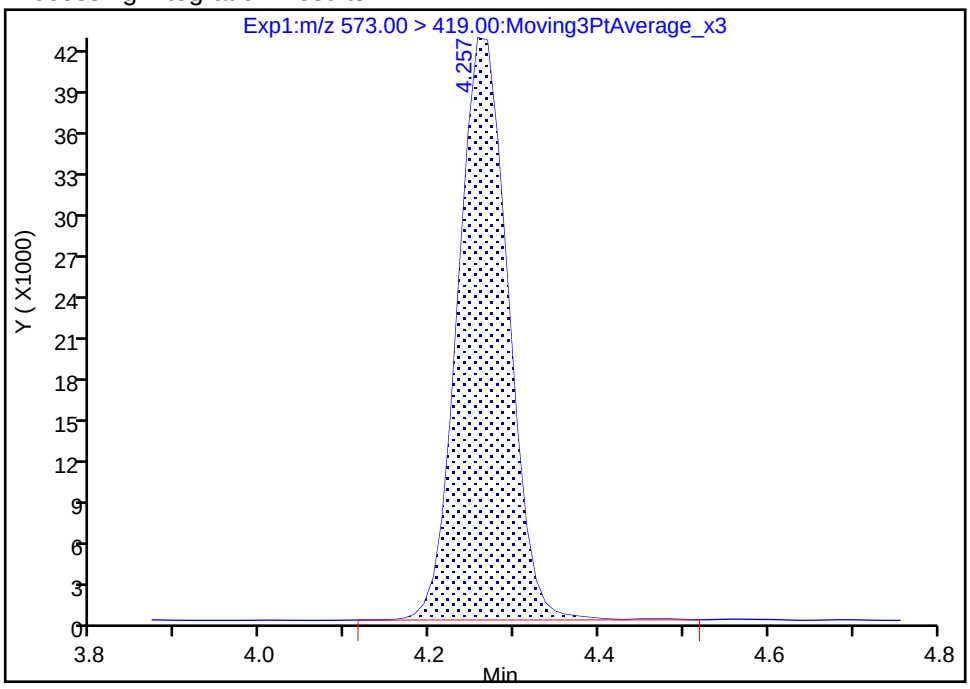
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D18.d | | | | |
| Injection Date: | 10-Nov-2021 06:31:26 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-11-A | Lab Sample ID: | 200-246277-11 | | |
| Client ID: | MW-23S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

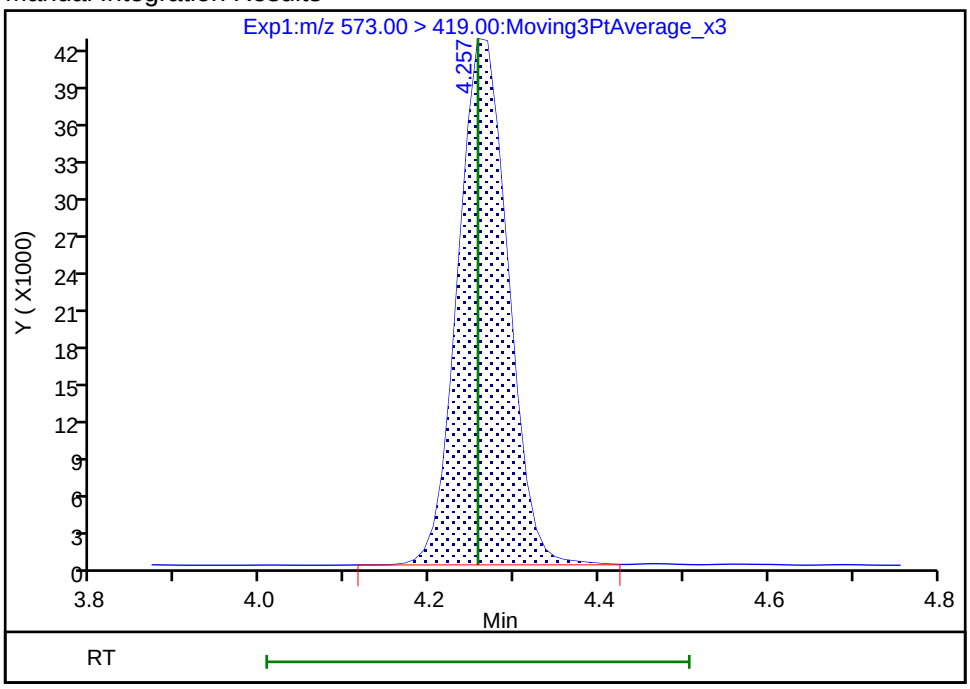
Processing Integration Results

RT: 4.26
Area: 176250
Amount: 1.227308
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 175977
Amount: 1.225407
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:26:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-37AQ-20211028  Lab Sample ID: 460-246277-12

Matrix: Water  Lab File ID: PA211109D19.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 277.2(mL)  Date Analyzed: 11/10/2021 06:39

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 6.52 | | 4.51 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 7.06 | | 1.80 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 12.4 | | 1.80 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 4.04 | | 1.80 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 15.1 | | 1.80 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.31 | J | 1.80 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.72 | J | 1.80 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 6.43 | | 1.80 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 73.2 | | 1.80 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 2.86 | | 1.80 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 194 | | 1.80 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-37AQ-20211028  Lab Sample ID: 460-246277-12

Matrix: Water  Lab File ID: PA211109D19.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 277.2(mL)  Date Analyzed: 11/10/2021 06:39

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 96 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |
| STL00995 | 13C5 PFNA | 94 | | 50-150 |
| STL00992 | 13C4 PFBA | 84 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 92 | | 50-150 |
| STL00997 | 13C2 PFUnA | 89 | | 50-150 |
| STL00998 | 13C2 PFDoA | 93 | | 50-150 |
| STL01056 | 13C8 FOSA | 92 | | 25-150 |
| STL01893 | 13C5 PFPeA | 99 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 83 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 104 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 102 | | 50-150 |
| STL02279 | M2-6:2 FTS | 118 | | 25-150 |
| STL02280 | M2-8:2 FTS | 122 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d
Lims ID: 460-246277-C-12-A
Client ID: MW-37AQ-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:39:36 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-12-A
Misc. Info.: 200-0048356-019 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:34:33
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1388755 | 1.06 | | 84.4 | 2750 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 189994 | 0.1809 | | | 13.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1367132 | 1.23 | | 98.7 | 818 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 214391 | 0.1957 | | | 2.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1616435 | 1.08 | | 92.7 | 54472 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 264576 | 0.1782 | Target=2.32 | | 18.9 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 120482 | | 2.20(1.16-3.48) | | 14.1 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.770 | -0.012 | 0.790 | 1436548 | 1.24 | | 98.8 | 2944 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.758 | 2.770 | -0.012 | 1.000 | 399043 | 0.3424 | Target=12.09 | | 10.6 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.004 | 28366 | | 14.07(6.04-18.13) | | 18.1 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2322601 | 2.03 | Target=3.55 | | 472 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 619277 | | 3.75(1.77-5.32) | | 356 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1230952 | 1.13 | | 95.5 | 3184 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1487818 | 1.22 | | 97.2 | 3921 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 137806 | 0.1121 | Target=3.69 | | 7.4 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 39080 | | 3.53(1.84-5.53) | | 46.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 78535 | 0.0792 | Target=4.88 | | 16.9 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 19757 | | 3.98(2.44-7.32) | | 15.4 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.003 | 2709 | 0.0106 | | | 30.6 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.995 | 239979 | 1.40 | | 118 | 119 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 0.997 | 1587279 | 1.19 | | 95.0 | 3009 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1624794 | 1.25 | | | 5344 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.003 | 565926 | 0.4191 | Target=2.68 | | 31.7 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.003 | 235638 | | 2.40(1.34-4.02) | | 350 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 950332 | 1.21 | | 101 | 626 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.804 | -0.010 | 1.000 | 4644169 | 5.38 | Target=4.69 | | 1265 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 1030136 | | 4.51(2.35-7.04) | | 1003 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1569639 | 1.18 | | 94.3 | 4396 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 44483 | 0.0362 | Target=7.29 | | 5.3 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 6268 | | 7.10(3.64-10.93) | | 19.7 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1544534 | 1.15 | | 91.9 | 9808 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 24726 | 0.0199 | Target=8.95 | | 7.2 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 2914 | | 8.49(4.47-13.42) | | 13.6 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 284530 | 1.46 | | 122 | 250 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 317 | 0.001595 | | | 5.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1498708 | 1.16 | | 92.5 | 2756 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 3180 | 0.002793 | | | 6.6 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.246 | 4.257 | -0.011 | 1.216 | 171125 | 1.29 | | 104 | 868 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.005 | 334 | 0.003106 | | | 2.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 1161136 | 1.11 | | 88.6 | 3488 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.003 | 4819 | 0.004866 | Target=9.24 | | 2.2 | M |
| 563.00 > 169.00 | 4.358 | 4.369 | -0.010 | 0.997 | 706 | | 6.83(4.62-13.86) | | 4.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 157955 | 1.28 | | 102 | 1063 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.402 | 4.380 | 0.022 | 1.005 | 915 | 0.008450 | | | 5.2 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1312456 | 1.16 | | 93.2 | 1964 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.591 | 4.591 | 0.0 | 0.998 | 2264 | 0.002202 | Target=7.04 | | 0.4 | RM |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 896 | | 2.53(3.52-10.56) | | 11.0 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | RM |
| 663.00 > 619.00 | 4.792 | 4.792 | 0.0 | 1.042 | 1565 | 0.001766 | Target=4.68 | | 0.6 | RM |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.042 | 201 | | 7.79(2.34-7.02) | | 2.5 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 911187 | 1.04 | | 83.4 | 1438 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 397 | 0.003451 | Target=1.01 | | 17.6 | R |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.998 | 204 | | 1.95(0.51-1.52) | | 5.0 | M |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test

Review Flags
- M - Manually Integrated

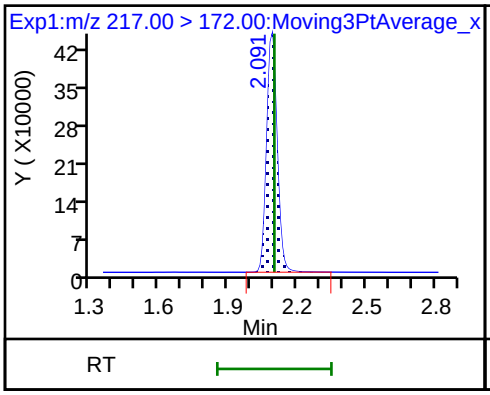
Report Date: 11-Nov-2021 11:26:23 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

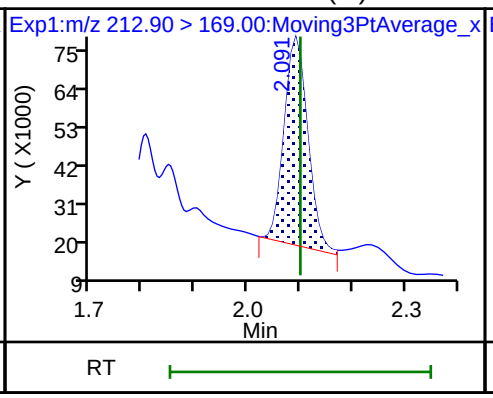
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |

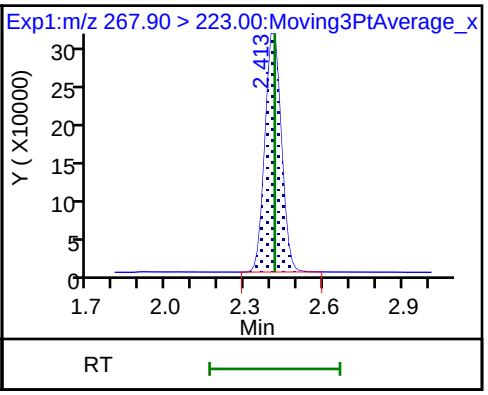
D 1 13C4 PFBA



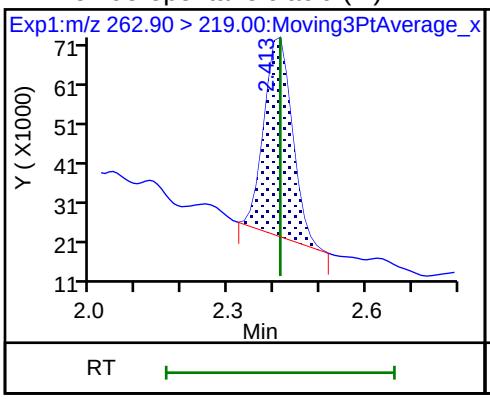

2 Perfluorobutanoic acid (M)



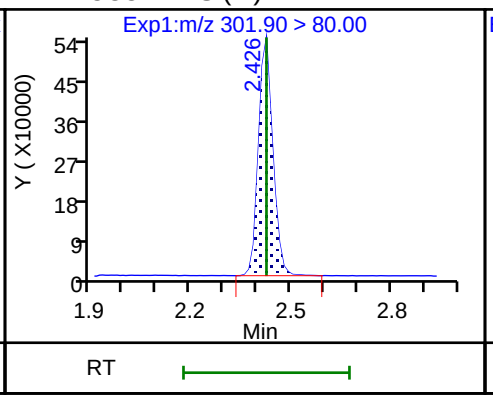

D 3 13C5 PFPeA



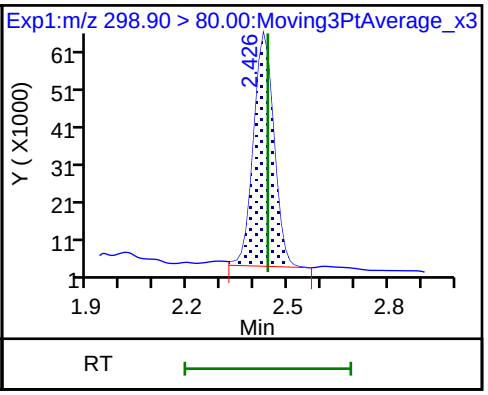

4 Perfluoropentanoic acid (M)



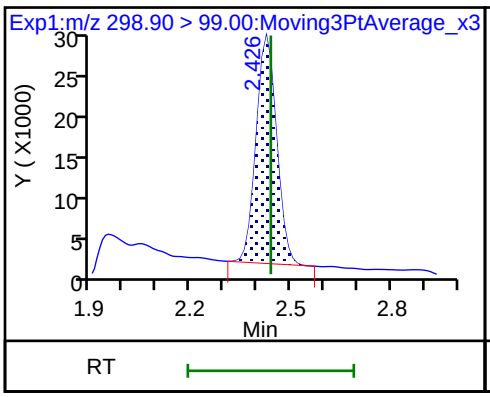

D 47 13C3 PFBS (M)



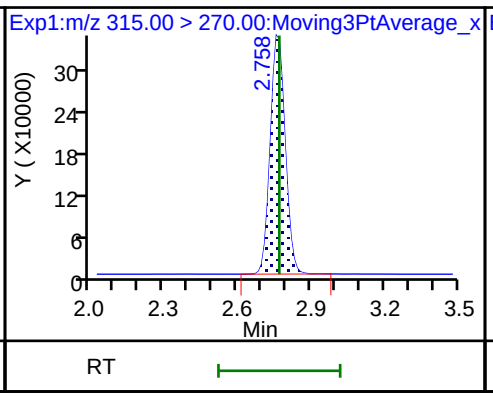

5 Perfluorobutanesulfonic acid



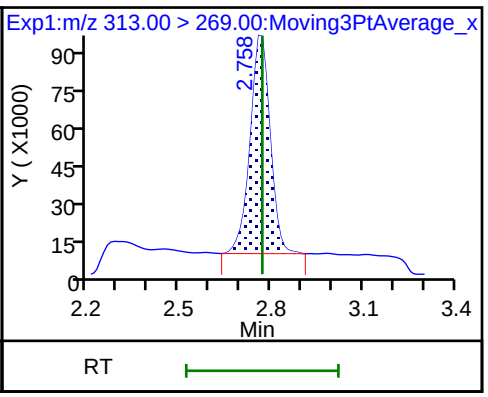

5 Perfluorobutanesulfonic acid



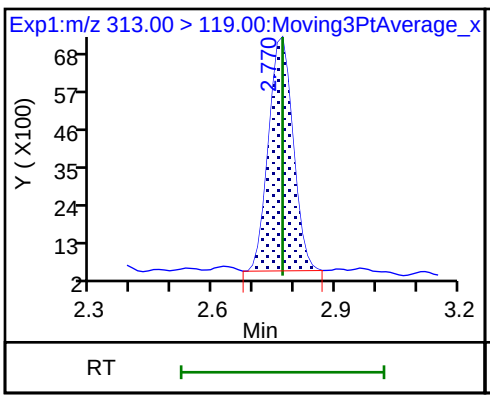

D 7 13C2 PFHxA



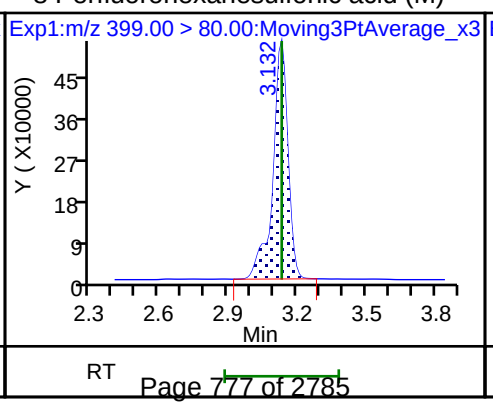

6 Perfluorohexanoic acid



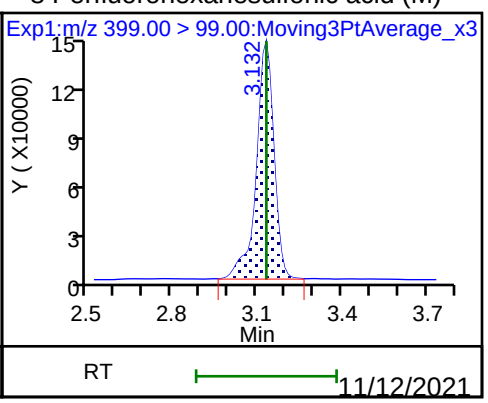

6 Perfluorohexanoic acid



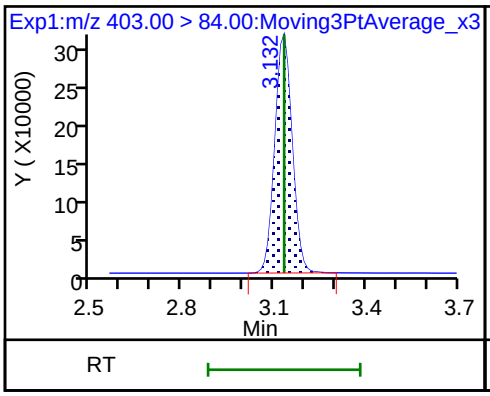

8 Perfluorohexanesulfonic acid (M)



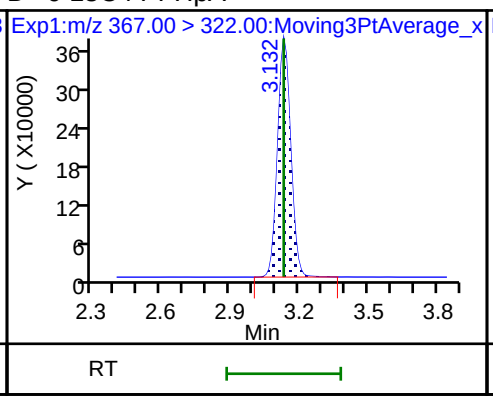

8 Perfluorohexanesulfonic acid (M)



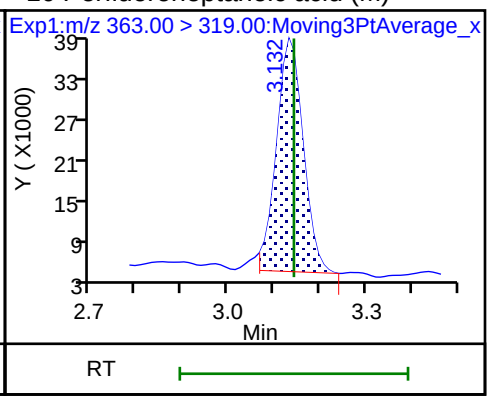
D 11 18O2 PFHxS



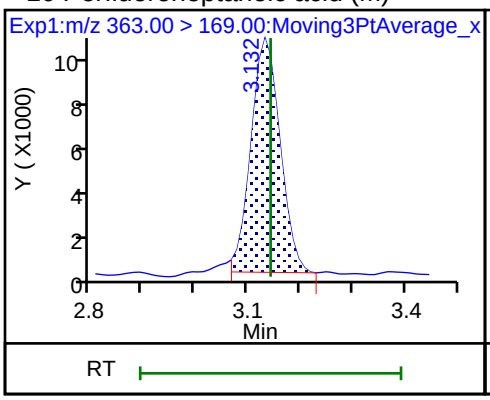

D 9 13C4 PFHpA



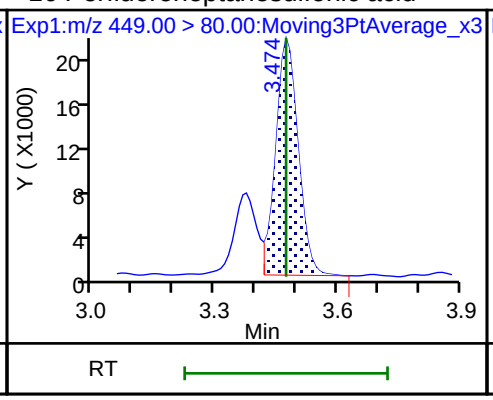

10 Perfluoroheptanoic acid (M)



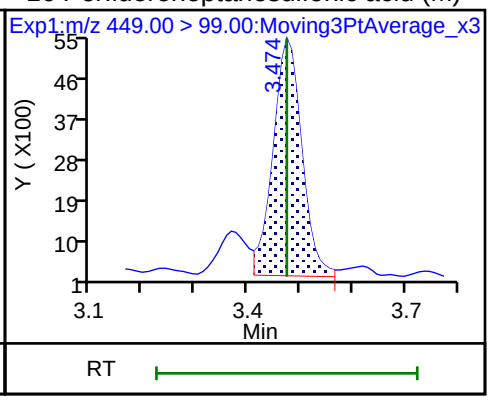

10 Perfluoroheptanoic acid (M)



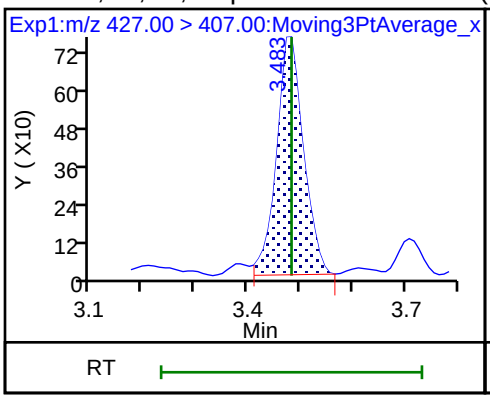

16 Perfluoroheptanesulfonic acid



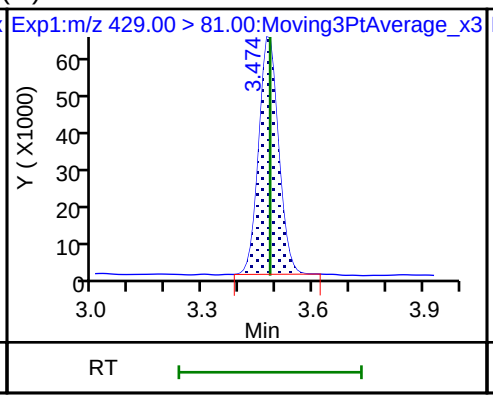

16 Perfluoroheptanesulfonic acid (M)



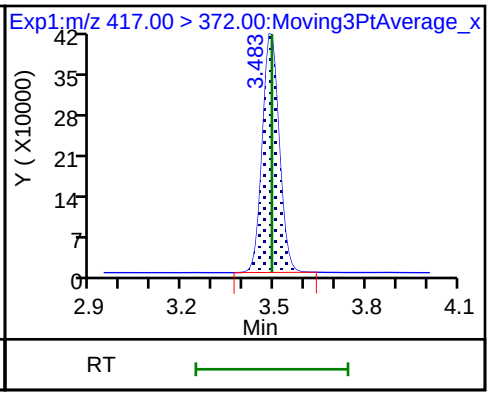

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



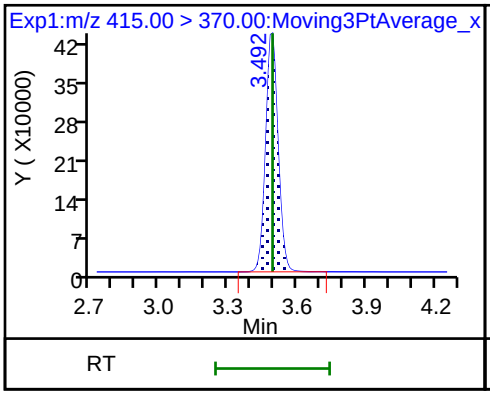

D 12 M2-6:2 FTS



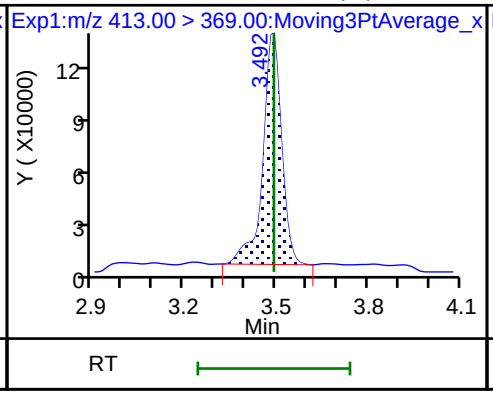

D 14 13C4 PFOA



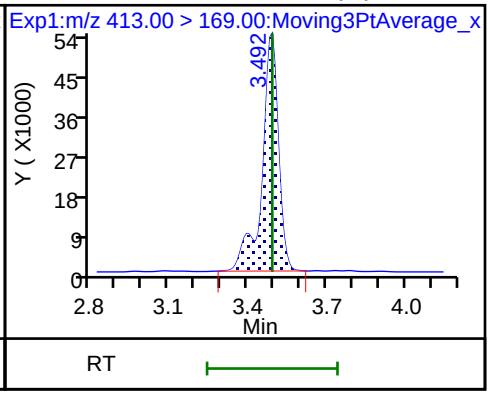

* 62 13C2 PFOA



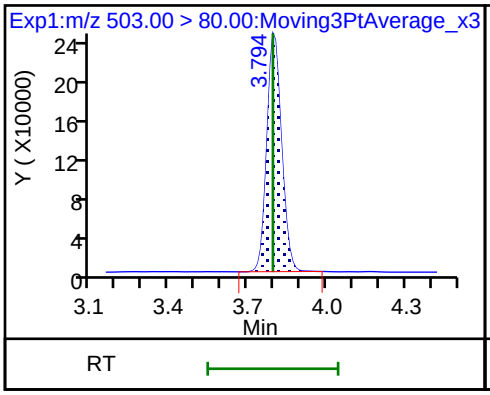

15 Perfluorooctanoic acid (M)



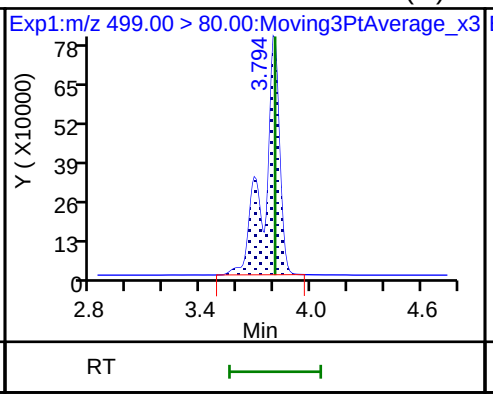

15 Perfluorooctanoic acid (M)



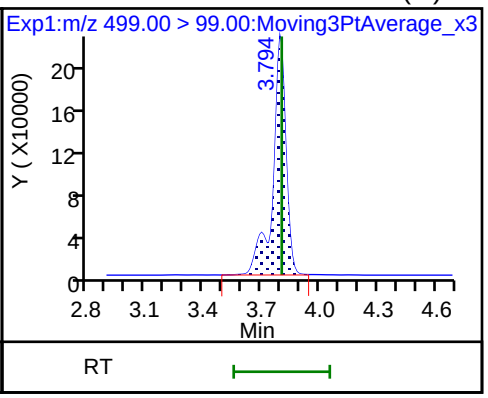
D 18 13C4 PFOS



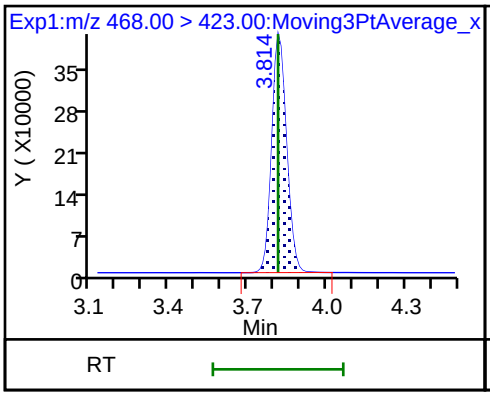

17 Perfluorooctanesulfonic acid (M)



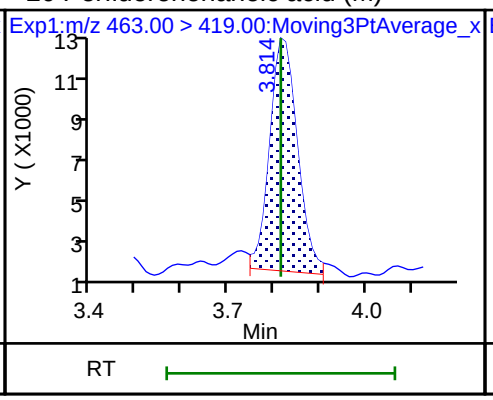

17 Perfluorooctanesulfonic acid (M)



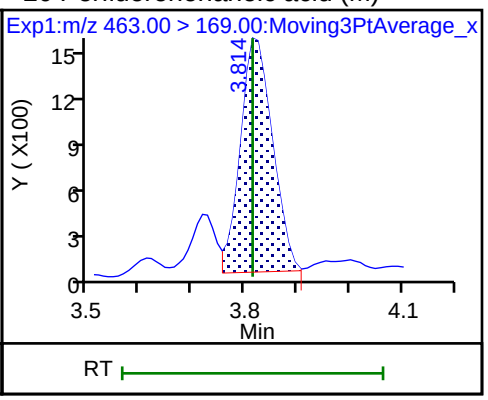

D 19 13C5 PFNA



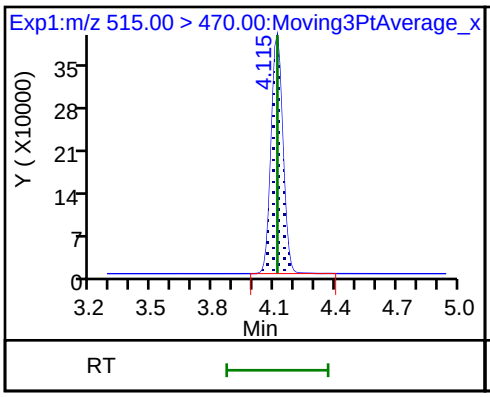

20 Perfluorononanoic acid (M)



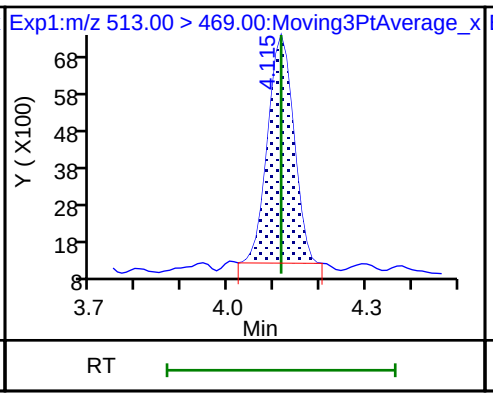

20 Perfluorononanoic acid (M)



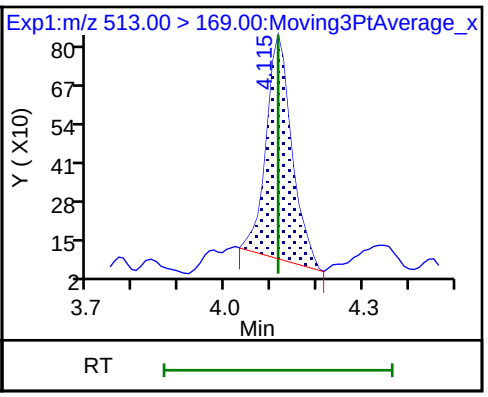

D 23 13C2 PFDA



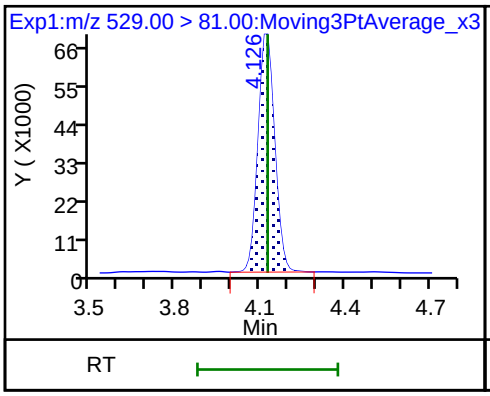

24 Perfluorodecanoic acid



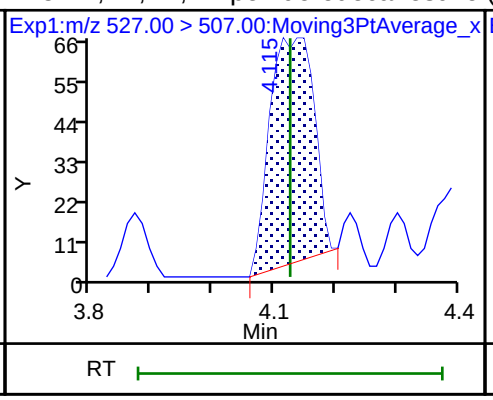

24 Perfluorodecanoic acid



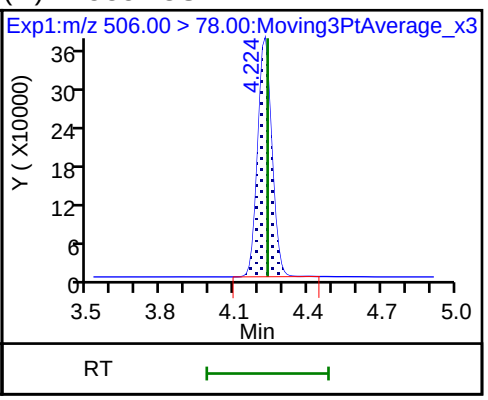

D 26 M2-8:2 FTS



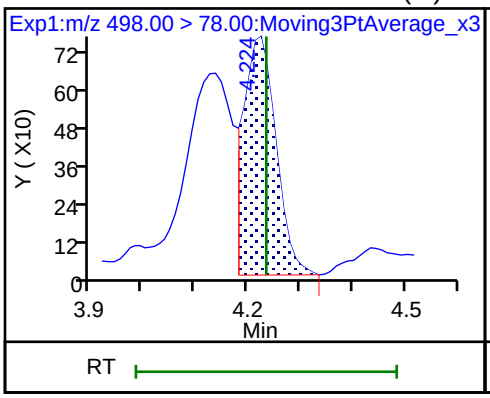

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



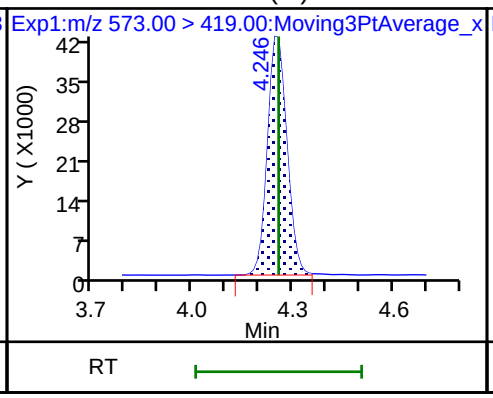

D 21 13C8 FOSA



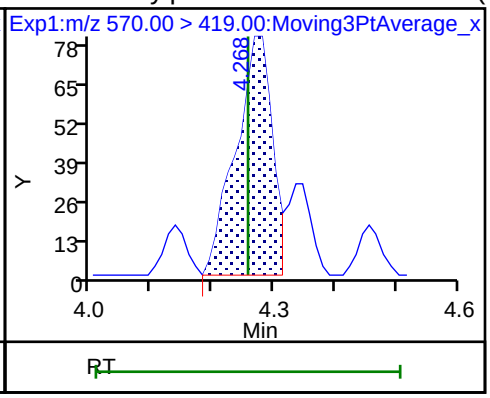
22 Perfluorooctanesulfonamide (M)



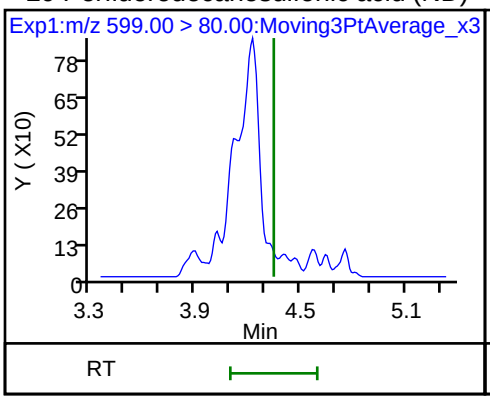

D 27 d3-NMeFOSAA (M)



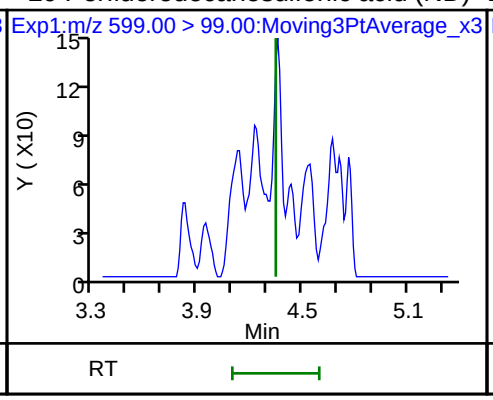

28 N-methylperfluorooctanesulfonami (M)



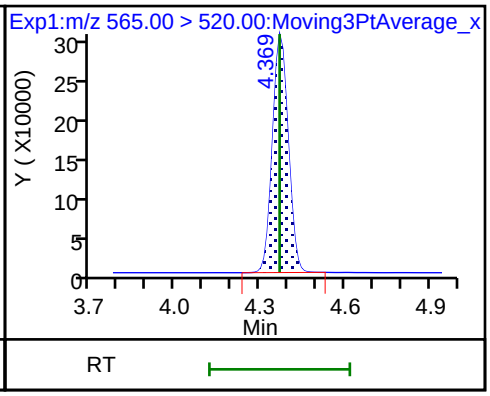

29 Perfluorodecanesulfonic acid (ND)



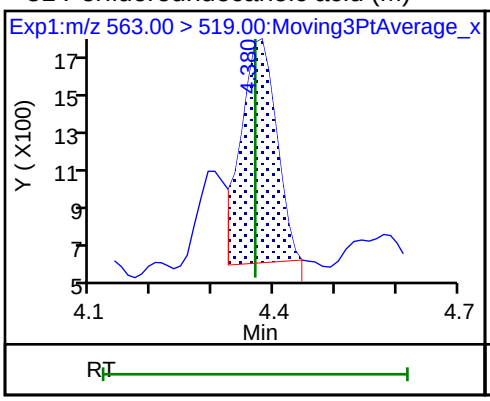

29 Perfluorodecanesulfonic acid (ND)



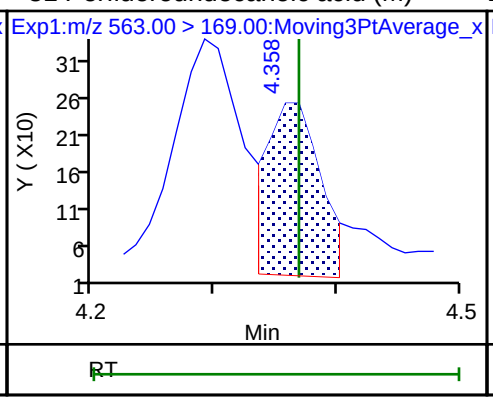

D 30 13C2 PFUnA



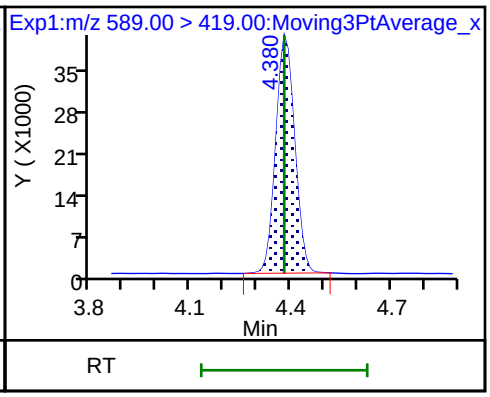

31 Perfluoroundecanoic acid (M)



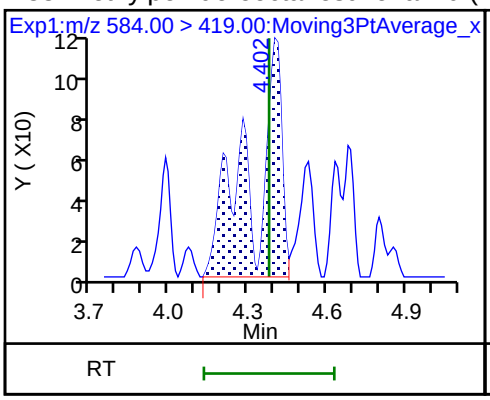

31 Perfluoroundecanoic acid (M)



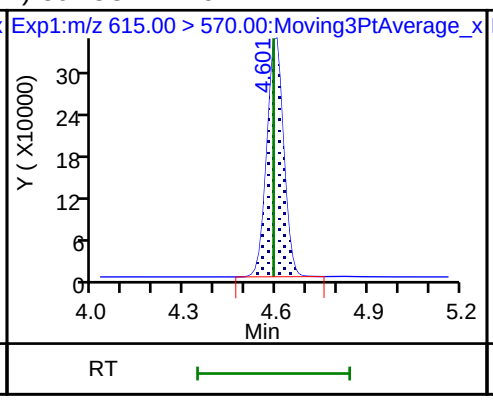

D 32 d5-NEtFOSAA



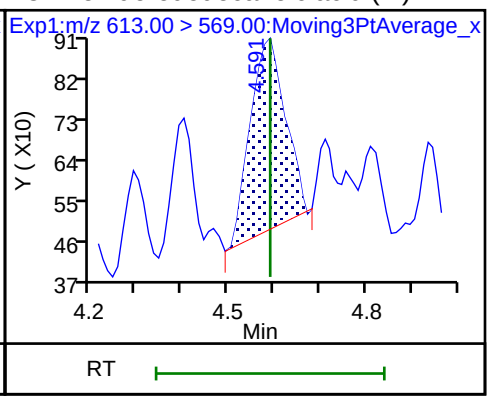

33 N-ethylperfluorooctanesulfonamid (ND)



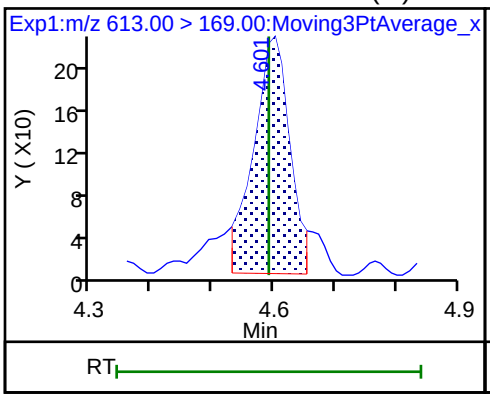

D 36 13C2 PFDoA



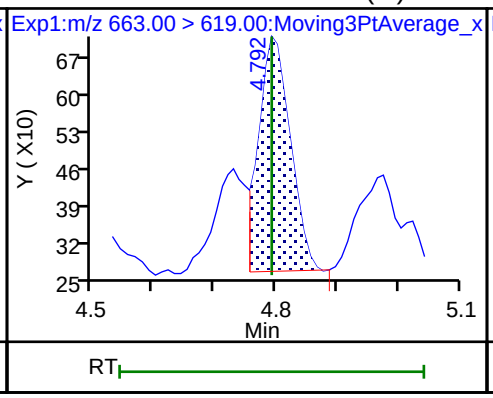

37 Perfluorododecanoic acid (M)



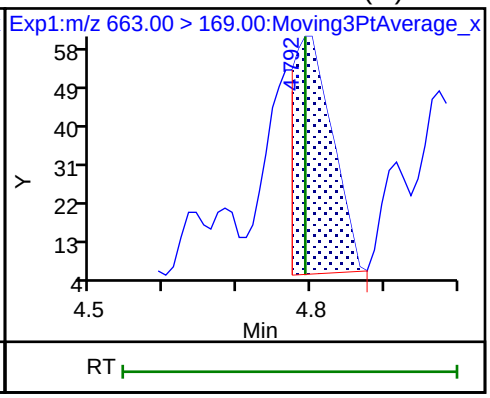
37 Perfluorododecanoic acid (M)



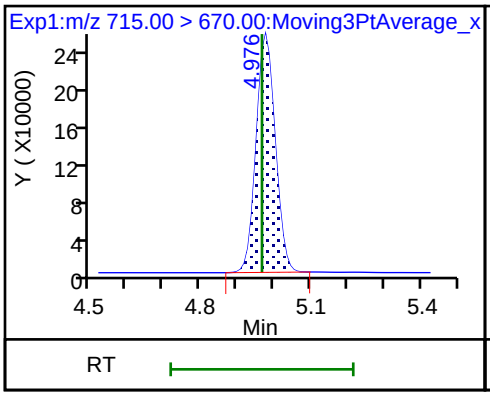

41 Perfluorotridecanoic acid (M)



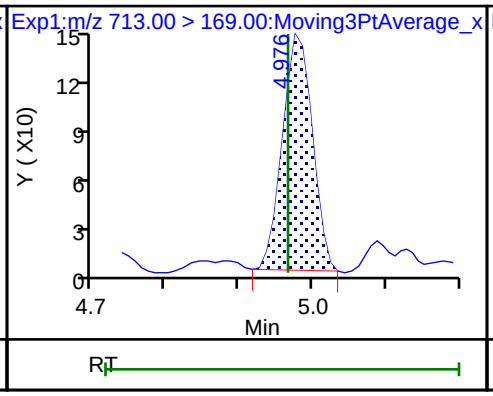

41 Perfluorotridecanoic acid (M)



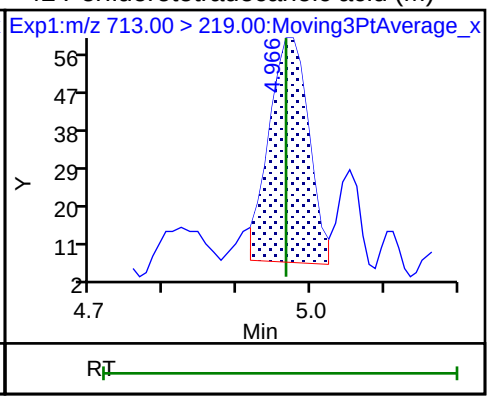

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

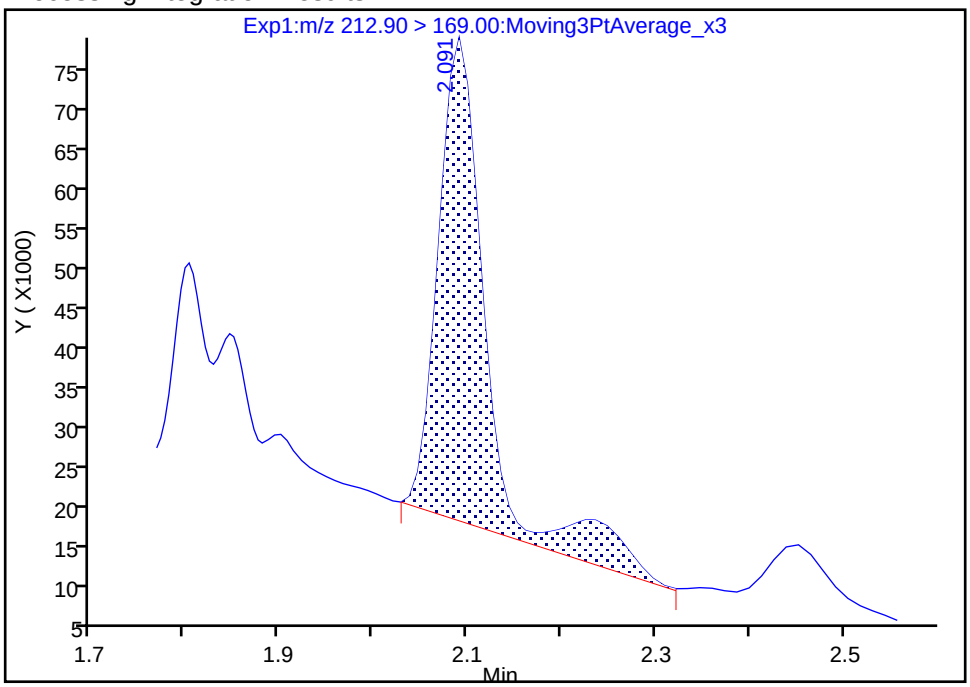
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

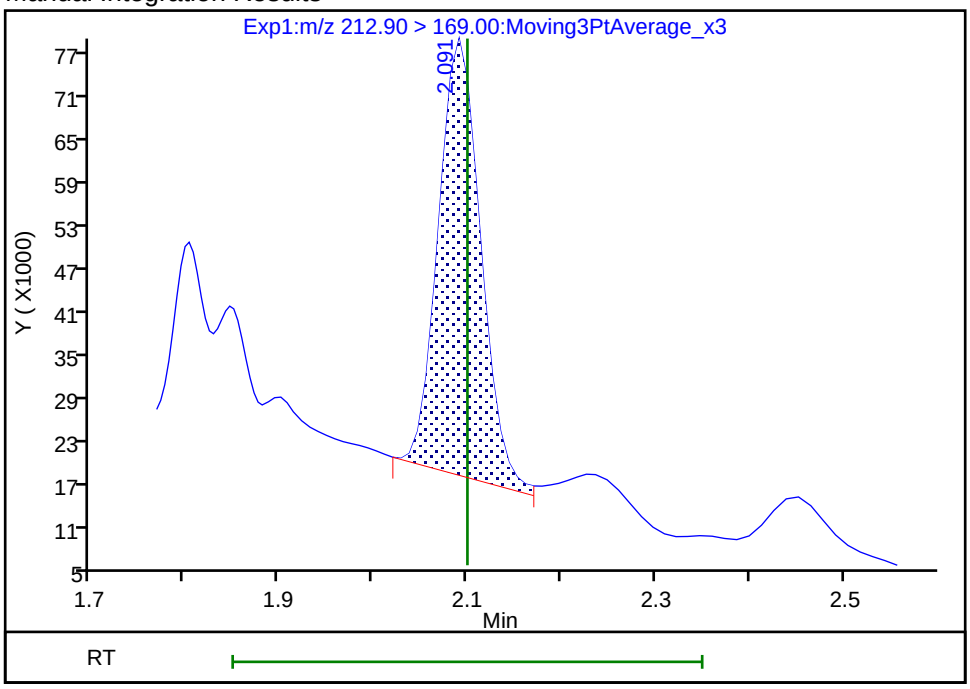
Processing Integration Results

RT: 2.09
Area: 217315
Amount: 0.206864
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 189994
Amount: 0.180857
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:09:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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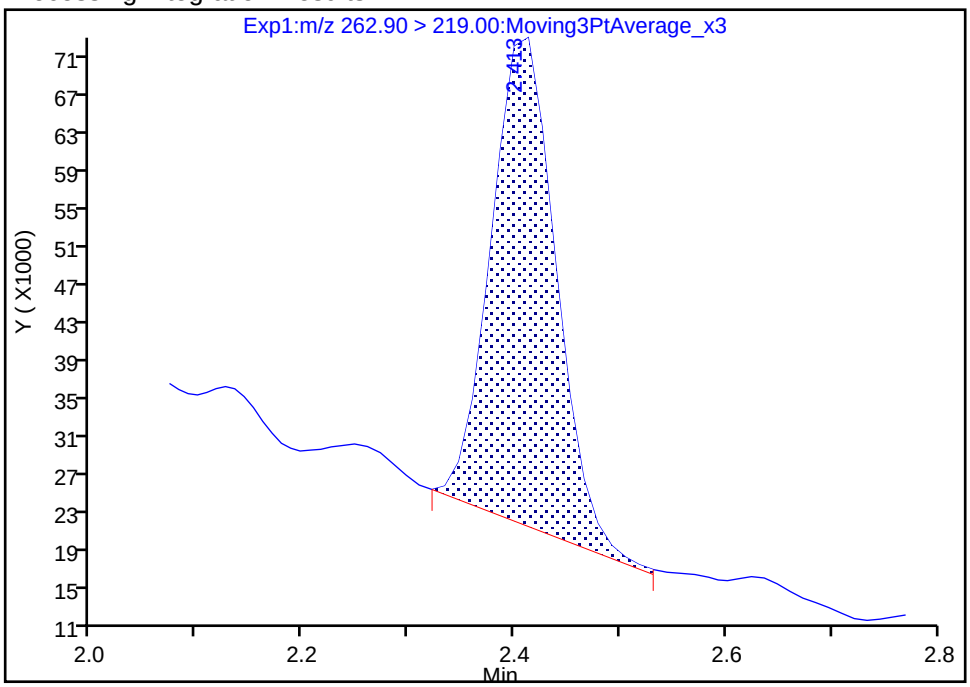
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

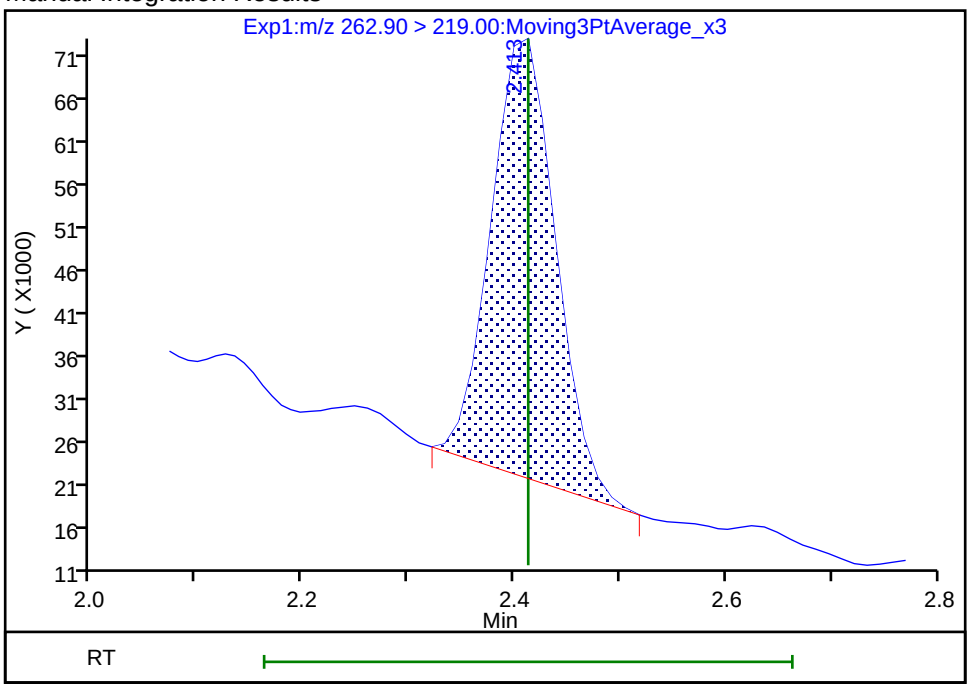
Processing Integration Results

RT: 2.41
Area: 217478
Amount: 0.198502
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 214391
Amount: 0.195685
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:31:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | |
|---|---|---|---|
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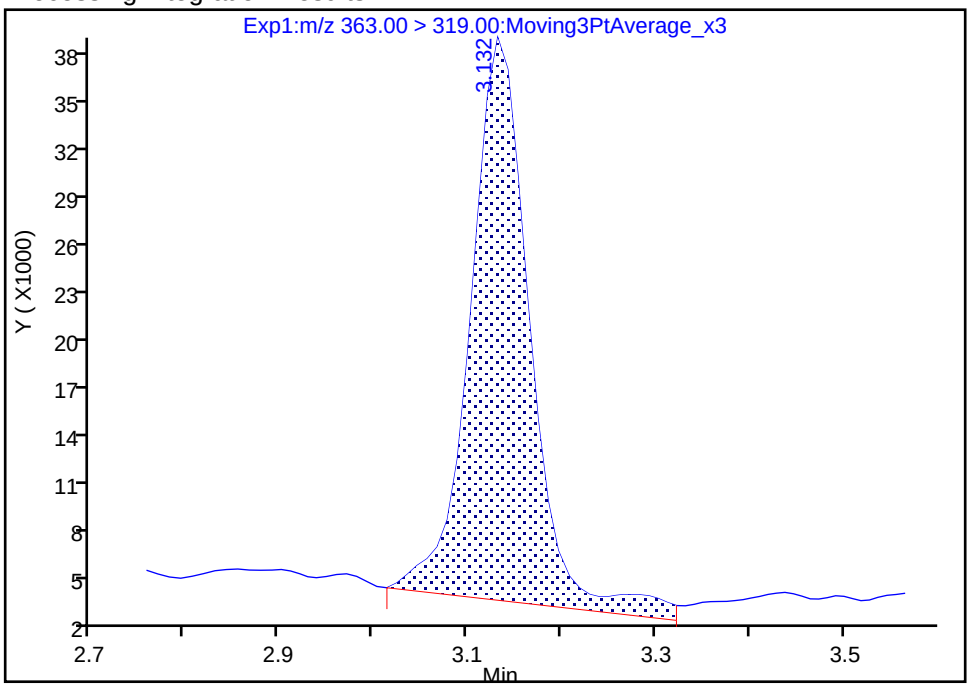
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 |
| Client ID: | MW-37AQ-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 Worklist Smp#: 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

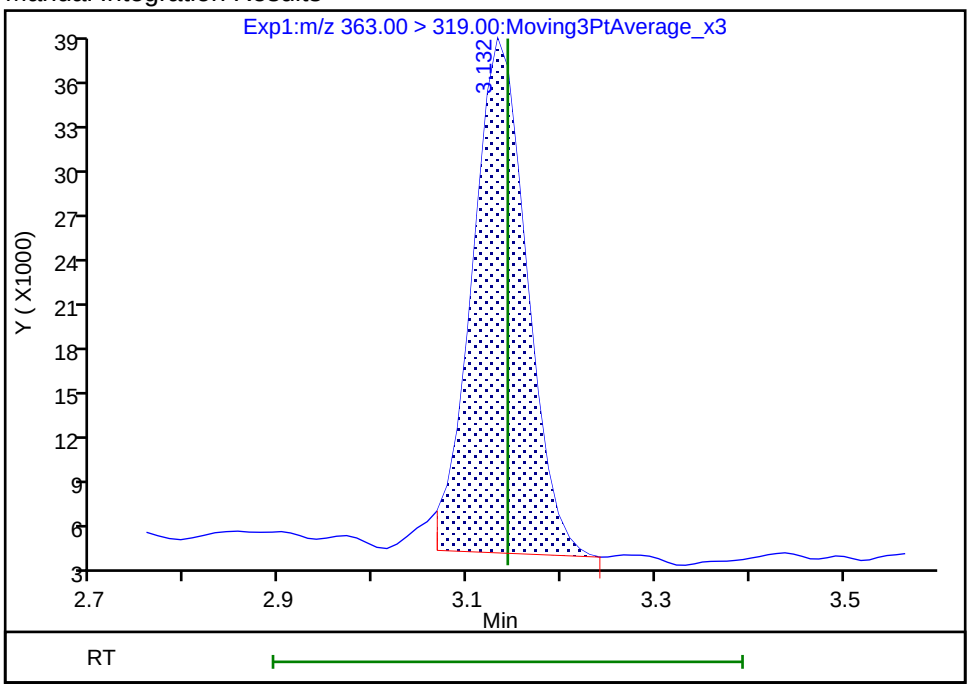
Processing Integration Results

RT: 3.13
Area: 153505
Amount: 0.124822
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 137806
Amount: 0.112056
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:09:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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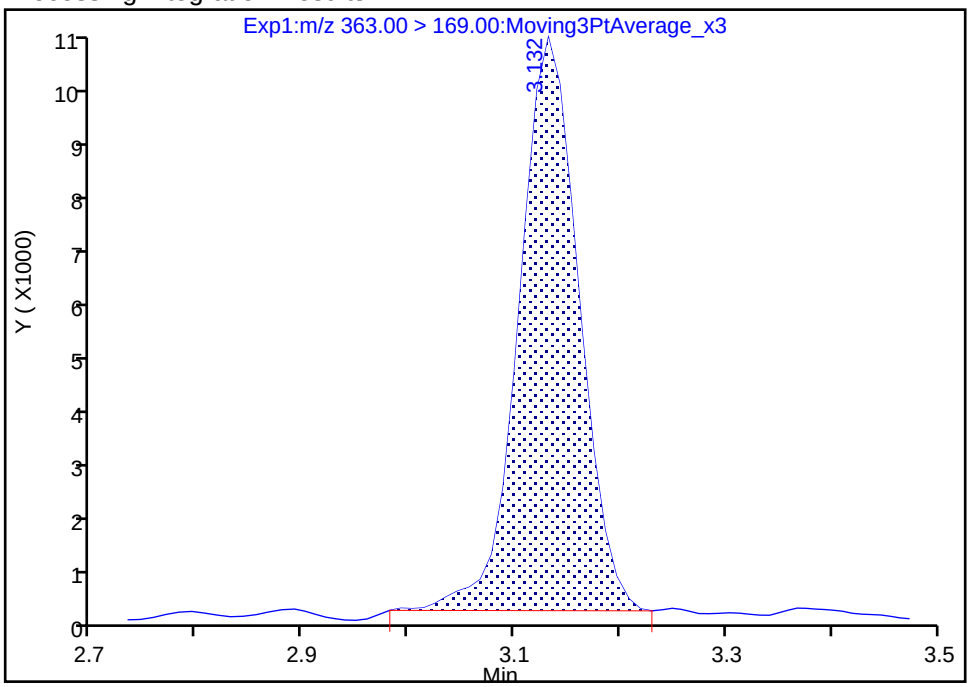
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

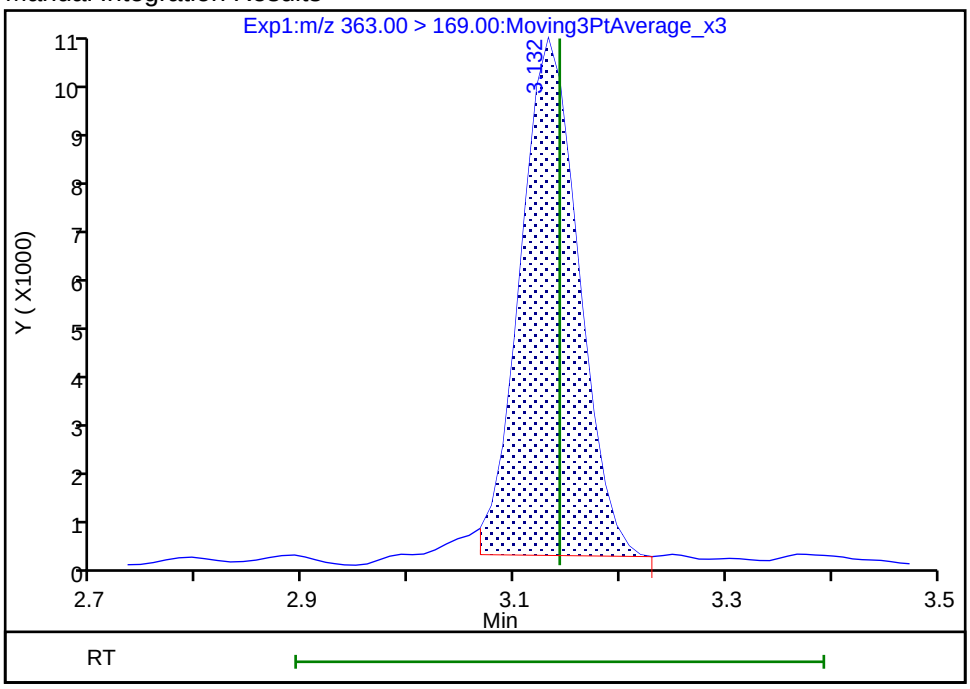
Processing Integration Results

RT: 3.13
Area: 40221
Amount: 0.124822
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 39080
Amount: 0.112056
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:09:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

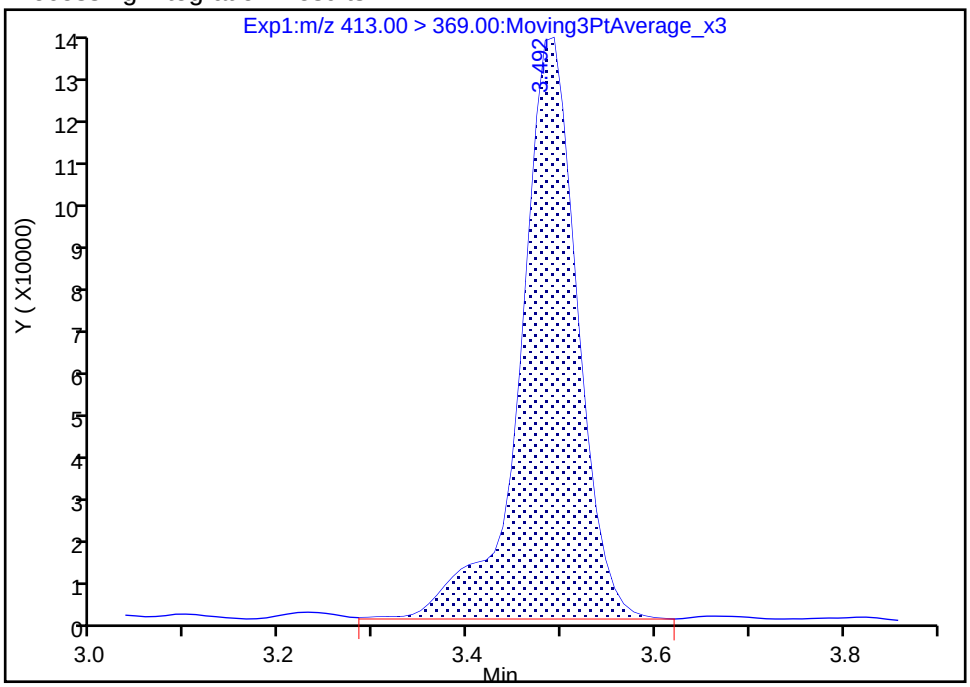
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 |
| Client ID: | MW-37AQ-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 Worklist Smp#: 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

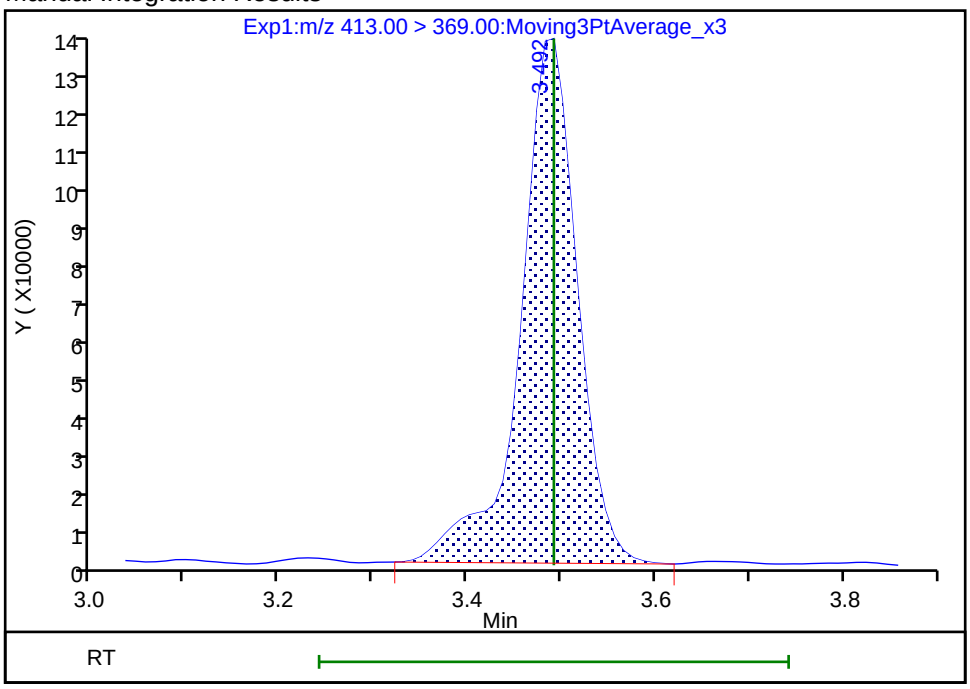
Processing Integration Results

RT: 3.49
Area: 571355
Amount: 0.423107
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 565926
Amount: 0.419087
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:32:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

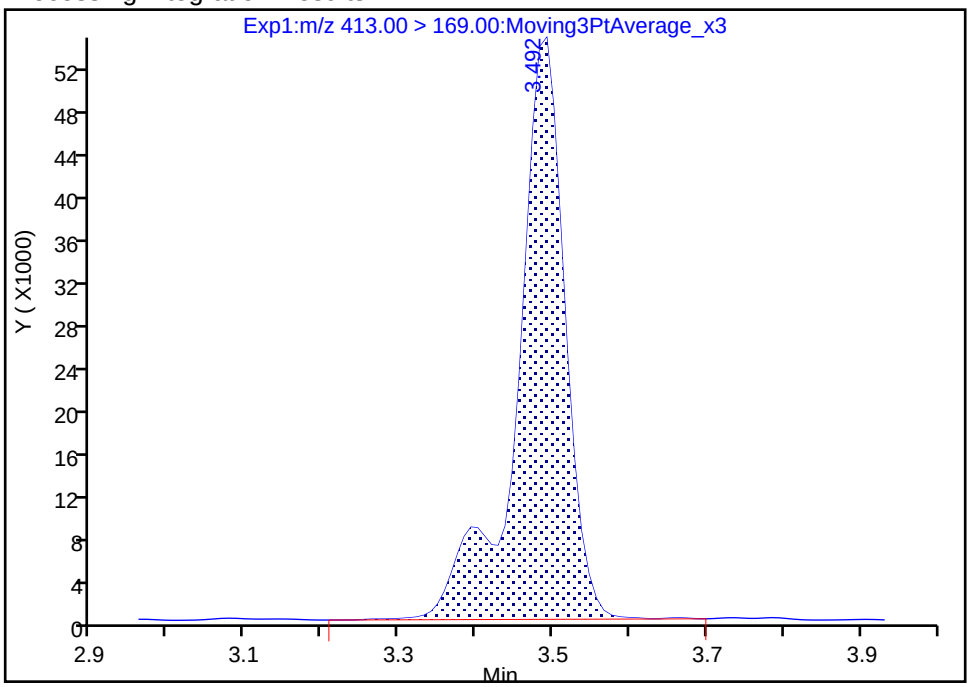
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

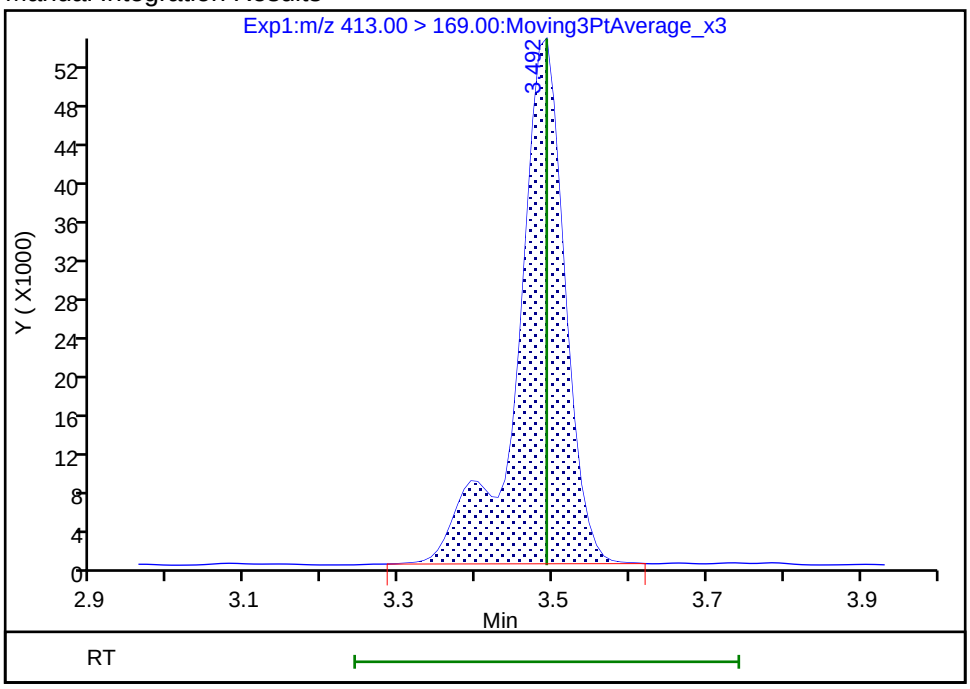
Processing Integration Results

RT: 3.49
Area: 237162
Amount: 0.423107
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 235638
Amount: 0.419087
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:32:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

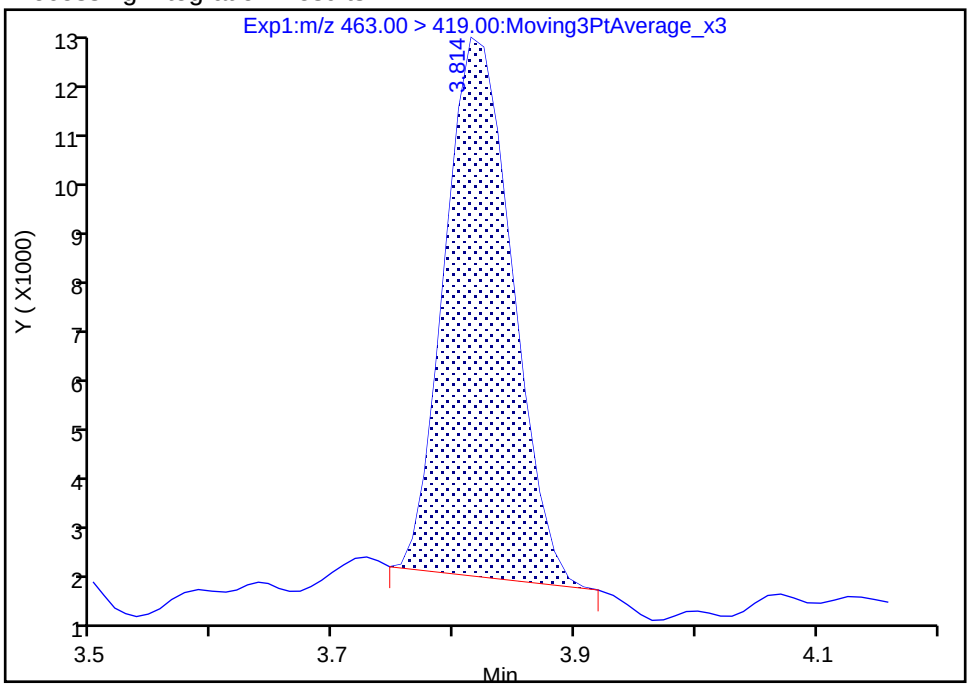
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

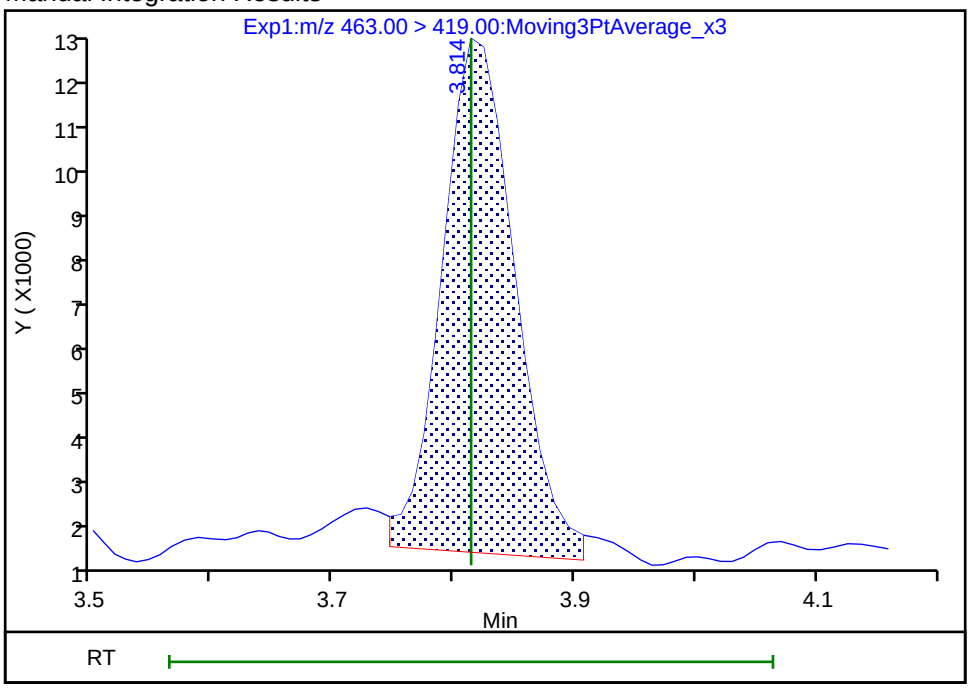
Processing Integration Results

RT: 3.81
Area: 39160
Amount: 0.031876
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 44483
Amount: 0.036209
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:10:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

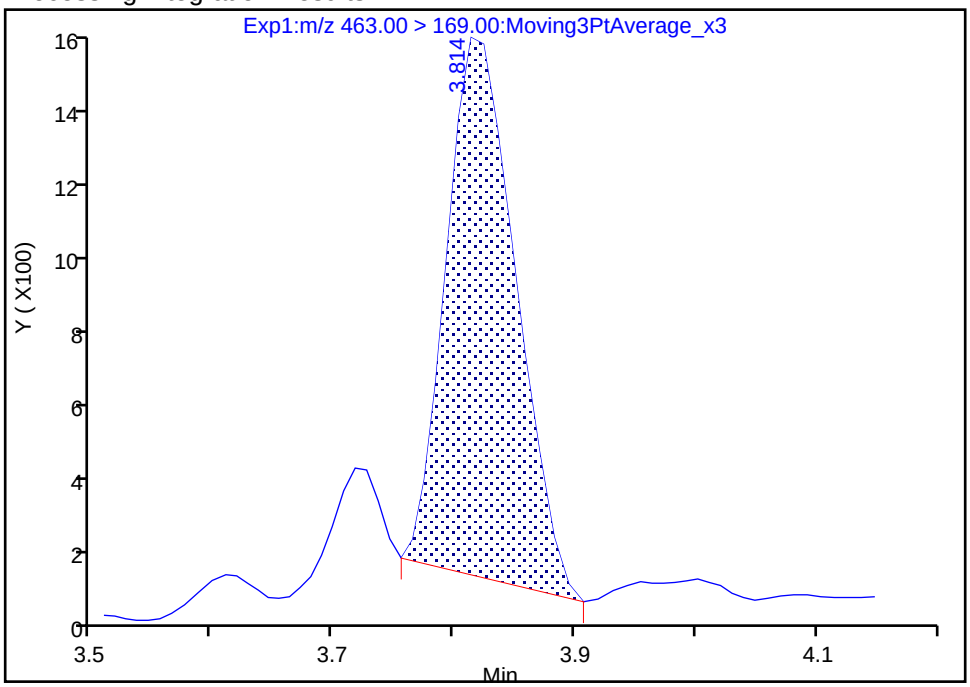
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

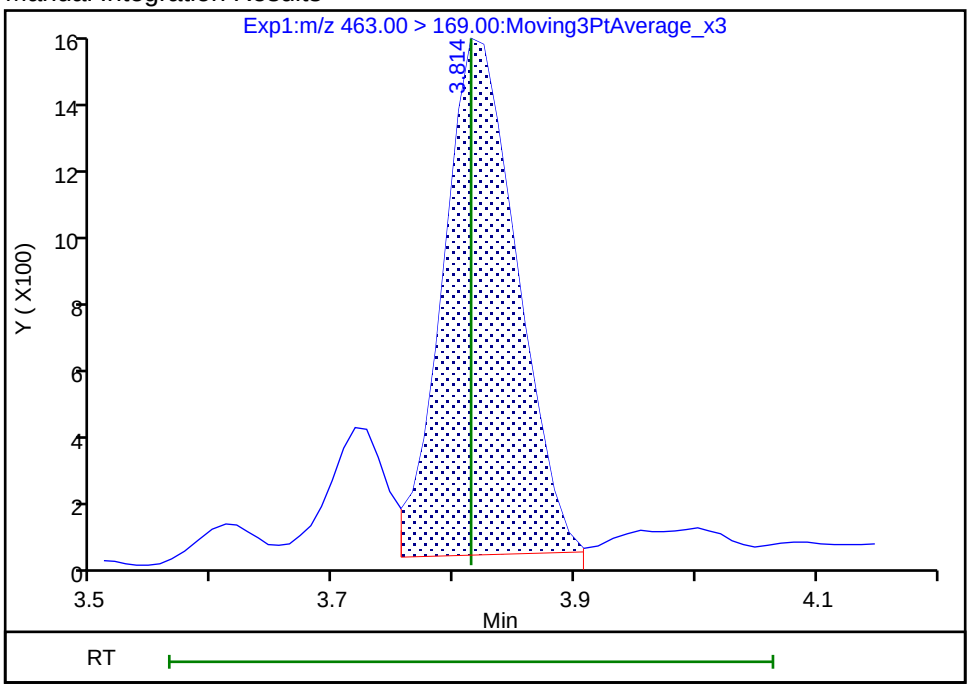
Processing Integration Results

RT: 3.81
Area: 5598
Amount: 0.031876
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 6268
Amount: 0.036209
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:11:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

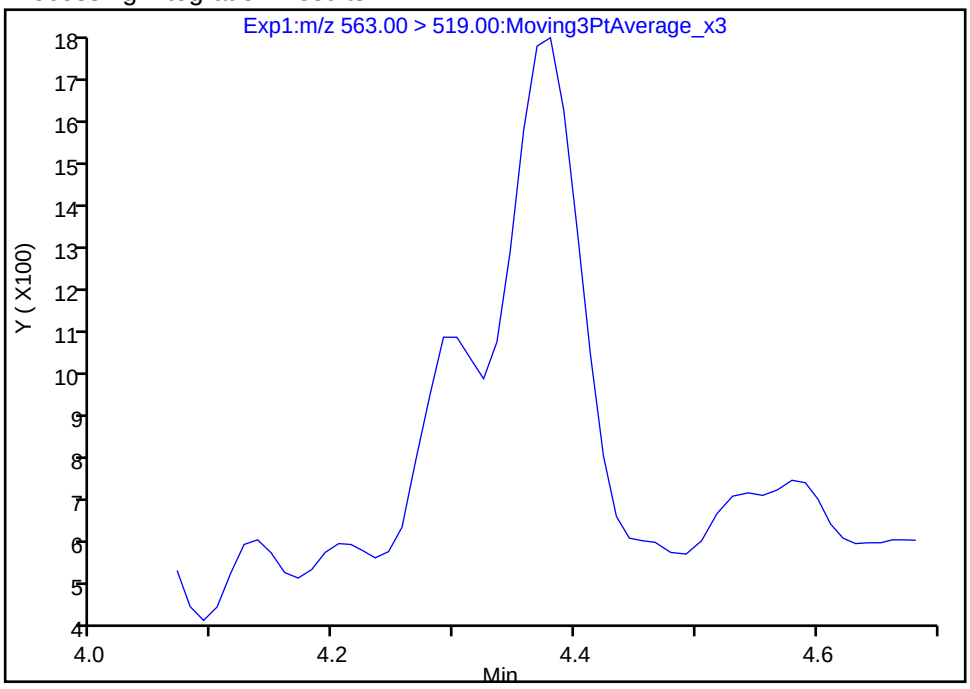
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

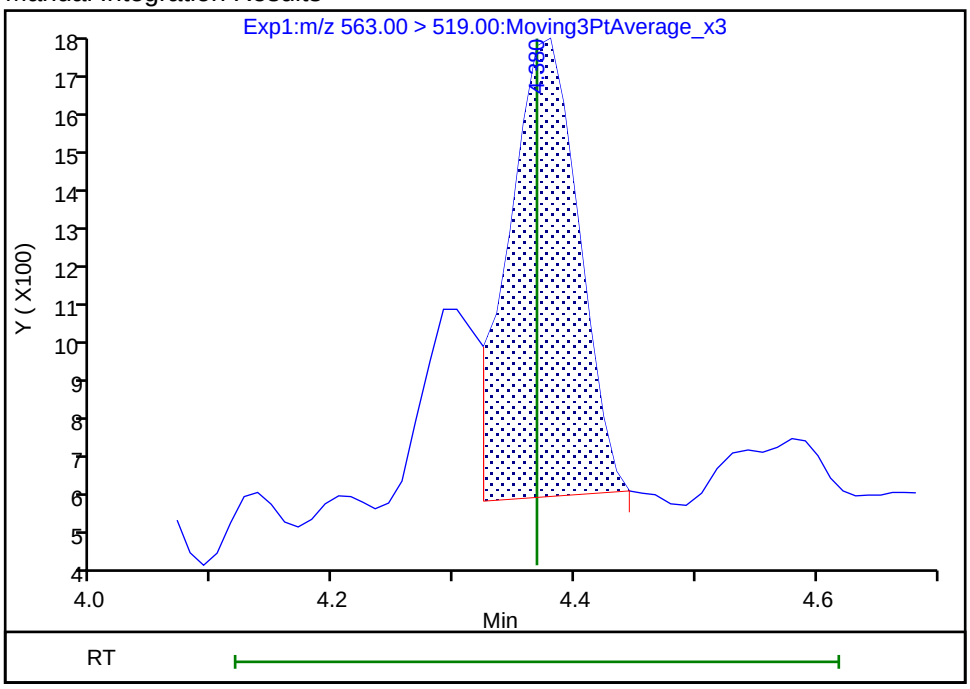
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 4819
Amount: 0.004866
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:33:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

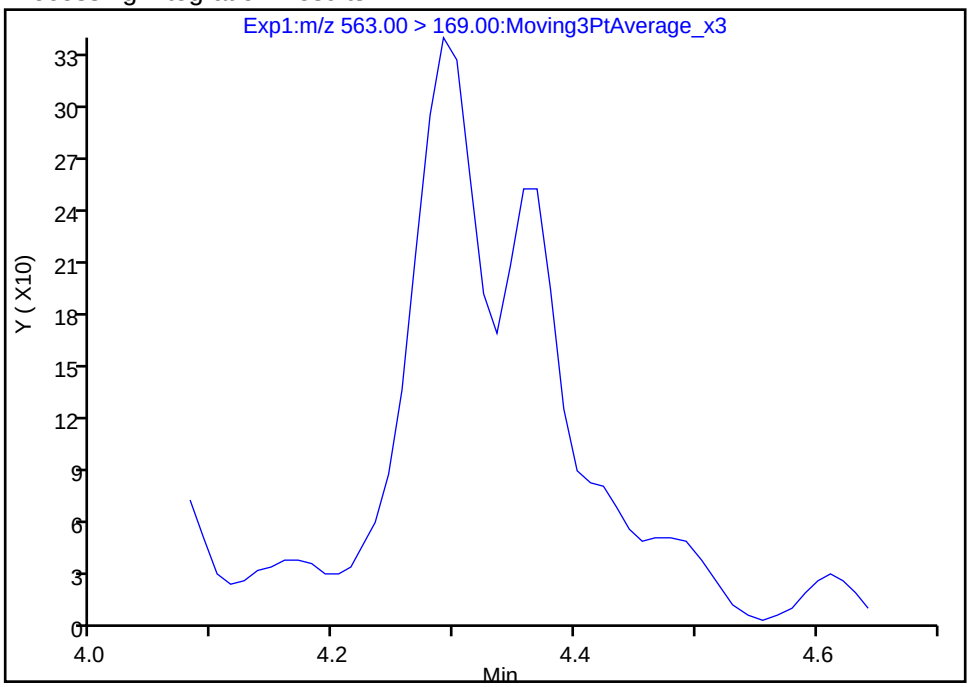
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

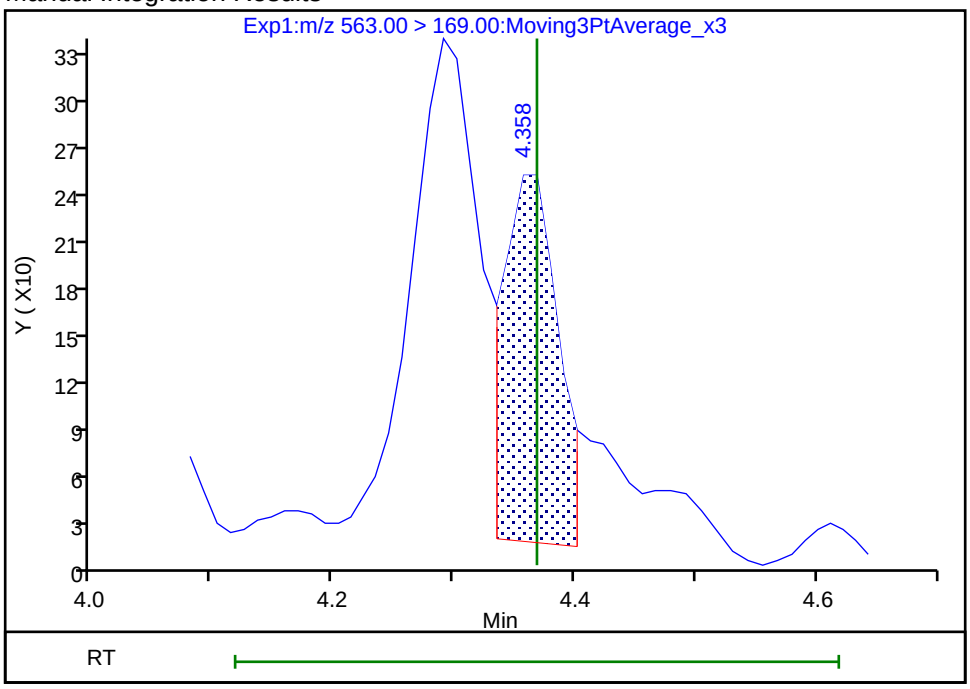
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 706
Amount: 0.004866
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:33:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

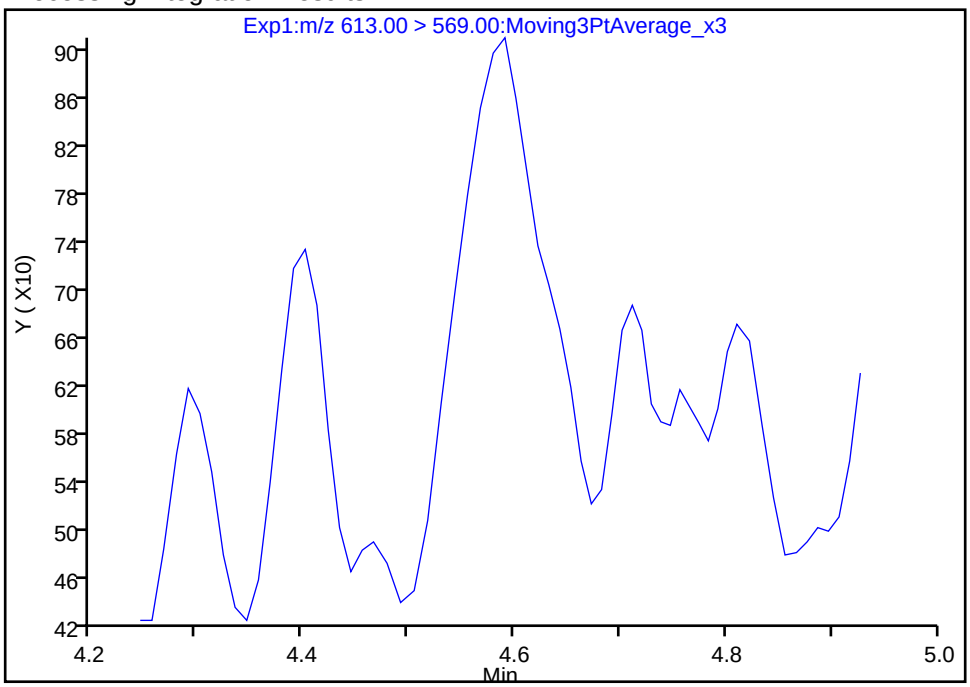
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

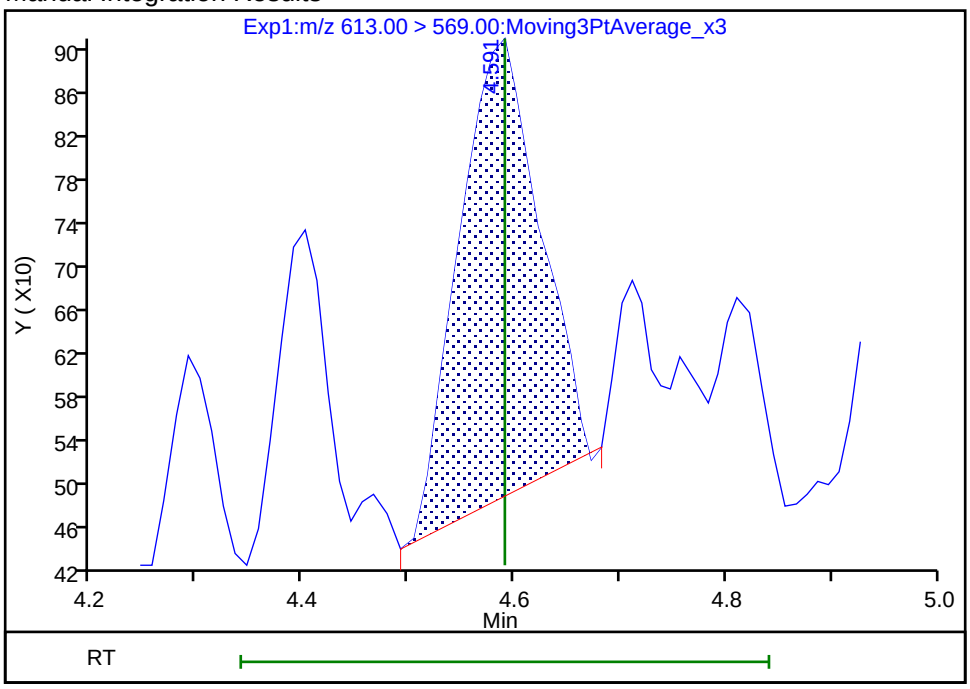
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 2264
Amount: 0.002202
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:11:39
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

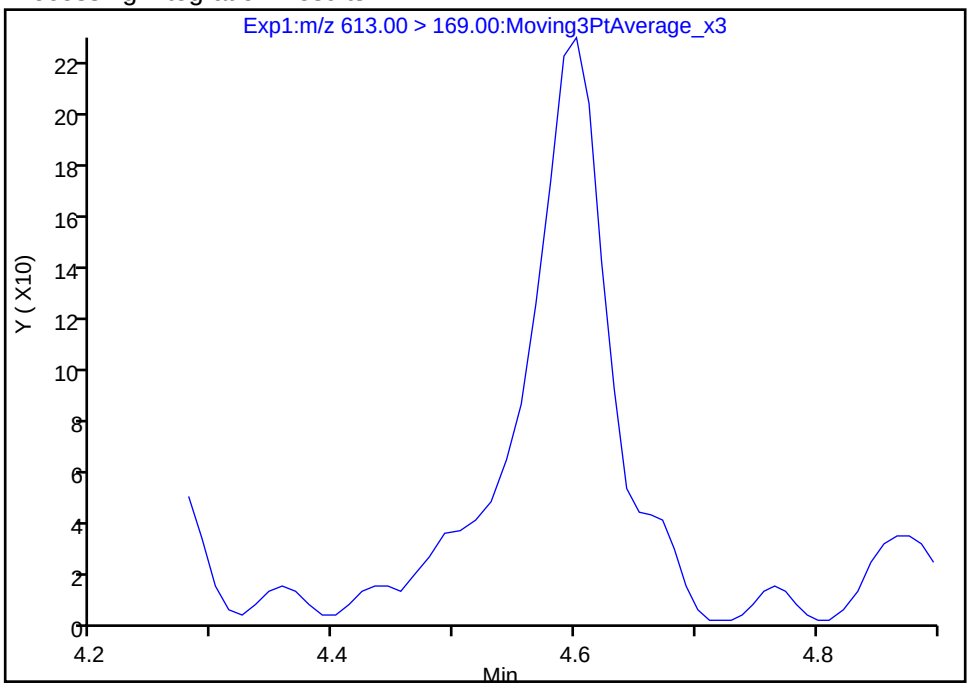
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

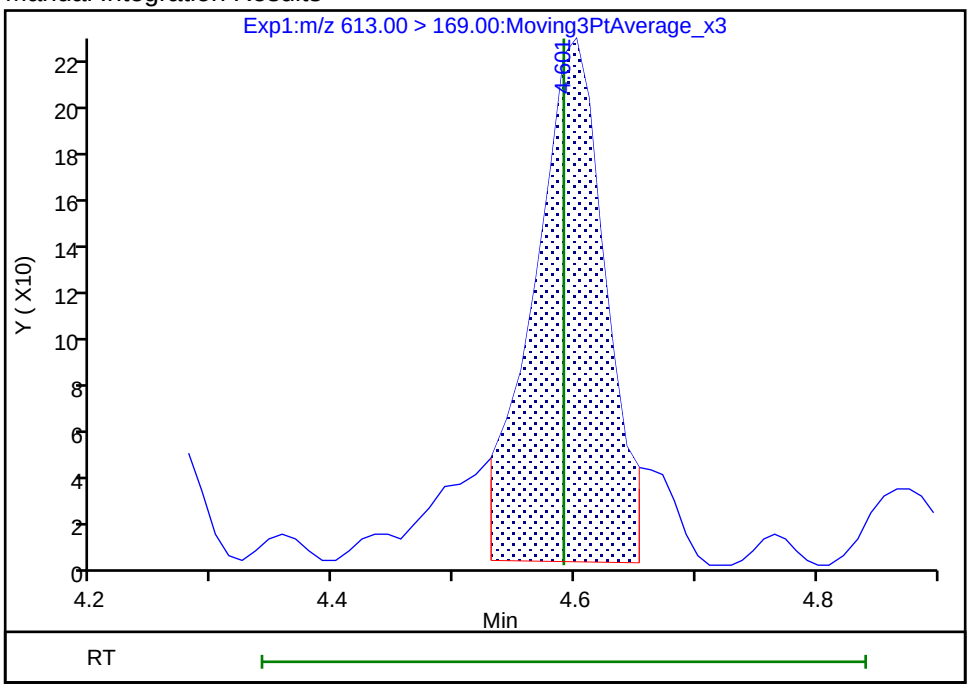
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 896
Amount: 0.002202
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:11:49
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

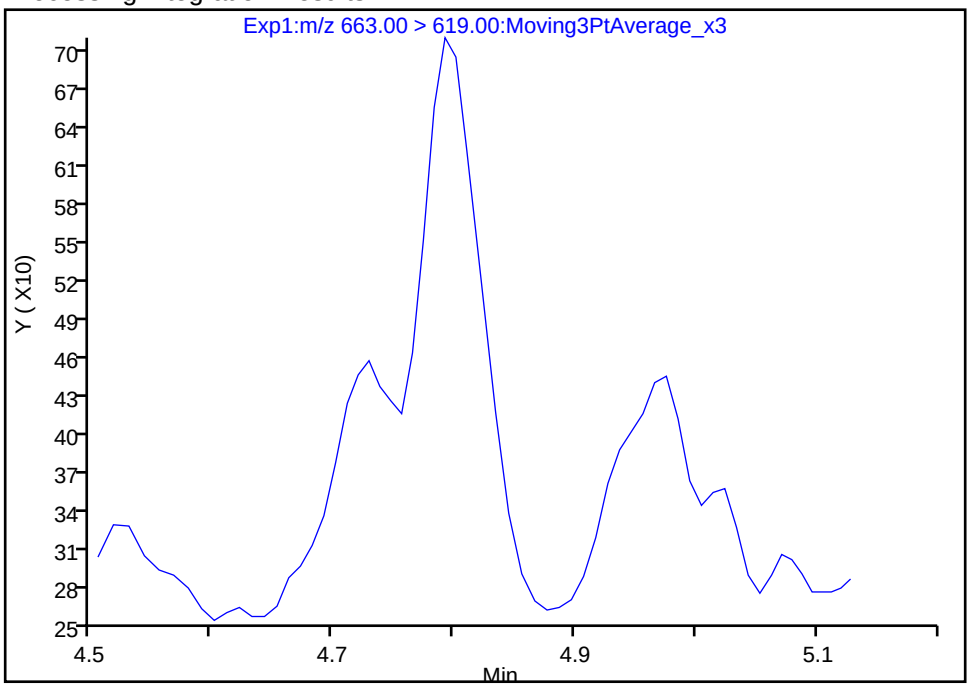
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

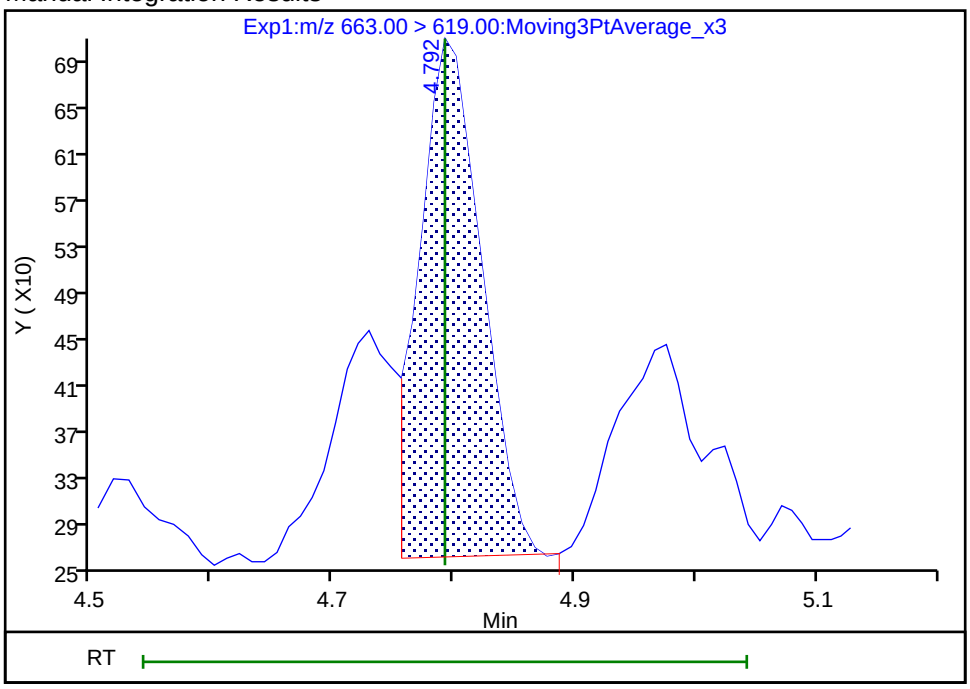
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 1565
Amount: 0.001766
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:12:05
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

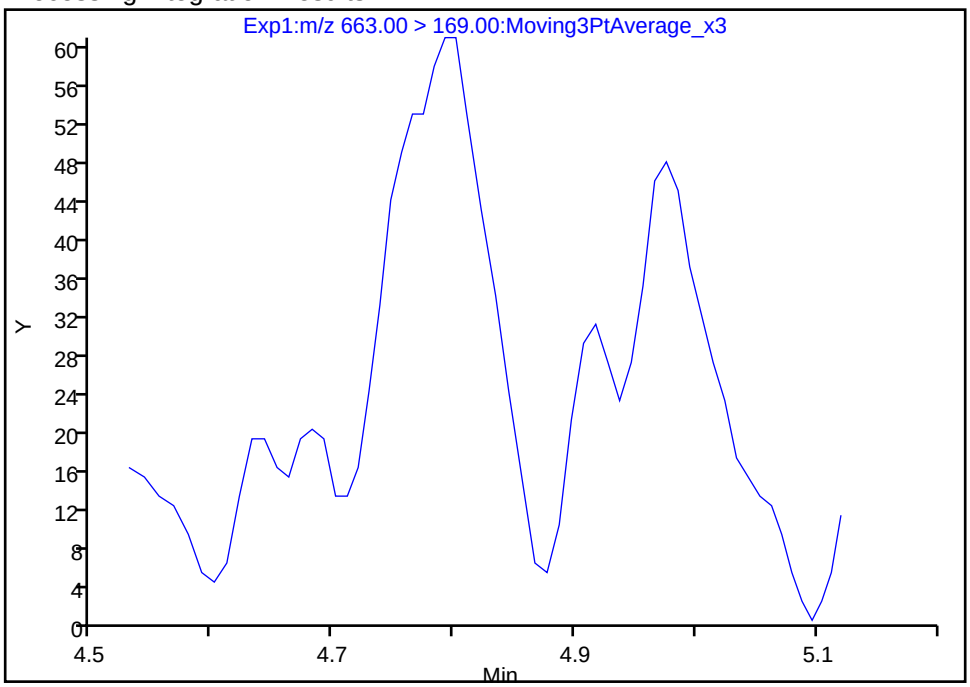
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

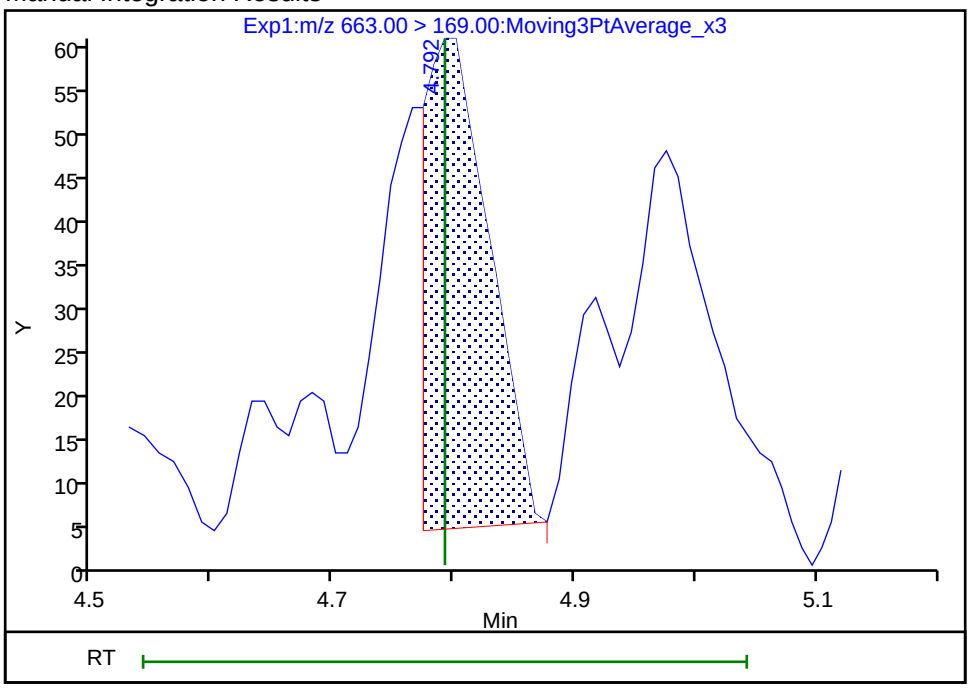
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 201
Amount: 0.001766
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:12:09
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

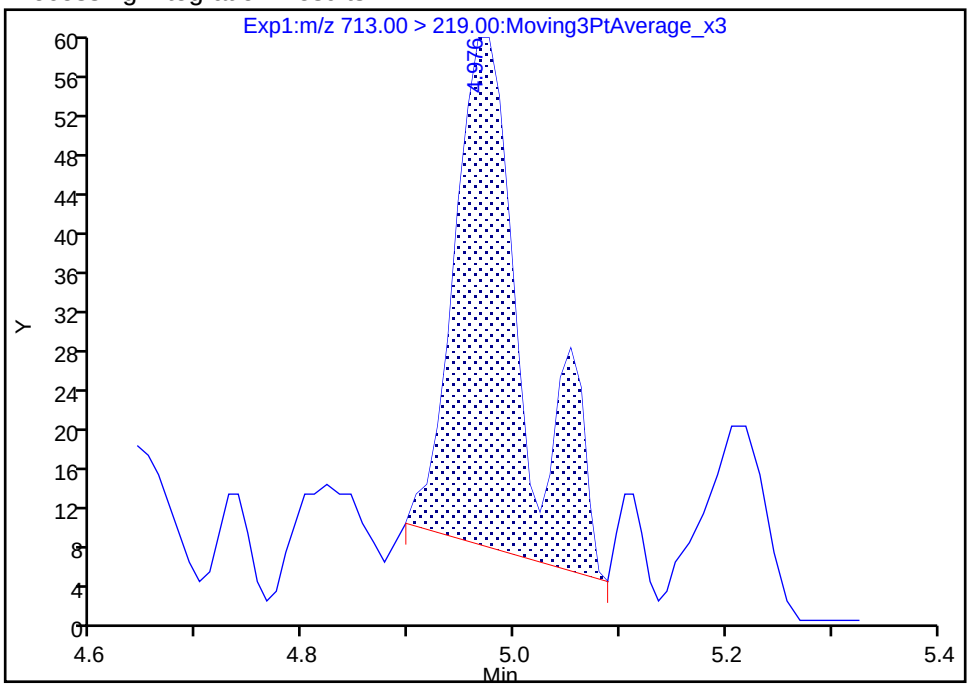
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

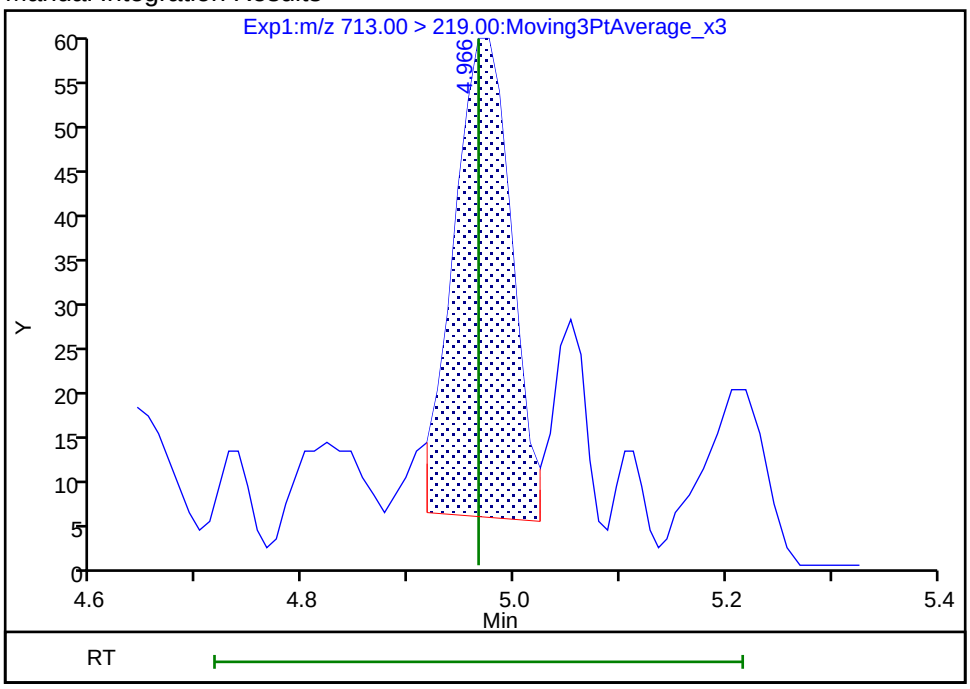
Processing Integration Results

RT: 4.98
Area: 240
Amount: 0.003451
Amount Units: ng/ml




Manual Integration Results

RT: 4.97
Area: 204
Amount: 0.003451
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:34:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

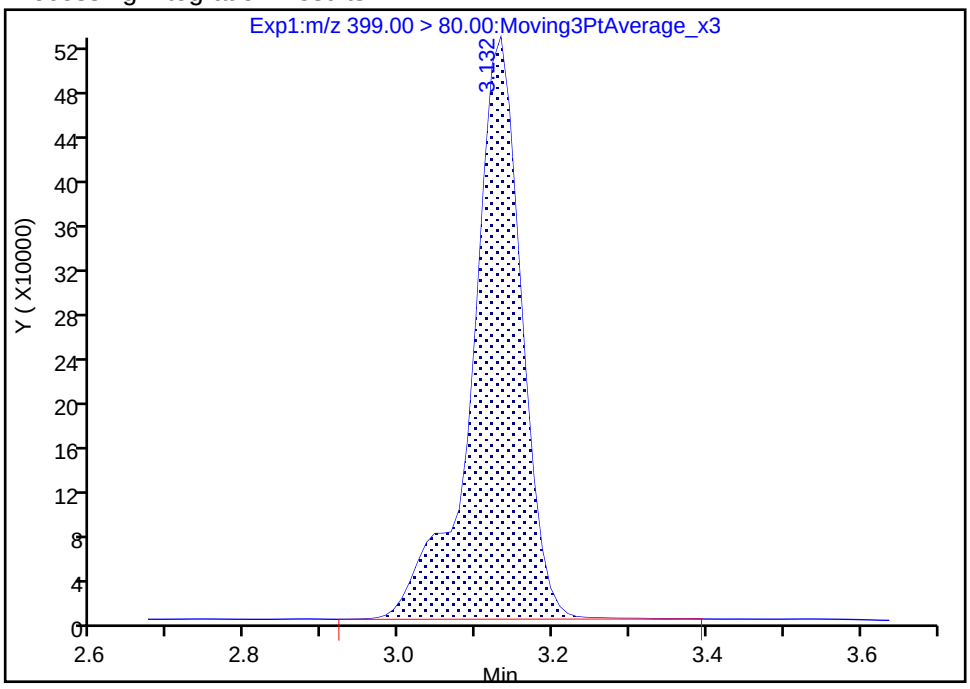
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

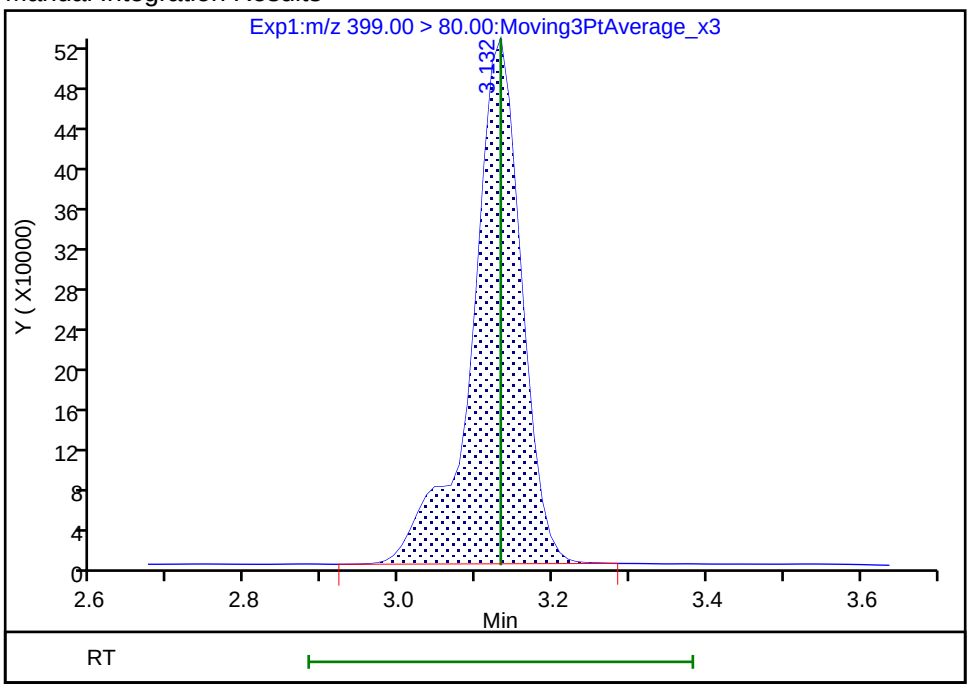
Processing Integration Results

RT: 3.13
Area: 2331053
Amount: 2.036774
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2322601
Amount: 2.029389
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:31:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

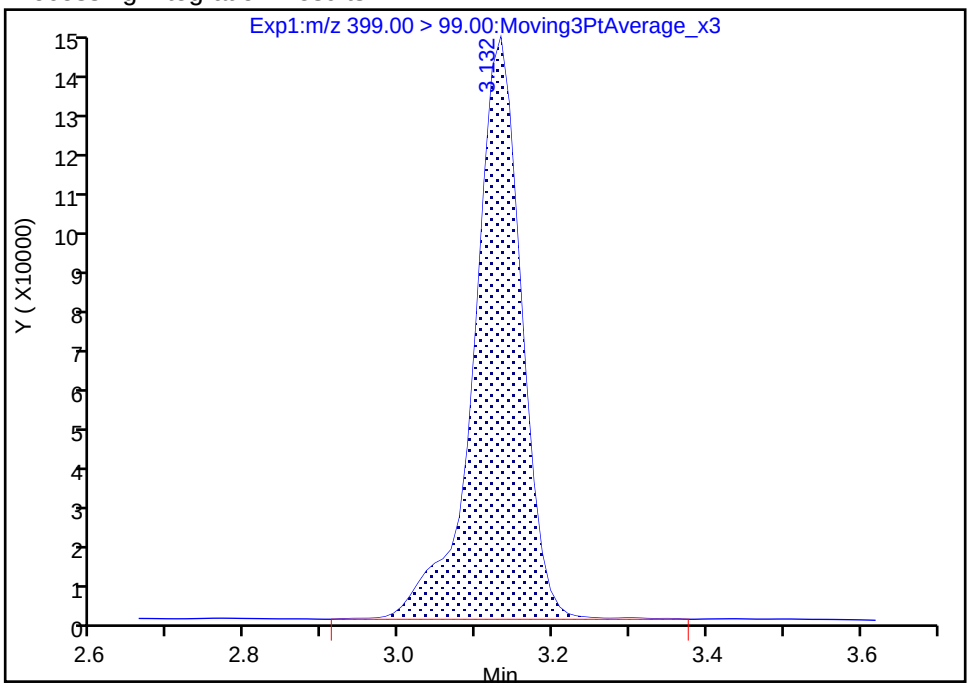
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

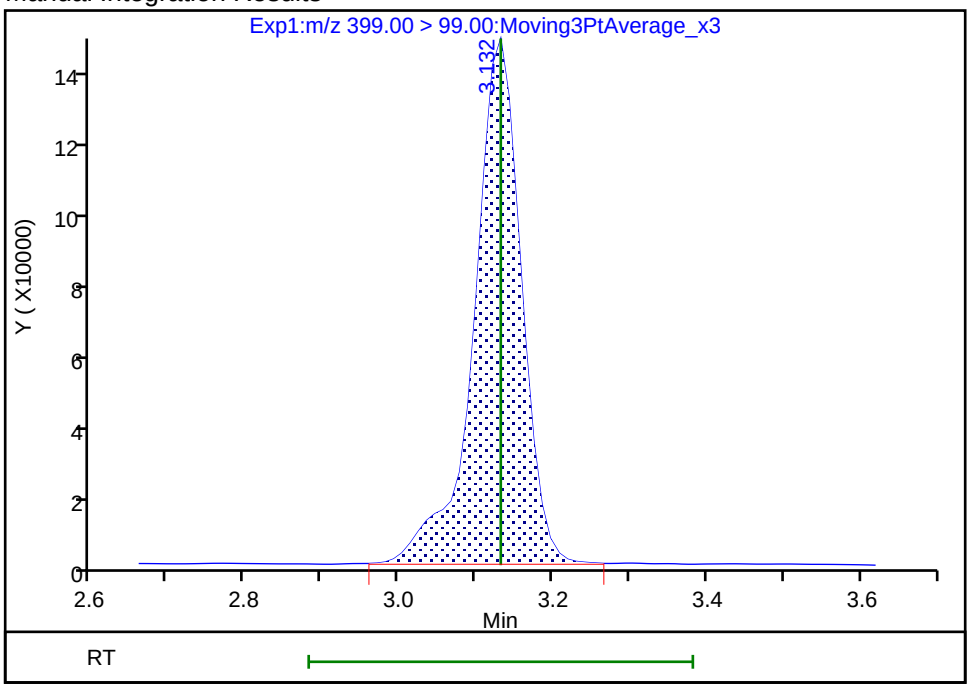
Processing Integration Results

RT: 3.13
Area: 620967
Amount: 2.036774
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 619277
Amount: 2.029389
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:32:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

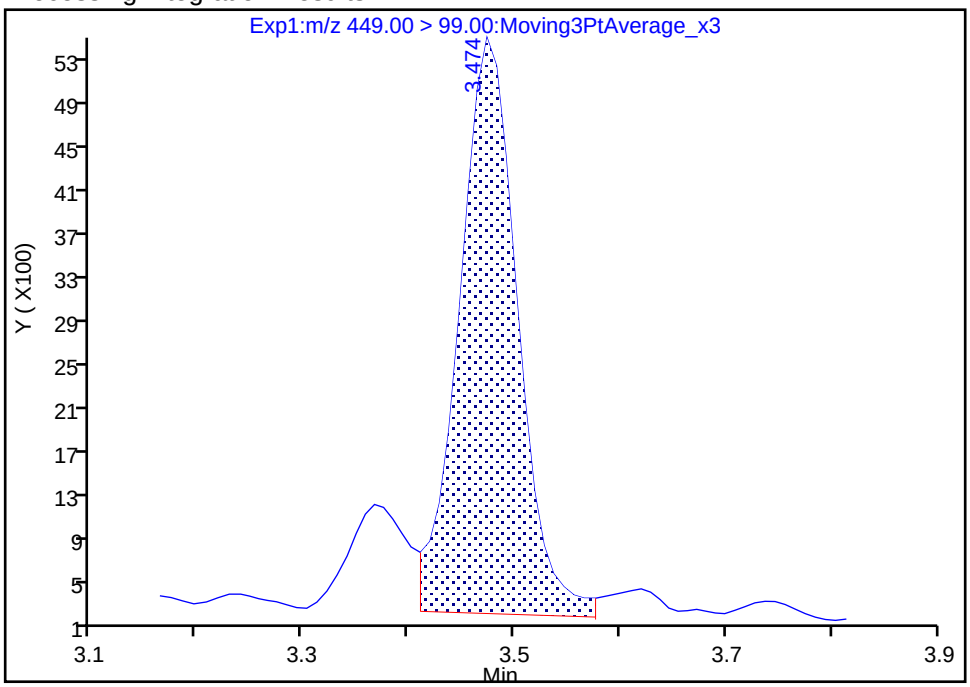
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

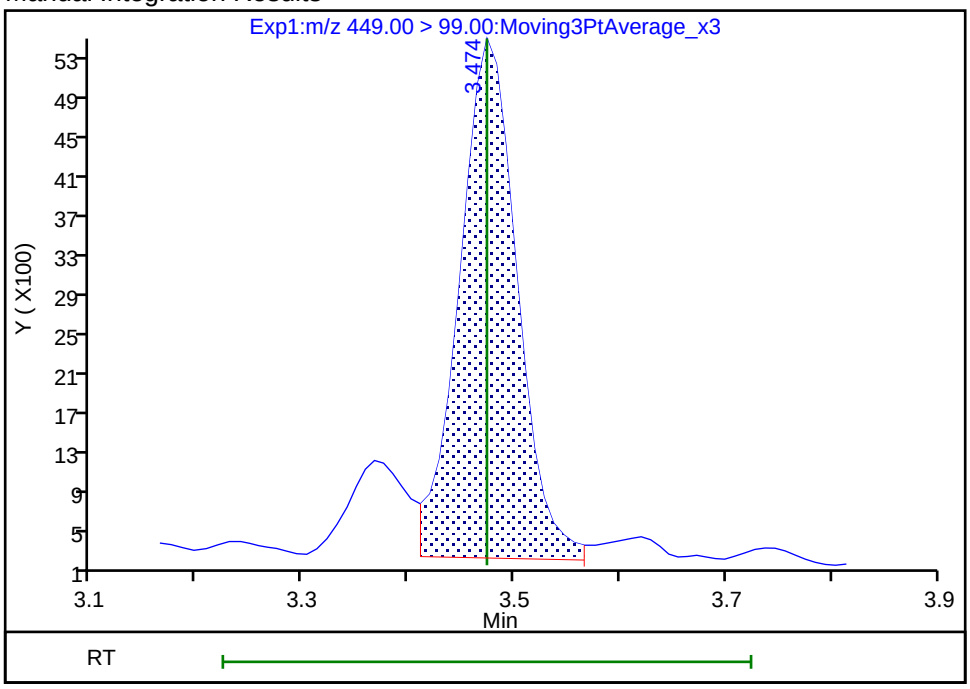
Processing Integration Results

RT: 3.47
Area: 19975
Amount: 0.079217
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 19757
Amount: 0.079217
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:10:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

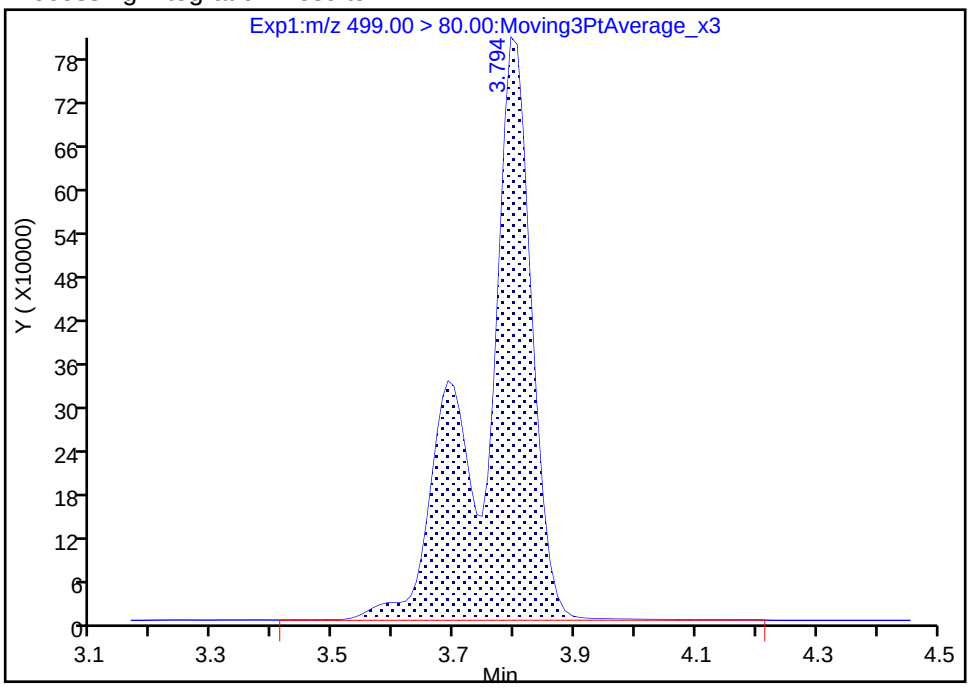
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

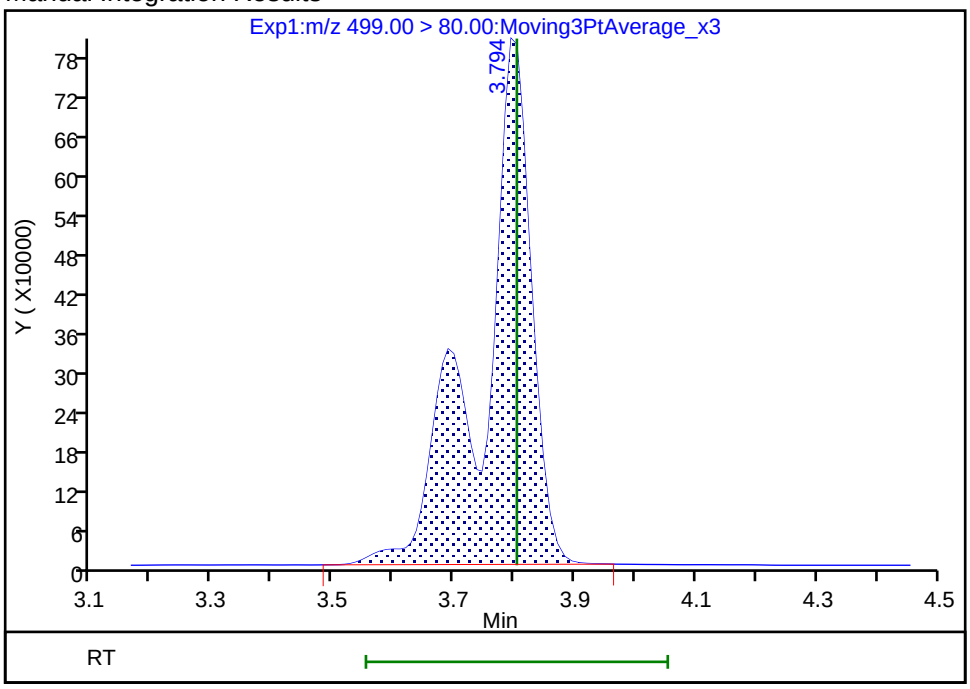
Processing Integration Results

RT: 3.79
Area: 4684093
Amount: 5.428328
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 4644169
Amount: 5.382061
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:32:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

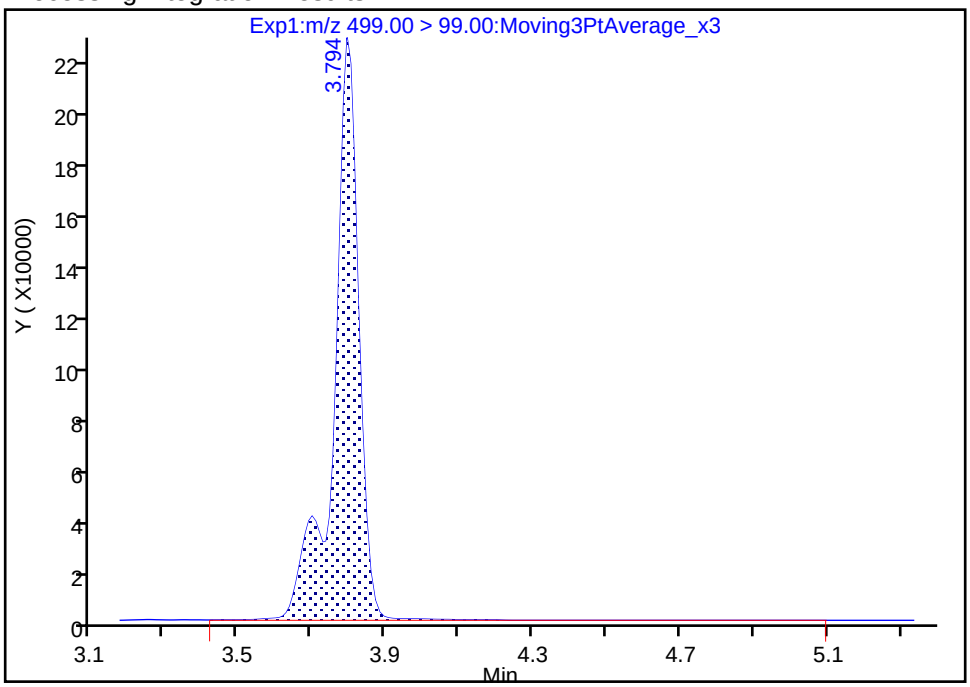
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

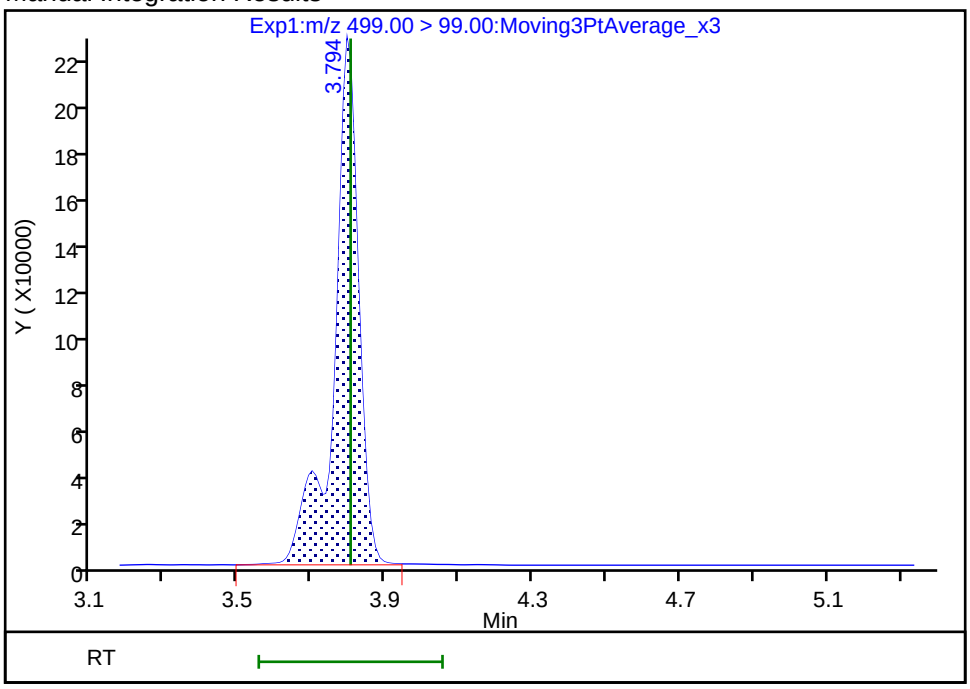
Processing Integration Results

RT: 3.79
Area: 1039667
Amount: 5.428328
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1030136
Amount: 5.382061
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:32:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

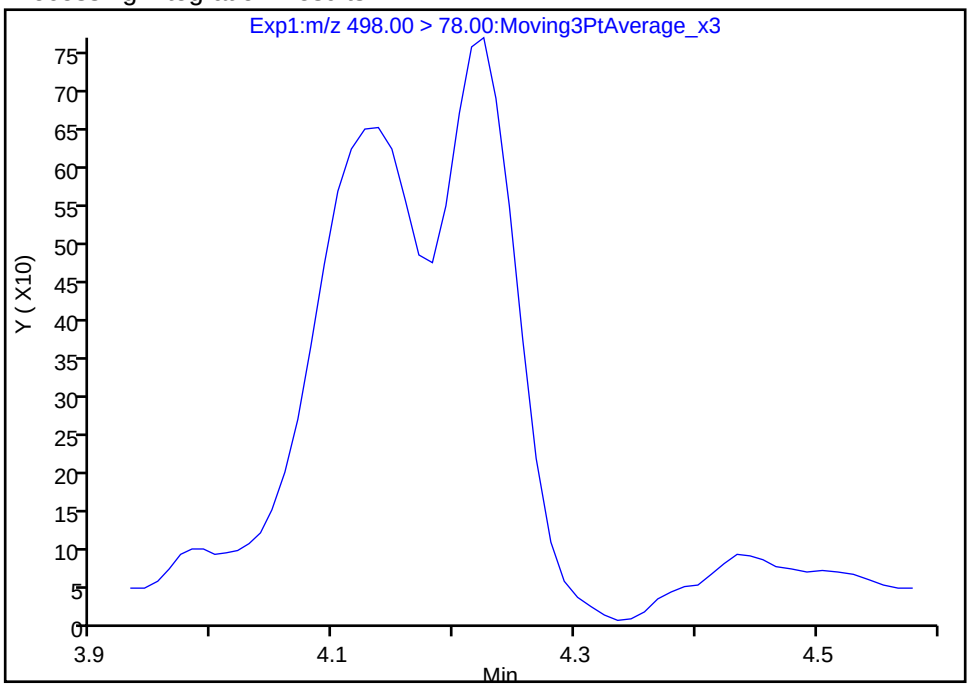
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

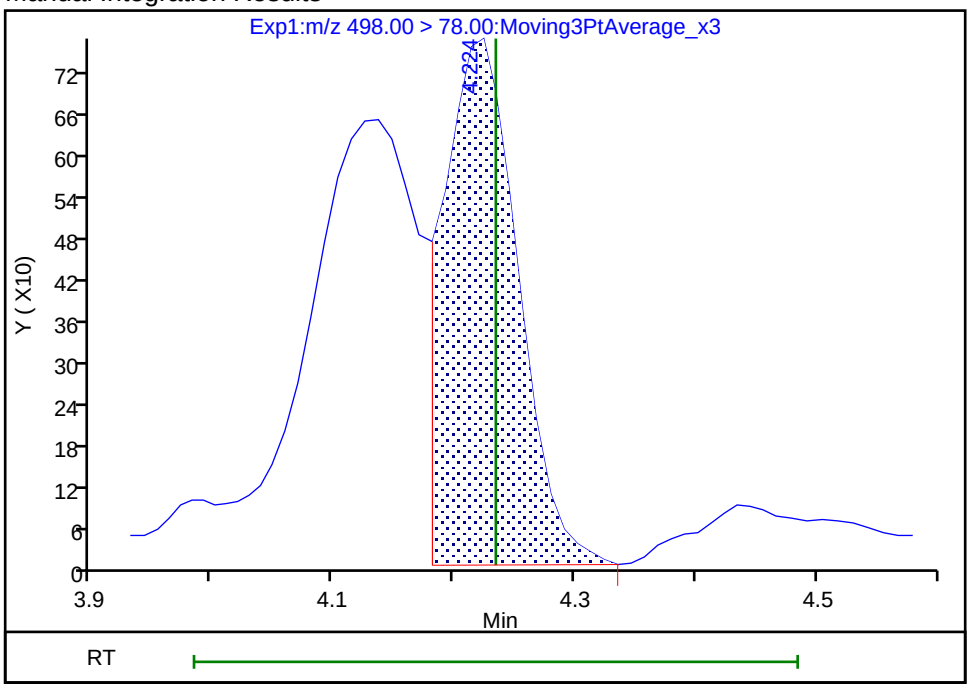
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 3180
Amount: 0.002793
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:33:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

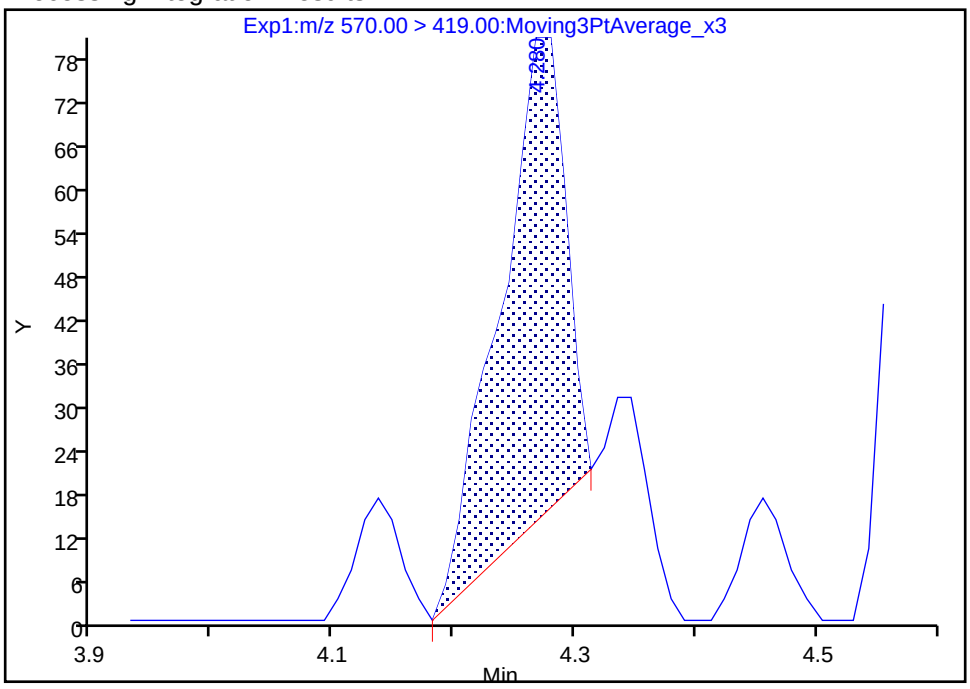
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

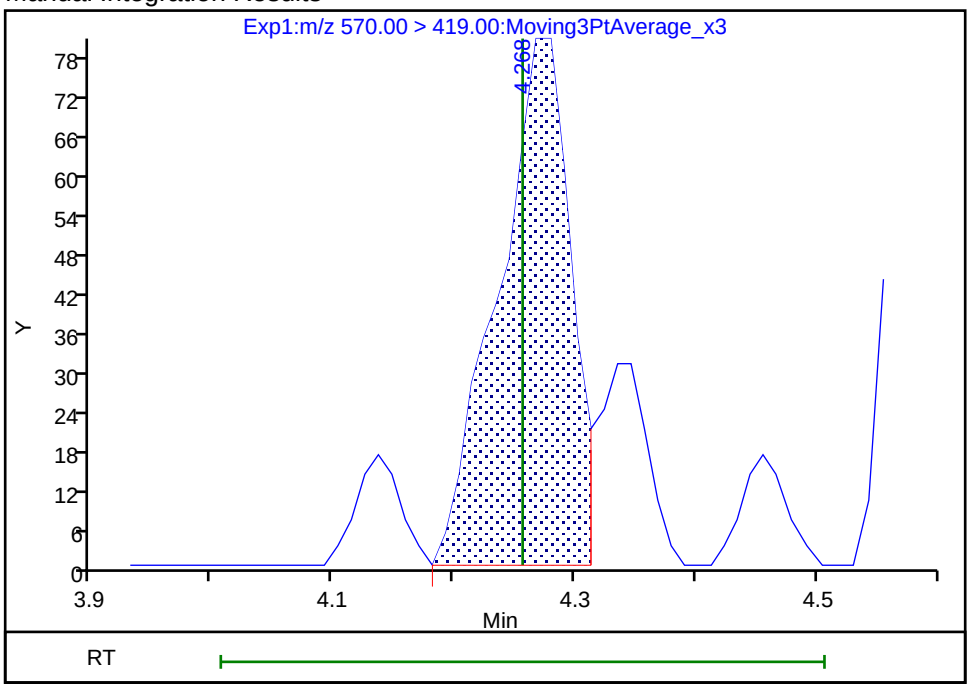
Processing Integration Results

RT: 4.28
Area: 251
Amount: 0.002334
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 334
Amount: 0.003106
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:33:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

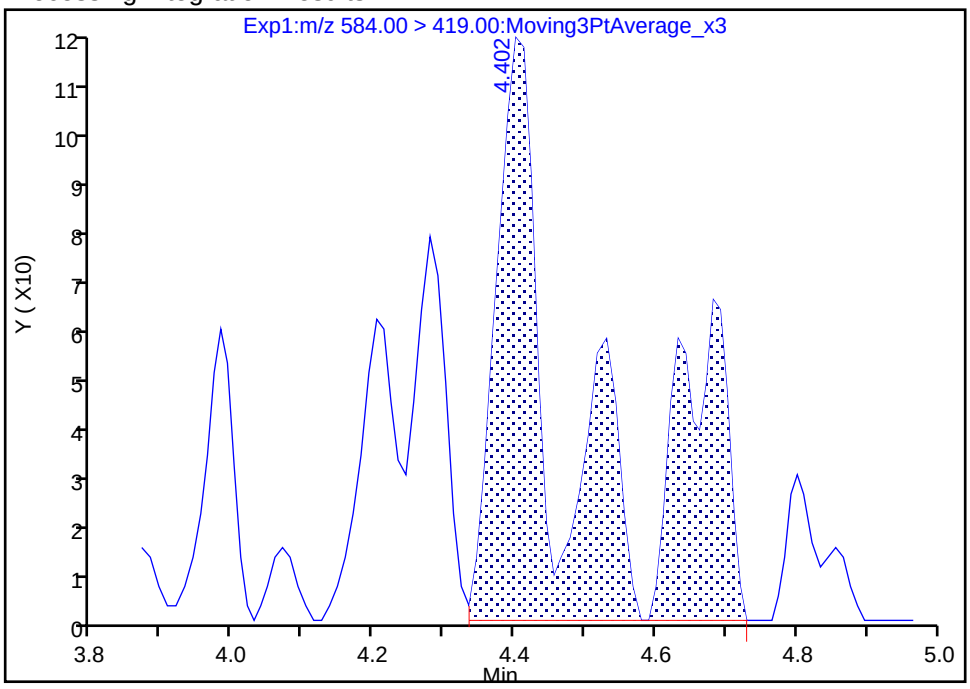
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

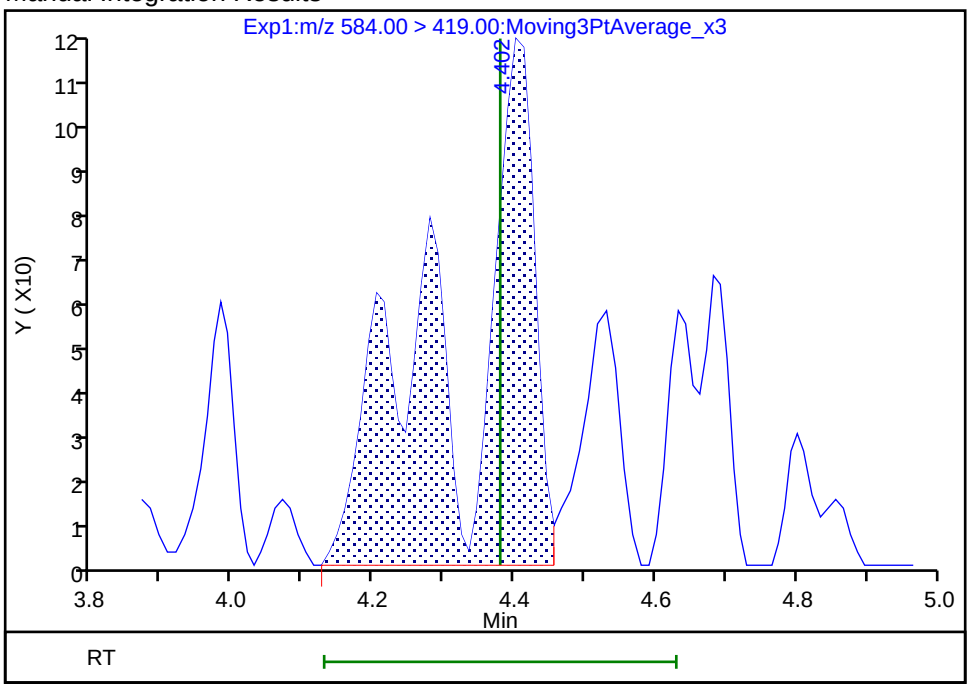
Processing Integration Results

RT: 4.40
Area: 982
Amount: 0.009069
Amount Units: ng/ml




Manual Integration Results

RT: 4.40
Area: 915
Amount: 0.008450
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:34:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

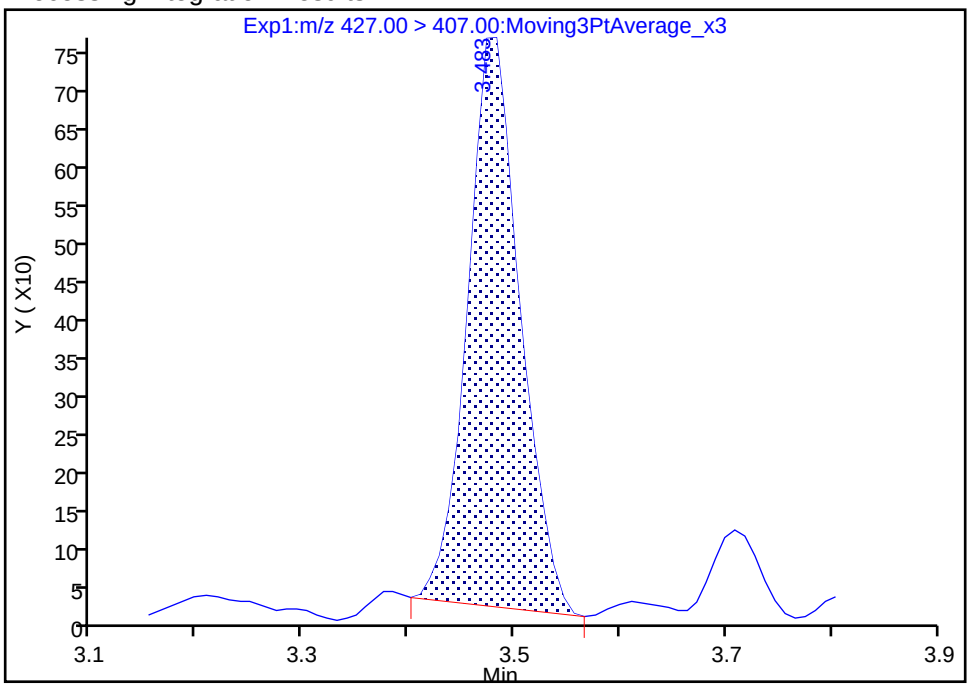
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

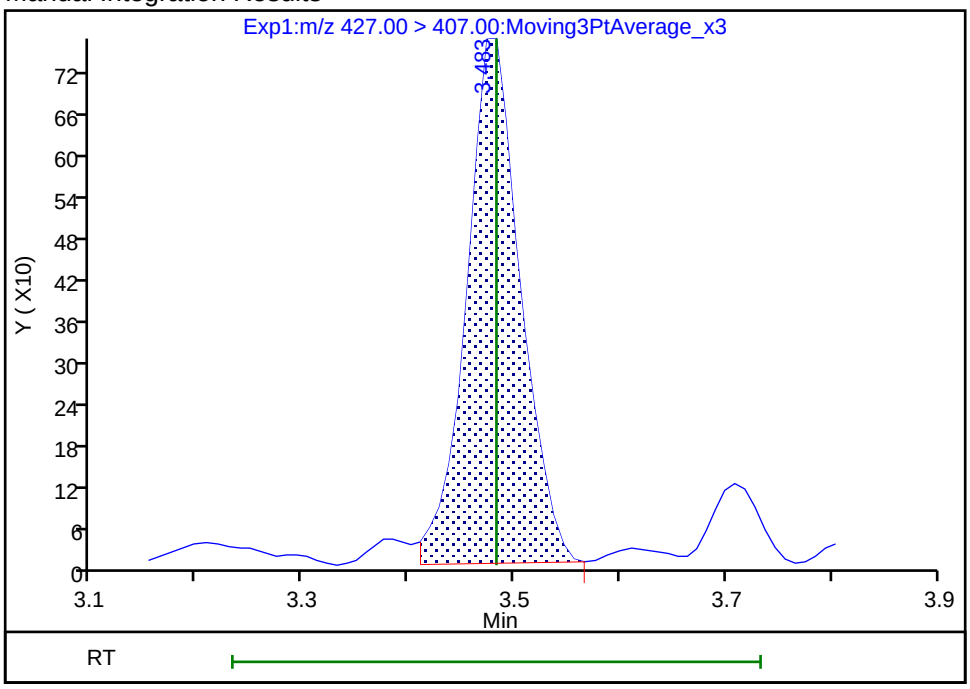
Processing Integration Results

RT: 3.48
Area: 2582
Amount: 0.010075
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 2709
Amount: 0.010571
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:10:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

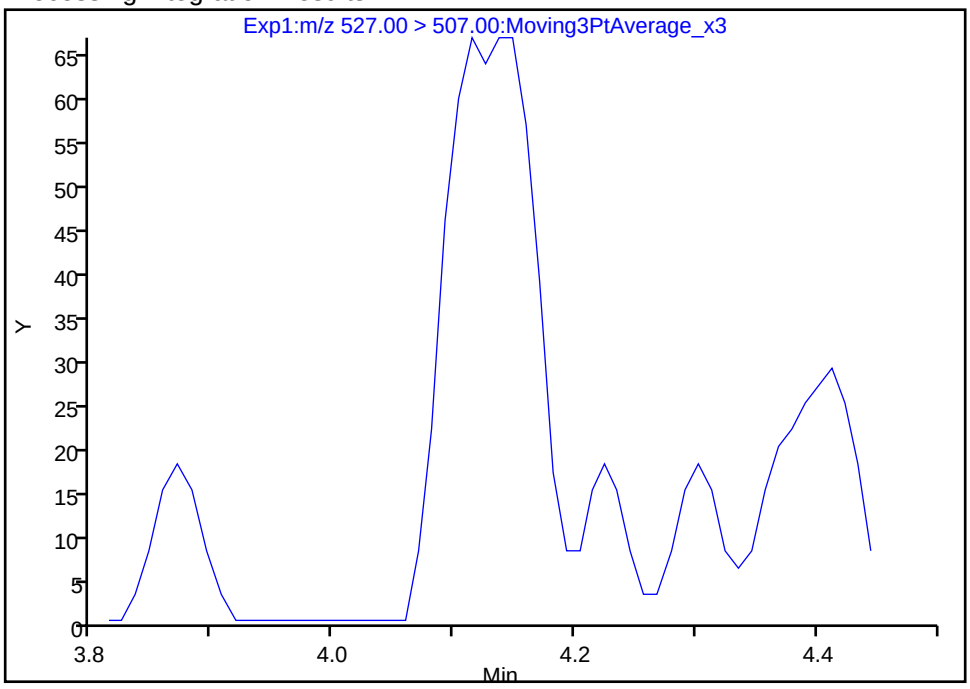
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

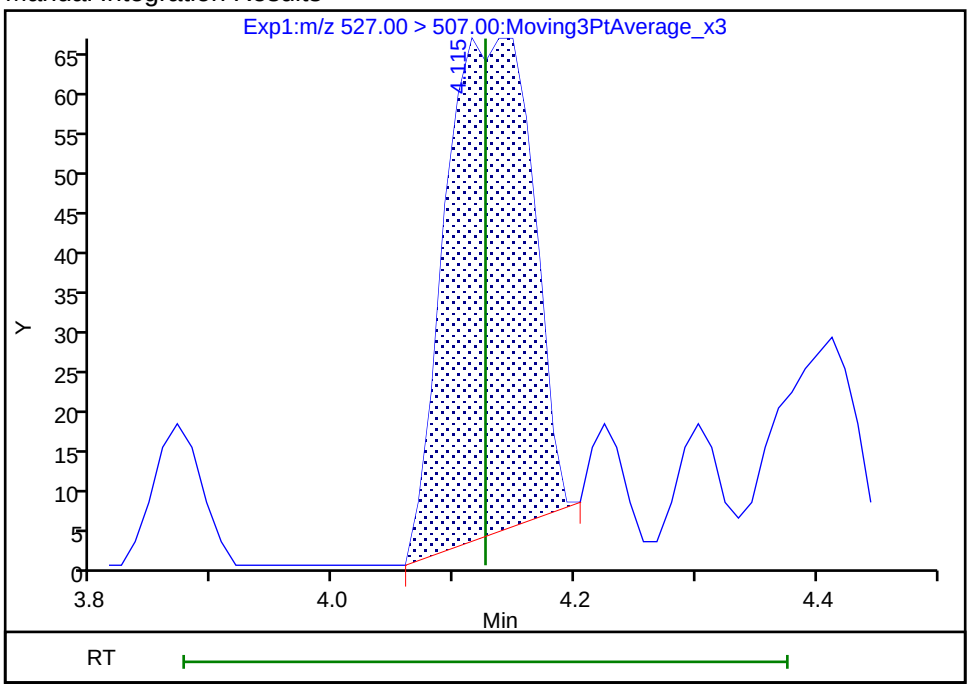
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 317
Amount: 0.001595
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:33:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

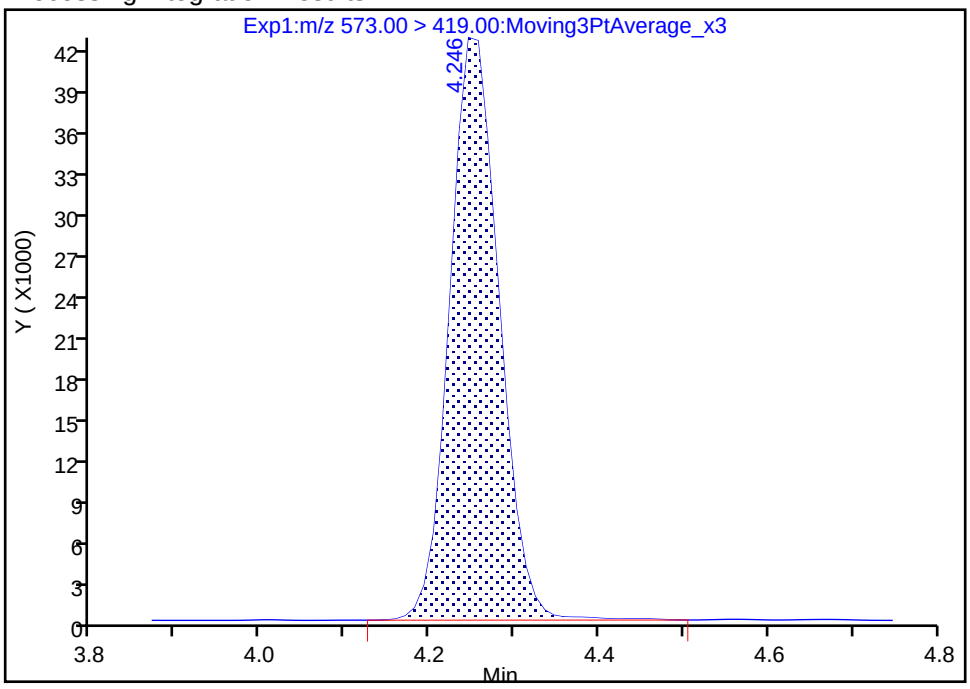
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

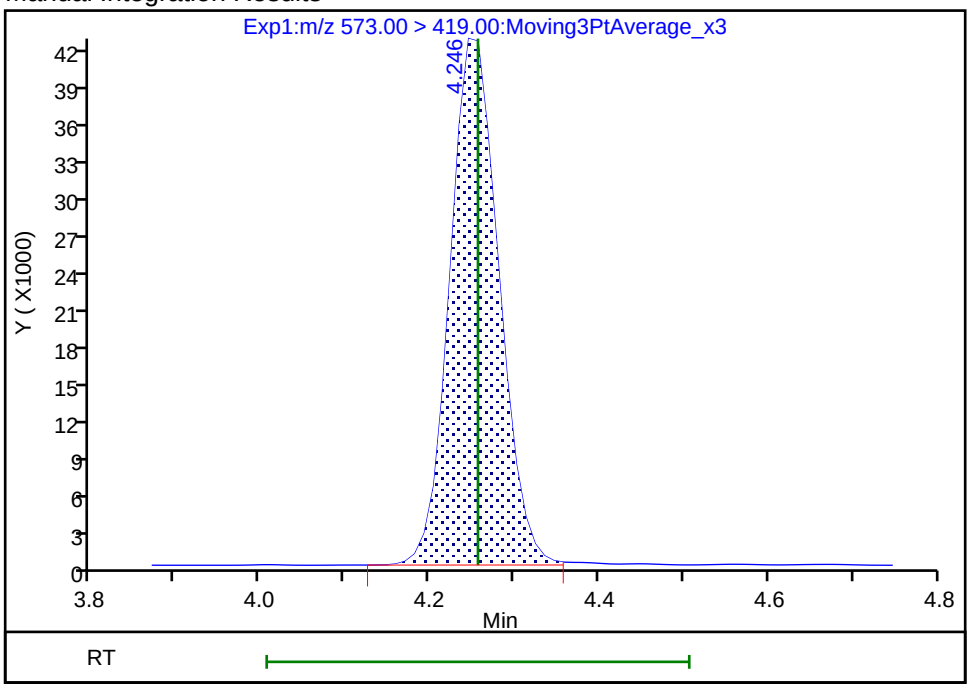
Processing Integration Results

RT: 4.25
Area: 172016
Amount: 1.300730
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 171125
Amount: 1.293993
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:31:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

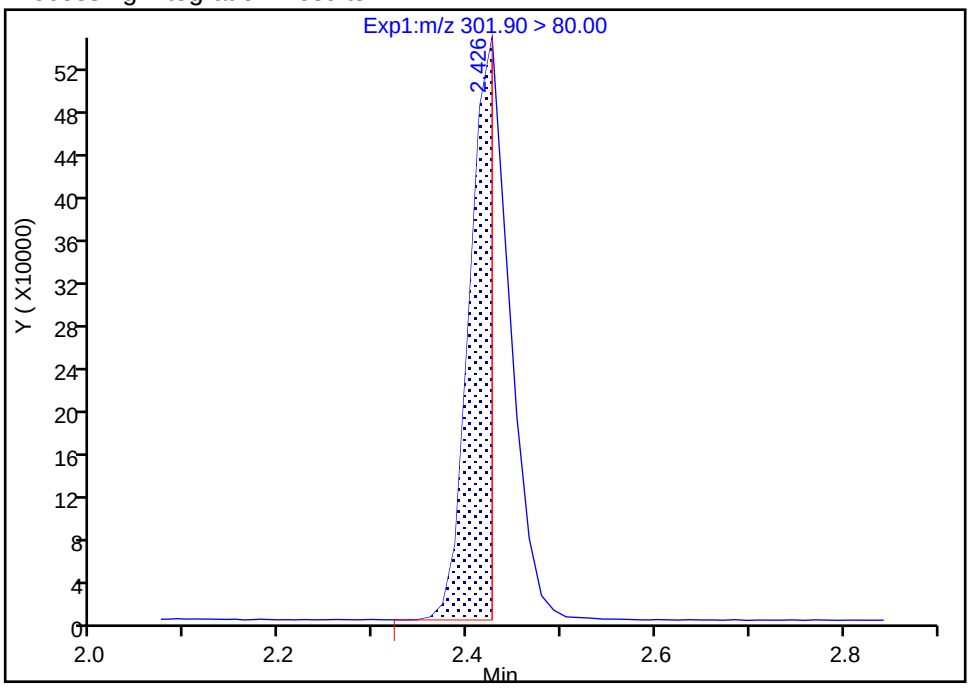
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D19.d | | | | |
| Injection Date: | 10-Nov-2021 06:39:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-12-A | Lab Sample ID: | 200-246277-12 | | |
| Client ID: | MW-37AQ-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

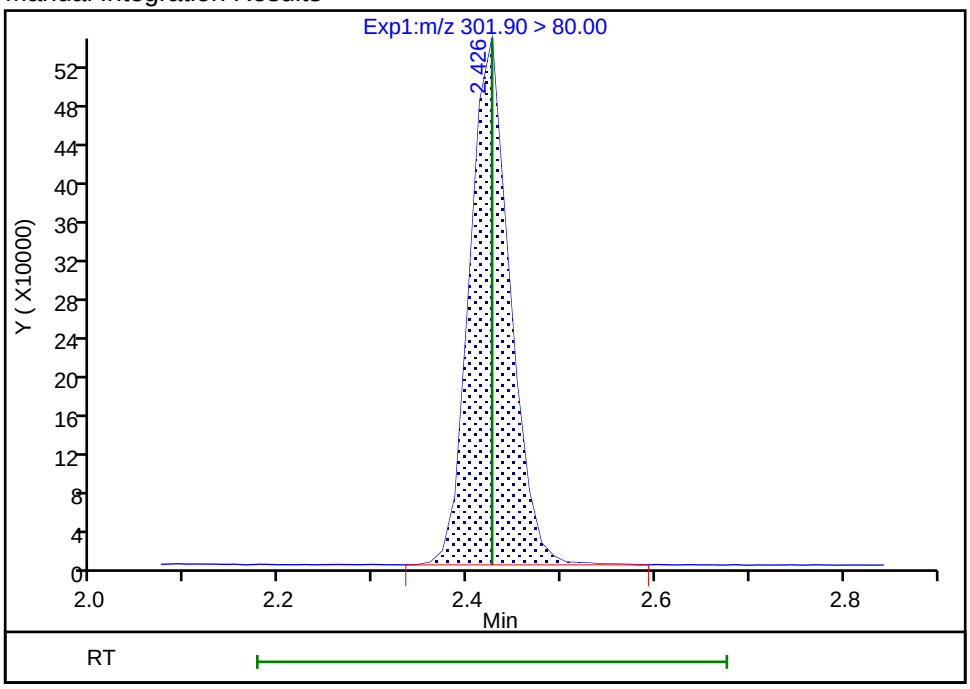
Processing Integration Results

RT: 2.43
Area: 869782
Amount: 0.579944
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1616435
Amount: 1.077789
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:31:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-5-20211028  Lab Sample ID: 460-246277-13

Matrix: Water  Lab File ID: PA211109D20.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 15:40

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 280.5(mL)  Date Analyzed: 11/10/2021 06:47

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.80 | | 4.46 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 3.62 | | 1.78 | 0.42 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 5.17 | | 1.78 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.57 | | 1.78 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 18.3 | | 1.78 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.66 | J | 1.78 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.78 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.78 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.78 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.78 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.56 | U | 1.78 | 0.56 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.98 | | 1.78 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 24.6 | | 1.78 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.91 | J | 1.78 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 17.6 | | 1.78 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.78 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.51 | U | 1.78 | 0.51 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.80 | U | 4.46 | 0.80 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.66 | U | 4.46 | 0.66 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.46 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.78 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-5-20211028  Lab Sample ID: 460-246277-13

Matrix: Water  Lab File ID: PA211109D20.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 15:40

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 280.5(mL)  Date Analyzed: 11/10/2021 06:47

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL01892 | 13C4 PFHpA | 96 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 96 | | 50-150 |
| STL00992 | 13C4 PFBA | 88 | | 25-150 |
| STL00993 | 13C2 PFHxA | 102 | | 50-150 |
| STL00996 | 13C2 PFDA | 88 | | 50-150 |
| STL00997 | 13C2 PFUnA | 87 | | 50-150 |
| STL00998 | 13C2 PFDoA | 82 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 99 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 97 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 99 | | 50-150 |
| STL02279 | M2-6:2 FTS | 111 | | 25-150 |
| STL02280 | M2-8:2 FTS | 116 | | 25-150 |
| STL02337 | 13C3 PFBS | 91 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d
Lims ID: 460-246277-C-13-A
Client ID: AMW-5-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:47:47 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-13-A
Misc. Info.: 200-0048356-020 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:38:46
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.098 | 2.100 | -0.002 | 0.601 | 1497685 | 1.09 | | 87.5 | 1828 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.098 | 2.100 | -0.002 | 1.000 | 152684 | 0.1348 | | | 10.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.411 | 2.413 | -0.002 | 0.690 | 1421236 | 1.23 | | 98.6 | 960 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.424 | 2.413 | 0.011 | 1.005 | 115706 | 0.1016 | | | 1.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.424 | 2.426 | -0.002 | 0.694 | 1643470 | 1.05 | | 90.6 | 48432 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.437 | 2.439 | -0.002 | 1.005 | 168360 | 0.1115 | Target=2.32 | | 9.7 | M |
| 298.90 > 99.00 | 2.437 | 2.439 | -0.002 | 1.005 | 77147 | | 2.18(1.16-3.48) | | 11.0 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.768 | 2.770 | -0.002 | 0.793 | 1540287 | 1.27 | | 102 | 2277 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.768 | 2.770 | -0.002 | 1.000 | 181100 | 0.1449 | Target=12.09 | | 4.9 | |
| 313.00 > 119.00 | 2.768 | 2.770 | -0.002 | 1.000 | 13374 | | 13.54(6.04-18.13) | | 9.7 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.132 | 0.011 | 1.000 | 807149 | 0.6899 | Target=3.55 | | 165 | M |
| 399.00 > 99.00 | 3.143 | 3.132 | 0.011 | 1.000 | 205266 | | 3.93(1.77-5.32) | | 144 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1258329 | 1.11 | | 93.9 | 3269 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1520630 | 1.19 | | 95.5 | 3134 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 90659 | 0.0721 | Target=3.69 | | 5.6 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 23444 | | 3.87(1.84-5.53) | | 33.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 25668 | 0.0254 | Target=4.88 | | 7.4 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 5940 | | 4.32(2.44-7.32) | | 6.2 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 875 | 0.003472 | | | 12.6 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 235967 | 1.32 | | 111 | 117 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1629950 | 1.17 | | 93.7 | 3517 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1690465 | 1.25 | | | 4840 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.501 | 3.492 | 0.009 | 1.003 | 711811 | 0.5133 | Target=2.68 | | 44.1 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 294604 | | 2.42(1.34-4.02) | | 389 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 967347 | 1.18 | | 98.8 | 695 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 434845 | 0.4951 | Target=4.69 | | 152 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 86032 | | 5.05(2.35-7.04) | | 107 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1657493 | 1.20 | | 95.7 | 5281 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 23944 | 0.0185 | Target=7.29 | | 3.2 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 3506 | | 6.83(3.64-10.93) | | 14.7 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.115 | 0.011 | 1.182 | 1543274 | 1.10 | | 88.3 | 5290 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.000 | 2914 | 0.002349 | Target=8.95 | | 1.1 | RM |
| 513.00 > 169.00 | 4.137 | 4.115 | 0.022 | 1.003 | 927 | | 3.14(4.47-13.42) | | 4.9 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 281327 | 1.39 | | 116 | 324 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 46 | 0.000234 | | | 1.5 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.213 | 1527657 | 1.13 | | 90.6 | 3325 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.000 | 778 | 0.000670 | | | 4.4 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.222 | 167459 | 1.22 | | 97.4 | 1528 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.257 | -0.011 | 0.995 | 42 | 0.000399 | | | 0.7 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 225 | 0.000423 | Target=2.47 | | 1.7 | RM |
| 599.00 > 99.00 | 4.380 | 4.346 | 0.034 | 1.151 | 208 | | 1.08(1.23-3.70) | | 1.8 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1188761 | 1.09 | | 87.2 | 4544 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 159870 | 1.24 | | 99.2 | 1022 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.280 | 4.380 | -0.100 | 0.975 | 351 | 0.003203 | | | 5.5 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.317 | 1201473 | 1.02 | | 82.0 | 2140 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.427 | 934698 | 1.03 | | 82.2 | 2066 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.994 | 4.966 | 0.028 | 1.002 | 230 | 0.001949 | Target=1.01 | | 6.8 | M |
| 713.00 > 219.00 | 4.975 | 4.966 | 0.009 | 0.998 | 240 | | 0.96(0.51-1.52) | | 7.0 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:25 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d

Injection Date: 10-Nov-2021 06:47:47 Instrument ID: LC812

Lims ID: 460-246277-C-13-A Lab Sample ID: 200-246277-13

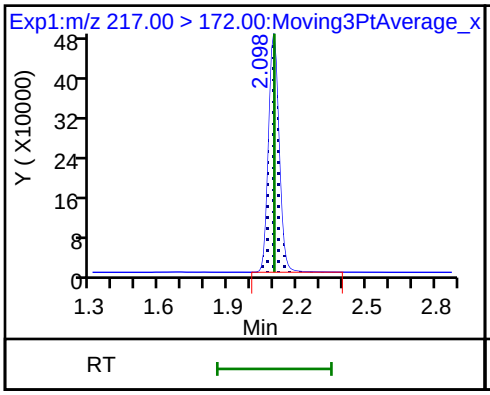
Client ID: AMW-5-20211028

Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 20

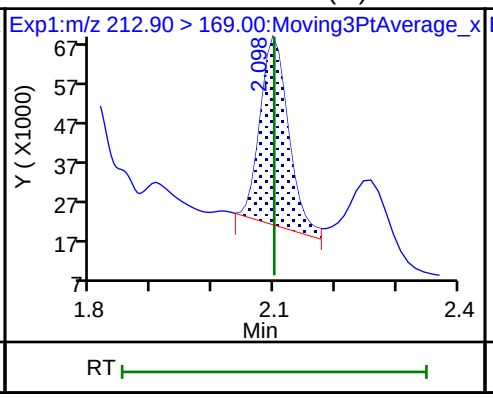
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

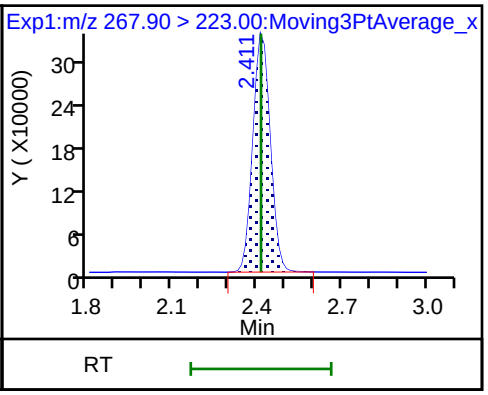
D 1 13C4 PFBA



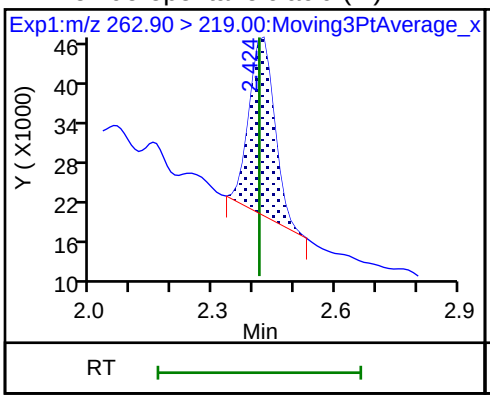

2 Perfluorobutanoic acid (M)



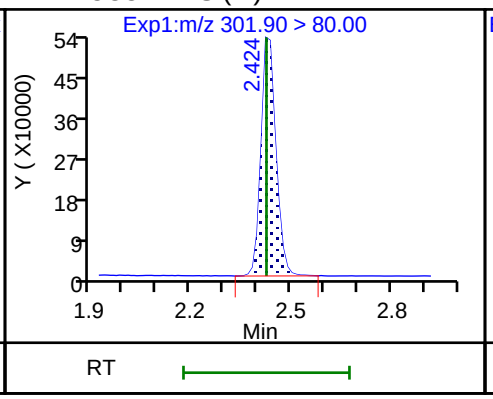

D 3 13C5 PFPeA



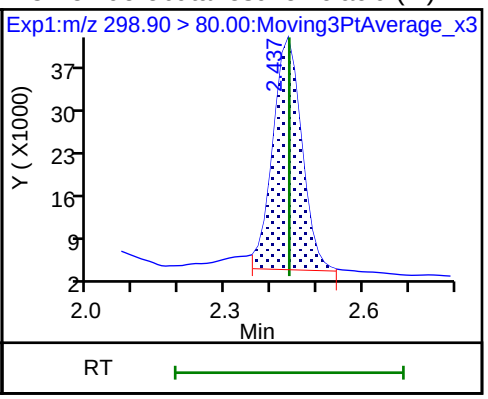

4 Perfluoropentanoic acid (M)



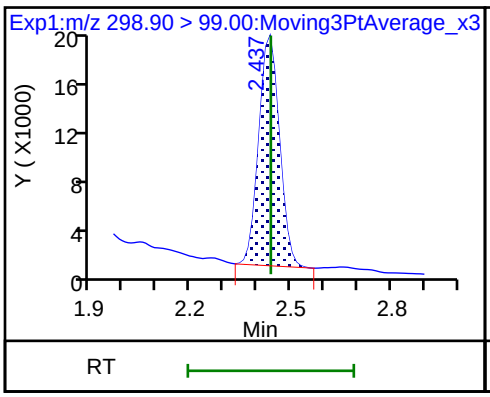

D 47 13C3 PFBS (M)



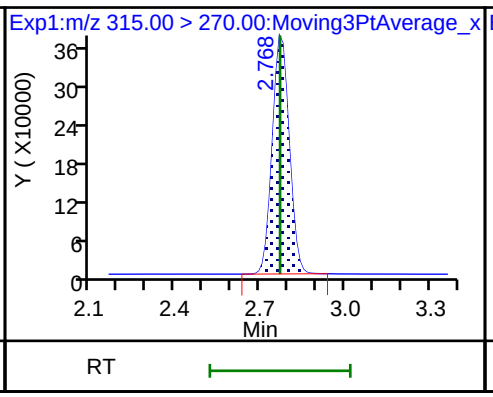

5 Perfluorobutanesulfonic acid (M)



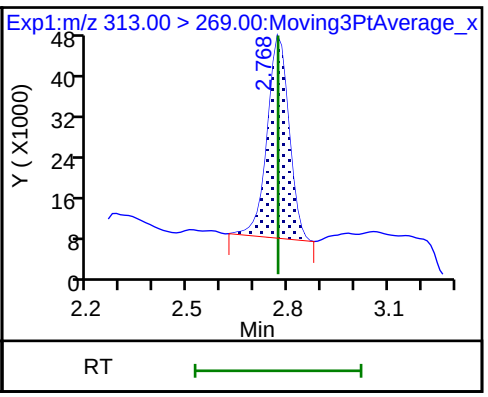

5 Perfluorobutanesulfonic acid



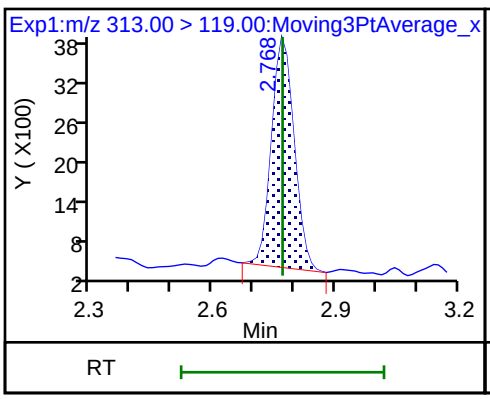

D 7 13C2 PFHxA



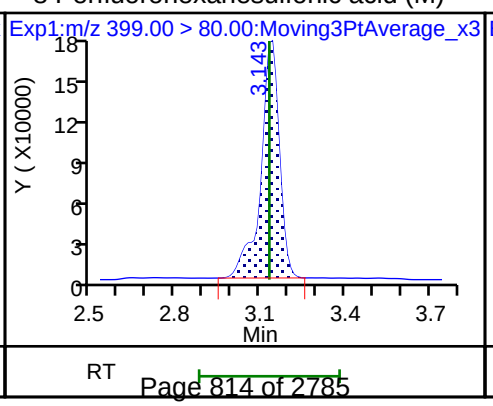

6 Perfluorohexanoic acid



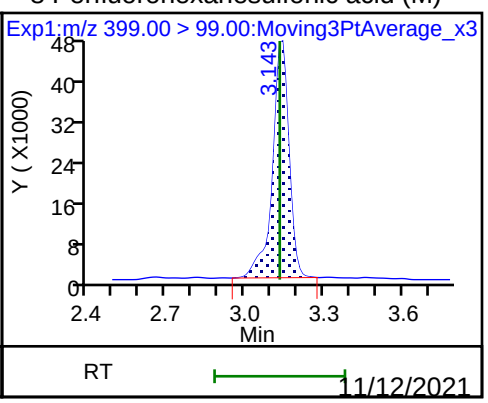

6 Perfluorohexanoic acid



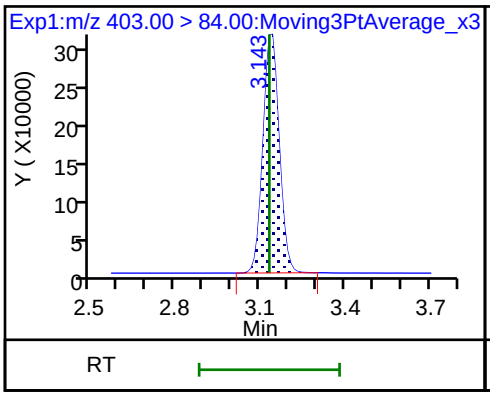

8 Perfluorohexanesulfonic acid (M)



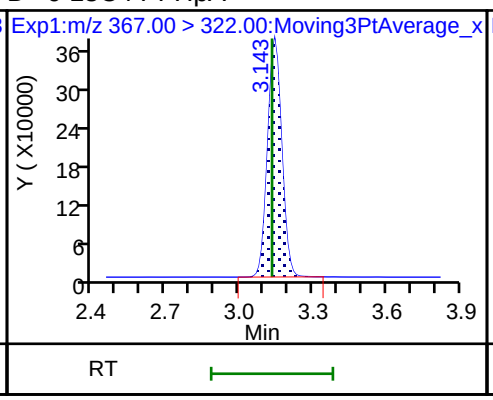

8 Perfluorohexanesulfonic acid (M)



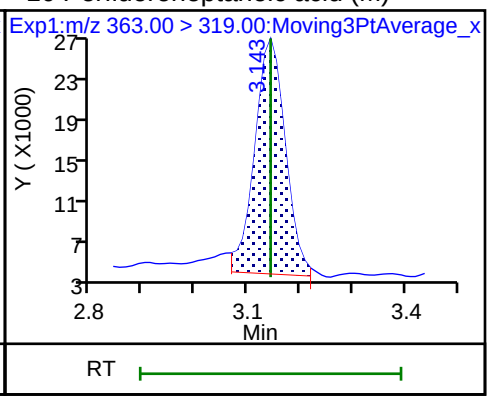
D 11 18O2 PFHxS



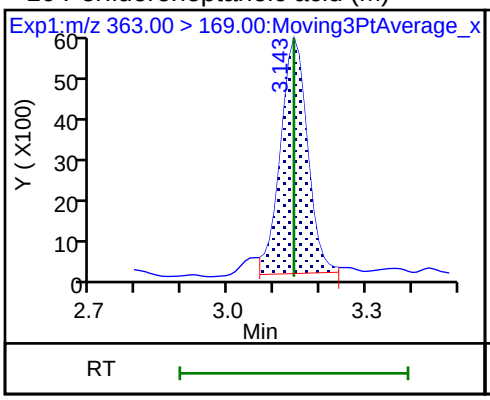

D 9 13C4 PFHpA



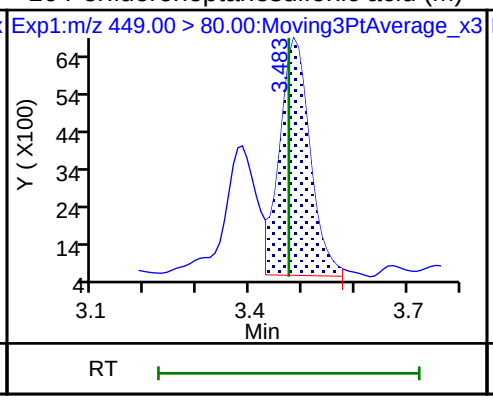

10 Perfluoroheptanoic acid (M)



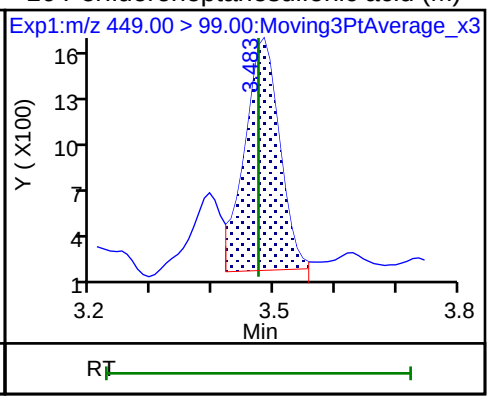

10 Perfluoroheptanoic acid (M)



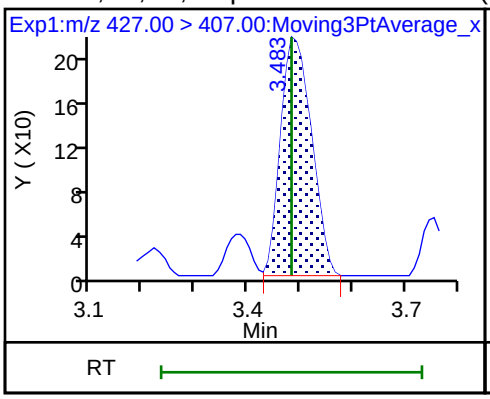

16 Perfluoroheptanesulfonic acid (M)



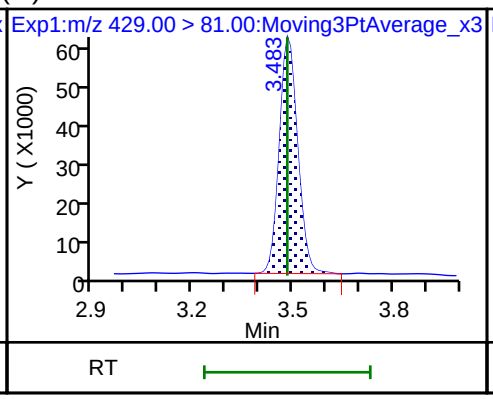

16 Perfluoroheptanesulfonic acid (M)



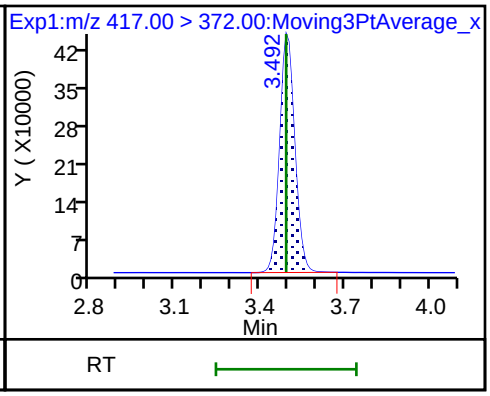

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



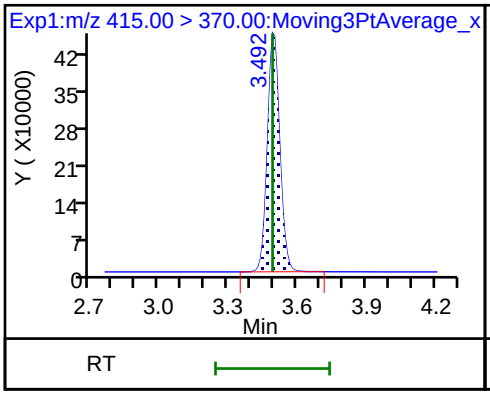

D 12 M2-6:2 FTS



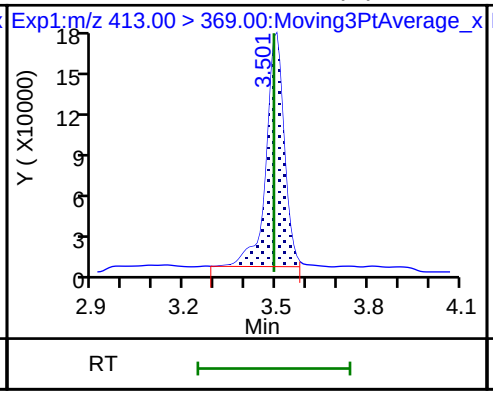

D 14 13C4 PFOA



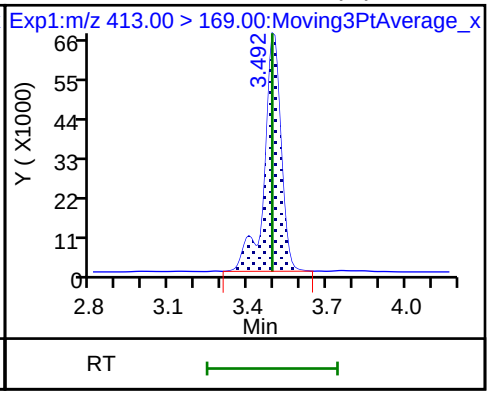

* 62 13C2 PFOA



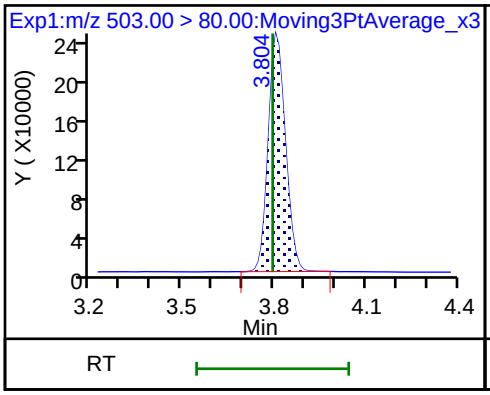

15 Perfluorooctanoic acid (M)



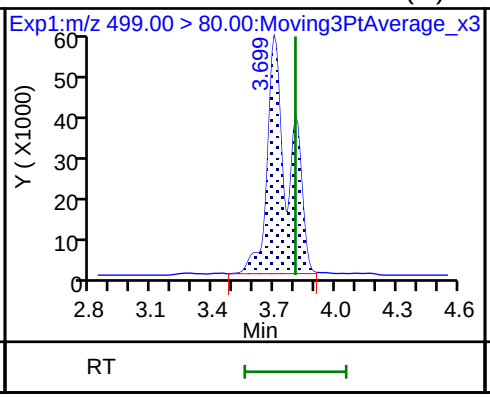

15 Perfluorooctanoic acid (M)



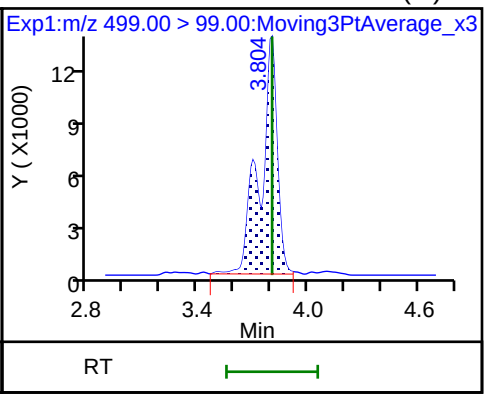
D 18 13C4 PFOS



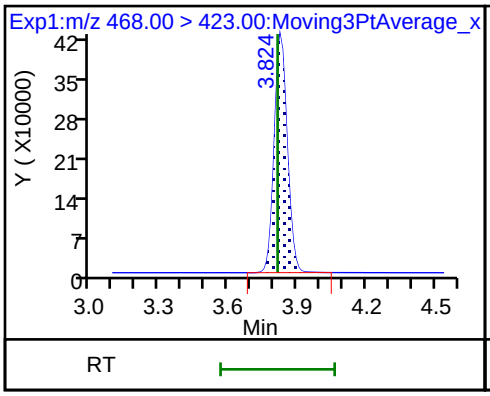

17 Perfluorooctanesulfonic acid (M)



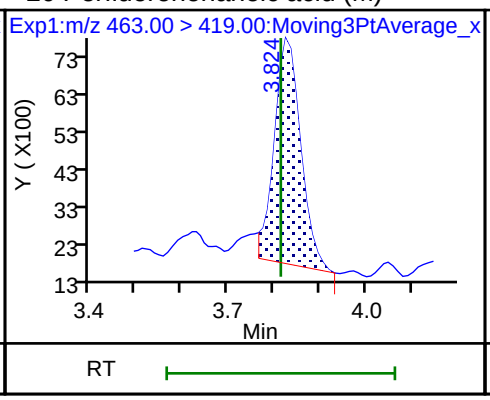

17 Perfluorooctanesulfonic acid (M)



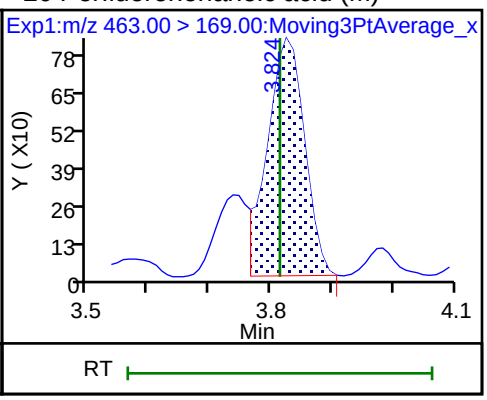

D 19 13C5 PFNA



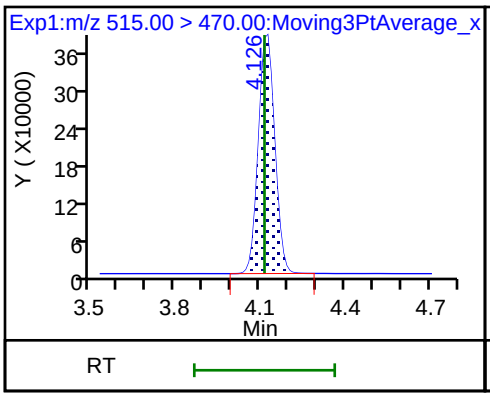

20 Perfluorononanoic acid (M)



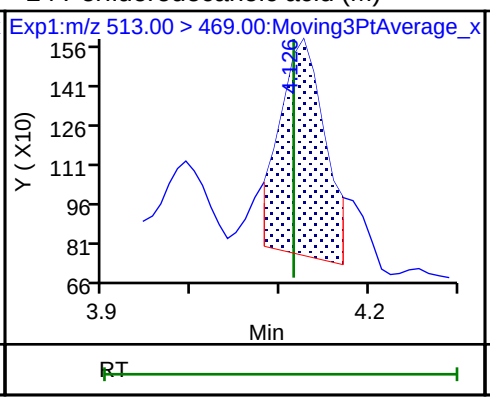

20 Perfluorononanoic acid (M)



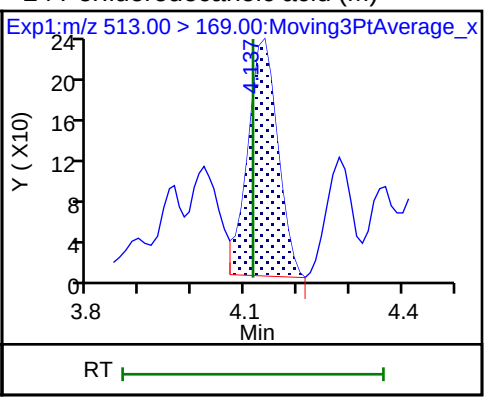

D 23 13C2 PFDA



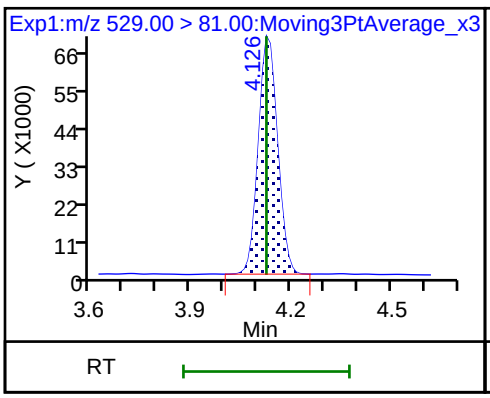

24 Perfluorodecanoic acid (M)



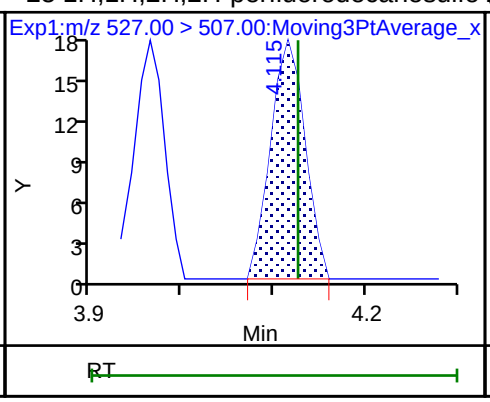

24 Perfluorodecanoic acid (M)



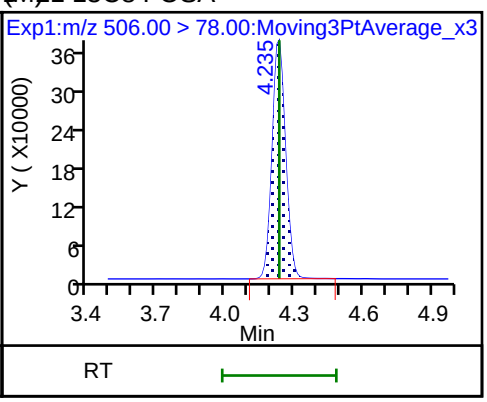

D 26 M2-8:2 FTS



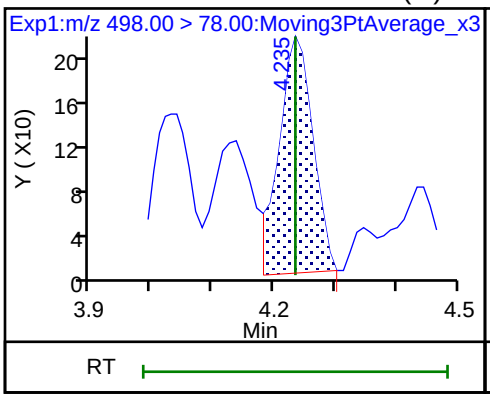

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



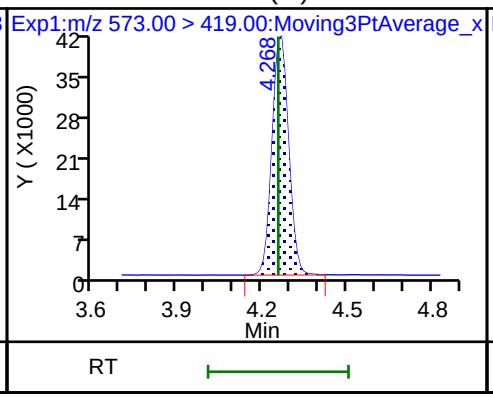

D 21 13C8 FOSA



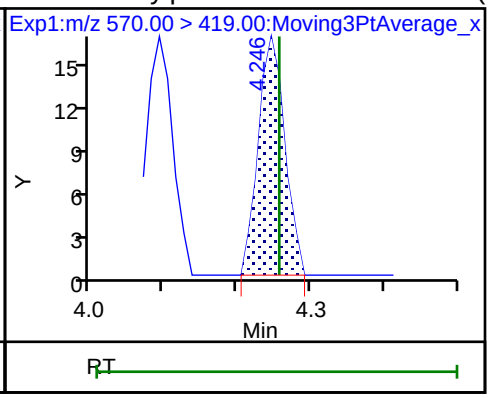
22 Perfluorooctanesulfonamide (M)



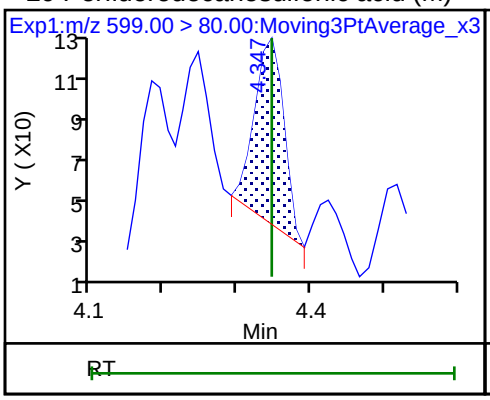

D 27 d3-NMeFOSAA (M)



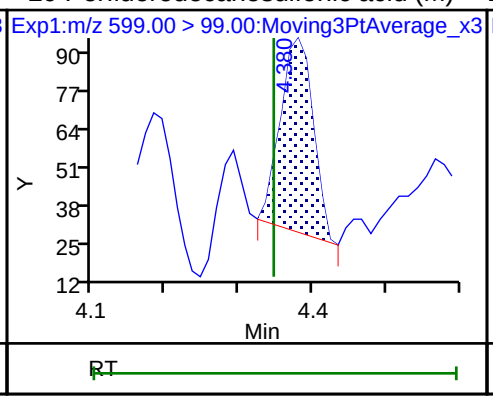

28 N-methylperfluorooctanesulfonami (M)



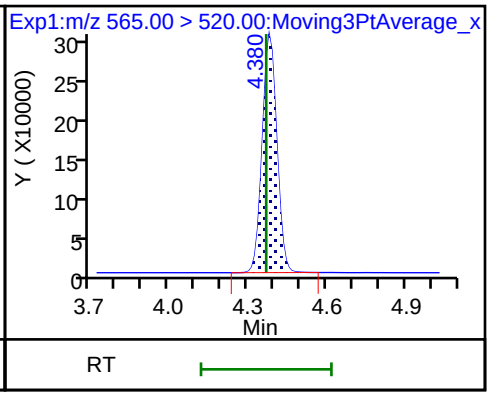

29 Perfluorodecanesulfonic acid (M)



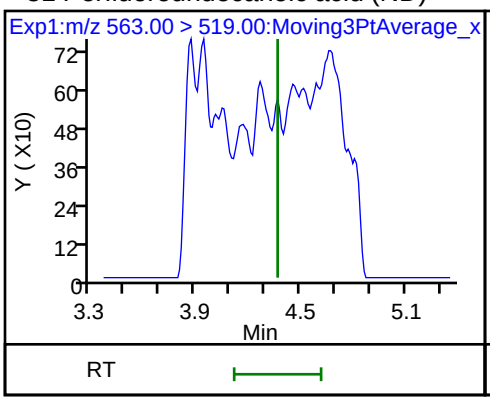

29 Perfluorodecanesulfonic acid (M)



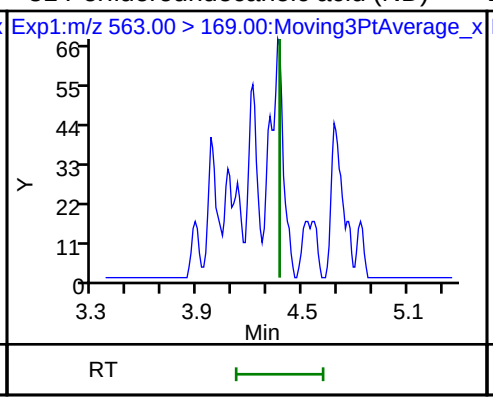

D 30 13C2 PFUnA



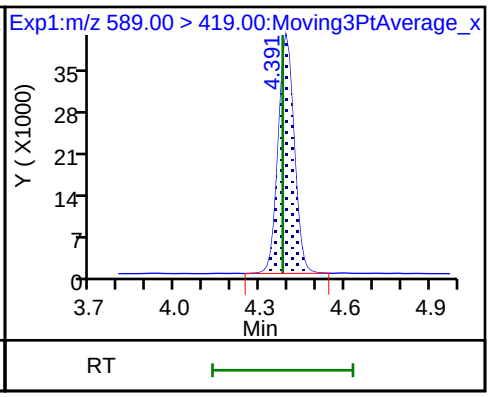

31 Perfluoroundecanoic acid (ND)



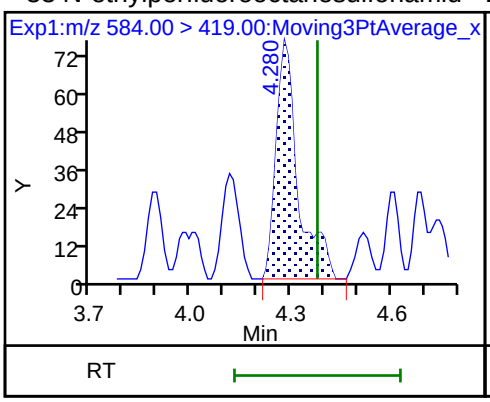

31 Perfluoroundecanoic acid (ND)



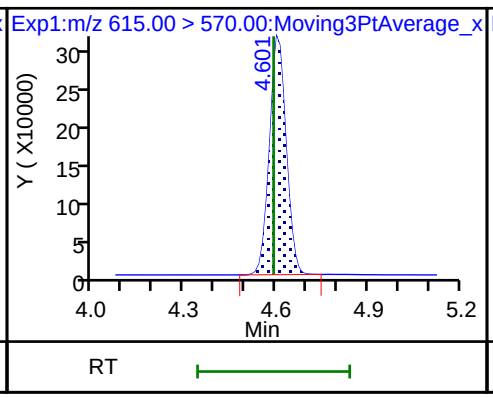

D 32 d5-NEtFOSAA



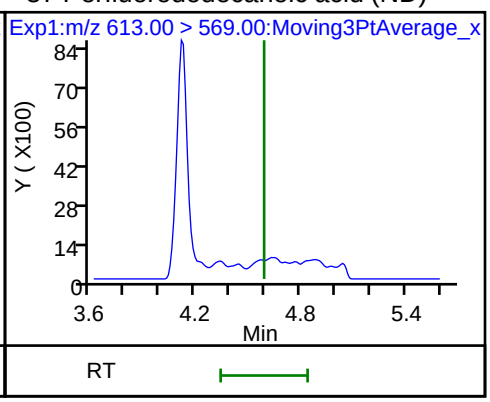

33 N-ethylperfluorooctanesulfonamid



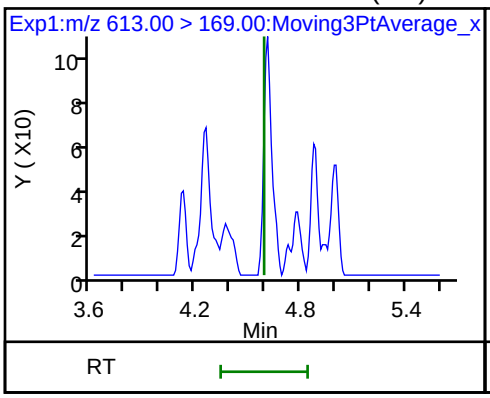

D 36 13C2 PFDoA



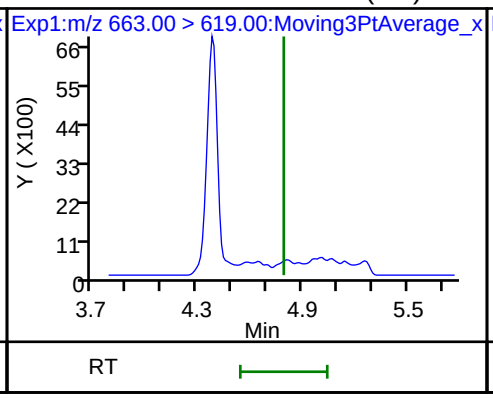

37 Perfluorododecanoic acid (ND)



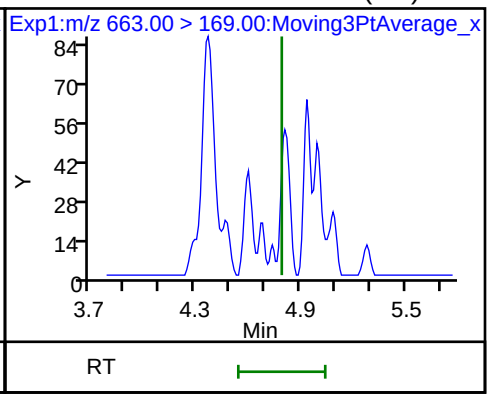
37 Perfluorododecanoic acid (ND)



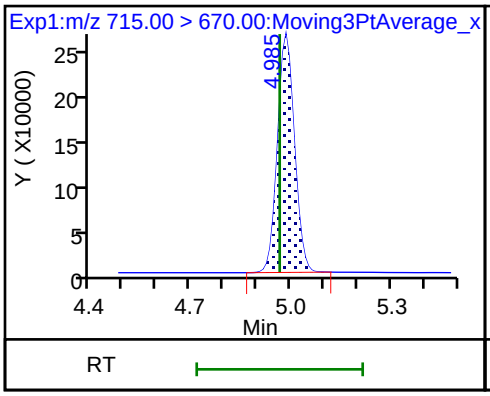

41 Perfluorotridecanoic acid (ND)



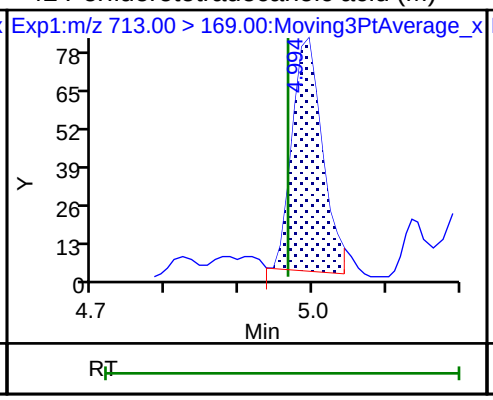

41 Perfluorotridecanoic acid (ND)



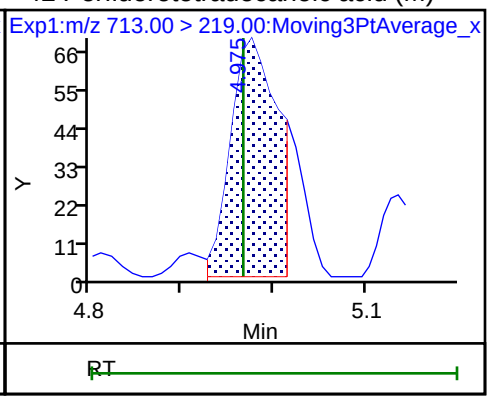

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

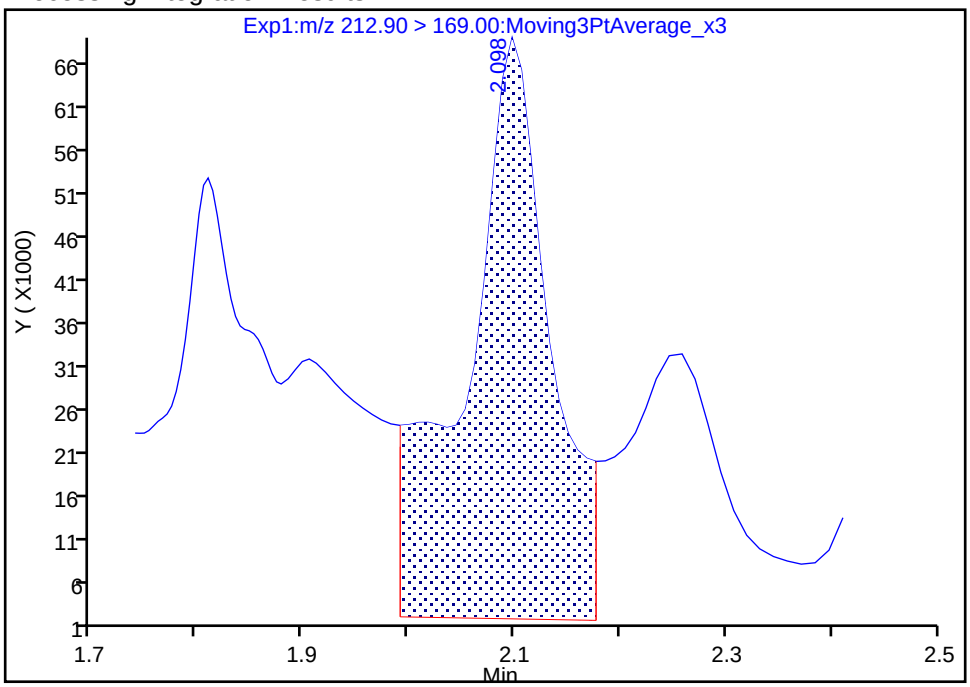
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

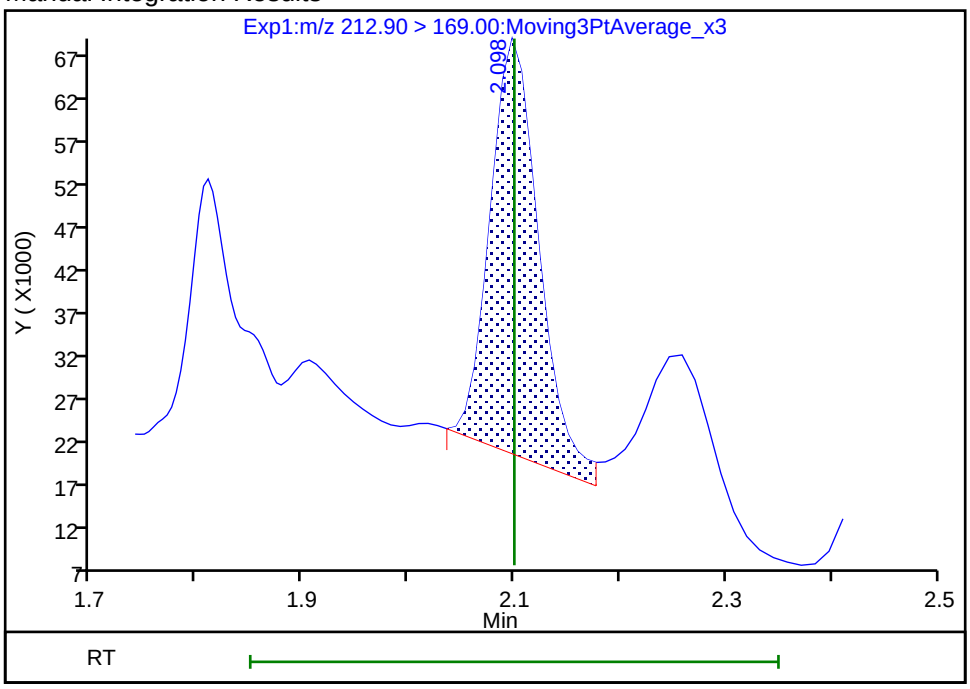
Processing Integration Results

RT: 2.10
Area: 369443
Amount: 0.326098
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 152684
Amount: 0.134770
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:12:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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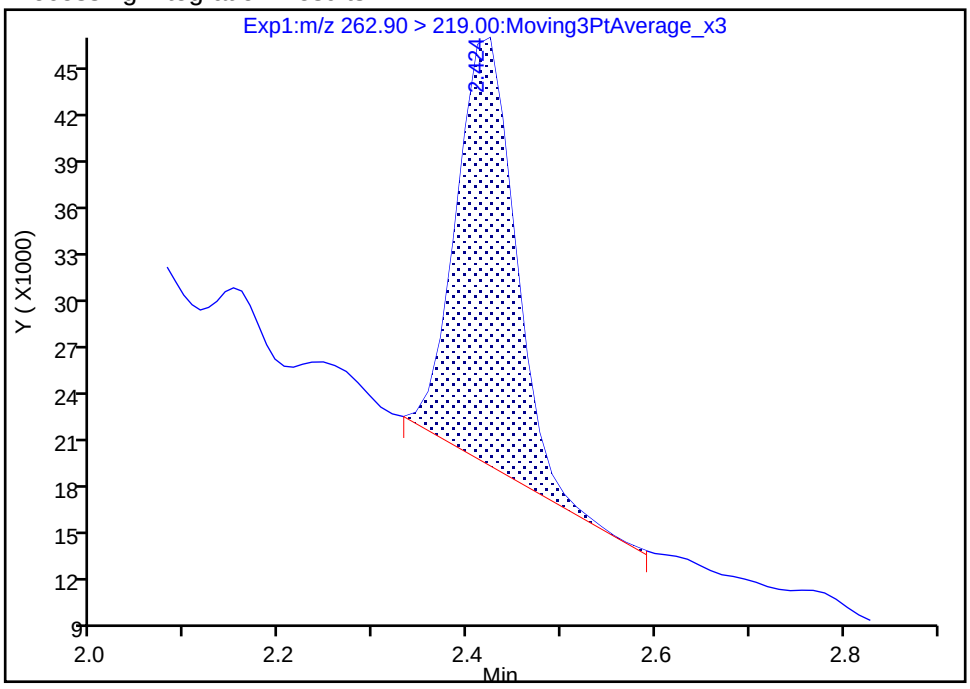
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

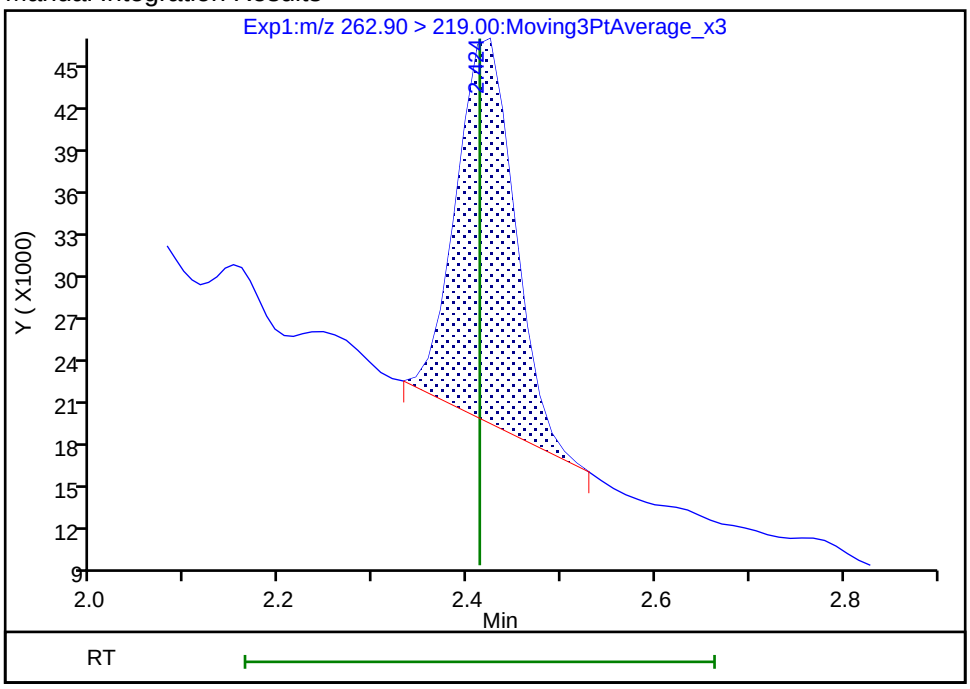
Processing Integration Results

RT: 2.42
Area: 117984
Amount: 0.103590
Amount Units: ng/ml




Manual Integration Results

RT: 2.42
Area: 115706
Amount: 0.101590
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:35:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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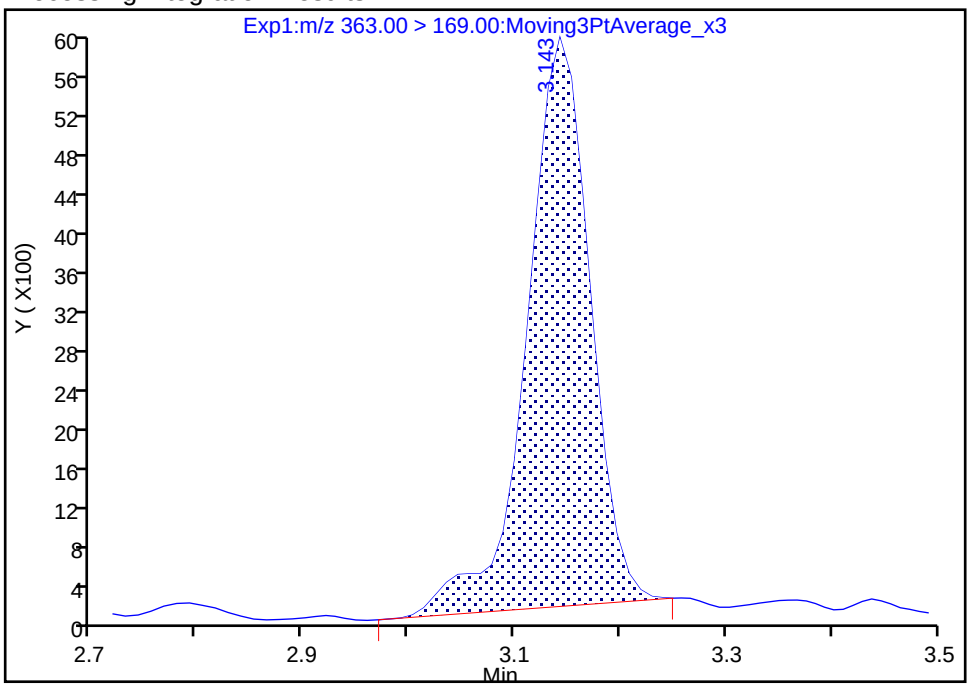
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

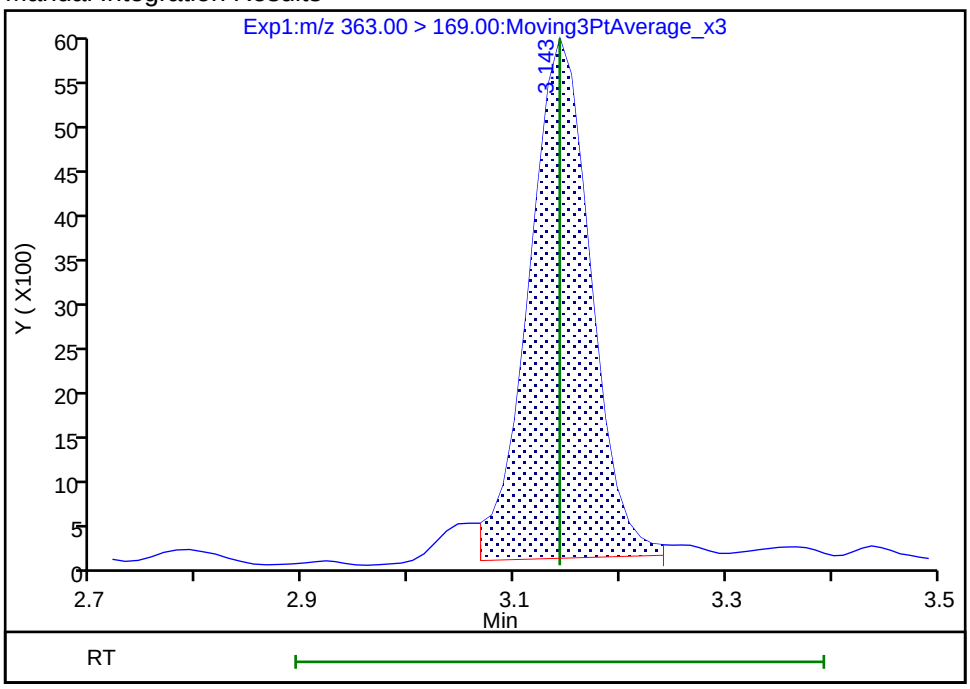
Processing Integration Results

RT: 3.14
Area: 23795
Amount: 0.077870
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 23444
Amount: 0.072128
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

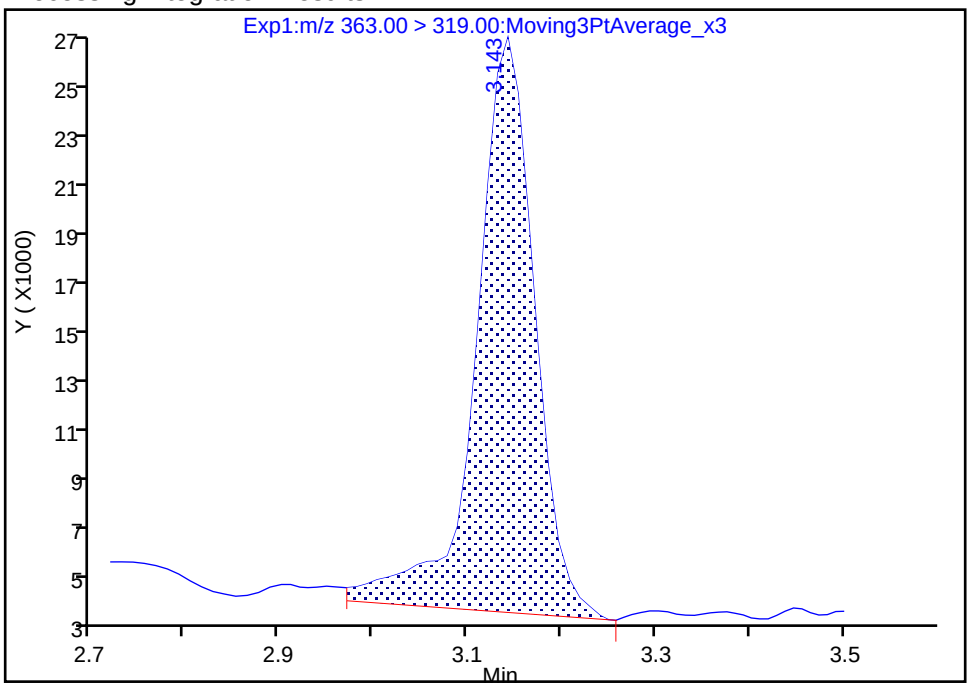
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

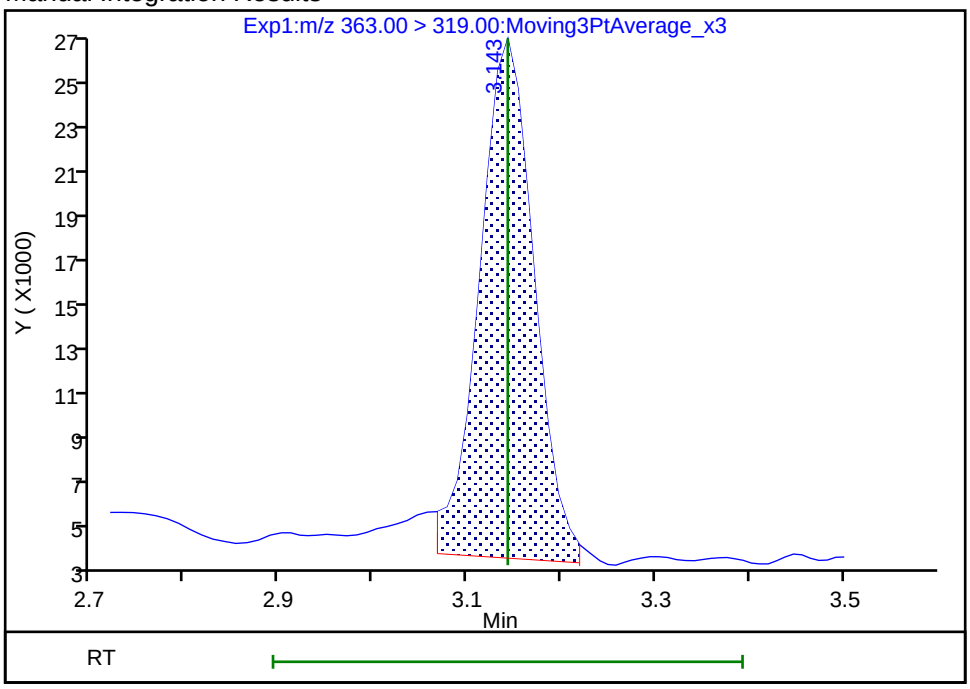
Processing Integration Results

RT: 3.14
Area: 97876
Amount: 0.077870
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 90659
Amount: 0.072128
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | |
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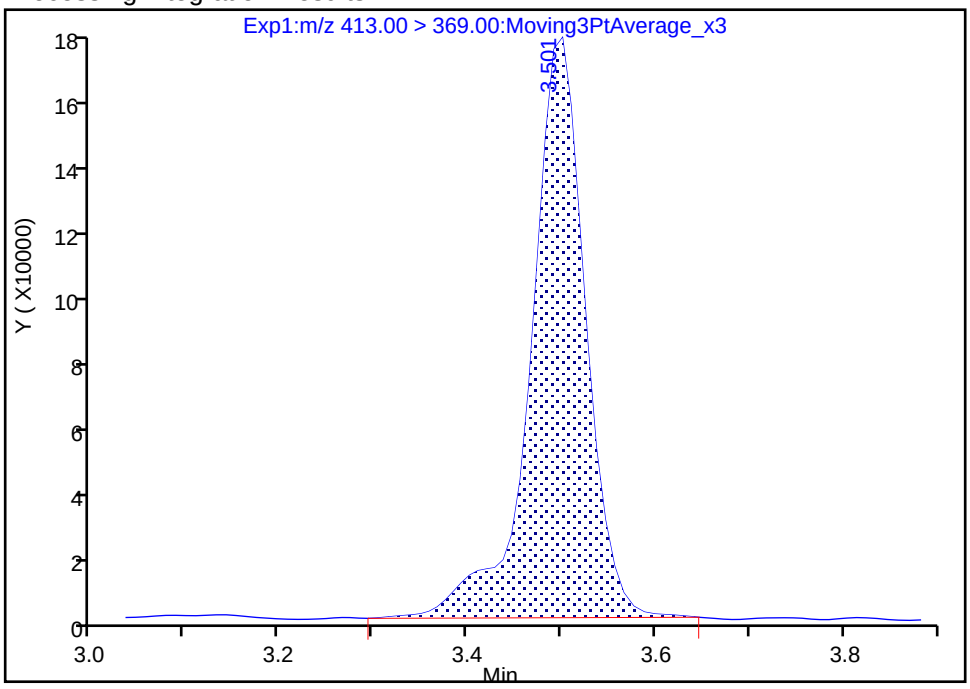
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 |
| Client ID: | AMW-5-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 Worklist Smp#: 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

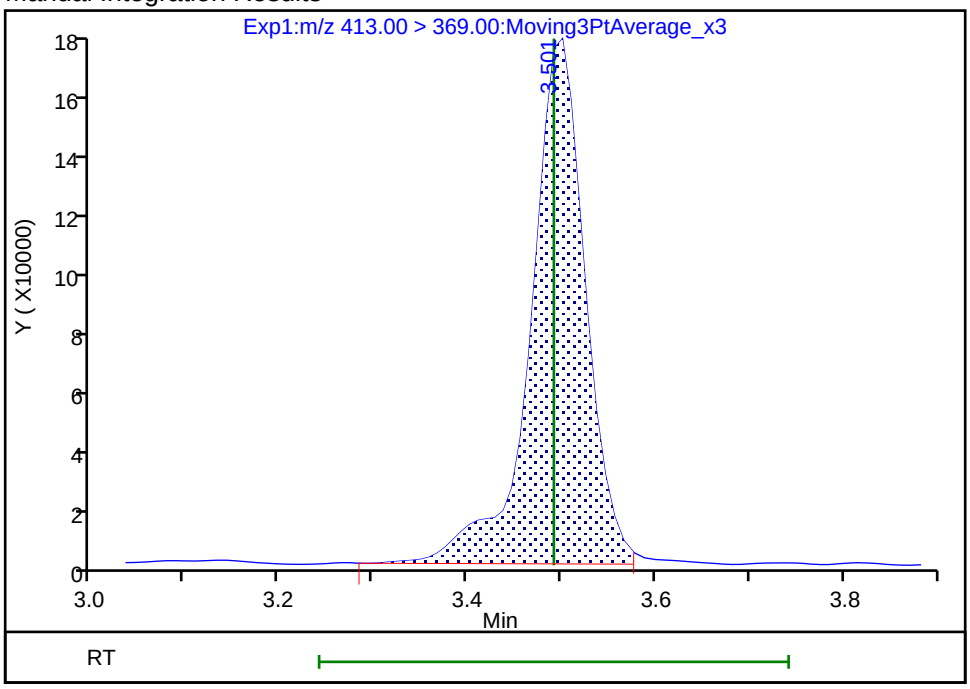
Processing Integration Results

RT: 3.50
Area: 712063
Amount: 0.513502
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 711811
Amount: 0.513320
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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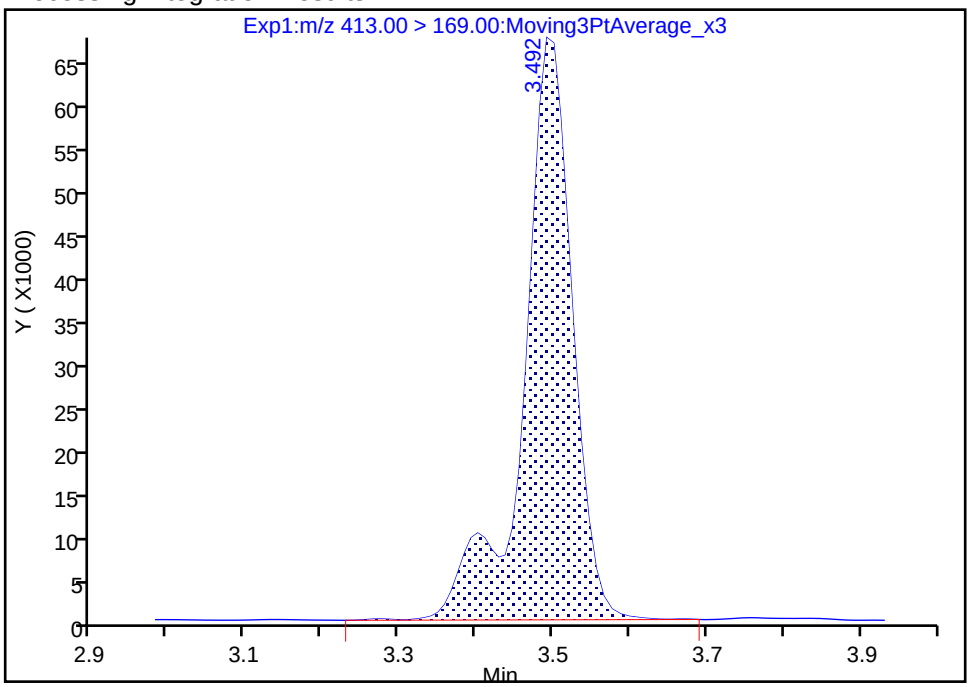
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

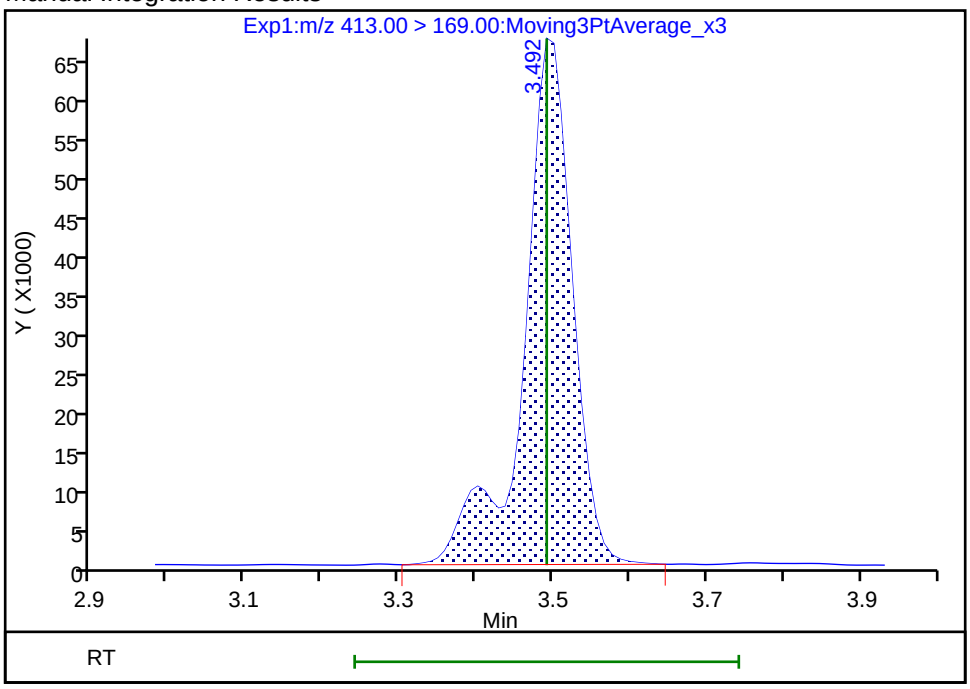
Processing Integration Results

RT: 3.49
Area: 295739
Amount: 0.513502
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 294604
Amount: 0.513320
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

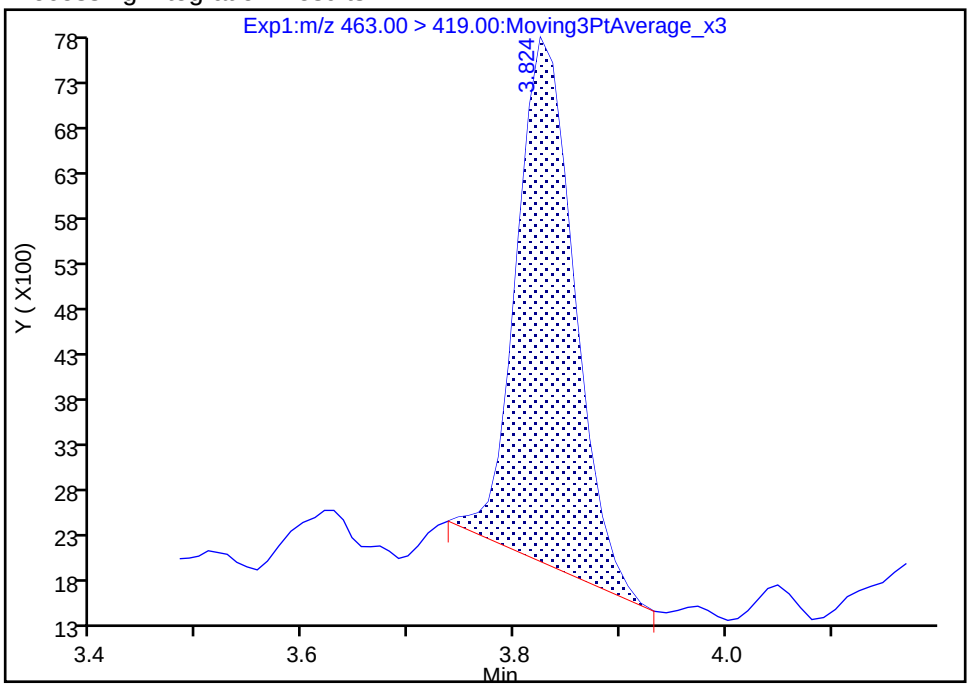
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

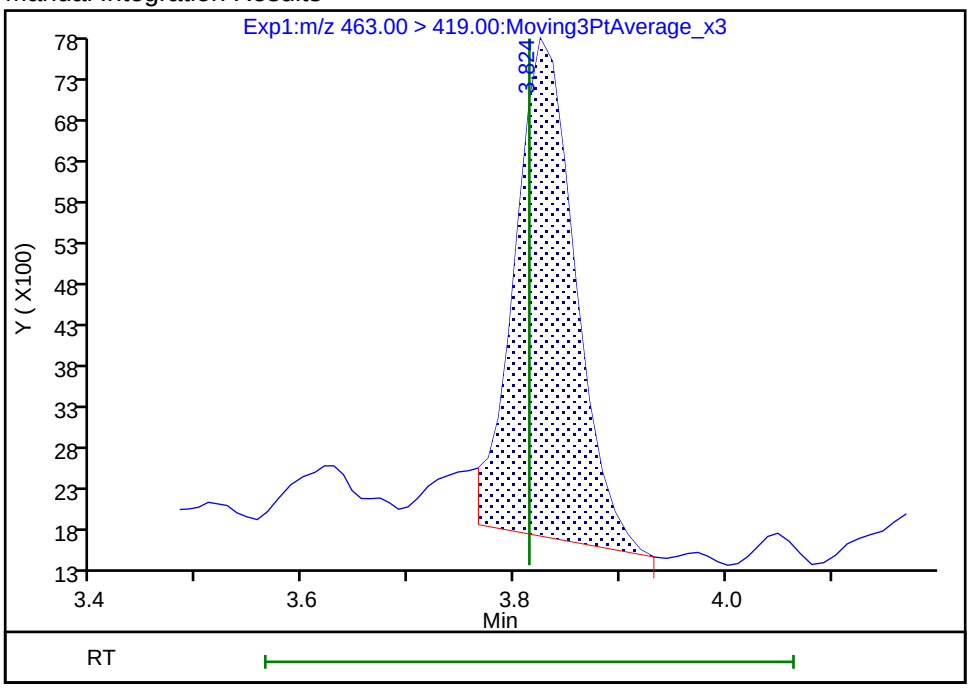
Processing Integration Results

RT: 3.82
Area: 21915
Amount: 0.016893
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 23944
Amount: 0.018457
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:37:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

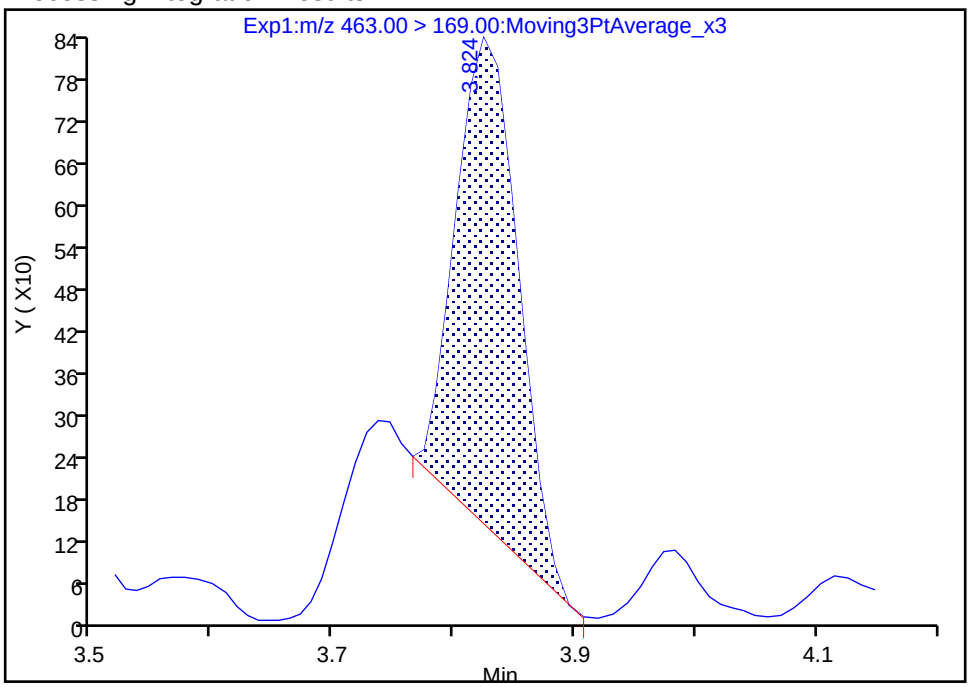
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

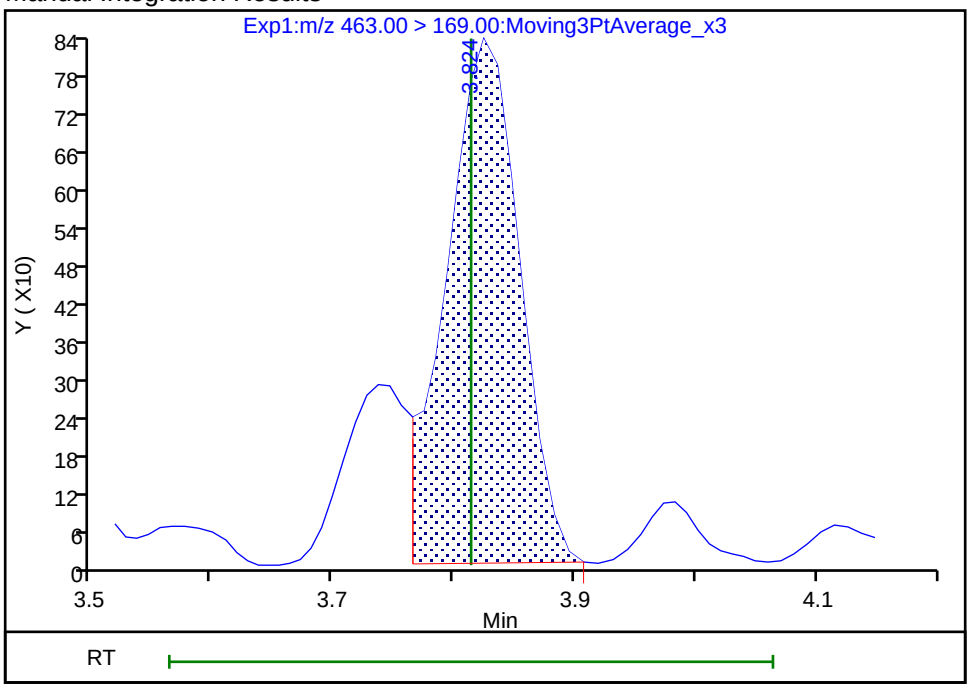
Processing Integration Results

RT: 3.82
Area: 2522
Amount: 0.016893
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 3506
Amount: 0.018457
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:13:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

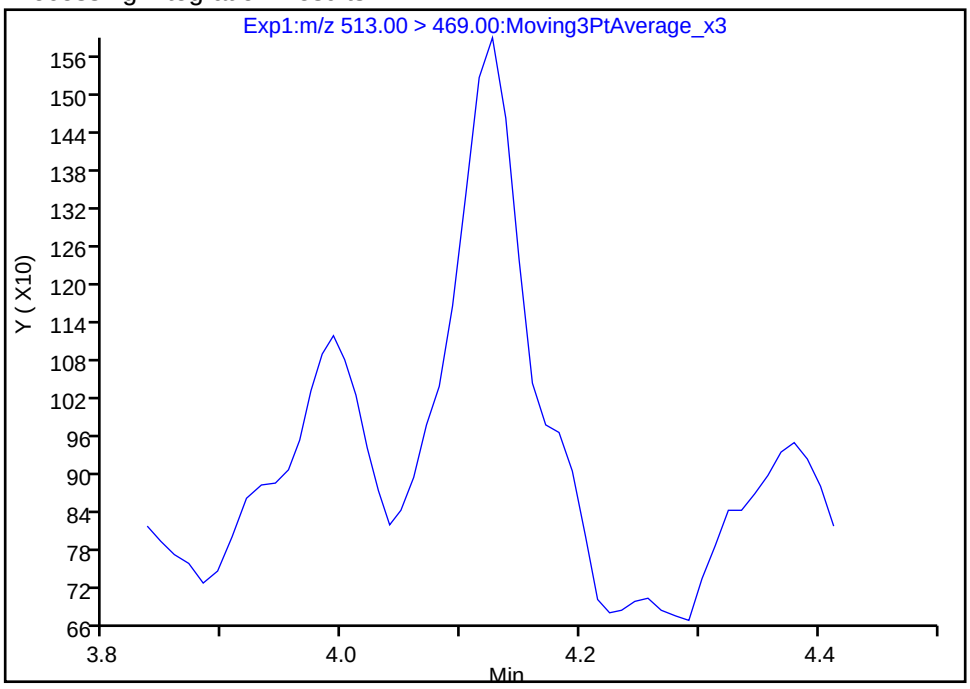
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

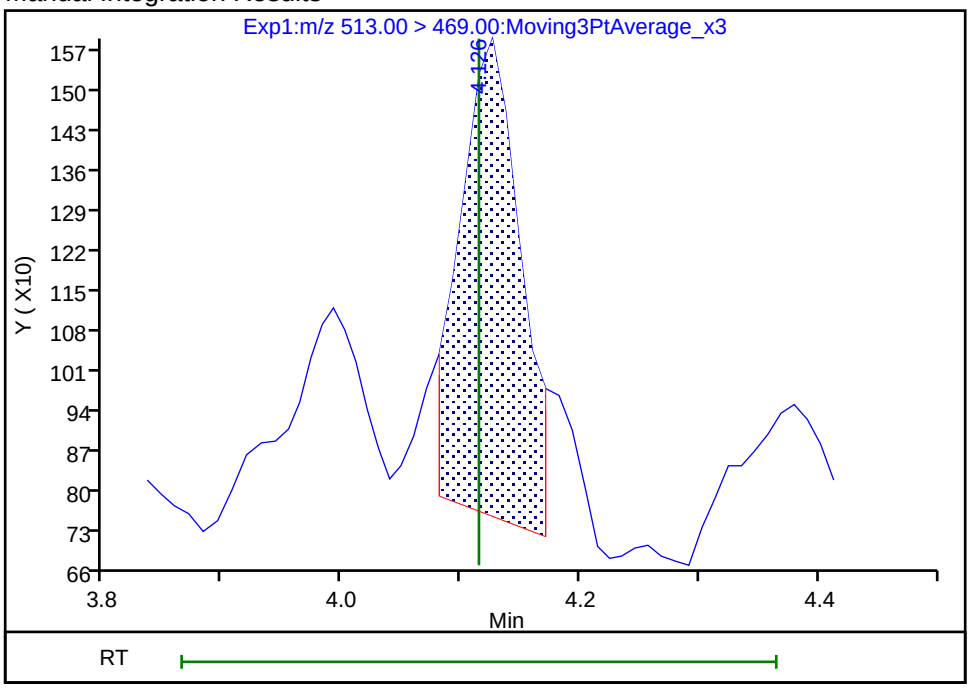
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 2914
Amount: 0.002349
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:37:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

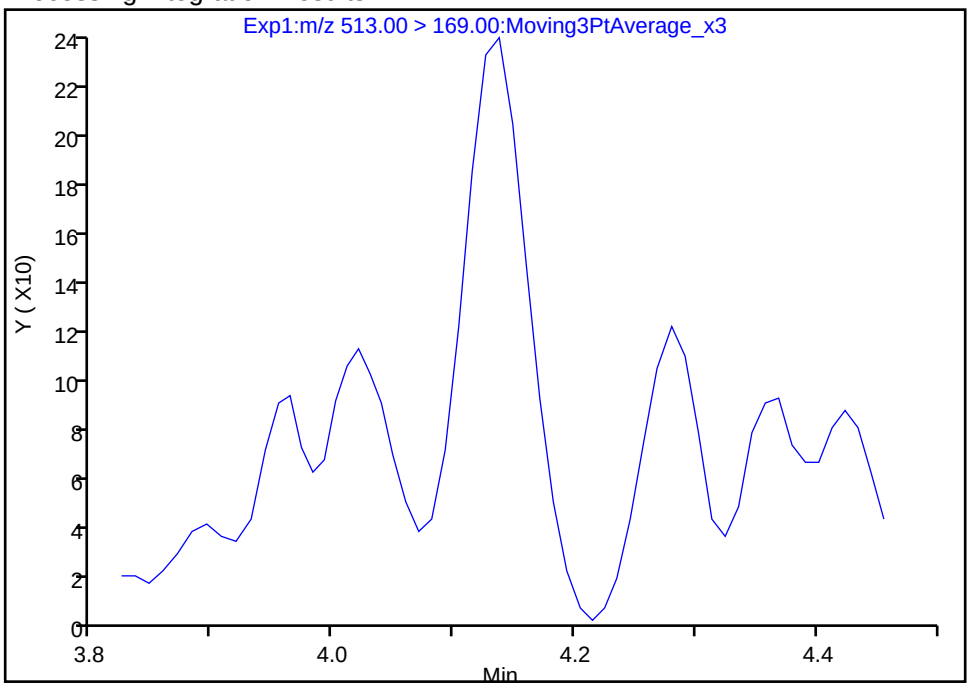
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

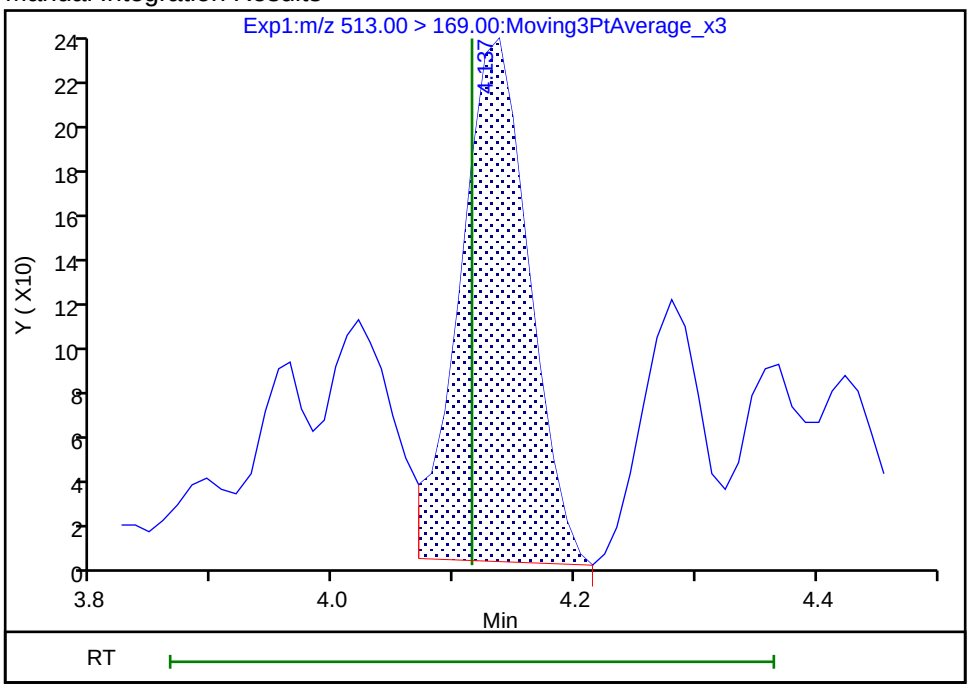
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 927
Amount: 0.002349
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:13:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

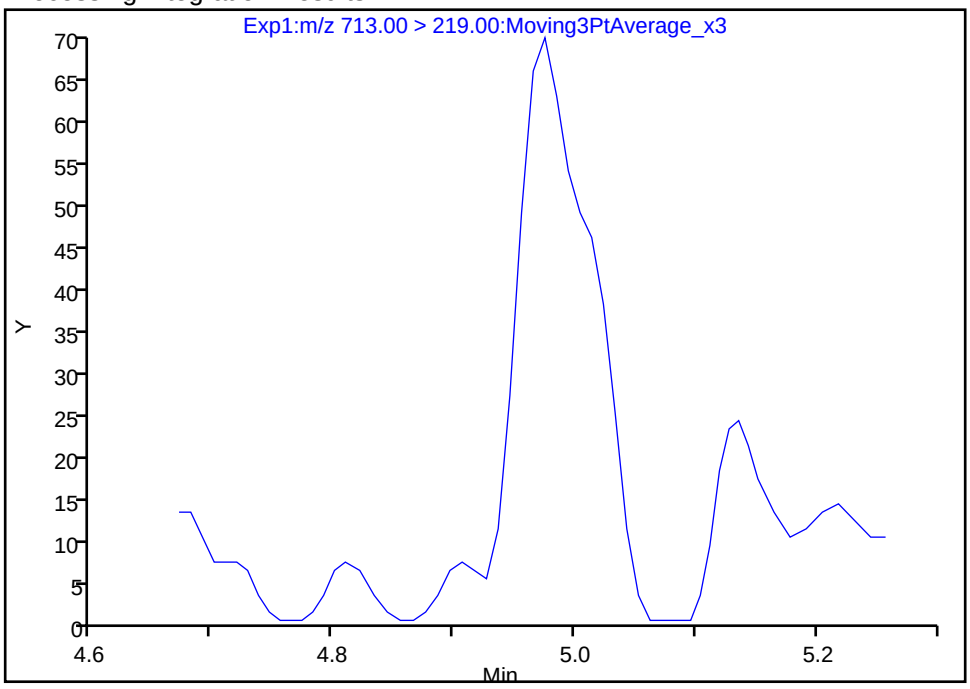
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

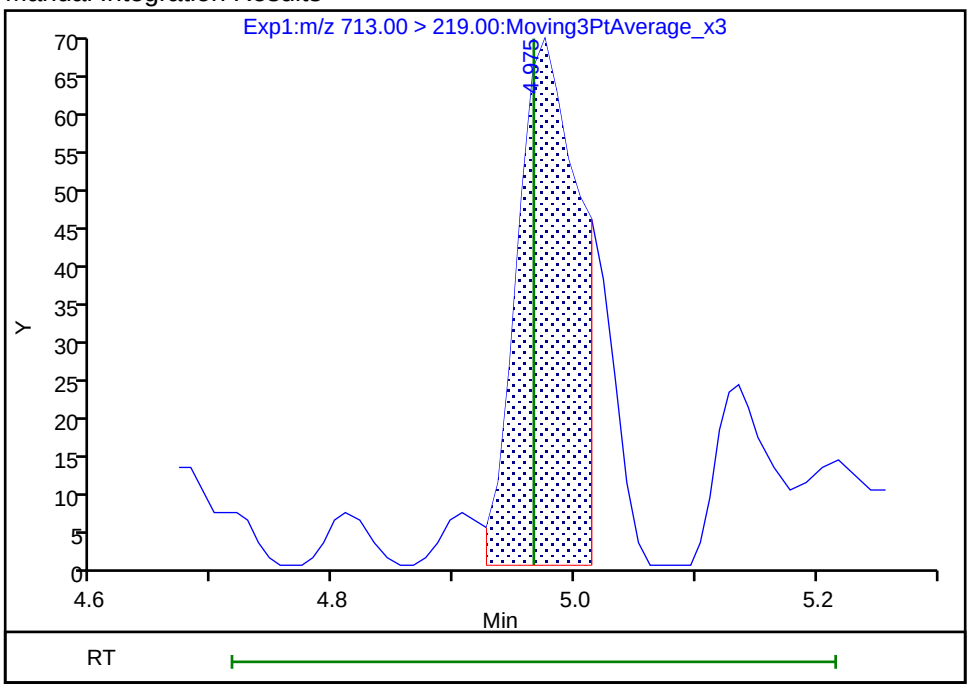
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 240
Amount: 0.001949
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

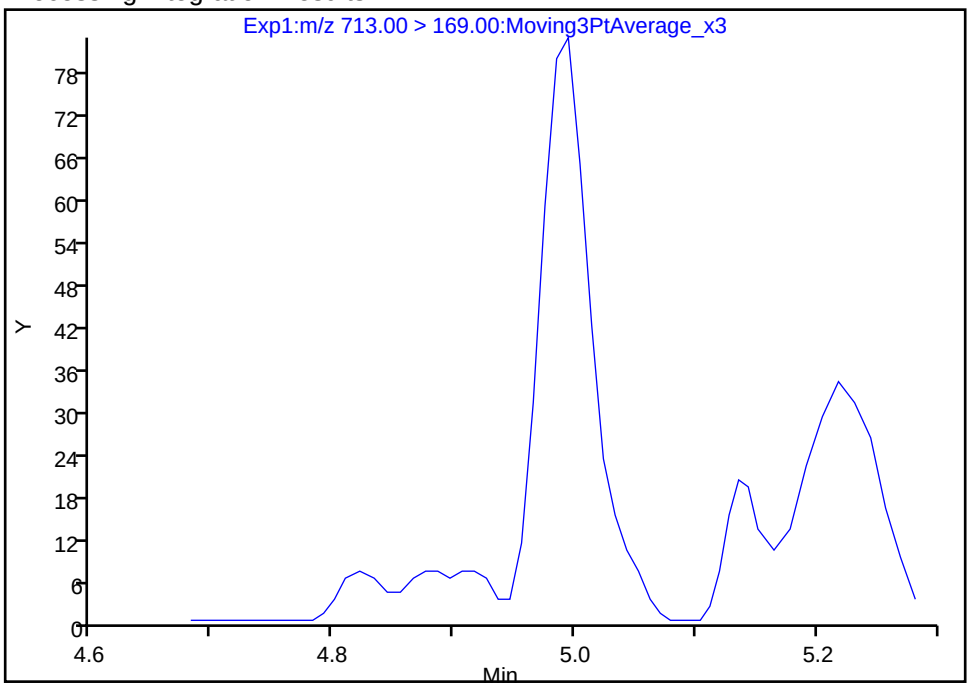
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

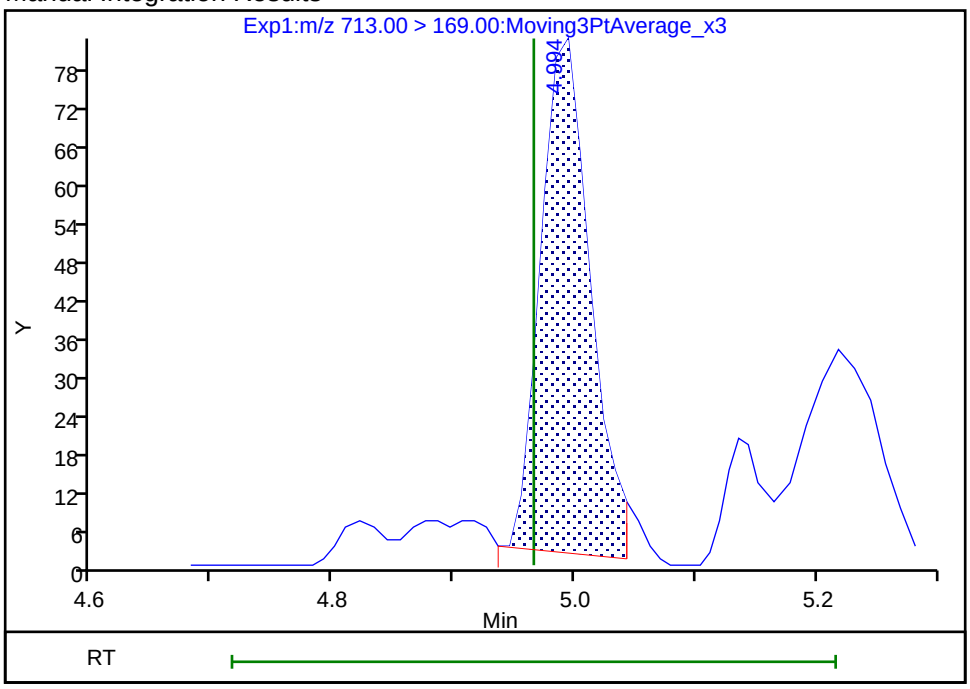
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 230
Amount: 0.001949
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

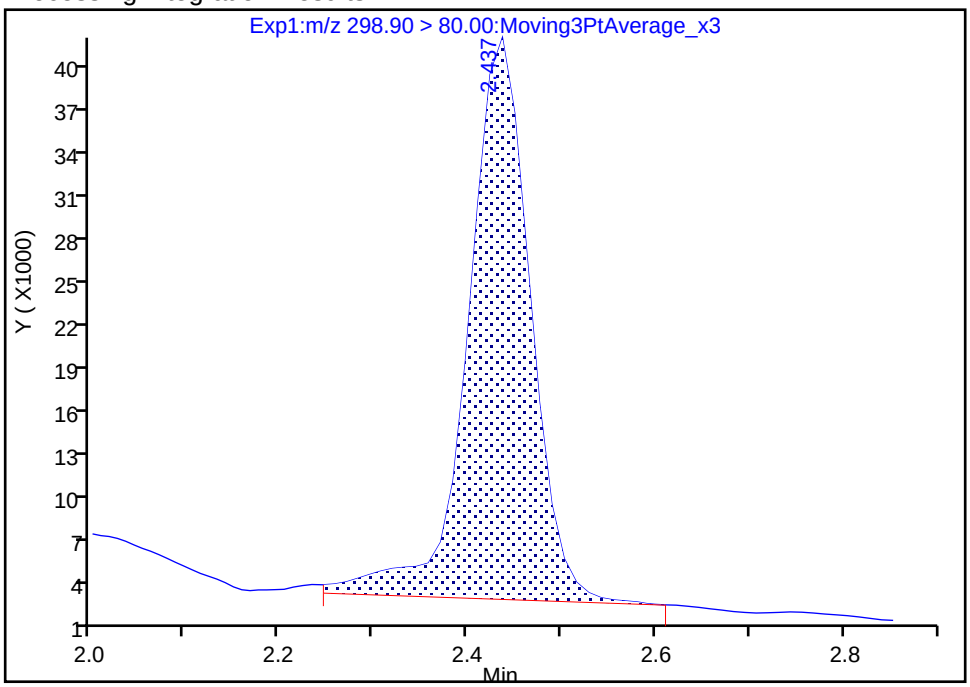
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 |
| Client ID: | AMW-5-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 Worklist Smp#: 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

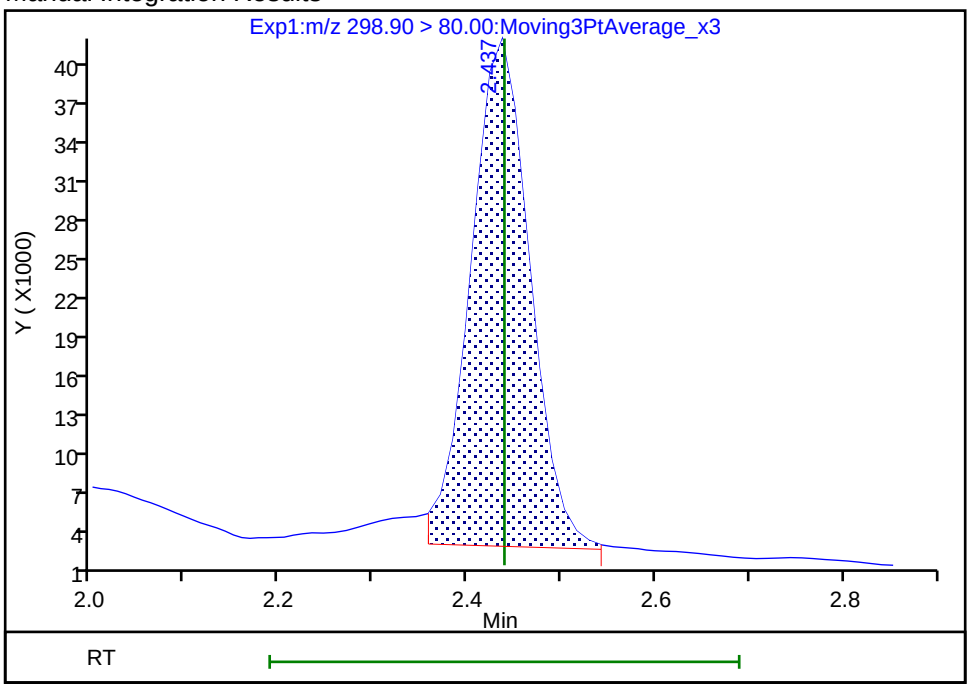
Processing Integration Results

RT: 2.44
Area: 178741
Amount: 0.118375
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 168360
Amount: 0.111500
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:35:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

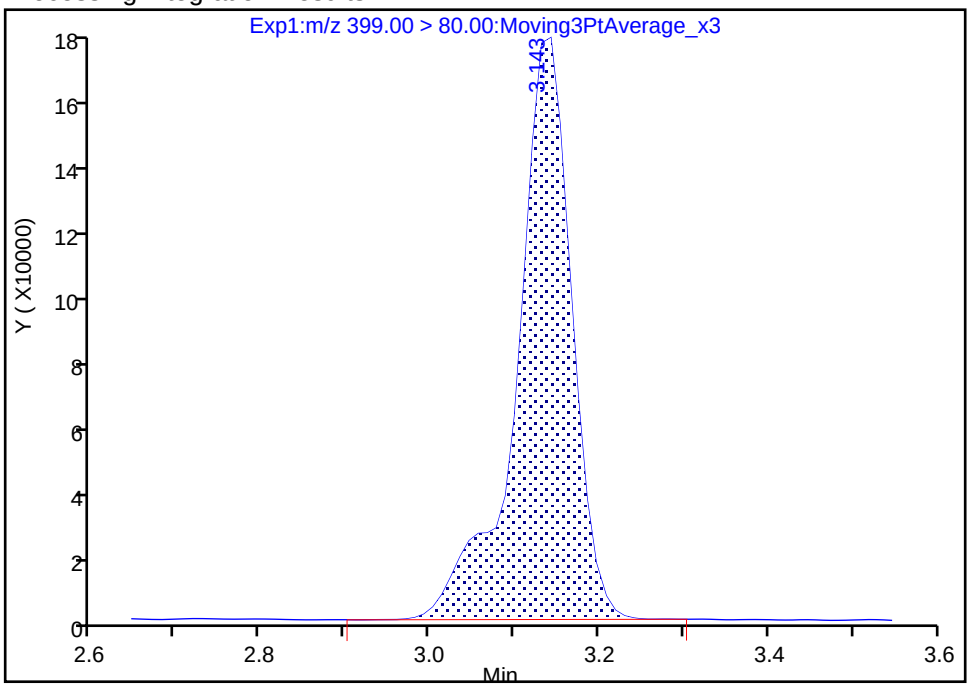
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

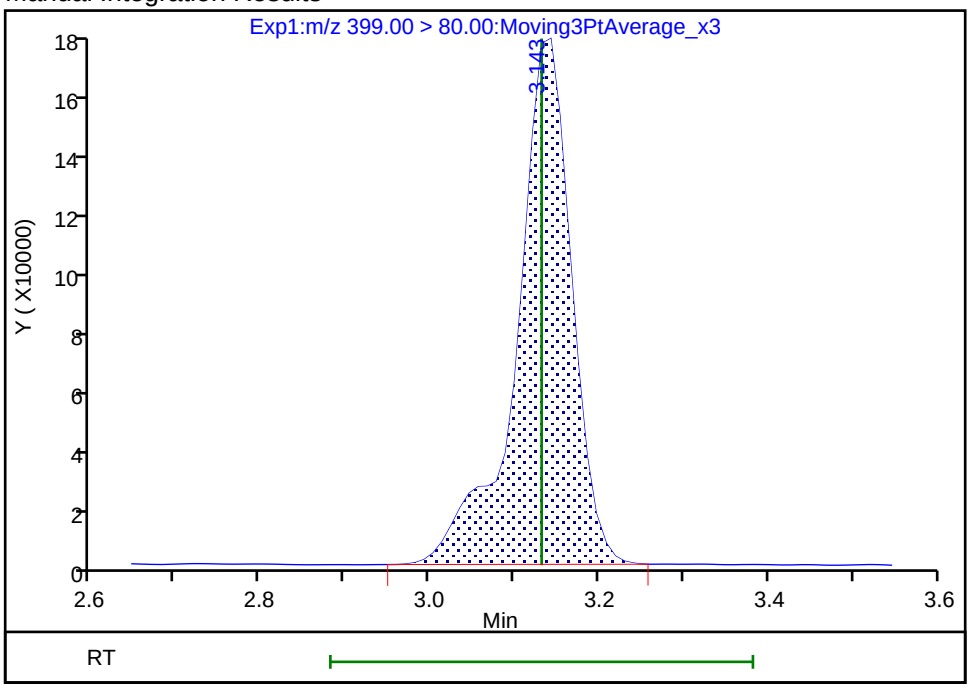
Processing Integration Results

RT: 3.14
Area: 808031
Amount: 0.690662
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 807149
Amount: 0.689908
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:35:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

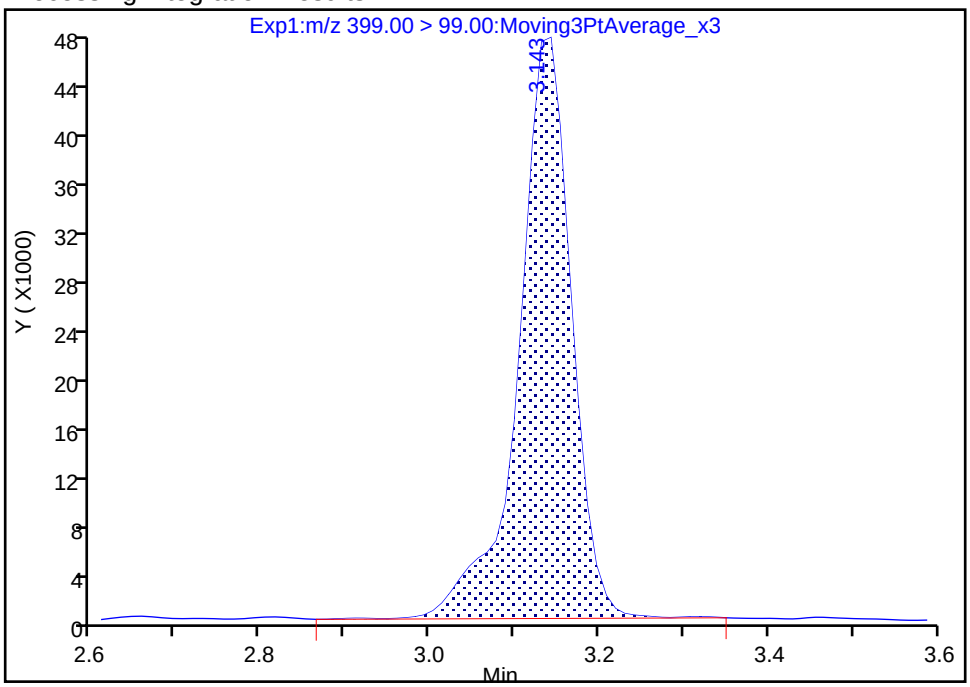
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

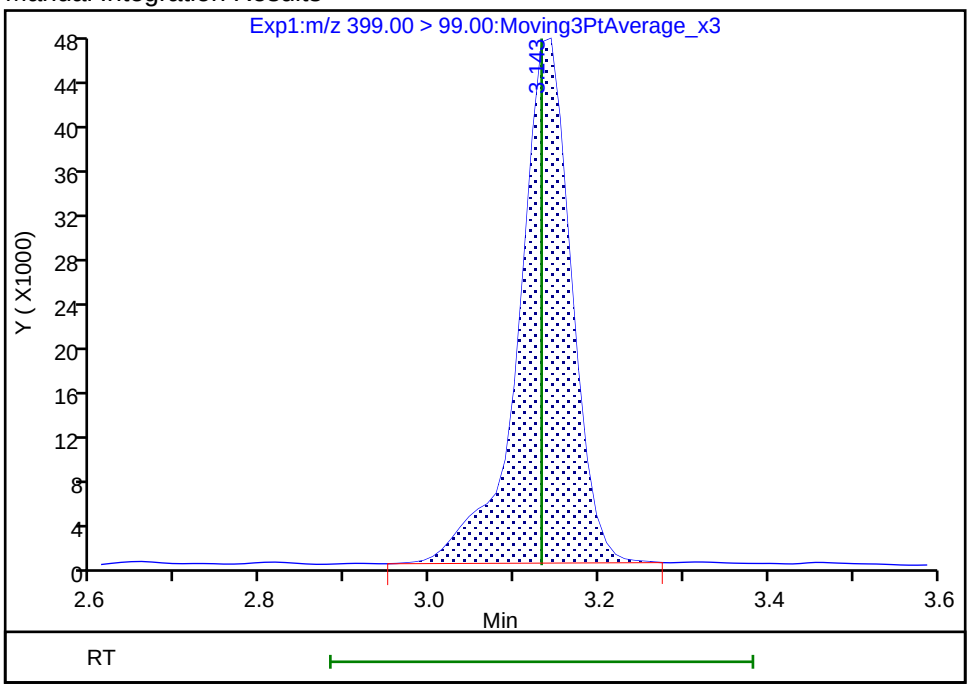
Processing Integration Results

RT: 3.14
Area: 206479
Amount: 0.690662
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 205266
Amount: 0.689908
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:35:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

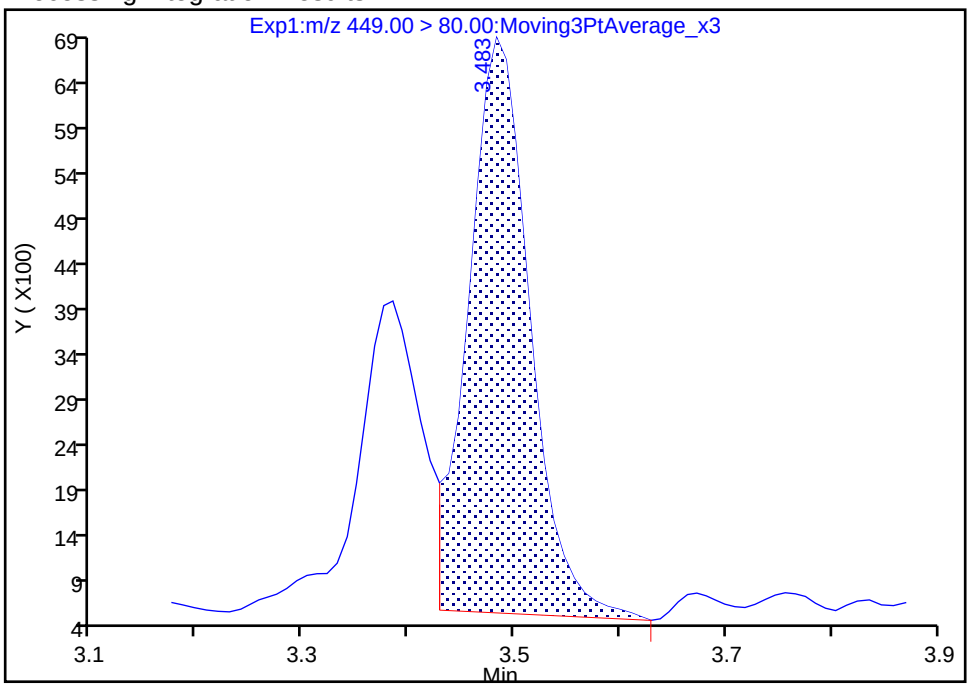
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

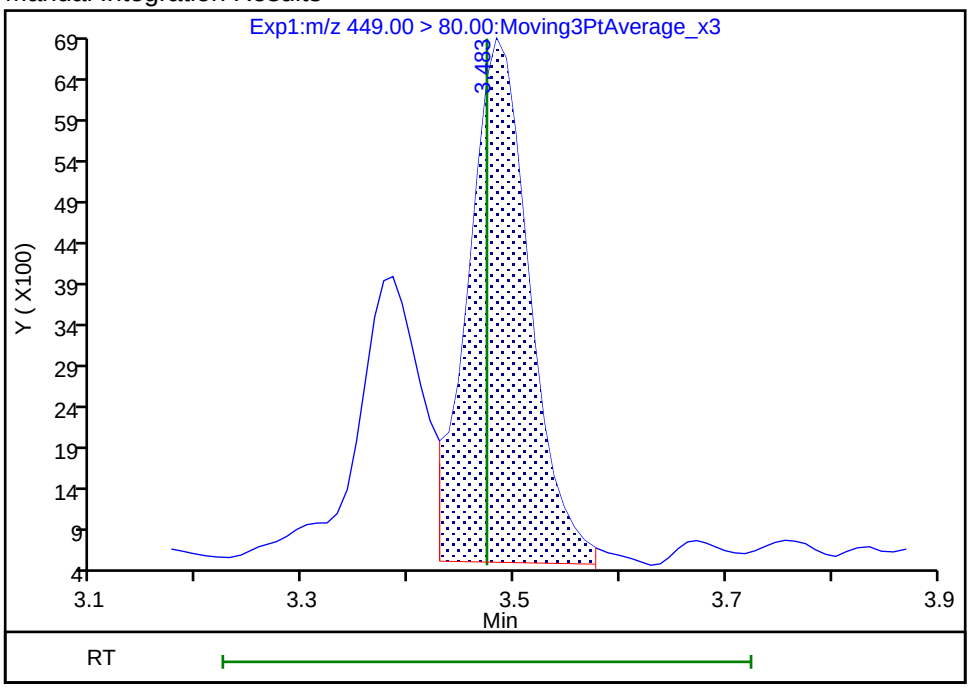
Processing Integration Results

RT: 3.48
Area: 25597
Amount: 0.025365
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 25668
Amount: 0.025436
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

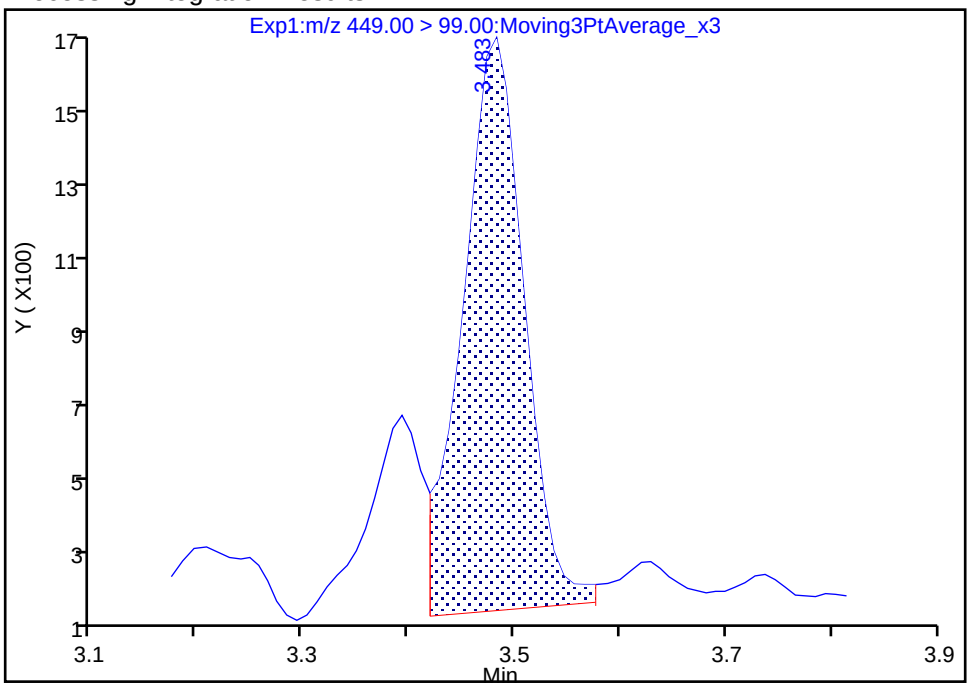
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

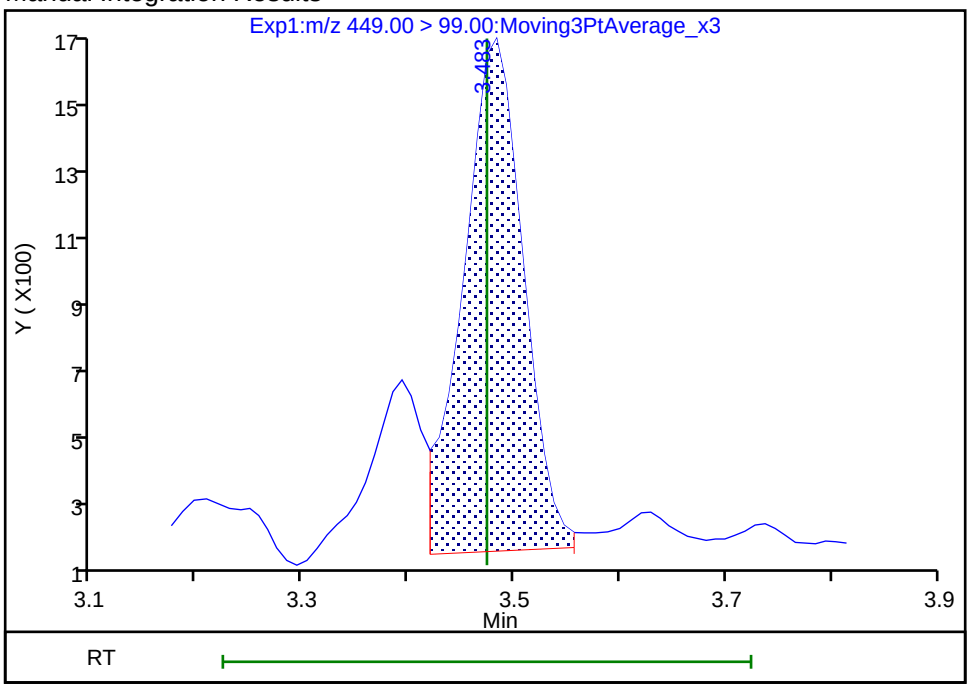
Processing Integration Results

RT: 3.48
Area: 6123
Amount: 0.025365
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 5940
Amount: 0.025436
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:36:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

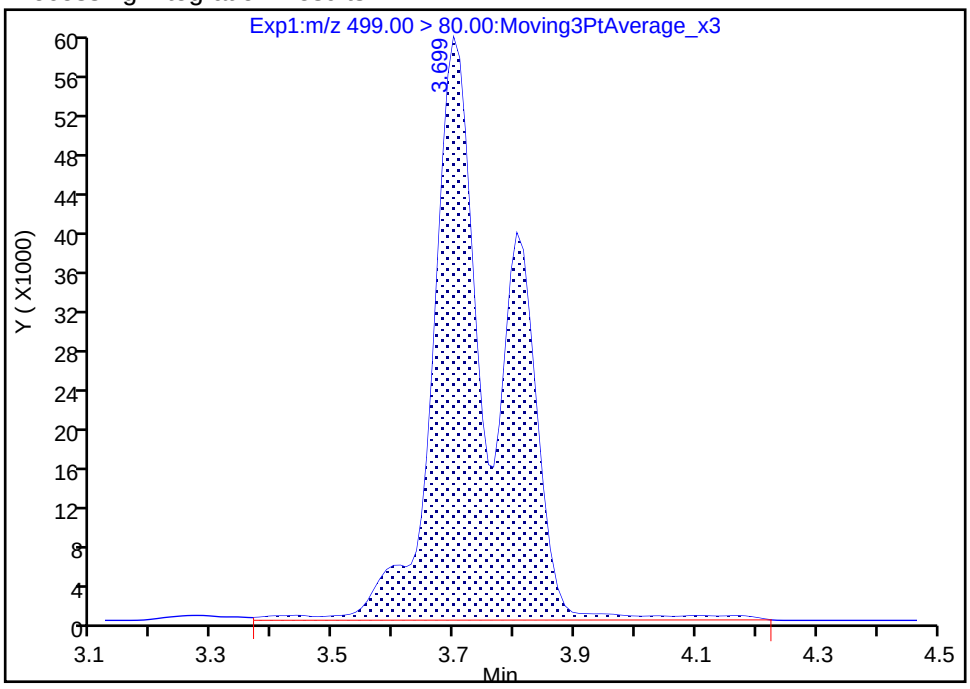
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

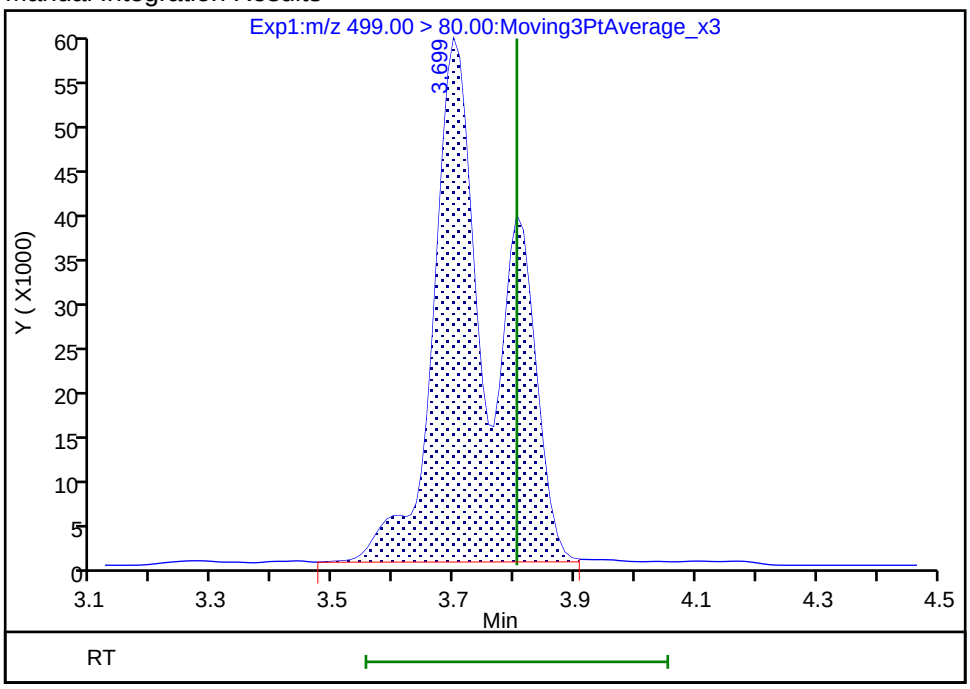
Processing Integration Results

RT: 3.70
Area: 453986
Amount: 0.516864
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 434845
Amount: 0.495072
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:37:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

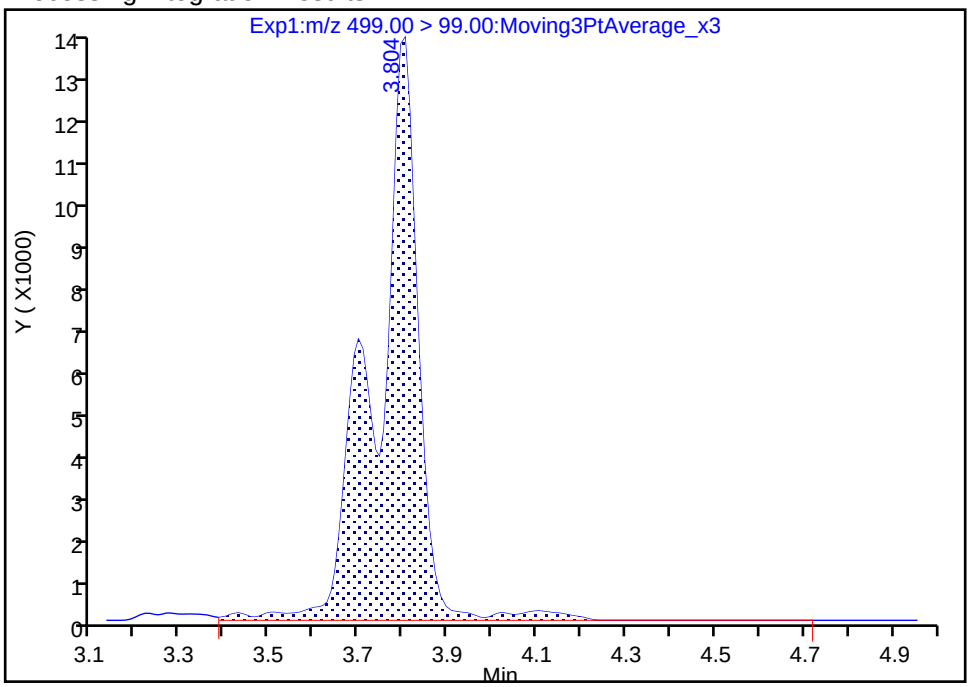
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

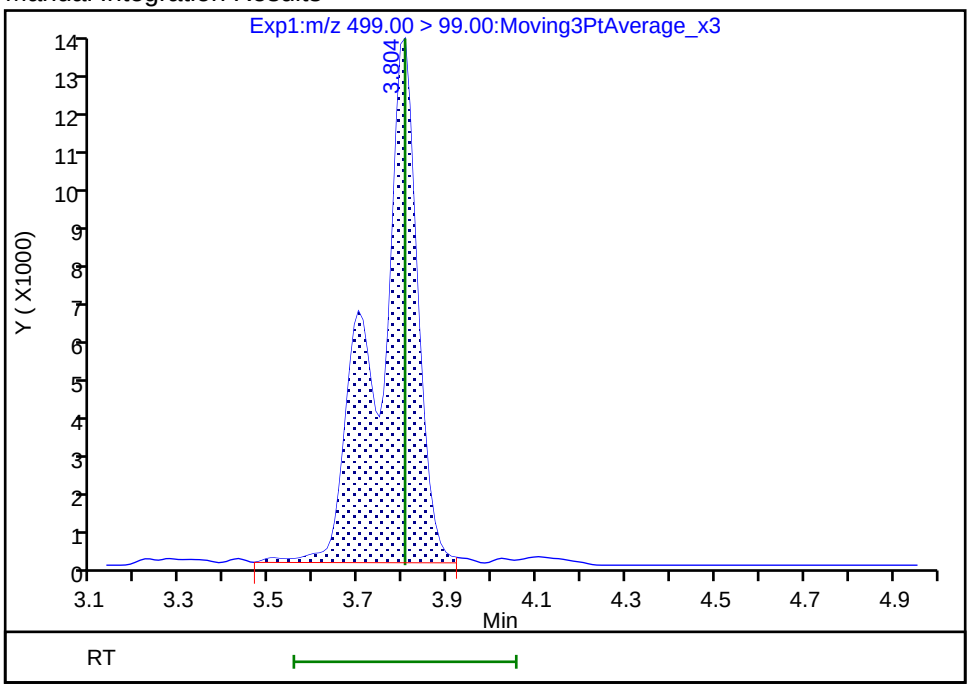
Processing Integration Results

RT: 3.80
Area: 90974
Amount: 0.516864
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 86032
Amount: 0.495072
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:37:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

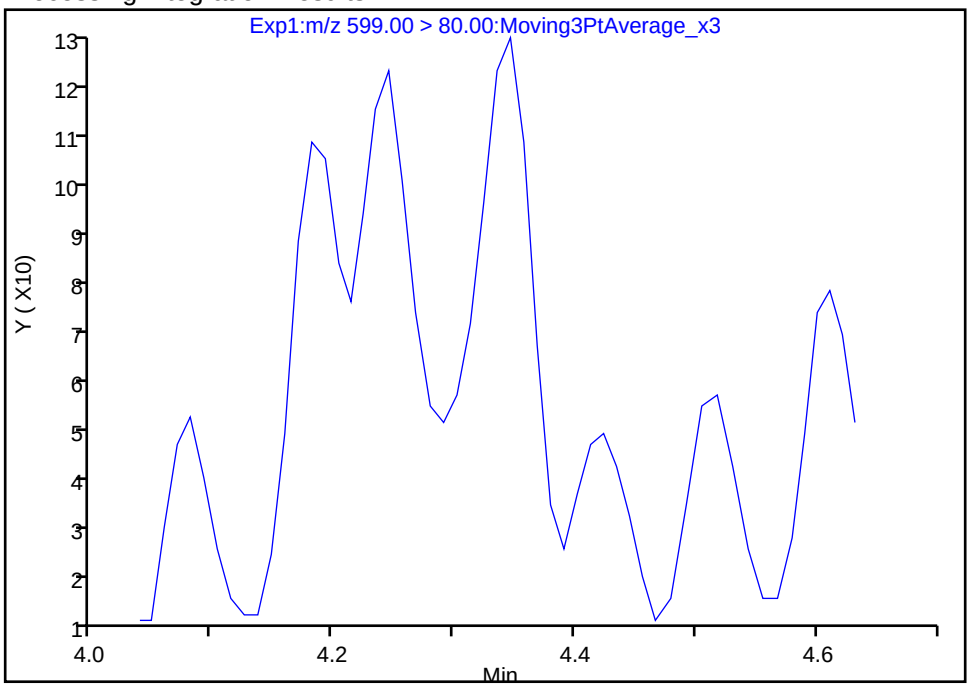
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

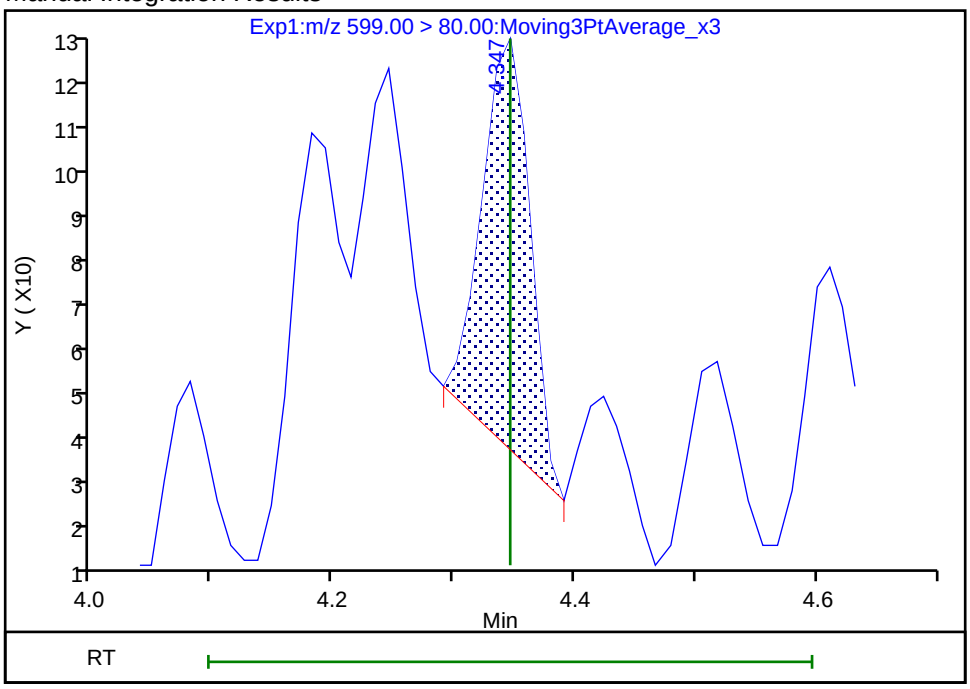
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 225
Amount: 0.000423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

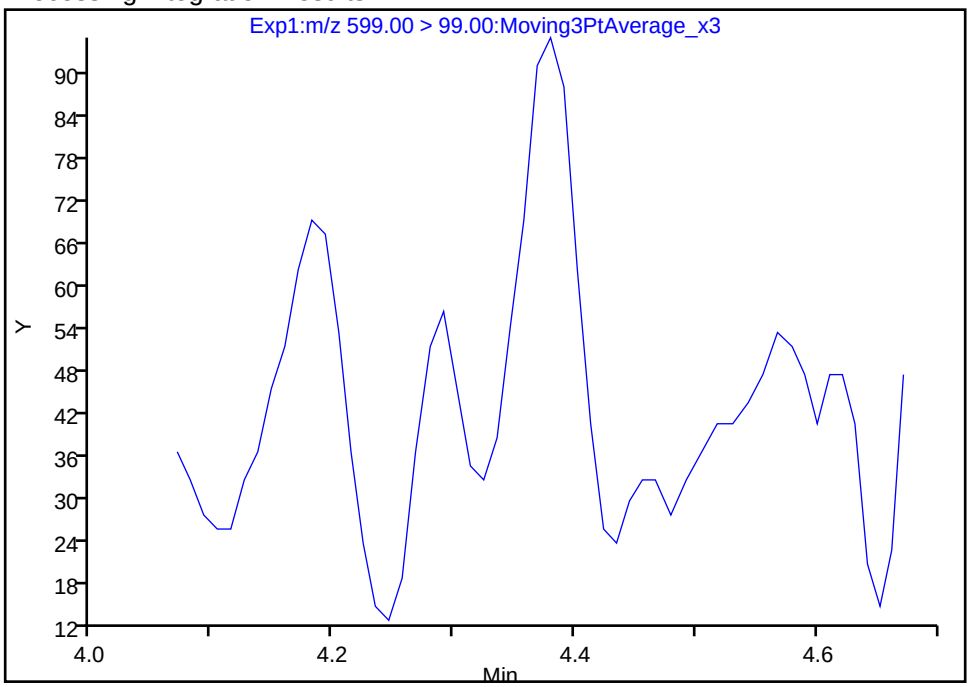
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

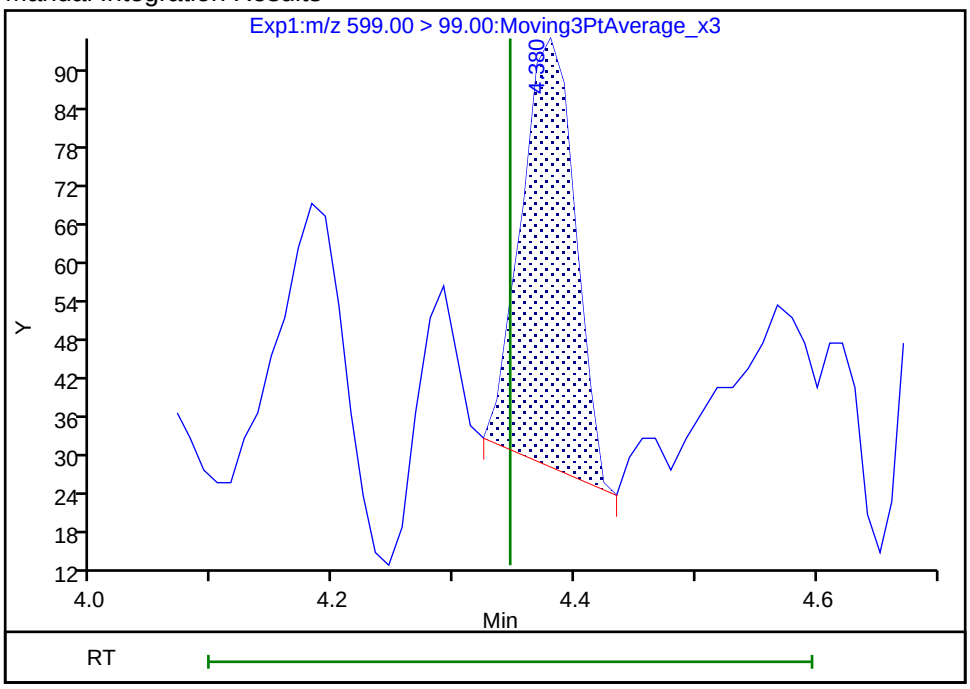
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 208
Amount: 0.000423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

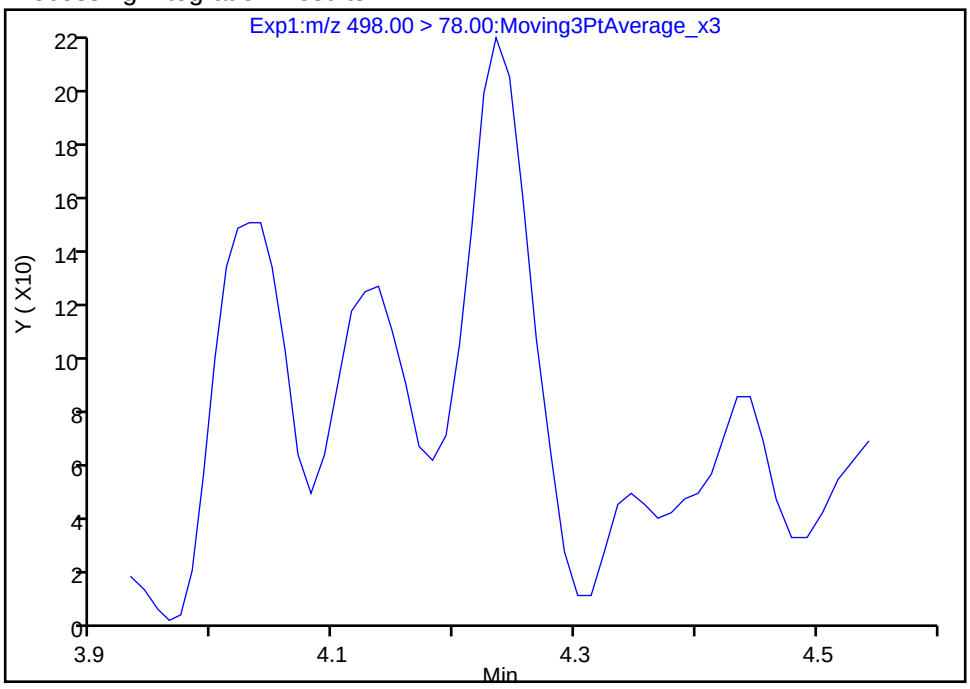
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

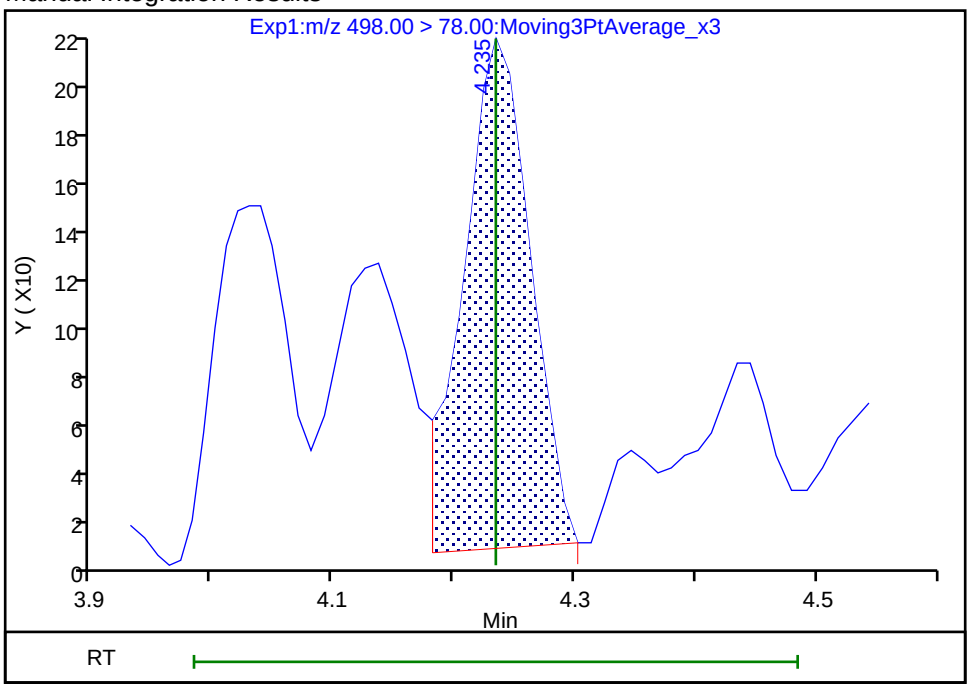
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 778
Amount: 0.000670
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

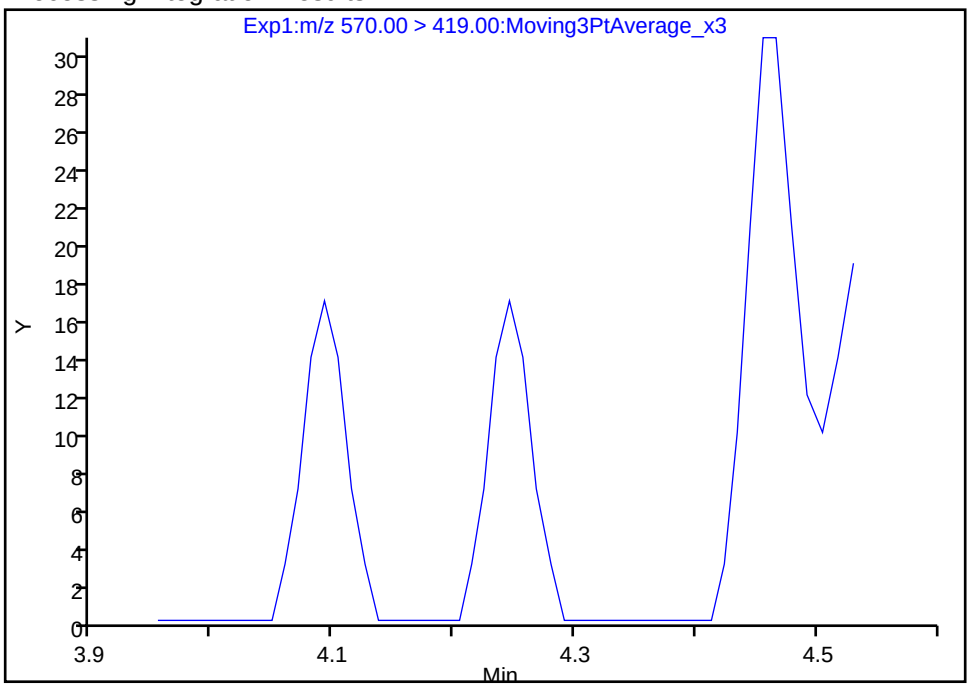
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

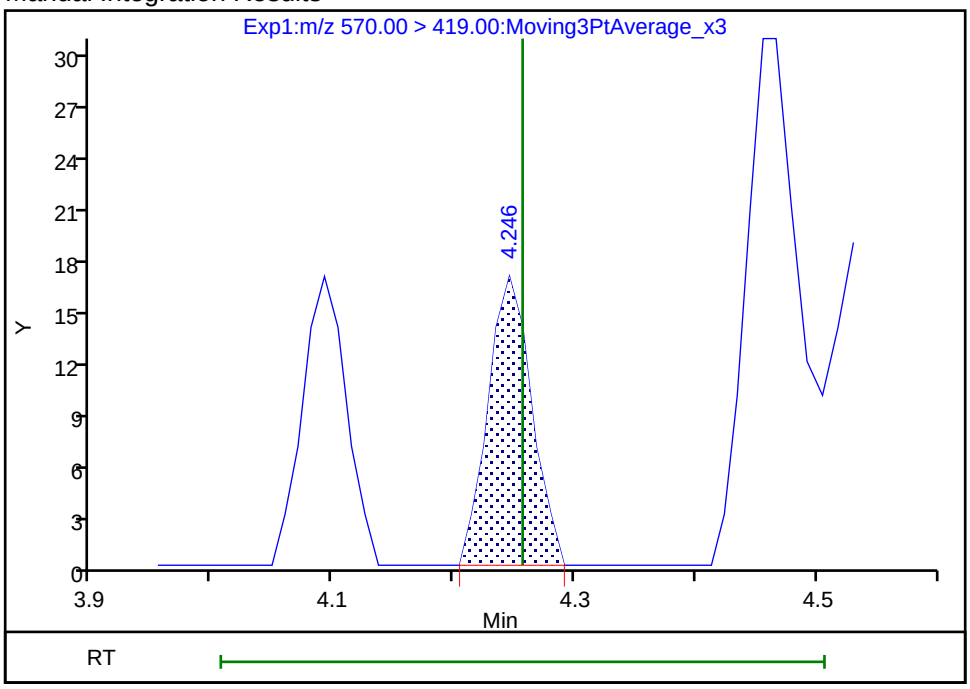
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 42
Amount: 0.000399
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:38:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

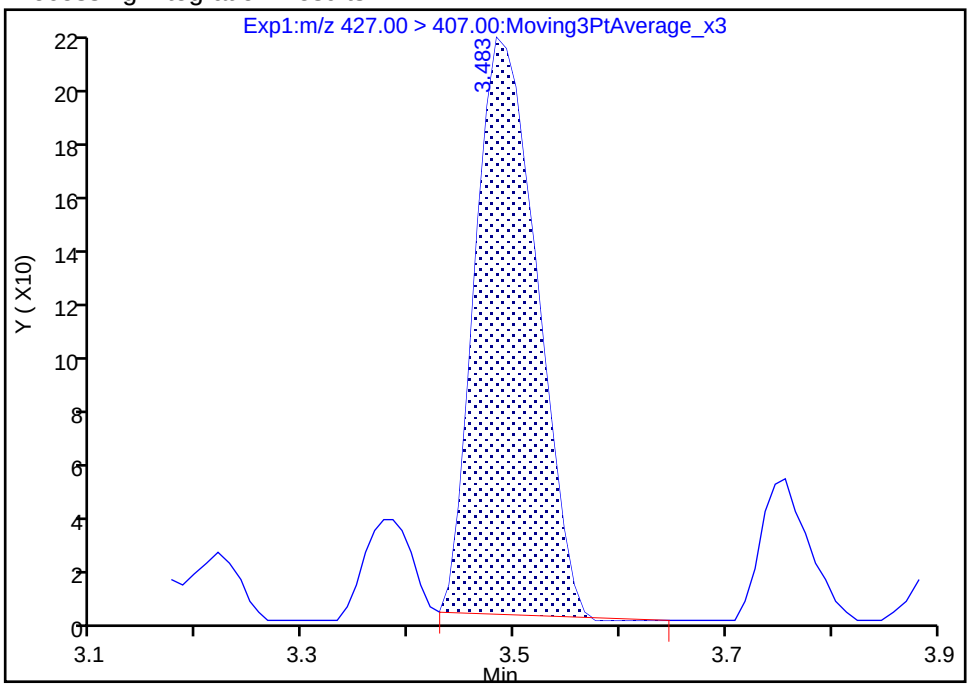
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

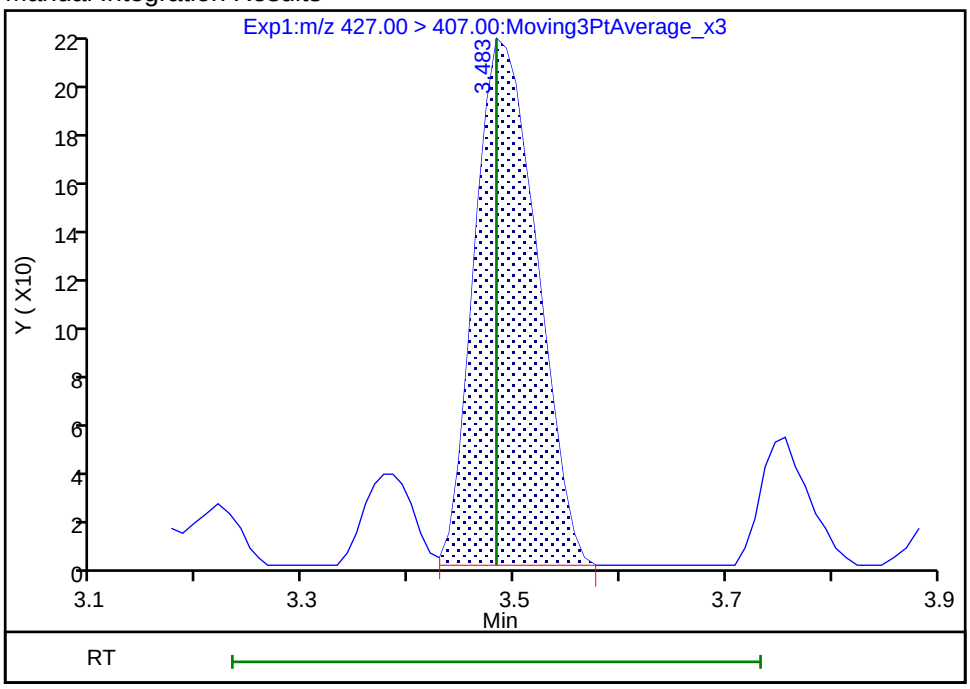
Processing Integration Results

RT: 3.48
Area: 856
Amount: 0.003397
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 875
Amount: 0.003472
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:13:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

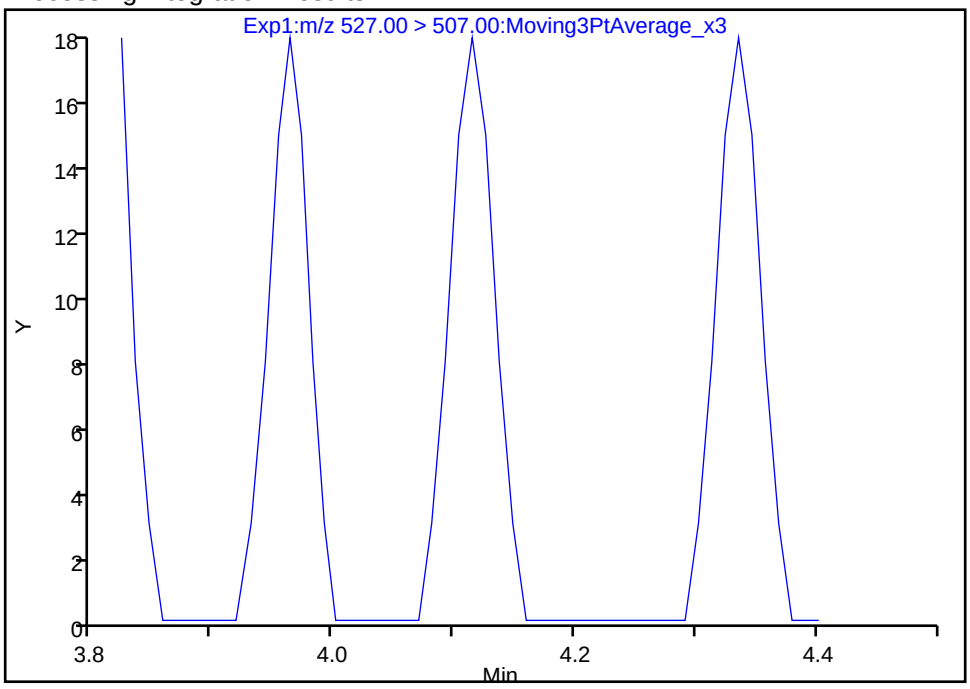
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

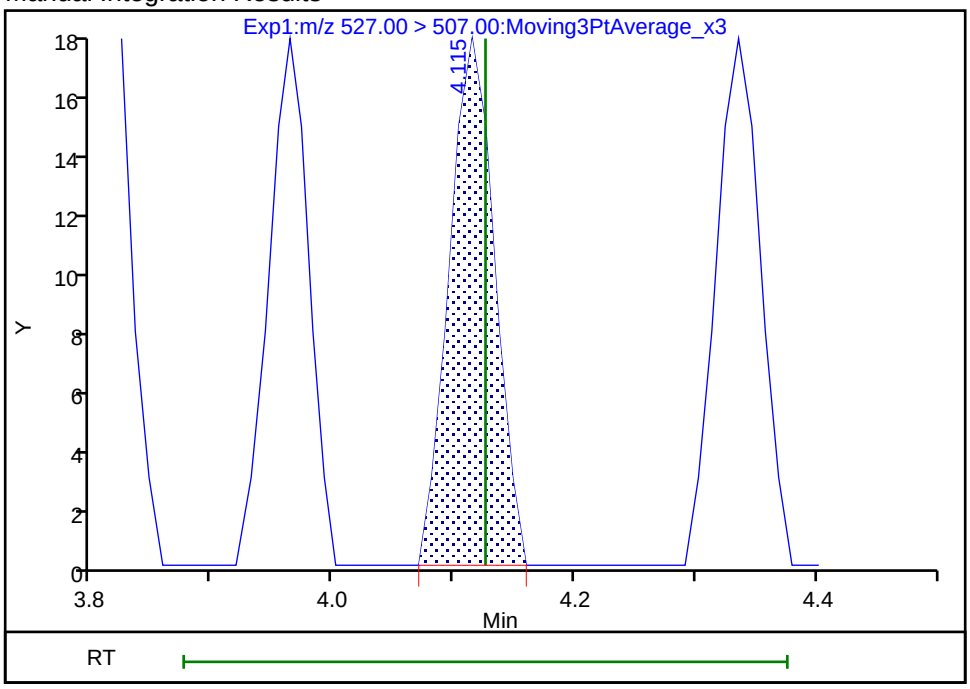
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 46
Amount: 0.000234
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:37:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

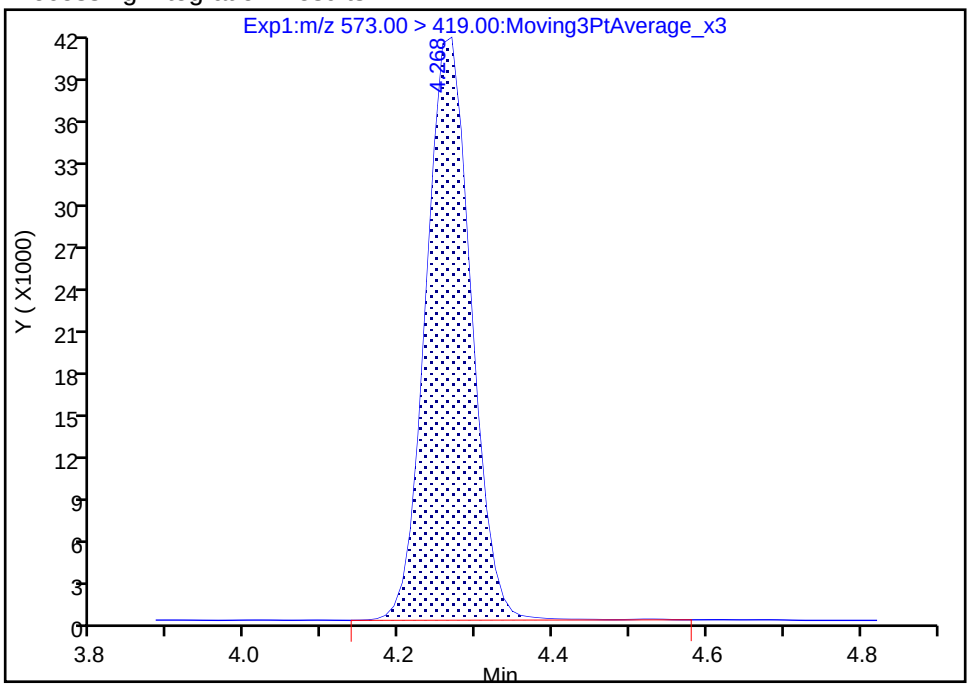
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

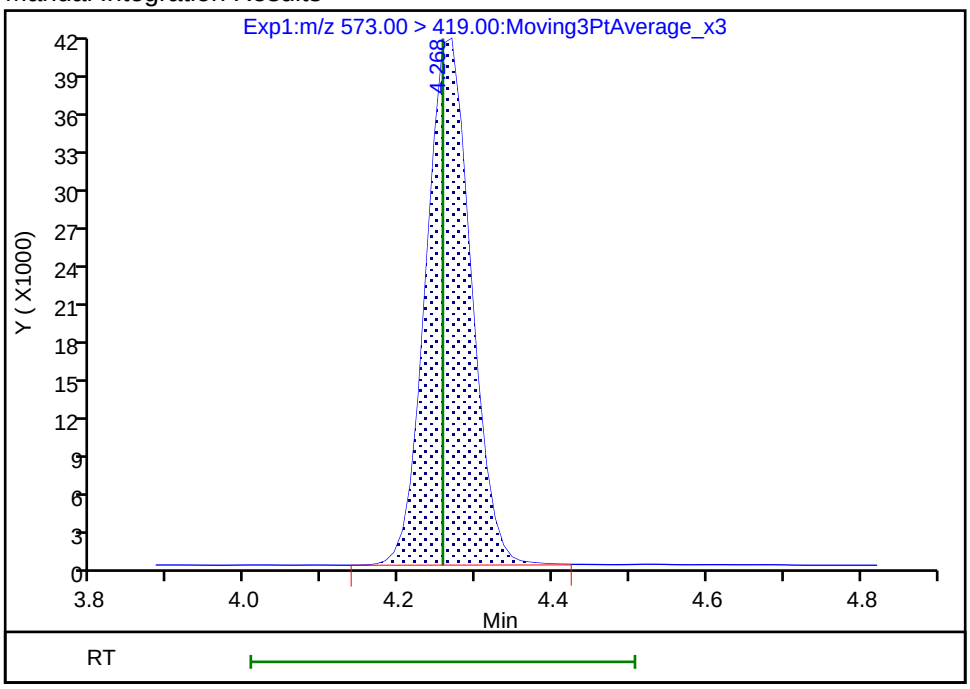
Processing Integration Results

RT: 4.27
Area: 167698
Amount: 1.218817
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 167459
Amount: 1.217080
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:35:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

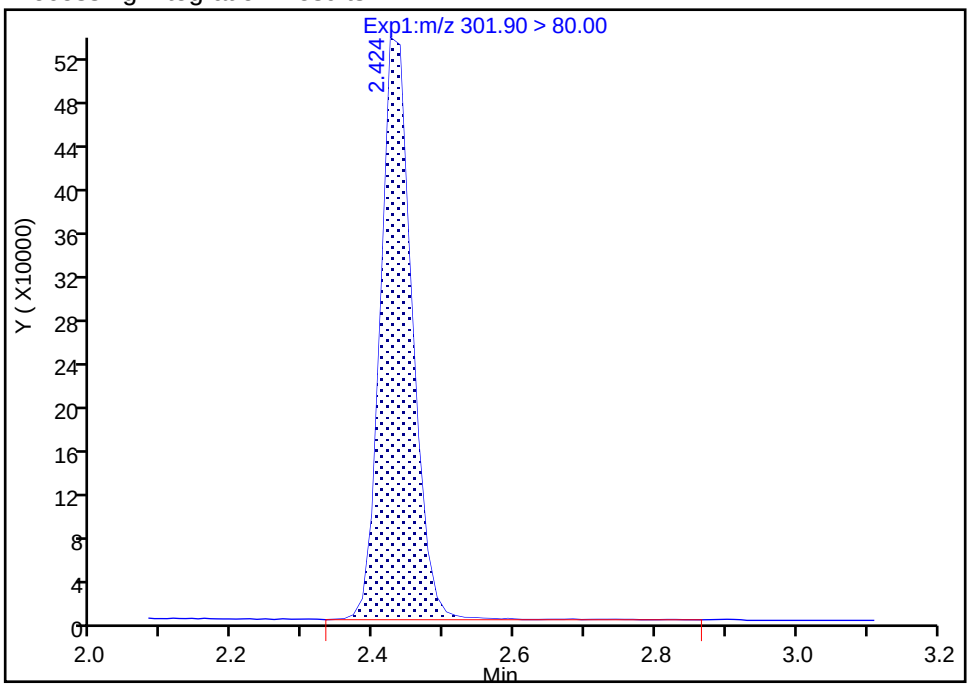
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D20.d | | | | |
| Injection Date: | 10-Nov-2021 06:47:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-13-A | Lab Sample ID: | 200-246277-13 | | |
| Client ID: | AMW-5-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

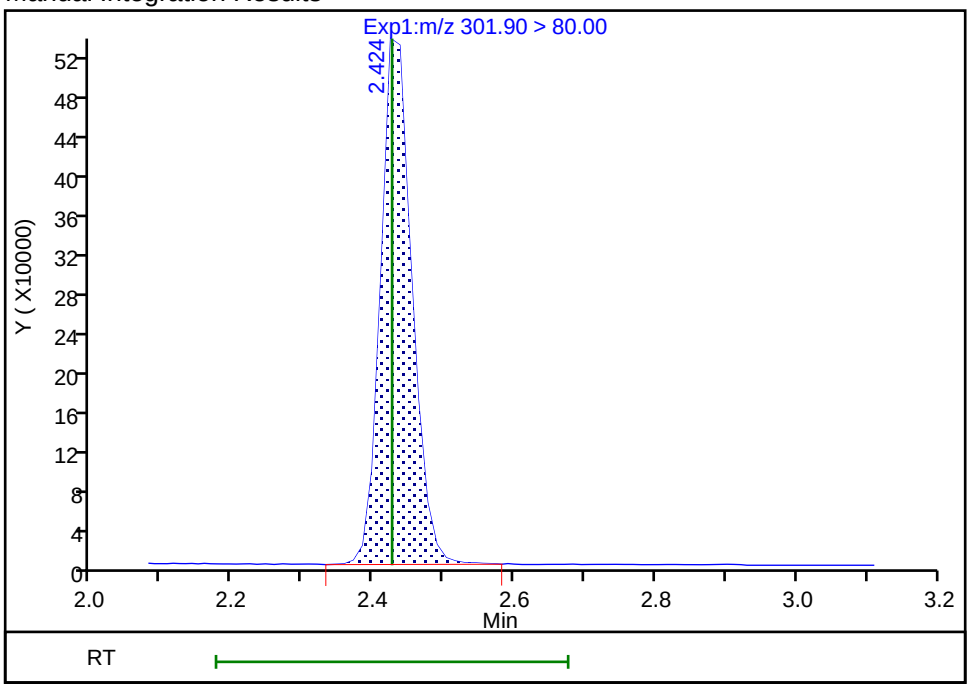
Processing Integration Results

RT: 2.42
Area: 1651338
Amount: 1.058288
Amount Units: ng/ml




Manual Integration Results

RT: 2.42
Area: 1643470
Amount: 1.053245
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:34:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-5S-20211028  Lab Sample ID: 460-246277-14

Matrix: Water  Lab File ID: PA211109D21.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 260.1(mL)  Date Analyzed: 11/10/2021 06:55

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 5.49 | | 4.81 | 0.86 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.59 | J | 1.92 | 0.46 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 1.65 | J | 1.92 | 0.43 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.85 | J | 1.92 | 0.23 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 5.84 | | 1.92 | 0.41 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.27 | U | 1.92 | 0.27 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.29 | U | 1.92 | 0.29 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.33 | U | 1.92 | 0.33 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.37 | U | 1.92 | 0.37 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.42 | U | 1.92 | 0.42 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.61 | U | 1.92 | 0.61 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 4.34 | | 1.92 | 0.24 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 14.5 | | 1.92 | 0.29 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.76 | J | 1.92 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 28.9 | | 1.92 | 0.28 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.92 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.55 | U | 1.92 | 0.55 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.87 | U | 4.81 | 0.87 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.71 | U | 4.81 | 0.71 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.05 | U | 4.81 | 1.05 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.92 | 0.37 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-5S-20211028  Lab Sample ID: 460-246277-14

Matrix: Water  Lab File ID: PA211109D21.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 260.1(mL)  Date Analyzed: 11/10/2021 06:55

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 101 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 111 | | 25-150 |
| STL00993 | 13C2 PFHxA | 100 | | 50-150 |
| STL00996 | 13C2 PFDA | 85 | | 50-150 |
| STL00997 | 13C2 PFUnA | 82 | | 50-150 |
| STL00998 | 13C2 PFDoA | 78 | | 50-150 |
| STL01056 | 13C8 FOSA | 93 | | 25-150 |
| STL01893 | 13C5 PFPeA | 107 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 69 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 94 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 89 | | 50-150 |
| STL02279 | M2-6:2 FTS | 110 | | 25-150 |
| STL02280 | M2-8:2 FTS | 110 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d
Lims ID: 460-246277-C-14-A
Client ID: MW-5S-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 06:55:59 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-14-A
Misc. Info.: 200-0048356-021 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:42:18
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1577663 | 1.39 | | 111 | 4522 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 170395 | 0.1428 | | | 20.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1281523 | 1.34 | | 107 | 2372 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 42396 | 0.0413 | | | 1.3 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1396959 | 1.08 | | 93.1 | 76442 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 144991 | 0.1130 | Target=2.32 | | 26.7 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 65727 | | 2.21(1.16-3.48) | | 25.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1253658 | 1.25 | | 100 | 3837 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 43653 | 0.0429 | Target=12.09 | | 5.1 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 3298 | | 13.24(6.04-18.13) | | 3.2 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 379056 | 0.3766 | Target=3.55 | | 304 | |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 104429 | | 3.63(1.77-5.32) | | 116 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1082592 | 1.15 | | 97.6 | 3501 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1332356 | 1.26 | | 101 | 4296 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 24466 | 0.0222 | Target=3.69 | | 5.2 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 7191 | | 3.40(1.84-5.53) | | 11.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 15964 | 0.0197 | Target=4.88 | | 20.2 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.913 | 3319 | | 4.81(2.44-7.32) | | 9.1 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 0.997 | 513 | 0.002489 | | | 9.3 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 193019 | 1.30 | | 110 | 320 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1371932 | 1.19 | | 95.3 | 3066 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1399069 | 1.25 | | | 4387 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 177430 | 0.1520 | Target=2.68 | | 19.1 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 76950 | | 2.31(1.34-4.02) | | 128 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 775793 | 1.14 | | 95.8 | 2341 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 529600 | 0.7518 | Target=4.69 | | 429 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 114027 | | 4.64(2.35-7.04) | | 274 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1325043 | 1.16 | | 92.4 | 4999 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 3961 | 0.003819 | Target=7.29 | | 0.9 | RM |
| 463.00 > 169.00 | 3.804 | 3.814 | -0.010 | 0.995 | 360 | | 11.00(3.64-10.93) | | 5.0 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1228432 | 1.06 | | 84.9 | 3954 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.104 | 4.115 | -0.011 | 0.997 | 1359 | 0.001376 | Target=8.95 | | 1.1 | RM |
| 513.00 > 169.00 | 4.137 | 4.115 | 0.022 | 1.005 | 421 | | 3.23(4.47-13.42) | | 2.4 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 220554 | 1.32 | | 110 | 728 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1291674 | 1.16 | | 92.5 | 2662 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 986 | 0.001005 | | | 5.7 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 134012 | 1.18 | | 94.1 | 1987 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 923502 | 1.02 | | 81.9 | 5553 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 1496 | 0.001899 | Target=9.24 | | 1.3 | RM |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 0.997 | 42 | | 35.62(4.62-13.86) | | 1.0 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 119233 | 1.12 | | 89.4 | 911 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.402 | 4.380 | 0.022 | 1.005 | 192 | 0.002349 | | | 3.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 951299 | 0.9801 | | 78.4 | 1977 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 649864 | 0.8633 | | 69.1 | 1772 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 206 | 0.002511 | Target=1.01 | | 6.3 | RM |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 109 | | 1.89(0.51-1.52) | | 4.4 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d

Injection Date: 10-Nov-2021 06:55:59 Instrument ID: LC812

Lims ID: 460-246277-C-14-A Lab Sample ID: 200-246277-14

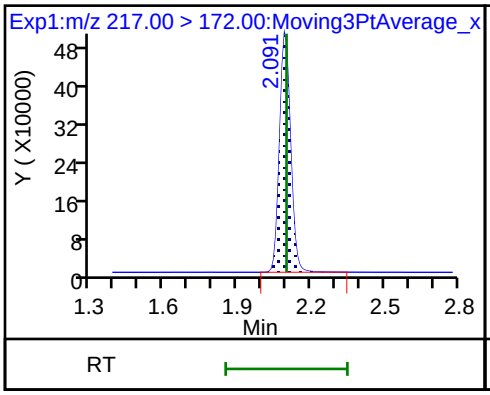
Client ID: MW-5S-20211028

Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 21

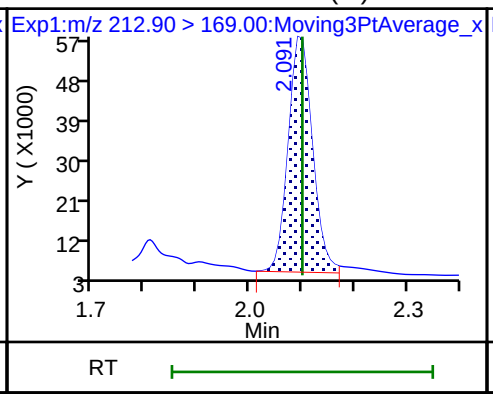
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

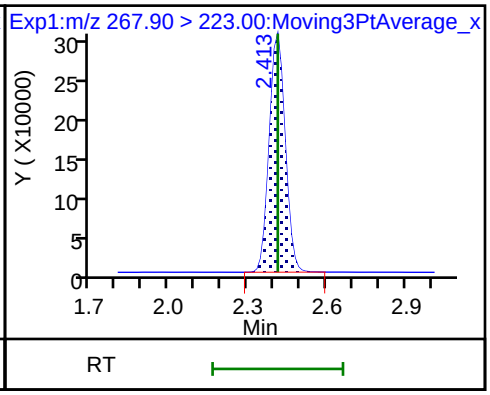
D 1 13C4 PFBA



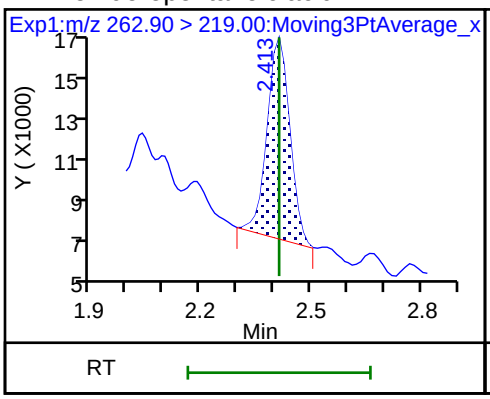

2 Perfluorobutanoic acid (M)



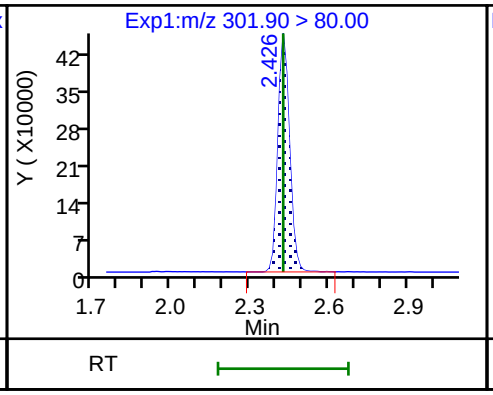

D 3 13C5 PFPeA



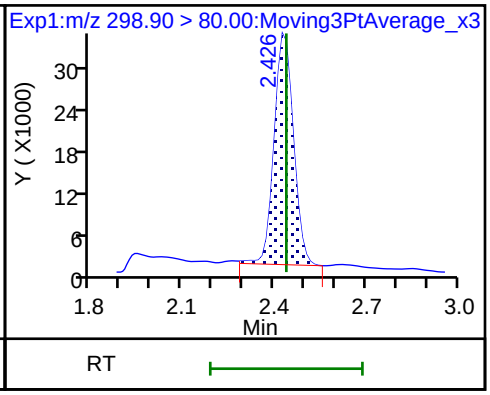

4 Perfluoropentanoic acid



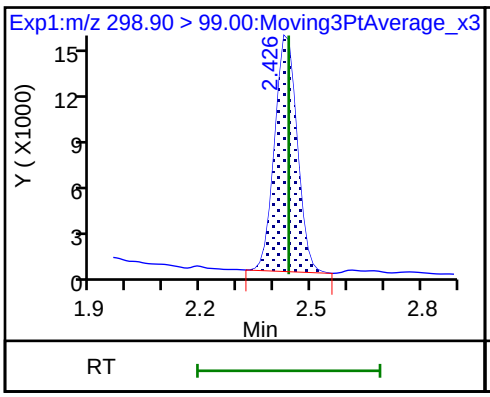

D 47 13C3 PFBS



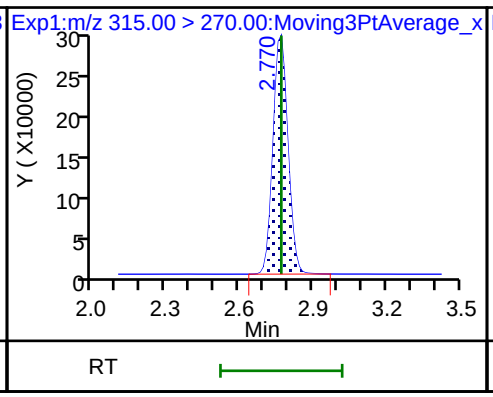

5 Perfluorobutanesulfonic acid



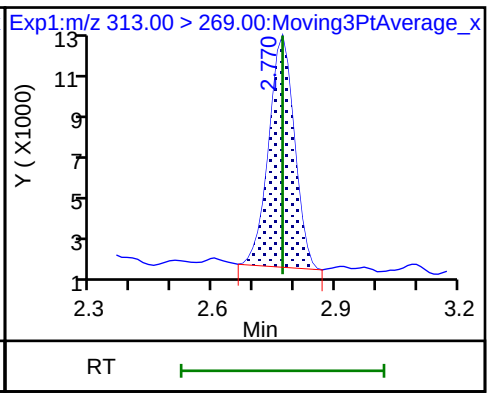

5 Perfluorobutanesulfonic acid



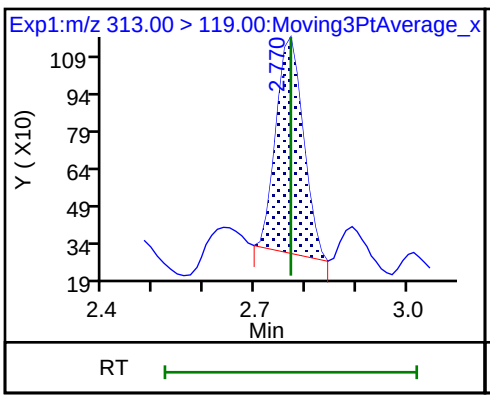

D 7 13C2 PFHxA



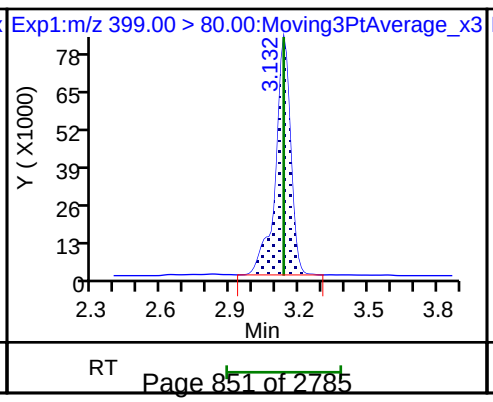

6 Perfluorohexanoic acid



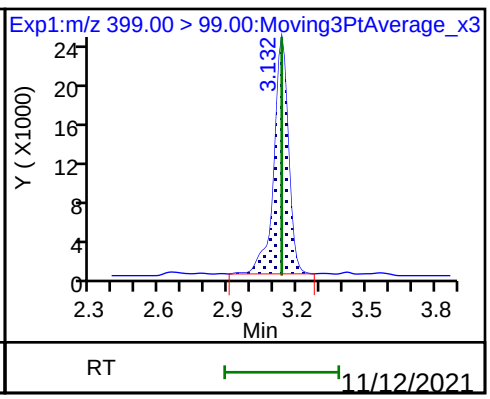

6 Perfluorohexanoic acid



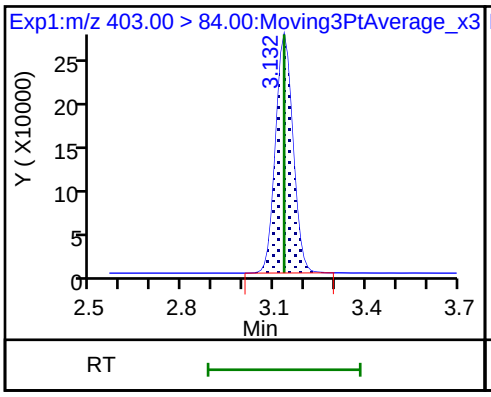

8 Perfluorohexanesulfonic acid



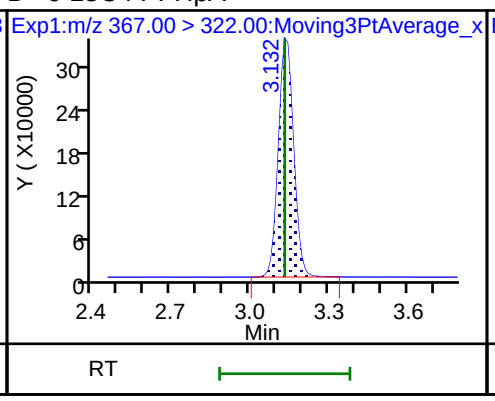

8 Perfluorohexanesulfonic acid



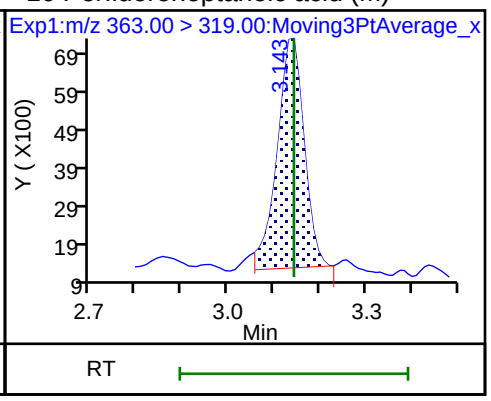
D 11 18O2 PFHxS



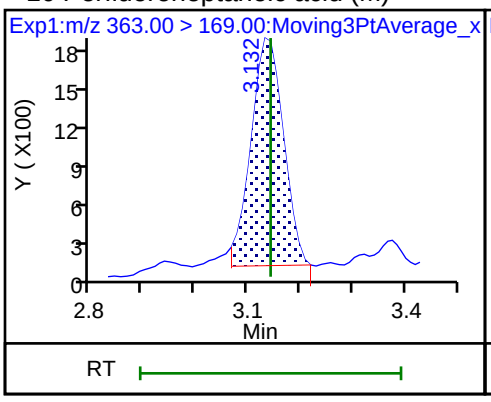

D 9 13C4 PFHpA



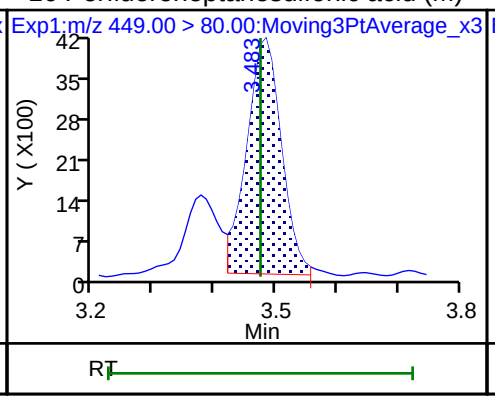

10 Perfluoroheptanoic acid (M)



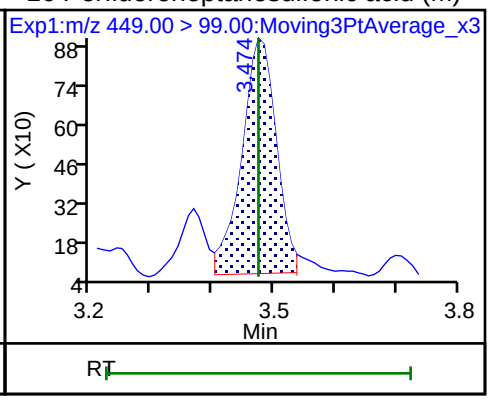

10 Perfluoroheptanoic acid (M)



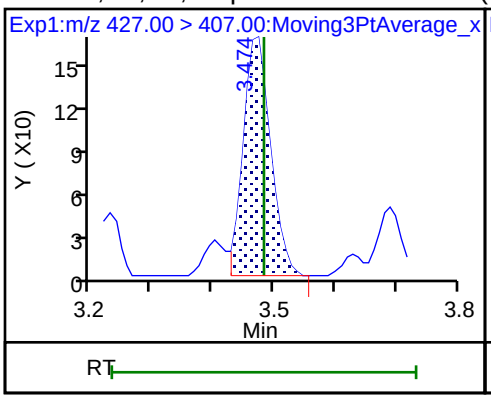

16 Perfluoroheptanesulfonic acid (M)



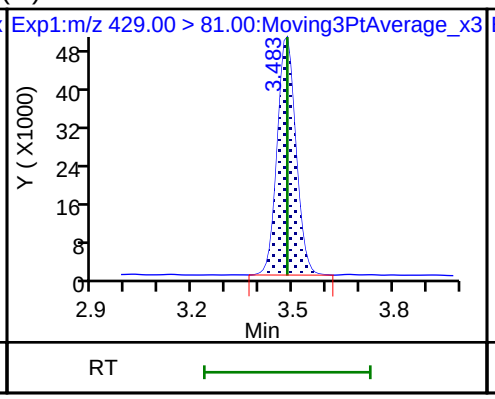

16 Perfluoroheptanesulfonic acid (M)



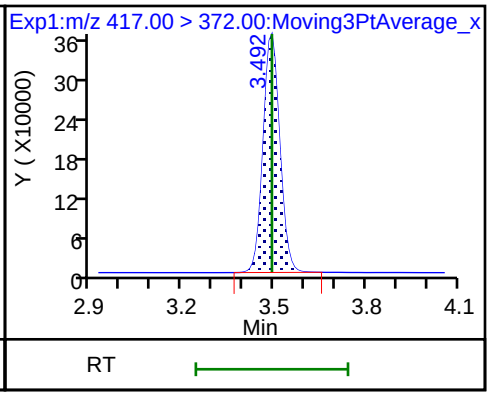

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



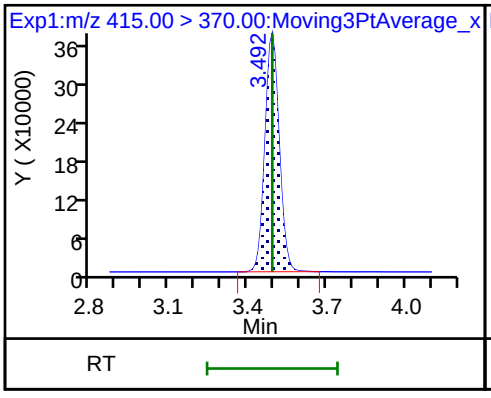

D 12 M2-6:2 FTS



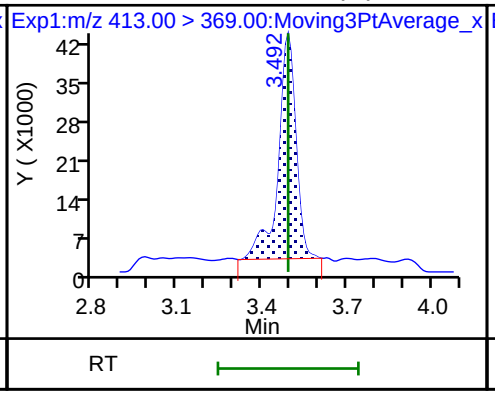

D 14 13C4 PFOA



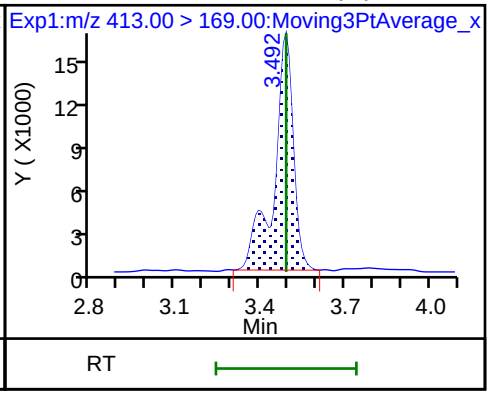

* 62 13C2 PFOA



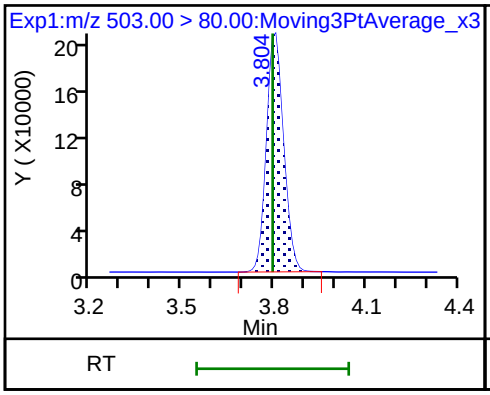

15 Perfluorooctanoic acid (M)



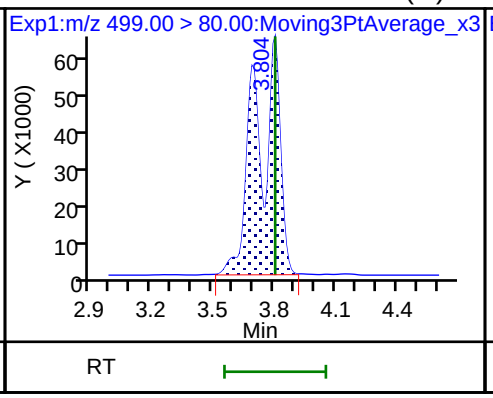

15 Perfluorooctanoic acid (M)



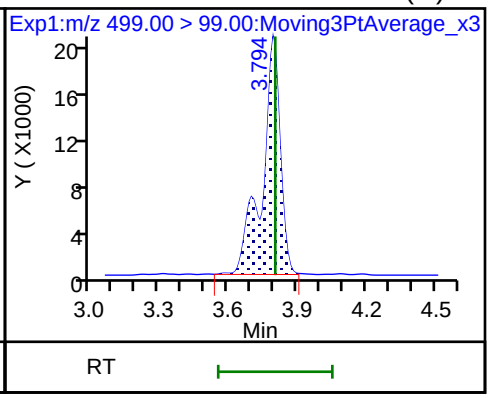
D 18 13C4 PFOS



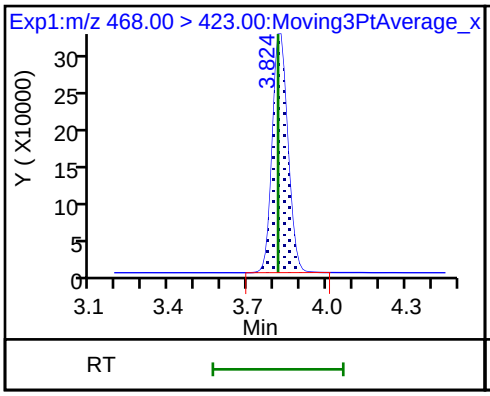

17 Perfluorooctanesulfonic acid (M)



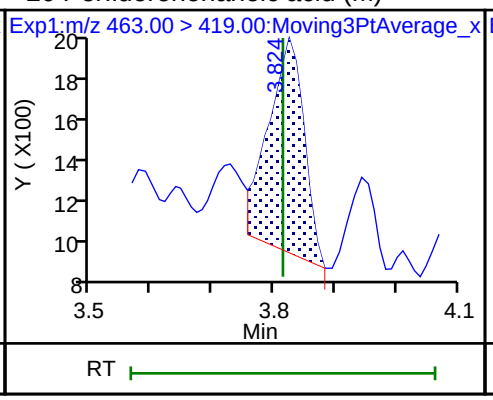

17 Perfluorooctanesulfonic acid (M)



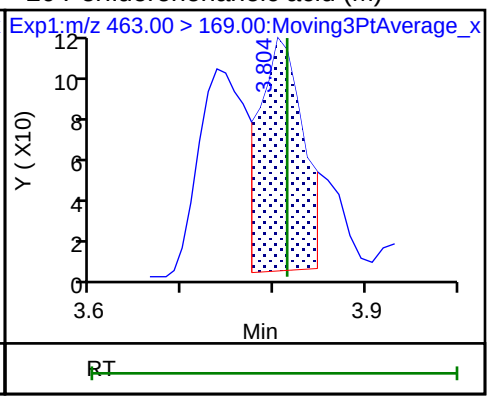

D 19 13C5 PFNA



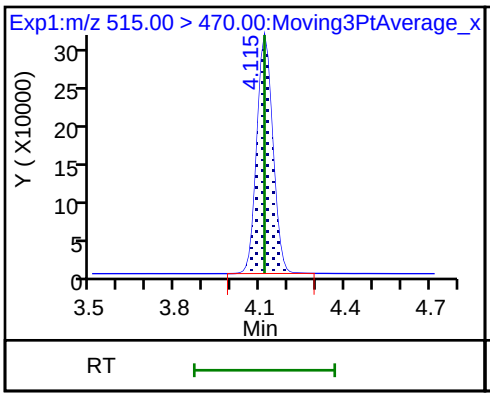

20 Perfluorononanoic acid (M)



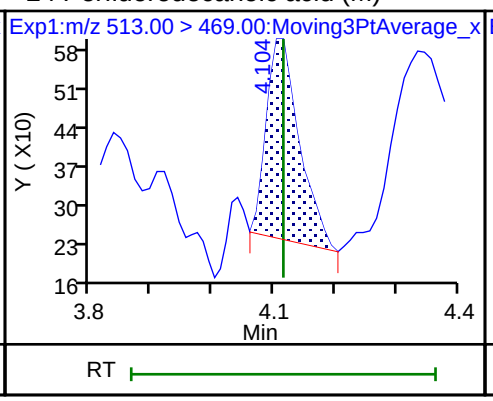

20 Perfluorononanoic acid (M)



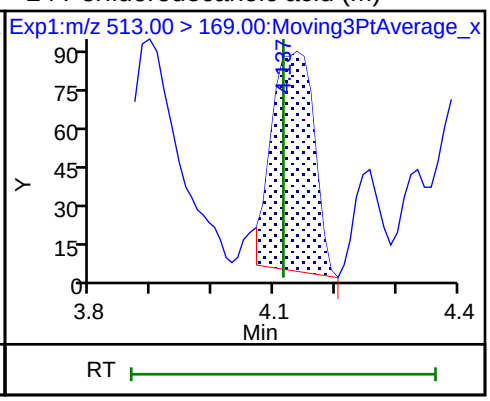

D 23 13C2 PFDA



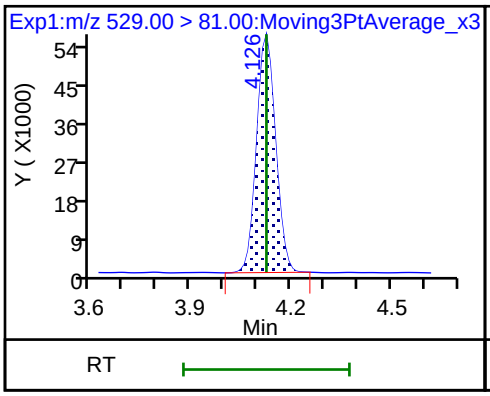

24 Perfluorodecanoic acid (M)



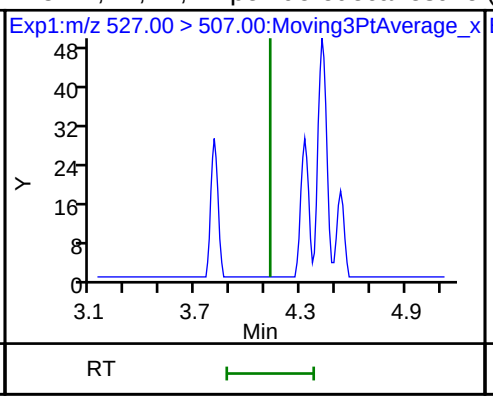

24 Perfluorodecanoic acid (M)



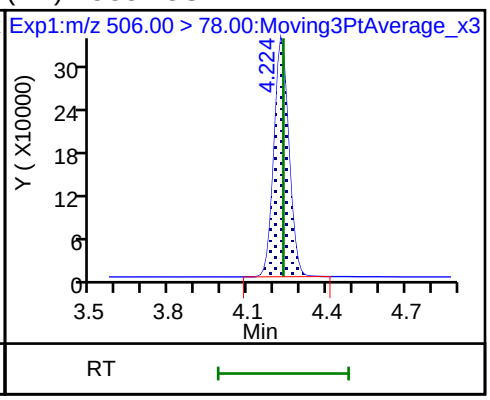

D 26 M2-8:2 FTS



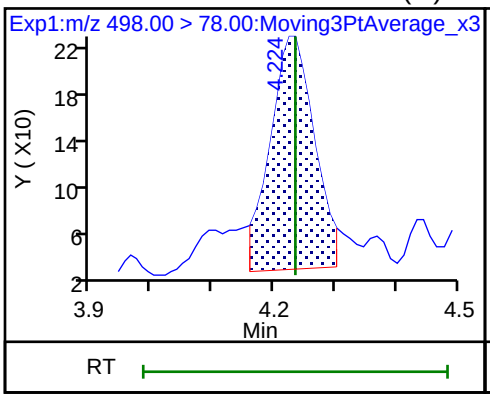

25 1H,1H,2H,2H-perfluorodecanesulfo (M2)



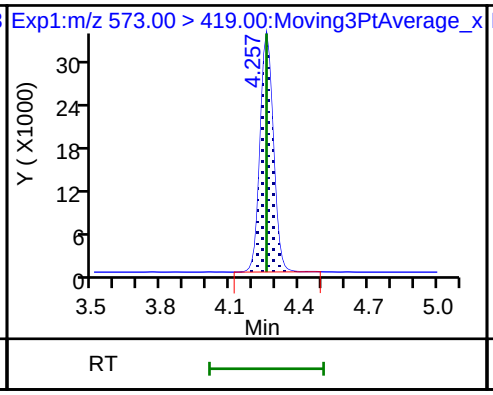

D 21 13C8 FOSA



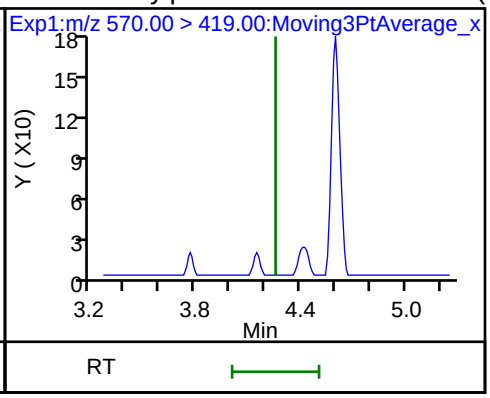
22 Perfluorooctanesulfonamide (M)



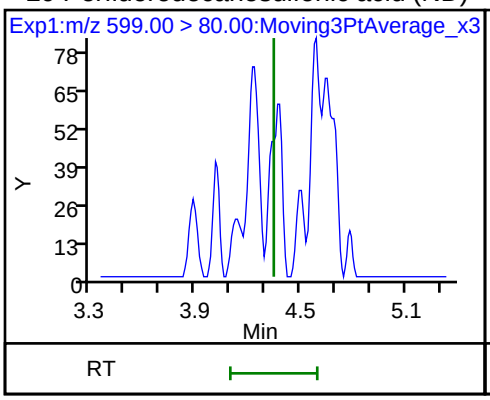

D 27 d3-NMeFOSAA



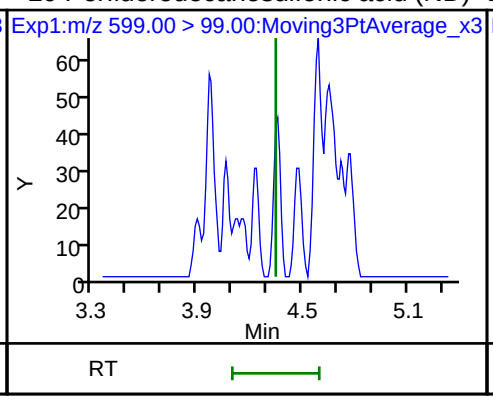

28 N-methylperfluorooctanesulfonami (ND)



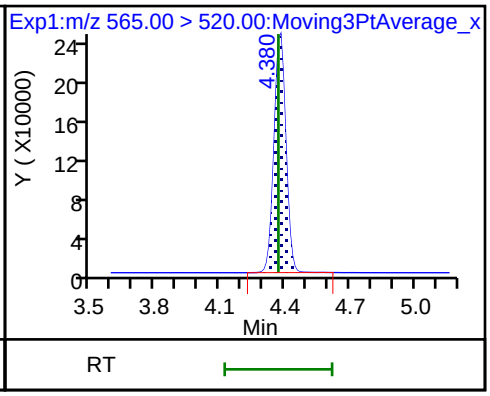

29 Perfluorodecanesulfonic acid (ND)



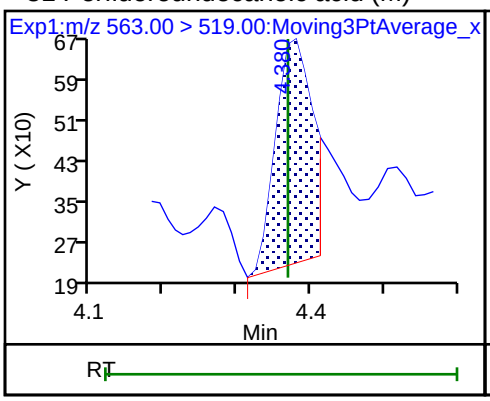

29 Perfluorodecanesulfonic acid (ND)



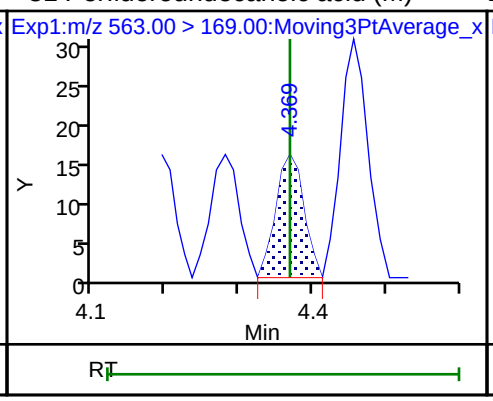

D 30 13C2 PFUnA



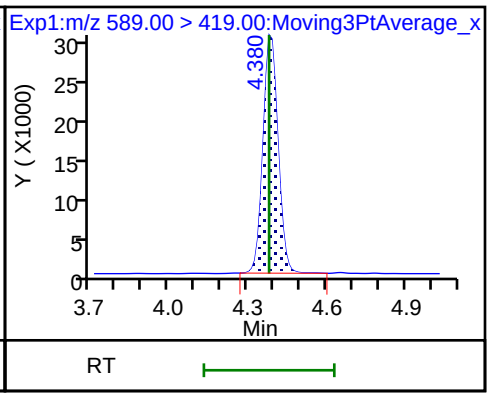

31 Perfluoroundecanoic acid (M)



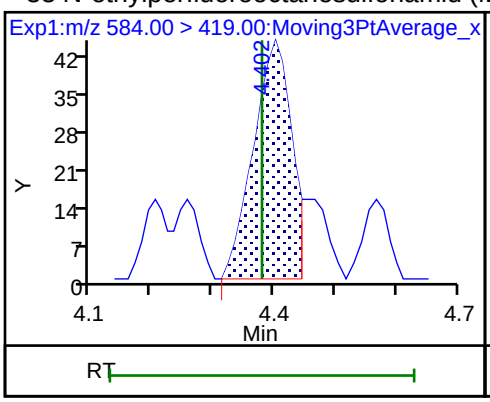

31 Perfluoroundecanoic acid (M)



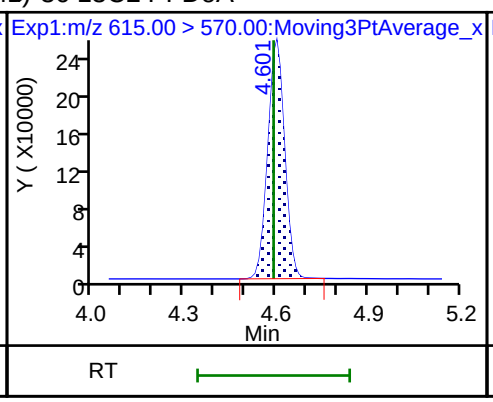

D 32 d5-NEtFOSAA



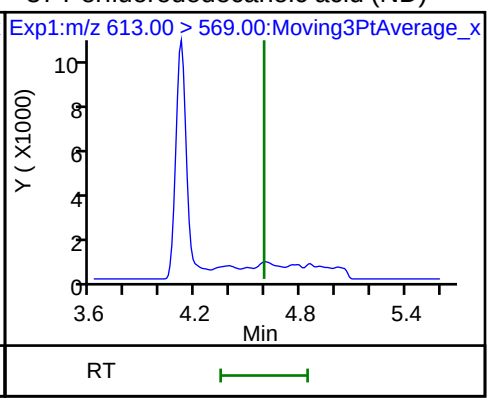

33 N-ethylperfluorooctanesulfonamid (ND)



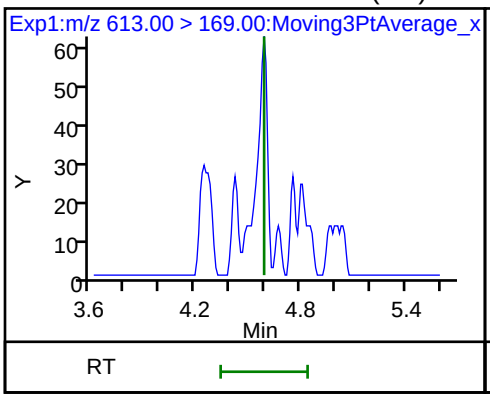

D 36 13C2 PFDoA



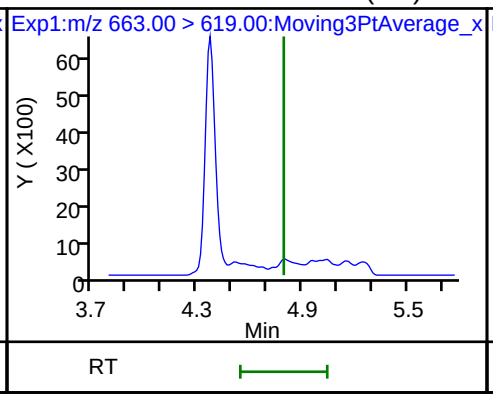

37 Perfluorododecanoic acid (ND)



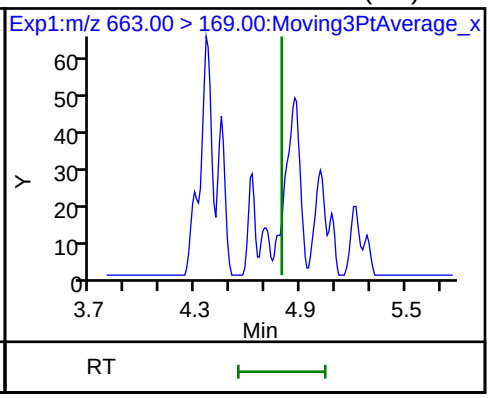
37 Perfluorododecanoic acid (ND)



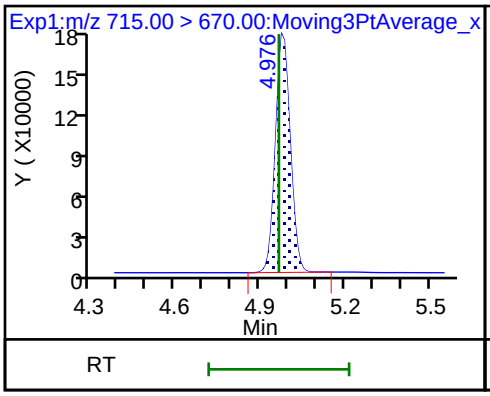

41 Perfluorotridecanoic acid (ND)



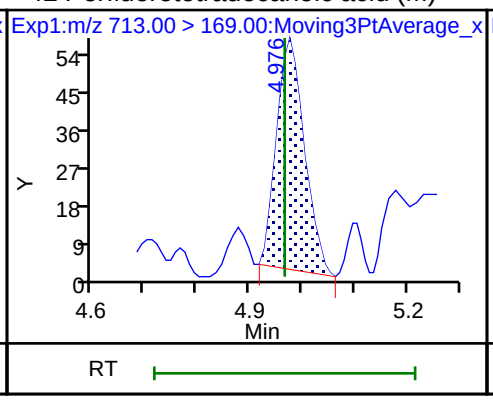

41 Perfluorotridecanoic acid (ND)



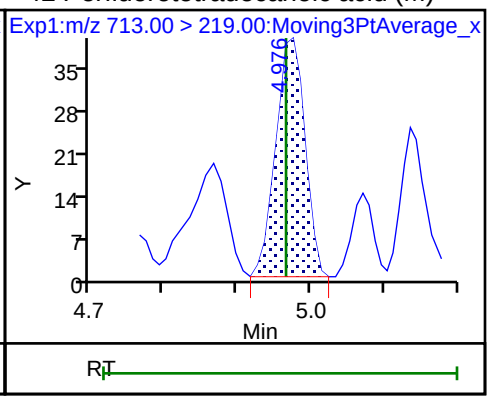

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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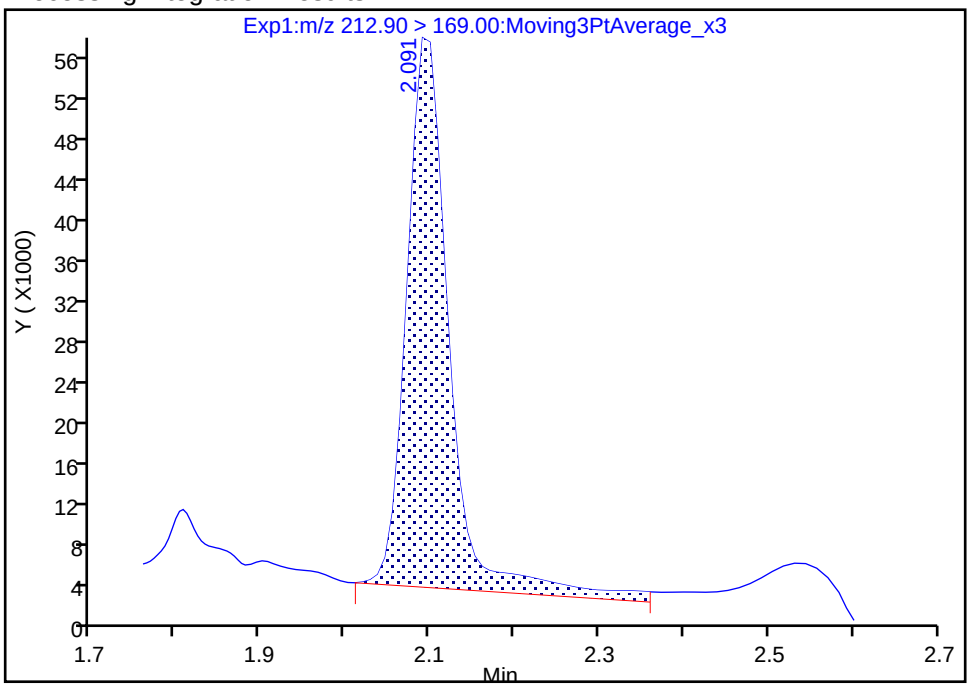
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

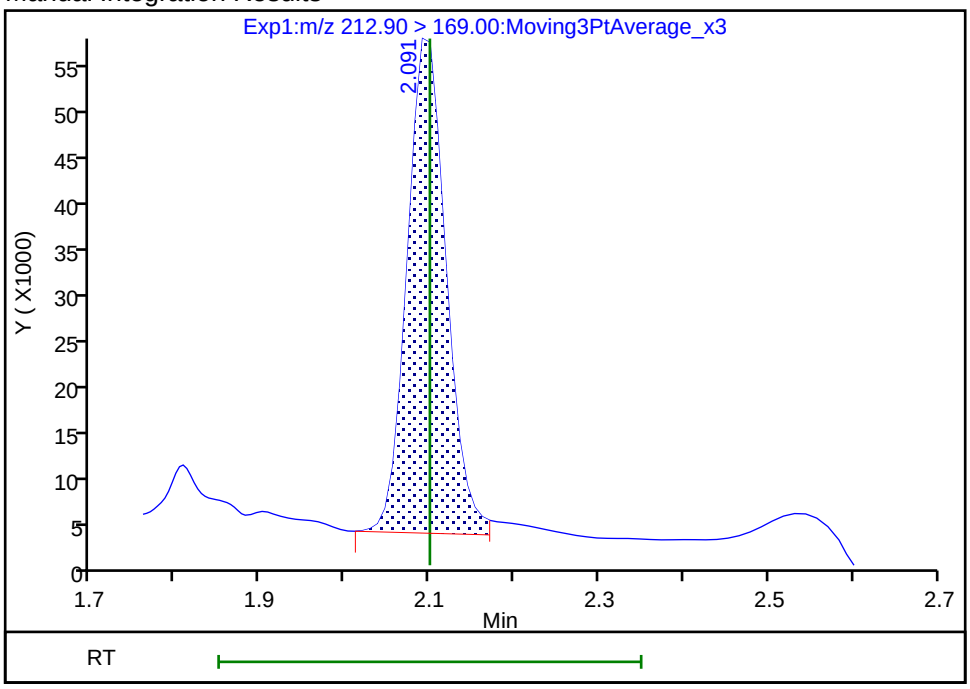
Processing Integration Results

RT: 2.09
Area: 186902
Amount: 0.156611
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 170395
Amount: 0.142779
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:39:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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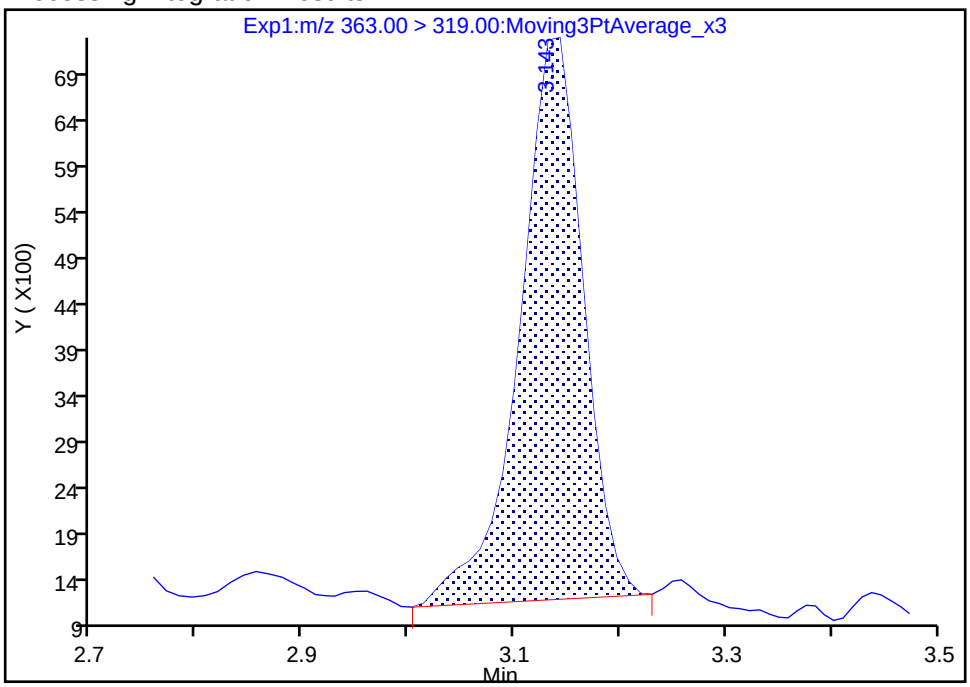
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

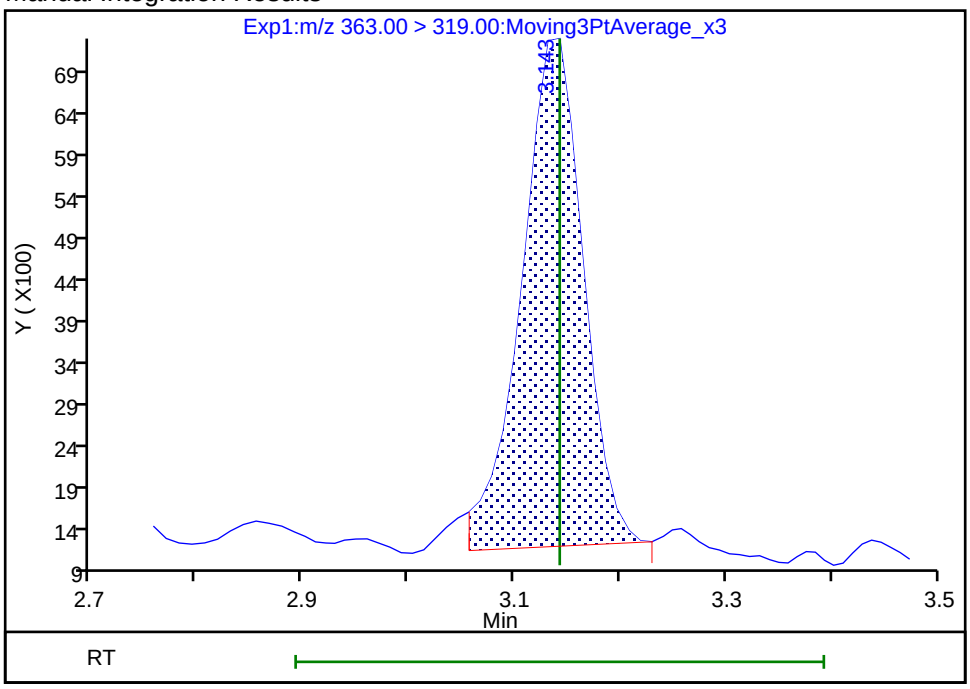
Processing Integration Results

RT: 3.14
Area: 25176
Amount: 0.022860
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 24466
Amount: 0.022216
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:39:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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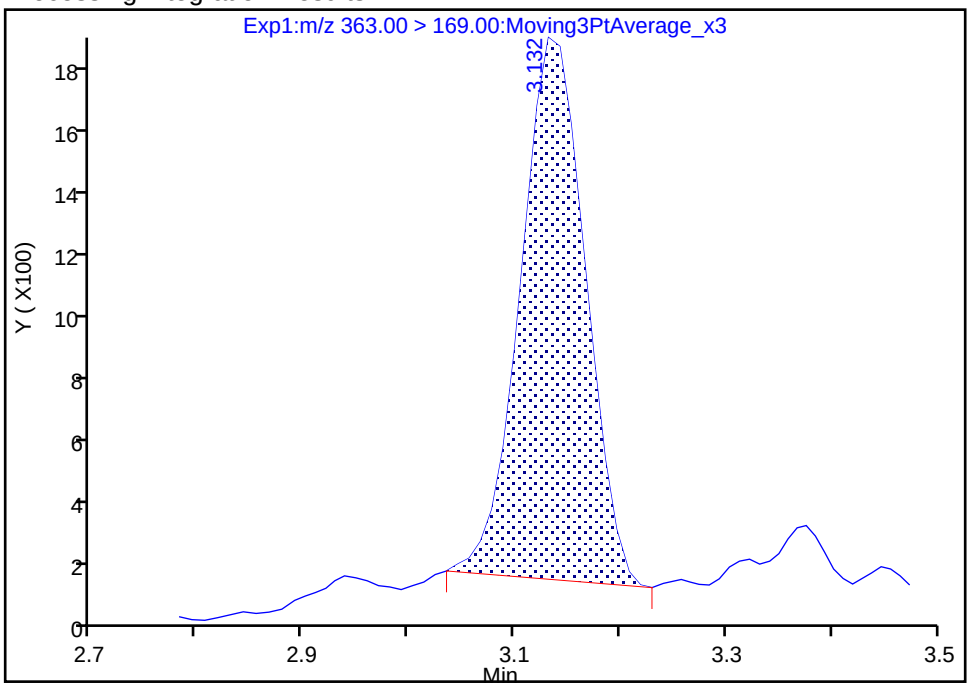
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

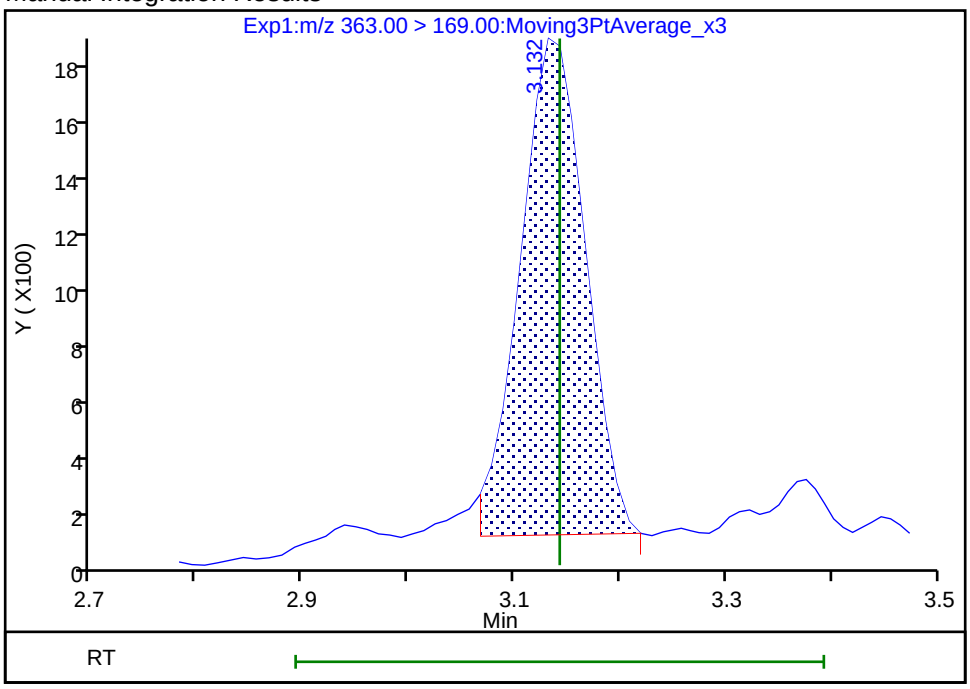
Processing Integration Results

RT: 3.13
Area: 7089
Amount: 0.022860
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 7191
Amount: 0.022216
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:39:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | |
|---|---|---|---|
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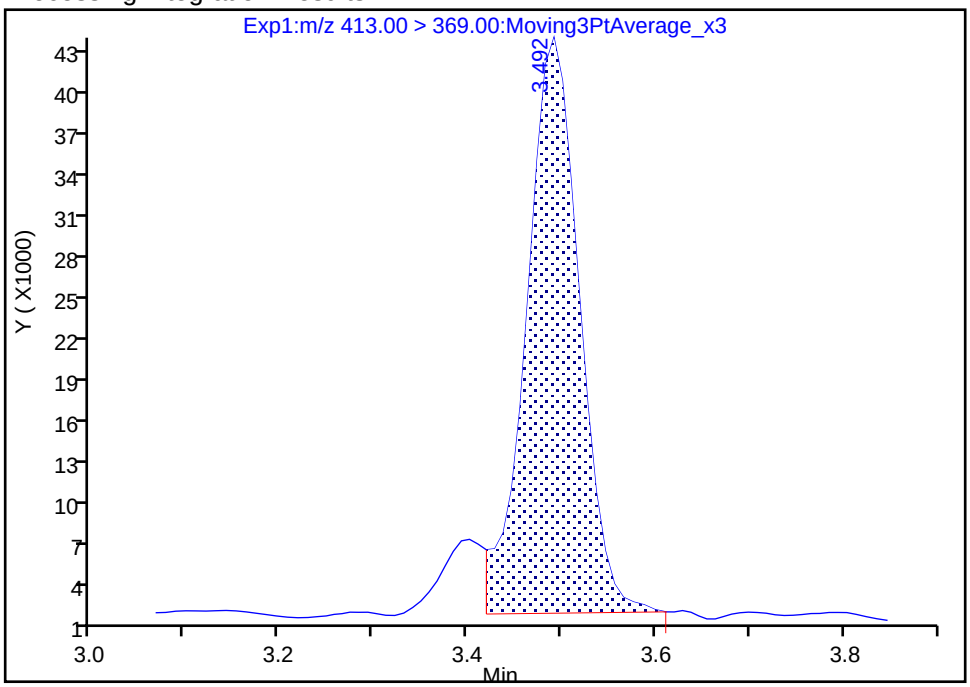
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 |
| Client ID: | MW-5S-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 Worklist Smp#: 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

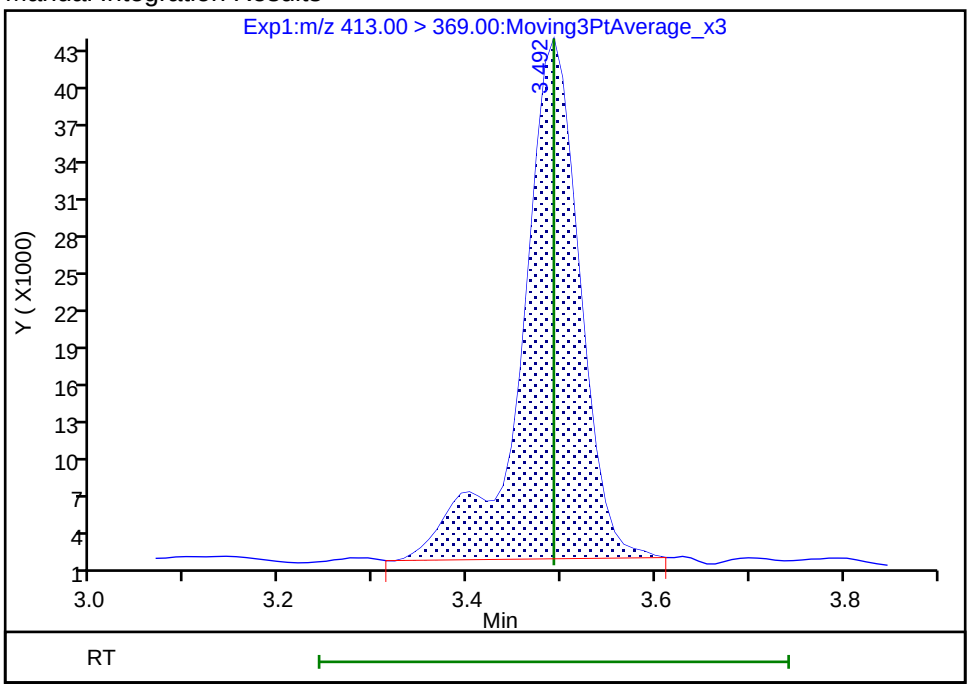
Processing Integration Results

RT: 3.49
Area: 160846
Amount: 0.137808
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 177430
Amount: 0.152017
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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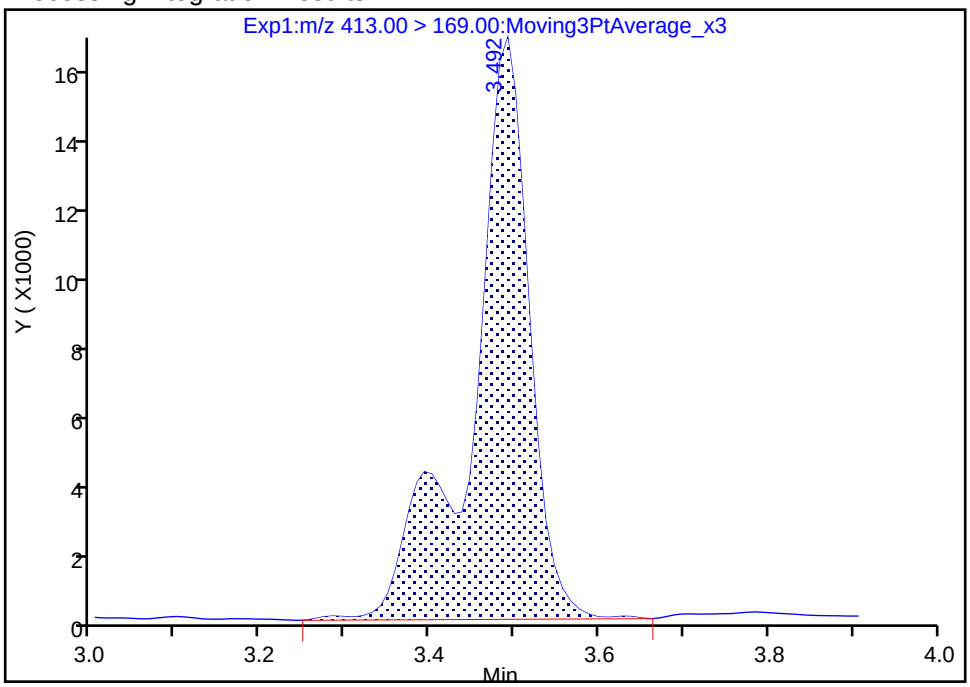
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

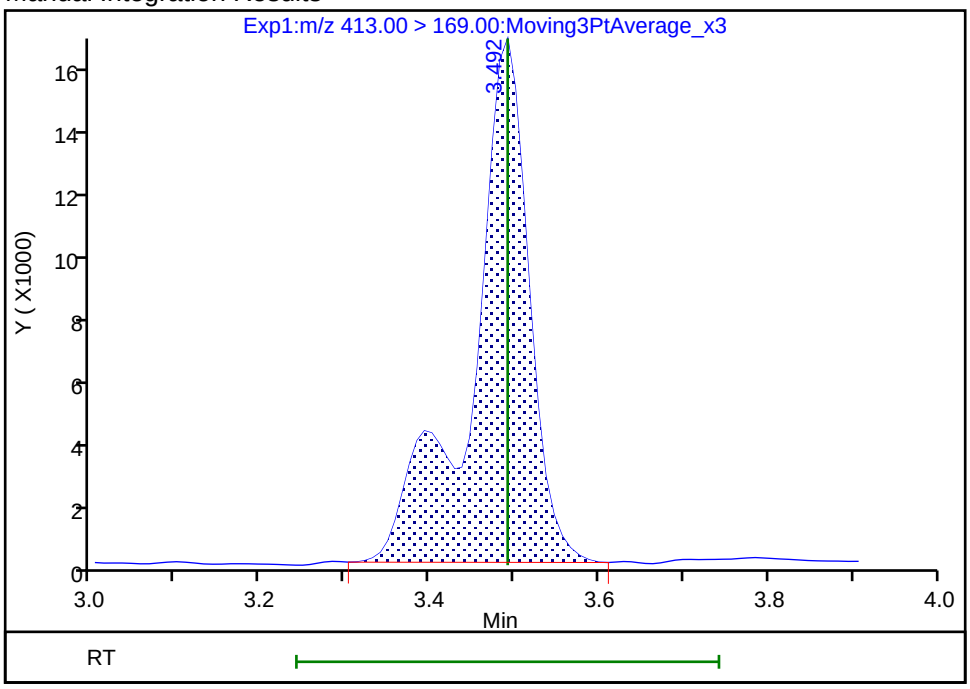
Processing Integration Results

RT: 3.49
Area: 78547
Amount: 0.137808
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 76950
Amount: 0.152017
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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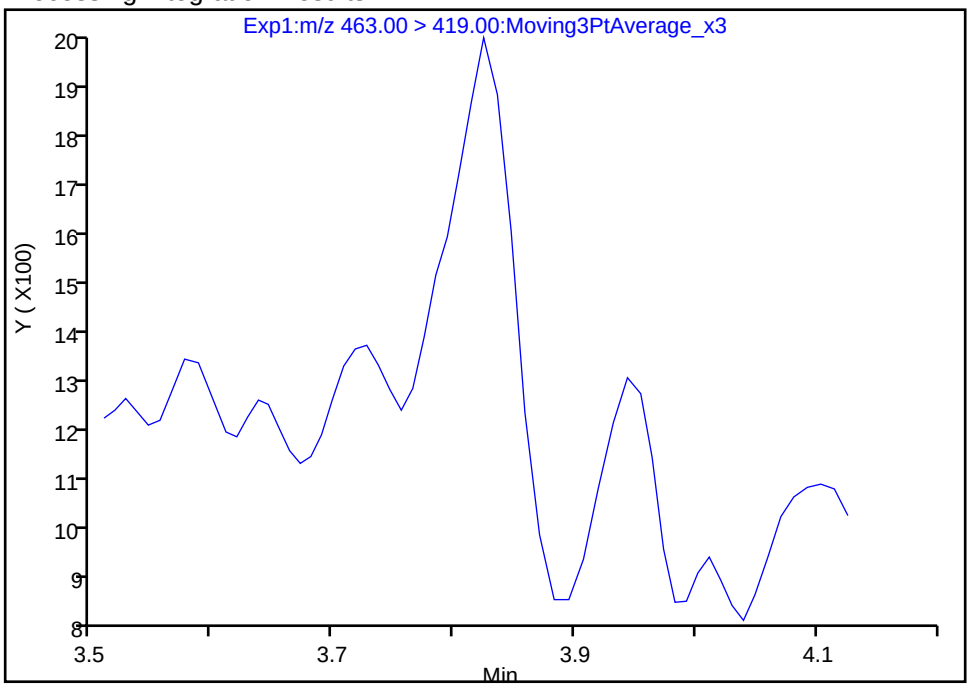
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

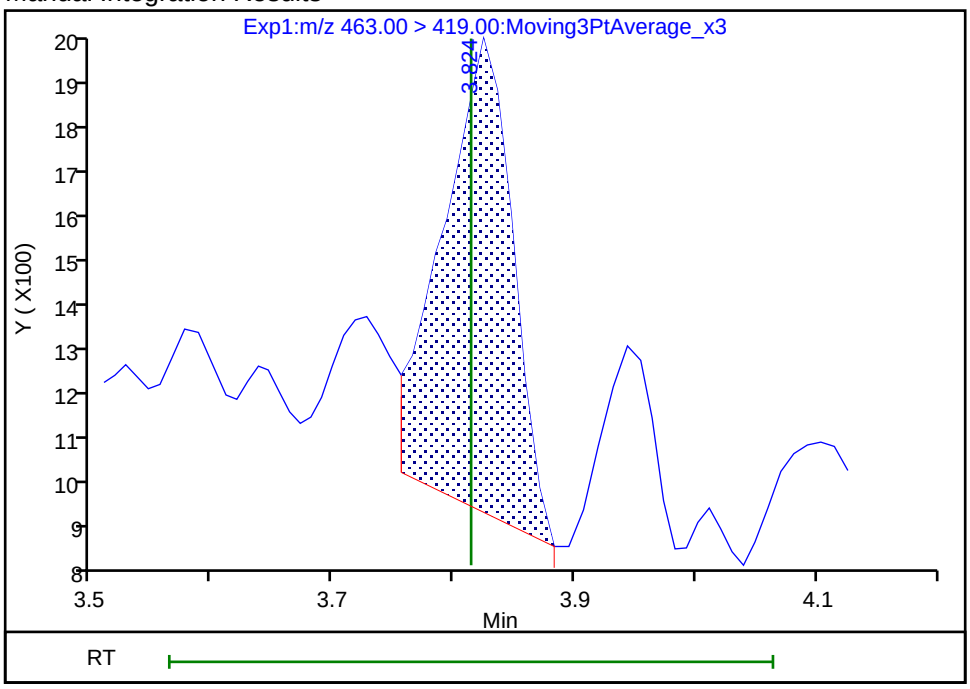
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 3961
Amount: 0.003819
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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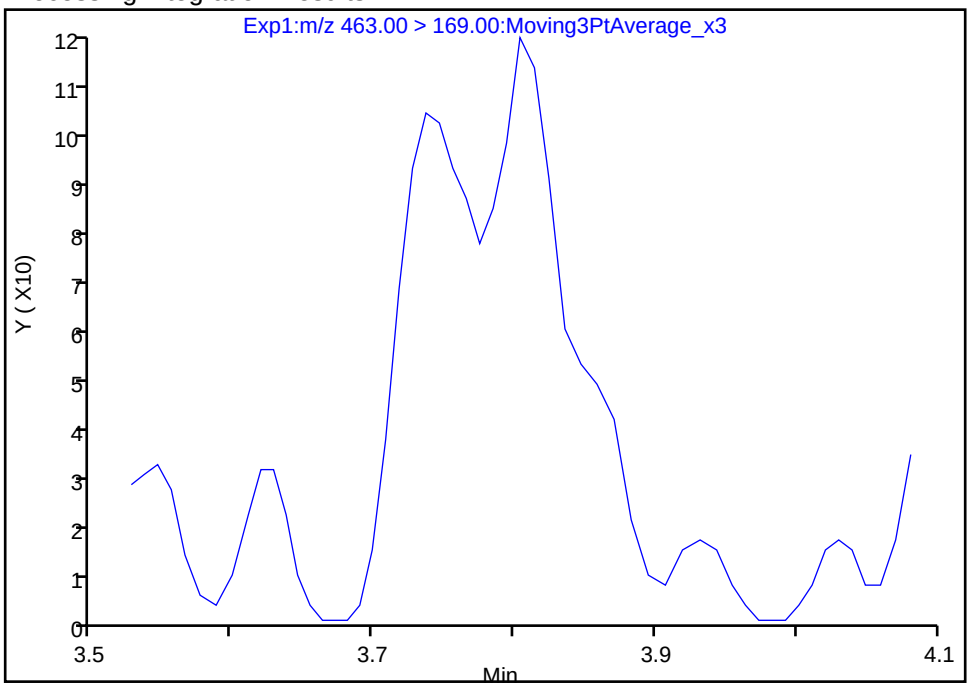
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

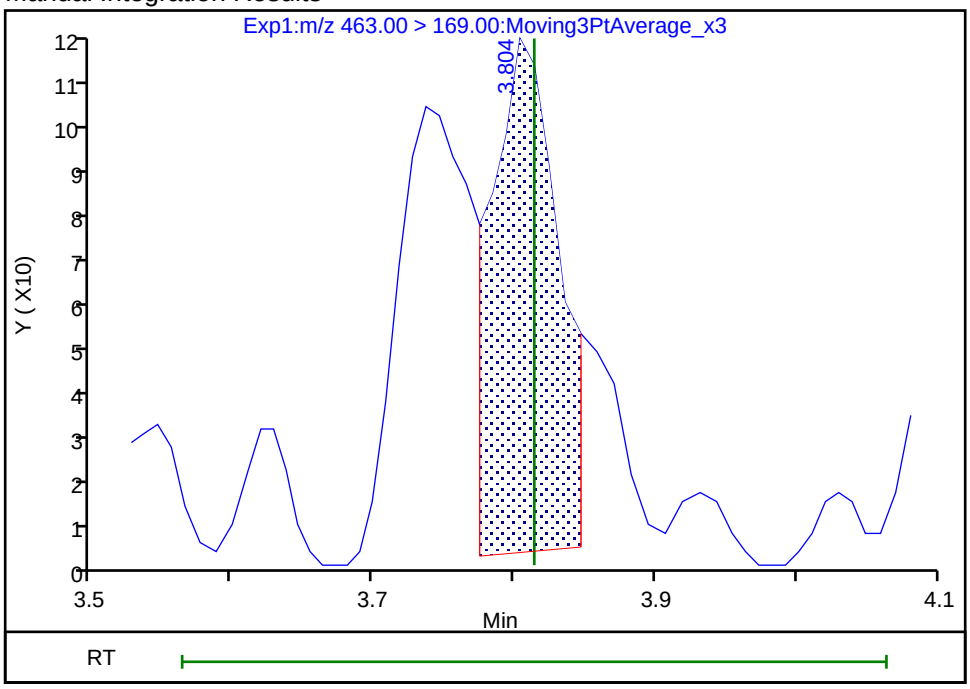
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.80
Area: 360
Amount: 0.003819
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

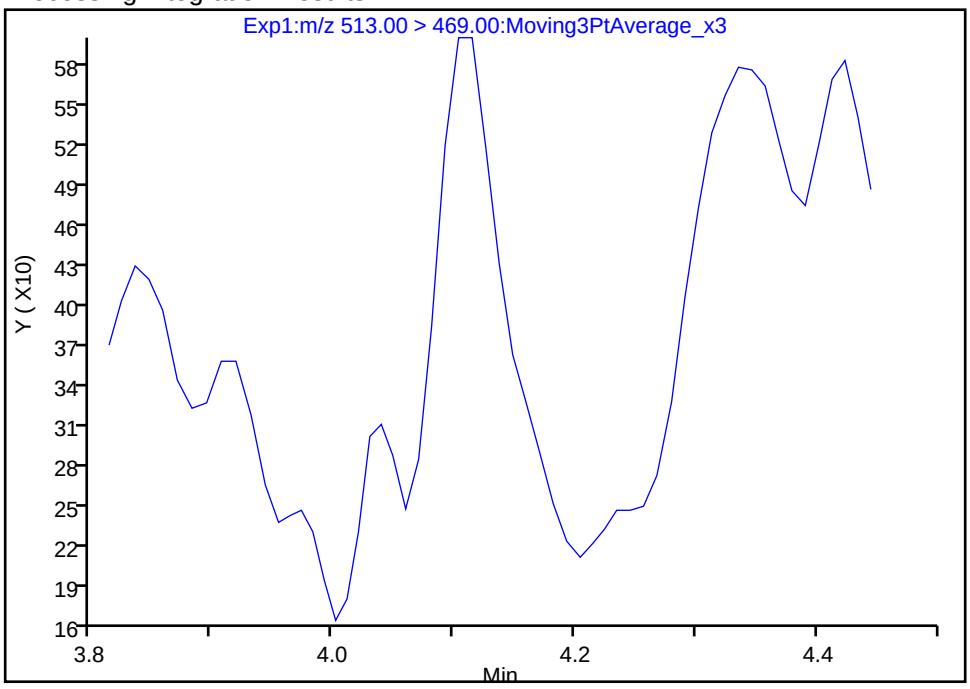
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

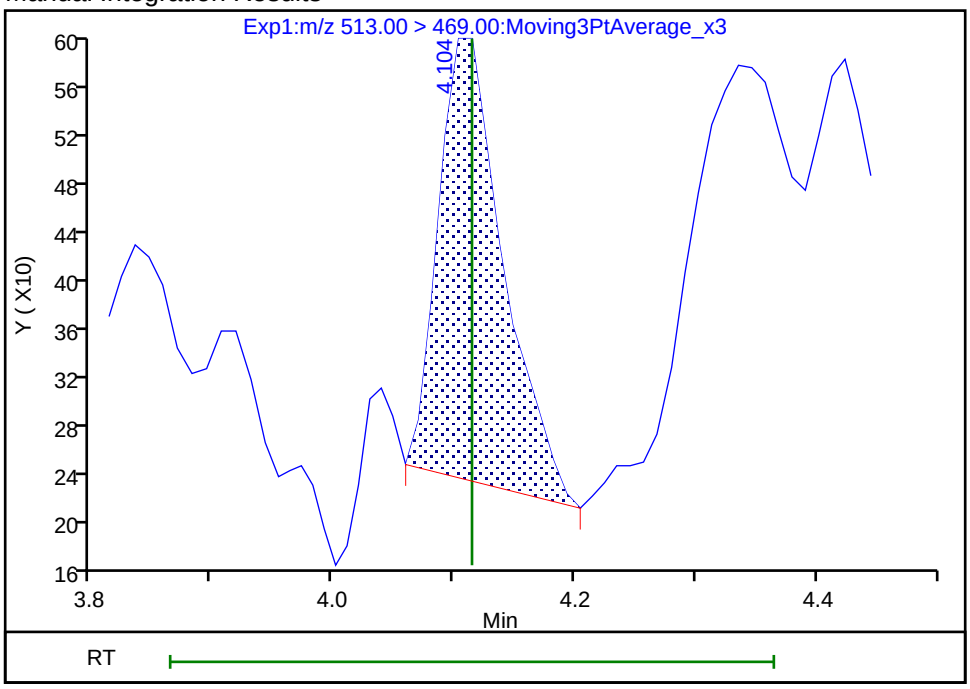
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 1359
Amount: 0.001376
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

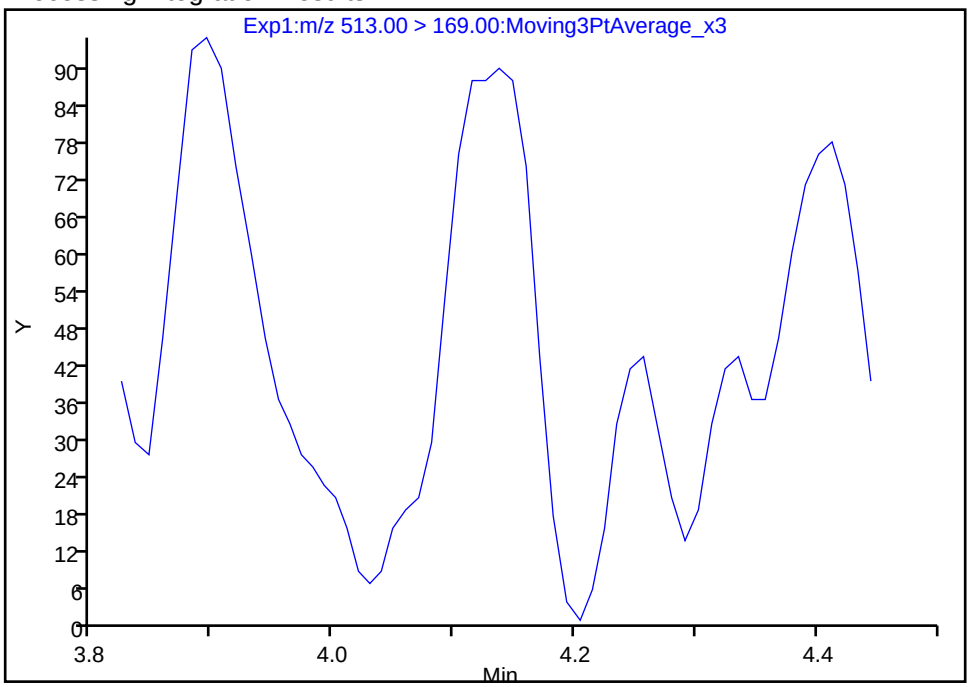
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

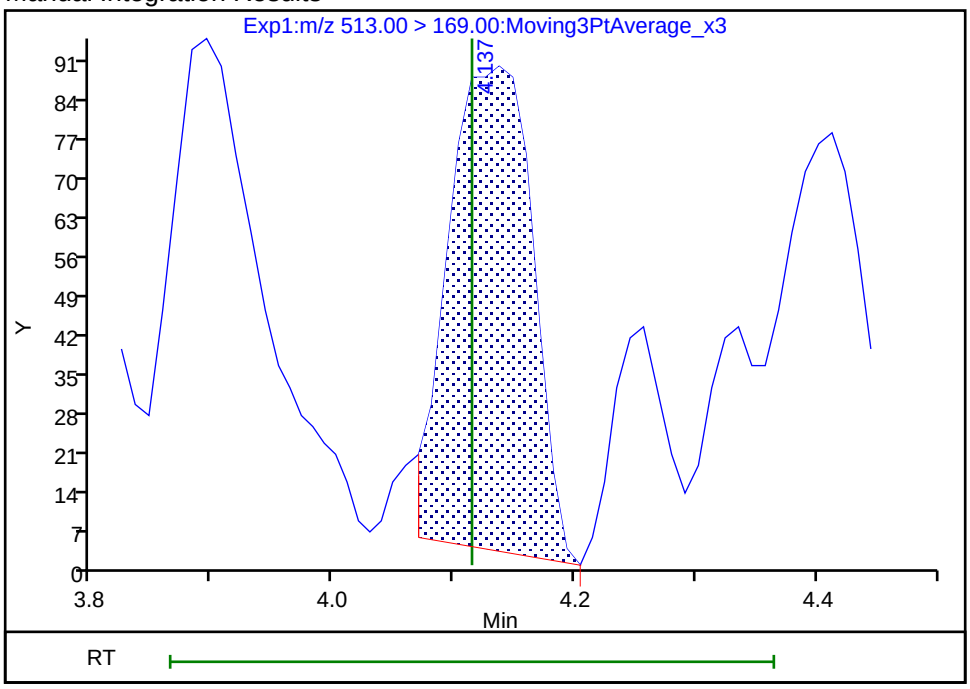
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 421
Amount: 0.001376
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

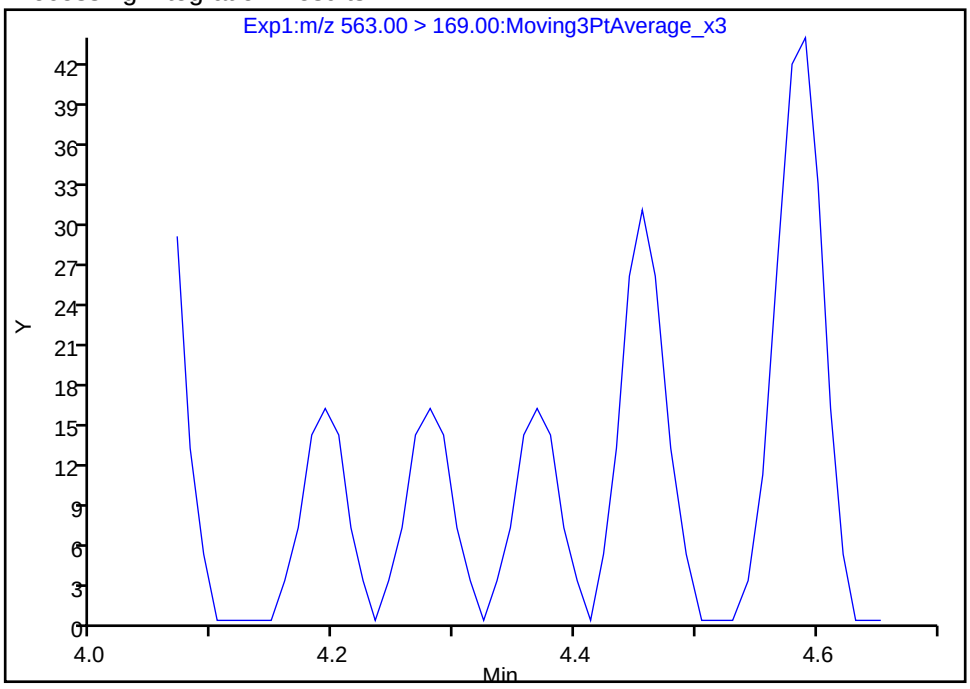
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

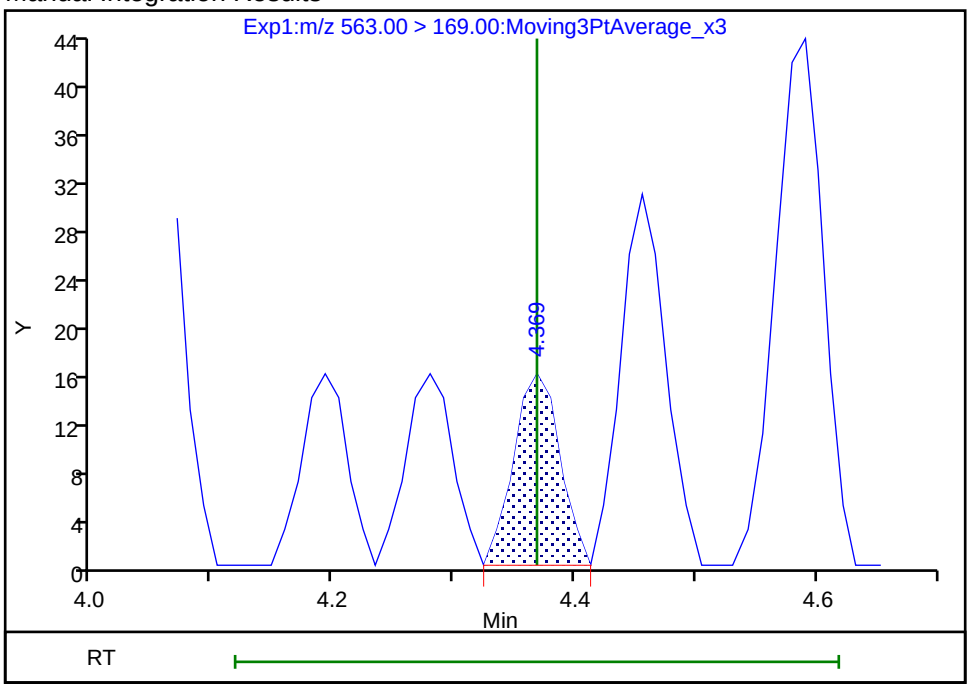
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 42
Amount: 0.001899
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

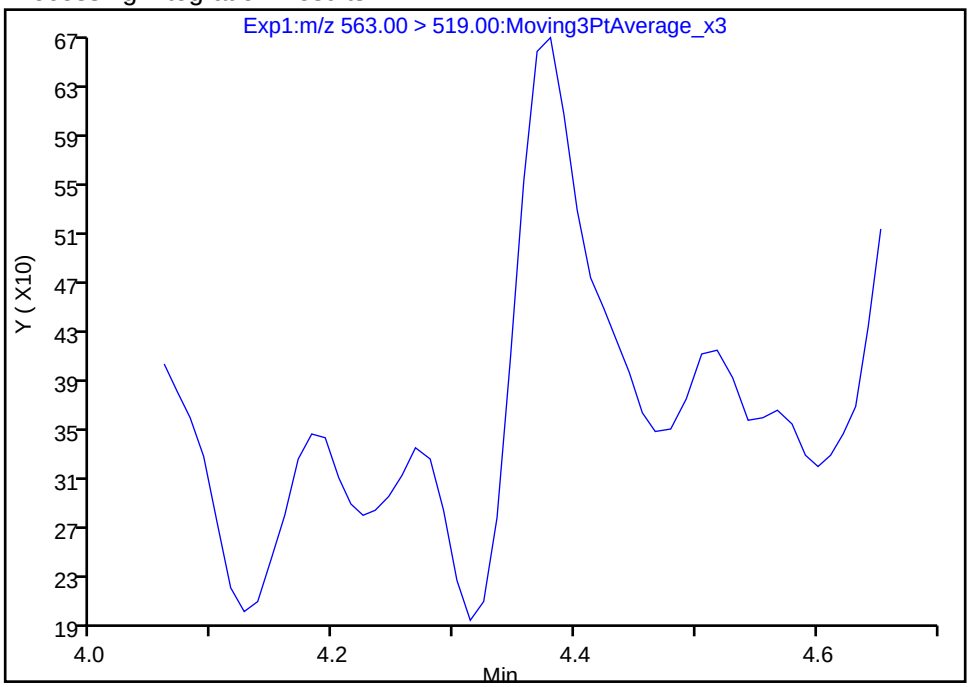
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

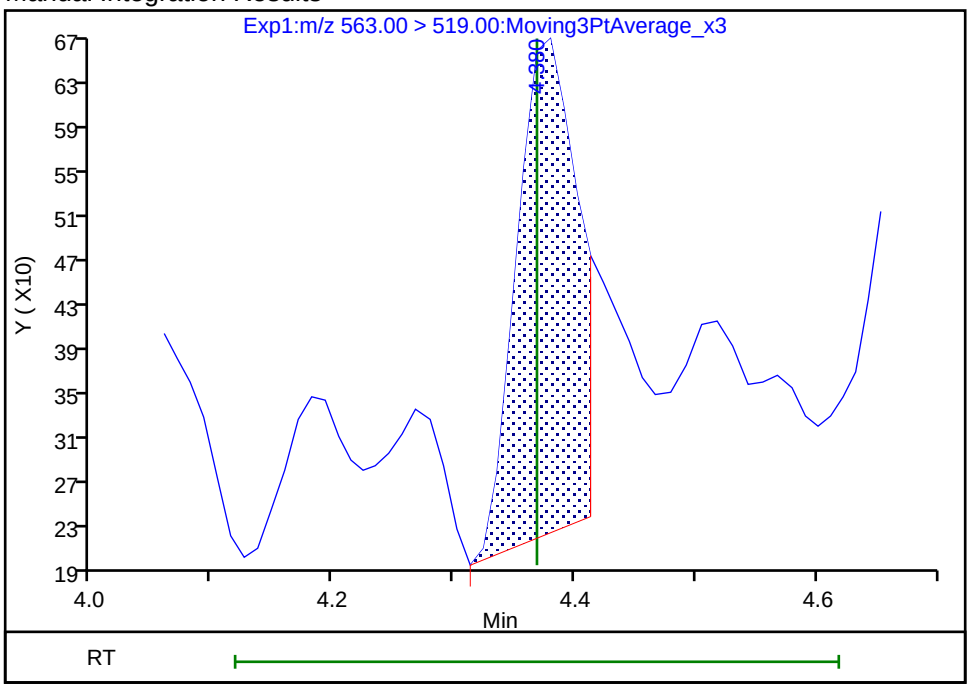
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 1496
Amount: 0.001899
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

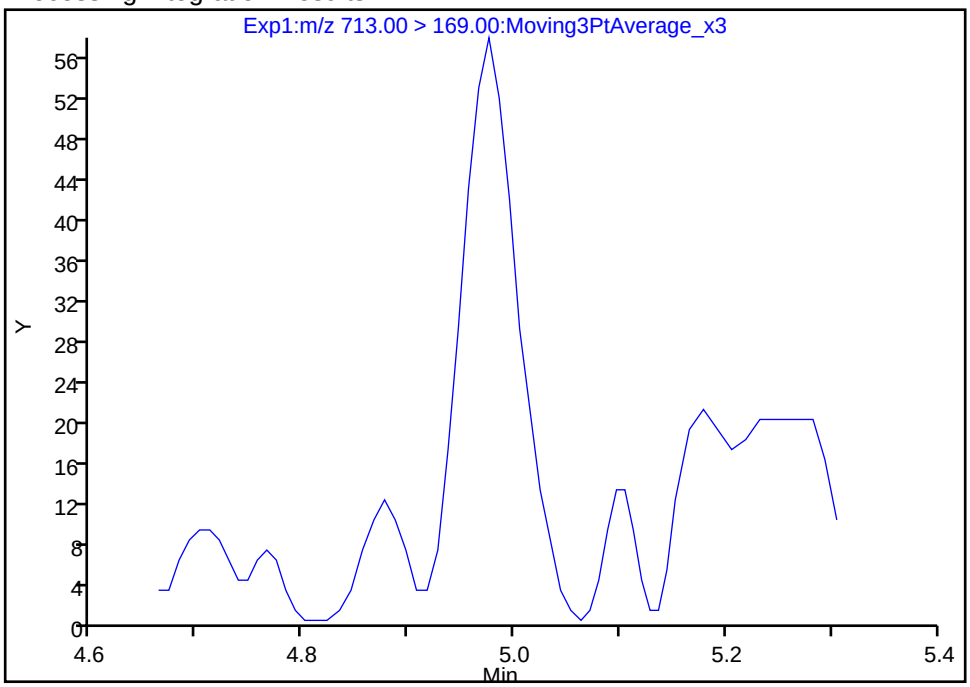
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

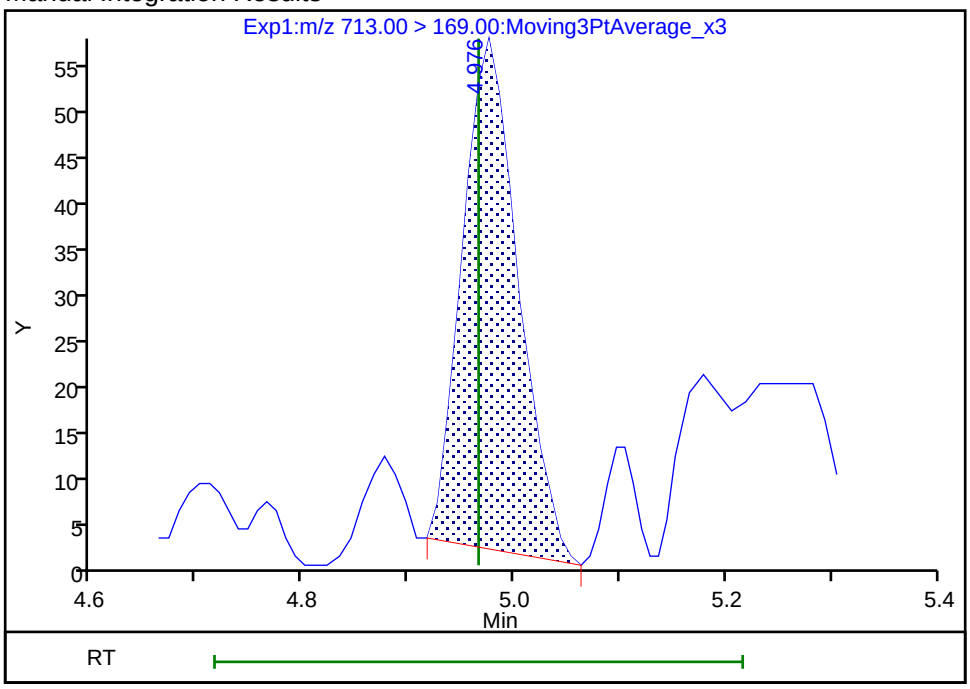
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 206
Amount: 0.002511
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

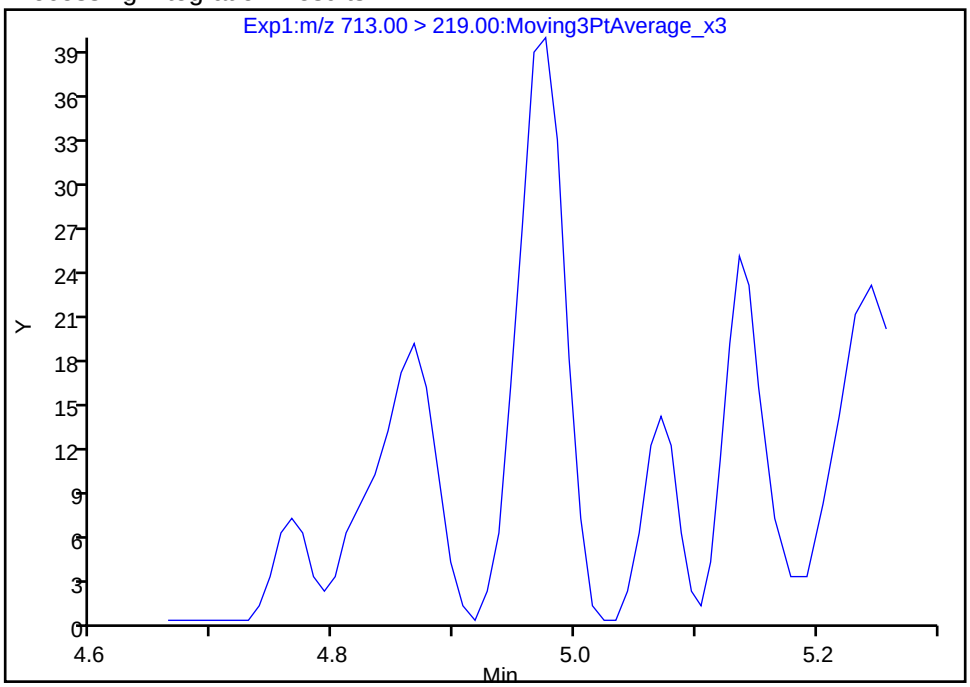
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

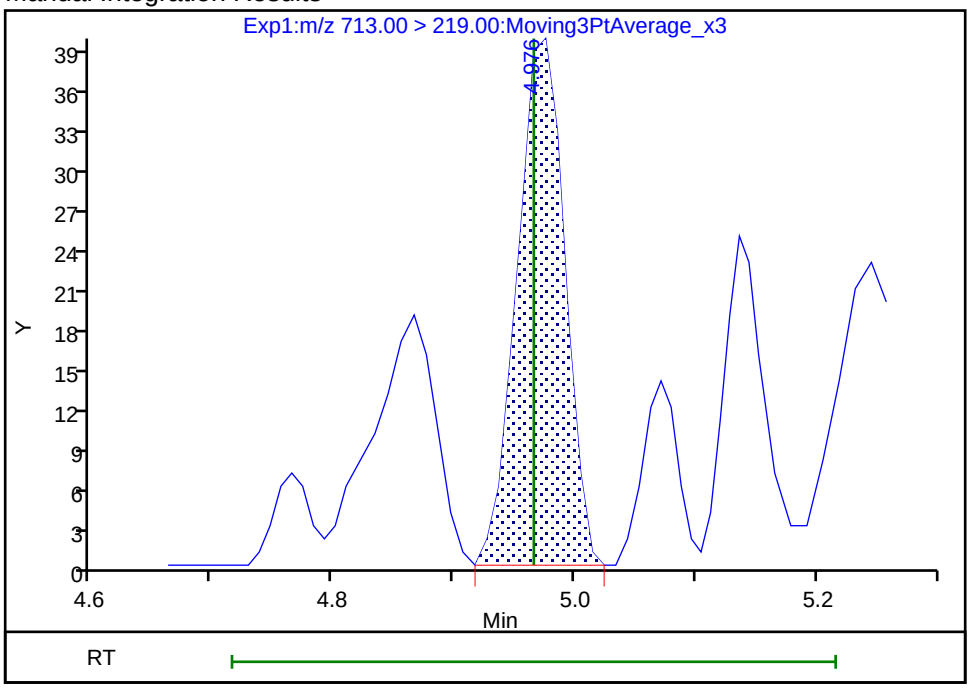
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 109
Amount: 0.002511
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

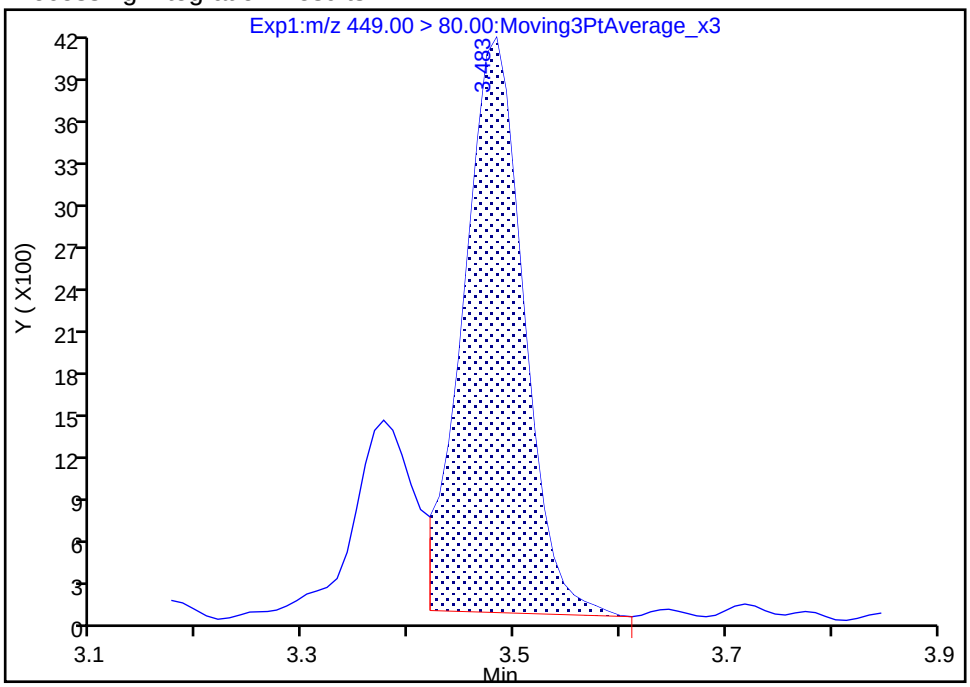
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

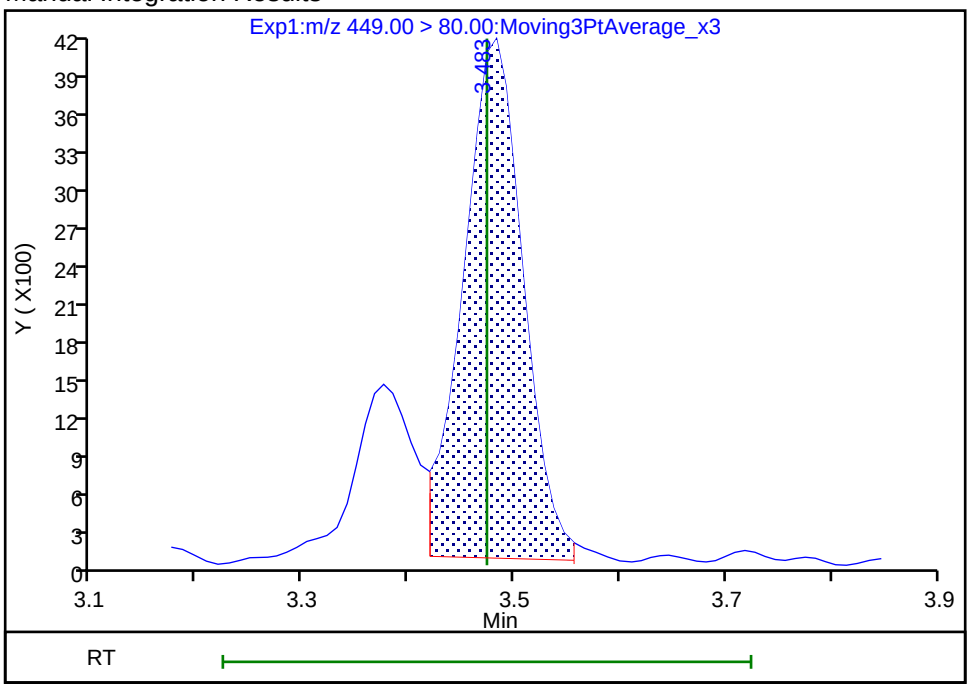
Processing Integration Results

RT: 3.48
Area: 16138
Amount: 0.019941
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 15964
Amount: 0.019726
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

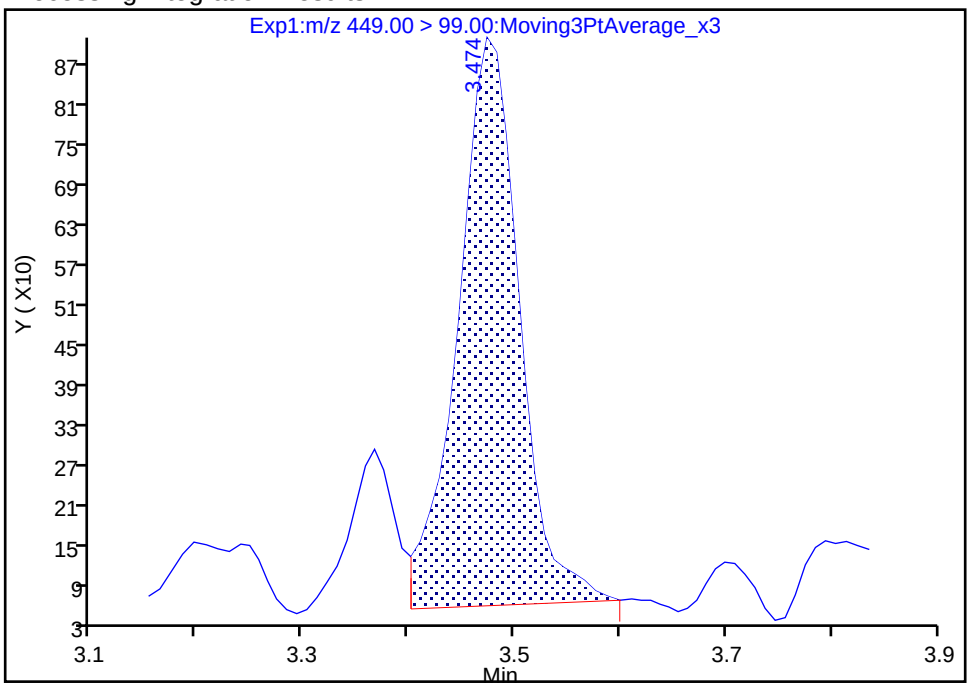
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

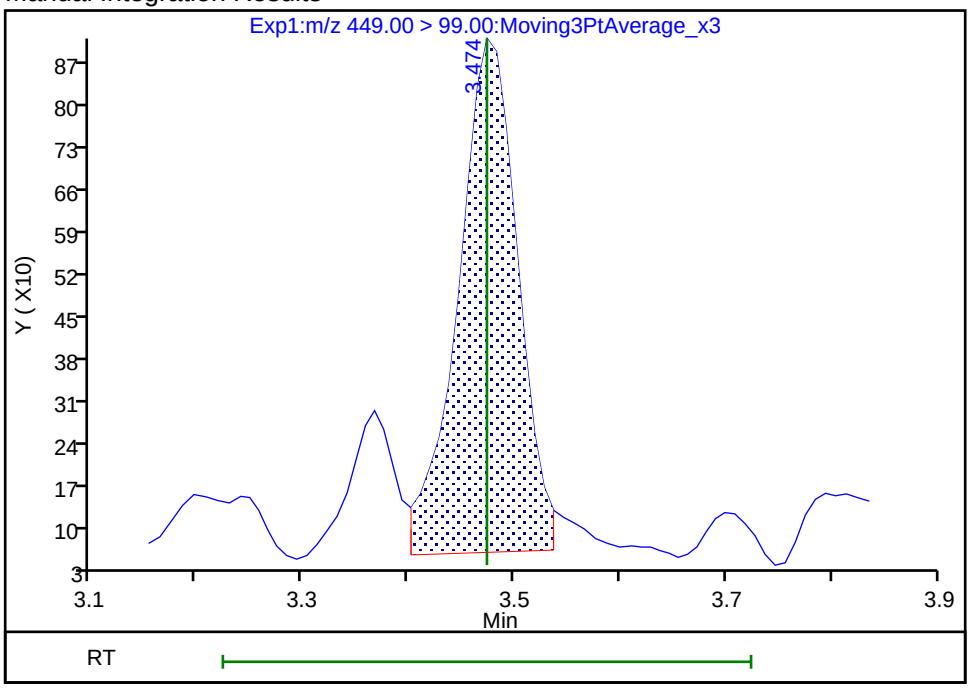
Processing Integration Results

RT: 3.47
Area: 3424
Amount: 0.019941
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 3319
Amount: 0.019726
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

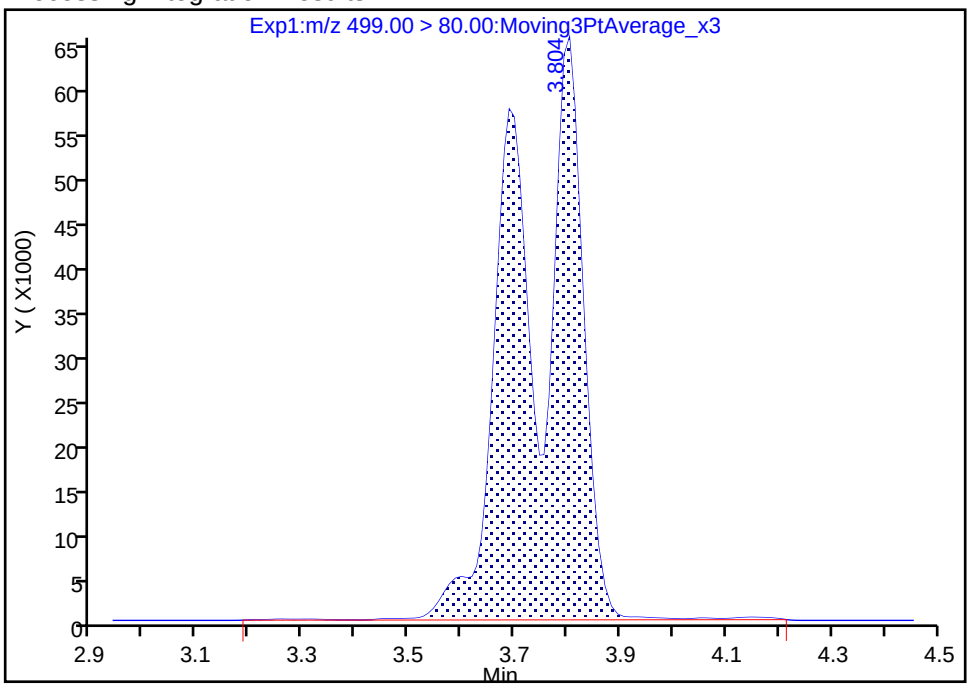
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

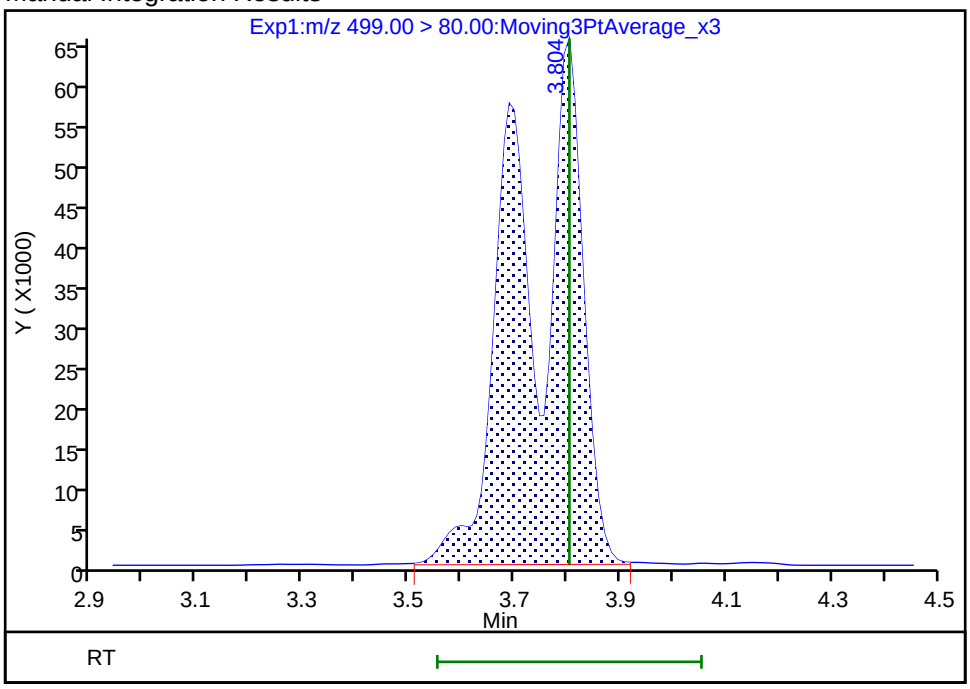
Processing Integration Results

RT: 3.80
Area: 534847
Amount: 0.759276
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 529600
Amount: 0.751827
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

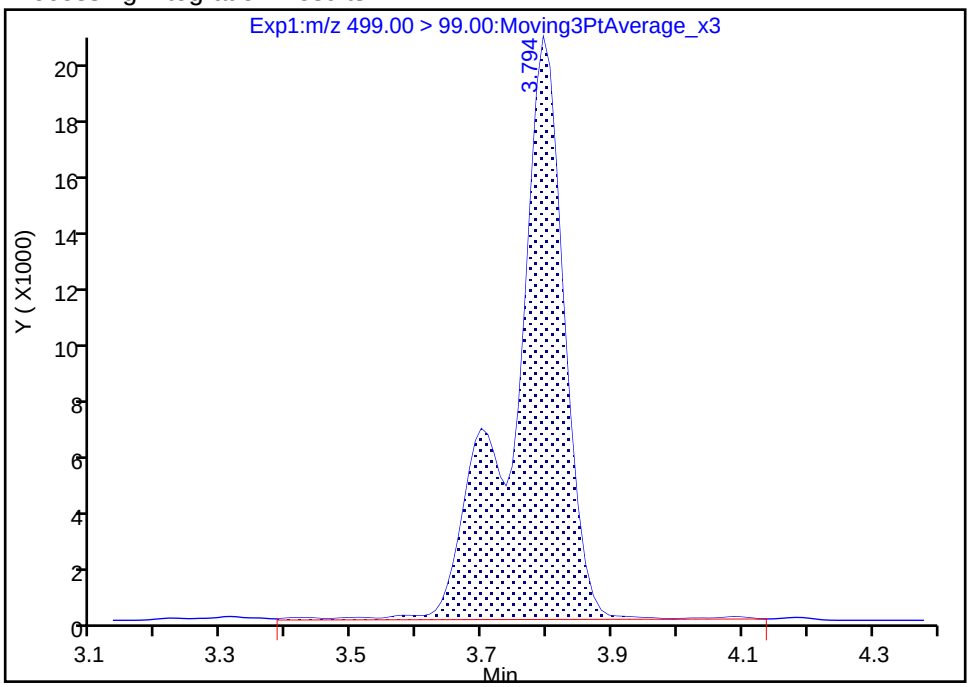
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

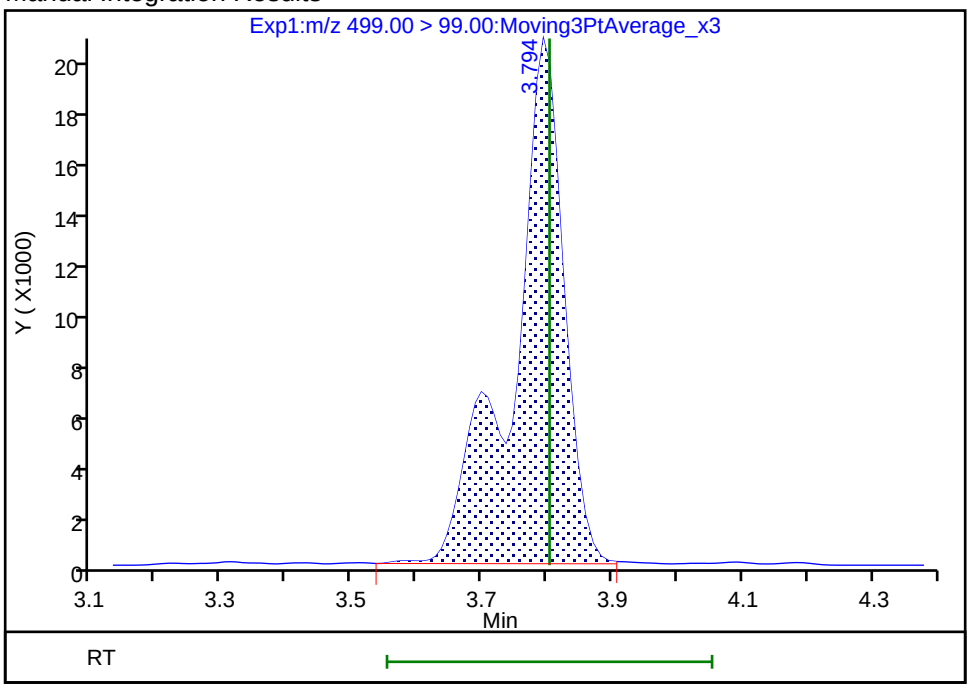
Processing Integration Results

RT: 3.79
Area: 115968
Amount: 0.759276
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 114027
Amount: 0.751827
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:40:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

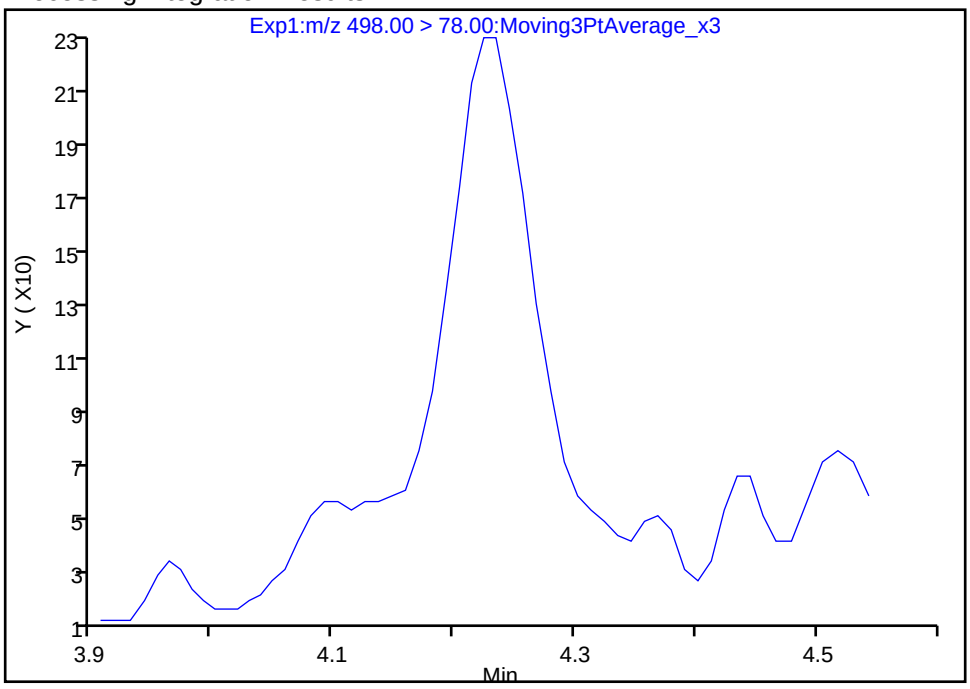
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

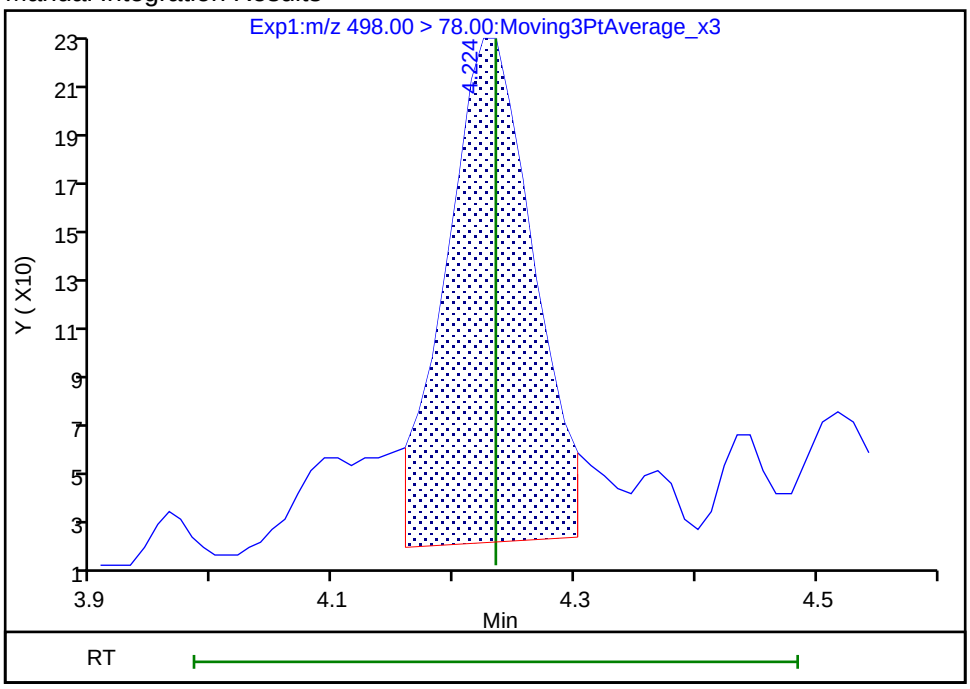
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 986
Amount: 0.001005
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:41:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

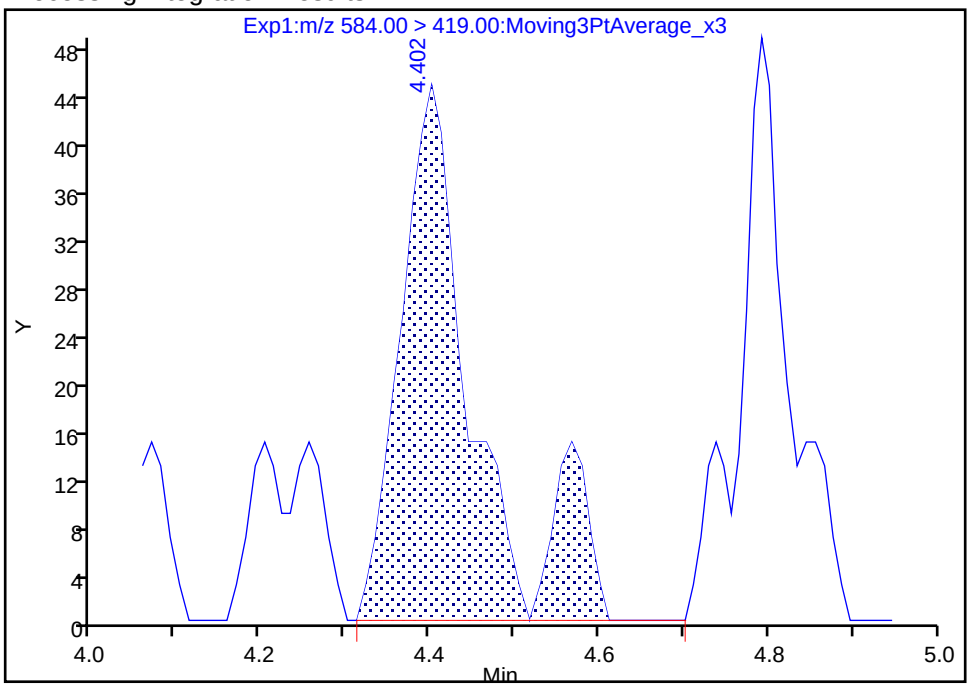
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

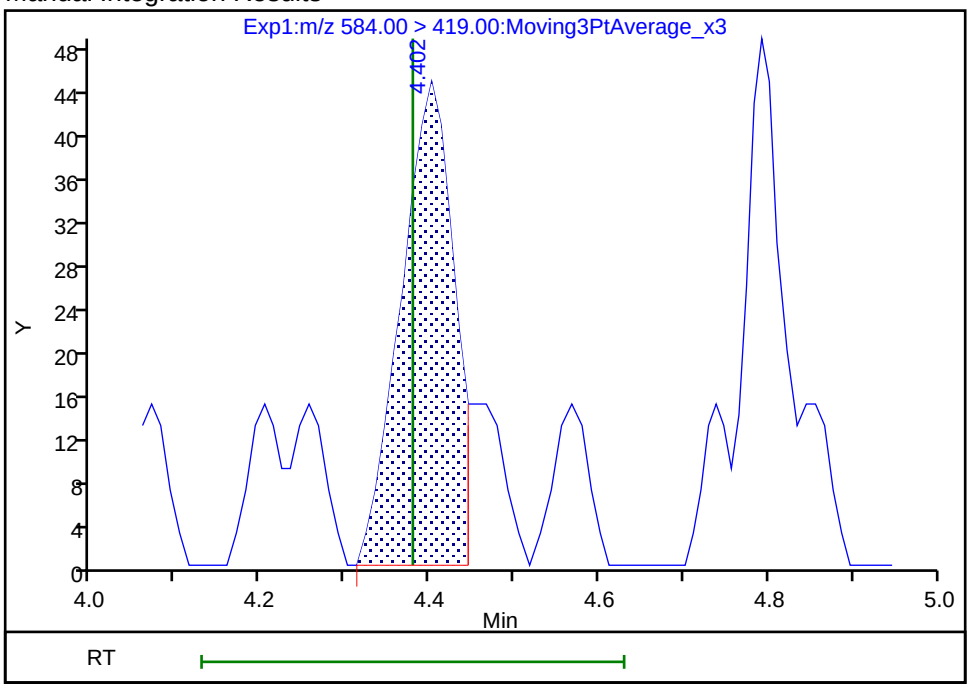
Processing Integration Results

RT: 4.40
Area: 278
Amount: 0.003401
Amount Units: ng/ml




Manual Integration Results

RT: 4.40
Area: 192
Amount: 0.002349
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

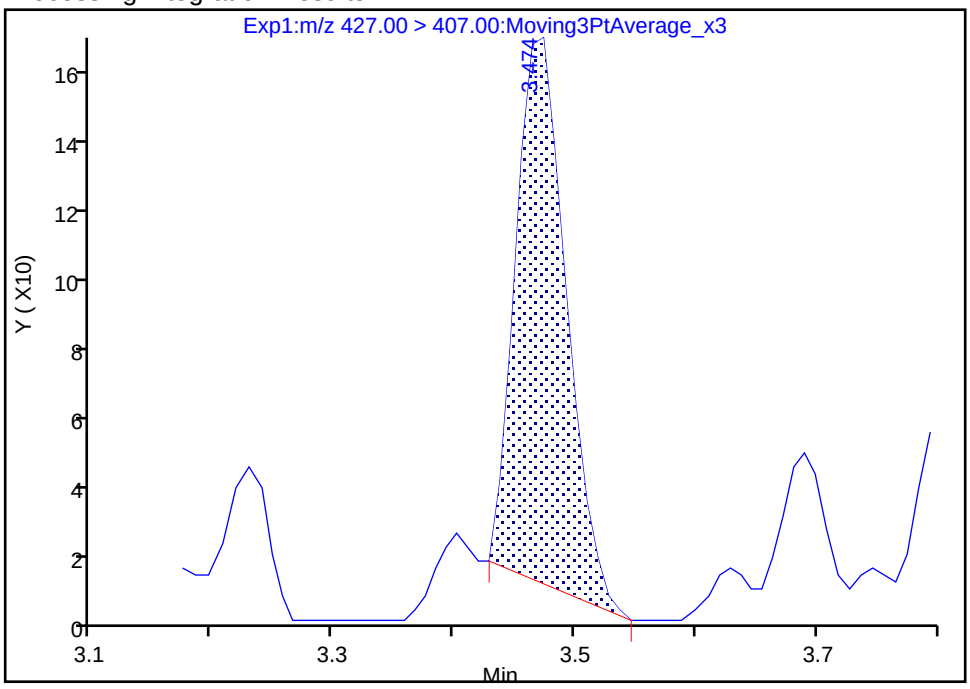
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D21.d | | | | |
| Injection Date: | 10-Nov-2021 06:55:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-14-A | Lab Sample ID: | 200-246277-14 | | |
| Client ID: | MW-5S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

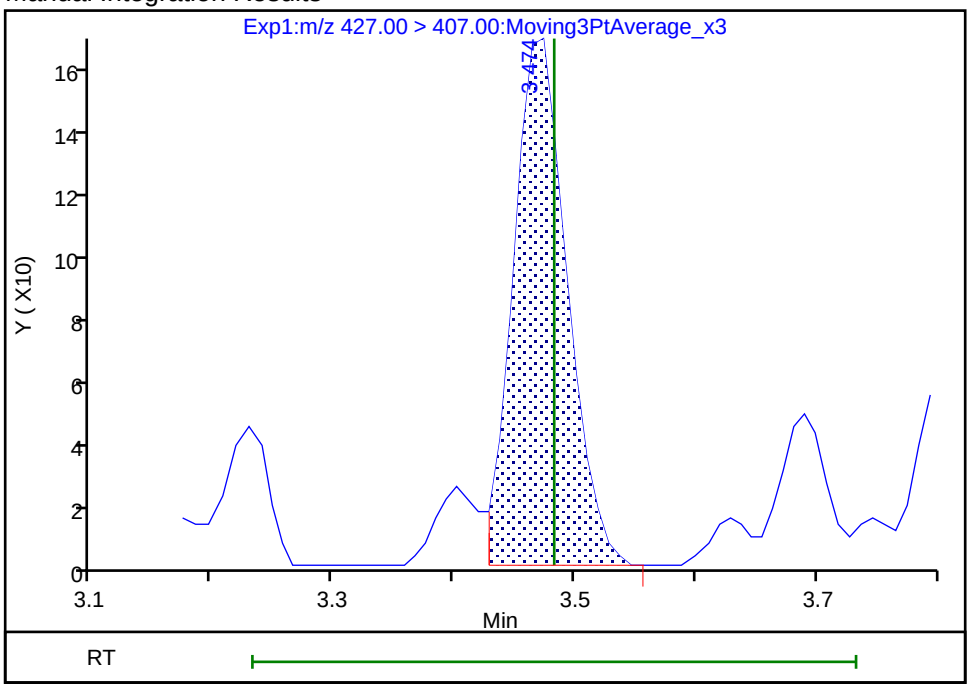
Processing Integration Results

RT: 3.47
Area: 453
Amount: 0.002198
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 513
Amount: 0.002489
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:14:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-34-20211028  Lab Sample ID: 460-246277-15

Matrix: Water  Lab File ID: PA211109D22.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 285.6(mL)  Date Analyzed: 11/10/2021 07:04

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 9.55 | | 4.38 | 0.78 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 6.83 | | 1.75 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 17.4 | | 1.75 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 5.26 | | 1.75 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 43.1 | | 1.75 | 0.37 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.61 | J | 1.75 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.49 | J | 1.75 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.75 | 0.30 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.75 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.75 | 0.38 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.75 | 0.55 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 12.3 | I | 1.75 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 63.4 | | 1.75 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 2.19 | | 1.75 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 56.2 | | 1.75 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.75 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.51 | U | 1.75 | 0.51 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.79 | U | 4.38 | 0.79 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.06 | J B | 4.38 | 0.65 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 2.59 | J | 4.38 | 0.96 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.75 | 0.34 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-34-20211028  Lab Sample ID: 460-246277-15

Matrix: Water  Lab File ID: PA211109D22.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:45

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 285.6(mL)  Date Analyzed: 11/10/2021 07:04

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 108 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 92 | | 50-150 |
| STL00991 | 13C4 PFOS | 110 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 47 | | 25-150 |
| STL00993 | 13C2 PFHxA | 107 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 85 | | 50-150 |
| STL00998 | 13C2 PFDoA | 68 | | 50-150 |
| STL01056 | 13C8 FOSA | 59 | | 25-150 |
| STL01893 | 13C5 PFPeA | 98 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 32 | *5- | 50-150 |
| STL02118 | d3-NMeFOSAA | 129 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 142 | | 50-150 |
| STL02279 | M2-6:2 FTS | 185 | *5+ | 25-150 |
| STL02280 | M2-8:2 FTS | 186 | *5+ | 25-150 |
| STL02337 | 13C3 PFBS | 122 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d
Lims ID: 460-246277-C-15-A
Client ID: MW-34-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 07:04:12 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-15-A
Misc. Info.: 200-0048356-022 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:46:31
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.600 | 504431 | 0.5906 | | 47.3 | 93.0 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 104124 | 0.2729 | | | 2.0 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.693 | 880716 | 1.22 | | 97.9 | 173 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 137681 | 0.1951 | | | 0.3 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.697 | 1375360 | 1.41 | | 122 | 8287 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | RM |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 444399 | 0.3517 | Target=2.32 | | 1.7 | RM |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 117533 | | 3.78(1.16-3.48) | | 5.9 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.795 | 1013235 | 1.34 | | 107 | 597 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.770 | -0.012 | 0.996 | 409079 | 0.4976 | Target=12.09 | | 1.1 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 25107 | | 16.29(6.04-18.13) | | 4.2 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1523252 | 1.81 | Target=3.55 | | 28.0 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 402619 | | 3.78(1.77-5.32) | | 72.7 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 904589 | 1.28 | | 108 | 1172 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 943310 | 1.19 | | 95.0 | 1490 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 117136 | 0.1502 | Target=3.69 | | 1.2 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 36032 | | 3.25(1.84-5.53) | | 18.1 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 43865 | 0.0625 | Target=4.88 | | 1.5 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 10223 | | 4.29(2.44-7.32) | | 2.4 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 1.000 | 19399 | 0.0740 | | | 67.3 | |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.997 | 245382 | 2.20 | | 185 | 9.8 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 1.000 | 998599 | 1.15 | | 92.0 | 1612 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.492 | -0.009 | | 1054666 | 1.25 | | | 1502 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.492 | -0.009 | 1.000 | 1046742 | 1.23 | Target=2.68 | | 13.4 | M |
| 413.00 > 169.00 | 3.483 | 3.492 | -0.009 | 1.000 | 431714 | | 2.42(1.34-4.02) | | 208 | |
| D 18 13C4 PFOS | | | | | | | | | | M |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 672598 | 1.32 | | 110 | 39.0 | M |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.804 | -0.010 | 1.000 | 980203 | 1.61 | Target=4.69 | | 30.0 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 216305 | | 4.53(2.35-7.04) | | 59.5 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 991590 | 1.15 | | 91.7 | 748 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 35696 | 0.0460 | Target=7.29 | | 1.2 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.003 | 4555 | | 7.84(3.64-10.93) | | 7.7 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.181 | 951133 | 1.09 | | 87.2 | 1361 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 10612 | 0.0139 | Target=8.95 | | 0.7 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1419 | | 7.48(4.47-13.42) | | 2.7 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.185 | 281969 | 2.23 | | 186 | 20.0 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.126 | -0.011 | 0.997 | 812 | 0.004122 | | | 6.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.213 | 623055 | 0.7402 | | 59.2 | 1829 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 485 | 0.001025 | | | 2.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.222 | 138286 | 1.61 | | 129 | 456 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 234 | 0.002692 | | | 0.8 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.254 | 725162 | 1.07 | | 85.3 | 1862 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.258 | 142877 | 1.78 | | 142 | 521 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 2956 | 0.0302 | | | 5.9 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.321 | 620320 | 0.8478 | | 67.8 | 1439 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.429 | 227062 | 0.4001 | | 32.0 | 793 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.986 | 4.966 | 0.020 | 1.002 | 228 | 0.007953 | Target=1.01 | | 3.4 | RM |
| 713.00 > 219.00 | 4.957 | 4.966 | -0.009 | 0.996 | 113 | | 2.02(0.51-1.52) | | 1.5 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d

Injection Date: 10-Nov-2021 07:04:12 Instrument ID: LC812

Lims ID: 460-246277-C-15-A Lab Sample ID: 200-246277-15

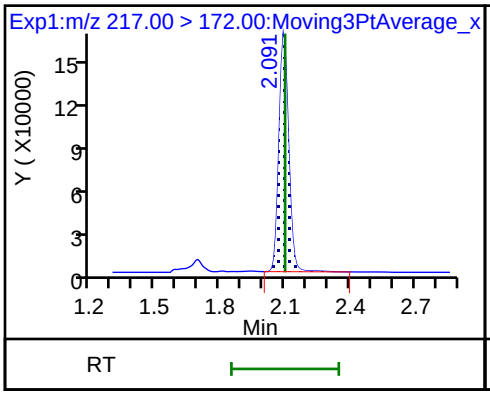
Client ID: MW-34-20211028

Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 22

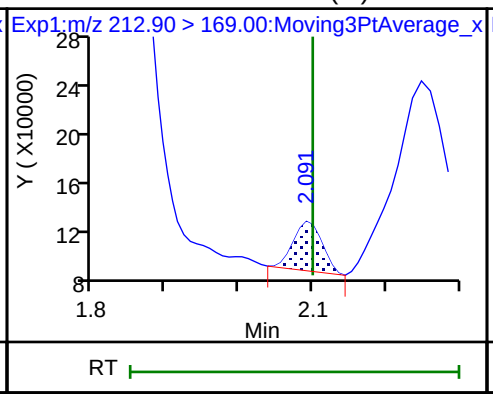
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

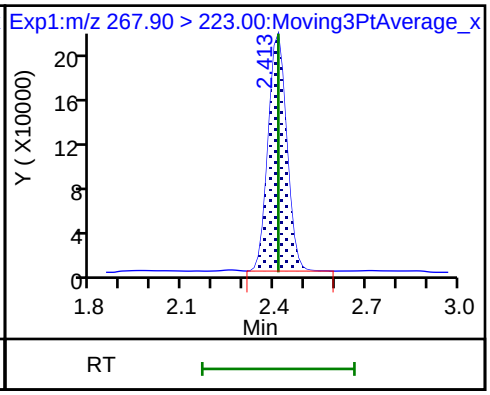
D 1 13C4 PFBA



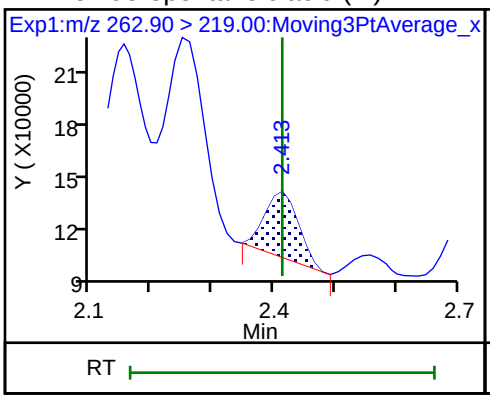

2 Perfluorobutanoic acid (M)



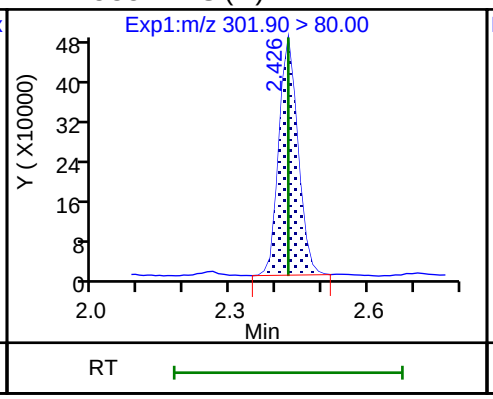

D 3 13C5 PFPeA



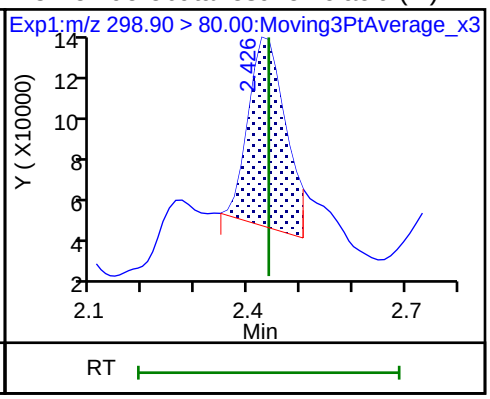

4 Perfluoropentanoic acid (M)



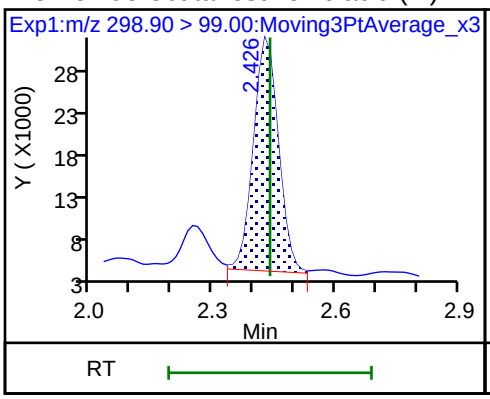

D 47 13C3 PFBS (M)



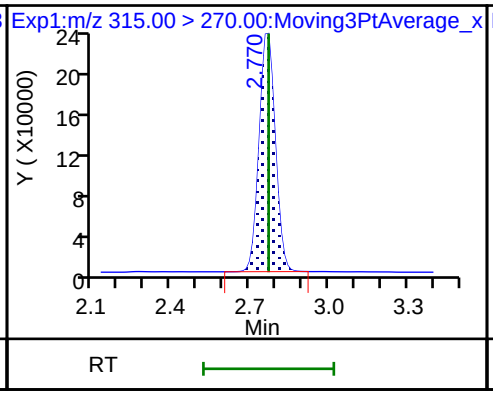

5 Perfluorobutanesulfonic acid (M)



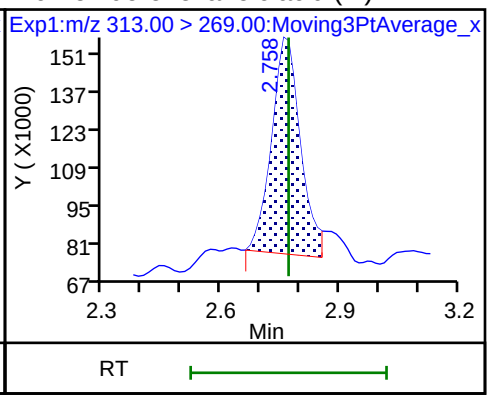

5 Perfluorobutanesulfonic acid (M)



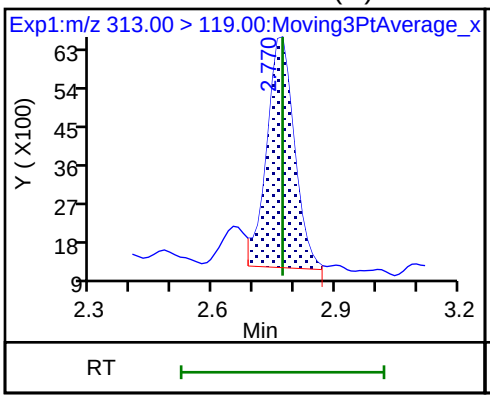

D 7 13C2 PFHxA



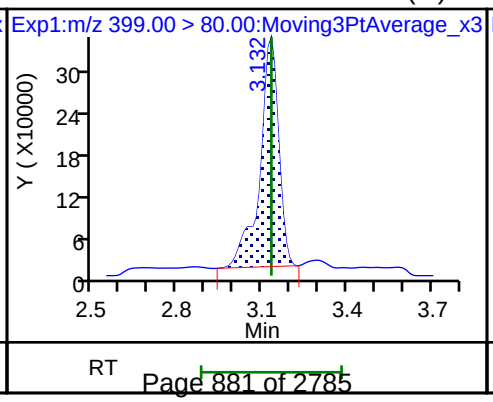

6 Perfluorohexanoic acid (M)



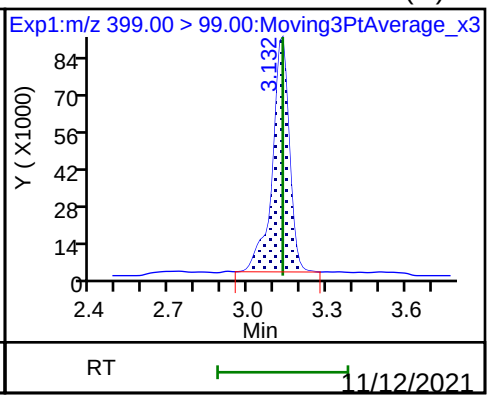

6 Perfluorohexanoic acid (M)



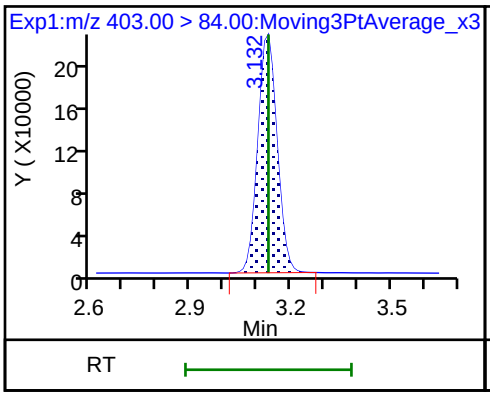

8 Perfluorohexanesulfonic acid (M)



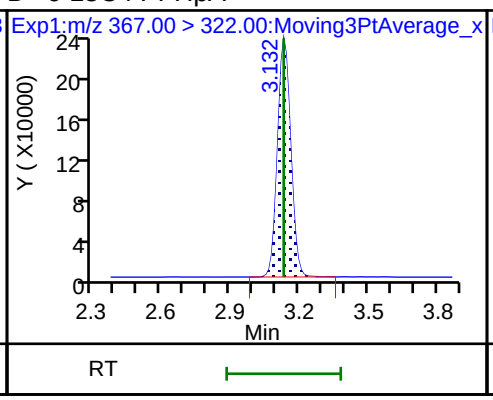

8 Perfluorohexanesulfonic acid (M)



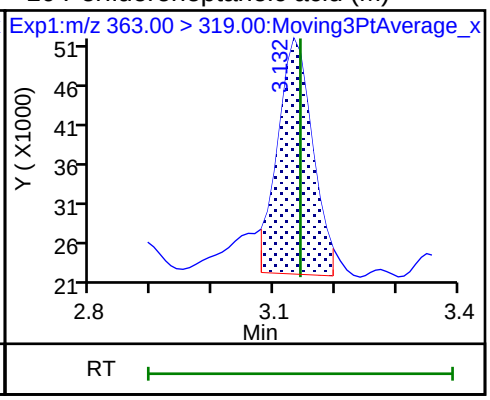
D 11 18O2 PFHxS



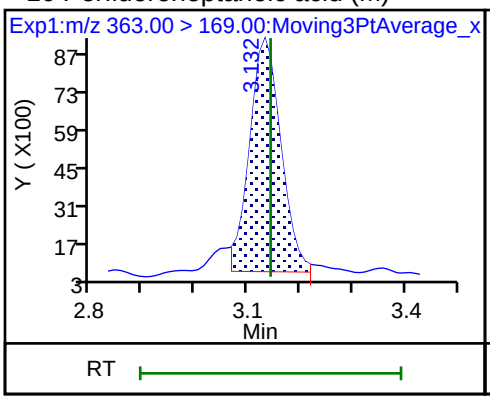

D 9 13C4 PFHpA



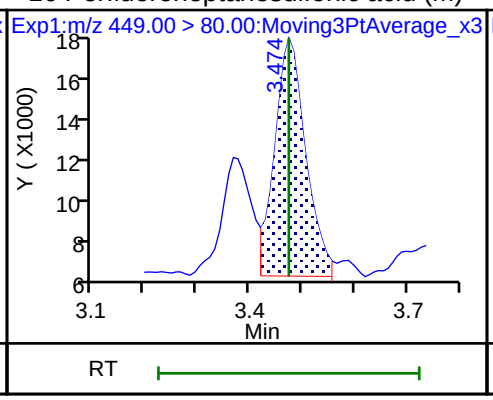

10 Perfluoroheptanoic acid (M)



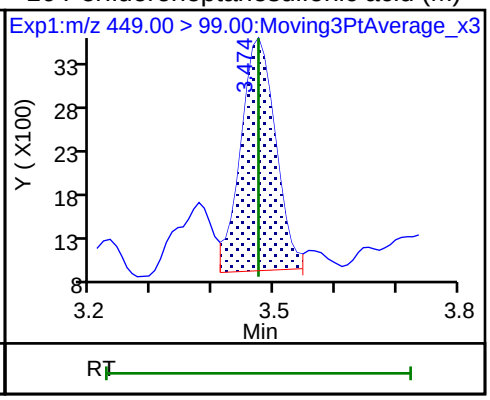

10 Perfluoroheptanoic acid (M)



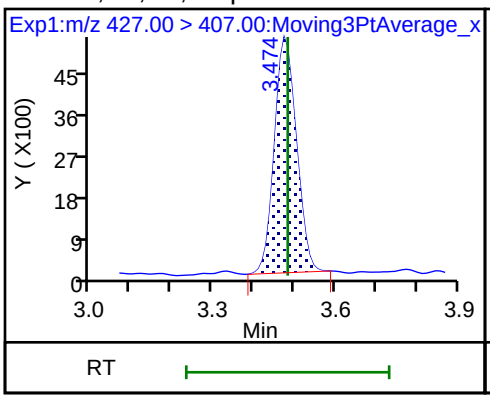

16 Perfluoroheptanesulfonic acid (M)



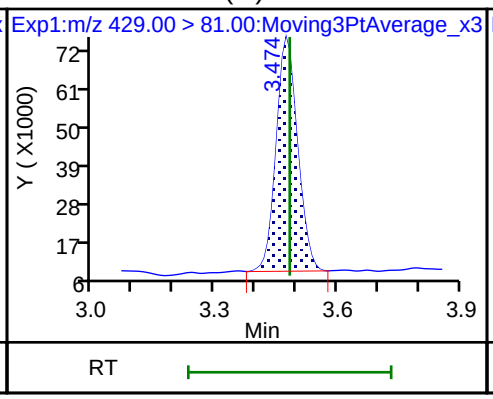

16 Perfluoroheptanesulfonic acid (M)



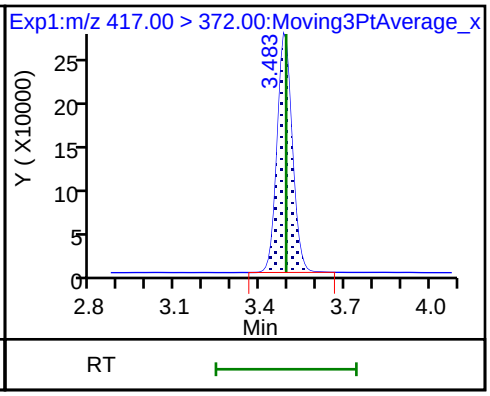

13 1H,1H,2H,2H-perfluorooctanesulfo



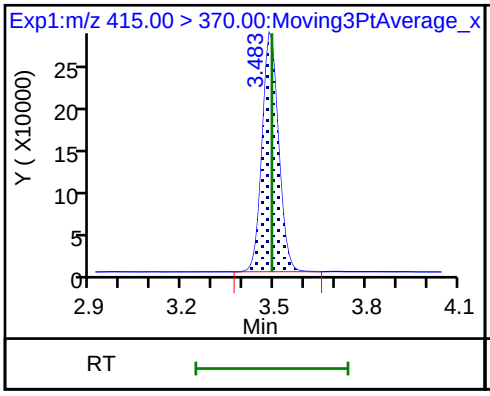

D 12 M2-6:2 FTS (M)



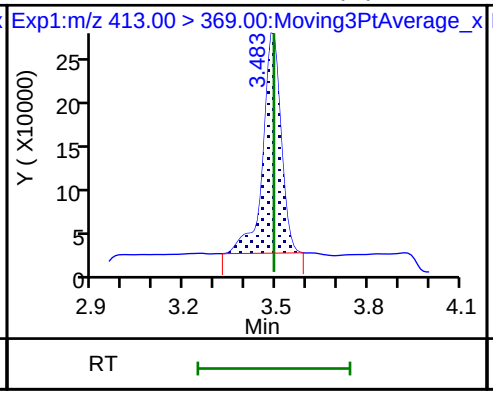

D 14 13C4 PFOA



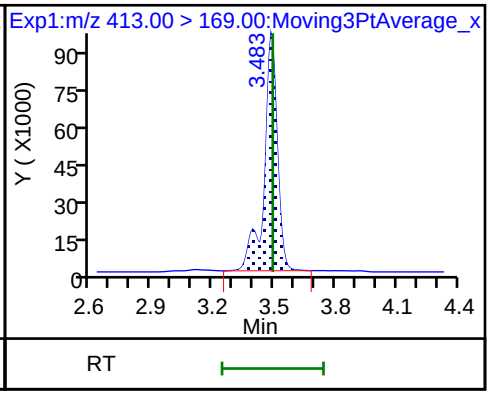

* 62 13C2 PFOA



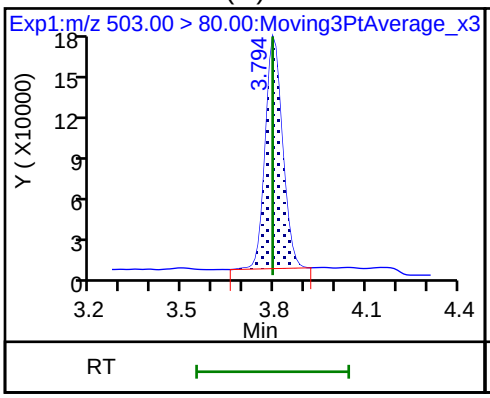

15 Perfluorooctanoic acid (M)



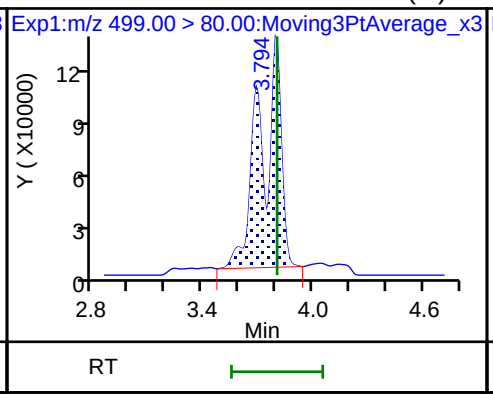

15 Perfluorooctanoic acid



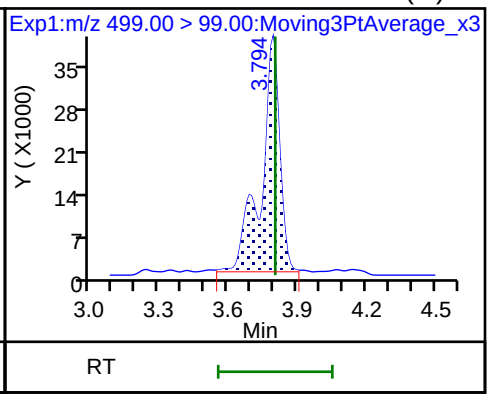
D 18 13C4 PFOS (M)



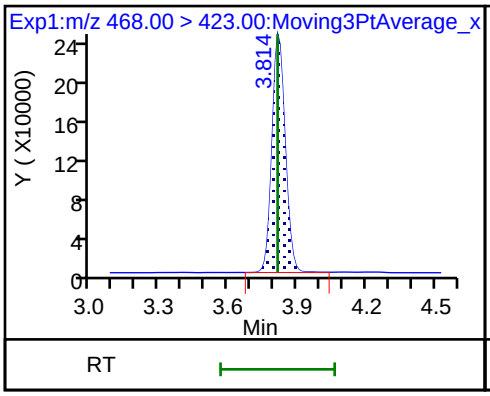

17 Perfluorooctanesulfonic acid (M)



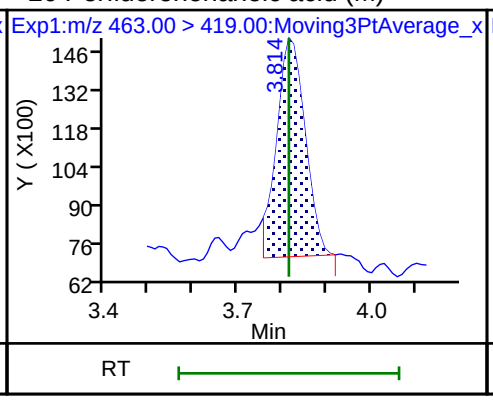

17 Perfluorooctanesulfonic acid (M)



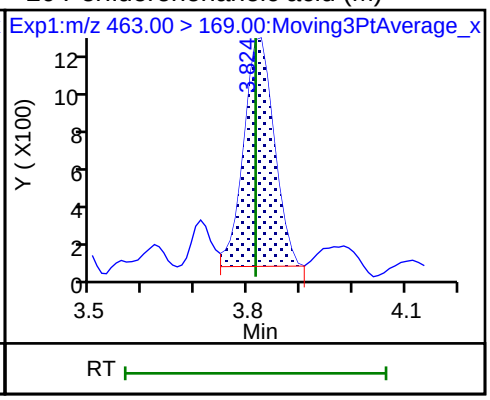

D 19 13C5 PFNA



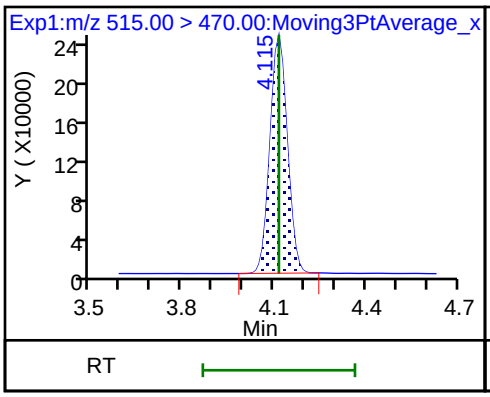

20 Perfluorononanoic acid (M)



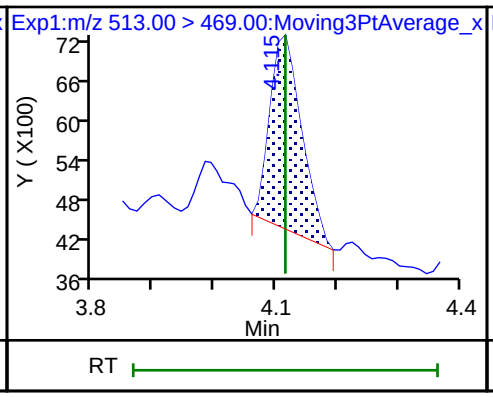

20 Perfluorononanoic acid (M)



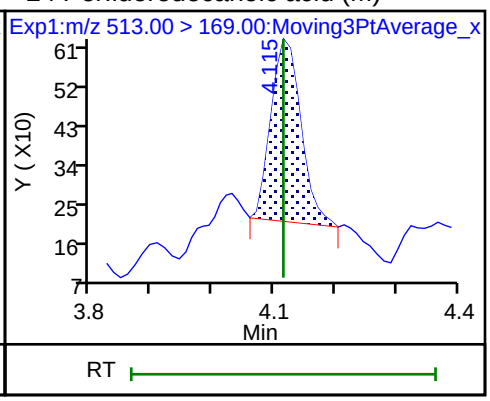

D 23 13C2 PFDA



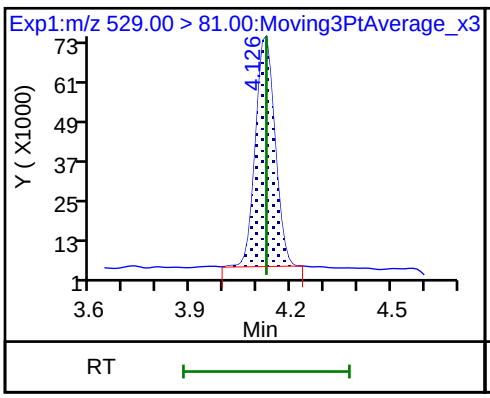

24 Perfluorodecanoic acid



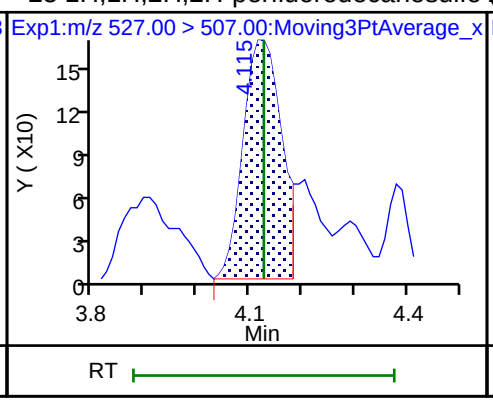

24 Perfluorodecanoic acid (M)



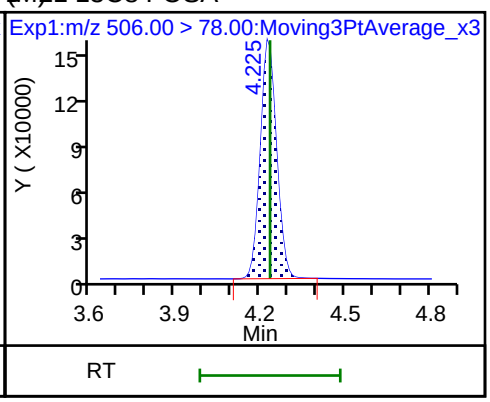

D 26 M2-8:2 FTS



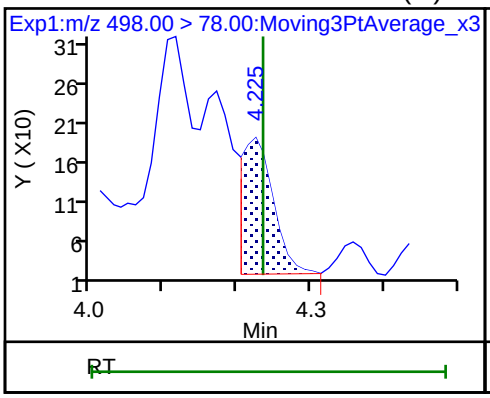

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



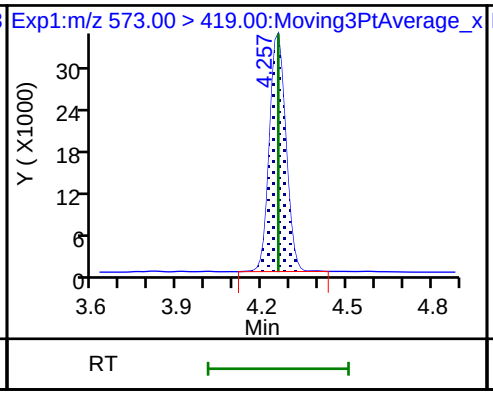

D 21 13C8 FOSA



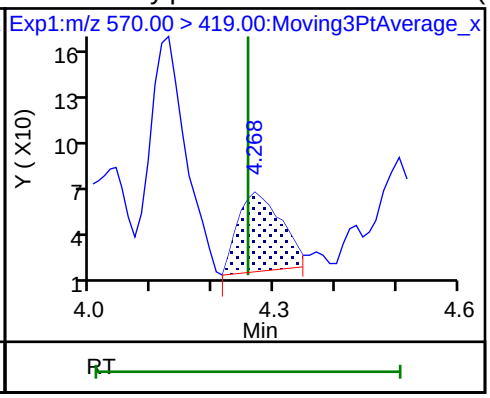
22 Perfluorooctanesulfonamide (M)



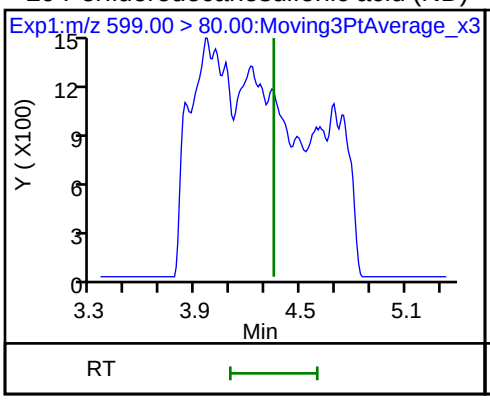

D 27 d3-NMeFOSAA



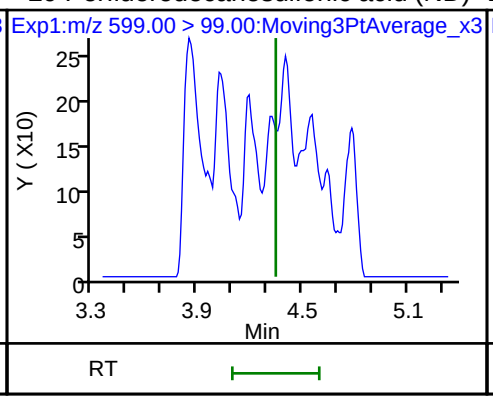

28 N-methylperfluorooctanesulfonami (M)



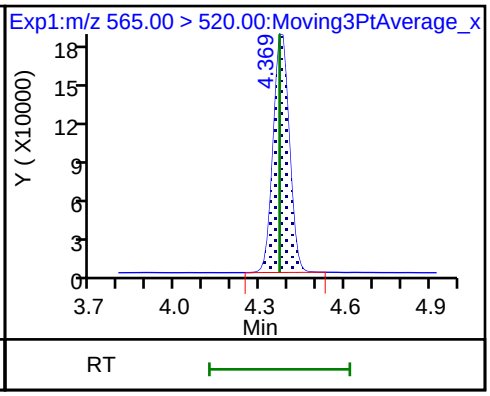

29 Perfluorodecanesulfonic acid (ND)



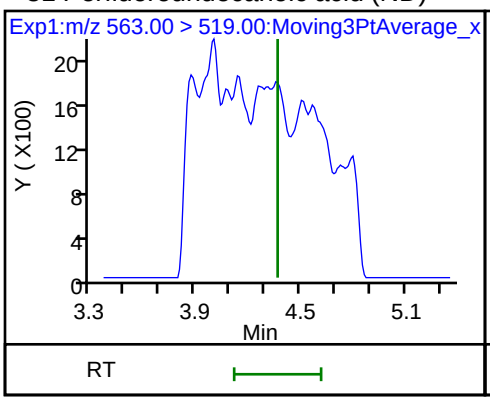

29 Perfluorodecanesulfonic acid (ND)



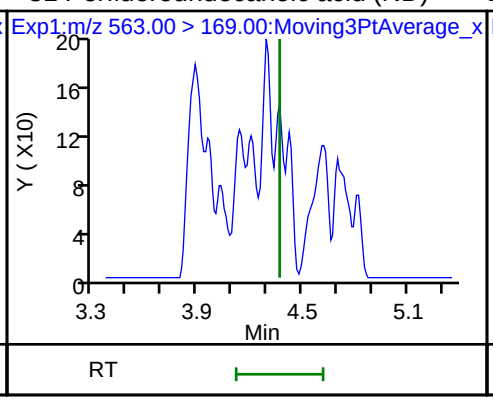

D 30 13C2 PFUnA



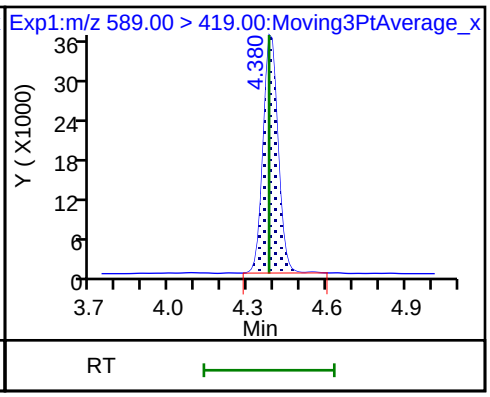

31 Perfluoroundecanoic acid (ND)



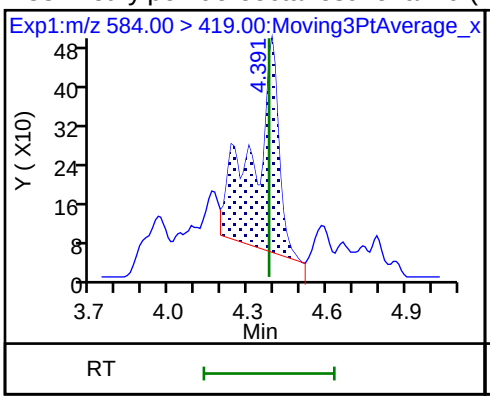

31 Perfluoroundecanoic acid (ND)



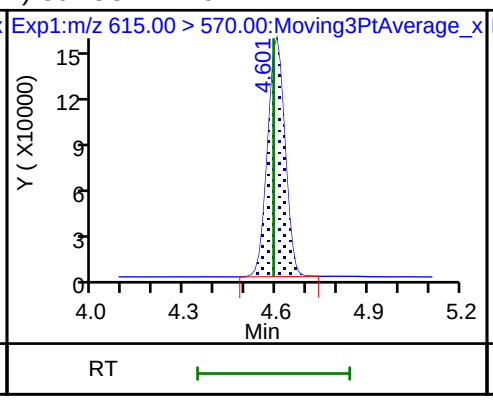

D 32 d5-NEtFOSAA



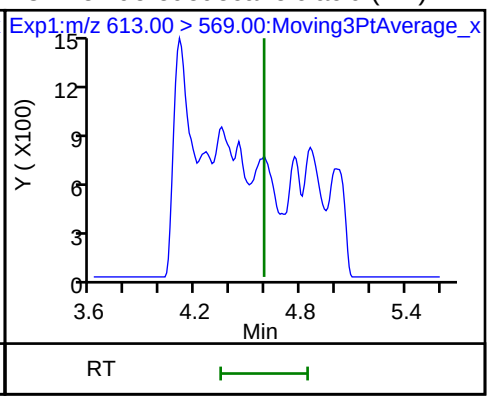

33 N-ethylperfluorooctanesulfonamid (ND)



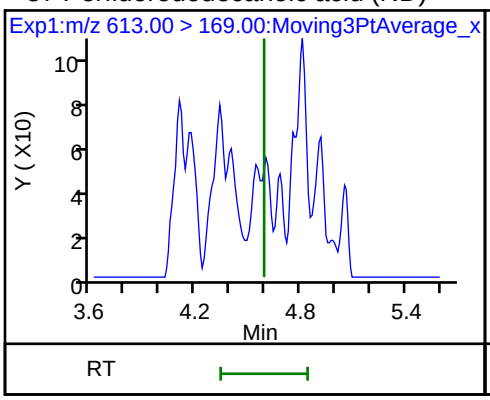

D 36 13C2 PFDoA



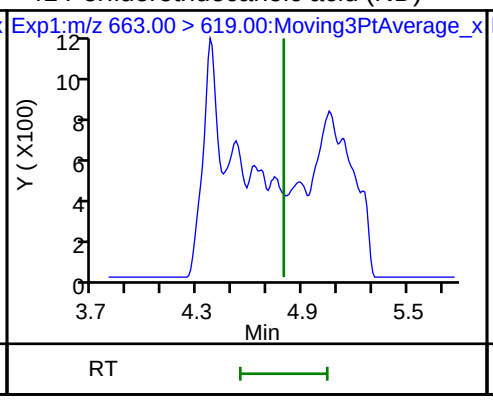

37 Perfluorododecanoic acid (ND)



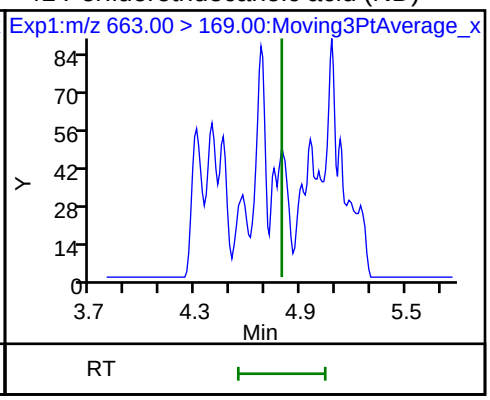
37 Perfluorododecanoic acid (ND)



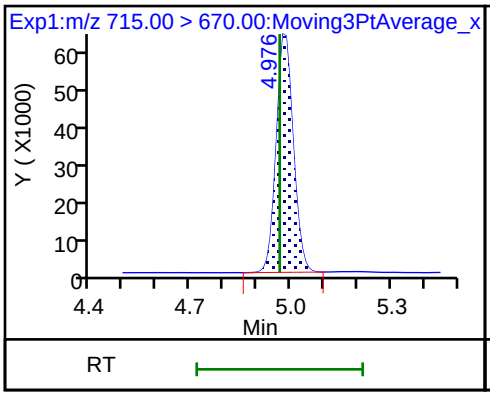

41 Perfluorotridecanoic acid (ND)



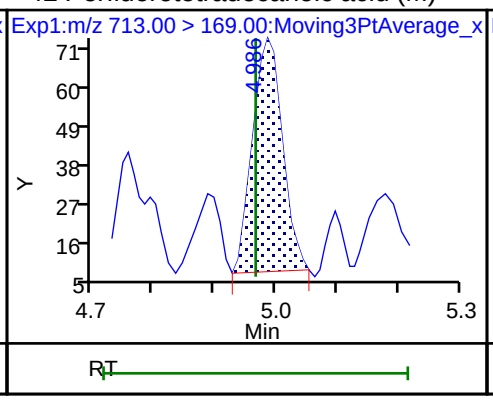

41 Perfluorotridecanoic acid (ND)



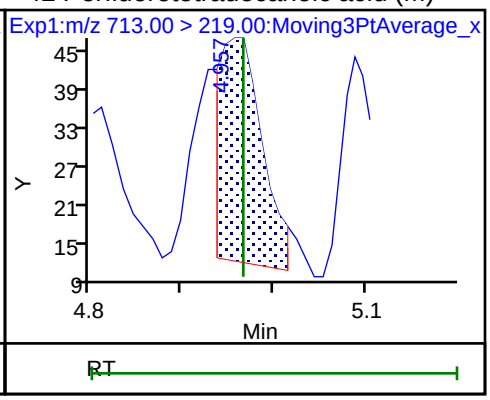

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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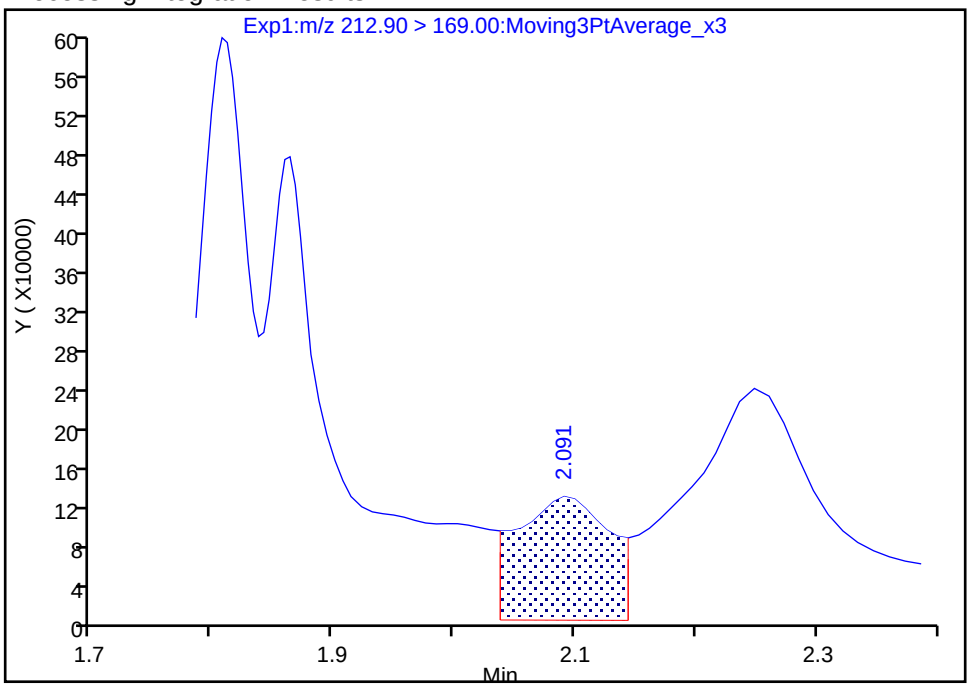
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

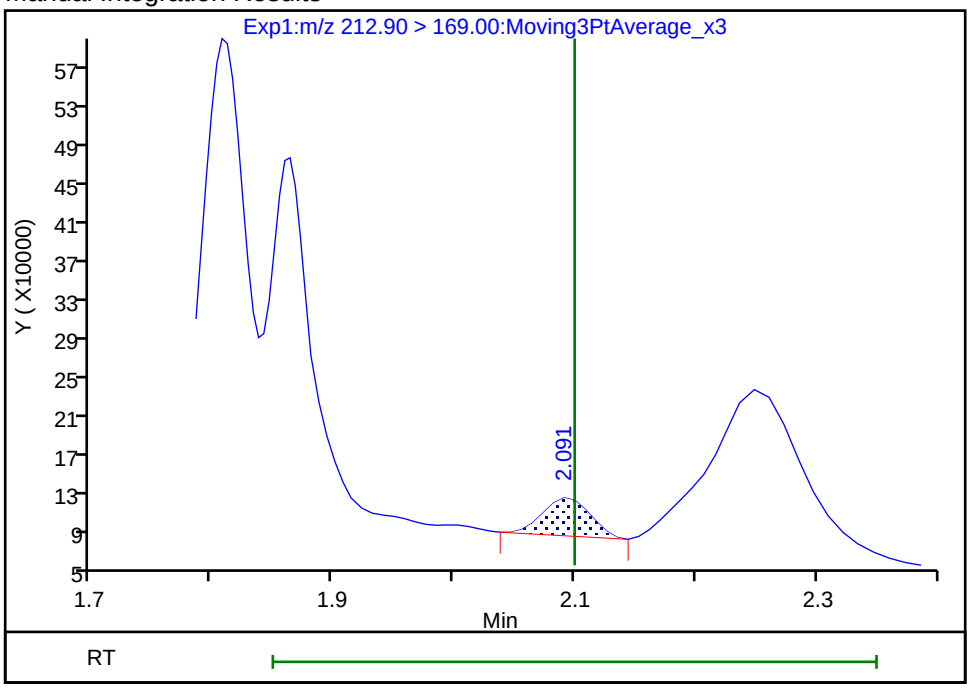
Processing Integration Results

RT: 2.09
Area: 655889
Amount: 1.718898
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 104124
Amount: 0.272879
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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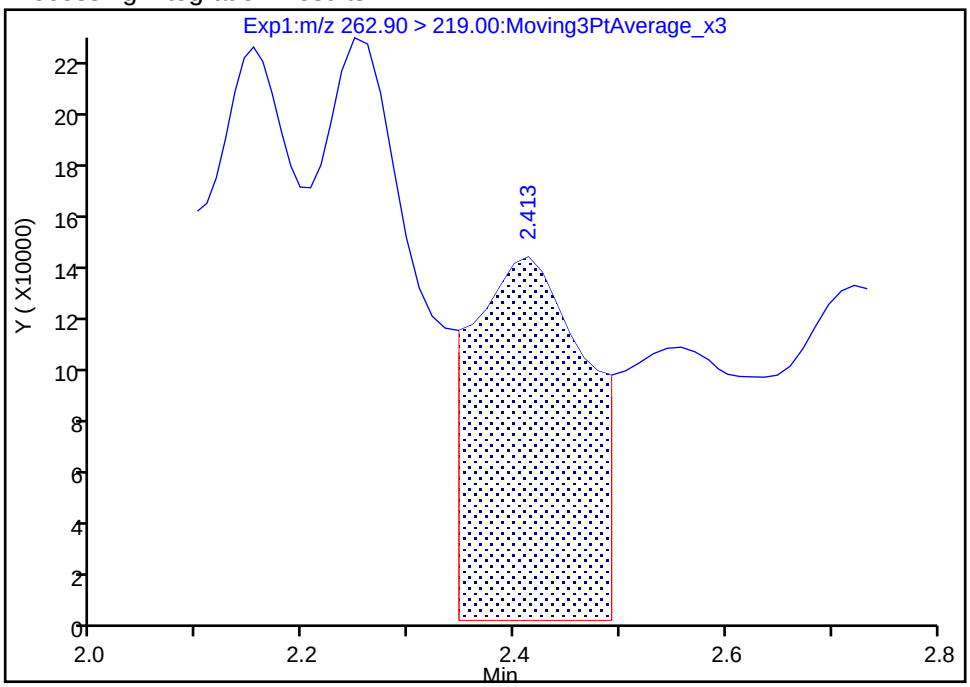
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

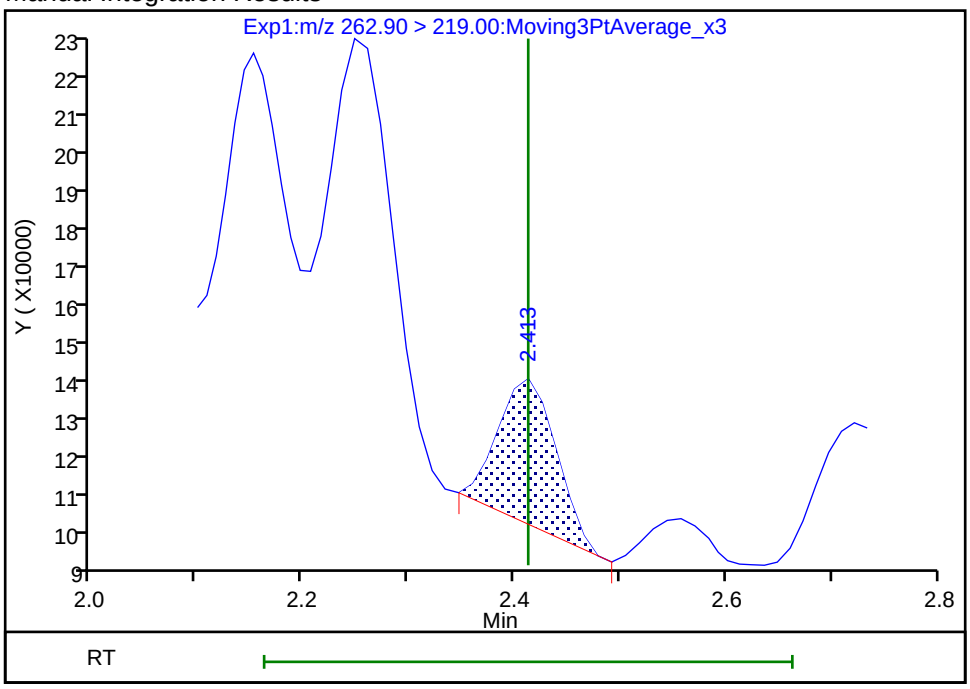
Processing Integration Results

RT: 2.41
Area: 1039049
Amount: 1.472179
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 137681
Amount: 0.195074
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

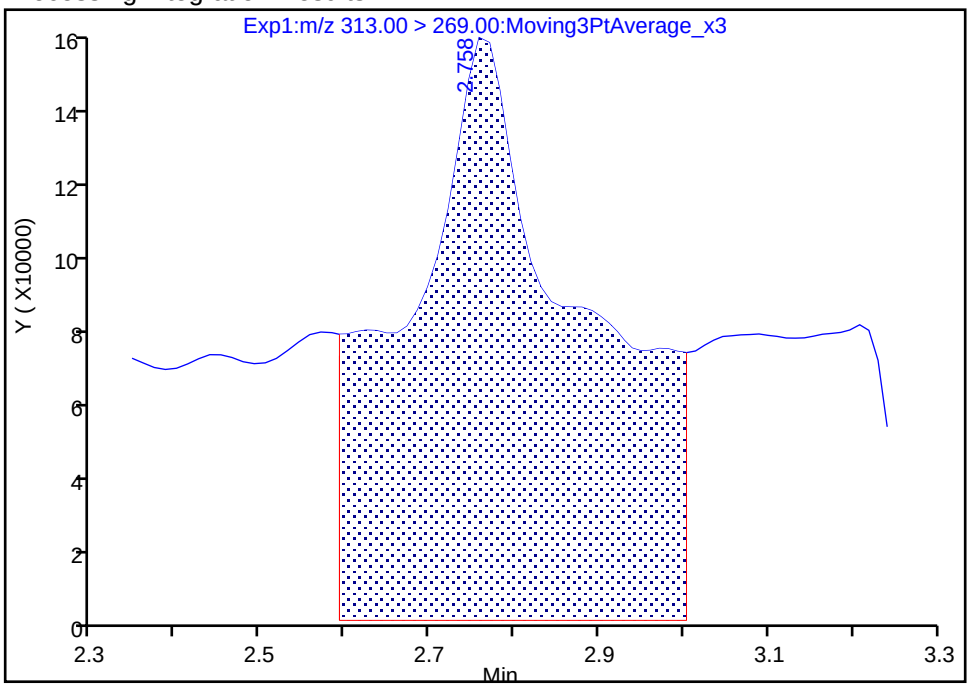
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

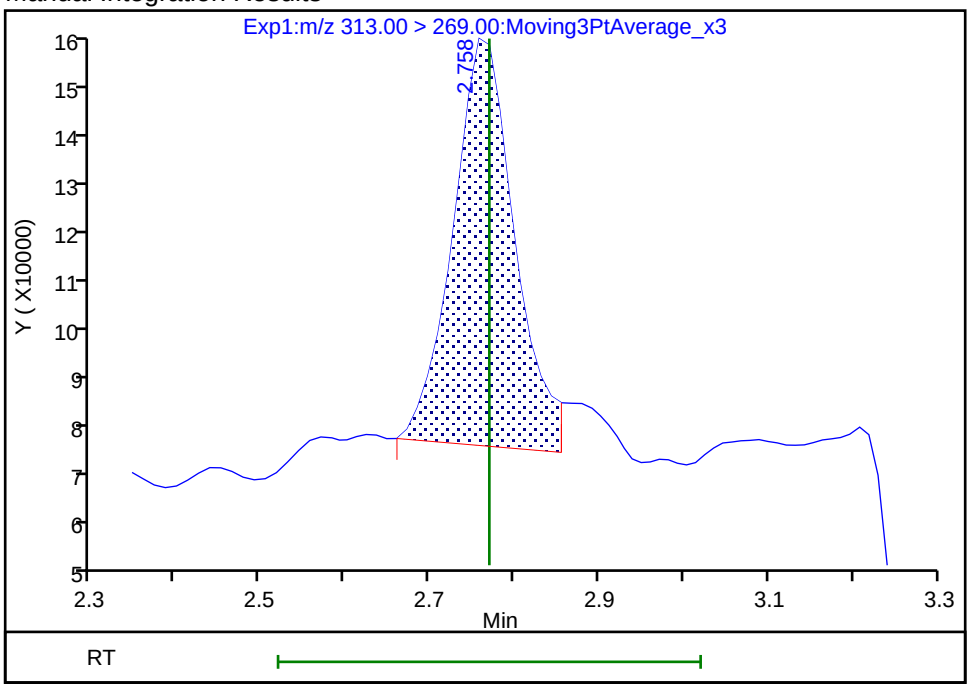
Processing Integration Results

RT: 2.76
Area: 2300999
Amount: 2.799002
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 409079
Amount: 0.497616
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

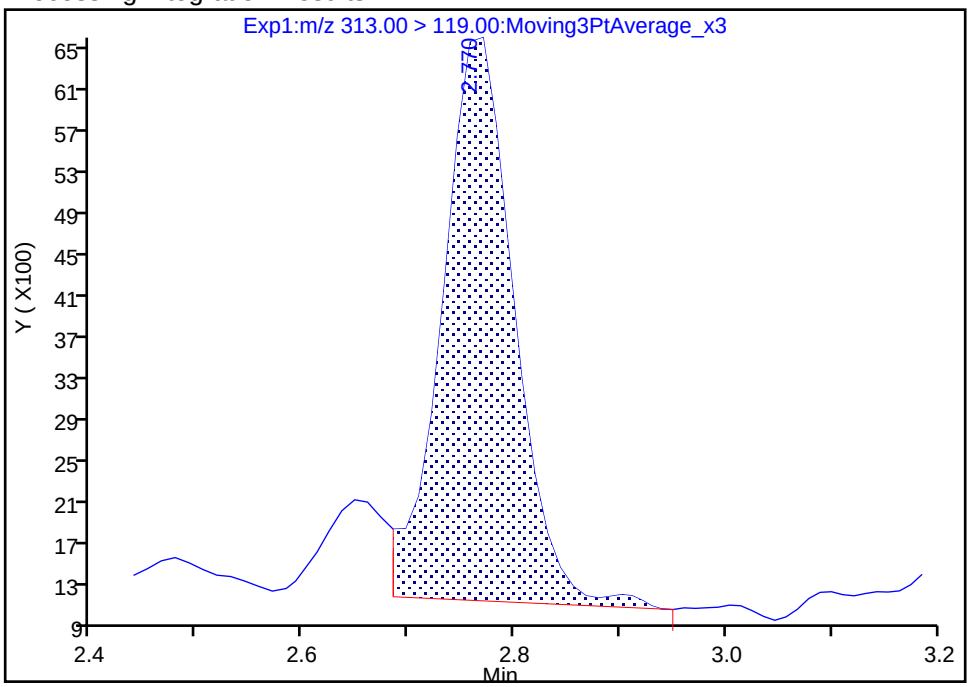
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

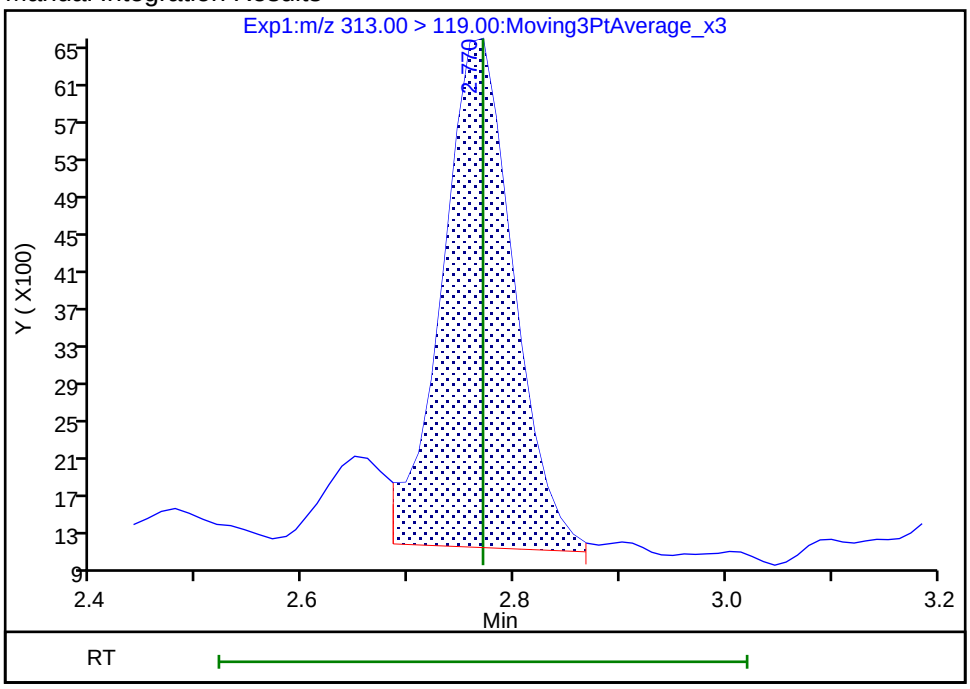
Processing Integration Results

RT: 2.77
Area: 25454
Amount: 2.799002
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 25107
Amount: 0.497616
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

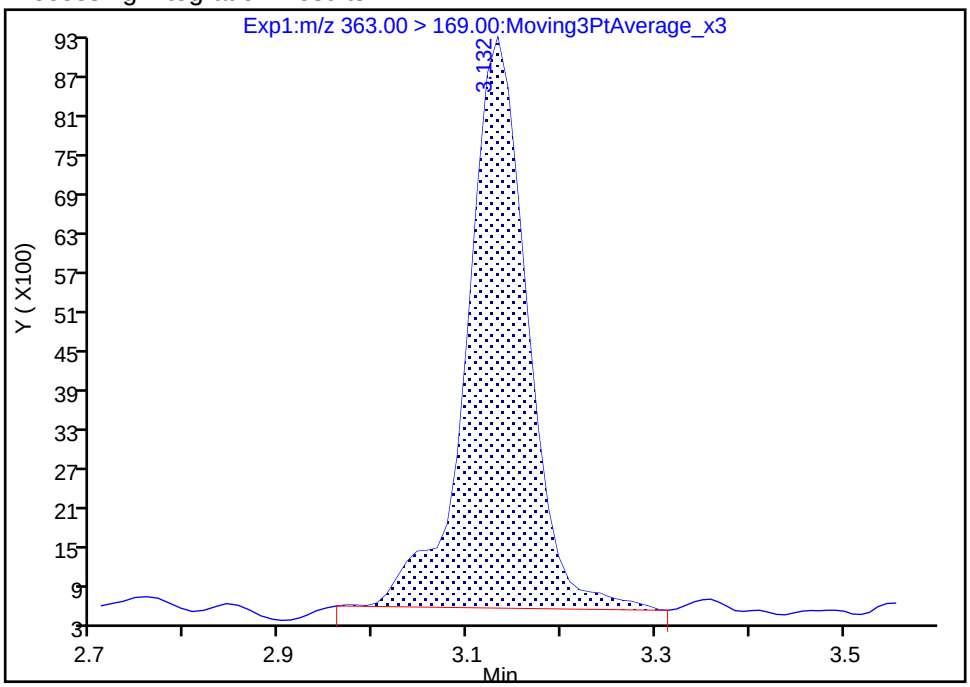
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

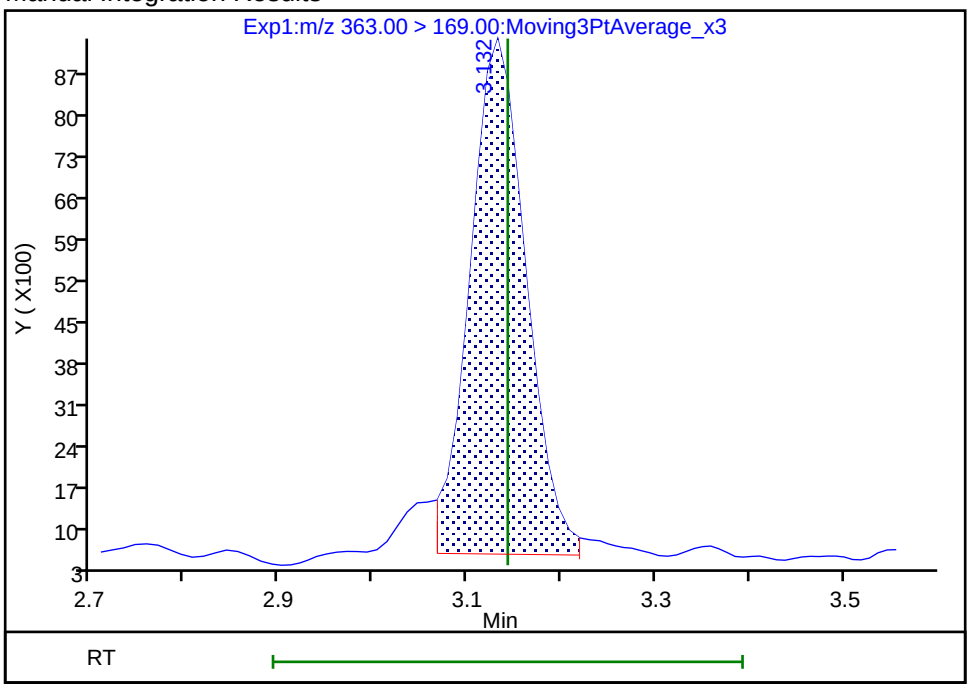
Processing Integration Results

RT: 3.13
Area: 39170
Amount: 0.448731
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 36032
Amount: 0.150229
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

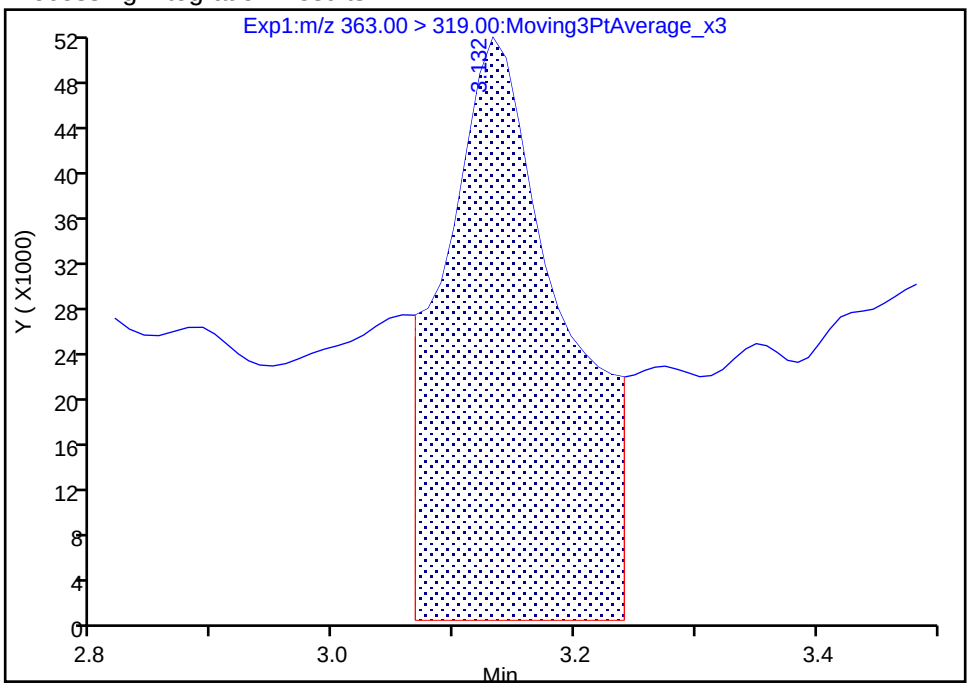
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

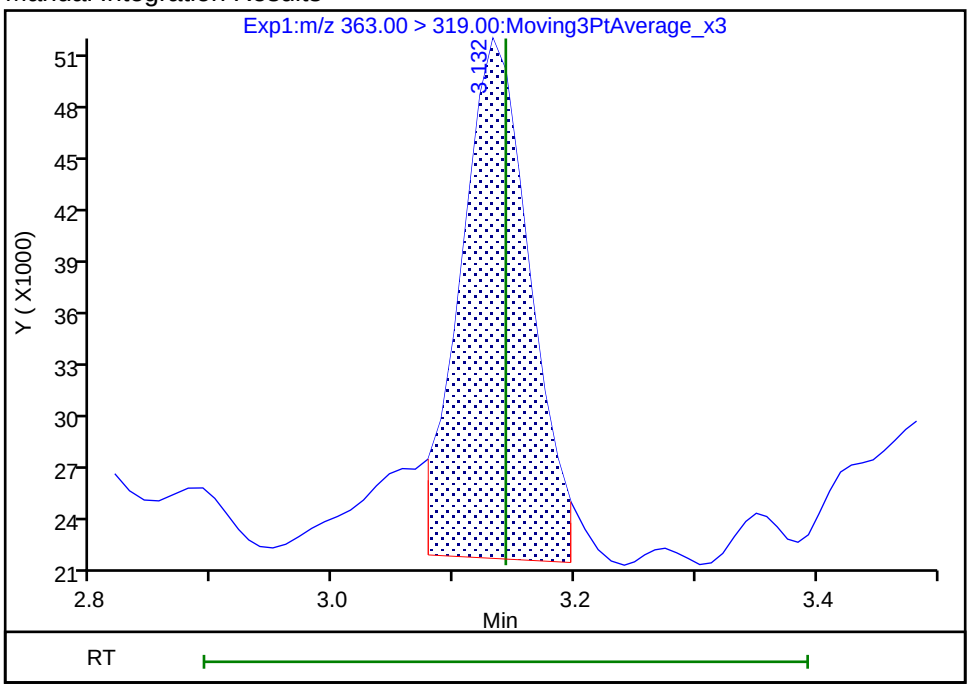
Processing Integration Results

RT: 3.13
Area: 349883
Amount: 0.448731
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 117136
Amount: 0.150229
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

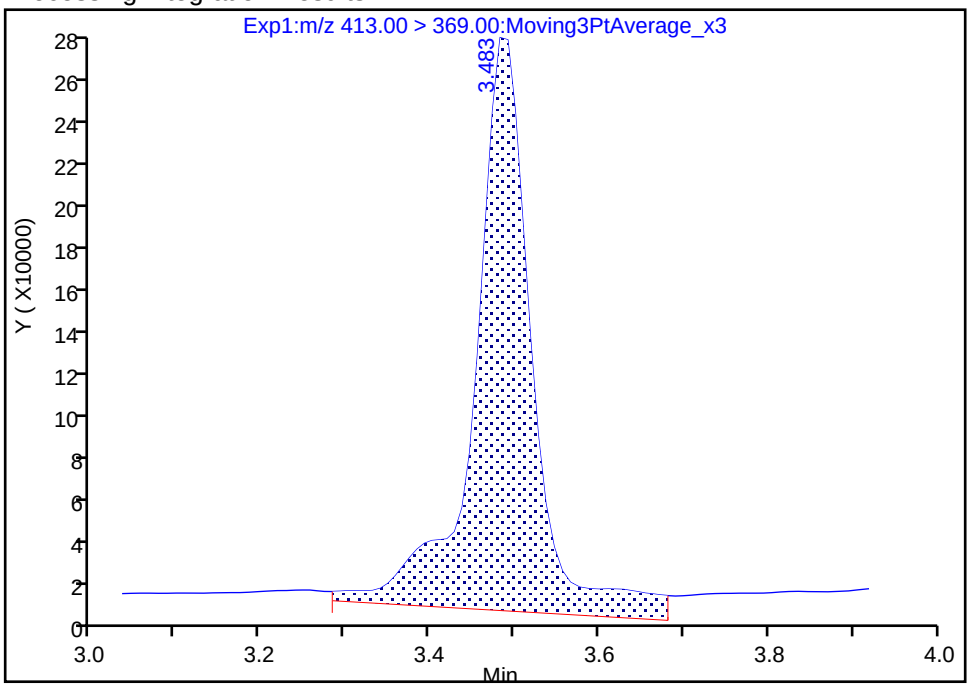
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

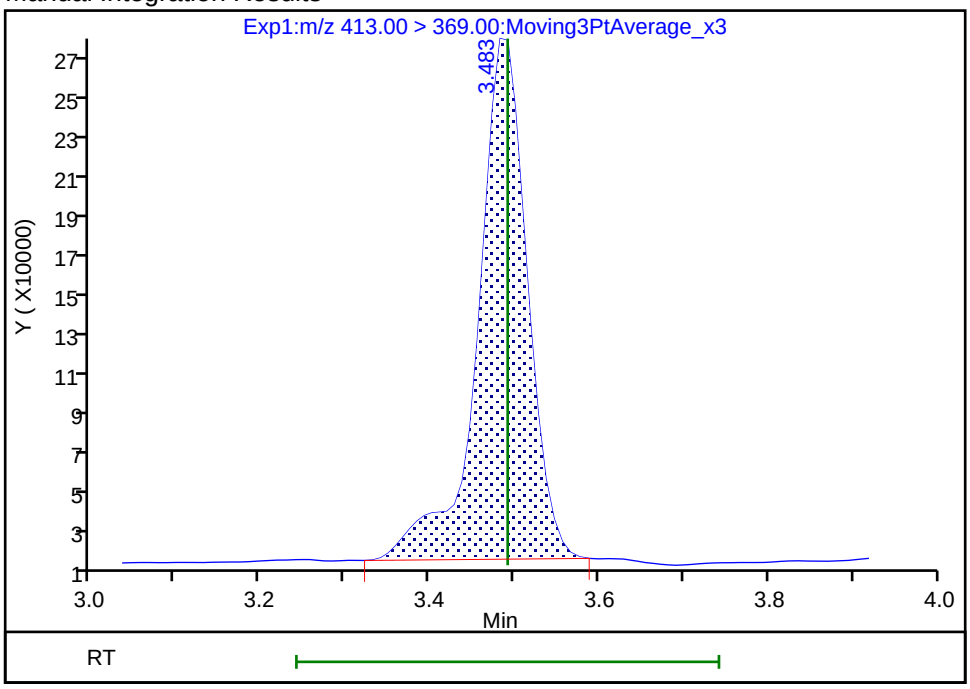
Processing Integration Results

RT: 3.48
Area: 1270622
Amount: 1.495626
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1046742
Amount: 1.232101
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

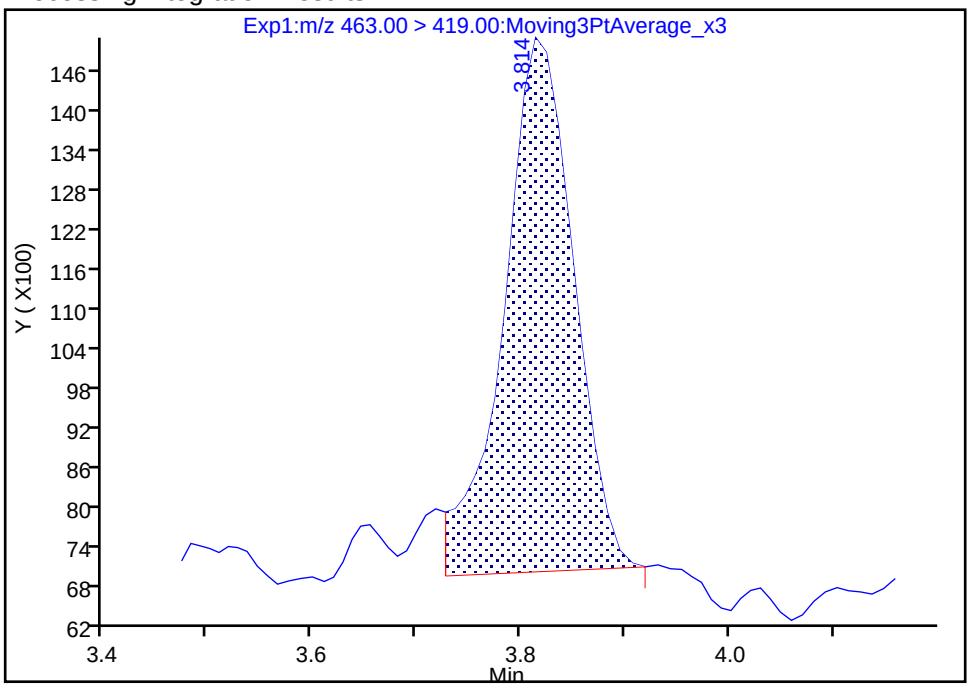
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

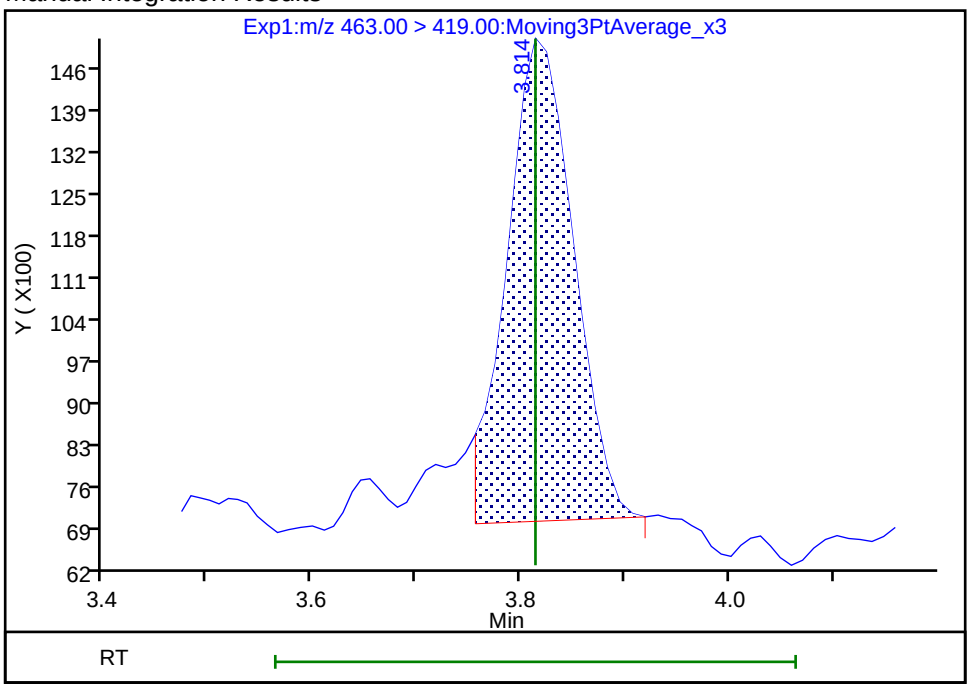
Processing Integration Results

RT: 3.81
Area: 37672
Amount: 0.048541
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 35696
Amount: 0.045995
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:17:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

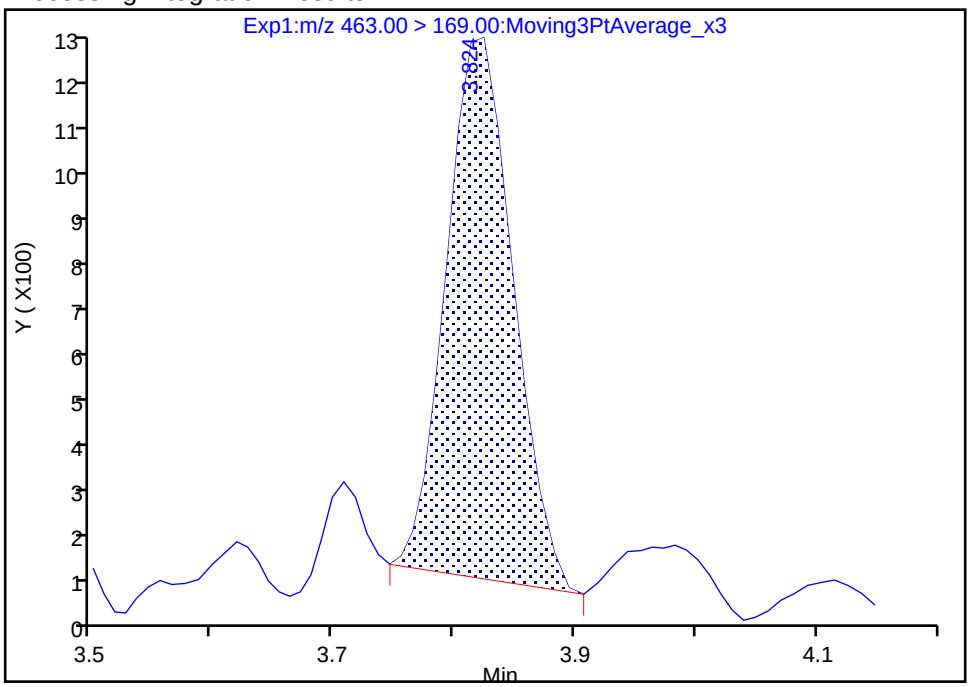
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

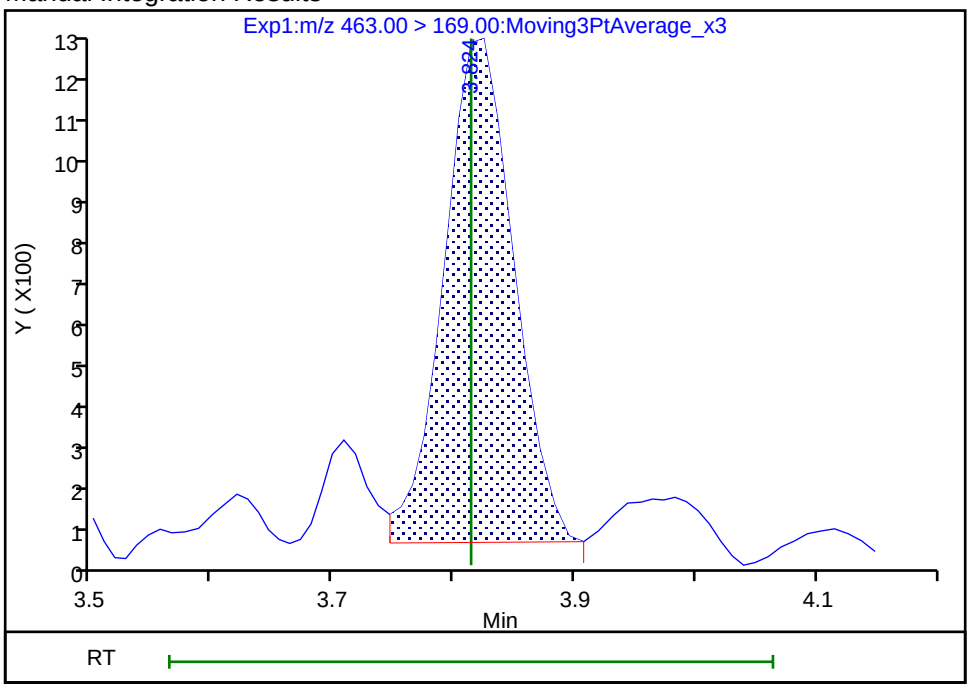
Processing Integration Results

RT: 3.82
Area: 4247
Amount: 0.048541
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 4555
Amount: 0.045995
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:17:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

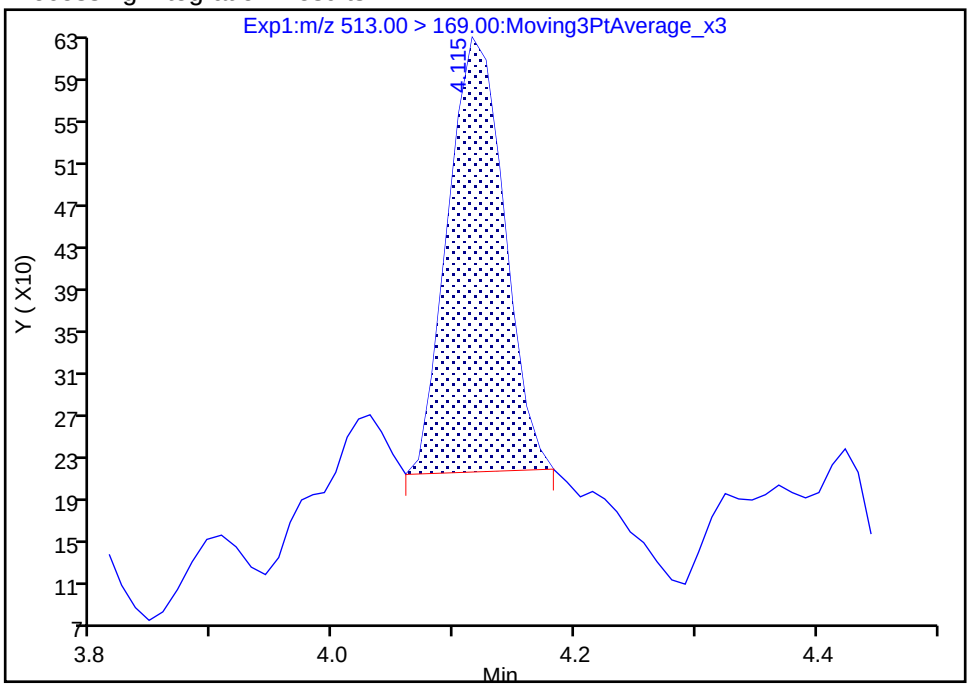
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

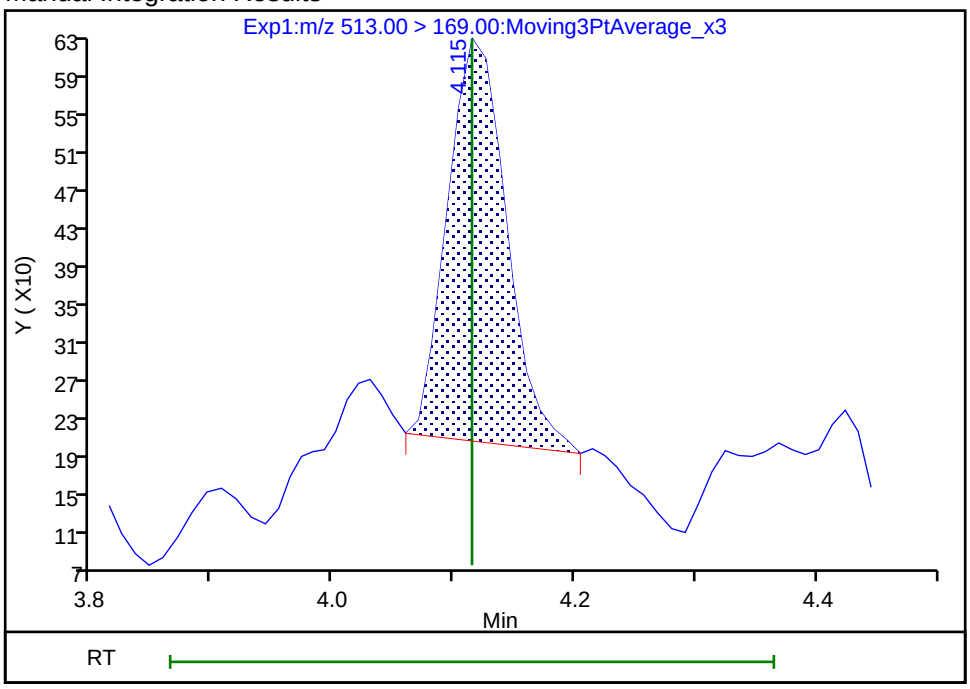
Processing Integration Results

RT: 4.11
Area: 1320
Amount: 0.013880
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 1419
Amount: 0.013880
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:45:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

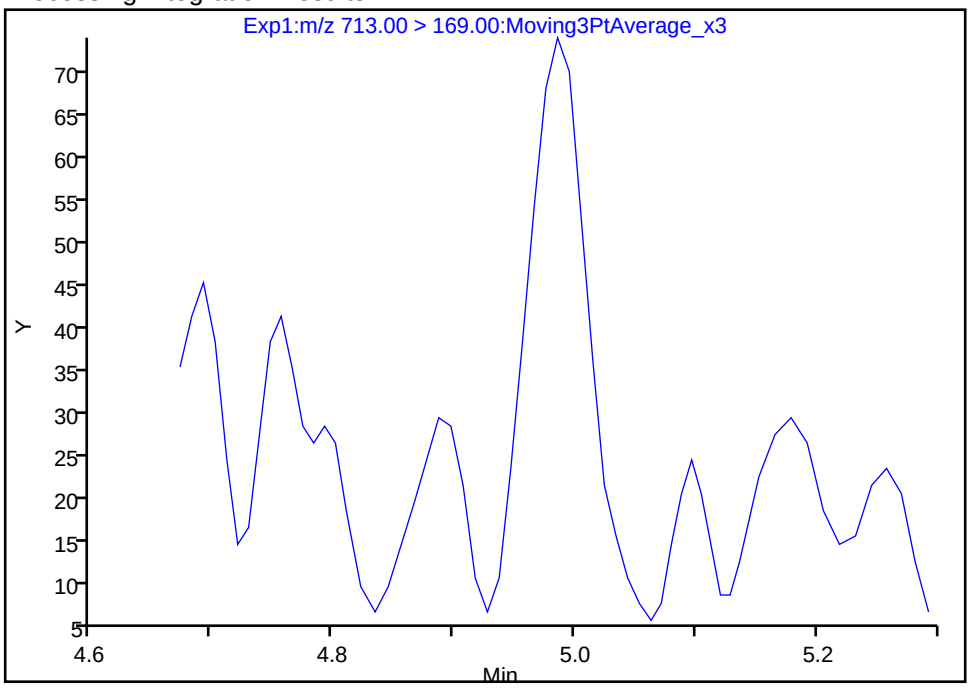
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

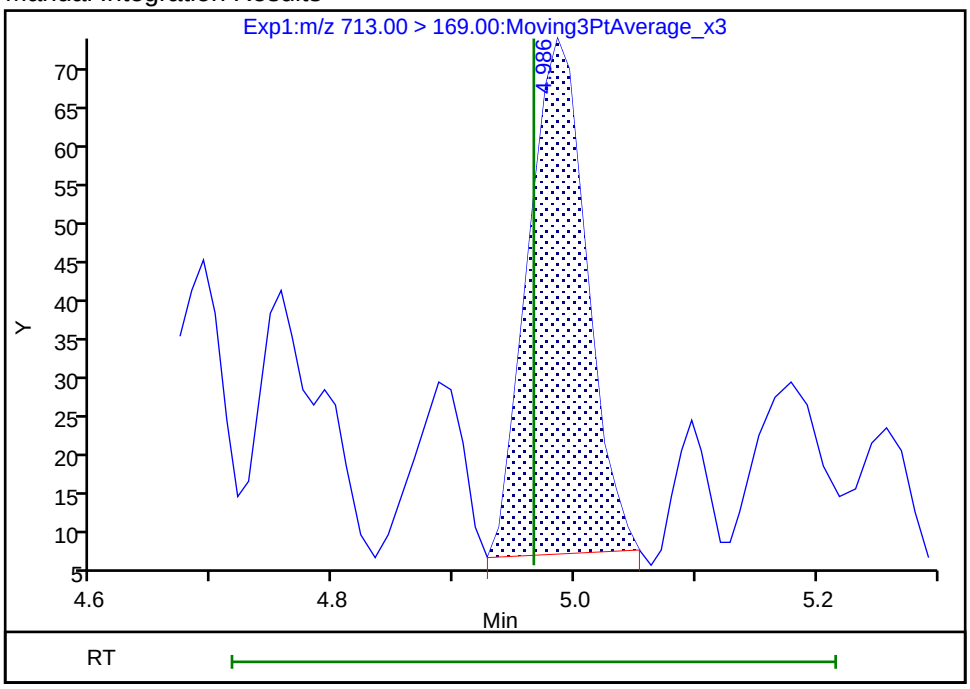
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 228
Amount: 0.007953
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:46:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

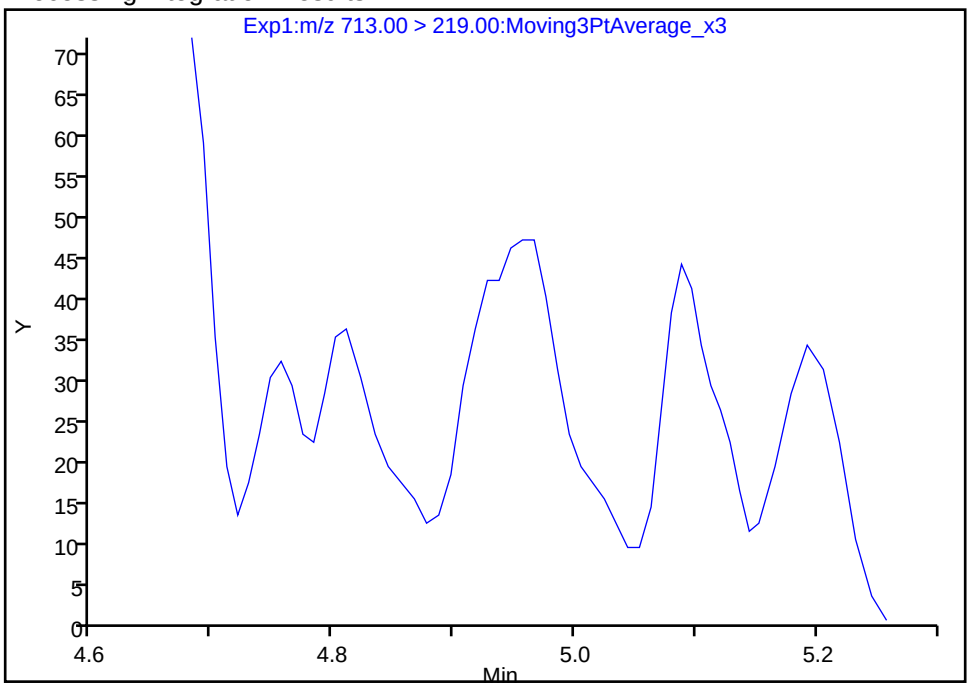
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

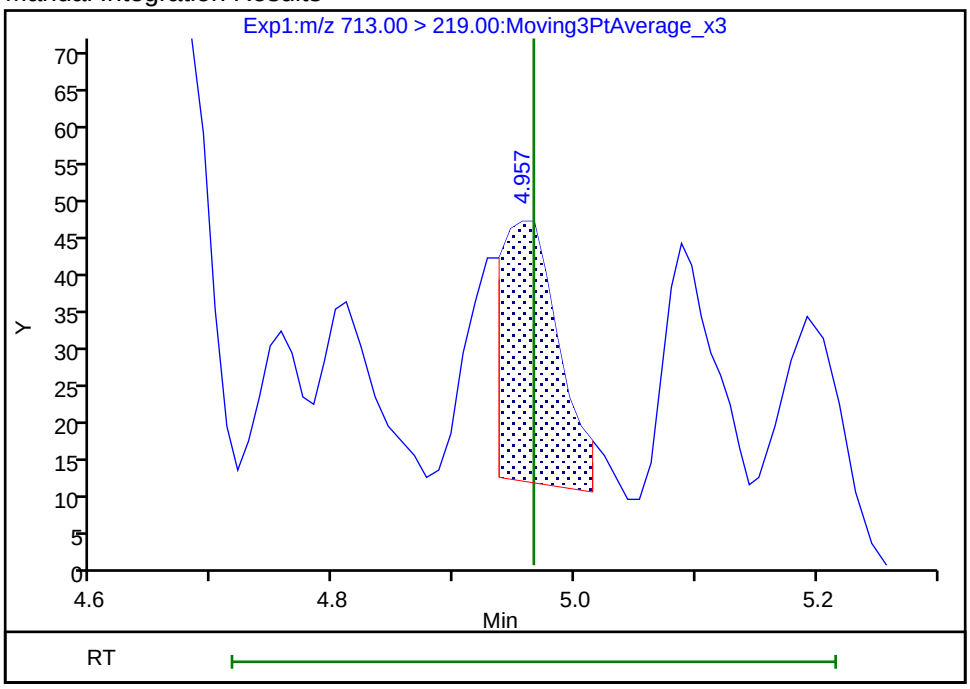
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.96
Area: 113
Amount: 0.007953
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:46:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

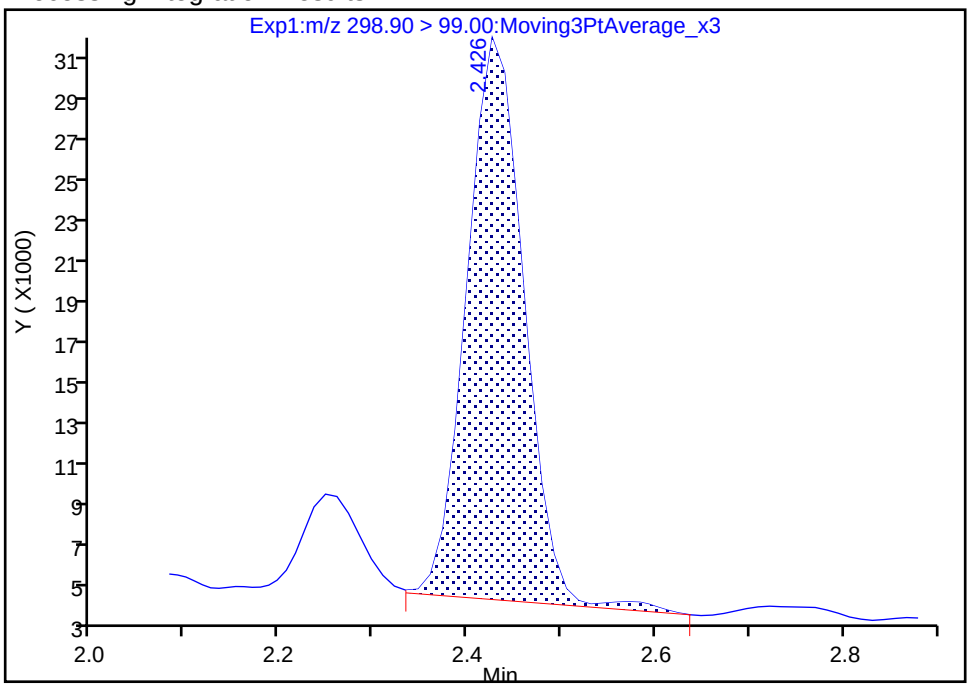
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

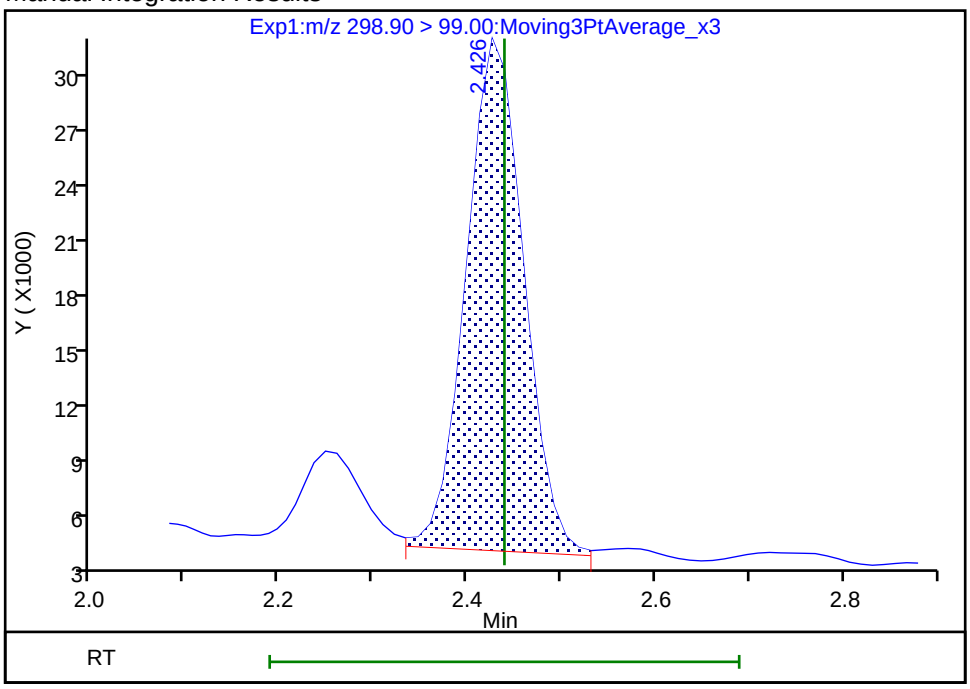
Processing Integration Results

RT: 2.43
Area: 116469
Amount: 1.042740
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 117533
Amount: 0.351684
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:16:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

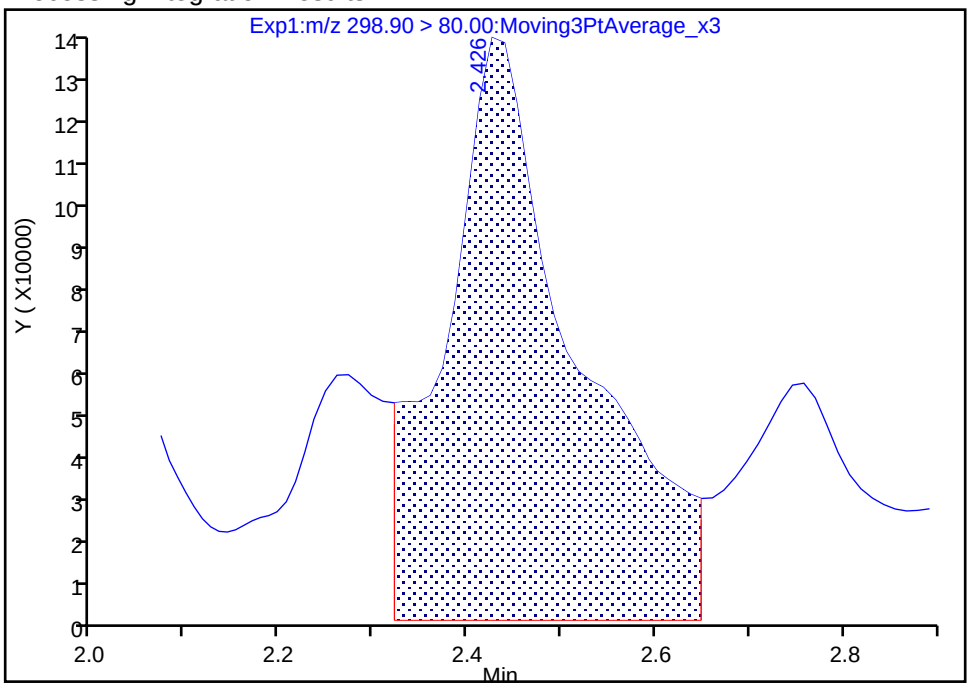
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

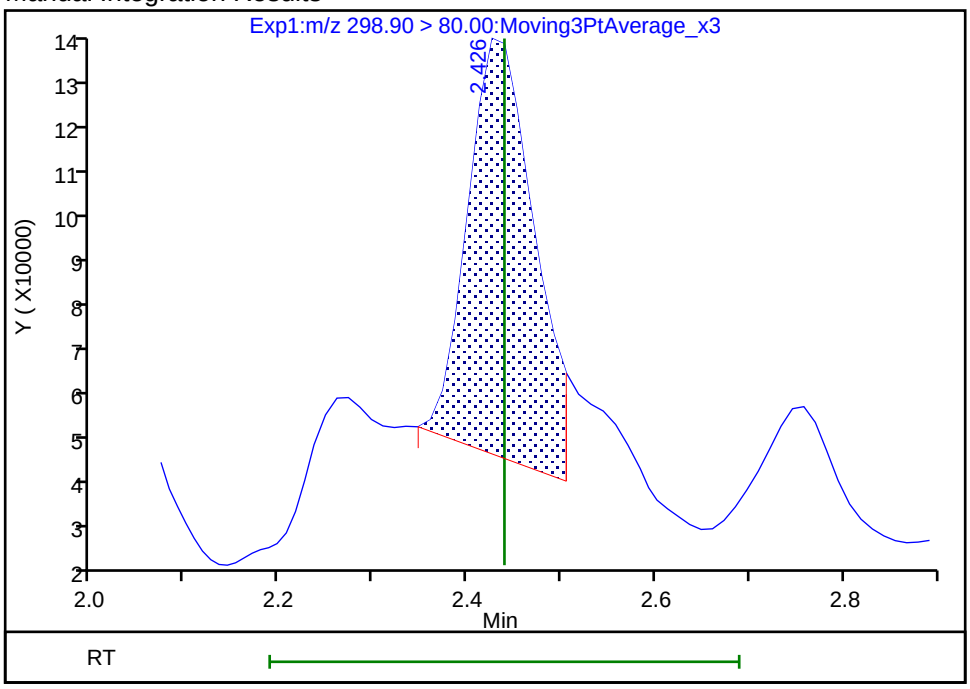
Processing Integration Results

RT: 2.43
Area: 1317638
Amount: 1.042740
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 444399
Amount: 0.351684
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:16:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

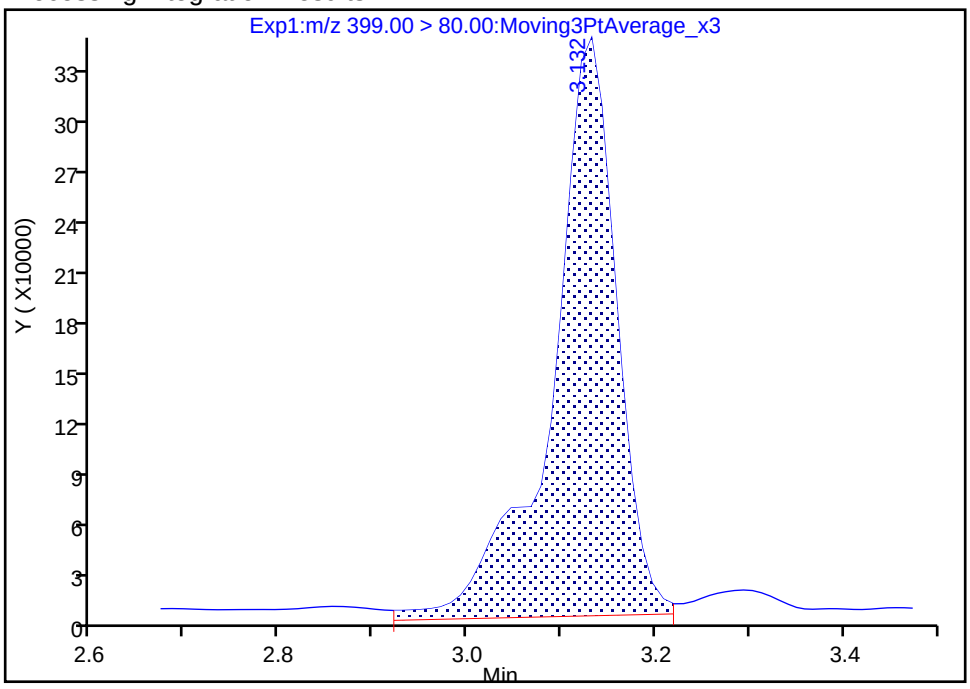
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

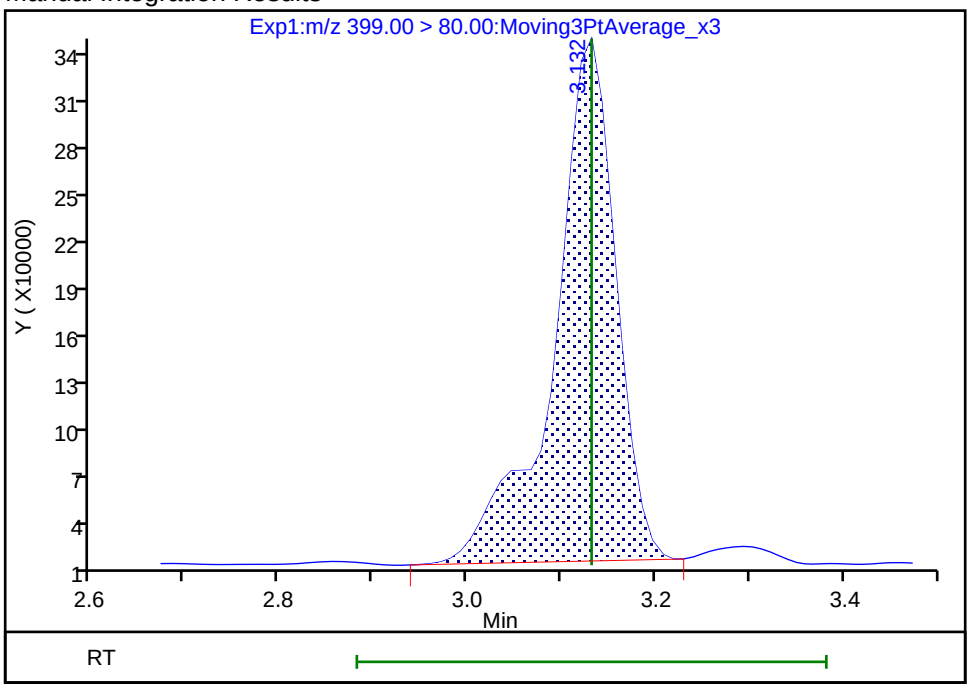
Processing Integration Results

RT: 3.13
Area: 1627471
Amount: 1.935057
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1523252
Amount: 1.811141
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

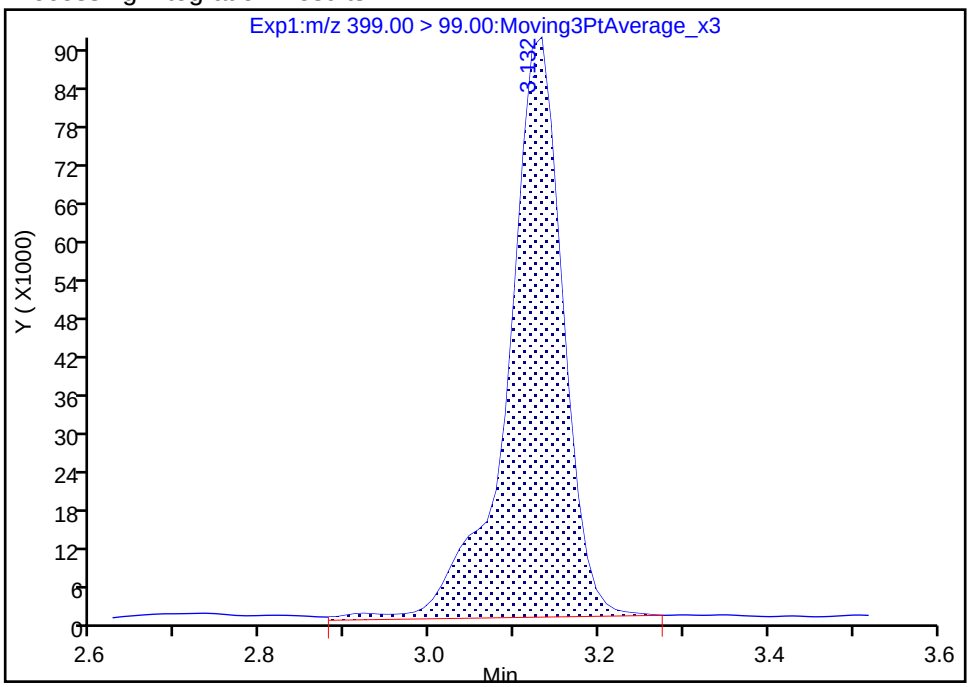
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

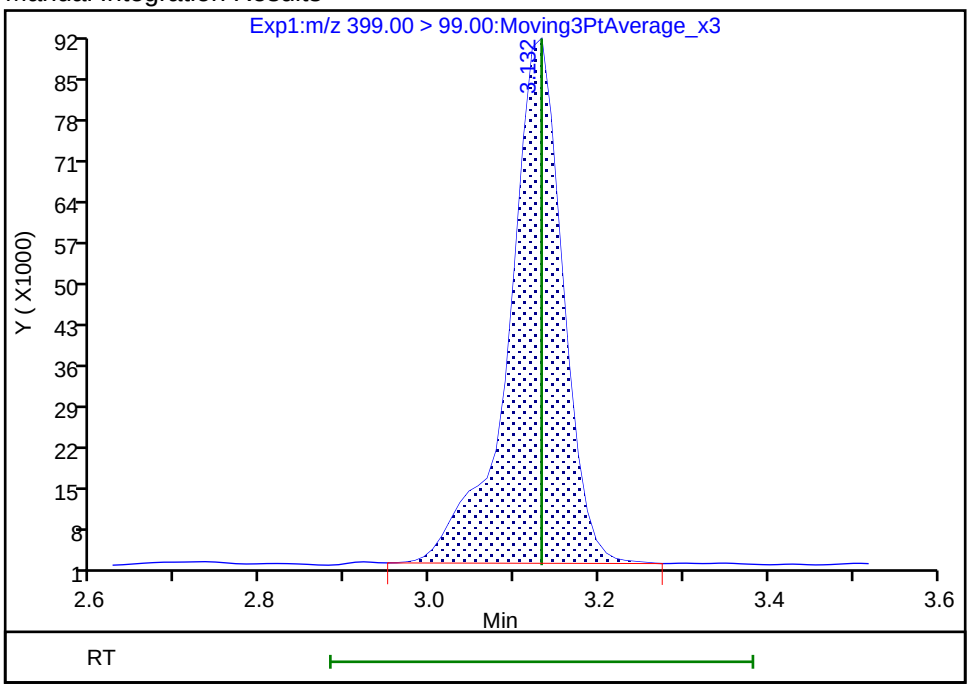
Processing Integration Results

RT: 3.13
Area: 413341
Amount: 1.935057
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 402619
Amount: 1.811141
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:43:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

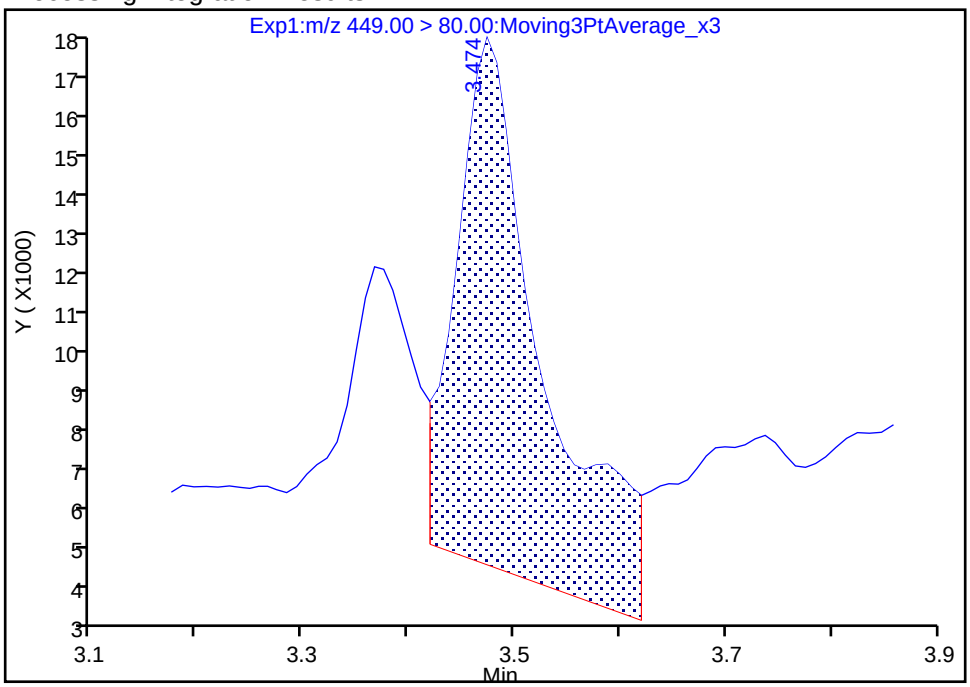
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

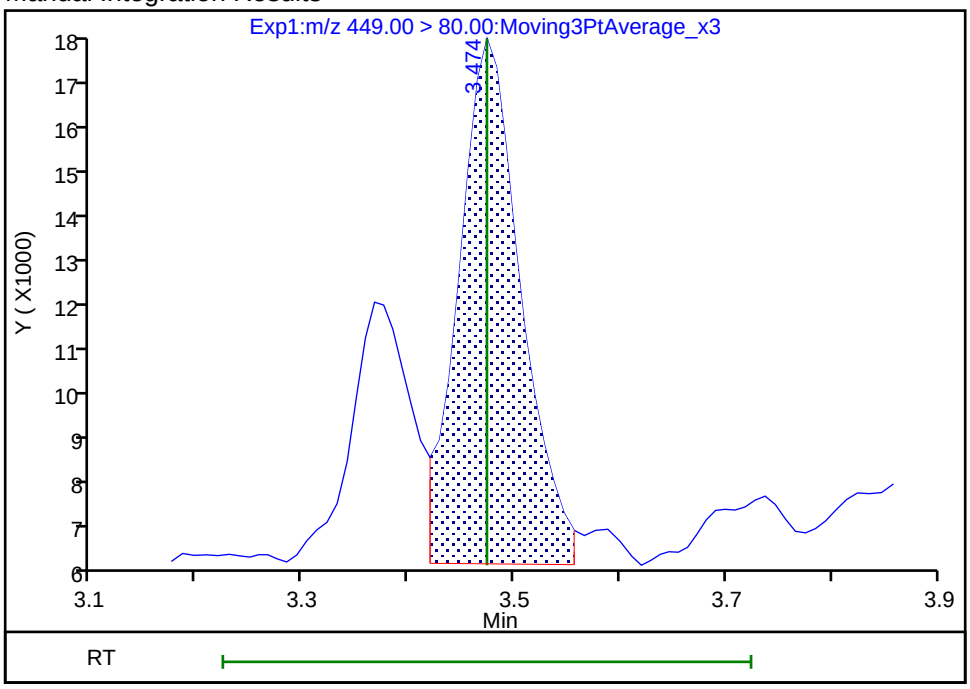
Processing Integration Results

RT: 3.47
Area: 70673
Amount: 0.100724
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 43865
Amount: 0.062517
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

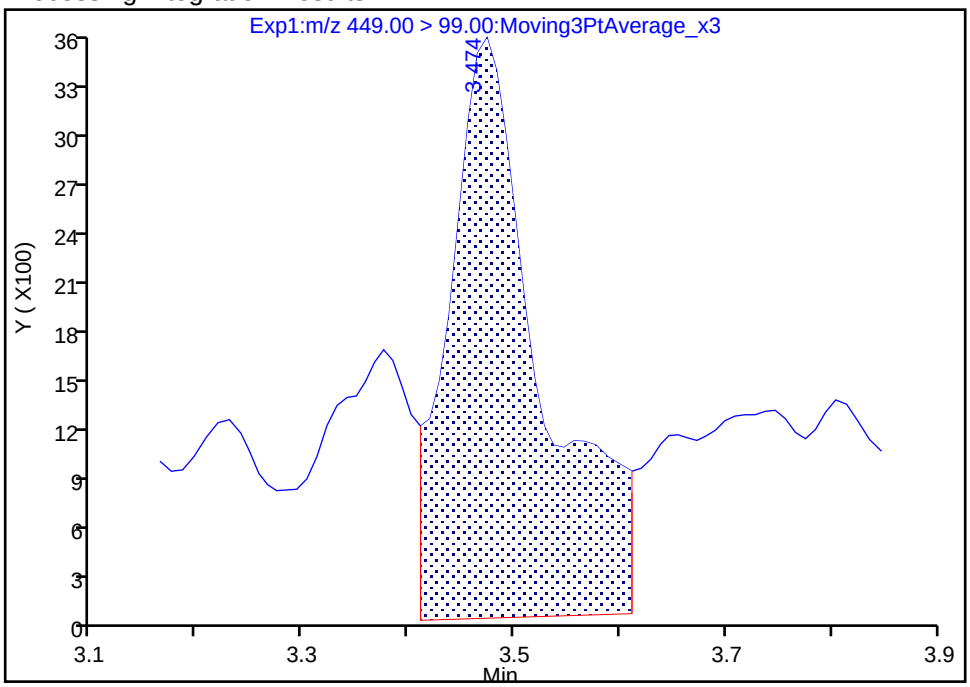
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

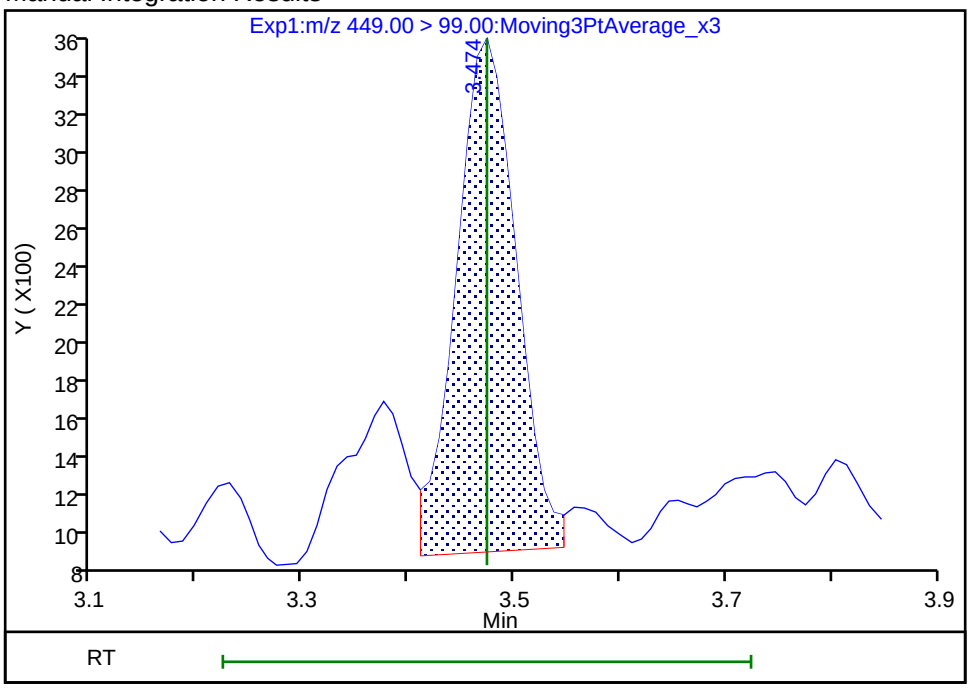
Processing Integration Results

RT: 3.47
Area: 20546
Amount: 0.100724
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 10223
Amount: 0.062517
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

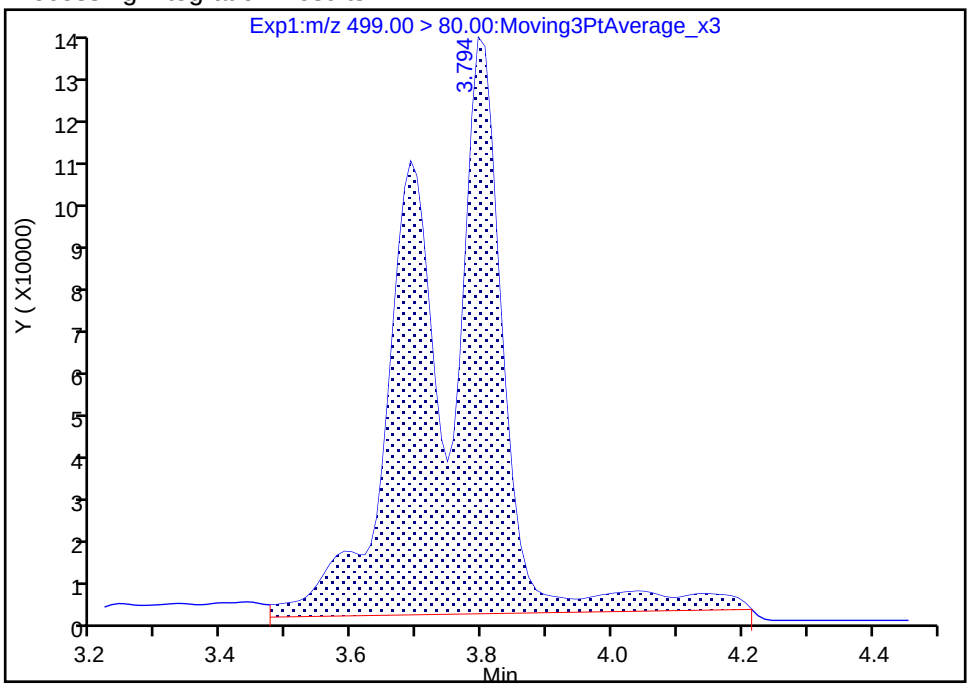
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

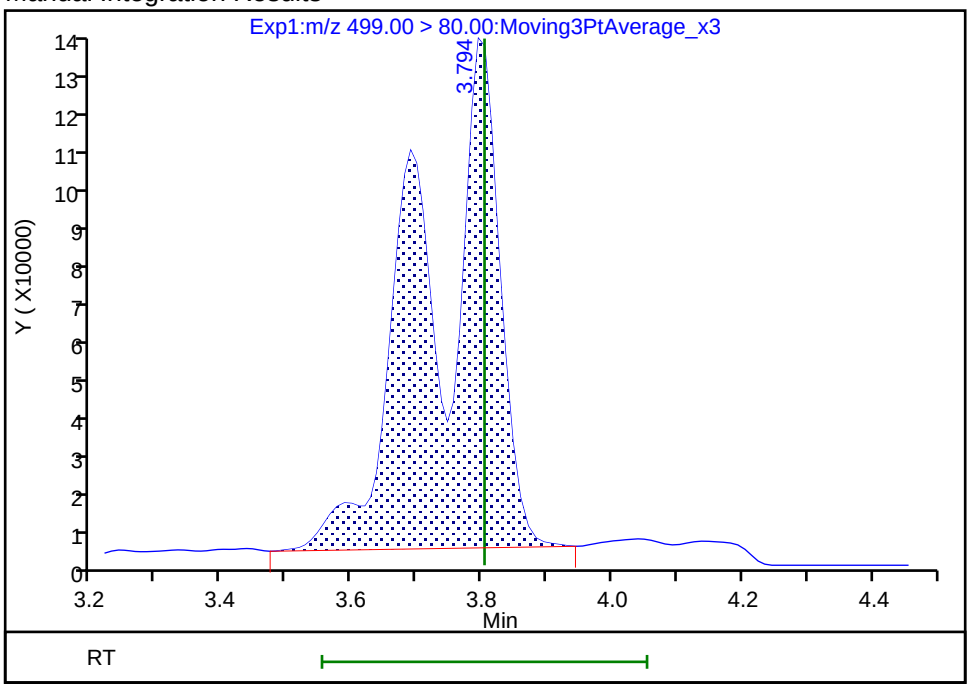
Processing Integration Results

RT: 3.79
Area: 1115066
Amount: 1.825832
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 980203
Amount: 1.605005
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

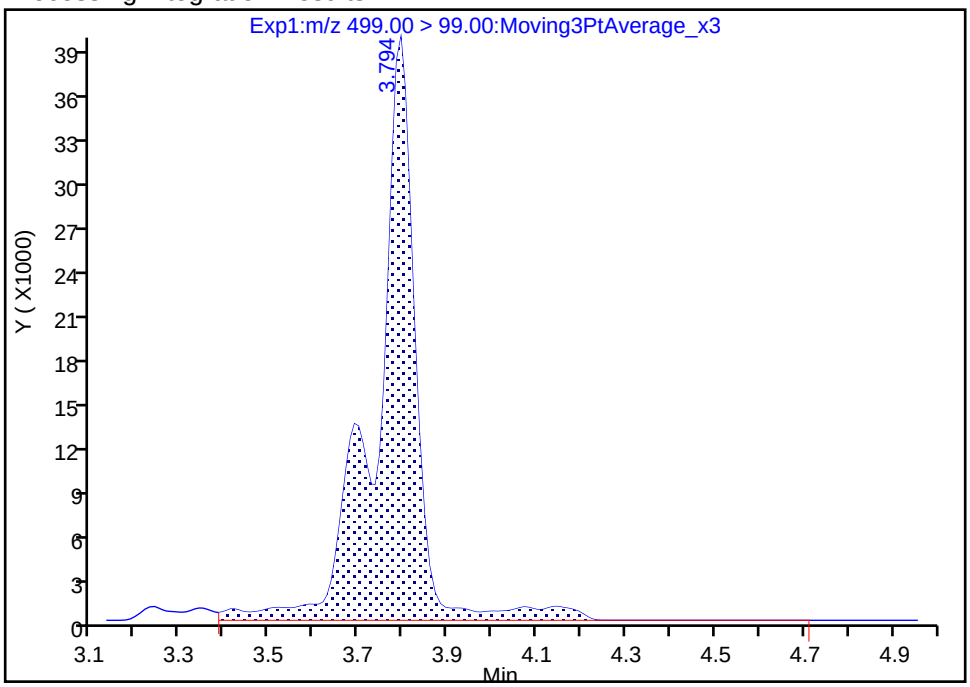
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

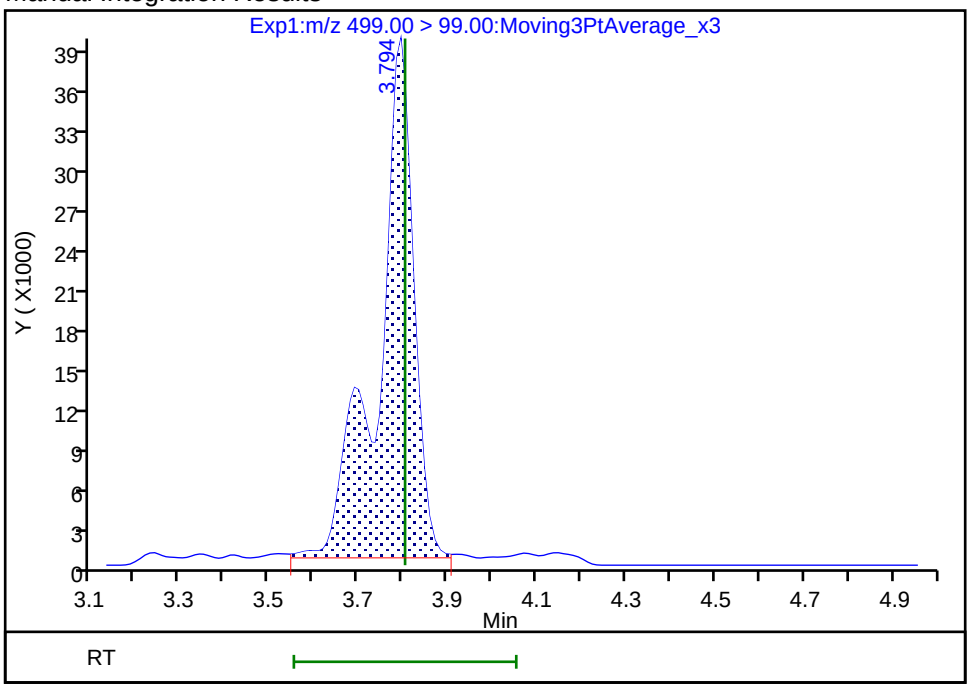
Processing Integration Results

RT: 3.79
Area: 248206
Amount: 1.825832
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 216305
Amount: 1.605005
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:44:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

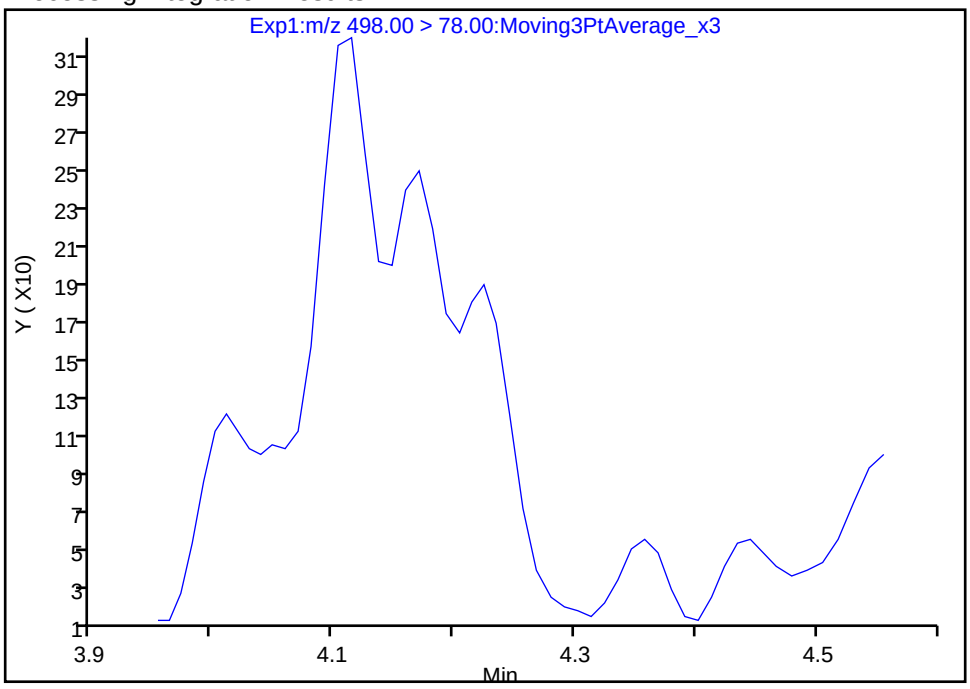
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

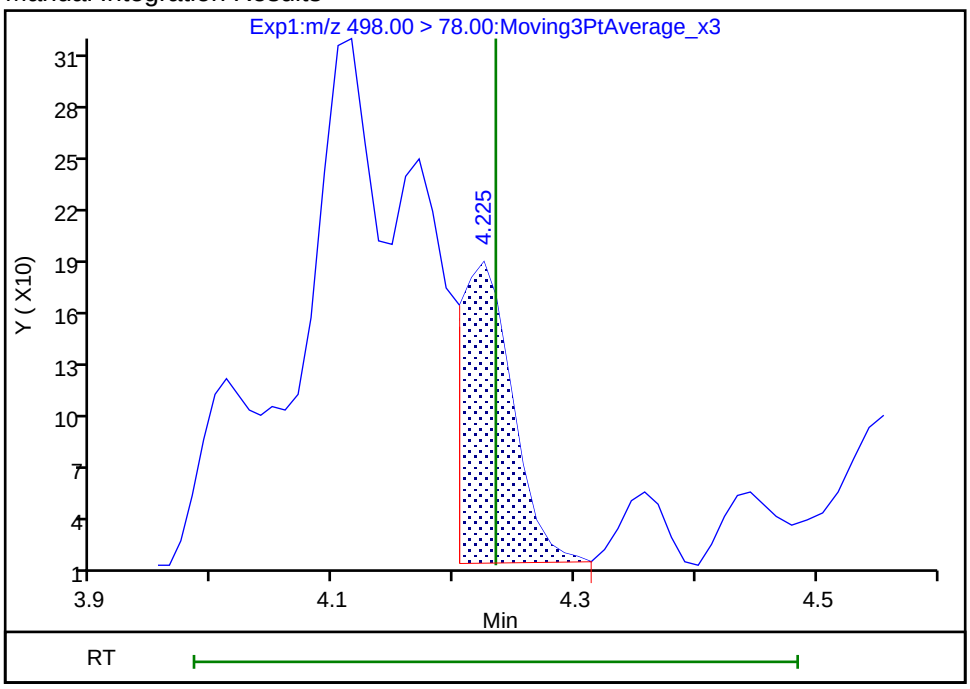
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 485
Amount: 0.001025
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:45:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

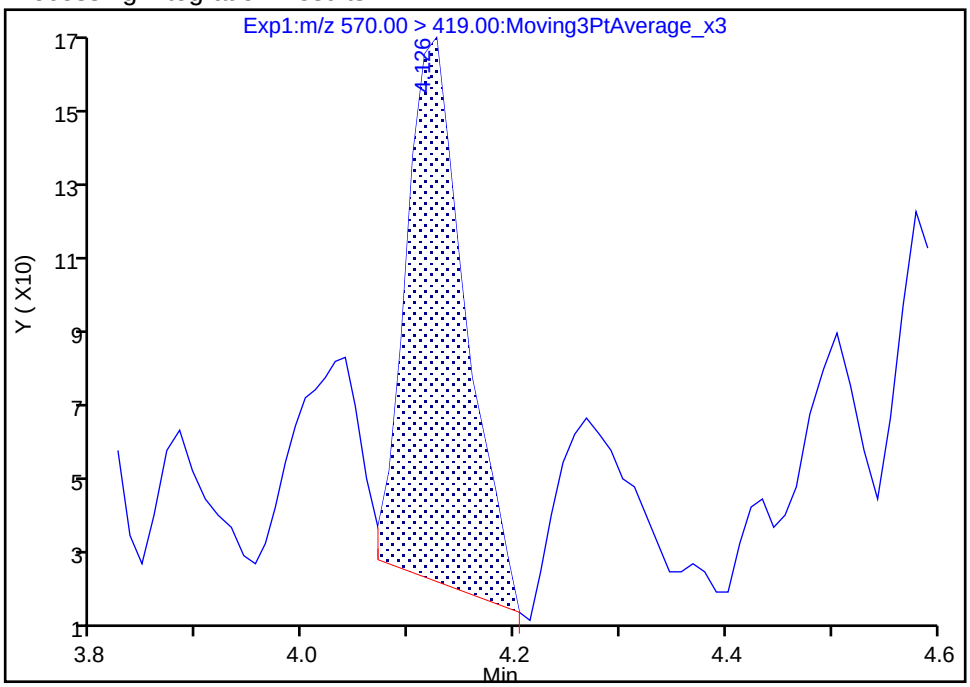
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

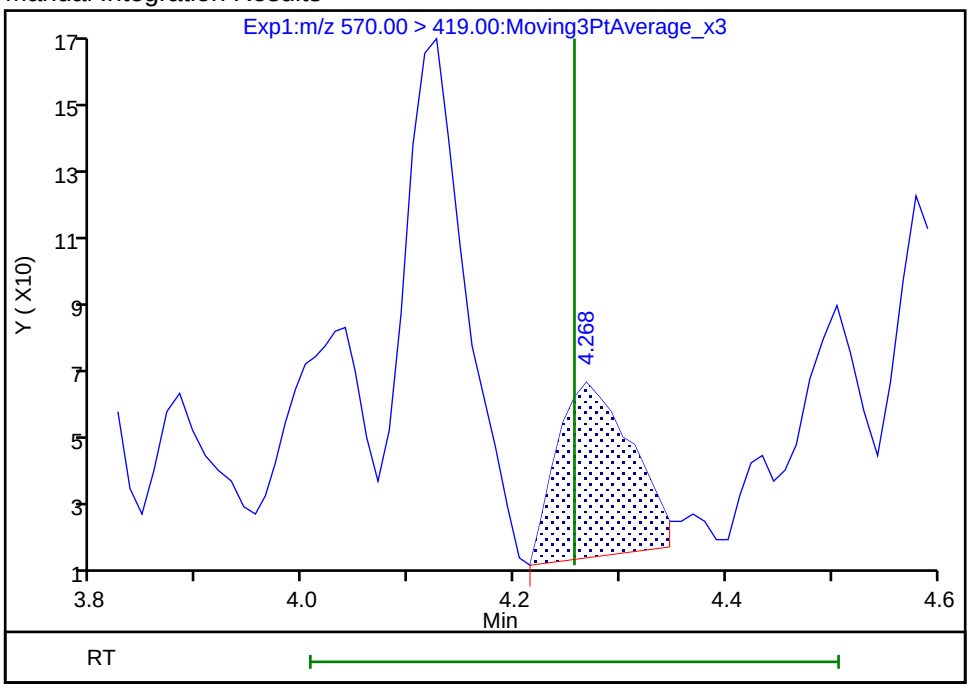
Processing Integration Results

RT: 4.13
Area: 518
Amount: 0.005960
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 234
Amount: 0.002692
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:45:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

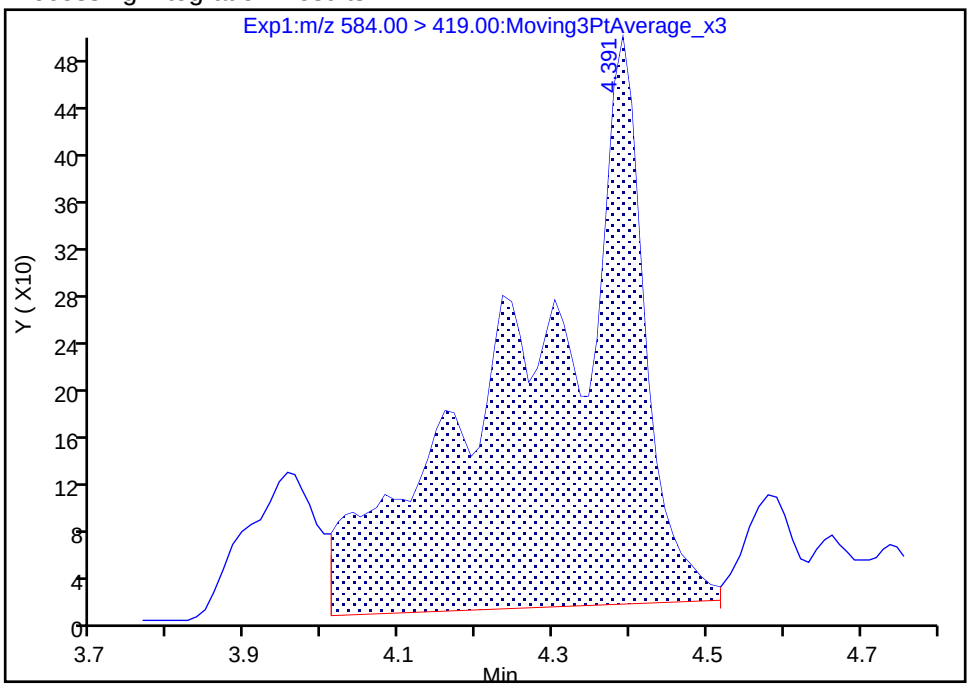
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

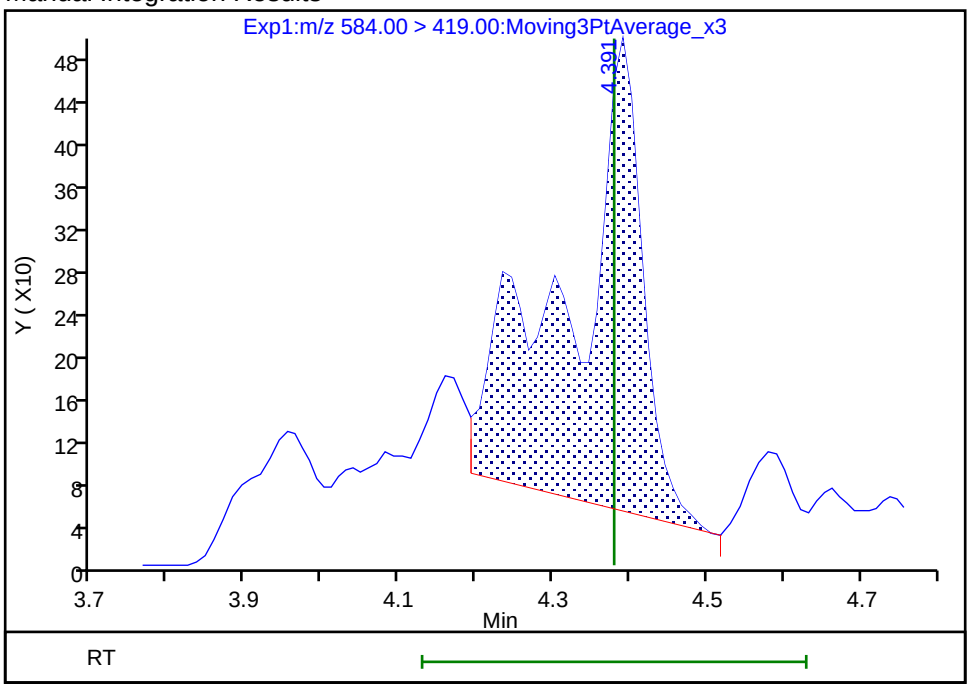
Processing Integration Results

RT: 4.39
Area: 5029
Amount: 0.051346
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 2956
Amount: 0.030181
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:46:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

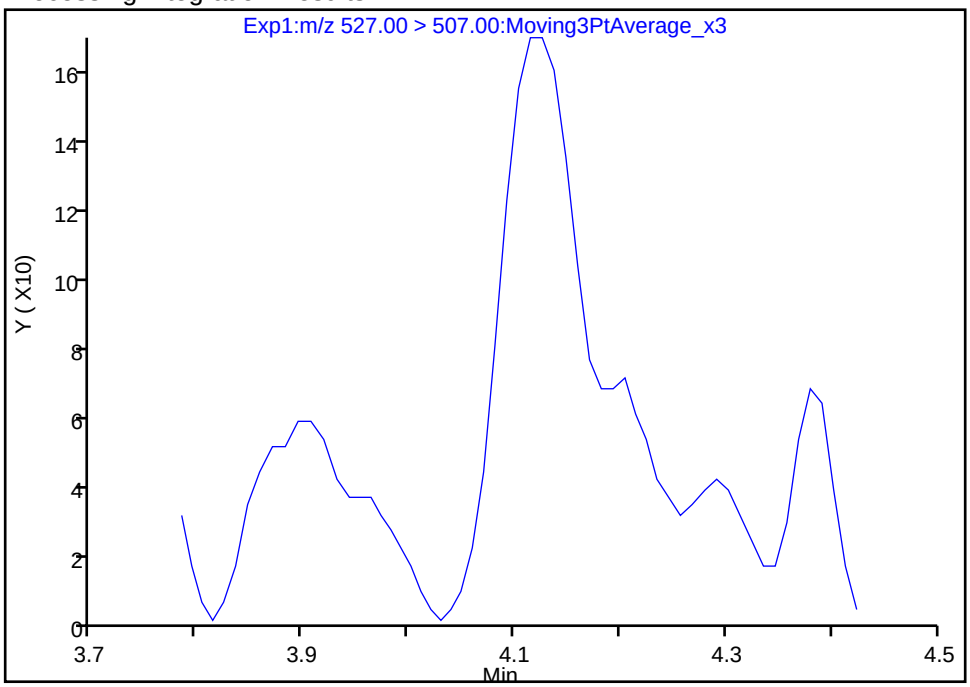
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

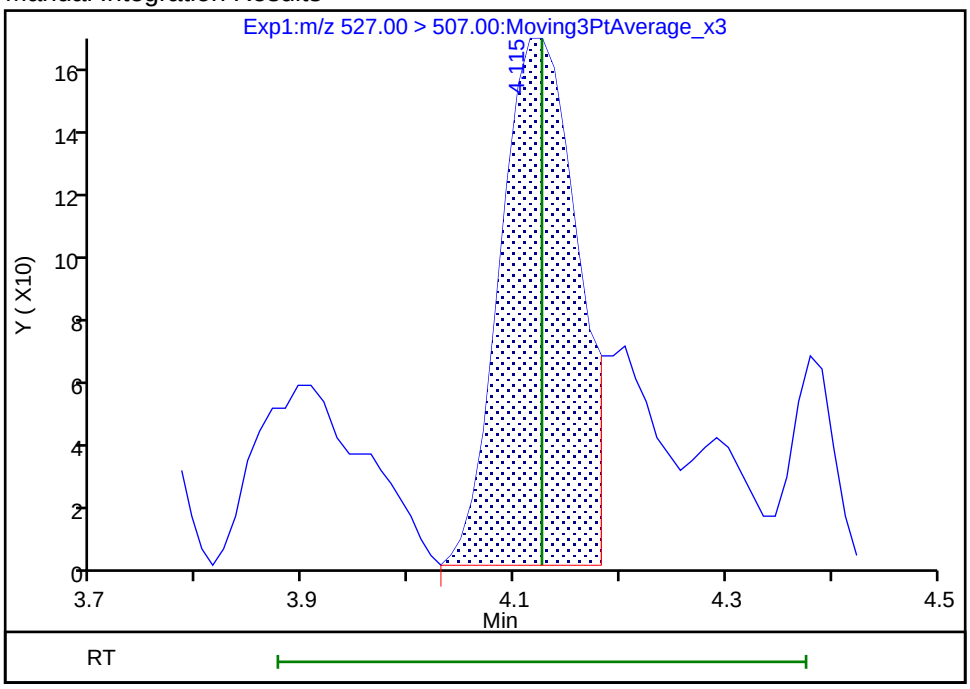
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 812
Amount: 0.004122
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:45:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

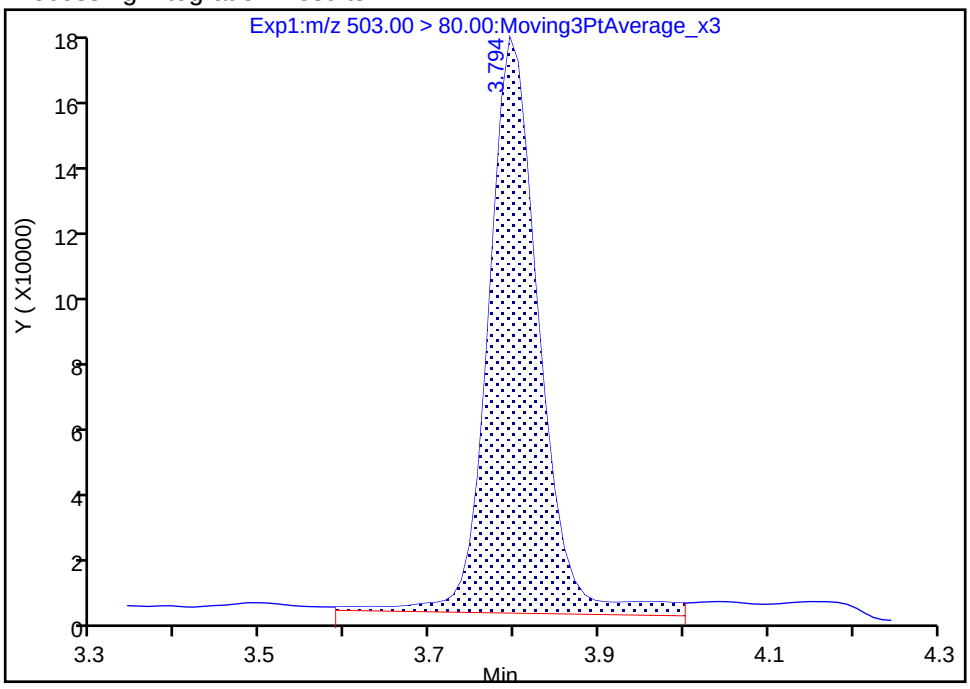
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 18 13C4 PFOS, CAS: STL00991

Signal: 1

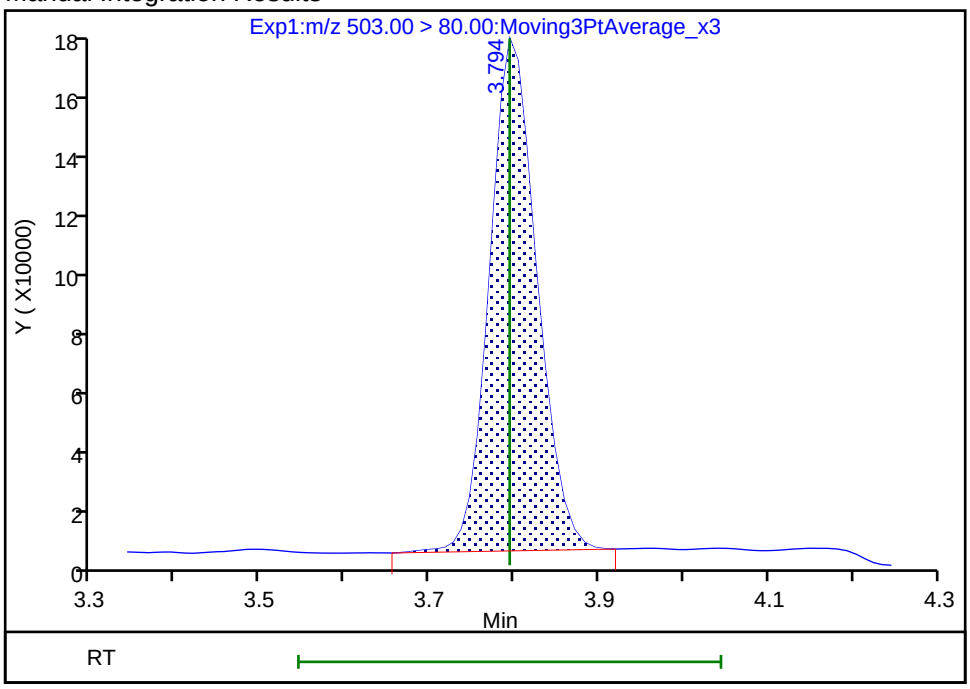
Processing Integration Results

RT: 3.79
Area: 737952
Amount: 1.443828
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 672598
Amount: 1.315960
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

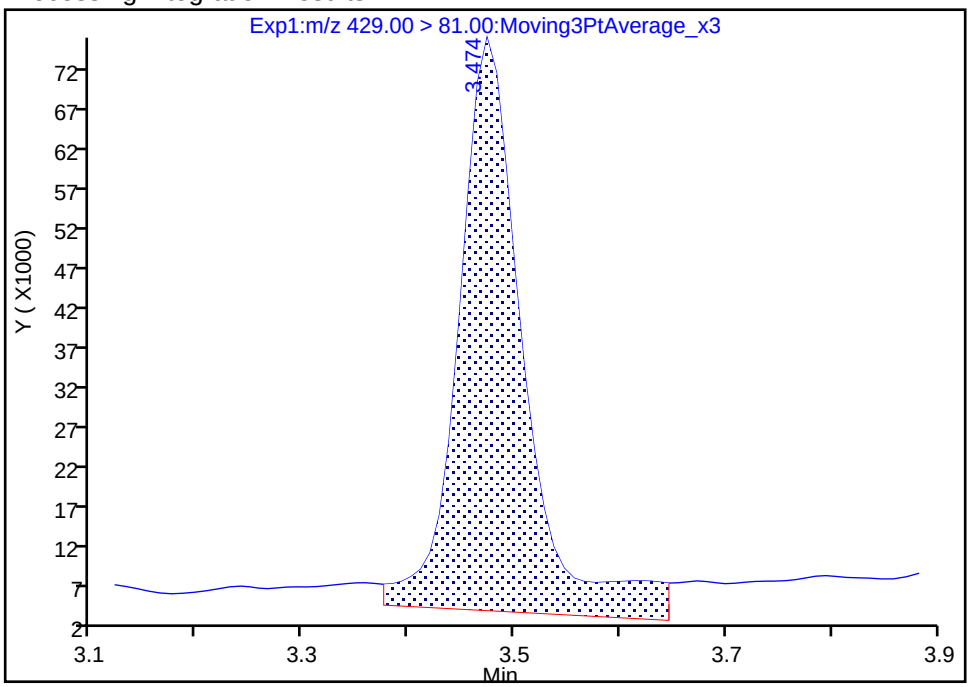
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

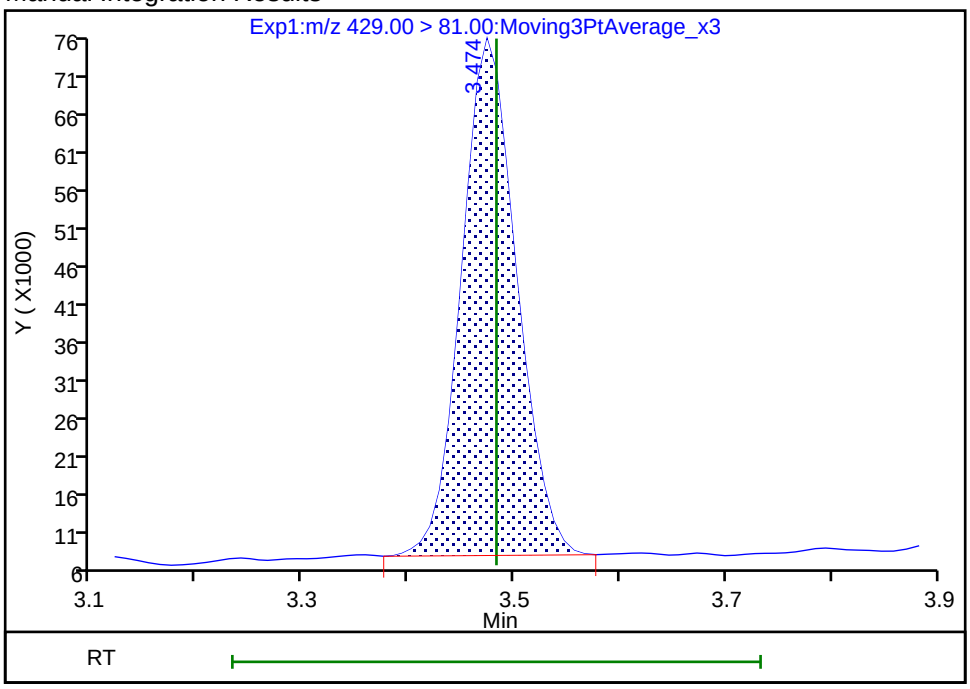
Processing Integration Results

RT: 3.47
Area: 305120
Amount: 2.735600
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 245382
Amount: 2.200010
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

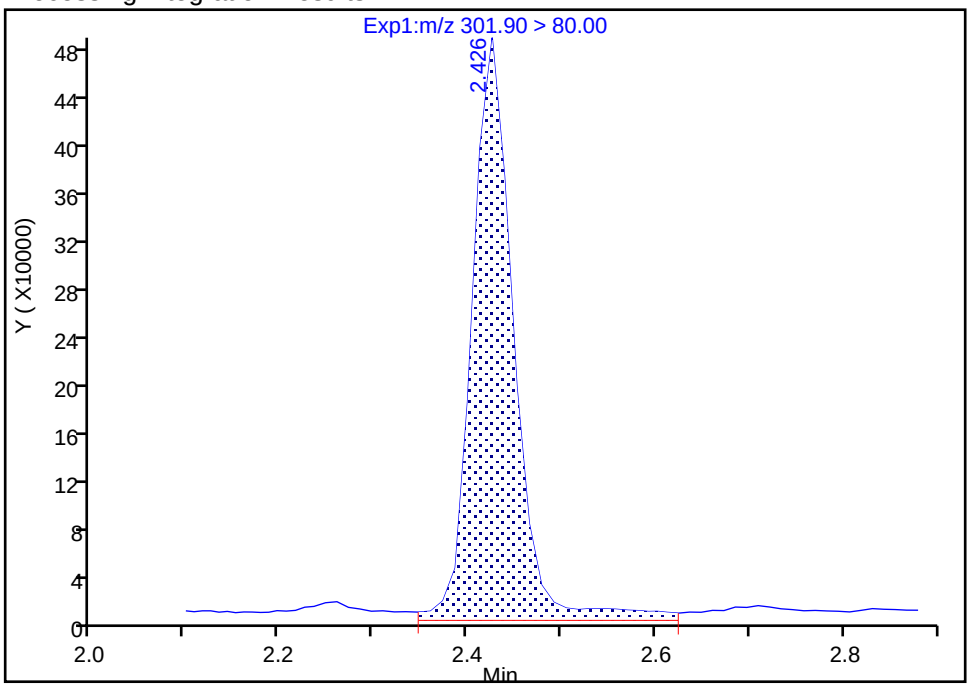
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D22.d | | | | |
| Injection Date: | 10-Nov-2021 07:04:12 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-15-A | Lab Sample ID: | 200-246277-15 | | |
| Client ID: | MW-34-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

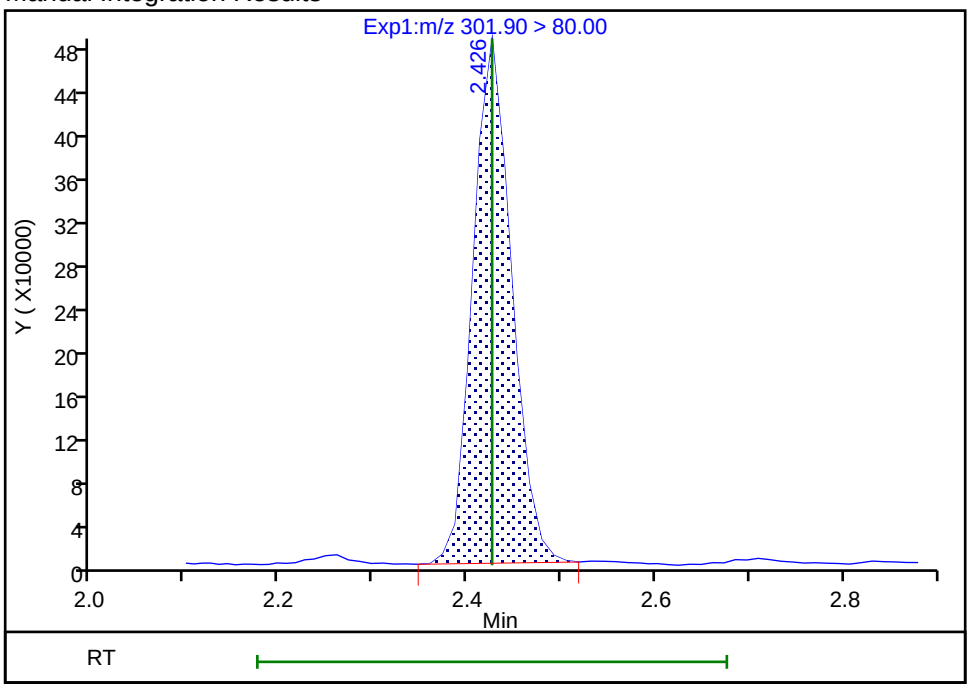
Processing Integration Results

RT: 2.43
Area: 1510549
Amount: 1.551650
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1375360
Amount: 1.412783
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:42:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-1S-20211028  Lab Sample ID: 460-246277-16

Matrix: Water  Lab File ID: PA211109D23.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 16:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 277.2(mL)  Date Analyzed: 11/10/2021 07:12

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 6.97 | | 4.51 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 4.40 | | 1.80 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 15.2 | | 1.80 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 3.00 | | 1.80 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 12.4 | | 1.80 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.29 | J | 1.80 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.80 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 8.46 | | 1.80 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 67.0 | | 1.80 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 3.71 | | 1.80 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 220 | | 1.80 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.51 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.51 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.51 | 0.99 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-1S-20211028  Lab Sample ID: 460-246277-16

Matrix: Water  Lab File ID: PA211109D23.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 16:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 277.2(mL)  Date Analyzed: 11/10/2021 07:12

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 98 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 97 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 95 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 85 | | 50-150 |
| STL00997 | 13C2 PFUnA | 86 | | 50-150 |
| STL00998 | 13C2 PFDoA | 82 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 98 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 77 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 96 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 105 | | 50-150 |
| STL02279 | M2-6:2 FTS | 110 | | 25-150 |
| STL02280 | M2-8:2 FTS | 116 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d
Lims ID: 460-246277-C-16-A
Client ID: MW-1S-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 07:12:24 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-16-A
Misc. Info.: 200-0048356-023 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:50:26
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.100 | 0.0 | 0.601 | 1564511 | 1.19 | | 95.2 | 1488 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.000 | 228808 | 0.1933 | | | 16.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1352525 | 1.22 | | 97.7 | 1091 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 132266 | 0.1220 | | | 1.4 | |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1602656 | 1.07 | | 92.0 | 36555 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 345256 | 0.2345 | Target=2.32 | | 13.6 | M |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.005 | 136440 | | 2.53(1.16-3.48) | | 24.6 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1411213 | 1.21 | | 97.1 | 2359 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 482629 | 0.4215 | Target=12.09 | | 16.0 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 35788 | | 13.49(6.04-18.13) | | 25.0 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.132 | 0.011 | 1.003 | 2074673 | 1.86 | Target=3.55 | | 352 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 530852 | | 3.91(1.77-5.32) | | 359 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1202175 | 1.10 | | 93.4 | 3187 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1502992 | 1.23 | | 98.3 | 3289 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 103275 | 0.0831 | Target=3.69 | | 8.5 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 28767 | | 3.59(1.84-5.53) | | 38.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 97793 | 0.1028 | Target=4.88 | | 24.4 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 22990 | | 4.25(2.44-7.32) | | 27.0 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1325 | 0.005550 | | | 16.3 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 223574 | 1.30 | | 110 | 124 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1564287 | 1.17 | | 93.6 | 4845 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1624011 | 1.25 | | | 4644 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 456802 | 0.3432 | Target=2.68 | | 31.3 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 201643 | | 2.27(1.34-4.02) | | 274 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 911793 | 1.16 | | 96.9 | 1143 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 5047671 | 6.10 | Target=4.69 | | 1320 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1097949 | | 4.60(2.35-7.04) | | 1395 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1534835 | 1.15 | | 92.2 | 2949 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 9788 | 0.008148 | Target=7.29 | | 1.6 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 1526 | | 6.41(3.64-10.93) | | 7.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.115 | 0.011 | 1.182 | 1434637 | 1.07 | | 85.4 | 4147 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 0.997 | 2553 | 0.002214 | Target=8.95 | | 1.0 | M |
| 513.00 > 169.00 | 4.104 | 4.115 | -0.011 | 0.995 | 252 | | 10.13(4.47-13.42) | | 1.7 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 271246 | 1.39 | | 116 | 393 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 220 | 0.001161 | | | 5.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1471410 | 1.14 | | 90.8 | 2129 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.002 | 572 | 0.000512 | | | 3.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 157884 | 1.19 | | 95.6 | 1331 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.291 | 4.257 | 0.034 | 1.008 | 43 | 0.000433 | | | 0.7 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1122615 | 1.07 | | 85.7 | 3004 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 162828 | 1.32 | | 105 | 1158 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.424 | 4.380 | 0.044 | 1.007 | 421 | 0.003772 | | | 3.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1159467 | 1.03 | | 82.3 | 1541 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.591 | -0.011 | 0.995 | 1573 | 0.001732 | Target=7.04 | | 0.3 | M |
| 613.00 > 169.00 | 4.612 | 4.591 | 0.021 | 1.002 | 185 | | 8.50(3.52-10.56) | | 4.1 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.428 | 842714 | 0.9644 | | 77.2 | 1759 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.966 | 0.019 | 1.000 | 180 | 0.001692 | Target=1.01 | | 5.2 | M |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 0.996 | 258 | | 0.70(0.51-1.52) | | 10.6 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:31 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d

Injection Date: 10-Nov-2021 07:12:24 Instrument ID: LC812

Lims ID: 460-246277-C-16-A Lab Sample ID: 200-246277-16

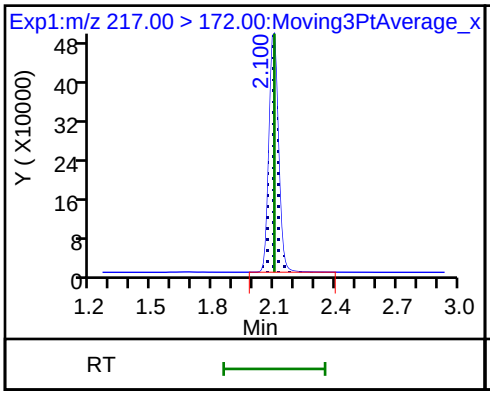
Client ID: MW-1S-20211028

Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 23

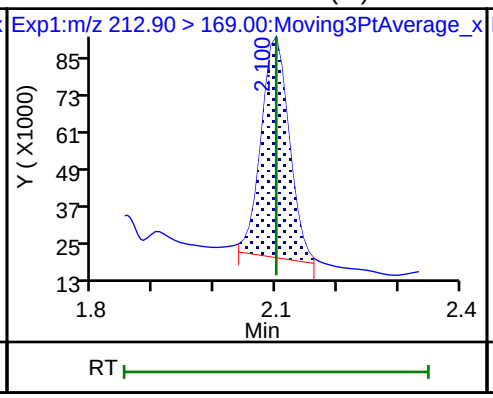
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

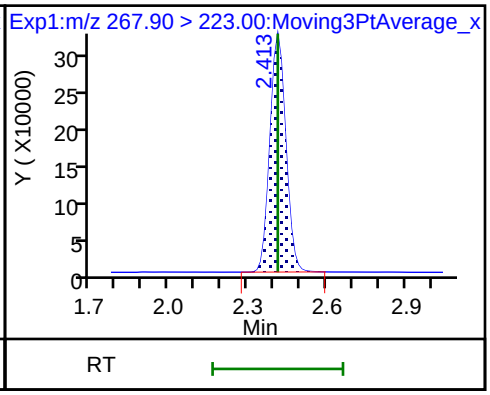
D 1 13C4 PFBA



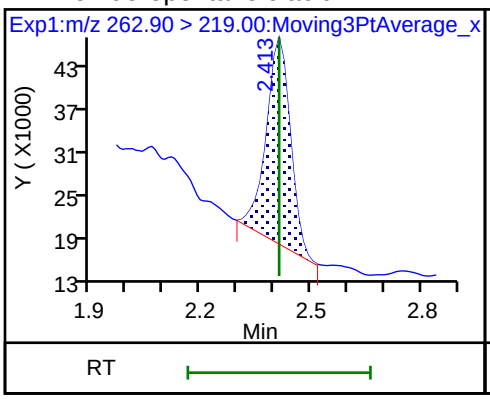

2 Perfluorobutanoic acid (M)



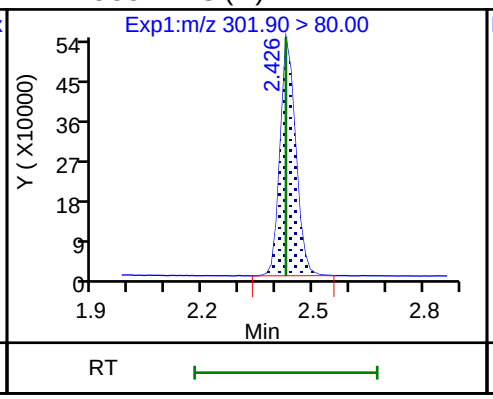

D 3 13C5 PFPeA



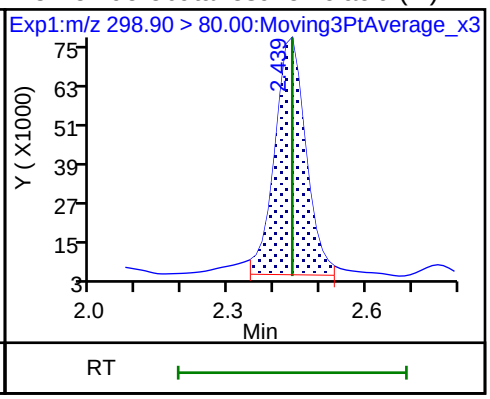

4 Perfluoropentanoic acid



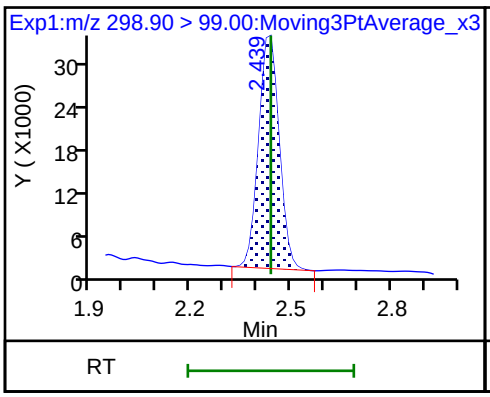

D 47 13C3 PFBS (M)



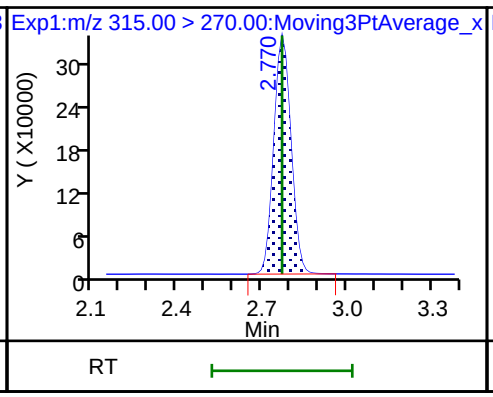

5 Perfluorobutanesulfonic acid (M)



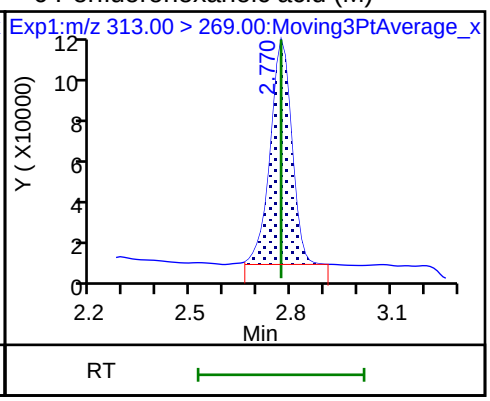

5 Perfluorobutanesulfonic acid



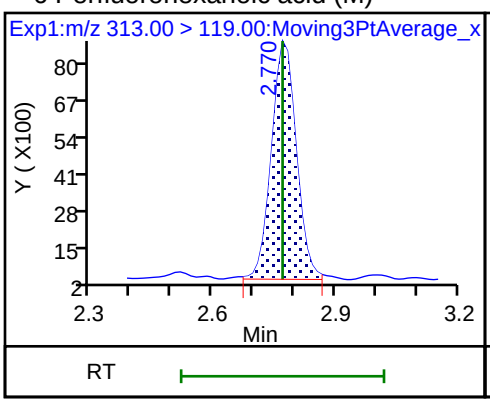

D 7 13C2 PFHxA



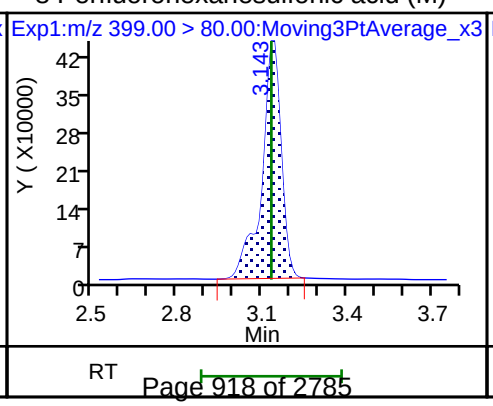

6 Perfluorohexanoic acid (M)



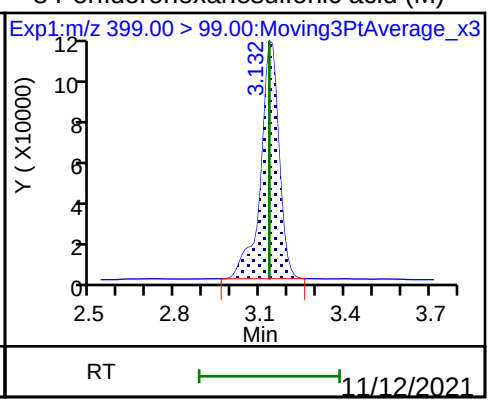

6 Perfluorohexanoic acid (M)



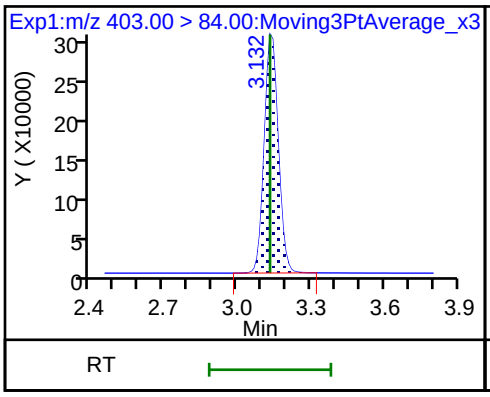

8 Perfluorohexanesulfonic acid (M)



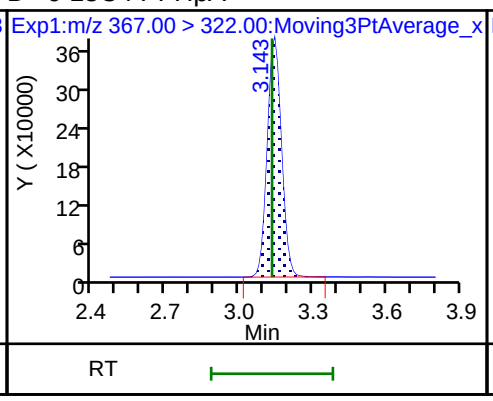

8 Perfluorohexanesulfonic acid (M)



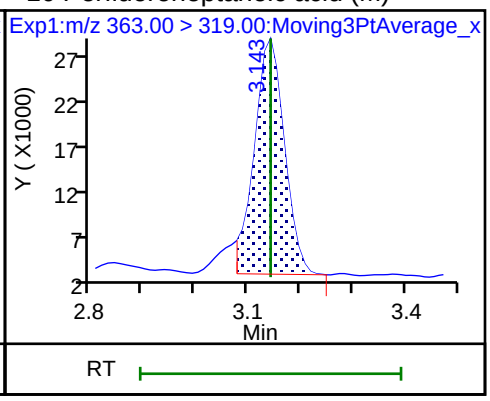
D 11 18O2 PFHxS



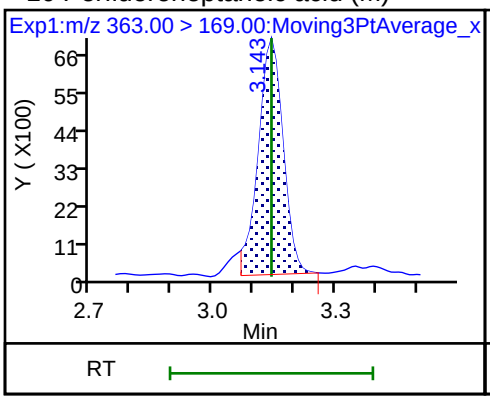

D 9 13C4 PFHpA



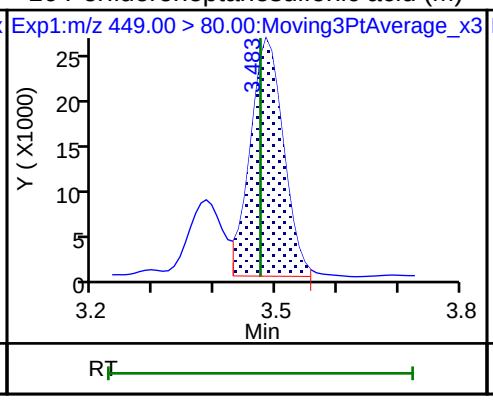

10 Perfluoroheptanoic acid (M)



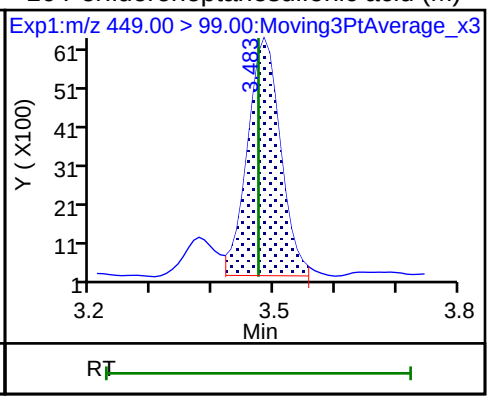

10 Perfluoroheptanoic acid (M)



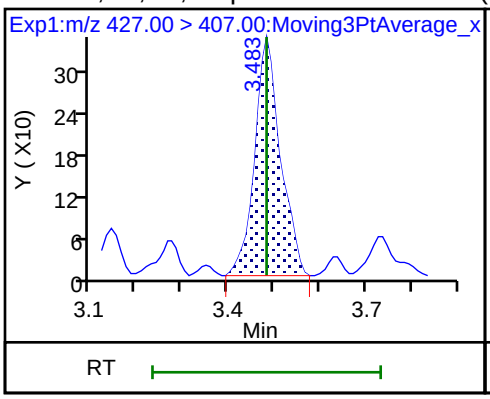

16 Perfluoroheptanesulfonic acid (M)



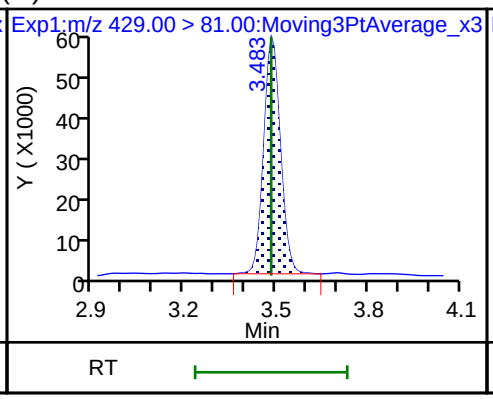

16 Perfluoroheptanesulfonic acid (M)



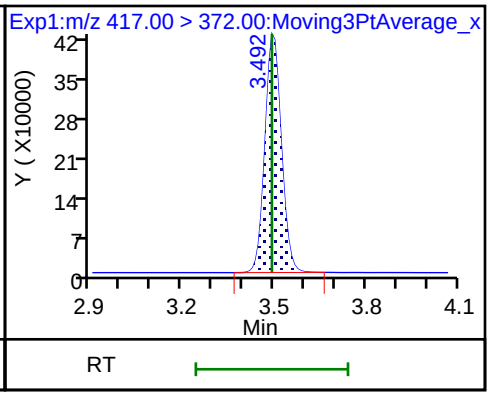

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



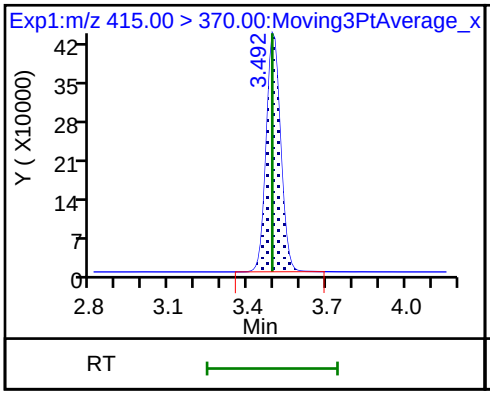

D 12 M2-6:2 FTS



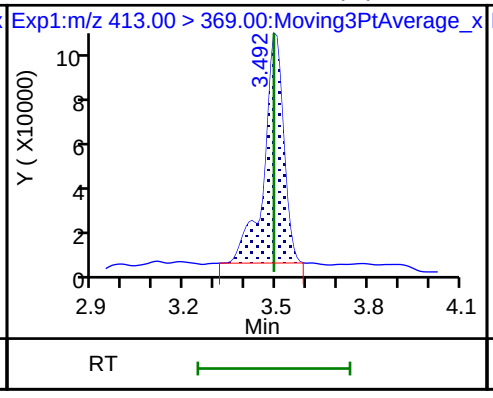

D 14 13C4 PFOA



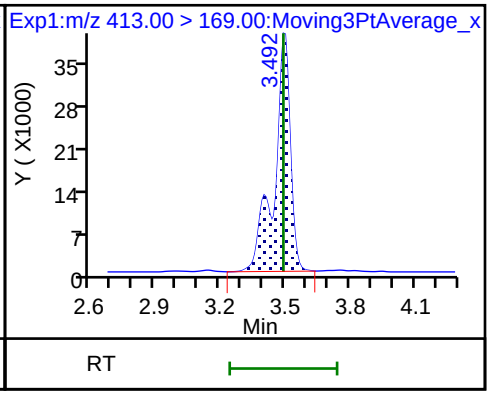

* 62 13C2 PFOA



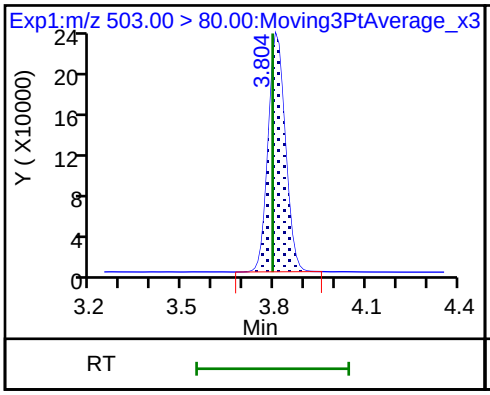

15 Perfluorooctanoic acid (M)



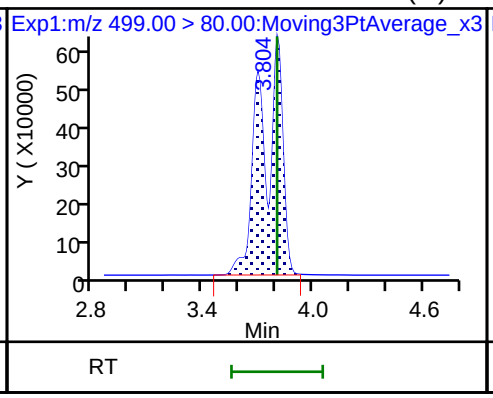

15 Perfluorooctanoic acid



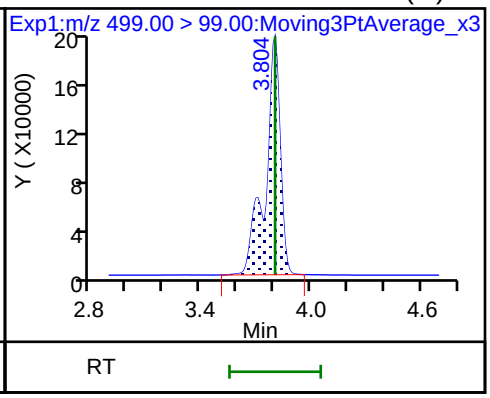
D 18 13C4 PFOS



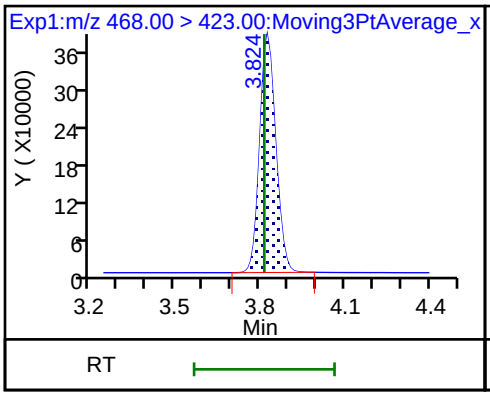

17 Perfluorooctanesulfonic acid (M)



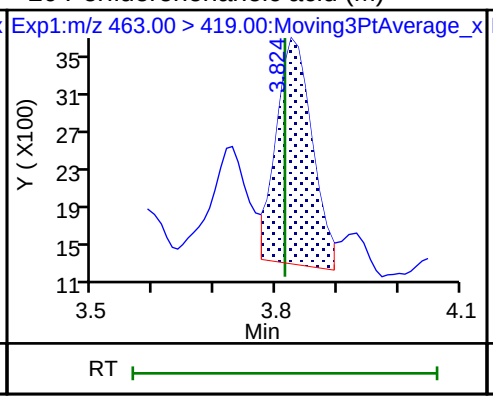

17 Perfluorooctanesulfonic acid (M)



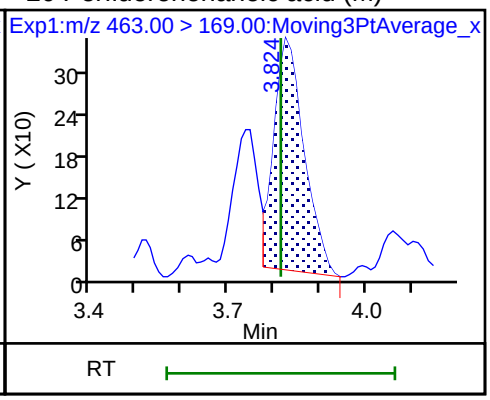

D 19 13C5 PFNA



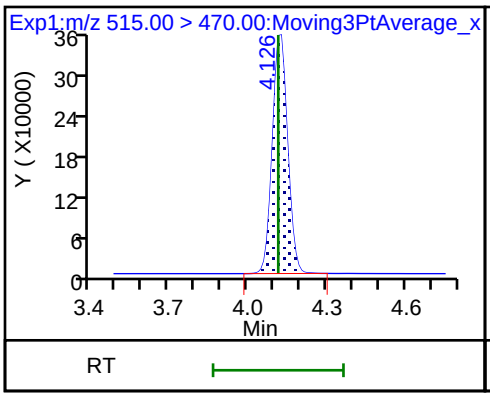

20 Perfluorononanoic acid (M)



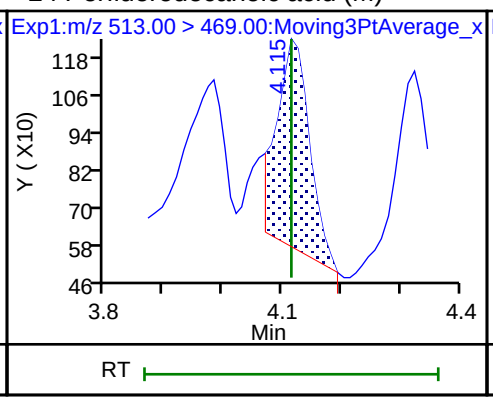

20 Perfluorononanoic acid (M)



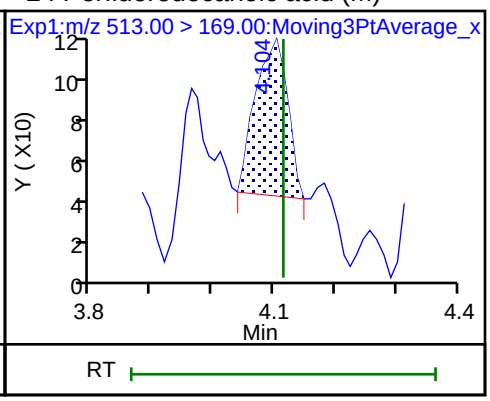

D 23 13C2 PFDA



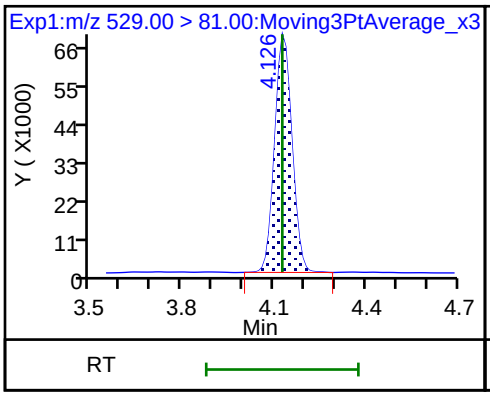

24 Perfluorodecanoic acid (M)



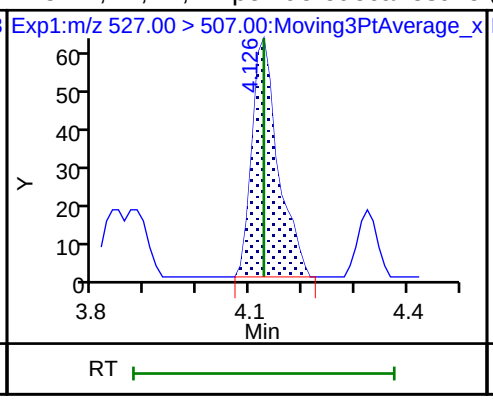

24 Perfluorodecanoic acid (M)



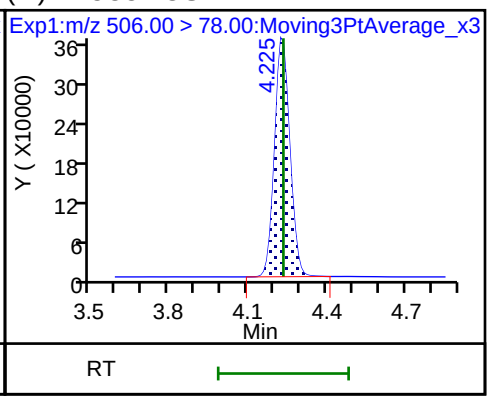

D 26 M2-8:2 FTS



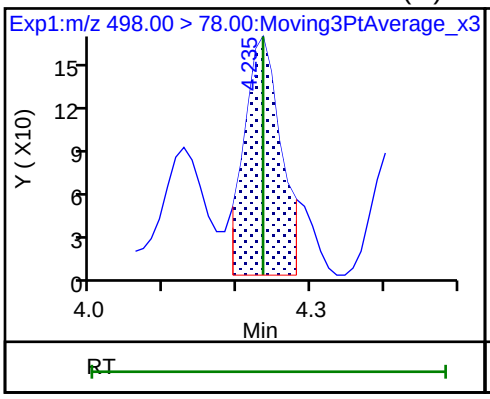

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



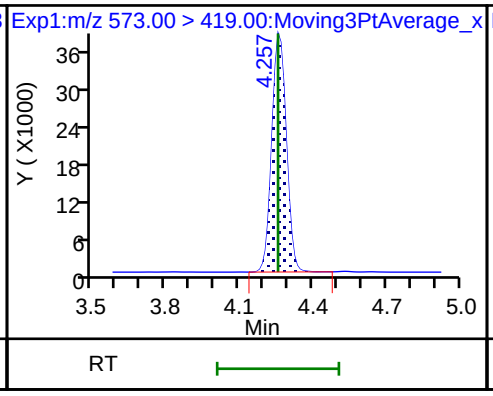

D 21 13C8 FOSA



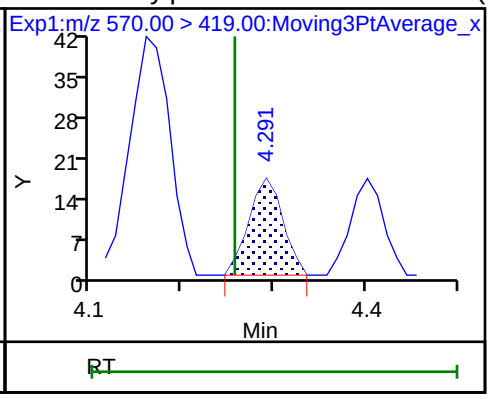
22 Perfluorooctanesulfonamide (M)



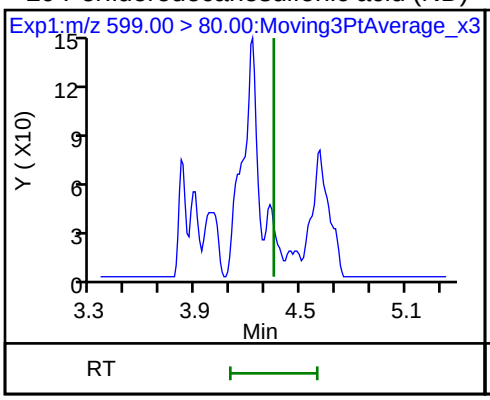

D 27 d3-NMeFOSAA



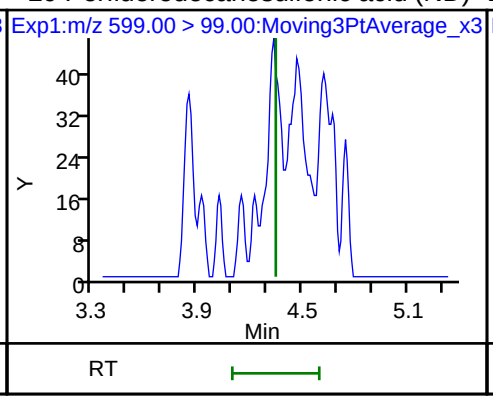

28 N-methylperfluorooctanesulfonami (M)



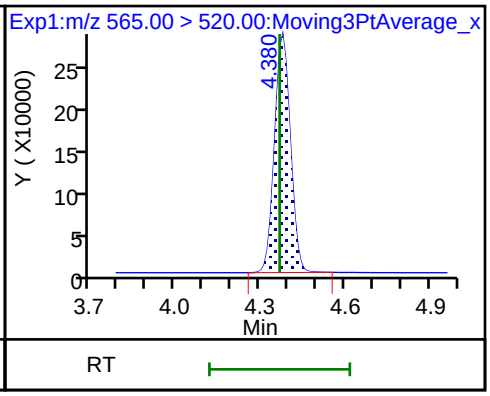

29 Perfluorodecanesulfonic acid (ND)



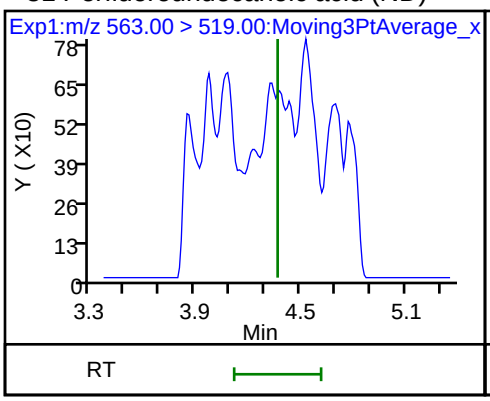

29 Perfluorodecanesulfonic acid (ND)



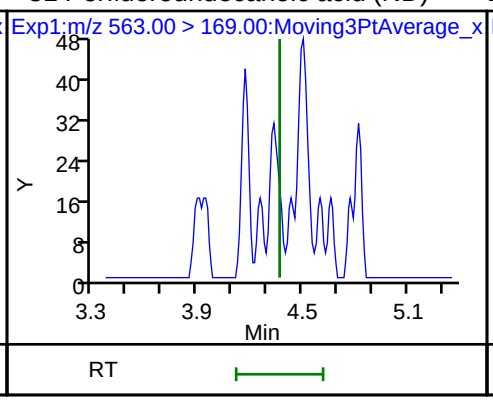

D 30 13C2 PFUnA



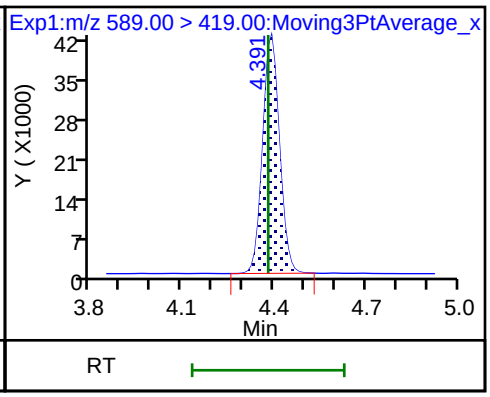

31 Perfluoroundecanoic acid (ND)



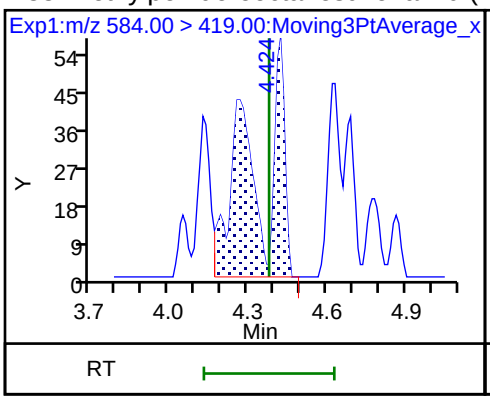

31 Perfluoroundecanoic acid (ND)



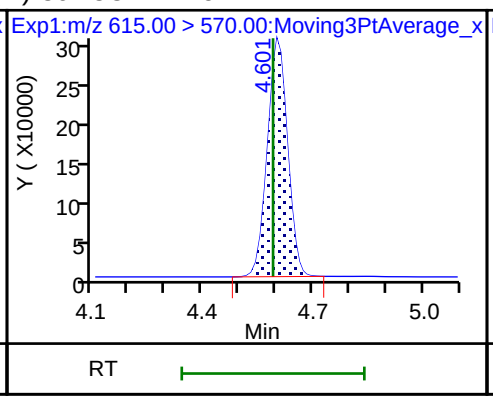

D 32 d5-NEtFOSAA



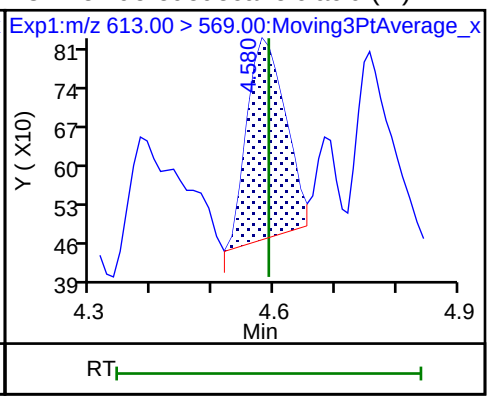

33 N-ethylperfluorooctanesulfonamid (ND)



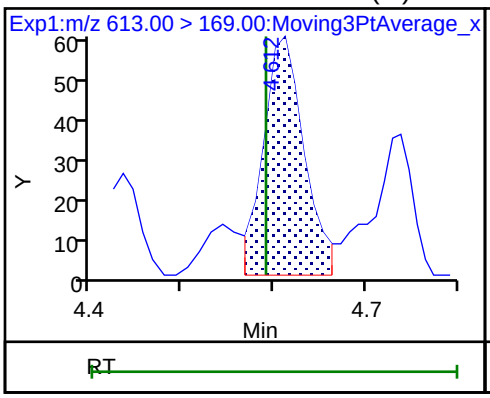

D 36 13C2 PFDoA



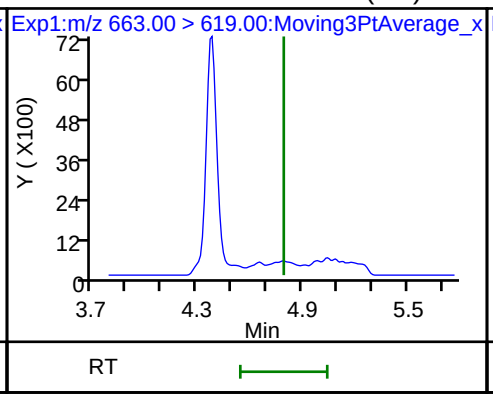

37 Perfluorododecanoic acid (M)



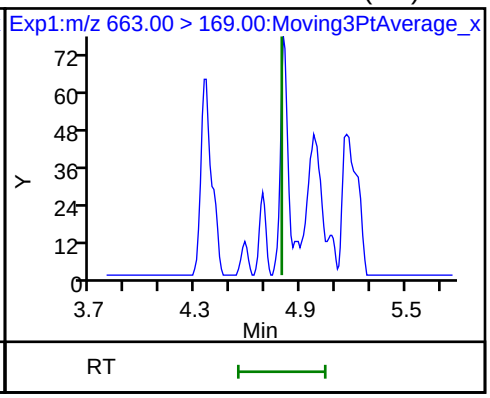
37 Perfluorododecanoic acid (M)



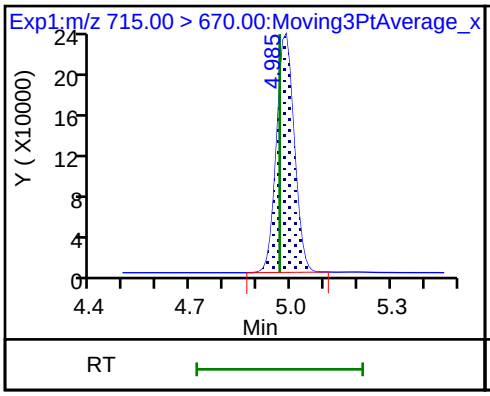

41 Perfluorotridecanoic acid (ND)



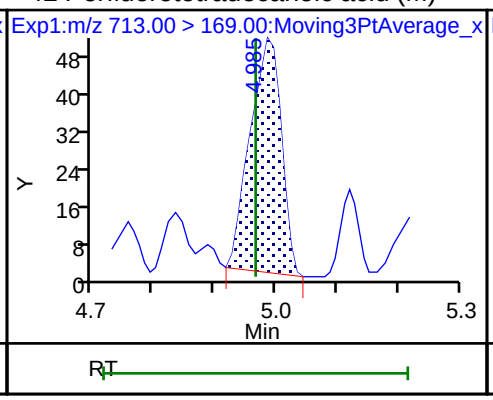

41 Perfluorotridecanoic acid (ND)



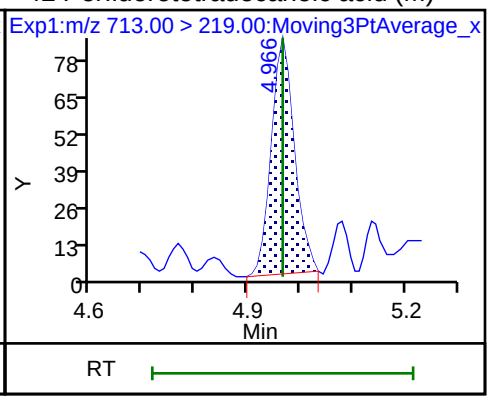

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

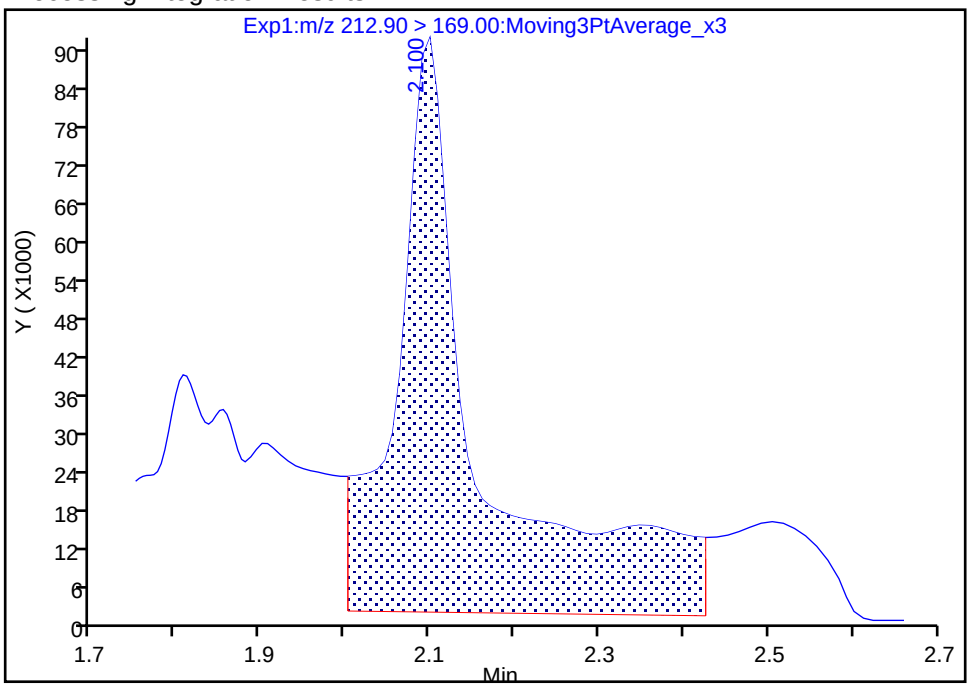
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

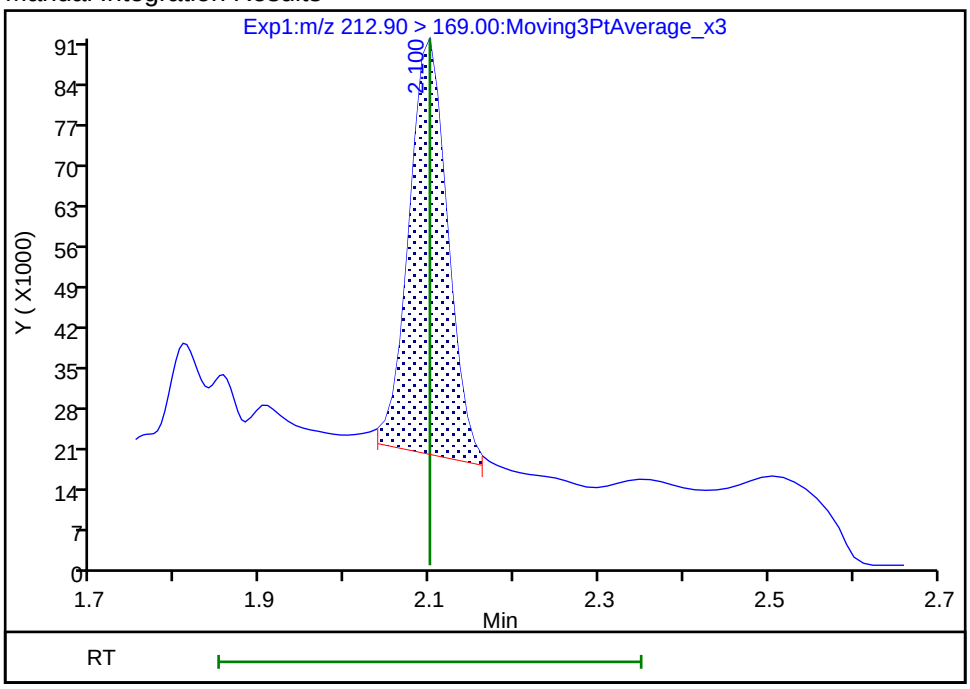
Processing Integration Results

RT: 2.10
Area: 628757
Amount: 0.531283
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 228808
Amount: 0.193337
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

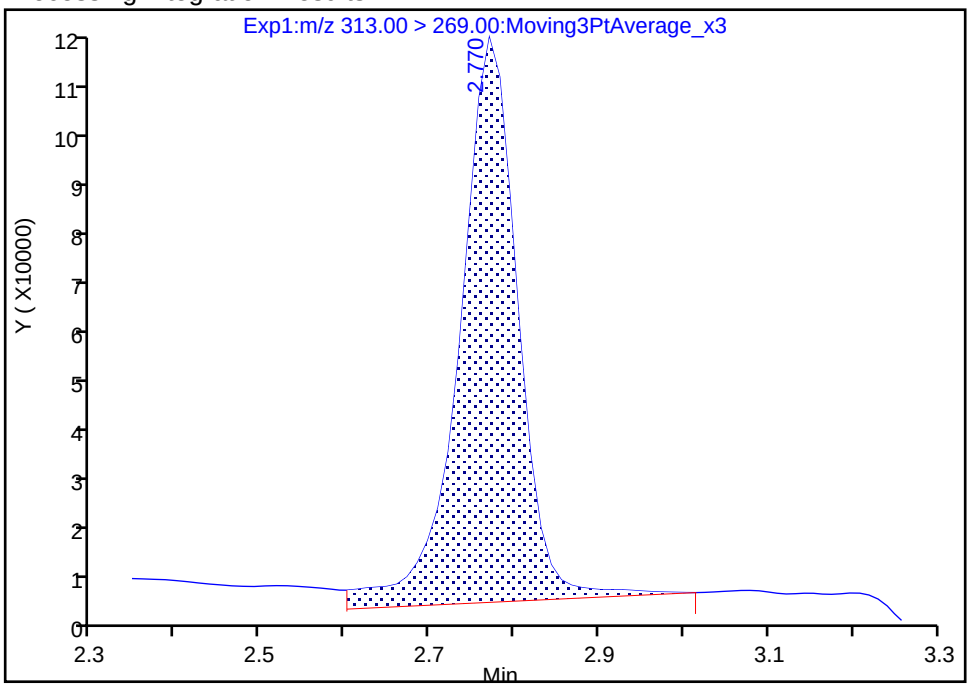
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

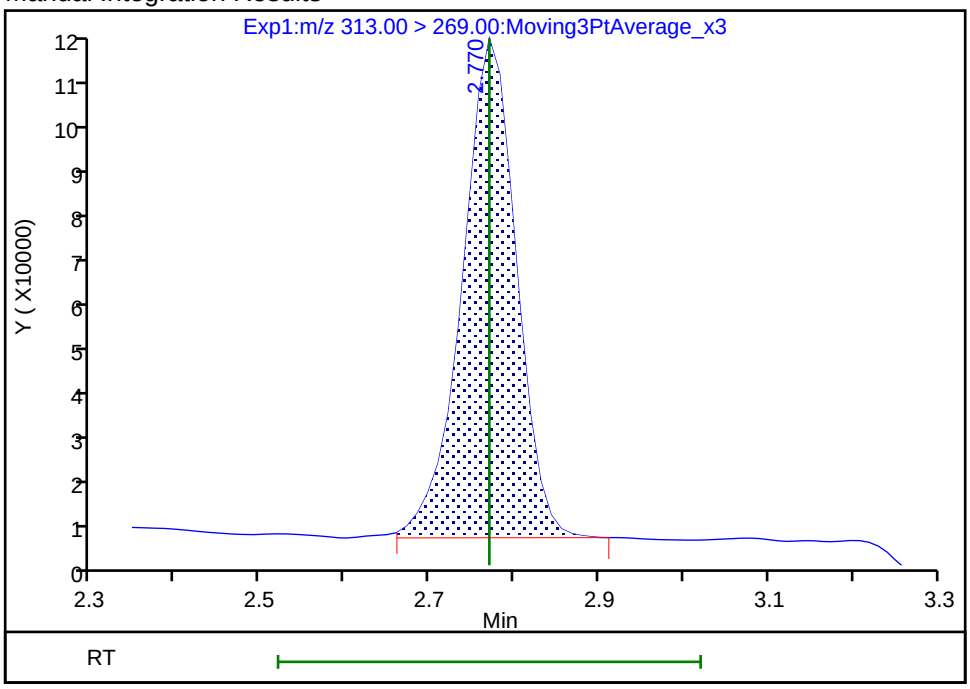
Processing Integration Results

RT: 2.77
Area: 535433
Amount: 0.467638
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 482629
Amount: 0.421520
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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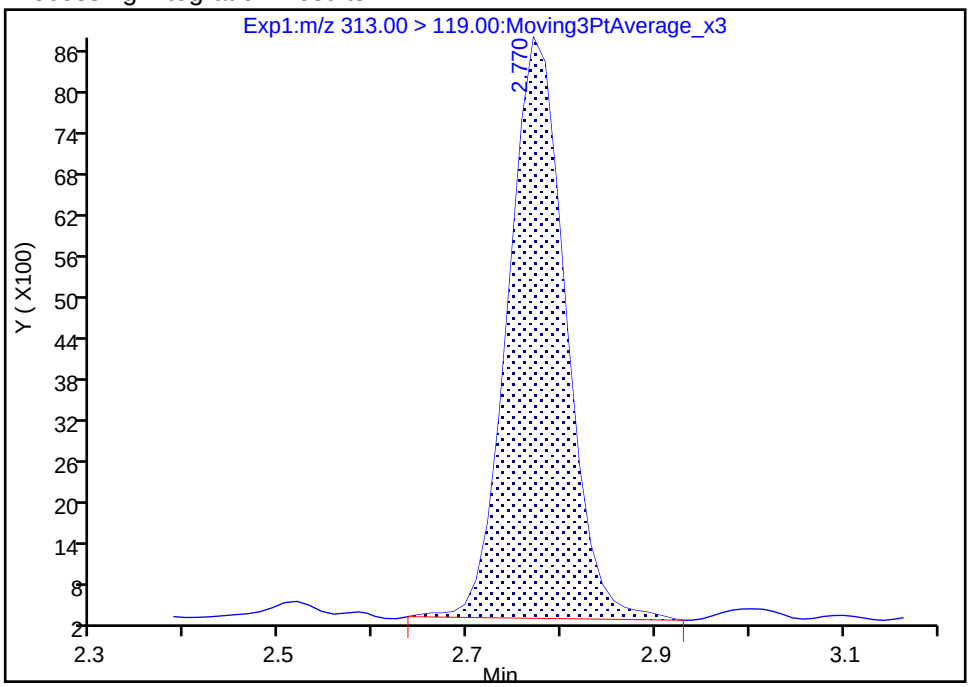
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

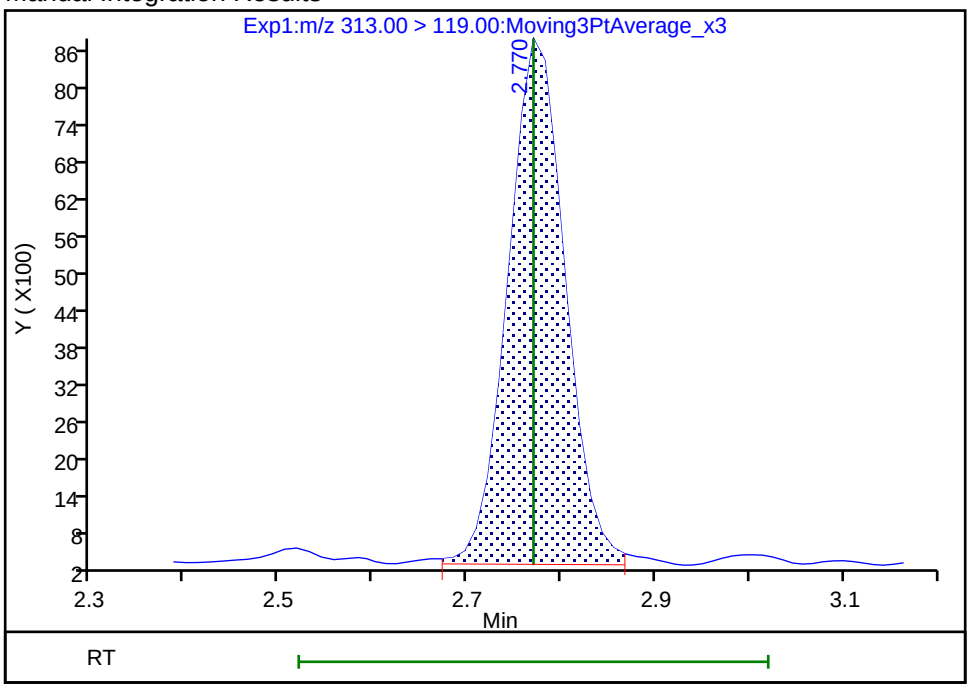
Processing Integration Results

RT: 2.77
Area: 35996
Amount: 0.467638
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 35788
Amount: 0.421520
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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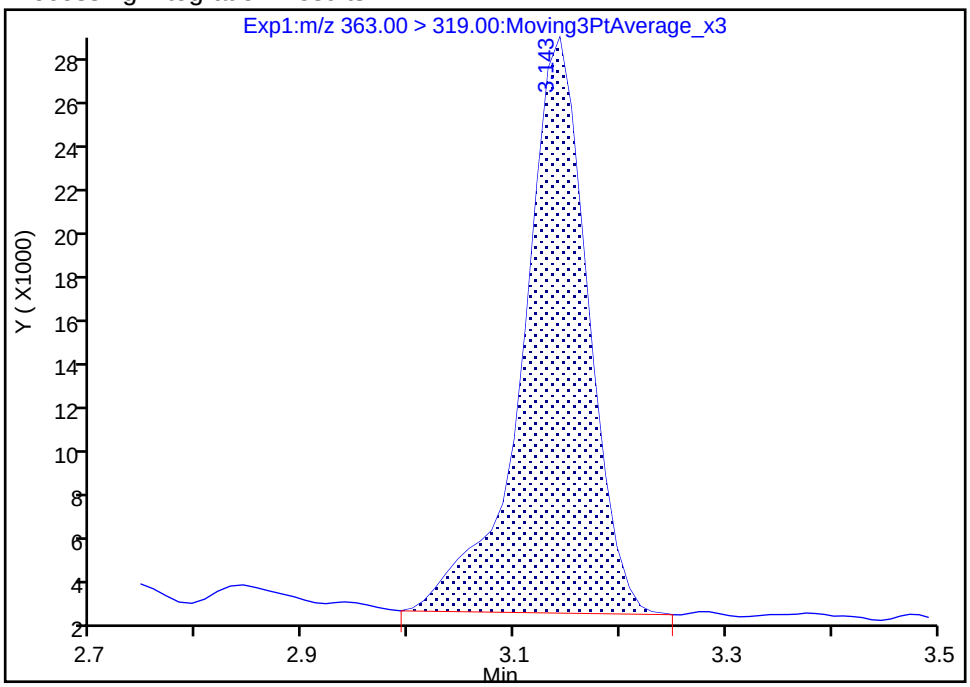
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

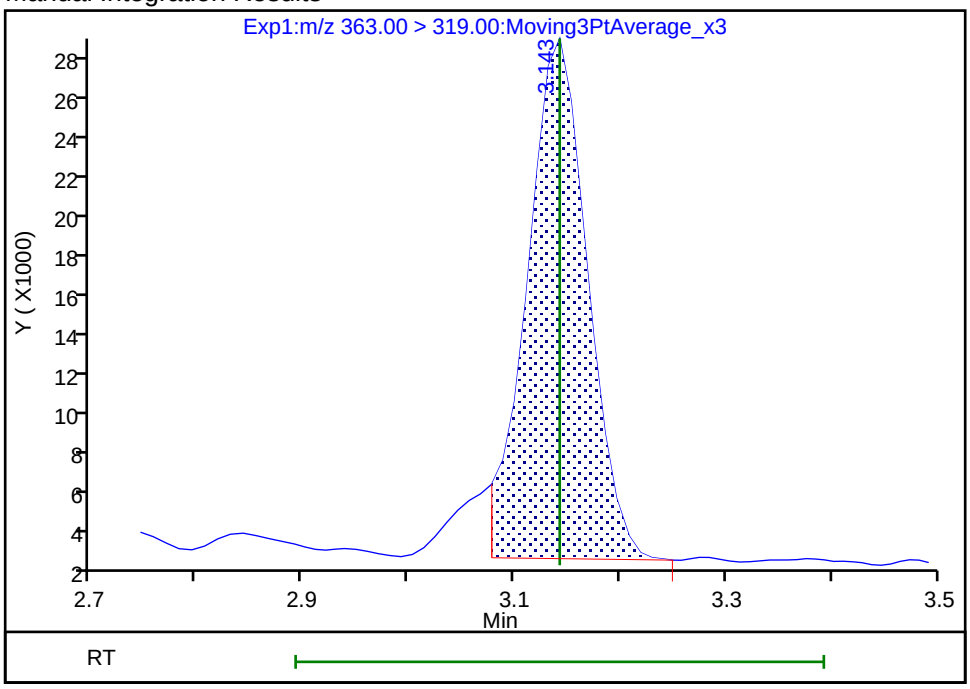
Processing Integration Results

RT: 3.14
Area: 112055
Amount: 0.090197
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 103275
Amount: 0.083130
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

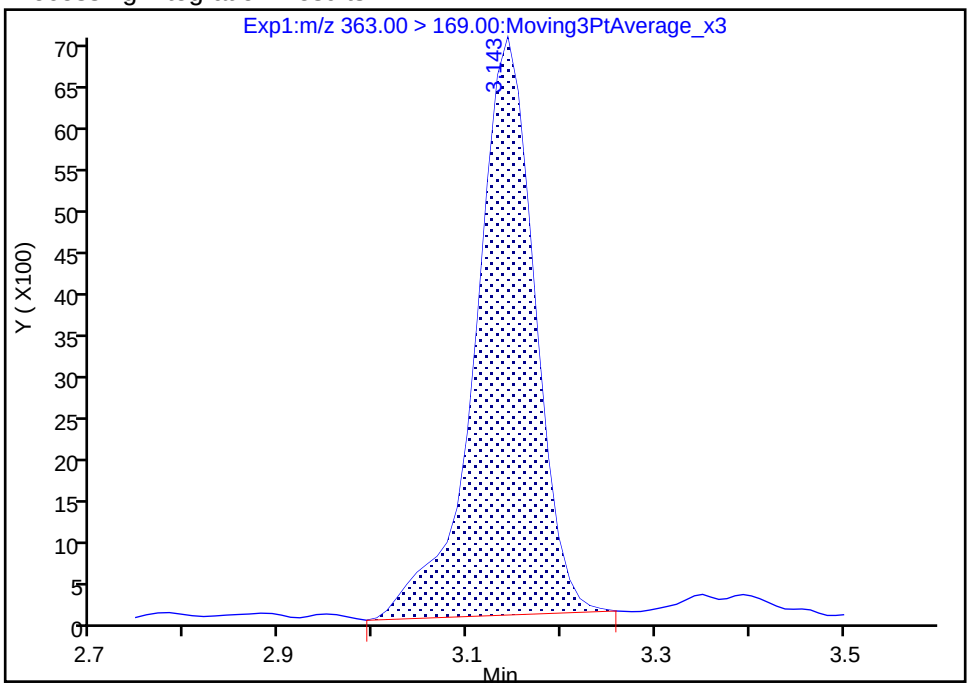
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

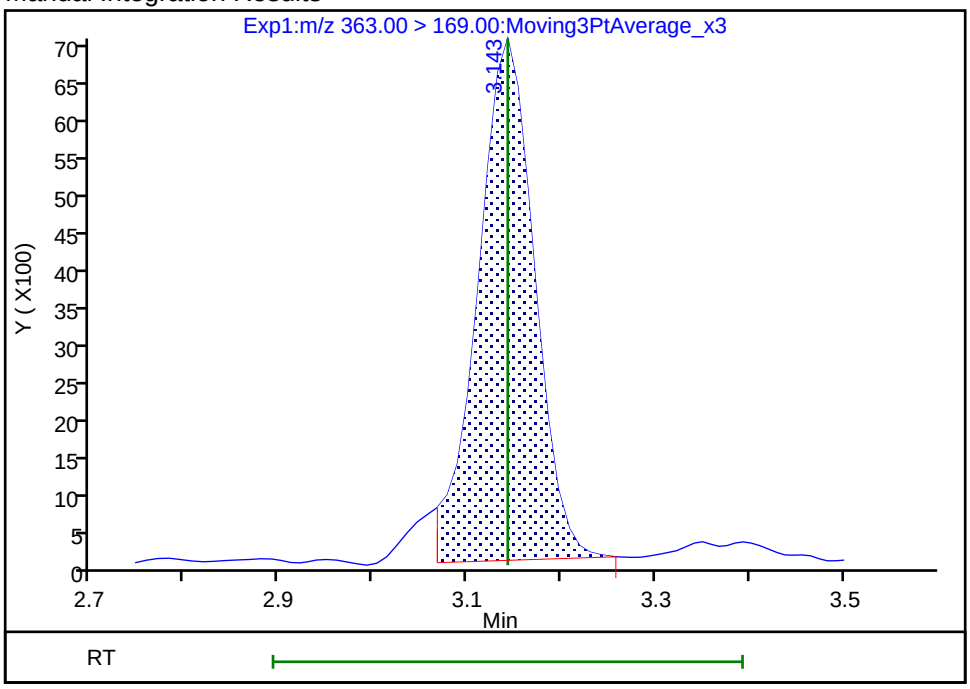
Processing Integration Results

RT: 3.14
Area: 30281
Amount: 0.090197
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 28767
Amount: 0.083130
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

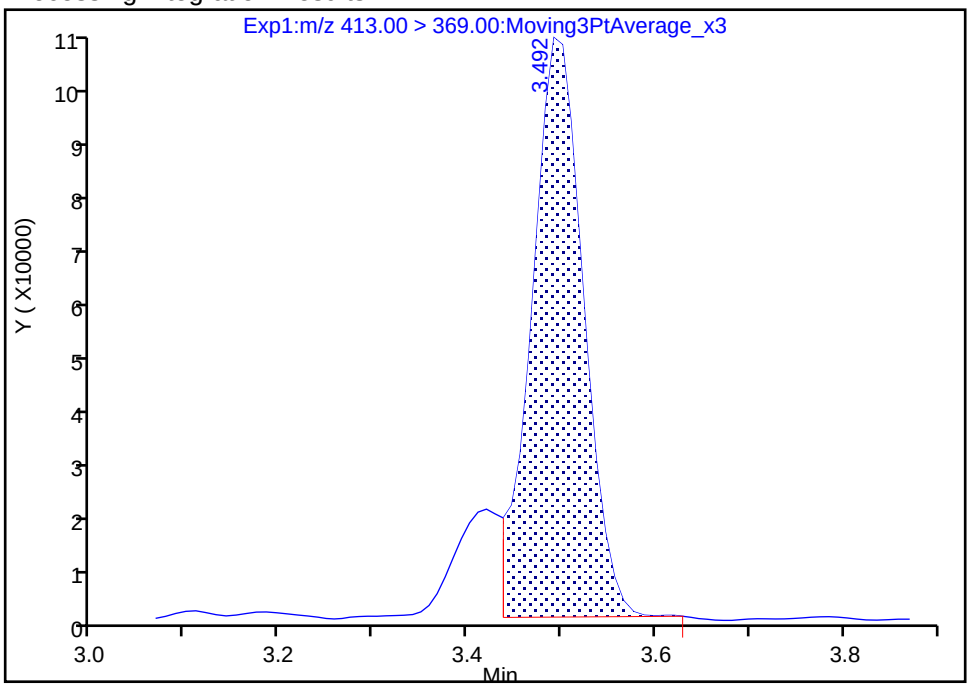
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

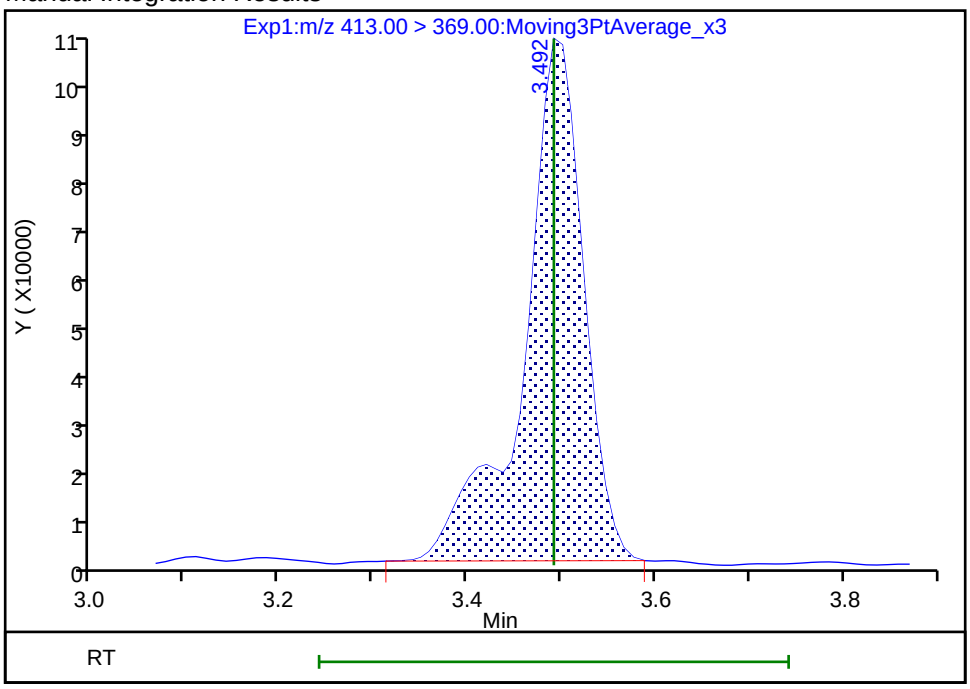
Processing Integration Results

RT: 3.49
Area: 396261
Amount: 0.297758
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 456802
Amount: 0.343249
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

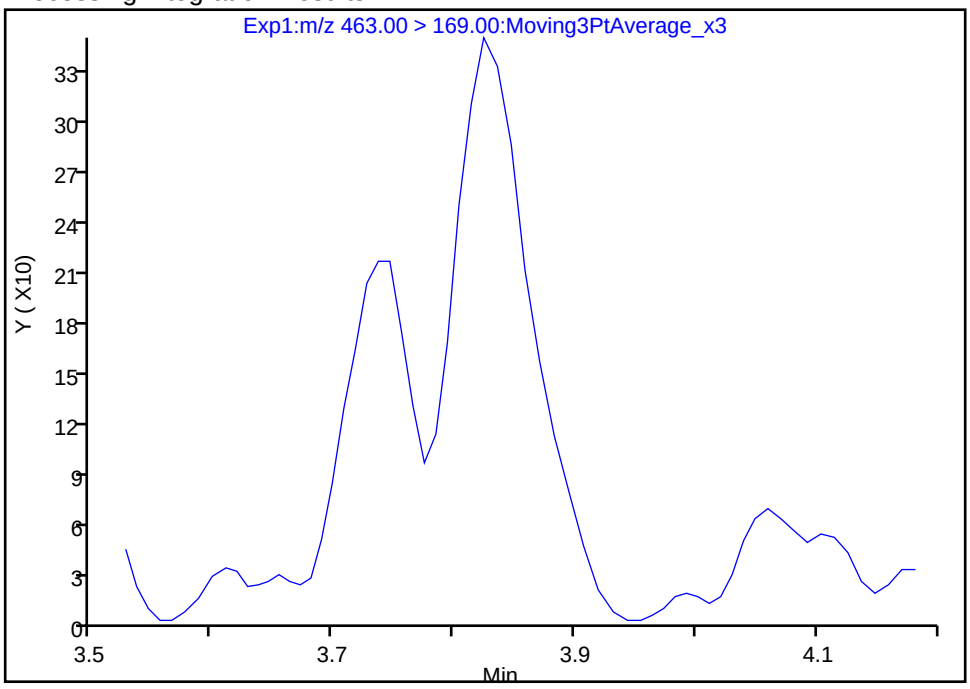
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

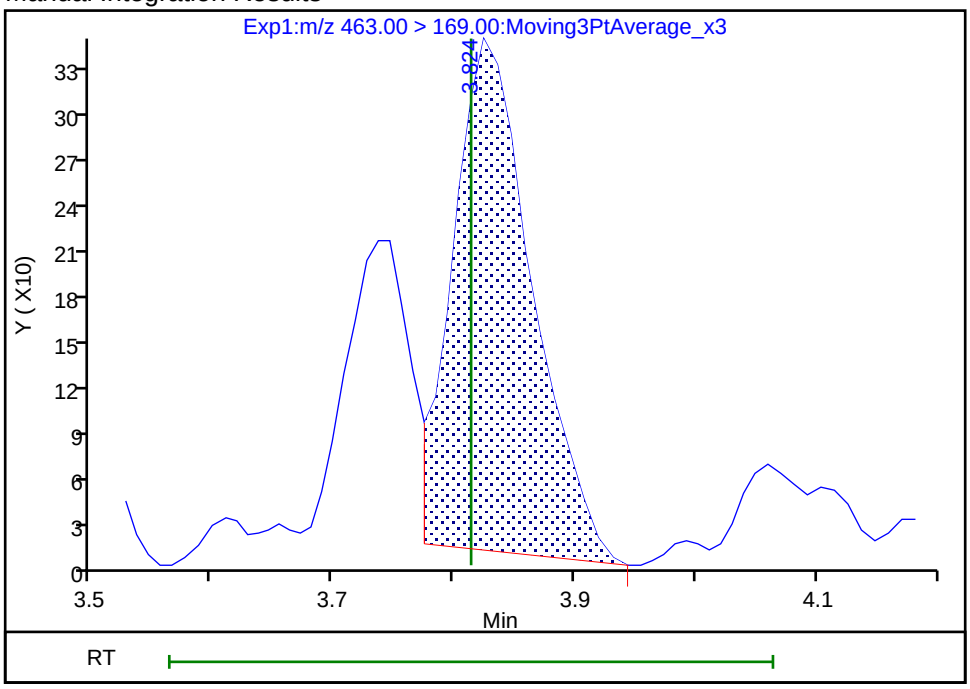
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1526
Amount: 0.008148
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

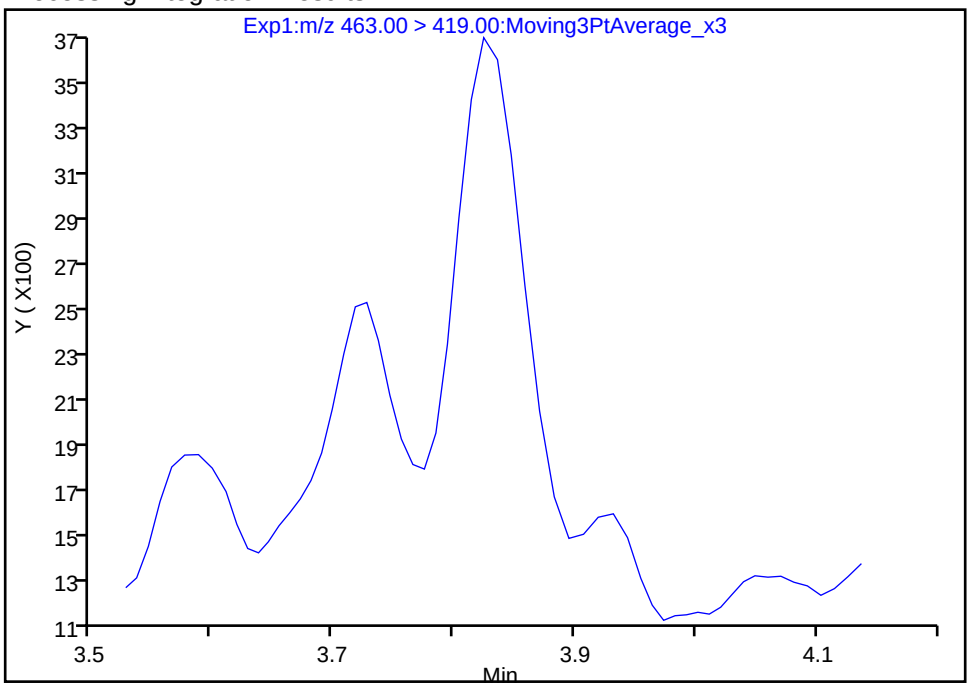
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

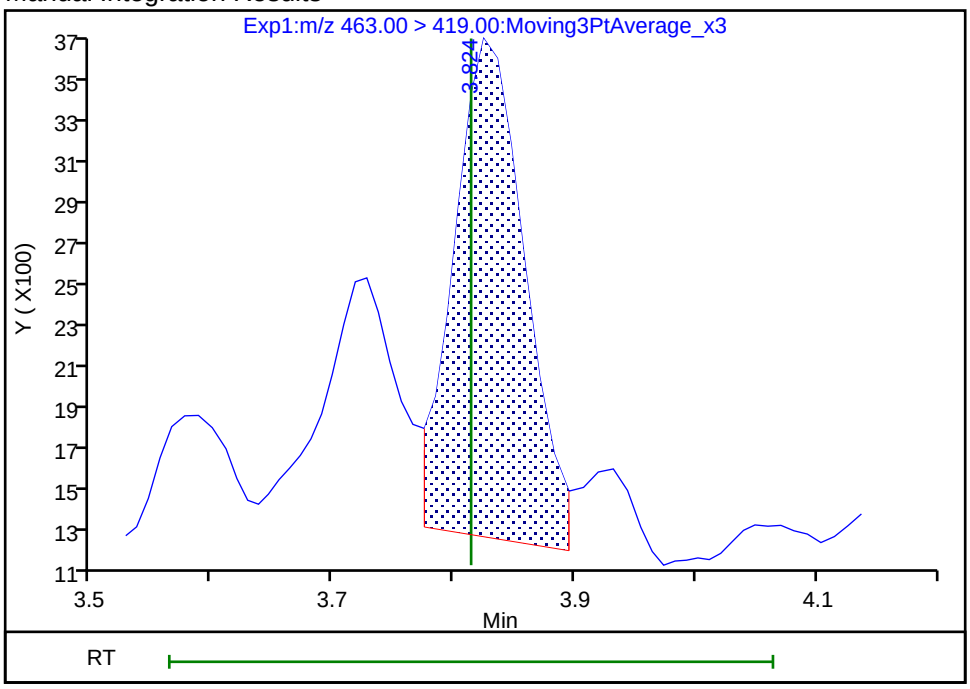
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 9788
Amount: 0.008148
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:19:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

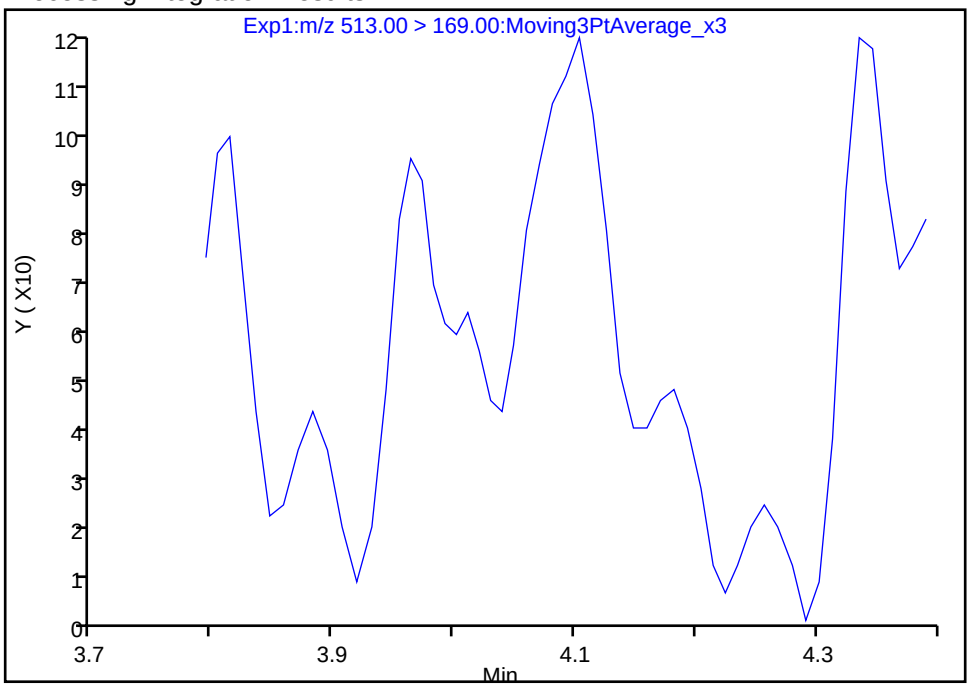
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

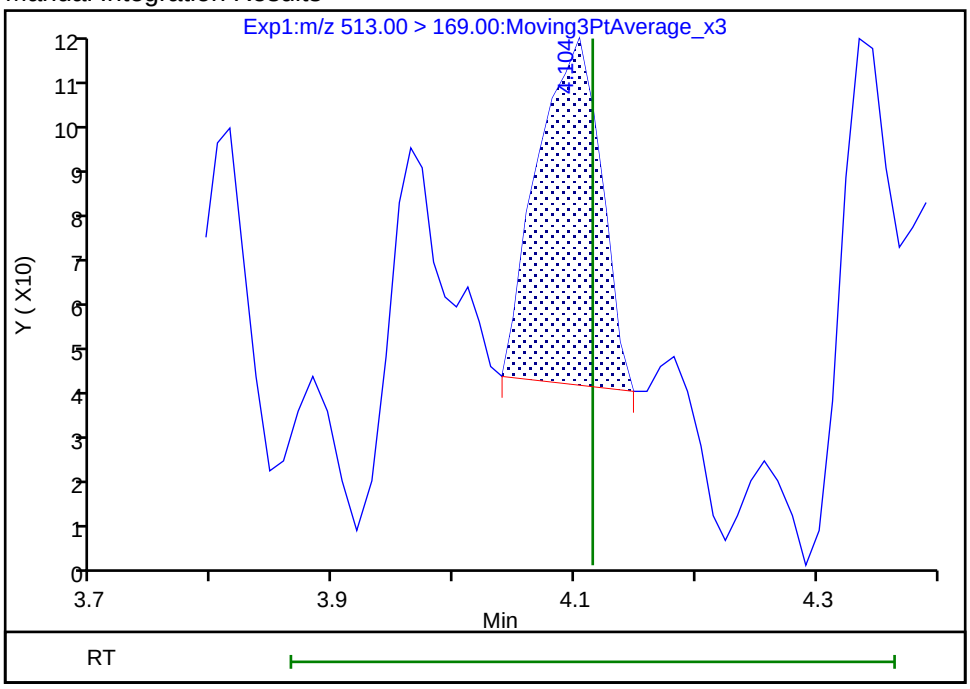
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 252
Amount: 0.002214
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

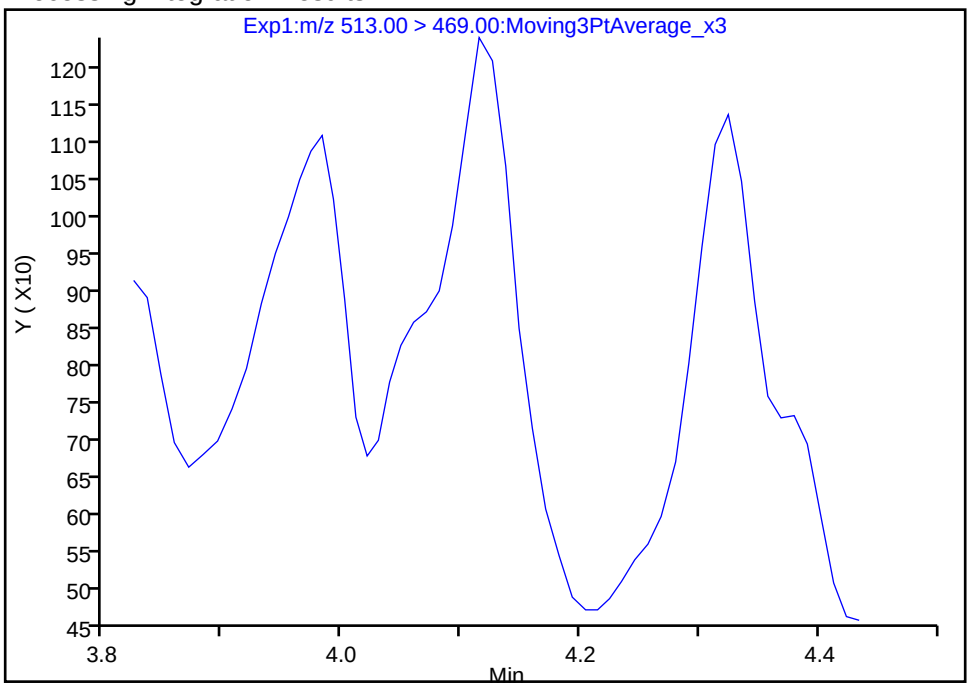
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

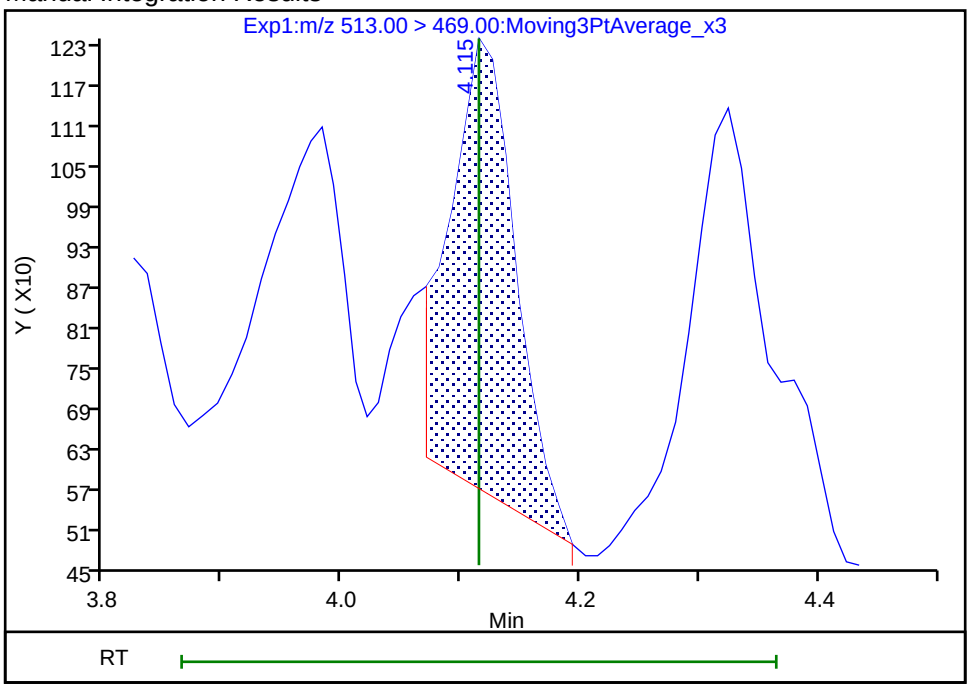
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 2553
Amount: 0.002214
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

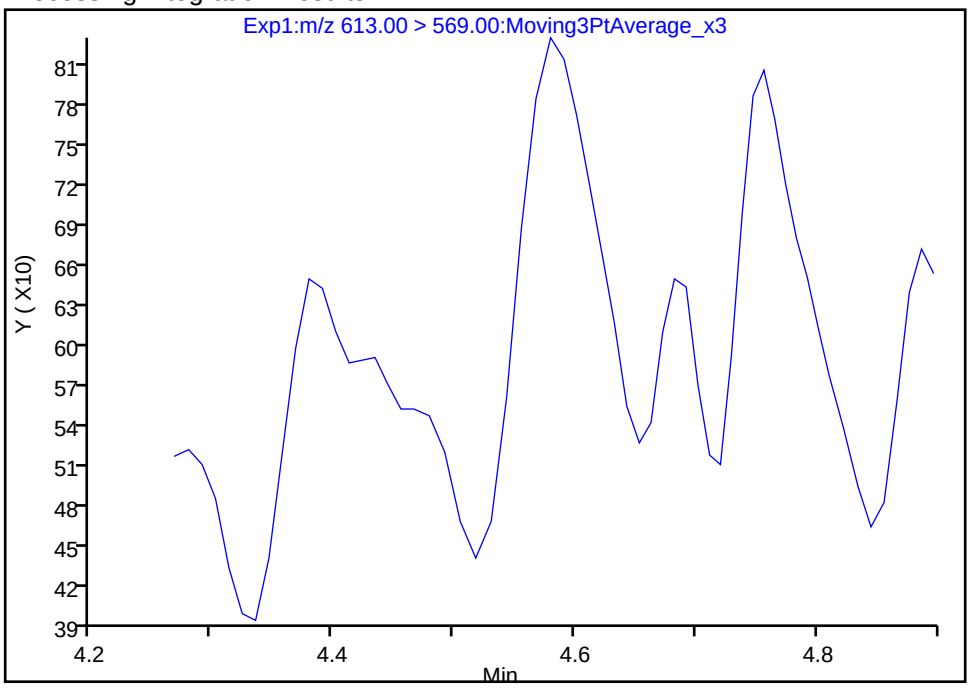
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

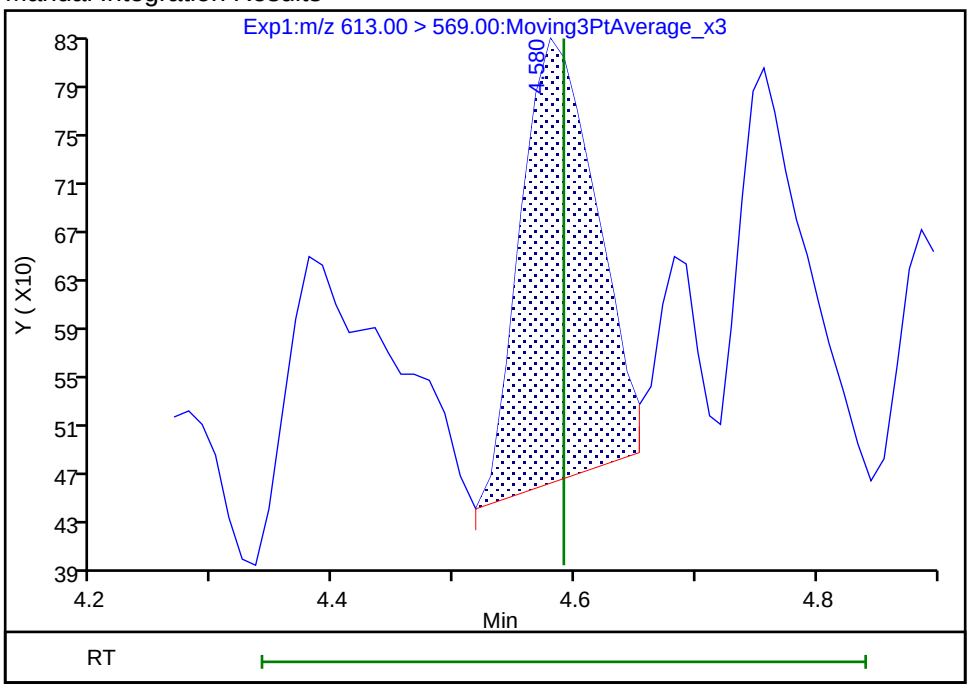
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 1573
Amount: 0.001732
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:50:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

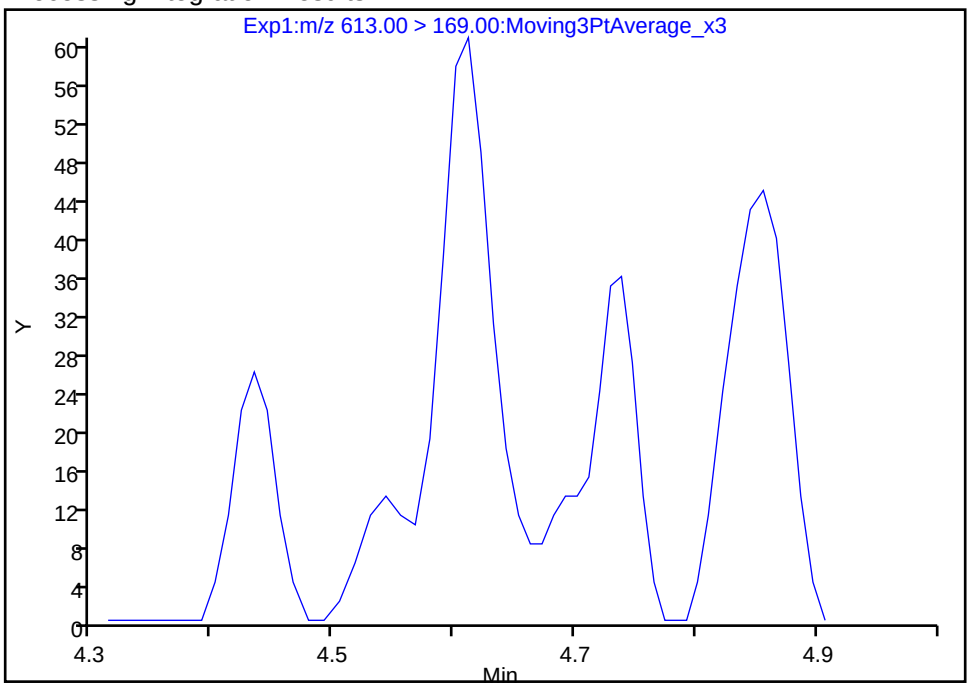
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

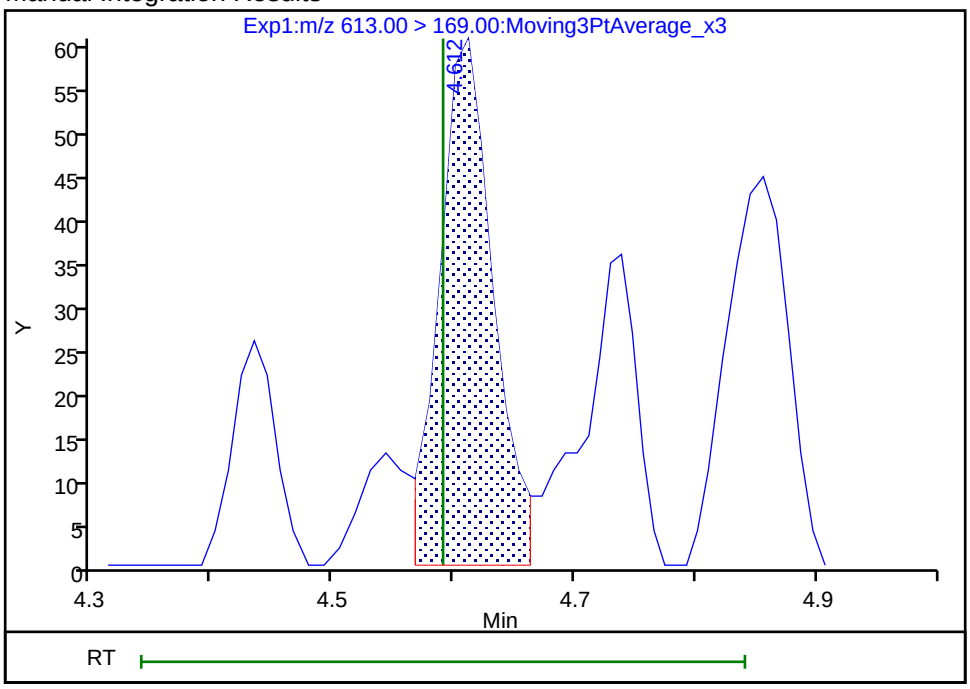
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 185
Amount: 0.001732
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:19:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

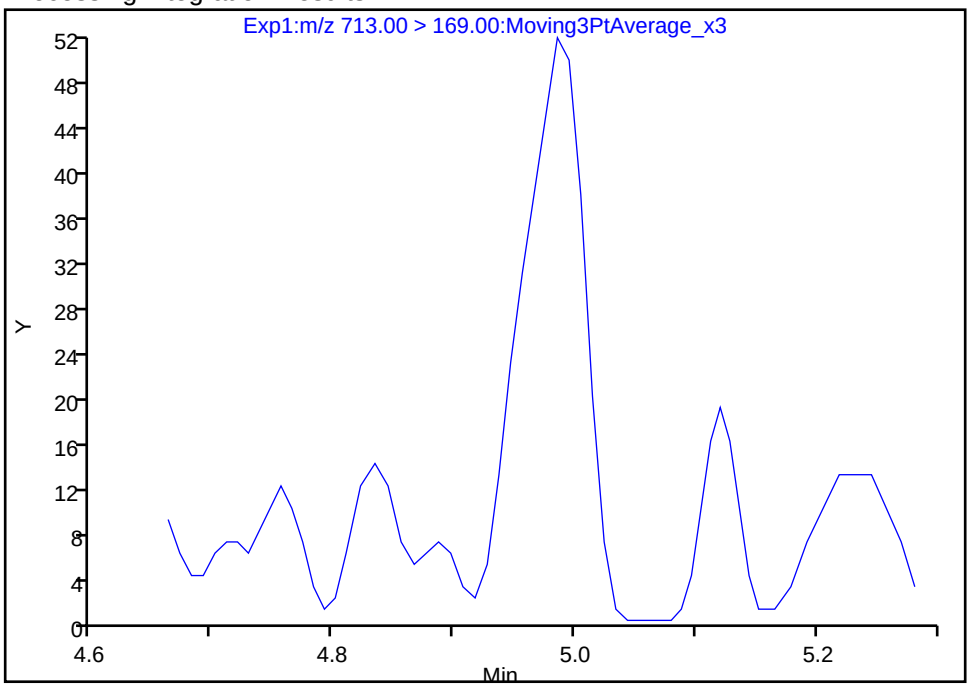
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

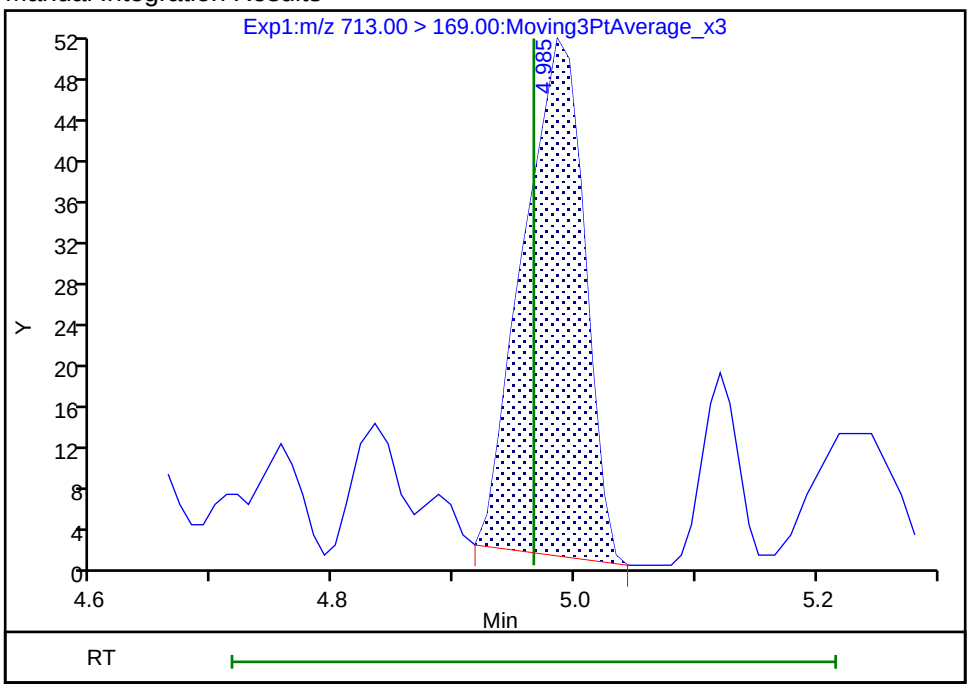
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 180
Amount: 0.001692
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:50:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

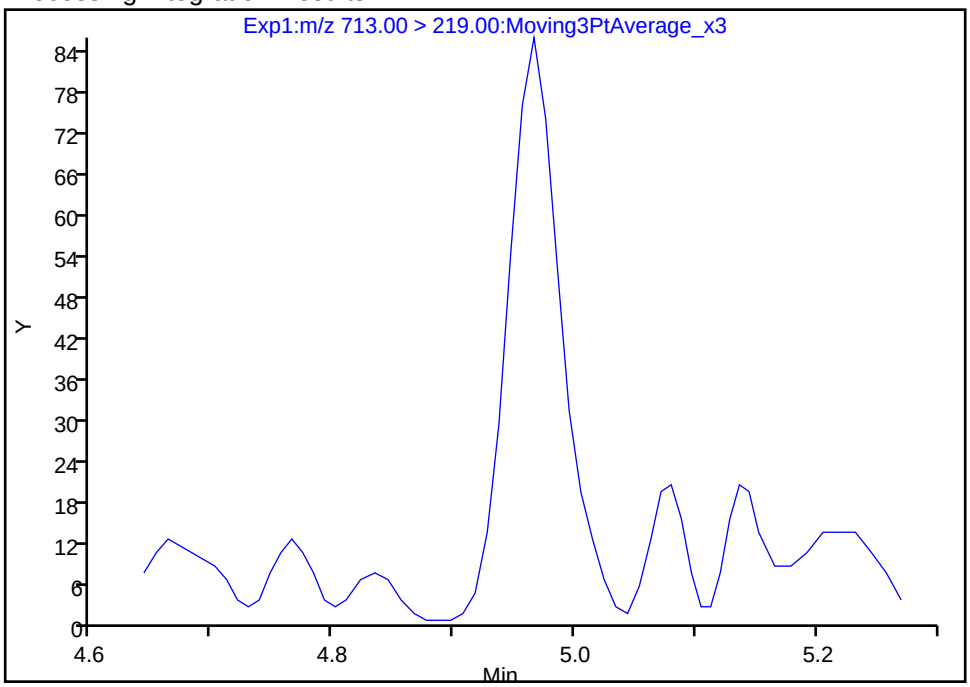
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

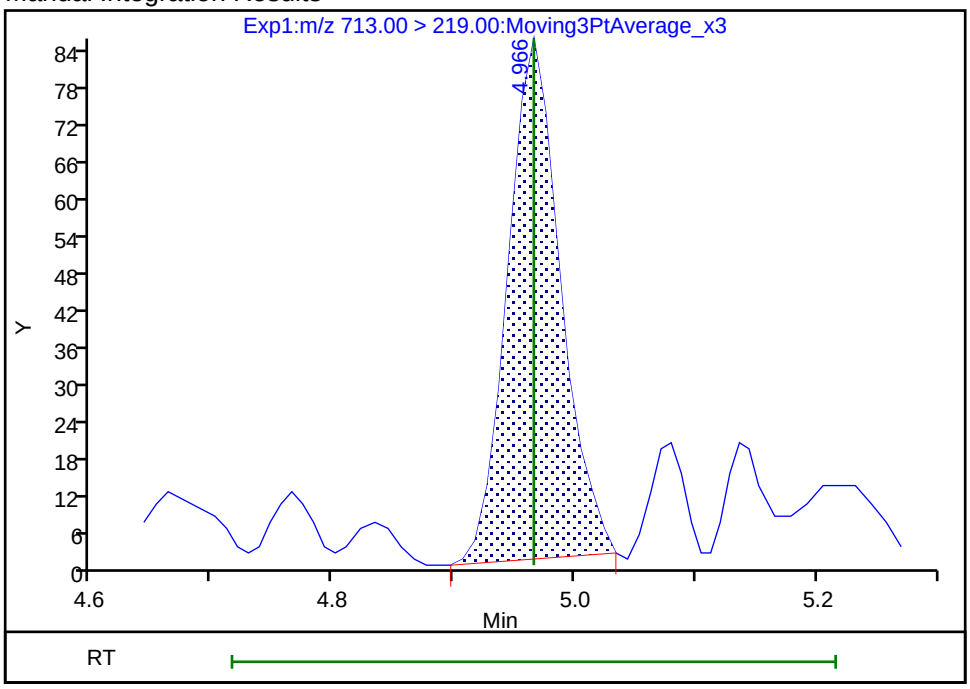
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 258
Amount: 0.001692
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:50:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

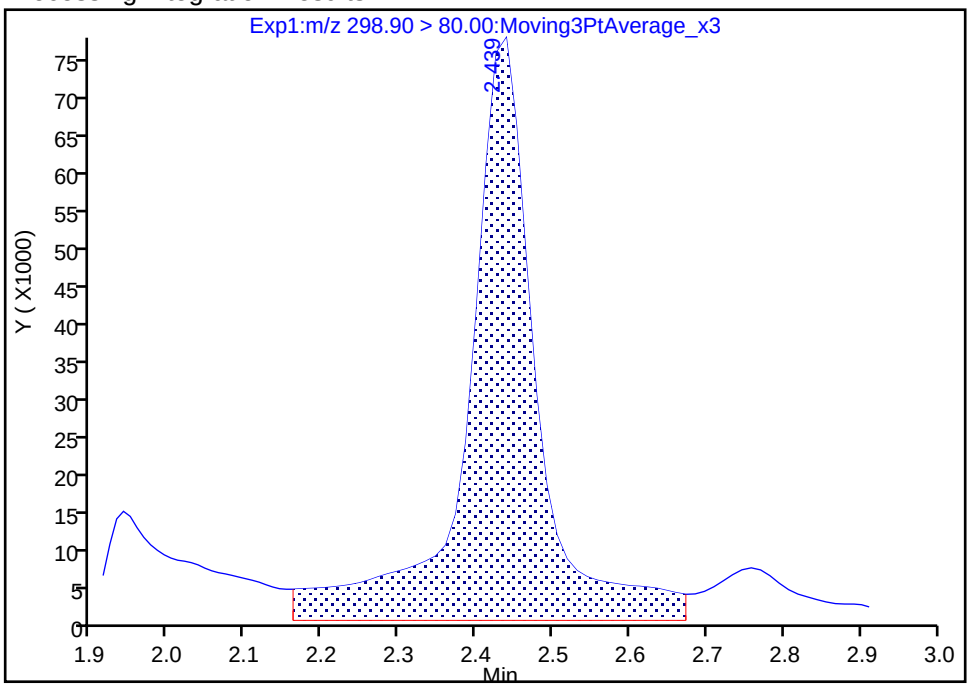
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

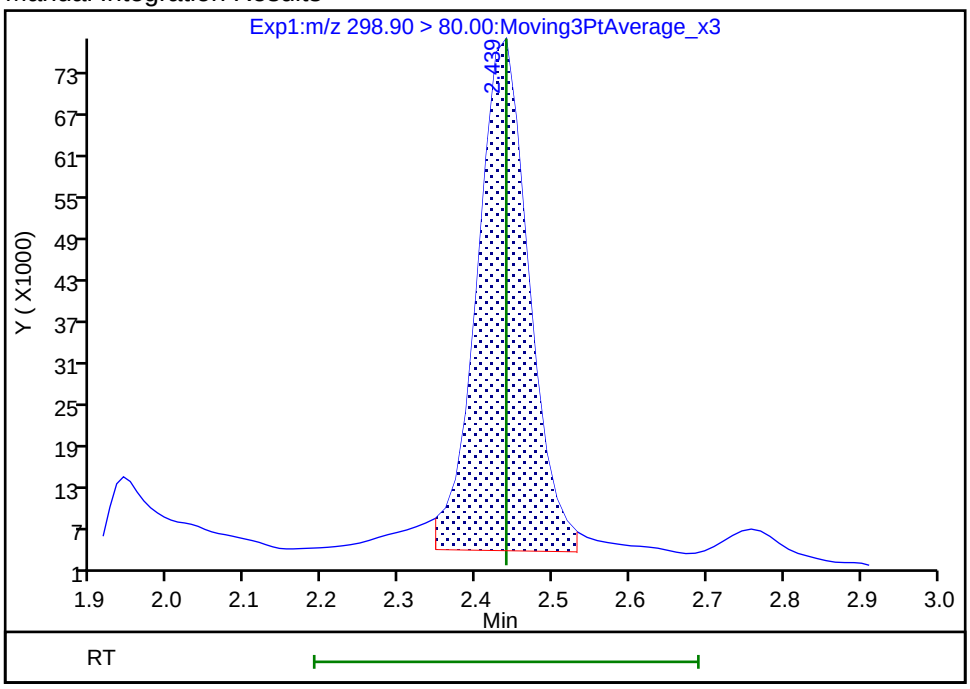
Processing Integration Results

RT: 2.44
Area: 490817
Amount: 0.333331
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 345256
Amount: 0.234475
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

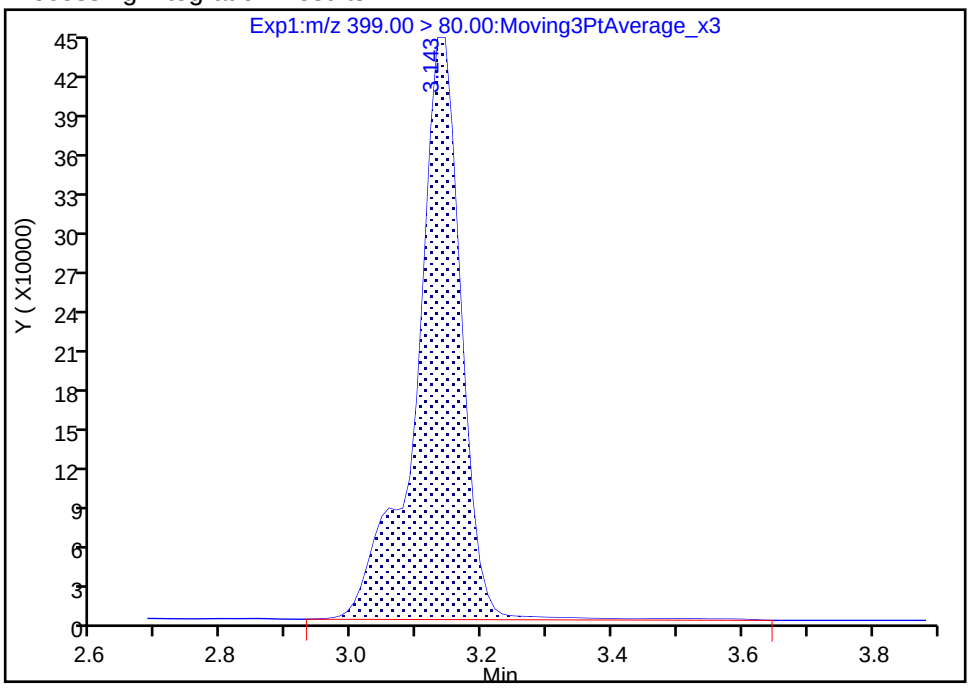
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

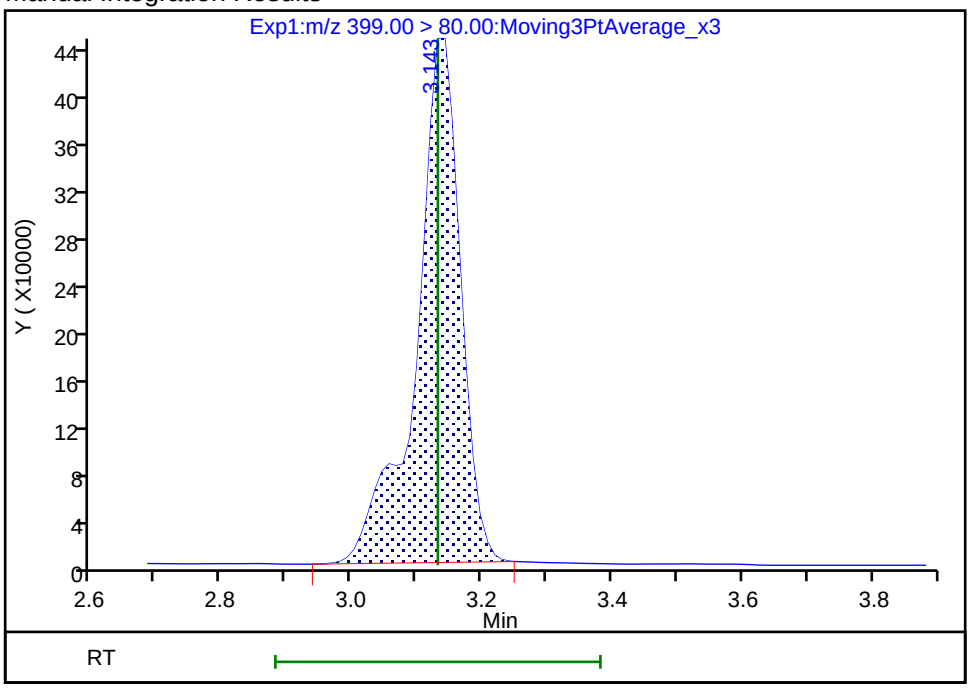
Processing Integration Results

RT: 3.14
Area: 2124898
Amount: 1.901088
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 2074673
Amount: 1.856153
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

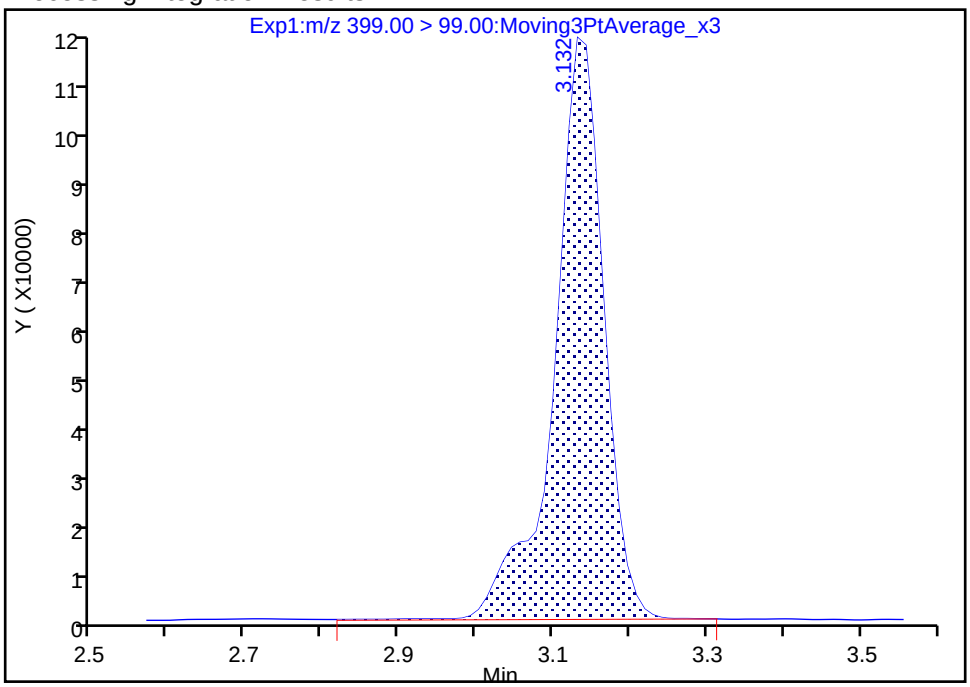
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

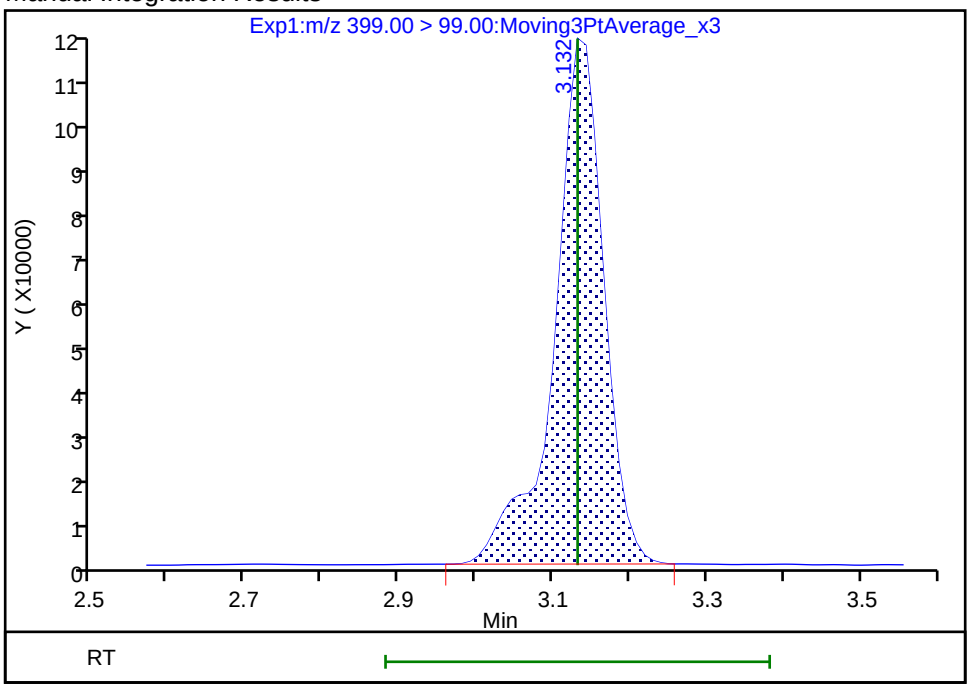
Processing Integration Results

RT: 3.13
Area: 535495
Amount: 1.901088
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 530852
Amount: 1.856153
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:47:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

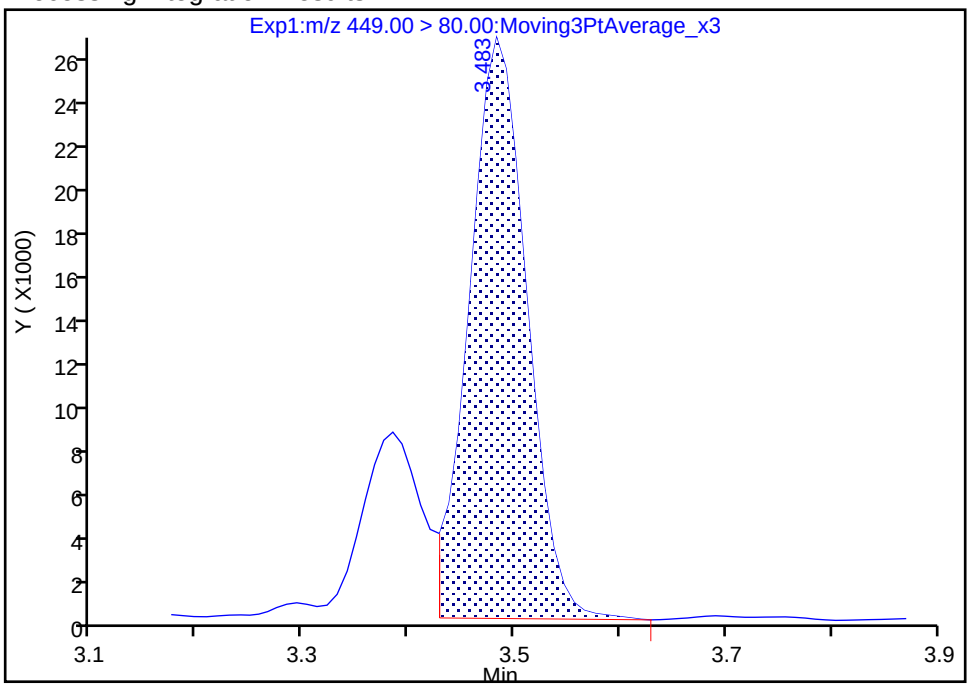
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

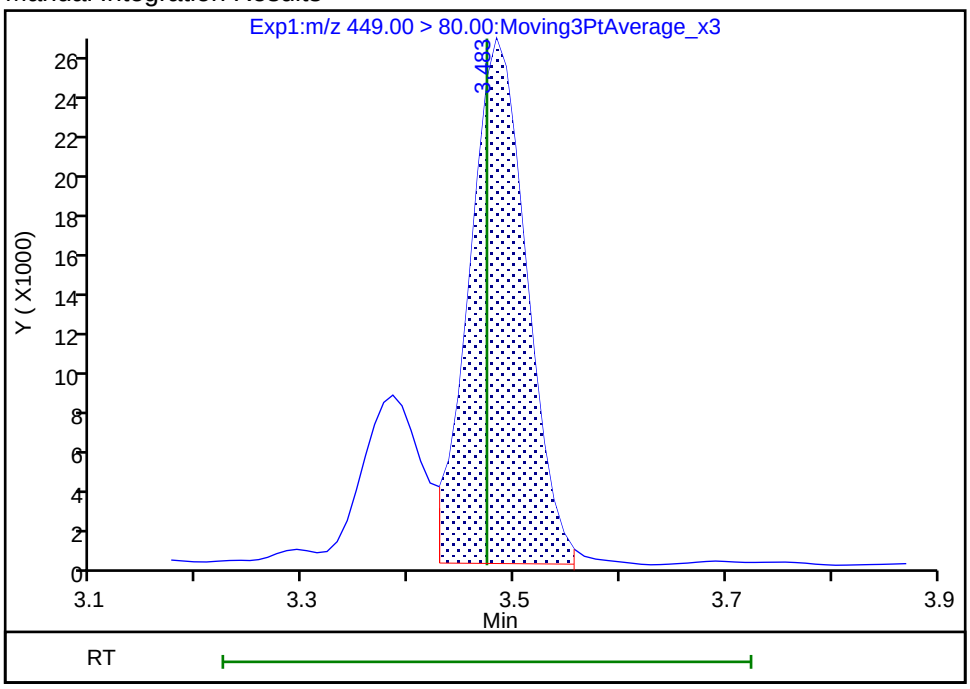
Processing Integration Results

RT: 3.48
Area: 98703
Amount: 0.103769
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 97793
Amount: 0.102812
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

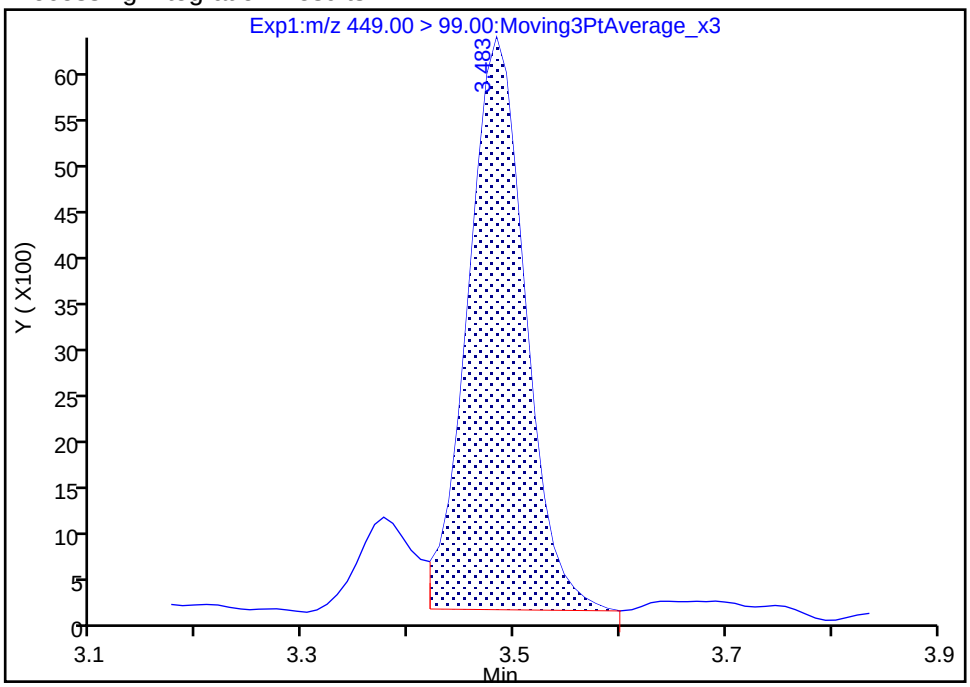
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

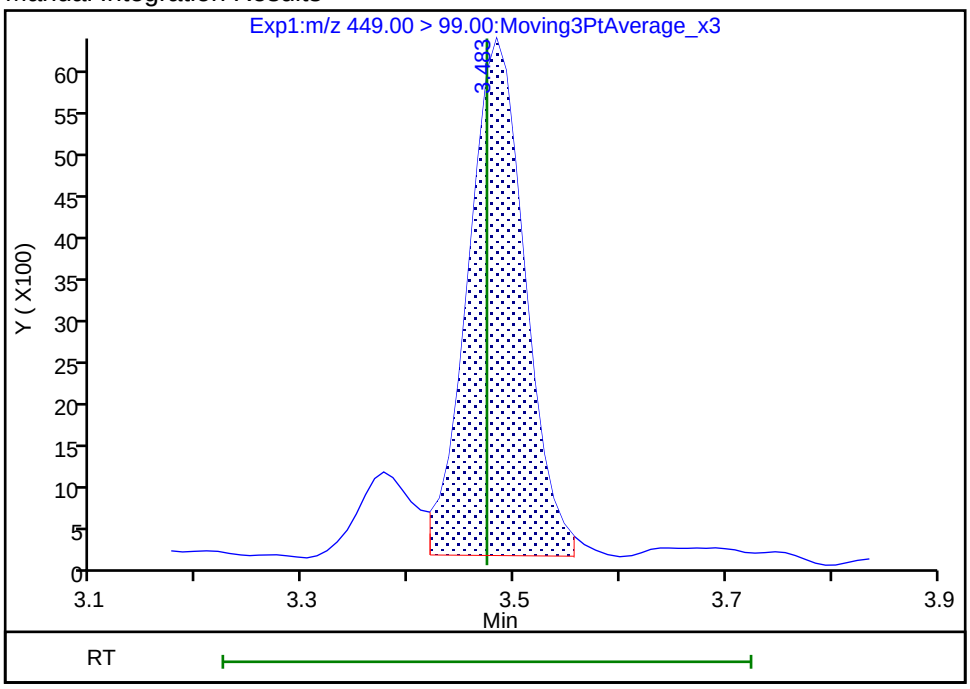
Processing Integration Results

RT: 3.48
Area: 23216
Amount: 0.103769
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 22990
Amount: 0.102812
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

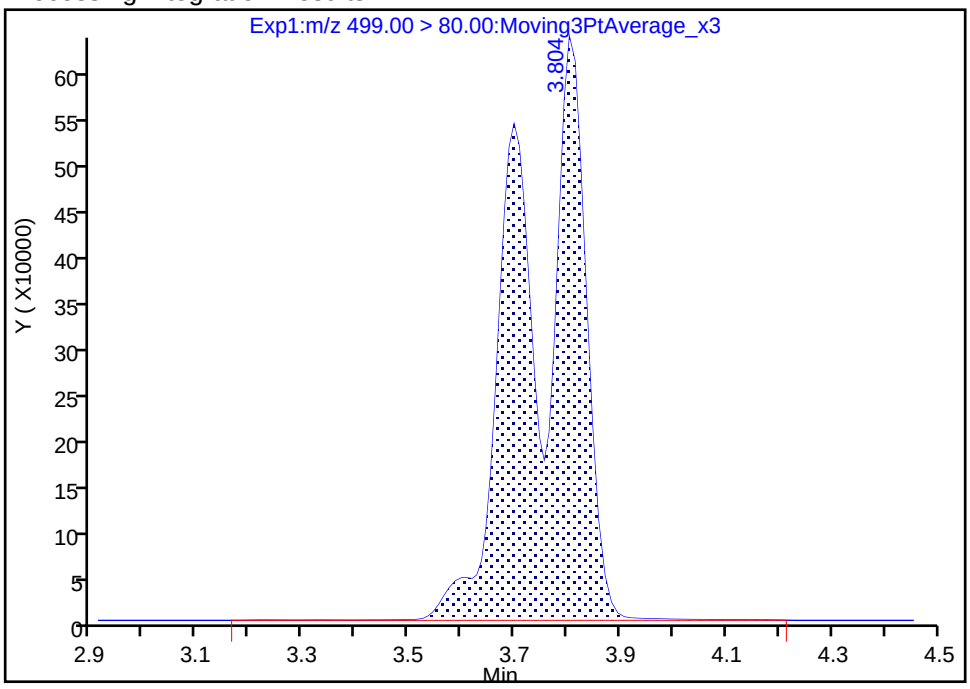
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

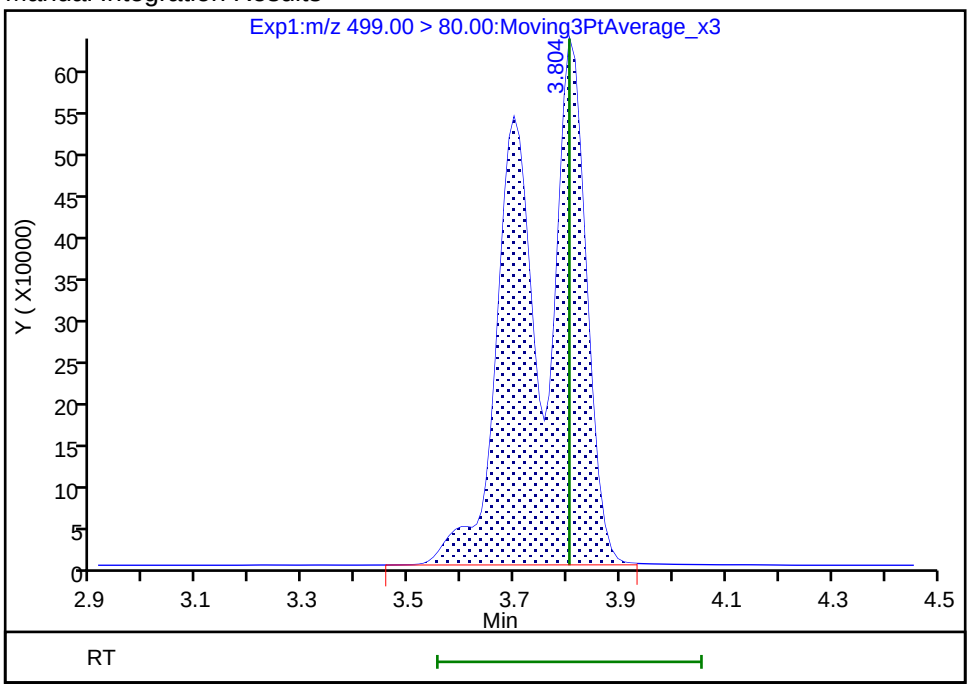
Processing Integration Results

RT: 3.80
Area: 5072790
Amount: 6.127263
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 5047671
Amount: 6.096923
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

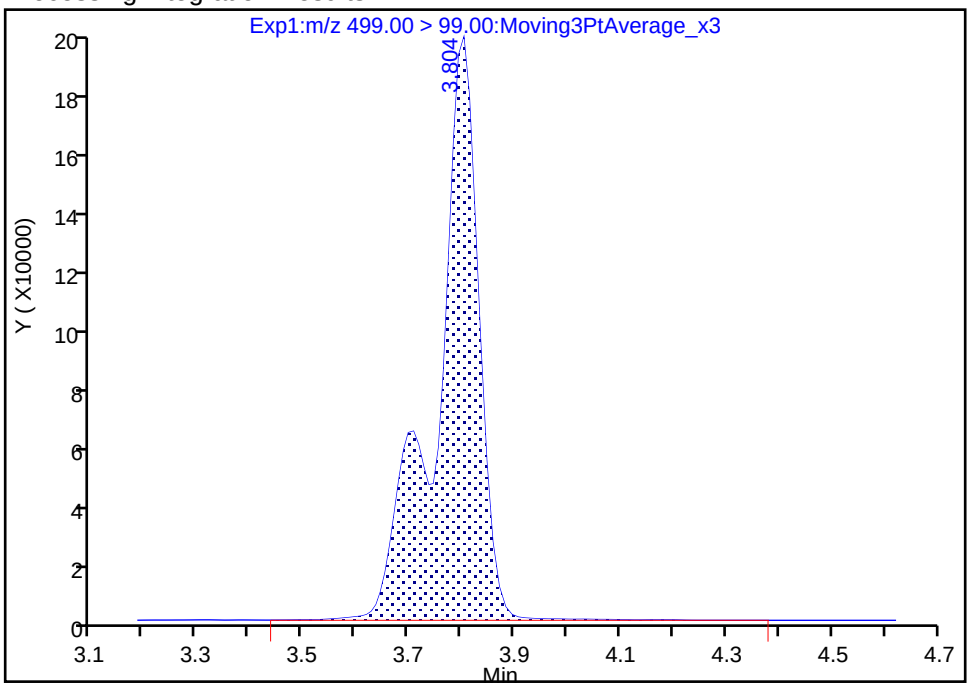
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

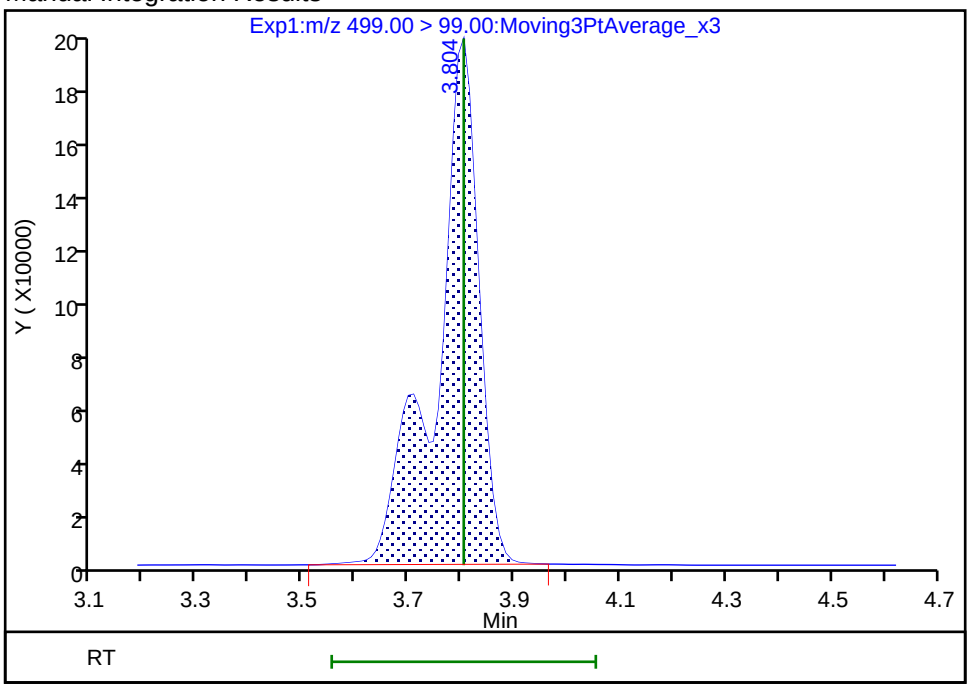
Processing Integration Results

RT: 3.80
Area: 1109165
Amount: 6.127263
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1097949
Amount: 6.096923
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

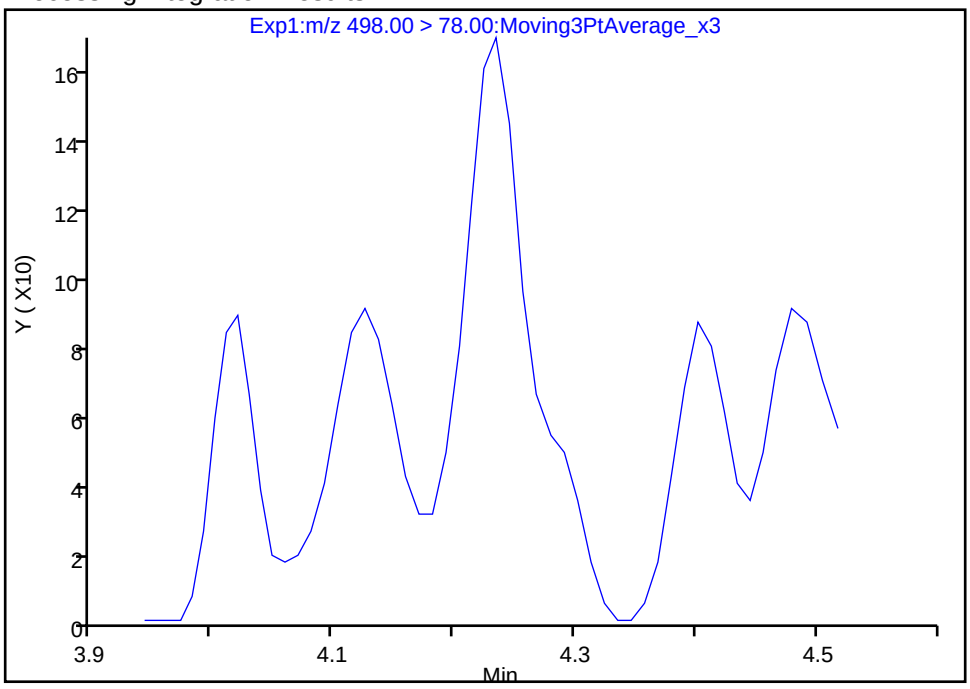
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

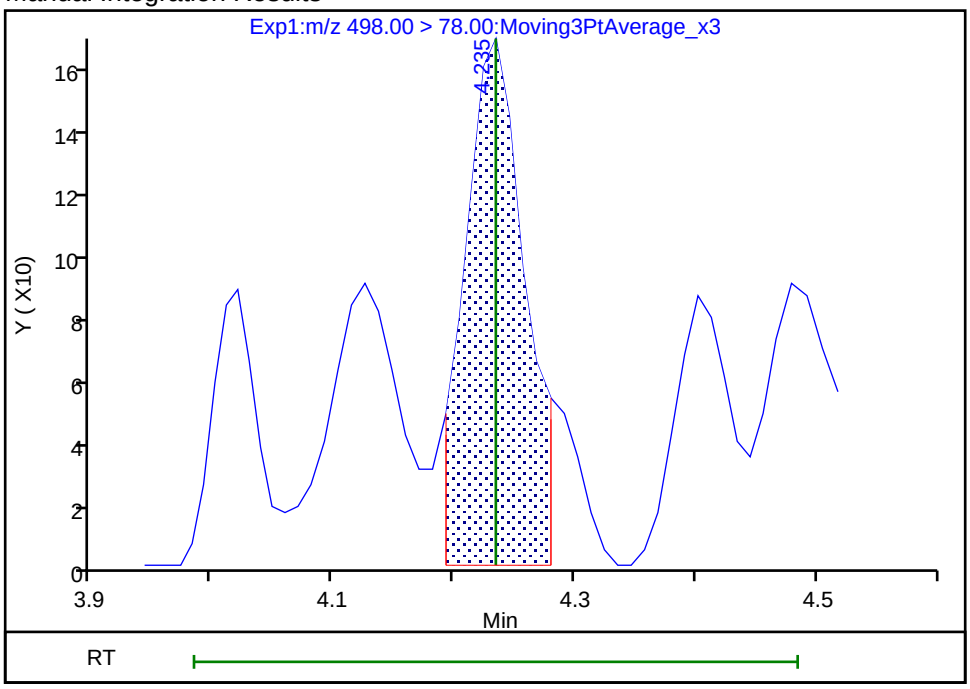
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 572
Amount: 0.000512
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

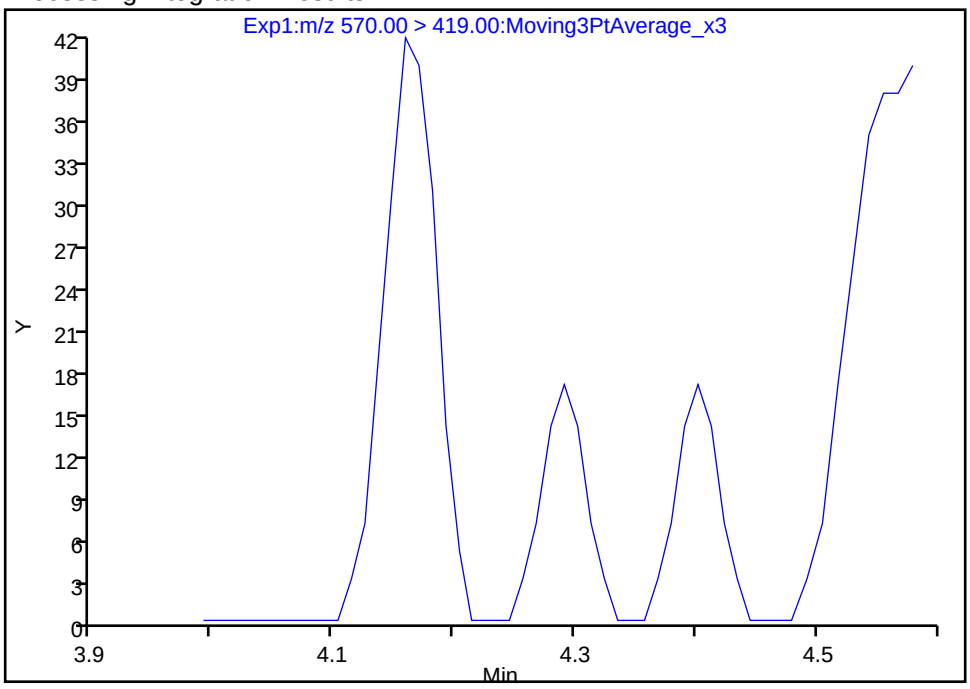
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

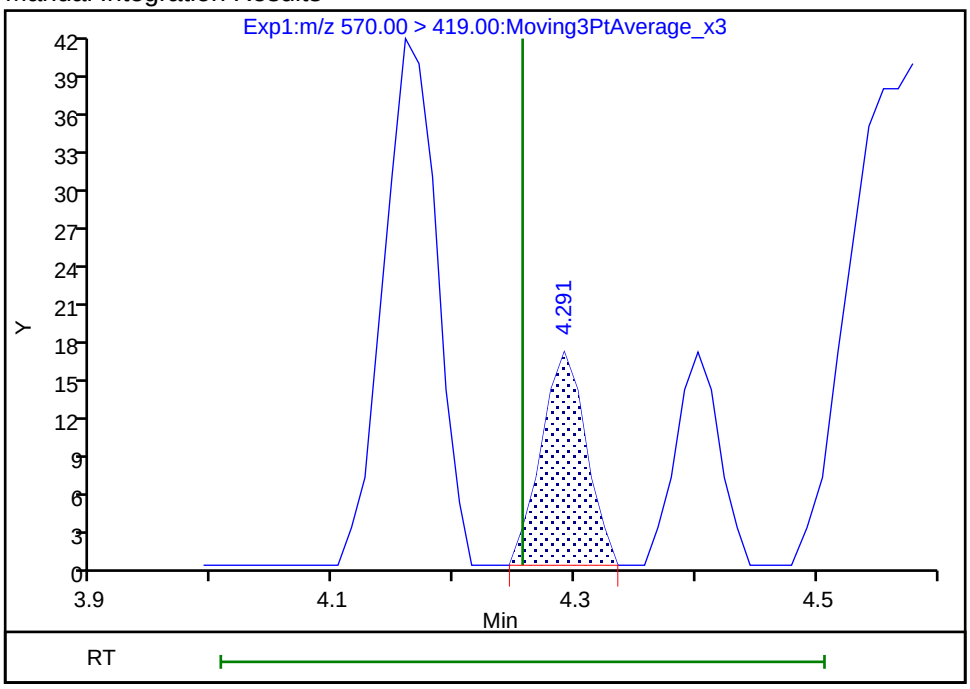
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.29
Area: 43
Amount: 0.000433
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

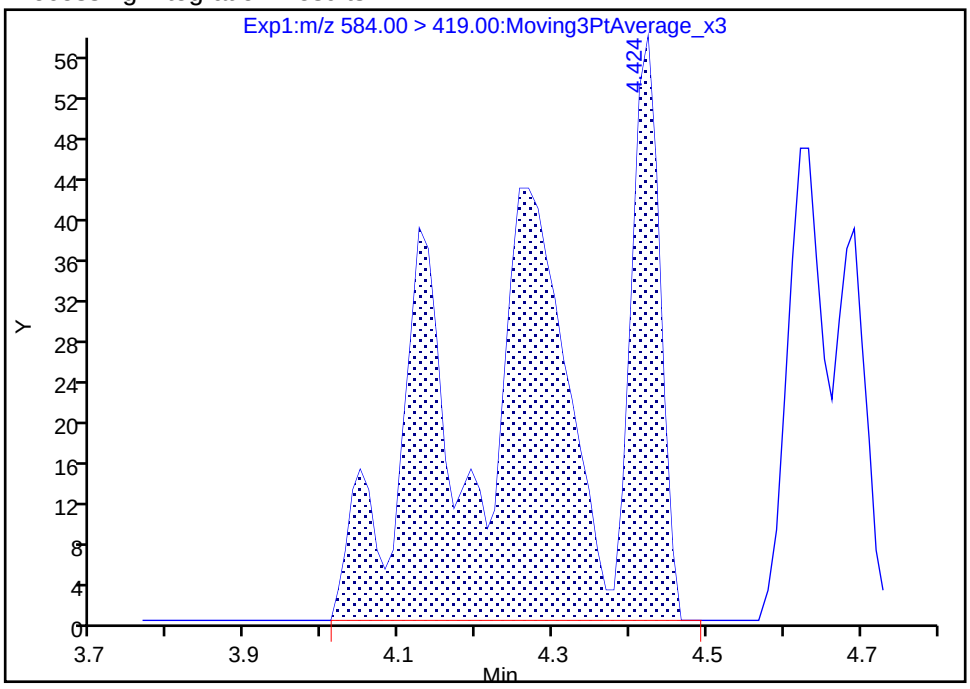
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

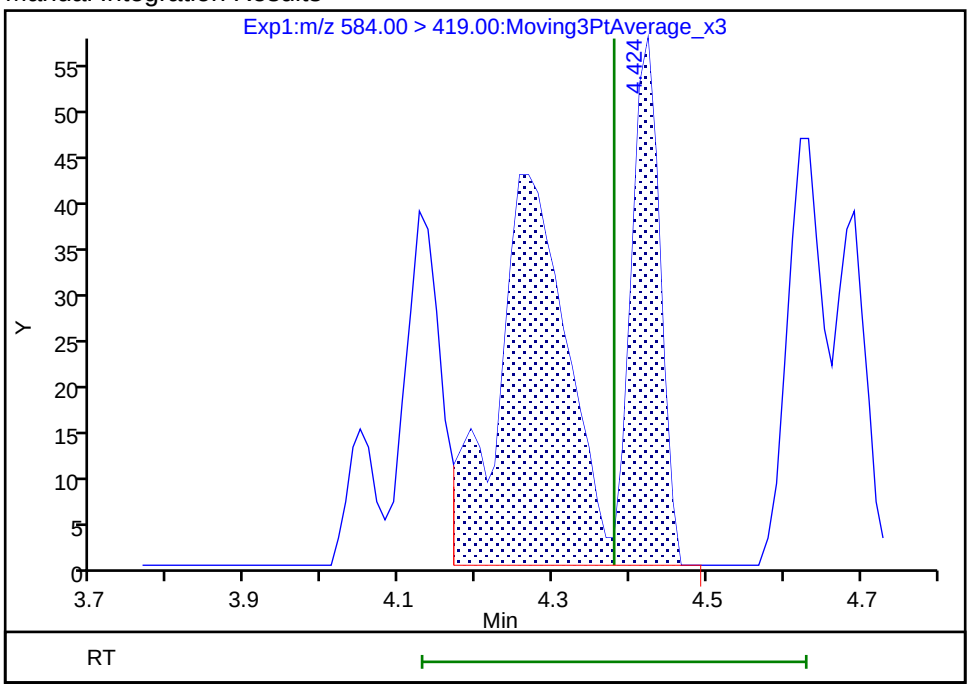
Processing Integration Results

RT: 4.42
Area: 579
Amount: 0.005187
Amount Units: ng/ml




Manual Integration Results

RT: 4.42
Area: 421
Amount: 0.003772
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

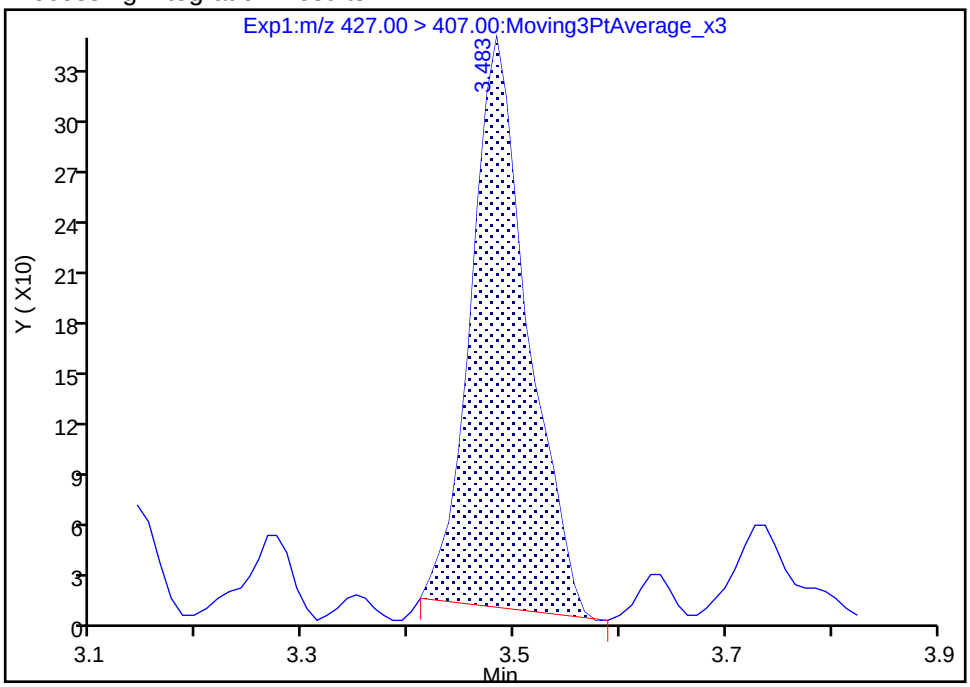
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

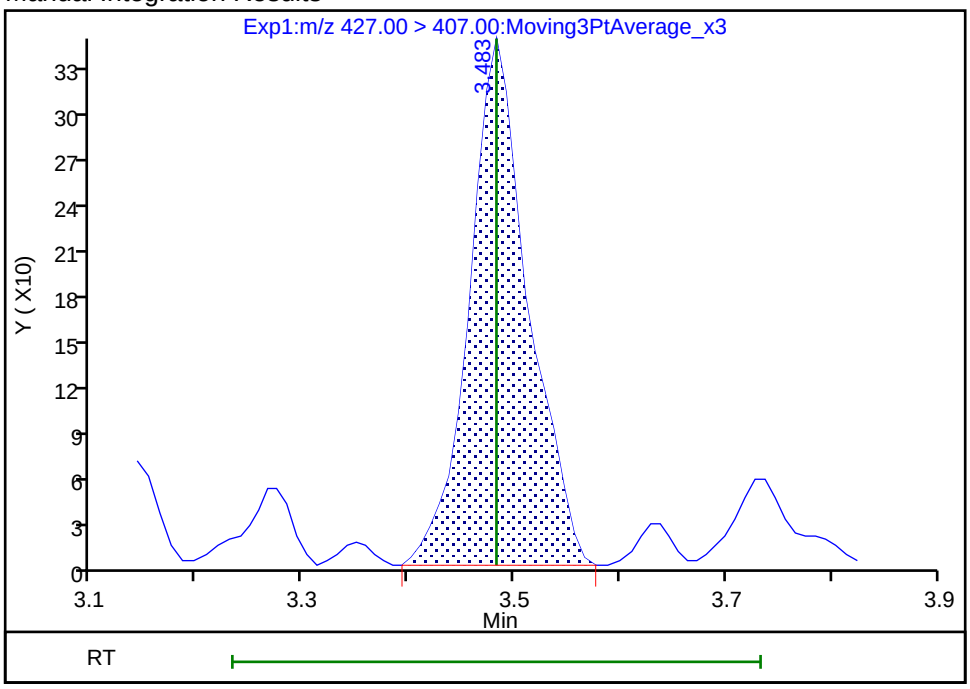
Processing Integration Results

RT: 3.48
Area: 1250
Amount: 0.005236
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1325
Amount: 0.005550
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:48:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

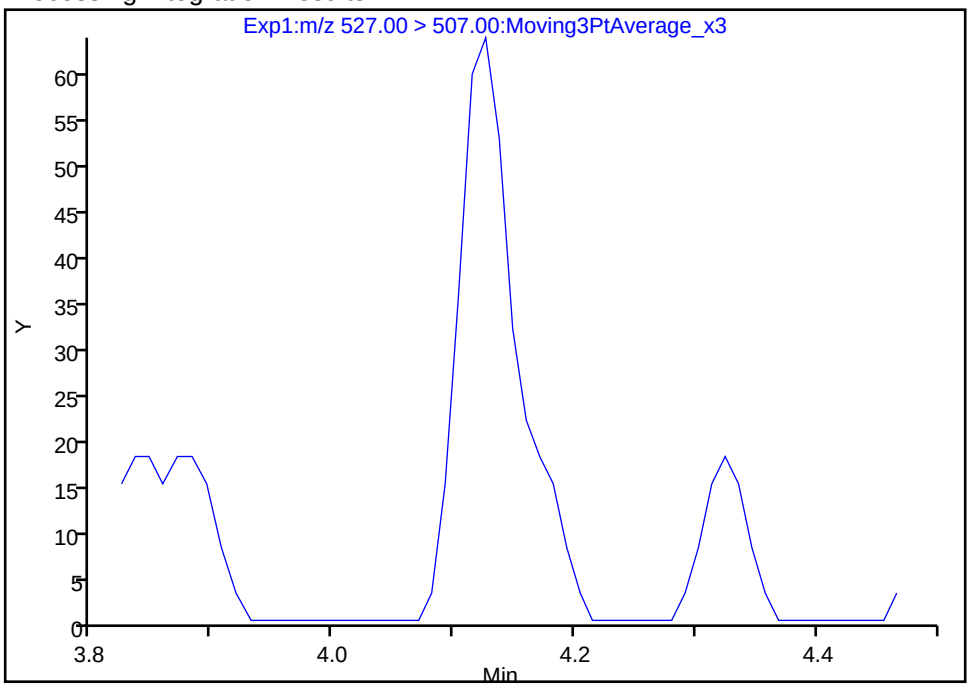
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

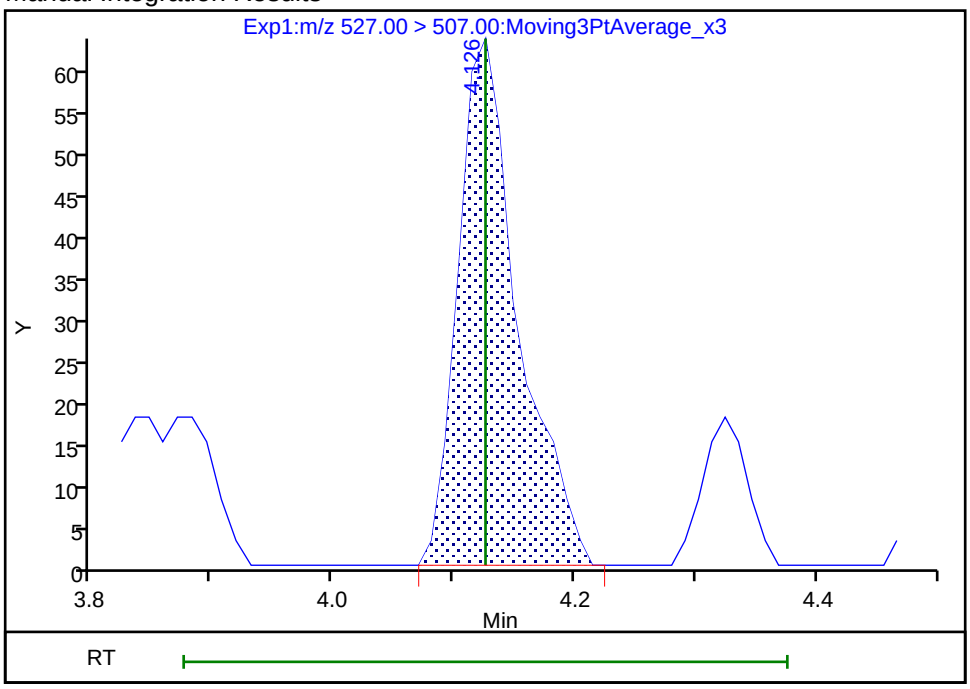
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 220
Amount: 0.001161
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:49:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

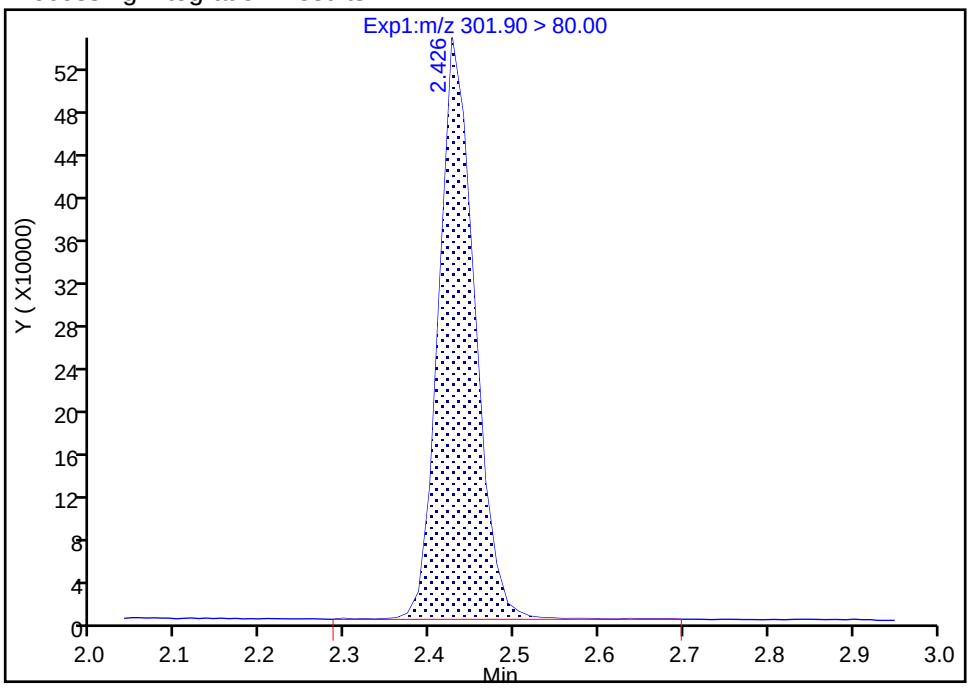
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D23.d | | | | |
| Injection Date: | 10-Nov-2021 07:12:24 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-16-A | Lab Sample ID: | 200-246277-16 | | |
| Client ID: | MW-1S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

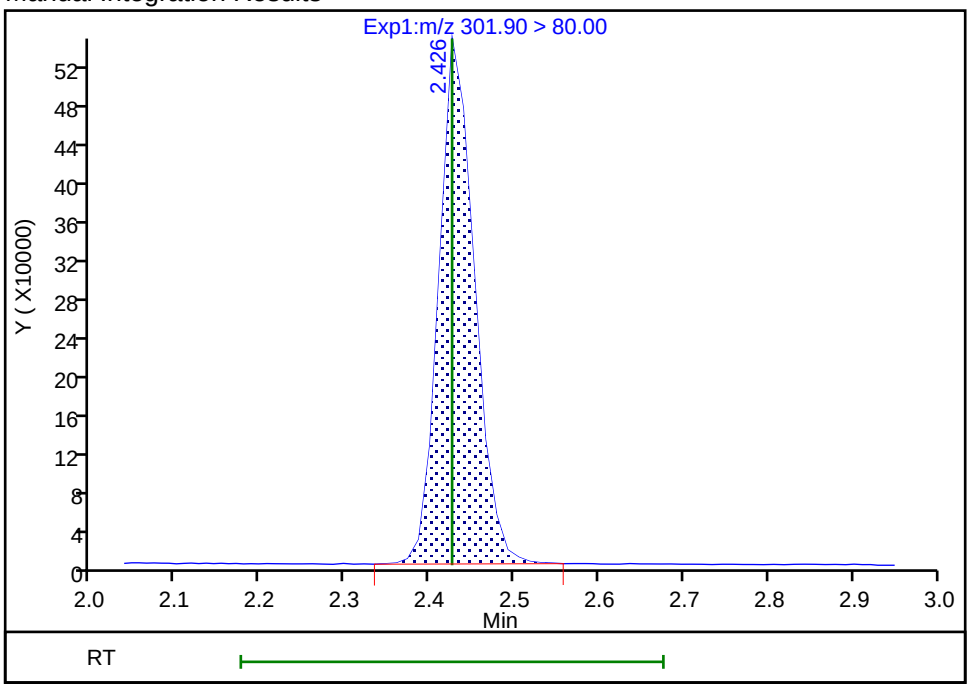
Processing Integration Results

RT: 2.43
Area: 1612124
Amount: 1.075433
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1602656
Amount: 1.069117
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:46:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-102-20211028  Lab Sample ID: 460-246277-17

Matrix: Water  Lab File ID: PA211109D24.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 300.7(mL)  Date Analyzed: 11/10/2021 07:20

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.42 | | 4.16 | 0.74 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 1.98 | | 1.66 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 4.85 | | 1.66 | 0.38 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.22 | J | 1.66 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 4.50 | | 1.66 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.23 | U | 1.66 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.66 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.66 | 0.29 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.66 | 0.32 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.66 | 0.36 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.53 | U | 1.66 | 0.53 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 5.11 | | 1.66 | 0.21 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 13.8 | | 1.66 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.46 | J | 1.66 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 13.1 | | 1.66 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.66 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.48 | U | 1.66 | 0.48 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.75 | U | 4.16 | 0.75 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.62 | U | 4.16 | 0.62 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.91 | U | 4.16 | 0.91 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.66 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-102-20211028  Lab Sample ID: 460-246277-17

Matrix: Water  Lab File ID: PA211109D24.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:05

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 300.7(mL)  Date Analyzed: 11/10/2021 07:20

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 93 | | 50-150 |
| STL00995 | 13C5 PFNA | 93 | | 50-150 |
| STL00992 | 13C4 PFBA | 98 | | 25-150 |
| STL00993 | 13C2 PFHxA | 95 | | 50-150 |
| STL00996 | 13C2 PFDA | 83 | | 50-150 |
| STL00997 | 13C2 PFUnA | 79 | | 50-150 |
| STL00998 | 13C2 PFDoA | 73 | | 50-150 |
| STL01056 | 13C8 FOSA | 89 | | 25-150 |
| STL01893 | 13C5 PFPeA | 97 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 68 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 87 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 86 | | 50-150 |
| STL02279 | M2-6:2 FTS | 107 | | 25-150 |
| STL02280 | M2-8:2 FTS | 103 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d
Lims ID: 460-246277-C-17-A
Client ID: MW-102-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 07:20:35 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-17-A
Misc. Info.: 200-0048356-024 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 09:55:20
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1725802 | 1.22 | | 97.9 | 3120 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 173368 | 0.1328 | | | 15.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1436103 | 1.21 | | 96.7 | 1791 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 68693 | 0.0597 | | | 1.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1710413 | 1.06 | | 91.6 | 24849 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 241617 | 0.1538 | Target=2.32 | | 7.0 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 91647 | | 2.64(1.16-3.48) | | 23.2 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1473680 | 1.18 | | 94.6 | 2683 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 174471 | 0.1459 | Target=12.09 | | 12.3 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 12942 | | 13.48(6.04-18.13) | | 9.6 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 504615 | 0.4157 | Target=3.55 | | 162 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 127446 | | 3.96(1.77-5.32) | | 107 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1305605 | 1.12 | | 94.6 | 3739 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1554937 | 1.19 | | 94.8 | 4474 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 47023 | 0.0366 | Target=3.69 | | 7.1 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 13778 | | 3.41(1.84-5.53) | | 20.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.913 | 13506 | 0.0138 | Target=4.88 | | 9.6 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.913 | 2862 | | 4.72(2.44-7.32) | | 7.1 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 665 | 0.002661 | | | 14.1 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 234002 | 1.27 | | 107 | 300 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1666884 | 1.16 | | 93.1 | 6027 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1740892 | 1.25 | | | 5228 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 191900 | 0.1353 | Target=2.68 | | 16.9 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 83065 | | 2.31(1.34-4.02) | | 96.0 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 939685 | 1.11 | | 93.2 | 2622 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.804 | -0.105 | 0.972 | 335273 | 0.3929 | Target=4.69 | | 411 | M |
| 499.00 > 99.00 | 3.699 | 3.804 | -0.105 | 0.972 | 66224 | | 5.06(2.35-7.04) | | 115 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1652867 | 1.16 | | 92.6 | 4521 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1497911 | 1.04 | | 83.2 | 3287 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 884 | 0.000734 | Target=8.95 | | 0.8 | RM |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 447 | | 1.98(4.47-13.42) | | 4.3 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 258166 | 1.24 | | 103 | 702 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.148 | 4.126 | 0.022 | 1.005 | 132 | 0.000732 | | | 4.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1551698 | 1.12 | | 89.3 | 2562 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 577 | 0.000489 | | | 3.0 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 153764 | 1.09 | | 86.8 | 964 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 345 | 0.003570 | | | 2.2 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 122 | 0.000236 | Target=2.47 | | 2.0 | RM |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.143 | 157 | | 0.78(1.23-3.70) | | 3.0 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.369 | 0.013 | 1.255 | 1108112 | 0.9870 | | 79.0 | 3977 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.381 | 4.369 | 0.013 | 1.000 | 674 | 0.000713 | Target=9.24 | | 0.8 | M |
| 563.00 > 169.00 | 4.347 | 4.369 | -0.021 | 0.992 | 67 | | 10.06(4.62-13.86) | | 1.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.392 | 4.380 | 0.012 | 1.258 | 142959 | 1.08 | | 86.2 | 1070 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.591 | 0.011 | 1.318 | 1103276 | 0.9135 | | 73.1 | 1897 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.966 | 0.020 | 1.428 | 797376 | 0.8513 | | 68.1 | 2209 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 5.005 | 4.966 | 0.039 | 1.004 | 77 | 0.000765 | Target=1.01 | | 3.5 | RM |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 0.998 | 188 | | 0.41(0.51-1.52) | | 7.9 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:33 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d

Injection Date: 10-Nov-2021 07:20:35 Instrument ID: LC812

Lims ID: 460-246277-C-17-A Lab Sample ID: 200-246277-17

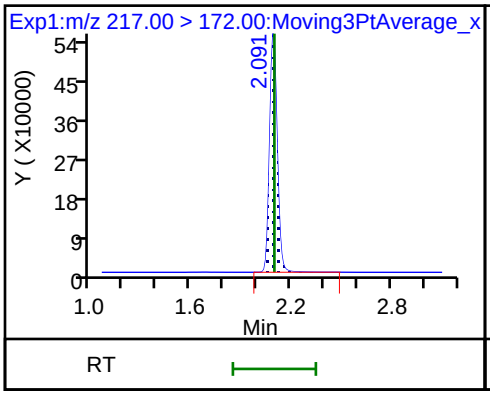
Client ID: MW-102-20211028

Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 24

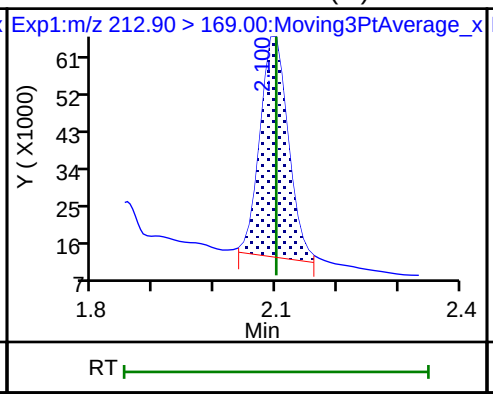
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

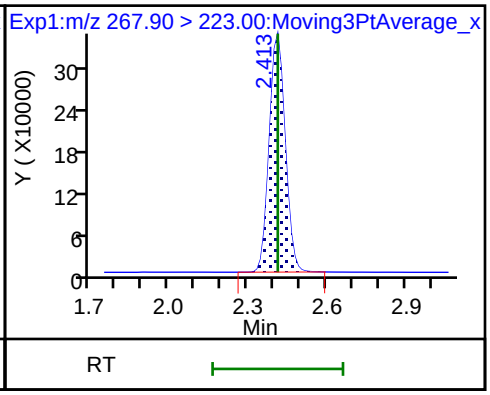
D 1 13C4 PFBA



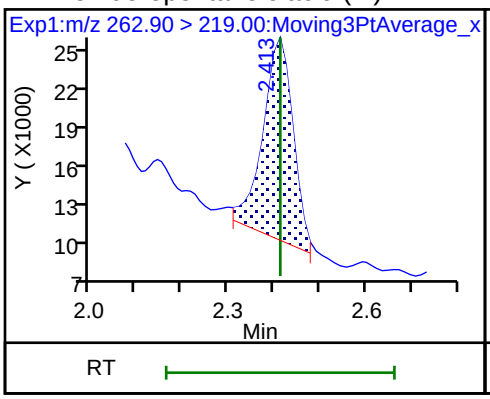

2 Perfluorobutanoic acid (M)



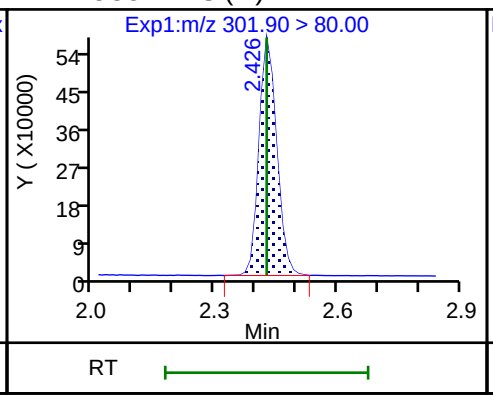

D 3 13C5 PFPeA



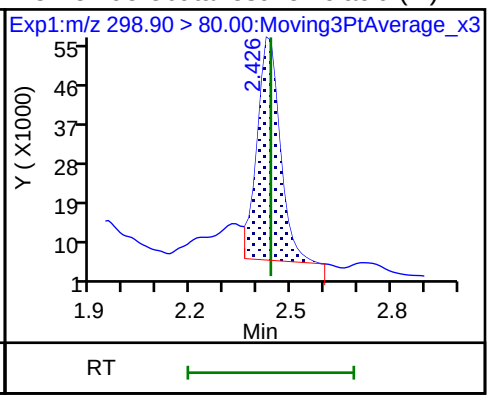

4 Perfluoropentanoic acid (M)



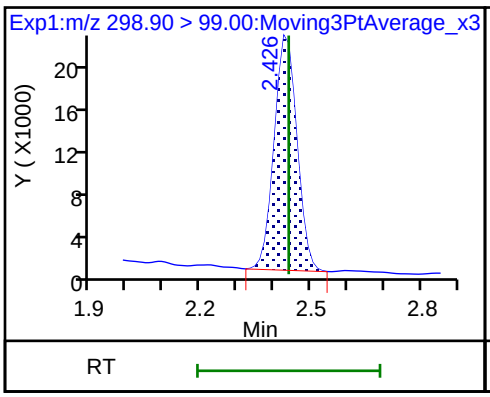

D 47 13C3 PFBS (M)



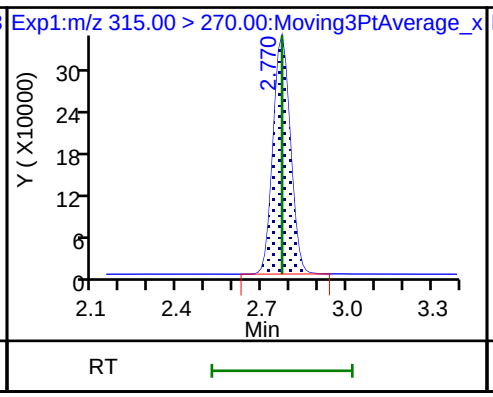

5 Perfluorobutanesulfonic acid (M)



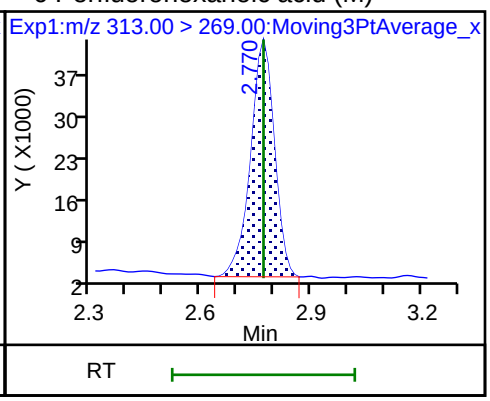

5 Perfluorobutanesulfonic acid



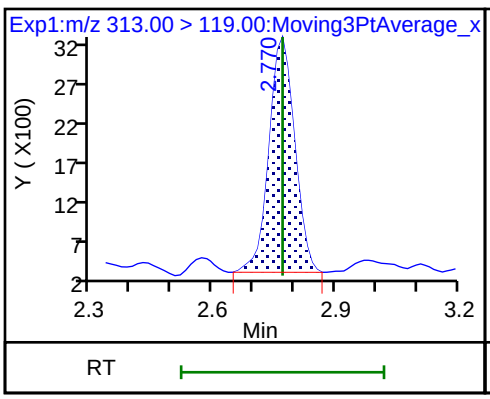

D 7 13C2 PFHxA



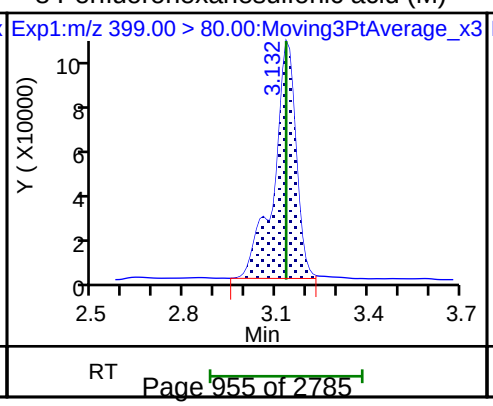

6 Perfluorohexanoic acid (M)



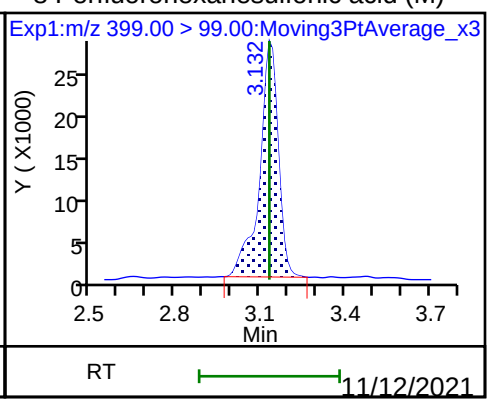

6 Perfluorohexanoic acid



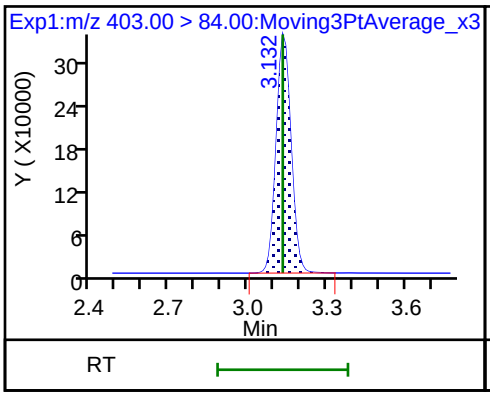

8 Perfluorohexanesulfonic acid (M)



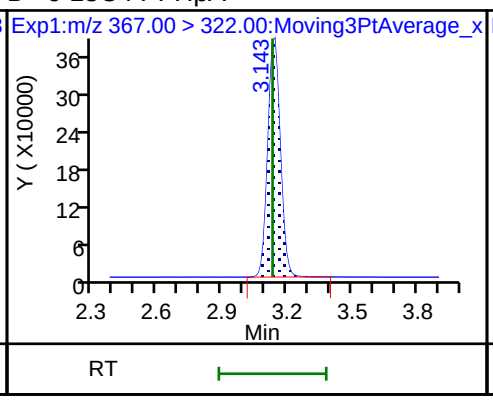

8 Perfluorohexanesulfonic acid (M)



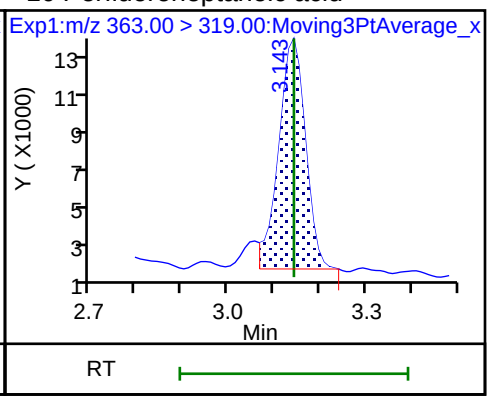
D 11 18O2 PFHxS



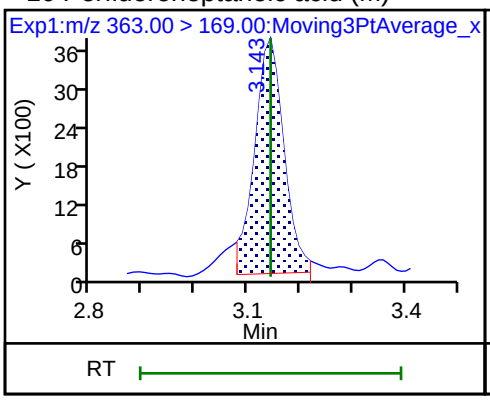

D 9 13C4 PFHpA



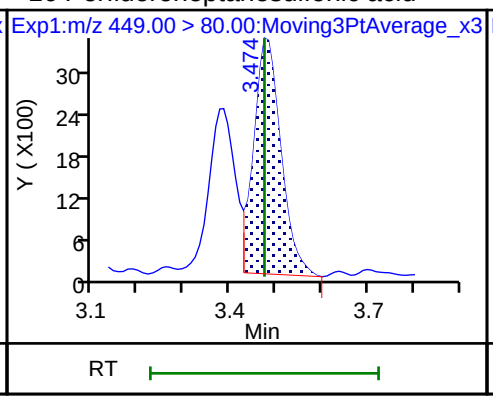

10 Perfluoroheptanoic acid



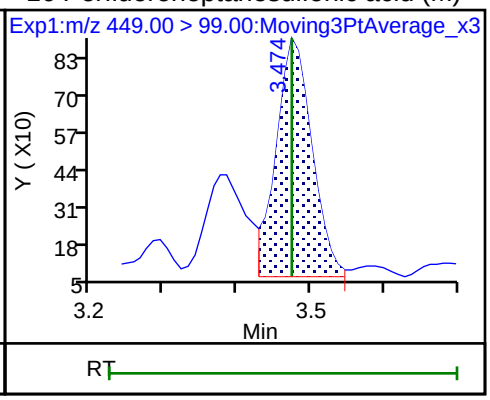

10 Perfluoroheptanoic acid (M)



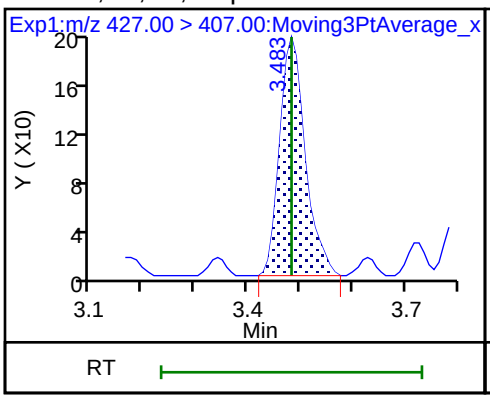

16 Perfluoroheptanesulfonic acid



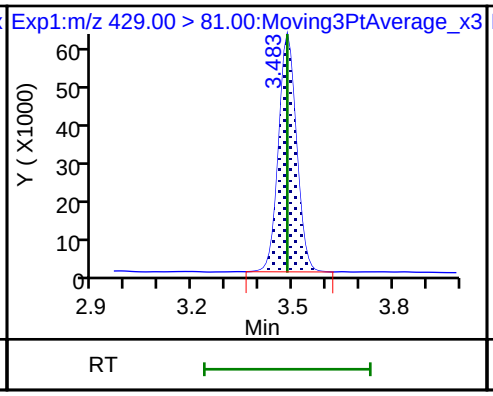

16 Perfluoroheptanesulfonic acid (M)



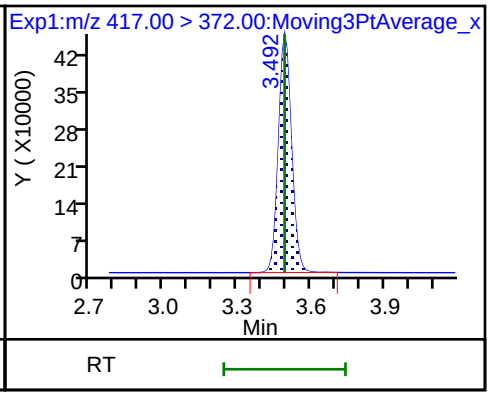

13 1H,1H,2H,2H-perfluorooctanesulfo



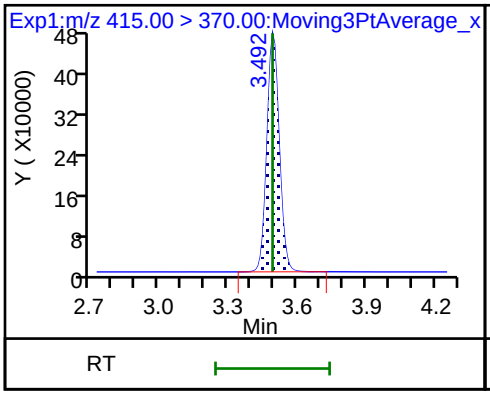

D 12 M2-6:2 FTS



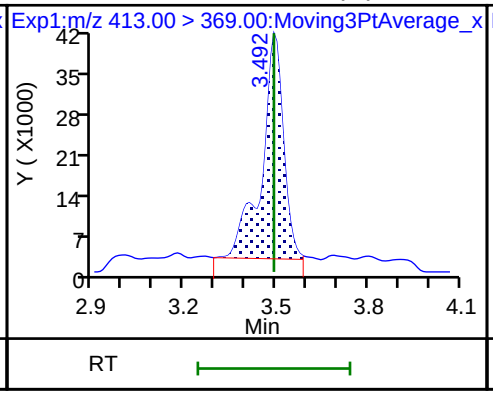

D 14 13C4 PFOA



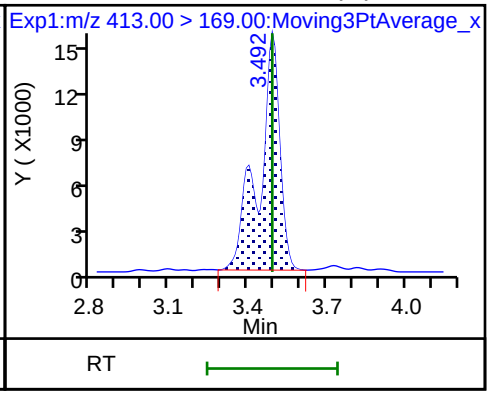

* 62 13C2 PFOA



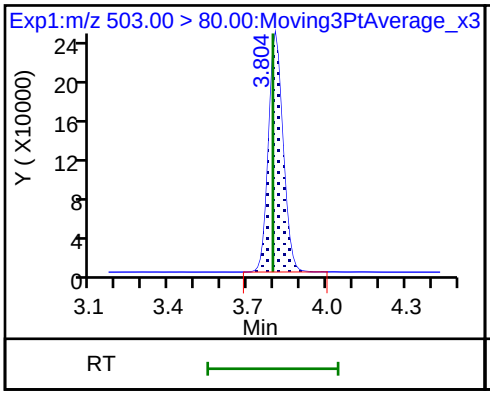

15 Perfluorooctanoic acid (M)



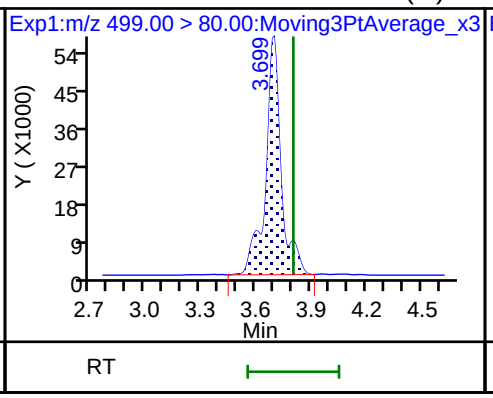

15 Perfluorooctanoic acid (M)



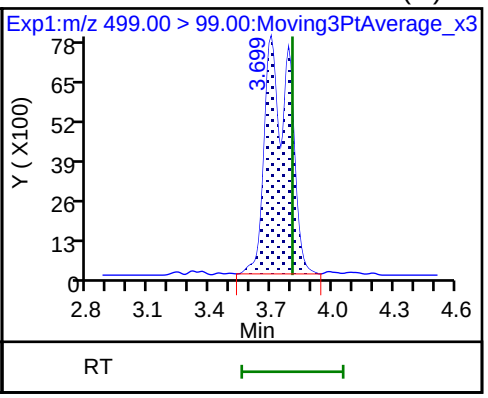
D 18 13C4 PFOS



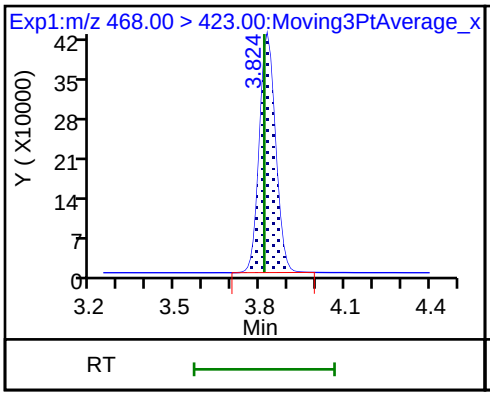

17 Perfluorooctanesulfonic acid (M)



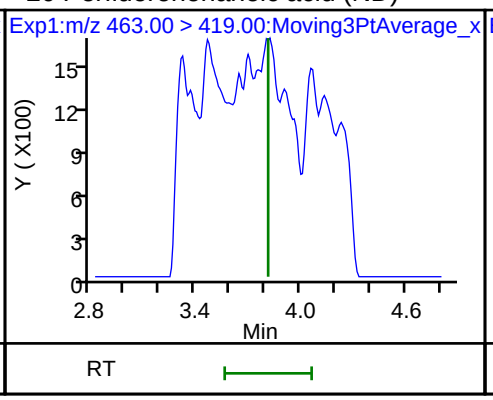

17 Perfluorooctanesulfonic acid (M)



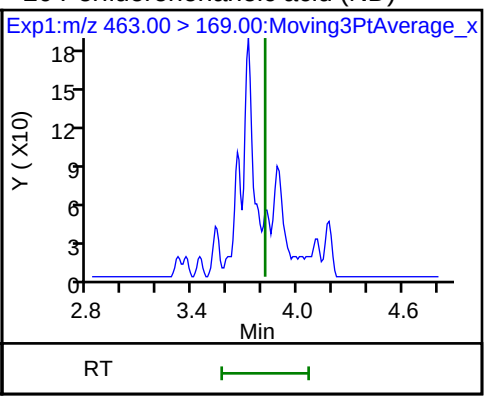

D 19 13C5 PFNA



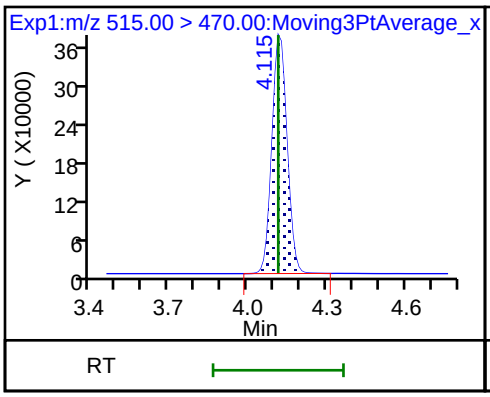

20 Perfluorononanoic acid (ND)



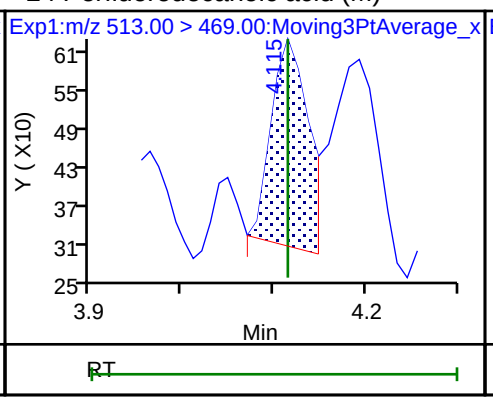

20 Perfluorononanoic acid (ND)



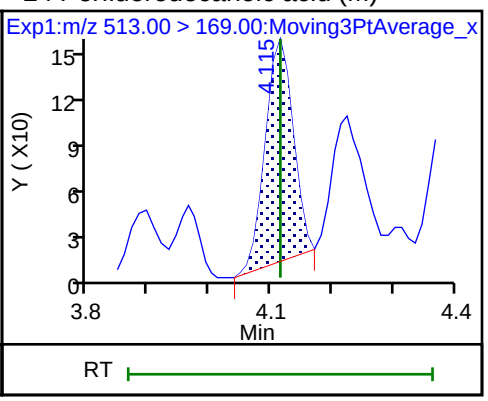

D 23 13C2 PFDA



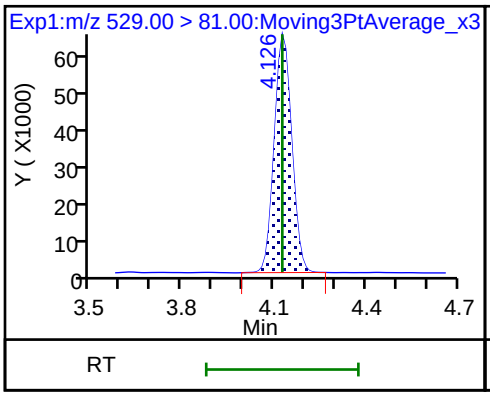

24 Perfluorodecanoic acid (M)



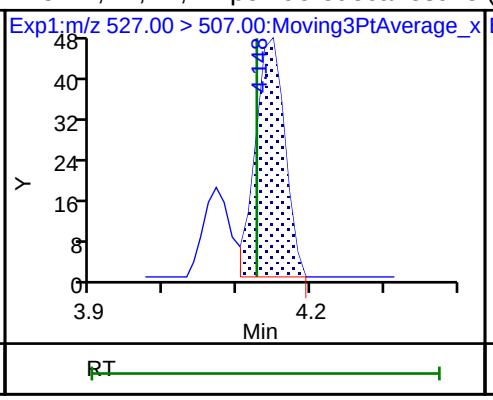

24 Perfluorodecanoic acid (M)



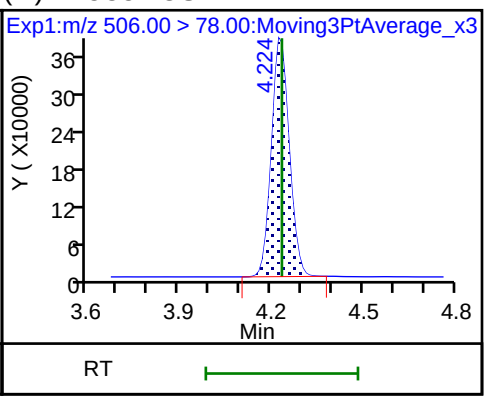

D 26 M2-8:2 FTS



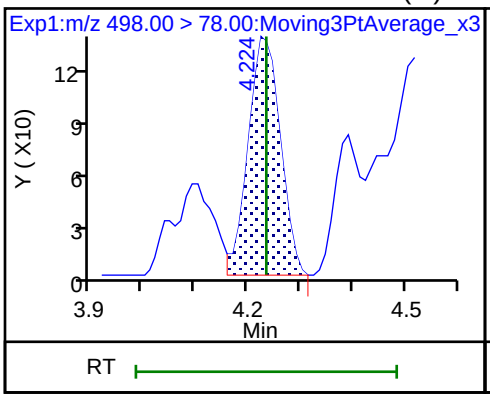

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



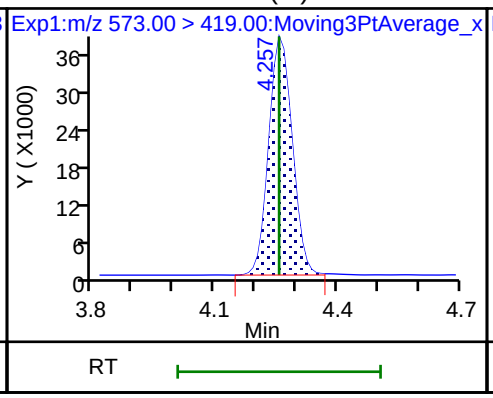

D 21 13C8 FOSA



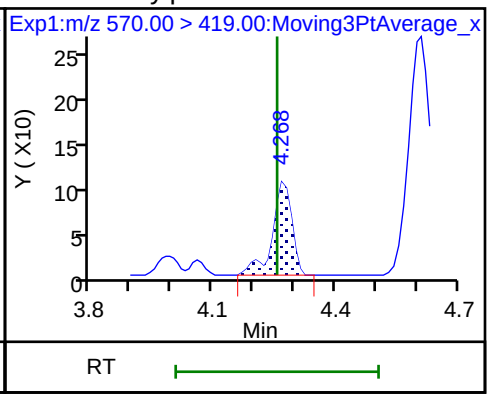
22 Perfluorooctanesulfonamide (M)



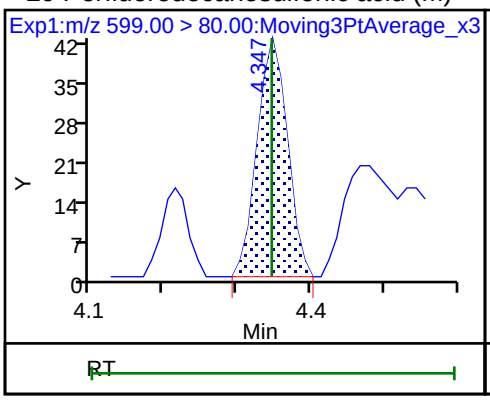

D 27 d3-NMeFOSAA (M)




28 N-methylperfluorooctanesulfonami




29 Perfluorodecanesulfonic acid (M)

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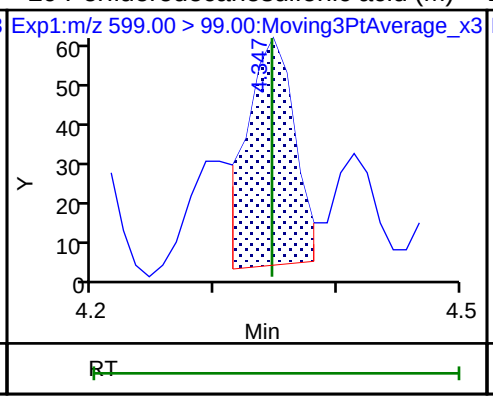
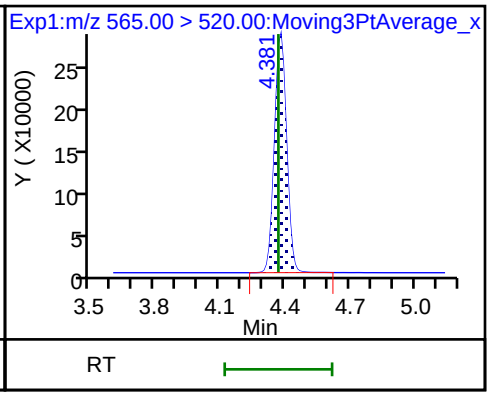
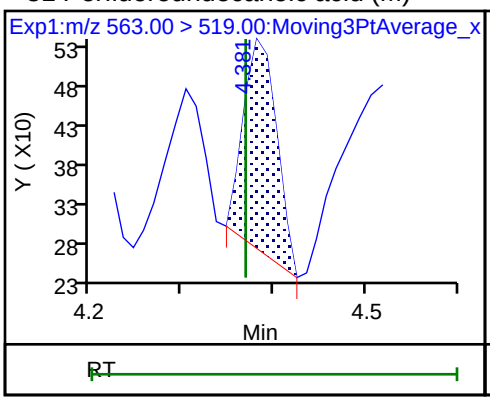


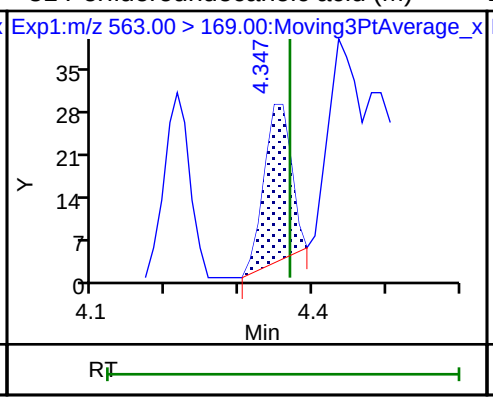

D 30 13C2 PFUnA



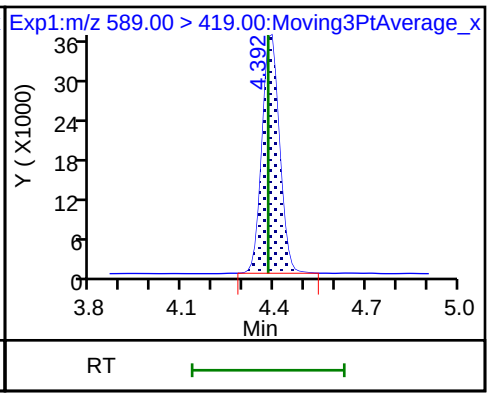

31 Perfluoroundecanoic acid (M)



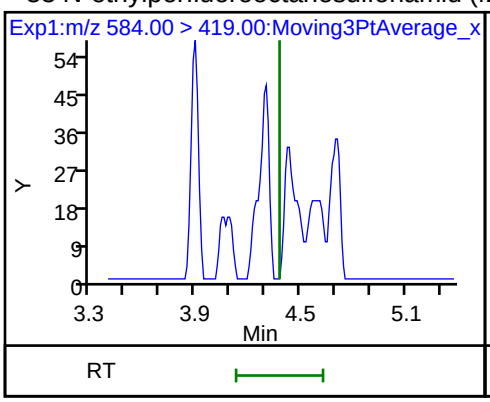

31 Perfluoroundecanoic acid (M)



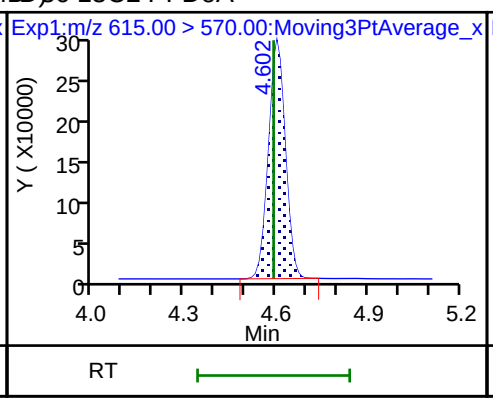

D 32 d5-NEtFOSAA



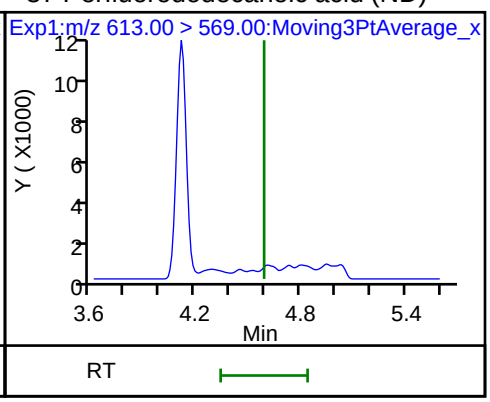

33 N-ethylperfluorooctanesulfonamid (ND)



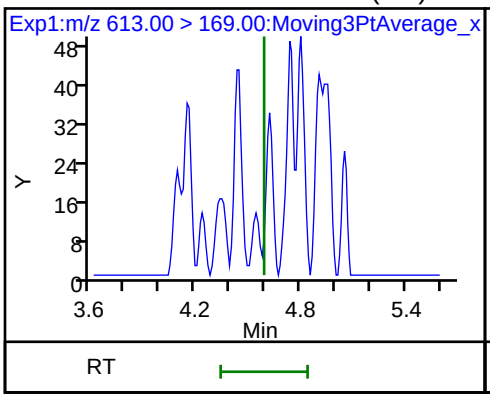

D 36 13C2 PFDoA



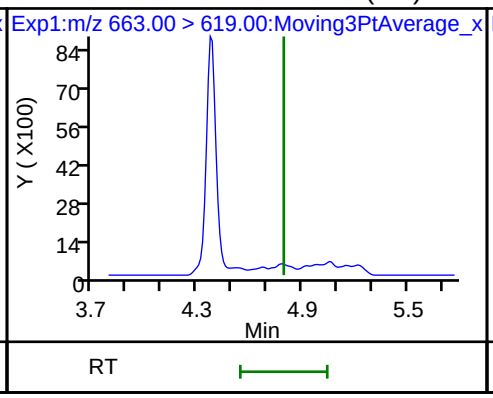

37 Perfluorododecanoic acid (ND)



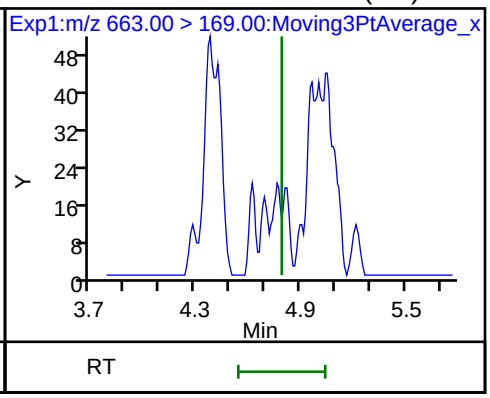
37 Perfluorododecanoic acid (ND)



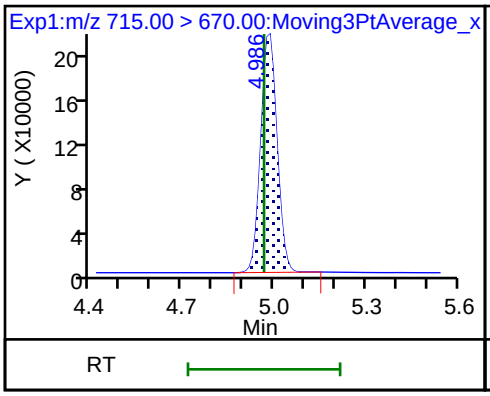

41 Perfluorotridecanoic acid (ND)



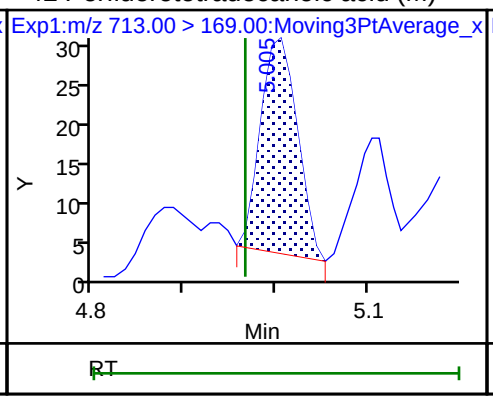

41 Perfluorotridecanoic acid (ND)



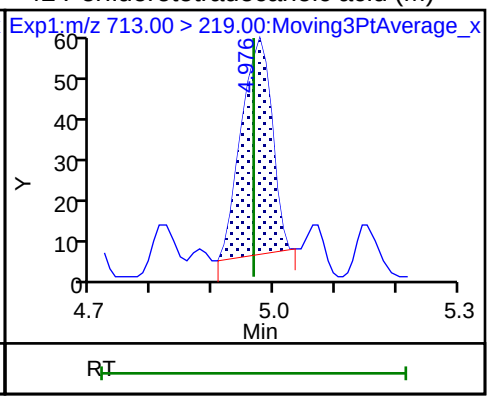

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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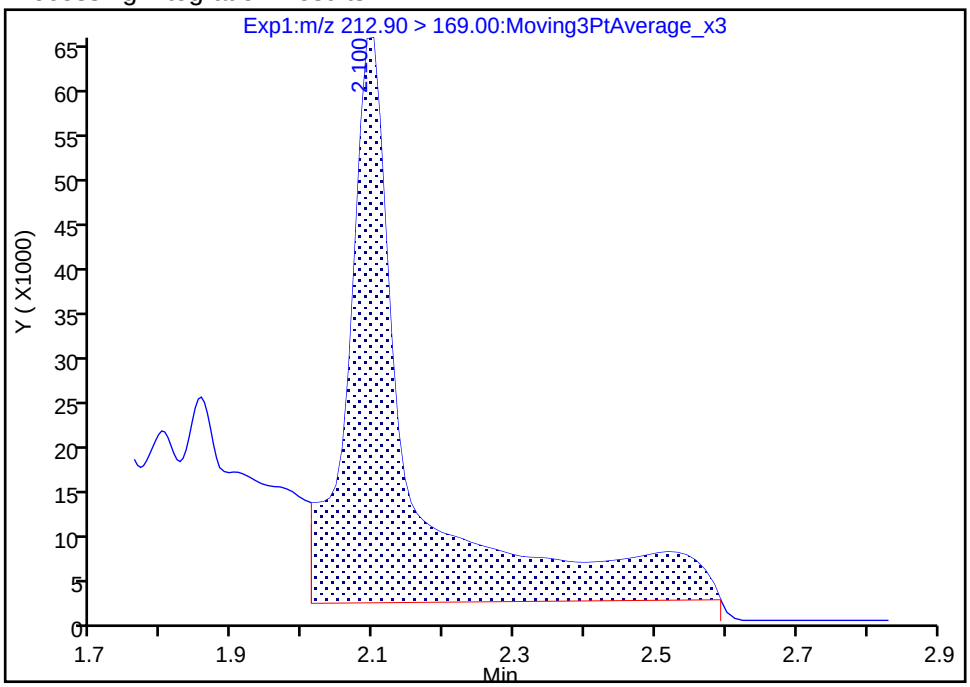
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

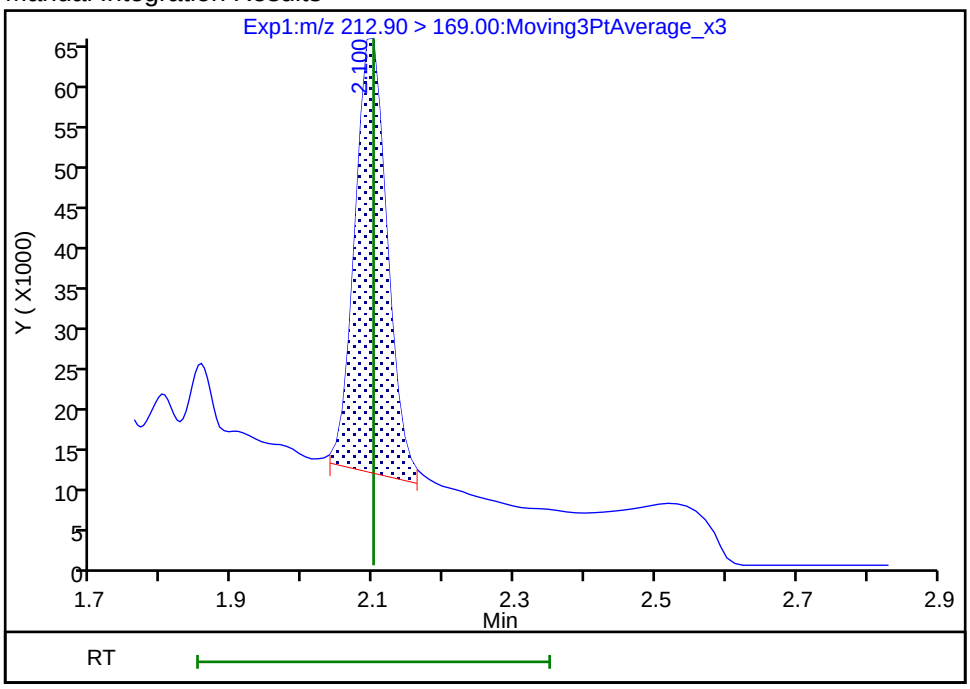
Processing Integration Results

RT: 2.10
Area: 401307
Amount: 0.307402
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 173368
Amount: 0.132800
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:51:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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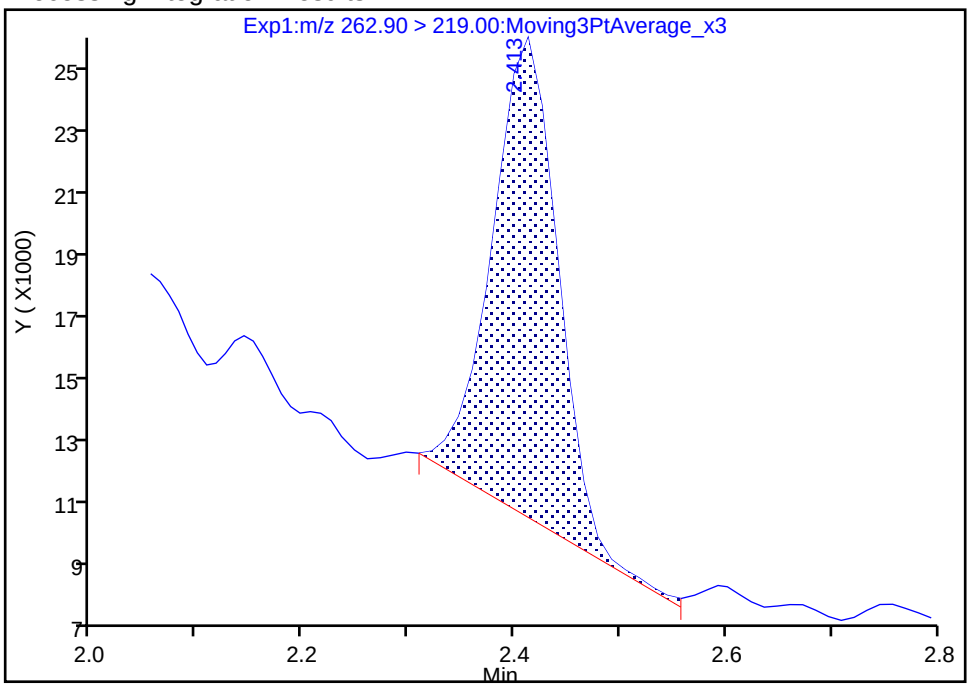
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

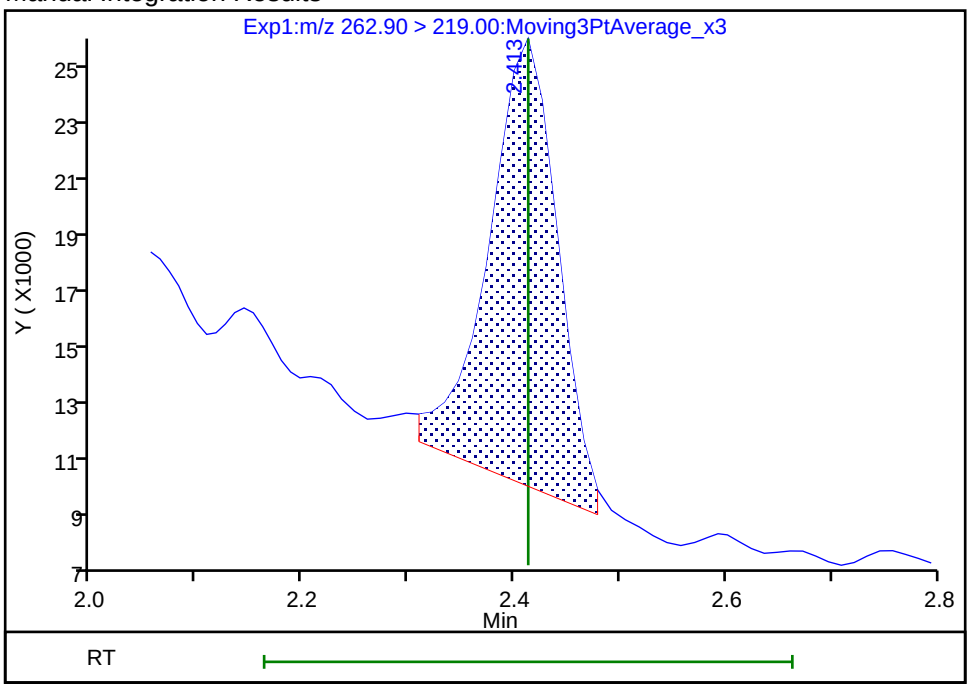
Processing Integration Results

RT: 2.41
Area: 63913
Amount: 0.055535
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 68693
Amount: 0.059688
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:51:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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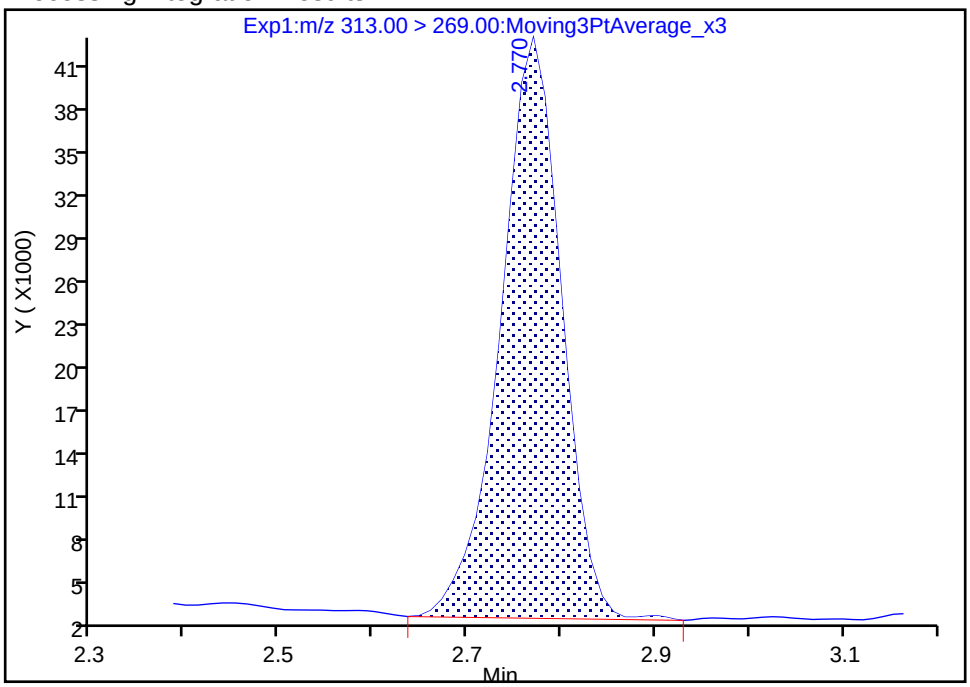
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

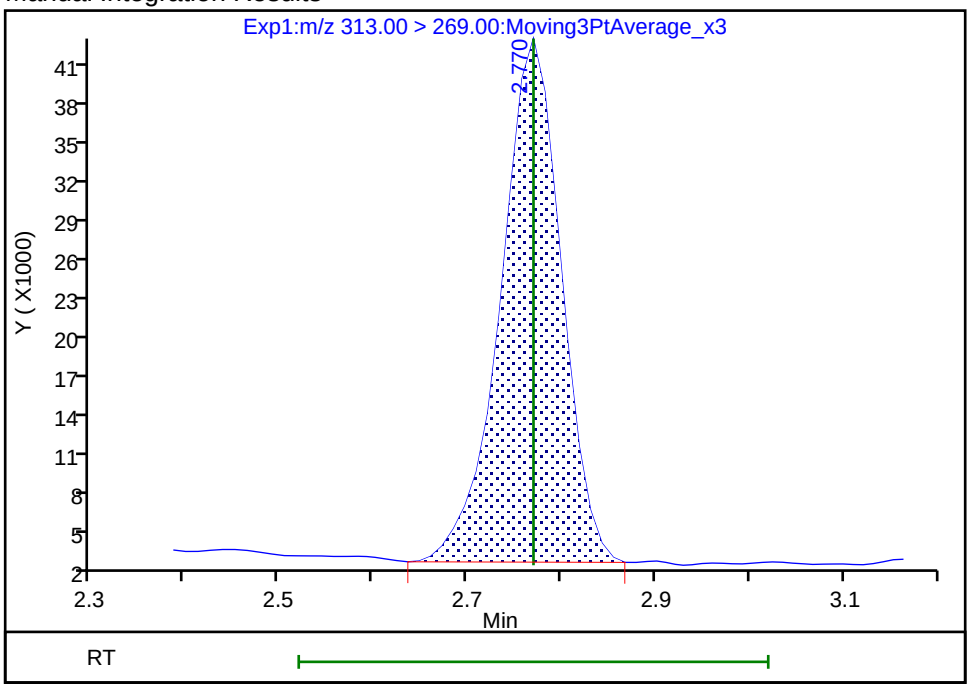
Processing Integration Results

RT: 2.77
Area: 176232
Amount: 0.147394
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 174471
Amount: 0.145921
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:51:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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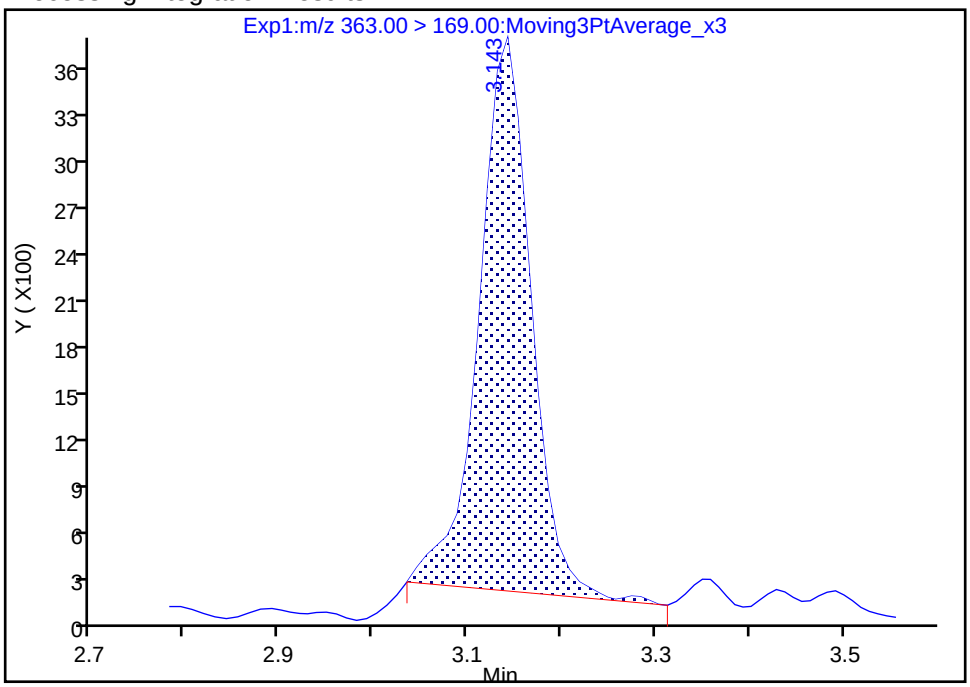
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

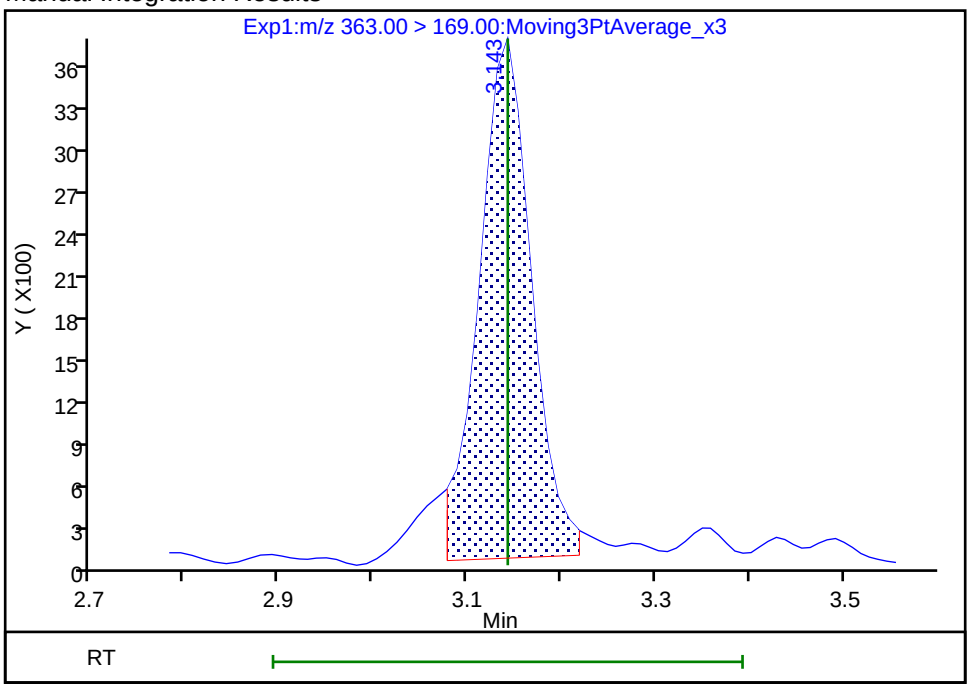
Processing Integration Results

RT: 3.14
Area: 13294
Amount: 0.036586
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 13778
Amount: 0.036586
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:52:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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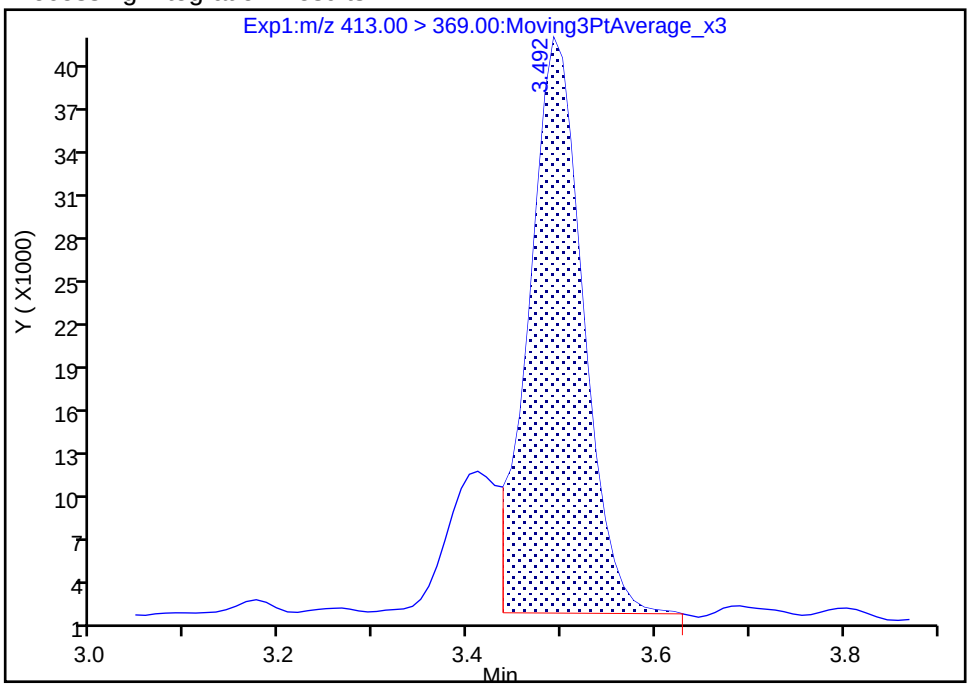
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

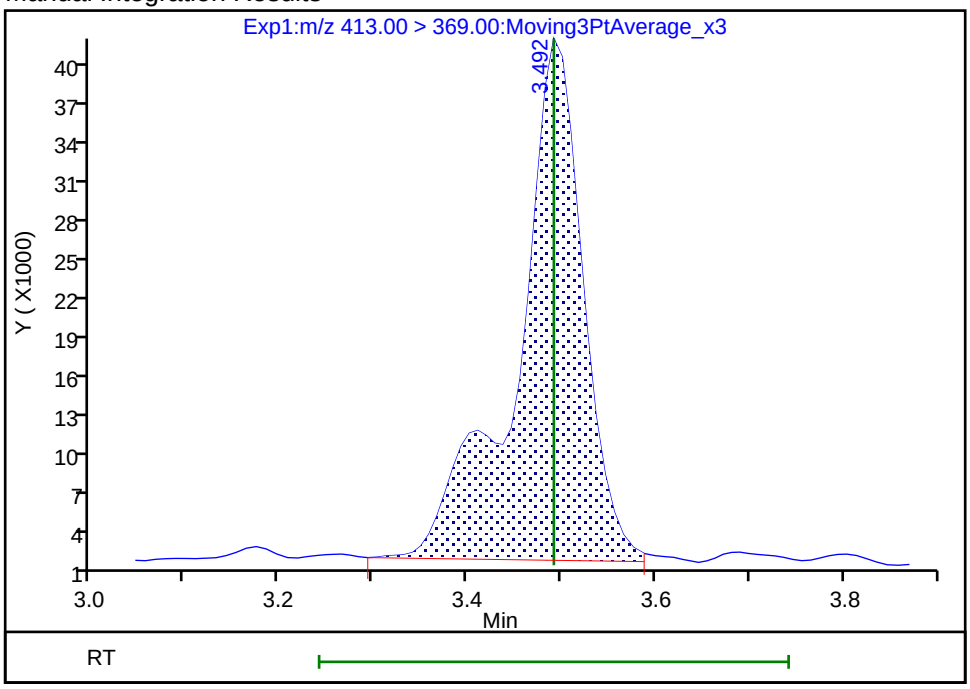
Processing Integration Results

RT: 3.49
Area: 154798
Amount: 0.109159
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 191900
Amount: 0.135322
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

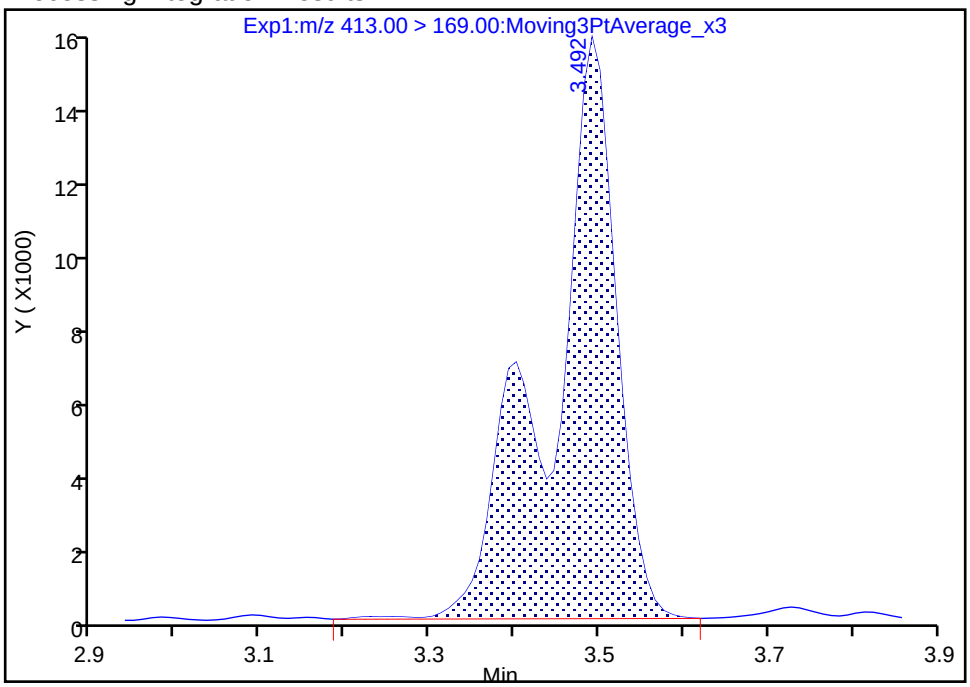
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

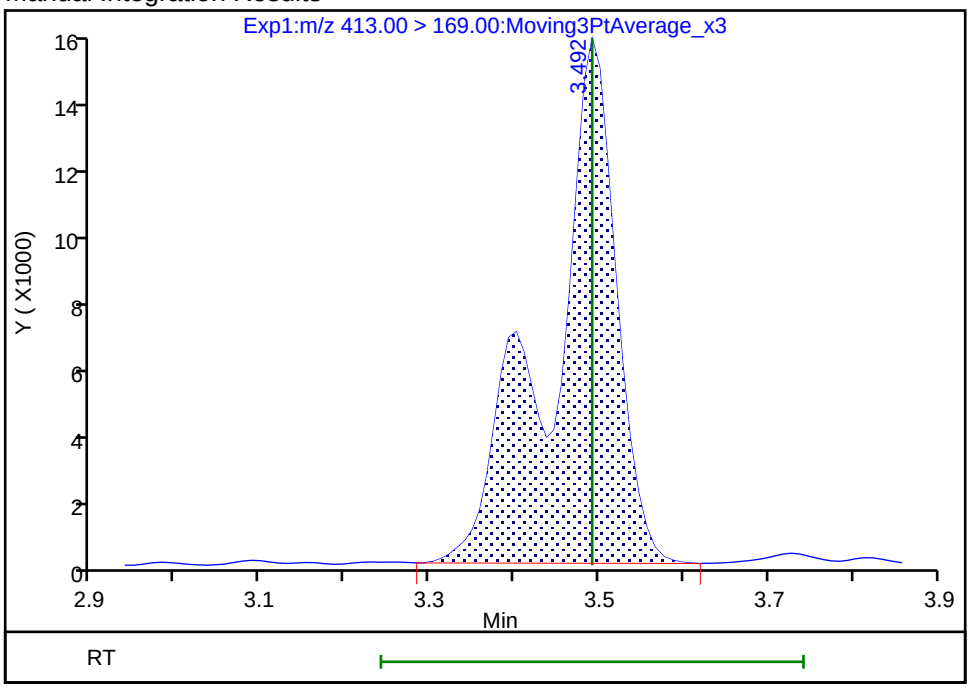
Processing Integration Results

RT: 3.49
Area: 83667
Amount: 0.109159
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 83065
Amount: 0.135322
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

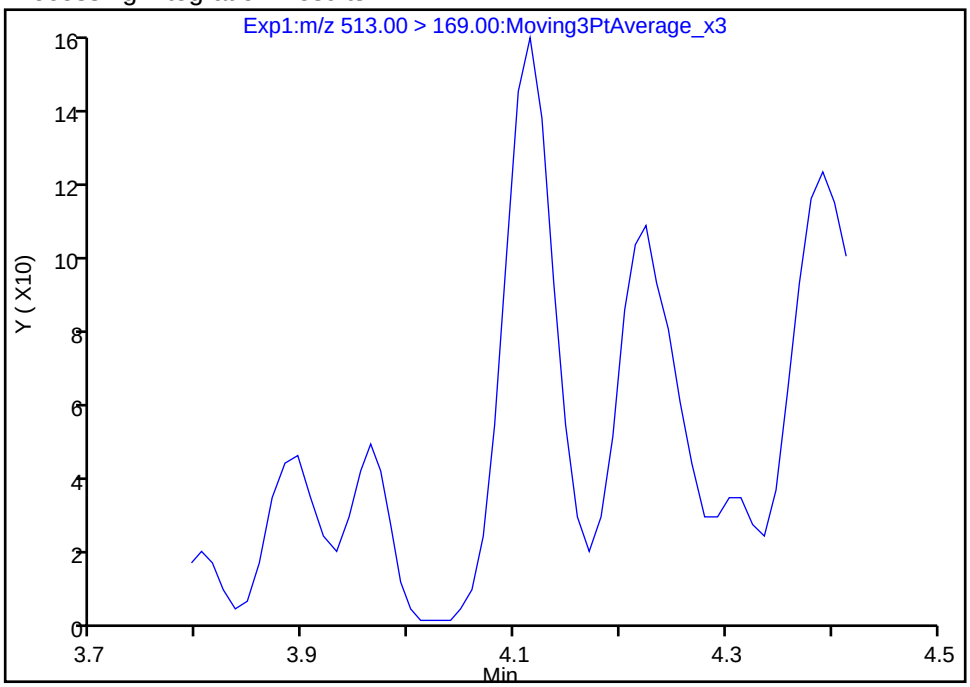
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

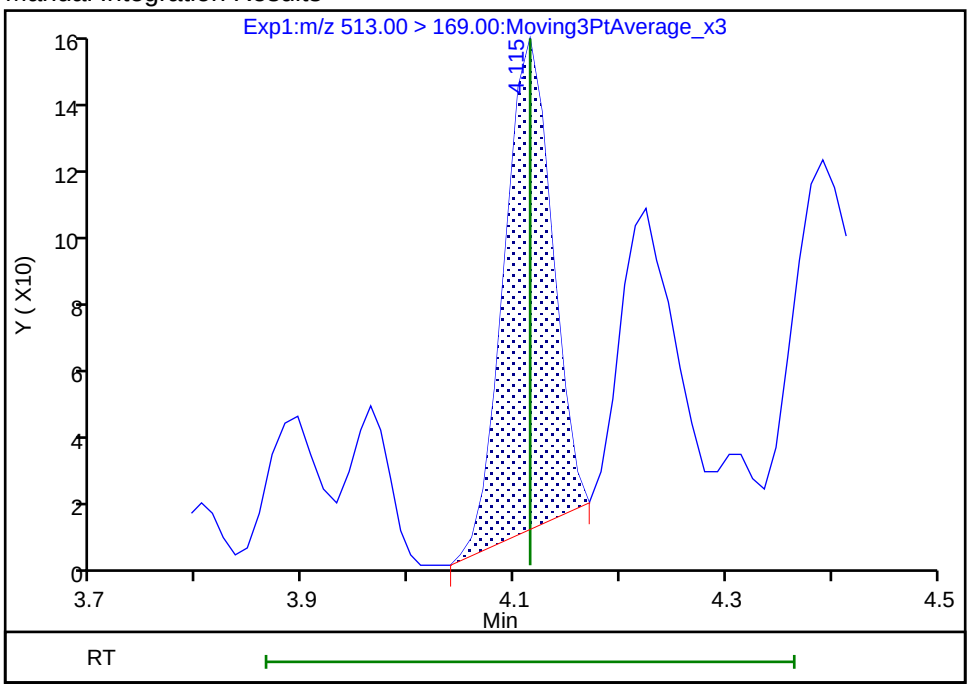
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 447
Amount: 0.000734
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

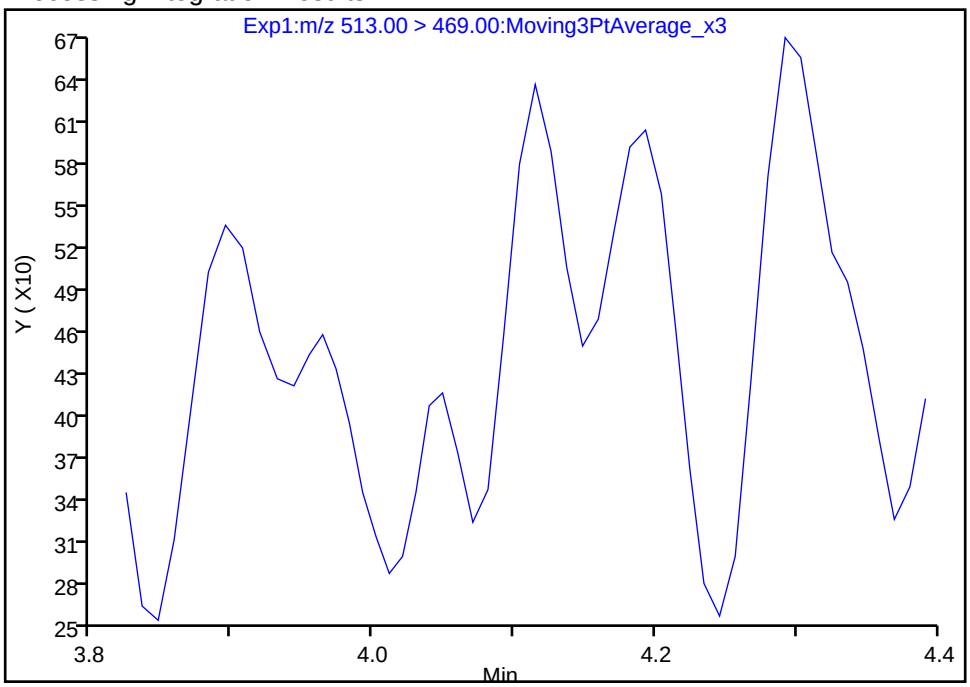
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

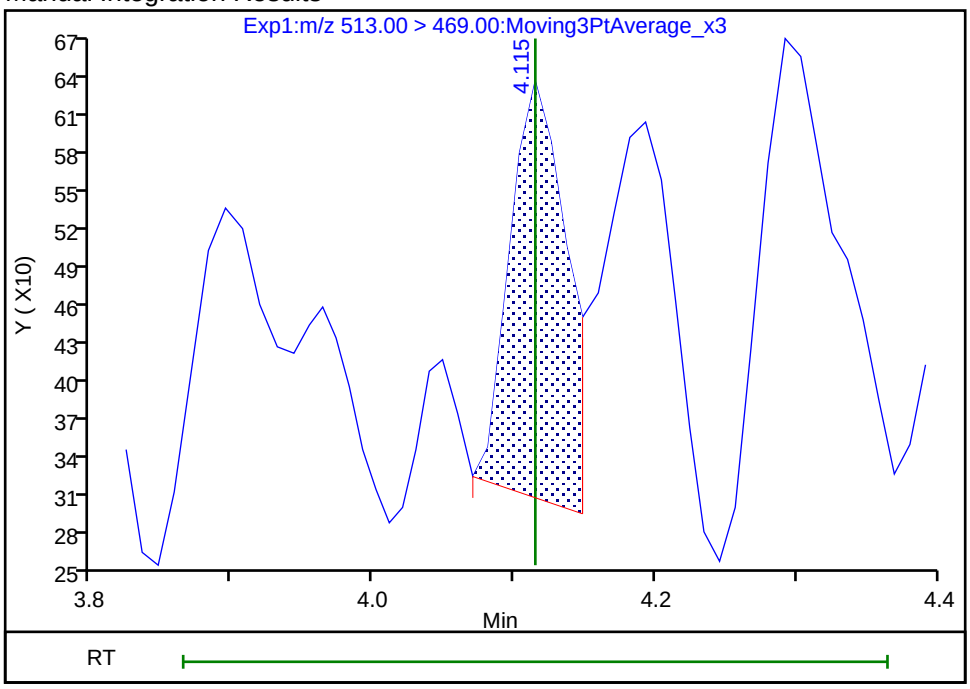
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 884
Amount: 0.000734
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:54:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

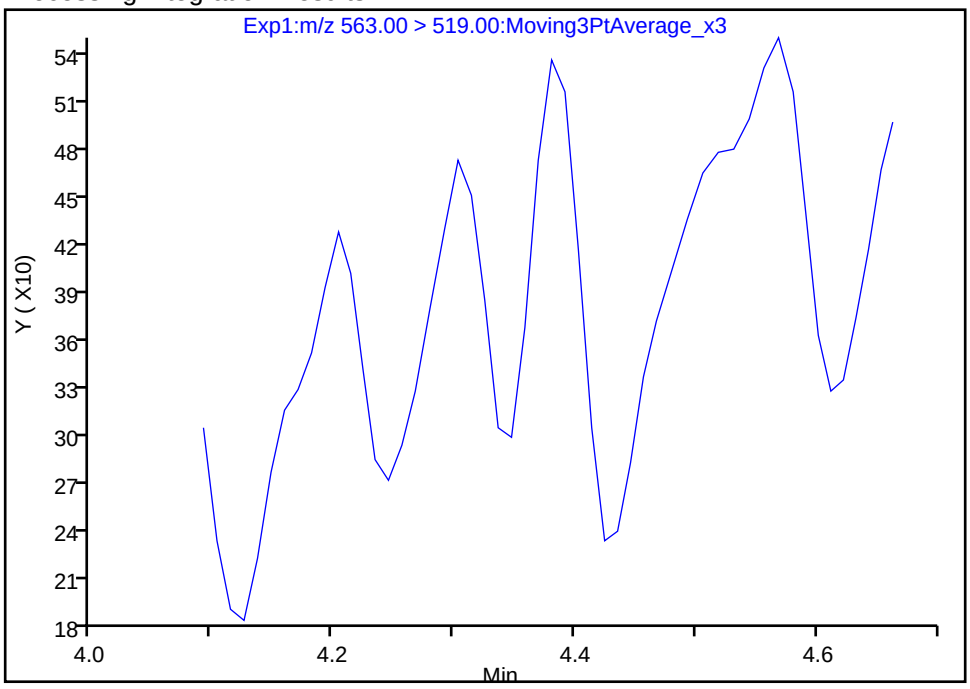
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

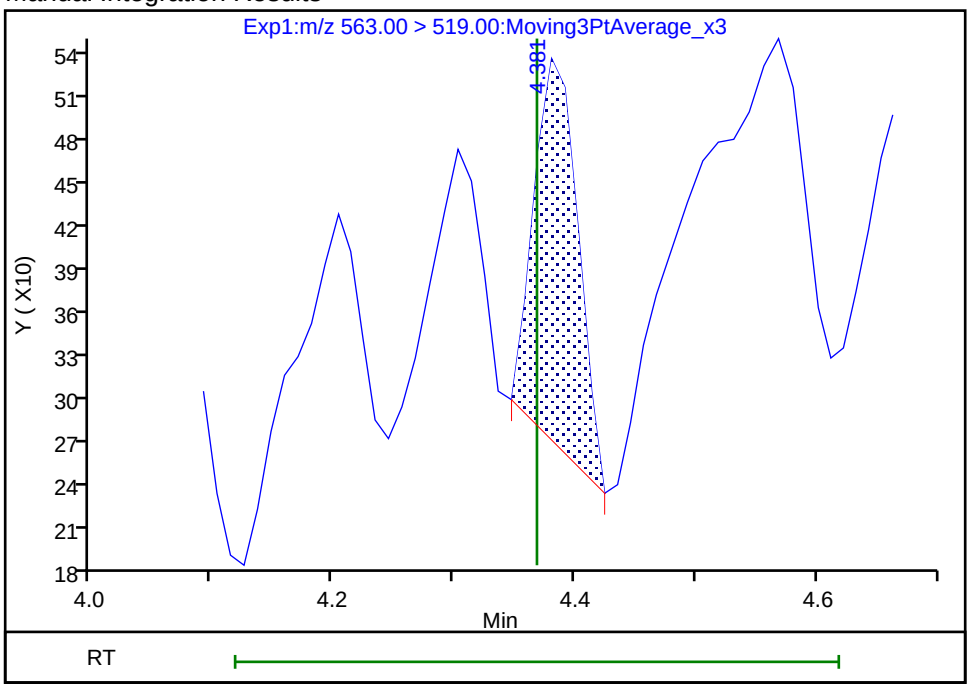
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 674
Amount: 0.000713
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:55:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

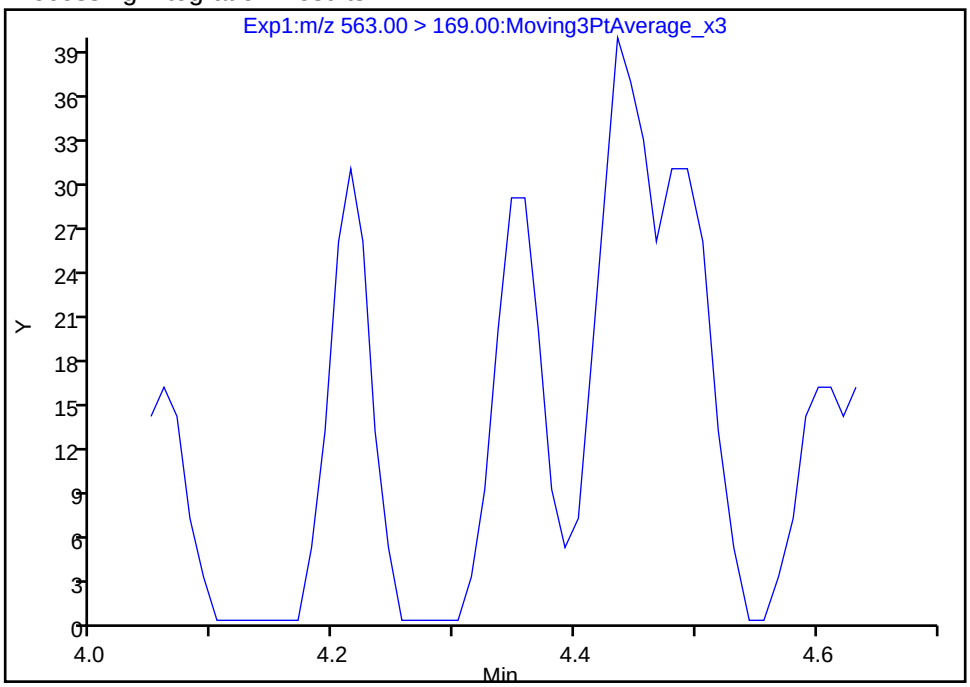
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

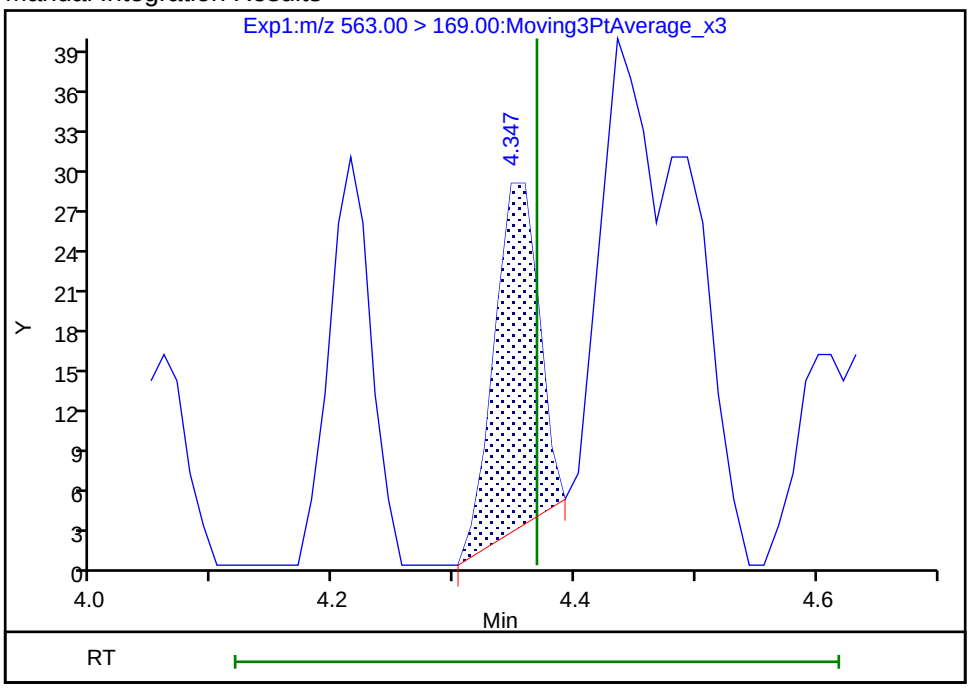
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 67
Amount: 0.000713
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:55:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

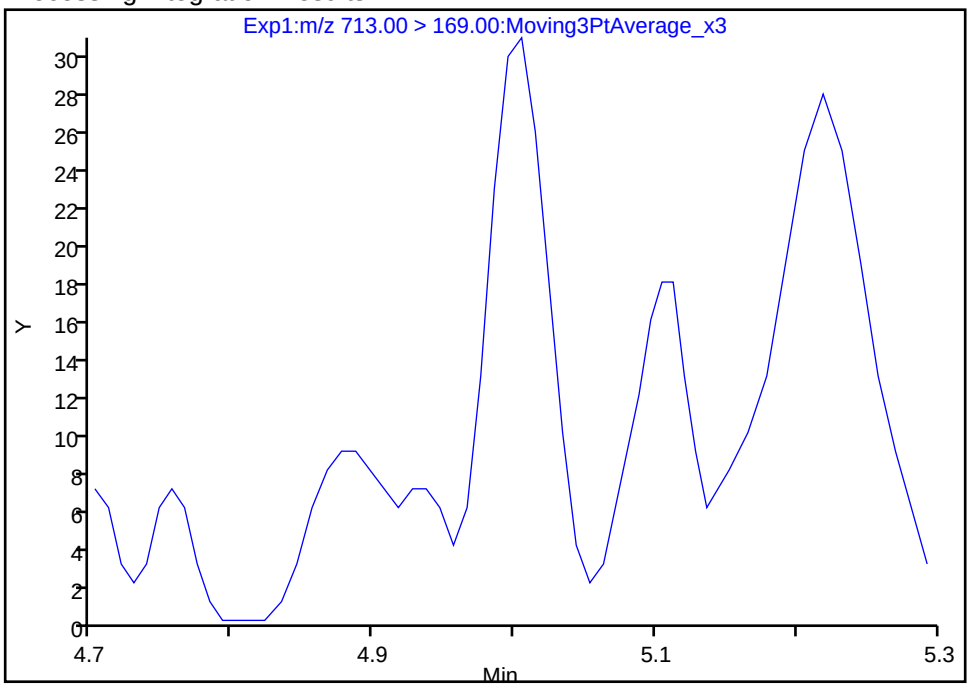
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 |
| Client ID: | MW-102-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 Worklist Smp#: 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

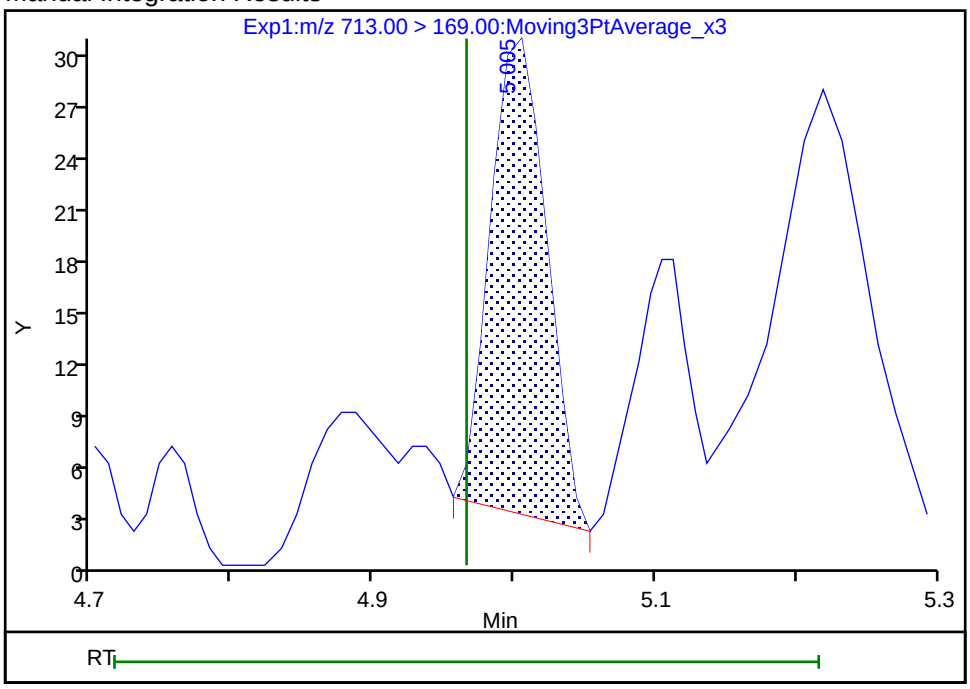
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 5.01
Area: 77
Amount: 0.000765
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:55:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

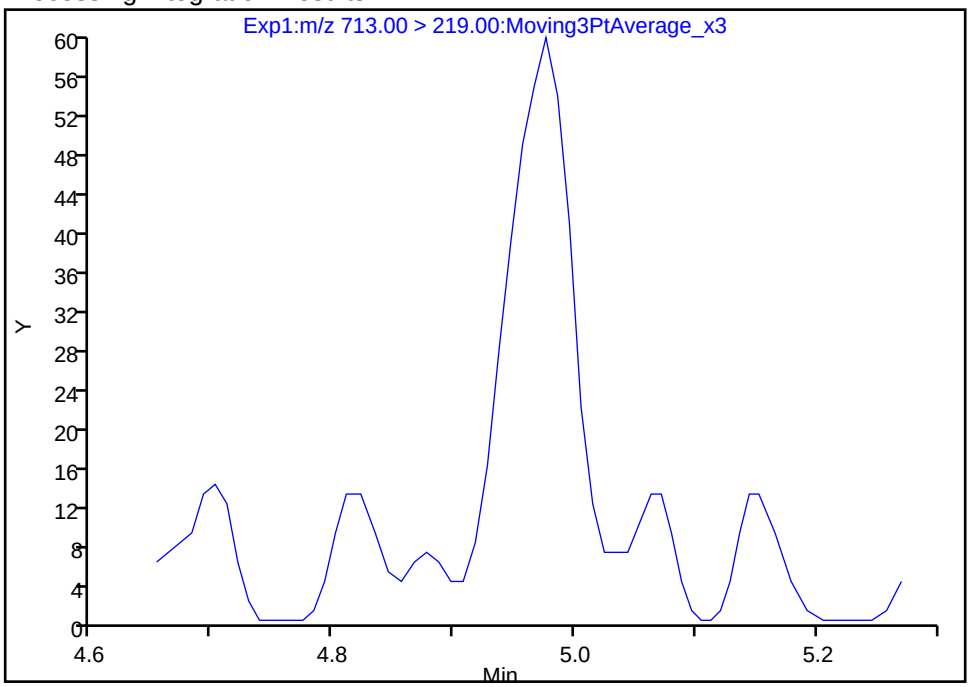
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

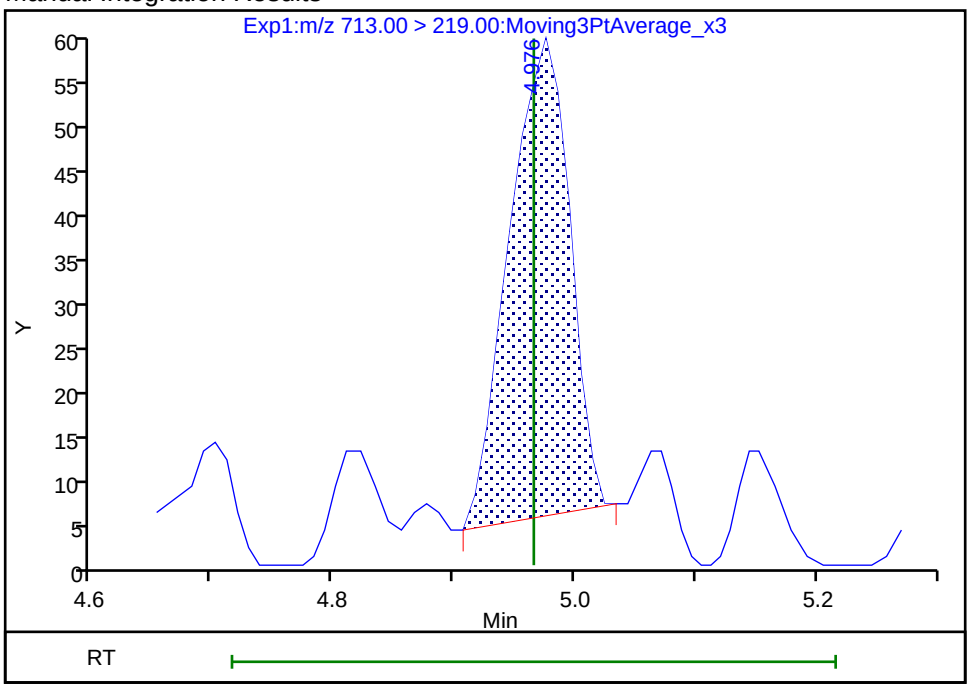
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 188
Amount: 0.000765
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:55:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

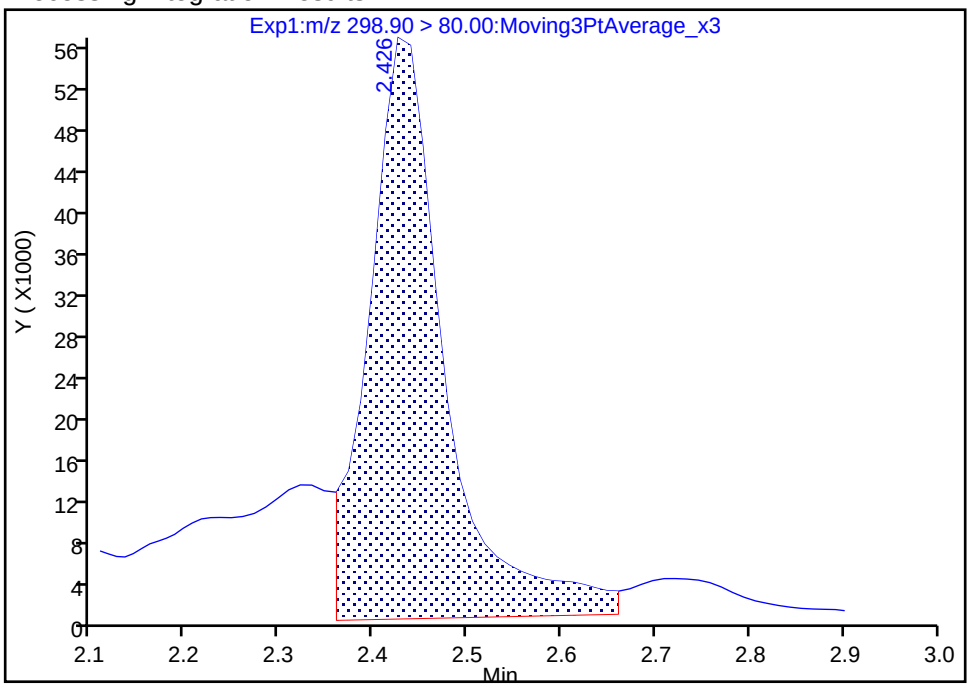
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

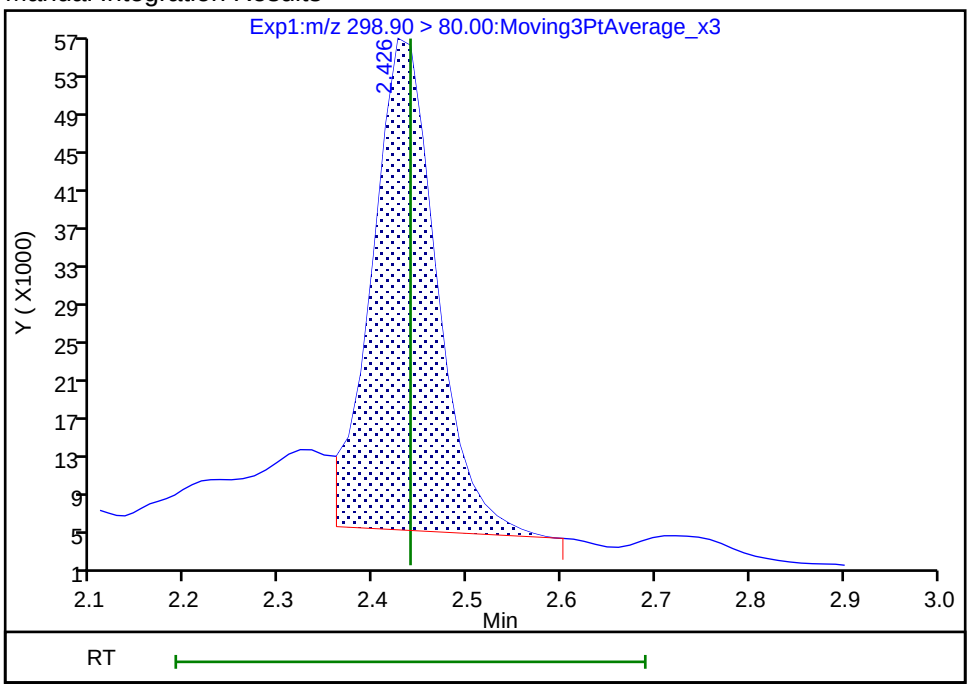
Processing Integration Results

RT: 2.43
Area: 310173
Amount: 0.197378
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 241617
Amount: 0.153753
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:51:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

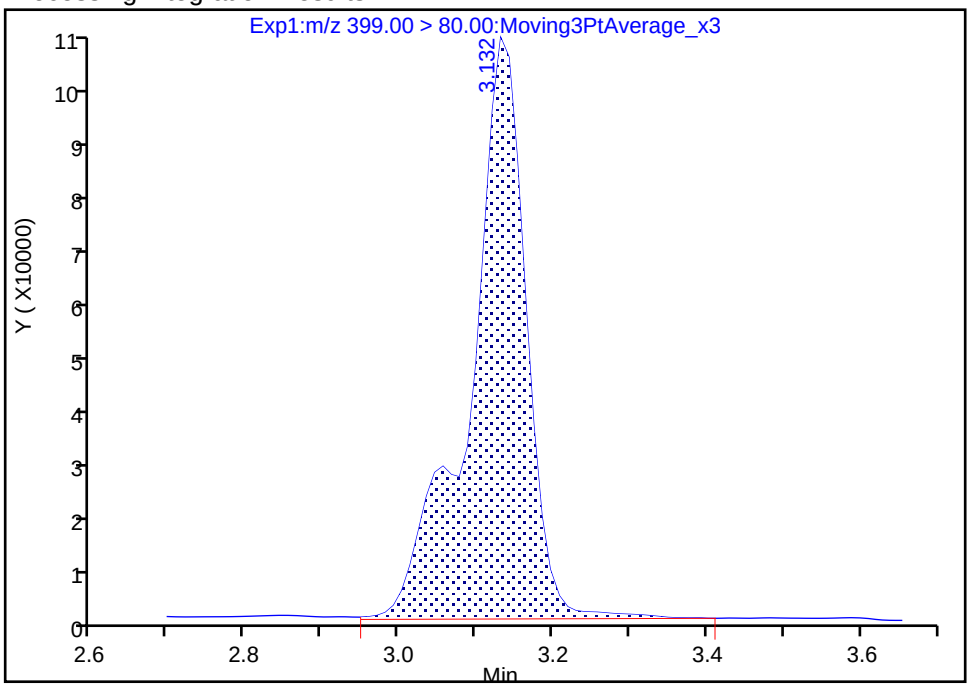
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

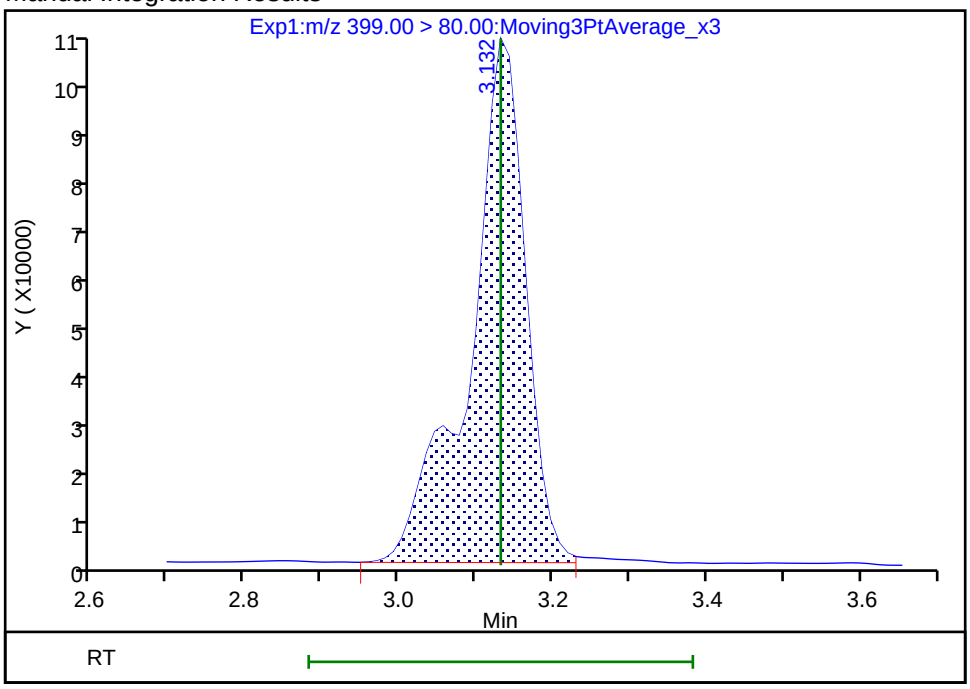
Processing Integration Results

RT: 3.13
Area: 515831
Amount: 0.424940
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 504615
Amount: 0.415700
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:52:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

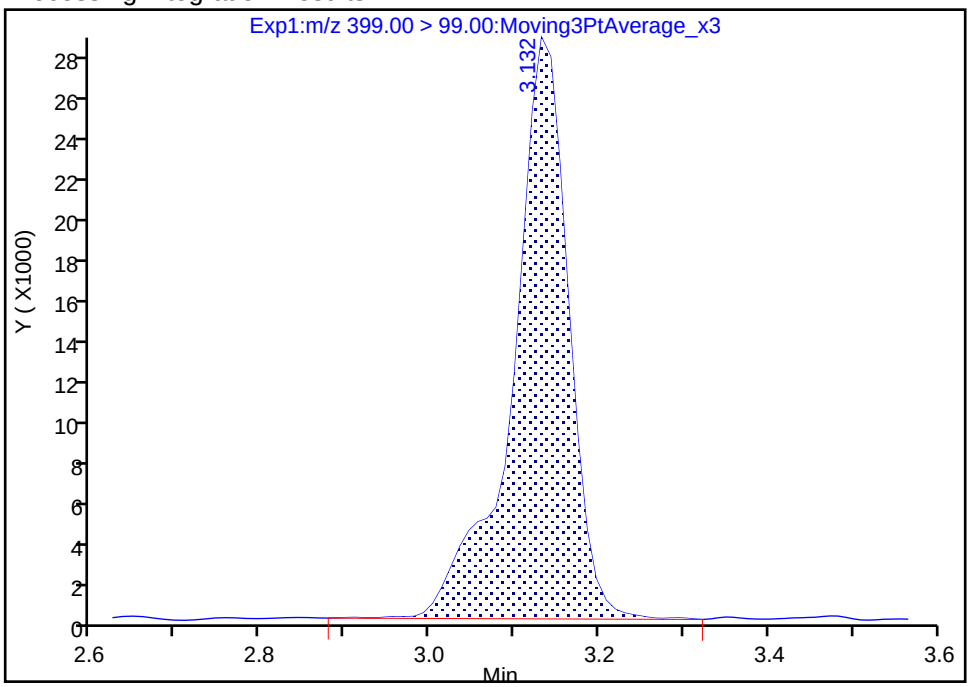
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

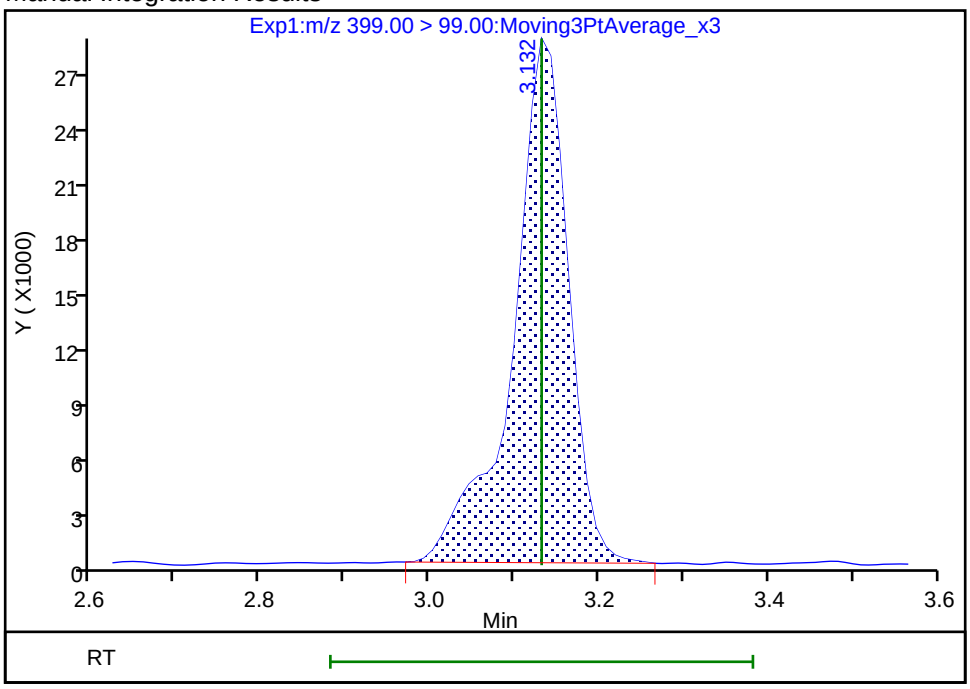
Processing Integration Results

RT: 3.13
Area: 128930
Amount: 0.424940
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 127446
Amount: 0.415700
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:52:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

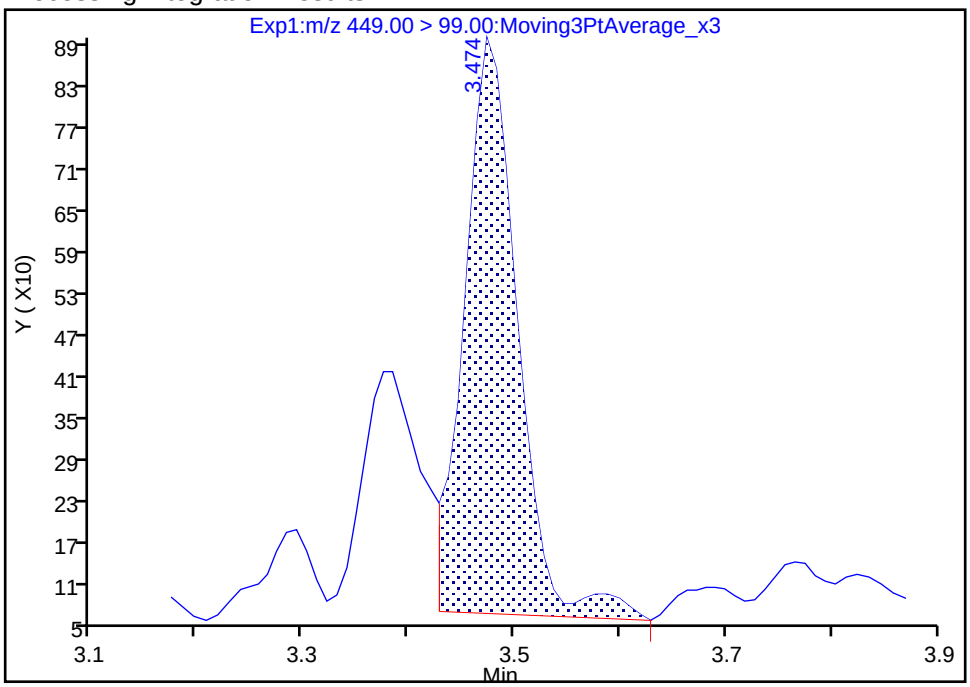
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

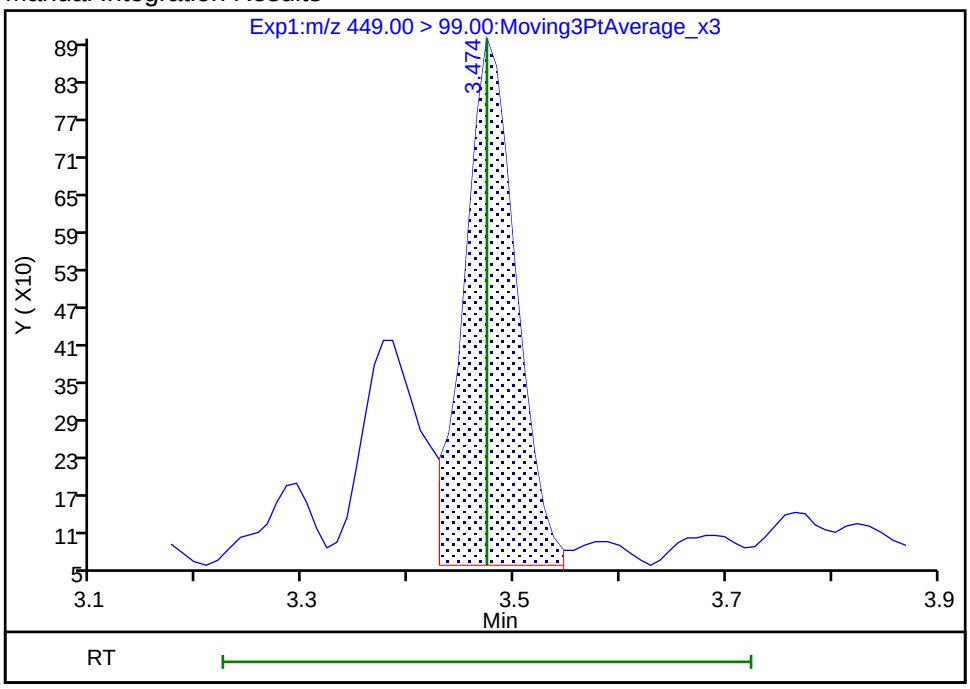
Processing Integration Results

RT: 3.47
Area: 2913
Amount: 0.013778
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 2862
Amount: 0.013778
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

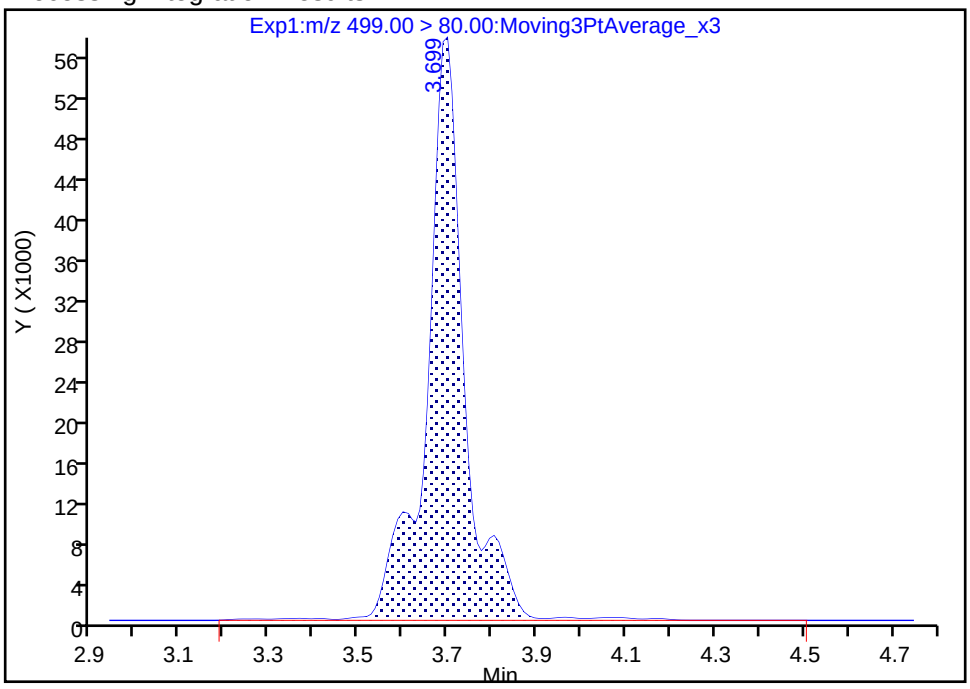
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

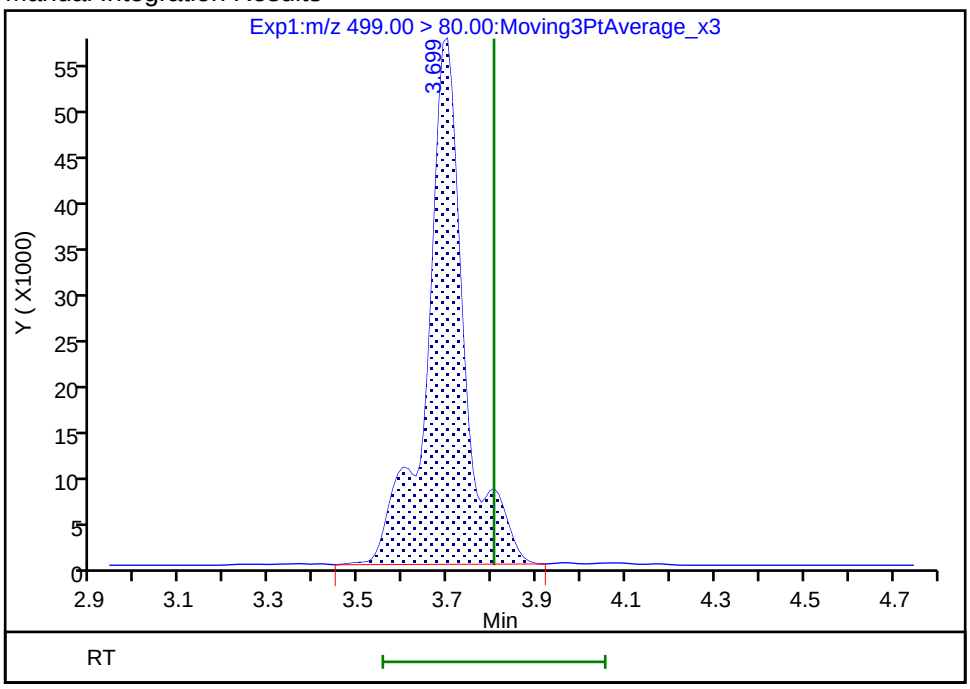
Processing Integration Results

RT: 3.70
Area: 342758
Amount: 0.401718
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 335273
Amount: 0.392945
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

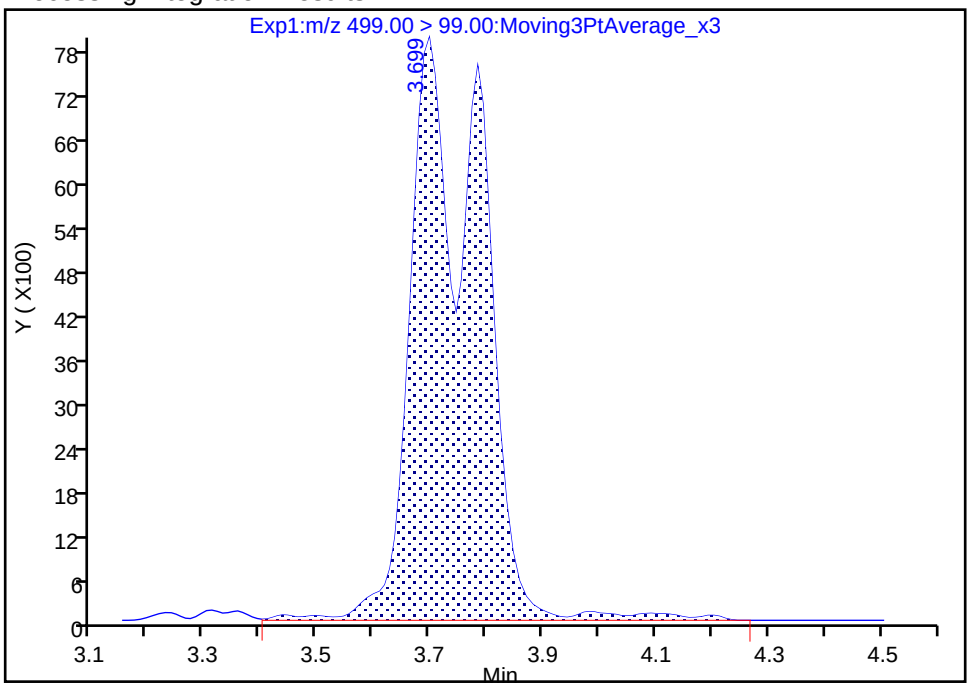
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

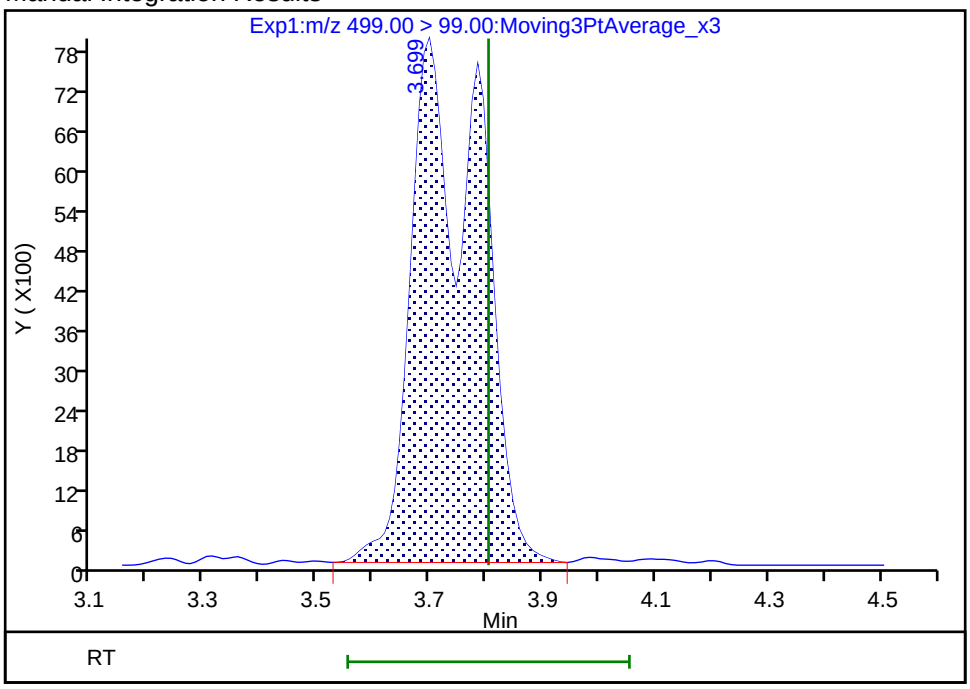
Processing Integration Results

RT: 3.70
Area: 68887
Amount: 0.401718
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 66224
Amount: 0.392945
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:53:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

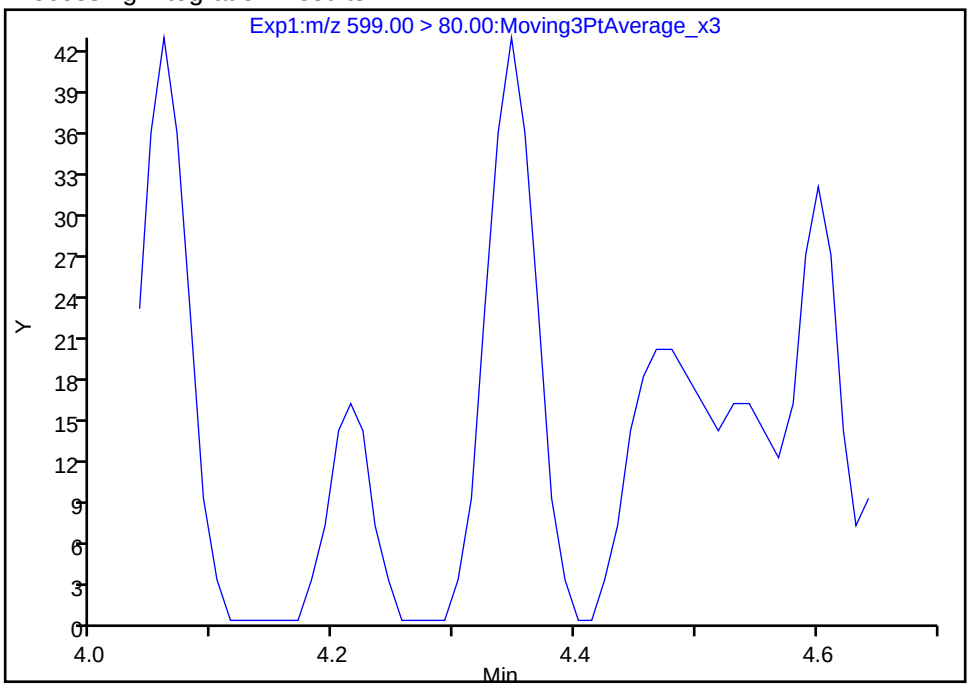
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

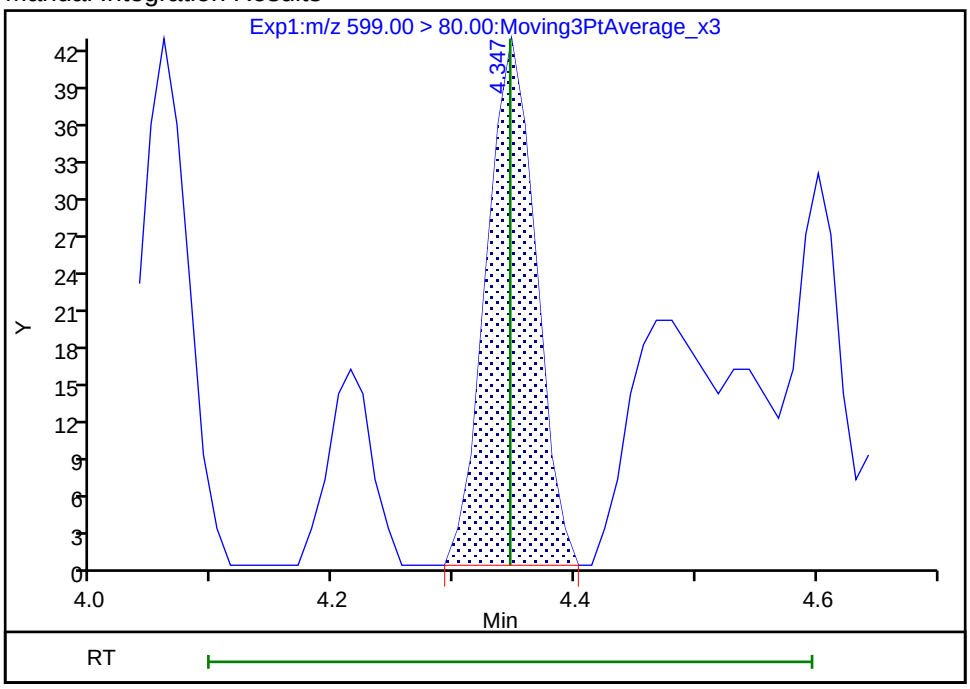
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 122
Amount: 0.000236
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:54:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

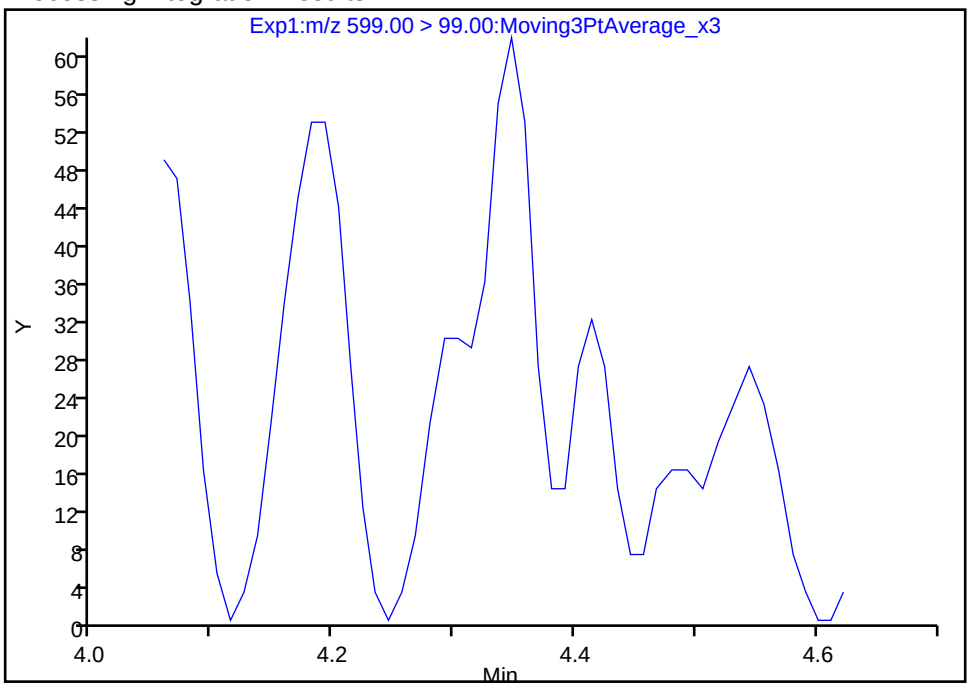
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

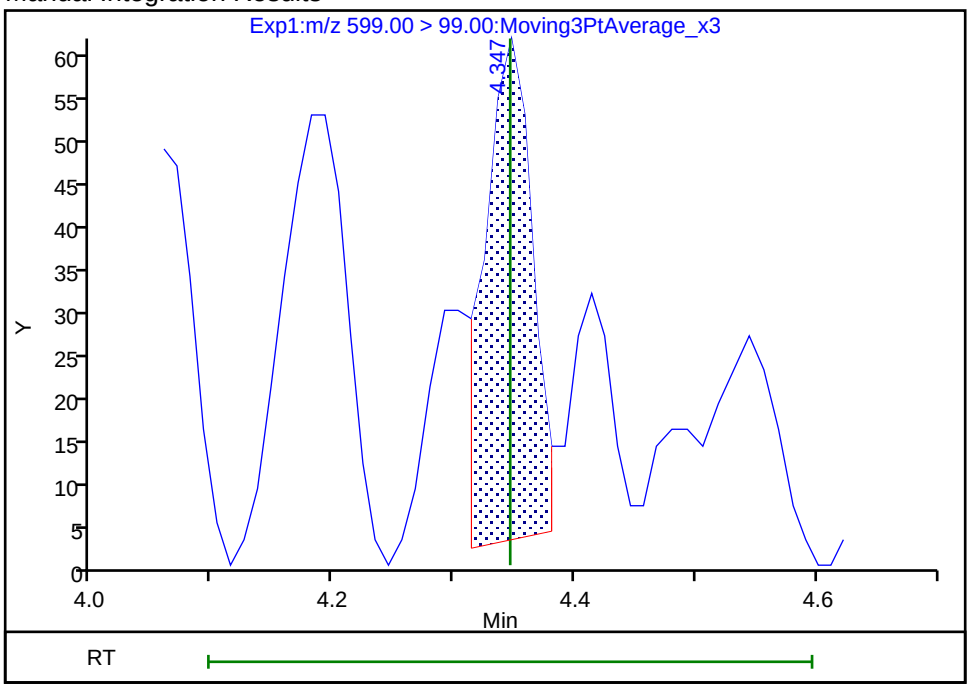
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 157
Amount: 0.000236
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:54:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

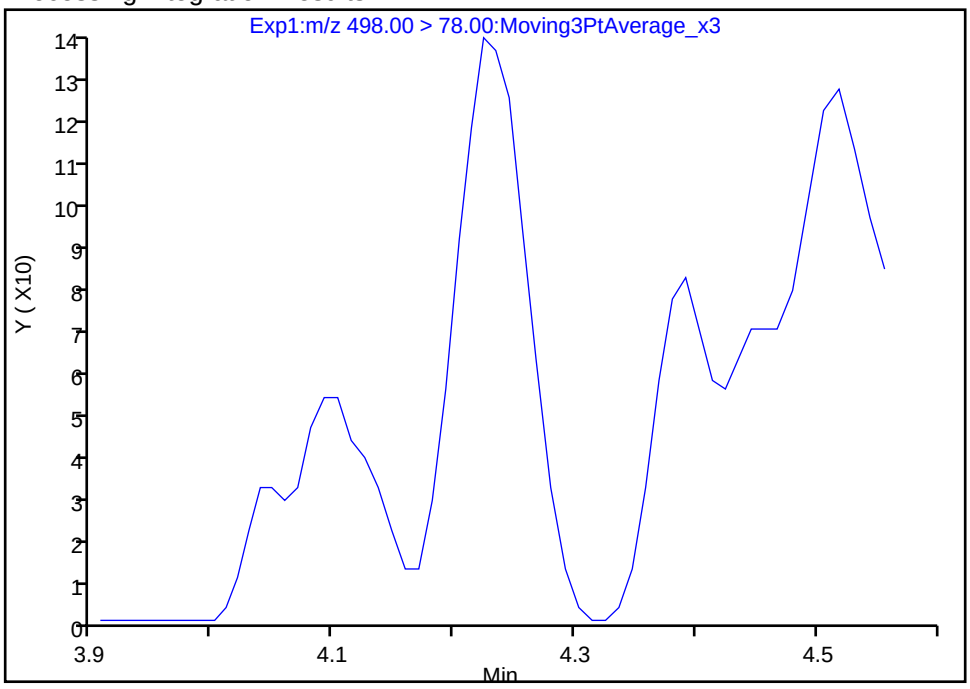
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

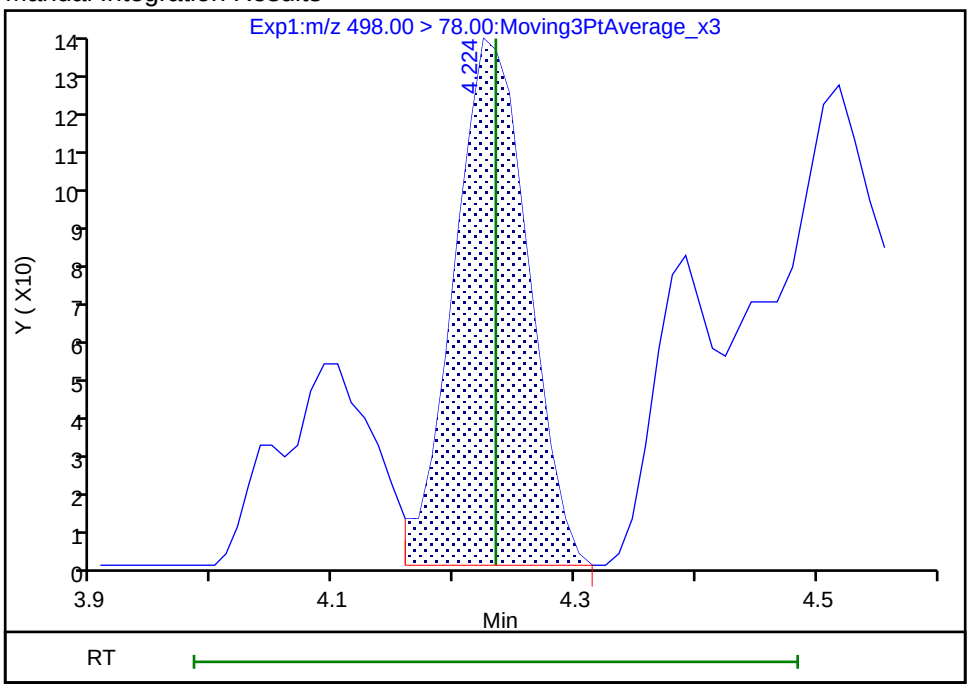
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 577
Amount: 0.000489
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:20:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

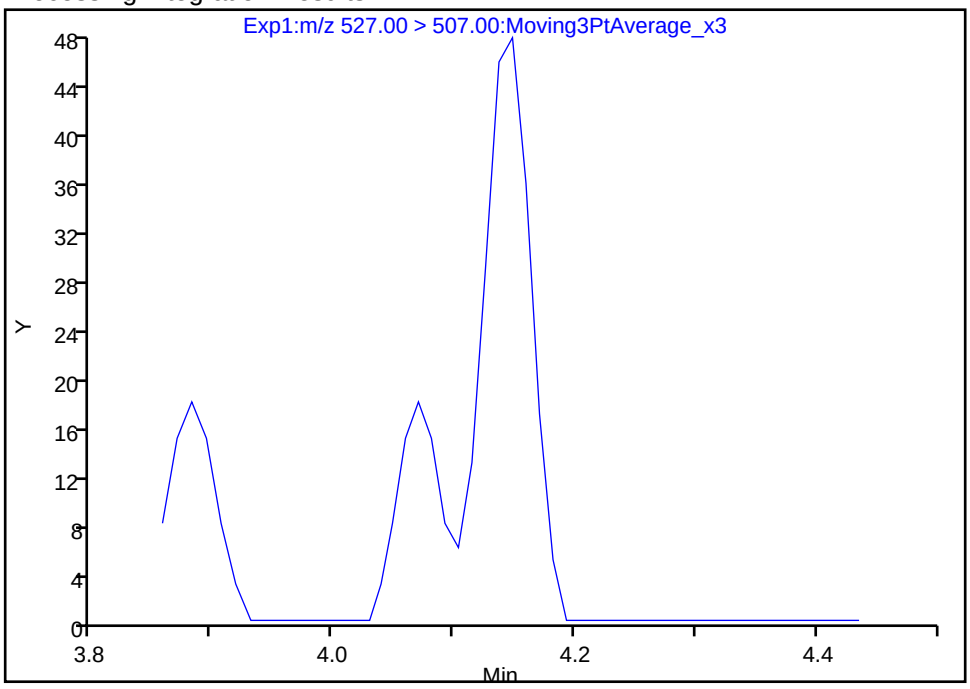
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

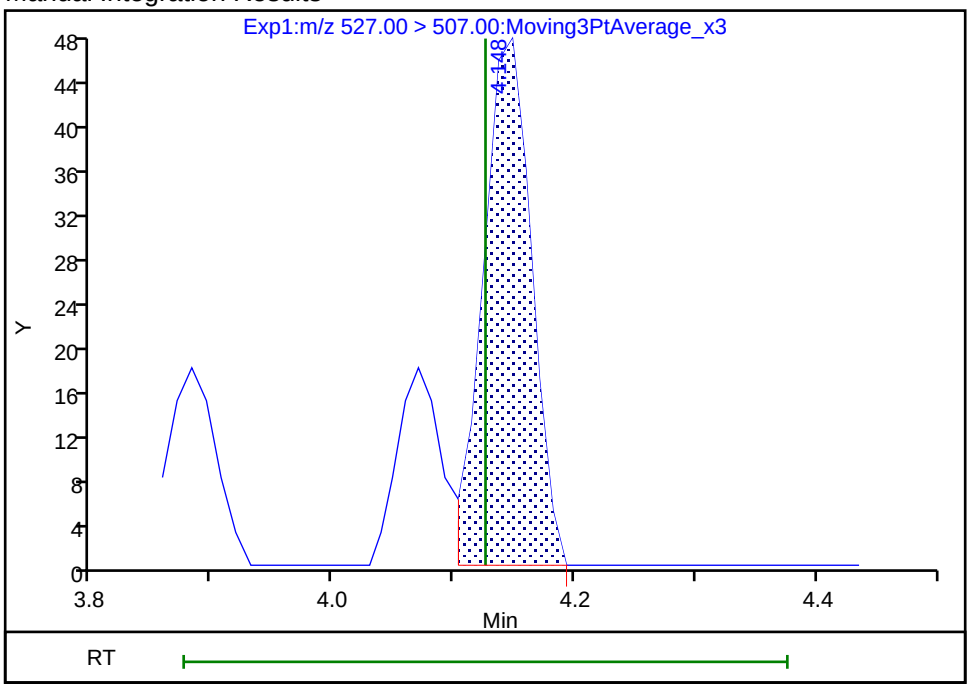
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.15
Area: 132
Amount: 0.000732
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:54:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

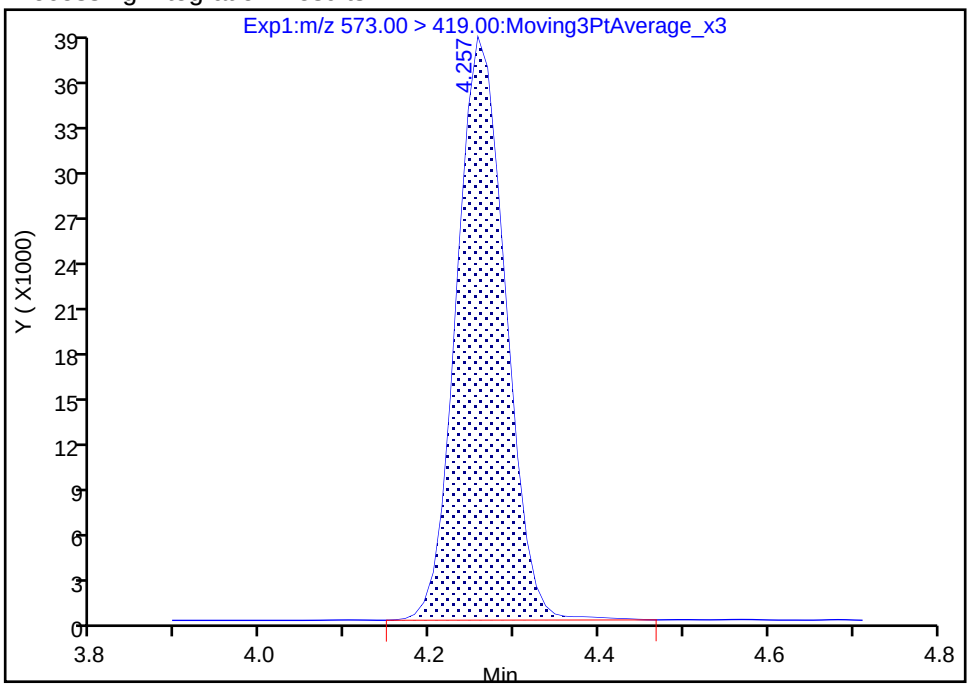
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

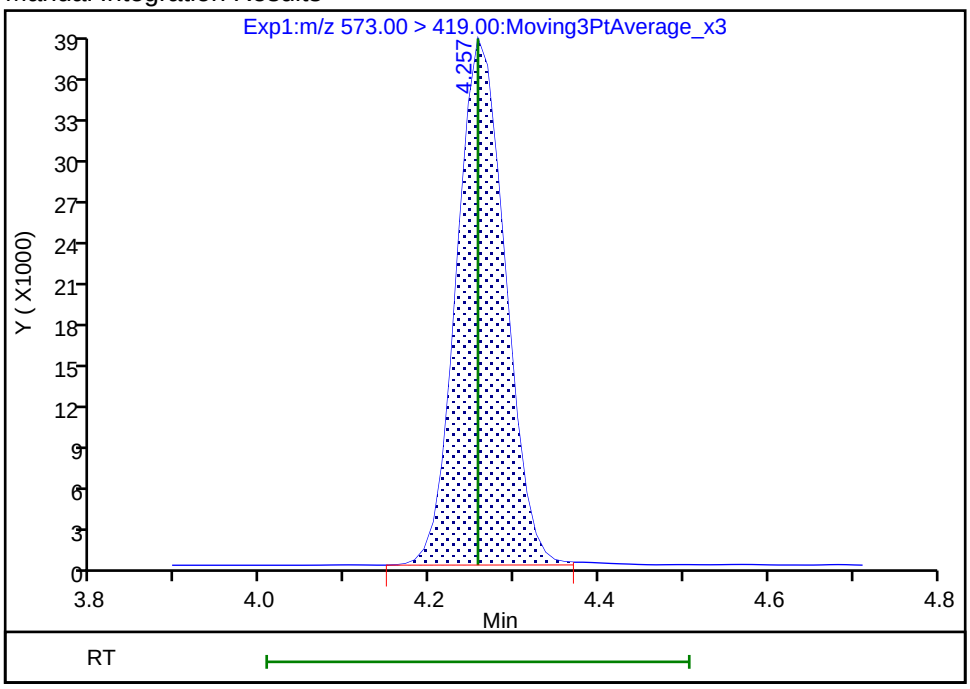
Processing Integration Results

RT: 4.26
Area: 154342
Amount: 1.089254
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 153764
Amount: 1.085175
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:50:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

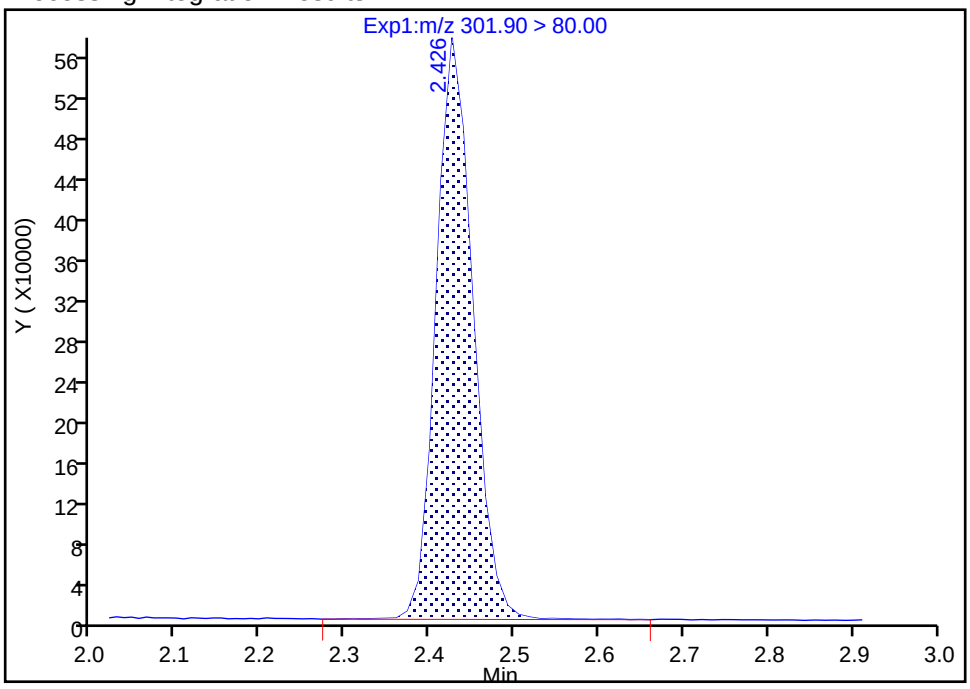
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D24.d | | | | |
| Injection Date: | 10-Nov-2021 07:20:35 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-17-A | Lab Sample ID: | 200-246277-17 | | |
| Client ID: | MW-102-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

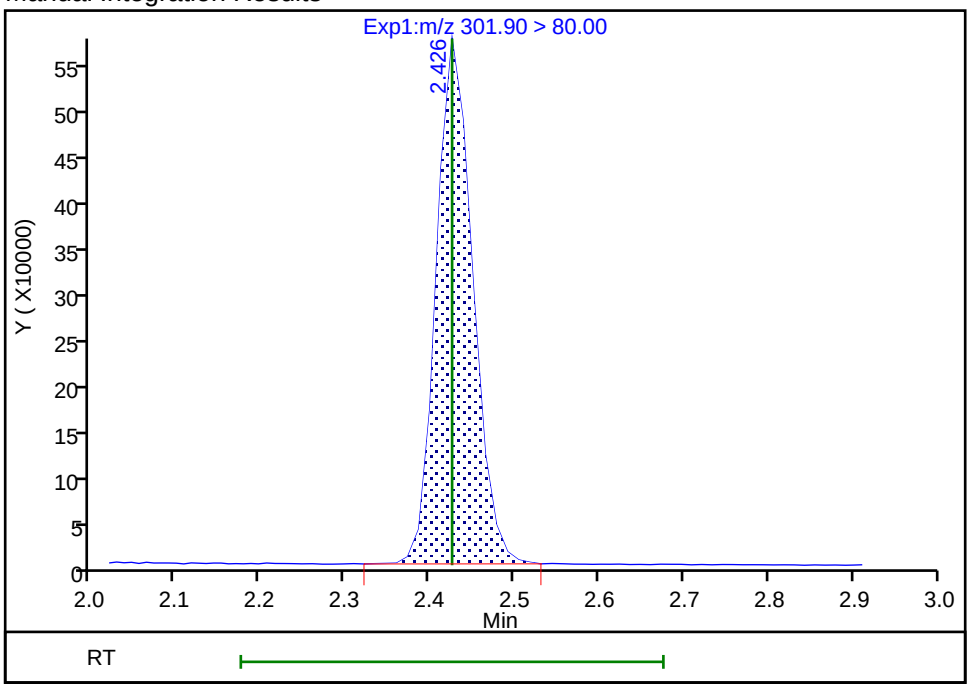
Processing Integration Results

RT: 2.43
Area: 1720993
Amount: 1.070980
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1710413
Amount: 1.064396
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:50:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028  Lab Sample ID: 460-246277-18

Matrix: Water  Lab File ID: PA211109D25.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 288.4(mL)  Date Analyzed: 11/10/2021 07:28

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 8.28 | | 4.33 | 0.77 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 11.0 | | 1.73 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 15.3 | | 1.73 | 0.39 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 5.29 | | 1.73 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 14.7 | | 1.73 | 0.37 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.61 | J | 1.73 | 0.24 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.50 | J | 1.73 | 0.26 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.73 | 0.30 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.73 | 0.33 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.73 | 0.38 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.73 | 0.55 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 8.59 | | 1.73 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 111 | | 1.73 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 5.03 | | 1.73 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 286 | | 1.73 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.73 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 1.73 | 0.50 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 4.33 | 0.78 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.33 | 0.64 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 4.33 | 0.95 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.73 | 0.34 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028  Lab Sample ID: 460-246277-18

Matrix: Water  Lab File ID: PA211109D25.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 288.4(mL)  Date Analyzed: 11/10/2021 07:28

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 91 | | 50-150 |
| STL00992 | 13C4 PFBA | 75 | | 25-150 |
| STL00993 | 13C2 PFHxA | 92 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 84 | | 50-150 |
| STL00998 | 13C2 PFDoA | 78 | | 50-150 |
| STL01056 | 13C8 FOSA | 94 | | 25-150 |
| STL01893 | 13C5 PFPeA | 89 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 65 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 101 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 101 | | 50-150 |
| STL02279 | M2-6:2 FTS | 115 | | 25-150 |
| STL02280 | M2-8:2 FTS | 112 | | 25-150 |
| STL02337 | 13C3 PFBS | 89 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d
Lims ID: 460-246277-D-18-A
Client ID: MW-26S-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 07:28:47 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-18-A
Misc. Info.: 200-0048356-025 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:03:46
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1154698 | 0.9346 | | 74.8 | 2243 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 208519 | 0.2387 | | | 16.1 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1155443 | 1.11 | | 88.8 | 549 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 294598 | 0.3182 | | | 2.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1454960 | 1.03 | | 88.9 | 27667 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 331050 | 0.2477 | Target=2.32 | | 9.3 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 138525 | | 2.39(1.16-3.48) | | 14.1 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.697 | 2.734 | -0.037 | 0.987 | 386 | 0.001362 | | | 2.6 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 155478 | 1.45 | | 124 | 13.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1260972 | 1.15 | | 92.4 | 2128 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 452883 | 0.4427 | Target=12.09 | | 9.0 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 33477 | | 13.53(6.04-18.13) | | 21.3 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 300263 | 0.2583 | Target=3.03 | | 24.0 | M |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 97672 | | 3.07(1.52-4.55) | | 17.7 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 23536 | 0.8182 | | 65.5 | 56.7 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3390618 | 3.20 | Target=3.55 | | 439 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 906003 | | 3.74(1.77-5.32) | | 414 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1141398 | 1.12 | | 94.3 | 2753 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1393690 | 1.21 | | 97.0 | 3232 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 175711 | 0.1525 | Target=3.69 | | 7.8 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 47319 | | 3.71(1.84-5.53) | | 57.6 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.913 | 128051 | 0.1451 | Target=4.88 | | 20.1 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.913 | 29011 | | 4.41(2.44-7.32) | | 17.3 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 3491 | 0.0149 | | | 42.8 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 219702 | 1.36 | | 115 | 74.2 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1488008 | 1.18 | | 94.8 | 4145 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1525736 | 1.25 | | | 3128 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 538212 | 0.4252 | Target=2.68 | | 26.3 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 220423 | | 2.44(1.34-4.02) | | 313 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 845887 | 1.14 | | 95.7 | 421 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 6335929 | 8.25 | Target=4.69 | | 1251 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 1378527 | | 4.60(2.35-7.04) | | 1077 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1430447 | 1.14 | | 91.5 | 2897 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 51828 | 0.0463 | Target=7.29 | | 5.7 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 6315 | | 8.21(3.64-10.93) | | 22.3 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.073 | 1152 | 0.001926 | Target=2.35 | | 0.7 | M |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 764 | | 1.51(1.17-3.52) | | 1.4 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1410028 | 1.12 | | 89.3 | 4077 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 16312 | 0.0144 | Target=8.95 | | 3.8 | M |
| 513.00 > 169.00 | 4.126 | 4.115 | 0.011 | 1.003 | 1942 | | 8.40(4.47-13.42) | | 7.7 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 244975 | 1.34 | | 112 | 173 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.137 | 4.126 | 0.011 | 1.003 | 304 | 0.001776 | | | 8.1 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1435266 | 1.18 | | 94.3 | 2686 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.234 | 0.001 | 1.002 | 4321 | 0.003963 | | | 8.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 156467 | 1.26 | | 101 | 612 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 130 | 0.001322 | | | 1.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1033090 | 1.05 | | 84.0 | 4512 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 146726 | 1.26 | | 101 | 633 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.324 | 4.380 | -0.056 | 0.985 | 425 | 0.004225 | | | 2.8 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.174 | 837 | 0.000613 | | | 4.8 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1030007 | 0.9731 | | 77.9 | 1295 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 61 | 0.000771 | | | 3.1 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.810 | 4.792 | 0.018 | 1.045 | 1397 | 0.002008 | Target=4.68 | | 0.4 | M |
| 663.00 > 169.00 | 4.783 | 4.792 | -0.009 | 1.040 | 283 | | 4.94(2.34-7.02) | | 4.6 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 666384 | 0.8118 | | 64.9 | 1735 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.985 | 4.966 | 0.019 | 1.002 | 397 | 0.004718 | Target=1.01 | | 13.0 | RM |
| 713.00 > 219.00 | 4.956 | 4.966 | -0.010 | 0.996 | 125 | | 3.18(0.51-1.52) | | 4.1 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.270 | 0.023 | 1.516 | 721915 | 1.00 | | 79.9 | 3351 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.000 | 6181 | -0.006241 | Target=4.57 | | 2.5 | M |
| 813.00 > 169.00 | 5.293 | 5.270 | 0.023 | 1.000 | 1635 | | 3.78(2.29-6.86) | | 43.5 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.050 | 582 | 0.001195 | Target=4.27 | | 0.3 | |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.048 | 174 | | 3.34(2.14-6.41) | | 7.7 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

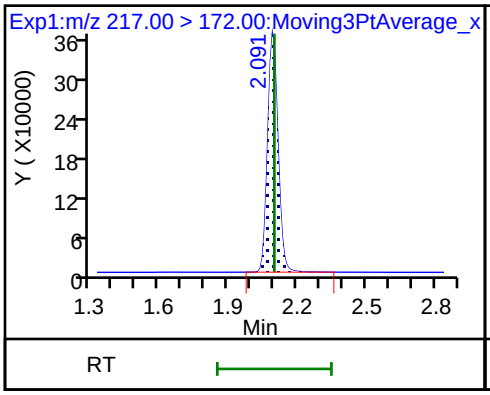
Report Date: 11-Nov-2021 11:26:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

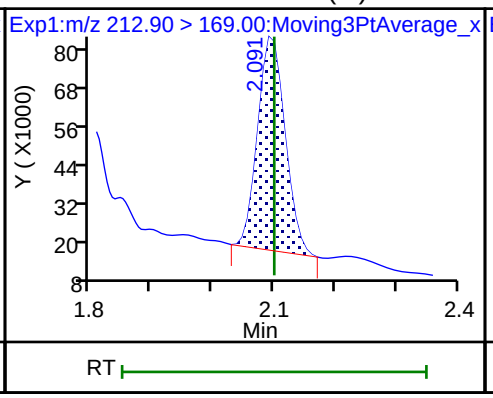
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |

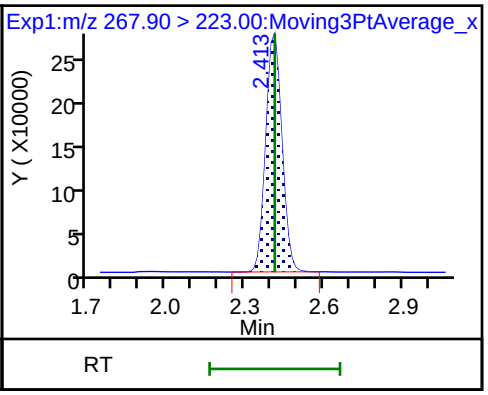
D 1 13C4 PFBA



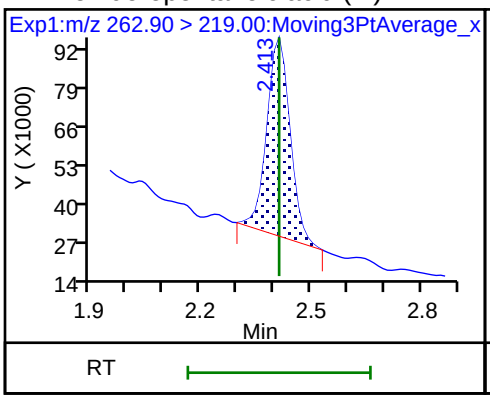

2 Perfluorobutanoic acid (M)



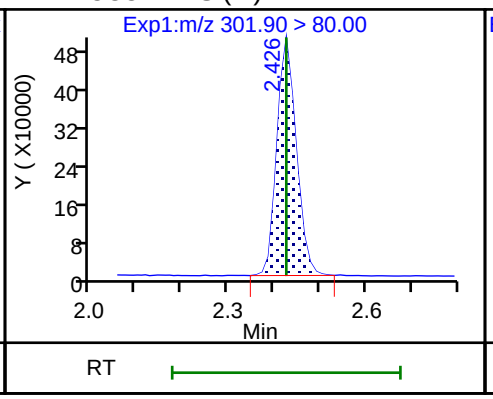

D 3 13C5 PFPeA



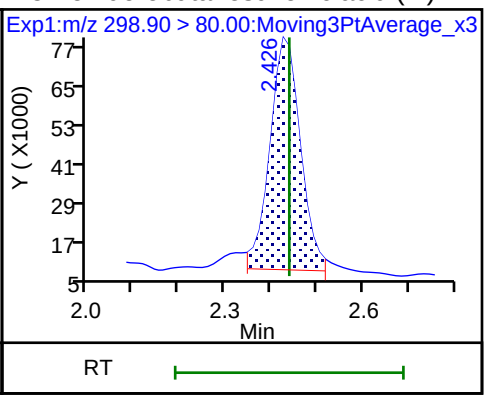

4 Perfluoropentanoic acid (M)



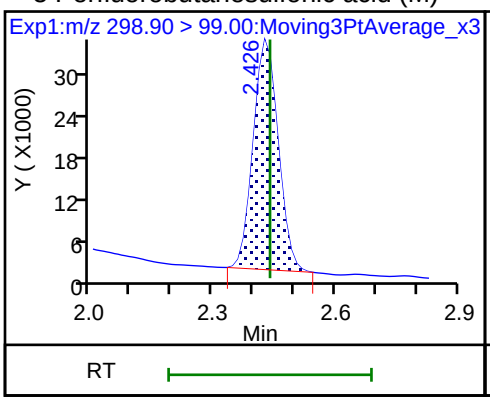

D 47 13C3 PFBS (M)



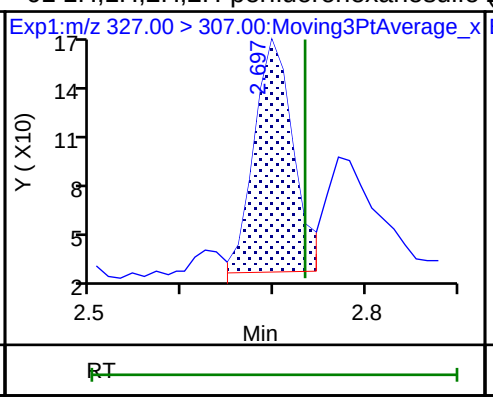

5 Perfluorobutanesulfonic acid (M)



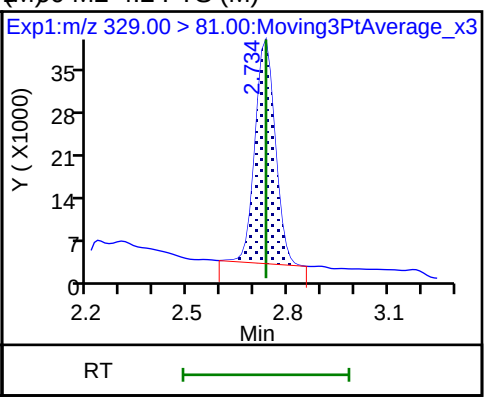

5 Perfluorobutanesulfonic acid (M)



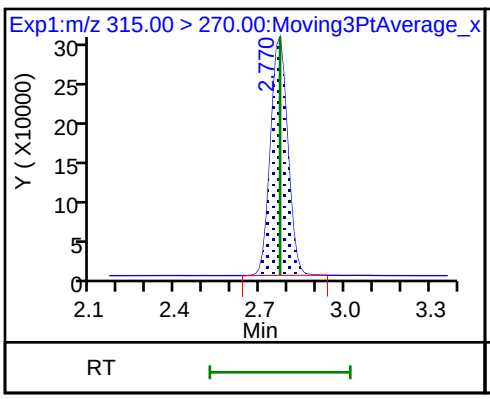

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



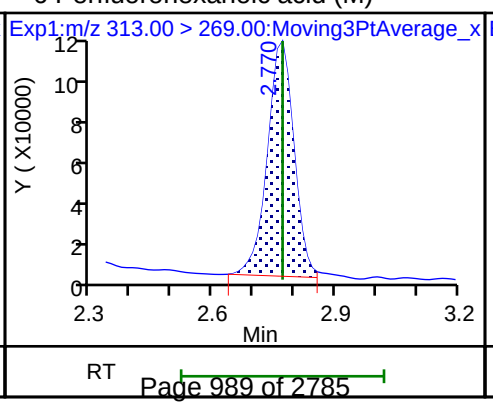

60 M2-4:2 FTS (M)



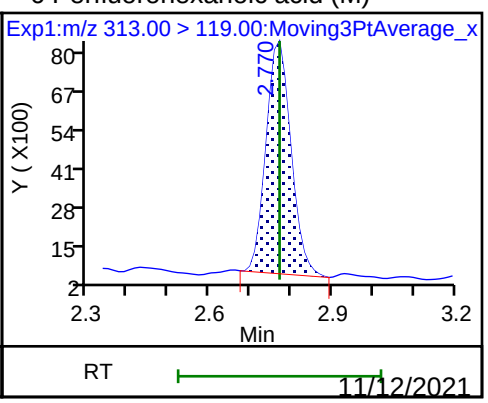

D 7 13C2 PFHxA



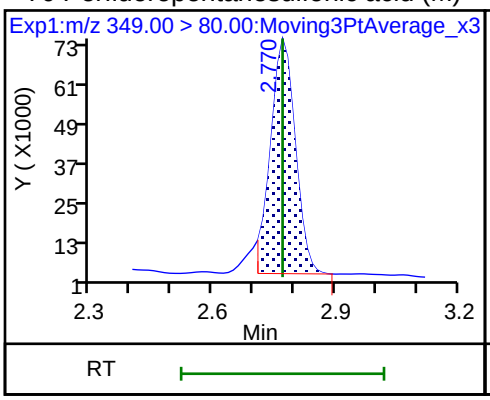

6 Perfluorohexanoic acid (M)



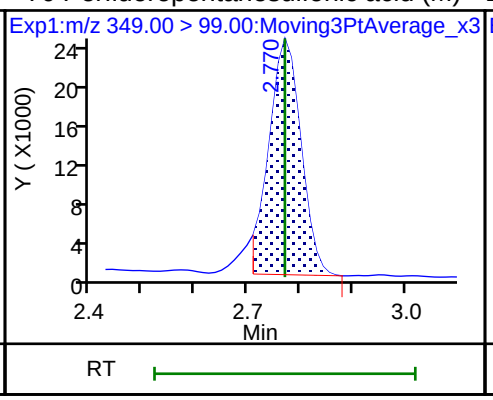

6 Perfluorohexanoic acid (M)



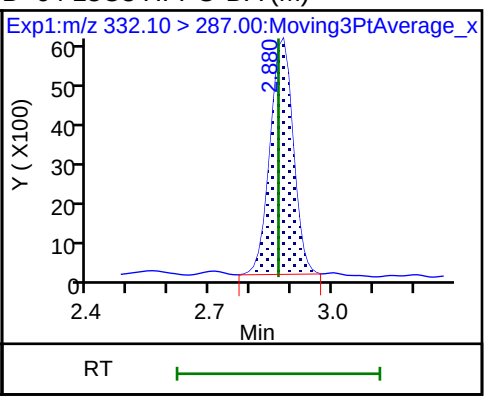
70 Perfluoropentanesulfonic acid (M)



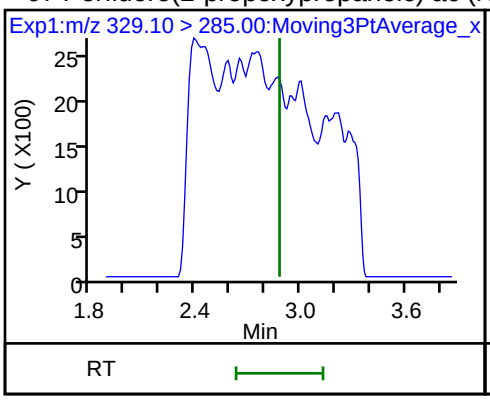

70 Perfluoropentanesulfonic acid (M)



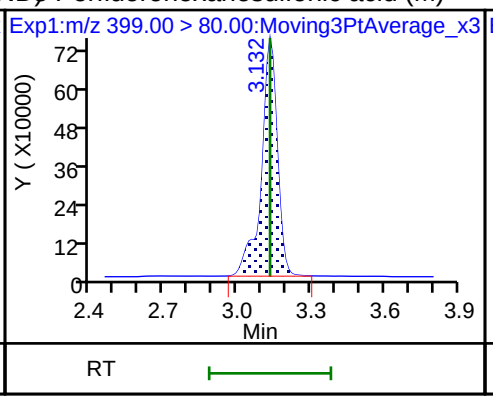

D 64 13C3 HFPO-DA (M)



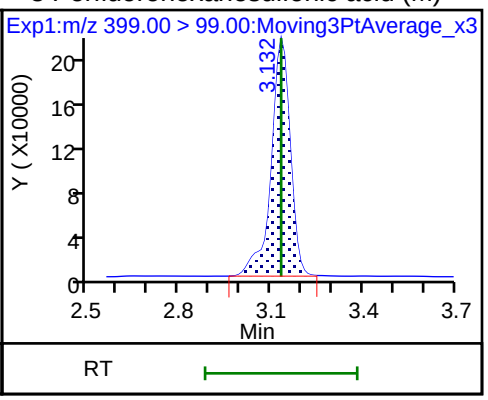

67 Perfluoro(2-propoxypropanoic) ac (ND)



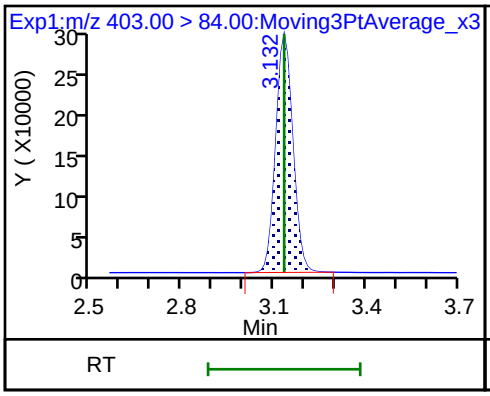

8 Perfluorohexanesulfonic acid (M)



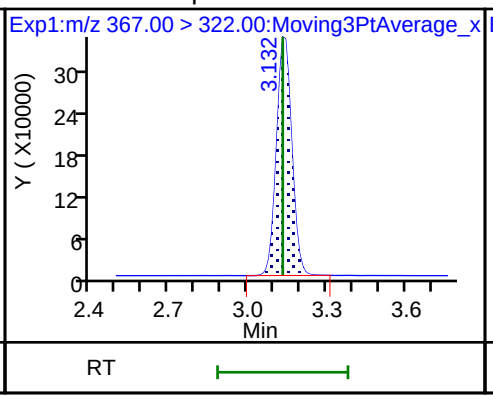

8 Perfluorohexanesulfonic acid (M)



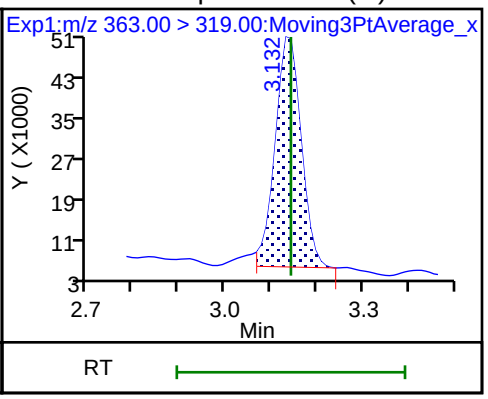

D 11 18O2 PFHxS



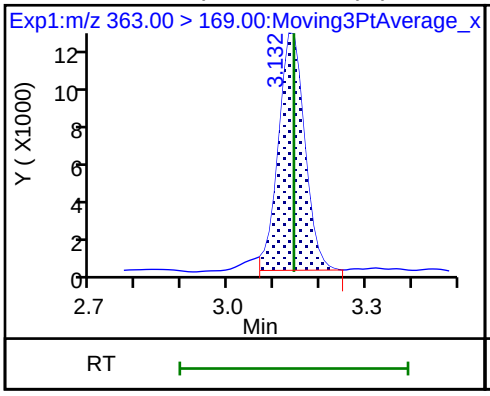

D 9 13C4 PFHpA



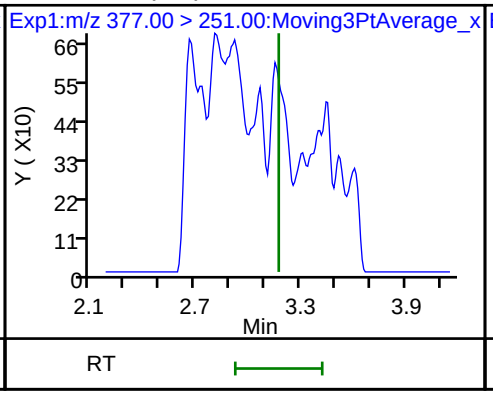

10 Perfluoroheptanoic acid (M)



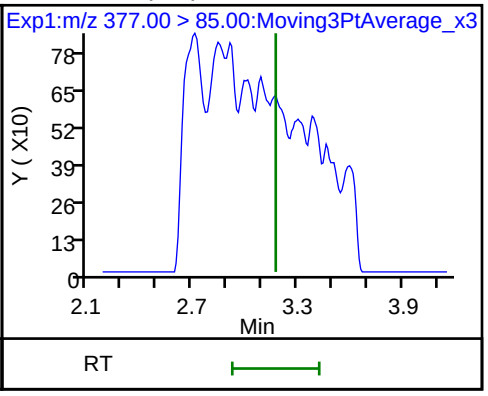

10 Perfluoroheptanoic acid (M)



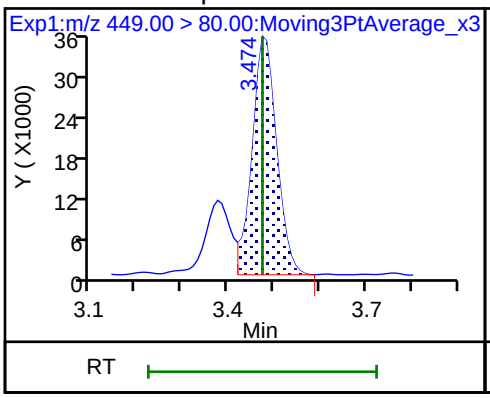

77 DONA (ND)



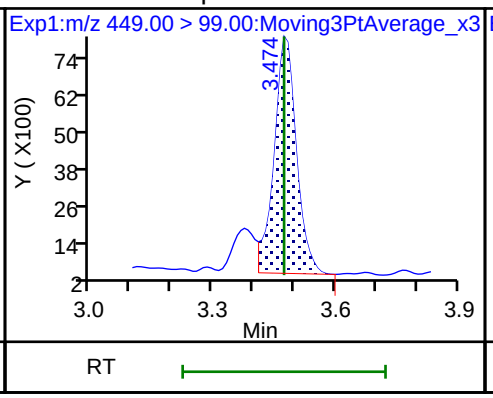

77 DONA (ND)



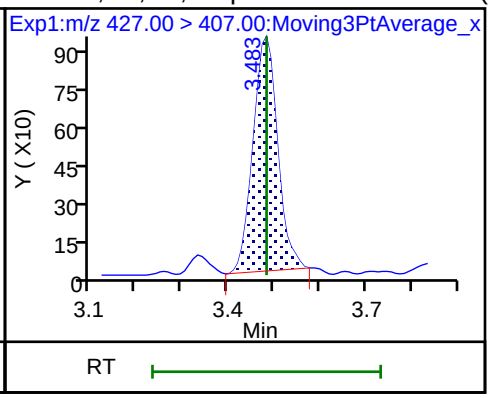
16 Perfluoroheptanesulfonic acid



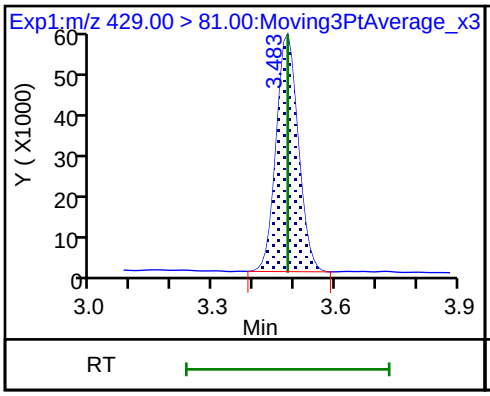

16 Perfluoroheptanesulfonic acid



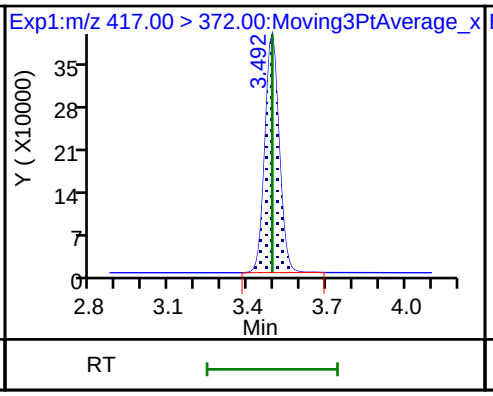

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



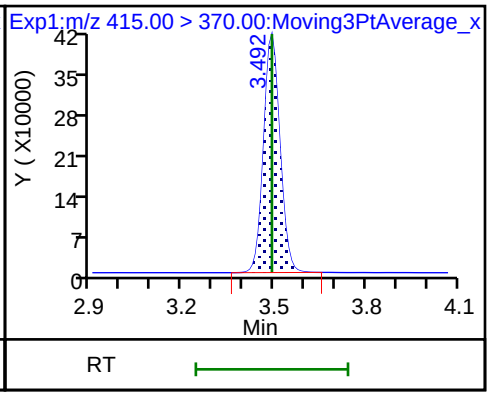

D 12 M2-6:2 FTS



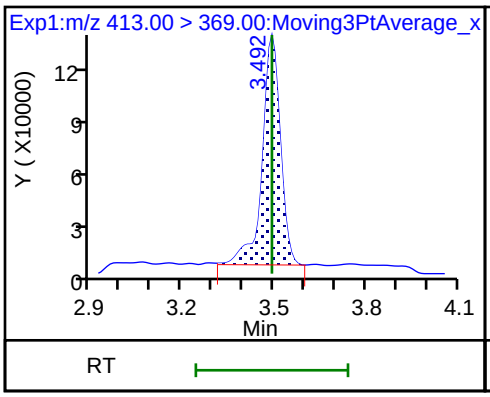

D 14 13C4 PFOA



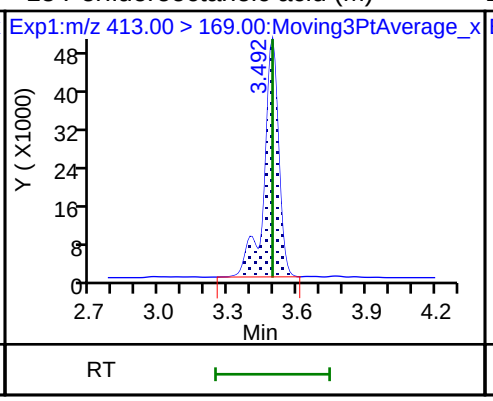

* 62 13C2 PFOA



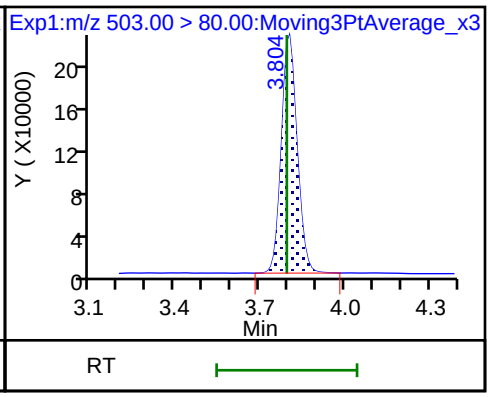

15 Perfluorooctanoic acid



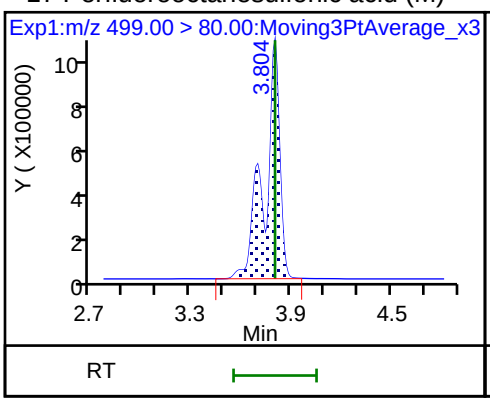

15 Perfluorooctanoic acid (M)



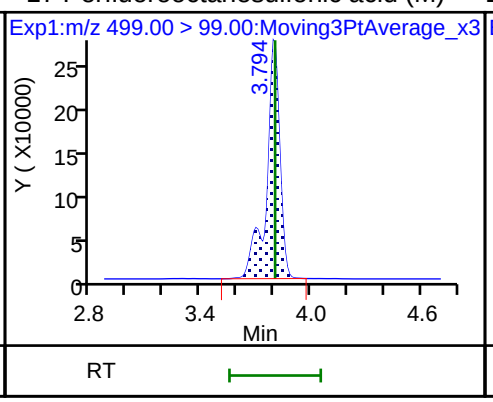

D 18 13C4 PFOS



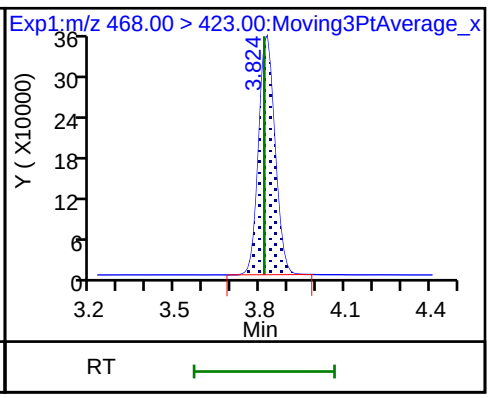

17 Perfluorooctanesulfonic acid (M)



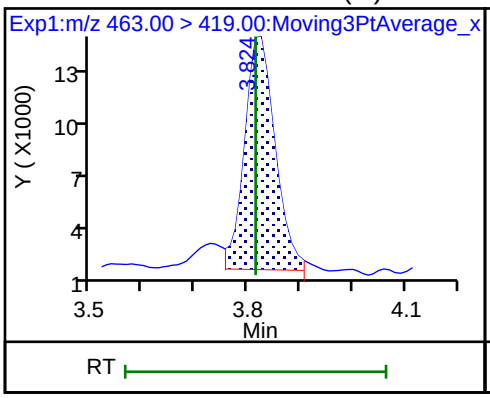

17 Perfluorooctanesulfonic acid (M)



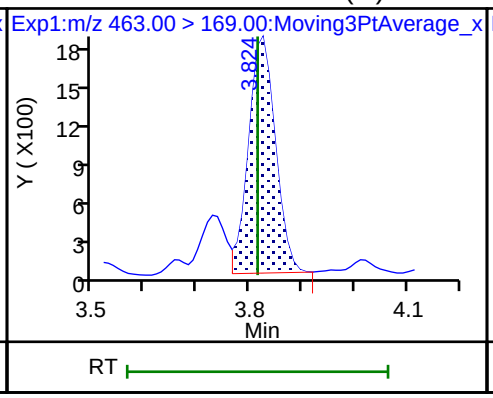

D 19 13C5 PFNA



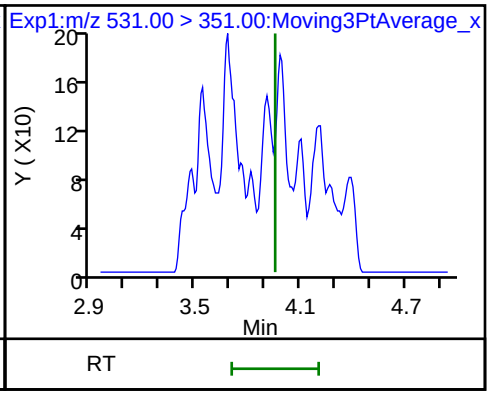
20 Perfluorononanoic acid (M)



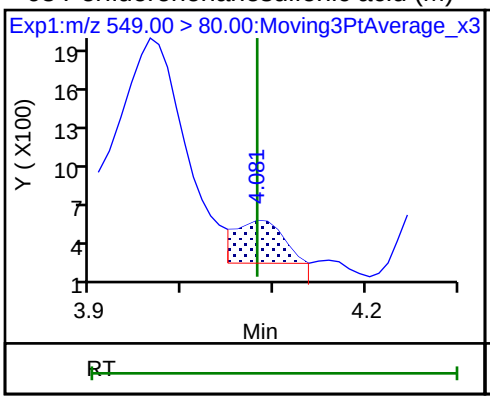

20 Perfluorononanoic acid (M)



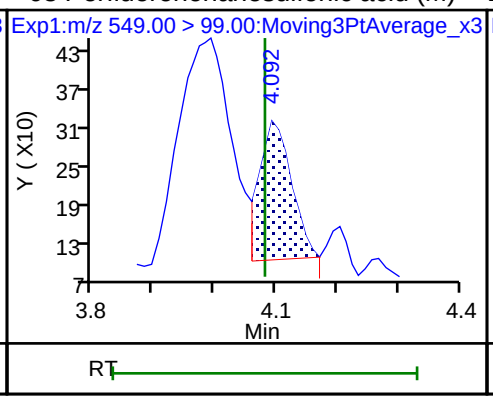

69 9-Chlorohexadecafluoro-3-oxanona (ND)



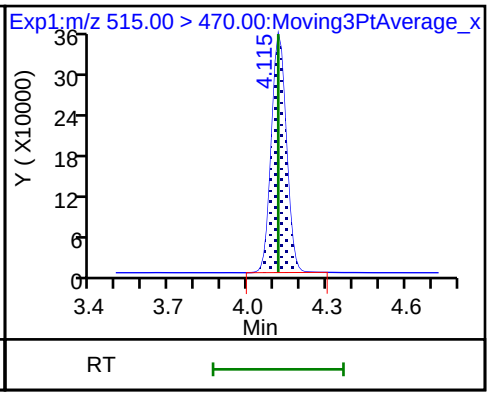

68 Perfluorononanesulfonic acid (M)



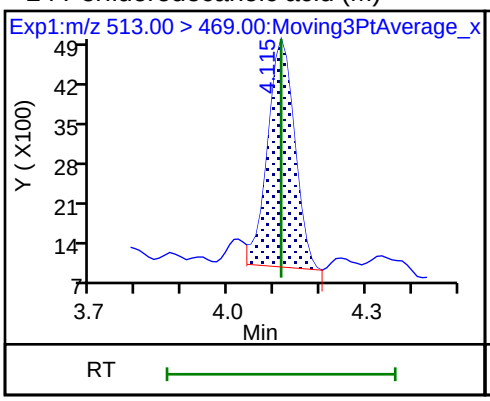

68 Perfluorononanesulfonic acid (M)



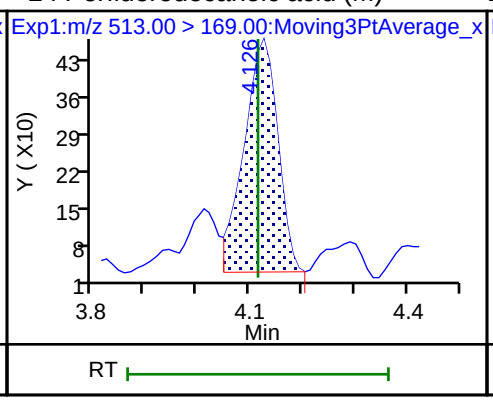

D 23 13C2 PFDA



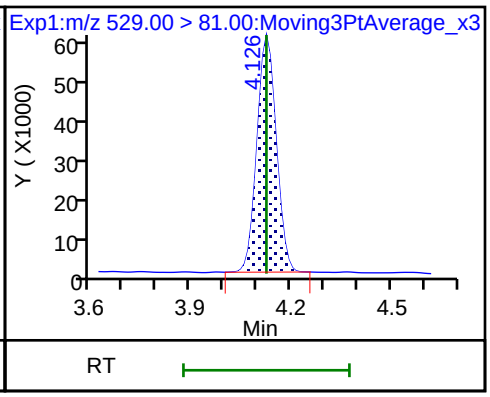

24 Perfluorodecanoic acid (M)



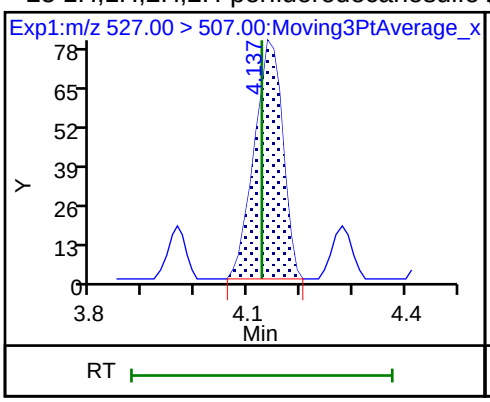

24 Perfluorodecanoic acid (M)



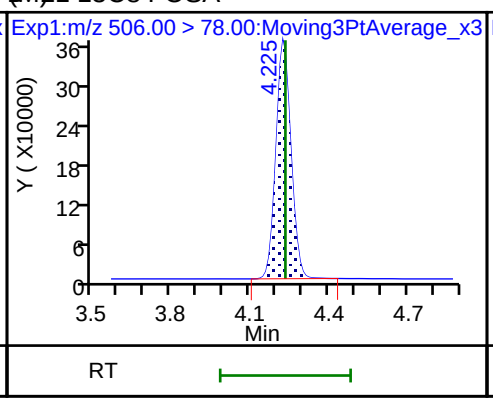

D 26 M2-8:2 FTS



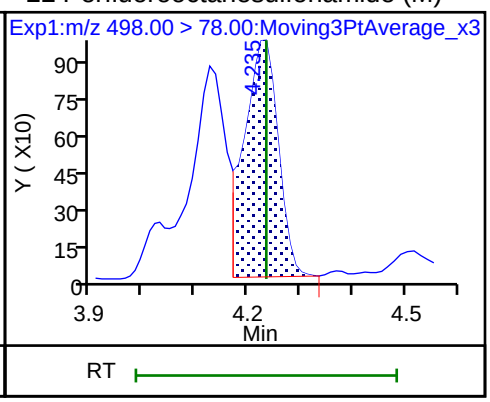

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



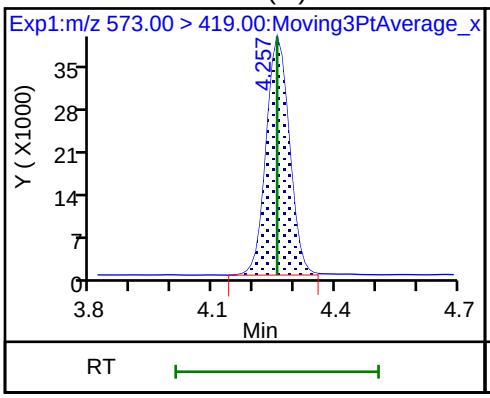

D 21 13C8 FOSA



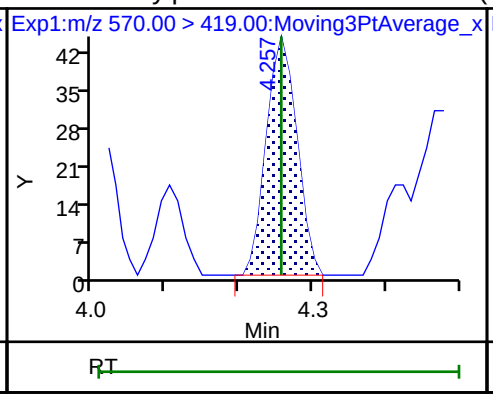

22 Perfluorooctanesulfonamide (M)



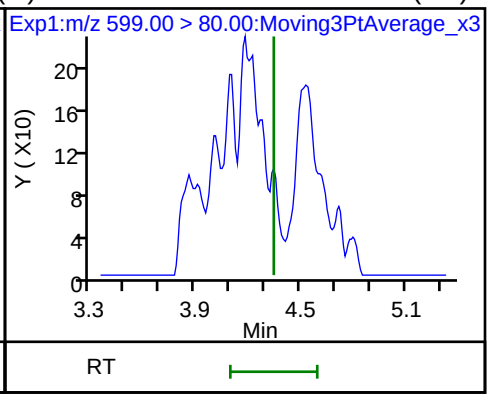
D 27 d3-NMeFOSAA (M)



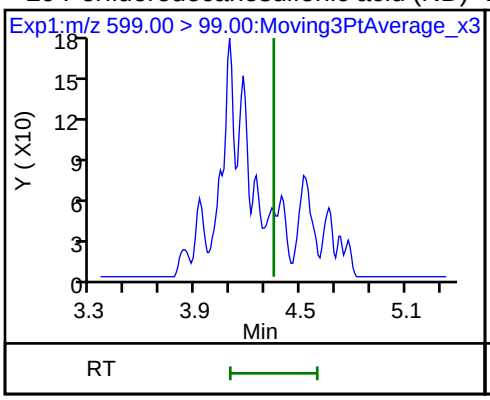

28 N-methylperfluorooctanesulfonami (M)



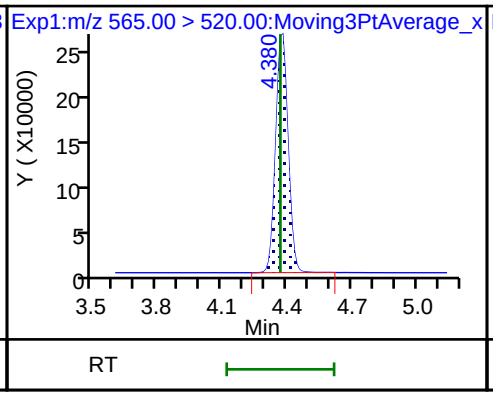

29 Perfluorodecanesulfonic acid (ND)



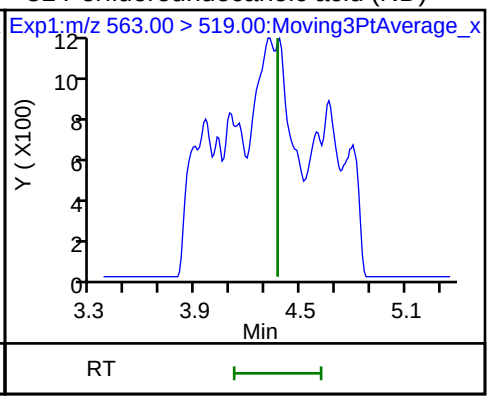

29 Perfluorodecanesulfonic acid (ND)



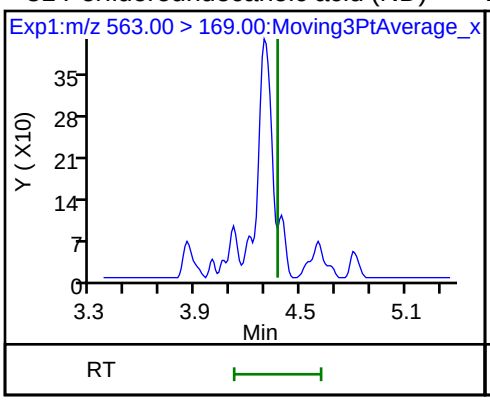

D 30 13C2 PFUnA



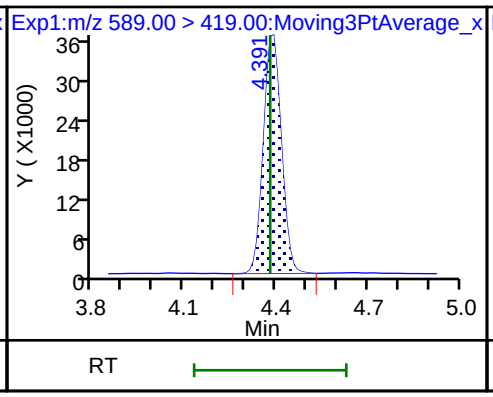

31 Perfluoroundecanoic acid (ND)



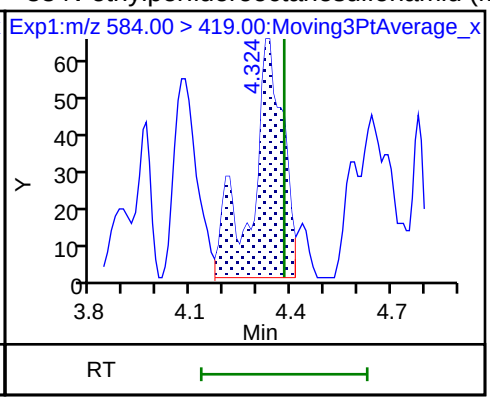

31 Perfluoroundecanoic acid (ND)



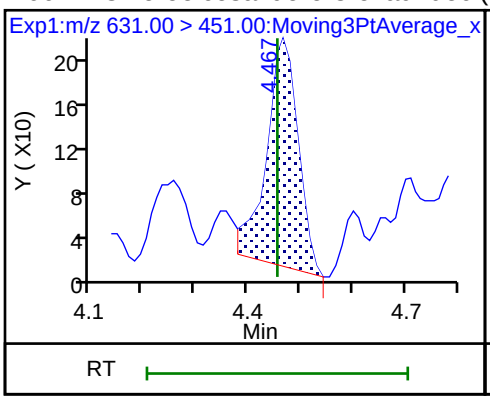

D 32 d5-NEtFOSAA



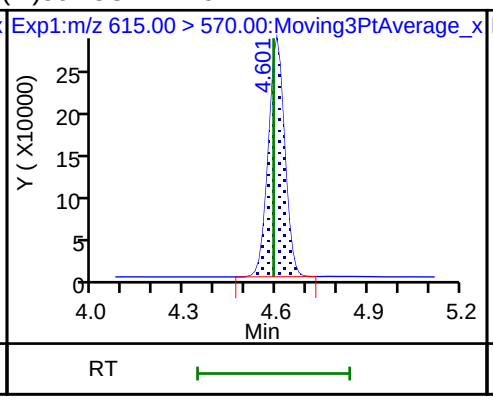

33 N-ethylperfluorooctanesulfonamid (M)



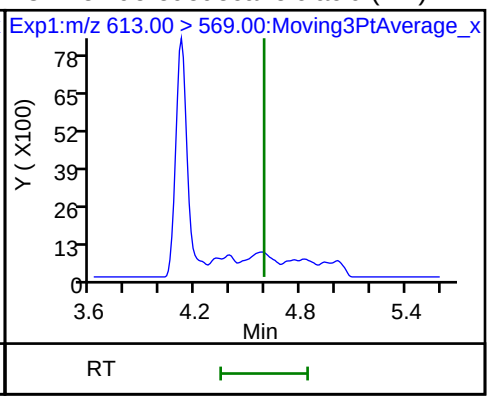

66 11-Chloroeicosafluoro-3-oxaundec (M)



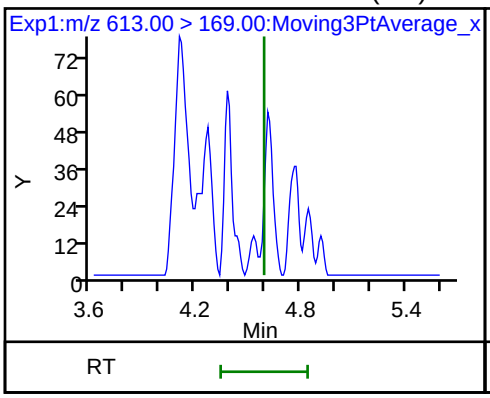

D 36 13C2 PFDoA



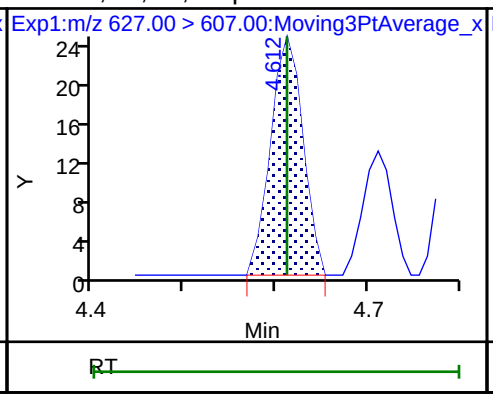

37 Perfluorododecanoic acid (ND)



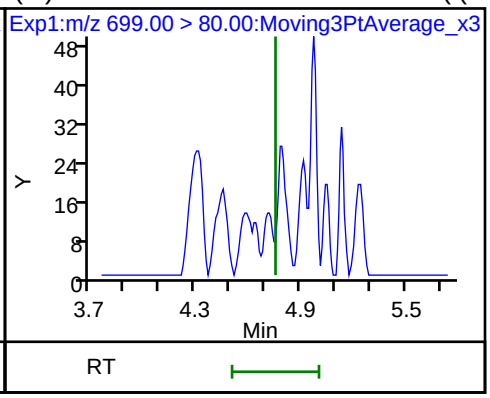
37 Perfluorododecanoic acid (ND)



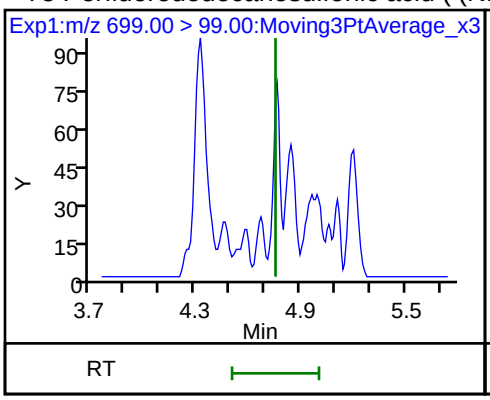

74 1H,1H,2H,2H-perfluorododecanesul (M)



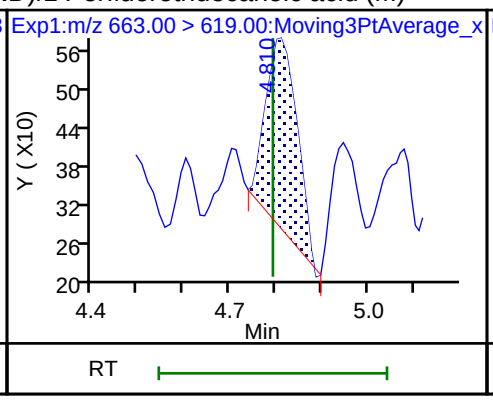

75 Perfluorododecanesulfonic acid ( (ND)



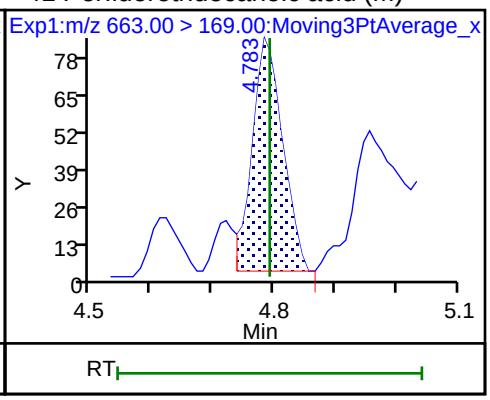

75 Perfluorododecanesulfonic acid ( (ND)



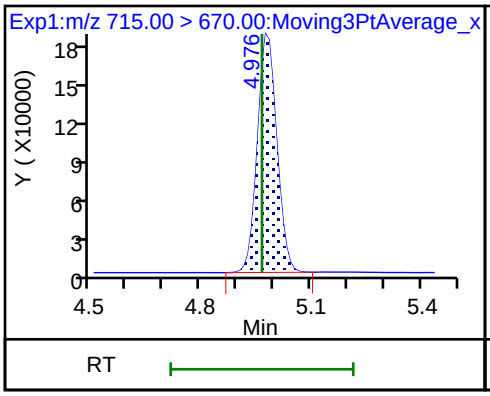

41 Perfluorotridecanoic acid (M)



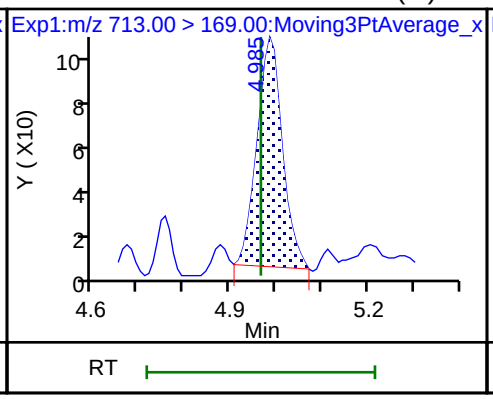

41 Perfluorotridecanoic acid (M)



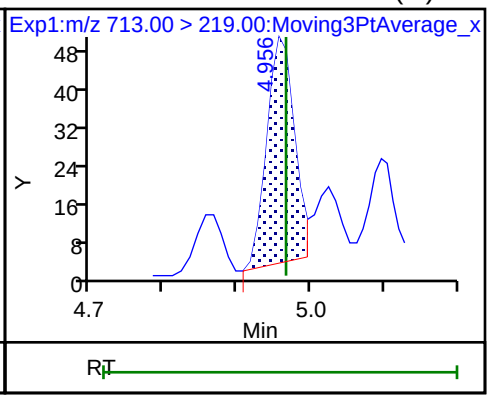

D 43 13C2 PFTeDA



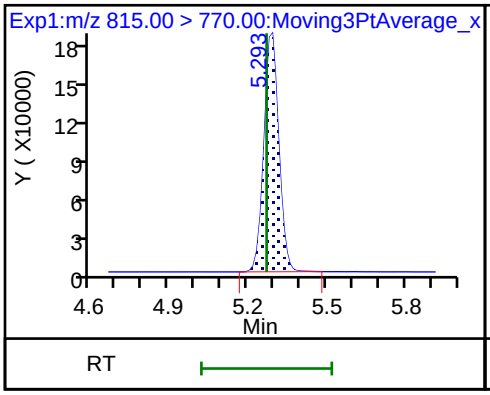

42 Perfluorotetradecanoic acid (M)



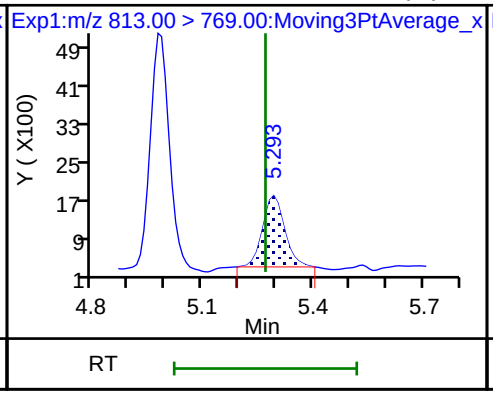

42 Perfluorotetradecanoic acid (M)



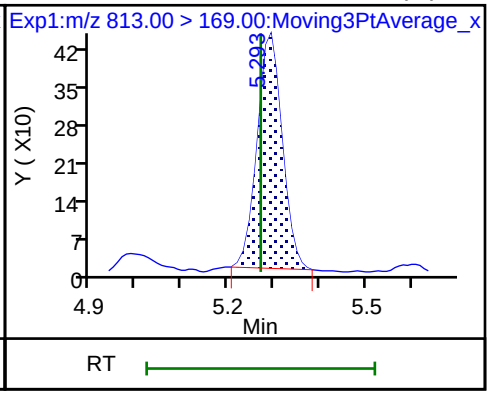

D 44 13C2 PFHxDA



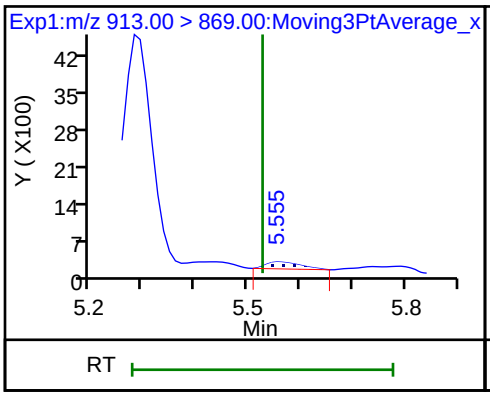

45 Perfluorohexadecanoic acid (M)



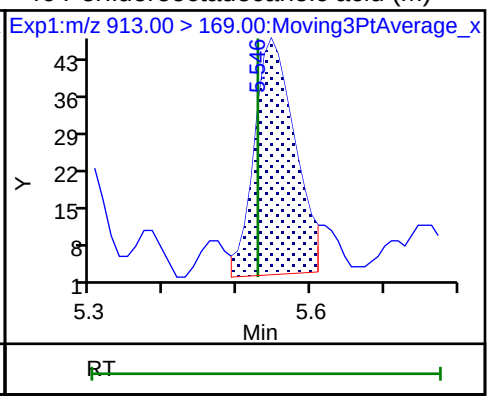

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

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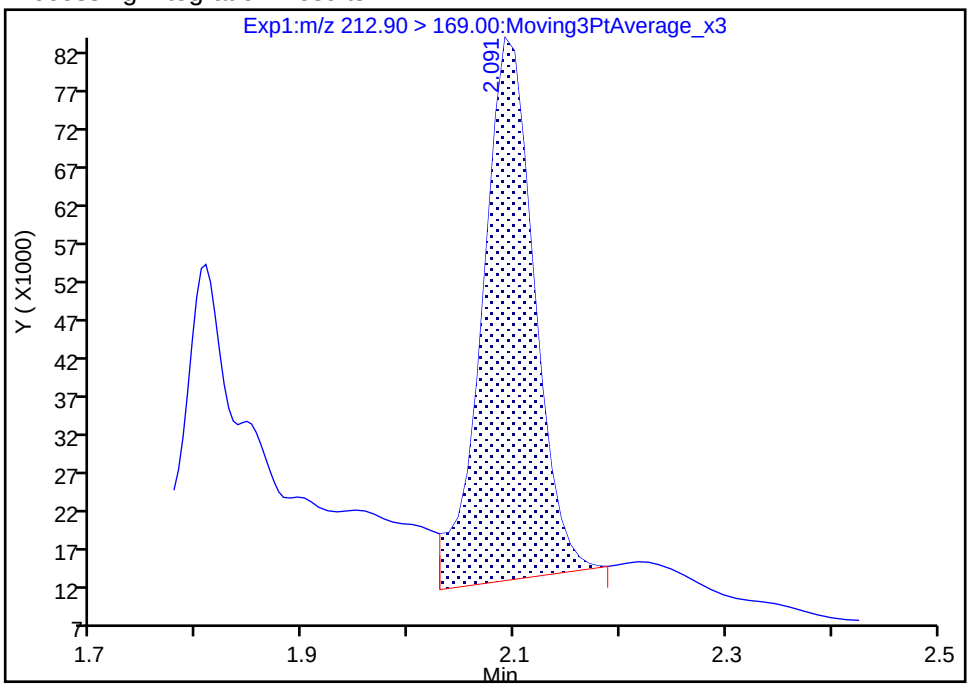
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

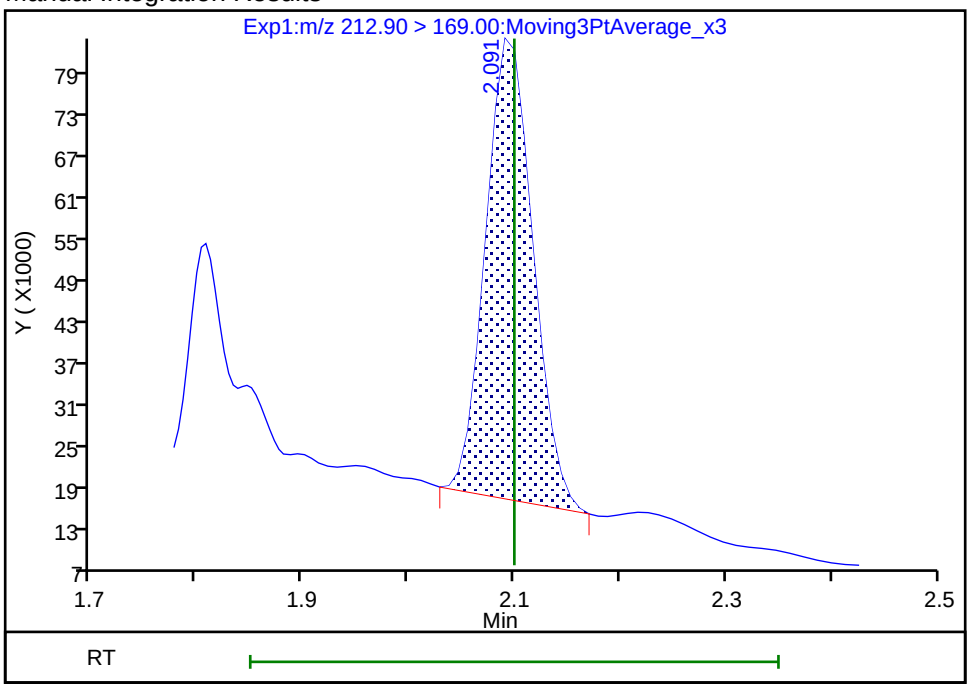
Processing Integration Results

RT: 2.09
Area: 242937
Amount: 0.278129
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 208519
Amount: 0.238725
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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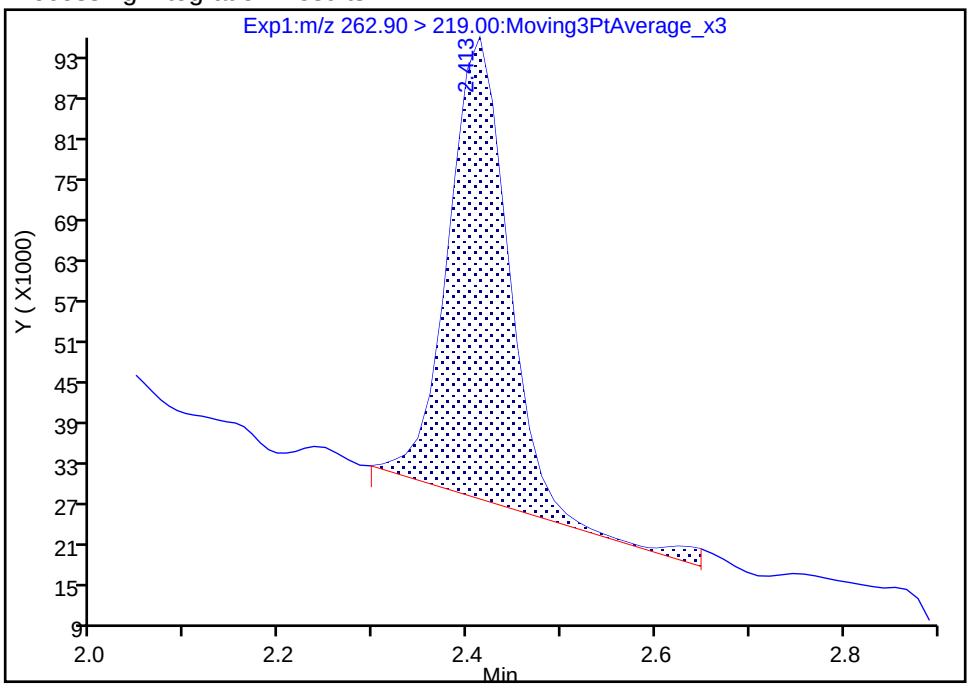
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

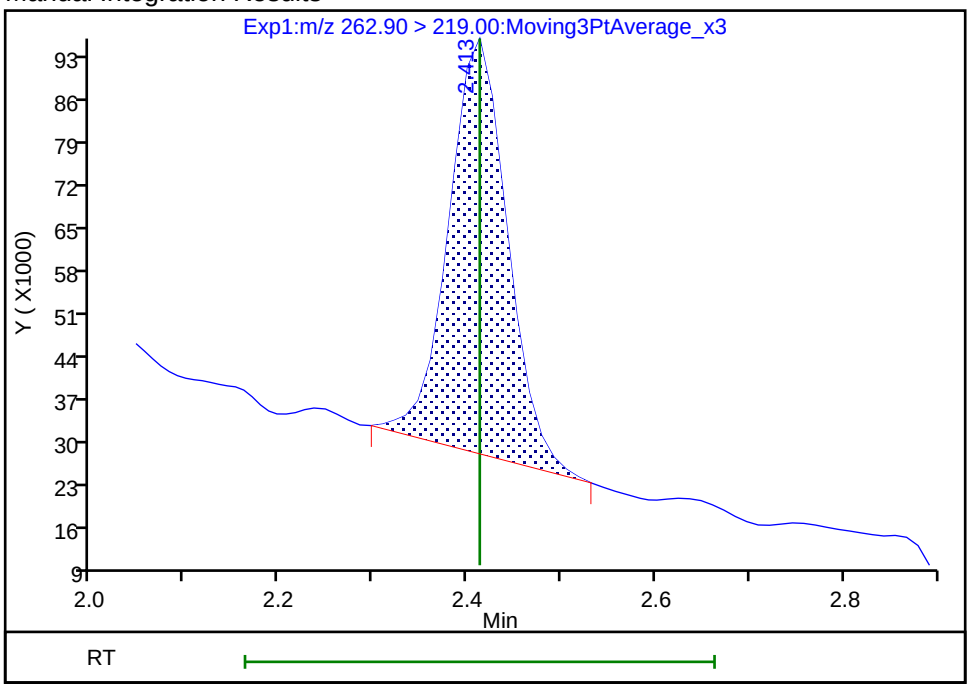
Processing Integration Results

RT: 2.41
Area: 304920
Amount: 0.329305
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 294598
Amount: 0.318157
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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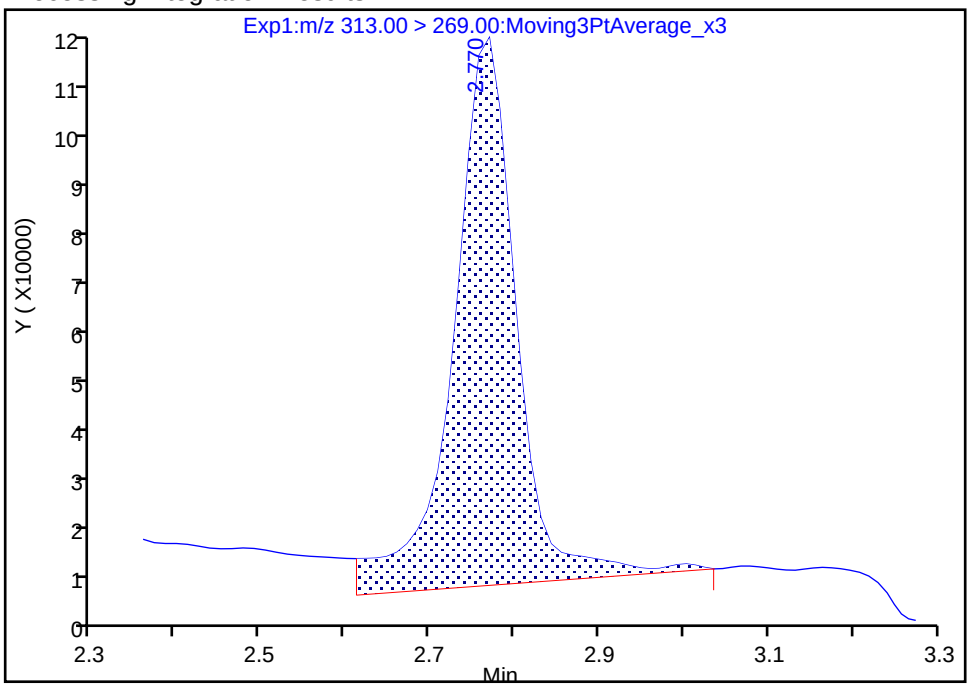
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

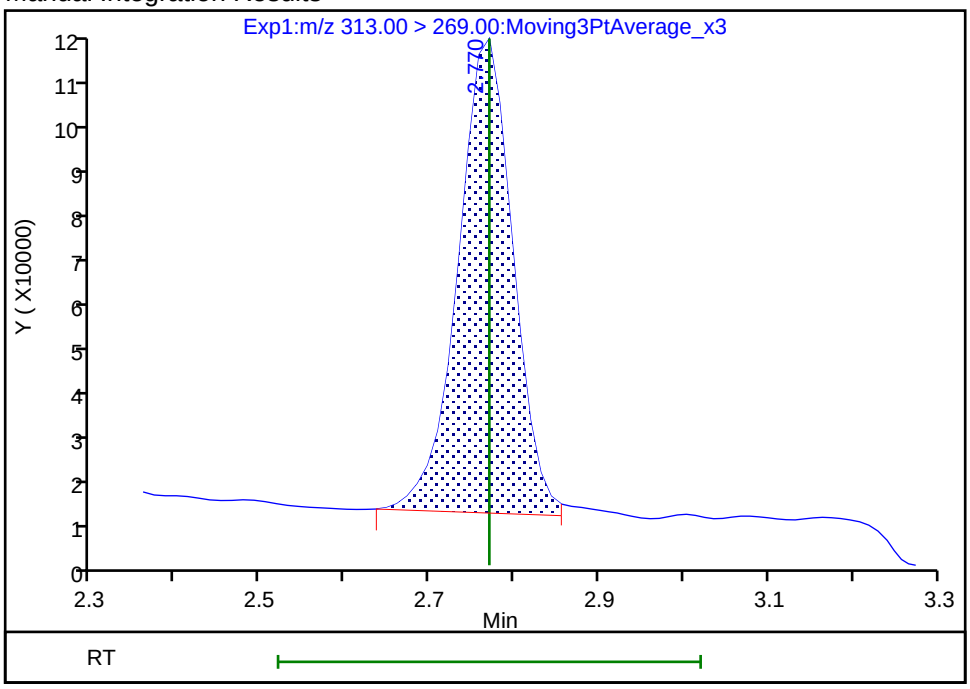
Processing Integration Results

RT: 2.77
Area: 548953
Amount: 0.536570
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 452883
Amount: 0.442667
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

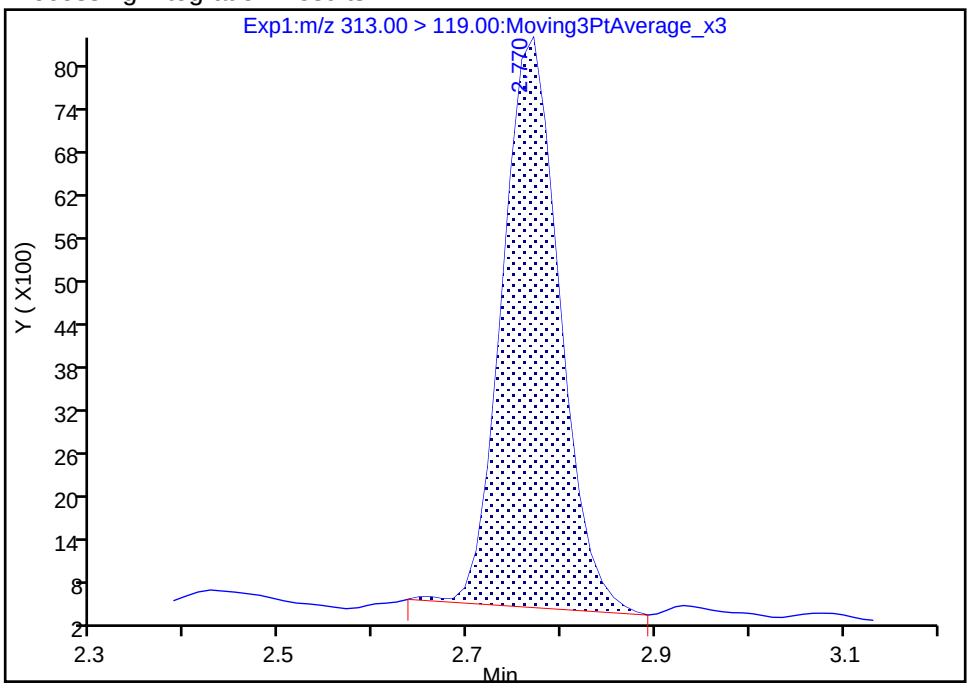
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

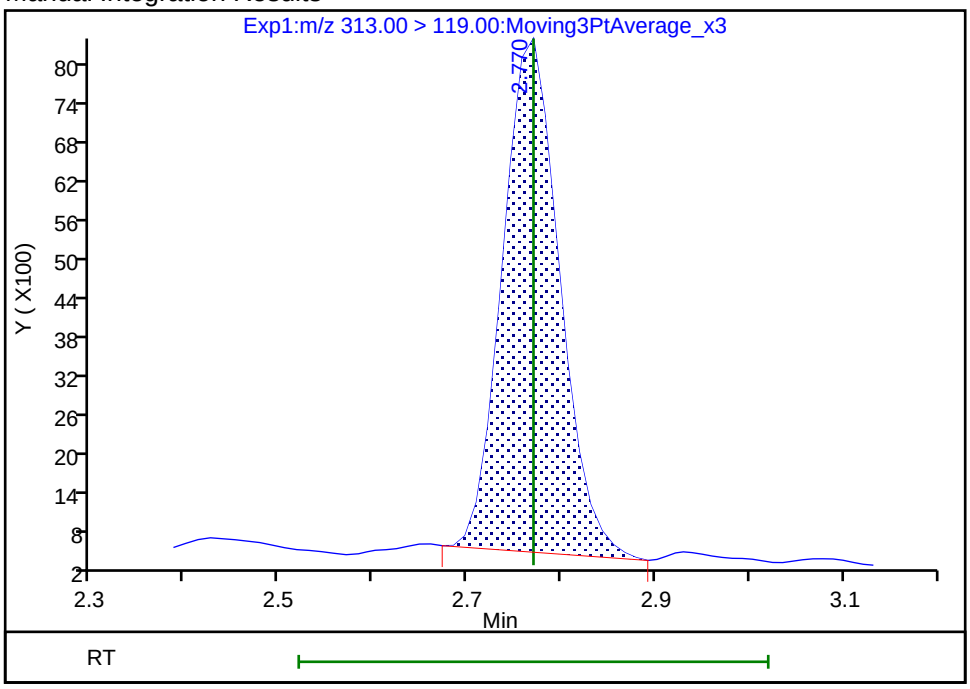
Processing Integration Results

RT: 2.77
Area: 33830
Amount: 0.536570
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 33477
Amount: 0.442667
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:00:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

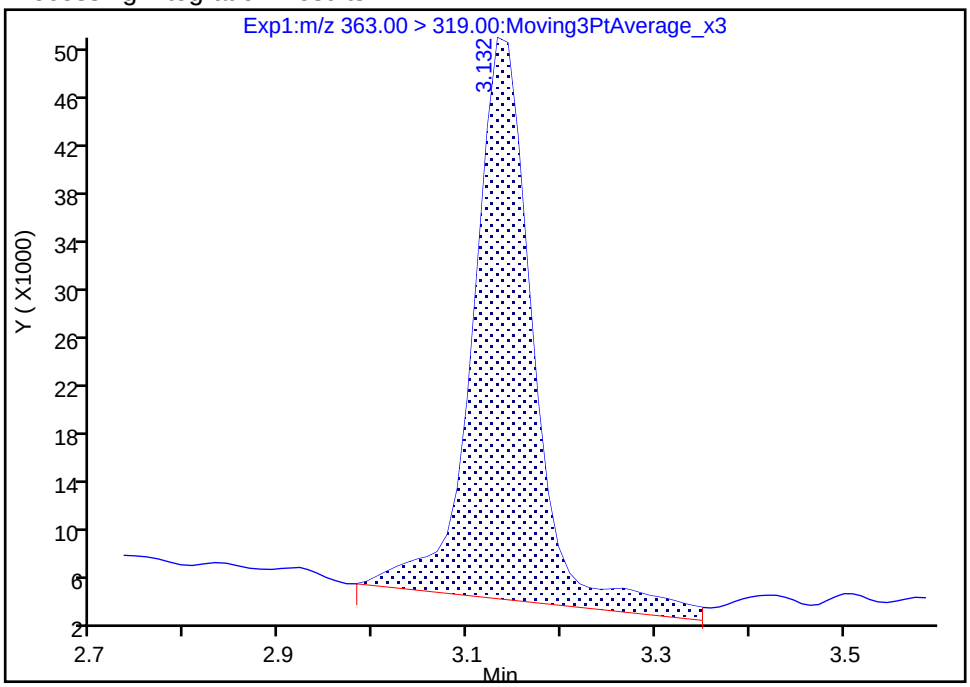
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

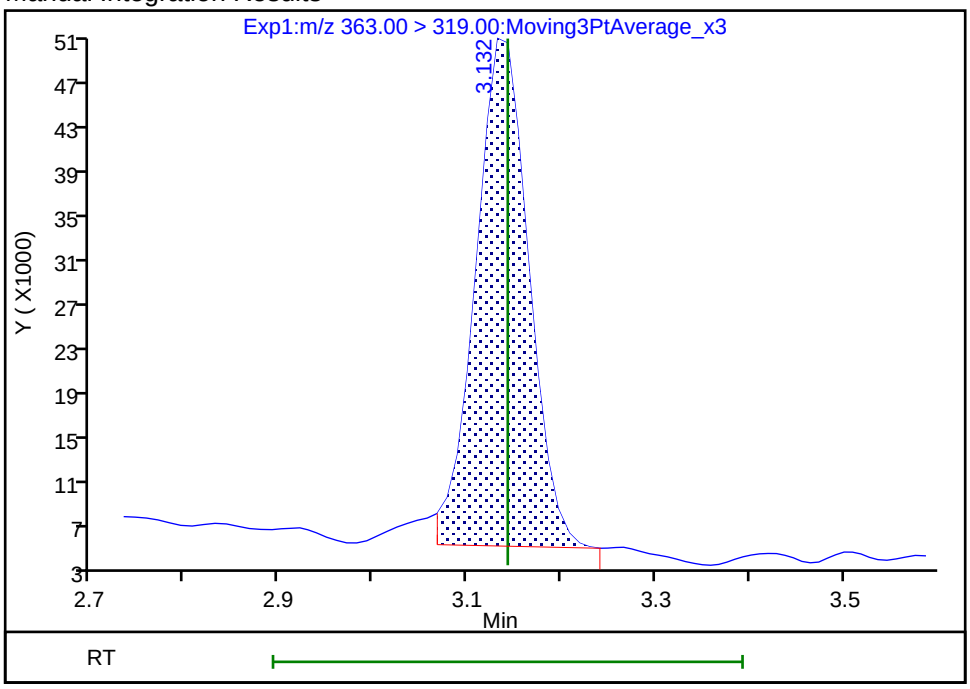
Processing Integration Results

RT: 3.13
Area: 205567
Amount: 0.178445
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 175711
Amount: 0.152528
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:00:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

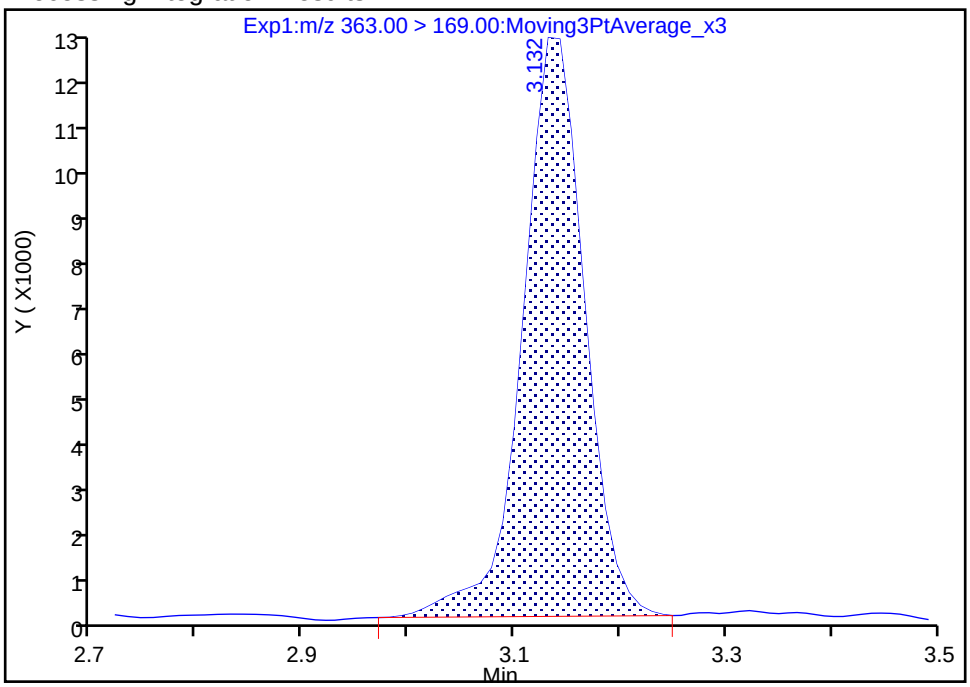
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

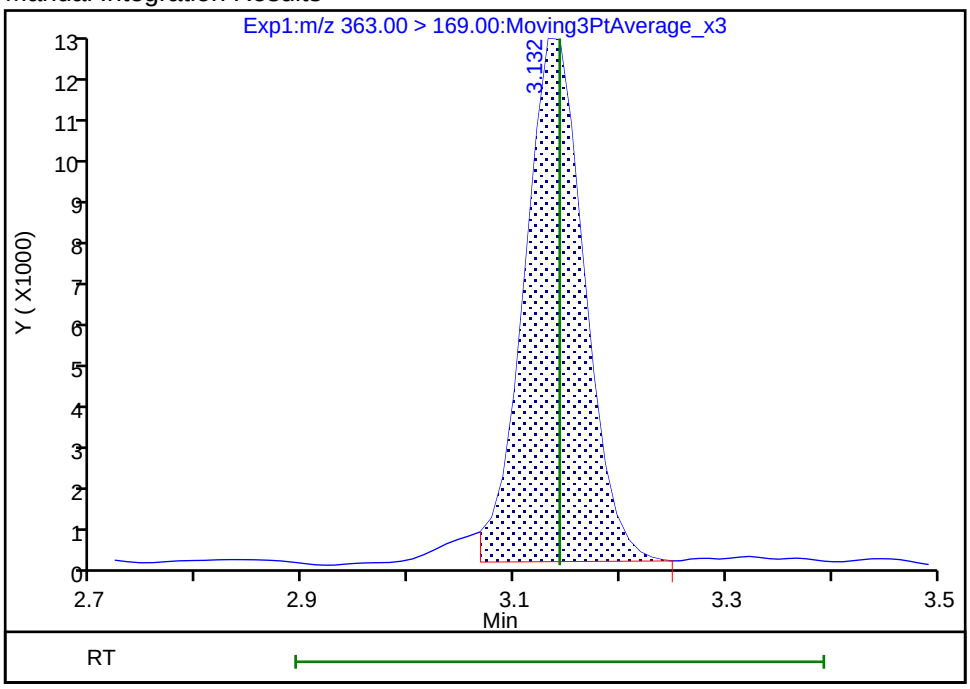
Processing Integration Results

RT: 3.13
Area: 48914
Amount: 0.178445
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 47319
Amount: 0.152528
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:00:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

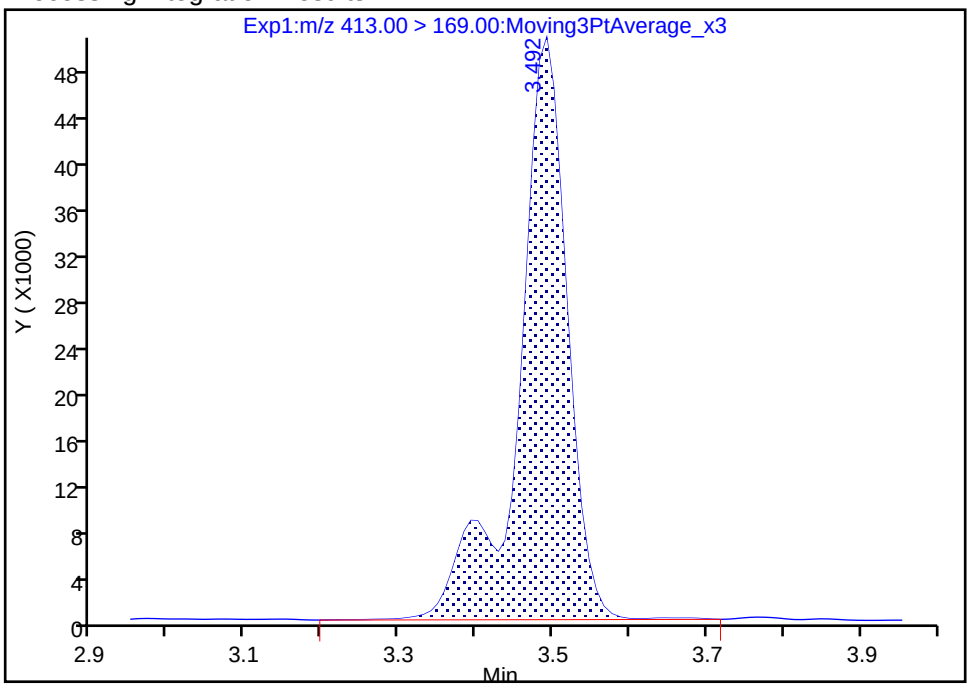
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

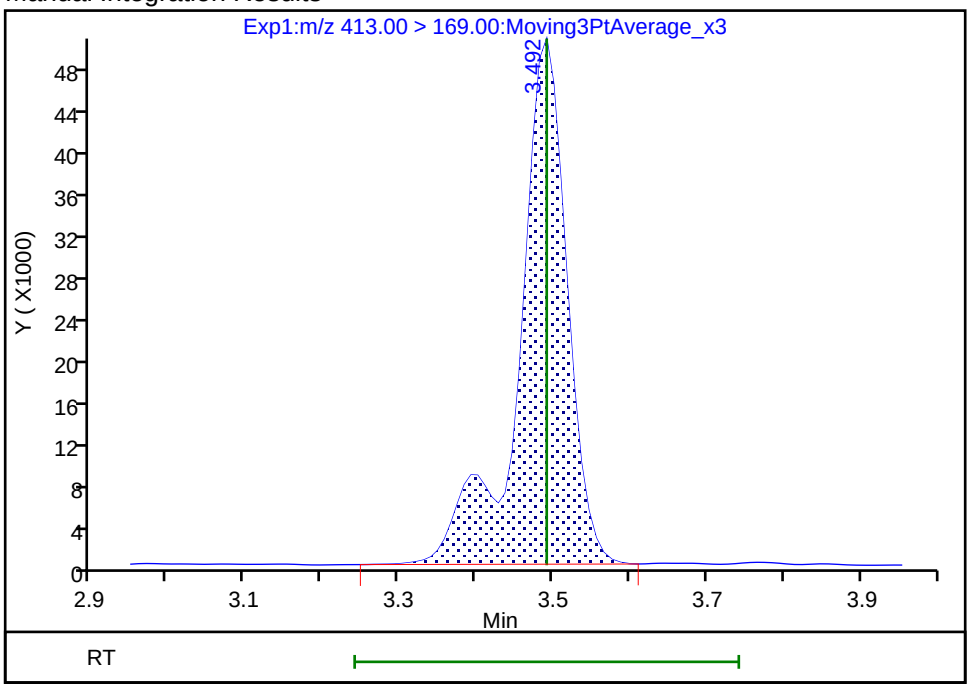
Processing Integration Results

RT: 3.49
Area: 221825
Amount: 0.425154
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 220423
Amount: 0.425154
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:01:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

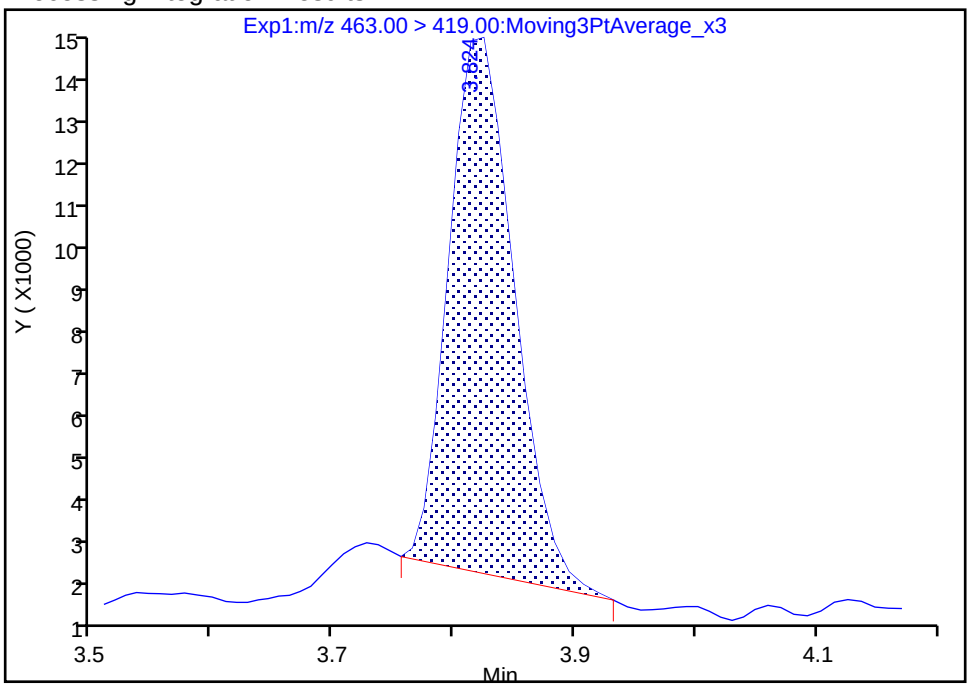
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

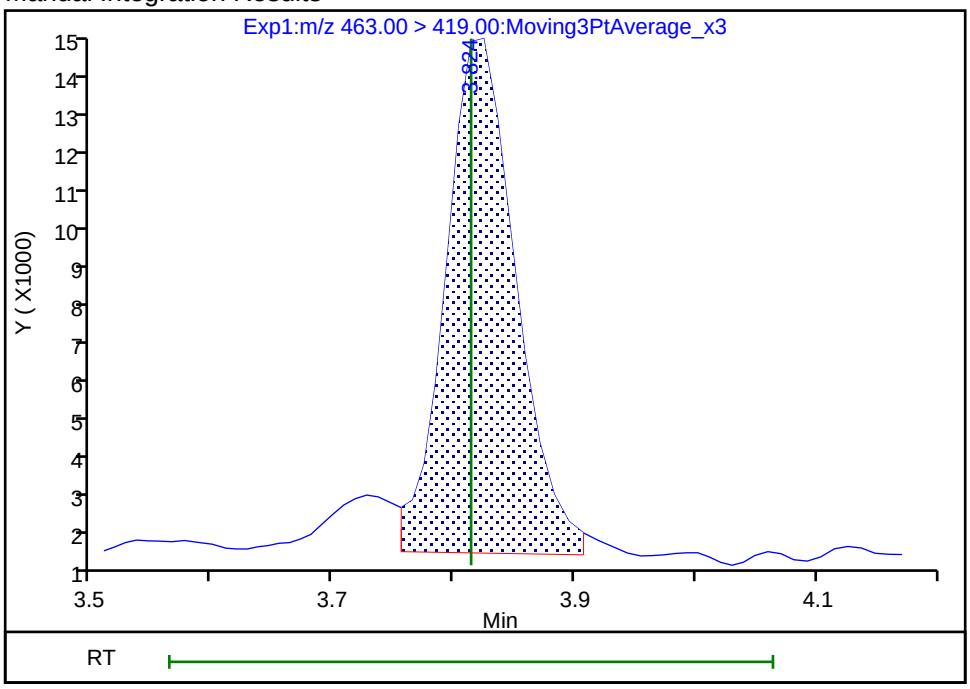
Processing Integration Results

RT: 3.82
Area: 45475
Amount: 0.040619
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 51828
Amount: 0.046293
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:22:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

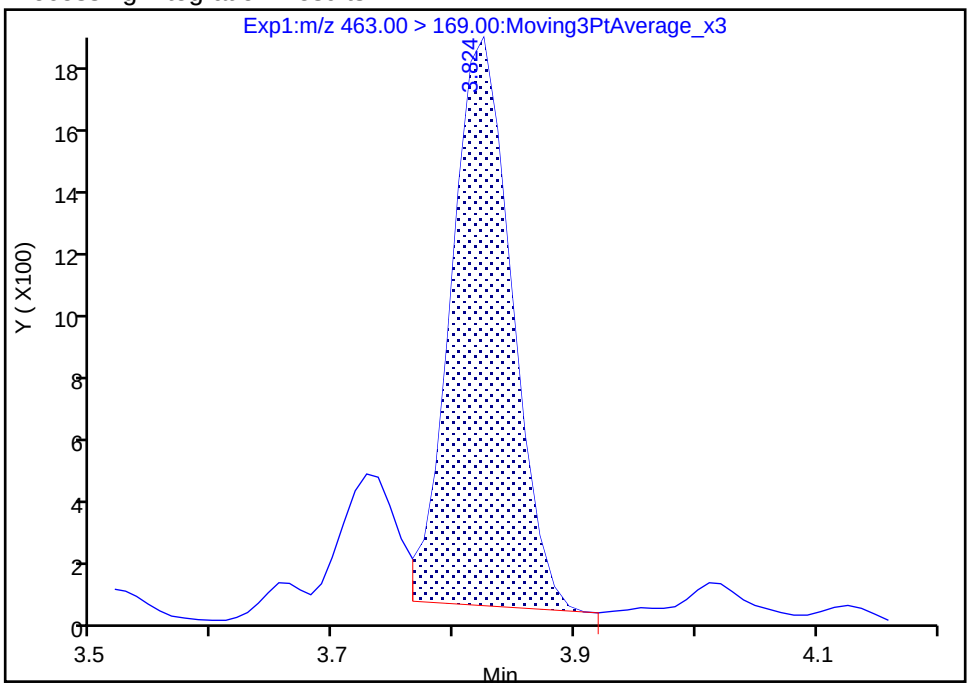
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

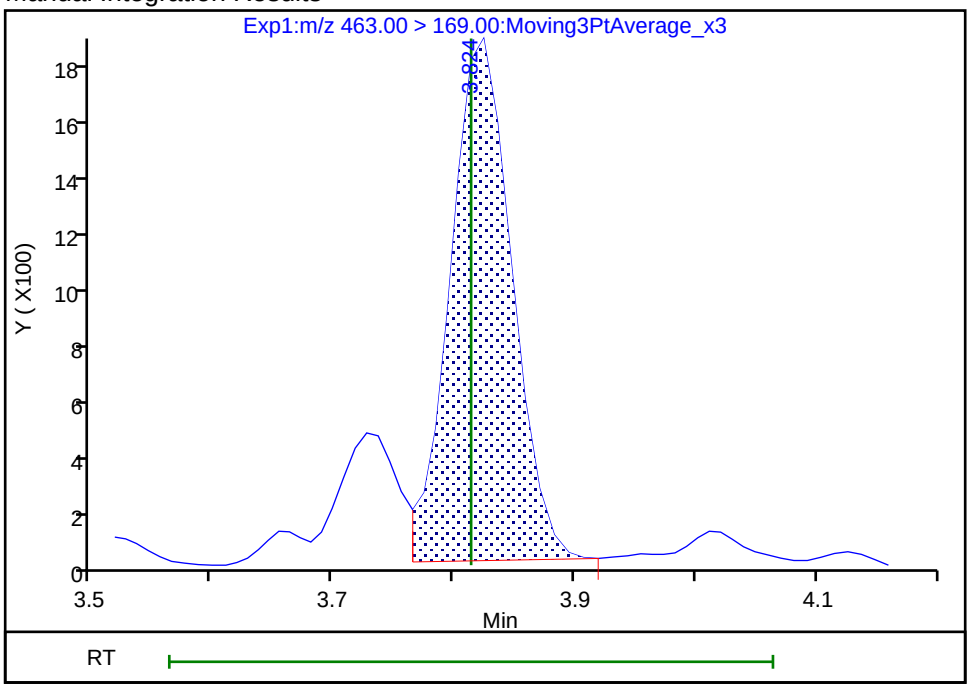
Processing Integration Results

RT: 3.82
Area: 6094
Amount: 0.040619
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 6315
Amount: 0.046293
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:22:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

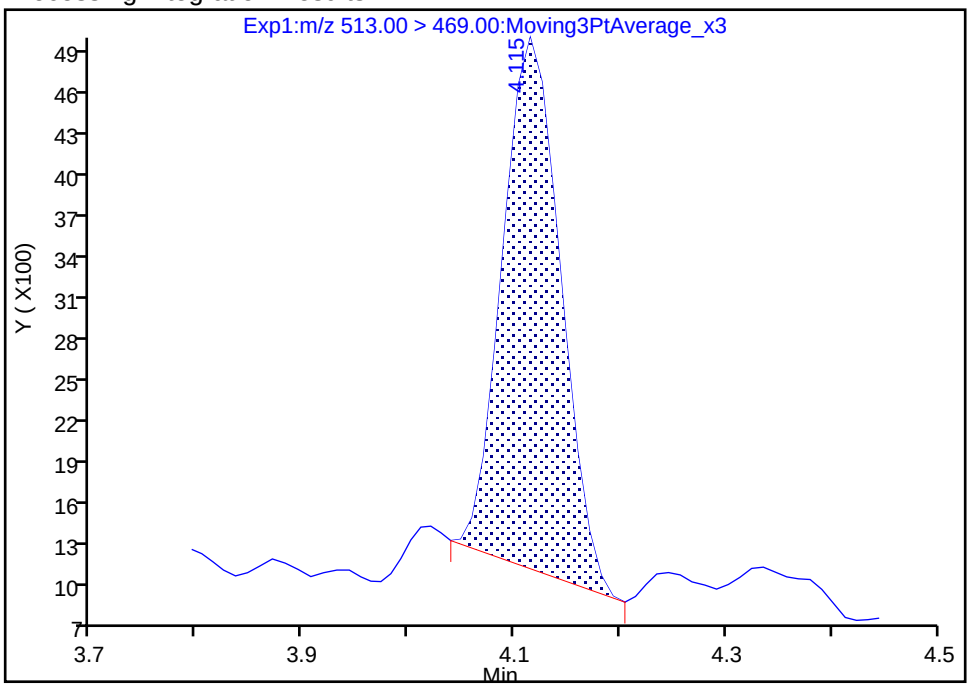
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

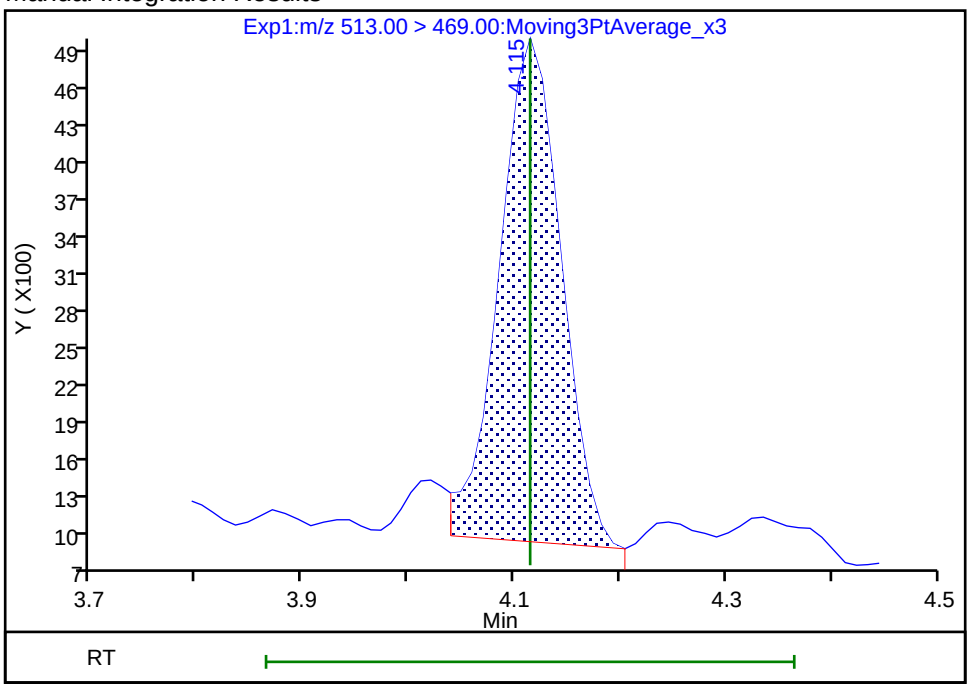
Processing Integration Results

RT: 4.11
Area: 14636
Amount: 0.012913
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 16312
Amount: 0.014391
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:22:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

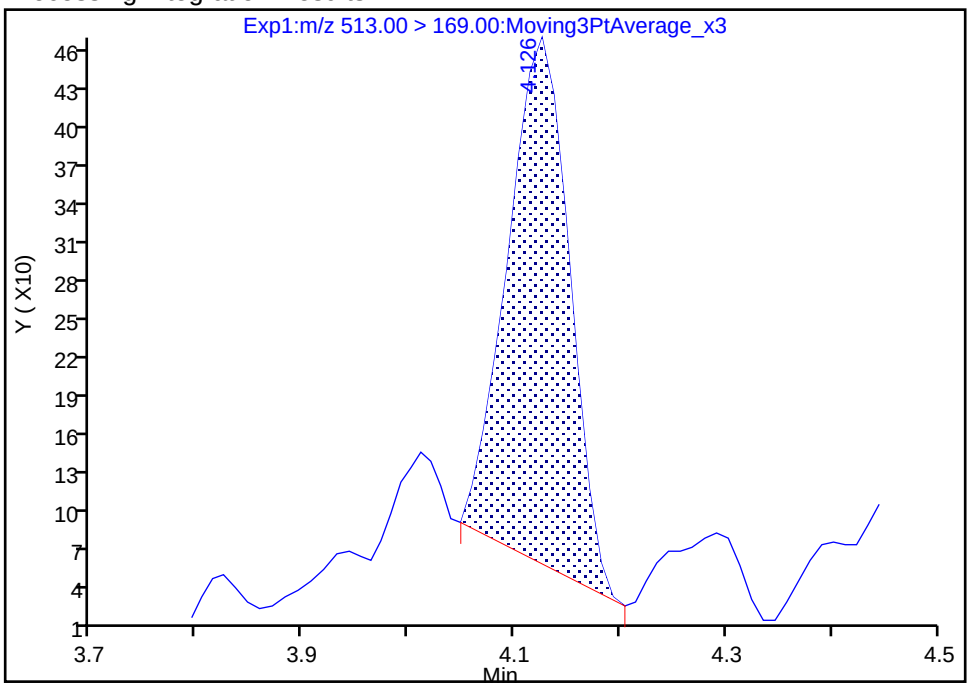
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

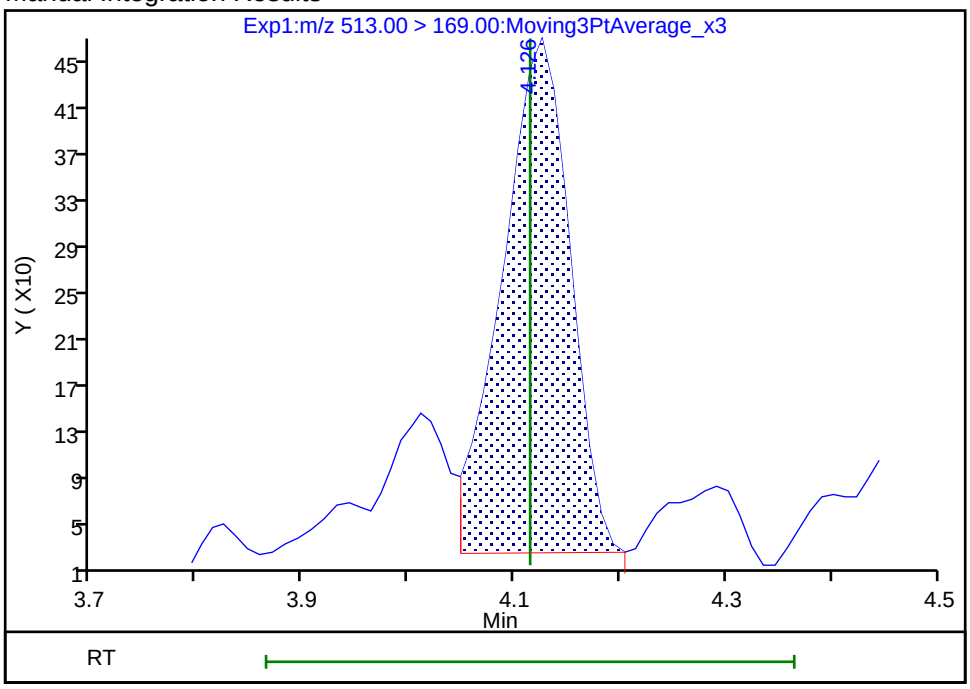
Processing Integration Results

RT: 4.13
Area: 1641
Amount: 0.012913
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 1942
Amount: 0.014391
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:22:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

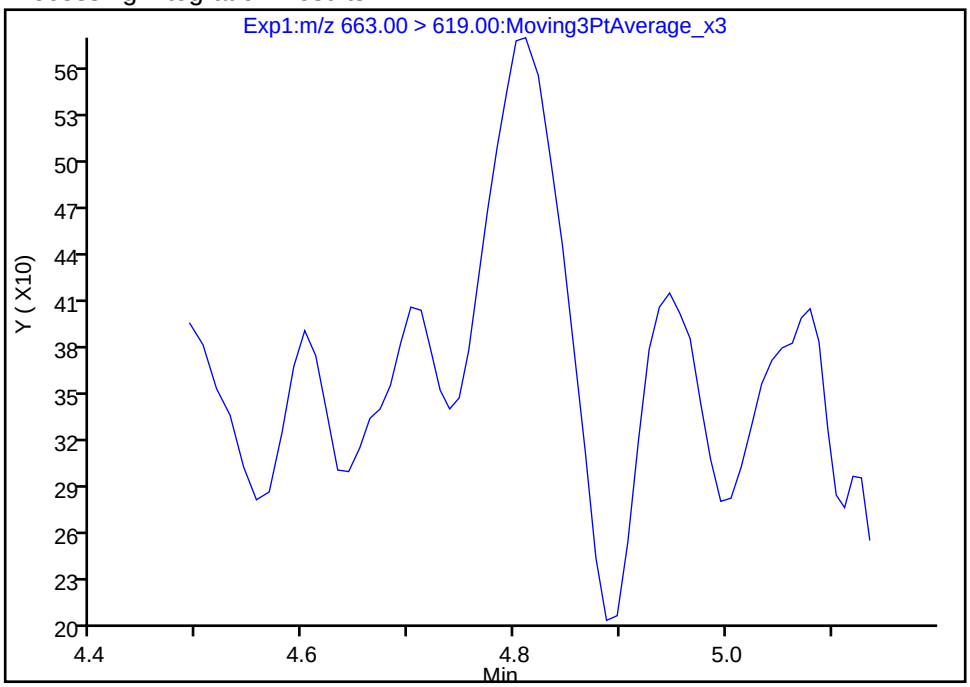
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

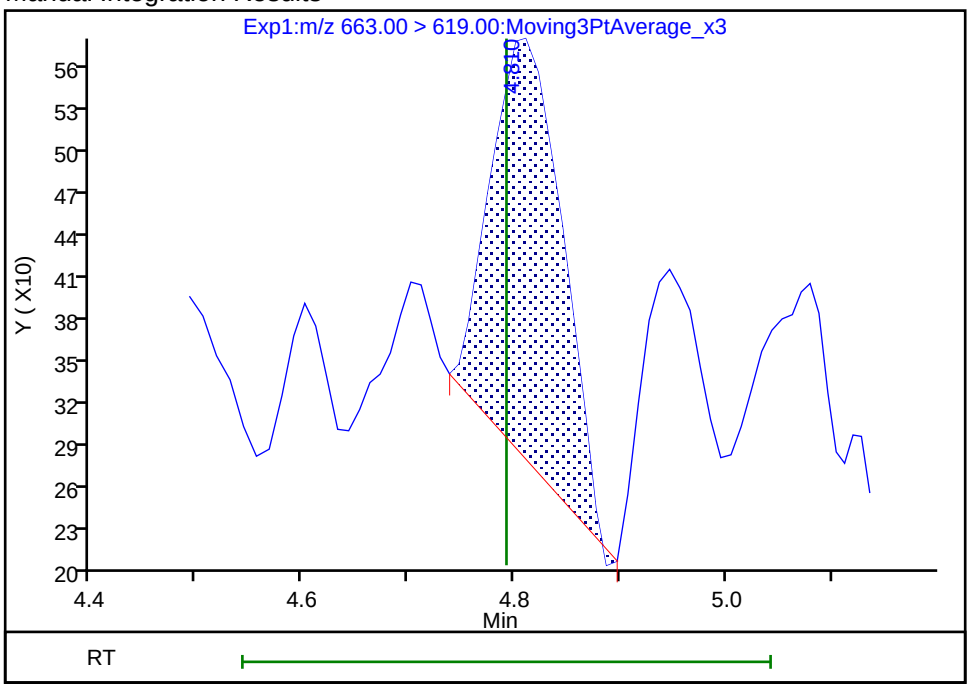
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.81
Area: 1397
Amount: 0.002008
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:23:18
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

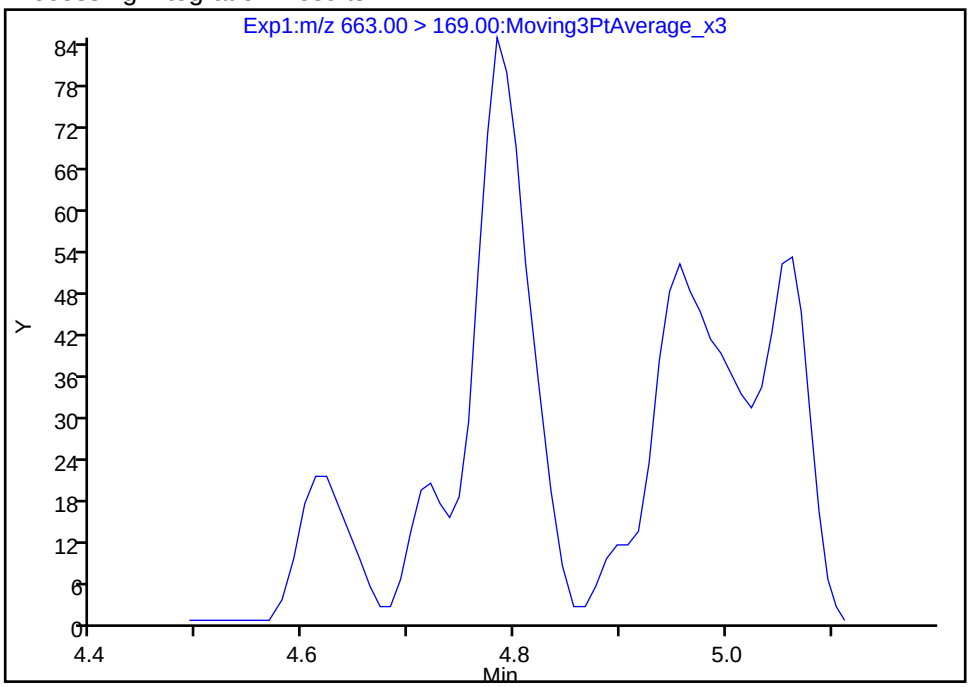
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

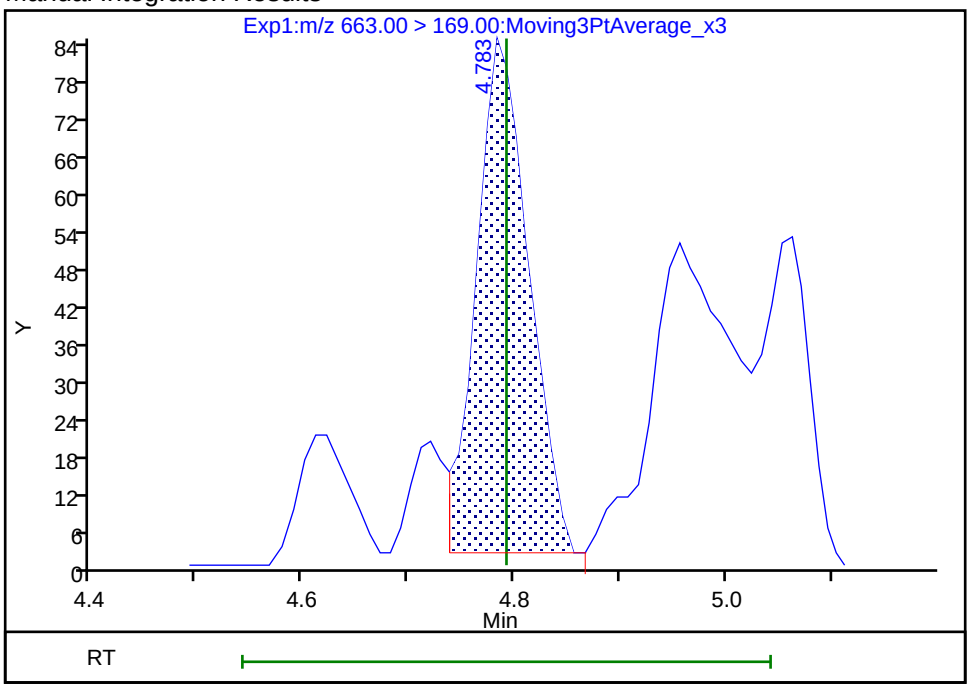
Not Detected
Expected RT: 4.79

Processing Integration Results




Manual Integration Results

RT: 4.78
Area: 283
Amount: 0.002008
Amount Units: ng/ml




Reviewer: chirgwinb, 11-Nov-2021 11:23:26
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

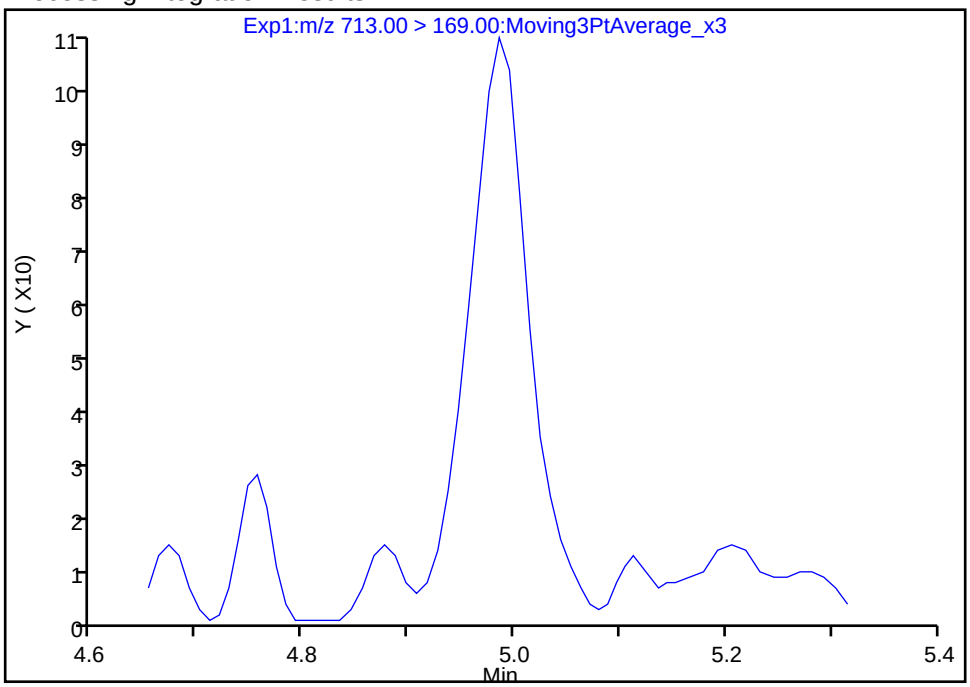
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

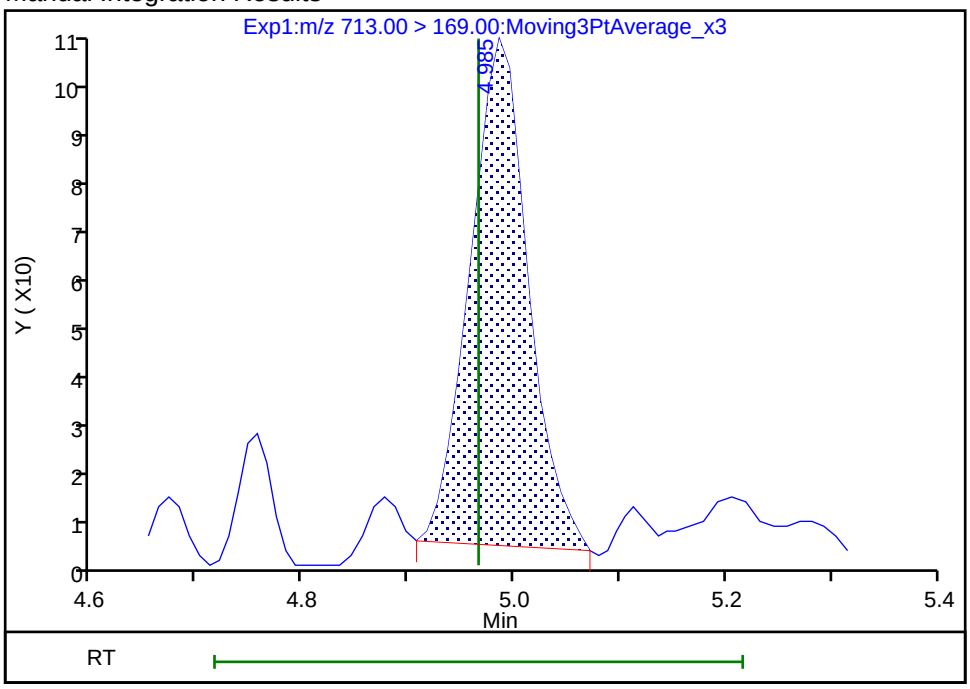
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 397
Amount: 0.004718
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:03:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

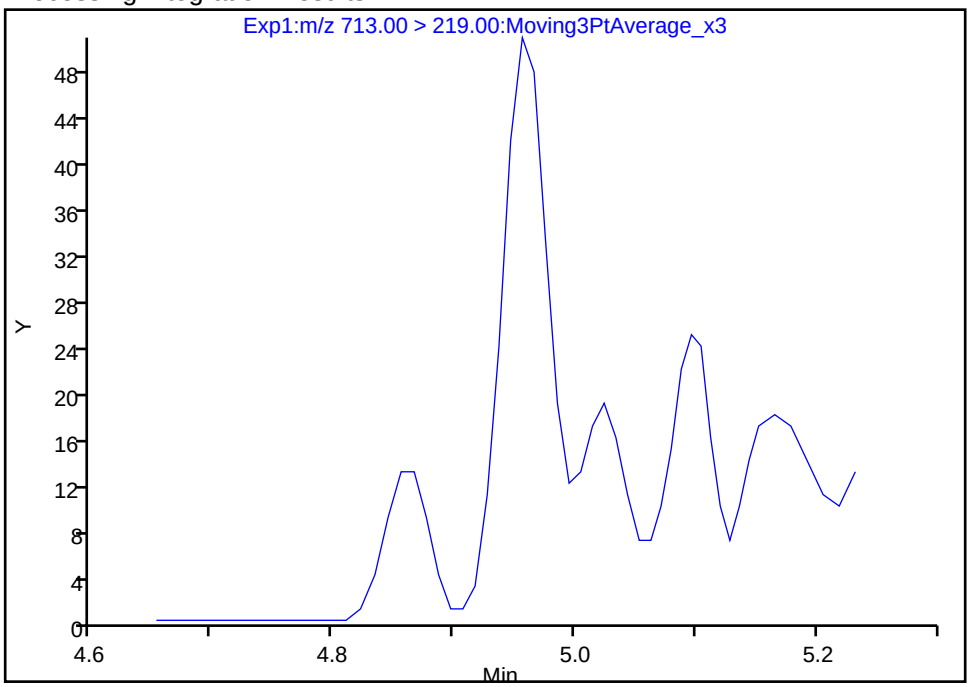
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

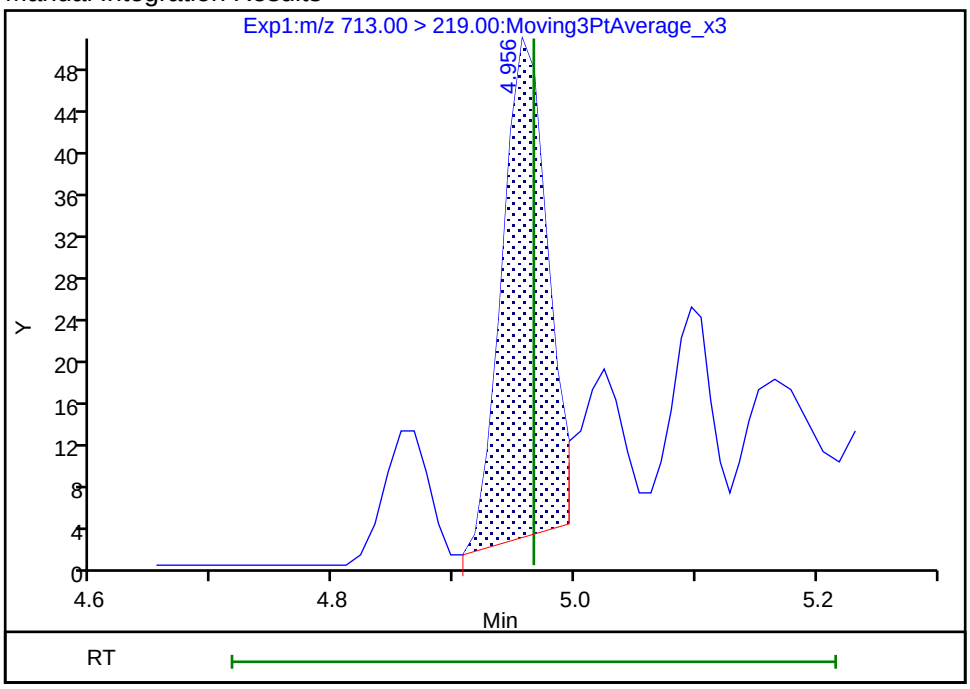
Processing Integration Results

Not Detected
Expected RT: 4.97




Manual Integration Results

RT: 4.96
Area: 125
Amount: 0.004718
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:03:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

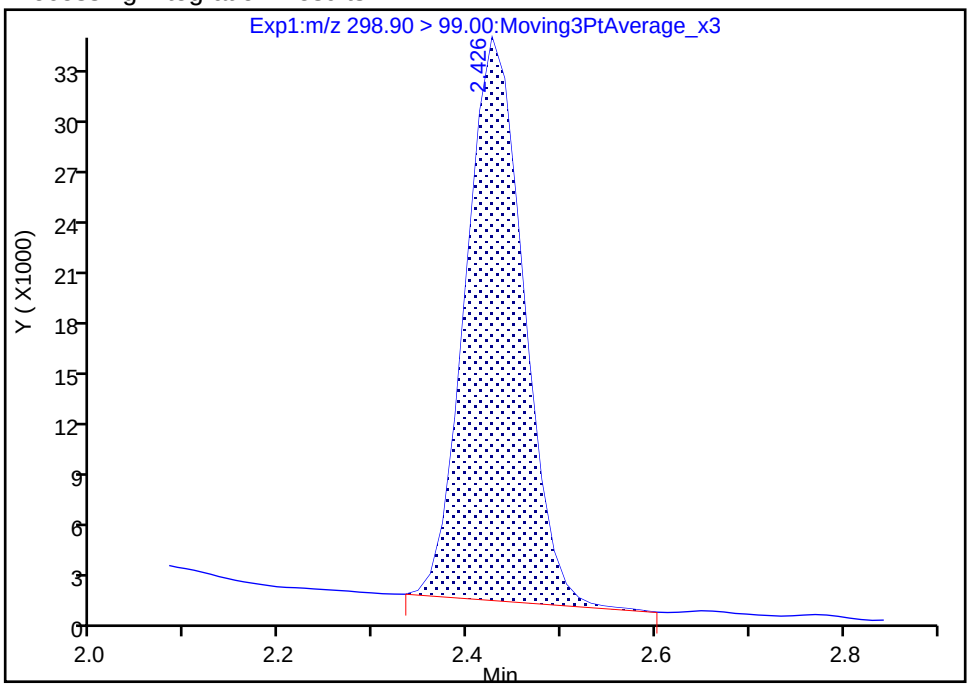
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

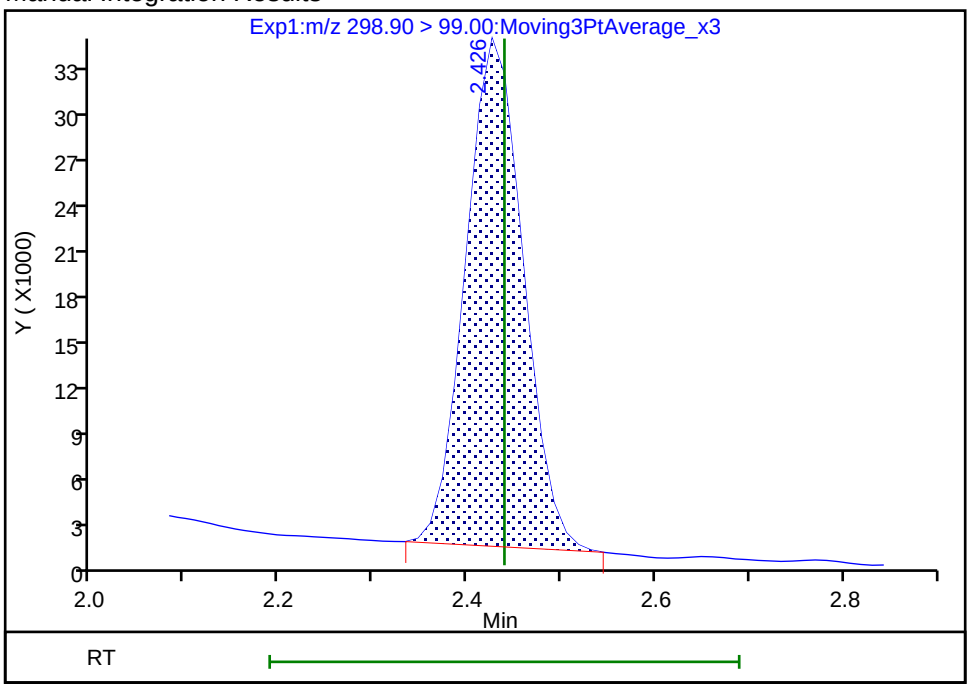
Processing Integration Results

RT: 2.43
Area: 139771
Amount: 0.360660
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 138525
Amount: 0.247650
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

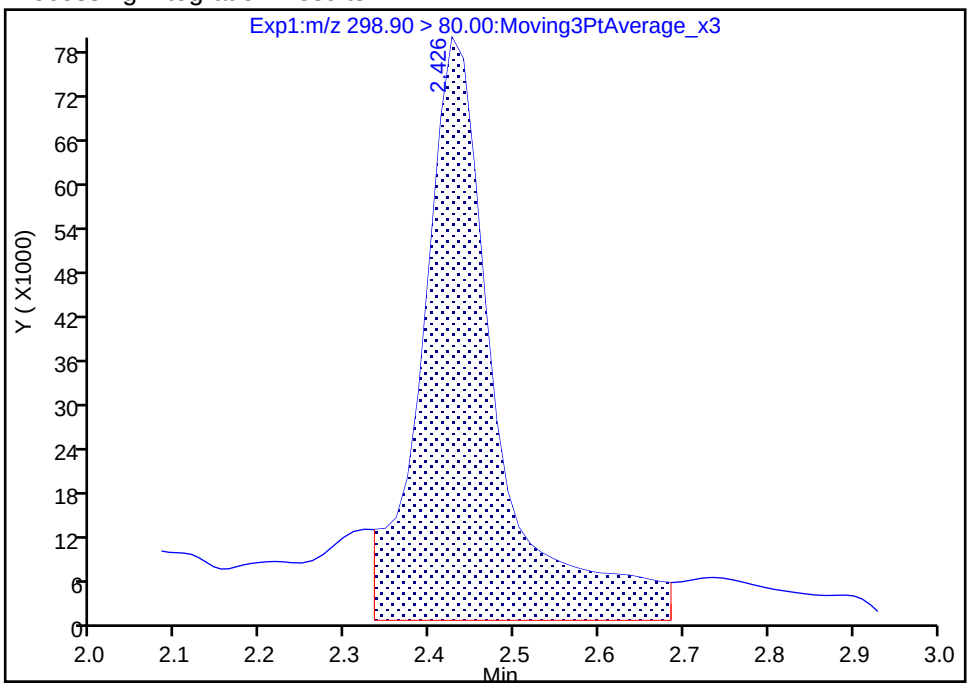
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

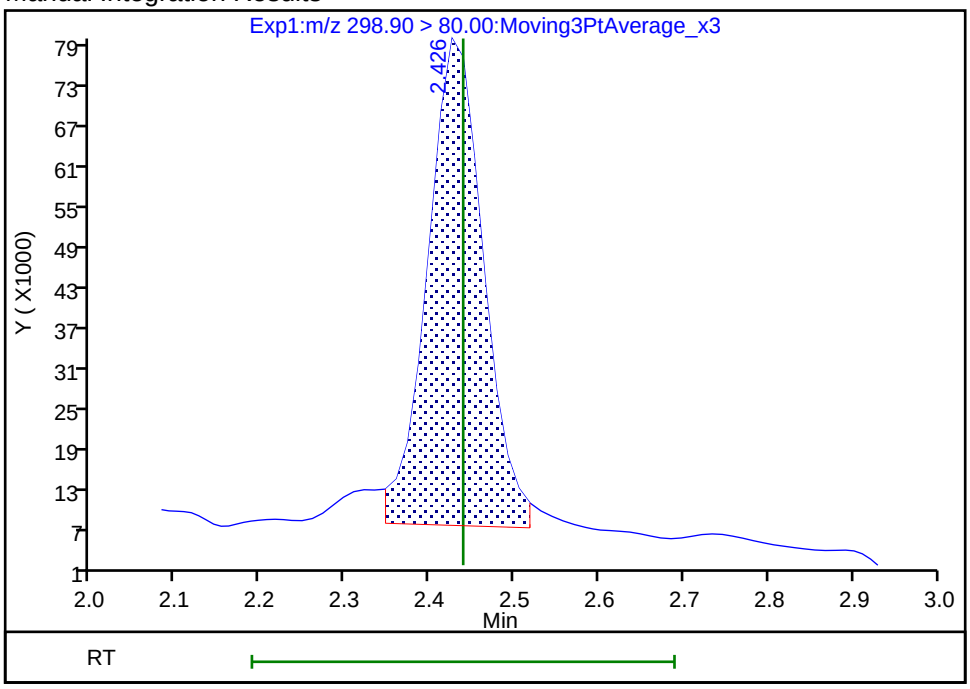
Processing Integration Results

RT: 2.43
Area: 482118
Amount: 0.360660
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 331050
Amount: 0.247650
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

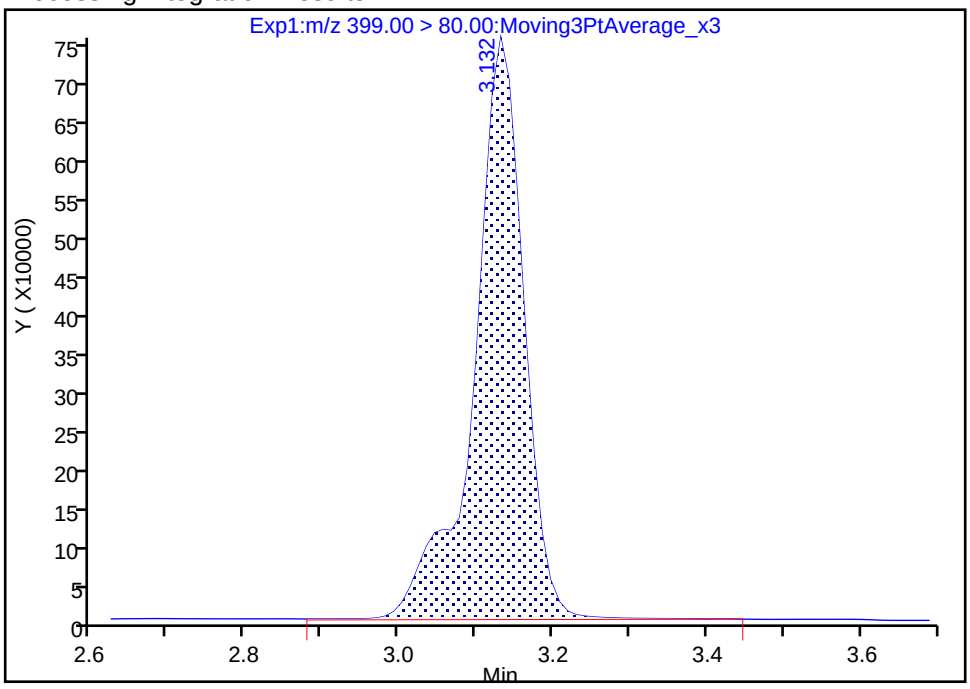
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 |
| Client ID: | MW-26S-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 Worklist Smp#: 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

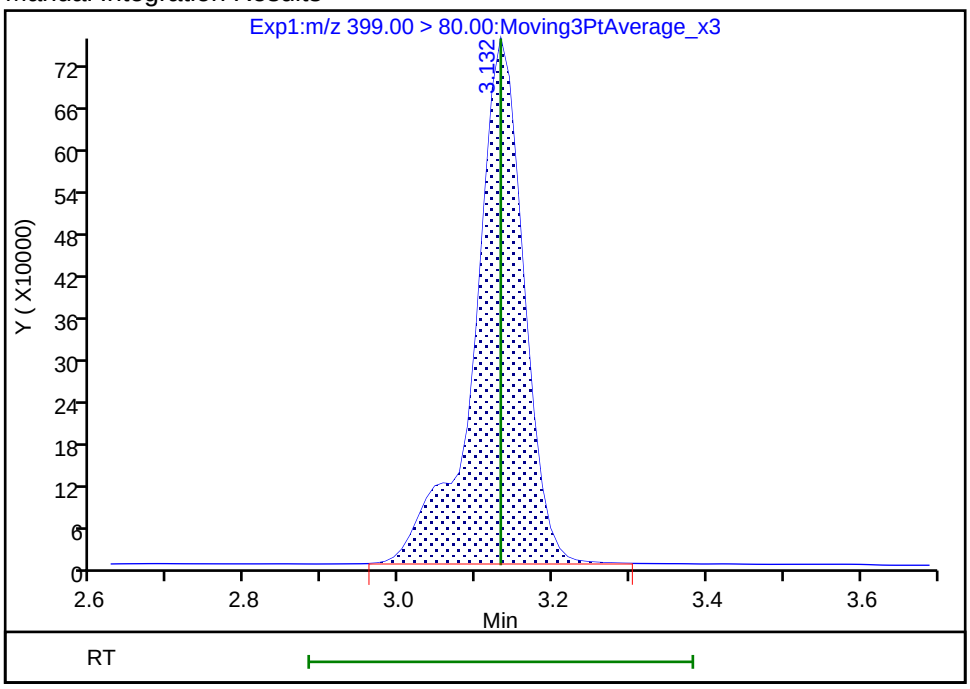
Processing Integration Results

RT: 3.13
Area: 3418393
Amount: 3.221193
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 3390618
Amount: 3.195021
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:00:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

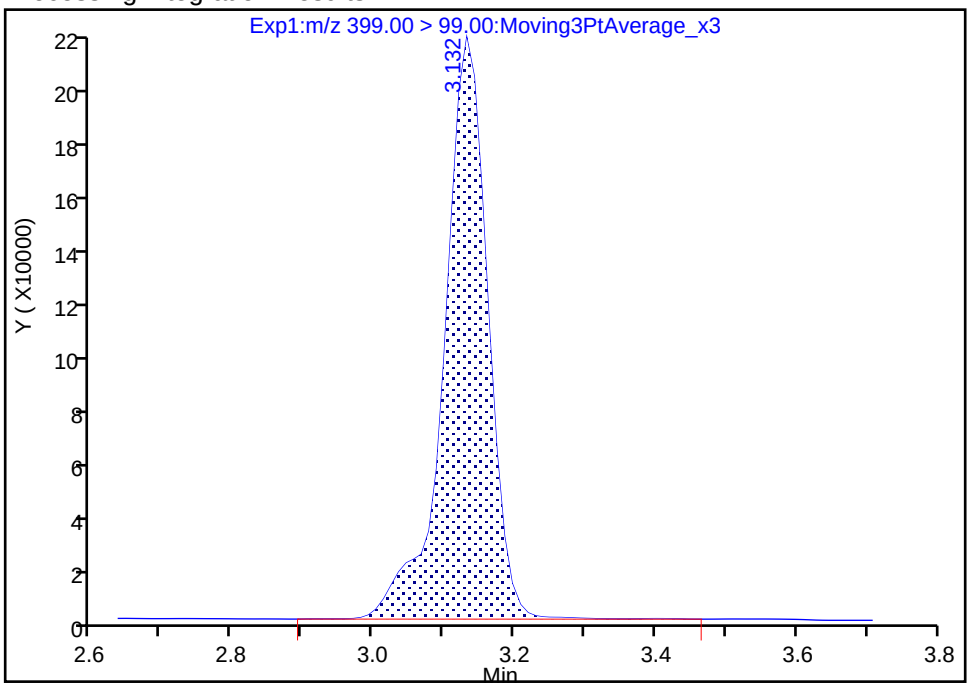
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

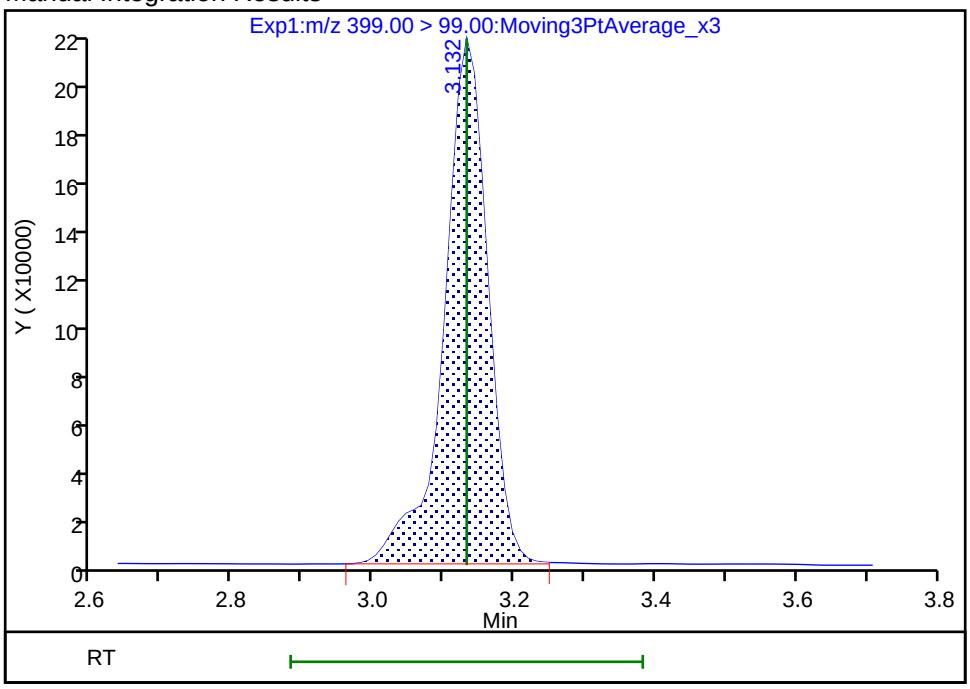
Processing Integration Results

RT: 3.13
Area: 910410
Amount: 3.221193
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 906003
Amount: 3.195021
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:00:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

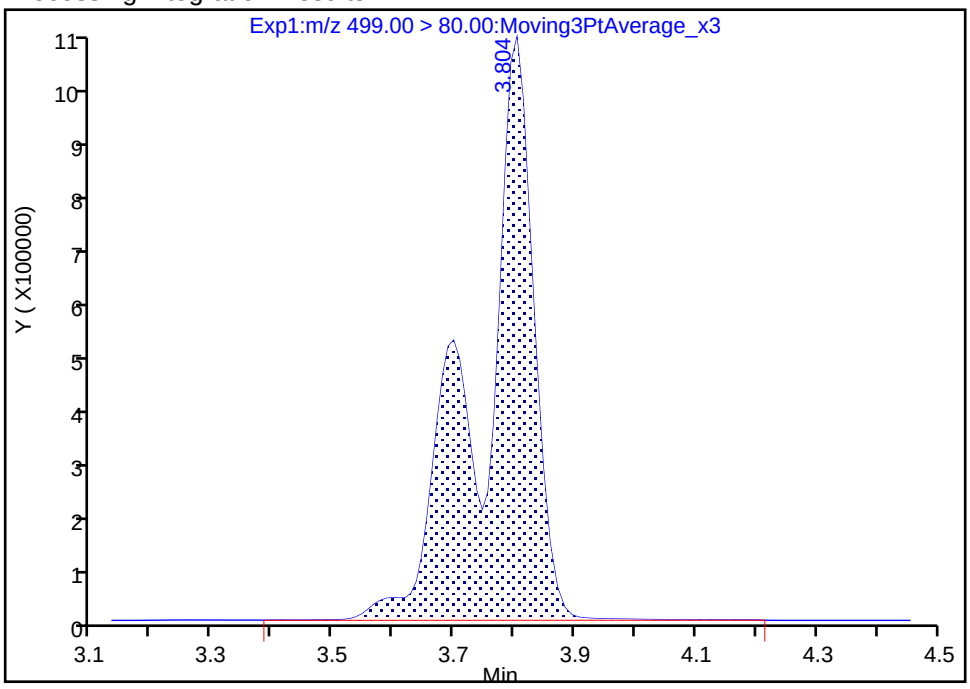
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

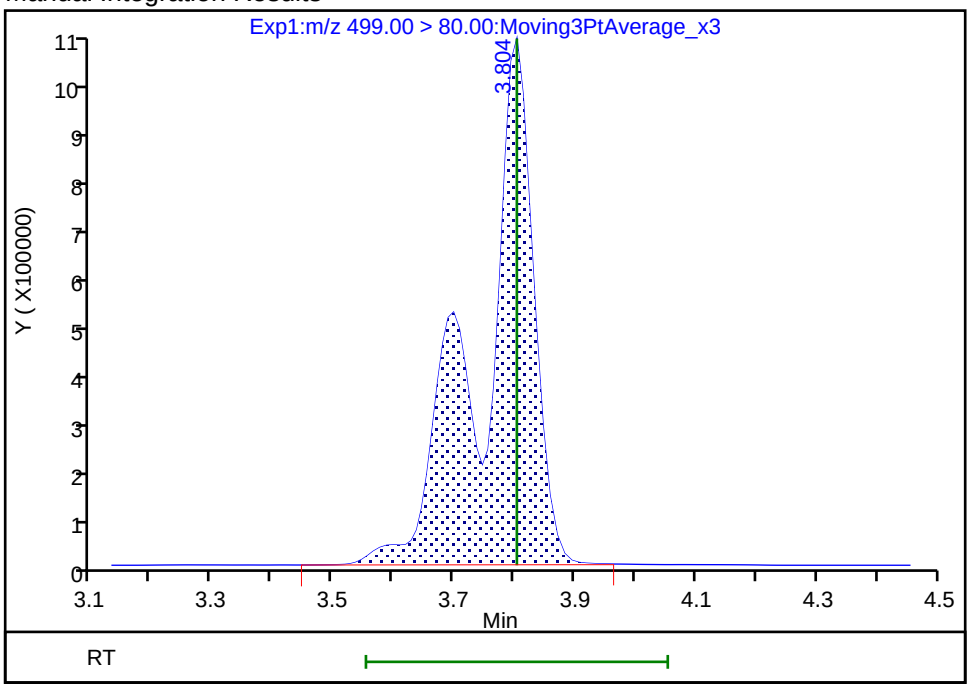
Processing Integration Results

RT: 3.80
Area: 6372007
Amount: 8.296211
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 6335929
Amount: 8.249239
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:01:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

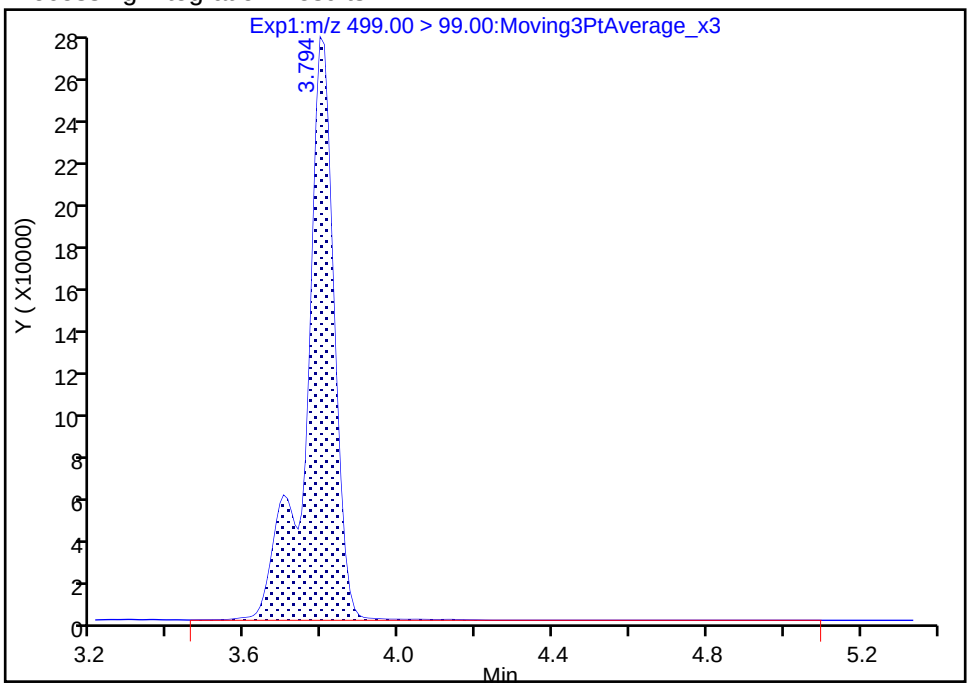
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

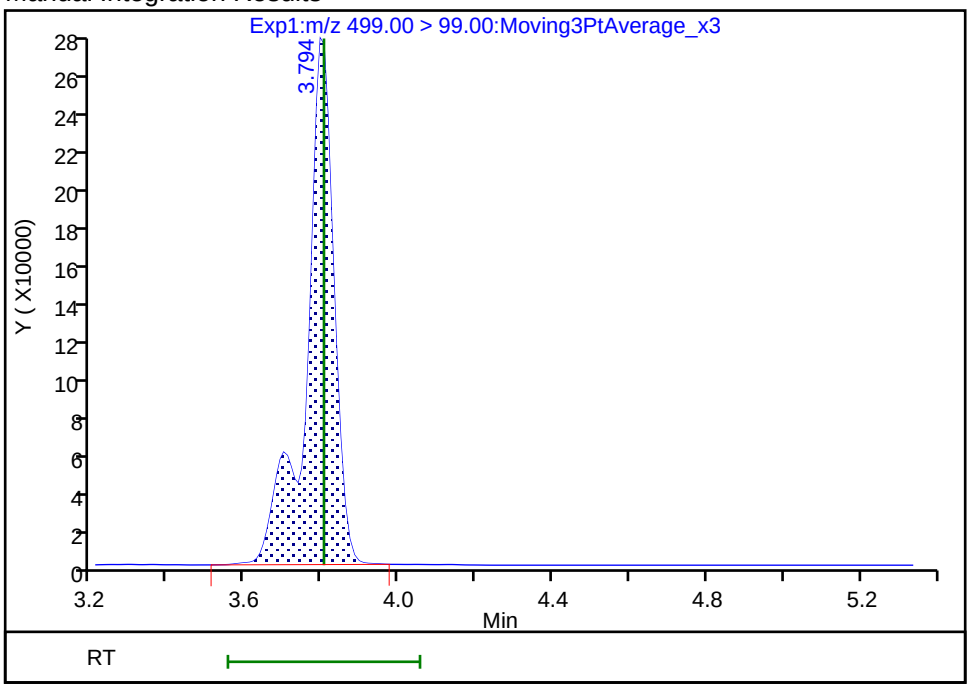
Processing Integration Results

RT: 3.79
Area: 1391343
Amount: 8.296211
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1378527
Amount: 8.249239
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:01:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

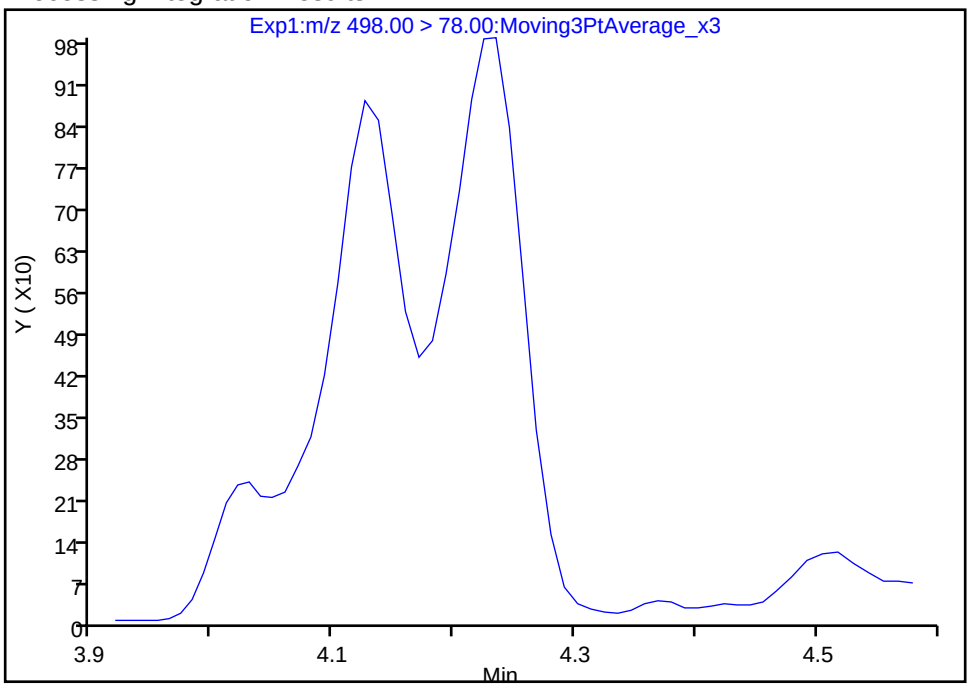
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

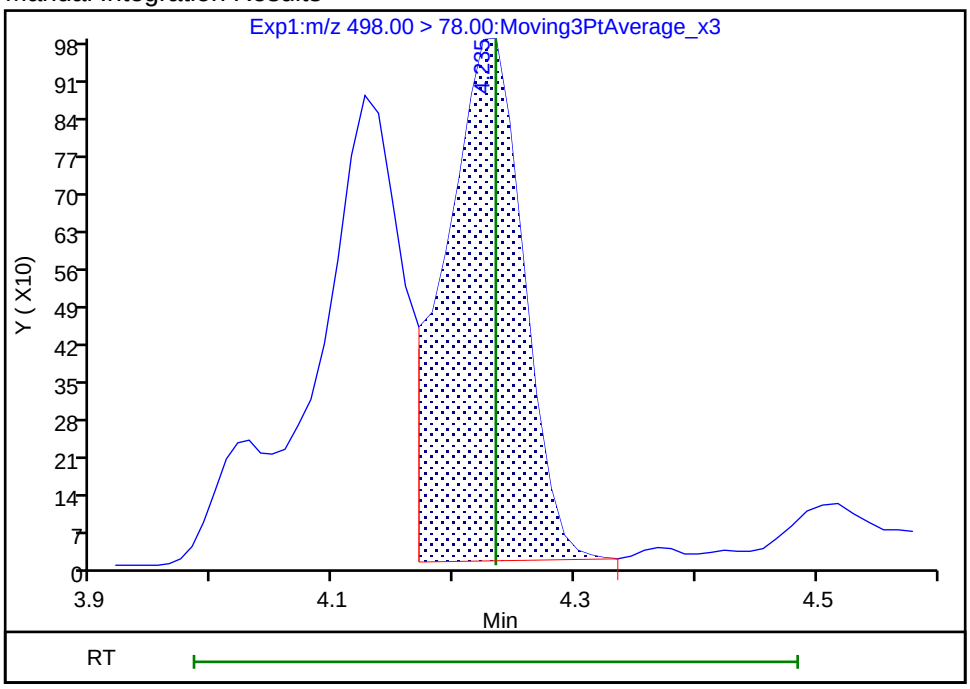
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 4321
Amount: 0.003963
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:02:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

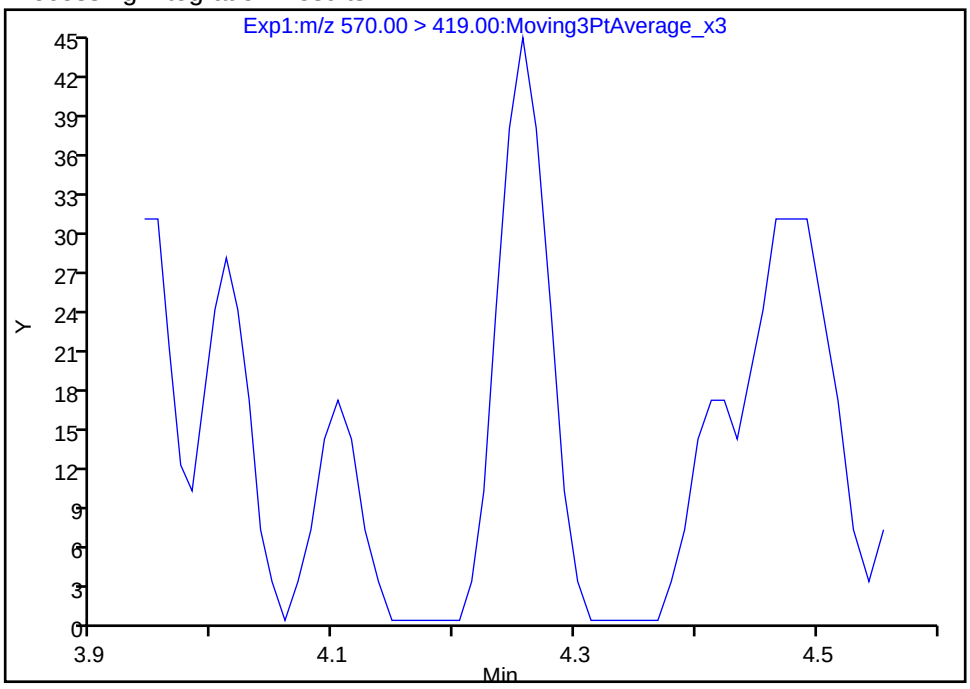
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

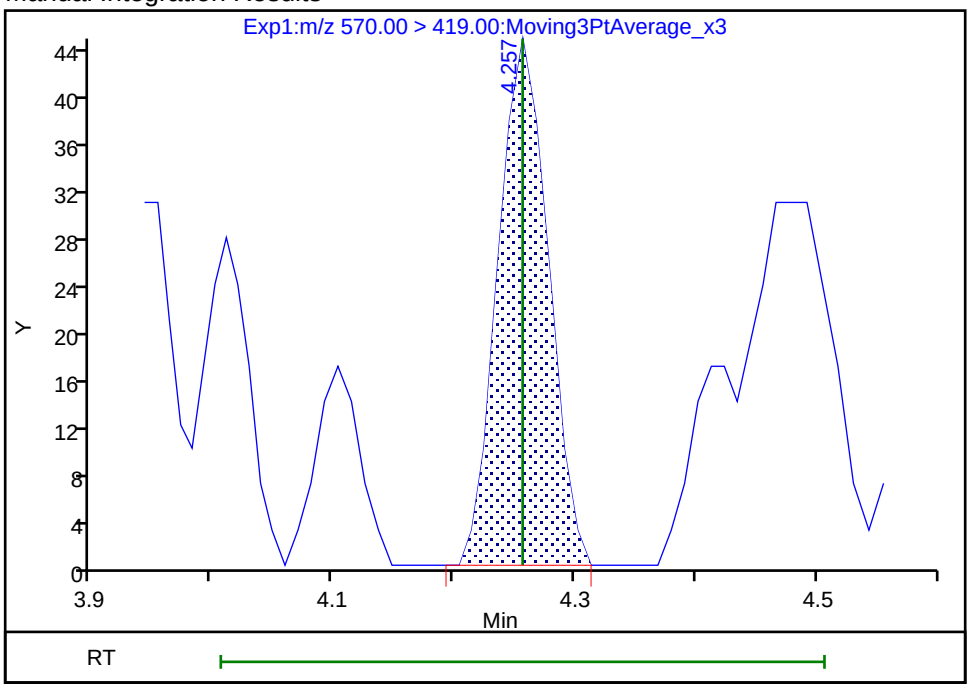
Not Detected
Expected RT: 4.26

Processing Integration Results




Manual Integration Results

RT: 4.26
Area: 130
Amount: 0.001322
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:02:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

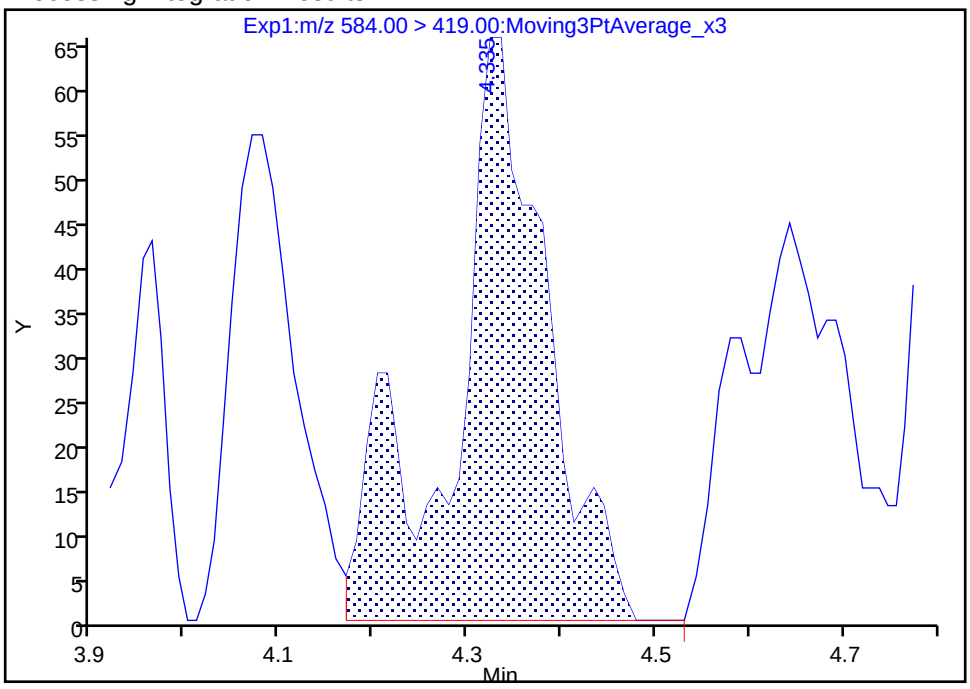
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

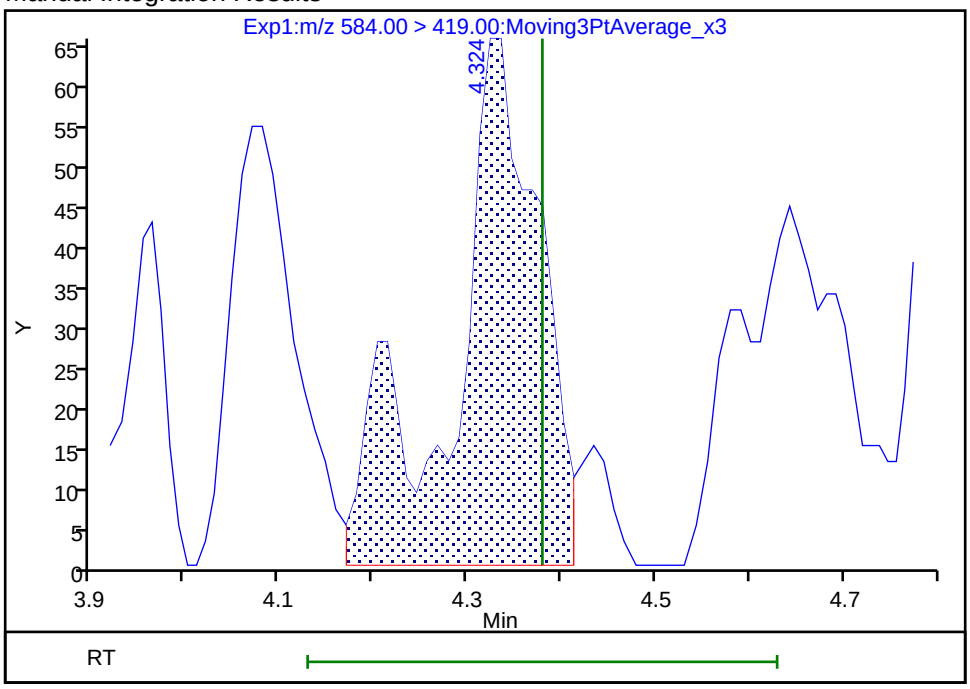
Processing Integration Results

RT: 4.34
Area: 461
Amount: 0.004583
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 425
Amount: 0.004225
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:02:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

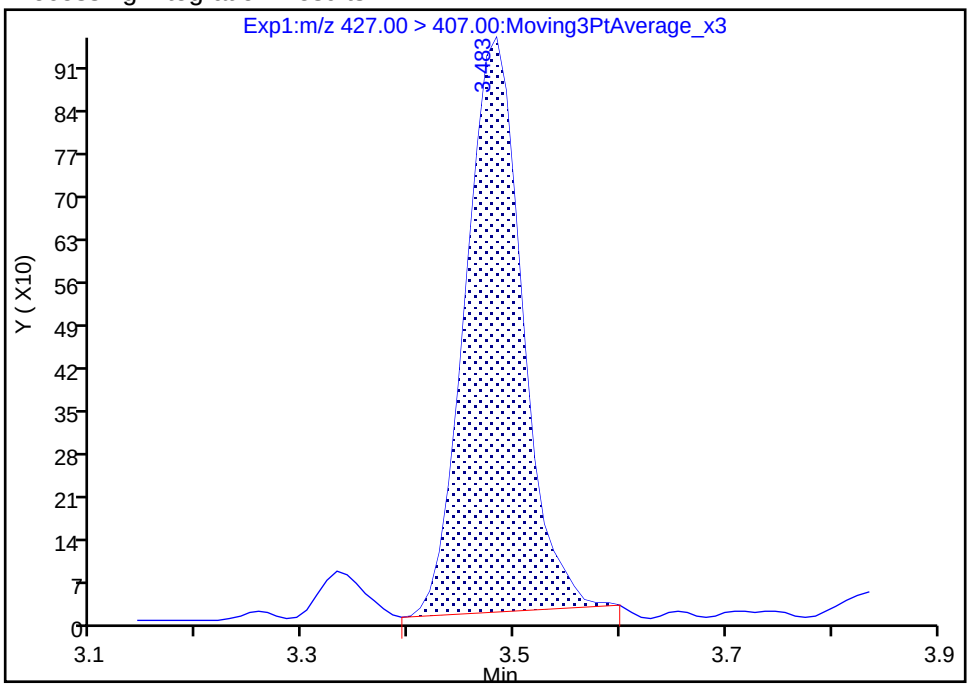
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

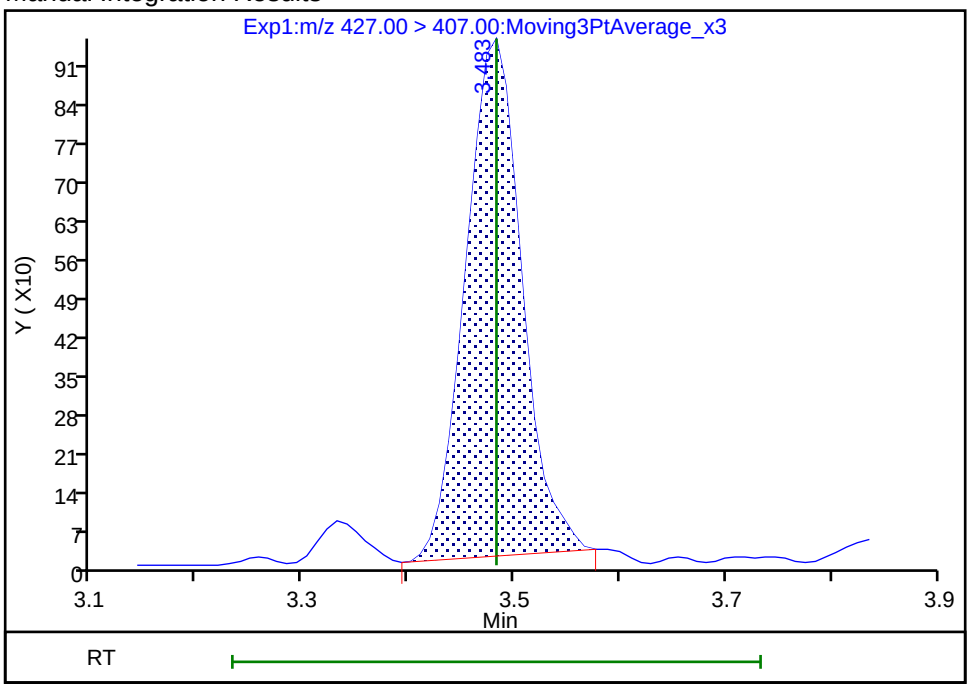
Processing Integration Results

RT: 3.48
Area: 3531
Amount: 0.015050
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 3491
Amount: 0.014880
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:01:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

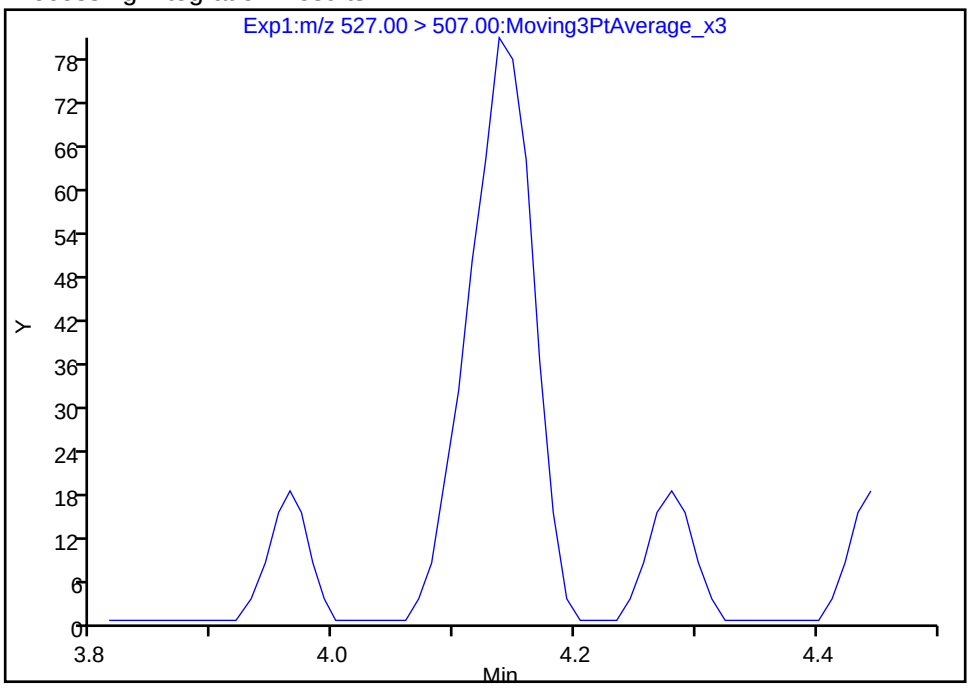
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

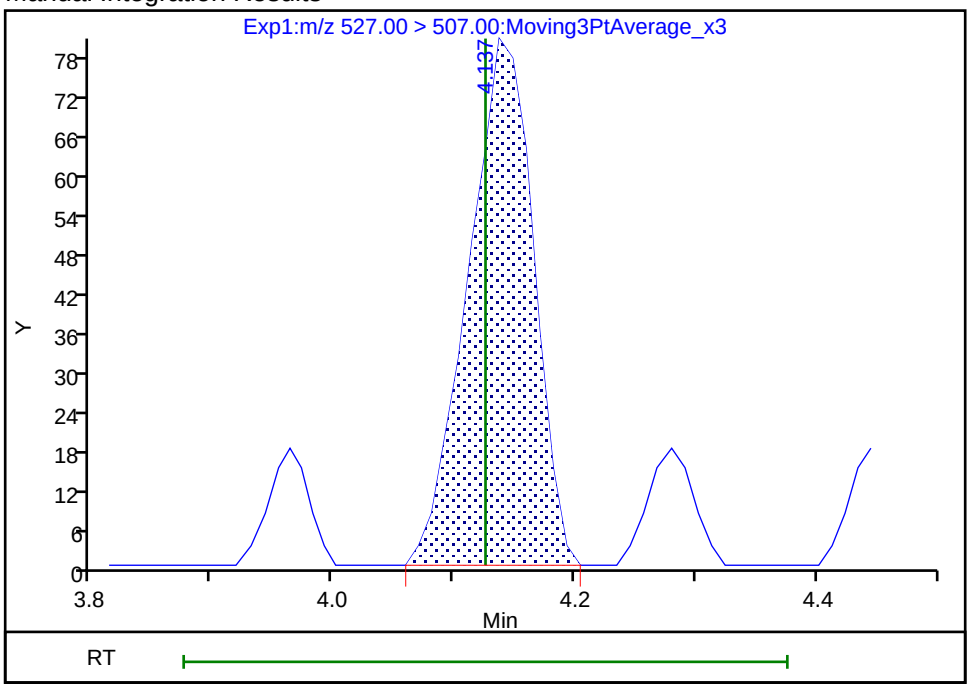
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 304
Amount: 0.001776
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:02:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

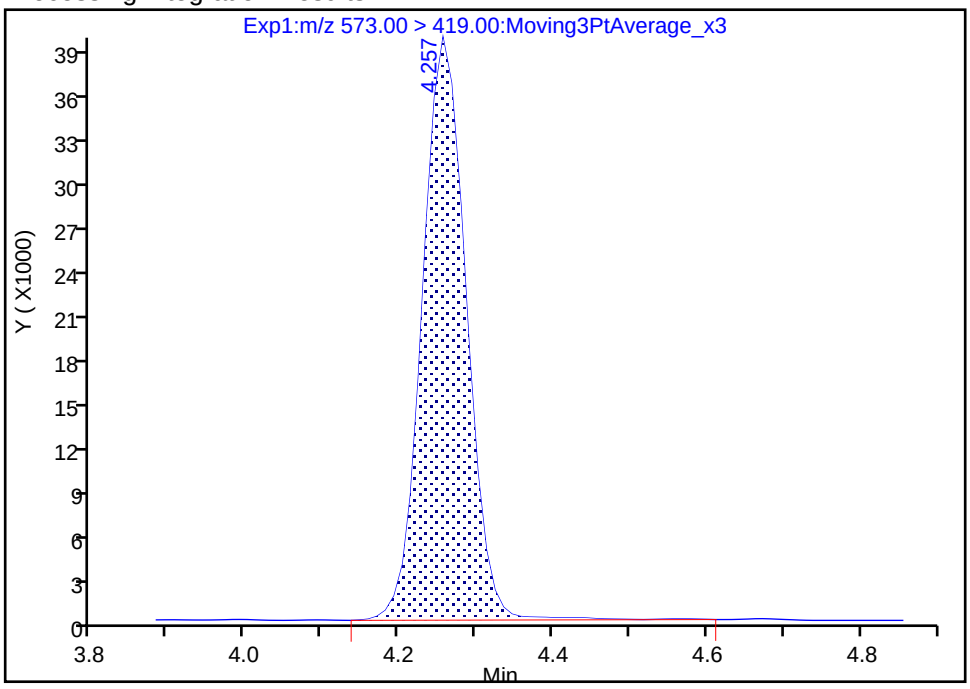
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

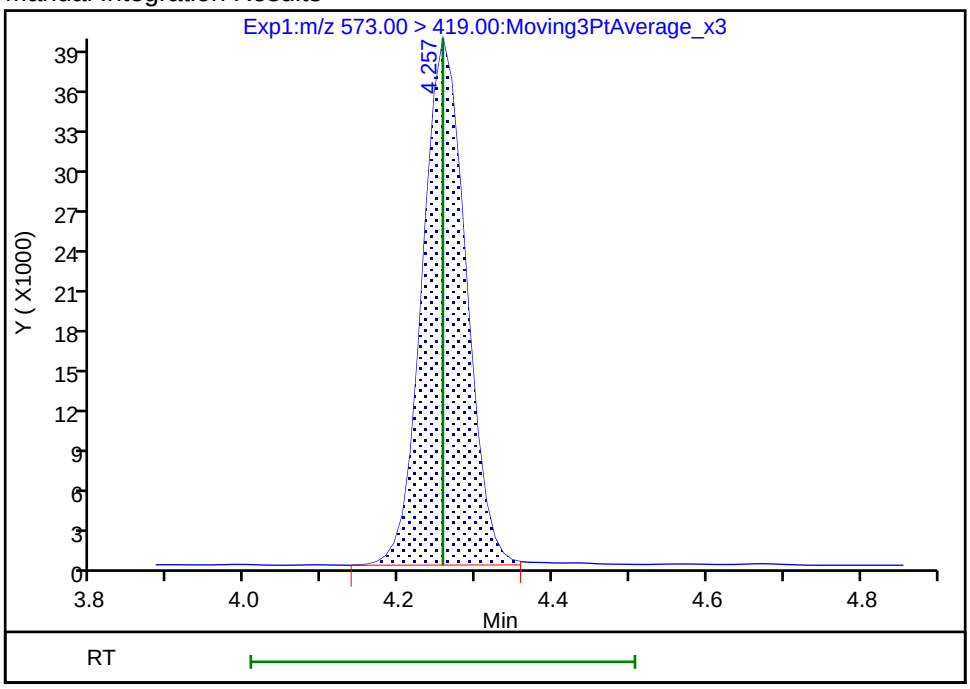
Processing Integration Results

RT: 4.26
Area: 157692
Amount: 1.269834
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 156467
Amount: 1.259970
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:59:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

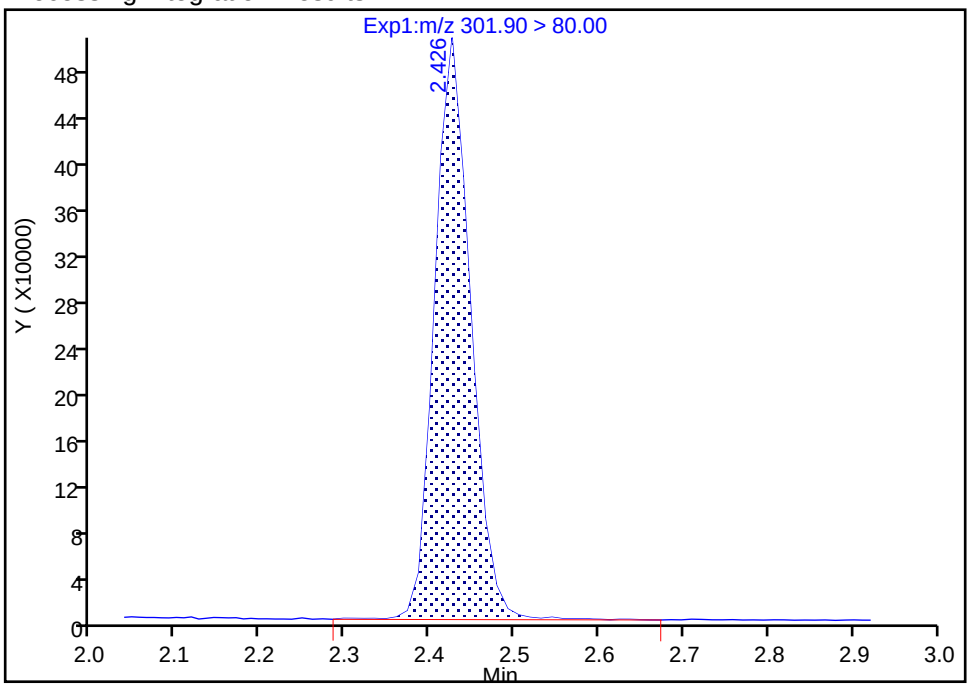
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D25.d | | | | |
| Injection Date: | 10-Nov-2021 07:28:47 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-18-A | Lab Sample ID: | 200-246277-18 | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

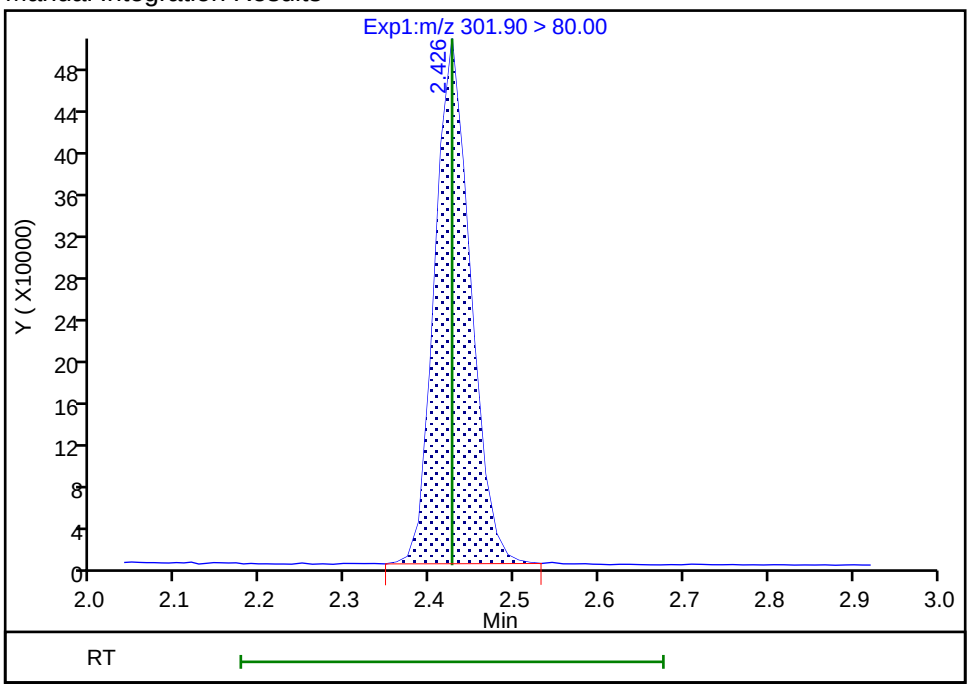
Processing Integration Results

RT: 2.43
Area: 1471703
Amount: 1.044996
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1454960
Amount: 1.033108
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 09:58:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-7S-20211028  Lab Sample ID: 460-246277-19

Matrix: Water  Lab File ID: PA211110A10.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 09:15

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 307(mL)  Date Analyzed: 11/10/2021 12:36

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.00 | J | 4.07 | 0.73 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.54 | J | 1.63 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.43 | J | 1.63 | 0.37 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.19 | U | 1.63 | 0.19 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.45 | J | 1.63 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.23 | U | 1.63 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.25 | U | 1.63 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.63 | 0.28 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.31 | U | 1.63 | 0.31 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.35 | U | 1.63 | 0.35 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.51 | U | 1.63 | 0.51 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.98 | J B | 1.63 | 0.20 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 8.86 |  | 1.63 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.32 | J | 1.63 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 7.87 | I | 1.63 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.63 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.63 | 0.47 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.07 | 0.74 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.07 | 0.61 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.89 | U | 4.07 | 0.89 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.63 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-7S-20211028  Lab Sample ID: 460-246277-19

Matrix: Water  Lab File ID: PA211110A10.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 09:15

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 307(mL)  Date Analyzed: 11/10/2021 12:36

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 97 | | 50-150 |
| STL01892 | 13C4 PFHpA | 100 | | 50-150 |
| STL00990 | 13C4 PFOA | 98 | | 50-150 |
| STL00991 | 13C4 PFOS | 92 | | 50-150 |
| STL00995 | 13C5 PFNA | 91 | | 50-150 |
| STL00992 | 13C4 PFBA | 111 | | 25-150 |
| STL00993 | 13C2 PFHxA | 101 | | 50-150 |
| STL00996 | 13C2 PFDA | 79 | | 50-150 |
| STL00997 | 13C2 PFUnA | 79 | | 50-150 |
| STL00998 | 13C2 PFDoA | 74 | | 50-150 |
| STL01056 | 13C8 FOSA | 84 | | 25-150 |
| STL01893 | 13C5 PFPeA | 104 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 74 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 88 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 98 | | 50-150 |
| STL02279 | M2-6:2 FTS | 106 | | 25-150 |
| STL02280 | M2-8:2 FTS | 103 | | 25-150 |
| STL02337 | 13C3 PFBS | 97 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d
Lims ID: 460-246277-C-19-A
Client ID: MW-7S-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 12:36:22 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-19-A
Misc. Info.: 200-0048360-010 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:53:14
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.600 | 1597899 | 1.39 | | 111 | 1738 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 111328 | 0.0921 | | | 20.9 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.414 | -0.014 | 0.689 | 1257736 | 1.30 | | 104 | 2842 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.414 | -0.014 | 1.000 | 16617 | 0.0165 | | | 0.6 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.697 | 1482113 | 1.13 | | 97.5 | 69360 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 40805 | 0.0300 | Target=2.32 | | 8.4 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 21447 | | 1.90(1.16-3.48) | | 9.9 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.759 | -0.001 | 0.792 | 1275948 | 1.26 | | 101 | 4228 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.771 | -0.013 | 1.000 | 13811 | 0.0133 | Target=12.09 | | 2.1 | M |
| 313.00 > 119.00 | 2.758 | 2.771 | -0.013 | 1.000 | 1125 | | 12.28(6.04-18.13) | | 1.0 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 276560 | 0.2719 | Target=3.55 | | 473 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 72048 | | 3.84(1.77-5.32) | | 89.7 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1093978 | 1.15 | | 97.4 | 3718 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1336772 | 1.25 | | 100 | 3469 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.003 | 2996 | 0.002711 | Target=3.69 | | 1.1 | |
| 363.00 > 169.00 | 3.121 | 3.133 | -0.012 | 0.997 | 618 | | 4.85(1.84-5.53) | | 1.1 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 7849 | 0.0099 | Target=4.88 | | 18.5 | |
| 449.00 > 99.00 | 3.465 | 3.475 | -0.010 | 0.913 | 2372 | | 3.31(2.44-7.32) | | 11.9 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.475 | -0.001 | 1.000 | 154 | 0.000763 | | | 2.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.475 | -0.001 | 0.997 | 189016 | 1.26 | | 106 | 423 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.484 | -0.001 | 1.000 | 1423000 | 1.22 | | 97.6 | 5277 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.484 | -0.001 | | 1416772 | 1.25 | | | 4260 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.003 | 16617 | 0.0137 | Target=2.68 | | 1.6 | M |
| 413.00 > 169.00 | 3.483 | 3.484 | -0.001 | 1.000 | 5414 | | 3.07(1.34-4.02) | | 8.5 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.089 | 758168 | 1.10 | | 92.4 | 4151 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | RM |
| 499.00 > 80.00 | 3.681 | 3.798 | -0.117 | 0.970 | 166239 | 0.2415 | Target=4.69 | | 249 | RM |
| 499.00 > 99.00 | 3.690 | 3.798 | -0.108 | 0.973 | 20891 | | 7.96(2.35-7.04) | | 77.2 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.095 | 1316006 | 1.13 | | 90.6 | 3928 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.181 | 1162679 | 0.99 | | 79.3 | 4194 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 1719 | 0.001839 | Target=8.95 | | 1.3 | M |
| 513.00 > 169.00 | 4.092 | 4.108 | -0.016 | 0.995 | 206 | | 8.34(4.47-13.42) | | 3.0 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.120 | -0.005 | 1.181 | 208726 | 1.23 | | 103 | 671 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.213 | 1181509 | 1.04 | | 83.6 | 2974 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 1621 | 0.001806 | | | 7.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.251 | -0.005 | 1.219 | 127381 | 1.10 | | 88.4 | 1253 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 1.000 | 333 | 0.004160 | | | 1.2 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.324 | 4.342 | -0.018 | 1.140 | 333 | 0.000799 | Target=2.47 | | 2.8 | M |
| 599.00 > 99.00 | 4.335 | 4.342 | -0.007 | 1.143 | 106 | | 3.14(1.23-3.70) | | 2.0 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.254 | 896659 | 0.9813 | | 78.5 | 3868 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.375 | -0.006 | 1.000 | 1216 | 0.001590 | Target=9.24 | | 1.1 | M |
| 563.00 > 169.00 | 4.369 | 4.375 | -0.006 | 1.000 | 157 | | 7.75(4.62-13.86) | | 3.5 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.257 | 132276 | 1.22 | | 98.0 | 977 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.003 | 318 | 0.003507 | | | 4.4 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.598 | -0.007 | 1.318 | 907791 | 0.9236 | | 73.9 | 1776 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.429 | 705005 | 0.9249 | | 74.0 | 1823 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 221 | 0.002483 | Target=1.01 | | 7.0 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 217 | | 1.02(0.51-1.52) | | 11.4 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d

Injection Date: 10-Nov-2021 12:36:22 Instrument ID: LC812

Lims ID: 460-246277-C-19-A Lab Sample ID: 200-246277-19

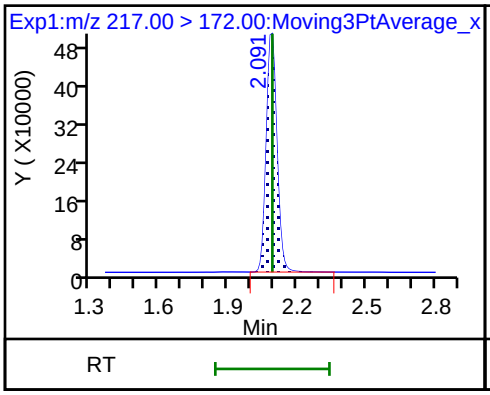
Client ID: MW-7S-20211028

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10

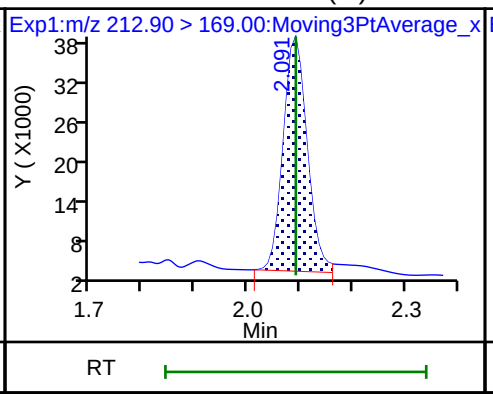
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

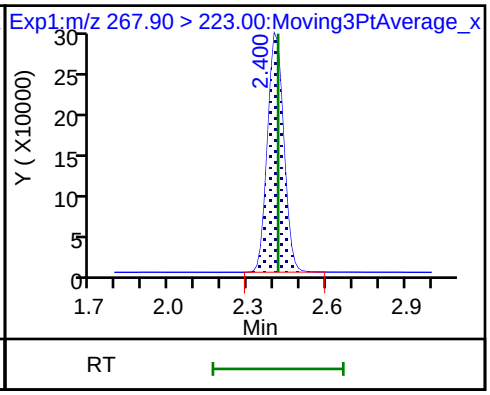
D 1 13C4 PFBA



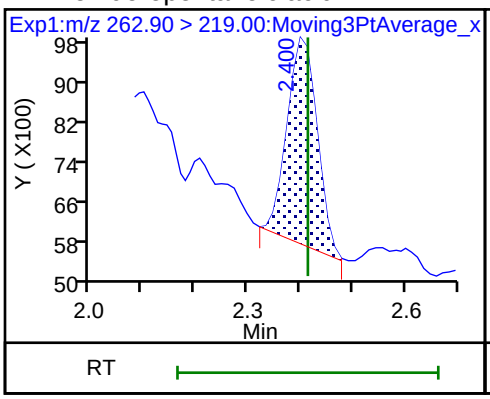

2 Perfluorobutanoic acid (M)



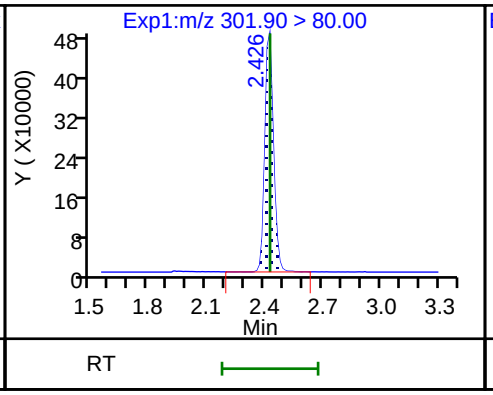

D 3 13C5 PFPeA



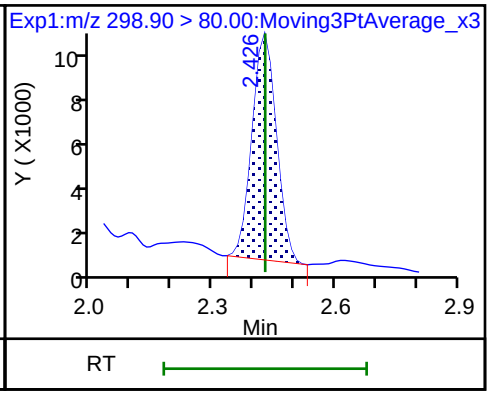

4 Perfluoropentanoic acid



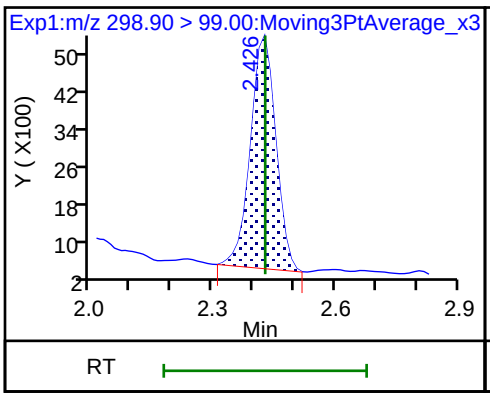

D 47 13C3 PFBS



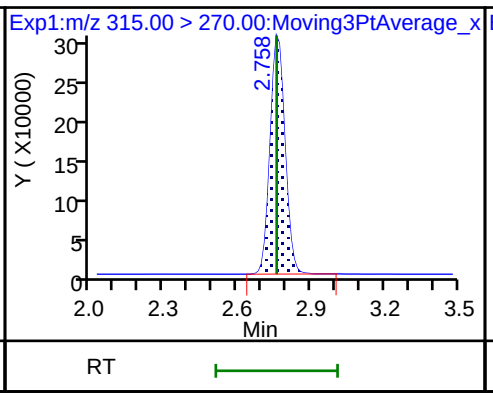

5 Perfluorobutanesulfonic acid



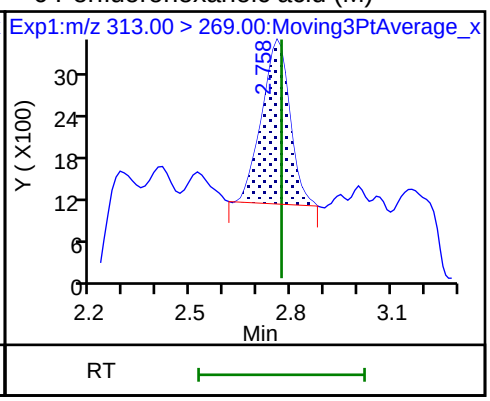

5 Perfluorobutanesulfonic acid



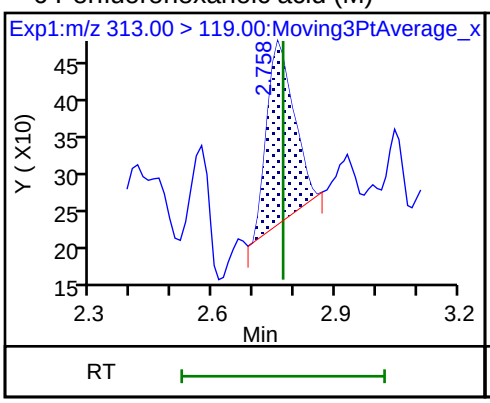

D 7 13C2 PFHxA



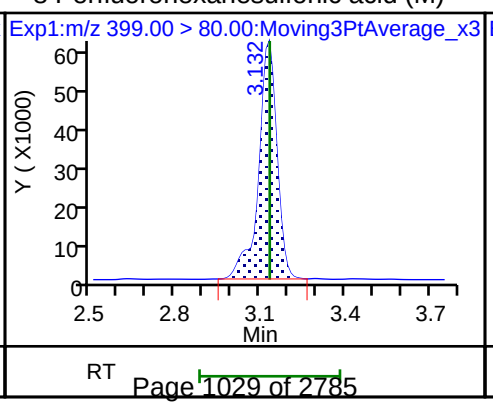

6 Perfluorohexanoic acid (M)



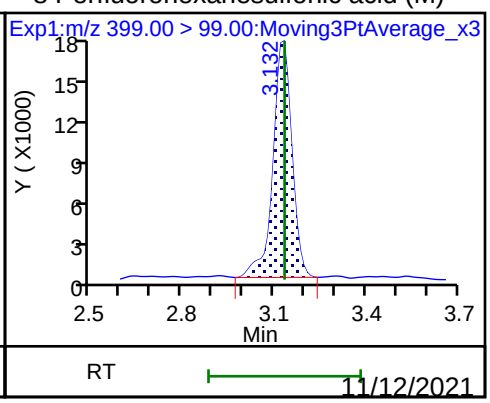

6 Perfluorohexanoic acid (M)



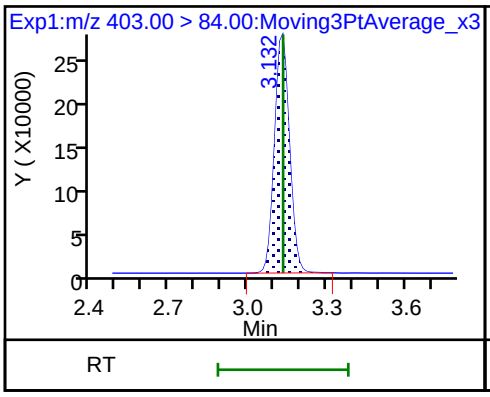

8 Perfluorohexanesulfonic acid (M)



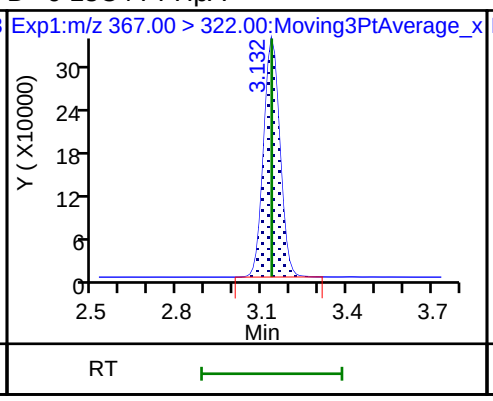

8 Perfluorohexanesulfonic acid (M)



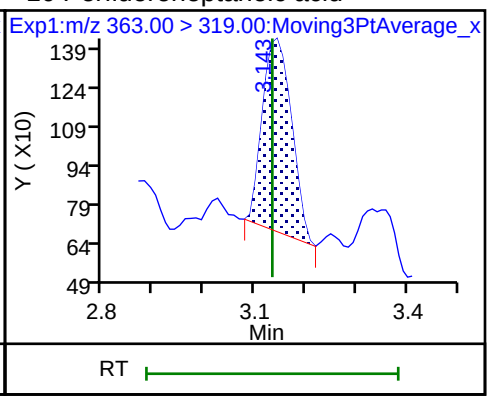
D 11 18O2 PFHxS



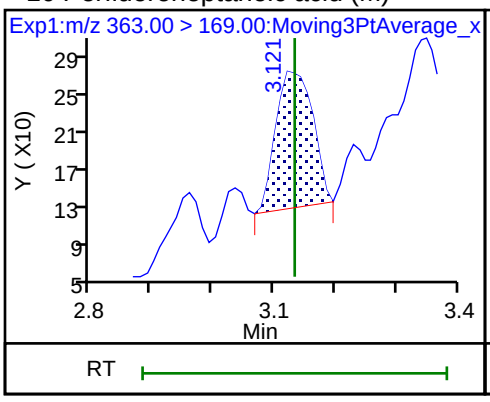

D 9 13C4 PFHpA



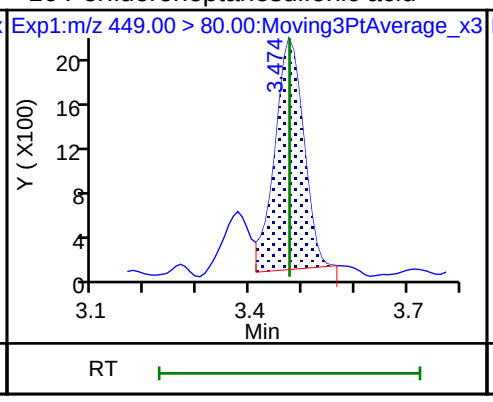

10 Perfluoroheptanoic acid



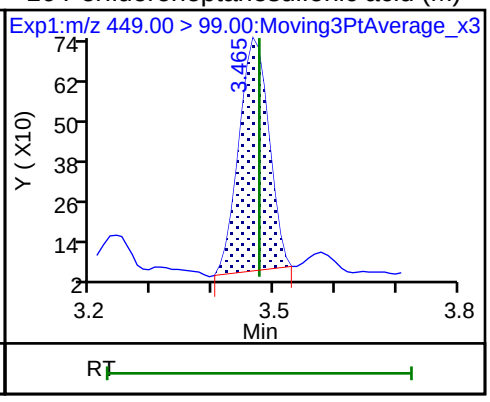

10 Perfluoroheptanoic acid (M)



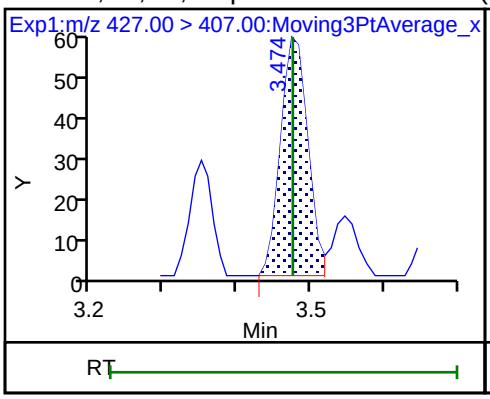

16 Perfluoroheptanesulfonic acid



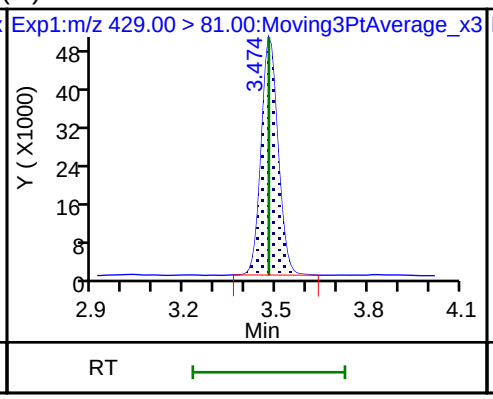

16 Perfluoroheptanesulfonic acid (M)



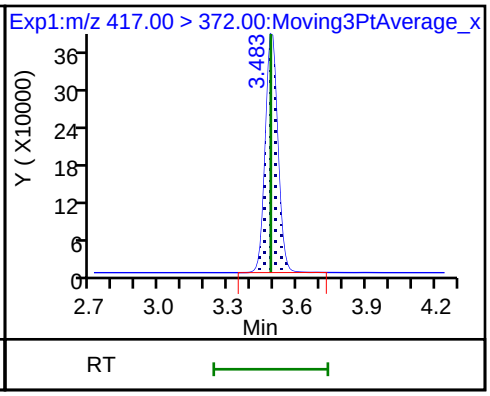

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



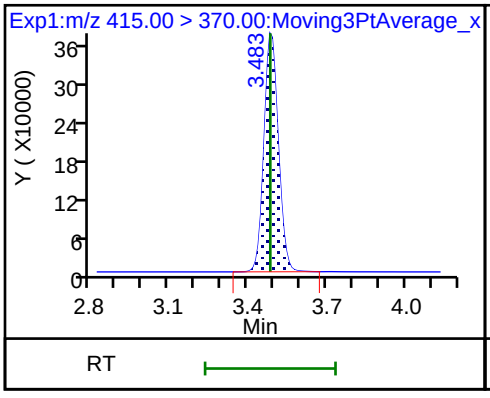

D 12 M2-6:2 FTS



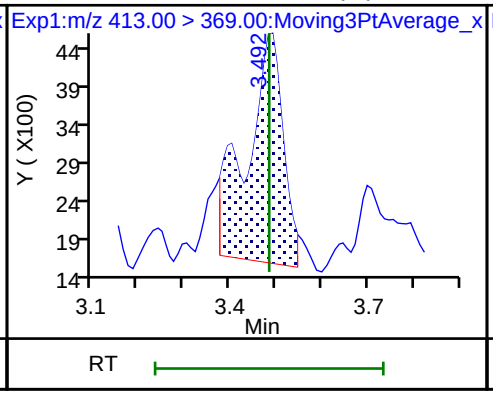

D 14 13C4 PFOA



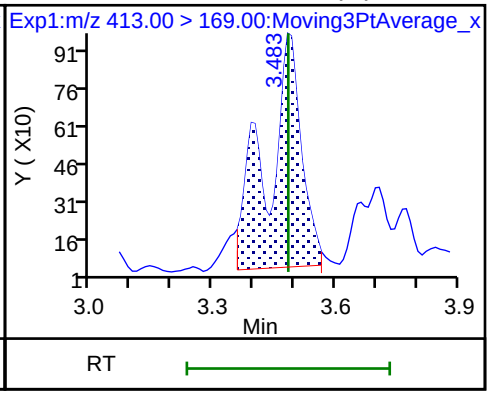

* 62 13C2 PFOA



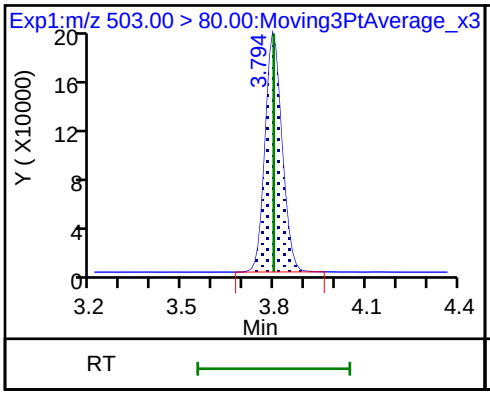

15 Perfluorooctanoic acid (M)



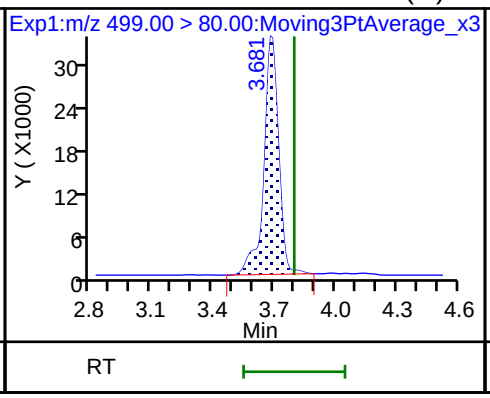

15 Perfluorooctanoic acid (M)



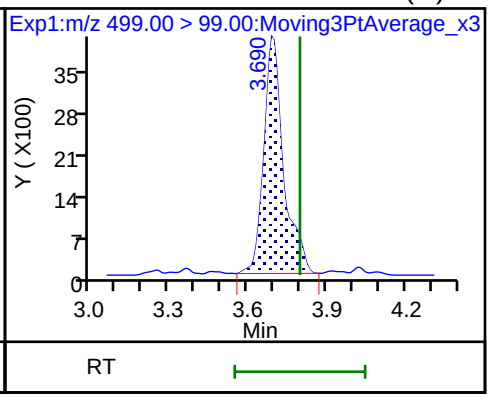
D 18 13C4 PFOS



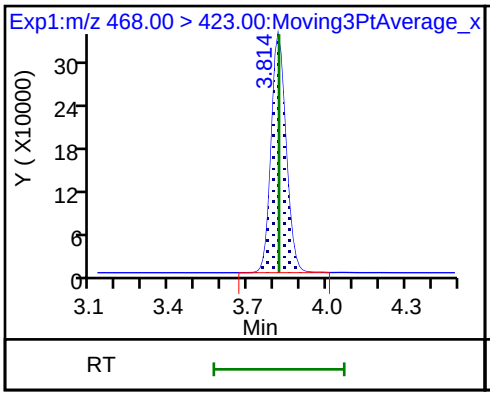

17 Perfluorooctanesulfonic acid (M)



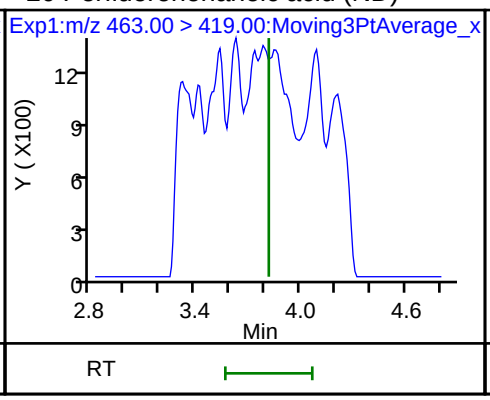

17 Perfluorooctanesulfonic acid (M)



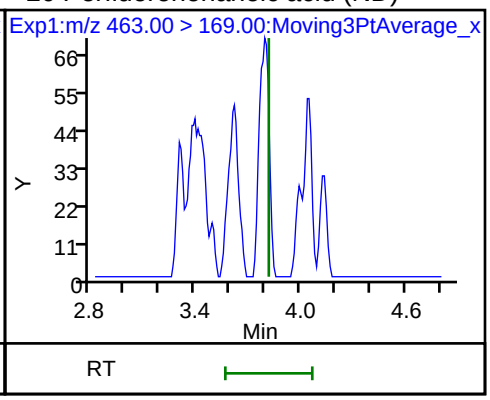

D 19 13C5 PFNA



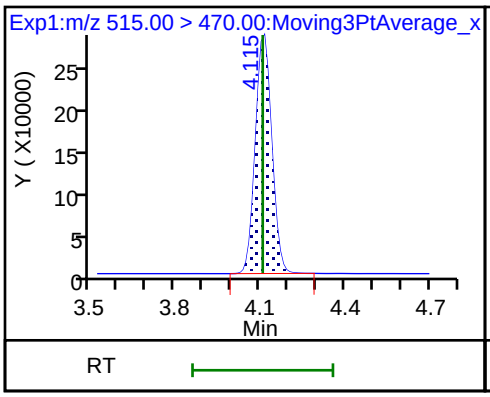

20 Perfluorononanoic acid (ND)



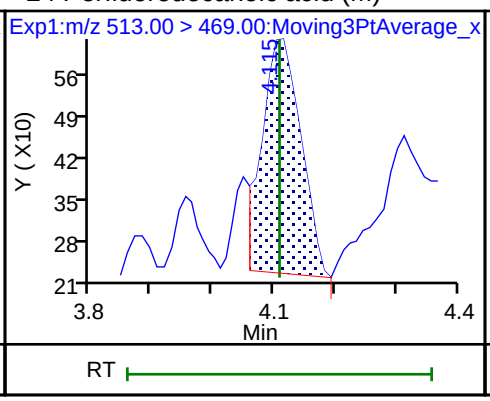

20 Perfluorononanoic acid (ND)



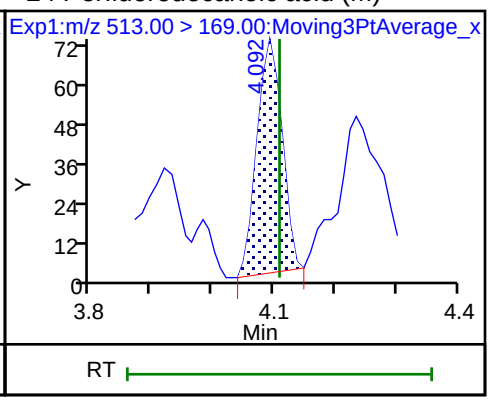

D 23 13C2 PFDA



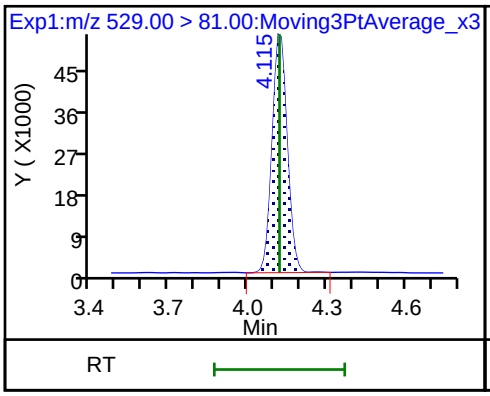

24 Perfluorodecanoic acid (M)



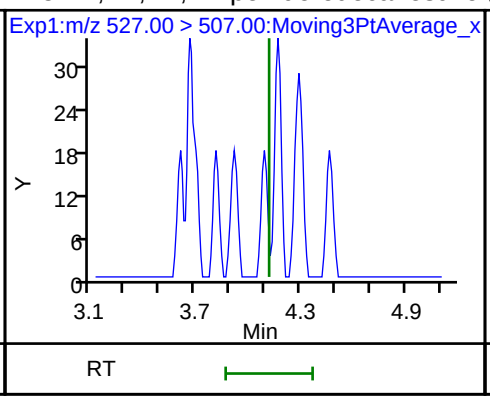

24 Perfluorodecanoic acid (M)



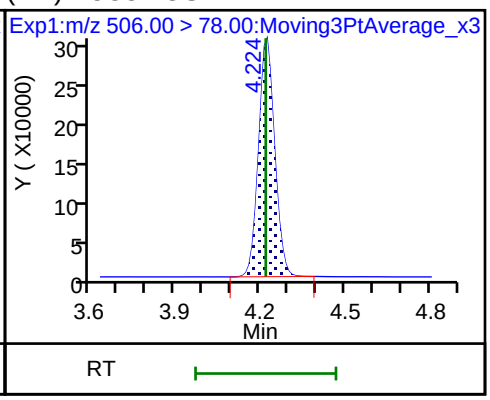

D 26 M2-8:2 FTS



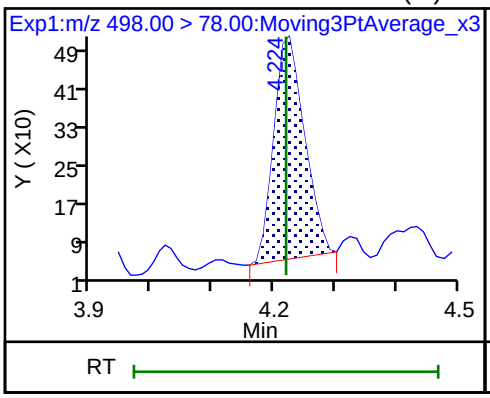

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



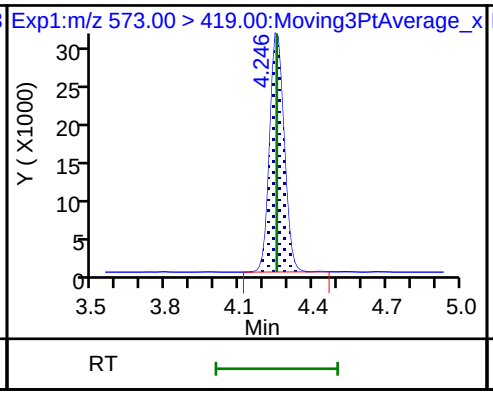

D 21 13C8 FOSA



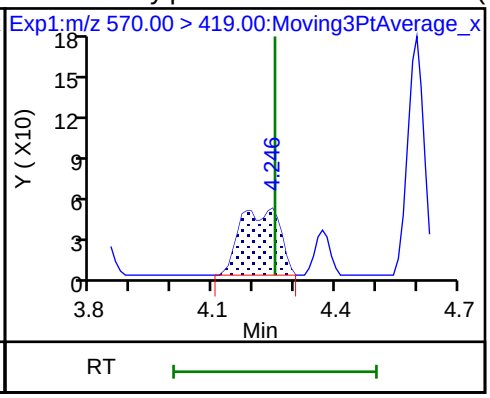
22 Perfluorooctanesulfonamide (M)



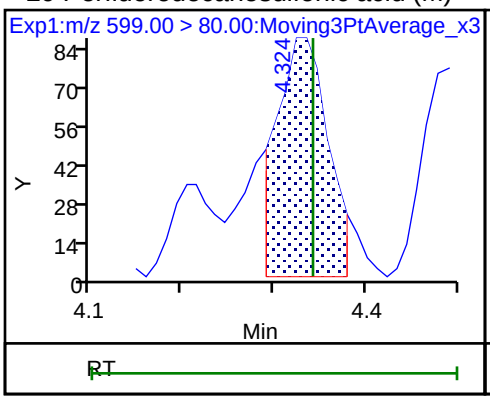

D 27 d3-NMeFOSAA



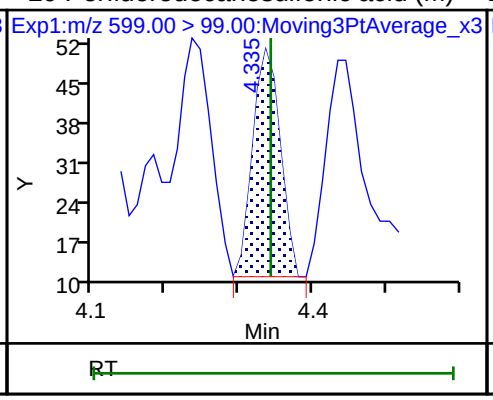

28 N-methylperfluorooctanesulfonami (M)



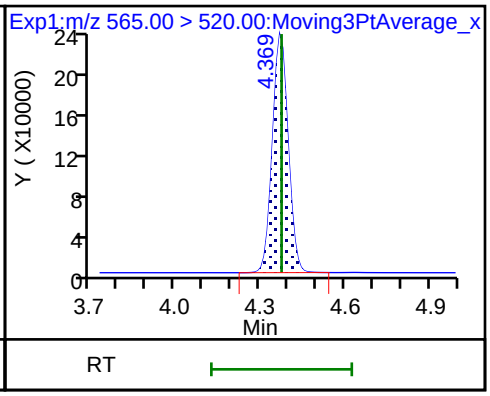

29 Perfluorodecanesulfonic acid (M)



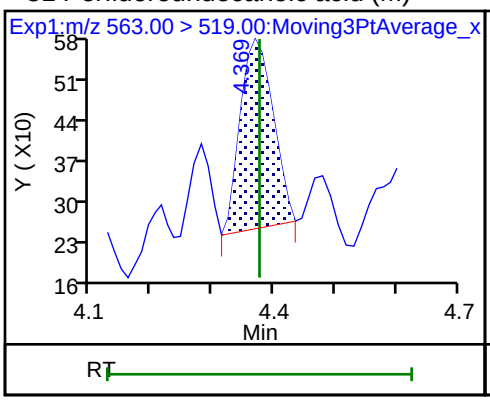

29 Perfluorodecanesulfonic acid (M)



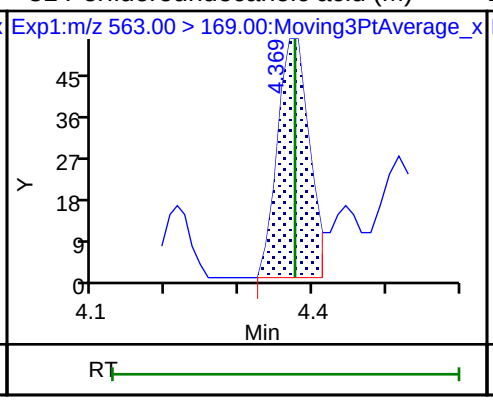

D 30 13C2 PFUnA



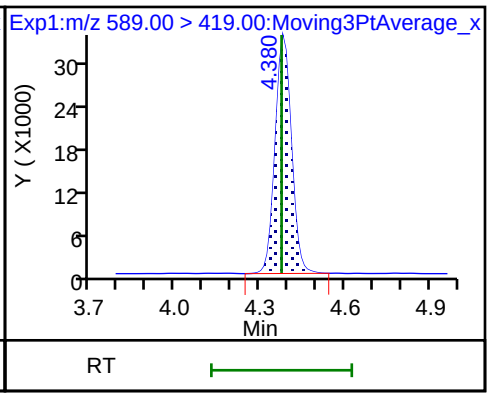

31 Perfluoroundecanoic acid (M)



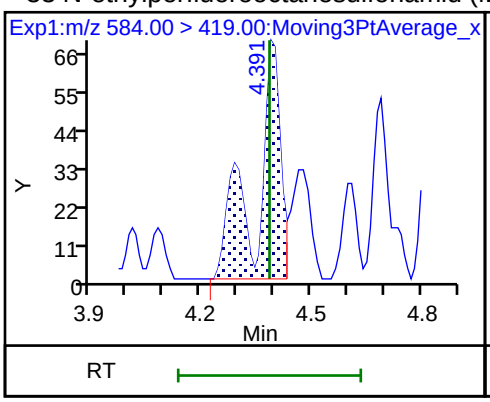

31 Perfluoroundecanoic acid (M)



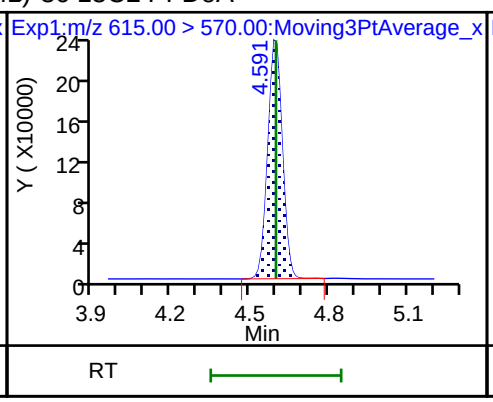

D 32 d5-NEtFOSAA



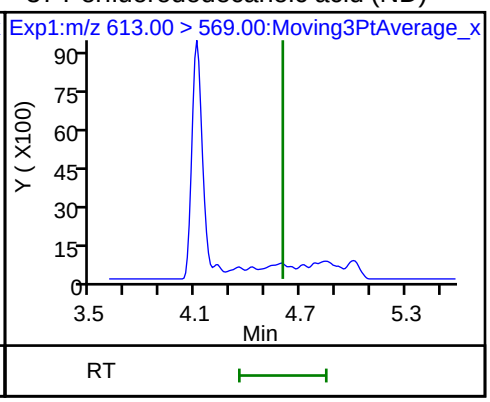

33 N-ethylperfluorooctanesulfonamid (ND)



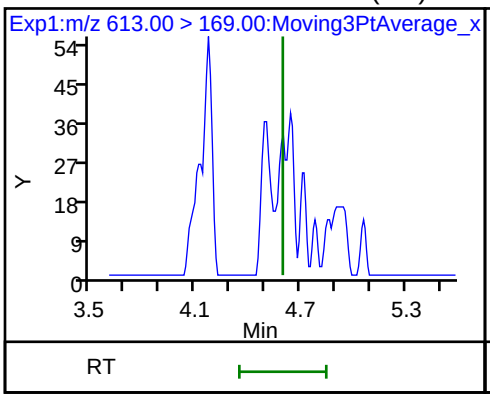

D 36 13C2 PFDoA



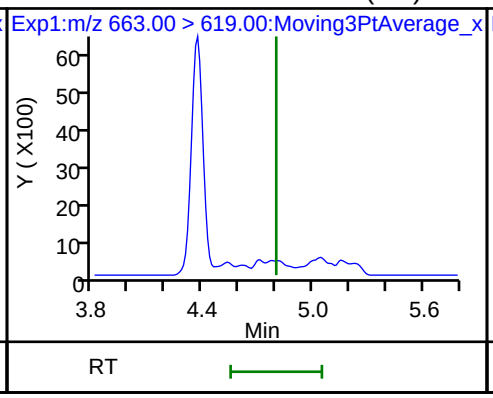

37 Perfluorododecanoic acid (ND)



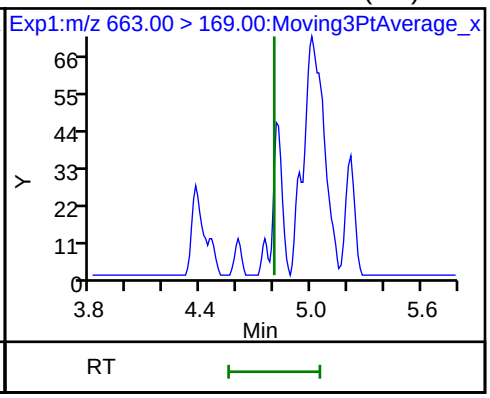
37 Perfluorododecanoic acid (ND)



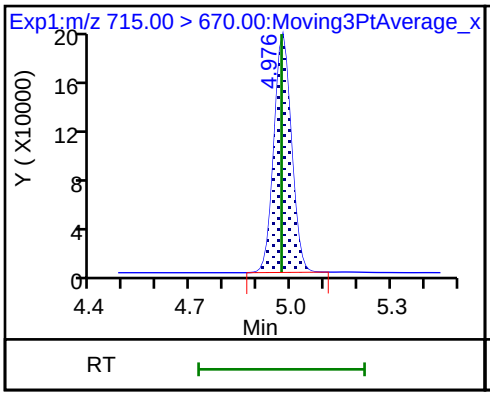

41 Perfluorotridecanoic acid (ND)



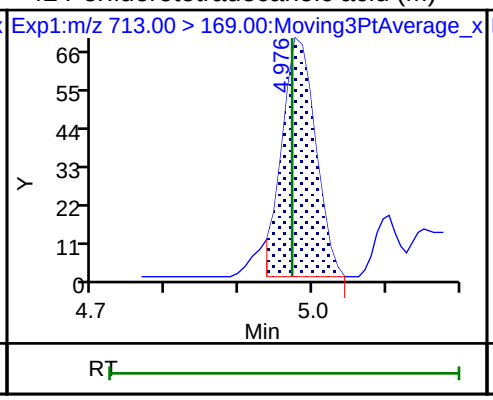

41 Perfluorotridecanoic acid (ND)



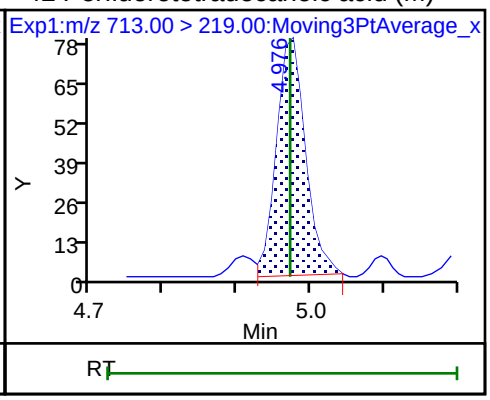

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

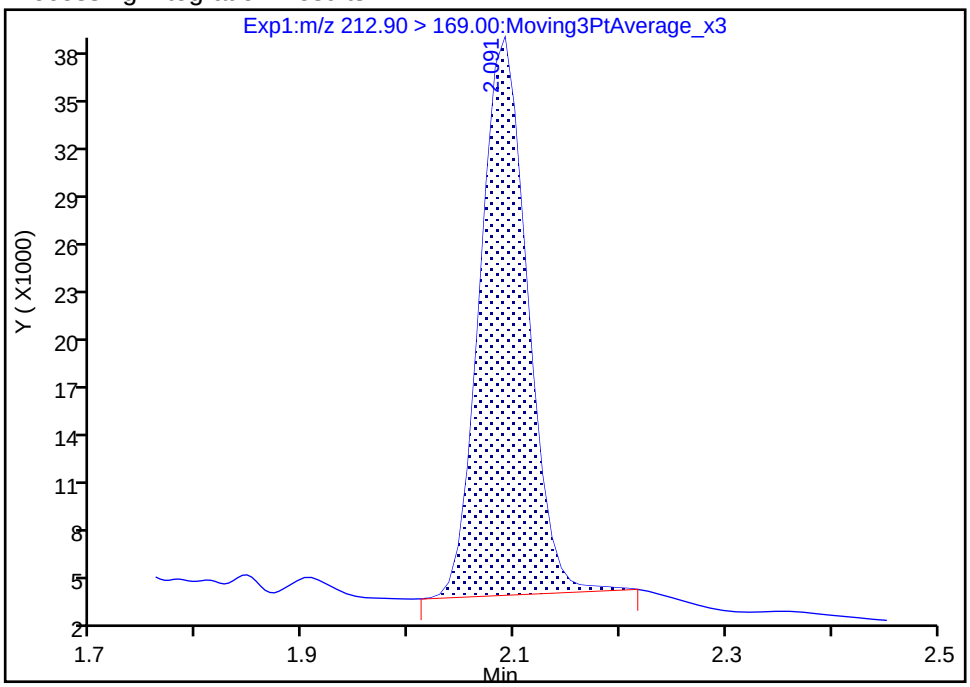
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

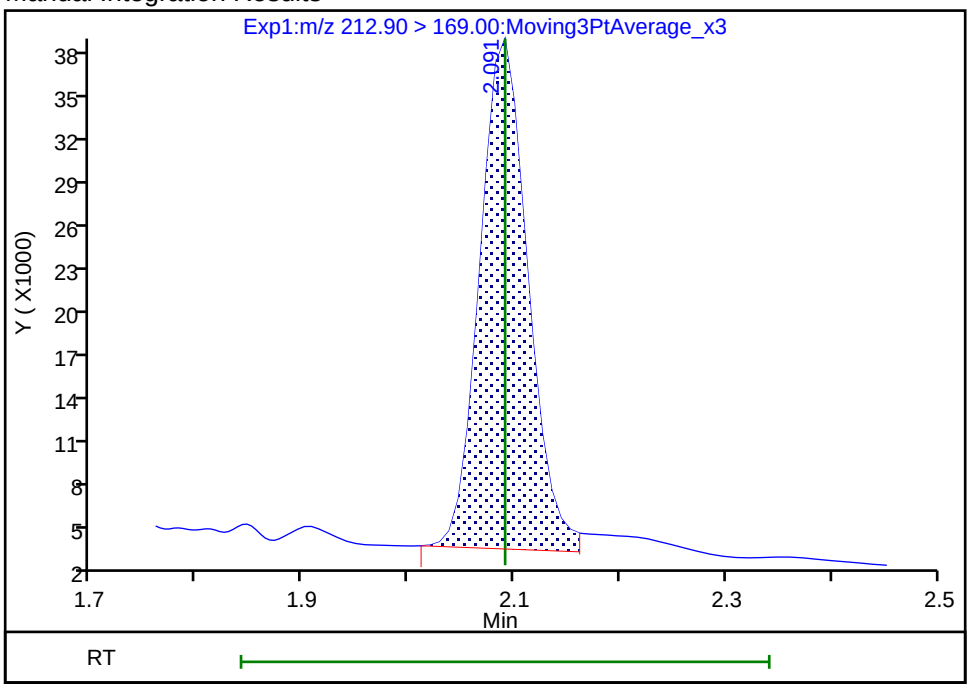
Processing Integration Results

RT: 2.09
Area: 108307
Amount: 0.089604
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 111328
Amount: 0.092104
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:50:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

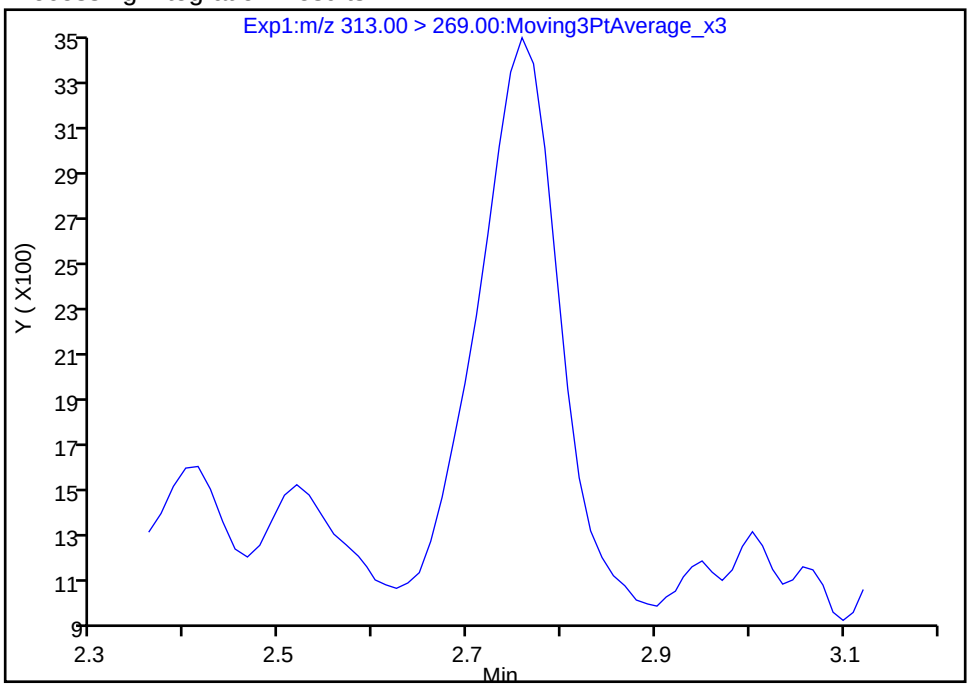
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

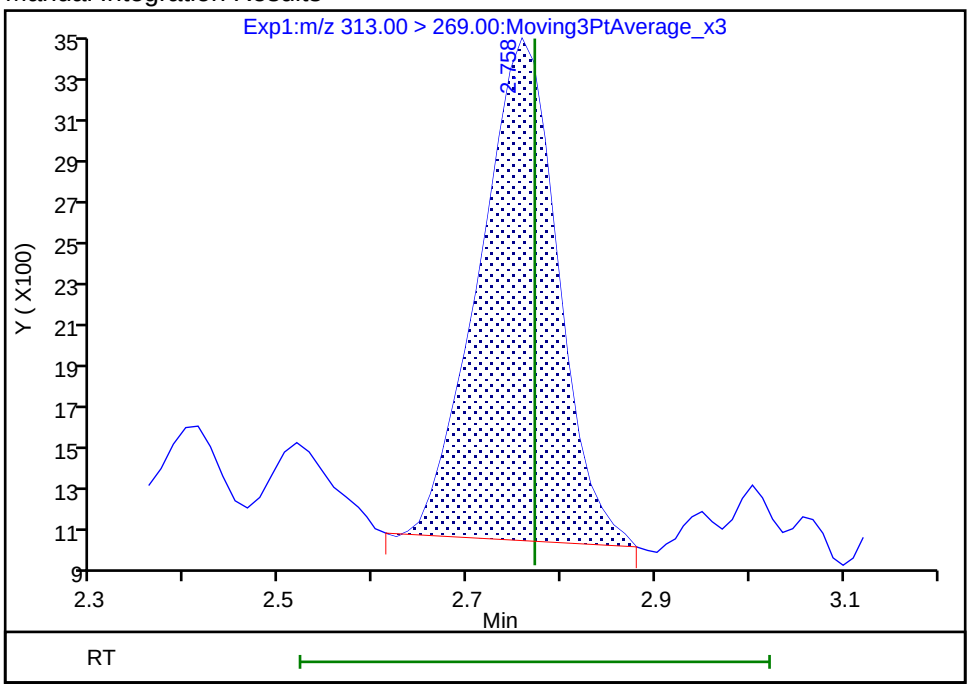
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 13811
Amount: 0.013341
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:50:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

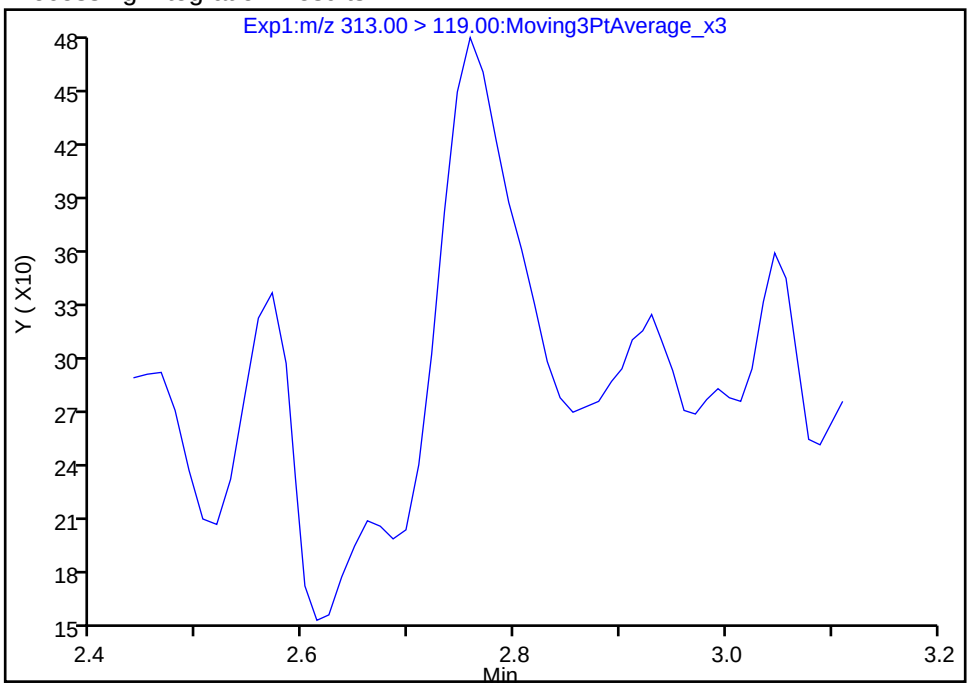
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

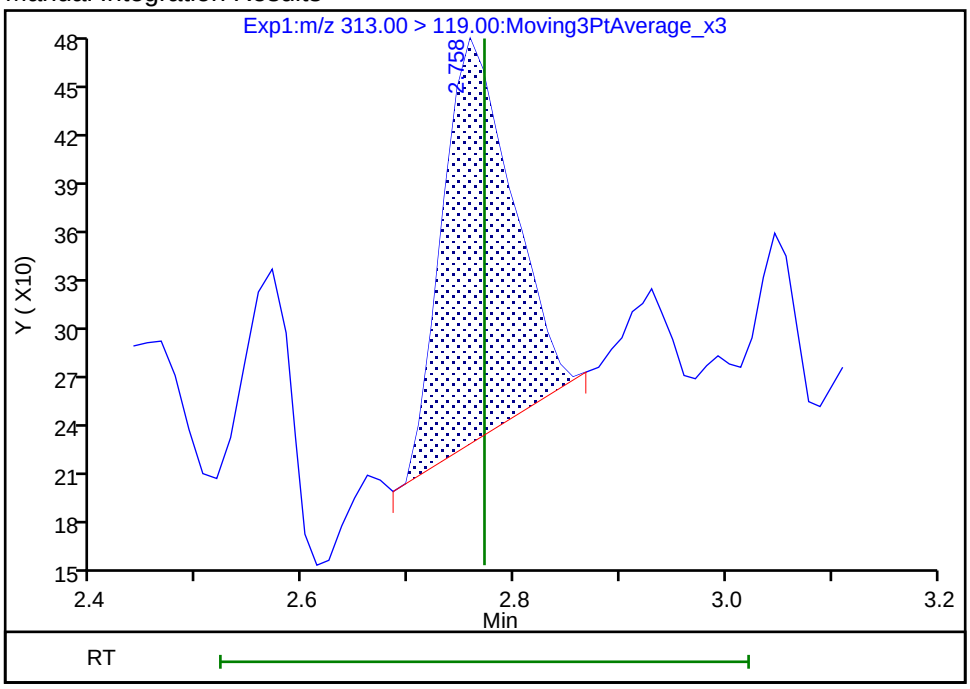
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 1125
Amount: 0.013341
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:50:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

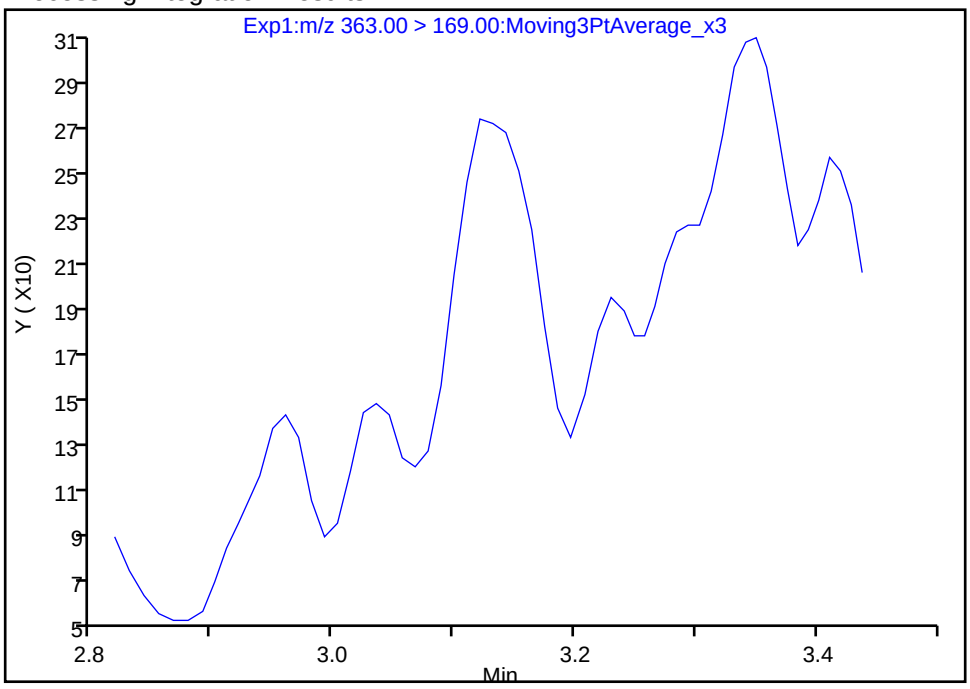
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

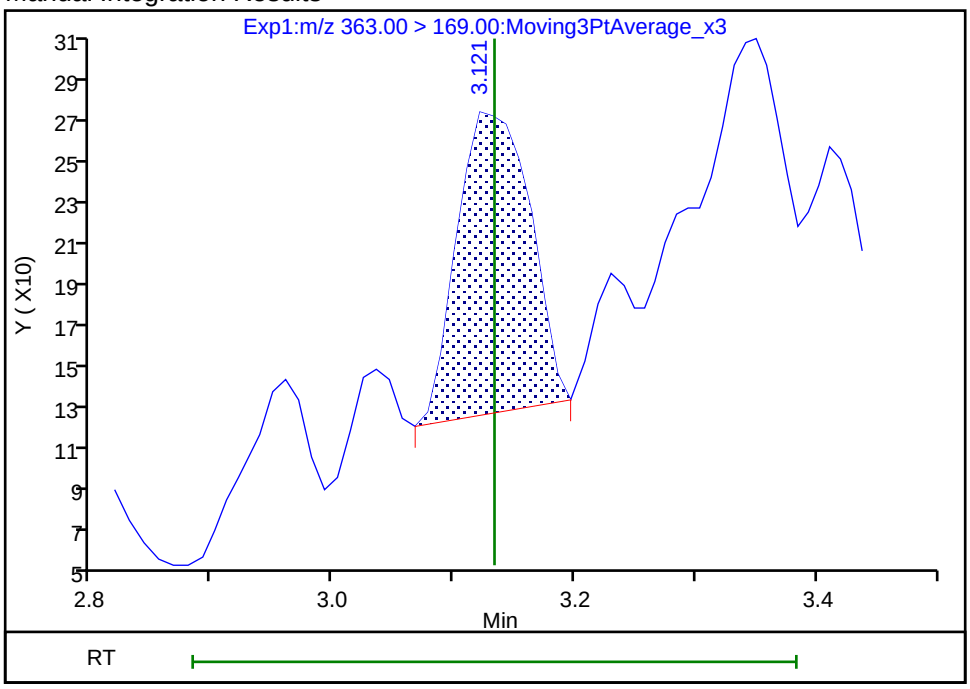
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.12
Area: 618
Amount: 0.002711
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

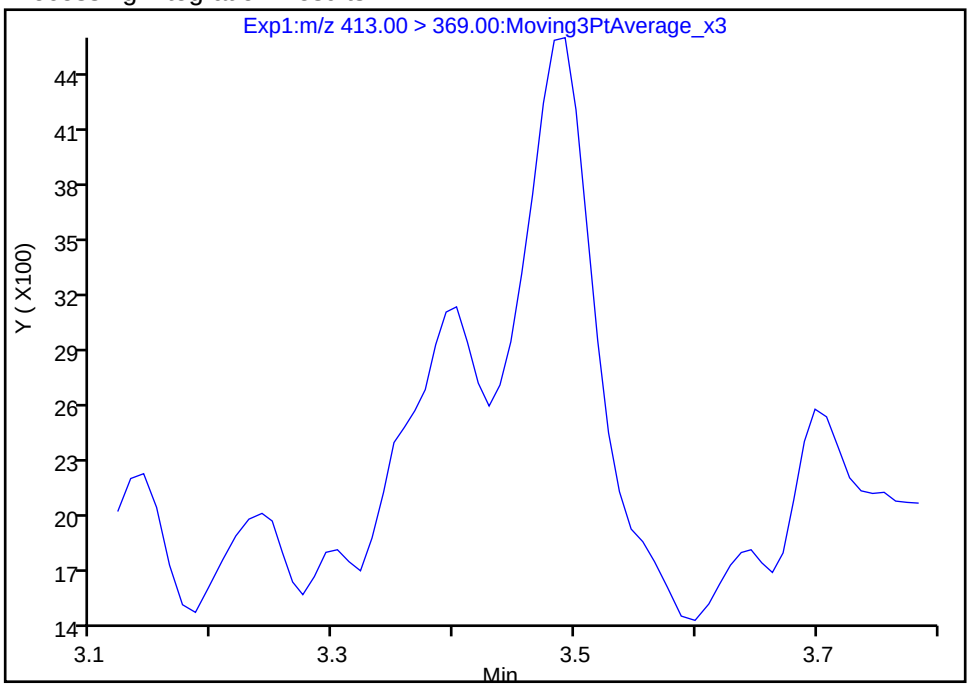
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

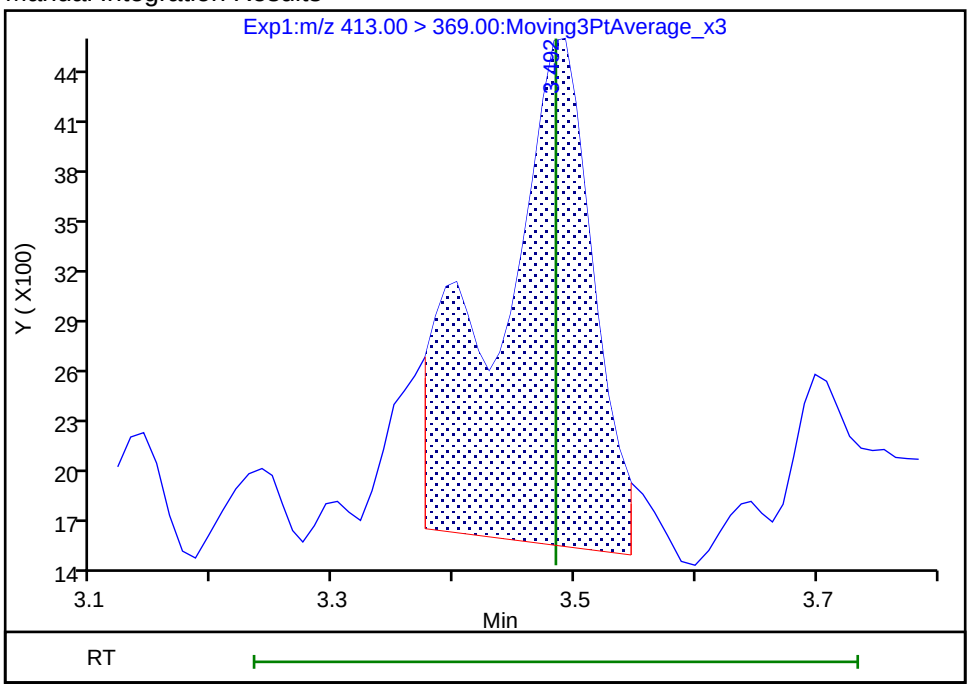
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.49
Area: 16617
Amount: 0.013726
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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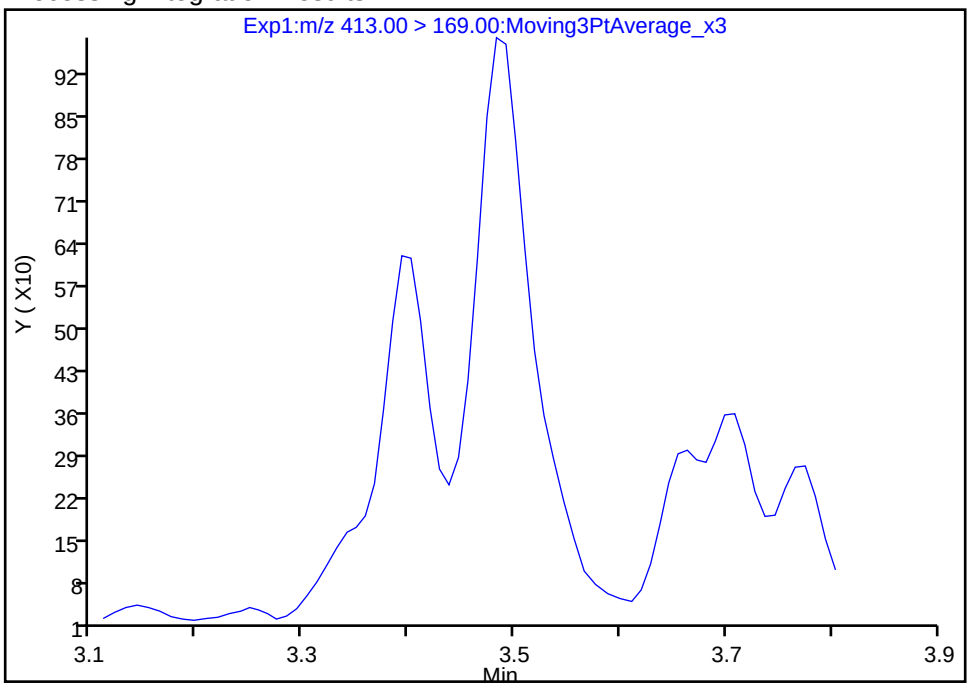
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

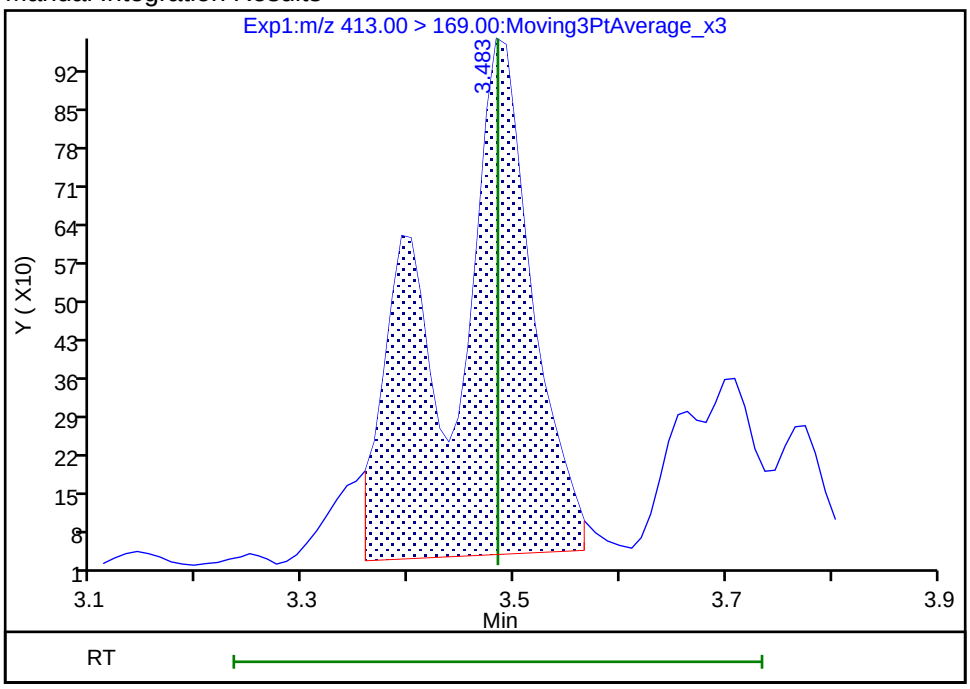
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 5414
Amount: 0.013726
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

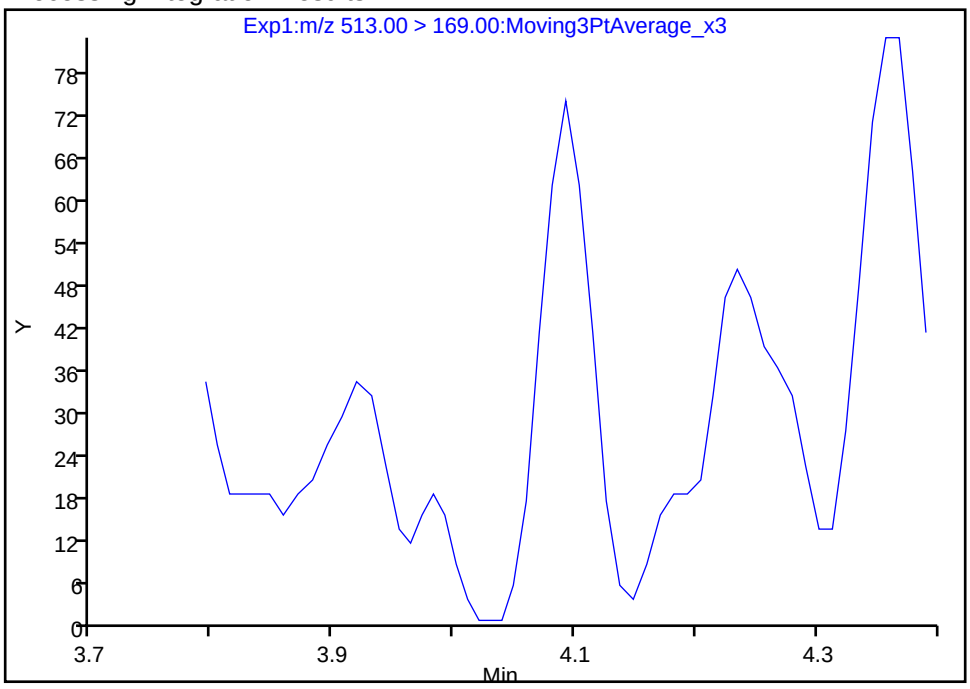
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

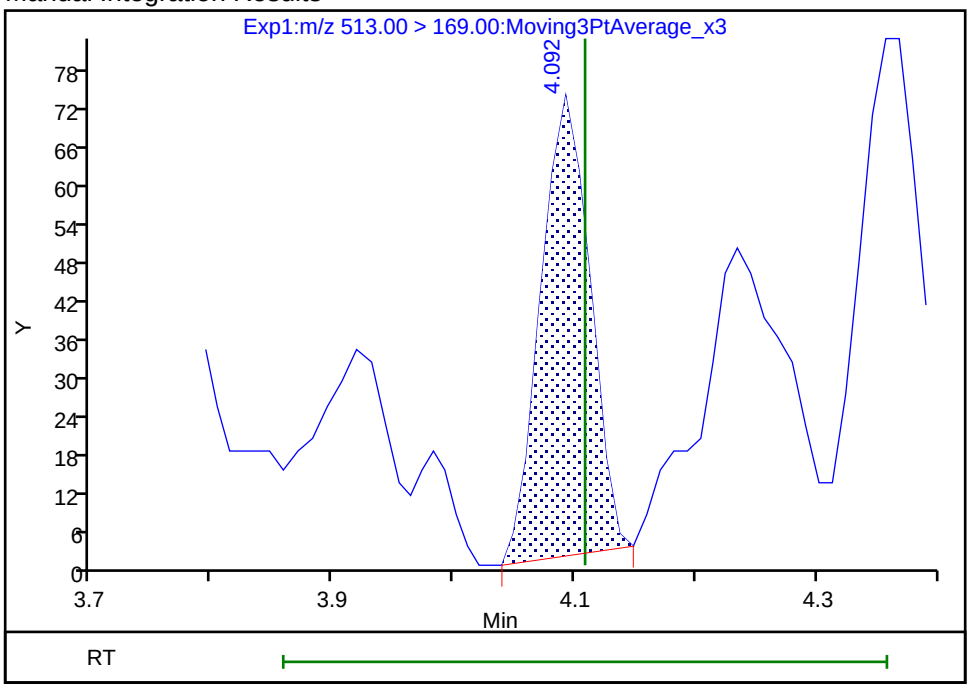
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.09
Area: 206
Amount: 0.001839
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

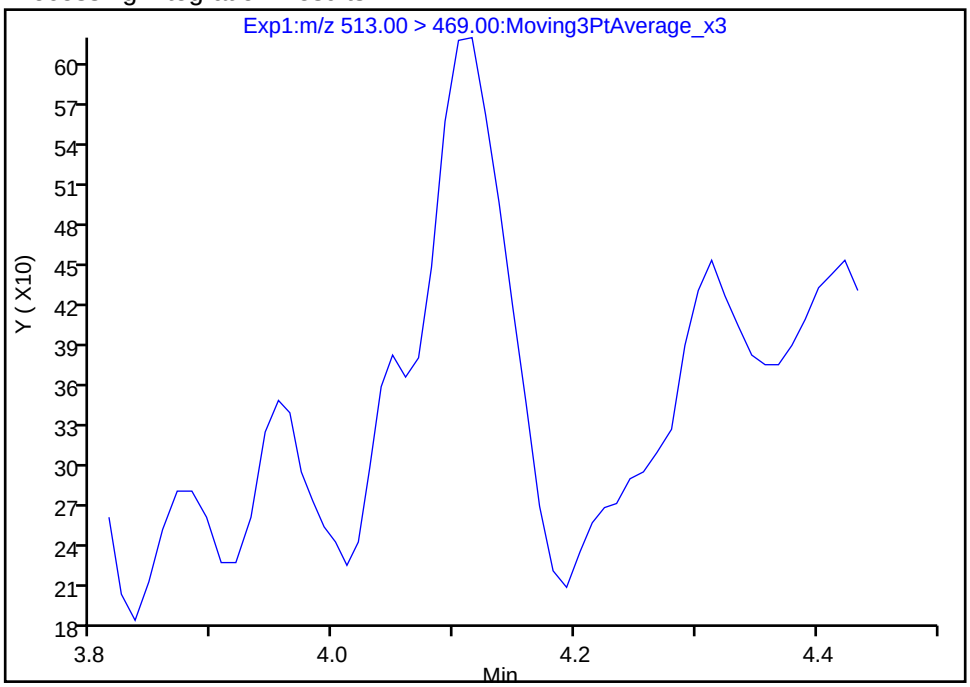
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

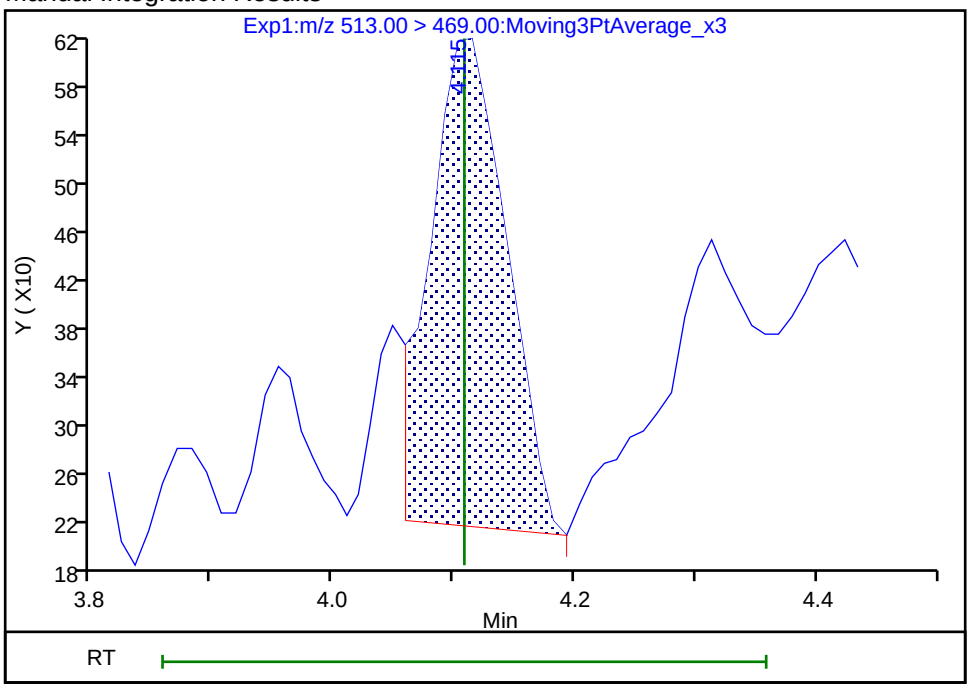
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 1719
Amount: 0.001839
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

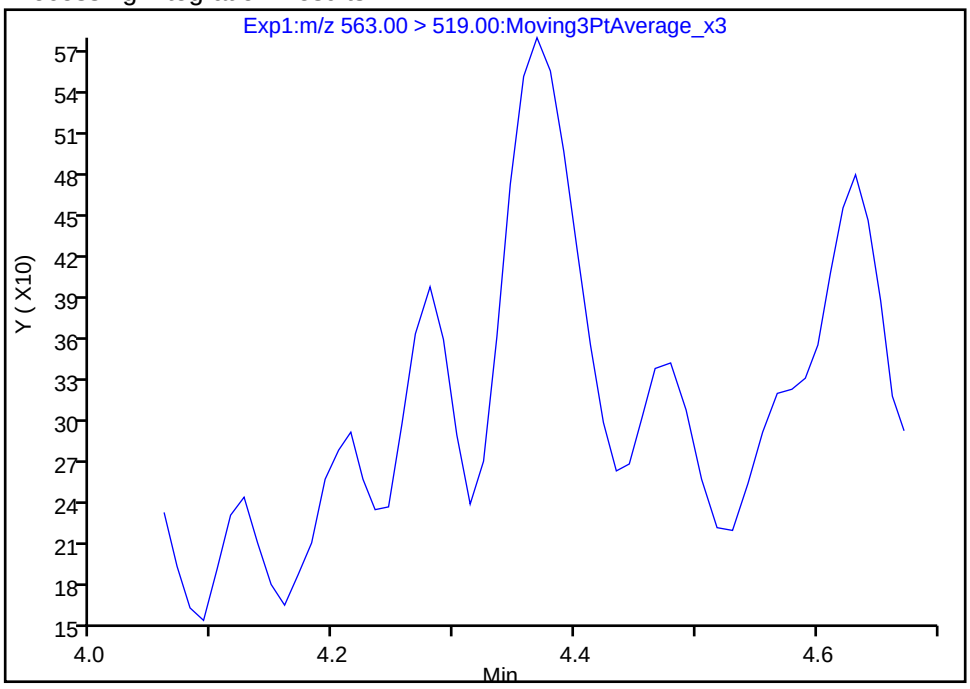
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

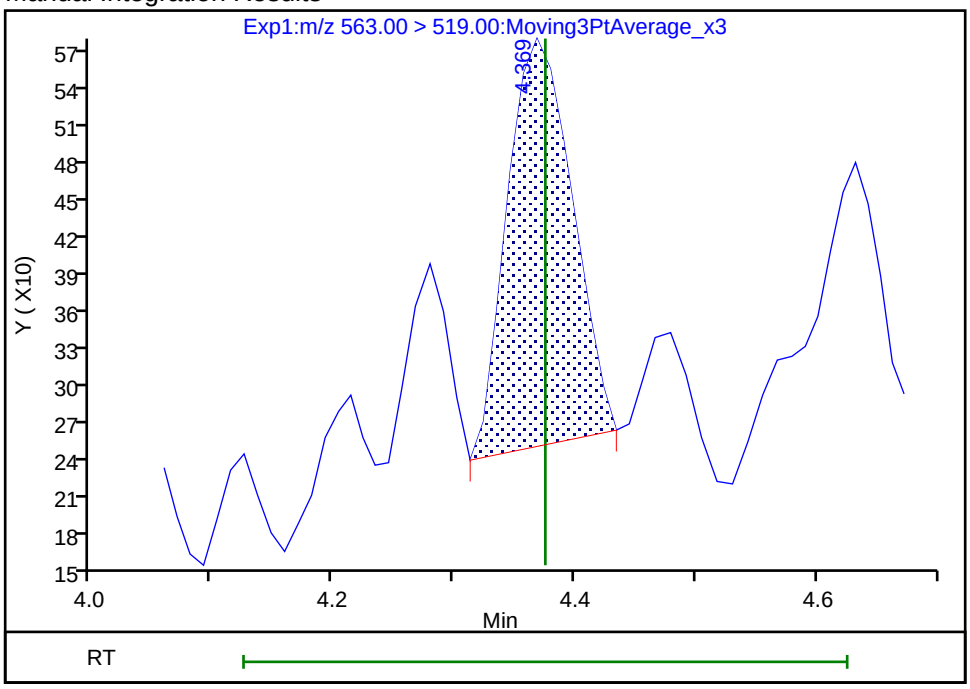
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1216
Amount: 0.001590
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

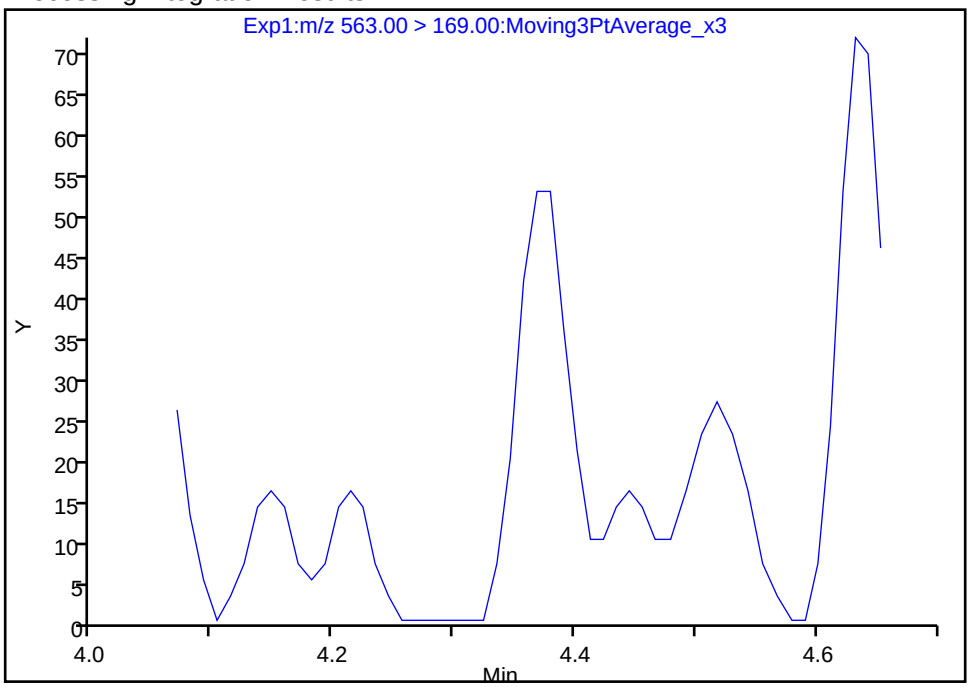
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

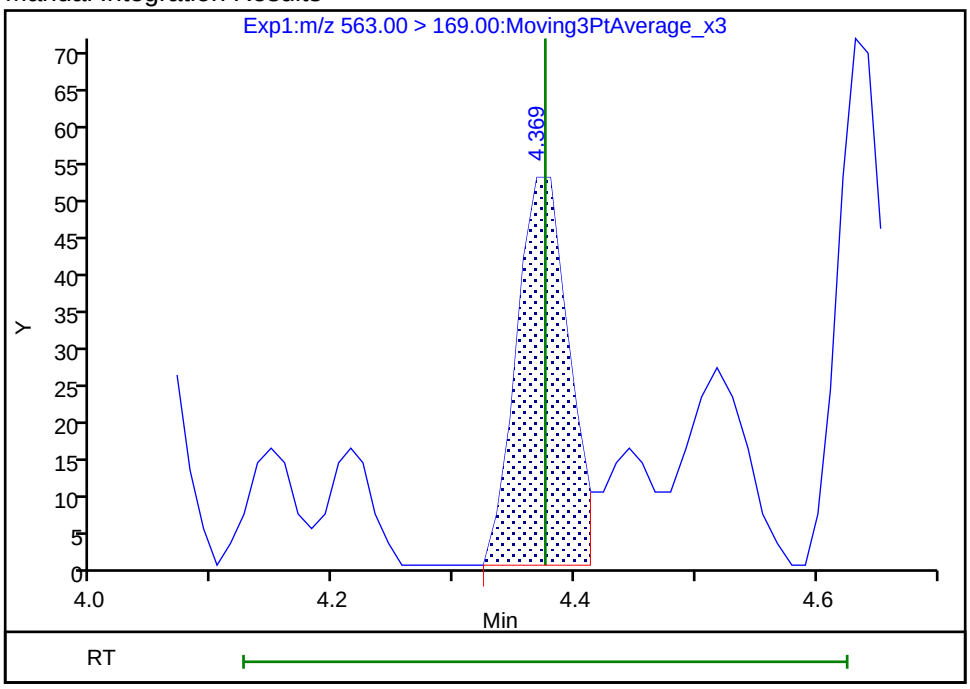
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 157
Amount: 0.001590
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

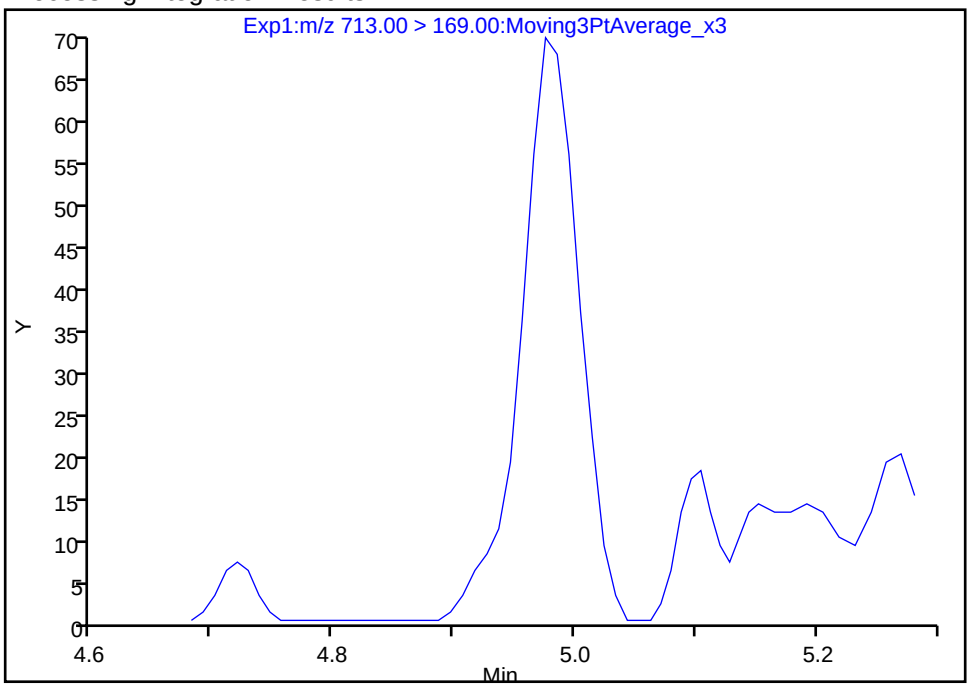
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

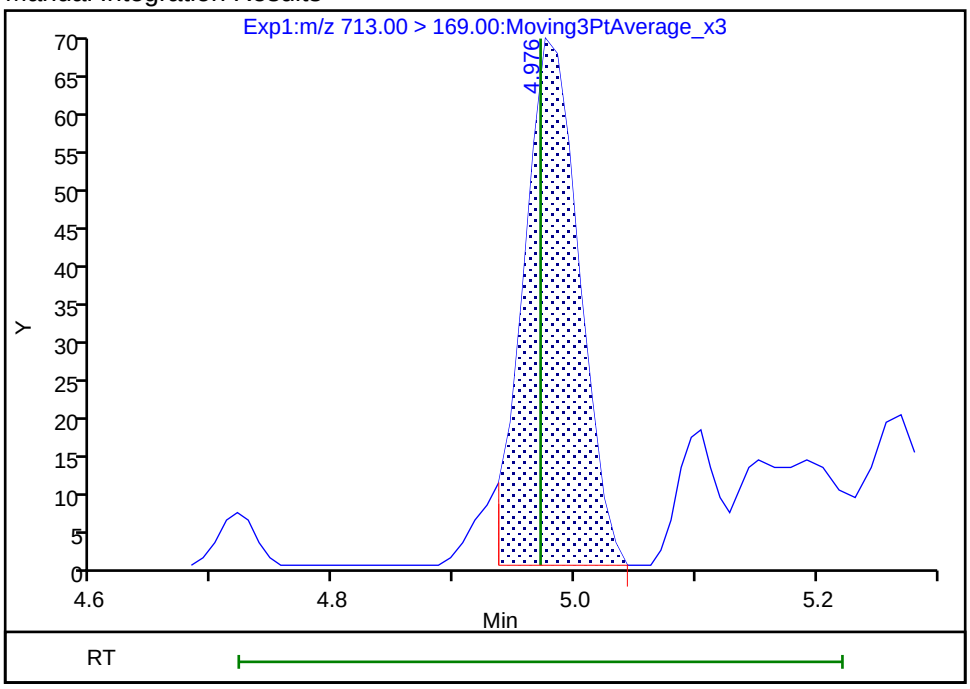
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 221
Amount: 0.002483
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:53:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

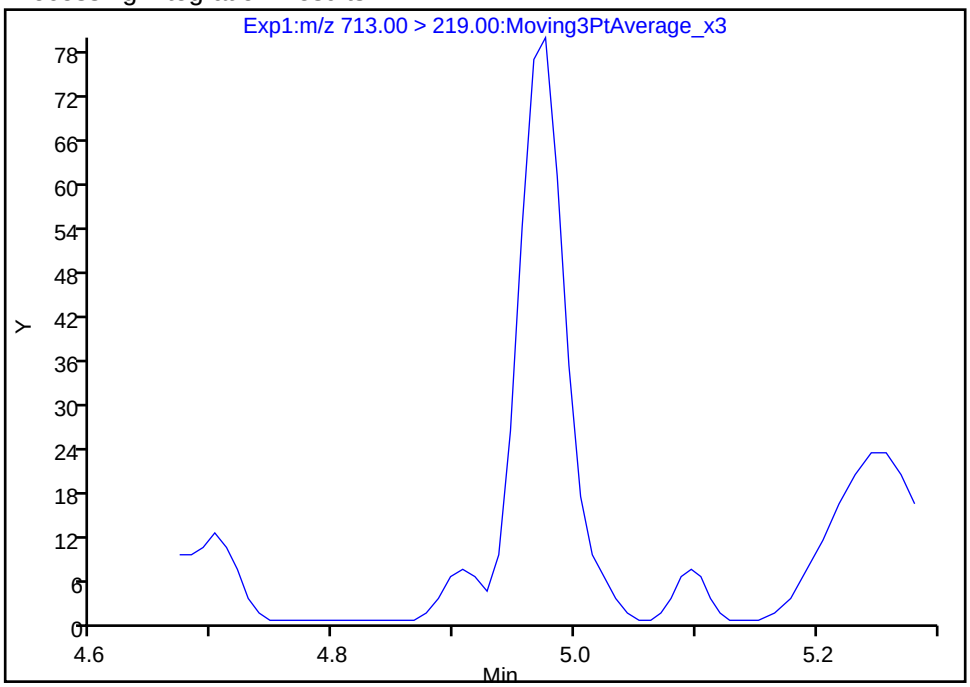
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

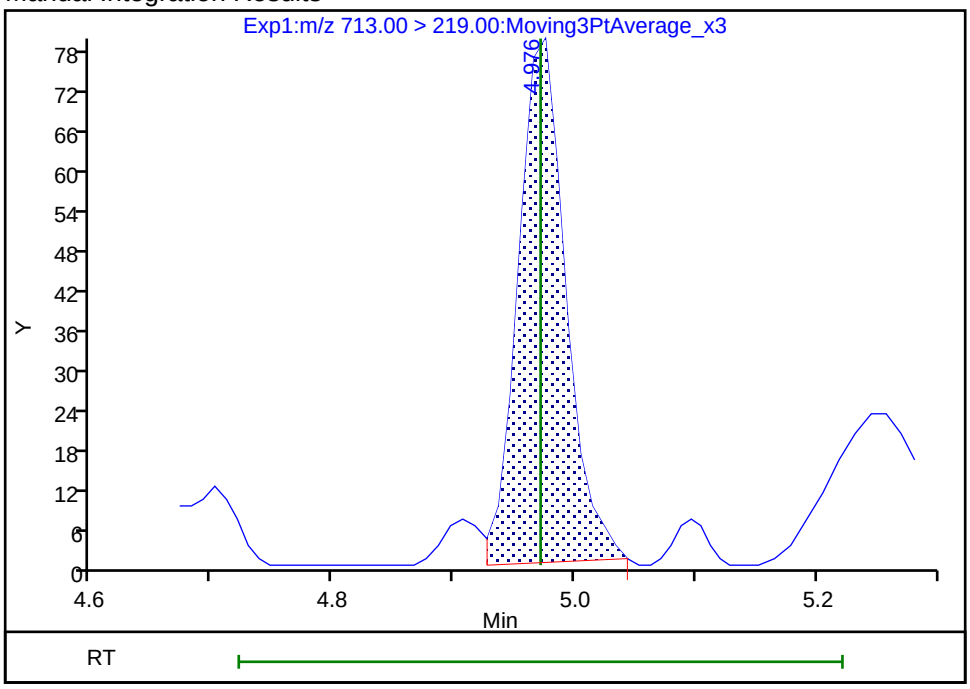
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 217
Amount: 0.002483
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:53:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

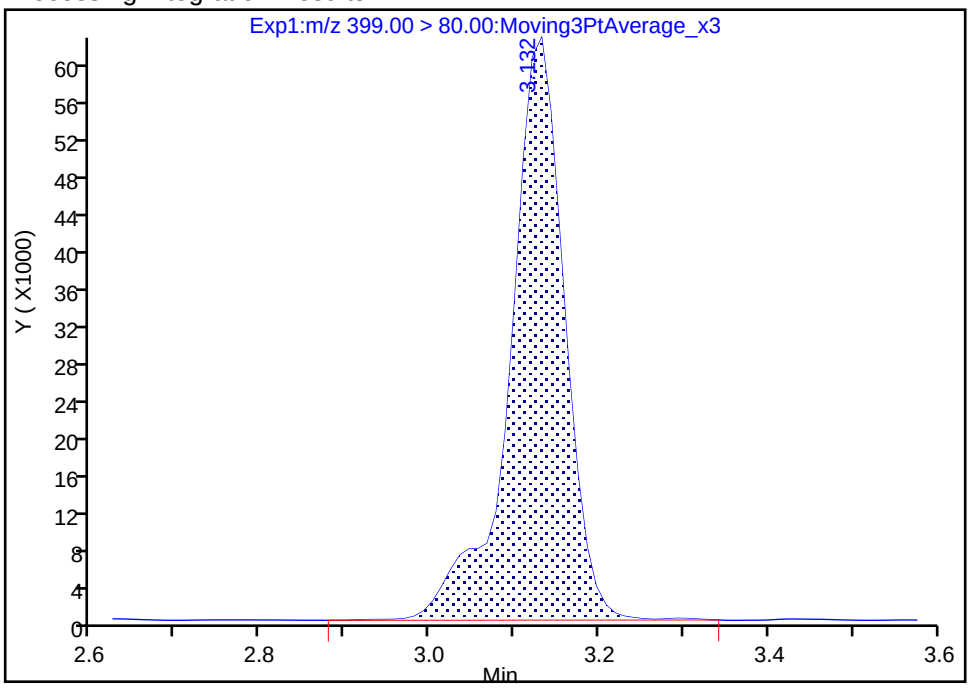
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

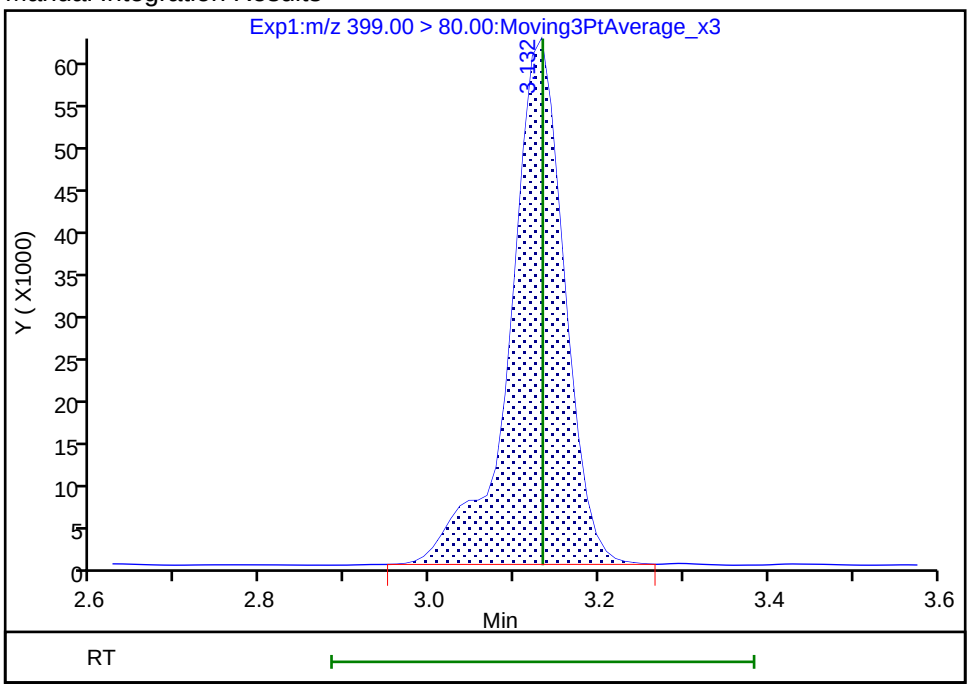
Processing Integration Results

RT: 3.13
Area: 278590
Amount: 0.273898
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 276560
Amount: 0.271902
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

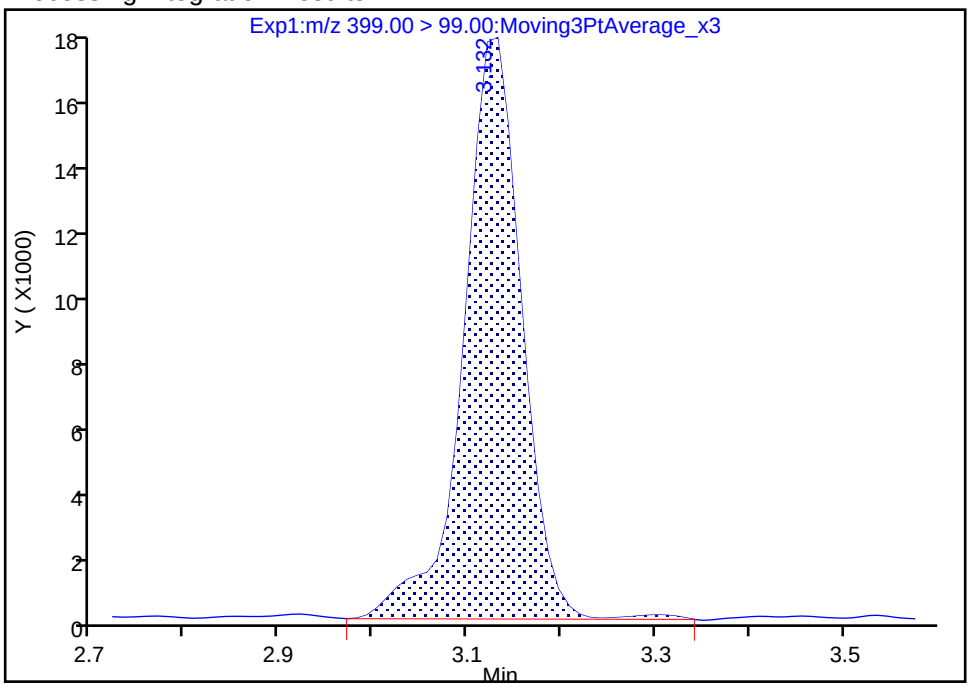
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

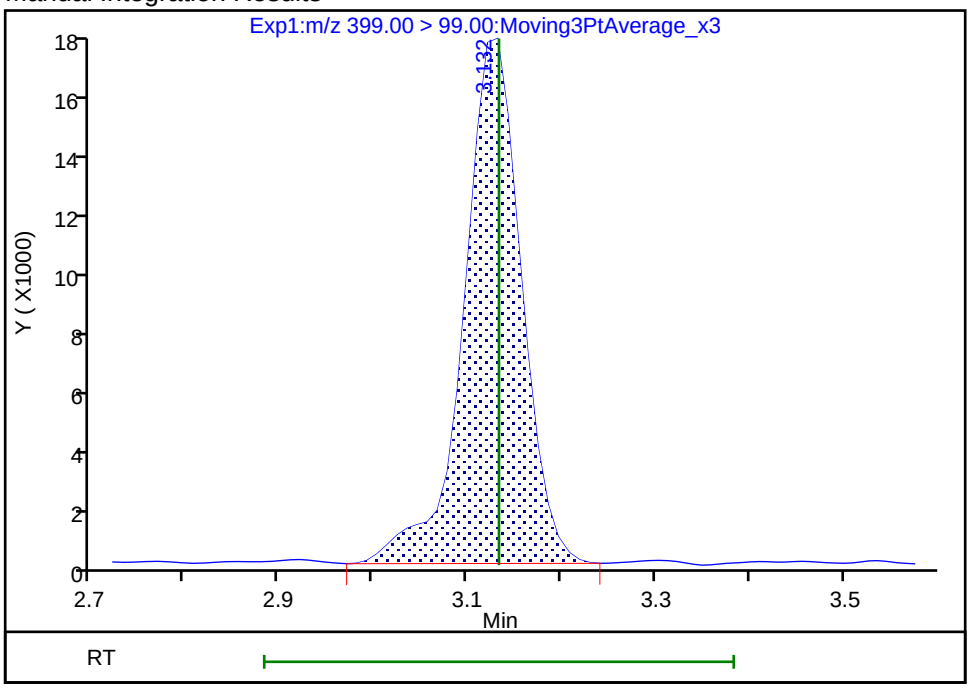
Processing Integration Results

RT: 3.13
Area: 72744
Amount: 0.273898
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 72048
Amount: 0.271902
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

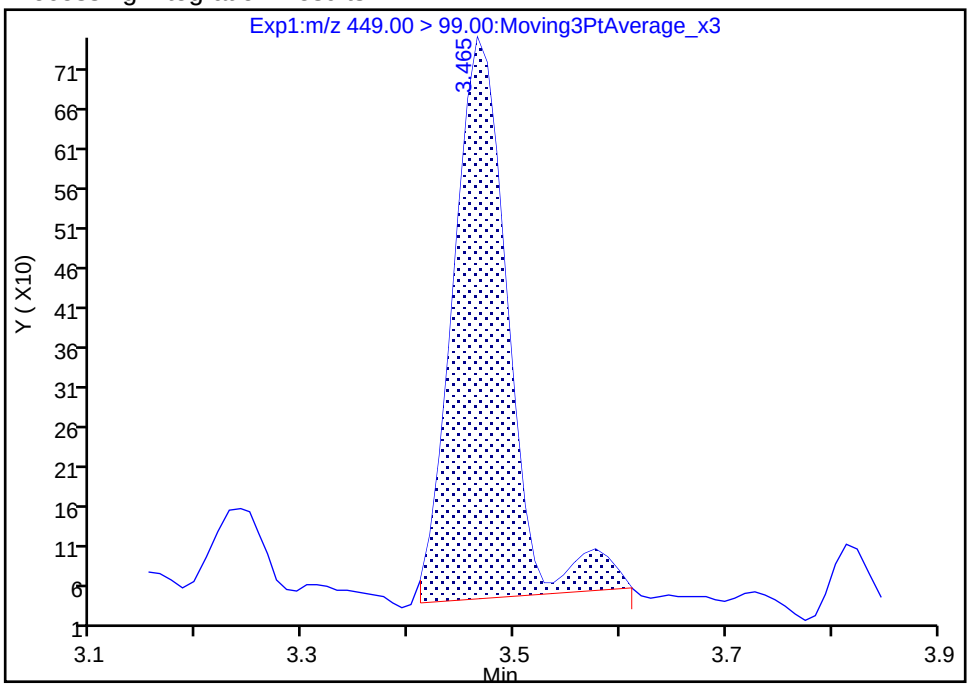
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

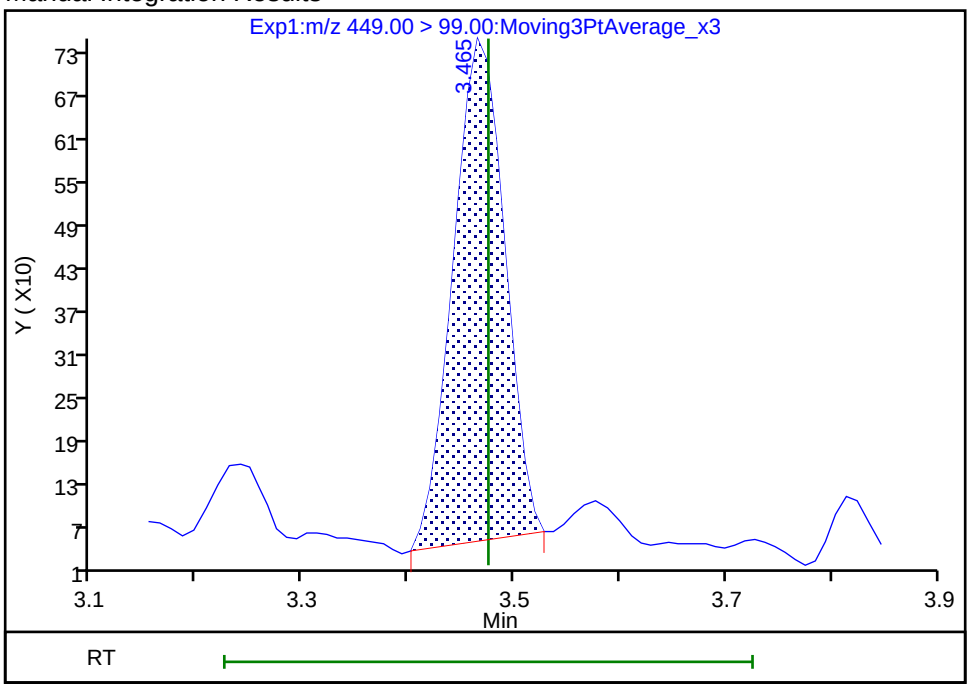
Processing Integration Results

RT: 3.46
Area: 2564
Amount: 0.009924
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 2372
Amount: 0.009924
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

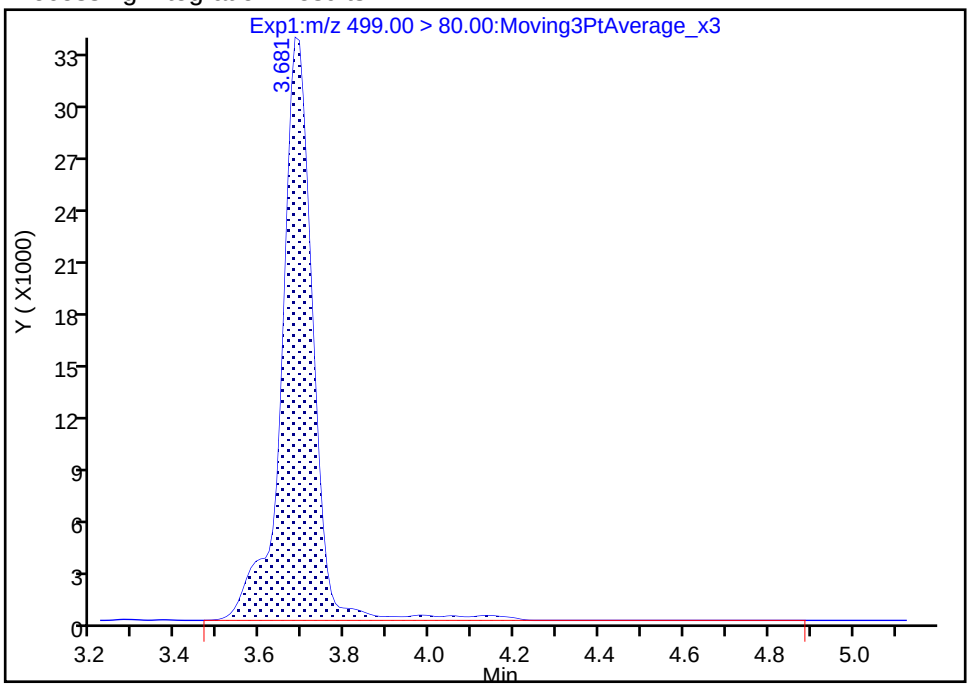
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

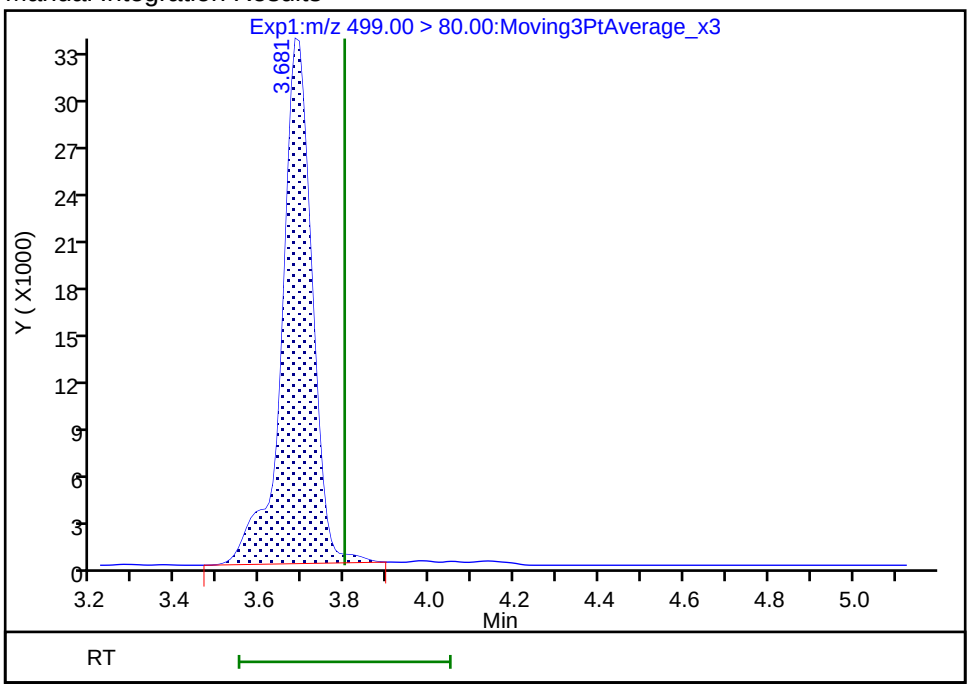
Processing Integration Results

RT: 3.68
Area: 173001
Amount: 0.251304
Amount Units: ng/ml




Manual Integration Results

RT: 3.68
Area: 166239
Amount: 0.241481
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

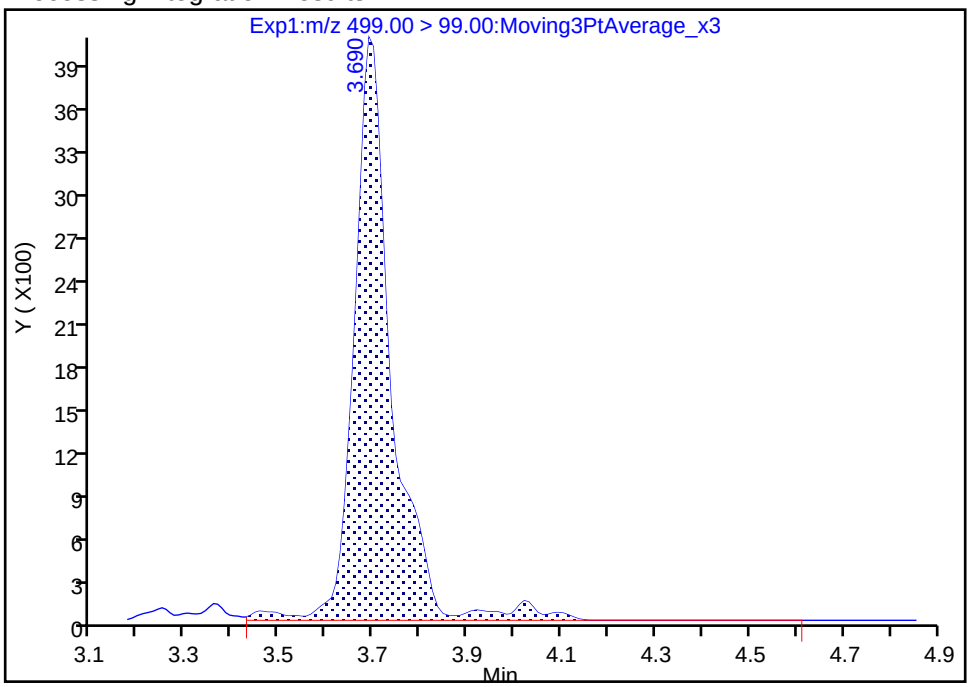
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

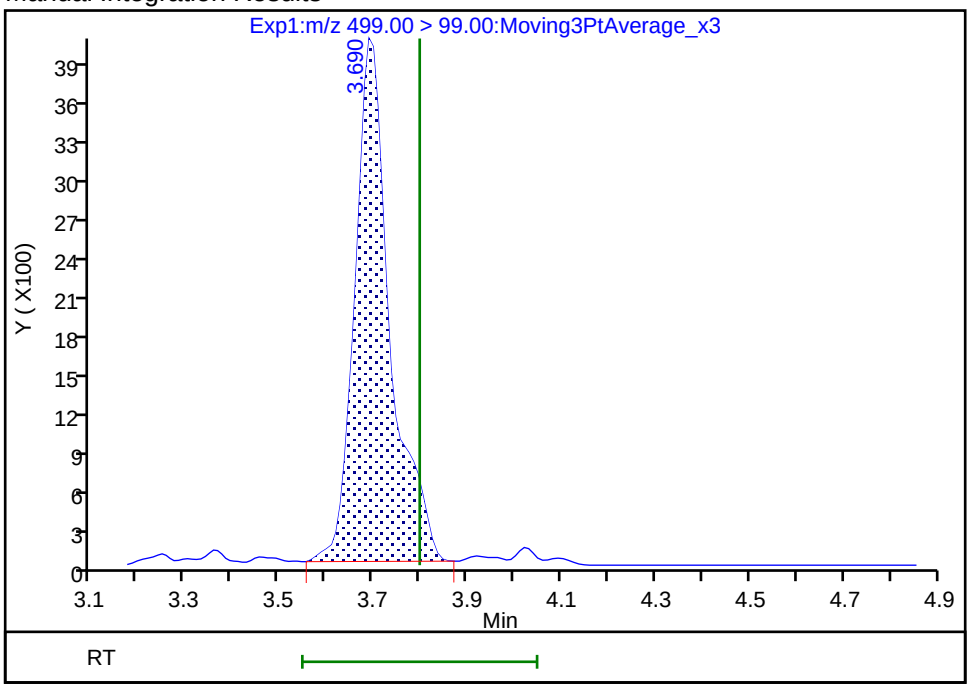
Processing Integration Results

RT: 3.69
Area: 22702
Amount: 0.251304
Amount Units: ng/ml




Manual Integration Results

RT: 3.69
Area: 20891
Amount: 0.241481
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

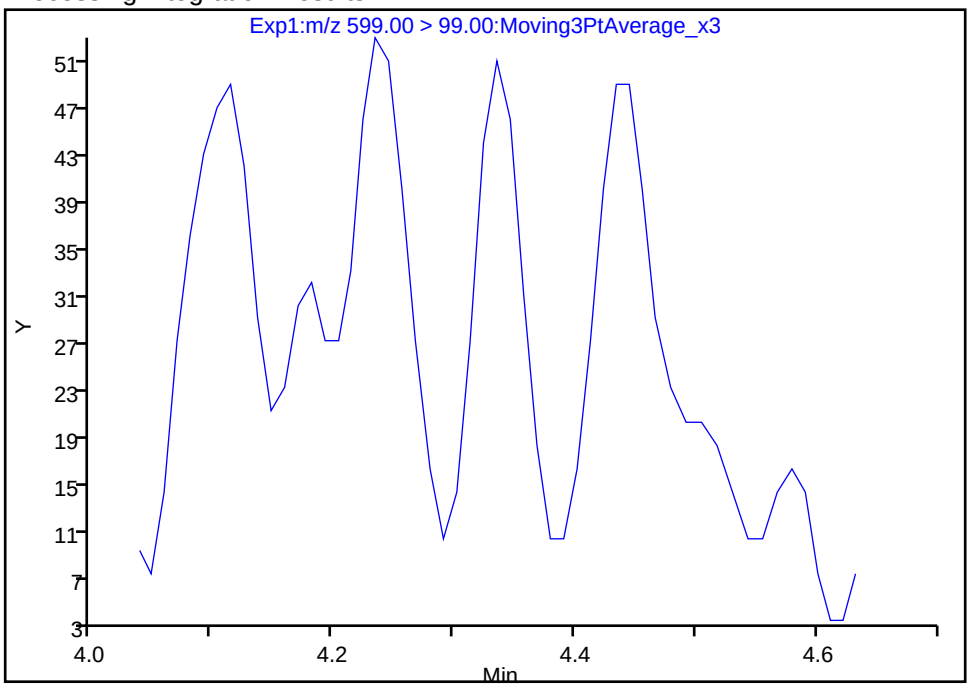
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

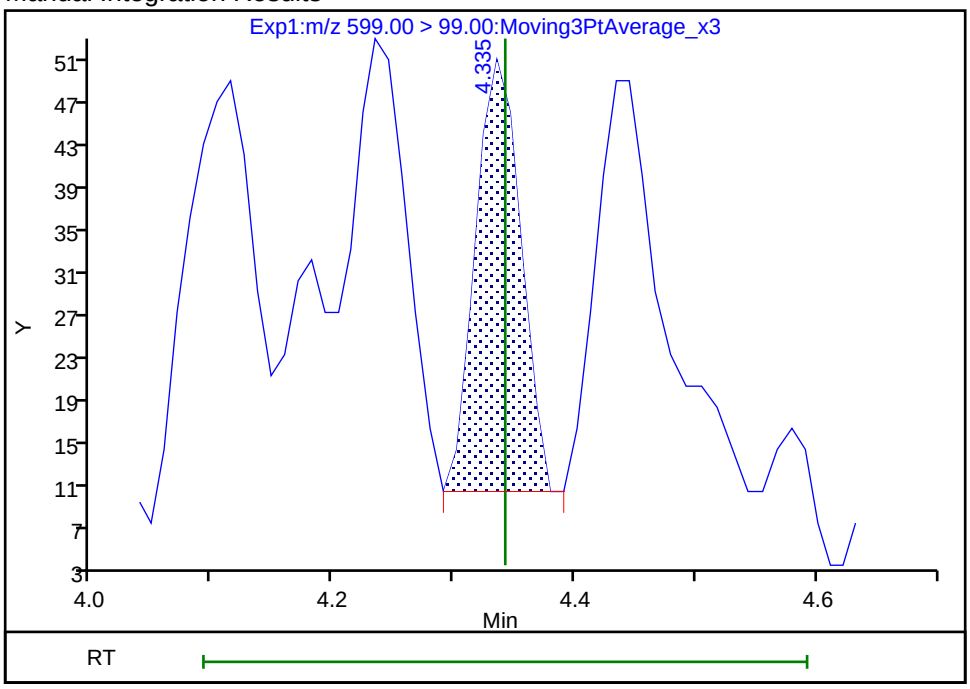
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 106
Amount: 0.000799
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

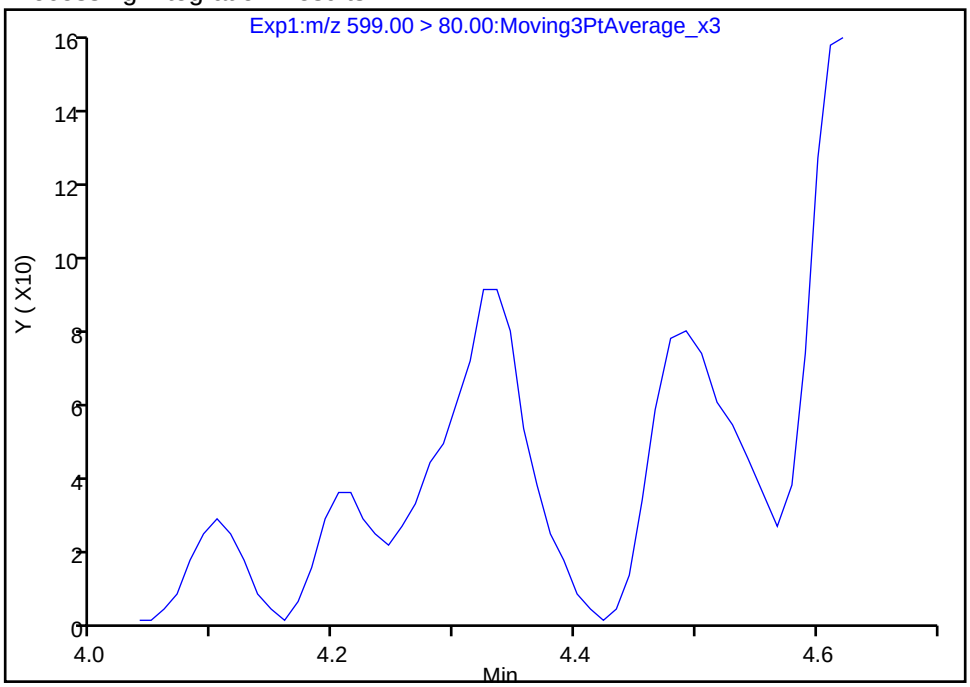
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

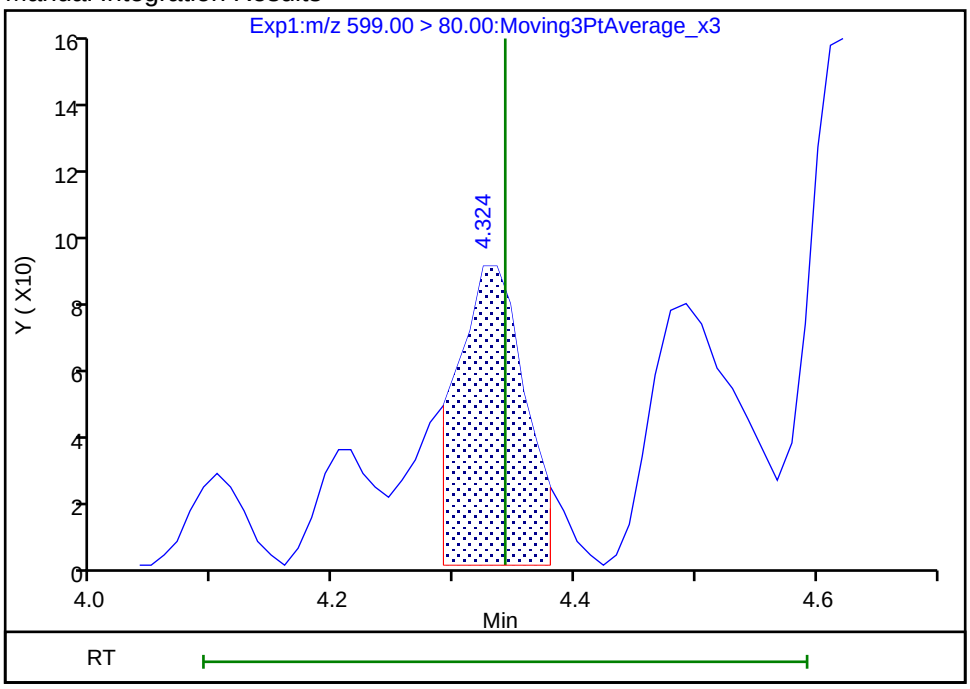
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 333
Amount: 0.000799
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

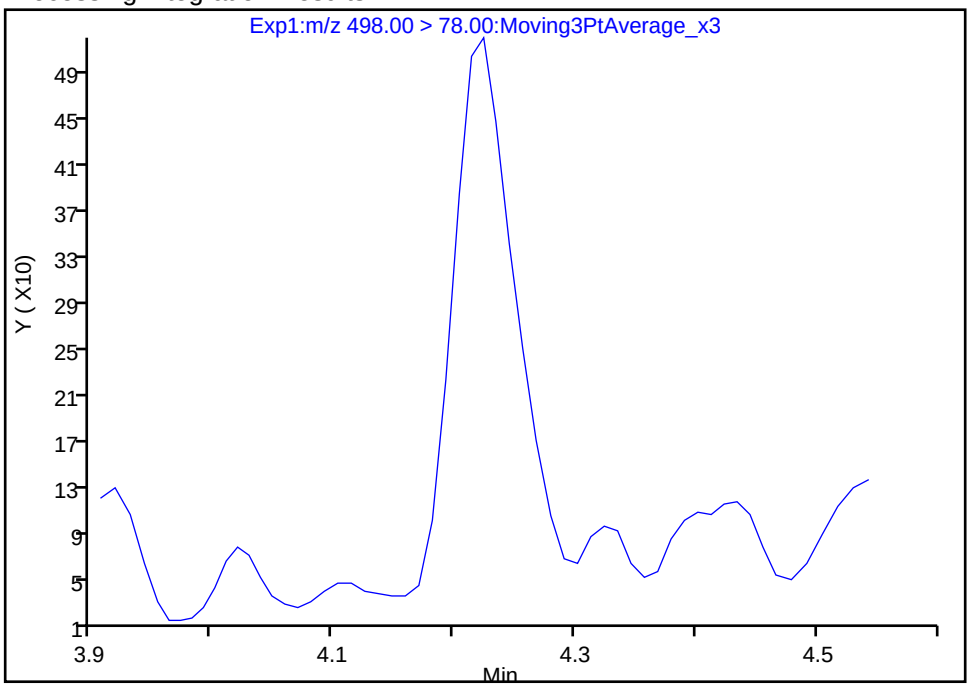
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

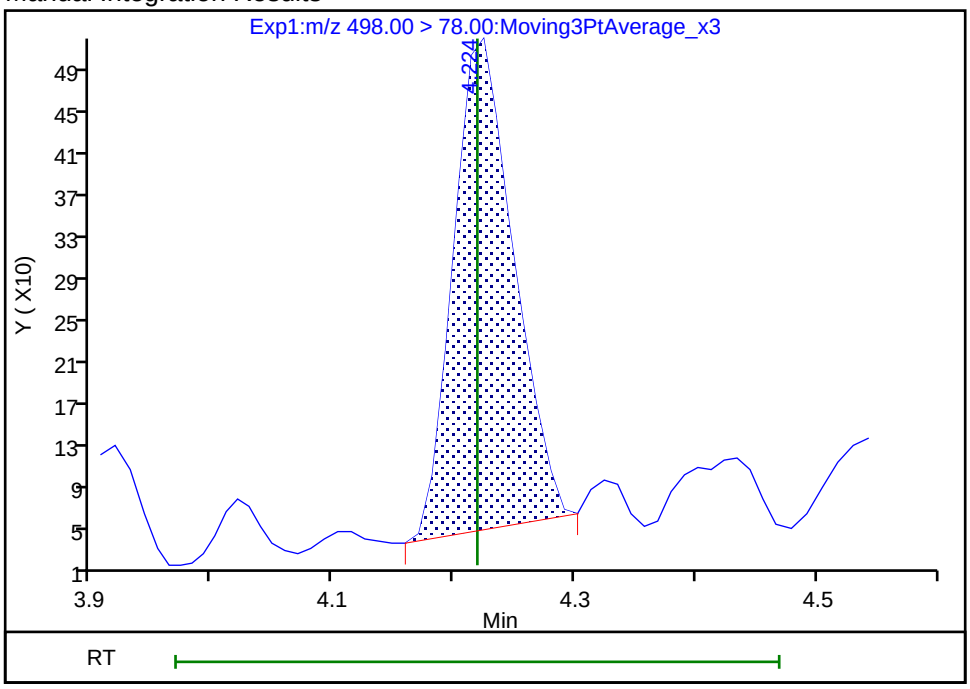
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 1621
Amount: 0.001806
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

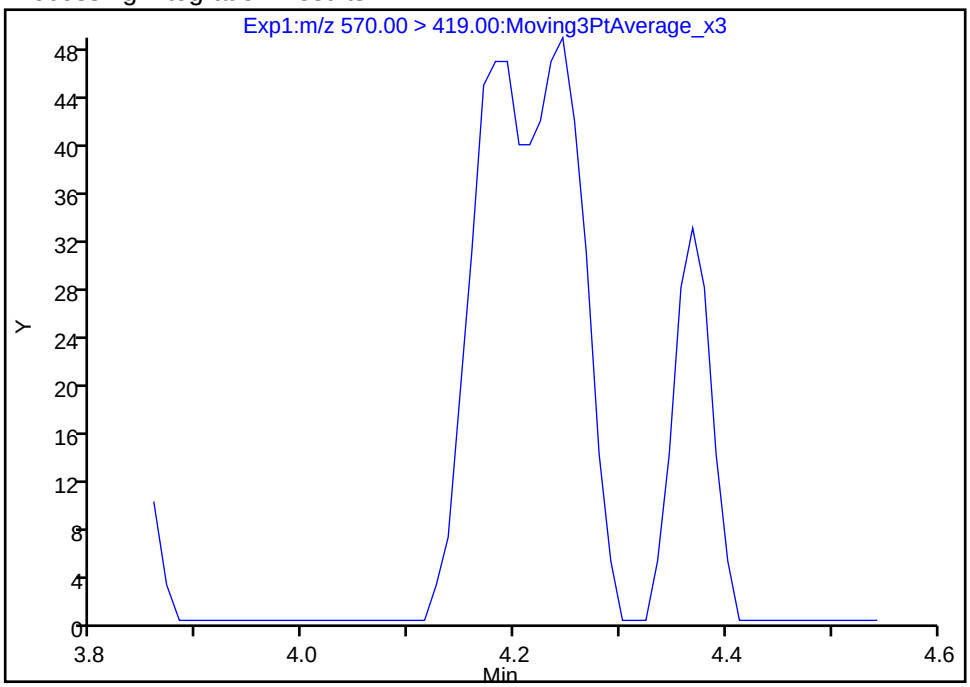
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

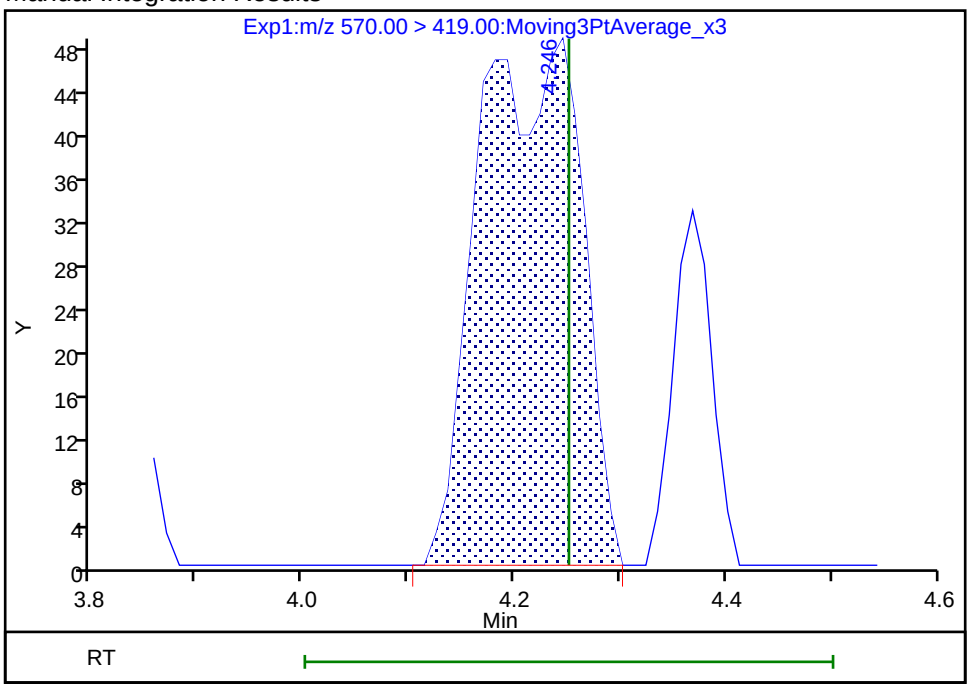
Not Detected
Expected RT: 4.25

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 333
Amount: 0.004160
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:52:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

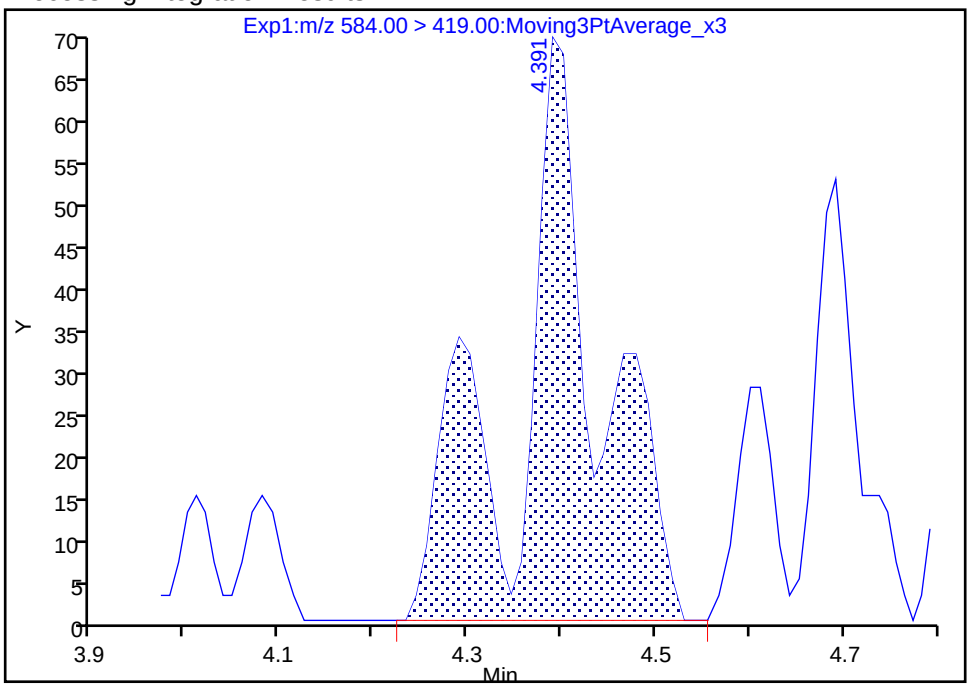
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

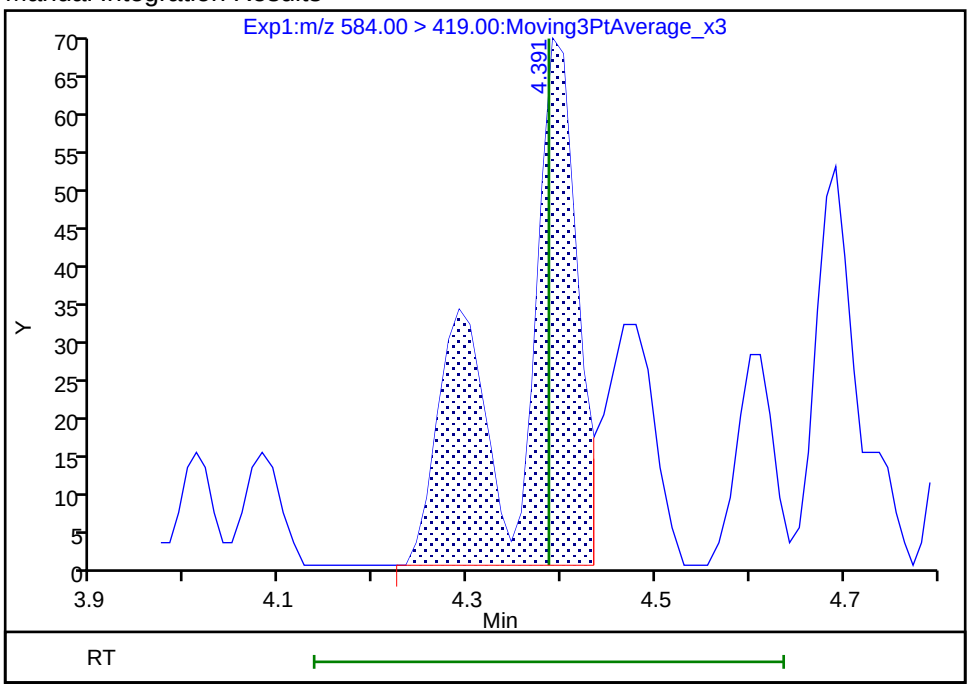
Processing Integration Results

RT: 4.39
Area: 435
Amount: 0.004797
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 318
Amount: 0.003507
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:53:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

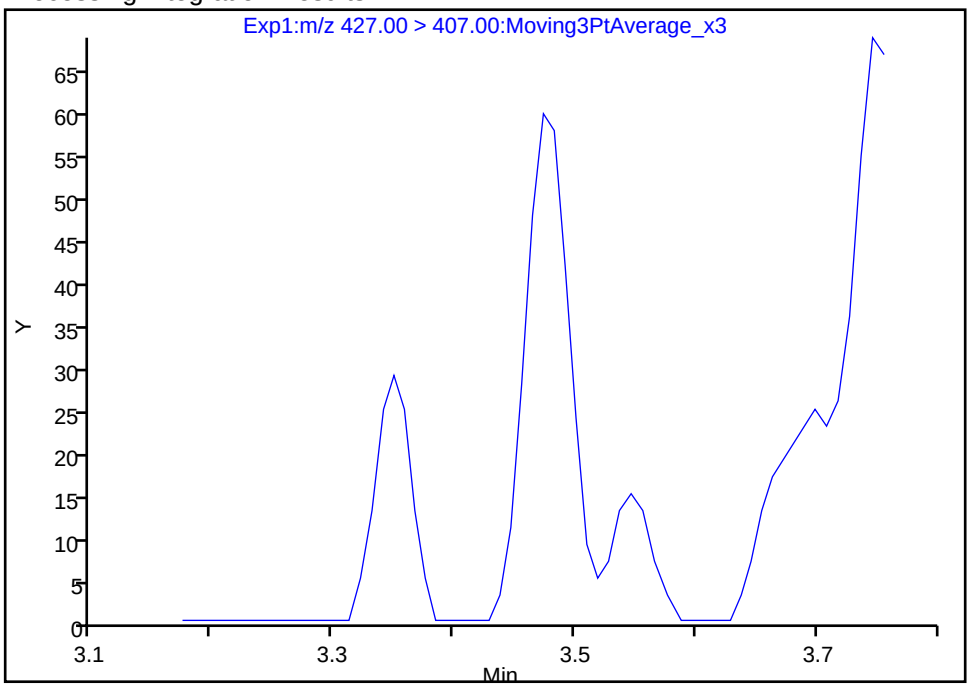
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A10.d | | | | |
| Injection Date: | 10-Nov-2021 12:36:22 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-19-A | Lab Sample ID: | 200-246277-19 | | |
| Client ID: | MW-7S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 10 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

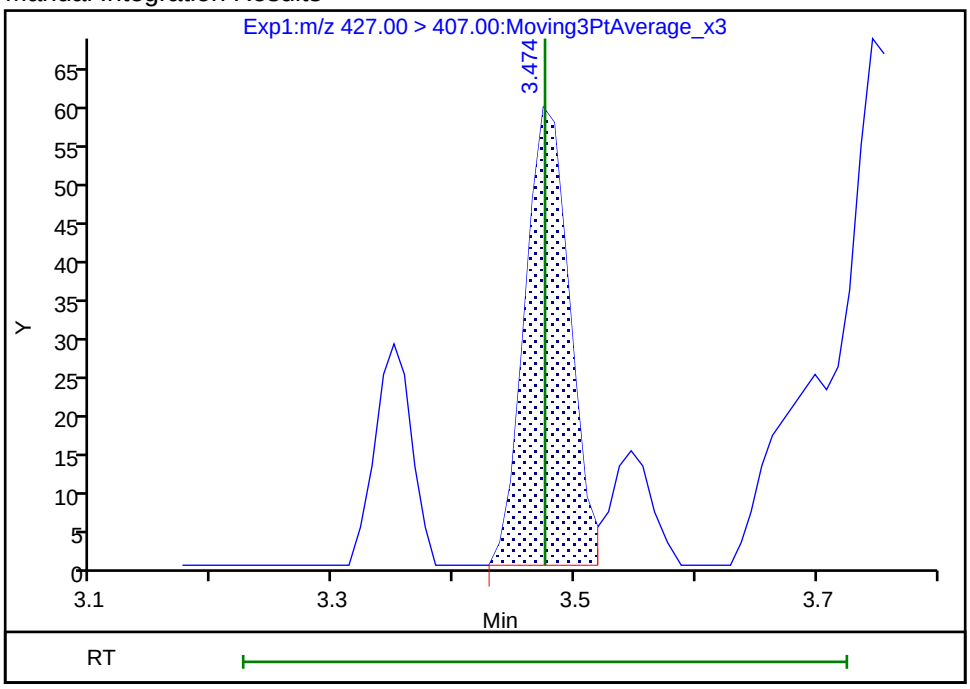
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 154
Amount: 0.000763
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:51:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-4-20211028  Lab Sample ID: 460-246277-20

Matrix: Water  Lab File ID: PA211110A11.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:10

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 274(mL)  Date Analyzed: 11/10/2021 12:44

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.20 | J | 4.56 | 0.81 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 3.46 | | 1.82 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 4.17 | | 1.82 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.65 | | 1.82 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 18.4 | | 1.82 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.29 | J | 1.82 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.48 | J | 1.82 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.82 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.82 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.82 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.82 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.48 | B | 1.82 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 31.2 | | 1.82 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.70 | J | 1.82 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 110 | | 1.82 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.82 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.82 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.82 | U | 4.56 | 0.82 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.56 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.56 | 1.00 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.82 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-4-20211028  Lab Sample ID: 460-246277-20

Matrix: Water  Lab File ID: PA211110A11.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 17:10

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 274(mL)  Date Analyzed: 11/10/2021 12:44

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 96 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 93 | | 50-150 |
| STL00992 | 13C4 PFBA | 87 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 89 | | 50-150 |
| STL00997 | 13C2 PFUnA | 85 | | 50-150 |
| STL00998 | 13C2 PFDoA | 81 | | 50-150 |
| STL01056 | 13C8 FOSA | 88 | | 25-150 |
| STL01893 | 13C5 PFPeA | 93 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 80 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 90 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 96 | | 50-150 |
| STL02279 | M2-6:2 FTS | 113 | | 25-150 |
| STL02280 | M2-8:2 FTS | 122 | | 25-150 |
| STL02337 | 13C3 PFBS | 92 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d
Lims ID: 460-246277-C-20-A
Client ID: AMW-4-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 12:44:32 ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-20-A
Misc. Info.: 200-0048360-011 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:57:27
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.600 | 1443576 | 1.09 | | 86.9 | 2220 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 125692 | 0.1151 | | | 15.2 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.414 | -0.014 | 0.689 | 1308500 | 1.17 | | 93.5 | 839 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.414 | -0.014 | 1.000 | 99366 | 0.0948 | | | 1.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.697 | 1626821 | 1.07 | | 92.3 | 41800 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 142486 | 0.0953 | Target=2.32 | | 7.5 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 59143 | | 2.41(1.16-3.48) | | 8.7 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.759 | -0.001 | 0.792 | 1448408 | 1.23 | | 98.6 | 2731 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.771 | -0.013 | 1.000 | 134209 | 0.1142 | Target=12.09 | | 3.6 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.004 | 11225 | | 11.96(6.04-18.13) | | 7.5 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 994097 | 0.8554 | Target=3.55 | | 205 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 256498 | | 3.88(1.77-5.32) | | 167 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1249942 | 1.14 | | 96.0 | 3959 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1495527 | 1.21 | | 96.7 | 2938 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 89612 | 0.0725 | Target=3.69 | | 4.8 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 24766 | | 3.62(1.84-5.53) | | 32.4 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 45875 | 0.0465 | Target=4.88 | | 10.4 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.916 | 10506 | | 4.37(2.44-7.32) | | 8.8 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.475 | -0.028 | 0.992 | 300 | 0.001210 | | | 4.3 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.474 | 3.475 | -0.001 | 0.997 | 232193 | 1.34 | | 113 | 88.7 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.484 | -0.001 | 1.000 | 1640003 | 1.21 | | 97.1 | 4635 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.484 | -0.001 | | 1641921 | 1.25 | | | 3876 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.003 | 703827 | 0.5045 | Target=2.68 | | 37.6 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.003 | 298317 | | 2.36(1.34-4.02) | | 395 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.089 | 945641 | 1.19 | | 99.5 | 516 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.000 | 2590764 | 3.02 | Target=4.69 | | 641 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 1.000 | 534663 | | 4.85(2.35-7.04) | | 563 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.095 | 1563497 | 1.16 | | 92.9 | 2846 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.818 | -0.004 | 1.000 | 43306 | 0.0354 | Target=7.29 | | 5.0 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 5049 | | 8.58(3.64-10.93) | | 25.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.181 | 1516210 | 1.12 | | 89.3 | 3611 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 16028 | 0.0132 | Target=8.95 | | 4.6 | M |
| 513.00 > 169.00 | 4.104 | 4.108 | -0.004 | 0.997 | 2148 | | 7.46(4.47-13.42) | | 14.3 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.185 | 286502 | 1.46 | | 122 | 267 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.120 | -0.005 | 0.997 | 140 | 0.000699 | | | 4.4 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.213 | 1440940 | 1.10 | | 88.0 | 4224 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.246 | 4.219 | 0.027 | 1.005 | 1026 | 0.000937 | | | 2.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.222 | 149912 | 1.12 | | 89.7 | 1153 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.251 | 0.017 | 1.003 | 213 | 0.002261 | | | 1.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.254 | 1124769 | 1.06 | | 85.0 | 4383 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.380 | 4.375 | 0.005 | 1.003 | 1133 | 0.001181 | Target=9.24 | | 0.7 | RM |
| 563.00 > 169.00 | 4.369 | 4.375 | -0.006 | 1.000 | 316 | | 3.59(4.62-13.86) | | 3.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.257 | 149974 | 1.20 | | 95.8 | 935 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.387 | -0.007 | 1.000 | 381 | 0.003706 | | | 3.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.321 | 1157567 | 1.02 | | 81.3 | 2038 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.429 | 883728 | 1.00 | | 80.0 | 1396 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.966 | 4.972 | -0.006 | 0.998 | 384 | 0.003441 | Target=1.01 | | 8.0 | RM |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 125 | | 3.07(0.51-1.52) | | 4.3 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d

Injection Date: 10-Nov-2021 12:44:32 Instrument ID: LC812

Lims ID: 460-246277-C-20-A Lab Sample ID: 200-246277-20

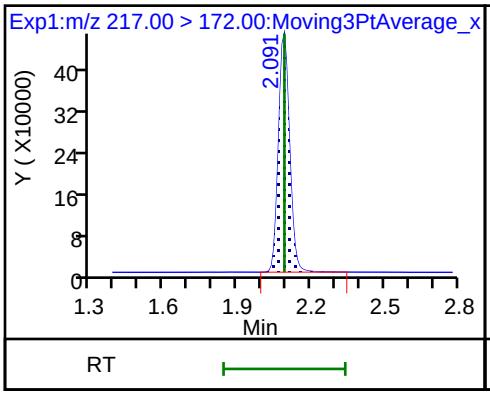
Client ID: AMW-4-20211028

Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11

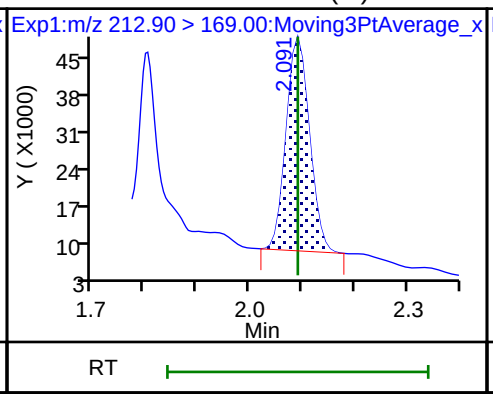
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

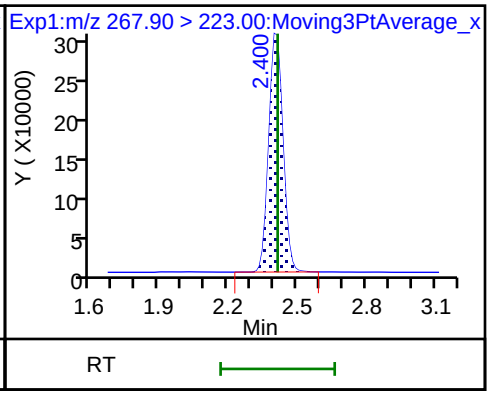
D 1 13C4 PFBA



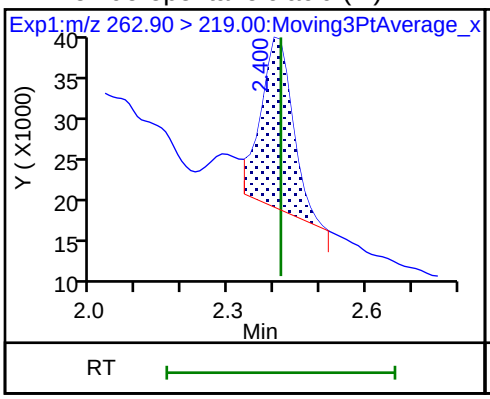

2 Perfluorobutanoic acid (M)



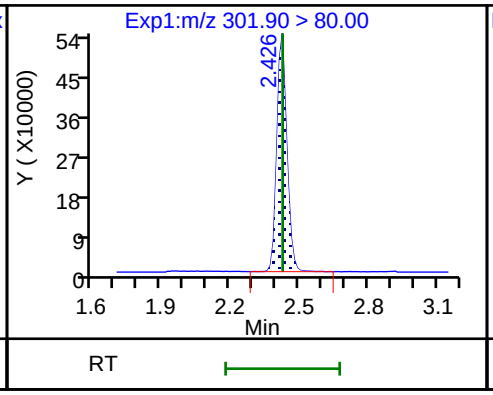

D 3 13C5 PFPeA



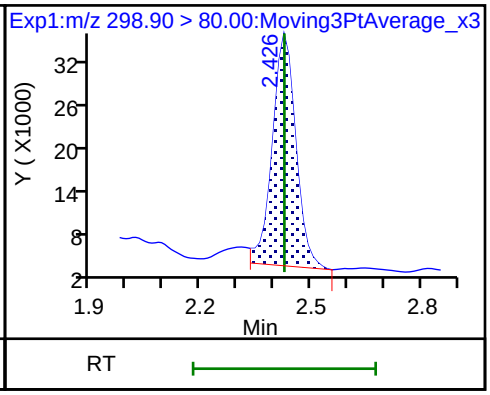

4 Perfluoropentanoic acid (M)



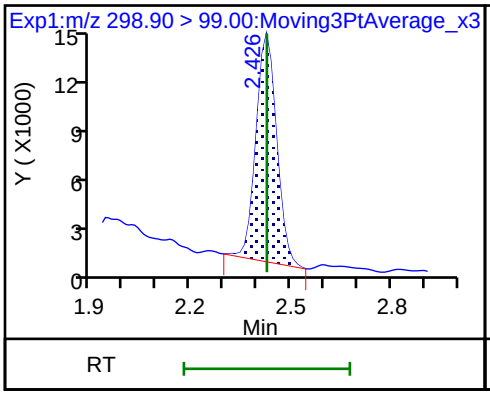

D 47 13C3 PFBS



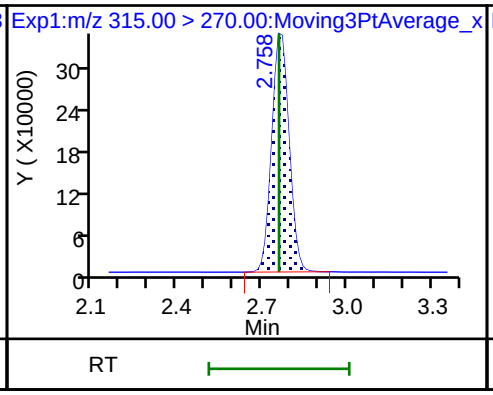

5 Perfluorobutanesulfonic acid



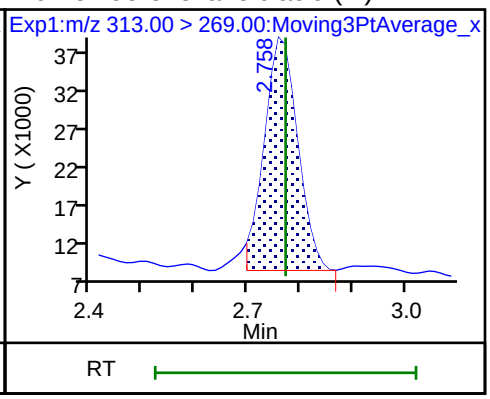

5 Perfluorobutanesulfonic acid



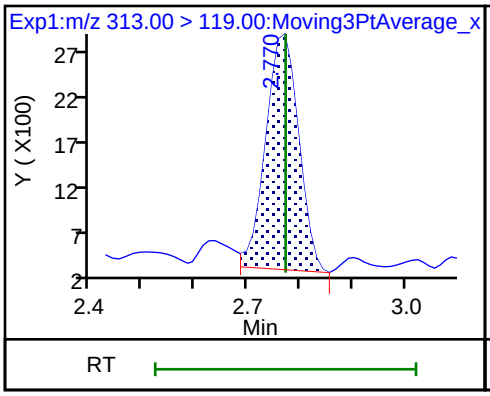

D 7 13C2 PFHxA



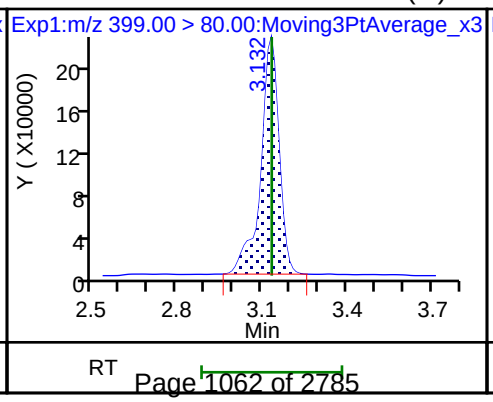

6 Perfluorohexanoic acid (M)



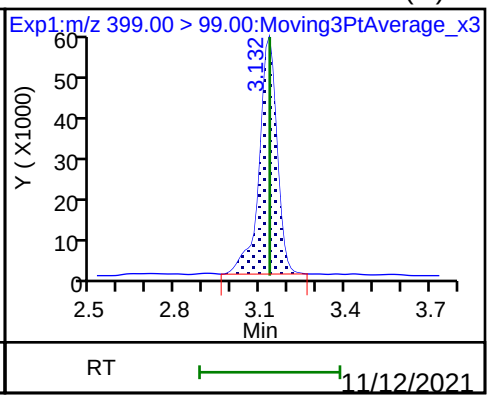

6 Perfluorohexanoic acid



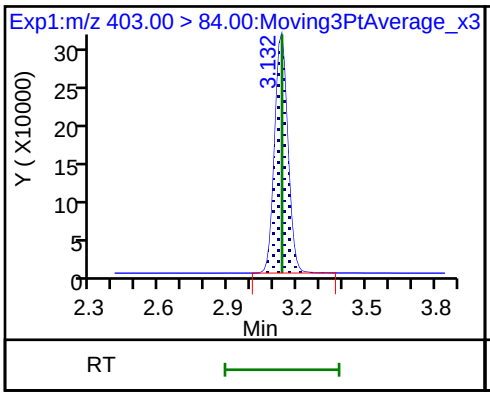

8 Perfluorohexanesulfonic acid (M)



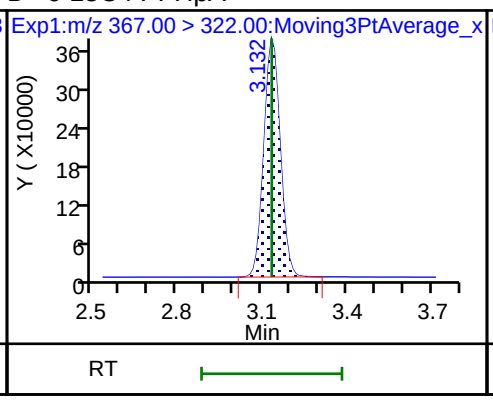

8 Perfluorohexanesulfonic acid (M)



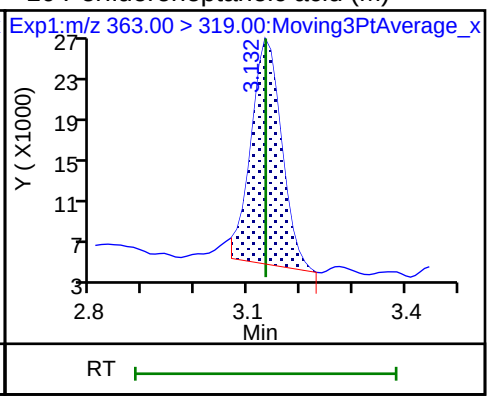
D 11 18O2 PFHxS



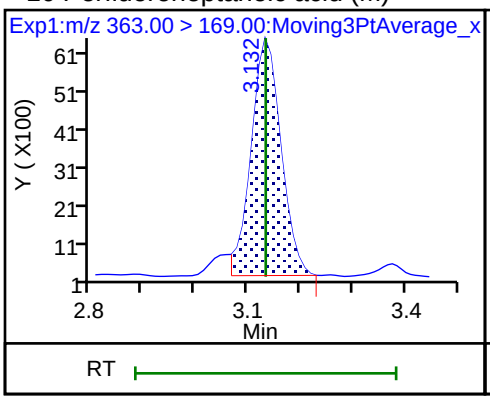

D 9 13C4 PFHpA



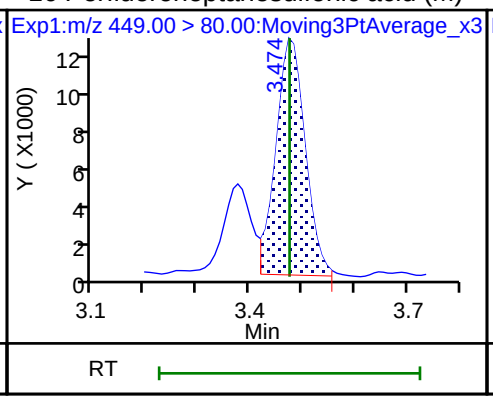

10 Perfluoroheptanoic acid (M)



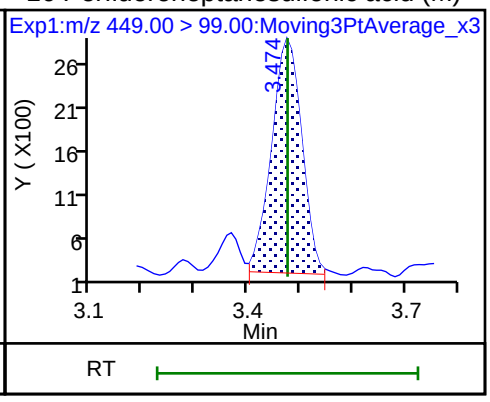

10 Perfluoroheptanoic acid (M)



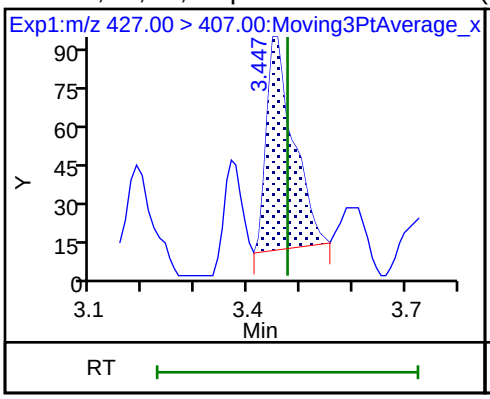

16 Perfluoroheptanesulfonic acid (M)



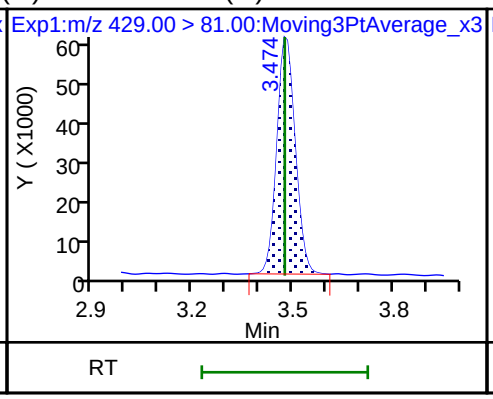

16 Perfluoroheptanesulfonic acid (M)



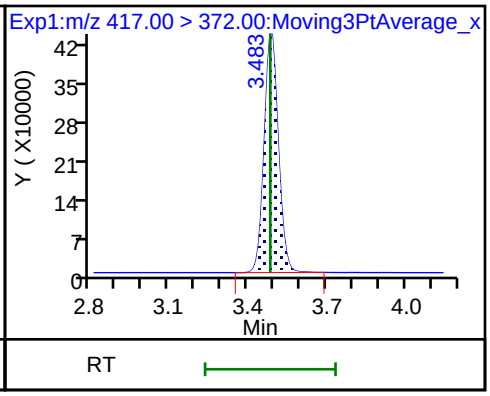

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



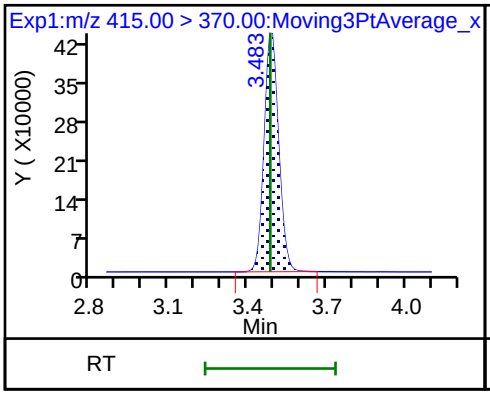

D 12 M2-6:2 FTS (M)



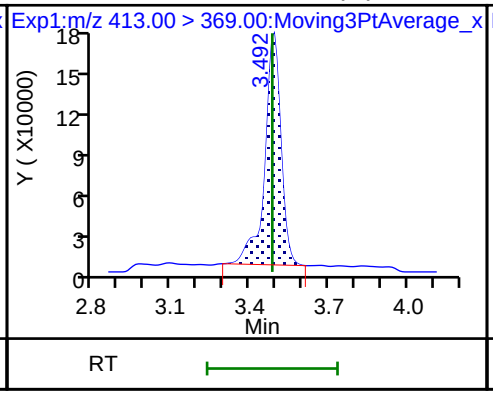

D 14 13C4 PFOA



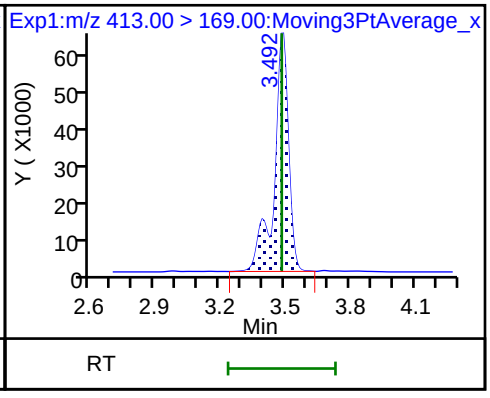

* 62 13C2 PFOA



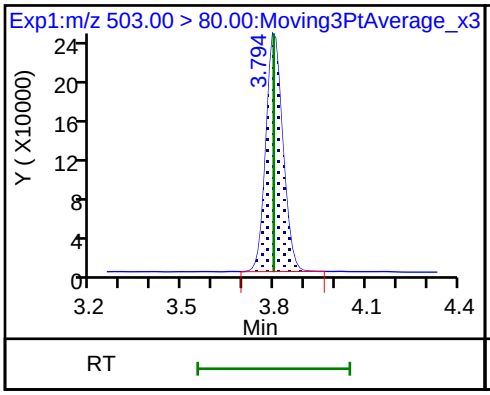

15 Perfluorooctanoic acid (M)



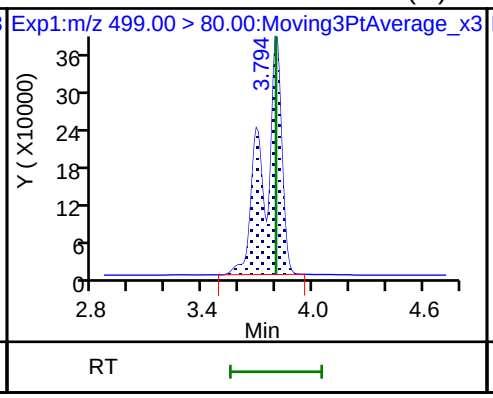

15 Perfluorooctanoic acid



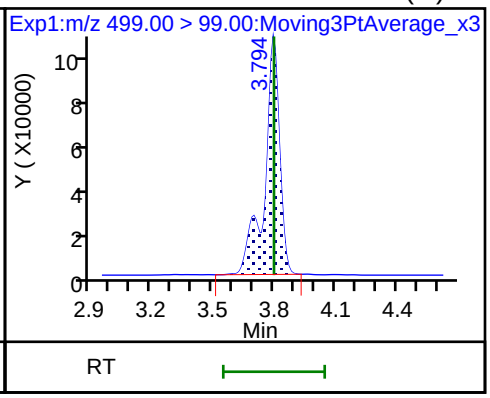
D 18 13C4 PFOS



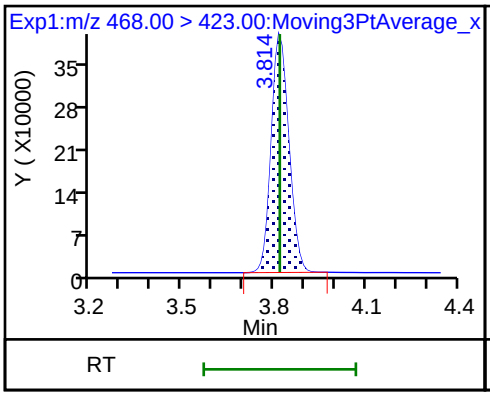

17 Perfluorooctanesulfonic acid (M)



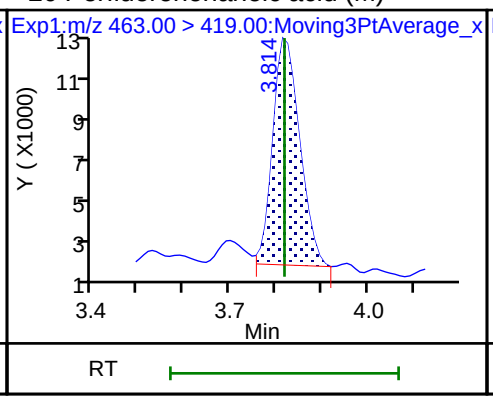

17 Perfluorooctanesulfonic acid (M)



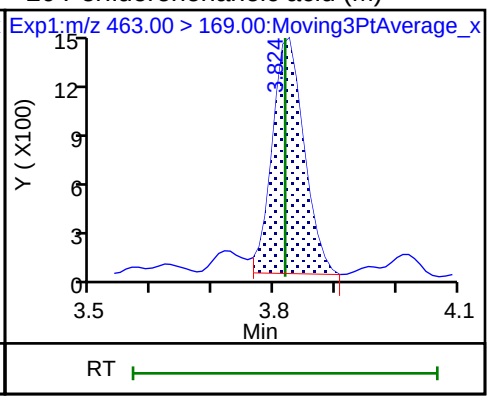

D 19 13C5 PFNA



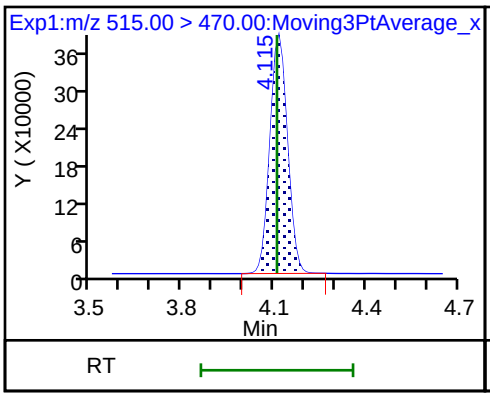

20 Perfluorononanoic acid (M)



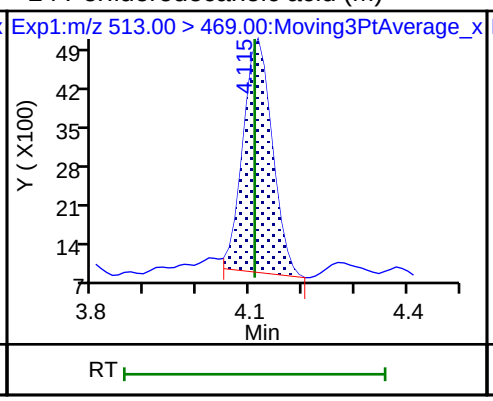

20 Perfluorononanoic acid (M)



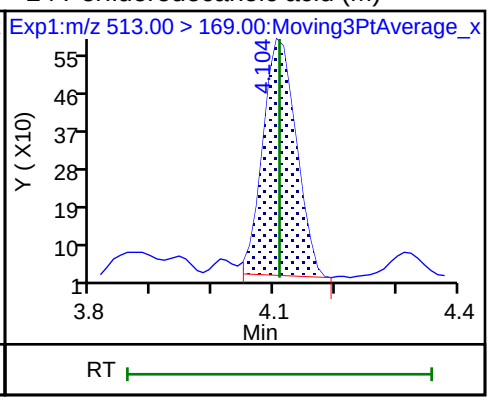

D 23 13C2 PFDA



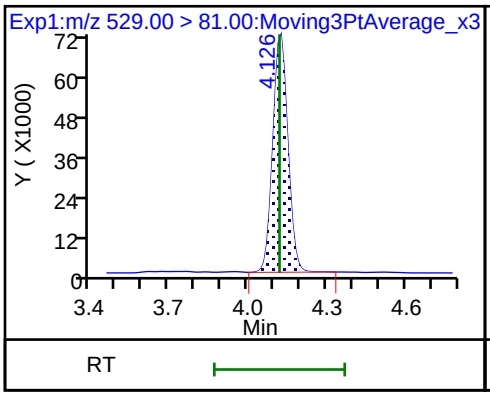

24 Perfluorodecanoic acid (M)



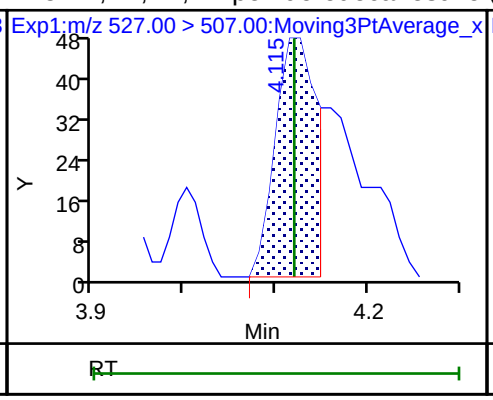

24 Perfluorodecanoic acid (M)



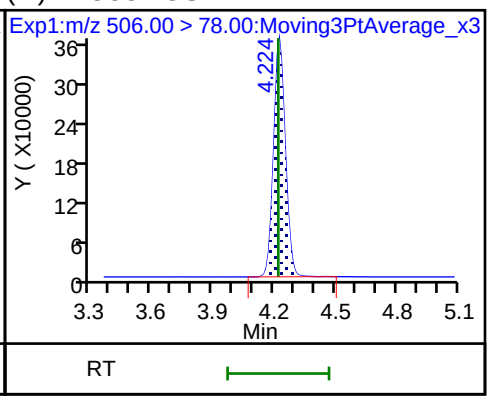

D 26 M2-8:2 FTS



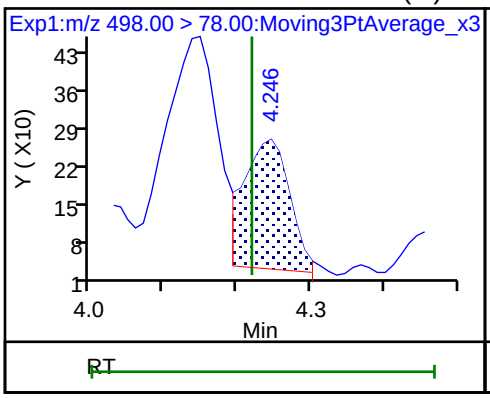

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



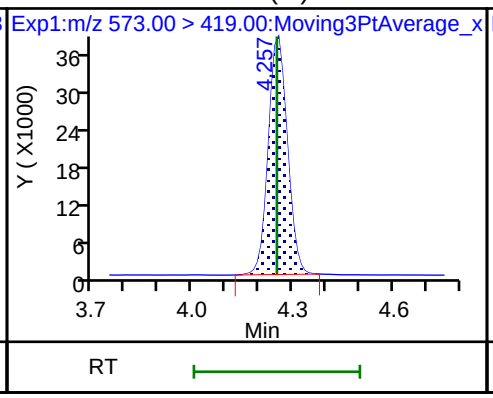

D 21 13C8 FOSA



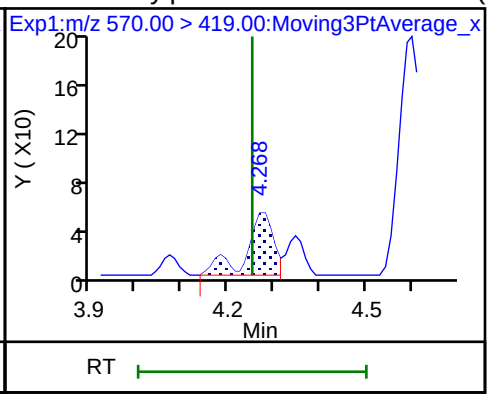
22 Perfluorooctanesulfonamide (M)



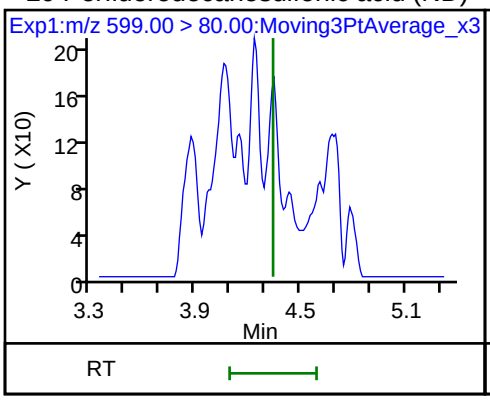

D 27 d3-NMeFOSAA (M)



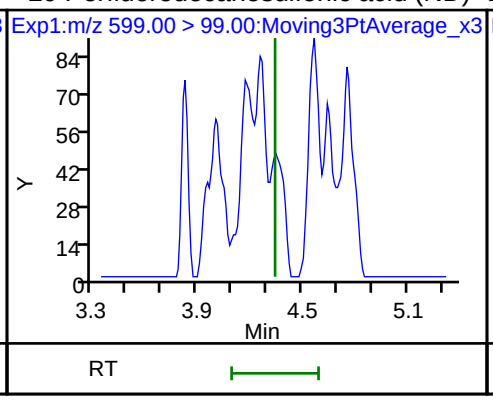

28 N-methylperfluorooctanesulfonami (M)



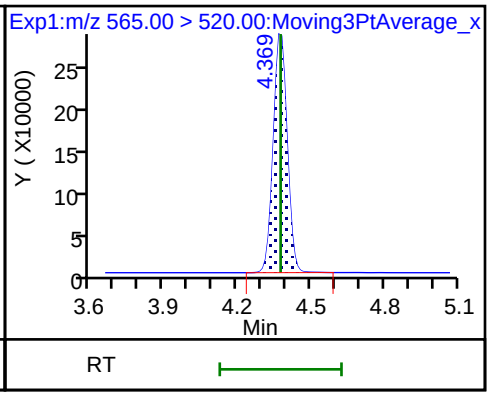

29 Perfluorodecanesulfonic acid (ND)



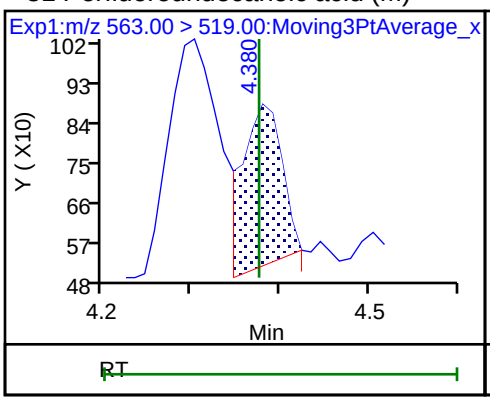

29 Perfluorodecanesulfonic acid (ND)



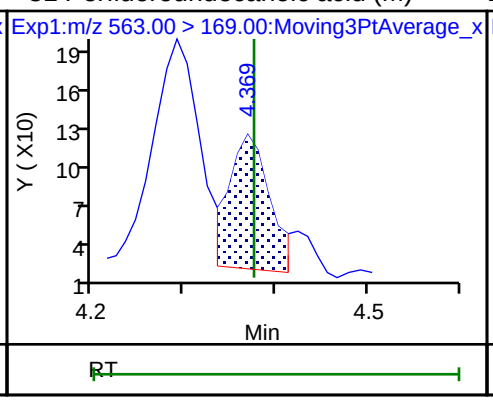

D 30 13C2 PFUnA



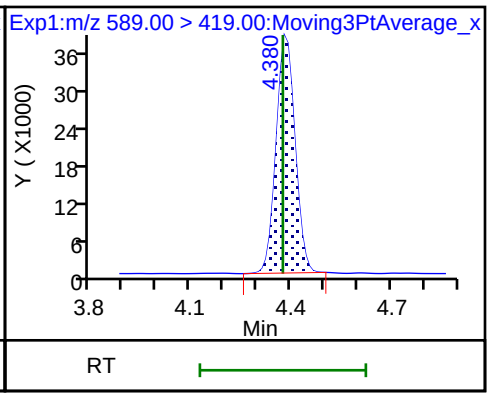

31 Perfluoroundecanoic acid (M)



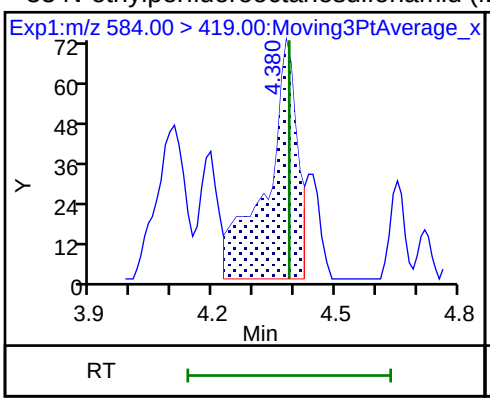

31 Perfluoroundecanoic acid (M)



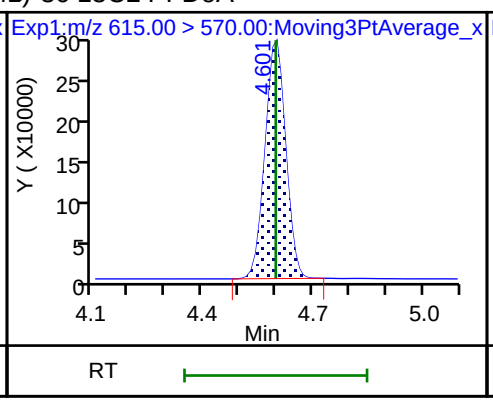

D 32 d5-NEtFOSAA



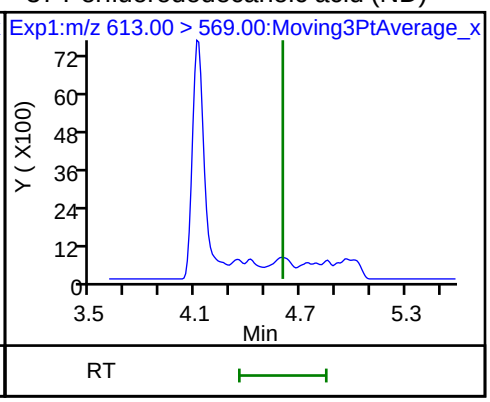

33 N-ethylperfluorooctanesulfonamid (ND)



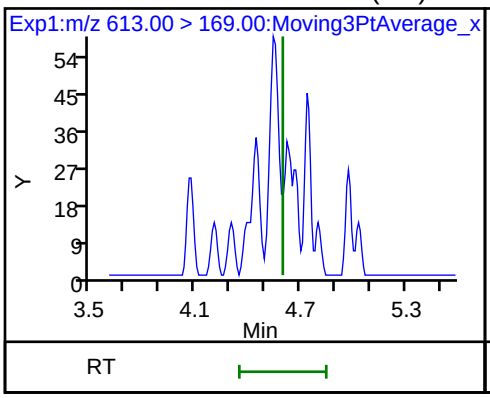

D 36 13C2 PFDoA



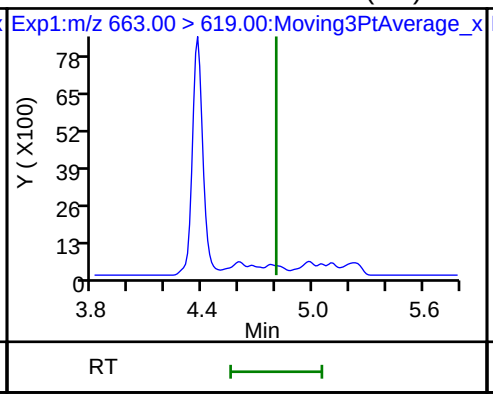

37 Perfluorododecanoic acid (ND)



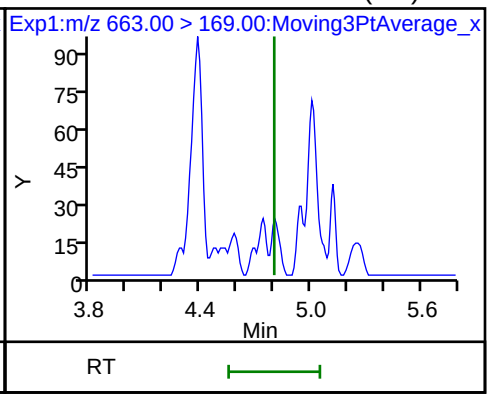
37 Perfluorododecanoic acid (ND)



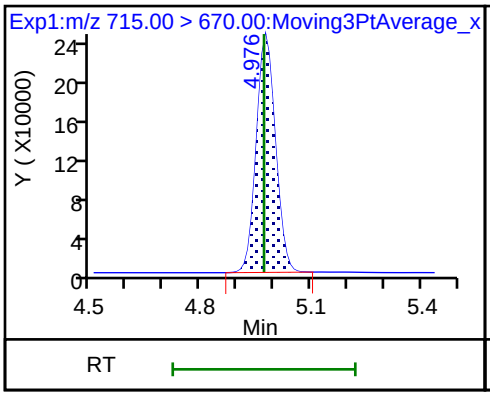

41 Perfluorotridecanoic acid (ND)



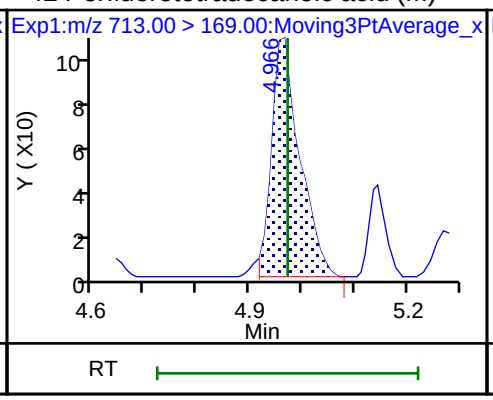

41 Perfluorotridecanoic acid (ND)



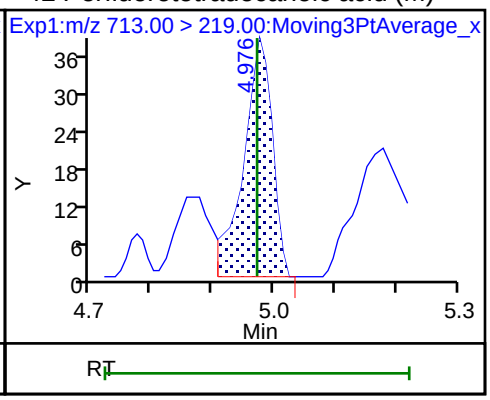

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

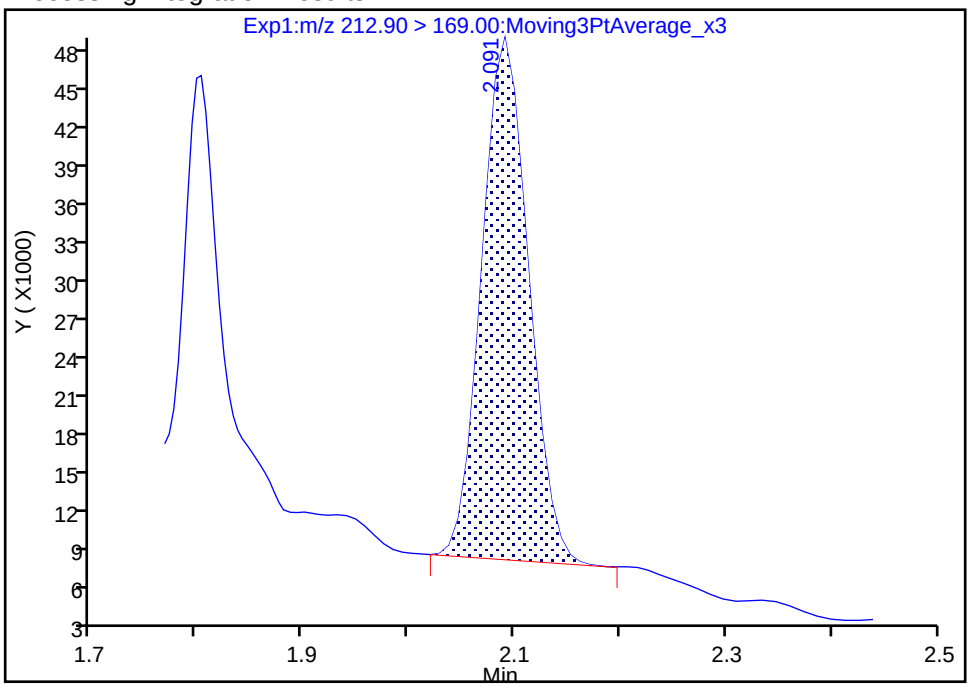
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

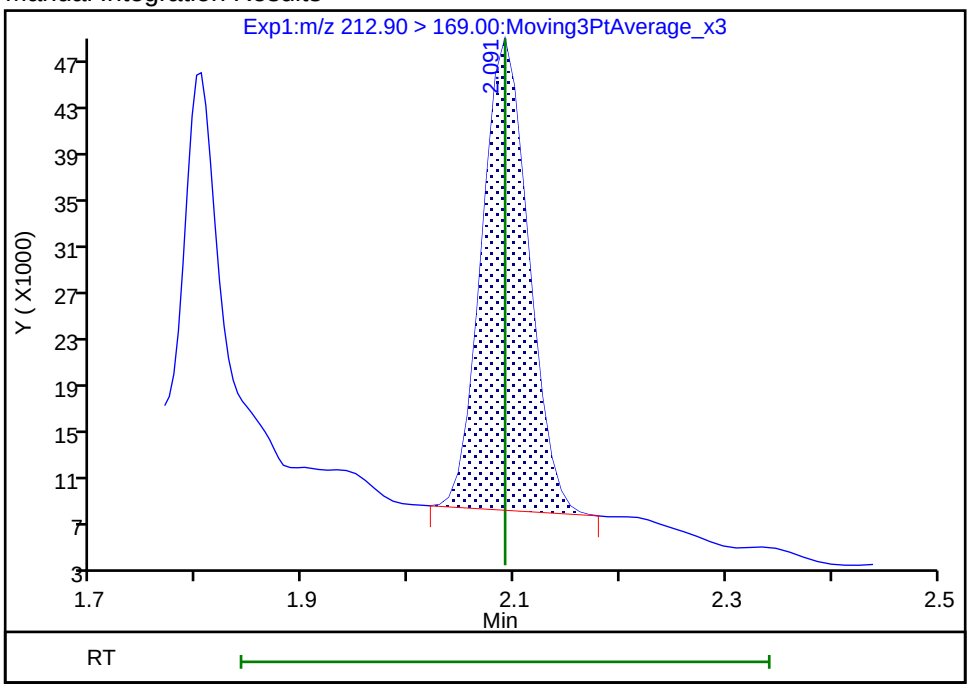
Processing Integration Results

RT: 2.09
Area: 125897
Amount: 0.115291
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 125692
Amount: 0.115104
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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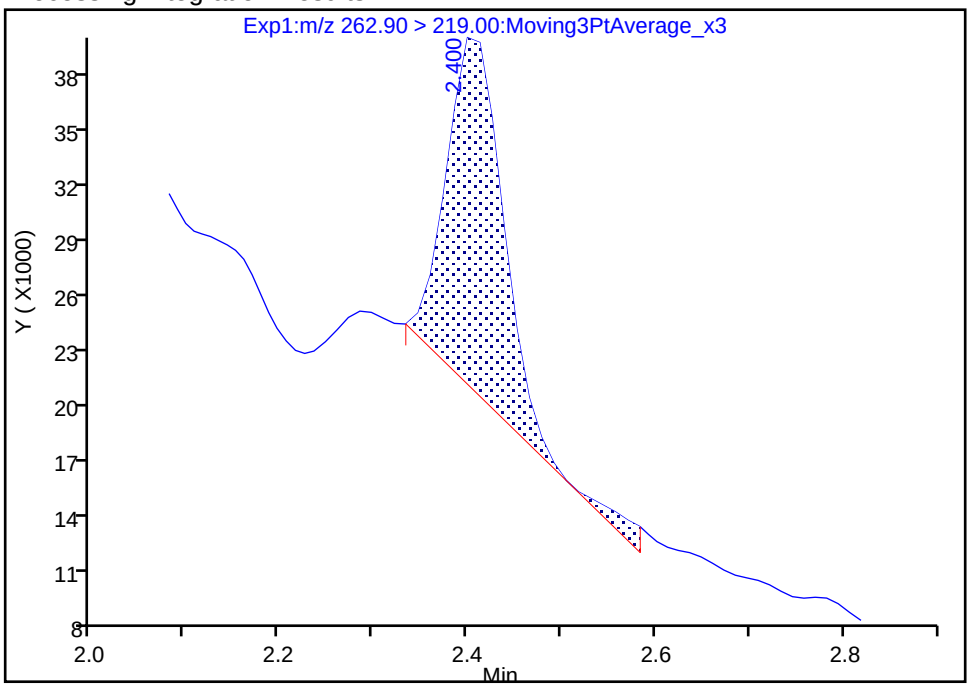
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

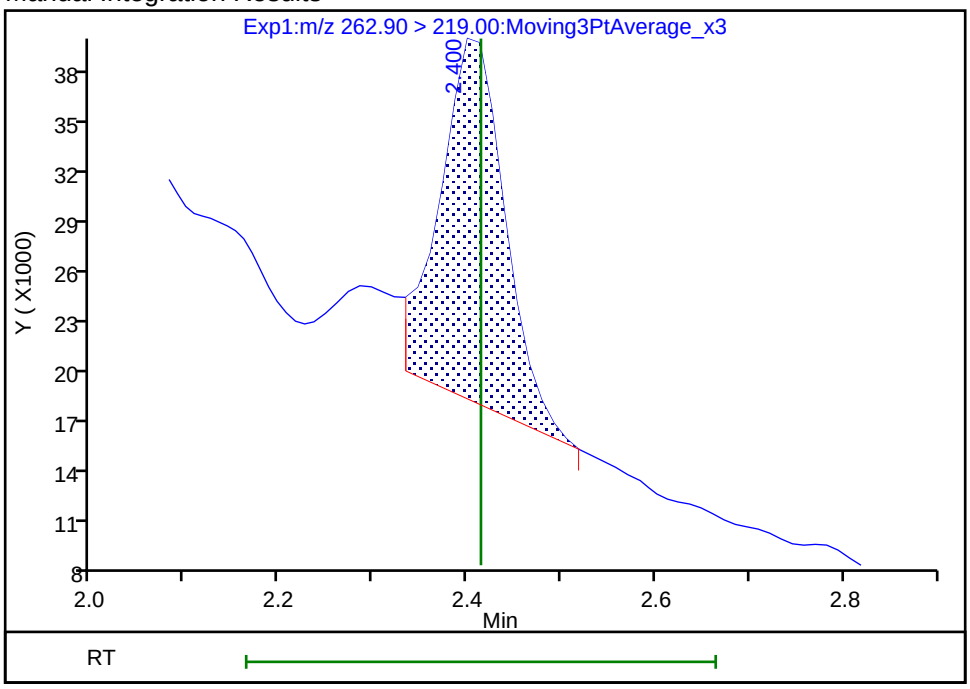
Processing Integration Results

RT: 2.40
Area: 79085
Amount: 0.075419
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 99366
Amount: 0.094760
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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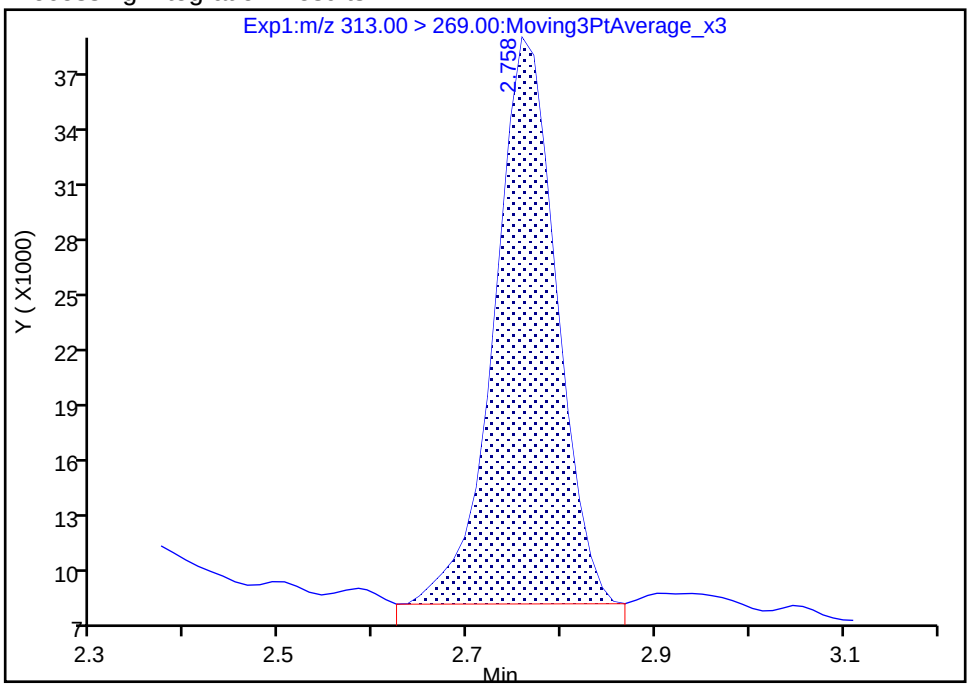
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

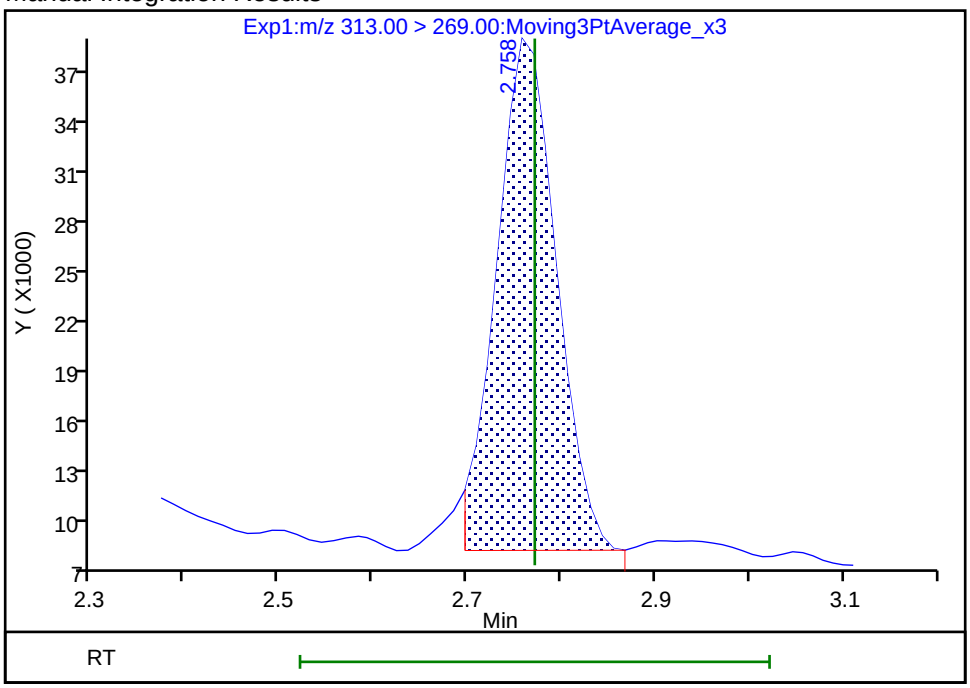
Processing Integration Results

RT: 2.76
Area: 139494
Amount: 0.118703
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 134209
Amount: 0.114206
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:14:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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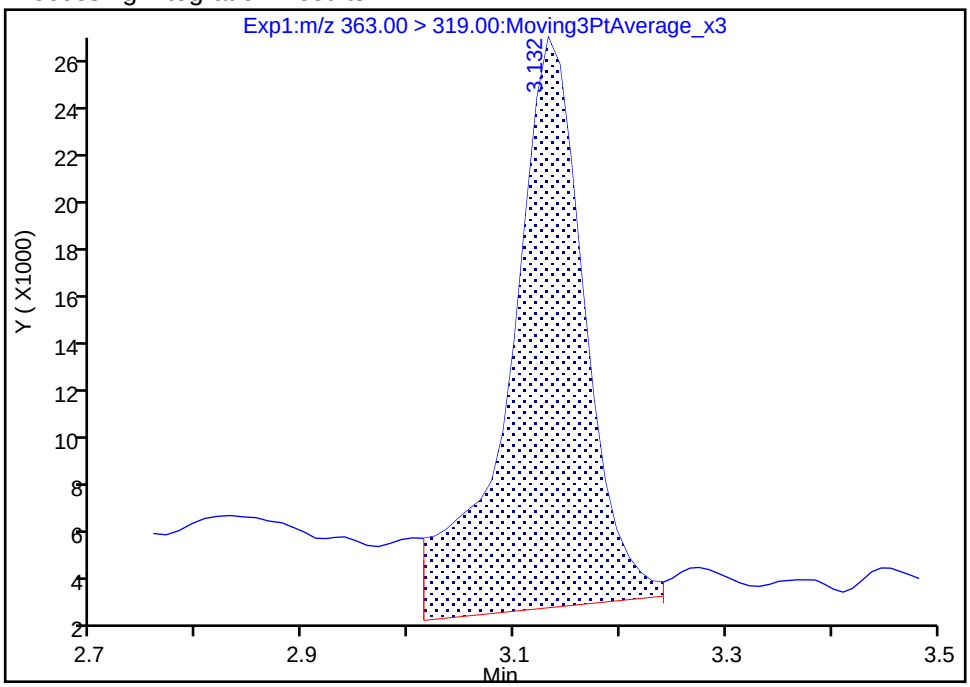
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

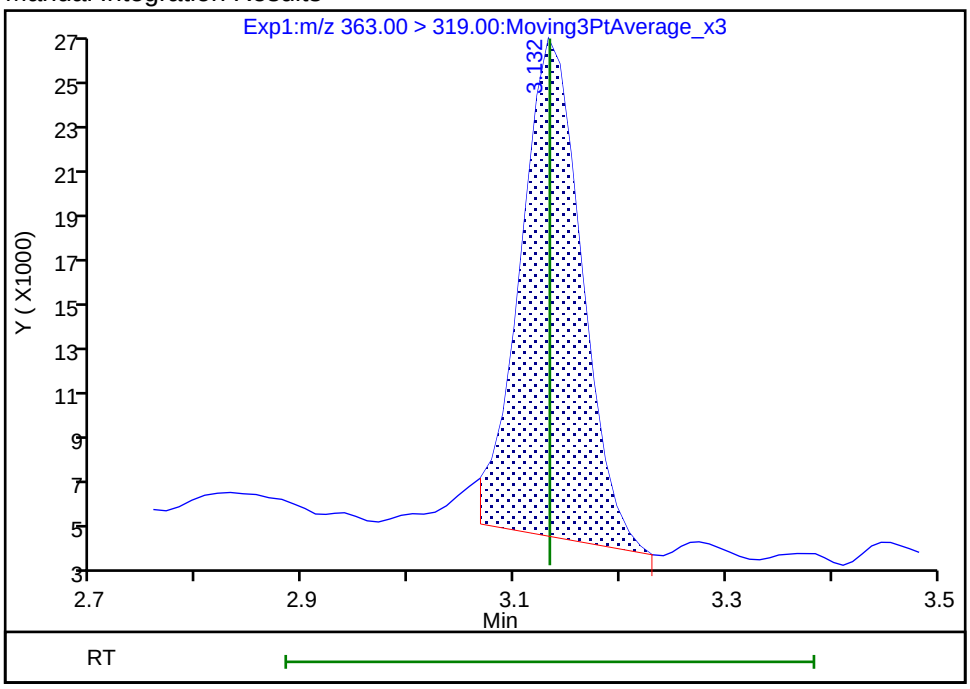
Processing Integration Results

RT: 3.13
Area: 119901
Amount: 0.096994
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 89612
Amount: 0.072492
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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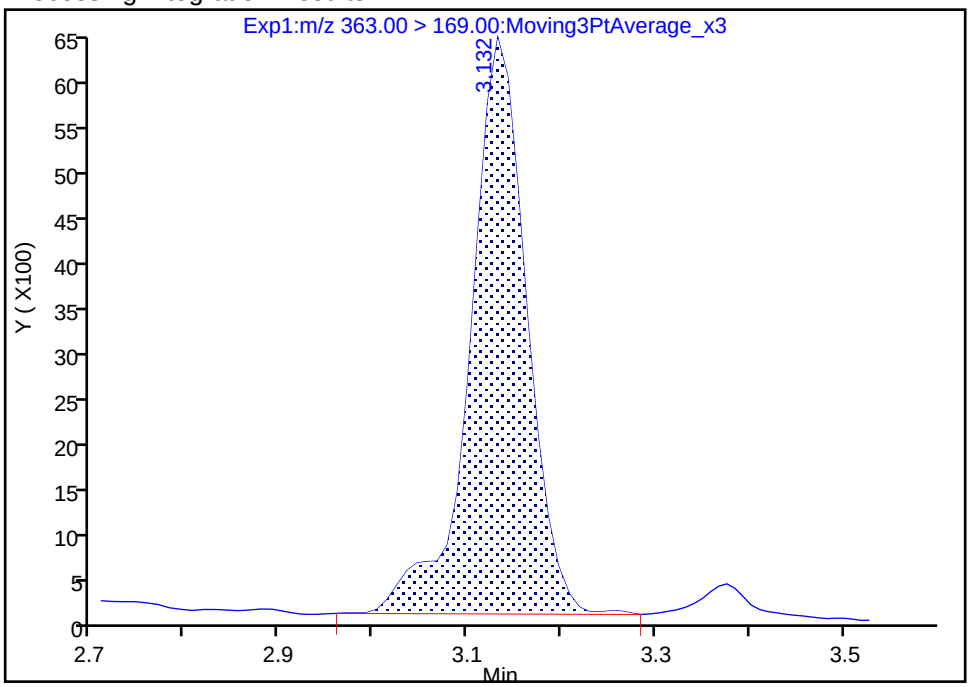
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

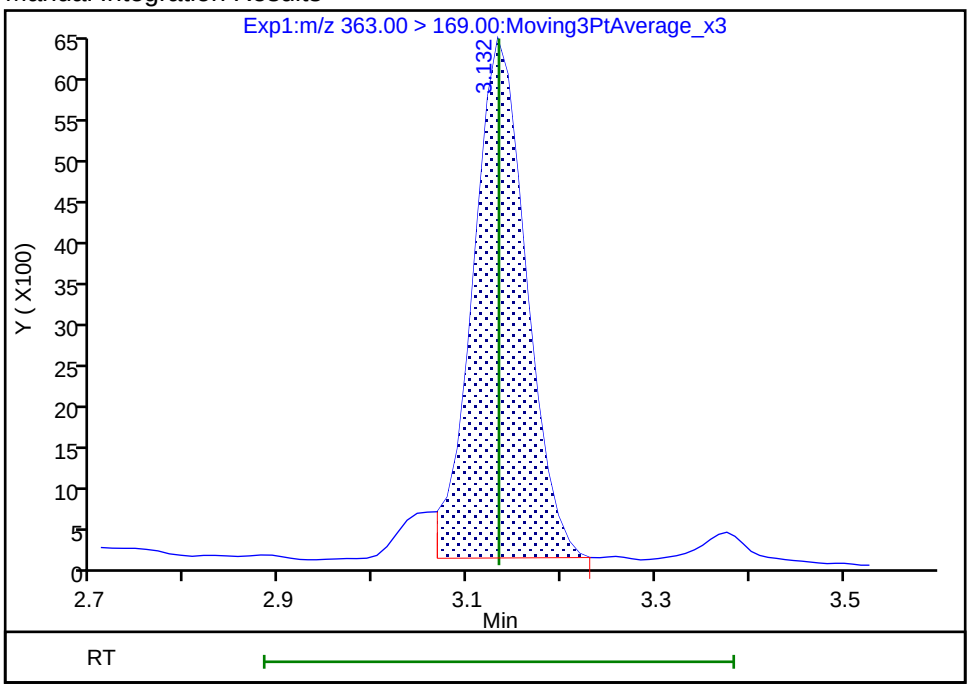
Processing Integration Results

RT: 3.13
Area: 26603
Amount: 0.096994
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 24766
Amount: 0.072492
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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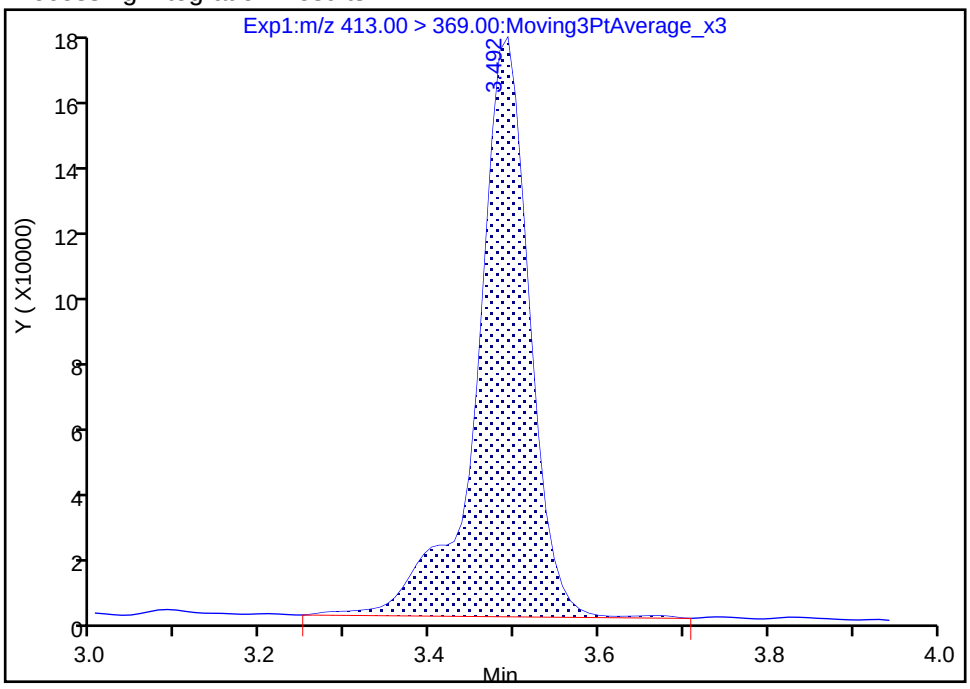
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

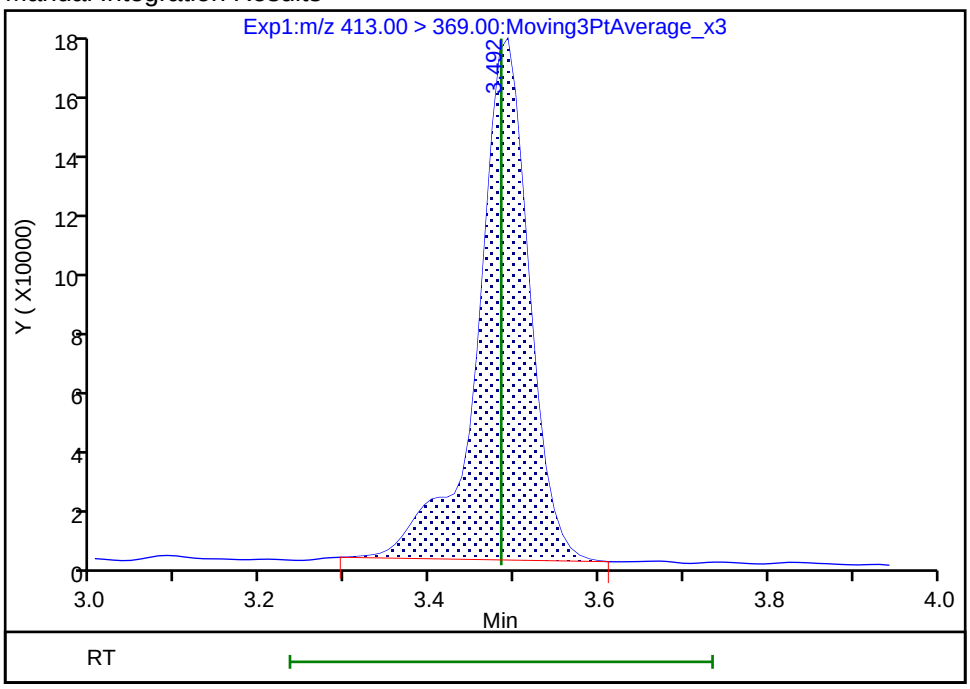
Processing Integration Results

RT: 3.49
Area: 721586
Amount: 0.517180
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 703827
Amount: 0.504451
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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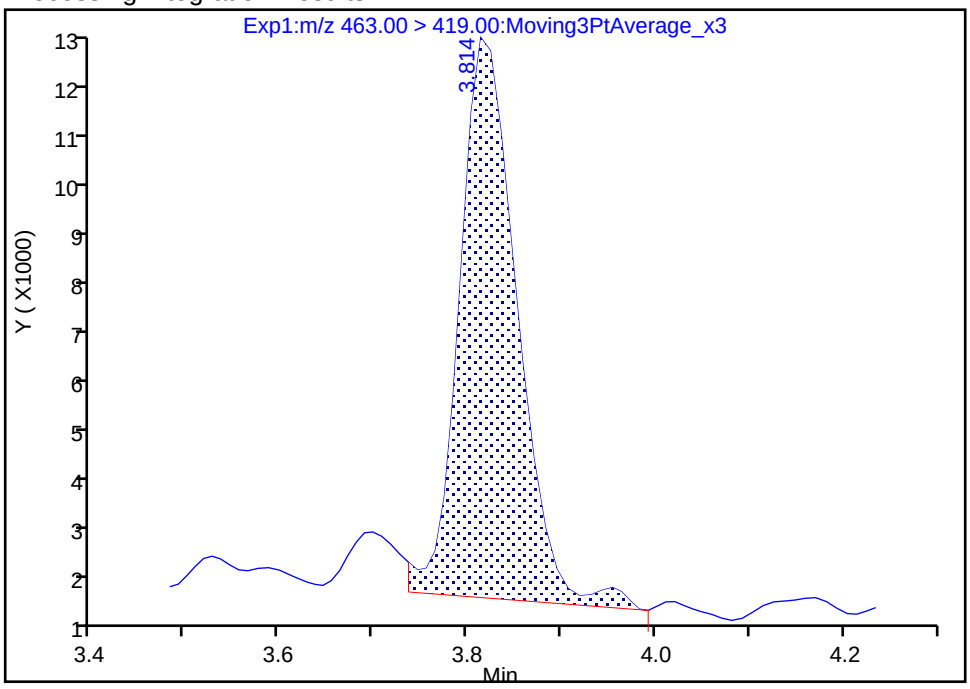
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

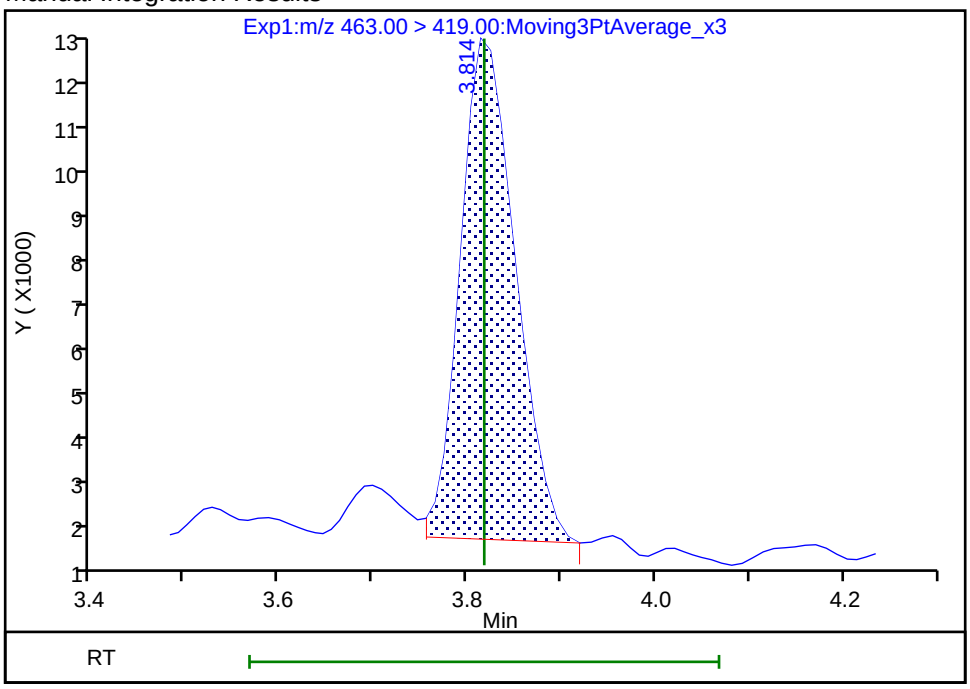
Processing Integration Results

RT: 3.81
Area: 46092
Amount: 0.037666
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 43306
Amount: 0.035390
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:15:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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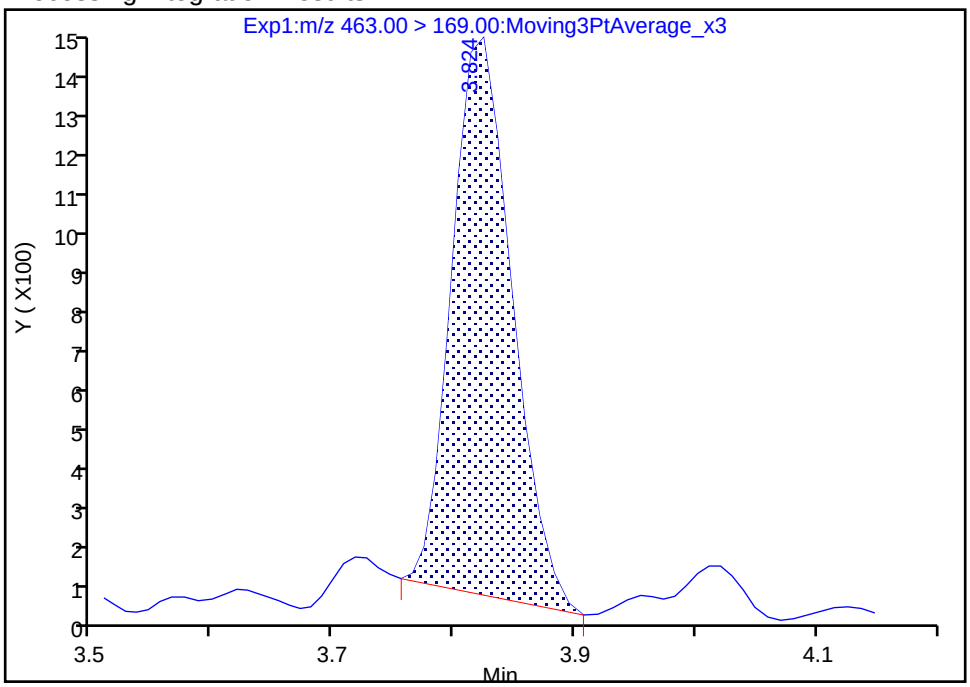
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

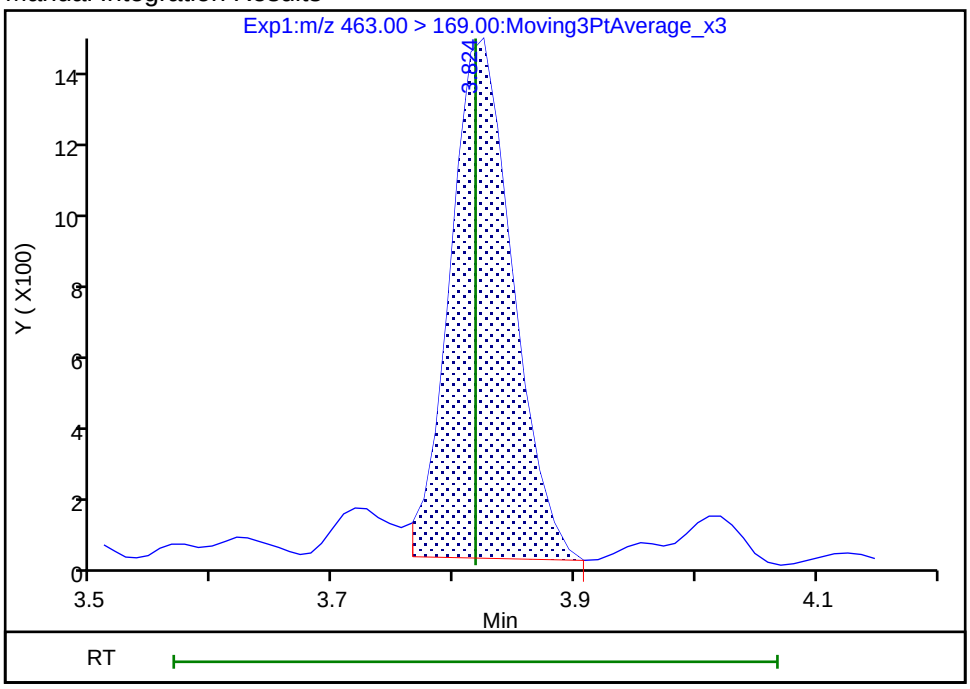
Processing Integration Results

RT: 3.82
Area: 4743
Amount: 0.037666
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 5049
Amount: 0.035390
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:15:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

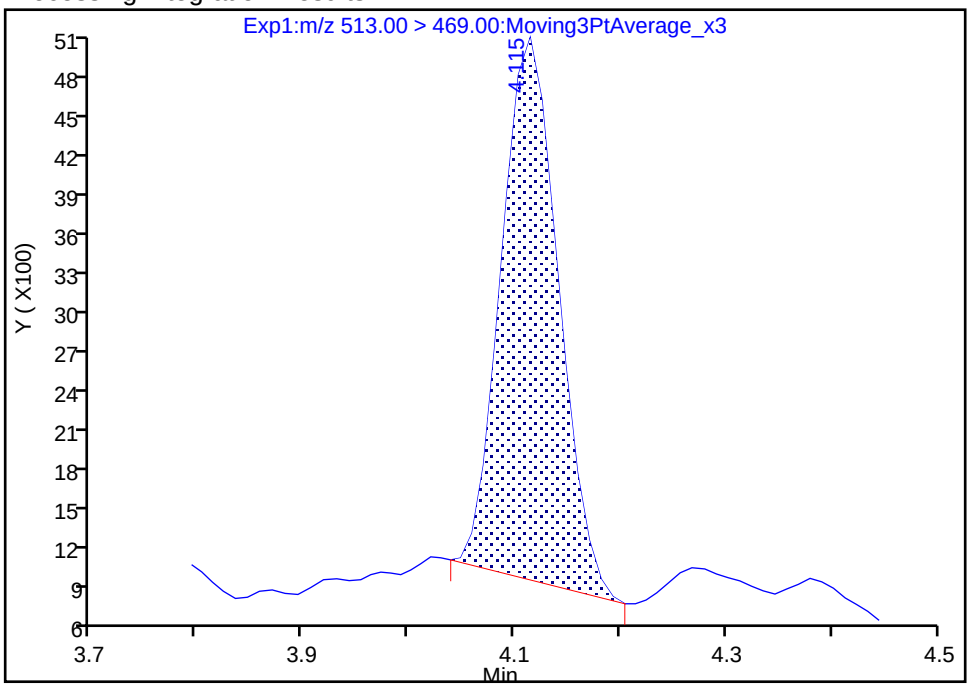
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

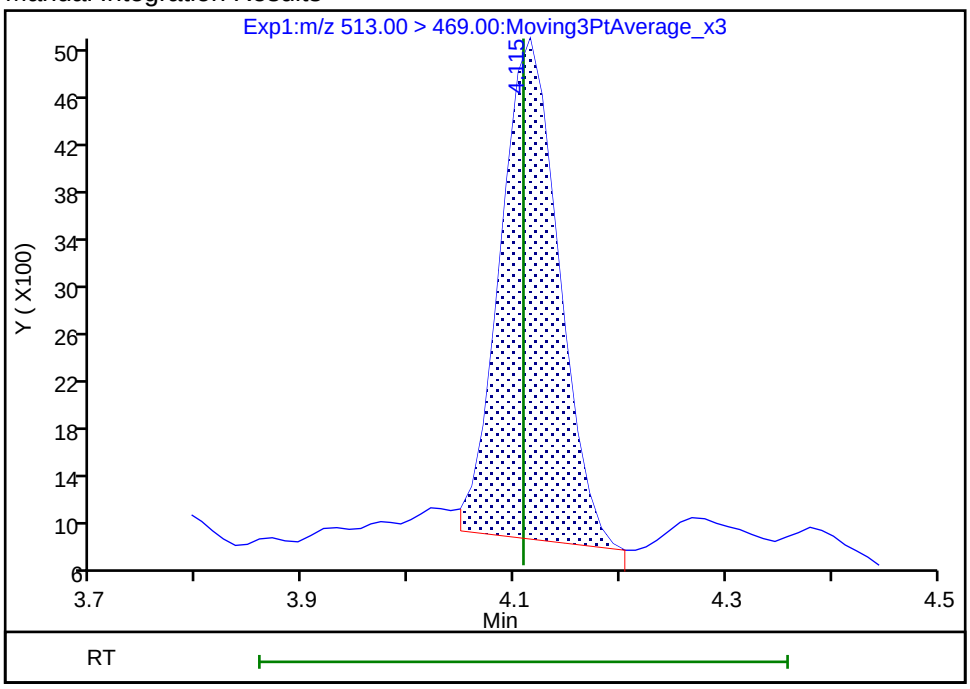
Processing Integration Results

RT: 4.11
Area: 15341
Amount: 0.012587
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 16028
Amount: 0.013150
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:15:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

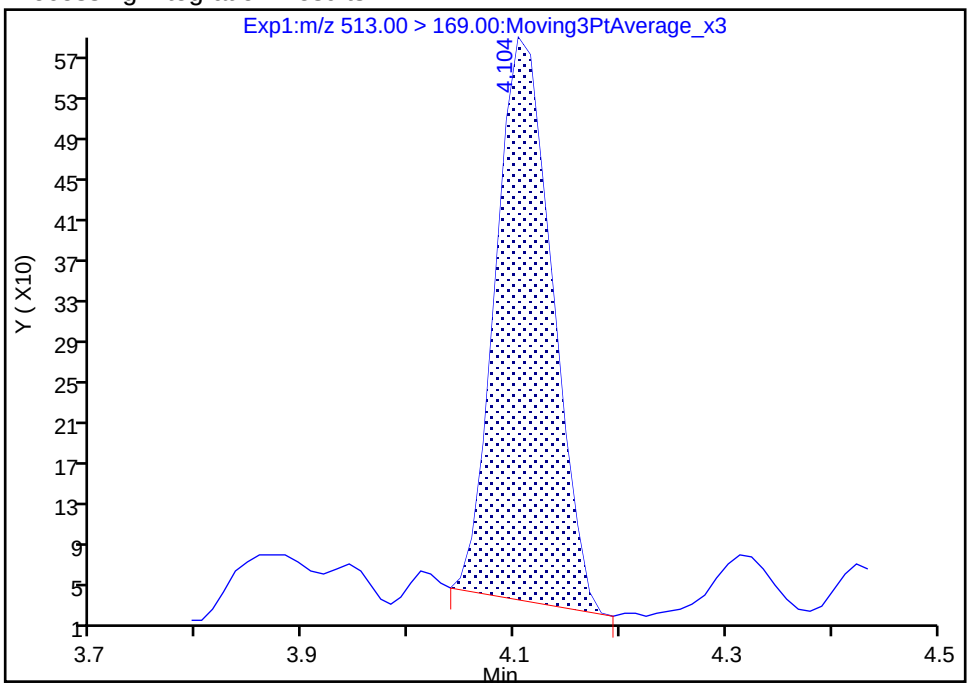
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

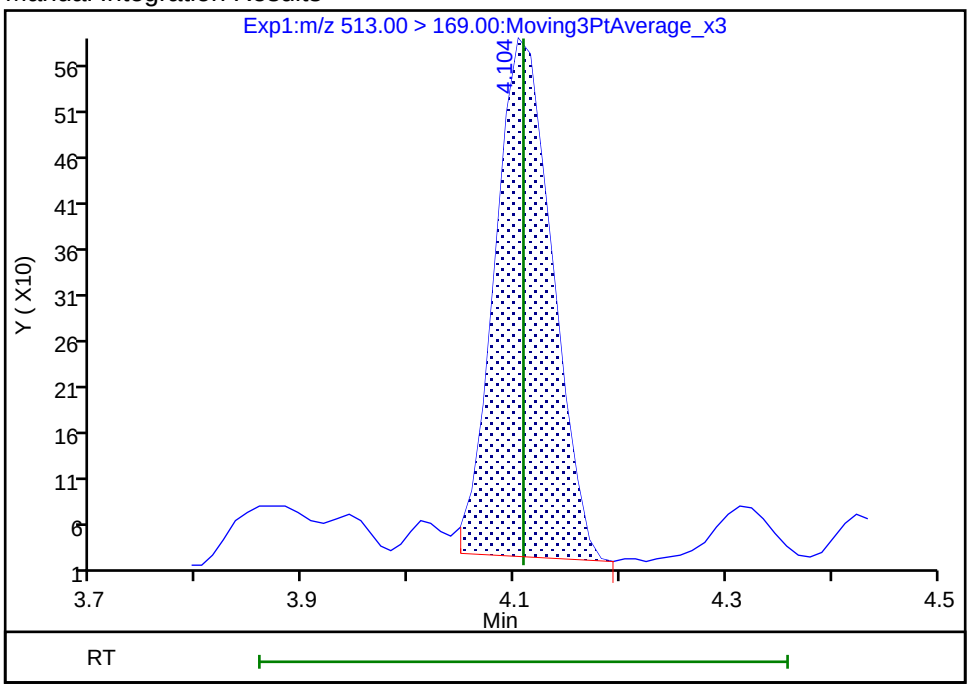
Processing Integration Results

RT: 4.10
Area: 2077
Amount: 0.012587
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 2148
Amount: 0.013150
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:15:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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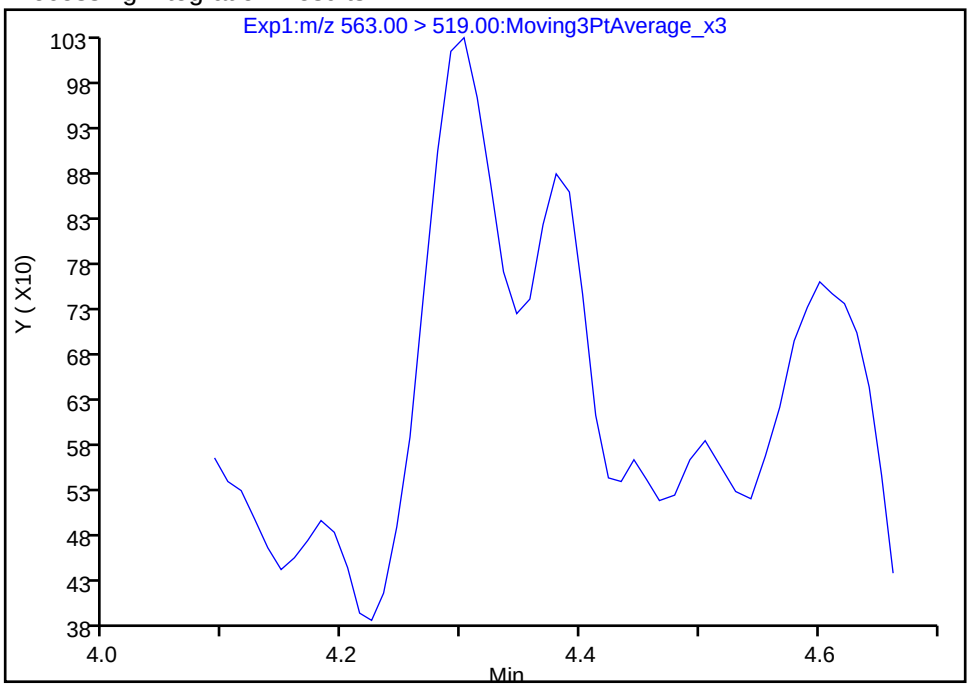
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

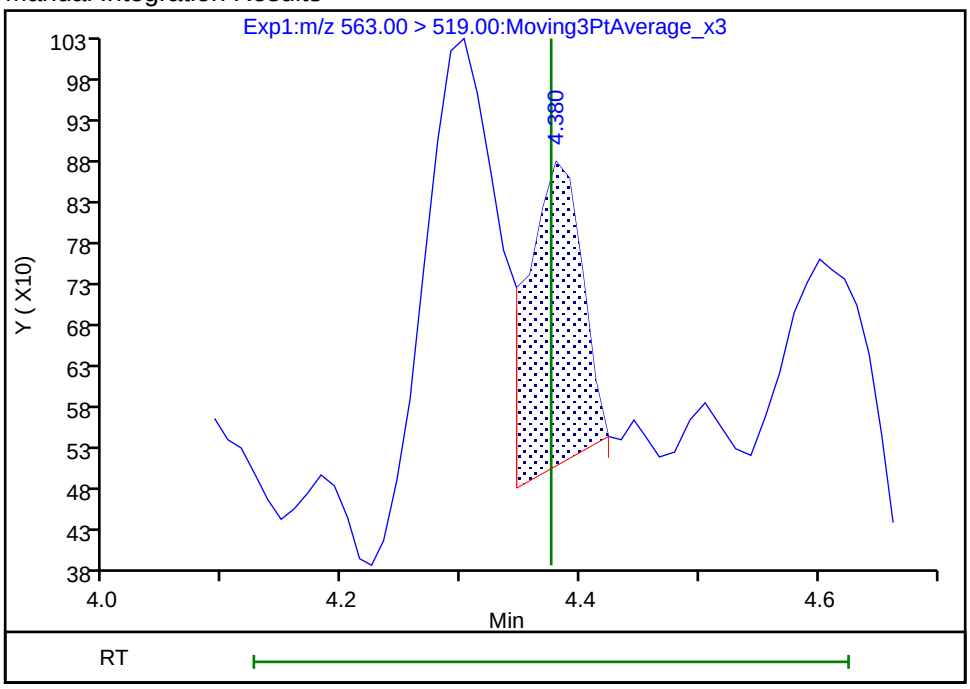
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 1133
Amount: 0.001181
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:56:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

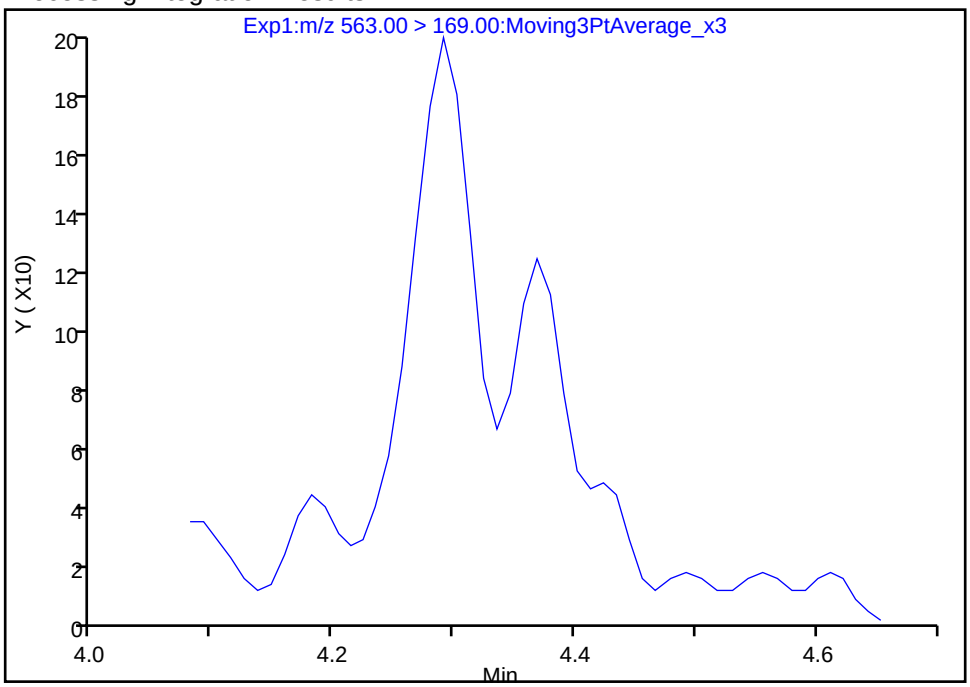
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

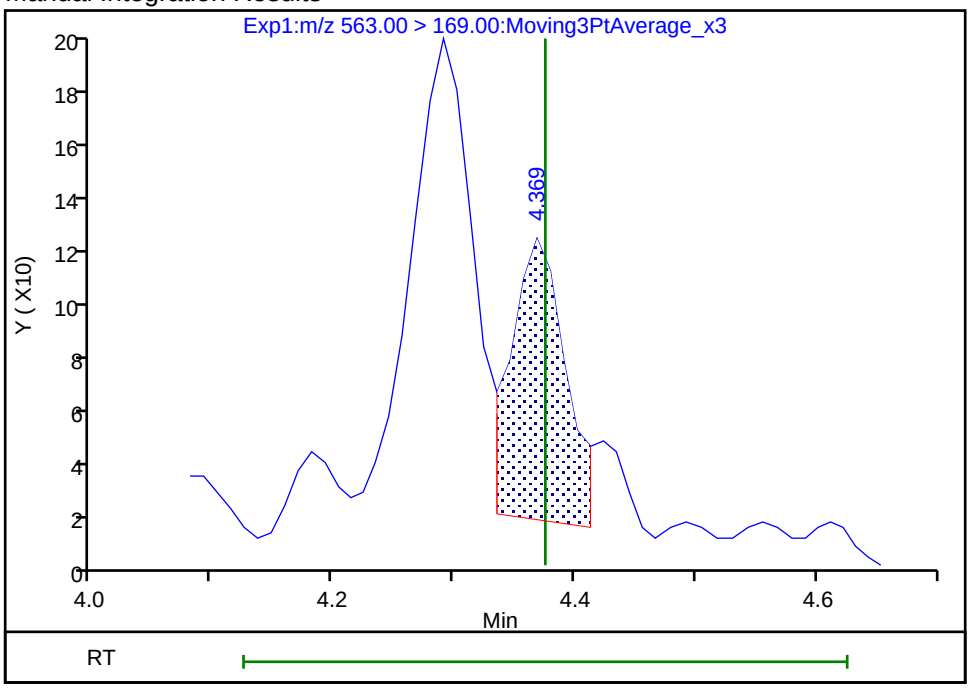
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 316
Amount: 0.001181
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:56:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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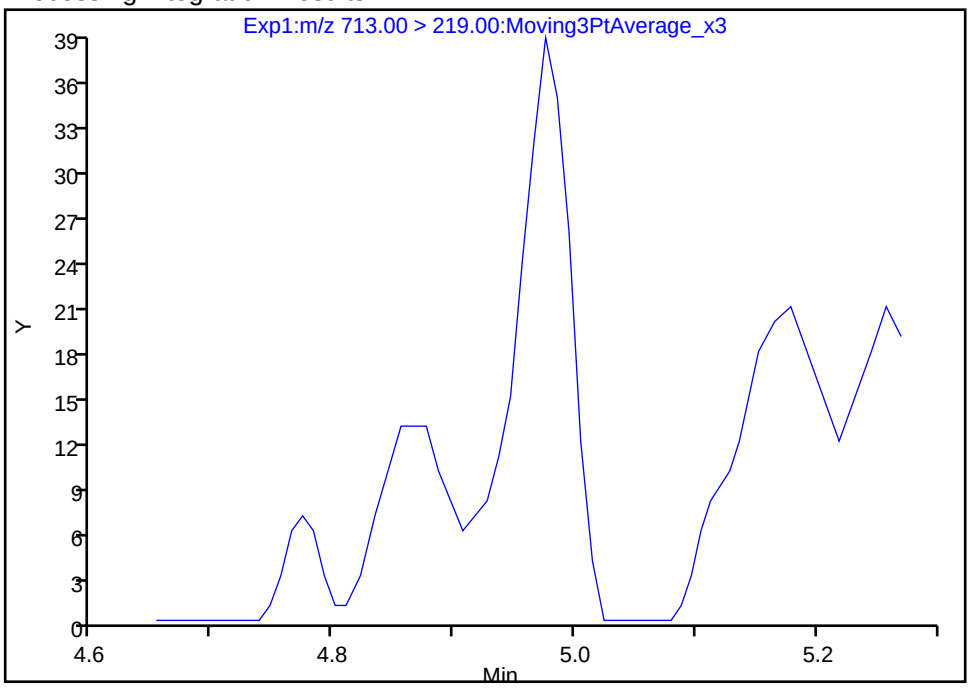
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

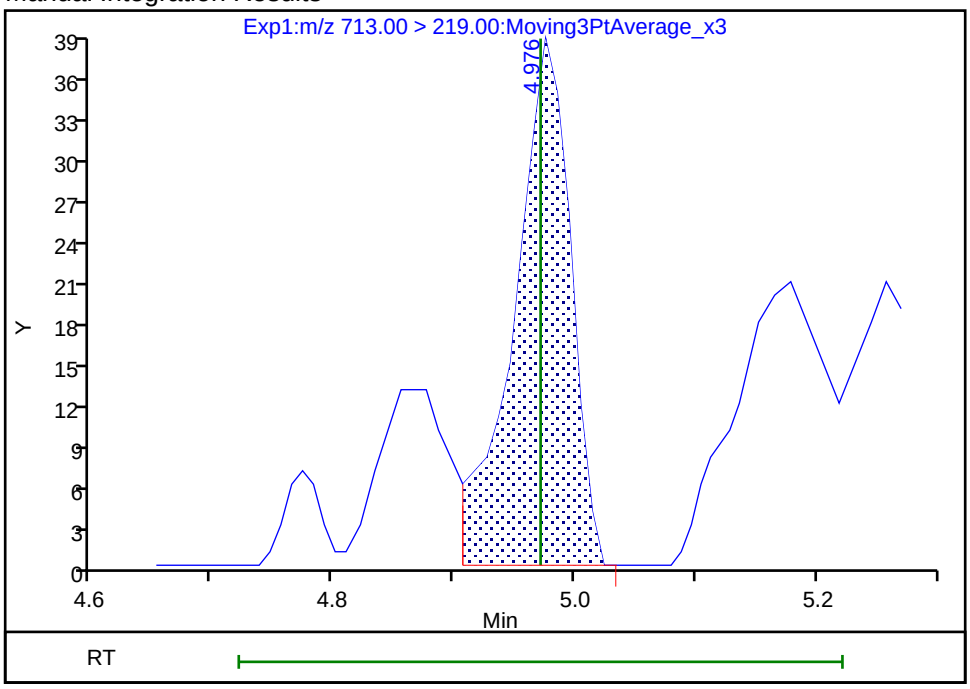
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 125
Amount: 0.003441
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:57:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

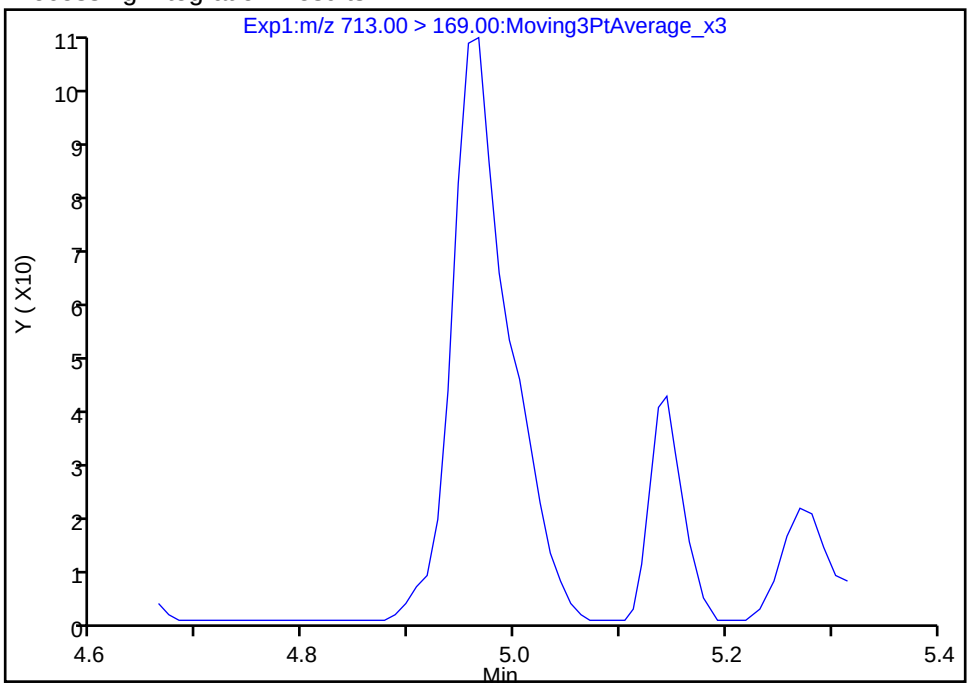
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

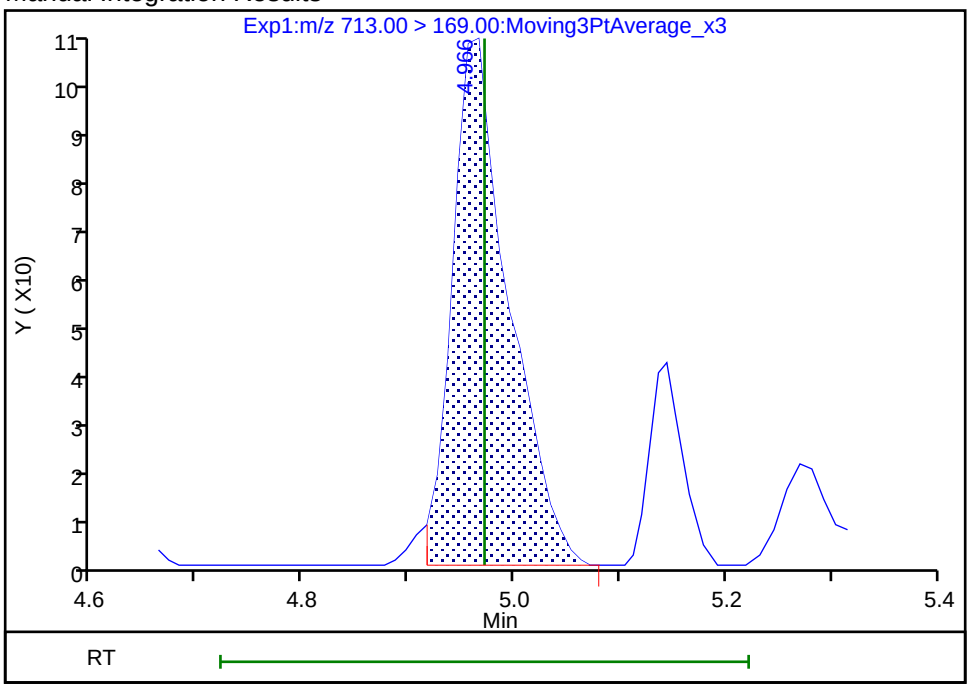
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 384
Amount: 0.003441
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:57:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

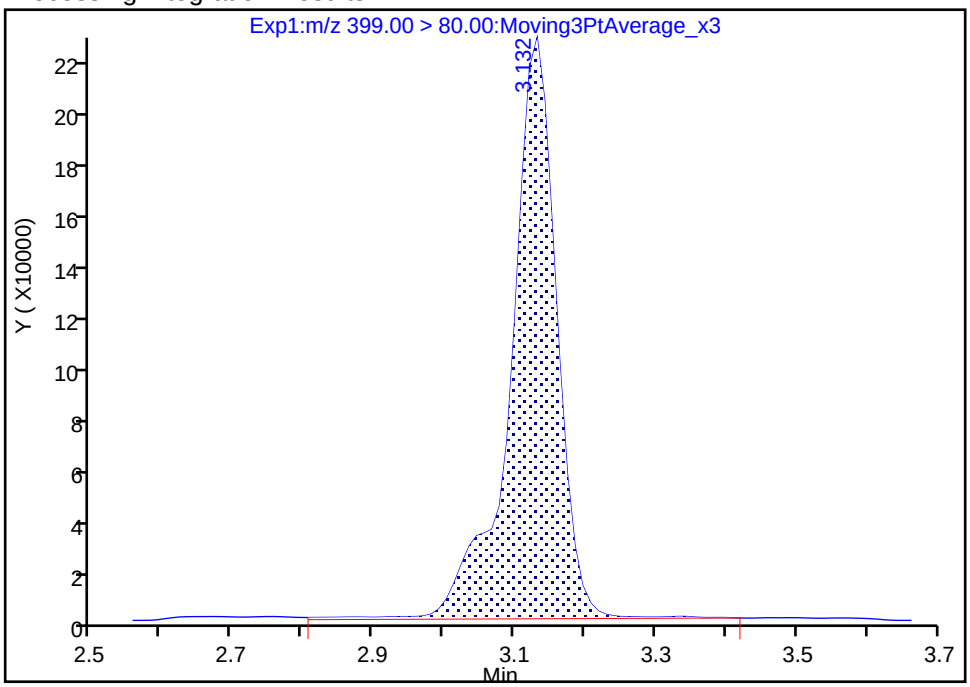
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

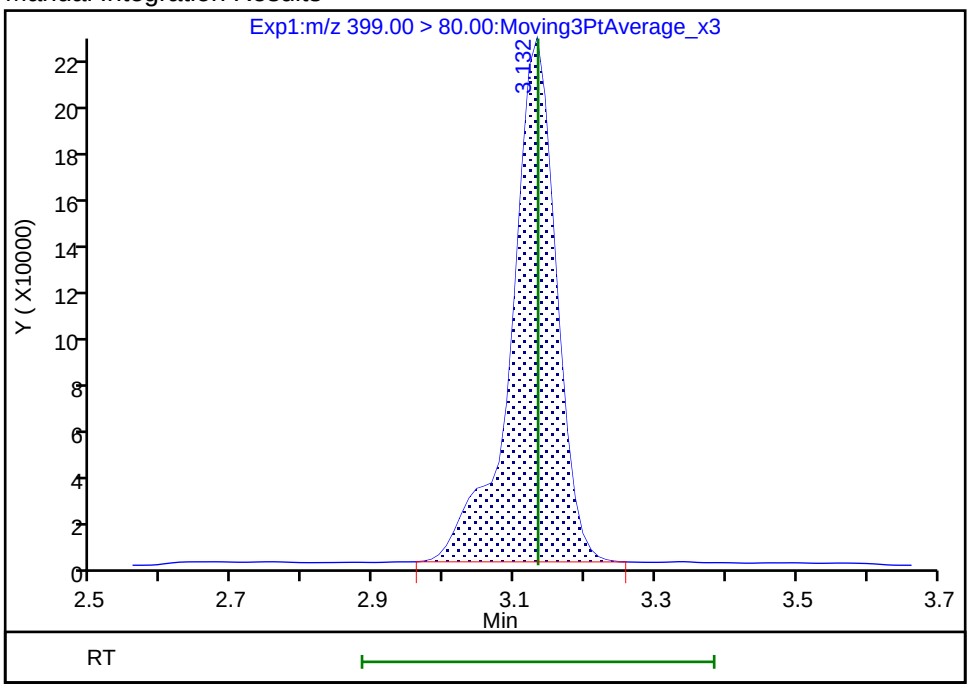
Processing Integration Results

RT: 3.13
Area: 1021518
Amount: 0.878998
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 994097
Amount: 0.855403
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

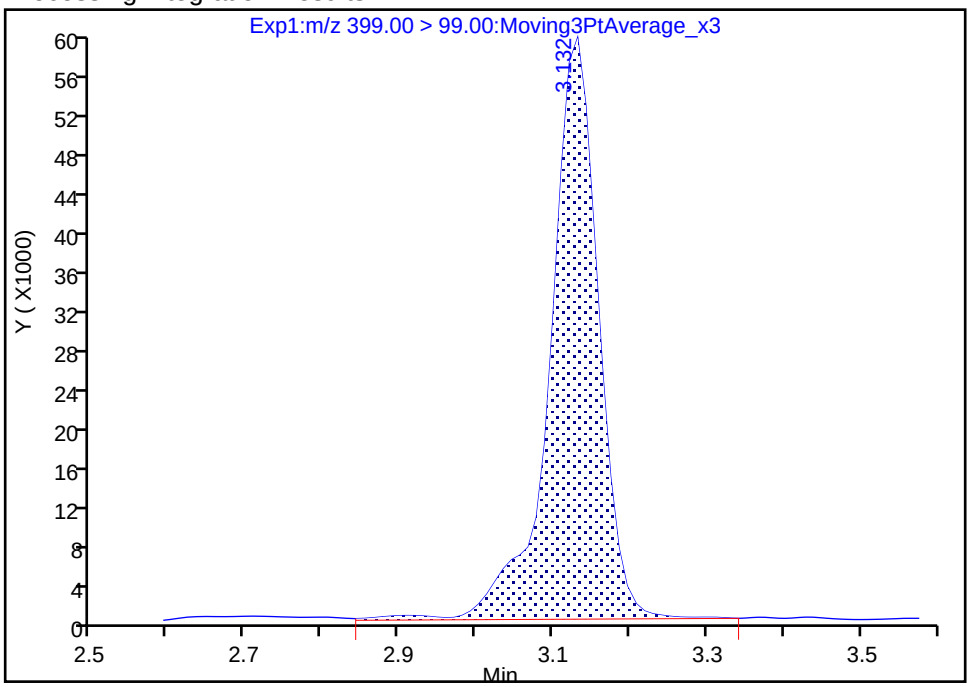
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

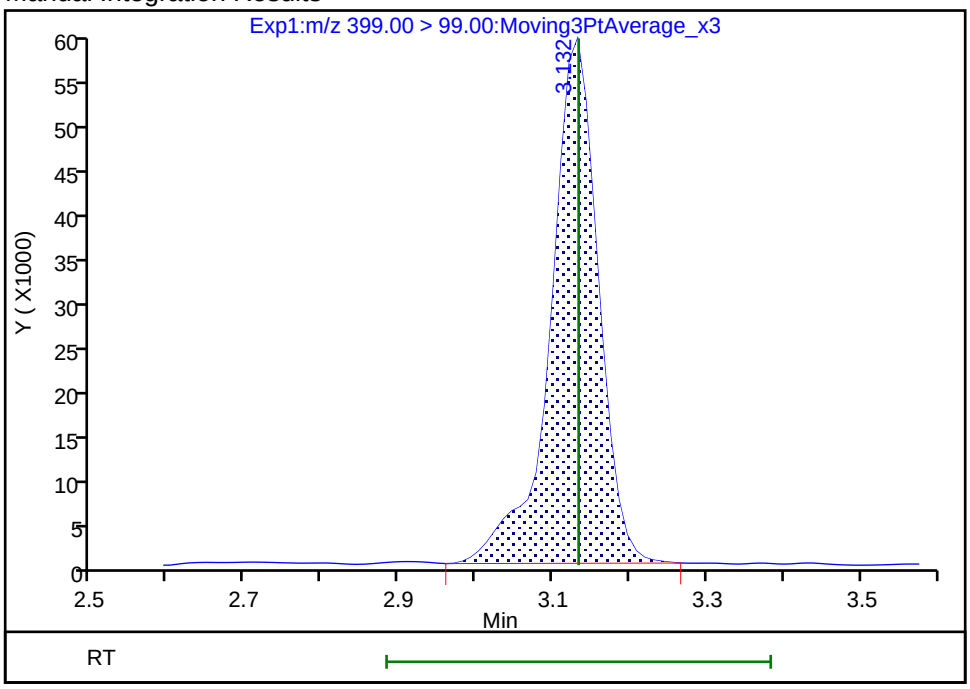
Processing Integration Results

RT: 3.13
Area: 262592
Amount: 0.878998
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 256498
Amount: 0.855403
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:54:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

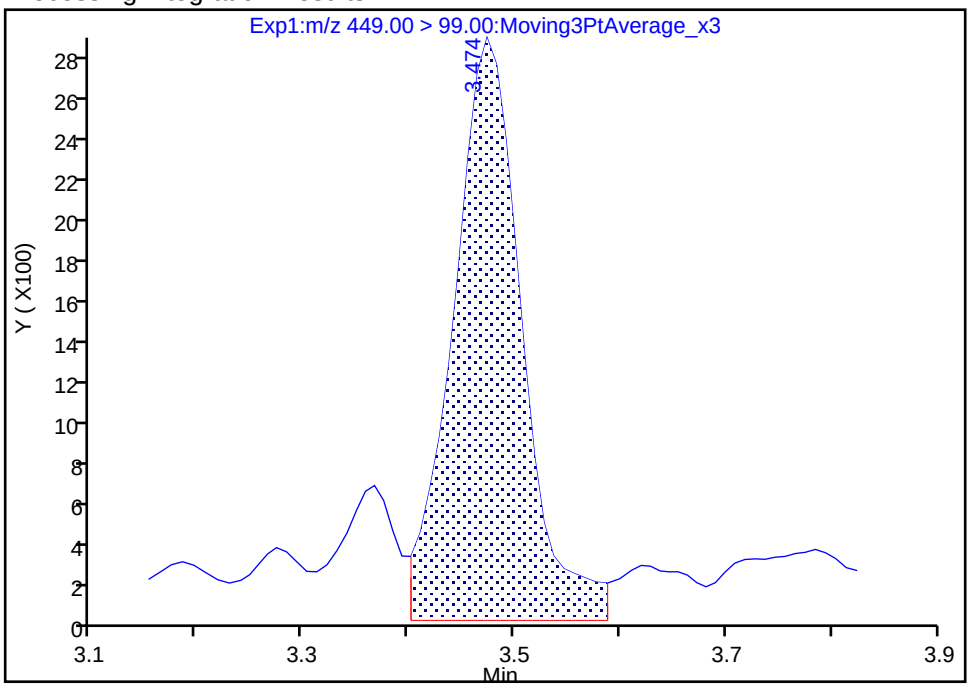
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

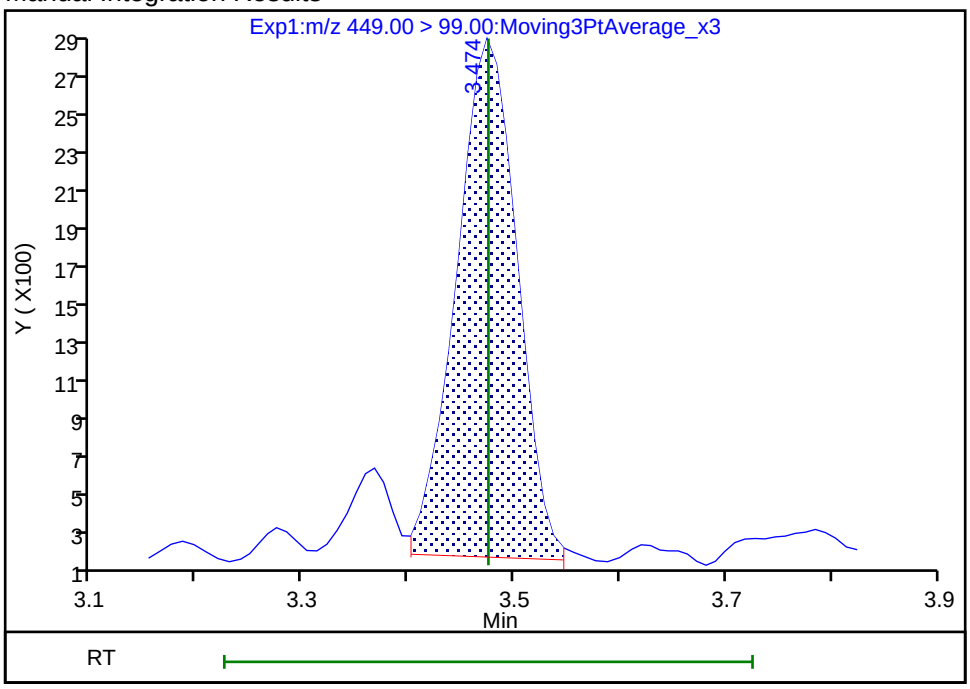
Processing Integration Results

RT: 3.47
Area: 12808
Amount: 0.046763
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 10506
Amount: 0.046503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

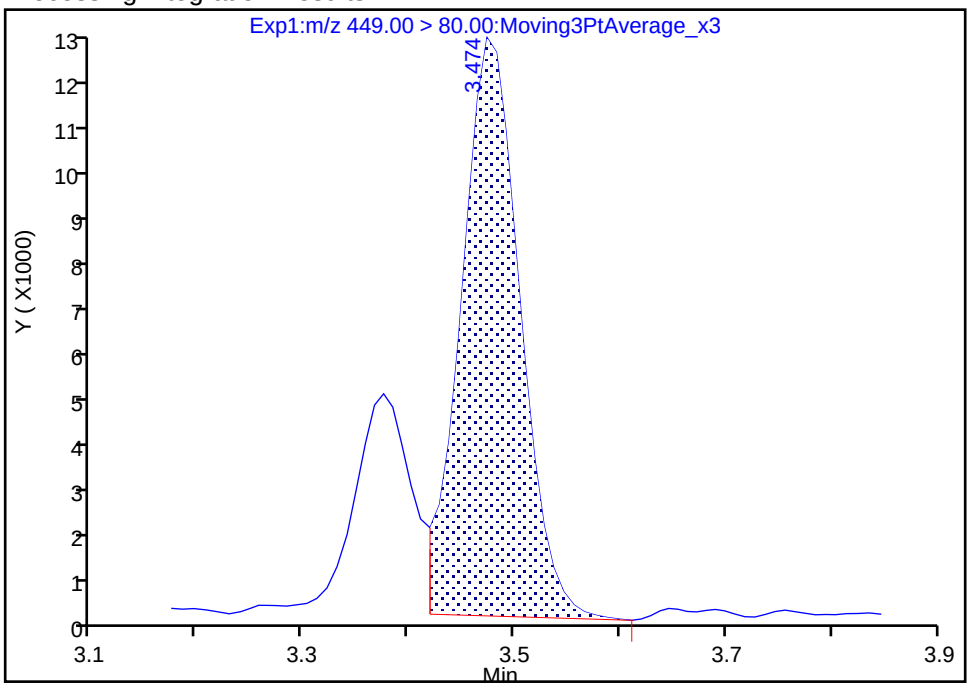
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

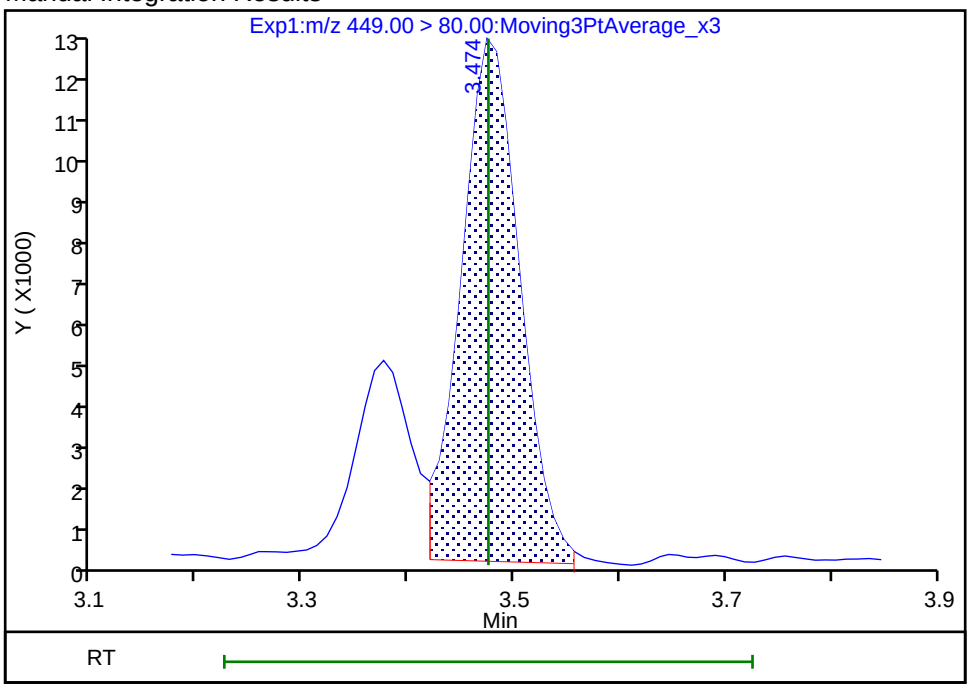
Processing Integration Results

RT: 3.47
Area: 46131
Amount: 0.046763
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 45875
Amount: 0.046503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

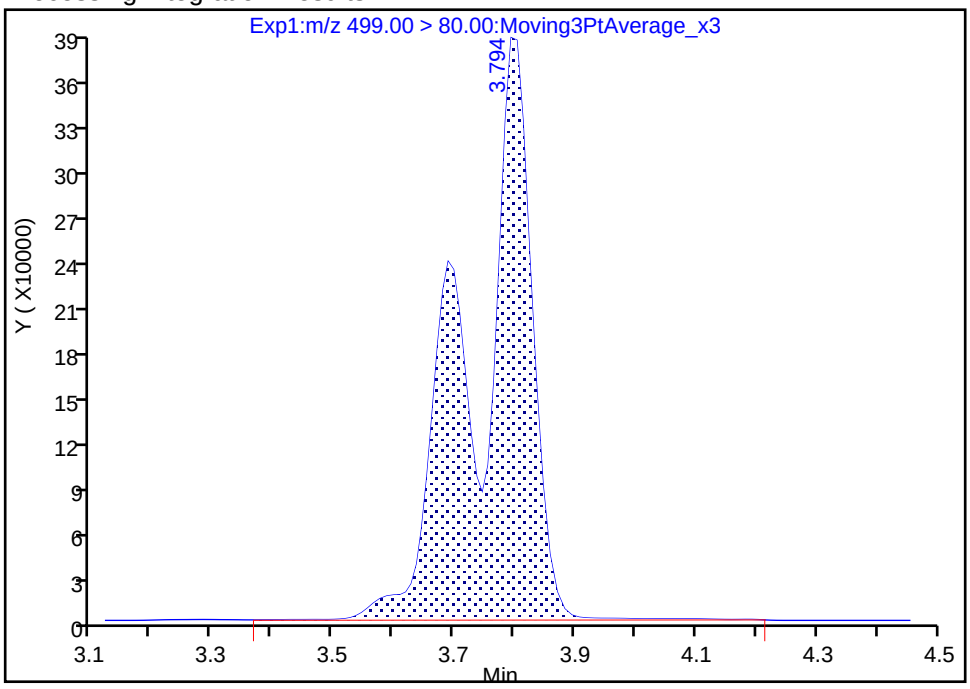
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

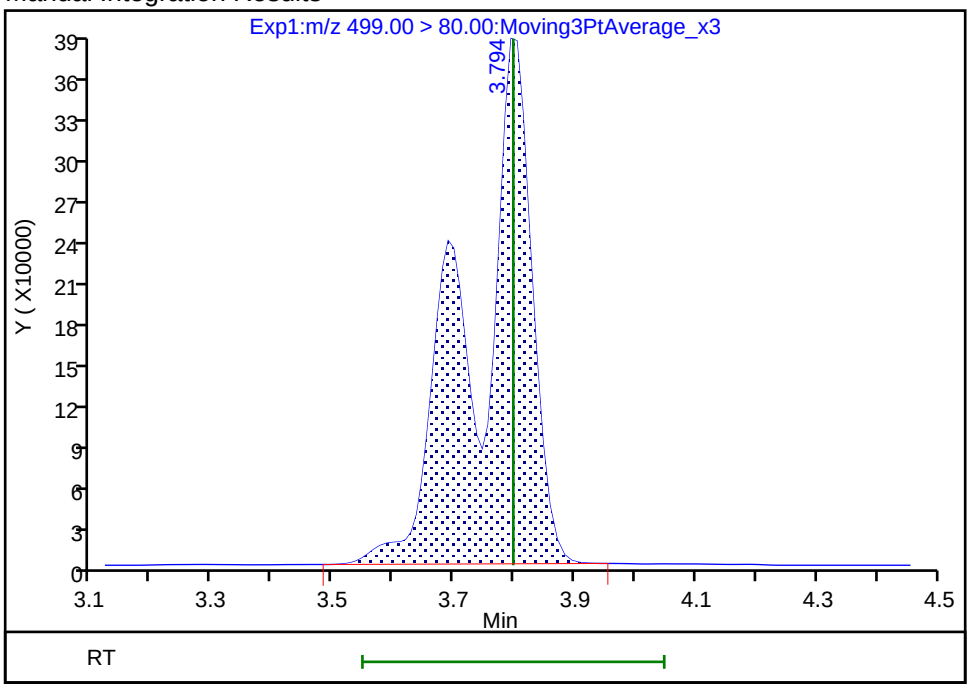
Processing Integration Results

RT: 3.79
Area: 2624416
Amount: 3.056485
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 2590764
Amount: 3.017293
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

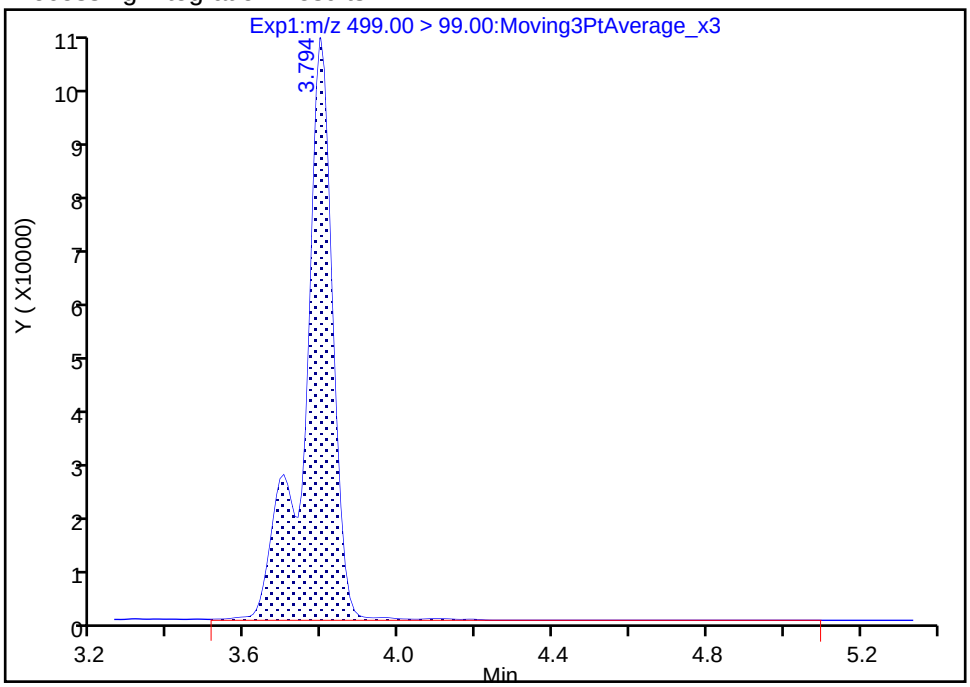
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

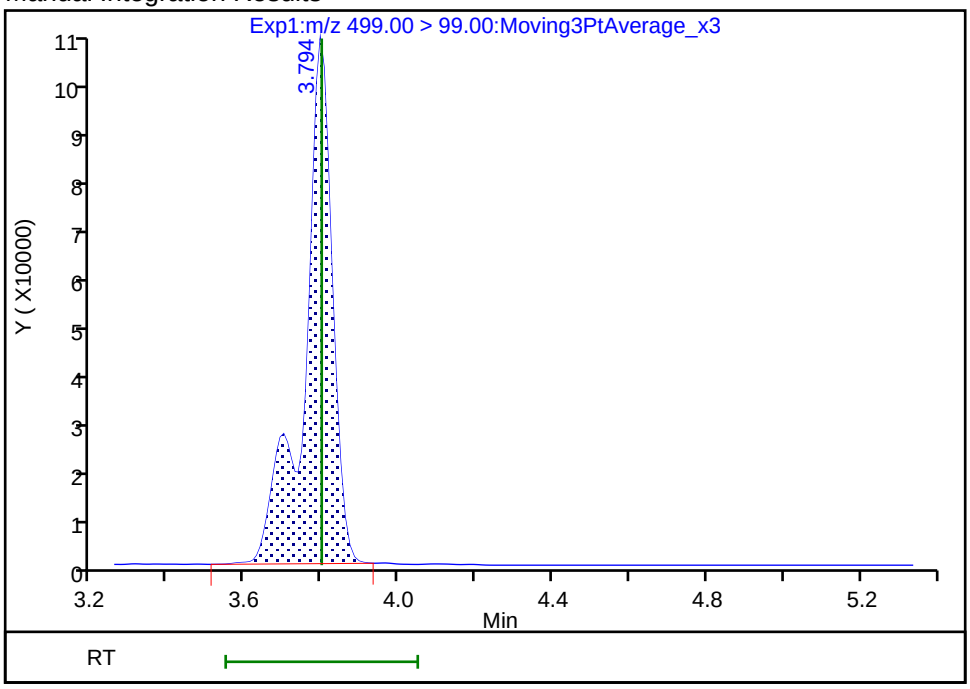
Processing Integration Results

RT: 3.79
Area: 545380
Amount: 3.056485
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 534663
Amount: 3.017293
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

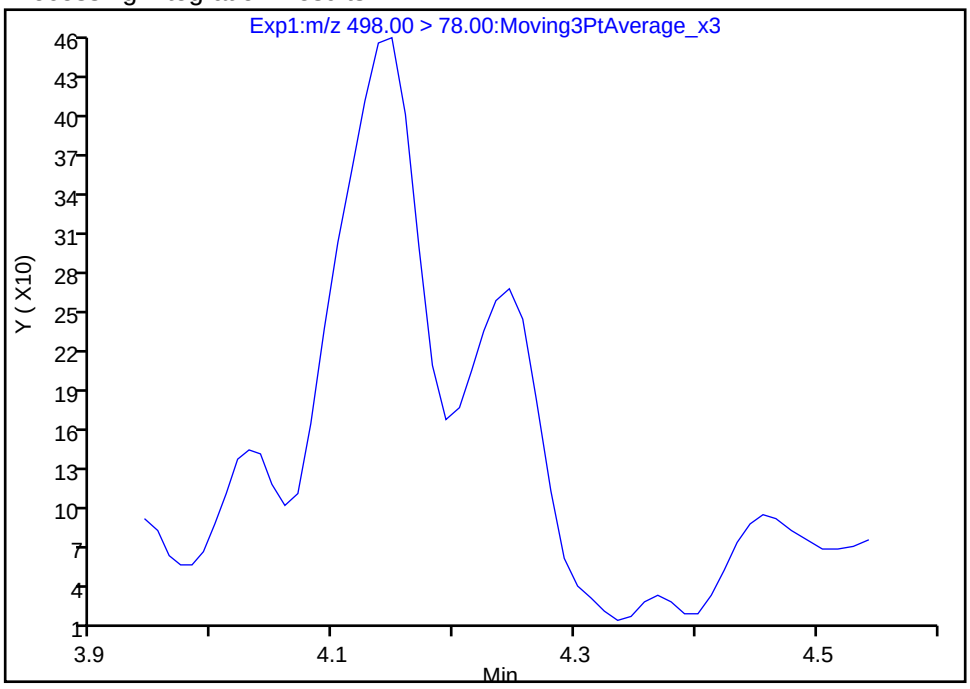
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

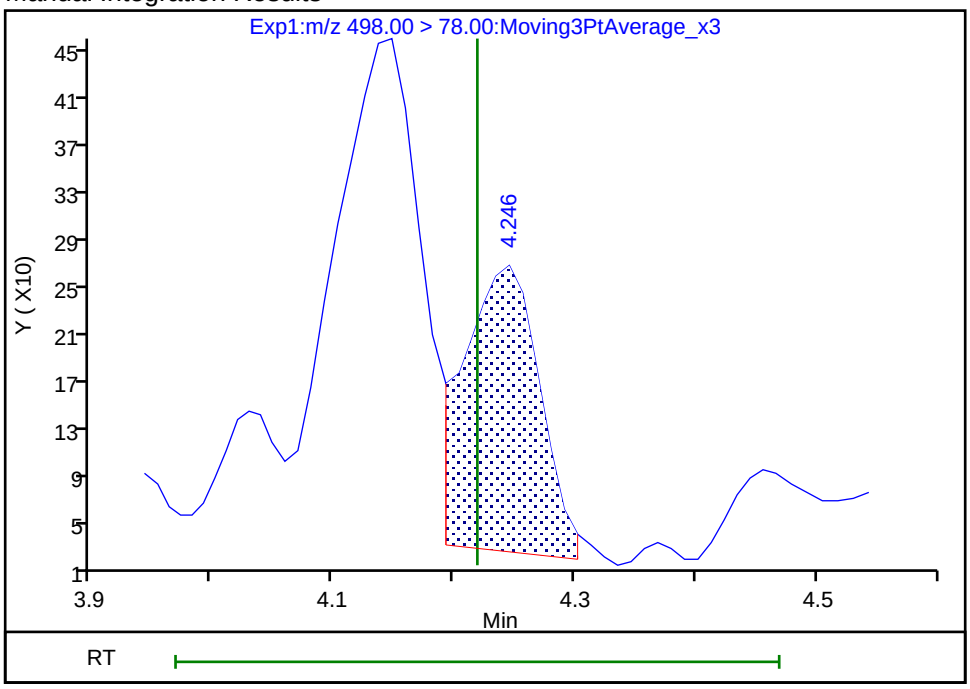
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 1026
Amount: 0.000937
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:56:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

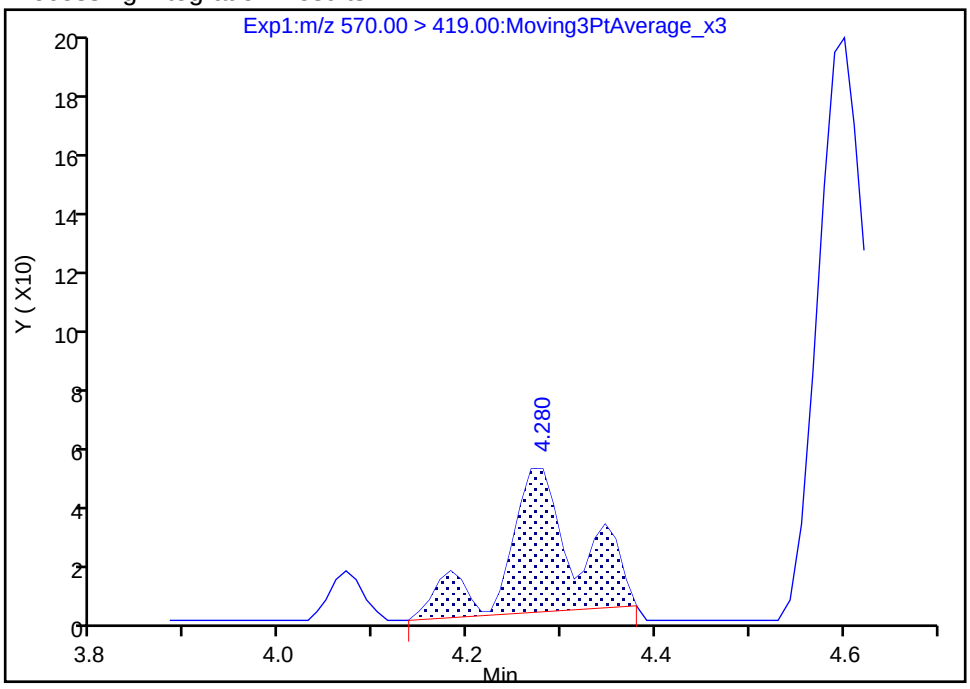
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

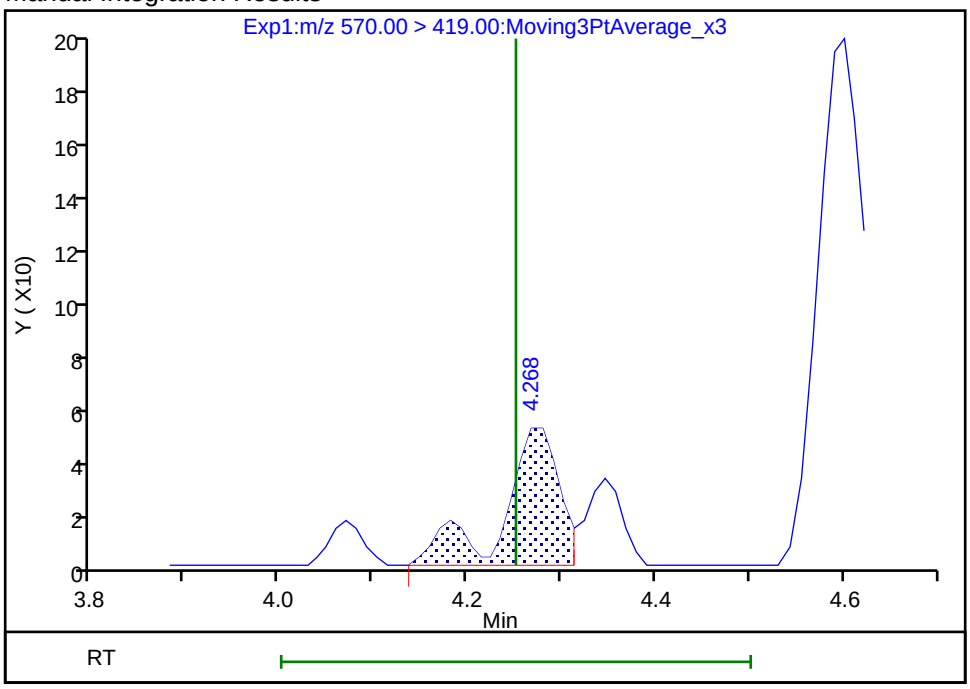
Processing Integration Results

RT: 4.28
Area: 263
Amount: 0.002758
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 213
Amount: 0.002261
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:56:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

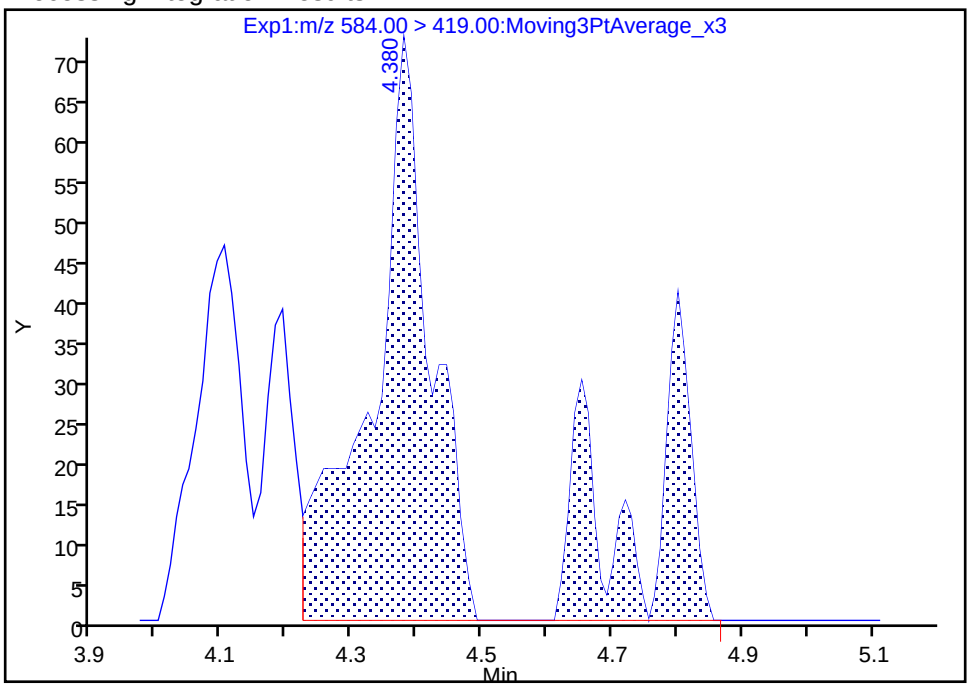
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

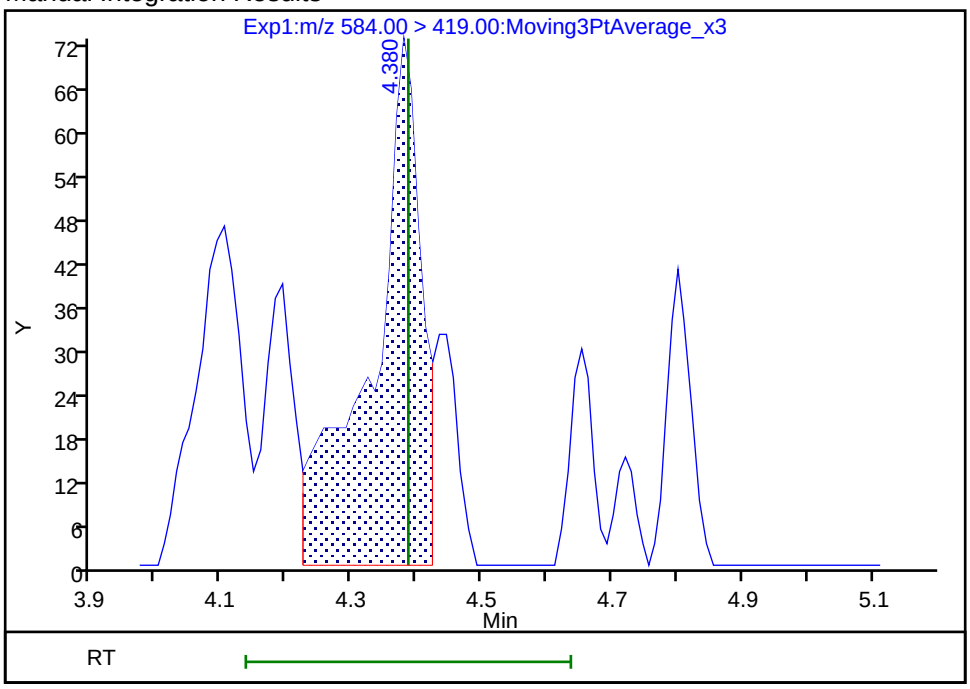
Processing Integration Results

RT: 4.38
Area: 670
Amount: 0.006517
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 381
Amount: 0.003706
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:57:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

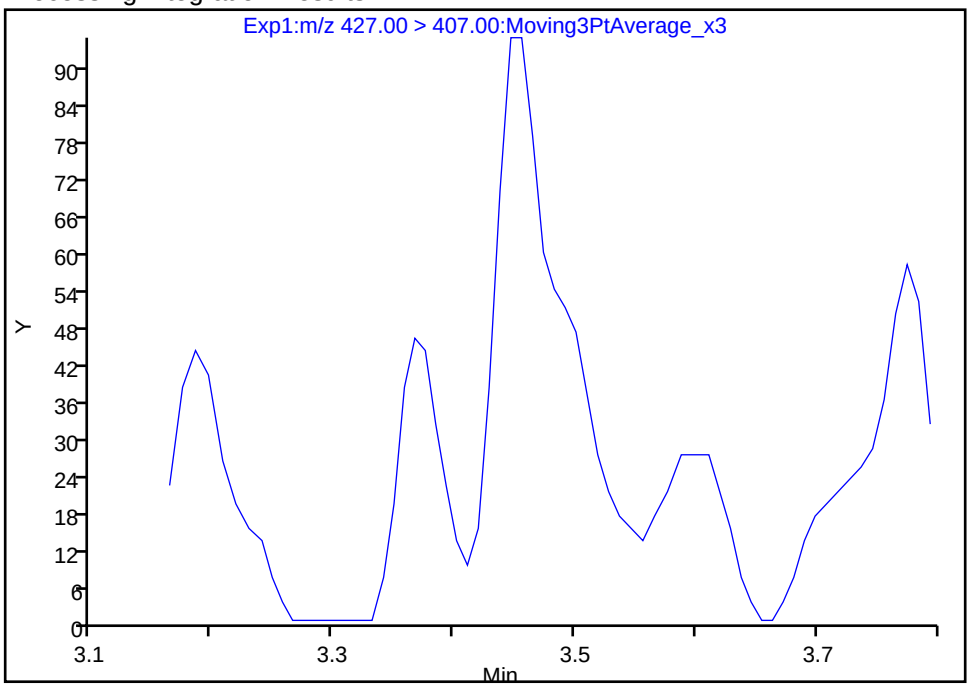
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

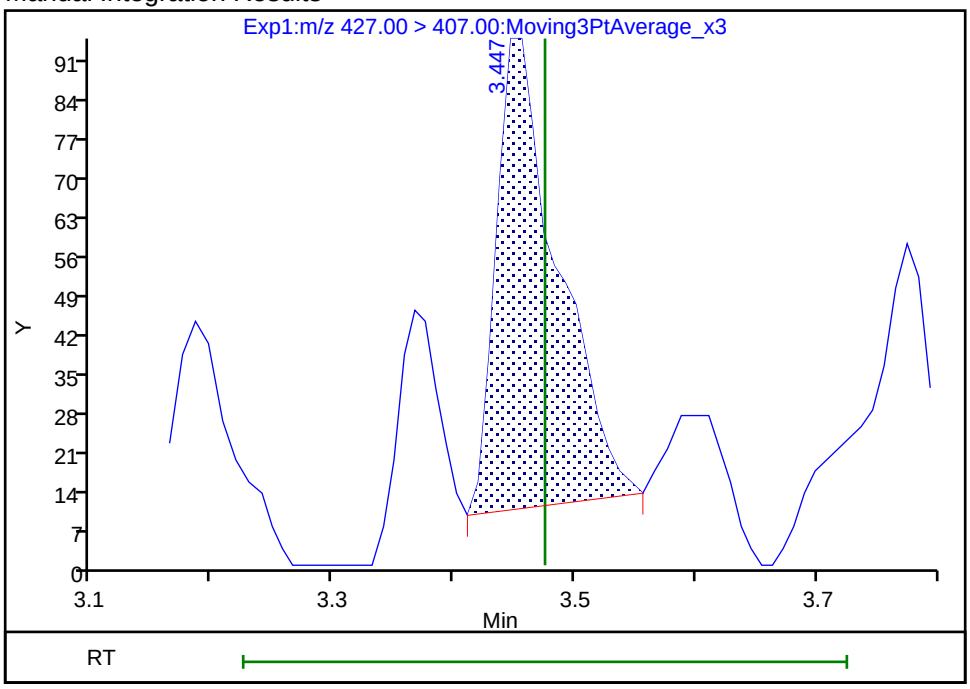
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.45
Area: 300
Amount: 0.001210
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:55:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

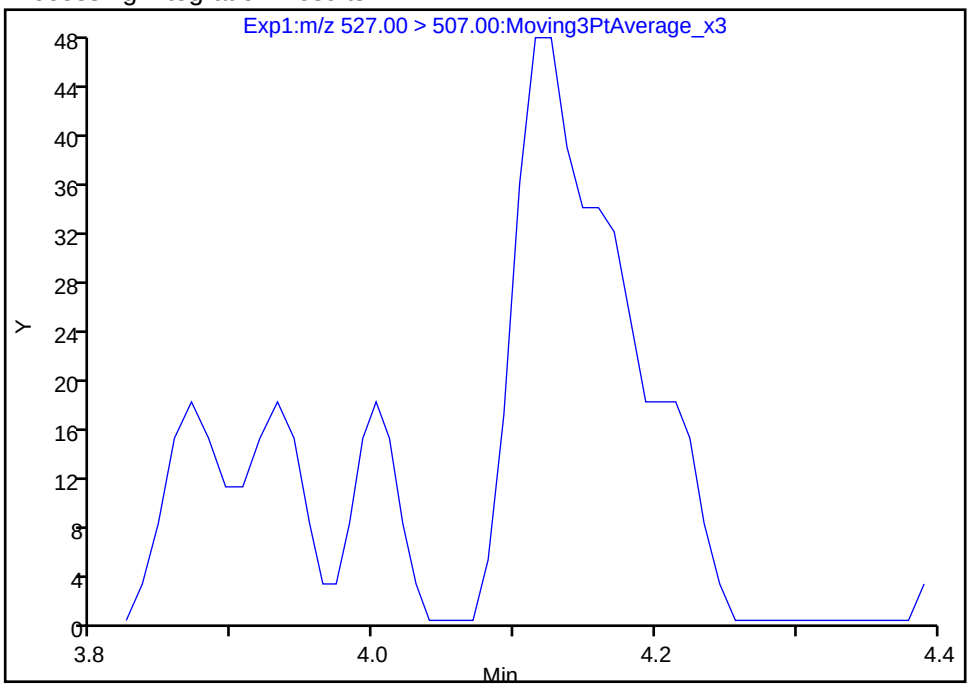
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

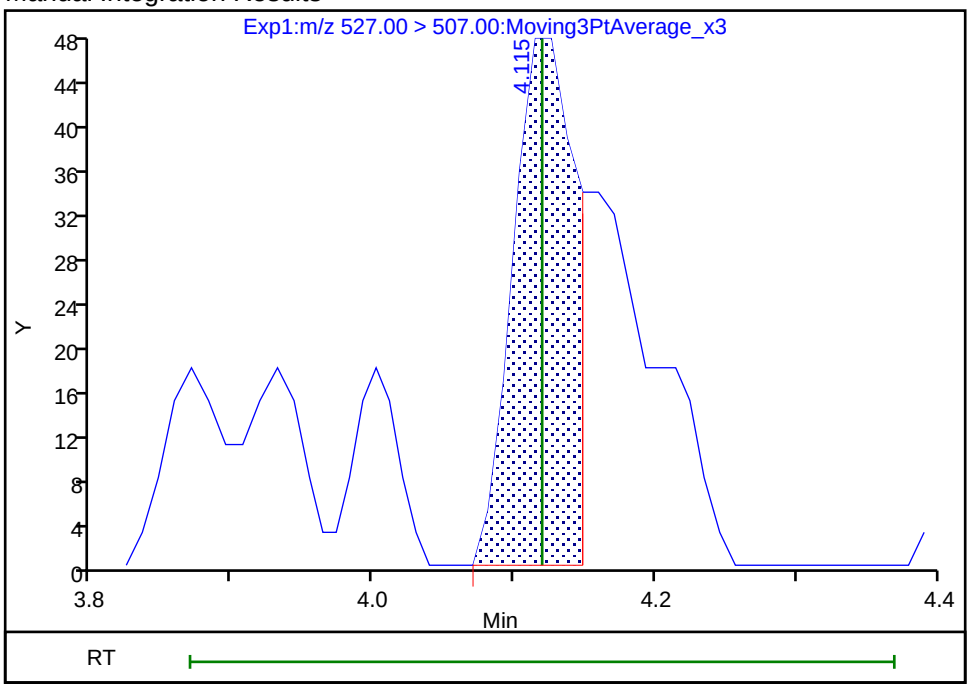
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 140
Amount: 0.000699
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:56:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

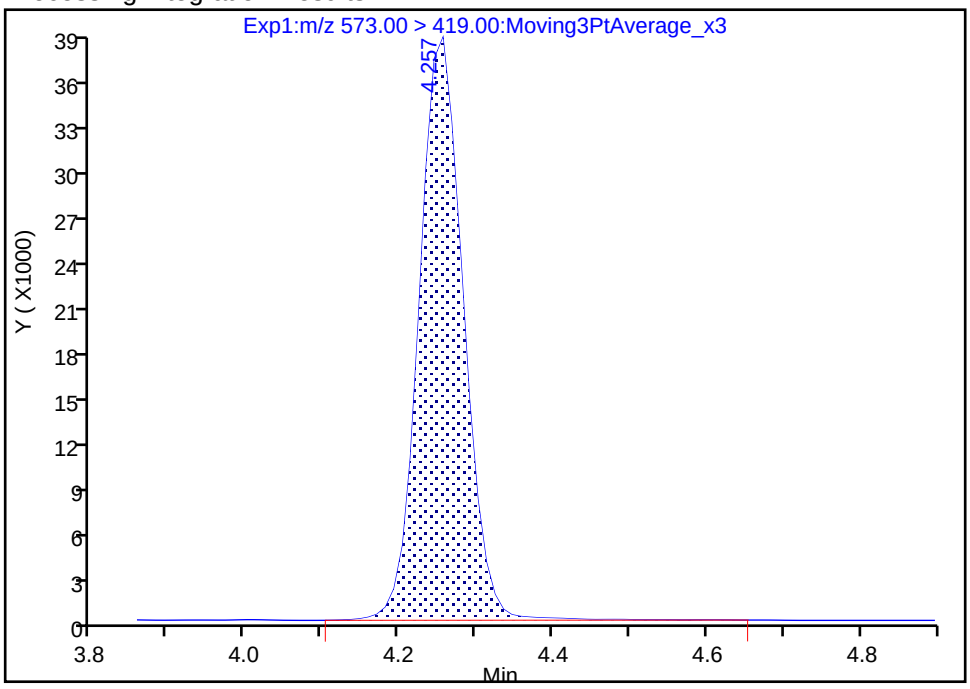
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

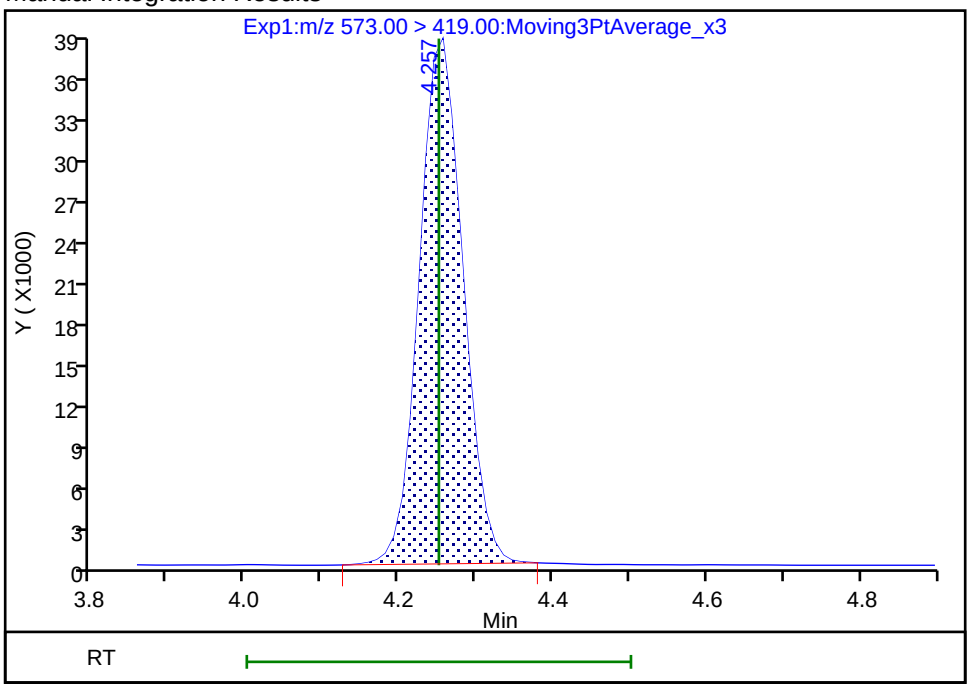
Processing Integration Results

RT: 4.26
Area: 151961
Amount: 1.137095
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 149912
Amount: 1.121762
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:15:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

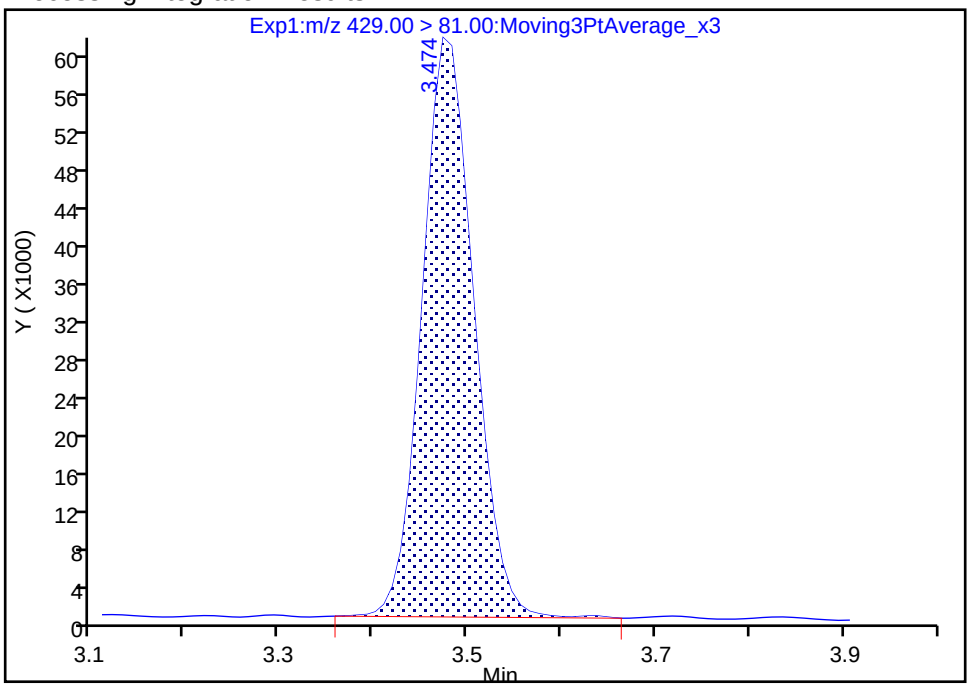
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A11.d | | | | |
| Injection Date: | 10-Nov-2021 12:44:32 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-20-A | Lab Sample ID: | 200-246277-20 | | |
| Client ID: | AMW-4-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 11 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

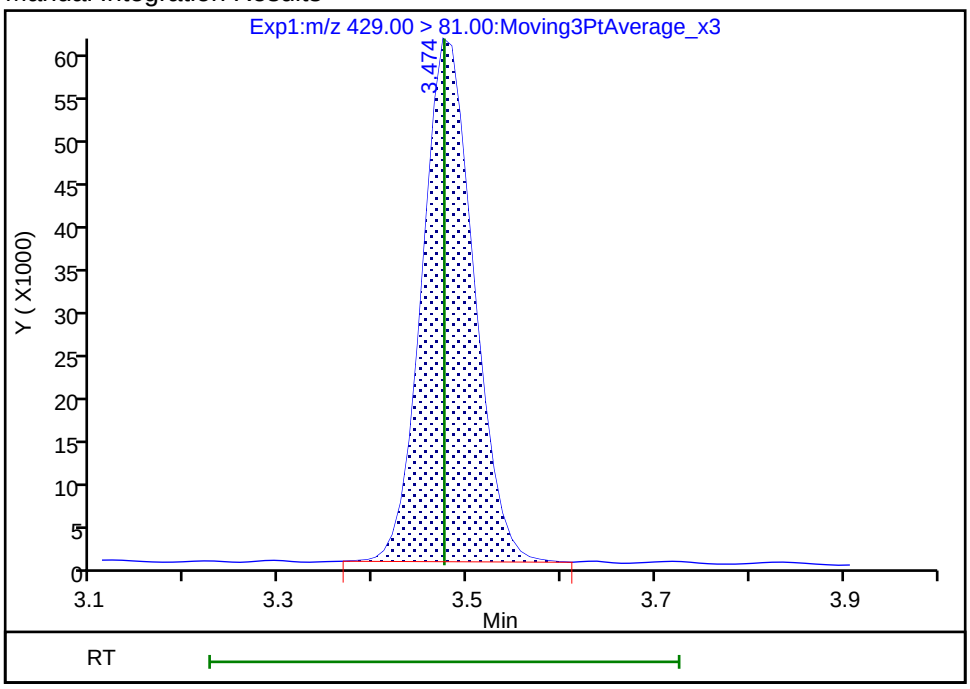
Processing Integration Results

RT: 3.47
Area: 233411
Amount: 1.344206
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 232193
Amount: 1.337192
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:53:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-11-20211028  Lab Sample ID: 460-246277-21

Matrix: Water  Lab File ID: PA211110A12.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 14:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 278.7(mL)  Date Analyzed: 11/10/2021 12:52

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 5.32 | | 4.49 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 2.24 | | 1.79 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 1.88 | | 1.79 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.09 | J | 1.79 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 7.70 | | 1.79 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.60 | J | 1.79 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.79 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.79 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.79 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.79 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.79 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.07 | B | 1.79 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 10.2 | | 1.79 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.41 | J | 1.79 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 11.2 | | 1.79 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.79 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.79 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.98 | U | 4.49 | 0.98 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.79 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-11-20211028  Lab Sample ID: 460-246277-21

Matrix: Water  Lab File ID: PA211110A12.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 14:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 278.7(mL)  Date Analyzed: 11/10/2021 12:52

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 100 | | 50-150 |
| STL01892 | 13C4 PFHpA | 99 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 108 | | 25-150 |
| STL00993 | 13C2 PFHxA | 104 | | 50-150 |
| STL00996 | 13C2 PFDA | 91 | | 50-150 |
| STL00997 | 13C2 PFUnA | 92 | | 50-150 |
| STL00998 | 13C2 PFDoA | 89 | | 50-150 |
| STL01056 | 13C8 FOSA | 91 | | 25-150 |
| STL01893 | 13C5 PFPeA | 102 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 101 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 106 | | 50-150 |
| STL02279 | M2-6:2 FTS | 108 | | 25-150 |
| STL02280 | M2-8:2 FTS | 112 | | 25-150 |
| STL02337 | 13C3 PFBS | 96 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d
Lims ID: 460-246277-C-21-A
Client ID: AMW-11-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 12:52:42 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-21-A
Misc. Info.: 200-0048360-012 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:00:55
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1487025 | 1.35 | | 108 | 1780 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 166709 | 0.1482 | | | 24.2 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1176178 | 1.27 | | 102 | 1788 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 58802 | 0.0624 | | | 1.4 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1405377 | 1.12 | | 96.5 | 55283 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 110489 | 0.0856 | Target=2.32 | | 19.2 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 50495 | | 2.19(1.16-3.48) | | 12.7 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1261355 | 1.30 | | 104 | 3079 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 53665 | 0.0524 | Target=12.09 | | 4.8 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 4599 | | 11.67(6.04-18.13) | | 4.2 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 284867 | 0.2847 | Target=3.55 | | 158 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 69443 | | 4.10(1.77-5.32) | | 71.5 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1076005 | 1.18 | | 99.9 | 2747 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1266087 | 1.24 | | 99.0 | 3226 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 31918 | 0.0305 | Target=3.69 | | 4.8 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 8192 | | 3.90(1.84-5.53) | | 16.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.913 | 9419 | 0.0113 | Target=4.88 | | 8.2 | M |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 3180 | | 2.96(2.44-7.32) | | 5.1 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.475 | -0.001 | 0.997 | 154 | 0.000784 | | | 2.1 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 184010 | 1.28 | | 108 | 227 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1344096 | 1.20 | | 96.2 | 4643 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1357898 | 1.25 | | | 2966 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 245370 | 0.2146 | Target=2.68 | | 25.2 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 95406 | | 2.57(1.34-4.02) | | 204 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 796102 | 1.21 | | 101 | 1376 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.798 | -0.099 | 0.972 | 225011 | 0.3113 | Target=4.69 | | 172 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 42659 | | 5.27(2.35-7.04) | | 94.7 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1275473 | 1.15 | | 91.6 | 3863 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.003 | 16713 | 0.0167 | Target=7.29 | | 3.3 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 1726 | | 9.68(3.64-10.93) | | 9.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1277951 | 1.14 | | 91.0 | 3478 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RM |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 2233 | 0.002174 | Target=8.95 | | 1.4 | RM |
| 513.00 > 169.00 | 4.126 | 4.108 | 0.018 | 1.003 | 88 | | 25.38(4.47-13.42) | | 1.0 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 217918 | 1.34 | | 112 | 448 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 1236136 | 1.14 | | 91.2 | 3074 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 1228 | 0.001308 | | | 5.9 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 138944 | 1.26 | | 101 | 874 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 0.997 | 290 | 0.003321 | | | 1.6 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.347 | 4.342 | 0.005 | 1.143 | 159 | 0.000363 | Target=2.47 | | 1.1 | RM |
| 599.00 > 99.00 | 4.336 | 4.342 | -0.006 | 1.140 | 298 | | 0.53(1.23-3.70) | | 3.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.375 | -0.005 | 1.251 | 1009626 | 1.15 | | 92.2 | 4087 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.375 | 0.006 | 1.255 | 137141 | 1.32 | | 106 | 892 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.370 | 4.387 | -0.017 | 0.997 | 232 | 0.002468 | | | 3.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.598 | 0.004 | 1.318 | 1048447 | 1.11 | | 89.0 | 1700 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 753130 | 1.03 | | 82.5 | 1521 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 109 | 0.001146 | Target=1.01 | | 3.0 | M |
| 713.00 > 219.00 | 4.966 | 4.972 | -0.006 | 0.998 | 198 | | 0.55(0.51-1.52) | | 8.9 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:19 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d

Injection Date: 10-Nov-2021 12:52:42 Instrument ID: LC812

Lims ID: 460-246277-C-21-A Lab Sample ID: 200-246277-21

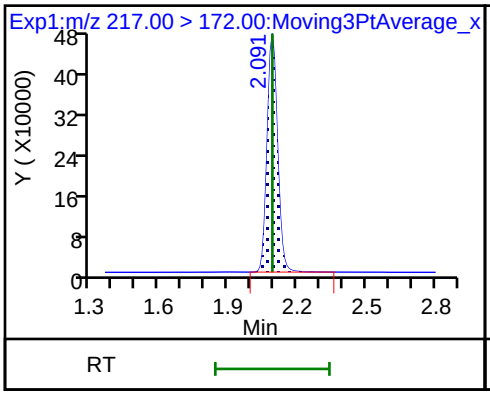
Client ID: AMW-11-20211028

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12

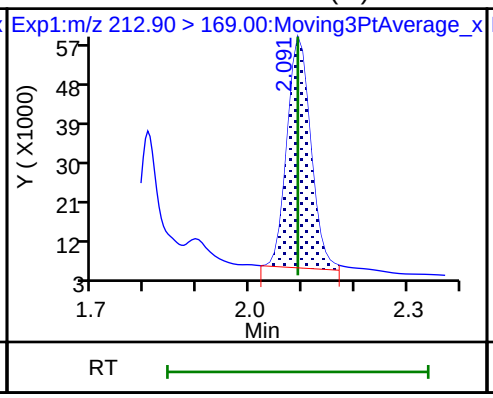
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

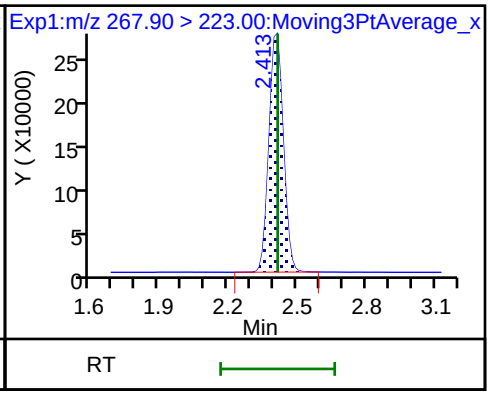
D 1 13C4 PFBA



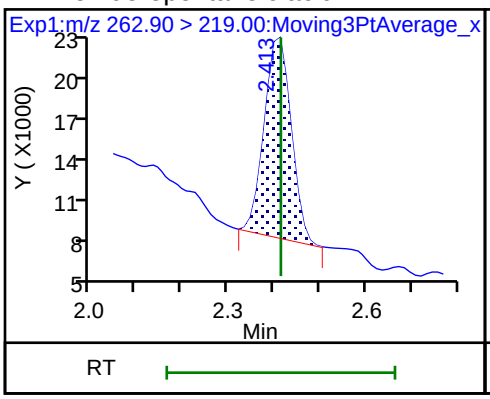

2 Perfluorobutanoic acid (M)



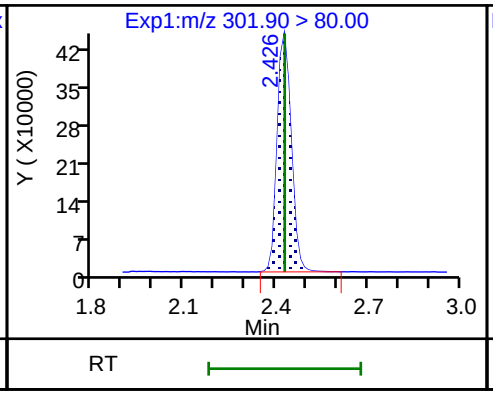

D 3 13C5 PFPeA



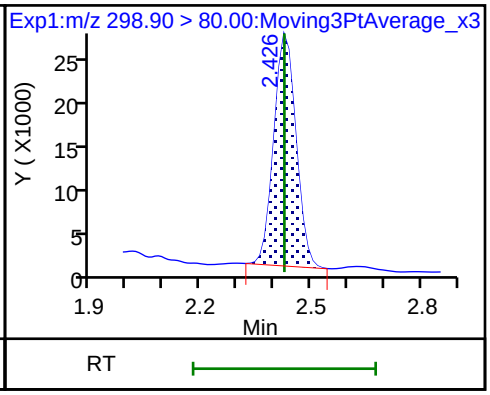

4 Perfluoropentanoic acid



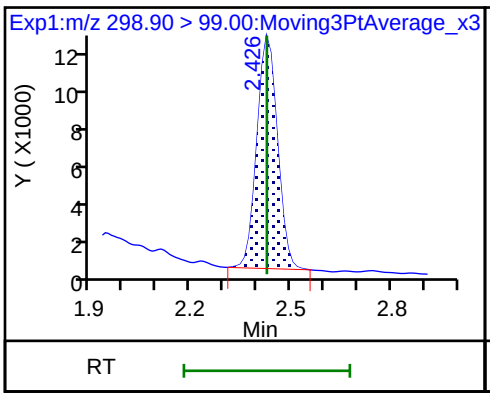

D 47 13C3 PFBS



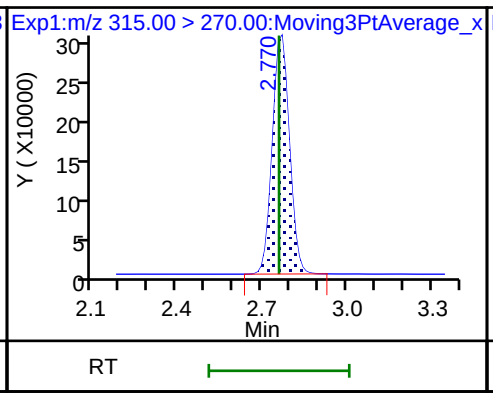

5 Perfluorobutanesulfonic acid



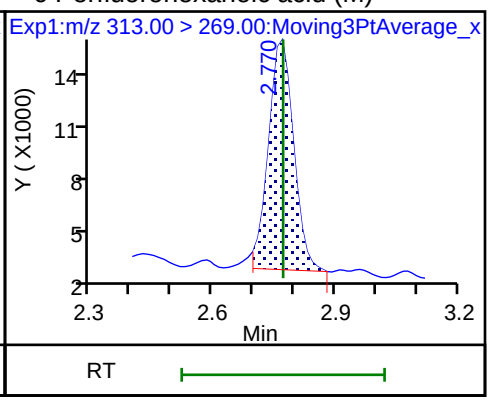

5 Perfluorobutanesulfonic acid



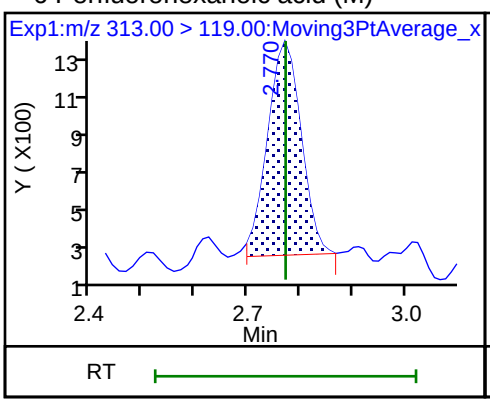

D 7 13C2 PFHxA



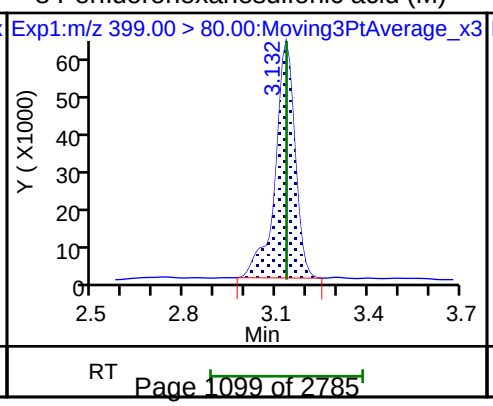

6 Perfluorohexanoic acid (M)



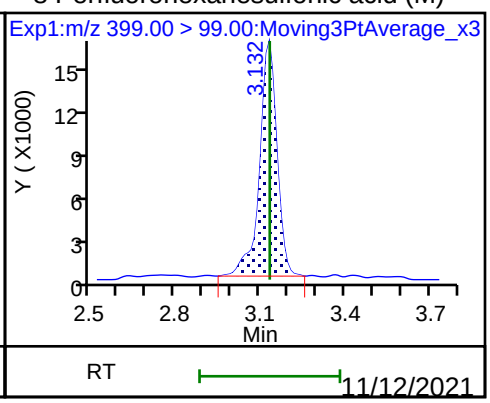

6 Perfluorohexanoic acid (M)



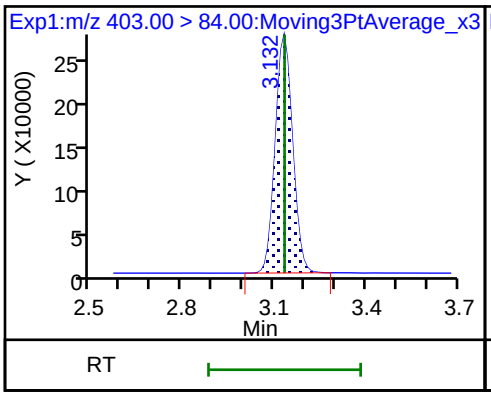

8 Perfluorohexanesulfonic acid (M)



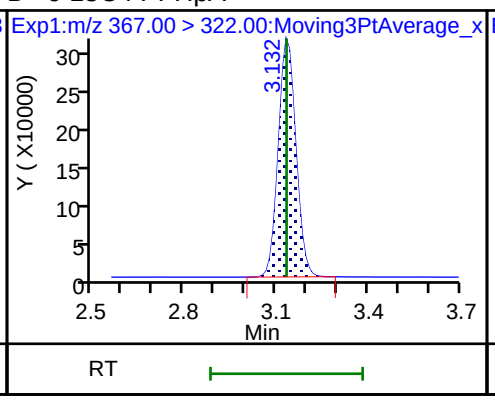

8 Perfluorohexanesulfonic acid (M)



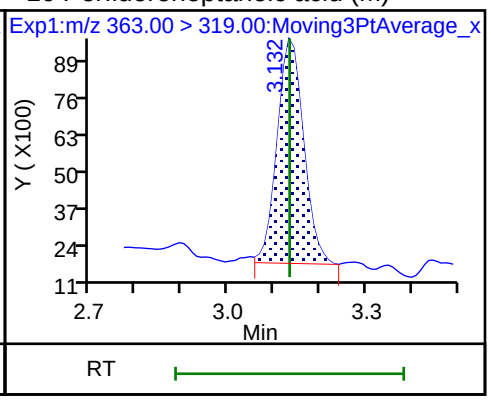
D 11 18O2 PFHxS



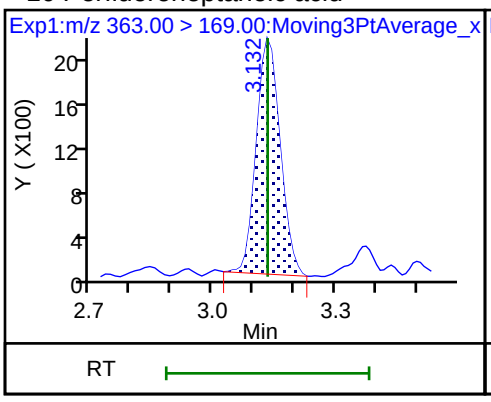

D 9 13C4 PFHpA



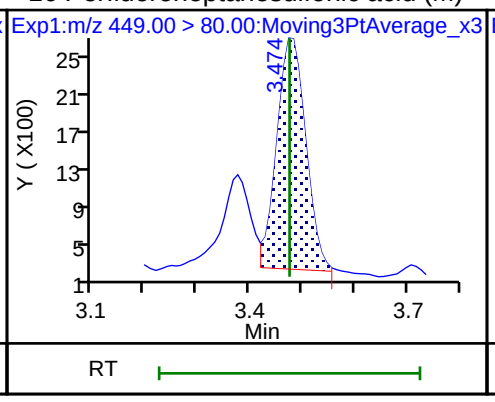

10 Perfluoroheptanoic acid (M)



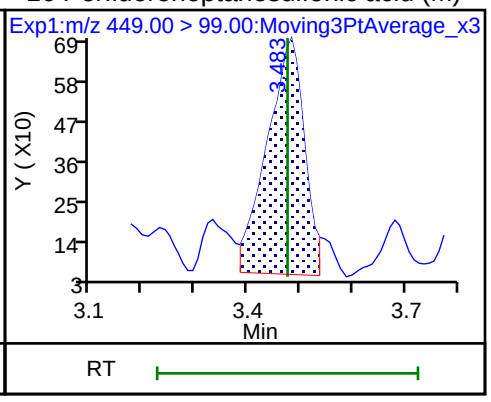

10 Perfluoroheptanoic acid



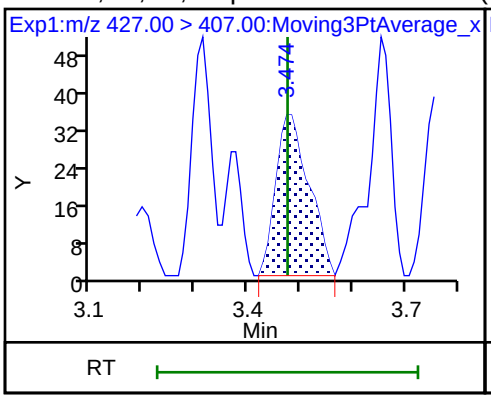

16 Perfluoroheptanesulfonic acid (M)



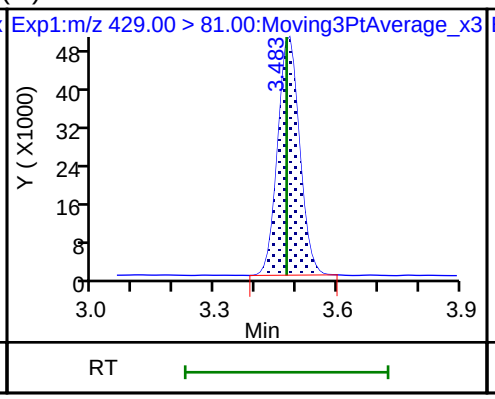

16 Perfluoroheptanesulfonic acid (M)



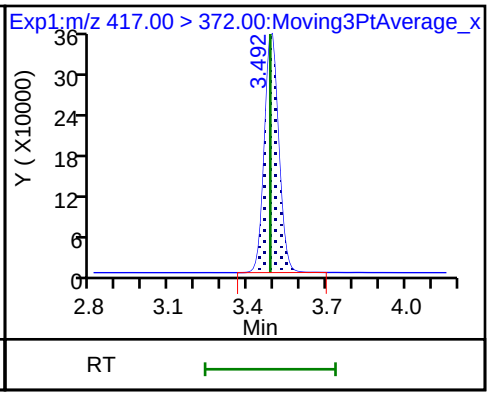

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



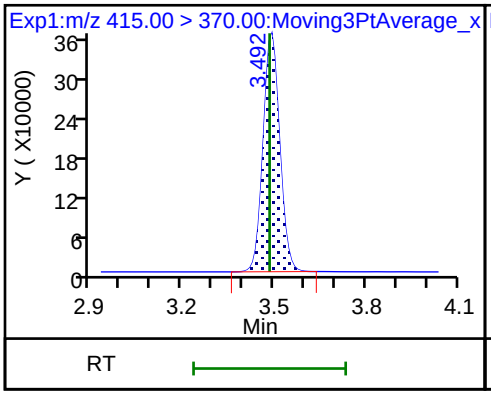

D 12 M2-6:2 FTS



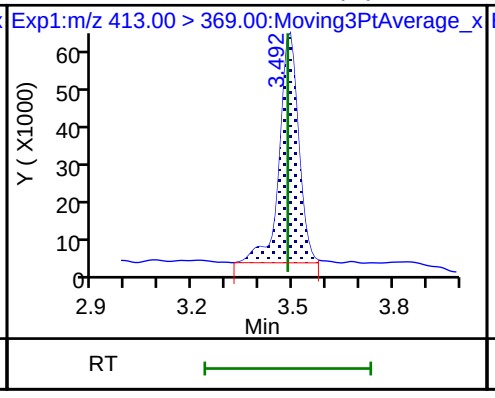

D 14 13C4 PFOA



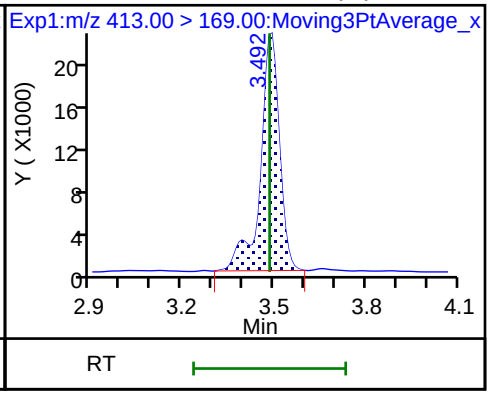

* 62 13C2 PFOA



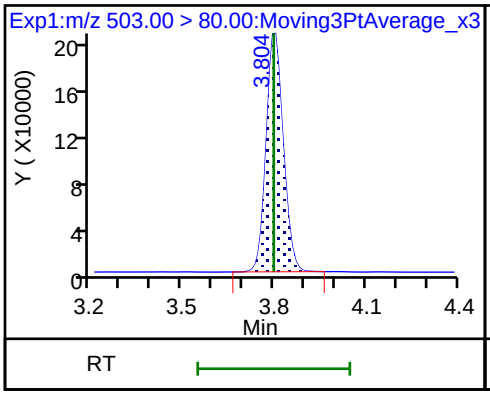

15 Perfluorooctanoic acid (M)



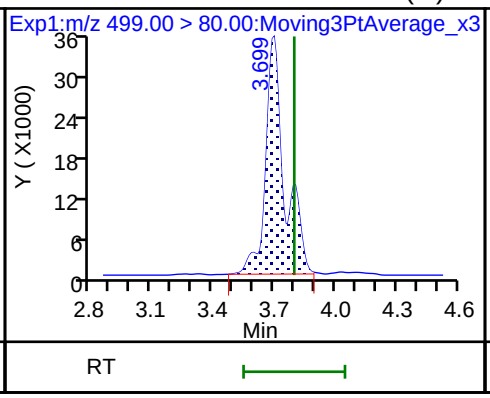

15 Perfluorooctanoic acid (M)



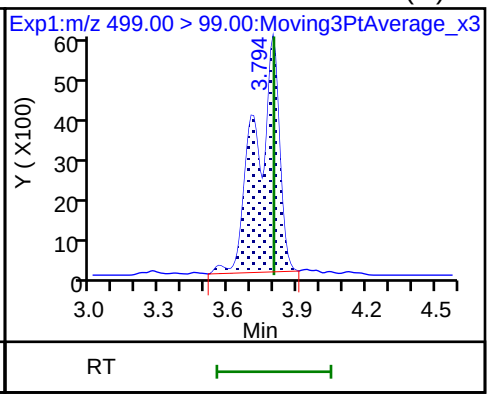
D 18 13C4 PFOS




17 Perfluorooctanesulfonic acid (M)




17 Perfluorooctanesulfonic acid (M)

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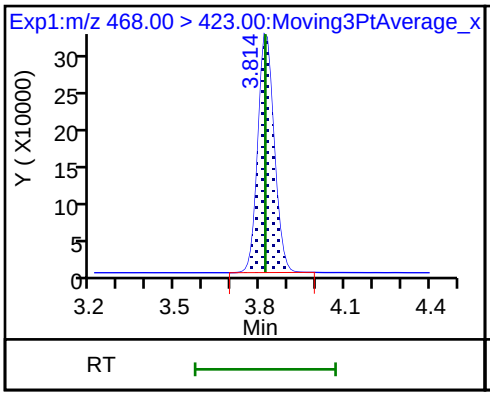
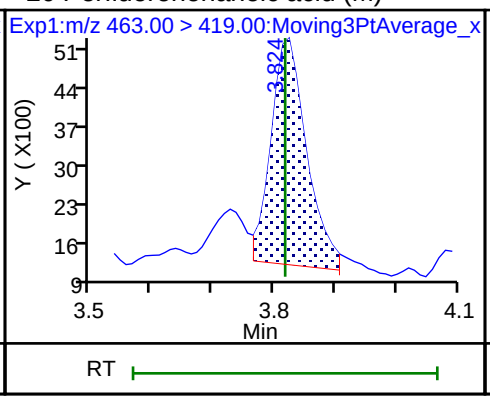
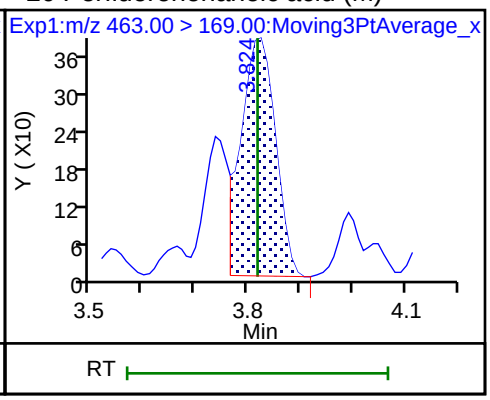


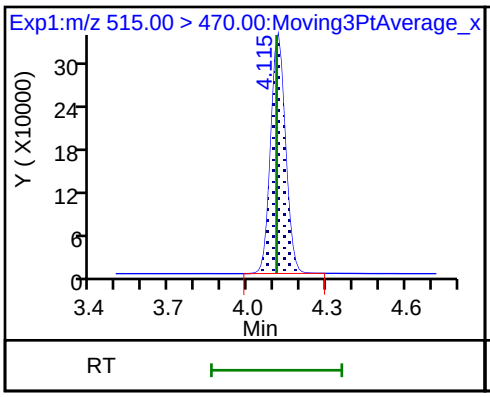

20 Perfluorononanoic acid (M)



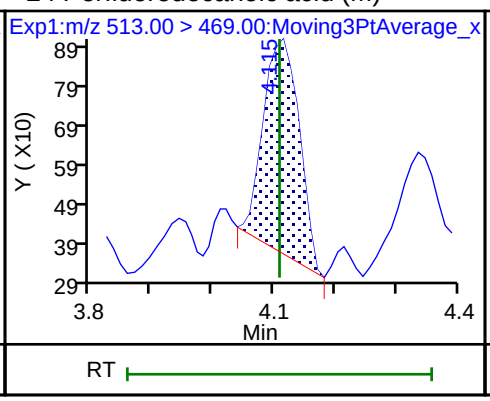

20 Perfluorononanoic acid (M)



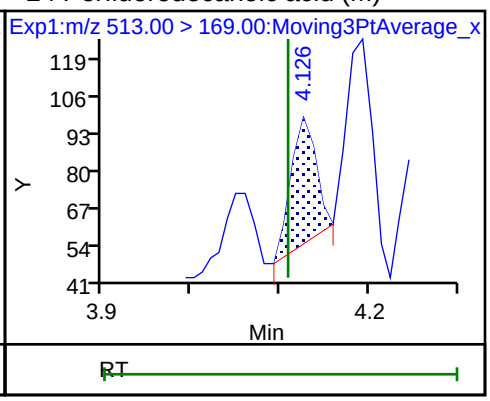

D 23 13C2 PFDA



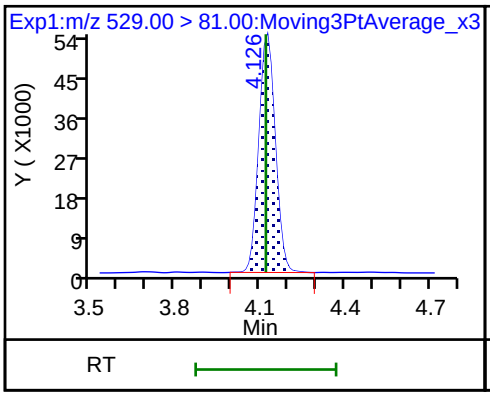

24 Perfluorodecanoic acid (M)



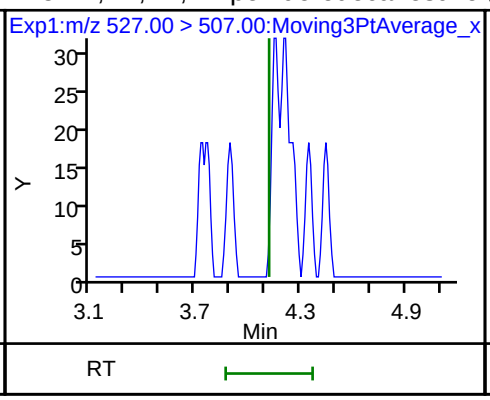

24 Perfluorodecanoic acid (M)



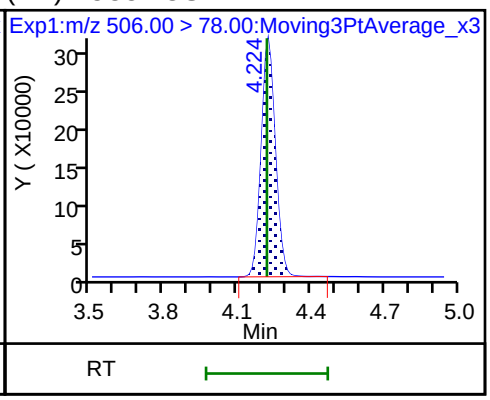

D 26 M2-8:2 FTS



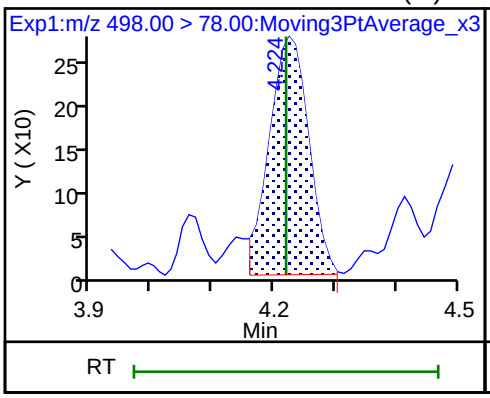

25 1H,1H,2H,2H-perfluorodecanesulfo



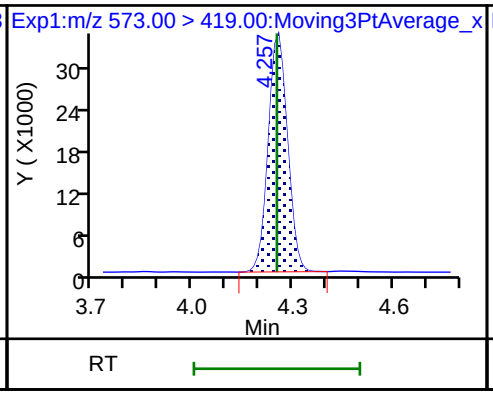

(ND) 13C8 FOSA



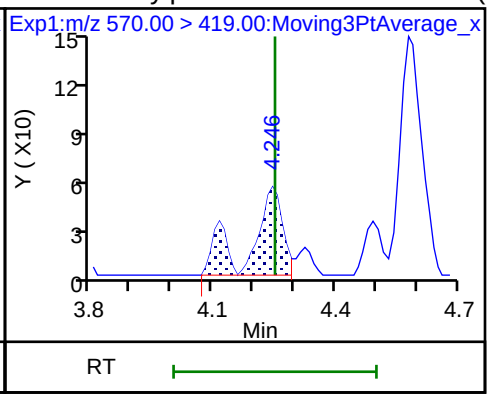
22 Perfluorooctanesulfonamide (M)



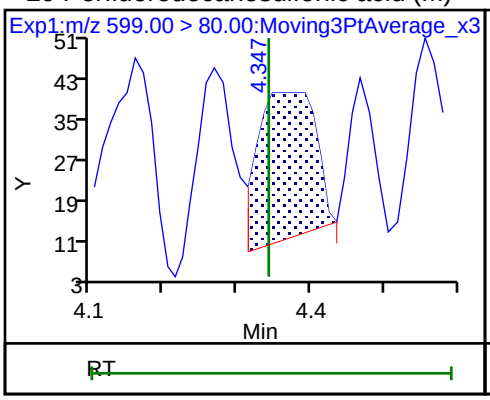

D 27 d3-NMeFOSAA



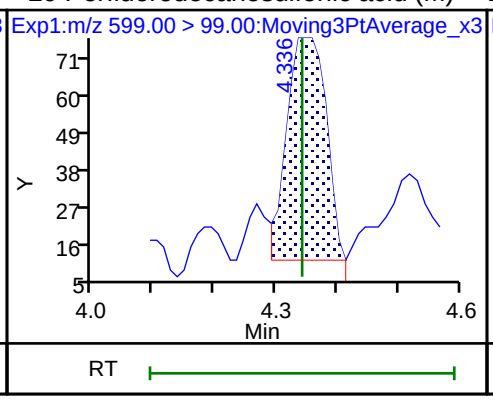

28 N-methylperfluorooctanesulfonami (M)



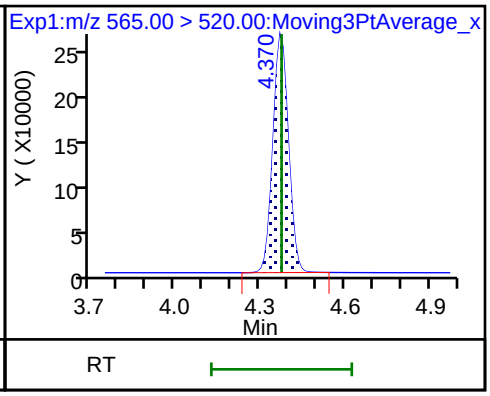

29 Perfluorodecanesulfonic acid (M)



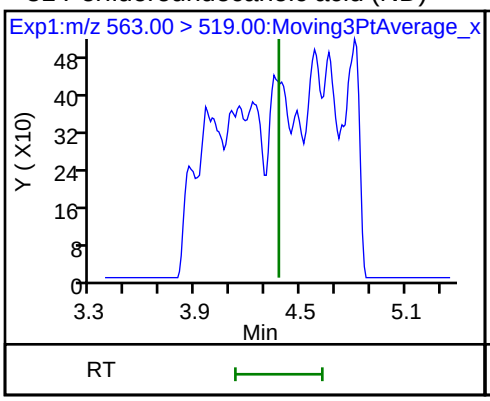

29 Perfluorodecanesulfonic acid (M)



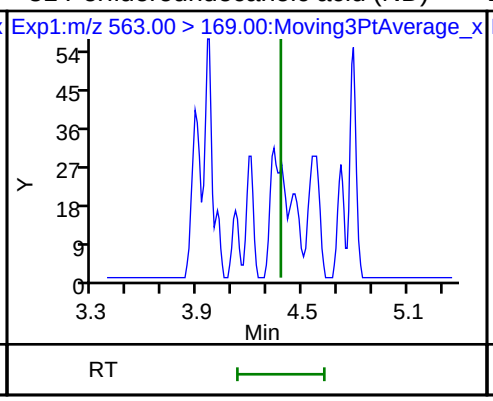

D 30 13C2 PFUnA



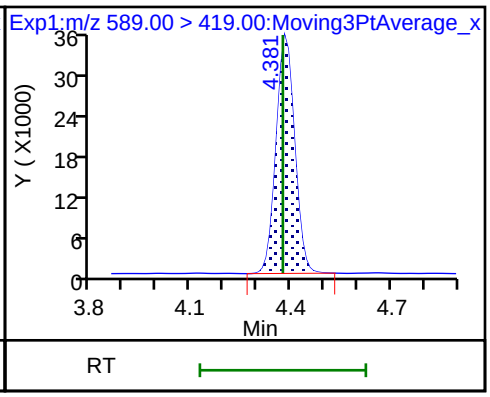

31 Perfluoroundecanoic acid (ND)



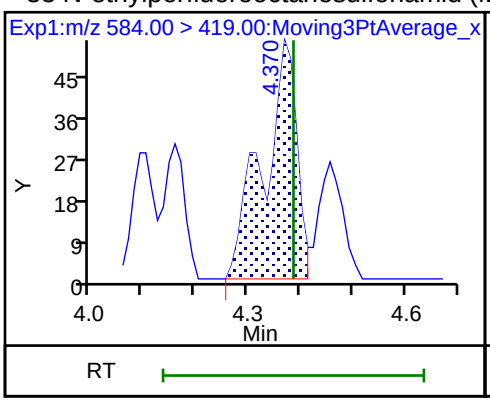

31 Perfluoroundecanoic acid (ND)



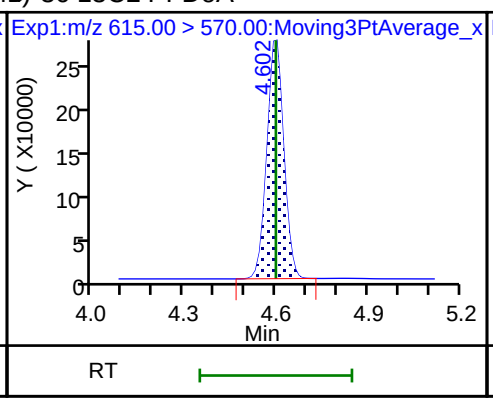

D 32 d5-NEtFOSAA



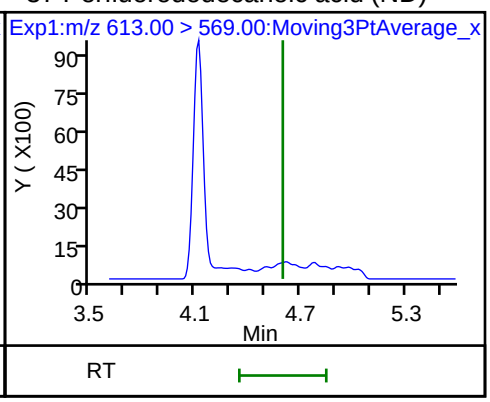

33 N-ethylperfluorooctanesulfonamid (ND)



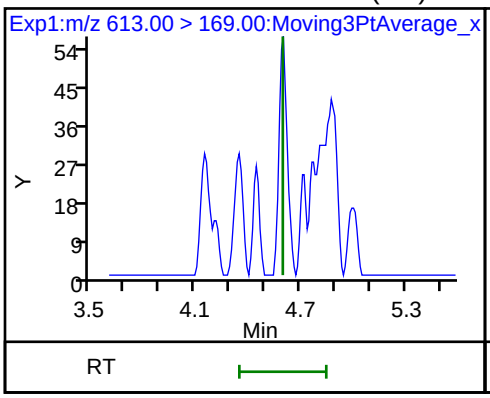

D 36 13C2 PFDoA



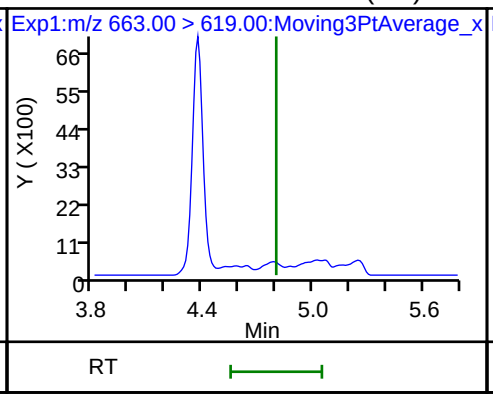

37 Perfluorododecanoic acid (ND)



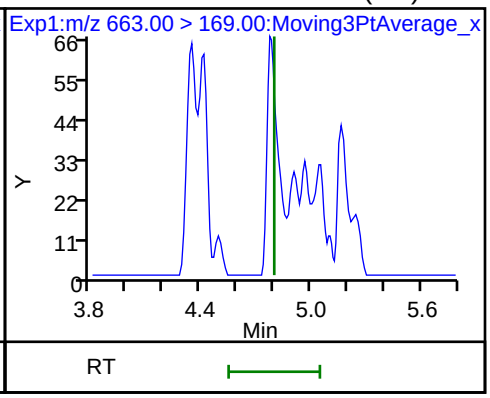
37 Perfluorododecanoic acid (ND)



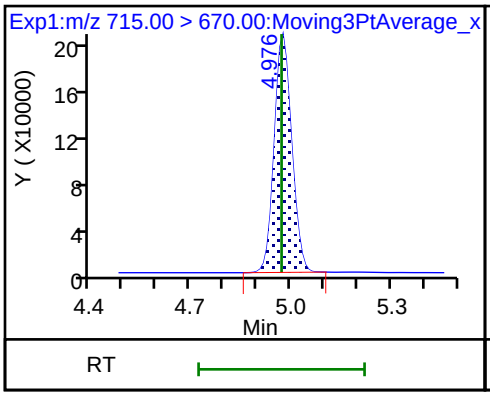

41 Perfluorotridecanoic acid (ND)



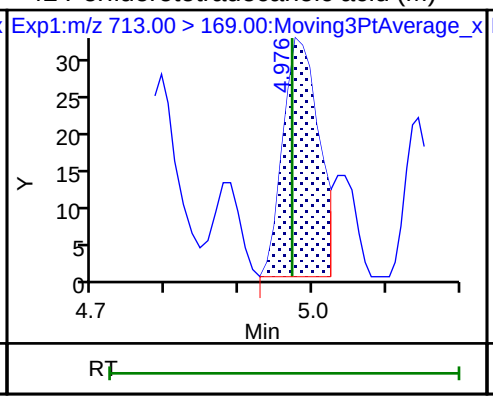

41 Perfluorotridecanoic acid (ND)



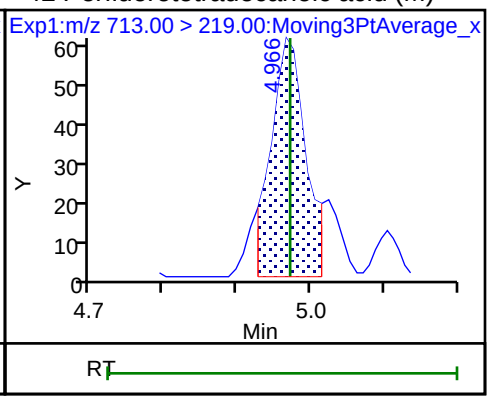

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

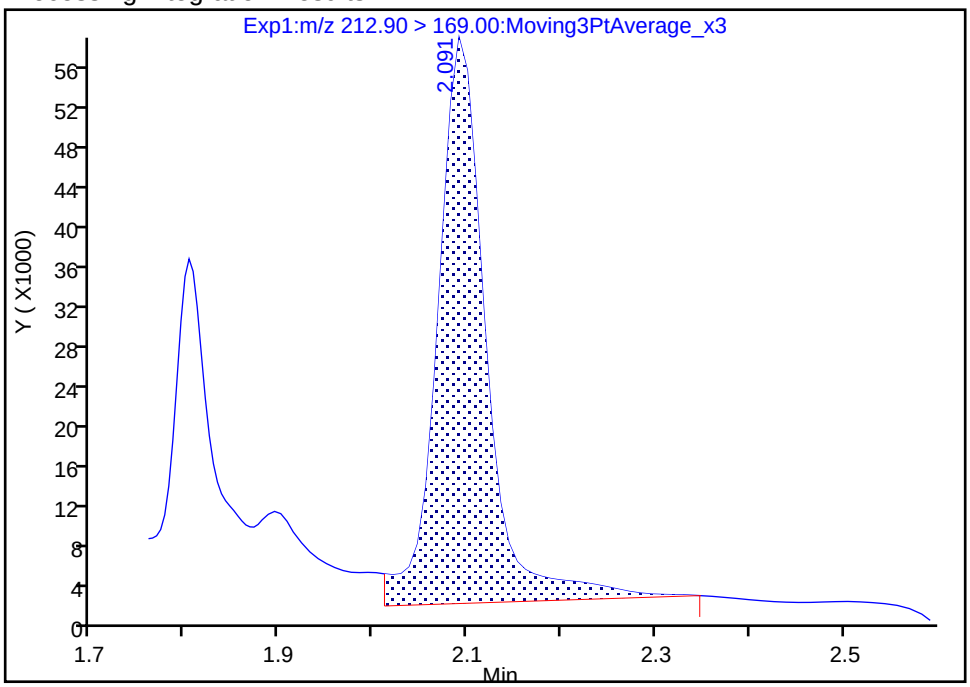
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

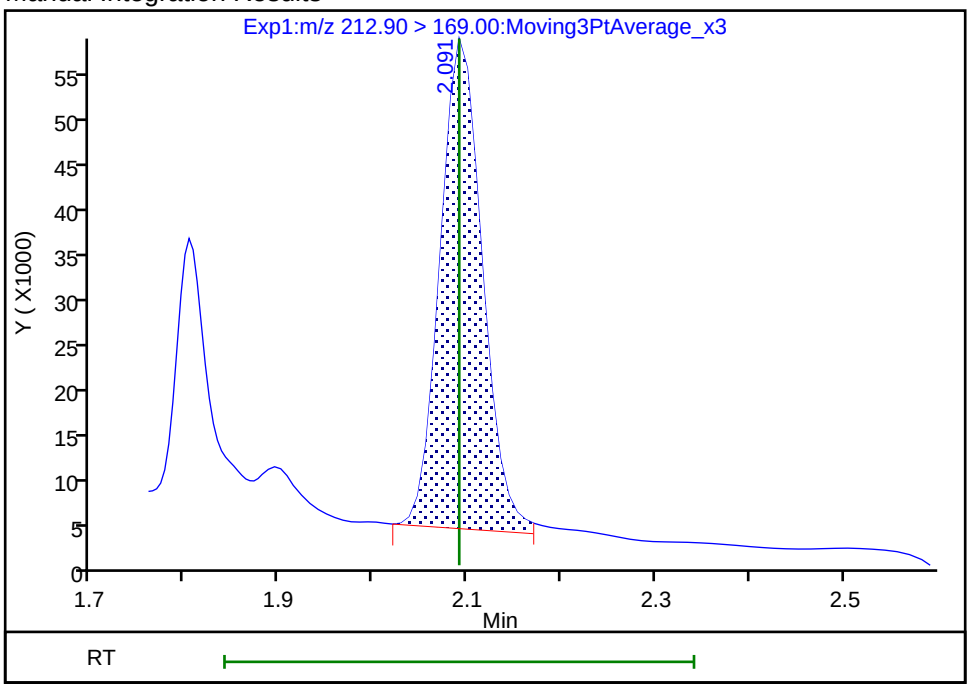
Processing Integration Results

RT: 2.09
Area: 200078
Amount: 0.177870
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 166709
Amount: 0.148205
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:57:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

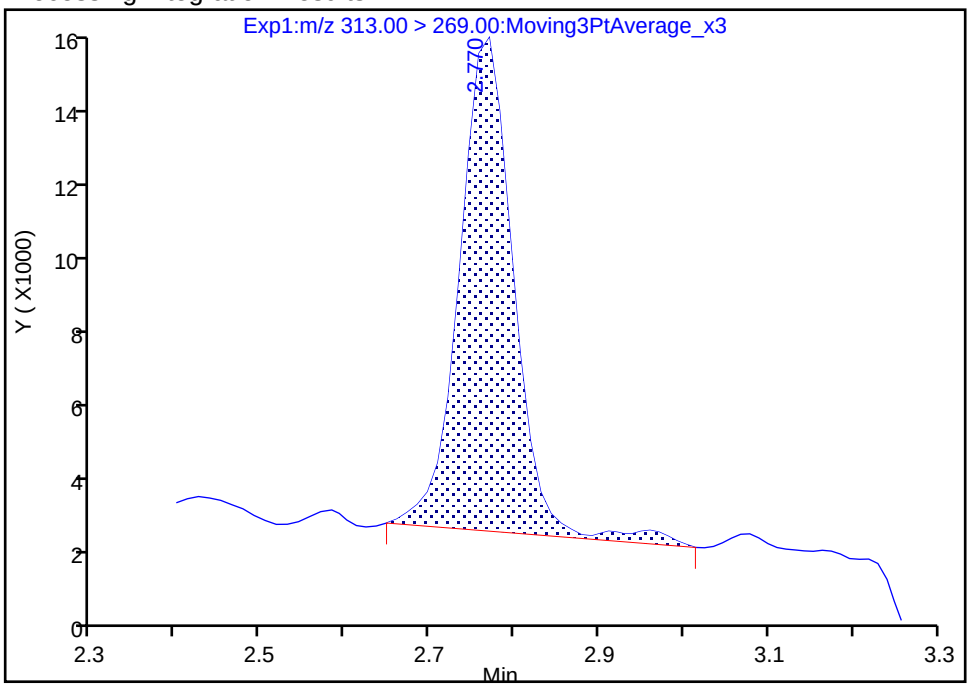
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

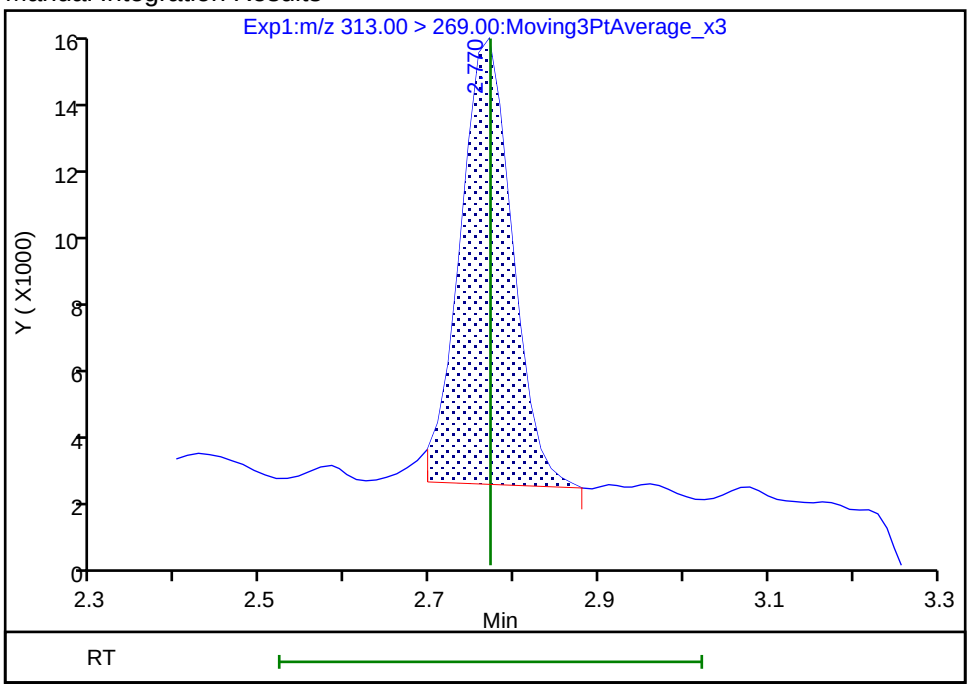
Processing Integration Results

RT: 2.77
Area: 56506
Amount: 0.055215
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 53665
Amount: 0.052439
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:16:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

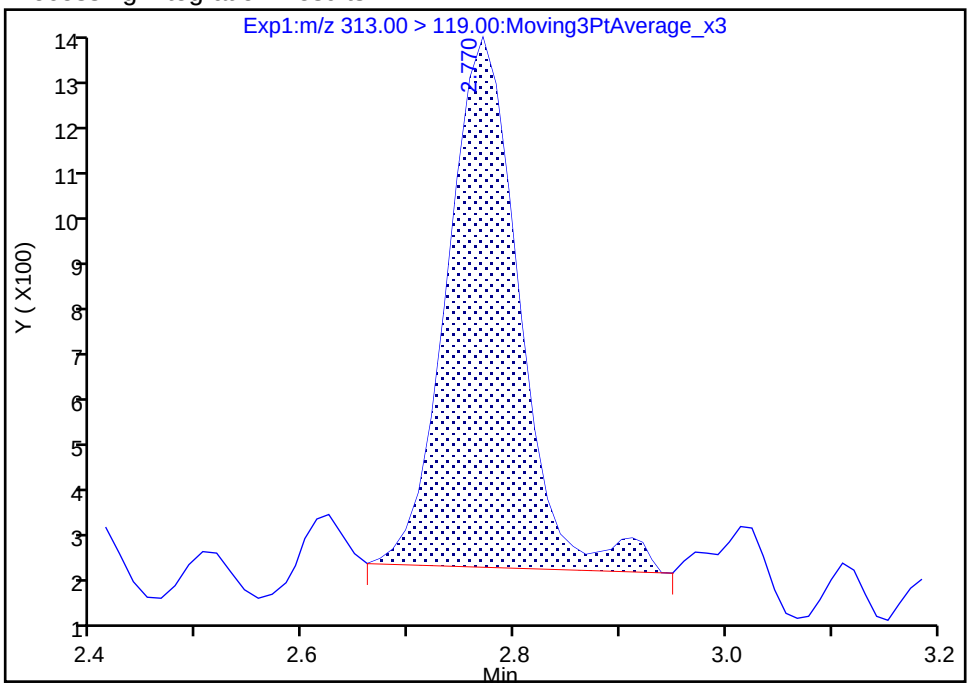
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

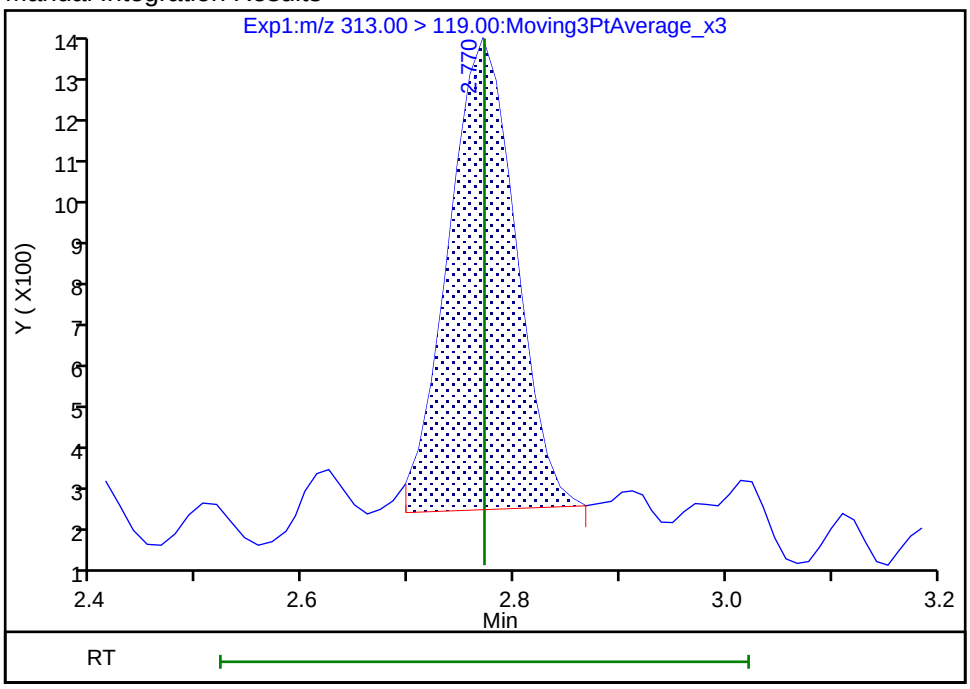
Processing Integration Results

RT: 2.77
Area: 5034
Amount: 0.055215
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 4599
Amount: 0.052439
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:16:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

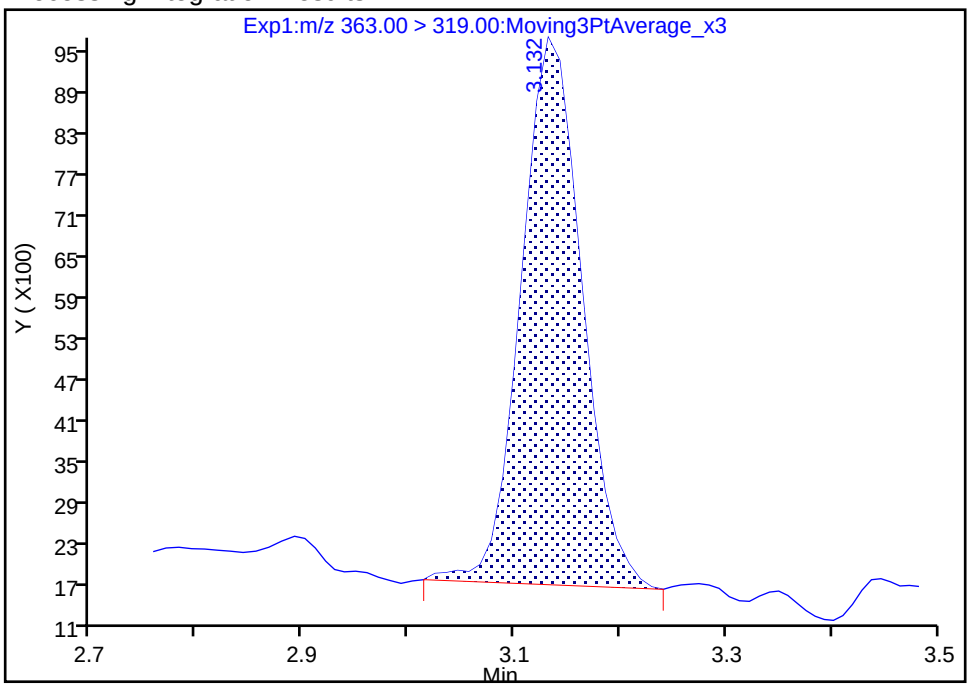
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

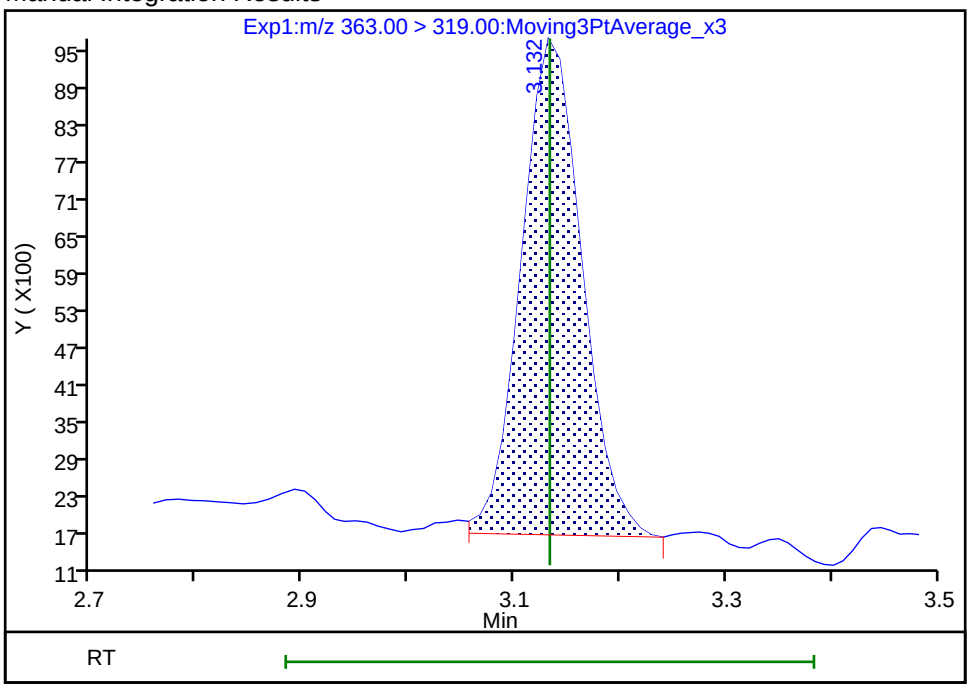
Processing Integration Results

RT: 3.13
Area: 31920
Amount: 0.030501
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 31918
Amount: 0.030499
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

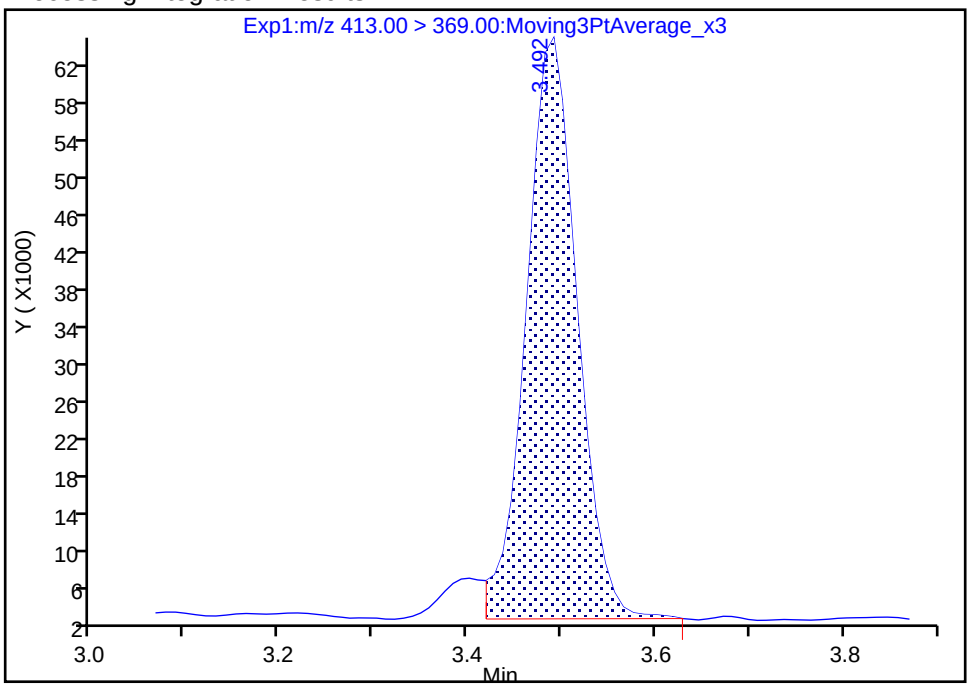
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

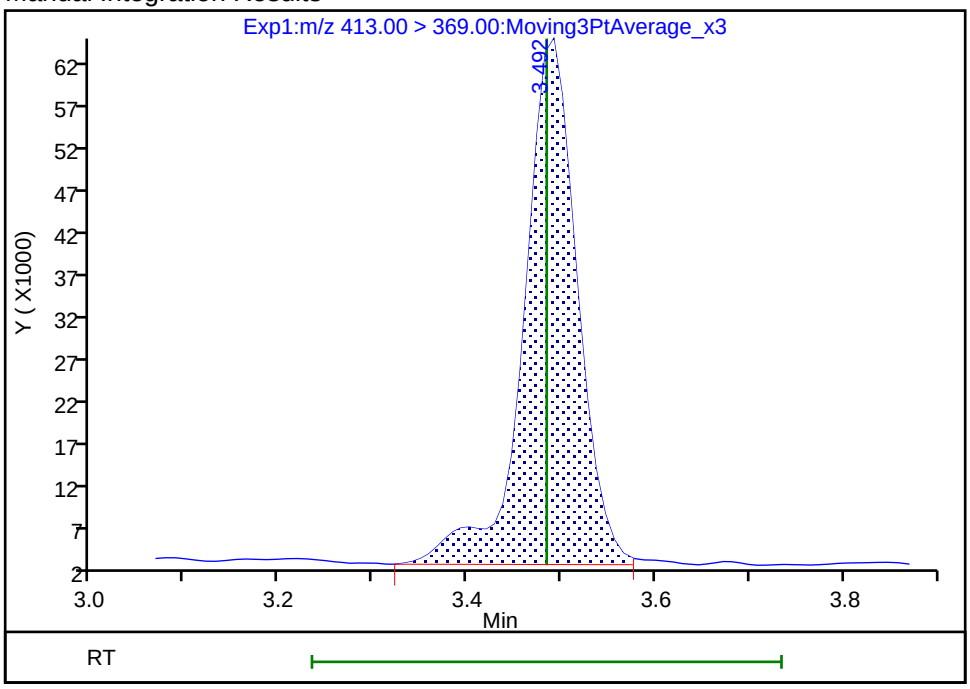
Processing Integration Results

RT: 3.49
Area: 231948
Amount: 0.202842
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 245370
Amount: 0.214580
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

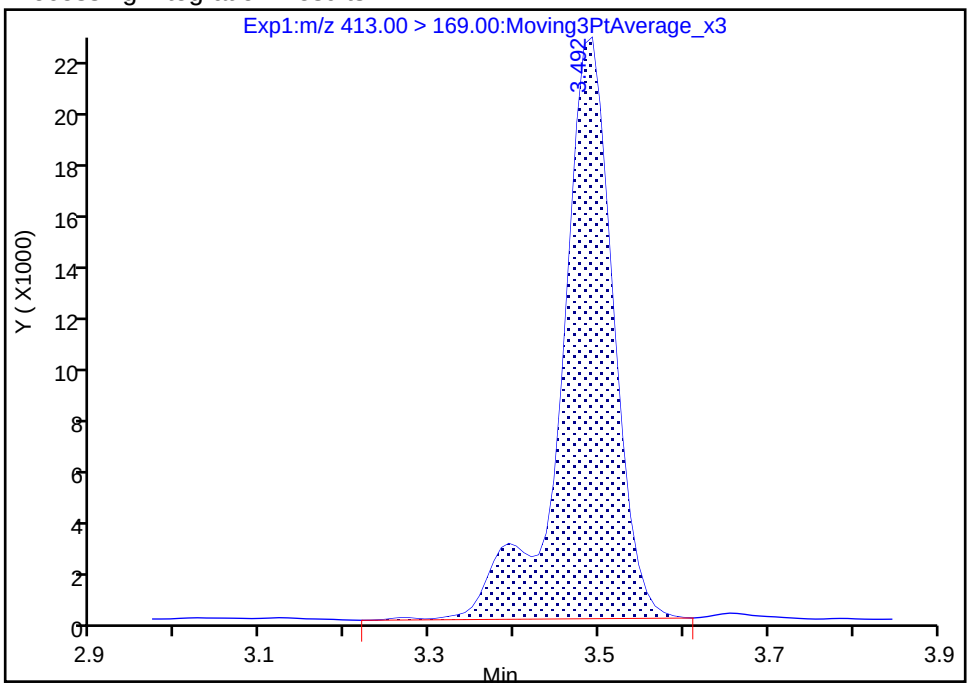
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

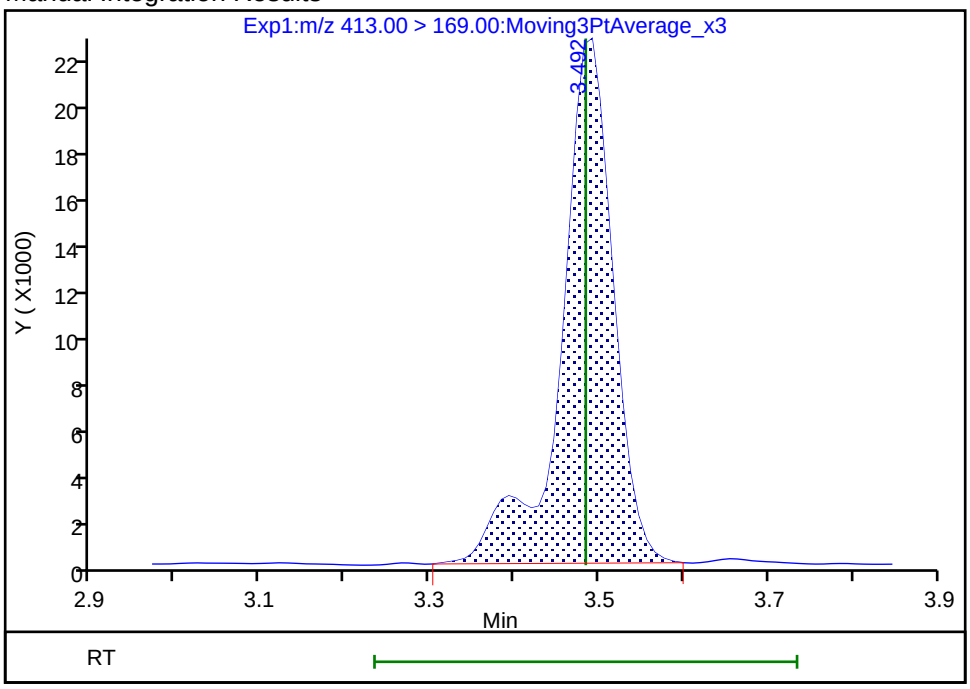
Processing Integration Results

RT: 3.49
Area: 96063
Amount: 0.202842
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 95406
Amount: 0.214580
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

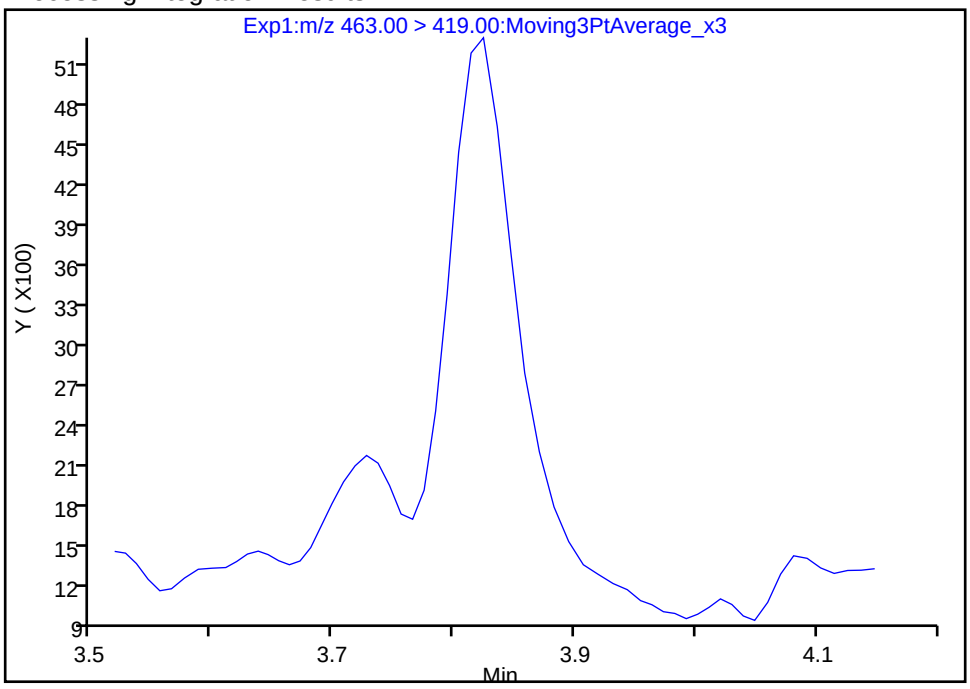
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

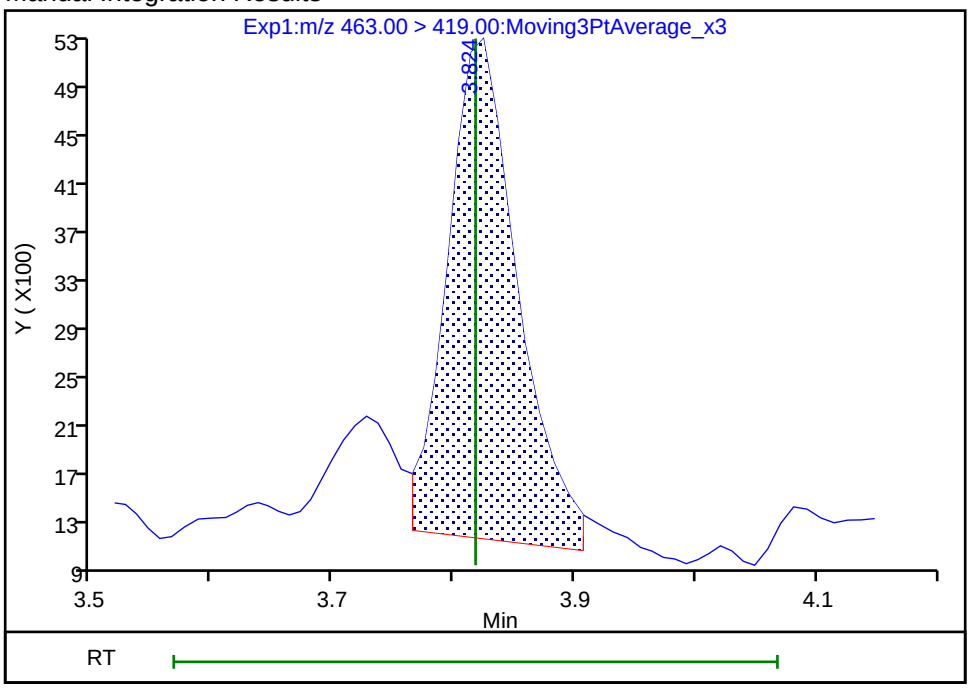
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 16713
Amount: 0.016742
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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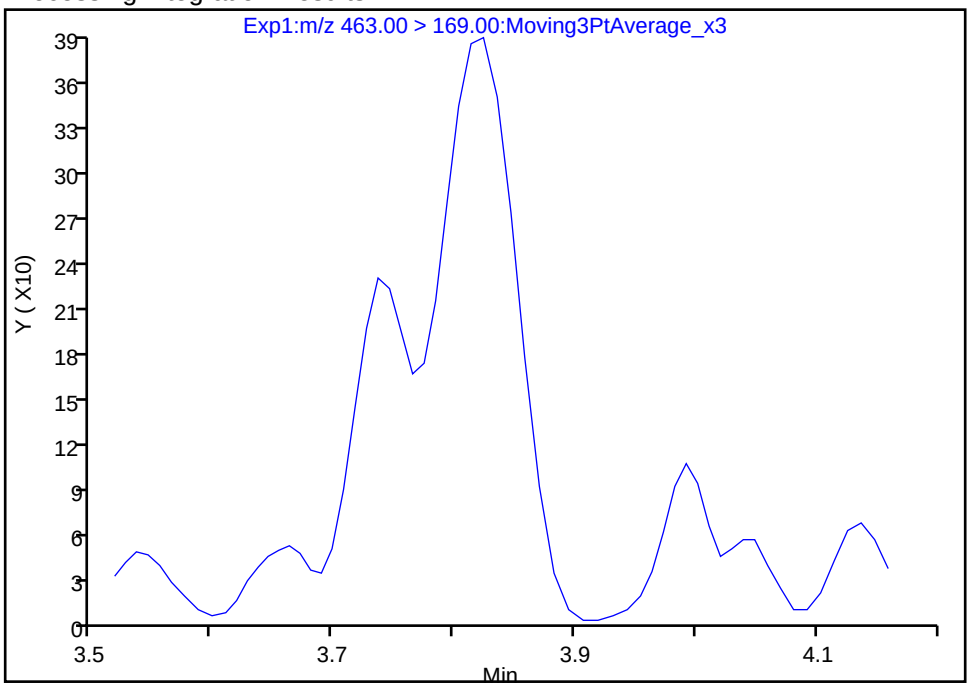
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

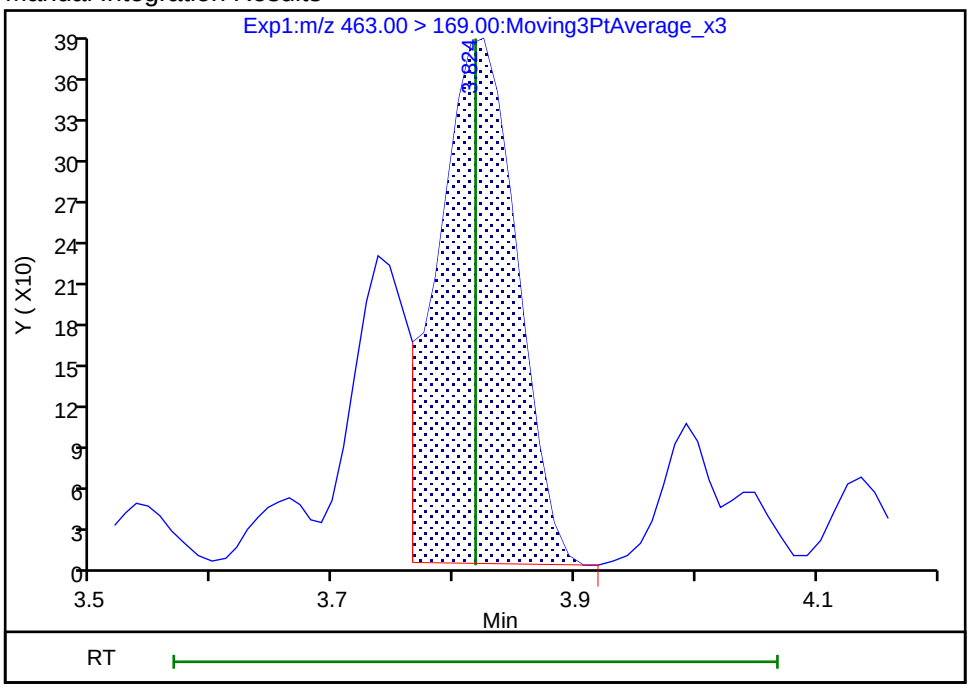
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1726
Amount: 0.016742
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

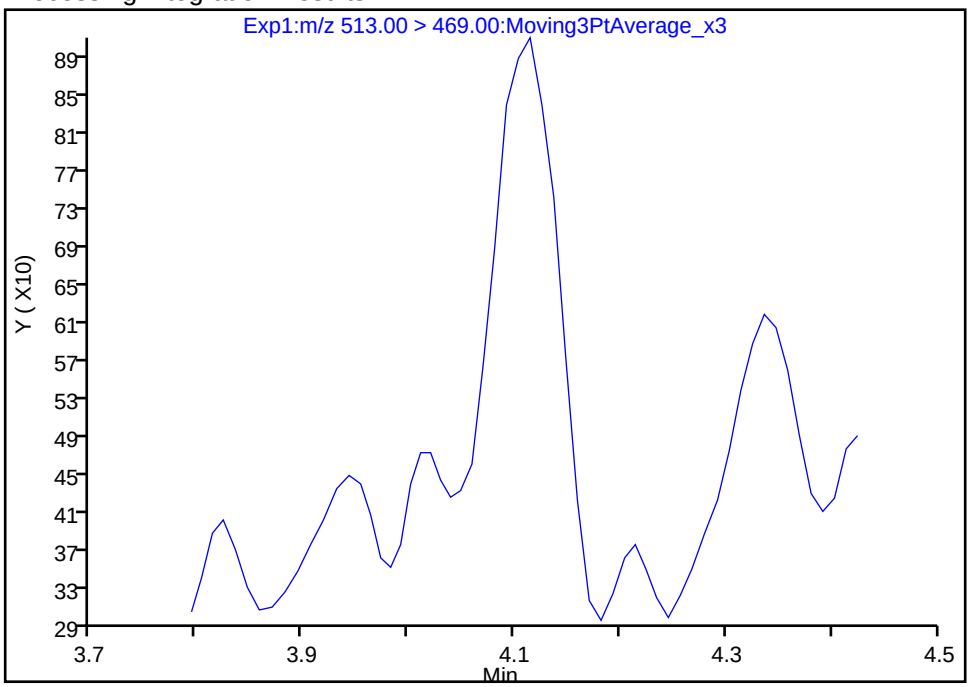
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

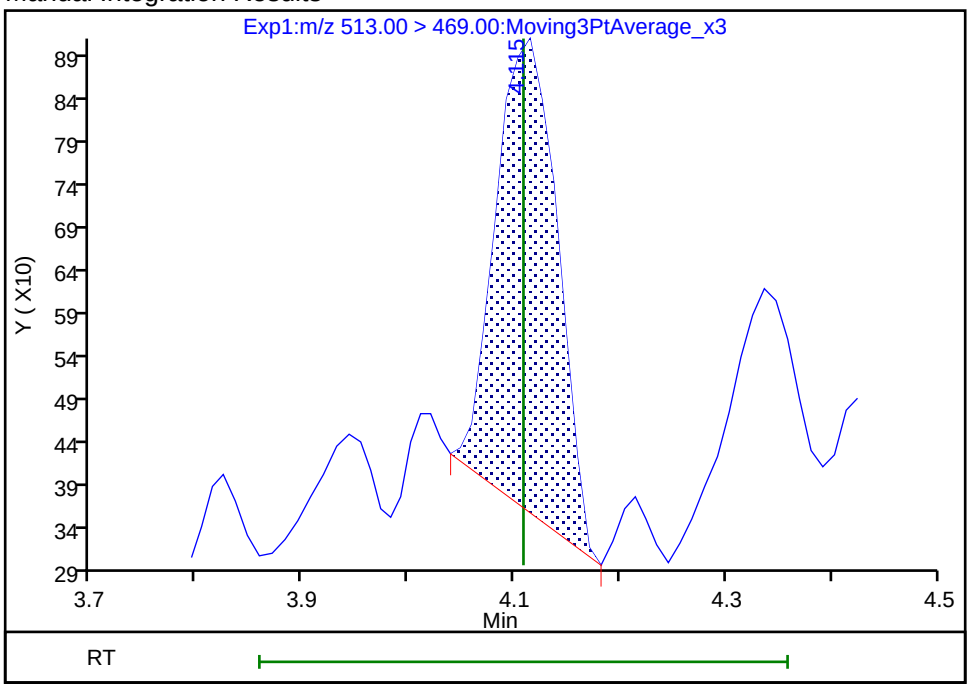
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 2233
Amount: 0.002174
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

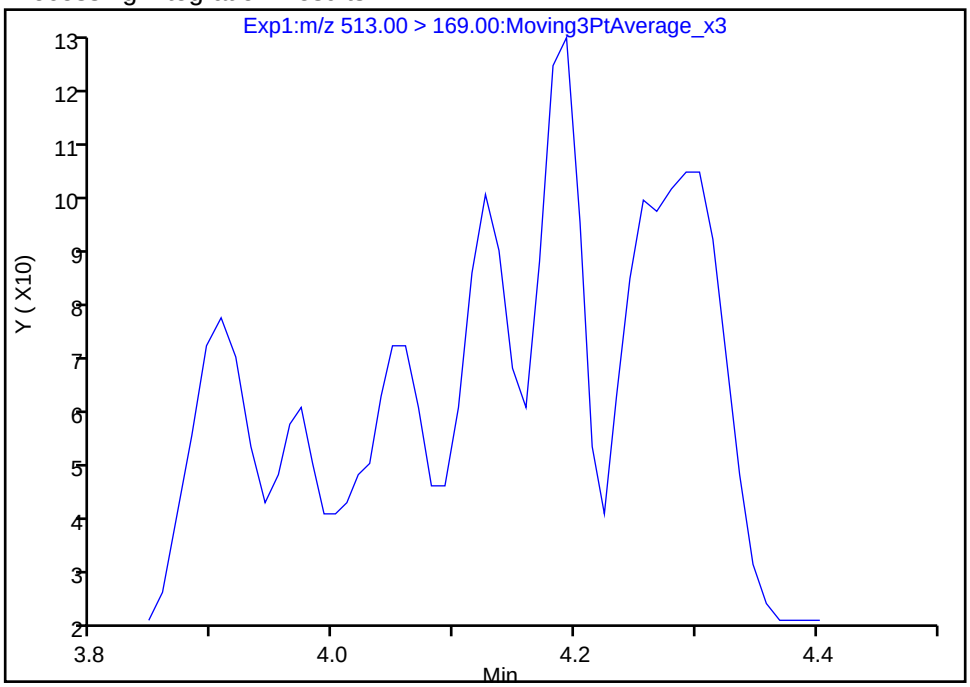
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

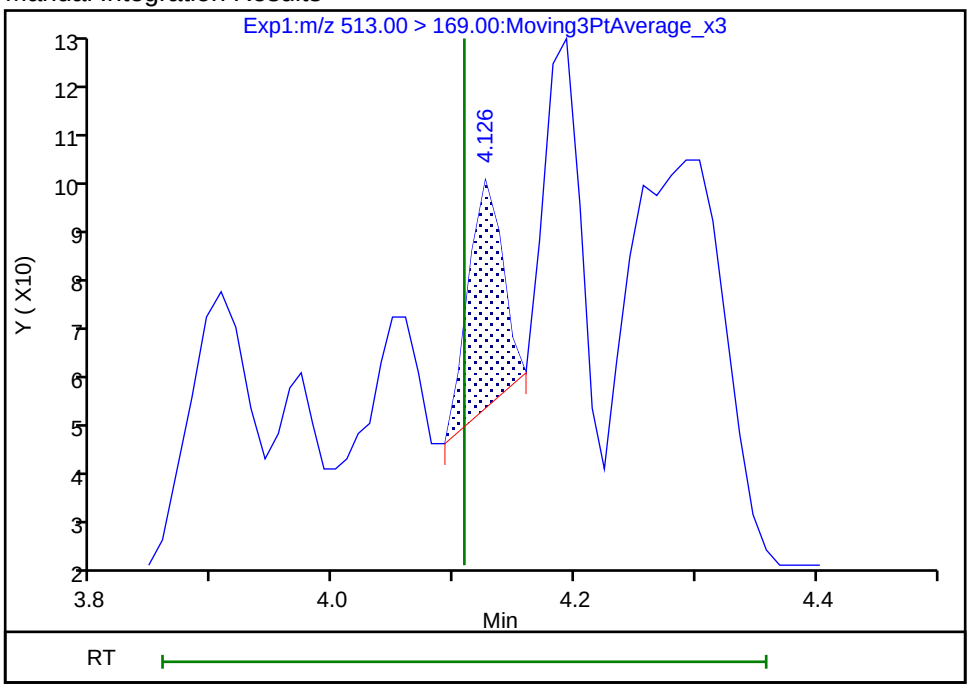
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 88
Amount: 0.002174
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

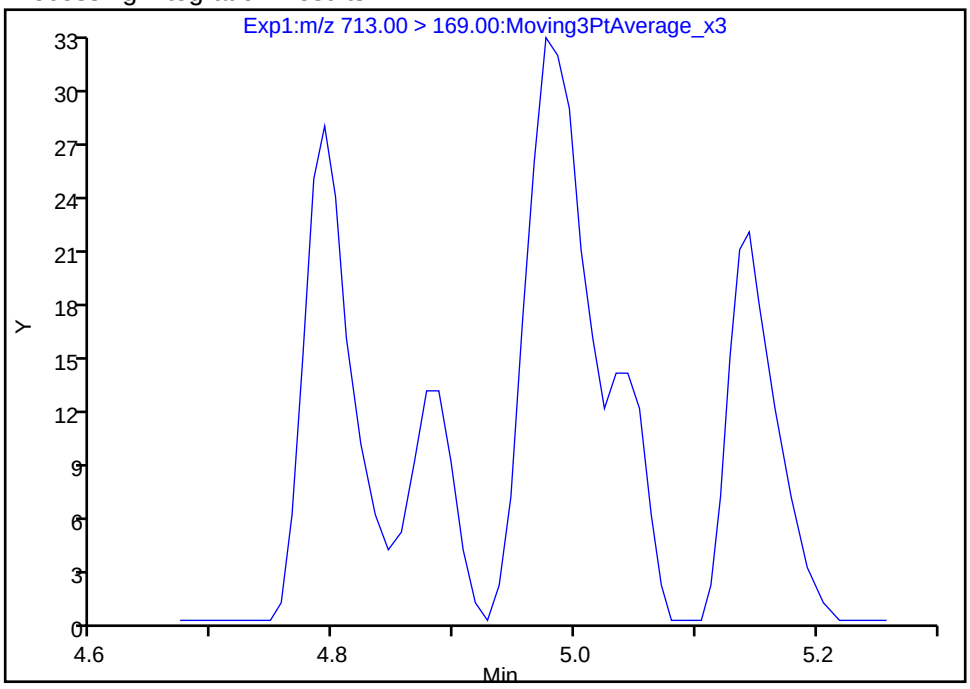
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

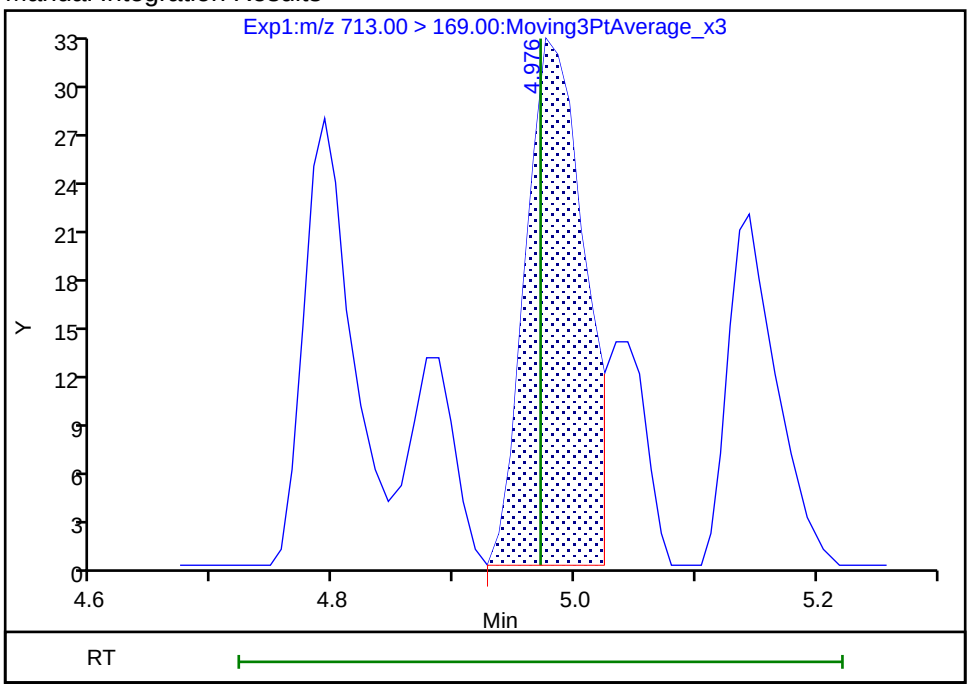
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 109
Amount: 0.001146
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:00:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

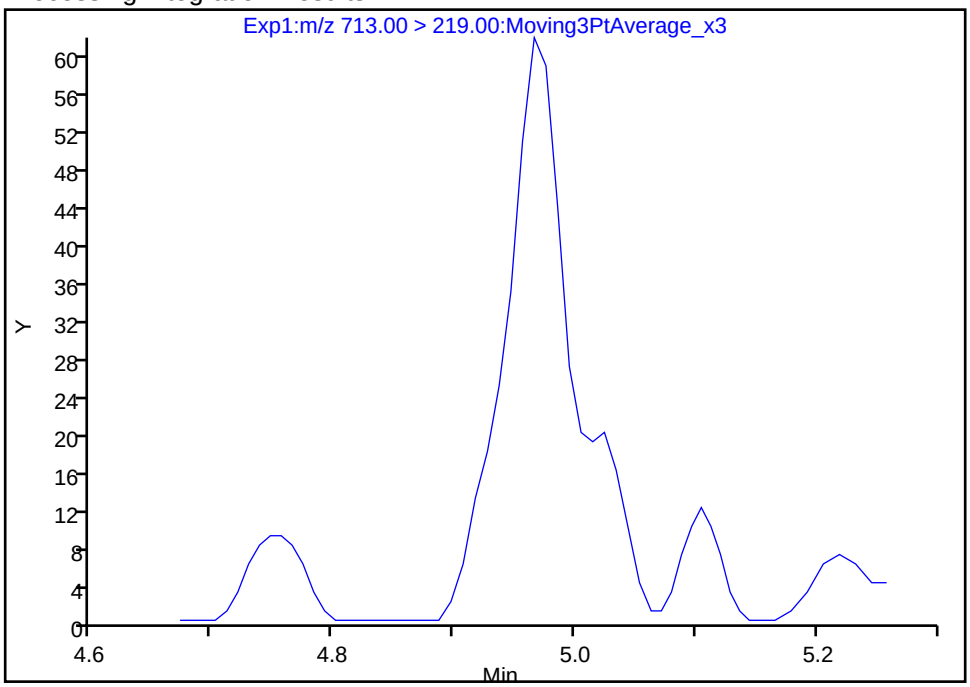
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

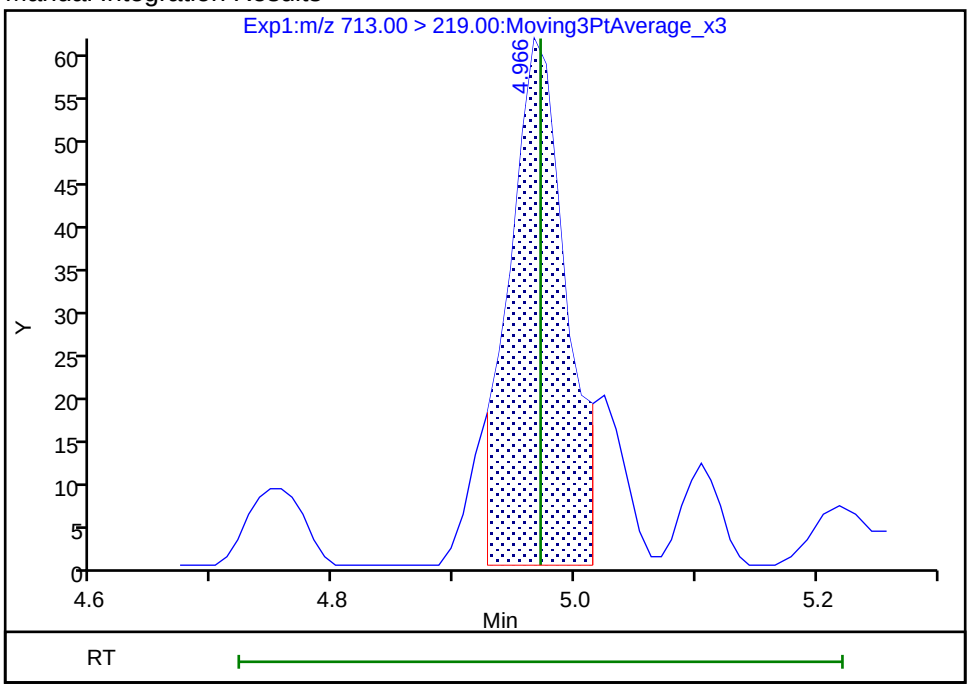
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 198
Amount: 0.001146
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:00:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

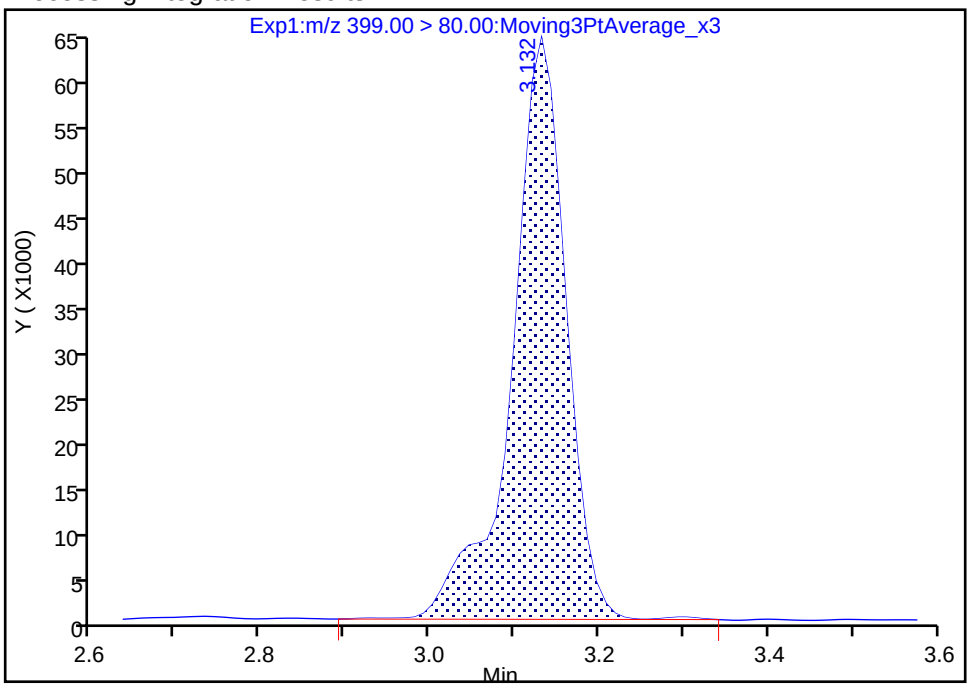
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

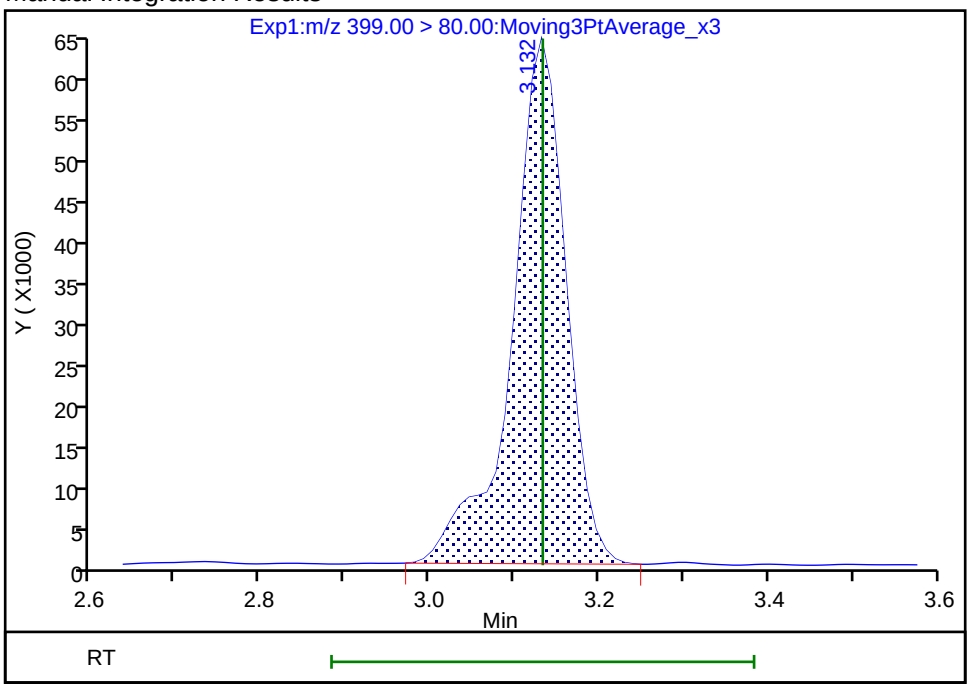
Processing Integration Results

RT: 3.13
Area: 287137
Amount: 0.287016
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 284867
Amount: 0.284747
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

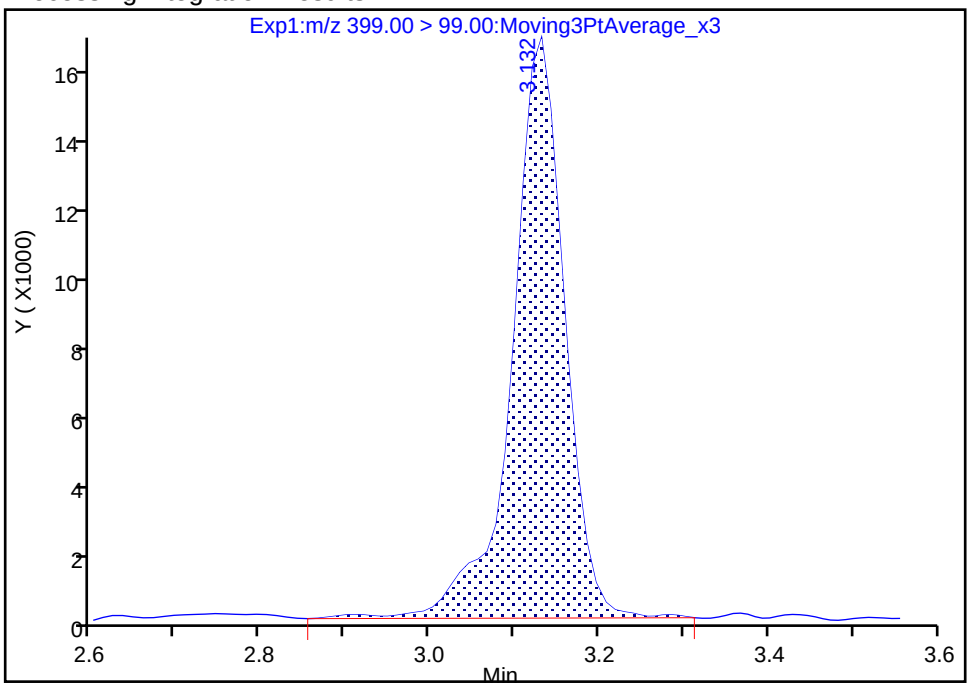
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

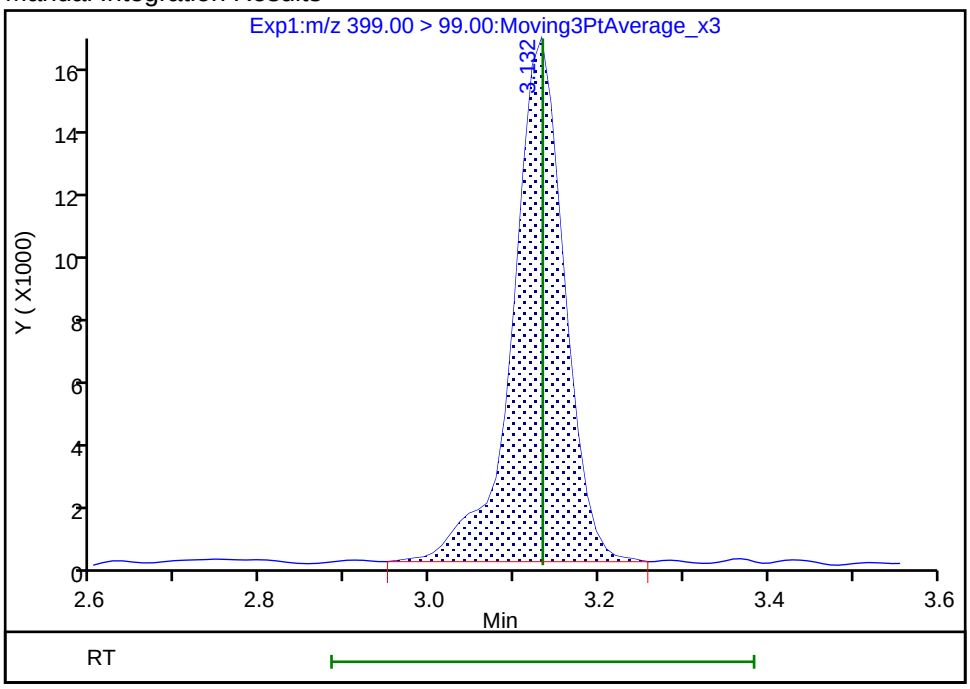
Processing Integration Results

RT: 3.13
Area: 70890
Amount: 0.287016
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 69443
Amount: 0.284747
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

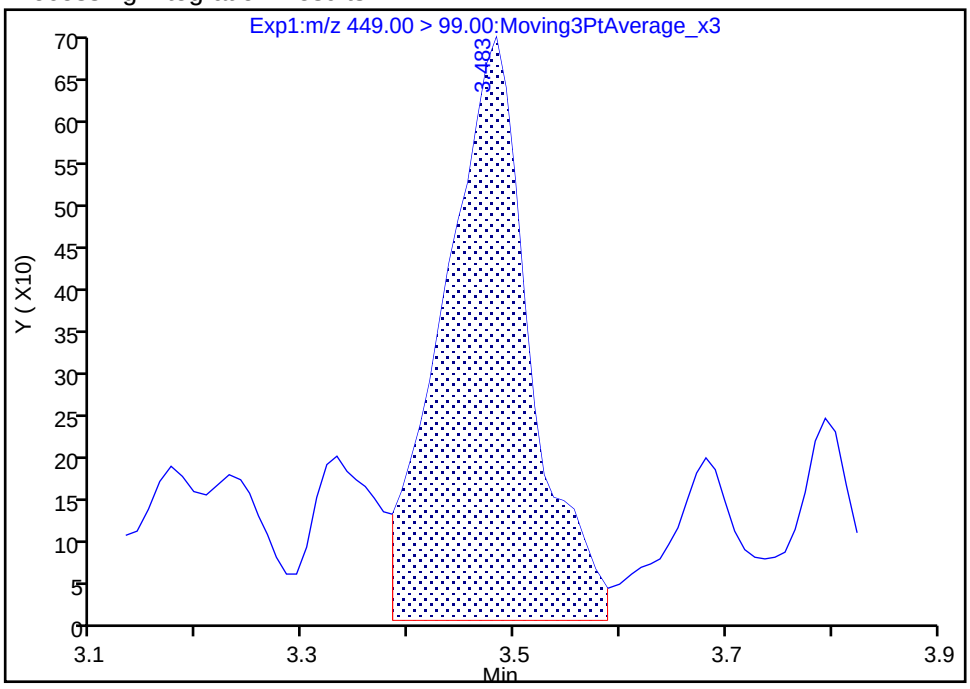
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

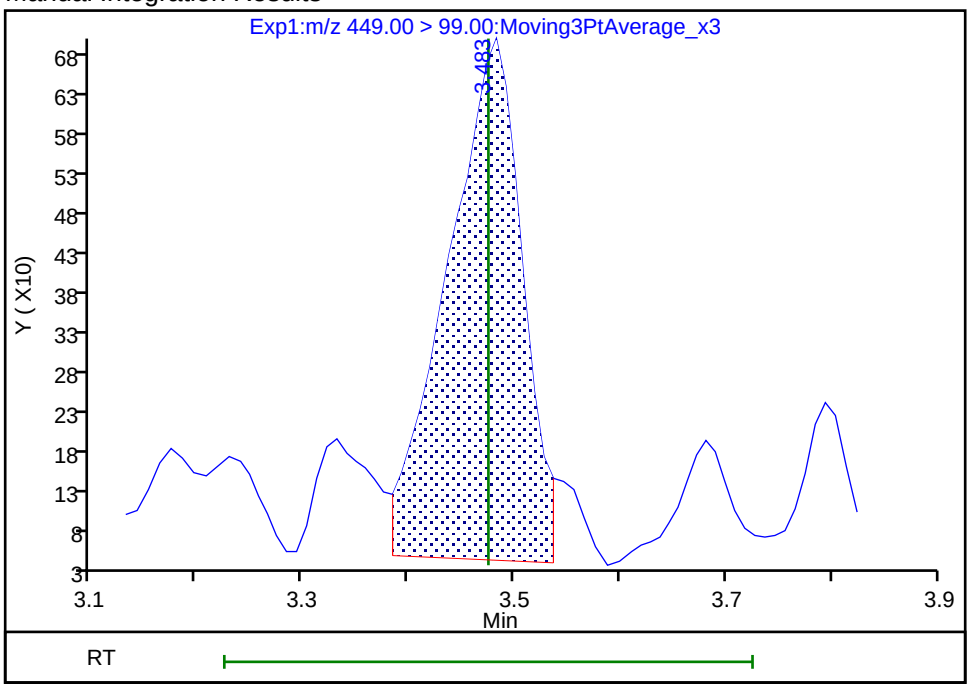
Processing Integration Results

RT: 3.48
Area: 3909
Amount: 0.011373
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 3180
Amount: 0.011341
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

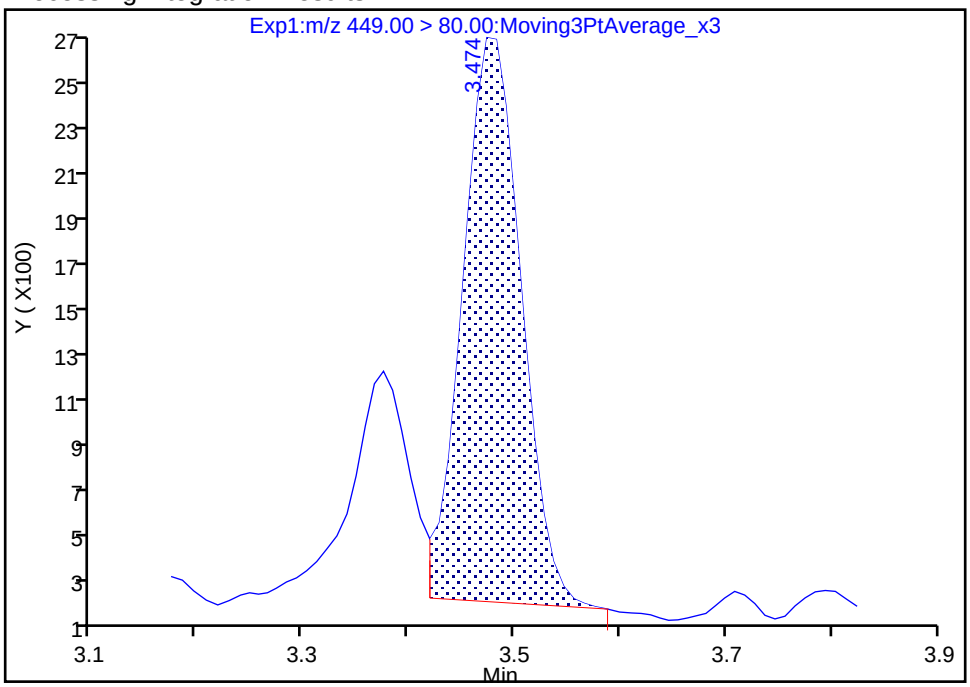
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

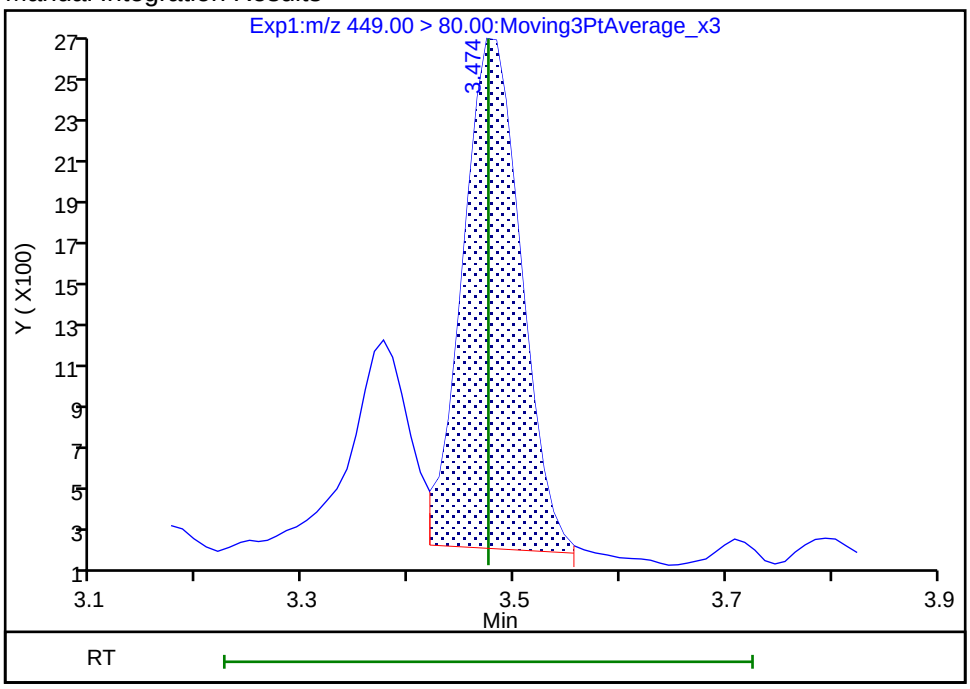
Processing Integration Results

RT: 3.47
Area: 9445
Amount: 0.011373
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 9419
Amount: 0.011341
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:58:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

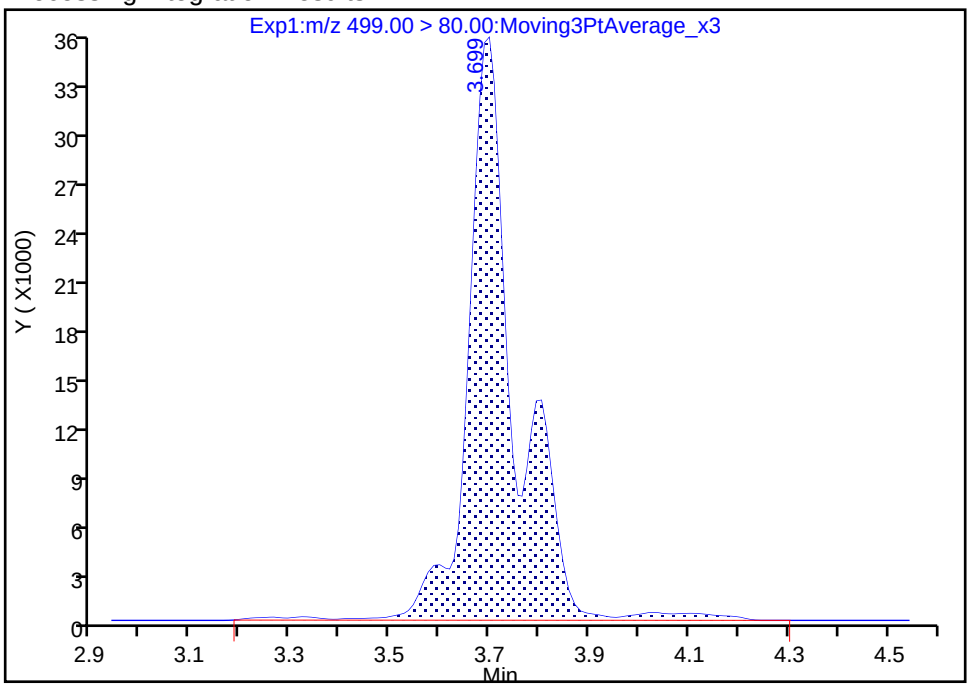
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

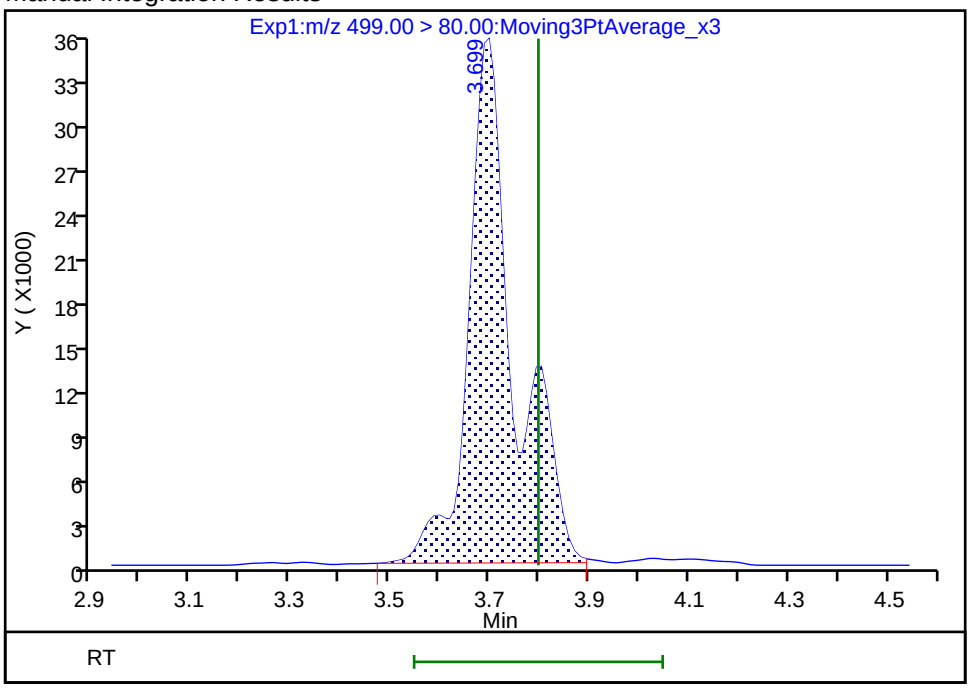
Processing Integration Results

RT: 3.70
Area: 236486
Amount: 0.327154
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 225011
Amount: 0.311280
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

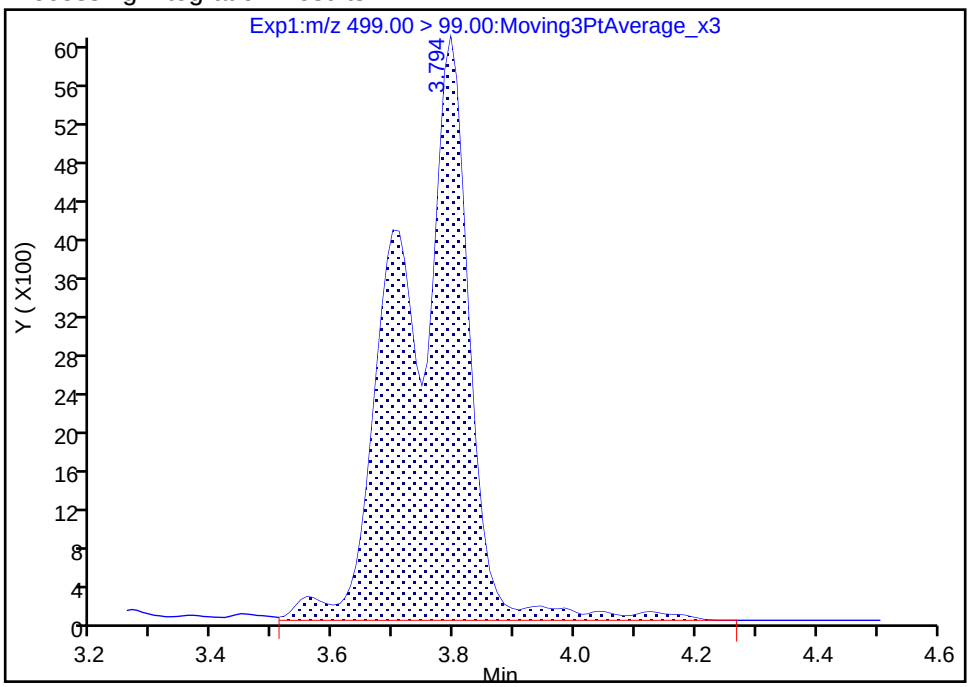
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

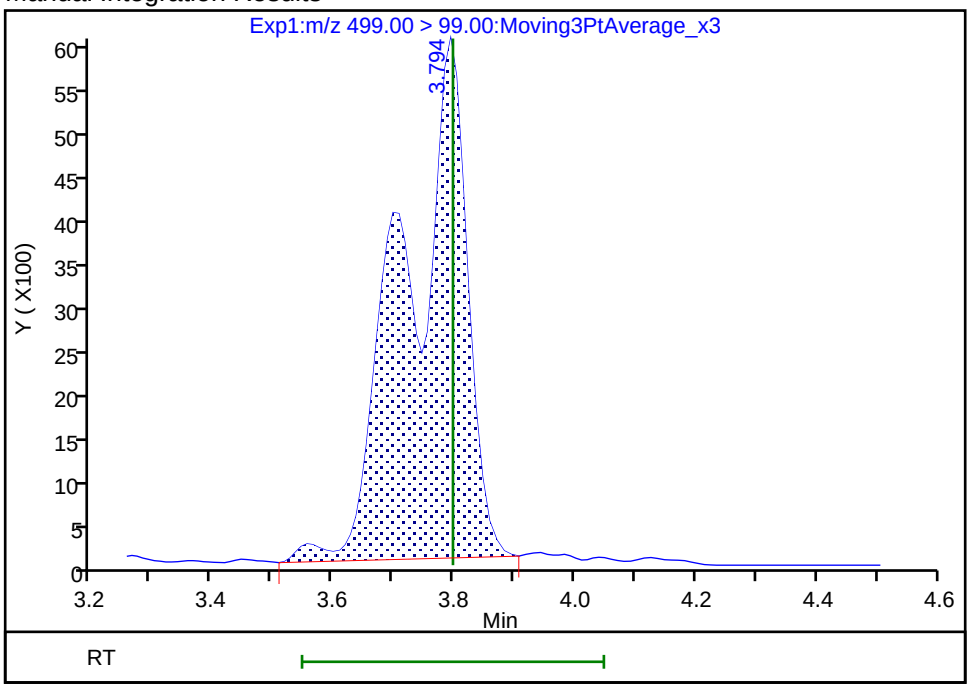
Processing Integration Results

RT: 3.79
Area: 45726
Amount: 0.327154
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 42659
Amount: 0.311280
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:59:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

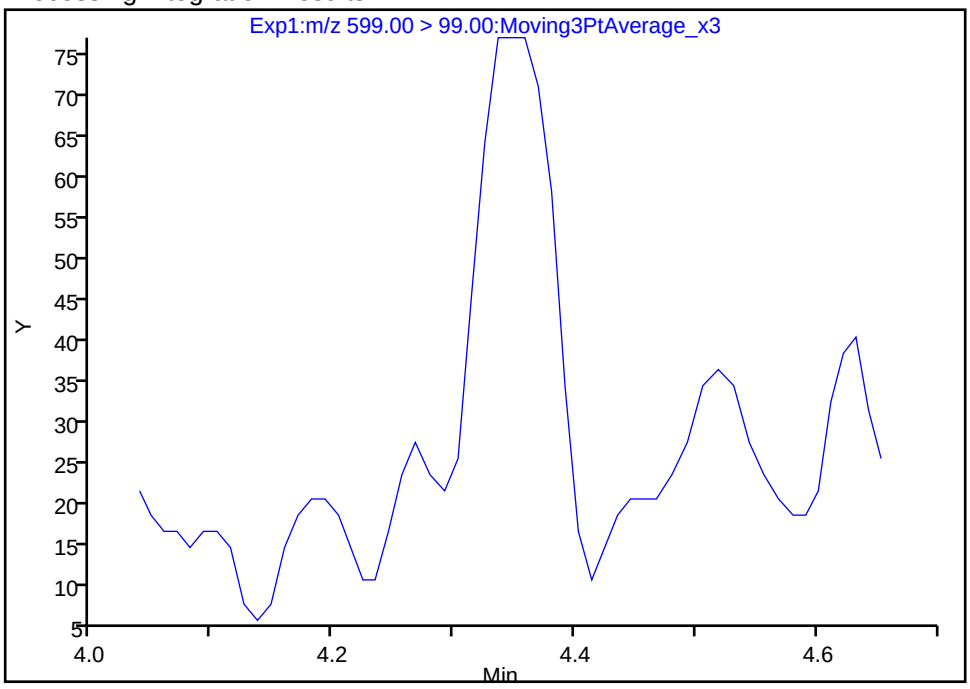
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

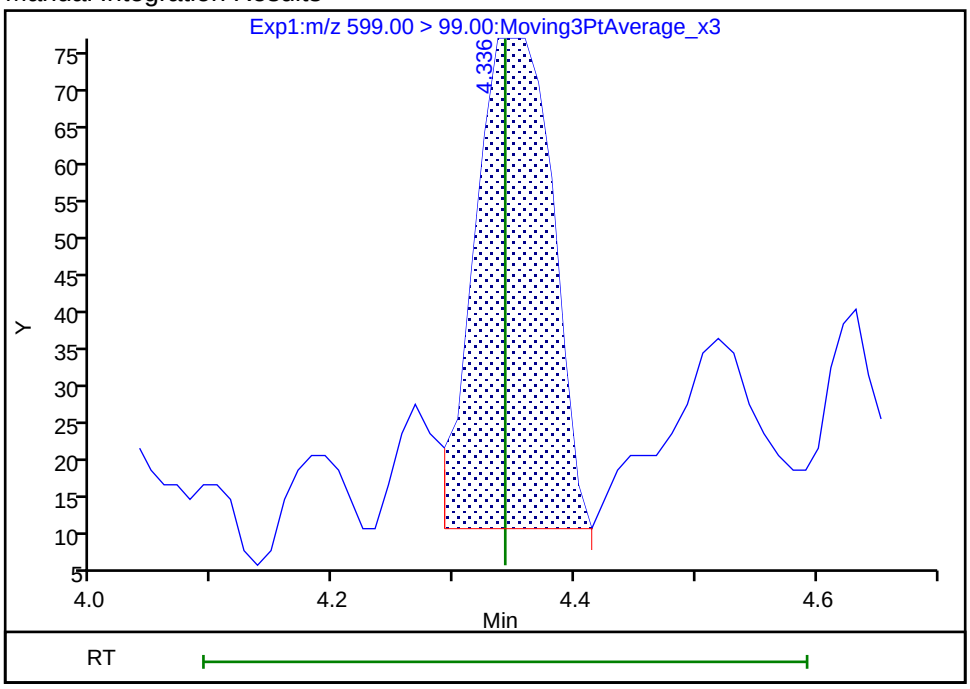
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 298
Amount: 0.000363
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:00:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

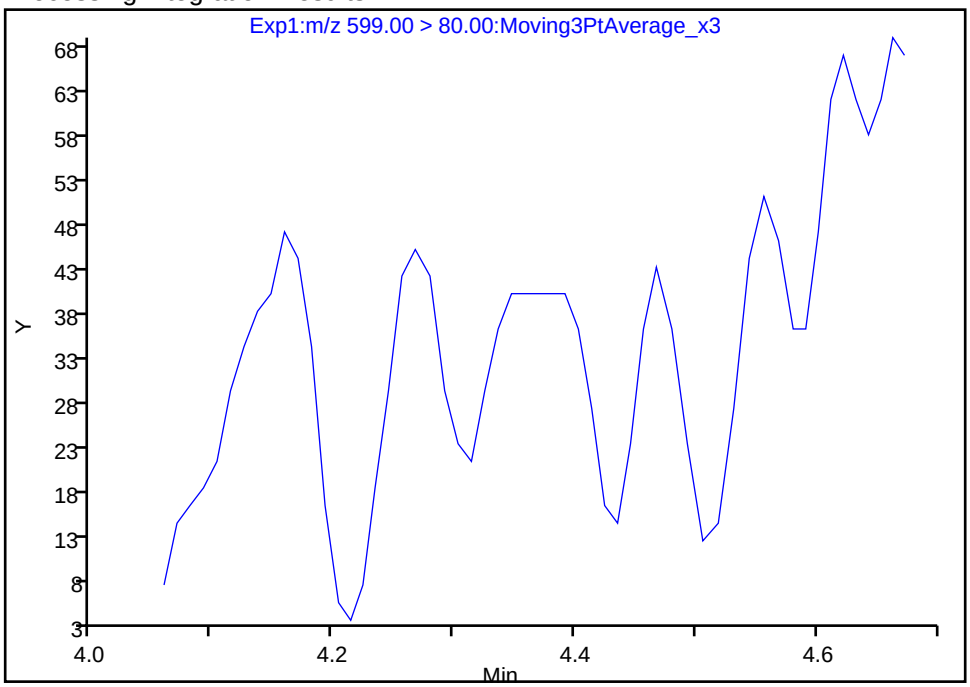
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

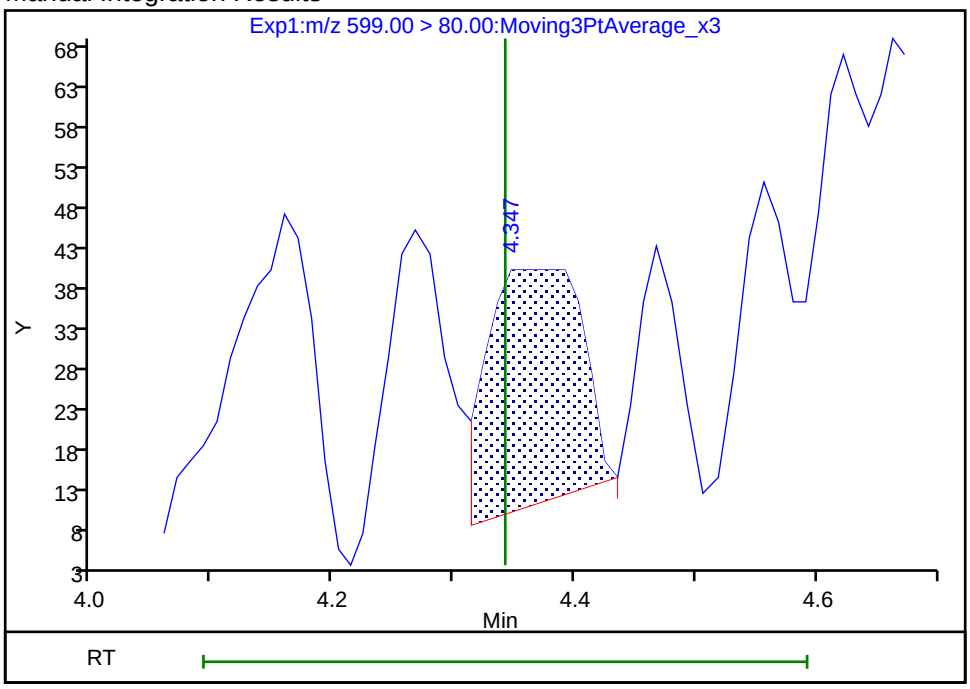
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 159
Amount: 0.000363
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:00:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

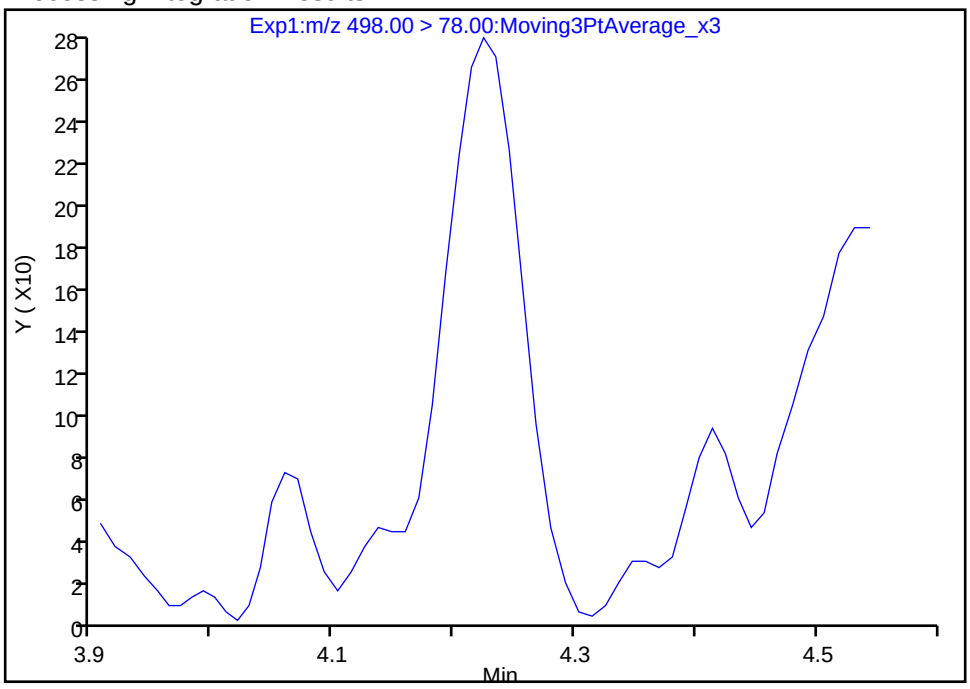
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

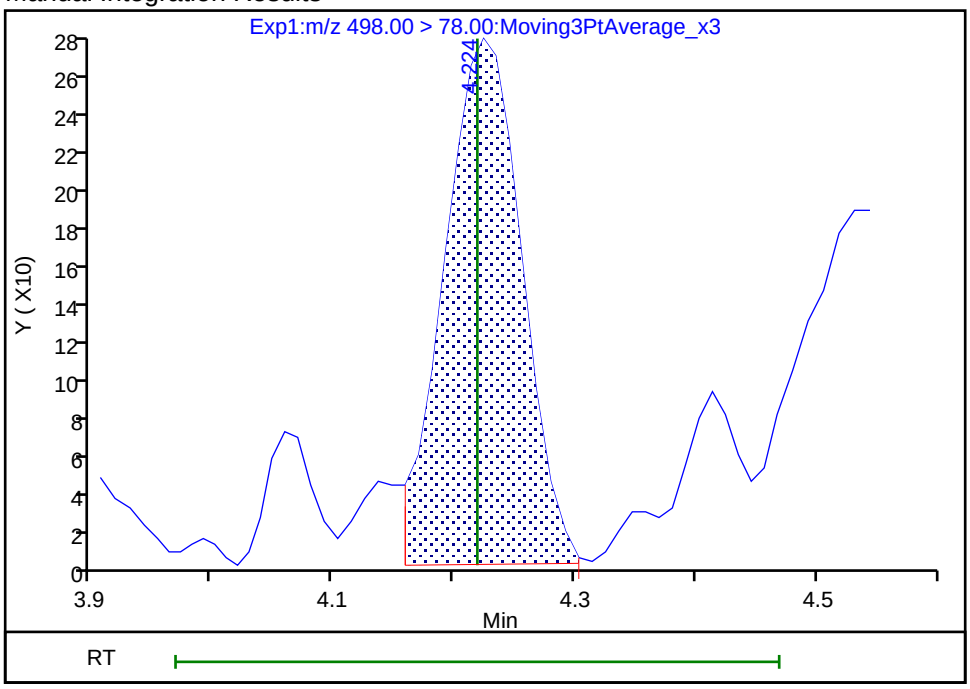
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 1228
Amount: 0.001308
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:17:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

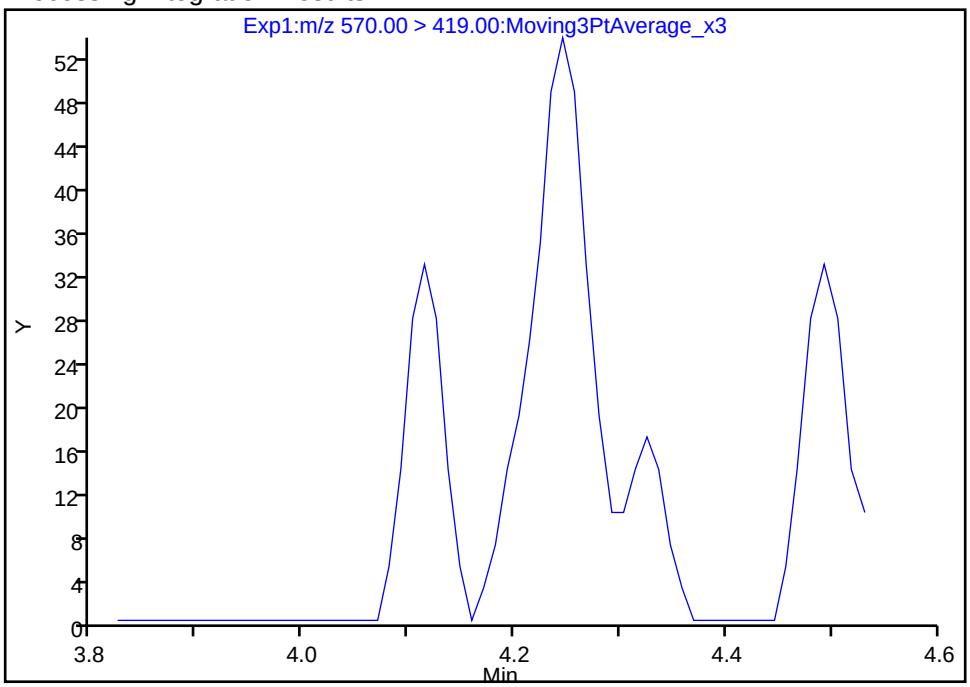
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

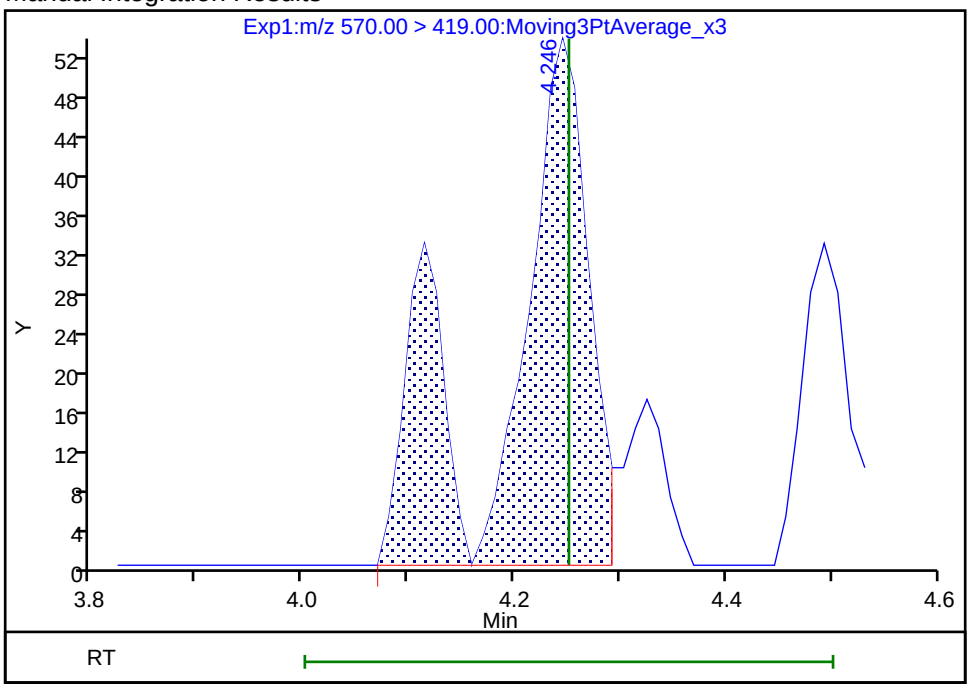
Not Detected
Expected RT: 4.25

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 290
Amount: 0.003321
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:17:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

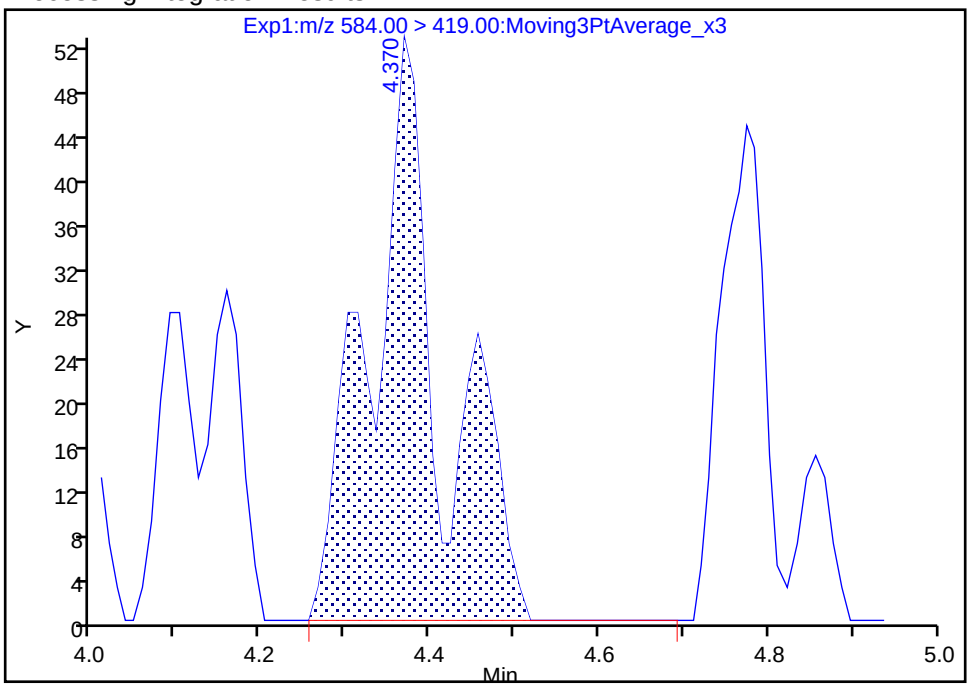
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

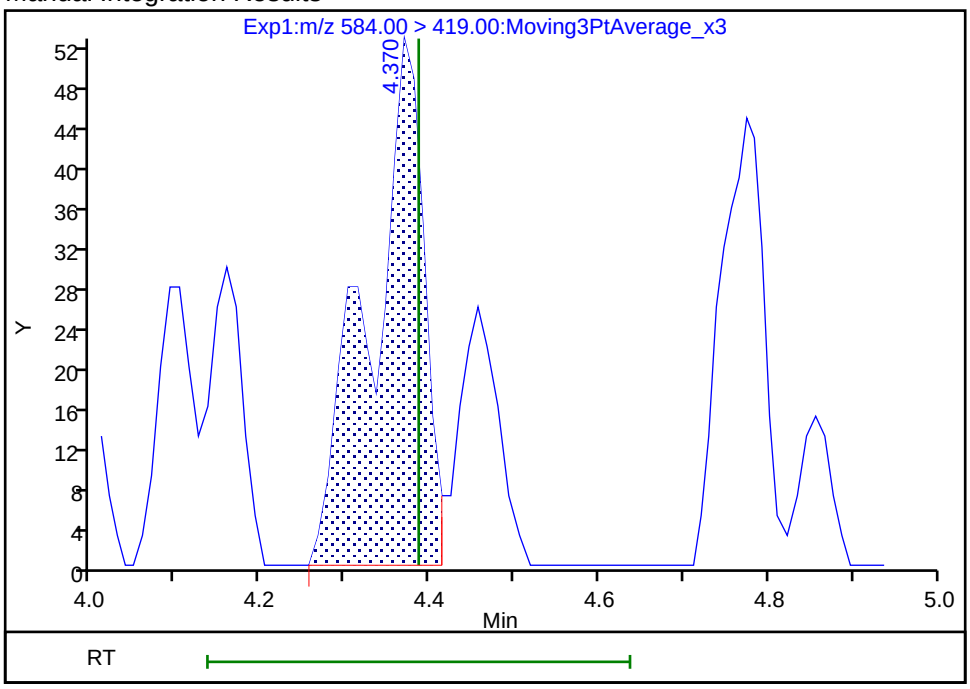
Processing Integration Results

RT: 4.37
Area: 316
Amount: 0.003361
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 232
Amount: 0.002468
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:00:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

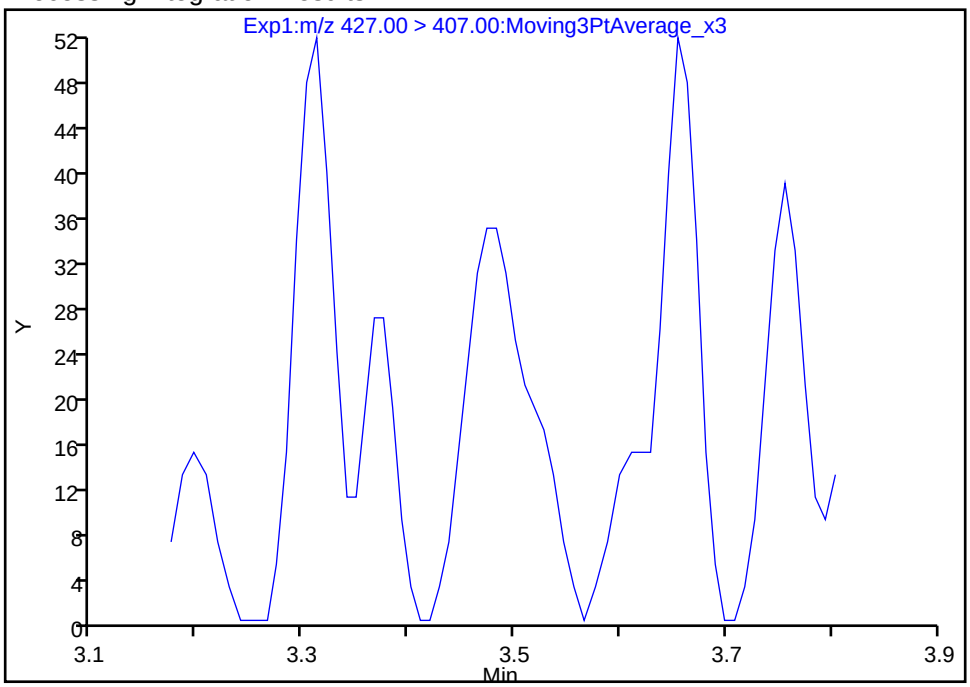
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A12.d | | | | |
| Injection Date: | 10-Nov-2021 12:52:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-21-A | Lab Sample ID: | 200-246277-21 | | |
| Client ID: | AMW-11-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

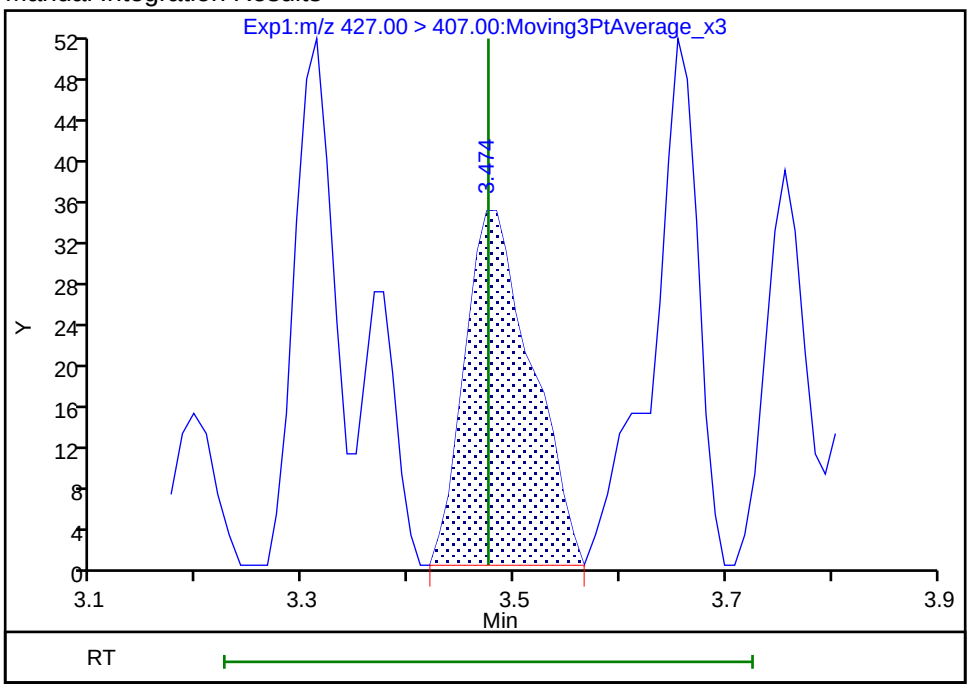
Not Detected
Expected RT: 3.48

Processing Integration Results




RT: 3.47
Area: 154
Amount: 0.000784
Amount Units: ng/ml

Manual Integration Results




Reviewer: khanphomeea, 11-Nov-2021 10:58:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-6-20211028  Lab Sample ID: 460-246277-22

Matrix: Water  Lab File ID: PA211110A13.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:00

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 278.1(mL)  Date Analyzed: 11/10/2021 13:00

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 4.92 | | 4.49 | 0.80 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 2.56 | | 1.80 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 3.62 | | 1.80 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.80 | | 1.80 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 14.3 | | 1.80 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.72 | J | 1.80 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | J | 1.80 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.31 | U | 1.80 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.80 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.39 | U | 1.80 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.57 | U | 1.80 | 0.57 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 5.62 | B | 1.80 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 46.4 | | 1.80 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.45 | J | 1.80 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 44.3 | | 1.80 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.80 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.52 | U | 1.80 | 0.52 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.81 | U | 4.49 | 0.81 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.67 | U | 4.49 | 0.67 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.99 | U | 4.49 | 0.99 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.35 | U | 1.80 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-6-20211028  Lab Sample ID: 460-246277-22

Matrix: Water  Lab File ID: PA211110A13.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 13:00

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 278.1(mL)  Date Analyzed: 11/10/2021 13:00

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 101 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 107 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 86 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 94 | | 50-150 |
| STL00997 | 13C2 PFUnA | 95 | | 50-150 |
| STL00998 | 13C2 PFDoA | 92 | | 50-150 |
| STL01056 | 13C8 FOSA | 85 | | 25-150 |
| STL01893 | 13C5 PFPeA | 95 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 91 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 108 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 120 | | 50-150 |
| STL02279 | M2-6:2 FTS | 134 | | 25-150 |
| STL02280 | M2-8:2 FTS | 139 | | 25-150 |
| STL02337 | 13C3 PFBS | 96 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d
Lims ID: 460-246277-C-22-A
Client ID: AMW-6-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 13:00:53 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-22-A
Misc. Info.: 200-0048360-013 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:04:04
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1326145 | 1.08 | | 86.4 | 2097 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 137248 | 0.1368 | | | 8.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1234440 | 1.19 | | 95.5 | 689 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.414 | -0.014 | 0.995 | 70467 | 0.0712 | | | 0.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1561297 | 1.12 | | 96.0 | 50788 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 224026 | 0.1562 | Target=2.32 | | 18.2 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 103548 | | 2.16(1.16-3.48) | | 12.6 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1349504 | 1.24 | | 99.5 | 2194 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 110378 | 0.1008 | Target=12.09 | | 1.7 | M |
| 313.00 > 119.00 | 2.758 | 2.771 | -0.013 | 0.996 | 6982 | | 15.81(6.04-18.13) | | 4.0 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1458135 | 1.29 | Target=3.55 | | 369 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 376229 | | 3.88(1.77-5.32) | | 188 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1214593 | 1.19 | | 101 | 2653 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1391668 | 1.22 | | 97.5 | 3093 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 57683 | 0.0501 | Target=3.69 | | 2.2 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 15517 | | 3.72(1.84-5.53) | | 21.7 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 39429 | 0.0402 | Target=4.88 | | 11.3 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.916 | 8854 | | 4.45(2.44-7.32) | | 5.5 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.475 | -0.001 | 0.997 | 233 | 0.000855 | | | 2.6 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 255136 | 1.59 | | 134 | 111 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1449099 | 1.16 | | 92.9 | 3319 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1516317 | 1.25 | | | 3413 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 488960 | 0.3966 | Target=2.68 | | 19.6 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 193318 | | 2.53(1.34-4.02) | | 249 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.087 | 939850 | 1.28 | | 107 | 628 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.690 | 3.798 | -0.108 | 0.973 | 1050813 | 1.23 | Target=4.69 | | 267 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 1.000 | 212092 | | 4.95(2.35-7.04) | | 183 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1500731 | 1.21 | | 96.6 | 2918 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.818 | -0.004 | 1.000 | 56167 | 0.0478 | Target=7.29 | | 4.8 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 7846 | | 7.16(3.64-10.93) | | 24.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1470069 | 1.17 | | 93.7 | 7117 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 9130 | 0.007726 | Target=8.95 | | 1.3 | |
| 513.00 > 169.00 | 4.137 | 4.108 | 0.029 | 1.005 | 1530 | | 5.97(4.47-13.42) | | 6.4 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 302064 | 1.66 | | 139 | 233 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.005 | 1.210 | 1292309 | 1.07 | | 85.4 | 3429 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.219 | 0.005 | 1.000 | 2145 | 0.002185 | | | 8.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 167332 | 1.36 | | 108 | 1075 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.251 | 1161436 | 1.19 | | 95.0 | 3519 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.254 | 173854 | 1.50 | | 120 | 938 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.257 | 4.387 | -0.130 | 0.972 | 598 | 0.005018 | | | 2.8 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1207529 | 1.15 | | 91.8 | 1779 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.043 | 1149 | 0.001409 | Target=4.68 | | 0.4 | M |
| 663.00 > 169.00 | 4.792 | 4.799 | -0.007 | 1.042 | 241 | | 4.77(2.34-7.02) | | 5.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 928926 | 1.14 | | 91.1 | 1873 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.002 | 260 | 0.002217 | Target=1.01 | | 5.3 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 176 | | 1.48(0.51-1.52) | | 5.8 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d

Injection Date: 10-Nov-2021 13:00:53 Instrument ID: LC812

Lims ID: 460-246277-C-22-A Lab Sample ID: 200-246277-22

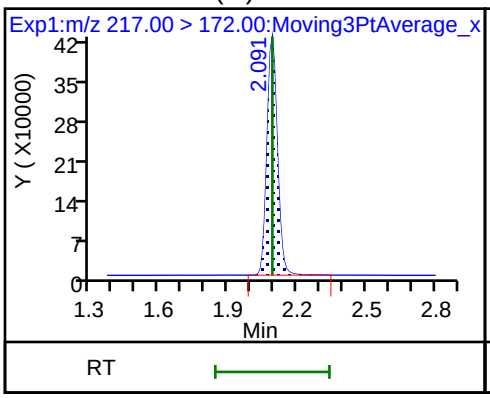
Client ID: AMW-6-20211028

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13

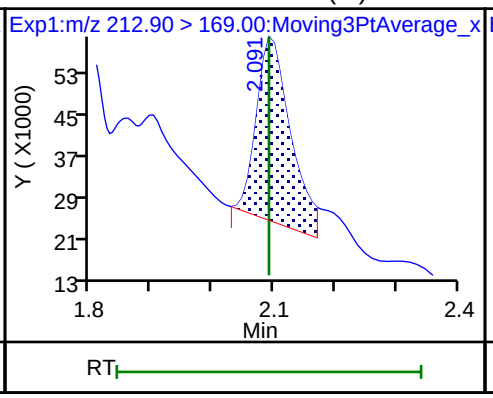
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

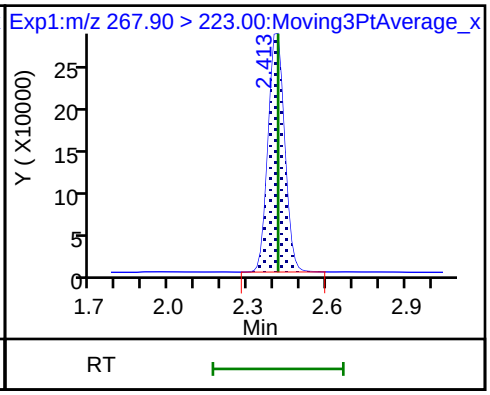
D 1 13C4 PFBA (M)



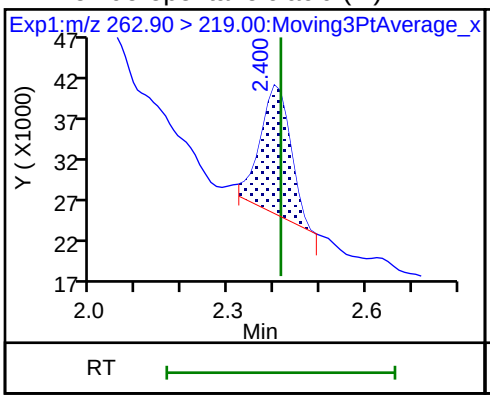

2 Perfluorobutanoic acid (M)



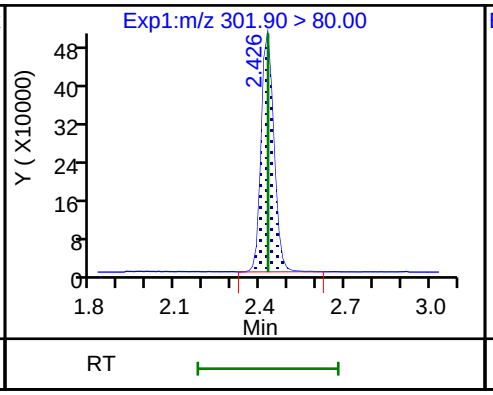

D 3 13C5 PFPeA



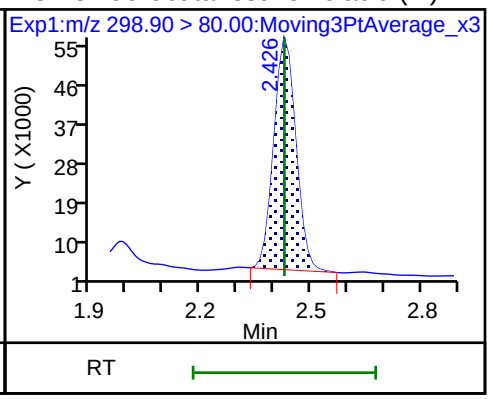

4 Perfluoropentanoic acid (M)



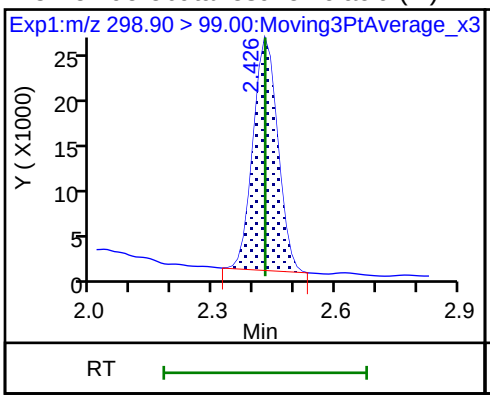

D 47 13C3 PFBS



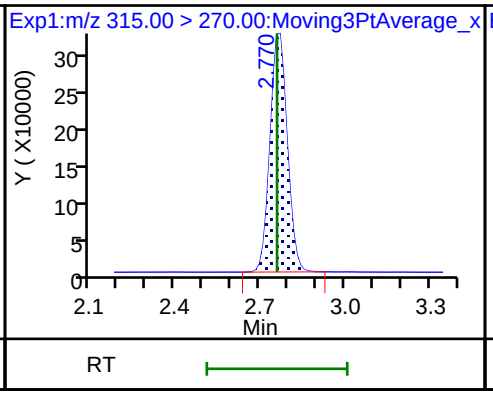

5 Perfluorobutanesulfonic acid (M)



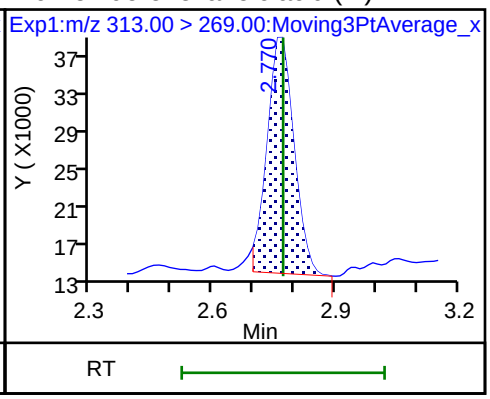

5 Perfluorobutanesulfonic acid (M)



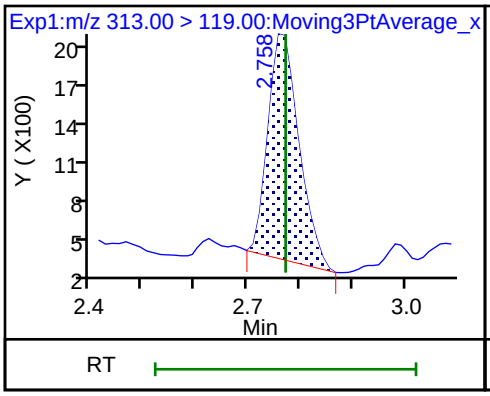

D 7 13C2 PFHxA



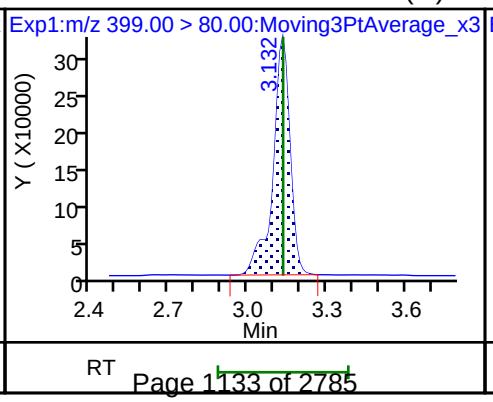

6 Perfluorohexanoic acid (M)



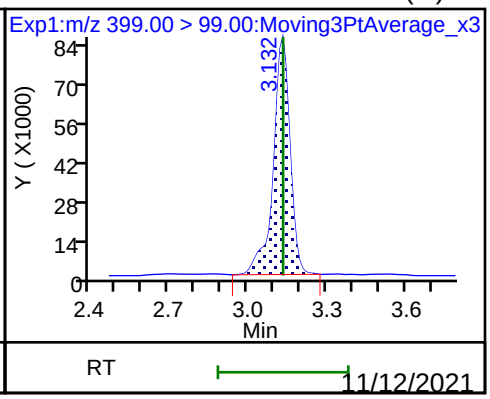

6 Perfluorohexanoic acid



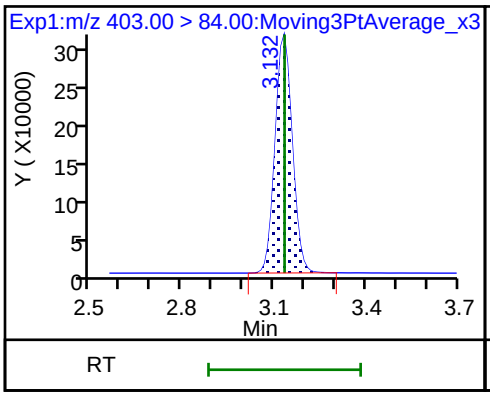

8 Perfluorohexanesulfonic acid (M)



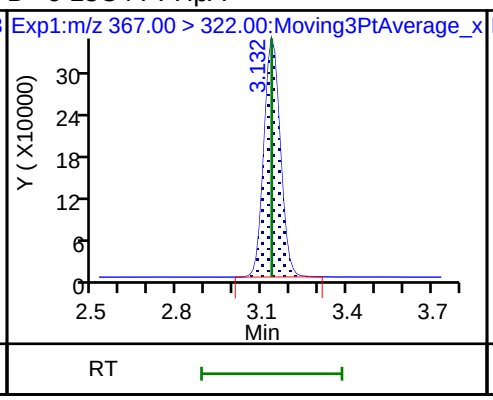

8 Perfluorohexanesulfonic acid (M)



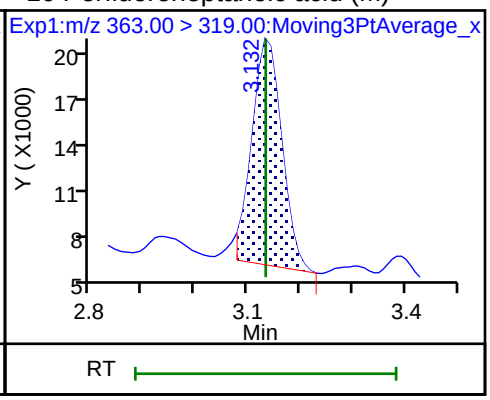
D 11 18O2 PFHxS



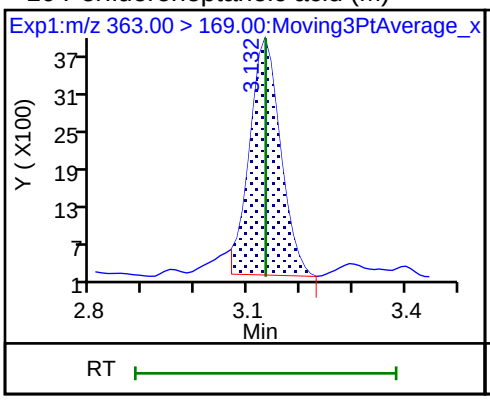

D 9 13C4 PFHpA



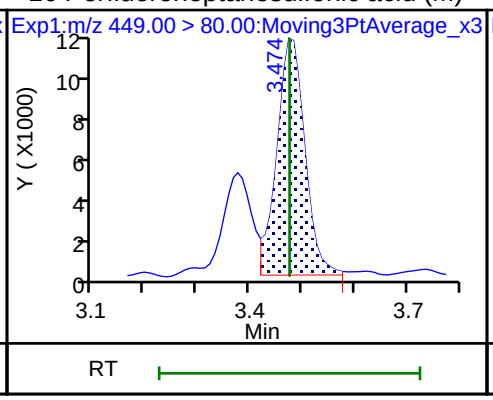

10 Perfluoroheptanoic acid (M)



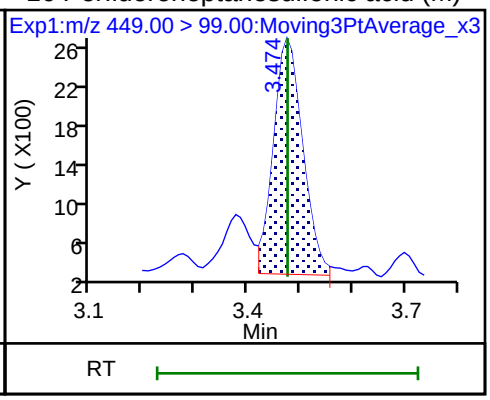

10 Perfluoroheptanoic acid (M)



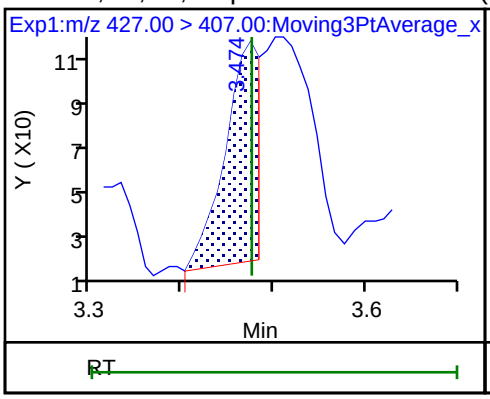

16 Perfluoroheptanesulfonic acid (M)



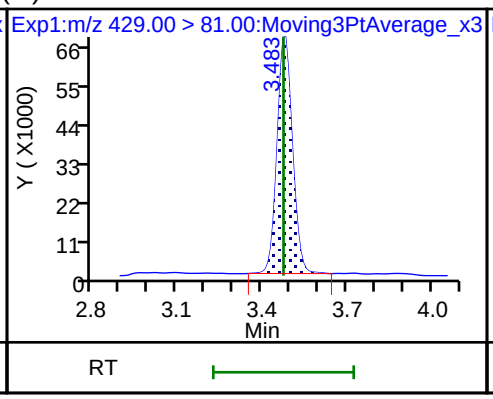

16 Perfluoroheptanesulfonic acid (M)



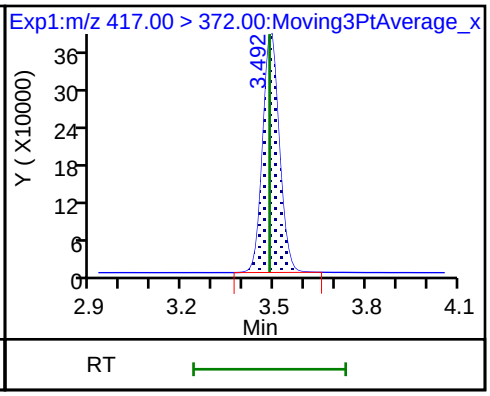

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



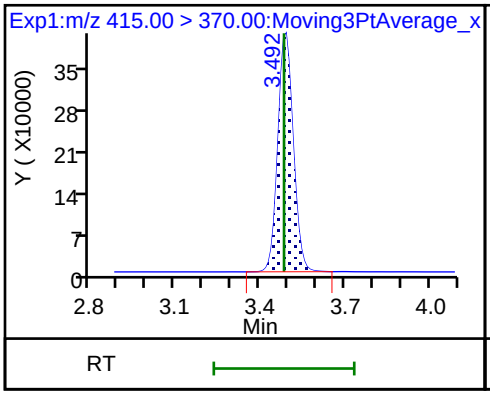

D 12 M2-6:2 FTS



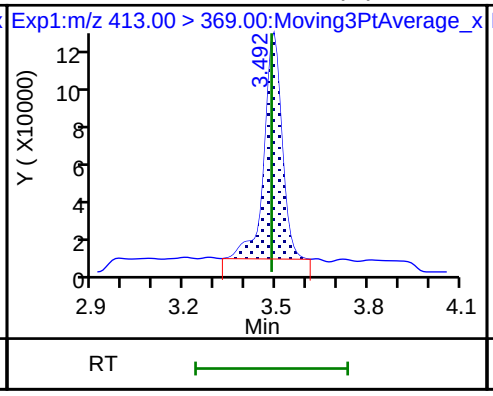

D 14 13C4 PFOA



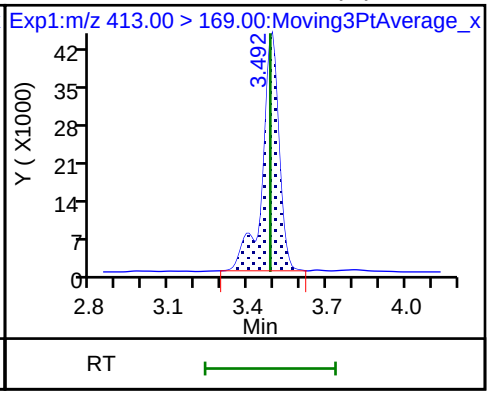

* 62 13C2 PFOA



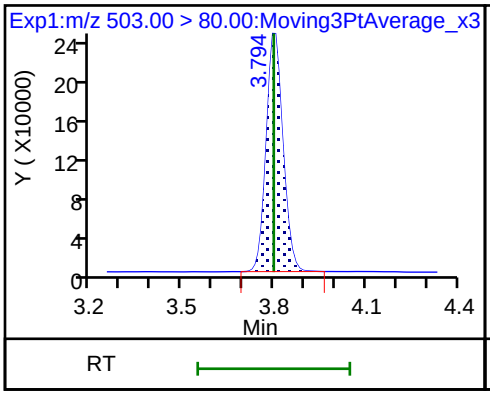

15 Perfluorooctanoic acid (M)



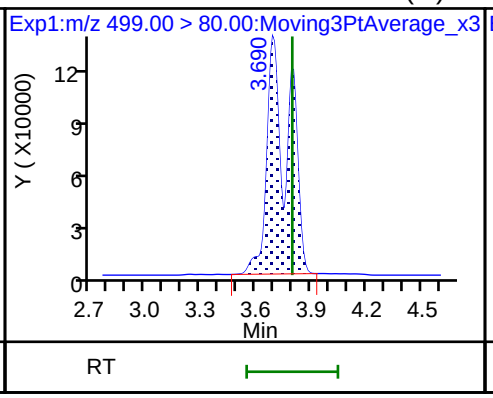

15 Perfluorooctanoic acid (M)



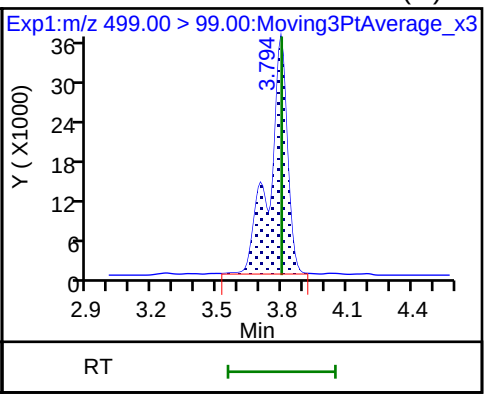
D 18 13C4 PFOS



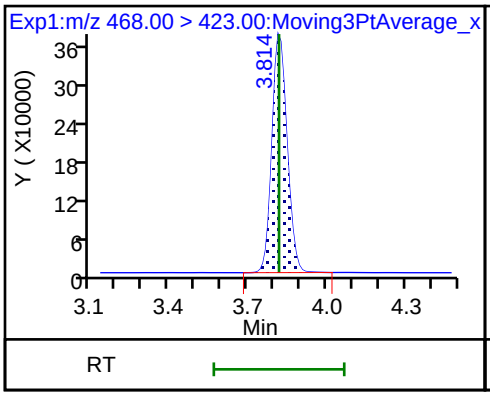

17 Perfluorooctanesulfonic acid (M)



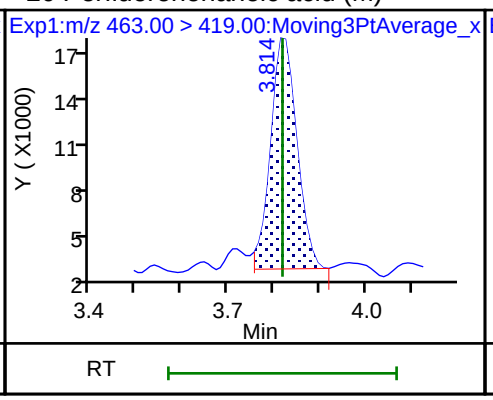

17 Perfluorooctanesulfonic acid (M)



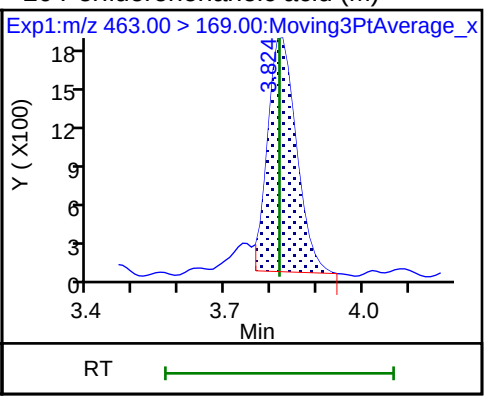

D 19 13C5 PFNA



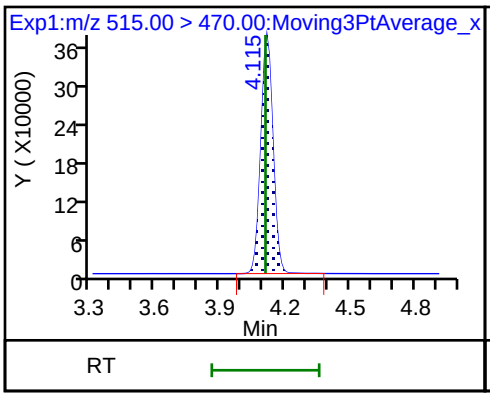

20 Perfluorononanoic acid (M)



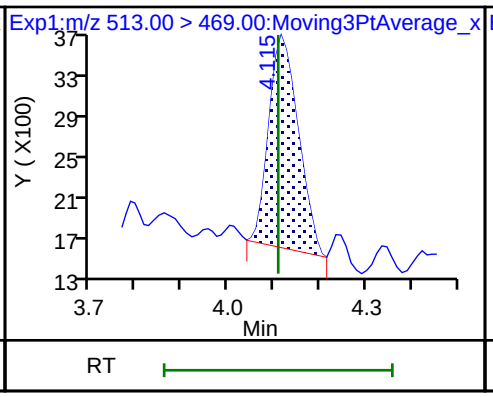

20 Perfluorononanoic acid (M)



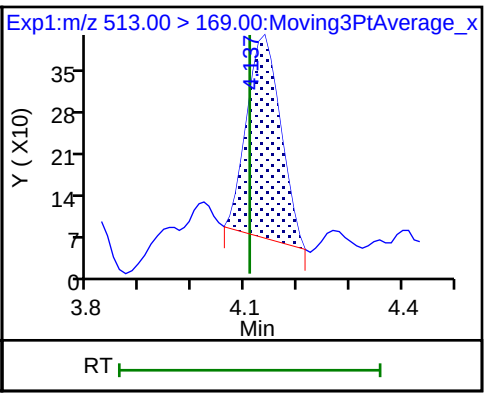

D 23 13C2 PFDA



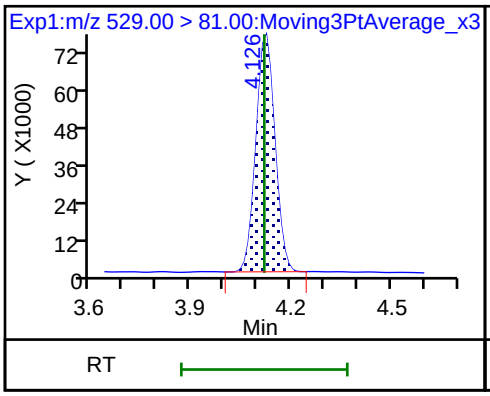

24 Perfluorodecanoic acid



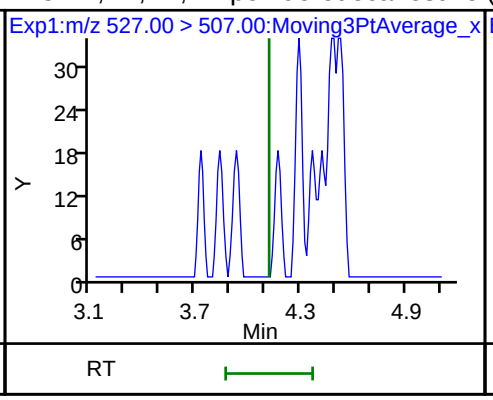

24 Perfluorodecanoic acid



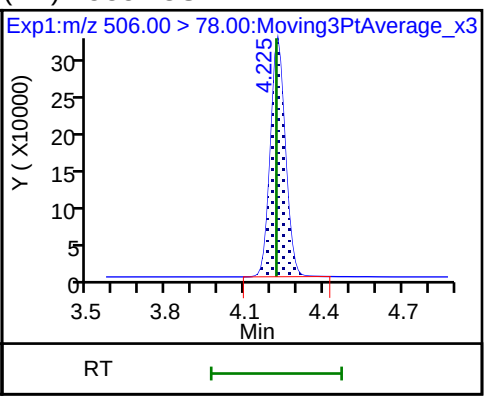

D 26 M2-8:2 FTS



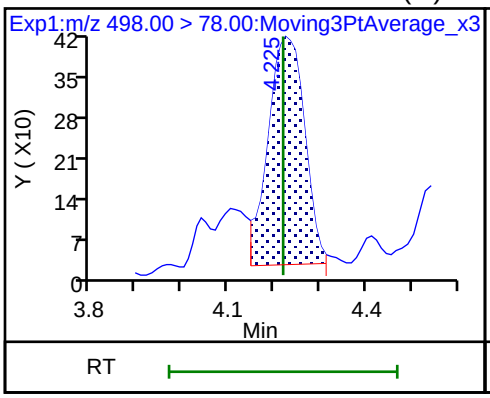

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



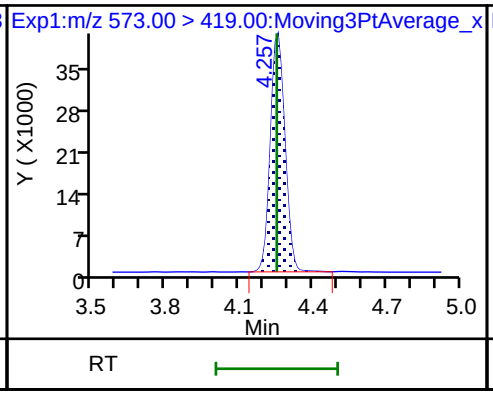

D 21 13C8 FOSA



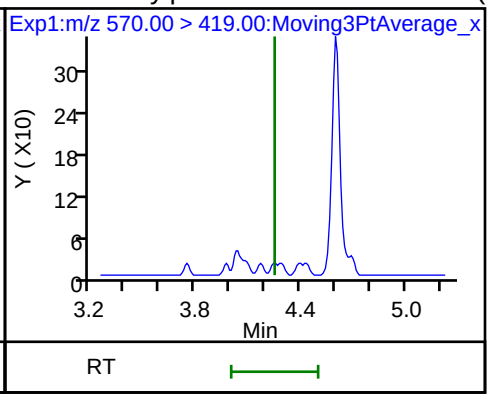
22 Perfluorooctanesulfonamide (M)



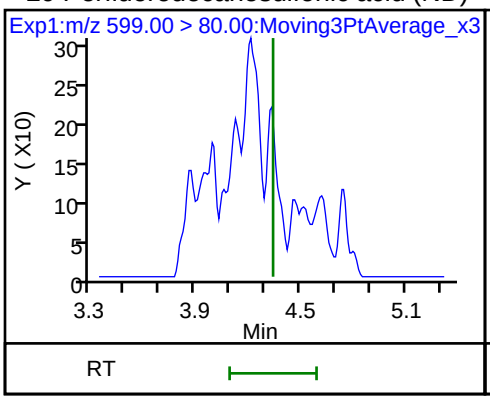

D 27 d3-NMeFOSAA



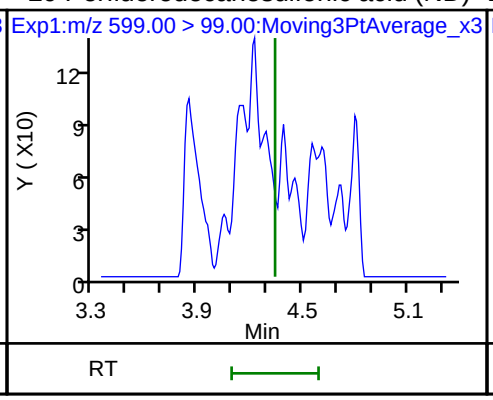

28 N-methylperfluorooctanesulfonami (ND)



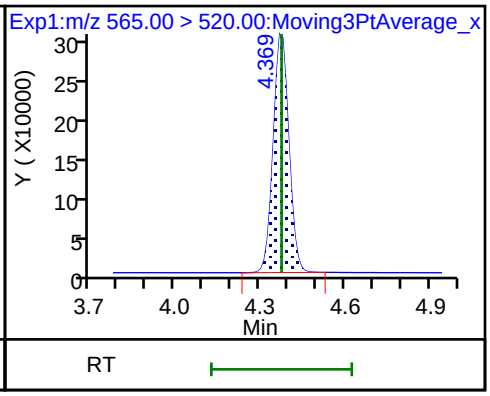

29 Perfluorodecanesulfonic acid (ND)



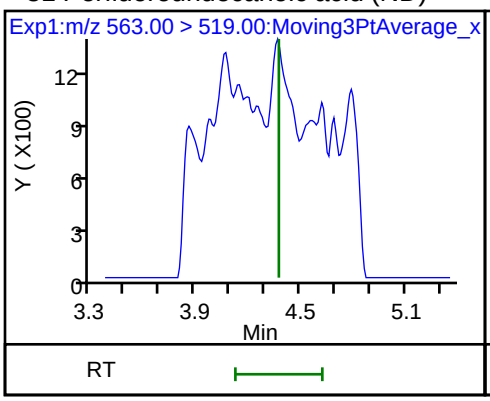

29 Perfluorodecanesulfonic acid (ND)



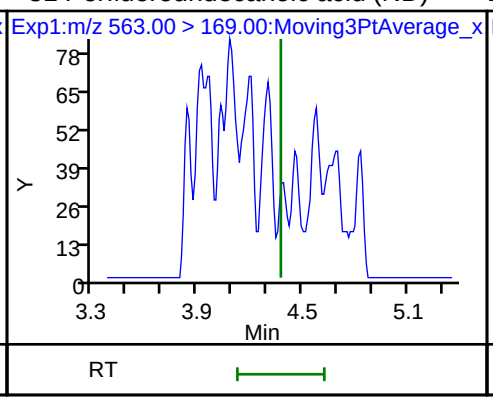

D 30 13C2 PFUnA



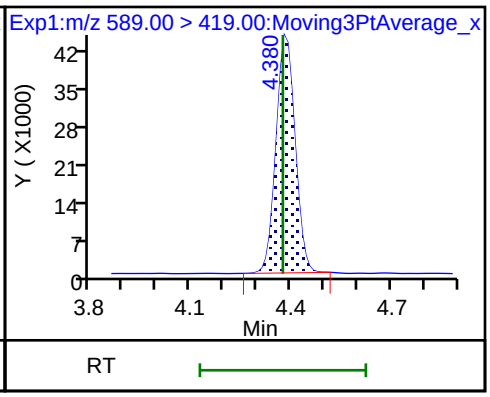

31 Perfluoroundecanoic acid (ND)



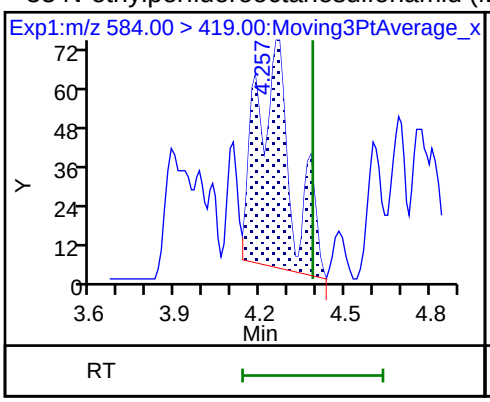

31 Perfluoroundecanoic acid (ND)



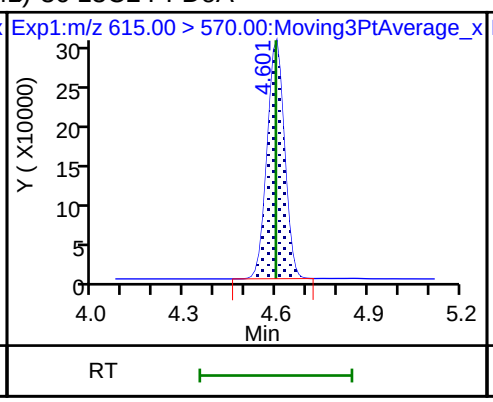

D 32 d5-NEtFOSAA



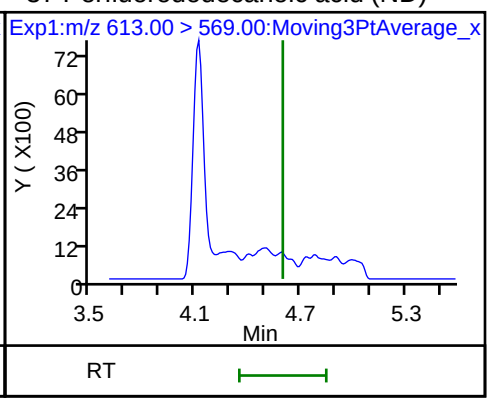

33 N-ethylperfluorooctanesulfonamid (ND)



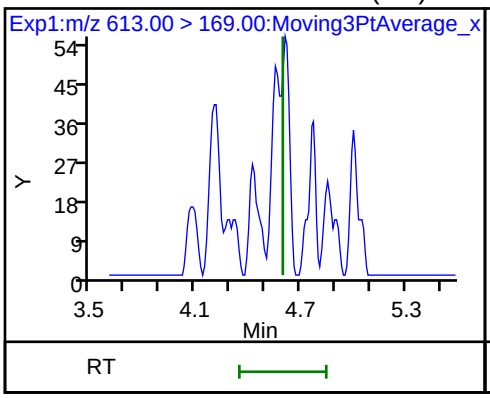

D 36 13C2 PFDoA



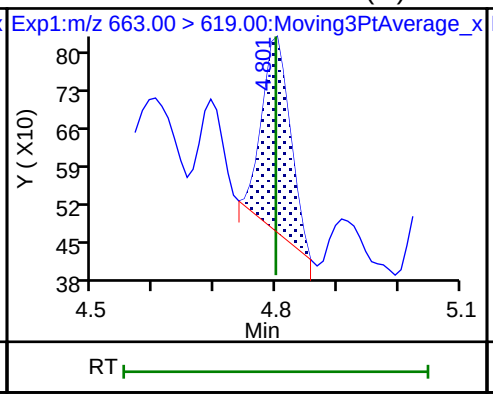

37 Perfluorododecanoic acid (ND)



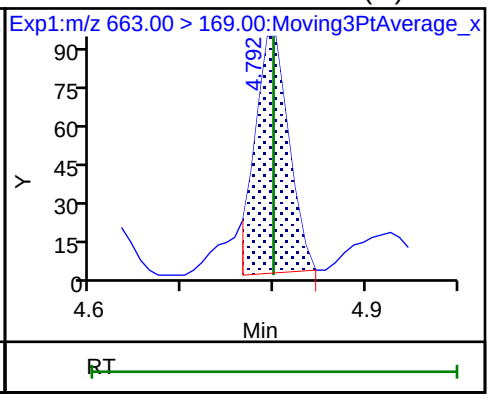
37 Perfluorododecanoic acid (ND)



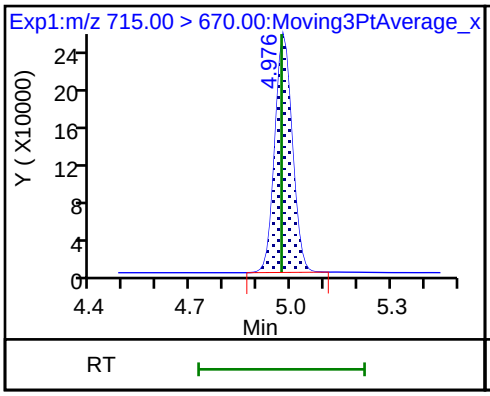

41 Perfluorotridecanoic acid (M)



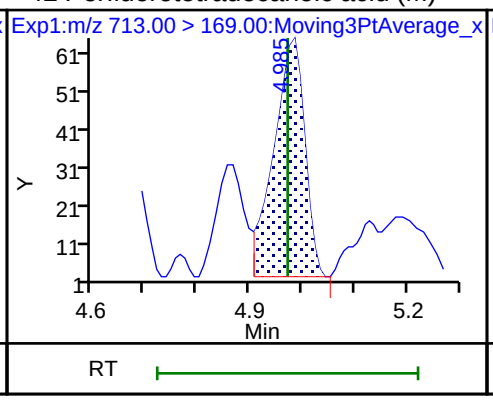

41 Perfluorotridecanoic acid (M)



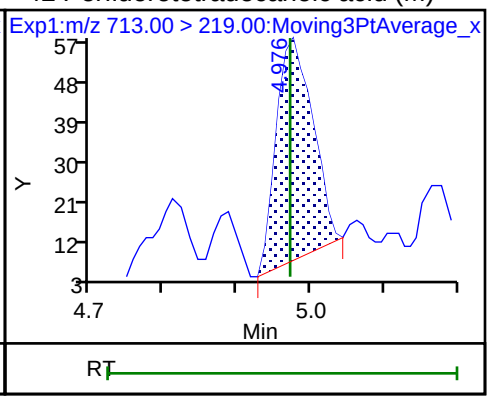

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

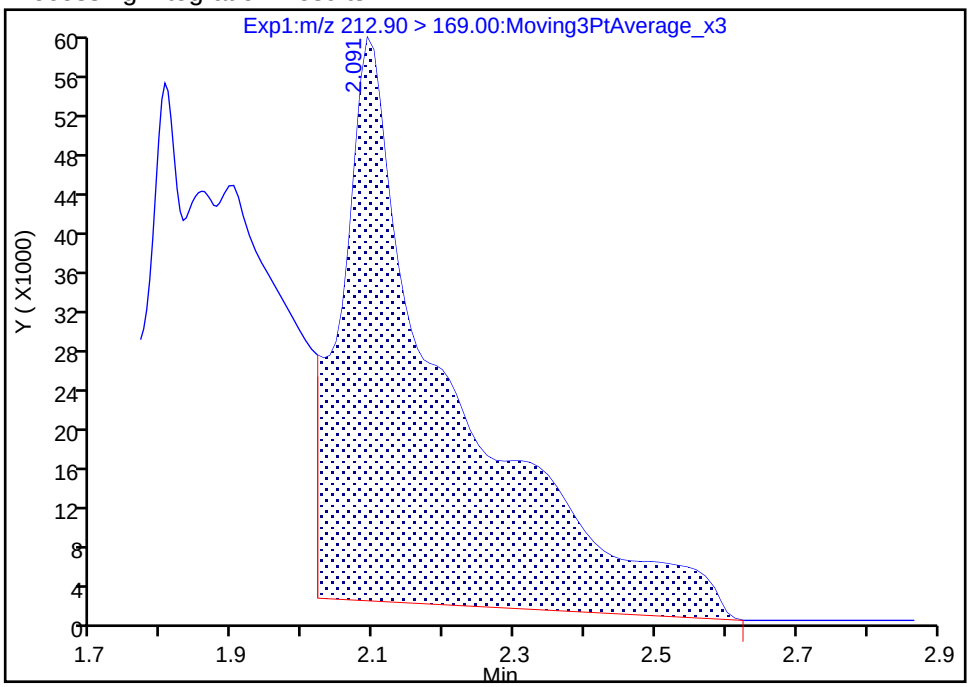
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

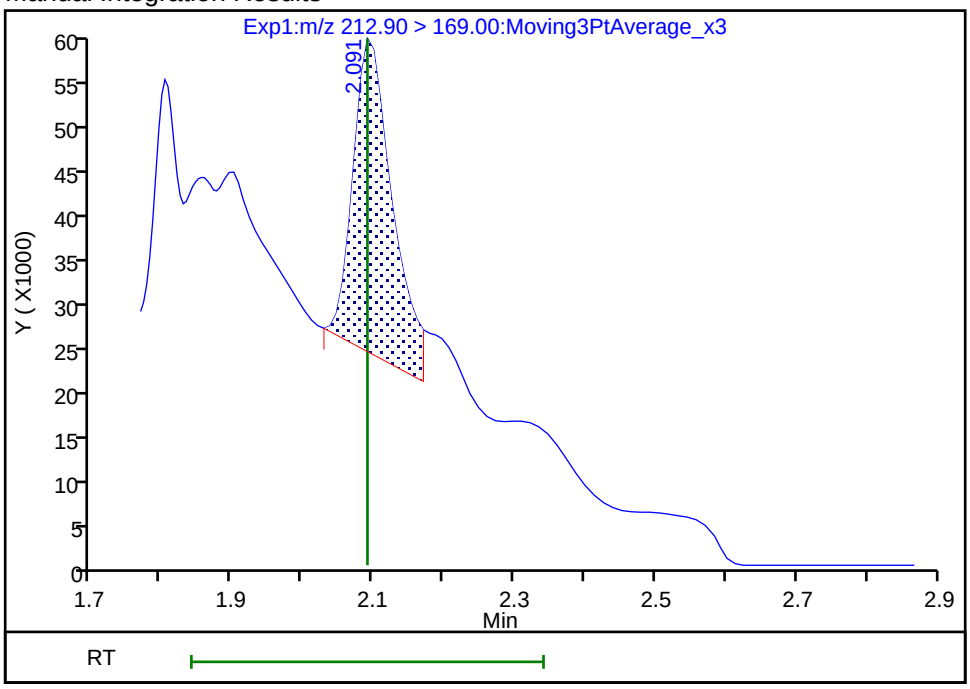
Processing Integration Results

RT: 2.09
Area: 623740
Amount: 0.620863
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 137248
Amount: 0.136816
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

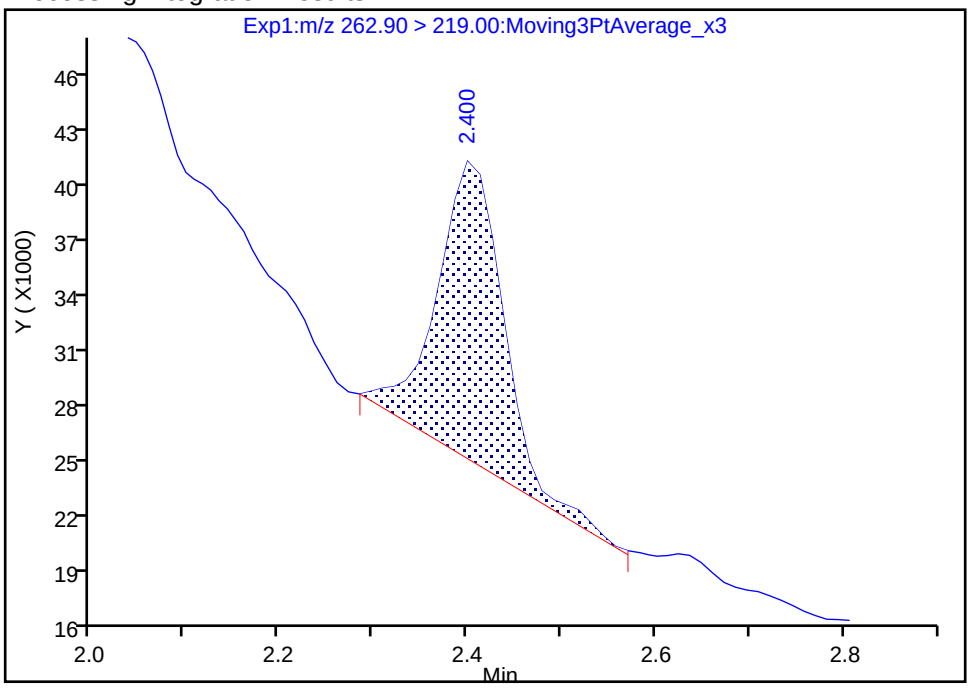
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

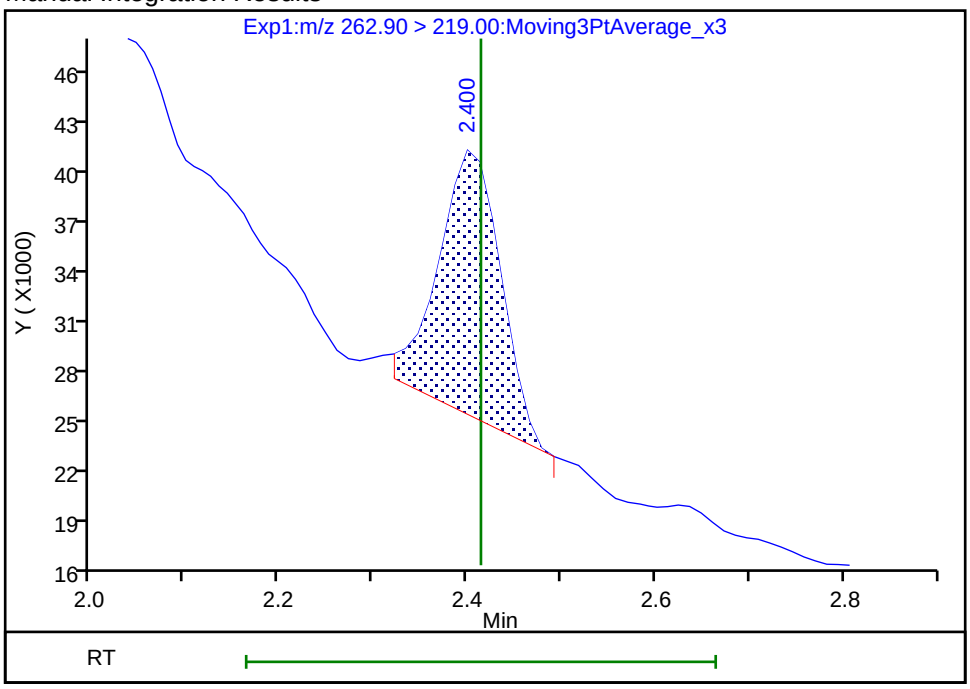
Processing Integration Results

RT: 2.40
Area: 77214
Amount: 0.078052
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 70467
Amount: 0.071232
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

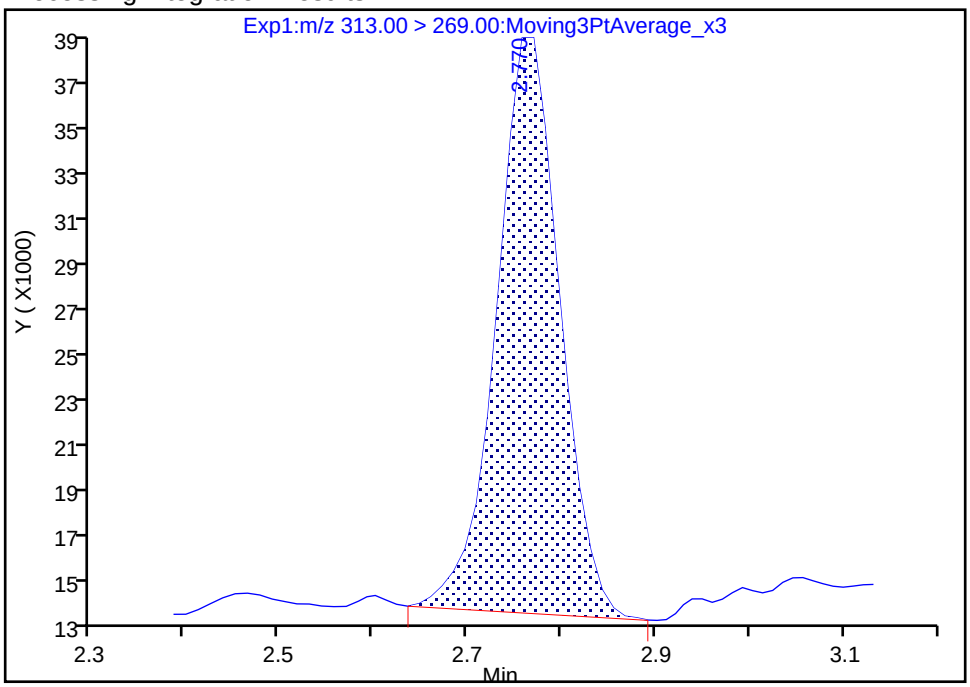
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

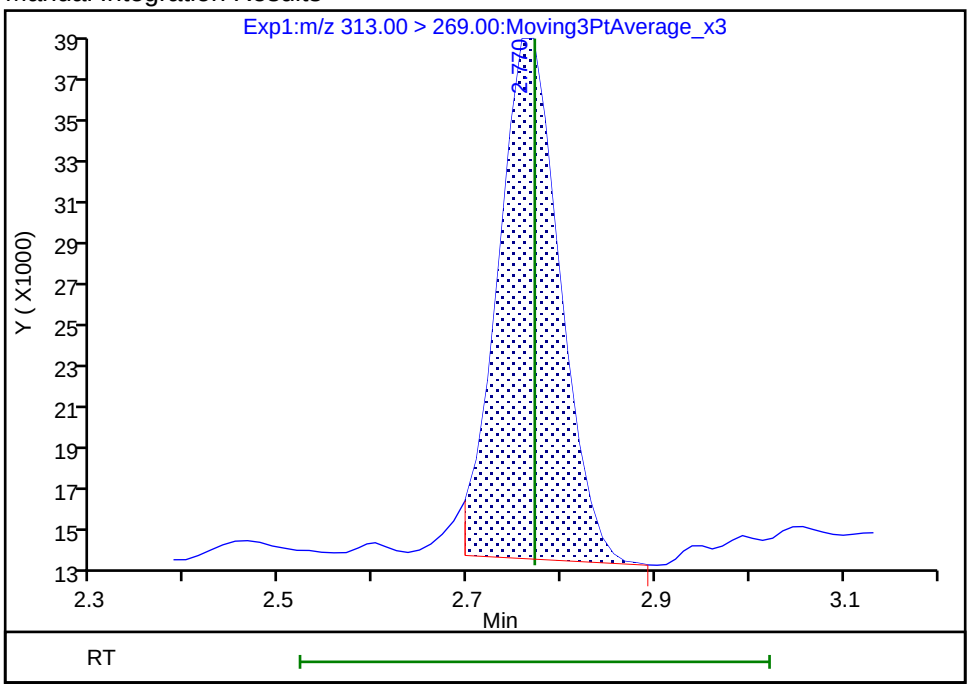
Processing Integration Results

RT: 2.77
Area: 113575
Amount: 0.103730
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 110378
Amount: 0.100810
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:18:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

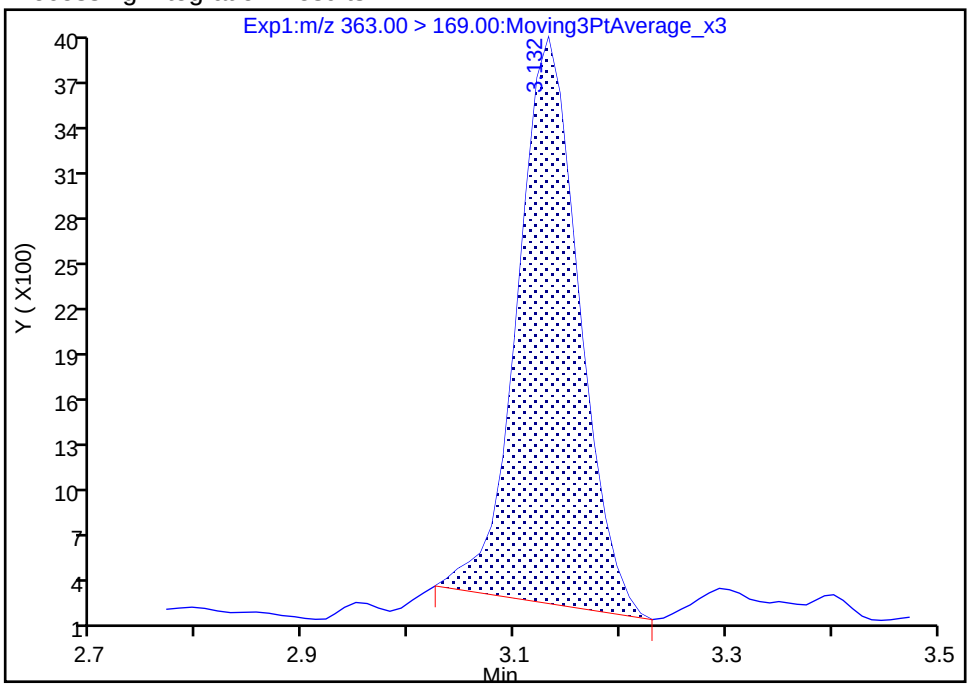
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

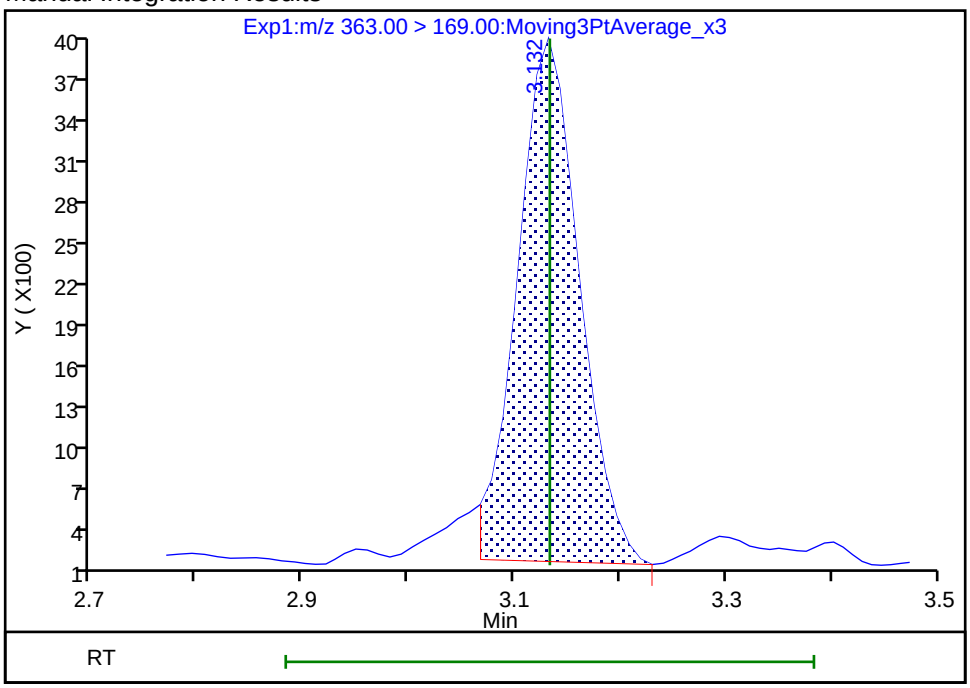
Processing Integration Results

RT: 3.13
Area: 15176
Amount: 0.056584
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 15517
Amount: 0.050145
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

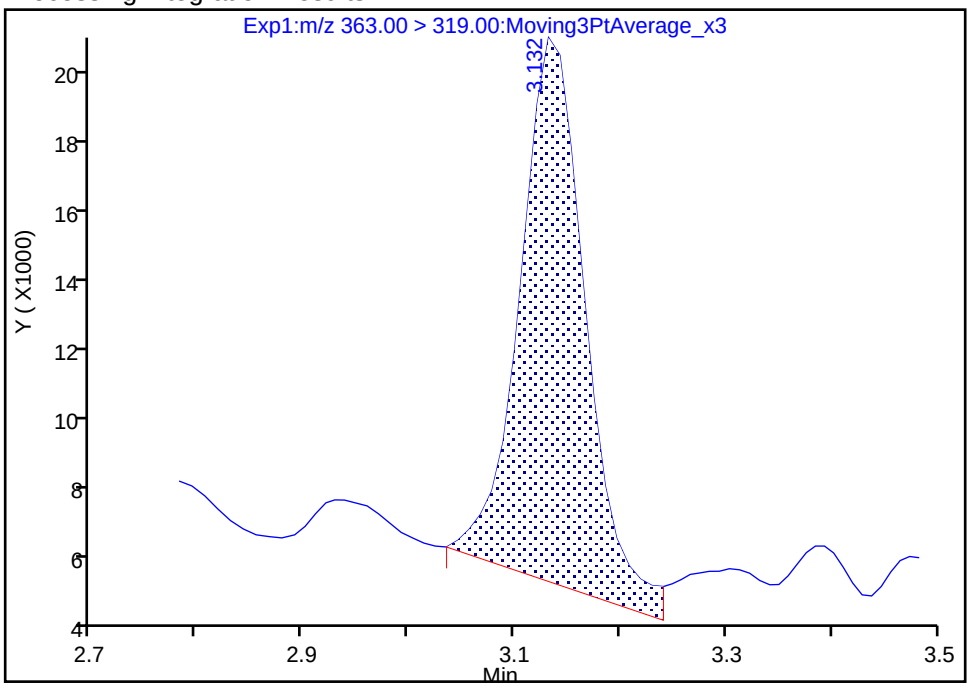
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

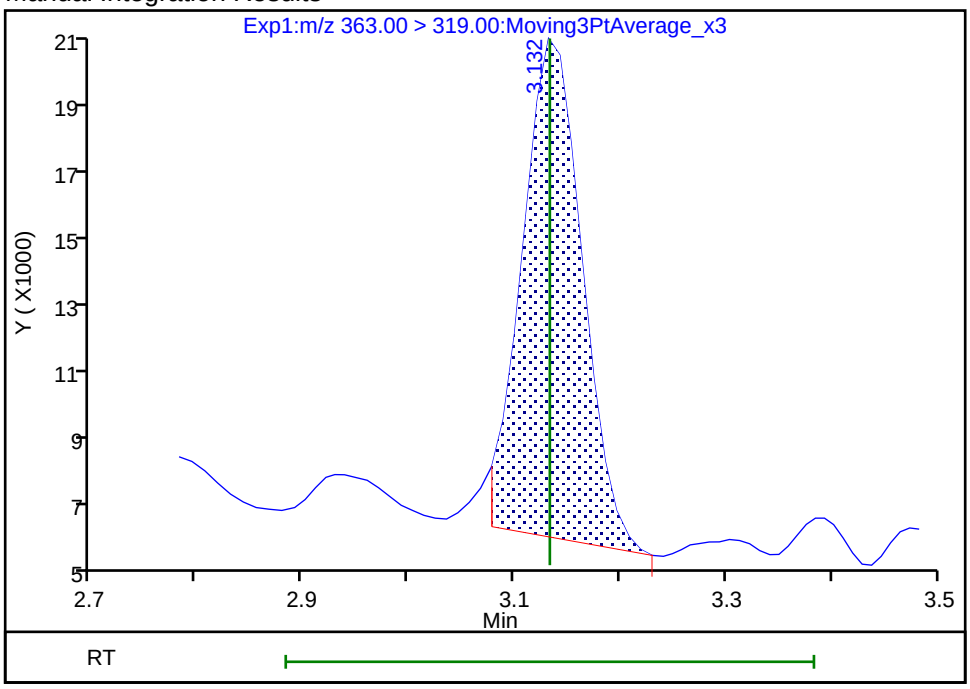
Processing Integration Results

RT: 3.13
Area: 65090
Amount: 0.056584
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 57683
Amount: 0.050145
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:19:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

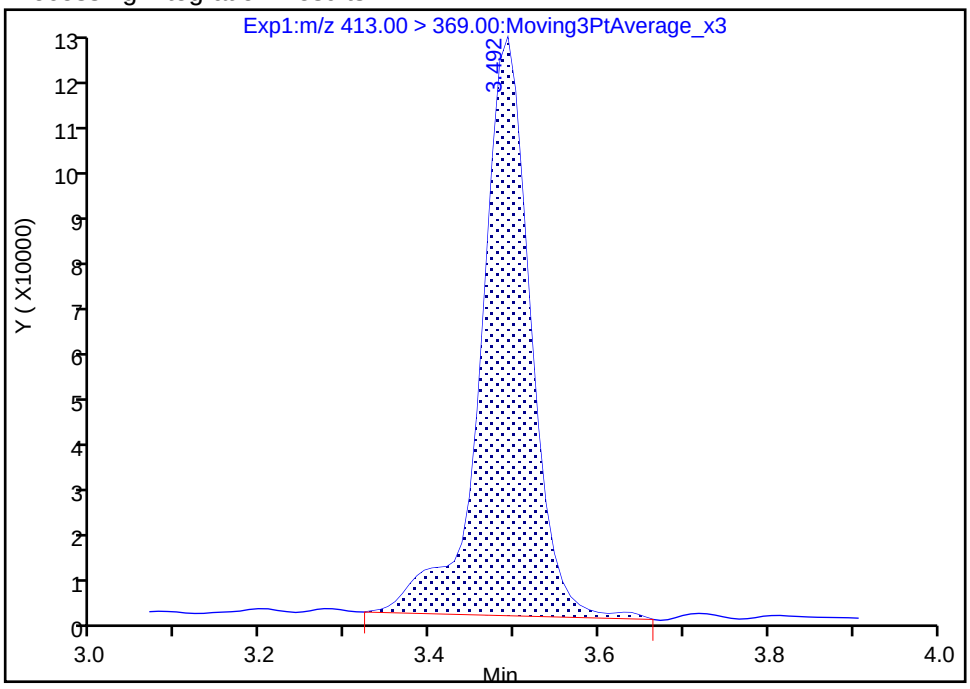
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

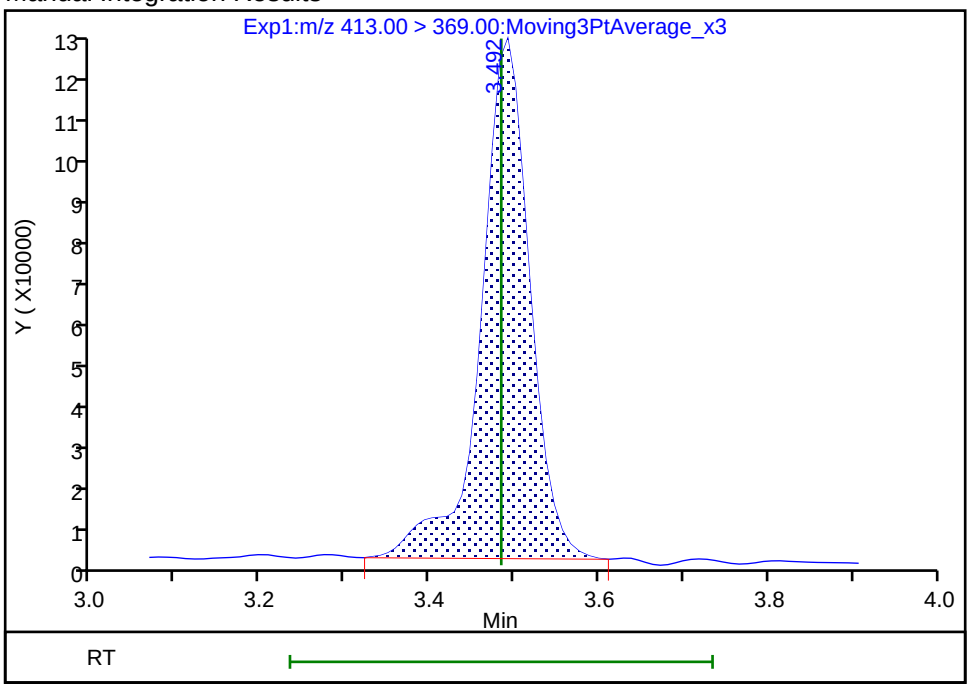
Processing Integration Results

RT: 3.49
Area: 500203
Amount: 0.405738
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 488960
Amount: 0.396619
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

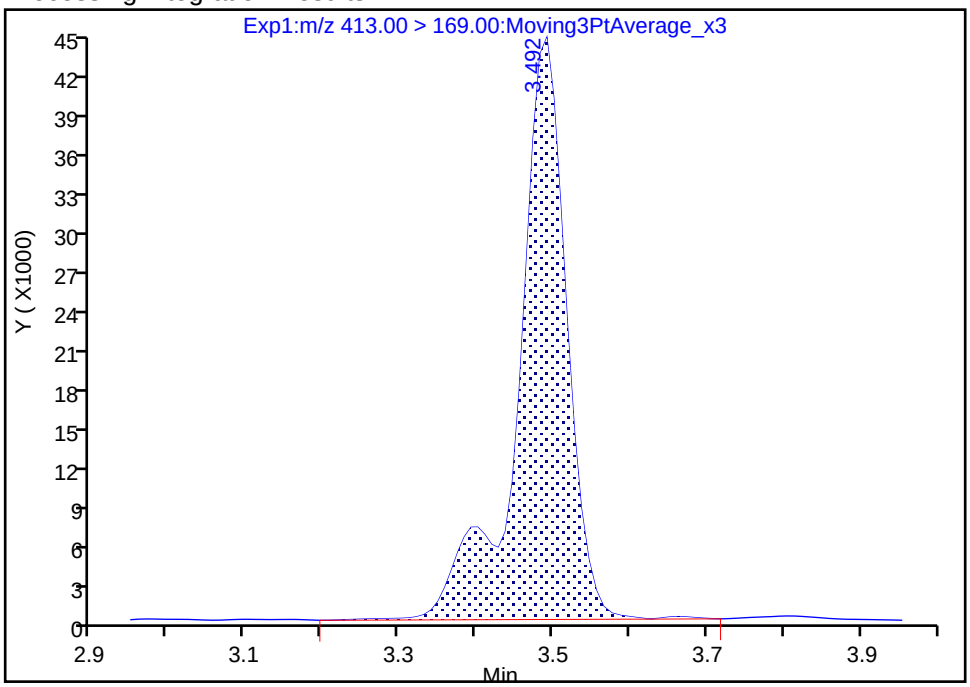
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

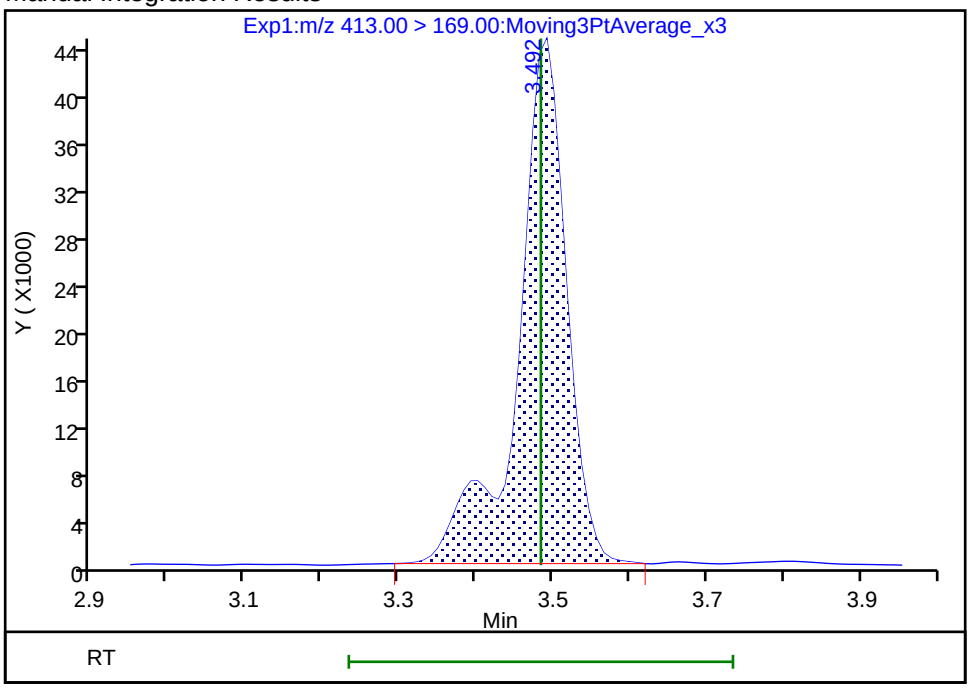
Processing Integration Results

RT: 3.49
Area: 195662
Amount: 0.405738
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 193318
Amount: 0.396619
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

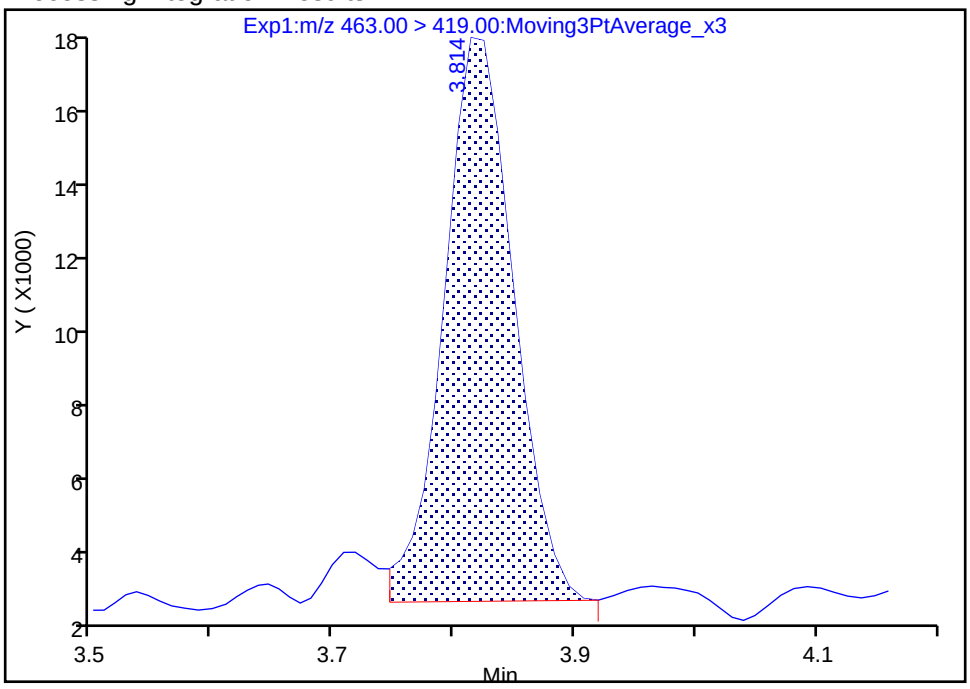
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

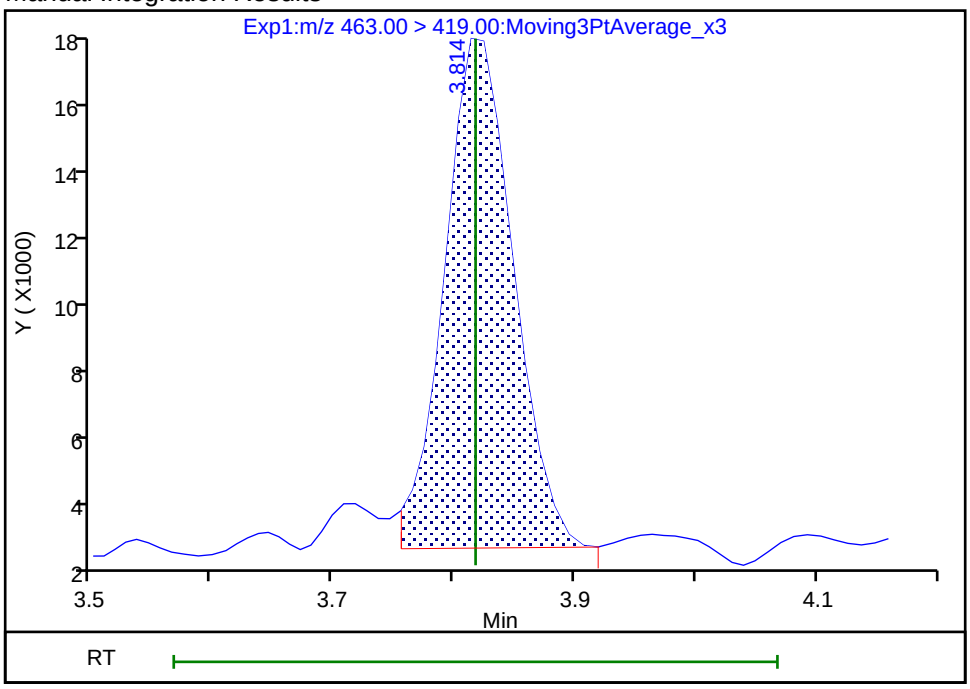
Processing Integration Results

RT: 3.81
Area: 56707
Amount: 0.048279
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 56167
Amount: 0.047819
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:20:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

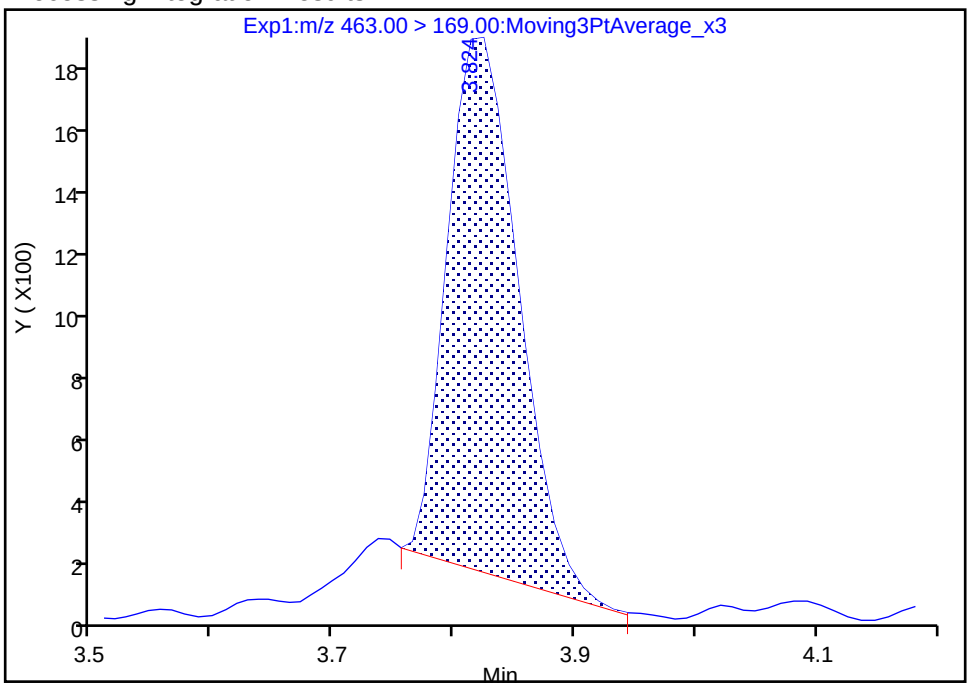
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

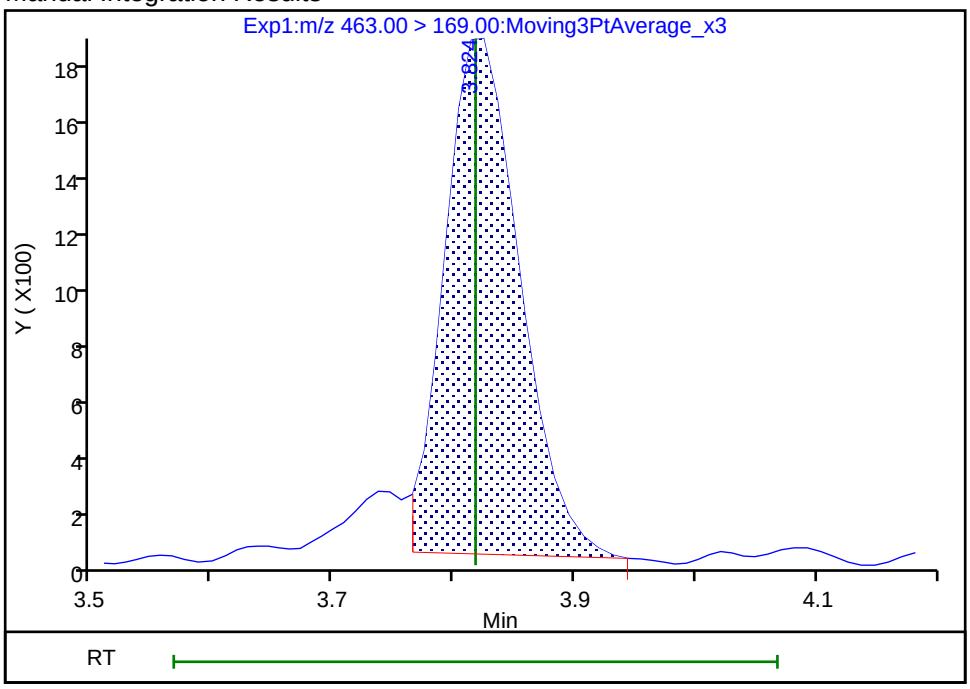
Processing Integration Results

RT: 3.82
Area: 6968
Amount: 0.048279
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 7846
Amount: 0.047819
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:20:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

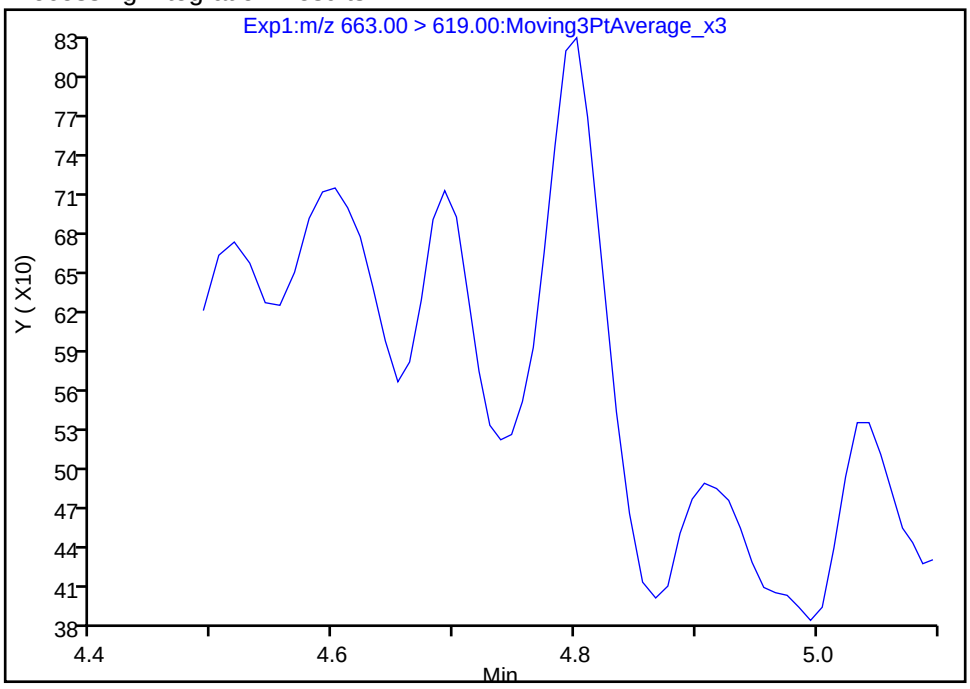
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

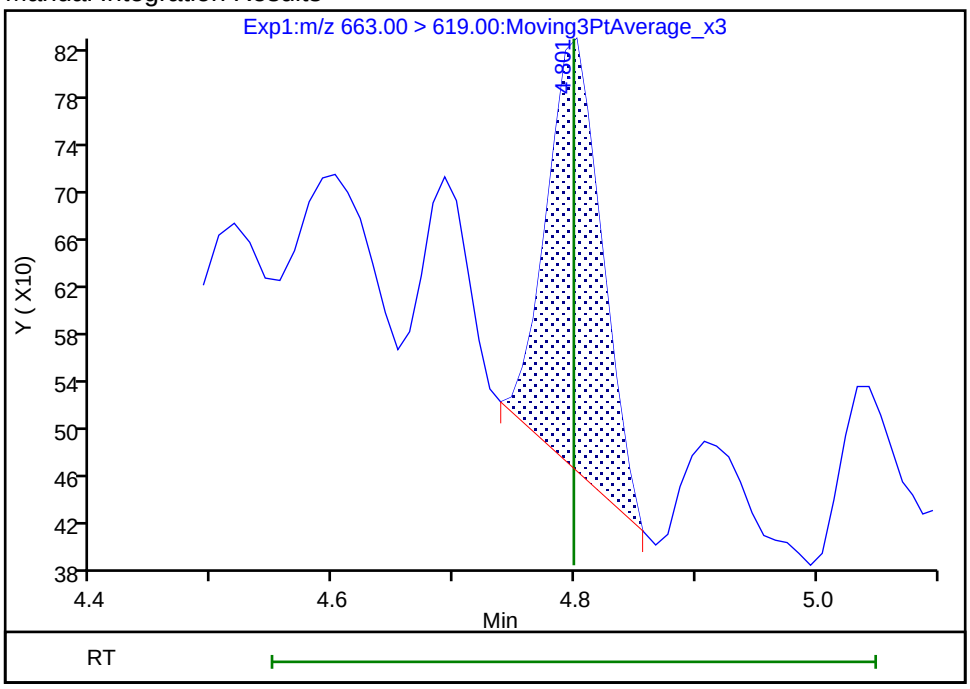
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 1149
Amount: 0.001409
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:20:47
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

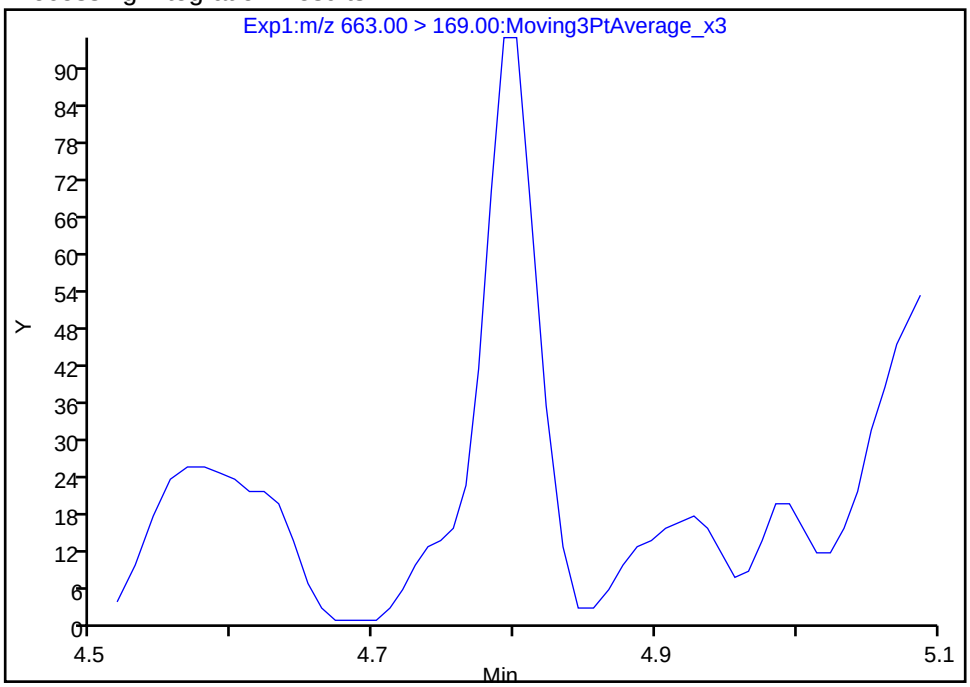
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

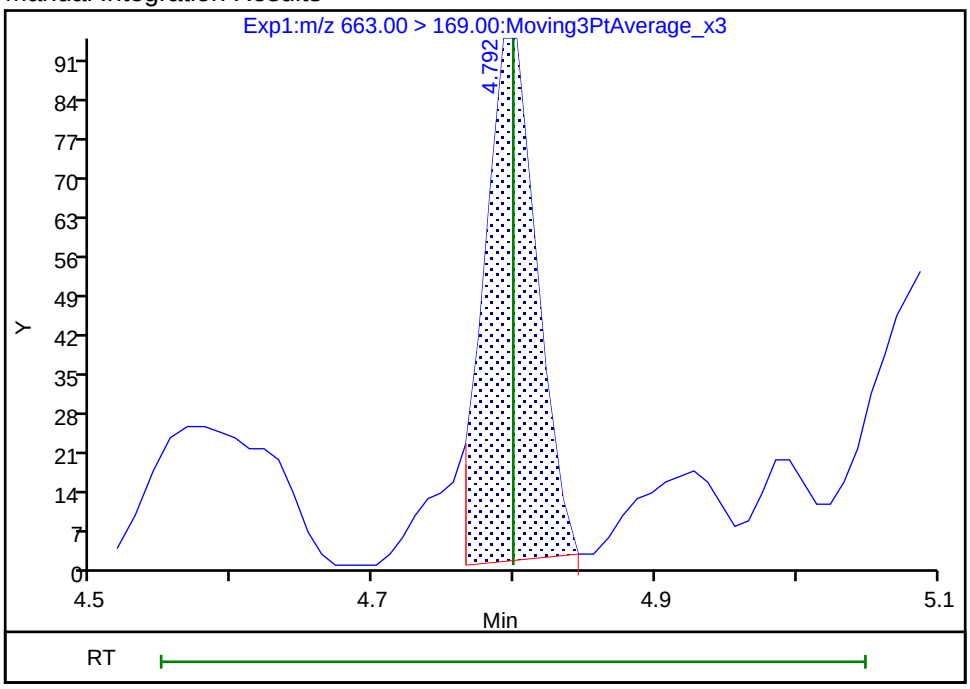
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 241
Amount: 0.001409
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:20:55
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

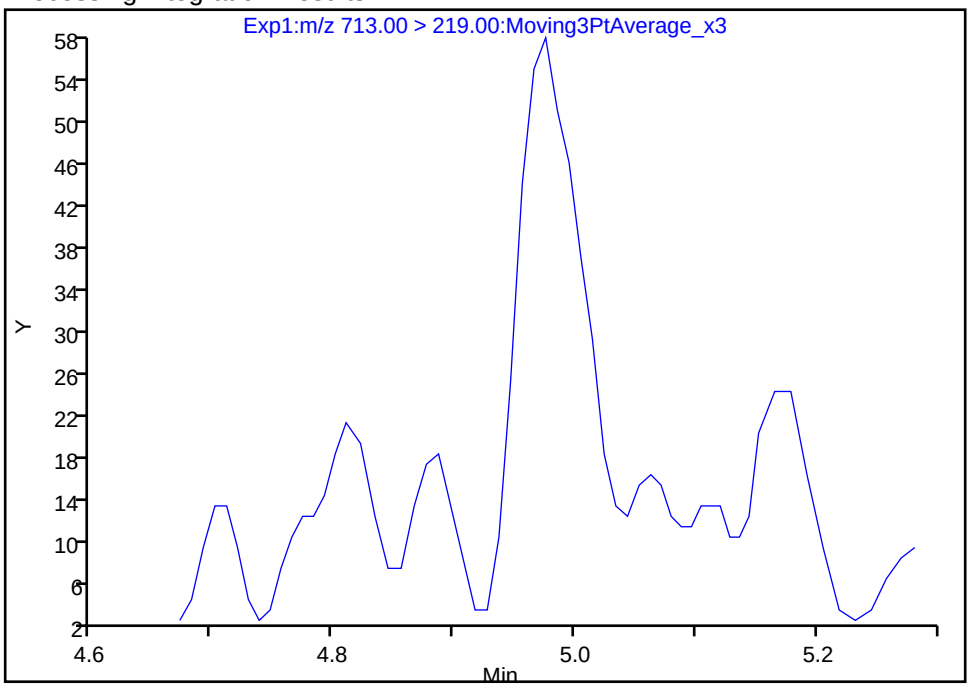
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

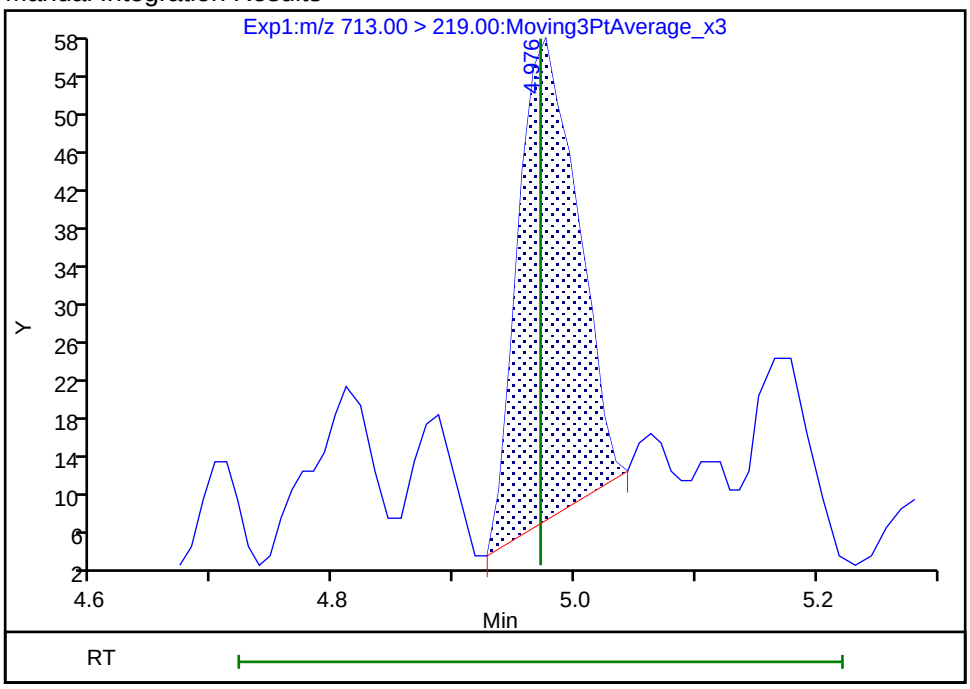
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 176
Amount: 0.002217
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:03:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

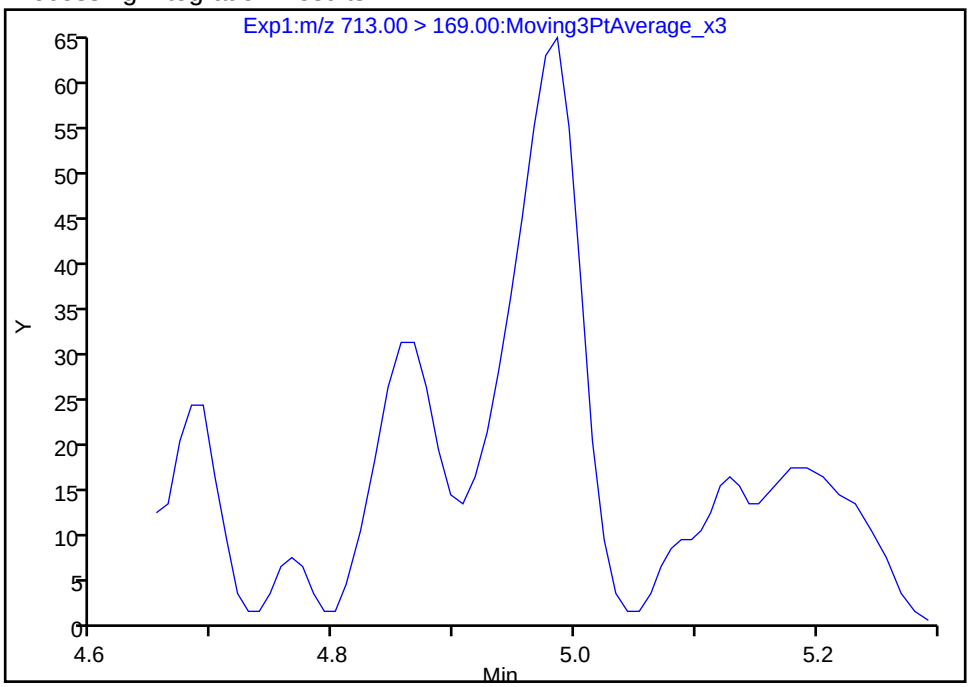
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

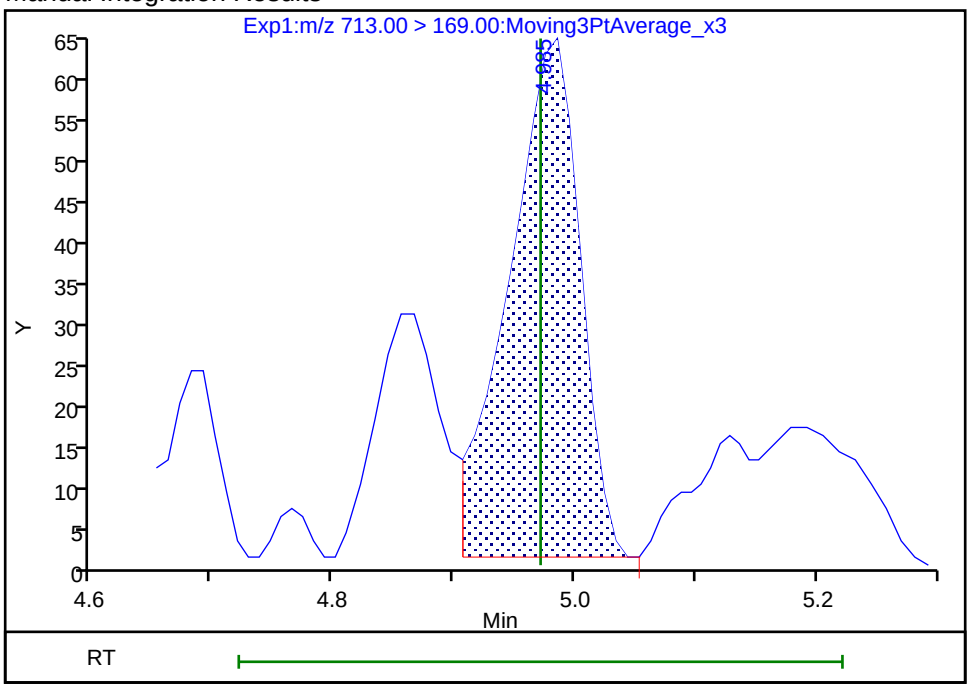
Processing Integration Results

Not Detected
Expected RT: 4.97




Manual Integration Results

RT: 4.99
Area: 260
Amount: 0.002217
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:04:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

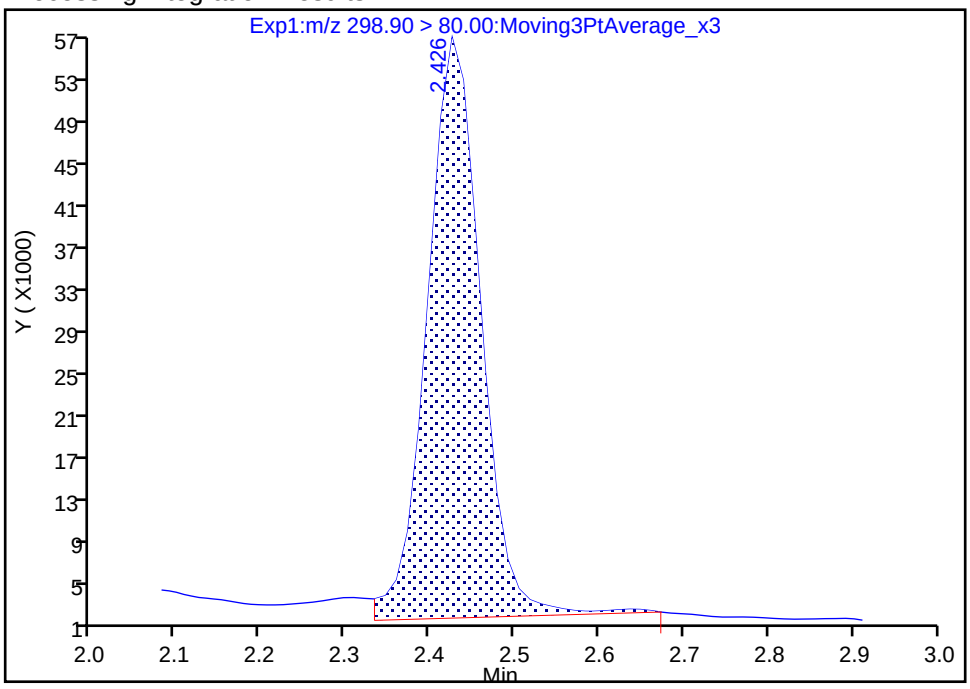
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

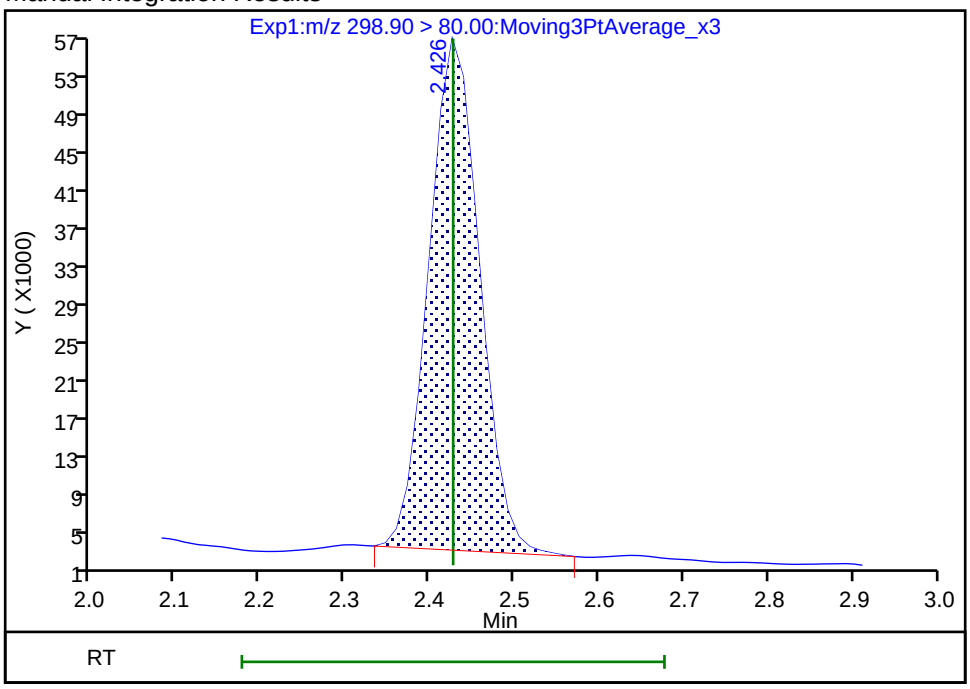
Processing Integration Results

RT: 2.43
Area: 242796
Amount: 0.169259
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 224026
Amount: 0.156174
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

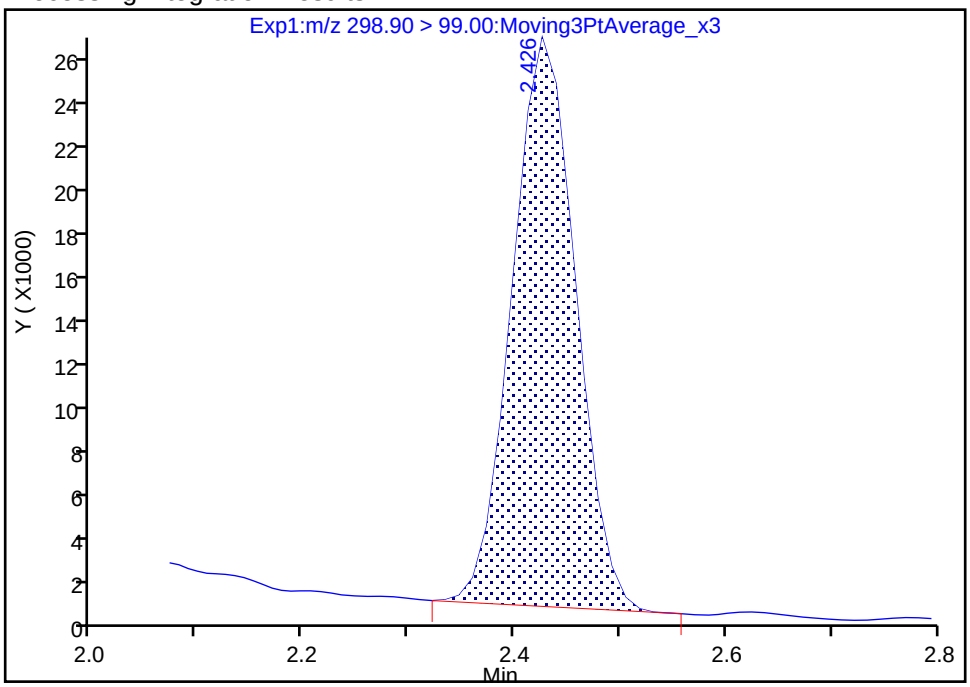
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

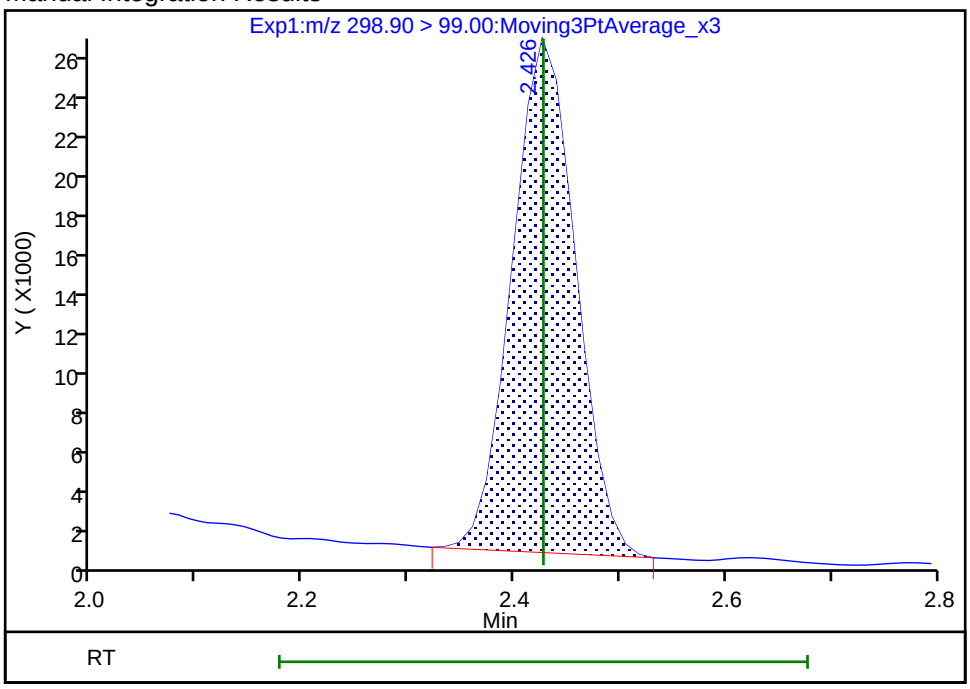
Processing Integration Results

RT: 2.43
Area: 103586
Amount: 0.169259
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 103548
Amount: 0.156174
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

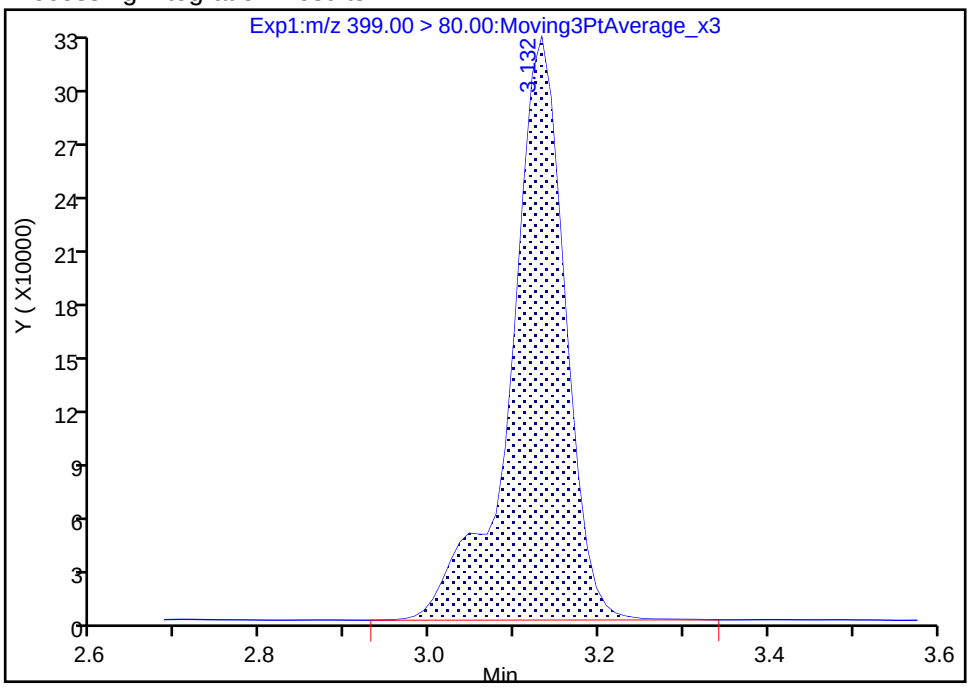
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

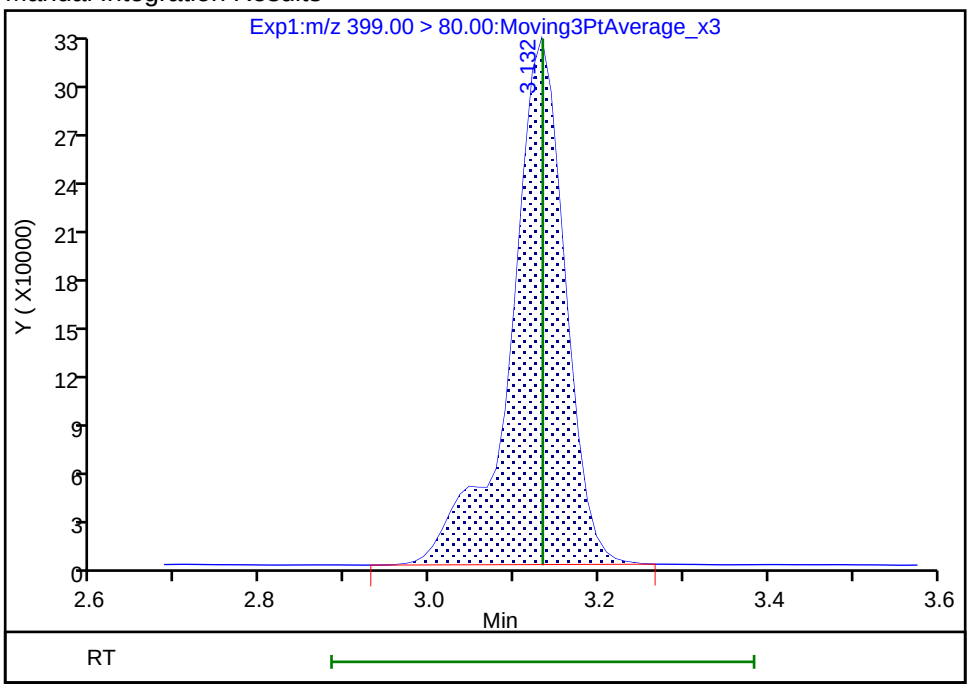
Processing Integration Results

RT: 3.13
Area: 1463337
Amount: 1.295822
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1458135
Amount: 1.291216
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

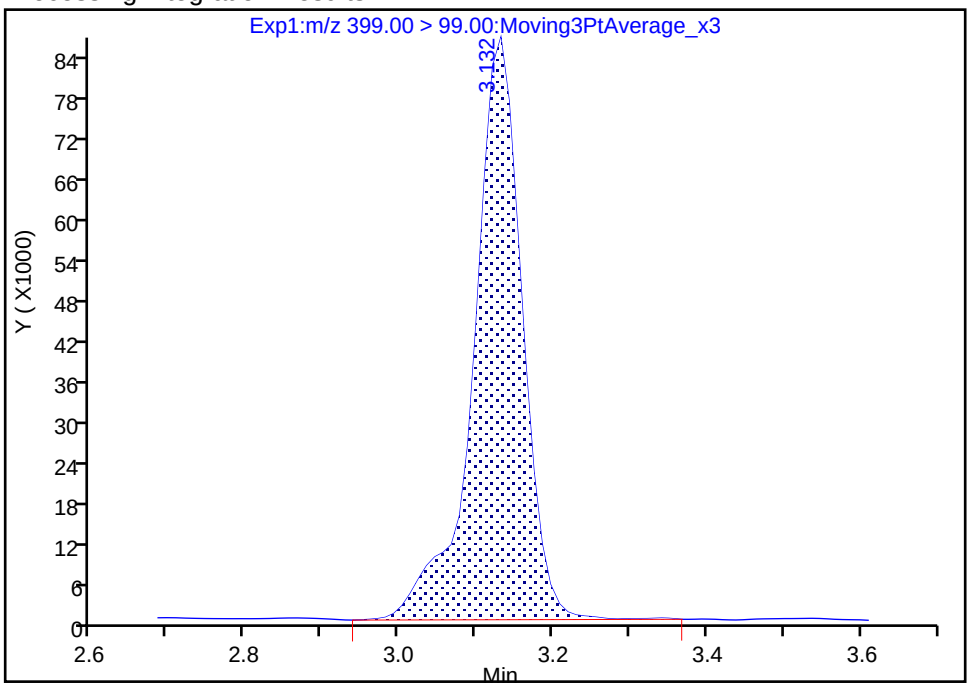
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

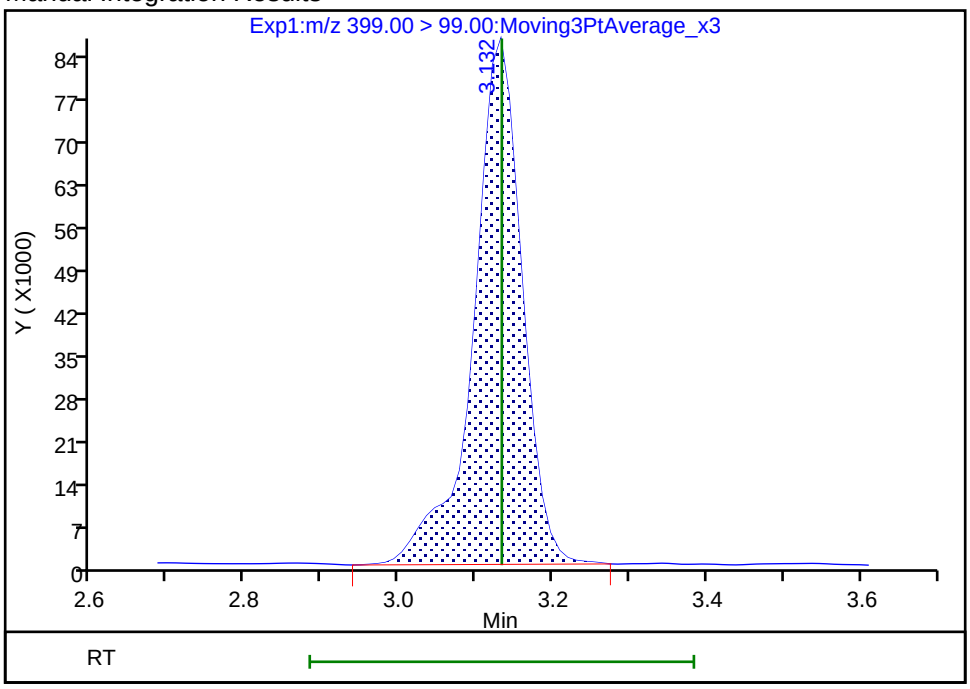
Processing Integration Results

RT: 3.13
Area: 377664
Amount: 1.295822
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 376229
Amount: 1.291216
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:01:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

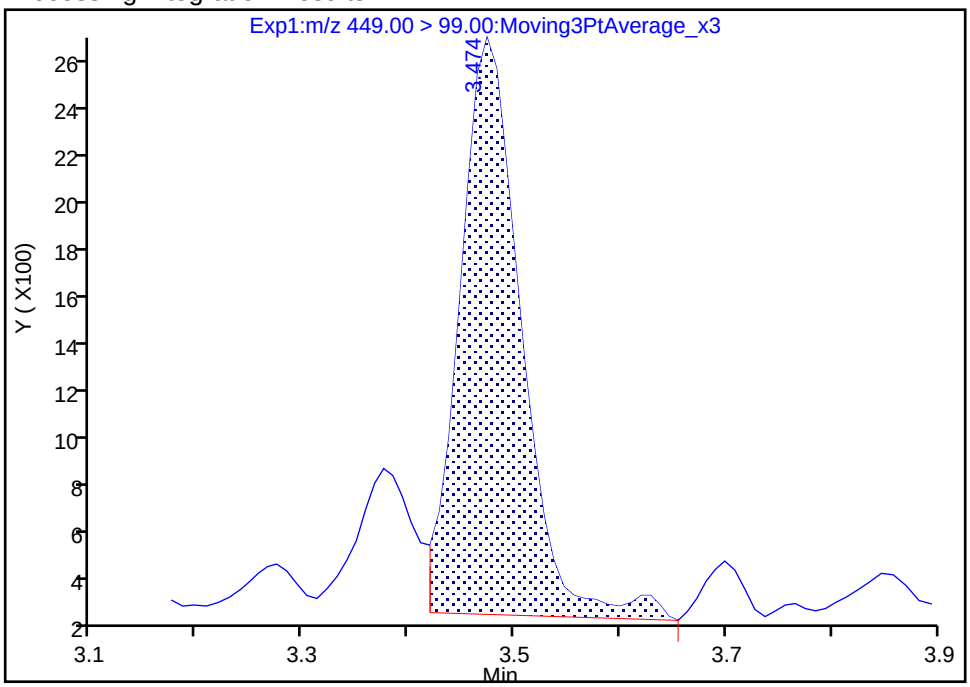
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

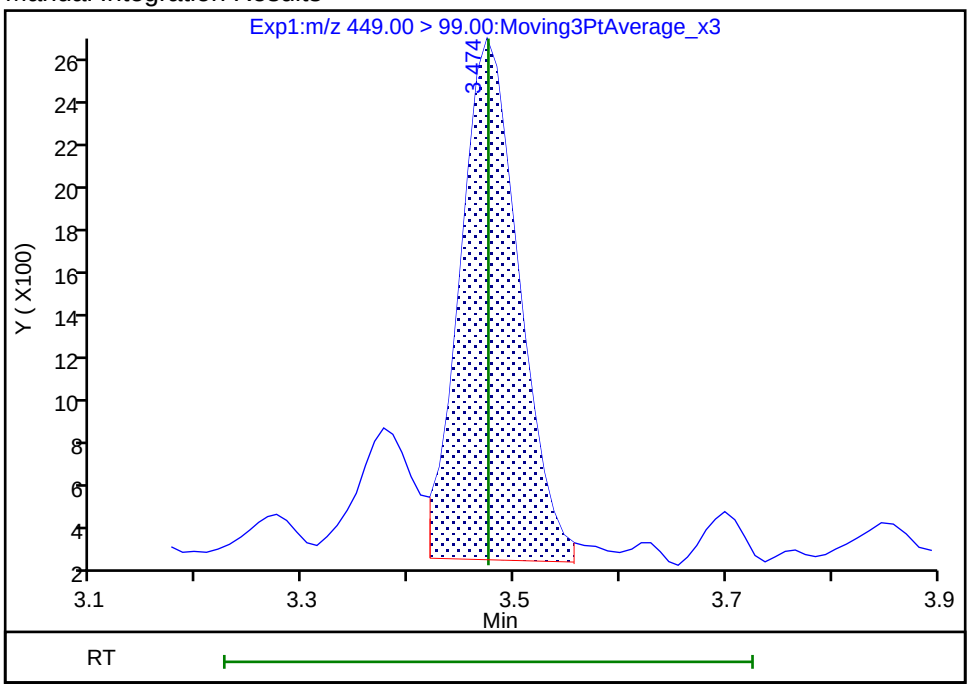
Processing Integration Results

RT: 3.47
Area: 9227
Amount: 0.040791
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 8854
Amount: 0.040215
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

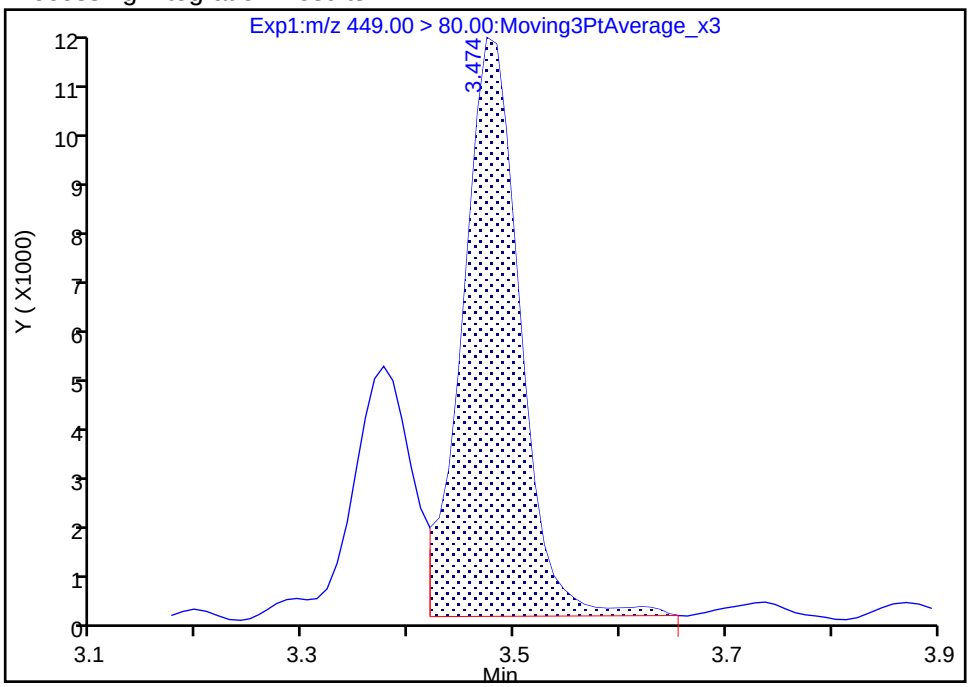
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

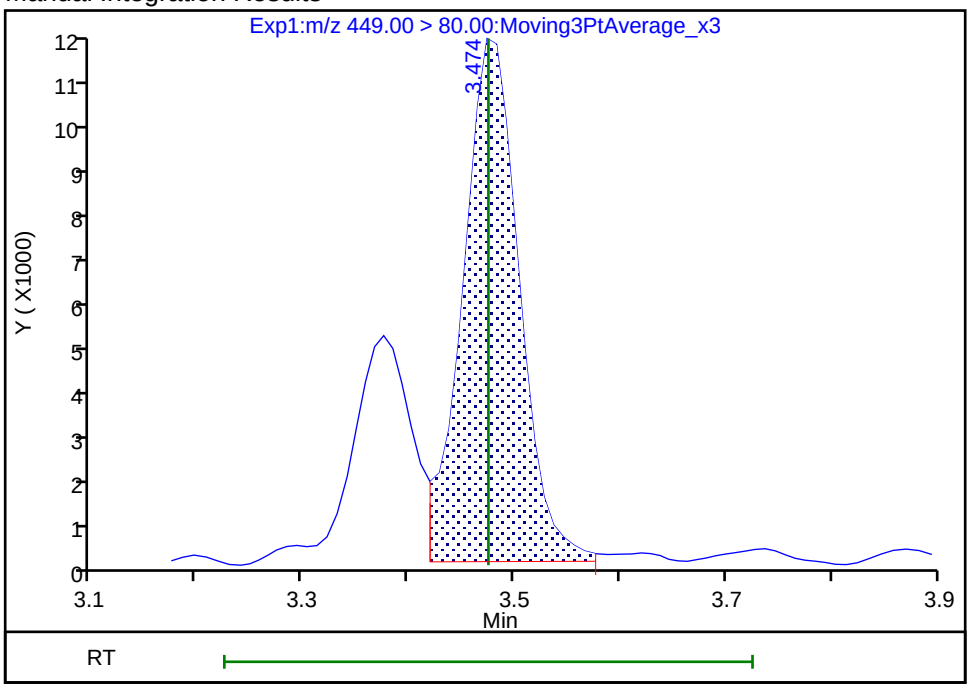
Processing Integration Results

RT: 3.47
Area: 39994
Amount: 0.040791
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 39429
Amount: 0.040215
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

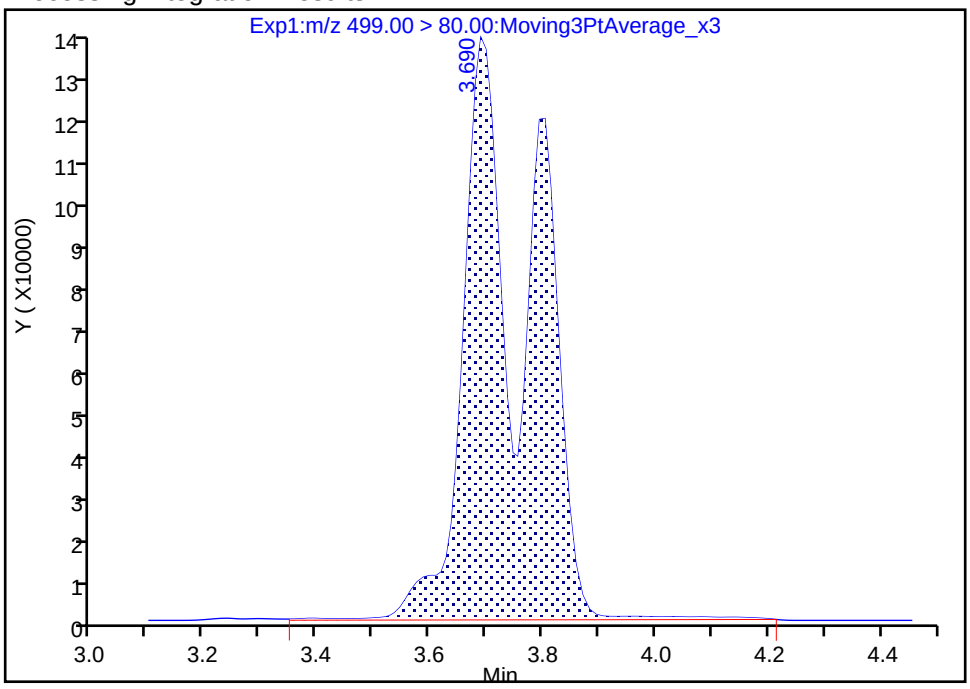
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

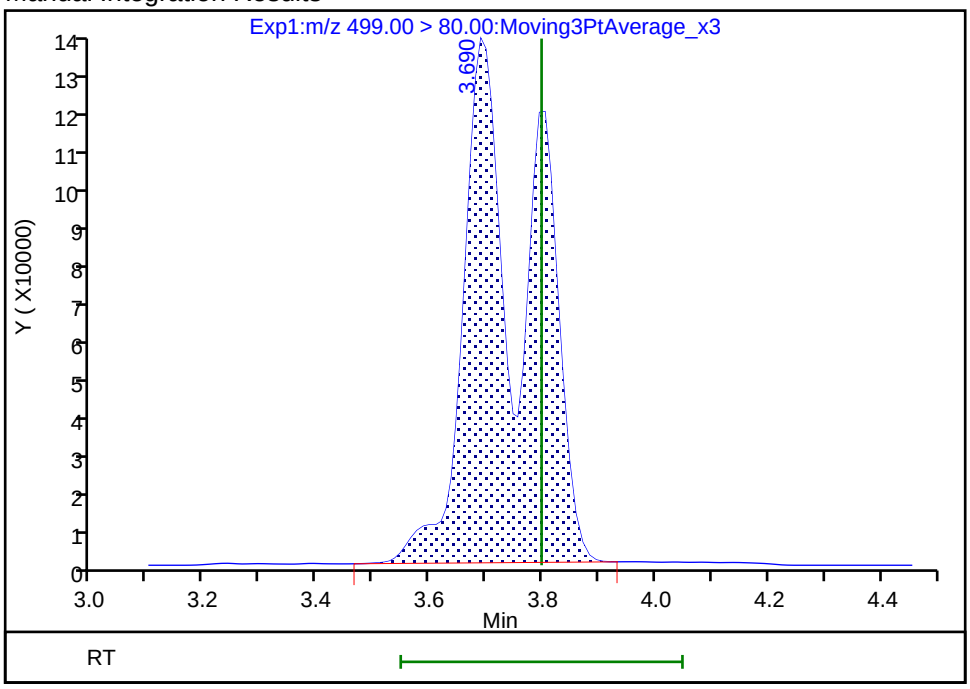
Processing Integration Results

RT: 3.69
Area: 1076000
Amount: 1.260868
Amount Units: ng/ml




Manual Integration Results

RT: 3.69
Area: 1050813
Amount: 1.231354
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

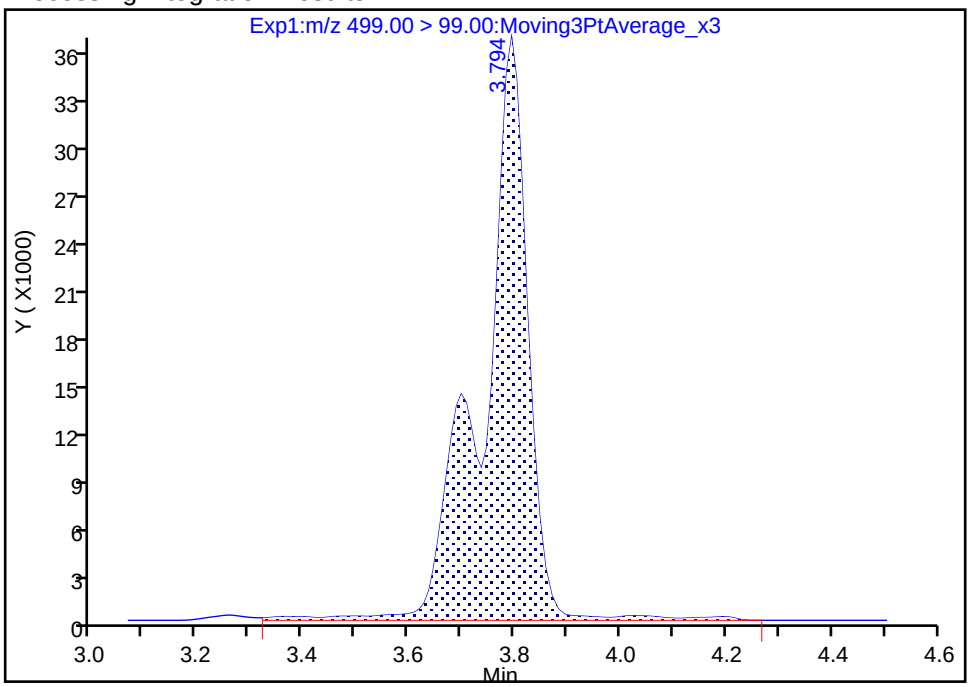
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

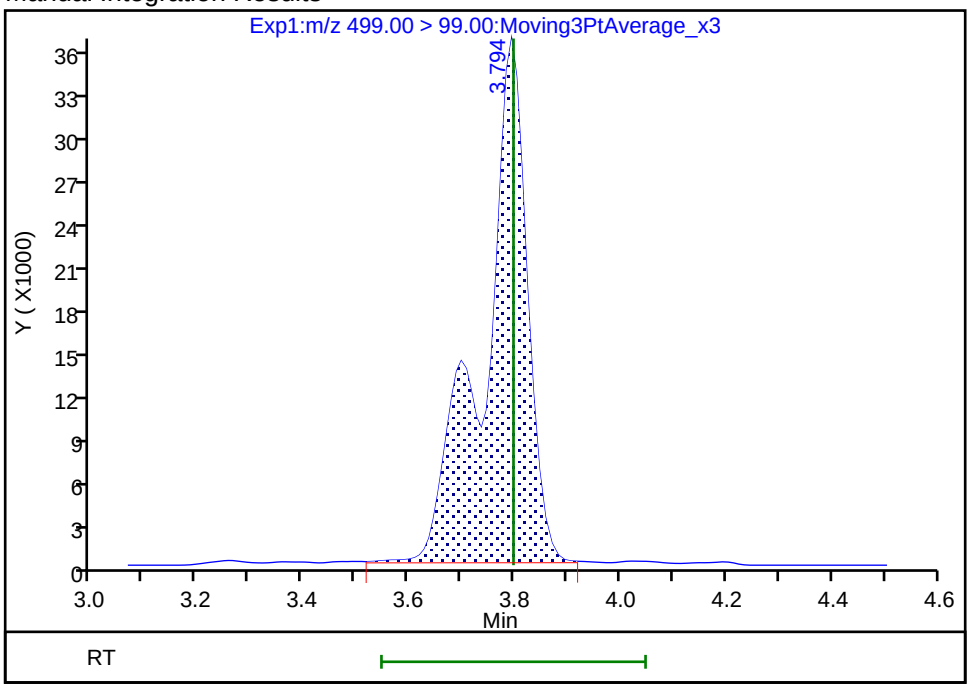
Processing Integration Results

RT: 3.79
Area: 222427
Amount: 1.260868
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 212092
Amount: 1.231354
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:03:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

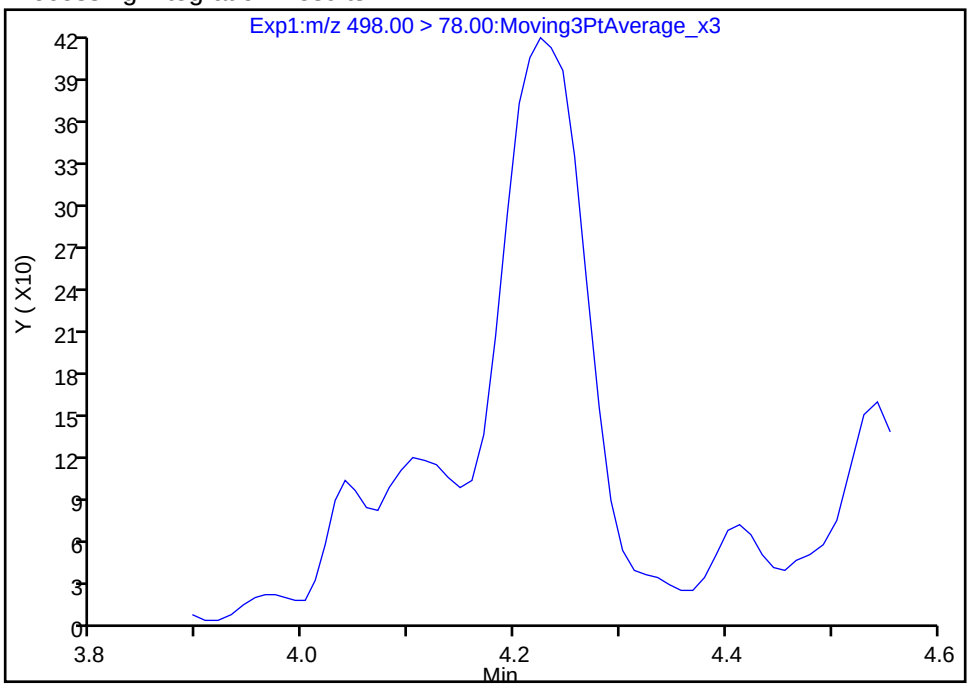
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

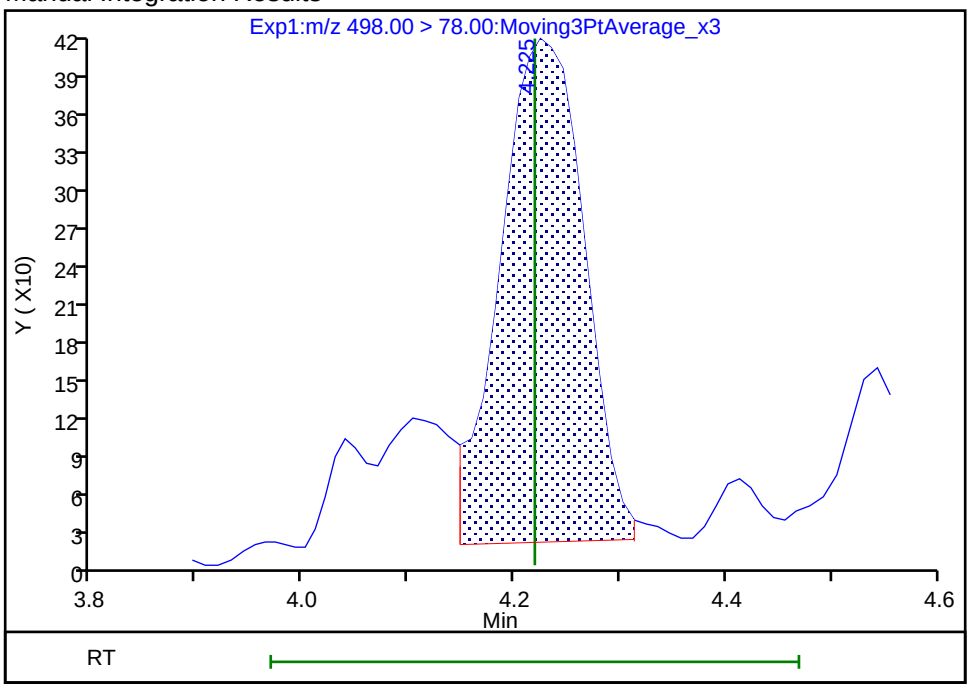
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 2145
Amount: 0.002185
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:03:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

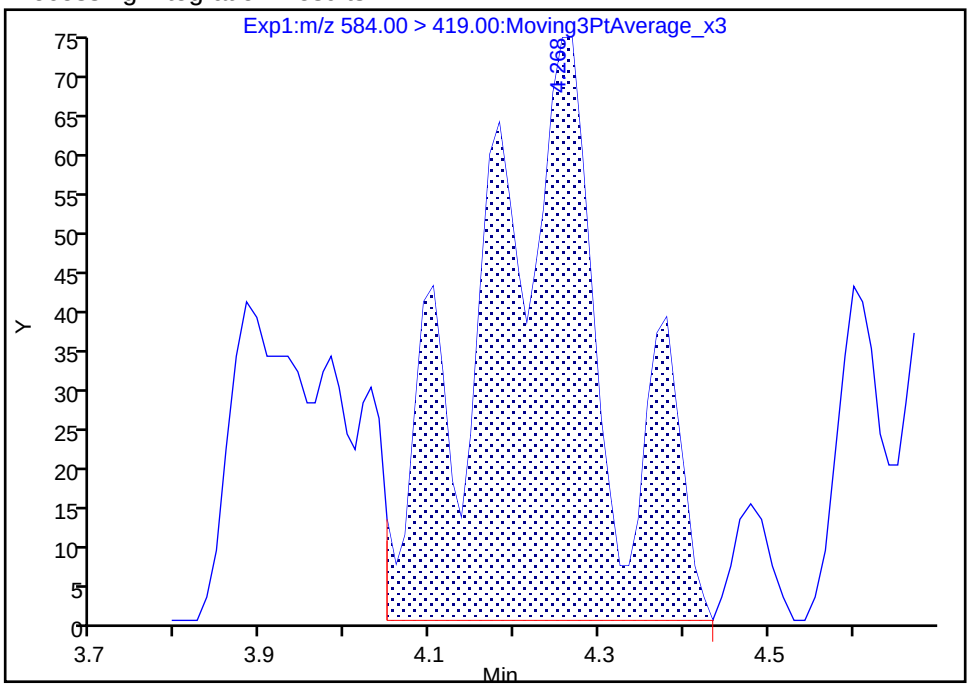
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

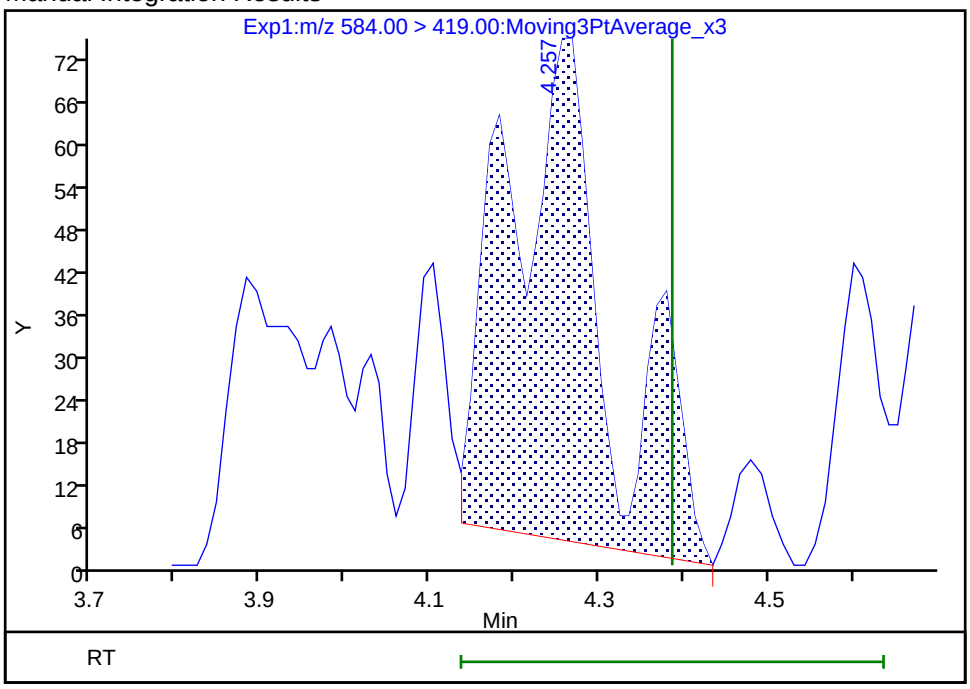
Processing Integration Results

RT: 4.27
Area: 779
Amount: 0.006536
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 598
Amount: 0.005018
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:03:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

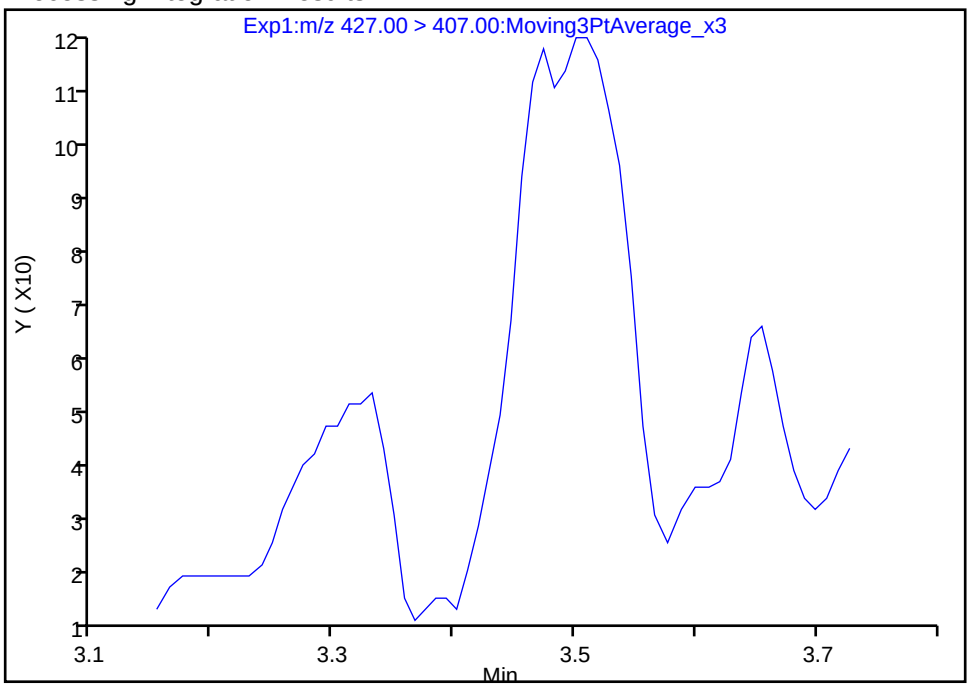
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

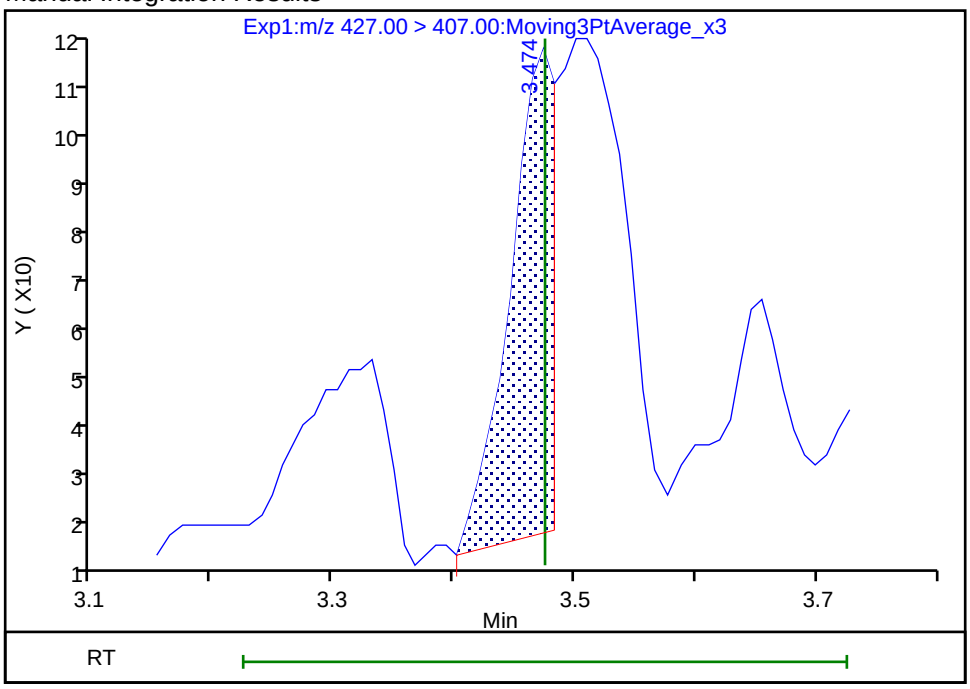
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 233
Amount: 0.000855
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:02:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

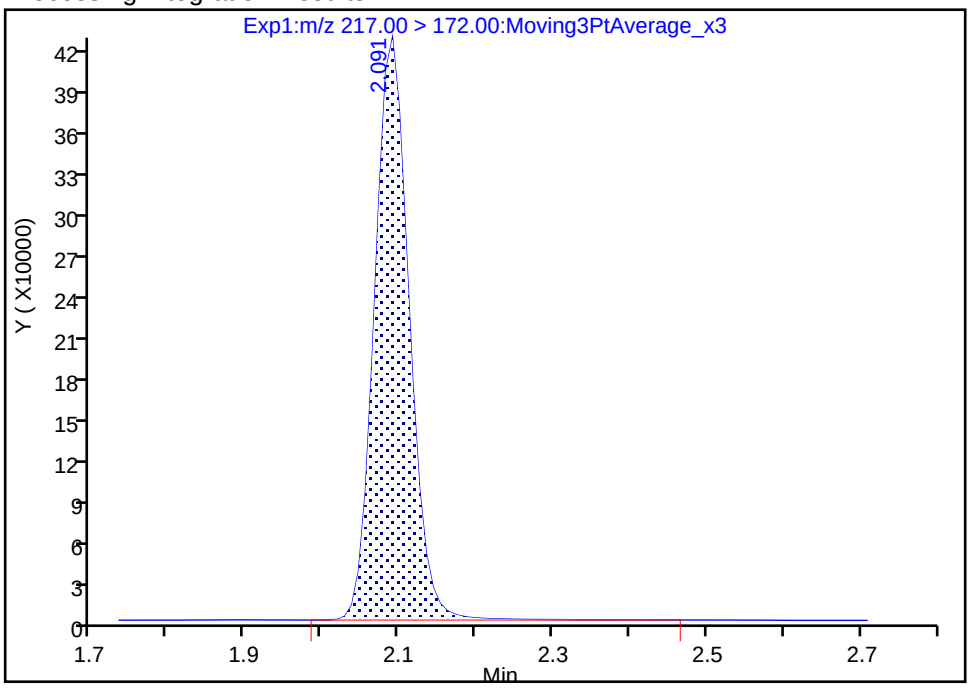
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A13.d | | | | |
| Injection Date: | 10-Nov-2021 13:00:53 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-22-A | Lab Sample ID: | 200-246277-22 | | |
| Client ID: | AMW-6-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

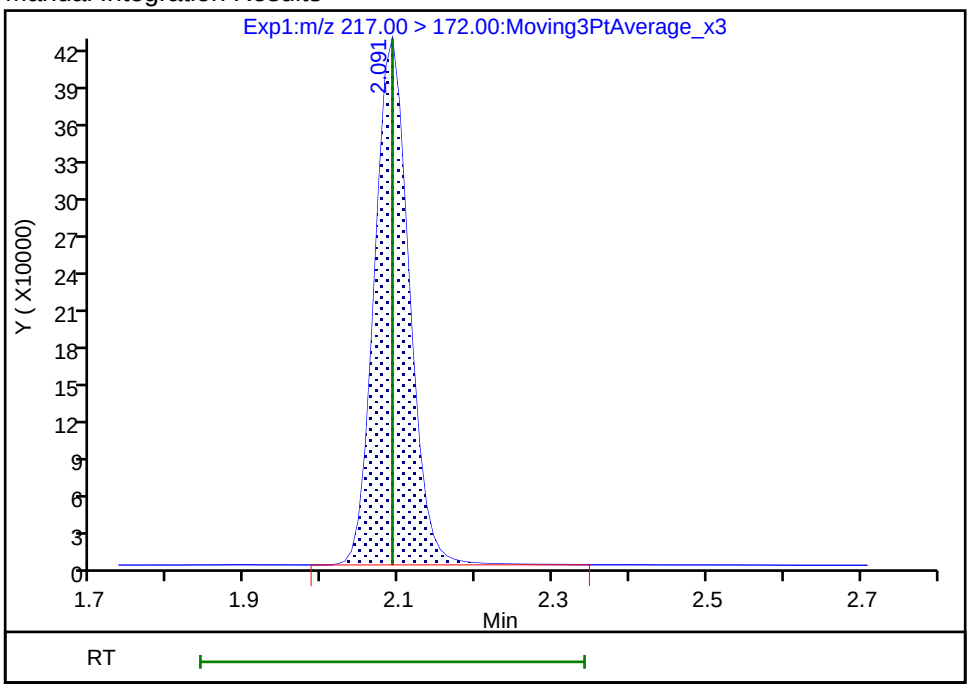
Processing Integration Results

RT: 2.09
Area: 1328095
Amount: 1.081613
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1326145
Amount: 1.080025
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:18:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-3-20211028  Lab Sample ID: 460-246277-23

Matrix: Water  Lab File ID: PA211110A14.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 11:20

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 272.6(mL)  Date Analyzed: 11/10/2021 13:09

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 9.59 | | 4.59 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 6.99 | | 1.83 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 5.57 | | 1.83 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.51 | | 1.83 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 15.9 | | 1.83 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.67 | J | 1.83 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.89 | J | 1.83 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.83 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.25 | B | 1.83 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 22.1 | | 1.83 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.68 | J | 1.83 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 63.5 | | 1.83 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.59 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.59 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.59 | 1.01 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-3-20211028  Lab Sample ID: 460-246277-23

Matrix: Water  Lab File ID: PA211110A14.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 11:20

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 272.6(mL)  Date Analyzed: 11/10/2021 13:09

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 106 | | 50-150 |
| STL01892 | 13C4 PFHpA | 100 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 108 | | 50-150 |
| STL00995 | 13C5 PFNA | 94 | | 50-150 |
| STL00992 | 13C4 PFBA | 71 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 99 | | 50-150 |
| STL00997 | 13C2 PFUnA | 97 | | 50-150 |
| STL00998 | 13C2 PFDoA | 100 | | 50-150 |
| STL01056 | 13C8 FOSA | 83 | | 25-150 |
| STL01893 | 13C5 PFPeA | 90 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 98 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 135 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 149 | | 50-150 |
| STL02279 | M2-6:2 FTS | 158 | *5+ | 25-150 |
| STL02280 | M2-8:2 FTS | 164 | *5+ | 25-150 |
| STL02337 | 13C3 PFBS | 99 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d
Lims ID: 460-246277-C-23-A
Client ID: AMW-3-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 13:09:04 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-23-A
Misc. Info.: 200-0048360-014 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:08:37
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 977268 | 0.8914 | | 71.3 | 1067 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 193288 | 0.2615 | | | 4.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1033349 | 1.12 | | 89.5 | 235 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.414 | -0.014 | 0.995 | 157767 | 0.1905 | | | 0.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1432394 | 1.15 | | 98.6 | 23778 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 116453 | 0.0885 | Target=2.32 | | 2.9 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 38904 | | 2.99(1.16-3.48) | | 2.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1169144 | 1.21 | | 96.5 | 1457 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 144158 | 0.1520 | Target=12.09 | | 1.1 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 8717 | | 16.54(6.04-18.13) | | 2.8 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 638125 | 0.6017 | Target=3.55 | | 53.9 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 168030 | | 3.80(1.77-5.32) | | 63.8 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1140740 | 1.26 | | 106 | 2598 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1279987 | 1.25 | | 100 | 2998 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 72368 | 0.0684 | Target=3.69 | | 1.5 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 22737 | | 3.18(1.84-5.53) | | 19.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 40604 | 0.0458 | Target=4.88 | | 6.1 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 9573 | | 4.24(2.44-7.32) | | 4.9 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 1527 | 0.005327 | | | 12.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 268437 | 1.87 | | 158 | 55.3 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1344674 | 1.21 | | 96.5 | 3364 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1353813 | 1.25 | | | 2216 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 494892 | 0.4326 | Target=2.68 | | 12.9 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 193520 | | 2.56(1.34-4.02) | | 182 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 849408 | 1.29 | | 108 | 193 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 1335157 | 1.73 | Target=4.69 | | 136 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 266784 | | 5.00(2.35-7.04) | | 157 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1300283 | 1.17 | | 93.7 | 2378 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.003 | 46387 | 0.0456 | Target=7.29 | | 3.0 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 6937 | | 6.69(3.64-10.93) | | 18.1 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1386227 | 1.24 | | 99.0 | 4164 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 27128 | 0.0243 | Target=8.95 | | 2.7 | |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 3728 | | 7.28(4.47-13.42) | | 13.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 318107 | 1.96 | | 164 | 137 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.120 | -0.005 | 0.997 | 482 | 0.002169 | | | 7.4 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.210 | 1115470 | 1.03 | | 82.6 | 2346 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.204 | 4.219 | -0.015 | 0.995 | 2934 | 0.003462 | | | 7.2 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 185614 | 1.68 | | 135 | 694 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.171 | 4.251 | -0.080 | 0.980 | 282 | 0.002417 | | | 1.8 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.251 | 1062686 | 1.22 | | 97.4 | 4432 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.375 | -0.006 | 1.000 | 5387 | 0.005944 | Target=9.24 | | 1.5 | M |
| 563.00 > 169.00 | 4.369 | 4.375 | -0.006 | 1.000 | 948 | | 5.68(4.62-13.86) | | 4.9 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.254 | 191794 | 1.86 | | 149 | 1061 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.003 | 1333 | 0.0101 | | | 7.4 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.590 | 4.598 | -0.008 | 1.315 | 1171090 | 1.25 | | 99.8 | 1676 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.590 | 4.598 | -0.008 | 1.000 | 2424 | 0.002643 | Target=7.04 | | 0.5 | |
| 613.00 > 169.00 | 4.611 | 4.598 | 0.013 | 1.005 | 596 | | 4.07(3.52-10.56) | | 6.0 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.975 | 4.972 | 0.003 | 1.425 | 891780 | 1.22 | | 97.9 | 1466 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 5.004 | 4.972 | 0.032 | 1.006 | 181 | 0.001607 | Target=1.01 | | 3.5 | M |
| 713.00 > 219.00 | 4.956 | 4.972 | -0.016 | 0.996 | 187 | | 0.97(0.51-1.52) | | 4.6 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:24 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d

Injection Date: 10-Nov-2021 13:09:04 Instrument ID: LC812

Lims ID: 460-246277-C-23-A Lab Sample ID: 200-246277-23

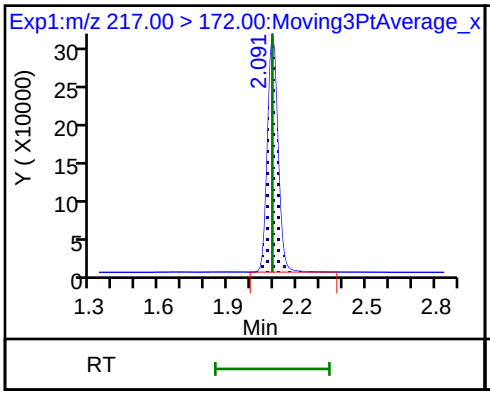
Client ID: AMW-3-20211028

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 14

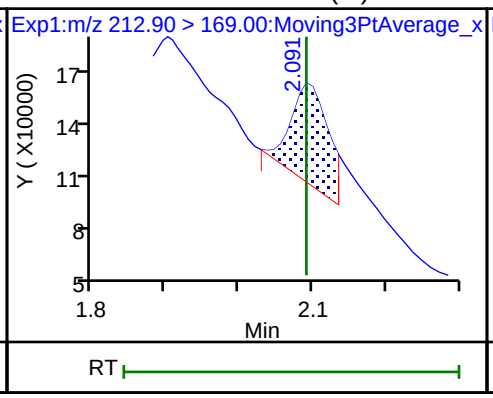
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

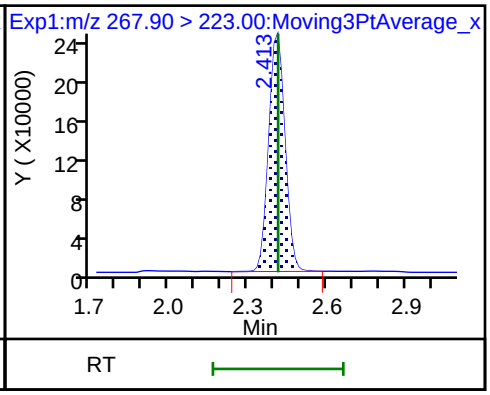
D 1 13C4 PFBA



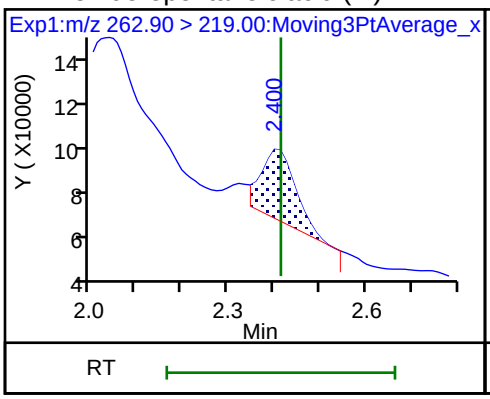

2 Perfluorobutanoic acid (M)



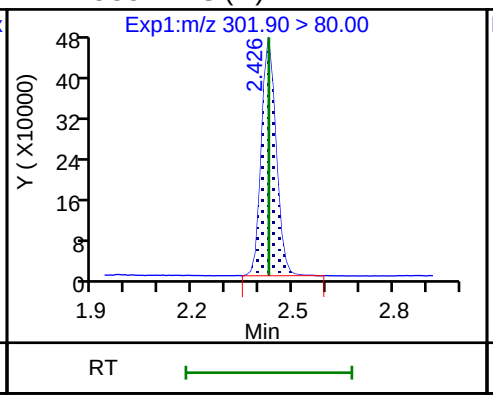

D 3 13C5 PFPeA



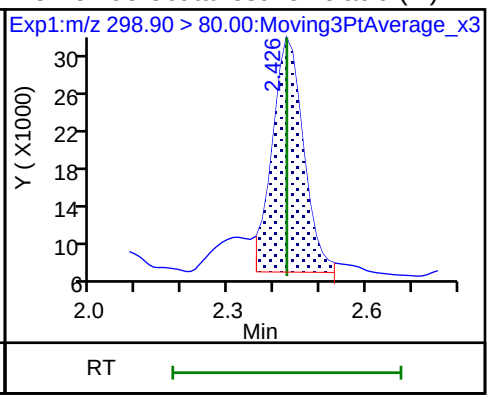

4 Perfluoropentanoic acid (M)



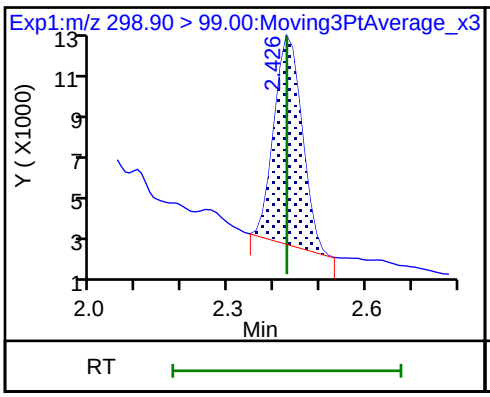

D 47 13C3 PFBS (M)



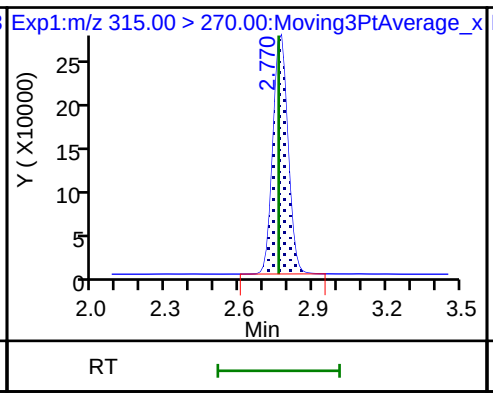

5 Perfluorobutanesulfonic acid (M)



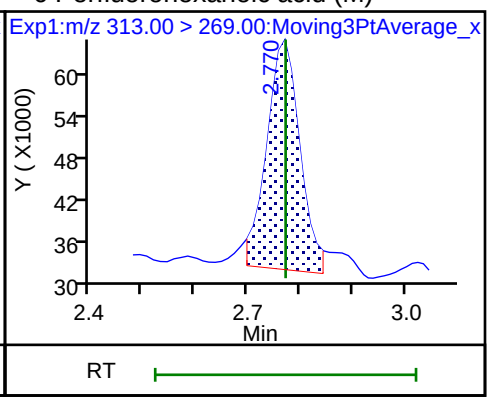

5 Perfluorobutanesulfonic acid



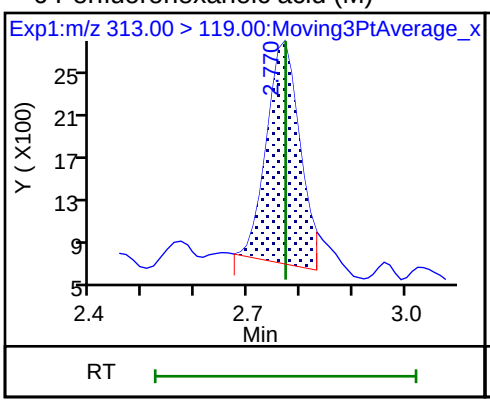

D 7 13C2 PFHxA



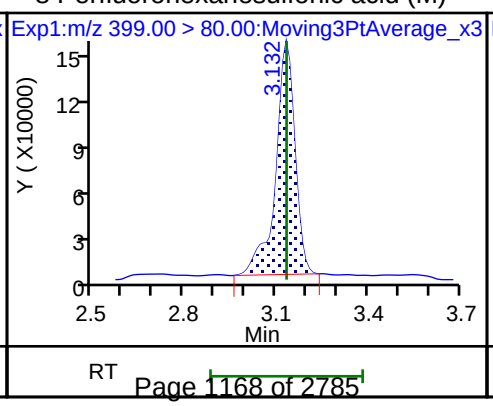

6 Perfluorohexanoic acid (M)



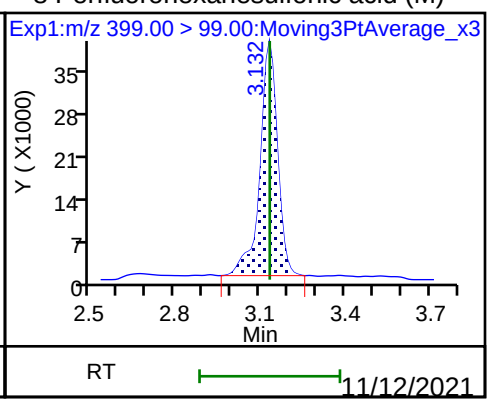

6 Perfluorohexanoic acid (M)



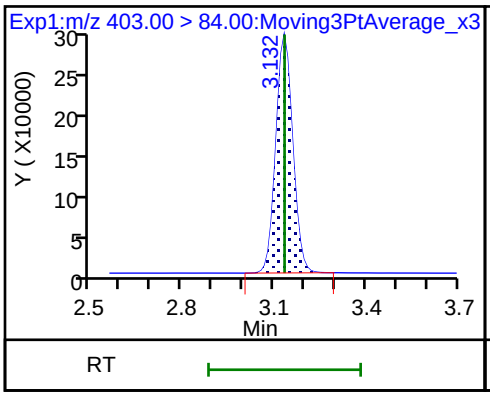

8 Perfluorohexanesulfonic acid (M)



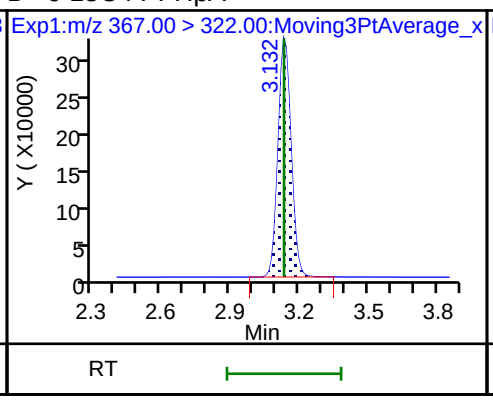

8 Perfluorohexanesulfonic acid (M)



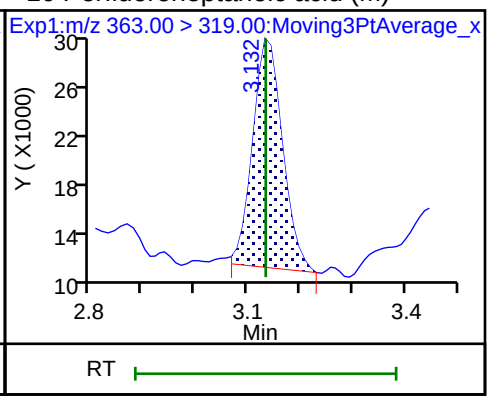
D 11 18O2 PFHxS



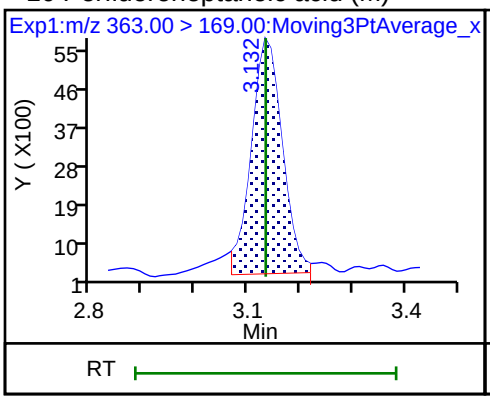

D 9 13C4 PFHpA



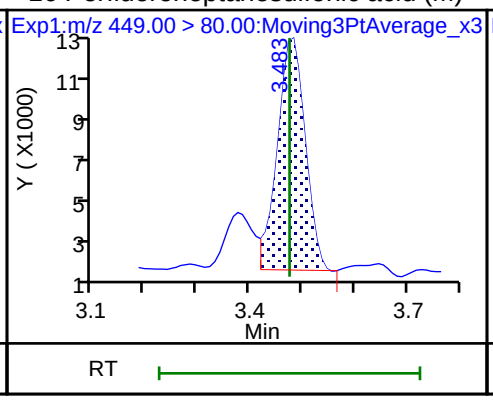

10 Perfluoroheptanoic acid (M)



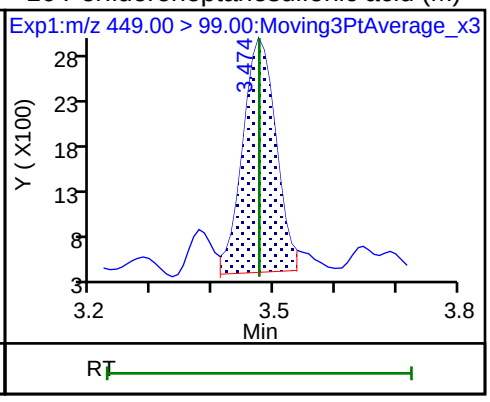

10 Perfluoroheptanoic acid (M)



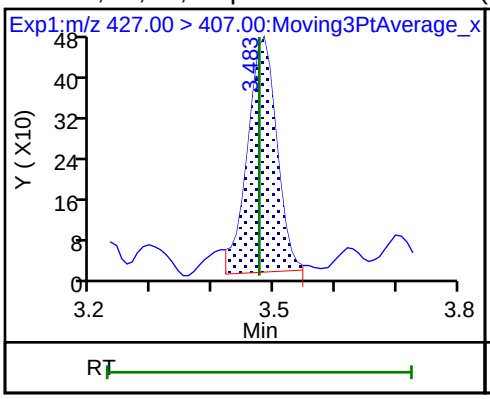

16 Perfluoroheptanesulfonic acid (M)



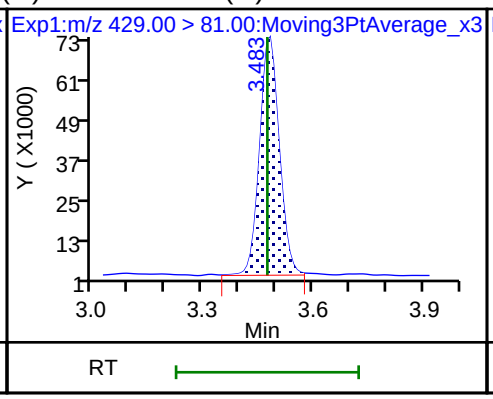

16 Perfluoroheptanesulfonic acid (M)



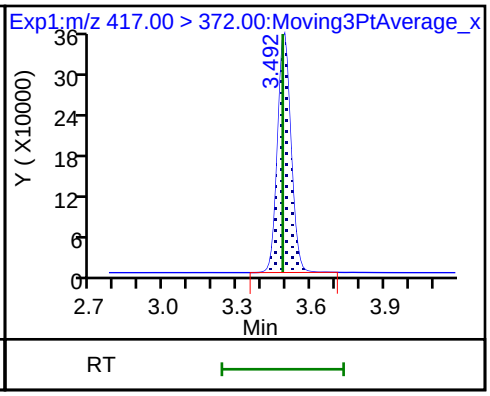

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



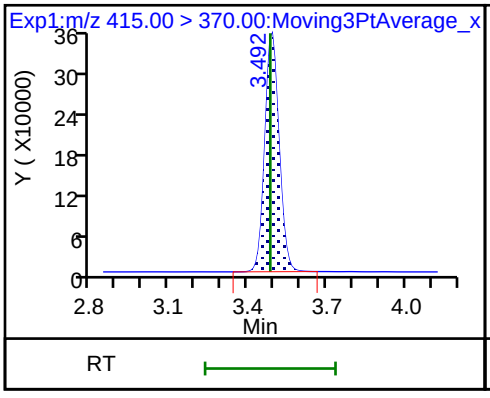

12 M2-6:2 FTS (M)



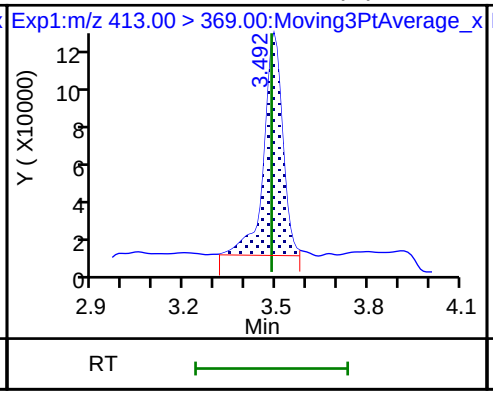

D 14 13C4 PFOA



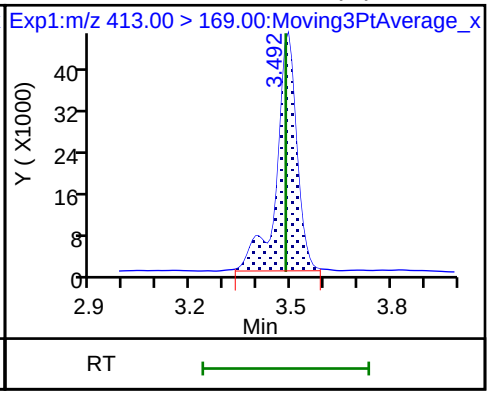

* 62 13C2 PFOA



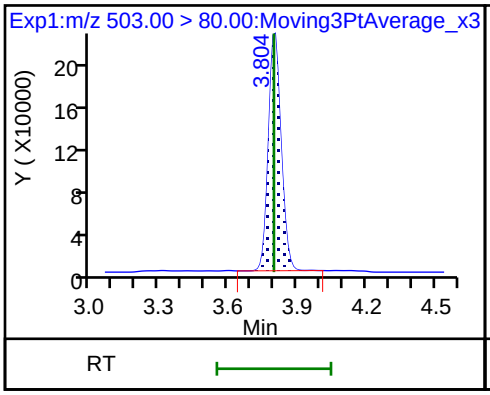

15 Perfluorooctanoic acid (M)



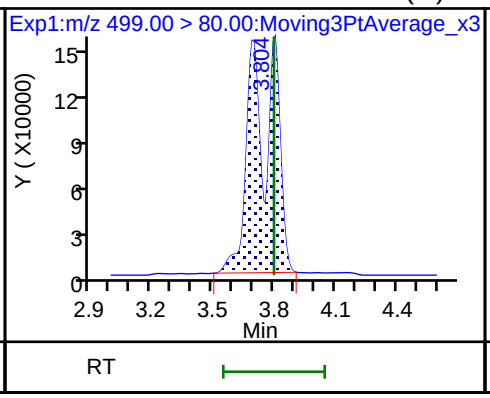

15 Perfluorooctanoic acid (M)



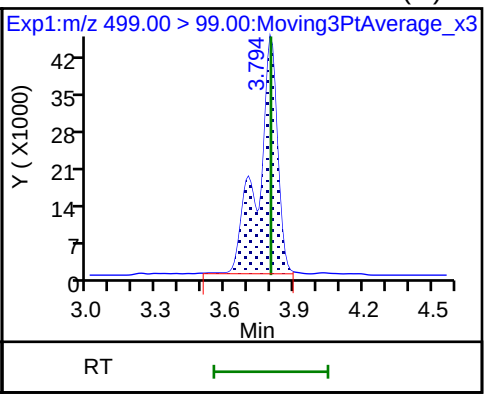
D 18 13C4 PFOS



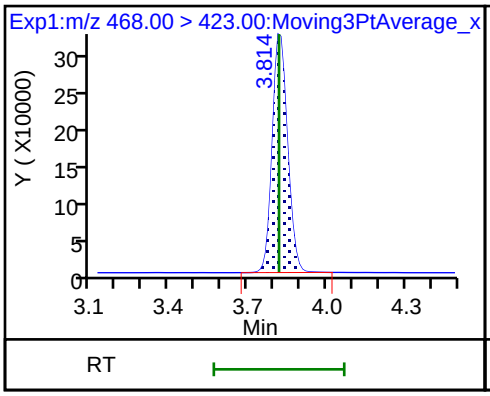

17 Perfluorooctanesulfonic acid (M)



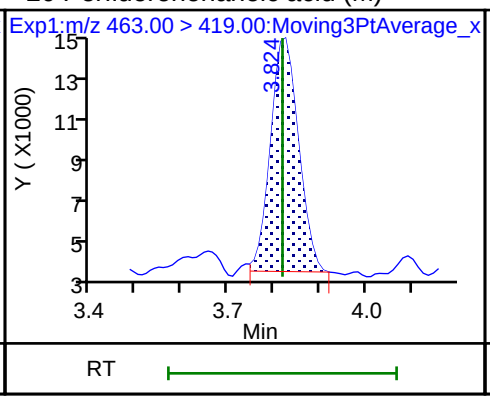

17 Perfluorooctanesulfonic acid (M)



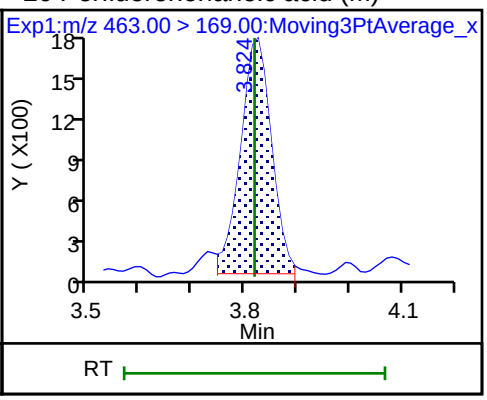

D 19 13C5 PFNA



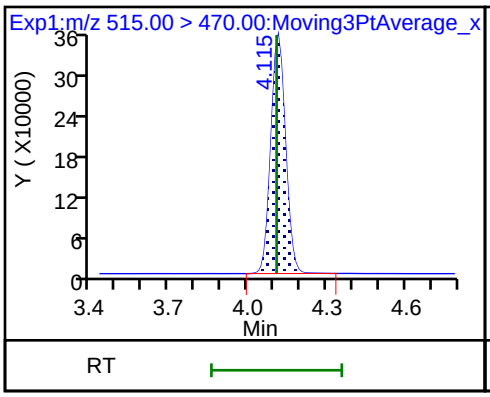

20 Perfluorononanoic acid (M)



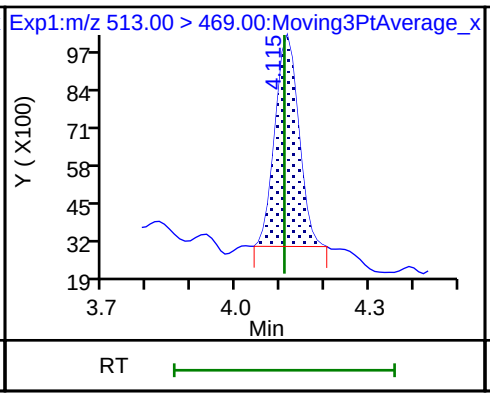

20 Perfluorononanoic acid (M)



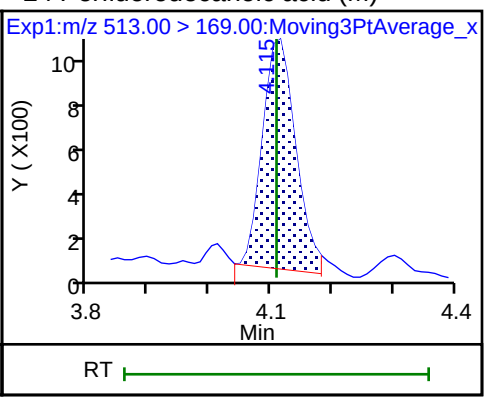

D 23 13C2 PFDA



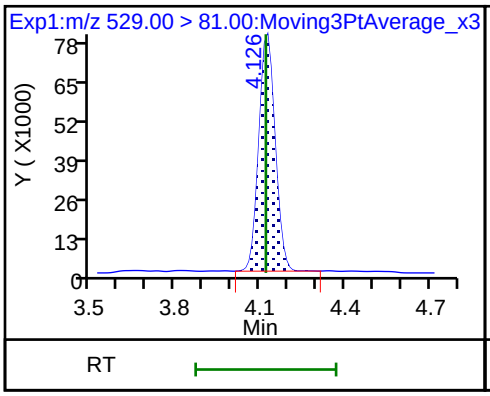

24 Perfluorodecanoic acid



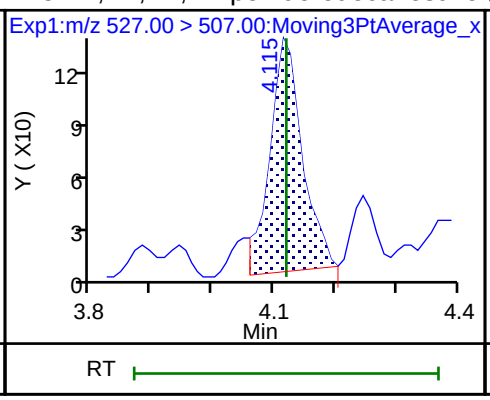

24 Perfluorodecanoic acid (M)



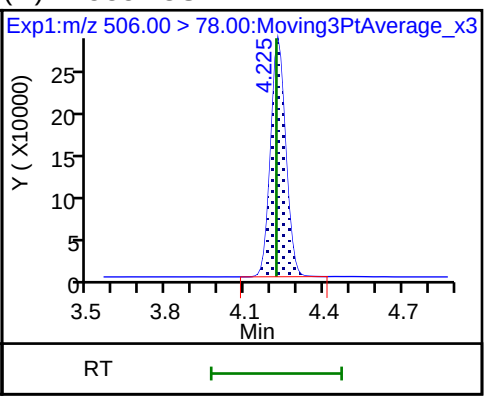

D 26 M2-8:2 FTS



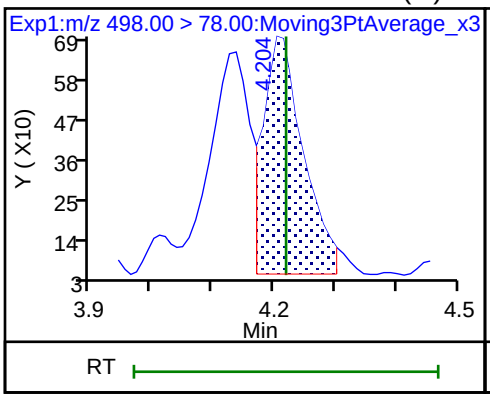

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



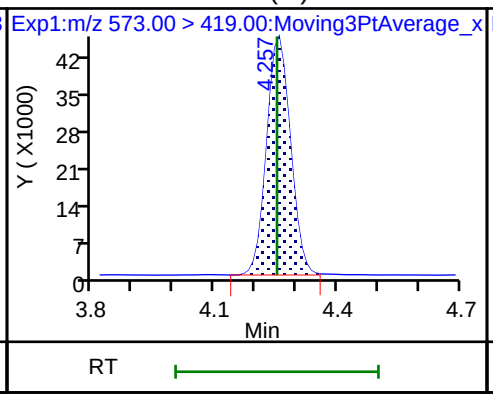

21 13C8 FOSA



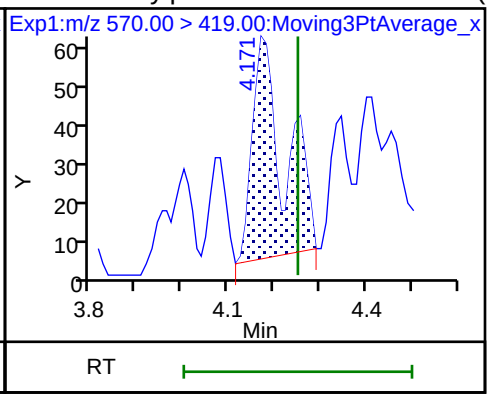
22 Perfluorooctanesulfonamide (M)



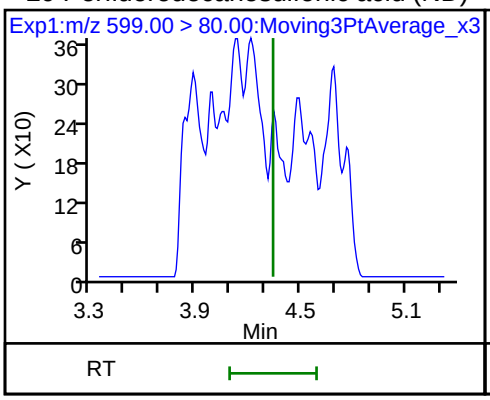

D 27 d3-NMeFOSAA (M)



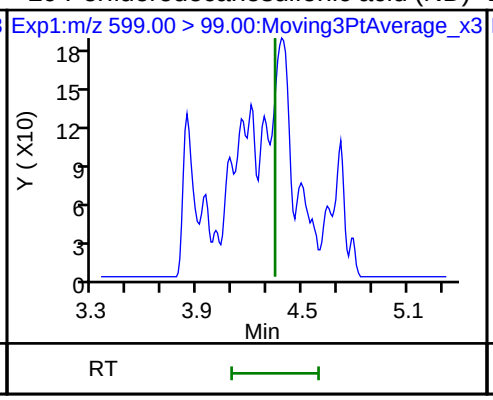

28 N-methylperfluorooctanesulfonami (M)



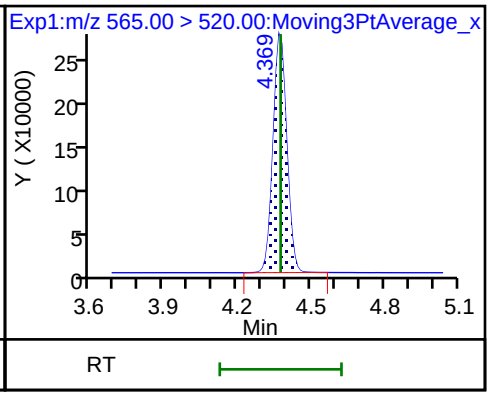

29 Perfluorodecanesulfonic acid (ND)



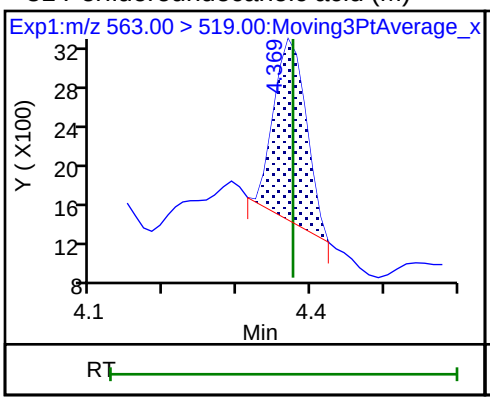

29 Perfluorodecanesulfonic acid (ND)



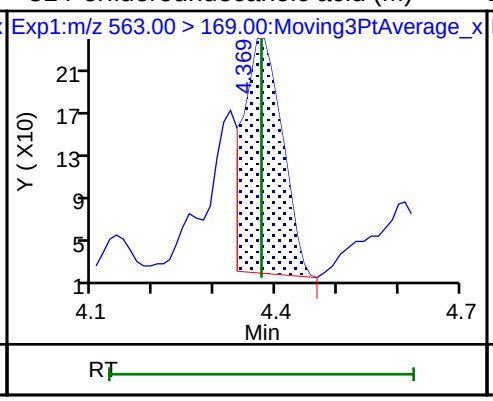

D 30 13C2 PFUnA



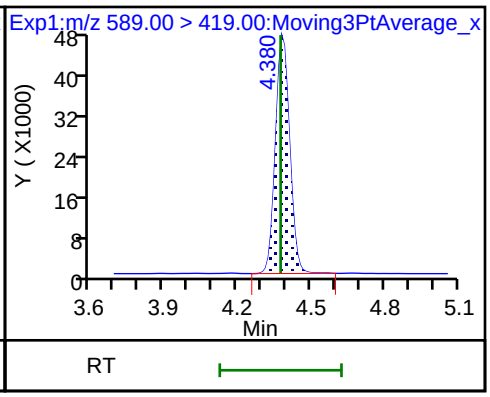

31 Perfluoroundecanoic acid (M)



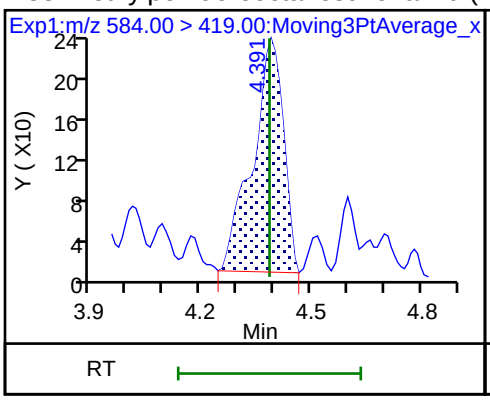

31 Perfluoroundecanoic acid (M)



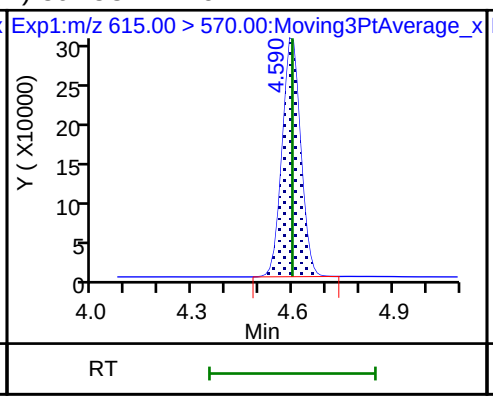

D 32 d5-NEtFOSAA



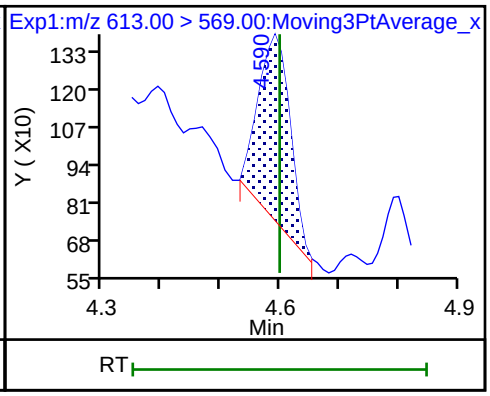

33 N-ethylperfluorooctanesulfonamid (ND)



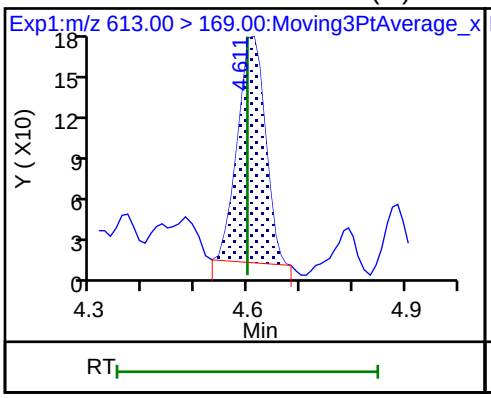

D 36 13C2 PFDoA



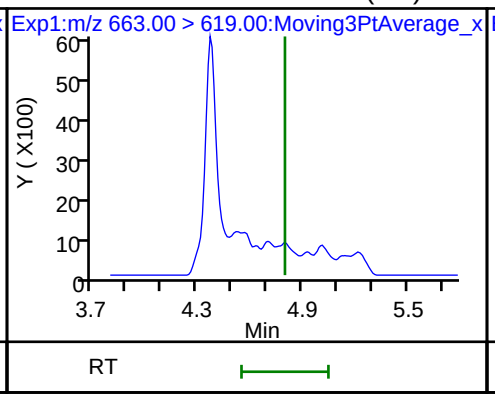

37 Perfluorododecanoic acid



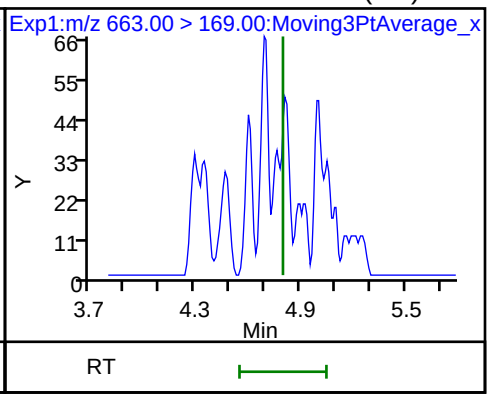
37 Perfluorododecanoic acid (M)



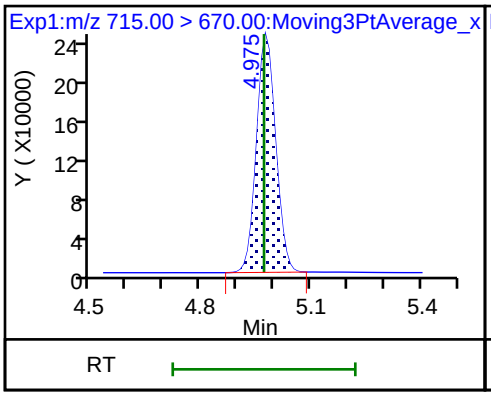

41 Perfluorotridecanoic acid (ND)



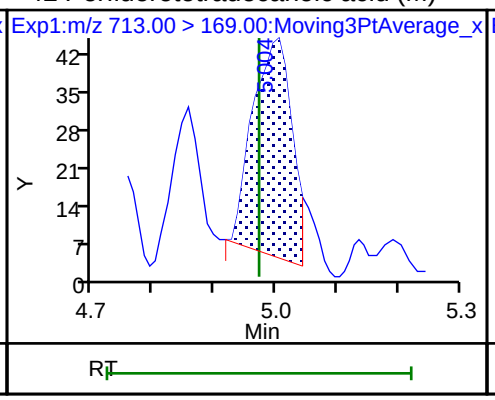

41 Perfluorotridecanoic acid (ND)



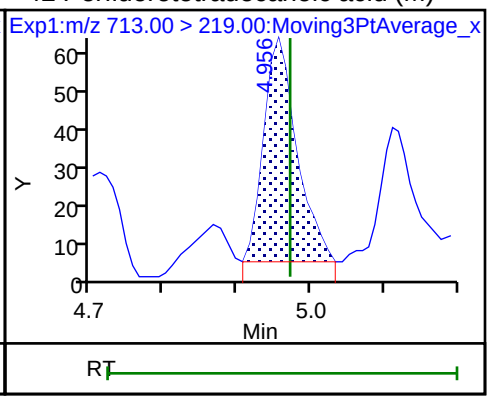

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

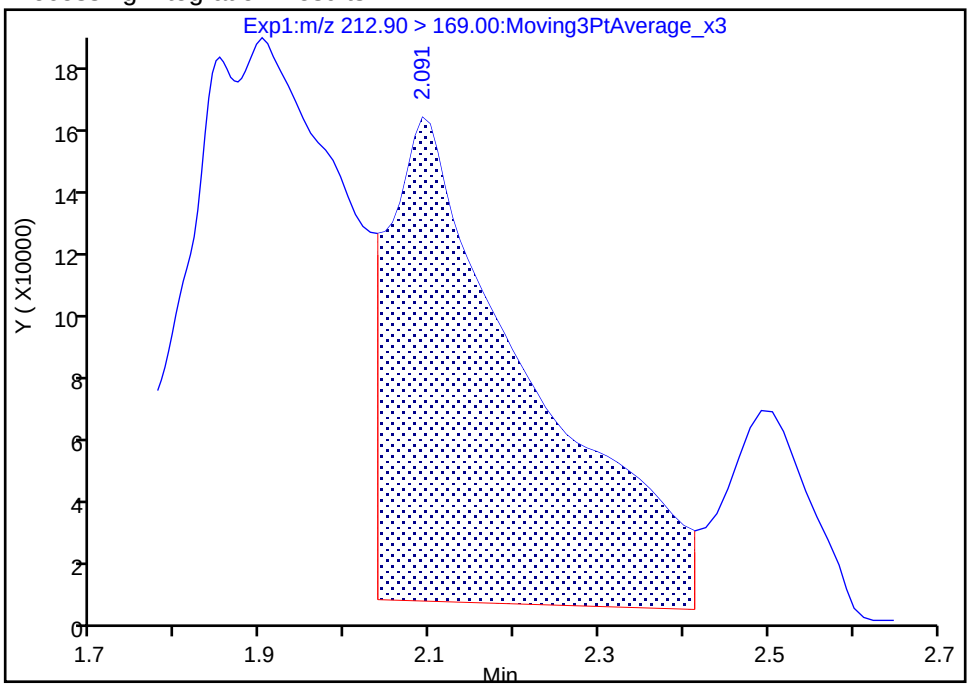
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

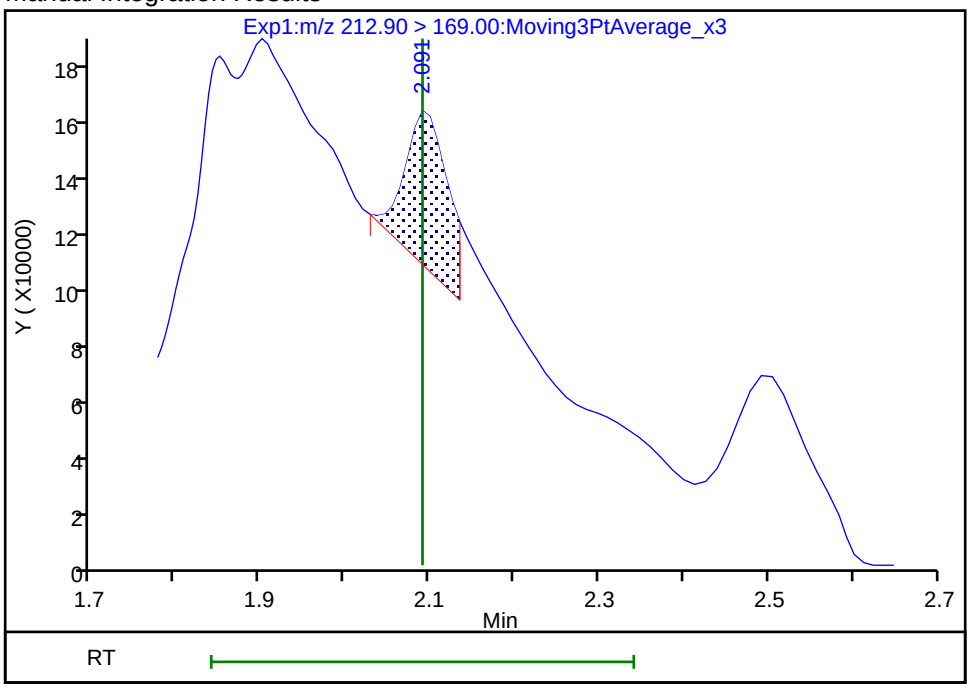
Processing Integration Results

RT: 2.09
Area: 1801770
Amount: 2.437289
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 193288
Amount: 0.261464
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:04:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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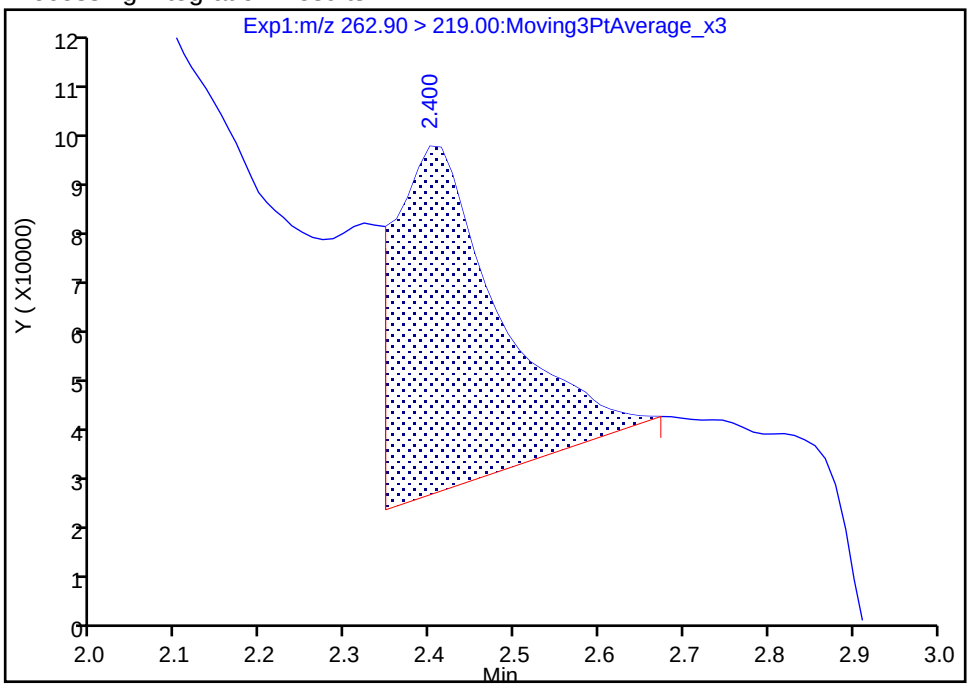
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

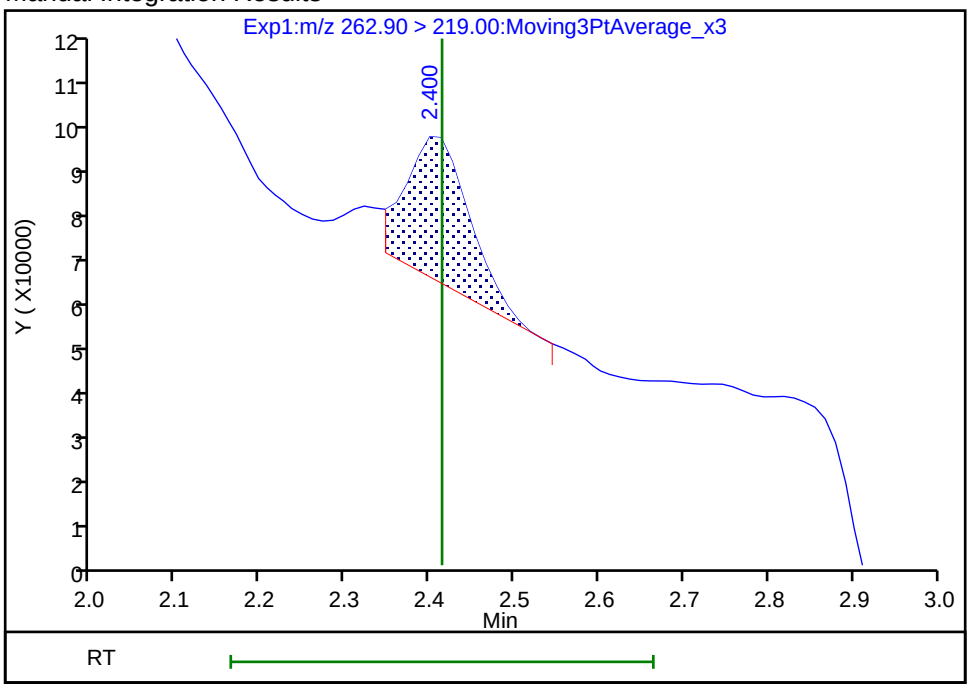
Processing Integration Results

RT: 2.40
Area: 561388
Amount: 0.677917
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 157767
Amount: 0.190515
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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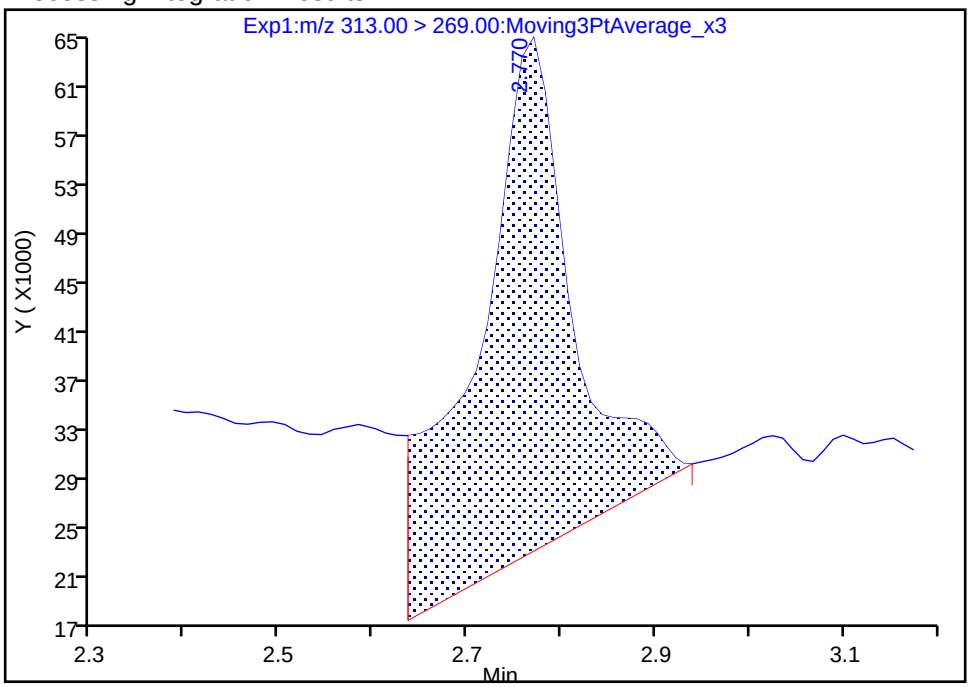
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

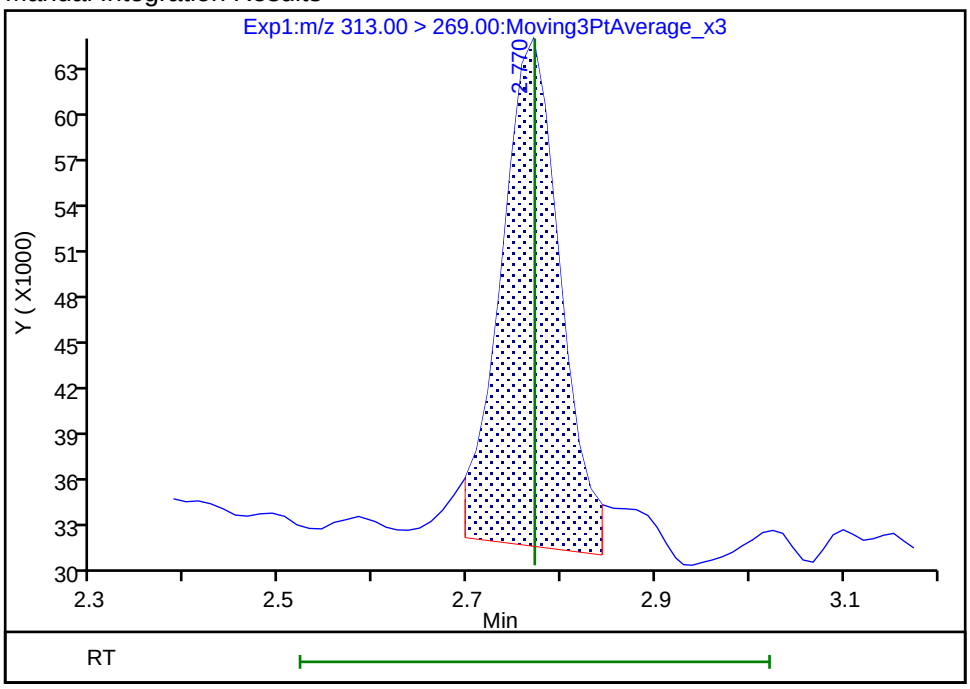
Processing Integration Results

RT: 2.77
Area: 295802
Amount: 0.311839
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 144158
Amount: 0.151973
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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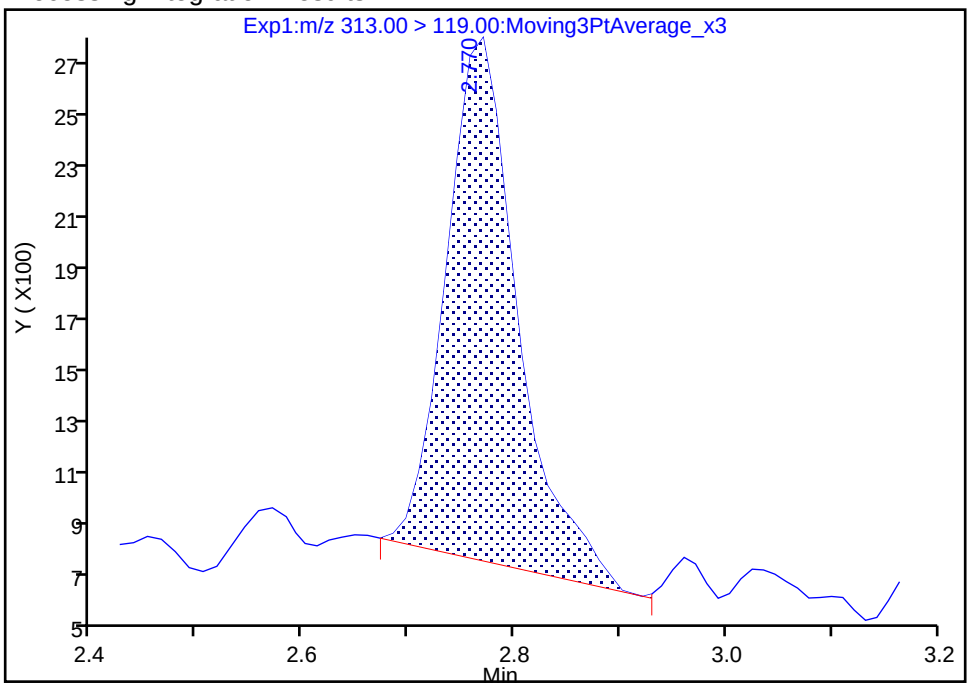
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

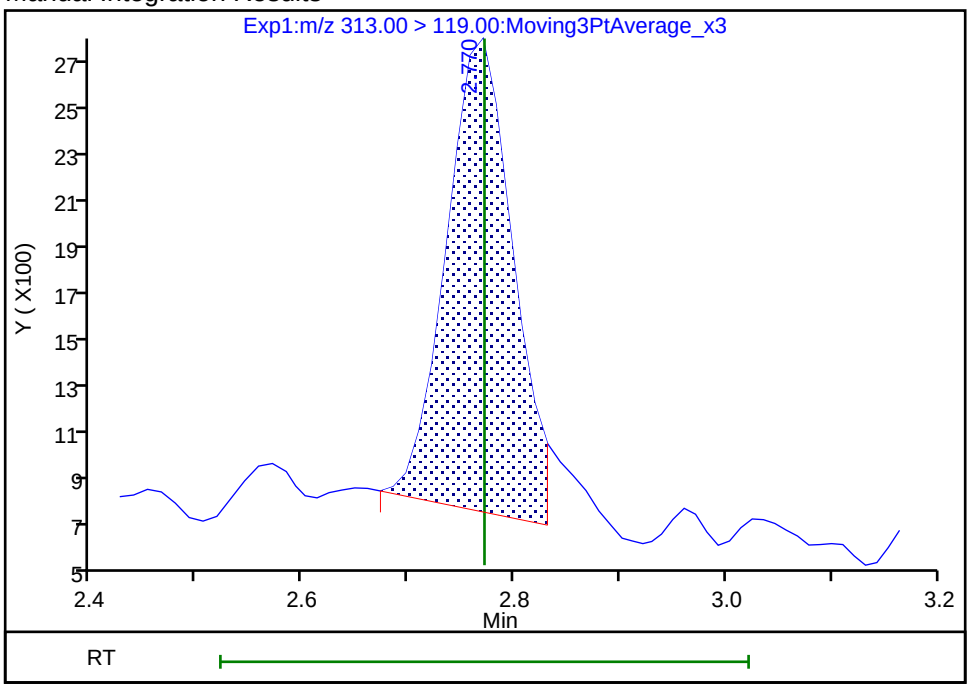
Processing Integration Results

RT: 2.77
Area: 9434
Amount: 0.311839
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 8717
Amount: 0.151973
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

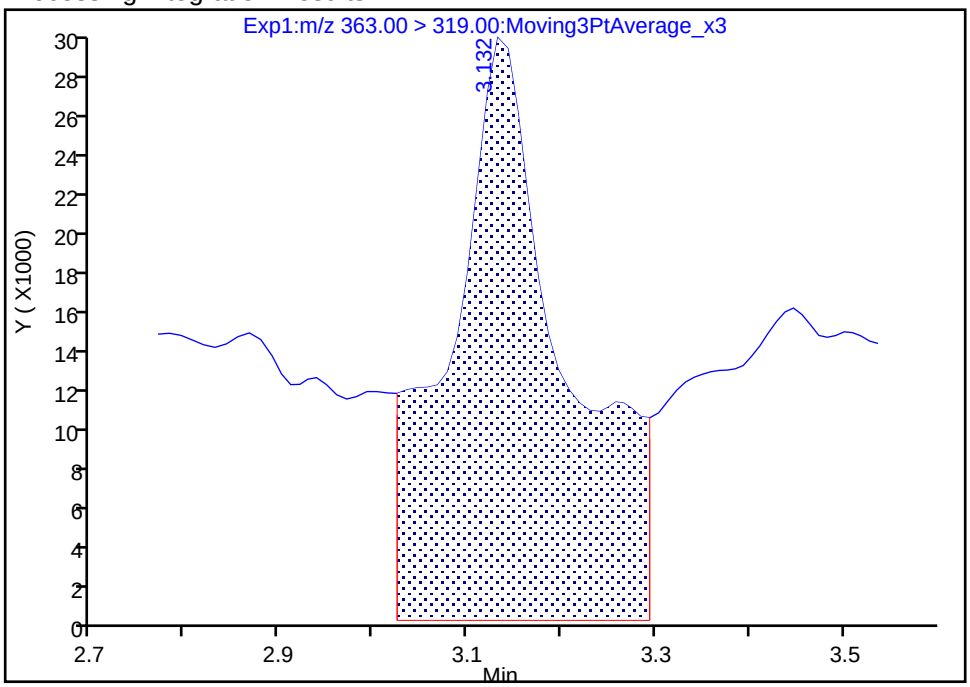
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

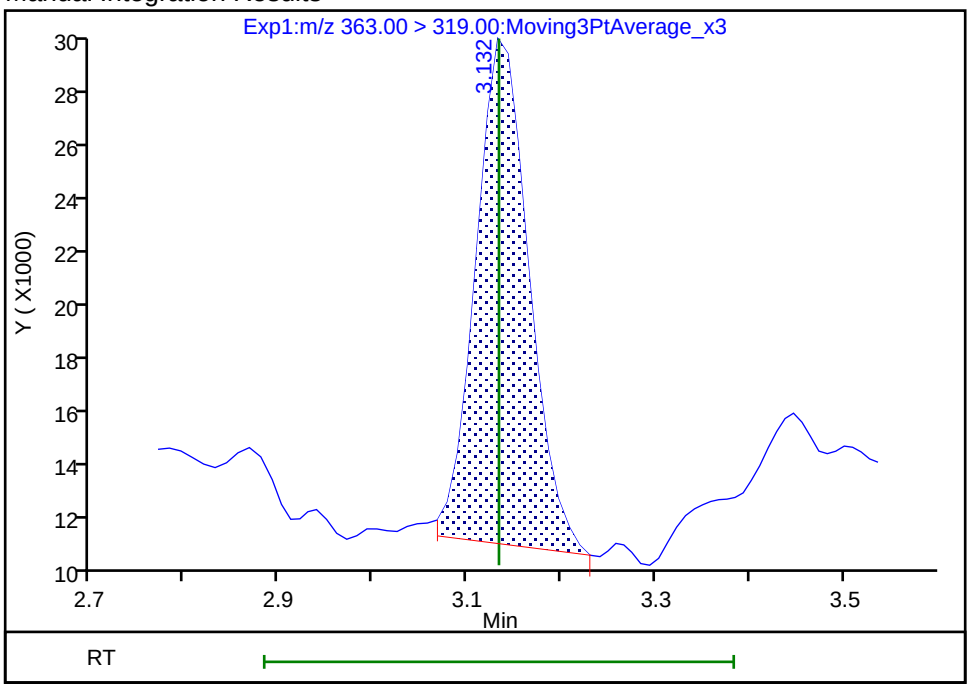
Processing Integration Results

RT: 3.13
Area: 249480
Amount: 0.235802
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 72368
Amount: 0.068400
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

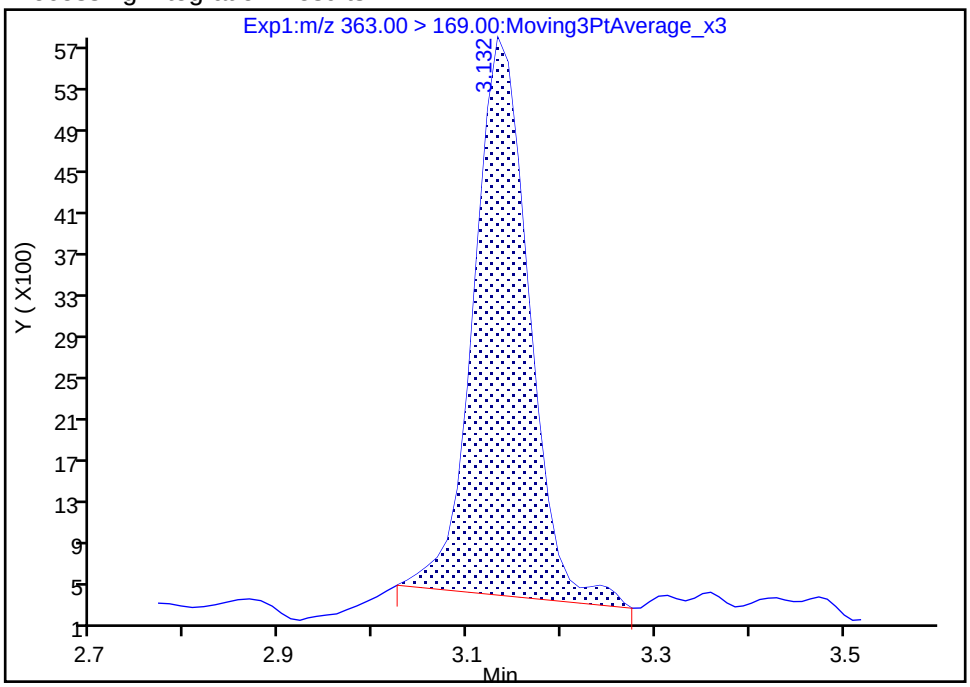
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

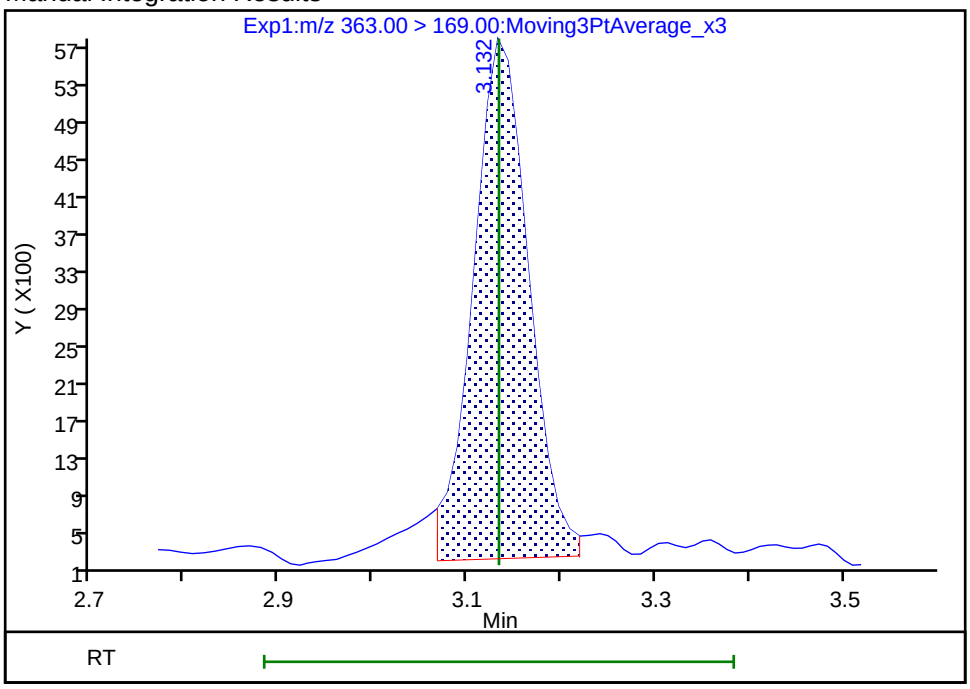
Processing Integration Results

RT: 3.13
Area: 22066
Amount: 0.235802
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 22737
Amount: 0.068400
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

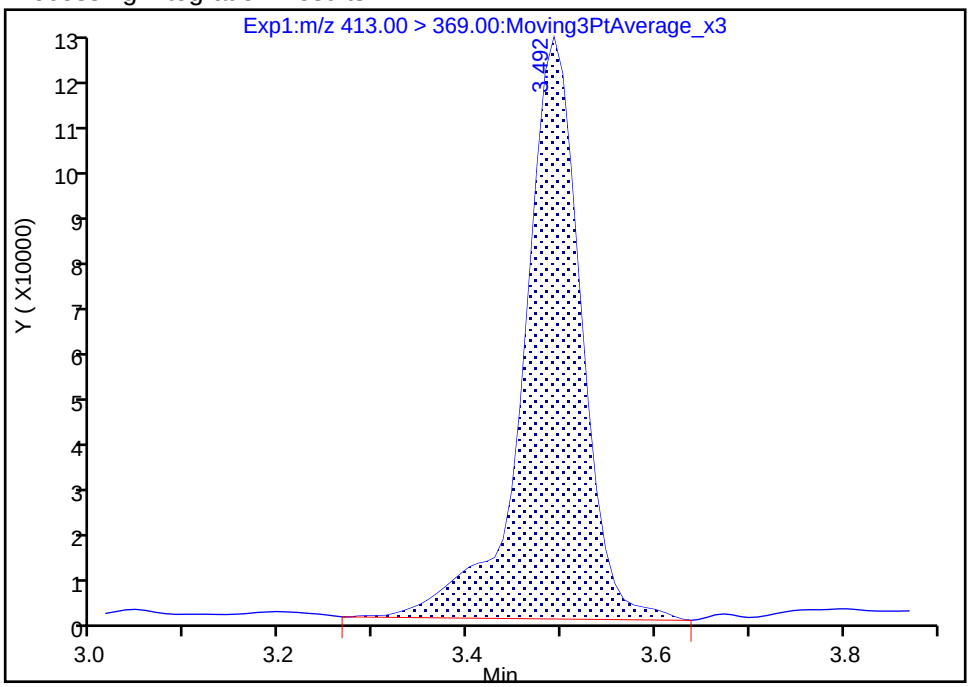
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

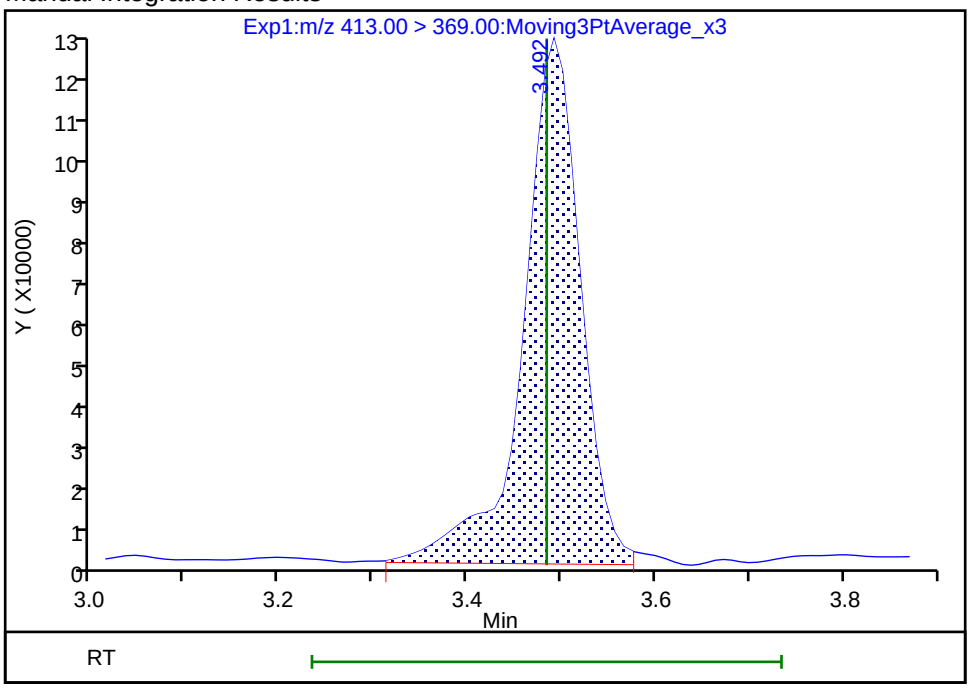
Processing Integration Results

RT: 3.49
Area: 500873
Amount: 0.437833
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 494892
Amount: 0.432605
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:22:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

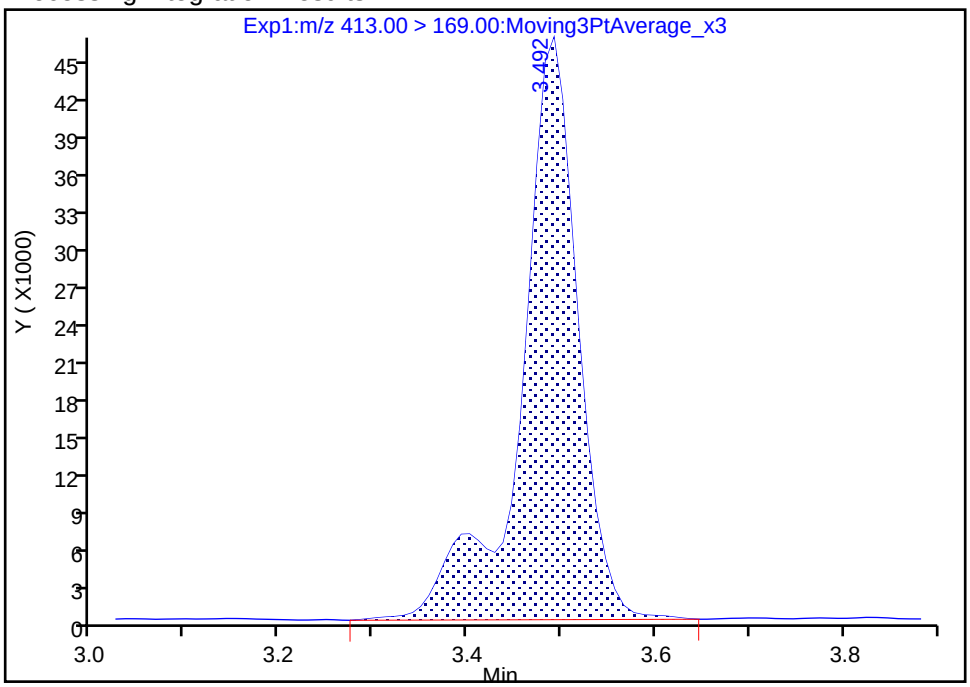
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

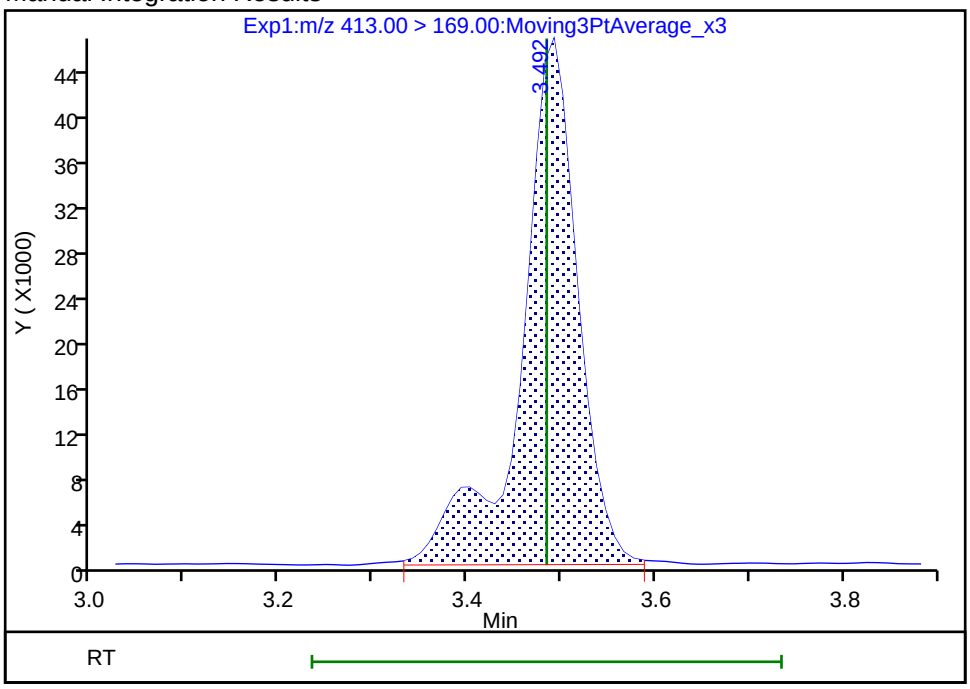
Processing Integration Results

RT: 3.49
Area: 194738
Amount: 0.437833
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 193520
Amount: 0.432605
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:22:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

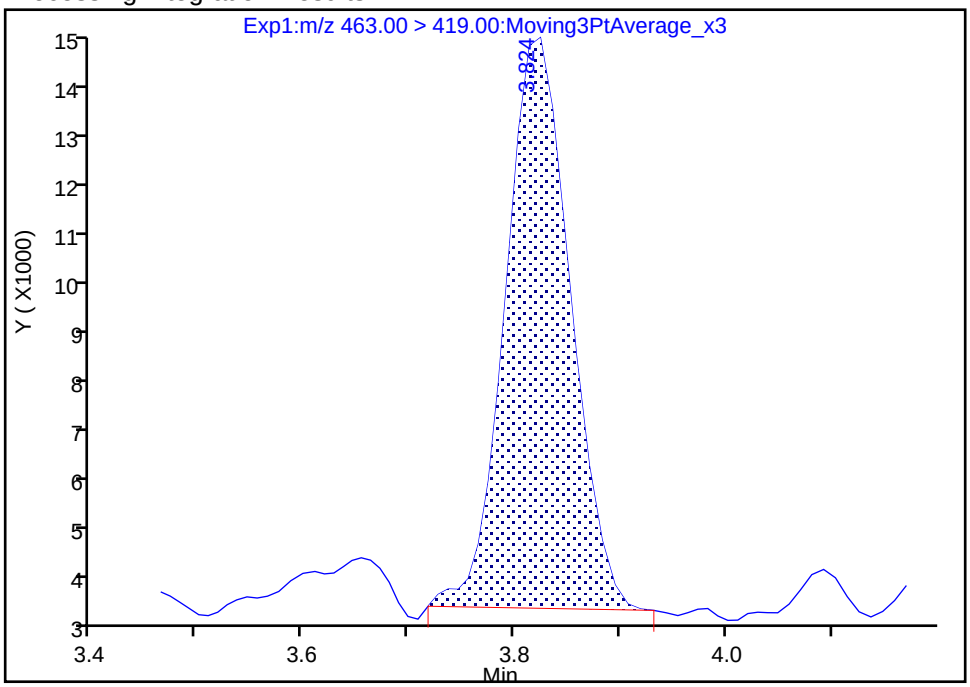
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

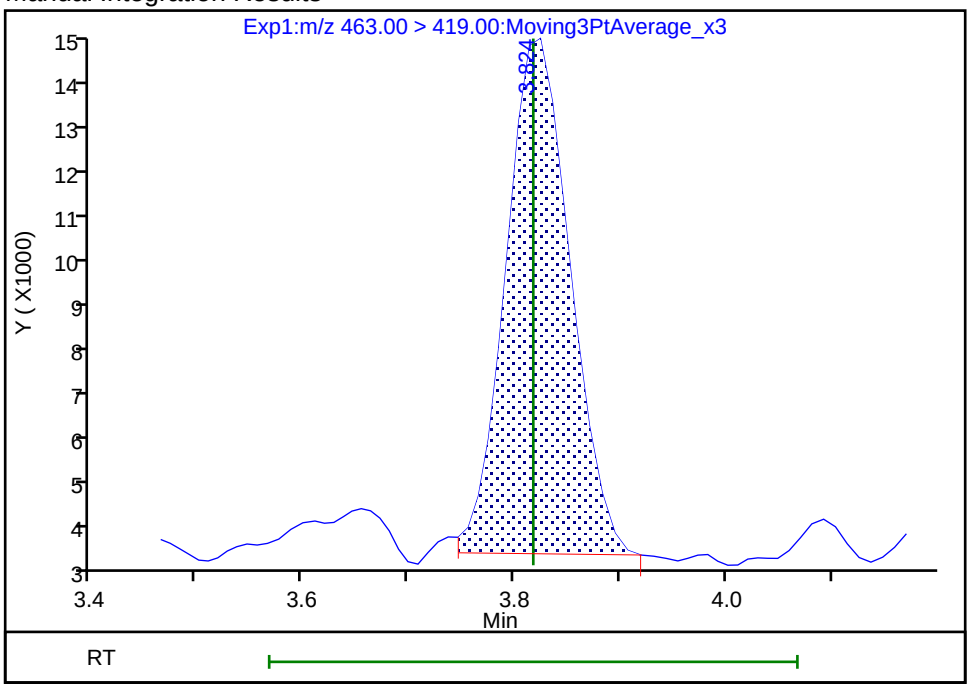
Processing Integration Results

RT: 3.82
Area: 46944
Amount: 0.046128
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 46387
Amount: 0.045581
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:07:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

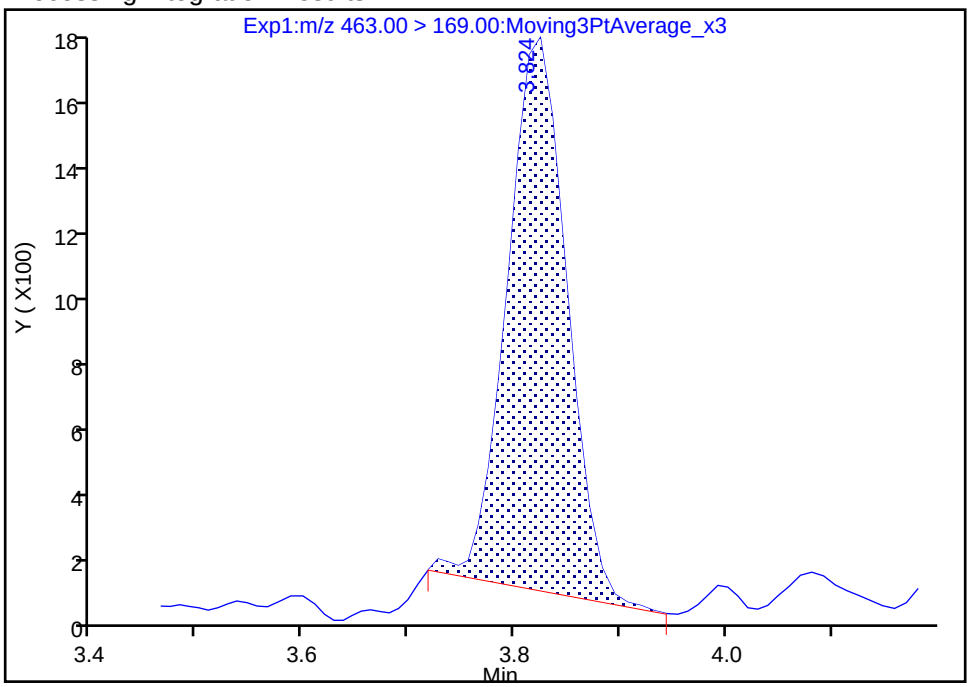
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

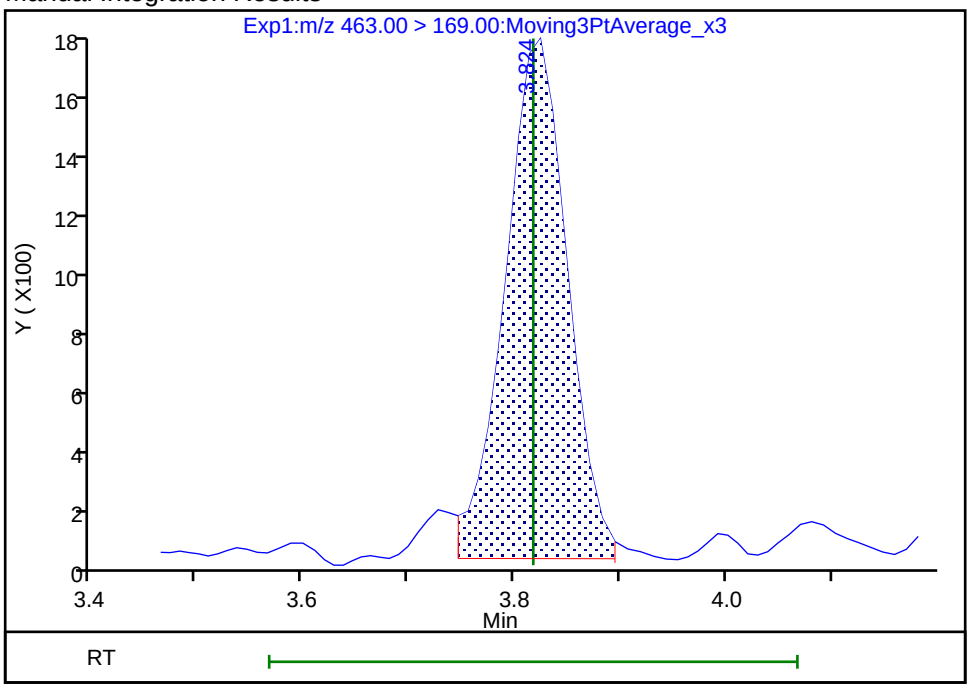
Processing Integration Results

RT: 3.82
Area: 6423
Amount: 0.046128
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 6937
Amount: 0.045581
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:22:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

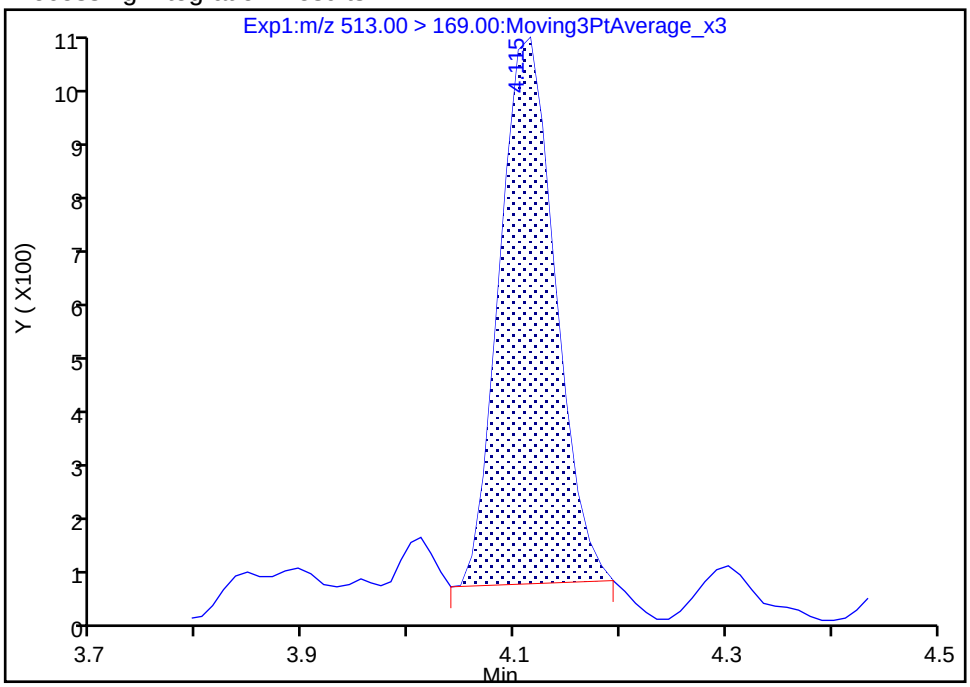
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

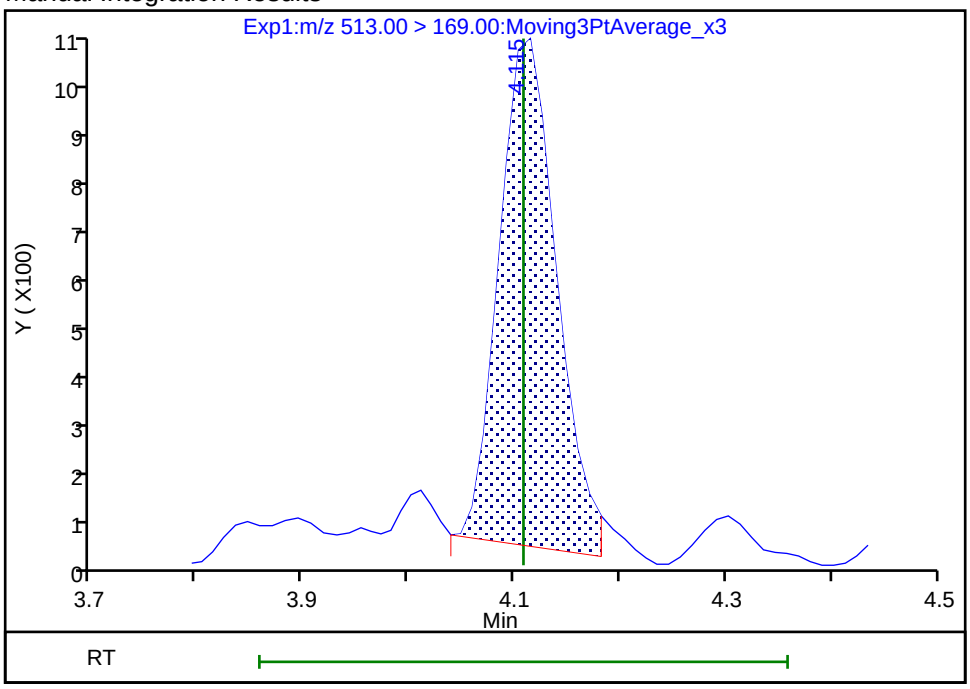
Processing Integration Results

RT: 4.11
Area: 3514
Amount: 0.024345
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 3728
Amount: 0.024345
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:07:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

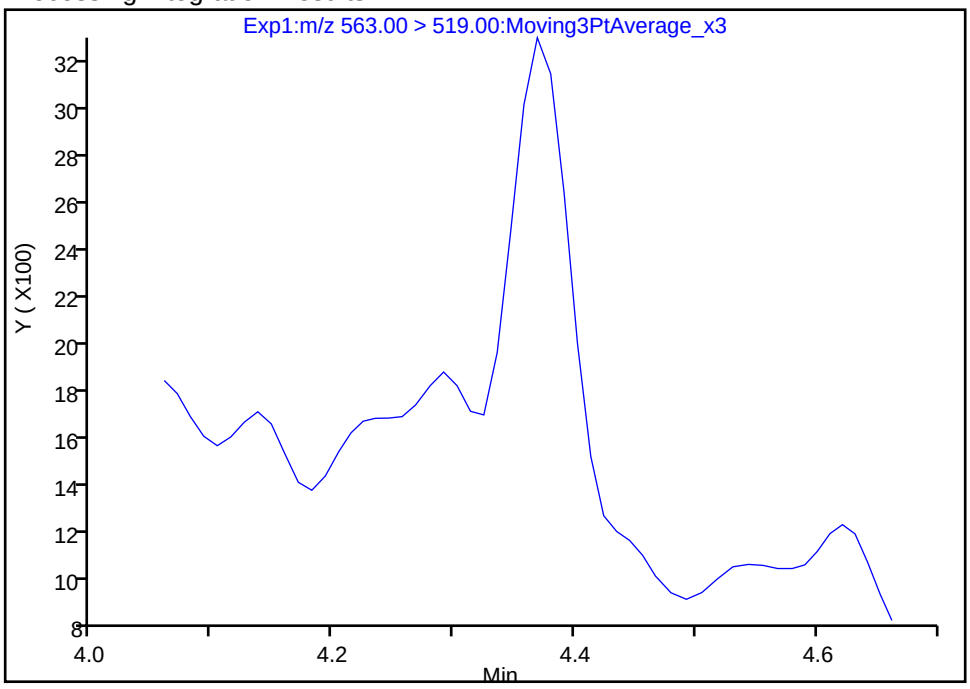
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

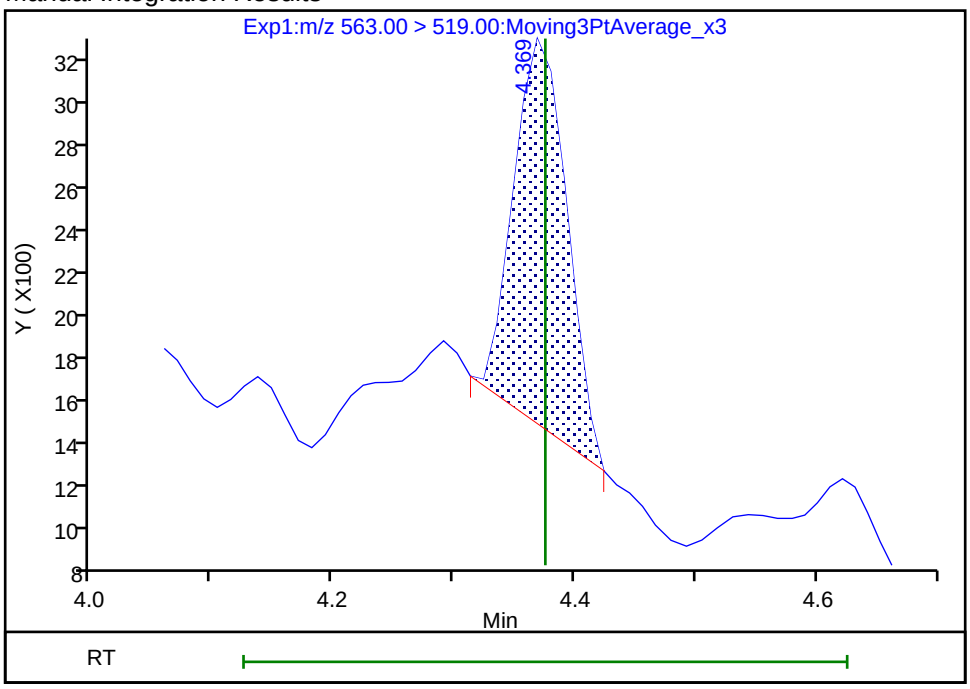
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 5387
Amount: 0.005944
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

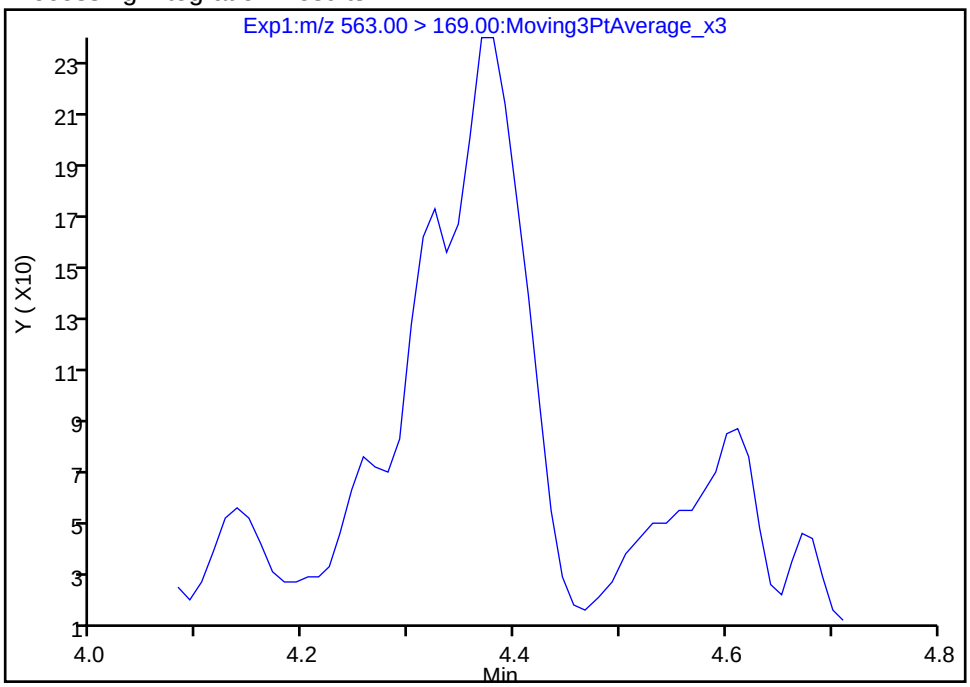
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

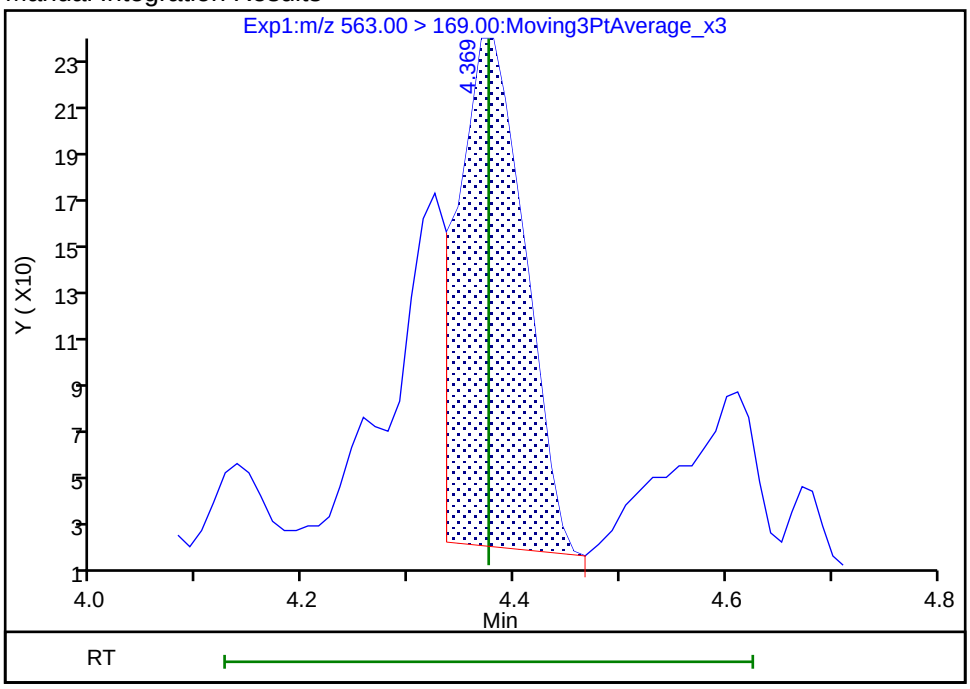
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 948
Amount: 0.005944
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

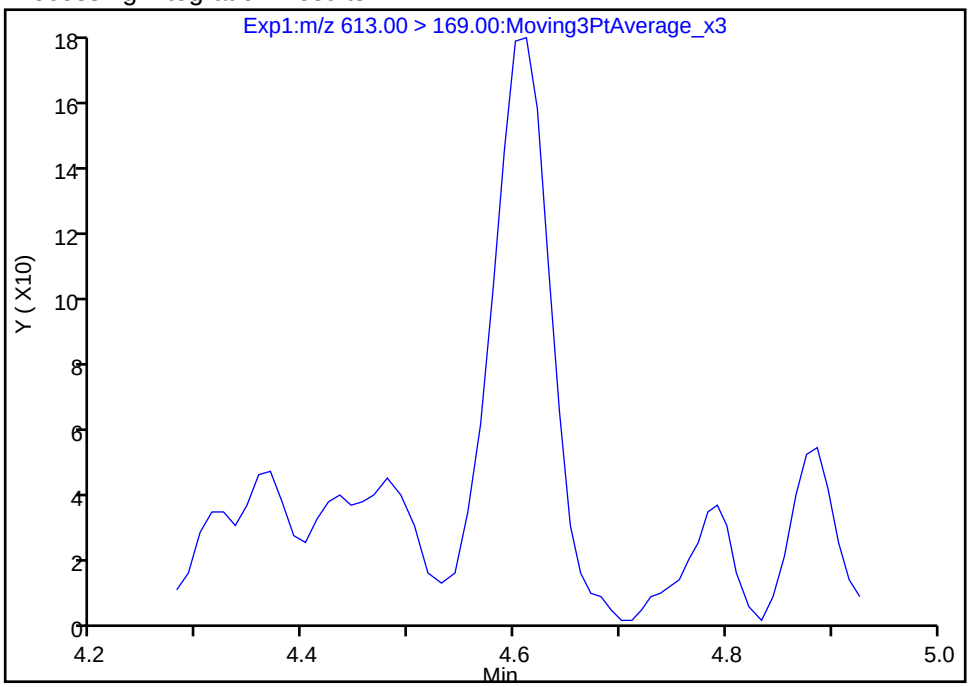
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

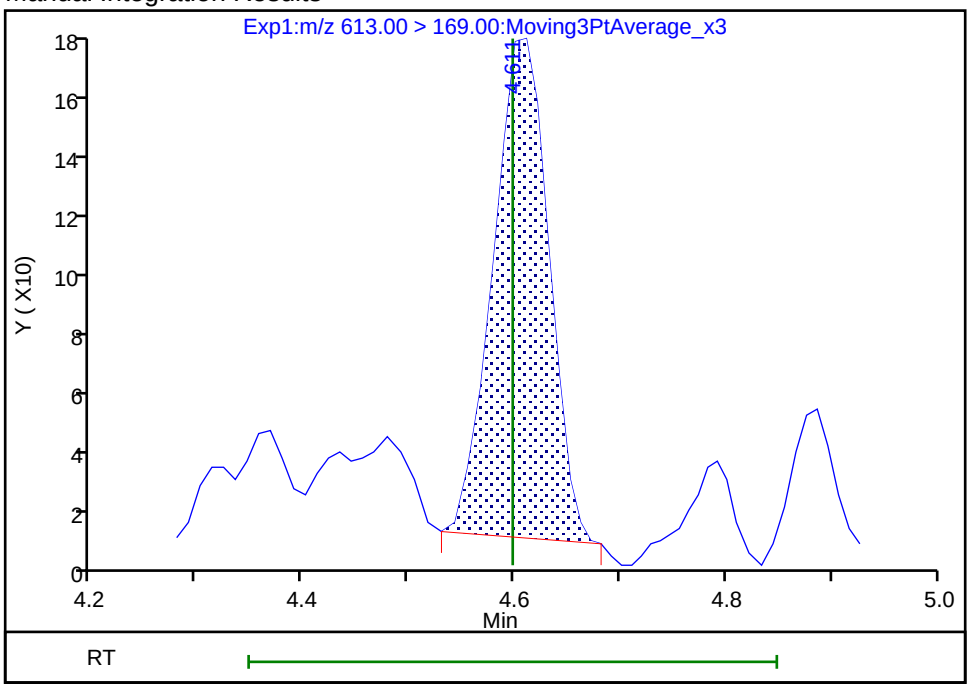
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 596
Amount: 0.002643
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

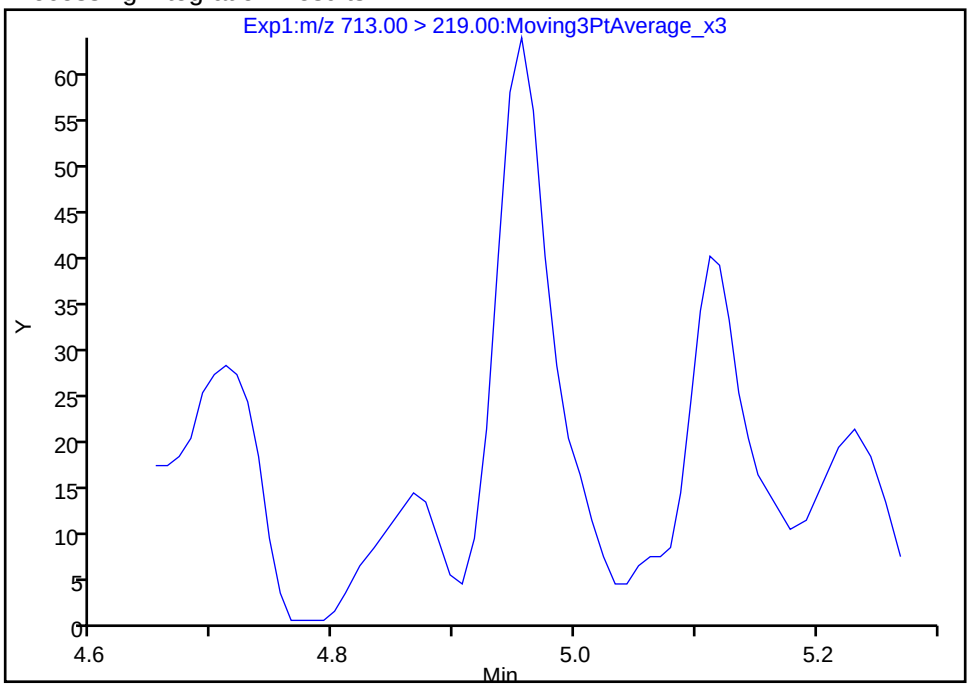
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

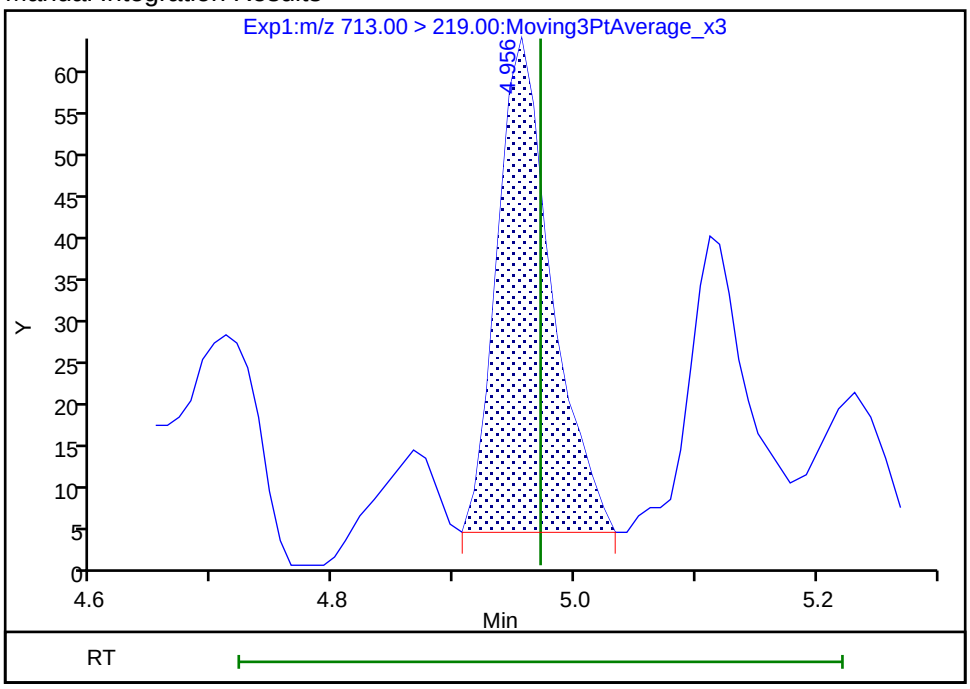
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.96
Area: 187
Amount: 0.001607
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

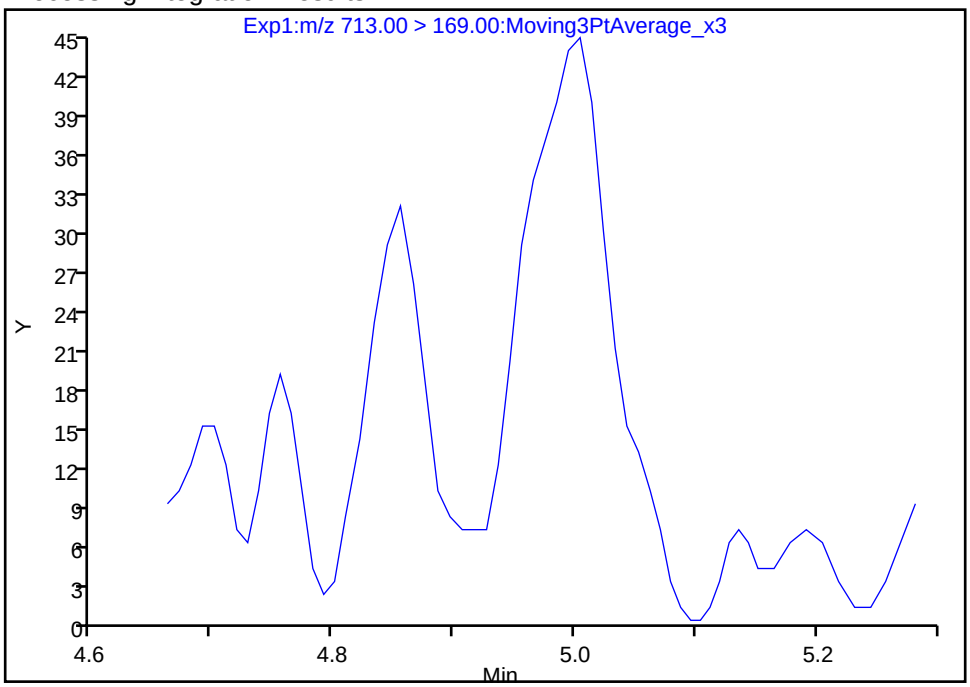
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

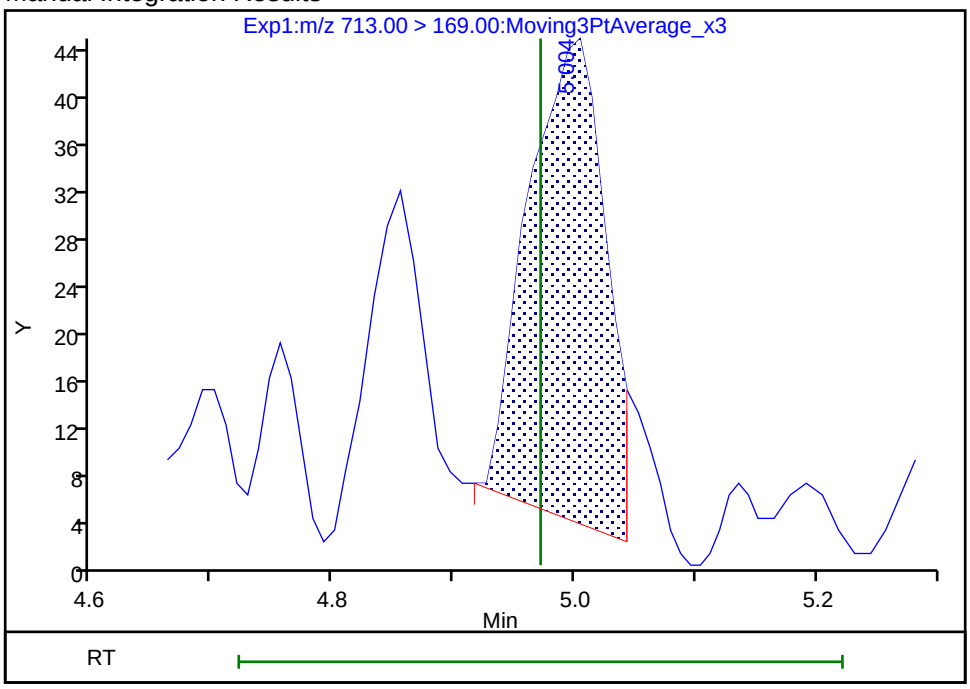
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 5.00
Area: 181
Amount: 0.001607
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

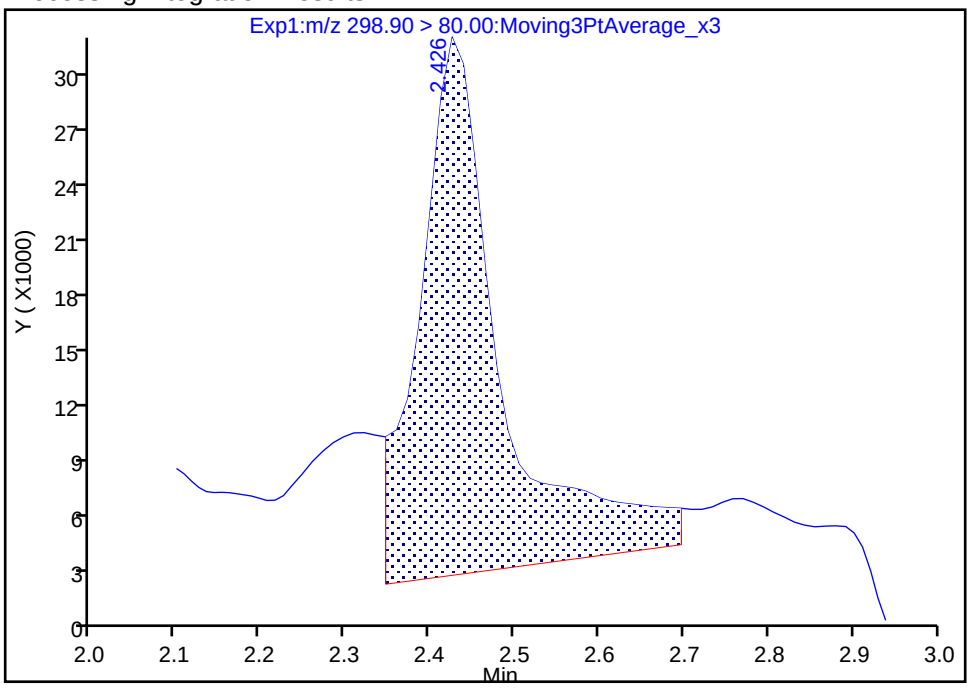
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 |
| Client ID: | AMW-3-20211028 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 Worklist Smp#: 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

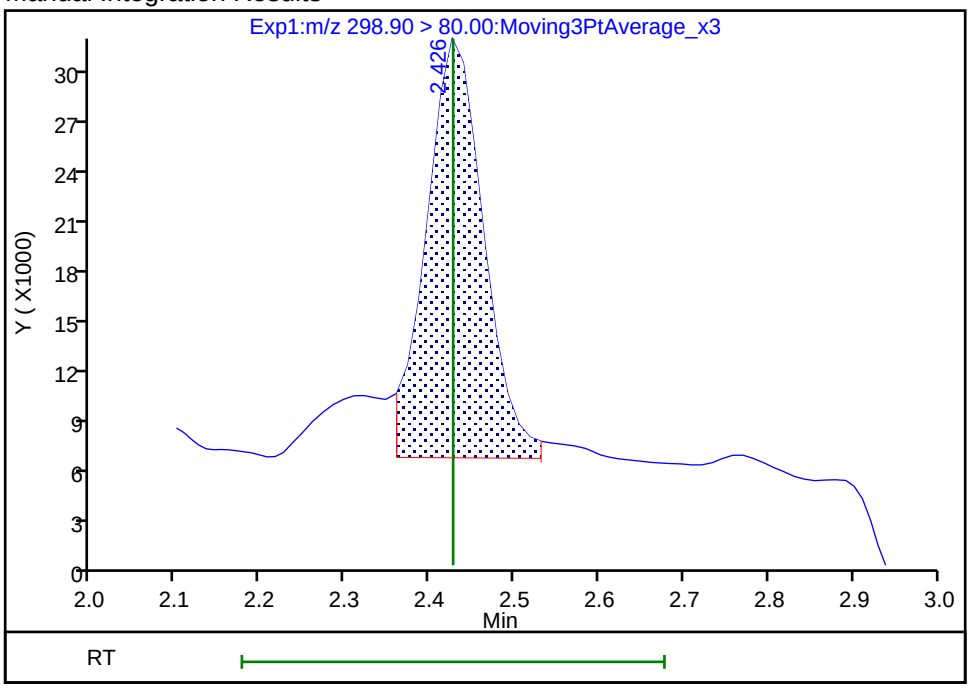
Processing Integration Results

RT: 2.43
Area: 191848
Amount: 0.145778
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 116453
Amount: 0.088488
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

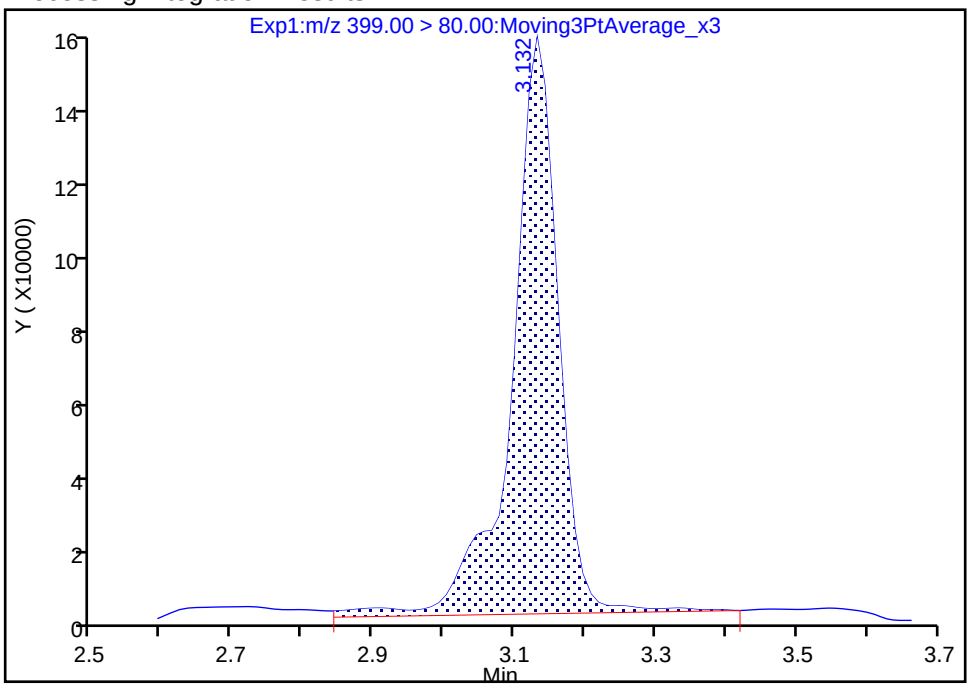
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

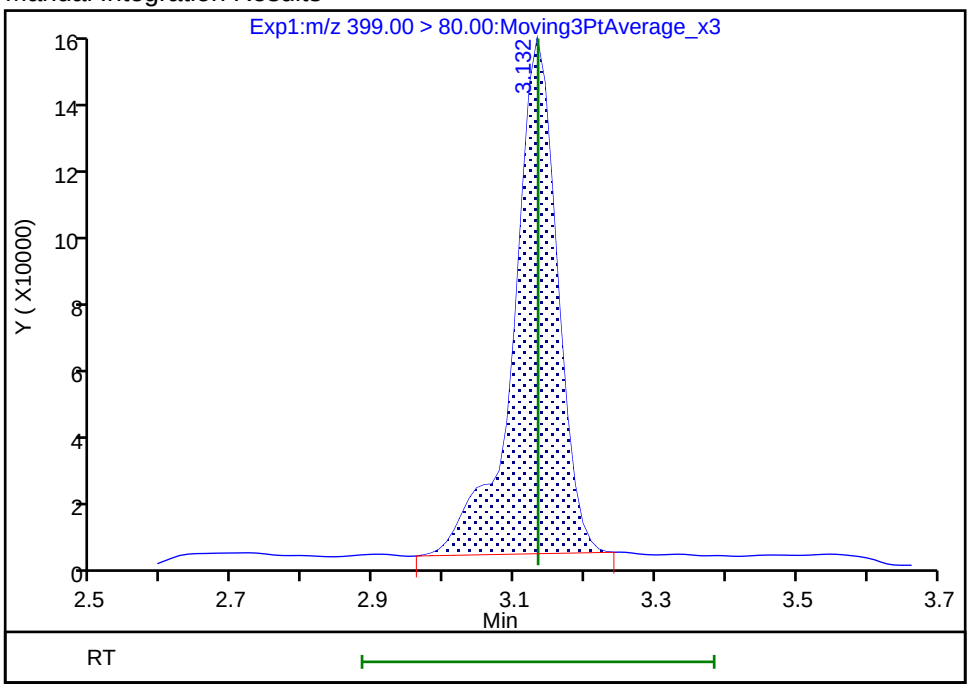
Processing Integration Results

RT: 3.13
Area: 685726
Amount: 0.646541
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 638125
Amount: 0.601660
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

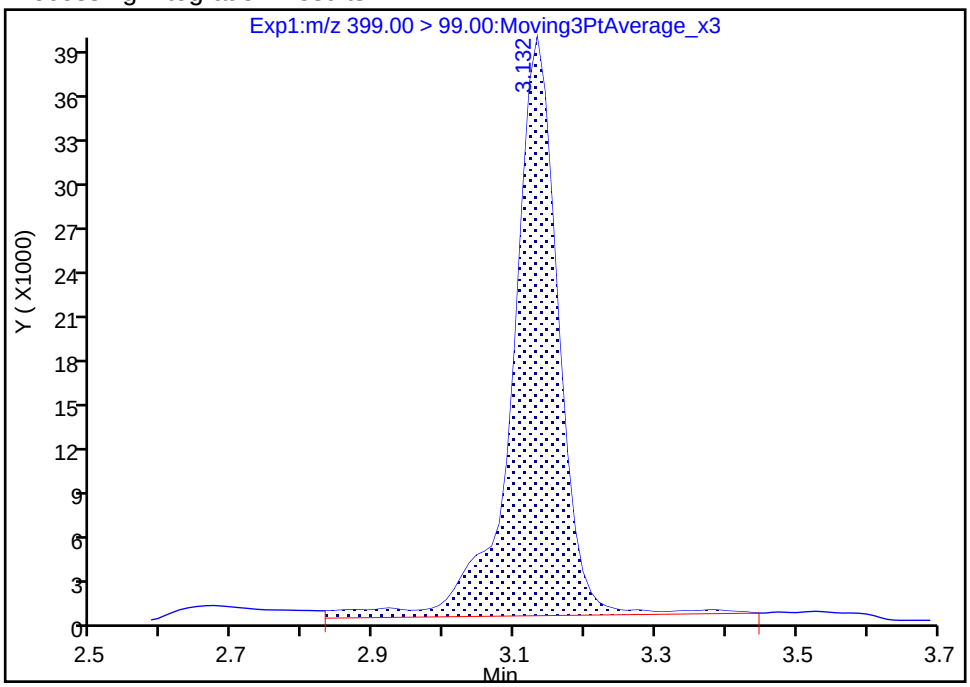
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

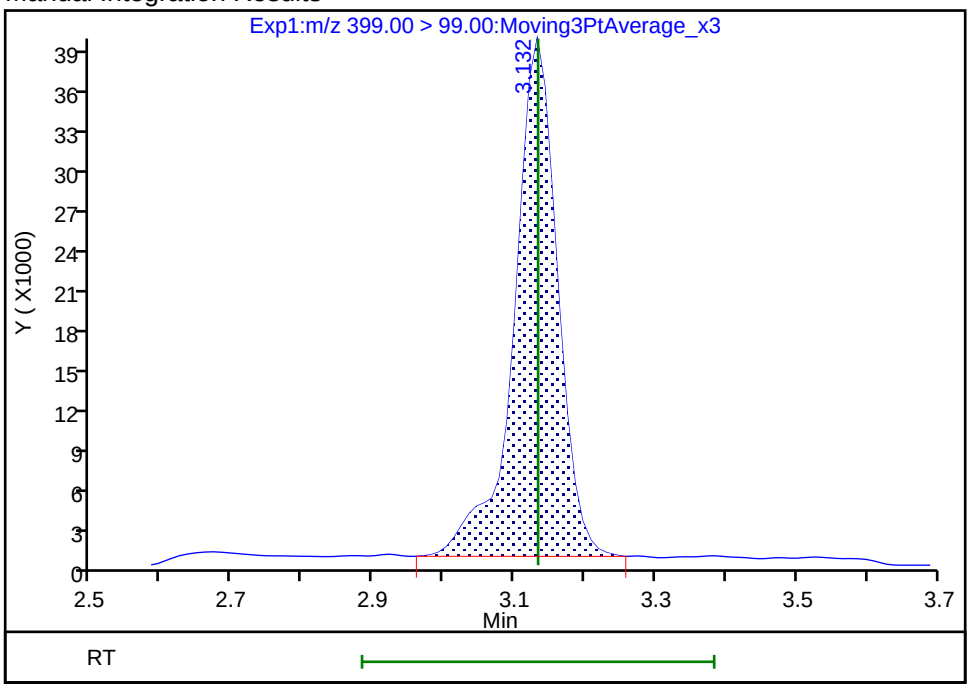
Processing Integration Results

RT: 3.13
Area: 180951
Amount: 0.646541
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 168030
Amount: 0.601660
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

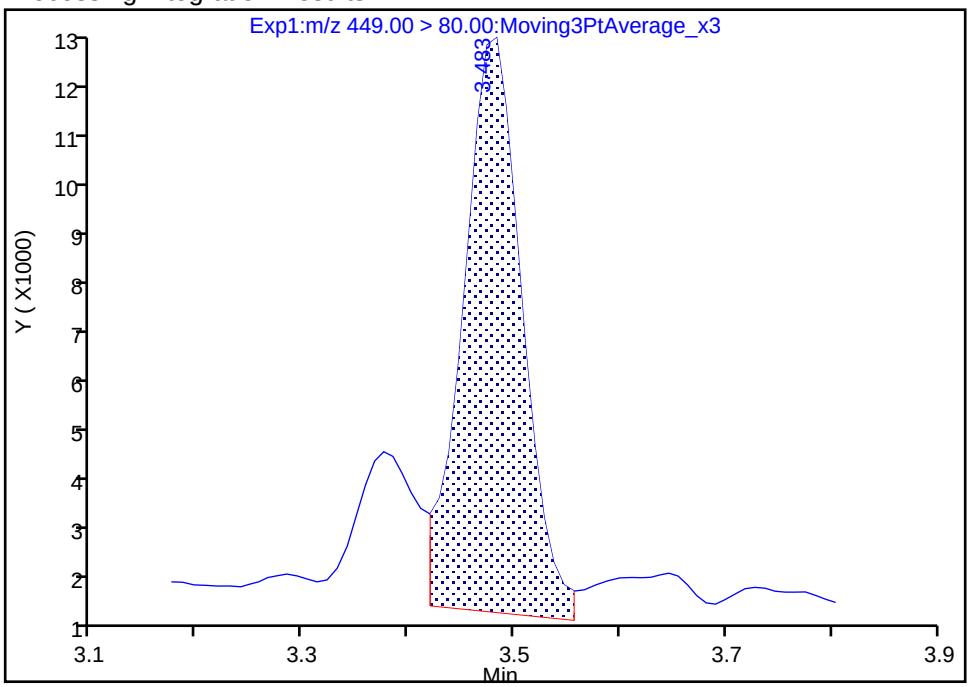
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

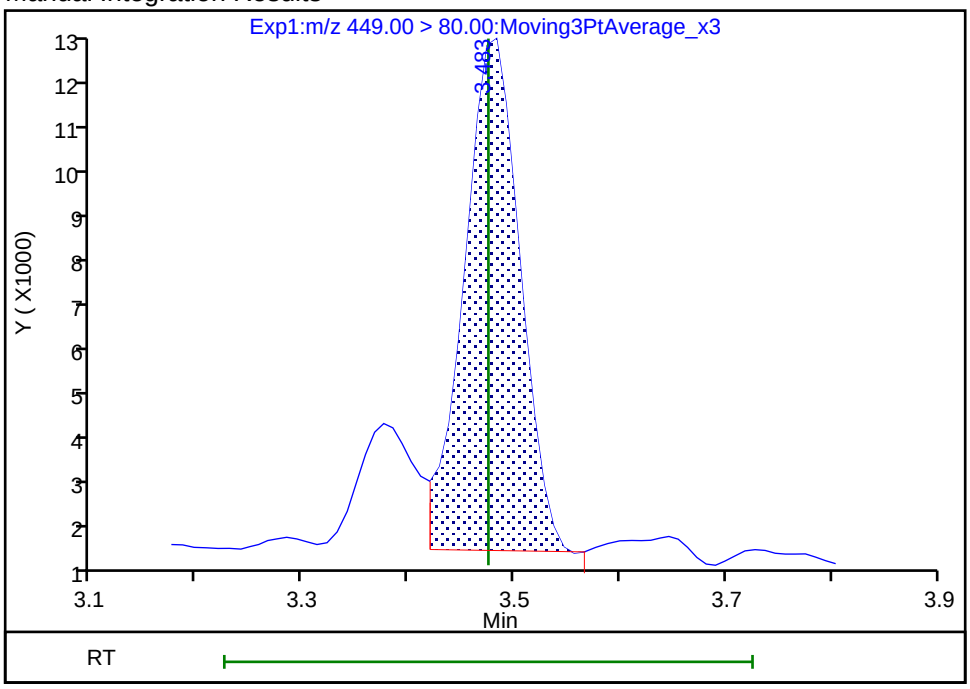
Processing Integration Results

RT: 3.48
Area: 44683
Amount: 0.050427
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 40604
Amount: 0.045823
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

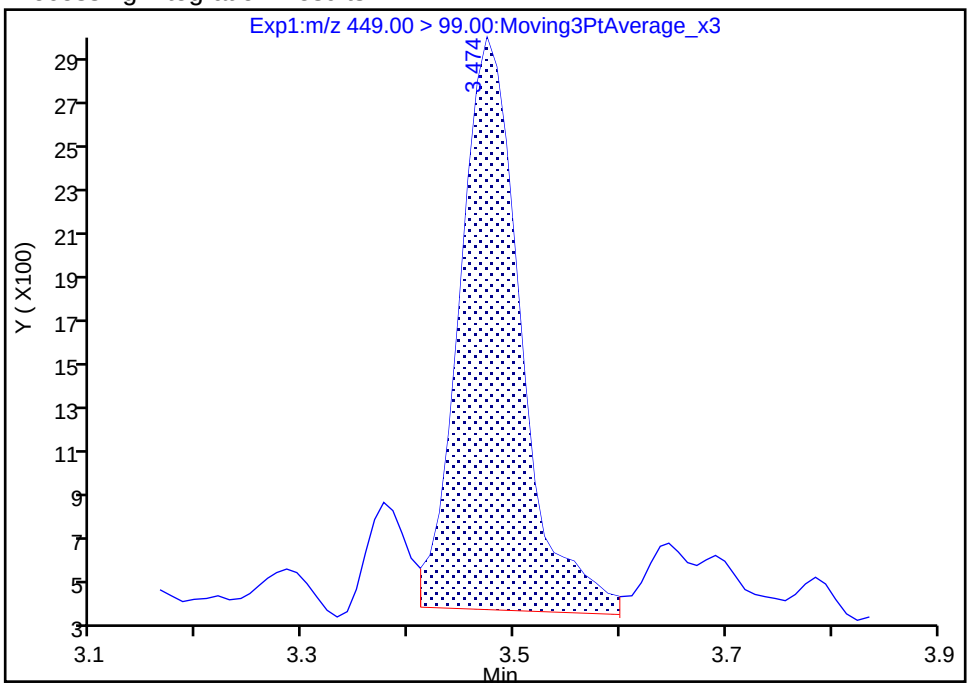
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

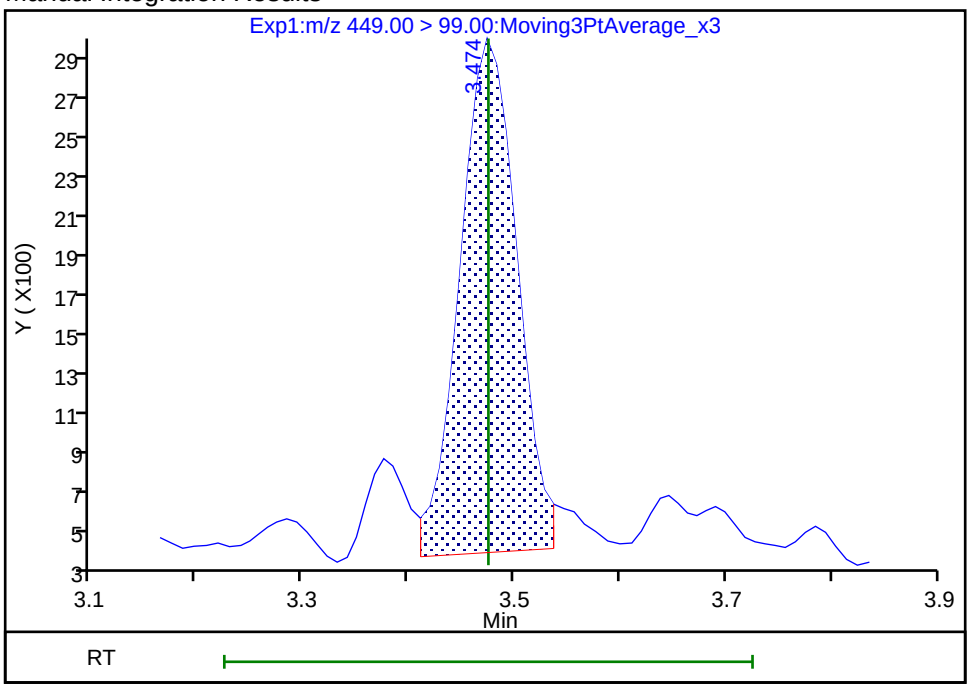
Processing Integration Results

RT: 3.47
Area: 10322
Amount: 0.050427
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 9573
Amount: 0.045823
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:05:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

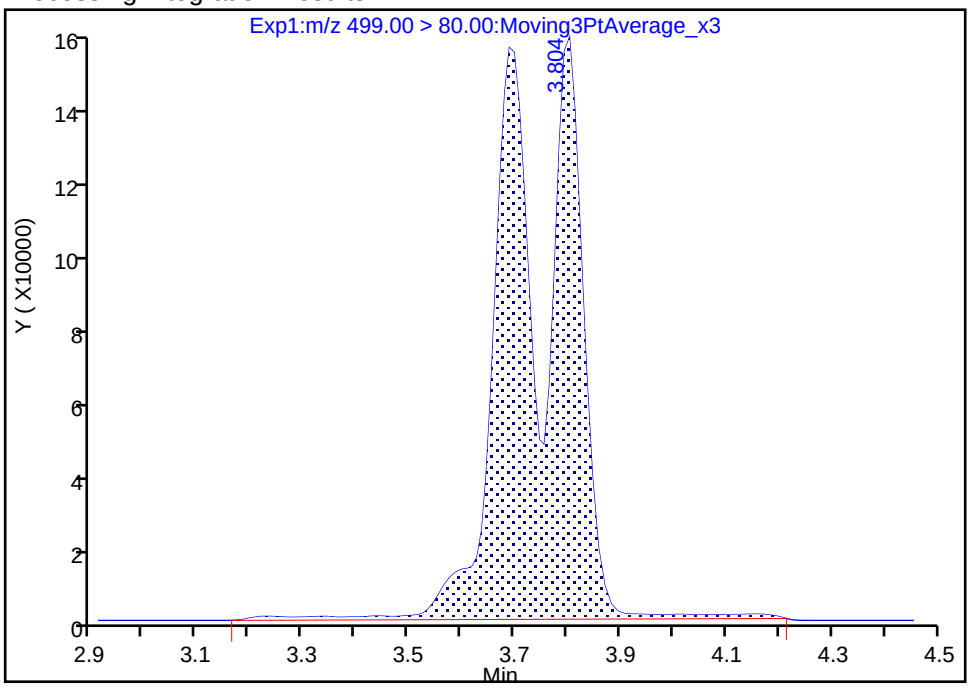
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

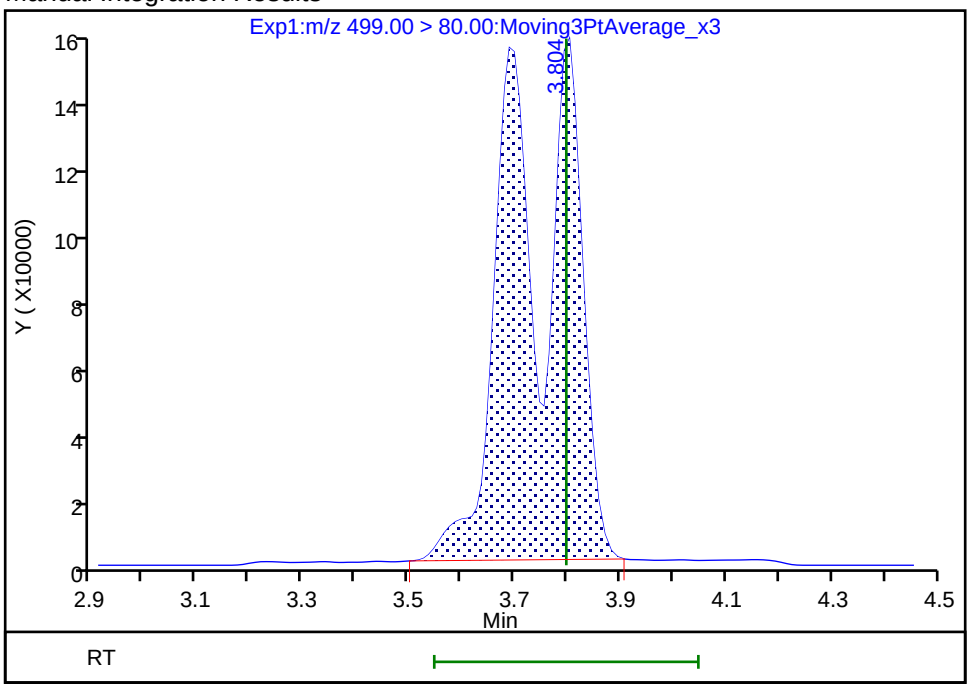
Processing Integration Results

RT: 3.80
Area: 1403725
Amount: 1.820043
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1335157
Amount: 1.731139
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:06:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

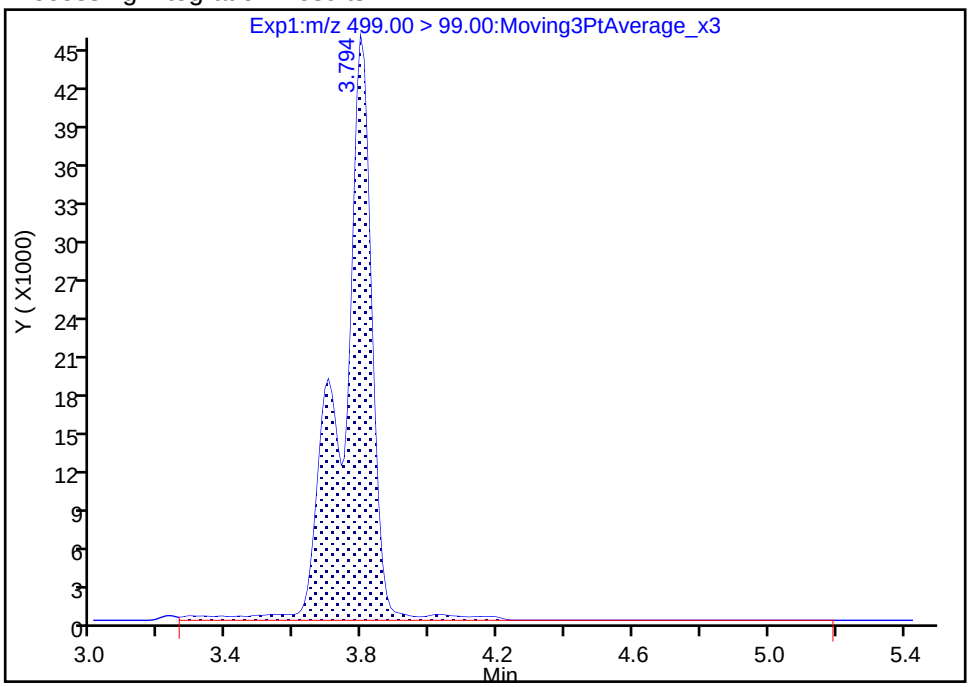
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

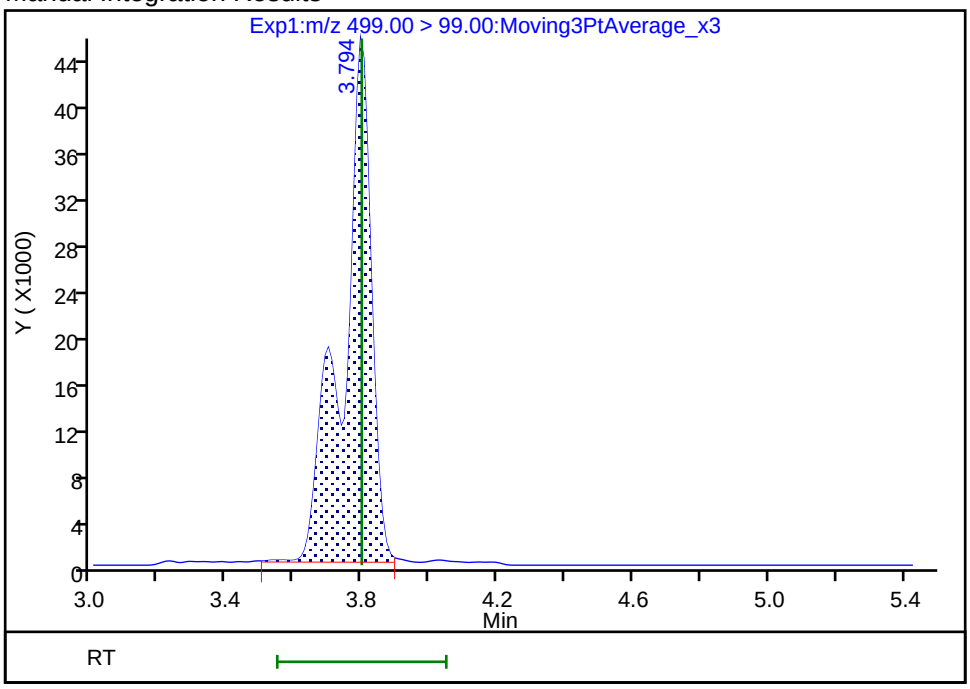
Processing Integration Results

RT: 3.79
Area: 283700
Amount: 1.820043
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 266784
Amount: 1.731139
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:22:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

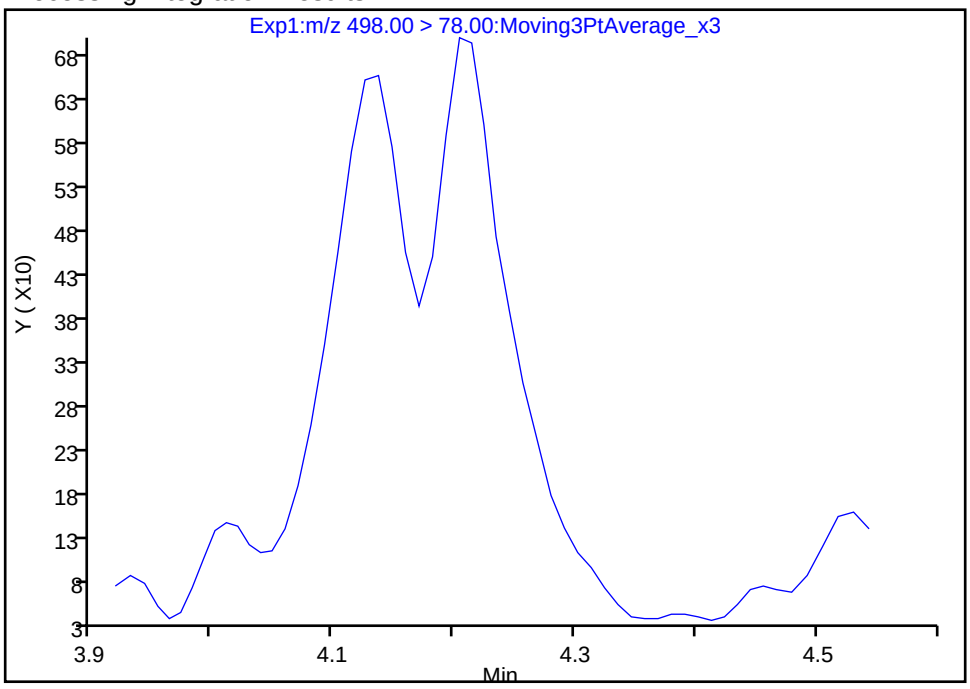
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

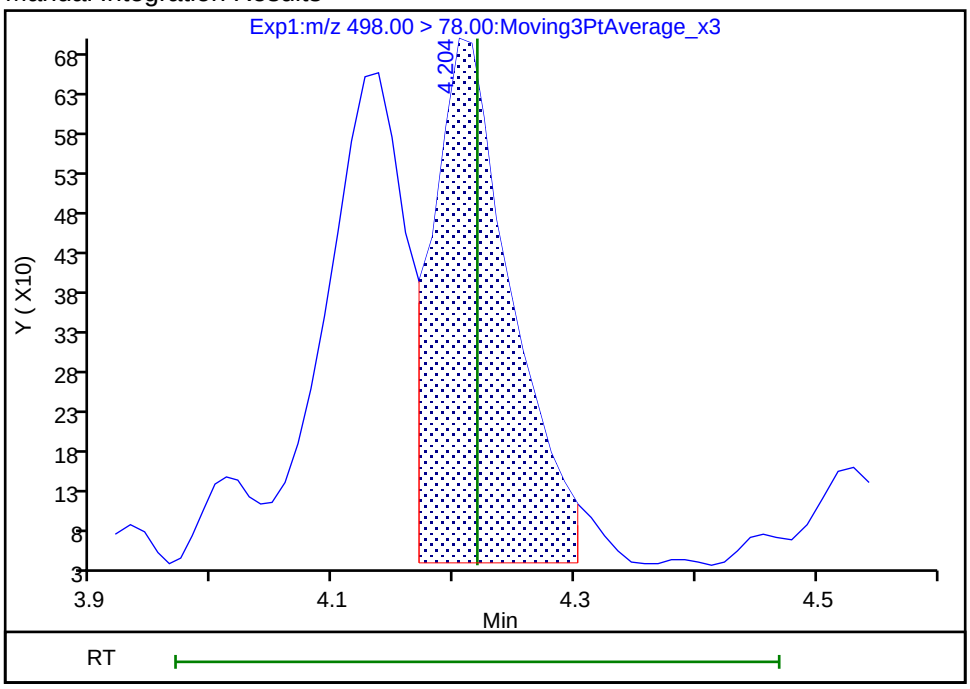
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.20
Area: 2934
Amount: 0.003462
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:07:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

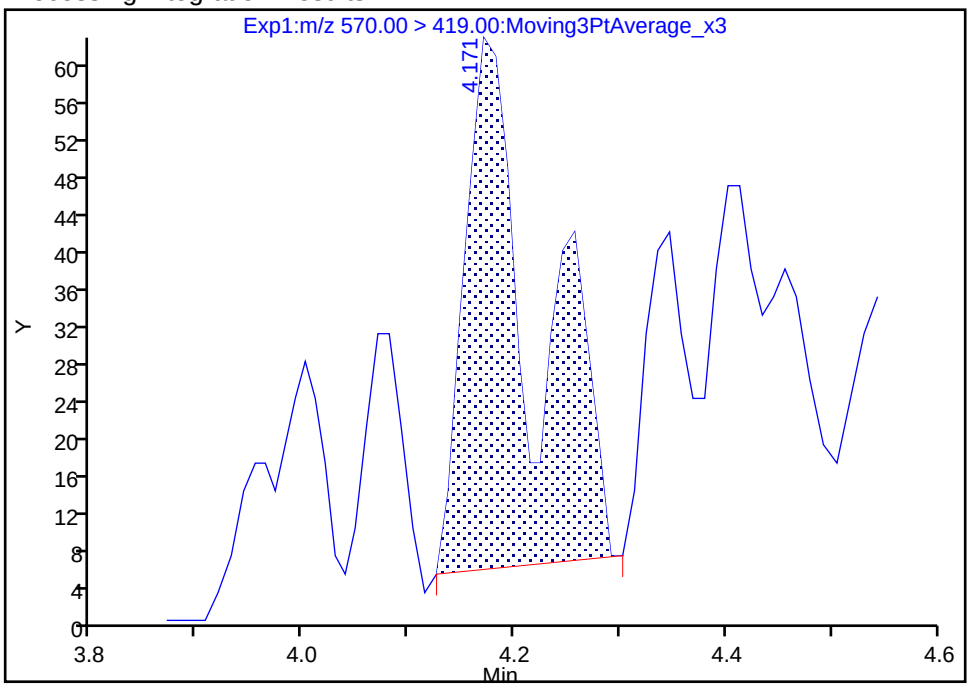
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

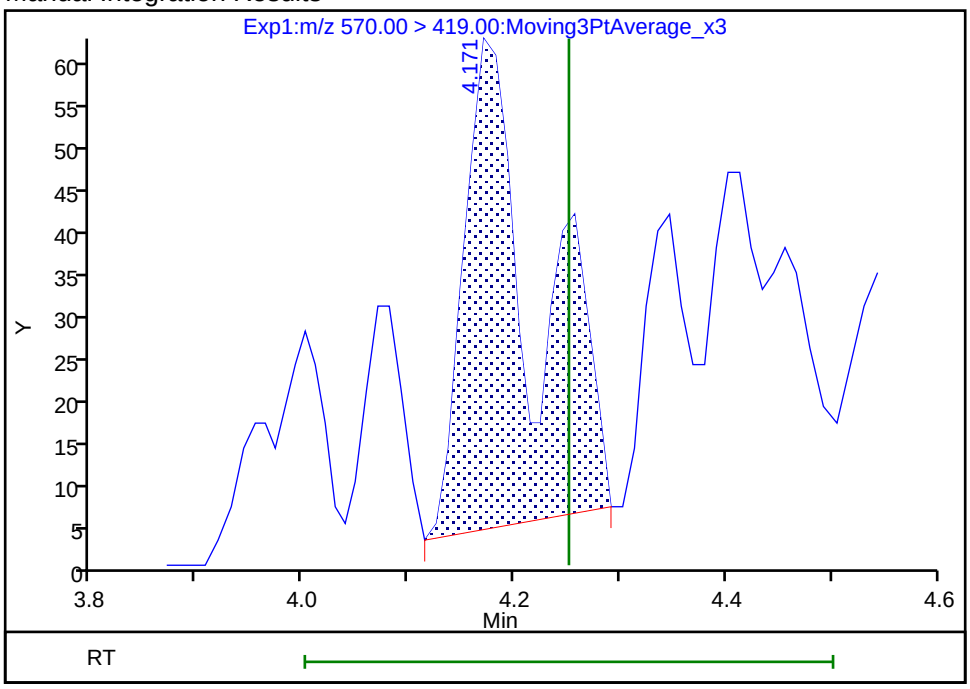
Processing Integration Results

RT: 4.17
Area: 273
Amount: 0.002340
Amount Units: ng/ml




Manual Integration Results

RT: 4.17
Area: 282
Amount: 0.002417
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:07:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

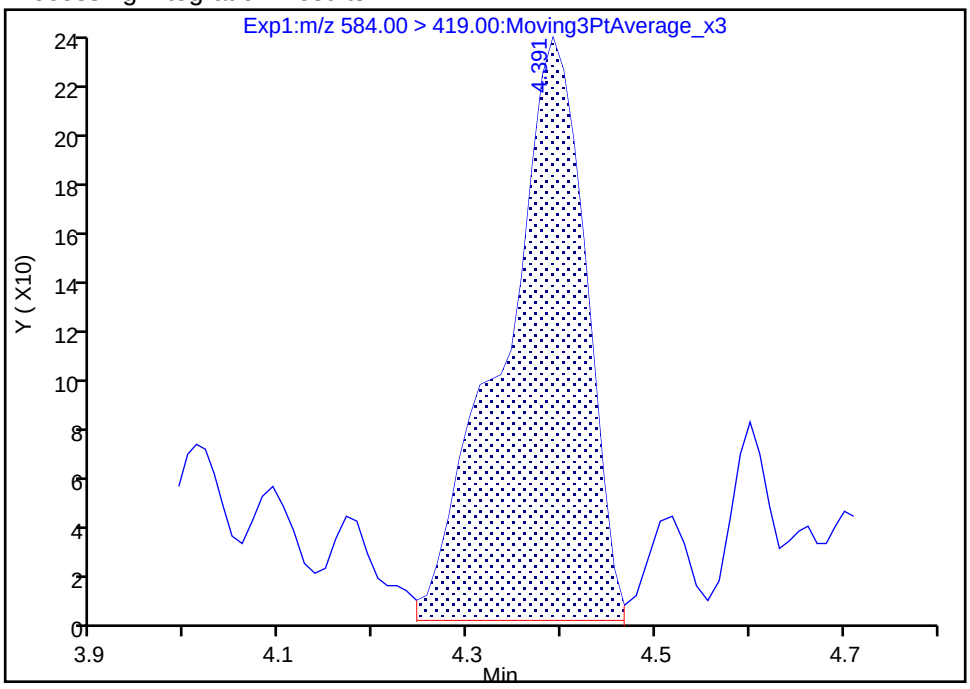
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

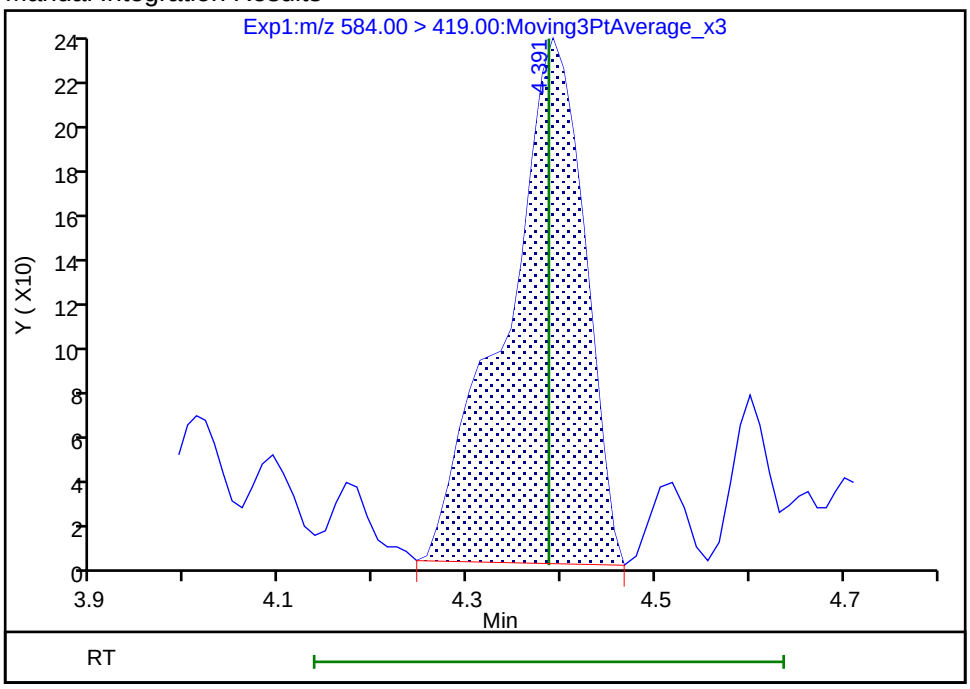
Processing Integration Results

RT: 4.39
Area: 1426
Amount: 0.010846
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 1333
Amount: 0.010139
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:08:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

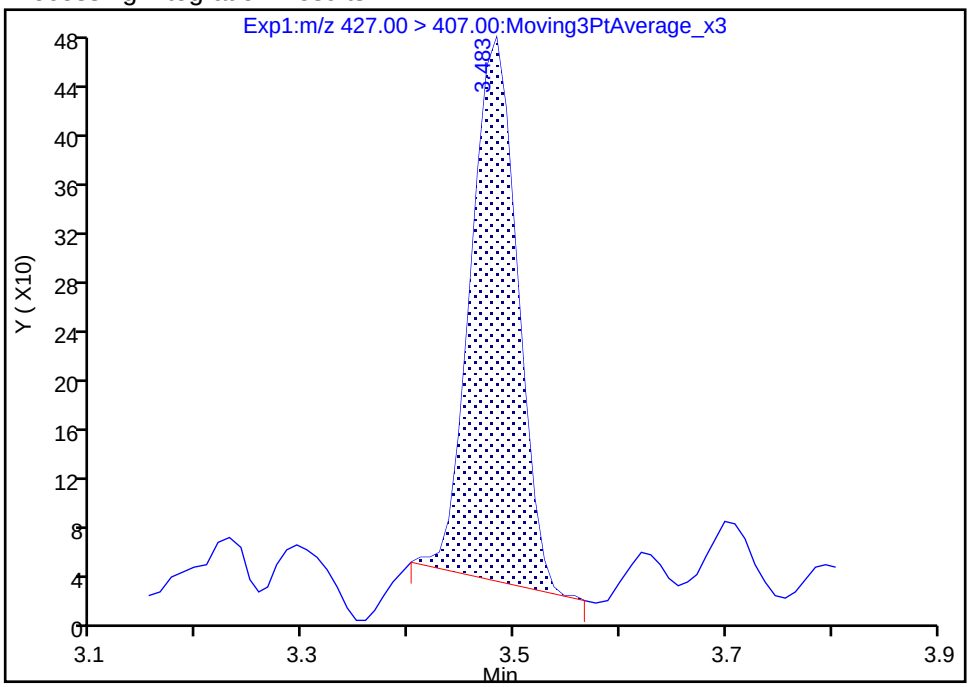
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

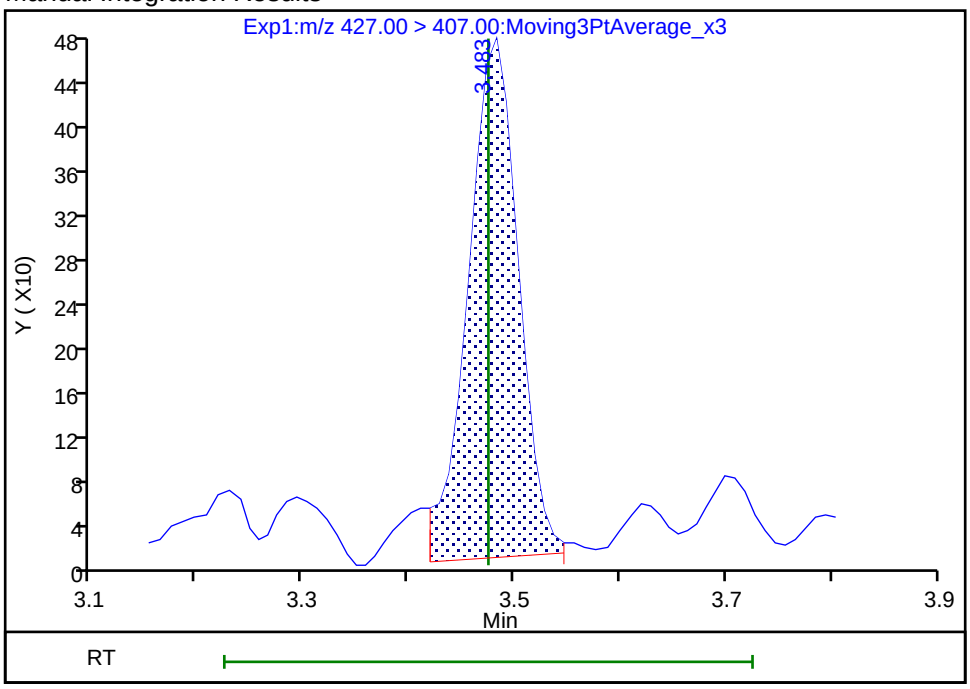
Processing Integration Results

RT: 3.48
Area: 1347
Amount: 0.004699
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1527
Amount: 0.005327
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:06:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

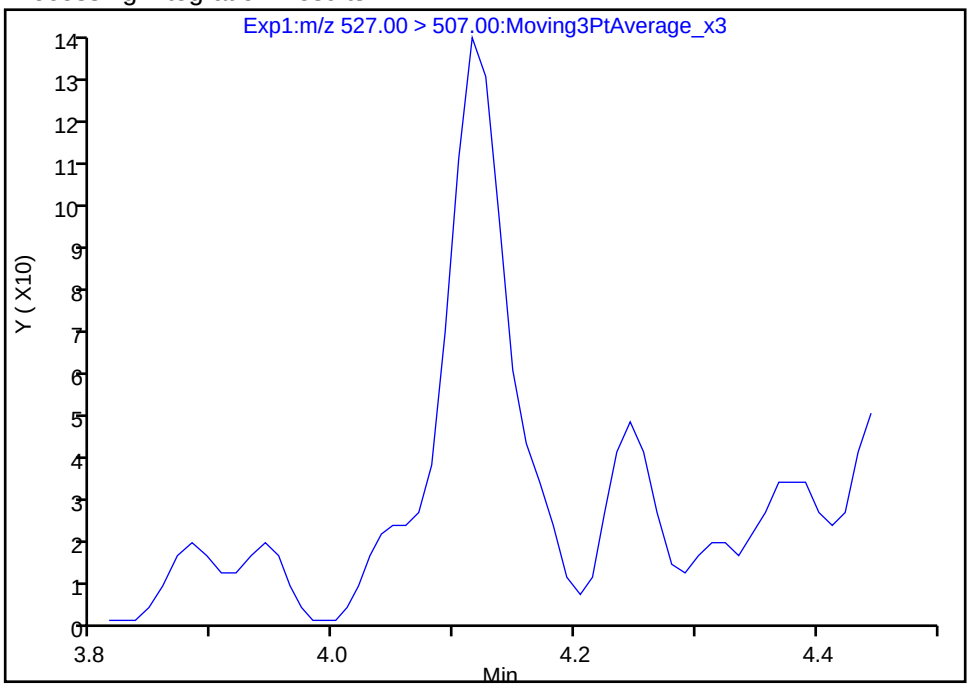
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

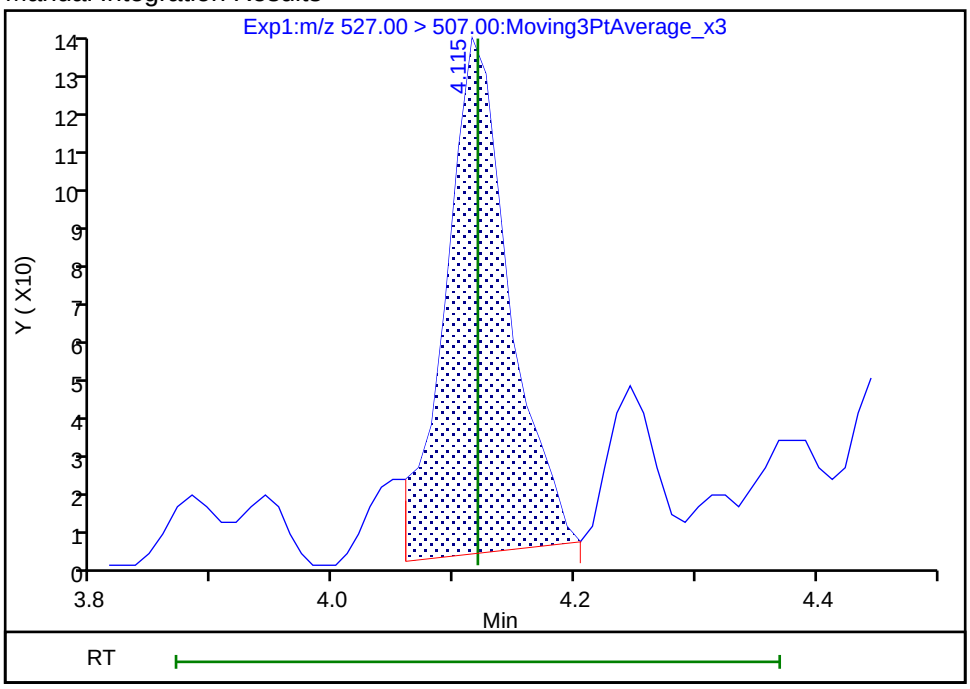
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 482
Amount: 0.002169
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:07:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

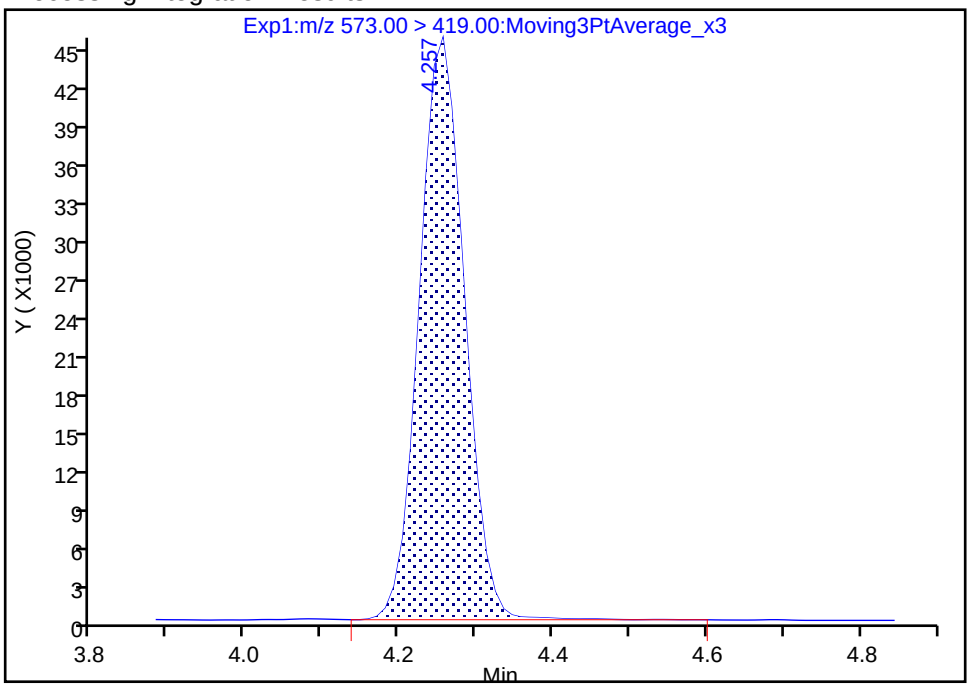
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

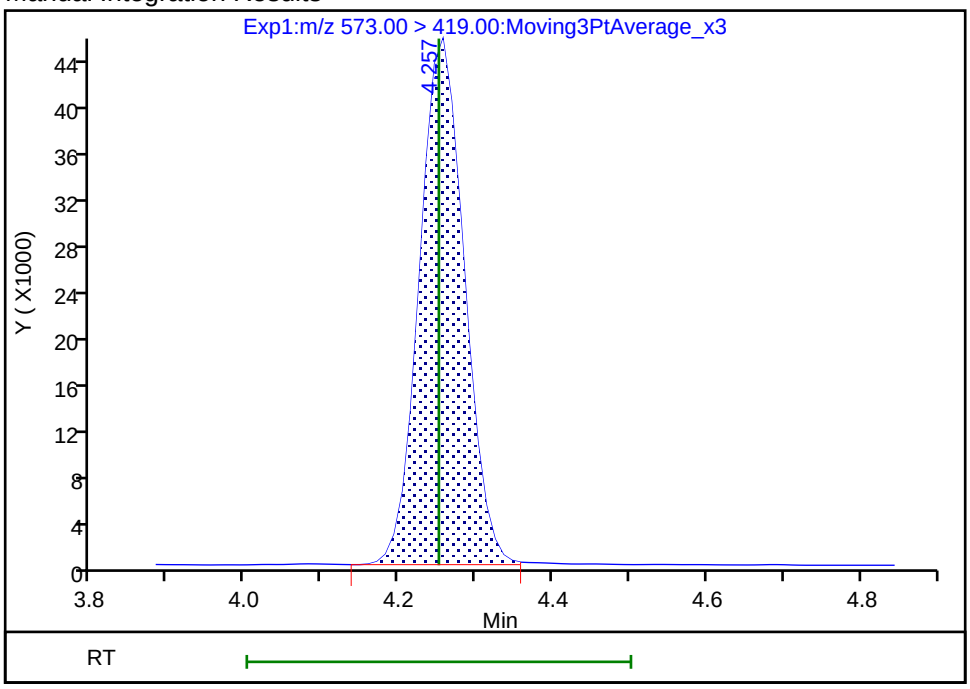
Processing Integration Results

RT: 4.26
Area: 186421
Amount: 1.691815
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 185614
Amount: 1.684491
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:04:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

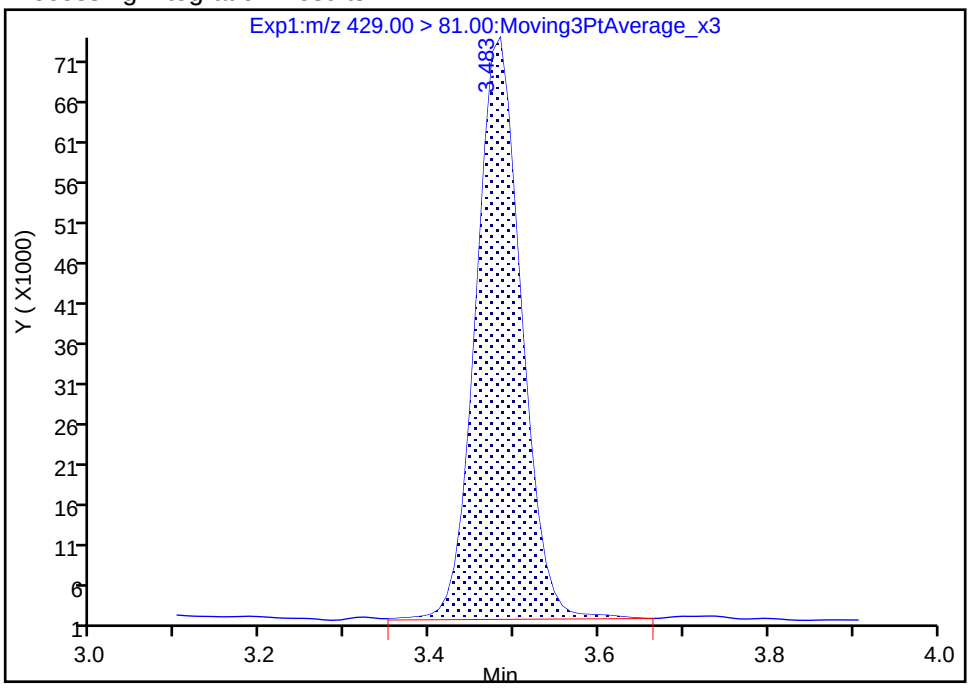
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

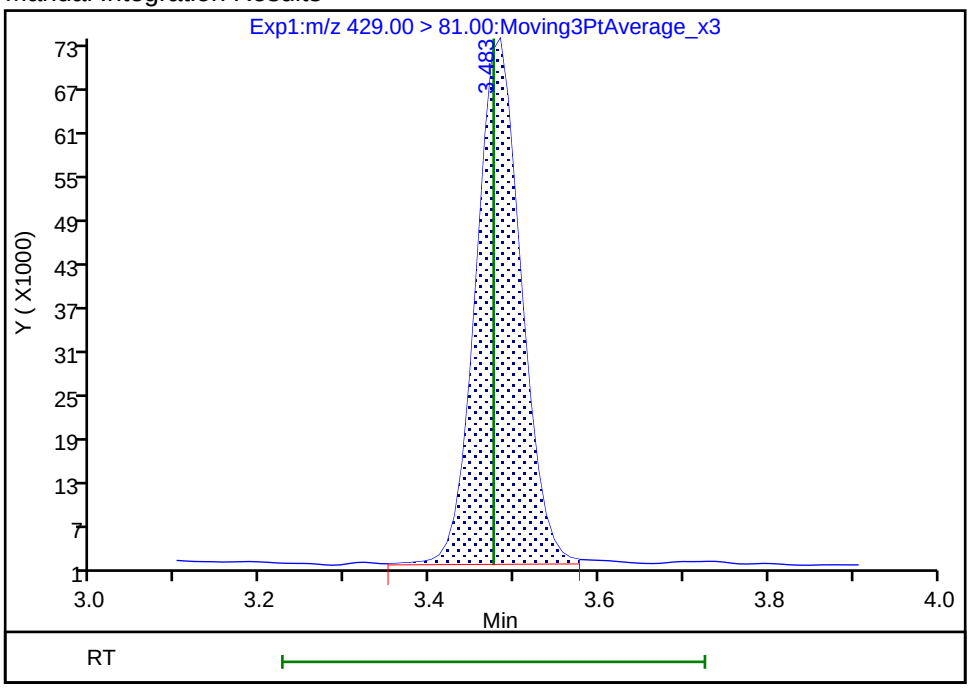
Processing Integration Results

RT: 3.48
Area: 270027
Amount: 1.886016
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 268437
Amount: 1.874910
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:04:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

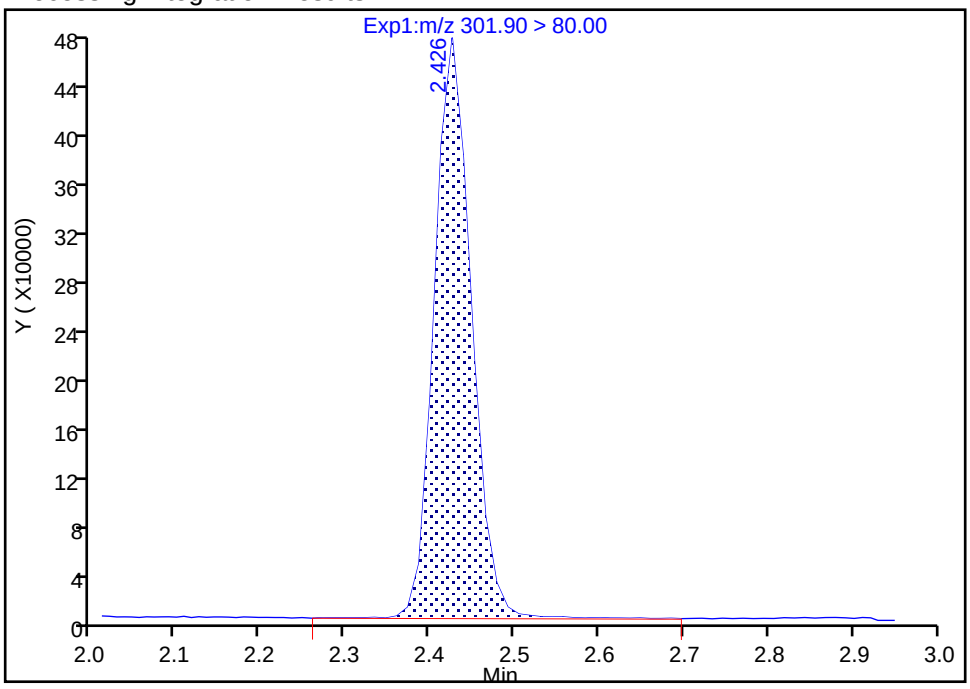
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A14.d | | | | |
| Injection Date: | 10-Nov-2021 13:09:04 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-23-A | Lab Sample ID: | 200-246277-23 | | |
| Client ID: | AMW-3-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

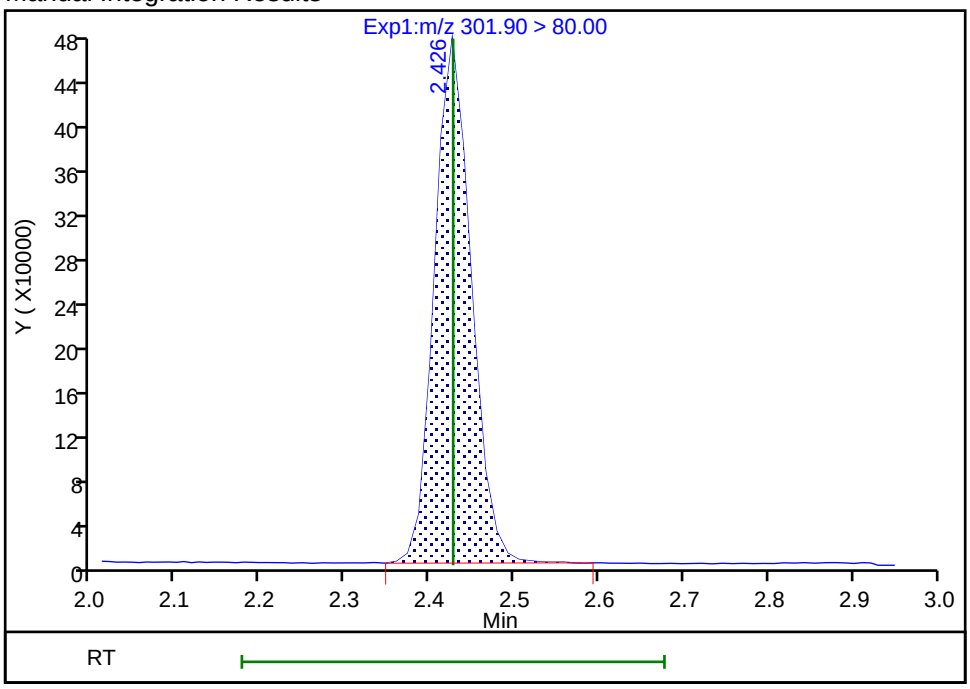
Processing Integration Results

RT: 2.43
Area: 1448683
Amount: 1.159281
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1432394
Amount: 1.146246
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:04:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: DUP-02-20211028  Lab Sample ID: 460-246277-24

Matrix: Water  Lab File ID: PA211110A15.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 12:00

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 273.5(mL)  Date Analyzed: 11/10/2021 13:17

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 9.17 | | 4.57 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 7.30 | | 1.83 | 0.43 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 5.51 | I | 1.83 | 0.41 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.88 | | 1.83 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 15.6 | | 1.83 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.49 | J | 1.83 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 1.03 | J | 1.83 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.36 | J | 1.83 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.83 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.83 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.83 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 3.28 | B | 1.83 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 22.8 | | 1.83 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.57 | J | 1.83 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 62.9 | | 1.83 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.83 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.83 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.57 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.79 | J | 4.57 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.00 | U | 4.57 | 1.00 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.83 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: DUP-02-20211028  Lab Sample ID: 460-246277-24

Matrix: Water  Lab File ID: PA211110A15.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 12:00

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 273.5(mL)  Date Analyzed: 11/10/2021 13:17

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 101 | | 50-150 |
| STL01892 | 13C4 PFHpA | 101 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 105 | | 50-150 |
| STL00995 | 13C5 PFNA | 98 | | 50-150 |
| STL00992 | 13C4 PFBA | 75 | | 25-150 |
| STL00993 | 13C2 PFHxA | 98 | | 50-150 |
| STL00996 | 13C2 PFDA | 95 | | 50-150 |
| STL00997 | 13C2 PFUnA | 96 | | 50-150 |
| STL00998 | 13C2 PFDoA | 94 | | 50-150 |
| STL01056 | 13C8 FOSA | 83 | | 25-150 |
| STL01893 | 13C5 PFPeA | 92 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 92 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 133 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 140 | | 50-150 |
| STL02279 | M2-6:2 FTS | 145 | | 25-150 |
| STL02280 | M2-8:2 FTS | 149 | | 25-150 |
| STL02337 | 13C3 PFBS | 100 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d
Lims ID: 460-246277-C-24-A
Client ID: DUP-02-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 13:17:15 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-24-A
Misc. Info.: 200-0048360-015 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:28:21
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.090 | 2.091 | -0.001 | 0.599 | 864606 | 0.9372 | | 75.0 | 1018 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.090 | 2.091 | -0.001 | 1.000 | 164000 | 0.2508 | | | 4.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.412 | 2.414 | -0.002 | 0.691 | 896285 | 1.15 | | 92.3 | 228 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.399 | 2.414 | -0.015 | 0.995 | 143391 | 0.1996 | | | 0.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.425 | 2.427 | -0.002 | 0.695 | 1227032 | 1.17 | | 100 | 21717 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.425 | 2.427 | -0.002 | 1.000 | 101179 | 0.0897 | Target=2.32 | | 2.9 | M |
| 298.90 > 99.00 | 2.425 | 2.427 | -0.002 | 1.000 | 32288 | | 3.13(1.16-3.48) | | 2.2 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.769 | 2.759 | 0.010 | 0.793 | 995750 | 1.22 | | 97.7 | 1446 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | RM |
| 313.00 > 269.00 | 2.769 | 2.771 | -0.002 | 1.000 | 121795 | 0.1508 | Target=12.09 | | 1.0 | RM |
| 313.00 > 119.00 | 2.769 | 2.771 | -0.002 | 1.000 | 6436 | | 18.92(6.04-18.13) | | 2.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.130 | 3.133 | -0.003 | 1.000 | 526925 | 0.6238 | Target=3.55 | | 52.4 | M |
| 399.00 > 99.00 | 3.130 | 3.133 | -0.003 | 1.000 | 137523 | | 3.83(1.77-5.32) | | 54.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.130 | 3.133 | -0.003 | 0.896 | 908572 | 1.19 | | 101 | 2596 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.140 | 3.133 | 0.007 | 0.899 | 1079125 | 1.26 | | 101 | 2473 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.140 | 3.133 | 0.007 | 1.000 | 70142 | 0.0786 | Target=3.69 | | 1.6 | M |
| 363.00 > 169.00 | 3.130 | 3.133 | -0.003 | 0.997 | 19776 | | 3.55(1.84-5.53) | | 18.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 30982 | 0.0429 | Target=4.88 | | 5.6 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 7072 | | 4.38(2.44-7.32) | | 4.2 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 1759 | 0.007938 | | | 16.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 207504 | 1.72 | | 145 | 50.0 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1120706 | 1.20 | | 95.6 | 2795 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1139226 | 1.25 | | | 2787 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 406299 | 0.4261 | Target=2.68 | | 11.7 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 162823 | | 2.50(1.34-4.02) | | 168 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 691924 | 1.25 | | 105 | 188 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.798 | -0.099 | 0.972 | 1081649 | 1.72 | Target=4.69 | | 130 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 211389 | | 5.12(2.35-7.04) | | 139 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1141039 | 1.22 | | 97.7 | 1879 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 36474 | 0.0408 | Target=7.29 | | 2.6 | |
| 463.00 > 169.00 | 3.814 | 3.818 | -0.004 | 0.997 | 5113 | | 7.13(3.64-10.93) | | 13.7 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1122100 | 1.19 | | 95.2 | 3374 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 25452 | 0.0282 | Target=8.95 | | 2.9 | |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 3743 | | 6.80(4.47-13.42) | | 13.1 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 243532 | 1.78 | | 149 | 115 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.137 | 4.120 | 0.017 | 1.003 | 561 | 0.003298 | | | 6.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 943555 | 1.04 | | 83.0 | 3638 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.219 | 0.015 | 1.002 | 2549 | 0.003556 | | | 8.2 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 154625 | 1.67 | | 133 | 816 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 0.997 | 229 | 0.002357 | | | 1.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 882025 | 1.20 | | 96.0 | 3940 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.380 | 4.375 | 0.005 | 1.000 | 7361 | 0.009786 | Target=9.24 | | 1.7 | M |
| 563.00 > 169.00 | 4.369 | 4.375 | -0.006 | 0.997 | 811 | | 9.08(4.62-13.86) | | 7.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 151799 | 1.75 | | 140 | 671 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.387 | -0.007 | 0.997 | 2248 | 0.0216 | | | 8.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 930587 | 1.18 | | 94.2 | 1962 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.598 | -0.007 | 0.998 | 2281 | 0.003129 | Target=7.04 | | 0.6 | M |
| 613.00 > 169.00 | 4.612 | 4.598 | 0.014 | 1.002 | 314 | | 7.26(3.52-10.56) | | 4.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 705475 | 1.15 | | 92.1 | 1402 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.002 | 186 | 0.002088 | Target=1.01 | | 3.8 | M |
| 713.00 > 219.00 | 5.005 | 4.972 | 0.033 | 1.006 | 188 | | 0.99(0.51-1.52) | | 5.4 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d

Injection Date: 10-Nov-2021 13:17:15 Instrument ID: LC812

Lims ID: 460-246277-C-24-A Lab Sample ID: 200-246277-24

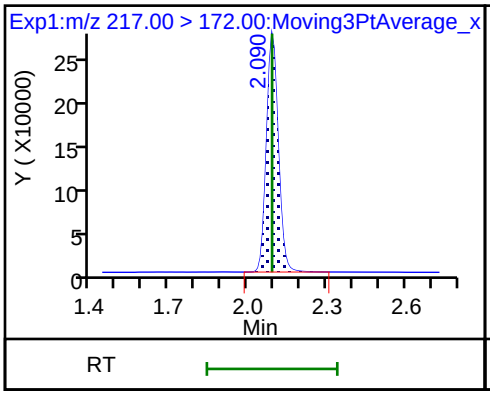
Client ID: DUP-02-20211028

Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15

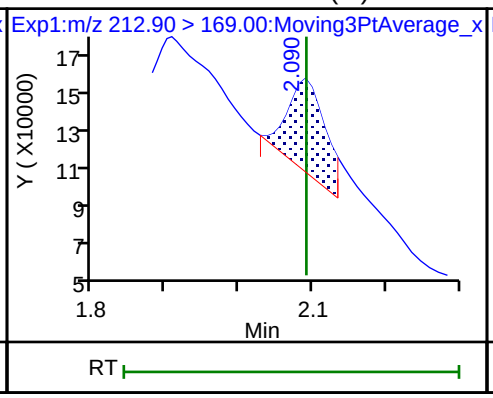
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

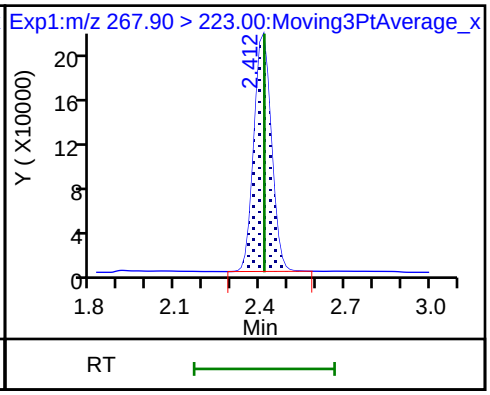
D 1 13C4 PFBA



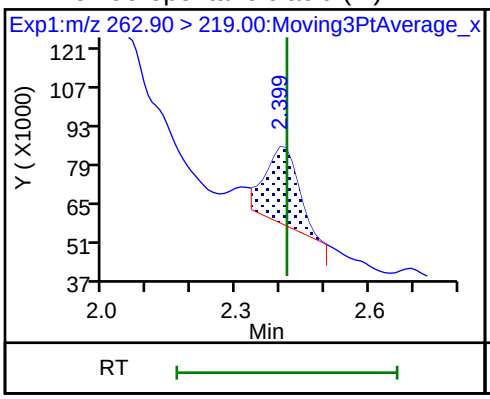

2 Perfluorobutanoic acid (M)



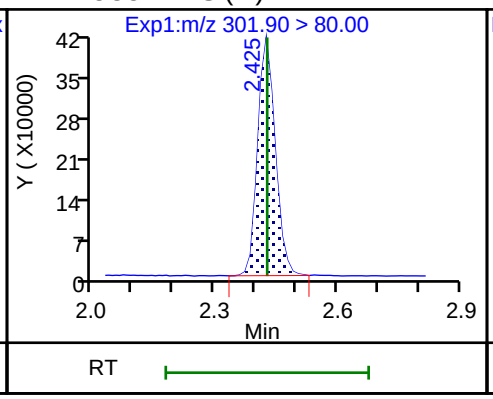

D 3 13C5 PFPeA



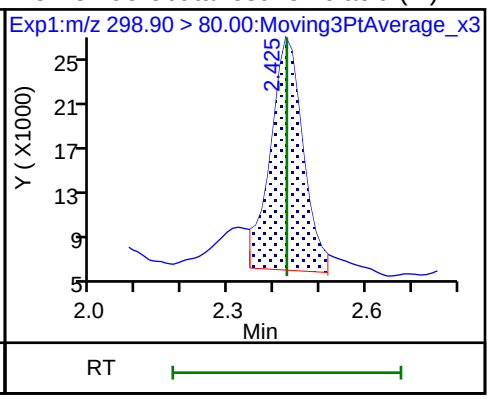

4 Perfluoropentanoic acid (M)



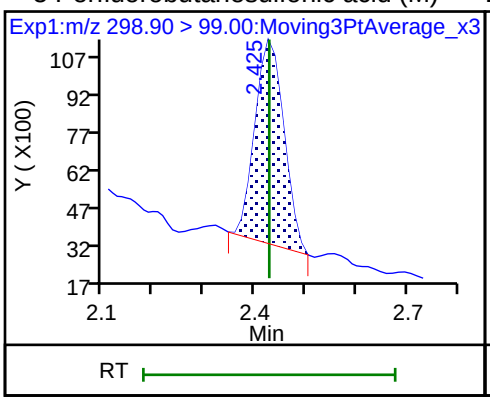

D 47 13C3 PFBS (M)



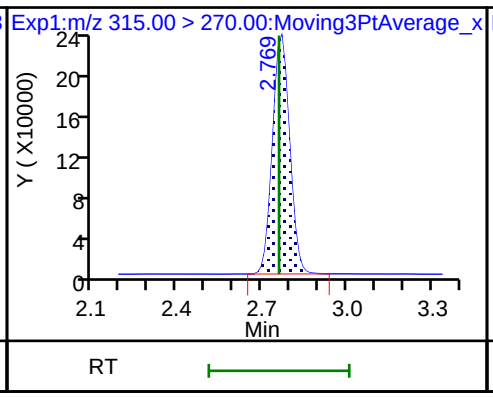

5 Perfluorobutanesulfonic acid (M)



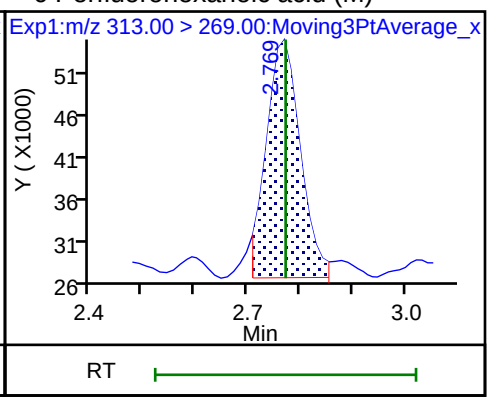

5 Perfluorobutanesulfonic acid (M)



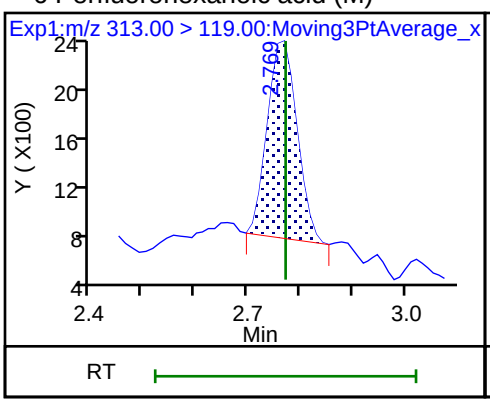

D 7 13C2 PFHxA



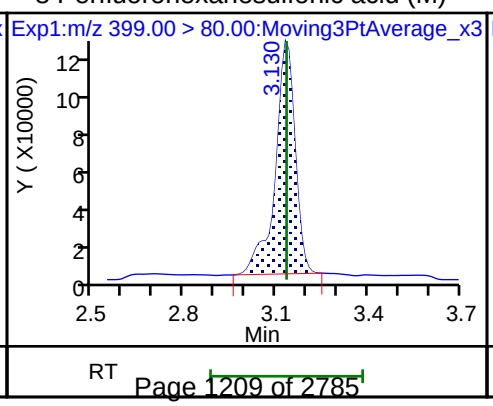

6 Perfluorohexanoic acid (M)



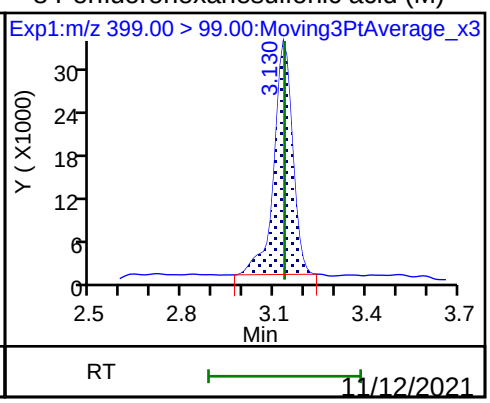

6 Perfluorohexanoic acid (M)



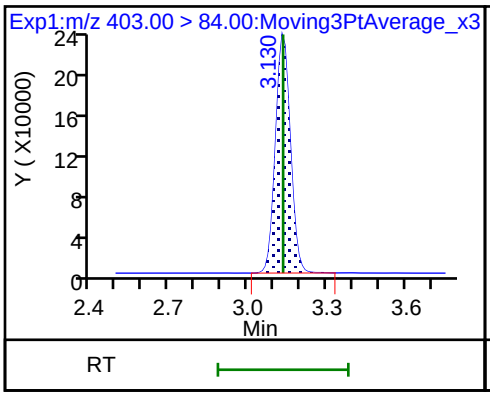

8 Perfluorohexanesulfonic acid (M)



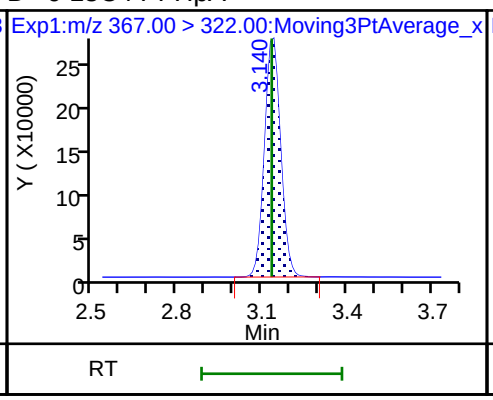

8 Perfluorohexanesulfonic acid (M)



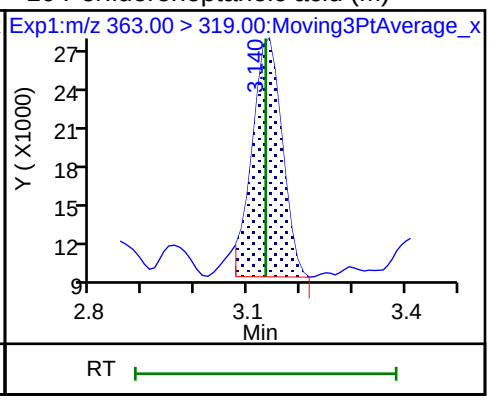
D 11 18O2 PFHxS



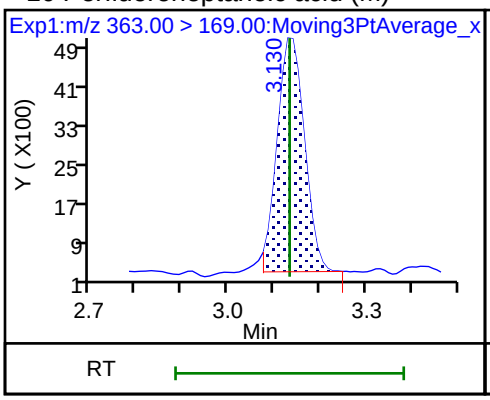

D 9 13C4 PFHpA



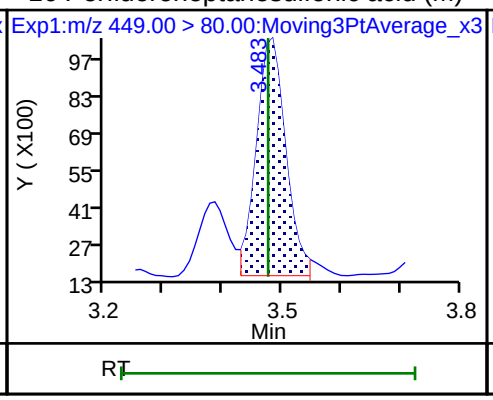

10 Perfluoroheptanoic acid (M)



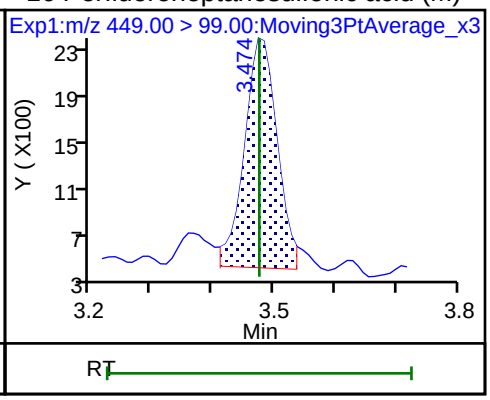

10 Perfluoroheptanoic acid (M)



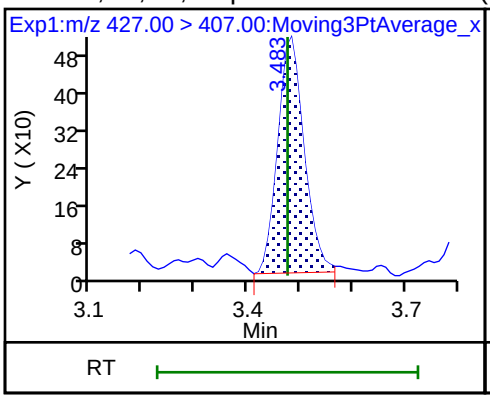

16 Perfluoroheptanesulfonic acid (M)



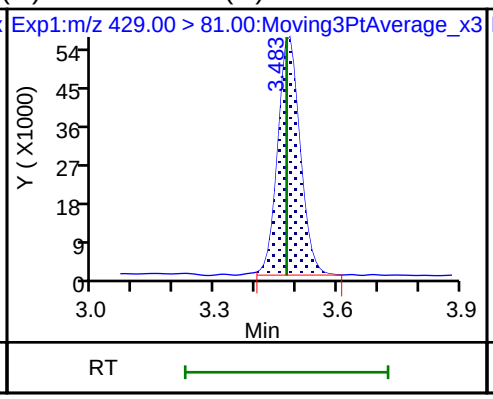

16 Perfluoroheptanesulfonic acid (M)



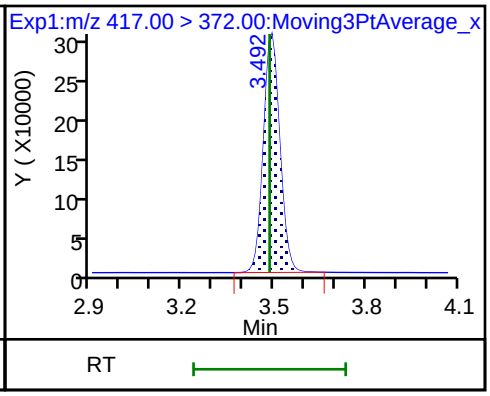

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



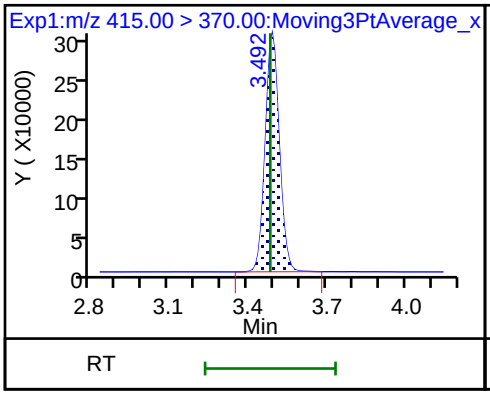

12 M2-6:2 FTS (M)



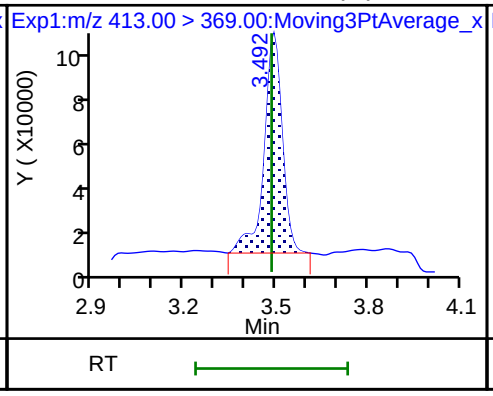

D 14 13C4 PFOA



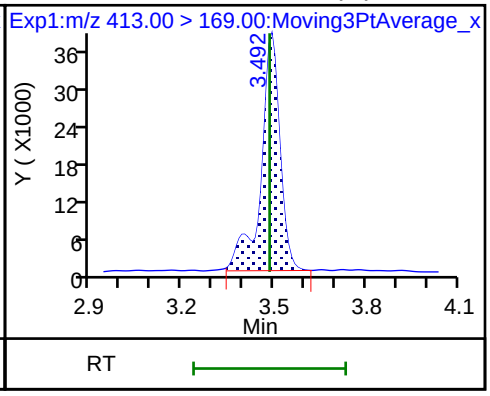

* 62 13C2 PFOA



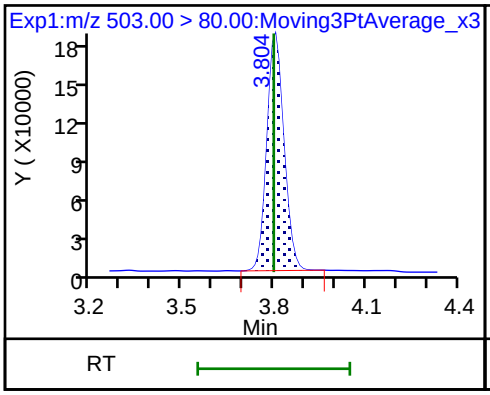

15 Perfluorooctanoic acid (M)



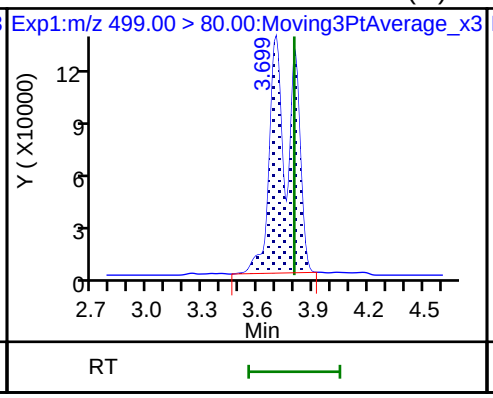

15 Perfluorooctanoic acid (M)



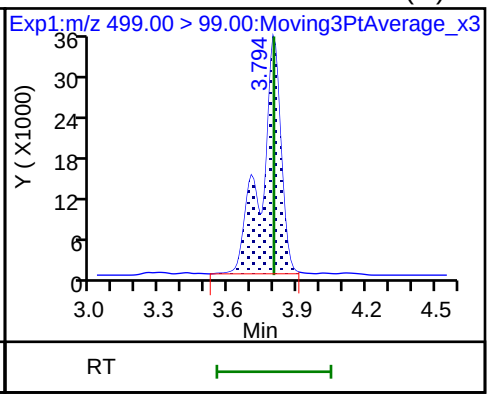
D 18 13C4 PFOS



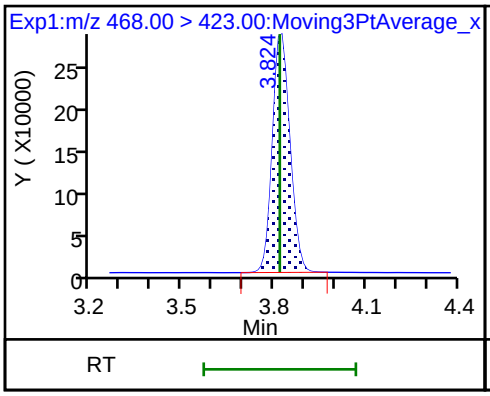

17 Perfluorooctanesulfonic acid (M)



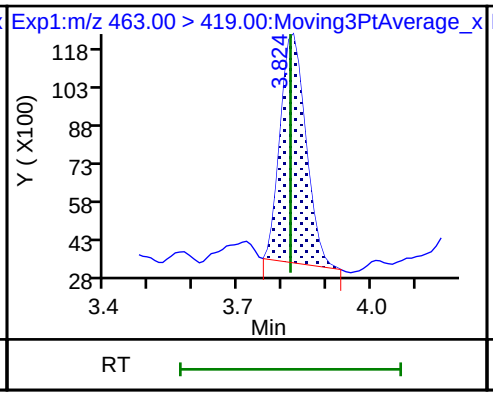

17 Perfluorooctanesulfonic acid (M)



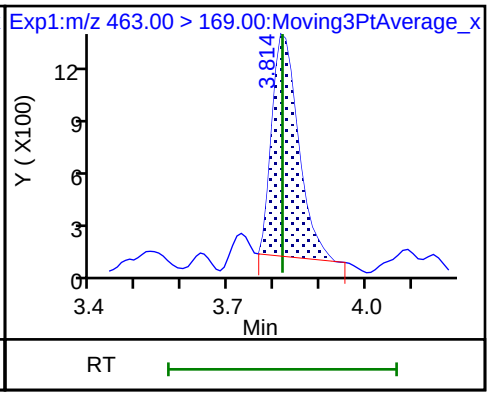

D 19 13C5 PFNA



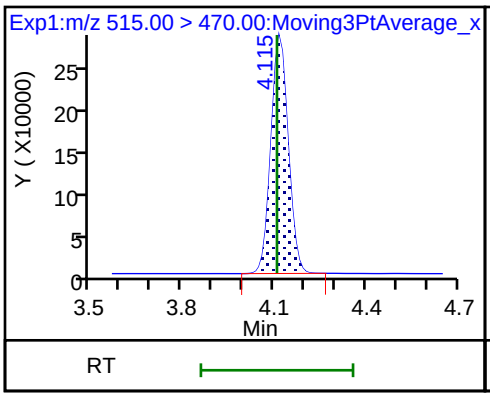

20 Perfluorononanoic acid



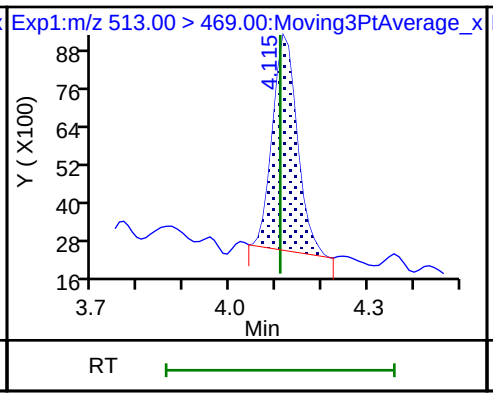

20 Perfluorononanoic acid



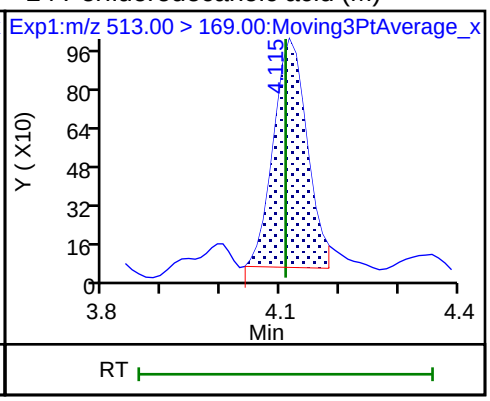

D 23 13C2 PFDA



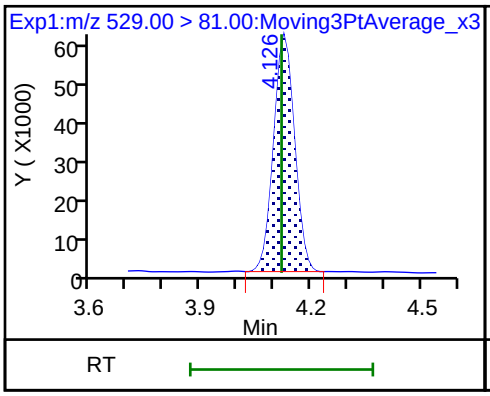

24 Perfluorodecanoic acid



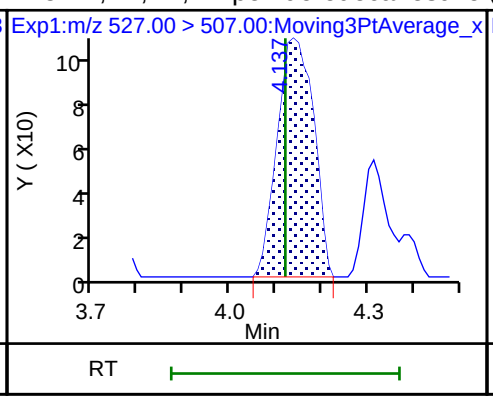

24 Perfluorodecanoic acid (M)



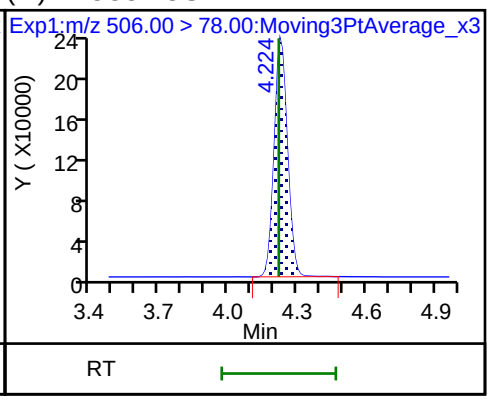

D 26 M2-8:2 FTS



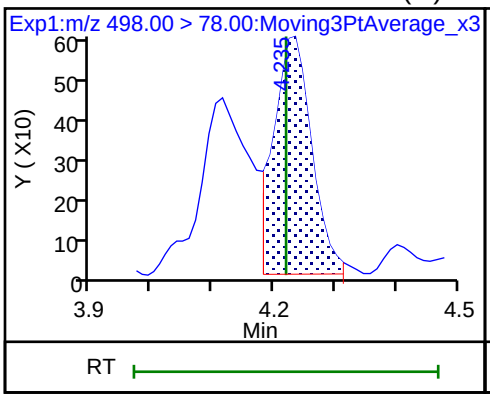

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



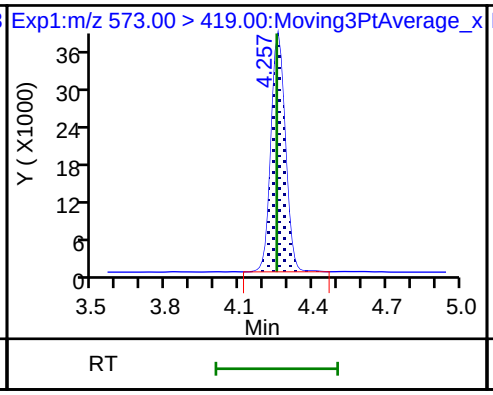

D 21 13C8 FOSA



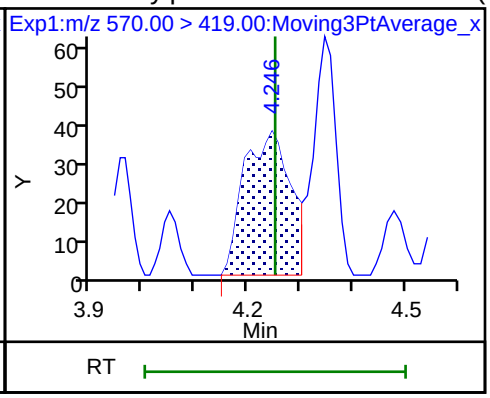
22 Perfluorooctanesulfonamide (M)



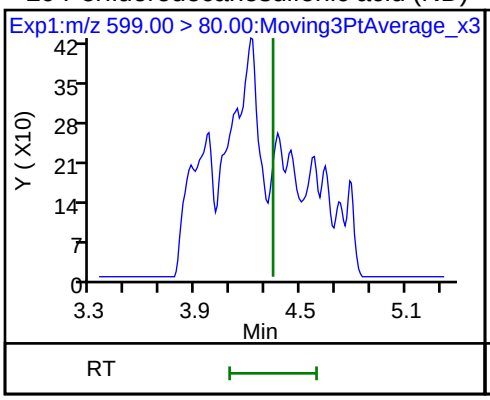

D 27 d3-NMeFOSAA



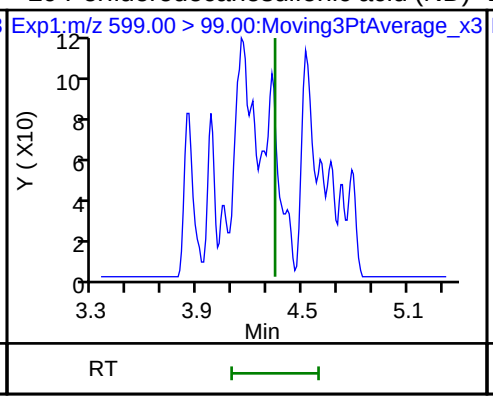

28 N-methylperfluorooctanesulfonami (M)



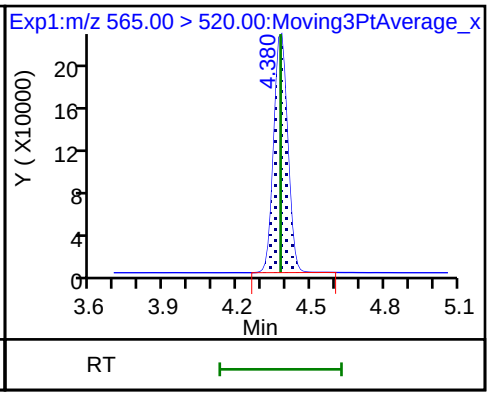

29 Perfluorodecanesulfonic acid (ND)



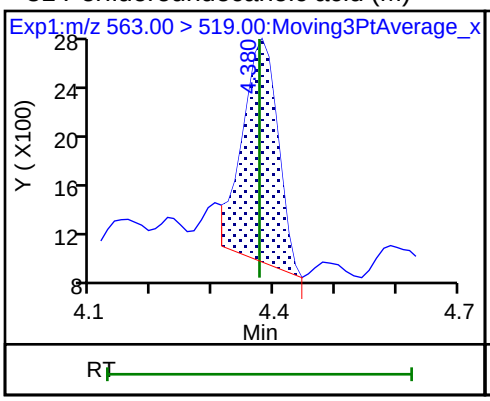

29 Perfluorodecanesulfonic acid (ND)



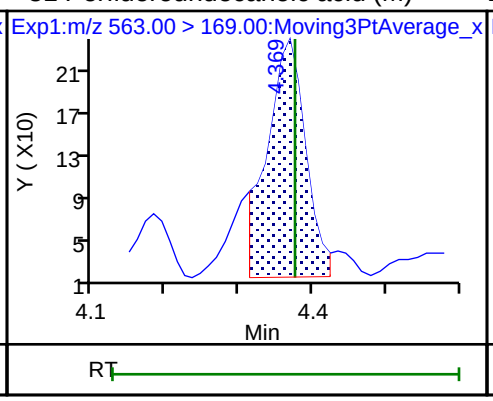

D 30 13C2 PFUnA



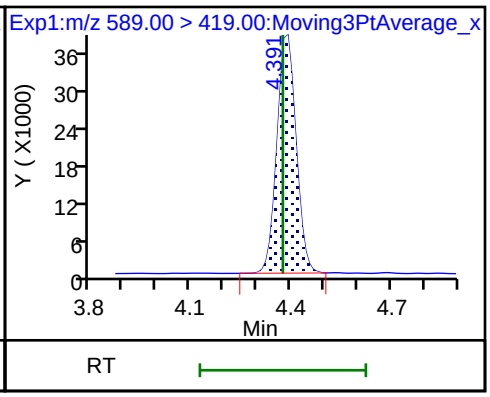

31 Perfluoroundecanoic acid (M)



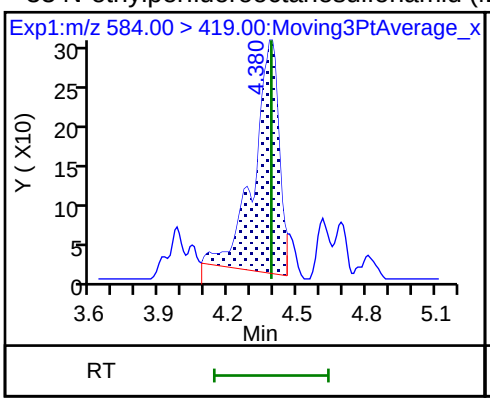

31 Perfluoroundecanoic acid (M)



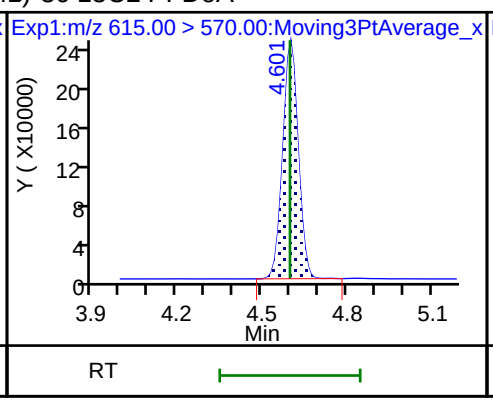

D 32 d5-NEtFOSAA



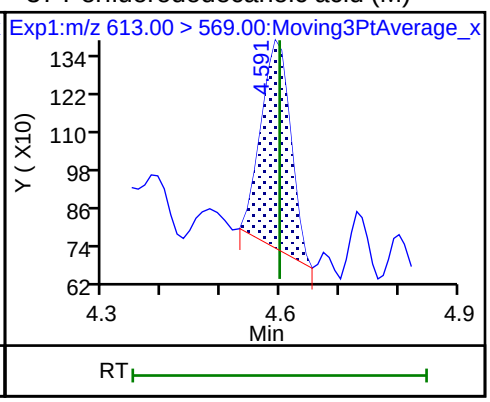

33 N-ethylperfluorooctanesulfonamid (ND)



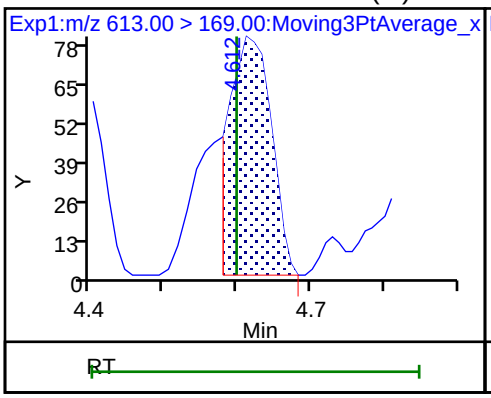

D 36 13C2 PFDoA



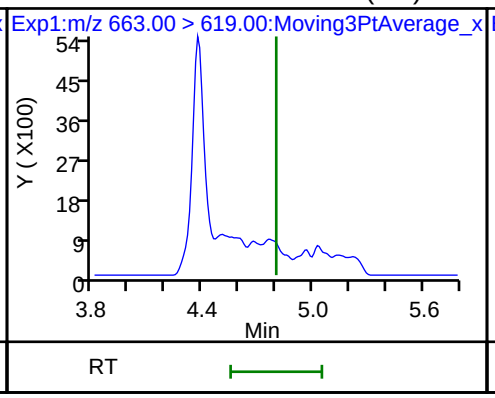

37 Perfluorododecanoic acid (M)



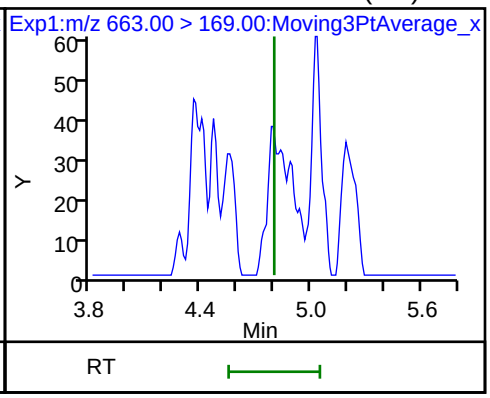
37 Perfluorododecanoic acid (M)



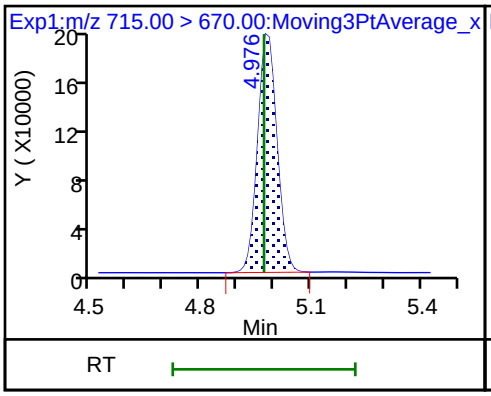

41 Perfluorotridecanoic acid (ND)



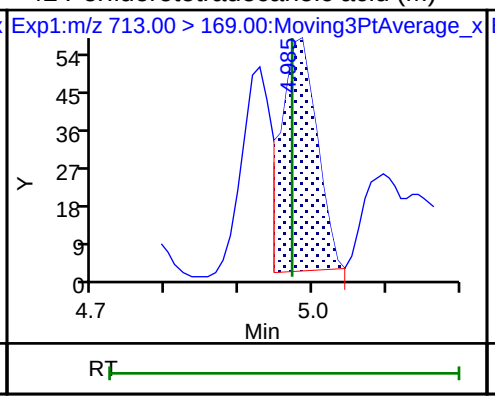

41 Perfluorotridecanoic acid (ND)



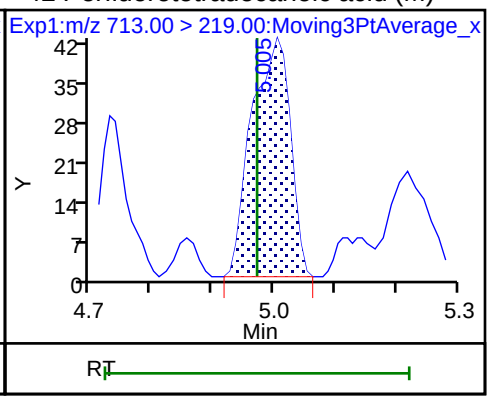

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

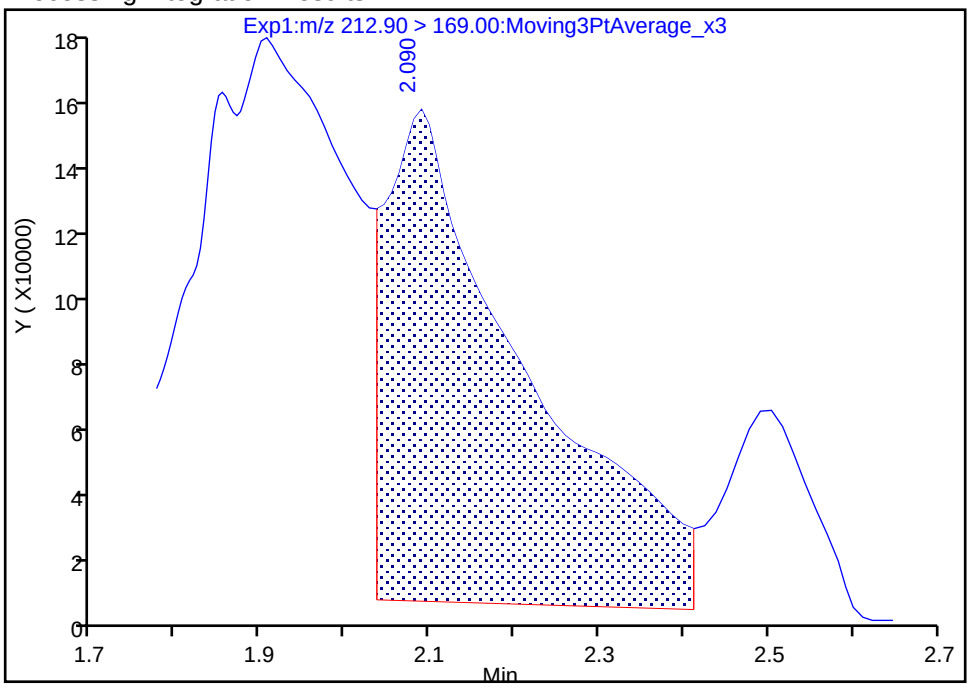
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

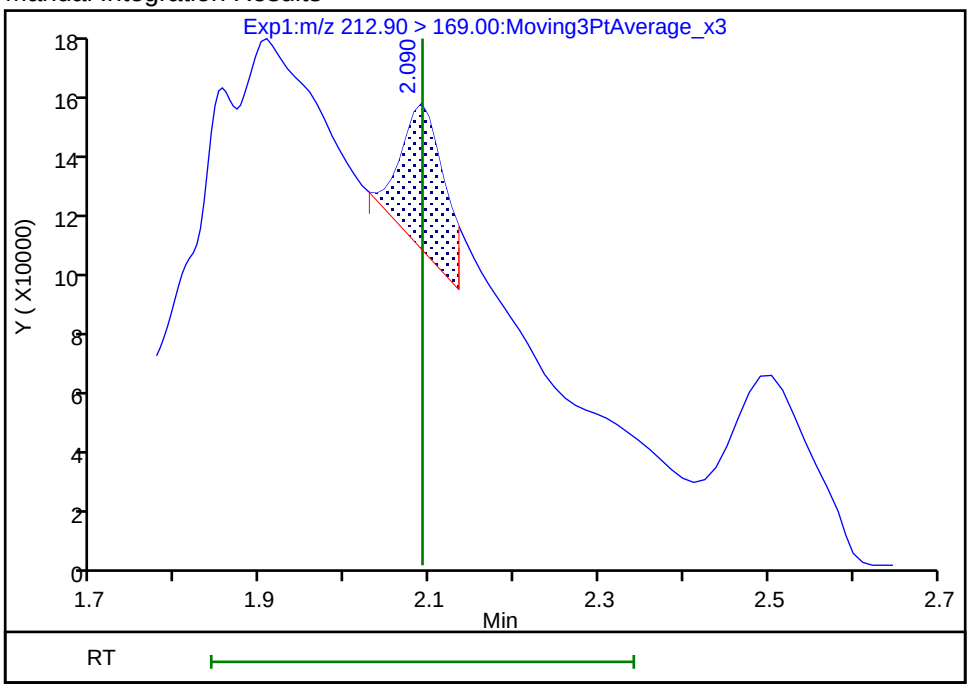
Processing Integration Results

RT: 2.09
Area: 1638012
Amount: 2.504495
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 164000
Amount: 0.250754
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

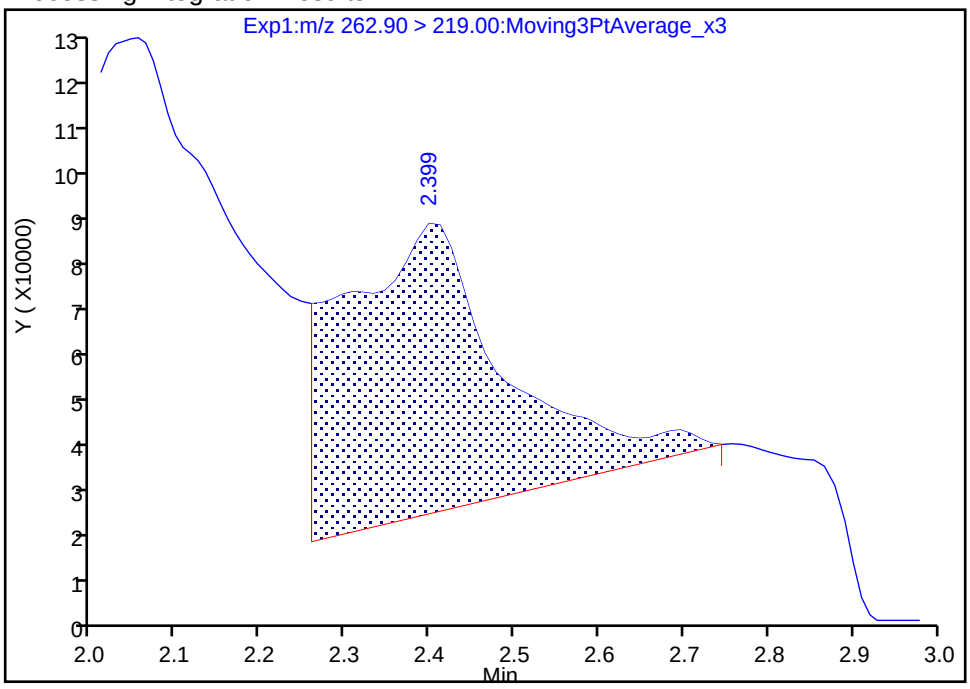
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

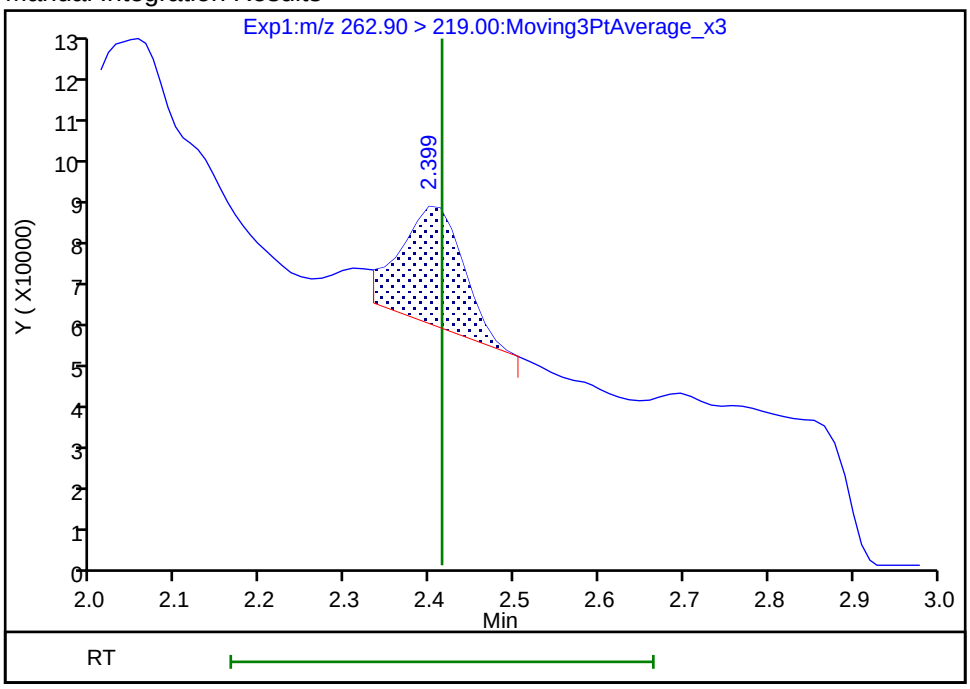
Processing Integration Results

RT: 2.40
Area: 832788
Amount: 1.159441
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 143391
Amount: 0.199635
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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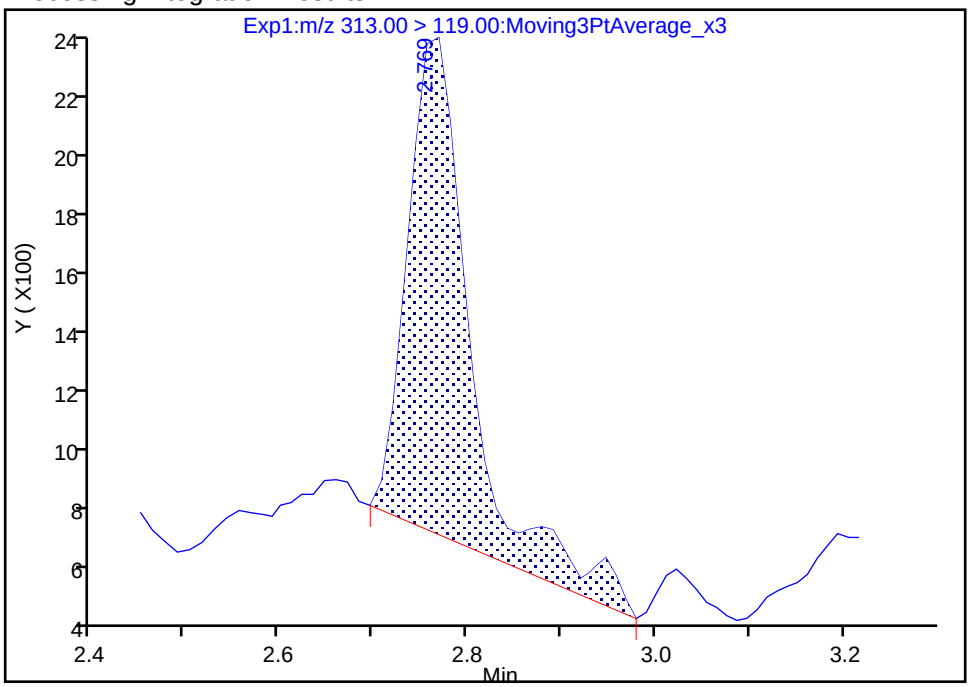
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

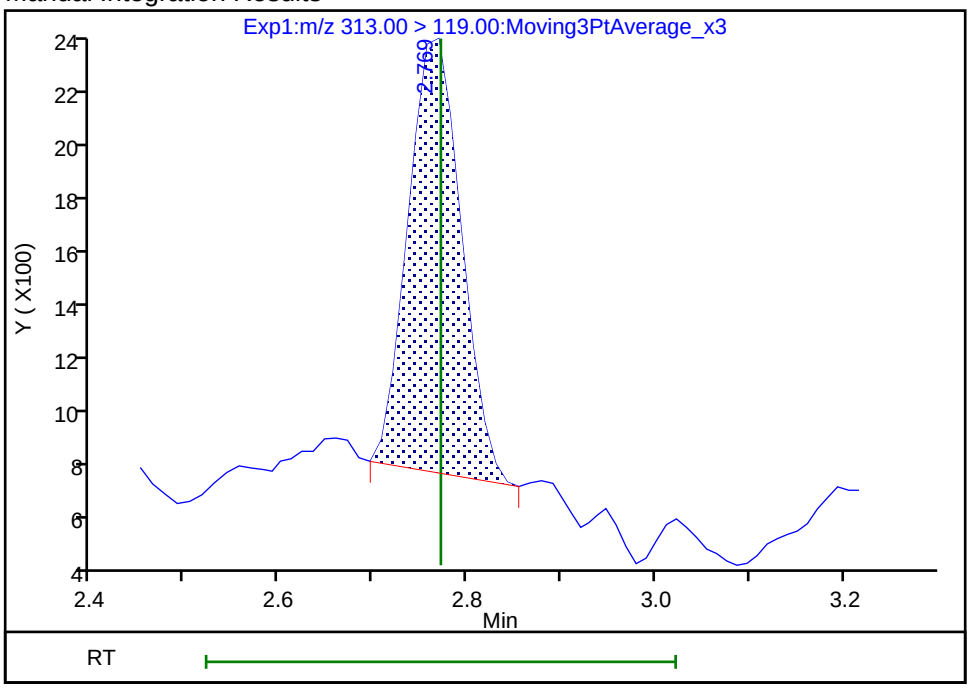
Processing Integration Results

RT: 2.77
Area: 7902
Amount: 0.165876
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 6436
Amount: 0.150757
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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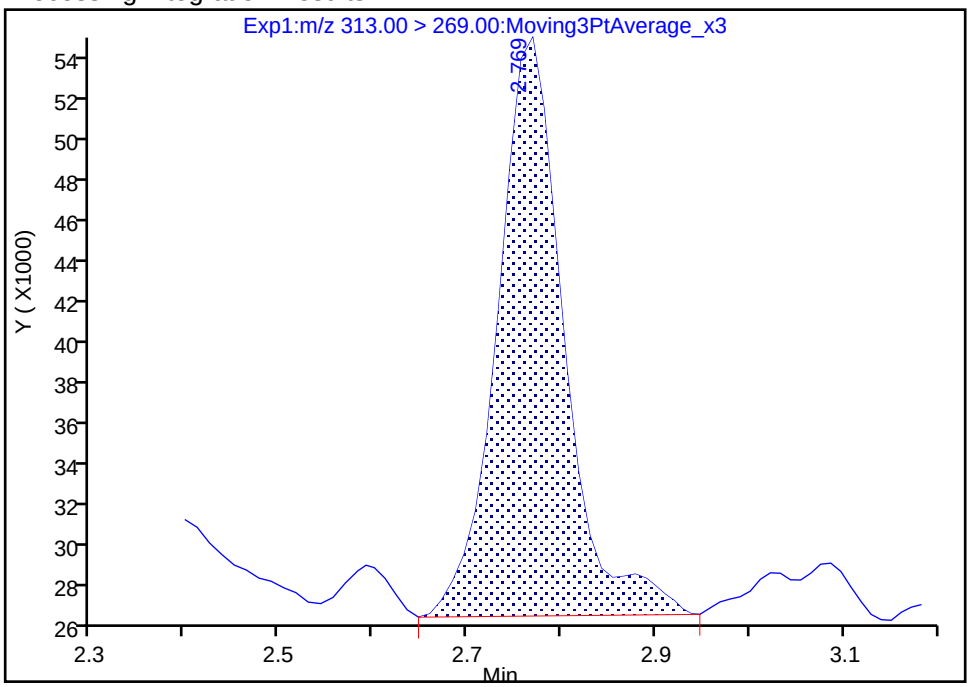
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

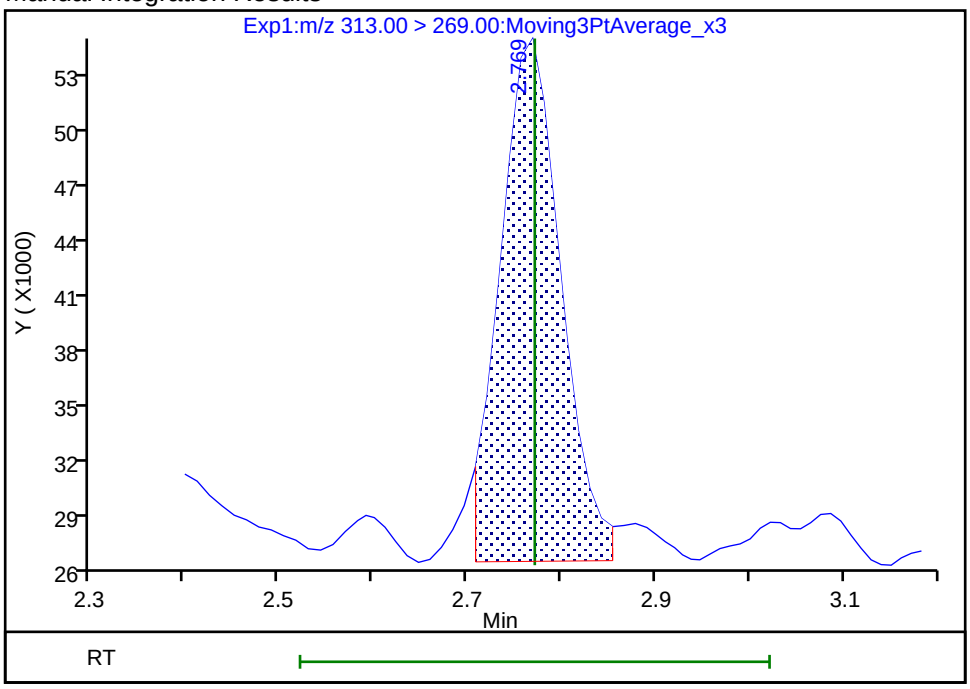
Processing Integration Results

RT: 2.77
Area: 134010
Amount: 0.165876
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 121795
Amount: 0.150757
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:28:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

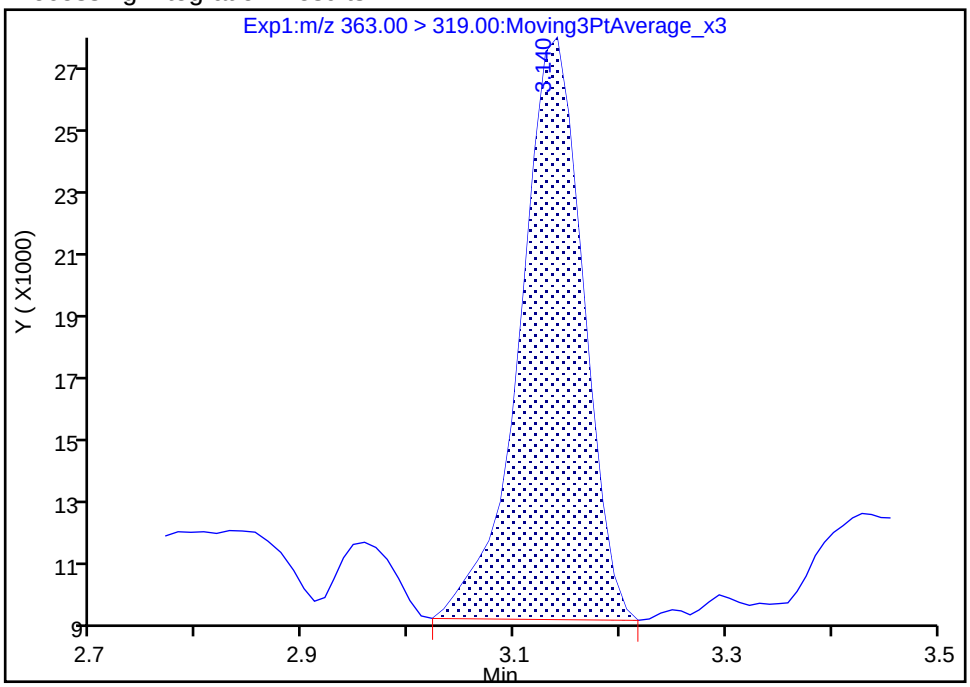
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

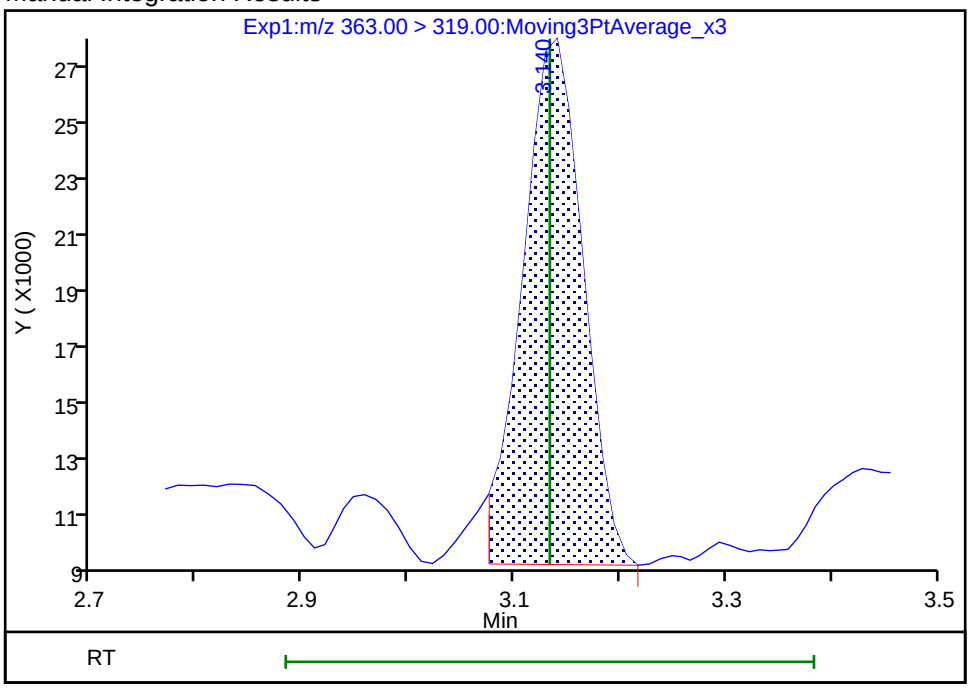
Processing Integration Results

RT: 3.14
Area: 73515
Amount: 0.082418
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 70142
Amount: 0.078637
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:24:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

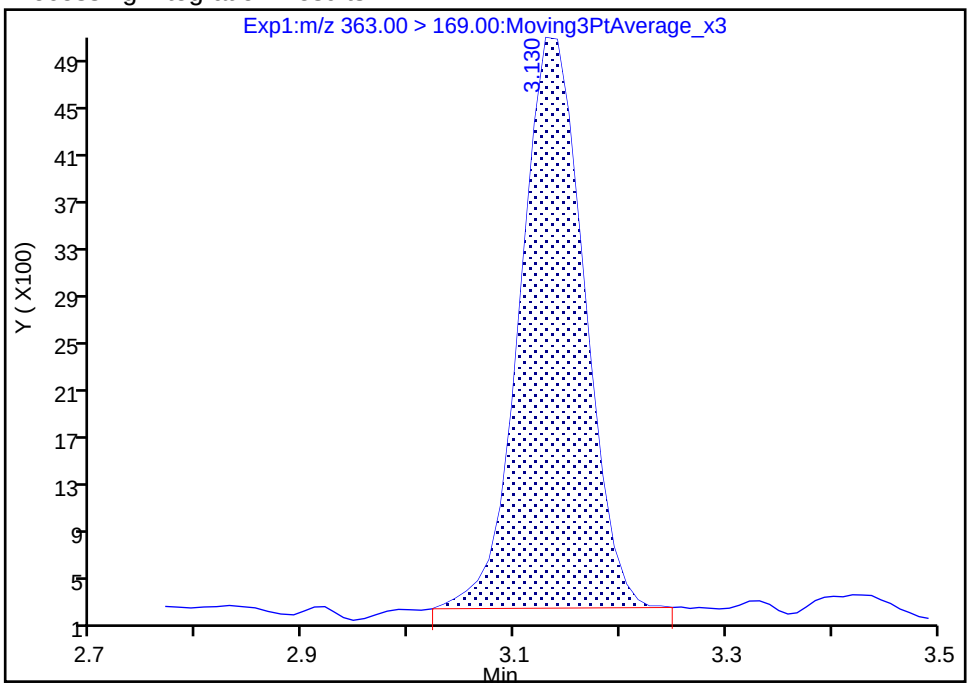
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

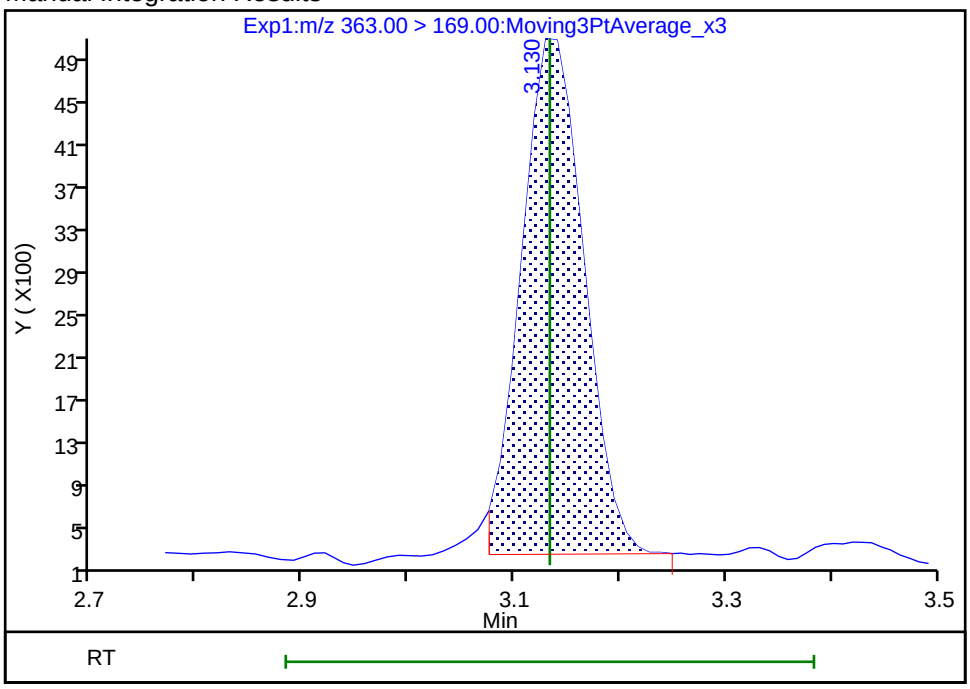
Processing Integration Results

RT: 3.13
Area: 20227
Amount: 0.082418
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 19776
Amount: 0.078637
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:25:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

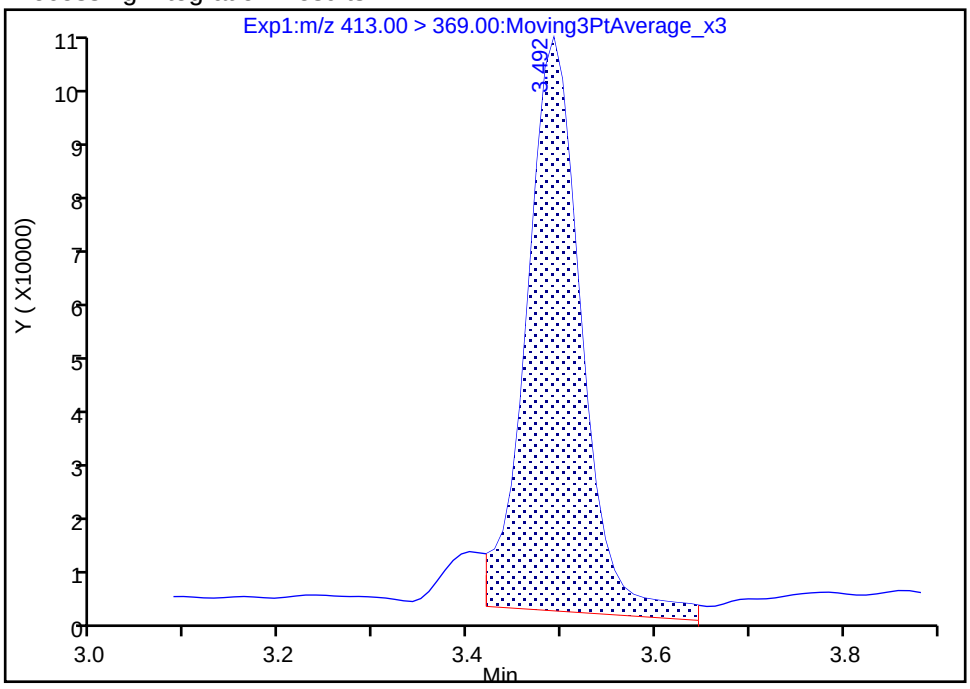
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

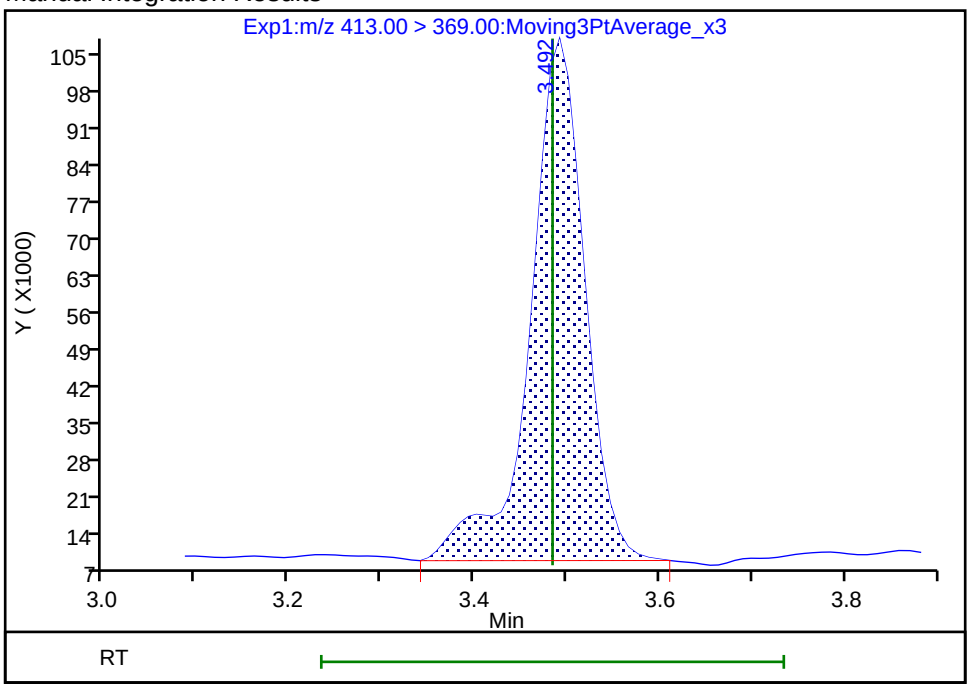
Processing Integration Results

RT: 3.49
Area: 408755
Amount: 0.428716
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 406299
Amount: 0.426140
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

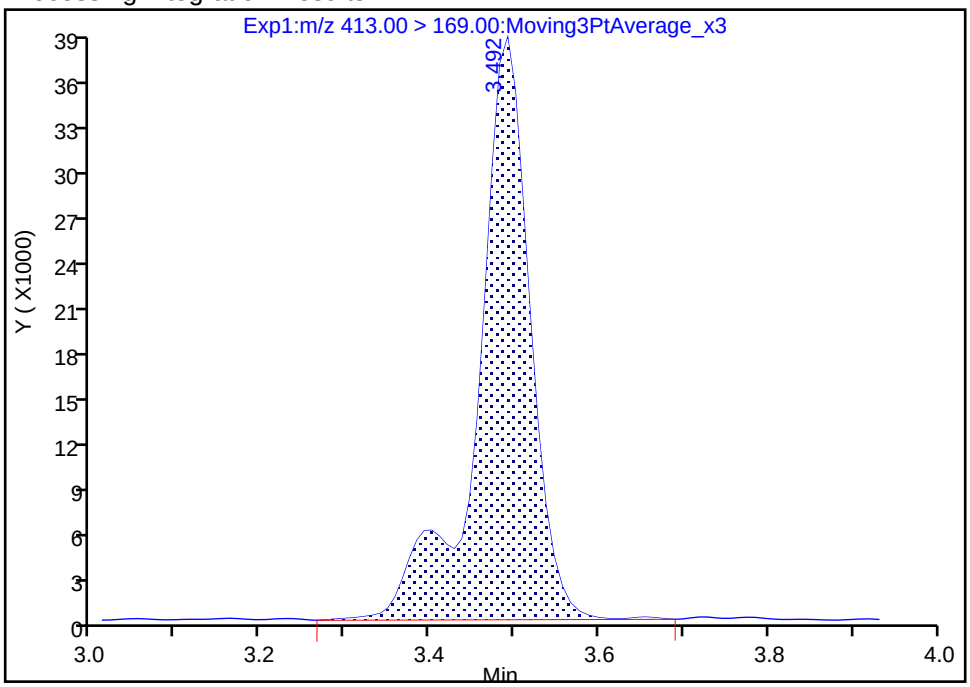
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

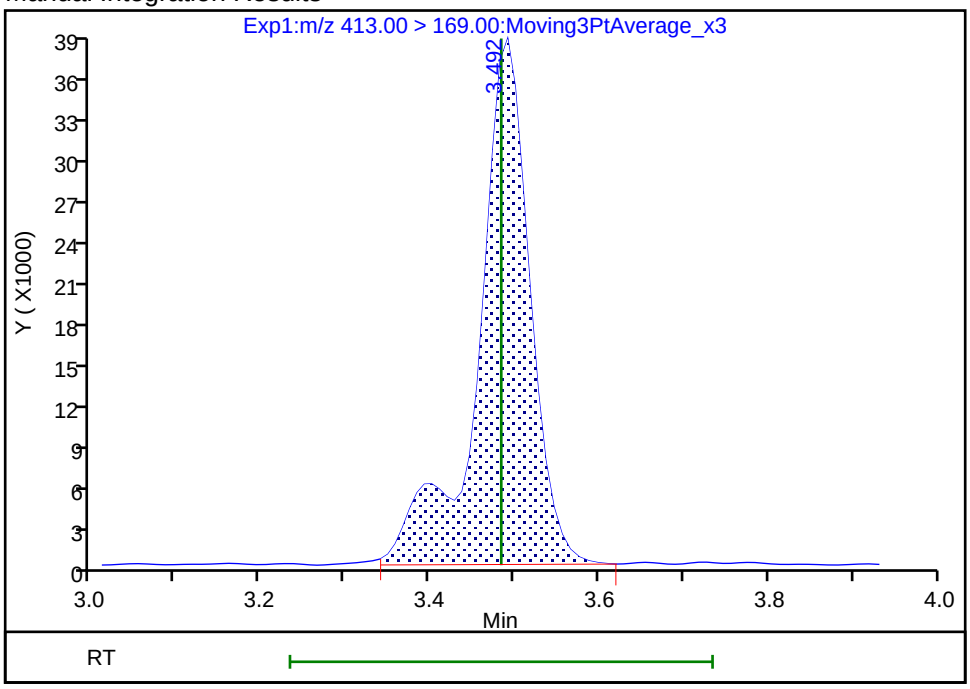
Processing Integration Results

RT: 3.49
Area: 164093
Amount: 0.428716
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 162823
Amount: 0.426140
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:27:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

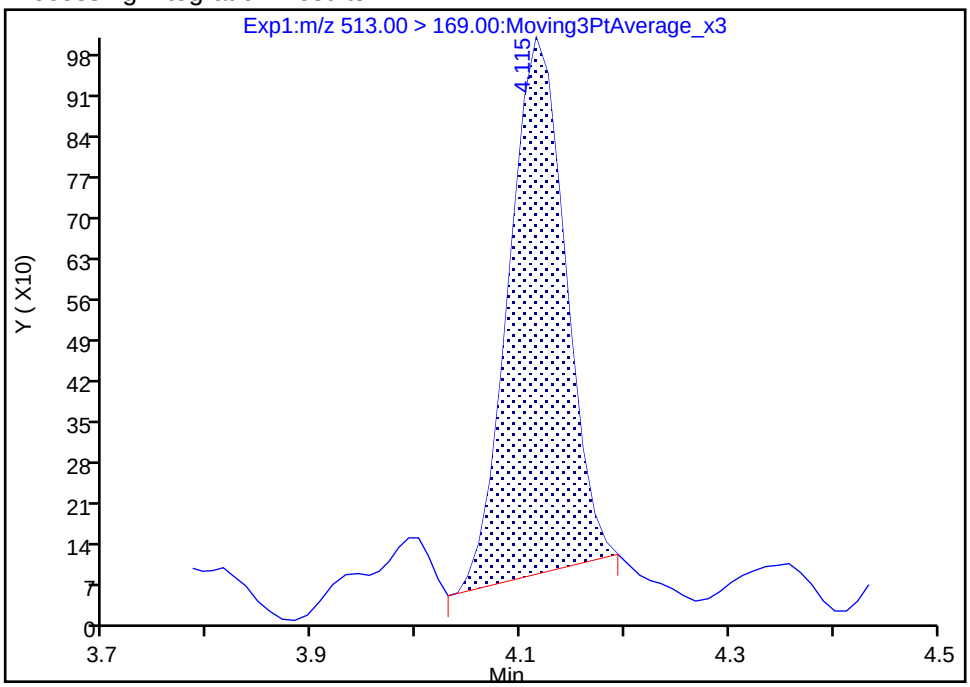
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

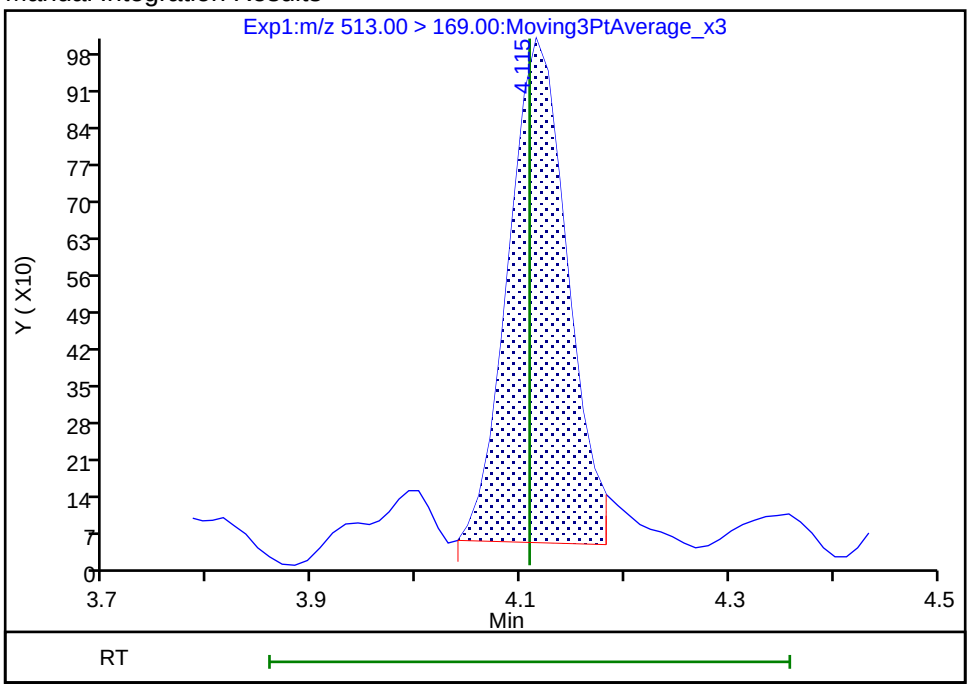
Processing Integration Results

RT: 4.11
Area: 3460
Amount: 0.028217
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 3743
Amount: 0.028217
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

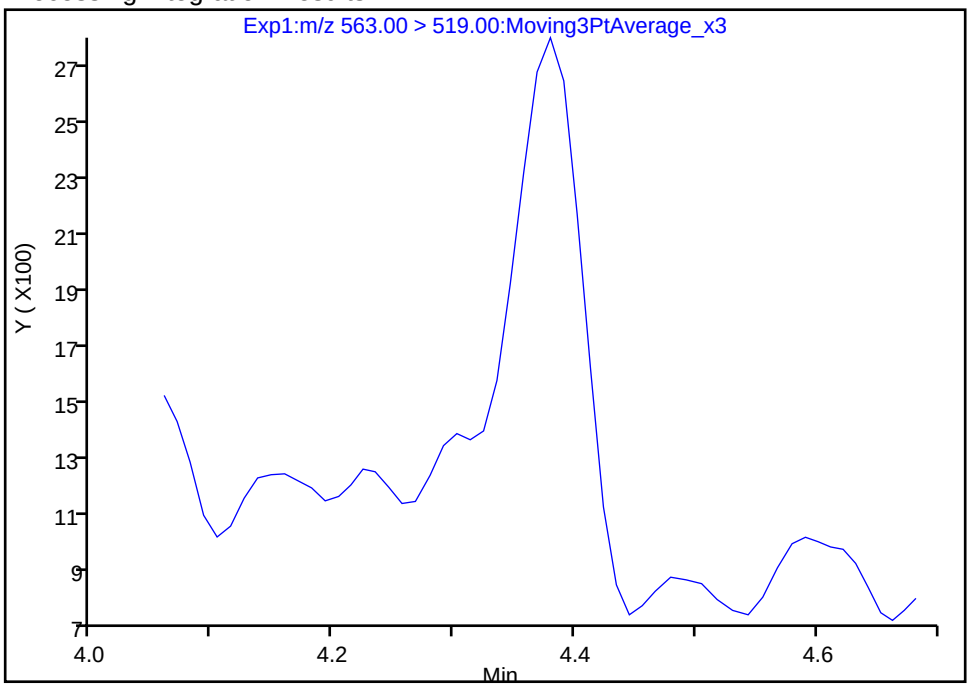
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

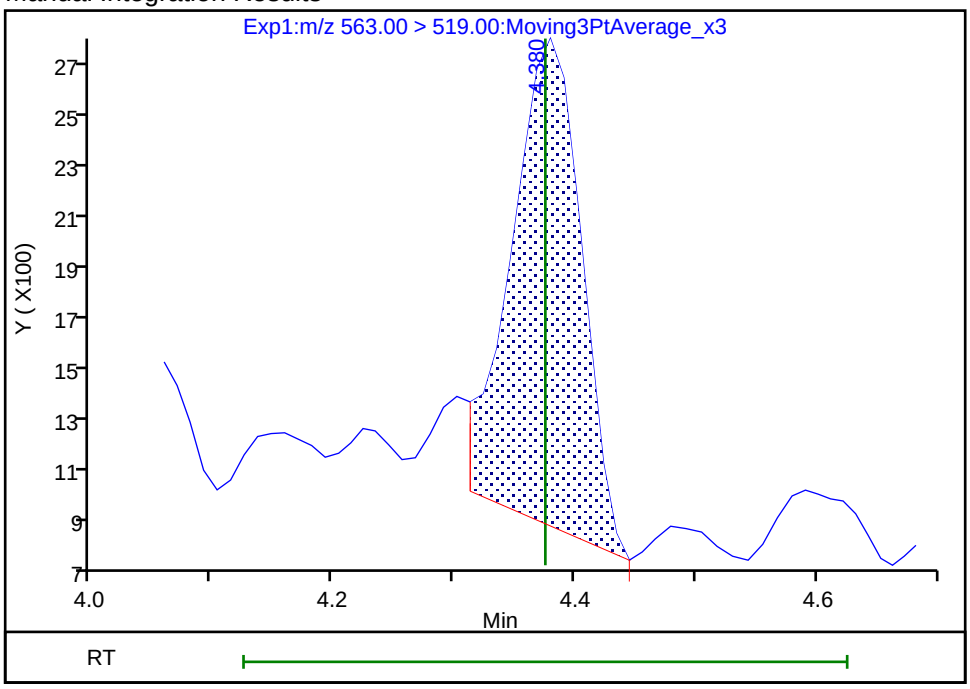
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 7361
Amount: 0.009786
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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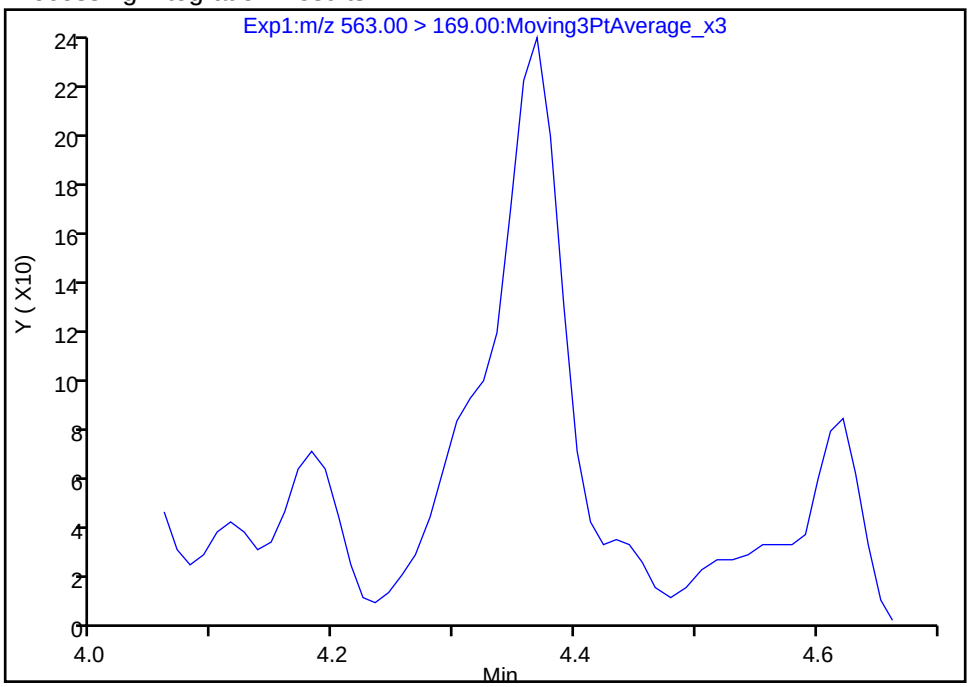
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

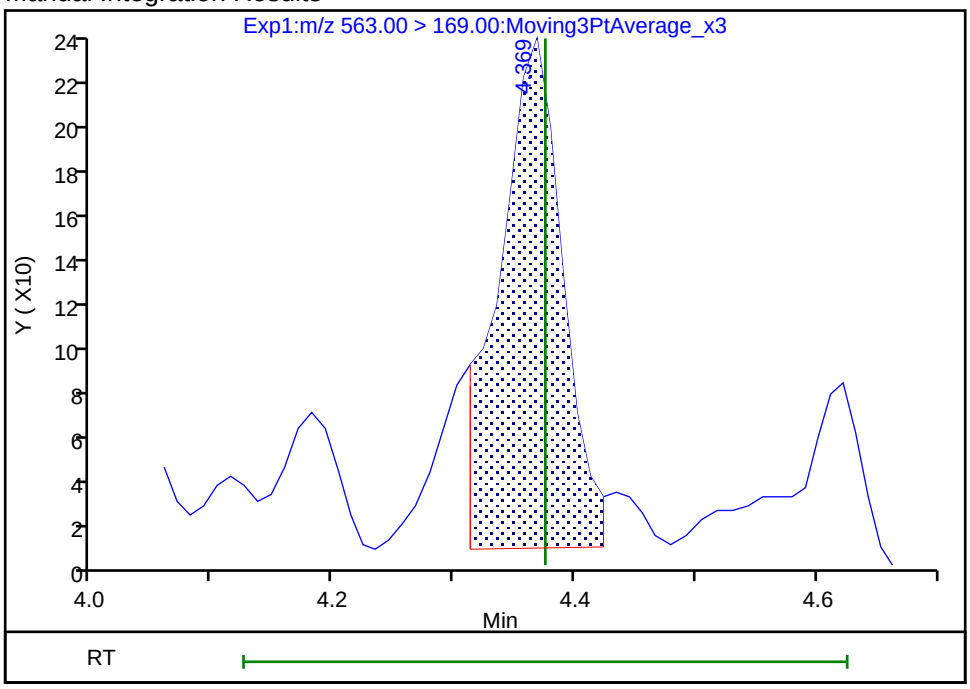
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 811
Amount: 0.009786
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

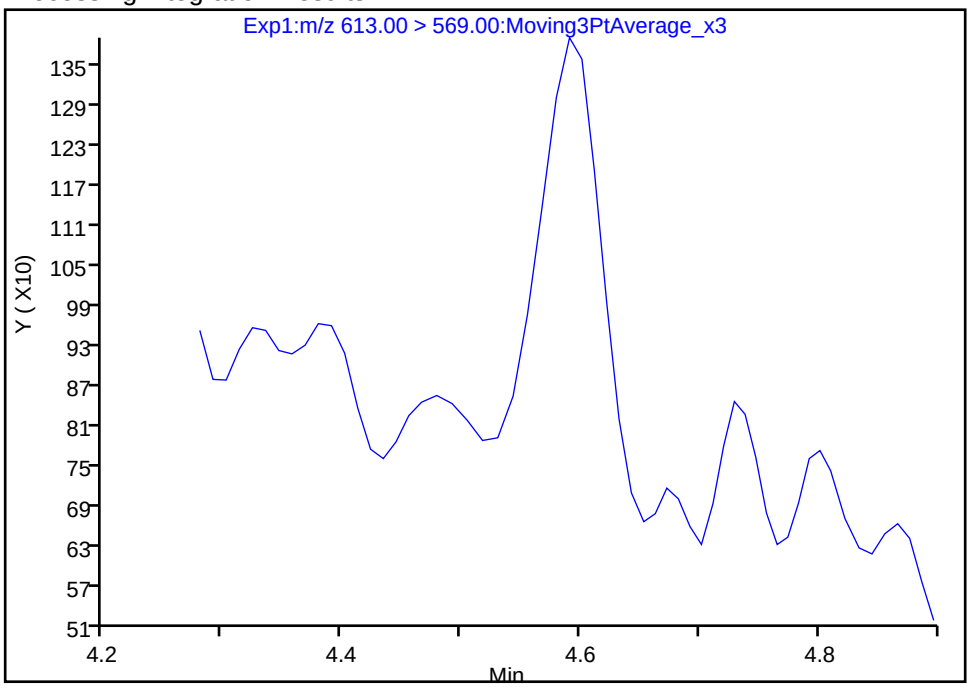
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

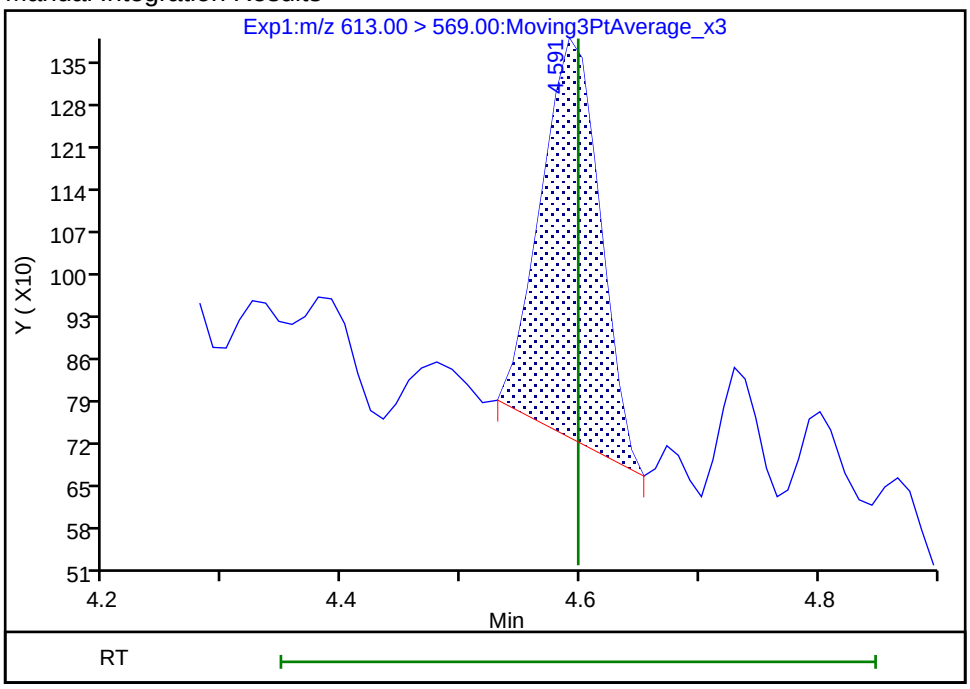
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.59
Area: 2281
Amount: 0.003129
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

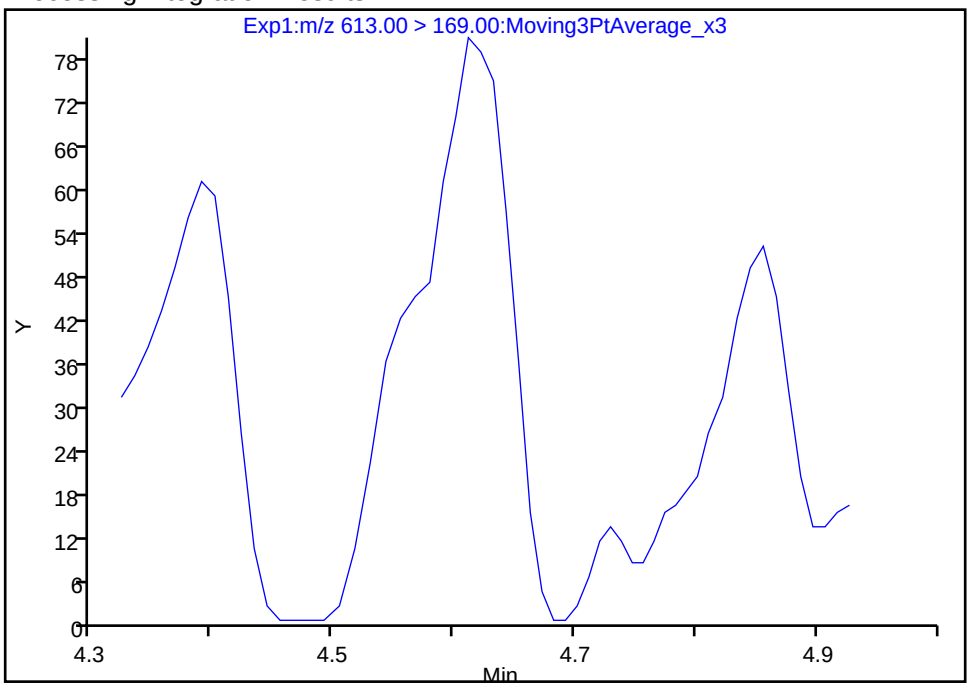
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

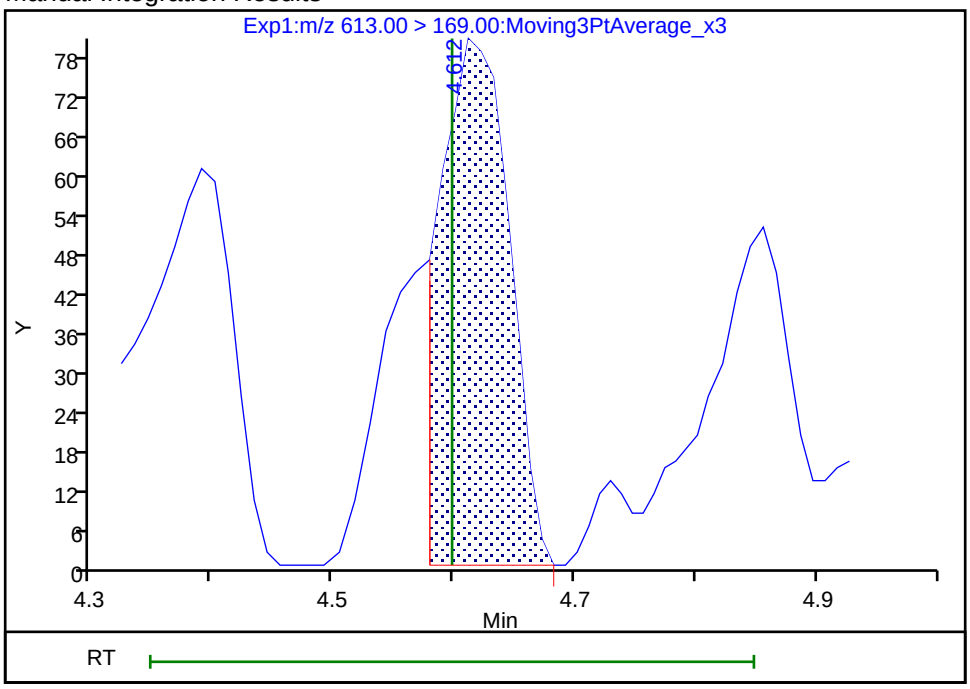
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.61
Area: 314
Amount: 0.003129
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

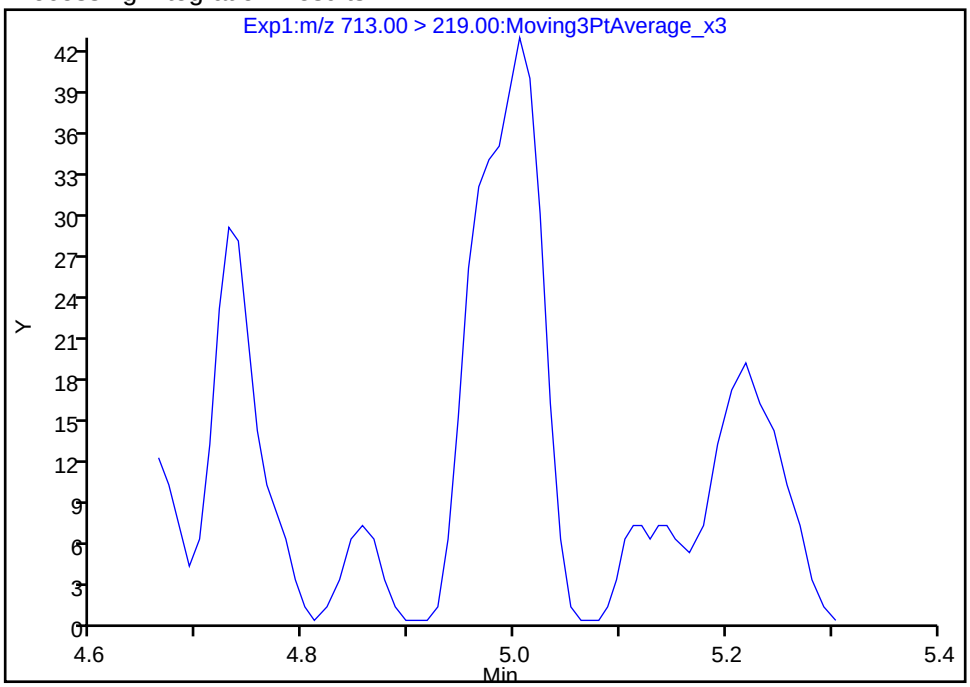
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

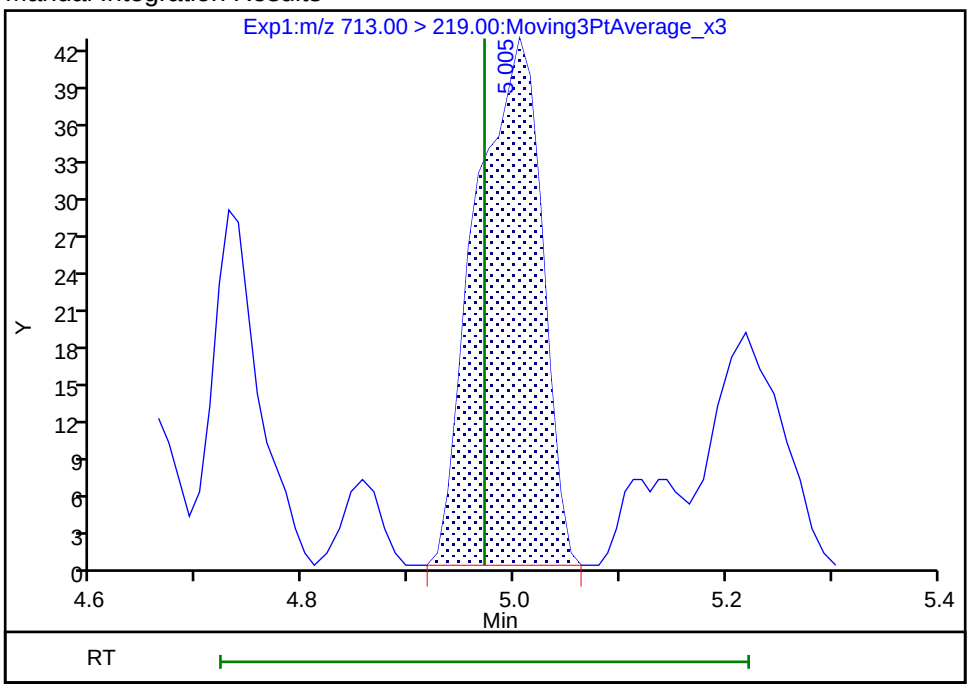
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 5.00
Area: 188
Amount: 0.002088
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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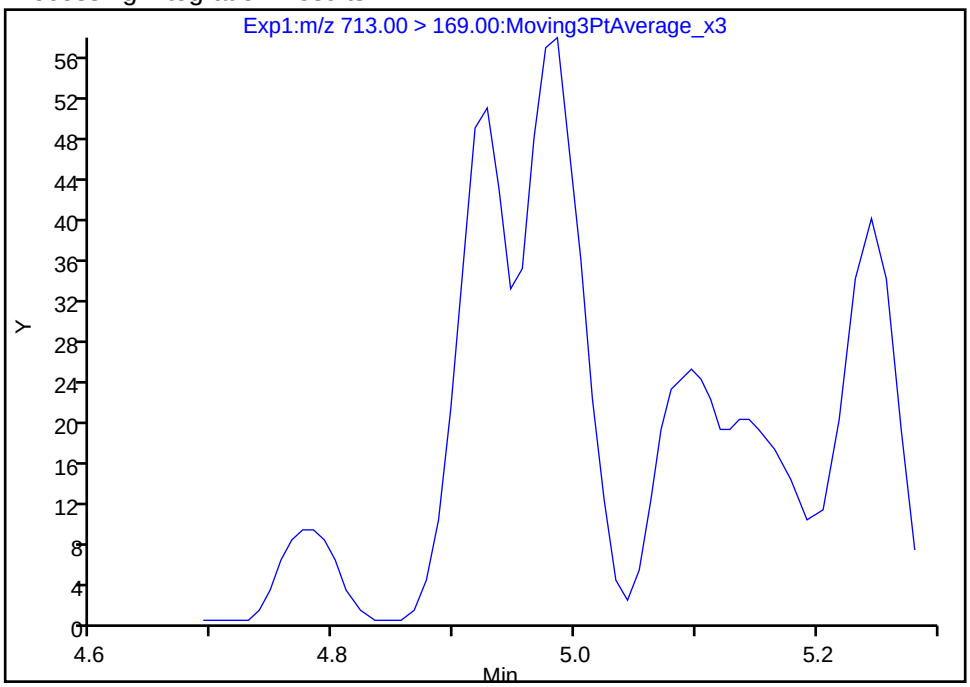
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

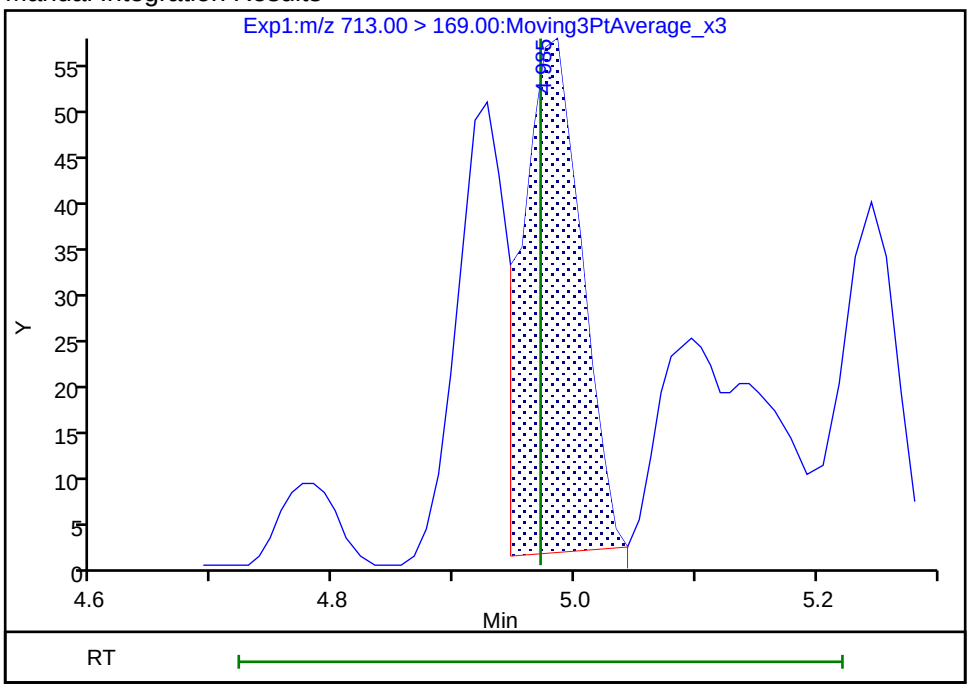
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 186
Amount: 0.002088
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

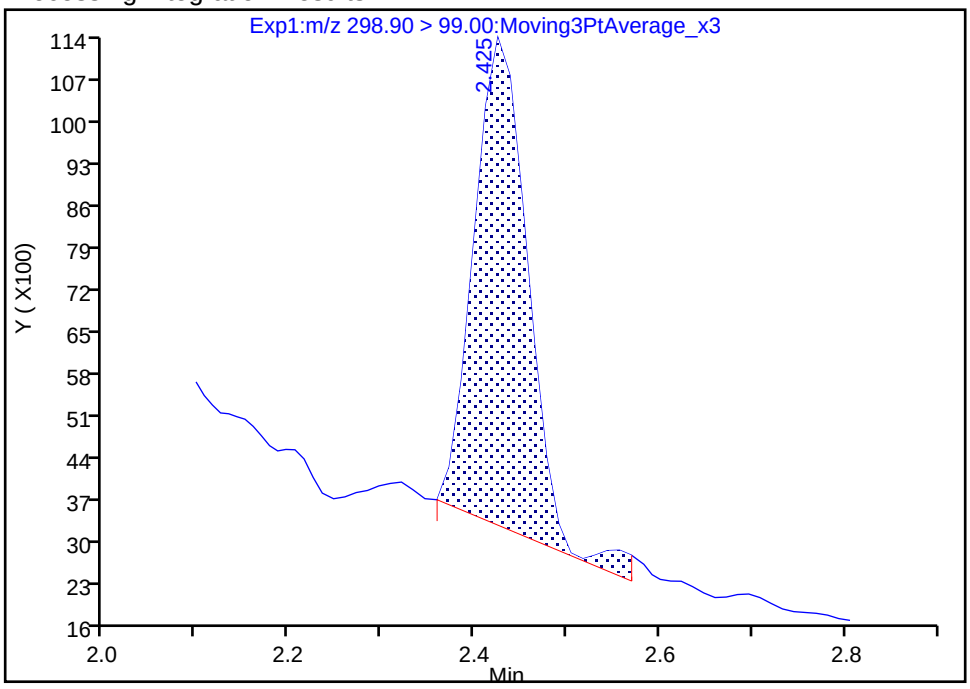
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

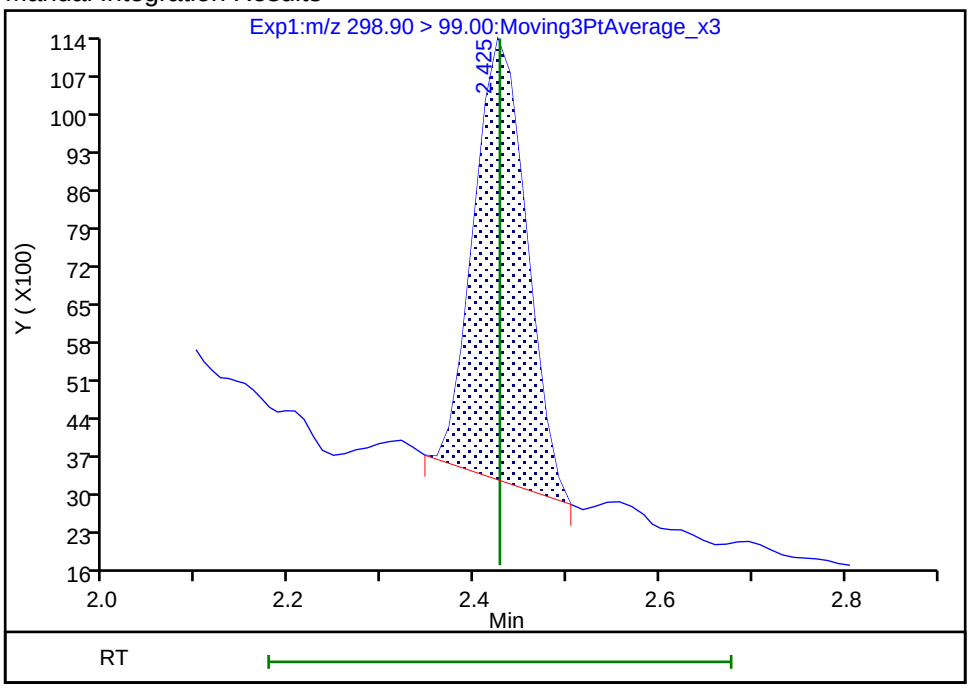
Processing Integration Results

RT: 2.43
Area: 33161
Amount: 0.118243
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 32288
Amount: 0.089749
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

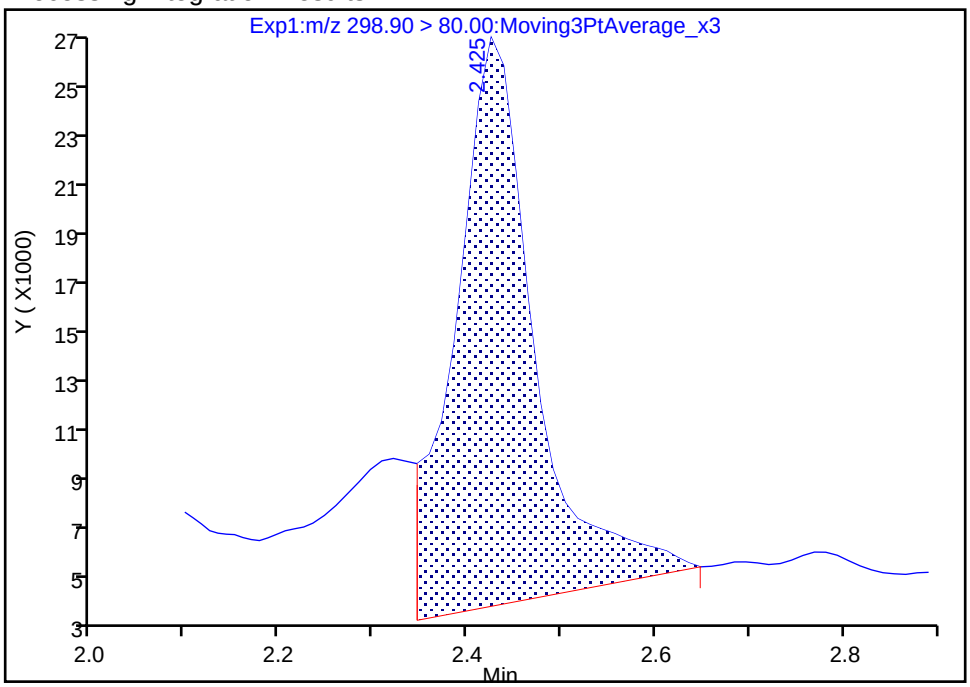
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

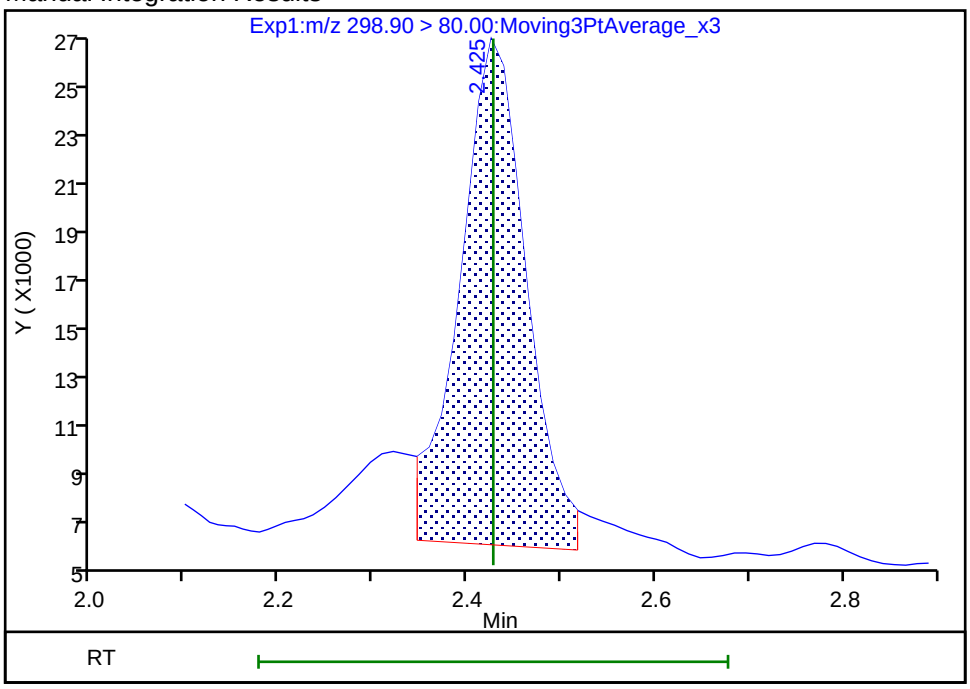
Processing Integration Results

RT: 2.43
Area: 133301
Amount: 0.118243
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 101179
Amount: 0.089749
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

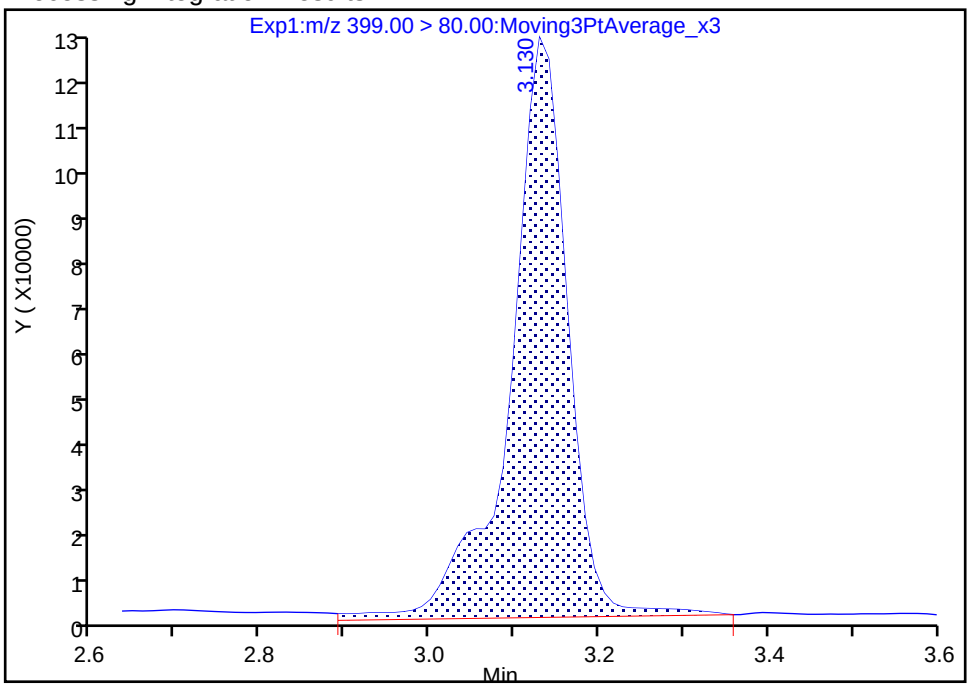
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

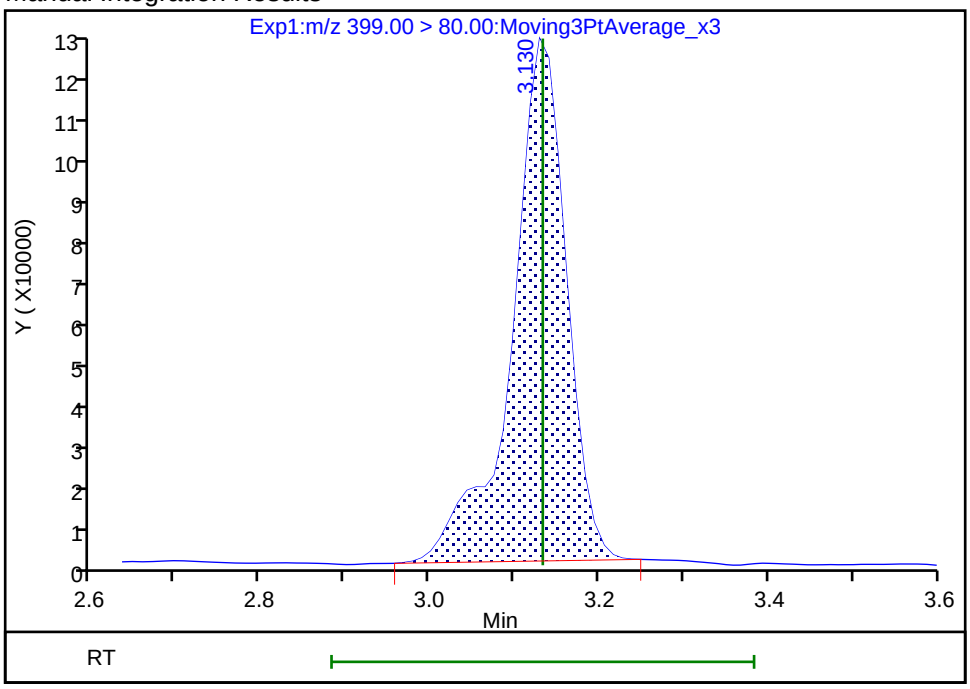
Processing Integration Results

RT: 3.13
Area: 564967
Amount: 0.668799
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 526925
Amount: 0.623766
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

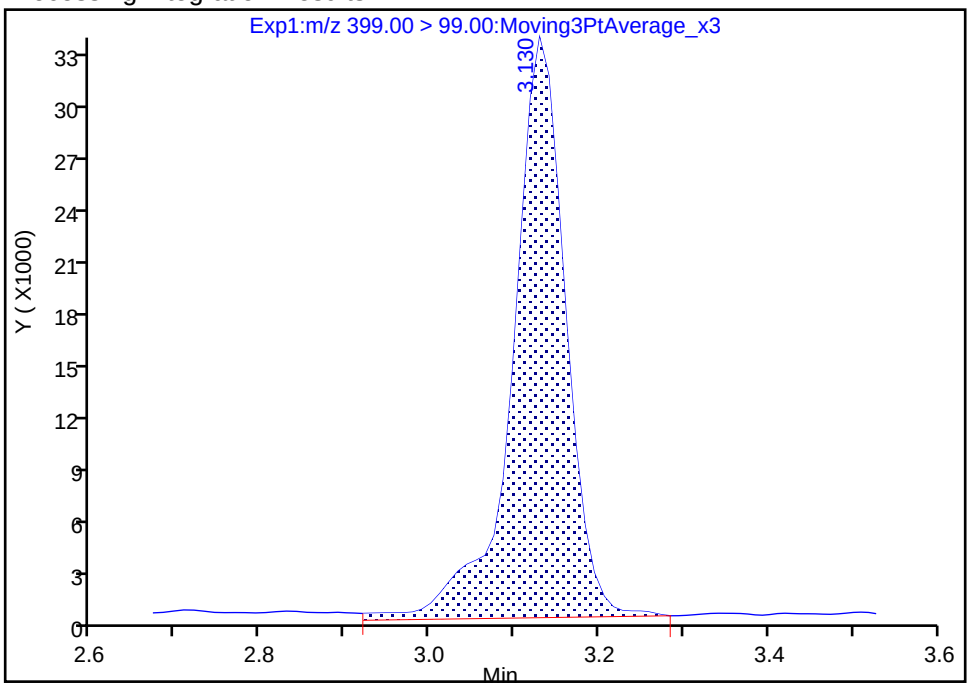
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

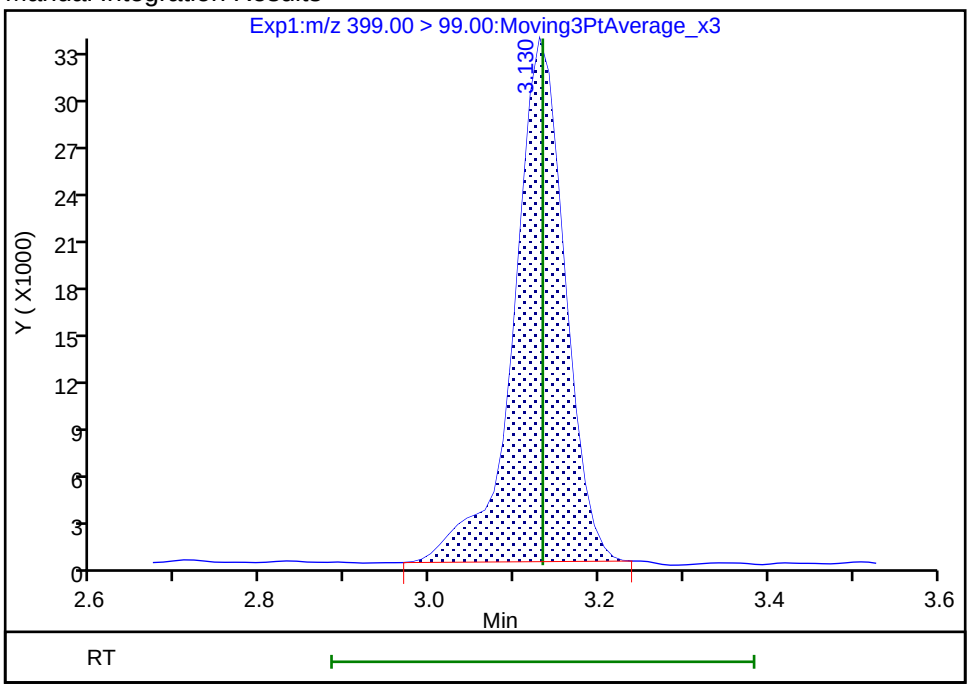
Processing Integration Results

RT: 3.13
Area: 144659
Amount: 0.668799
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 137523
Amount: 0.623766
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:25:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

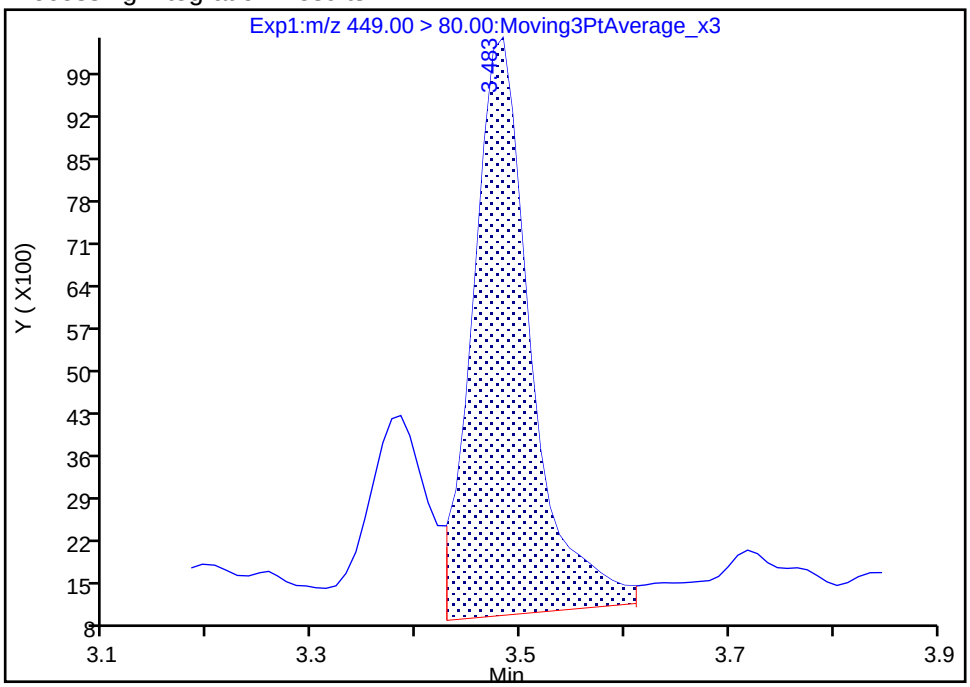
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

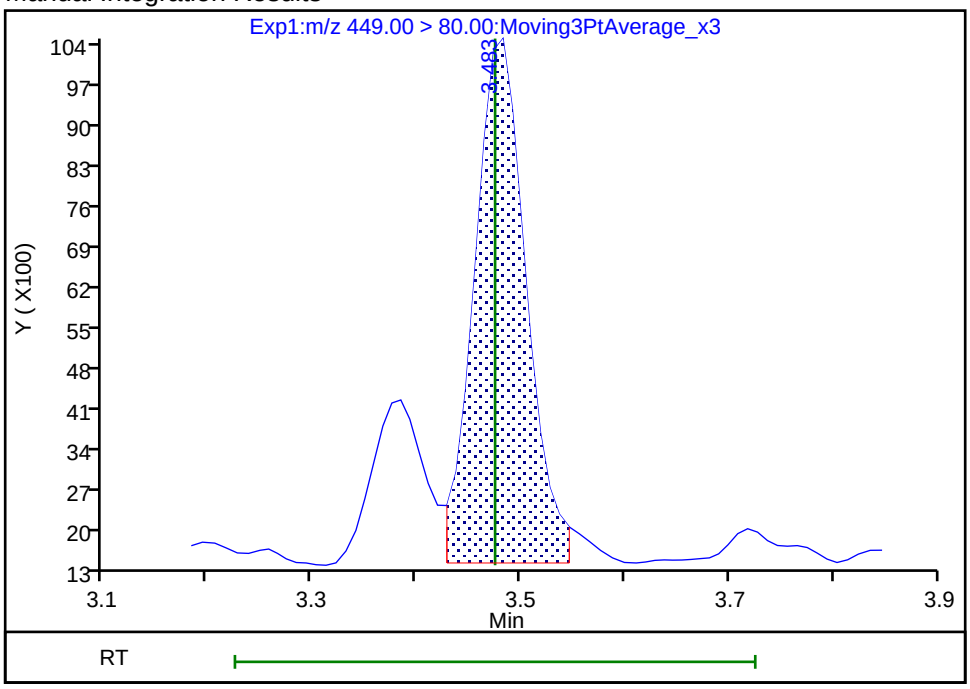
Processing Integration Results

RT: 3.48
Area: 36548
Amount: 0.050634
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 30982
Amount: 0.042922
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

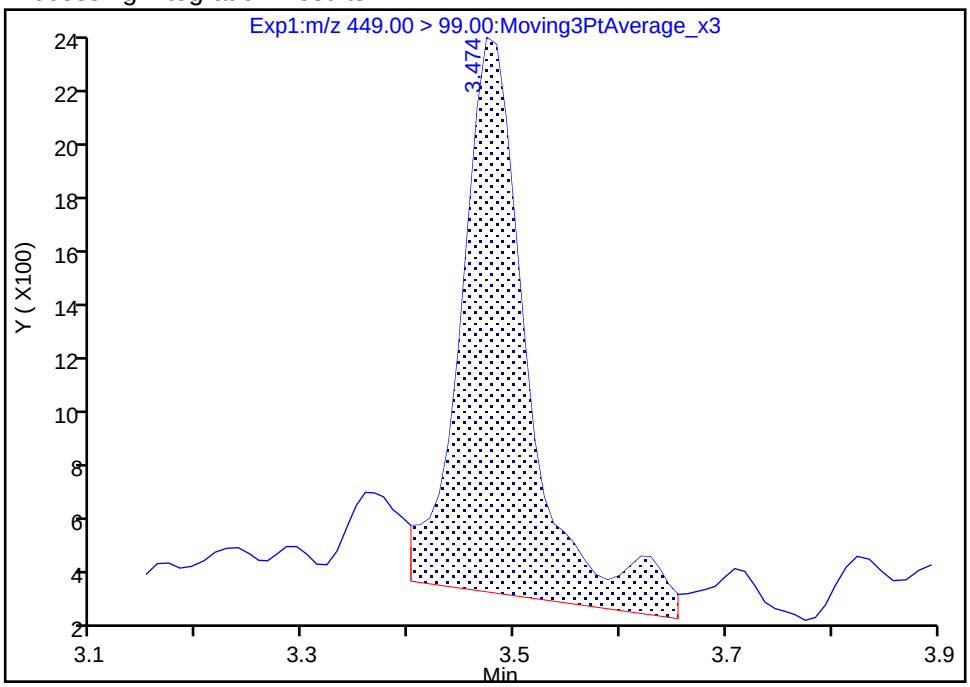
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

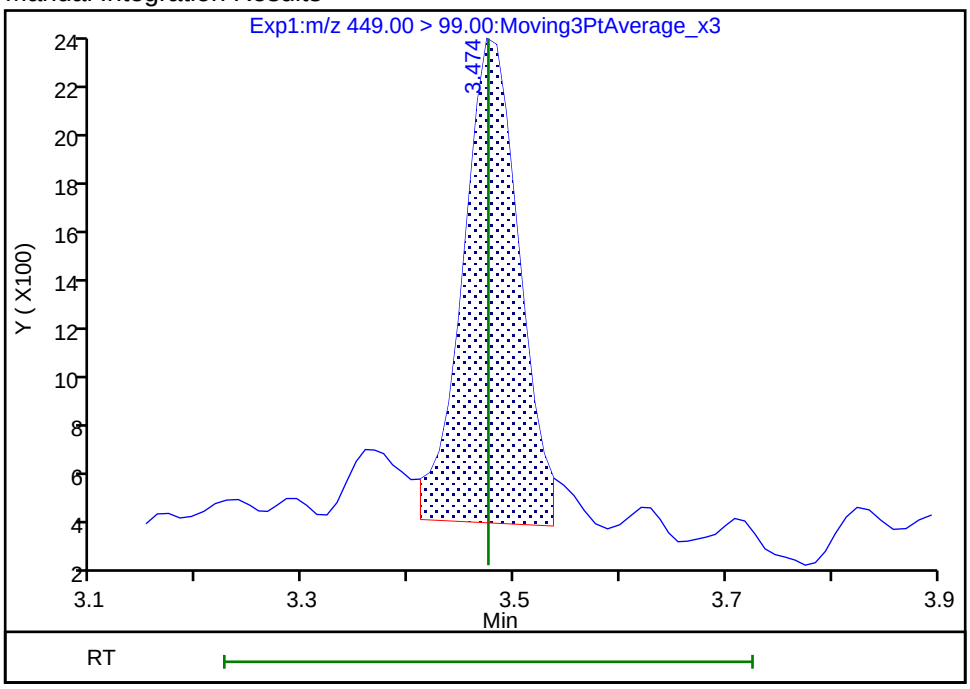
Processing Integration Results

RT: 3.47
Area: 8860
Amount: 0.050634
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 7072
Amount: 0.042922
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

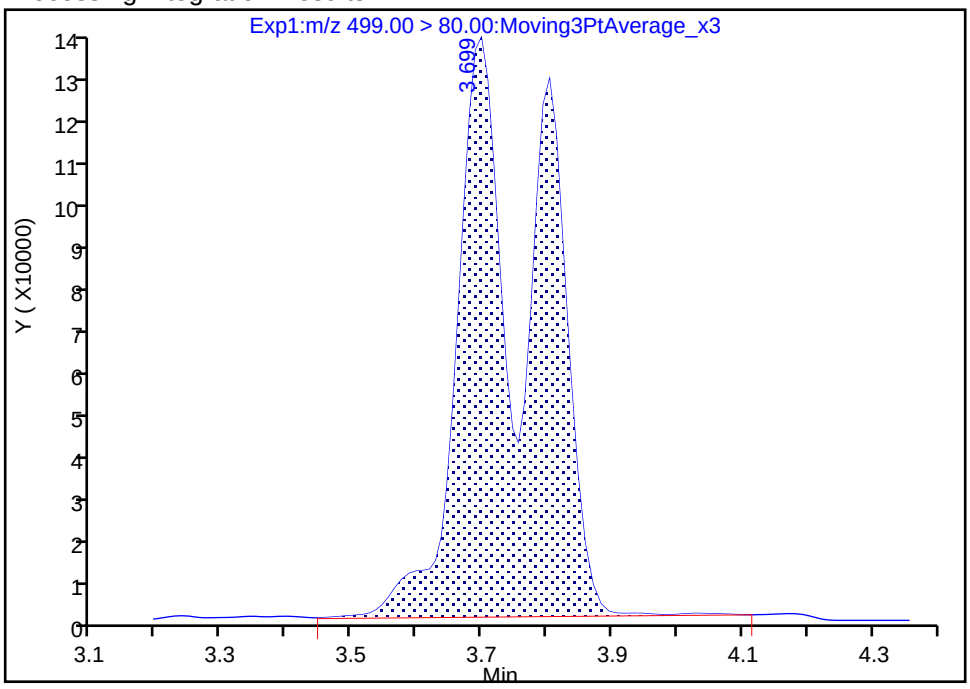
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

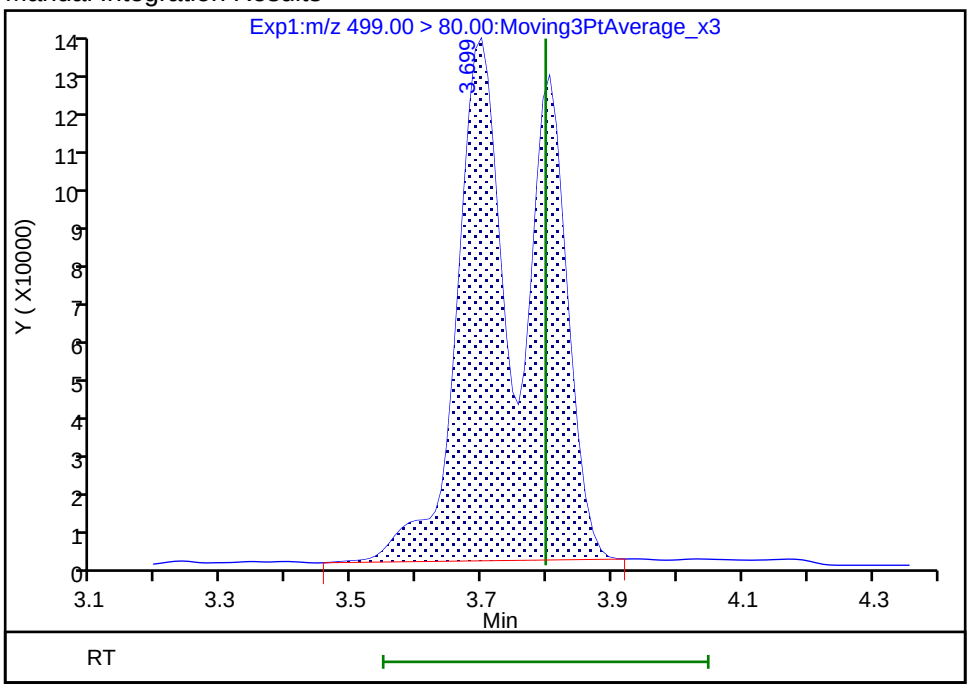
Processing Integration Results

RT: 3.70
Area: 1095612
Amount: 1.743871
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 1081649
Amount: 1.721646
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

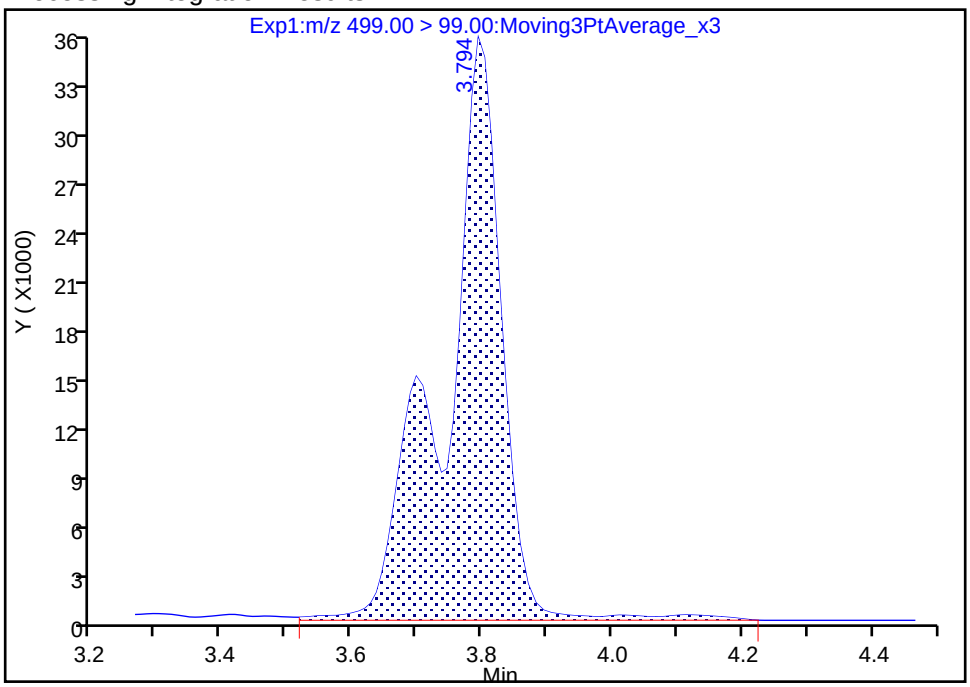
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

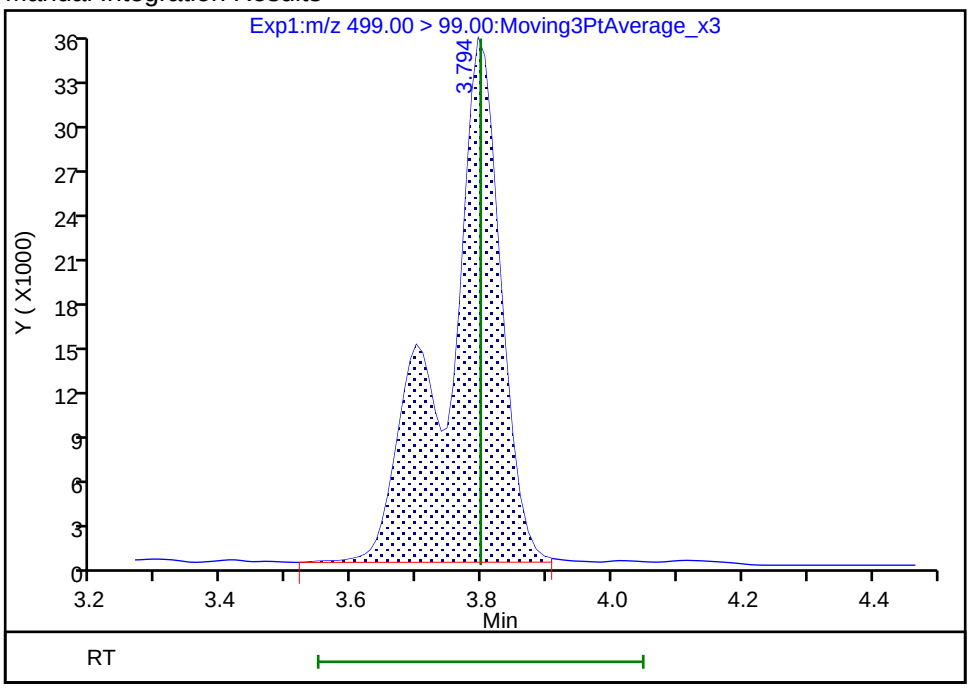
Processing Integration Results

RT: 3.79
Area: 220476
Amount: 1.743871
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 211389
Amount: 1.721646
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

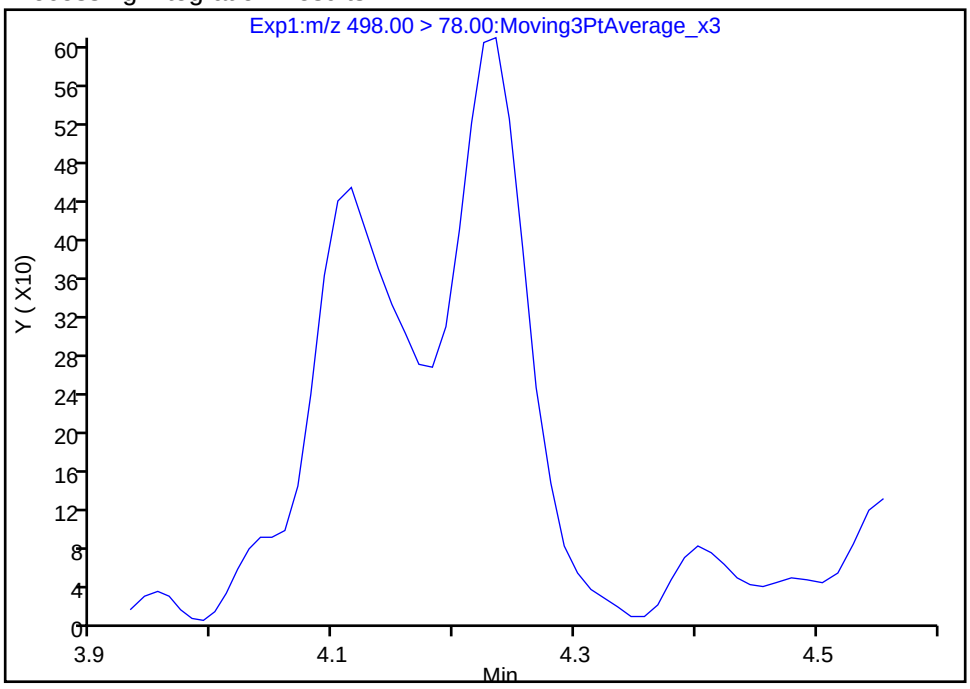
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

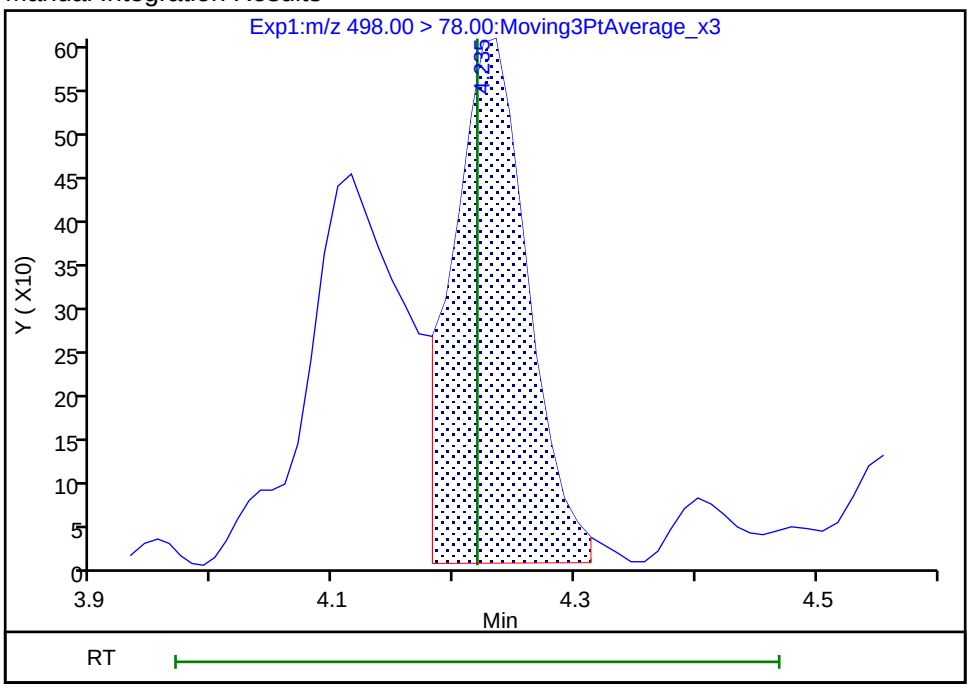
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 2549
Amount: 0.003556
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

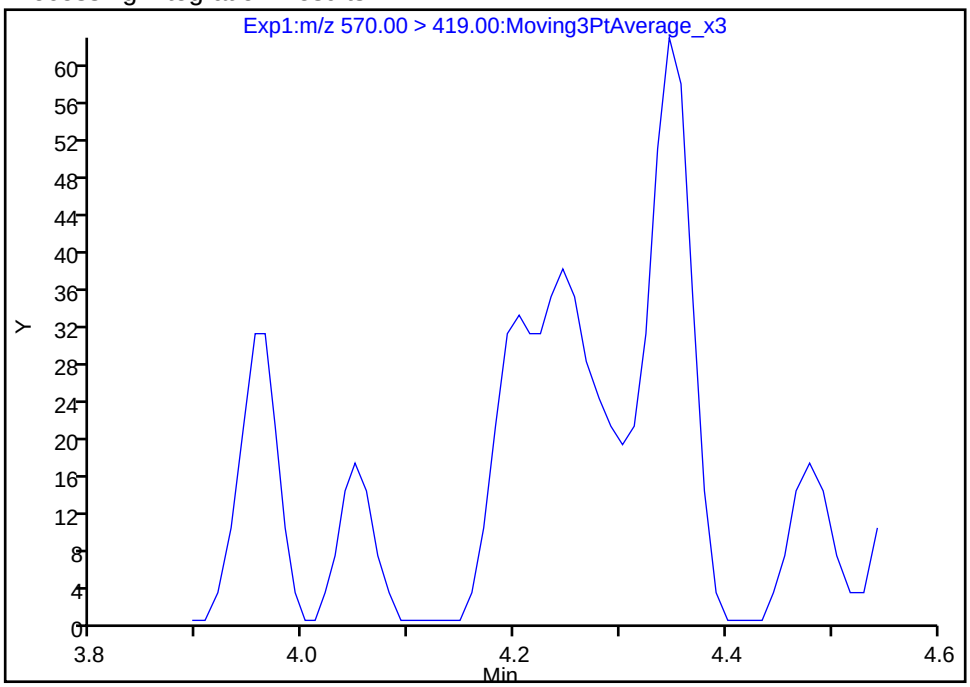
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

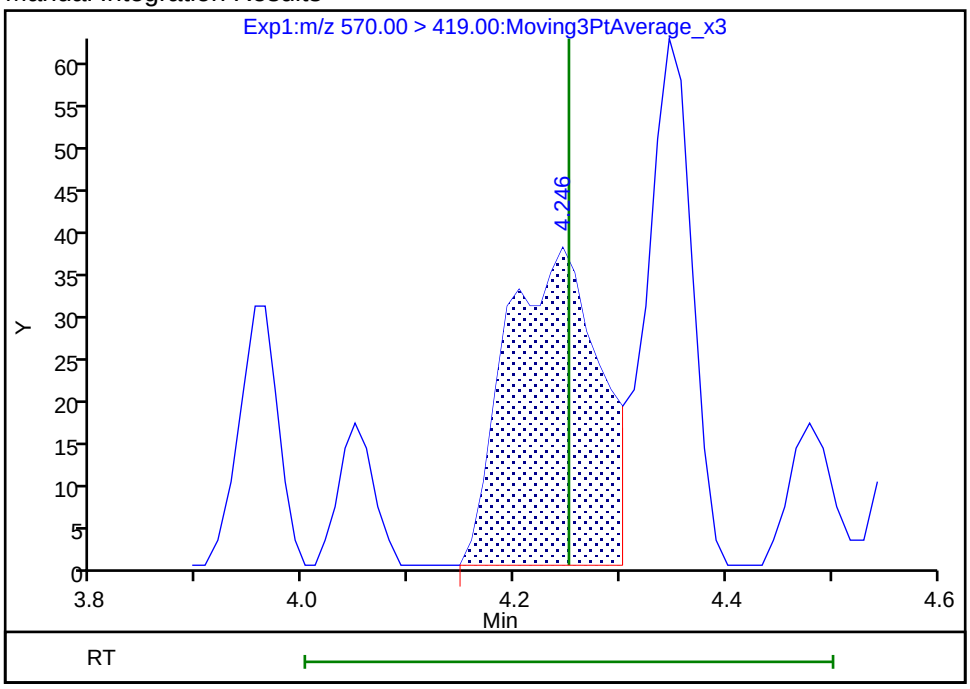
Not Detected
Expected RT: 4.25

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 229
Amount: 0.002357
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

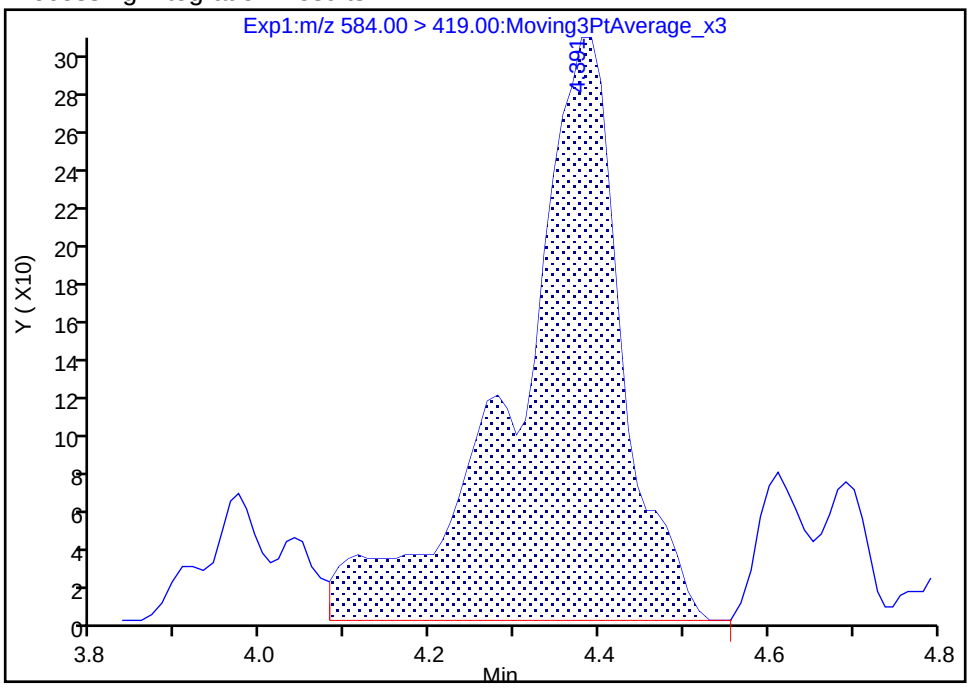
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

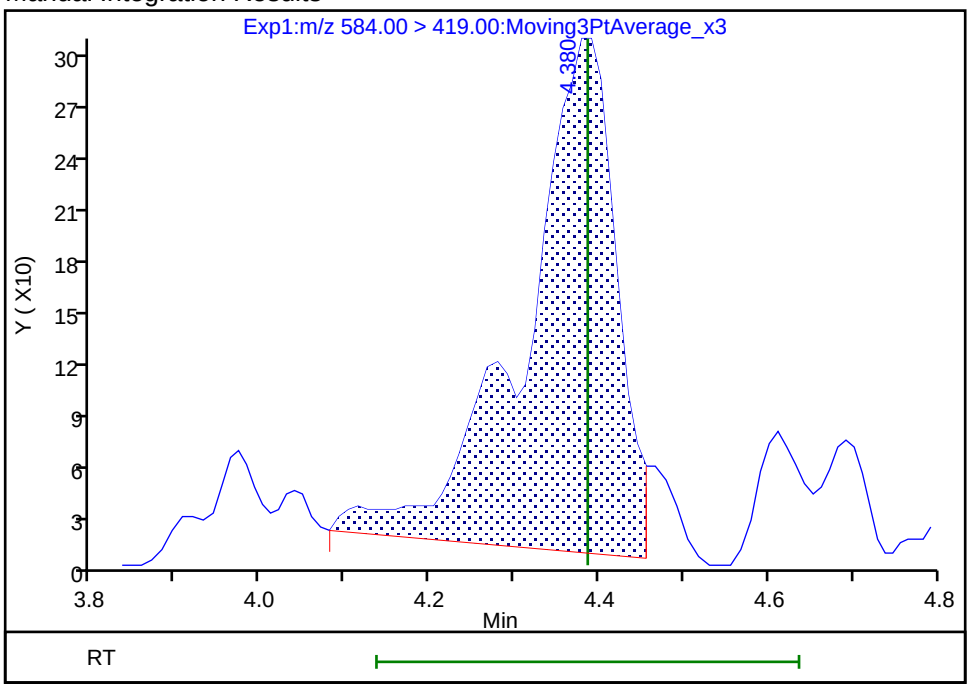
Processing Integration Results

RT: 4.39
Area: 2655
Amount: 0.025514
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 2248
Amount: 0.021603
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

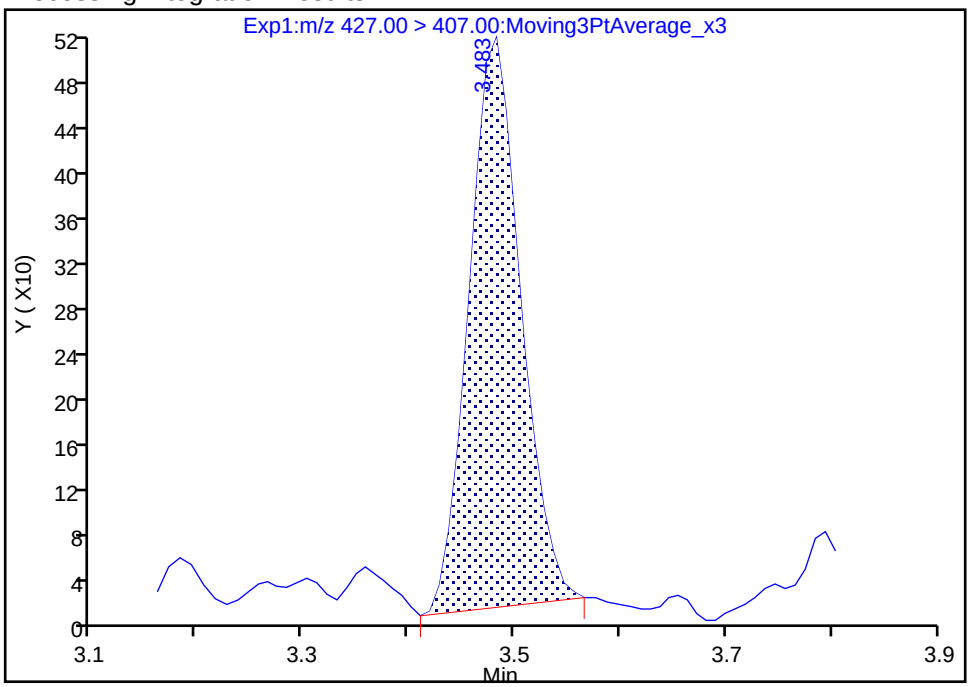
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

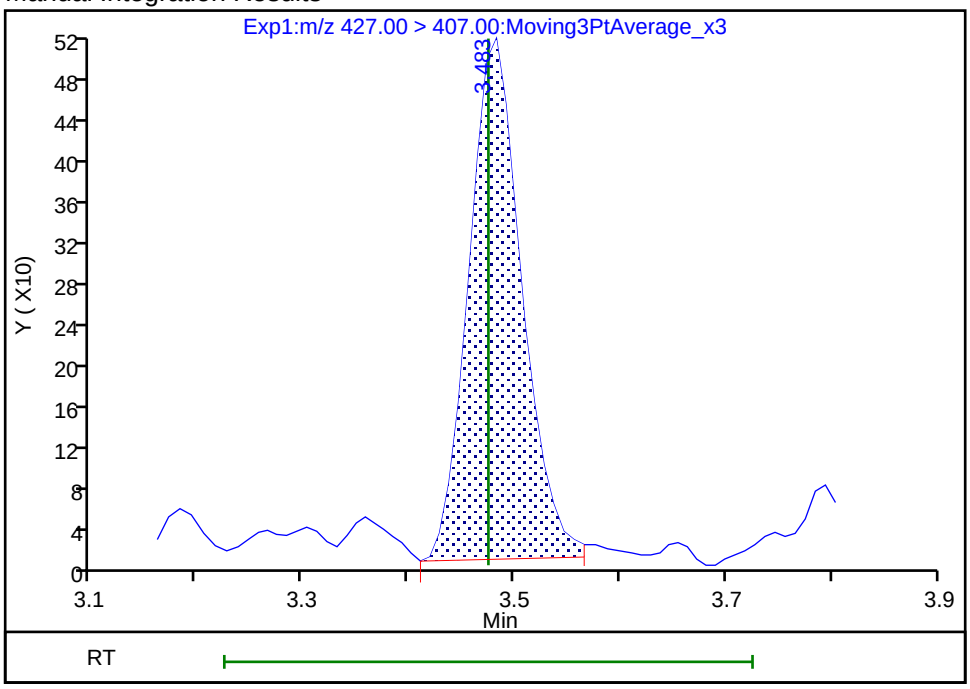
Processing Integration Results

RT: 3.48
Area: 1703
Amount: 0.007649
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1759
Amount: 0.007938
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:26:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

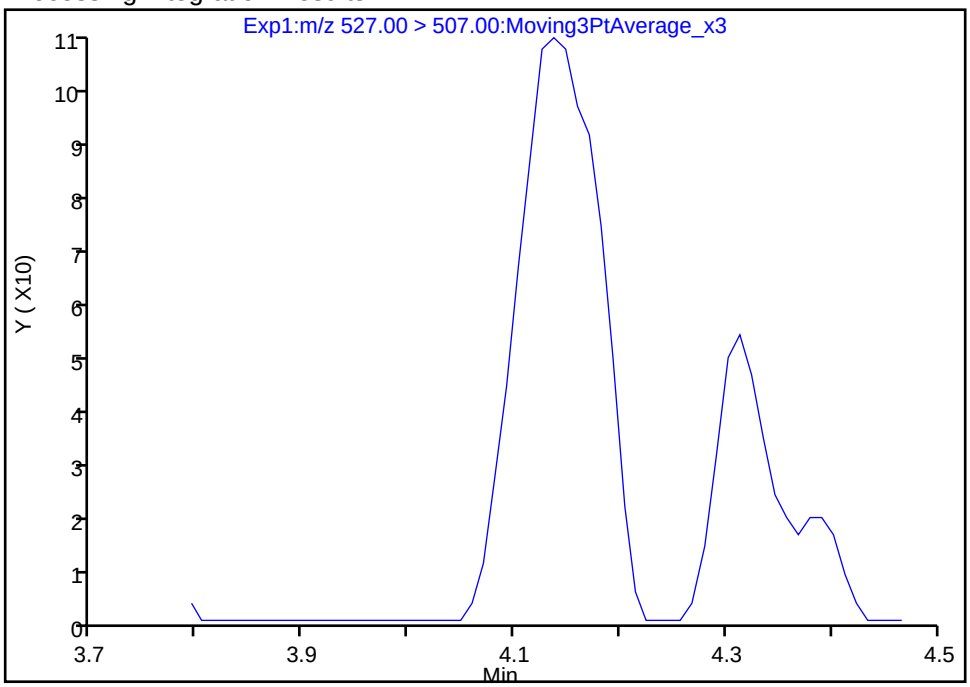
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

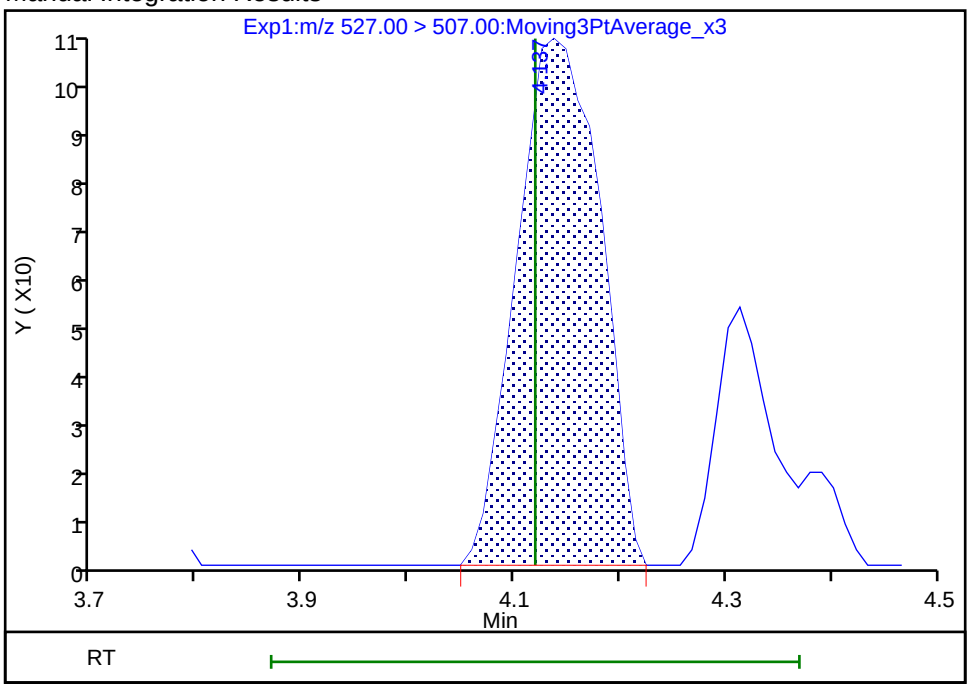
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 561
Amount: 0.003298
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:27:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

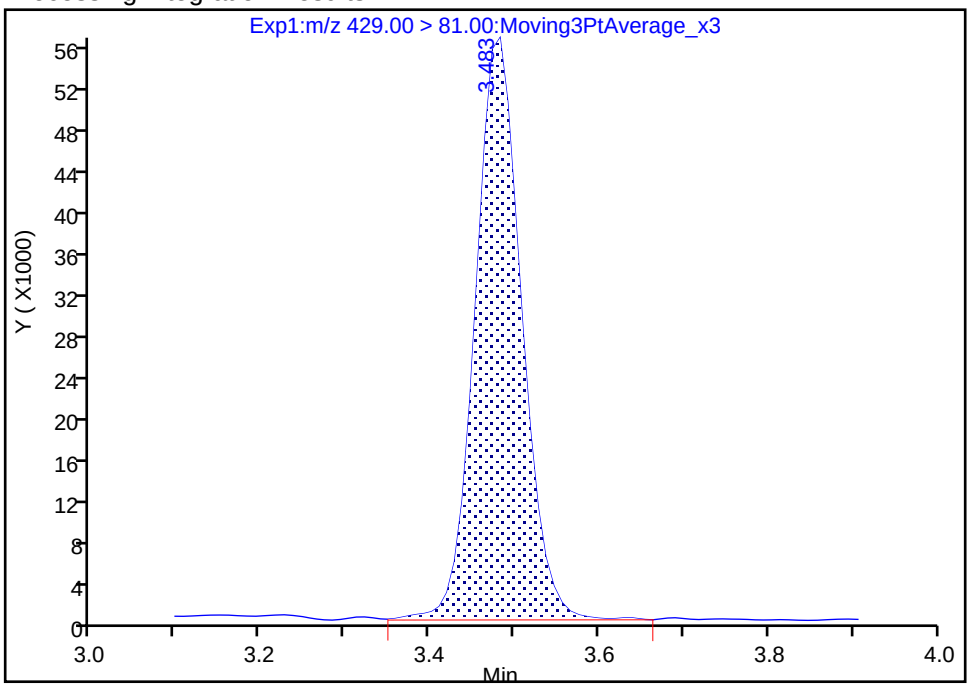
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

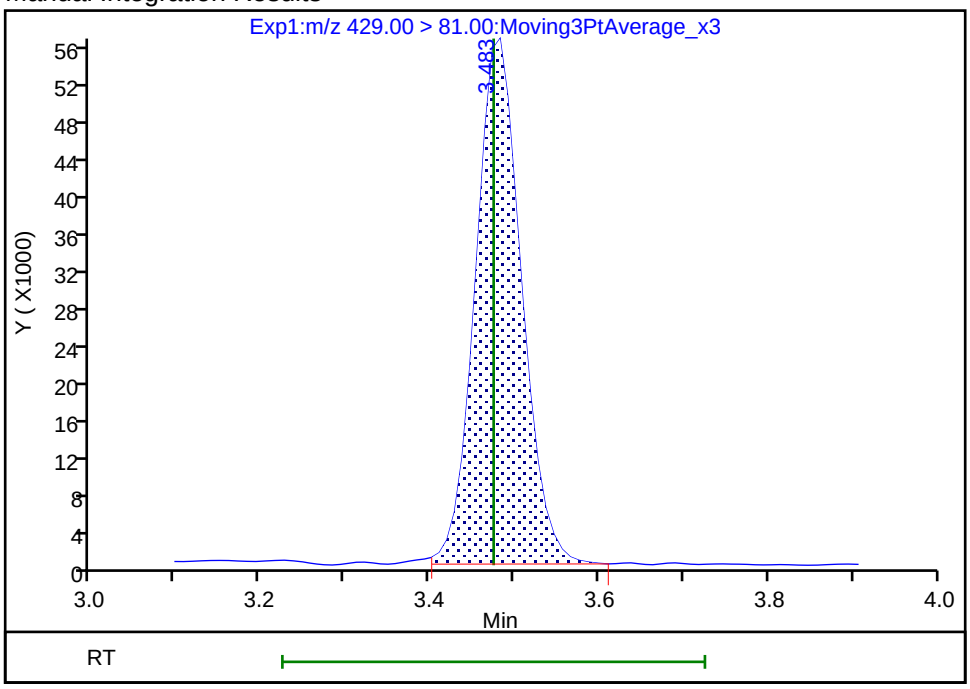
Processing Integration Results

RT: 3.48
Area: 210183
Amount: 1.744554
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 207504
Amount: 1.722318
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:25:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

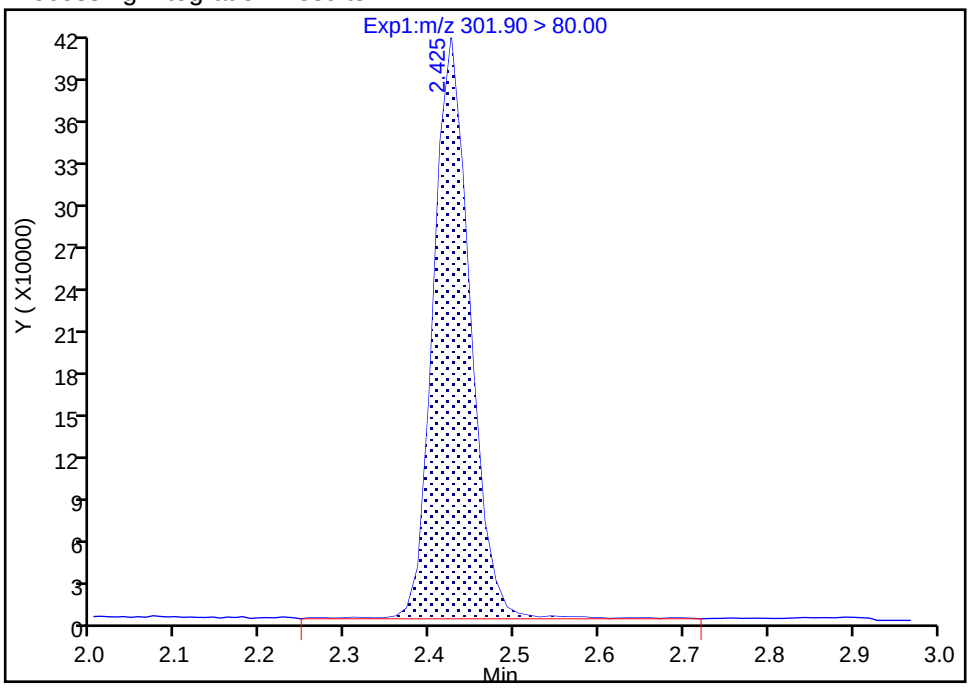
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A15.d | | | | |
| Injection Date: | 10-Nov-2021 13:17:15 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-24-A | Lab Sample ID: | 200-246277-24 | | |
| Client ID: | DUP-02-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

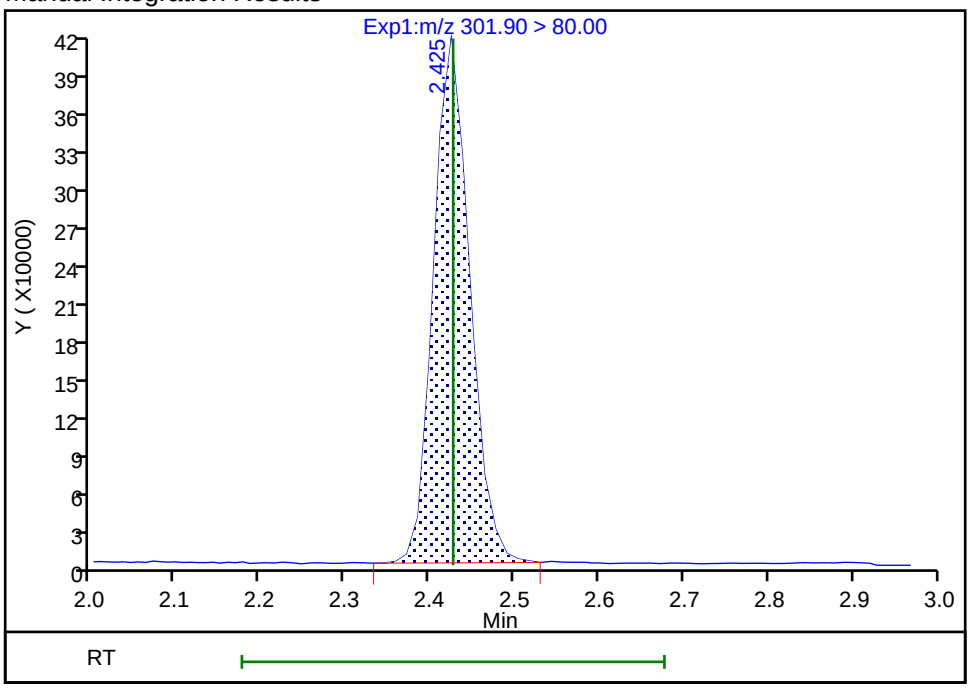
Processing Integration Results

RT: 2.43
Area: 1247248
Amount: 1.186088
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1227032
Amount: 1.166863
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:24:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-201-20211028  Lab Sample ID: 460-246277-25

Matrix: Water  Lab File ID: PA211110A16.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 09:30

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 271.9(mL)  Date Analyzed: 11/10/2021 13:25

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 9.54 | | 4.60 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 6.51 | | 1.84 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 5.30 | | 1.84 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.88 | | 1.84 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 14.0 | | 1.84 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.63 | J | 1.84 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.69 | J | 1.84 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.84 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.84 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.84 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.84 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 4.39 | B | 1.84 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 32.2 | | 1.84 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.46 | J | 1.84 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 57.3 | | 1.84 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.84 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.84 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.60 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.70 | J | 4.60 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.60 | 1.01 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.84 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-201-20211028  Lab Sample ID: 460-246277-25

Matrix: Water  Lab File ID: PA211110A16.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 09:30

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 271.9(mL)  Date Analyzed: 11/10/2021 13:25

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL01892 | 13C4 PFHpA | 93 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 102 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 71 | | 25-150 |
| STL00993 | 13C2 PFHxA | 91 | | 50-150 |
| STL00996 | 13C2 PFDA | 91 | | 50-150 |
| STL00997 | 13C2 PFUnA | 94 | | 50-150 |
| STL00998 | 13C2 PFDoA | 89 | | 50-150 |
| STL01056 | 13C8 FOSA | 85 | | 25-150 |
| STL01893 | 13C5 PFPeA | 89 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 83 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 110 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 114 | | 50-150 |
| STL02279 | M2-6:2 FTS | 130 | | 25-150 |
| STL02280 | M2-8:2 FTS | 126 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d
Lims ID: 460-246277-C-25-A
Client ID: MW-201-20211028
Sample Type: Client
Inject. Date: 10-Nov-2021 13:25:25 ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-25-A
Misc. Info.: 200-0048360-016 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:32:20
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1103129 | 0.8875 | | 71.0 | 1839 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 216555 | 0.2595 | | | 8.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.414 | -0.014 | 0.687 | 1159439 | 1.11 | | 88.6 | 396 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.414 | -0.014 | 1.000 | 164520 | 0.1771 | | | 0.7 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1559234 | 1.10 | | 94.7 | 46338 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 170809 | 0.1192 | Target=2.32 | | 6.6 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 78041 | | 2.19(1.16-3.48) | | 6.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.759 | -0.001 | 0.790 | 1255971 | 1.14 | | 91.5 | 2132 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.771 | -0.013 | 1.000 | 146754 | 0.1440 | Target=12.09 | | 1.9 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.004 | 12963 | | 11.32(6.04-18.13) | | 5.9 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 930833 | 0.8754 | Target=3.55 | | 120 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 237833 | | 3.91(1.77-5.32) | | 103 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1143613 | 1.11 | | 94.0 | 2678 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1344406 | 1.16 | | 93.0 | 2342 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 86878 | 0.0782 | Target=3.69 | | 2.6 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 25053 | | 3.47(1.84-5.53) | | 28.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 37700 | 0.0398 | Target=4.88 | | 7.1 | M |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.918 | 7735 | | 4.87(2.44-7.32) | | 4.6 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.475 | -0.010 | 0.997 | 596 | 0.002221 | | | 6.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.475 | -0.001 | 0.995 | 251280 | 1.55 | | 130 | 69.1 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.484 | -0.001 | 0.997 | 1505212 | 1.19 | | 95.3 | 4122 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1535007 | 1.25 | | | 4584 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.003 | 487154 | 0.3804 | Target=2.68 | | 17.5 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.003 | 207509 | | 2.35(1.34-4.02) | | 280 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.087 | 907905 | 1.22 | | 102 | 363 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.000 | 1284129 | 1.56 | Target=4.69 | | 220 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 1.000 | 260836 | | 4.92(2.35-7.04) | | 227 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1531487 | 1.22 | | 97.3 | 4695 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.818 | -0.004 | 1.000 | 53277 | 0.0444 | Target=7.29 | | 4.6 | M |
| 463.00 > 169.00 | 3.814 | 3.818 | -0.004 | 1.000 | 6166 | | 8.64(3.64-10.93) | | 17.2 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1437989 | 1.13 | | 90.6 | 5820 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 21768 | 0.0188 | Target=8.95 | | 3.3 | M |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 2533 | | 8.59(4.47-13.42) | | 11.9 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 277838 | 1.51 | | 126 | 175 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.210 | 1302079 | 1.06 | | 85.0 | 2670 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.000 | 3557 | 0.003596 | | | 7.6 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 171351 | 1.37 | | 110 | 996 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 0.997 | 291 | 0.002702 | | | 2.8 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.342 | 0.005 | 1.146 | 2014 | 0.004034 | Target=2.47 | | 2.5 | M |
| 599.00 > 99.00 | 4.335 | 4.342 | -0.007 | 1.143 | 750 | | 2.69(1.23-3.70) | | 3.8 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.251 | 1160781 | 1.17 | | 93.8 | 4856 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.375 | -0.006 | 1.000 | 4050 | 0.004091 | Target=9.24 | | 1.1 | |
| 563.00 > 169.00 | 4.380 | 4.375 | 0.005 | 1.003 | 874 | | 4.63(4.62-13.86) | | 7.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.254 | 167348 | 1.43 | | 114 | 842 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.003 | 2194 | 0.0191 | | | 12.6 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.598 | -0.007 | 1.315 | 1187818 | 1.12 | | 89.2 | 1271 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.601 | 4.598 | 0.003 | 1.002 | 1850 | 0.001988 | Target=7.04 | | 0.5 | M |
| 613.00 > 169.00 | 4.643 | 4.598 | 0.045 | 1.011 | 252 | | 7.34(3.52-10.56) | | 3.8 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.046 | 714 | 0.000890 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.792 | 4.799 | -0.007 | 1.044 | 167 | | 4.28(2.34-7.02) | | 2.9 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 861096 | 1.04 | | 83.4 | 1976 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 291 | 0.002677 | Target=1.01 | | 5.6 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 267 | | 1.09(0.51-1.52) | | 5.4 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:30 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d

Injection Date: 10-Nov-2021 13:25:25 Instrument ID: LC812

Lims ID: 460-246277-C-25-A Lab Sample ID: 200-246277-25

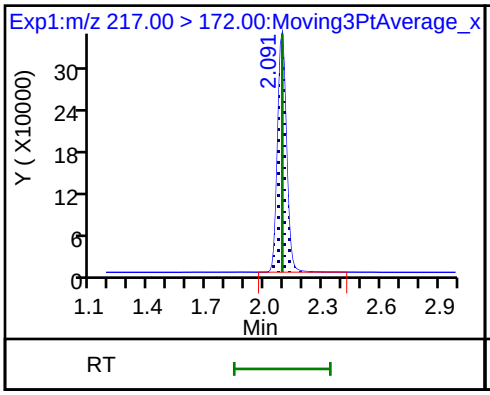
Client ID: MW-201-20211028

Operator ID: lc812tech ALS Bottle#: 13 Worklist Smp#: 16

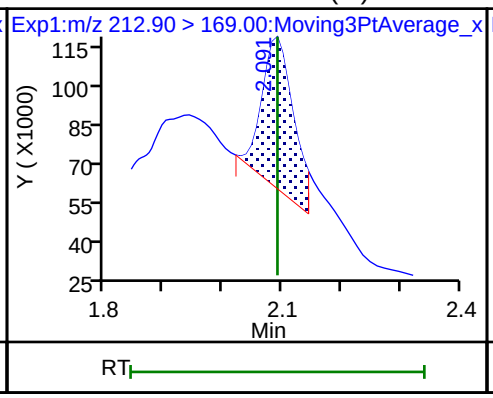
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

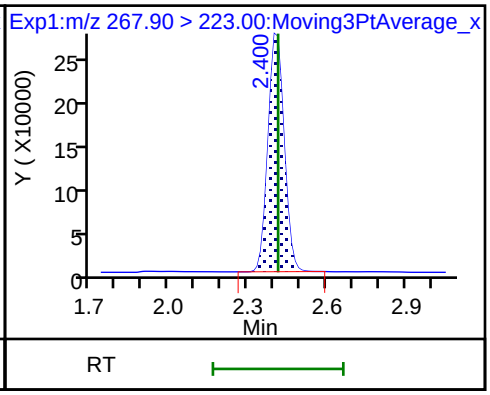
D 1 13C4 PFBA



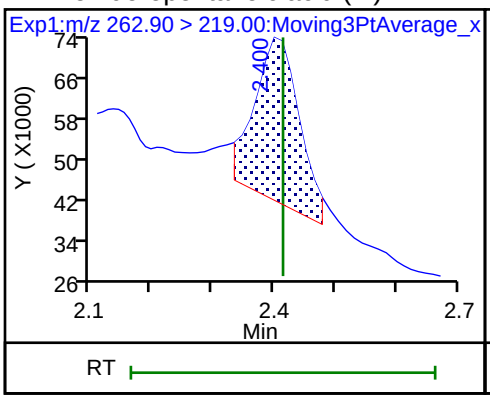

2 Perfluorobutanoic acid (M)



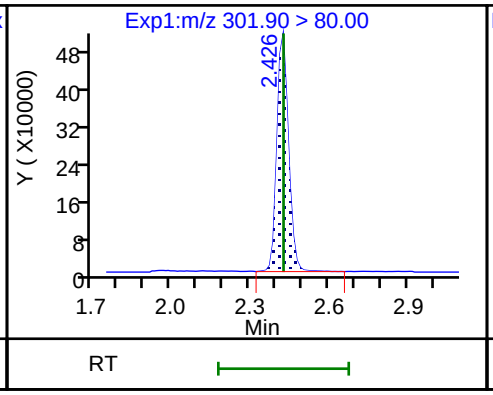

D 3 13C5 PFPeA



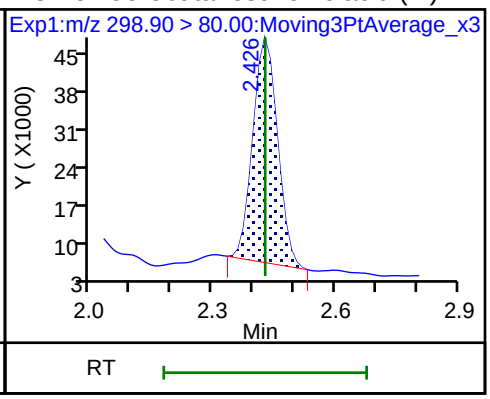

4 Perfluoropentanoic acid (M)



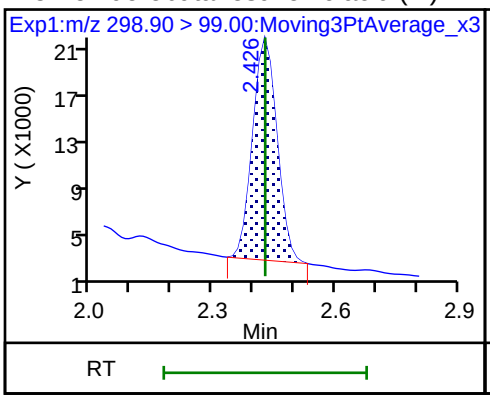

D 47 13C3 PFBS



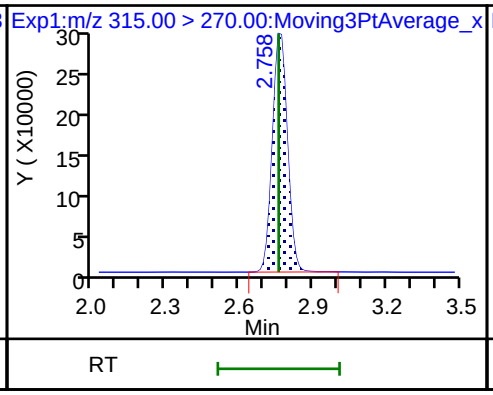

5 Perfluorobutanesulfonic acid (M)



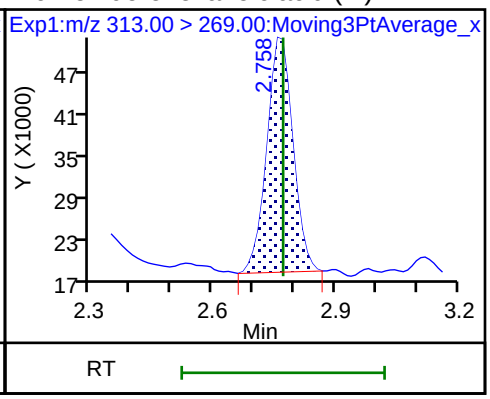

5 Perfluorobutanesulfonic acid (M)



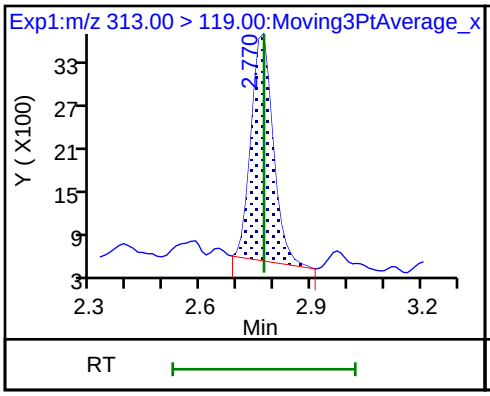

D 7 13C2 PFHxA




6 Perfluorohexanoic acid (M)




6 Perfluorohexanoic acid

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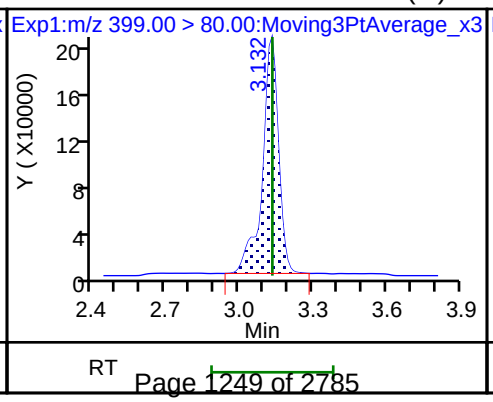
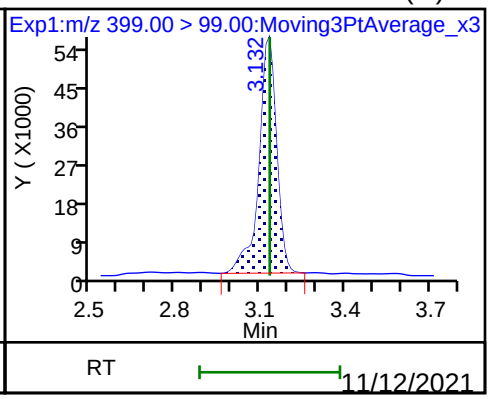
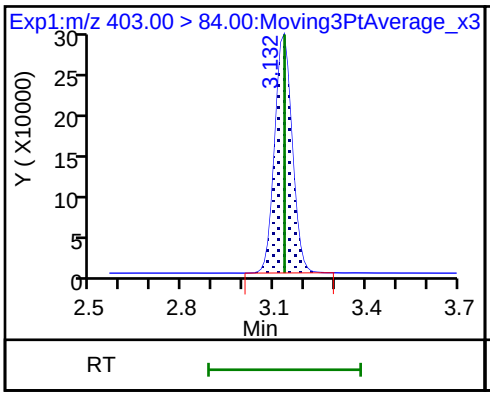


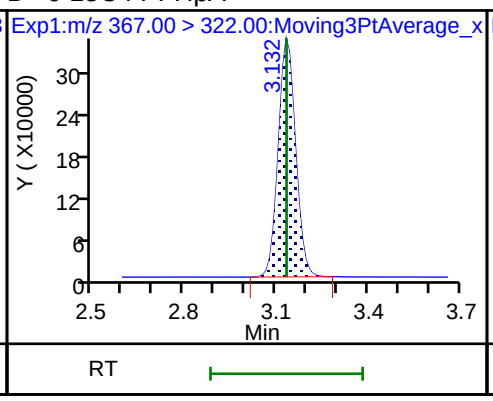

8 Perfluorohexanesulfonic acid (M)



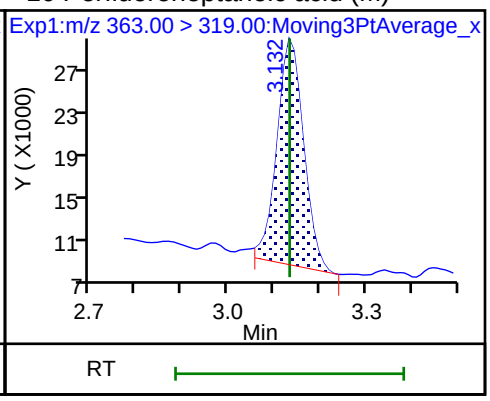
D 11 18O2 PFHxS



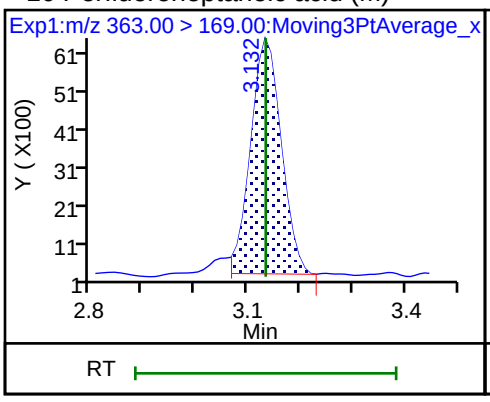

D 9 13C4 PFHpA



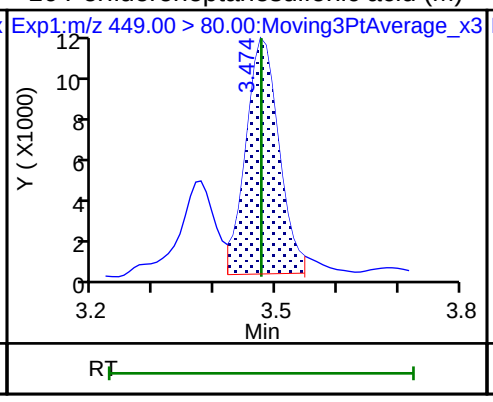

10 Perfluoroheptanoic acid (M)



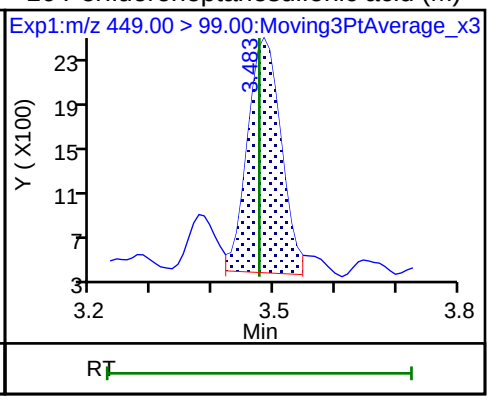

10 Perfluoroheptanoic acid (M)



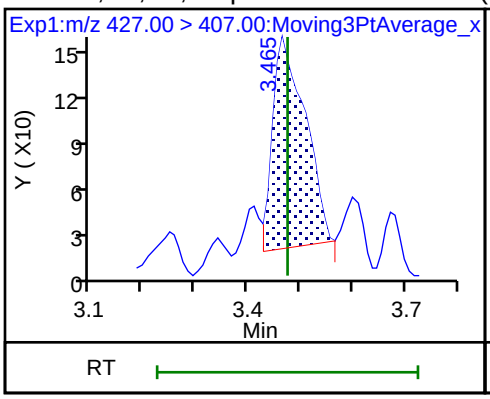

16 Perfluoroheptanesulfonic acid (M)



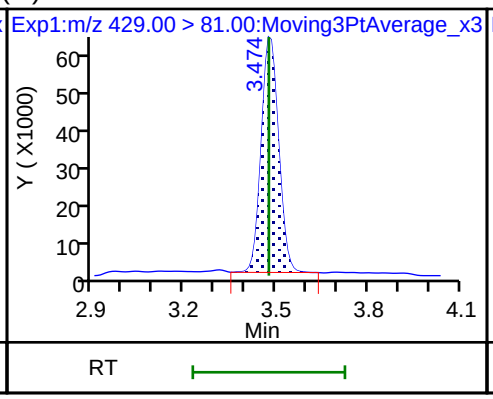

16 Perfluoroheptanesulfonic acid (M)



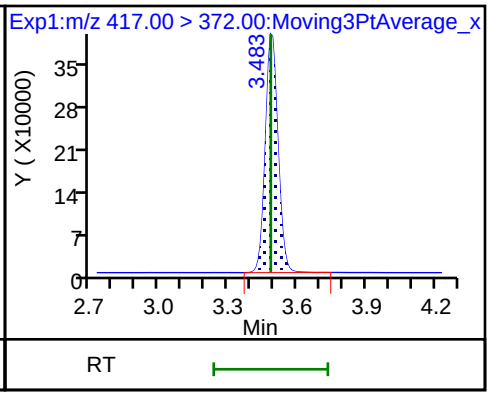

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



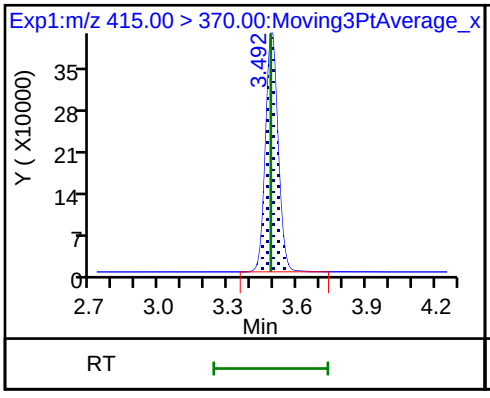

D 12 M2-6:2 FTS



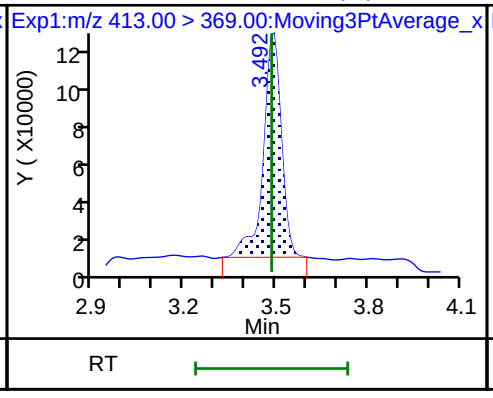

D 14 13C4 PFOA



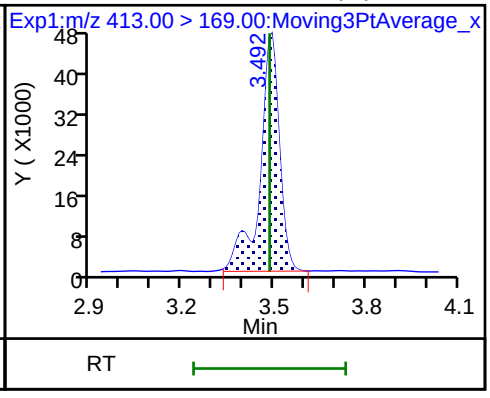

* 62 13C2 PFOA



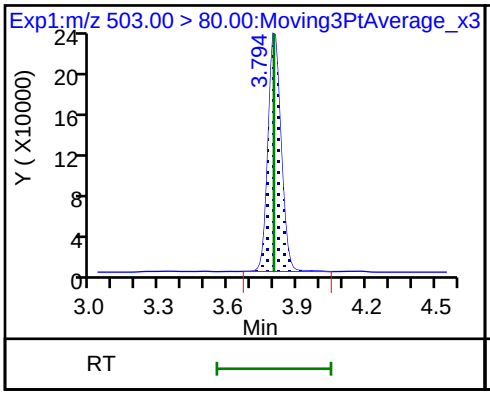

15 Perfluorooctanoic acid (M)



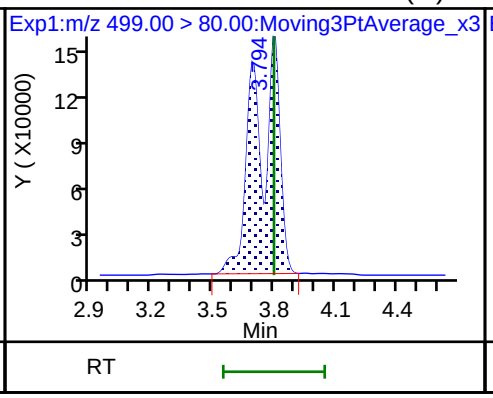

15 Perfluorooctanoic acid (M)



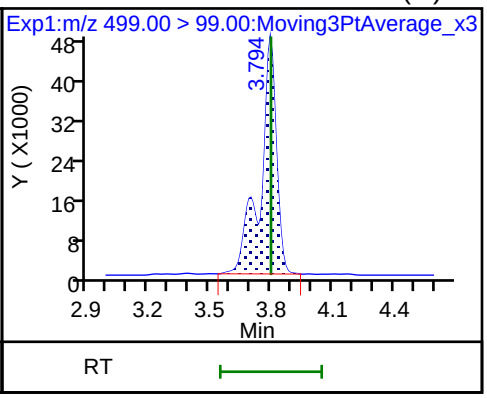
D 18 13C4 PFOS



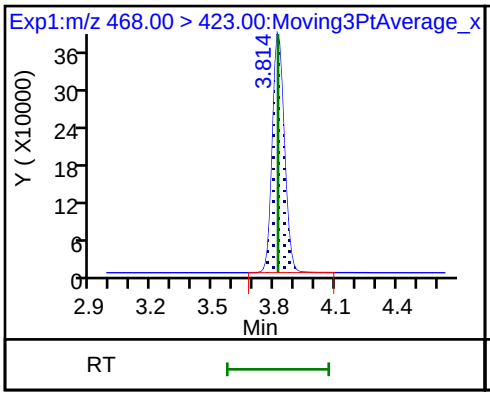

17 Perfluorooctanesulfonic acid (M)



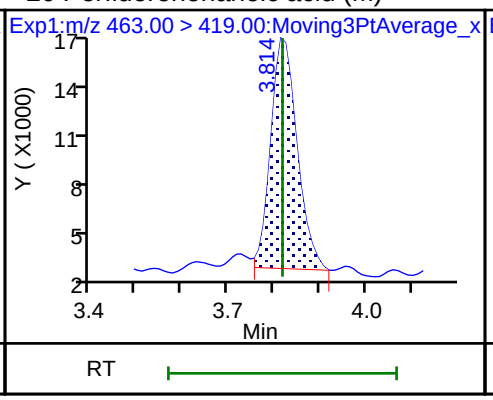

17 Perfluorooctanesulfonic acid (M)



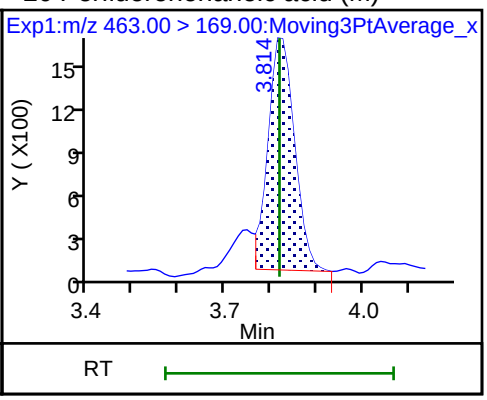

D 19 13C5 PFNA



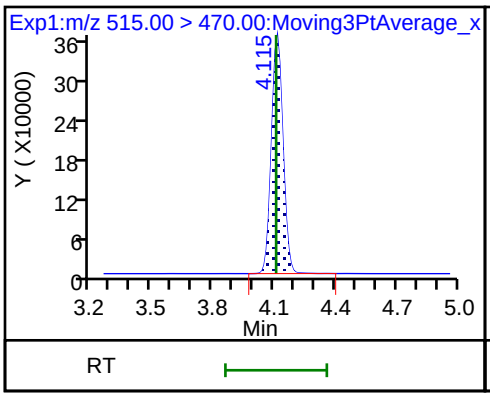

20 Perfluorononanoic acid (M)



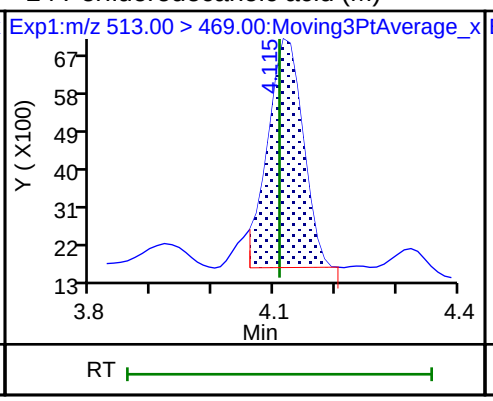

20 Perfluorononanoic acid (M)



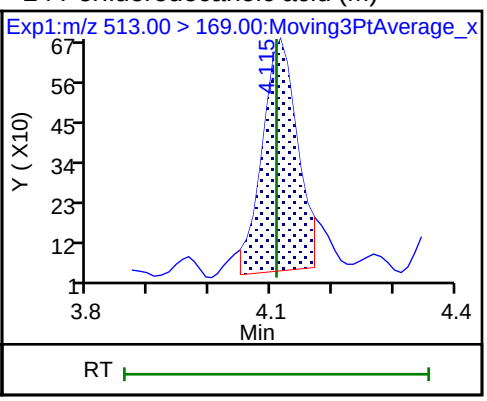

D 23 13C2 PFDA



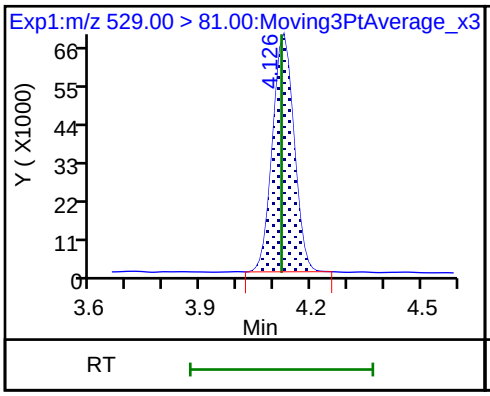

24 Perfluorodecanoic acid (M)



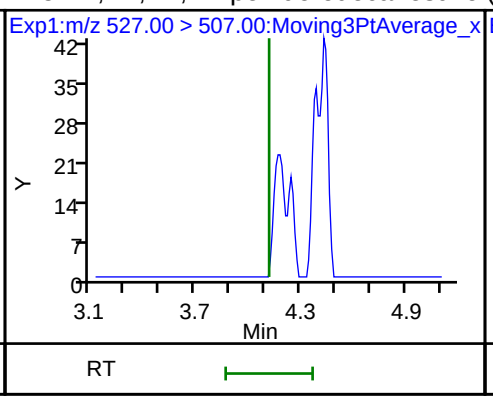

24 Perfluorodecanoic acid (M)



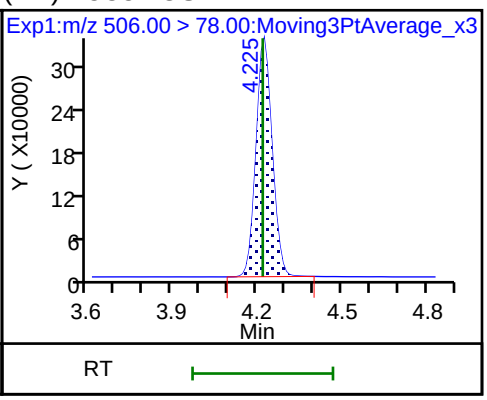

D 26 M2-8:2 FTS



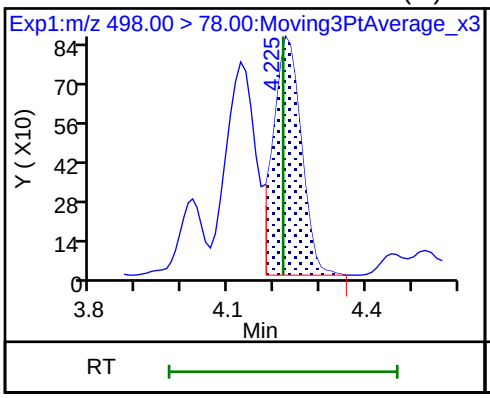

25 1H,1H,2H,2H-perfluorodecanesulfo (M2)



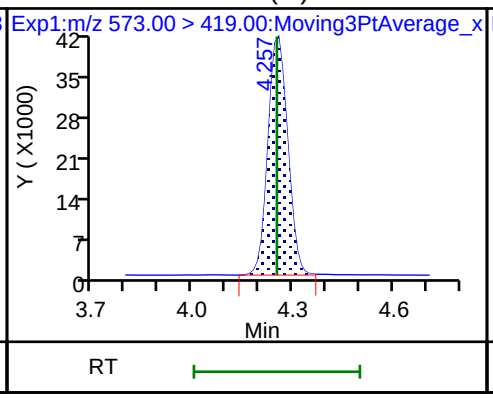

D 21 13C8 FOSA



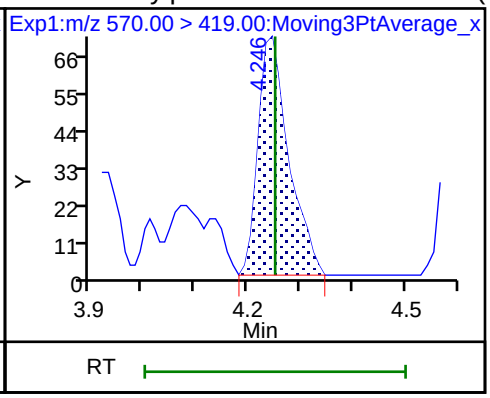
22 Perfluorooctanesulfonamide (M)



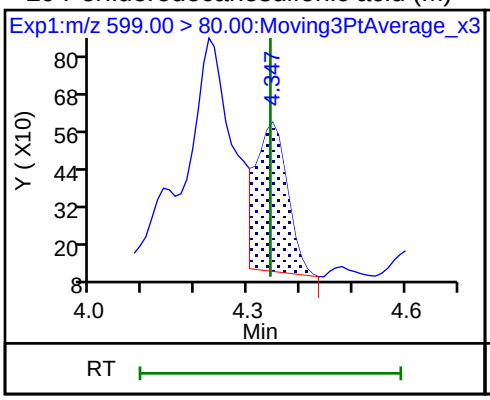

D 27 d3-NMeFOSAA (M)



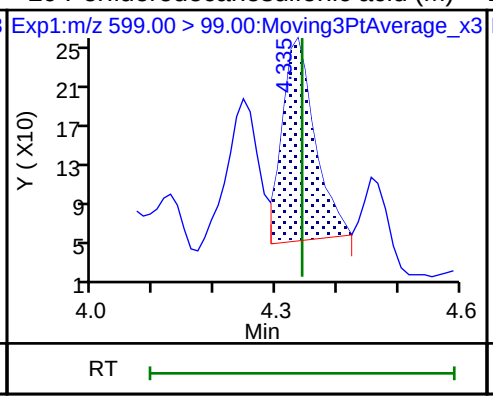

28 N-methylperfluorooctanesulfonami (M)



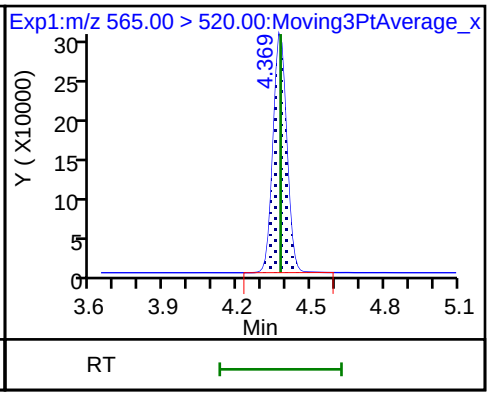

29 Perfluorodecanesulfonic acid (M)



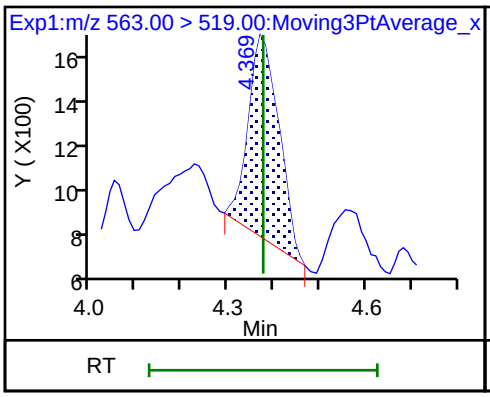

29 Perfluorodecanesulfonic acid (M)



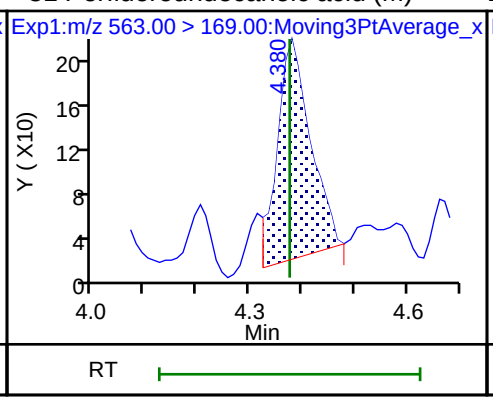

D 30 13C2 PFUnA



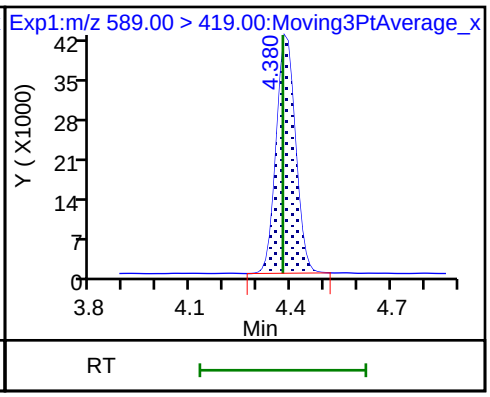

31 Perfluoroundecanoic acid



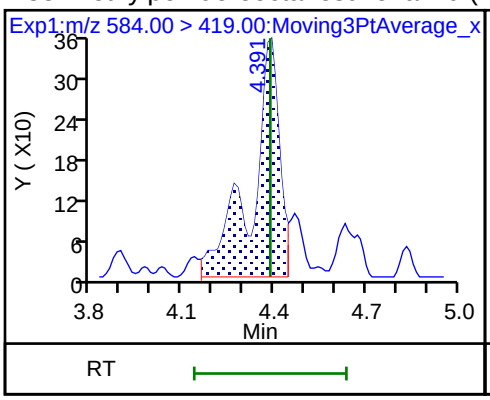

31 Perfluoroundecanoic acid (M)



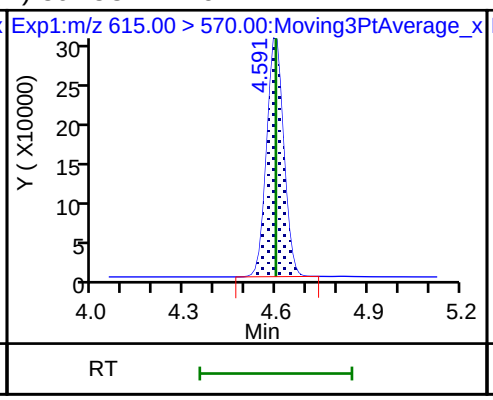

D 32 d5-NEtFOSAA



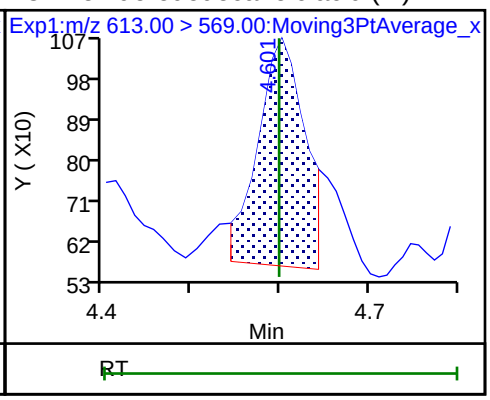

33 N-ethylperfluorooctanesulfonamid (M)



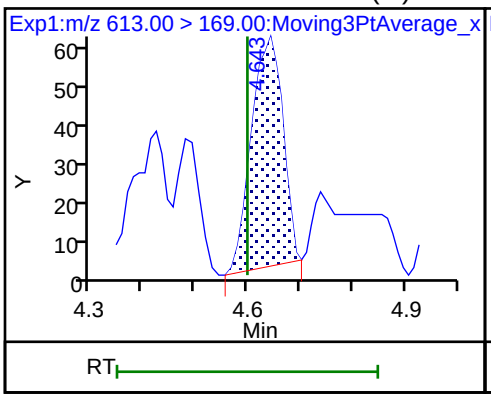

D 36 13C2 PFDoA



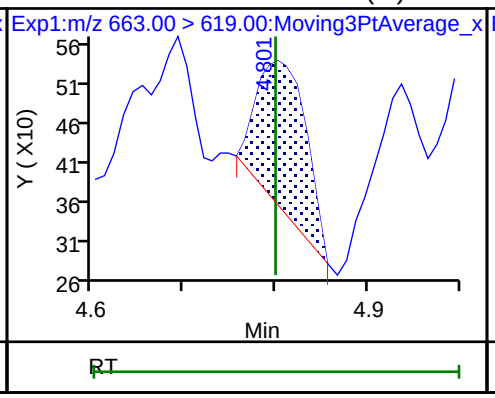

37 Perfluorododecanoic acid (M)



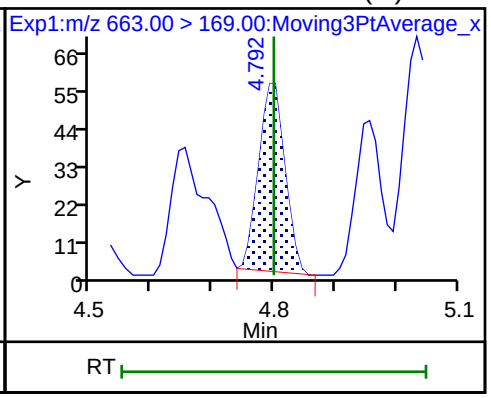
37 Perfluorododecanoic acid (M)



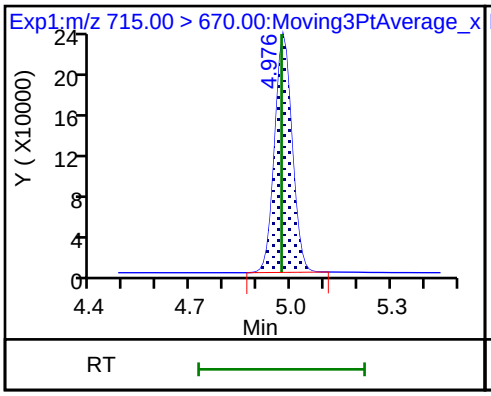

41 Perfluorotridecanoic acid (M)



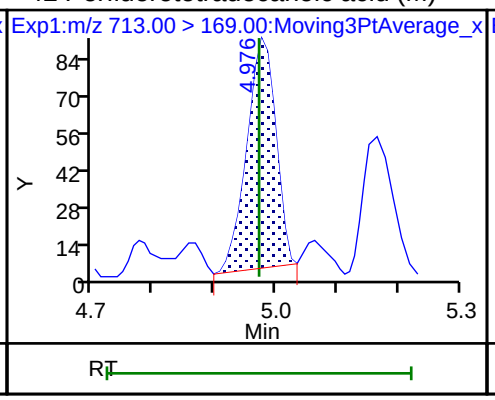

41 Perfluorotridecanoic acid (M)



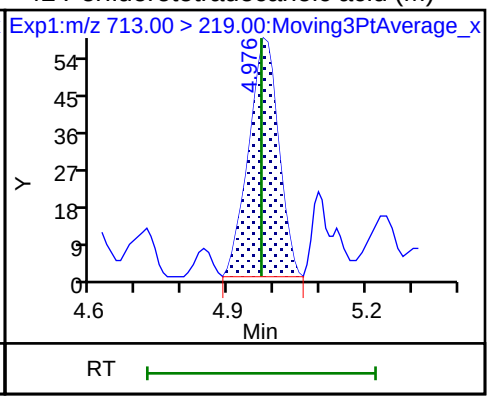

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

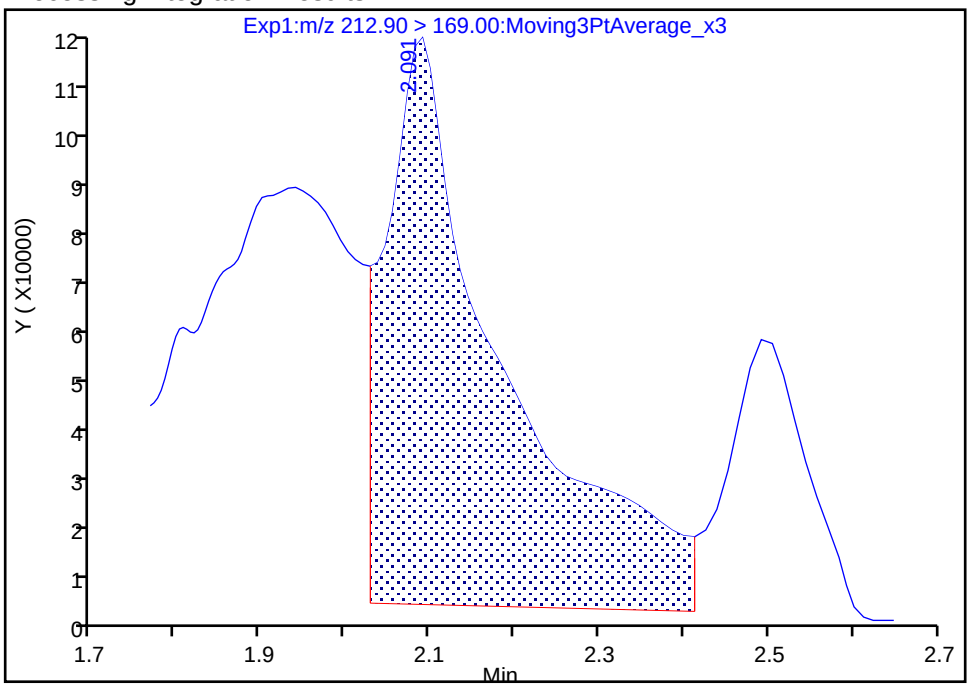
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

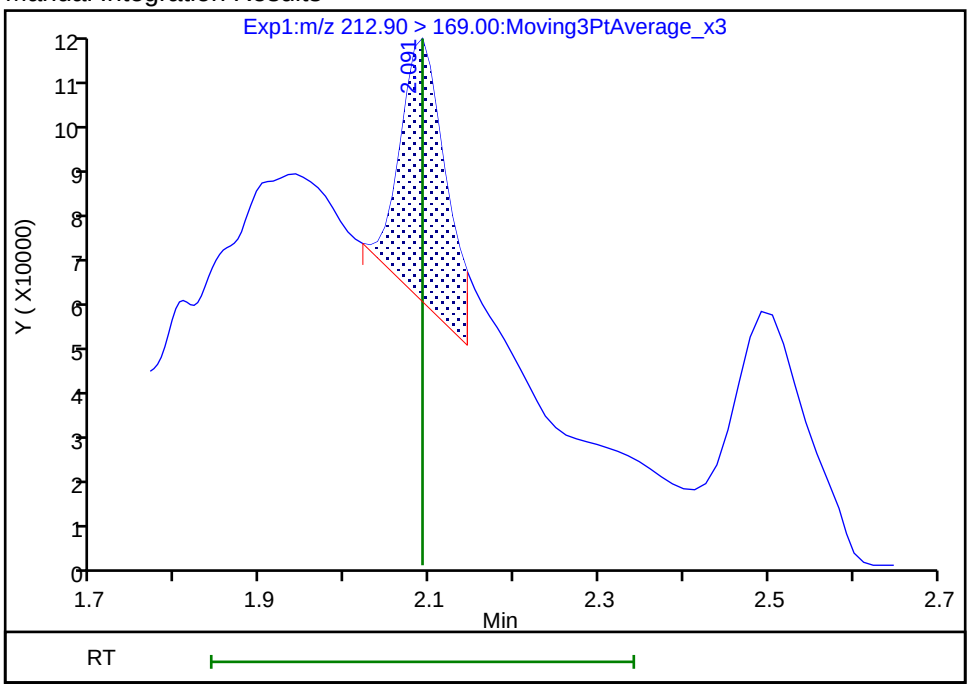
Processing Integration Results

RT: 2.09
Area: 1103788
Amount: 1.322759
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 216555
Amount: 0.259516
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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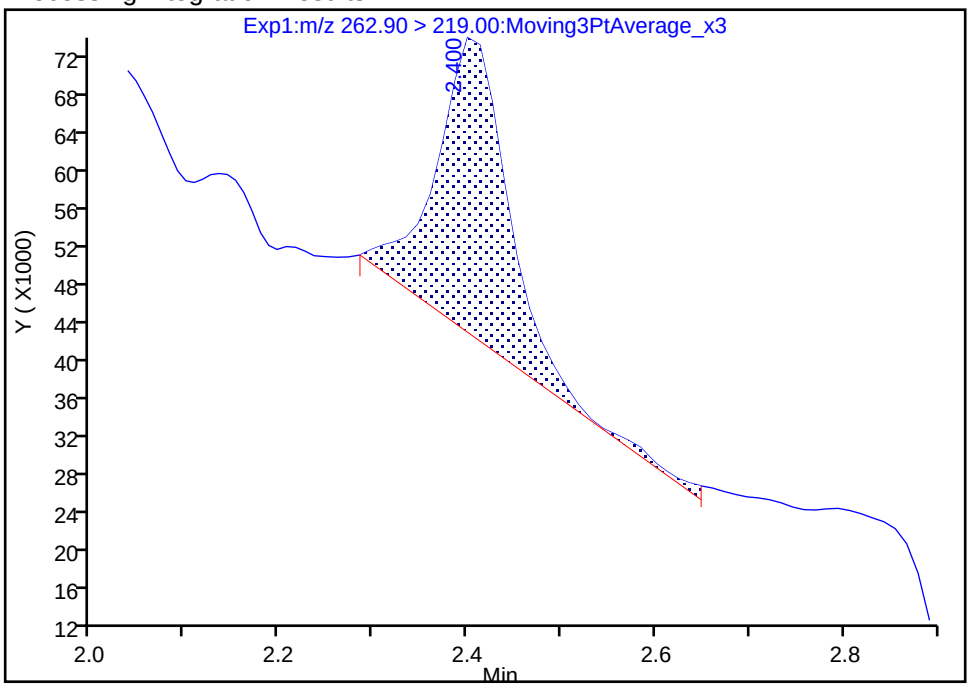
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

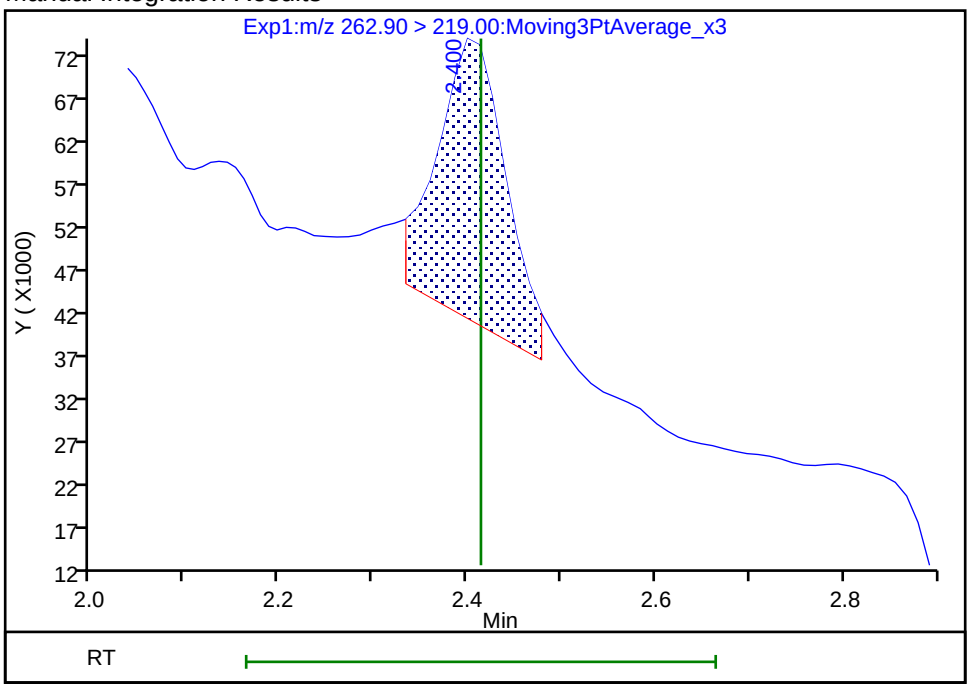
Processing Integration Results

RT: 2.40
Area: 169464
Amount: 0.182385
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 164520
Amount: 0.177064
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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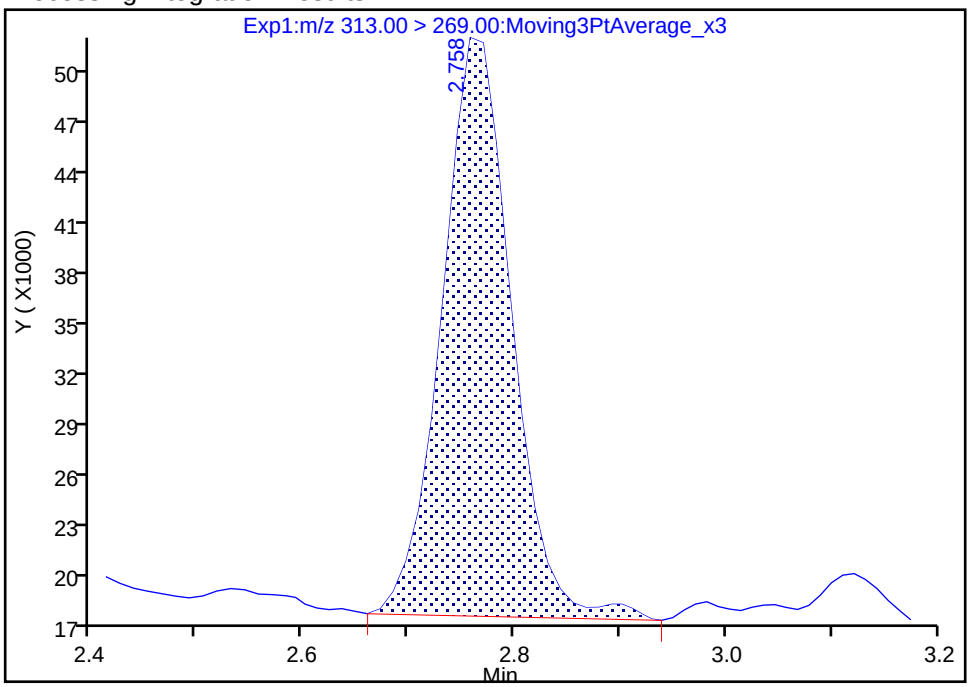
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

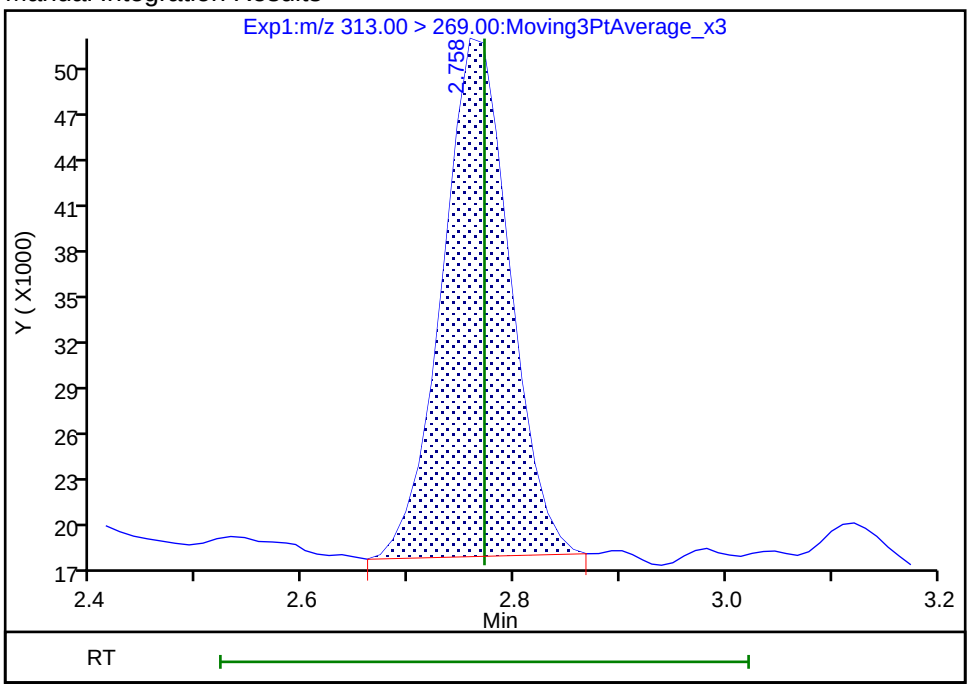
Processing Integration Results

RT: 2.76
Area: 153091
Amount: 0.150234
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 146754
Amount: 0.144015
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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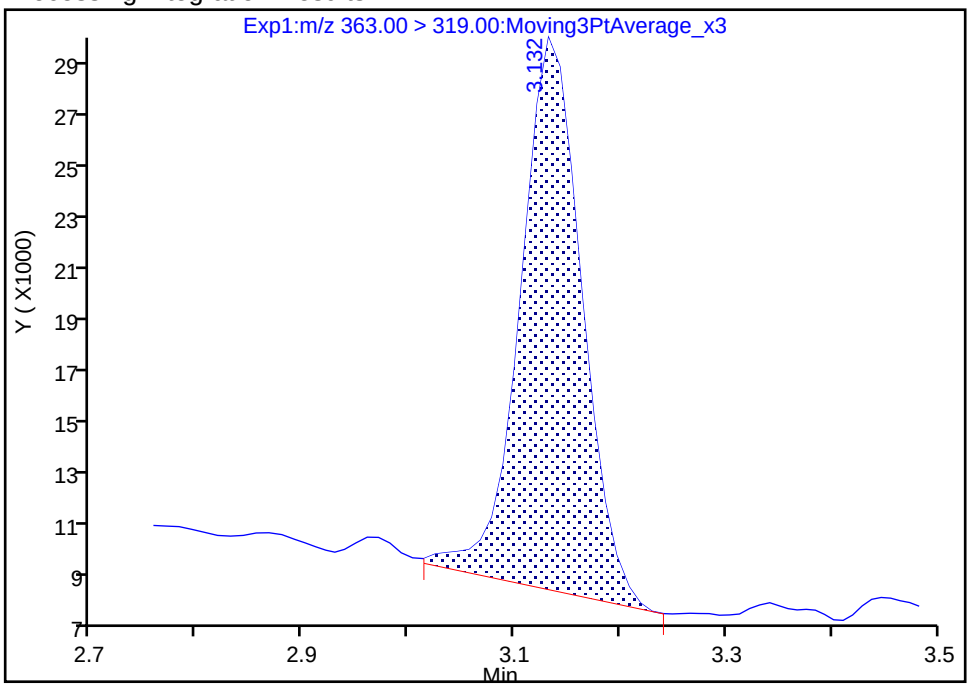
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

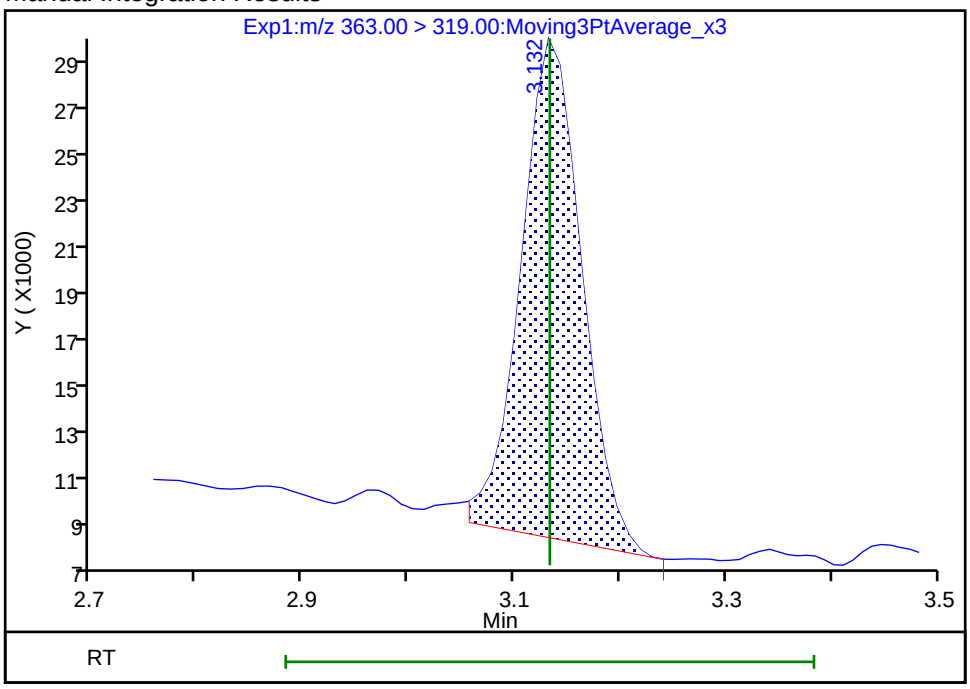
Processing Integration Results

RT: 3.13
Area: 88354
Amount: 0.079509
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 86878
Amount: 0.078180
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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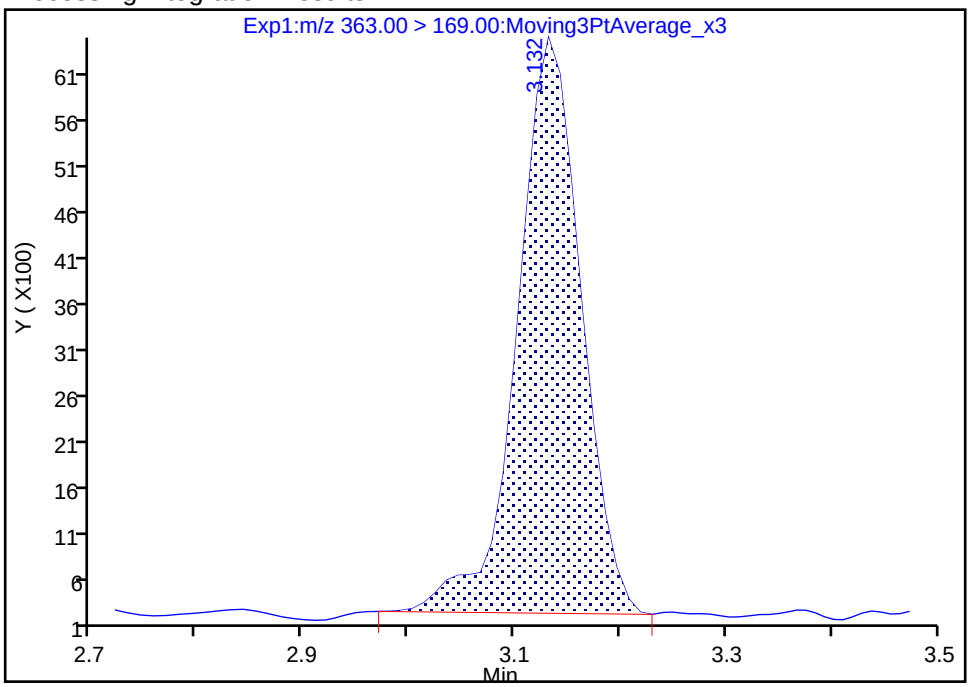
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

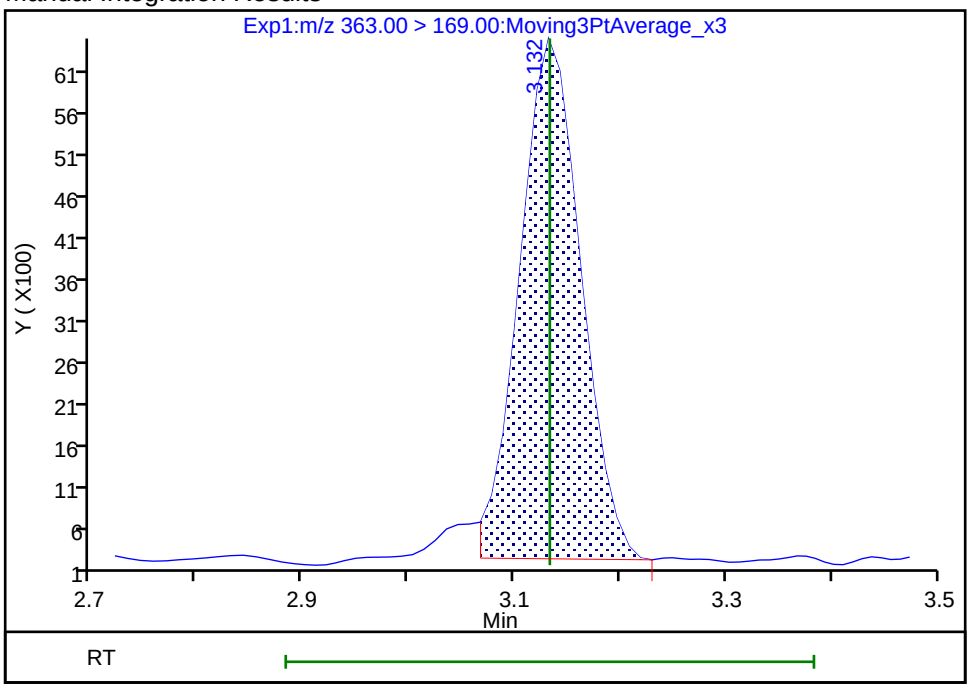
Processing Integration Results

RT: 3.13
Area: 26167
Amount: 0.079509
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 25053
Amount: 0.078180
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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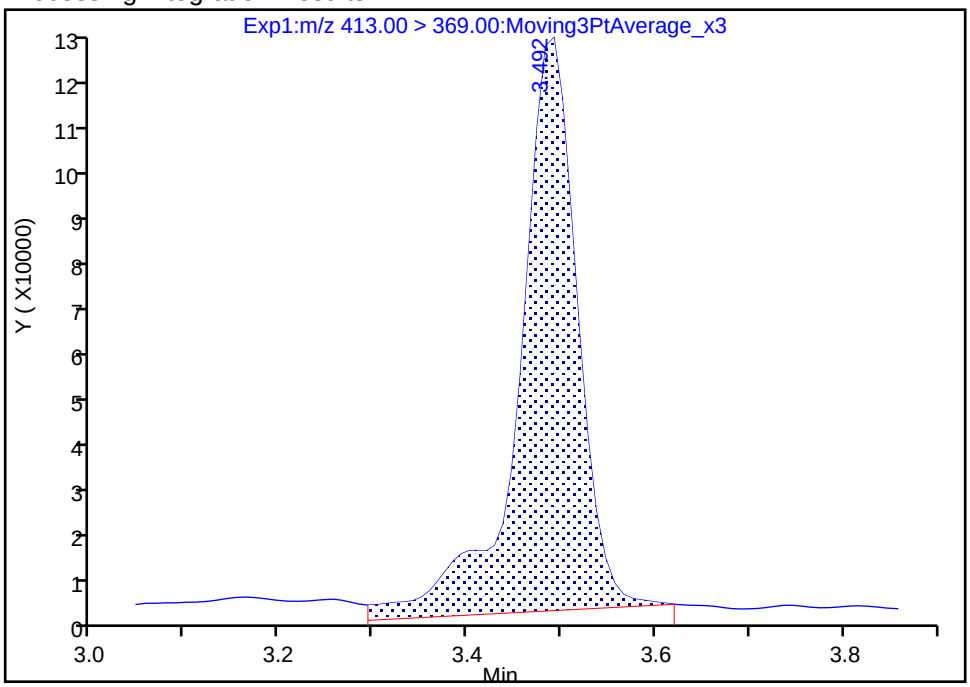
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

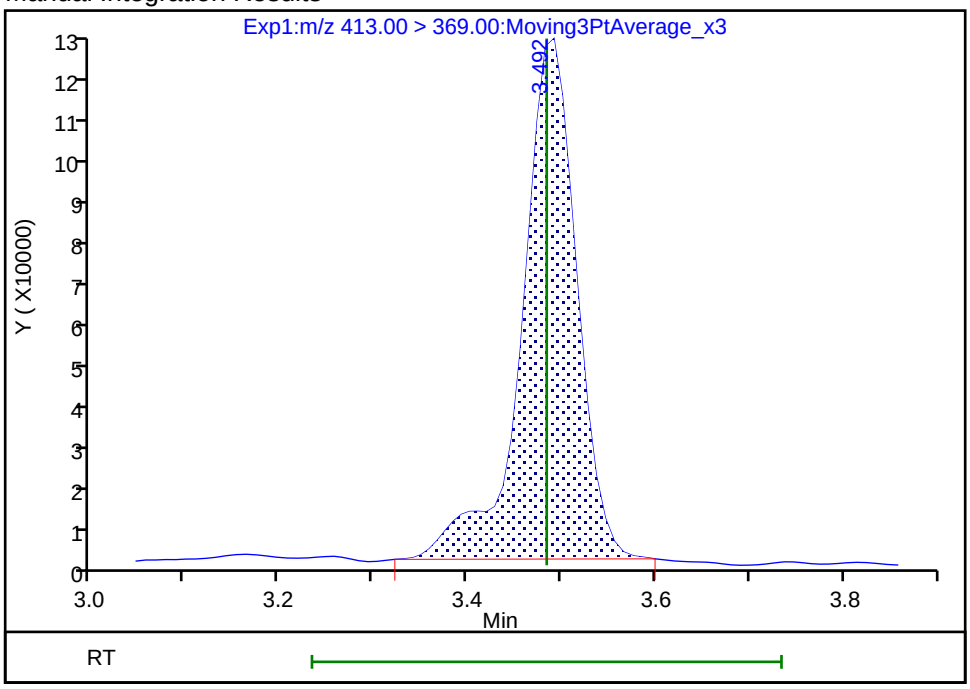
Processing Integration Results

RT: 3.49
Area: 527978
Amount: 0.412303
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 487154
Amount: 0.380423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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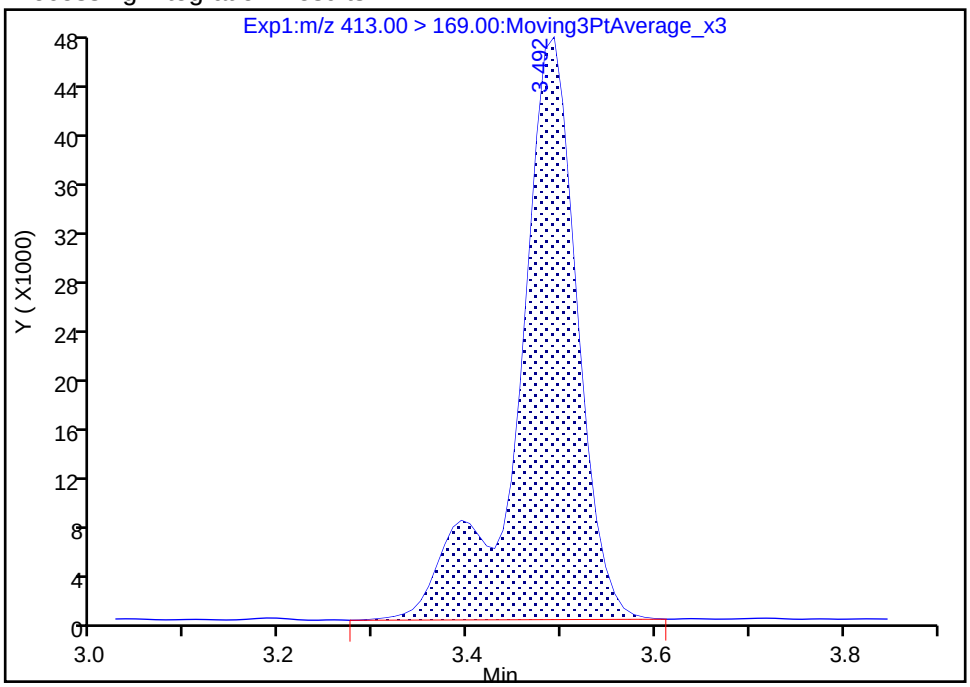
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

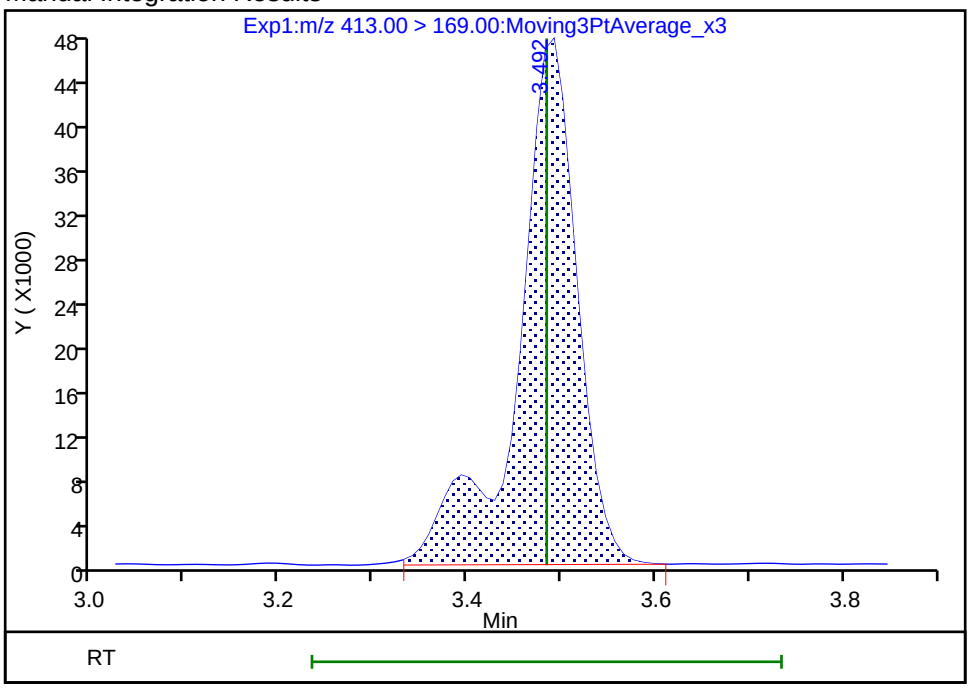
Processing Integration Results

RT: 3.49
Area: 207992
Amount: 0.412303
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 207509
Amount: 0.380423
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:29:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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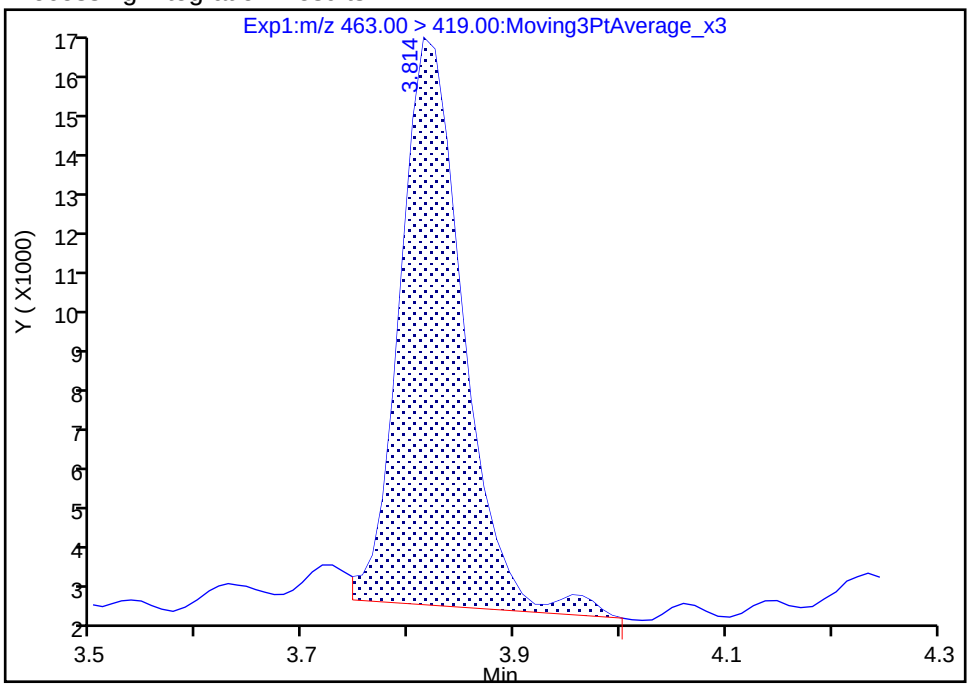
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

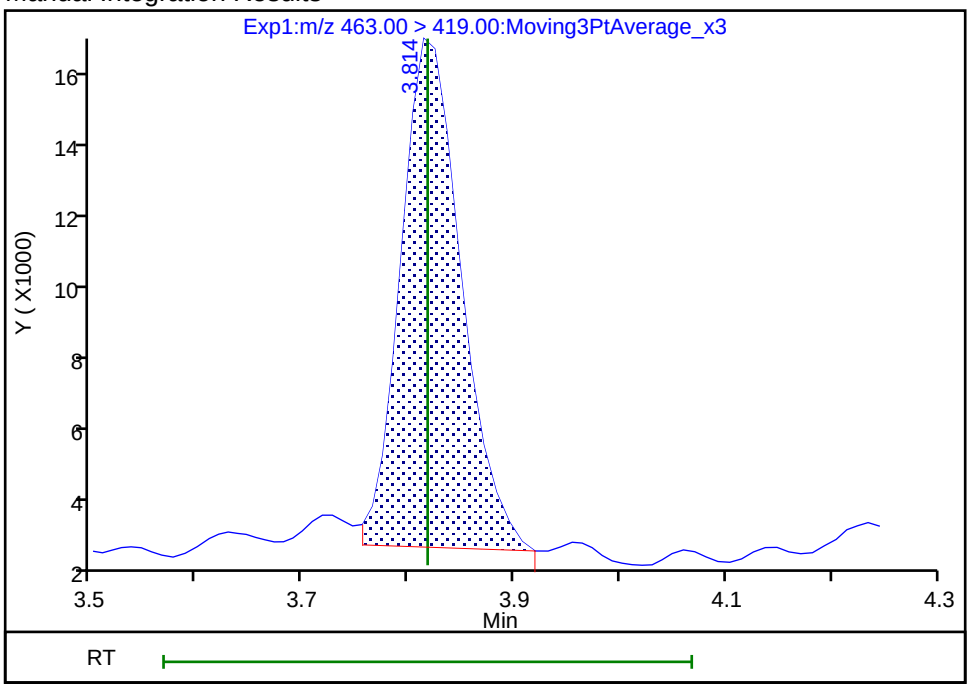
Processing Integration Results

RT: 3.81
Area: 56130
Amount: 0.046828
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 53277
Amount: 0.044448
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:29:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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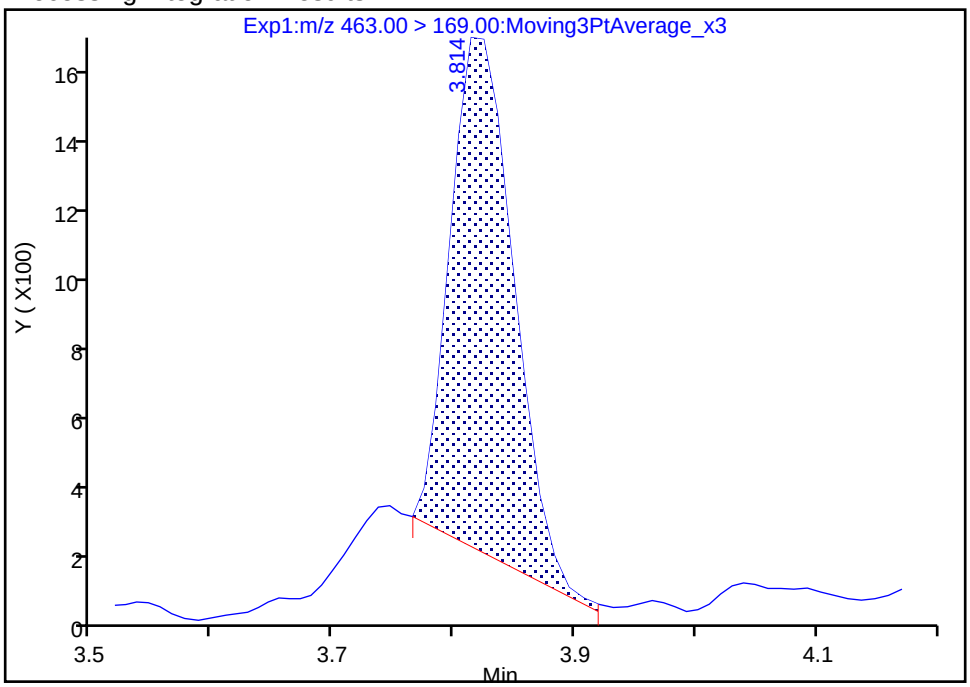
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

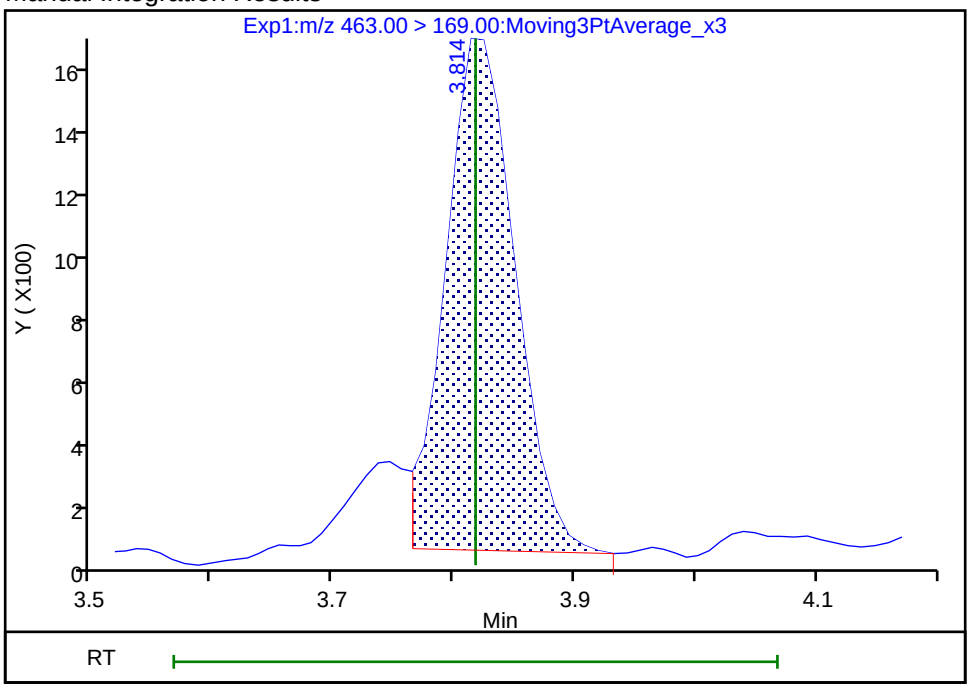
Processing Integration Results

RT: 3.81
Area: 5145
Amount: 0.046828
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 6166
Amount: 0.044448
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:29:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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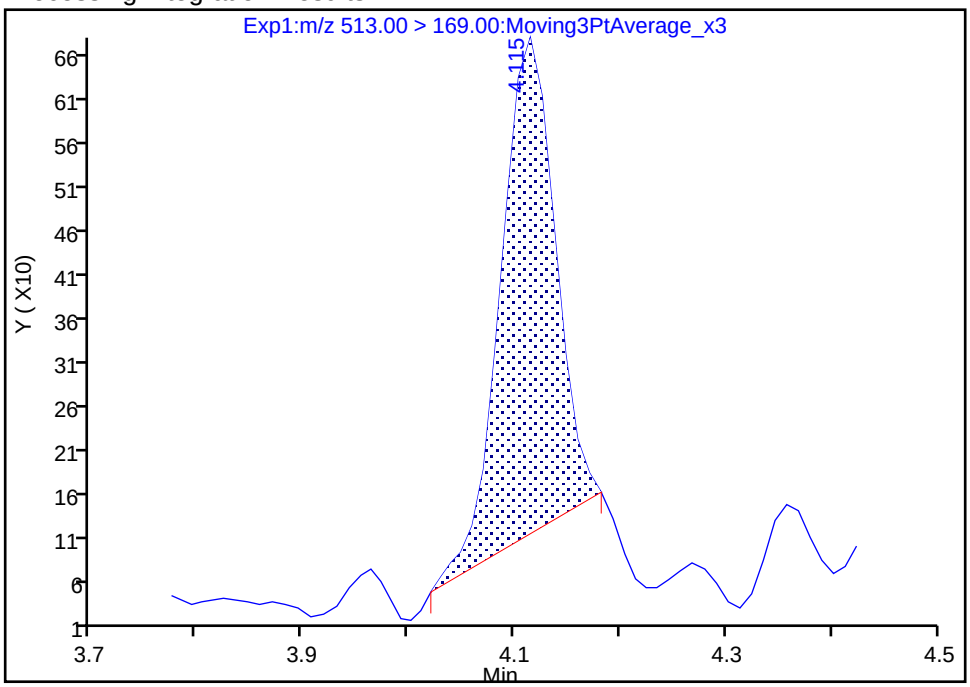
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

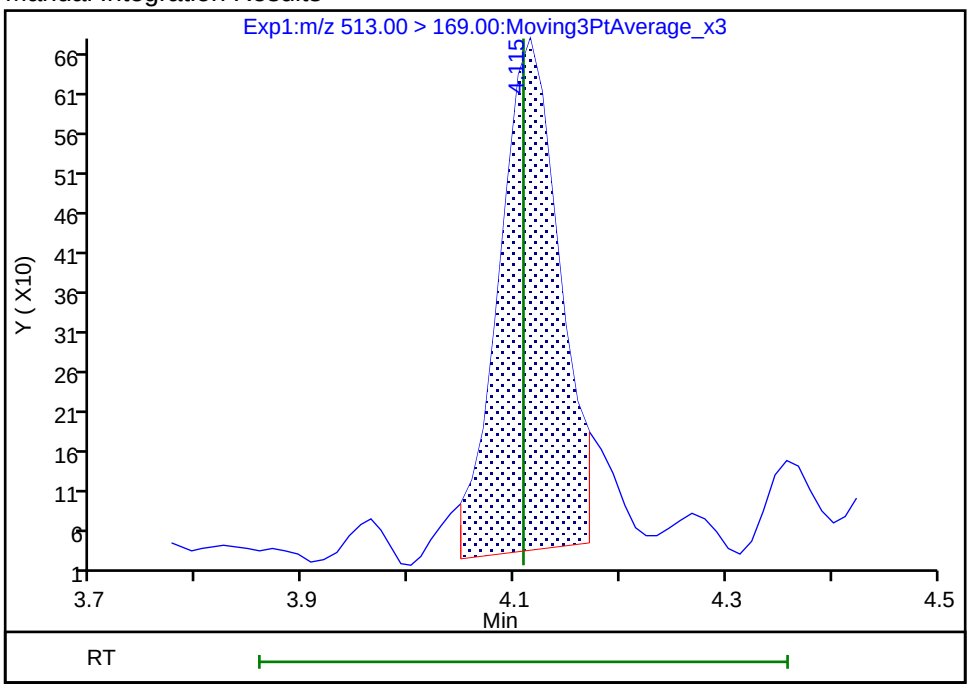
Processing Integration Results

RT: 4.11
Area: 2009
Amount: 0.020037
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 2533
Amount: 0.018831
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

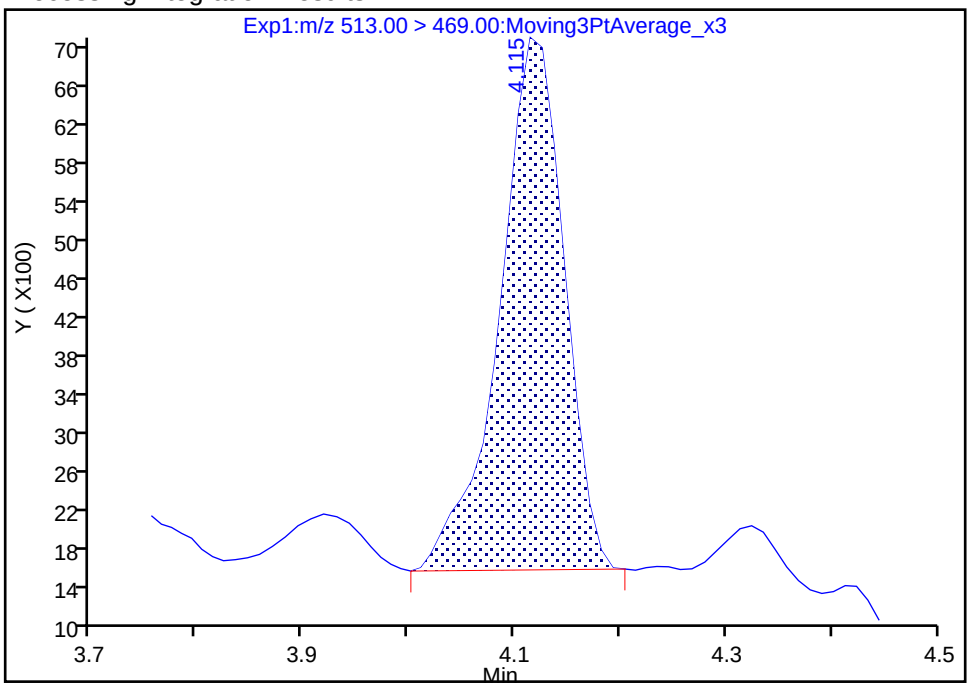
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

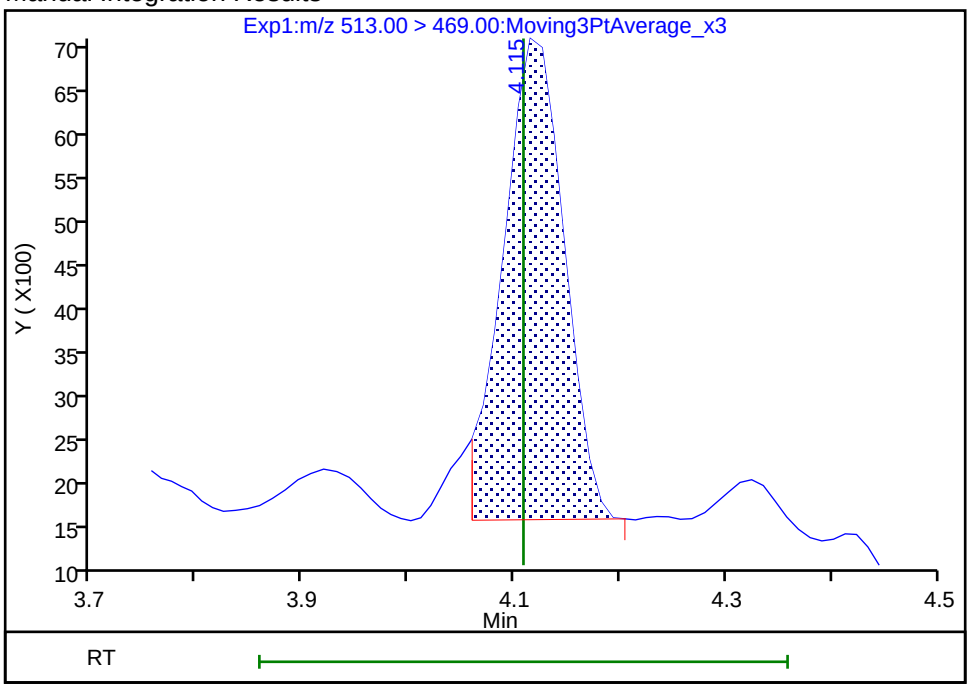
Processing Integration Results

RT: 4.11
Area: 23162
Amount: 0.020037
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 21768
Amount: 0.018831
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

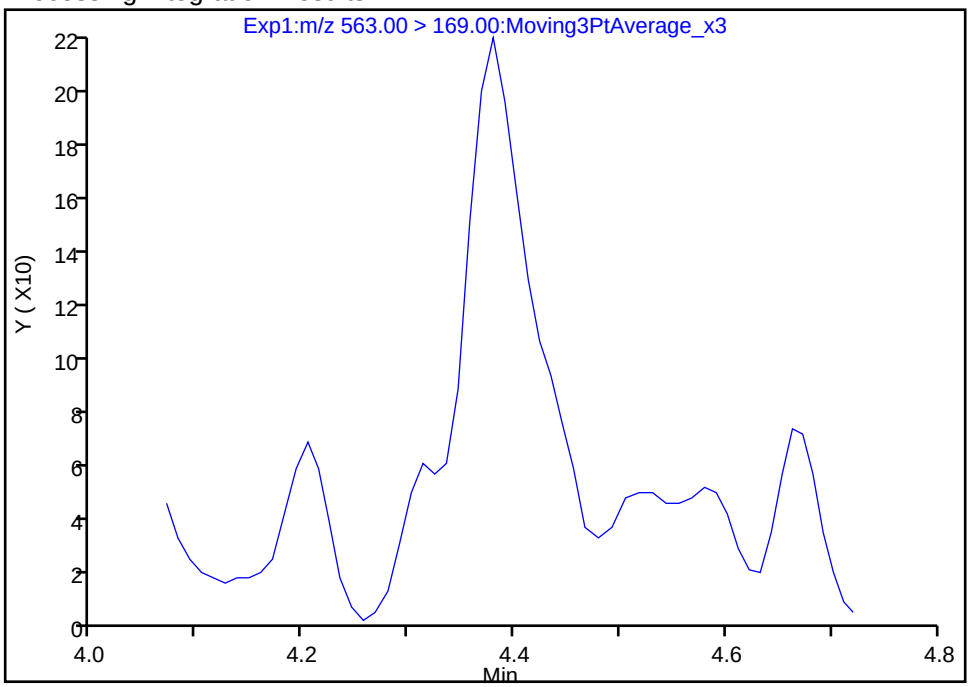
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

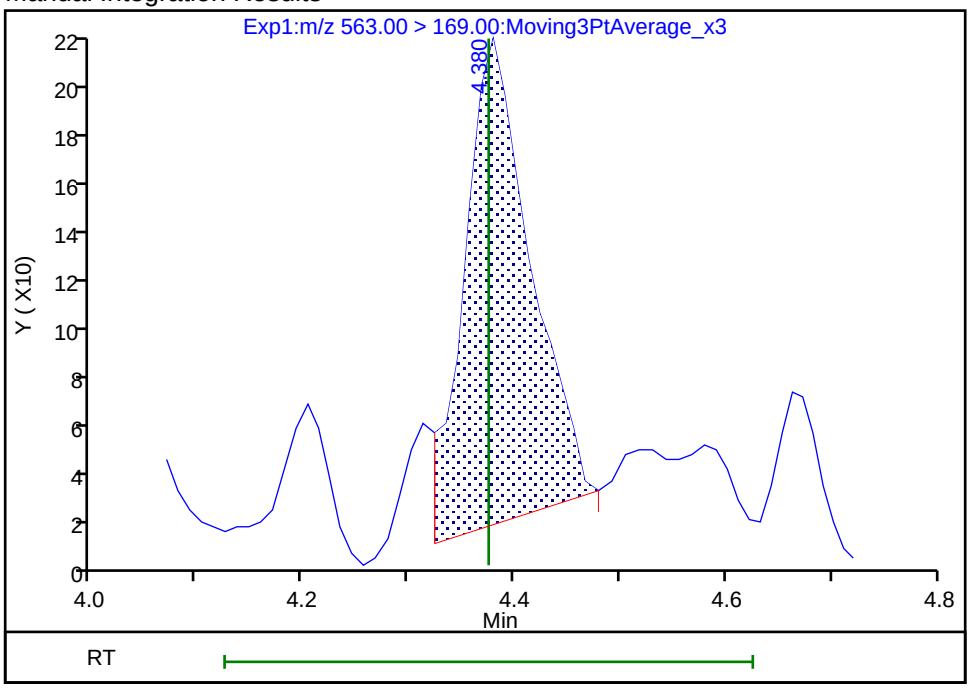
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 874
Amount: 0.004091
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:31:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

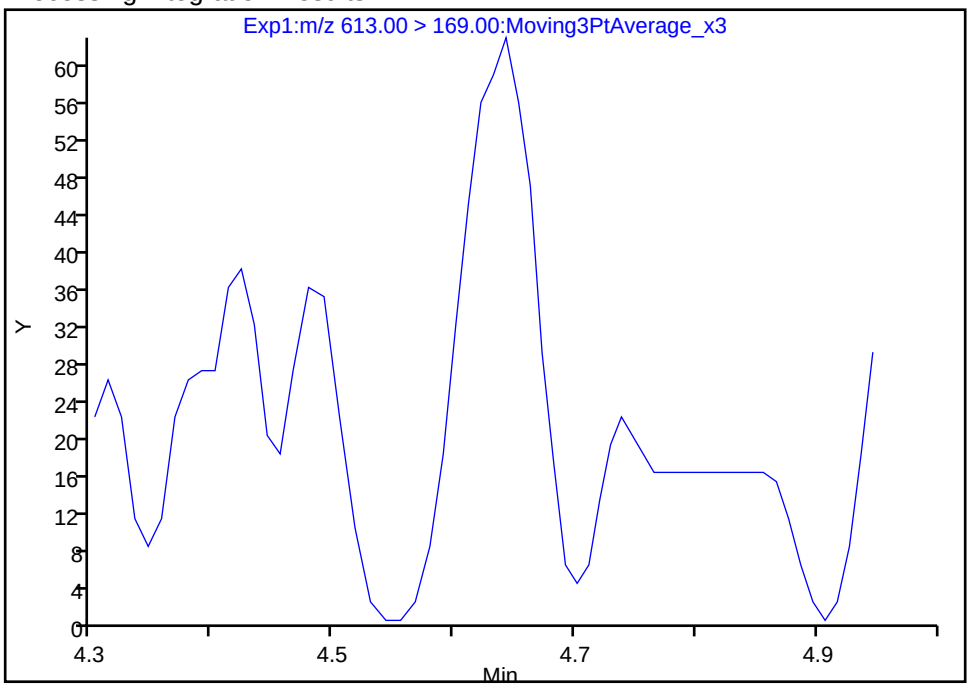
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

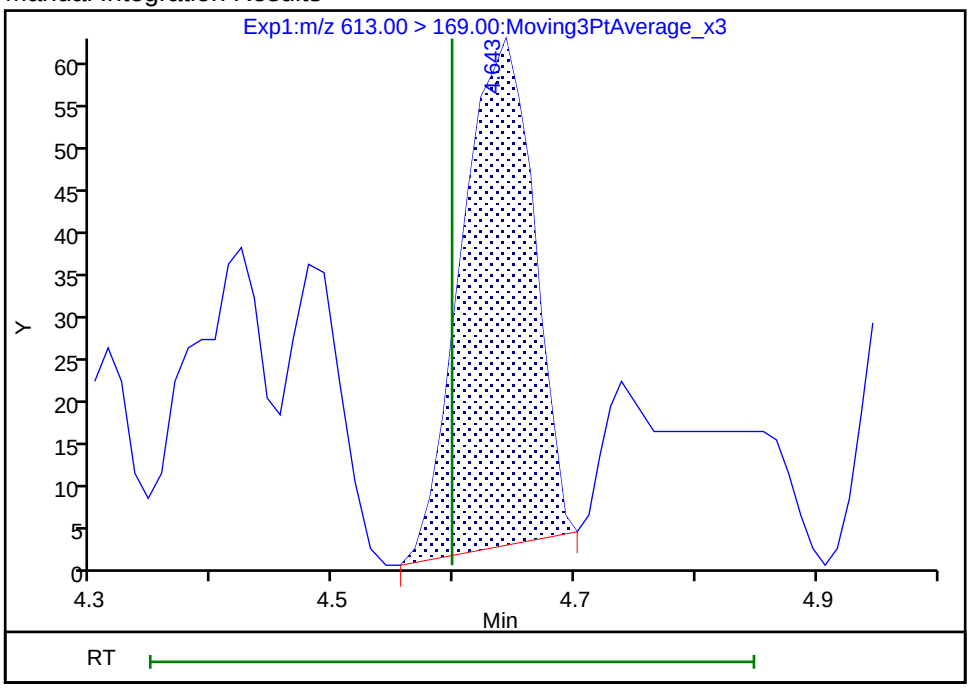
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.64
Area: 252
Amount: 0.001988
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:32:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

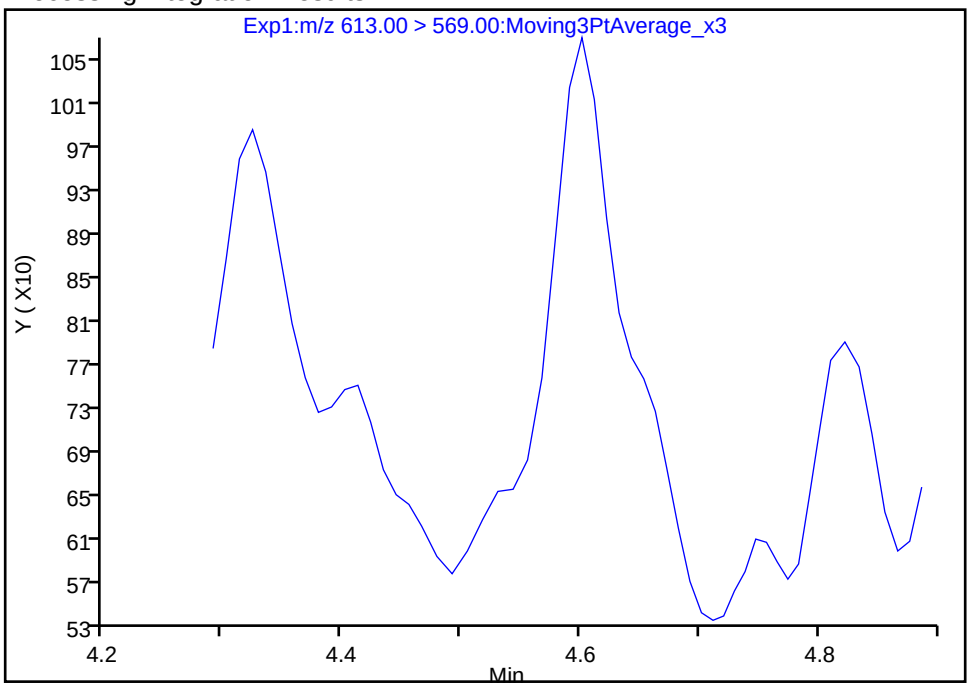
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

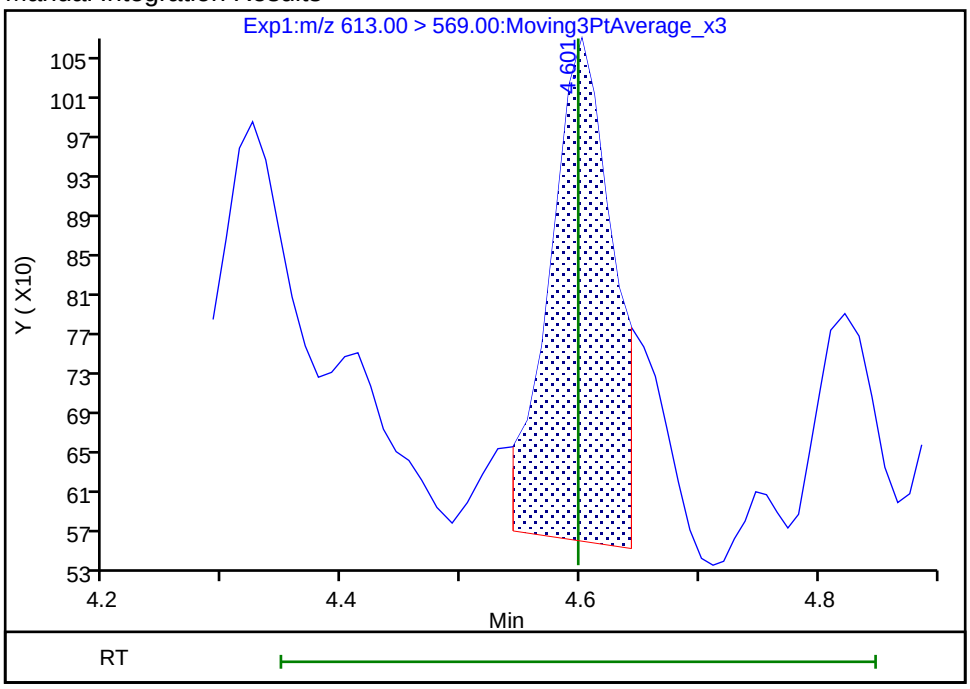
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.60
Area: 1850
Amount: 0.001988
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:32:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

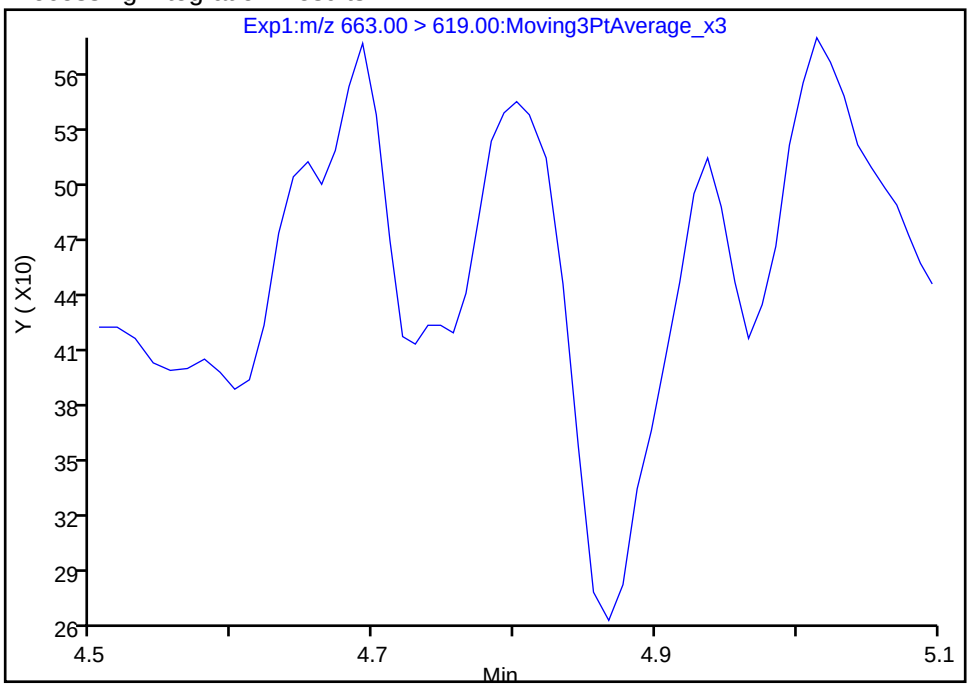
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

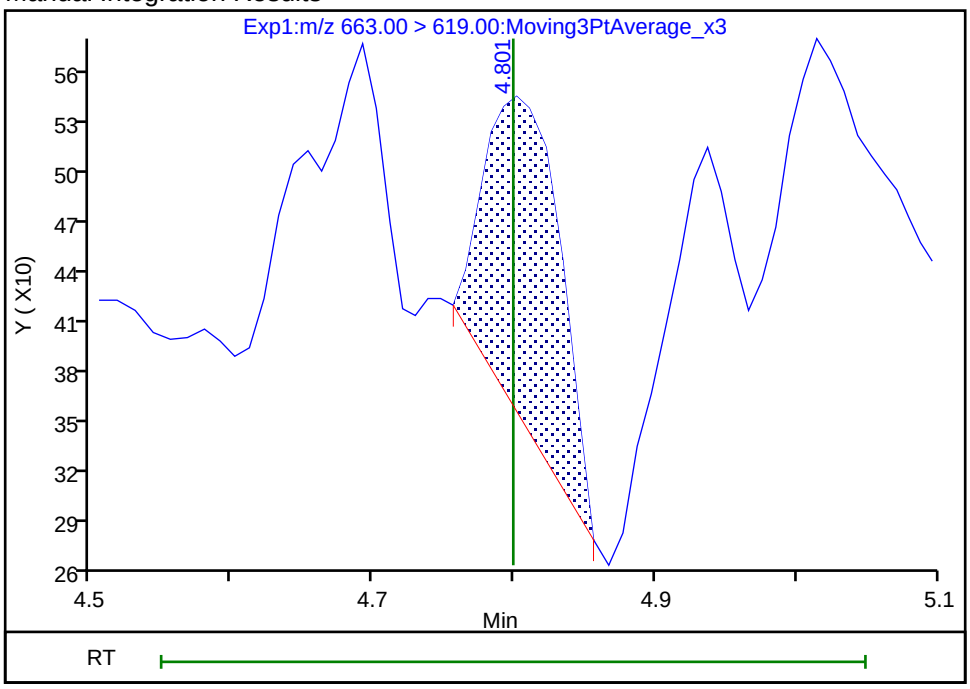
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 714
Amount: 0.000890
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:30:18
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

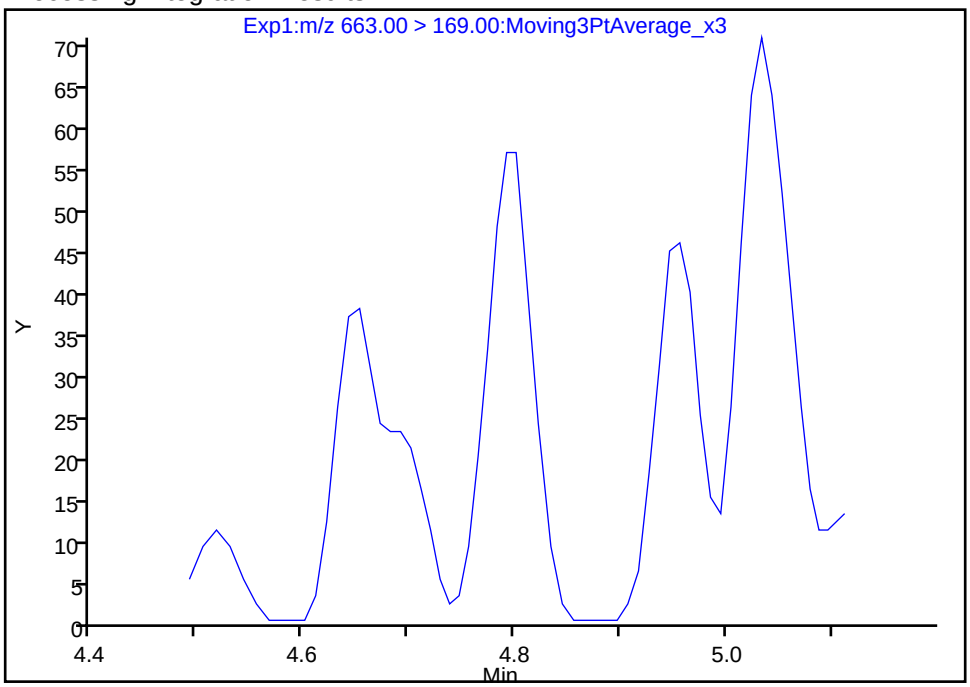
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

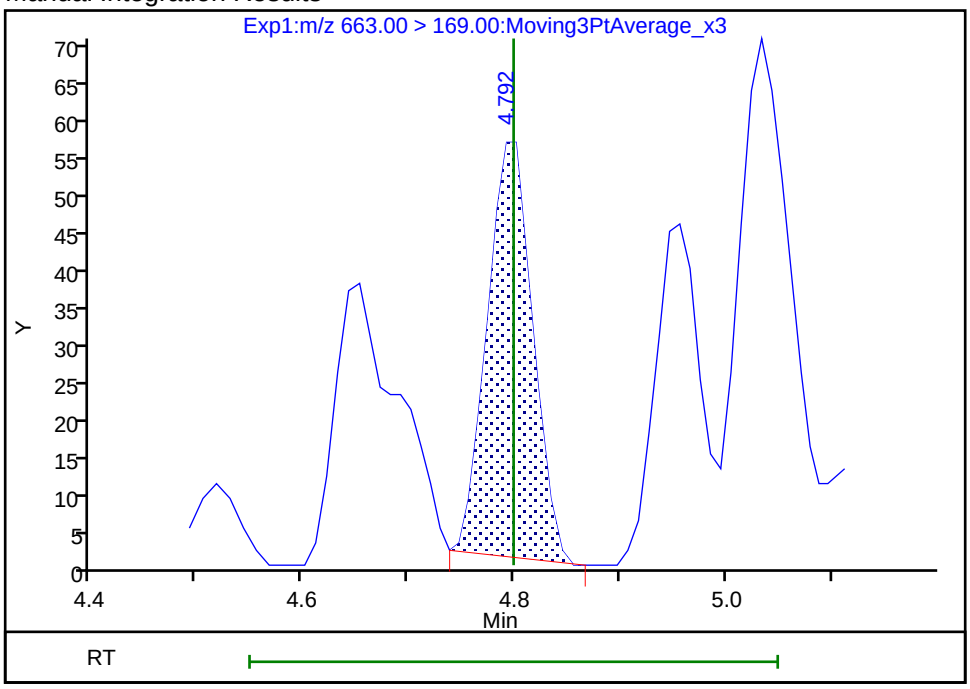
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.79
Area: 167
Amount: 0.000890
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:30:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

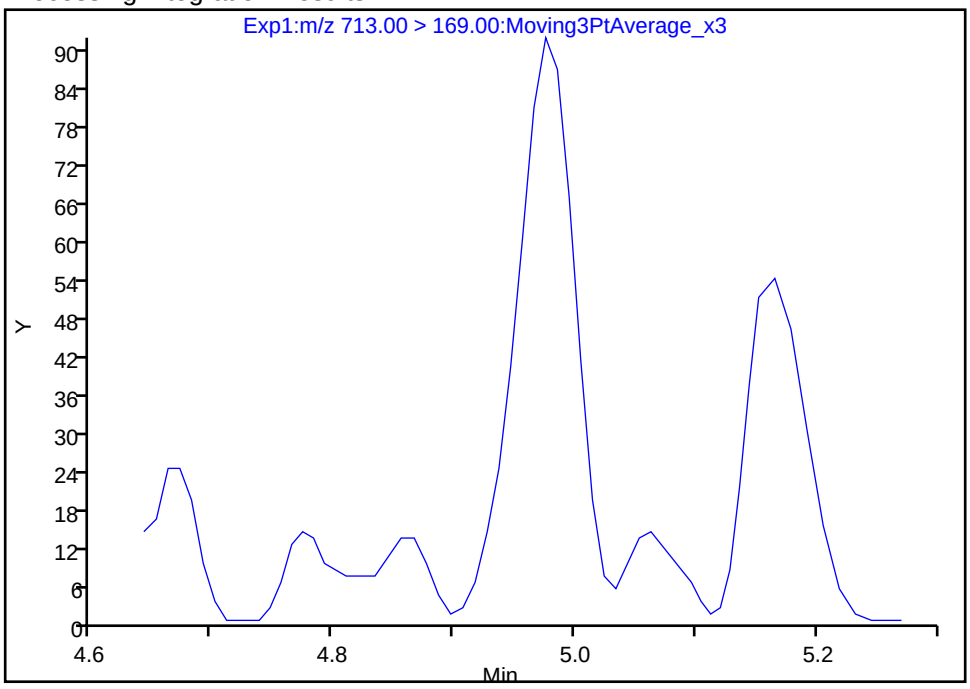
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

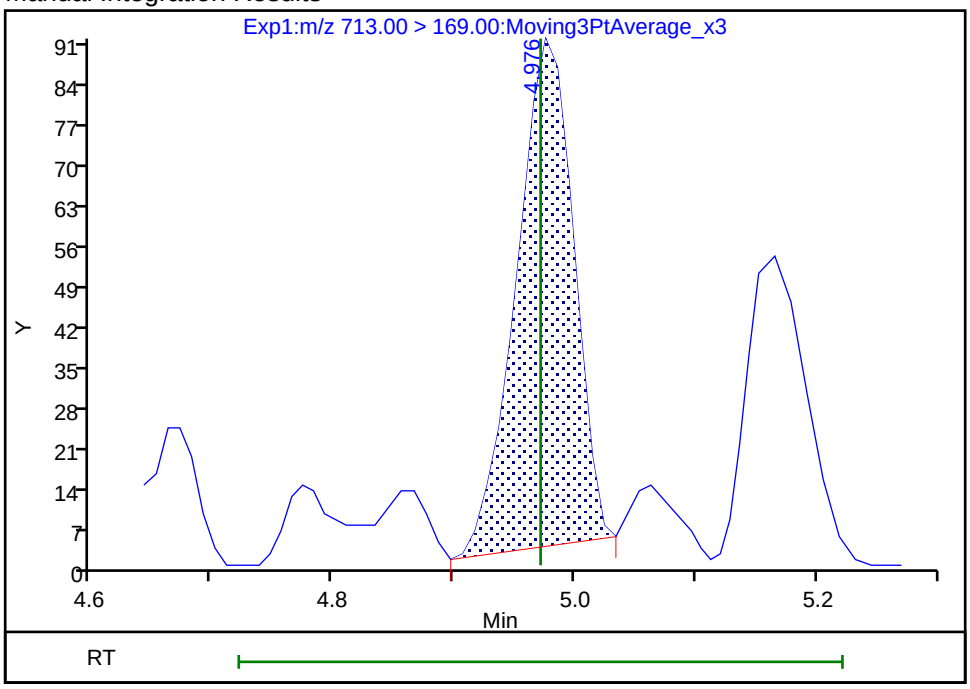
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 291
Amount: 0.002677
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:32:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

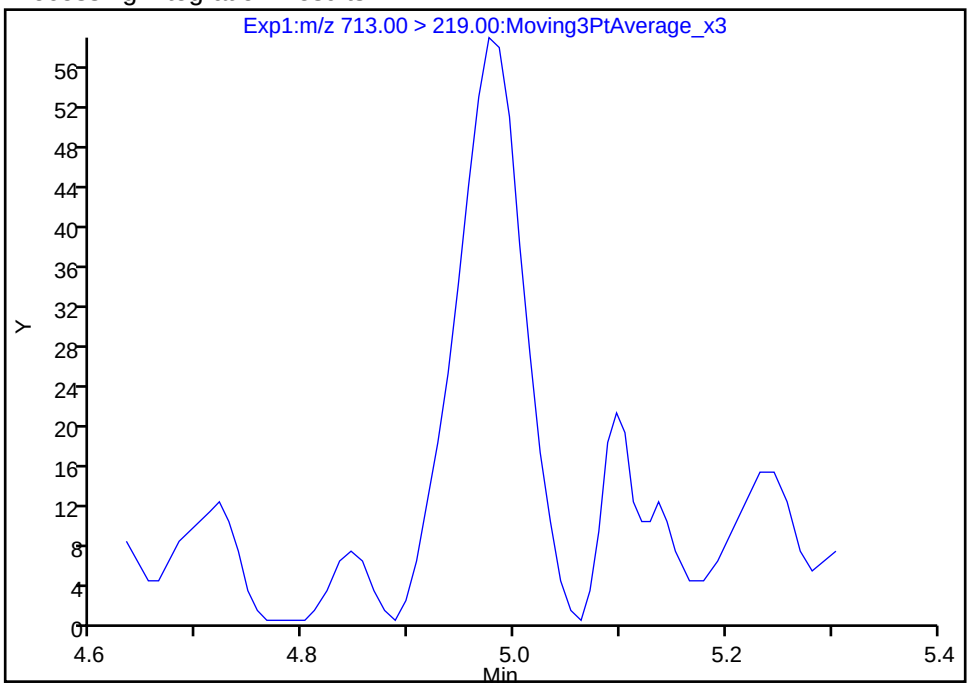
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

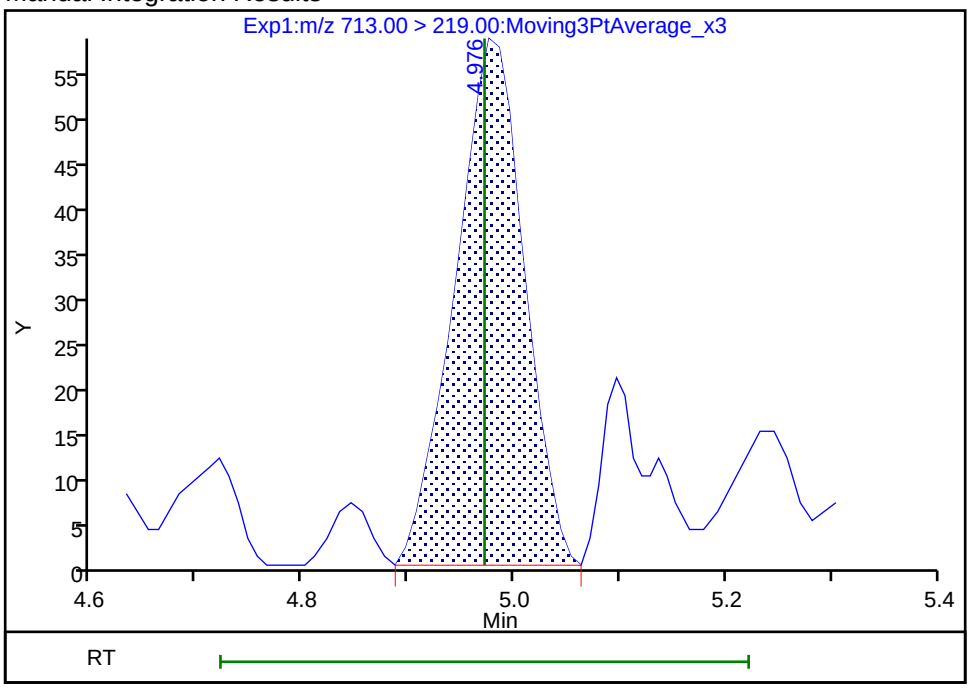
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 267
Amount: 0.002677
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:32:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

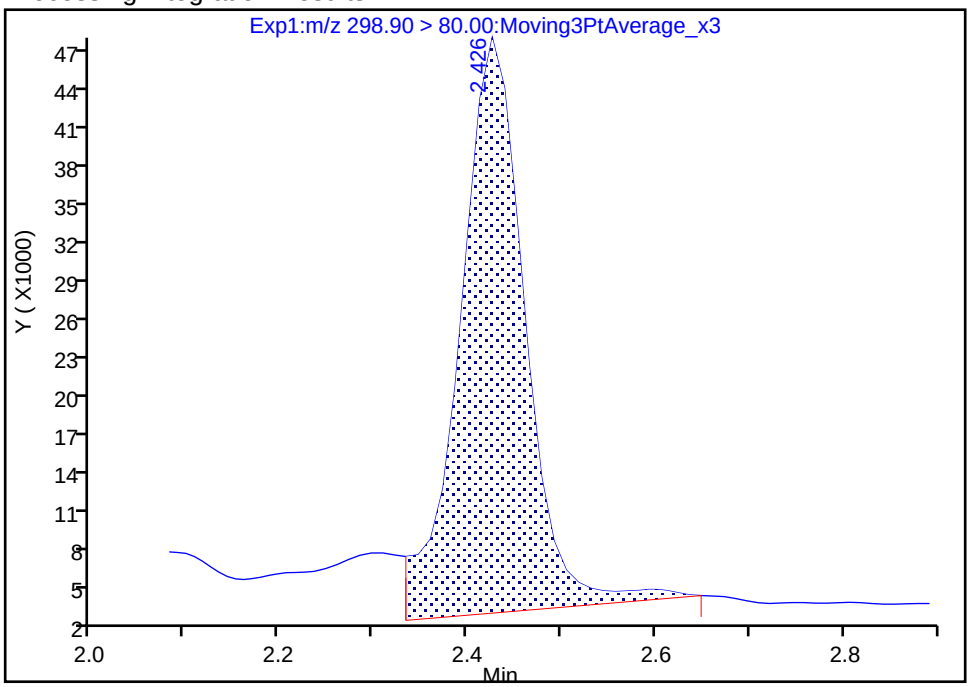
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

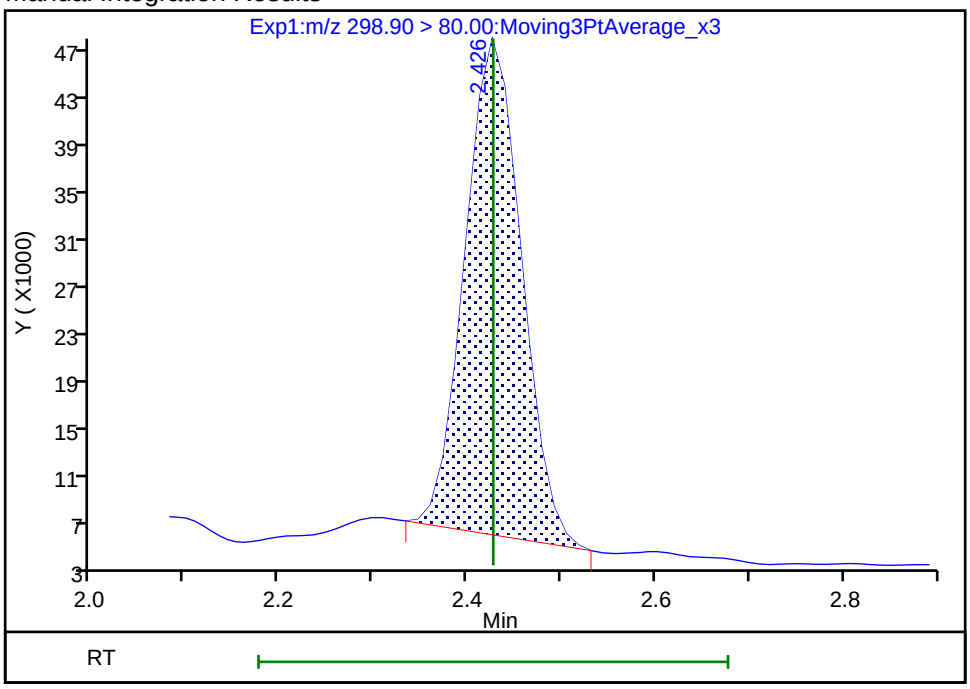
Processing Integration Results

RT: 2.43
Area: 211813
Amount: 0.147856
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 170809
Amount: 0.119233
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

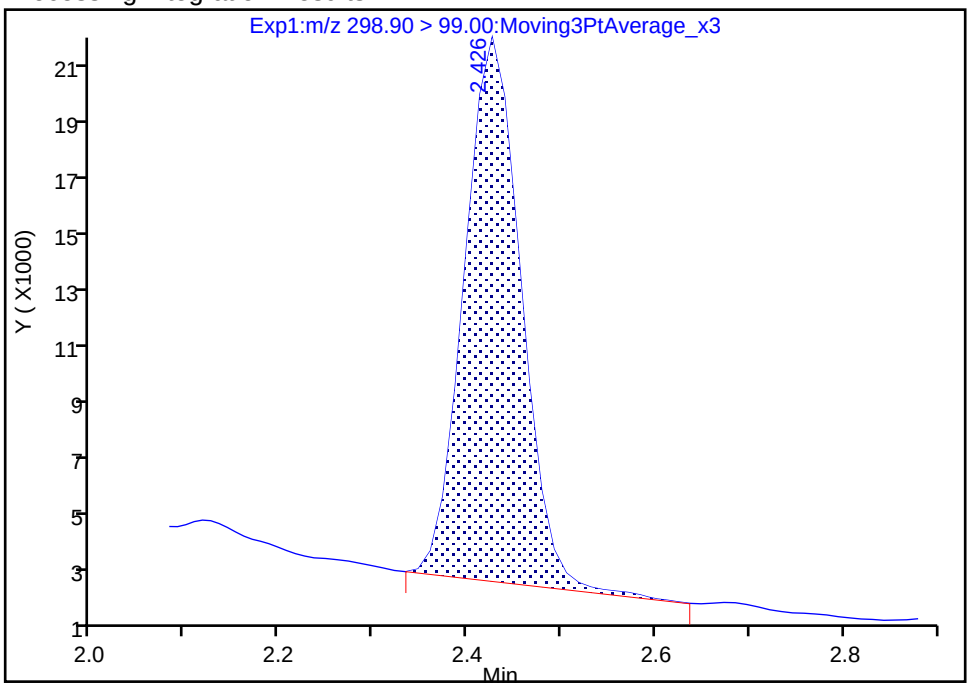
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

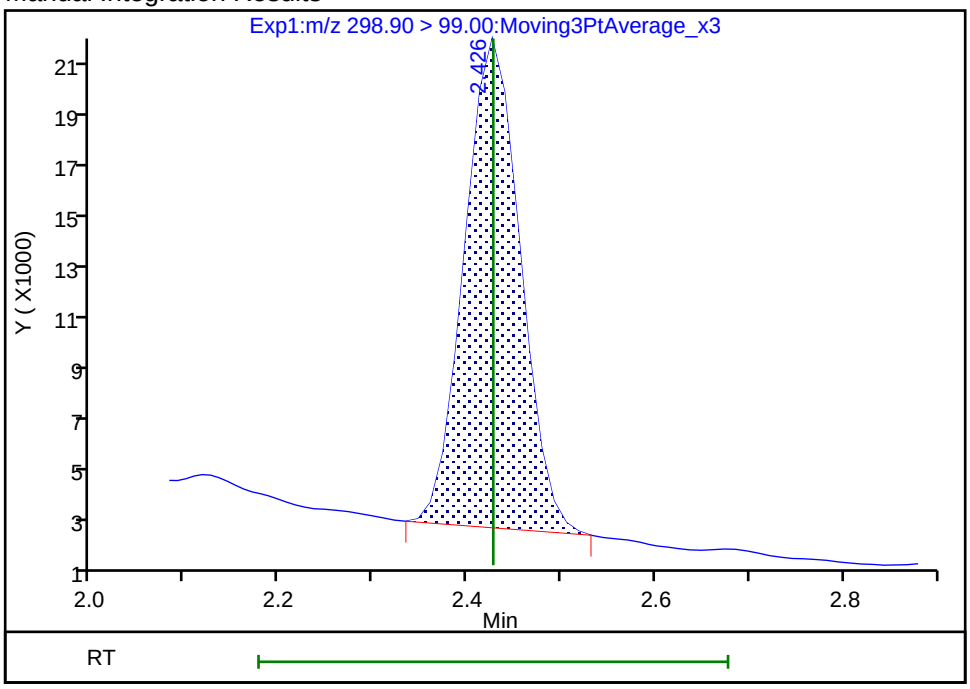
Processing Integration Results

RT: 2.43
Area: 79775
Amount: 0.147856
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 78041
Amount: 0.119233
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

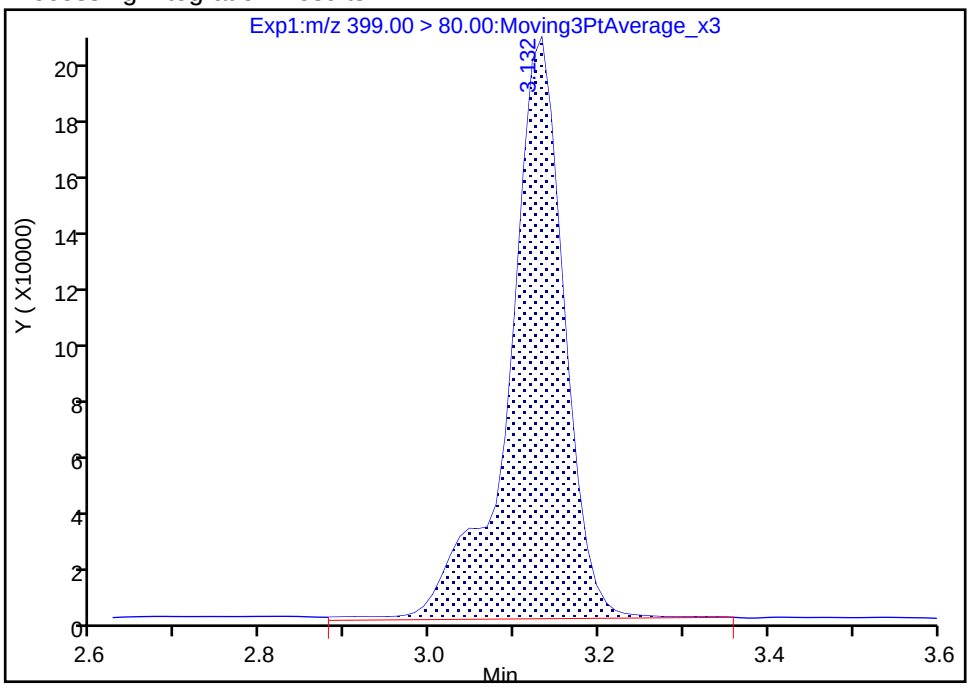
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

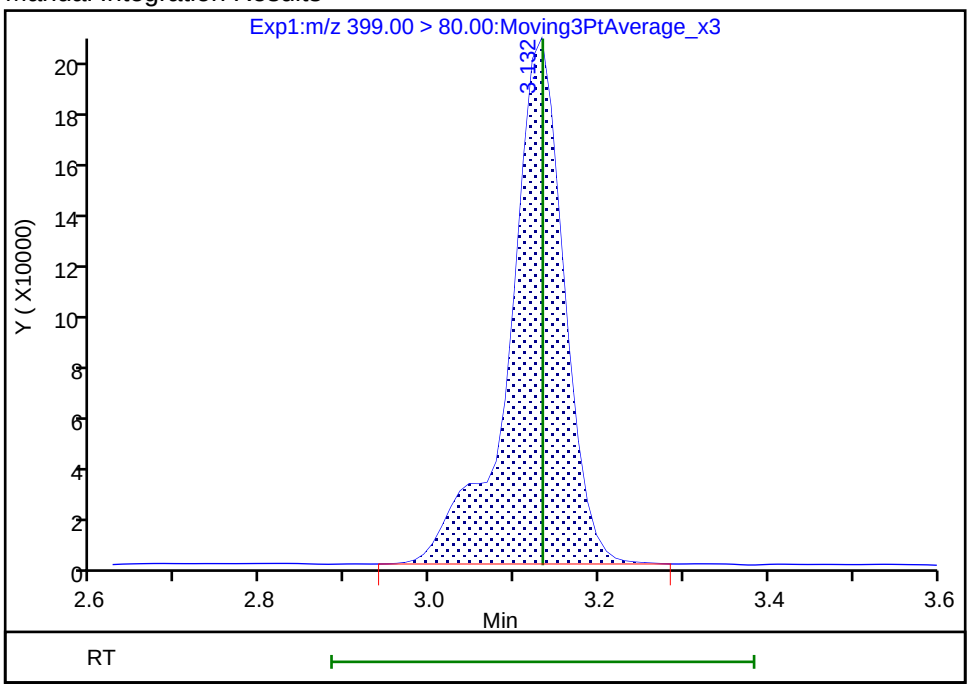
Processing Integration Results

RT: 3.13
Area: 949905
Amount: 0.893373
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 930833
Amount: 0.875436
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

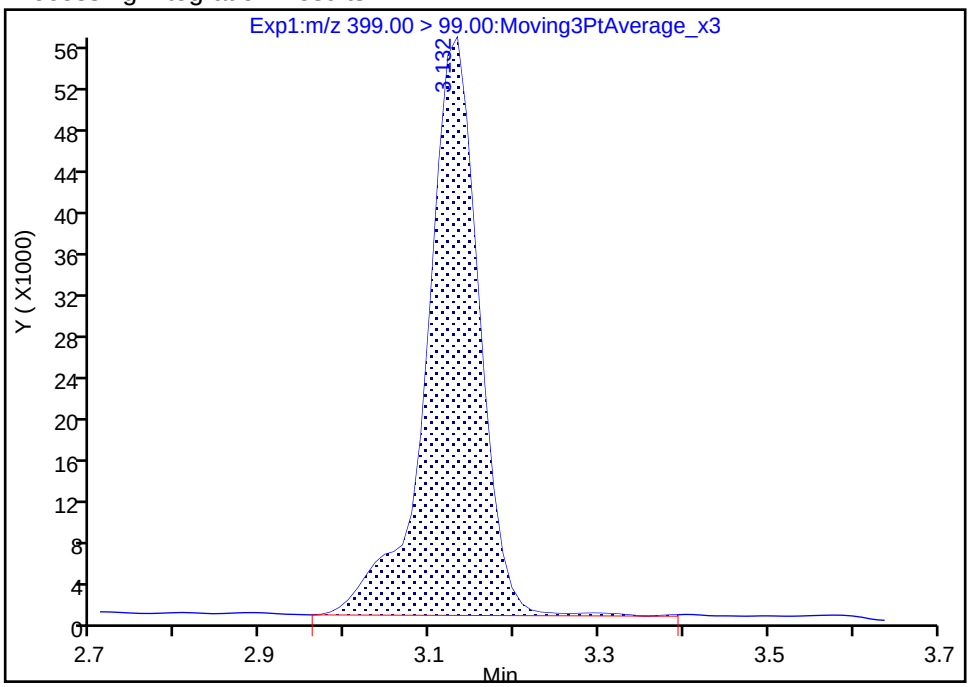
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

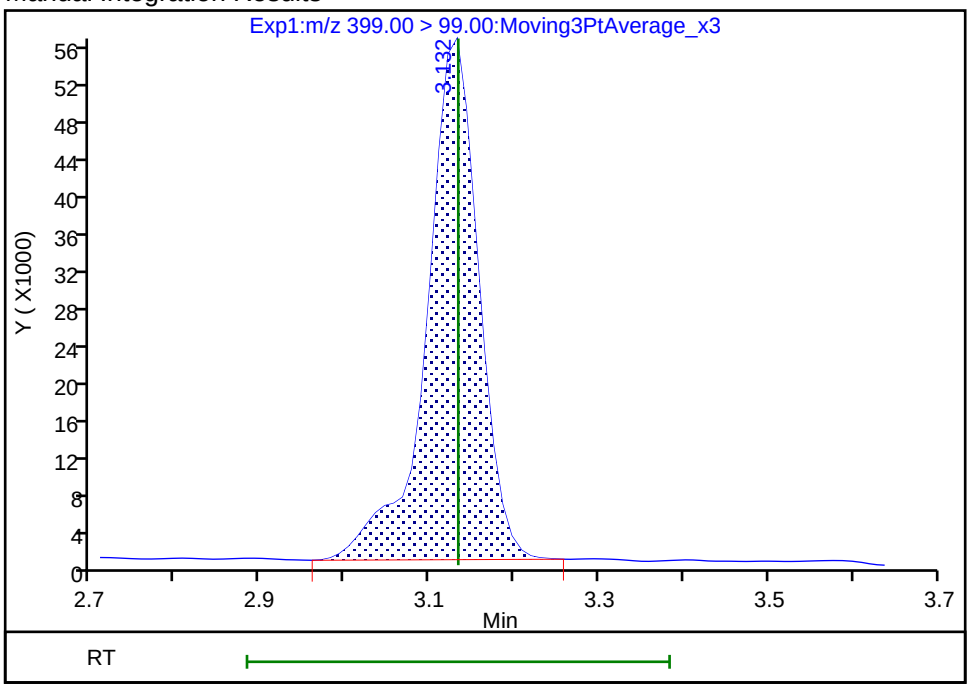
Processing Integration Results

RT: 3.13
Area: 240810
Amount: 0.893373
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 237833
Amount: 0.875436
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

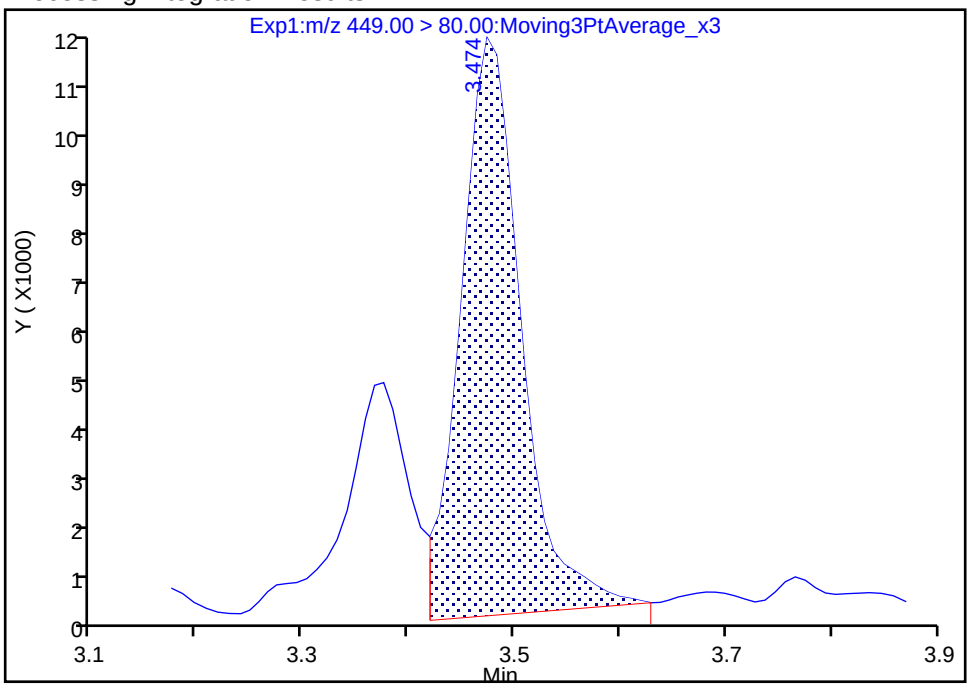
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

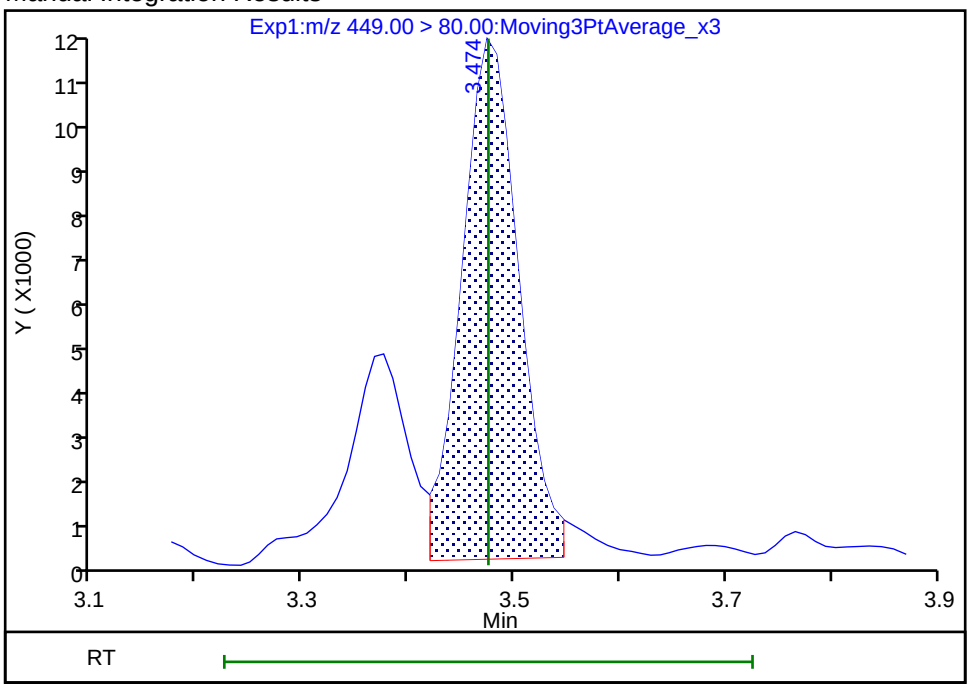
Processing Integration Results

RT: 3.47
Area: 40383
Amount: 0.042637
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 37700
Amount: 0.039805
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

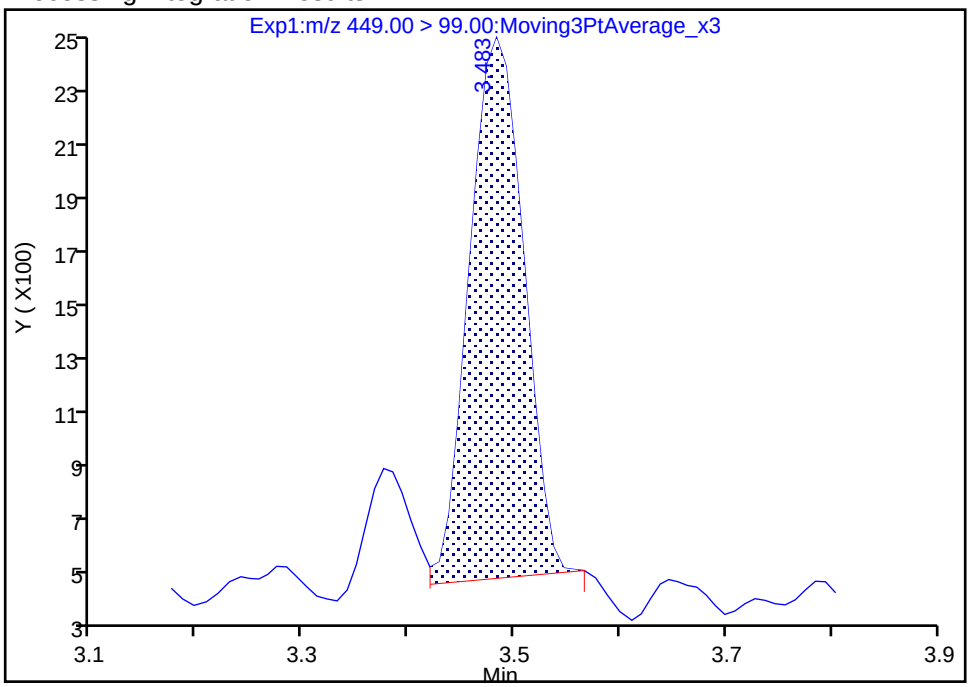
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

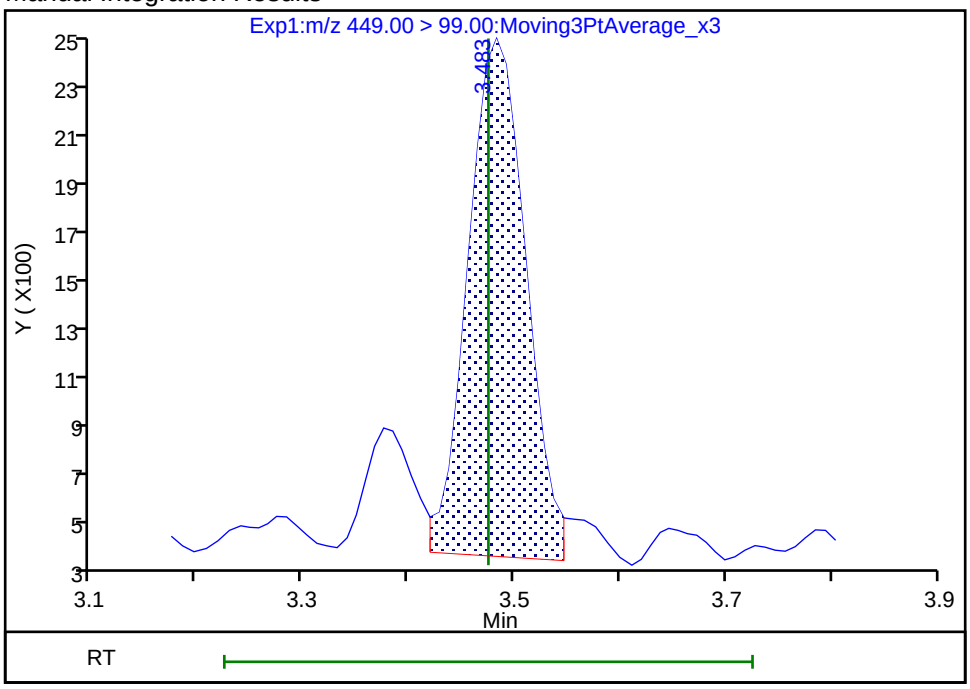
Processing Integration Results

RT: 3.48
Area: 6872
Amount: 0.042637
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 7735
Amount: 0.039805
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:29:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

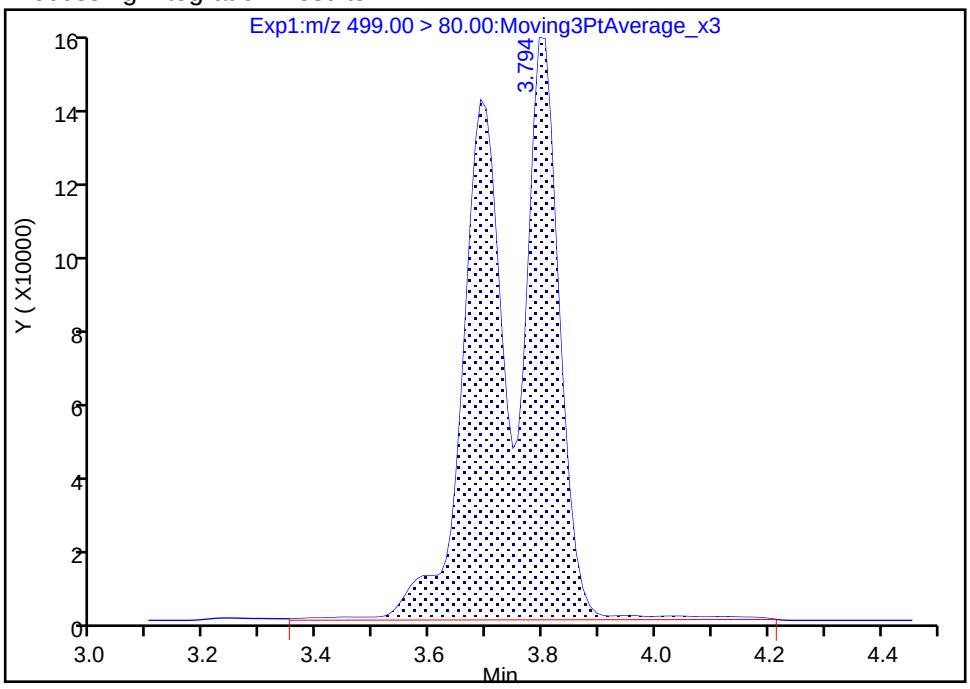
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

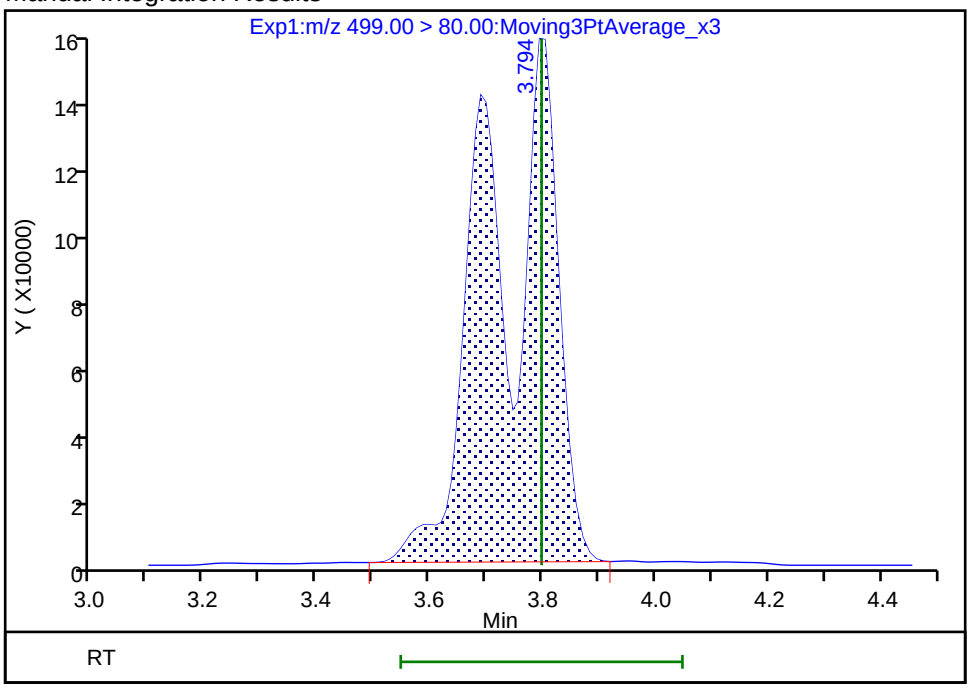
Processing Integration Results

RT: 3.79
Area: 1323964
Amount: 1.606023
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1284129
Amount: 1.557701
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

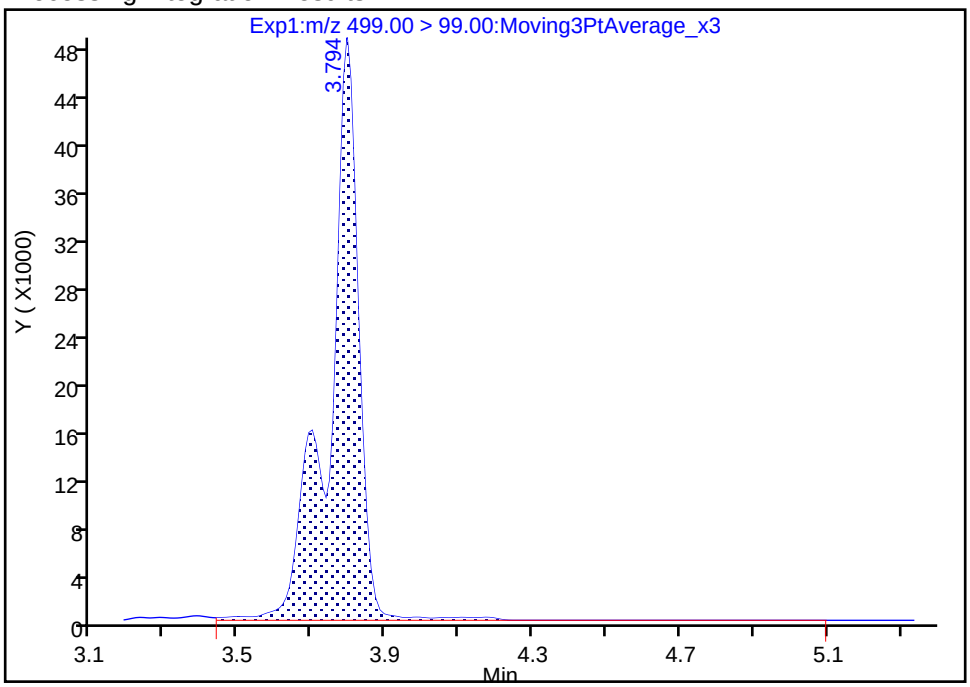
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

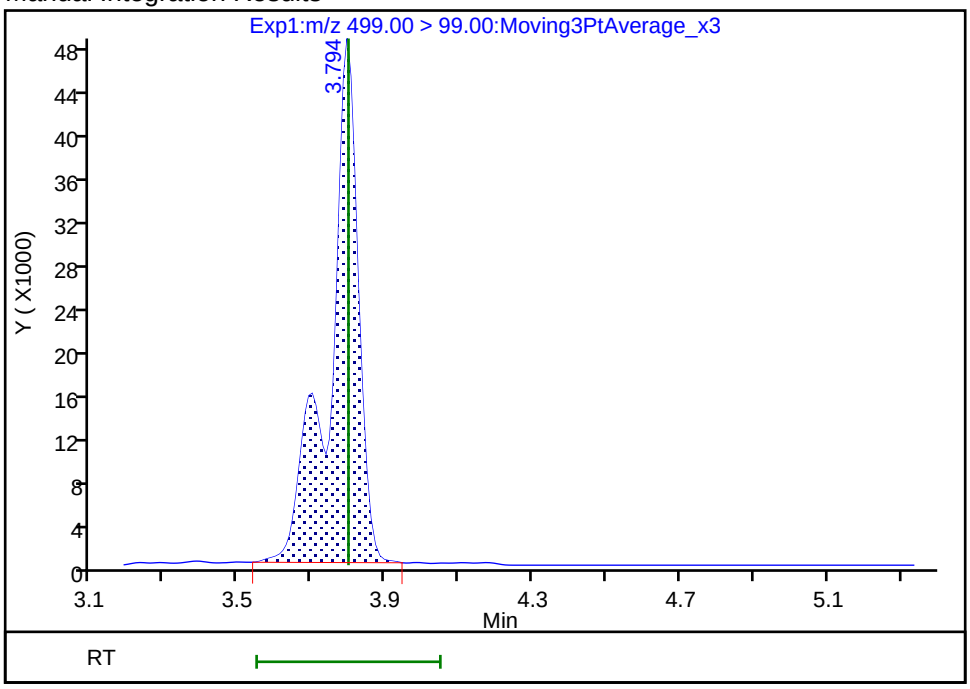
Processing Integration Results

RT: 3.79
Area: 271581
Amount: 1.606023
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 260836
Amount: 1.557701
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

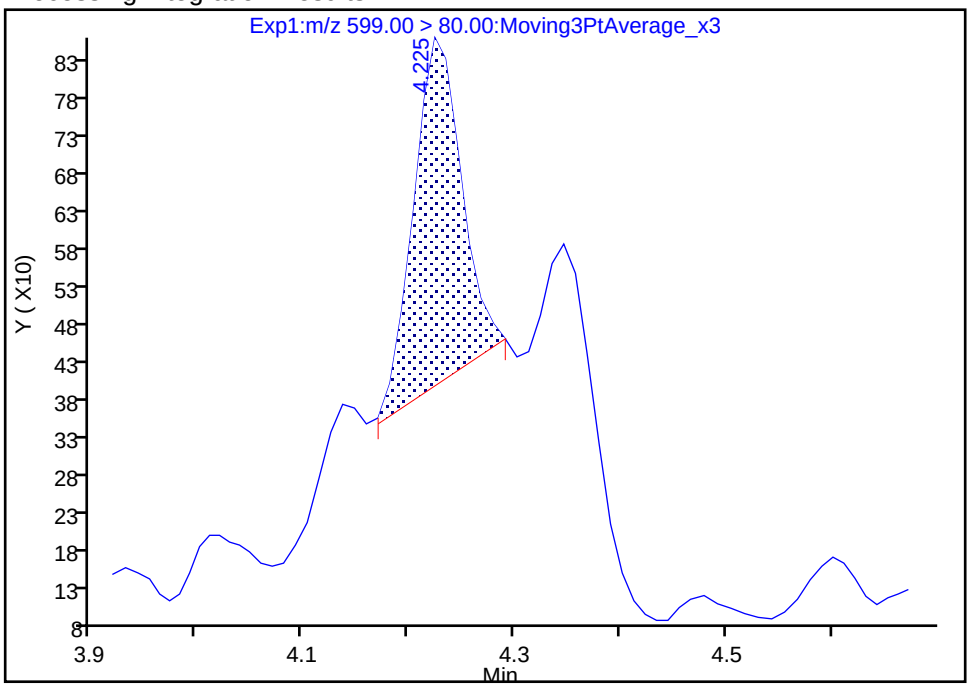
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

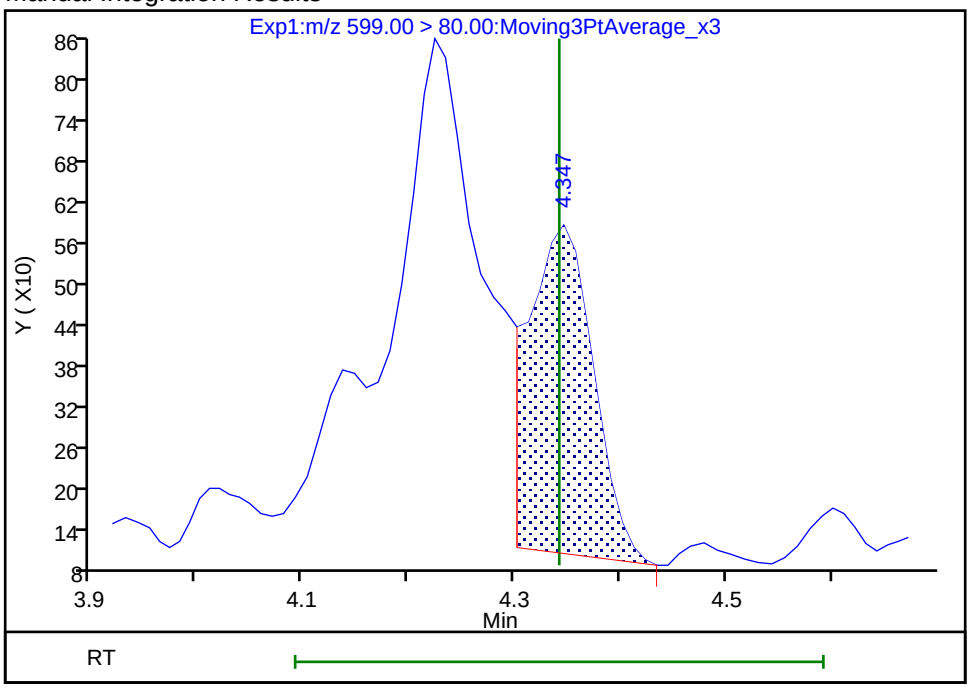
Processing Integration Results

RT: 4.22
Area: 1447
Amount: 0.002898
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 2014
Amount: 0.004034
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:31:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

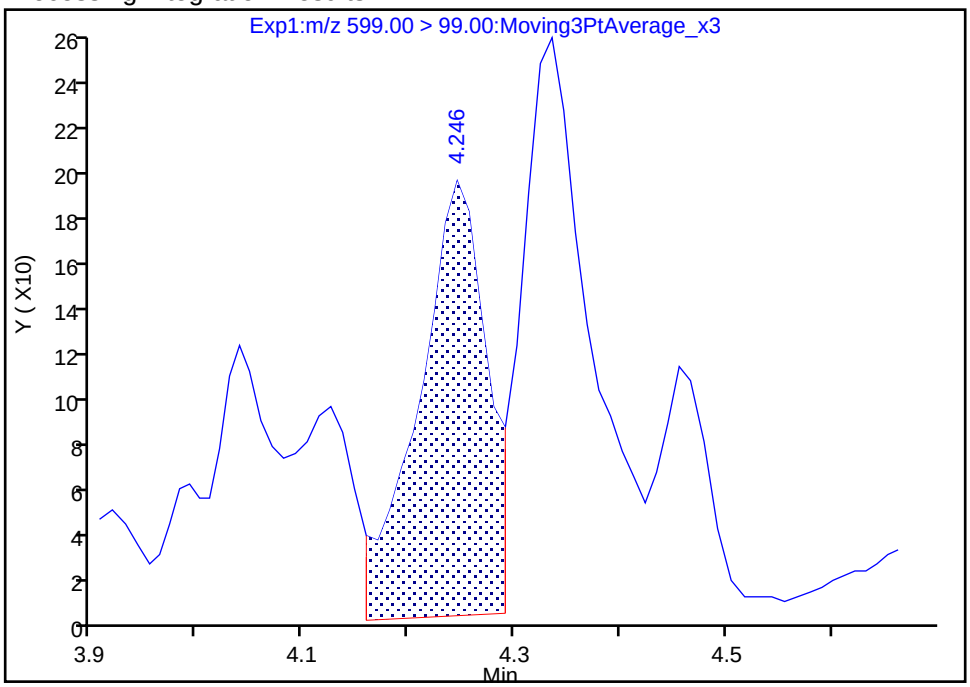
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

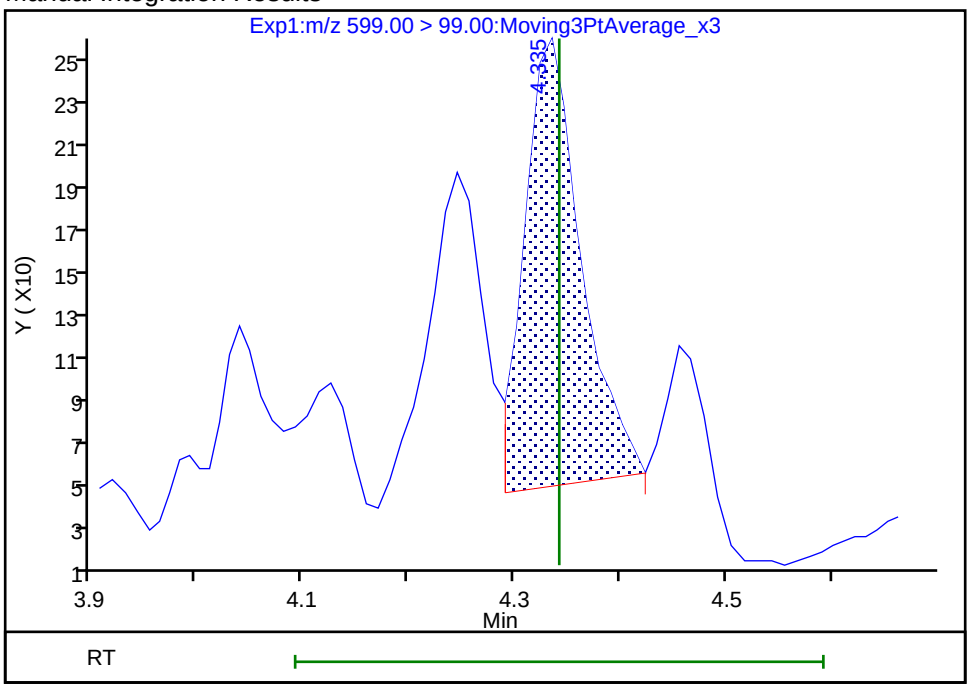
Processing Integration Results

RT: 4.25
Area: 821
Amount: 0.002898
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 750
Amount: 0.004034
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:31:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

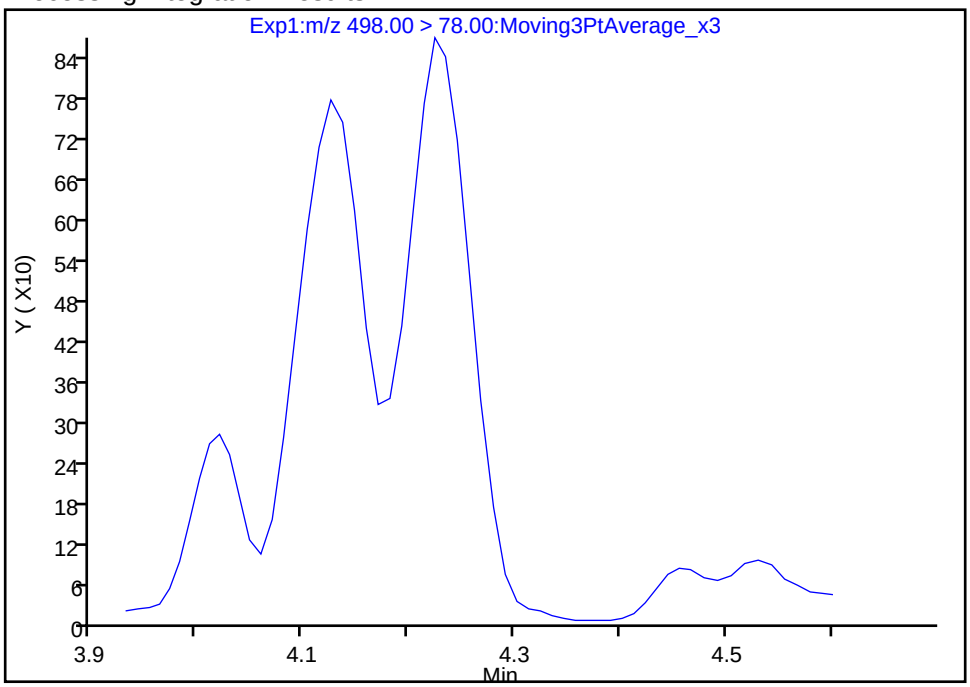
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

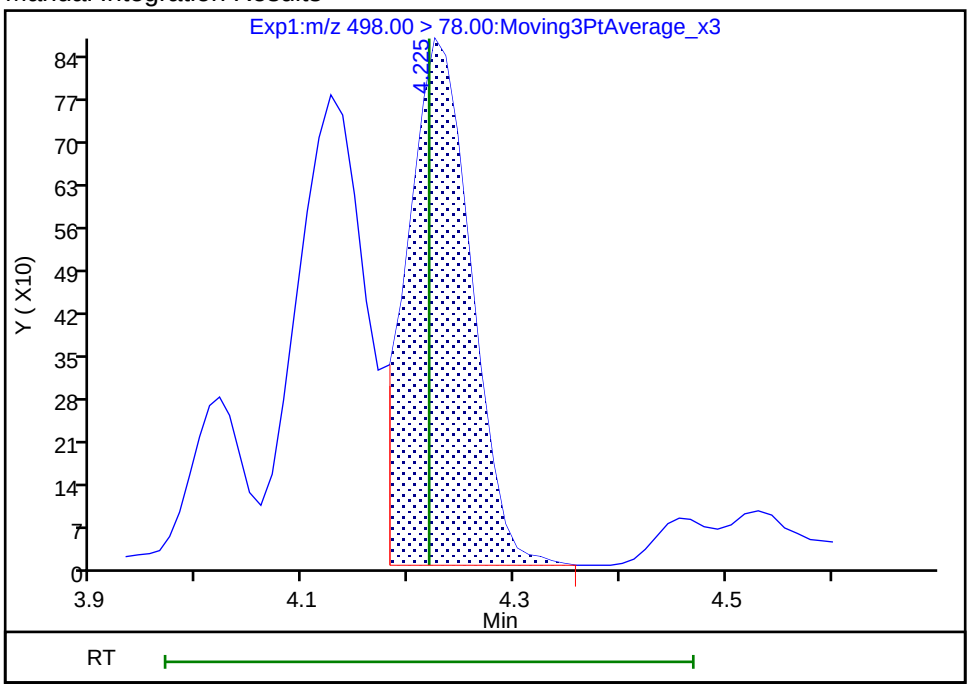
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 3557
Amount: 0.003596
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:29:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

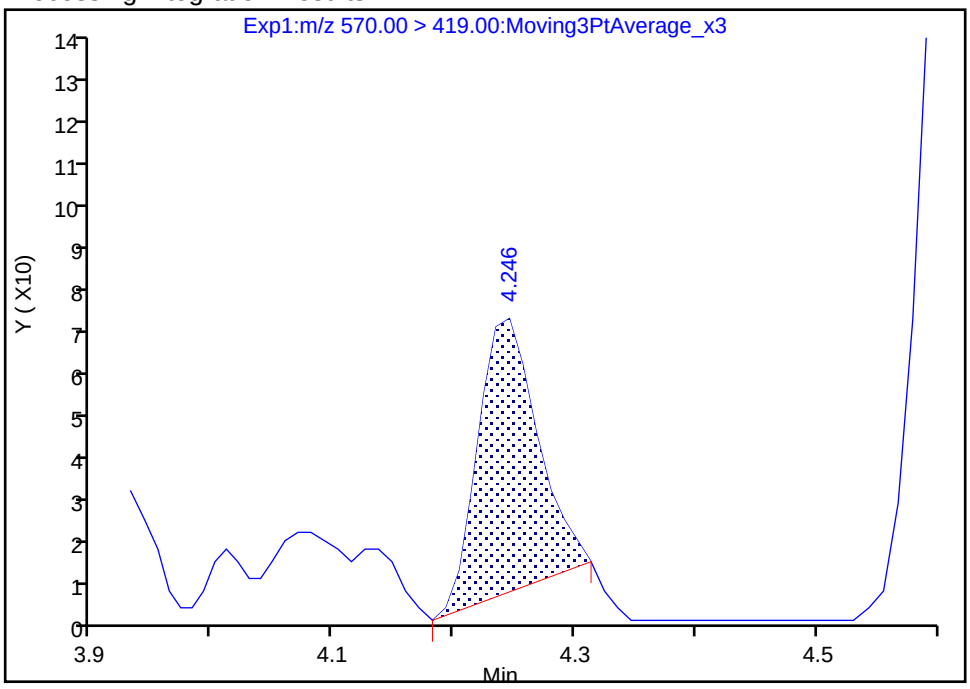
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

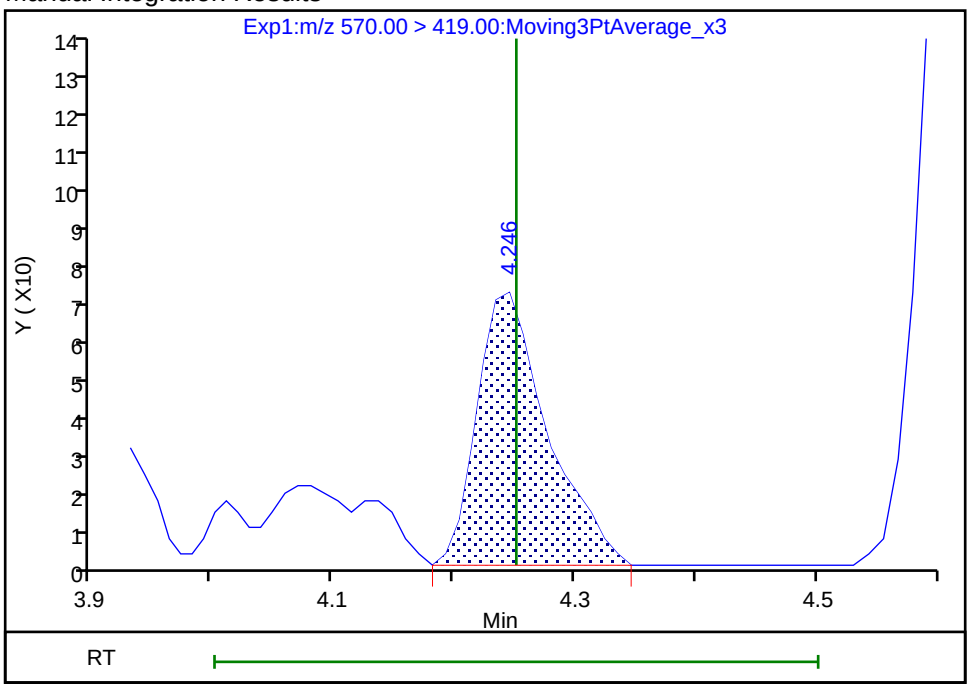
Processing Integration Results

RT: 4.25
Area: 225
Amount: 0.002089
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 291
Amount: 0.002702
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:31:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

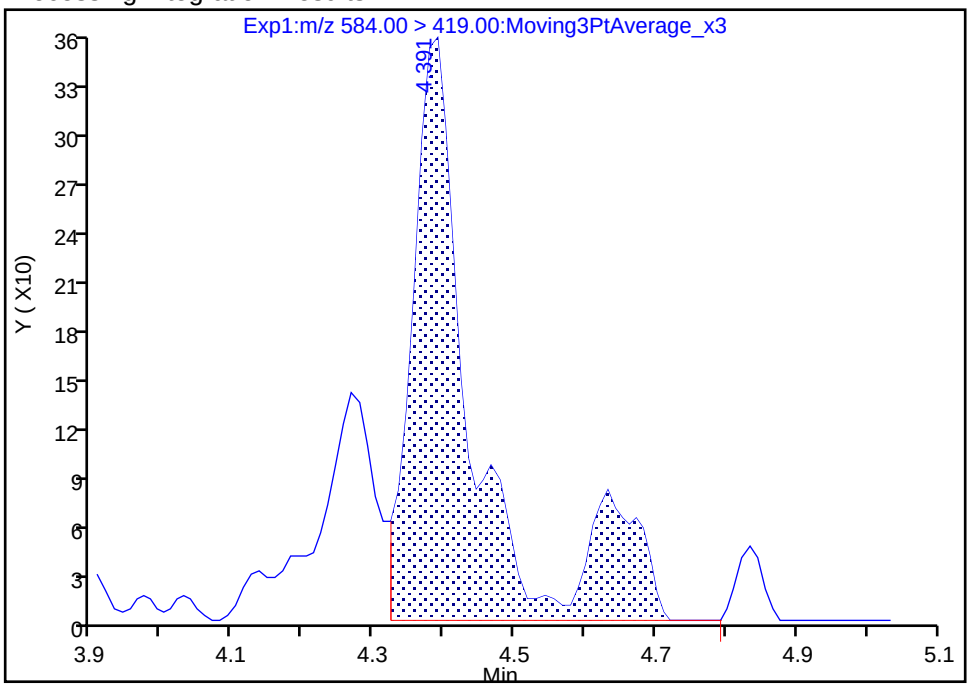
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

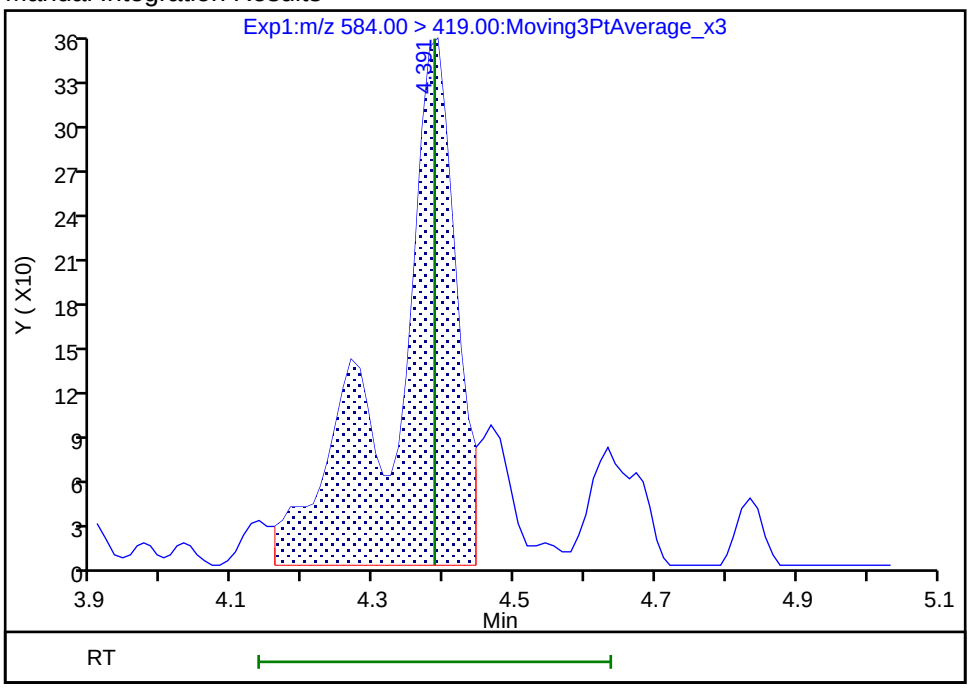
Processing Integration Results

RT: 4.39
Area: 2187
Amount: 0.019064
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 2194
Amount: 0.019125
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:31:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

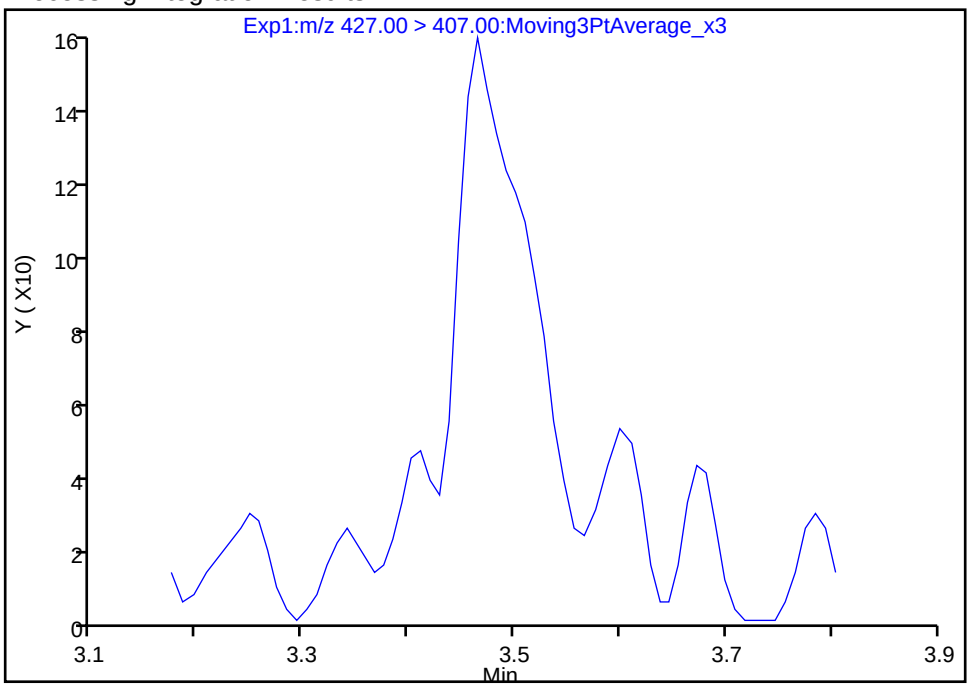
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

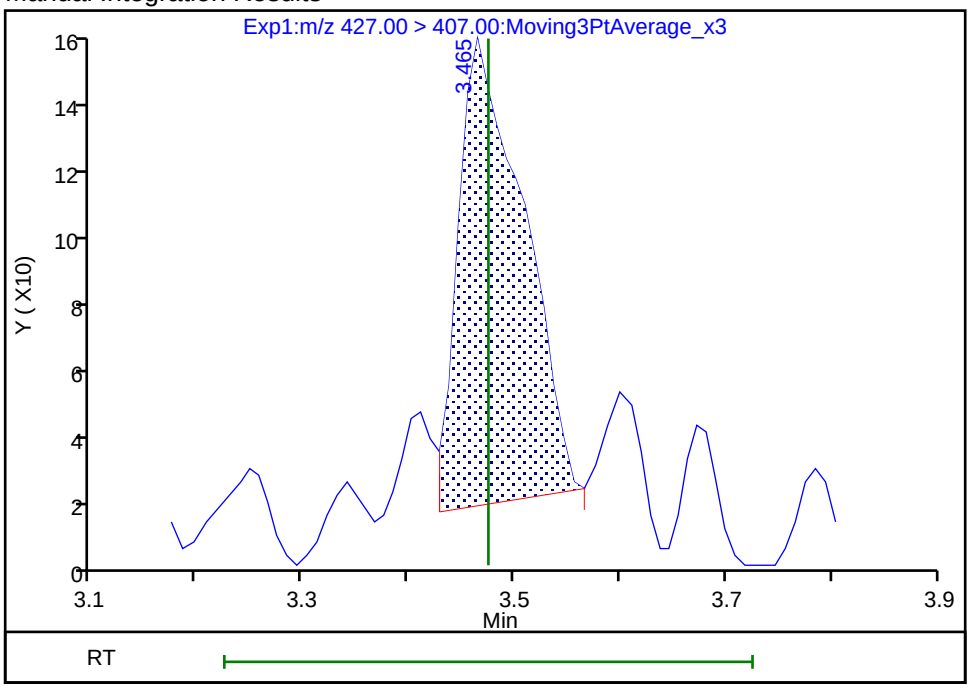
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.46
Area: 596
Amount: 0.002221
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:30:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

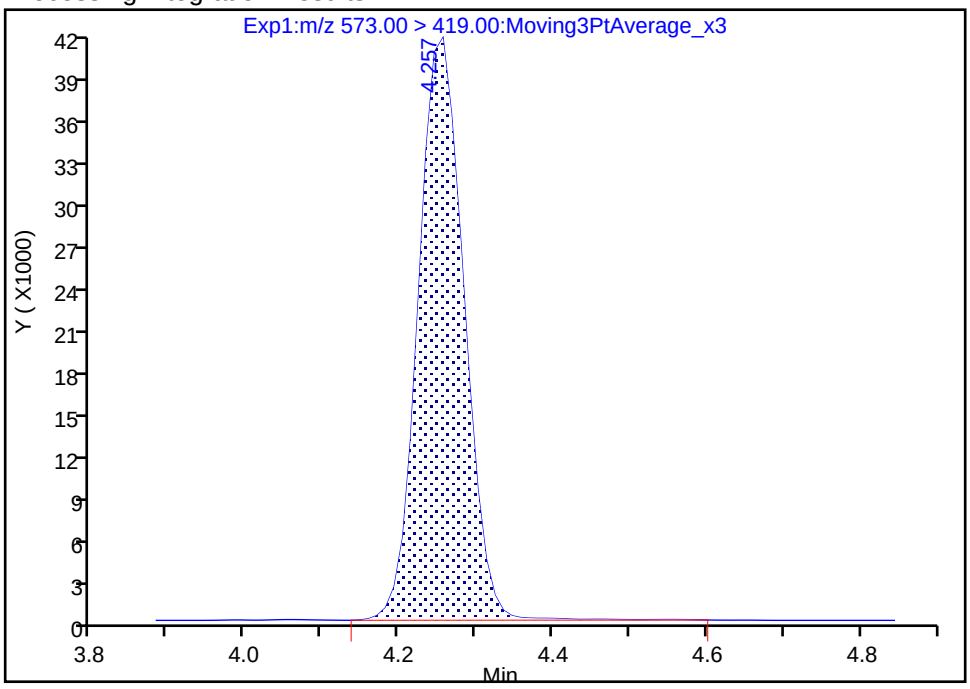
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A16.d | | | | |
| Injection Date: | 10-Nov-2021 13:25:25 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-25-A | Lab Sample ID: | 200-246277-25 | | |
| Client ID: | MW-201-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 16 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

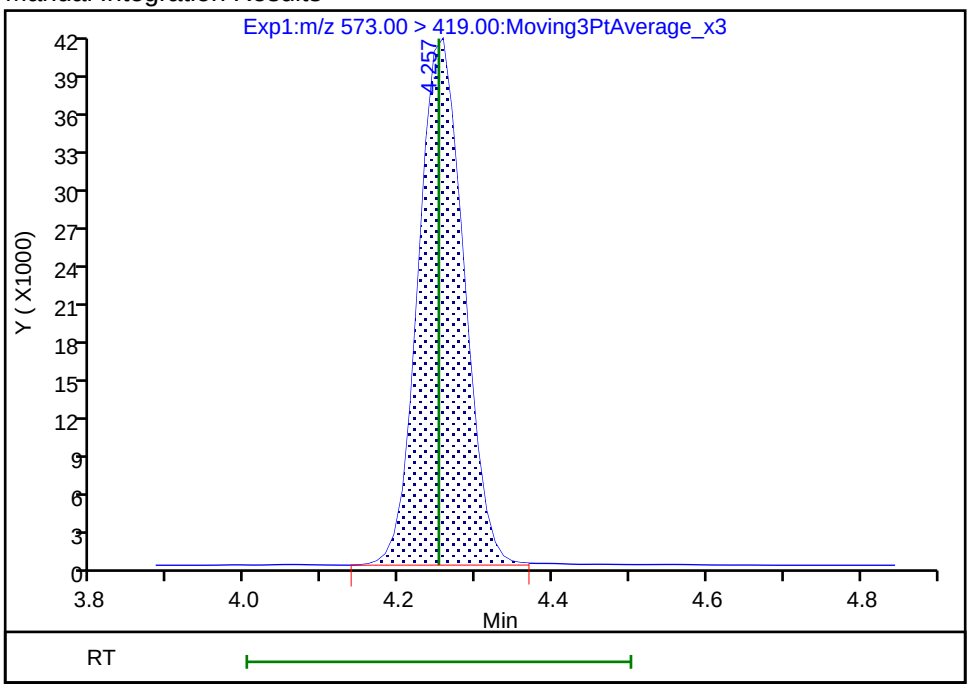
Processing Integration Results

RT: 4.26
Area: 172130
Amount: 1.377726
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 171351
Amount: 1.371491
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:28:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-4S-20211029  Lab Sample ID: 460-246277-26

Matrix: Water  Lab File ID: PA211110A17.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 09:20

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 286.7(mL)  Date Analyzed: 11/10/2021 13:33

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 7.01 | | 4.36 | 0.78 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 8.28 | | 1.74 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 21.7 | | 1.74 | 0.39 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 4.47 | | 1.74 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 11.7 | | 1.74 | 0.37 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.33 | J | 1.74 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.27 | U | 1.74 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.74 | 0.30 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.74 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.74 | 0.38 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.74 | 0.55 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 19.0 | B | 1.74 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 97.7 | | 1.74 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 4.06 | | 1.74 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 247 | | 1.74 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.74 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 1.74 | 0.50 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.79 | U | 4.36 | 0.79 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.65 | U | 4.36 | 0.65 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.96 | U | 4.36 | 0.96 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.74 | 0.34 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-4S-20211029  Lab Sample ID: 460-246277-26

Matrix: Water  Lab File ID: PA211110A17.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 09:20

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 286.7(mL)  Date Analyzed: 11/10/2021 13:33

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 97 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 90 | | 50-150 |
| STL00995 | 13C5 PFNA | 85 | | 50-150 |
| STL00992 | 13C4 PFBA | 109 | | 25-150 |
| STL00993 | 13C2 PFHxA | 98 | | 50-150 |
| STL00996 | 13C2 PFDA | 75 | | 50-150 |
| STL00997 | 13C2 PFUnA | 66 | | 50-150 |
| STL00998 | 13C2 PFDoA | 62 | | 50-150 |
| STL01056 | 13C8 FOSA | 82 | | 25-150 |
| STL01893 | 13C5 PFPeA | 100 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 62 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 82 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 81 | | 50-150 |
| STL02279 | M2-6:2 FTS | 105 | | 25-150 |
| STL02280 | M2-8:2 FTS | 91 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d
Lims ID: 460-246277-C-26-A
Client ID: MW-4S-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 13:33:36 ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-26-A
Misc. Info.: 200-0048360-017 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:35:33
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1554136 | 1.37 | | 109 | 2014 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 236208 | 0.2009 | | | 34.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1204007 | 1.26 | | 100 | 1624 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 229109 | 0.2375 | | | 4.8 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1426255 | 1.10 | | 94.6 | 66140 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 715246 | 0.5458 | Target=2.32 | | 111 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 329816 | | 2.17(1.16-3.48) | | 99.9 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1238600 | 1.23 | | 98.5 | 2996 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 625786 | 0.6227 | Target=12.09 | | 48.0 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 47374 | | 13.21(6.04-18.13) | | 47.0 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 2825028 | 2.80 | Target=3.55 | | 1253 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 765757 | | 3.69(1.77-5.32) | | 661 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1084264 | 1.15 | | 97.3 | 2716 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1279793 | 1.21 | | 96.7 | 2840 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 135615 | 0.1282 | Target=3.69 | | 19.0 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.003 | 34298 | | 3.95(1.84-5.53) | | 44.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 89095 | 0.1164 | Target=4.88 | | 23.3 | |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.916 | 20878 | | 4.27(2.44-7.32) | | 29.8 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.475 | -0.001 | 0.997 | 830 | 0.004185 | | | 12.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 185742 | 1.25 | | 105 | 250 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1365285 | 1.18 | | 94.4 | 3596 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1405731 | 1.25 | | | 3705 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 389790 | 0.3356 | Target=2.68 | | 38.5 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 166641 | | 2.34(1.34-4.02) | | 286 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.087 | 733718 | 1.08 | | 90.1 | 1439 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.003 | 4727162 | 7.10 | Target=4.69 | | 2080 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 1.000 | 1072982 | | 4.41(2.35-7.04) | | 2008 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1221888 | 1.06 | | 84.8 | 3723 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.818 | -0.004 | 1.000 | 8939 | 0.009347 | Target=7.29 | | 2.0 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 1038 | | 8.61(3.64-10.93) | | 7.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1089126 | 0.9363 | | 74.9 | 3097 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 183855 | 1.09 | | 91.1 | 586 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 1152656 | 1.03 | | 82.2 | 3955 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.214 | 4.219 | -0.005 | 0.998 | 155 | 0.000177 | | | 1.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 117474 | 1.03 | | 82.1 | 1090 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.375 | -0.005 | 1.251 | 750380 | 0.8277 | | 66.2 | 3700 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.370 | 4.375 | -0.005 | 1.000 | 1036 | 0.001619 | Target=9.24 | | 1.0 | M |
| 563.00 > 169.00 | 4.359 | 4.375 | -0.016 | 0.997 | 152 | | 6.82(4.62-13.86) | | 3.1 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.375 | 0.006 | 1.255 | 108647 | 1.01 | | 81.1 | 1081 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.314 | 4.387 | -0.073 | 0.985 | 81 | 0.001088 | | | 1.0 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.598 | 0.004 | 1.318 | 754031 | 0.7732 | | 61.9 | 1057 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 584122 | 0.7723 | | 61.8 | 1077 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 127 | 0.001722 | Target=1.01 | | 7.0 | M |
| 713.00 > 219.00 | 4.995 | 4.972 | 0.023 | 1.004 | 172 | | 0.74(0.51-1.52) | | 9.0 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

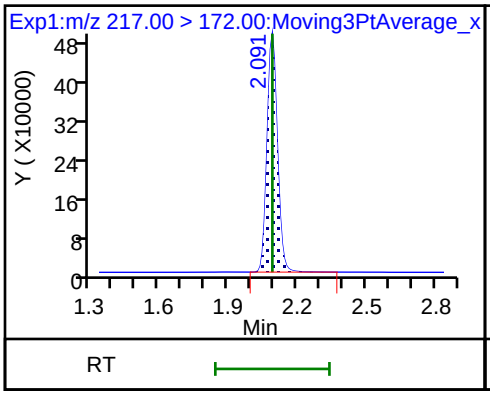
Report Date: 11-Nov-2021 12:40:32 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

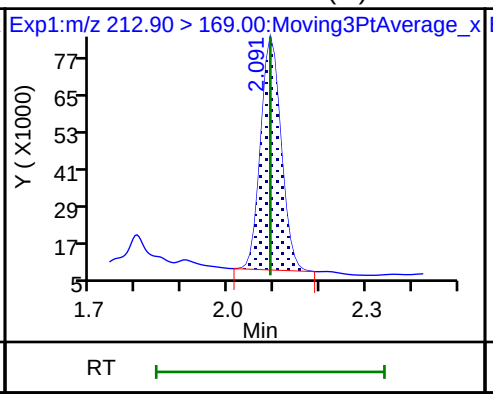
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |

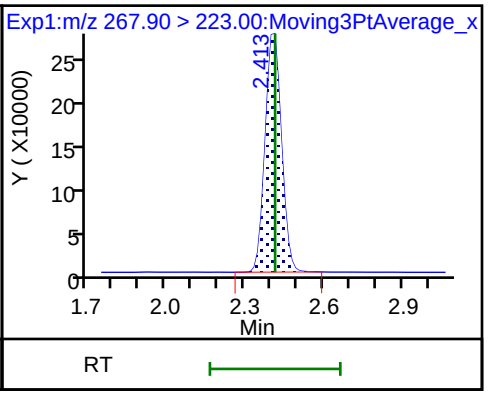
D 1 13C4 PFBA



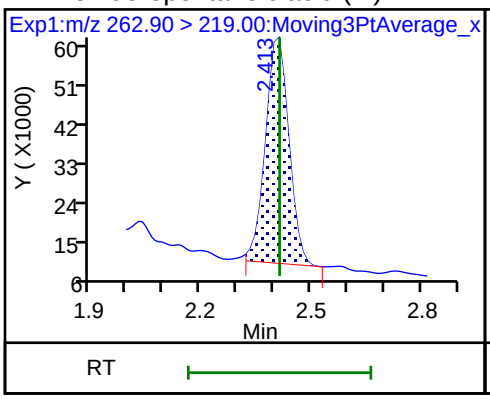

2 Perfluorobutanoic acid (M)



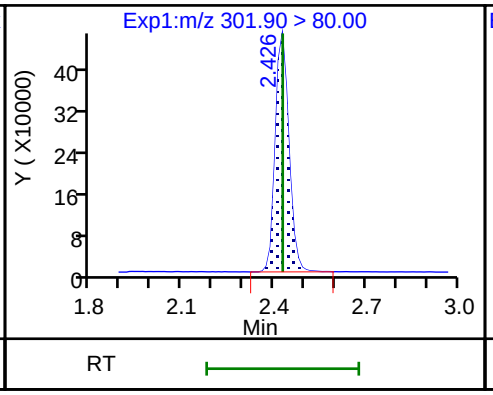

D 3 13C5 PFPeA



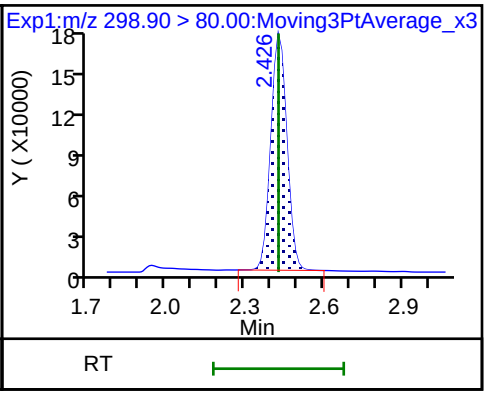

4 Perfluoropentanoic acid (M)



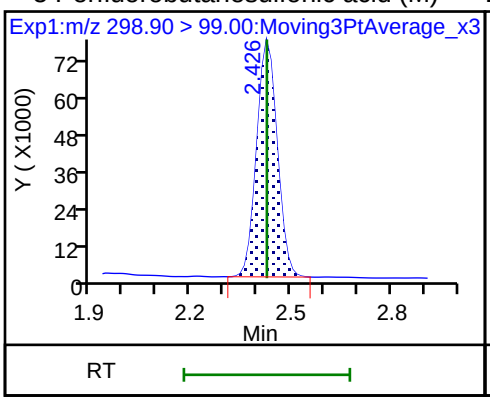

D 47 13C3 PFBS



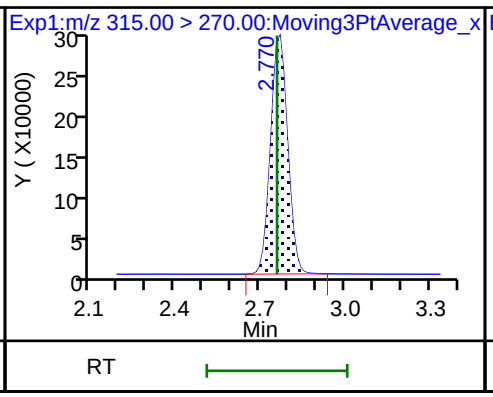

5 Perfluorobutanesulfonic acid



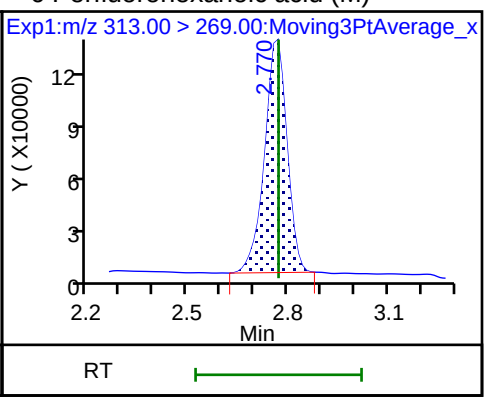

5 Perfluorobutanesulfonic acid (M)



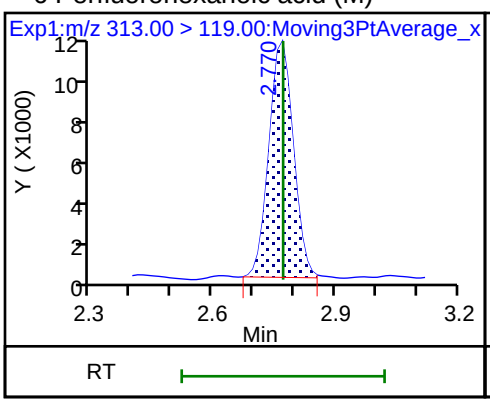

D 7 13C2 PFHxA



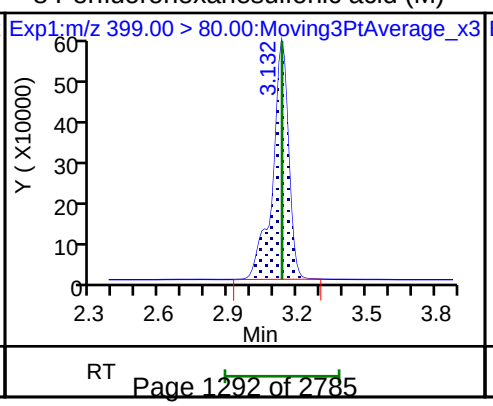

6 Perfluorohexanoic acid (M)



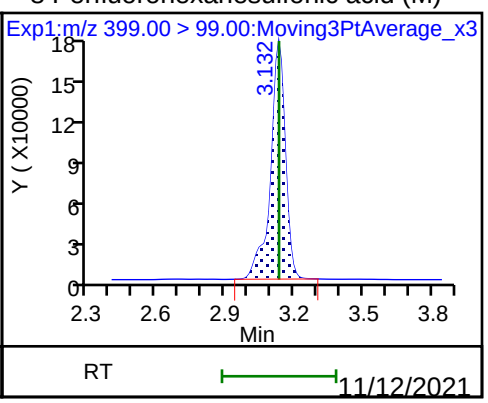

6 Perfluorohexanoic acid (M)



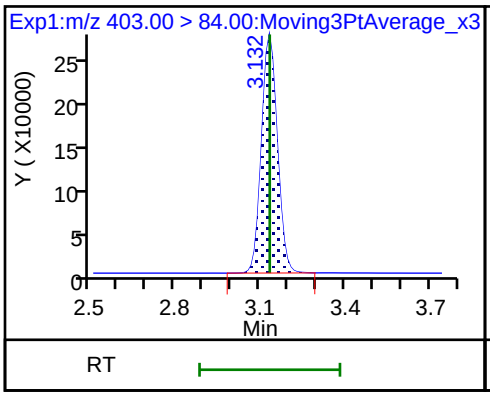

8 Perfluorohexanesulfonic acid (M)



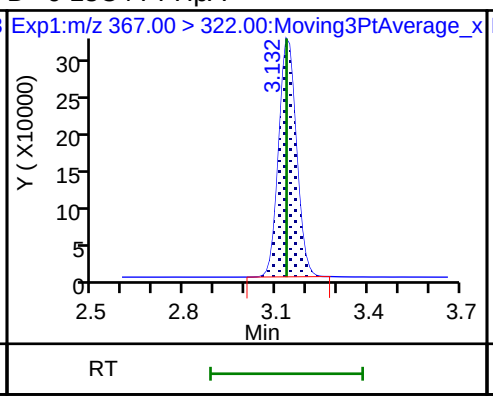

8 Perfluorohexanesulfonic acid (M)



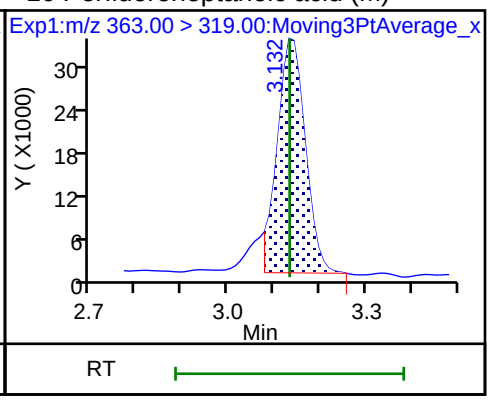
D 11 18O2 PFHxS



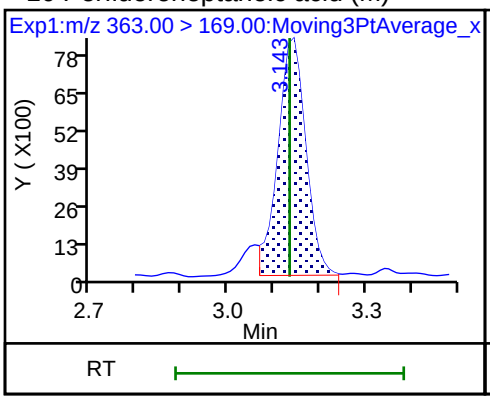

D 9 13C4 PFHpA



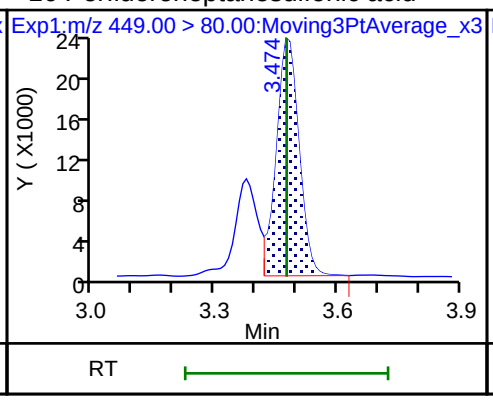

10 Perfluoroheptanoic acid (M)



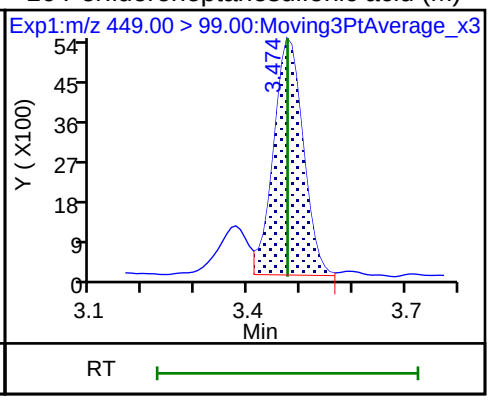

10 Perfluoroheptanoic acid (M)



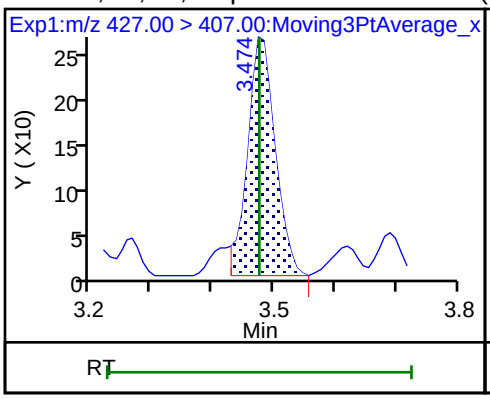

16 Perfluoroheptanesulfonic acid



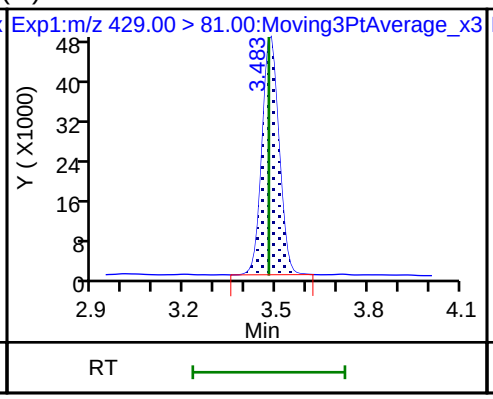

16 Perfluoroheptanesulfonic acid (M)



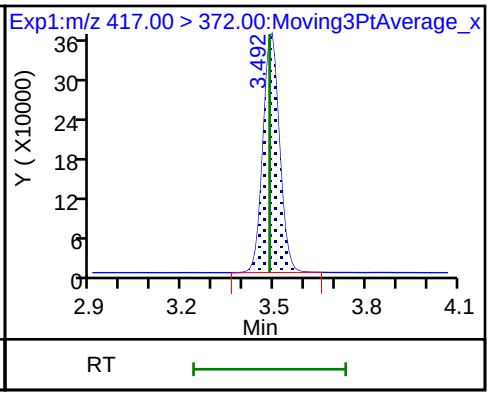

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



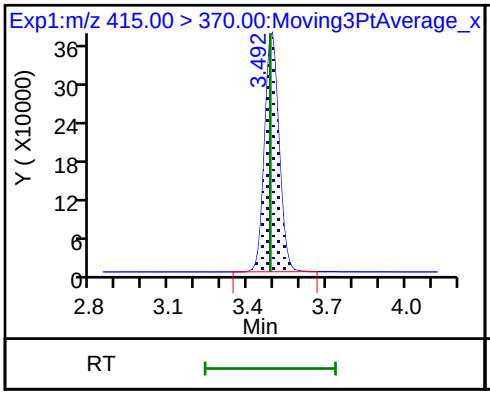

D 12 M2-6:2 FTS



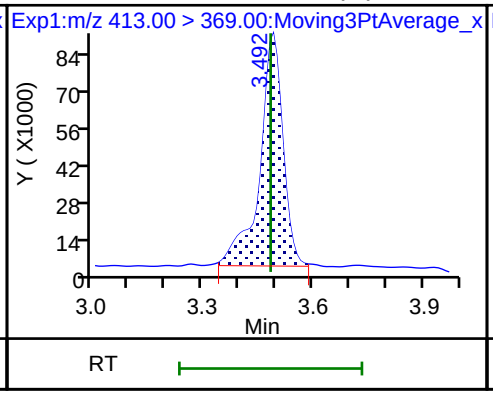

D 14 13C4 PFOA



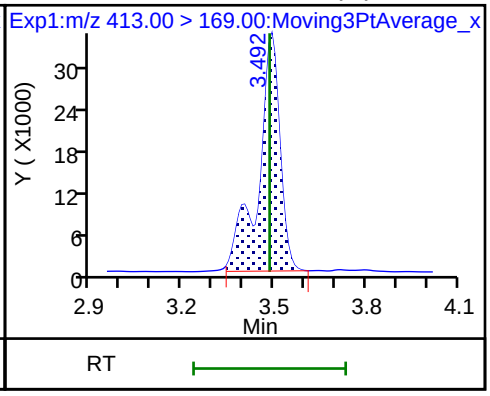

* 62 13C2 PFOA



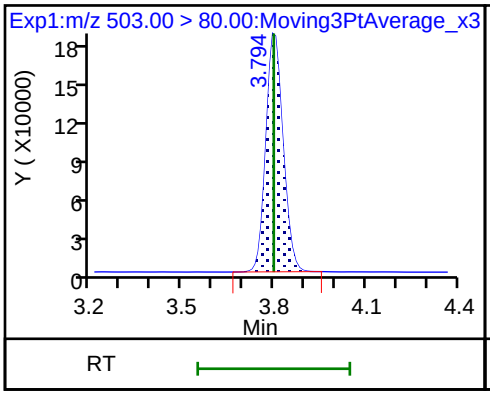

15 Perfluorooctanoic acid (M)



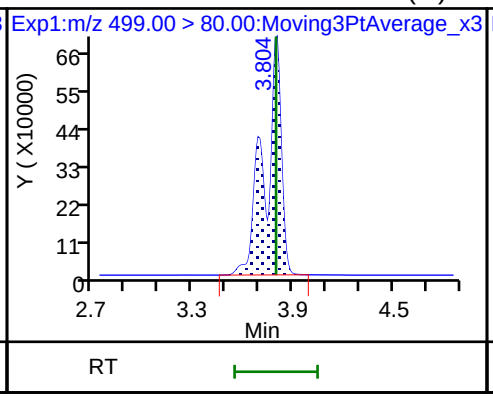

15 Perfluorooctanoic acid (M)



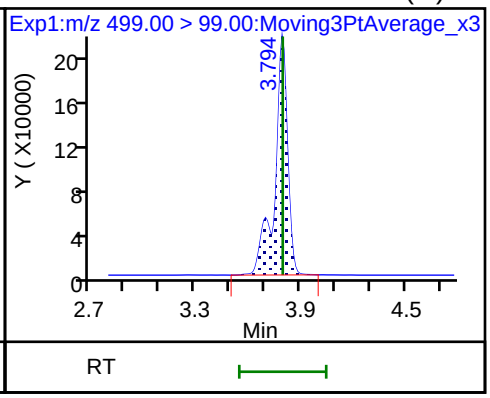
D 18 13C4 PFOS



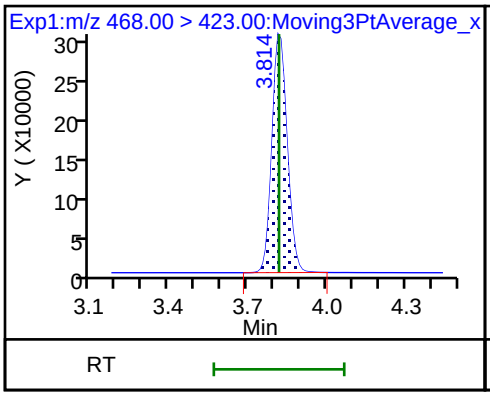

17 Perfluorooctanesulfonic acid (M)



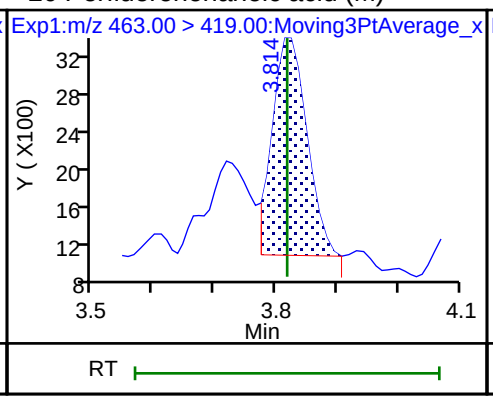

17 Perfluorooctanesulfonic acid (M)



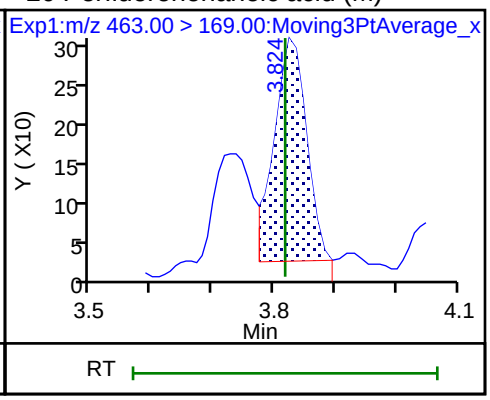

D 19 13C5 PFNA



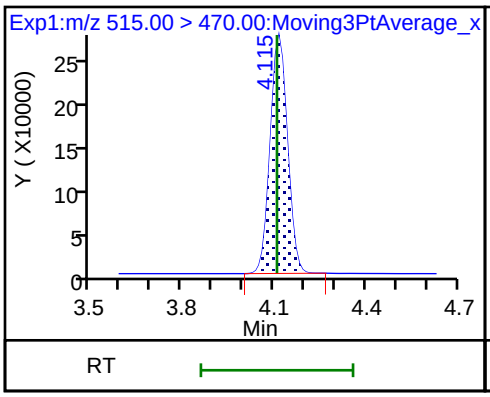

20 Perfluorononanoic acid (M)



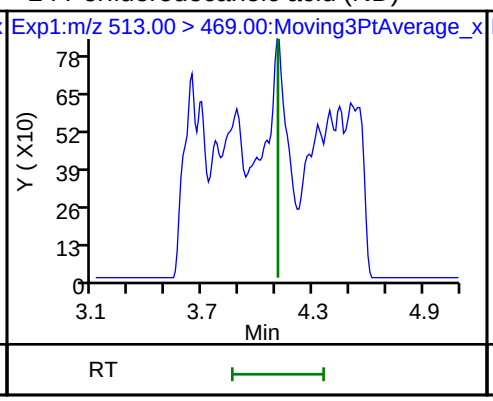

20 Perfluorononanoic acid (M)



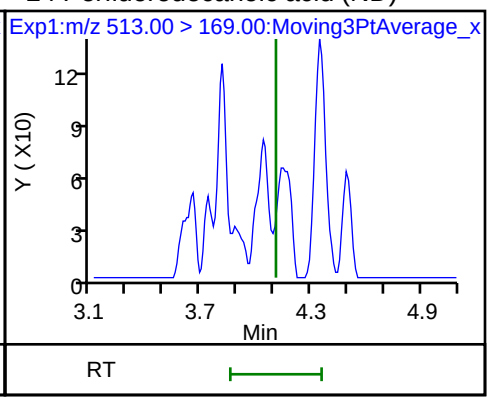

D 23 13C2 PFDA



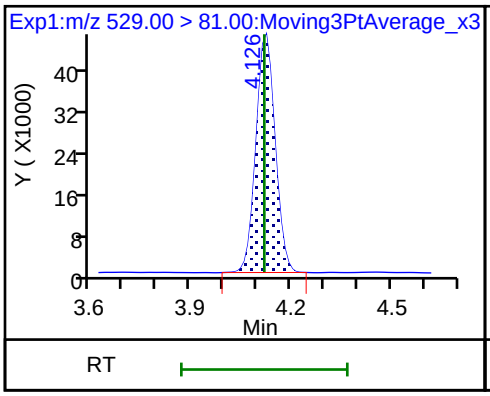

24 Perfluorodecanoic acid (ND)



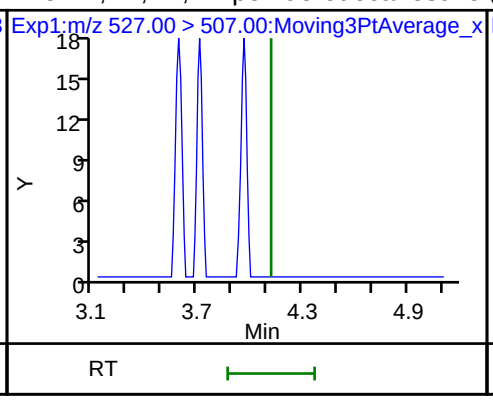

24 Perfluorodecanoic acid (ND)



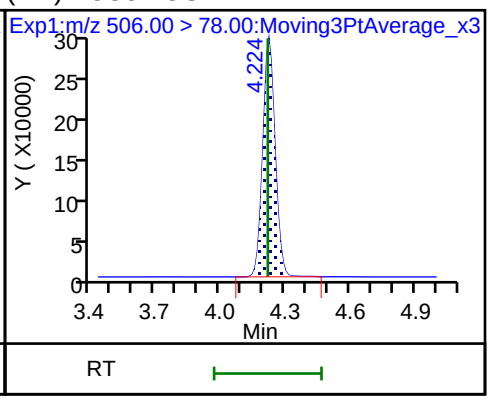

D 26 M2-8:2 FTS



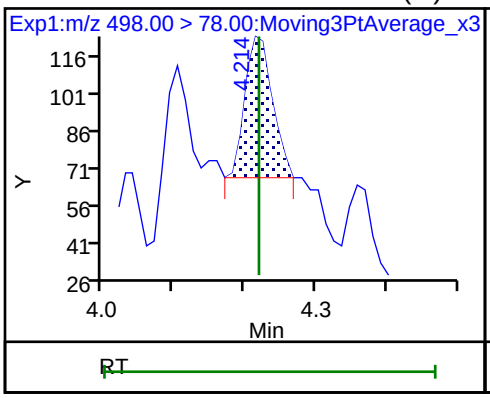

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



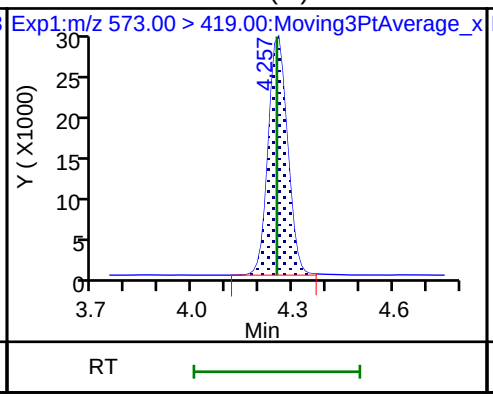

D 21 13C8 FOSA



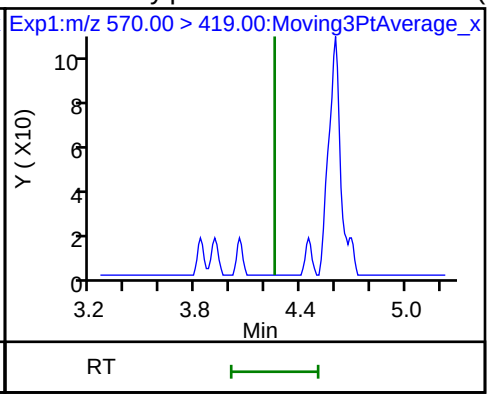
22 Perfluorooctanesulfonamide (M)



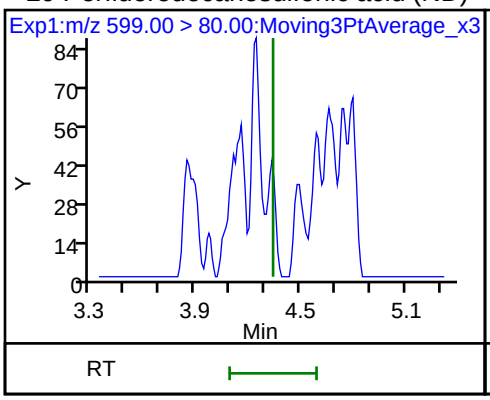

D 27 d3-NMeFOSAA (M)



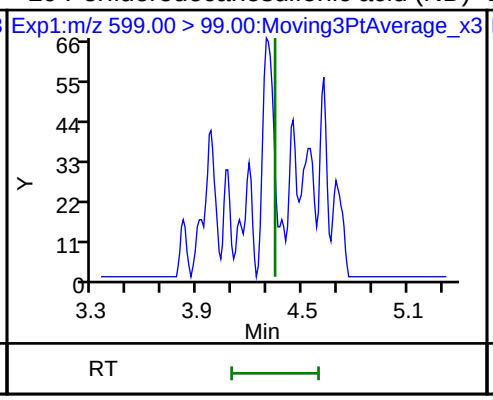

28 N-methylperfluorooctanesulfonami (ND)



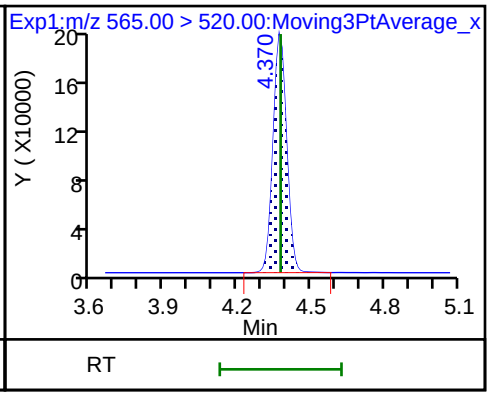

29 Perfluorodecanesulfonic acid (ND)



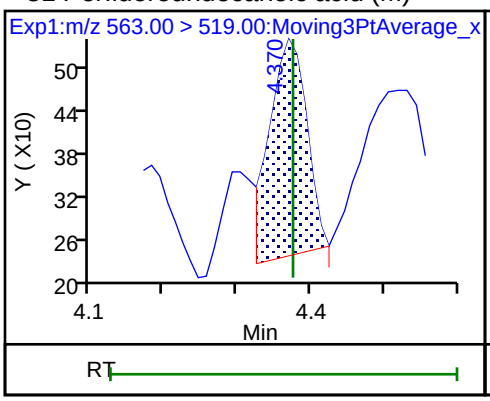

29 Perfluorodecanesulfonic acid (ND)



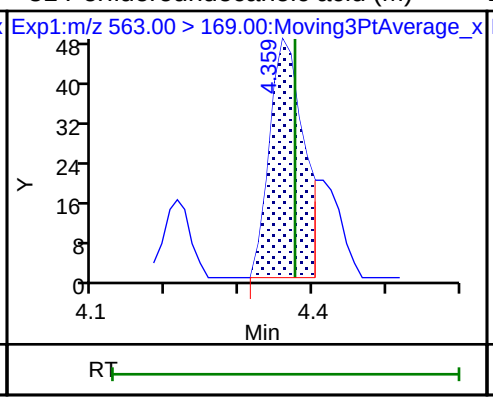

D 30 13C2 PFUnA



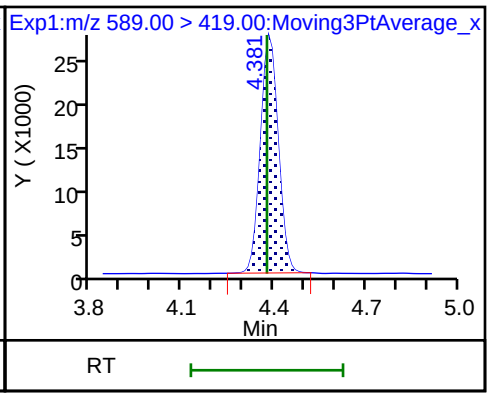

31 Perfluoroundecanoic acid (M)



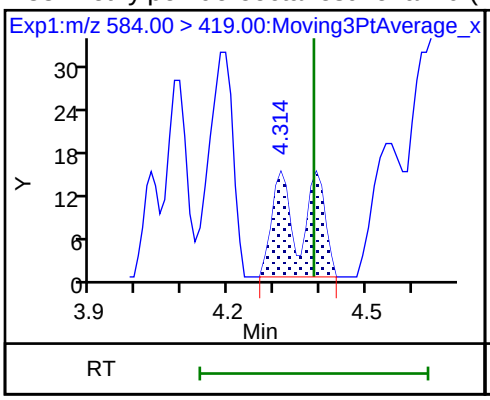

31 Perfluoroundecanoic acid (M)



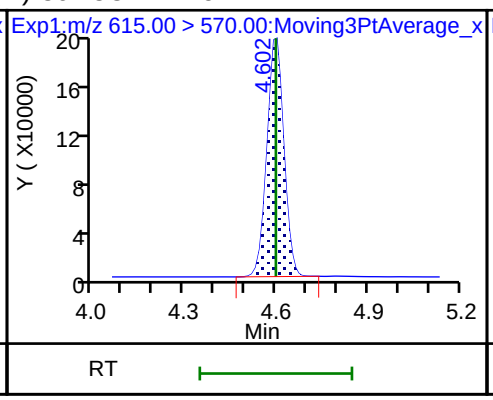

D 32 d5-NEtFOSAA



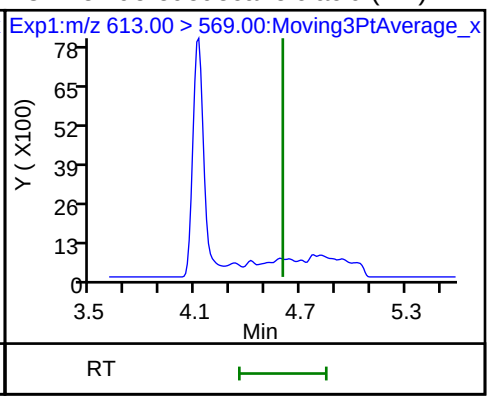

33 N-ethylperfluorooctanesulfonamid (ND)



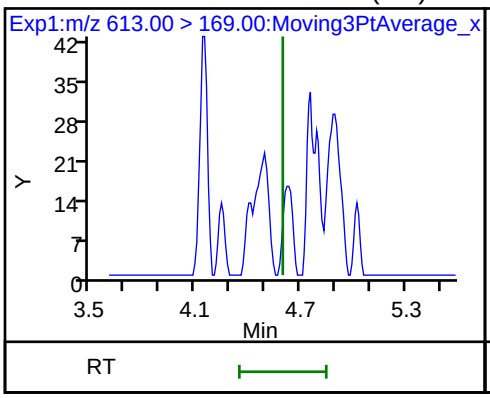

D 36 13C2 PFDoA



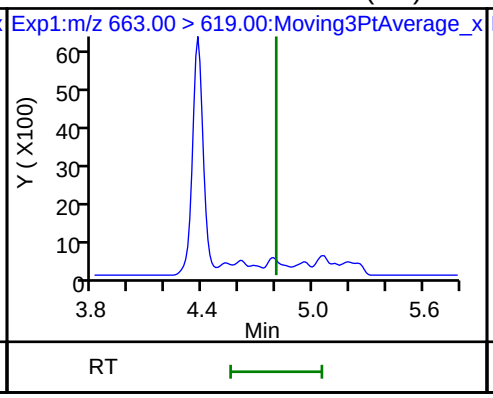

37 Perfluorododecanoic acid (ND)



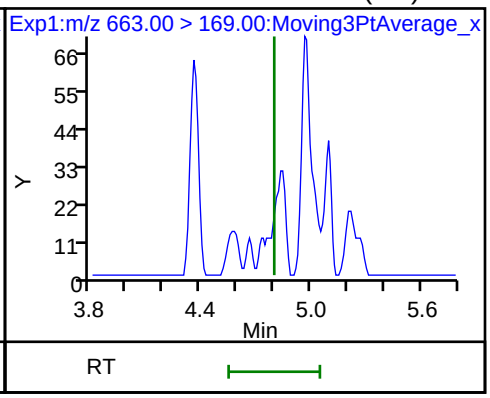
37 Perfluorododecanoic acid (ND)



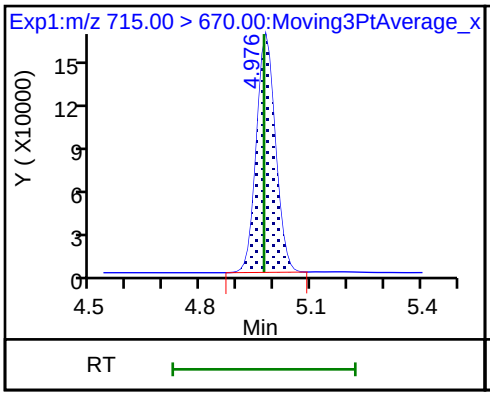

41 Perfluorotridecanoic acid (ND)



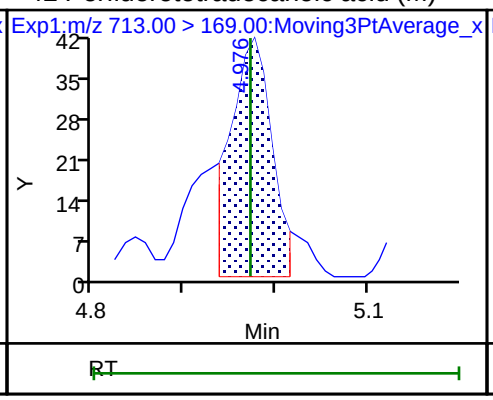

41 Perfluorotridecanoic acid (ND)



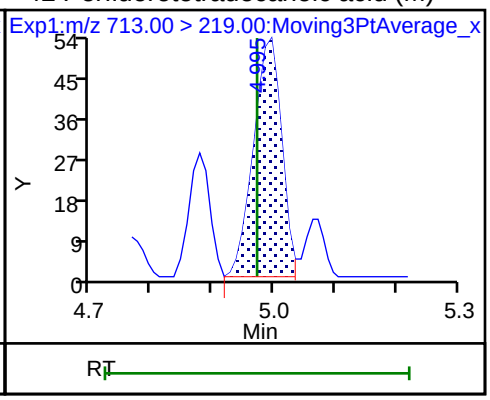

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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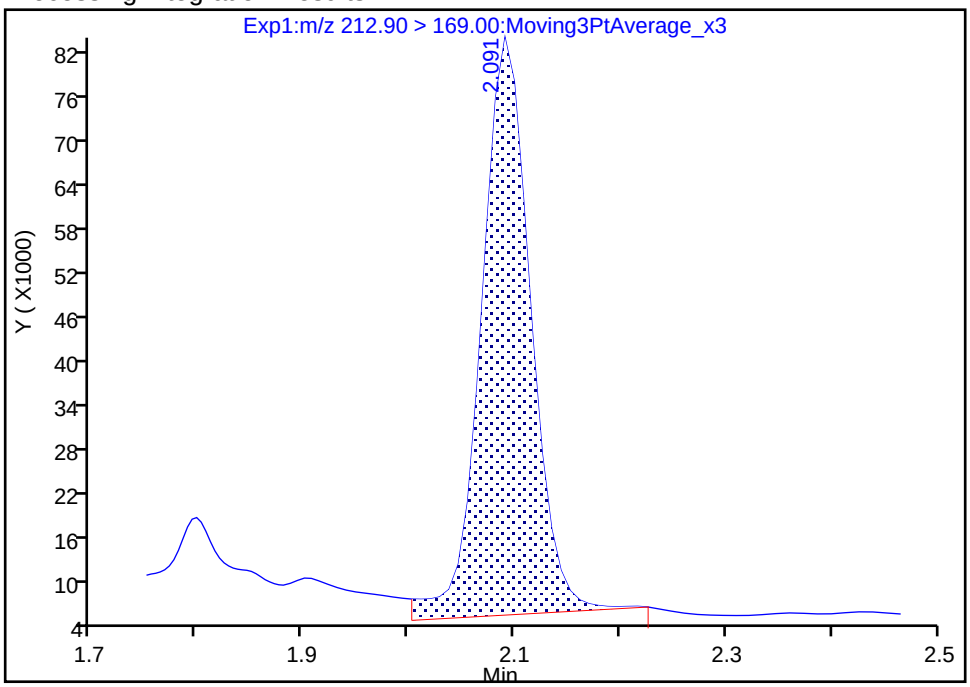
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

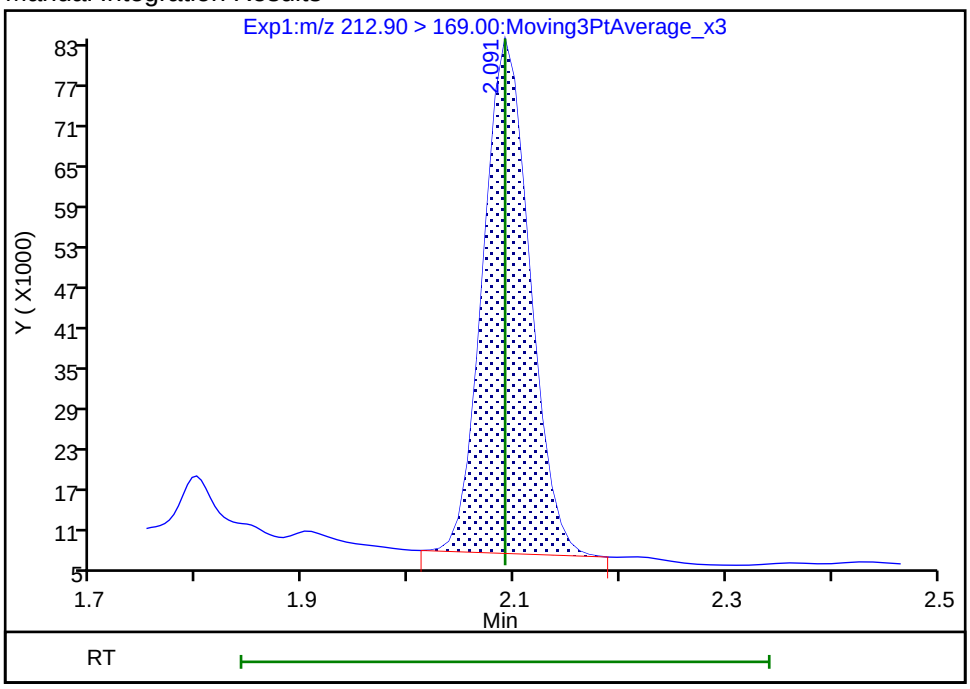
Processing Integration Results

RT: 2.09
Area: 255022
Amount: 0.216925
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 236208
Amount: 0.200922
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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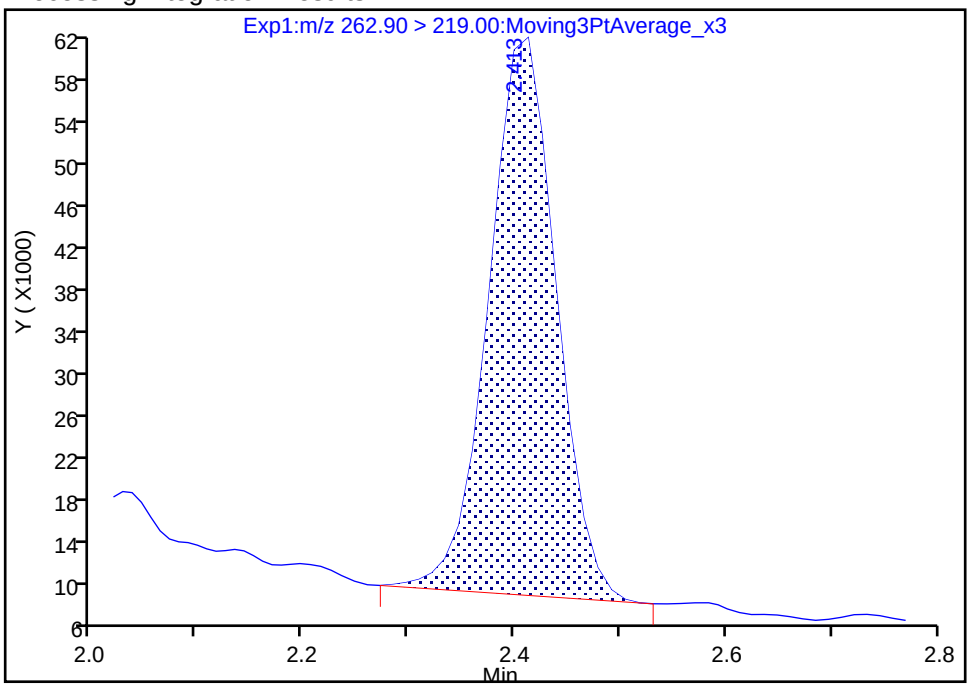
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

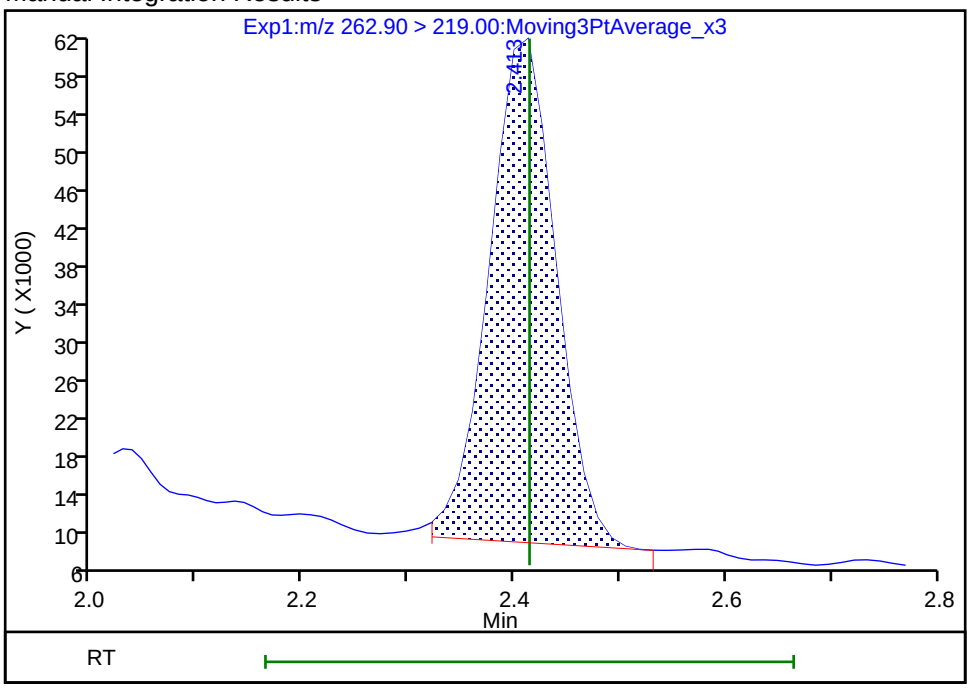
Processing Integration Results

RT: 2.41
Area: 230688
Amount: 0.239087
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 229109
Amount: 0.237451
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:31:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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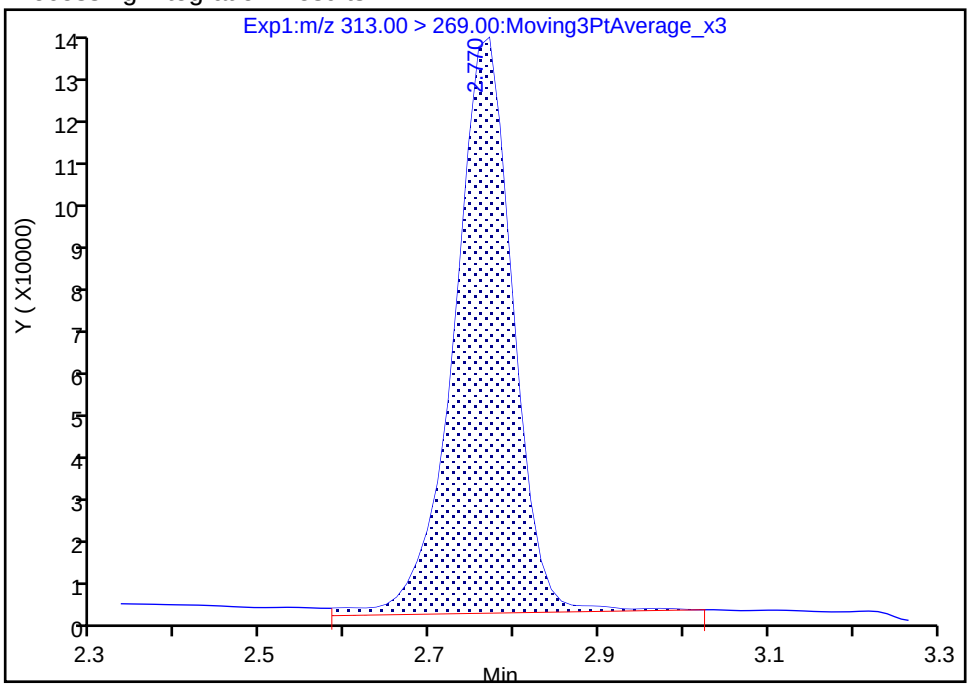
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

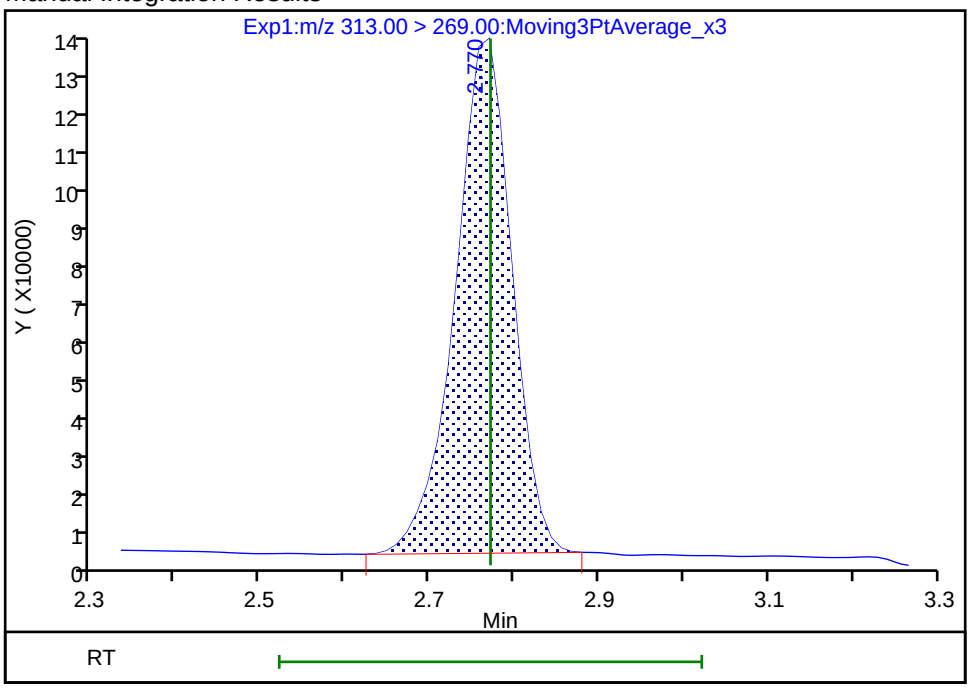
Processing Integration Results

RT: 2.77
Area: 657237
Amount: 0.654015
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 625786
Amount: 0.622719
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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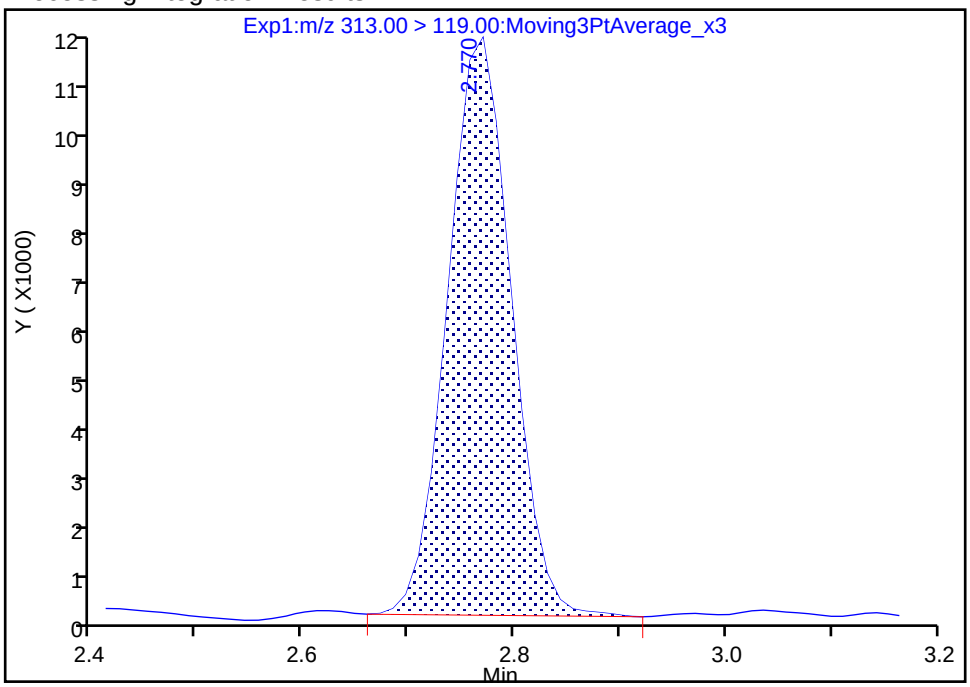
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

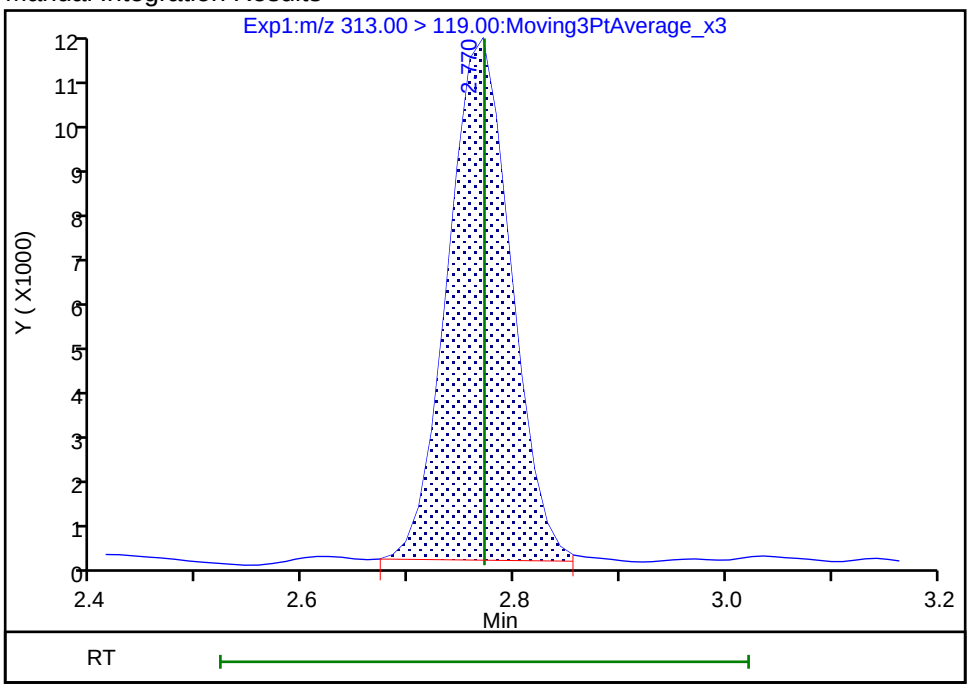
Processing Integration Results

RT: 2.77
Area: 47720
Amount: 0.654015
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 47374
Amount: 0.622719
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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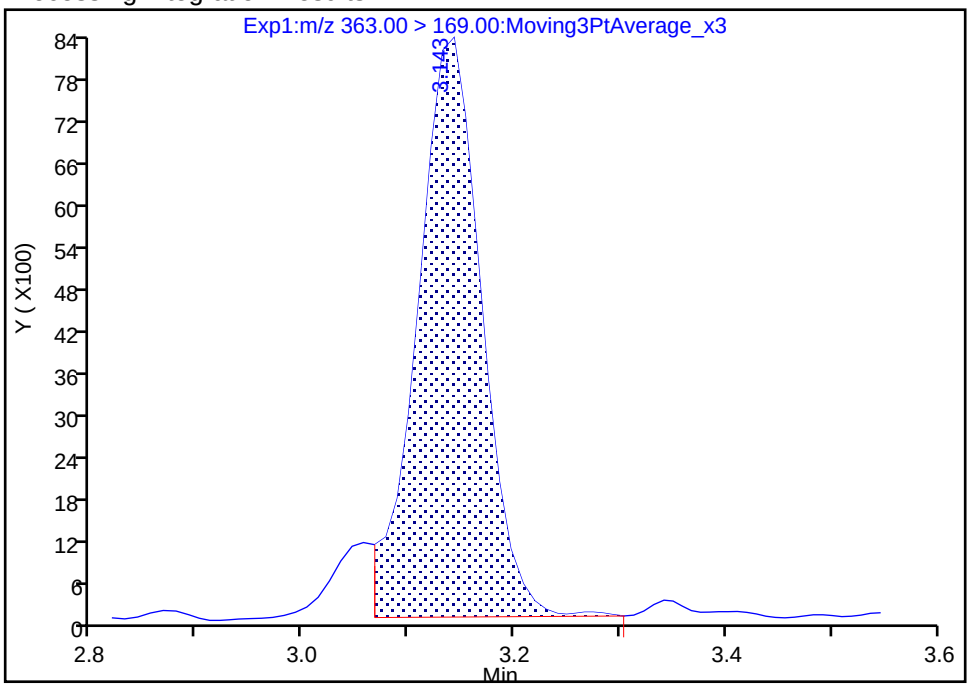
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

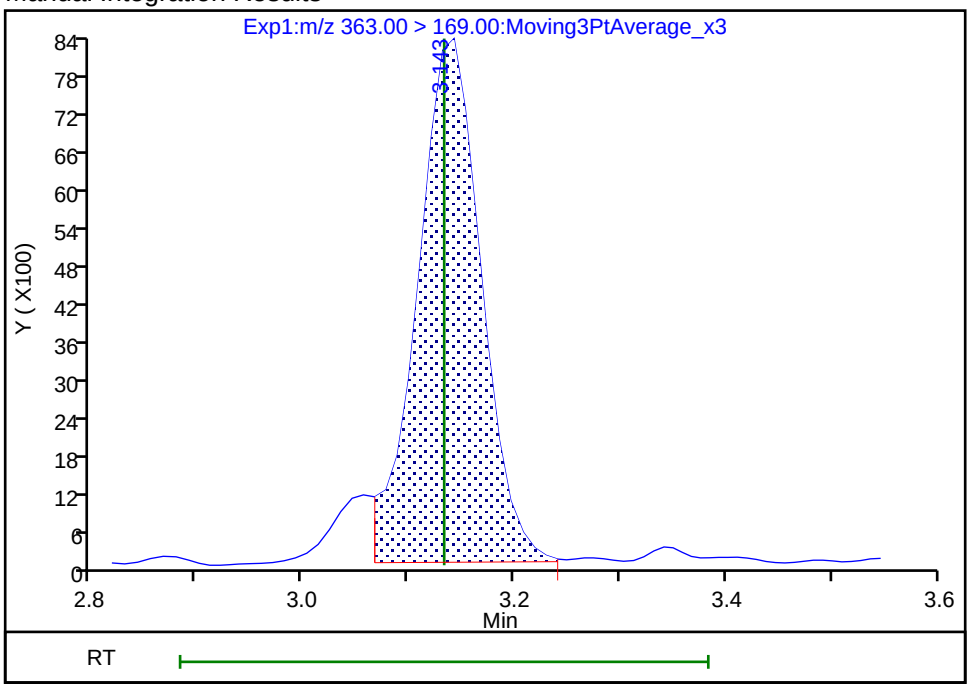
Processing Integration Results

RT: 3.14
Area: 34437
Amount: 0.141336
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 34298
Amount: 0.128199
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

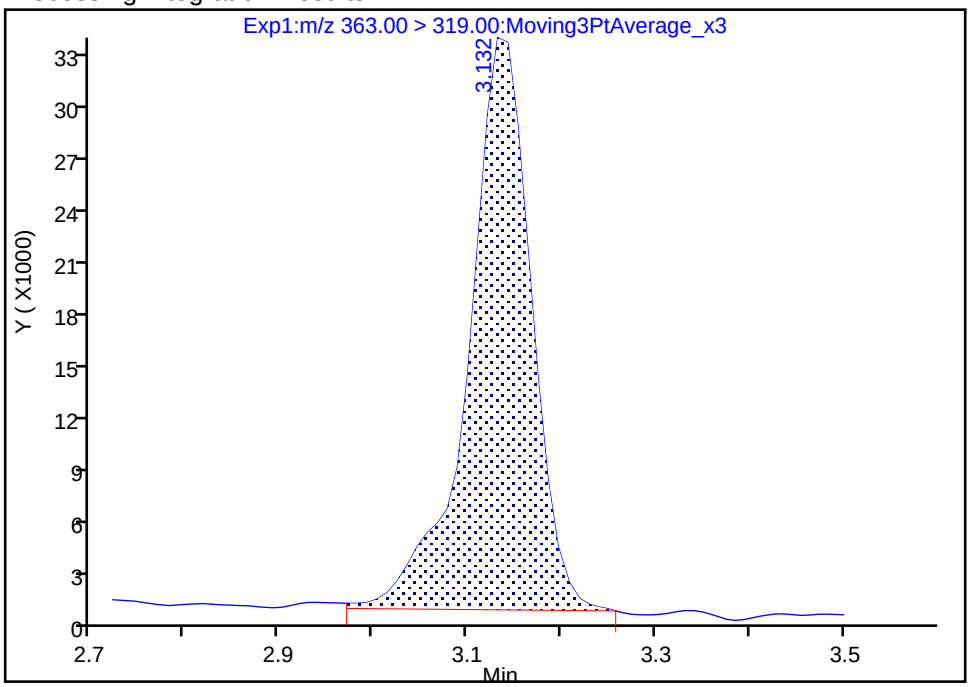
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

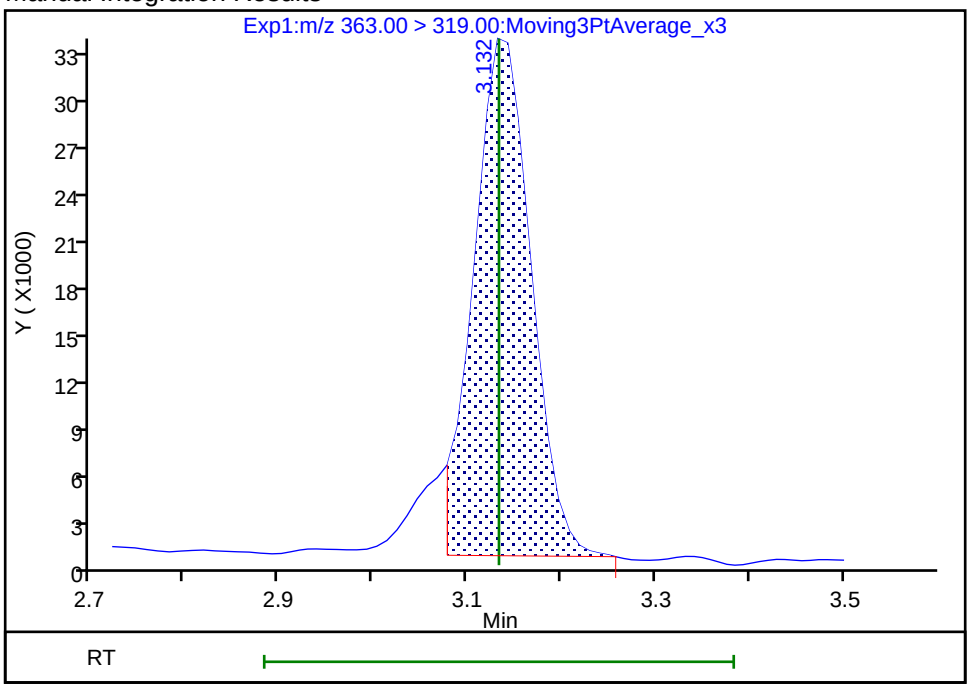
Processing Integration Results

RT: 3.13
Area: 149511
Amount: 0.141336
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 135615
Amount: 0.128199
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

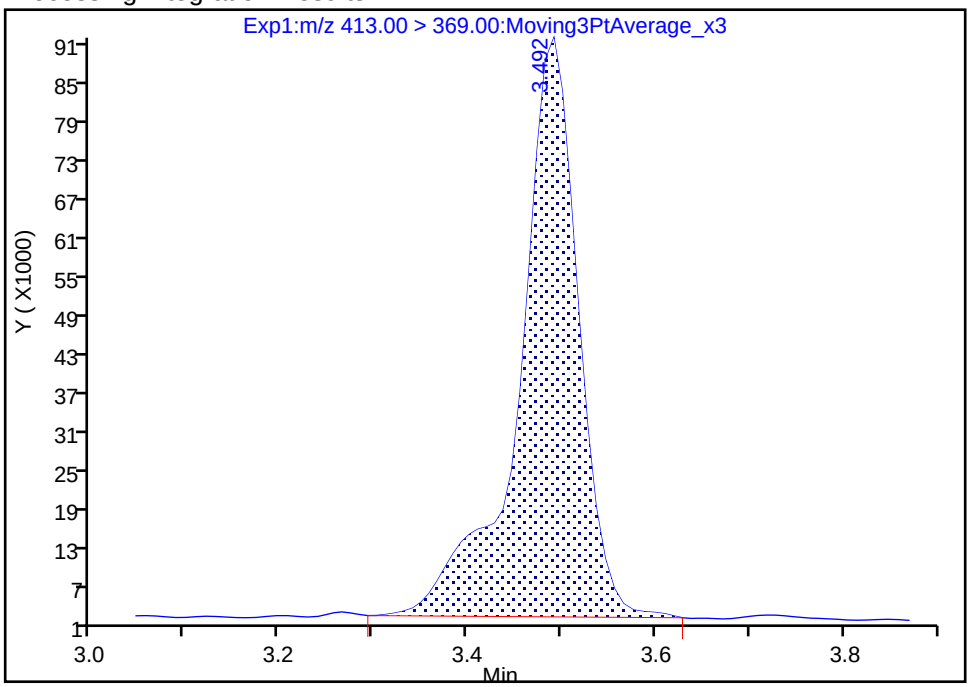
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

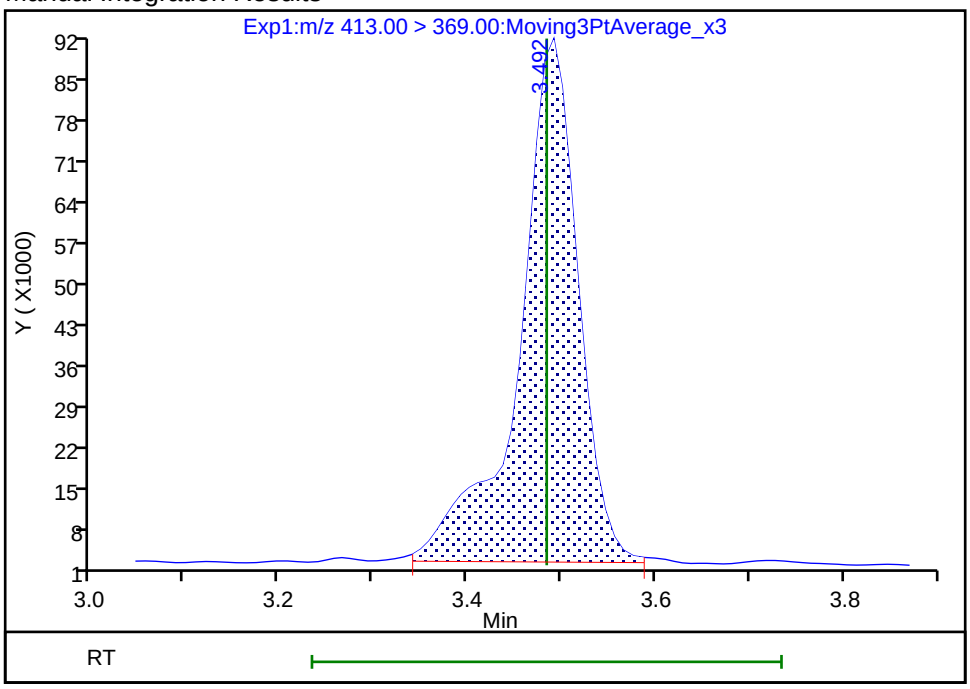
Processing Integration Results

RT: 3.49
Area: 392225
Amount: 0.337683
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 389790
Amount: 0.335587
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:31:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

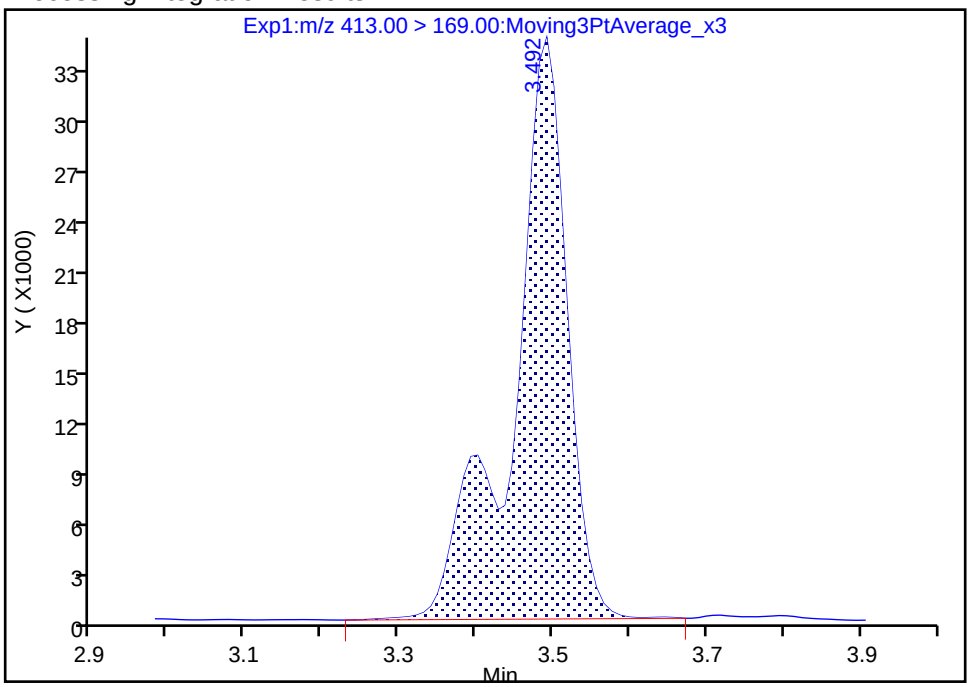
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

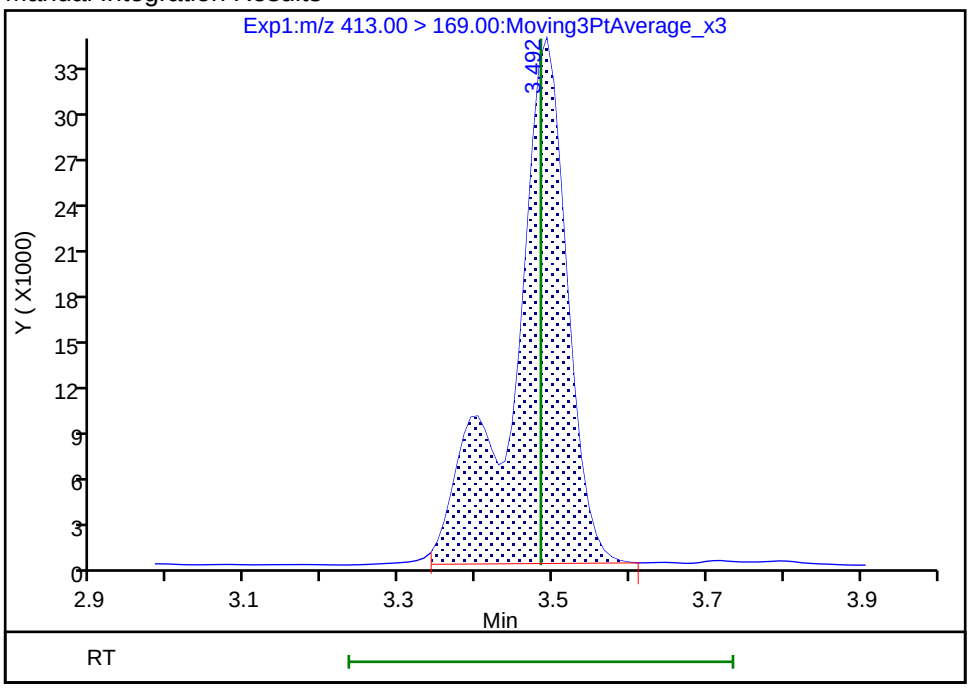
Processing Integration Results

RT: 3.49
Area: 168337
Amount: 0.337683
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 166641
Amount: 0.335587
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:32:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

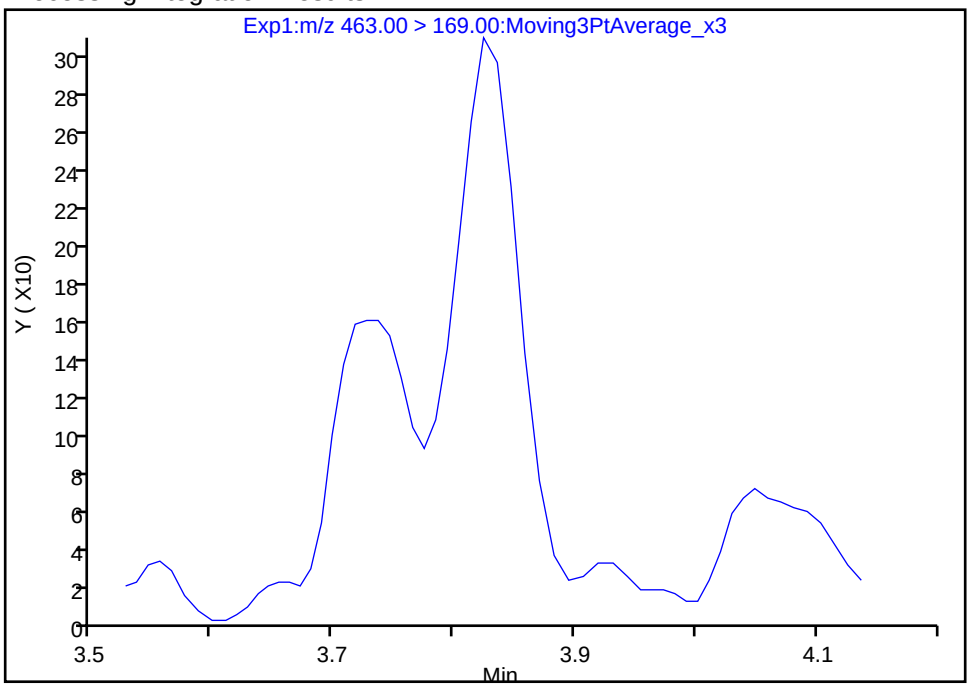
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

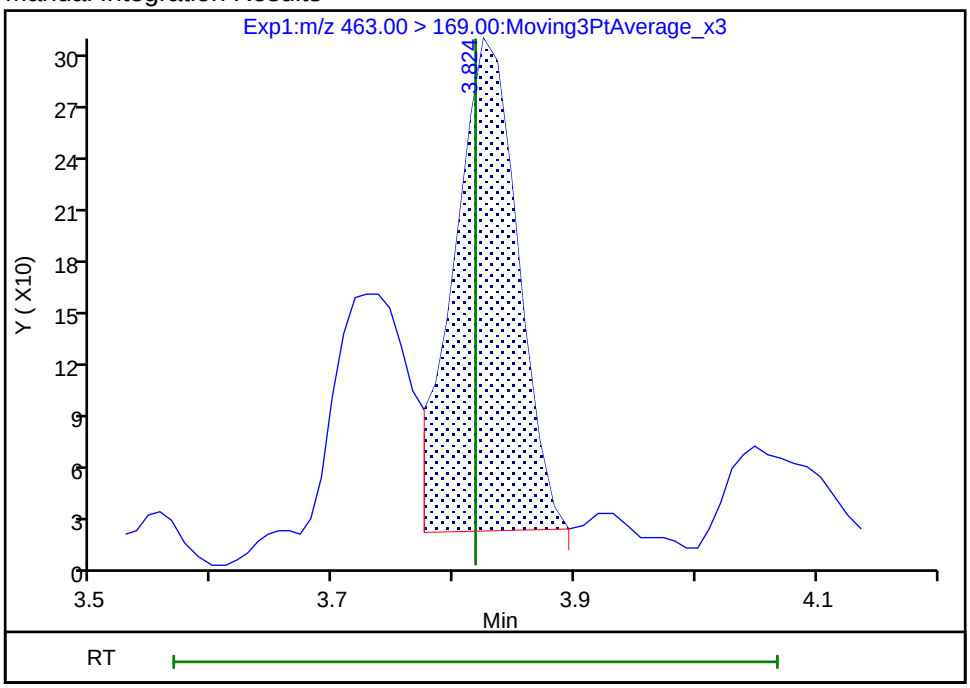
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1038
Amount: 0.009347
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

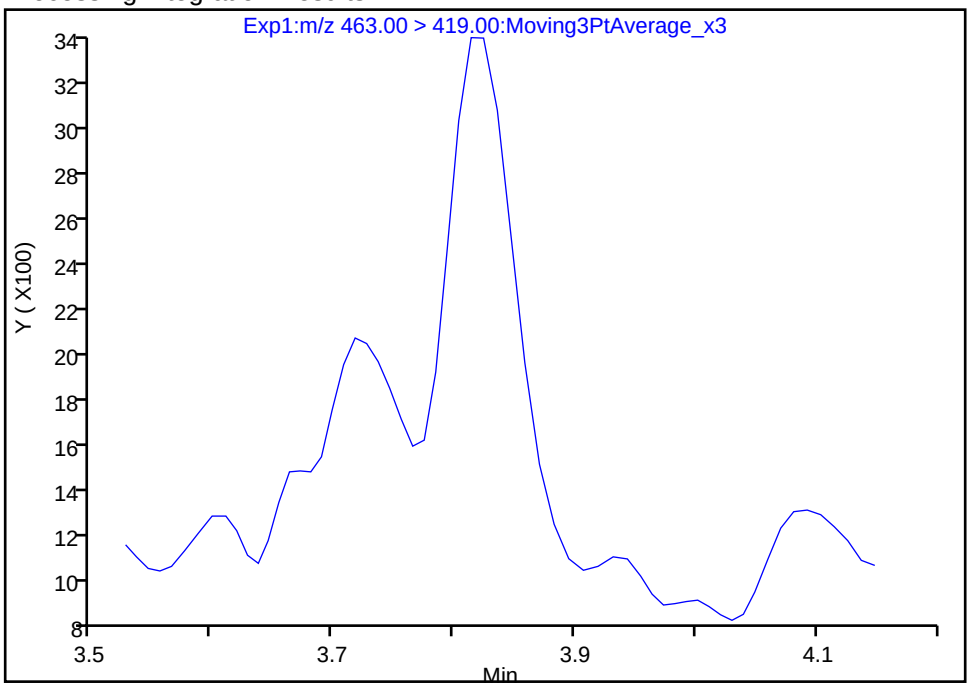
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

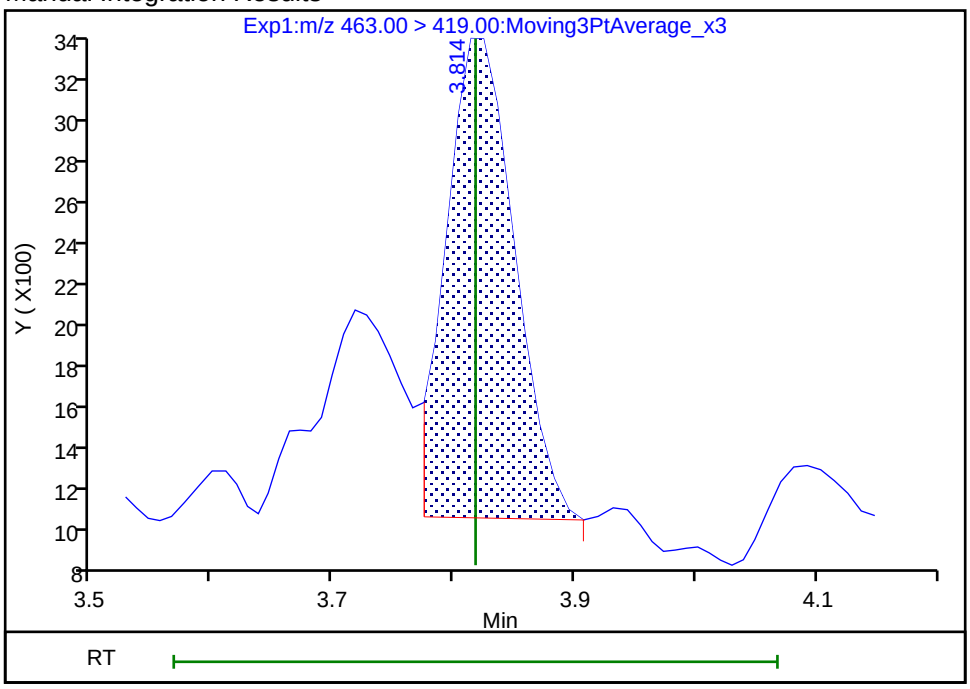
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 8939
Amount: 0.009347
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:32:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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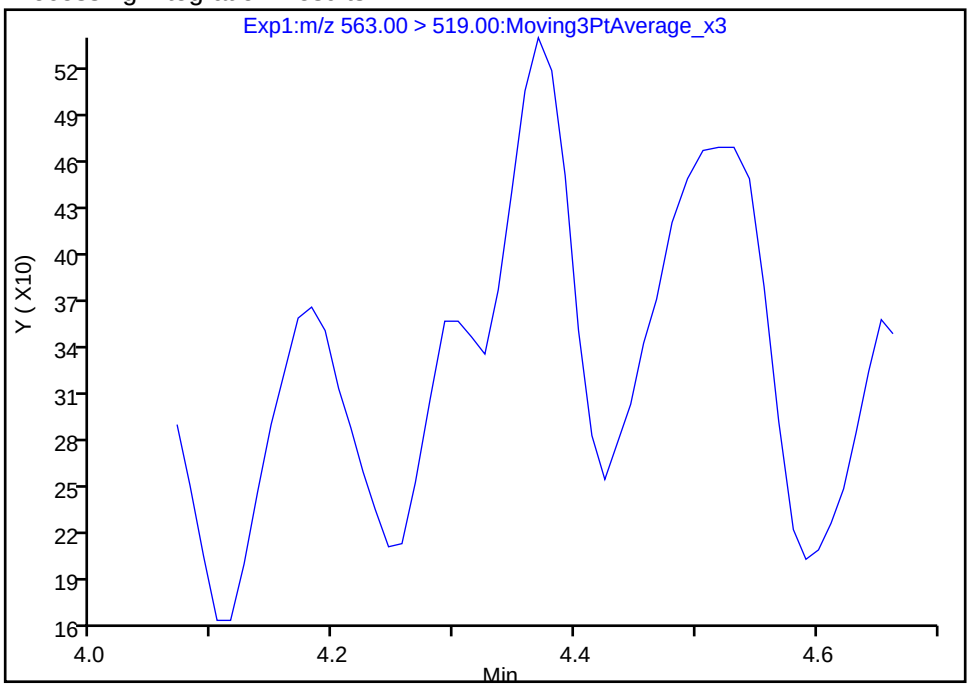
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

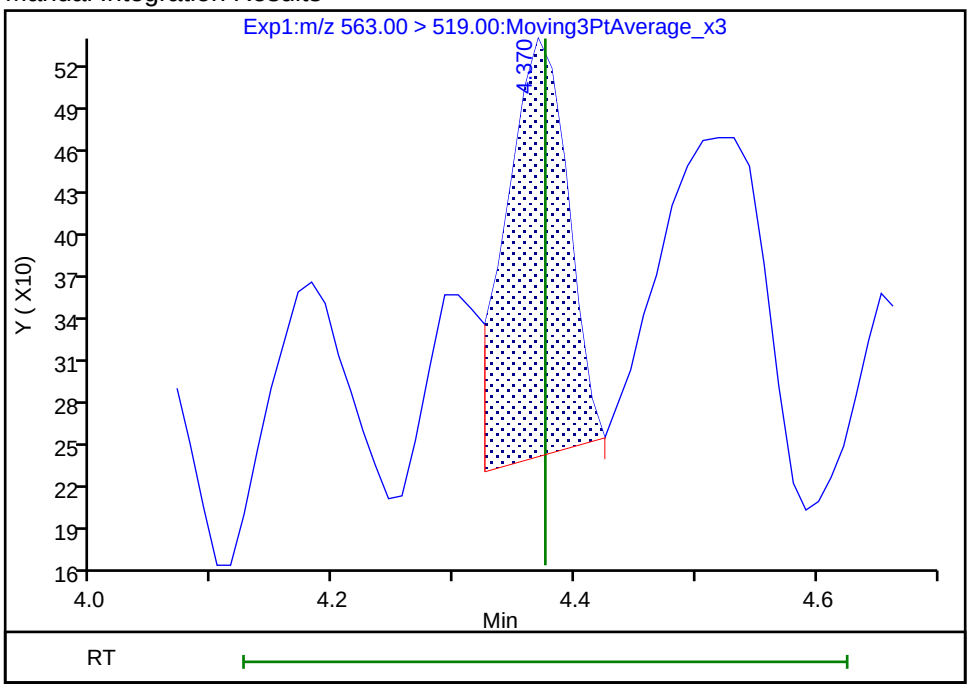
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1036
Amount: 0.001619
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

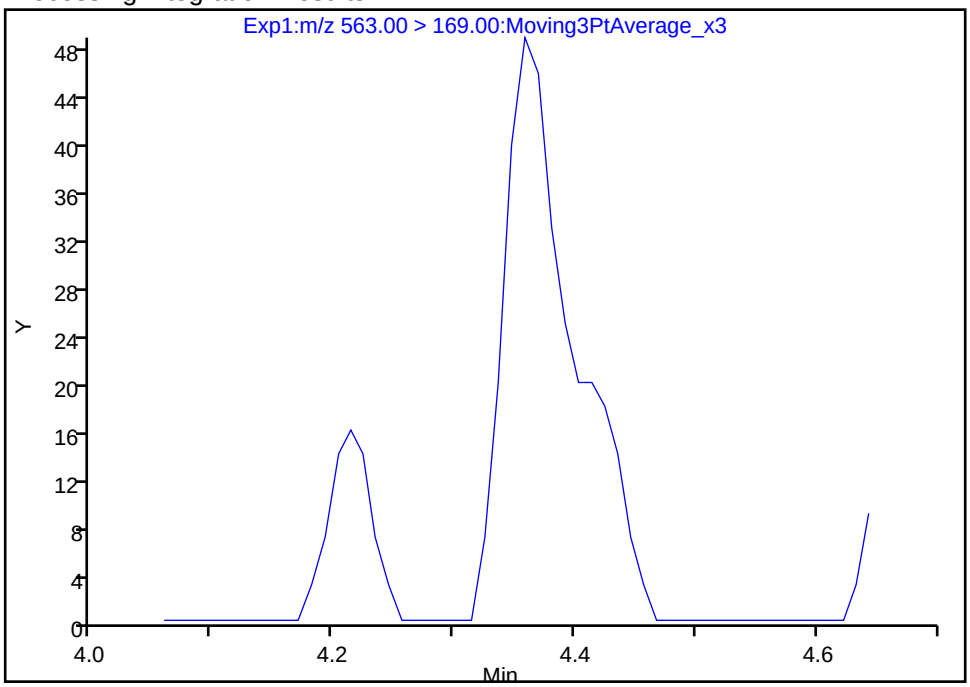
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

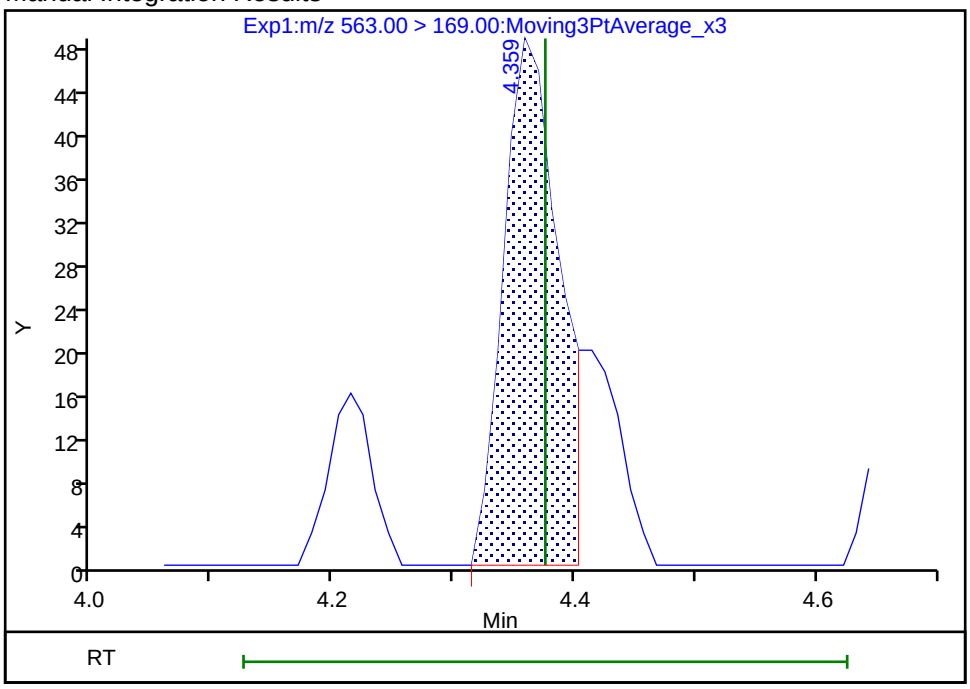
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 152
Amount: 0.001619
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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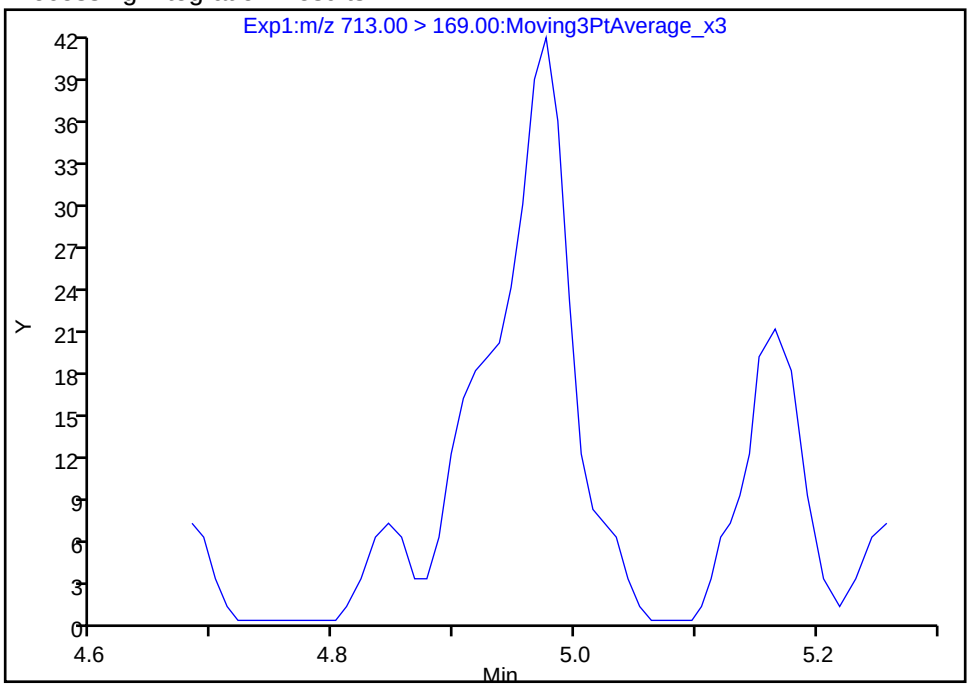
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

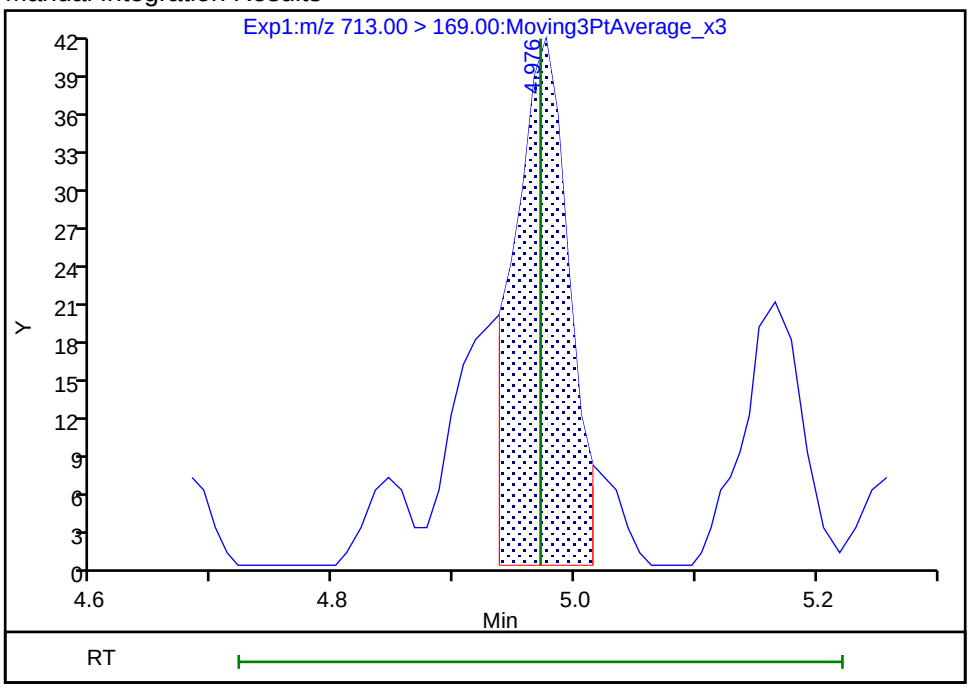
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 127
Amount: 0.001722
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

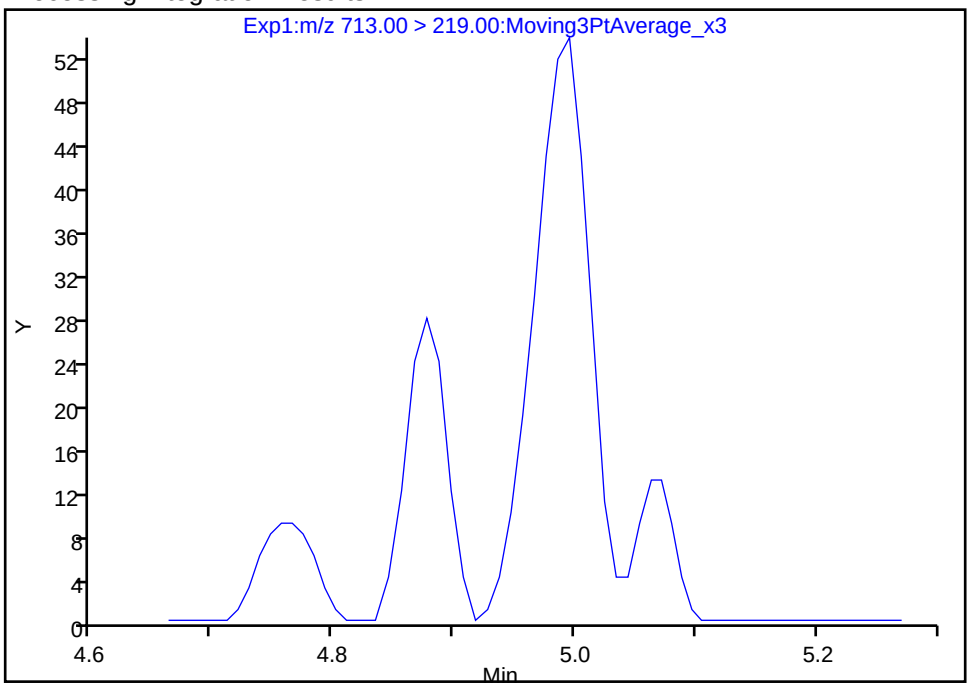
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

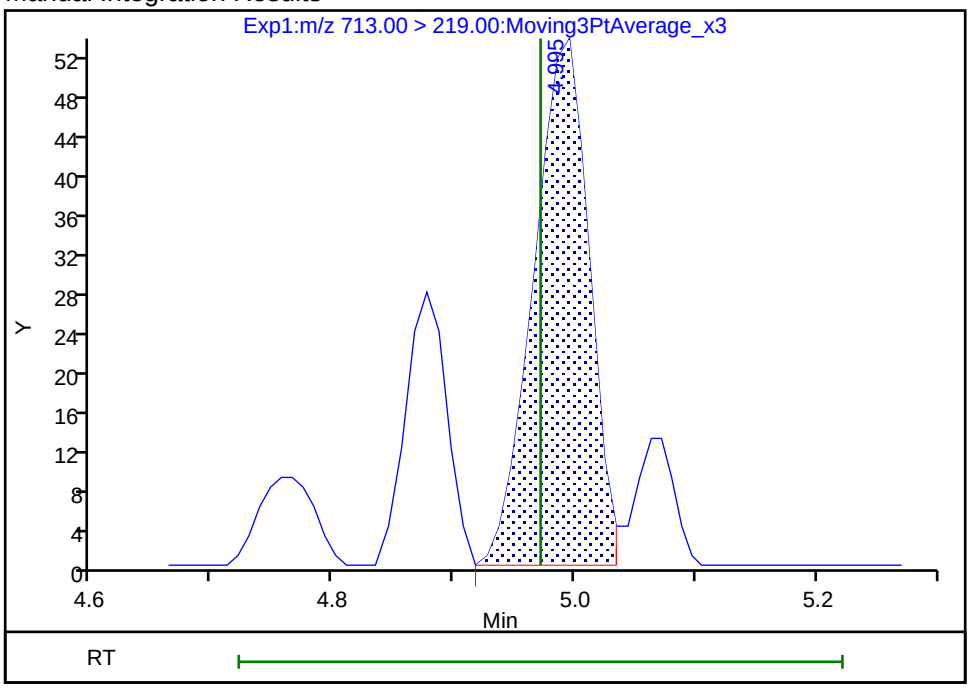
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 5.00
Area: 172
Amount: 0.001722
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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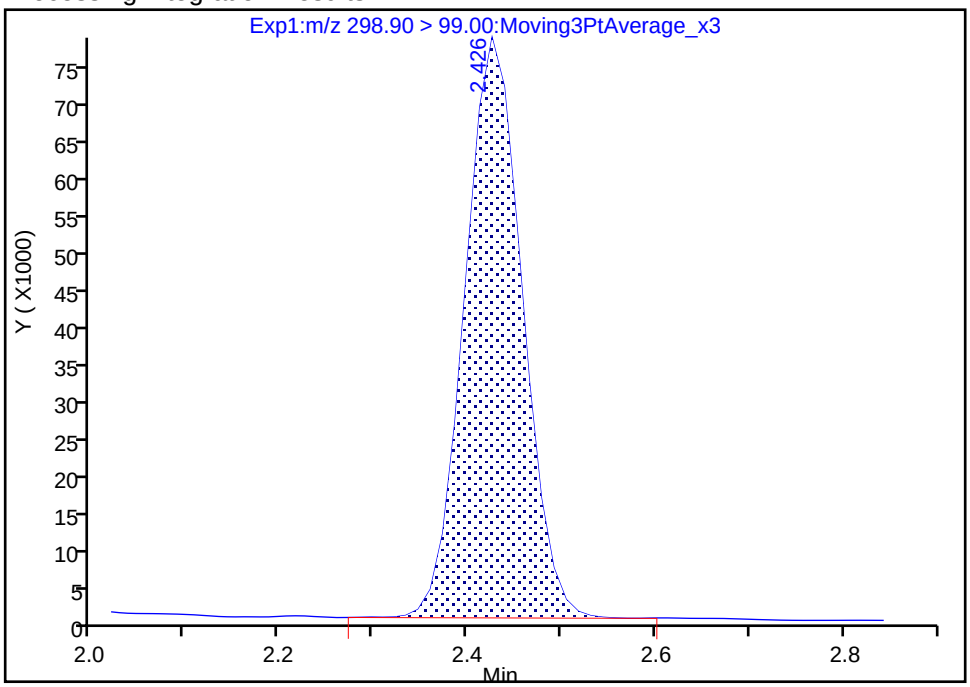
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

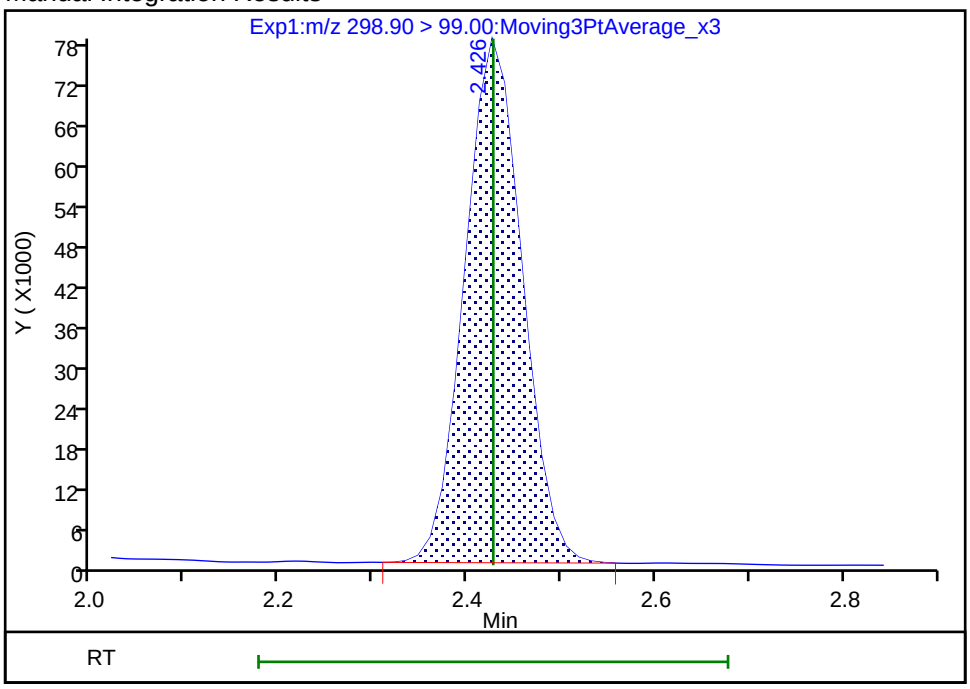
Processing Integration Results

RT: 2.43
Area: 330566
Amount: 0.545826
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 329816
Amount: 0.545826
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

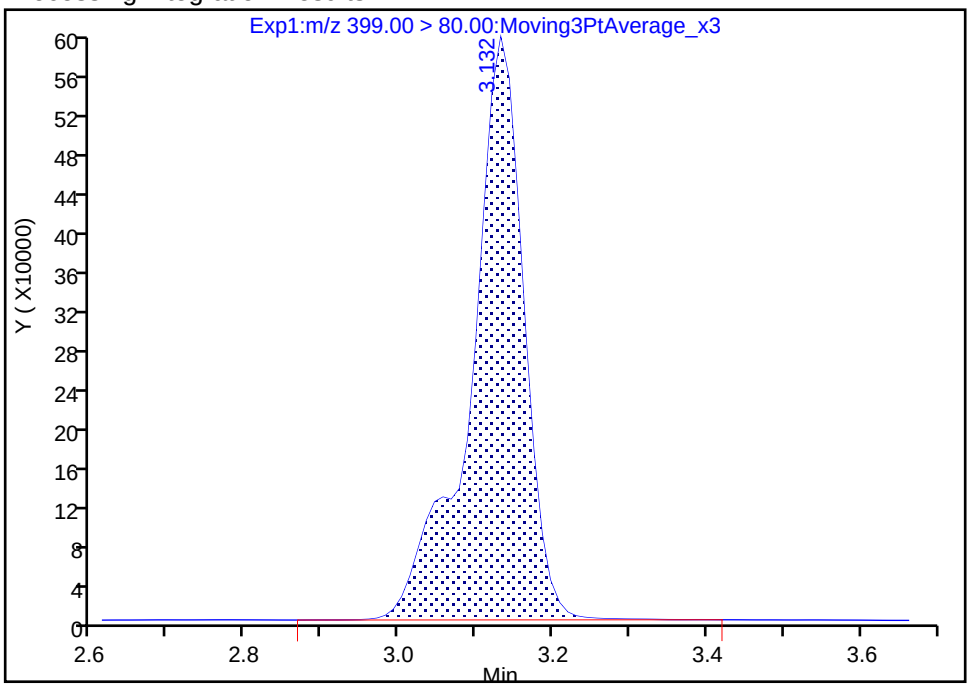
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

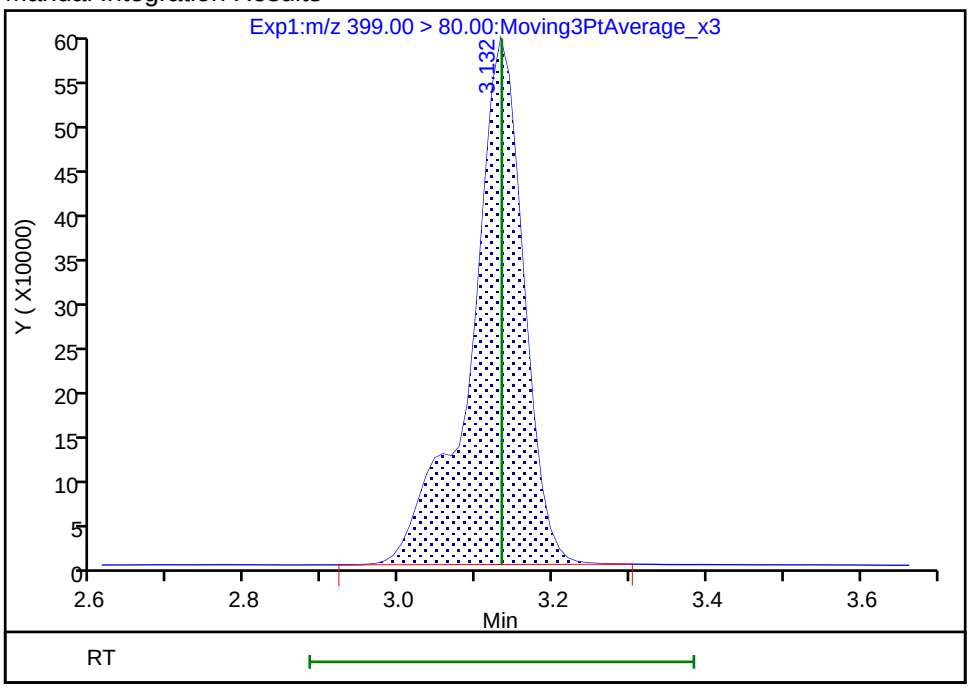
Processing Integration Results

RT: 3.13
Area: 2834840
Amount: 2.812065
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2825028
Amount: 2.802332
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

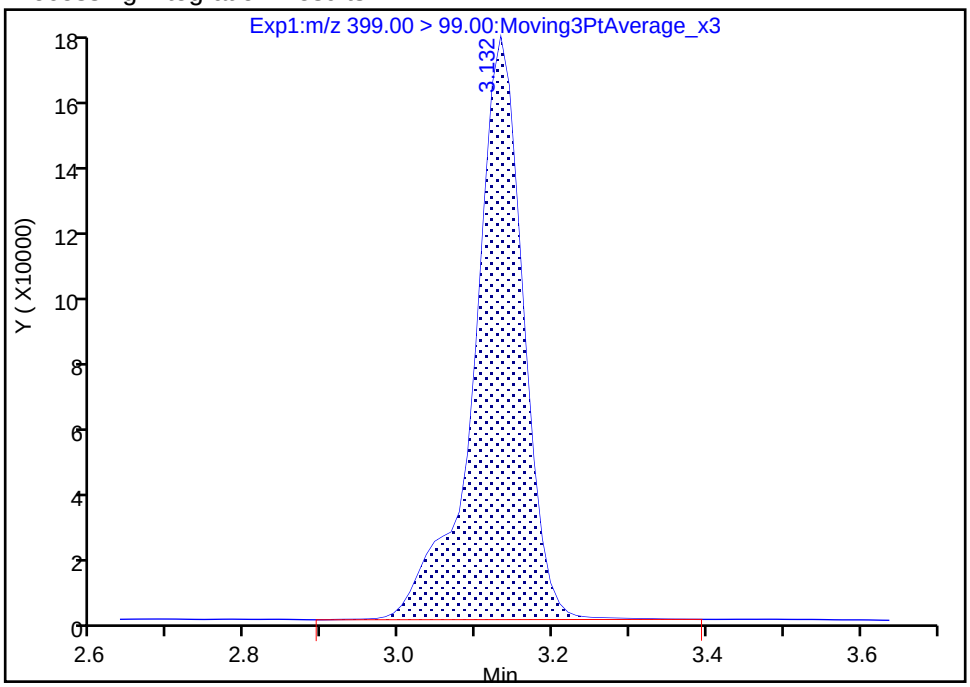
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

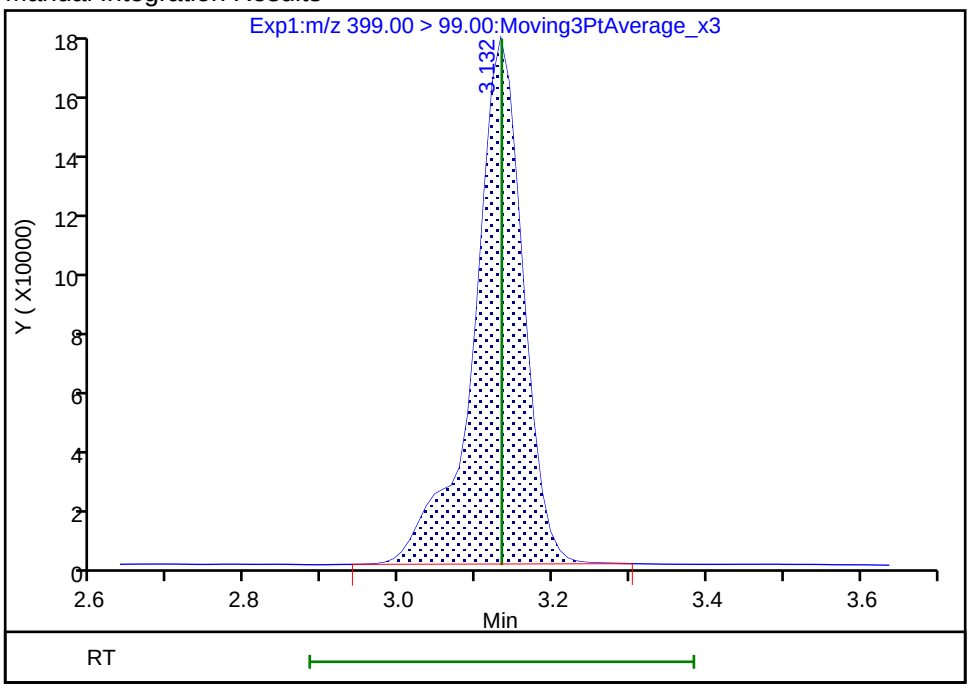
Processing Integration Results

RT: 3.13
Area: 770162
Amount: 2.812065
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 765757
Amount: 2.802332
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:33:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

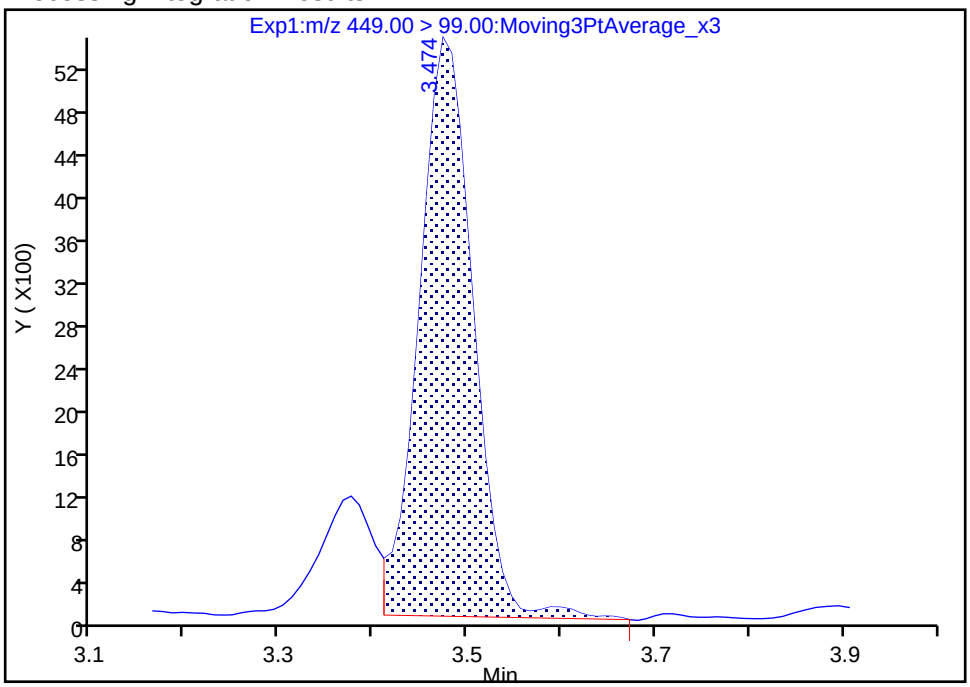
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

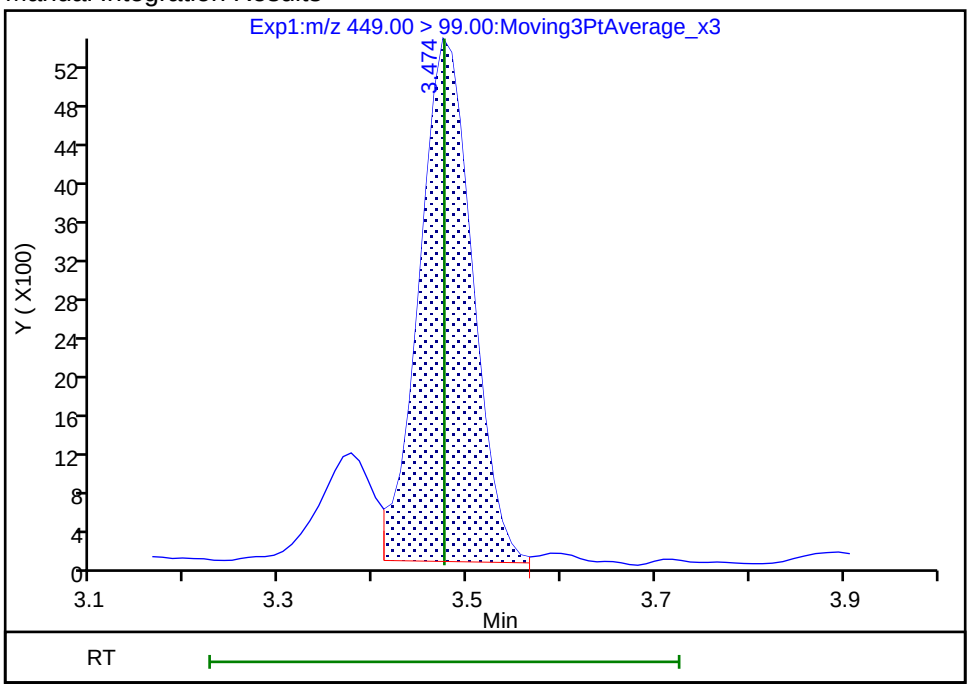
Processing Integration Results

RT: 3.47
Area: 21231
Amount: 0.116401
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 20878
Amount: 0.116401
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

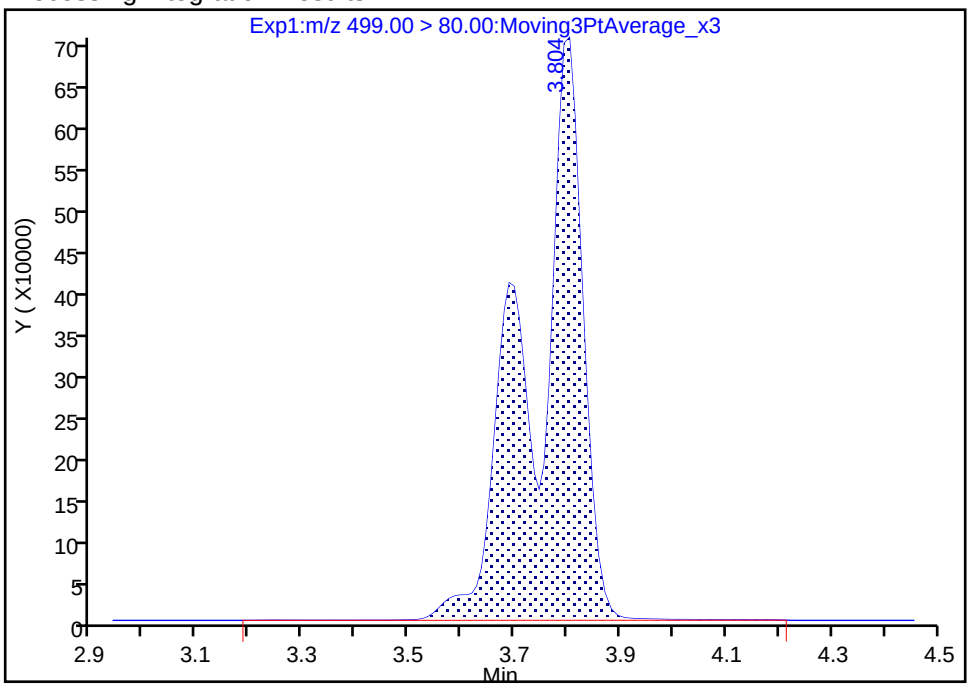
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

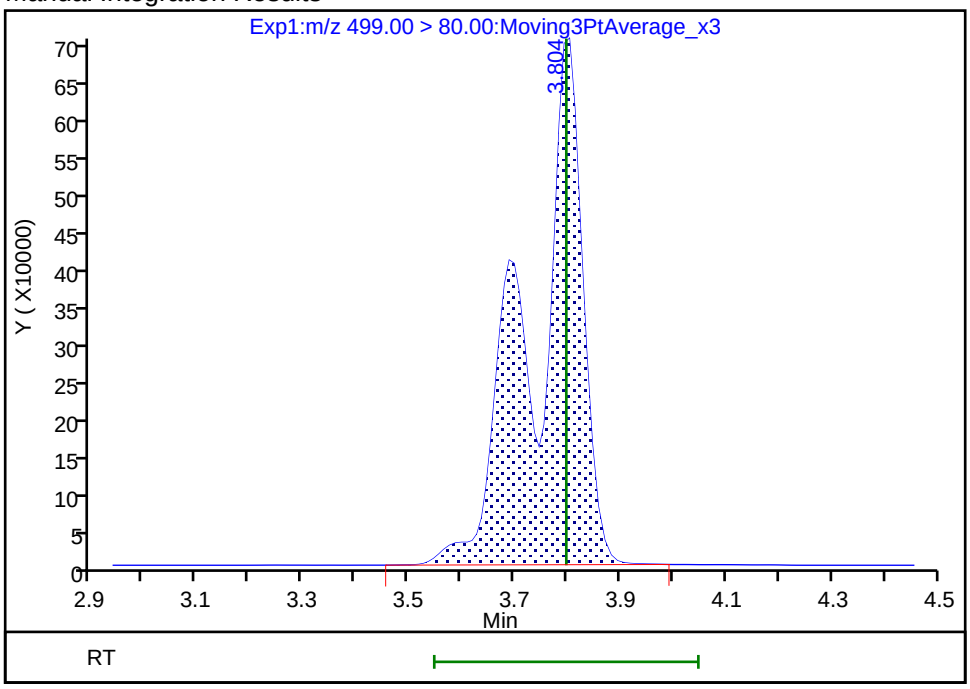
Processing Integration Results

RT: 3.80
Area: 4751006
Amount: 7.131359
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 4727162
Amount: 7.095569
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

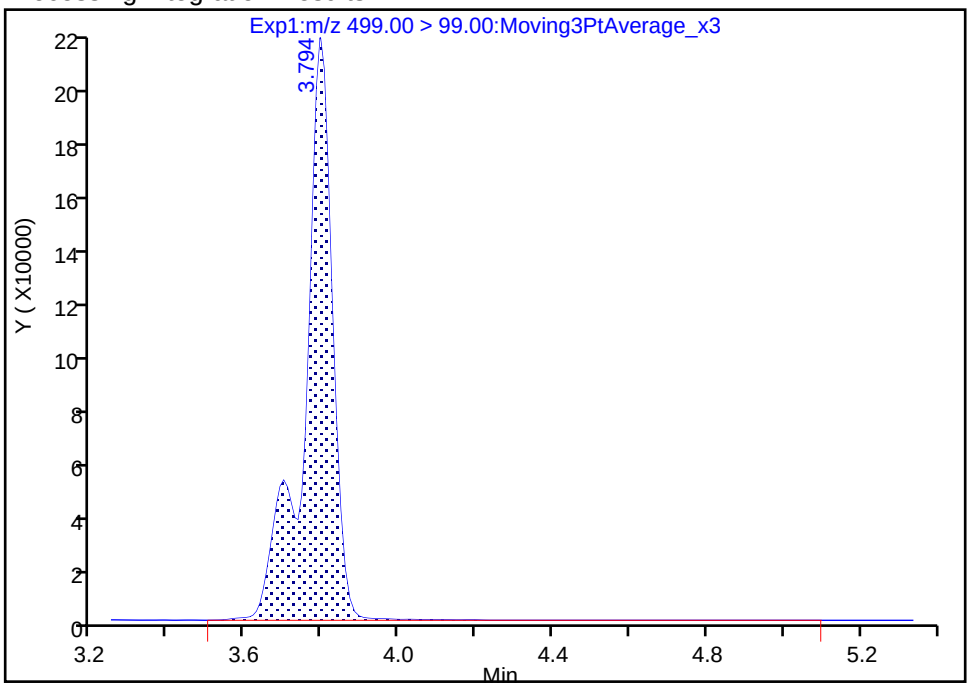
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

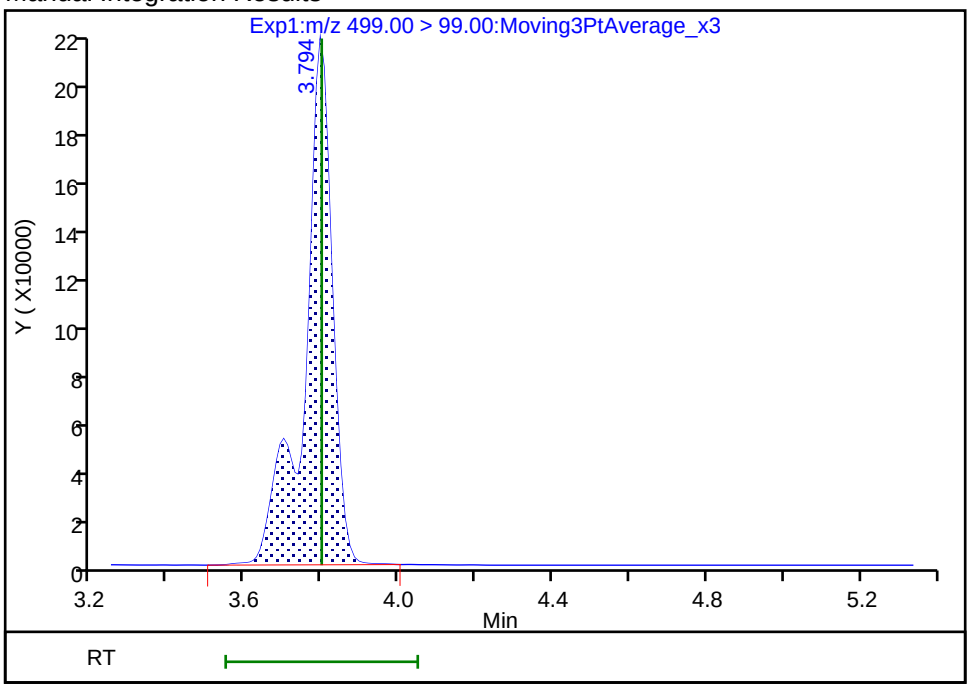
Processing Integration Results

RT: 3.79
Area: 1079219
Amount: 7.131359
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1072982
Amount: 7.095569
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

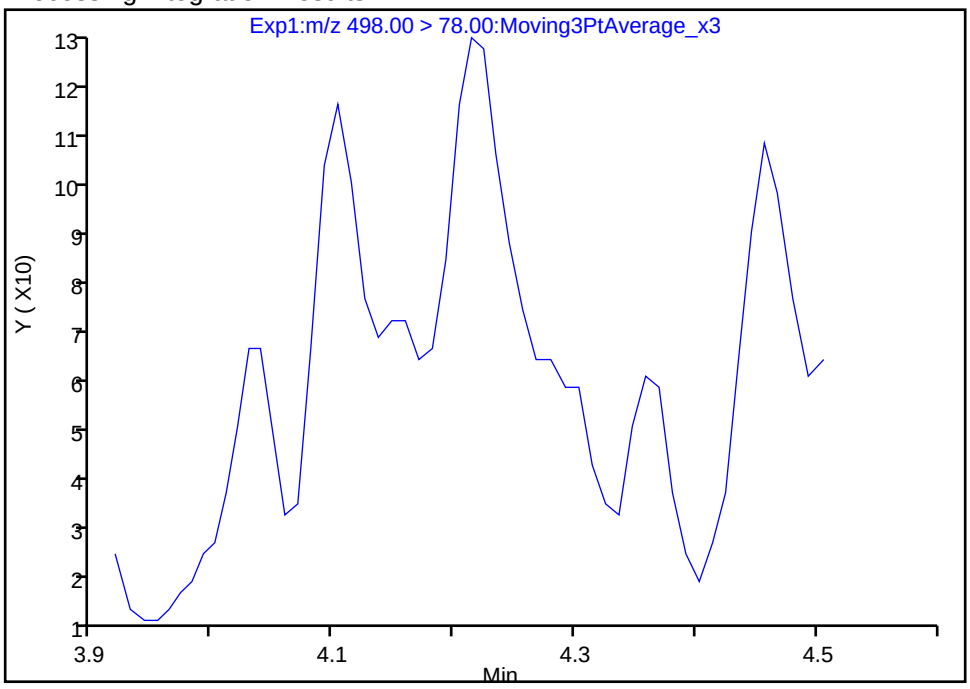
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

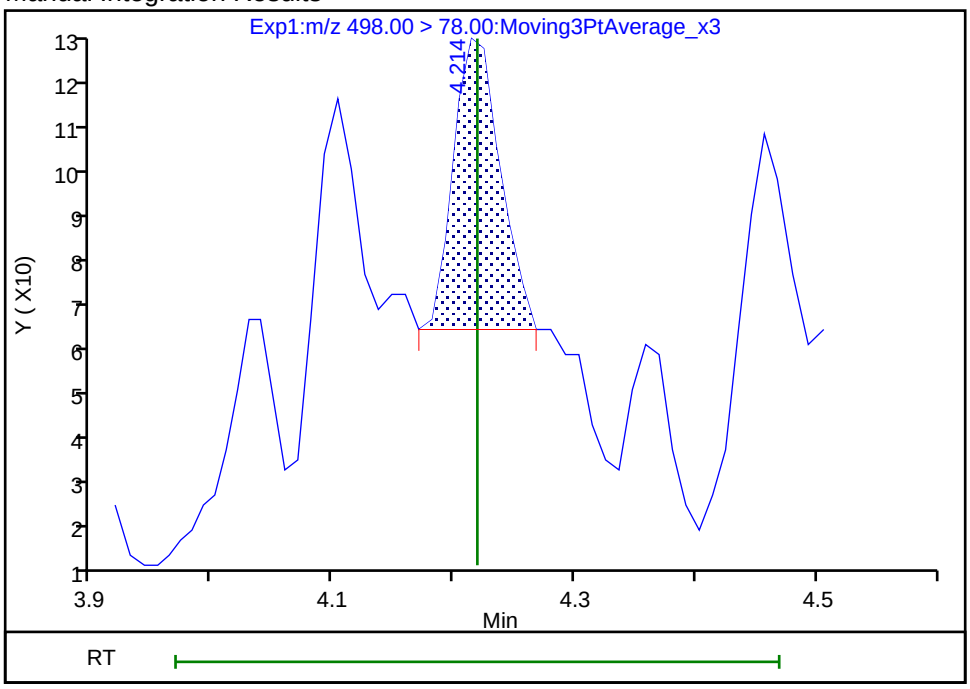
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 155
Amount: 0.000177
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

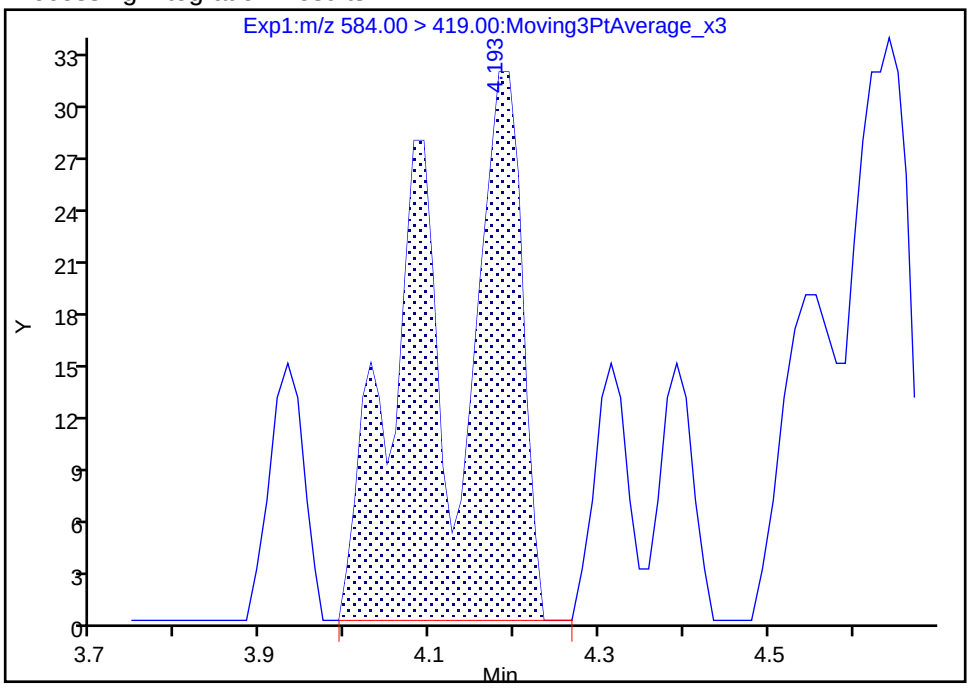
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

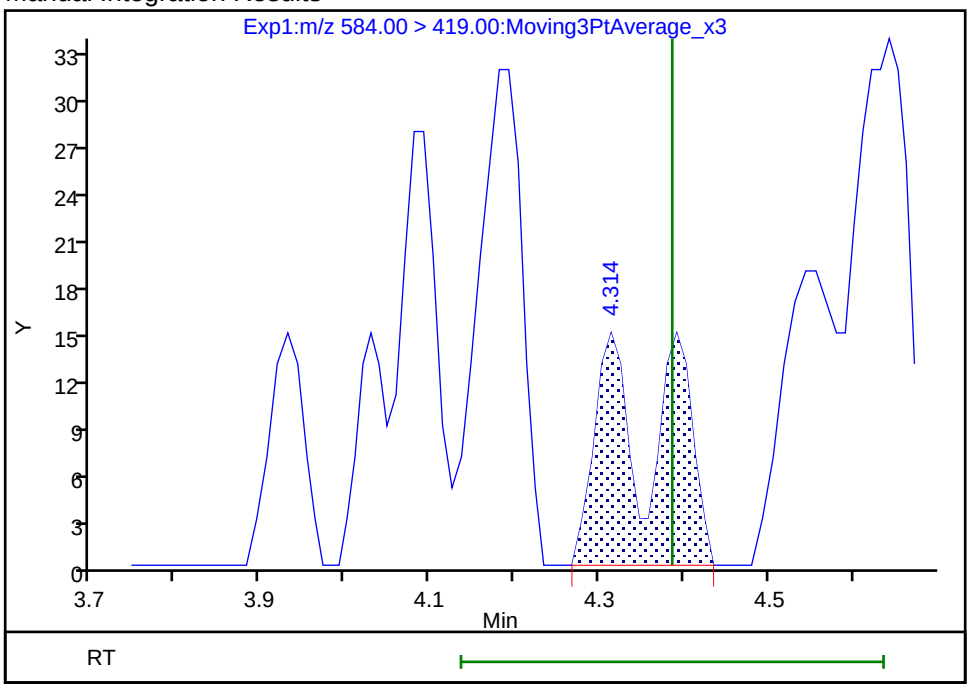
Processing Integration Results

RT: 4.19
Area: 229
Amount: 0.003075
Amount Units: ng/ml




Manual Integration Results

RT: 4.31
Area: 81
Amount: 0.001088
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

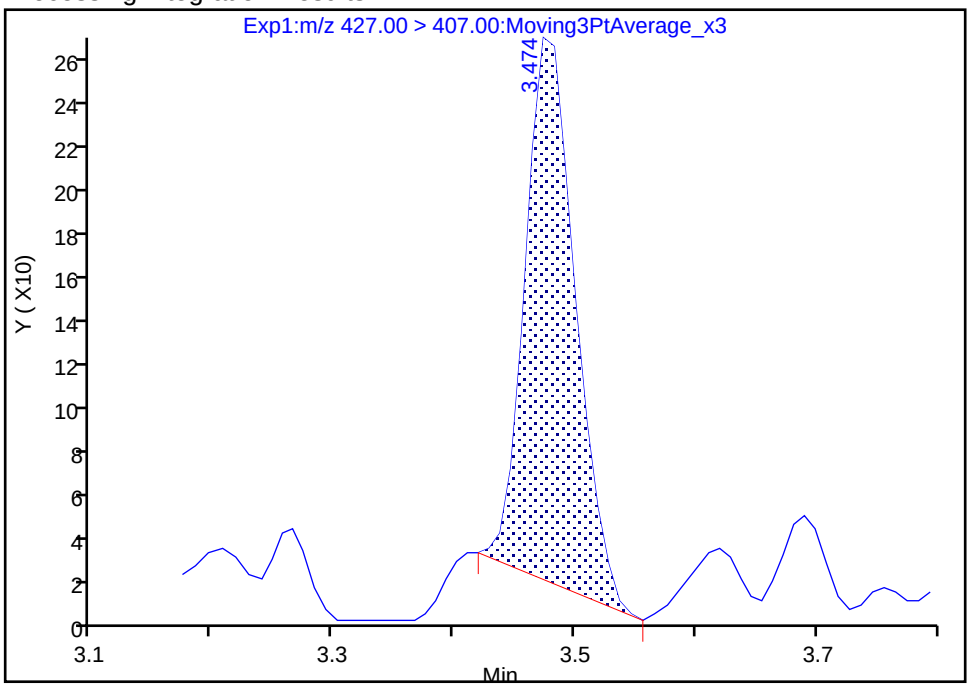
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

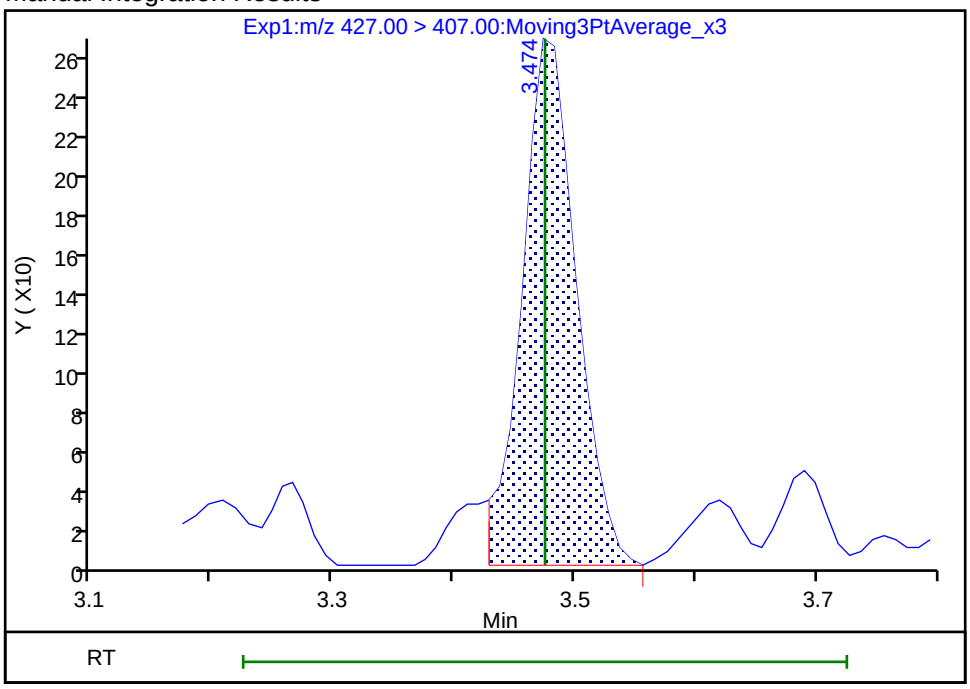
Processing Integration Results

RT: 3.47
Area: 720
Amount: 0.003630
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 830
Amount: 0.004185
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:34:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

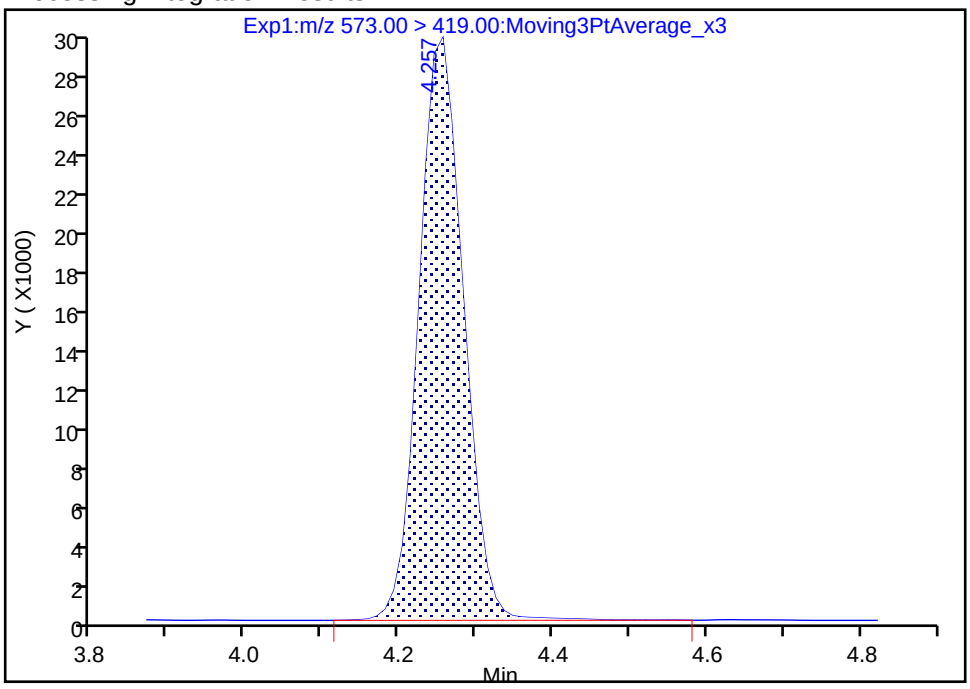
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A17.d | | | | |
| Injection Date: | 10-Nov-2021 13:33:36 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-26-A | Lab Sample ID: | 200-246277-26 | | |
| Client ID: | MW-4S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 17 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

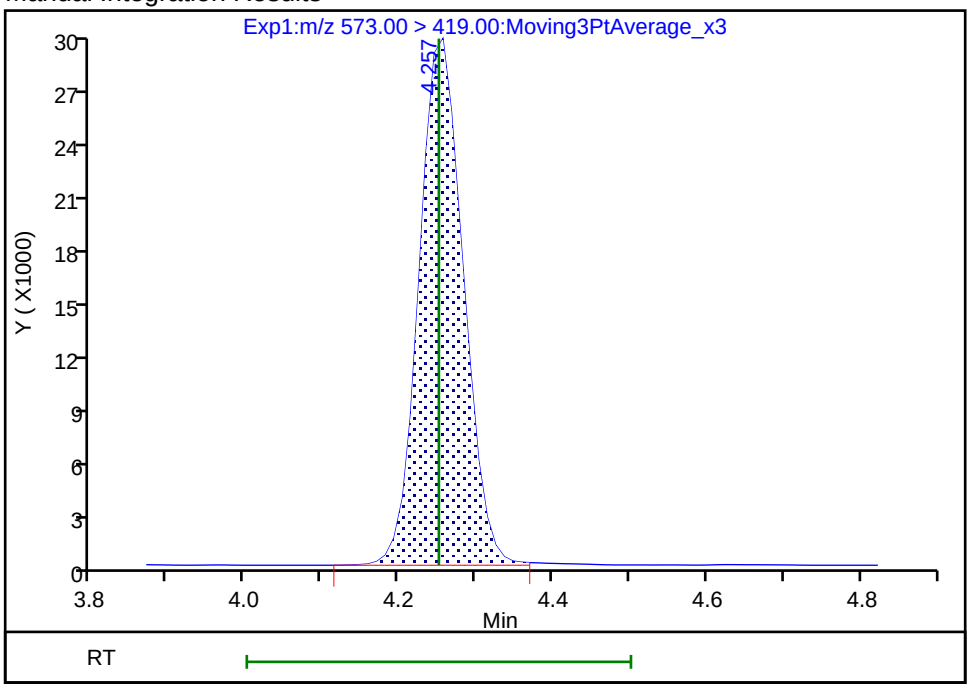
Processing Integration Results

RT: 4.26
Area: 118008
Amount: 1.031397
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 117474
Amount: 1.026730
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:32:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-3S-20211029  Lab Sample ID: 460-246277-27

Matrix: Water  Lab File ID: PA211110A19.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 268.3(mL)  Date Analyzed: 11/10/2021 13:49

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 3.95 | J | 4.66 | 0.83 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 2.64 | | 1.86 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 3.47 | | 1.86 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 1.96 | | 1.86 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 6.19 | | 1.86 | 0.40 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.26 | U | 1.86 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.28 | U | 1.86 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.86 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.36 | U | 1.86 | 0.36 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.86 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.59 | U | 1.86 | 0.59 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 5.05 | B | 1.86 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 16.1 | | 1.86 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.60 | J | 1.86 | 0.22 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 26.0 | | 1.86 | 0.27 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.29 | U | 1.86 | 0.29 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.54 | U | 1.86 | 0.54 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.92 | J | 4.66 | 0.84 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.87 | J | 4.66 | 0.69 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.02 | U | 4.66 | 1.02 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.86 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-3S-20211029  Lab Sample ID: 460-246277-27

Matrix: Water  Lab File ID: PA211110A19.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 268.3(mL)  Date Analyzed: 11/10/2021 13:49

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 97 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 94 | | 50-150 |
| STL00995 | 13C5 PFNA | 89 | | 50-150 |
| STL00992 | 13C4 PFBA | 113 | | 25-150 |
| STL00993 | 13C2 PFHxA | 100 | | 50-150 |
| STL00996 | 13C2 PFDA | 75 | | 50-150 |
| STL00997 | 13C2 PFUnA | 68 | | 50-150 |
| STL00998 | 13C2 PFDoA | 61 | | 50-150 |
| STL01056 | 13C8 FOSA | 88 | | 25-150 |
| STL01893 | 13C5 PFPeA | 103 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 65 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 86 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 79 | | 50-150 |
| STL02279 | M2-6:2 FTS | 106 | | 25-150 |
| STL02280 | M2-8:2 FTS | 96 | | 25-150 |
| STL02337 | 13C3 PFBS | 97 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d
Lims ID: 460-246277-C-27-A
Client ID: MW-3S-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 13:49:58 ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-27-A
Misc. Info.: 200-0048360-019 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:39:23
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1620009 | 1.42 | | 113 | 2283 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 130004 | 0.1061 | | | 22.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1243260 | 1.29 | | 103 | 2626 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 70591 | 0.0709 | | | 2.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1471386 | 1.13 | | 97.2 | 127996 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 183328 | 0.1356 | Target=2.32 | | 46.1 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 86376 | | 2.12(1.16-3.48) | | 33.7 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1260889 | 1.25 | | 100.0 | 4421 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 95305 | 0.0932 | Target=12.09 | | 13.9 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 7126 | | 13.37(6.04-18.13) | | 7.5 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 437261 | 0.4314 | Target=3.55 | | 401 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 112832 | | 3.88(1.77-5.32) | | 122 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1090224 | 1.15 | | 97.5 | 2567 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1289917 | 1.21 | | 97.1 | 2886 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 55987 | 0.0525 | Target=3.69 | | 14.7 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 15525 | | 3.61(1.84-5.53) | | 26.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 12901 | 0.0161 | Target=4.88 | | 14.6 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 2552 | | 5.06(2.44-7.32) | | 9.2 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 1189 | 0.005906 | | | 16.9 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 188530 | 1.26 | | 106 | 286 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1382685 | 1.19 | | 95.3 | 4457 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1410098 | 1.25 | | | 3346 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 195293 | 0.1660 | Target=2.68 | | 24.8 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 77524 | | 2.52(1.34-4.02) | | 152 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 768763 | 1.12 | | 94.1 | 2175 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 486439 | 0.6969 | Target=4.69 | | 341 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 97635 | | 4.98(2.35-7.04) | | 398 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1282248 | 1.11 | | 88.7 | 3248 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 6754 | 0.006730 | Target=7.29 | | 1.5 | M |
| 463.00 > 169.00 | 3.814 | 3.818 | -0.004 | 0.997 | 957 | | 7.06(3.64-10.93) | | 7.3 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1093910 | 0.9375 | | 75.0 | 2477 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 2924 | 0.003325 | Target=8.95 | | 2.1 | M |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 481 | | 6.08(4.47-13.42) | | 3.1 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 193925 | 1.15 | | 95.8 | 588 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 433 | 0.003196 | | | 8.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 1237180 | 1.10 | | 87.9 | 3977 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 3170 | 0.003373 | | | 14.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 123715 | 1.08 | | 86.2 | 1096 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.251 | 0.017 | 1.003 | 1925 | 0.0248 | | | 14.7 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.359 | 4.342 | 0.016 | 1.146 | 523 | 0.001237 | Target=2.47 | | 4.1 | M |
| 599.00 > 99.00 | 4.359 | 4.342 | 0.016 | 1.146 | 163 | | 3.21(1.23-3.70) | | 2.1 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.375 | 0.006 | 1.255 | 767829 | 0.8443 | | 67.5 | 3019 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.381 | 4.375 | 0.006 | 1.000 | 2294 | 0.003503 | Target=9.24 | | 1.4 | M |
| 563.00 > 169.00 | 4.381 | 4.375 | 0.006 | 1.000 | 200 | | 11.47(4.62-13.86) | | 3.2 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.375 | 0.006 | 1.255 | 105581 | 0.9821 | | 78.6 | 969 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.392 | 4.387 | 0.005 | 1.003 | 1698 | 0.0235 | | | 22.9 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.598 | 0.004 | 1.318 | 749160 | 0.7658 | | 61.3 | 1655 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 614306 | 0.8097 | | 64.8 | 1406 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.986 | 4.972 | 0.014 | 1.002 | 459 | 0.005918 | Target=1.01 | | 9.5 | RM |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 246 | | 1.87(0.51-1.52) | | 11.3 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:36 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d

Injection Date: 10-Nov-2021 13:49:58 Instrument ID: LC812

Lims ID: 460-246277-C-27-A Lab Sample ID: 200-246277-27

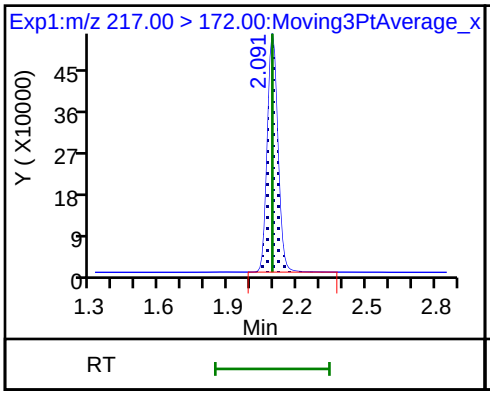
Client ID: MW-3S-20211029

Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19

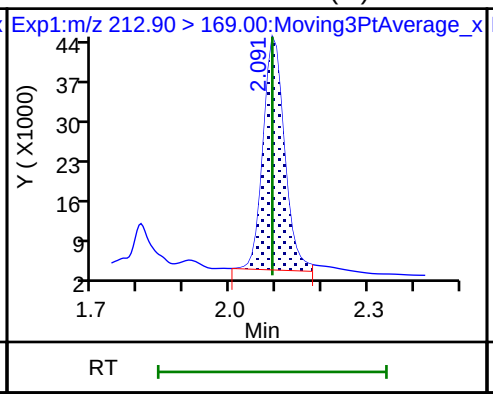
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

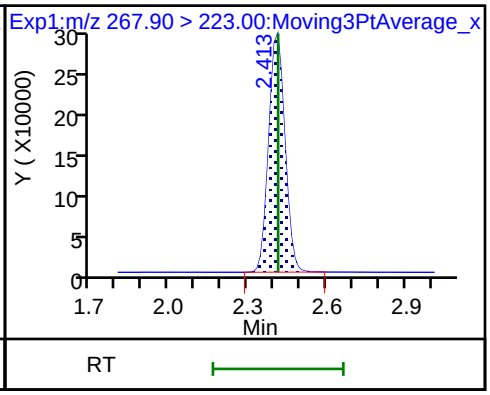
D 1 13C4 PFBA



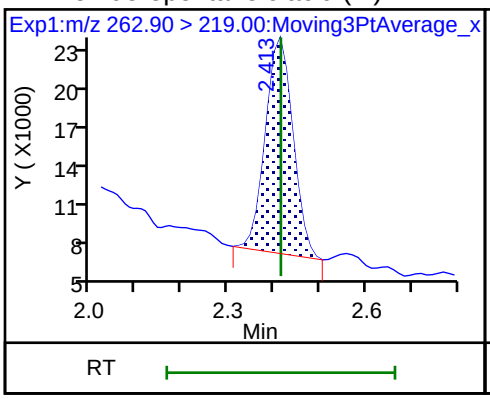

2 Perfluorobutanoic acid (M)



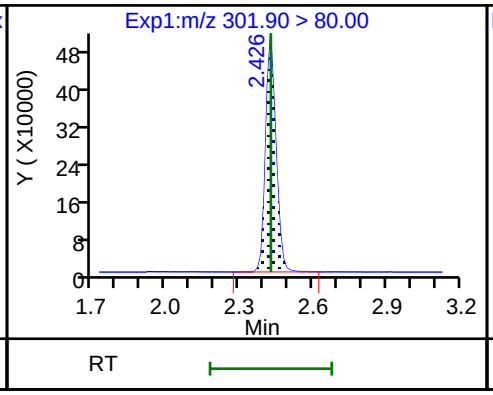

D 3 13C5 PFPeA



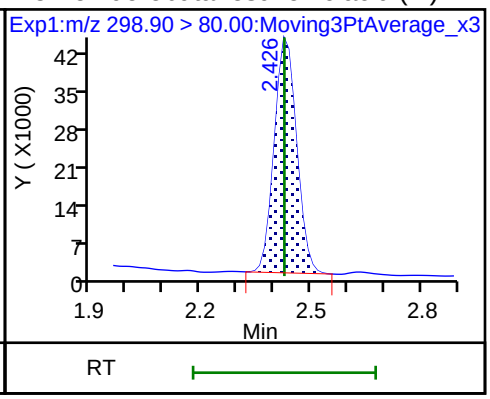

4 Perfluoropentanoic acid (M)



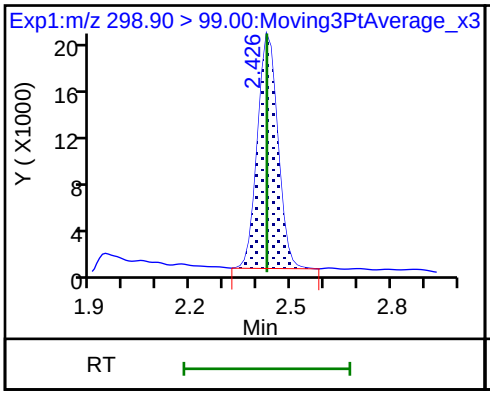

D 47 13C3 PFBS



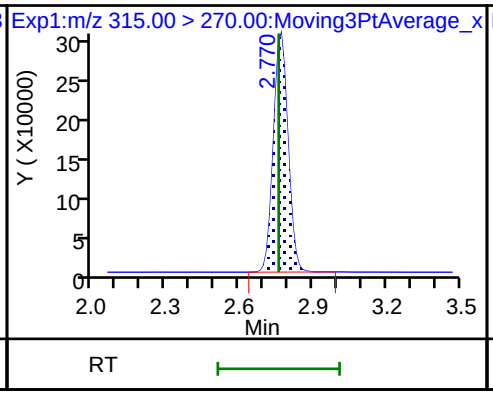

5 Perfluorobutanesulfonic acid (M)



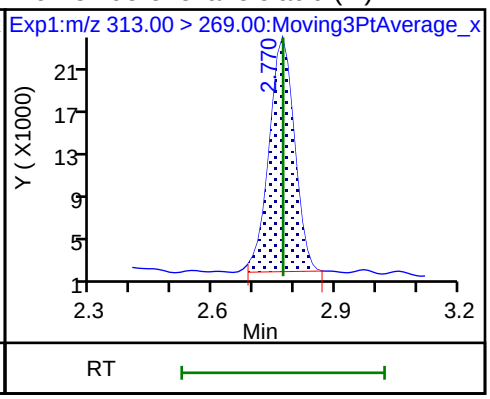

5 Perfluorobutanesulfonic acid



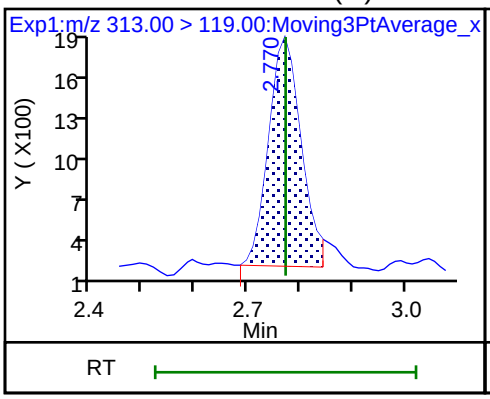

D 7 13C2 PFHxA



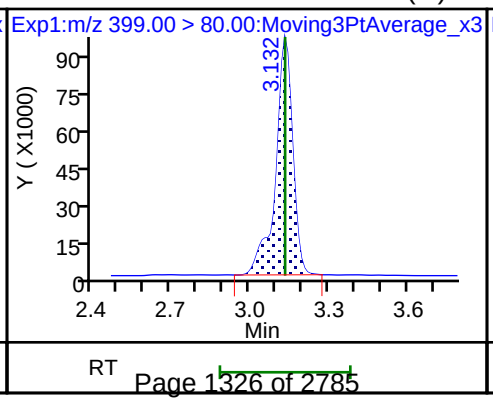

6 Perfluorohexanoic acid (M)



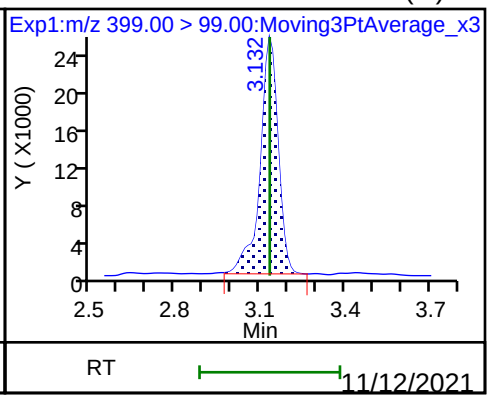

6 Perfluorohexanoic acid (M)



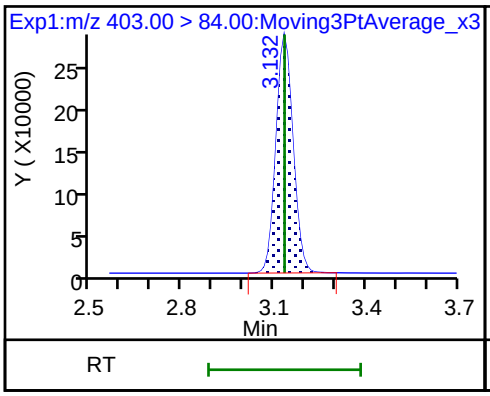

8 Perfluorohexanesulfonic acid (M)



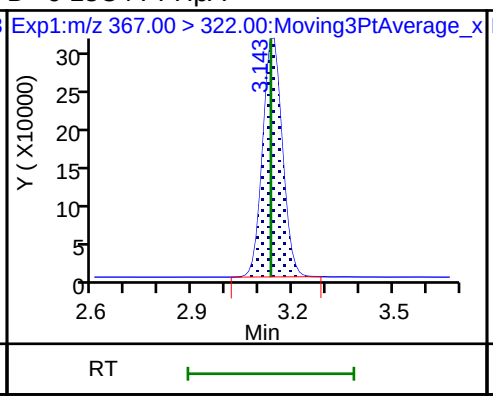

8 Perfluorohexanesulfonic acid (M)



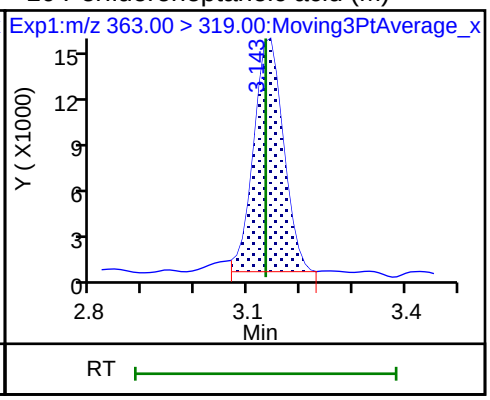
D 11 18O2 PFHxS



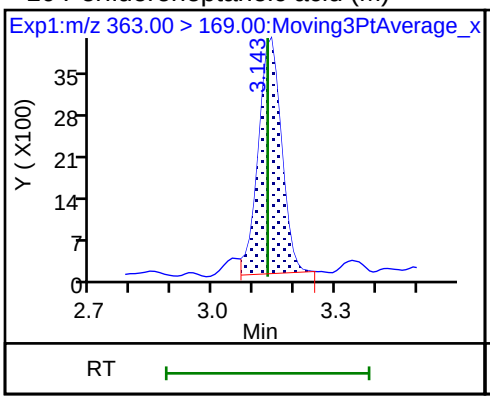

D 9 13C4 PFHpA



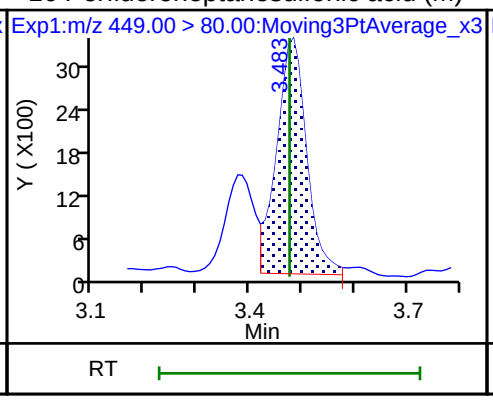

10 Perfluoroheptanoic acid (M)



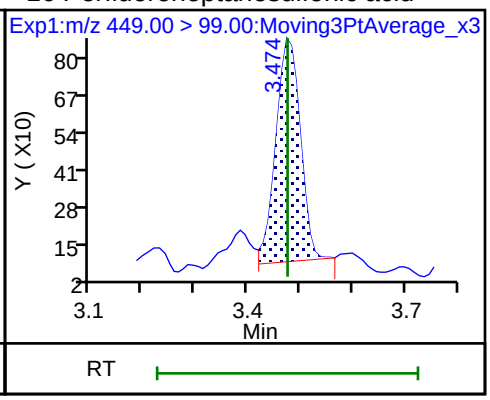

10 Perfluoroheptanoic acid (M)



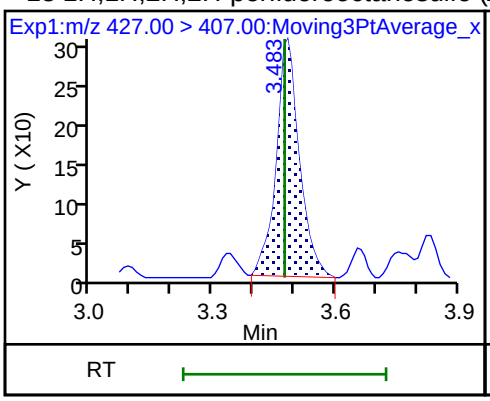

16 Perfluoroheptanesulfonic acid (M)



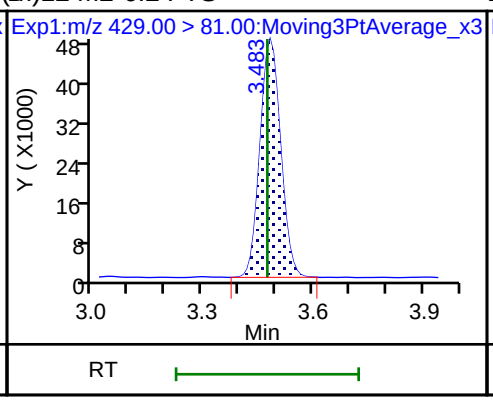

16 Perfluoroheptanesulfonic acid



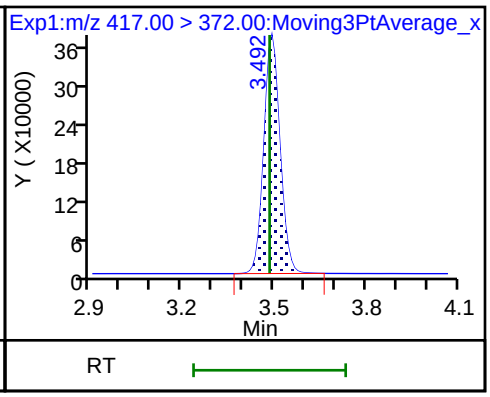

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



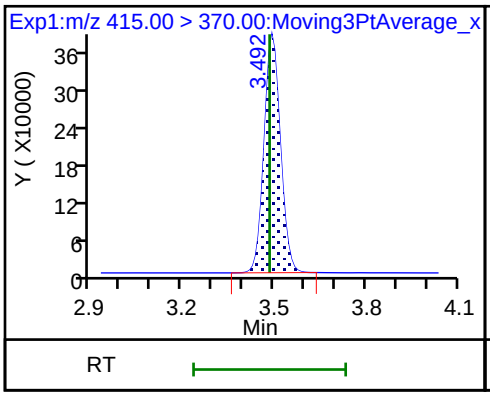

D 12 M2-6:2 FTS



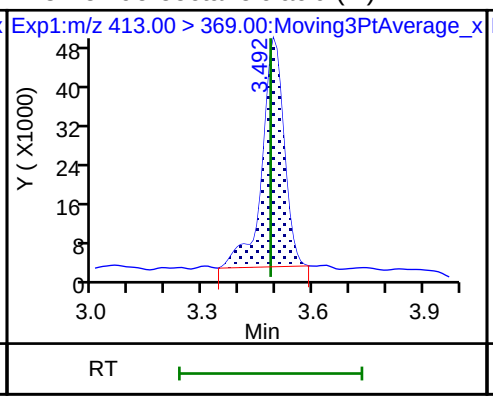

D 14 13C4 PFOA



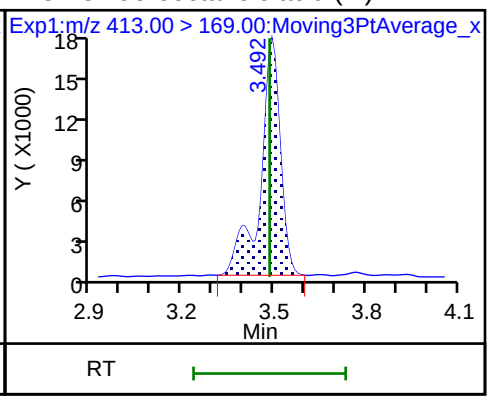

* 62 13C2 PFOA



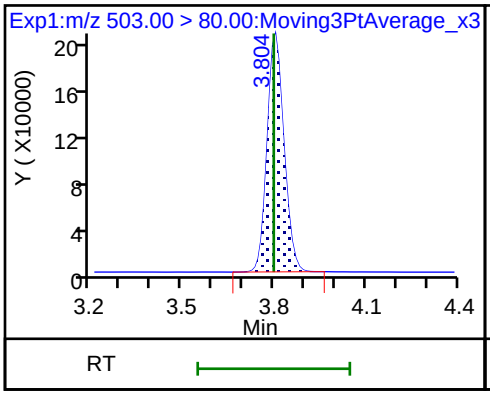

15 Perfluorooctanoic acid (M)



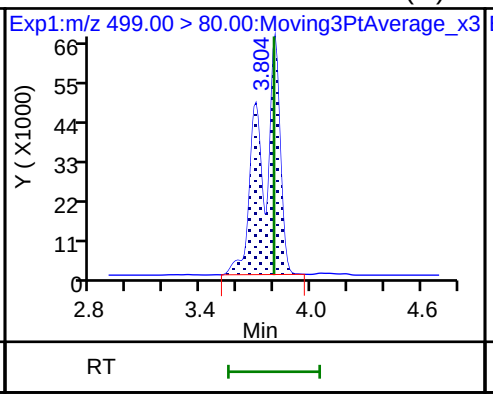

15 Perfluorooctanoic acid (M)



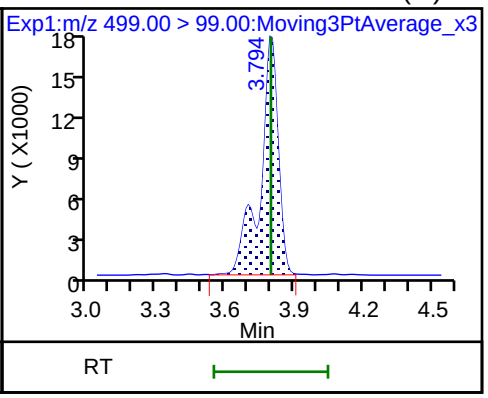
D 18 13C4 PFOS



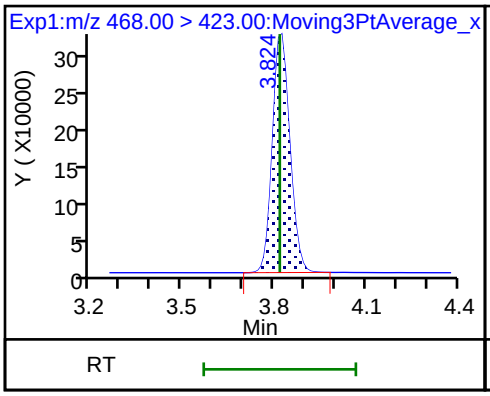

17 Perfluorooctanesulfonic acid (M)



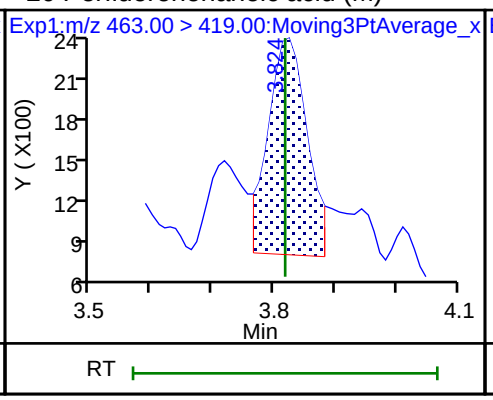

17 Perfluorooctanesulfonic acid (M)



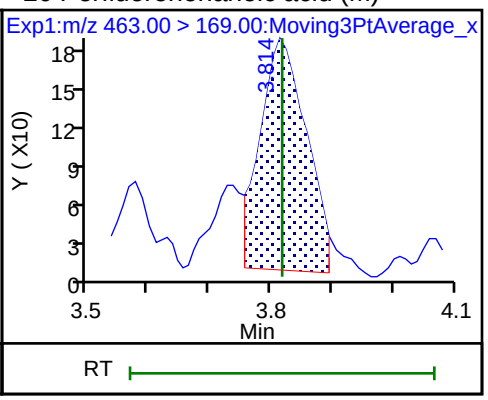

D 19 13C5 PFNA



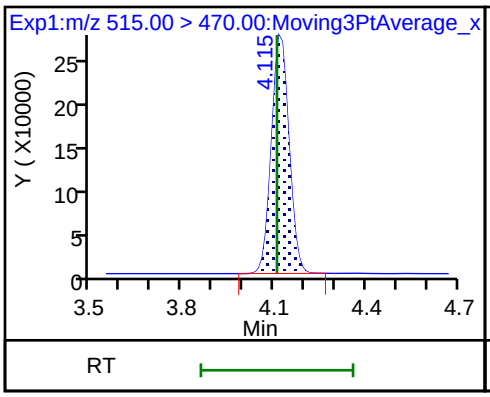

20 Perfluorononanoic acid (M)



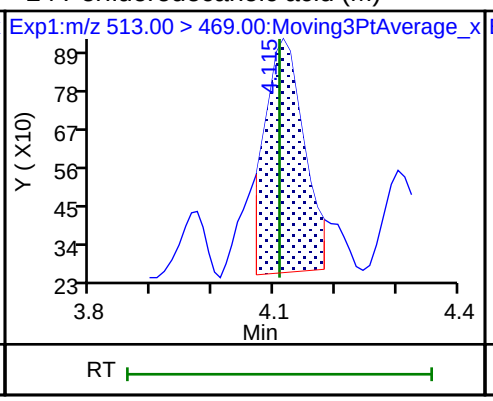

20 Perfluorononanoic acid (M)



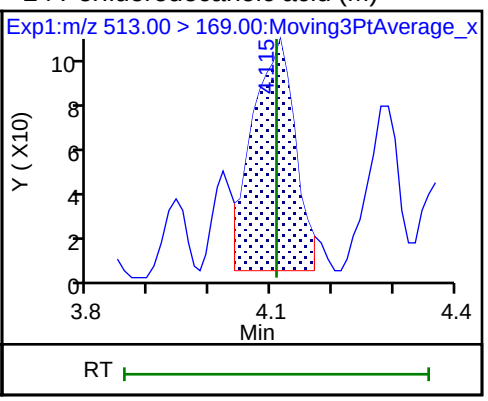

D 23 13C2 PFDA



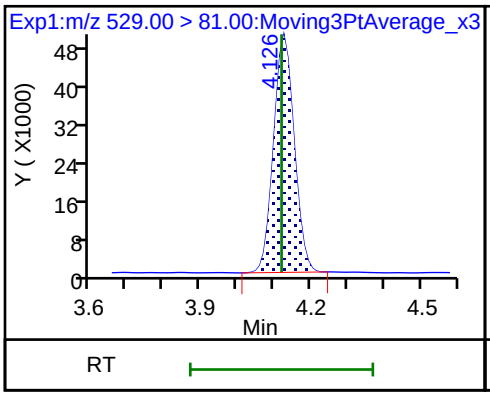

24 Perfluorodecanoic acid (M)



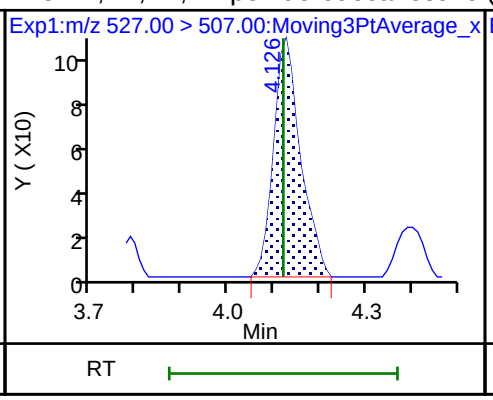

24 Perfluorodecanoic acid (M)




D 26 M2-8:2 FTS




25 1H,1H,2H,2H-perfluorodecanesulfo

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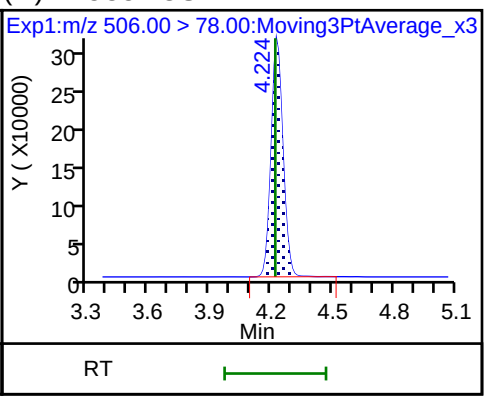
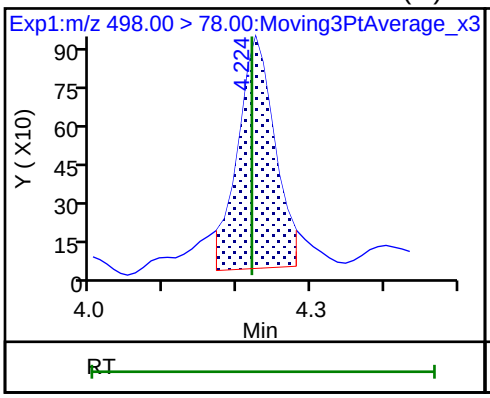
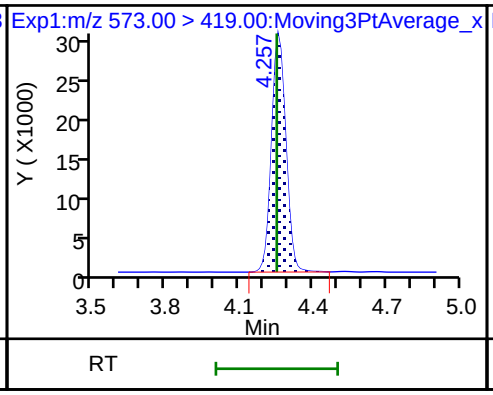


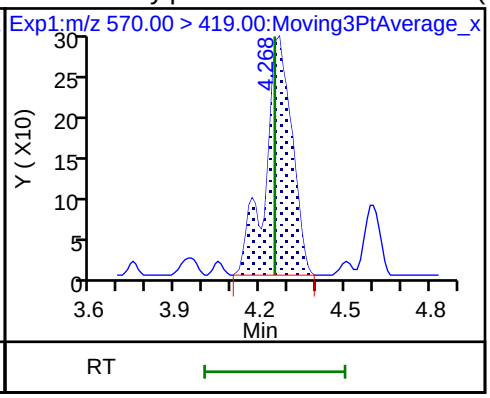
22 Perfluorooctanesulfonamide (M)



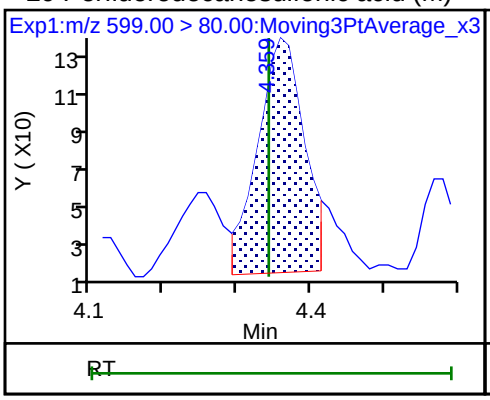

D 27 d3-NMeFOSAA



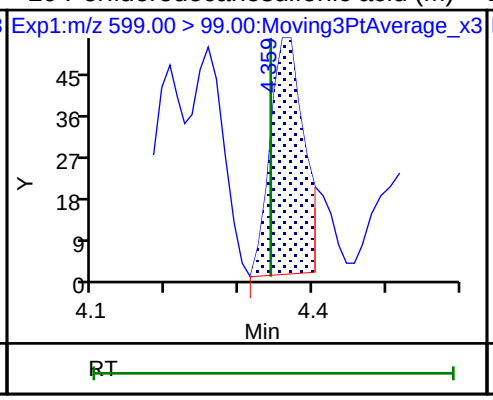

28 N-methylperfluorooctanesulfonami (M)



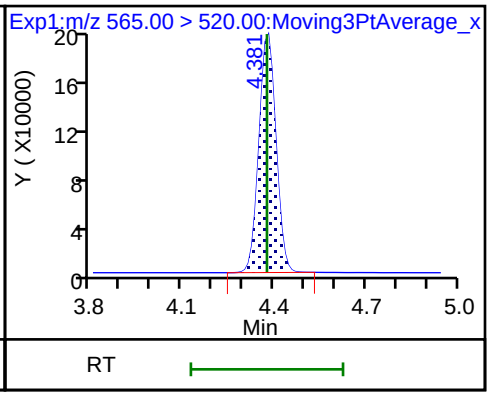

29 Perfluorodecanesulfonic acid (M)



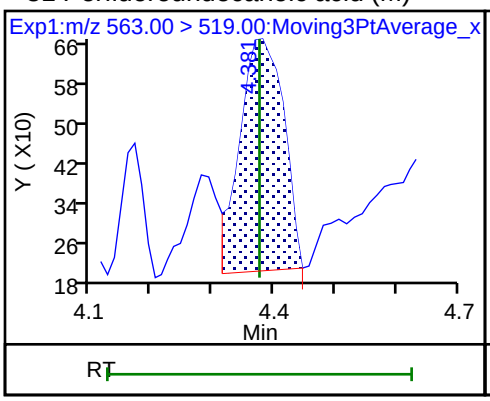

29 Perfluorodecanesulfonic acid (M)



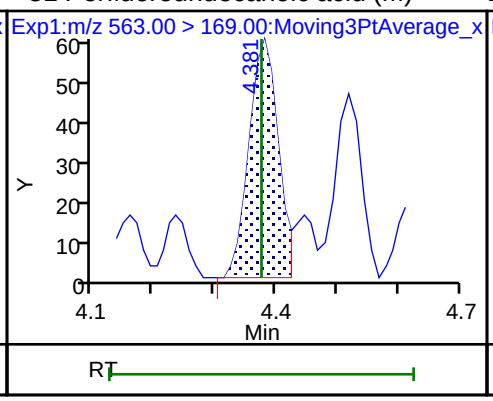

D 30 13C2 PFUnA



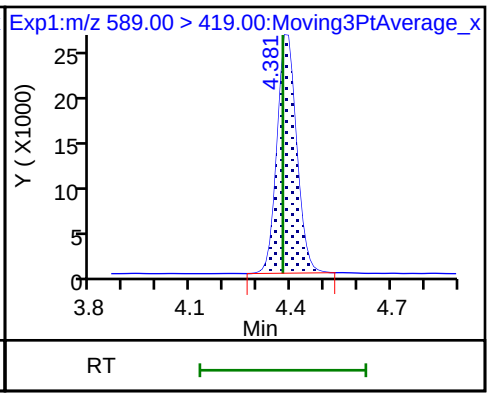

31 Perfluoroundecanoic acid (M)



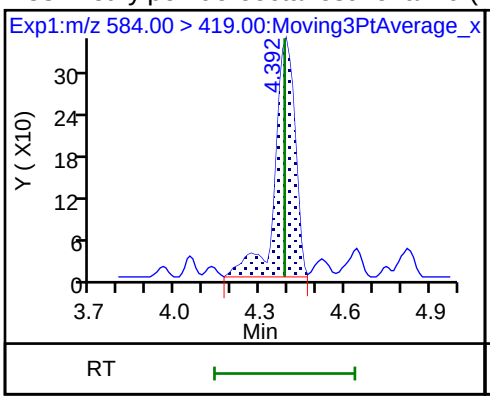

31 Perfluoroundecanoic acid (M)



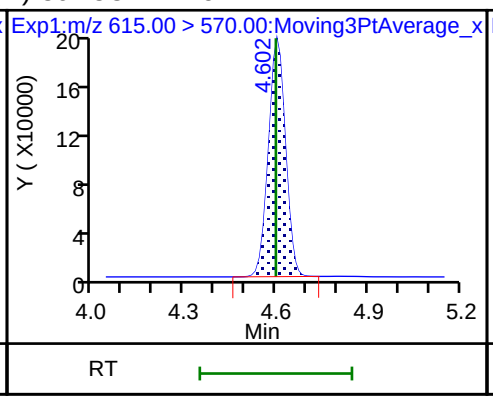

D 32 d5-NEtFOSAA



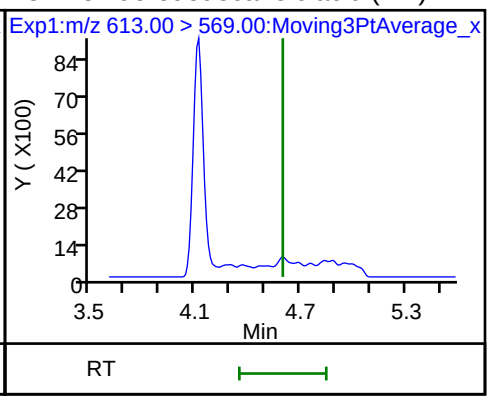

33 N-ethylperfluorooctanesulfonamid (ND)



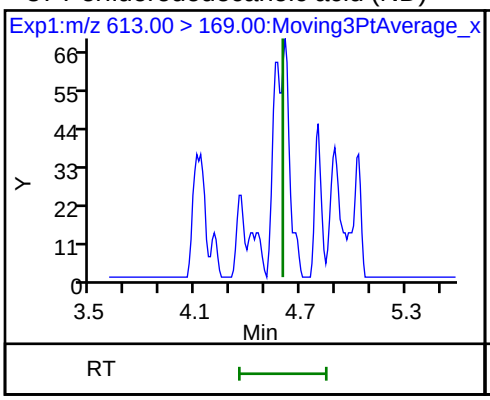

D 36 13C2 PFDoA



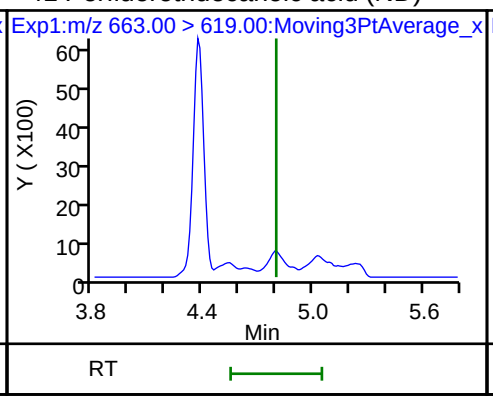

37 Perfluorododecanoic acid (ND)



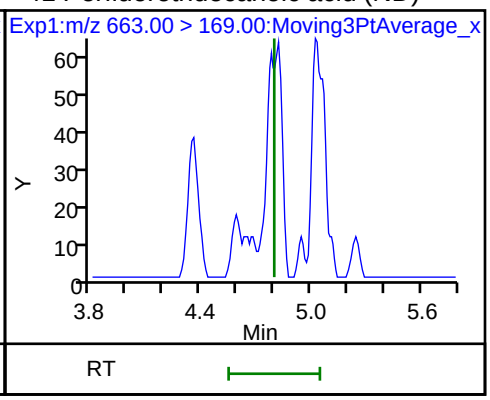
37 Perfluorododecanoic acid (ND)



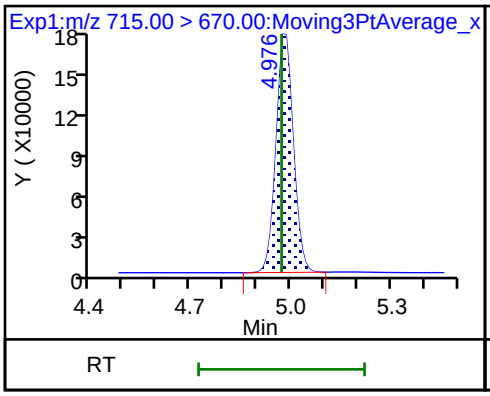

41 Perfluorotridecanoic acid (ND)



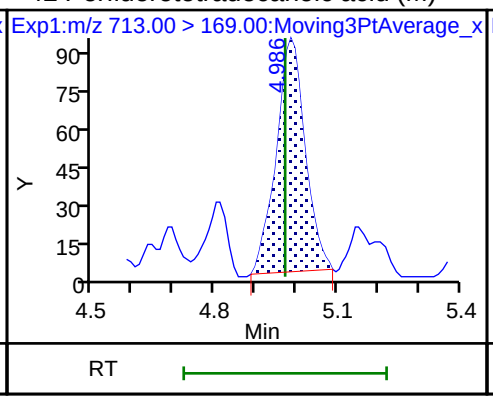

41 Perfluorotridecanoic acid (ND)



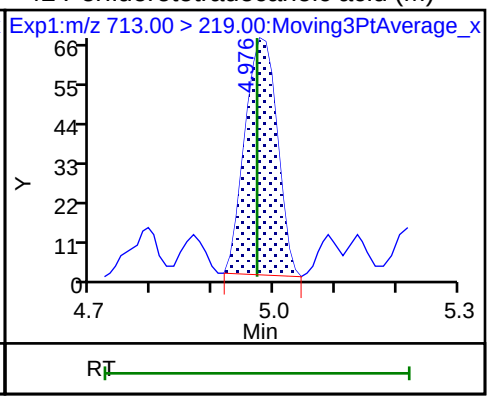

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

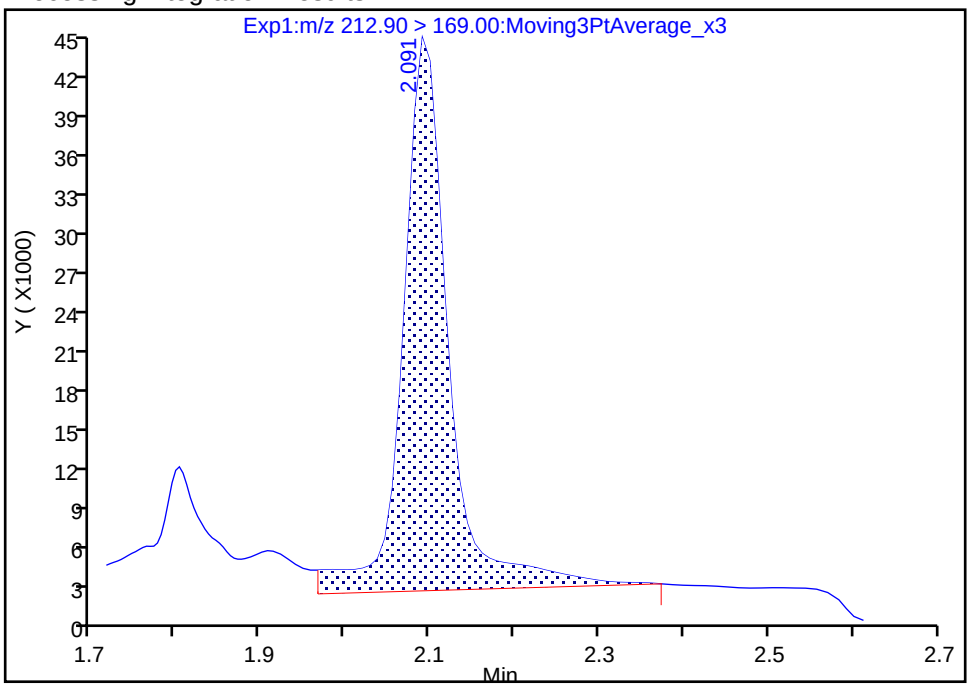
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

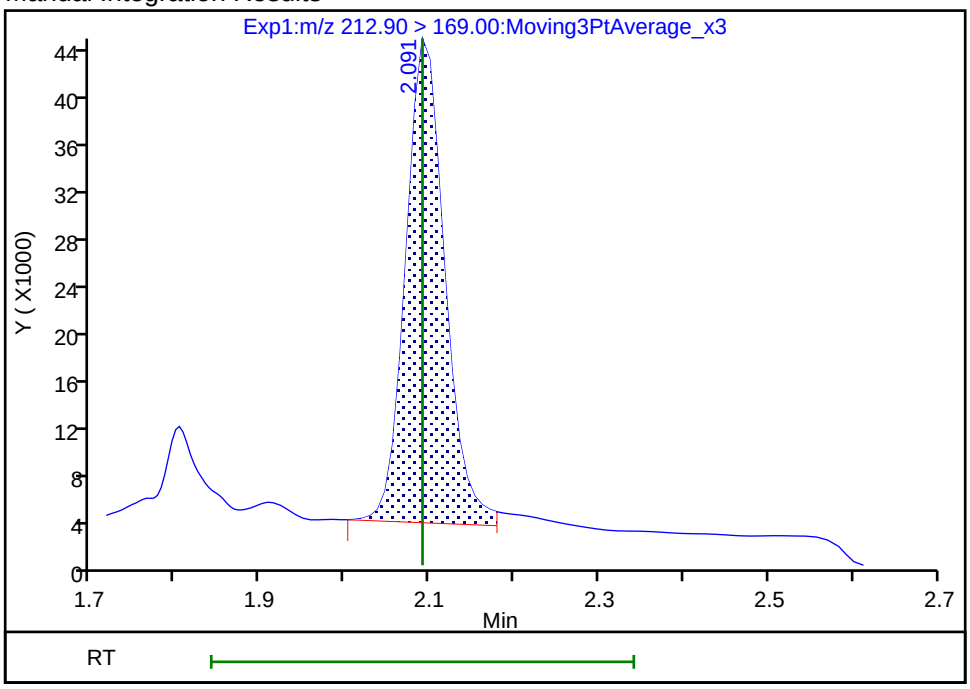
Processing Integration Results

RT: 2.09
Area: 157549
Amount: 0.128564
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 130004
Amount: 0.106087
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:35:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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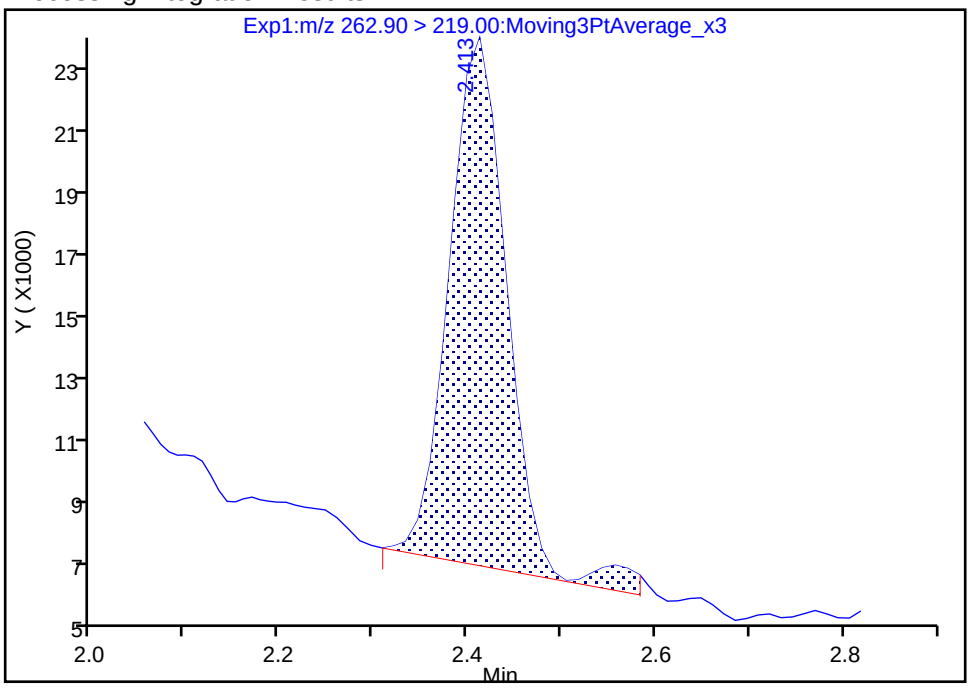
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

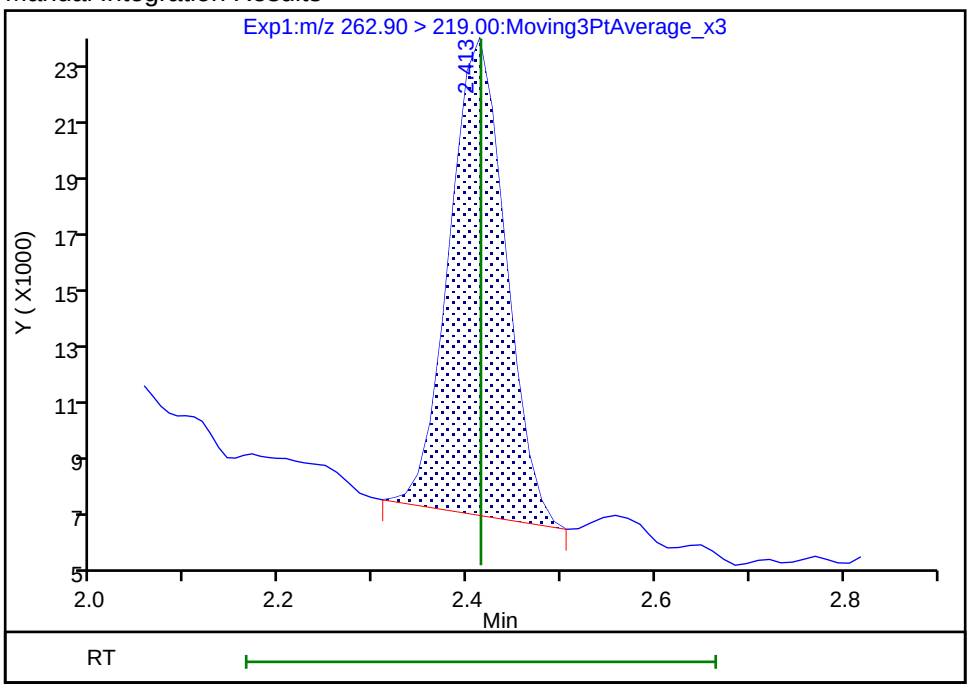
Processing Integration Results

RT: 2.41
Area: 73154
Amount: 0.073424
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 70591
Amount: 0.070851
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

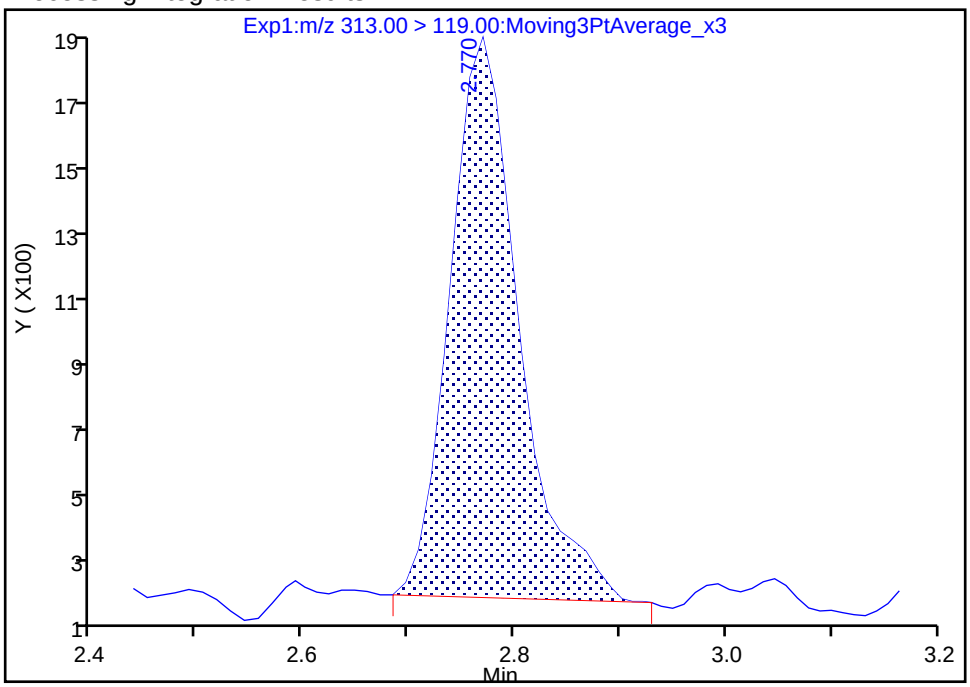
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

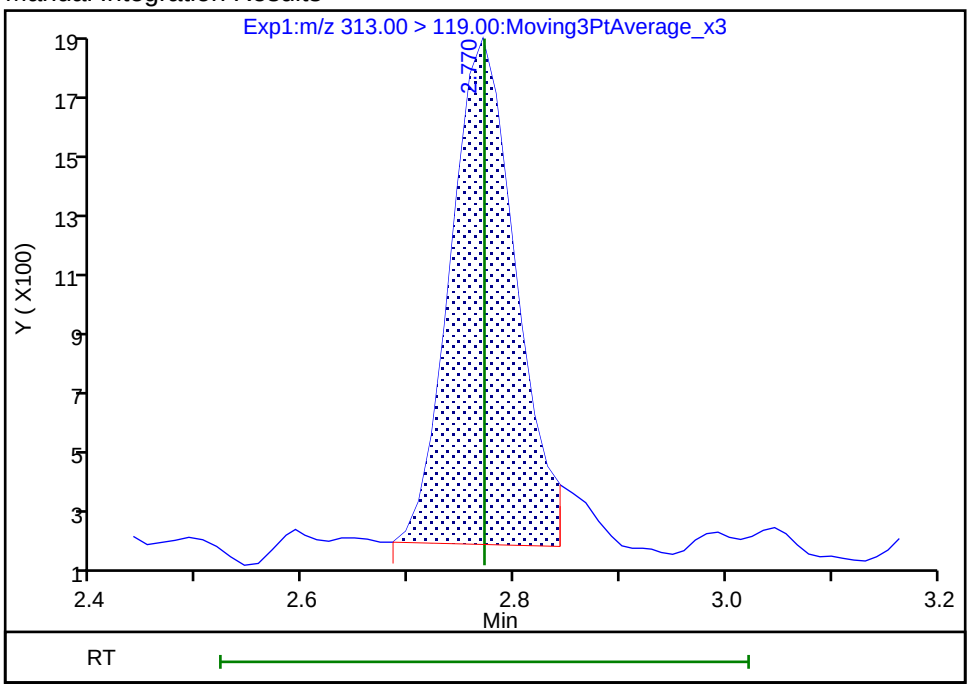
Processing Integration Results

RT: 2.77
Area: 7537
Amount: 0.093881
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 7126
Amount: 0.093161
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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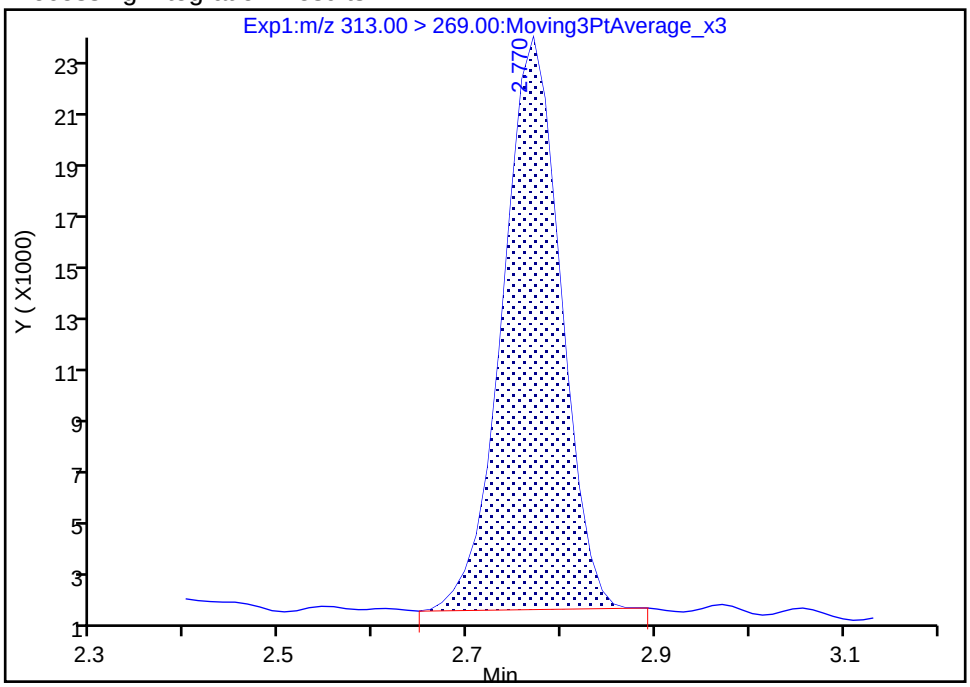
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

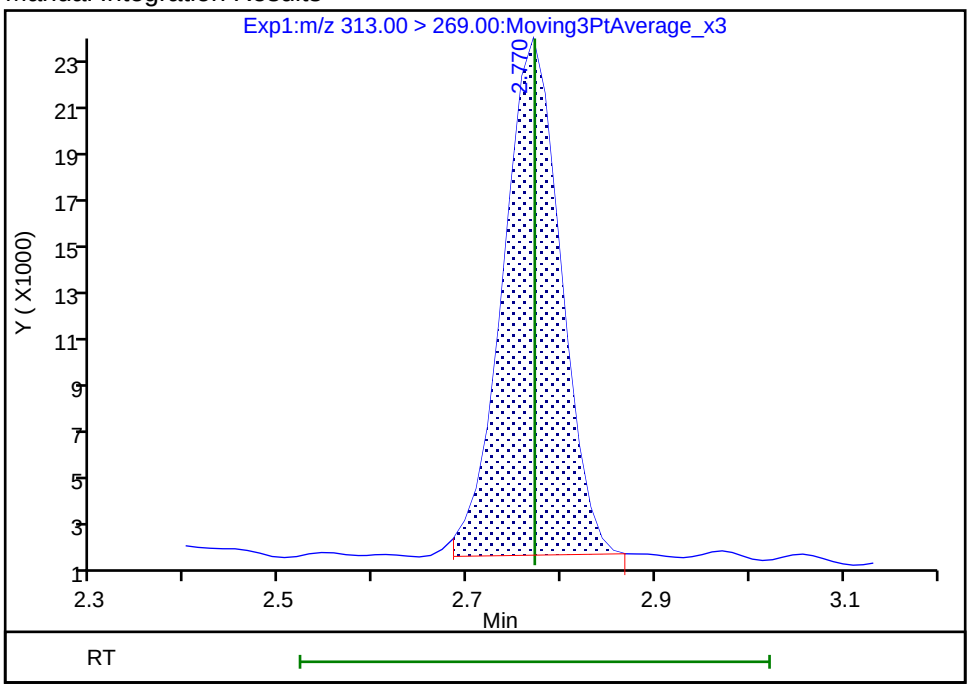
Processing Integration Results

RT: 2.77
Area: 96041
Amount: 0.093881
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 95305
Amount: 0.093161
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 11:13:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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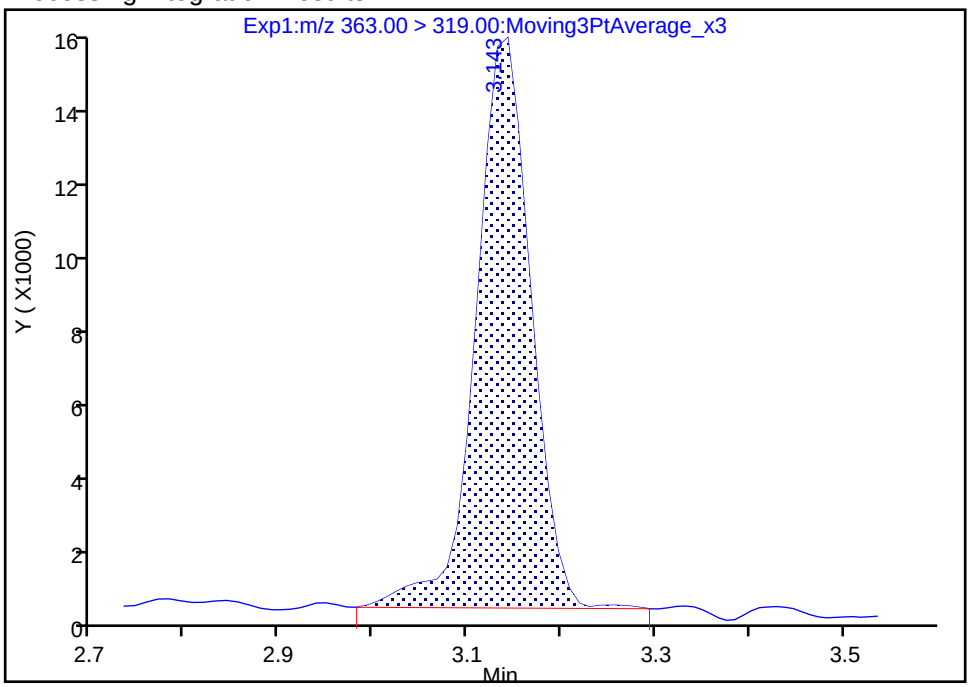
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

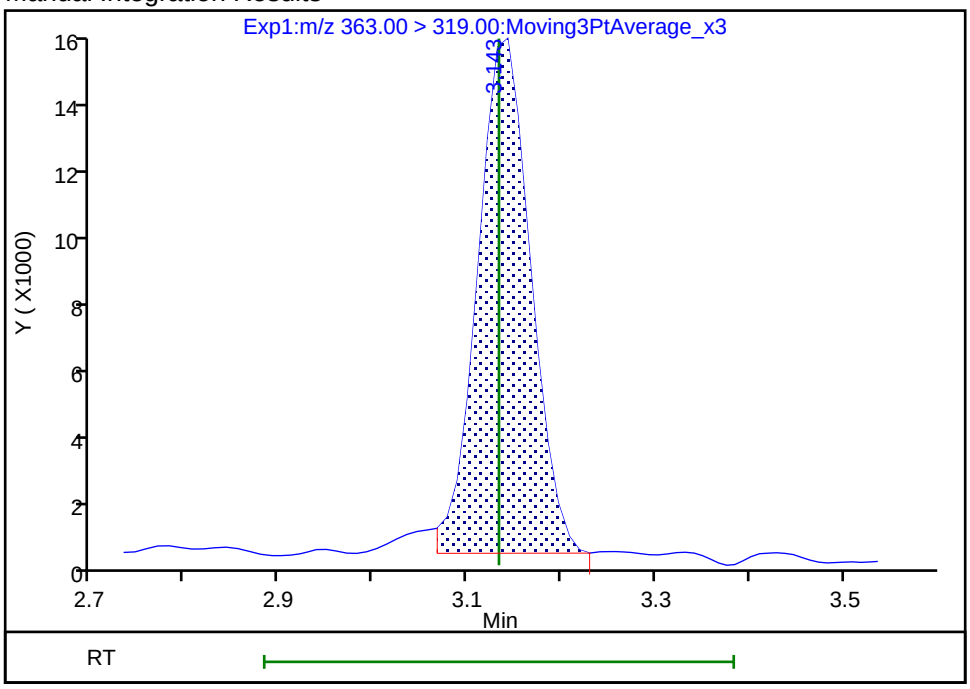
Processing Integration Results

RT: 3.14
Area: 58400
Amount: 0.054773
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 55987
Amount: 0.052510
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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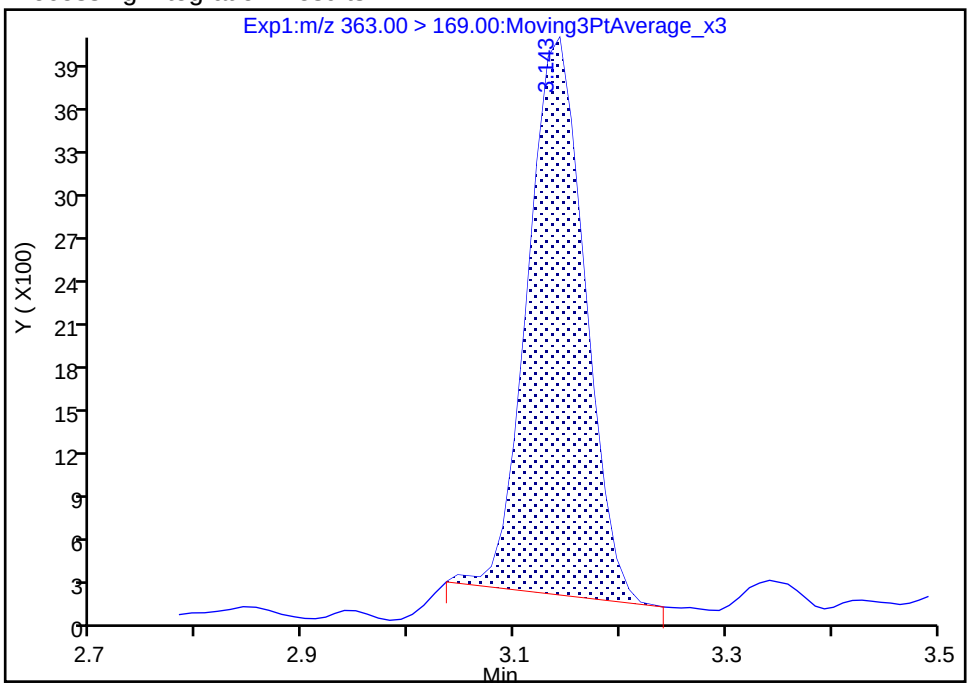
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

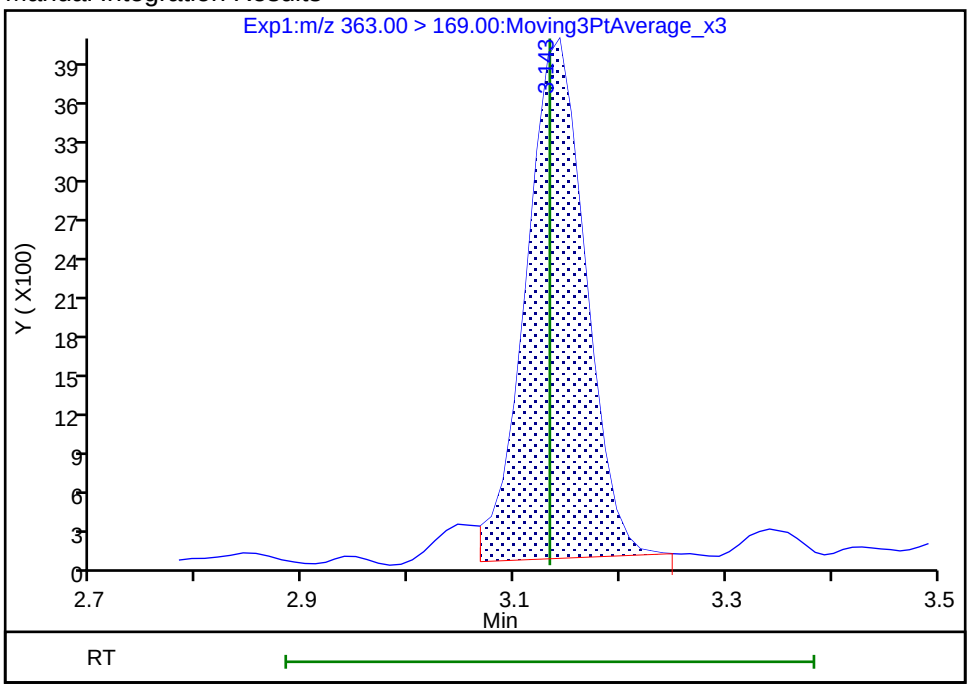
Processing Integration Results

RT: 3.14
Area: 14486
Amount: 0.054773
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 15525
Amount: 0.052510
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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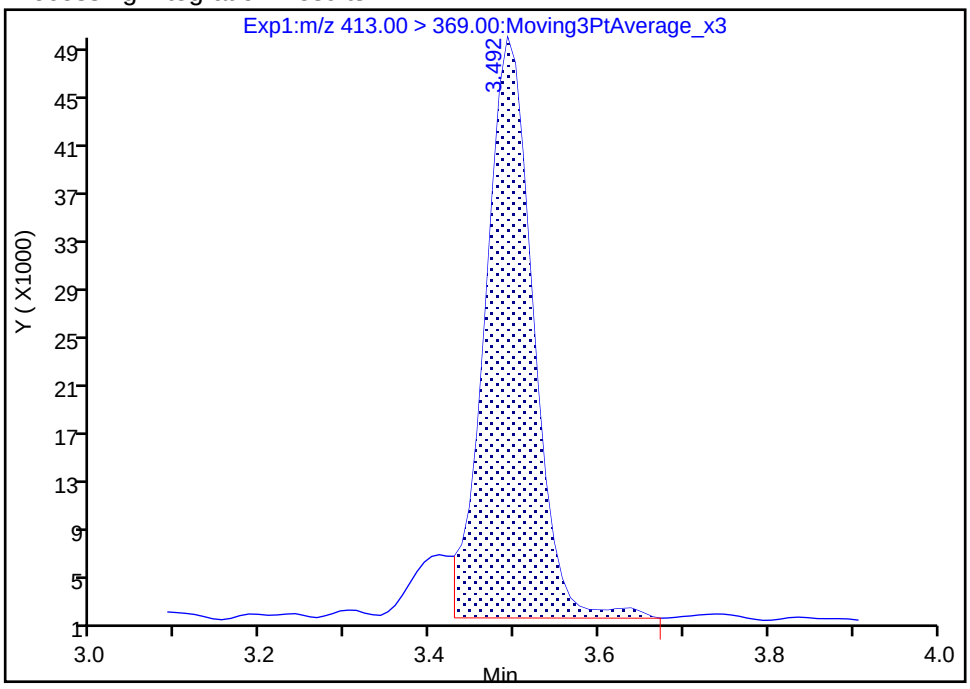
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

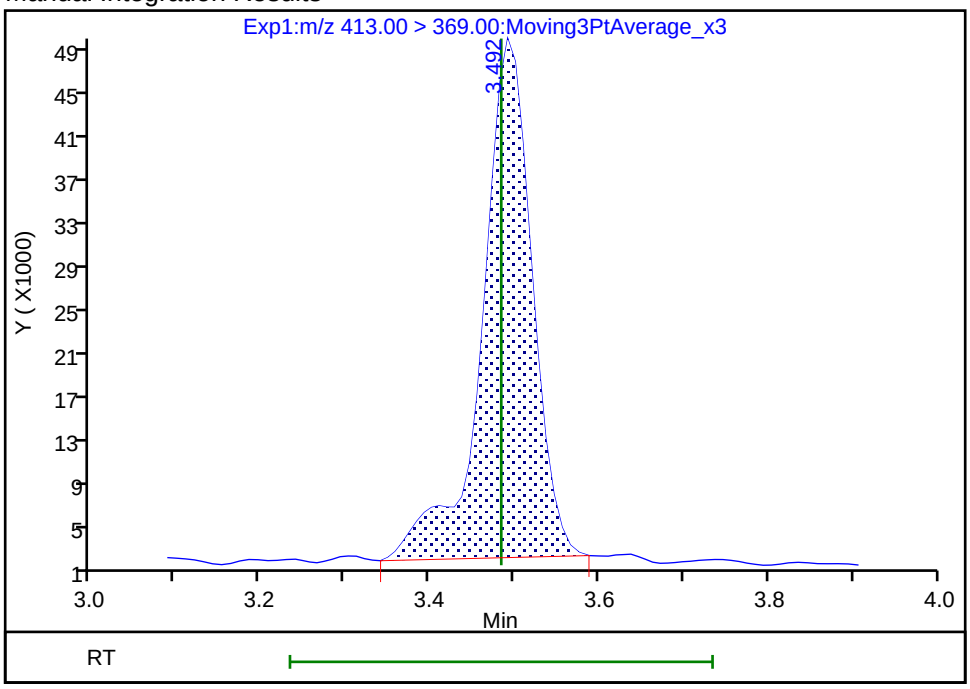
Processing Integration Results

RT: 3.49
Area: 187522
Amount: 0.159414
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 195293
Amount: 0.166020
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

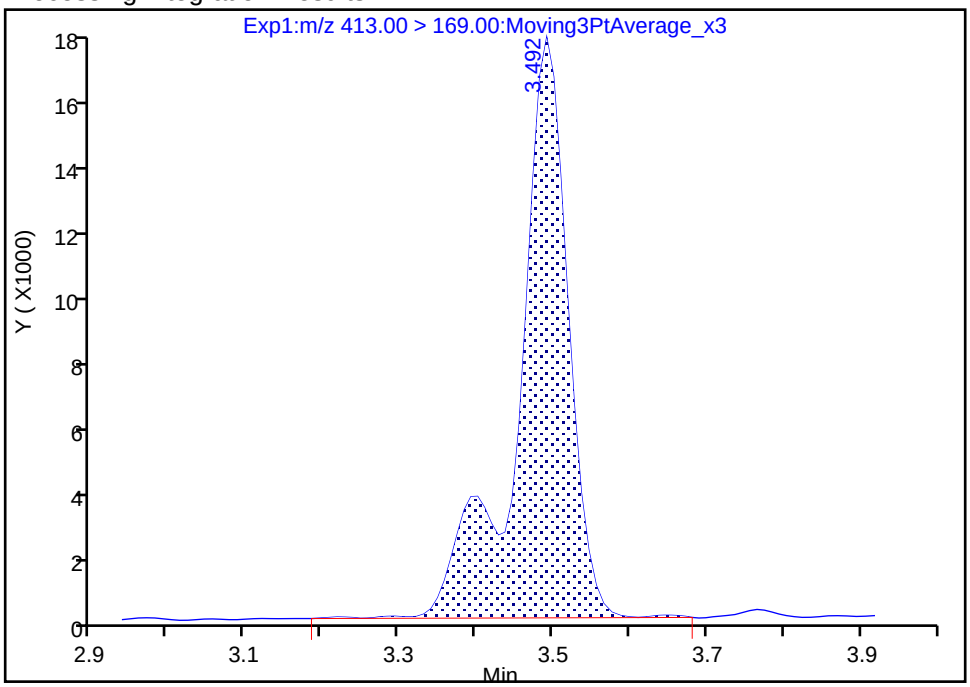
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

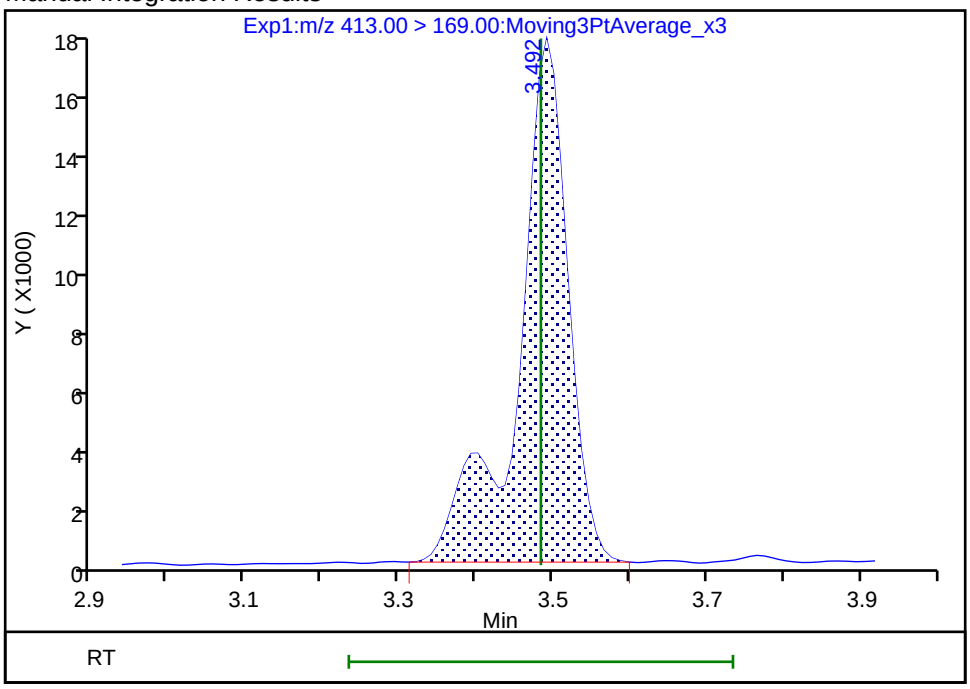
Processing Integration Results

RT: 3.49
Area: 78459
Amount: 0.159414
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 77524
Amount: 0.166020
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

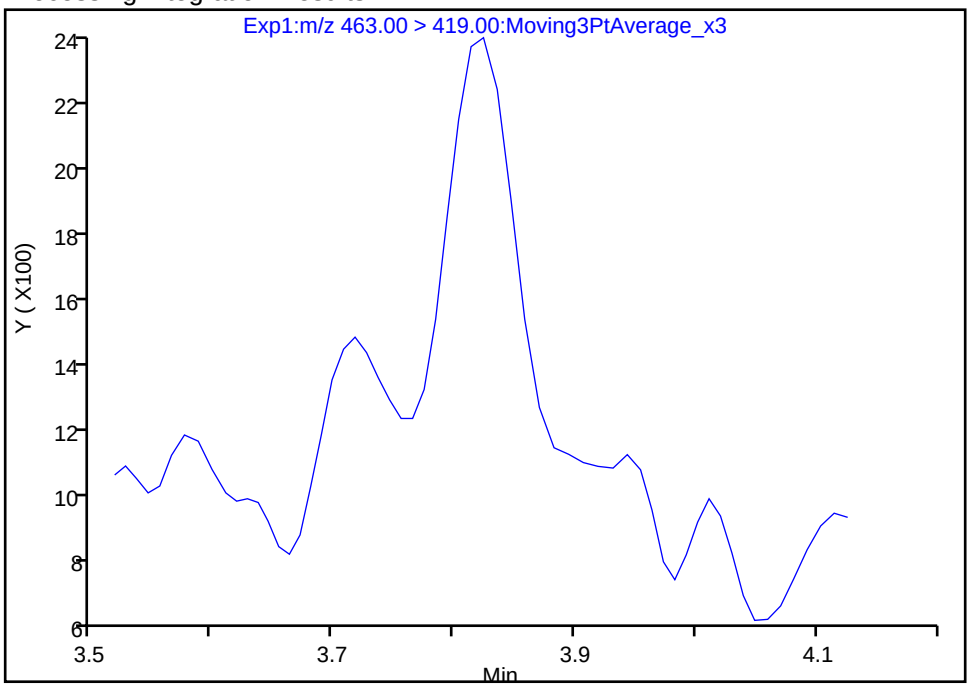
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

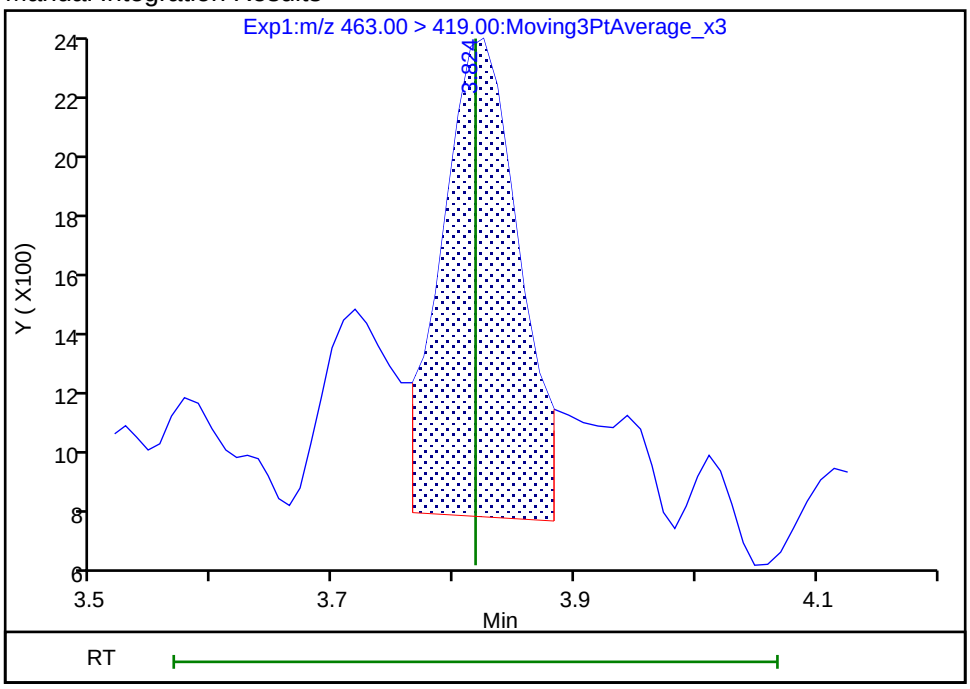
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 6754
Amount: 0.006730
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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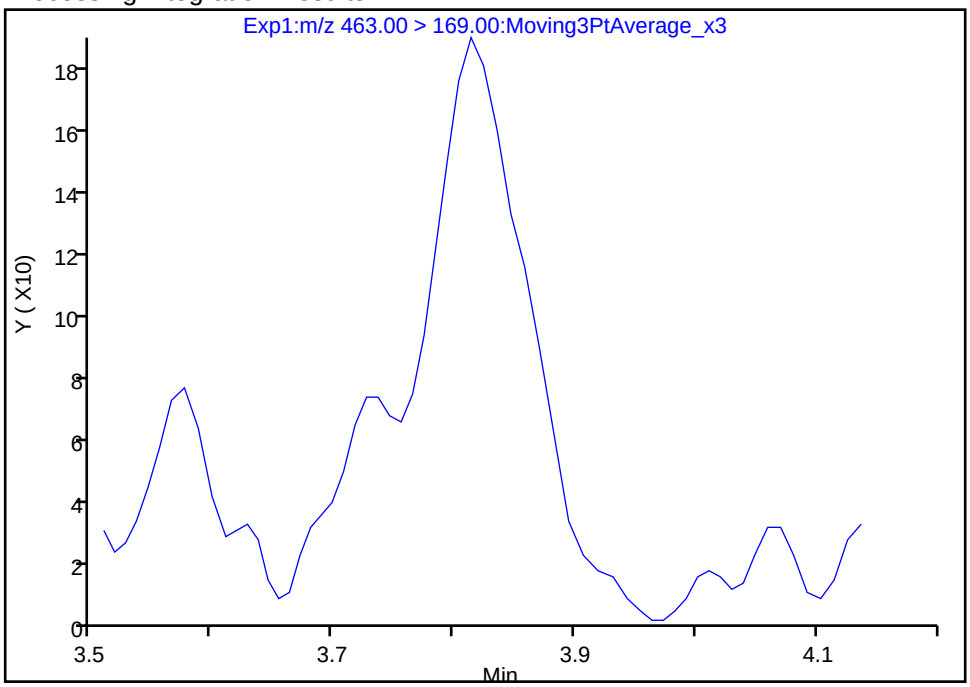
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

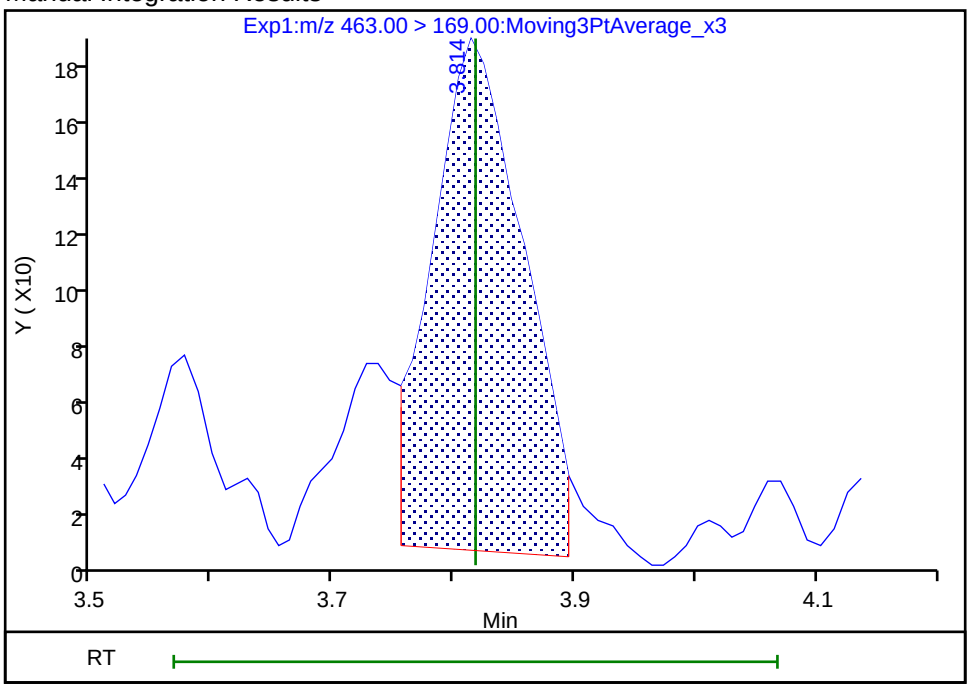
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 957
Amount: 0.006730
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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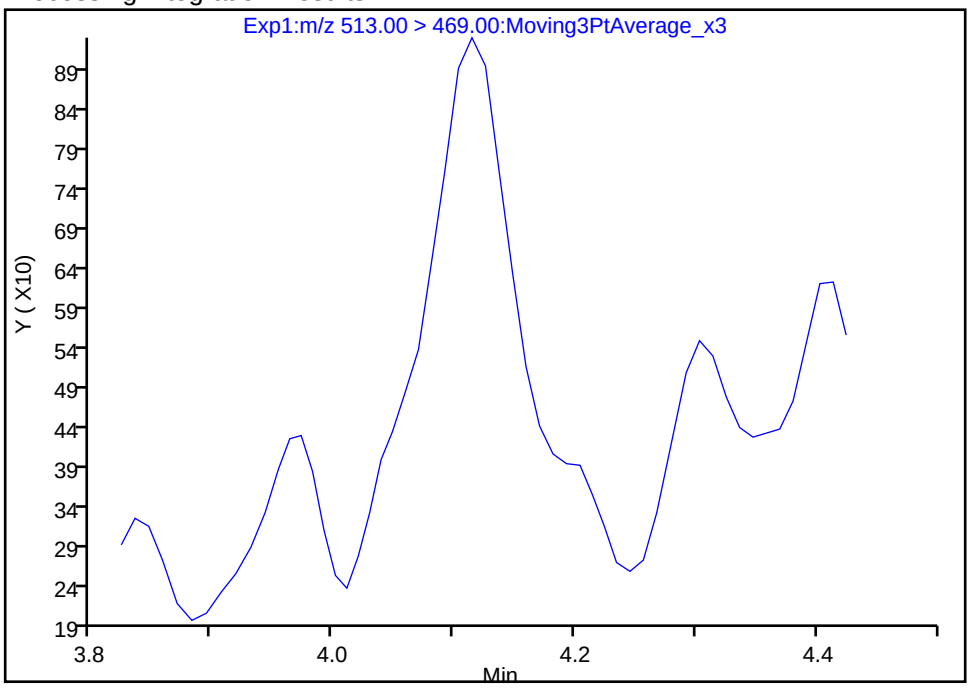
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

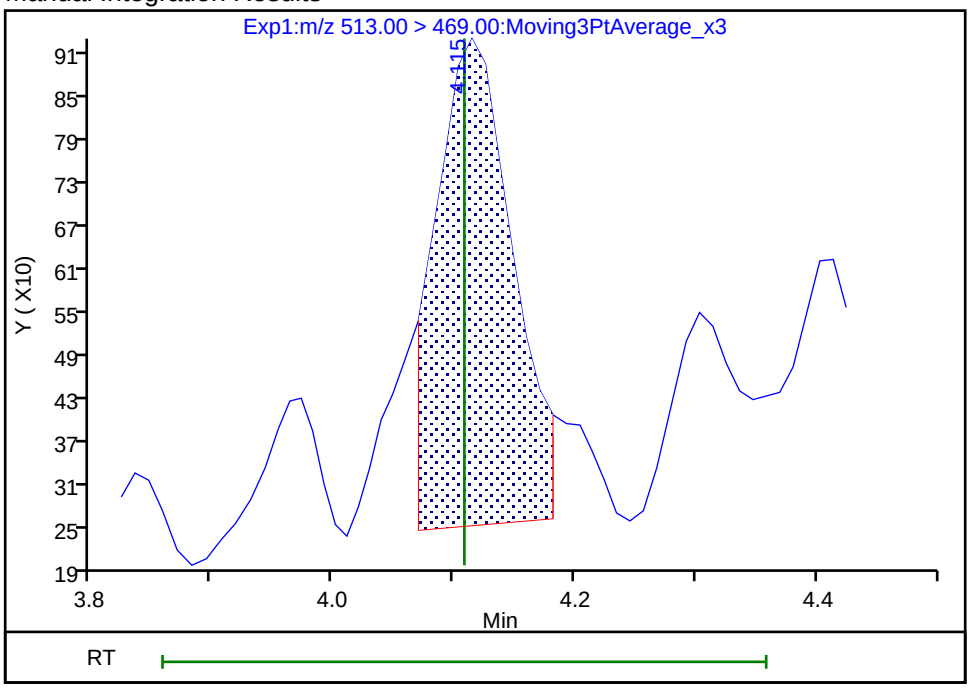
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 2924
Amount: 0.003325
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

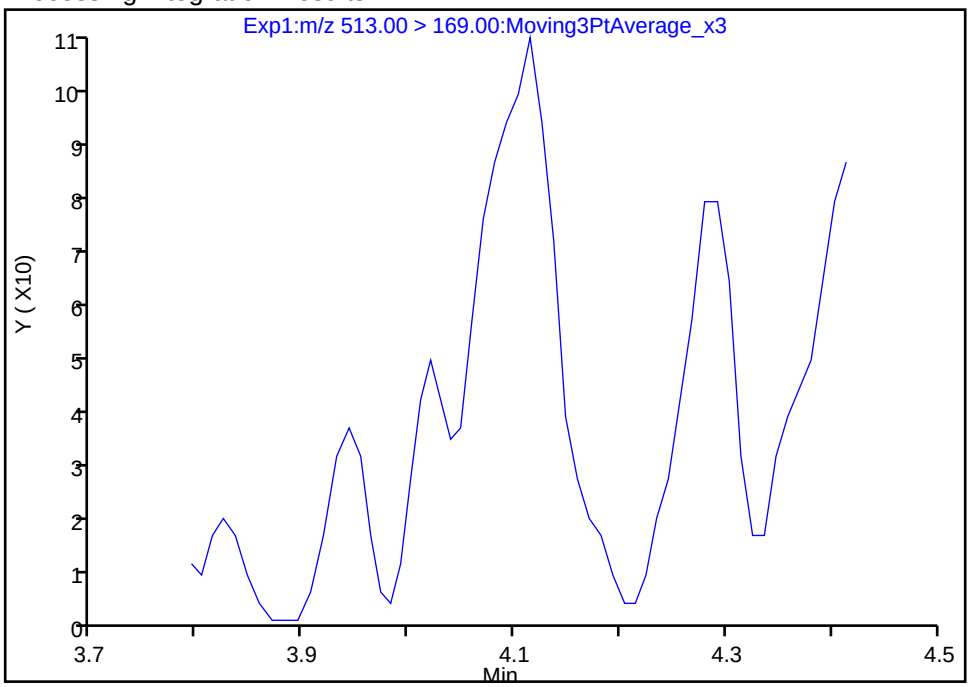
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

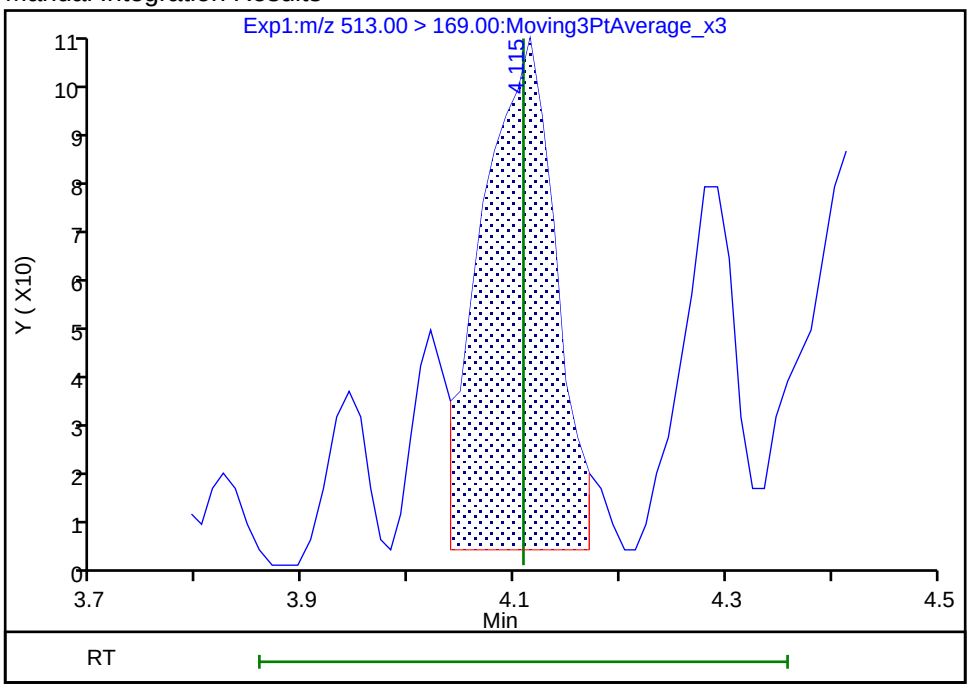
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 481
Amount: 0.003325
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

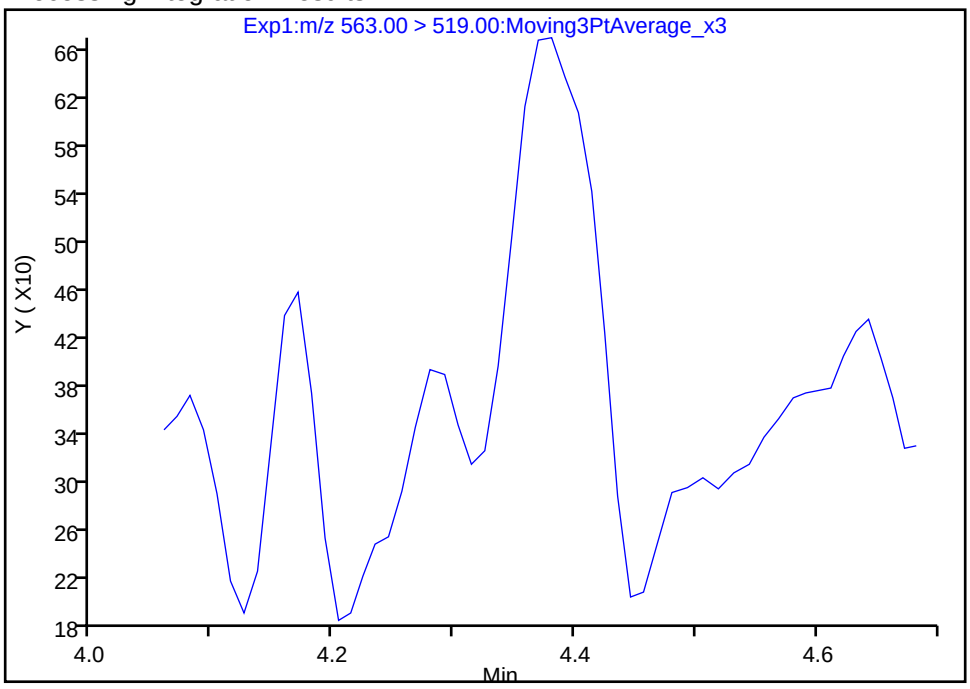
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

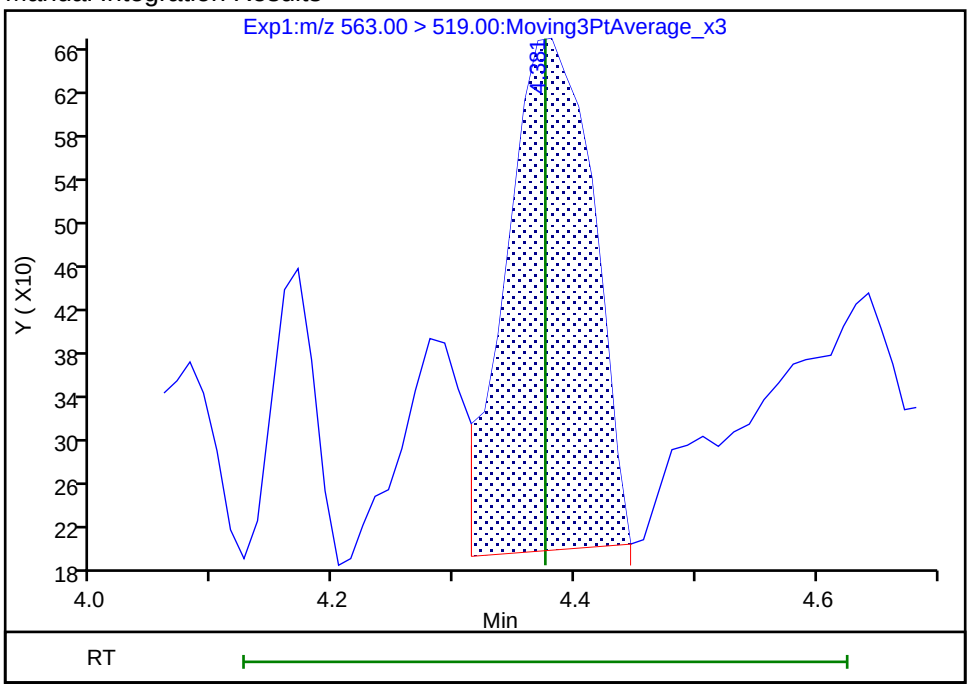
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 2294
Amount: 0.003503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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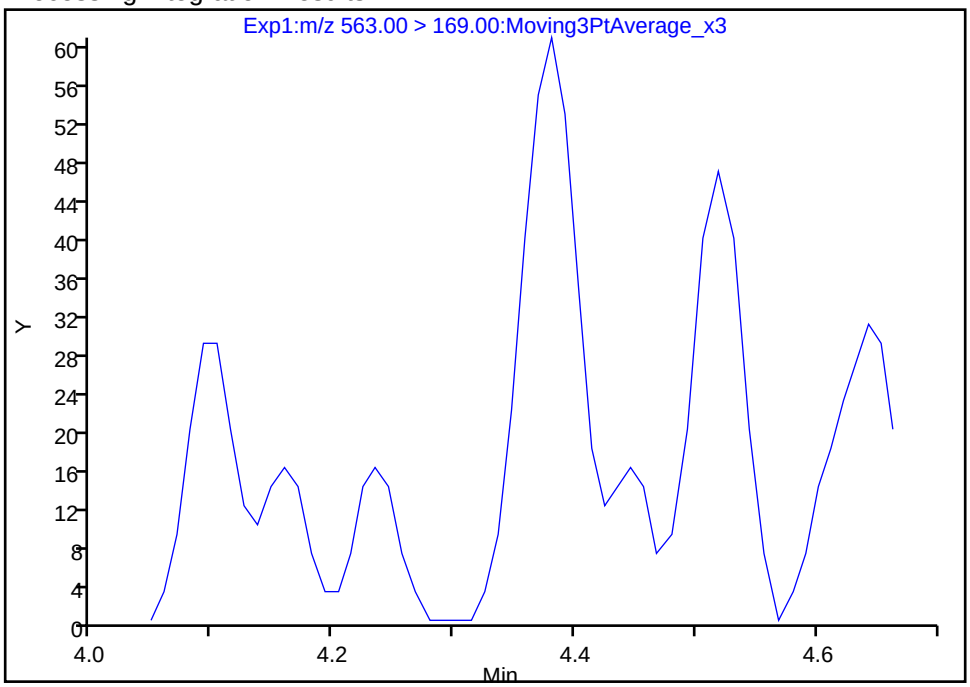
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

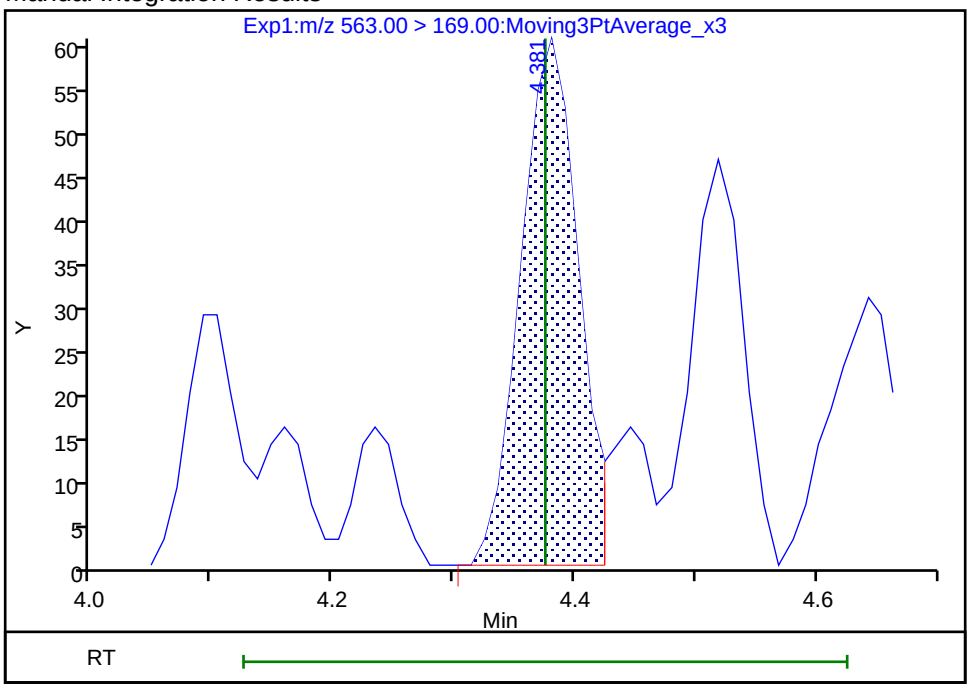
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.38
Area: 200
Amount: 0.003503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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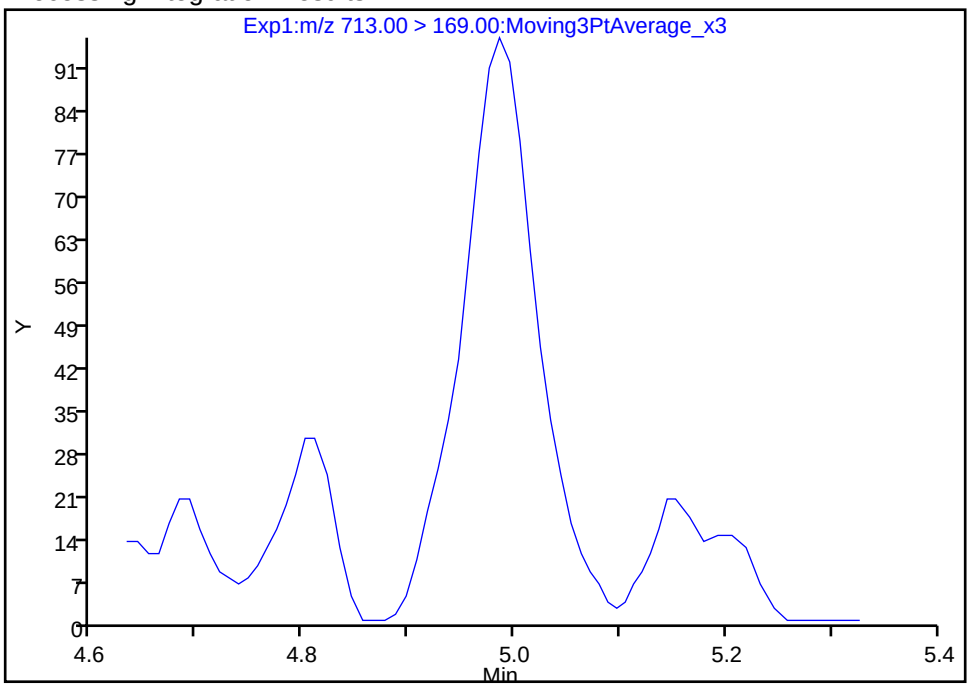
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

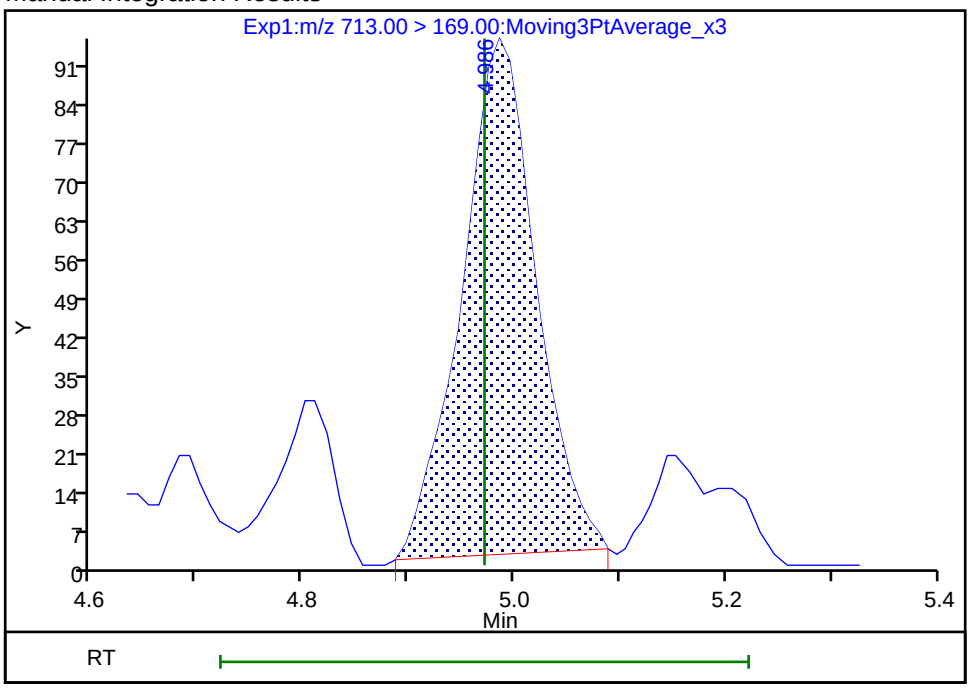
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 459
Amount: 0.005918
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

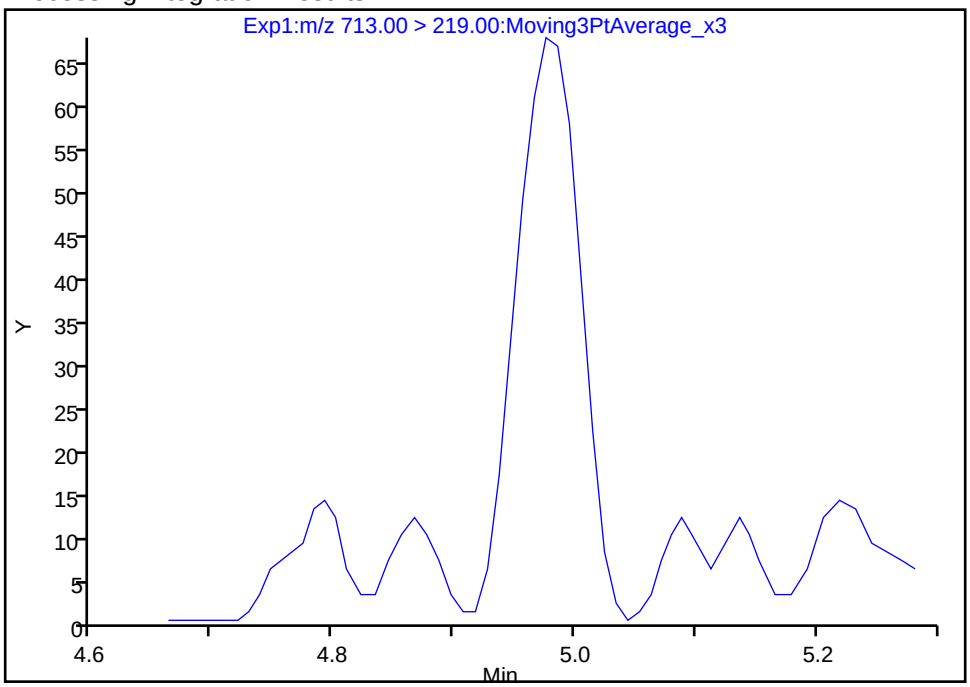
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

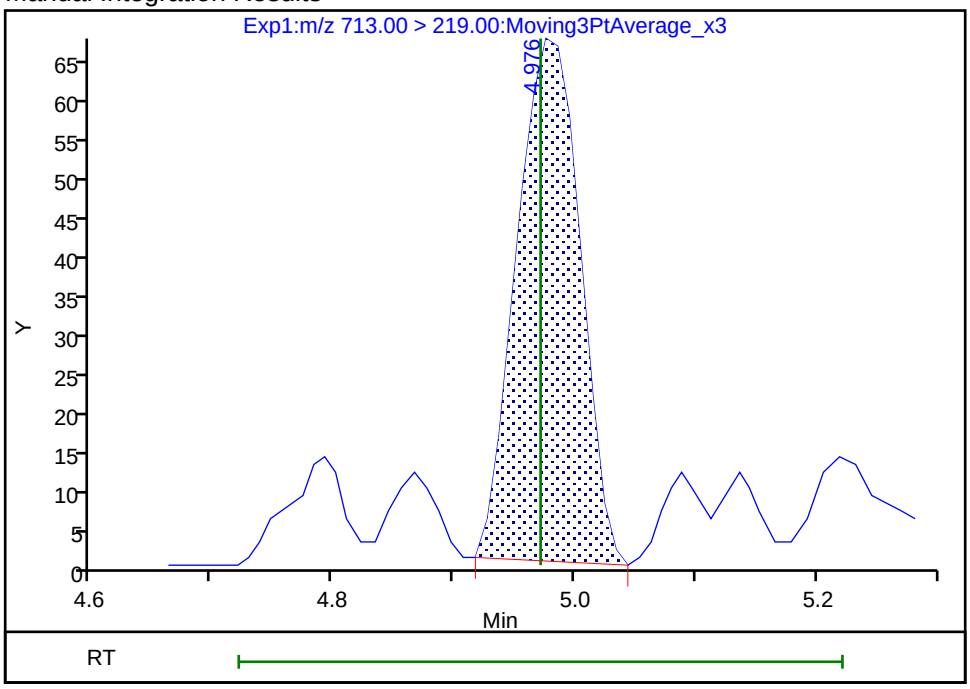
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 246
Amount: 0.005918
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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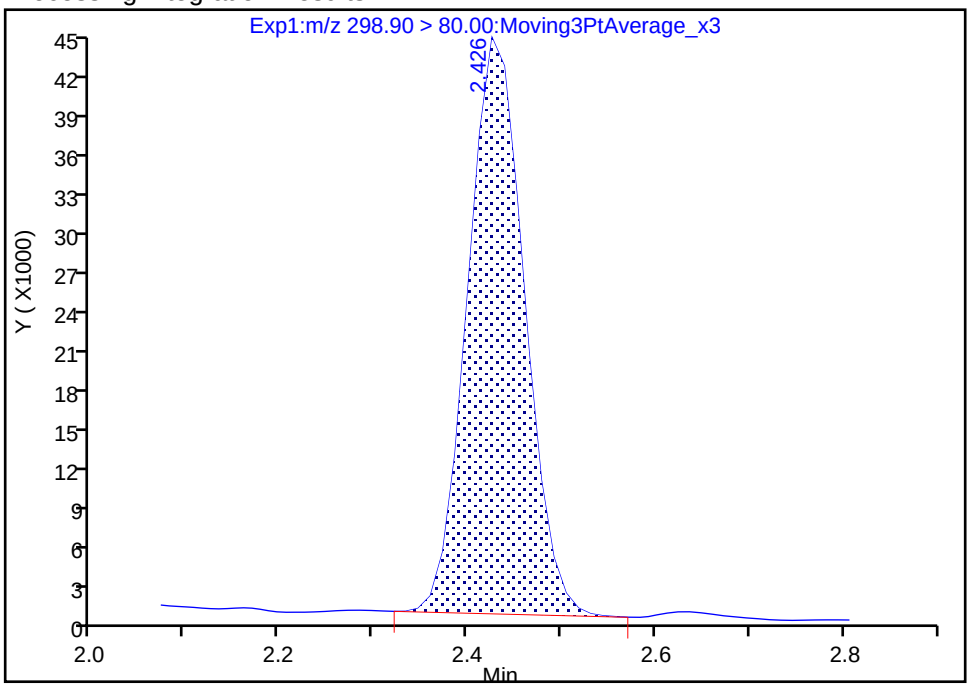
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

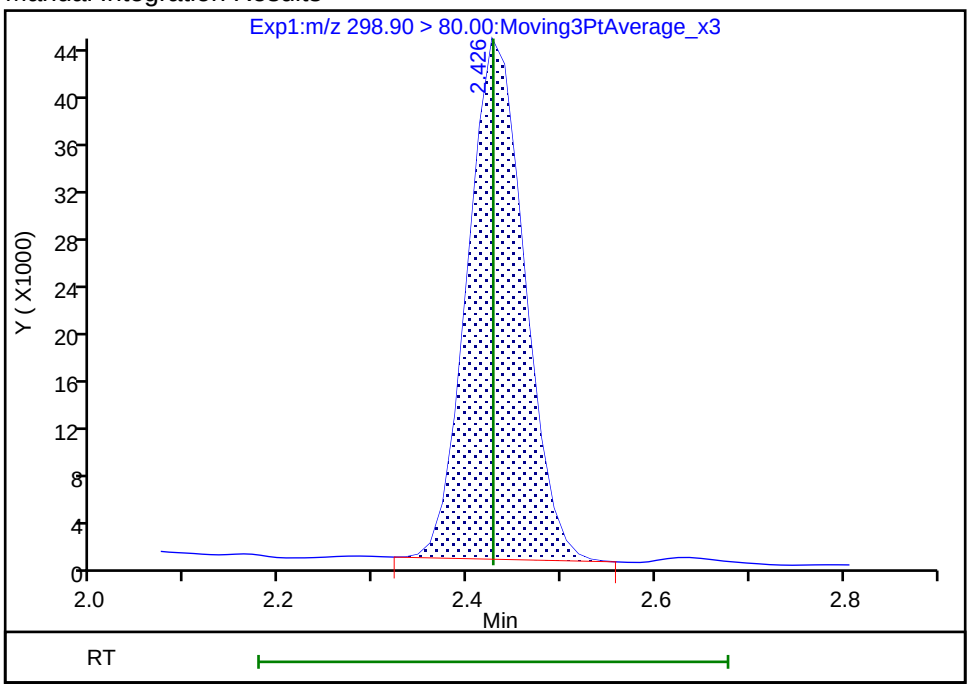
Processing Integration Results

RT: 2.43
Area: 183543
Amount: 0.135771
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 183328
Amount: 0.135612
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

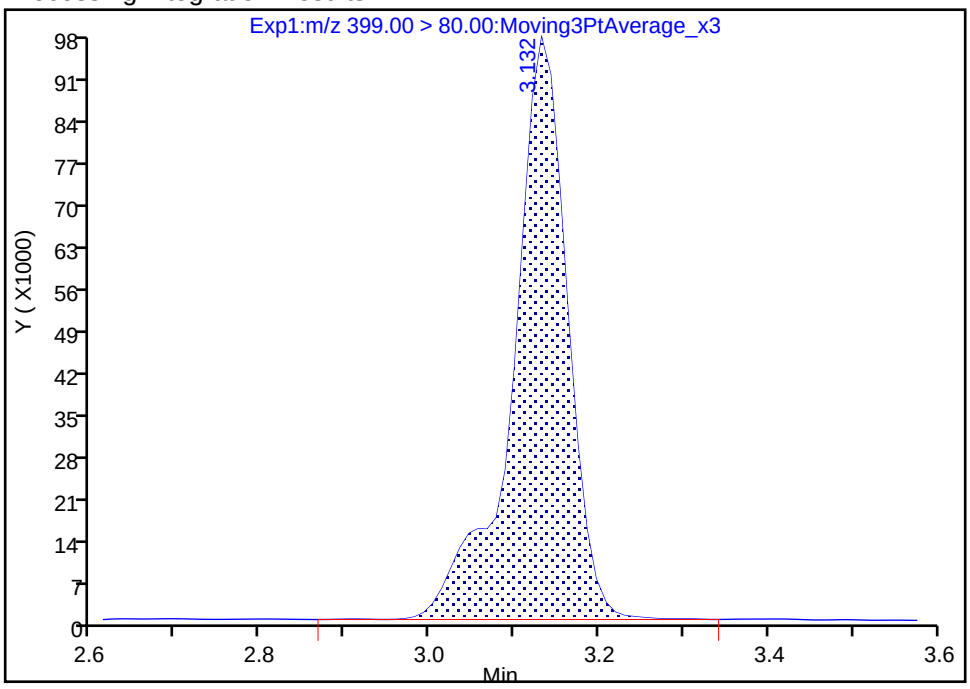
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

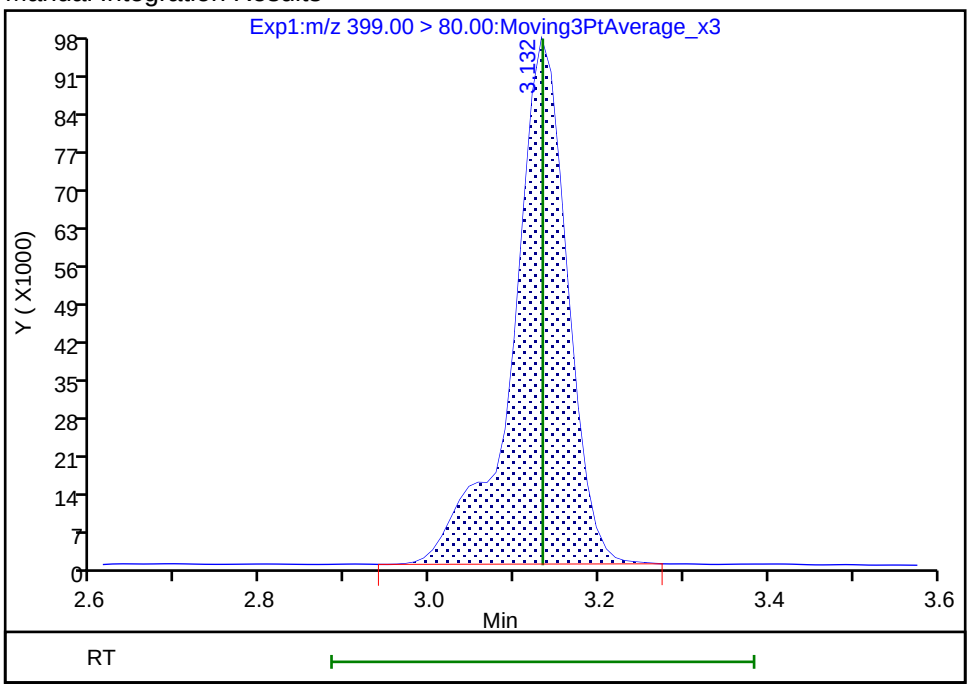
Processing Integration Results

RT: 3.13
Area: 439010
Amount: 0.433102
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 437261
Amount: 0.431377
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

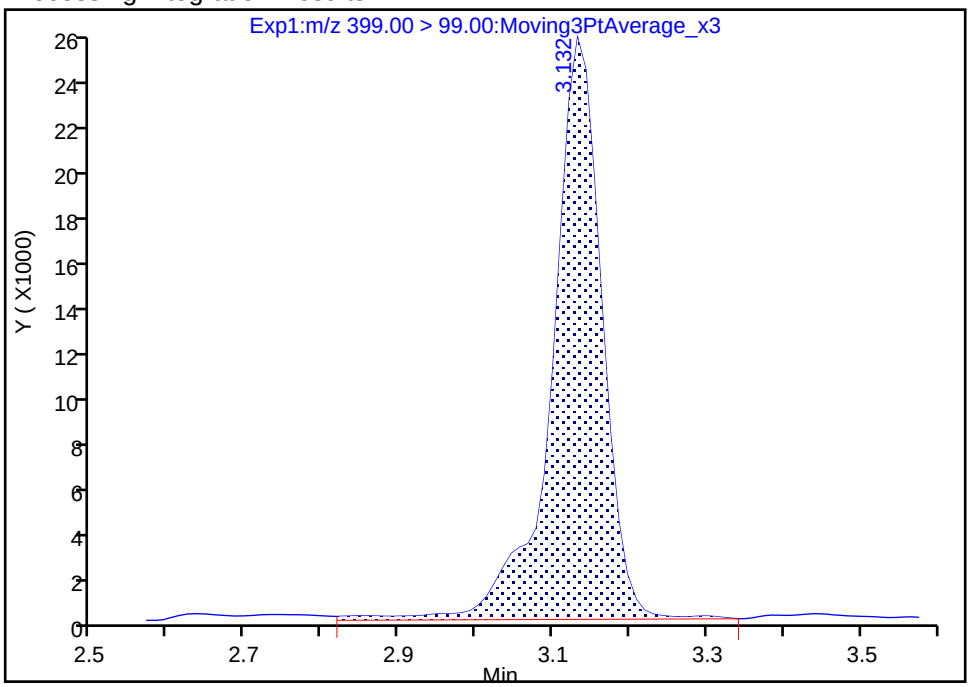
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

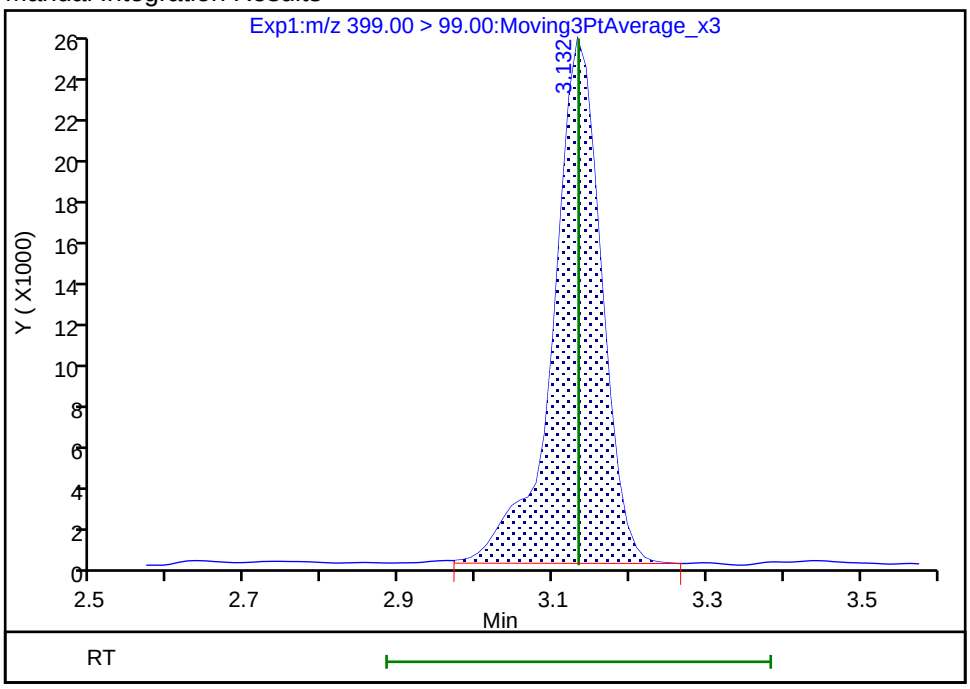
Processing Integration Results

RT: 3.13
Area: 117187
Amount: 0.433102
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 112832
Amount: 0.431377
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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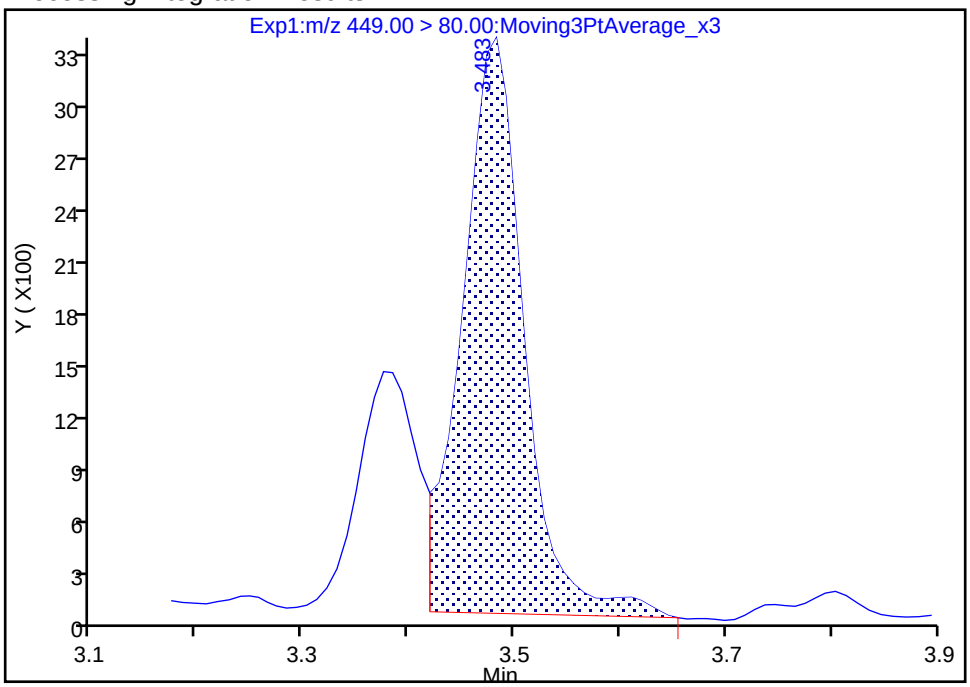
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

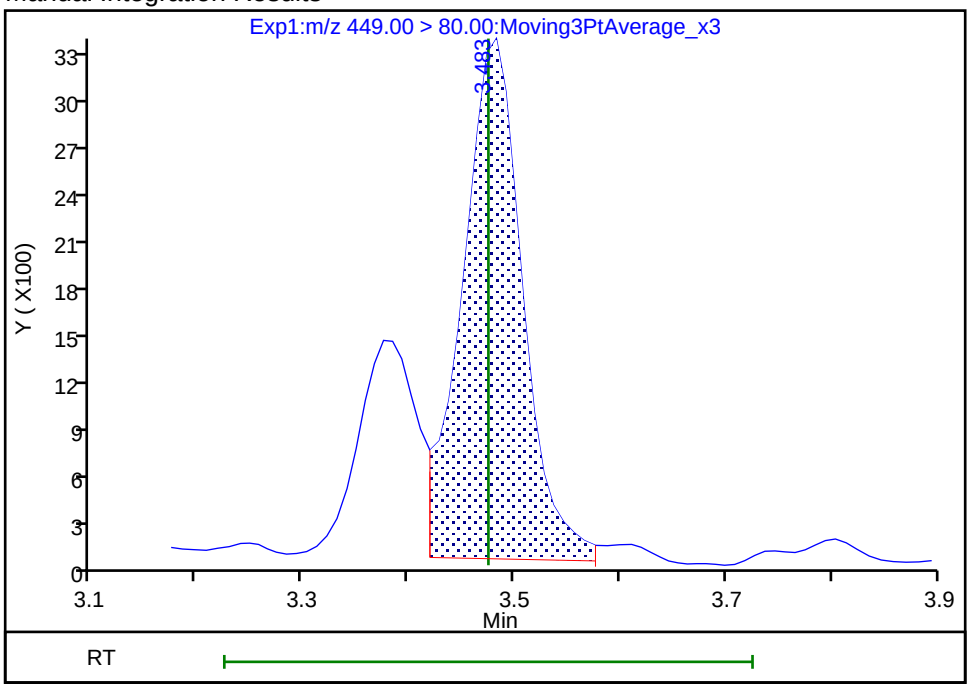
Processing Integration Results

RT: 3.48
Area: 13251
Amount: 0.016523
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 12901
Amount: 0.016087
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:36:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

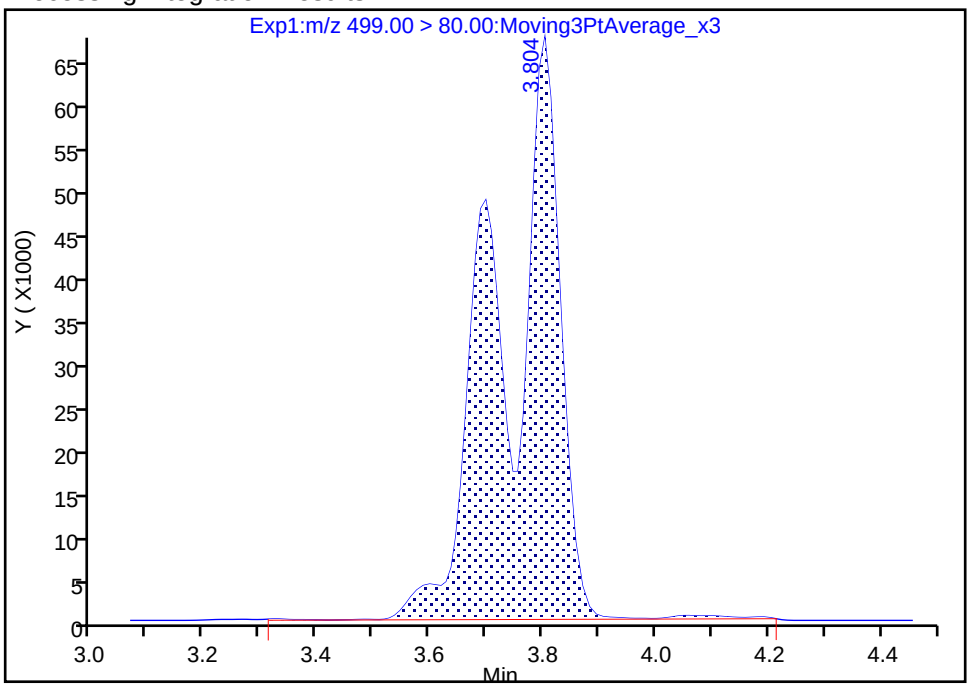
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

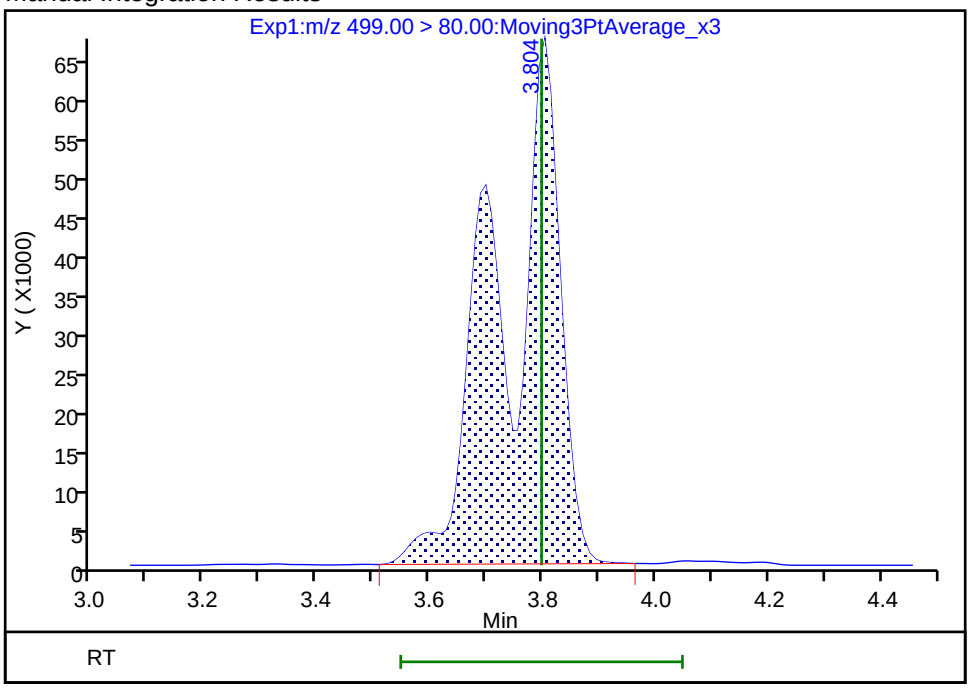
Processing Integration Results

RT: 3.80
Area: 491845
Amount: 0.704615
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 486439
Amount: 0.696870
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

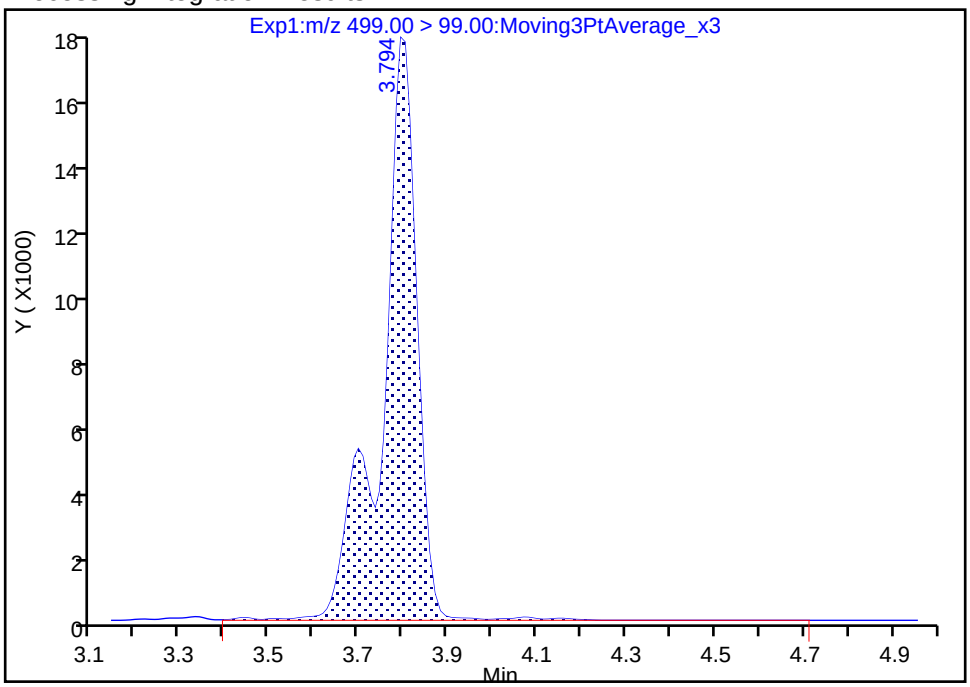
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

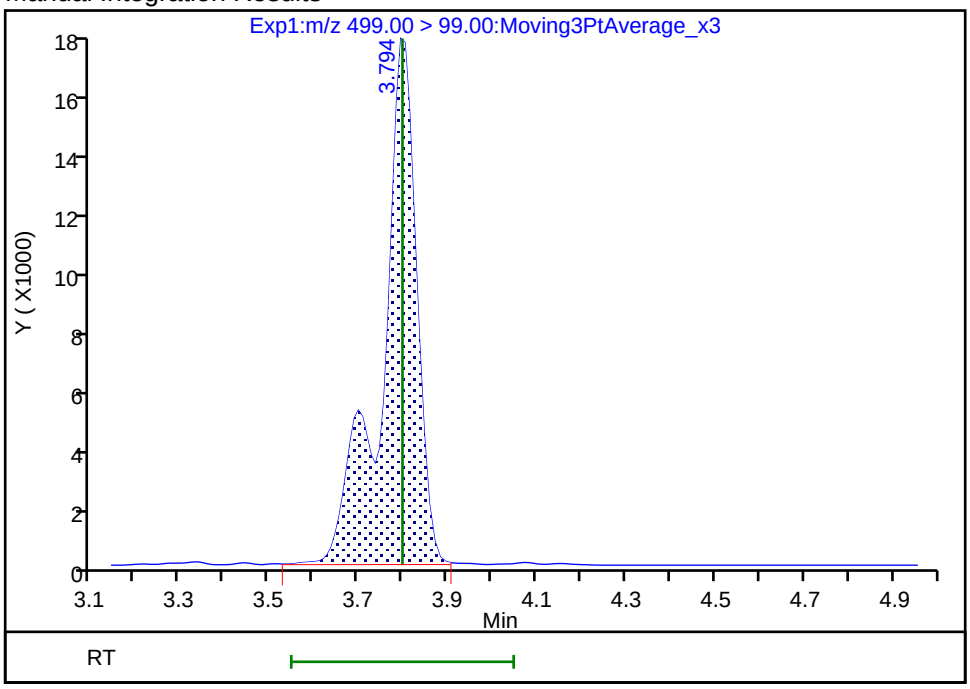
Processing Integration Results

RT: 3.79
Area: 99330
Amount: 0.704615
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 97635
Amount: 0.696870
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

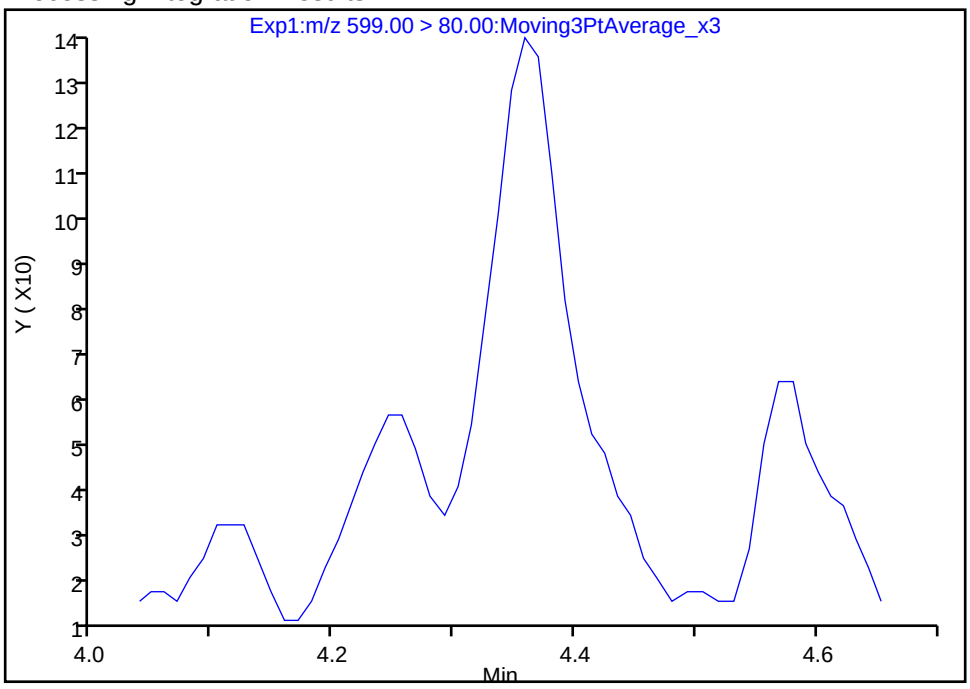
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

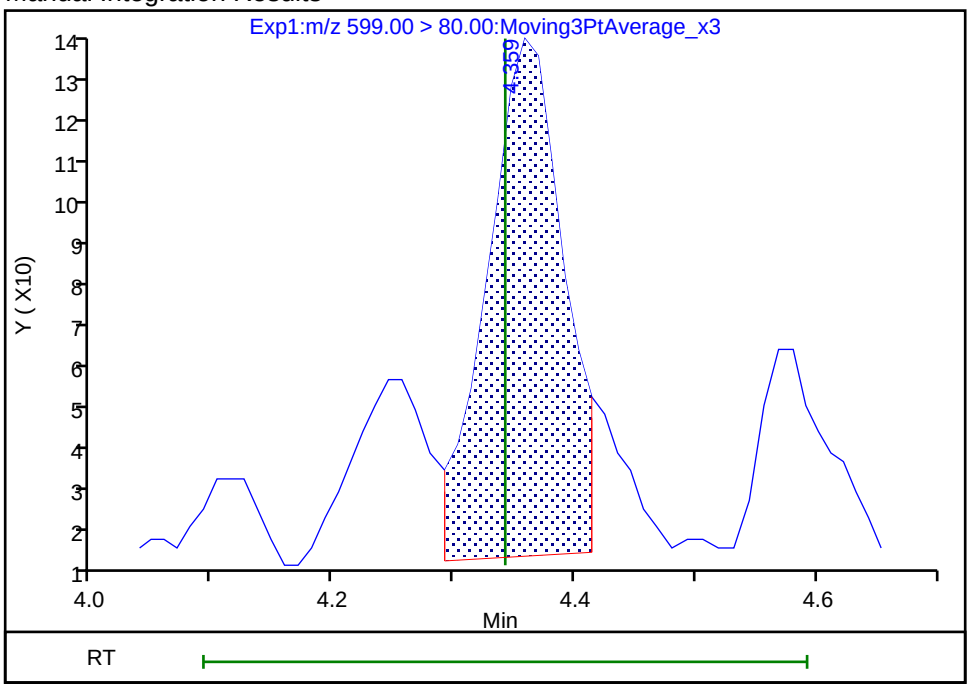
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 523
Amount: 0.001237
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

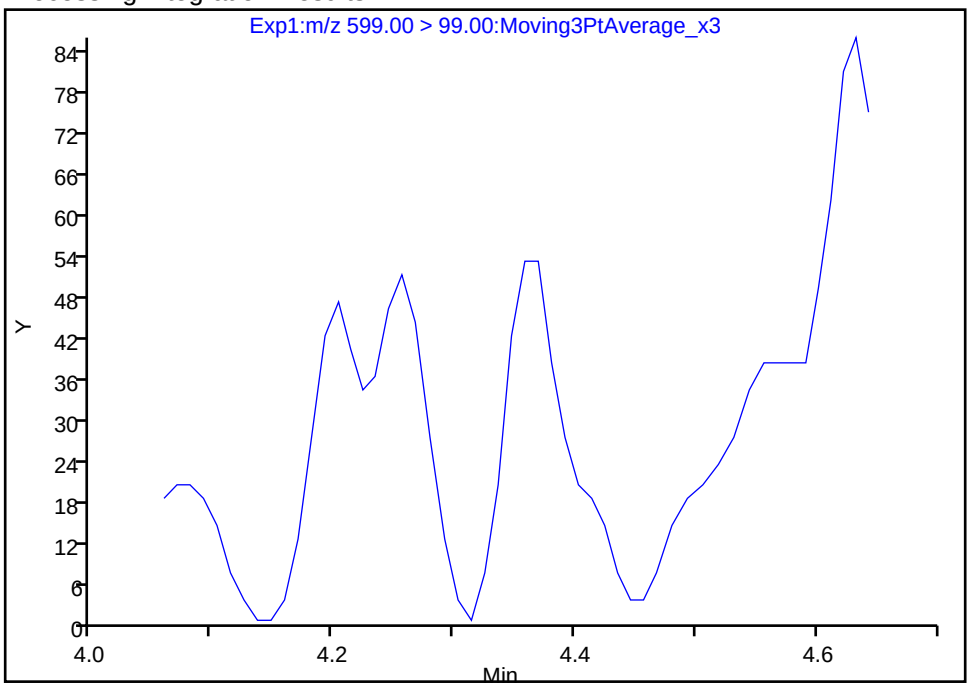
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

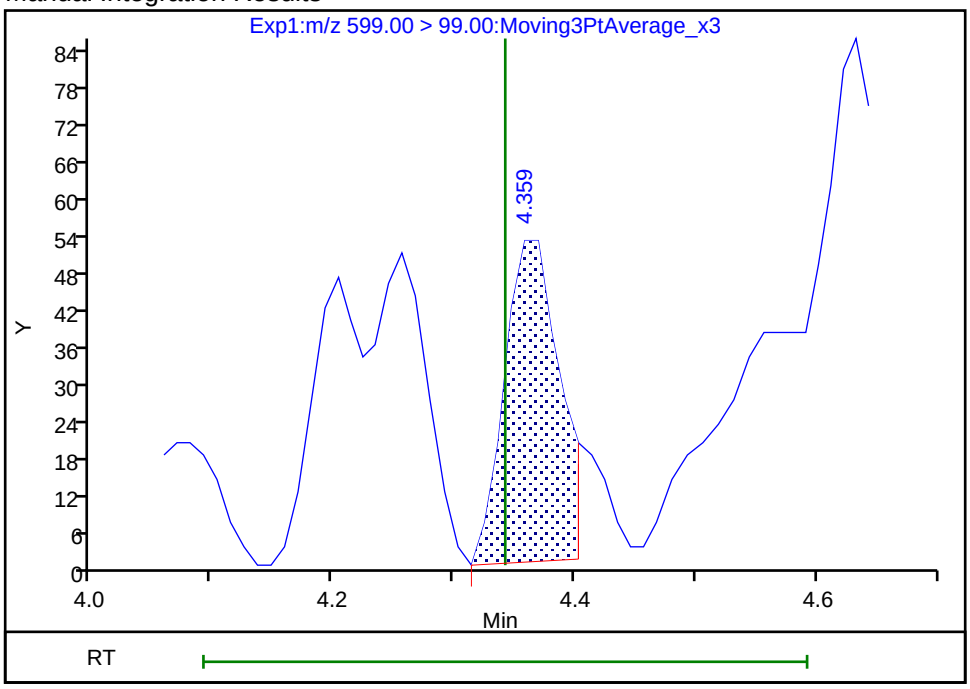
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 163
Amount: 0.001237
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

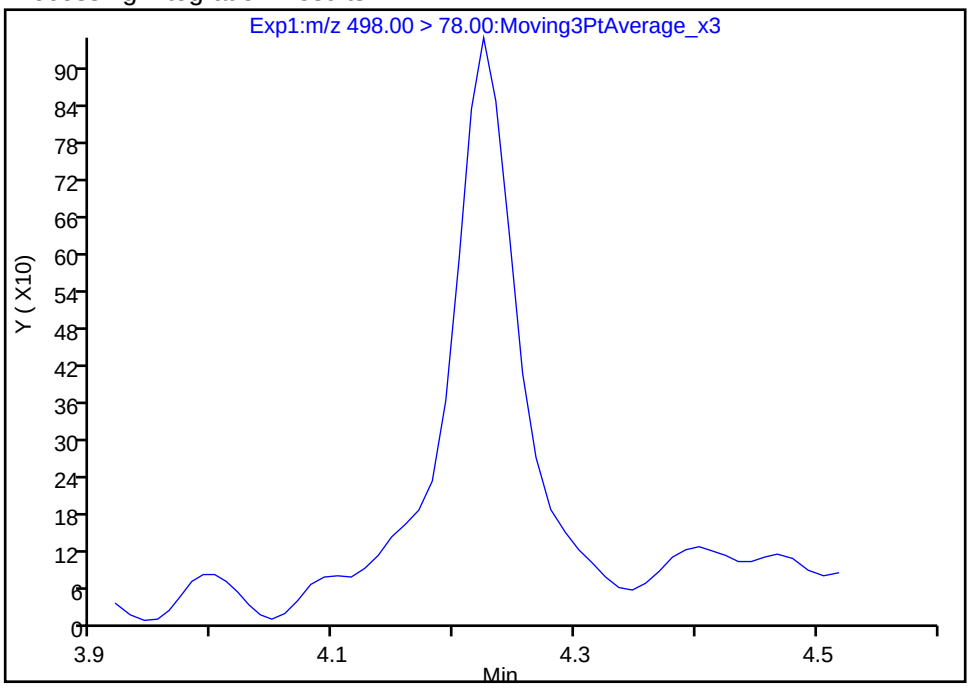
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

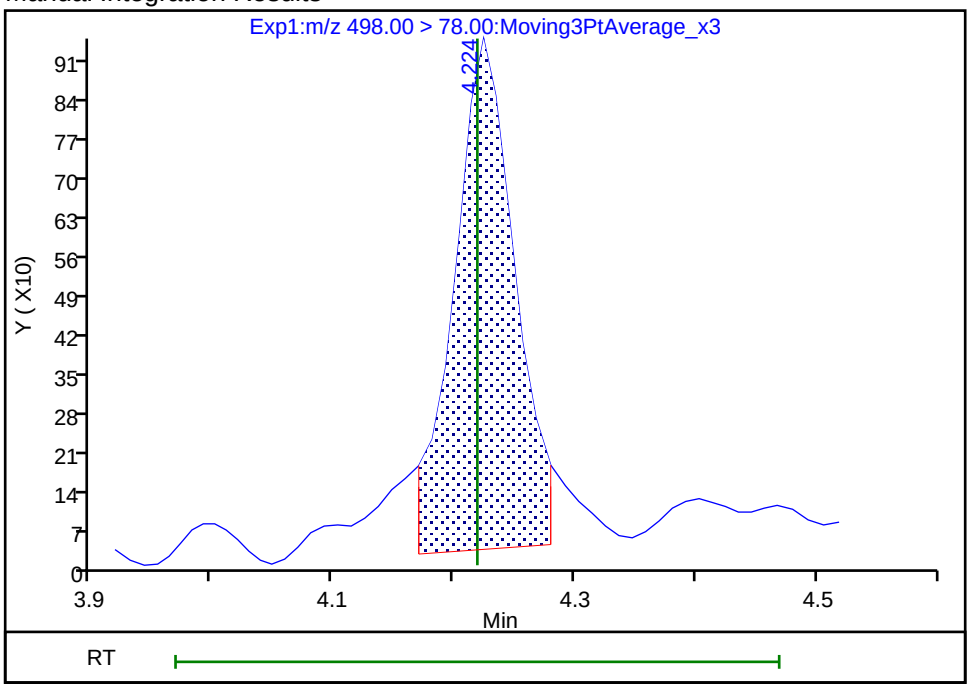
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 3170
Amount: 0.003373
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

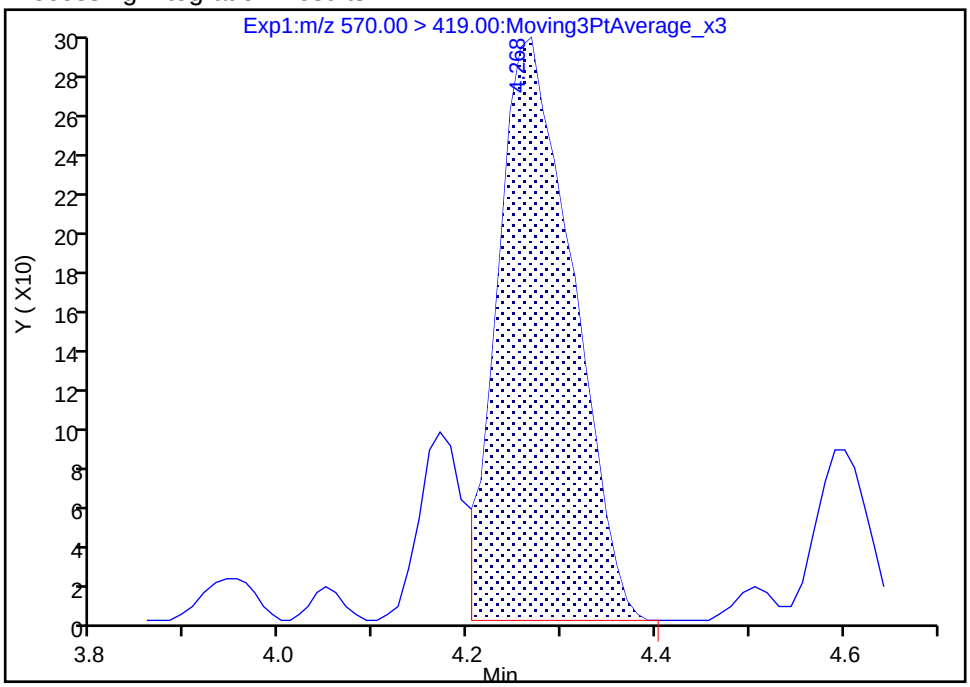
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

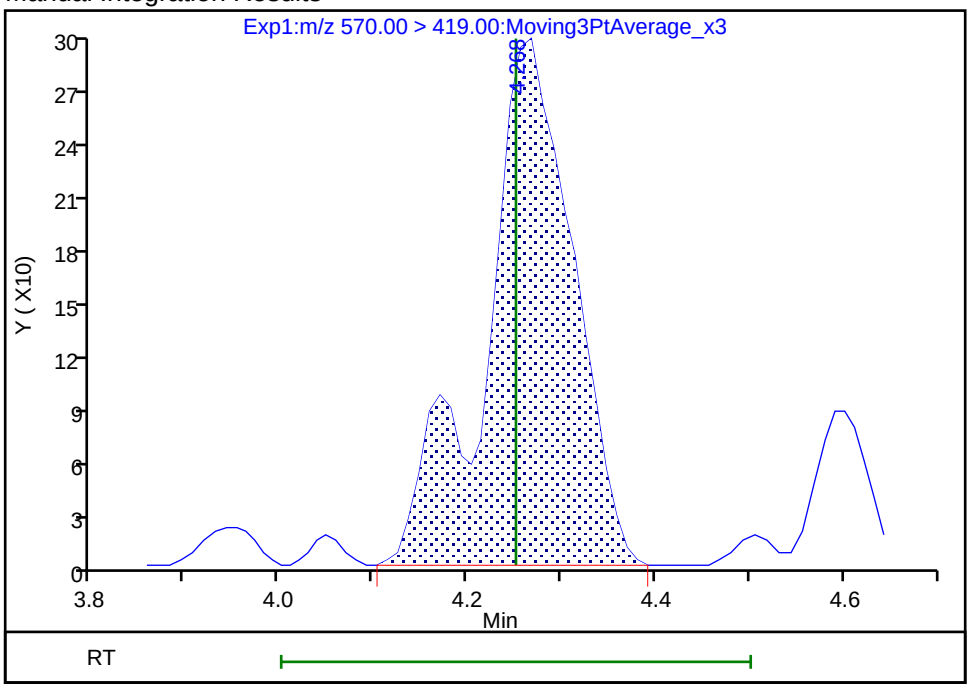
Processing Integration Results

RT: 4.27
Area: 1627
Amount: 0.020926
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 1925
Amount: 0.024758
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

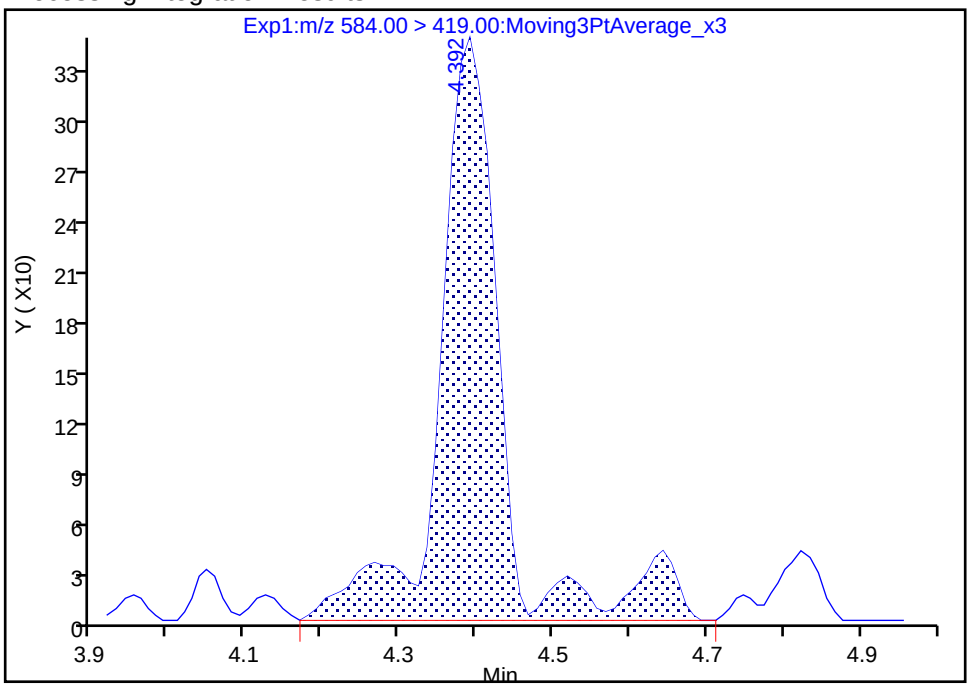
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 |
| Client ID: | MW-3S-20211029 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 Worklist Smp#: 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

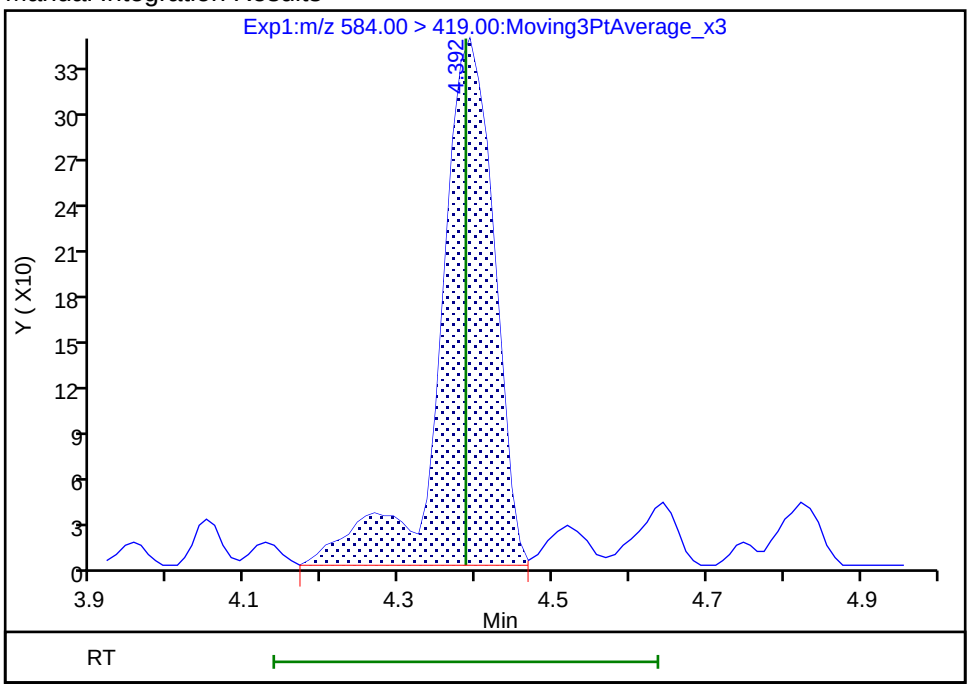
Processing Integration Results

RT: 4.39
Area: 1935
Amount: 0.026735
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 1698
Amount: 0.023461
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

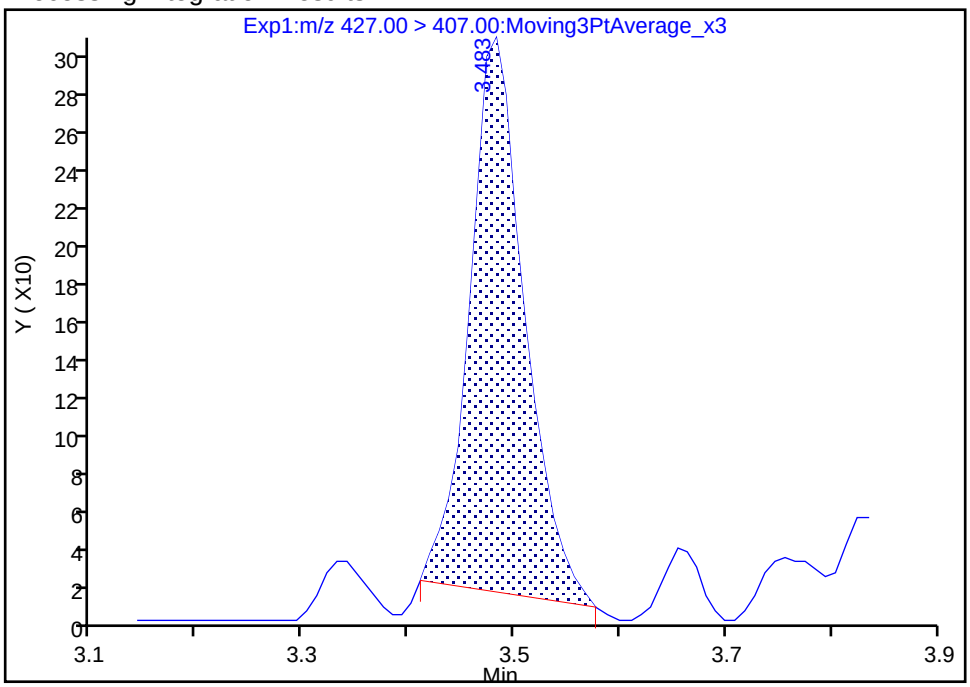
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

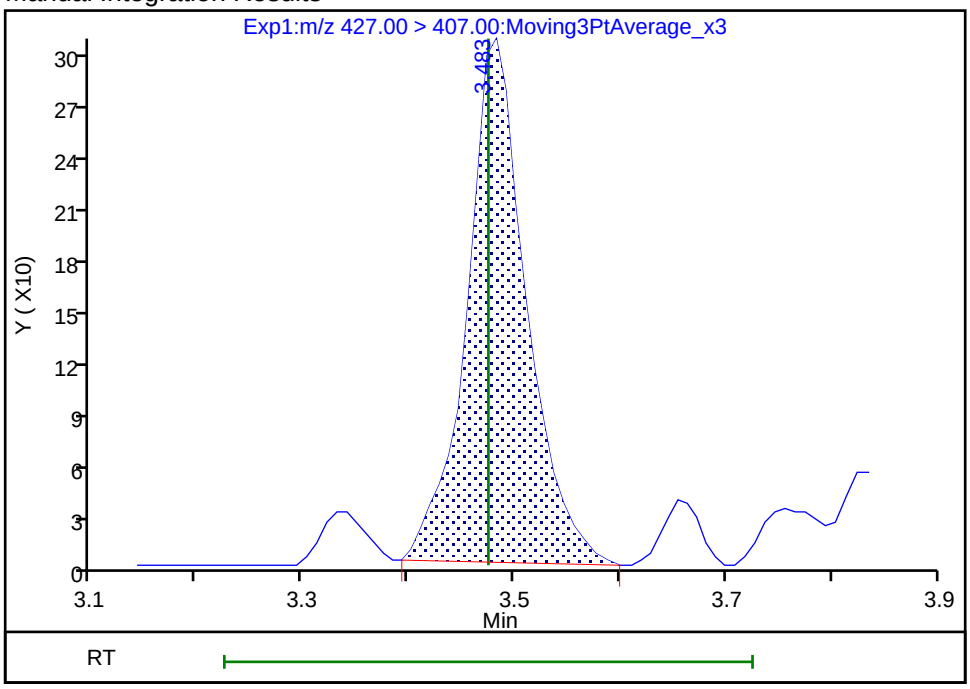
Processing Integration Results

RT: 3.48
Area: 1053
Amount: 0.005230
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1189
Amount: 0.005906
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:37:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

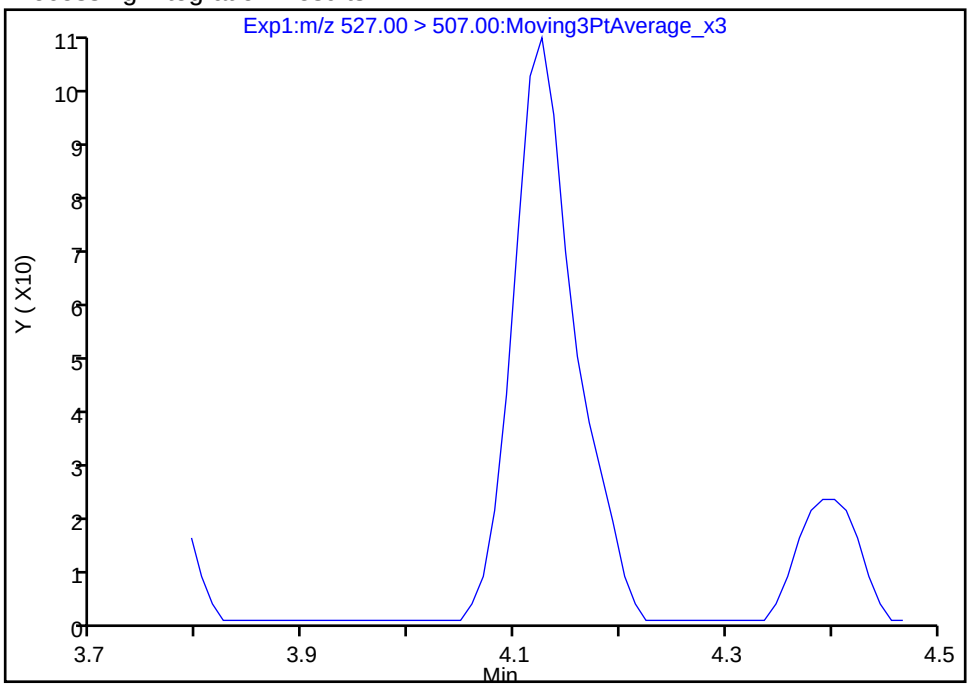
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A19.d | | | | |
| Injection Date: | 10-Nov-2021 13:49:58 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-27-A | Lab Sample ID: | 200-246277-27 | | |
| Client ID: | MW-3S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 16 | Worklist Smp#: | 19 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

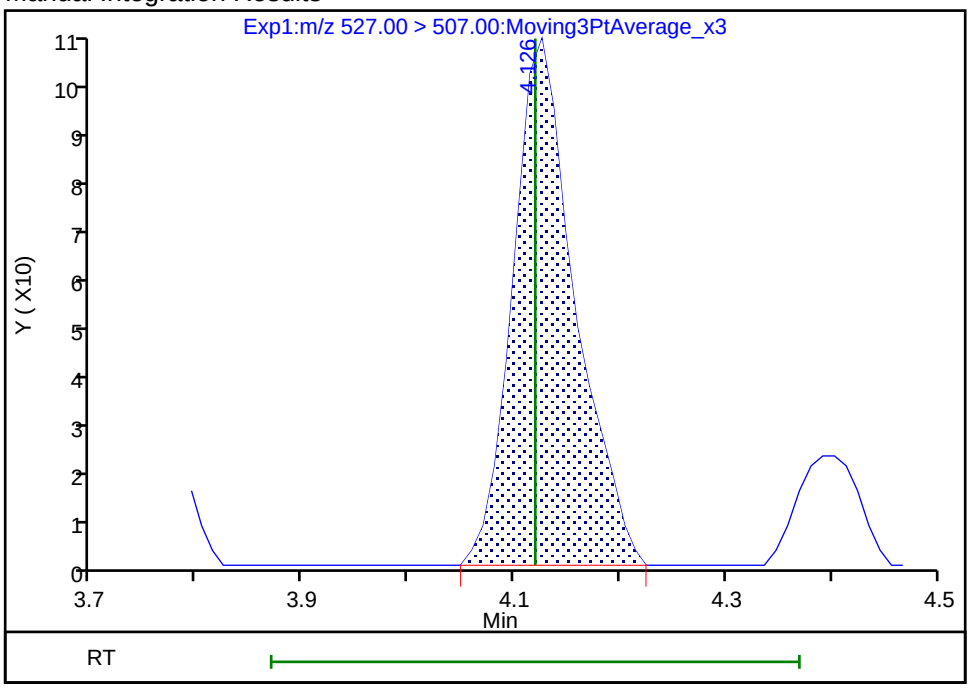
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 433
Amount: 0.003196
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:38:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-8-20211029  Lab Sample ID: 460-246277-28

Matrix: Water  Lab File ID: PA211110A23.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:40

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 293.7(mL)  Date Analyzed: 11/10/2021 14:22

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 25.8 | | 4.26 | 0.76 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 18.1 | | 1.70 | 0.40 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 33.1 | | 1.70 | 0.38 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 8.84 | | 1.70 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 48.8 | | 1.70 | 0.36 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.42 | J | 1.70 | 0.24 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.26 | U | 1.70 | 0.26 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.70 | 0.29 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.70 | 0.33 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.70 | 0.37 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.70 | 0.54 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 25.4 | B | 1.70 | 0.21 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 29.6 | | 1.70 | 0.20 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.70 | 0.26 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.70 | 0.49 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 4.26 | 0.77 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.63 | U | 4.26 | 0.63 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.93 | J | 4.26 | 0.93 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.70 | 0.33 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-8-20211029  Lab Sample ID: 460-246277-28

Matrix: Water  Lab File ID: PA211110A23.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:40

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 293.7(mL)  Date Analyzed: 11/10/2021 14:22

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL01892 | 13C4 PFHpA | 89 | | 50-150 |
| STL00990 | 13C4 PFOA | 93 | | 50-150 |
| STL00991 | 13C4 PFOS | 86 | | 50-150 |
| STL00995 | 13C5 PFNA | 85 | | 50-150 |
| STL00992 | 13C4 PFBA | 64 | | 25-150 |
| STL00993 | 13C2 PFHxA | 94 | | 50-150 |
| STL00996 | 13C2 PFDA | 75 | | 50-150 |
| STL00997 | 13C2 PFUnA | 77 | | 50-150 |
| STL00998 | 13C2 PFDoA | 67 | | 50-150 |
| STL01056 | 13C8 FOSA | 70 | | 25-150 |
| STL01893 | 13C5 PFPeA | 95 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 62 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 99 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 109 | | 50-150 |
| STL02279 | M2-6:2 FTS | 129 | | 25-150 |
| STL02280 | M2-8:2 FTS | 118 | | 25-150 |
| STL02337 | 13C3 PFBS | 96 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d
Lims ID: 460-246277-C-28-A
Client ID: AMW-8-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 14:22:42 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-28-A
Misc. Info.: 200-0048360-023 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:54:40
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.091 | 0.009 | 0.601 | 833669 | 0.7964 | | 63.7 | 894 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 0.996 | 477275 | 0.7568 | | | 21.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1041840 | 1.18 | | 94.5 | 459 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 444363 | 0.5322 | | | 2.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1327281 | 1.11 | | 95.7 | 19953 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.005 | 911104 | 0.7471 | Target=2.32 | | 34.5 | M |
| 298.90 > 99.00 | 2.439 | 2.427 | 0.012 | 1.005 | 418823 | | 2.18(1.16-3.48) | | 40.3 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1092370 | 1.18 | | 94.5 | 1785 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 861583 | 0.9721 | Target=12.09 | | 11.9 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 60706 | | 14.19(6.04-18.13) | | 26.7 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | EM |
| 399.00 > 80.00 | 3.143 | 3.133 | 0.010 | 1.003 | 23355538 | 27.1 | Target=3.55 | | 1216 | EM |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 6283683 | | 3.72(1.77-5.32) | | 1358 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 927514 | 1.07 | | 90.5 | 2702 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1085348 | 1.11 | | 89.2 | 2621 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 232859 | 0.2596 | Target=3.69 | | 7.4 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 62780 | | 3.71(1.84-5.53) | | 38.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 585475 | 0.8697 | Target=4.88 | | 20.3 | M |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 141053 | | 4.15(2.44-7.32) | | 37.5 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.492 | 3.475 | 0.017 | 1.003 | 6109 | 0.0272 | | | 40.2 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 210048 | 1.54 | | 129 | 44.1 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1239535 | 1.16 | | 93.2 | 4095 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1292717 | 1.25 | | | 3251 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1510873 | 1.43 | Target=2.68 | | 57.3 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 627337 | | 2.41(1.34-4.02) | | 660 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 645294 | 1.03 | | 86.2 | 186 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 14604931 | 24.9 | Target=4.69 | | 1320 | EM |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 3182466 | | 4.59(2.35-7.04) | | 1322 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1131130 | 1.07 | | 85.4 | 2328 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 36923 | 0.0417 | Target=7.29 | | 3.0 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.000 | 5589 | | 6.61(3.64-10.93) | | 8.0 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.108 | 0.018 | 1.182 | 1008846 | 0.9431 | | 75.4 | 2950 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.126 | 4.108 | 0.018 | 1.000 | 3434 | 0.004234 | Target=8.95 | | 0.5 | M |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 0.997 | 576 | | 5.96(4.47-13.42) | | 2.5 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 218195 | 1.41 | | 118 | 96.7 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.137 | 4.120 | 0.017 | 1.003 | 45 | 0.000295 | | | 1.3 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.219 | 0.015 | 1.213 | 899170 | 0.8715 | | 69.7 | 2689 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.219 | 0.015 | 1.000 | 2036 | 0.002980 | | | 6.6 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 130104 | 1.24 | | 98.9 | 858 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 0.997 | 166 | 0.002030 | | | 1.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 800765 | 0.9605 | | 76.8 | 2498 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 134718 | 1.37 | | 109 | 1105 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.193 | 4.387 | -0.194 | 0.955 | 554 | 0.005999 | | | 1.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 747351 | 0.8334 | | 66.7 | 1590 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.972 | 0.013 | 1.428 | 538124 | 0.7737 | | 61.9 | 1327 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.000 | 230 | 0.003385 | Target=1.01 | | 5.7 | RM |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 0.998 | 126 | | 1.83(0.51-1.52) | | 7.3 | M |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- E - Exceeded Maximum Amount

Review Flags
- M - Manually Integrated

Report Date: 11-Nov-2021 12:40:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d

Injection Date: 10-Nov-2021 14:22:42 Instrument ID: LC812

Lims ID: 460-246277-C-28-A Lab Sample ID: 200-246277-28

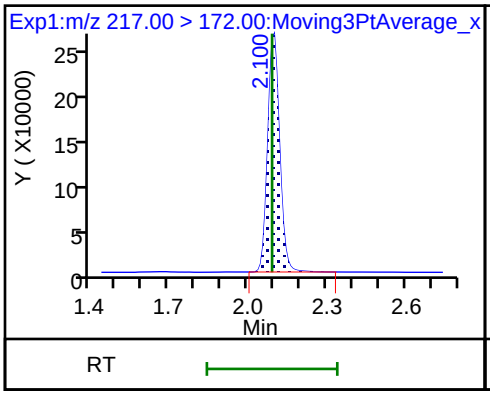
Client ID: AMW-8-20211029

Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23

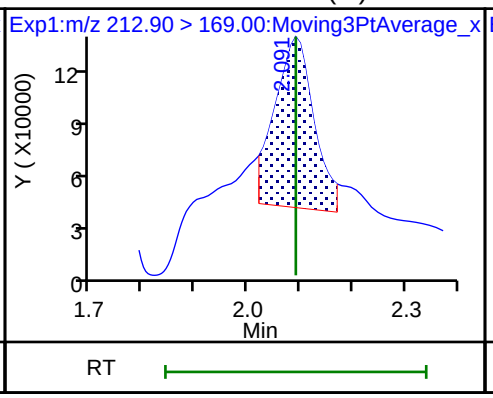
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

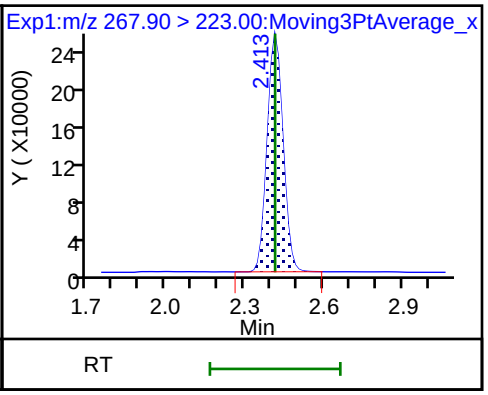
D 1 13C4 PFBA



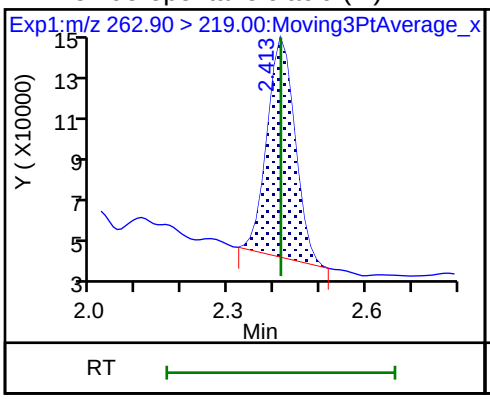

2 Perfluorobutanoic acid (M)



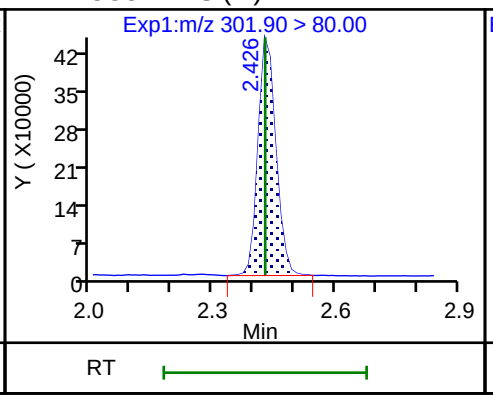

D 3 13C5 PFPeA



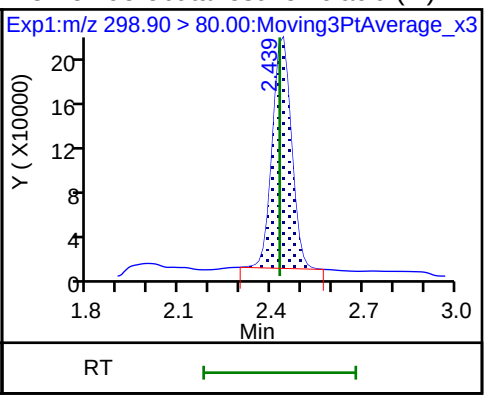

4 Perfluoropentanoic acid (M)



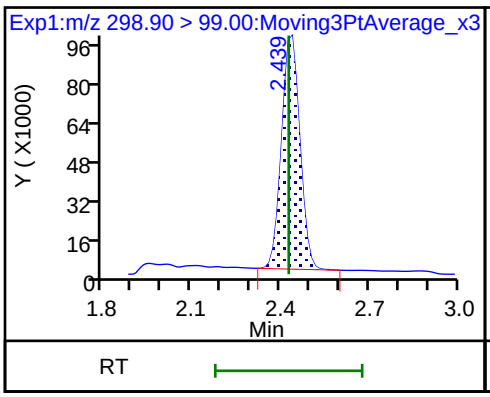

D 47 13C3 PFBS (M)



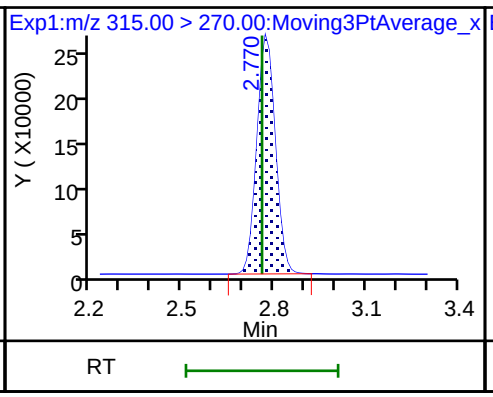

5 Perfluorobutanesulfonic acid (M)



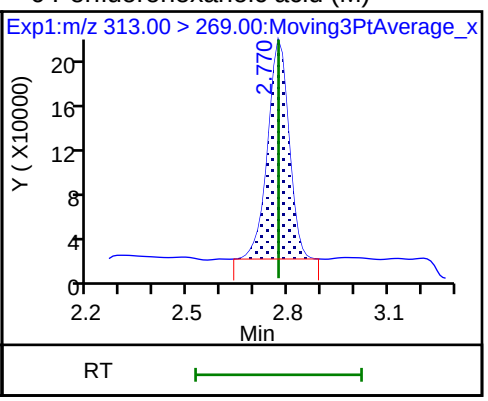

5 Perfluorobutanesulfonic acid



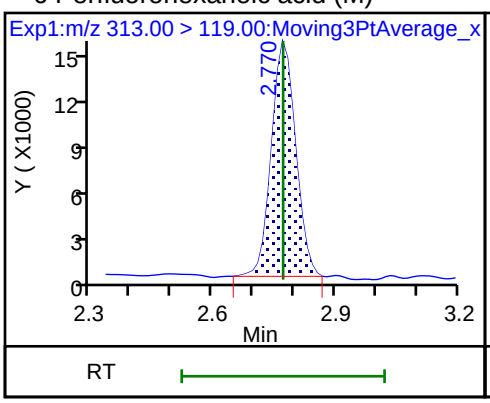

D 7 13C2 PFHxA



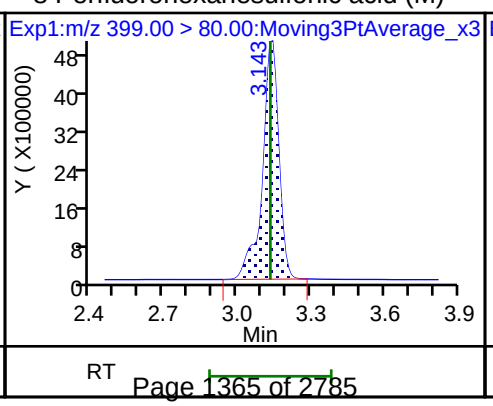

6 Perfluorohexanoic acid (M)



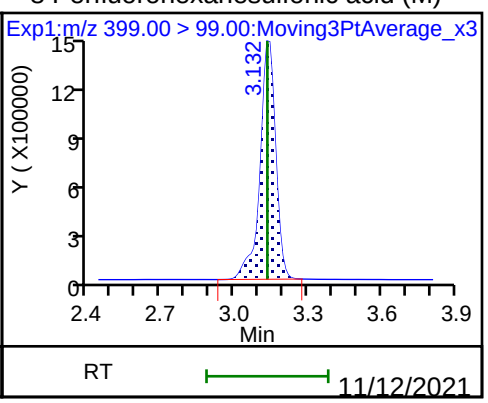

6 Perfluorohexanoic acid (M)



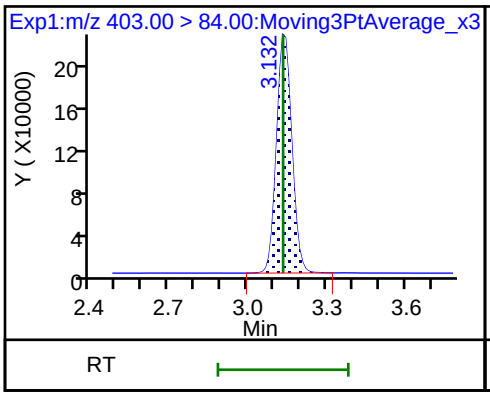

8 Perfluorohexanesulfonic acid (M)



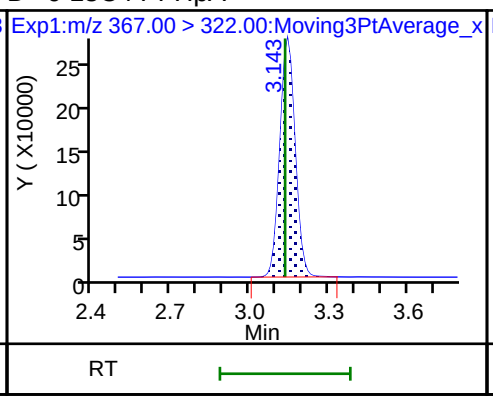

8 Perfluorohexanesulfonic acid (M)



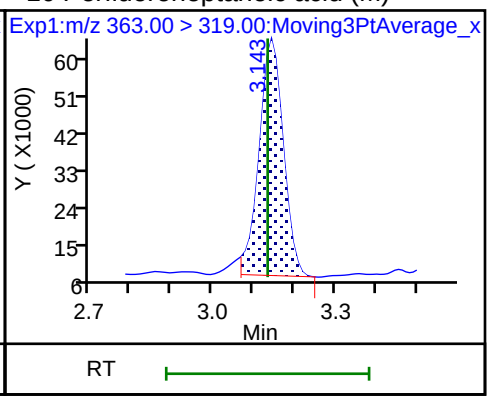
D 11 18O2 PFHxS



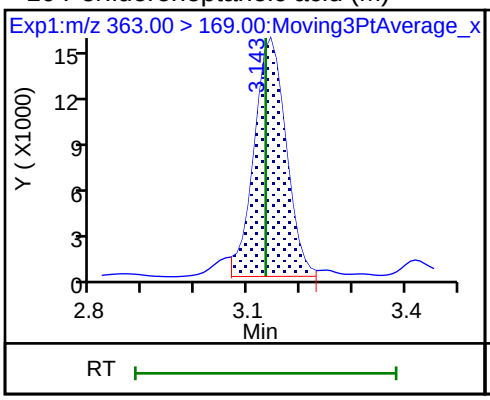

D 9 13C4 PFHpA



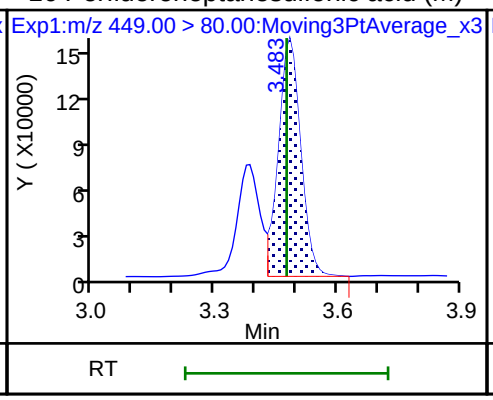

10 Perfluoroheptanoic acid (M)



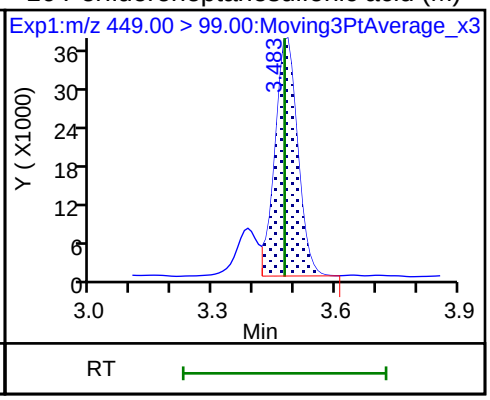

10 Perfluoroheptanoic acid (M)



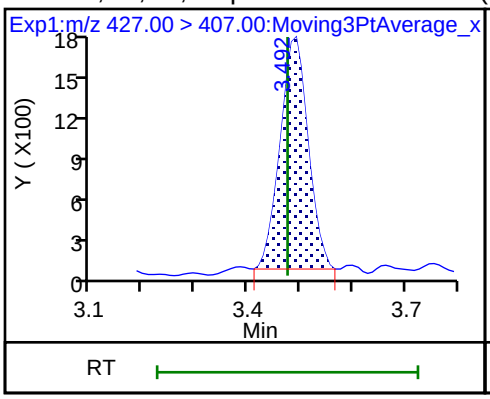

16 Perfluoroheptanesulfonic acid (M)



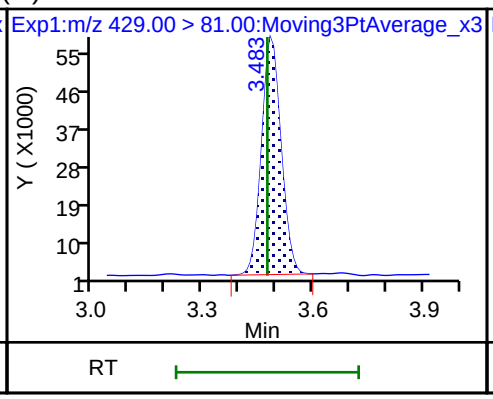

16 Perfluoroheptanesulfonic acid (M)



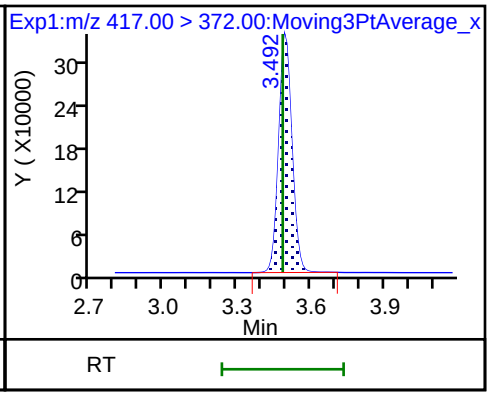

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



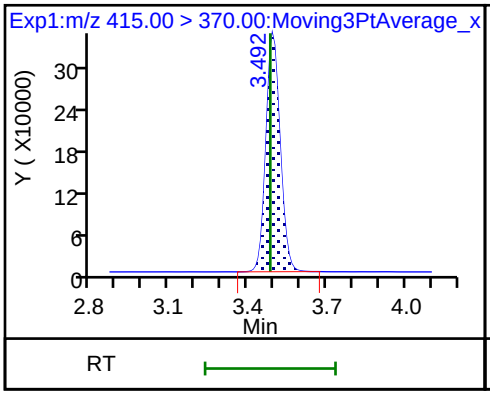

D 12 M2-6:2 FTS



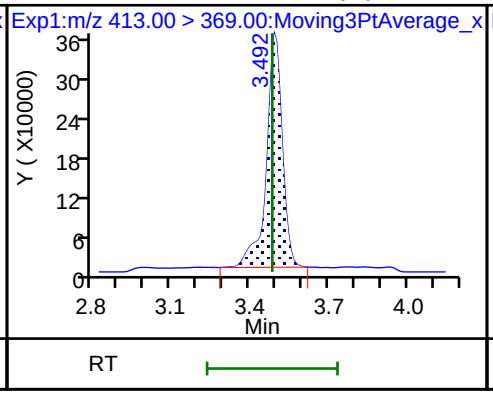

D 14 13C4 PFOA



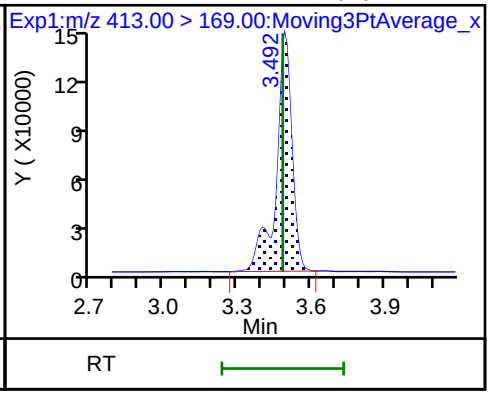

* 62 13C2 PFOA



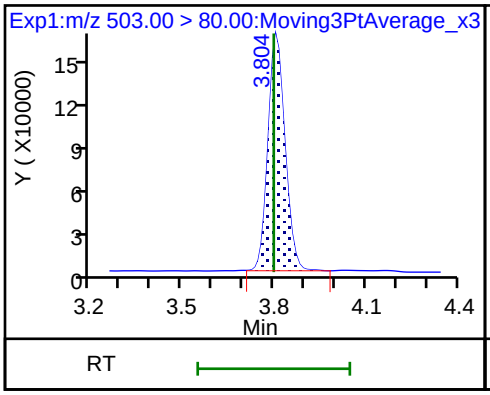

15 Perfluorooctanoic acid (M)



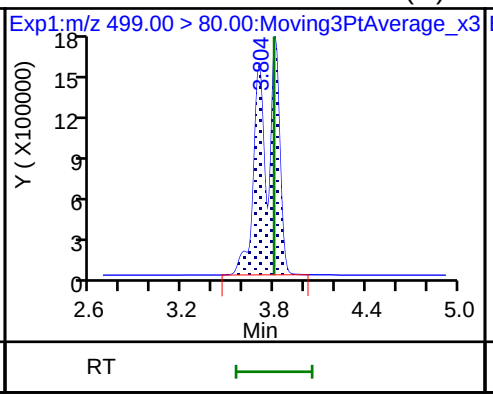

15 Perfluorooctanoic acid (M)



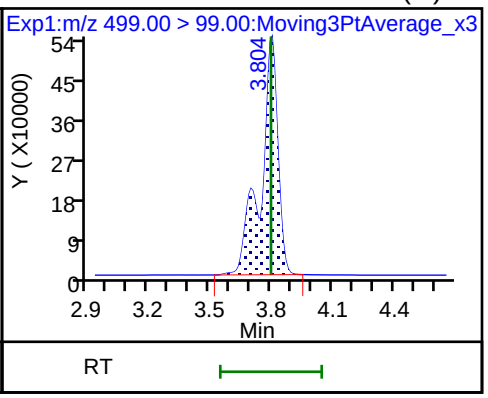
D 18 13C4 PFOS



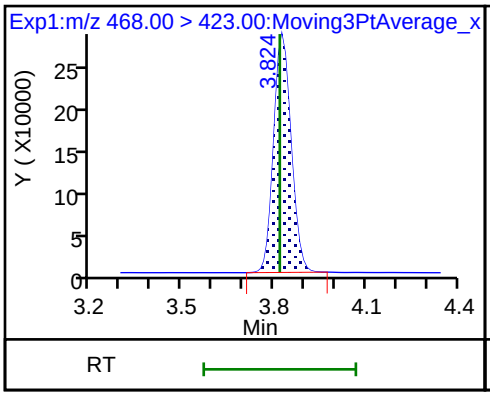

17 Perfluorooctanesulfonic acid (M)



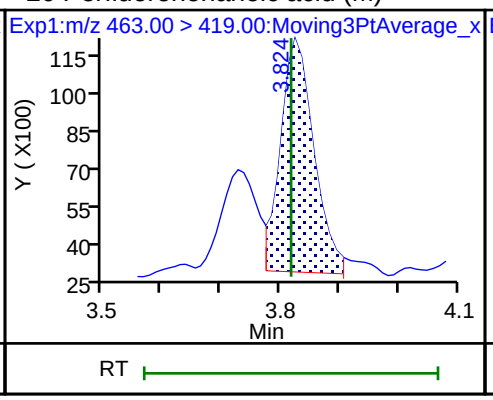

17 Perfluorooctanesulfonic acid (M)



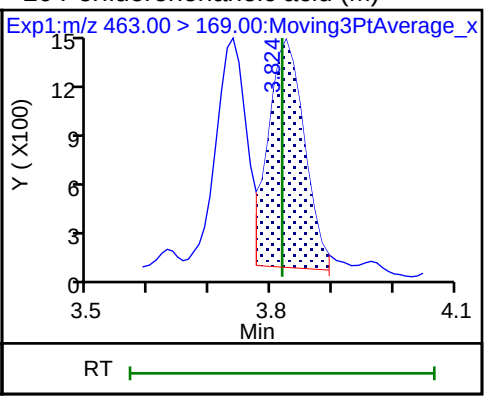

D 19 13C5 PFNA



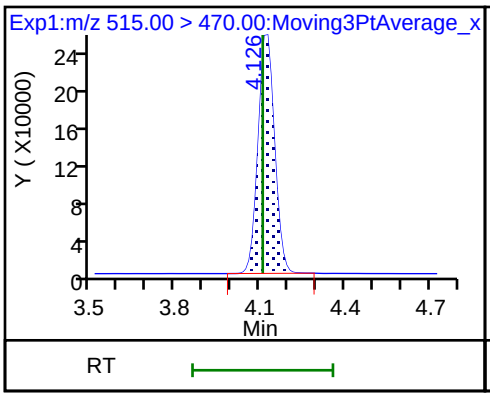

20 Perfluorononanoic acid (M)



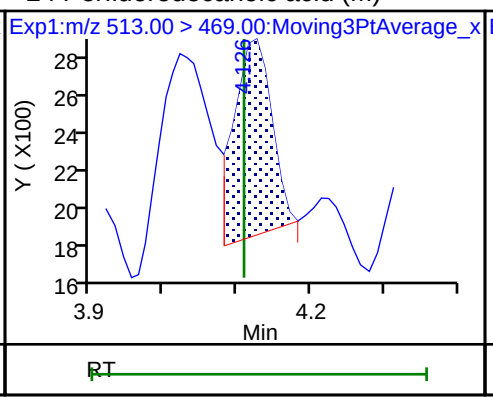

20 Perfluorononanoic acid (M)



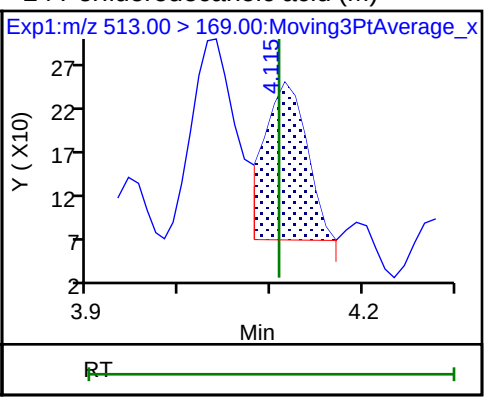

D 23 13C2 PFDA



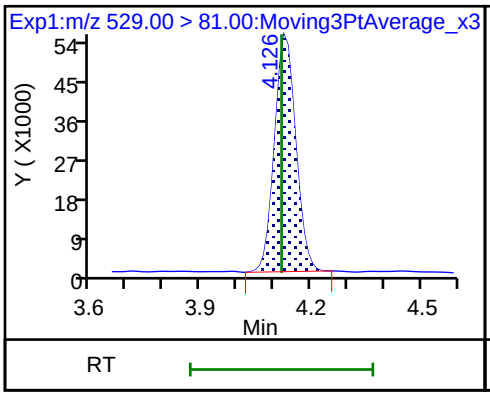

24 Perfluorodecanoic acid (M)



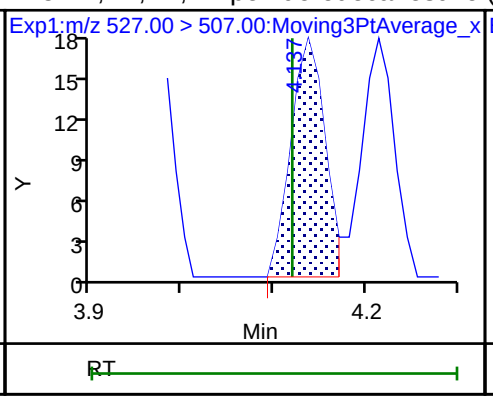

24 Perfluorodecanoic acid (M)



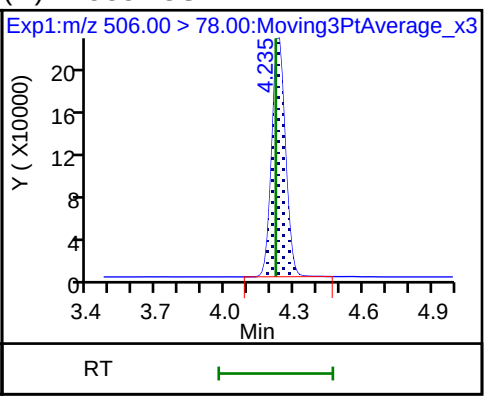

D 26 M2-8:2 FTS



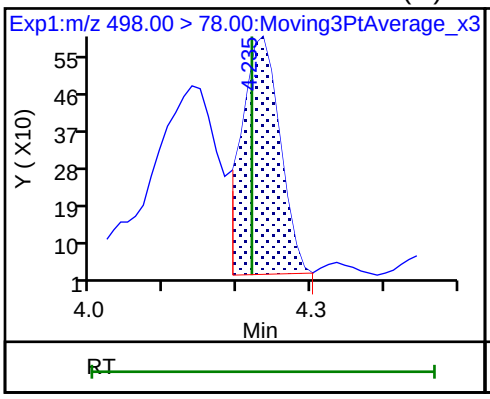

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



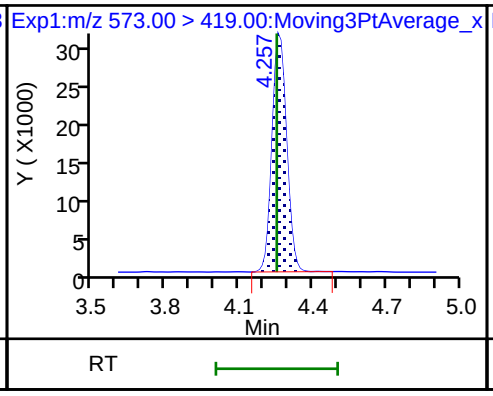

D 21 13C8 FOSA



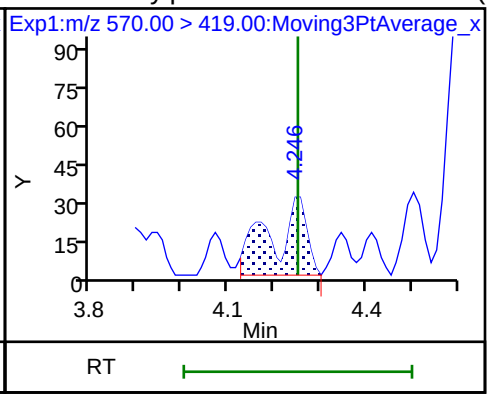
22 Perfluorooctanesulfonamide (M)



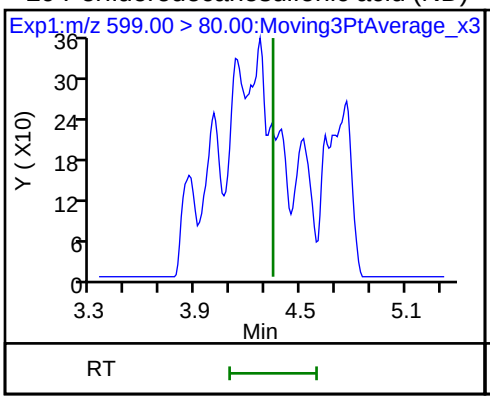

D 27 d3-NMeFOSAA



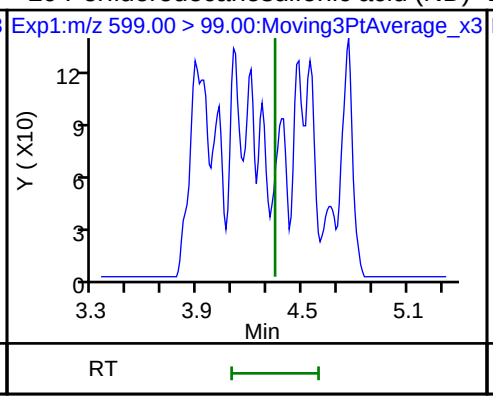

28 N-methylperfluorooctanesulfonami (M)



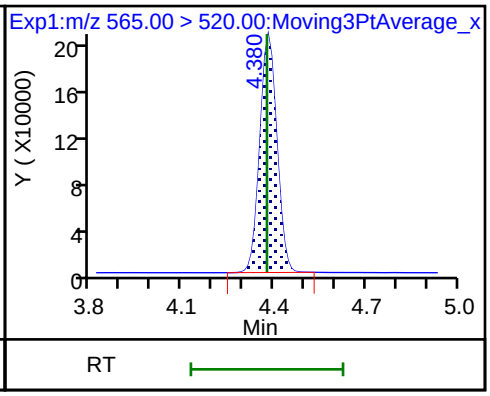

29 Perfluorodecanesulfonic acid (ND)



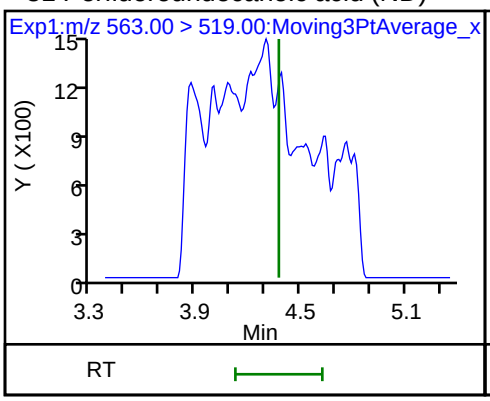

29 Perfluorodecanesulfonic acid (ND)



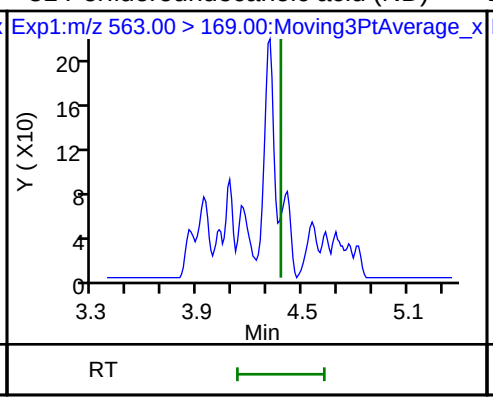

D 30 13C2 PFUnA



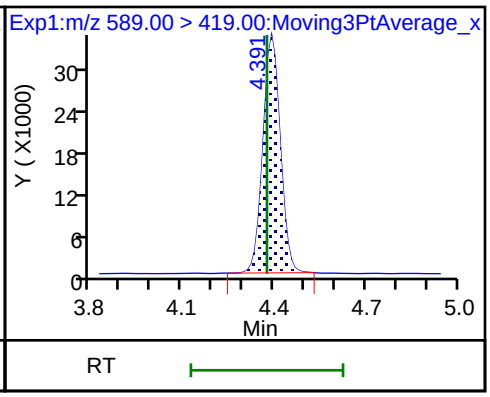

31 Perfluoroundecanoic acid (ND)



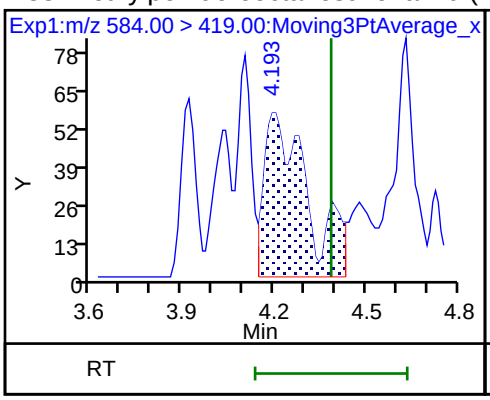

31 Perfluoroundecanoic acid (ND)



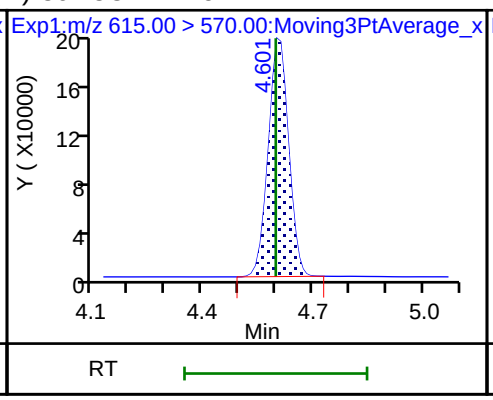

D 32 d5-NEtFOSAA



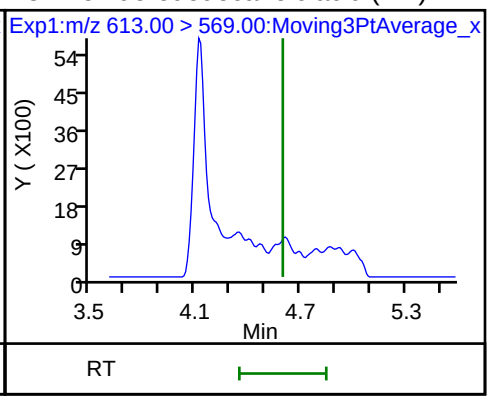

33 N-ethylperfluorooctanesulfonamid (ND)



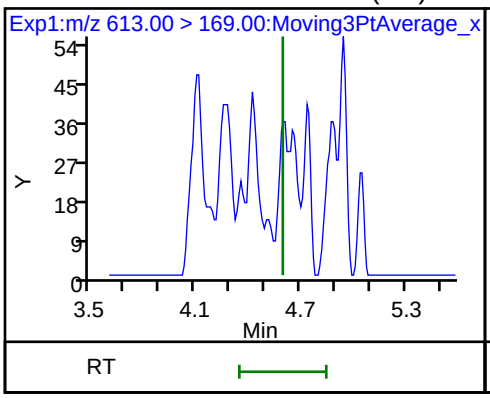

D 36 13C2 PFDoA



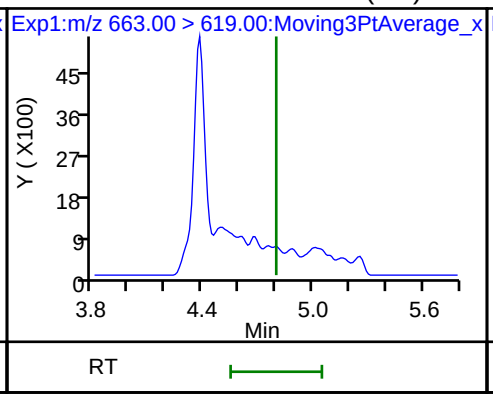

37 Perfluorododecanoic acid (ND)



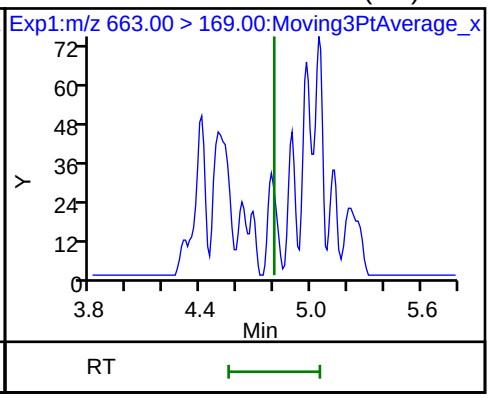
37 Perfluorododecanoic acid (ND)



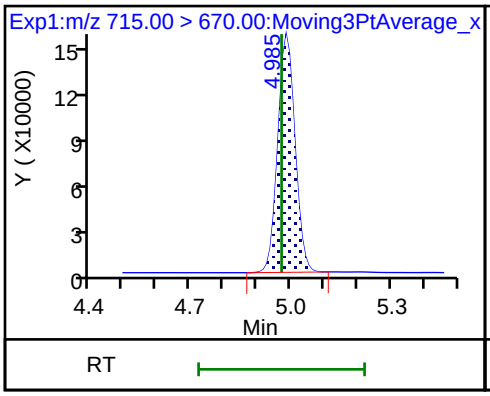

41 Perfluorotridecanoic acid (ND)



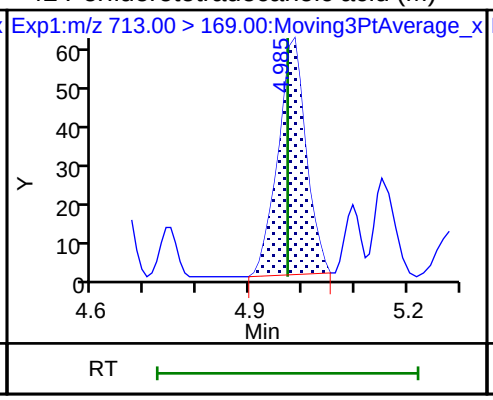

41 Perfluorotridecanoic acid (ND)



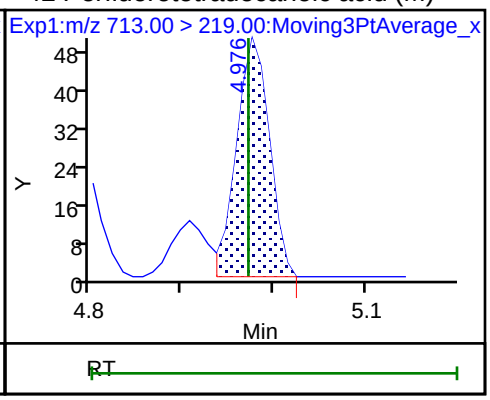

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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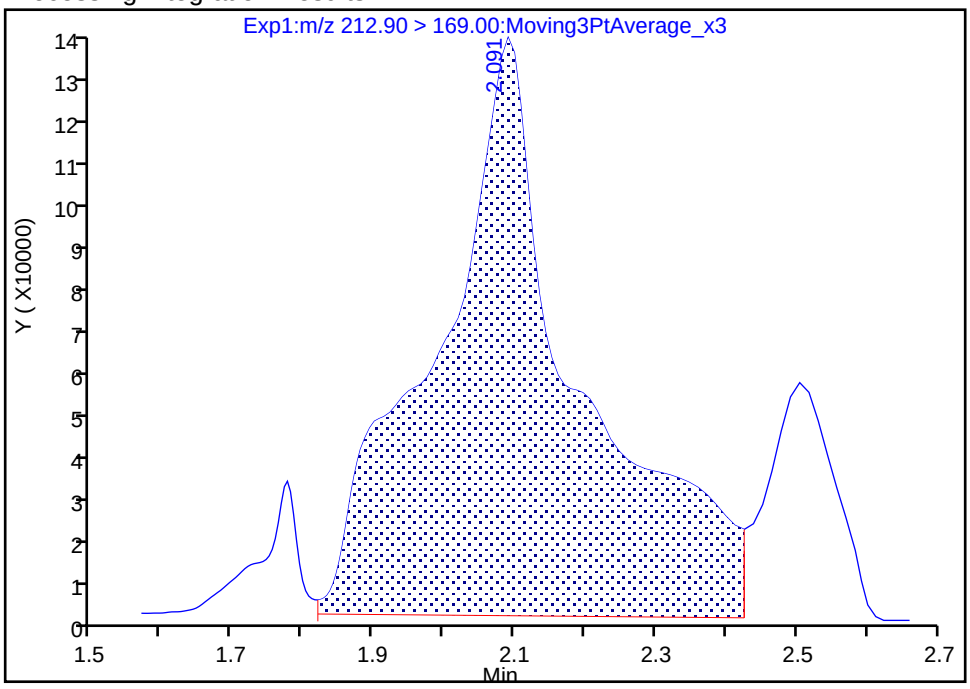
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

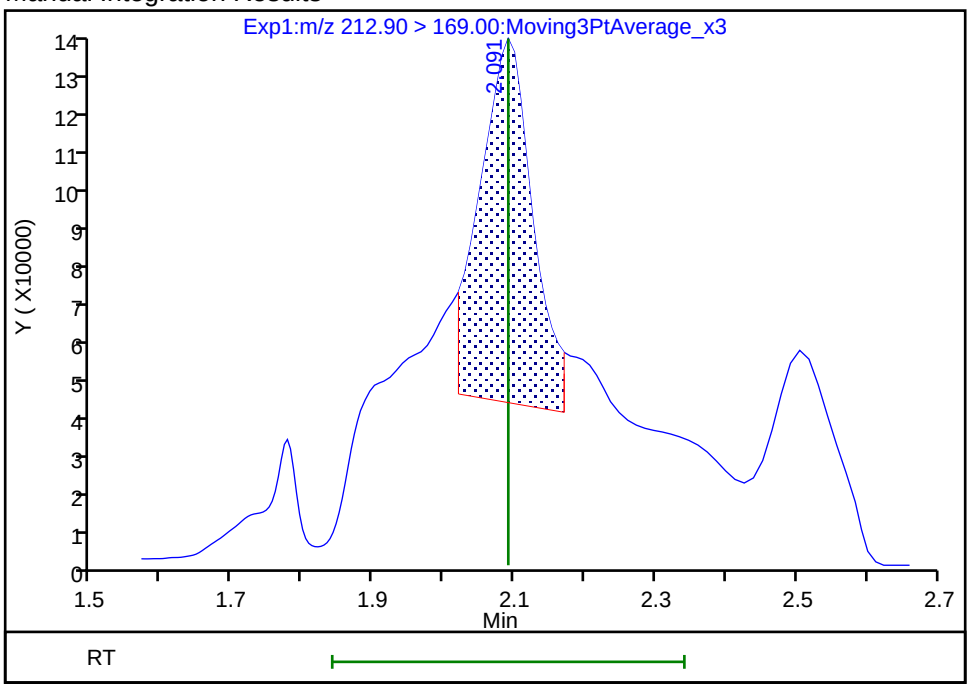
Processing Integration Results

RT: 2.09
Area: 1873801
Amount: 2.971332
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 477275
Amount: 0.756827
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:51:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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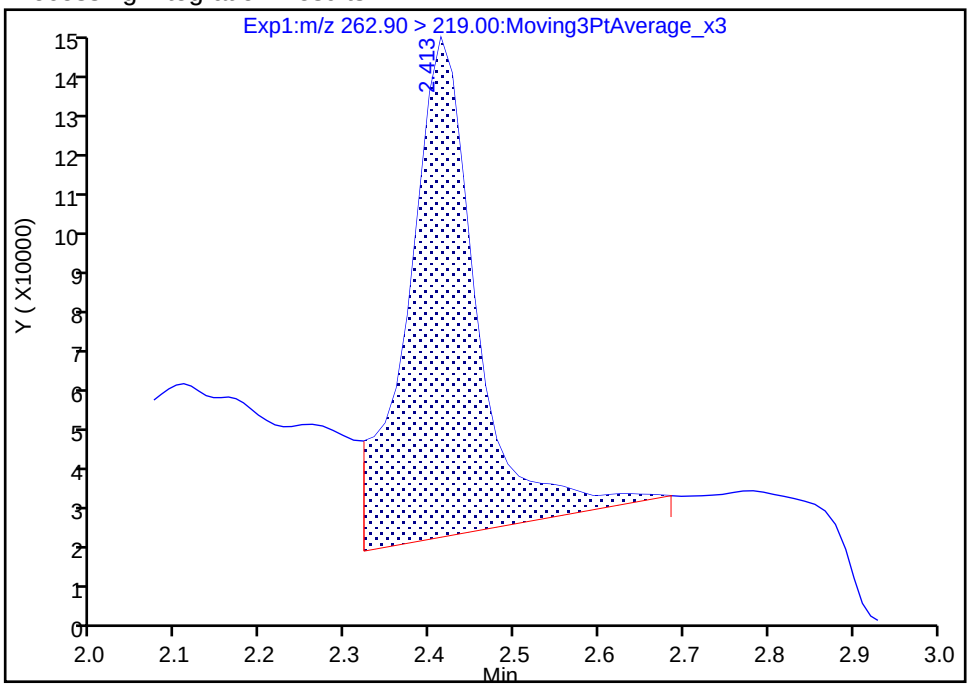
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

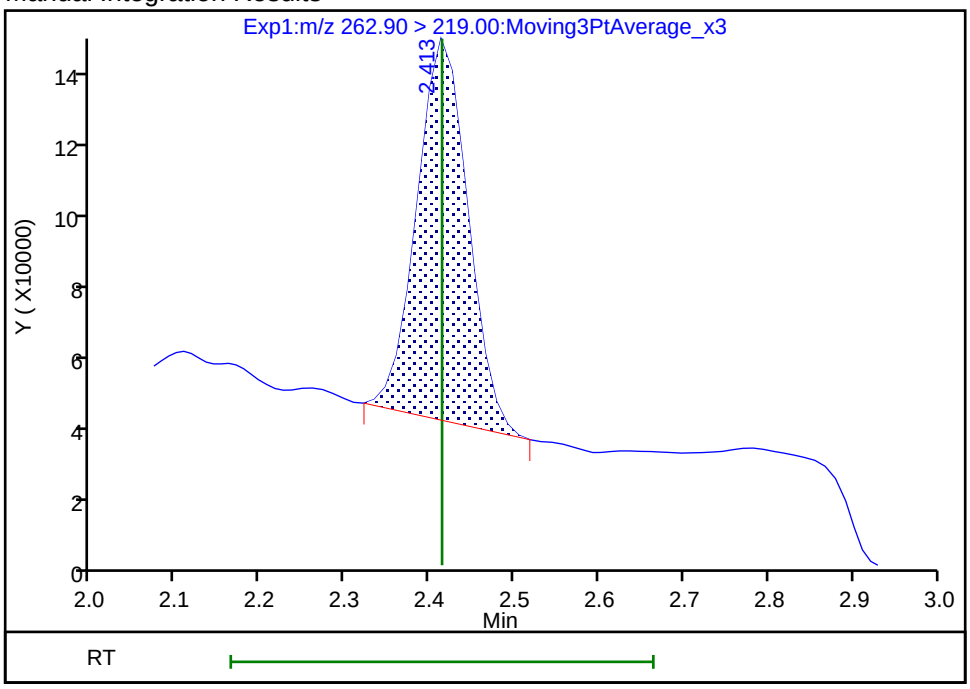
Processing Integration Results

RT: 2.41
Area: 707952
Amount: 0.847936
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 444363
Amount: 0.532227
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:51:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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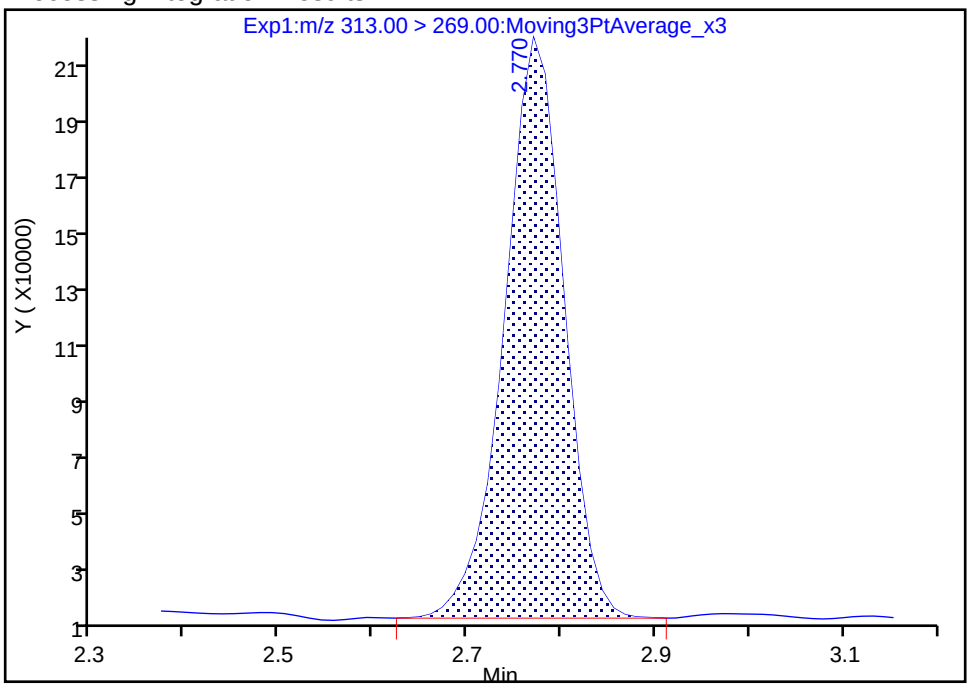
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

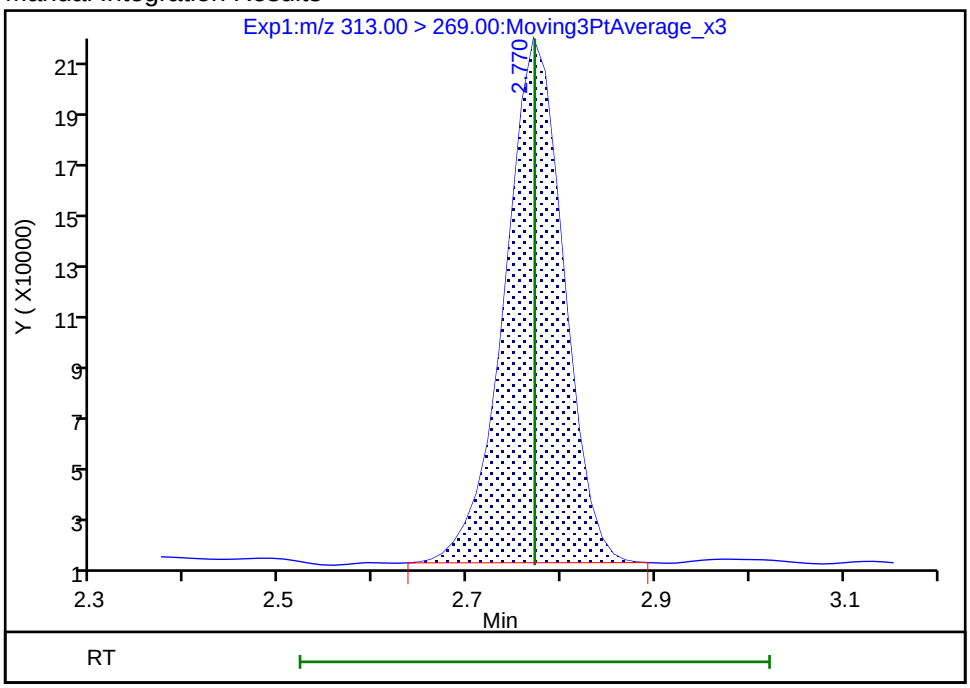
Processing Integration Results

RT: 2.77
Area: 864495
Amount: 0.975416
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 861583
Amount: 0.972130
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:51:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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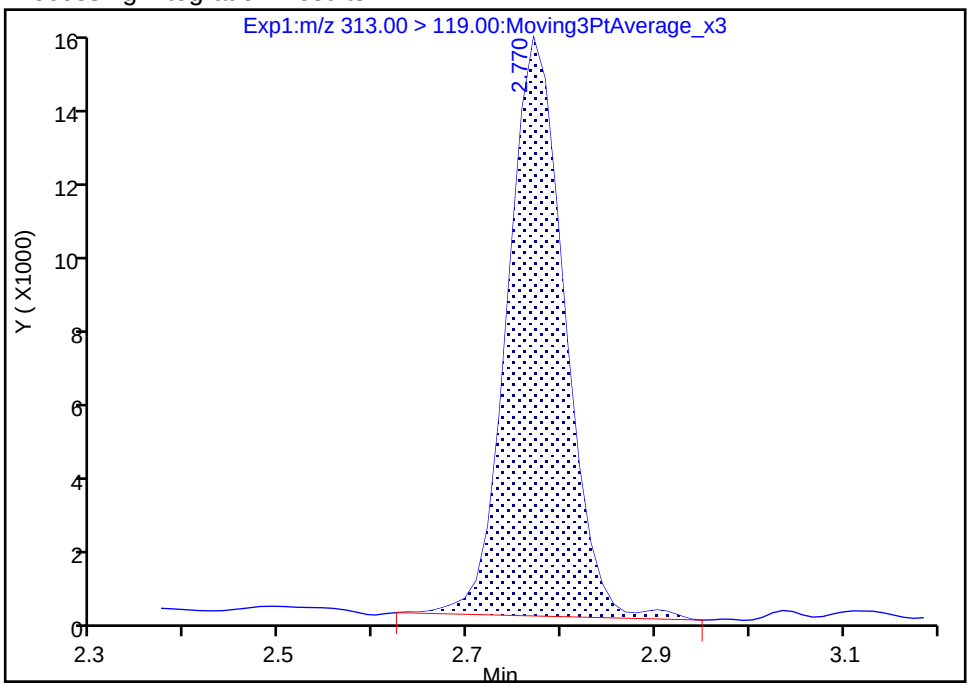
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

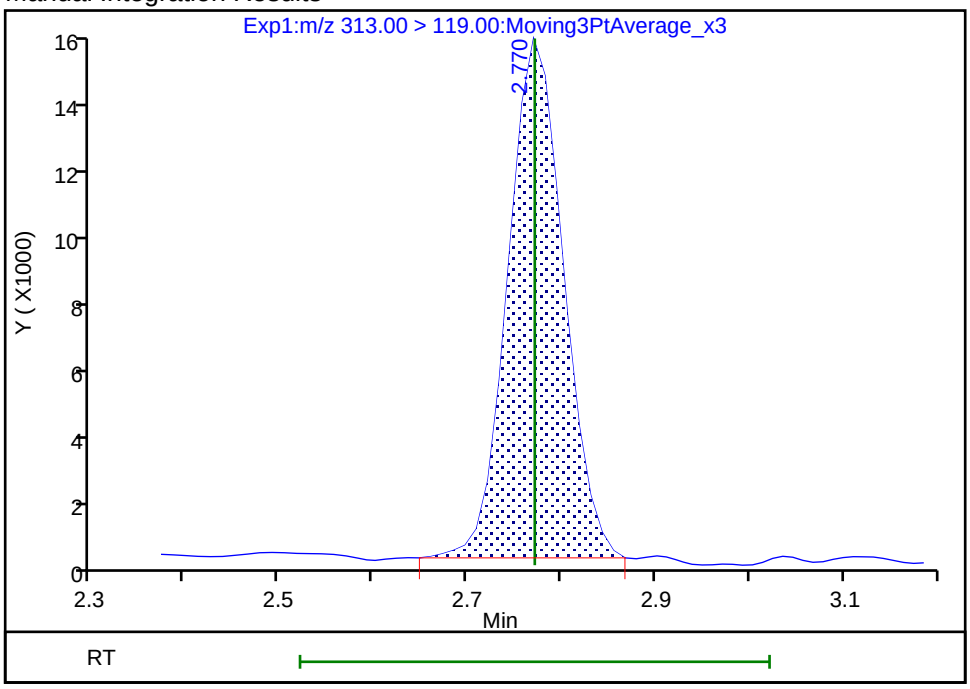
Processing Integration Results

RT: 2.77
Area: 62558
Amount: 0.975416
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 60706
Amount: 0.972130
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:51:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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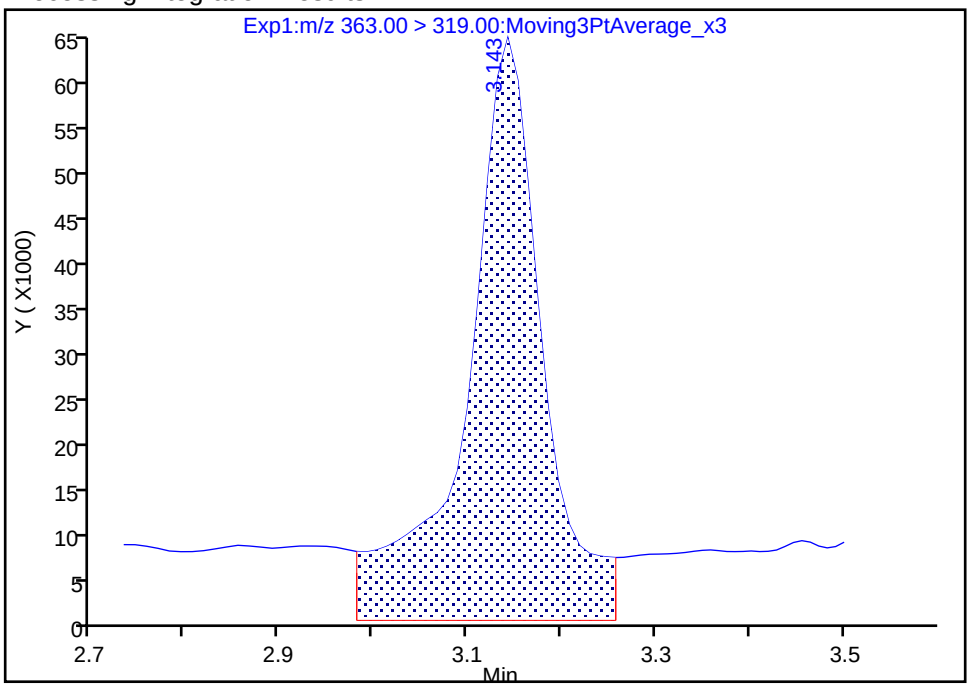
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

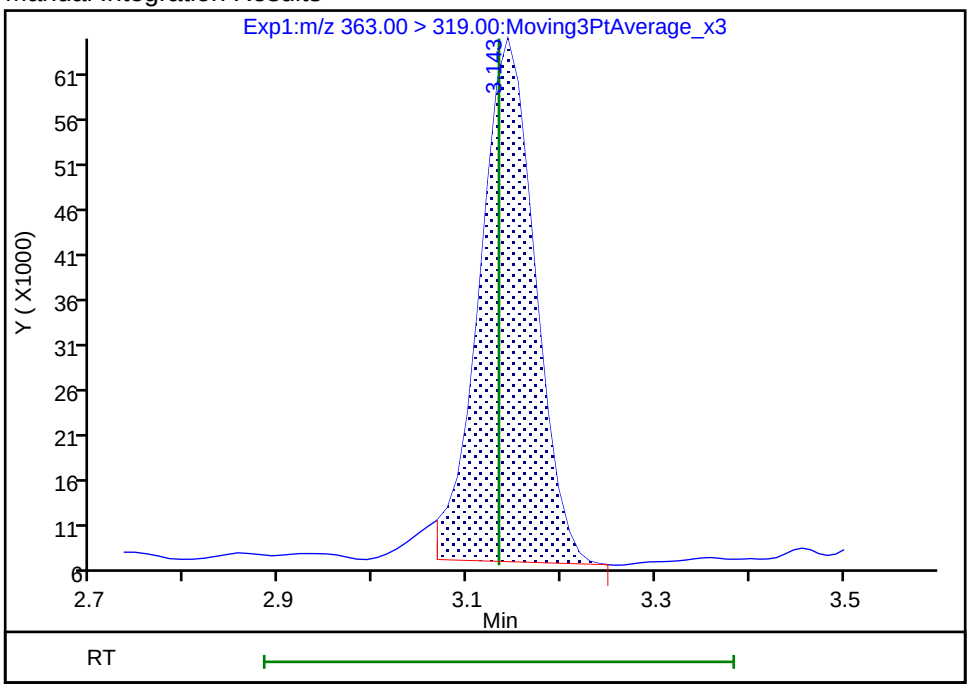
Processing Integration Results

RT: 3.14
Area: 362293
Amount: 0.403840
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 232859
Amount: 0.259563
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:52:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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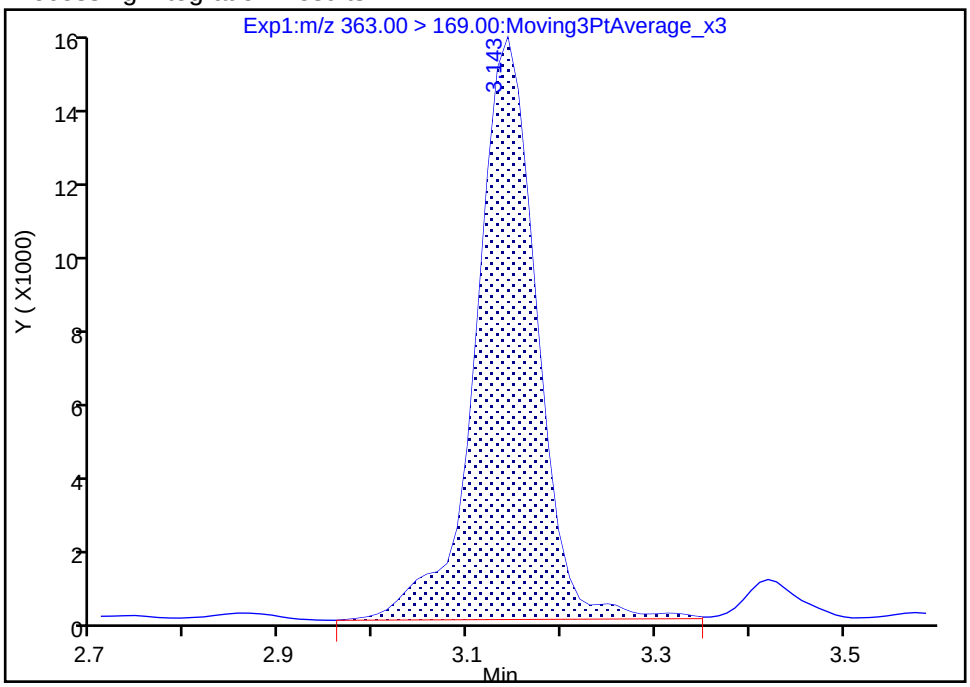
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

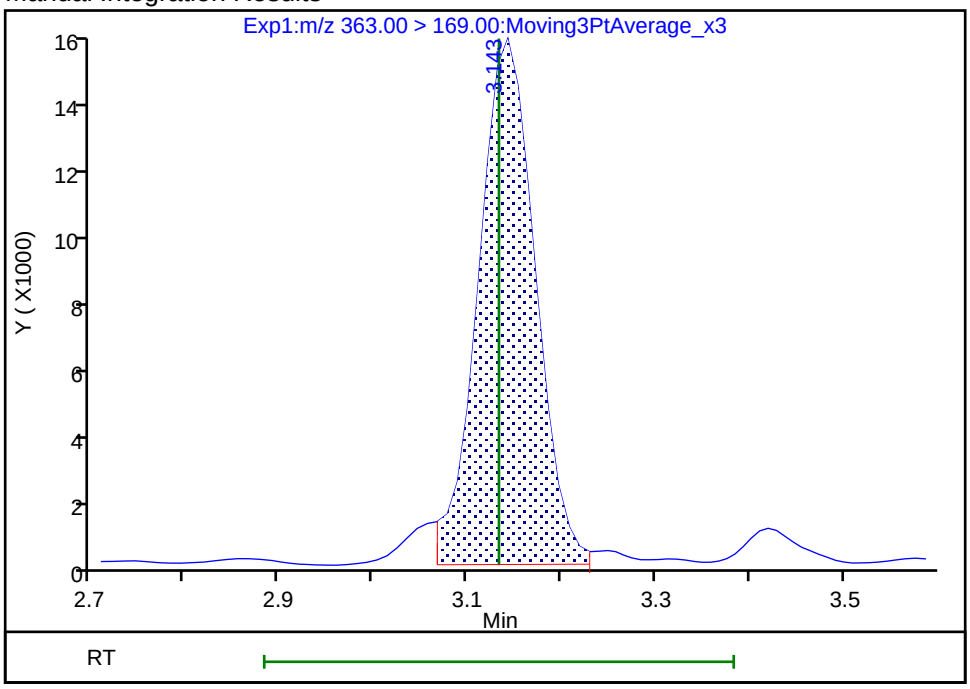
Processing Integration Results

RT: 3.14
Area: 67123
Amount: 0.403840
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 62780
Amount: 0.259563
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:52:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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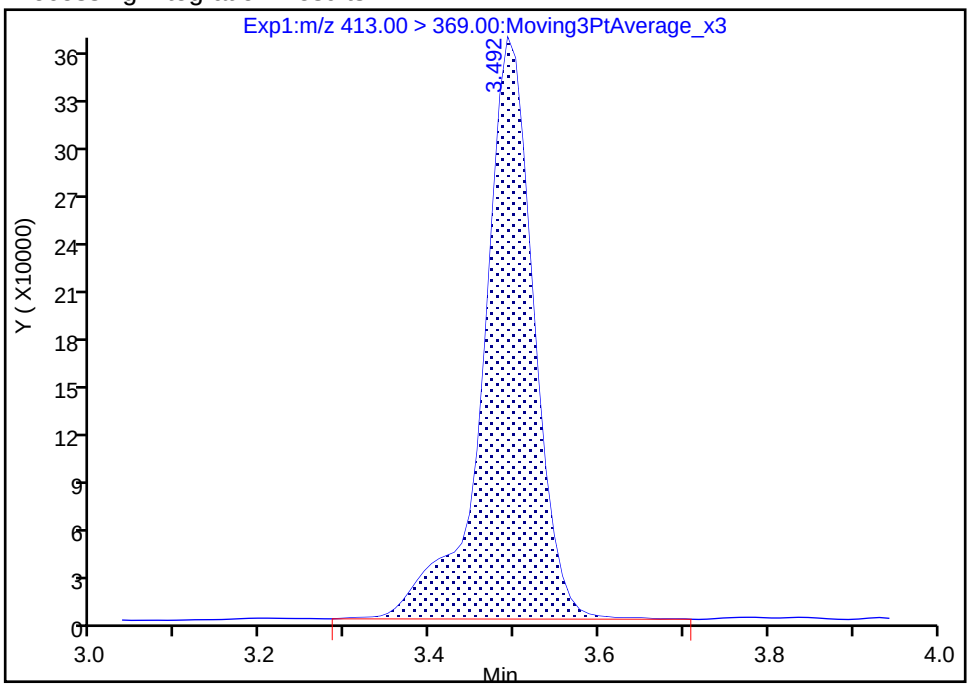
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

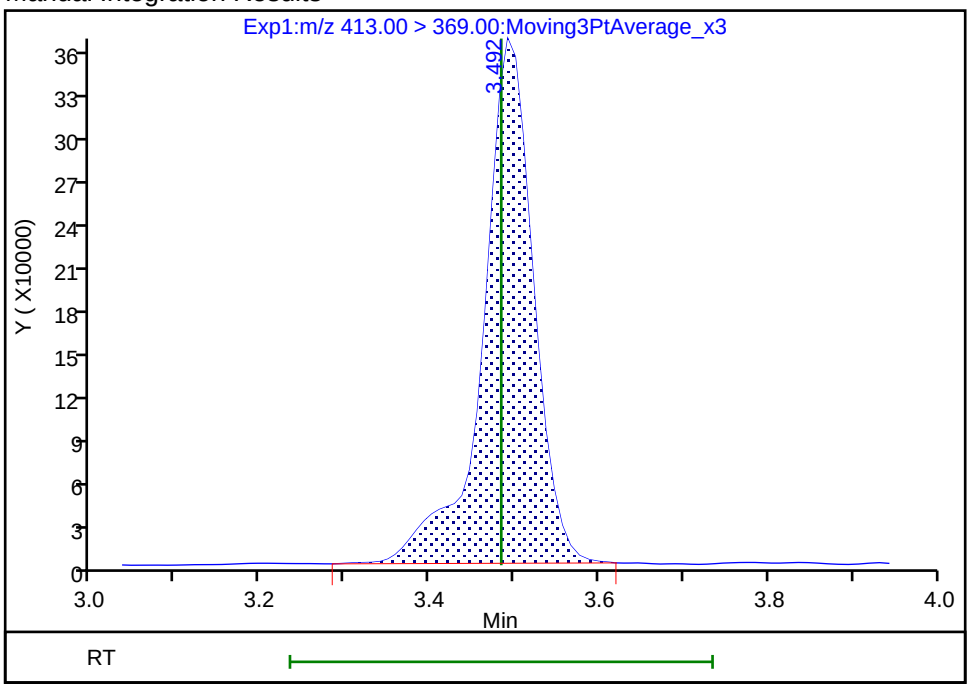
Processing Integration Results

RT: 3.49
Area: 1522043
Amount: 1.443331
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1510873
Amount: 1.432739
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:52:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

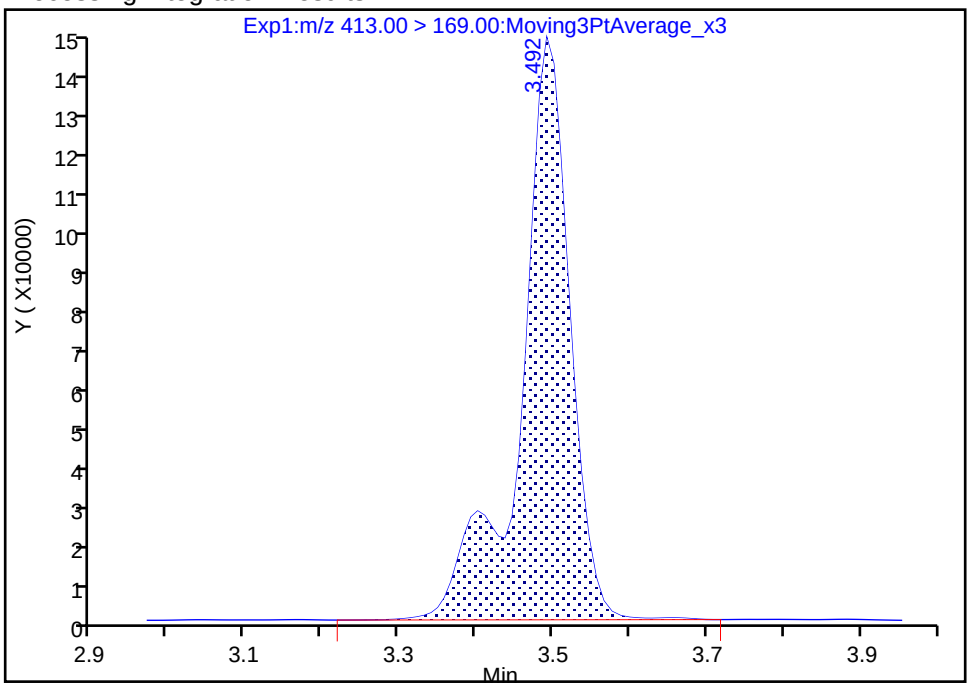
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

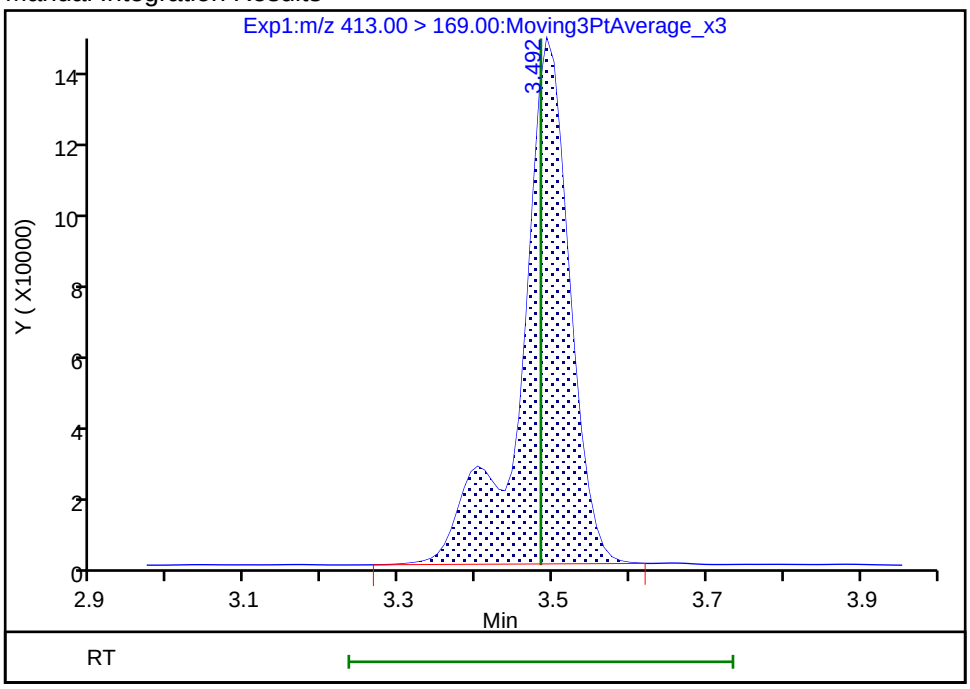
Processing Integration Results

RT: 3.49
Area: 632720
Amount: 1.443331
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 627337
Amount: 1.432739
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:52:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

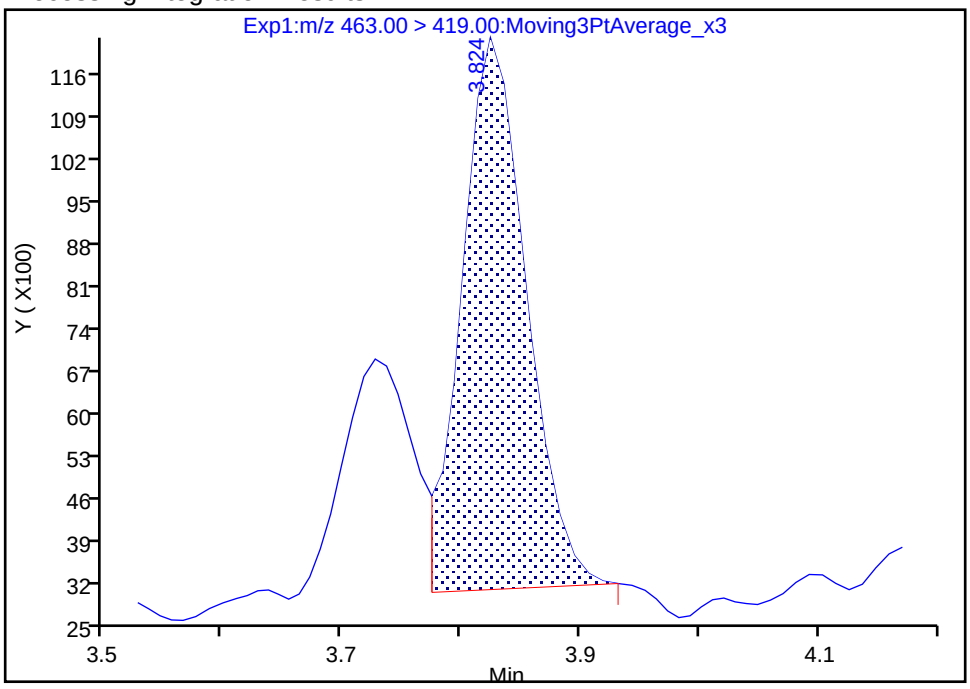
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

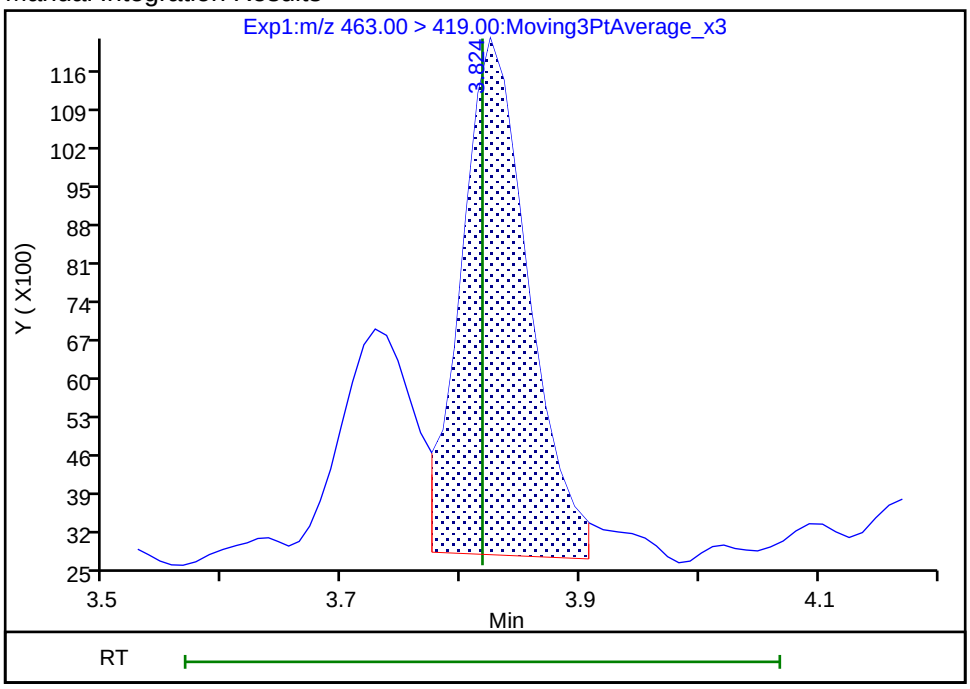
Processing Integration Results

RT: 3.82
Area: 34280
Amount: 0.038721
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 36923
Amount: 0.041707
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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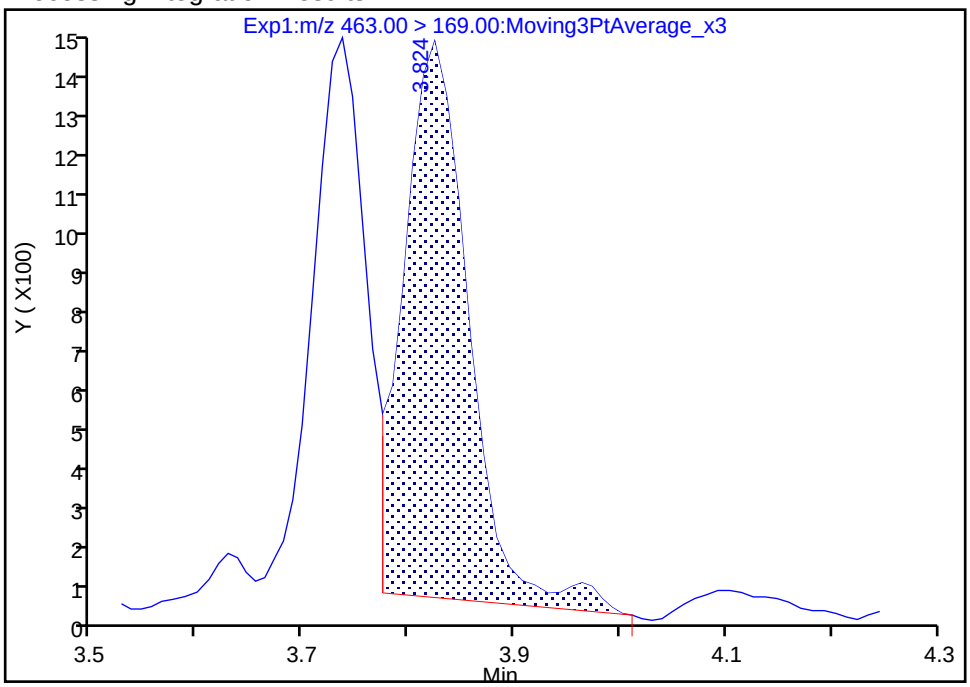
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

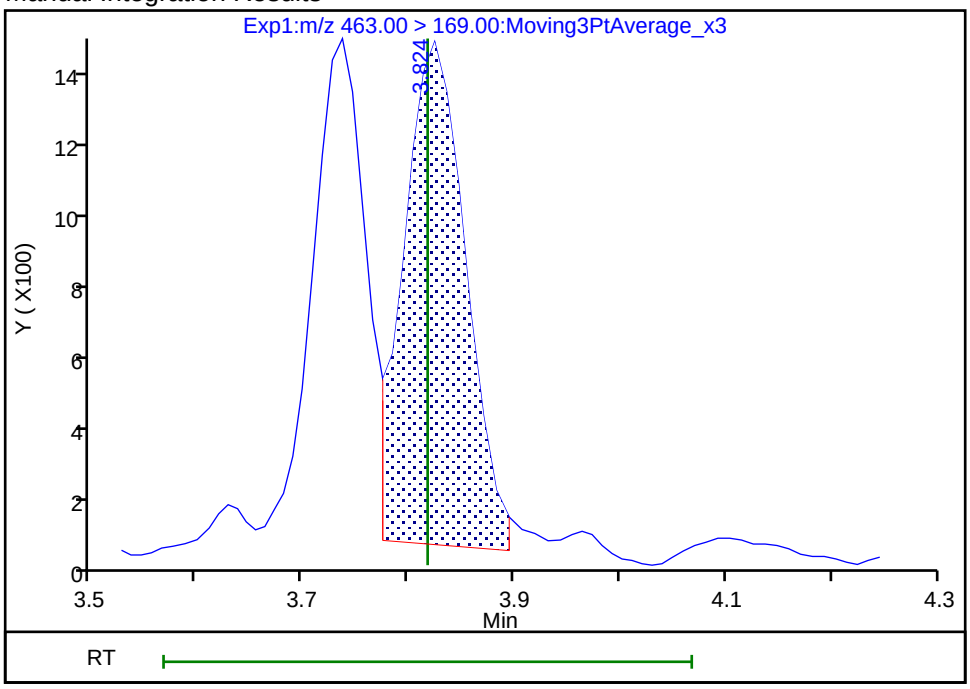
Processing Integration Results

RT: 3.82
Area: 5897
Amount: 0.038721
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 5589
Amount: 0.041707
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

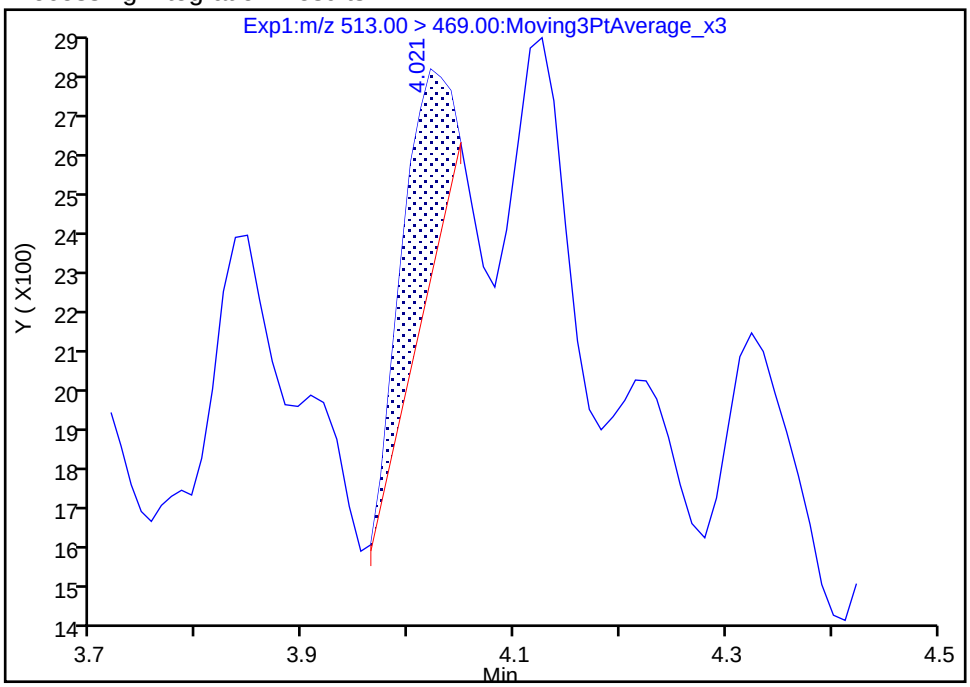
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

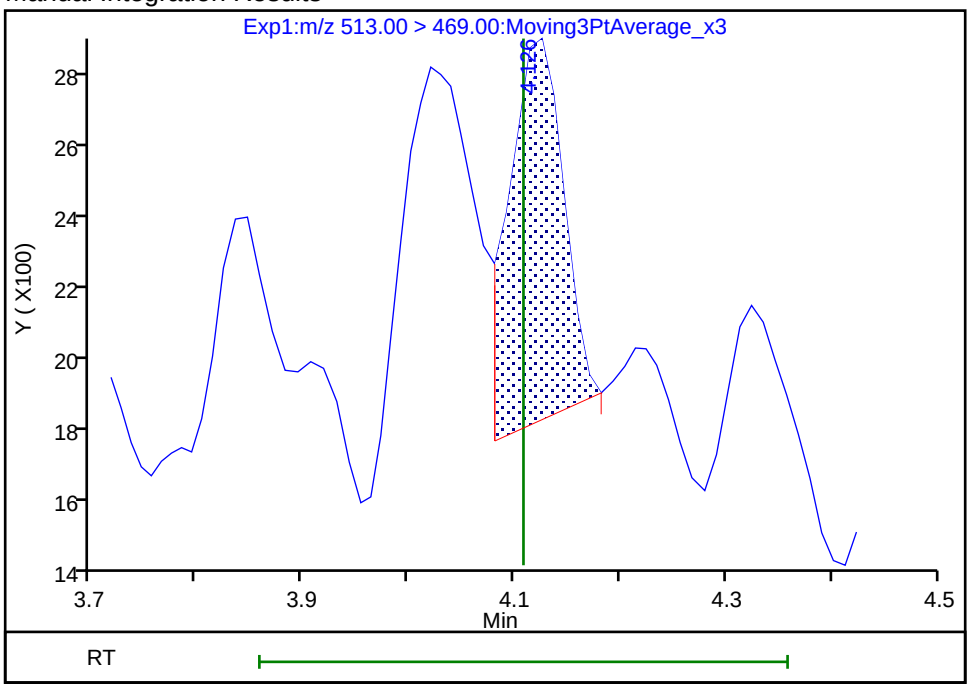
Processing Integration Results

RT: 4.02
Area: 1527
Amount: 0.001883
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 3434
Amount: 0.004234
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

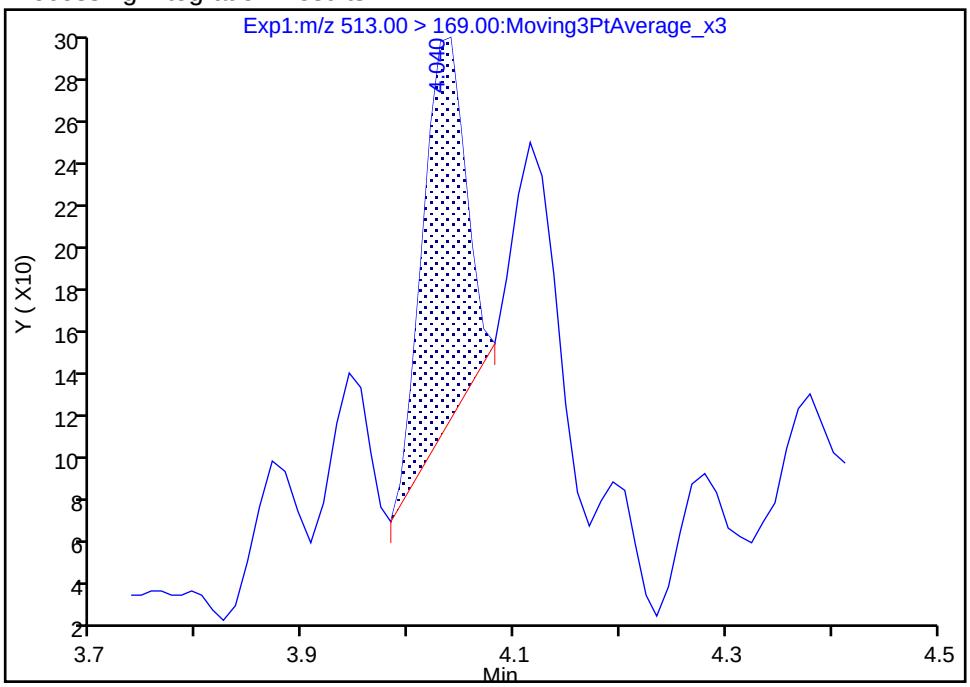
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

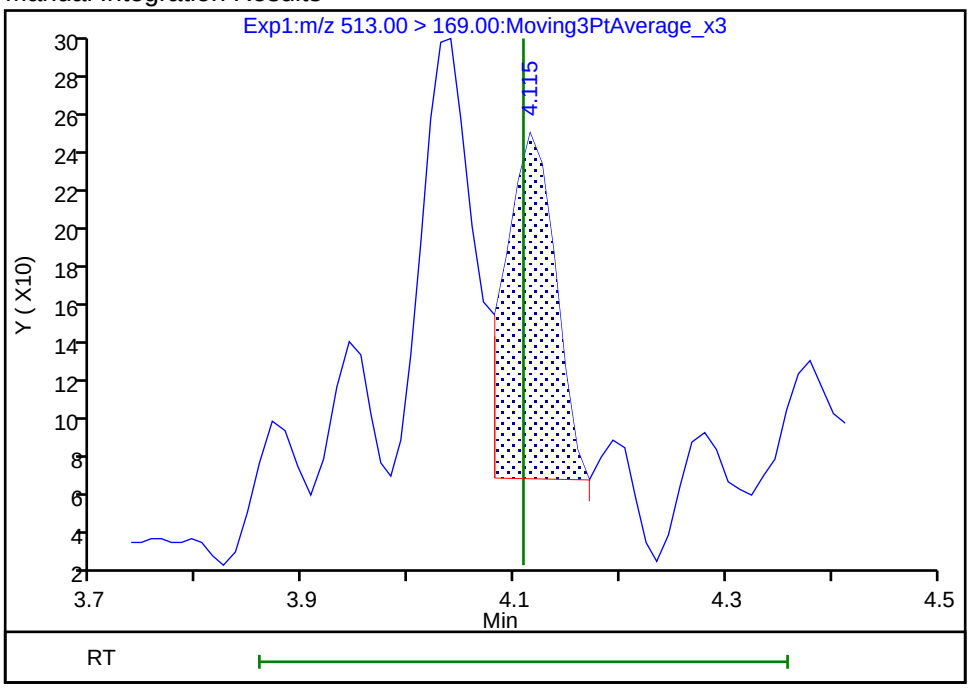
Processing Integration Results

RT: 4.04
Area: 520
Amount: 0.001883
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 576
Amount: 0.004234
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

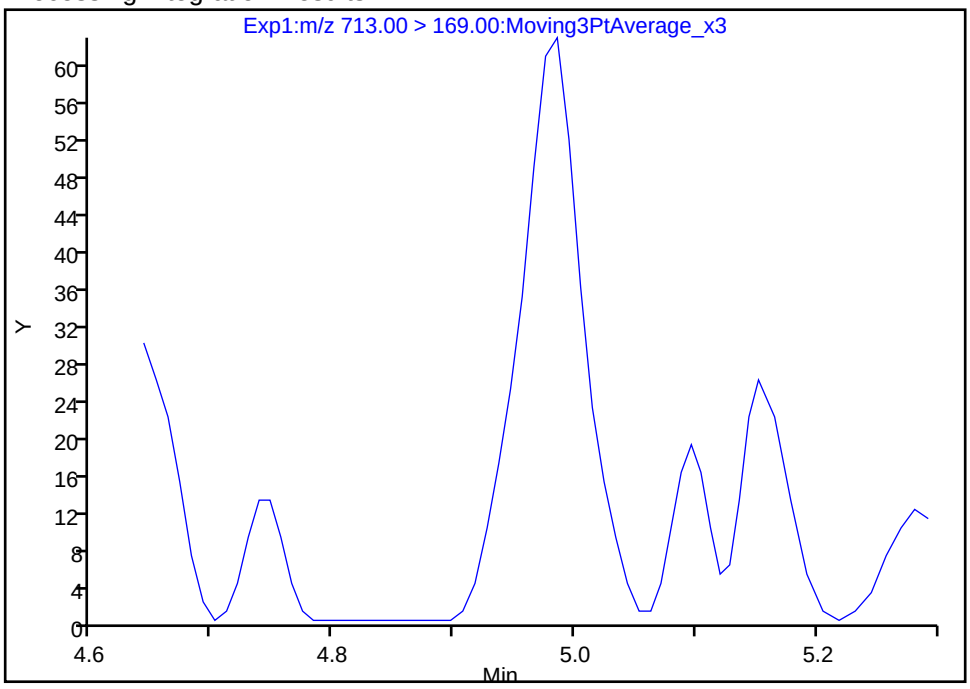
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

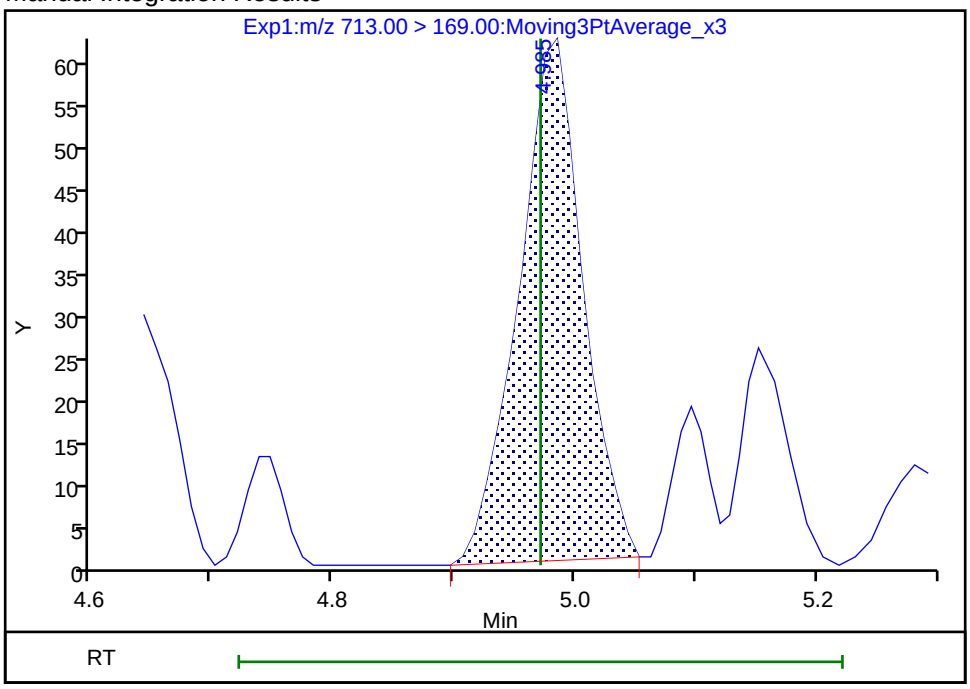
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 230
Amount: 0.003385
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:54:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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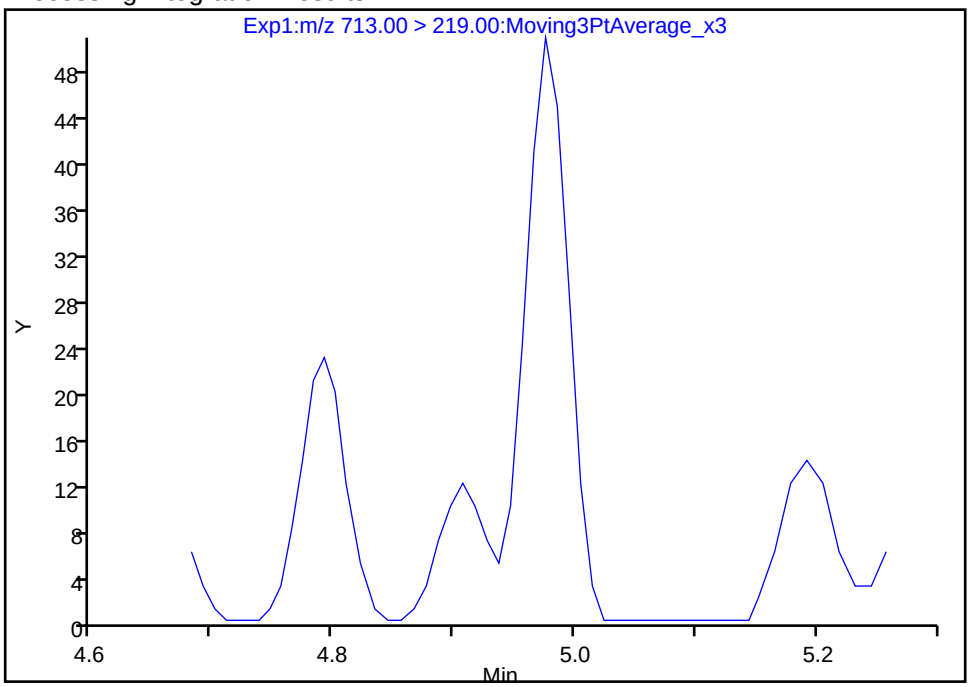
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

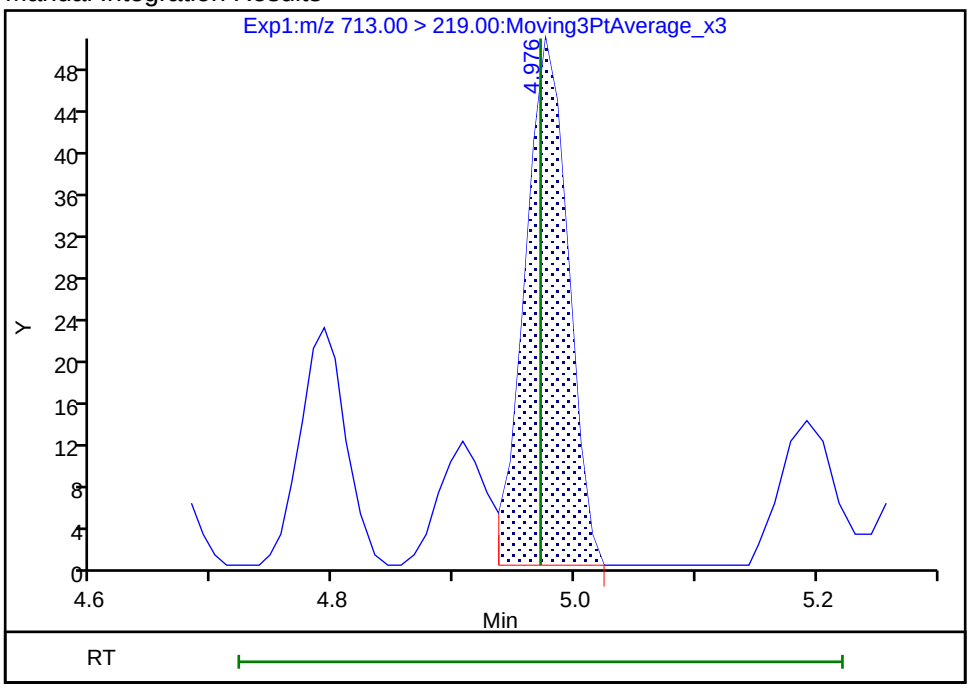
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 126
Amount: 0.003385
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:54:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

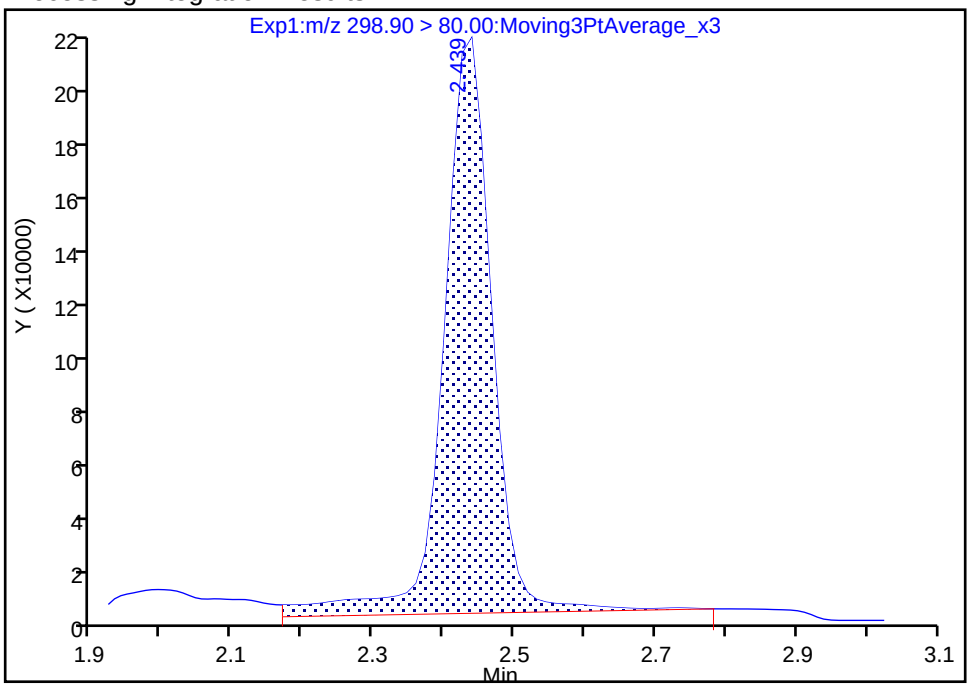
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

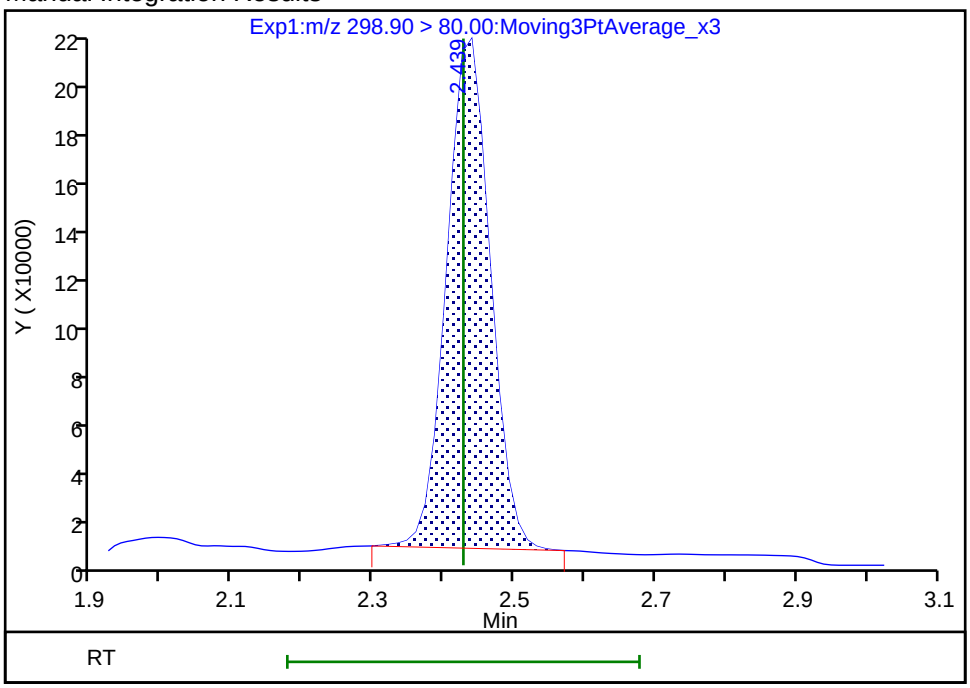
Processing Integration Results

RT: 2.44
Area: 1036067
Amount: 0.849613
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 911104
Amount: 0.747139
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:51:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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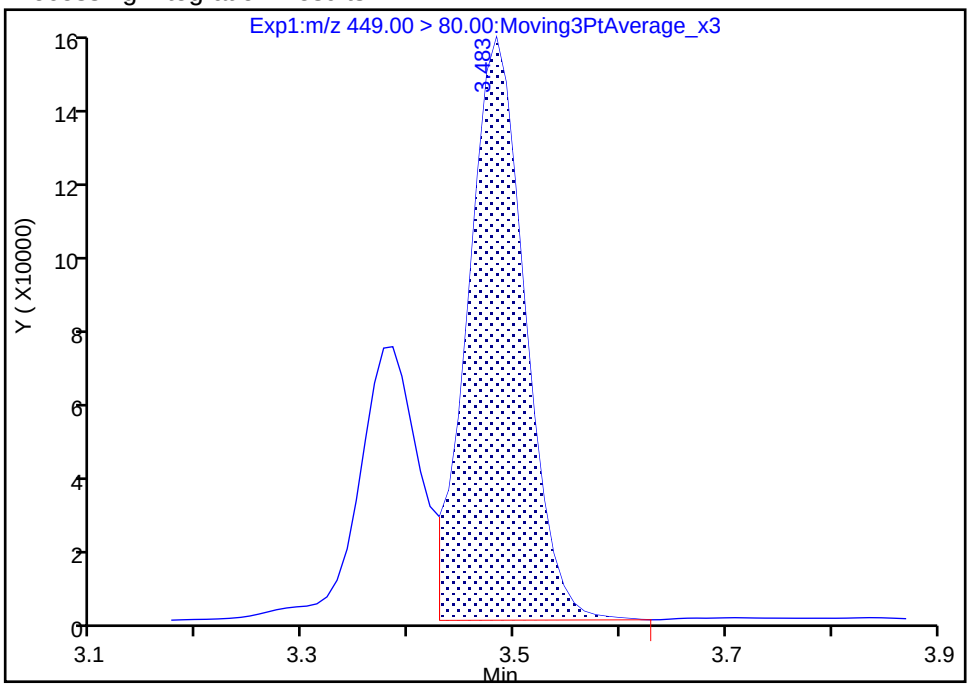
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

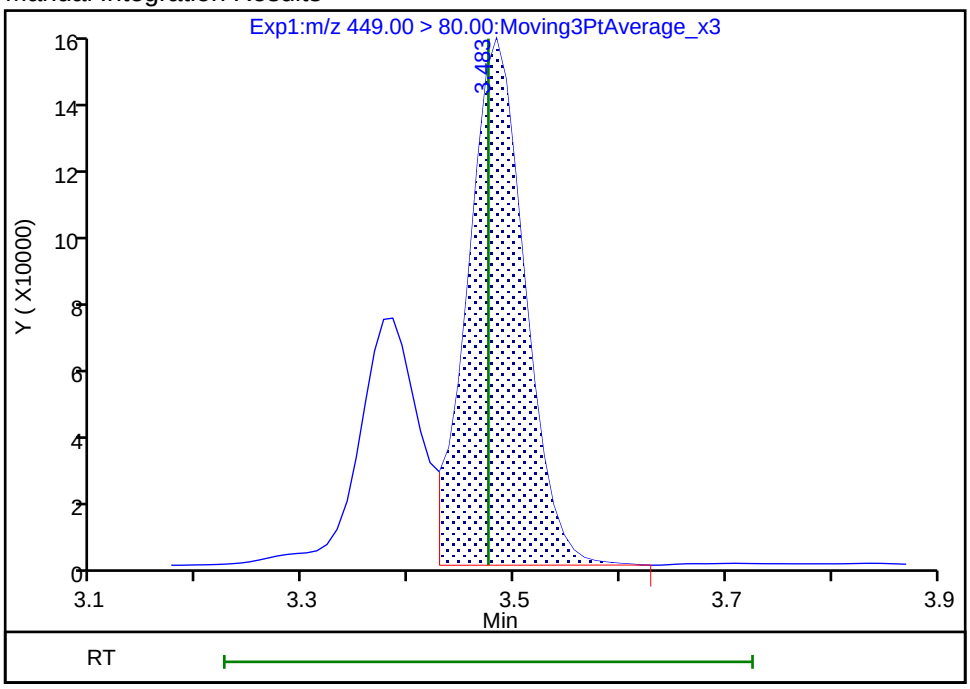
Processing Integration Results

RT: 3.48
Area: 586704
Amount: 0.871555
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 585475
Amount: 0.869729
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:22:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

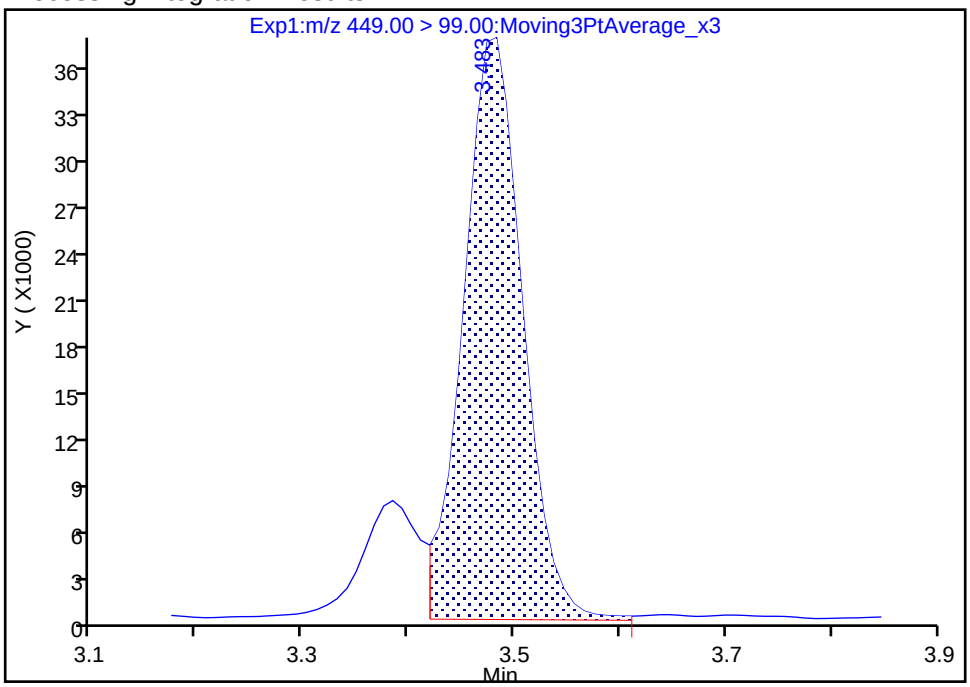
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

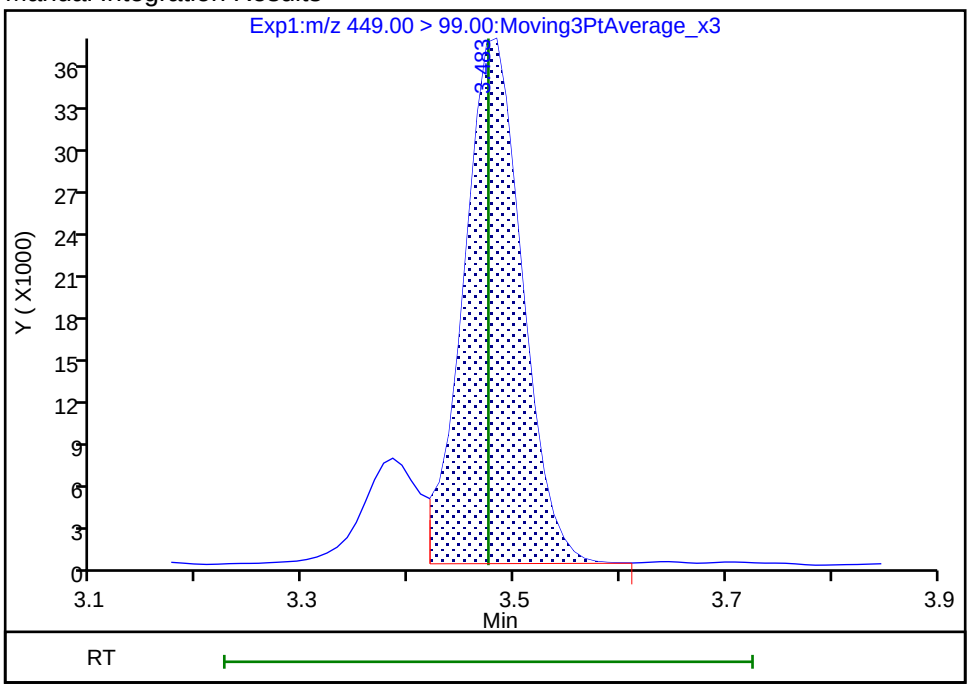
Processing Integration Results

RT: 3.48
Area: 143199
Amount: 0.871555
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 141053
Amount: 0.869729
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:23:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

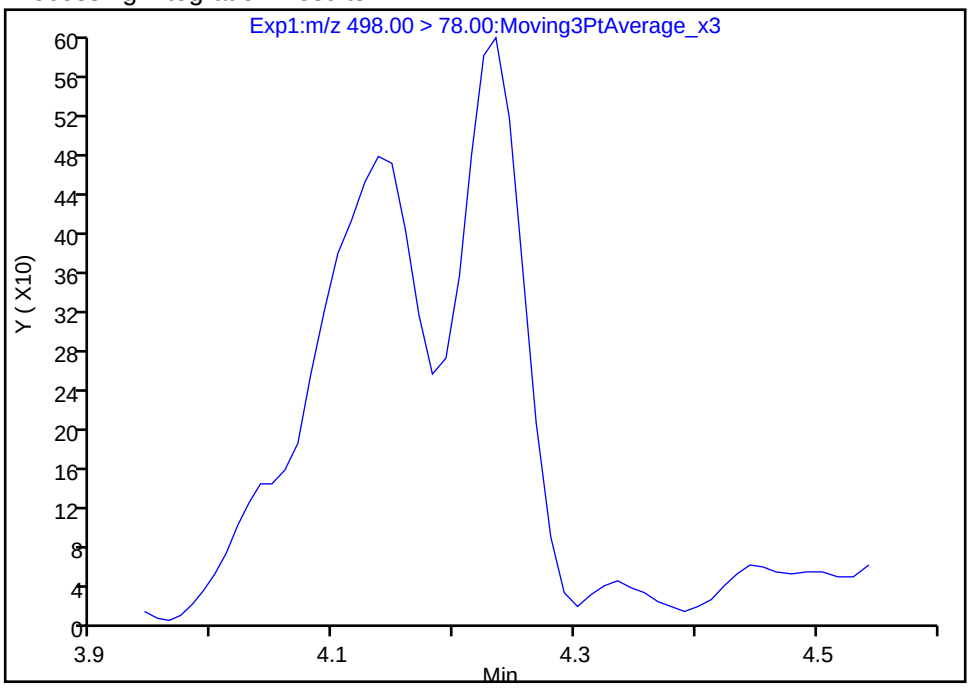
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

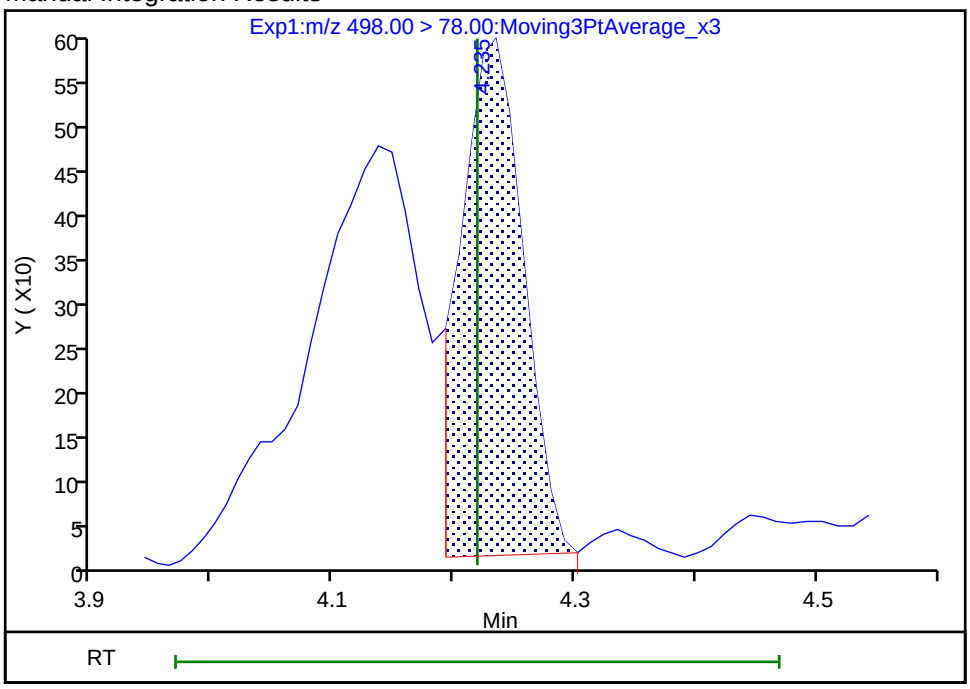
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 2036
Amount: 0.002980
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

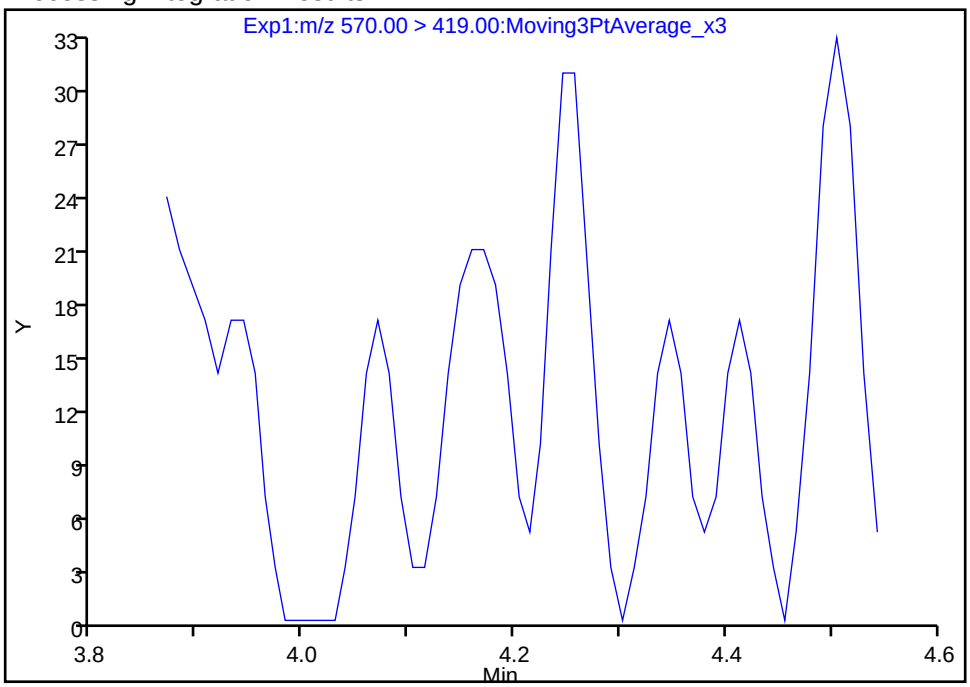
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

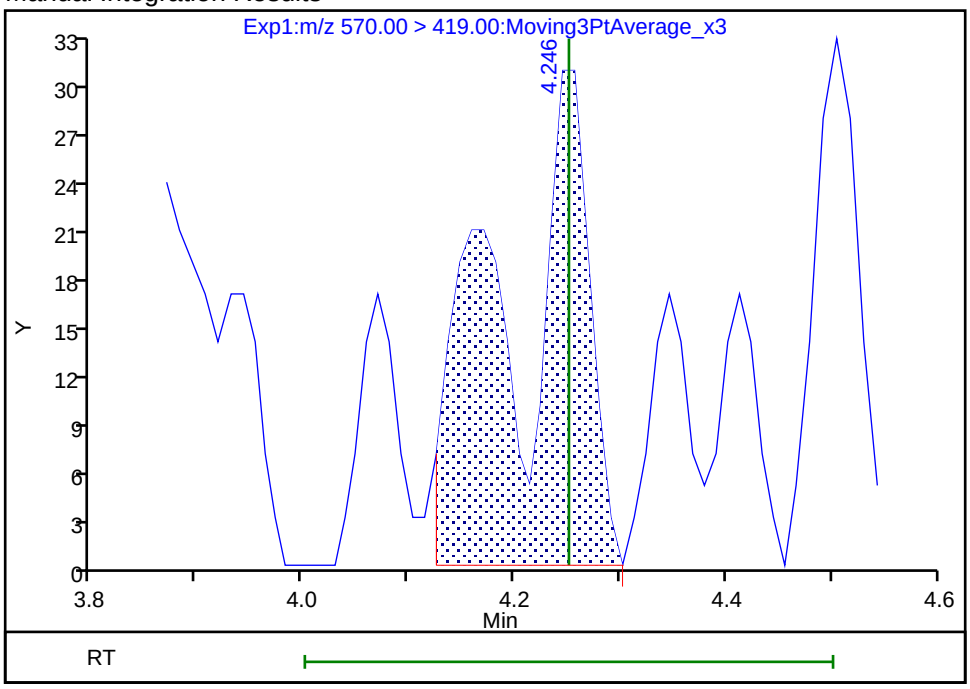
Not Detected
Expected RT: 4.25

Processing Integration Results




Manual Integration Results

RT: 4.25
Area: 166
Amount: 0.002030
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

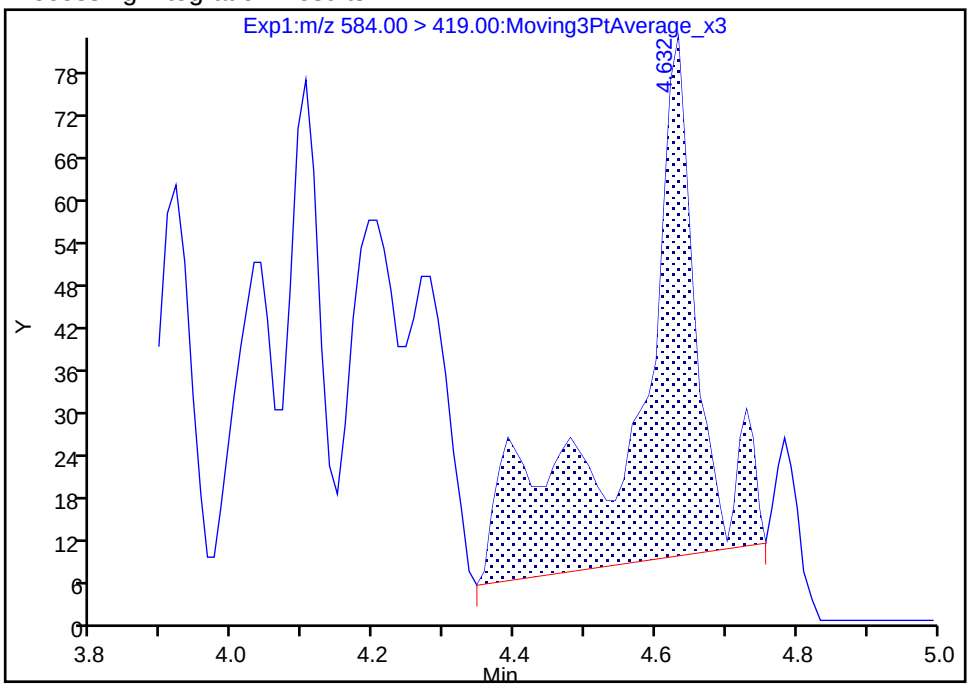
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

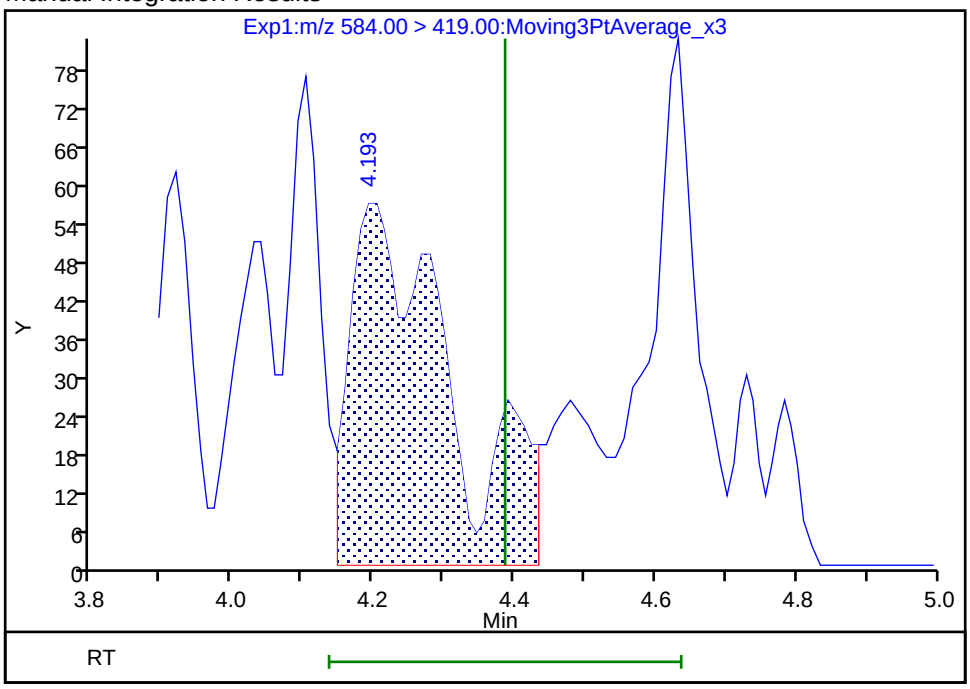
Processing Integration Results

RT: 4.63
Area: 479
Amount: 0.005187
Amount Units: ng/ml




Manual Integration Results

RT: 4.19
Area: 554
Amount: 0.005999
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:54:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

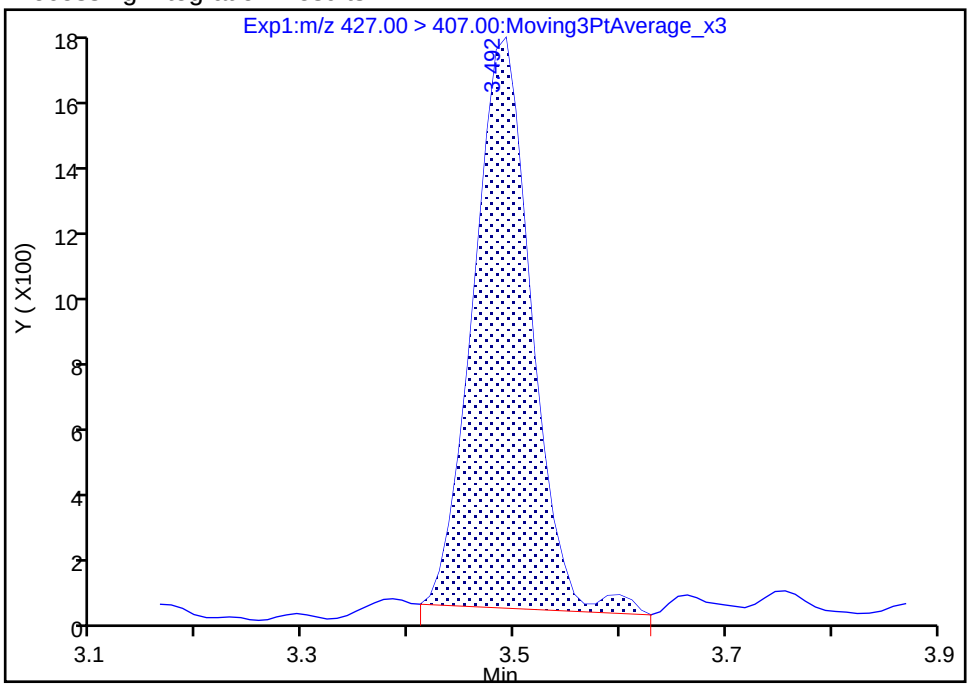
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

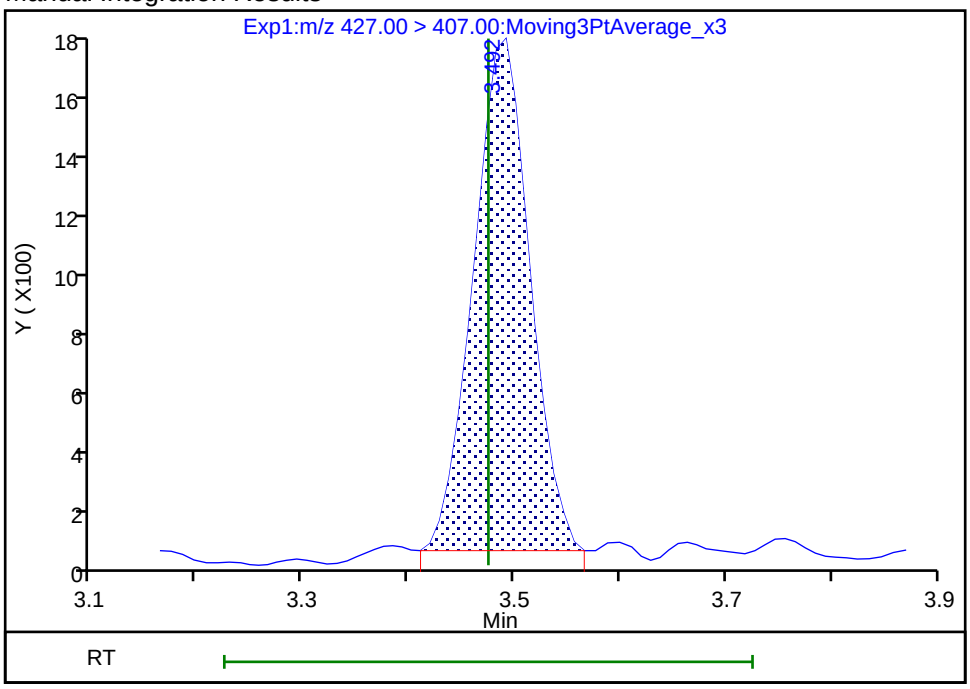
Processing Integration Results

RT: 3.49
Area: 6336
Amount: 0.028247
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 6109
Amount: 0.027235
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:52:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

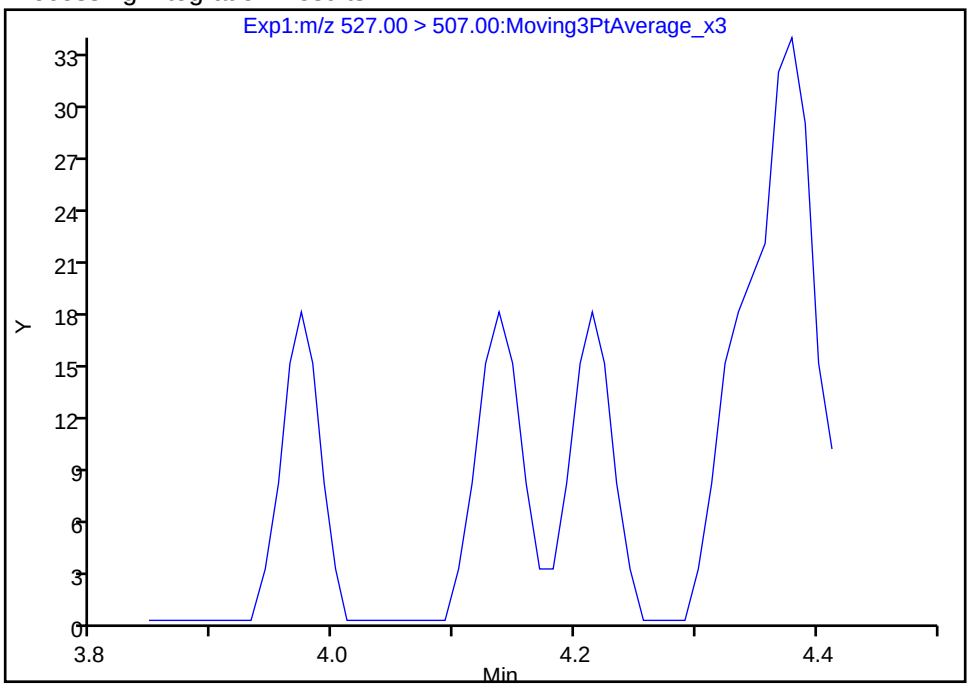
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

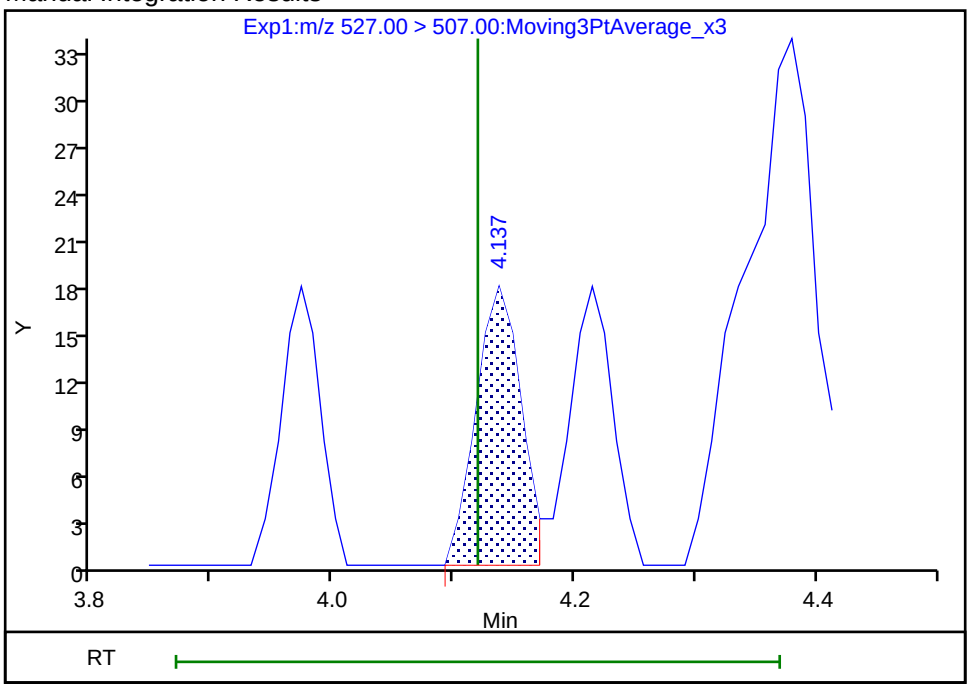
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.14
Area: 45
Amount: 0.000295
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:53:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

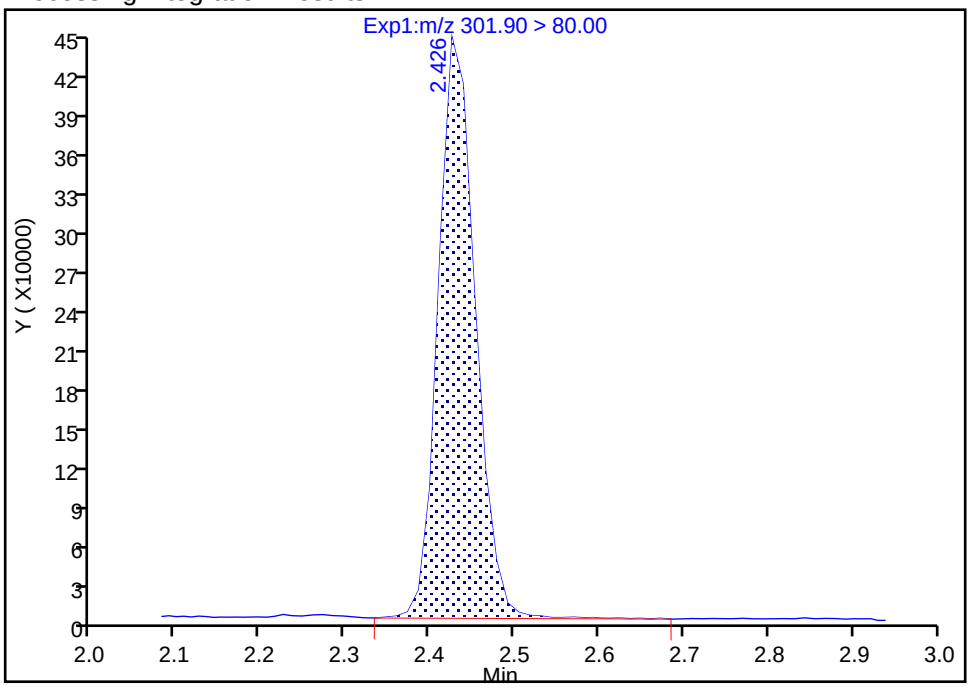
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A23.d | | | | |
| Injection Date: | 10-Nov-2021 14:22:42 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 20 | Worklist Smp#: | 23 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

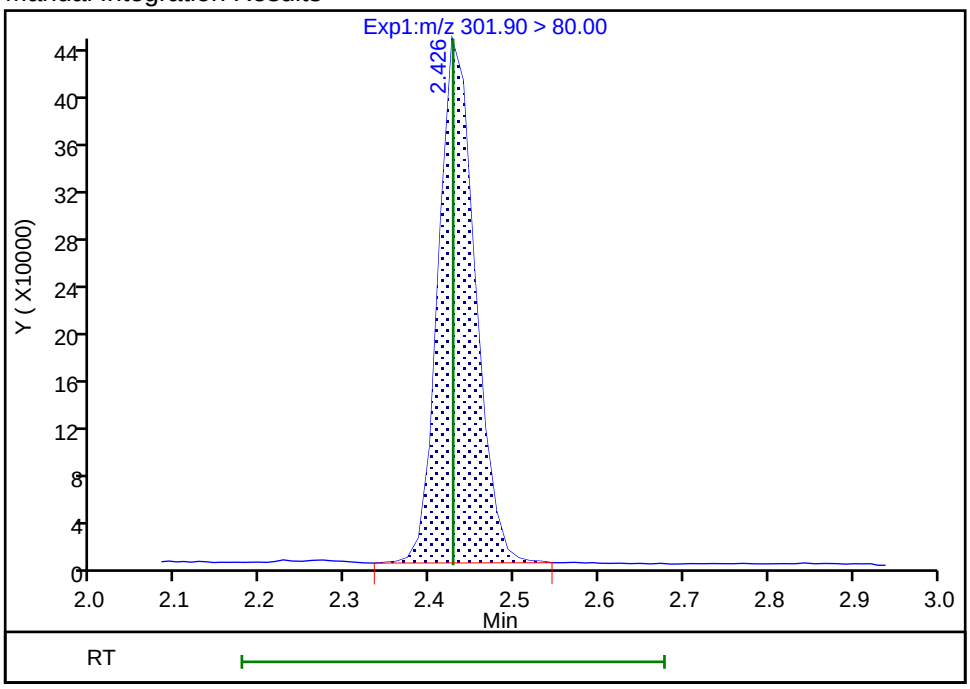
Processing Integration Results

RT: 2.43
Area: 1337542
Amount: 1.120929
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1327281
Amount: 1.112329
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:50:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-8-20211029 DL  Lab Sample ID: 460-246277-28 DL

Matrix: Water  Lab File ID: PA211109A07.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:40

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 293.7(mL)  Date Analyzed: 11/09/2021 13:07

Con. Extract Vol.: 10(mL)  Dilution Factor: 5

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

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

Analysis Batch No.: 173663  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 920 | D | 8.51 | 1.29 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 833 | D | 8.51 | 1.24 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 91 | | 50-150 |
| STL00991 | 13C4 PFOS | 86 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d
Lims ID: 460-246277-C-28-A
Client ID: AMW-8-20211029
Sample Type: Client
Inject. Date: 09-Nov-2021 13:07:31 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 5.0000
Sample Info: 460-246277-C-28-A
Misc. Info.: 200-0048346-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:41:59 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 11-Nov-2021 15:27:34
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.207 | 2.226 | -0.019 | 0.634 | 313173 | 0.2264 | | 90.5 | 663 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.207 | 2.236 | -0.029 | 1.000 | 606714 | 0.5122 | | | 22.6 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.465 | 2.478 | -0.013 | 0.708 | 274608 | 0.2356 | | 94.2 | 258 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.465 | 2.478 | -0.013 | 1.000 | 252946 | 0.2299 | | | 3.0 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.479 | 2.492 | -0.013 | 0.712 | 333010 | 0.2112 | | 90.8 | 8266 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.479 | 2.492 | -0.013 | 1.000 | 257859 | 0.1686 | Target=2.32 | | 8.7 | |
| 298.90 > 99.00 | 2.479 | 2.492 | -0.013 | 1.000 | 111054 | | 2.32(1.16-3.48) | | 19.5 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.782 | 2.794 | -0.012 | 0.799 | 287888 | 0.2355 | | 94.2 | 499 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.782 | 2.794 | -0.012 | 1.000 | 227621 | 0.1949 | Target=12.09 | | 7.5 | |
| 313.00 > 119.00 | 2.794 | 2.794 | 0.0 | 1.004 | 19733 | | 11.54(6.04-18.13) | | 8.0 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.143 | -0.011 | 1.000 | 6217011 | 5.40 | Target=3.55 | | 841 | M |
| 399.00 > 99.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1647893 | | 3.77(1.77-5.32) | | 893 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.143 | -0.011 | 0.899 | 247543 | 0.2161 | | 91.4 | 1098 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.143 | 0.0 | 0.902 | 302365 | 0.2349 | | 94.0 | 1472 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 68564 | 0.0549 | Target=3.69 | | 6.0 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 16145 | | 4.25(1.84-5.53) | | 15.6 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.918 | 151859 | 0.1702 | Target=4.88 | | 20.0 | |
| 449.00 > 99.00 | 3.465 | 3.474 | -0.009 | 0.916 | 36797 | | 4.13(2.44-7.32) | | 27.3 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.465 | 3.474 | -0.009 | 0.997 | 1894 | 0.007211 | | | 39.0 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 49191 | 0.2723 | | 115 | 34.5 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 319369 | 0.2271 | | 90.8 | 1684 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 341691 | 0.2500 | | | 2019 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 405713 | 0.2986 | Target=2.68 | | 38.6 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 159008 | | 2.55(1.34-4.02) | | 243 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 171012 | 0.2066 | | 86.4 | 180 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.000 | 3796658 | 4.89 | Target=4.69 | | 1049 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 1.000 | 821159 | | 4.62(2.35-7.04) | | 1045 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 317788 | 0.2269 | | 90.7 | 1749 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.092 | 0.012 | 1.178 | 274954 | 0.1945 | | 77.8 | 1438 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.178 | 51549 | 0.2517 | | 105 | 68.9 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.224 | 0.001 | 1.213 | 265501 | 0.1947 | | 77.9 | 1196 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.235 | 4.234 | 0.001 | 1.216 | 29038 | 0.2088 | | 83.5 | 521 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.246 | 4.234 | 0.012 | 1.003 | 1433 | 0.0157 | | | 16.3 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.359 | -0.001 | 1.251 | 190961 | 0.1733 | | 69.3 | 1107 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.370 | -0.001 | 1.254 | 30478 | 0.2340 | | 93.6 | 398 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.369 | 4.370 | -0.001 | 1.000 | 2628 | 0.0252 | | | 21.6 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.581 | -0.001 | 1.315 | 191206 | 0.1613 | | 64.5 | 302 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.947 | -0.001 | 1.420 | 142614 | 0.1551 | | 62.1 | 494 | |

## QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Report Date: 11-Nov-2021 15:42:02 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d

Injection Date: 09-Nov-2021 13:07:31 Instrument ID: LC812

Lims ID: 460-246277-C-28-A Lab Sample ID: 200-246277-28

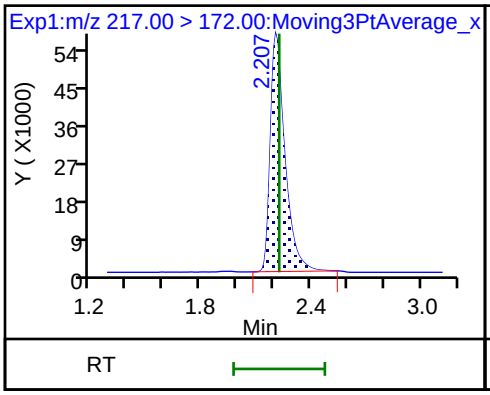
Client ID: AMW-8-20211029

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7

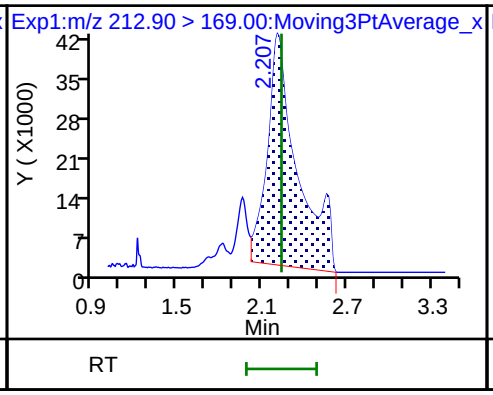
Injection Vol: 20.0 ul Dil. Factor: 5.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

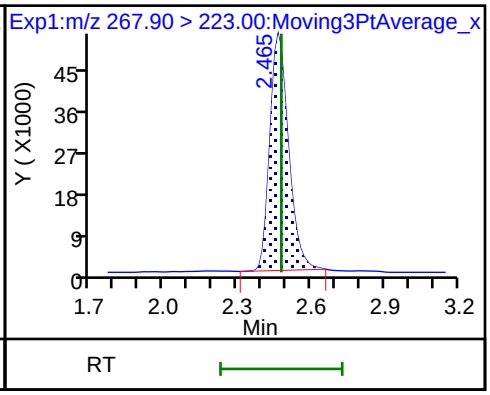
D 1 13C4 PFBA



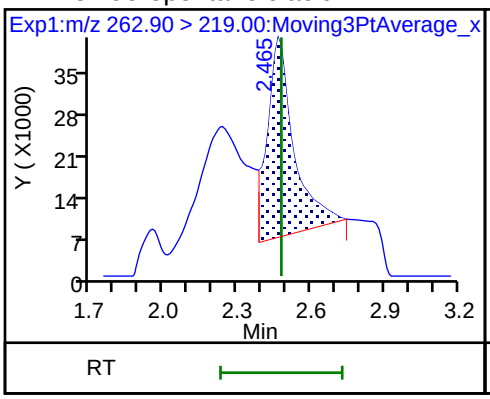

2 Perfluorobutanoic acid



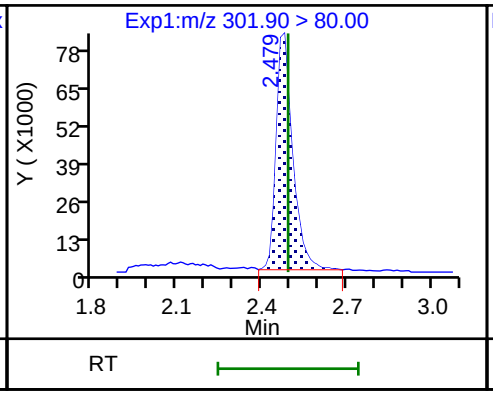

D 3 13C5 PFPeA



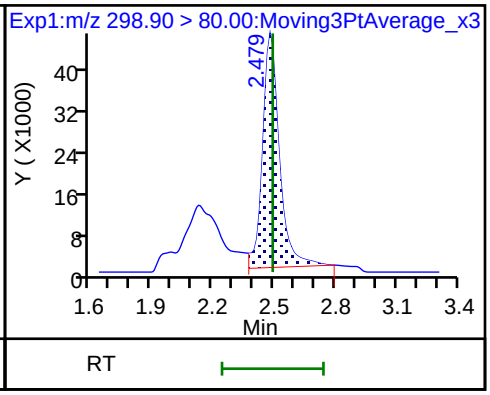

4 Perfluoropentanoic acid



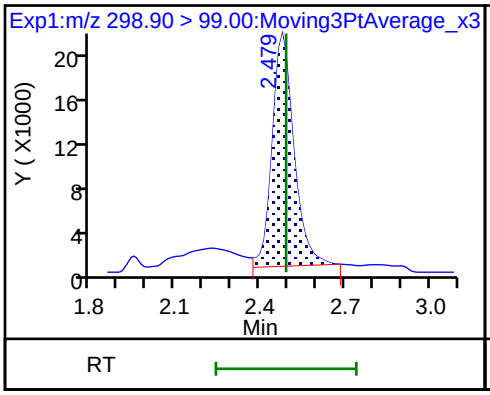

D 47 13C3 PFBS



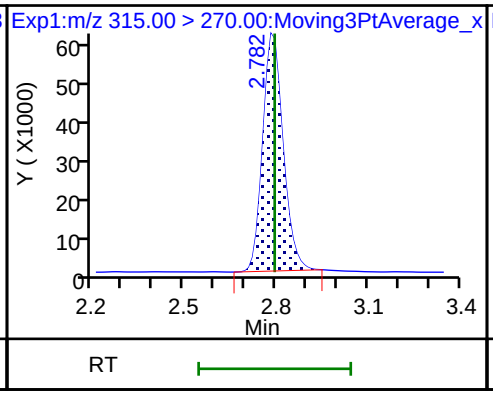

5 Perfluorobutanesulfonic acid



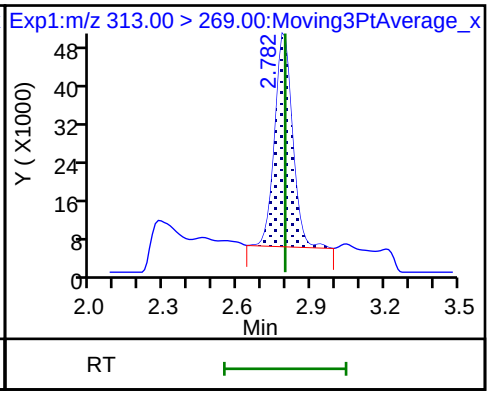

5 Perfluorobutanesulfonic acid



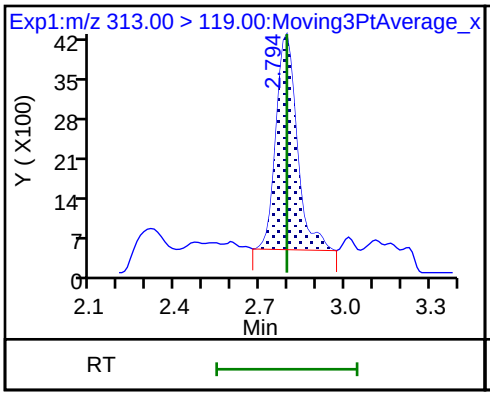

D 7 13C2 PFHxA



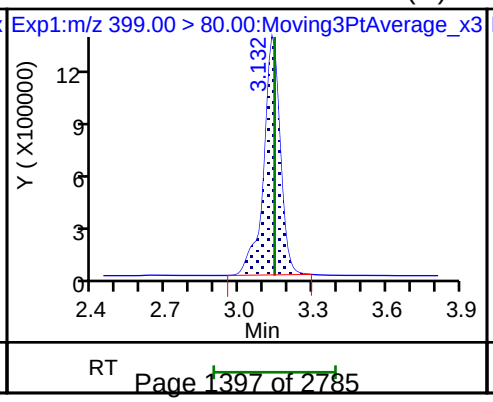

6 Perfluorohexanoic acid



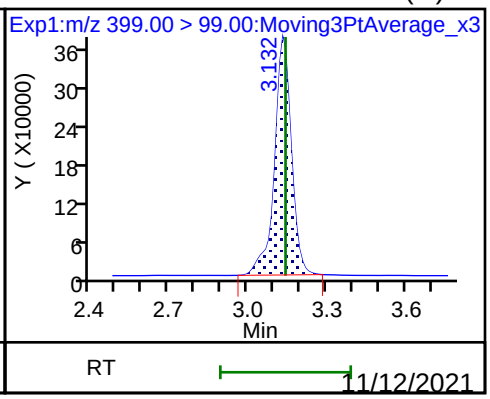

6 Perfluorohexanoic acid



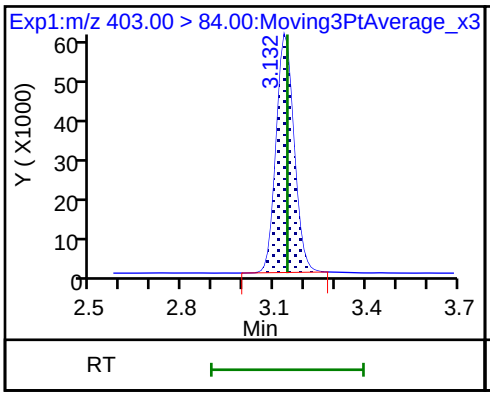

8 Perfluorohexanesulfonic acid (M)



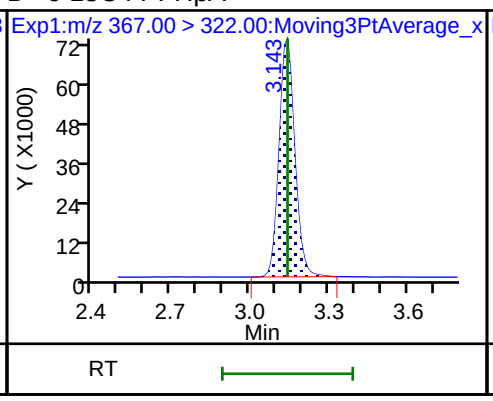

8 Perfluorohexanesulfonic acid (M)



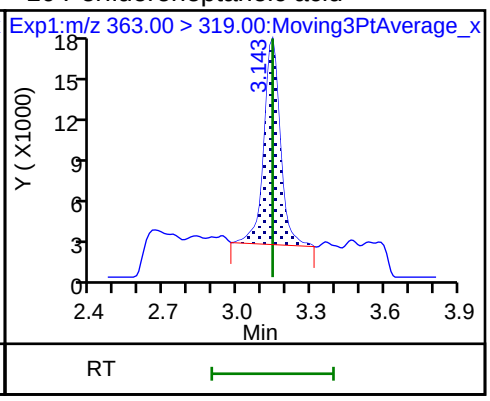
D 11 18O2 PFHxS



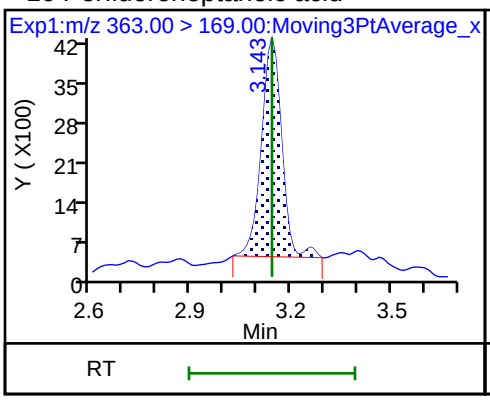

D 9 13C4 PFHpA



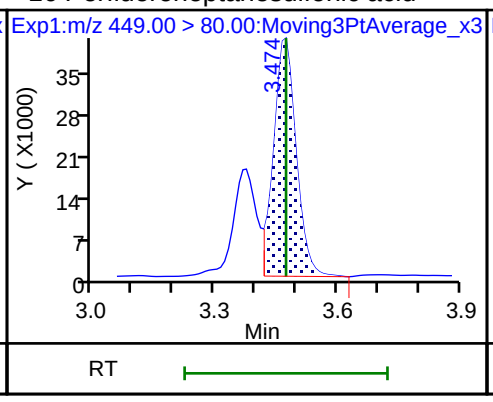

10 Perfluoroheptanoic acid



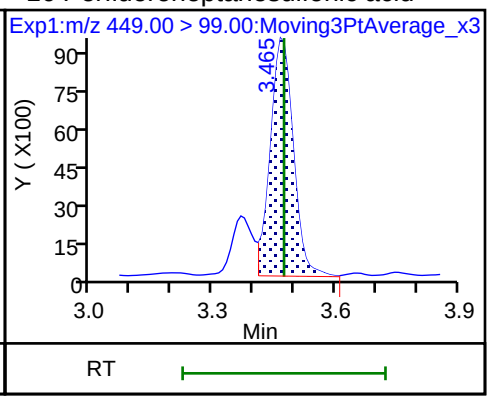

10 Perfluoroheptanoic acid



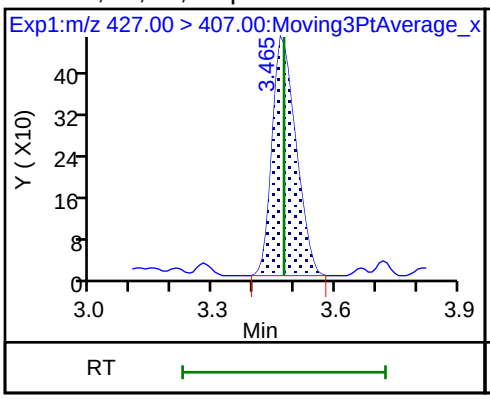

16 Perfluoroheptanesulfonic acid



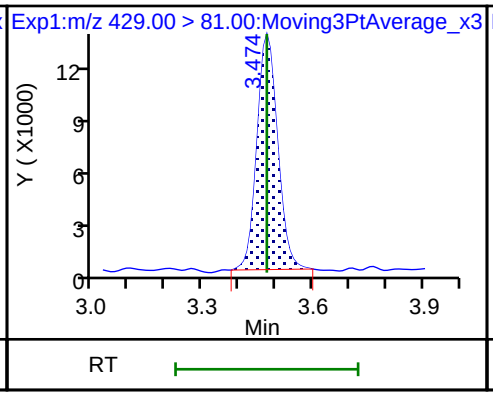

16 Perfluoroheptanesulfonic acid



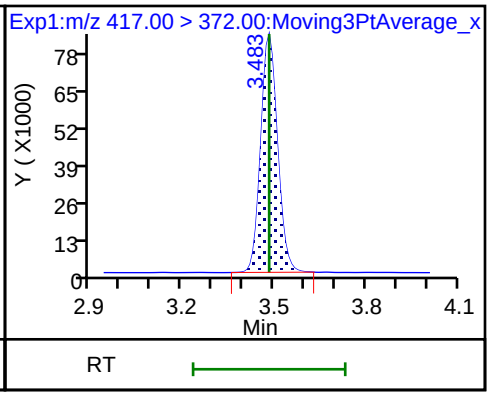

13 1H,1H,2H,2H-perfluorooctanesulfo



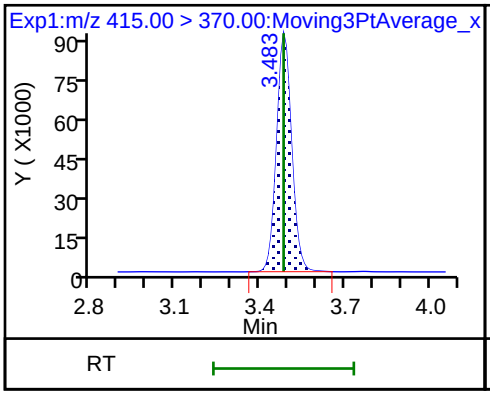

D 12 M2-6:2 FTS



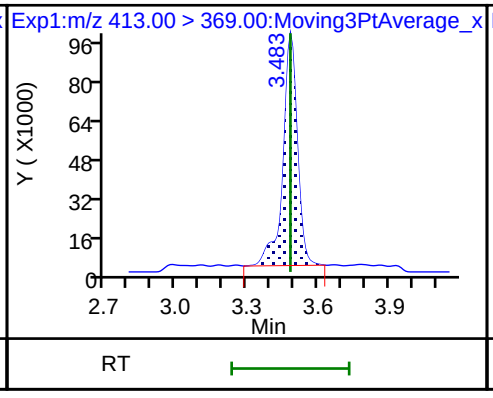

D 14 13C4 PFOA



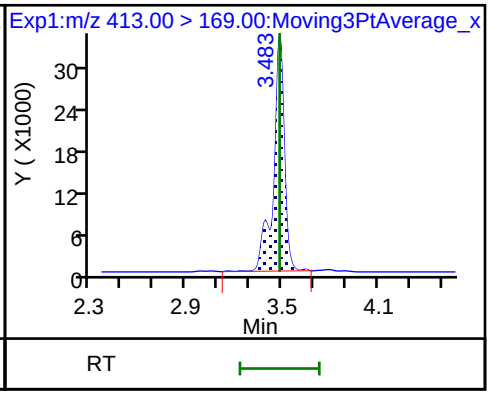

* 62 13C2 PFOA



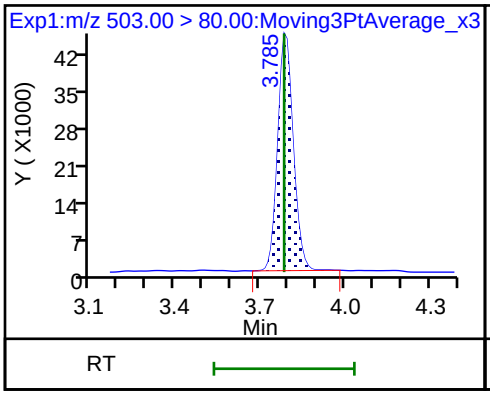

15 Perfluorooctanoic acid



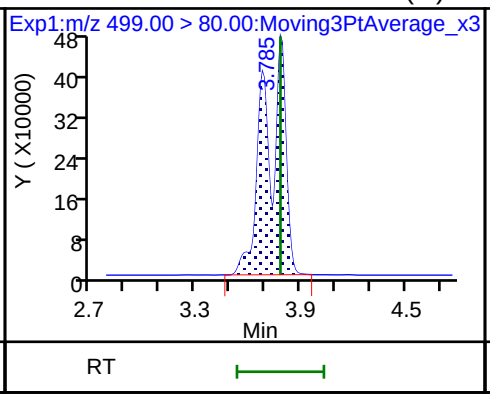

15 Perfluorooctanoic acid



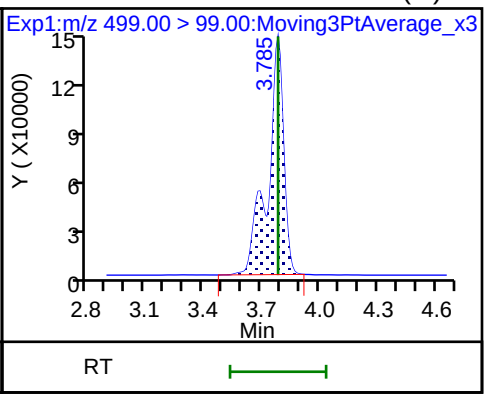
D 18 13C4 PFOS



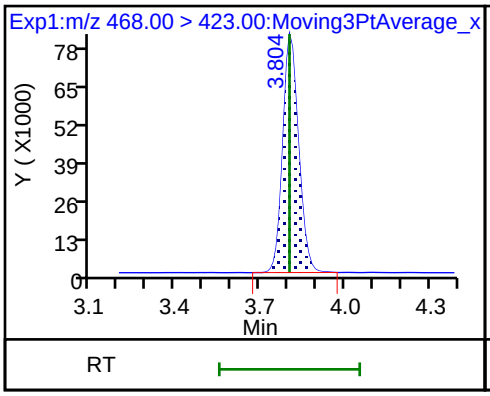

17 Perfluorooctanesulfonic acid (M)



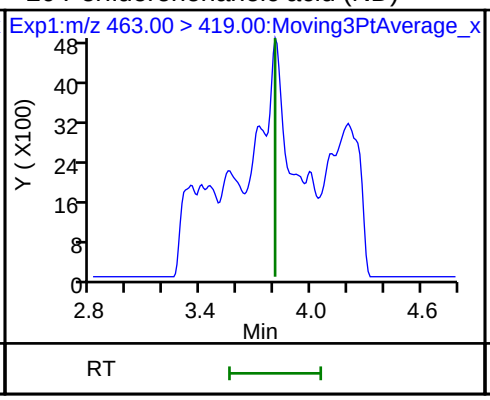

17 Perfluorooctanesulfonic acid (M)



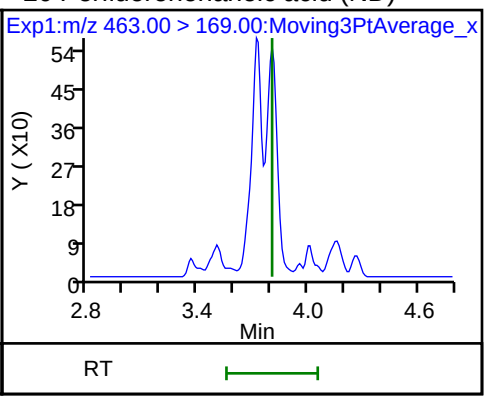

D 19 13C5 PFNA



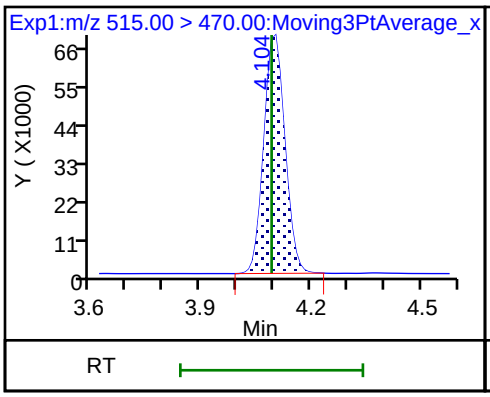

20 Perfluorononanoic acid (ND)



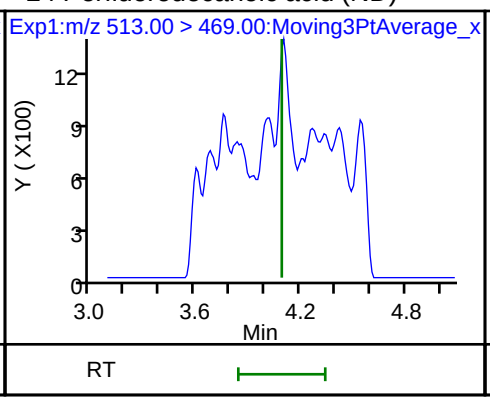

20 Perfluorononanoic acid (ND)



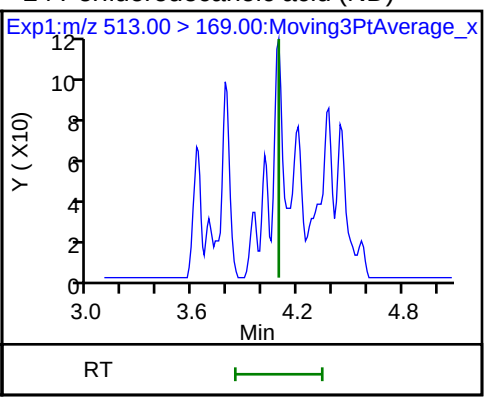

D 23 13C2 PFDA



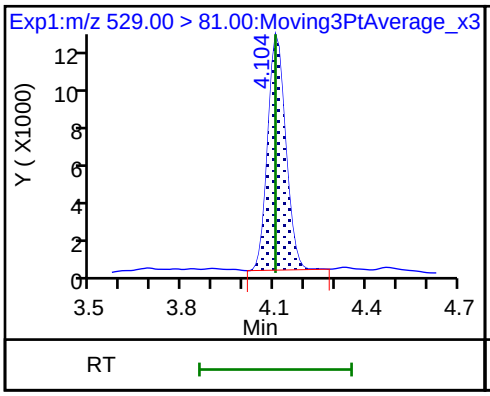

24 Perfluorodecanoic acid (ND)



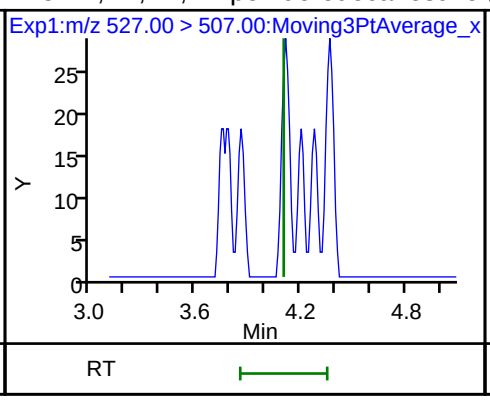

24 Perfluorodecanoic acid (ND)



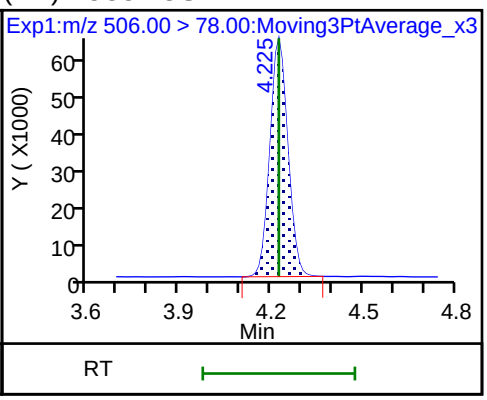

D 26 M2-8:2 FTS



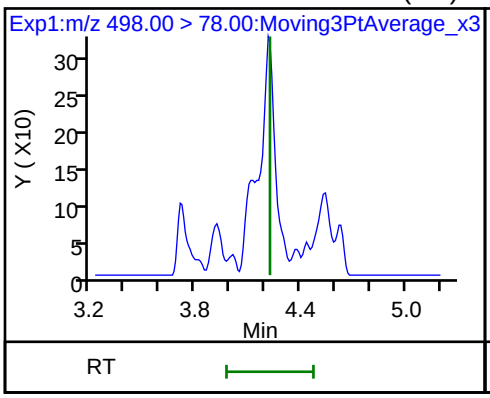

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



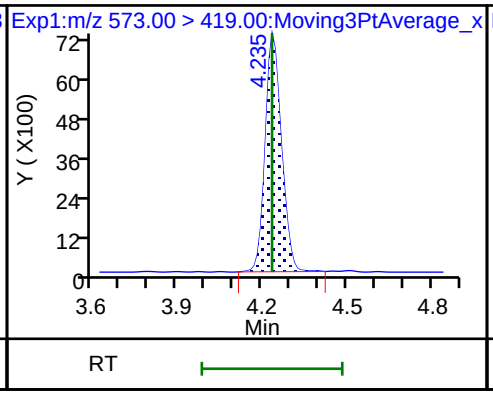

21 13C8 FOSA



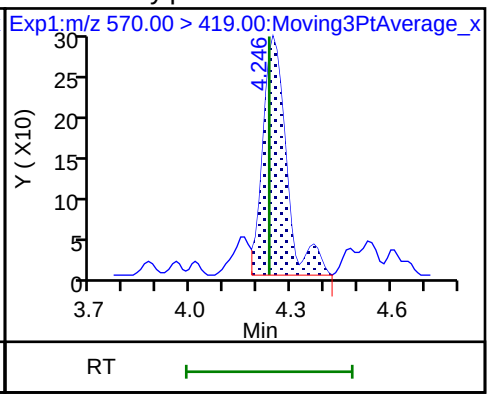
22 Perfluorooctanesulfonamide (ND)



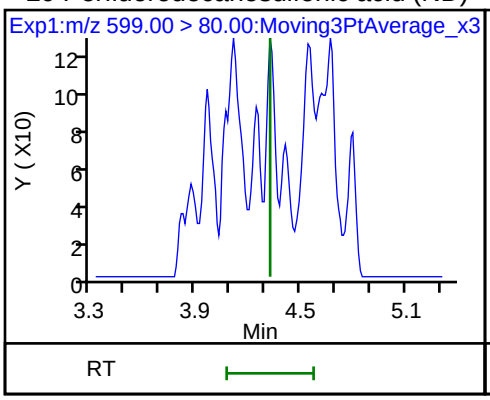

D 27 d3-NMeFOSAA



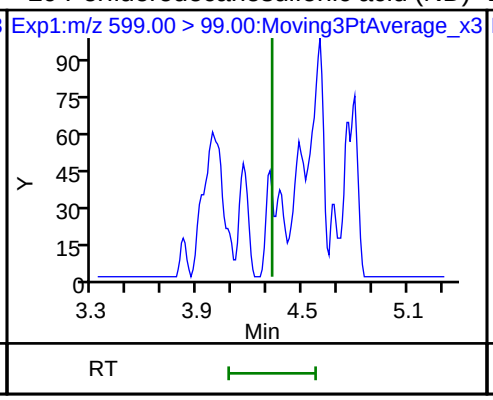

28 N-methylperfluorooctanesulfonami



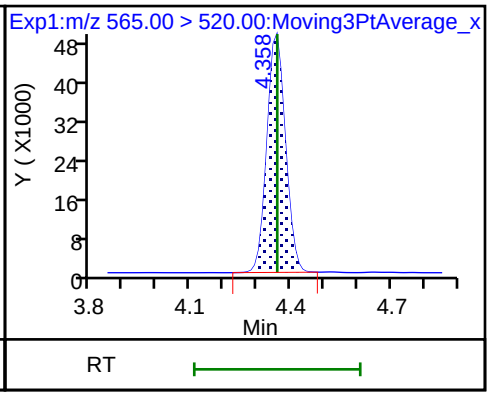

29 Perfluorodecanesulfonic acid (ND)



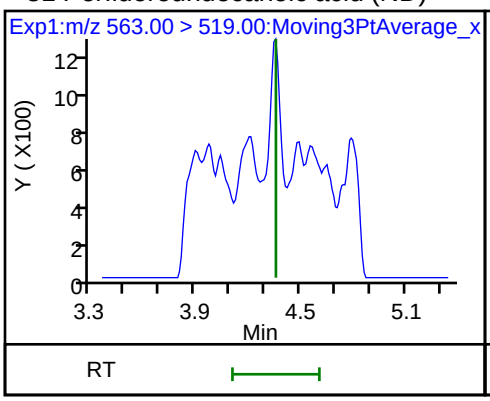

29 Perfluorodecanesulfonic acid (ND)



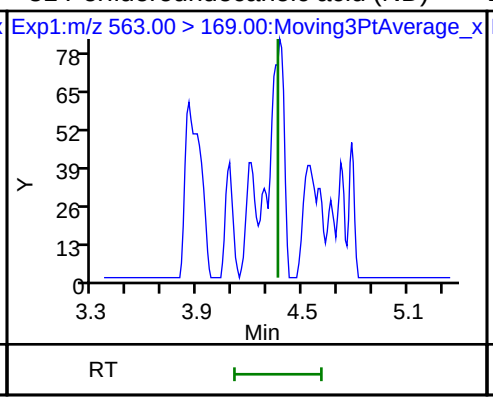

D 30 13C2 PFUnA



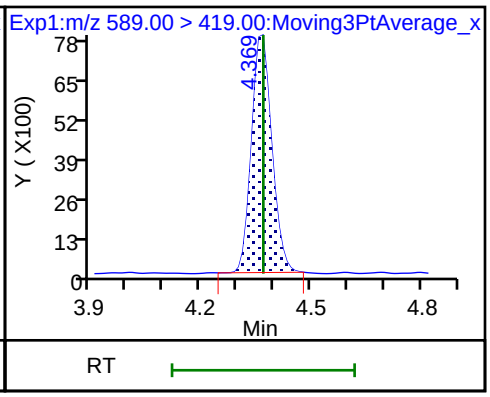

31 Perfluoroundecanoic acid (ND)



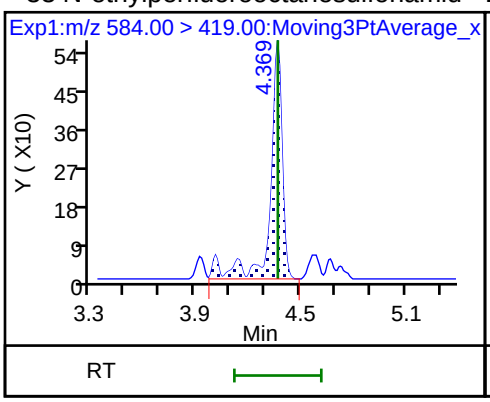

31 Perfluoroundecanoic acid (ND)



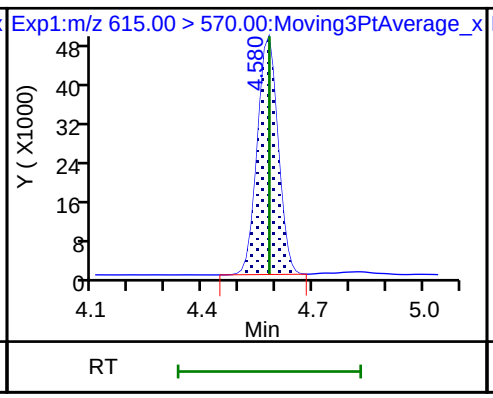

D 32 d5-NEtFOSAA



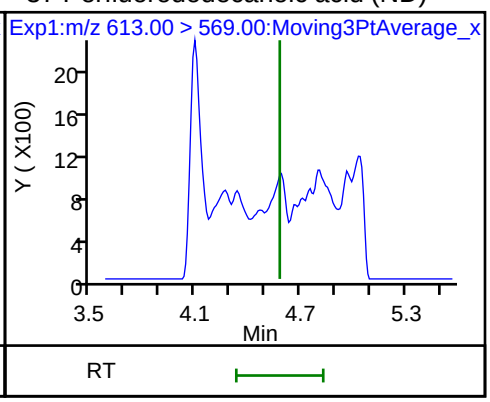

33 N-ethylperfluorooctanesulfonamid



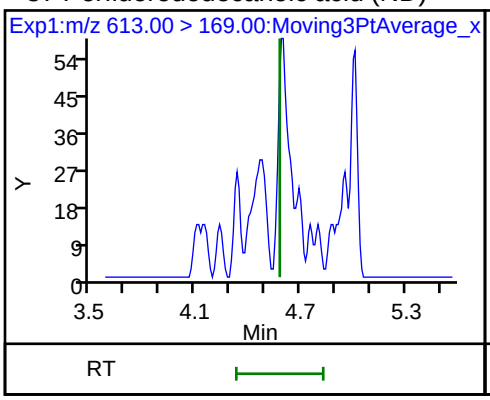

D 36 13C2 PFDoA



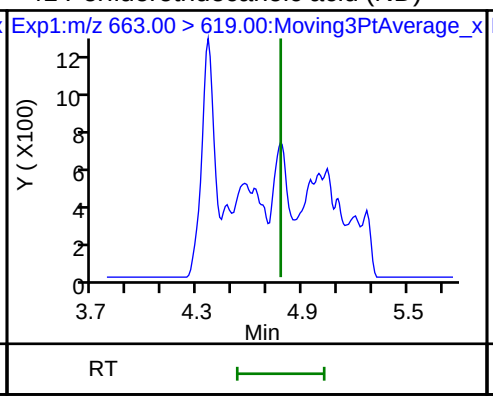

37 Perfluorododecanoic acid (ND)



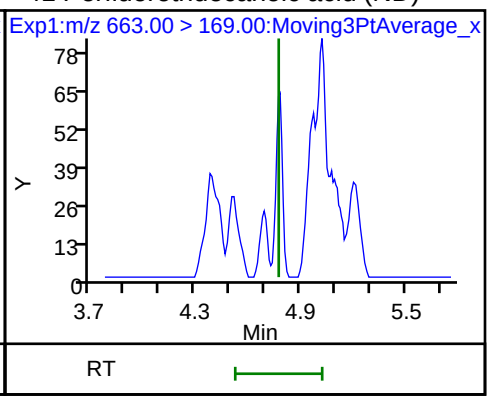
37 Perfluorododecanoic acid (ND)



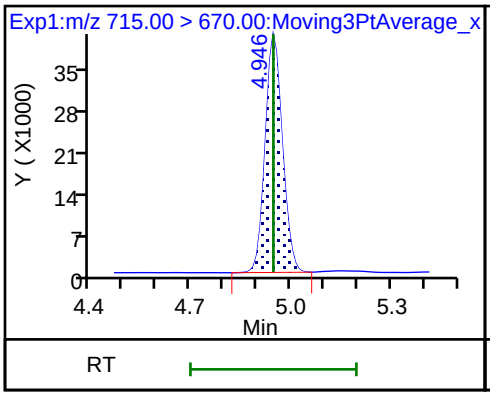

41 Perfluorotridecanoic acid (ND)



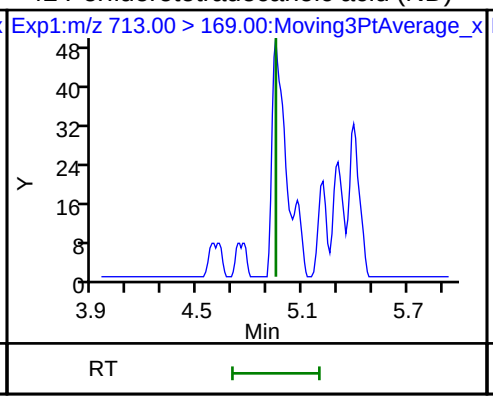

41 Perfluorotridecanoic acid (ND)



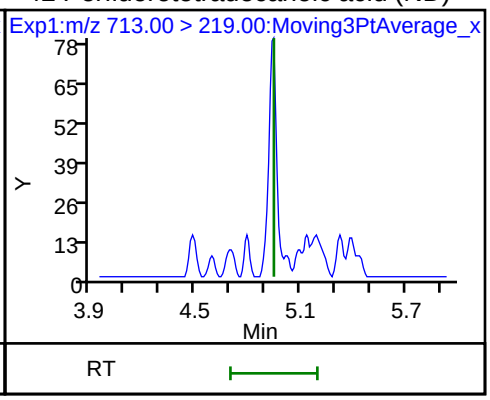

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Eurofins TestAmerica, Burlington

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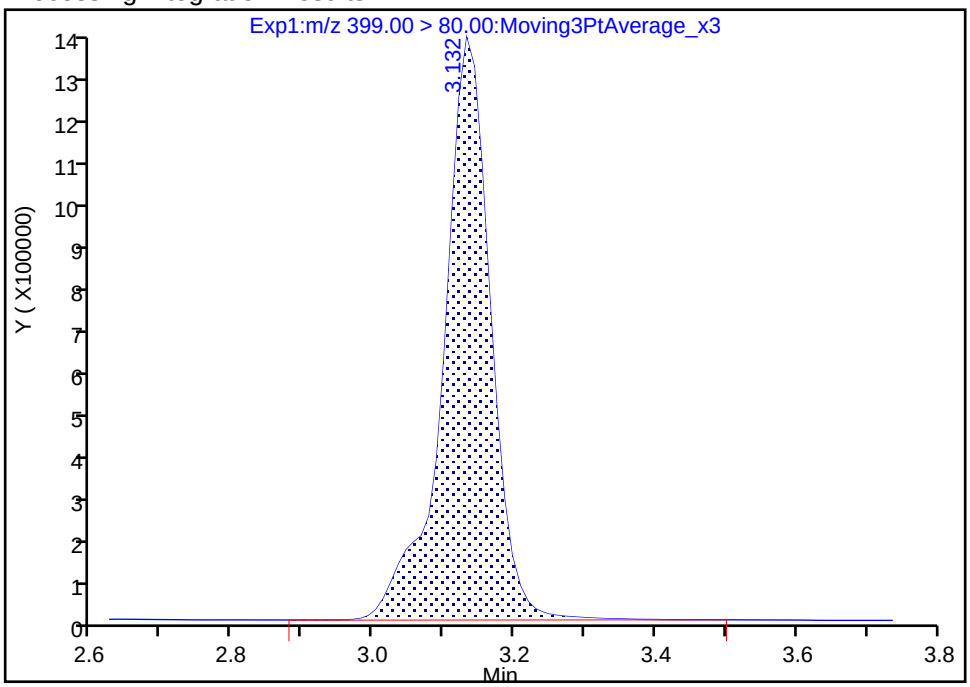
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d | | | | |
| Injection Date: | 09-Nov-2021 13:07:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

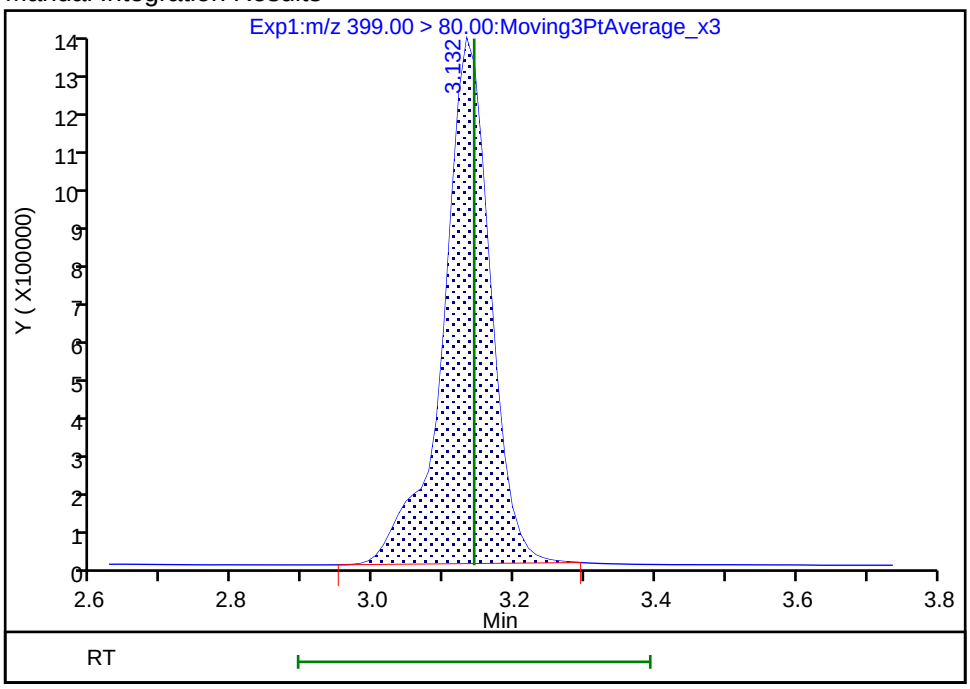
Processing Integration Results

RT: 3.13
Area: 6302907
Amount: 5.477119
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 6217011
Amount: 5.402476
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:26:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

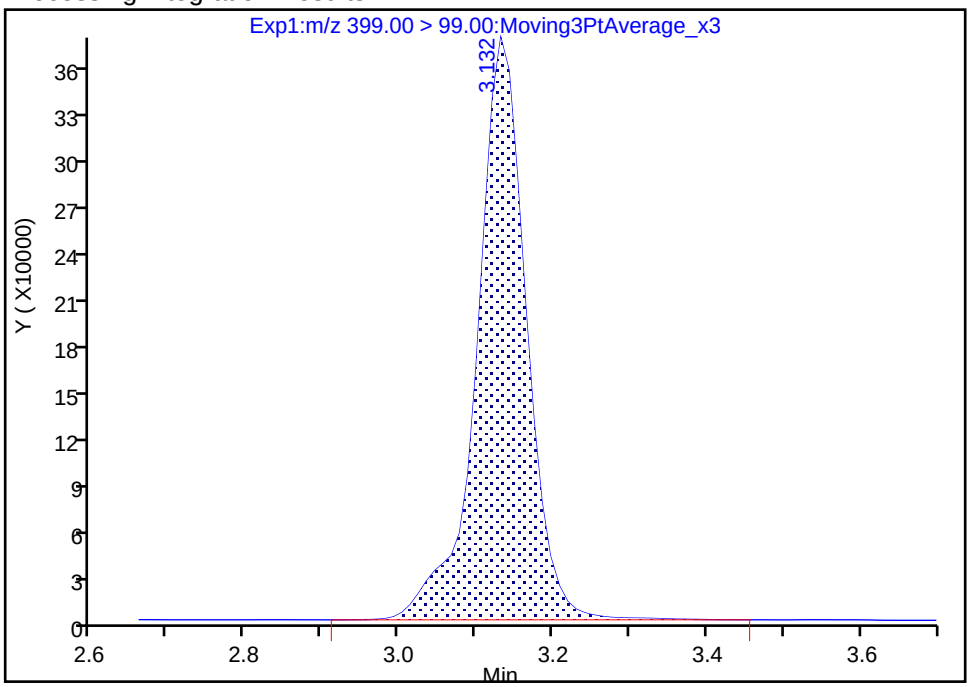
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d | | | | |
| Injection Date: | 09-Nov-2021 13:07:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

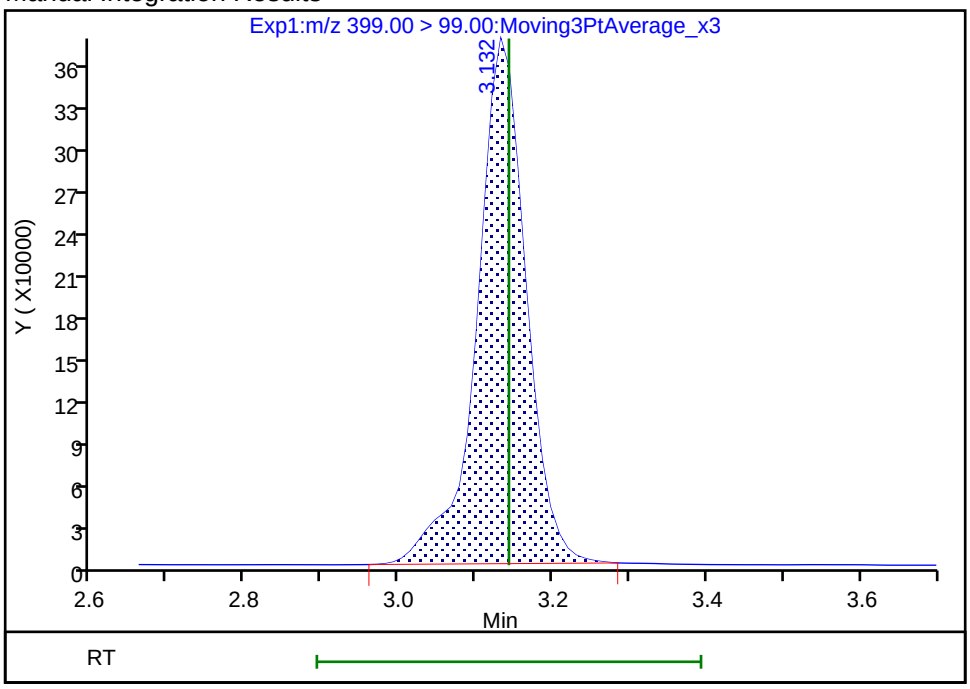
Processing Integration Results

RT: 3.13
Area: 1667186
Amount: 5.477119
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1647893
Amount: 5.402476
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:26:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

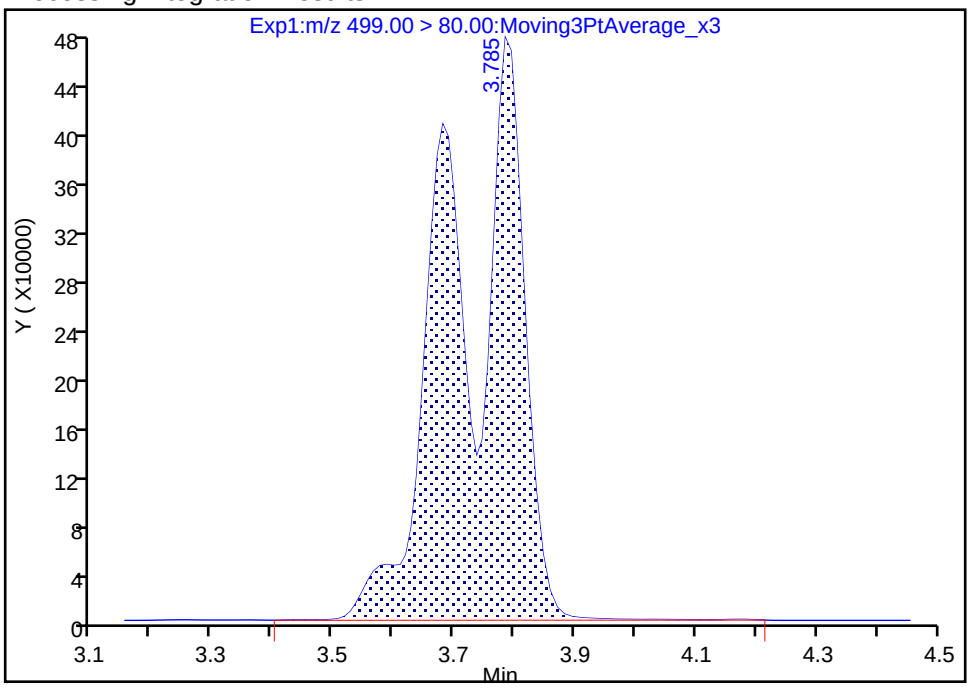
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d | | | | |
| Injection Date: | 09-Nov-2021 13:07:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

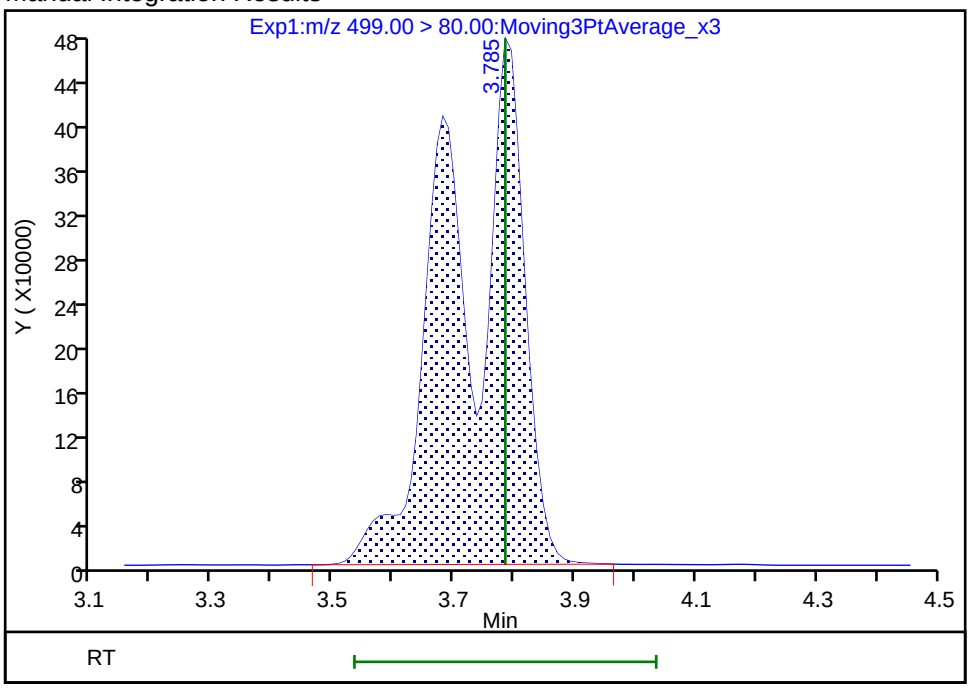
Processing Integration Results

RT: 3.78
Area: 3822077
Amount: 4.922874
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 3796658
Amount: 4.890135
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:27:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

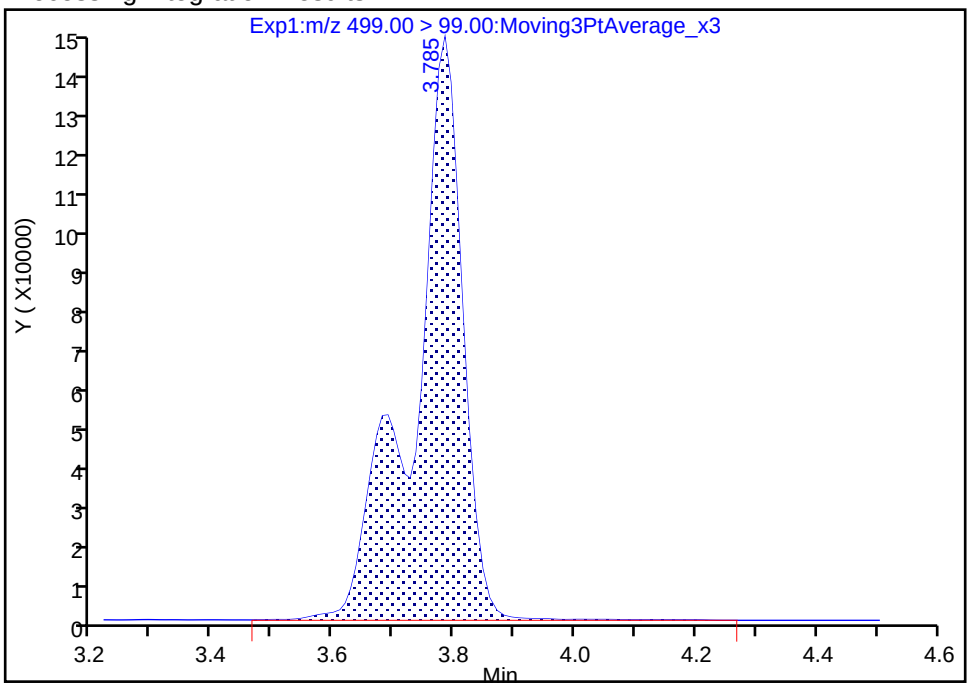
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A07.d | | | | |
| Injection Date: | 09-Nov-2021 13:07:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-28-A | Lab Sample ID: | 200-246277-28 | | |
| Client ID: | AMW-8-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 5.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

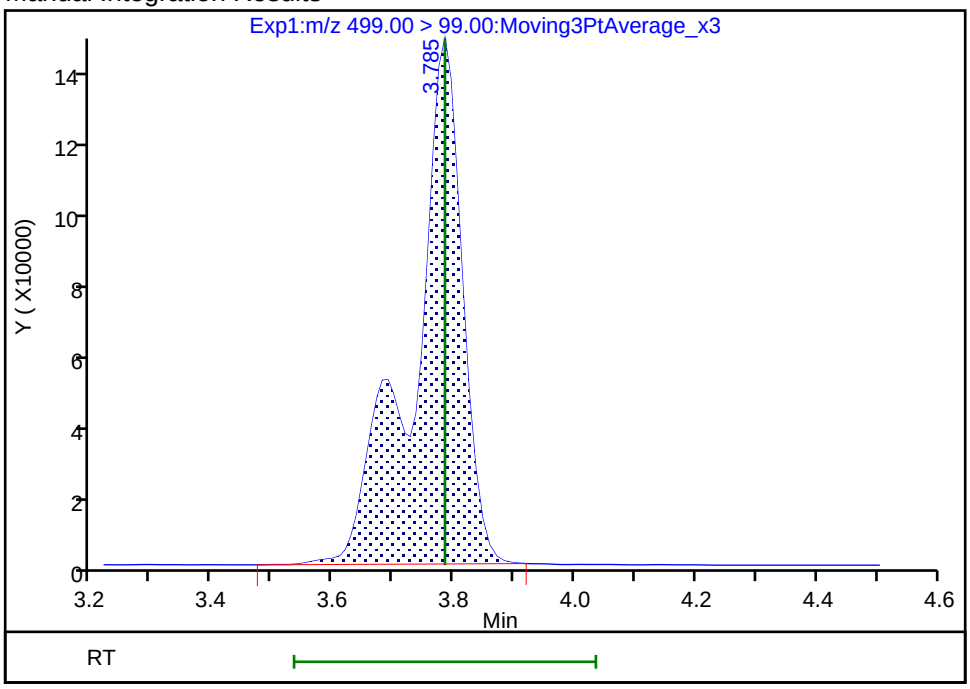
Processing Integration Results

RT: 3.78
Area: 831723
Amount: 4.922874
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 821159
Amount: 4.890135
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:27:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-9-20211029  Lab Sample ID: 460-246277-29

Matrix: Water  Lab File ID: PA211110A20.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 08:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 304.9(mL)  Date Analyzed: 11/10/2021 13:58

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 36.2 | | 4.10 | 0.73 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 9.30 | | 1.64 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 32.0 | | 1.64 | 0.37 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 6.89 | | 1.64 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 30.9 | | 1.64 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.79 | | 1.64 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.46 | J I | 1.64 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.64 | 0.28 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.64 | 0.32 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.64 | 0.36 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.64 | 0.52 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 41.0 | B | 1.64 | 0.20 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 240 | | 1.64 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 8.68 | | 1.64 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 214 | | 1.64 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.64 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.64 | 0.47 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.10 | 0.74 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.10 | 0.61 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.90 | U | 4.10 | 0.90 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.64 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-9-20211029  Lab Sample ID: 460-246277-29

Matrix: Water  Lab File ID: PA211110A20.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 08:50

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 304.9(mL)  Date Analyzed: 11/10/2021 13:58

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 110 | | 50-150 |
| STL01892 | 13C4 PFHpA | 94 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 111 | | 50-150 |
| STL00995 | 13C5 PFNA | 95 | | 50-150 |
| STL00992 | 13C4 PFBA | 68 | | 25-150 |
| STL00993 | 13C2 PFHxA | 104 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 88 | | 50-150 |
| STL00998 | 13C2 PFDoA | 86 | | 50-150 |
| STL01056 | 13C8 FOSA | 67 | | 25-150 |
| STL01893 | 13C5 PFPeA | 92 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 94 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 129 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 149 | | 50-150 |
| STL02279 | M2-6:2 FTS | 165 | *5+ | 25-150 |
| STL02280 | M2-8:2 FTS | 180 | *5+ | 25-150 |
| STL02337 | 13C3 PFBS | 110 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d
Lims ID: 460-246277-C-29-A
Client ID: AMW-9-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 13:58:10 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-29-A
Misc. Info.: 200-0048360-020 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:43:05
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 795734 | 0.8464 | | 67.7 | 289 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.091 | -0.009 | 0.996 | 665263 | 1.11 | | | 8.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 913886 | 1.15 | | 92.3 | 153 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 207721 | 0.2836 | | | 0.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1365425 | 1.27 | | 110 | 8767 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 1569066 | 1.25 | Target=2.32 | | 13.5 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 692998 | | 2.26(1.16-3.48) | | 29.6 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1083438 | 1.30 | | 104 | 844 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 858382 | 0.9765 | Target=12.09 | | 2.9 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 56927 | | 15.08(6.04-18.13) | | 11.0 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 6926194 | 7.33 | Target=3.55 | | 177 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1863194 | | 3.72(1.77-5.32) | | 357 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1016221 | 1.31 | | 110 | 1655 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1024321 | 1.17 | | 93.7 | 1632 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 177961 | 0.2102 | Target=3.69 | | 2.0 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 64766 | | 2.75(1.84-5.53) | | 22.6 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.913 | 206266 | 0.2646 | Target=4.88 | | 8.1 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 51768 | | 3.98(2.44-7.32) | | 13.1 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.475 | -0.001 | 0.997 | 4869 | 0.0189 | | | 29.0 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 240906 | 1.96 | | 165 | 14.6 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1121657 | 1.17 | | 93.9 | 2416 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1160927 | 1.25 | | | 2808 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 899476 | 0.9426 | Target=2.68 | | 14.2 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 385904 | | 2.33(1.34-4.02) | | 133 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 747396 | 1.33 | | 111 | 69.1 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 4428651 | 6.53 | Target=4.69 | | 199 | M |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 1046119 | | 4.23(2.35-7.04) | | 371 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1135273 | 1.19 | | 95.4 | 1549 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 48445 | 0.0545 | Target=7.29 | | 2.1 | M |
| 463.00 > 169.00 | 3.814 | 3.818 | -0.004 | 0.997 | 7553 | | 6.41(3.64-10.93) | | 4.8 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1049628 | 1.09 | | 87.4 | 2558 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | RMa |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 11753 | 0.0139 | Target=8.95 | | 0.8 | Ra |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 832 | | 14.13(4.47-13.42) | | 1.4 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 300737 | 2.16 | | 180 | 45.9 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.120 | -0.005 | 0.997 | 219 | 0.001042 | | | 3.1 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 777253 | 0.8388 | | 67.1 | 1656 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.214 | 4.219 | -0.005 | 0.998 | 997 | 0.001688 | | | 4.4 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 152505 | 1.61 | | 129 | 544 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.000 | 667 | 0.006959 | | | 5.6 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 821139 | 1.10 | | 87.7 | 3355 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 164585 | 1.86 | | 149 | 617 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.402 | 4.387 | 0.015 | 1.003 | 792 | 0.007020 | | | 2.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 870146 | 1.08 | | 86.4 | 1521 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.972 | 0.013 | 1.428 | 732342 | 1.17 | | 93.8 | 1435 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 0.998 | 249 | 0.002693 | Target=1.01 | | 6.0 | M |
| 713.00 > 219.00 | 4.985 | 4.972 | 0.013 | 1.000 | 193 | | 1.29(0.51-1.52) | | 2.3 | M |

## QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 11-Nov-2021 12:40:38 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d

Injection Date: 10-Nov-2021 13:58:10 Instrument ID: LC812

Lims ID: 460-246277-C-29-A Lab Sample ID: 200-246277-29

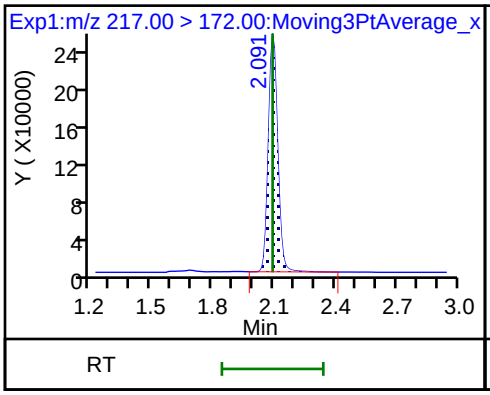
Client ID: AMW-9-20211029

Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20

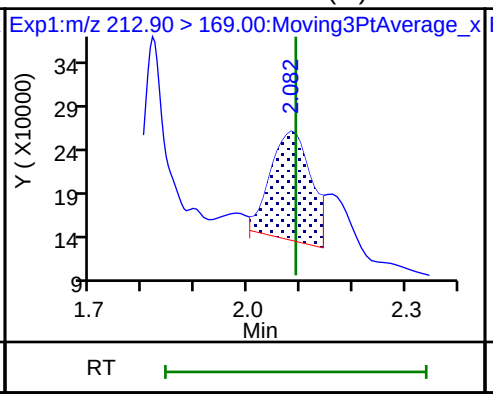
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

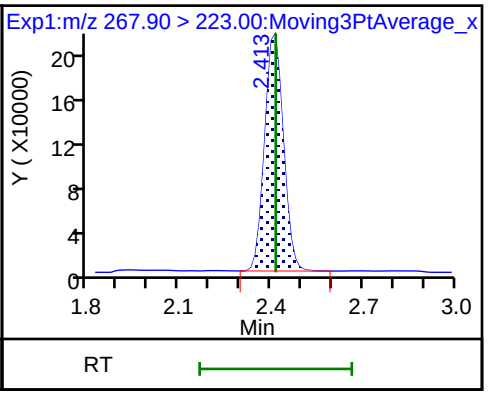
D 1 13C4 PFBA



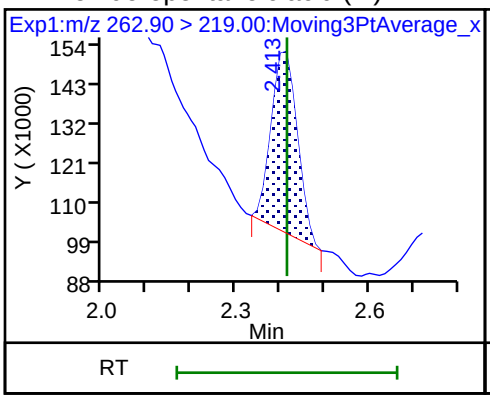

2 Perfluorobutanoic acid (M)



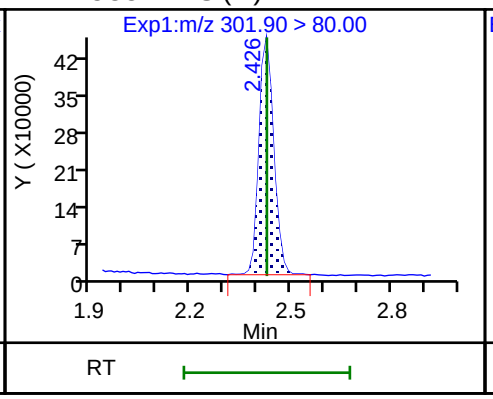

D 3 13C5 PFPeA



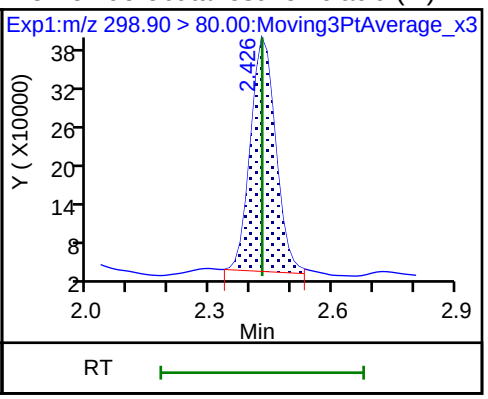

4 Perfluoropentanoic acid (M)



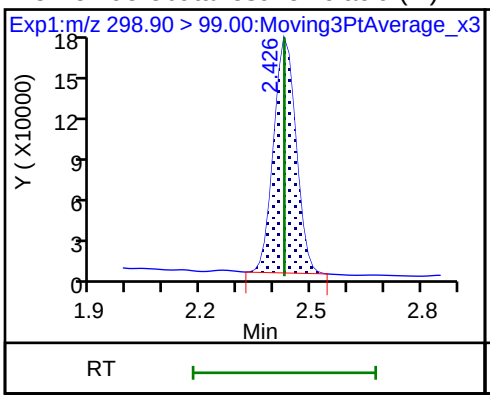

D 47 13C3 PFBS (M)



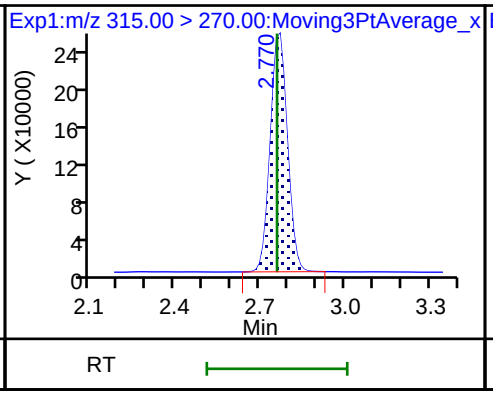

5 Perfluorobutanesulfonic acid (M)



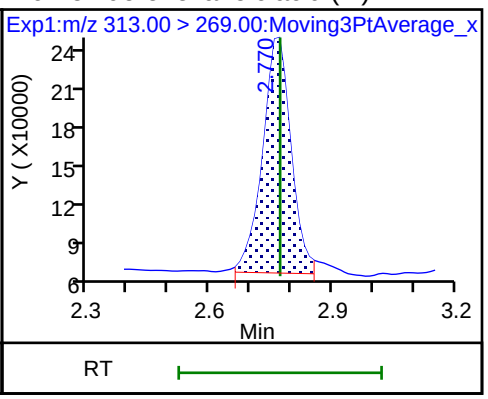

5 Perfluorobutanesulfonic acid (M)



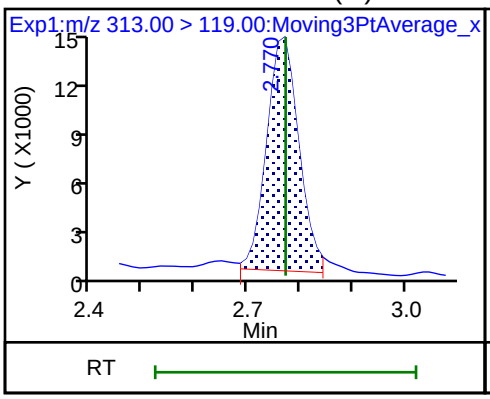

D 7 13C2 PFHxA



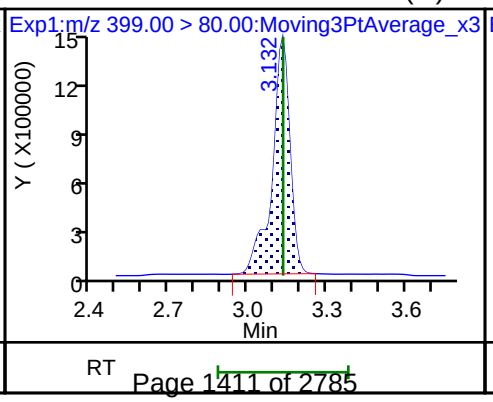

6 Perfluorohexanoic acid (M)



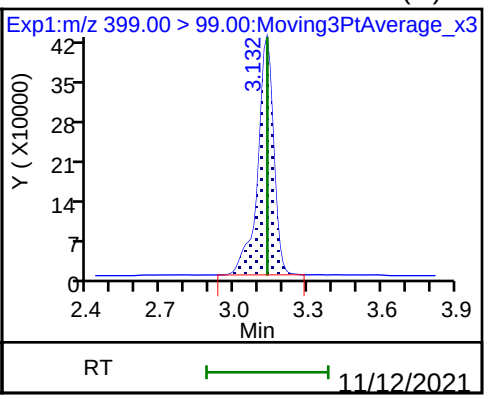

6 Perfluorohexanoic acid (M)



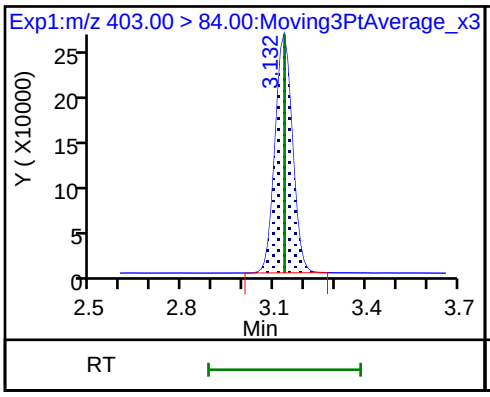

8 Perfluorohexanesulfonic acid (M)



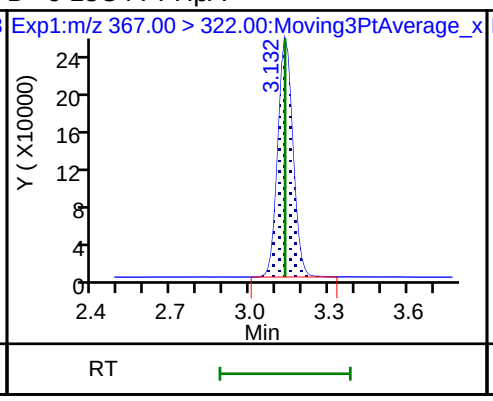

8 Perfluorohexanesulfonic acid (M)



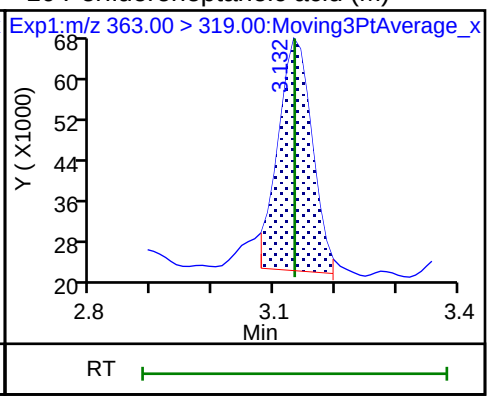
D 11 18O2 PFHxS



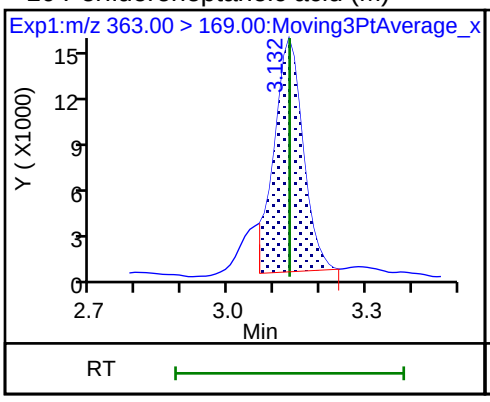

D 9 13C4 PFHpA



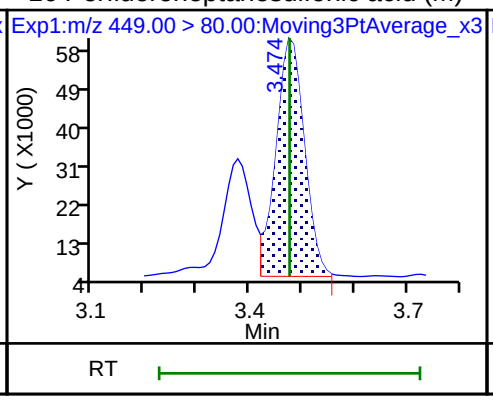

10 Perfluoroheptanoic acid (M)



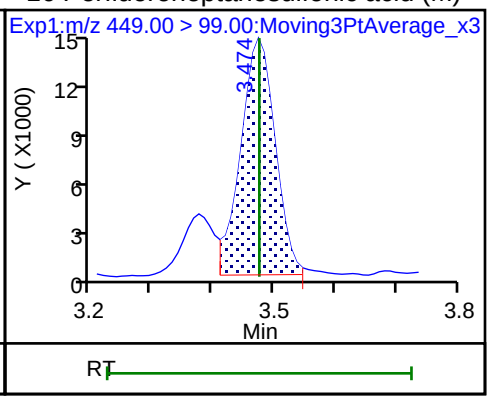

10 Perfluoroheptanoic acid (M)



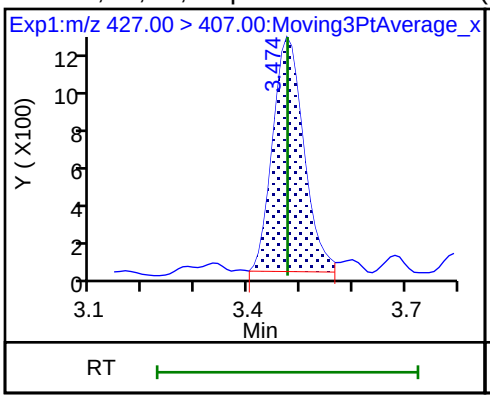

16 Perfluoroheptanesulfonic acid (M)



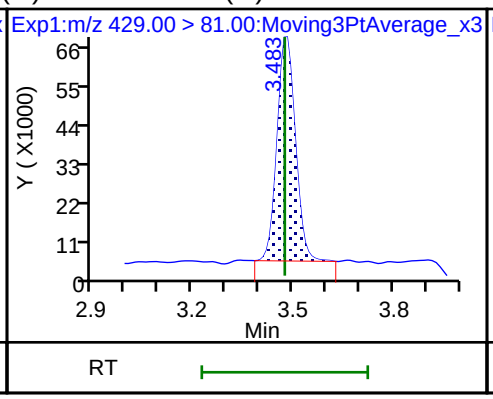

16 Perfluoroheptanesulfonic acid (M)



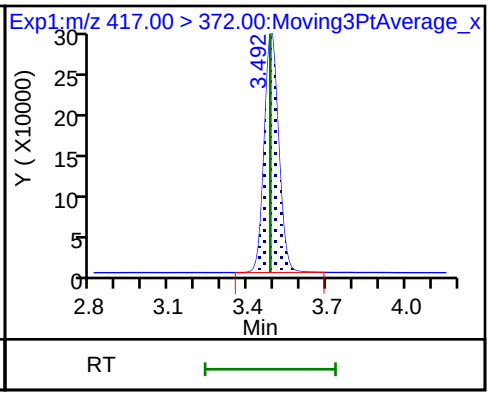

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



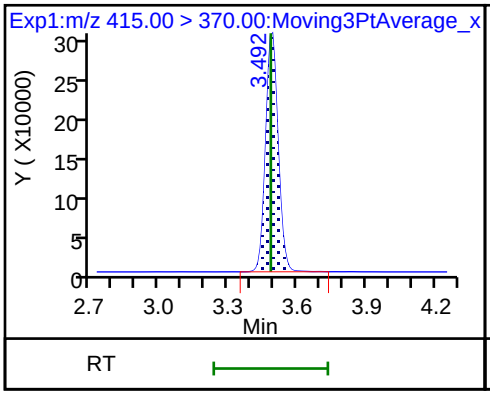

D 12 M2-6:2 FTS (M)



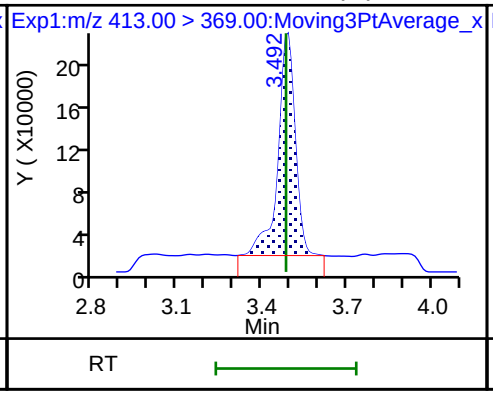

D 14 13C4 PFOA



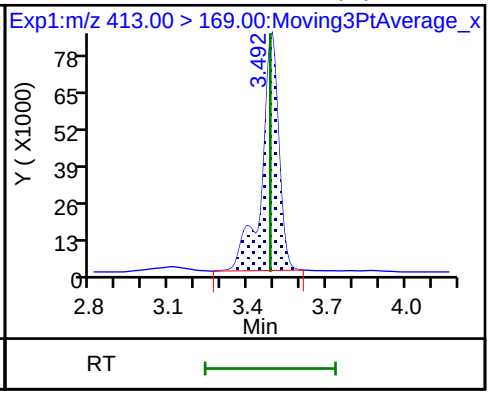

* 62 13C2 PFOA



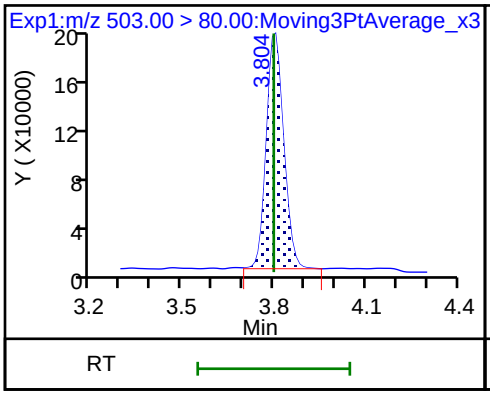

15 Perfluorooctanoic acid (M)



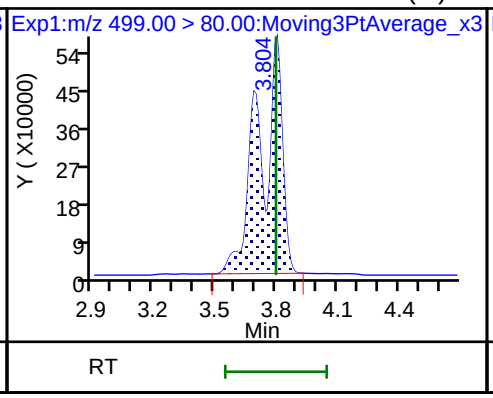

15 Perfluorooctanoic acid (M)



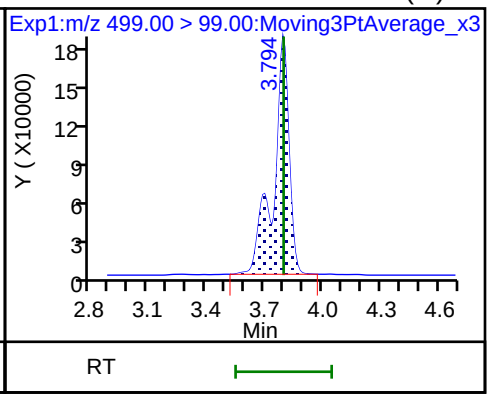
D 18 13C4 PFOS



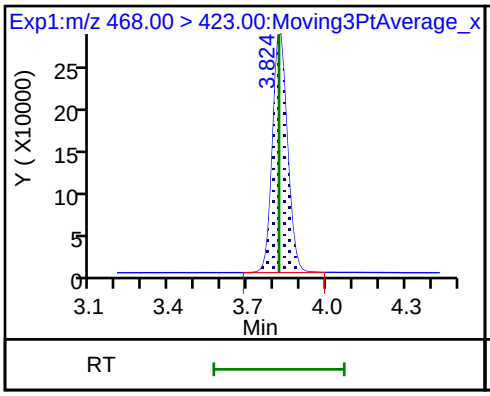

17 Perfluorooctanesulfonic acid (M)



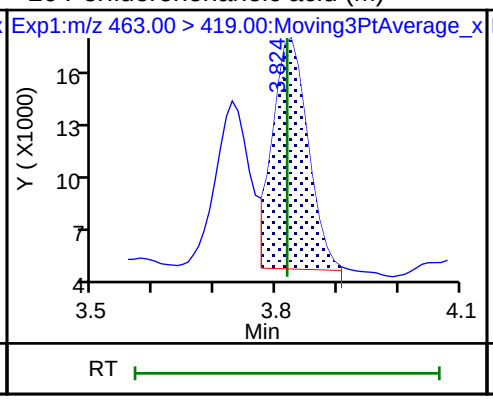

17 Perfluorooctanesulfonic acid (M)



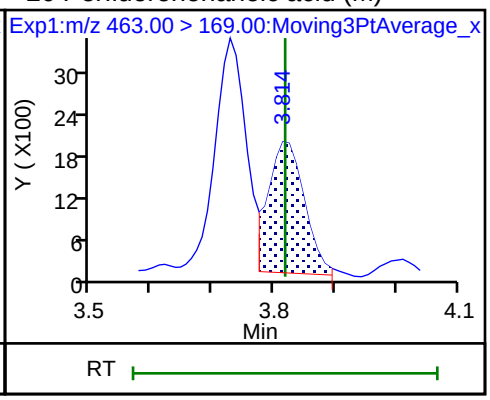

D 19 13C5 PFNA



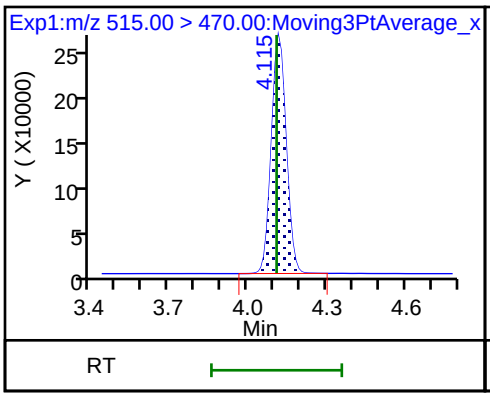

20 Perfluorononanoic acid (M)



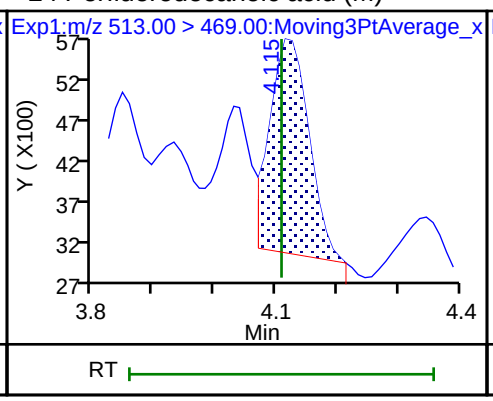

20 Perfluorononanoic acid (M)



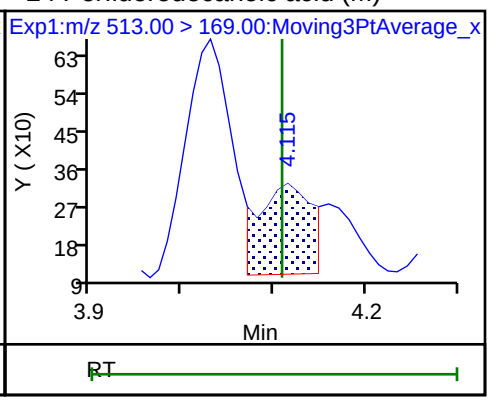

D 23 13C2 PFDA



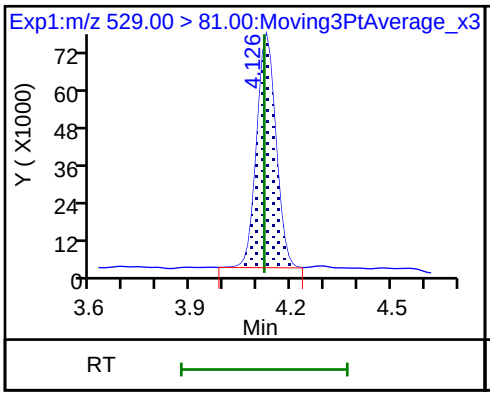

24 Perfluorodecanoic acid (M)



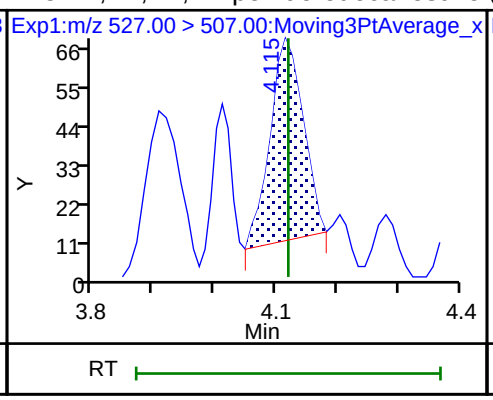

24 Perfluorodecanoic acid (M)



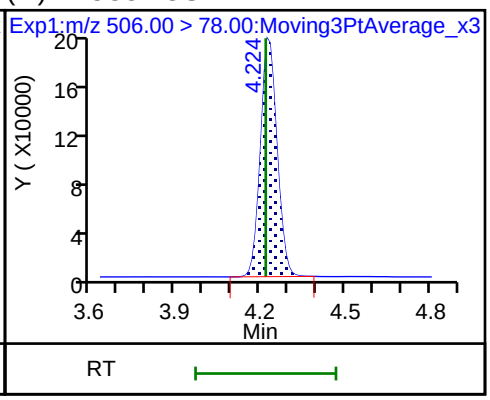

D 26 M2-8:2 FTS



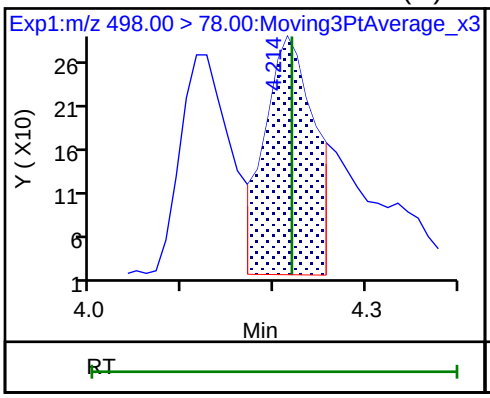

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



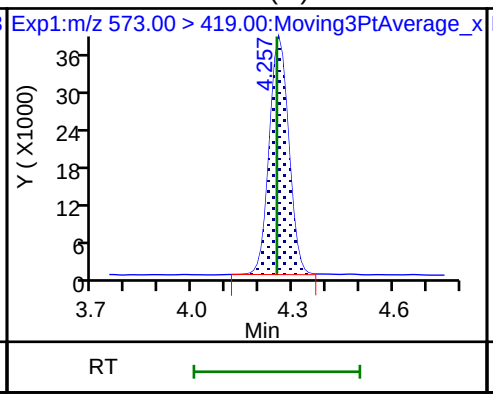

D 21 13C8 FOSA



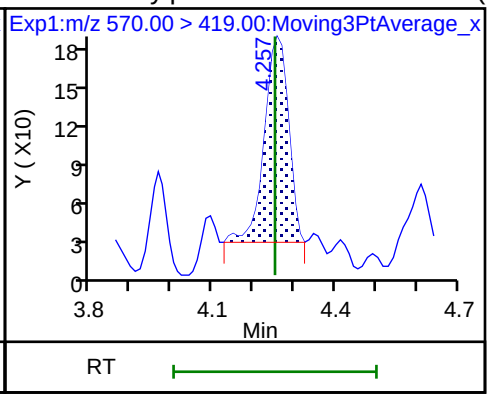
22 Perfluorooctanesulfonamide (M)



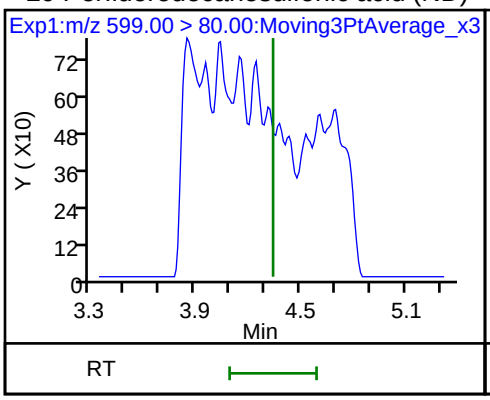

D 27 d3-NMeFOSAA (M)



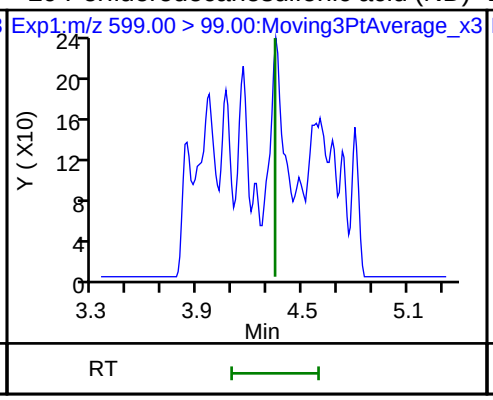

28 N-methylperfluorooctanesulfonami (M)



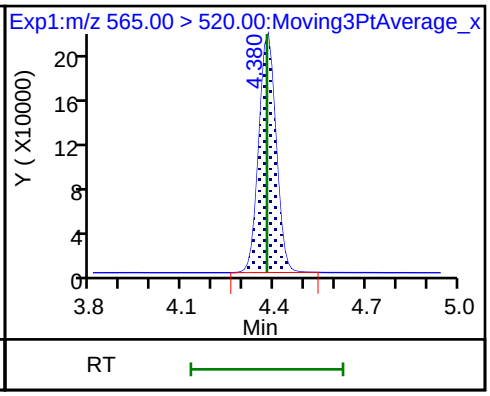

29 Perfluorodecanesulfonic acid (ND)



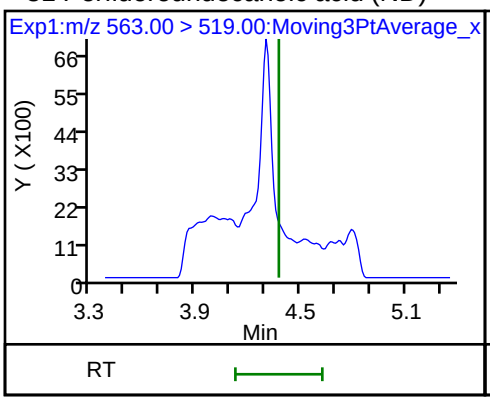

29 Perfluorodecanesulfonic acid (ND)



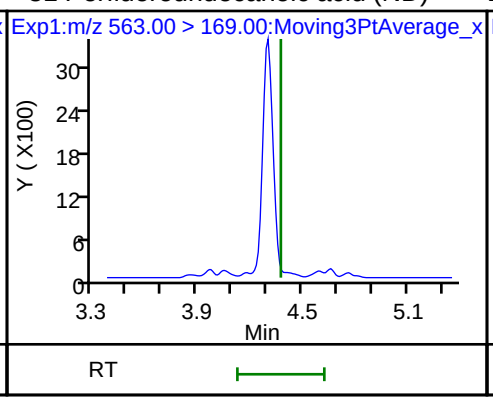

D 30 13C2 PFUnA



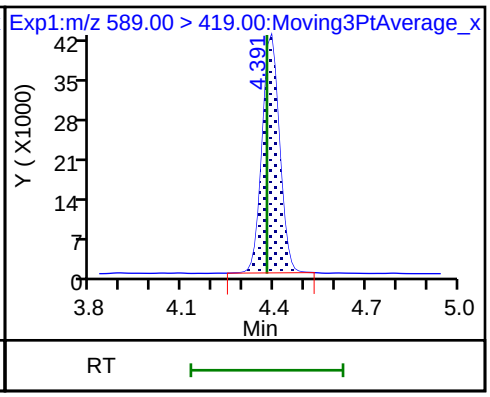

31 Perfluoroundecanoic acid (ND)



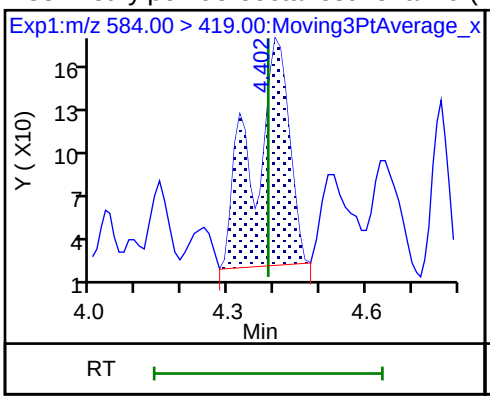

31 Perfluoroundecanoic acid (ND)



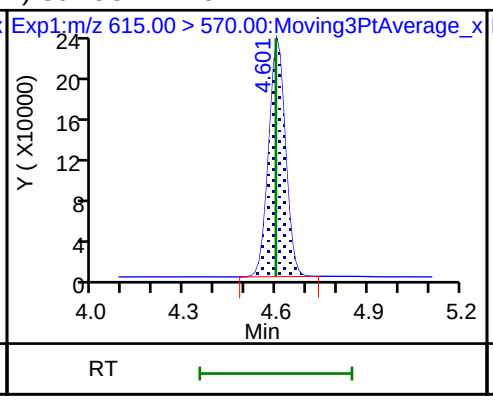

D 32 d5-NEtFOSAA



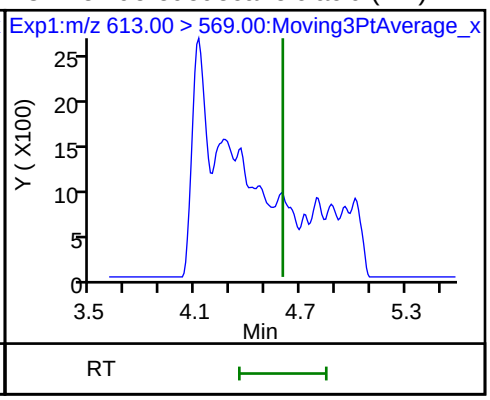

33 N-ethylperfluorooctanesulfonamid (ND)



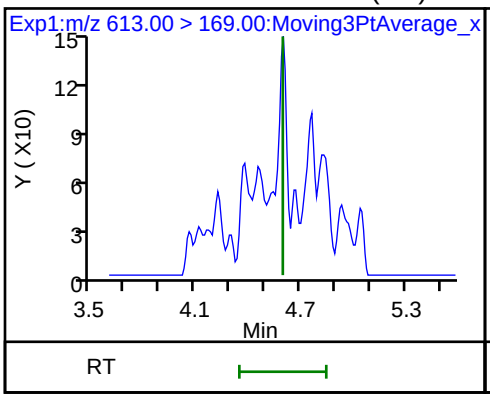

D 36 13C2 PFDoA



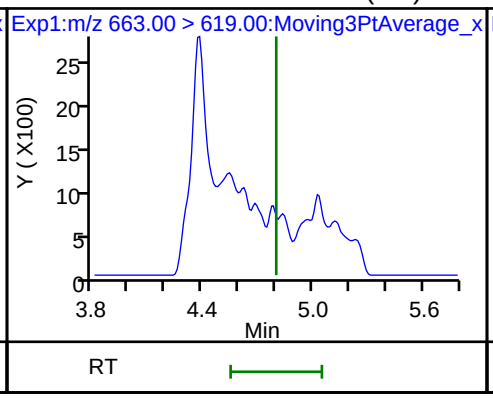

37 Perfluorododecanoic acid (ND)



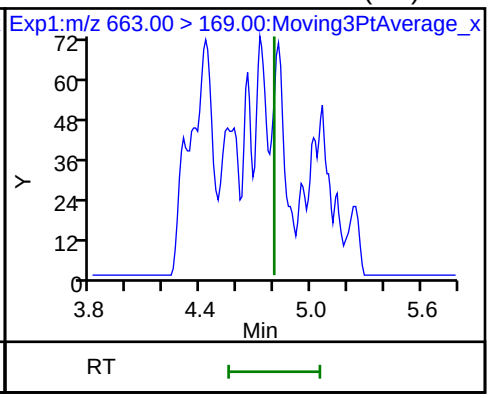
37 Perfluorododecanoic acid (ND)



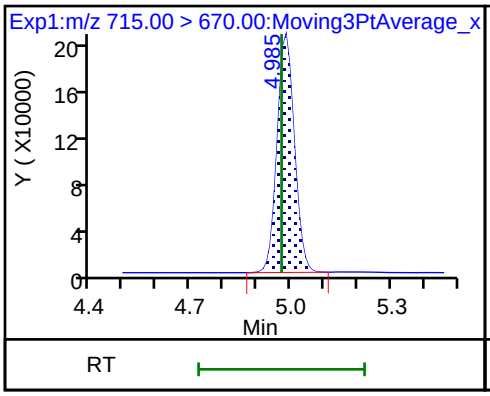

41 Perfluorotridecanoic acid (ND)



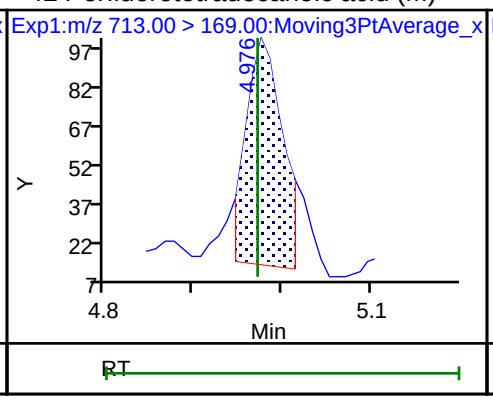

41 Perfluorotridecanoic acid (ND)



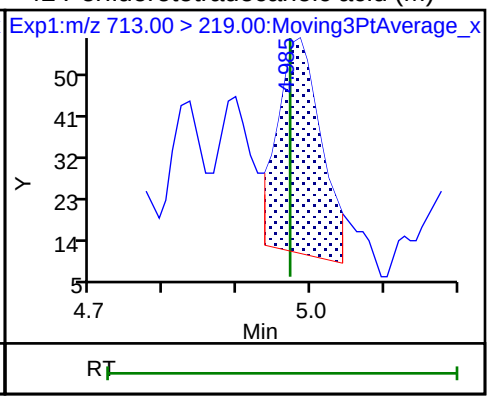

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

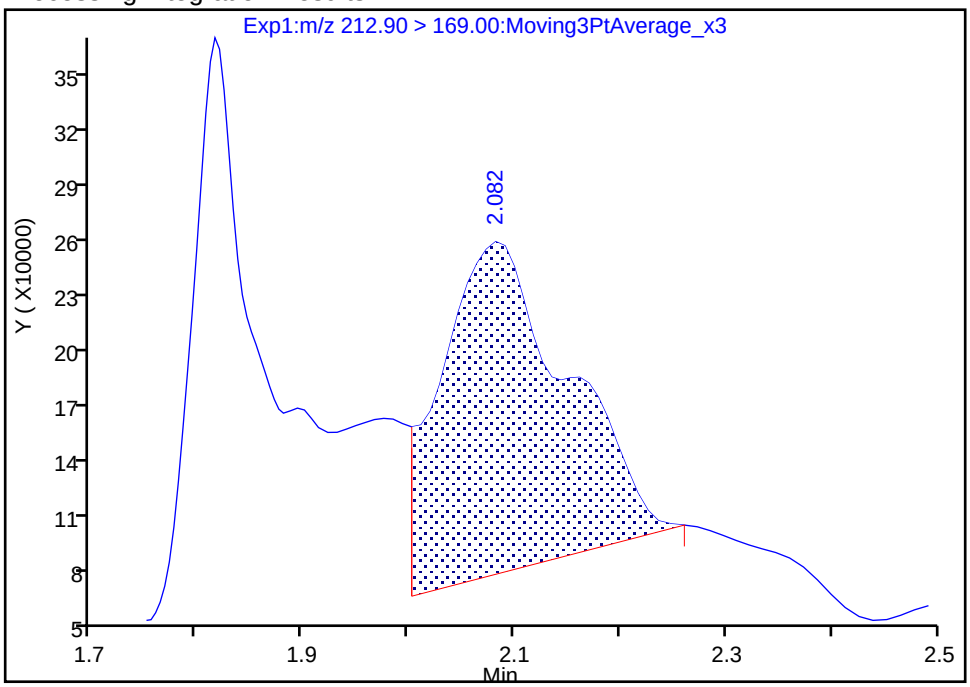
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

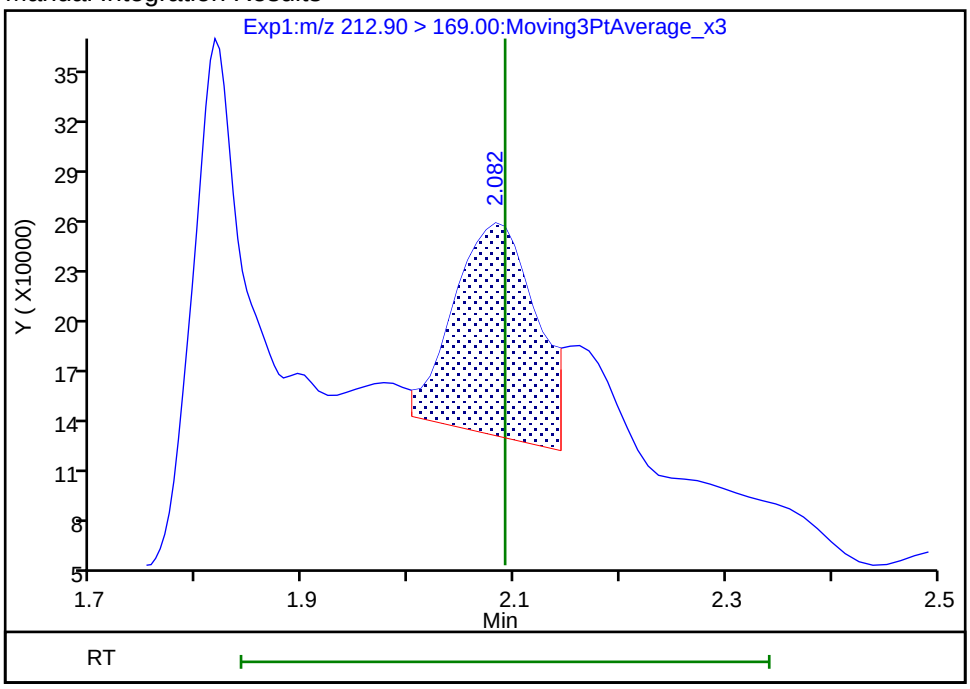
Processing Integration Results

RT: 2.08
Area: 1445888
Amount: 2.402084
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 665263
Amount: 1.105215
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

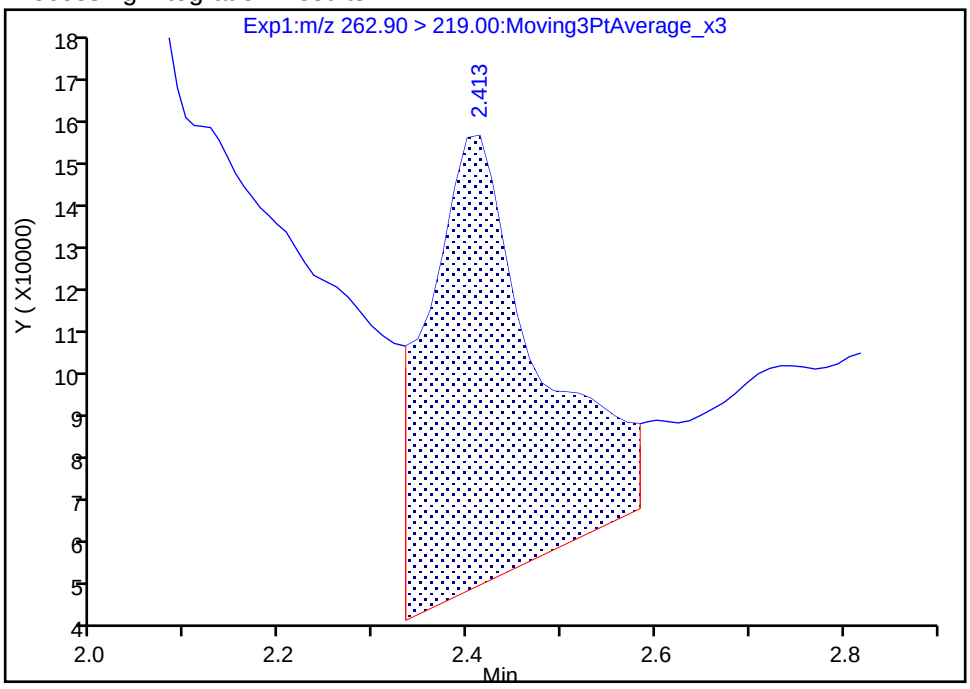
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

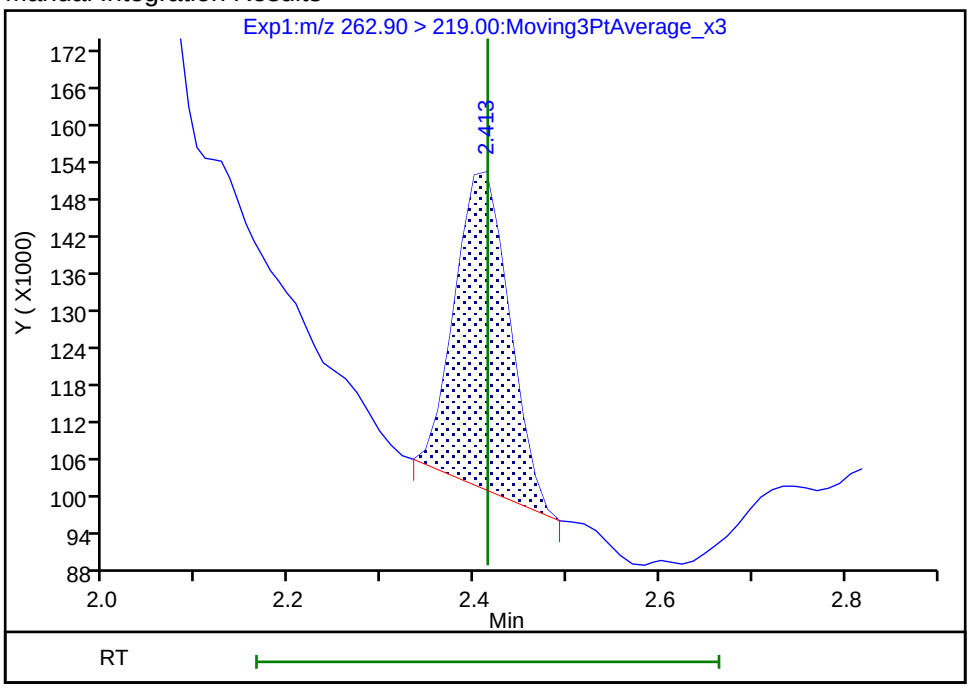
Processing Integration Results

RT: 2.41
Area: 803377
Amount: 1.096952
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 207721
Amount: 0.283628
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

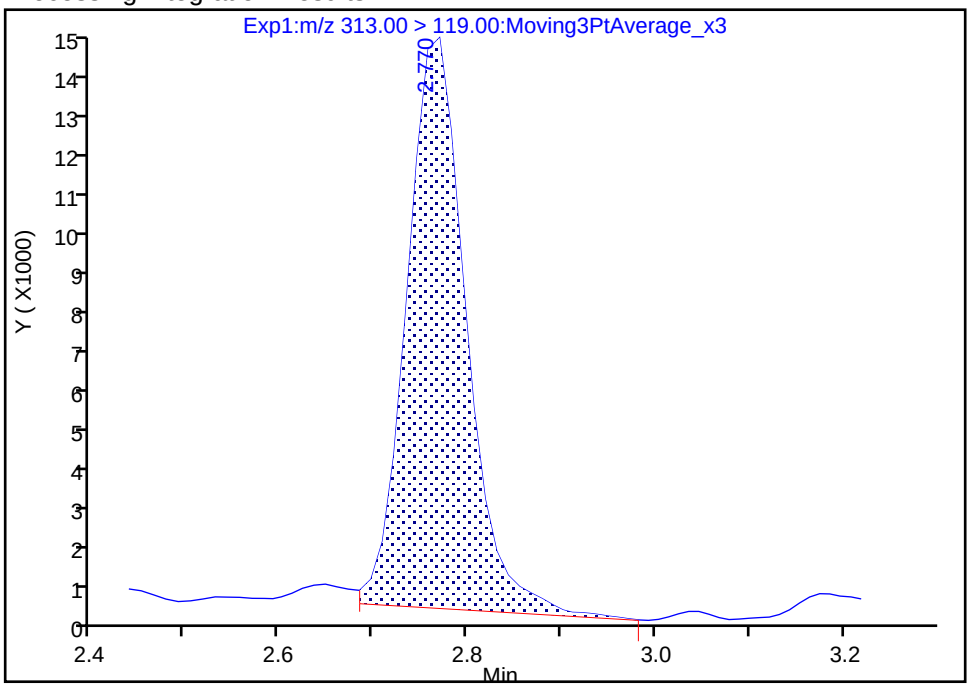
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

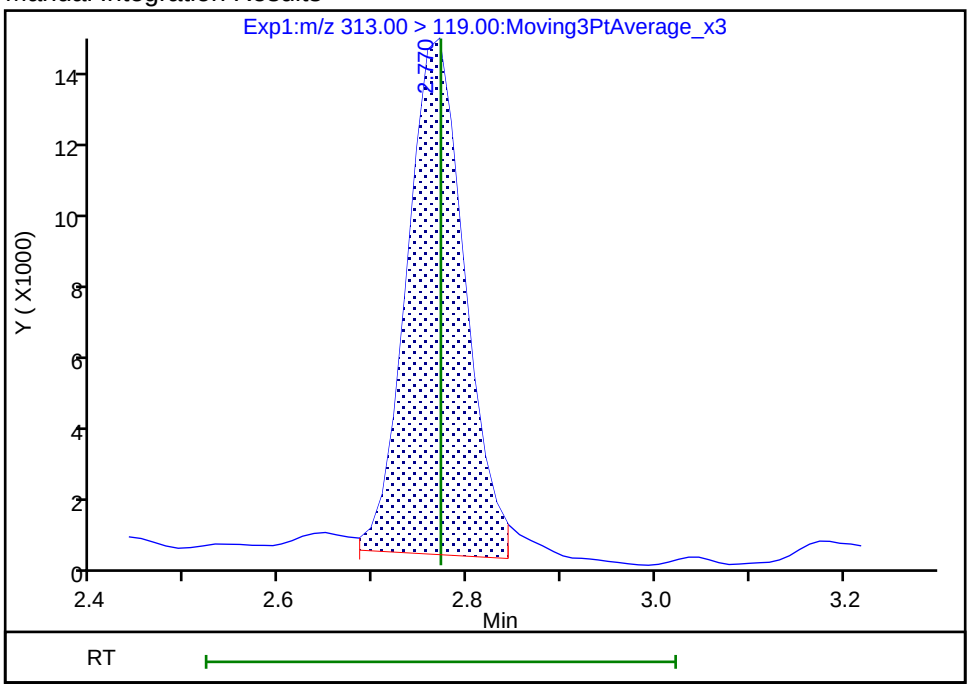
Processing Integration Results

RT: 2.77
Area: 58827
Amount: 1.507649
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 56927
Amount: 0.976503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

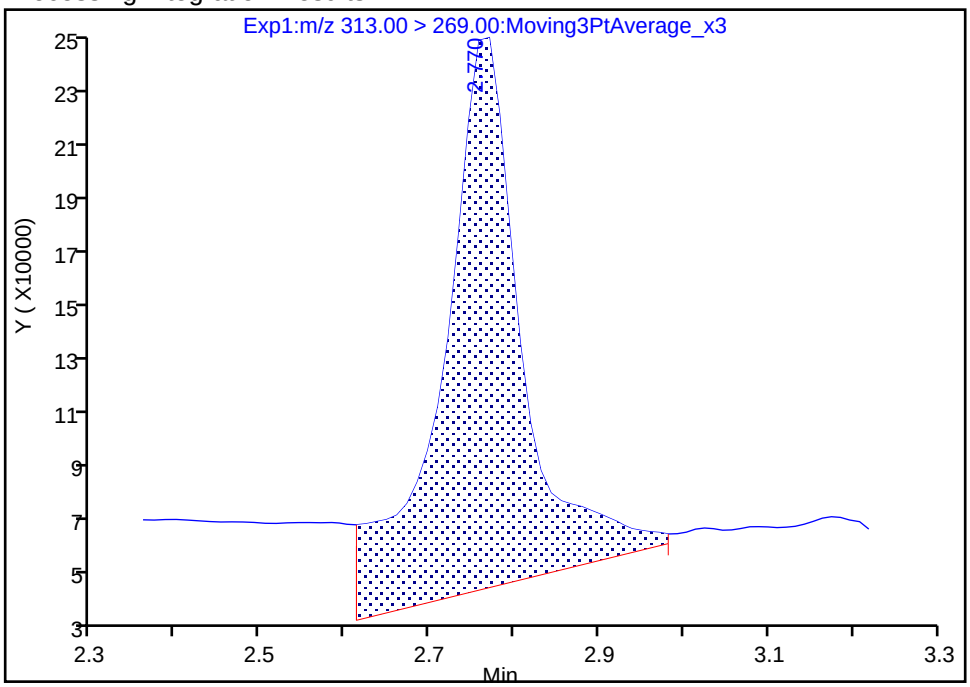
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

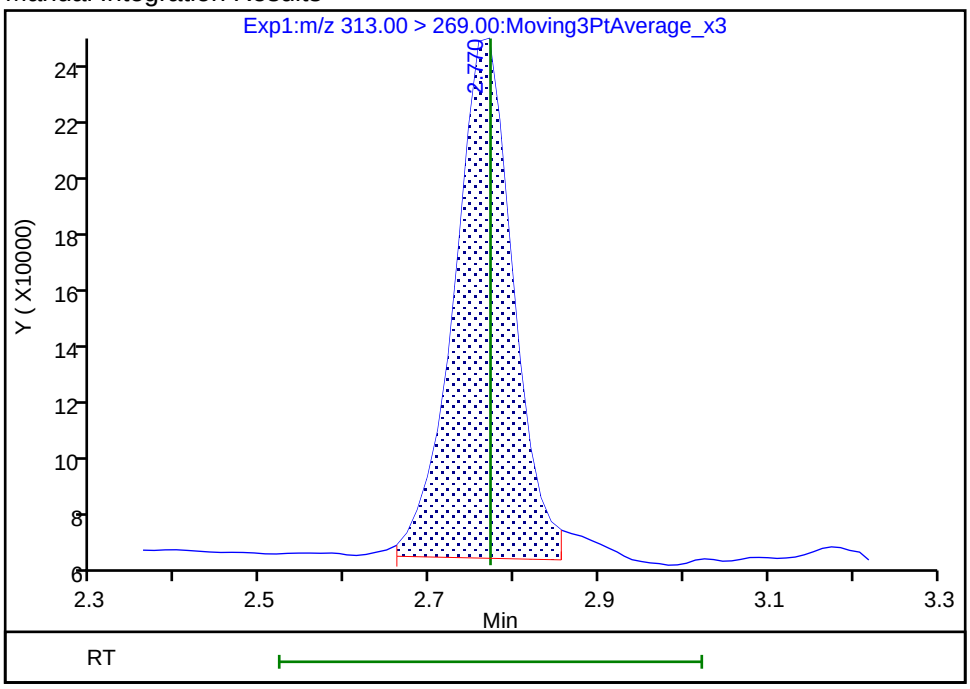
Processing Integration Results

RT: 2.77
Area: 1325279
Amount: 1.507649
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 858382
Amount: 0.976503
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

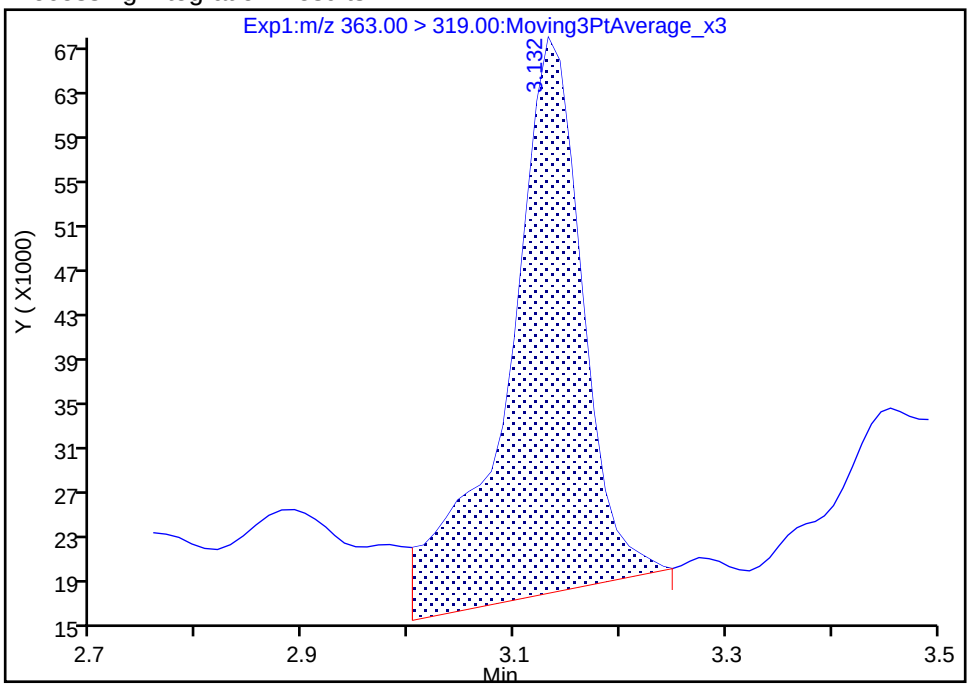
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

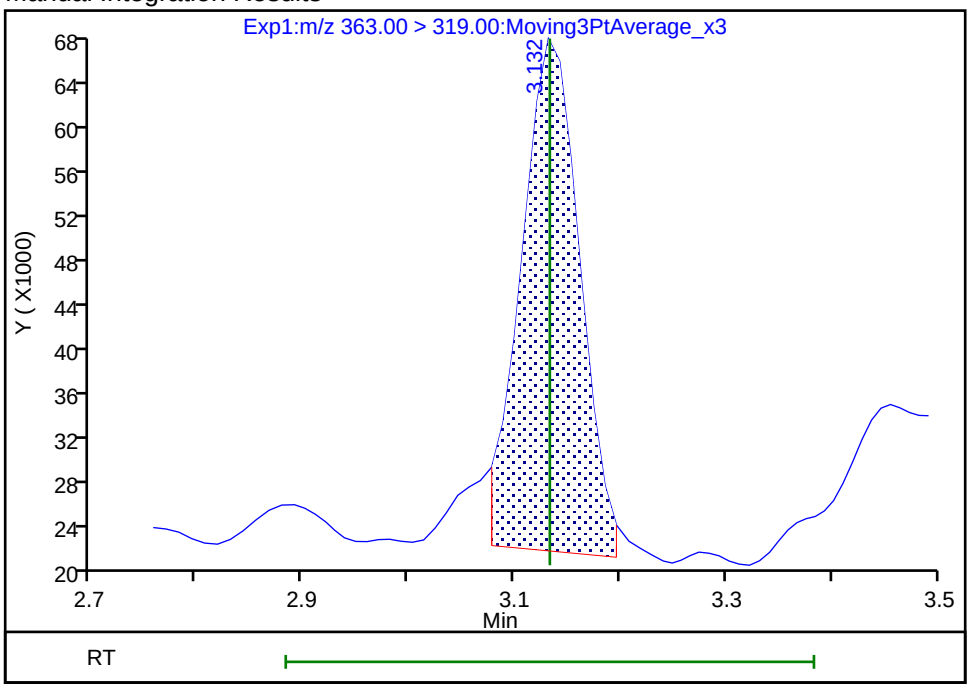
Processing Integration Results

RT: 3.13
Area: 246506
Amount: 0.291145
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 177961
Amount: 0.210187
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

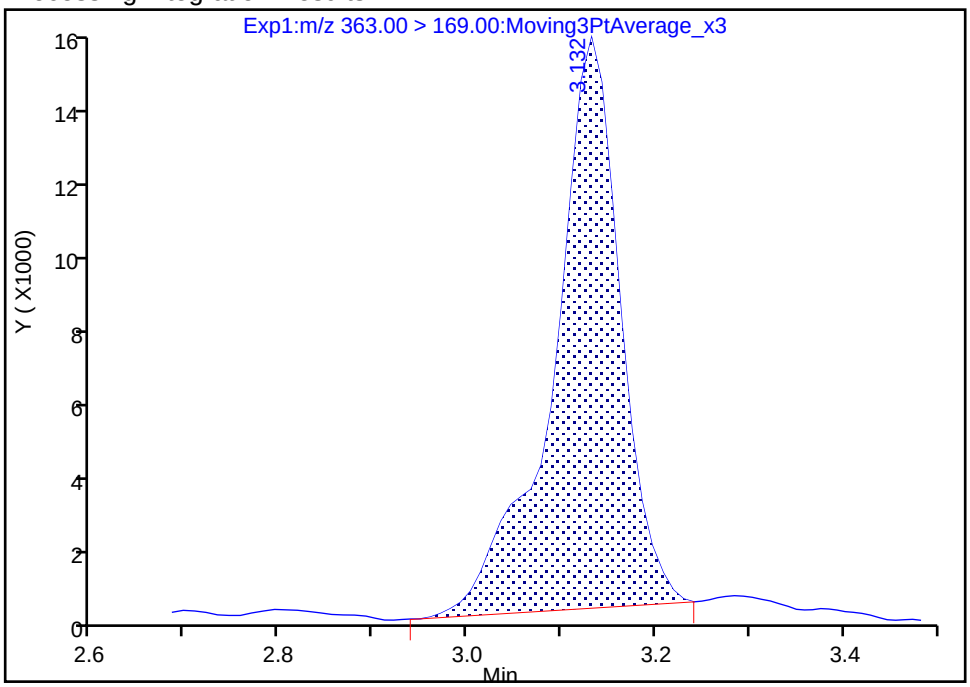
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

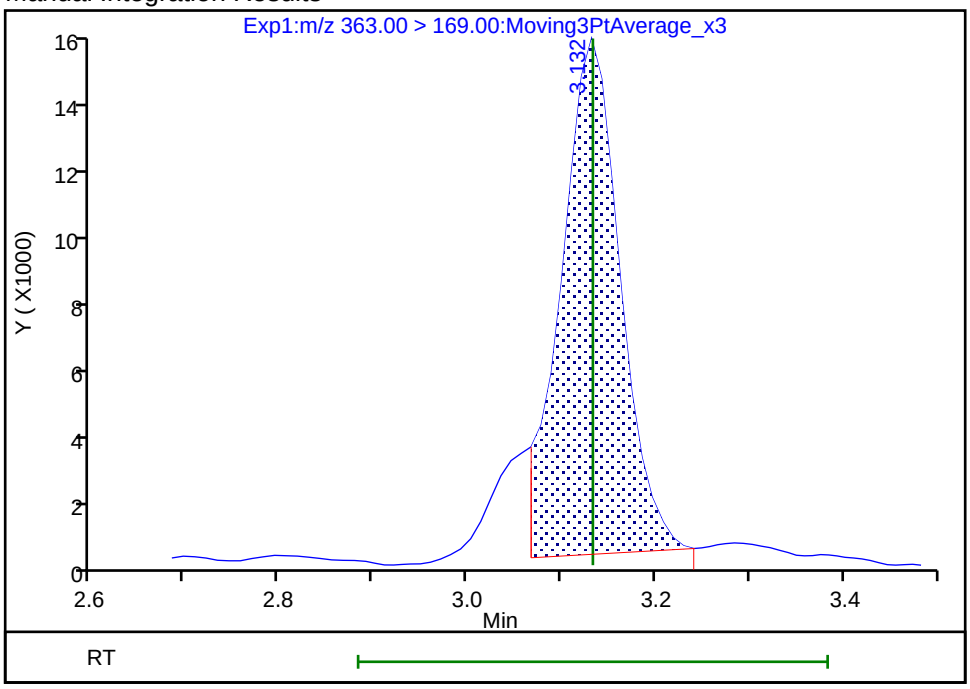
Processing Integration Results

RT: 3.13
Area: 73858
Amount: 0.291145
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 64766
Amount: 0.210187
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

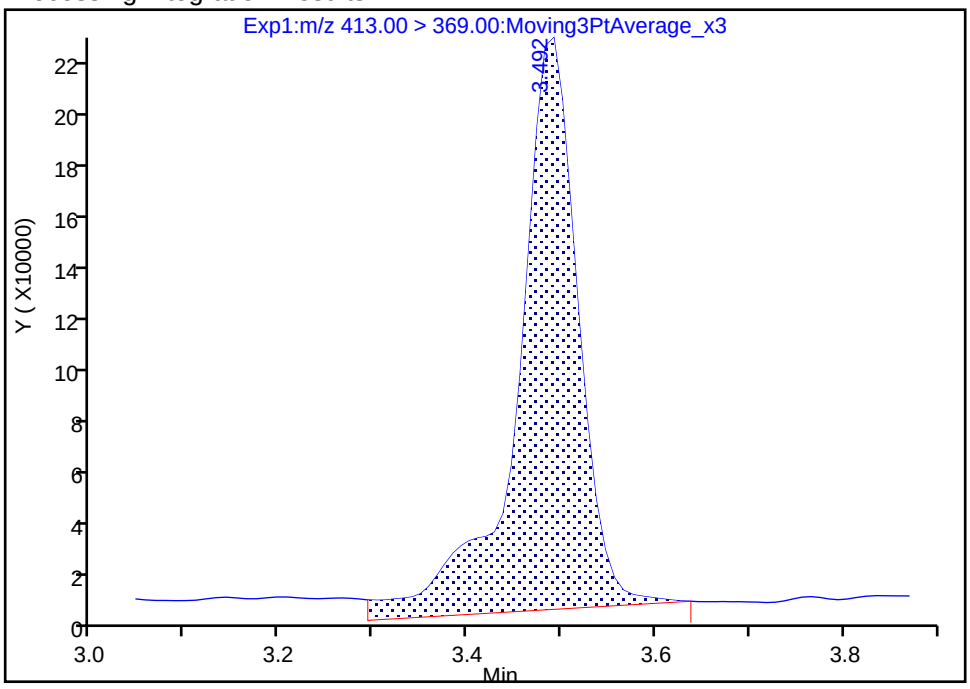
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

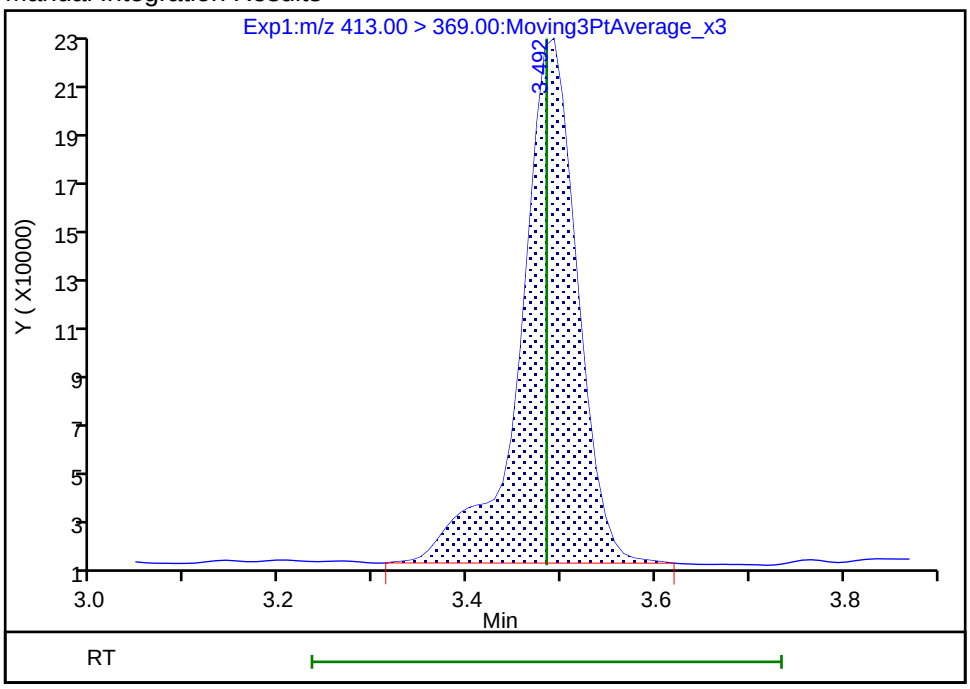
Processing Integration Results

RT: 3.49
Area: 982406
Amount: 1.029506
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 899476
Amount: 0.942600
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

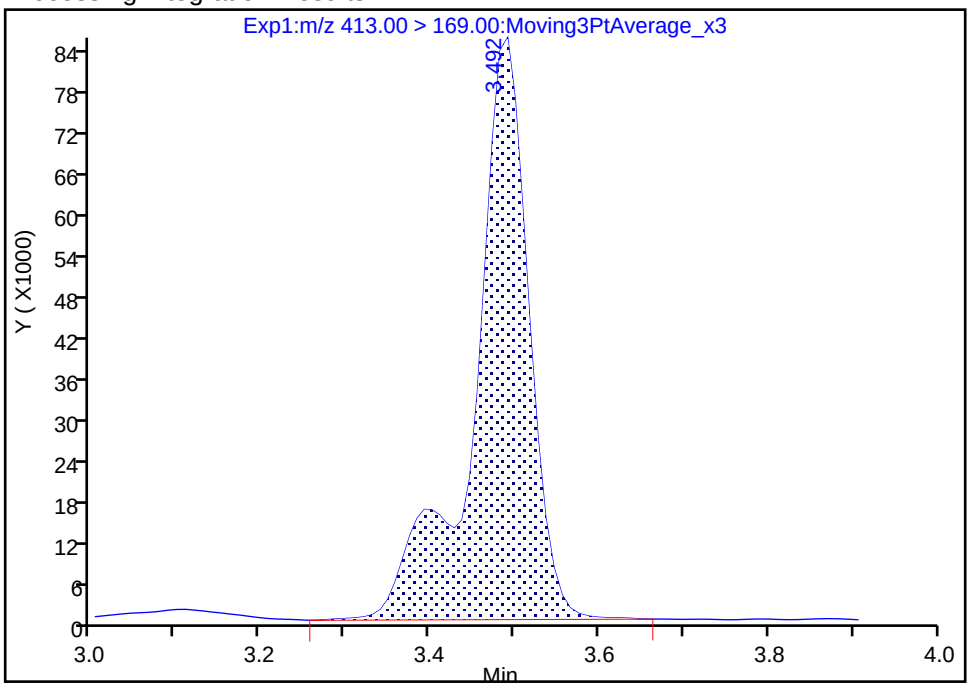
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

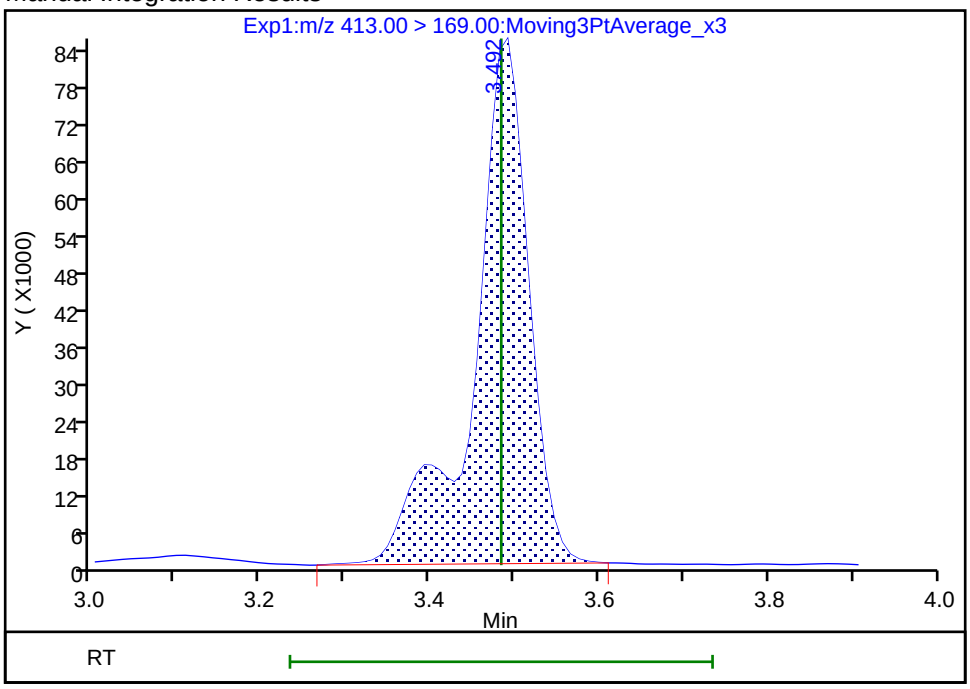
Processing Integration Results

RT: 3.49
Area: 388609
Amount: 1.029506
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 385904
Amount: 0.942600
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

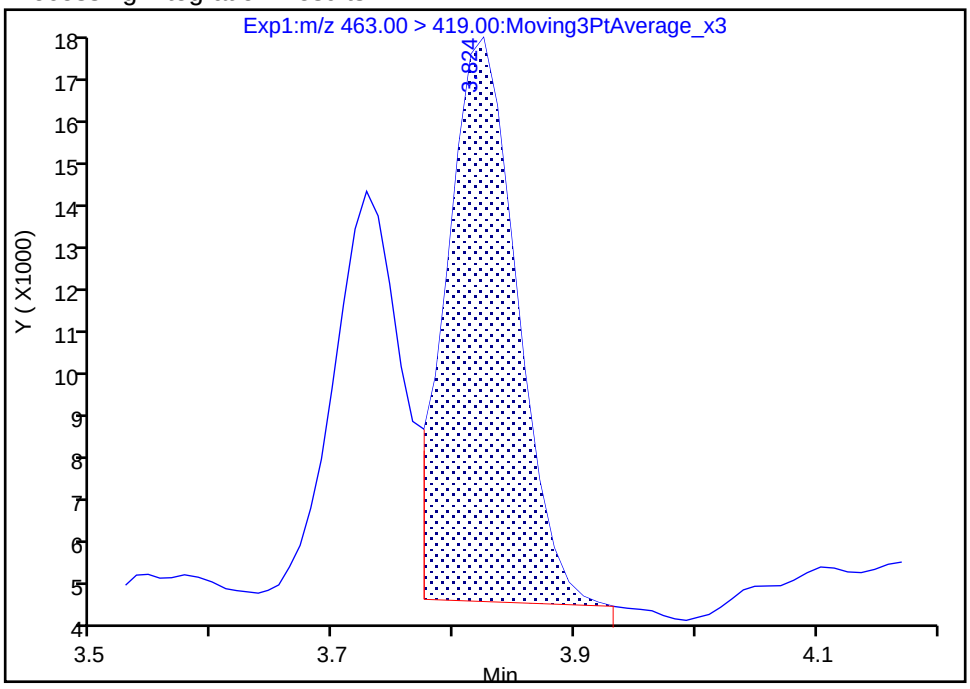
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

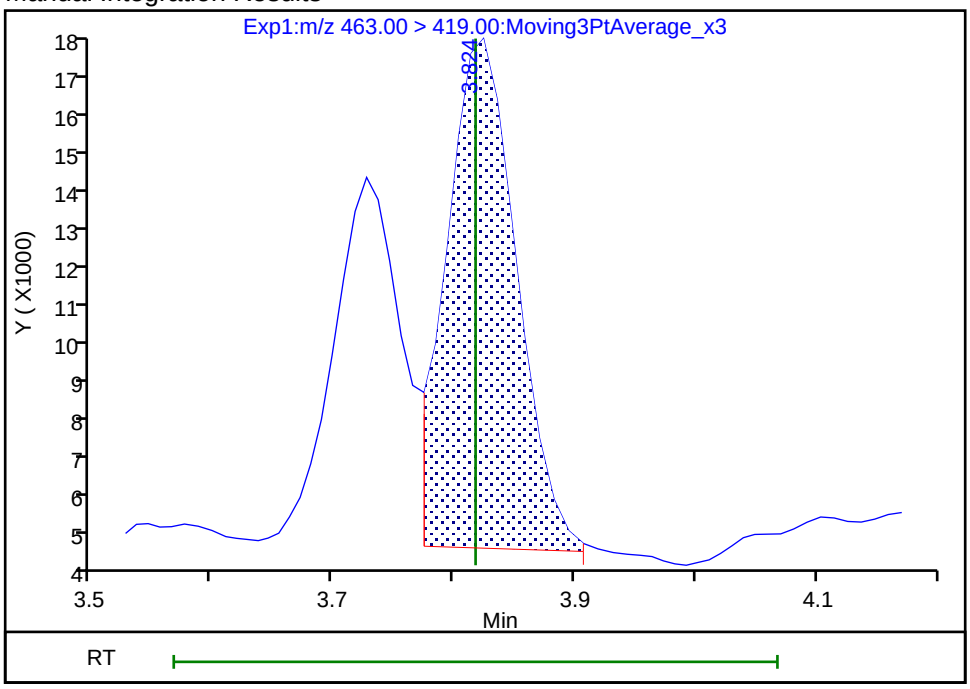
Processing Integration Results

RT: 3.82
Area: 48580
Amount: 0.054674
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 48445
Amount: 0.054522
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

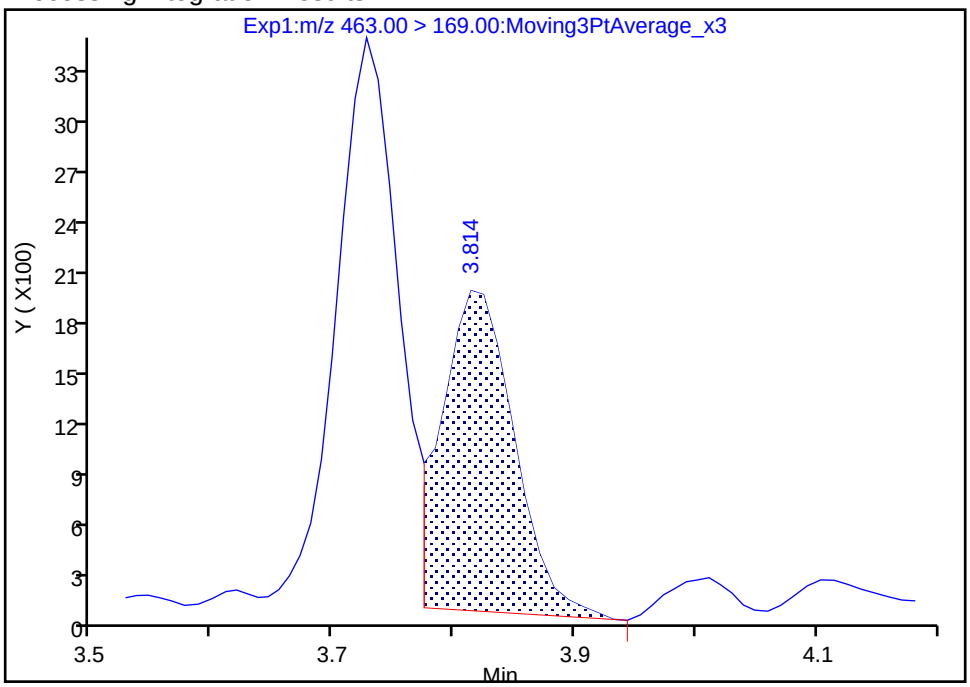
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

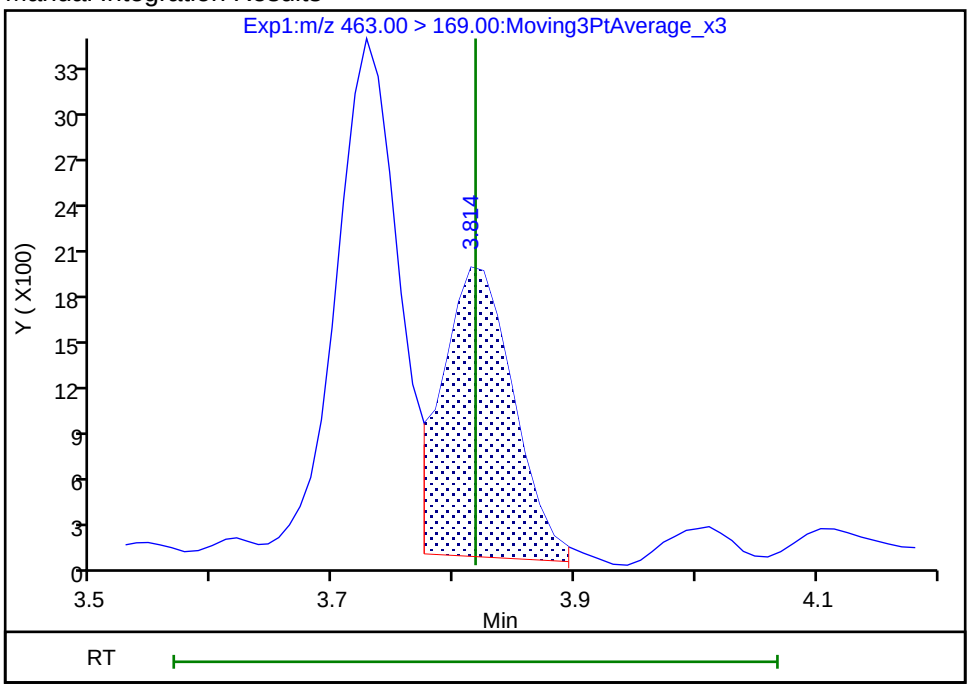
Processing Integration Results

RT: 3.81
Area: 7666
Amount: 0.054674
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 7553
Amount: 0.054522
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

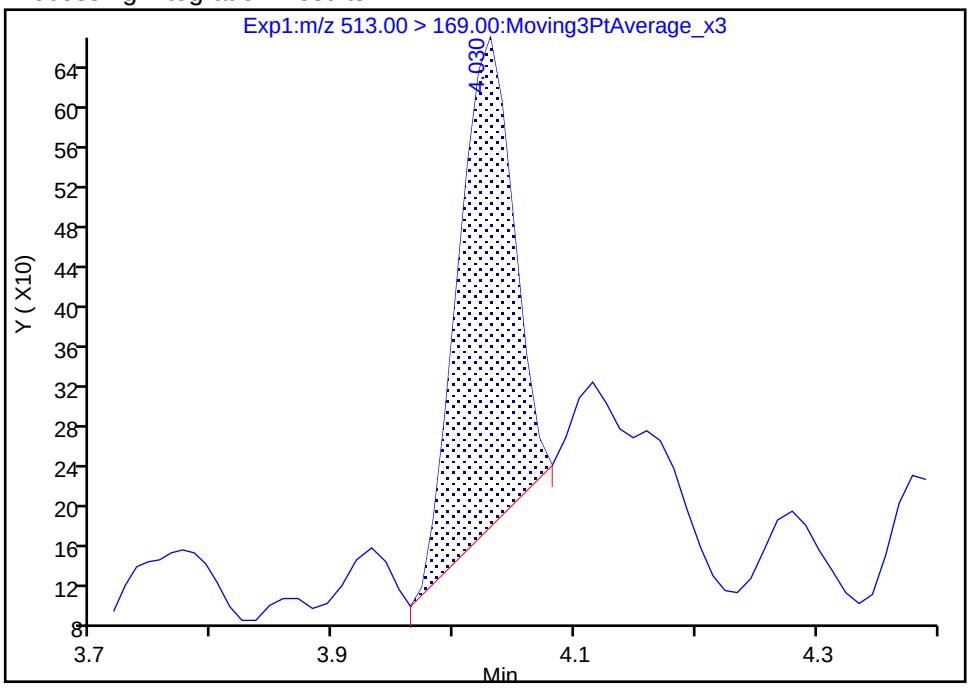
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

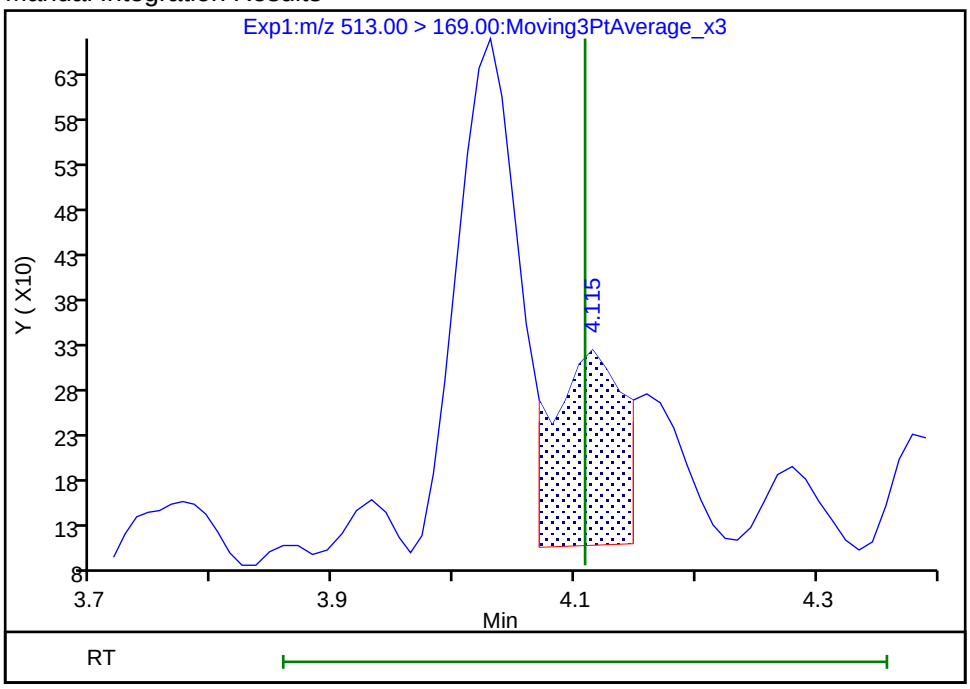
Processing Integration Results

RT: 4.03
Area: 1579
Amount: 0.007911
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 832
Amount: 0.013929
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 11:15:14

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

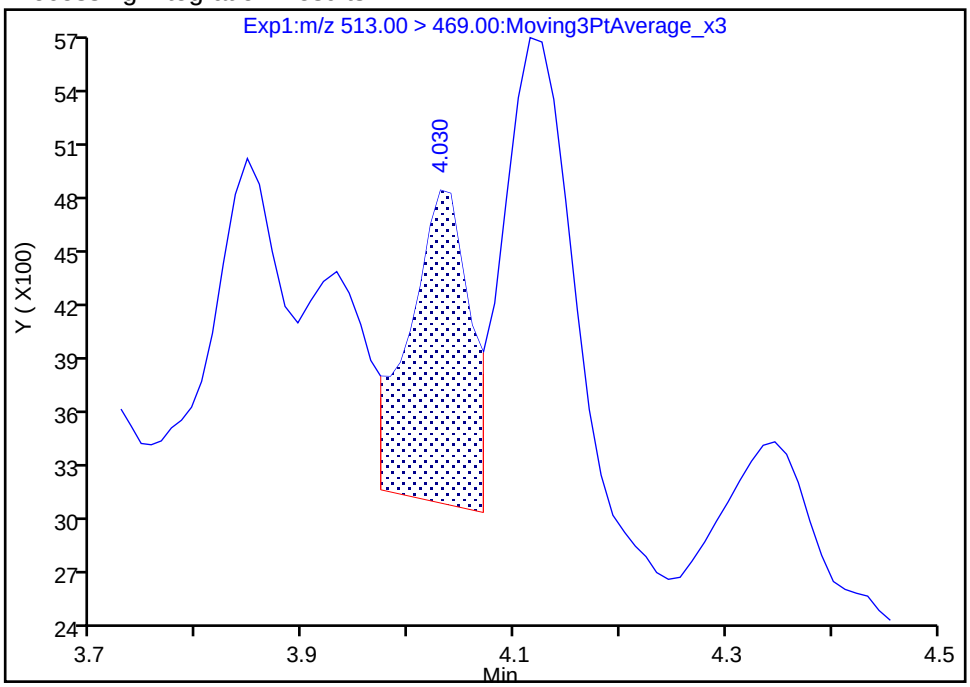
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

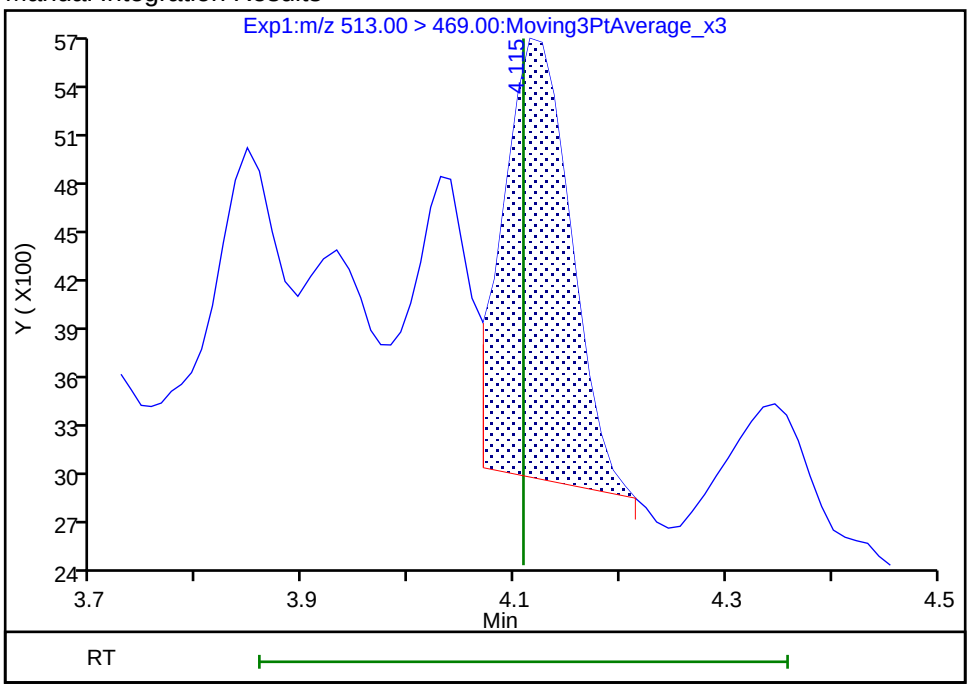
Processing Integration Results

RT: 4.03
Area: 6675
Amount: 0.007911
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 11753
Amount: 0.013929
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 11:15:18

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

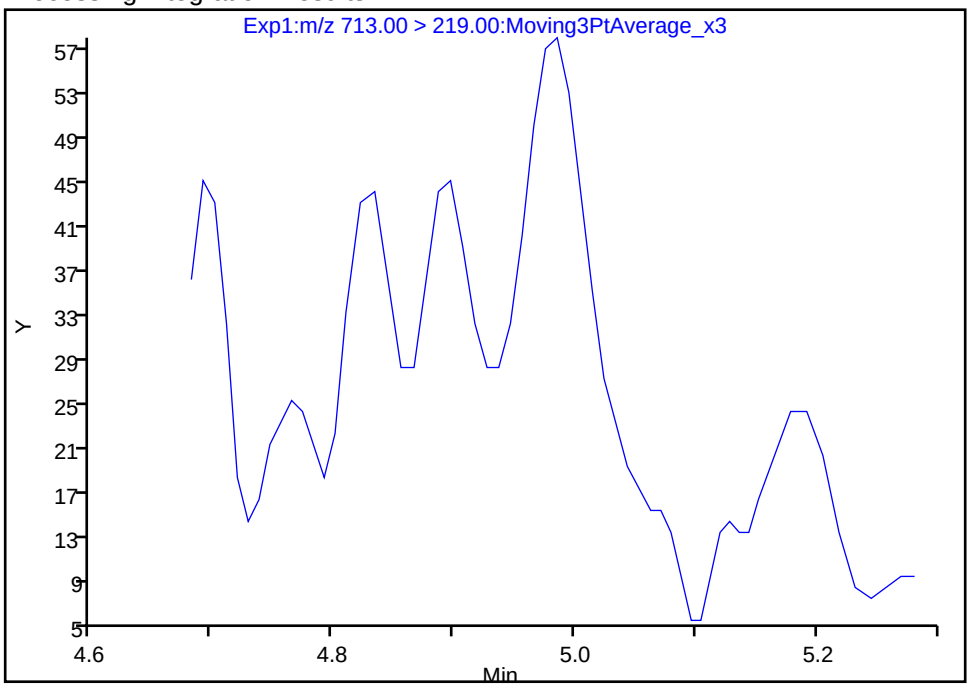
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

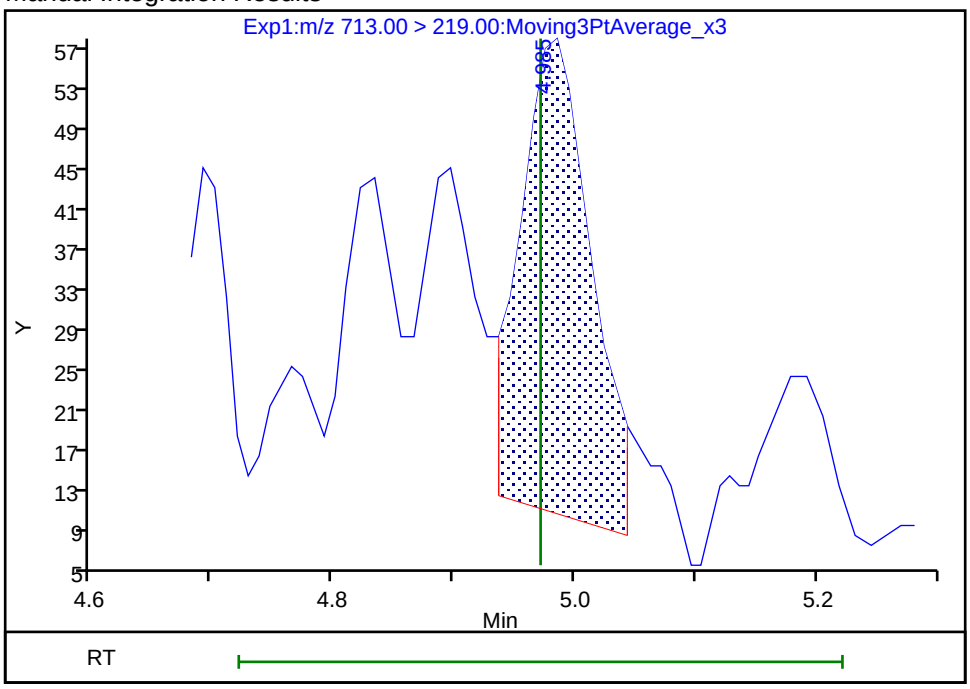
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 193
Amount: 0.002693
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

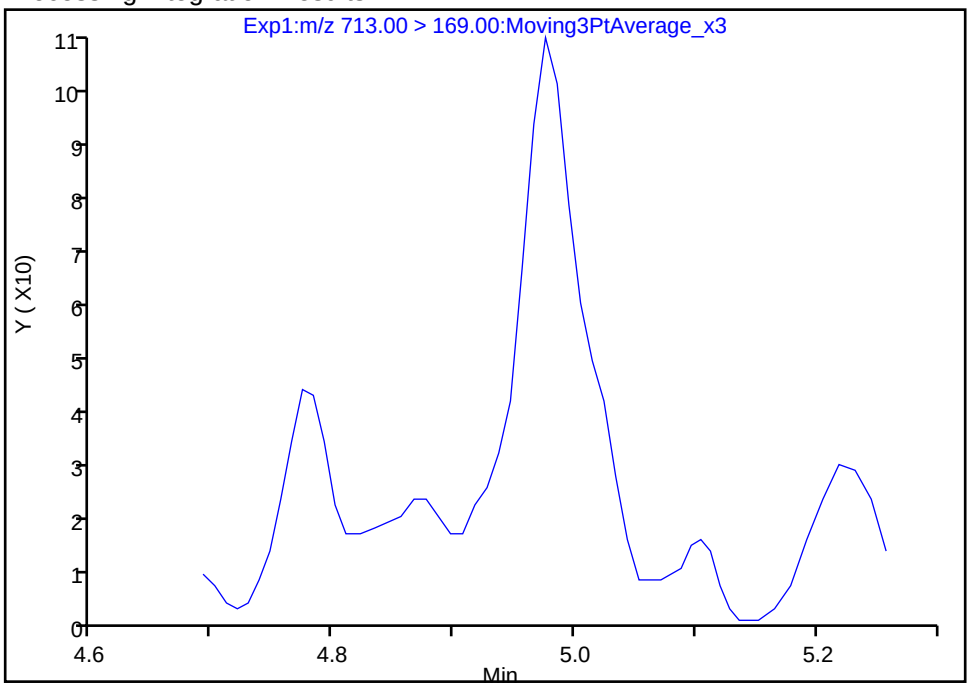
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

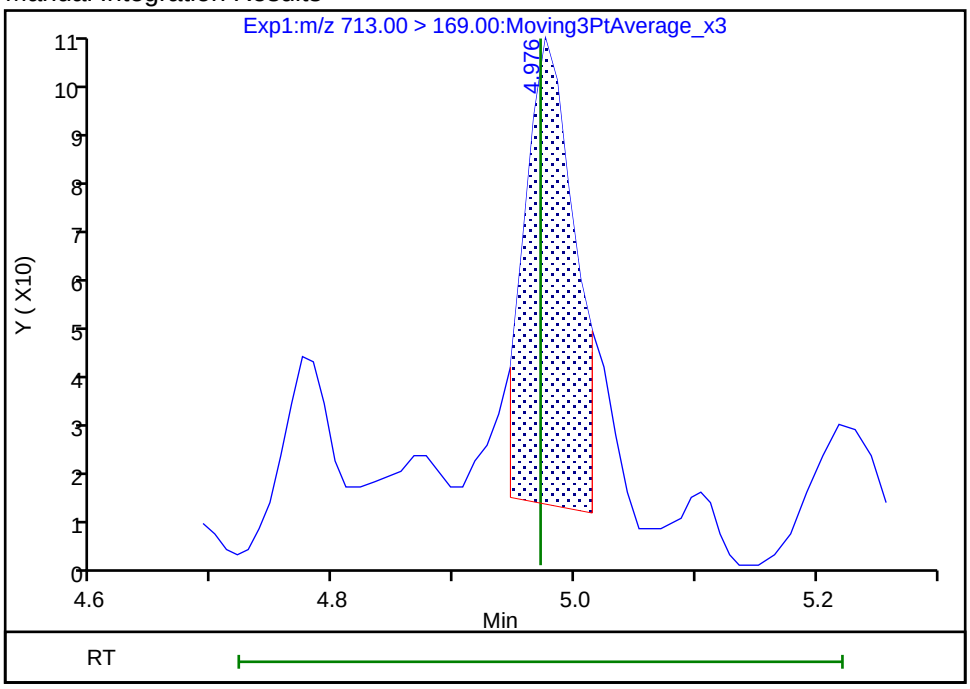
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 249
Amount: 0.002693
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

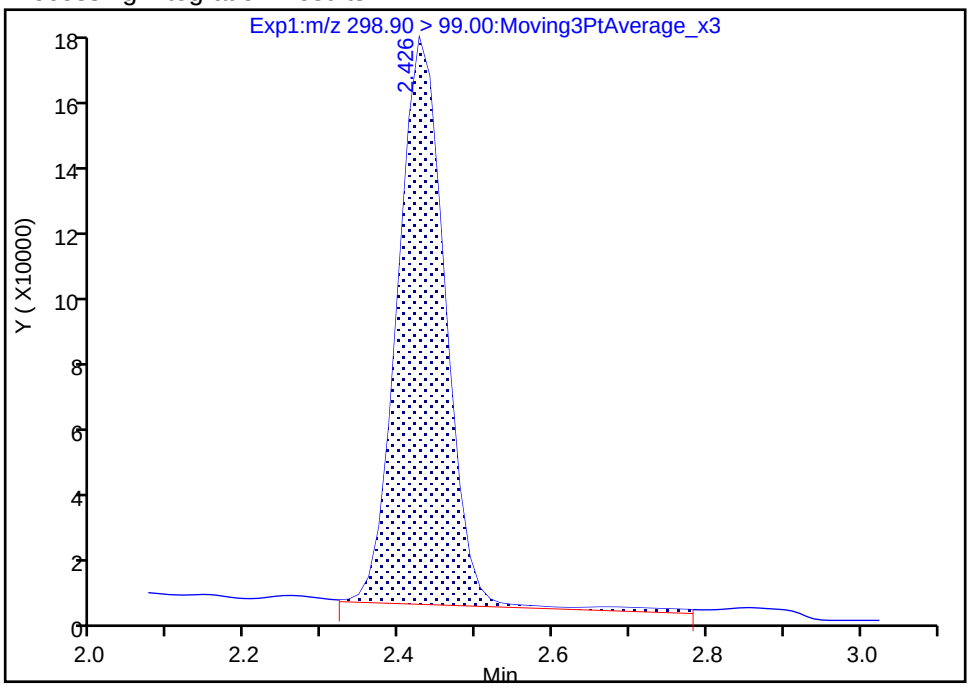
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

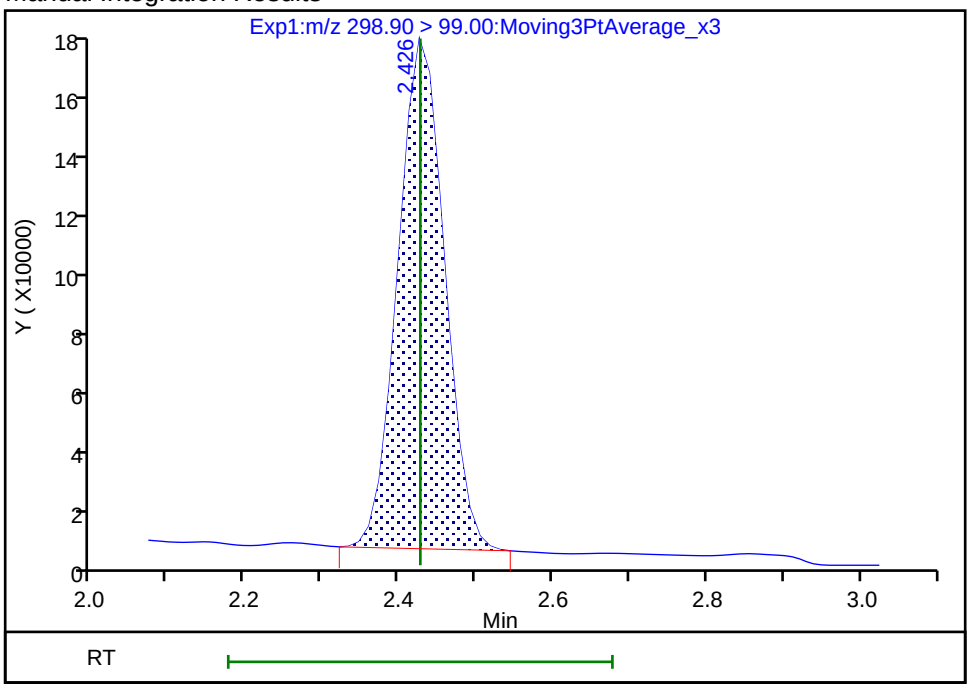
Processing Integration Results

RT: 2.43
Area: 714354
Amount: 1.506653
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 692998
Amount: 1.250747
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

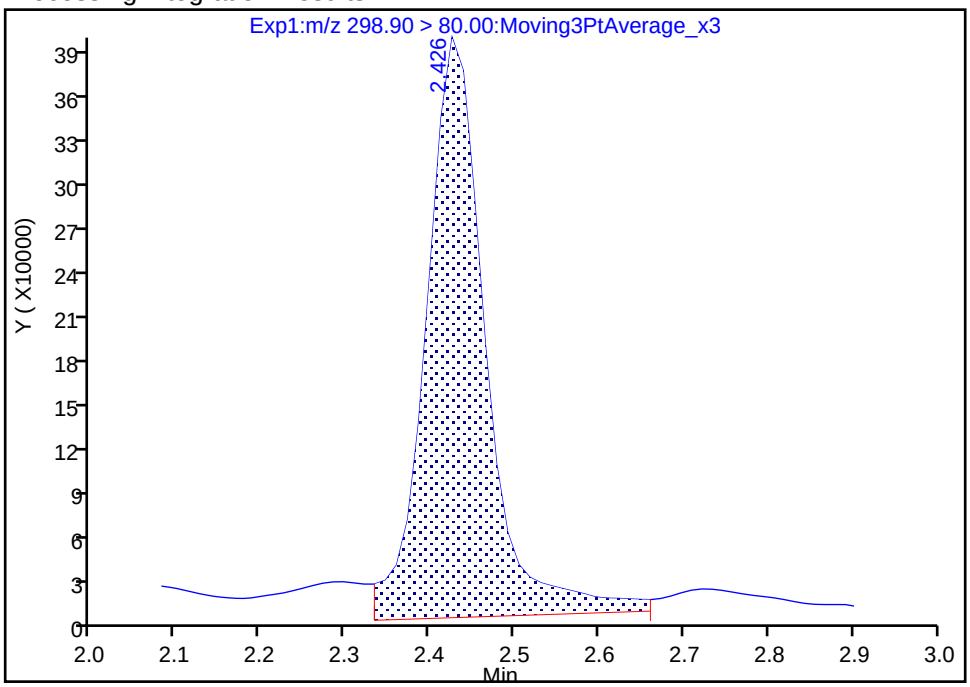
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

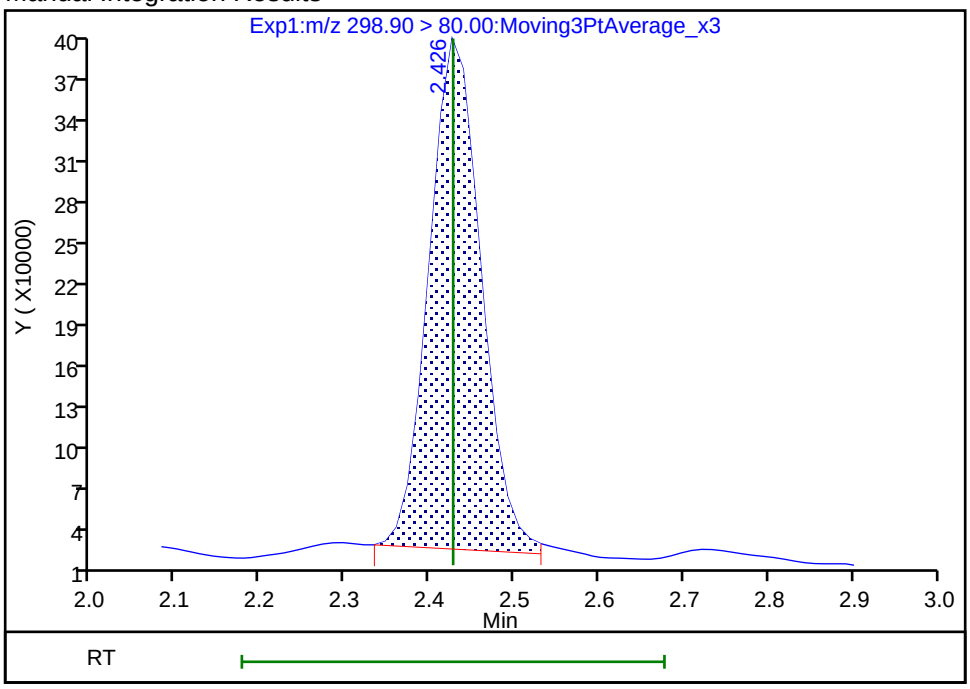
Processing Integration Results

RT: 2.43
Area: 1890101
Amount: 1.506653
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1569066
Amount: 1.250747
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

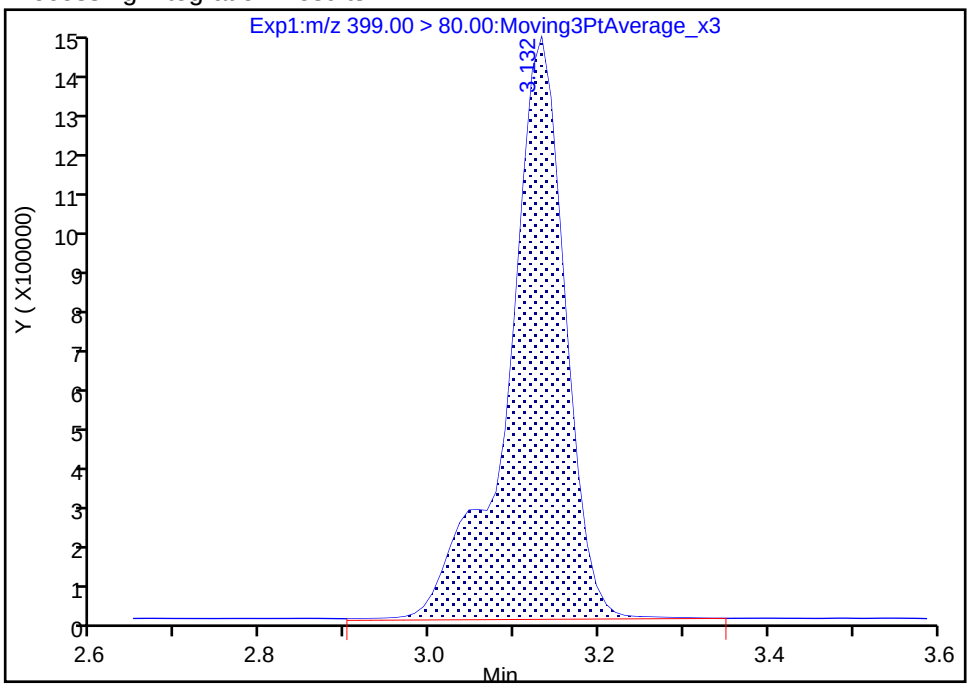
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

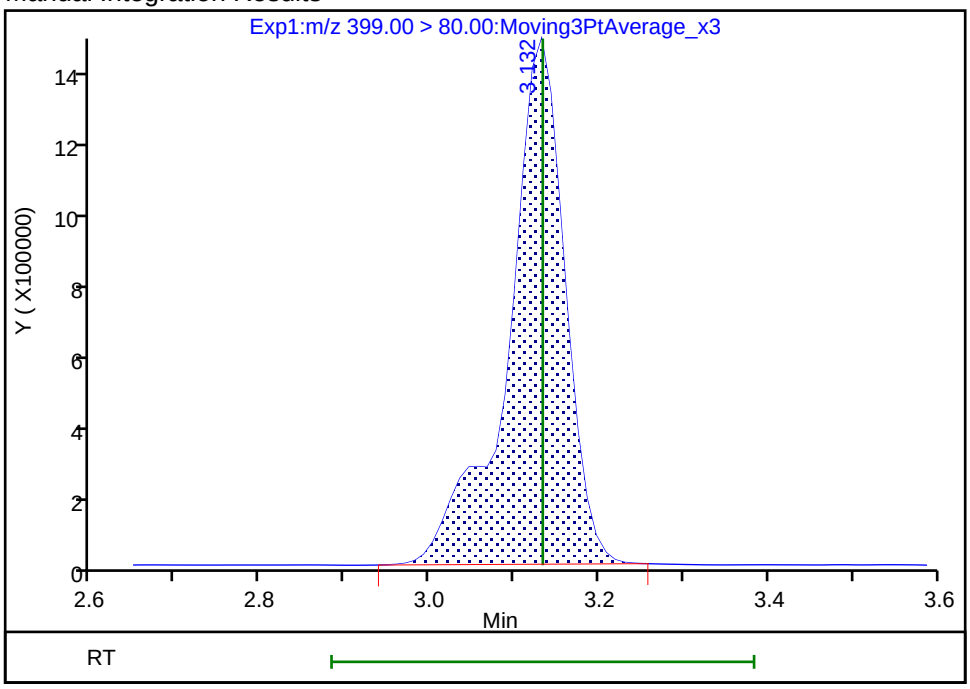
Processing Integration Results

RT: 3.13
Area: 7031149
Amount: 7.441664
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 6926194
Amount: 7.330581
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

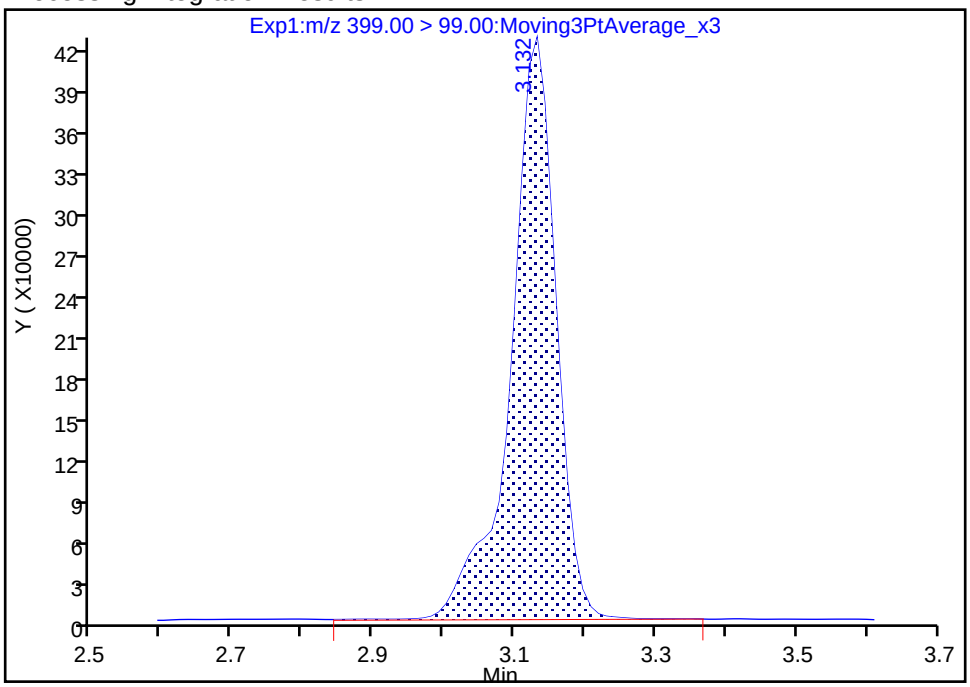
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

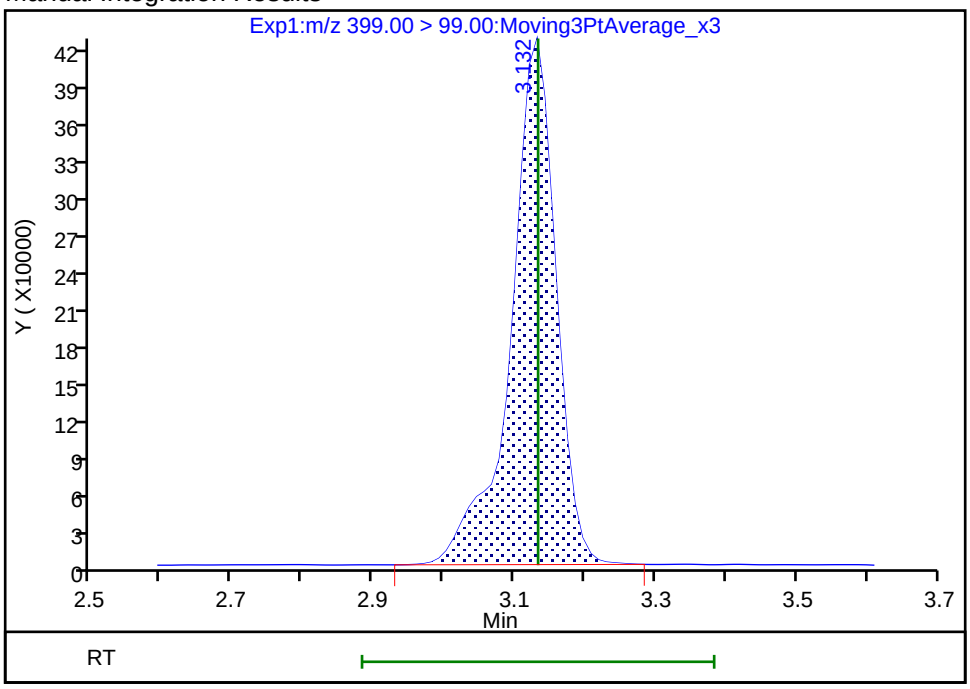
Processing Integration Results

RT: 3.13
Area: 1876443
Amount: 7.441664
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1863194
Amount: 7.330581
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:40:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

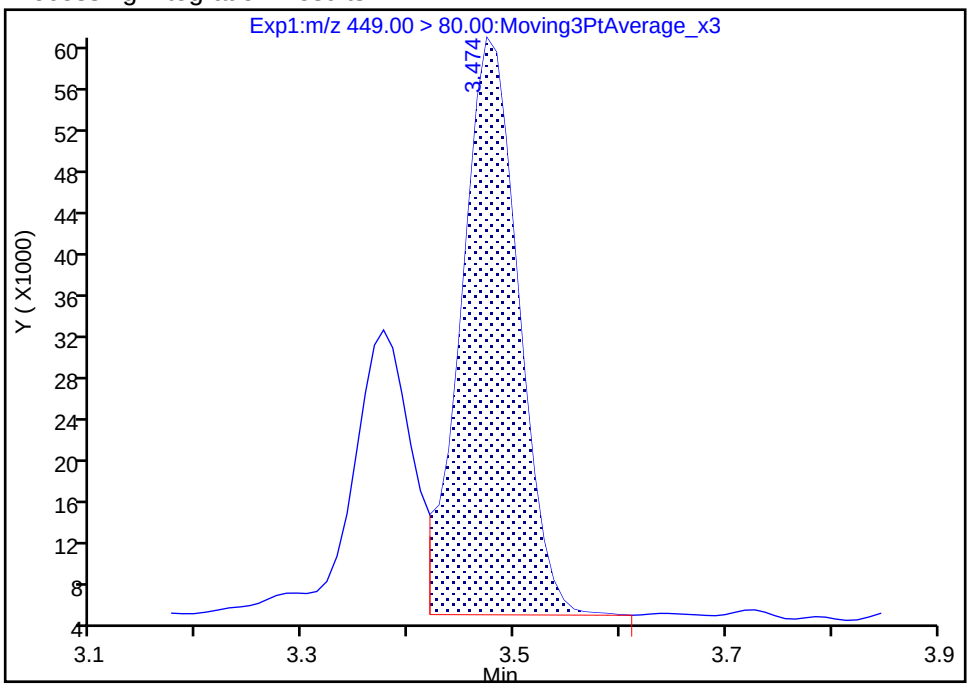
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

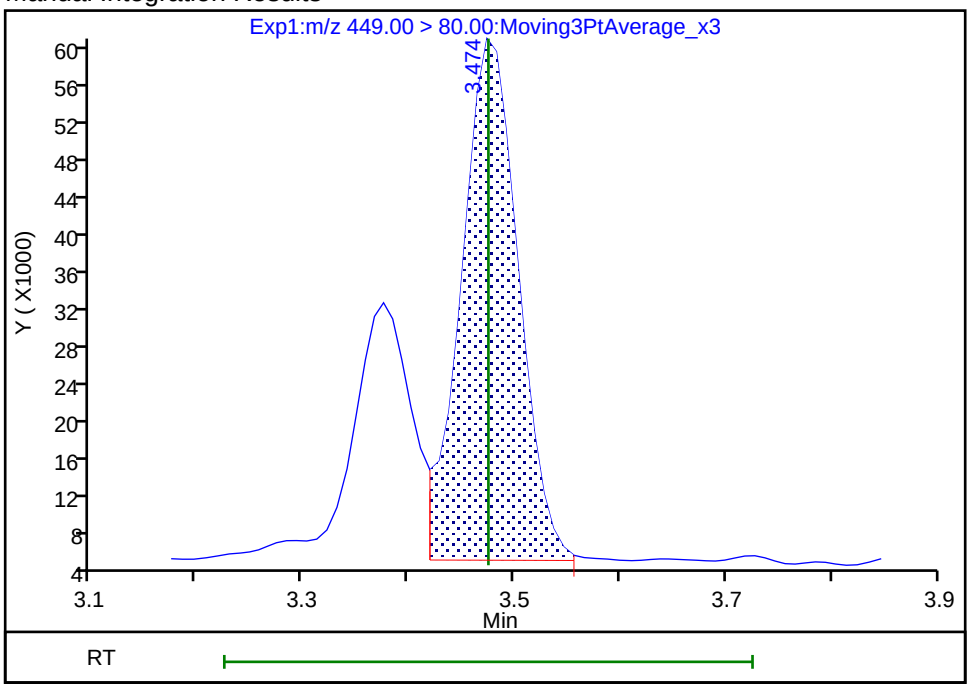
Processing Integration Results

RT: 3.47
Area: 206896
Amount: 0.265359
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 206266
Amount: 0.264551
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

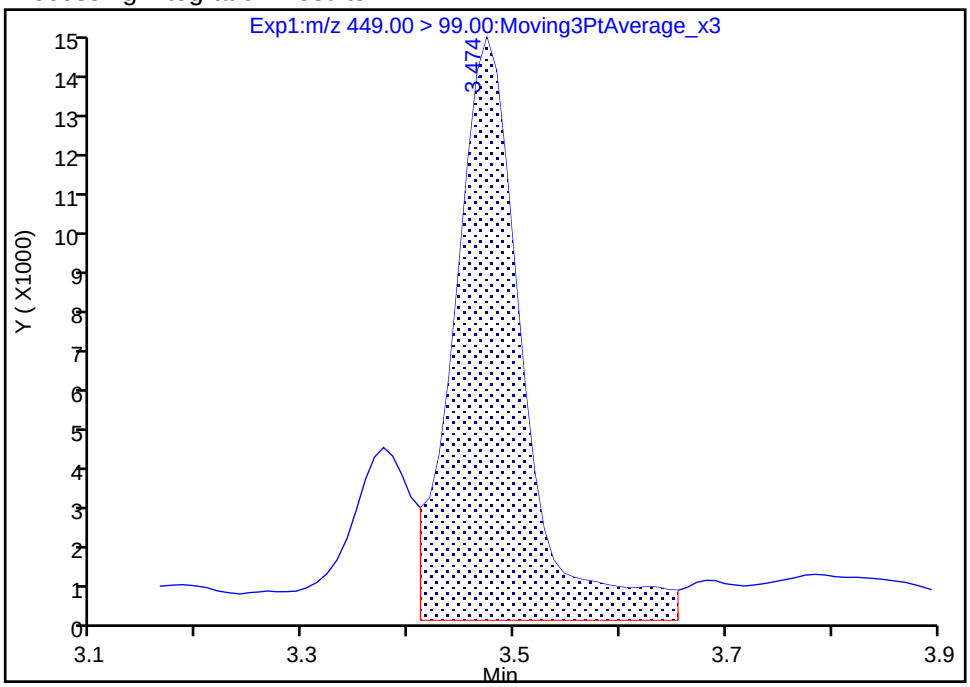
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

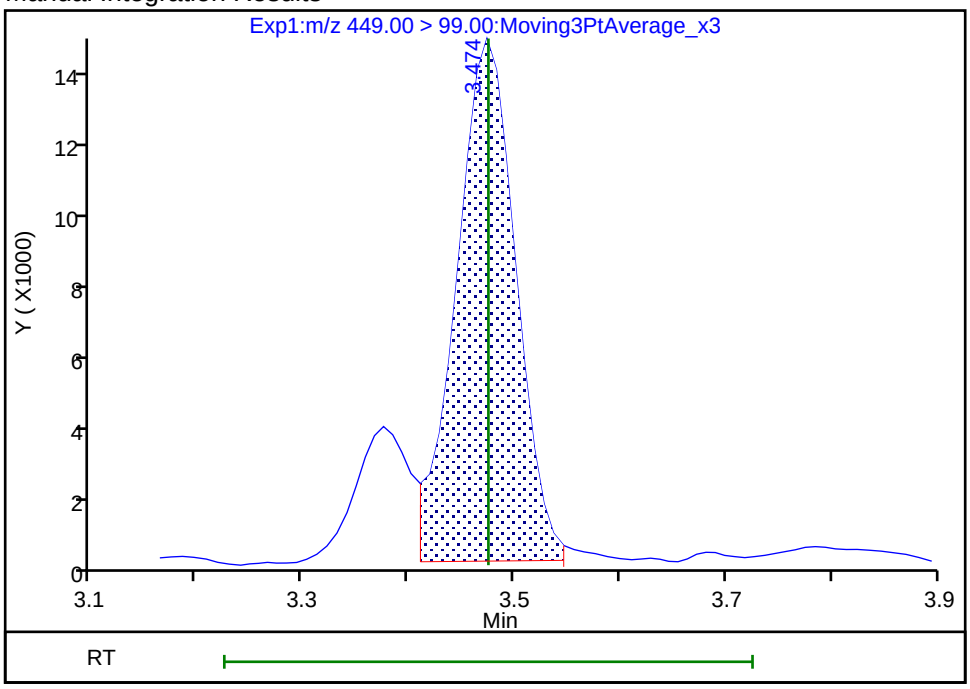
Processing Integration Results

RT: 3.47
Area: 63371
Amount: 0.265359
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 51768
Amount: 0.264551
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

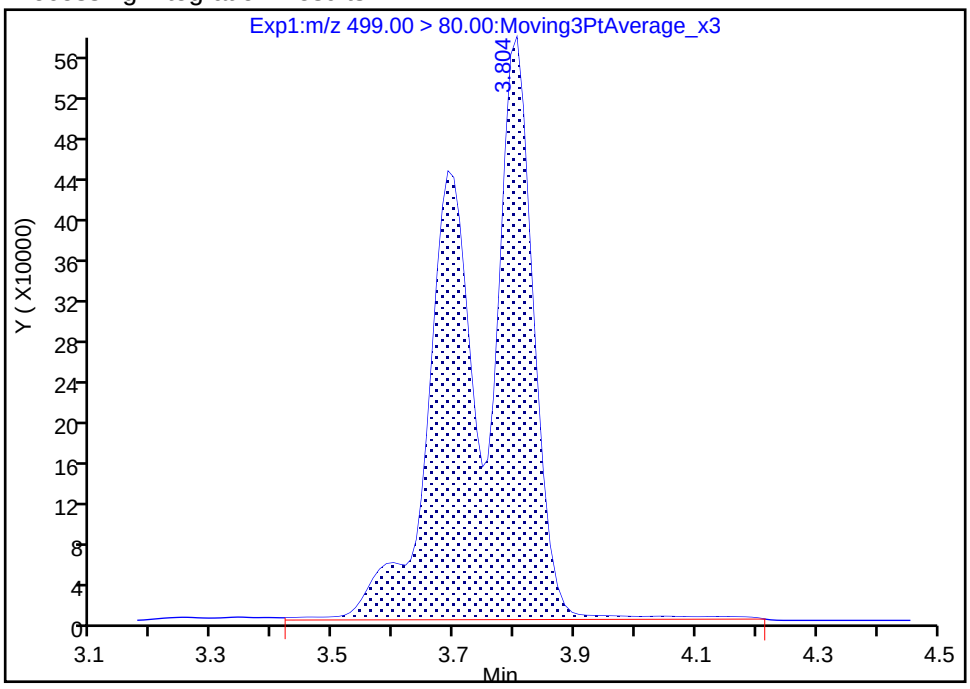
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

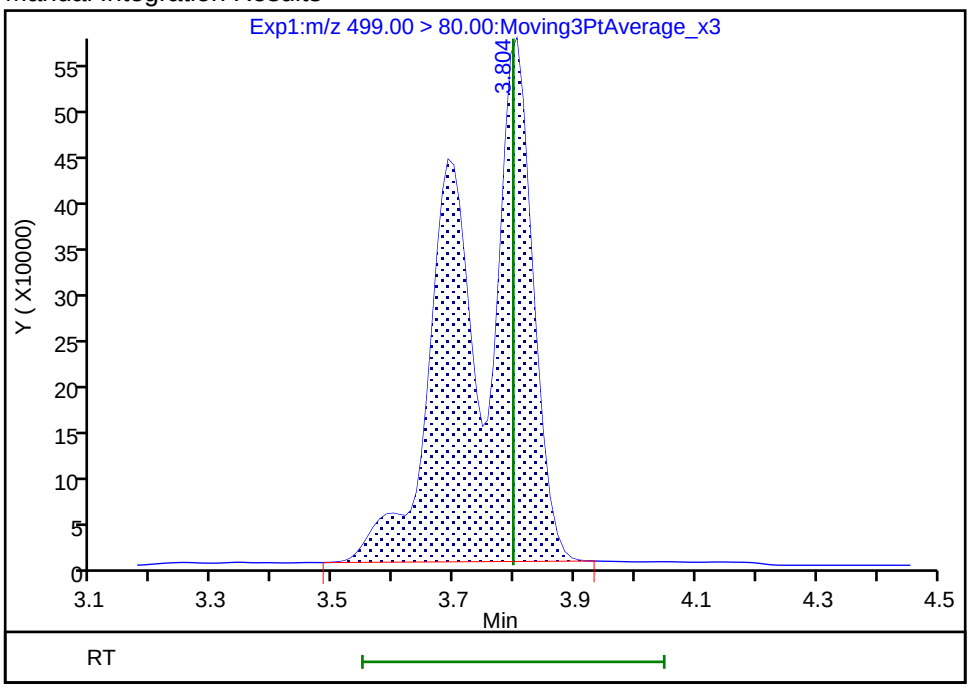
Processing Integration Results

RT: 3.80
Area: 4563315
Amount: 6.724277
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 4428651
Amount: 6.525843
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

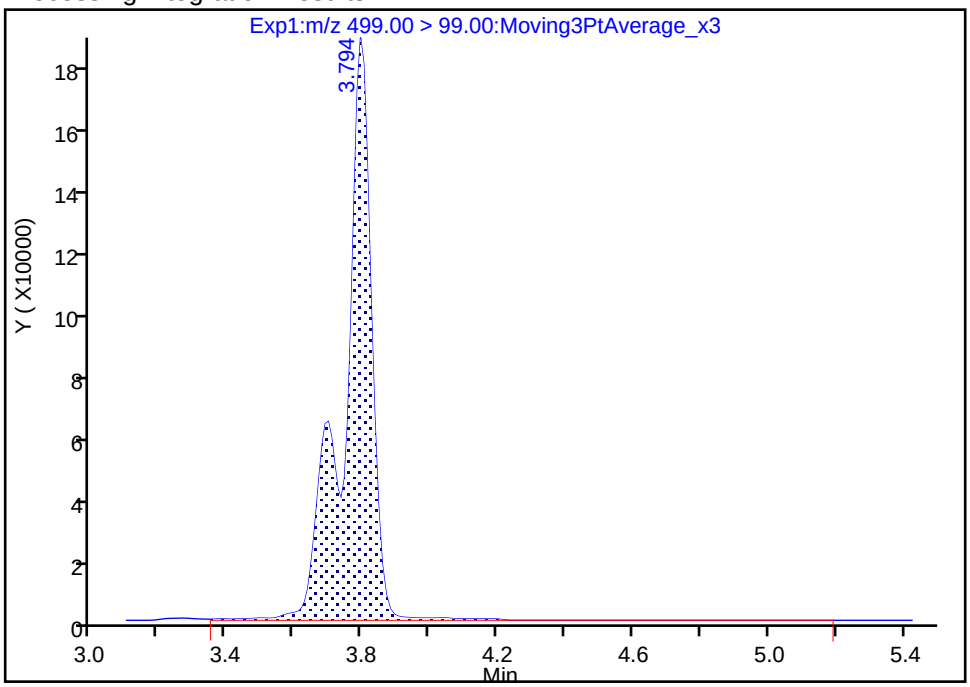
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

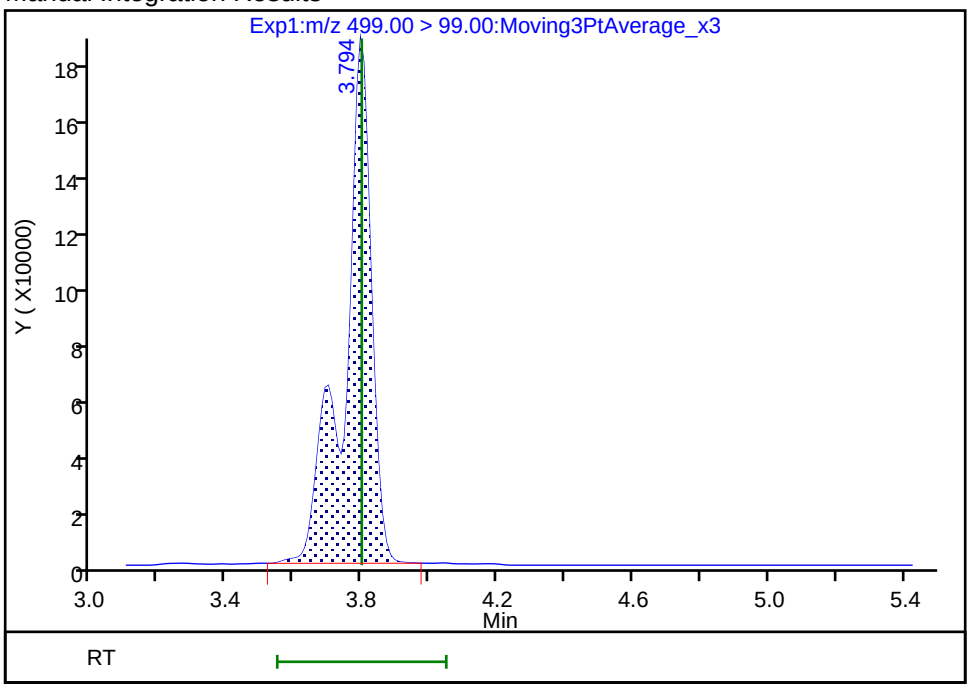
Processing Integration Results

RT: 3.79
Area: 1078237
Amount: 6.724277
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1046119
Amount: 6.525843
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

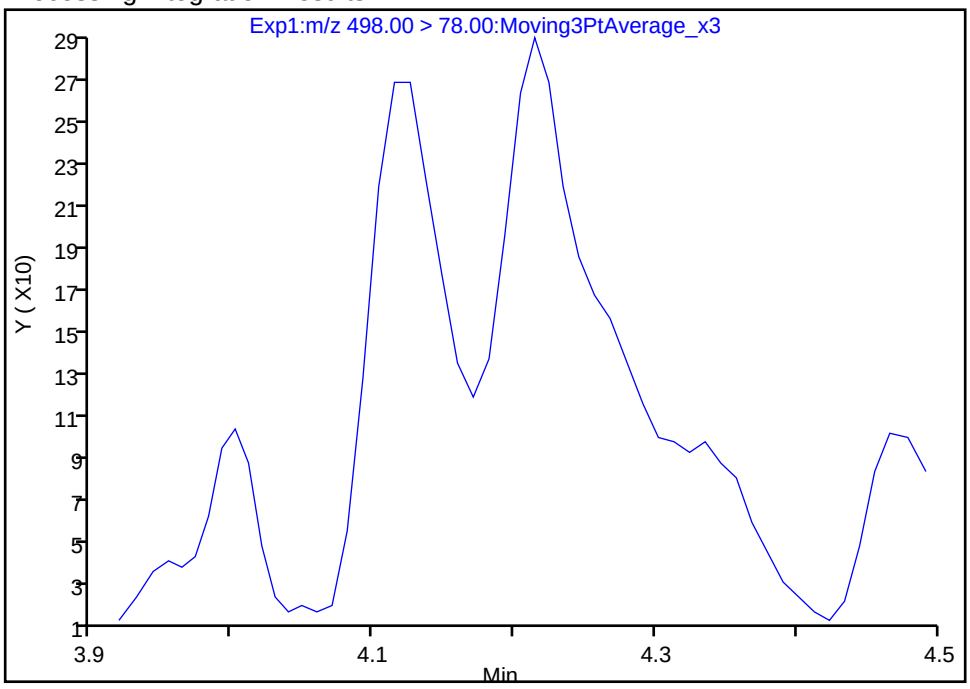
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

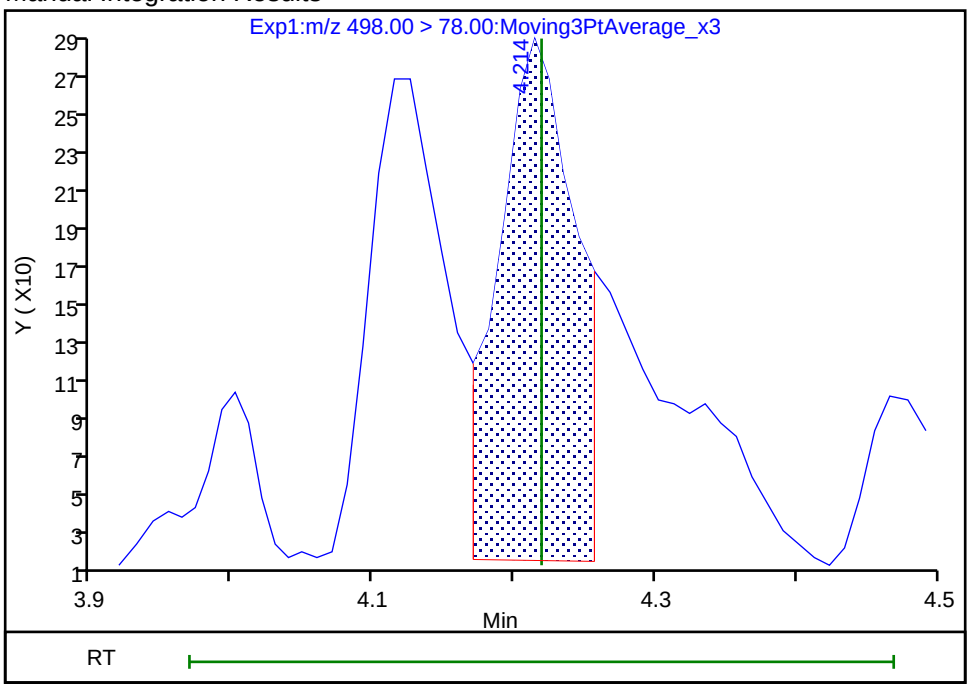
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 997
Amount: 0.001688
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

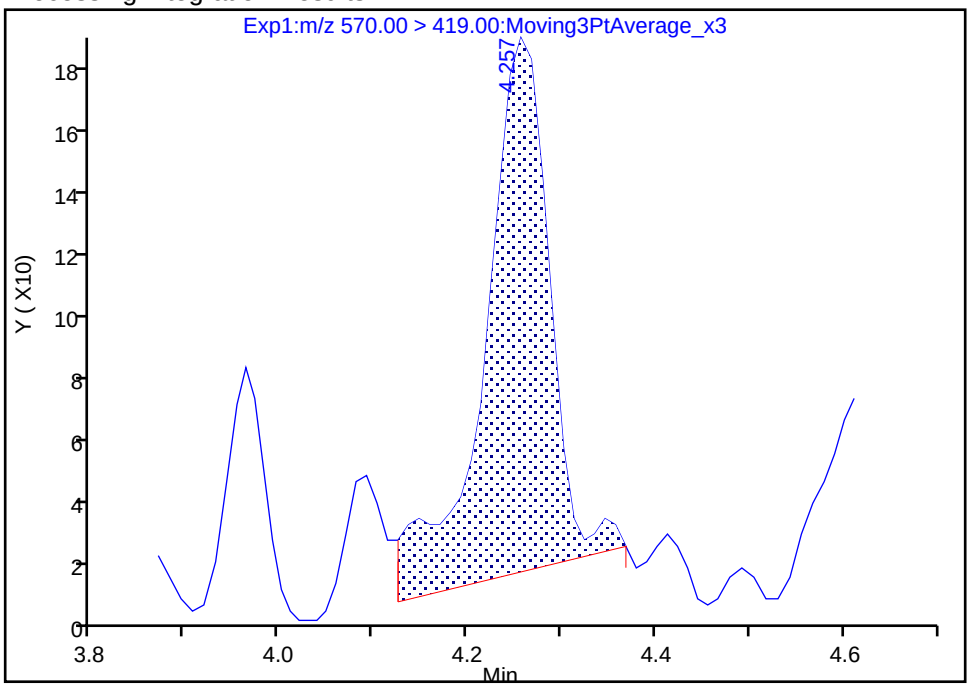
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

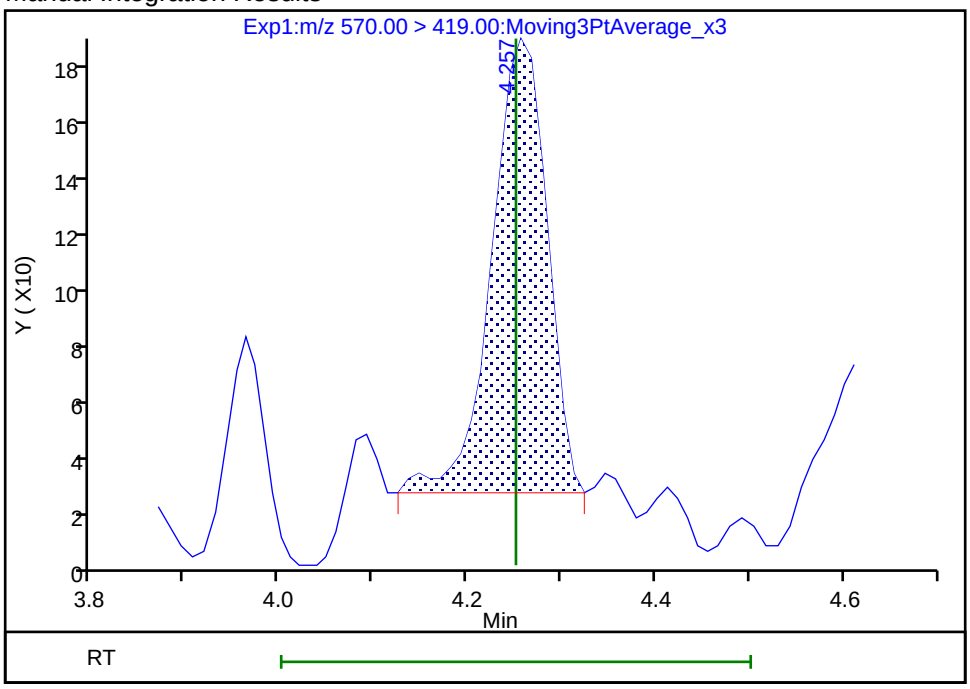
Processing Integration Results

RT: 4.26
Area: 835
Amount: 0.008712
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 667
Amount: 0.006959
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

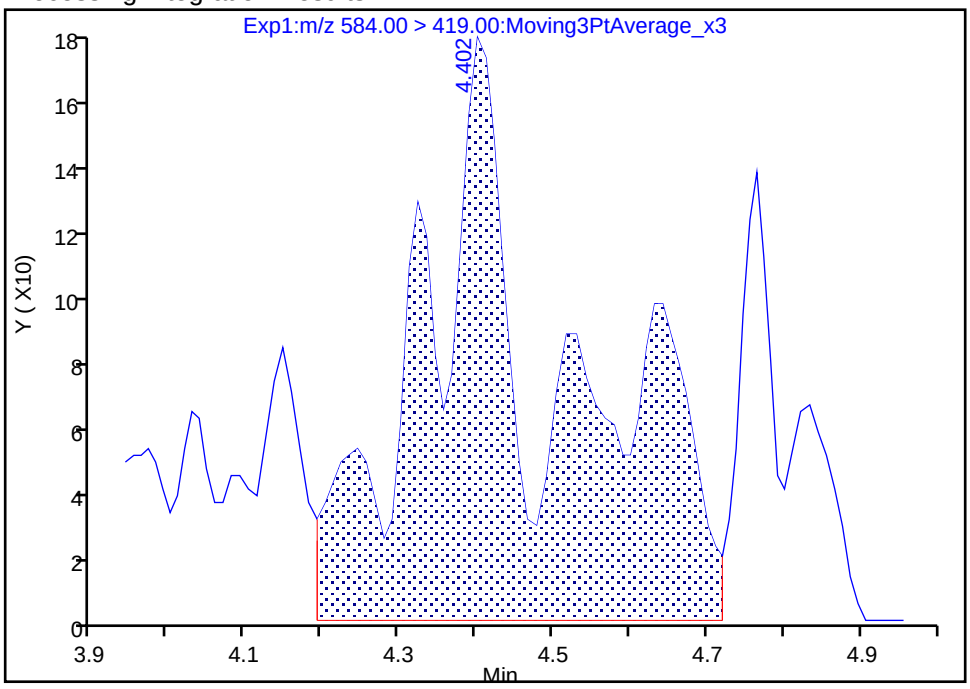
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

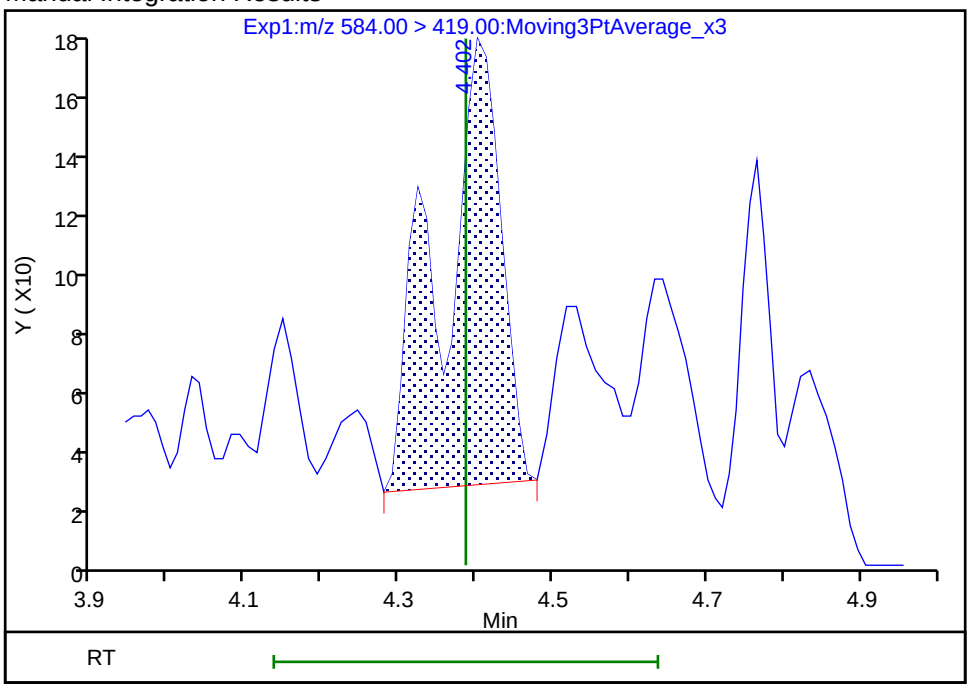
Processing Integration Results

RT: 4.40
Area: 2223
Amount: 0.019703
Amount Units: ng/ml




Manual Integration Results

RT: 4.40
Area: 792
Amount: 0.007020
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

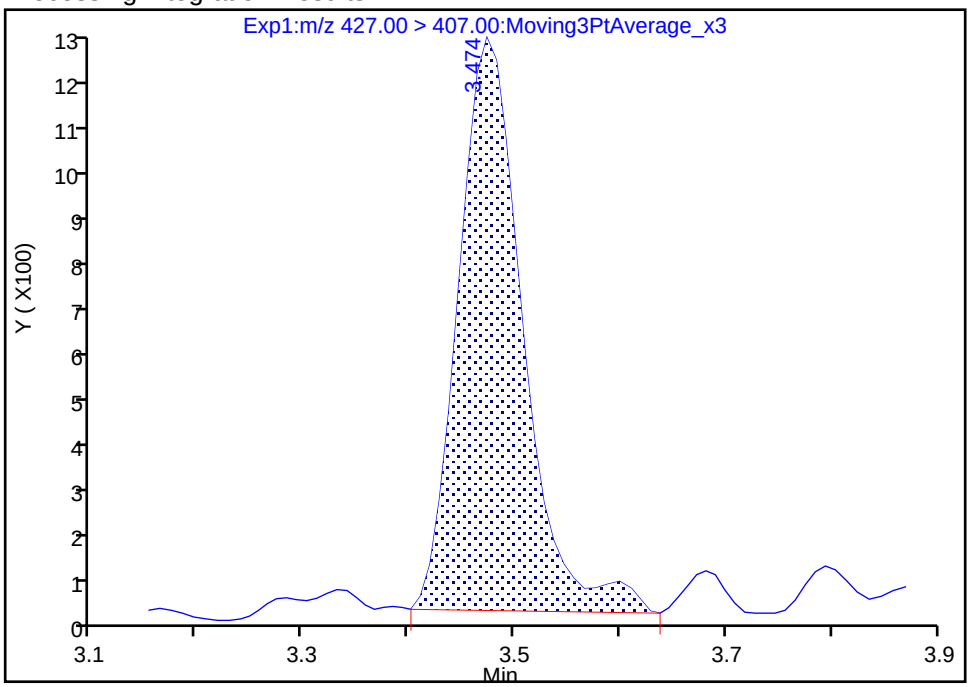
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

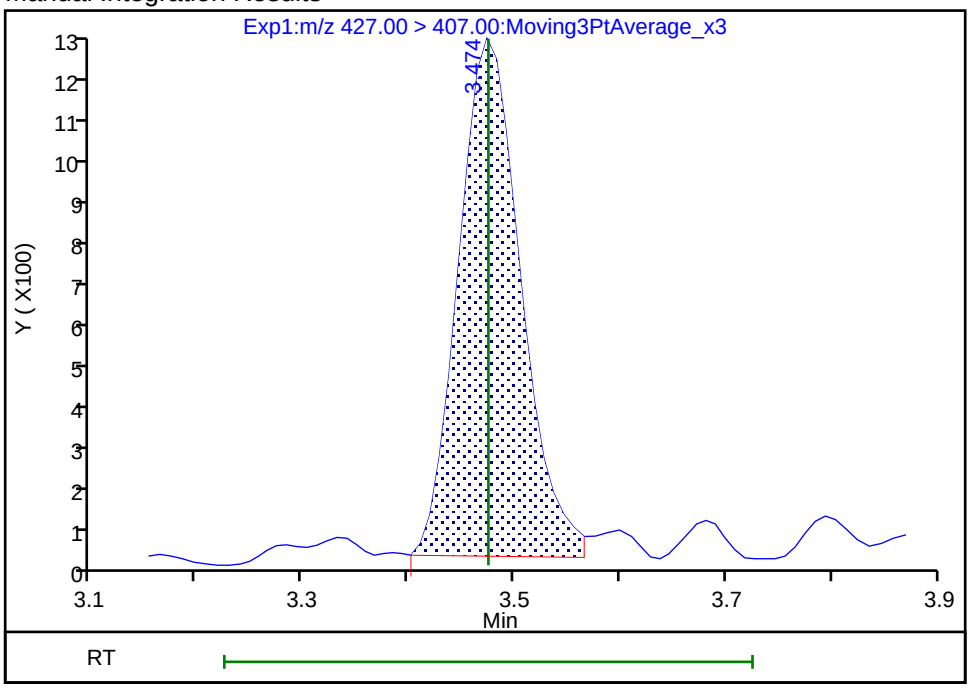
Processing Integration Results

RT: 3.47
Area: 5051
Amount: 0.019634
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 4869
Amount: 0.018926
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:41:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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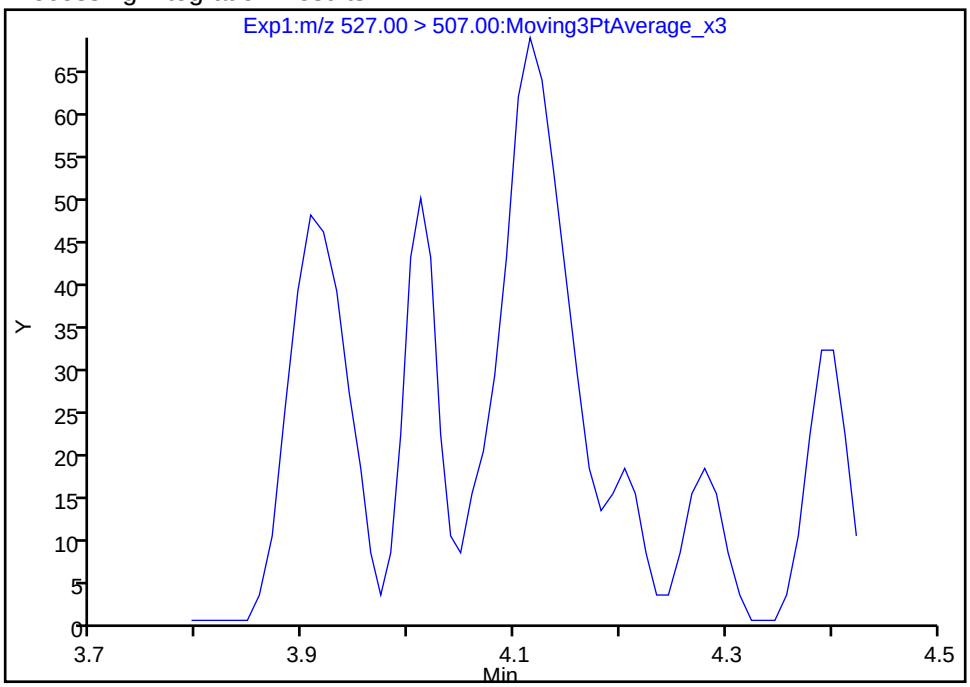
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

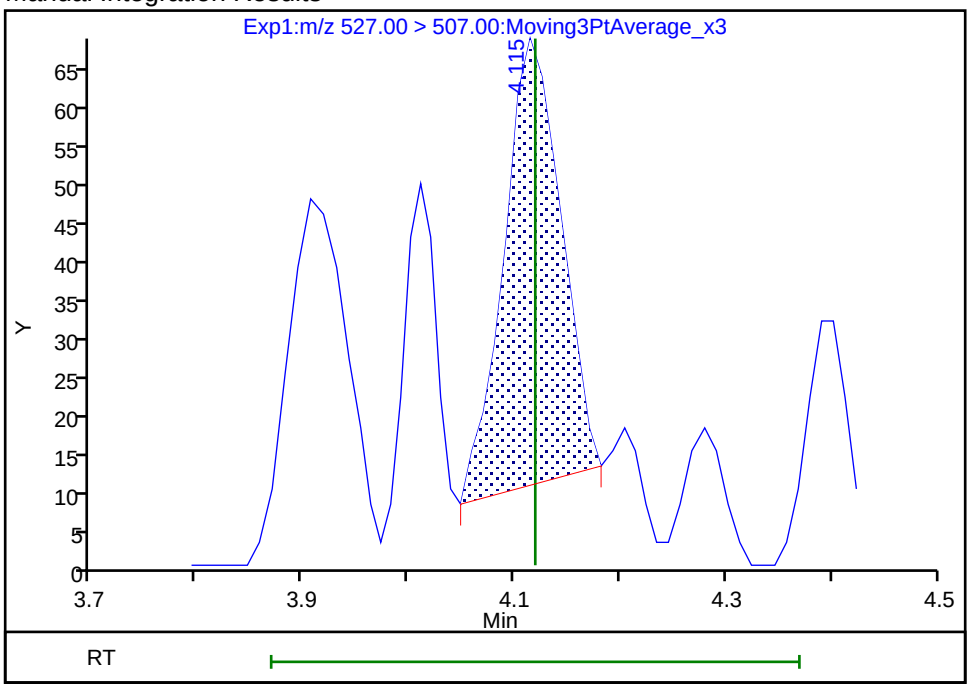
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 219
Amount: 0.001042
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:42:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

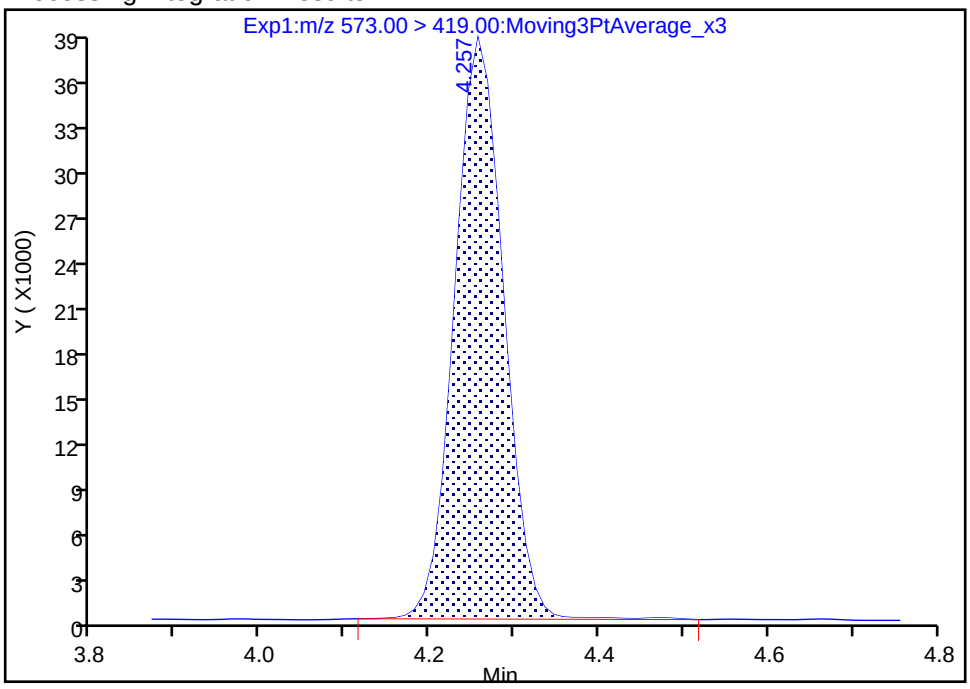
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

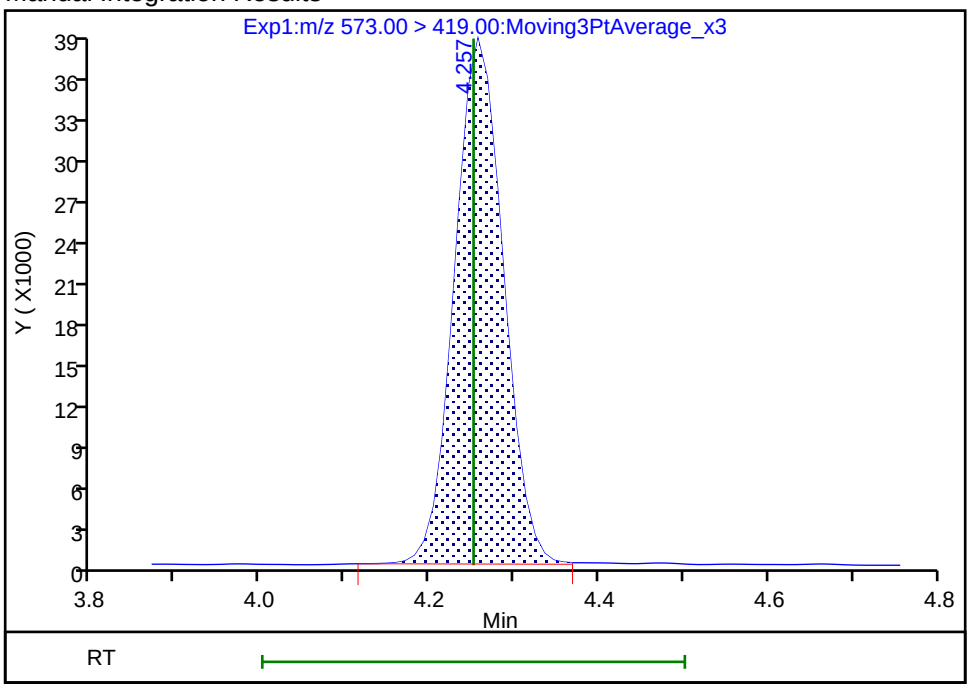
Processing Integration Results

RT: 4.26
Area: 153221
Amount: 1.621549
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 152505
Amount: 1.613972
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

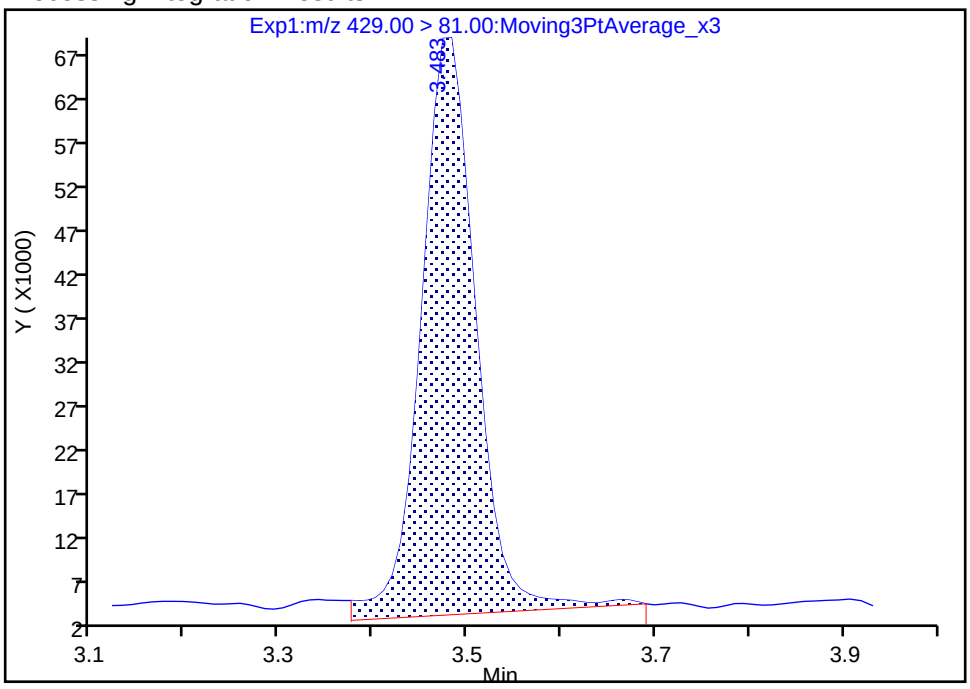
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

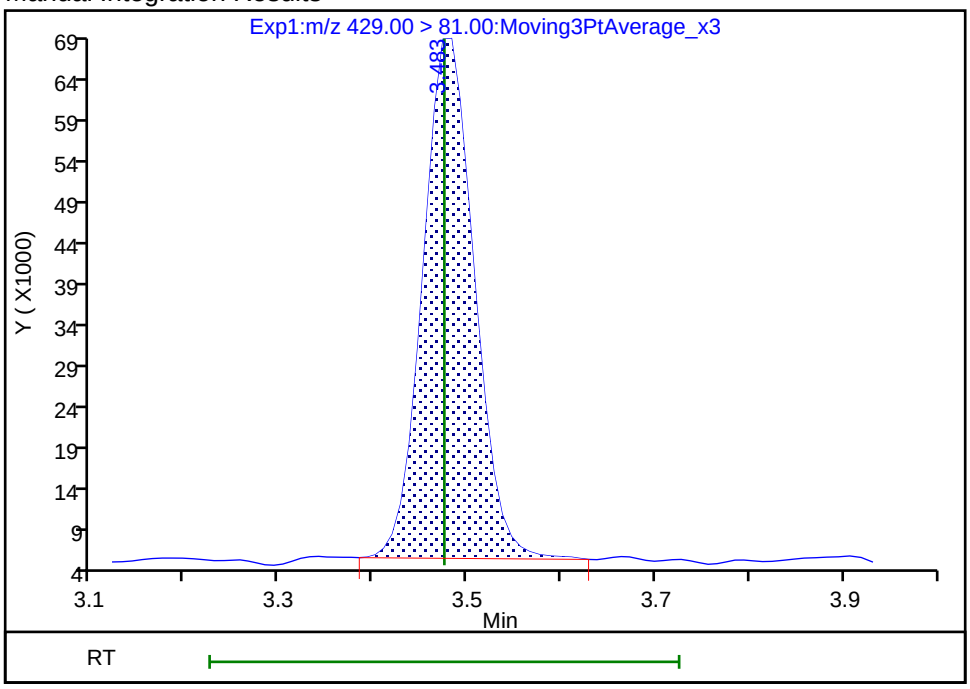
Processing Integration Results

RT: 3.48
Area: 262797
Amount: 2.140486
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 240906
Amount: 1.962183
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

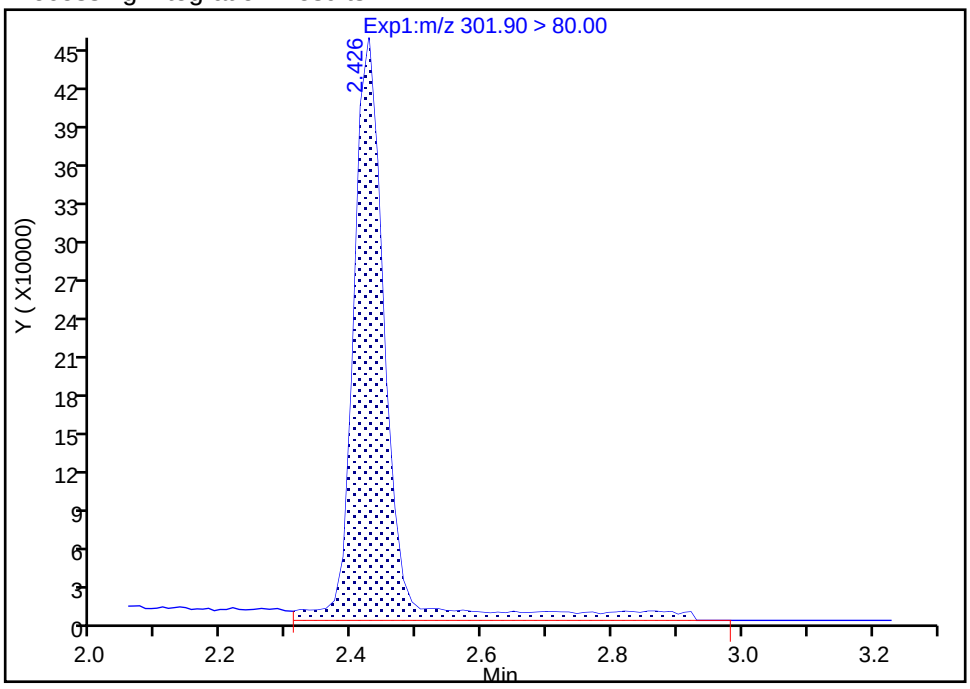
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A20.d | | | | |
| Injection Date: | 10-Nov-2021 13:58:10 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-29-A | Lab Sample ID: | 200-246277-29 | | |
| Client ID: | AMW-9-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 17 | Worklist Smp#: | 20 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

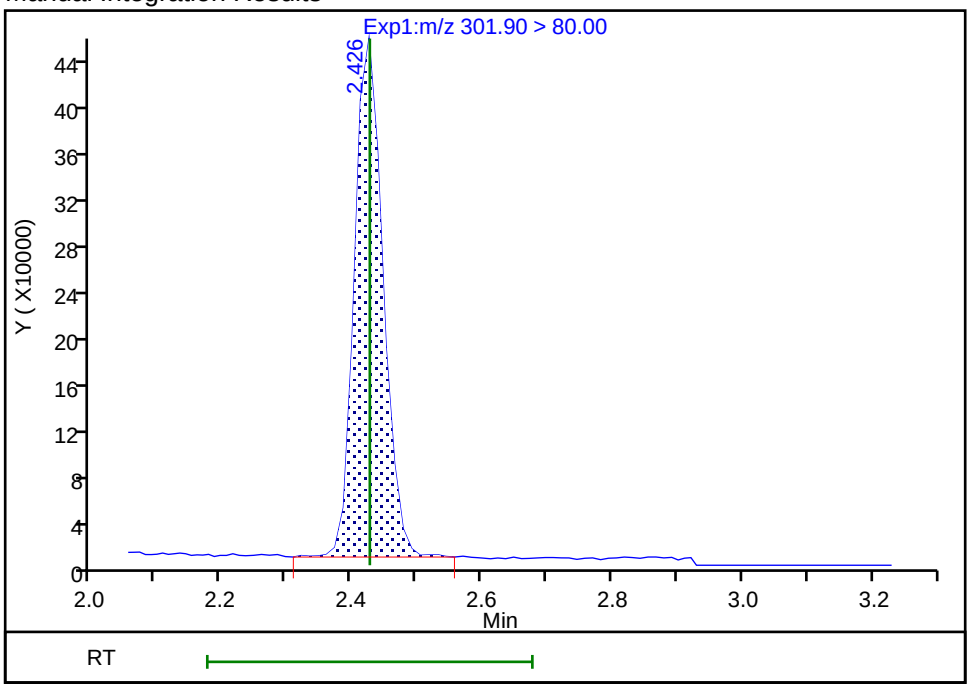
Processing Integration Results

RT: 2.43
Area: 1609894
Amount: 1.502334
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1365425
Amount: 1.274198
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:39:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-7-20211029  Lab Sample ID: 460-246277-30

Matrix: Water  Lab File ID: PA211110A21.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 12:25

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 303.8(mL)  Date Analyzed: 11/10/2021 14:06

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 8.21 | | 4.11 | 0.73 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 7.12 | | 1.65 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 12.0 | | 1.65 | 0.37 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 4.93 | | 1.65 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 33.1 | | 1.65 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 2.01 | | 1.65 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.33 | J | 1.65 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.28 | U | 1.65 | 0.28 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.32 | U | 1.65 | 0.32 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.36 | U | 1.65 | 0.36 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.52 | U | 1.65 | 0.52 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 7.60 | B | 1.65 | 0.21 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 54.0 | | 1.65 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 2.04 | | 1.65 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 60.9 | | 1.65 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.25 | U | 1.65 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.47 | U | 1.65 | 0.47 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.74 | U | 4.11 | 0.74 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.61 | U | 4.11 | 0.61 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.90 | U | 4.11 | 0.90 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.32 | U | 1.65 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-7-20211029  Lab Sample ID: 460-246277-30

Matrix: Water  Lab File ID: PA211110A21.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 12:25

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 303.8(mL)  Date Analyzed: 11/10/2021 14:06

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 94 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 97 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 81 | | 25-150 |
| STL00993 | 13C2 PFHxA | 95 | | 50-150 |
| STL00996 | 13C2 PFDA | 91 | | 50-150 |
| STL00997 | 13C2 PFUnA | 89 | | 50-150 |
| STL00998 | 13C2 PFDoA | 85 | | 50-150 |
| STL01056 | 13C8 FOSA | 78 | | 25-150 |
| STL01893 | 13C5 PFPeA | 93 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 82 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 99 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 107 | | 50-150 |
| STL02279 | M2-6:2 FTS | 125 | | 25-150 |
| STL02280 | M2-8:2 FTS | 125 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d
Lims ID: 460-246277-C-30-A
Client ID: AMW-7-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 14:06:20 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-30-A
Misc. Info.: 200-0048360-021 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:46:19
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1023370 | 1.01 | | 80.7 | 206 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.091 | 0.009 | 1.004 | 193096 | 0.2494 | | | 8.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 990815 | 1.16 | | 92.8 | 413 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 171802 | 0.2164 | | | 0.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1272181 | 1.10 | | 94.7 | 27653 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 269721 | 0.2308 | Target=2.32 | | 8.5 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 119676 | | 2.25(1.16-3.48) | | 10.7 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1065631 | 1.19 | | 95.1 | 1594 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 316171 | 0.3657 | Target=12.09 | | 3.6 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 22841 | | 13.84(6.04-18.13) | | 10.5 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1436557 | 1.64 | Target=3.55 | | 138 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 372273 | | 3.86(1.77-5.32) | | 146 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 941534 | 1.12 | | 94.8 | 2215 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1109231 | 1.18 | | 94.1 | 2292 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 137408 | 0.1499 | Target=3.69 | | 4.1 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 37453 | | 3.67(1.84-5.53) | | 37.5 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 45462 | 0.0619 | Target=4.88 | | 6.6 | M |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 12350 | | 3.68(2.44-7.32) | | 7.5 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 2510 | 0.0120 | | | 24.5 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 196296 | 1.48 | | 125 | 46.1 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1211772 | 1.18 | | 94.1 | 3126 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1252160 | 1.25 | | | 2753 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1035335 | 1.00 | Target=2.68 | | 35.9 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 421694 | | 2.46(1.34-4.02) | | 439 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 703881 | 1.16 | | 97.1 | 206 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.699 | 3.798 | -0.099 | 0.972 | 1182395 | 1.85 | Target=4.69 | | 155 | M |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 221715 | | 5.33(2.35-7.04) | | 159 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1183481 | 1.15 | | 92.2 | 2579 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 56634 | 0.0611 | Target=7.29 | | 4.4 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.000 | 6903 | | 8.20(3.64-10.93) | | 27.3 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1173557 | 1.13 | | 90.6 | 3452 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.126 | 4.108 | 0.018 | 1.003 | 9445 | 0.0100 | Target=8.95 | | 1.5 | M |
| 513.00 > 169.00 | 4.126 | 4.108 | 0.018 | 1.003 | 1064 | | 8.88(4.47-13.42) | | 4.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 224761 | 1.50 | | 125 | 104 | M |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 603 | 0.003840 | | | 9.2 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 978864 | 0.9795 | | 78.4 | 2447 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 5191 | 0.006980 | | | 9.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 126476 | 1.24 | | 99.3 | 837 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.000 | 293 | 0.003686 | | | 3.1 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.375 | 0.006 | 1.255 | 897339 | 1.11 | | 88.9 | 2888 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.392 | 4.375 | 0.017 | 1.003 | 1927 | 0.002518 | Target=9.24 | | 0.8 | RM |
| 563.00 > 169.00 | 4.370 | 4.375 | -0.005 | 0.997 | 73 | | 26.40(4.62-13.86) | | 1.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.392 | 4.375 | 0.017 | 1.258 | 128142 | 1.34 | | 107 | 595 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.268 | 4.387 | -0.119 | 0.972 | 1301 | 0.0148 | | | 4.6 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.598 | 0.004 | 1.318 | 922194 | 1.06 | | 84.9 | 1600 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.972 | 0.014 | 1.428 | 690522 | 1.02 | | 82.0 | 1299 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 0.998 | 80 | 0.000918 | Target=1.01 | | 2.2 | RM |
| 713.00 > 219.00 | 4.966 | 4.972 | -0.006 | 0.996 | 174 | | 0.46(0.51-1.52) | | 4.1 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d

Injection Date: 10-Nov-2021 14:06:20 Instrument ID: LC812

Lims ID: 460-246277-C-30-A Lab Sample ID: 200-246277-30

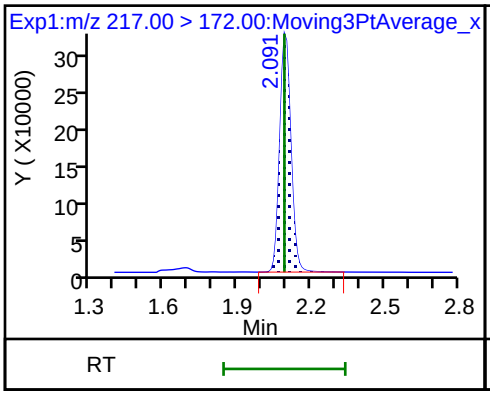
Client ID: AMW-7-20211029

Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21

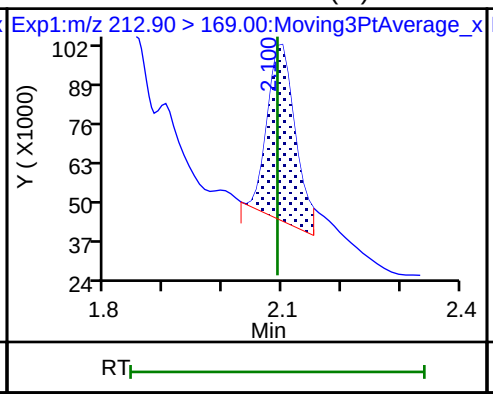
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

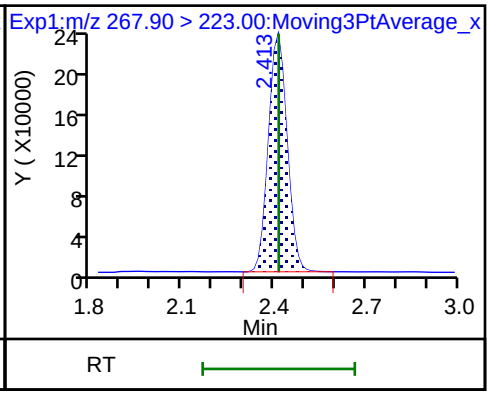
D 1 13C4 PFBA



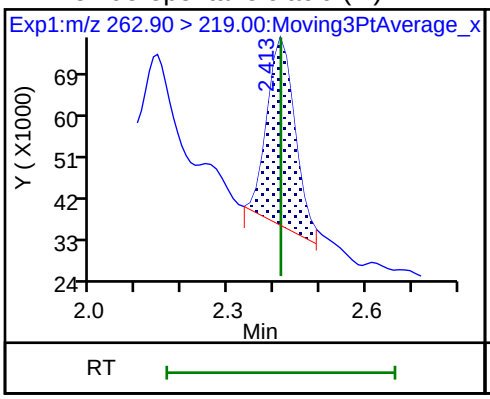

2 Perfluorobutanoic acid (M)



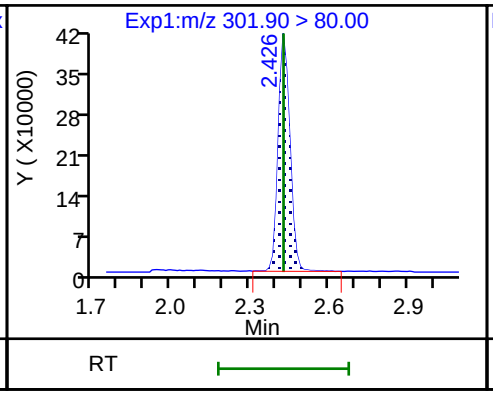

D 3 13C5 PFPeA



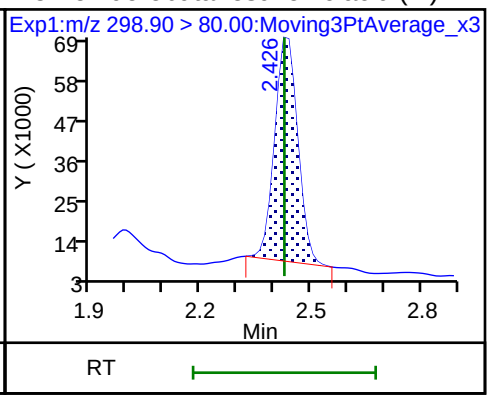

4 Perfluoropentanoic acid (M)



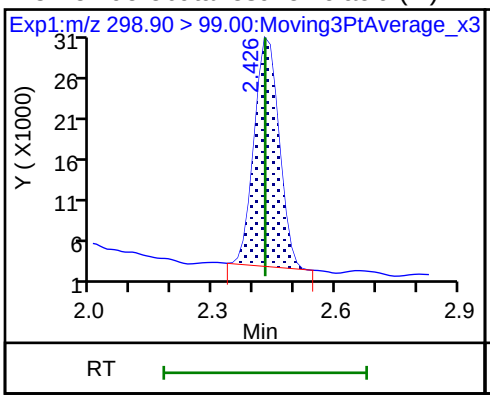

D 47 13C3 PFBS



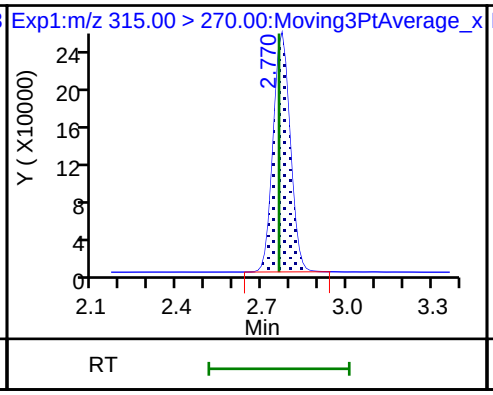

5 Perfluorobutanesulfonic acid (M)



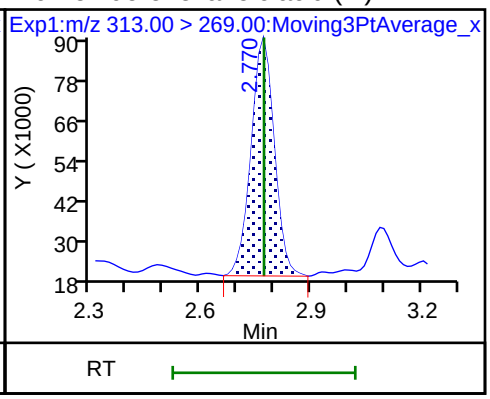

5 Perfluorobutanesulfonic acid (M)



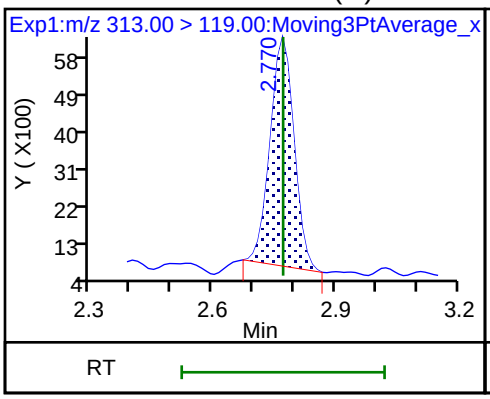

D 7 13C2 PFHxA



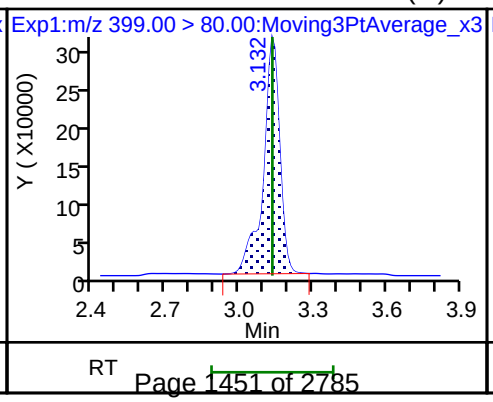

6 Perfluorohexanoic acid (M)



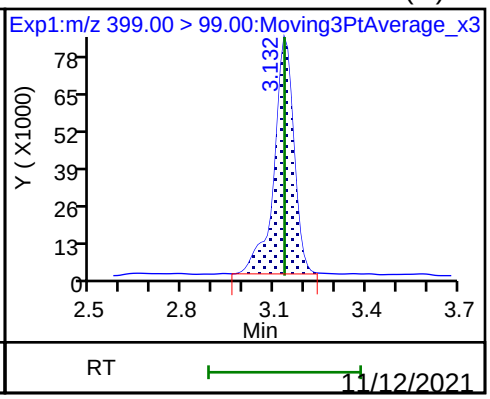

6 Perfluorohexanoic acid (M)



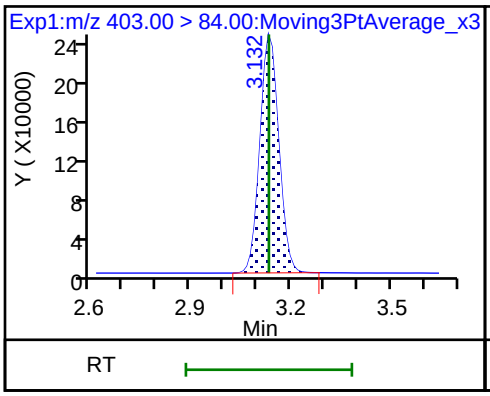

8 Perfluorohexanesulfonic acid (M)



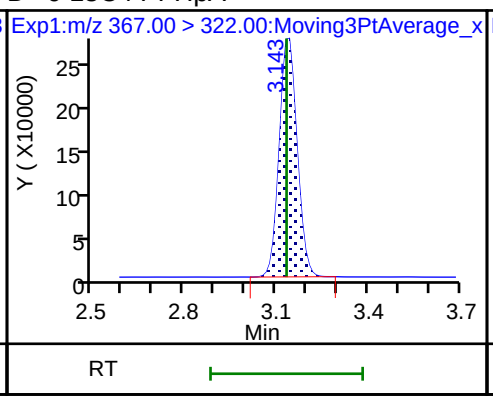

8 Perfluorohexanesulfonic acid (M)



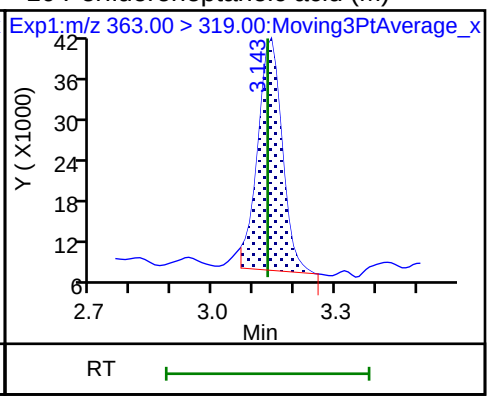
D 11 18O2 PFHxS



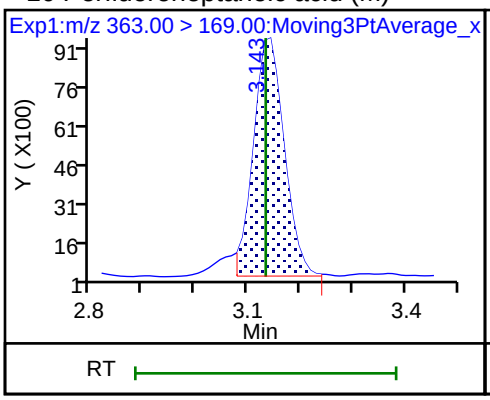

D 9 13C4 PFHpA



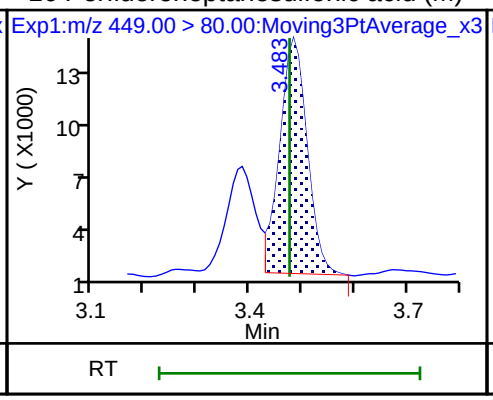

10 Perfluoroheptanoic acid (M)



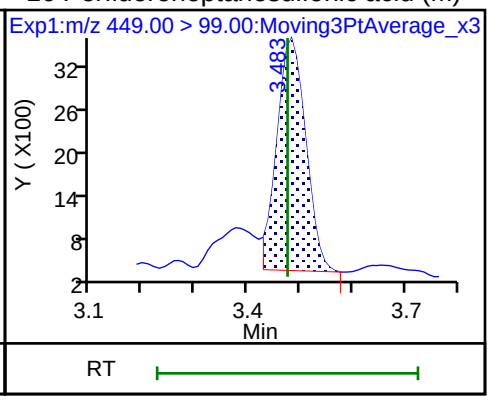

10 Perfluoroheptanoic acid (M)



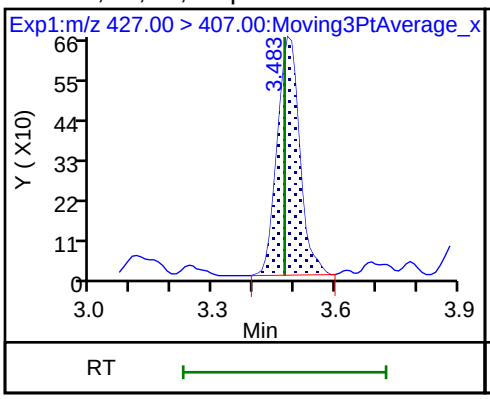

16 Perfluoroheptanesulfonic acid (M)



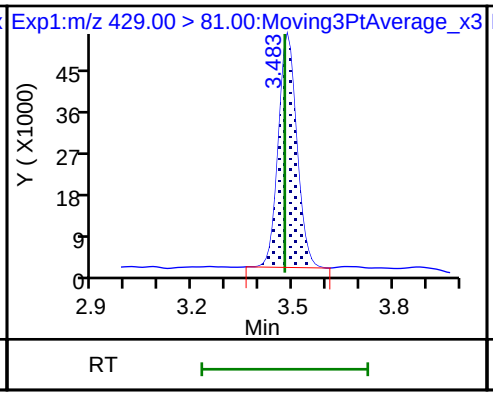

16 Perfluoroheptanesulfonic acid (M)



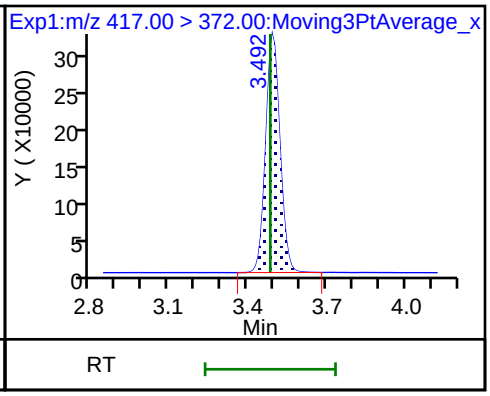

13 1H,1H,2H,2H-perfluorooctanesulfo



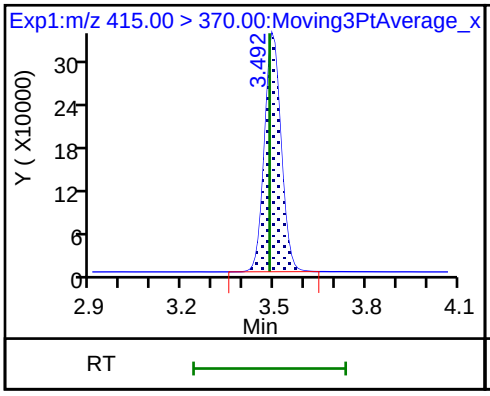

D 12 M2-6:2 FTS



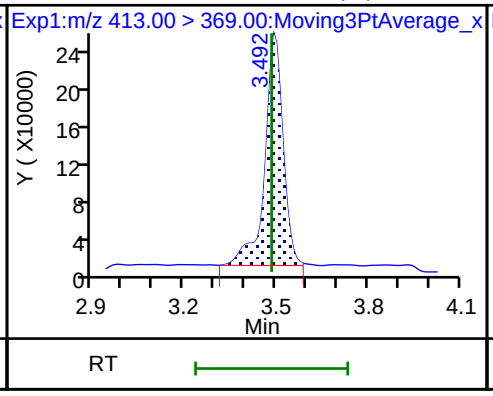

D 14 13C4 PFOA




* 62 13C2 PFOA




15 Perfluorooctanoic acid (M)

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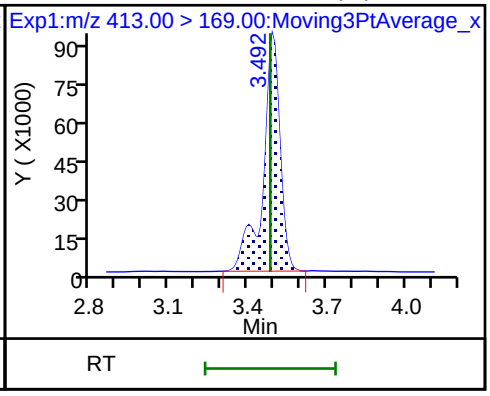
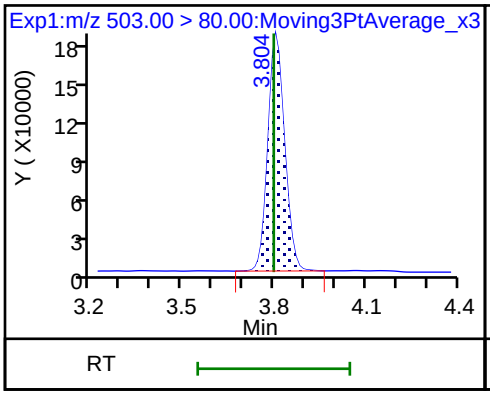
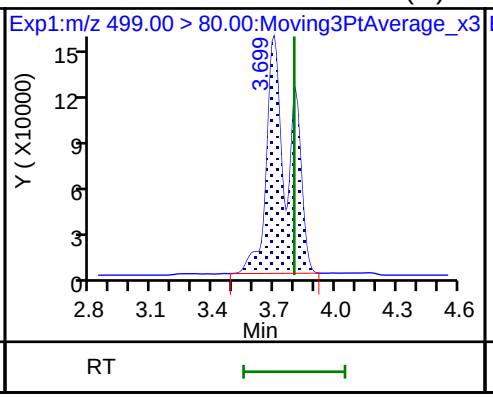


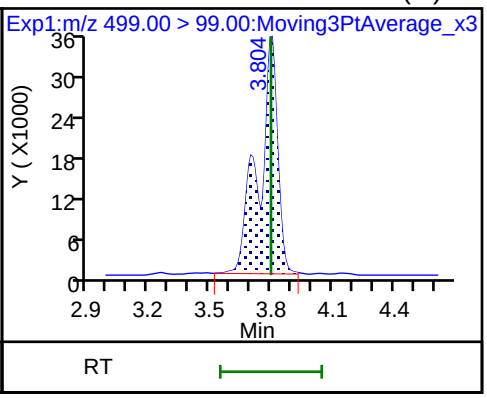
D 18 13C4 PFOS



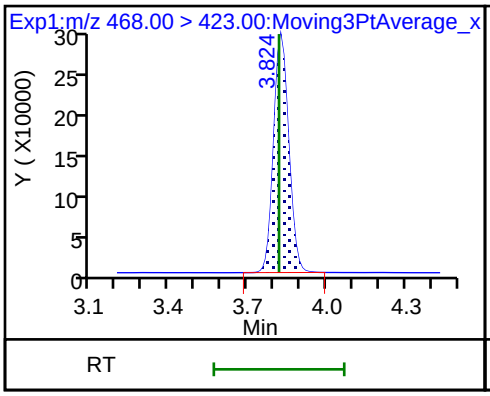

17 Perfluorooctanesulfonic acid (M)



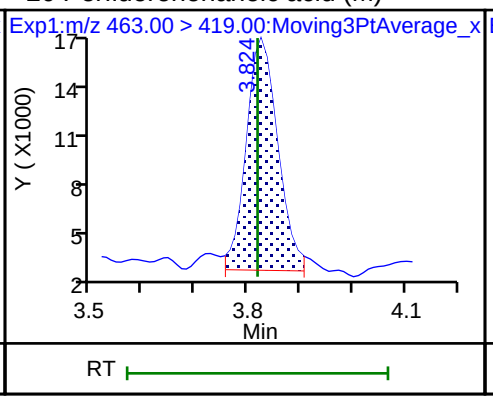

17 Perfluorooctanesulfonic acid (M)




D 19 13C5 PFNA




20 Perfluorononanoic acid (M)

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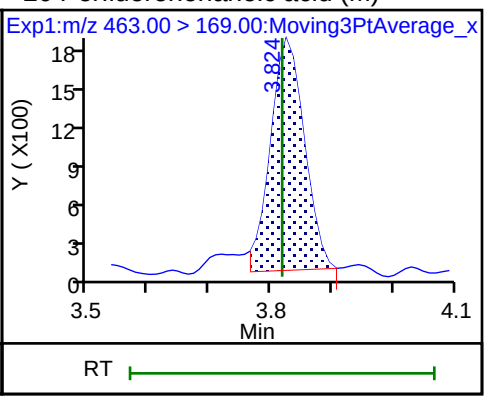
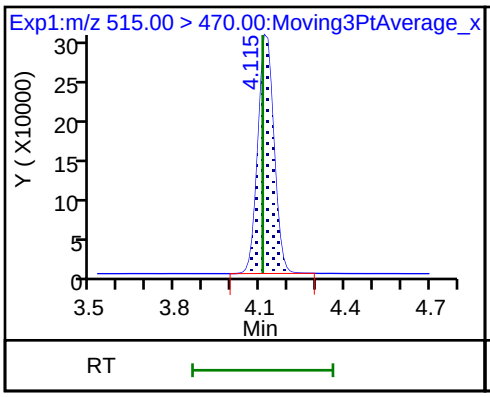
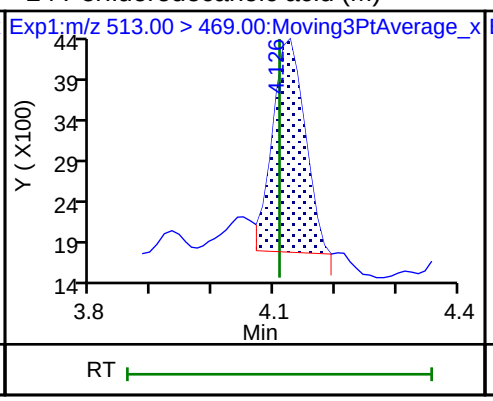


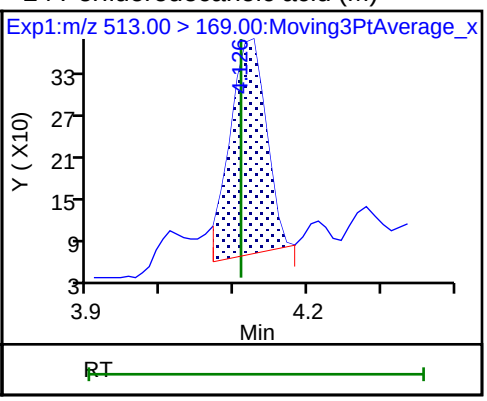

D 23 13C2 PFDA



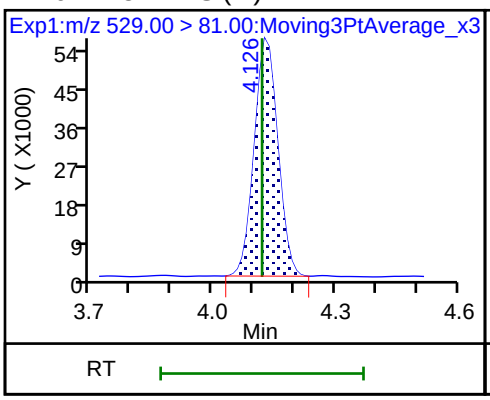

24 Perfluorodecanoic acid (M)



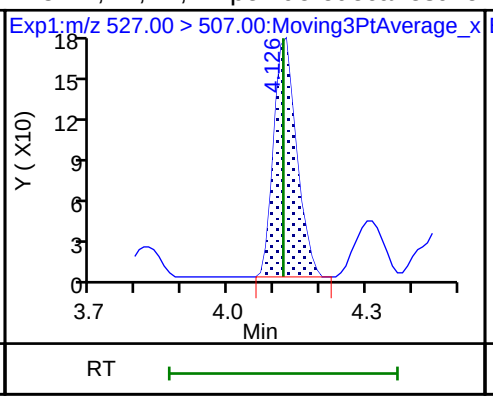

24 Perfluorodecanoic acid (M)



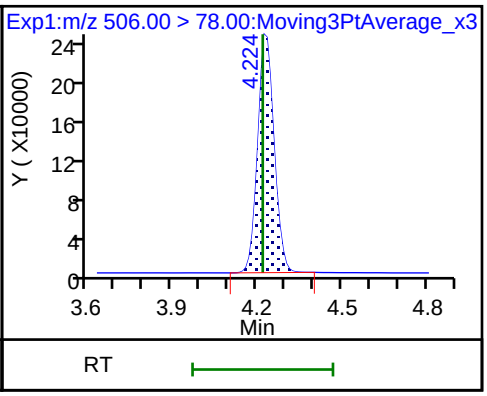

D 26 M2-8:2 FTS (M)



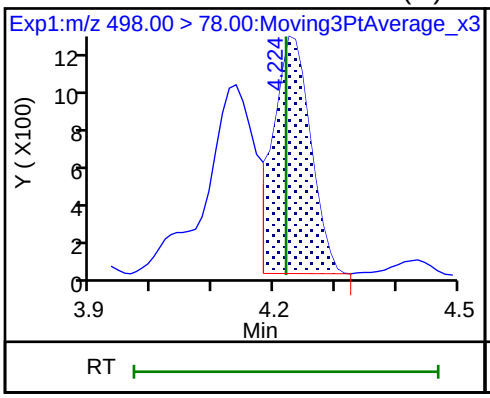

25 1H,1H,2H,2H-perfluorodecanesulfo



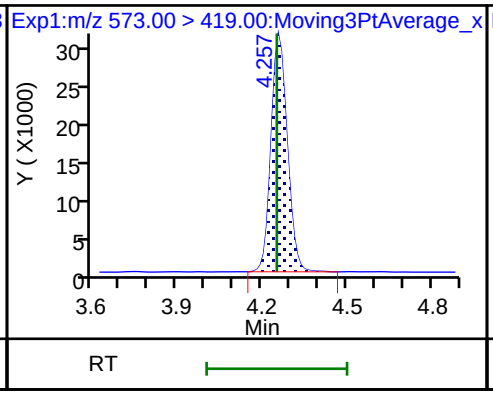

D 21 13C8 FOSA



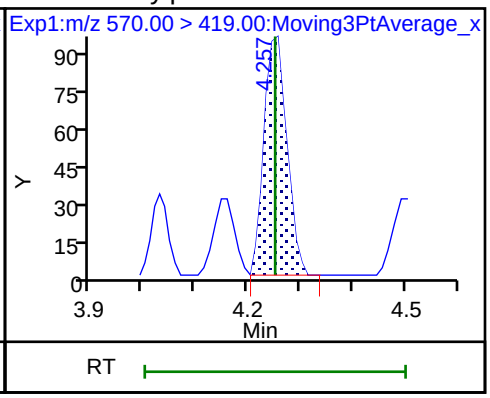
22 Perfluorooctanesulfonamide (M)



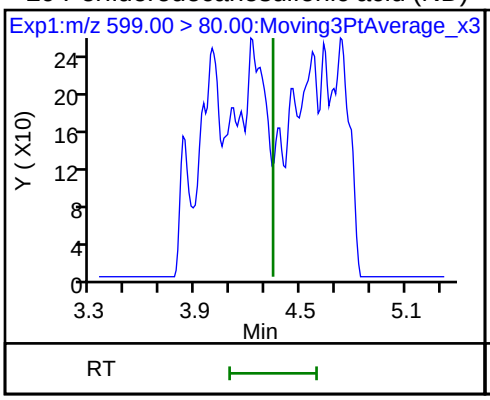

D 27 d3-NMeFOSAA



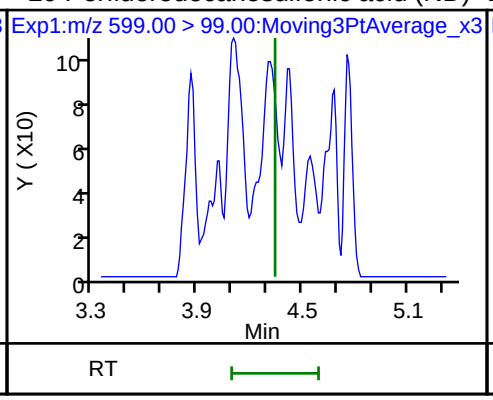

28 N-methylperfluorooctanesulfonami



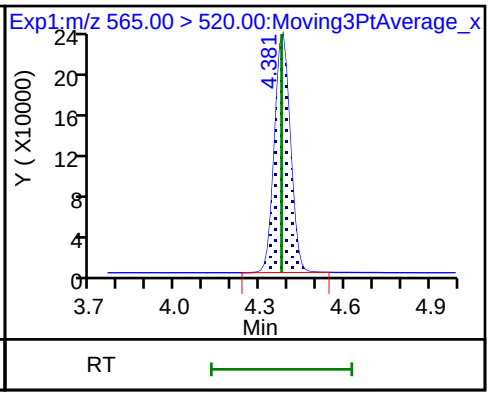

29 Perfluorodecanesulfonic acid (ND)



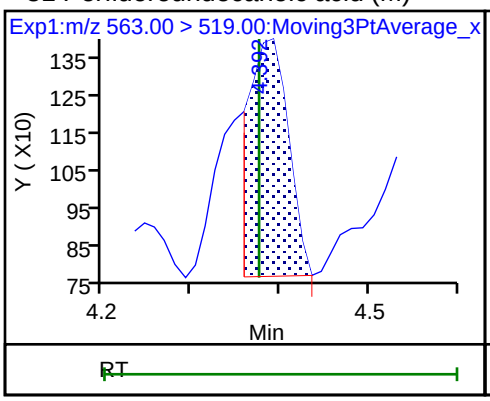

29 Perfluorodecanesulfonic acid (ND)



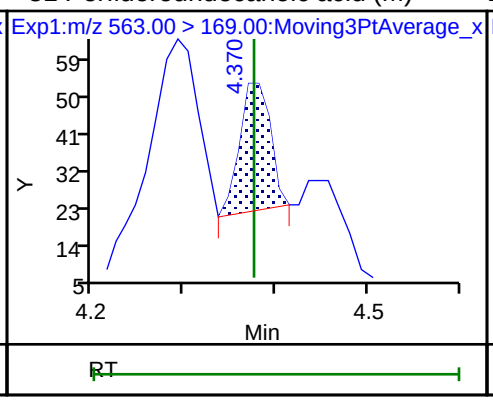

D 30 13C2 PFUnA



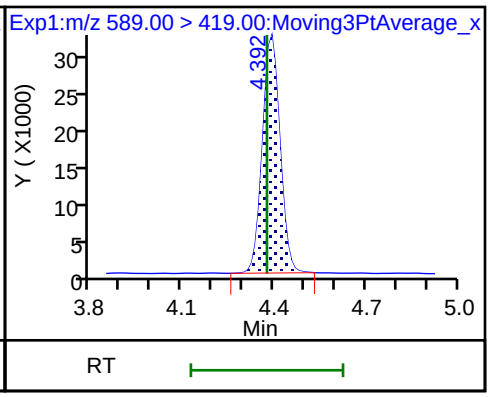

31 Perfluoroundecanoic acid (M)



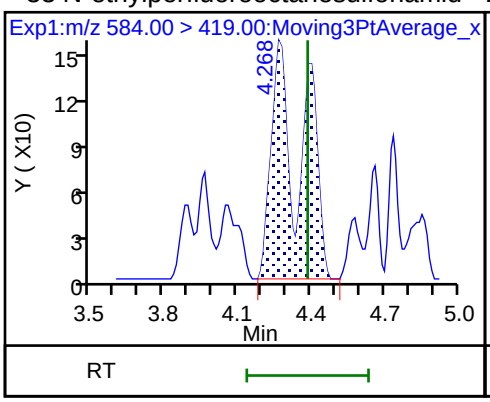

31 Perfluoroundecanoic acid (M)



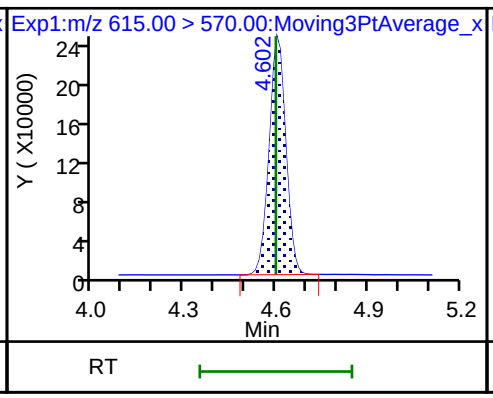

D 32 d5-NEtFOSAA



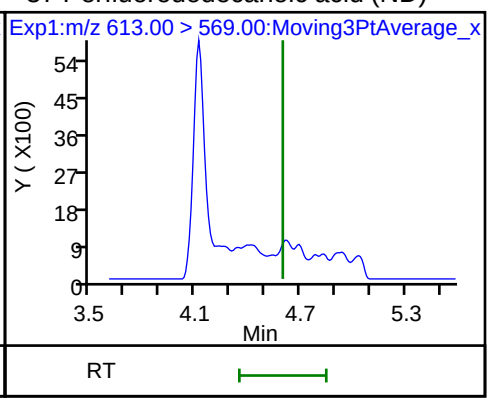

33 N-ethylperfluorooctanesulfonamid



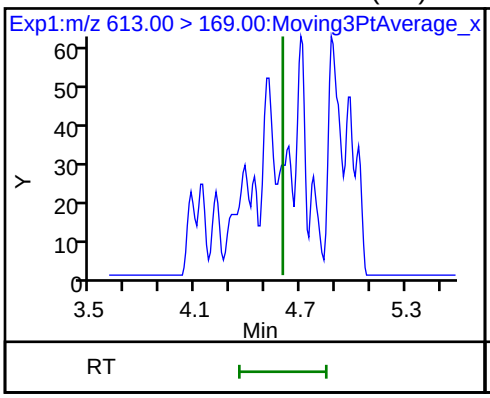

D 36 13C2 PFDoA



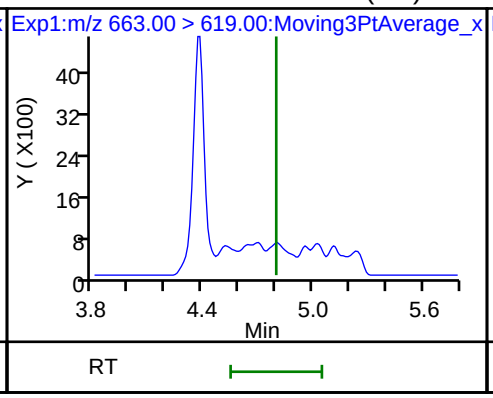

37 Perfluorododecanoic acid (ND)



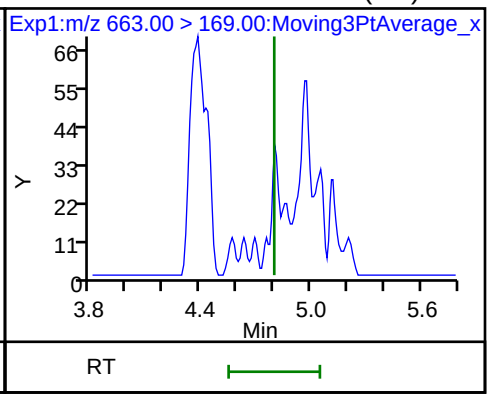
37 Perfluorododecanoic acid (ND)



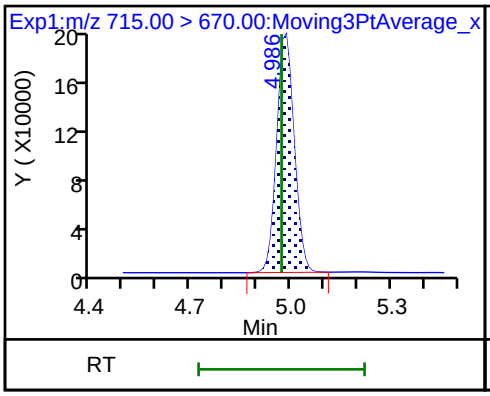

41 Perfluorotridecanoic acid (ND)



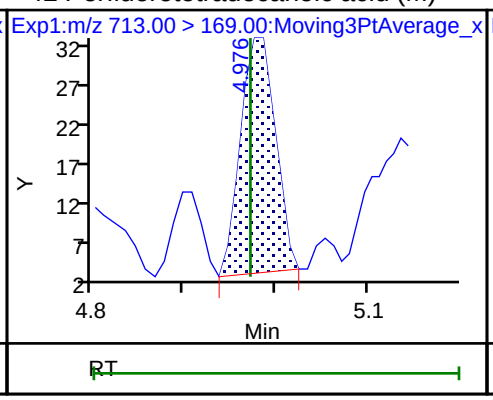

41 Perfluorotridecanoic acid (ND)



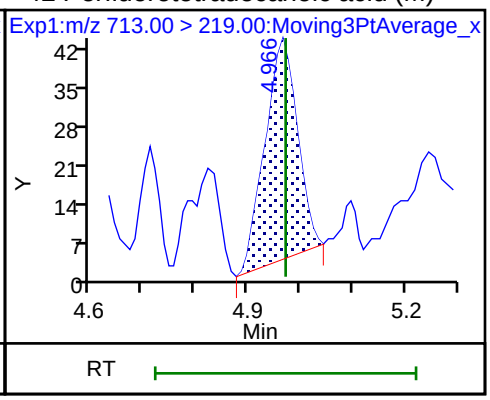

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

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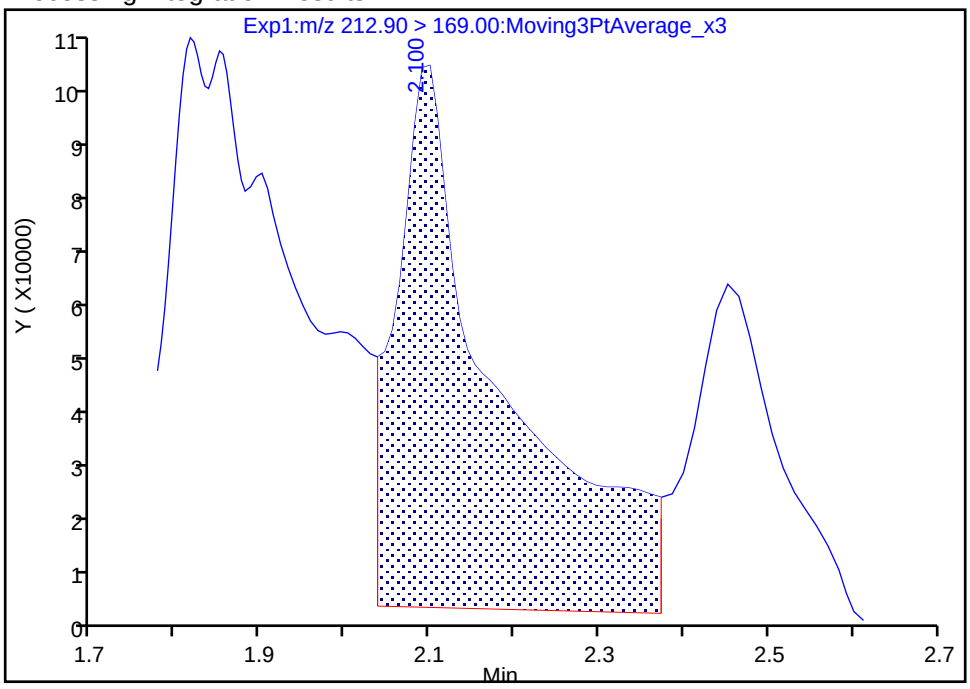
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

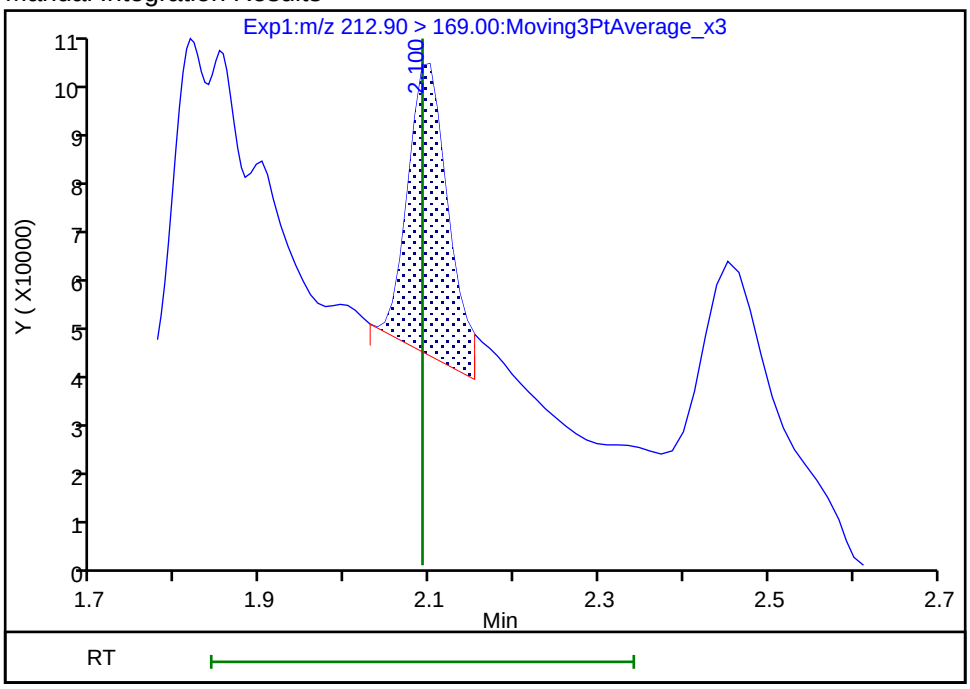
Processing Integration Results

RT: 2.10
Area: 855785
Amount: 1.105486
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 193096
Amount: 0.249438
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:43:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

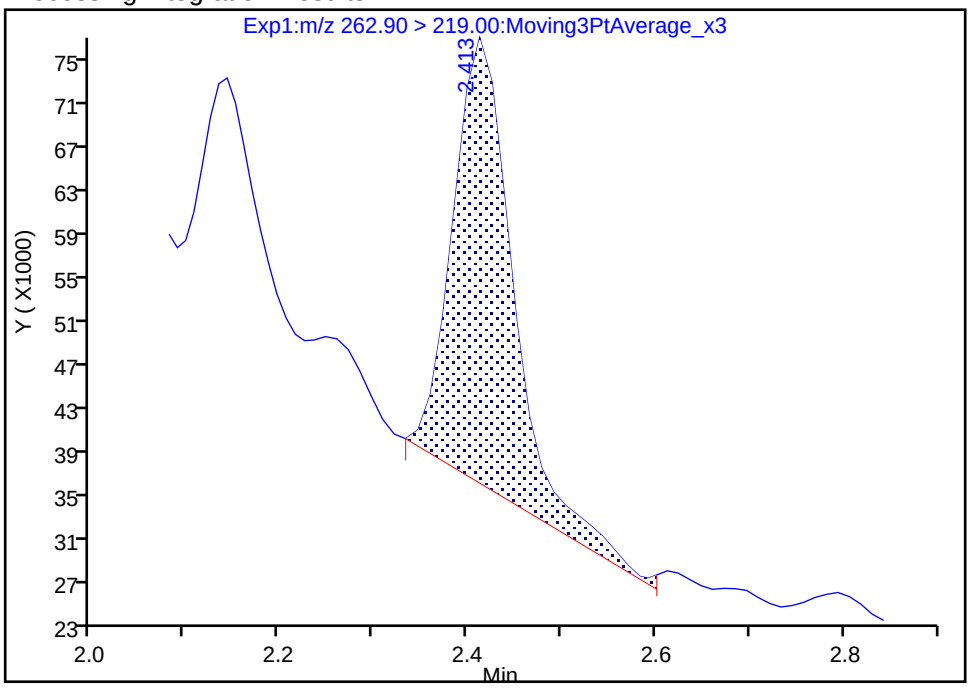
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 |
| Client ID: | AMW-7-20211029 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 Worklist Smp#: 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

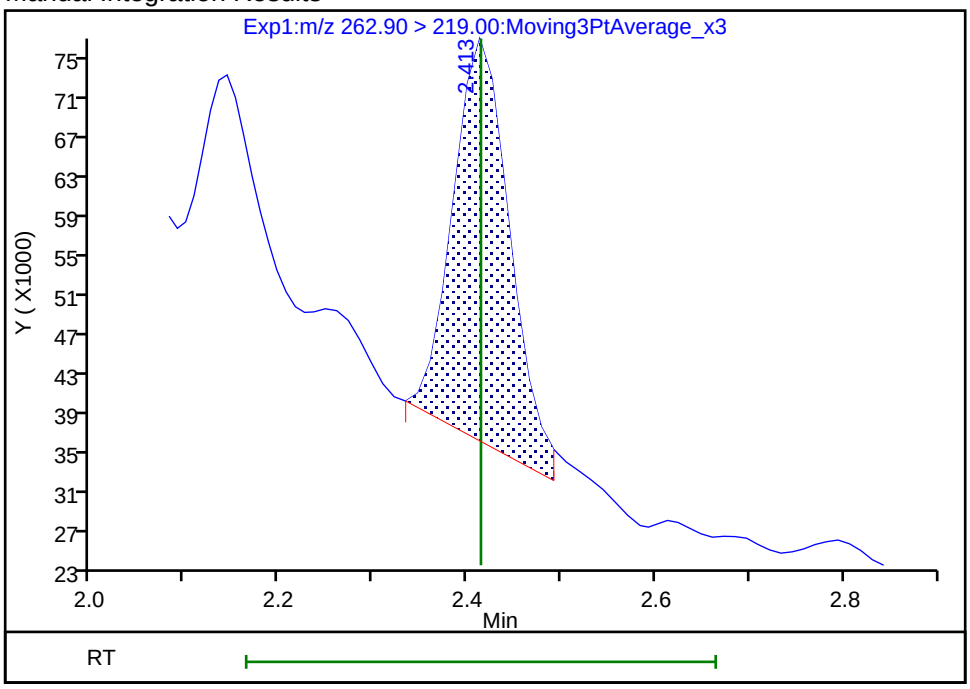
Processing Integration Results

RT: 2.41
Area: 182987
Amount: 0.230456
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 171802
Amount: 0.216369
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:43:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

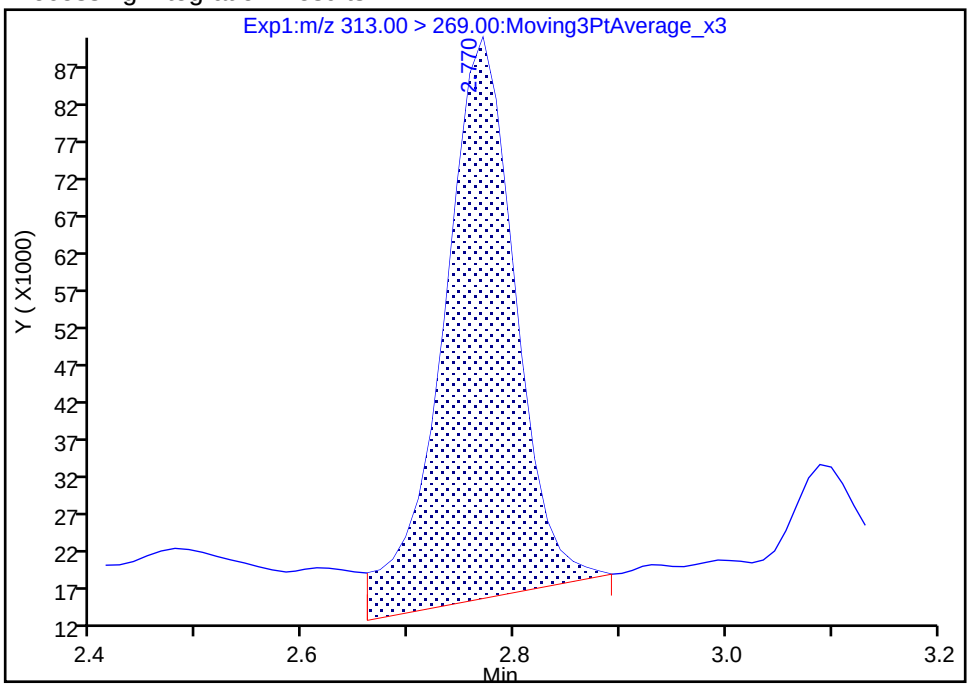
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

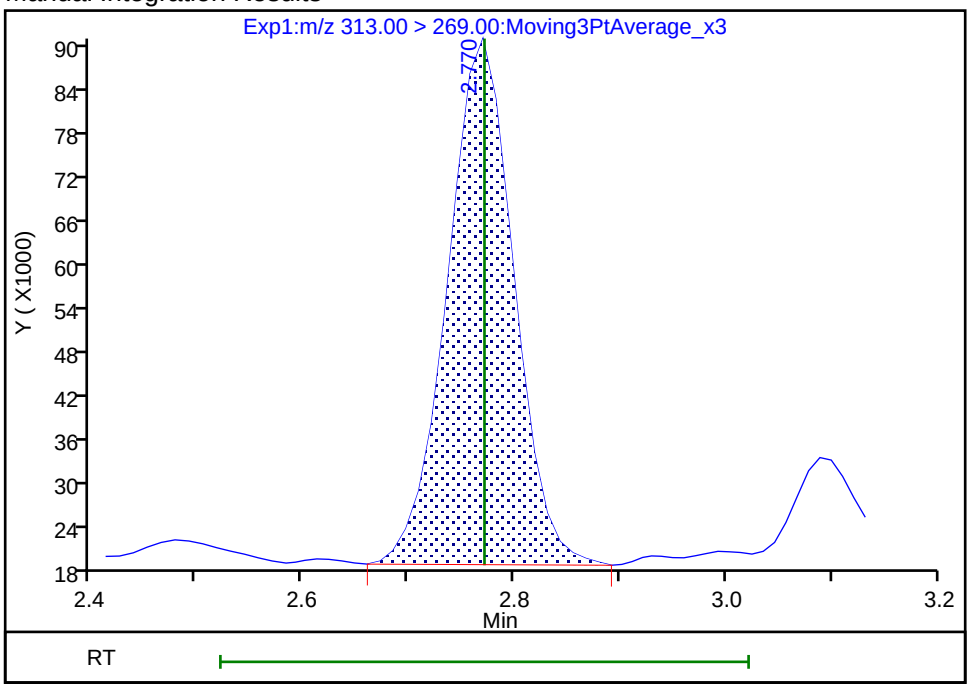
Processing Integration Results

RT: 2.77
Area: 360441
Amount: 0.416893
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 316171
Amount: 0.365689
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

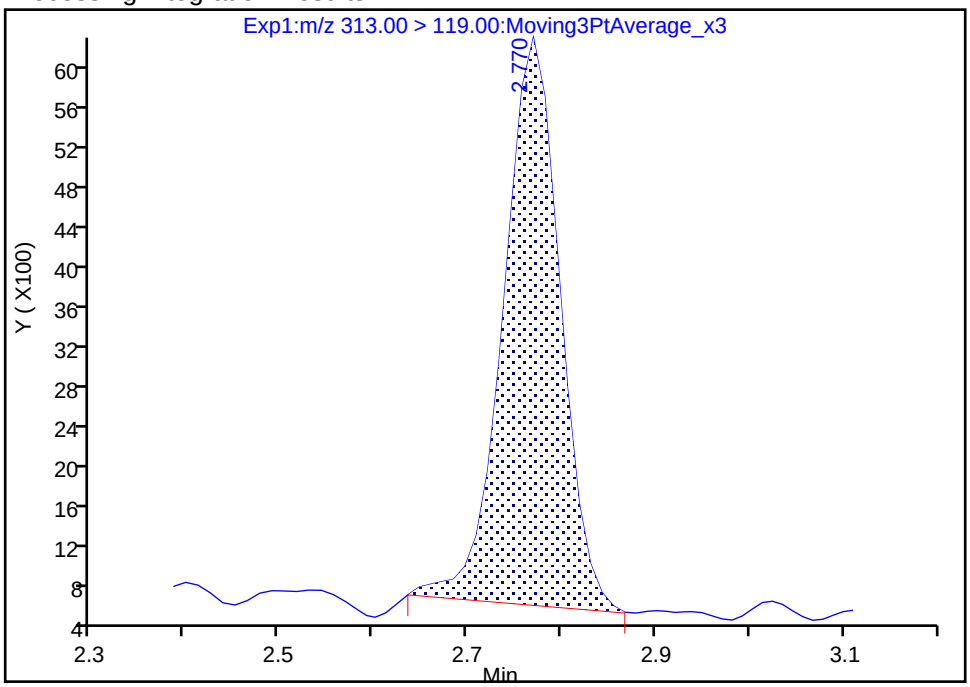
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

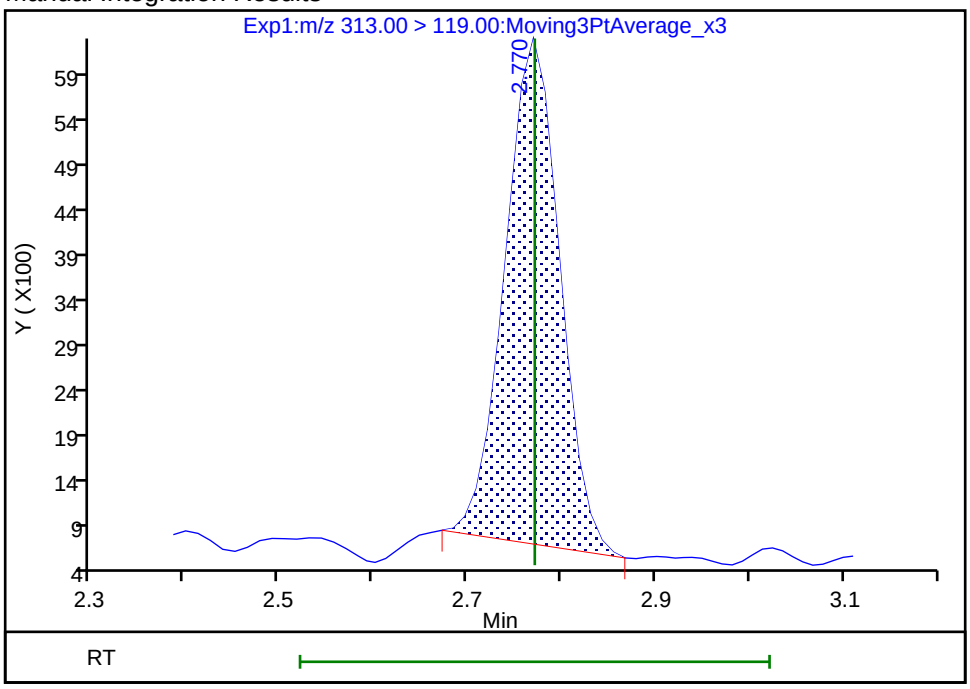
Processing Integration Results

RT: 2.77
Area: 24047
Amount: 0.416893
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 22841
Amount: 0.365689
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

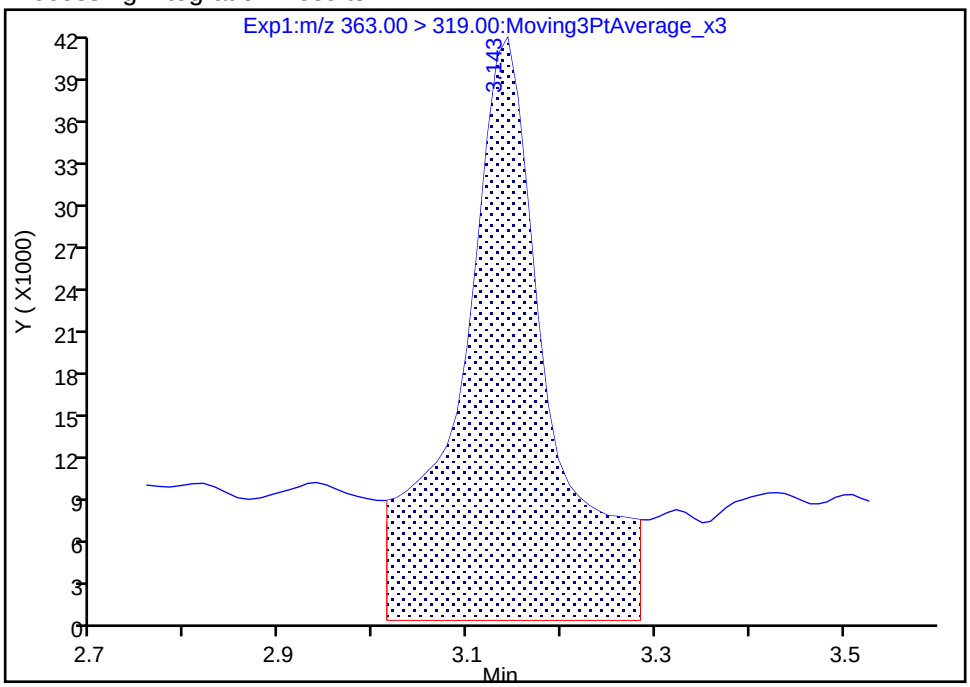
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

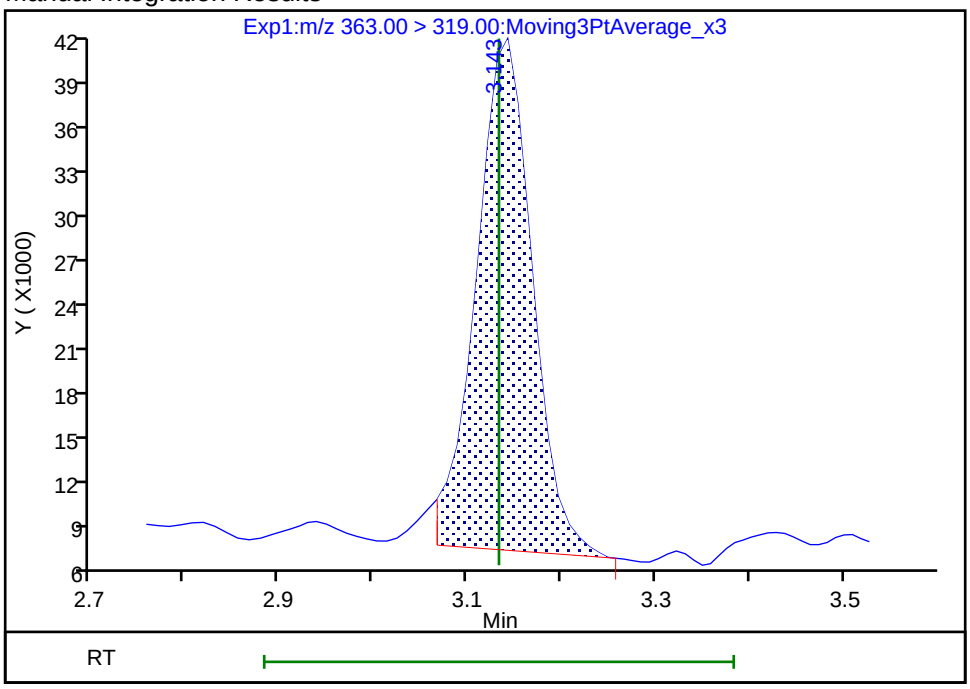
Processing Integration Results

RT: 3.14
Area: 268104
Amount: 0.292415
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 137408
Amount: 0.149868
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

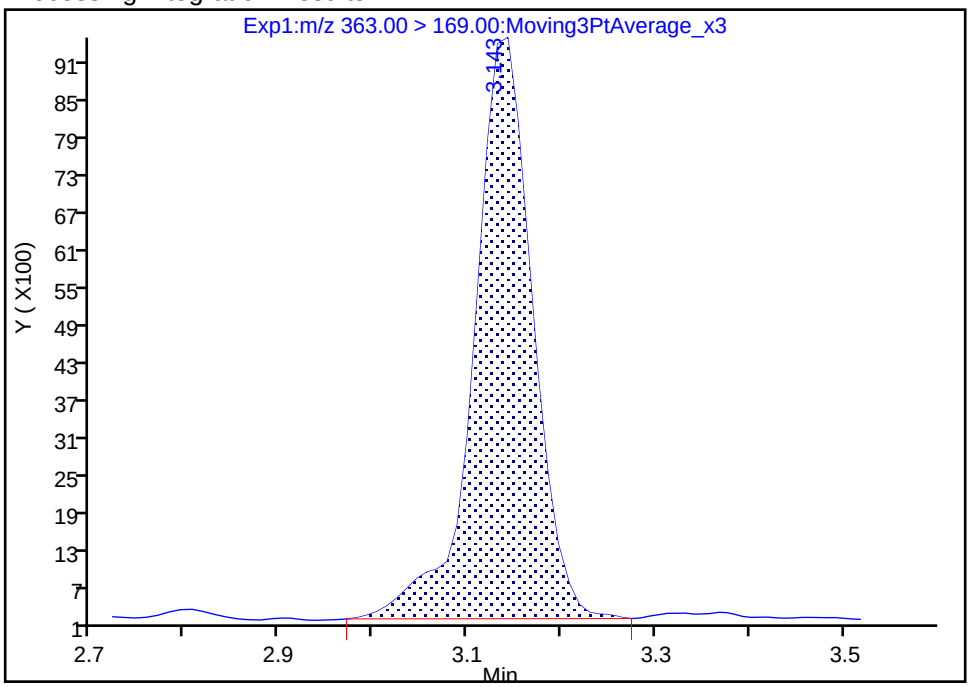
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

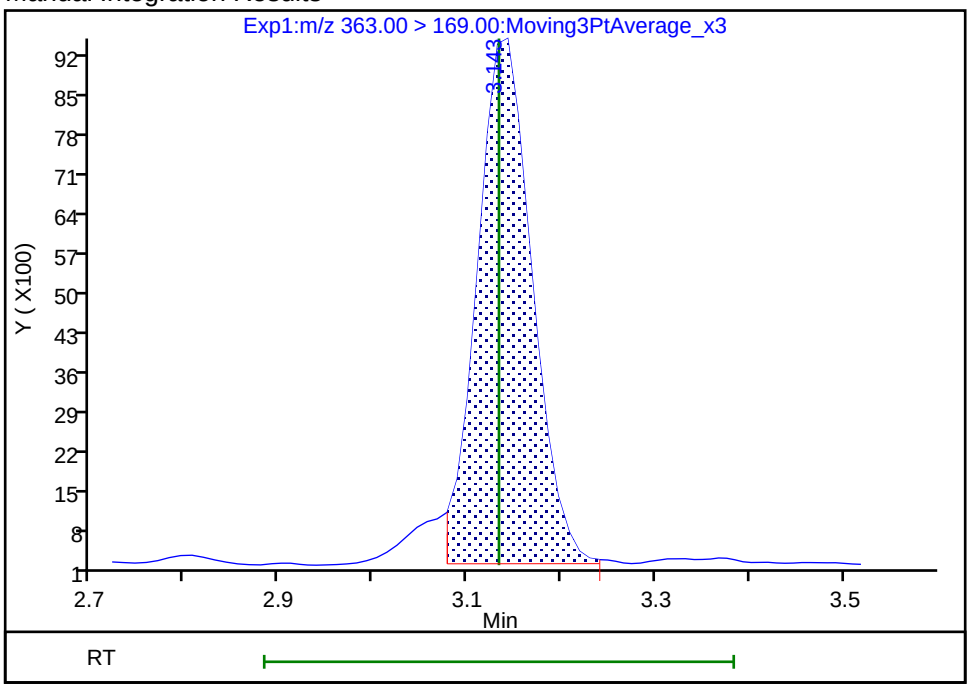
Processing Integration Results

RT: 3.14
Area: 39995
Amount: 0.292415
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 37453
Amount: 0.149868
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

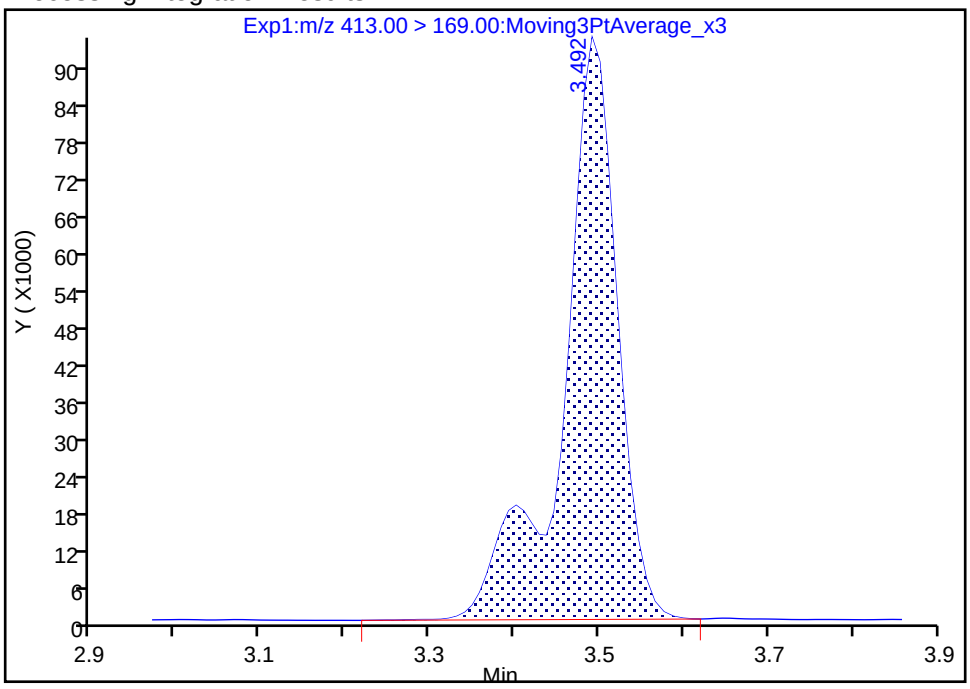
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

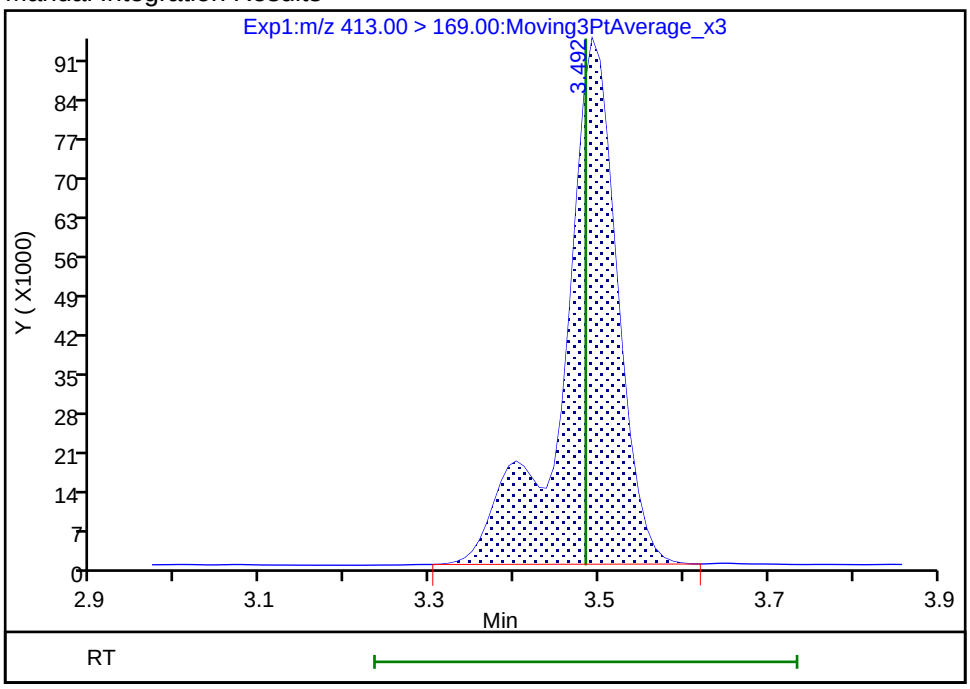
Processing Integration Results

RT: 3.49
Area: 422769
Amount: 1.007908
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 421694
Amount: 1.004287
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:45:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

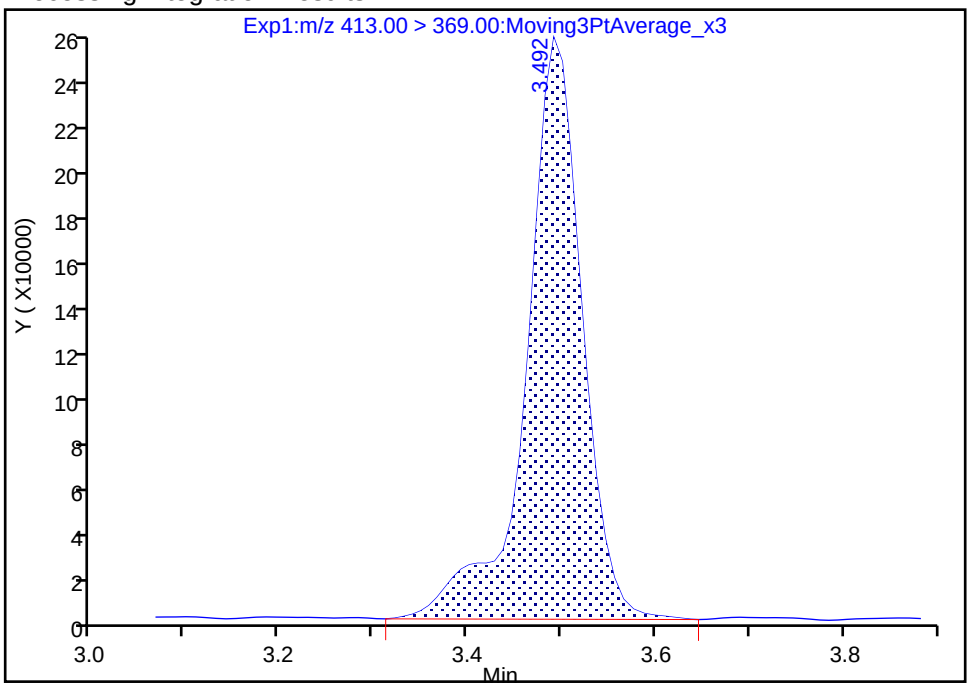
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

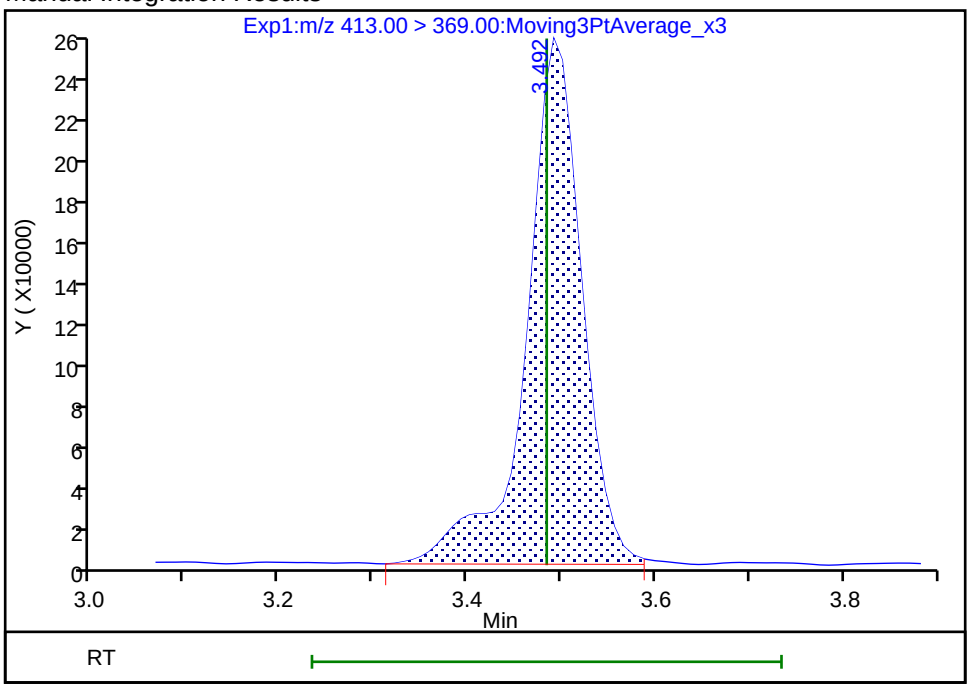
Processing Integration Results

RT: 3.49
Area: 1039068
Amount: 1.007908
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1035335
Amount: 1.004287
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:45:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

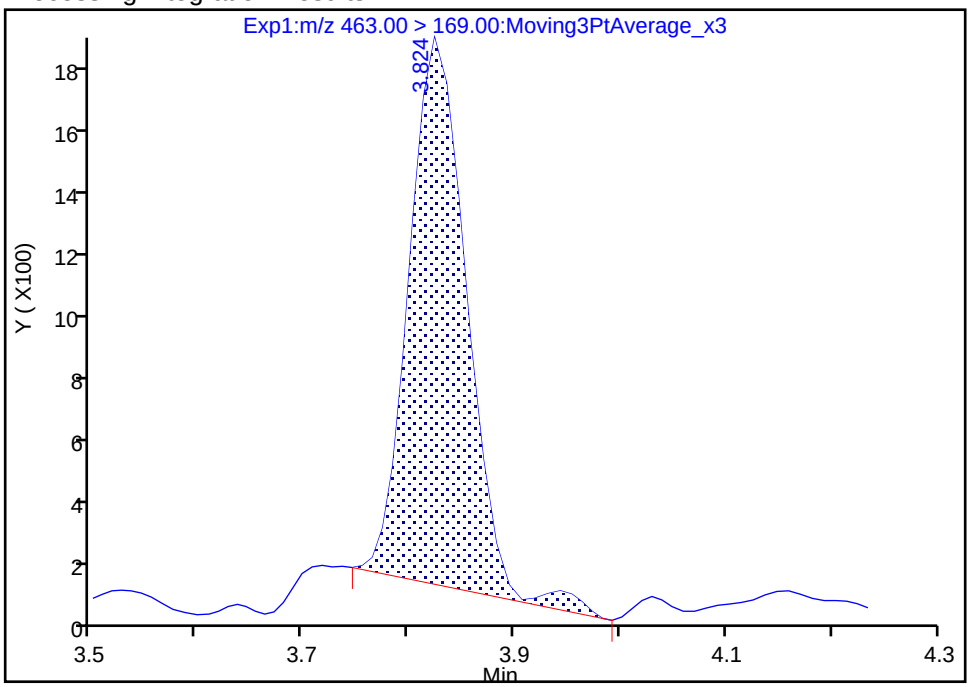
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

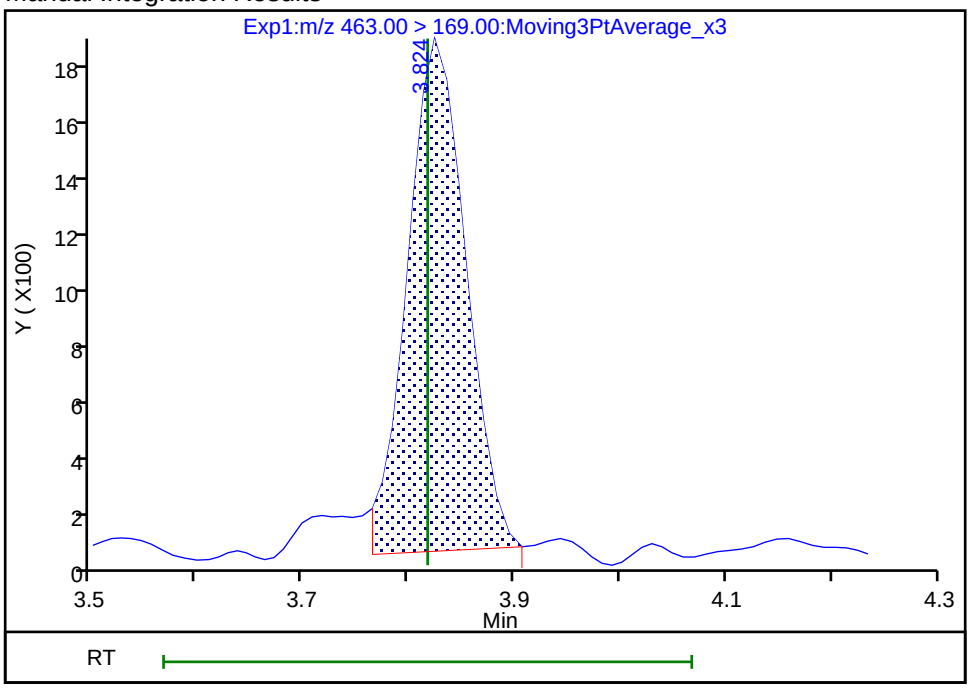
Processing Integration Results

RT: 3.82
Area: 6613
Amount: 0.065755
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 6903
Amount: 0.061142
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:18:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

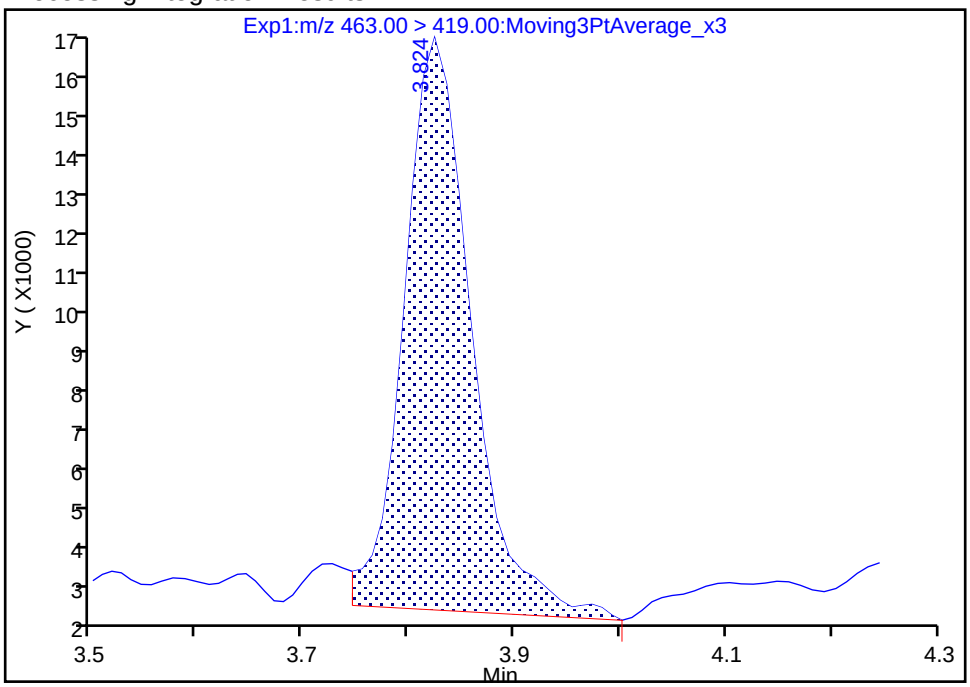
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

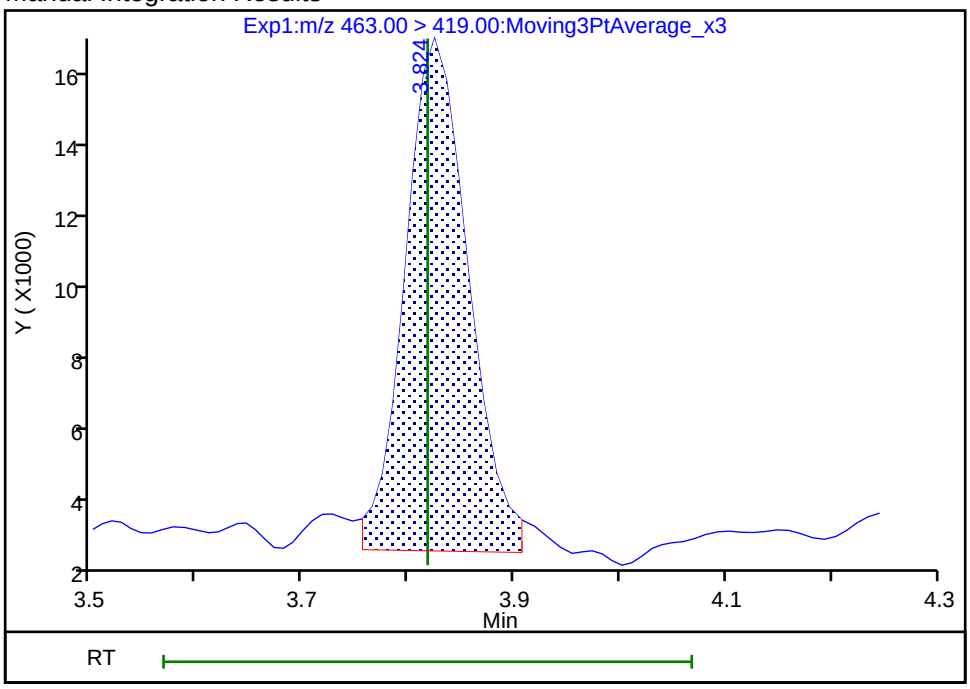
Processing Integration Results

RT: 3.82
Area: 60907
Amount: 0.065755
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 56634
Amount: 0.061142
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:18:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

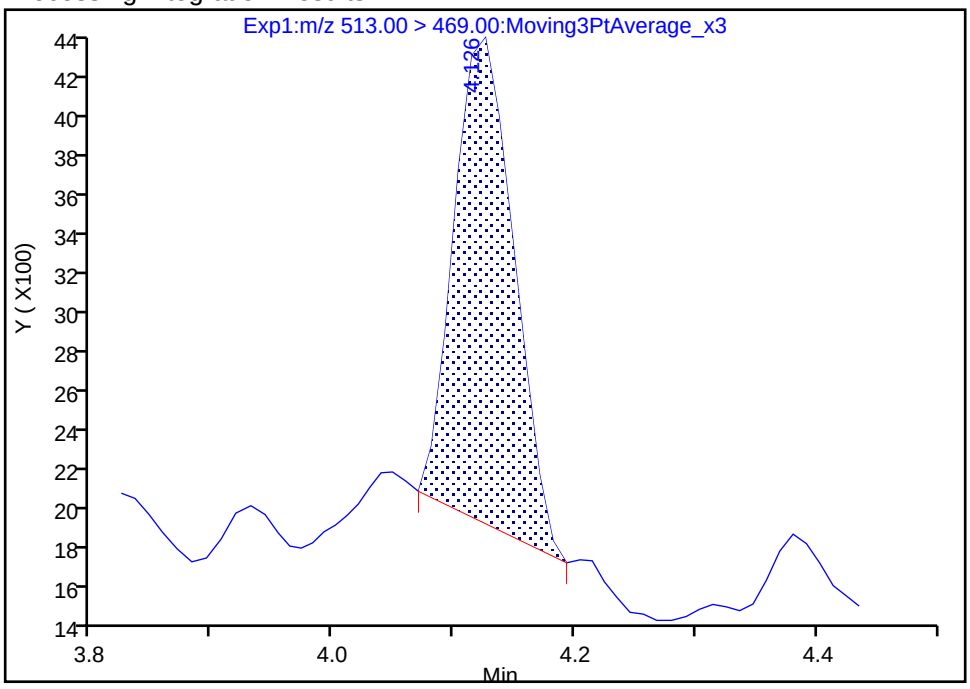
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

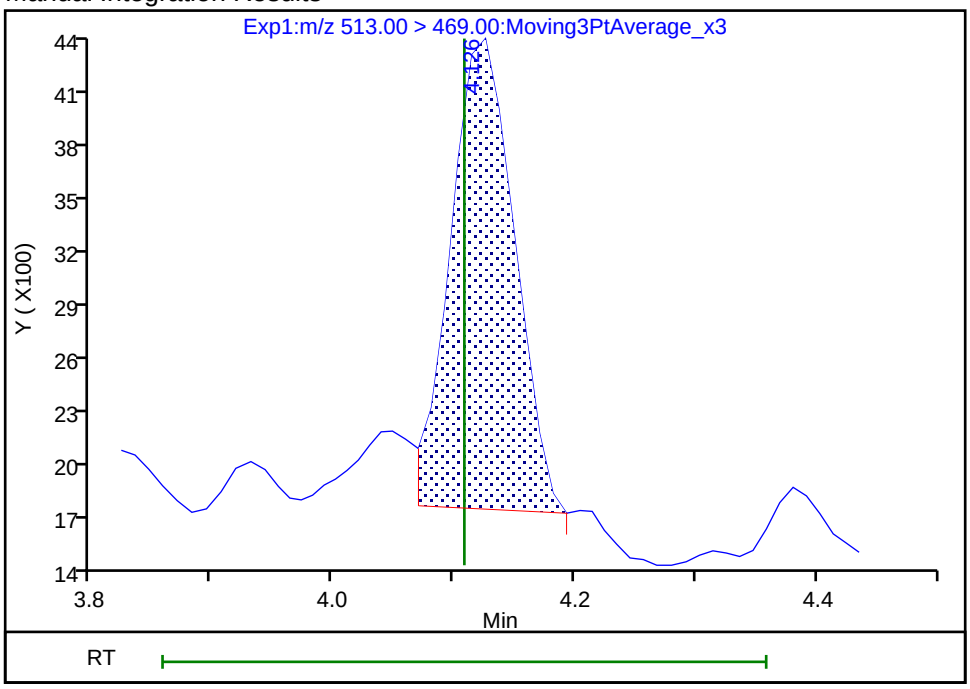
Processing Integration Results

RT: 4.13
Area: 8294
Amount: 0.008792
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 9445
Amount: 0.010012
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:19:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

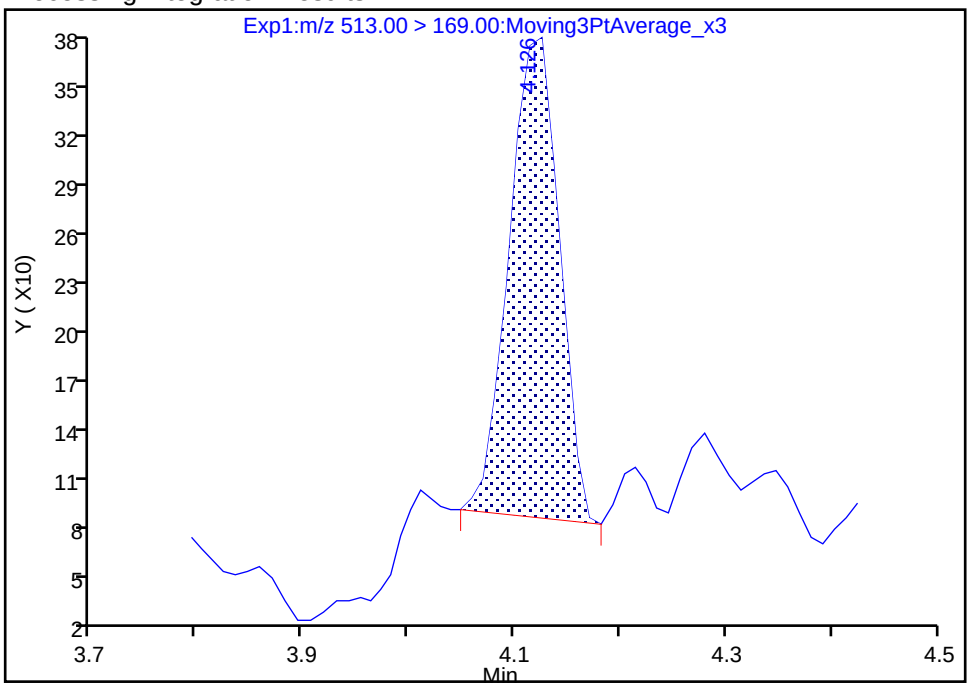
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

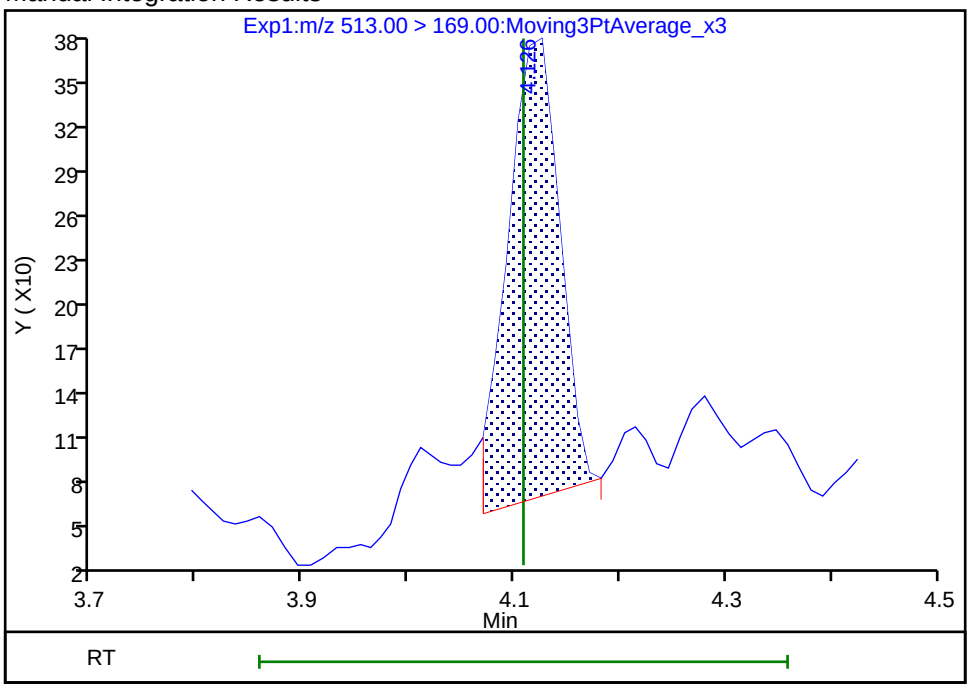
Processing Integration Results

RT: 4.13
Area: 970
Amount: 0.008792
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 1064
Amount: 0.010012
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:19:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

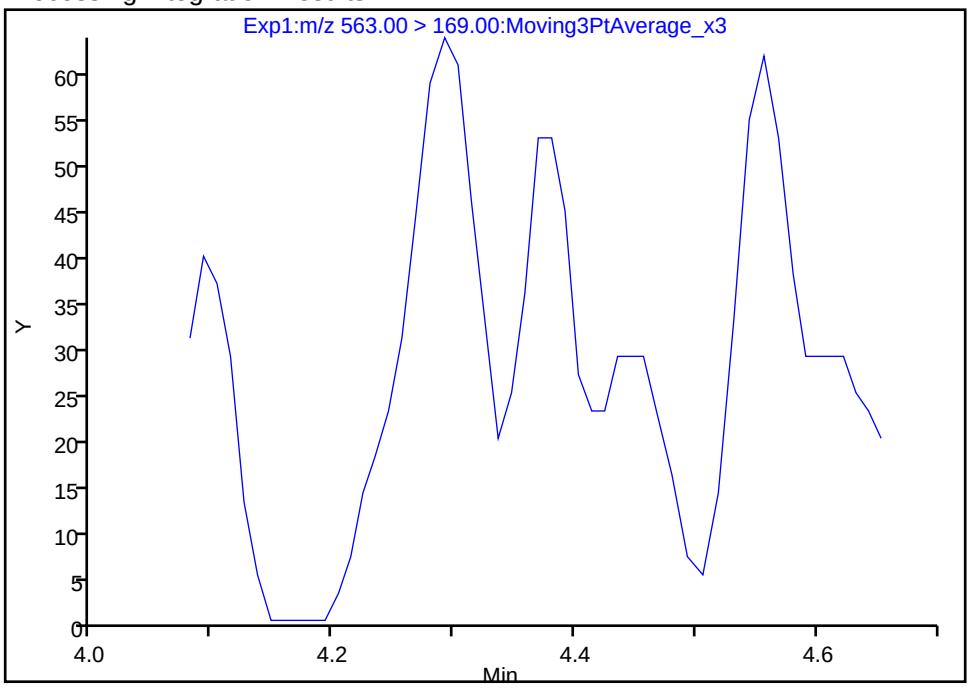
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

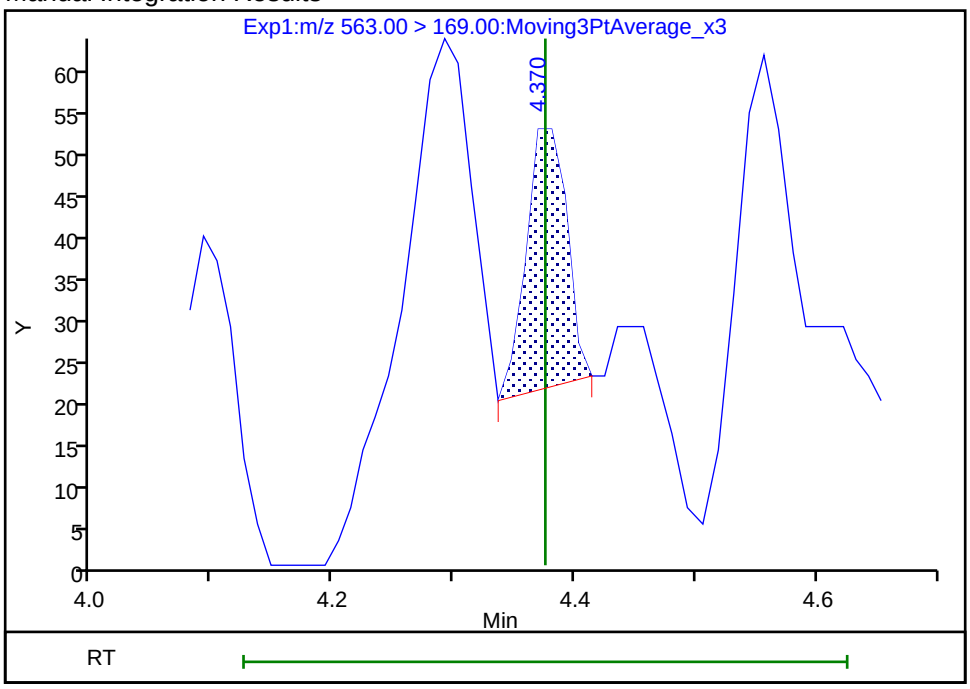
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 73
Amount: 0.002518
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:46:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

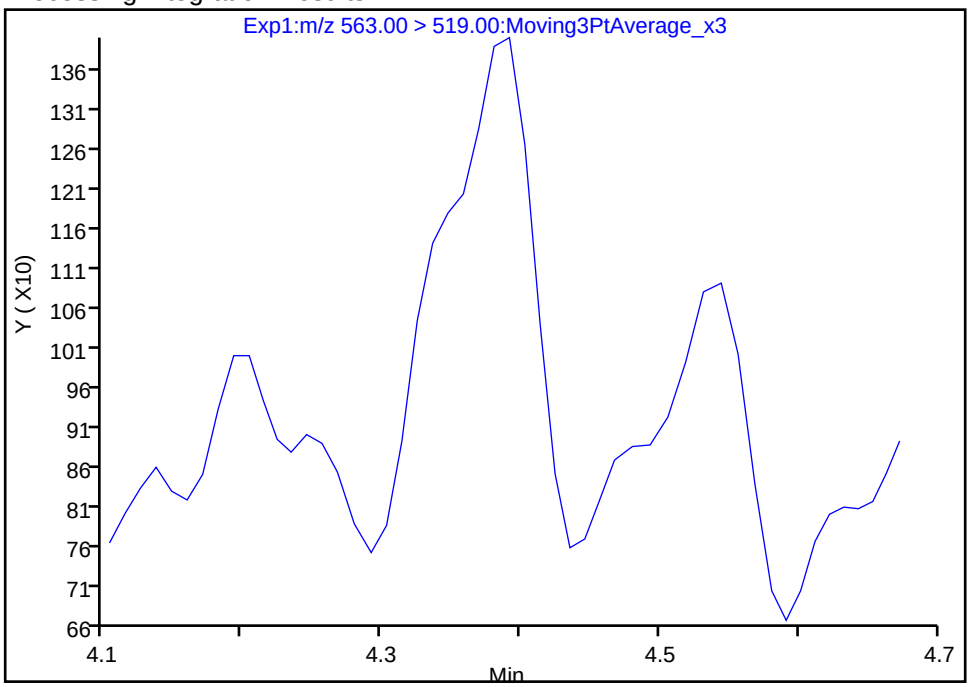
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

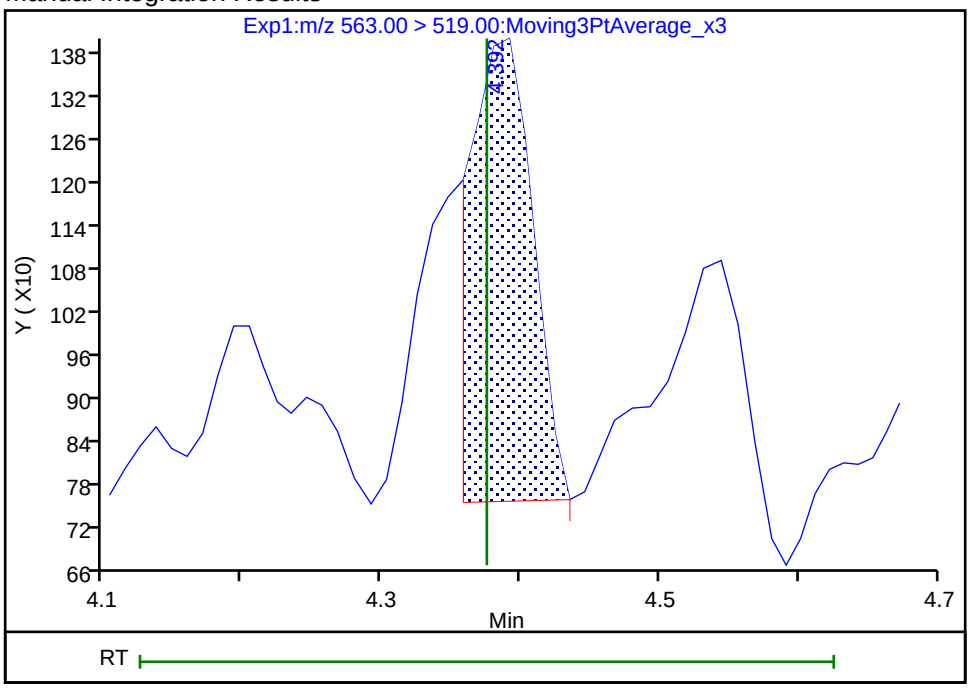
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.39
Area: 1927
Amount: 0.002518
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:46:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

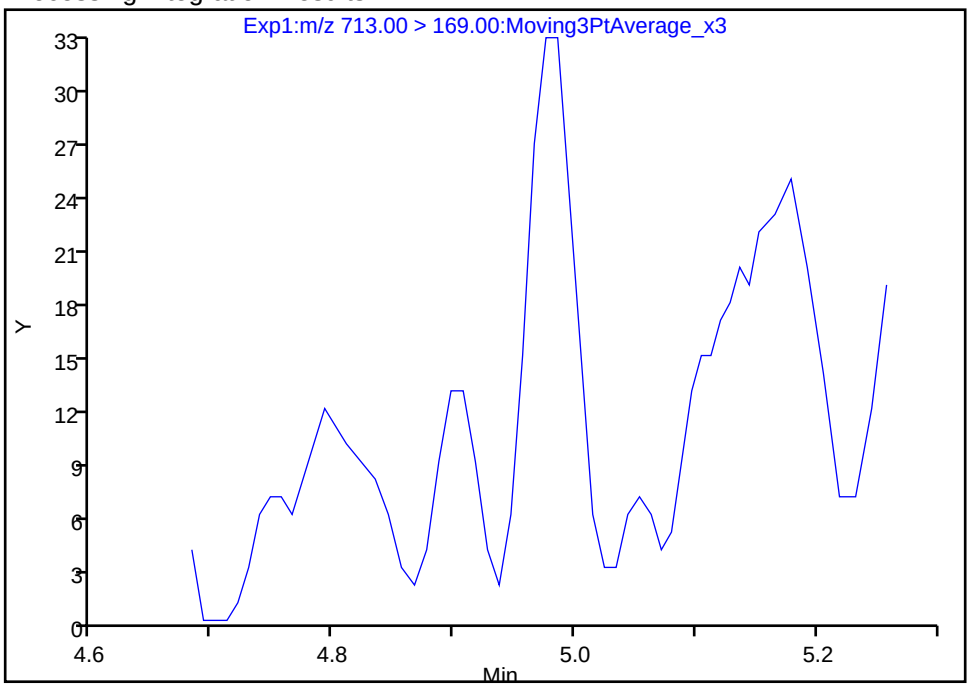
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

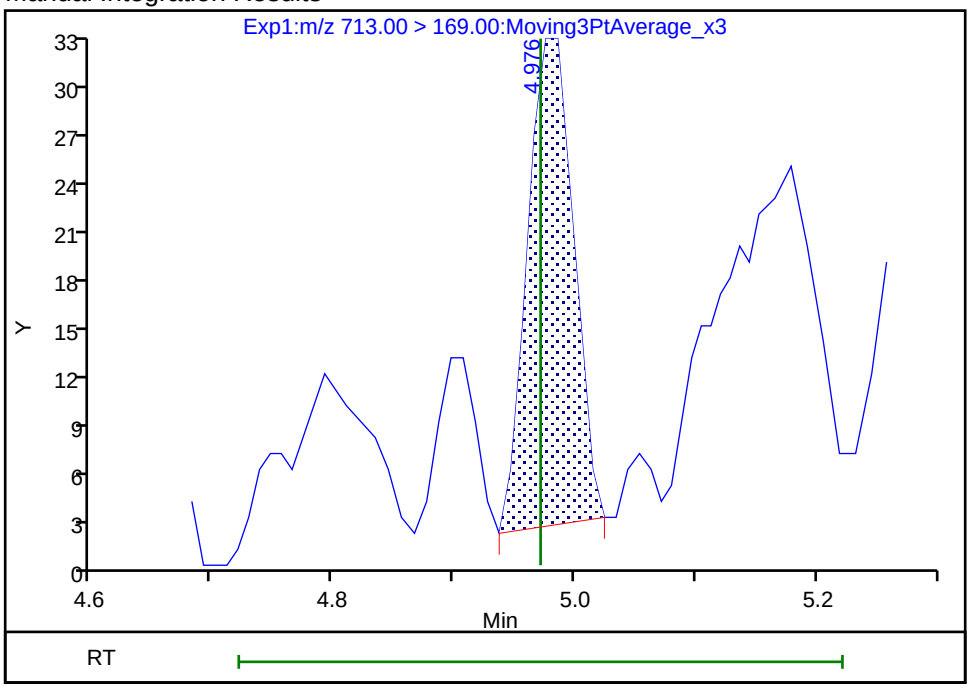
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 80
Amount: 0.000918
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:46:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

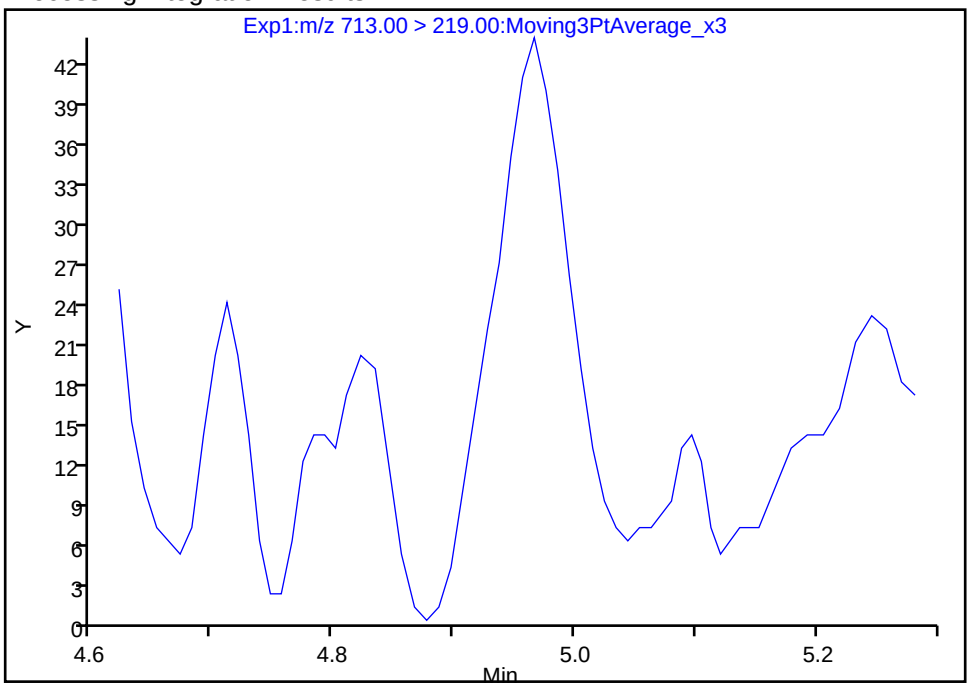
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

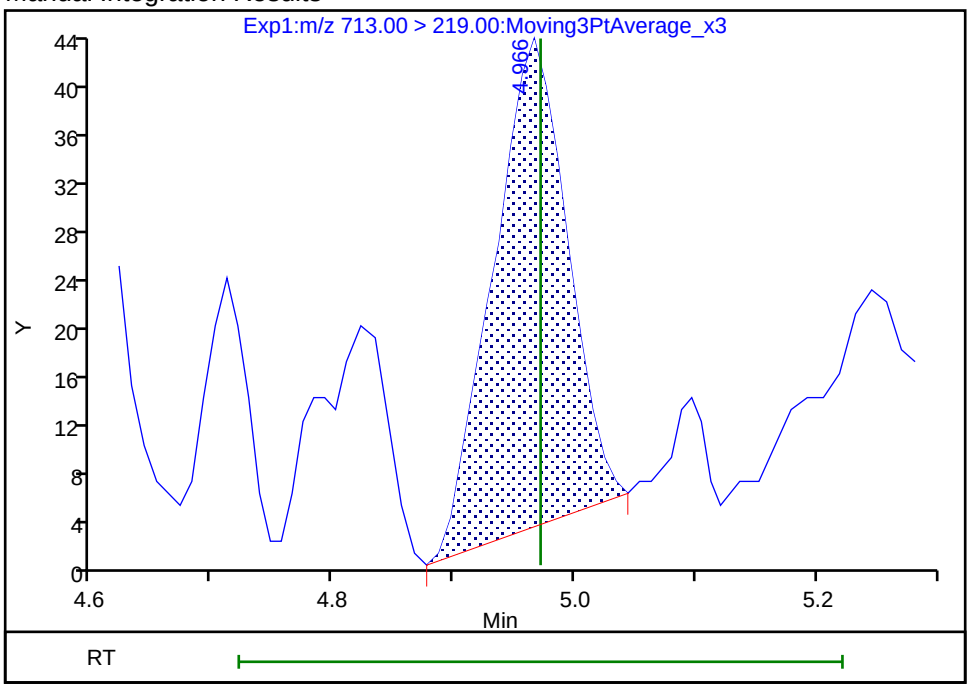
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 174
Amount: 0.000918
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:46:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

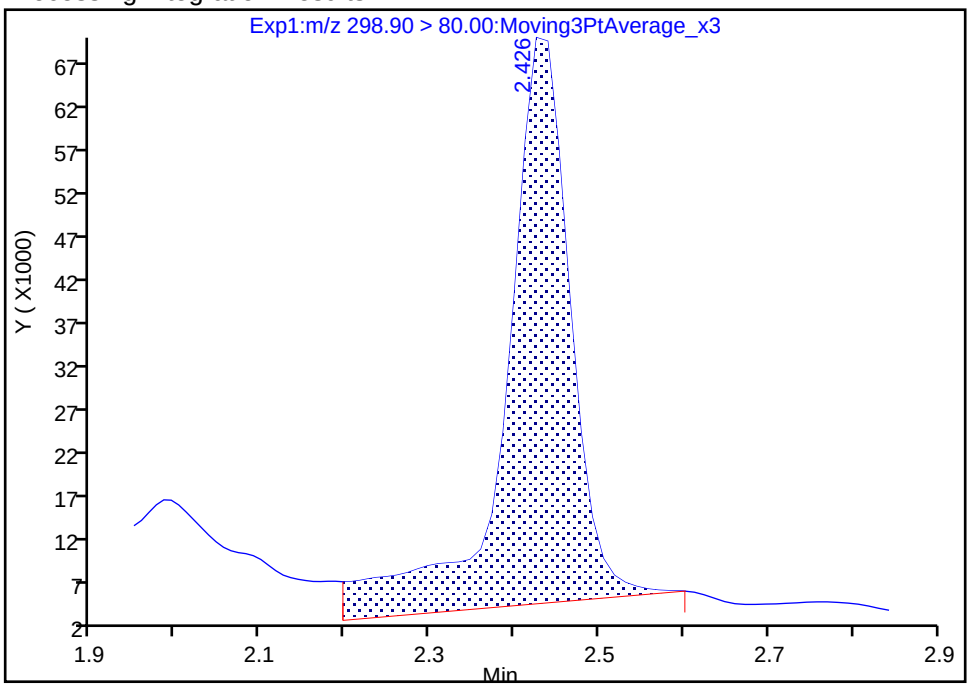
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

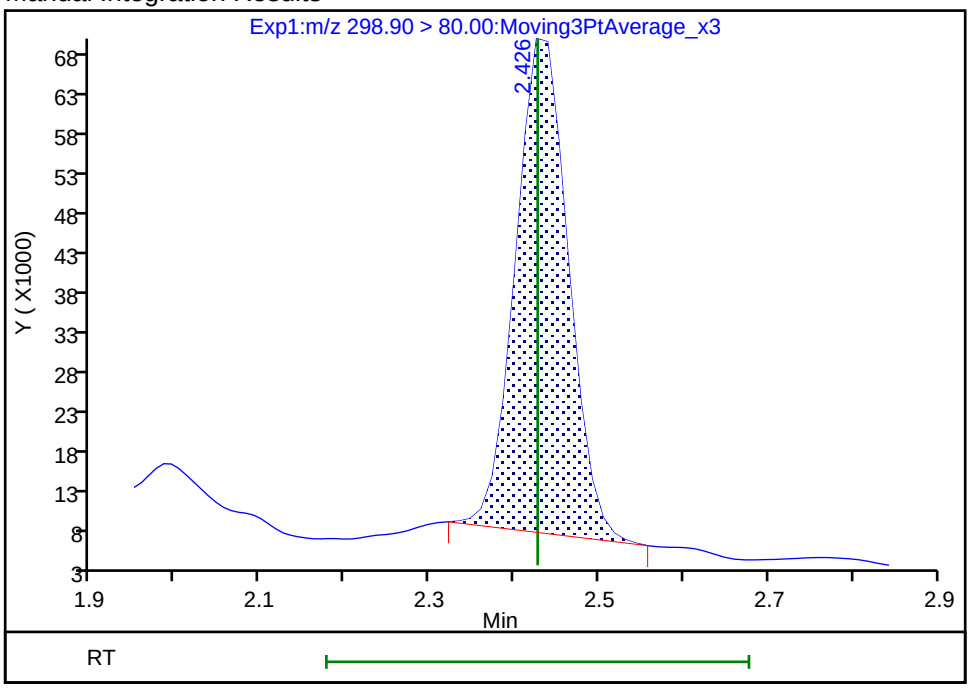
Processing Integration Results

RT: 2.43
Area: 350745
Amount: 0.300081
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 269721
Amount: 0.230761
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

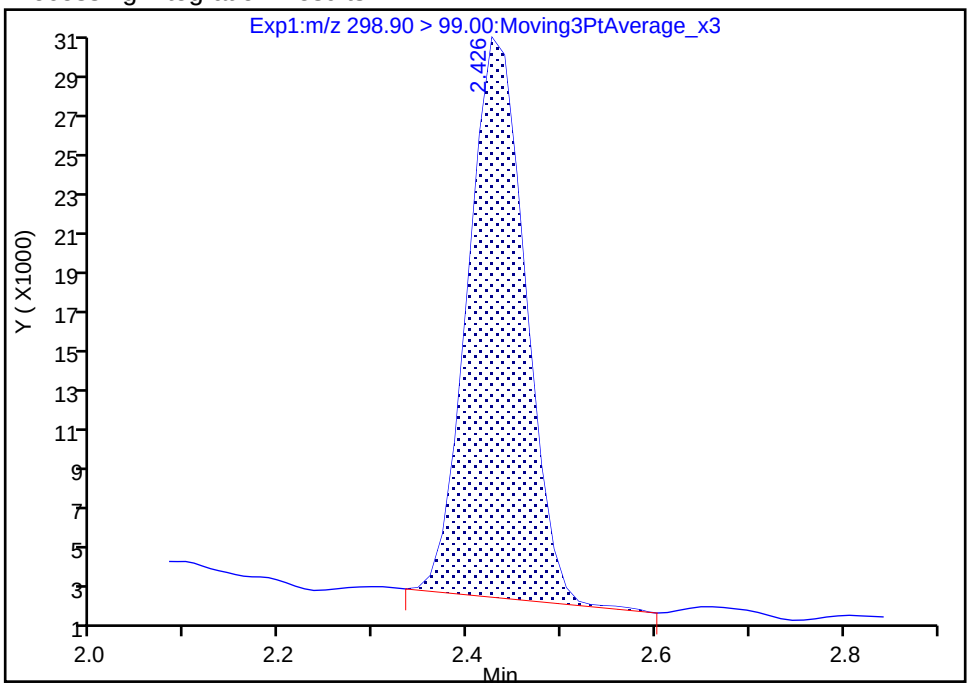
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

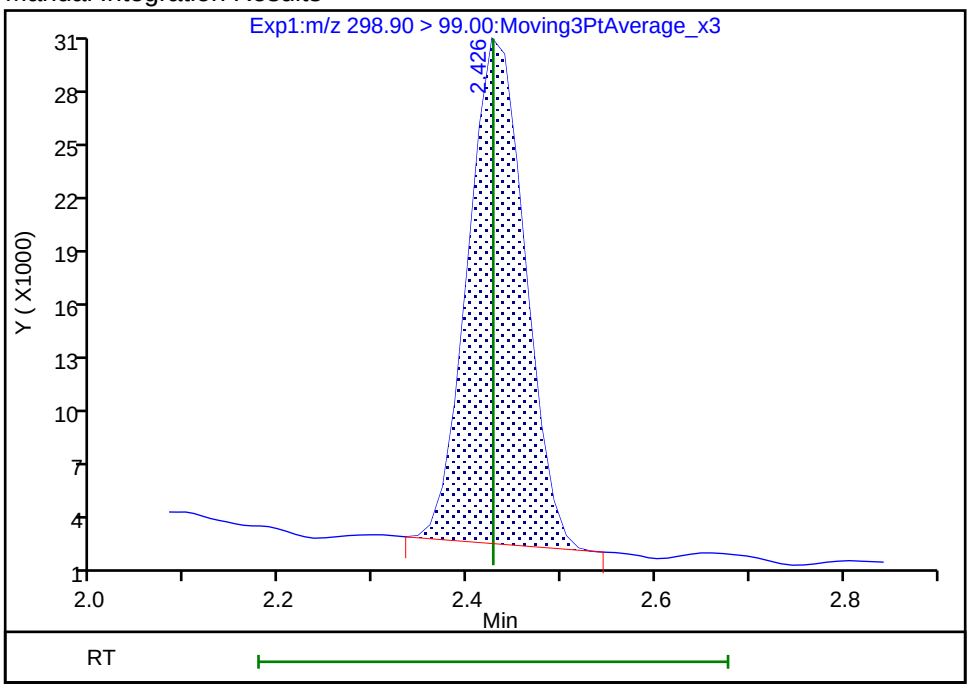
Processing Integration Results

RT: 2.43
Area: 120632
Amount: 0.300081
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 119676
Amount: 0.230761
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

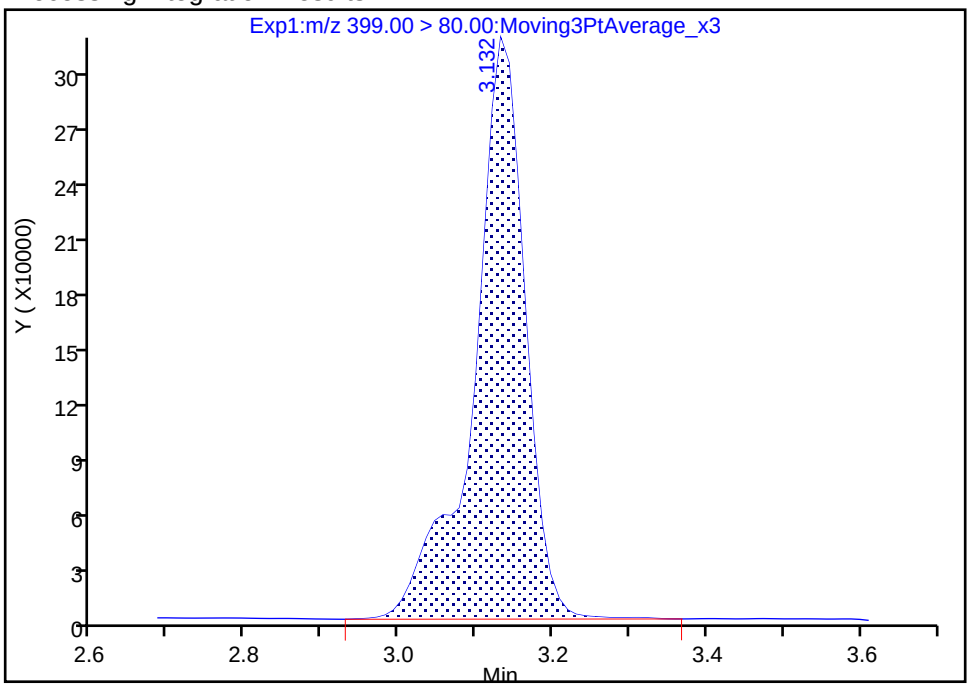
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

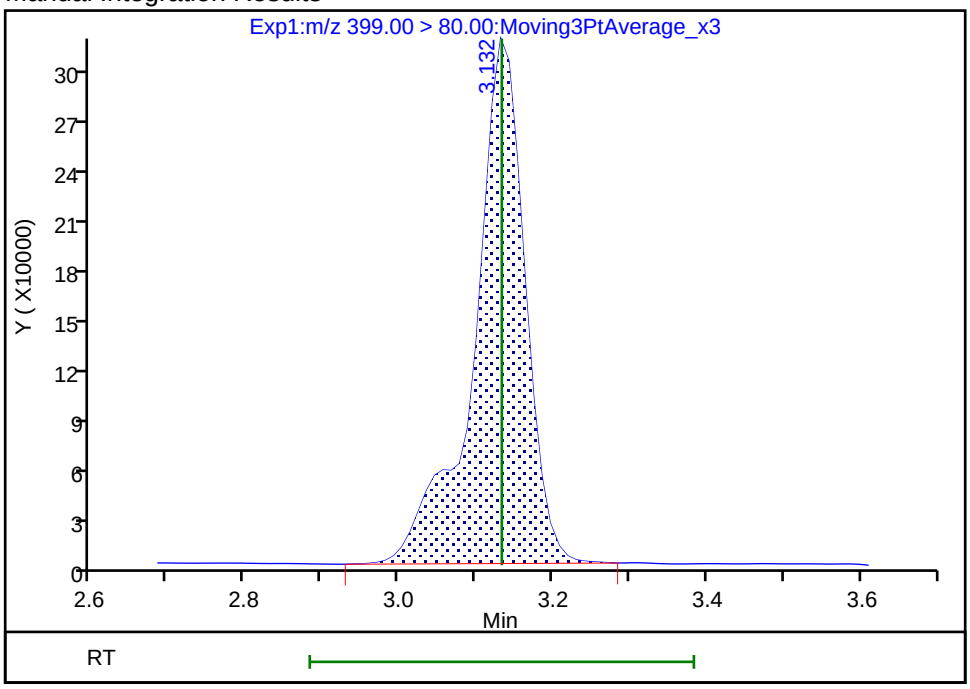
Processing Integration Results

RT: 3.13
Area: 1444834
Amount: 1.650494
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1436557
Amount: 1.641038
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

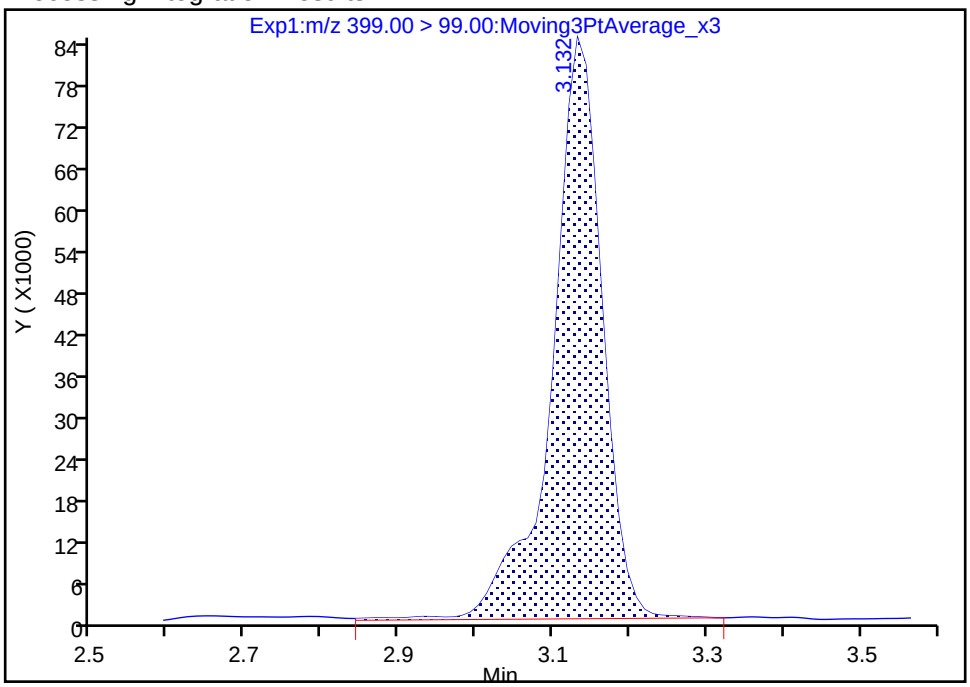
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

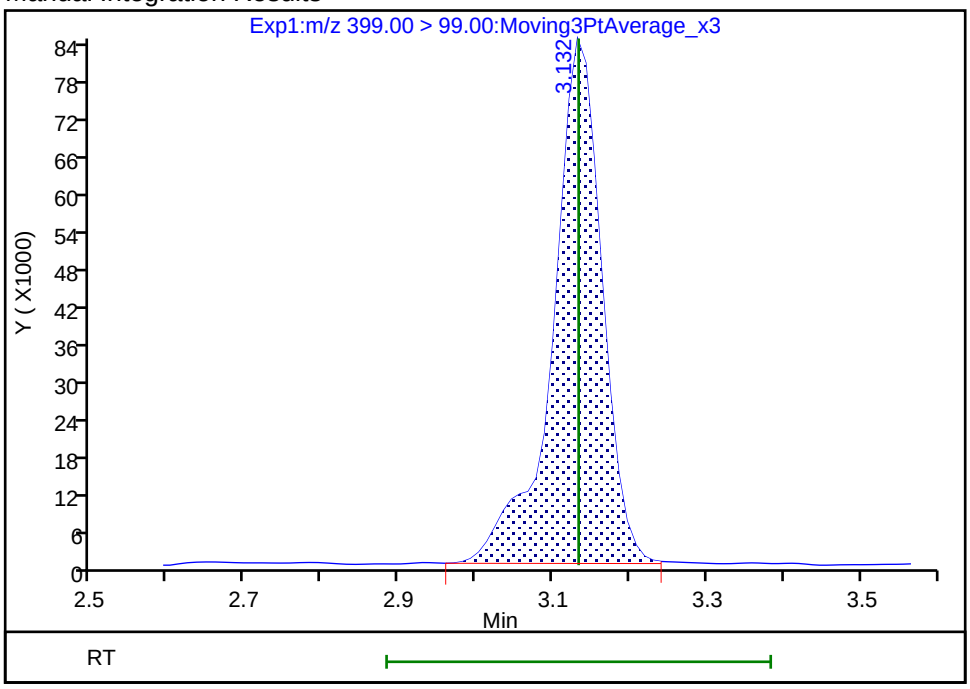
Processing Integration Results

RT: 3.13
Area: 379249
Amount: 1.650494
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 372273
Amount: 1.641038
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

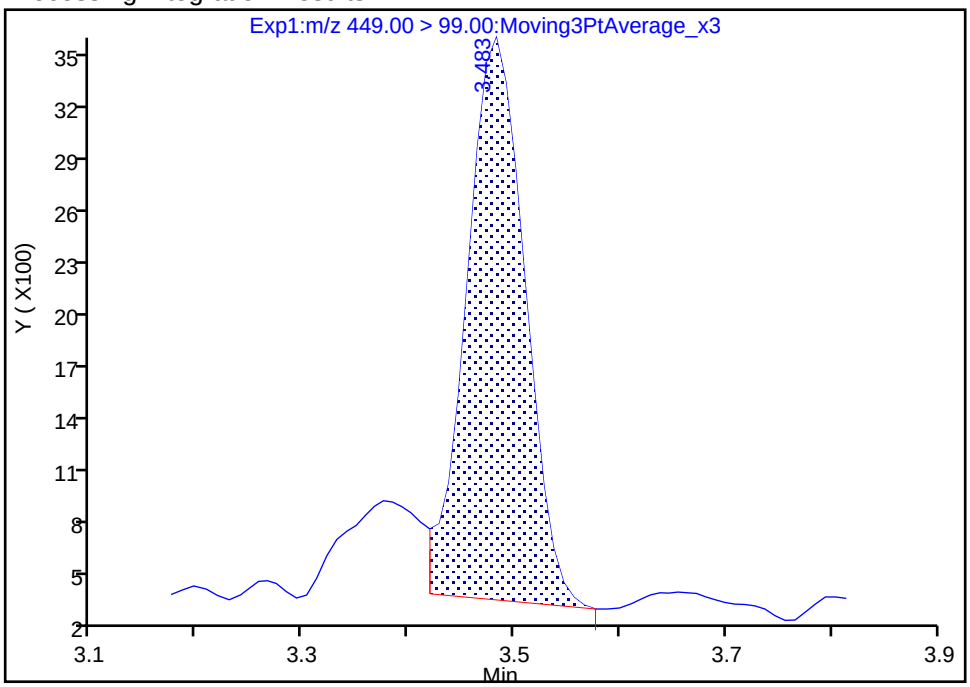
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

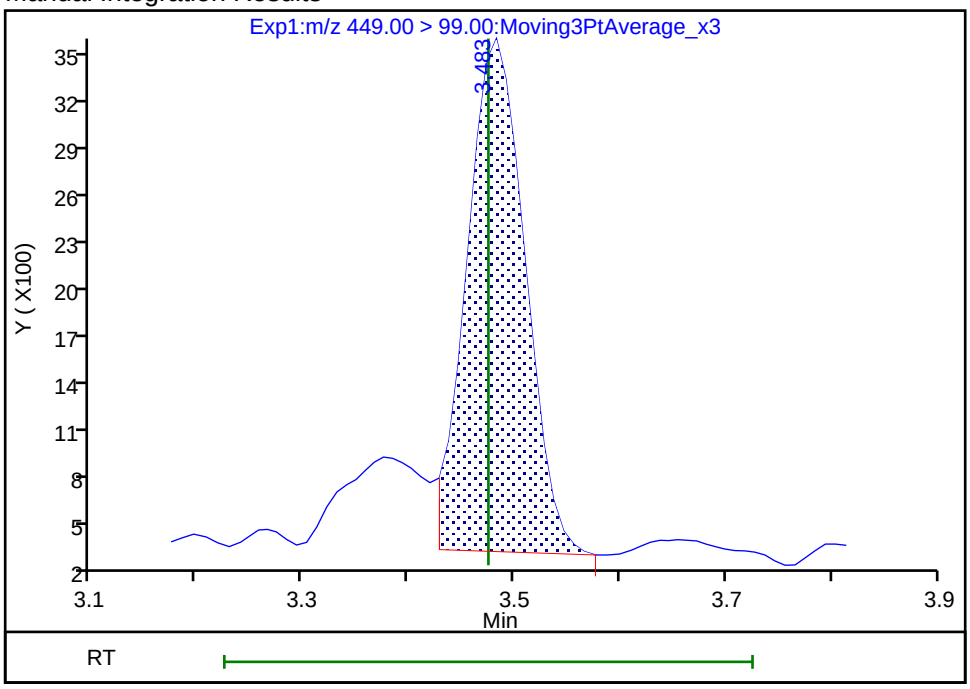
Processing Integration Results

RT: 3.48
Area: 12347
Amount: 0.070893
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 12350
Amount: 0.061913
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

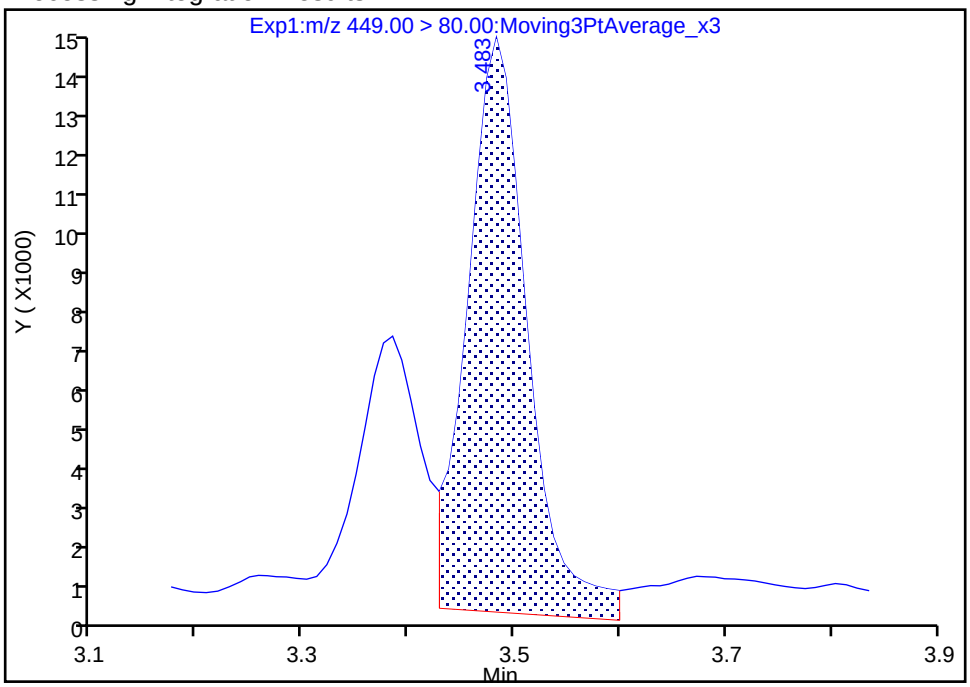
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

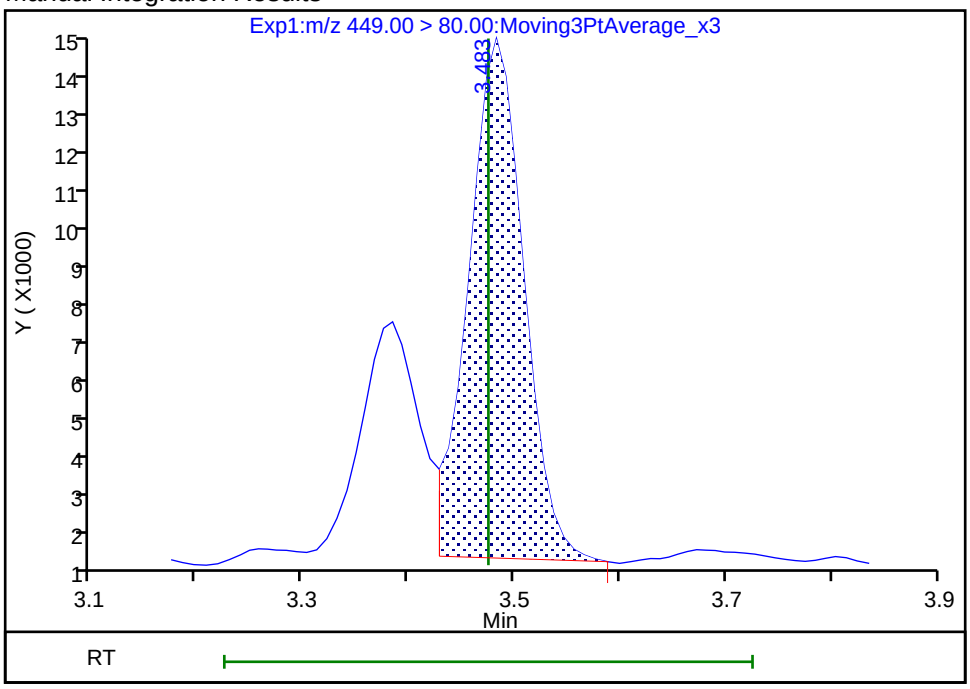
Processing Integration Results

RT: 3.48
Area: 52056
Amount: 0.070893
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 45462
Amount: 0.061913
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:44:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

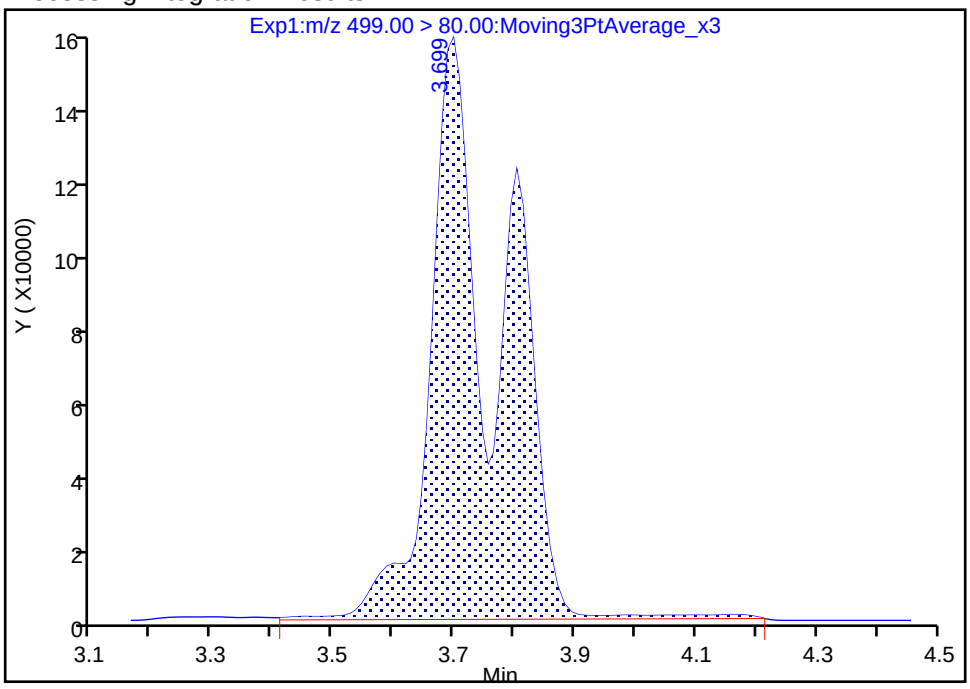
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

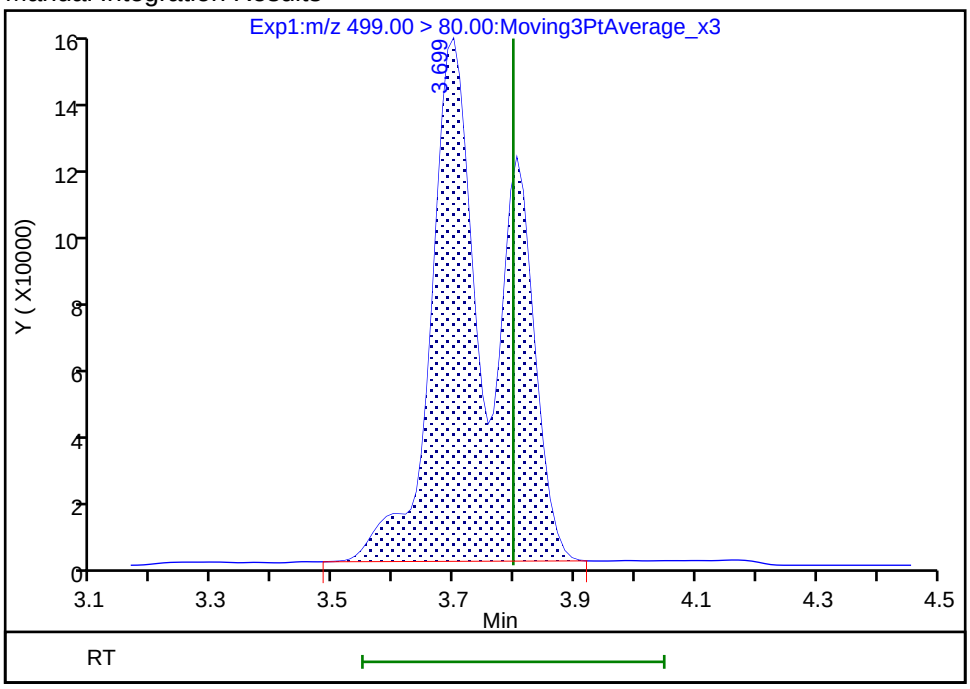
Processing Integration Results

RT: 3.70
Area: 1224939
Amount: 1.916598
Amount Units: ng/ml




Manual Integration Results

RT: 3.70
Area: 1182395
Amount: 1.850032
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:45:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

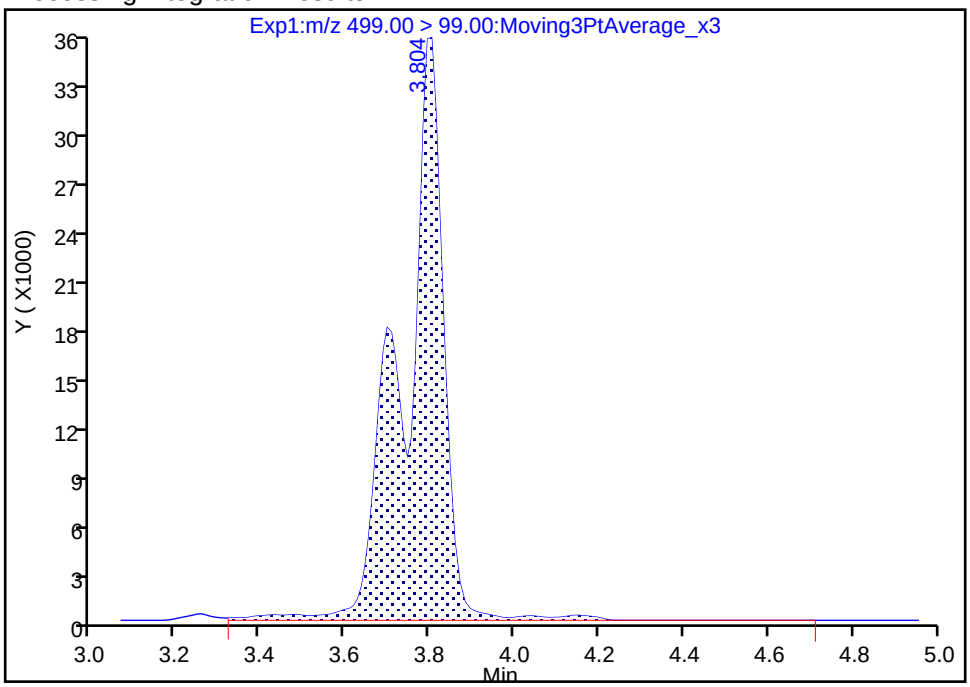
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

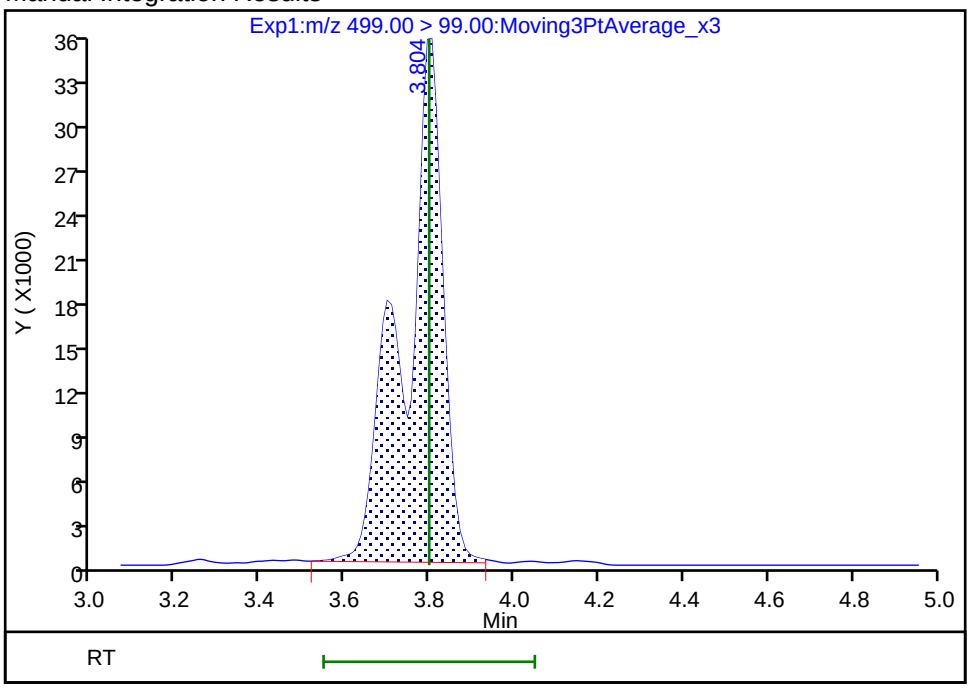
Processing Integration Results

RT: 3.80
Area: 233686
Amount: 1.916598
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 221715
Amount: 1.850032
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:45:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

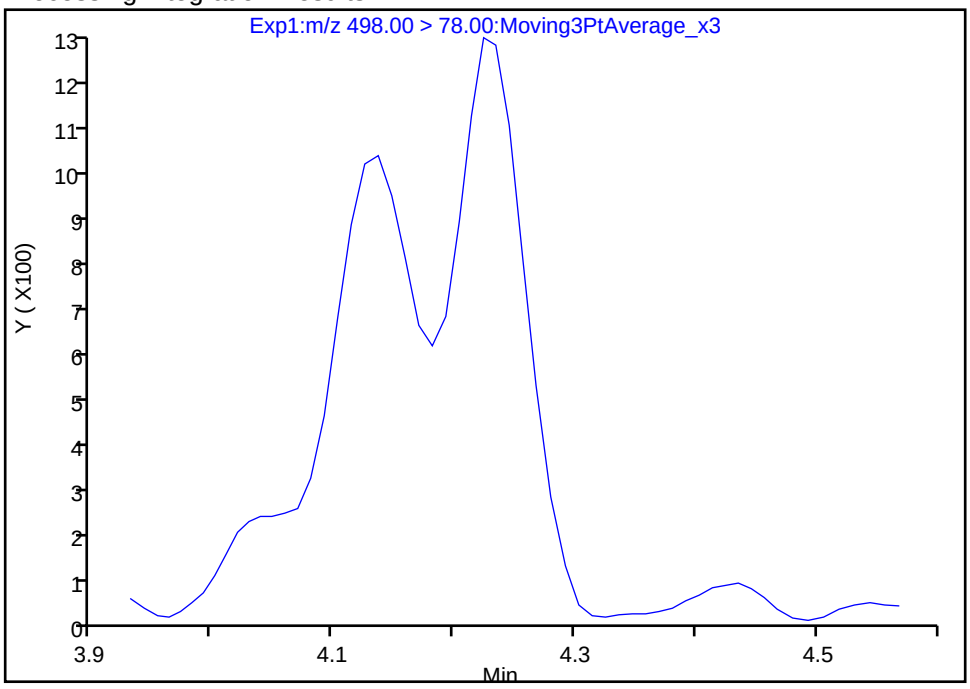
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

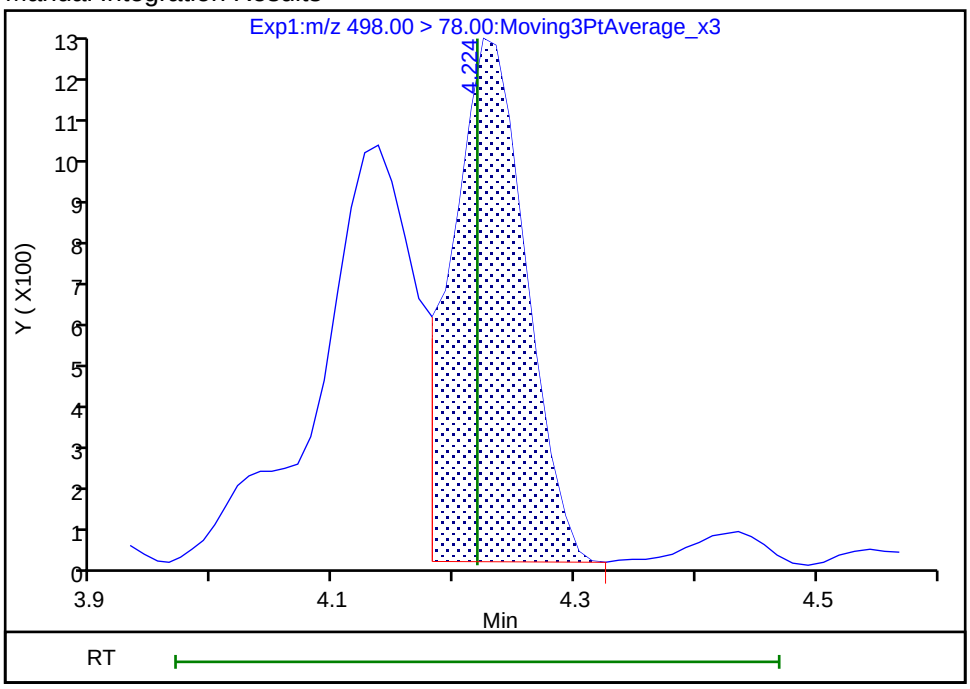
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 5191
Amount: 0.006980
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:45:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

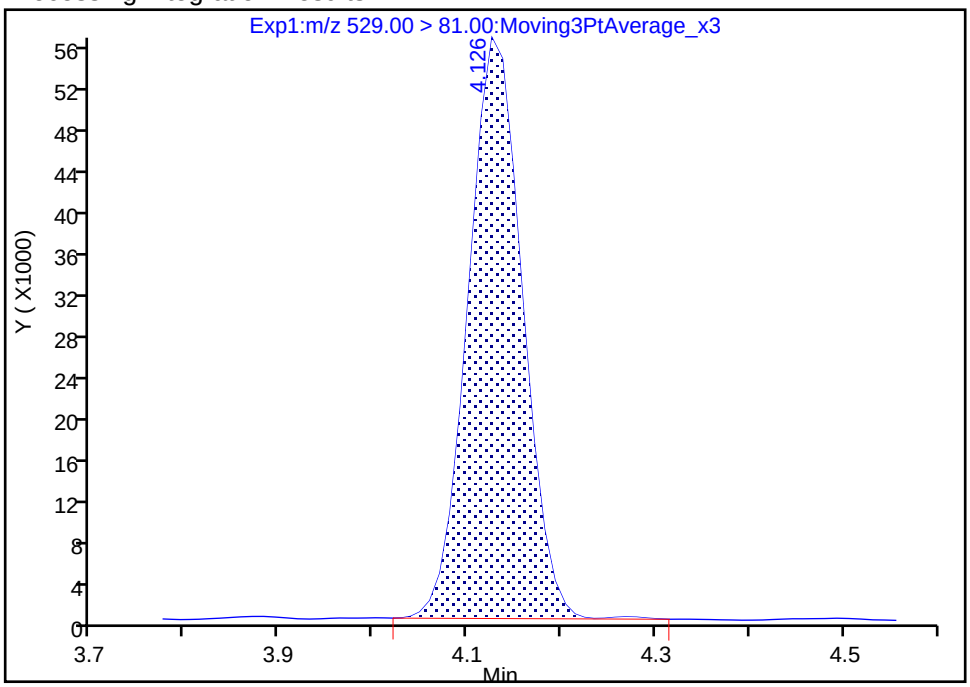
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A21.d | | | | |
| Injection Date: | 10-Nov-2021 14:06:20 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-30-A | Lab Sample ID: | 200-246277-30 | | |
| Client ID: | AMW-7-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 18 | Worklist Smp#: | 21 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

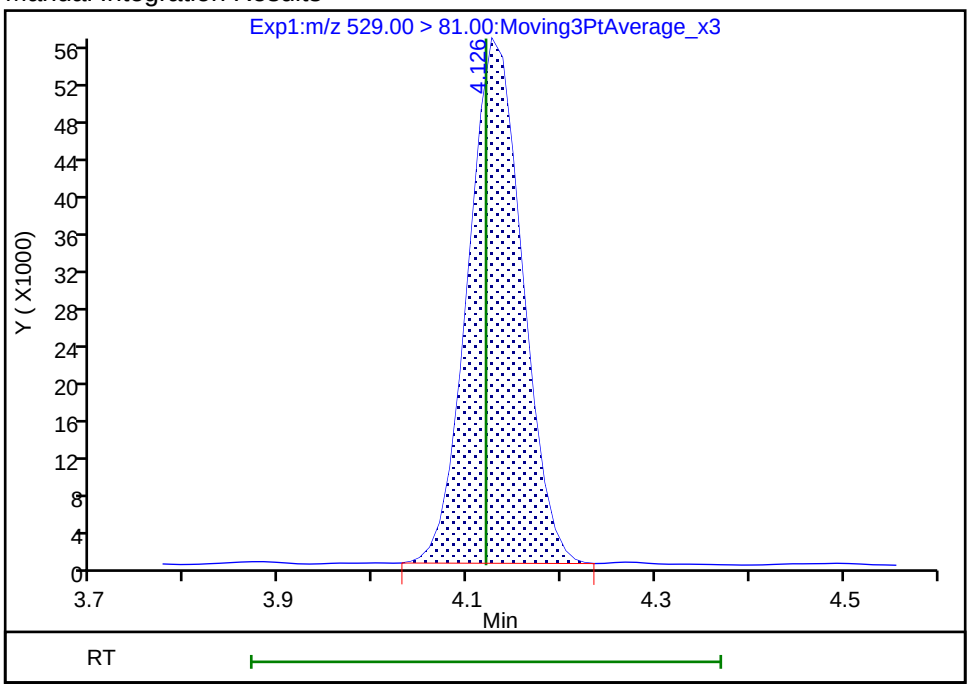
Processing Integration Results

RT: 4.13
Area: 225684
Amount: 1.503577
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 224761
Amount: 1.497428
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:43:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-10-20211029  Lab Sample ID: 460-246277-31

Matrix: Water  Lab File ID: PA211110A22.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:55

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 271.7(mL)  Date Analyzed: 11/10/2021 14:14

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 11.2 | | 4.60 | 0.82 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 9.08 | | 1.84 | 0.44 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 28.5 | | 1.84 | 0.42 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 5.93 | | 1.84 | 0.22 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 21.9 | | 1.84 | 0.39 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 2.25 | | 1.84 | 0.26 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 1.55 | J | 1.84 | 0.28 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.32 | U | 1.84 | 0.32 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.35 | U | 1.84 | 0.35 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.40 | U | 1.84 | 0.40 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.58 | U | 1.84 | 0.58 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 22.6 | B | 1.84 | 0.23 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 200 | | 1.84 | 0.28 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 12.3 | | 1.84 | 0.22 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.28 | U | 1.84 | 0.28 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.53 | U | 1.84 | 0.53 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.83 | U | 4.60 | 0.83 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.68 | U | 4.60 | 0.68 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.01 | U | 4.60 | 1.01 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.36 | U | 1.84 | 0.36 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-10-20211029  Lab Sample ID: 460-246277-31

Matrix: Water  Lab File ID: PA211110A22.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:55

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 271.7(mL)  Date Analyzed: 11/10/2021 14:14

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 99 | | 50-150 |
| STL01892 | 13C4 PFHpA | 100 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 96 | | 50-150 |
| STL00992 | 13C4 PFBA | 79 | | 25-150 |
| STL00993 | 13C2 PFHxA | 101 | | 50-150 |
| STL00996 | 13C2 PFDA | 94 | | 50-150 |
| STL00997 | 13C2 PFUnA | 96 | | 50-150 |
| STL00998 | 13C2 PFDoA | 88 | | 50-150 |
| STL01056 | 13C8 FOSA | 85 | | 25-150 |
| STL01893 | 13C5 PFPeA | 93 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 93 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 105 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 117 | | 50-150 |
| STL02279 | M2-6:2 FTS | 126 | | 25-150 |
| STL02280 | M2-8:2 FTS | 127 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d
Lims ID: 460-246277-C-31-A
Client ID: AMW-10-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 14:14:31 ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-31-A
Misc. Info.: 200-0048360-022 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:50:17
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1254468 | 0.9864 | | 78.9 | 1112 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 288959 | 0.3045 | | | 14.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1245054 | 1.16 | | 93.0 | 473 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 246278 | 0.2468 | | | 1.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1572896 | 1.09 | | 93.3 | 25020 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 886640 | 0.6135 | Target=2.32 | | 24.4 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 403653 | | 2.20(1.16-3.48) | | 37.9 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1414355 | 1.26 | | 101 | 1641 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 889728 | 0.7753 | Target=12.09 | | 11.5 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 62891 | | 14.15(6.04-18.13) | | 30.9 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 6272107 | 5.45 | Target=3.55 | | 613 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1617987 | | 3.88(1.77-5.32) | | 619 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1238506 | 1.18 | | 99.4 | 2463 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1484552 | 1.25 | | 100 | 2383 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 197602 | 0.1610 | Target=3.69 | | 6.1 | M |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 53447 | | 3.70(1.84-5.53) | | 45.6 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.913 | 316477 | 0.3339 | Target=4.88 | | 23.0 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 71681 | | 4.42(2.44-7.32) | | 29.4 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 925 | 0.003480 | | | 11.0 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 248941 | 1.50 | | 126 | 65.4 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1608101 | 1.24 | | 99.5 | 3209 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1570503 | 1.25 | | | 3842 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 813459 | 0.5946 | Target=2.68 | | 32.5 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 330733 | | 2.46(1.34-4.02) | | 361 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 908526 | 1.19 | | 99.9 | 326 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | EM |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 11299367 | 13.7 | Target=4.69 | | 1277 | EM |
| 499.00 > 99.00 | 3.794 | 3.798 | -0.004 | 0.997 | 2521998 | | 4.48(2.35-7.04) | | 1579 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1543626 | 1.20 | | 95.9 | 2958 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.003 | 73845 | 0.0611 | Target=7.29 | | 5.8 | |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 10426 | | 7.08(3.64-10.93) | | 20.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1528590 | 1.18 | | 94.1 | 4342 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 51852 | 0.0422 | Target=8.95 | | 8.7 | M |
| 513.00 > 169.00 | 4.126 | 4.108 | 0.018 | 1.003 | 6206 | | 8.36(4.47-13.42) | | 18.7 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 287331 | 1.53 | | 127 | 165 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.120 | -0.005 | 0.997 | 320 | 0.001594 | | | 5.9 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.210 | 1338063 | 1.07 | | 85.4 | 3549 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.000 | 6465 | 0.006359 | | | 5.3 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 167898 | 1.31 | | 105 | 894 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.268 | 4.251 | 0.017 | 1.003 | 468 | 0.004435 | | | 2.1 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.251 | 1216319 | 1.20 | | 96.1 | 5500 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.347 | 4.375 | -0.028 | 0.995 | 2563 | 0.002471 | Target=9.24 | | 1.4 | M |
| 563.00 > 169.00 | 4.347 | 4.375 | -0.028 | 0.995 | 494 | | 5.19(4.62-13.86) | | 2.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.254 | 174979 | 1.46 | | 117 | 916 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.003 | 910 | 0.007587 | | | 4.1 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1198813 | 1.10 | | 88.0 | 2634 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | RM |
| 613.00 > 569.00 | 4.612 | 4.598 | 0.014 | 1.002 | 2287 | 0.002436 | Target=7.04 | | 0.5 | R |
| 613.00 > 169.00 | 4.622 | 4.598 | 0.024 | 1.005 | 182 | | 12.57(3.52-10.56) | | 2.0 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.043 | 715 | 0.000883 | Target=4.68 | | 0.3 | M |
| 663.00 > 169.00 | 4.801 | 4.799 | 0.002 | 1.043 | 189 | | 3.78(2.34-7.02) | | 4.1 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 983884 | 1.16 | | 93.1 | 1859 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.002 | 130 | 0.001046 | Target=1.01 | | 3.7 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 160 | | 0.81(0.51-1.52) | | 2.8 | M |

## QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- E - Exceeded Maximum Amount

Review Flags
- M - Manually Integrated

Report Date: 11-Nov-2021 12:40:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d

Injection Date: 10-Nov-2021 14:14:31 Instrument ID: LC812

Lims ID: 460-246277-C-31-A Lab Sample ID: 200-246277-31

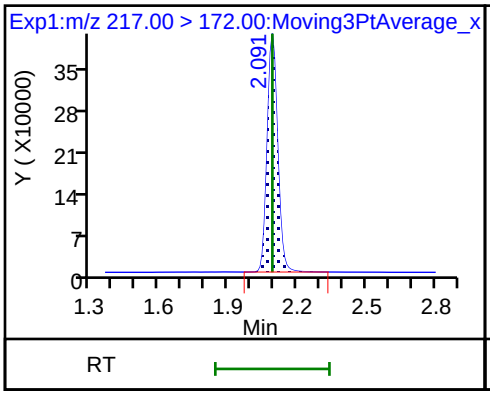
Client ID: AMW-10-20211029

Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22

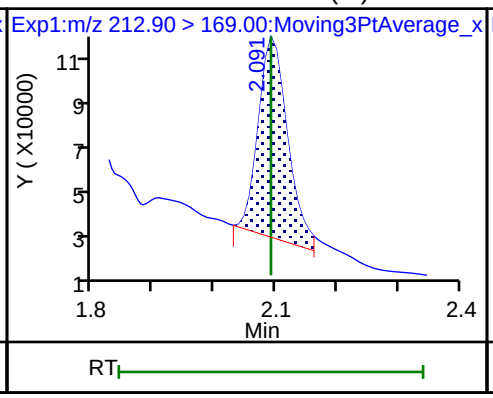
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

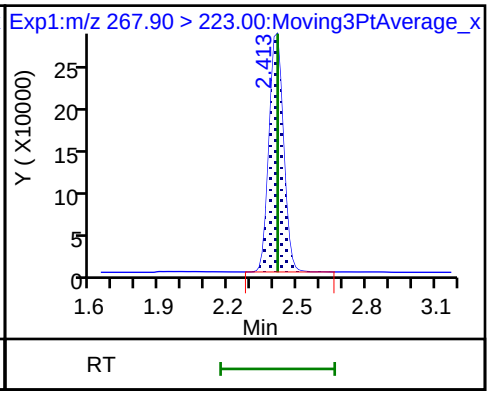
D 1 13C4 PFBA



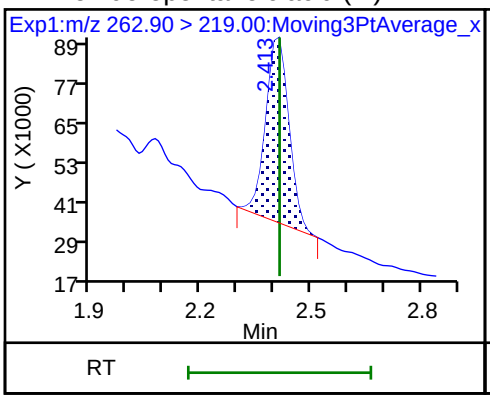

2 Perfluorobutanoic acid (M)



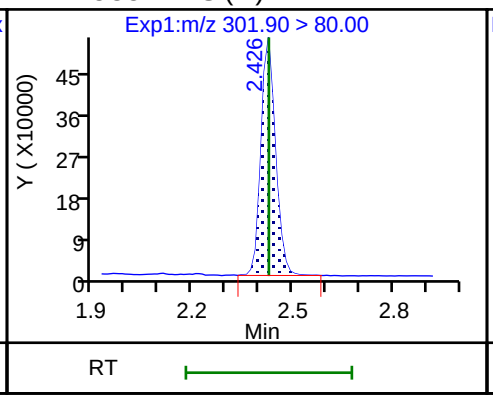

D 3 13C5 PFPeA



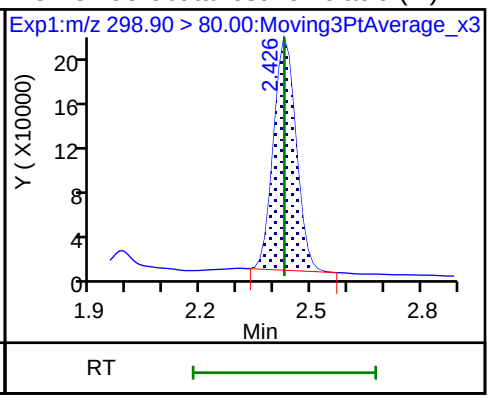

4 Perfluoropentanoic acid (M)



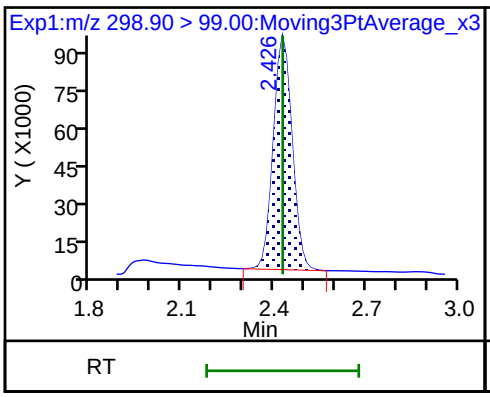

D 47 13C3 PFBS (M)



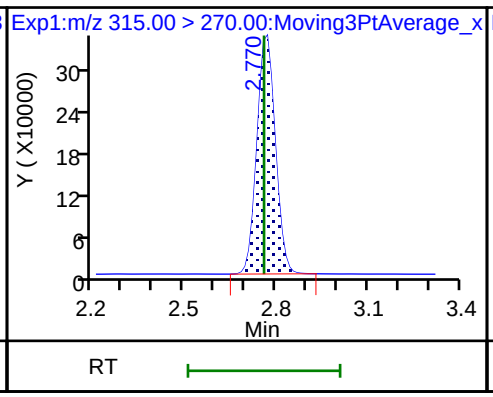

5 Perfluorobutanesulfonic acid (M)



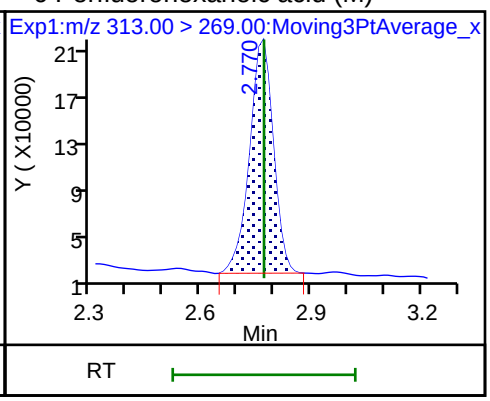

5 Perfluorobutanesulfonic acid



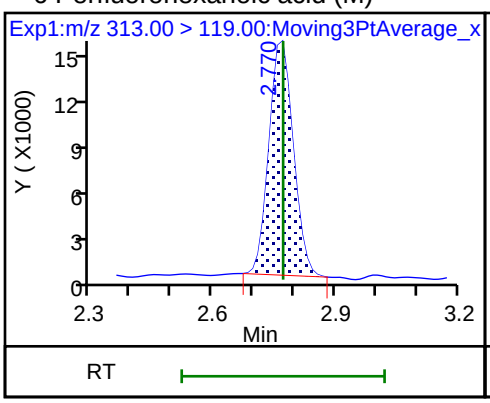

D 7 13C2 PFHxA



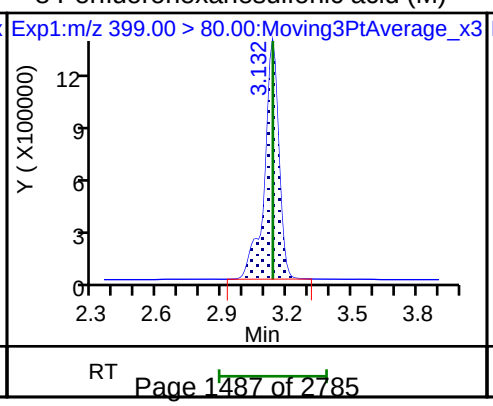

6 Perfluorohexanoic acid (M)



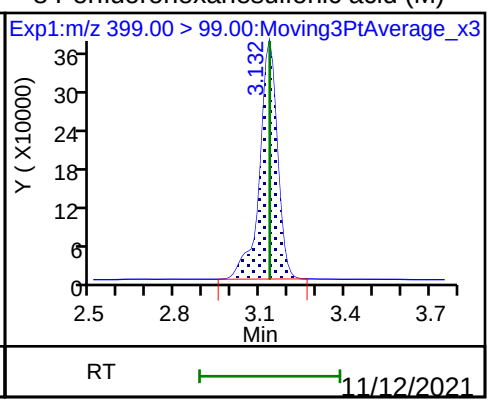

6 Perfluorohexanoic acid (M)



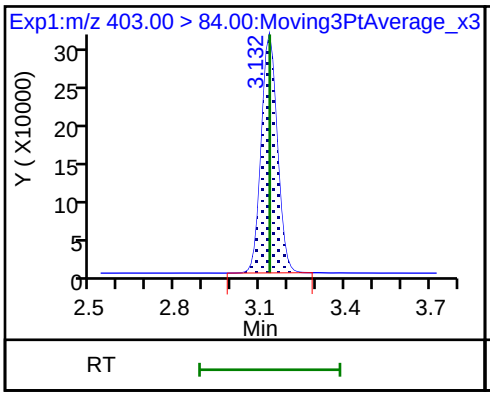

8 Perfluorohexanesulfonic acid (M)



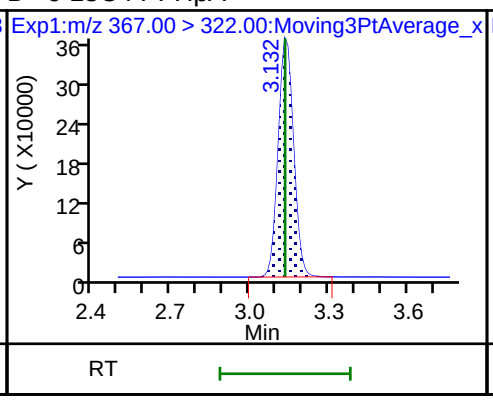

8 Perfluorohexanesulfonic acid (M)



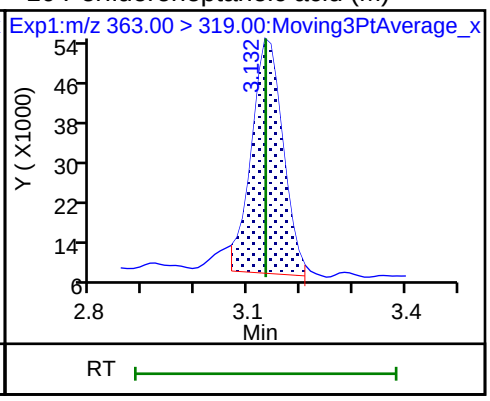
D 11 18O2 PFHxS



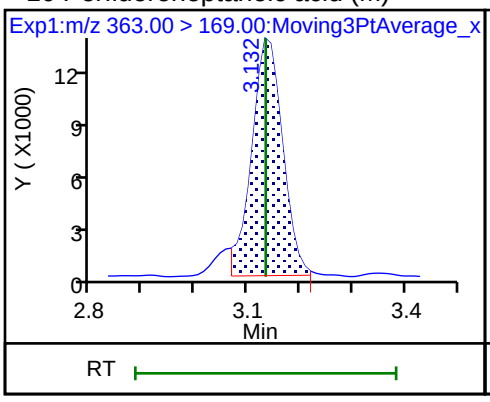

D 9 13C4 PFHpA



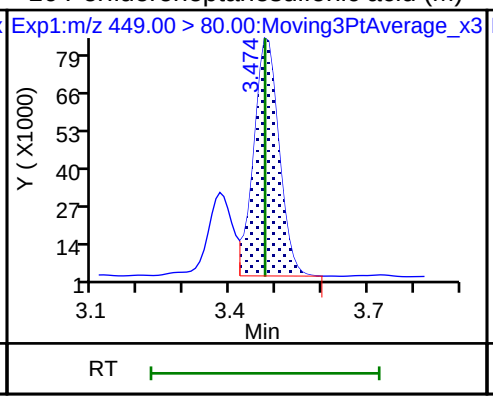

10 Perfluoroheptanoic acid (M)



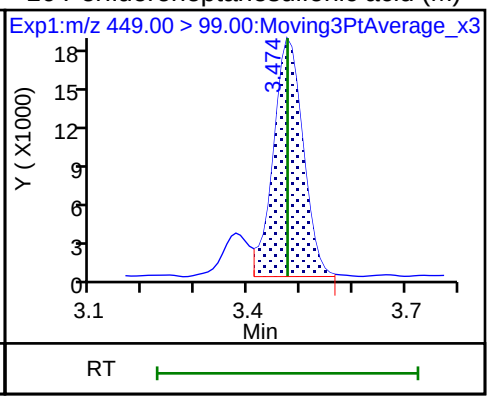

10 Perfluoroheptanoic acid (M)



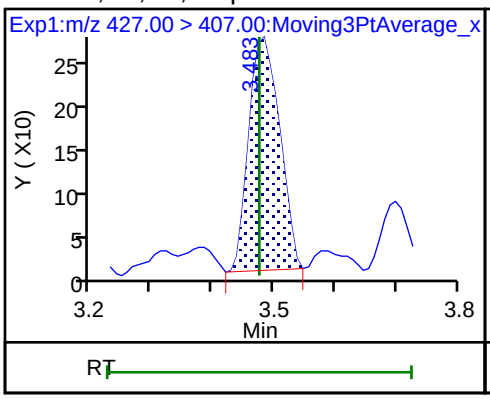

16 Perfluoroheptanesulfonic acid (M)



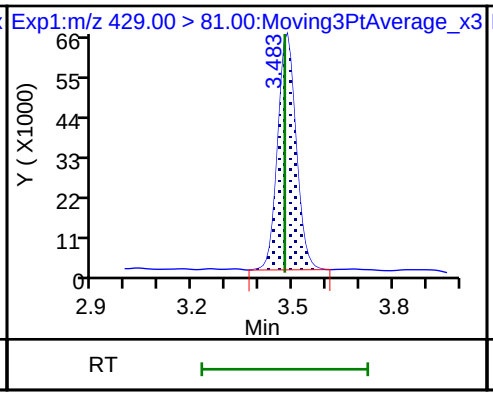

16 Perfluoroheptanesulfonic acid (M)



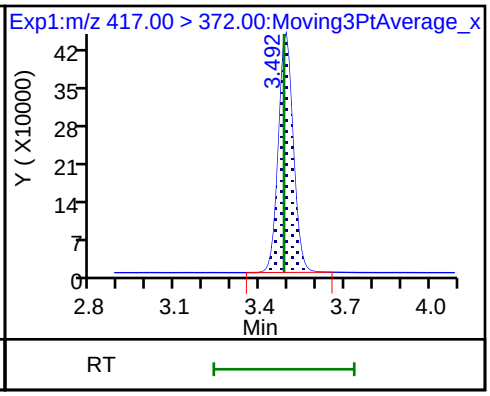

13 1H,1H,2H,2H-perfluorooctanesulfo



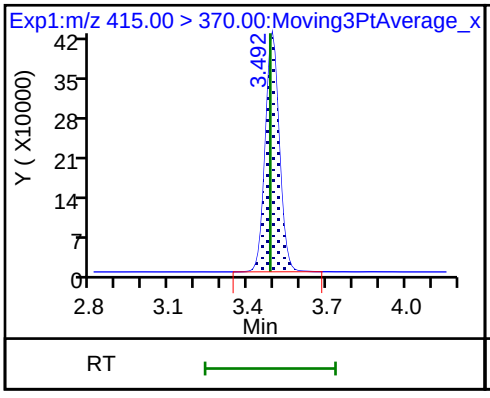

D 12 M2-6:2 FTS



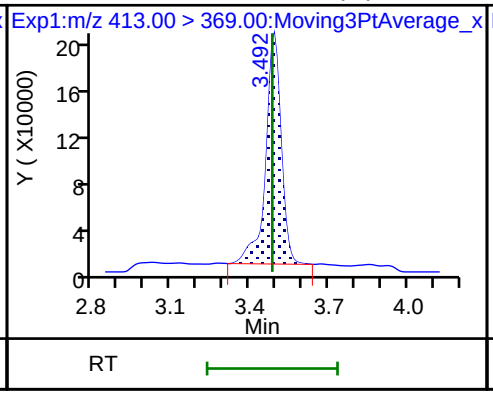

D 14 13C4 PFOA



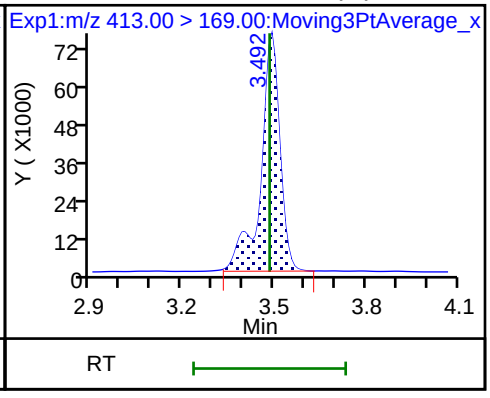

* 62 13C2 PFOA



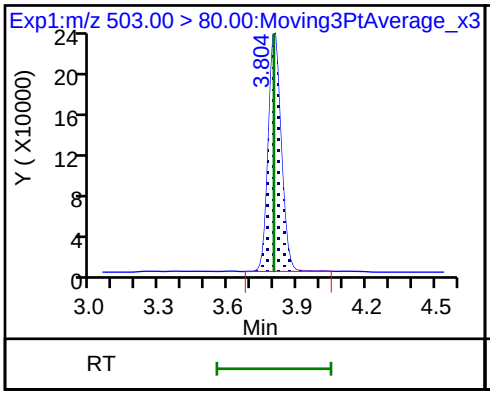

15 Perfluorooctanoic acid (M)



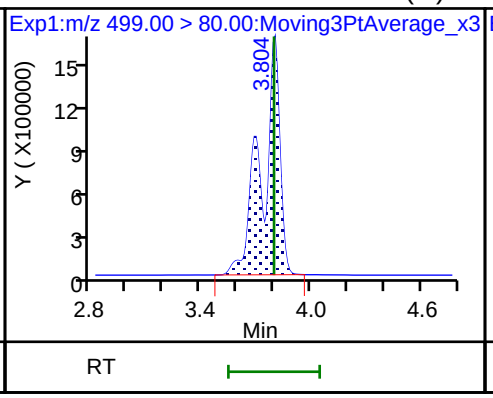

15 Perfluorooctanoic acid (M)



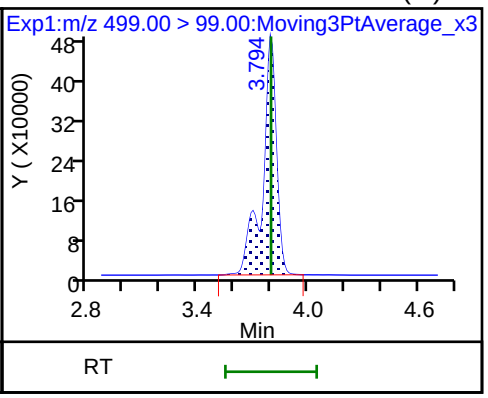
D 18 13C4 PFOS



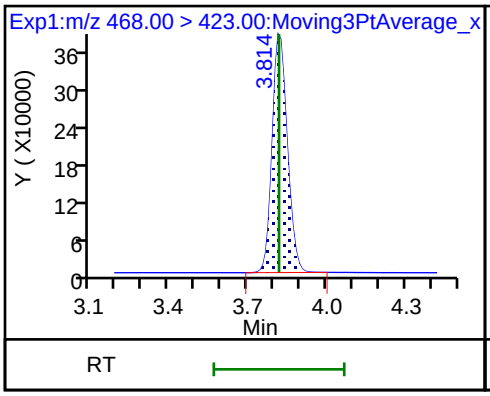

17 Perfluorooctanesulfonic acid (M)



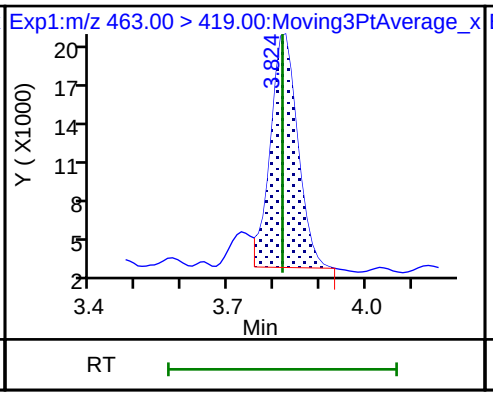

17 Perfluorooctanesulfonic acid (M)



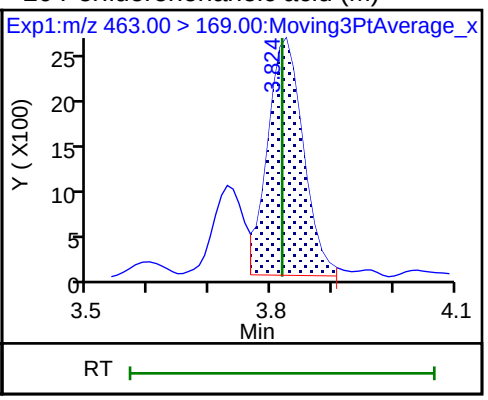

D 19 13C5 PFNA



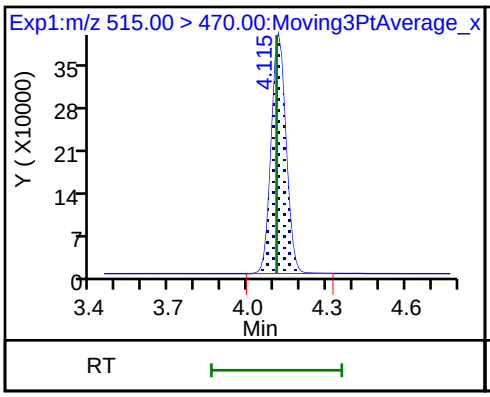

20 Perfluorononanoic acid



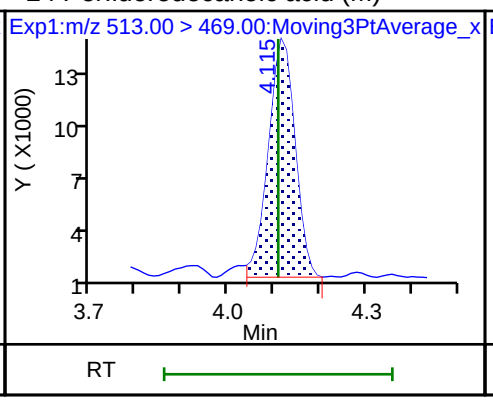

20 Perfluorononanoic acid (M)



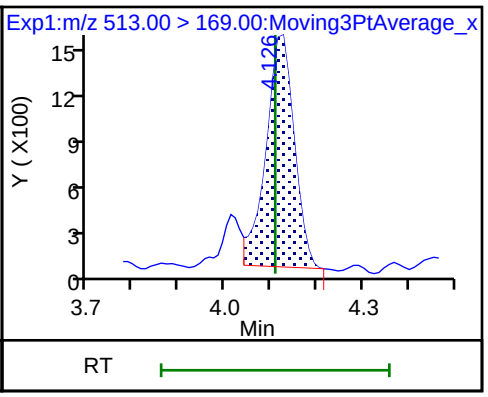

D 23 13C2 PFDA



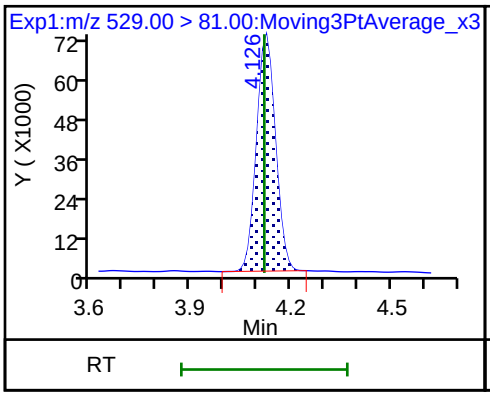

24 Perfluorodecanoic acid (M)



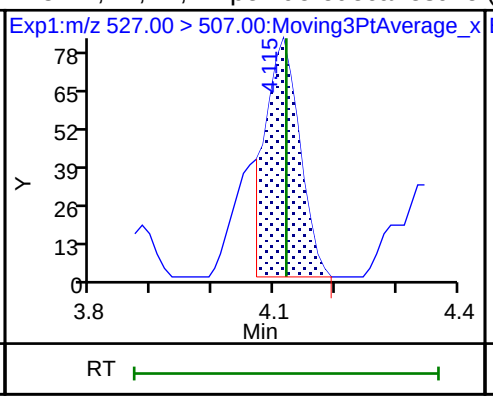

24 Perfluorodecanoic acid



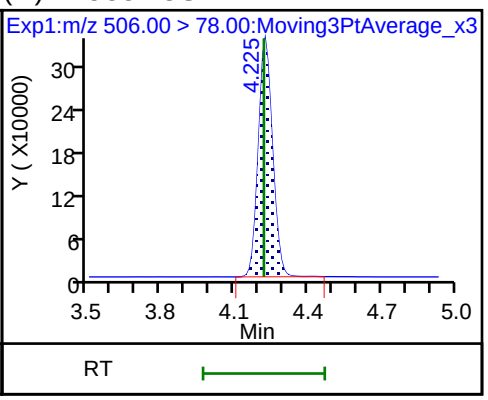

D 26 M2-8:2 FTS



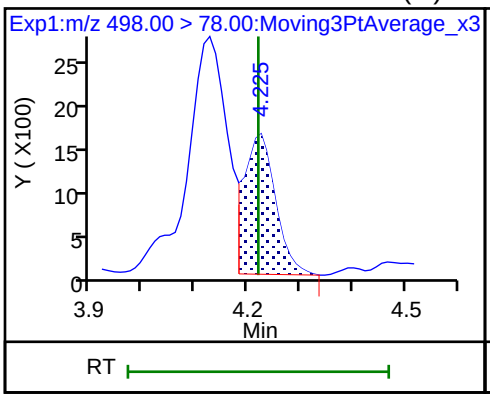

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



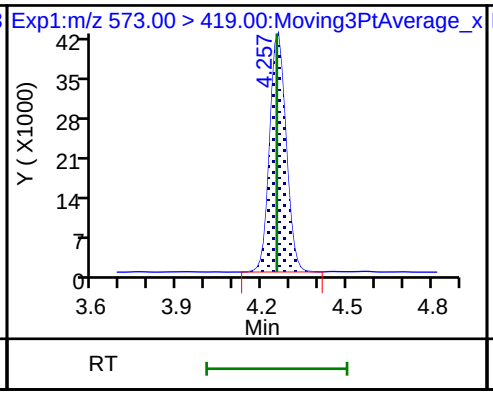

D 21 13C8 FOSA



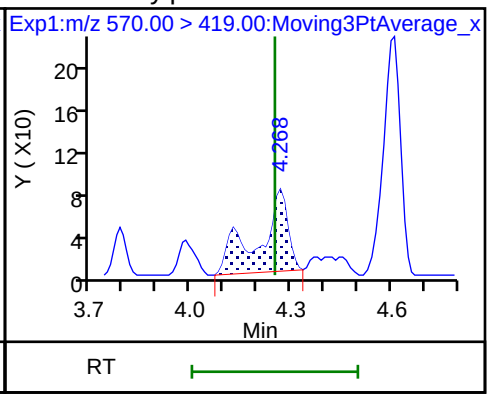
22 Perfluorooctanesulfonamide (M)



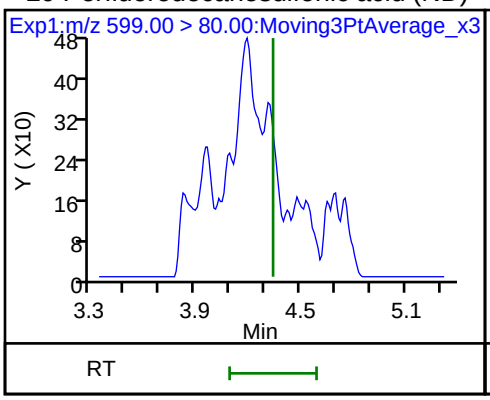

D 27 d3-NMeFOSAA



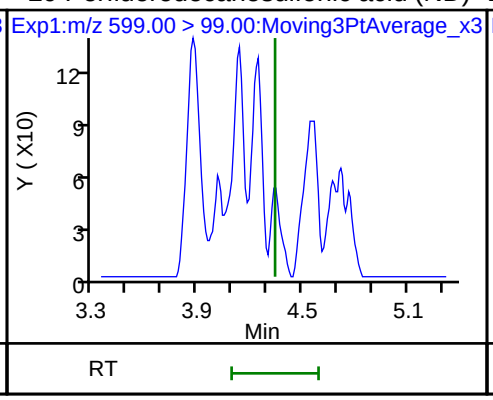

28 N-methylperfluorooctanesulfonami



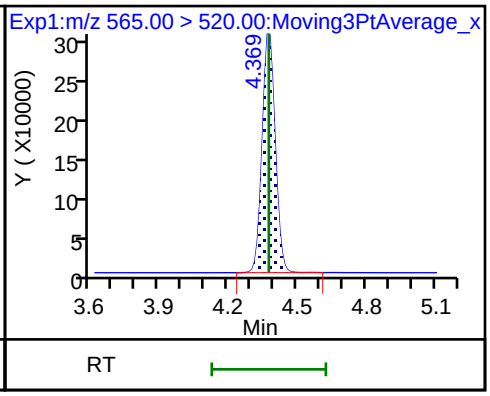

29 Perfluorodecanesulfonic acid (ND)



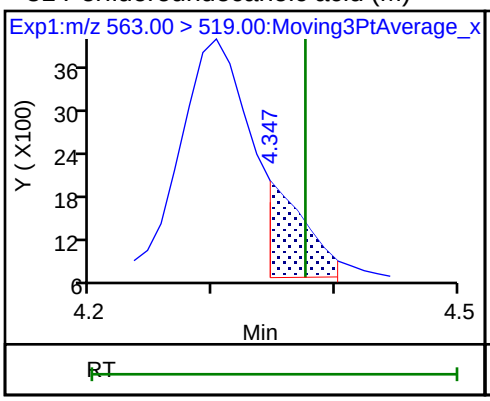

29 Perfluorodecanesulfonic acid (ND)



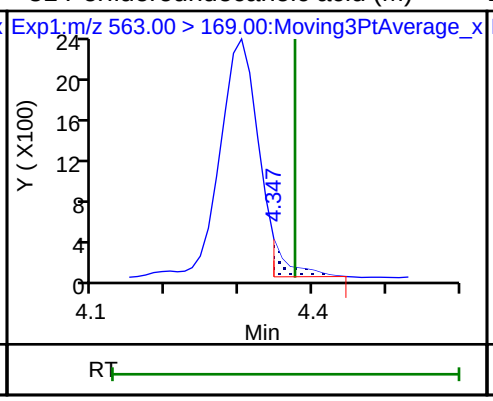

D 30 13C2 PFUnA



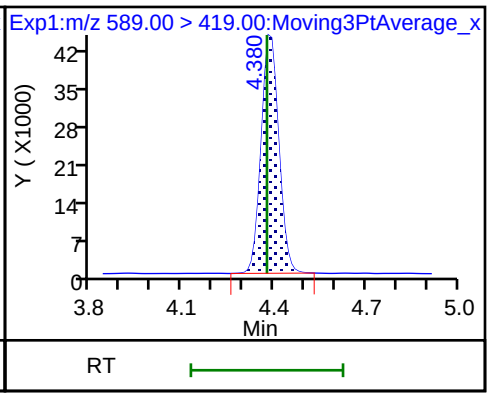

31 Perfluoroundecanoic acid (M)



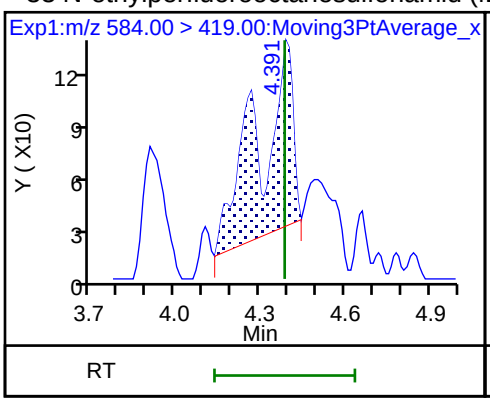

31 Perfluoroundecanoic acid (M)



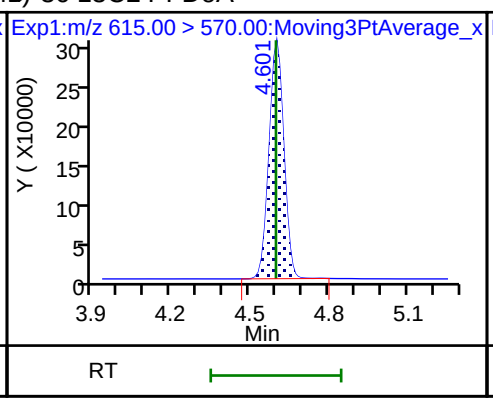

D 32 d5-NEtFOSAA



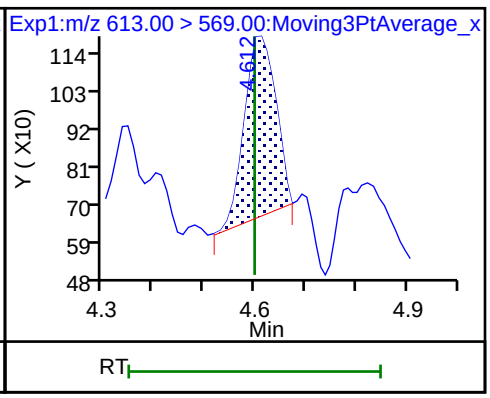

33 N-ethylperfluorooctanesulfonamid (ND)



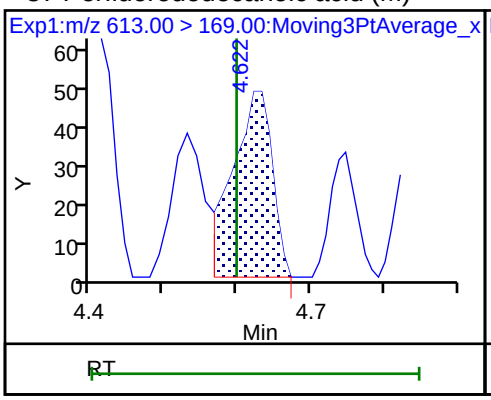

D 36 13C2 PFDoA



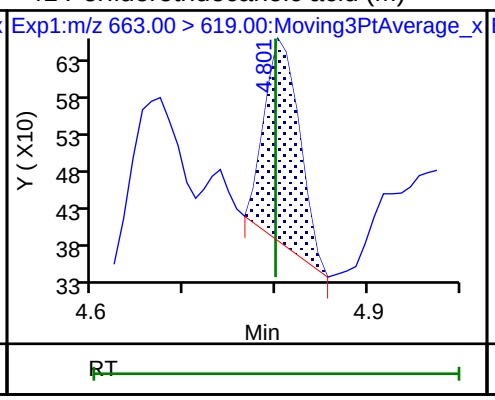

37 Perfluorododecanoic acid



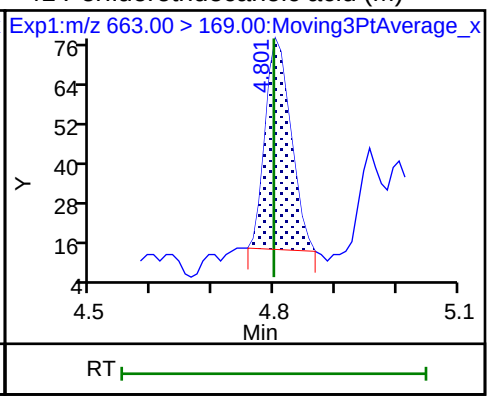
37 Perfluorododecanoic acid (M)



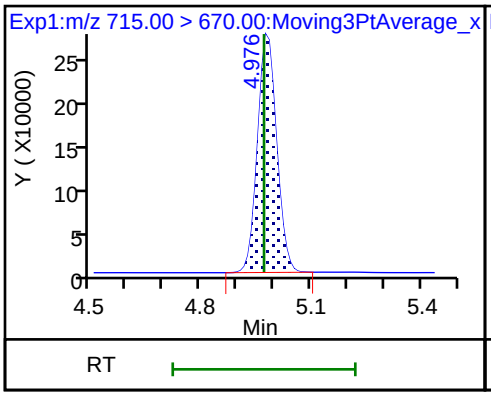

41 Perfluorotridecanoic acid (M)



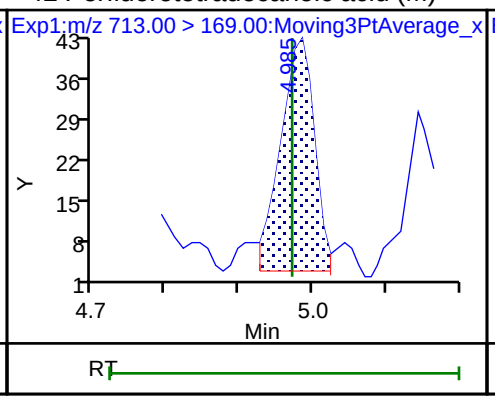

41 Perfluorotridecanoic acid (M)



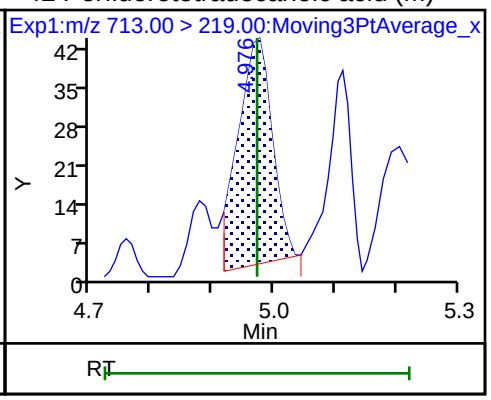

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

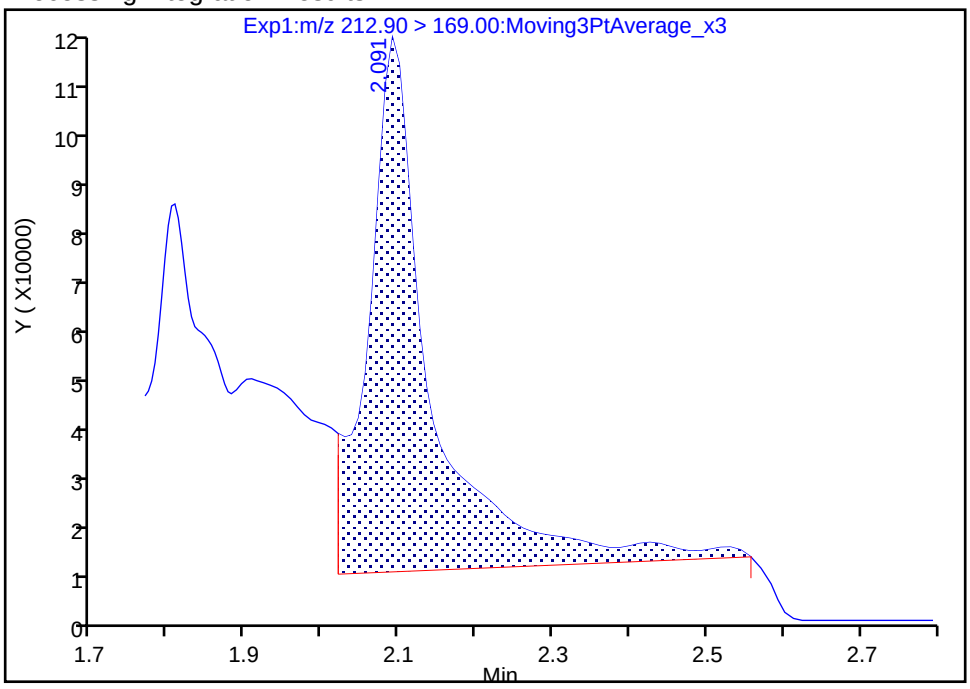
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

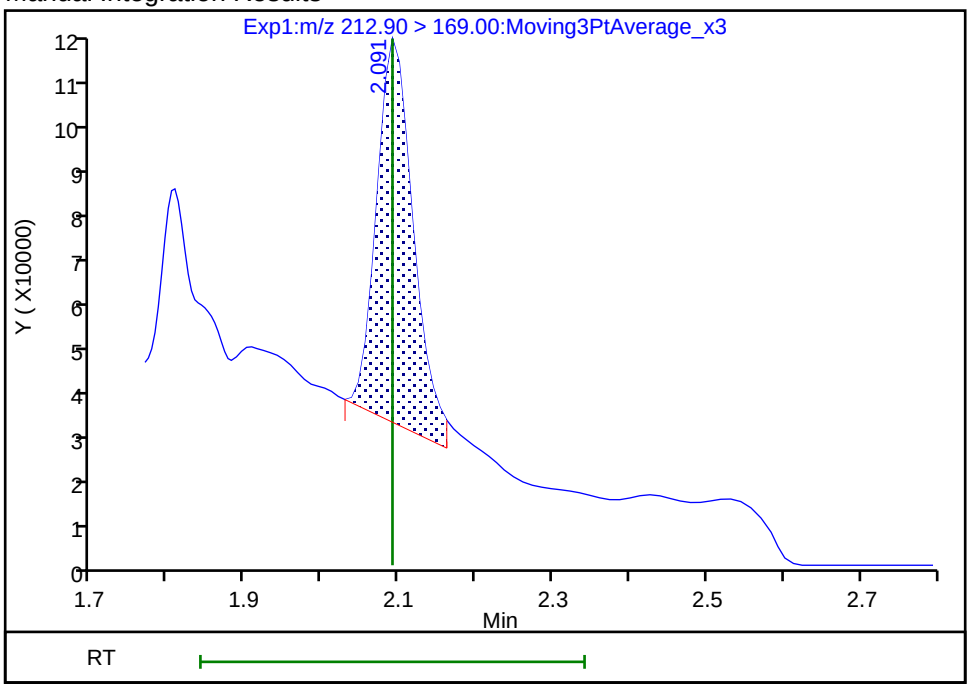
Processing Integration Results

RT: 2.09
Area: 631295
Amount: 0.665264
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 288959
Amount: 0.304508
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

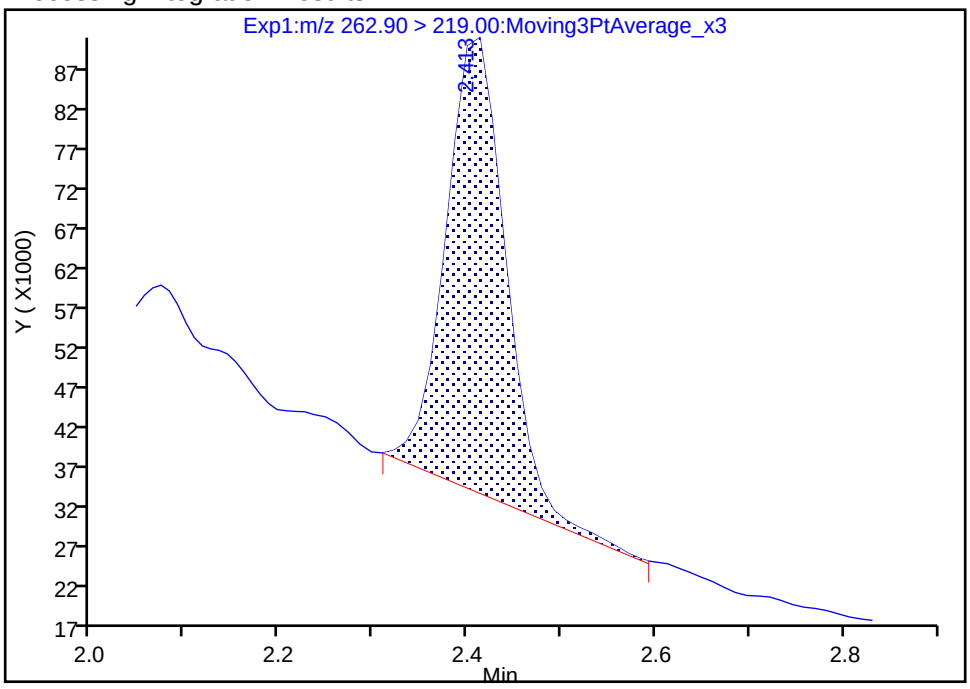
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 |
| Client ID: | AMW-10-20211029 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 Worklist Smp#: 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

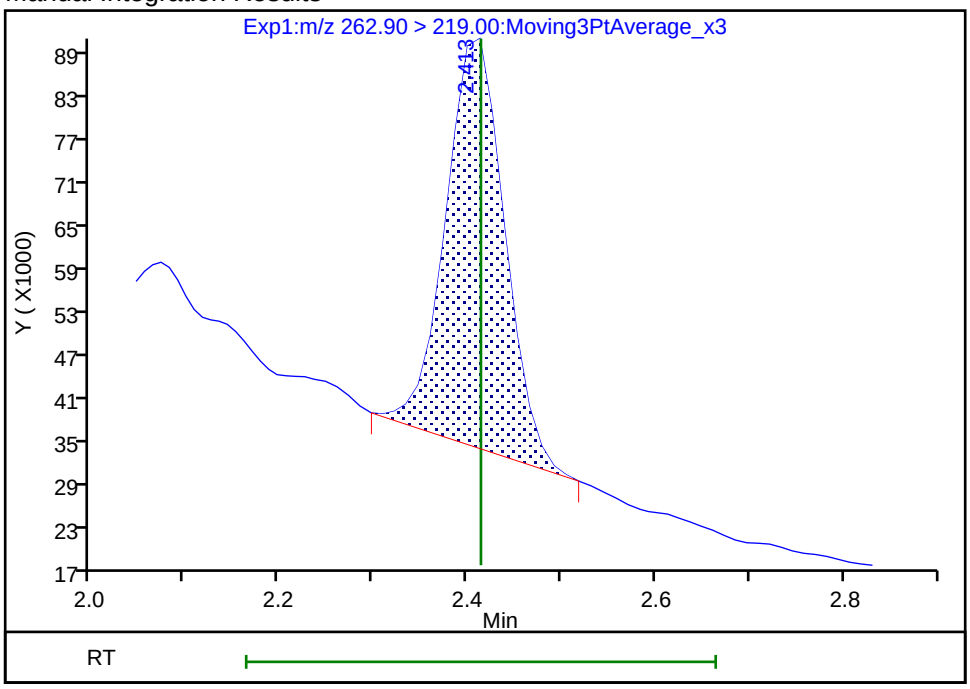
Processing Integration Results

RT: 2.41
Area: 251941
Amount: 0.252506
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 246278
Amount: 0.246830
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

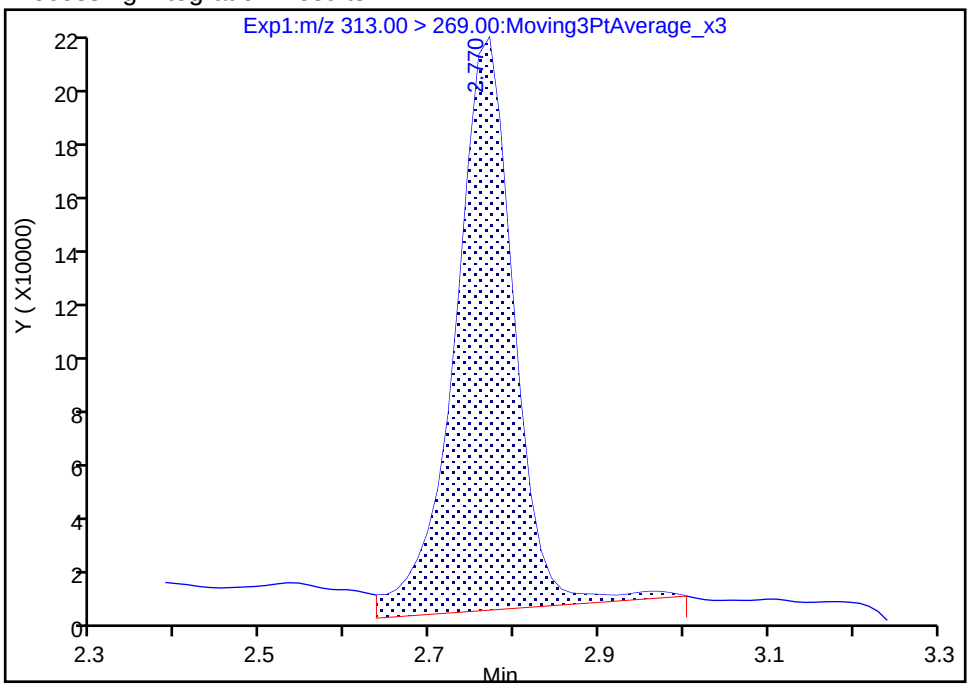
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

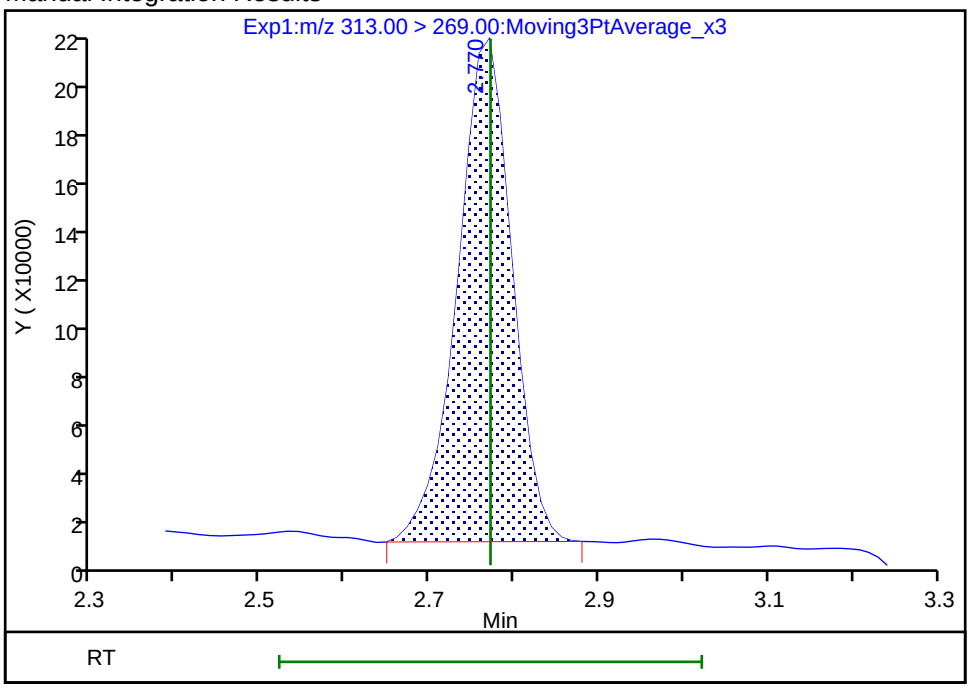
Processing Integration Results

RT: 2.77
Area: 991933
Amount: 0.864412
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 889728
Amount: 0.775347
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

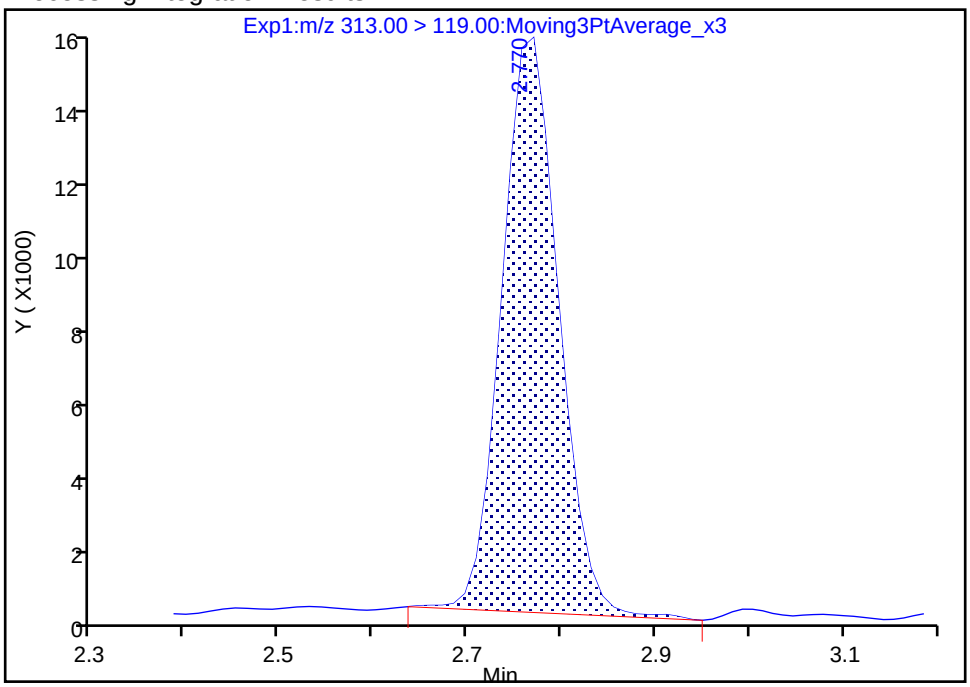
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

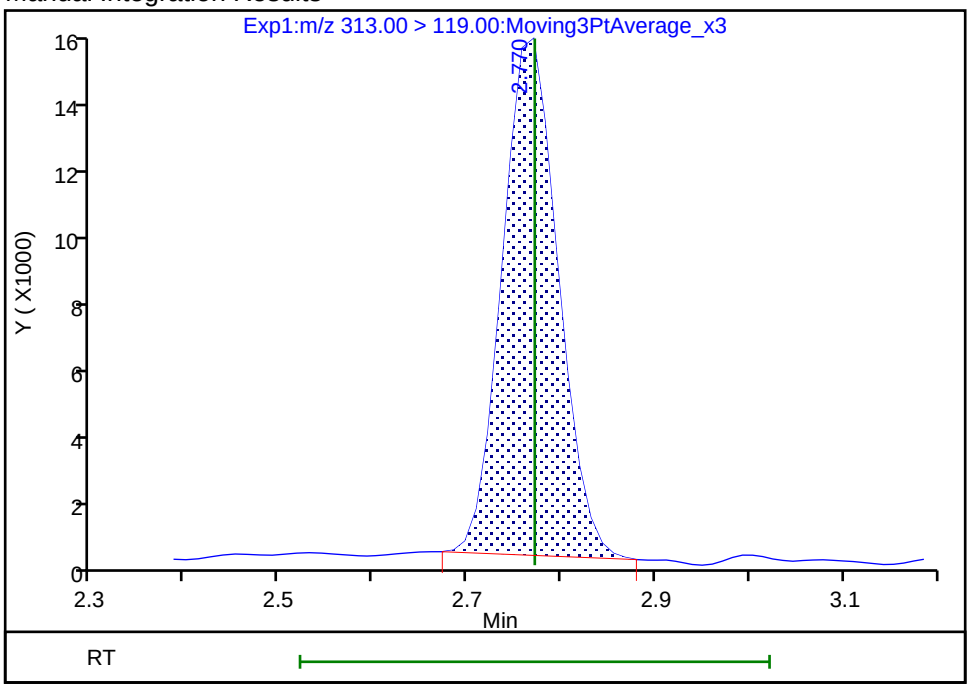
Processing Integration Results

RT: 2.77
Area: 64263
Amount: 0.864412
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 62891
Amount: 0.775347
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

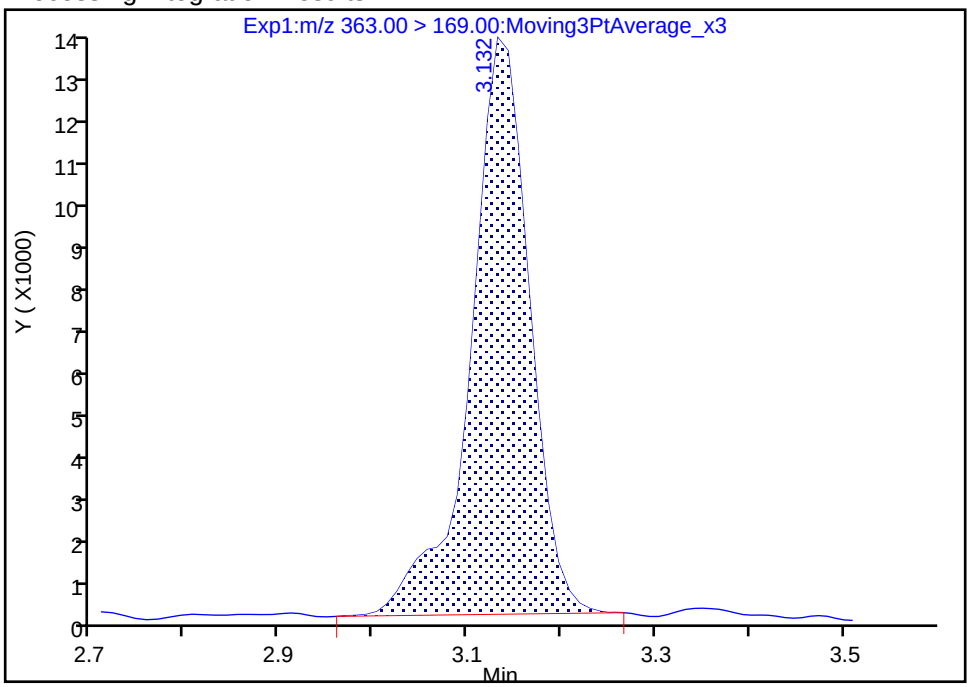
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

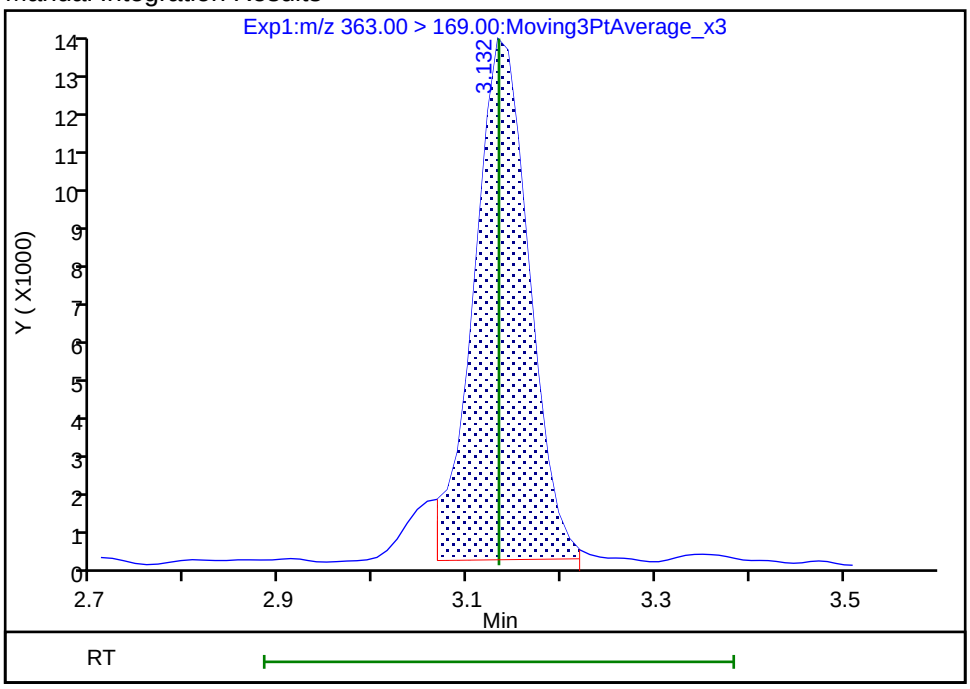
Processing Integration Results

RT: 3.13
Area: 57140
Amount: 0.183453
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 53447
Amount: 0.161033
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

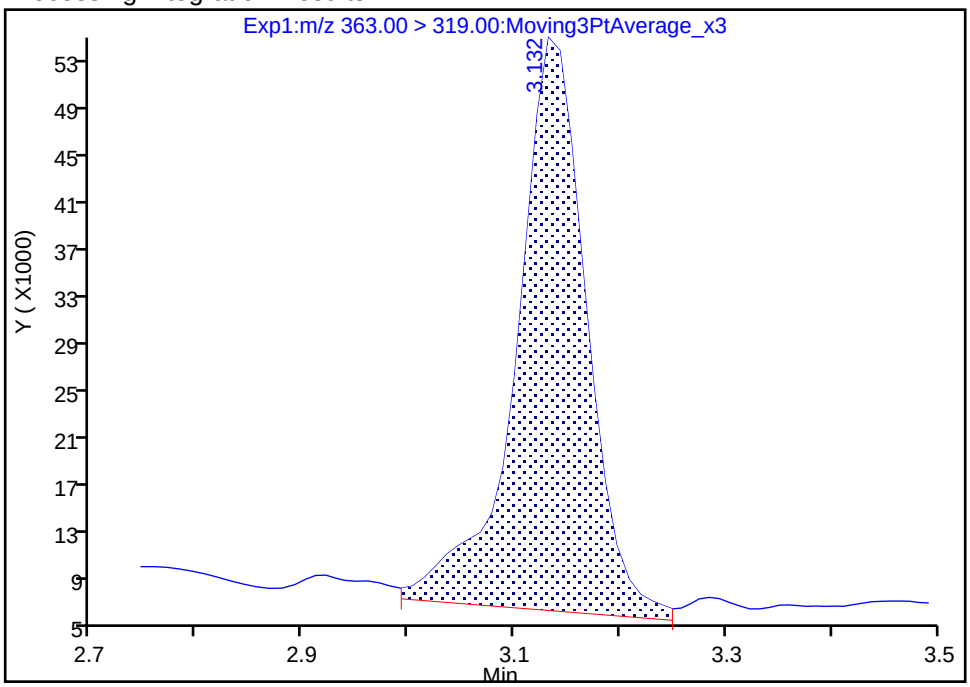
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

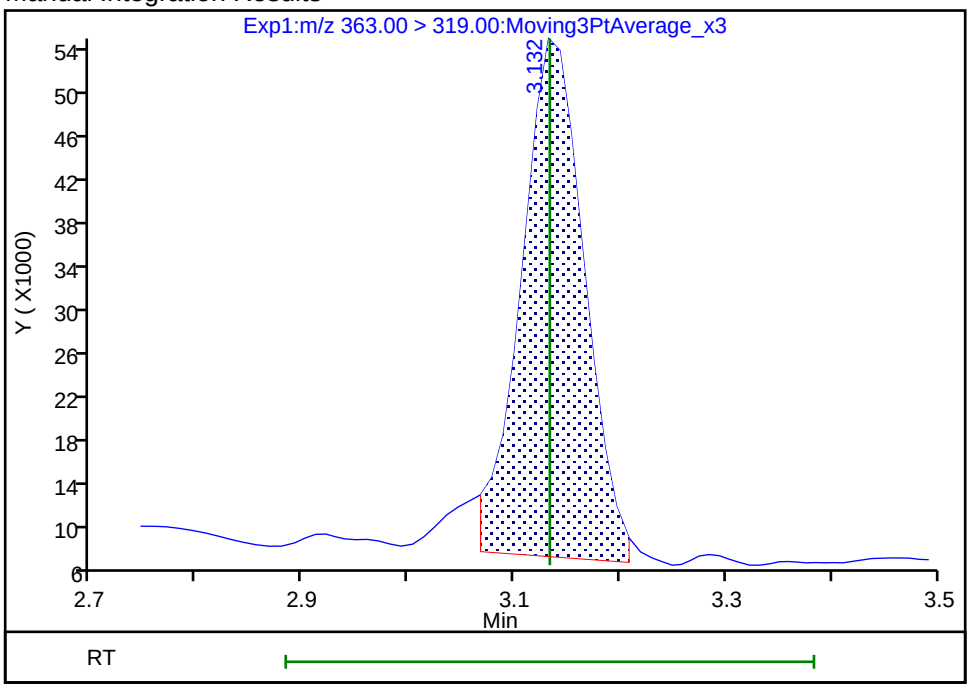
Processing Integration Results

RT: 3.13
Area: 225114
Amount: 0.183453
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 197602
Amount: 0.161033
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

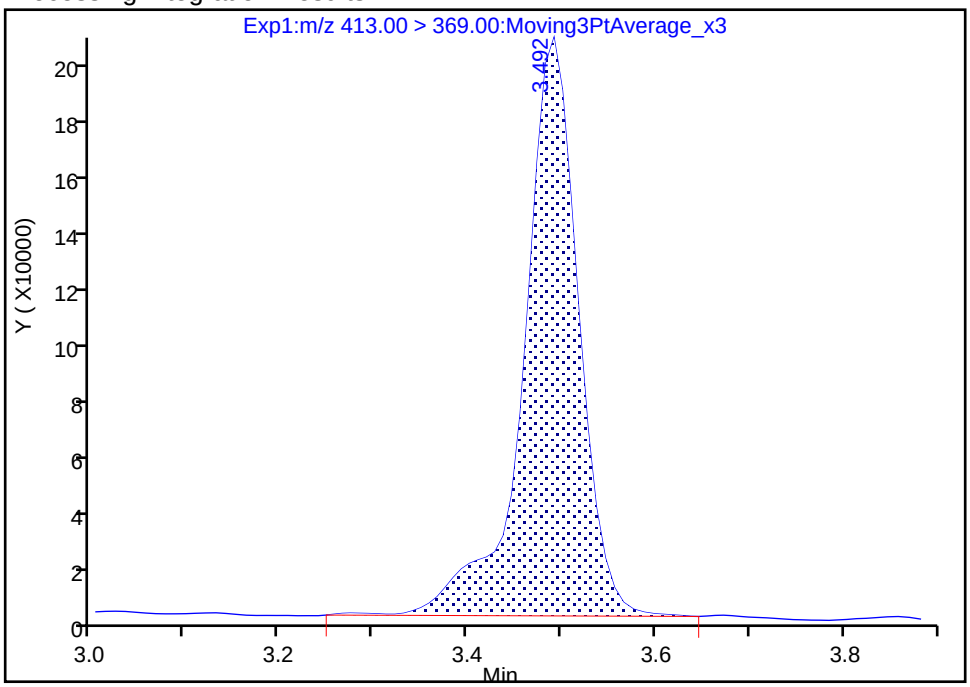
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

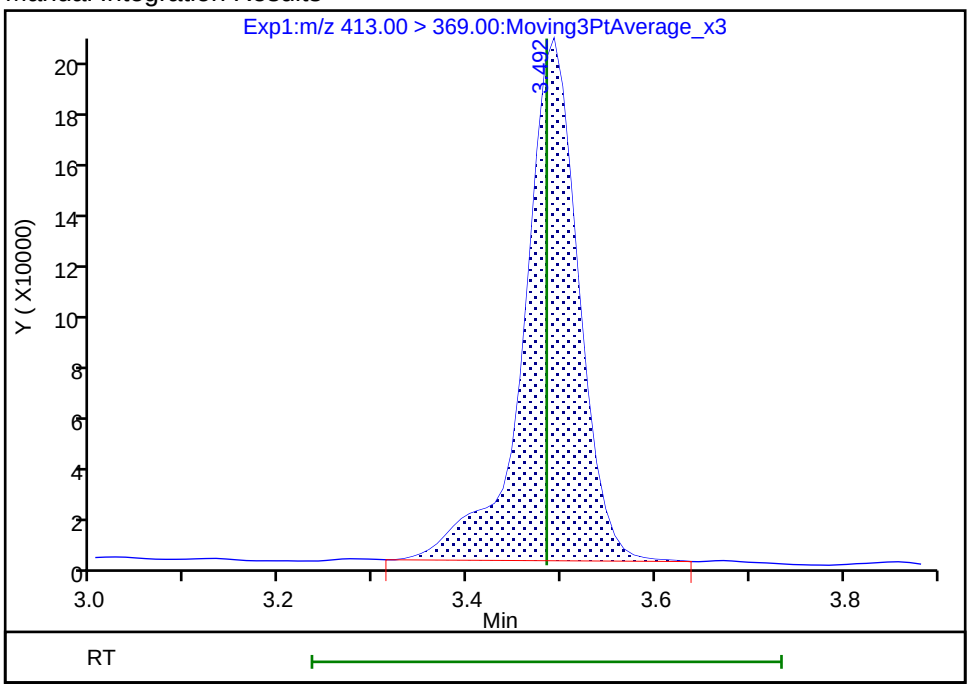
Processing Integration Results

RT: 3.49
Area: 819080
Amount: 0.598702
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 813459
Amount: 0.594594
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:48:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

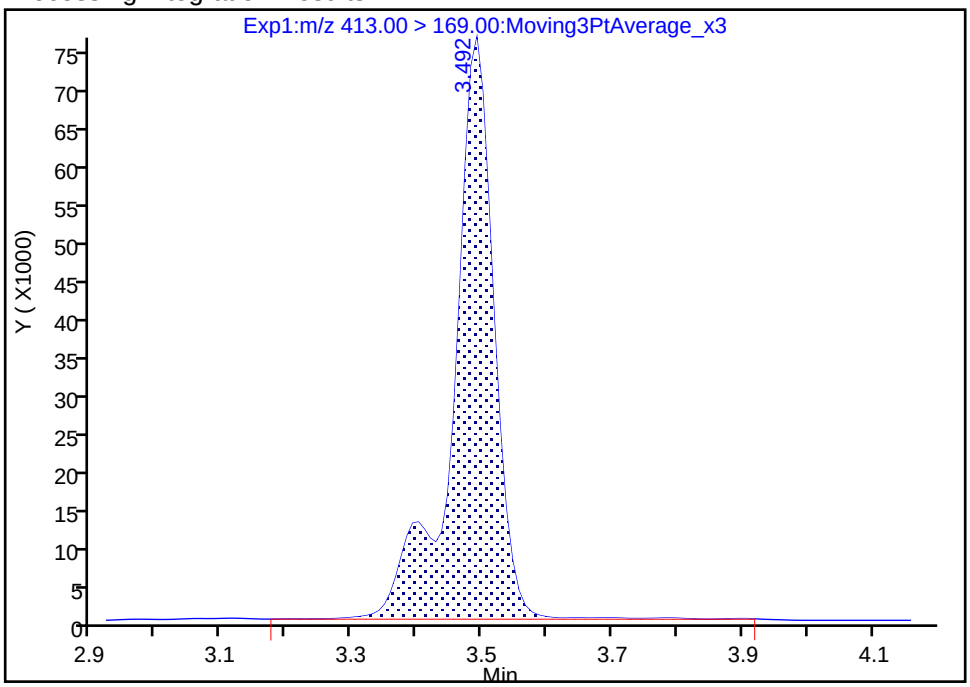
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

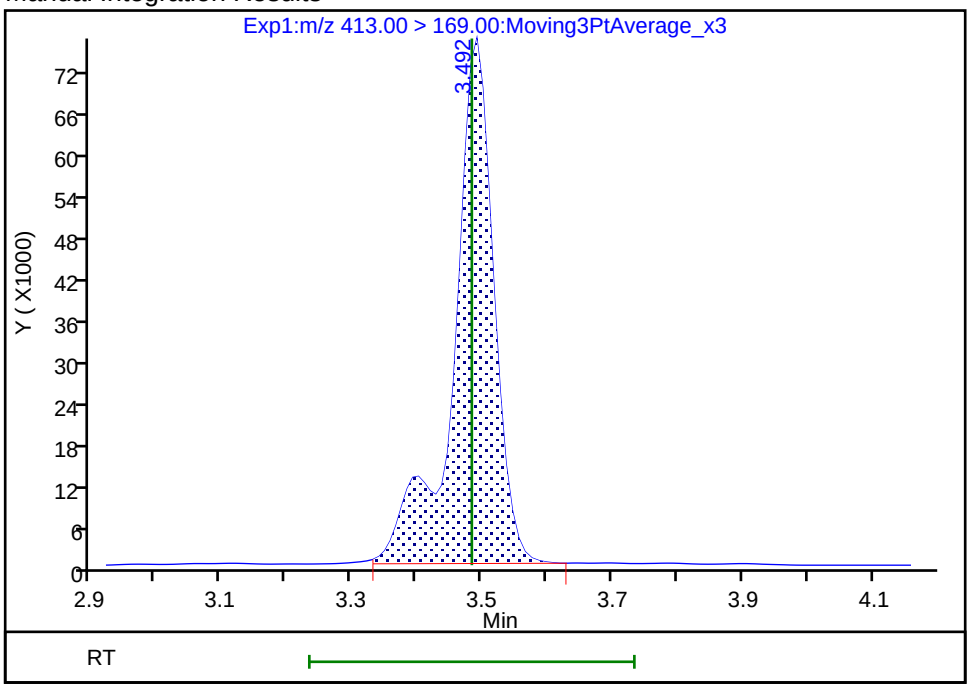
Processing Integration Results

RT: 3.49
Area: 335467
Amount: 0.598702
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 330733
Amount: 0.594594
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:21:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

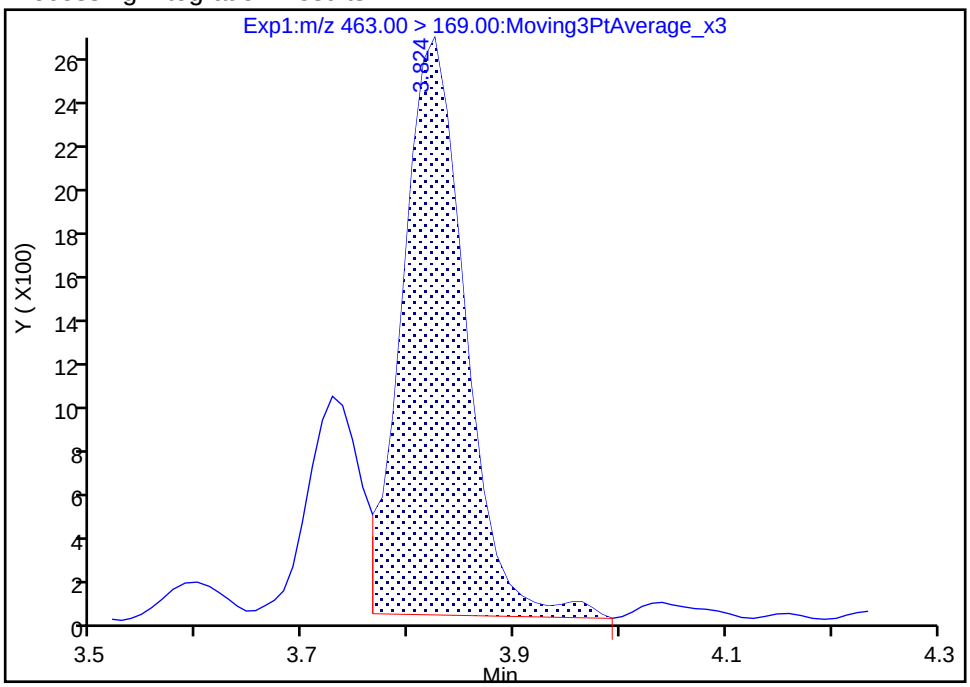
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 |
| Client ID: | AMW-10-20211029 | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 Worklist Smp#: 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

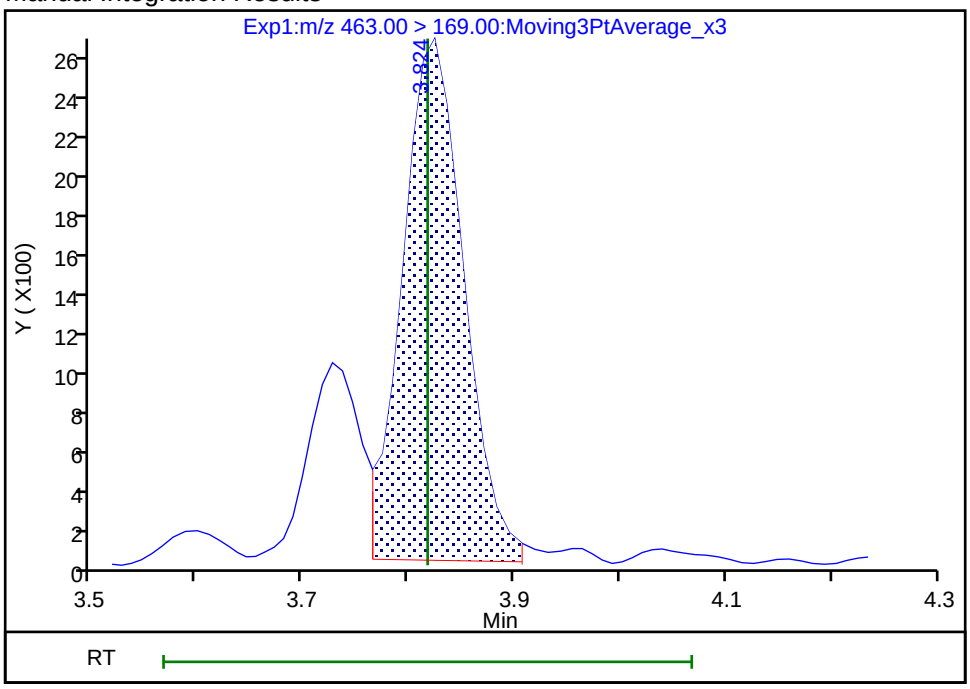
Processing Integration Results

RT: 3.82
Area: 10700
Amount: 0.061123
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 10426
Amount: 0.061123
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:48:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

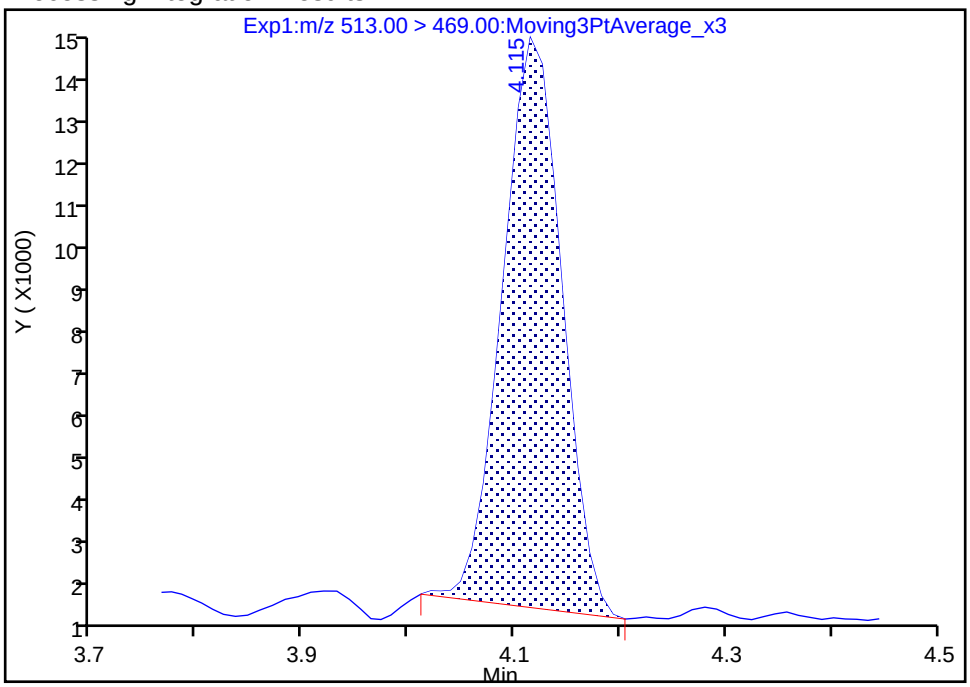
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

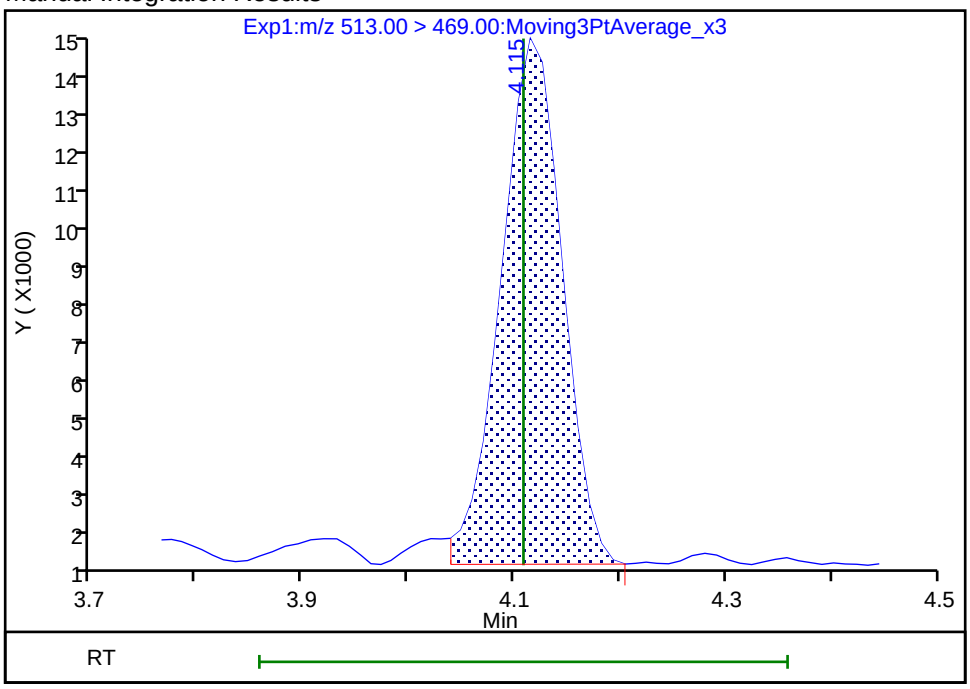
Processing Integration Results

RT: 4.11
Area: 49648
Amount: 0.040405
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 51852
Amount: 0.042198
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:49:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

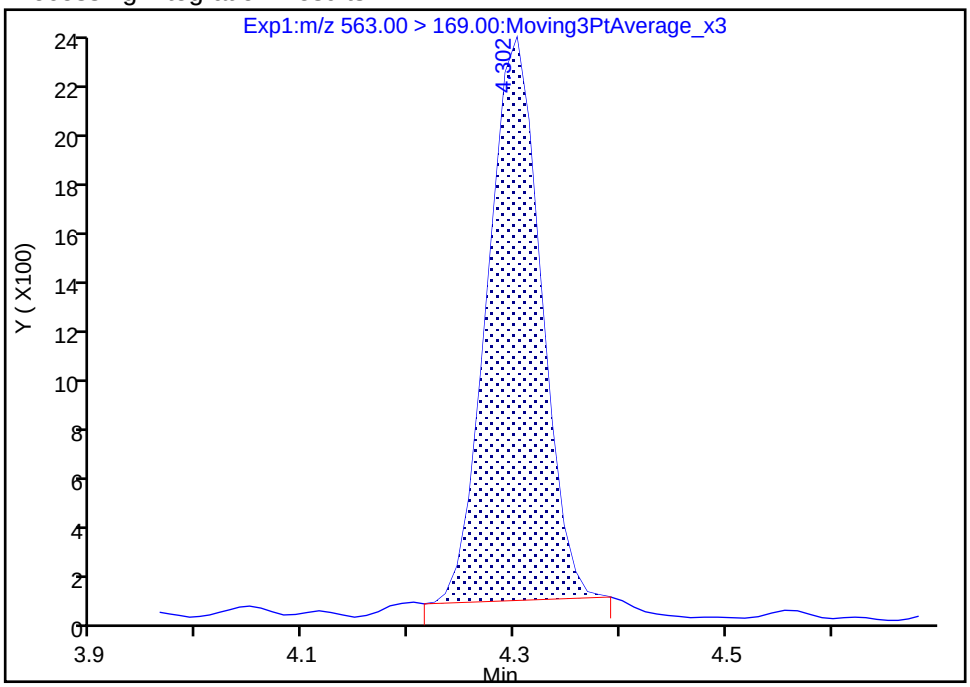
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

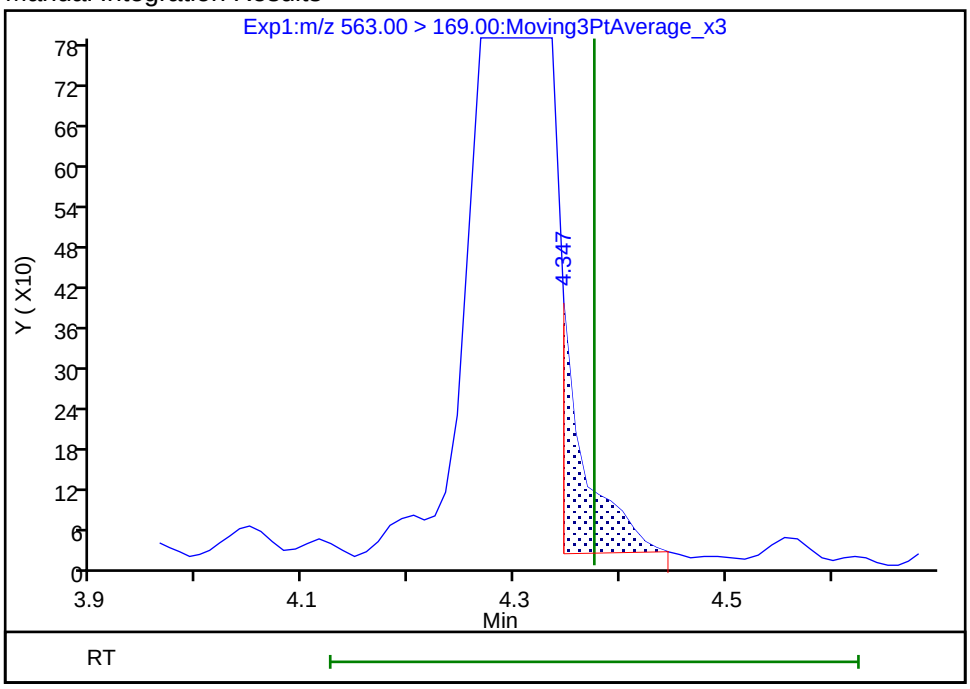
Processing Integration Results

RT: 4.30
Area: 8046
Amount: 0.014398
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 494
Amount: 0.002471
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:21:38

Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

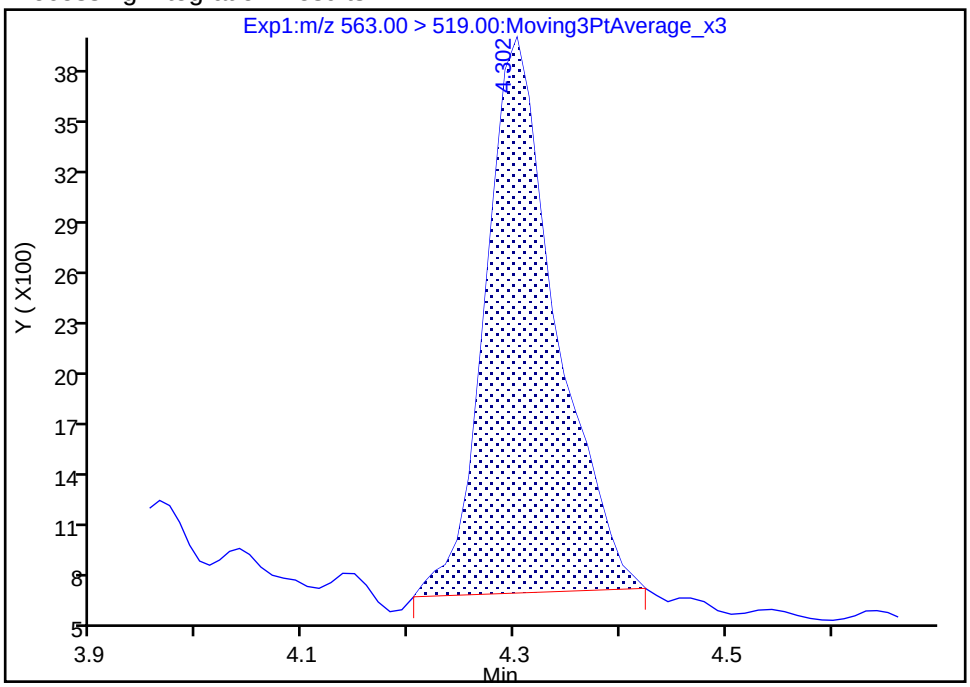
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

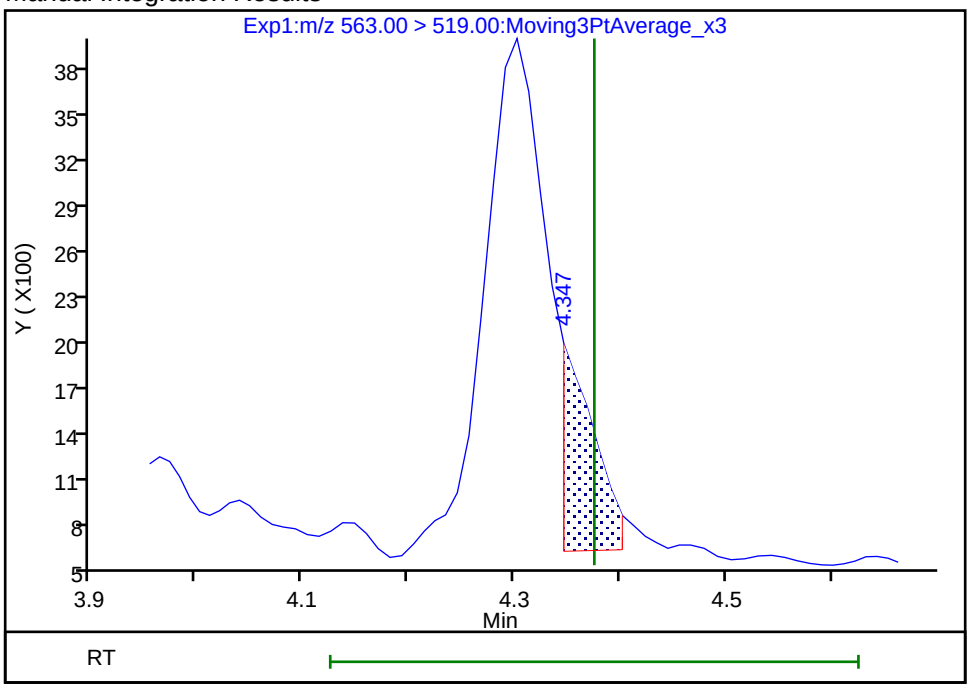
Processing Integration Results

RT: 4.30
Area: 14935
Amount: 0.014398
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 2563
Amount: 0.002471
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:21:41

Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

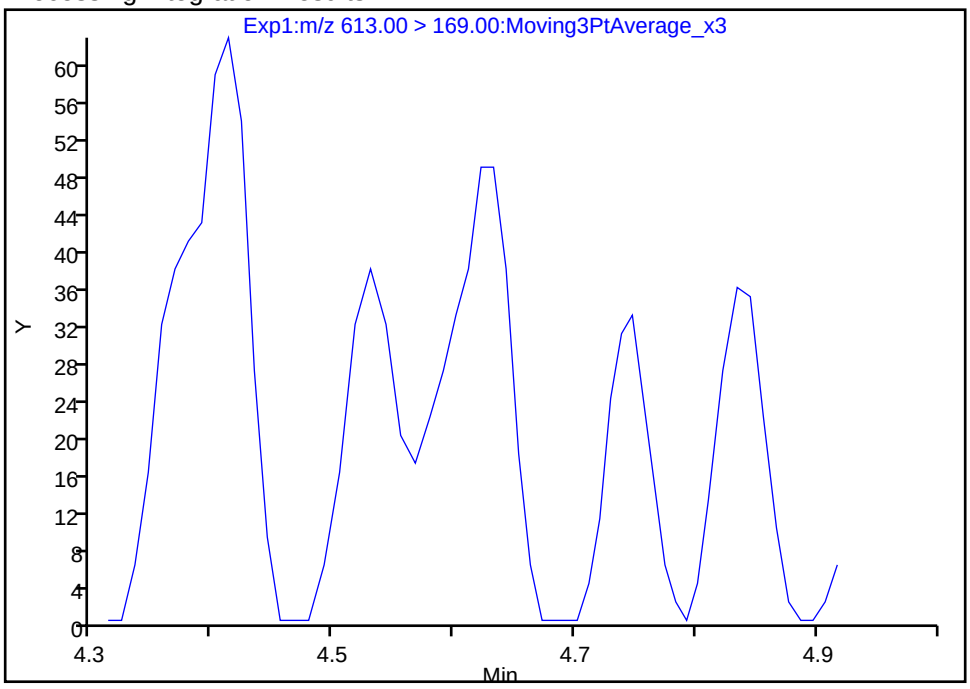
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

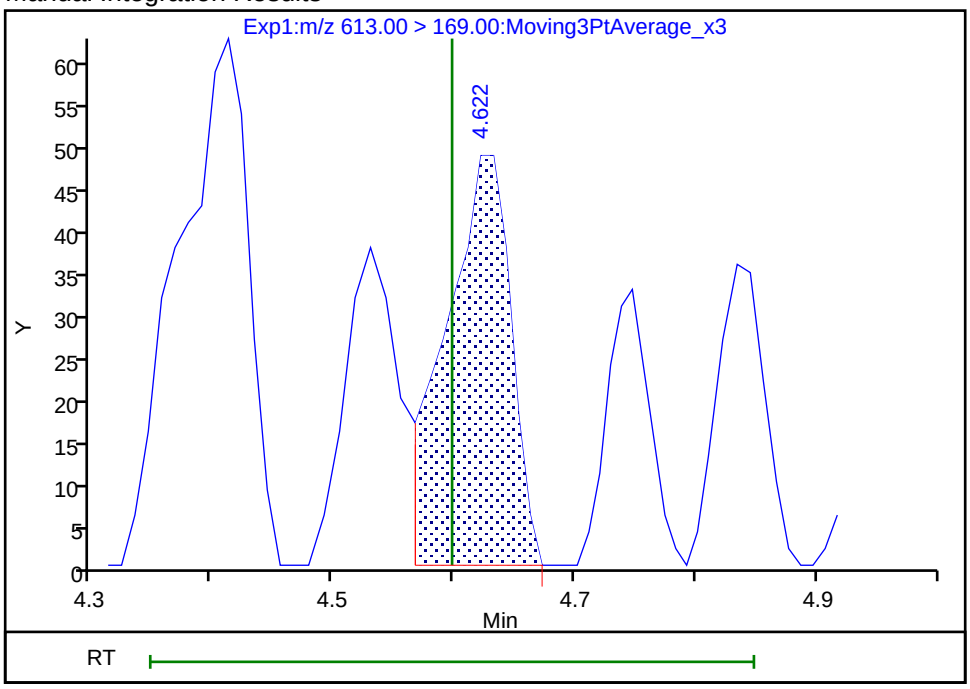
Not Detected
Expected RT: 4.60

Processing Integration Results




Manual Integration Results

RT: 4.62
Area: 182
Amount: 0.002436
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:49:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

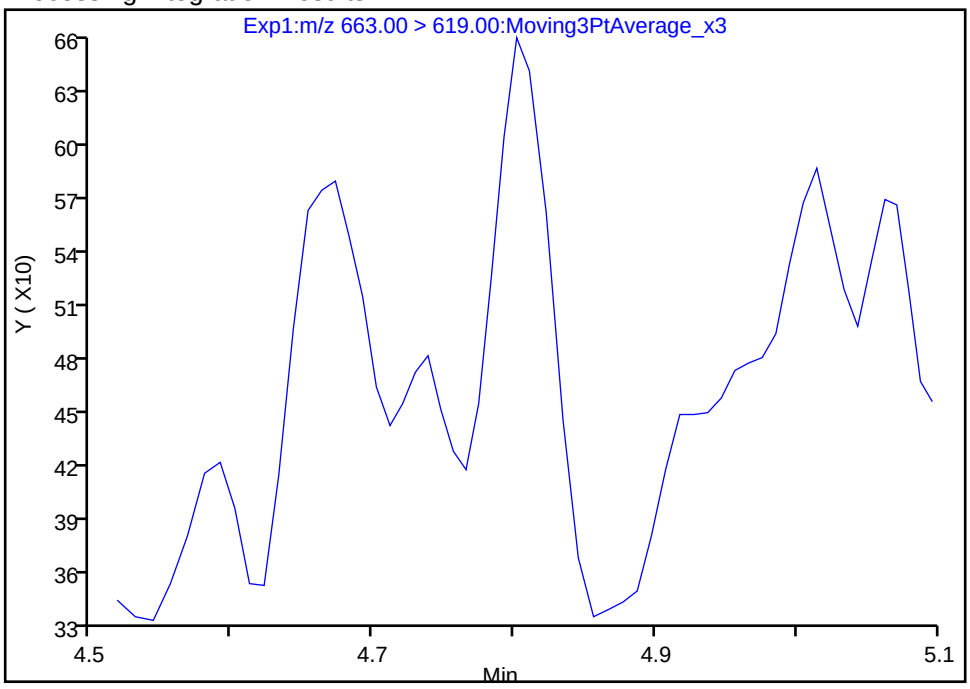
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

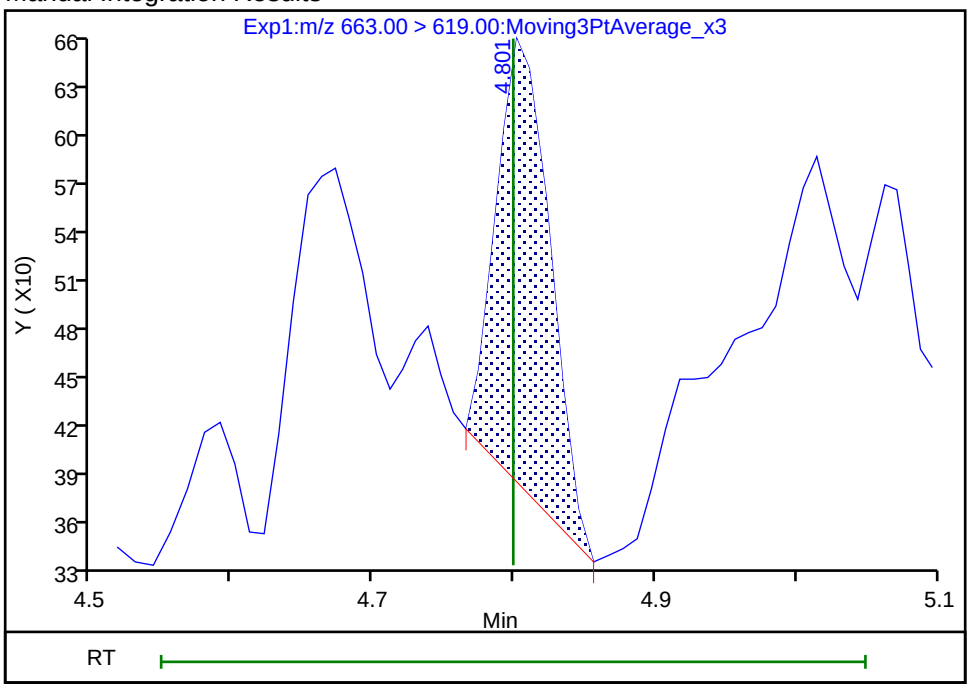
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 715
Amount: 0.000883
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:21:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

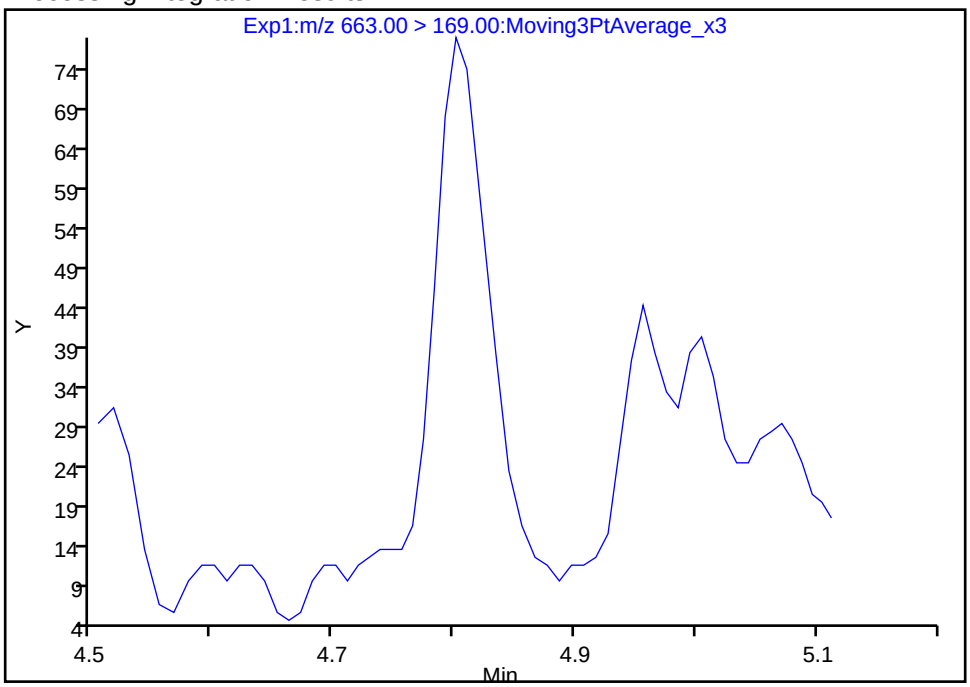
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

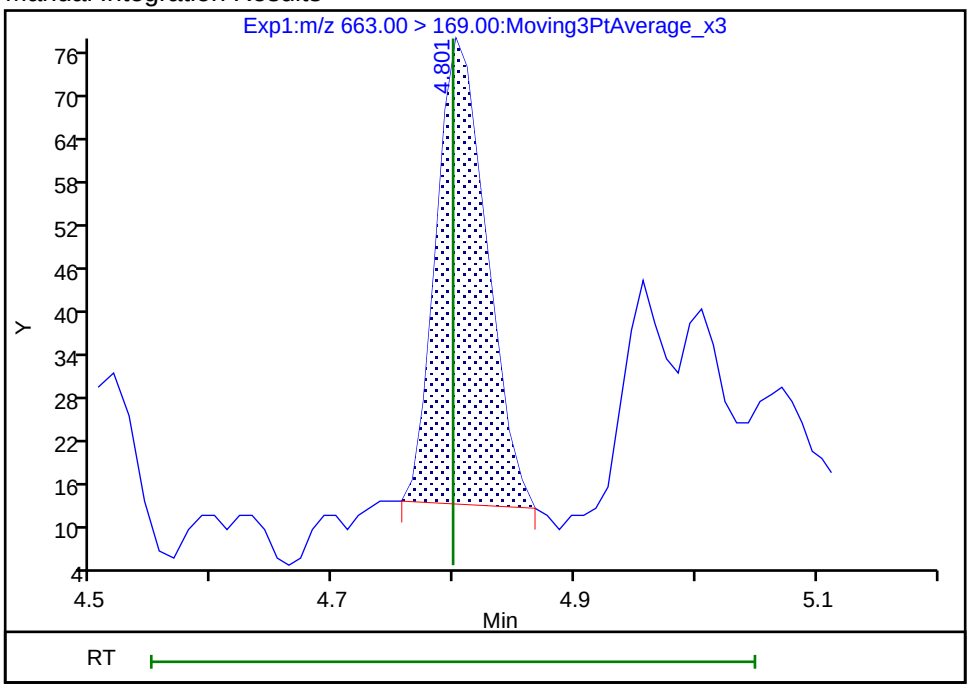
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 189
Amount: 0.000883
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:22:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

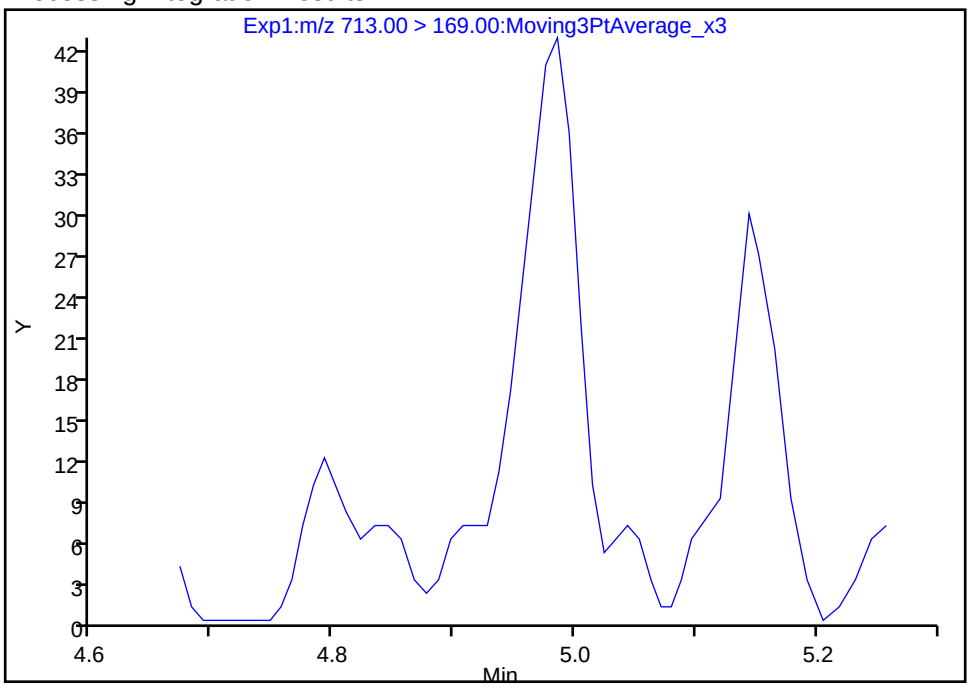
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

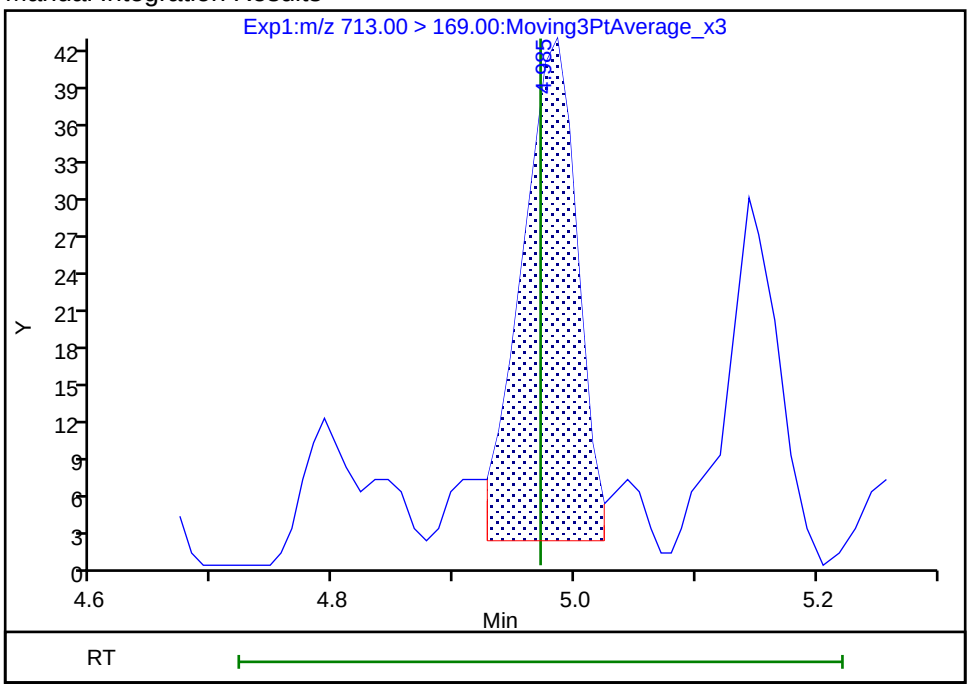
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 130
Amount: 0.001046
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:50:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

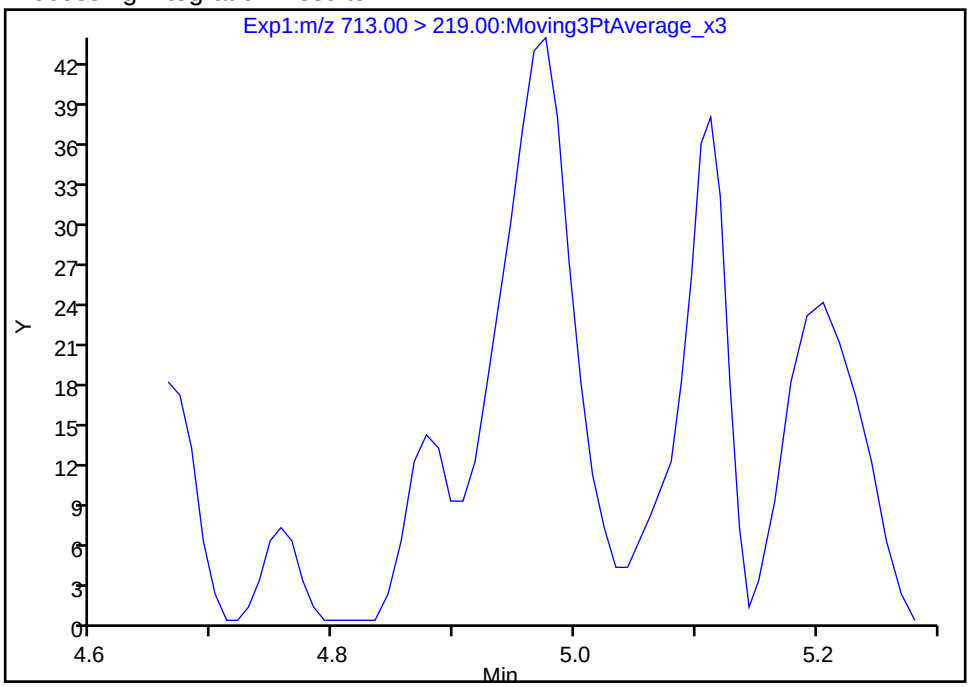
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

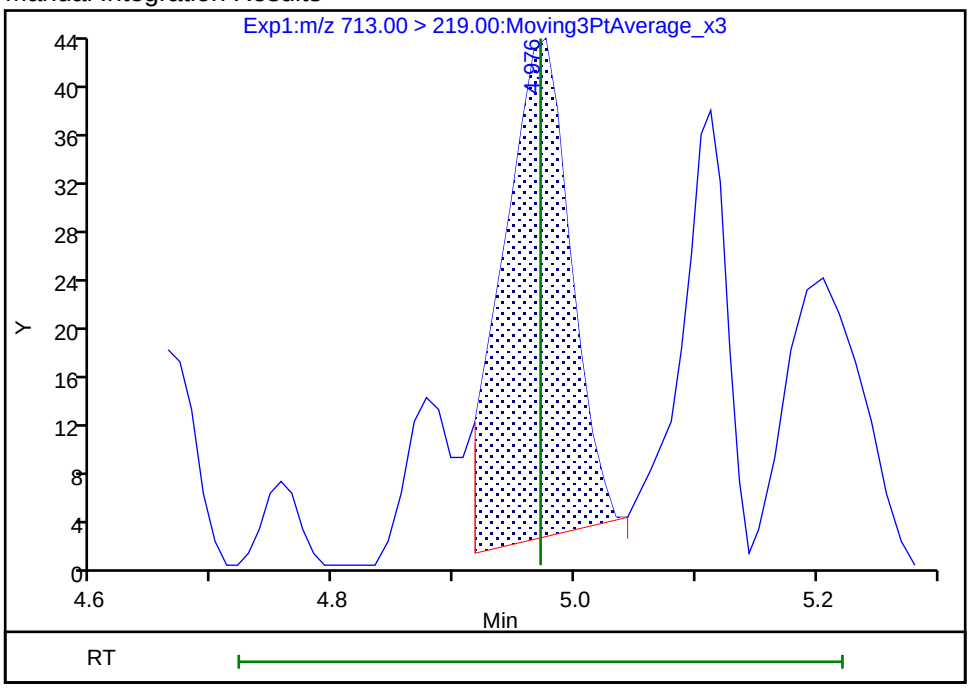
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 160
Amount: 0.001046
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:50:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

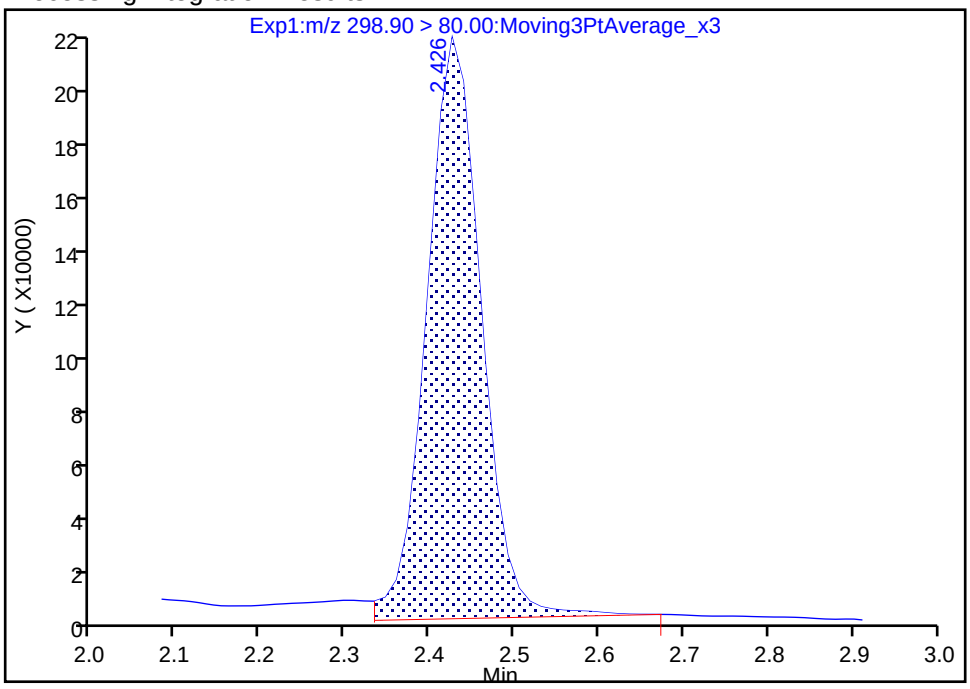
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

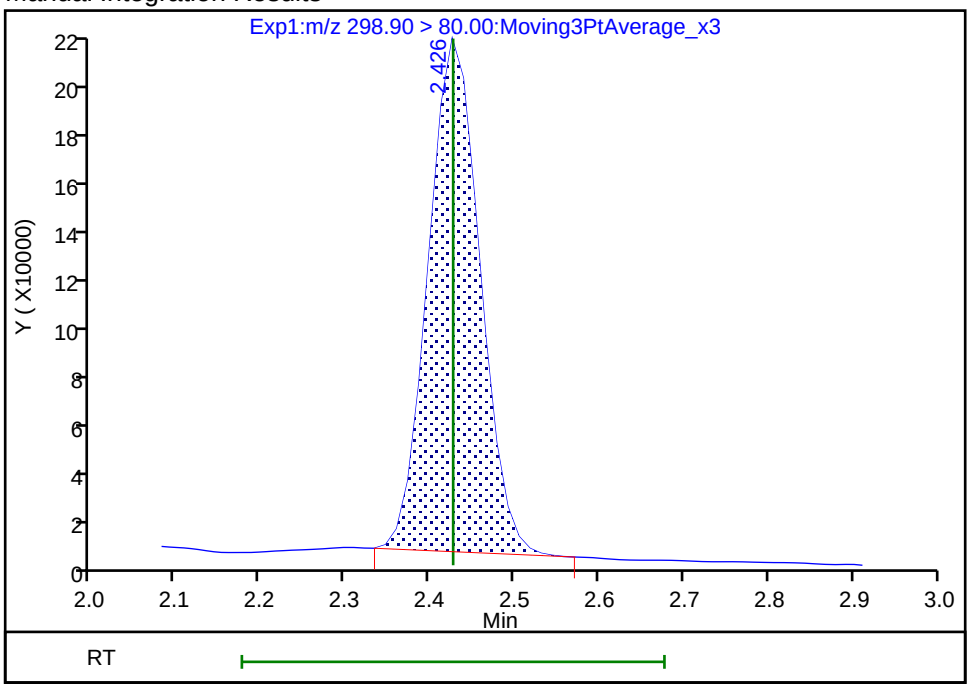
Processing Integration Results

RT: 2.43
Area: 955488
Amount: 0.661183
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 886640
Amount: 0.613541
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

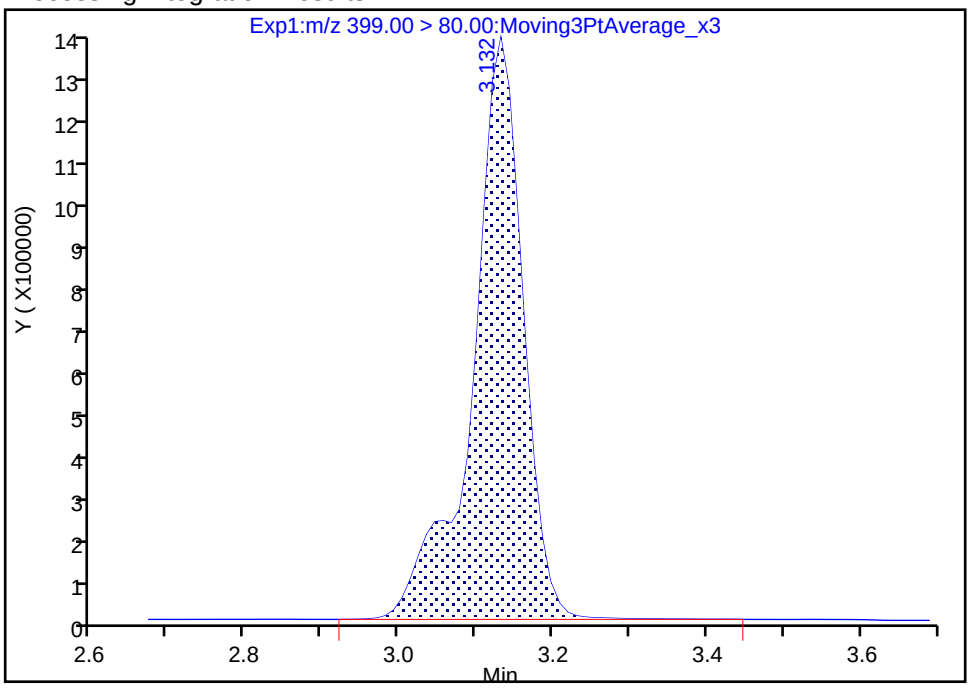
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

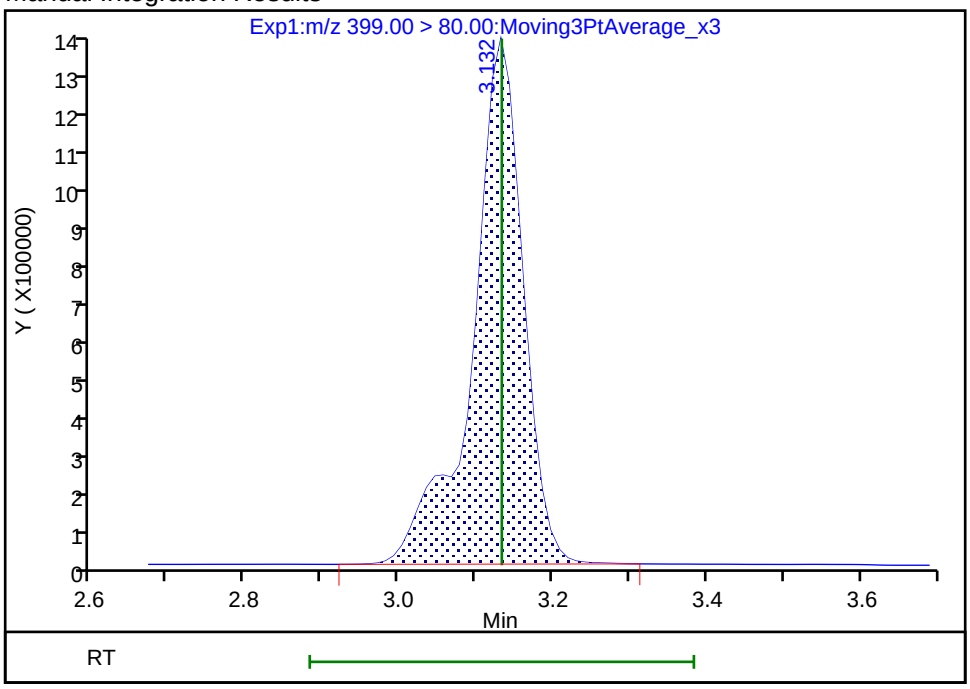
Processing Integration Results

RT: 3.13
Area: 6291148
Amount: 5.463409
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 6272107
Amount: 5.446873
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

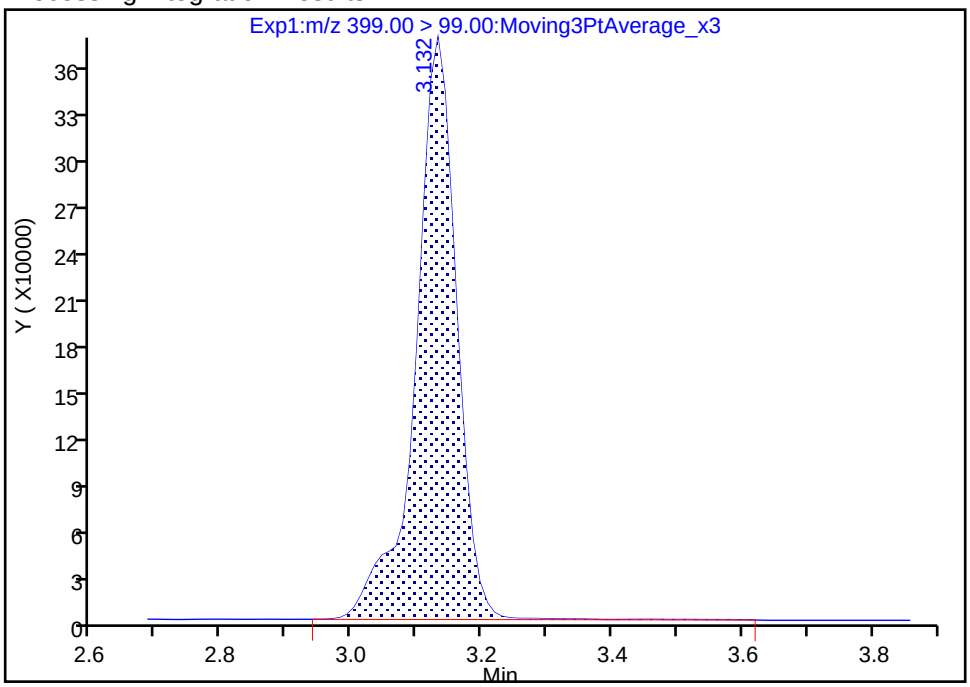
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

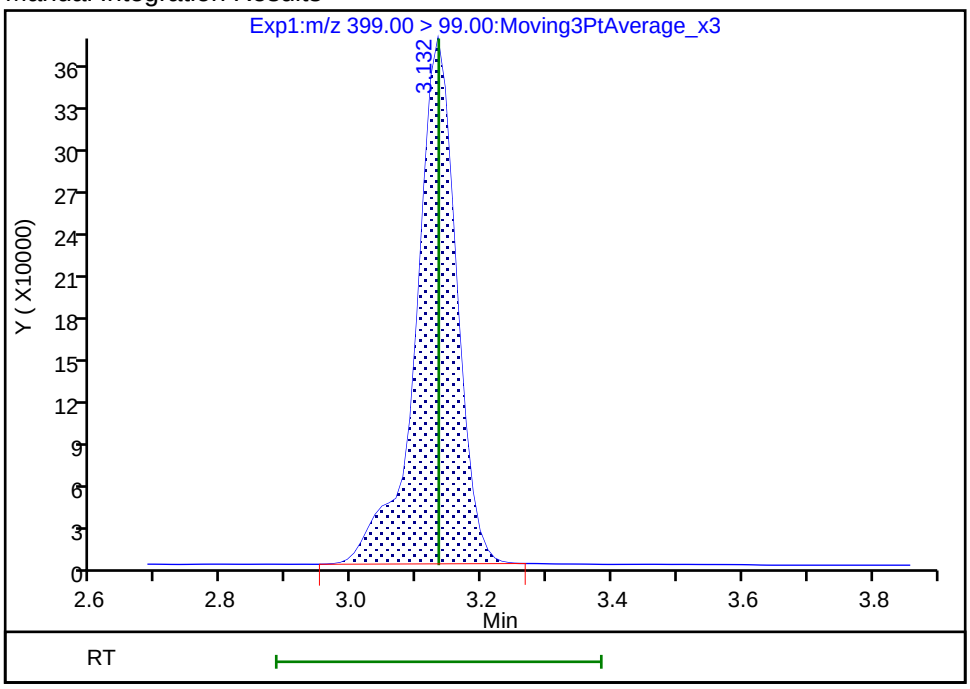
Processing Integration Results

RT: 3.13
Area: 1632303
Amount: 5.463409
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1617987
Amount: 5.446873
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:47:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

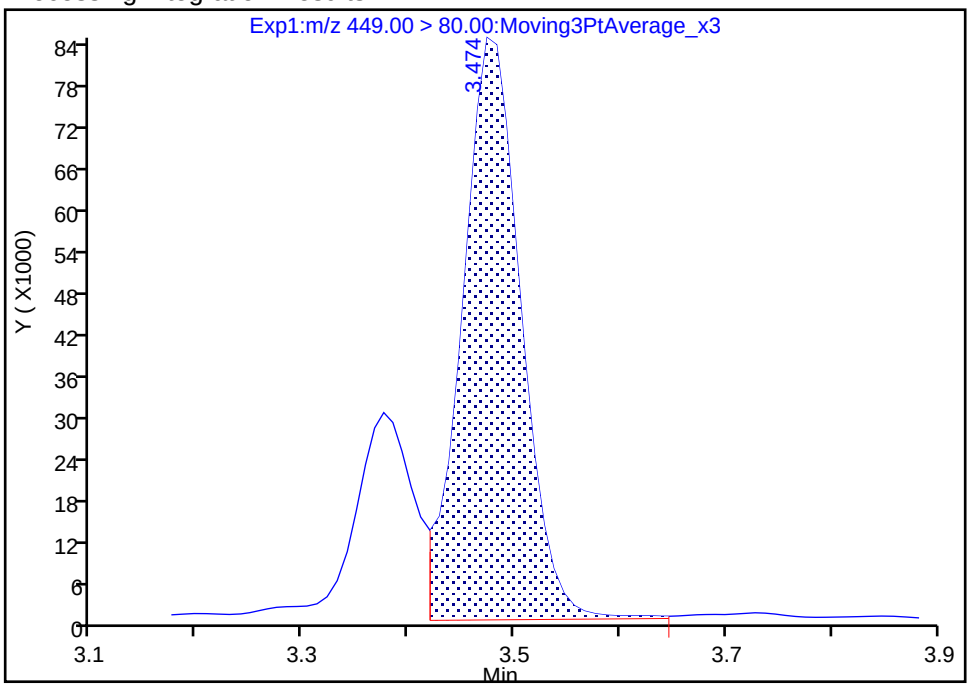
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

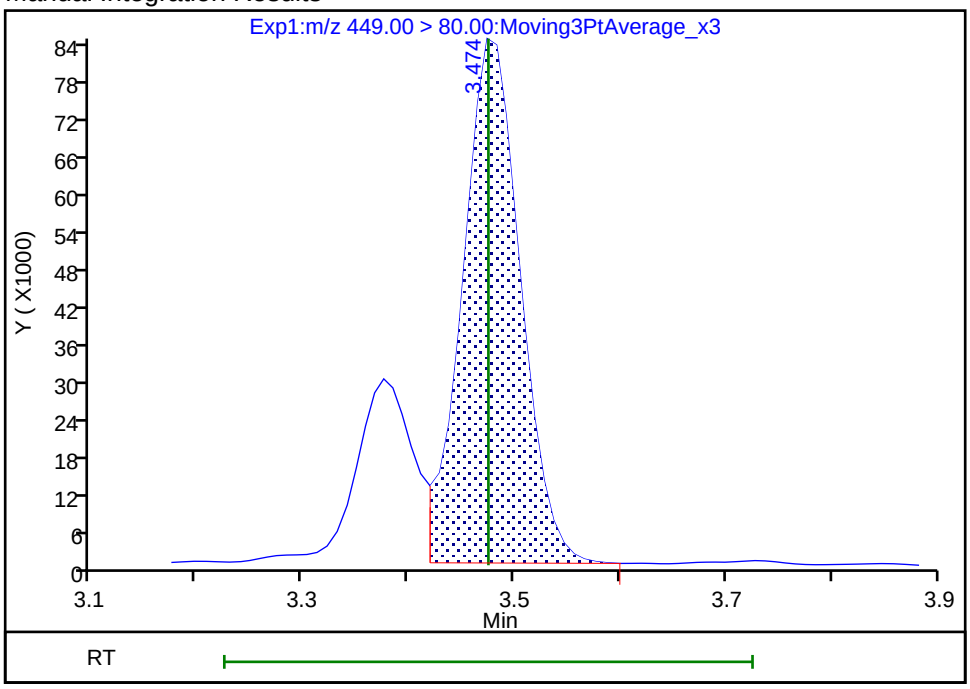
Processing Integration Results

RT: 3.47
Area: 323913
Amount: 0.341762
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 316477
Amount: 0.333917
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:48:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

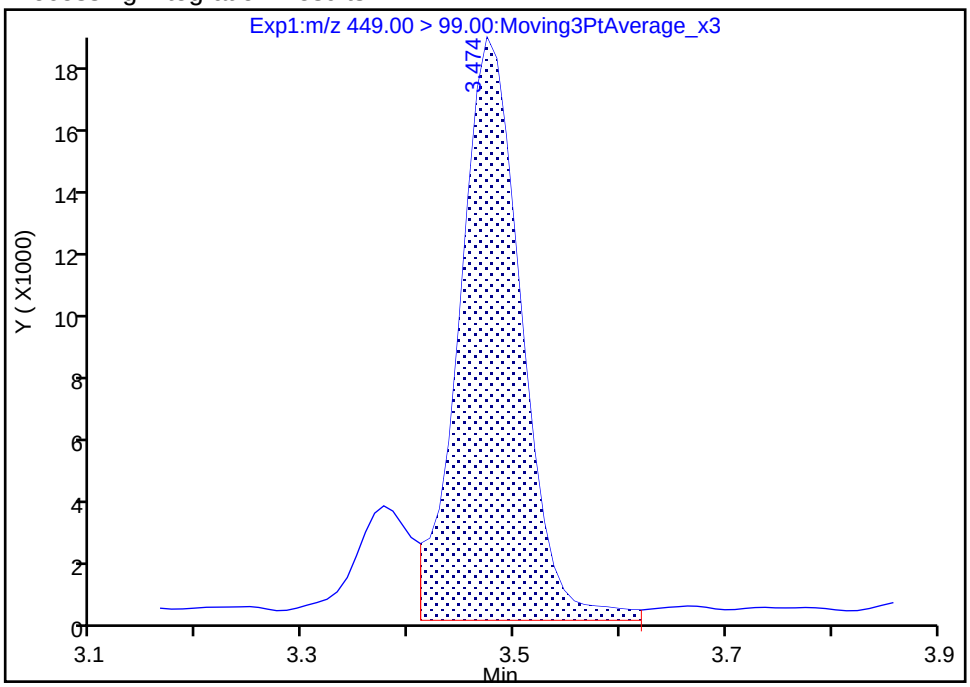
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

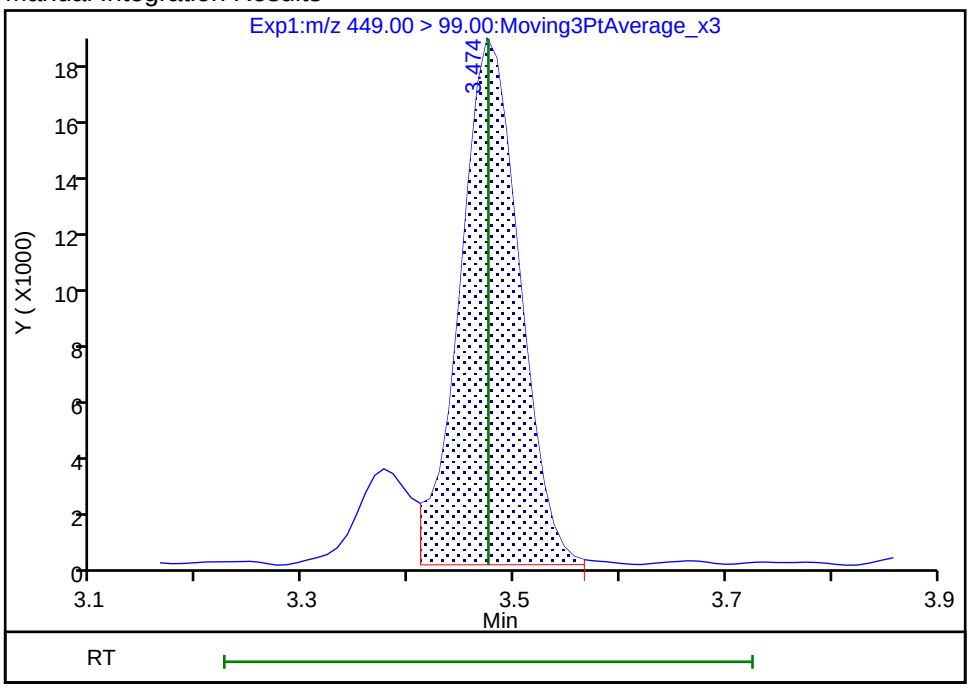
Processing Integration Results

RT: 3.47
Area: 75965
Amount: 0.341762
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 71681
Amount: 0.333917
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:48:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

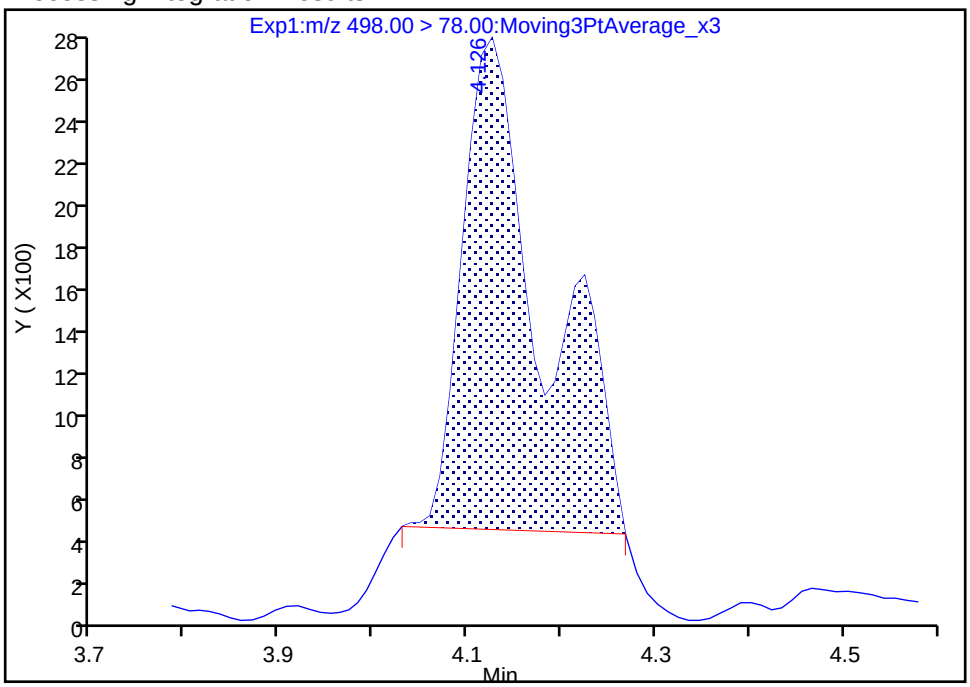
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

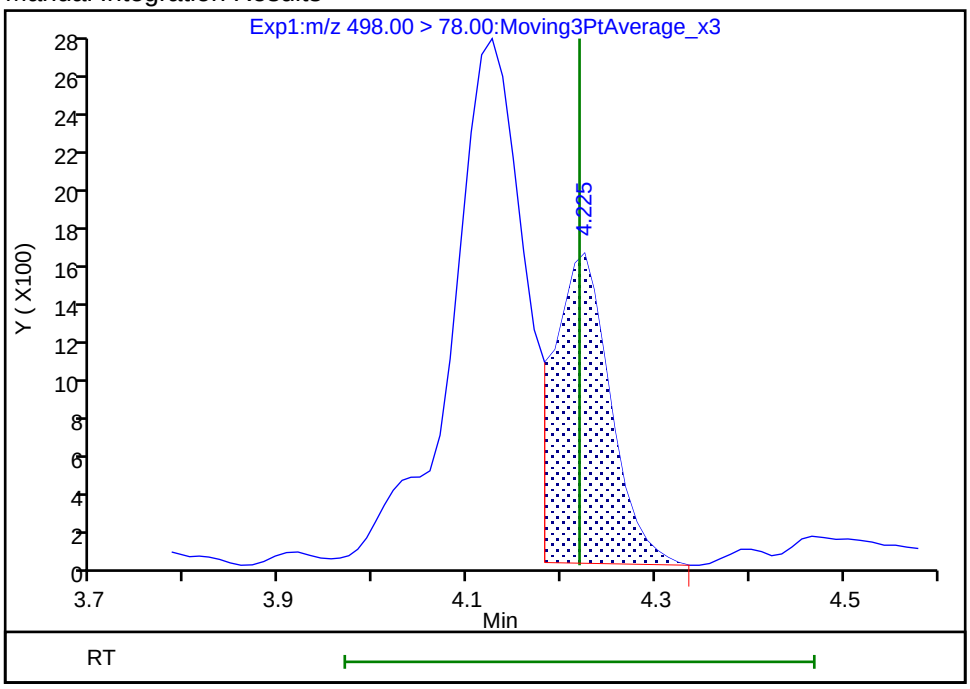
Processing Integration Results

RT: 4.13
Area: 13693
Amount: 0.013470
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 6465
Amount: 0.006359
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:49:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

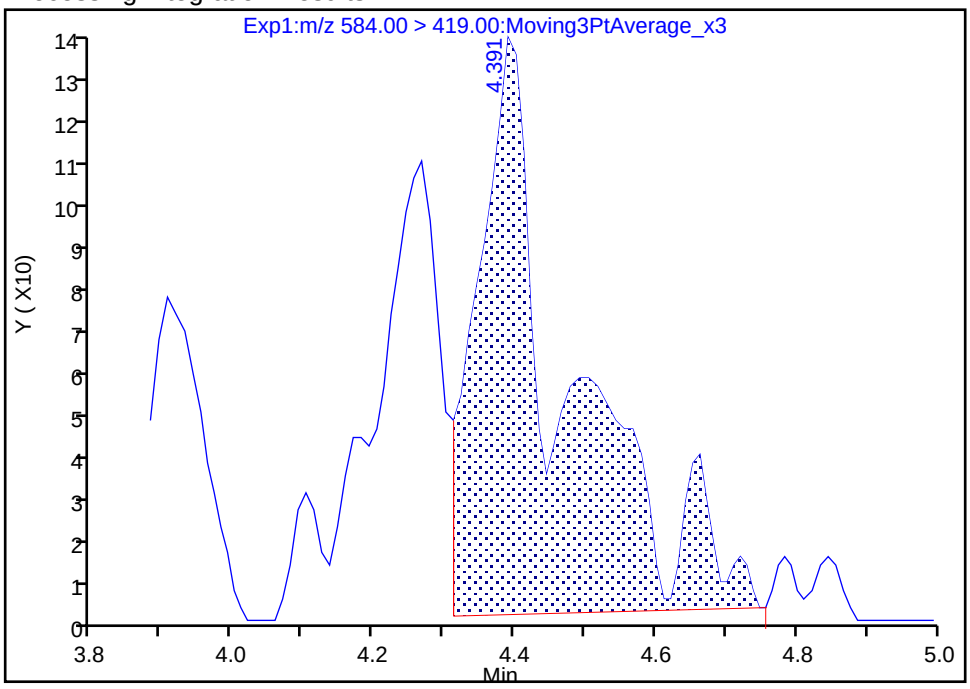
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

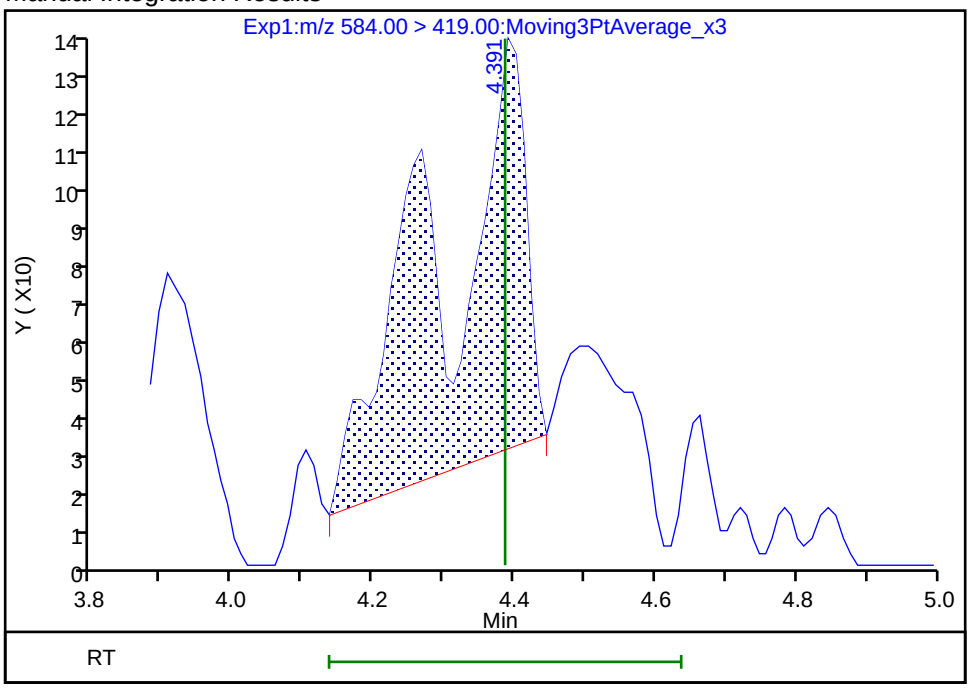
Processing Integration Results

RT: 4.39
Area: 1216
Amount: 0.010138
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 910
Amount: 0.007587
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:49:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

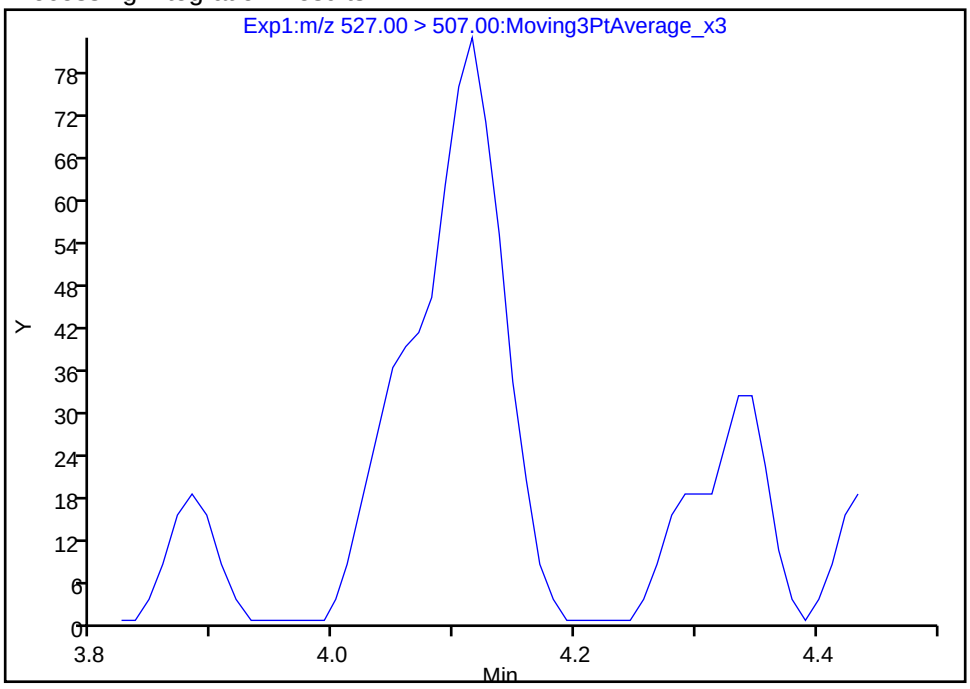
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

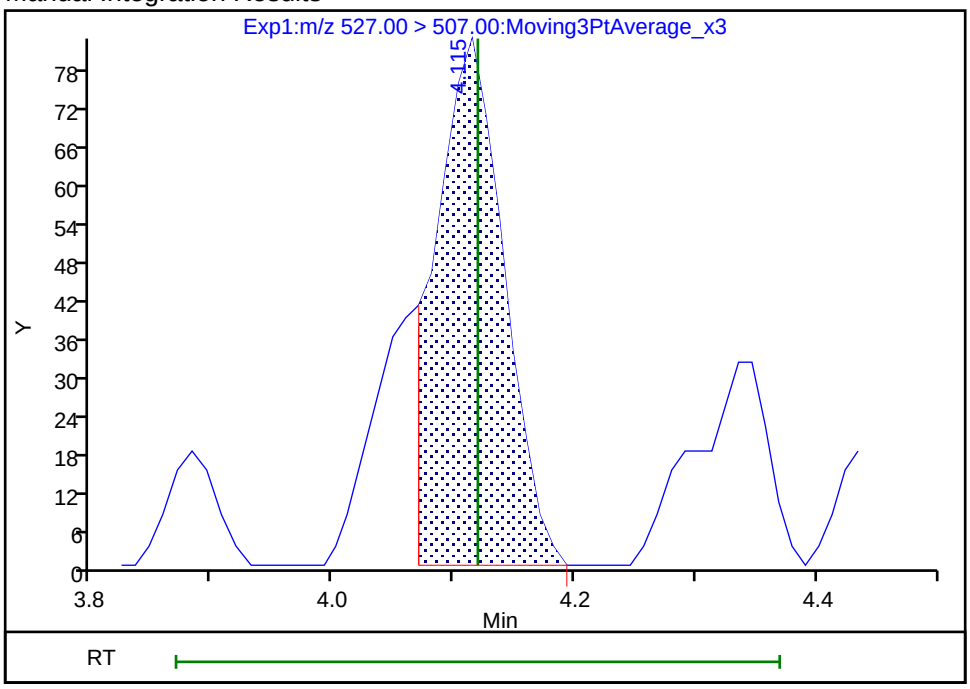
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 320
Amount: 0.001594
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:49:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

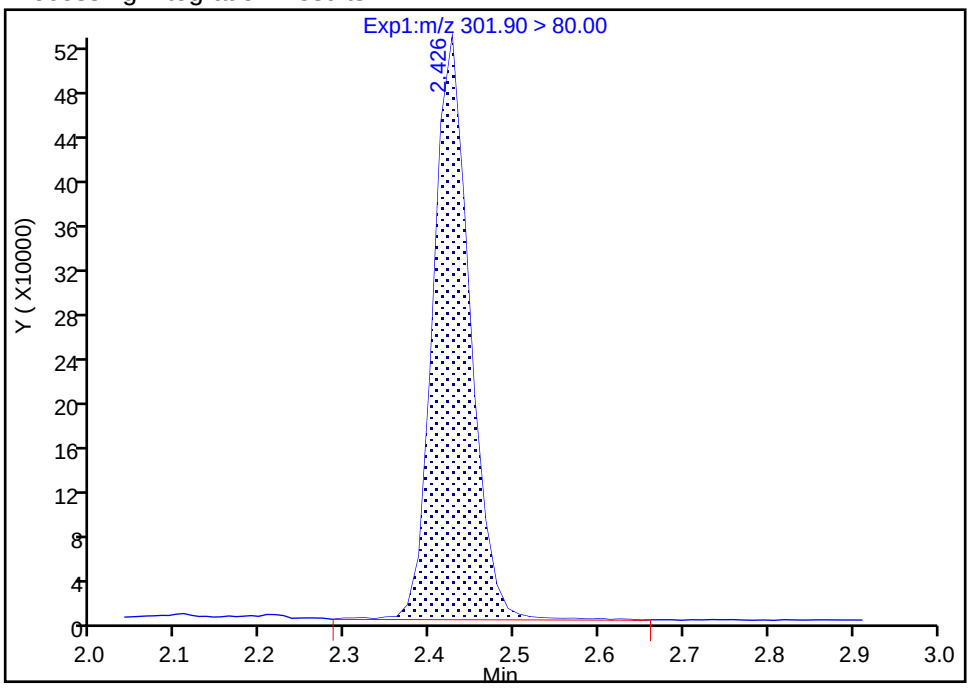
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A22.d | | | | |
| Injection Date: | 10-Nov-2021 14:14:31 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 19 | Worklist Smp#: | 22 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

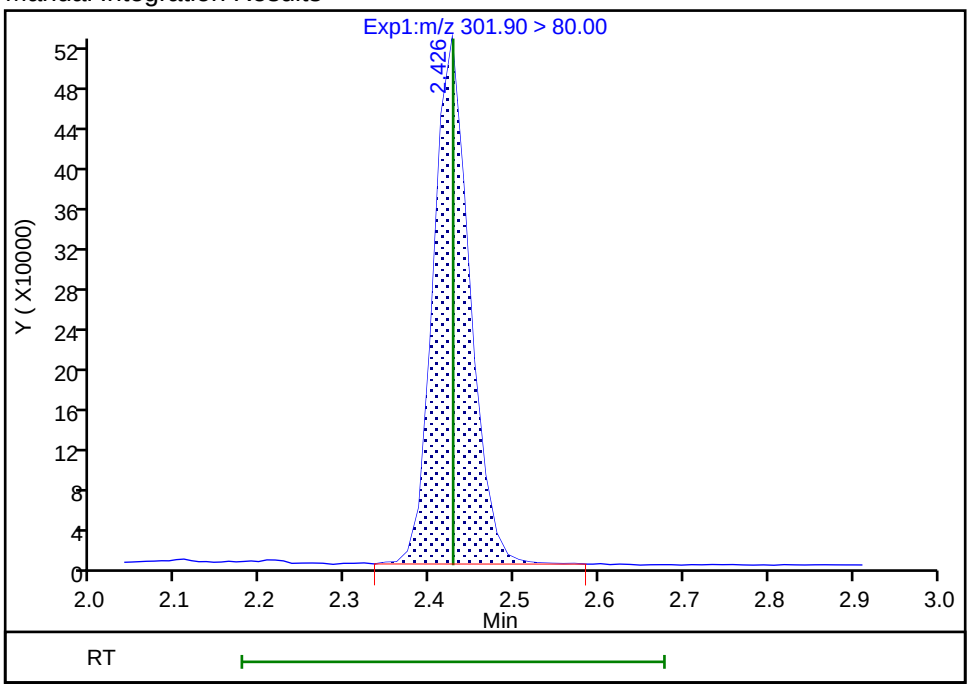
Processing Integration Results

RT: 2.43
Area: 1588773
Amount: 1.095966
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1572896
Amount: 1.085014
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:46:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: AMW-10-20211029 DL  Lab Sample ID: 460-246277-31 DL

Matrix: Water  Lab File ID: PA211109A08.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 10:55

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 271.7(mL)  Date Analyzed: 11/09/2021 13:14

Con. Extract Vol.: 10(mL)  Dilution Factor: 2

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

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

Analysis Batch No.: 173663  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 485 | D | 3.68 | 0.54 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A08.d
Lims ID: 460-246277-C-31-A
Client ID: AMW-10-20211029
Sample Type: Client
Inject. Date: 09-Nov-2021 13:14:44 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 2.0000
Sample Info: 460-246277-C-31-A
Misc. Info.: 200-0048346-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:41:59 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 11-Nov-2021 15:28:02
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.217 | 2.226 | -0.009 | 0.636 | 663719 | 0.6085 | | 97.4 | 839 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.217 | 2.236 | -0.019 | 1.000 | 705900 | 0.7030 | | | 21.3 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.479 | 2.478 | 0.001 | 0.712 | 557425 | 0.6066 | | 97.1 | 168 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.465 | 2.478 | -0.013 | 0.995 | 108737 | 0.1217 | | | 0.6 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.479 | 2.492 | -0.013 | 0.712 | 665118 | 0.5349 | | 92.0 | 3892 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.492 | 2.492 | 0.0 | 1.005 | 412791 | 0.3378 | Target=2.32 | | 4.9 | |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.005 | 169045 | | 2.44(1.16-3.48) | | 8.0 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.794 | 0.0 | 0.802 | 609897 | 0.6327 | | 101 | 935 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.794 | 2.794 | 0.0 | 1.000 | 425526 | 0.4300 | Target=12.09 | | 6.9 | |
| 313.00 > 119.00 | 2.794 | 2.794 | 0.0 | 1.000 | 28665 | | 14.84(6.04-18.13) | | 9.3 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.143 | 3.143 | 0.0 | 1.000 | 2545063 | 2.71 | Target=3.55 | | 459 | |
| 399.00 > 99.00 | 3.143 | 3.143 | 0.0 | 1.000 | 654915 | | 3.89(1.77-5.32) | | 395 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.143 | 0.0 | 0.902 | 504410 | 0.5584 | | 94.4 | 2213 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.143 | 0.0 | 0.902 | 619297 | 0.6103 | | 97.6 | 2263 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 92574 | 0.0904 | Target=3.69 | | 5.0 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 24414 | | 3.79(1.84-5.53) | | 26.9 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 126323 | 0.1633 | Target=4.88 | | 21.6 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 30621 | | 4.13(2.44-7.32) | | 26.2 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 102263 | 0.7179 | | 121 | 57.5 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 643042 | 0.5800 | | 92.8 | 2989 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 673519 | 0.6250 | | | 2777 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 338591 | 0.3095 | Target=2.68 | | 24.7 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 137350 | | 2.47(1.34-4.02) | | 222 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.089 | 370721 | 0.5679 | | 95.0 | 292 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.000 | 4435495 | 6.59 | Target=4.69 | | 1129 | M |
| 499.00 > 99.00 | 3.794 | 3.785 | 0.009 | 1.000 | 1004691 | | 4.41(2.35-7.04) | | 1111 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.804 | 0.010 | 1.095 | 644931 | 0.5839 | | 93.4 | 2997 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.804 | 0.010 | 1.000 | 25630 | 0.0254 | Target=7.29 | | 3.1 | |
| 463.00 > 169.00 | 3.814 | 3.804 | 0.010 | 1.000 | 2733 | | 9.38(3.64-10.93) | | 9.5 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.092 | 0.011 | 1.178 | 606986 | 0.5446 | | 87.1 | 2711 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.092 | 0.011 | 1.000 | 19399 | 0.0199 | Target=8.95 | | 7.0 | |
| 513.00 > 169.00 | 4.115 | 4.092 | 0.023 | 1.003 | 2214 | | 8.76(4.47-13.42) | | 13.8 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.104 | 0.011 | 1.181 | 111074 | 0.6879 | | 115 | 126 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.213 | 570922 | 0.5310 | | 85.0 | 1748 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.245 | 4.234 | 0.011 | 1.219 | 63157 | 0.5760 | | 92.2 | 698 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.245 | 4.234 | 0.011 | 1.000 | 1297 | 0.0163 | | | 10.5 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.359 | -0.001 | 1.251 | 463506 | 0.5335 | | 85.4 | 2149 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | R |
| 563.00 > 519.00 | 4.292 | 4.359 | -0.067 | 0.985 | 3315 | 0.004193 | Target=9.24 | | 2.0 | R |
| 563.00 > 169.00 | 4.292 | 4.359 | -0.067 | 0.985 | 2903 | | 1.14(4.62-13.86) | | 34.9 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.255 | 61458 | 0.5984 | | 95.7 | 923 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.000 | 1446 | 0.0172 | | | 8.1 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.581 | 0.0 | 1.315 | 506923 | 0.5425 | | 86.8 | 710 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.947 | 0.010 | 1.423 | 365789 | 0.5047 | | 80.8 | 1323 | |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

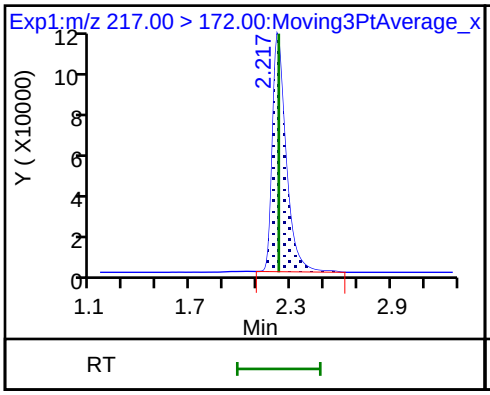
Report Date: 11-Nov-2021 15:42:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

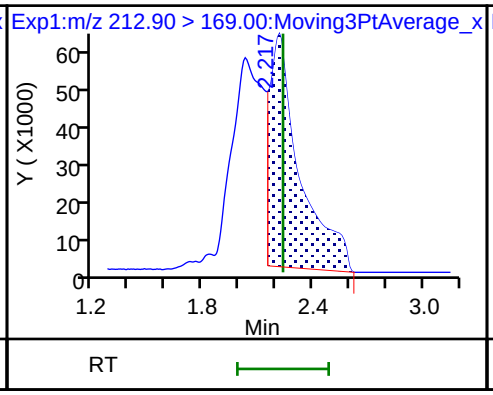
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A08.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Nov-2021 13:14:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |

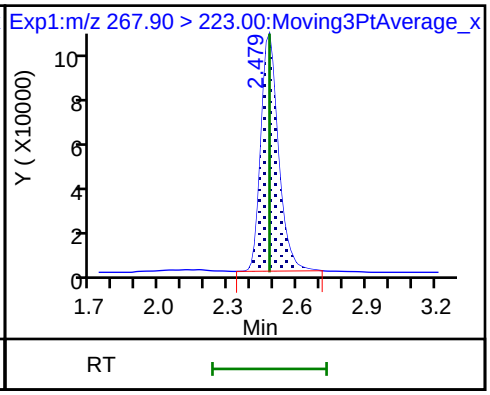
D 1 13C4 PFBA



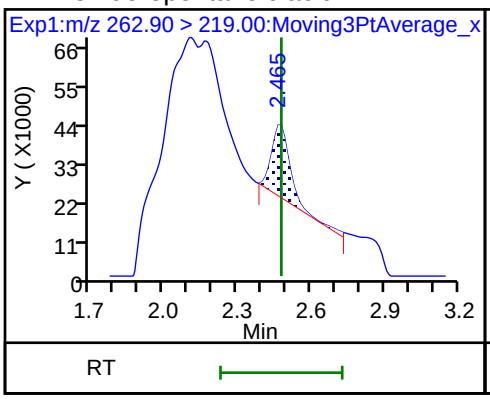

2 Perfluorobutanoic acid



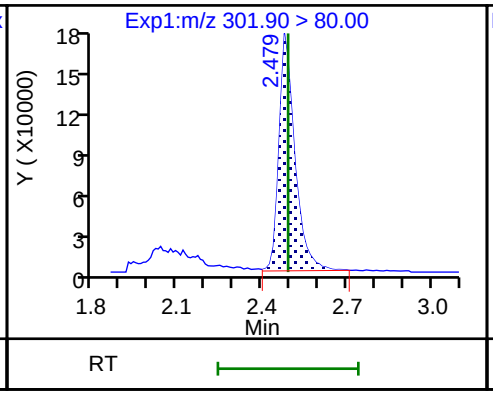

D 3 13C5 PFPeA



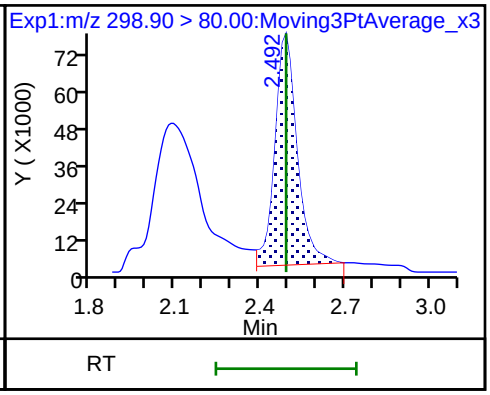

4 Perfluoropentanoic acid



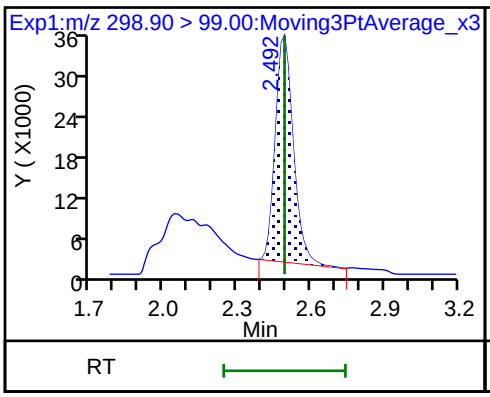

D 47 13C3 PFBS



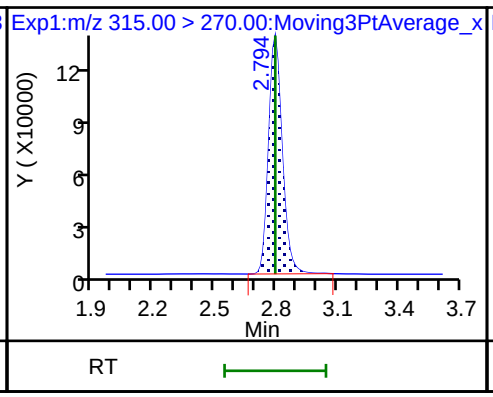

5 Perfluorobutanesulfonic acid



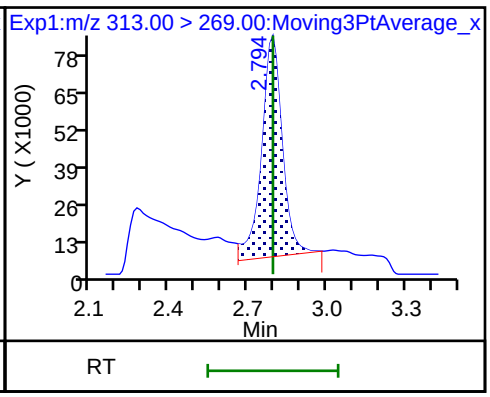

5 Perfluorobutanesulfonic acid



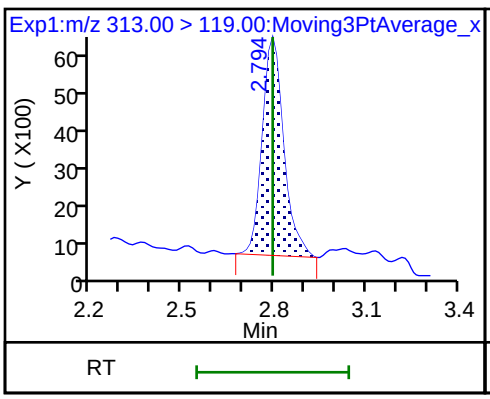

D 7 13C2 PFHxA



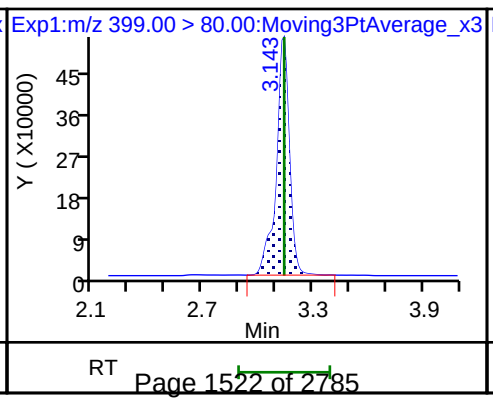

6 Perfluorohexanoic acid



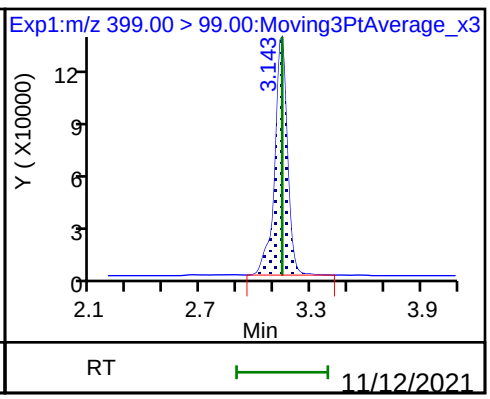

6 Perfluorohexanoic acid



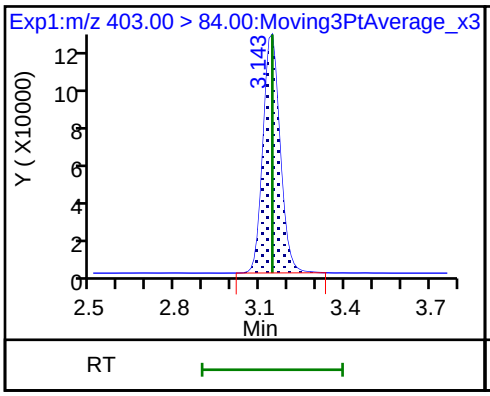

8 Perfluorohexanesulfonic acid



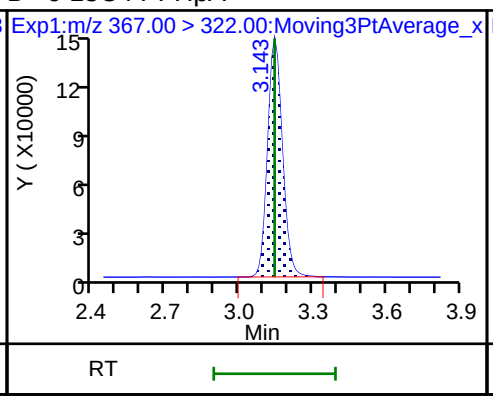

8 Perfluorohexanesulfonic acid



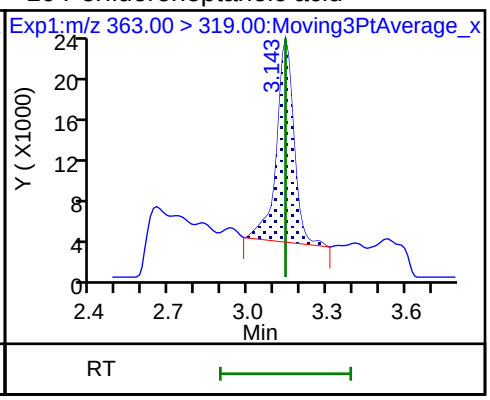
D 11 18O2 PFHxS



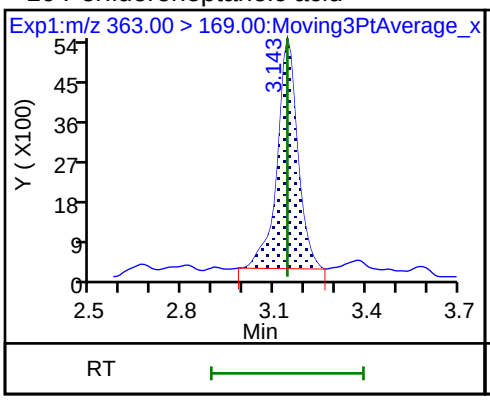

D 9 13C4 PFHpA



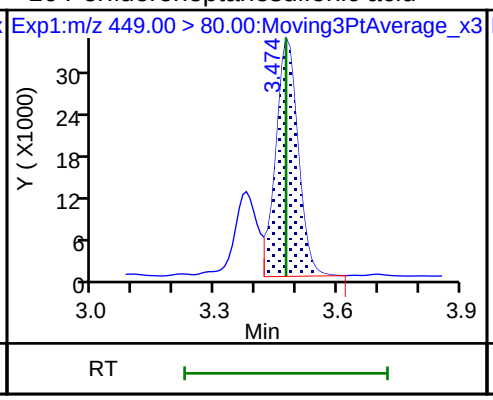

10 Perfluoroheptanoic acid



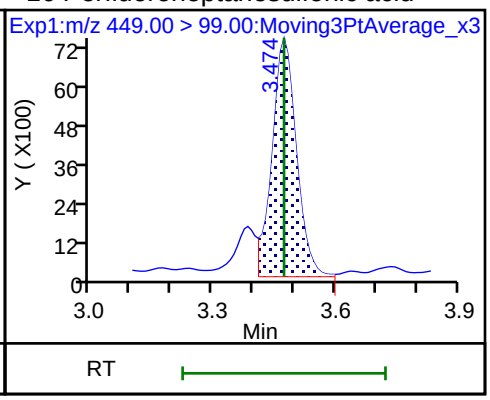

10 Perfluoroheptanoic acid



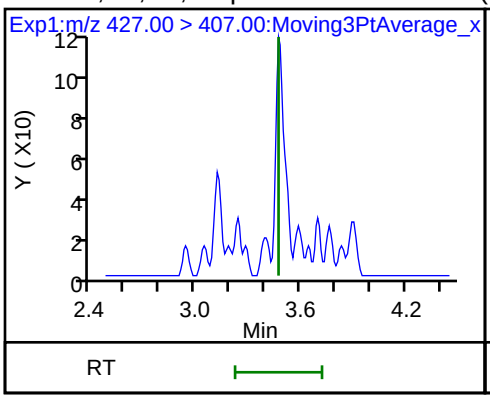

16 Perfluoroheptanesulfonic acid



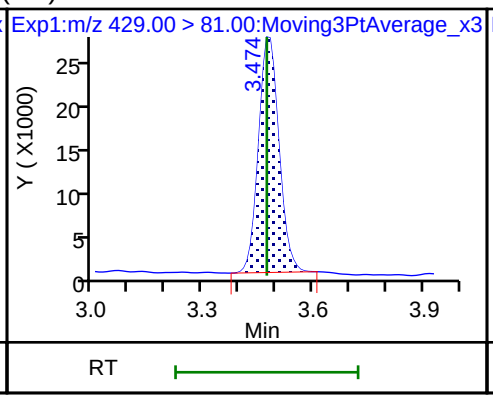

16 Perfluoroheptanesulfonic acid



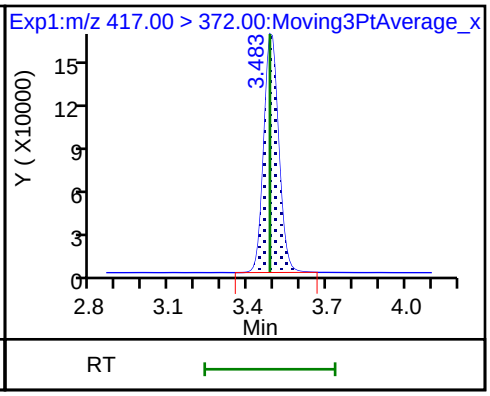

13 1H,1H,2H,2H-perfluorooctanesulfo (ND)



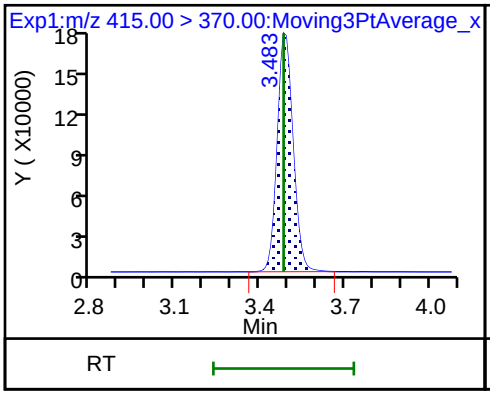

D 12 M2-6:2 FTS



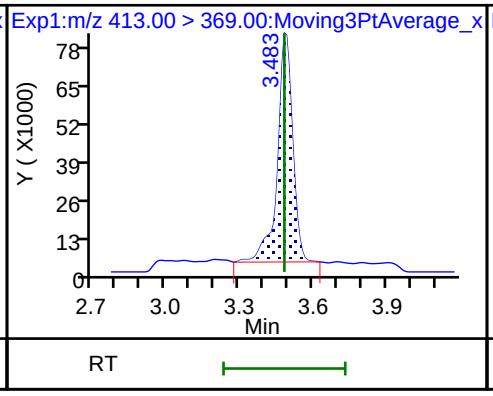

D 14 13C4 PFOA



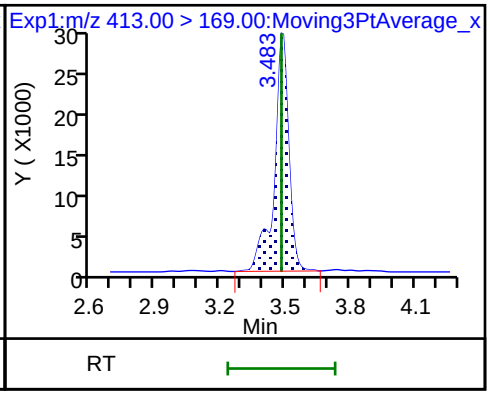

* 62 13C2 PFOA



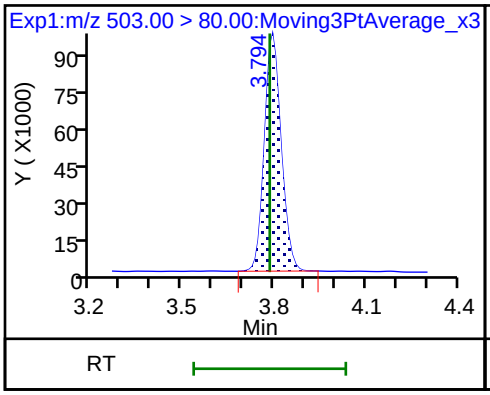

15 Perfluorooctanoic acid



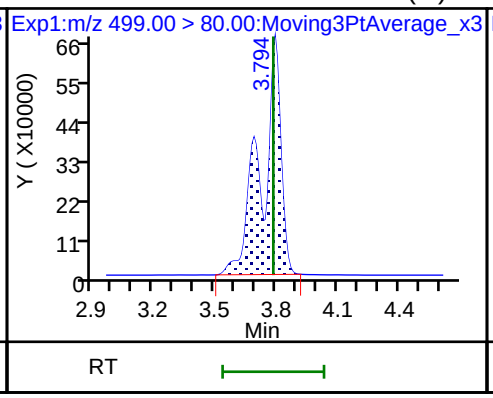

15 Perfluorooctanoic acid



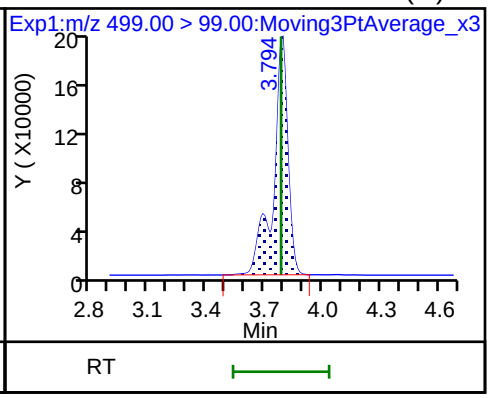
D 18 13C4 PFOS



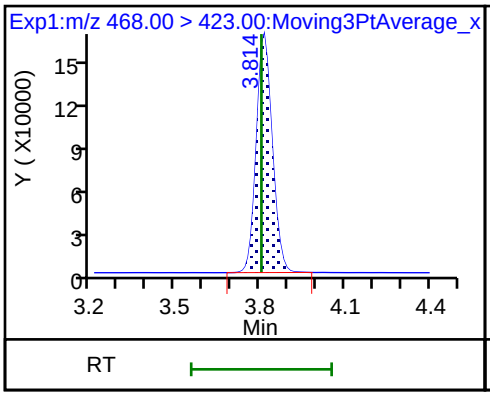

17 Perfluorooctanesulfonic acid (M)



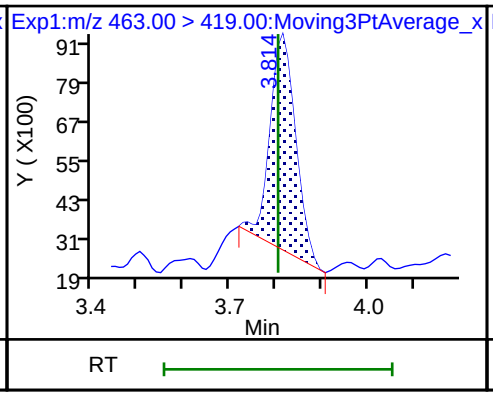

17 Perfluorooctanesulfonic acid (M)



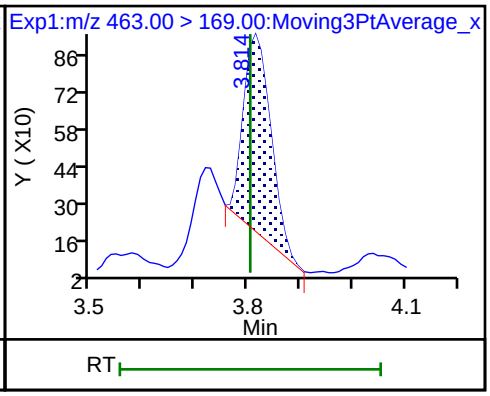

D 19 13C5 PFNA



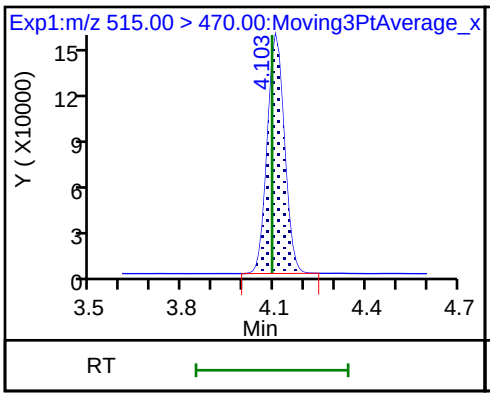

20 Perfluorononanoic acid



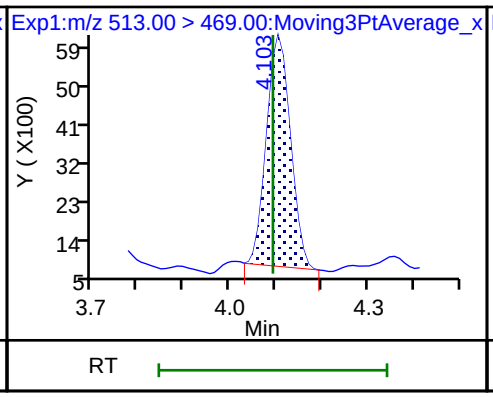

20 Perfluorononanoic acid



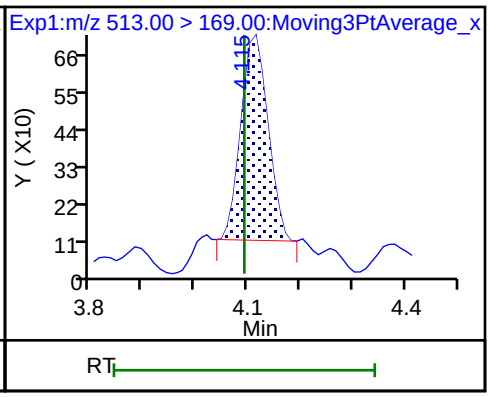

D 23 13C2 PFDA



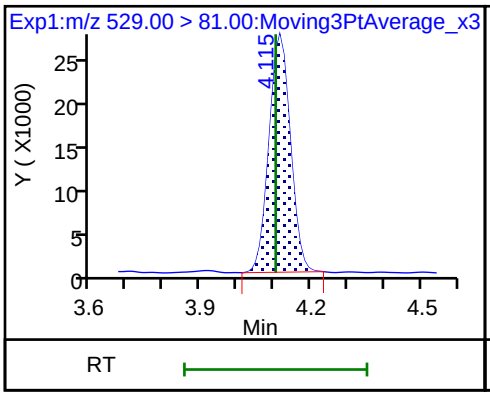

24 Perfluorodecanoic acid



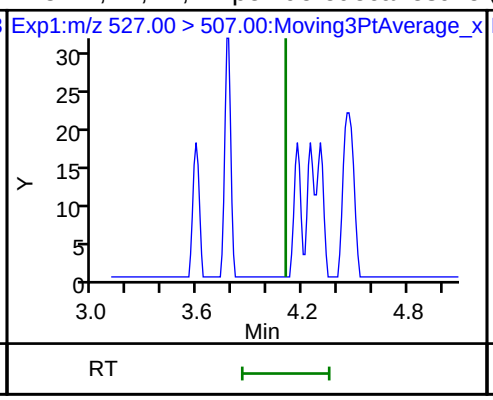

24 Perfluorodecanoic acid



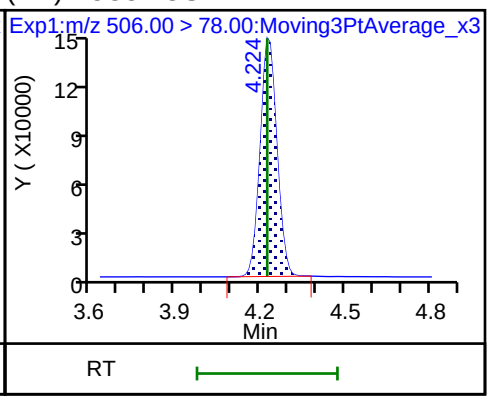

D 26 M2-8:2 FTS



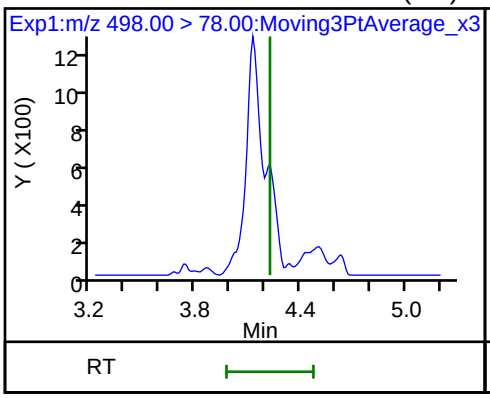

25 1H,1H,2H,2H-perfluorodecanesulfo (M2)



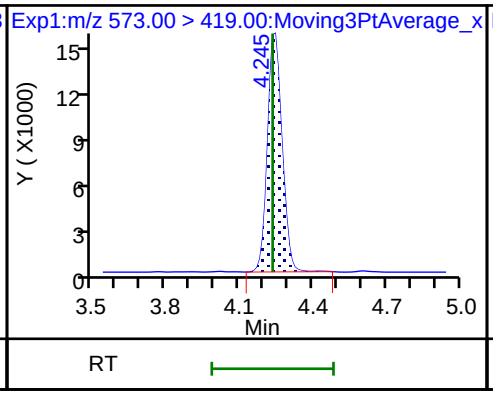

D 21 13C8 FOSA



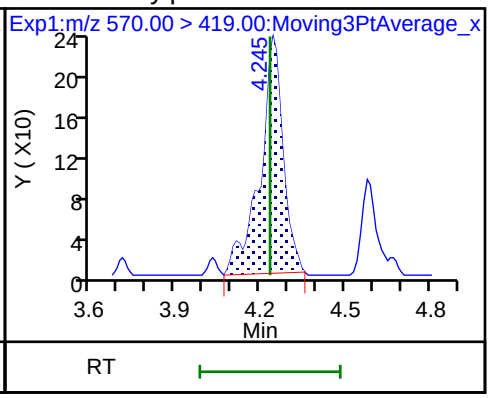
22 Perfluorooctanesulfonamide (ND)



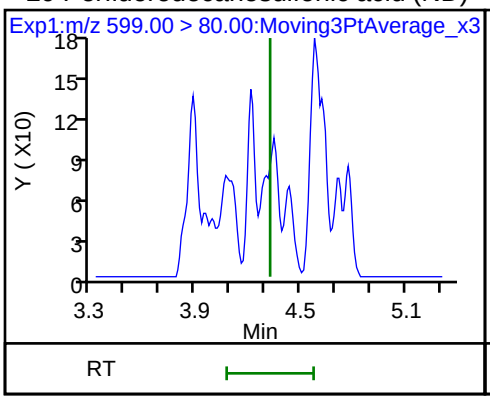

D 27 d3-NMeFOSAA



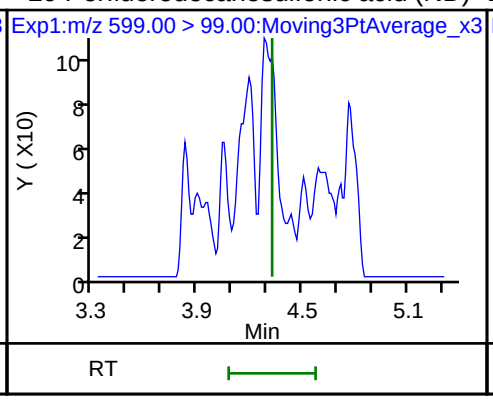

28 N-methylperfluorooctanesulfonami



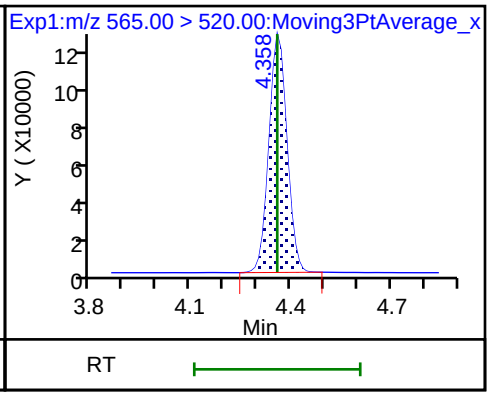

29 Perfluorodecanesulfonic acid (ND)



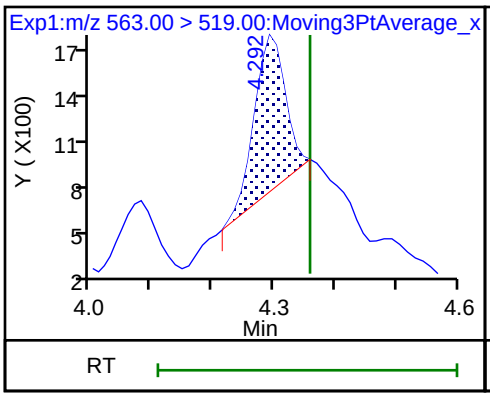

29 Perfluorodecanesulfonic acid (ND)



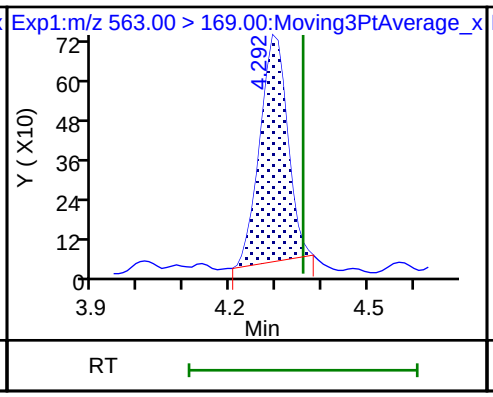

D 30 13C2 PFUnA



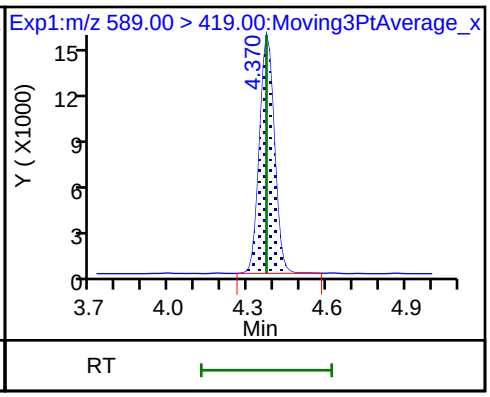

31 Perfluoroundecanoic acid



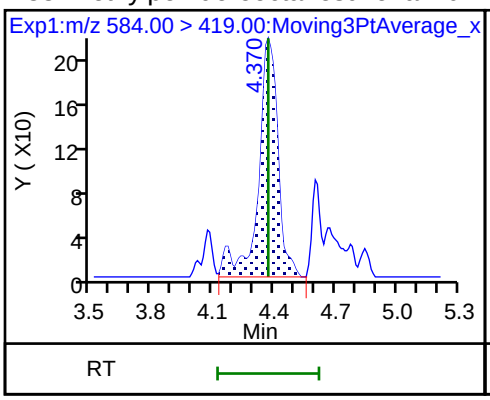

31 Perfluoroundecanoic acid



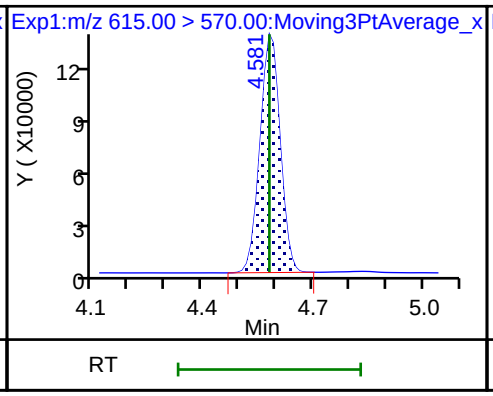

D 32 d5-NEtFOSAA



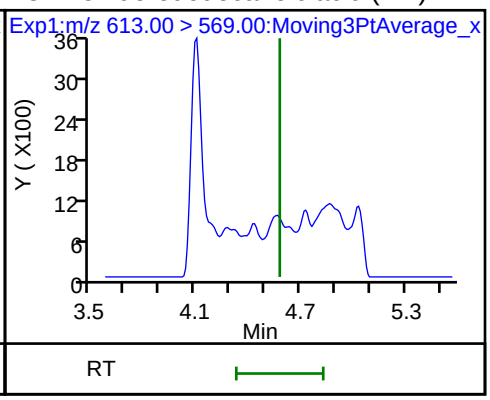

33 N-ethylperfluorooctanesulfonamid



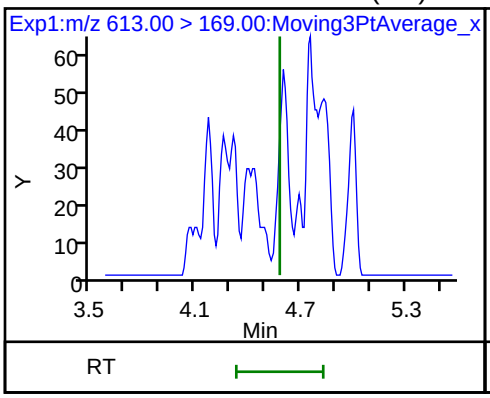

D 36 13C2 PFDoA



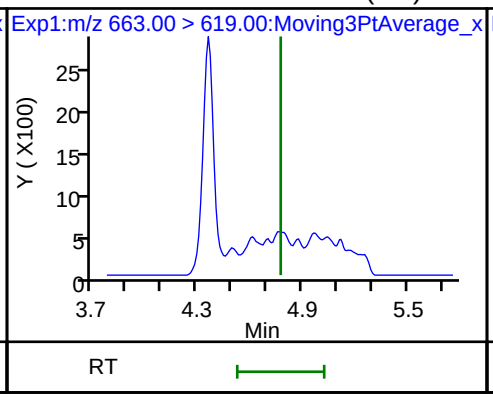

37 Perfluorododecanoic acid (ND)



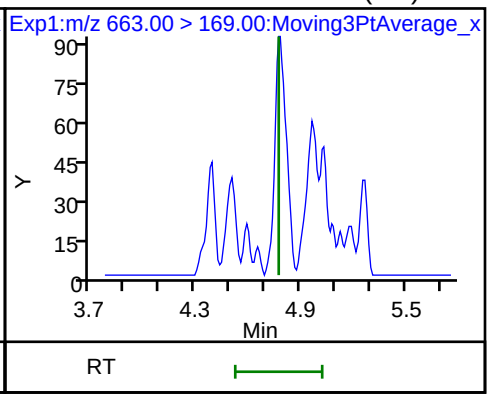
37 Perfluorododecanoic acid (ND)



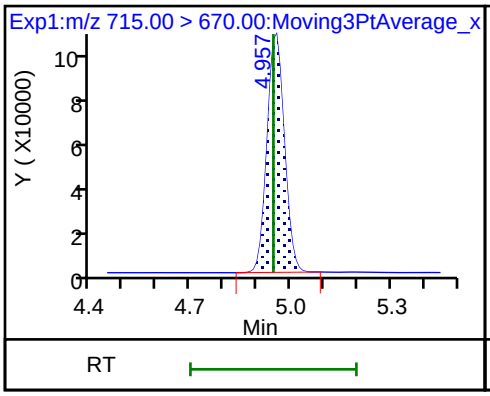

41 Perfluorotridecanoic acid (ND)



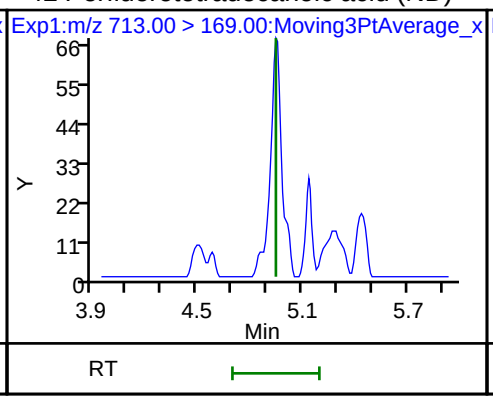

41 Perfluorotridecanoic acid (ND)



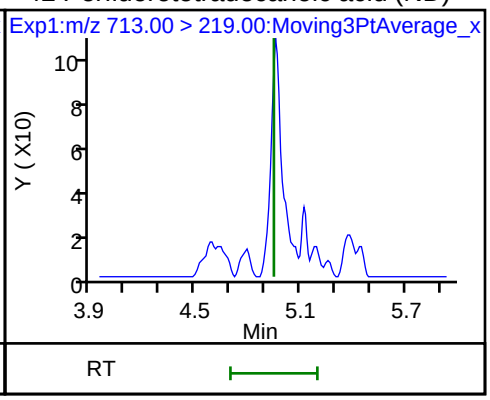

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (ND)




42 Perfluorotetradecanoic acid (ND)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

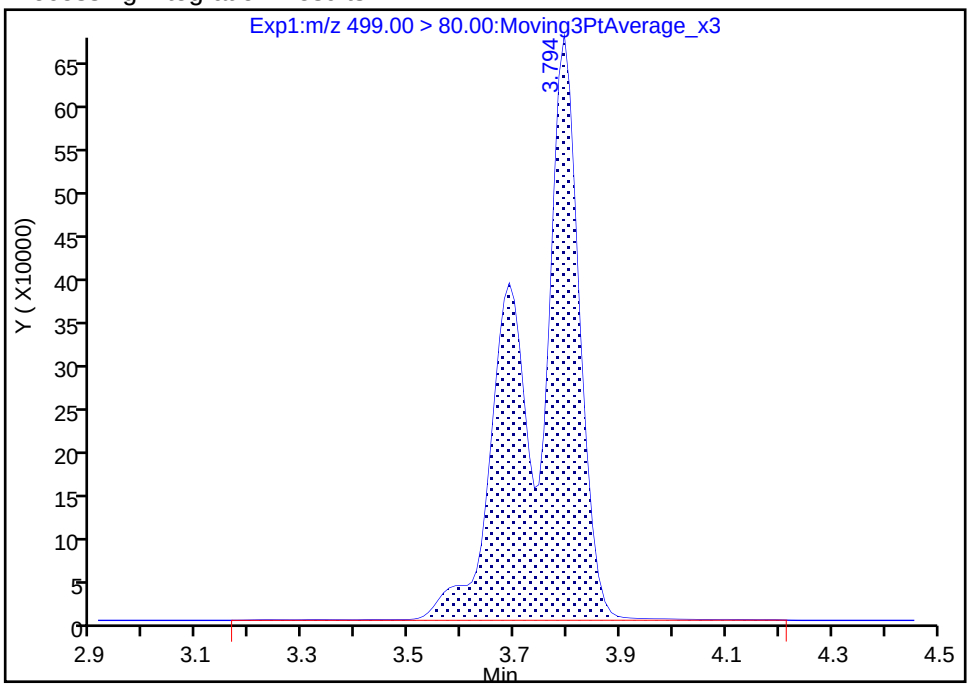
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A08.d | | | | |
| Injection Date: | 09-Nov-2021 13:14:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

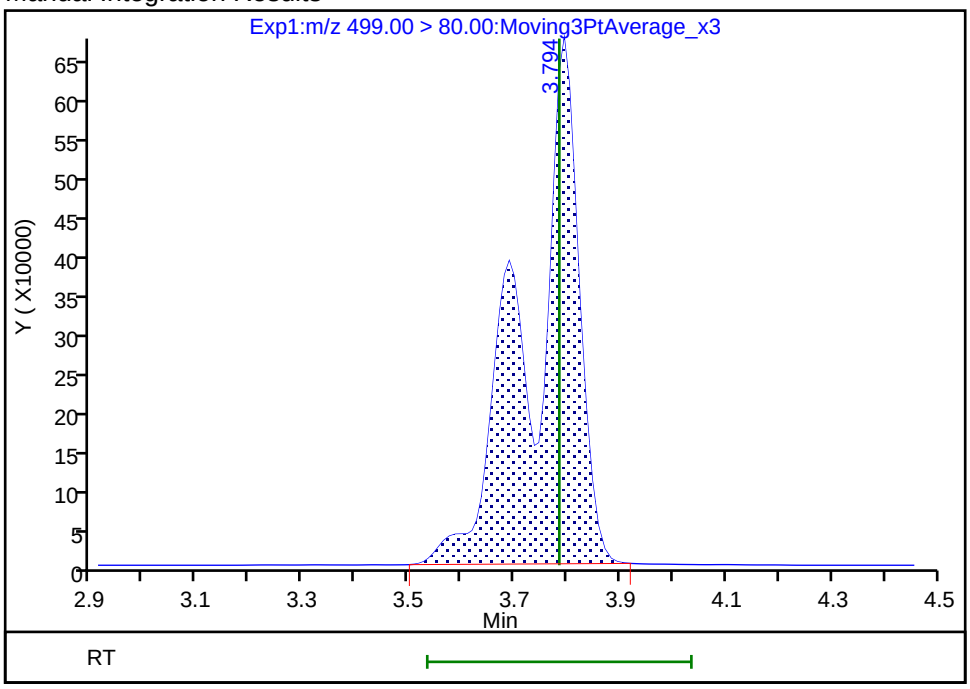
Processing Integration Results

RT: 3.79
Area: 4492188
Amount: 6.672624
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 4435495
Amount: 6.588413
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:27:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

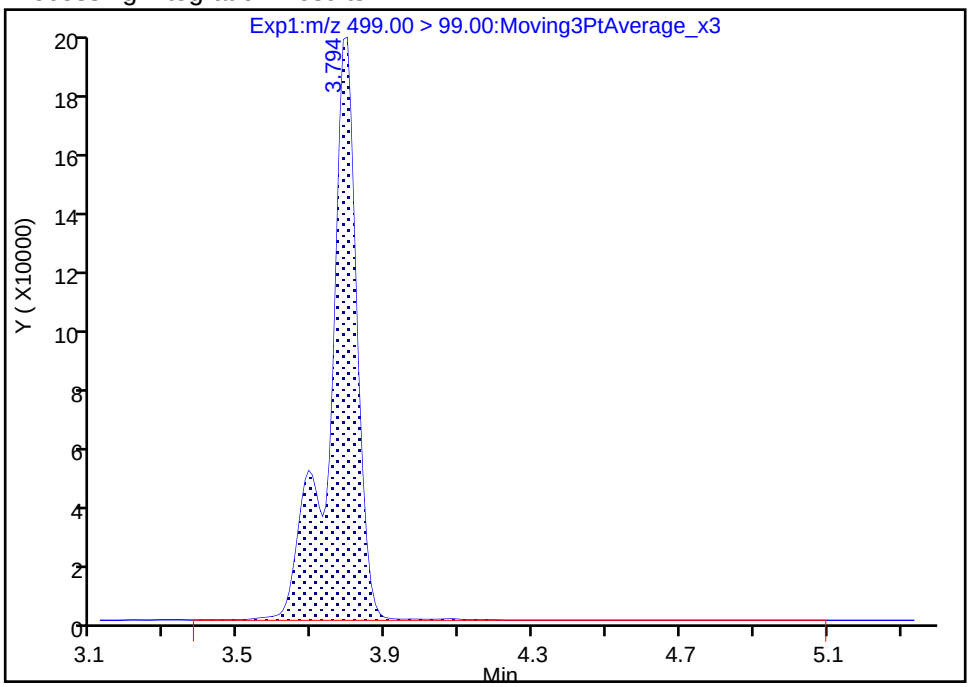
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A08.d | | | | |
| Injection Date: | 09-Nov-2021 13:14:44 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-31-A | Lab Sample ID: | 200-246277-31 | | |
| Client ID: | AMW-10-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 2.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

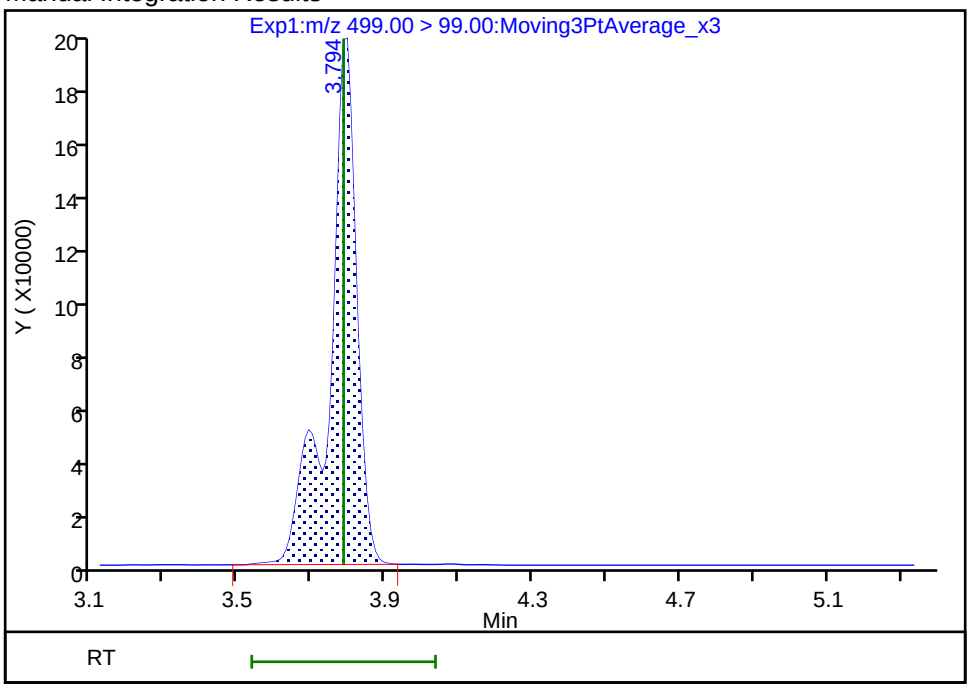
Processing Integration Results

RT: 3.79
Area: 1016365
Amount: 6.672624
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1004691
Amount: 6.588413
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:27:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-53S-20211029  Lab Sample ID: 460-246277-32

Matrix: Water  Lab File ID: PA211110A25.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 09:15

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 255.2(mL)  Date Analyzed: 11/10/2021 14:39

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 5.64 | | 4.90 | 0.87 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 4.07 | | 1.96 | 0.46 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 6.07 | | 1.96 | 0.44 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 2.64 | | 1.96 | 0.23 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 13.9 | | 1.96 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 1.49 | J | 1.96 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.89 | J | 1.96 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 1.96 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.38 | U | 1.96 | 0.38 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 1.96 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.62 | U | 1.96 | 0.62 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 2.77 | B | 1.96 | 0.24 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 26.5 | | 1.96 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 1.33 | J | 1.96 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 75.0 | | 1.96 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.30 | U | 1.96 | 0.30 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.57 | U | 1.96 | 0.57 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.88 | U | 4.90 | 0.88 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.73 | U | 4.90 | 0.73 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.07 | U | 4.90 | 1.07 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.38 | U | 1.96 | 0.38 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-53S-20211029  Lab Sample ID: 460-246277-32

Matrix: Water  Lab File ID: PA211110A25.d

Analysis Method: 537 (modified)  Date Collected: 10/29/2021 09:15

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 255.2(mL)  Date Analyzed: 11/10/2021 14:39

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 103 | | 50-150 |
| STL01892 | 13C4 PFHpA | 98 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 93 | | 50-150 |
| STL00992 | 13C4 PFBA | 103 | | 25-150 |
| STL00993 | 13C2 PFHxA | 103 | | 50-150 |
| STL00996 | 13C2 PFDA | 85 | | 50-150 |
| STL00997 | 13C2 PFUnA | 86 | | 50-150 |
| STL00998 | 13C2 PFDoA | 90 | | 50-150 |
| STL01056 | 13C8 FOSA | 85 | | 25-150 |
| STL01893 | 13C5 PFPeA | 103 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 86 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 98 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 102 | | 50-150 |
| STL02279 | M2-6:2 FTS | 116 | | 25-150 |
| STL02280 | M2-8:2 FTS | 107 | | 25-150 |
| STL02337 | 13C3 PFBS | 102 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d
Lims ID: 460-246277-C-32-A
Client ID: MW-53S-20211029
Sample Type: Client
Inject. Date: 10-Nov-2021 14:39:05 ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-32-A
Misc. Info.: 200-0048360-025 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 11:58:25
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 1363591 | 1.29 | | 103 | 2395 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.091 | 0.009 | 1.004 | 148448 | 0.1439 | | | 13.0 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1146575 | 1.28 | | 103 | 870 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 95325 | 0.1037 | | | 1.2 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1433814 | 1.19 | | 102 | 45810 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.005 | 93173 | 0.0707 | Target=2.32 | | 10.4 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 42567 | | 2.19(1.16-3.48) | | 6.3 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1205344 | 1.29 | | 103 | 3079 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 151535 | 0.1550 | Target=12.09 | | 6.8 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 12098 | | 12.53(6.04-18.13) | | 8.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 674779 | 0.6774 | Target=3.55 | | 231 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 179136 | | 3.77(1.77-5.32) | | 122 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1071420 | 1.22 | | 103 | 4305 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1212067 | 1.23 | | 98.3 | 2818 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 67549 | 0.0674 | Target=3.69 | | 5.5 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 18302 | | 3.69(1.84-5.53) | | 26.0 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 26785 | 0.0339 | Target=4.88 | | 12.1 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 5296 | | 5.06(2.44-7.32) | | 5.7 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.510 | 3.475 | 0.035 | 1.008 | 579 | 0.002842 | | | 5.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 190751 | 1.38 | | 116 | 124 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1307794 | 1.21 | | 97.0 | 5017 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1309832 | 1.25 | | | 3989 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 394237 | 0.3543 | Target=2.68 | | 30.2 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 155314 | | 2.54(1.34-4.02) | | 331 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 758172 | 1.19 | | 100.0 | 790 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 1318073 | 1.91 | Target=4.69 | | 458 | M |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 283308 | | 4.65(2.35-7.04) | | 391 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.818 | 0.007 | 1.095 | 1253248 | 1.17 | | 93.4 | 4126 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.825 | 3.818 | 0.007 | 1.000 | 37323 | 0.0381 | Target=7.29 | | 5.2 | M |
| 463.00 > 169.00 | 3.825 | 3.818 | 0.007 | 1.000 | 4971 | | 7.51(3.64-10.93) | | 29.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1153501 | 1.06 | | 85.1 | 3223 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 20985 | 0.0226 | Target=8.95 | | 6.6 | M |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 1937 | | 10.83(4.47-13.42) | | 13.8 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 200532 | 1.28 | | 107 | 232 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.081 | 4.120 | -0.039 | 0.989 | 305 | 0.002177 | | | 6.1 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.210 | 1109893 | 1.06 | | 84.9 | 3098 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.219 | 0.016 | 1.002 | 1836 | 0.002177 | | | 6.8 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 130732 | 1.23 | | 98.1 | 999 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 0.997 | 248 | 0.003018 | | | 2.1 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.347 | 4.342 | 0.005 | 1.143 | 437 | 0.001048 | Target=2.47 | | 1.9 | RM |
| 599.00 > 99.00 | 4.336 | 4.342 | -0.006 | 1.140 | 498 | | 0.88(1.23-3.70) | | 3.7 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 906257 | 1.07 | | 85.8 | 2712 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 126724 | 1.27 | | 102 | 836 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.000 | 272 | 0.003131 | | | 2.0 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1023892 | 1.13 | | 90.1 | 1083 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.972 | 0.014 | 1.428 | 757561 | 1.07 | | 86.0 | 2314 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.986 | 4.972 | 0.014 | 1.000 | 195 | 0.002039 | Target=1.01 | | 6.3 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 0.998 | 159 | | 1.23(0.51-1.52) | | 6.0 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d

Injection Date: 10-Nov-2021 14:39:05 Instrument ID: LC812

Lims ID: 460-246277-C-32-A Lab Sample ID: 200-246277-32

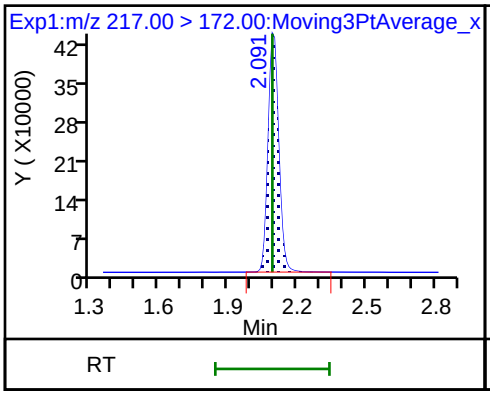
Client ID: MW-53S-20211029

Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25

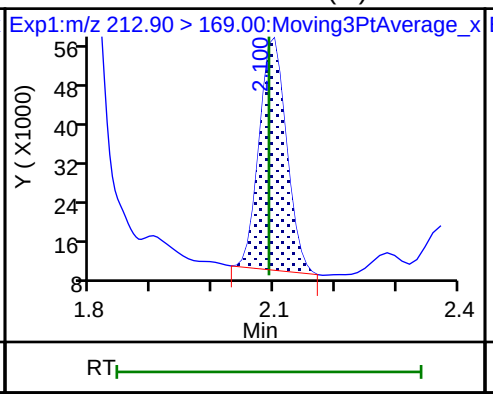
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

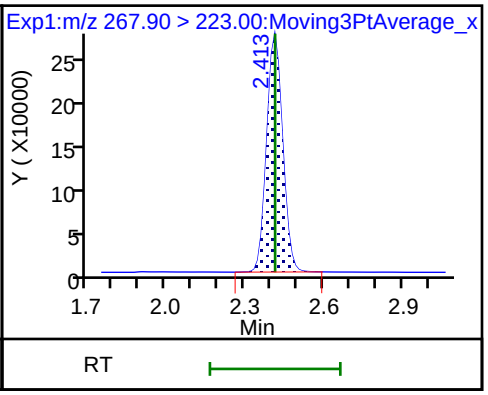
D 1 13C4 PFBA



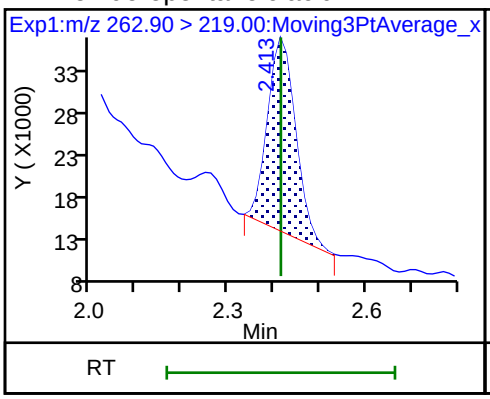

2 Perfluorobutanoic acid (M)



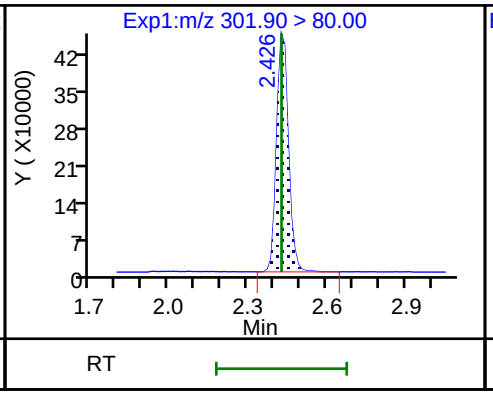

D 3 13C5 PFPeA



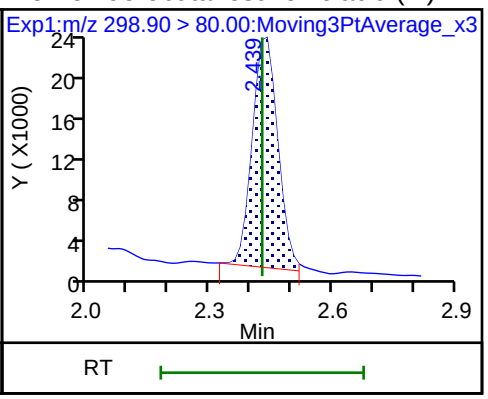

4 Perfluoropentanoic acid



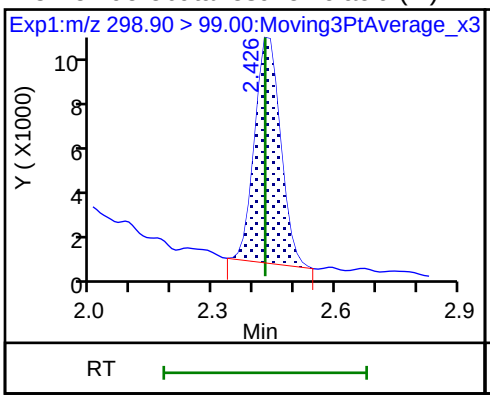

D 47 13C3 PFBS



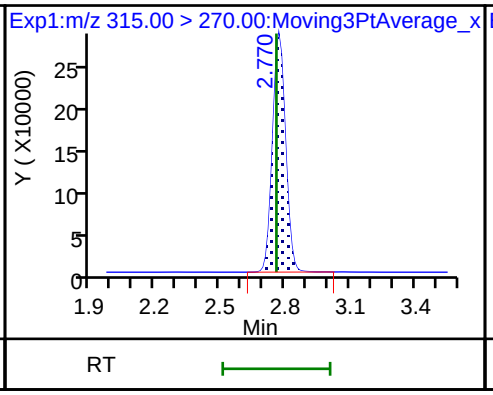

5 Perfluorobutanesulfonic acid (M)



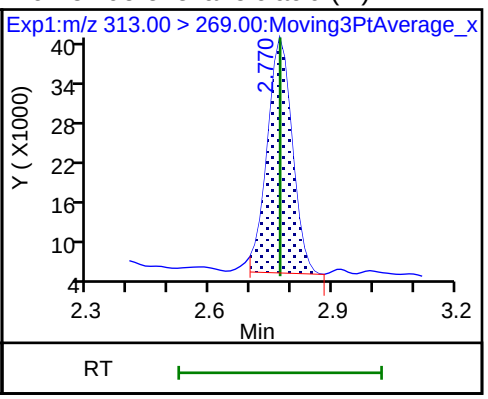

5 Perfluorobutanesulfonic acid (M)



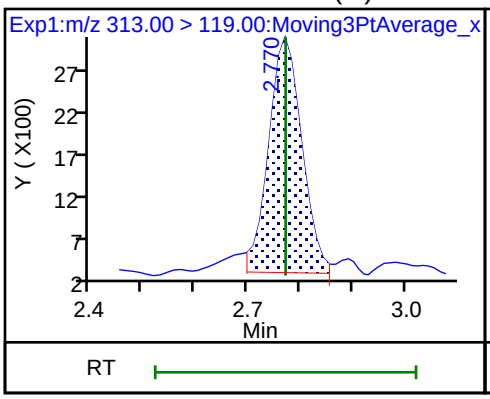

D 7 13C2 PFHxA



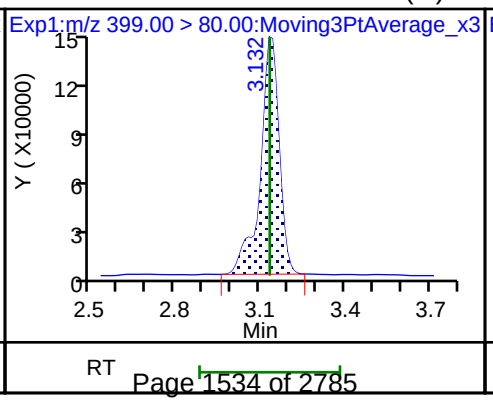

6 Perfluorohexanoic acid (M)



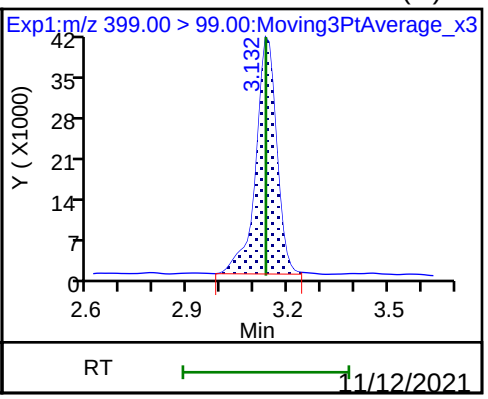

6 Perfluorohexanoic acid (M)



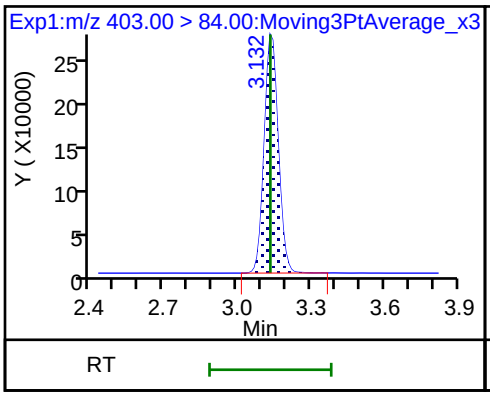

8 Perfluorohexanesulfonic acid (M)



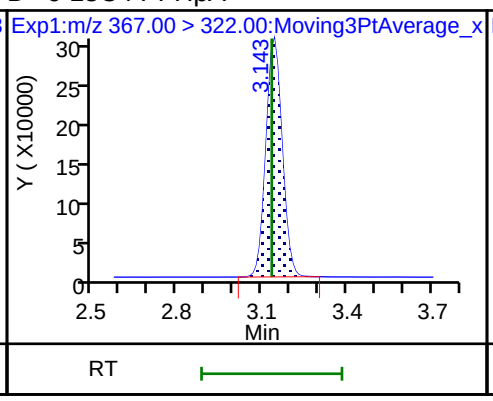

8 Perfluorohexanesulfonic acid (M)



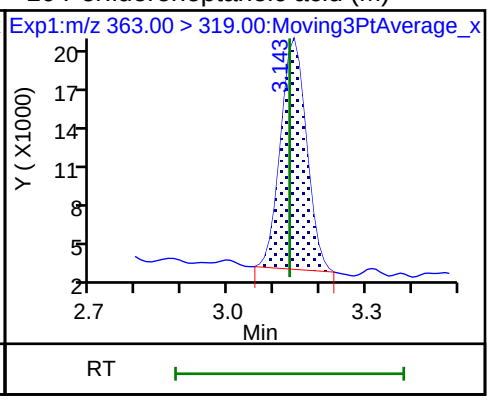
D 11 18O2 PFHxS



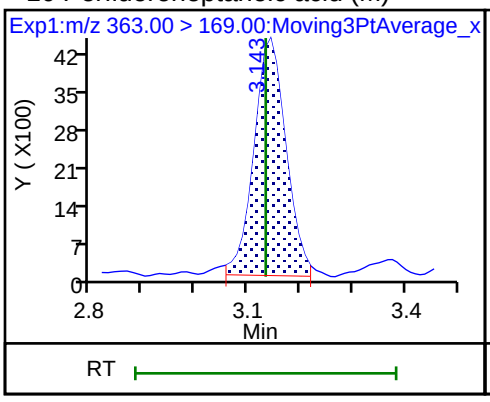

D 9 13C4 PFHpA



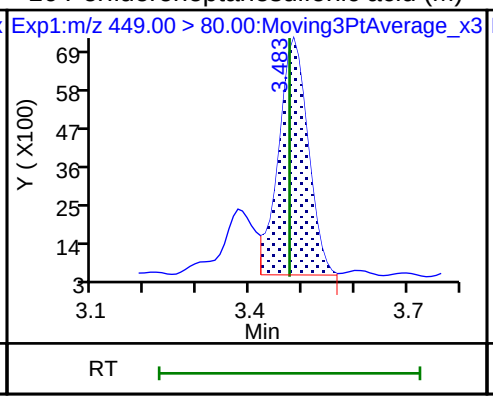

10 Perfluoroheptanoic acid (M)



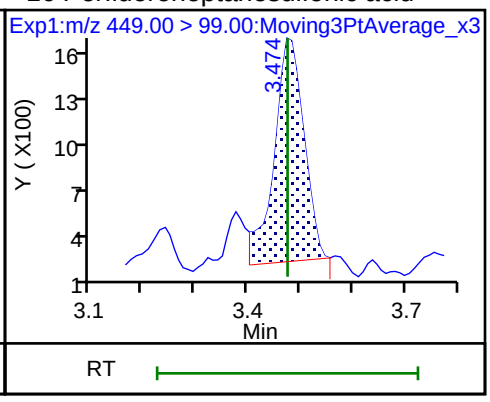

10 Perfluoroheptanoic acid (M)



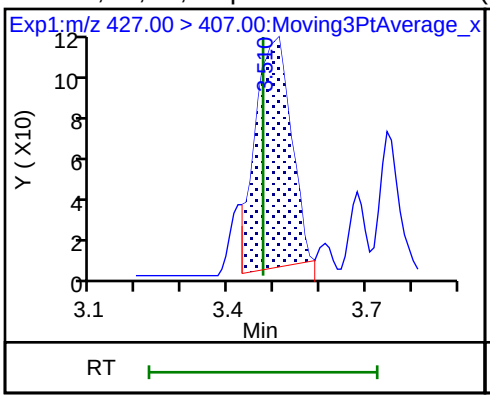

16 Perfluoroheptanesulfonic acid (M)



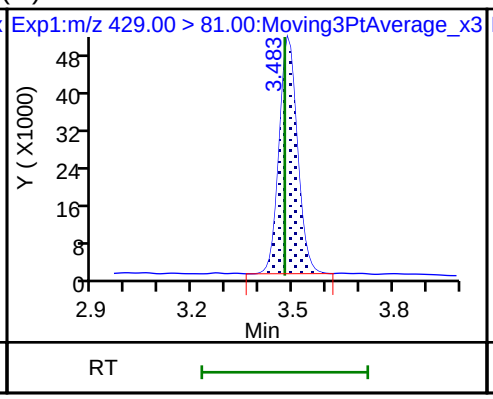

16 Perfluoroheptanesulfonic acid



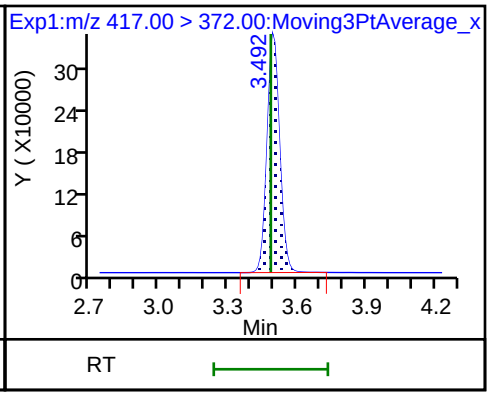

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



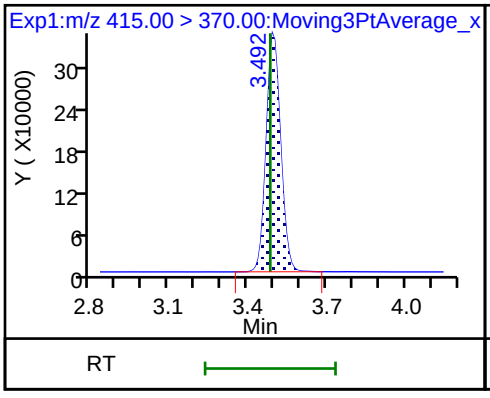

D 12 M2-6:2 FTS



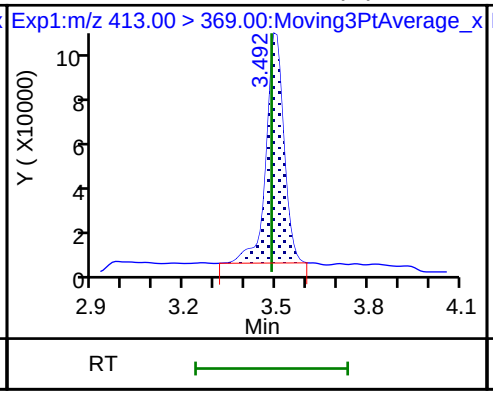

D 14 13C4 PFOA



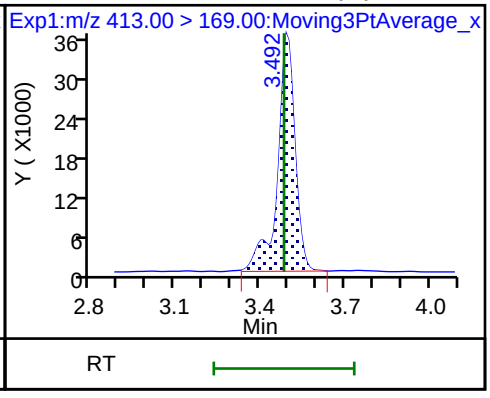

* 62 13C2 PFOA



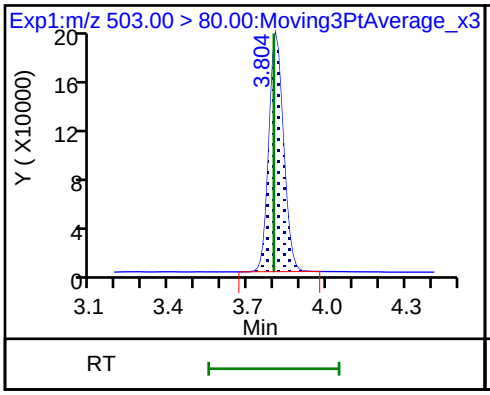

15 Perfluorooctanoic acid (M)



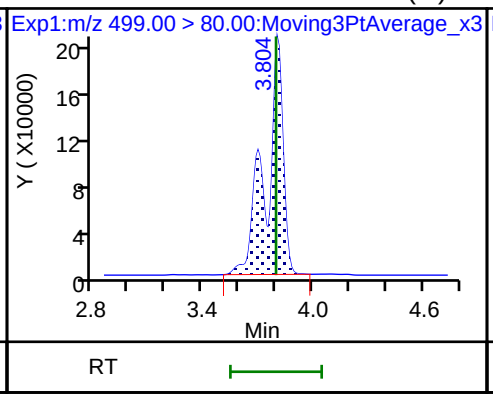

15 Perfluorooctanoic acid (M)



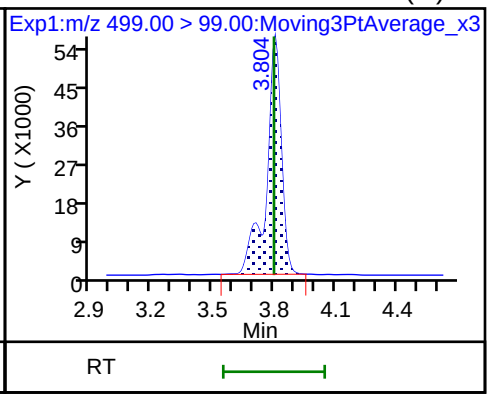
D 18 13C4 PFOS



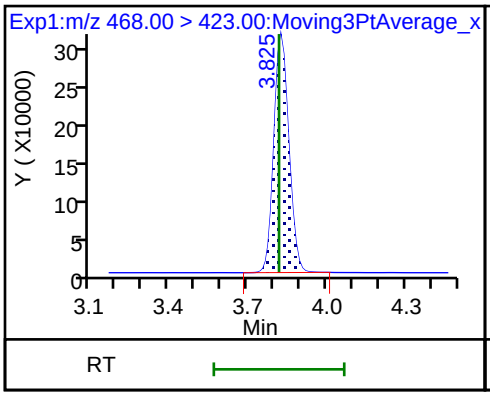

17 Perfluorooctanesulfonic acid (M)



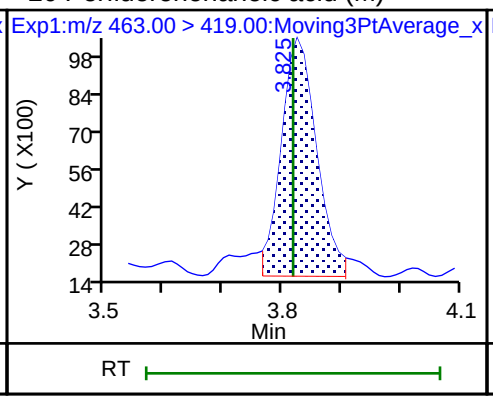

17 Perfluorooctanesulfonic acid (M)



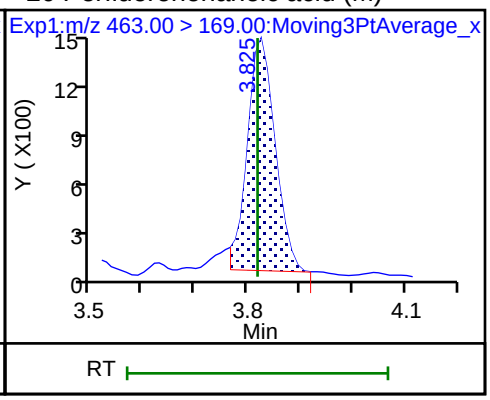

D 19 13C5 PFNA



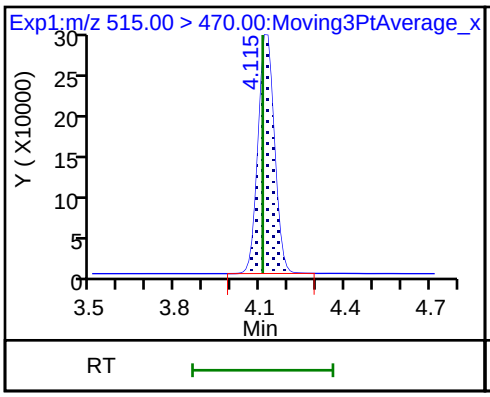

20 Perfluorononanoic acid (M)



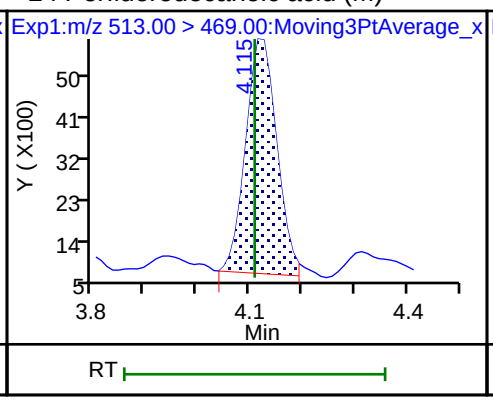

20 Perfluorononanoic acid (M)



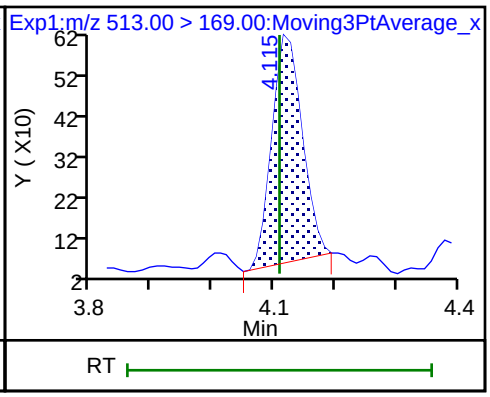

D 23 13C2 PFDA



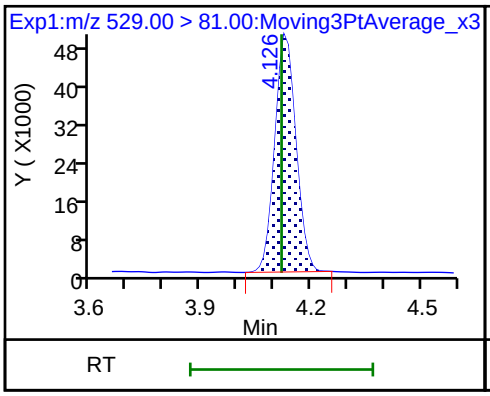

24 Perfluorodecanoic acid (M)



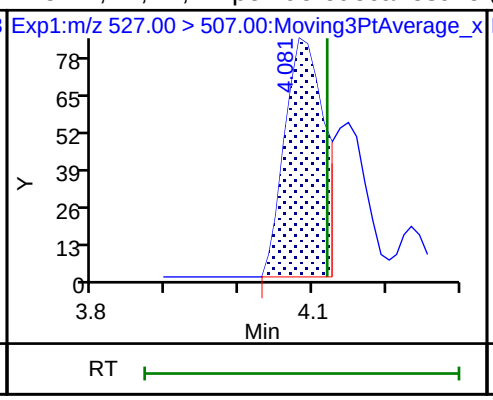

24 Perfluorodecanoic acid



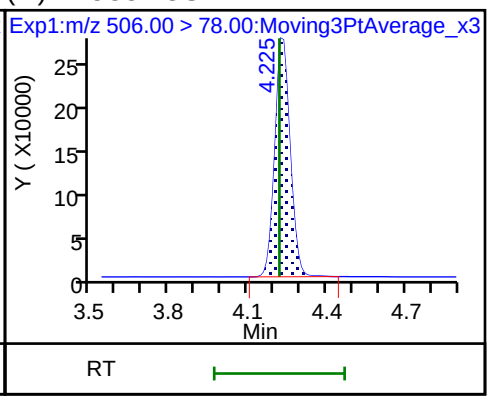

D 26 M2-8:2 FTS



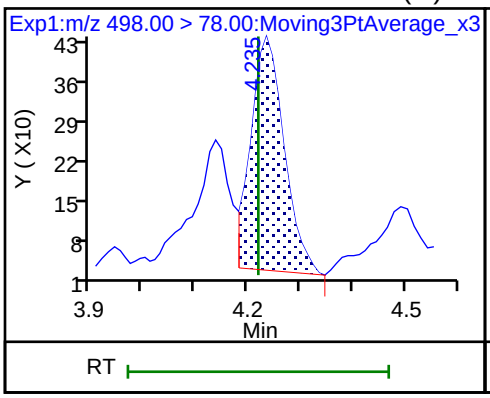

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



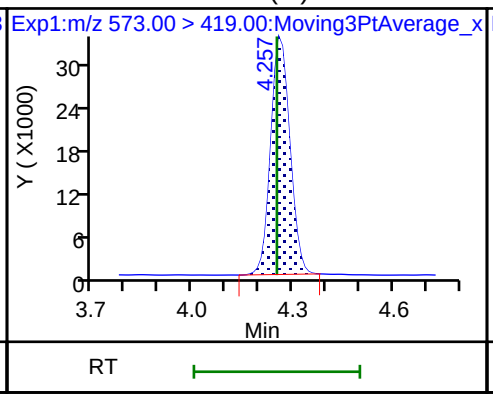

D 21 13C8 FOSA



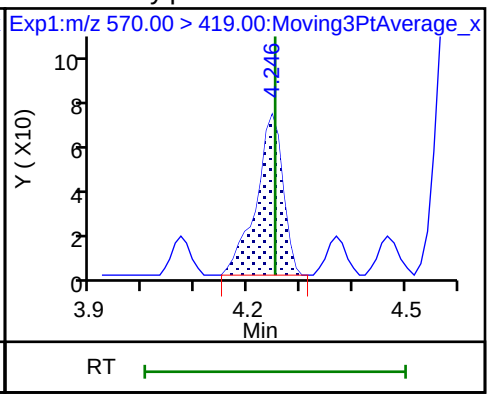
22 Perfluorooctanesulfonamide (M)



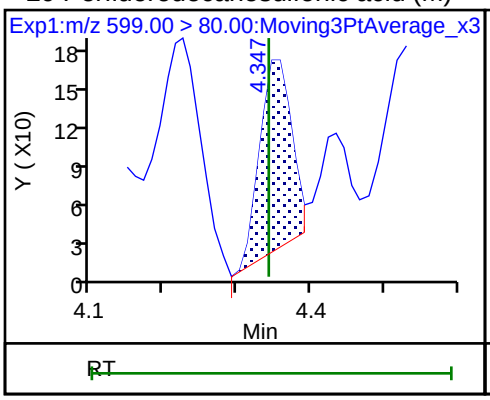

D 27 d3-NMeFOSAA (M)



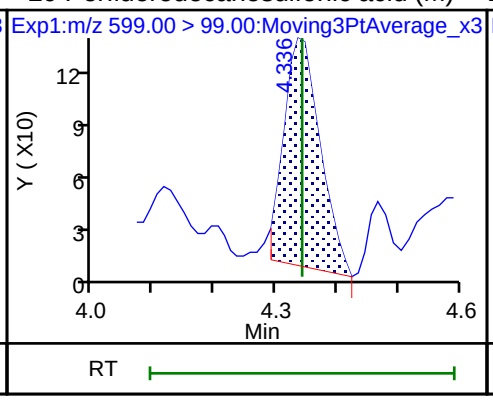

28 N-methylperfluorooctanesulfonami



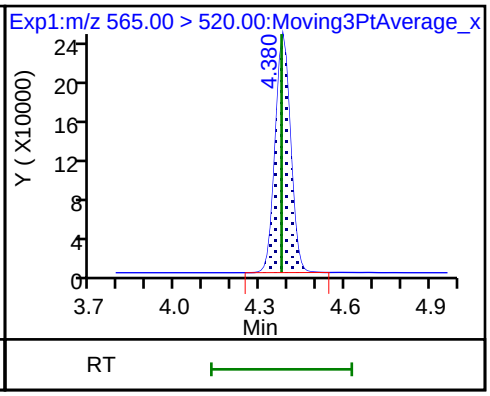

29 Perfluorodecanesulfonic acid (M)



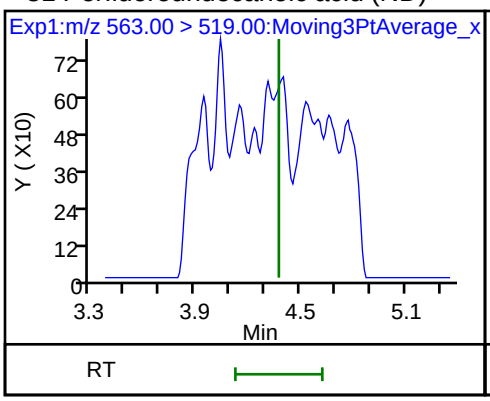

29 Perfluorodecanesulfonic acid (M)



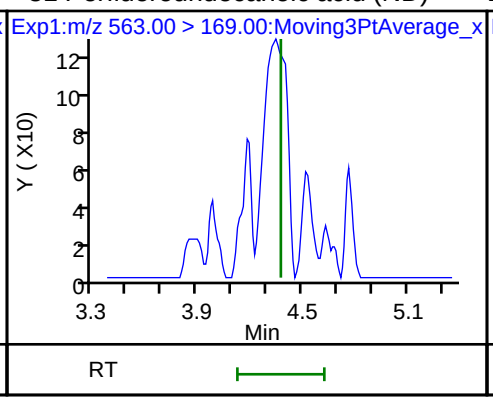

D 30 13C2 PFUnA



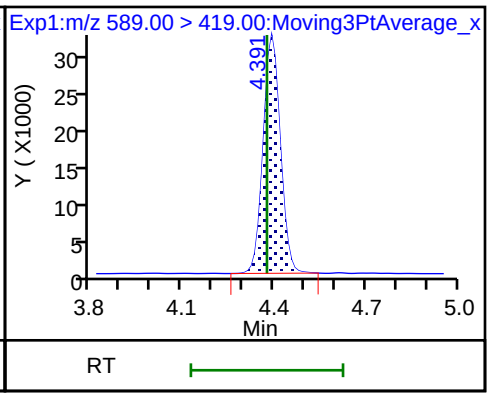

31 Perfluoroundecanoic acid (ND)



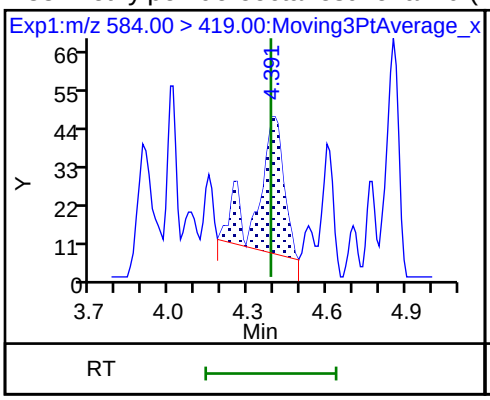

31 Perfluoroundecanoic acid (ND)



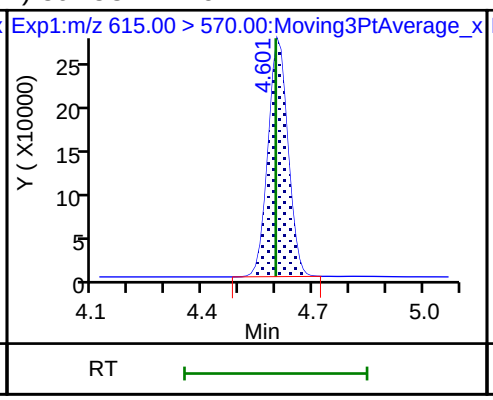

D 32 d5-NEtFOSAA



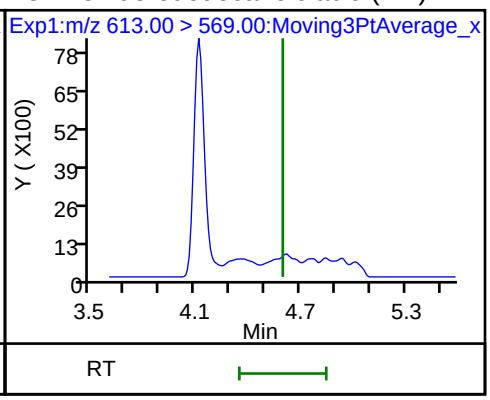

33 N-ethylperfluorooctanesulfonamid (ND)



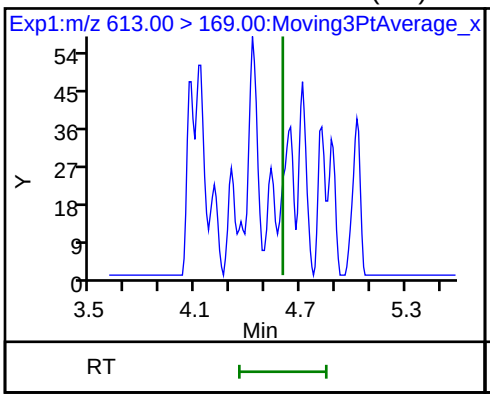

D 36 13C2 PFDoA



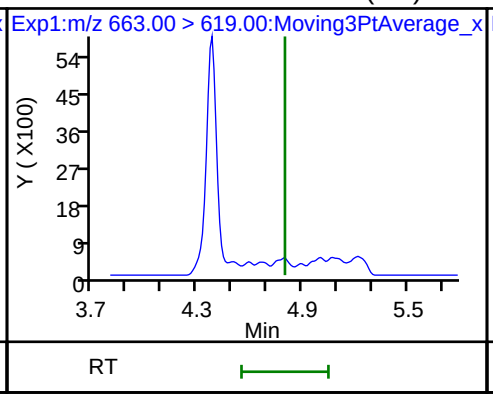

37 Perfluorododecanoic acid (ND)



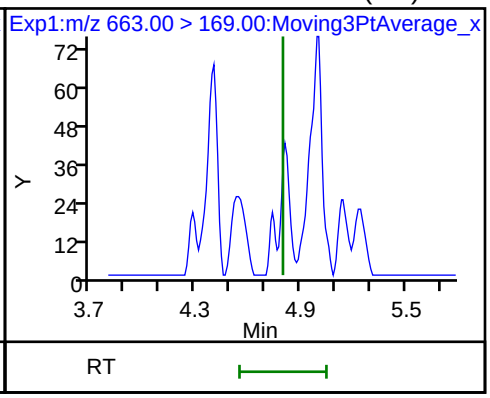
37 Perfluorododecanoic acid (ND)



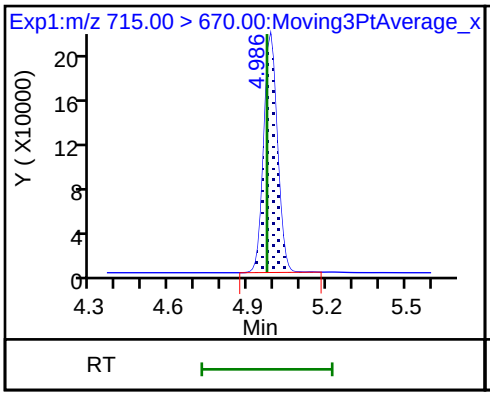

41 Perfluorotridecanoic acid (ND)



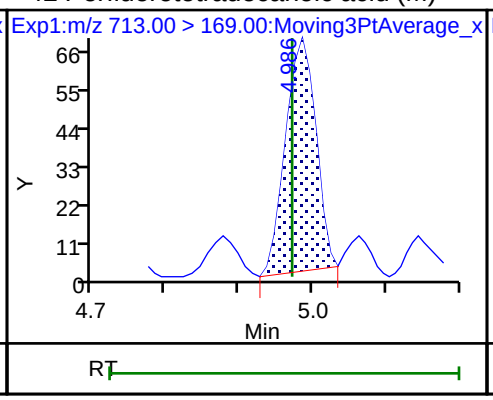

41 Perfluorotridecanoic acid (ND)



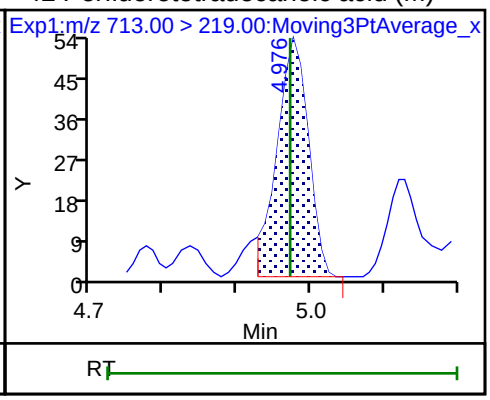

D 43 13C2 PFTeDA




42 Perfluorotetradecanoic acid (M)




42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

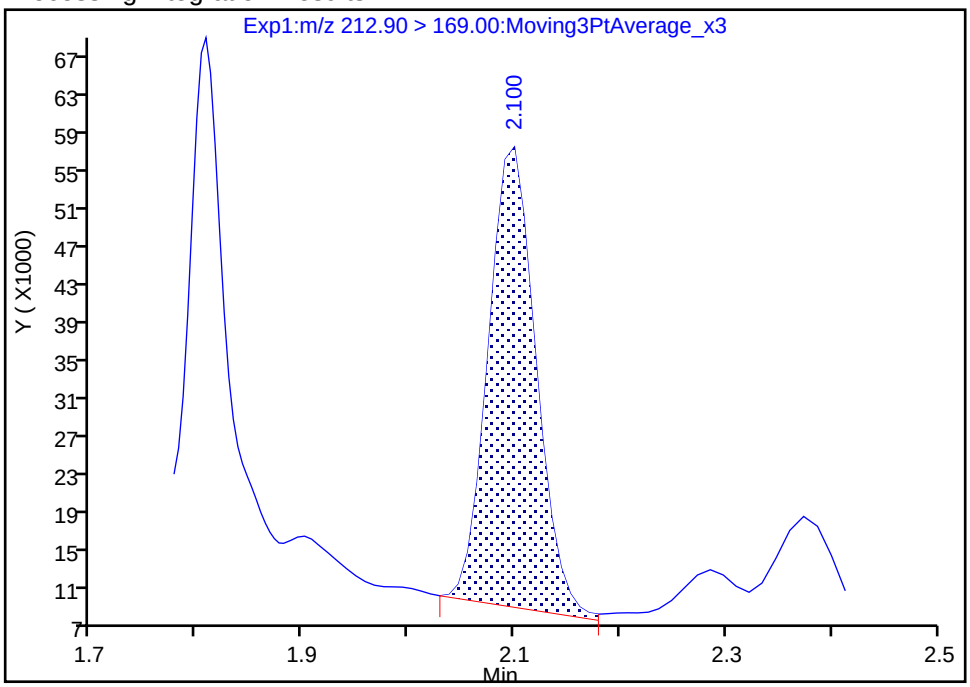
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

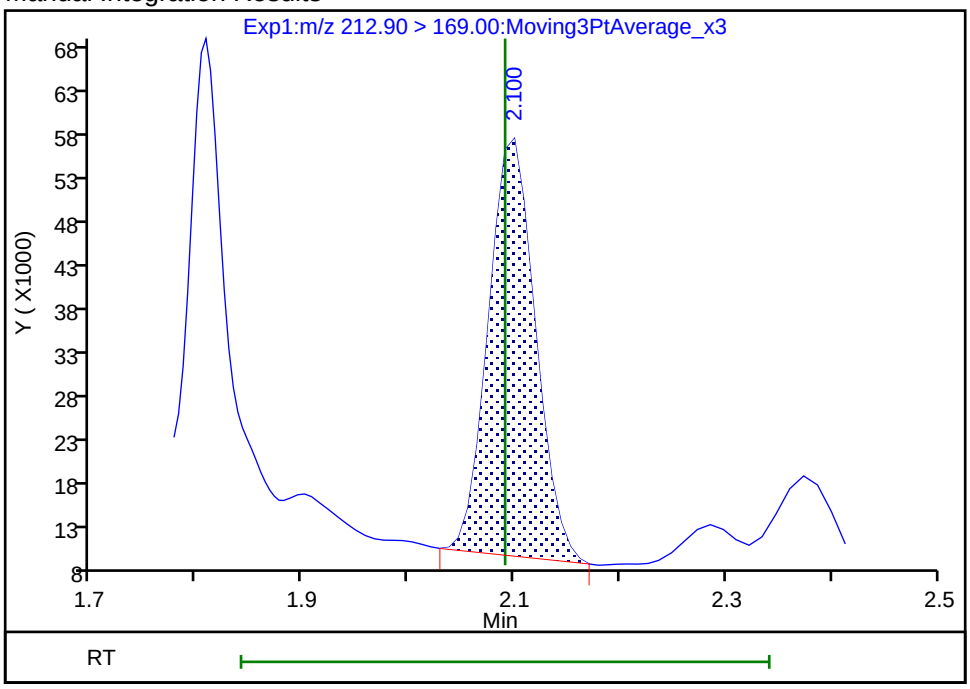
Processing Integration Results

RT: 2.10
Area: 151542
Amount: 0.146916
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 148448
Amount: 0.143917
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:55:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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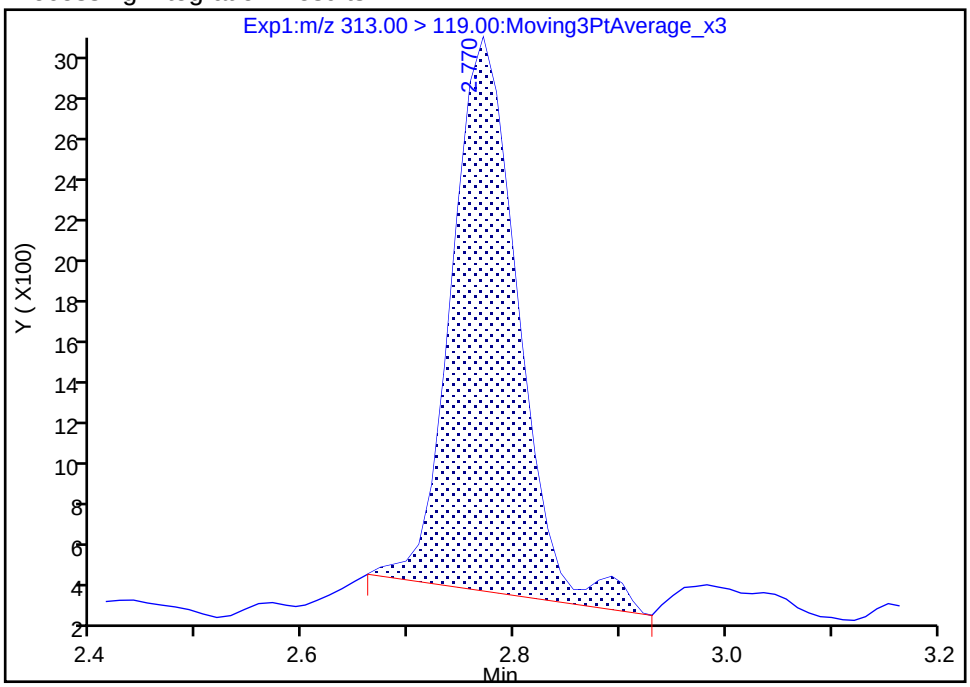
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

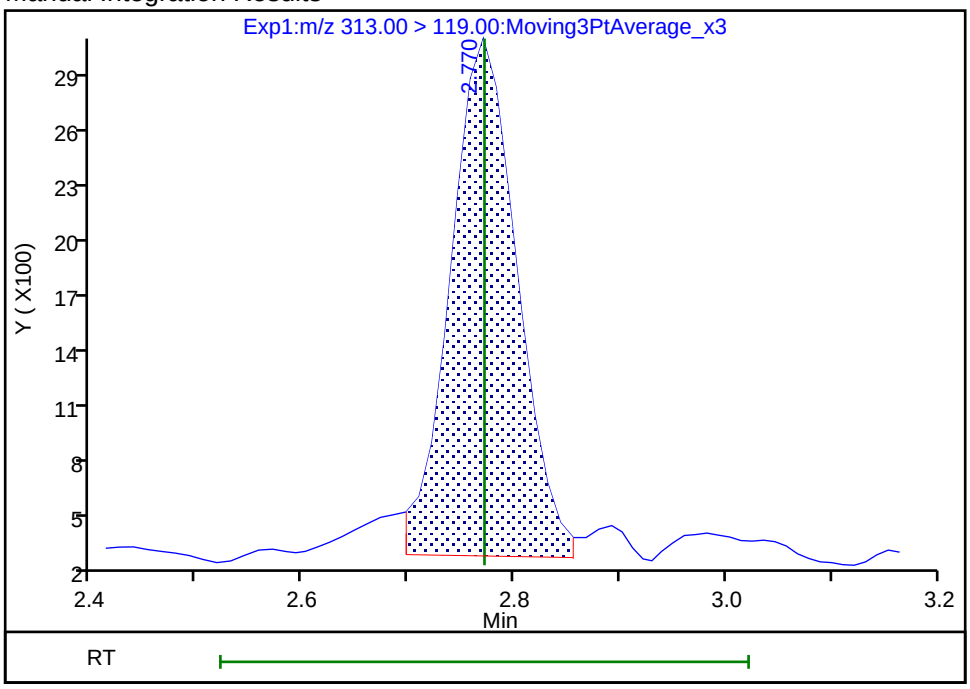
Processing Integration Results

RT: 2.77
Area: 11766
Amount: 0.157794
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 12098
Amount: 0.154953
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:55:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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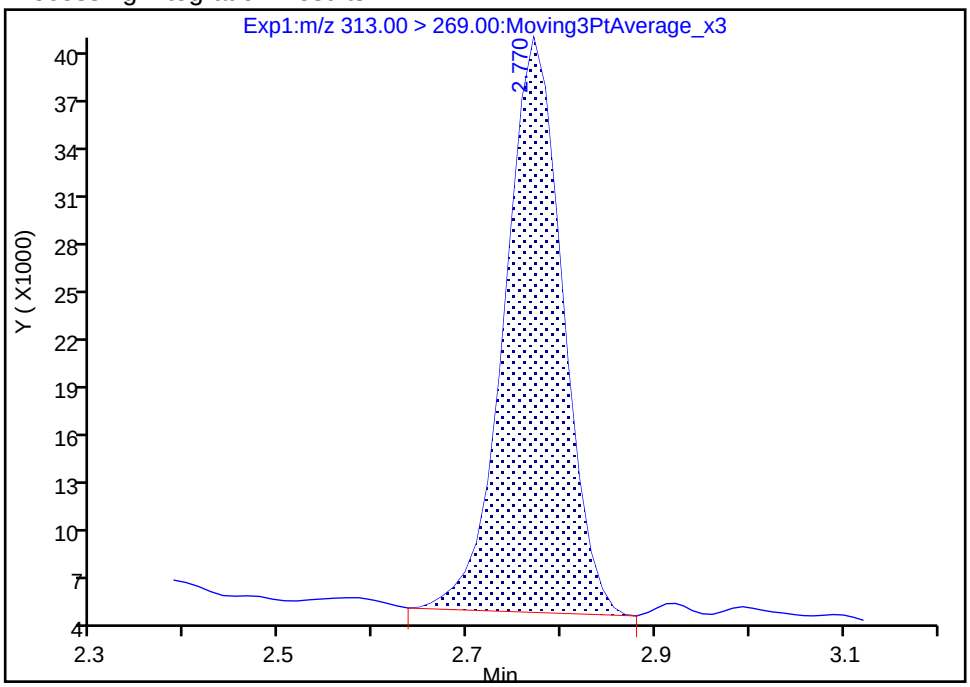
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

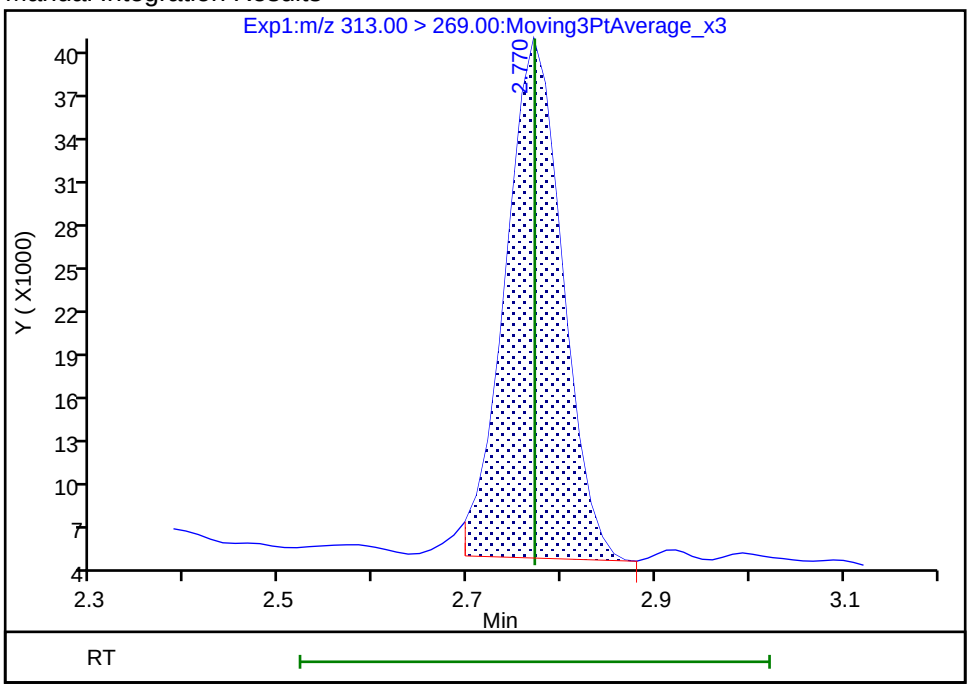
Processing Integration Results

RT: 2.77
Area: 154314
Amount: 0.157794
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 151535
Amount: 0.154953
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:26:25

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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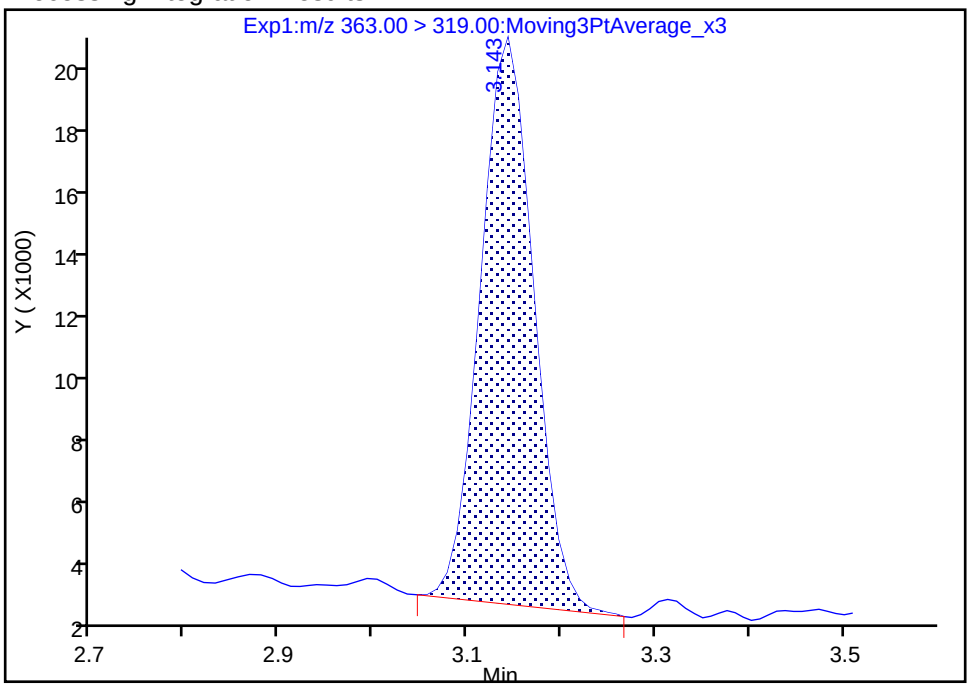
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

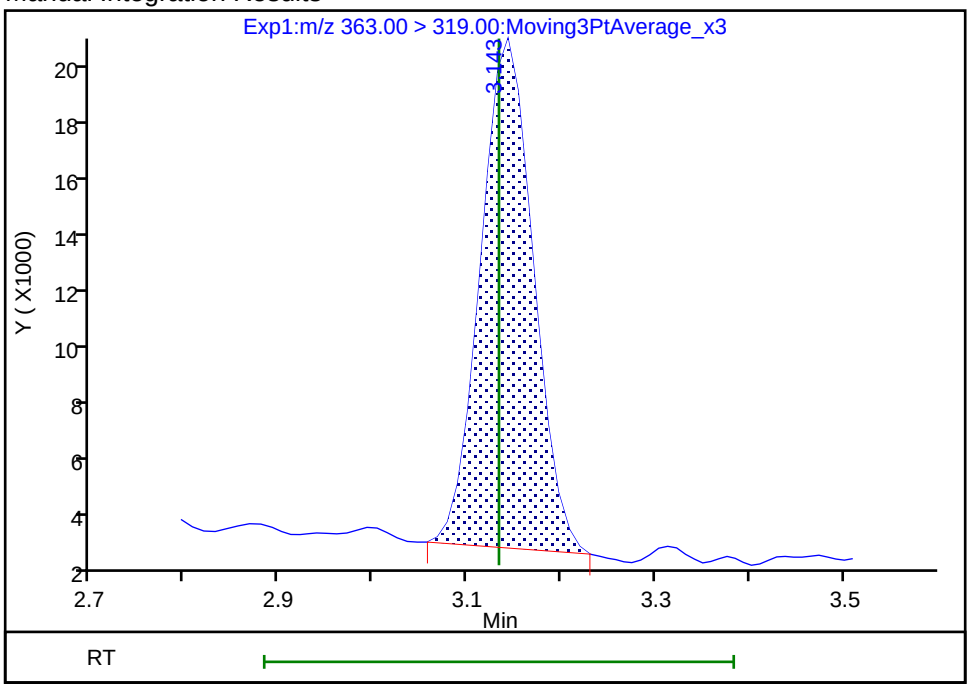
Processing Integration Results

RT: 3.14
Area: 68694
Amount: 0.068566
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 67549
Amount: 0.067423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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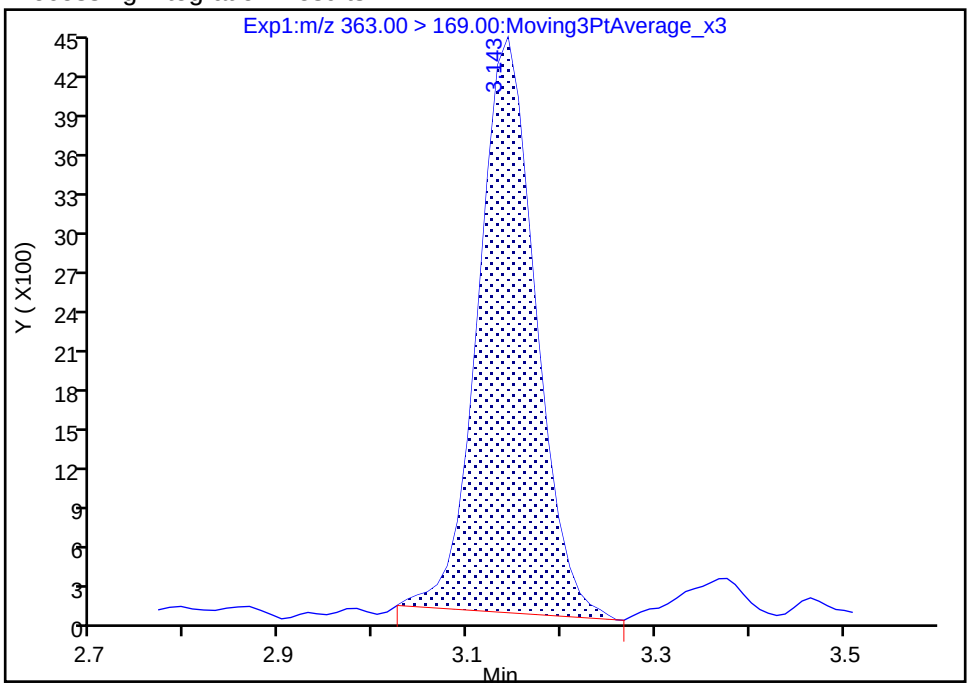
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

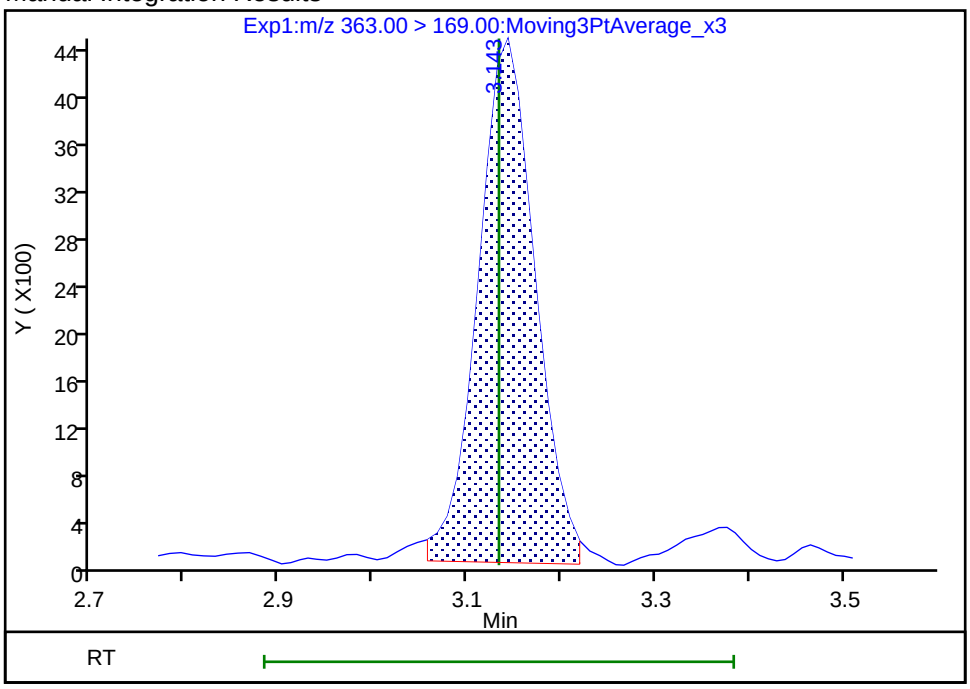
Processing Integration Results

RT: 3.14
Area: 18246
Amount: 0.068566
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 18302
Amount: 0.067423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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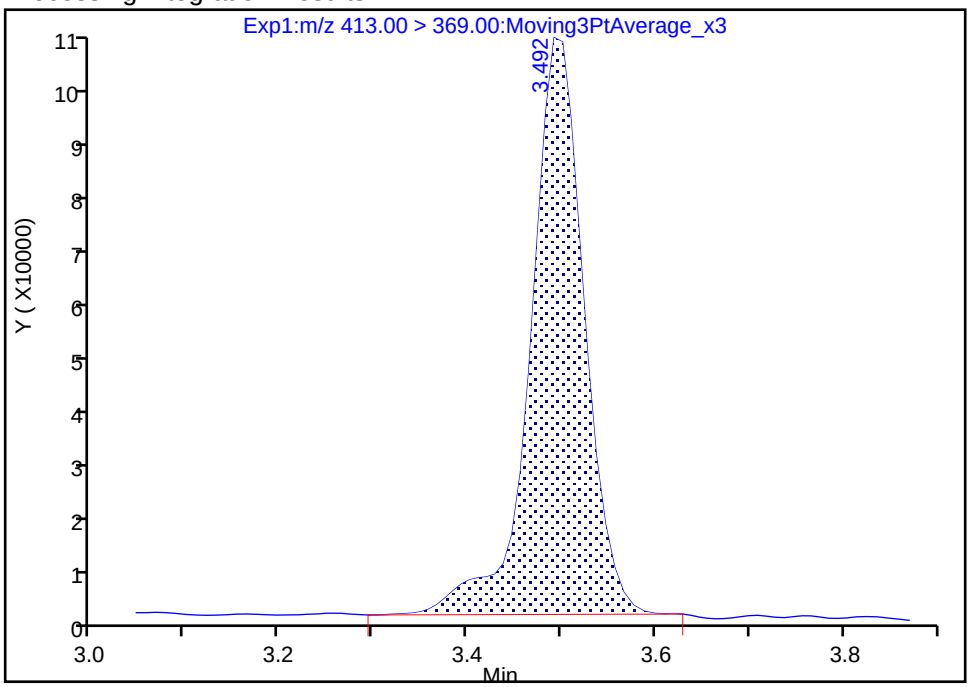
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

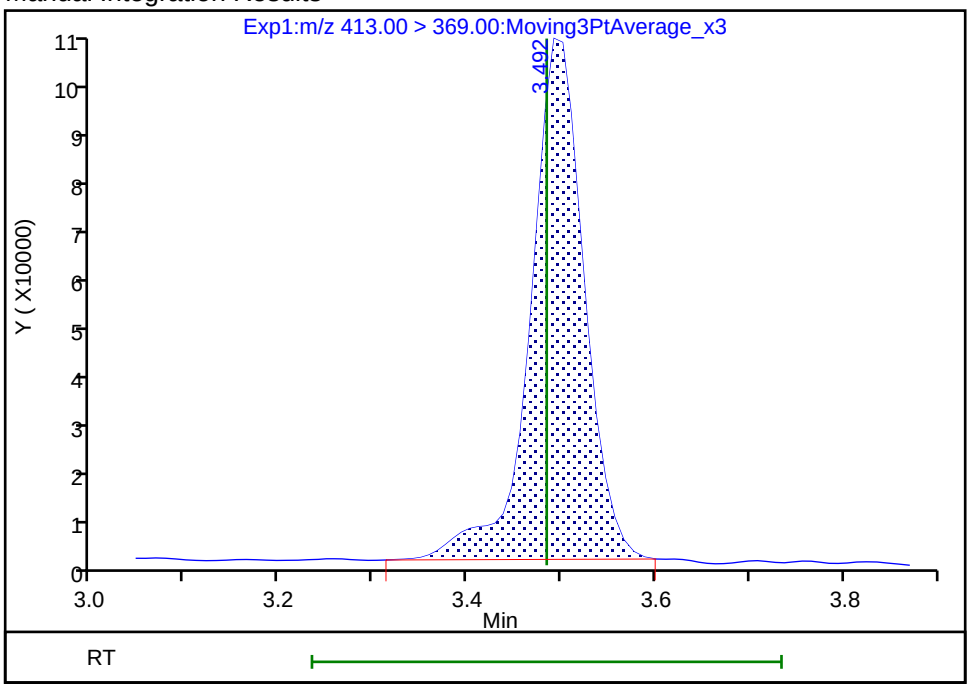
Processing Integration Results

RT: 3.49
Area: 395895
Amount: 0.355827
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 394237
Amount: 0.354337
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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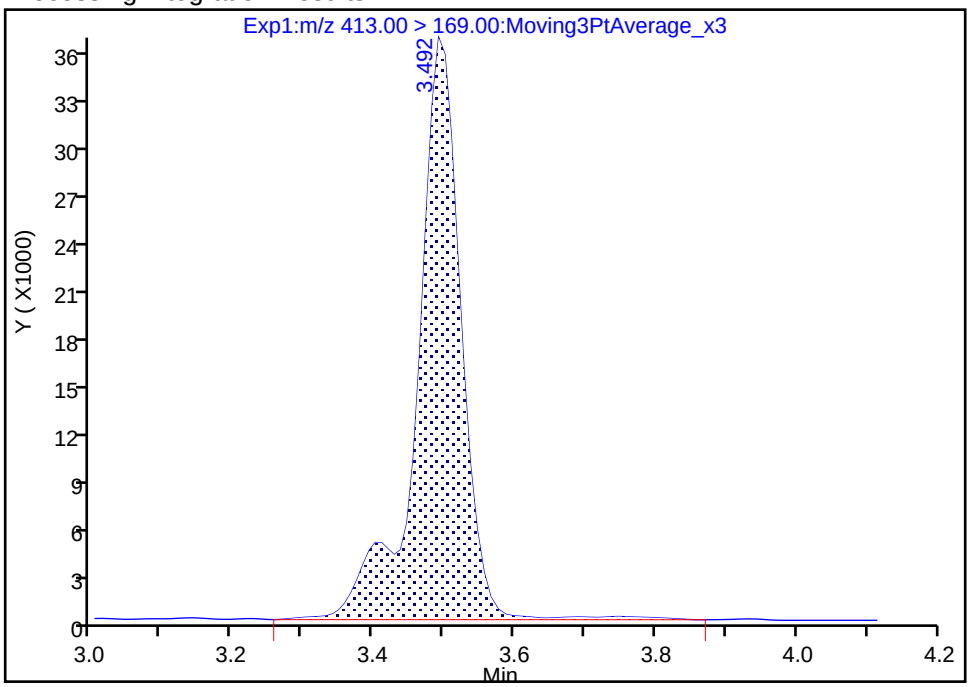
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

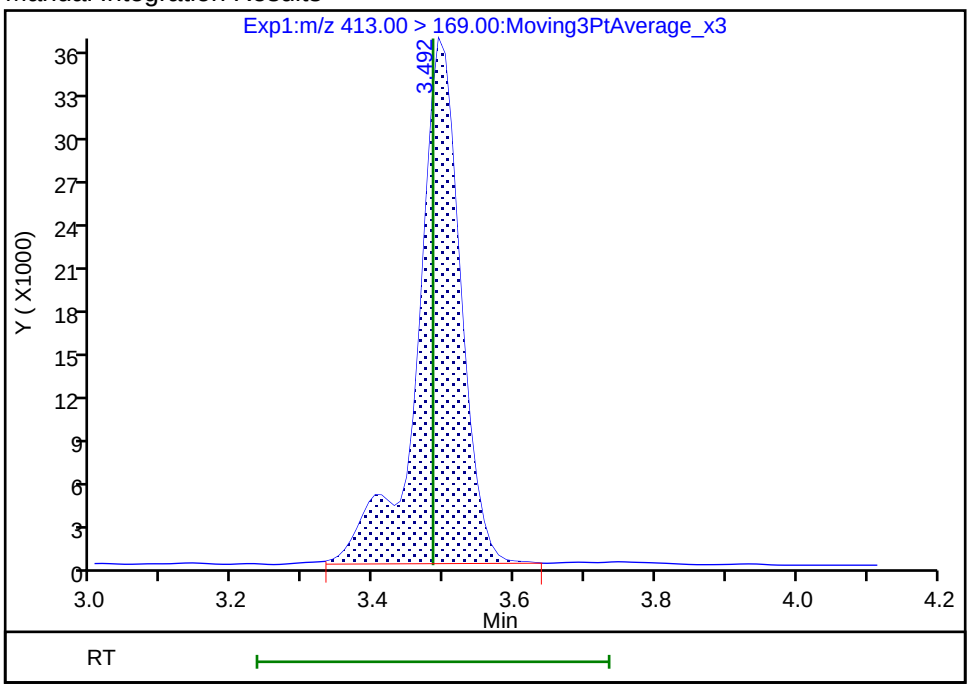
Processing Integration Results

RT: 3.49
Area: 158676
Amount: 0.355827
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 155314
Amount: 0.354337
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:26:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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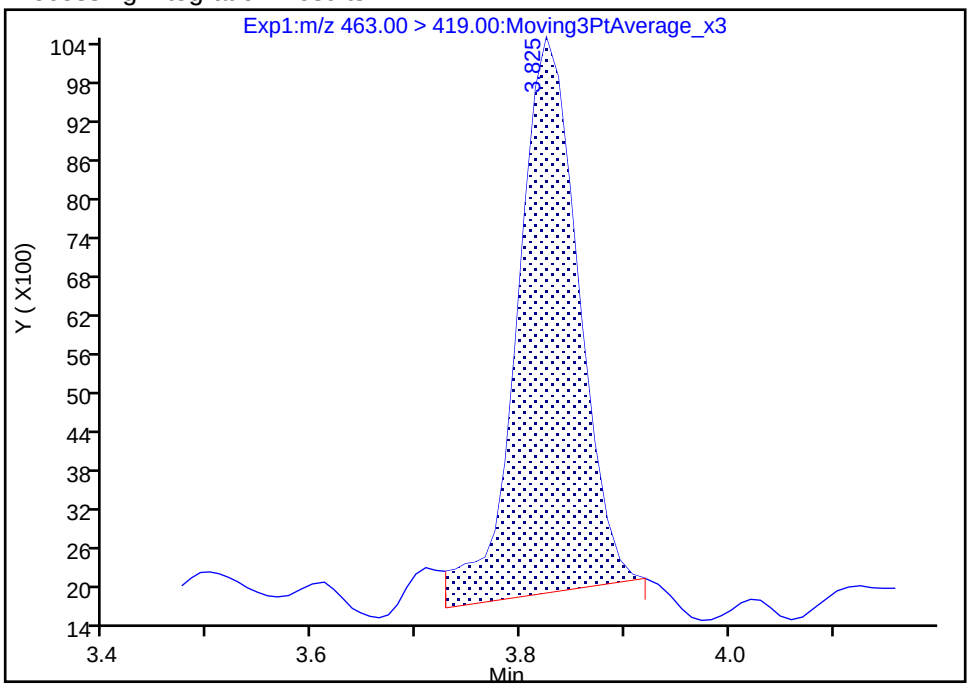
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

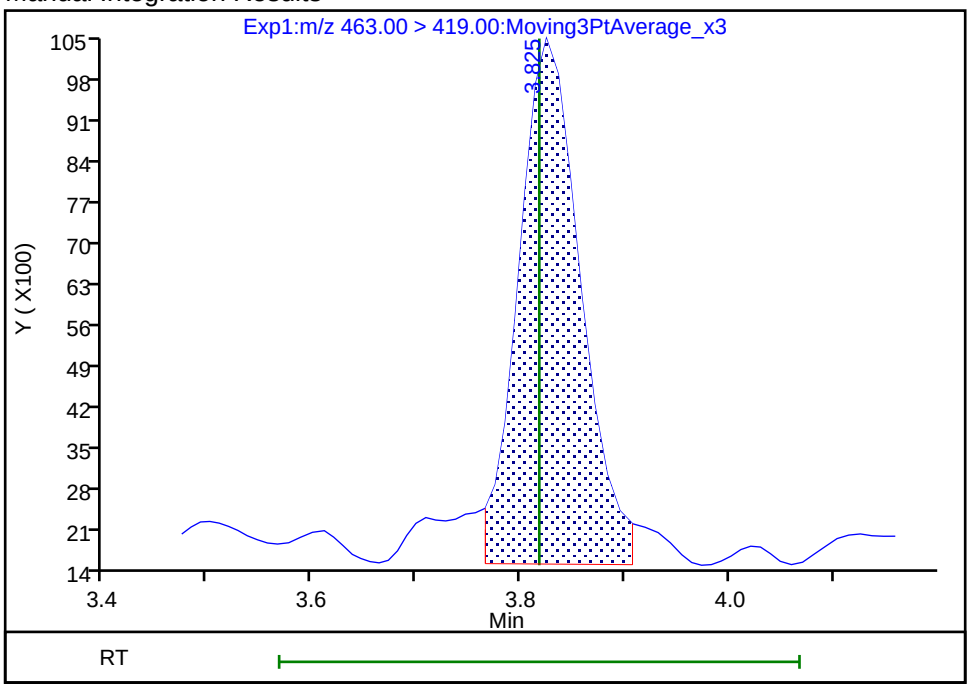
Processing Integration Results

RT: 3.82
Area: 35080
Amount: 0.035764
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 37323
Amount: 0.038051
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

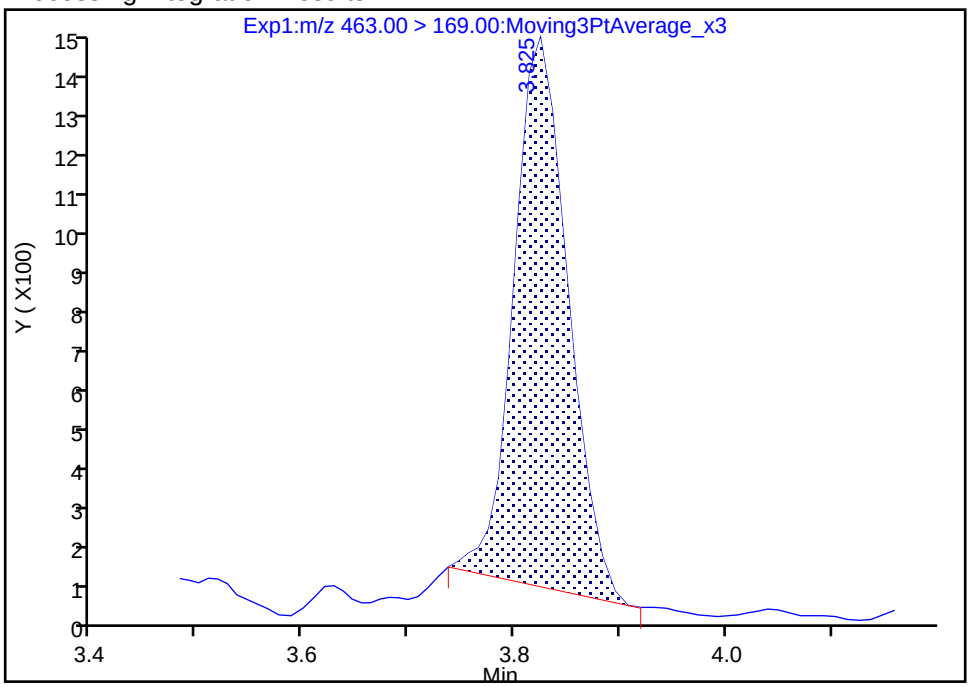
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

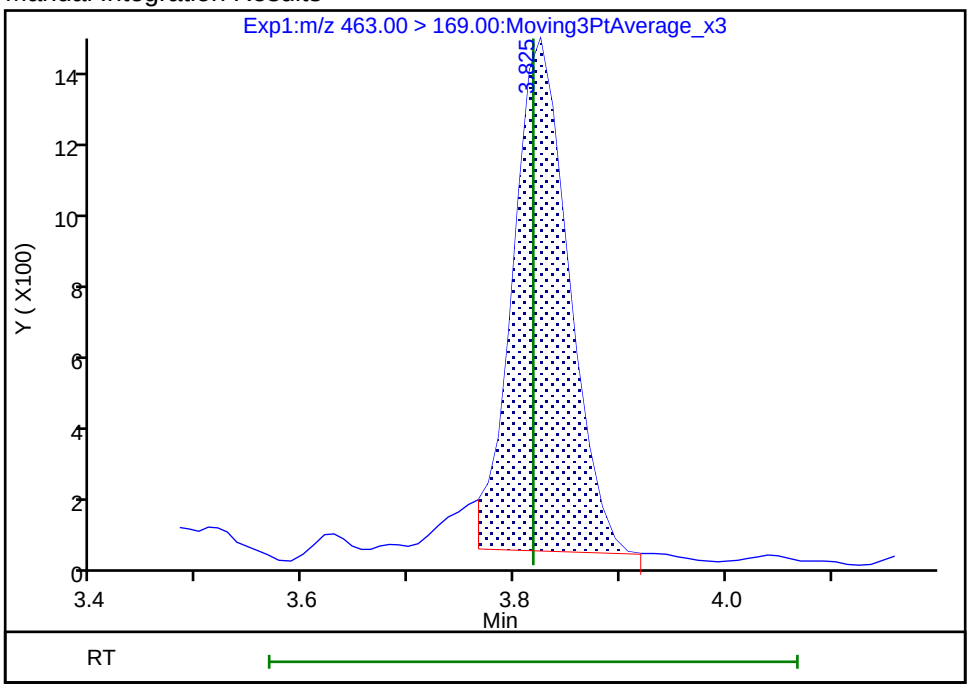
Processing Integration Results

RT: 3.82
Area: 4704
Amount: 0.035764
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 4971
Amount: 0.038051
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:27:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

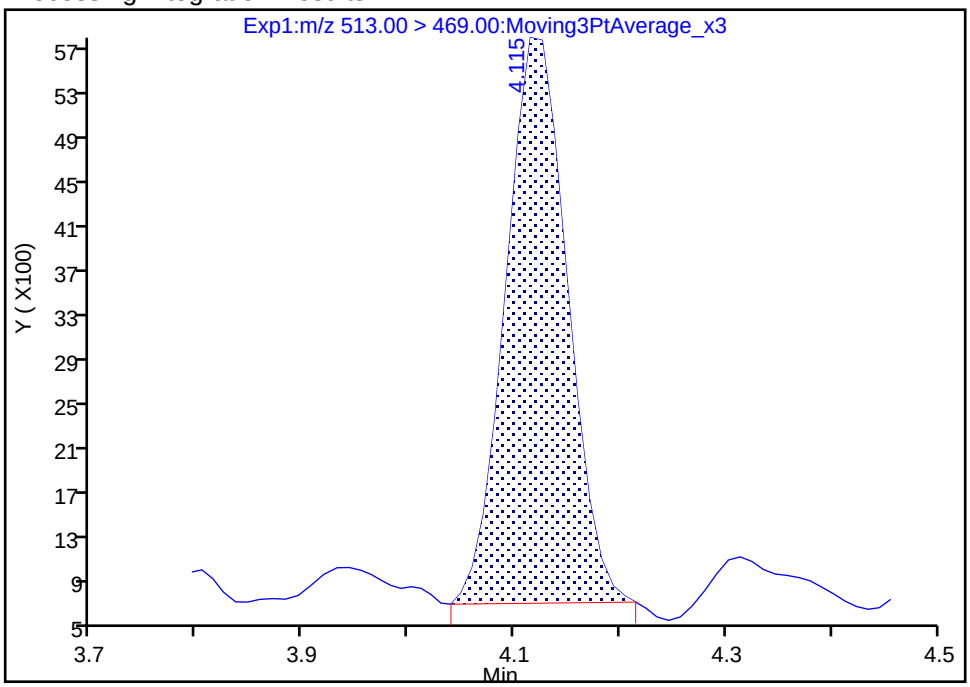
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

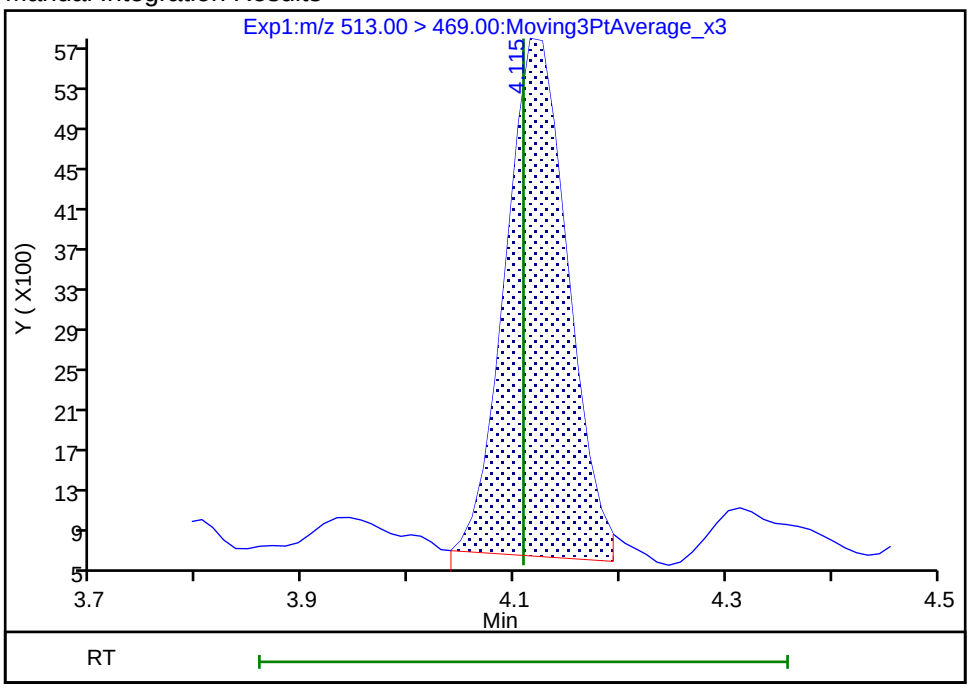
Processing Integration Results

RT: 4.11
Area: 20504
Amount: 0.022113
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 20985
Amount: 0.022631
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:27:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

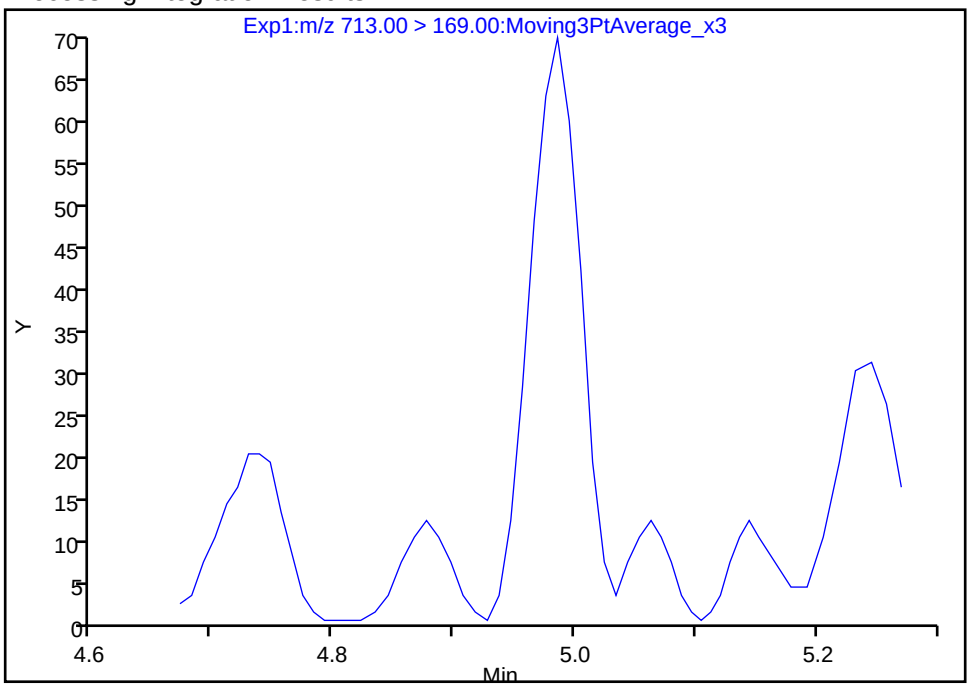
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

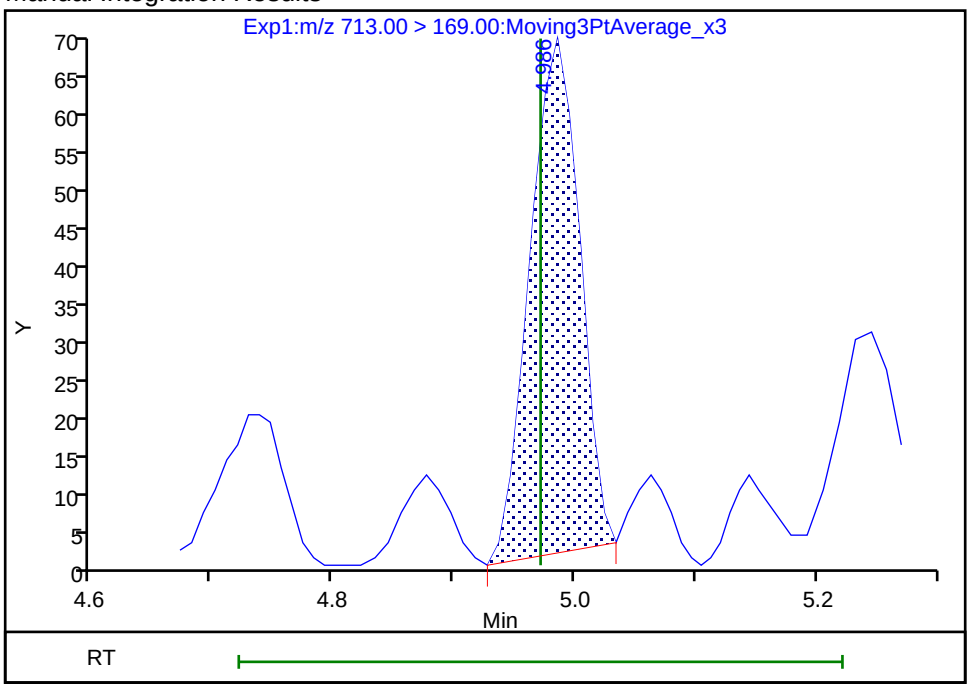
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 195
Amount: 0.002039
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:58:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

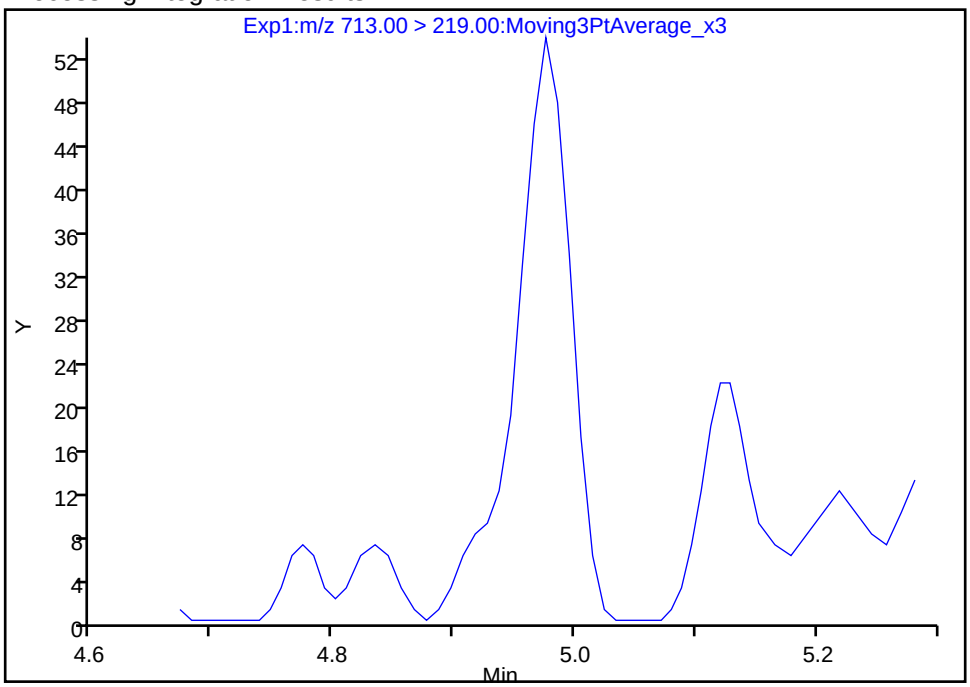
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

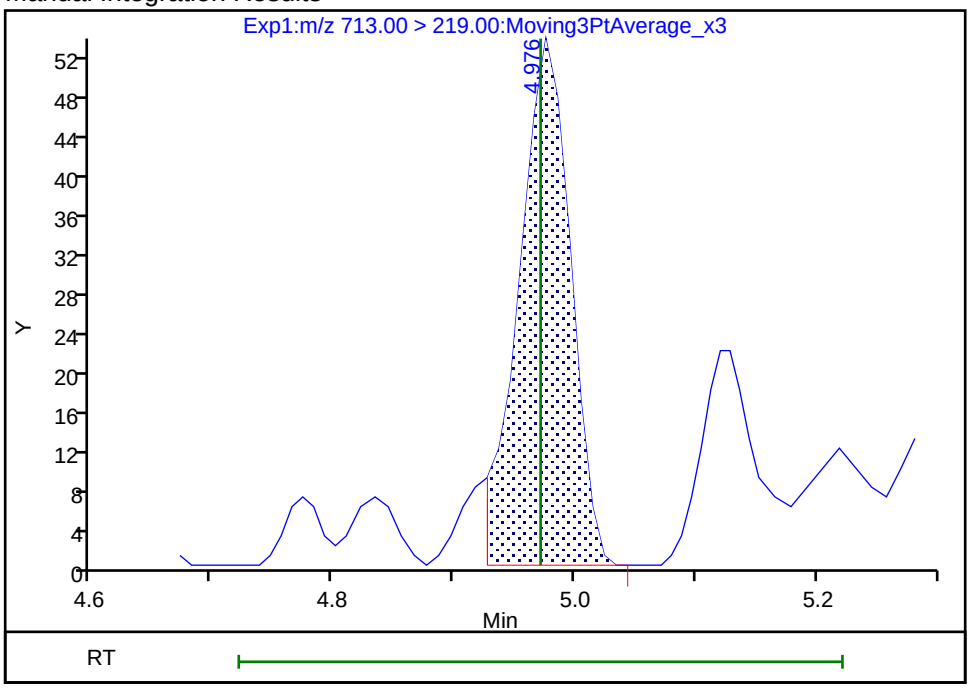
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 159
Amount: 0.002039
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:58:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

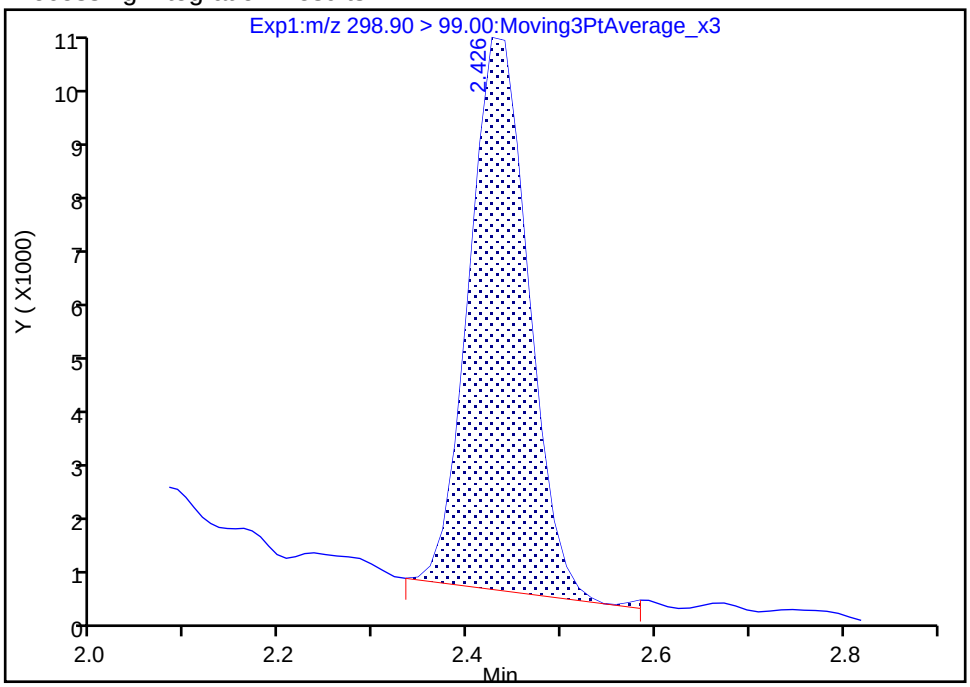
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

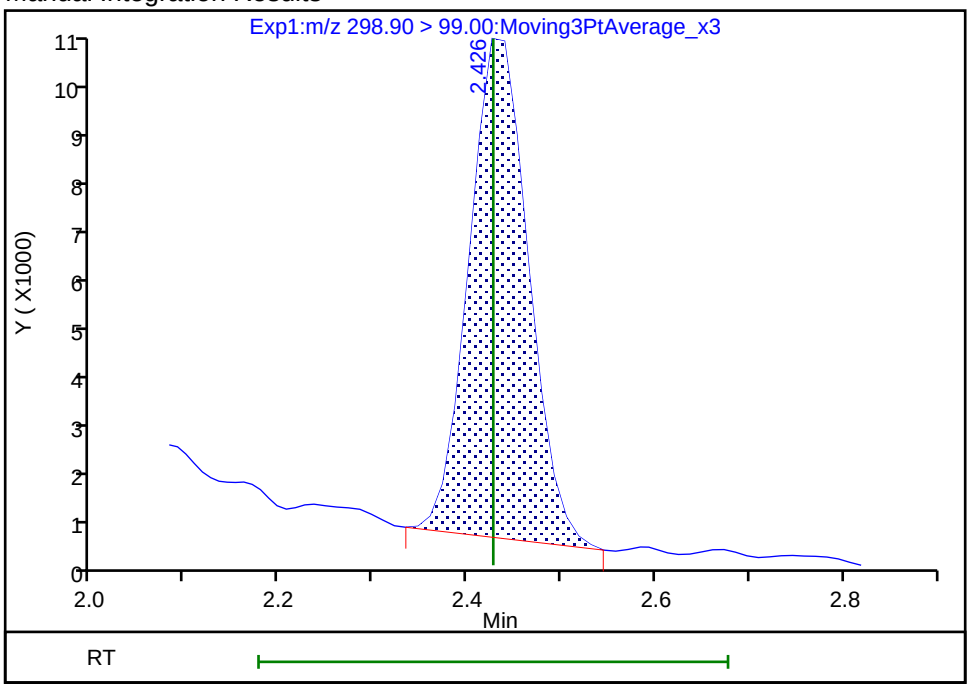
Processing Integration Results

RT: 2.43
Area: 42687
Amount: 0.071528
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 42567
Amount: 0.070728
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:55:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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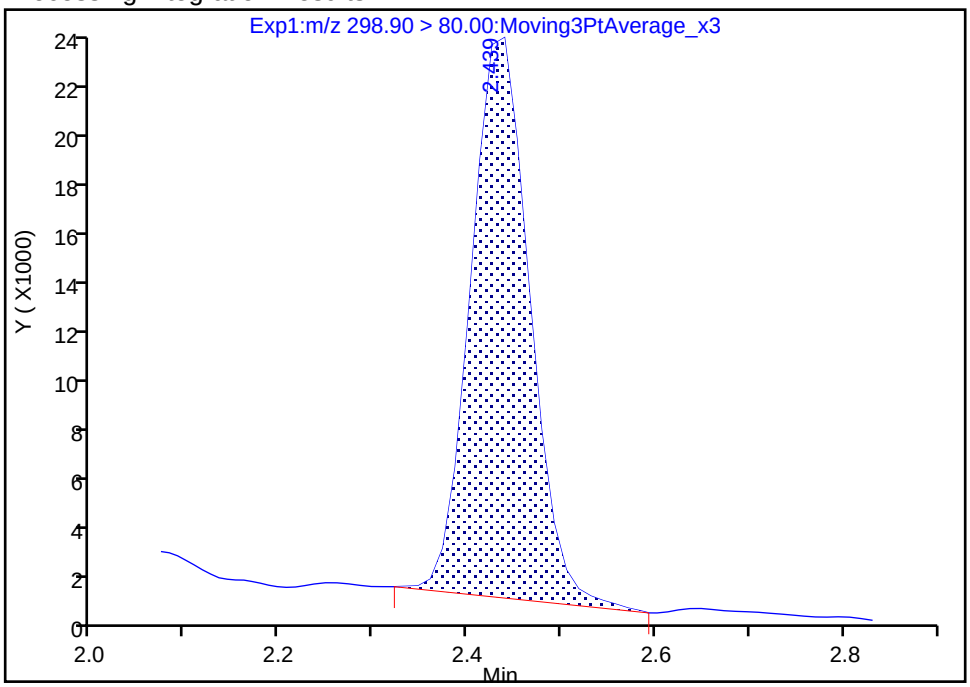
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

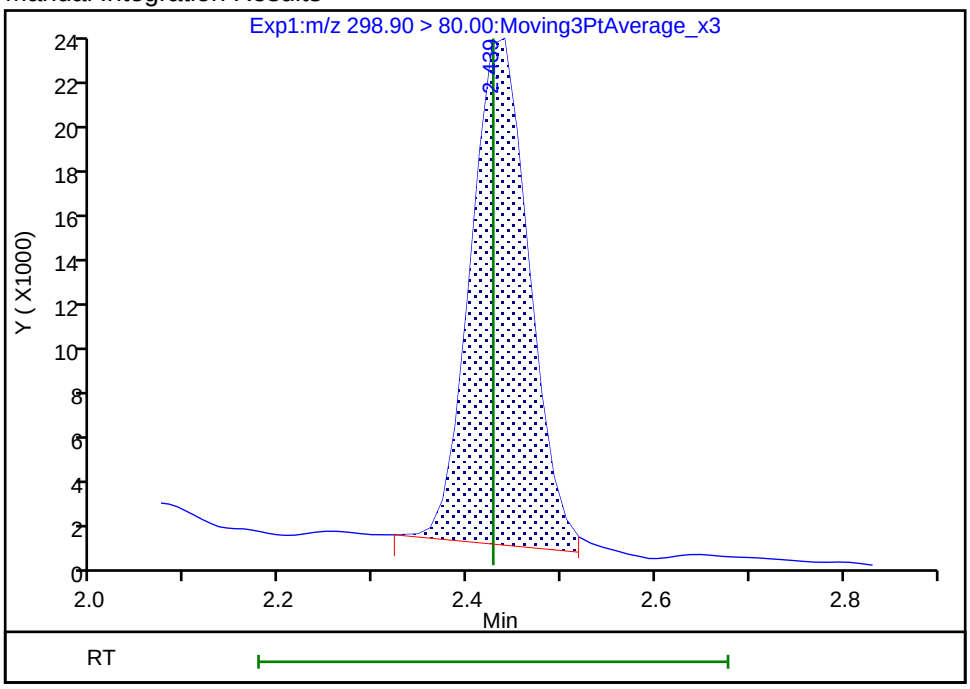
Processing Integration Results

RT: 2.44
Area: 94226
Amount: 0.071528
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 93173
Amount: 0.070728
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:24:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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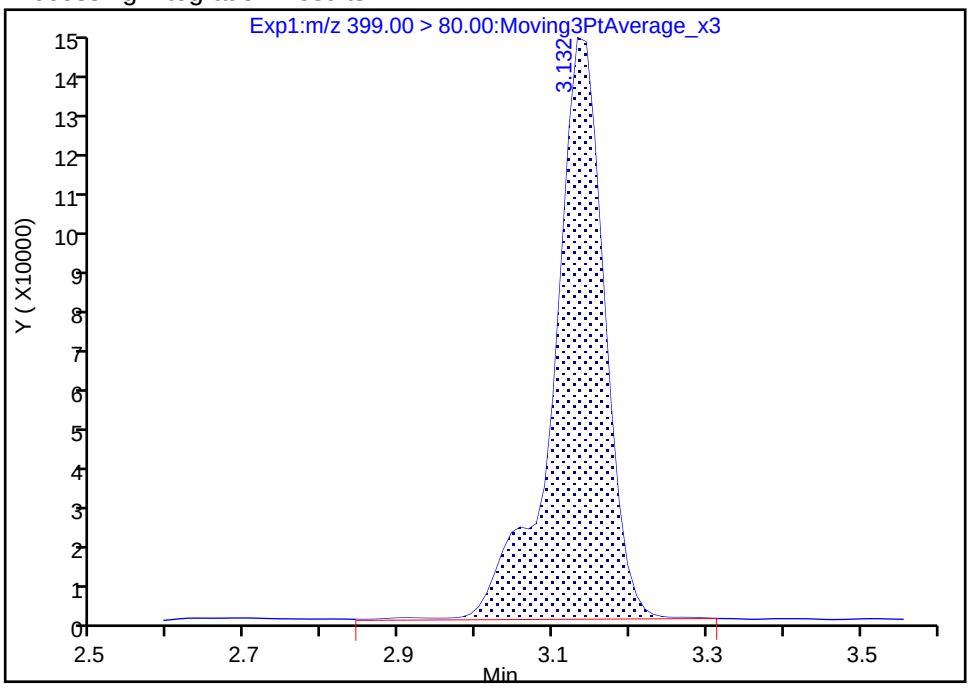
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

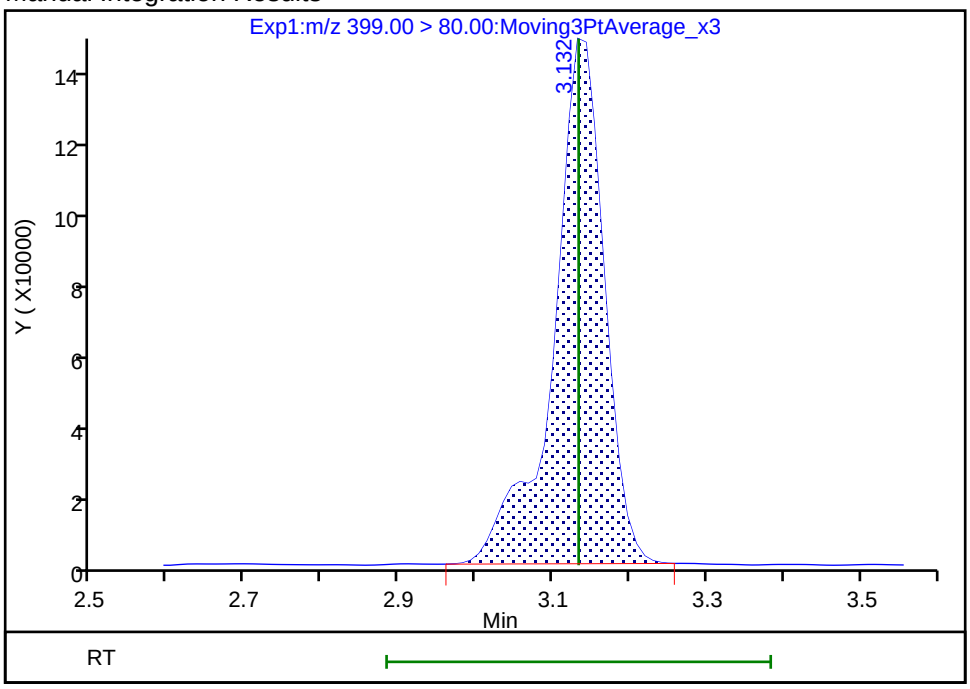
Processing Integration Results

RT: 3.13
Area: 684236
Amount: 0.686876
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 674779
Amount: 0.677382
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:55:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

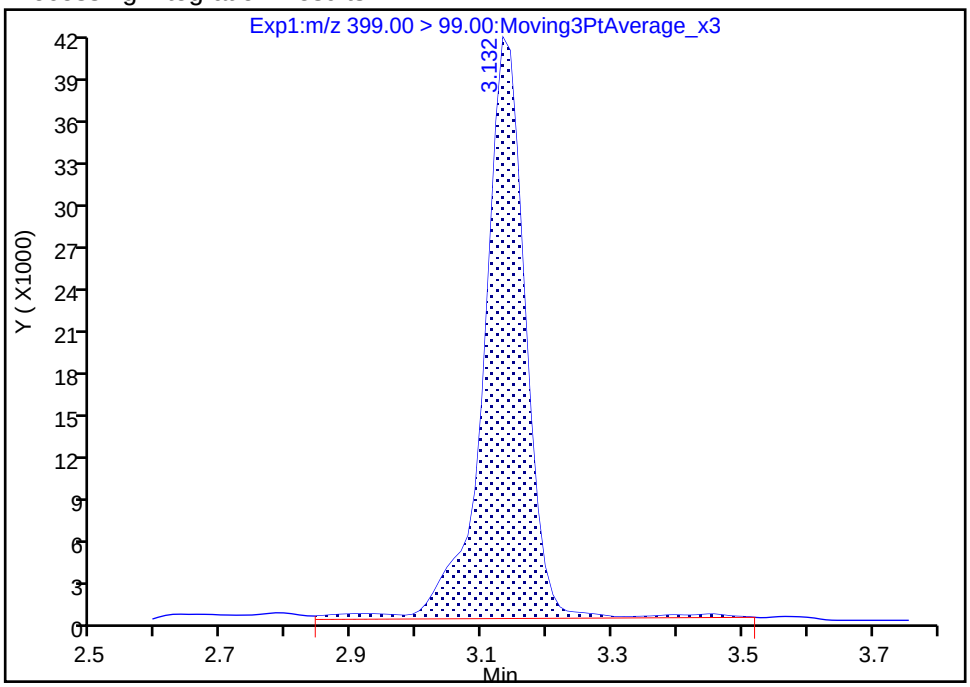
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

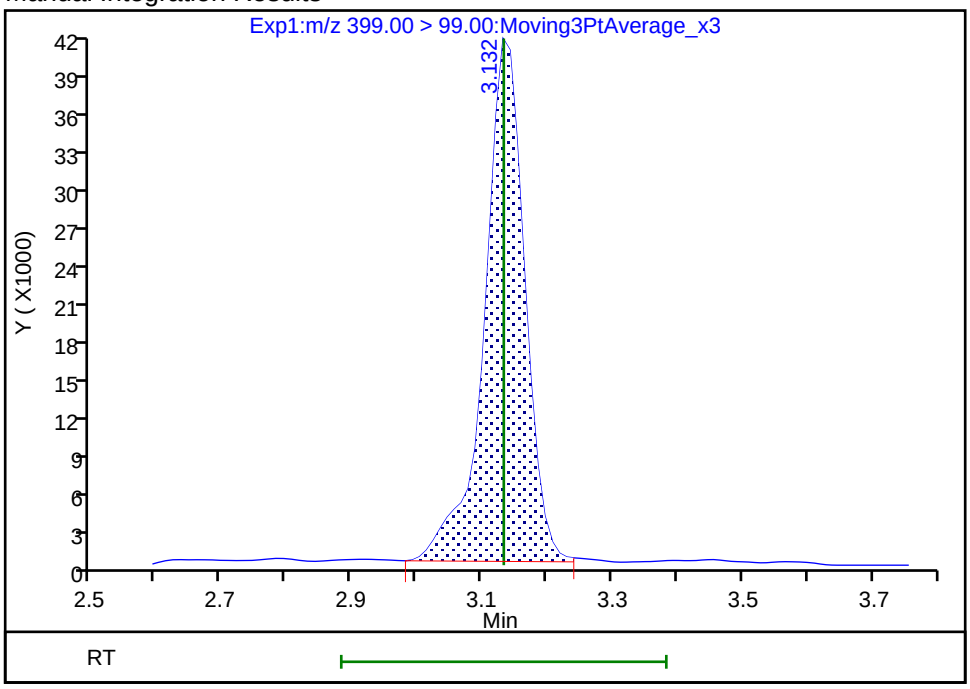
Processing Integration Results

RT: 3.13
Area: 187635
Amount: 0.686876
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 179136
Amount: 0.677382
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:55:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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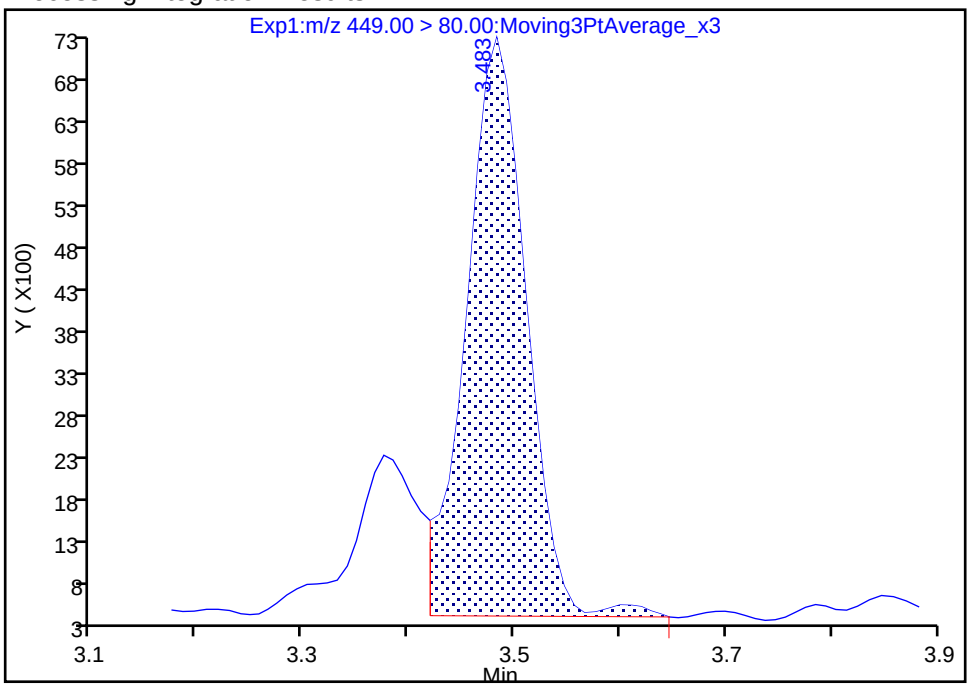
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

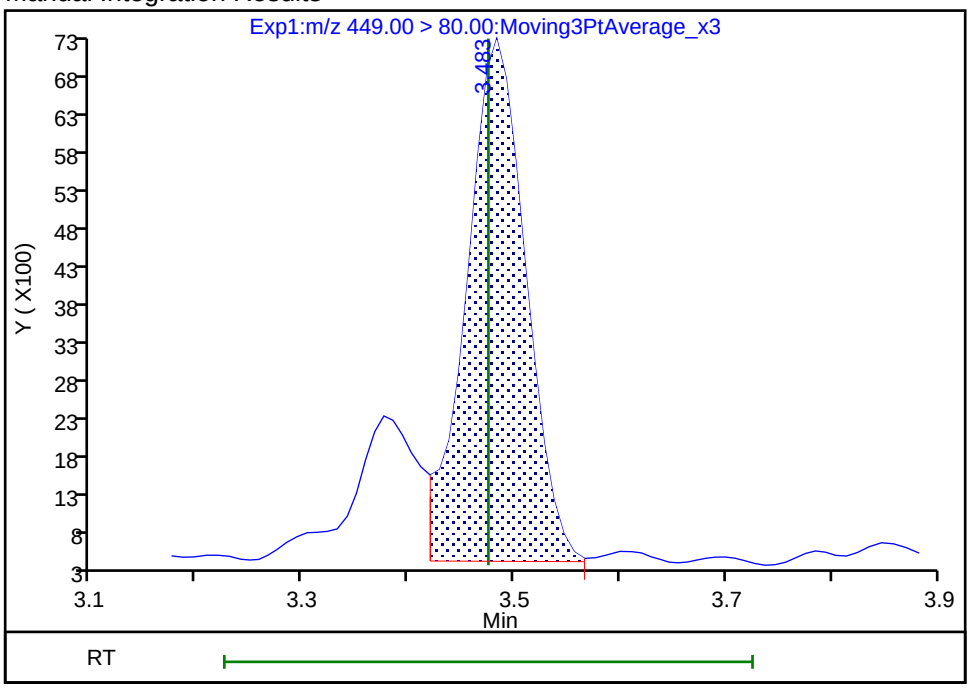
Processing Integration Results

RT: 3.48
Area: 27201
Amount: 0.034391
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 26785
Amount: 0.033865
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

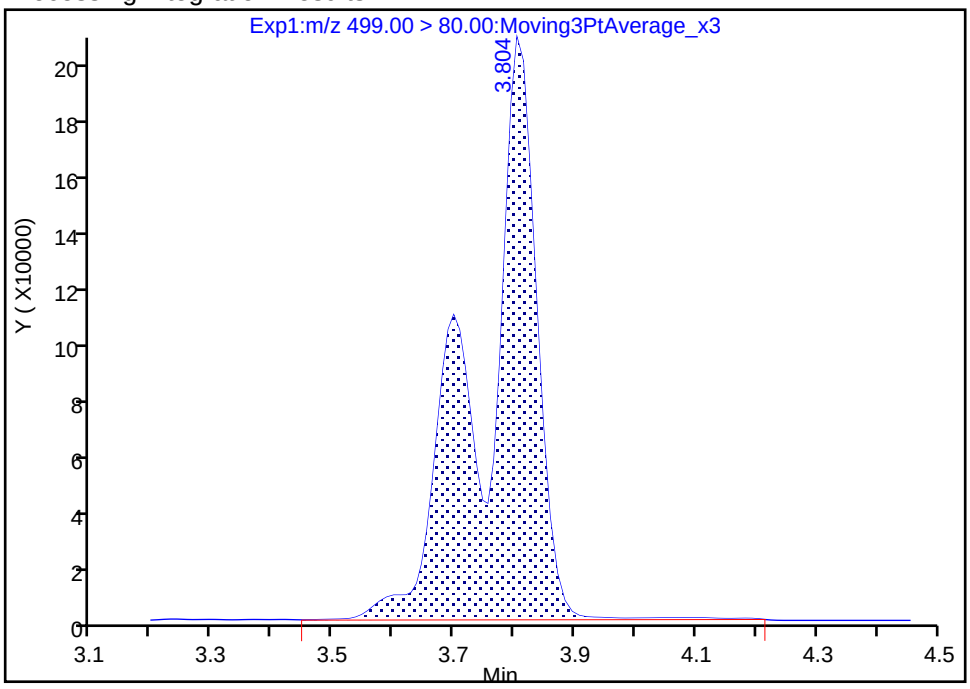
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

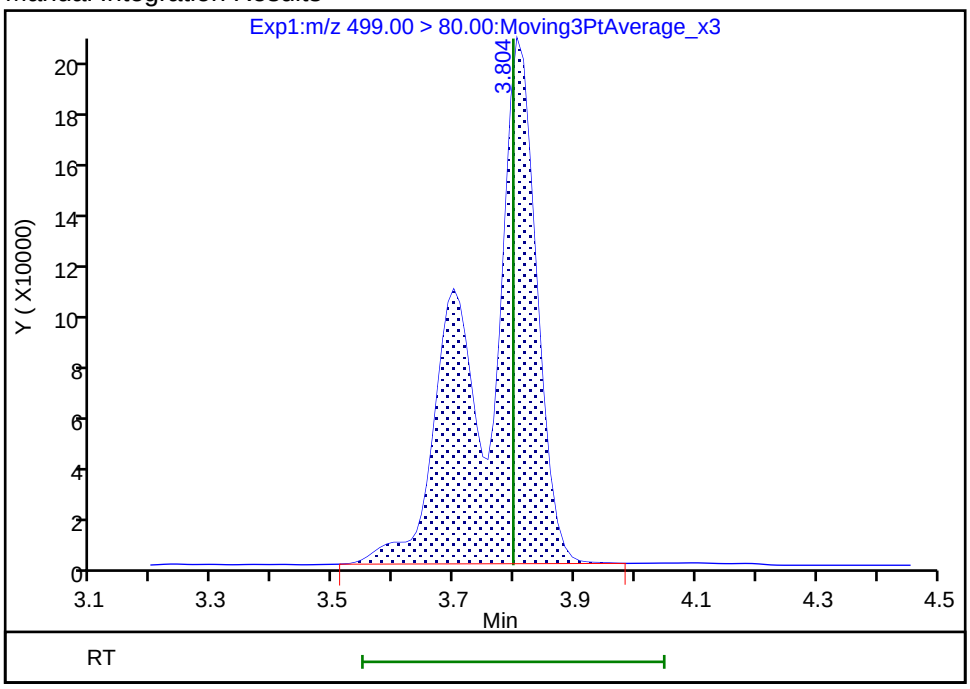
Processing Integration Results

RT: 3.80
Area: 1336835
Amount: 1.941896
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1318073
Amount: 1.914642
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

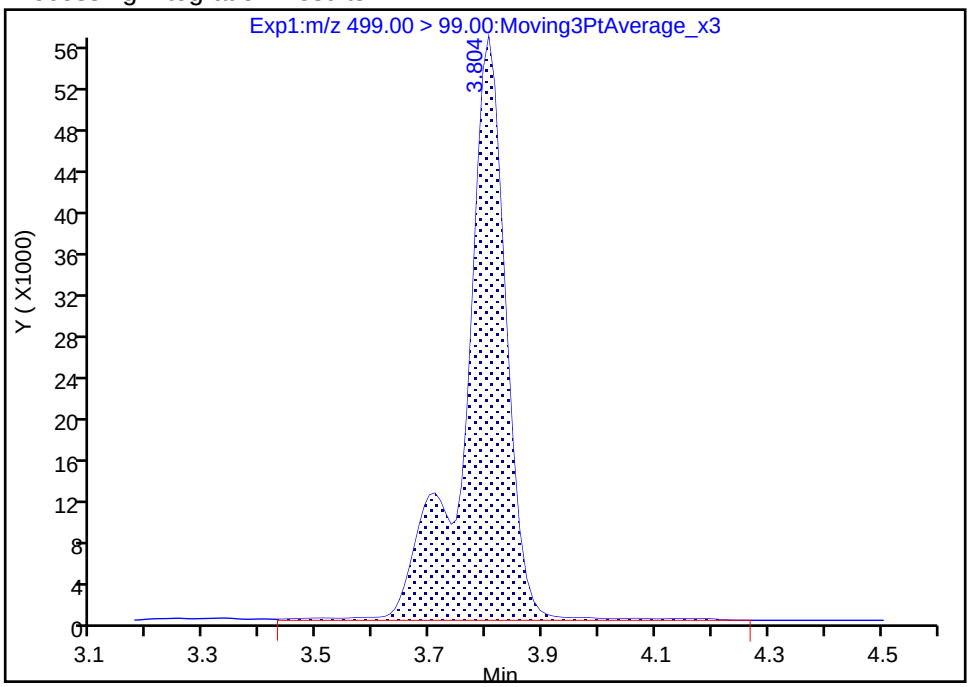
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

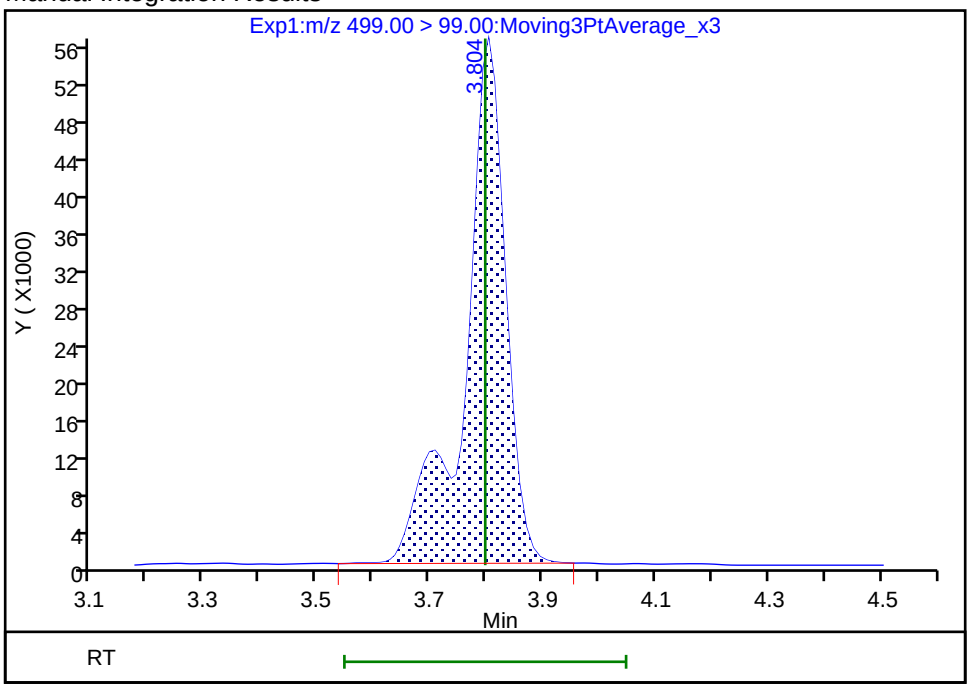
Processing Integration Results

RT: 3.80
Area: 291595
Amount: 1.941896
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 283308
Amount: 1.914642
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

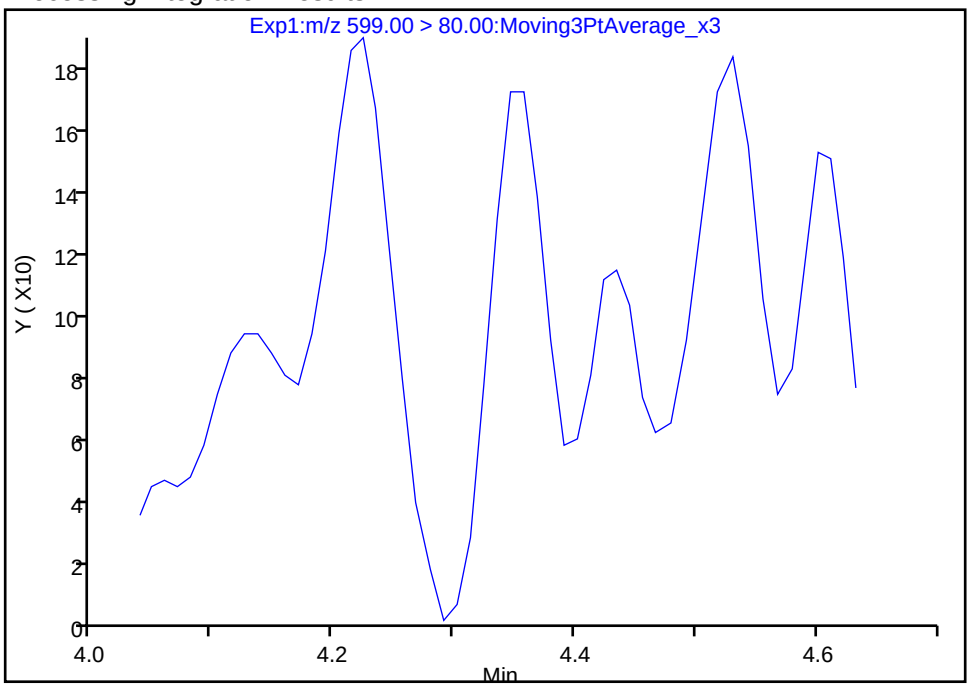
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

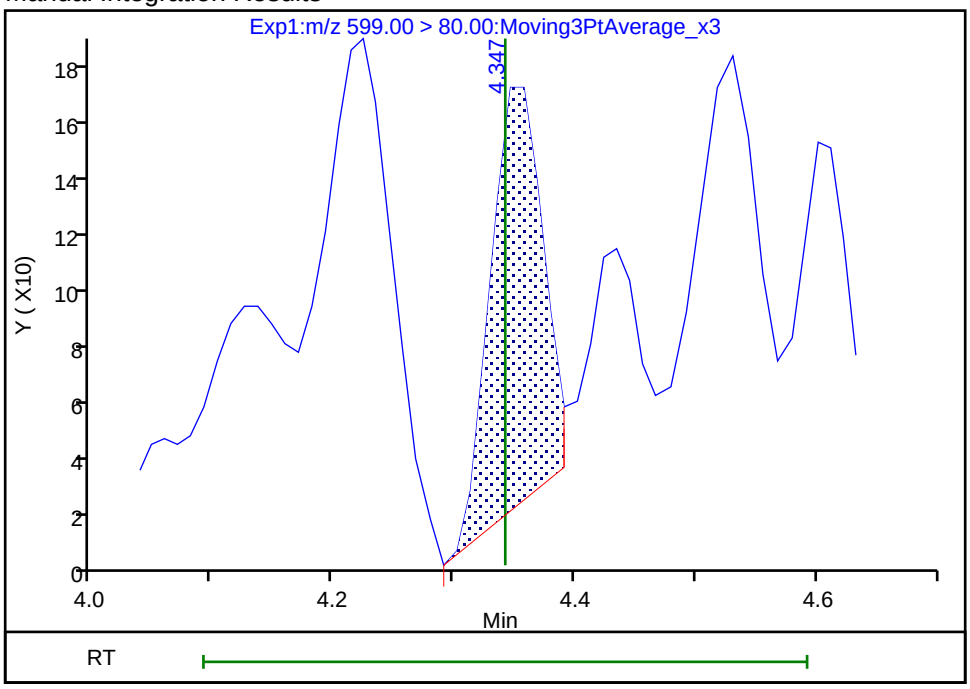
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 437
Amount: 0.001048
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

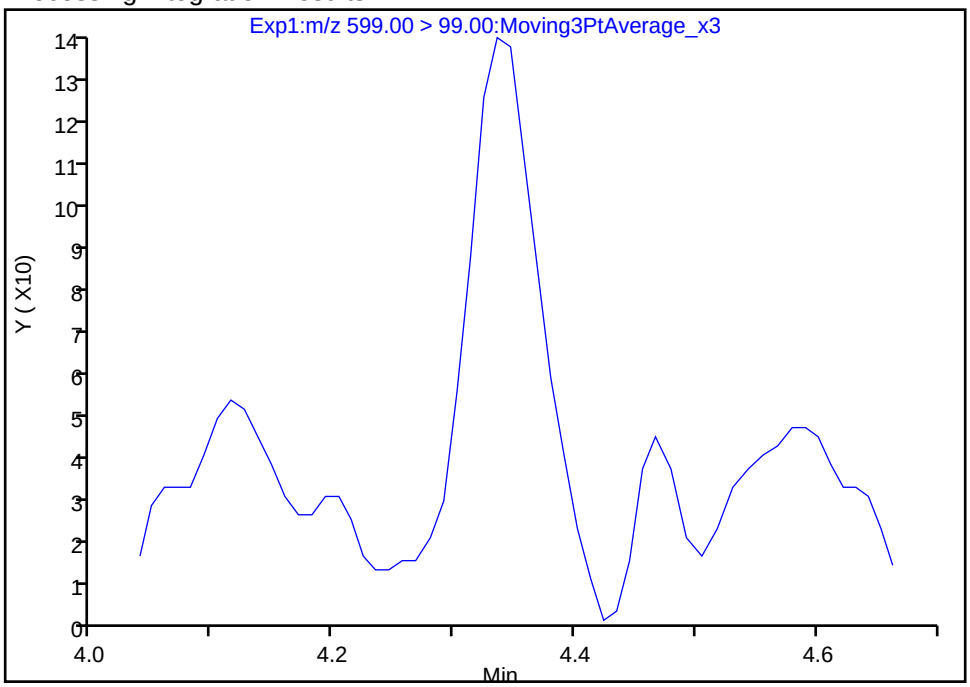
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

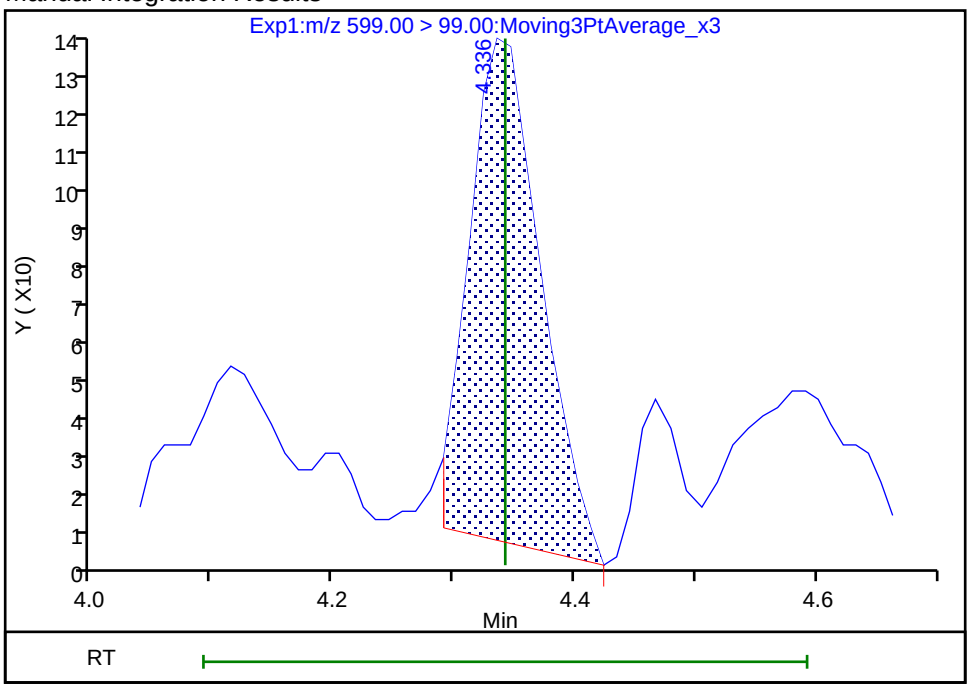
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 498
Amount: 0.001048
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

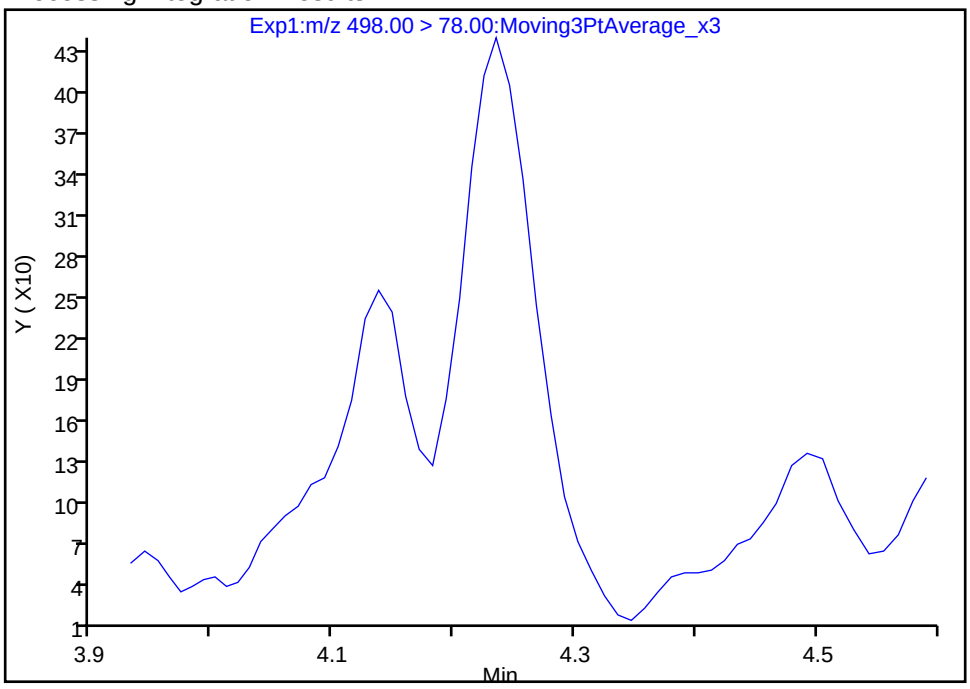
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

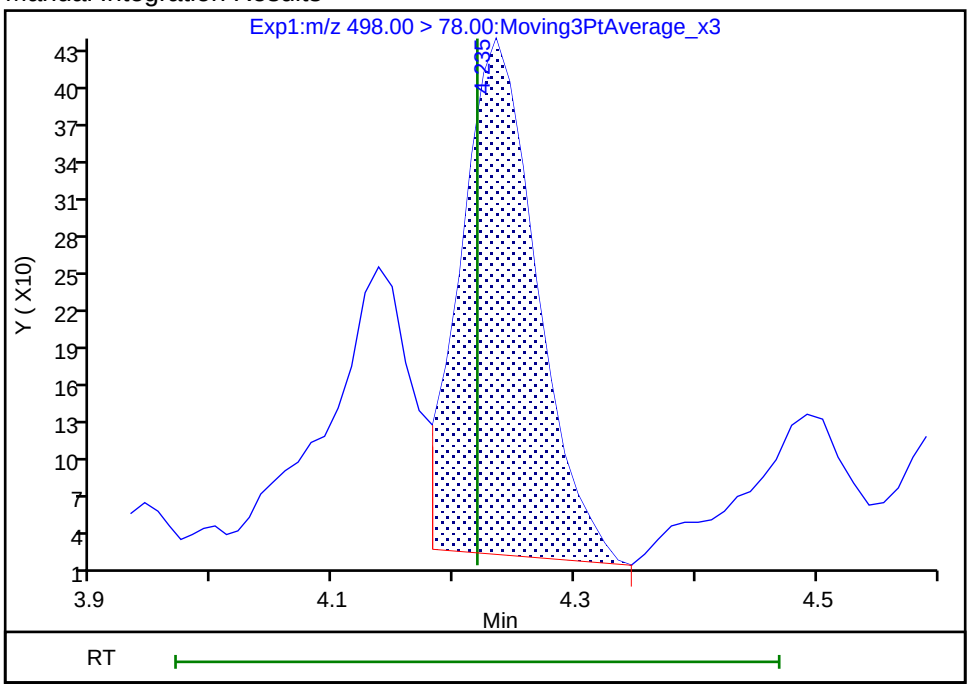
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 1836
Amount: 0.002177
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

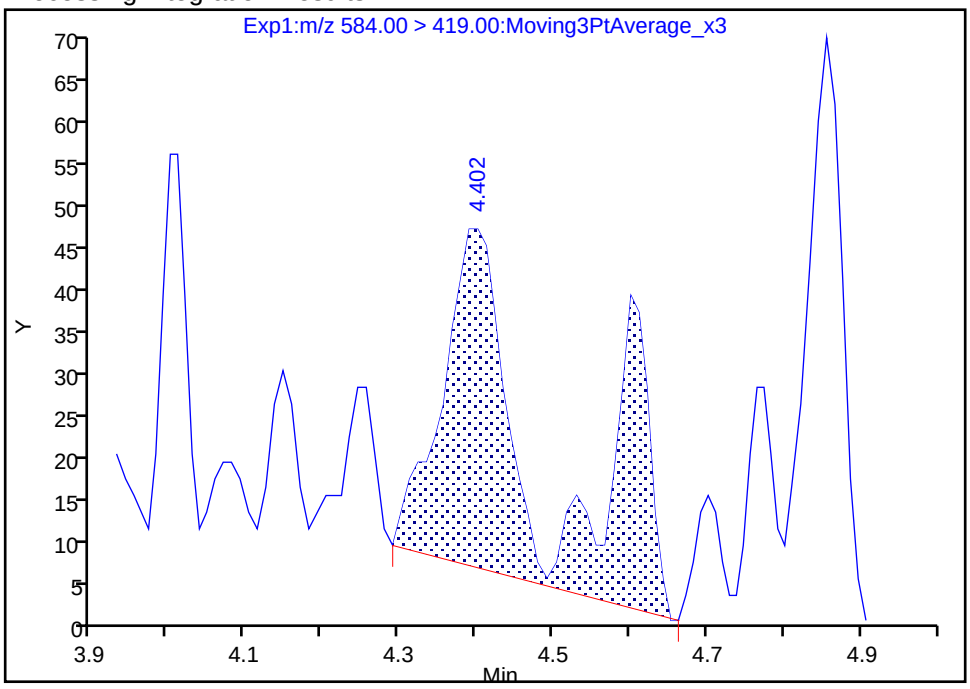
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

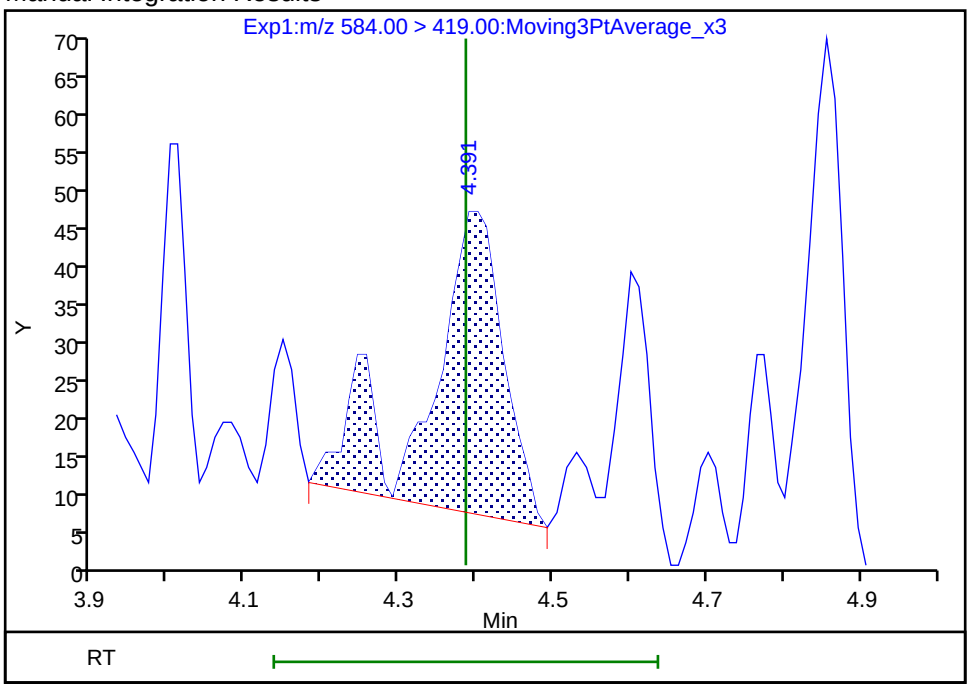
Processing Integration Results

RT: 4.40
Area: 363
Amount: 0.004179
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 272
Amount: 0.003131
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:58:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

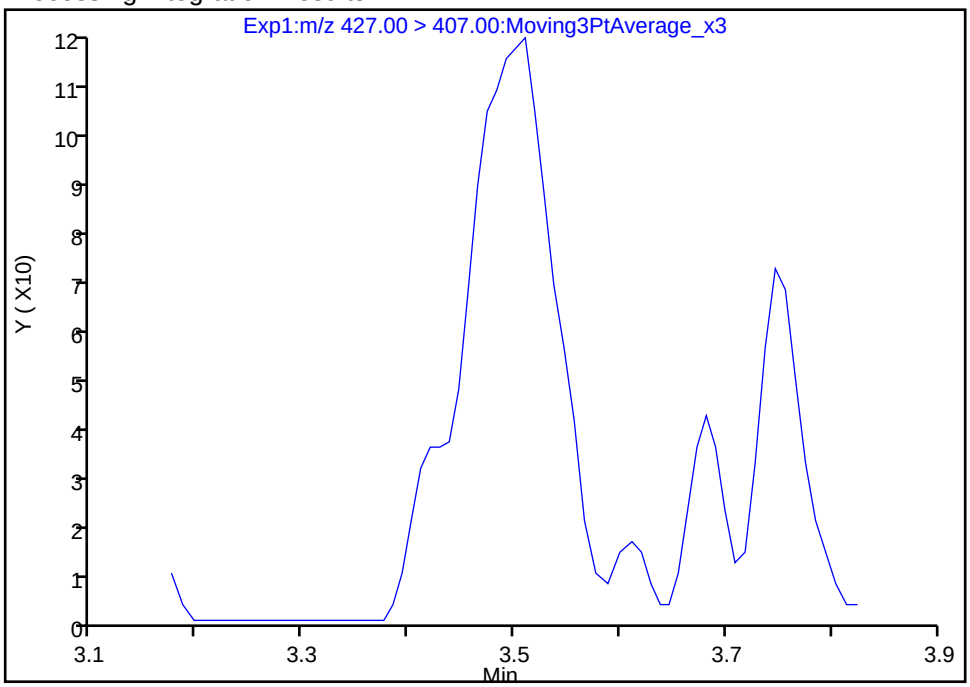
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

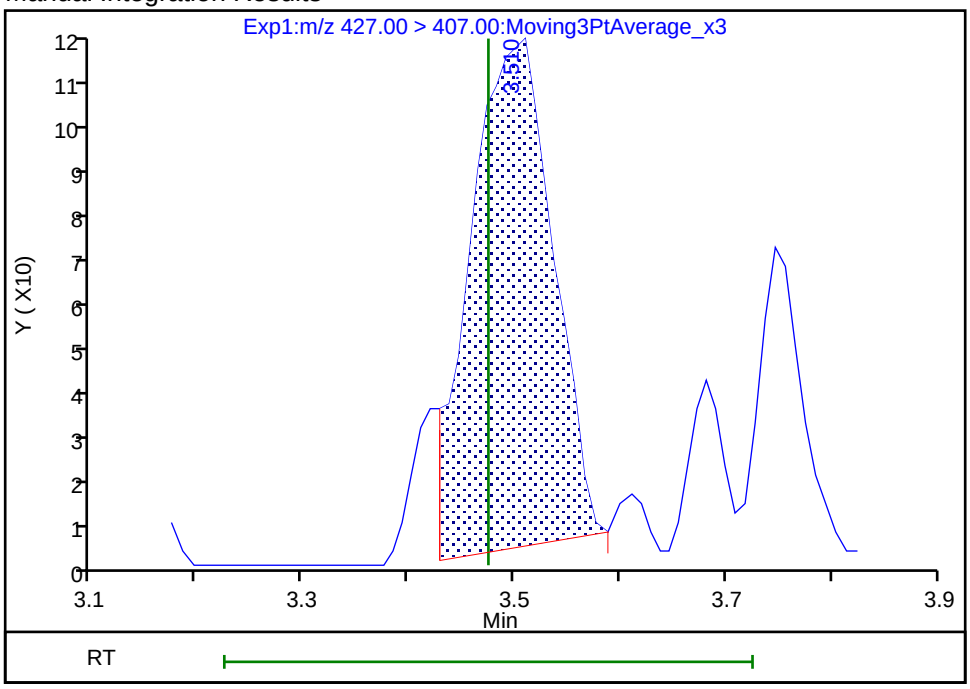
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.51
Area: 579
Amount: 0.002842
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:56:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

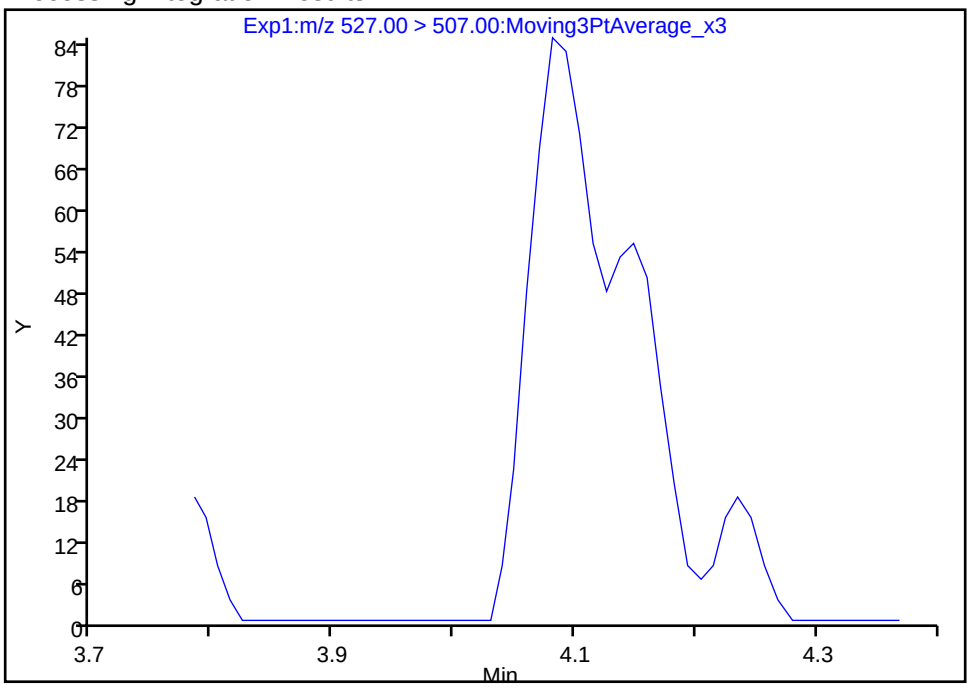
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

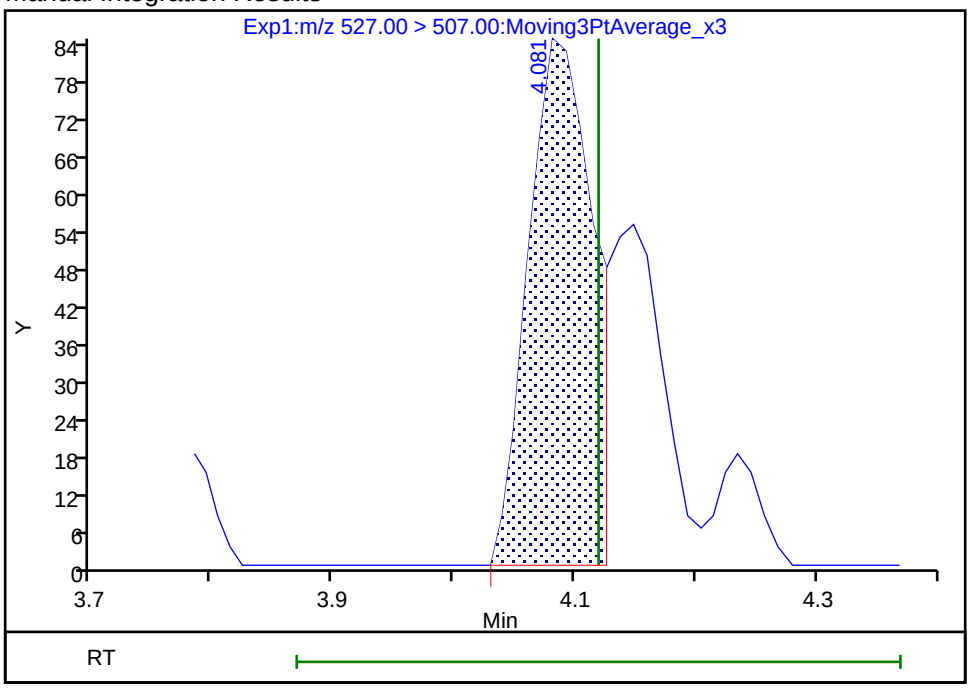
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.08
Area: 305
Amount: 0.002177
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 11:57:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

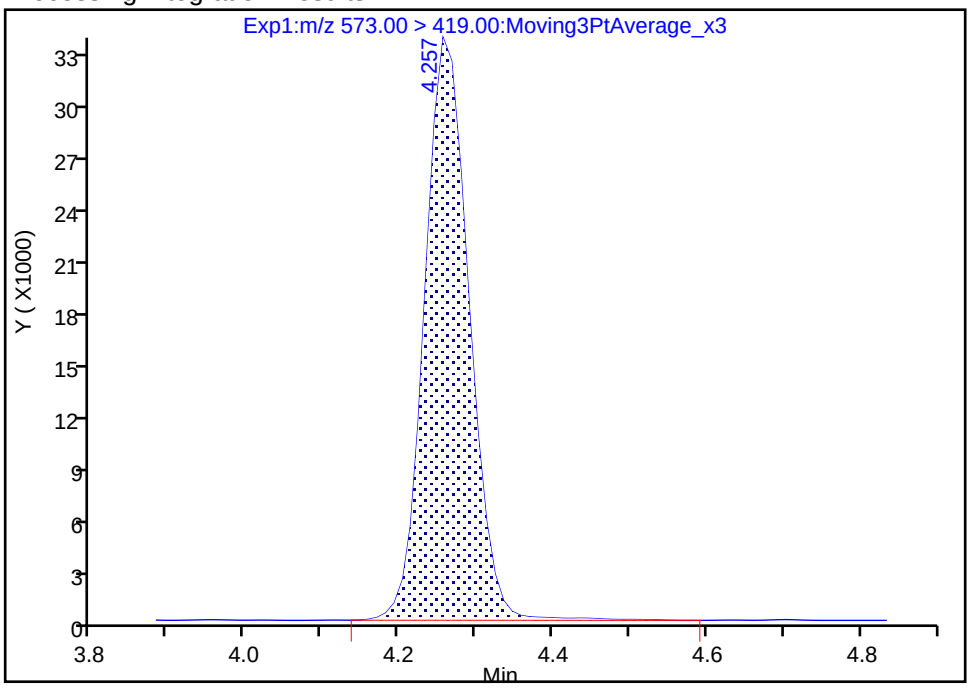
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A25.d | | | | |
| Injection Date: | 10-Nov-2021 14:39:05 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-32-A | Lab Sample ID: | 200-246277-32 | | |
| Client ID: | MW-53S-20211029 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 22 | Worklist Smp#: | 25 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

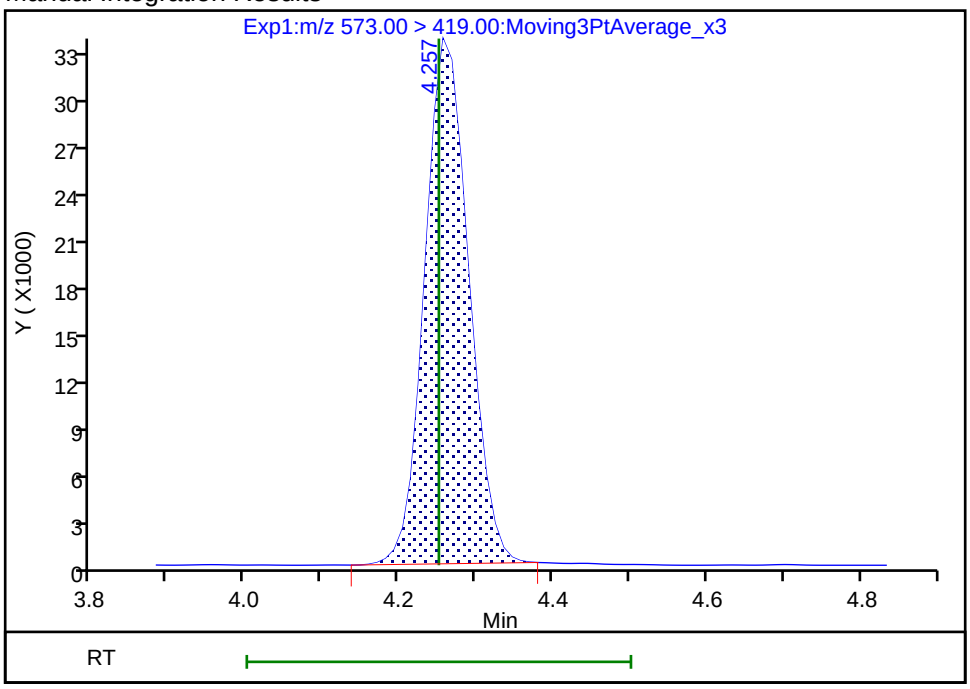
Processing Integration Results

RT: 4.26
Area: 132775
Amount: 1.245425
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 130732
Amount: 1.226261
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 12:27:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 200-173158/2 | PA211027ICAL02.d |
| Level 2 | IC 200-173158/3 | PA211027ICAL03.d |
| Level 3 | IC 200-173158/4 | PA211027ICAL04.d |
| Level 4 | ICIS 200-173158/5 | PA211027ICAL05.d |
| Level 5 | IC 200-173158/6 | PA211027ICAL06.d |
| Level 6 | IC 200-173158/7 | PA211027ICAL07.d |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 1.0010 0.8637 | 1.0194 | 0.9824 | 0.9270 | 0.8797 | AveID | | 0.9456 | | | | 6.9 | | 20.0 | | | |
| Perfluoropentanoic acid (PFPeA) | 1.0316 0.9193 | 1.0493 | 1.0507 | 0.9910 | 0.9684 | AveID | | 1.0017 | | | | 5.2 | | 20.0 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 1.1253 0.9712 | 1.1608 | 1.1562 | 1.0183 | 0.9766 | AveID | | 1.0681 | | | | 8.4 | | 20.0 | | | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | 1.9796 1.9803 | 2.3311 | 2.2324 | 2.2408 | 2.0067 | AveID | | 2.1285 | | | | 7.4 | | 20.0 | | | |
| Perfluorohexanoic acid (PFHxA) | 1.1108 0.9269 | 1.1190 | 1.0106 | 0.9610 | 0.9566 | AveID | | 1.0142 | | | | 8.1 | | 20.0 | | | |
| Perfluoropentanesulfonic acid (PFPeS) | 1.2972 1.1273 | 1.2654 | 1.2281 | 1.1444 | 1.1629 | AveID | | 1.2042 | | | | 5.8 | | 20.0 | | | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | 5.0231 3.6768 | 4.4979 | 4.4070 | 4.5307 | 5.0151 | AveID | | 4.5251 | | | | 10.9 | | 20.0 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 1.2600 1.0049 | 1.1681 | 1.1115 | 1.0204 | 1.0318 | AveID | | 1.0994 | | | | 9.1 | | 20.0 | | | |
| Perfluoroheptanoic acid (PFHpA) | 1.1090 0.9340 | 1.1113 | 1.0909 | 0.9787 | 0.9754 | AveID | | 1.0332 | | | | 7.7 | | 20.0 | | | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 3.7435 3.0887 | 3.7459 | 3.7716 | 3.2650 | 3.3852 | AveID | | 3.5000 | | | | 8.4 | | 20.0 | | | |
| Perfluoroheptanesulfonic Acid (PFHpS) | 1.3227 1.1403 | 1.3367 | 1.3294 | 1.1546 | 1.1961 | AveID | | 1.2466 | | | | 7.4 | | 20.0 | | | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.2228 1.1860 | 1.3236 | 1.3531 | 1.2548 | 1.2682 | AveID | | 1.2681 | | | | 4.9 | | 20.0 | | | |
| Perfluorooctanoic acid (PFOA) | 1.1617 0.9611 | 1.1525 | 1.1106 | 1.0097 | 0.9849 | AveID | | 1.0634 | | | | 8.3 | | 20.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 1.1259 0.9935 | 1.2065 | 1.1576 | 1.0258 | 1.0010 | AveID | | 1.0851 | | | | 8.3 | | 20.0 | | | |
| Perfluorononanoic acid (PFNA) | 1.1030 0.8731 | 1.0824 | 0.9994 | 0.8920 | 0.9201 | AveID | | 0.9783 | | | | 10.1 | | 20.0 | | | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | 1.7265 1.4677 | 1.7405 | 1.6913 | 1.5866 | 1.5955 | AveID | | 1.6347 | | | | 6.4 | | 20.0 | | | |
| Perfluorononanesulfonic acid (PFNS) | 0.8887 0.7894 | 0.9008 | 0.8628 | 0.8148 | 0.8146 | AveID | | 0.8452 | | | | 5.4 | | 20.0 | | | |
| Perfluorodecanoic acid (PFDA) | 1.0373 0.9076 | 1.1361 | 1.0248 | 0.9966 | 0.9265 | AveID | | 1.0048 | | | | 8.2 | | 20.0 | | | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.8055 0.7780 | 0.9016 | 0.9227 | 0.8343 | 0.7772 | AveID | | 0.8365 | | | | 7.5 | | 20.0 | | | |
| Perfluorooctanesulfonamide (PFOSA) | 0.9888 0.8861 | 0.9872 | 0.9895 | 0.9199 | 0.9267 | AveID | | 0.9497 | | | | 4.7 | | 20.0 | | | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.8343 0.7529 | 0.7862 | 0.7751 | 0.7636 | 0.8014 | AveID | | 0.7856 | | | | 3.7 | | 20.0 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 0.6747 0.5976 | 0.7209 | 0.7049 | 0.6250 | 0.6199 | AveID | | 0.6572 | | | | 7.6 | | 20.0 | | | |
| Perfluoroundecanoic acid (PFUnA) | 1.1440 0.9913 | 1.1696 | 1.1554 | 0.9773 | 0.9585 | AveID | | 1.0660 | | | | 9.4 | | 20.0 | | | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 1.0016 0.7592 | 0.9694 | 0.8520 | 0.7905 | 0.7687 | AveID | | 0.8569 | | | | 12.3 | | 20.0 | | | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | 2.0381 1.7962 | 1.9759 | 2.0480 | 1.8077 | 1.9172 | AveID | | 1.9305 | | | | 5.7 | | 20.0 | | | |
| Perfluorododecanoic acid (PFDoA) | 1.0163 0.8830 | 1.0775 | 1.0299 | 1.0096 | 0.8581 | AveID | | 0.9791 | | | | 9.0 | | 20.0 | | | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | 0.3704 0.3688 | 0.4172 | 0.4130 | 0.3862 | 0.3633 | AveID | | 0.3865 | | | | 6.1 | | 20.0 | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 0.2549 0.2190 | 0.2553 | 0.2493 | 0.2343 | 0.2375 | AveID | | 0.2417 | | | | 5.9 | | 20.0 | | | |
| Perfluorotridecanoic acid (PFTriA) | 0.9606 0.7593 | 0.9083 | 0.8609 | 0.8265 | 0.7490 | AveID | | 0.8441 | | | | 9.8 | | 20.0 | | | |
| Perfluorotetradecanoic acid (PFTeA) | 0.1648 0.1356 | 0.1762 | 0.1606 | 0.1596 | 0.1502 | AveID | | 0.1578 | | | | 8.7 | | 20.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | 1.1642 0.7976 | 1.0272 | 0.8948 | 0.8953 | 0.8757 | L2ID | 0.0160 | 0.8530 | | | | | | | 0.9980 | | 0.9900 |
| Perfluoro-n-octadecanoic acid (PFODA) | 0.8726 0.7520 | 0.9325 | 0.8831 | 0.8419 | 0.7780 | AveID | | 0.8433 | | | | 8.0 | | 20.0 | | | |
| 13C4 PFBA | 1.0666 1.0336 | 0.9997 | 1.0118 | 0.9535 | 1.0081 | Ave | | 1.0122 | | | | 3.7 | | 50.0 | | | |
| 13C5 PFPeA | 0.8502 0.8920 | 0.8192 | 0.8582 | 0.8443 | 0.8525 | Ave | | 0.8527 | | | | 2.8 | | 50.0 | | | |
| 13C3 PFBS | 1.1519 1.2041 | 1.1390 | 1.1301 | 1.1351 | 1.1628 | Ave | | 1.1538 | | | | 2.4 | | 50.0 | | | |
| M2-4:2 FTS | 0.0919 0.0895 | 0.0879 | 0.0888 | 0.0803 | 0.0892 | Ave | | 0.0879 | | | | 4.5 | | 50.0 | | | |
| 13C2 PFHxA | 0.8949 0.9176 | 0.8839 | 0.8921 | 0.8937 | 0.8851 | Ave | | 0.8946 | | | | 1.4 | | 50.0 | | | |
| 13C3 HFPO-DA | 0.0241 0.0273 | 0.0269 | 0.0228 | 0.0204 | 0.0199 | Ave | | 0.0236 | | | | 13.4 | | 50.0 | | | |
| 18O2 PFHxS | 0.8258 0.8648 | 0.8500 | 0.8292 | 0.8338 | 0.8259 | Ave | | 0.8382 | | | | 1.9 | | 50.0 | | | |
| 13C4 PFHpA | 0.9700 0.9494 | 0.9401 | 0.9303 | 0.9239 | 0.9366 | Ave | | 0.9417 | | | | 1.7 | | 50.0 | | | |
| M2-6:2 FTS | 0.1337 0.1316 | 0.1291 | 0.1341 | 0.1340 | 0.1306 | Ave | | 0.1322 | | | | 1.6 | | 50.0 | | | |
| 13C4 PFOA | 1.0418 1.0309 | 1.0369 | 1.0020 | 1.0234 | 1.0381 | Ave | | 1.0289 | | | | 1.4 | | 50.0 | | | |
| 13C4 PFOS | 0.6024 0.6268 | 0.6200 | 0.5819 | 0.6090 | 0.5945 | Ave | | 0.6058 | | | | 2.7 | | 50.0 | | | |
| 13C5 PFNA | 1.0139 1.0275 | 1.0011 | 1.0064 | 1.0538 | 1.0466 | Ave | | 1.0249 | | | | 2.1 | | 50.0 | | | |
| 13C2 PFDA | 1.0831 1.0559 | 1.0332 | 1.0006 | 1.0093 | 1.0240 | Ave | | 1.0343 | | | | 3.0 | | 50.0 | | | |
| M2-8:2 FTS | 0.1564 0.1502 | 0.1504 | 0.1424 | 0.1439 | 0.1556 | Ave | | 0.1498 | | | | 3.9 | | 50.0 | | | |
| 13C8 FOSA | 0.9824 1.0320 | 0.9982 | 1.0000 | 0.9919 | 0.9814 | Ave | | 0.9977 | | | | 1.9 | | 50.0 | | | |
| d3-NMeFOSAA | 0.0989 0.1074 | 0.1038 | 0.1025 | 0.1004 | 0.0976 | Ave | | 0.1017 | | | | 3.5 | | 50.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 13C2 PFUnA | 0.8118<br>0.7757 | 0.8146 | 0.7662 | 0.8461 | 0.8226 | Ave | | 0.8062 | | | | 3.7 | | 50.0 | | | |
| d5-NEtFOSAA | 0.0919<br>0.0974 | 0.0962 | 0.0940 | 0.0963 | 0.0959 | Ave | | 0.0953 | | | | 2.1 | | 50.0 | | | |
| 13C2 PFDoA | 0.8526<br>0.8936 | 0.8596 | 0.8339 | 0.8449 | 0.9183 | Ave | | 0.8672 | | | | 3.7 | | 50.0 | | | |
| 13C2 PFTeDA | 0.6741<br>0.7103 | 0.6664 | 0.6653 | 0.6566 | 0.6627 | Ave | | 0.6726 | | | | 2.9 | | 50.0 | | | |
| 13C2 PFHxDA | 0.6016<br>0.6097 | 0.5976 | 0.5810 | 0.5845 | 0.5790 | Ave | | 0.5922 | | | | 2.1 | | 50.0 | | | |

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 200-173158/2 | PA211027ICAL02.d |
| Level 2 | IC 200-173158/3 | PA211027ICAL03.d |
| Level 3 | IC 200-173158/4 | PA211027ICAL04.d |
| Level 4 | ICIS 200-173158/5 | PA211027ICAL05.d |
| Level 5 | IC 200-173158/6 | PA211027ICAL06.d |
| Level 6 | IC 200-173158/7 | PA211027ICAL07.d |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Perfluorobutanoic acid (PFBA) | | AveID | 71507<br>11507928 | 163340 | 688237 | 1470004 | 2967709 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoropentanoic acid (PFPeA) | | AveID | 58740<br>10570544 | 137765 | 624348 | 1391544 | 2762586 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorobutanesulfonic acid (PFBS) | | AveID | 76739<br>13325047 | 187317 | 799747 | 1699240 | 3359273 | 0.0442<br>8.84 | 0.0884 | 0.442 | 0.884 | 2.21 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | | AveID | 11382<br>2133052 | 30668 | 128177 | 279615 | 559584 | 0.0467<br>9.34 | 0.0934 | 0.467 | 0.934 | 2.34 |
| Perfluorohexanoic acid (PFHxA) | | AveID | 66574<br>10964511 | 158519 | 624268 | 1428398 | 2833227 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoropentanesulfonic acid (PFPeS) | | AveID | 67291<br>11788049 | 161688 | 661381 | 1488551 | 3014762 | 0.0469<br>9.38 | 0.0938 | 0.469 | 0.938 | 2.35 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | | AveID | 8098<br>1294536 | 19398 | 69564 | 153961 | 333546 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorohexanesulfonic acid (PFHxS) | | AveID | 63407<br>10194384 | 144803 | 580723 | 1287587 | 2594885 | 0.0455<br>9.10 | 0.0910 | 0.455 | 0.910 | 2.28 |
| Perfluoroheptanoic acid (PFHpA) | | AveID | 72047<br>11431038 | 167428 | 702653 | 1503783 | 3057092 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | | AveI D | 142266<br>23507218 | 350627 | 1431405 | 3115107 | 6344394 | 0.0471<br>9.42 | 0.0942 | 0.471 | 0.942 | 2.36 |
| Perfluoroheptanesulfonic Acid (PFHpS) | | AveI D | 50800<br>8770862 | 126449 | 509888 | 1113260 | 2265445 | 0.0476<br>9.52 | 0.0952 | 0.476 | 0.952 | 2.38 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | | AveI D | 10382<br>1906895 | 25961 | 119105 | 265198 | 525537 | 0.0474<br>9.48 | 0.0948 | 0.474 | 0.948 | 2.37 |
| Perfluorooctanoic acid (PFOA) | | AveI D | 81058<br>12772682 | 191529 | 770517 | 1718391 | 3421460 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorooctanesulfonic acid (PFOS) | | AveI D | 42154<br>7448626 | 111255 | 432797 | 964211 | 1848160 | 0.0464<br>9.28 | 0.0928 | 0.464 | 0.928 | 2.32 |
| Perfluorononanoic acid (PFNA) | | AveI D | 74901<br>11564350 | 173658 | 696392 | 1563242 | 3222609 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | | AveI D | 64917<br>11051728 | 161187 | 635074 | 1497666 | 2958438 | 0.0466<br>9.32 | 0.0932 | 0.466 | 0.932 | 2.33 |
| Perfluorononanesulfonic acid (PFNS) | | AveI D | 34421<br>6122325 | 85933 | 333722 | 792308 | 1555930 | 0.0480<br>9.60 | 0.0960 | 0.480 | 0.960 | 2.40 |
| Perfluorodecanoic acid (PFDA) | | AveI D | 75240<br>12354501 | 188134 | 710000 | 1672723 | 3174577 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | | AveI D | 8084<br>1443544 | 20820 | 87150 | 191300 | 387800 | 0.0479<br>9.58 | 0.0958 | 0.479 | 0.958 | 2.40 |
| Perfluorooctanesulfonamide (PFOSA) | | AveI D | 65056<br>11787729 | 157927 | 685105 | 1517479 | 3043484 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | AveI D | 5527<br>1042012 | 13075 | 54995 | 127458 | 261621 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Perfluorodecanesulfonic acid (PFDS) | | AveID | 26240<br>4654579 | 69056 | 273773 | 610213 | 1188911 | 0.0482<br>9.64 | 0.0964 | 0.482 | 0.964 | 2.41 |
| Perfluoroundecanoic acid (PFUnA) | | AveID | 62199<br>9912583 | 152692 | 612929 | 1375247 | 2638255 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | AveID | 6162<br>953648 | 14950 | 55468 | 126650 | 246673 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | | AveID | 77454<br>13670685 | 184947 | 777266 | 1724753 | 3593181 | 0.0471<br>9.42 | 0.0942 | 0.471 | 0.942 | 2.36 |
| Perfluorododecanoic acid (PFDoA) | | AveID | 58029<br>10172160 | 148447 | 594650 | 1418492 | 2636999 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | | AveID | 3741<br>688615 | 9695 | 39257 | 89116 | 182391 | 0.0482<br>9.64 | 0.0964 | 0.482 | 0.964 | 2.41 |
| Perfluorododecanesulfonic acid (PFDoS) | | AveID | 9954<br>1712893 | 24558 | 97215 | 229693 | 457314 | 0.0484<br>9.68 | 0.0968 | 0.484 | 0.968 | 2.42 |
| Perfluorotridecanoic acid (PFTriA) | | AveID | 54849<br>8746311 | 125142 | 497082 | 1161247 | 2301928 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluorotetradecanoic acid (PFTeA) | | AveID | 7441<br>1241475 | 18818 | 73965 | 174302 | 332972 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | | L2ID | 46907<br>6269085 | 98385 | 359982 | 870242 | 1696788 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| Perfluoro-n-octadecanoic acid (PFODA) | | AveID | 35157<br>5910248 | 89309 | 355258 | 818298 | 1507499 | 0.0500<br>10.0 | 0.100 | 0.500 | 1.00 | 2.50 |
| 13C4 PFBA | 13PFOA | Ave | 1785802<br>1665496 | 2002798 | 1751374 | 1982117 | 1686795 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| 13C5 PFPeA | 13PF OA | Ave | 1423500<br>1437251 | 1641164 | 1485537 | 1755143 | 1426418 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C3 PFBS | 13PF OA | Ave | 1793578<br>1804342 | 2122028 | 1819218 | 2194395 | 1809434 | 1.16<br>1.16 | 1.16 | 1.16 | 1.16 | 1.16 |
| M2-4:2 FTS | 13PF OA | Ave | 143738<br>134645 | 164450 | 143541 | 155977 | 139431 | 1.17<br>1.17 | 1.17 | 1.17 | 1.17 | 1.17 |
| 13C2 PFHxA | 13PF OA | Ave | 1498283<br>1478594 | 1770715 | 1544242 | 1857895 | 1480926 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C3 HFPO-DA | 13PF OA | Ave | 40304<br>44010 | 53908 | 39462 | 42477 | 33254 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 18O2 PFHxS | 13PF OA | Ave | 1307897<br>1318214 | 1610888 | 1357826 | 1639762 | 1307238 | 1.18<br>1.18 | 1.18 | 1.18 | 1.18 | 1.18 |
| 13C4 PFHpA | 13PF OA | Ave | 1624105<br>1529883 | 1883272 | 1610239 | 1920576 | 1567141 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| M2-6:2 FTS | 13PF OA | Ave | 212699<br>201400 | 245685 | 220518 | 264731 | 207642 | 1.19<br>1.19 | 1.19 | 1.19 | 1.19 | 1.19 |
| 13C4 PFOA | 13PF OA | Ave | 1744327<br>1661142 | 2077322 | 1734402 | 2127384 | 1736905 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C4 PFOS | 13PF OA | Ave | 964211<br>965476 | 1187422 | 962917 | 1210356 | 951013 | 1.20<br>1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| 13C5 PFNA | 13PF OA | Ave | 1697603<br>1655608 | 2005558 | 1742047 | 2190750 | 1751163 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFDA | 13PF OA | Ave | 1813381<br>1701445 | 2069906 | 1732010 | 2098041 | 1713267 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1 Analy Batch No.: 173158

SDG No.:

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/27/2021 13:46 Calibration End Date: 10/27/2021 14:27 Calibration ID: 46975

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| M2-8:2 FTS | 13PF OA | Ave | 250892<br>231933 | 288661 | 236138 | 286620 | 249474 | 1.20<br>1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| 13C8 FOSA | 13PF OA | Ave | 1644854<br>1662915 | 1999674 | 1730994 | 2062074 | 1642092 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| d3-NMeFOSAA | 13PF OA | Ave | 165609<br>173007 | 207879 | 177391 | 208636 | 163220 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFUnA | 13PF OA | Ave | 1359196<br>1249906 | 1631857 | 1326229 | 1758950 | 1376292 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| d5-NEtFOSAA | 13PF OA | Ave | 153799<br>157024 | 192776 | 162762 | 200276 | 160452 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFDoA | 13PF OA | Ave | 1427497<br>1439938 | 1722128 | 1443504 | 1756299 | 1536568 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFTeDA | 13PF OA | Ave | 1128642<br>1144458 | 1335021 | 1151594 | 1364943 | 1108790 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 13C2 PFHxDA | 13PF OA | Ave | 1007270<br>982482 | 1197224 | 1005731 | 1215023 | 968779 | 1.25<br>1.25 | 1.25 | 1.25 | 1.25 | 1.25 |

Curve Type Legend
Ave = Average ISTD
AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Oct-2021 13:46:14 ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-002 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:03 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 16:48:03
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 1785802 | 1.32 | | 105 | 5640 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 71507 | 0.0529 | | 106 | 5.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1423500 | 1.25 | | 99.7 | 2552 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 58740 | 0.0515 | | 103 | 3.6 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 1793578 | 1.16 | | 99.8 | 177115 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 76739 | 0.0466 | Target=2.29 | 105 | 71.9 | M |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 32067 | | 2.39(1.15-3.44) | 105 | 11.6 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.781 | 143738 | 1.22 | | 105 | 121 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 11382 | 0.0434 | | 93.0 | 161 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 66574 | 0.0548 | Target=12.01 | 110 | 8.7 | M |
| 313.00 > 119.00 | 2.770 | 2.756 | 0.014 | 1.004 | 5719 | | 11.64(6.00-18.01) | 110 | 6.7 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1498283 | 1.25 | | 100 | 3652 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 67291 | 0.0505 | Target=3.04 | 108 | 123 | |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 21507 | | 3.13(1.52-4.56) | 108 | 21.8 | M |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.867 | 2.865 | 0.002 | 1.000 | 8098 | 0.0555 | | 111 | 2.8 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.823 | 40304 | 1.28 | | 102 | 340 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.899 | 1307897 | 1.16 | | 98.5 | 3516 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 63407 | 0.0521 | Target=3.51 | 115 | 130 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 18001 | | 3.52(1.76-5.27) | 115 | 17.8 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 72047 | 0.0537 | Target=3.83 | 107 | 18.8 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 18148 | | 3.97(1.91-5.74) | 107 | 38.0 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1624105 | 1.29 | | 103 | 4329 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 142266 | 0.0504 | Target=2.58 | 107 | 192 | |
| 377.00 > 85.00 | 3.164 | 3.165 | -0.001 | 0.834 | 53350 | | 2.67(1.29-3.88) | 107 | 75.9 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 50800 | 0.0505 | Target=5.12 | 106 | 264 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 9085 | | 5.59(2.56-7.67) | 106 | 23.4 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 212699 | 1.20 | | 101 | 489 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 10382 | 0.0457 | | 96.4 | 111 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1744327 | 1.27 | | 101 | 3448 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1674298 | 1.25 | | | 3475 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 81058 | 0.0546 | Target=2.65 | 109 | 14.1 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 32239 | | 2.51(1.32-3.97) | 109 | 46.7 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 964211 | 1.19 | | 99.4 | 2831 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 42154 | 0.0481 | Target=4.60 | 104 | 54.7 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 10148 | | 4.15(2.30-6.90) | 104 | 22.1 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 74901 | 0.0564 | Target=7.58 | 113 | 14.3 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 10028 | | 7.47(3.79-11.37) | 113 | 60.6 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 1697603 | 1.24 | | 98.9 | 4792 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 64917 | 0.0492 | | 106 | 275 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 34421 | 0.0505 | Target=2.38 | 105 | 349 | |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 14624 | | 2.35(1.19-3.56) | 105 | 34.9 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.104 | -0.001 | 1.178 | 1813381 | 1.31 | | 105 | 3995 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.104 | -0.001 | 1.000 | 75240 | 0.0516 | Target=9.30 | 103 | 46.6 | |
| 513.00 > 169.00 | 4.103 | 4.104 | -0.001 | 1.000 | 8579 | | 8.77(4.65-13.95) | 103 | 42.9 | |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 250892 | 1.25 | | 104 | 643 | M |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 8084 | 0.0461 | | 96.3 | 87.9 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.234 | 4.225 | 0.009 | 1.216 | 1644854 | 1.23 | | 98.5 | 2173 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.235 | -0.001 | 1.000 | 65056 | 0.0521 | | 104 | 222 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.245 | 4.246 | -0.001 | 1.219 | 165609 | 1.22 | | 97.2 | 879 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.246 | 0.011 | 1.003 | 5527 | 0.0531 | | 106 | 49.0 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 26240 | 0.0495 | Target=2.54 | 103 | 270 | |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 11839 | | 2.22(1.27-3.81) | 103 | 78.9 | M |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.358 | 4.358 | 0.0 | 1.000 | 62199 | 0.0537 | Target=9.37 | 107 | 44.1 | |
| 563.00 > 169.00 | 4.358 | 4.358 | 0.0 | 1.000 | 5982 | | 10.40(4.69-14.06) | 107 | 62.5 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.358 | 0.0 | 1.251 | 1359196 | 1.26 | | 101 | 3035 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.369 | 0.001 | 1.255 | 153799 | 1.20 | | 96.4 | 913 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.003 | 6162 | 0.0584 | | 117 | 111 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.457 | 4.445 | 0.012 | 1.175 | 77454 | 0.0497 | | 106 | 451 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.580 | 0.001 | 1.315 | 1427497 | 1.23 | | 98.3 | 669 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.002 | 58029 | 0.0519 | Target=6.84 | 104 | 11.0 | |
| 613.00 > 169.00 | 4.581 | 4.580 | 0.001 | 1.000 | 8812 | | 6.59(3.42-10.25) | 104 | 88.3 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 3741 | 0.0462 | | 95.8 | 79.1 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 9954 | 0.0510 | Target=0.51 | 105 | 151 | M |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 19120 | | 0.52(0.25-0.76) | 105 | 232 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.044 | 54849 | 0.0569 | Target=4.67 | 114 | 15.4 | |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.044 | 11059 | | 4.96(2.33-7.00) | 114 | 122 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.001 | 1.423 | 1128642 | 1.25 | | 100 | 3070 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.001 | 1.000 | 7441 | 0.0522 | Target=0.99 | 104 | 140 | |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.001 | 1.000 | 8407 | | 0.89(0.49-1.48) | 104 | 130 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 46907 | 0.0495 | Target=4.50 | 98.9 | 14.0 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 10284 | | 4.56(2.25-6.75) | 98.9 | 139 | |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 1007270 | 1.27 | | 102 | 2767 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.519 | 0.0 | 1.050 | 35157 | 0.0517 | Target=4.46 | 103 | 22.8 | |
| 913.00 > 169.00 | 5.519 | 5.519 | 0.0 | 1.050 | 7793 | | 4.51(2.23-6.68) | 103 | 157 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC1_00010 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d

Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812

Lims ID: IC

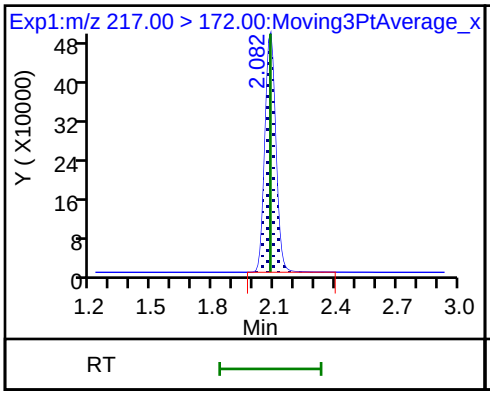
Client ID:

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2

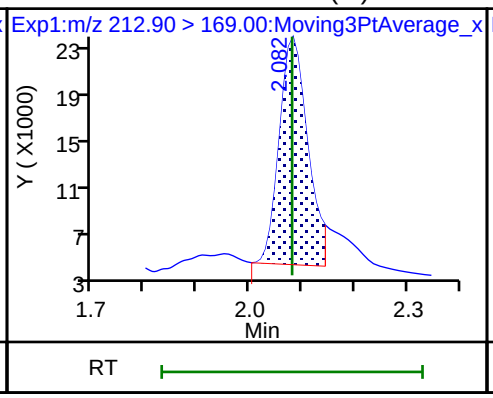
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

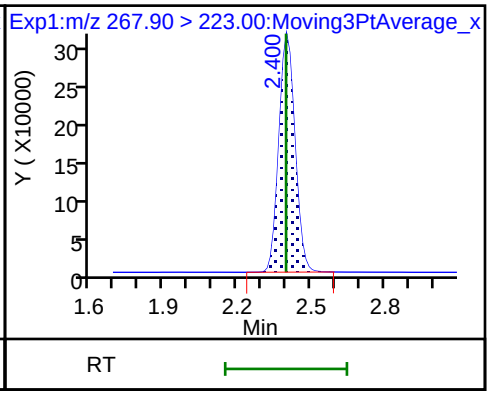
D 1 13C4 PFBA



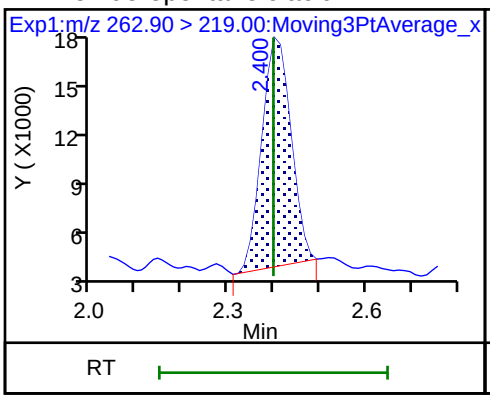

2 Perfluorobutanoic acid (M)



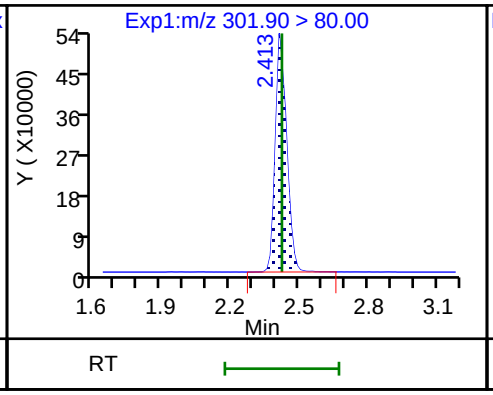

D 3 13C5 PFPeA



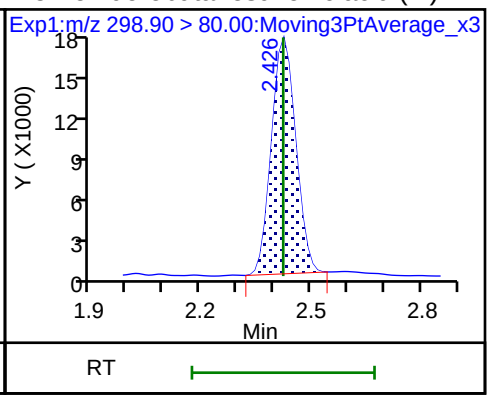

4 Perfluoropentanoic acid



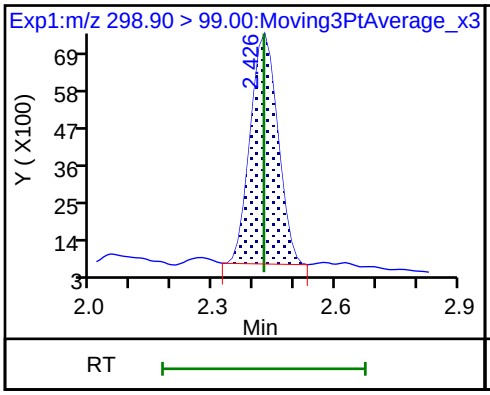

D 47 13C3 PFBS



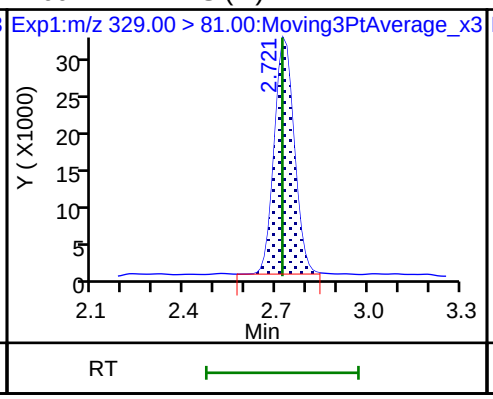

5 Perfluorobutanesulfonic acid (M)



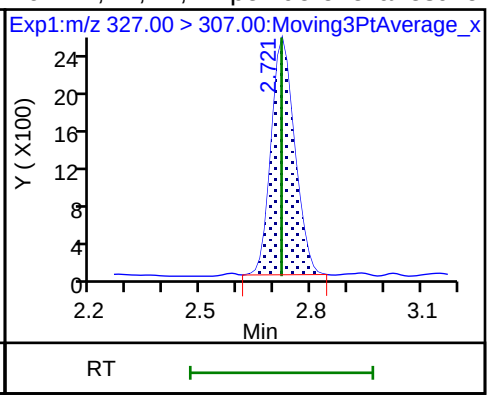

5 Perfluorobutanesulfonic acid



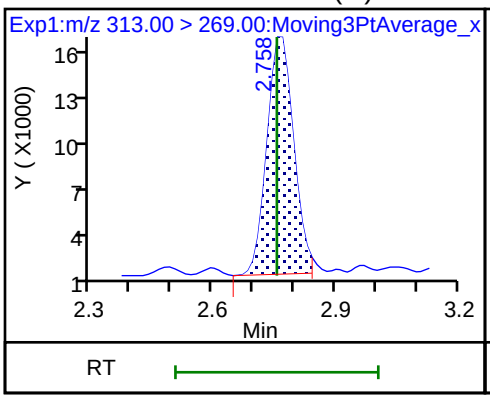

D 60 M2-4:2 FTS (M)



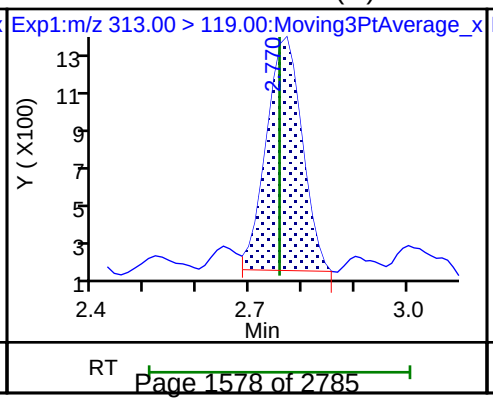

61 1H,1H,2H,2H-perfluorohexanesulfo



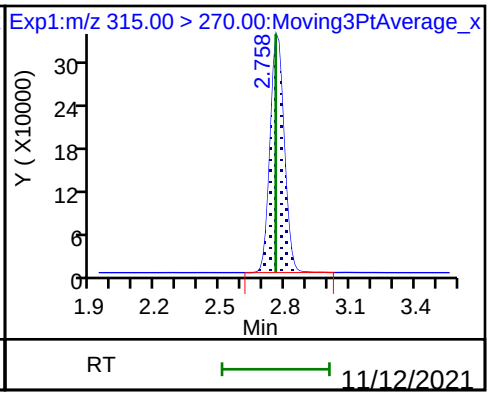

6 Perfluorohexanoic acid (M)



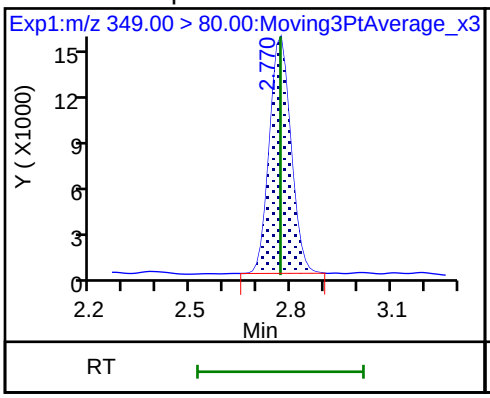

6 Perfluorohexanoic acid (M)



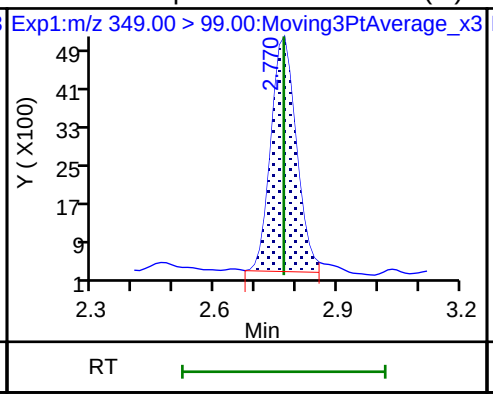

D 7 13C2 PFHxA



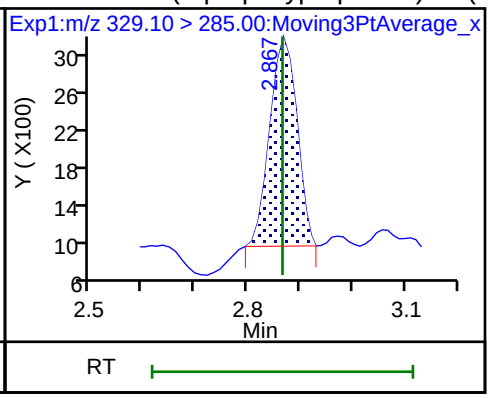
70 Perfluoropentanesulfonic acid



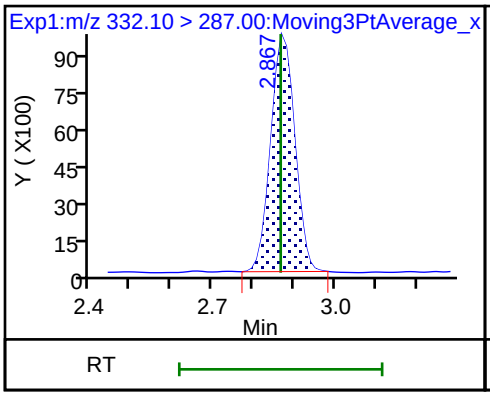

70 Perfluoropentanesulfonic acid (M)



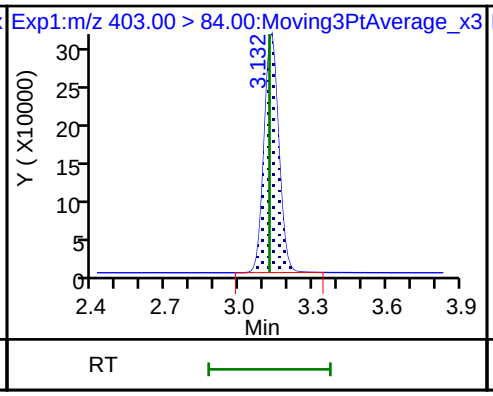

67 Perfluoro(2-propoxypropanoic) ac (M)



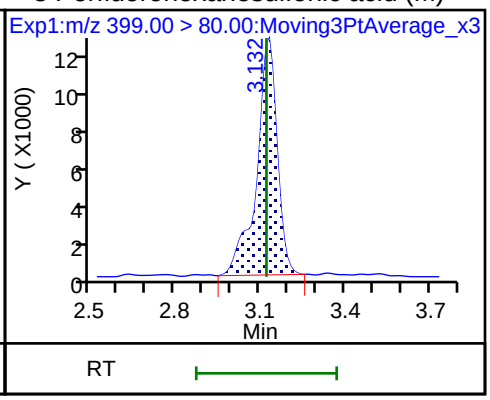

D 64 13C3 HFPO-DA



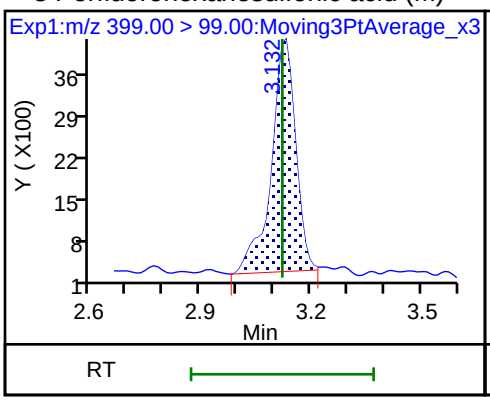

D 11 18O2 PFHxS



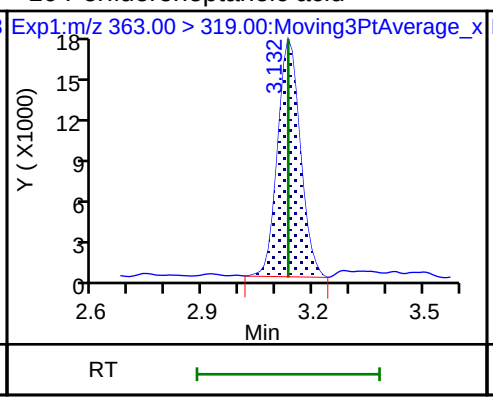

8 Perfluorohexanesulfonic acid (M)



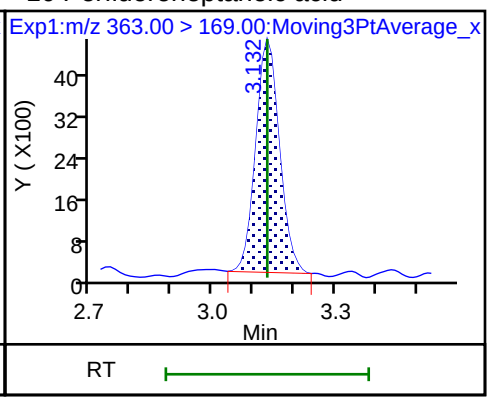

8 Perfluorohexanesulfonic acid (M)



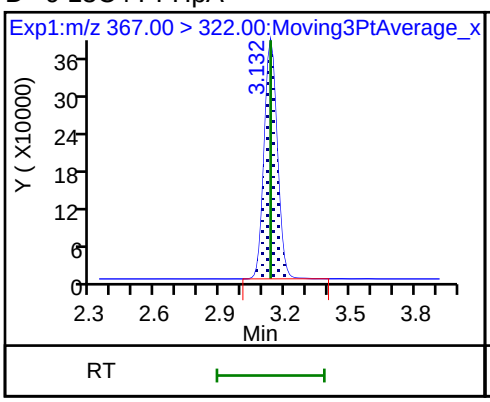

10 Perfluoroheptanoic acid



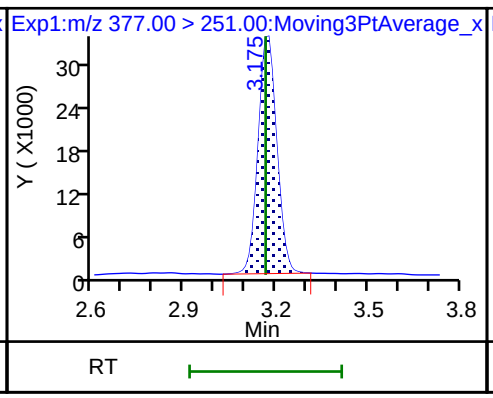

10 Perfluoroheptanoic acid



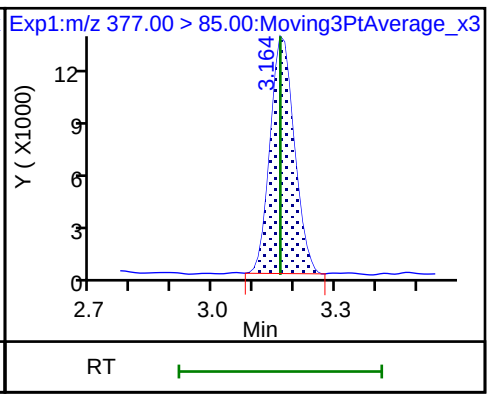

D 9 13C4 PFHpA



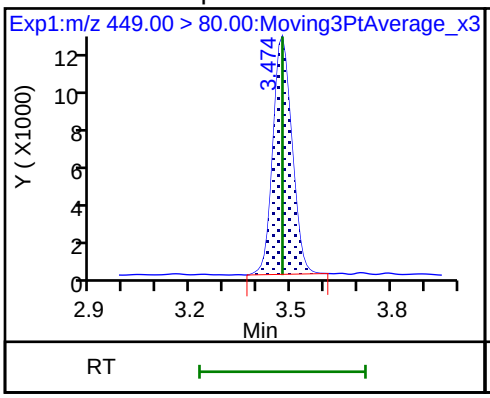

77 DONA



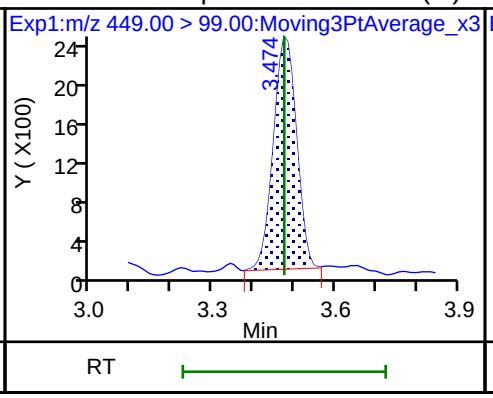

77 DONA



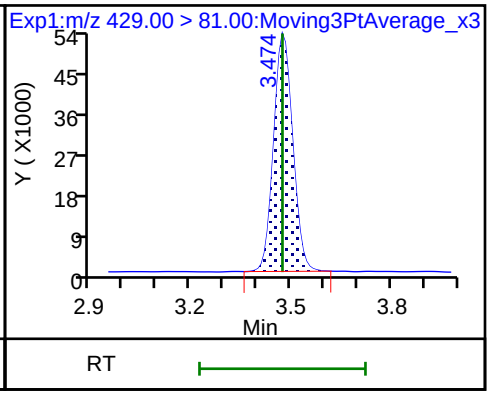
16 Perfluoroheptanesulfonic acid



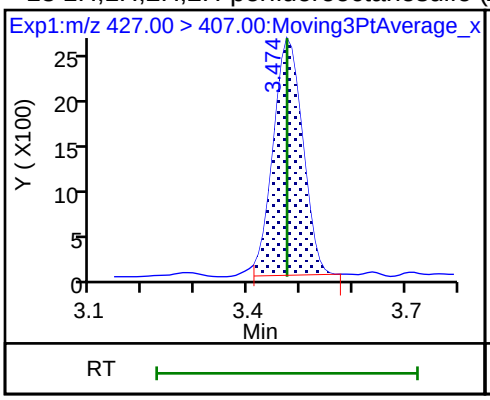

16 Perfluoroheptanesulfonic acid (M)



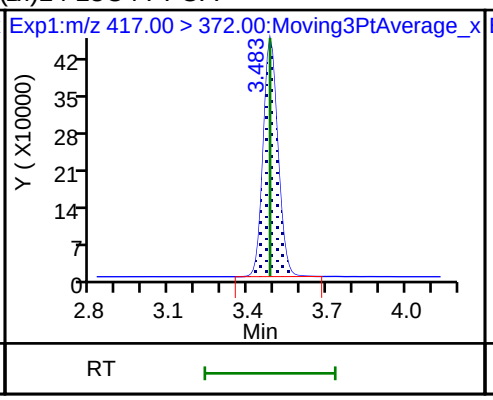

D 12 M2-6:2 FTS



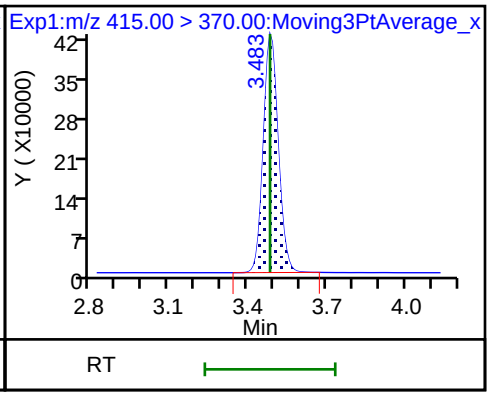

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



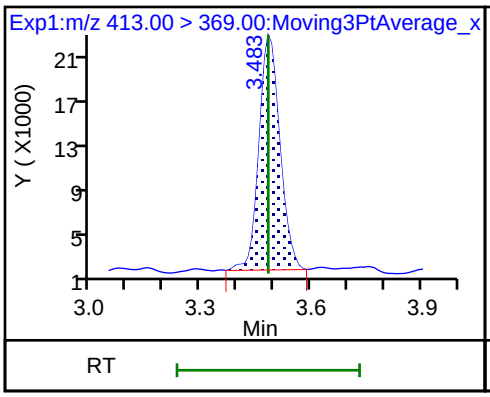

M14 13C4 PFOA



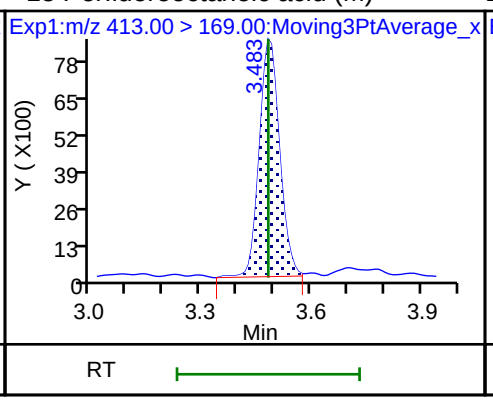

* 62 13C2 PFOA



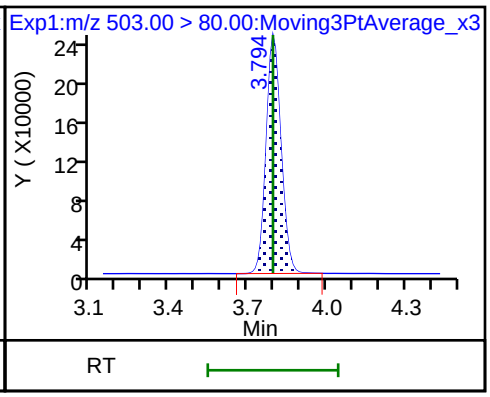

15 Perfluorooctanoic acid



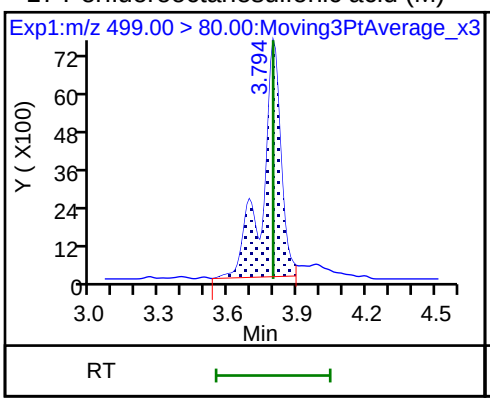

15 Perfluorooctanoic acid (M)



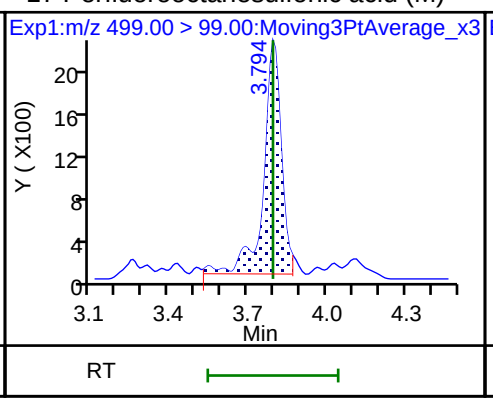

D 18 13C4 PFOS



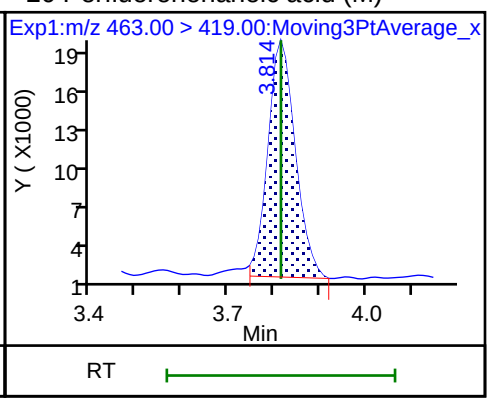

17 Perfluorooctanesulfonic acid (M)



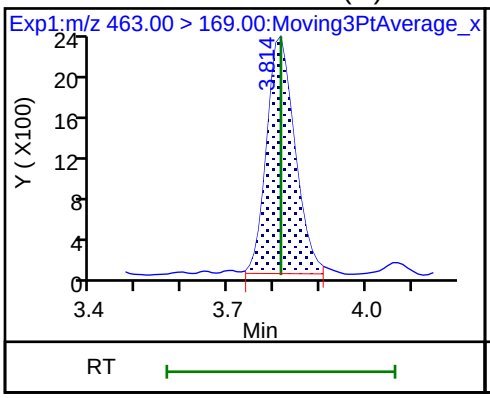

17 Perfluorooctanesulfonic acid (M)



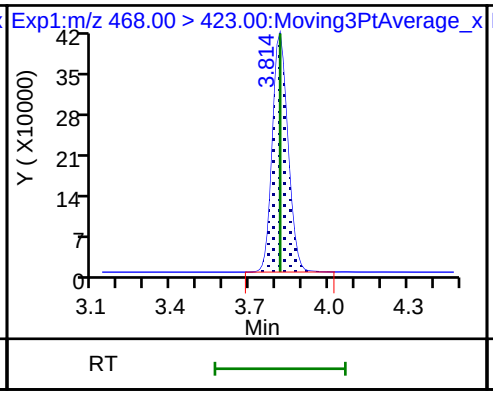

20 Perfluorononanoic acid (M)



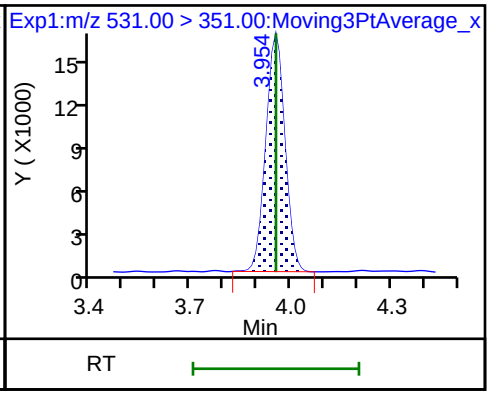
20 Perfluorononanoic acid (M)



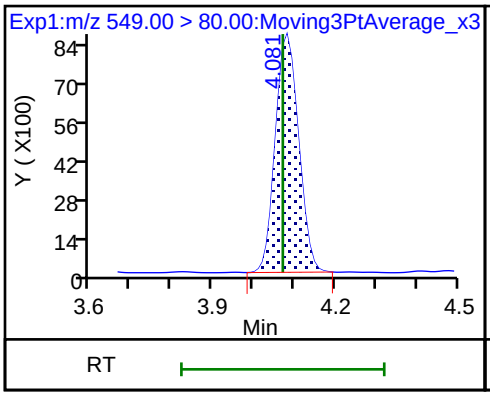

D 19 13C5 PFNA



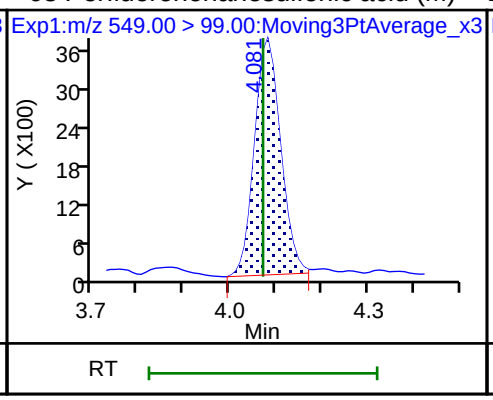

69 9-Chlorohexadecafluoro-3-oxanona



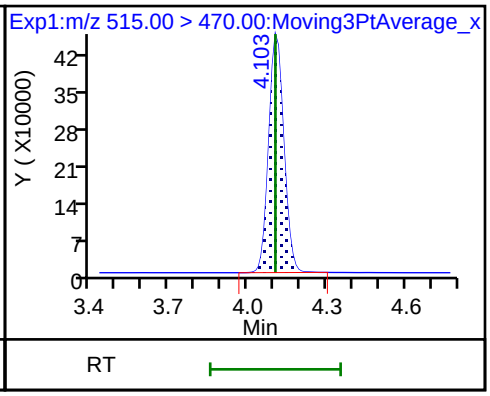

68 Perfluorononanesulfonic acid



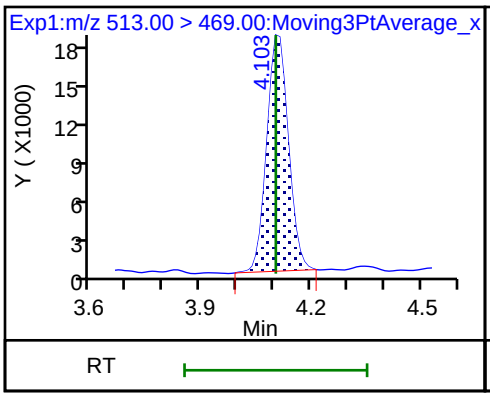

68 Perfluorononanesulfonic acid (M)



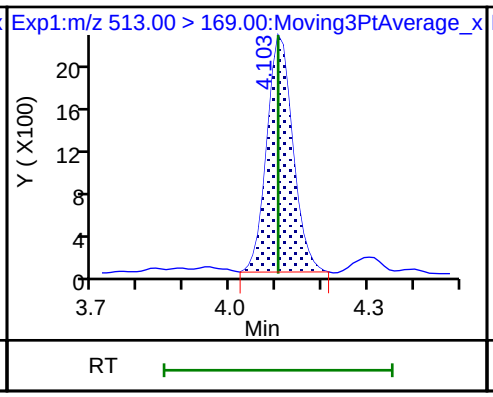

D 23 13C2 PFDA



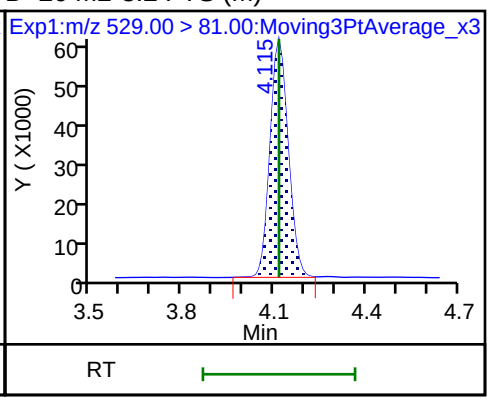

24 Perfluorodecanoic acid



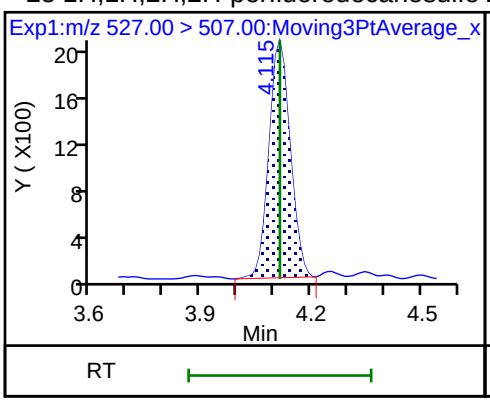

24 Perfluorodecanoic acid



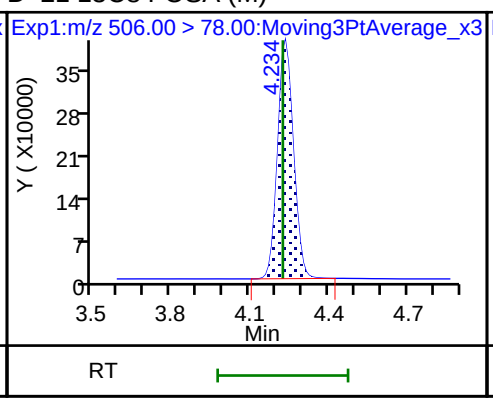

D 26 M2-8:2 FTS (M)



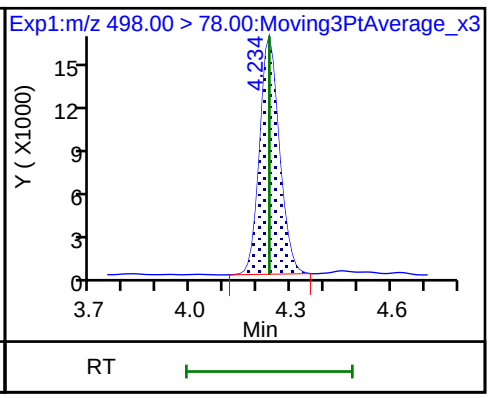

25 1H,1H,2H,2H-perfluorodecanesulfo



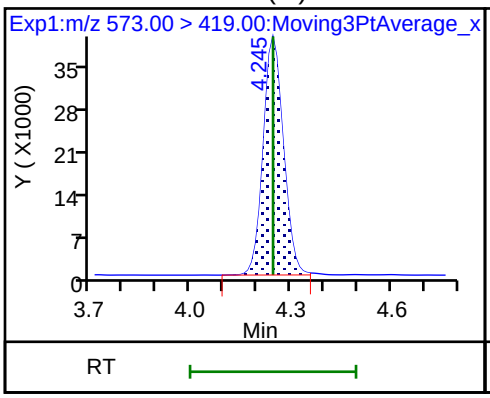

D 21 13C8 FOSA (M)



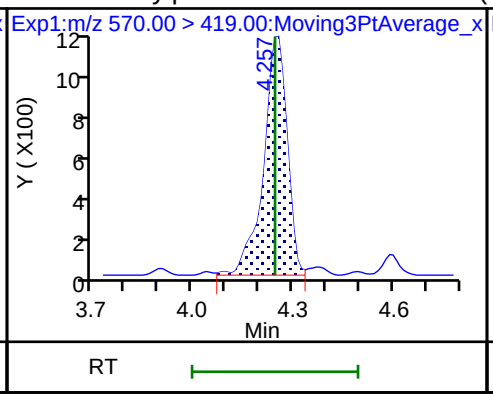

22 Perfluorooctanesulfonamide



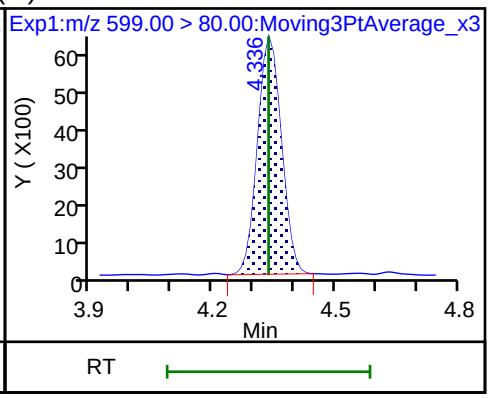
D 27 d3-NMeFOSAA (M)



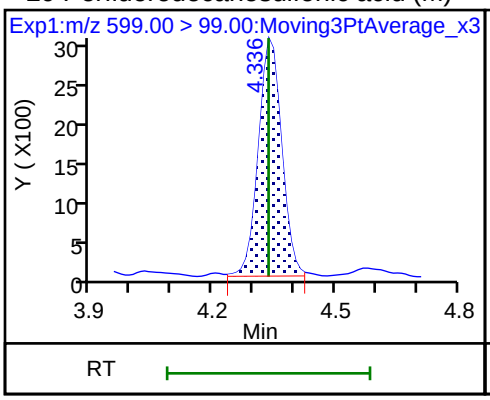

28 N-methylperfluorooctanesulfonami (M)



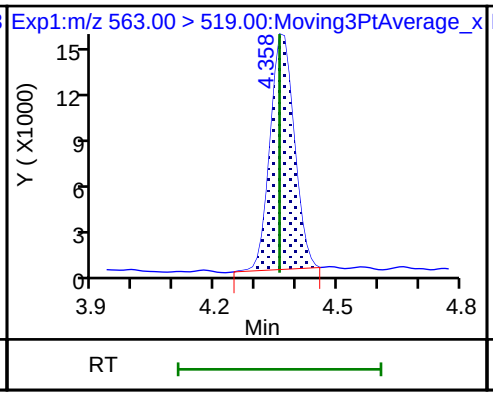

29 Perfluorodecanesulfonic acid



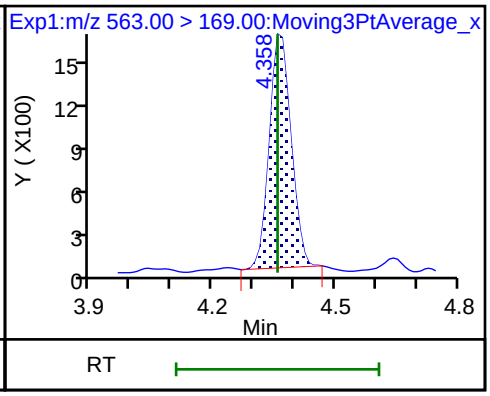

29 Perfluorodecanesulfonic acid (M)



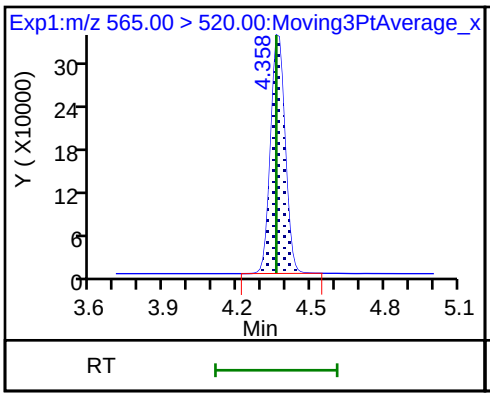

31 Perfluoroundecanoic acid



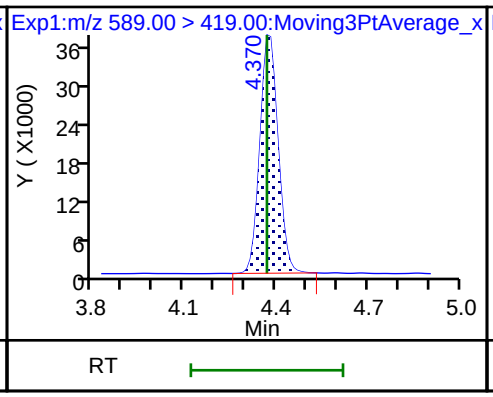

31 Perfluoroundecanoic acid



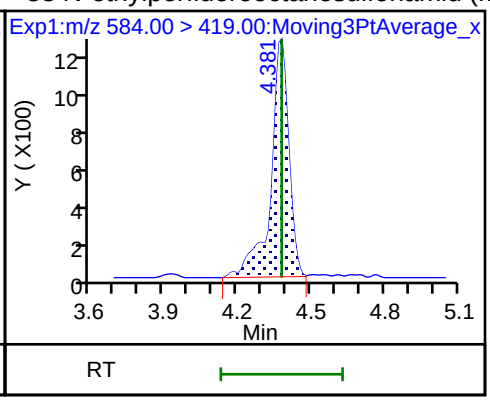

D 30 13C2 PFUnA



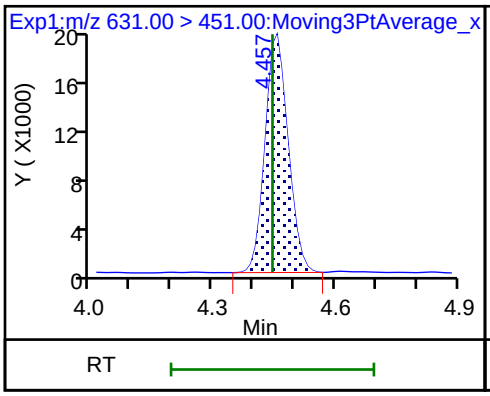

D 32 d5-NEtFOSAA



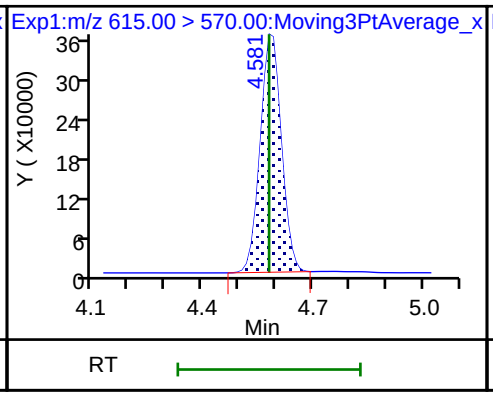

33 N-ethylperfluorooctanesulfonamid (M)



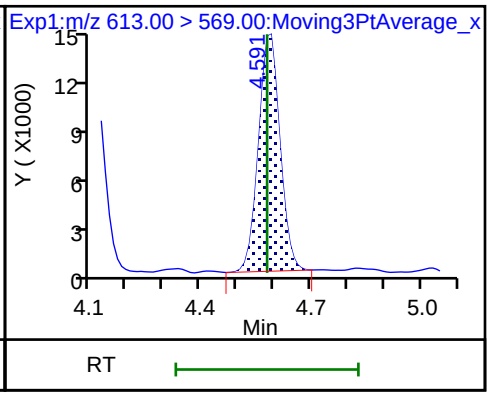

66 11-Chloroeicosafluoro-3-oxaundec



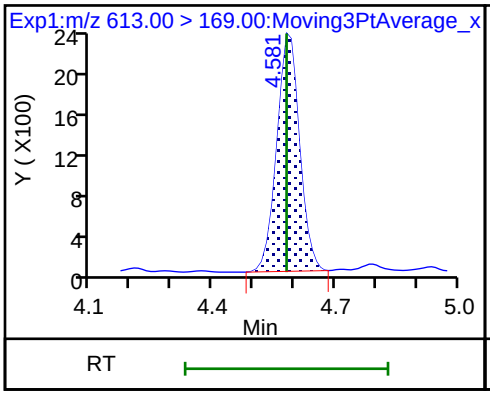

D 36 13C2 PFDoA



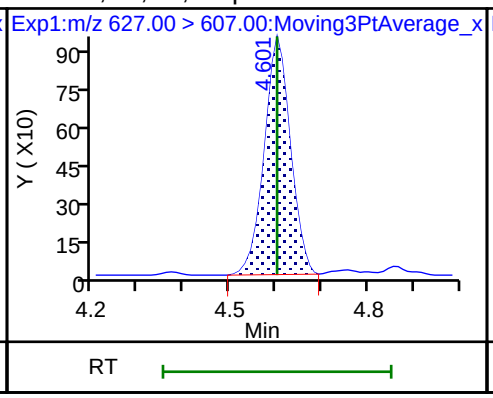

37 Perfluorododecanoic acid



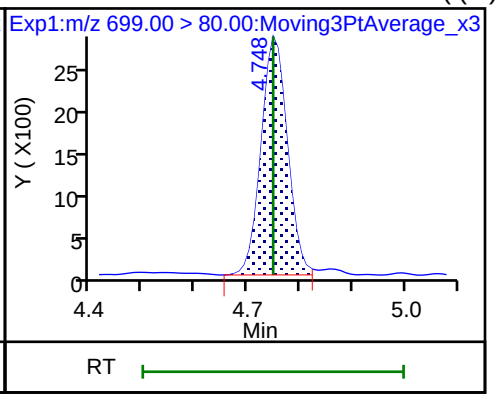
37 Perfluorododecanoic acid



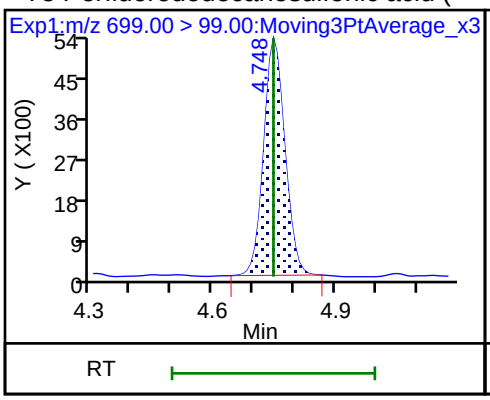

74 1H,1H,2H,2H-perfluorododecanesul



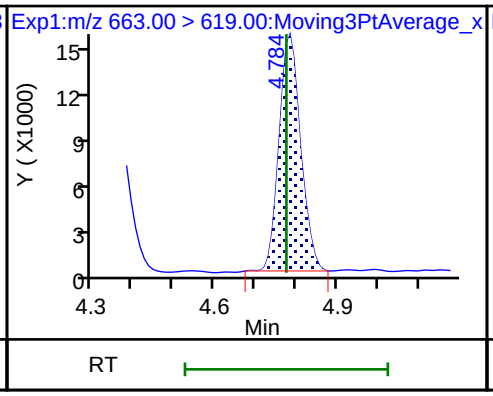

75 Perfluorododecanesulfonic acid ( (M)



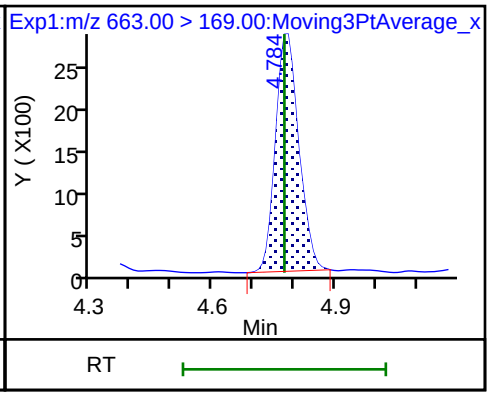

75 Perfluorododecanesulfonic acid (



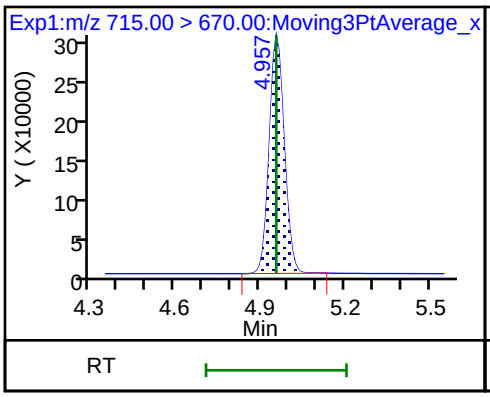

41 Perfluorotridecanoic acid



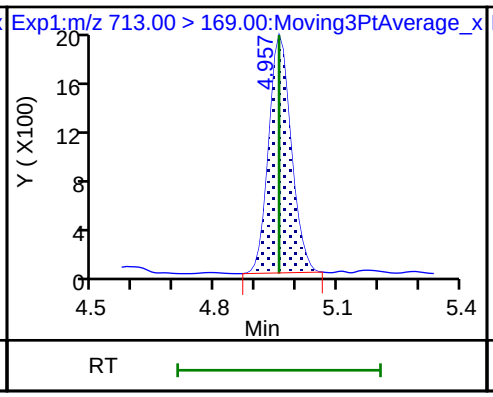

41 Perfluorotridecanoic acid



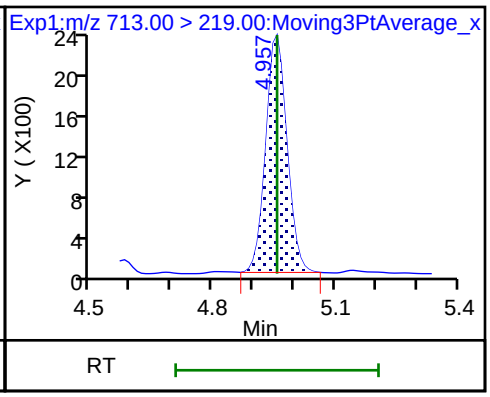

D 43 13C2 PFTeDA



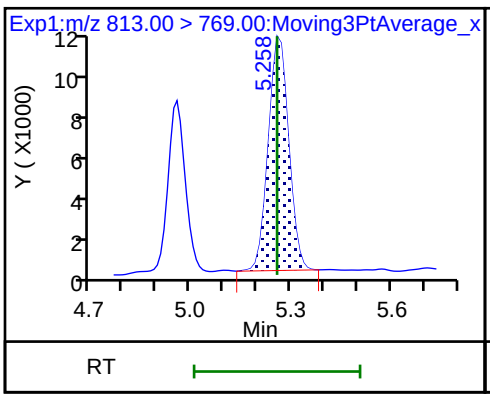

42 Perfluorotetradecanoic acid



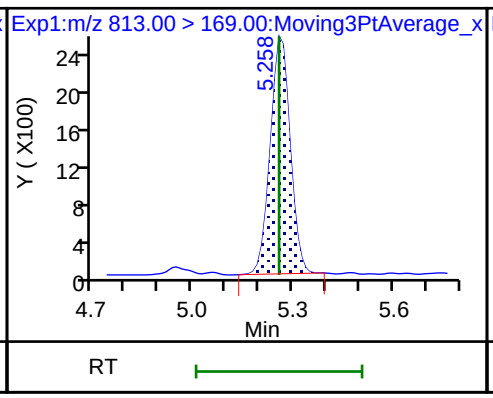

42 Perfluorotetradecanoic acid



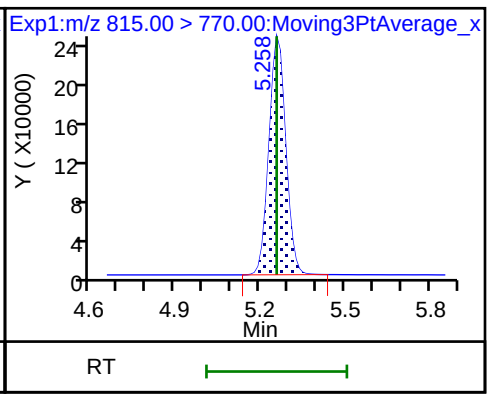

45 Perfluorohexadecanoic acid



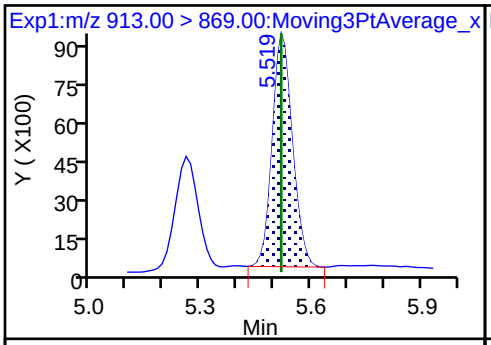

45 Perfluorohexadecanoic acid



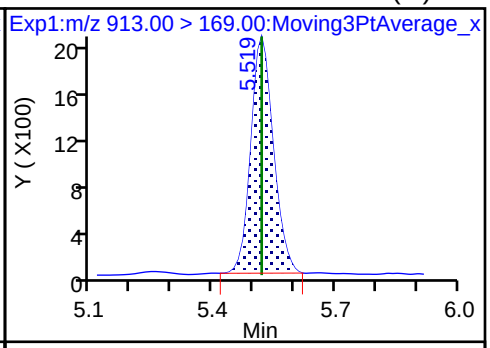

D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

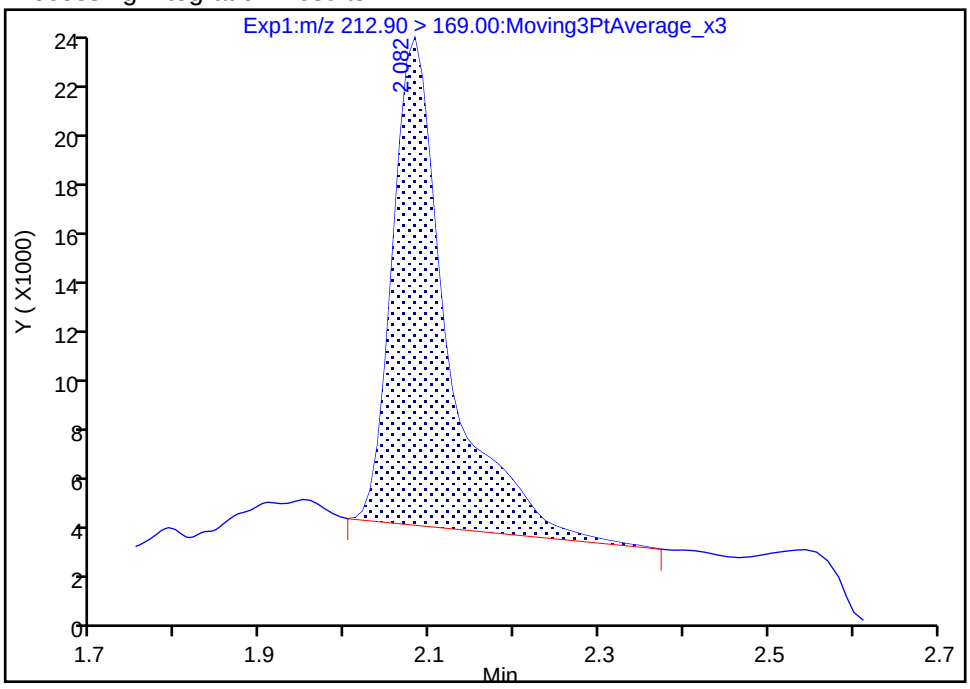
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

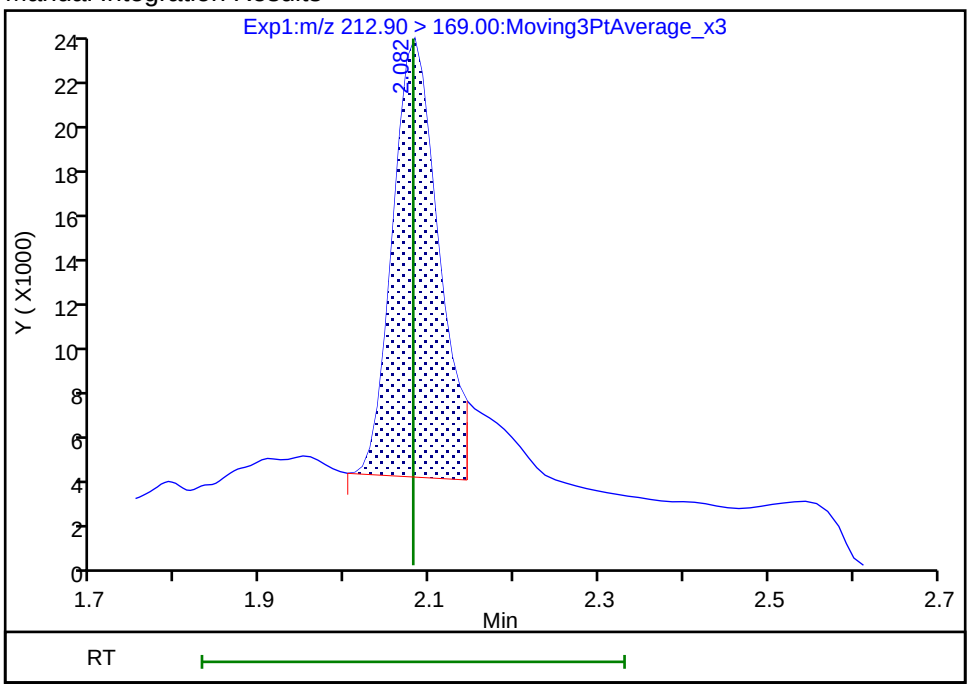
Processing Integration Results

RT: 2.08
Area: 86633
Amount: 0.057467
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 71507
Amount: 0.052934
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:44:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

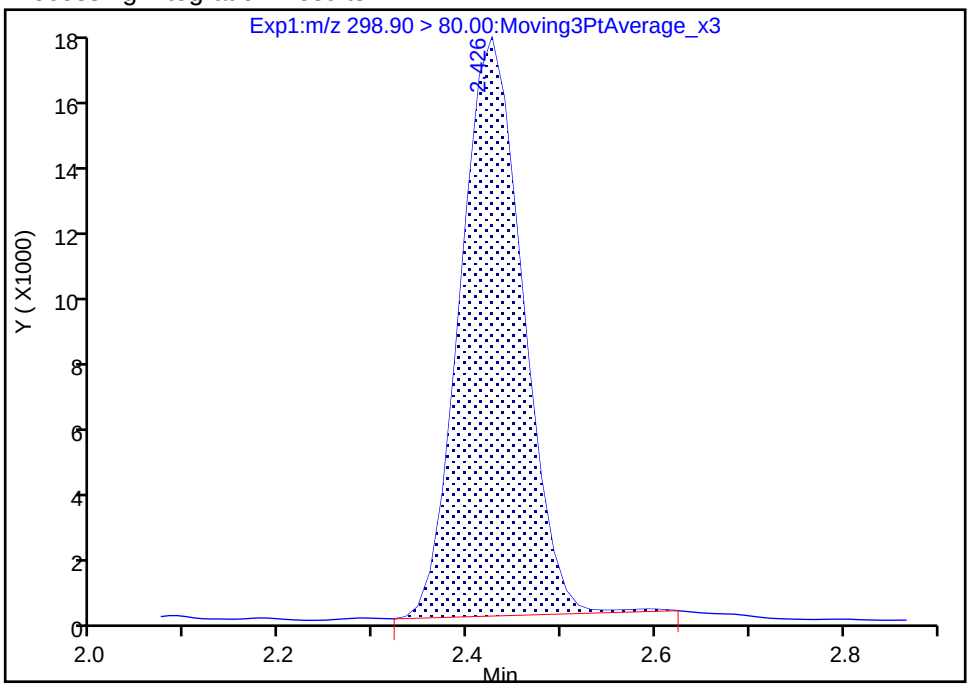
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

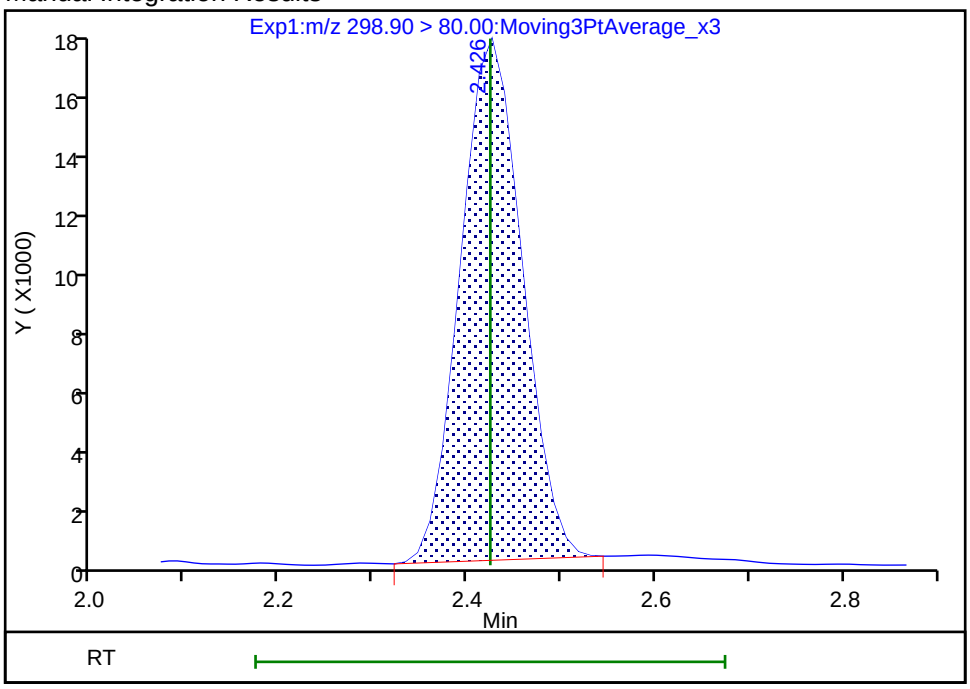
Processing Integration Results

RT: 2.43
Area: 77487
Amount: 0.044926
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 76739
Amount: 0.046568
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:44:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

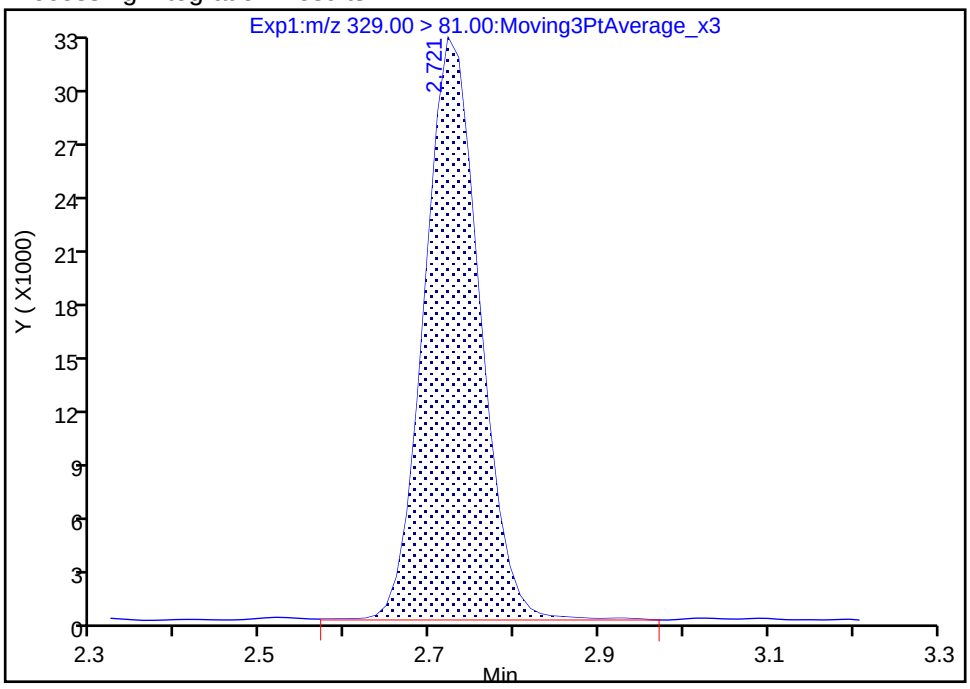
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

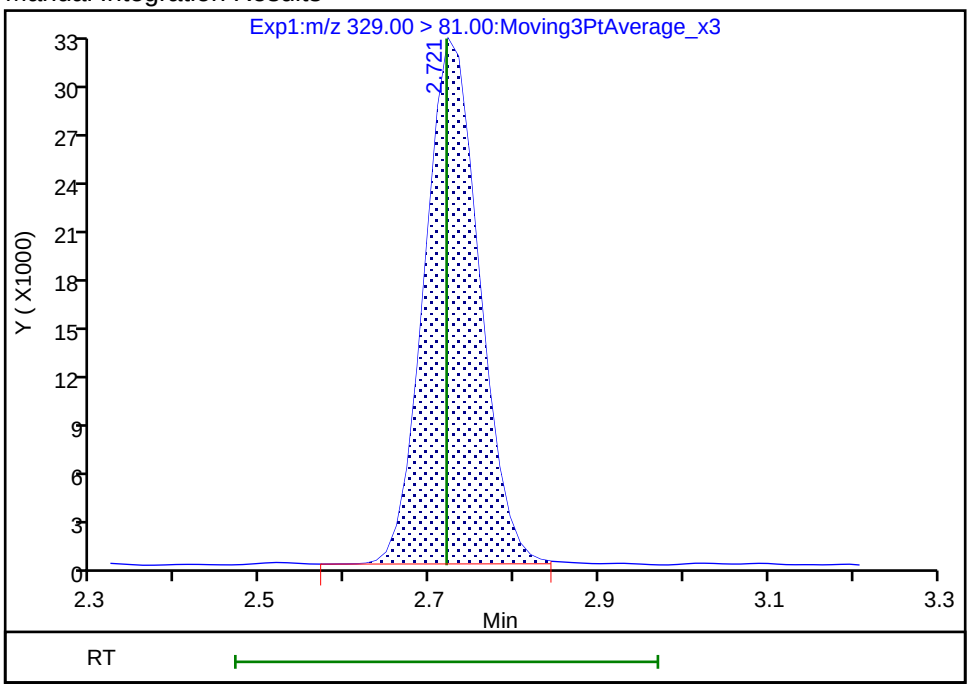
Processing Integration Results

RT: 2.72
Area: 145397
Amount: 1.238038
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 143738
Amount: 1.220355
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

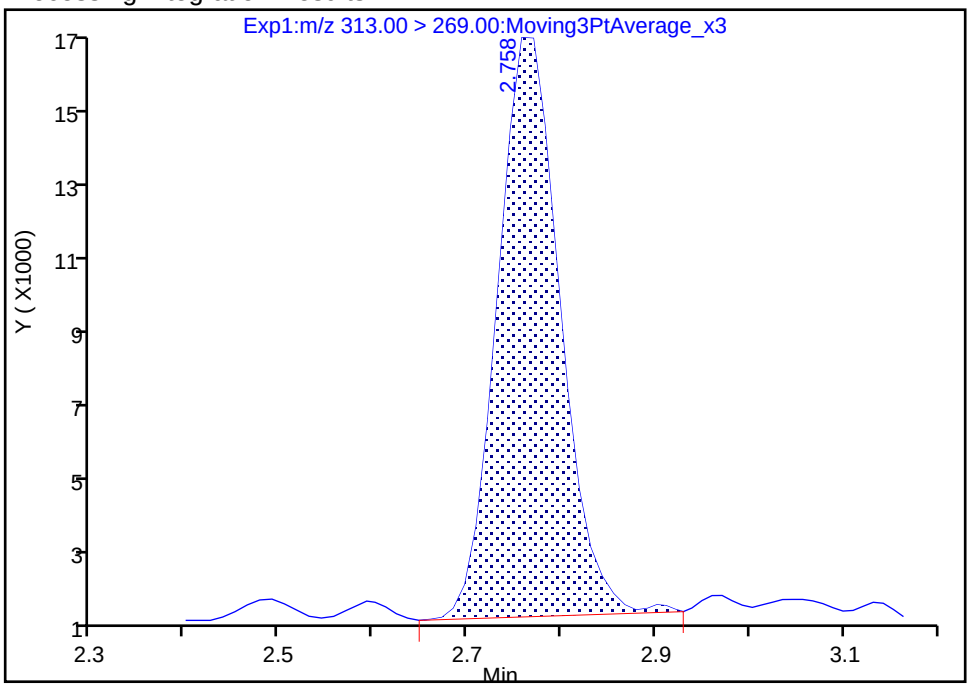
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

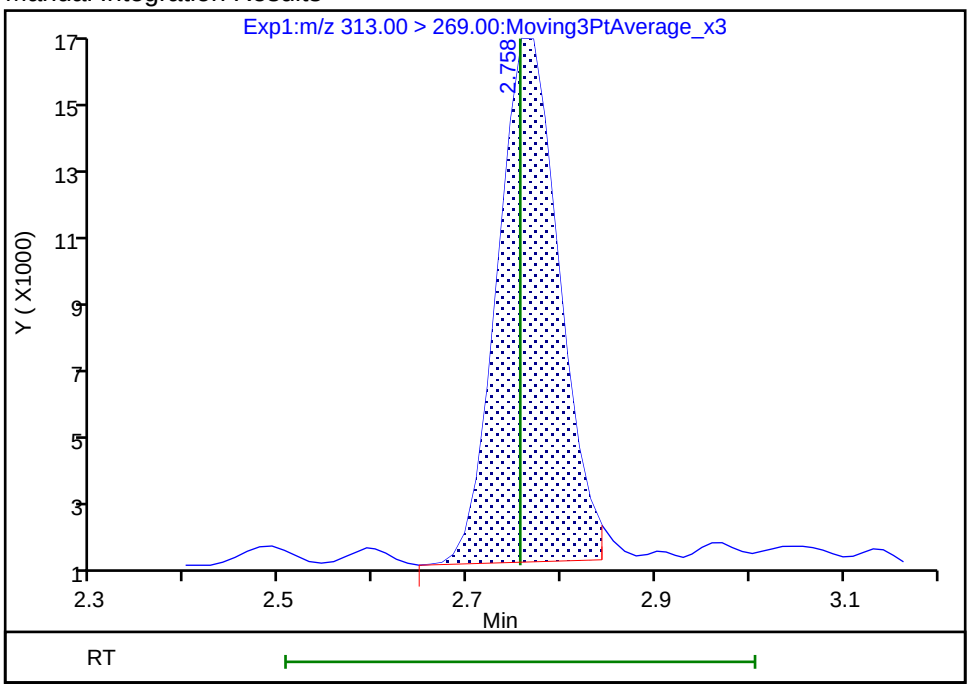
Processing Integration Results

RT: 2.76
Area: 67846
Amount: 0.053417
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 66574
Amount: 0.054766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

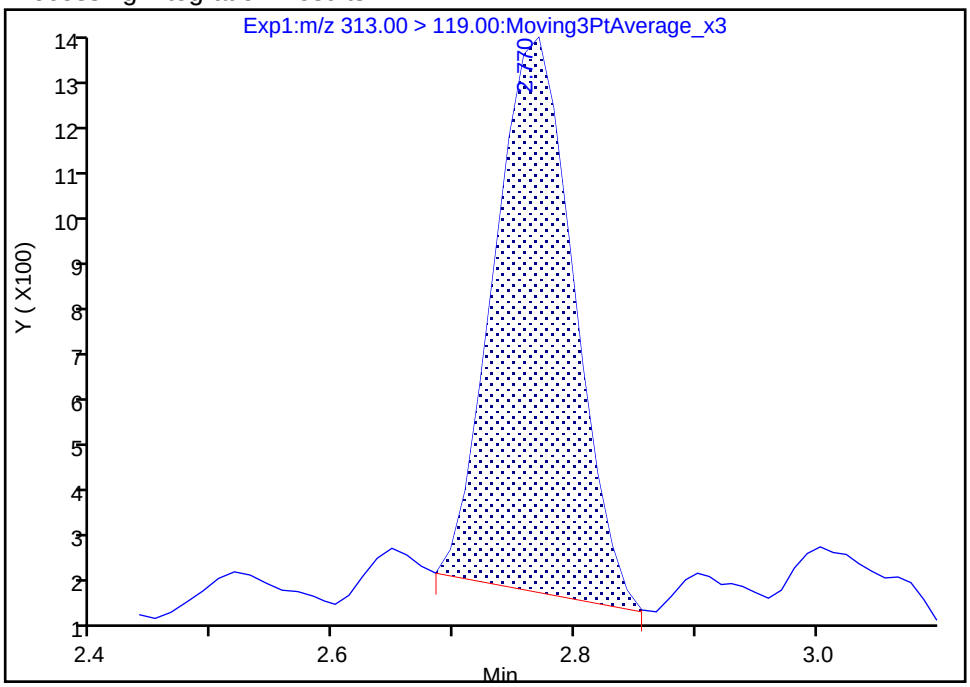
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

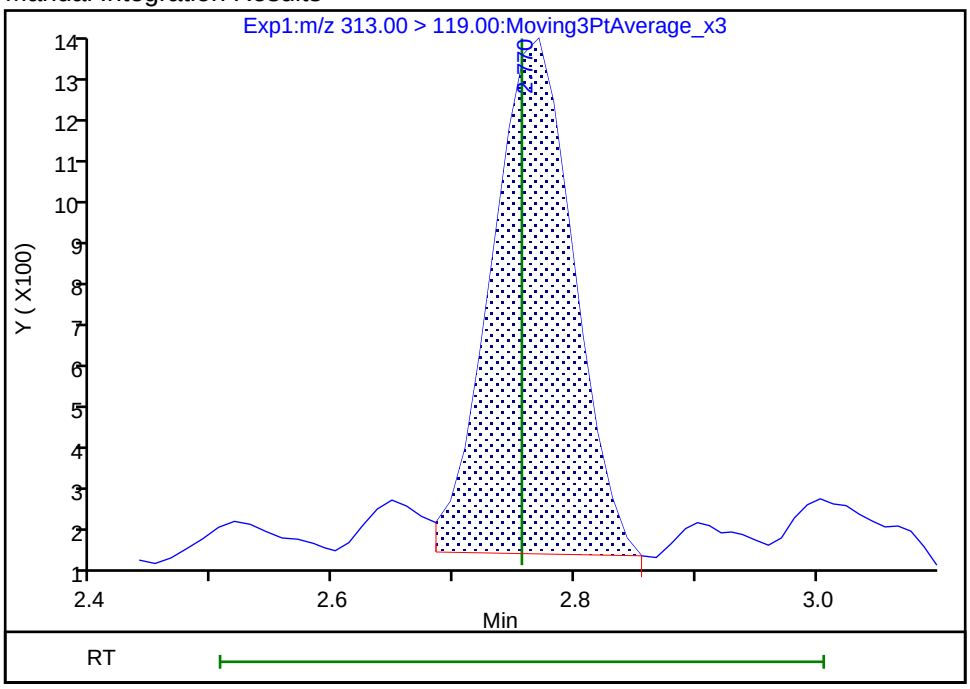
Processing Integration Results

RT: 2.77
Area: 5387
Amount: 0.053417
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 5719
Amount: 0.054766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

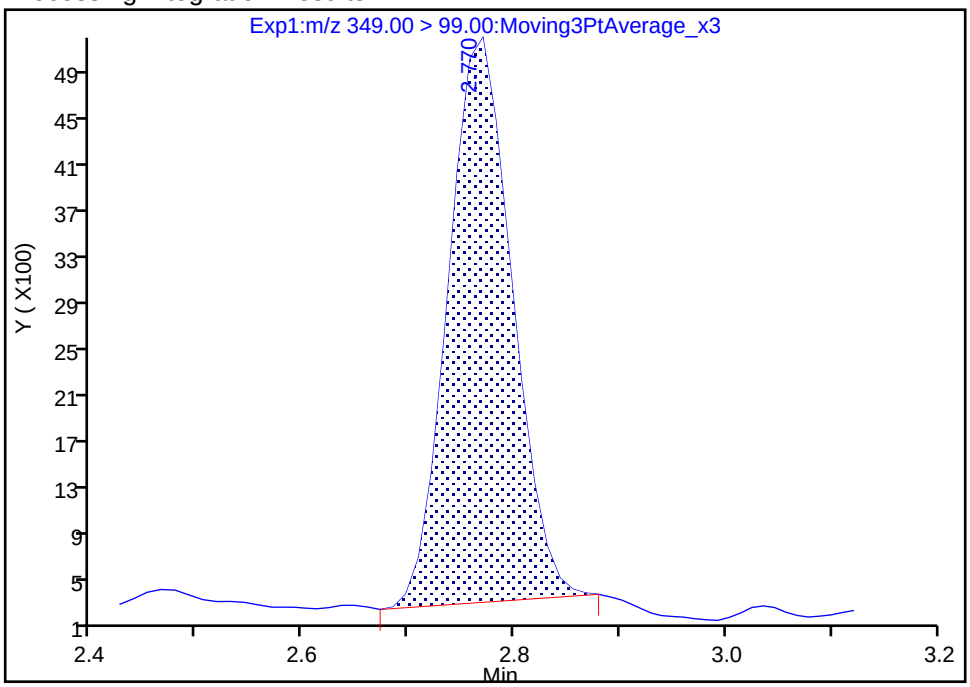
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 2

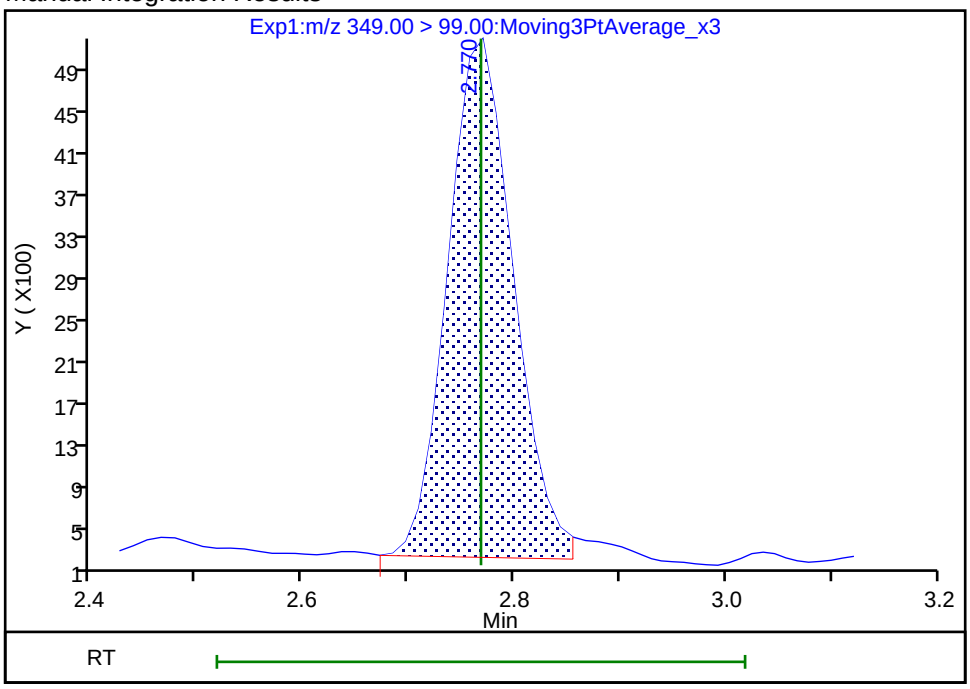
Processing Integration Results

RT: 2.77
Area: 20708
Amount: 0.049312
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 21507
Amount: 0.050522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

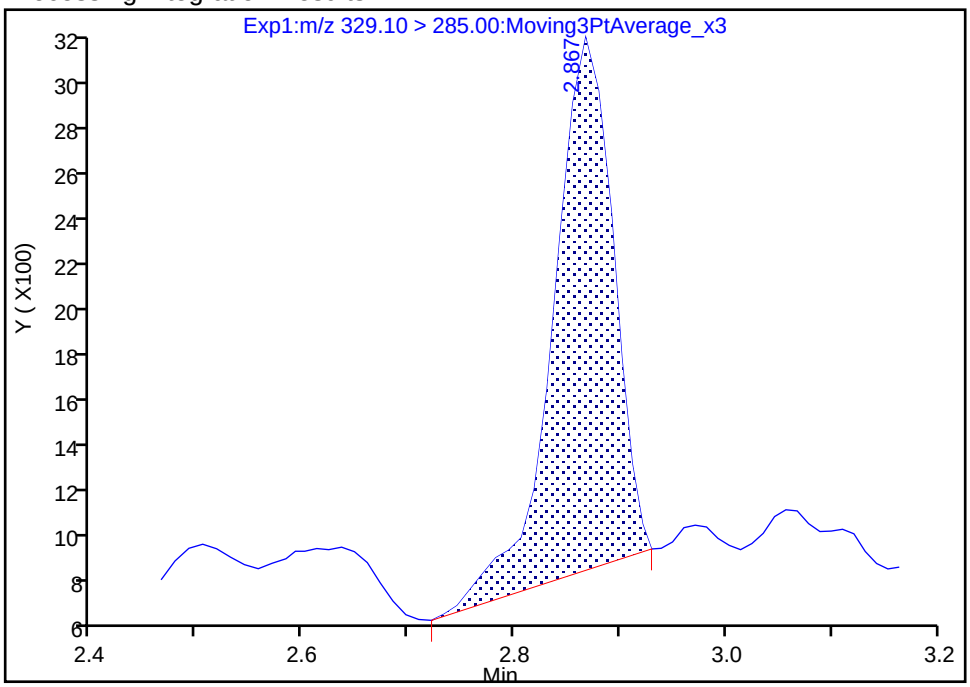
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

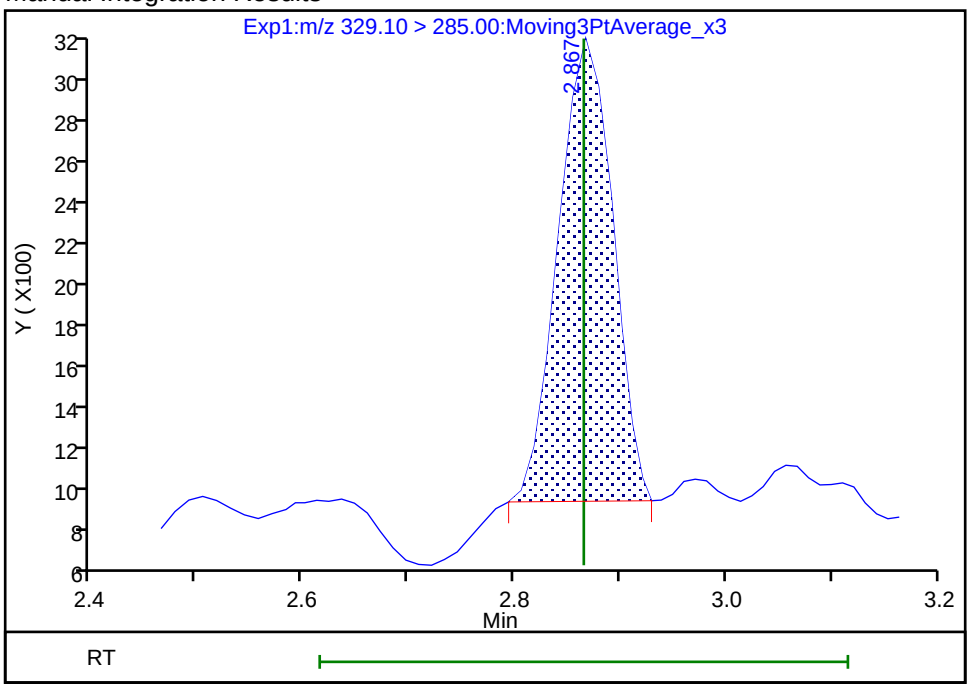
Processing Integration Results

RT: 2.87
Area: 9294
Amount: 0.059608
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 8098
Amount: 0.055502
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:40:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

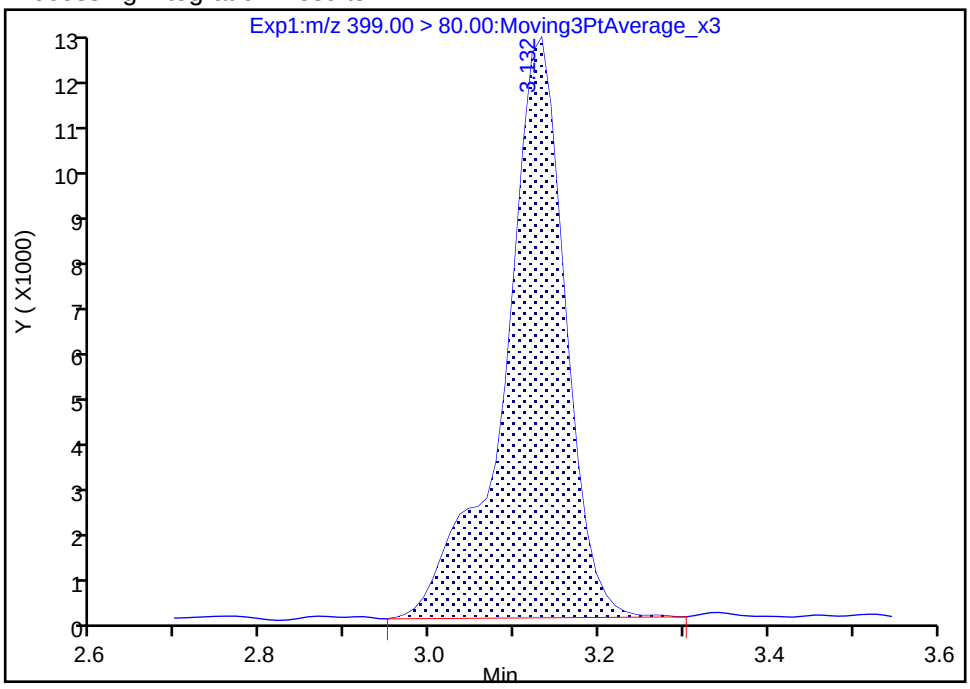
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

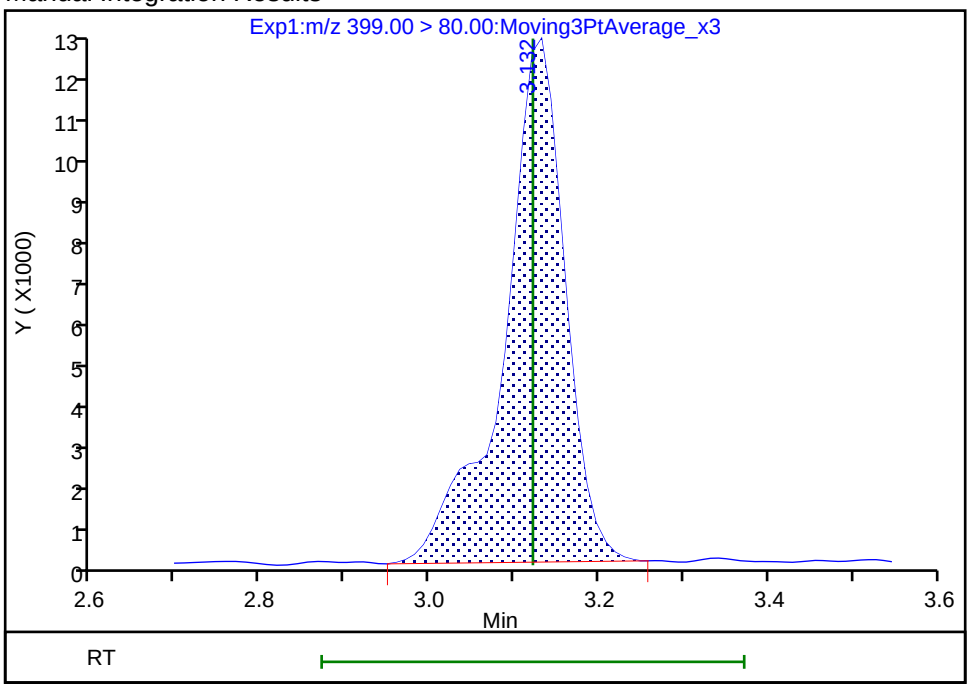
Processing Integration Results

RT: 3.13
Area: 63794
Amount: 0.050265
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 63407
Amount: 0.052143
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:45:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

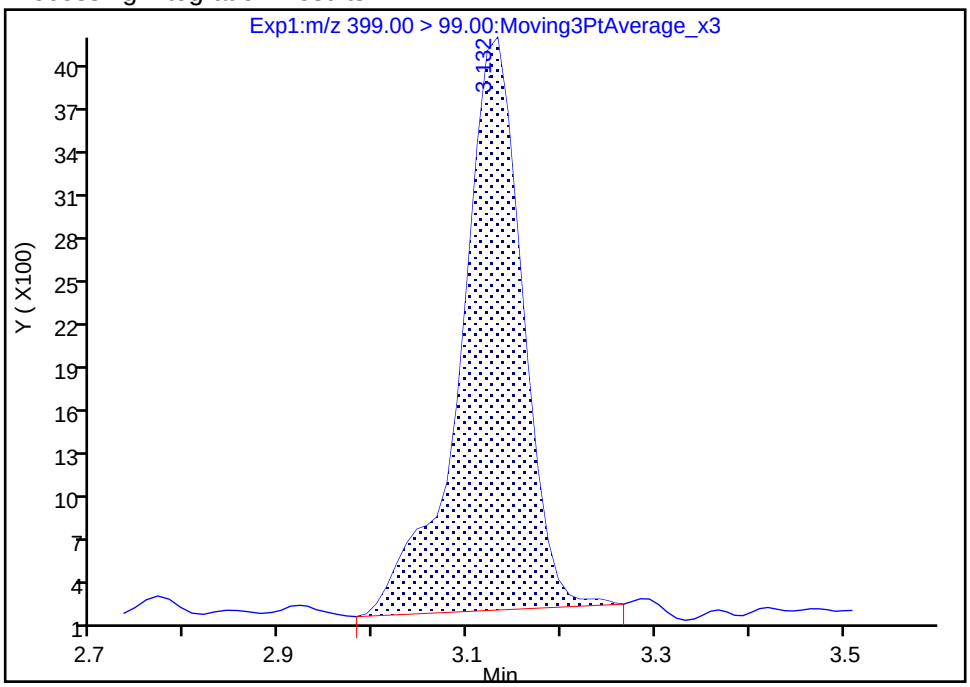
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

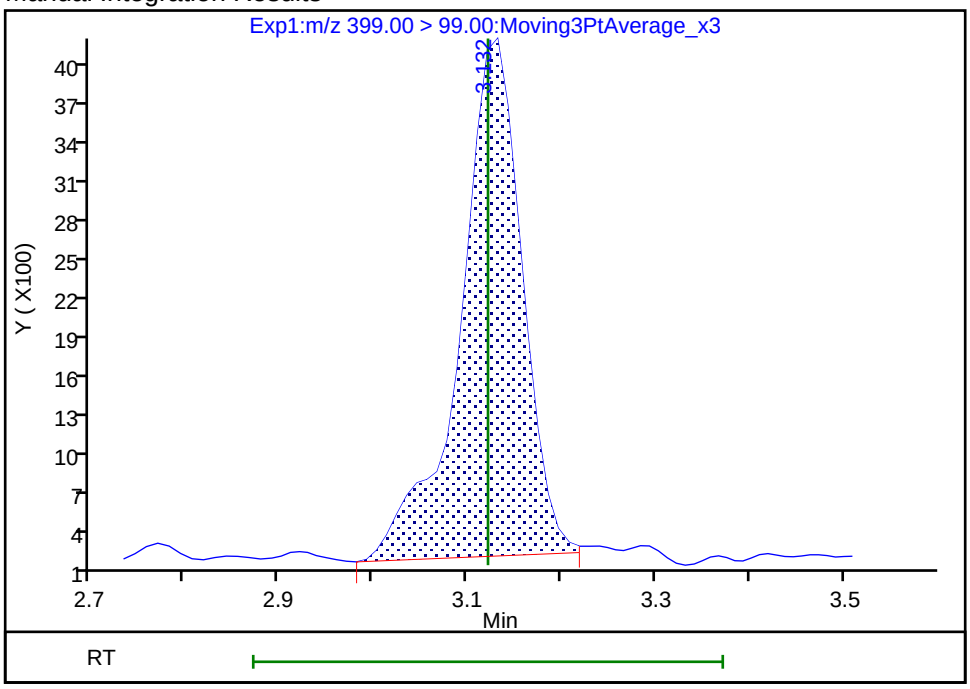
Processing Integration Results

RT: 3.13
Area: 18082
Amount: 0.050265
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 18001
Amount: 0.052143
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

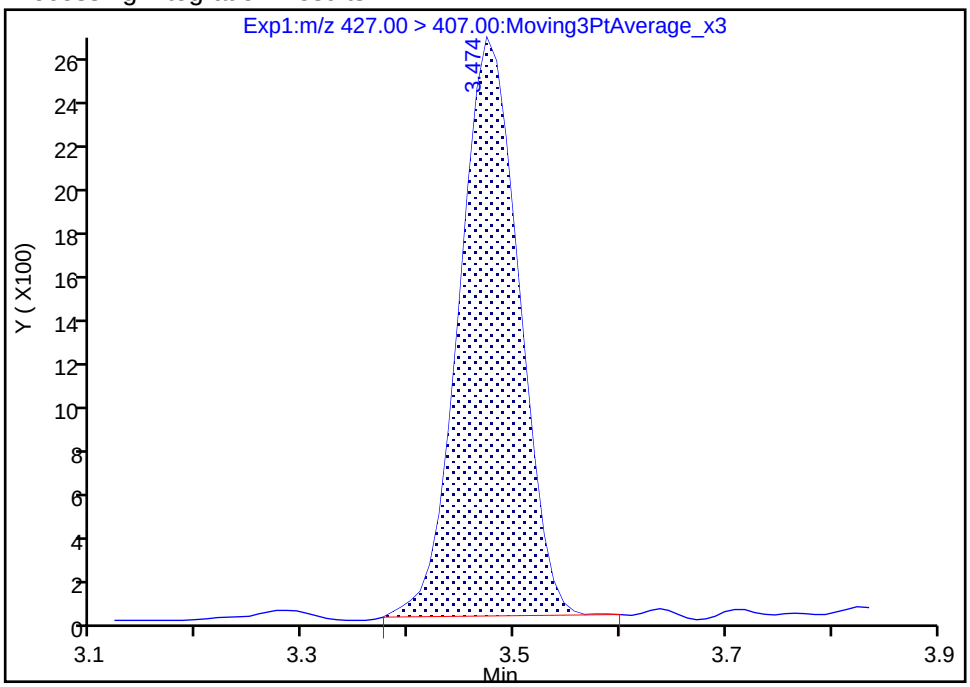
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

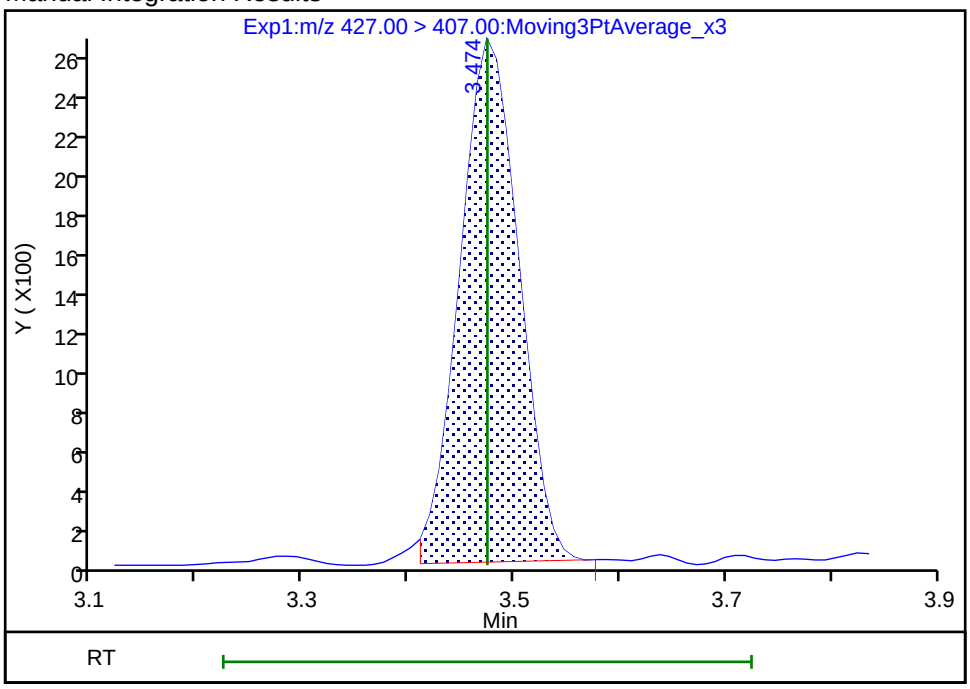
Processing Integration Results

RT: 3.47
Area: 10463
Amount: 0.045138
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 10382
Amount: 0.045708
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

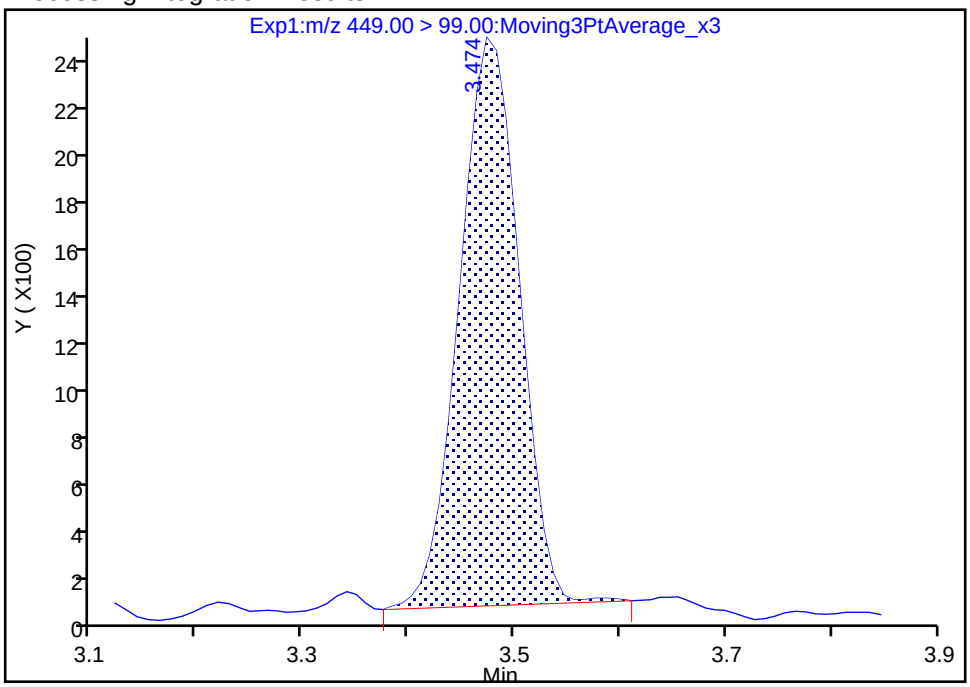
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

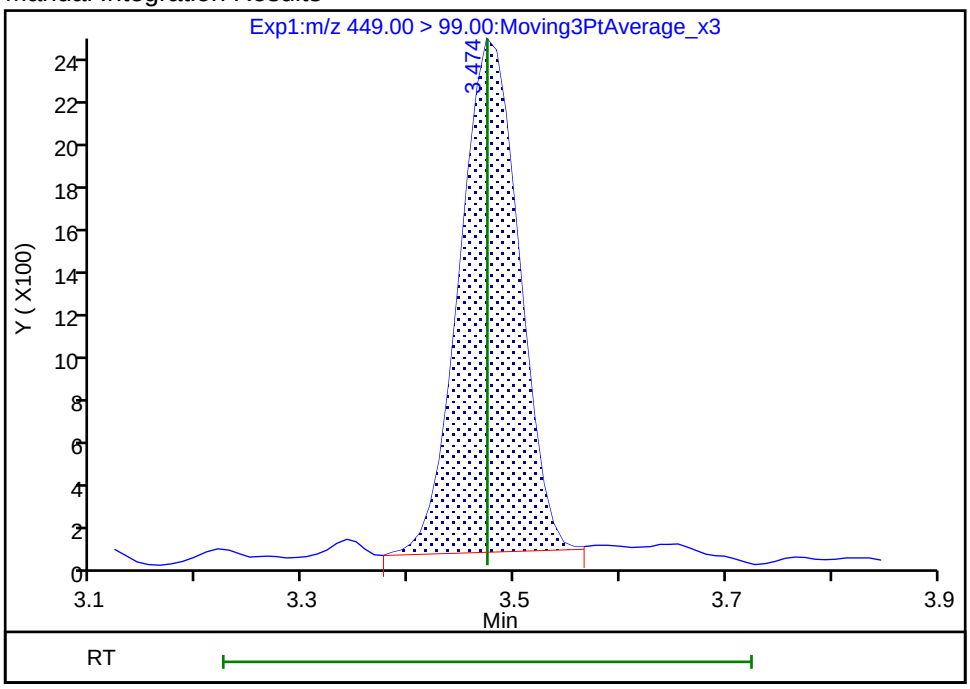
Processing Integration Results

RT: 3.47
Area: 9107
Amount: 0.048885
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 9085
Amount: 0.050504
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

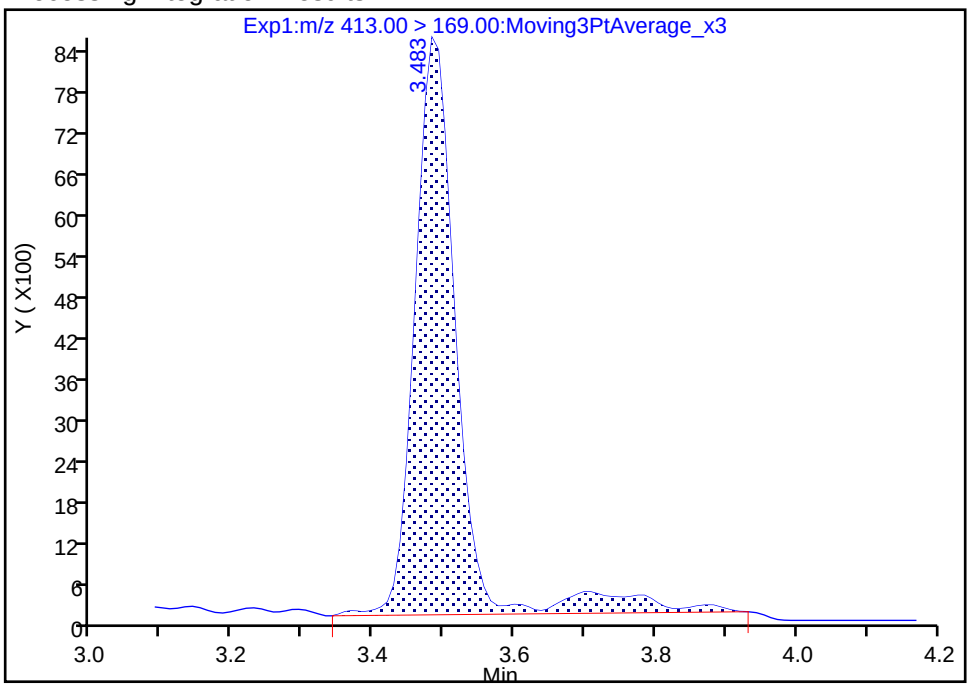
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

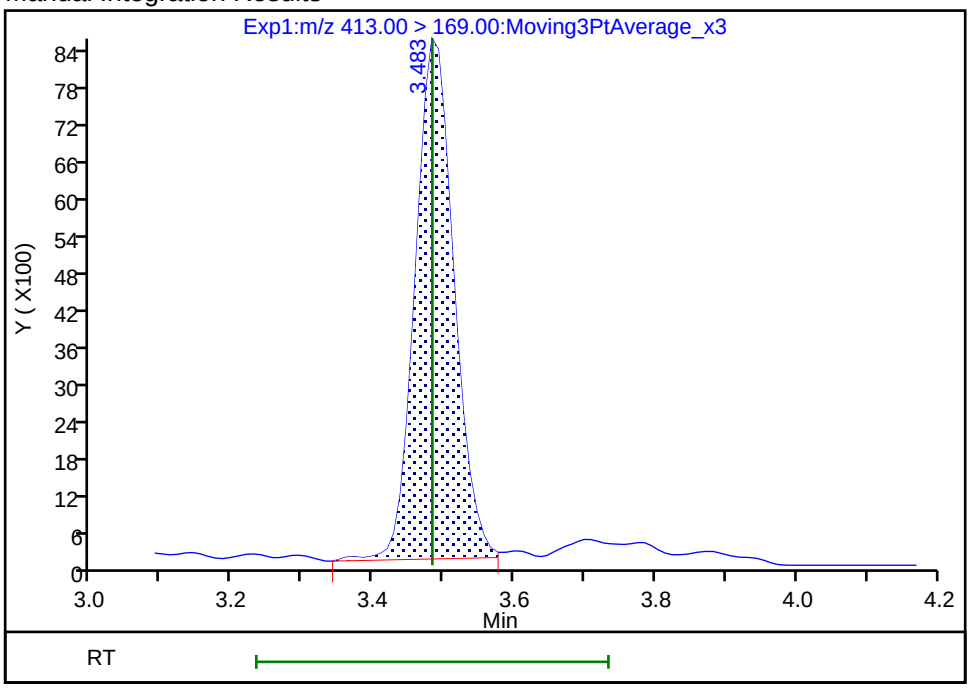
Processing Integration Results

RT: 3.48
Area: 35591
Amount: 0.052390
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 32239
Amount: 0.054622
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:46:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

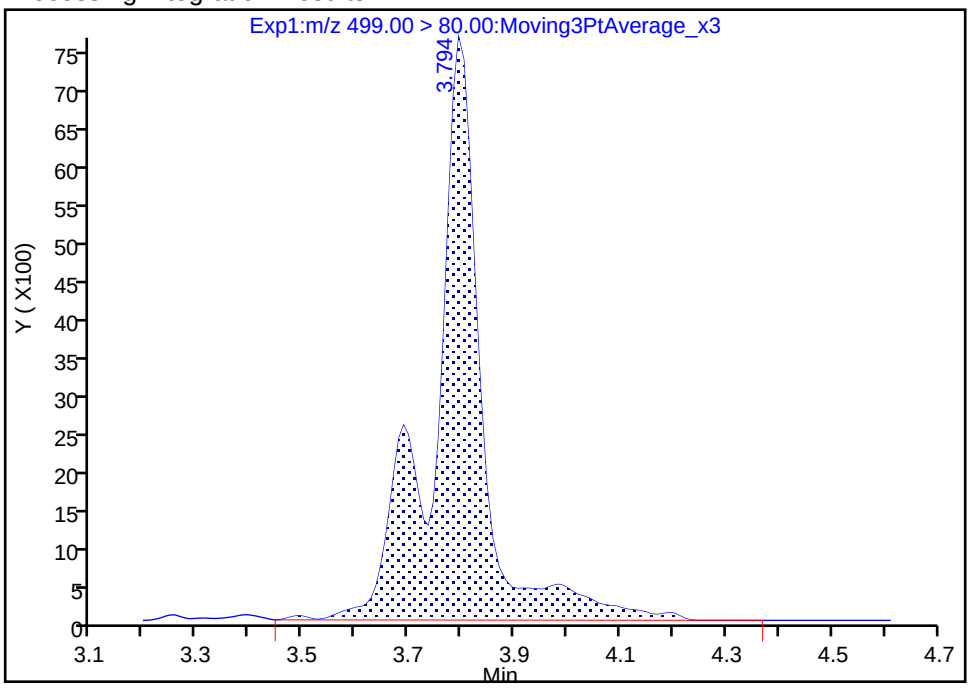
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

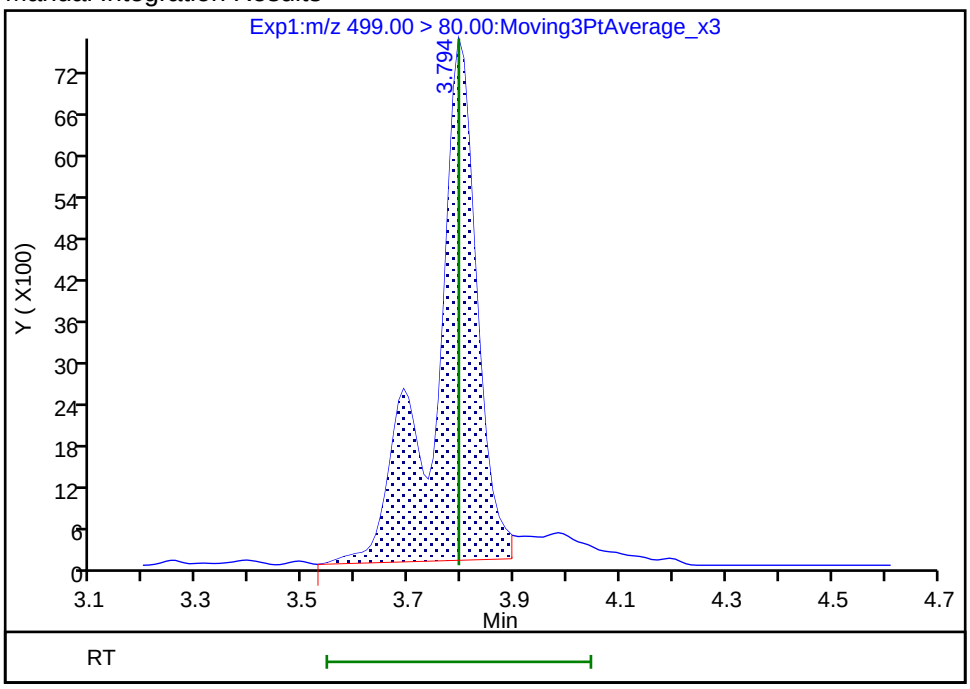
Processing Integration Results

RT: 3.79
Area: 48395
Amount: 0.049813
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 42154
Amount: 0.048148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

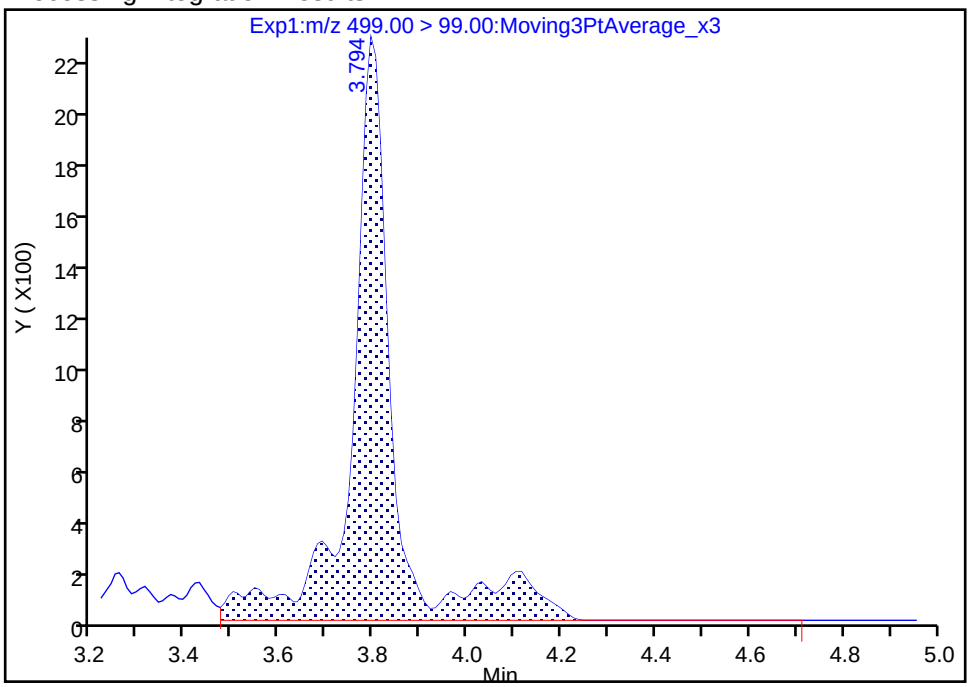
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d | | | | |
| Injection Date: | 27-Oct-2021 13:46:14 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

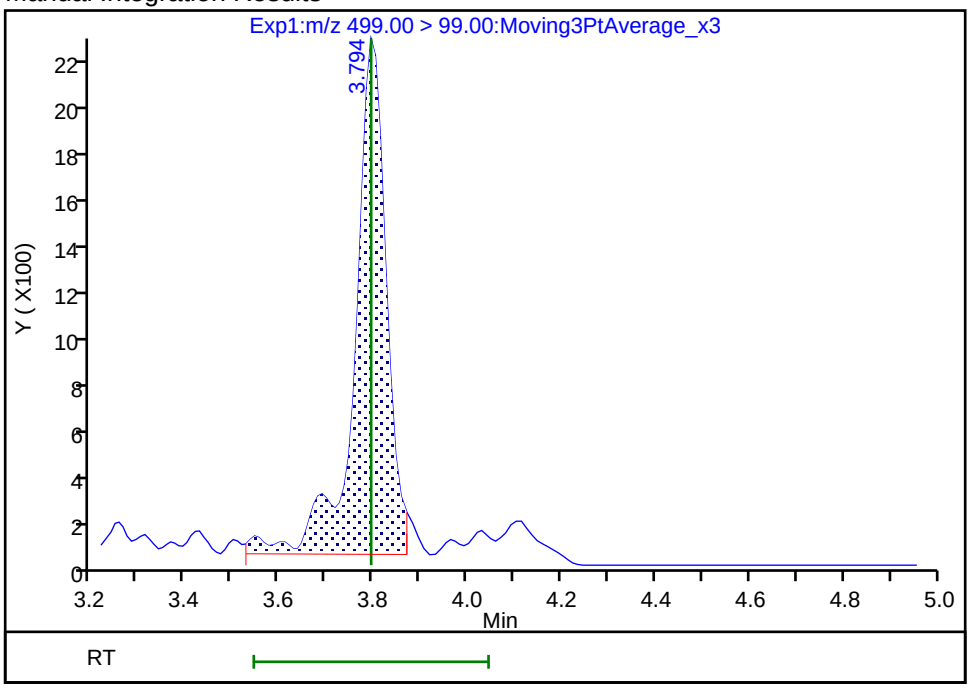
Processing Integration Results

RT: 3.79
Area: 13626
Amount: 0.049813
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 10148
Amount: 0.048148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:30

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

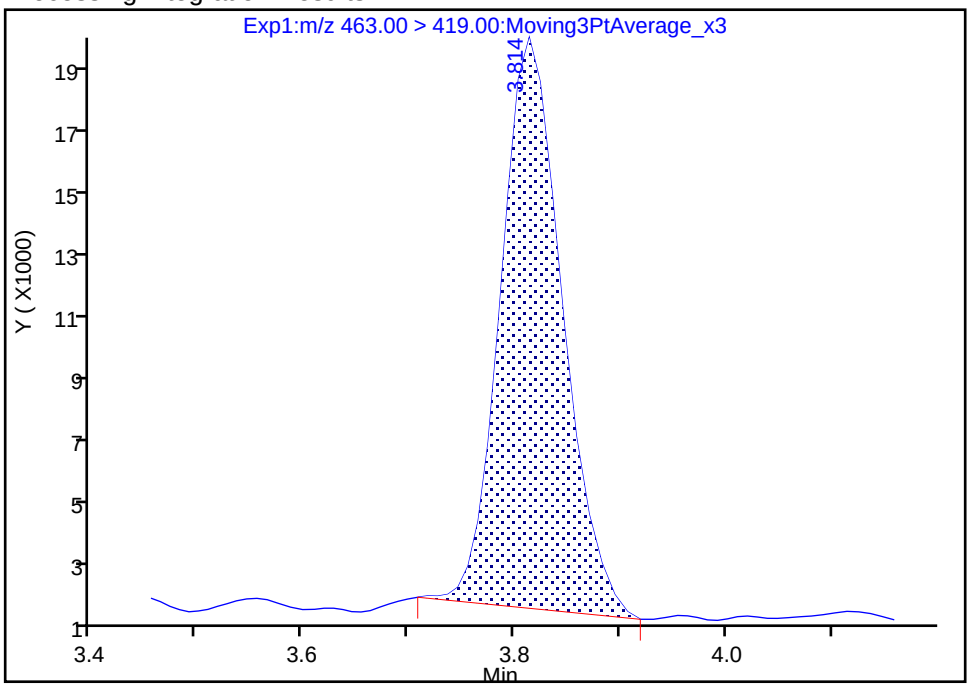
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

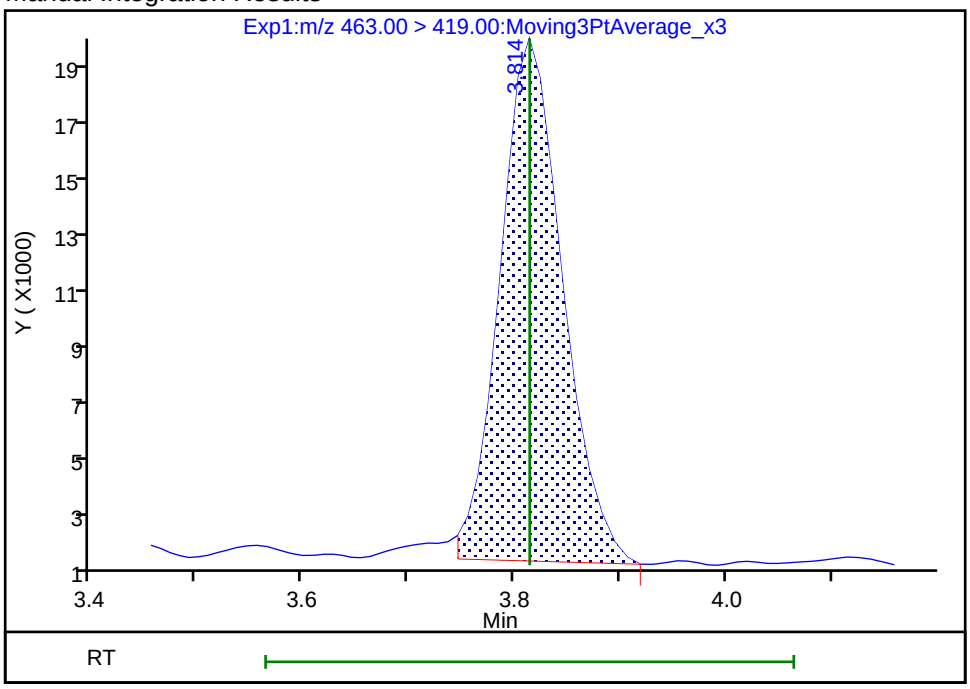
Processing Integration Results

RT: 3.81
Area: 73250
Amount: 0.053250
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 74901
Amount: 0.056374
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

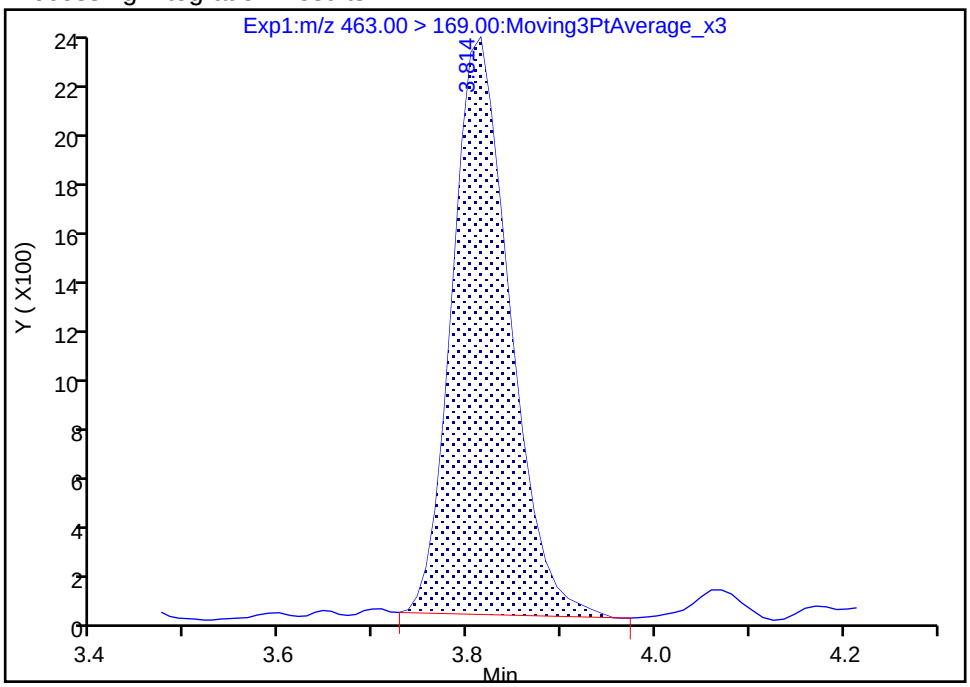
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

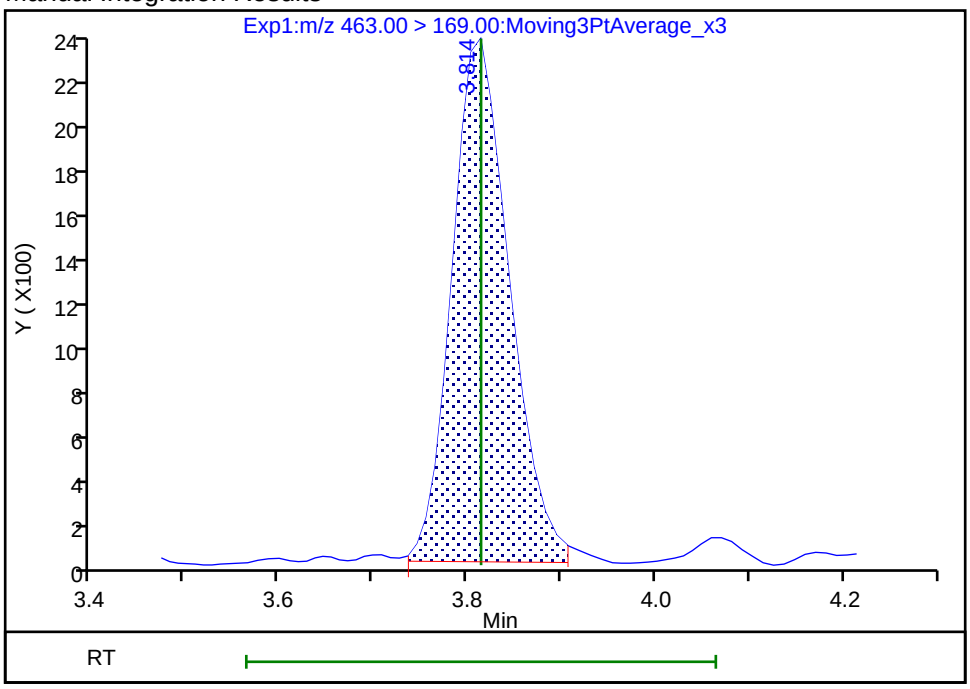
Processing Integration Results

RT: 3.81
Area: 10045
Amount: 0.053250
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 10028
Amount: 0.056374
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:47:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

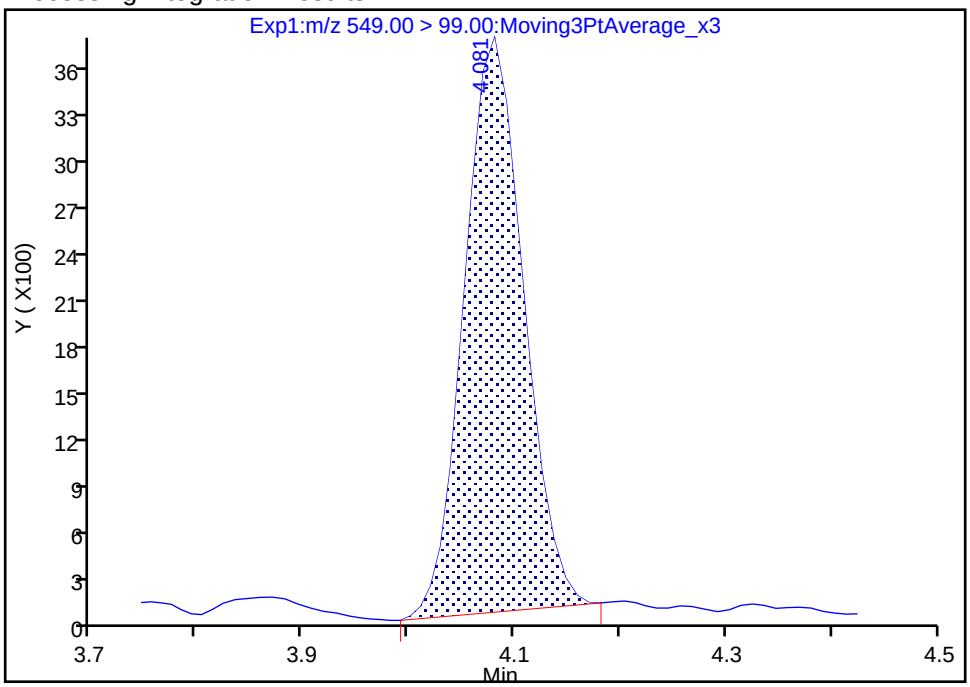
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

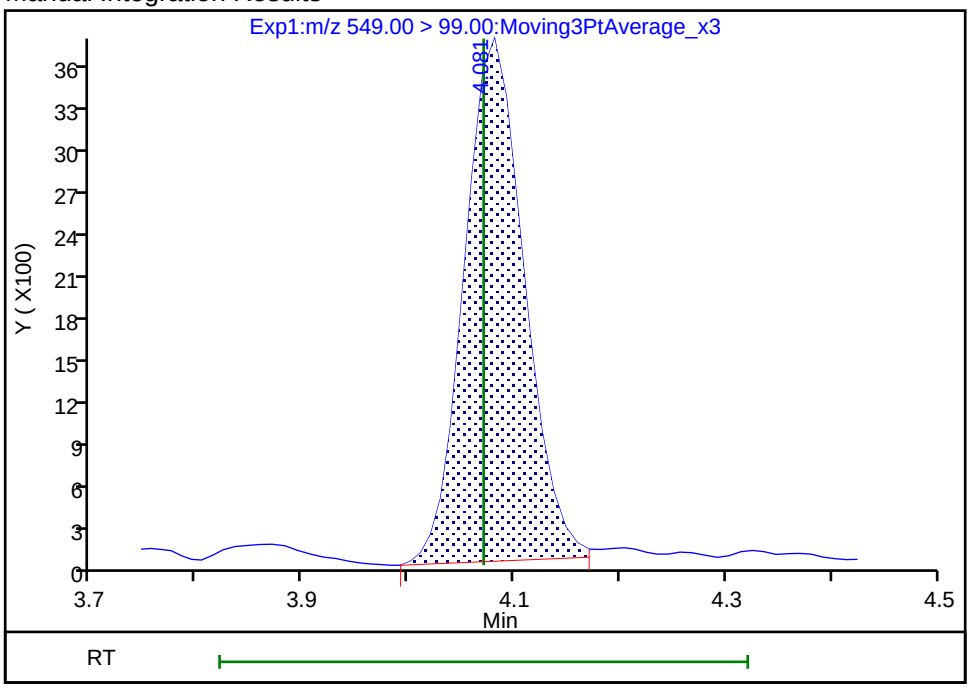
Processing Integration Results

RT: 4.08
Area: 14368
Amount: 0.049009
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 14624
Amount: 0.050473
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

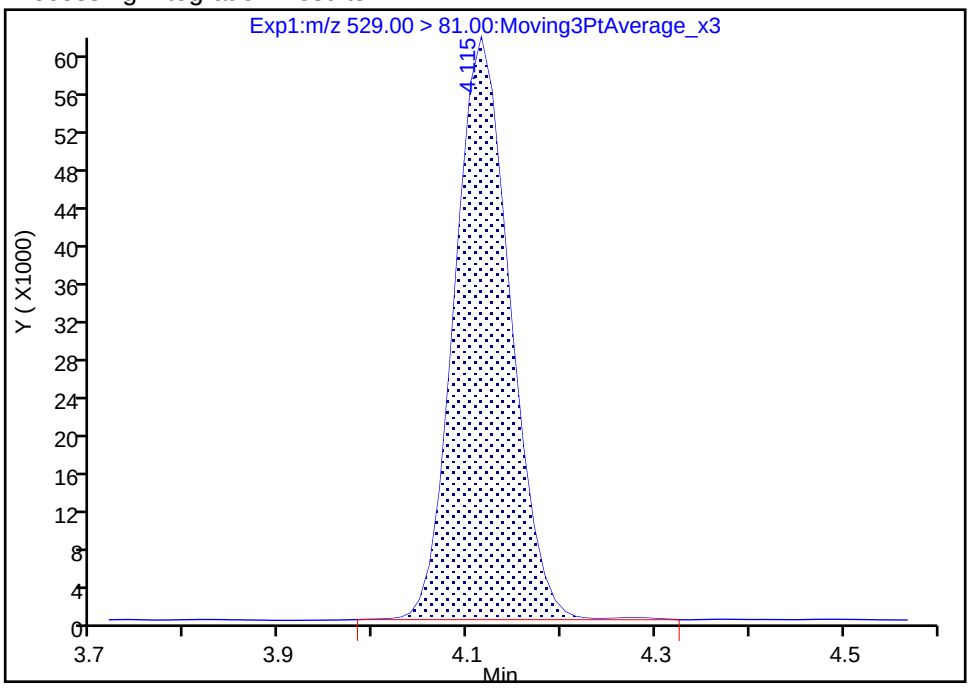
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

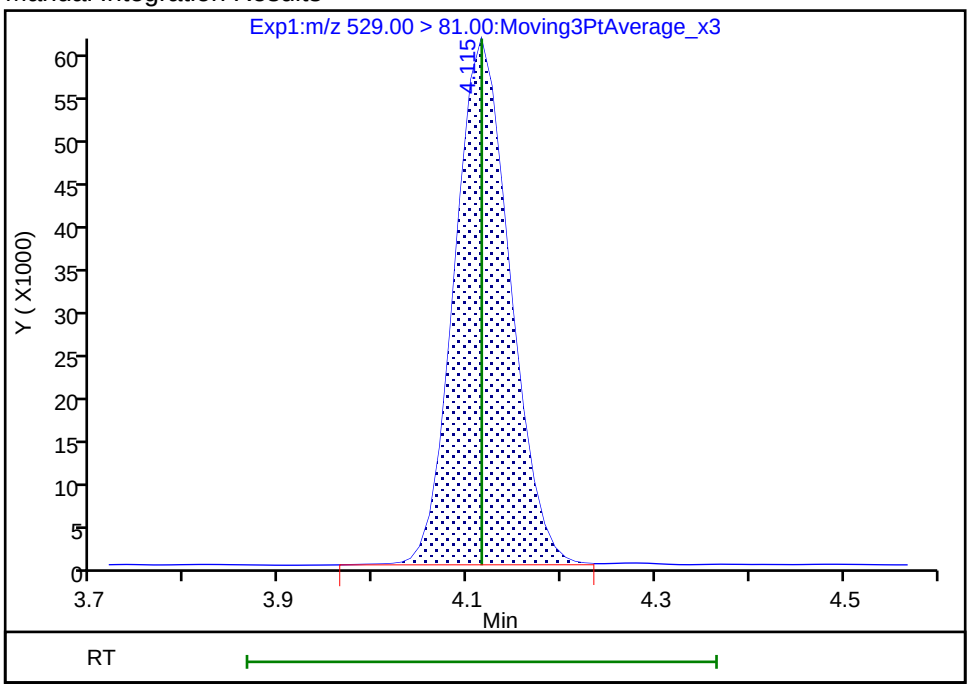
Processing Integration Results

RT: 4.11
Area: 251126
Amount: 1.264034
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 250892
Amount: 1.250083
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

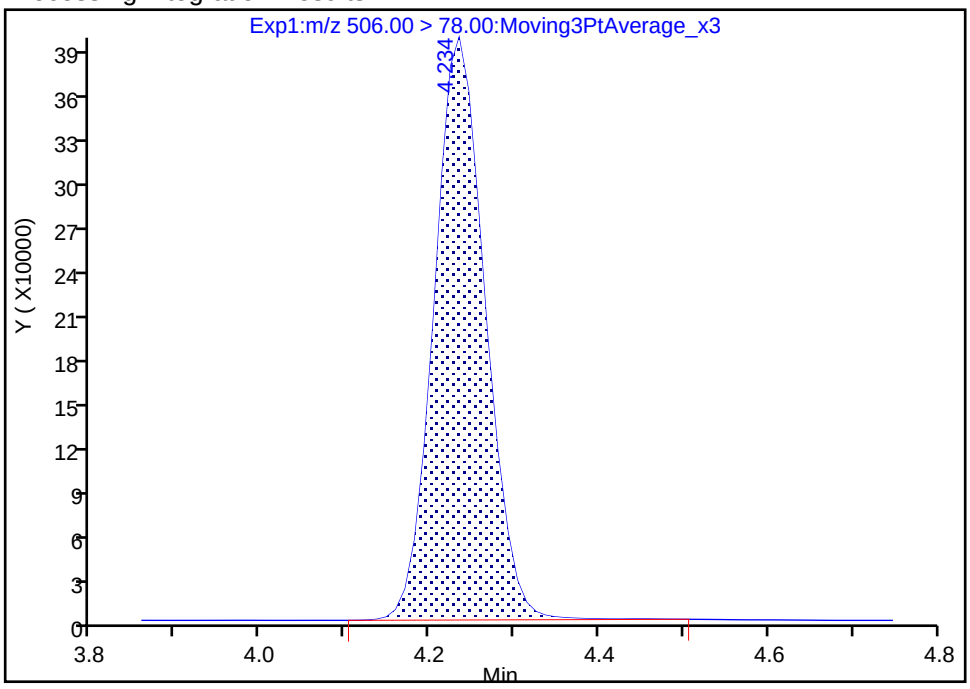
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

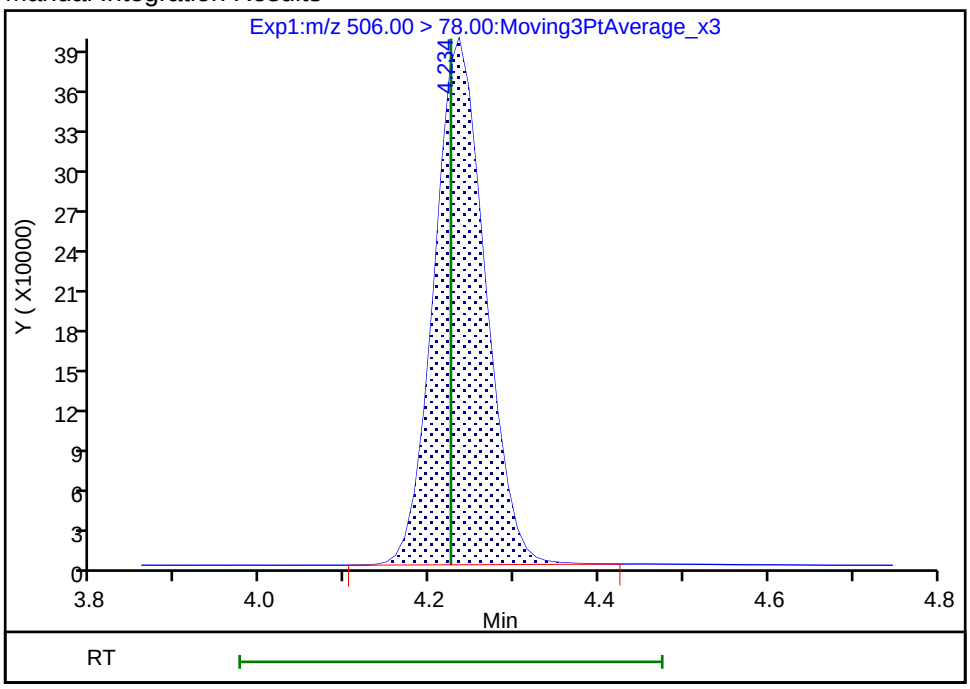
Processing Integration Results

RT: 4.23
Area: 1648414
Amount: 1.232877
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1644854
Amount: 1.230894
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

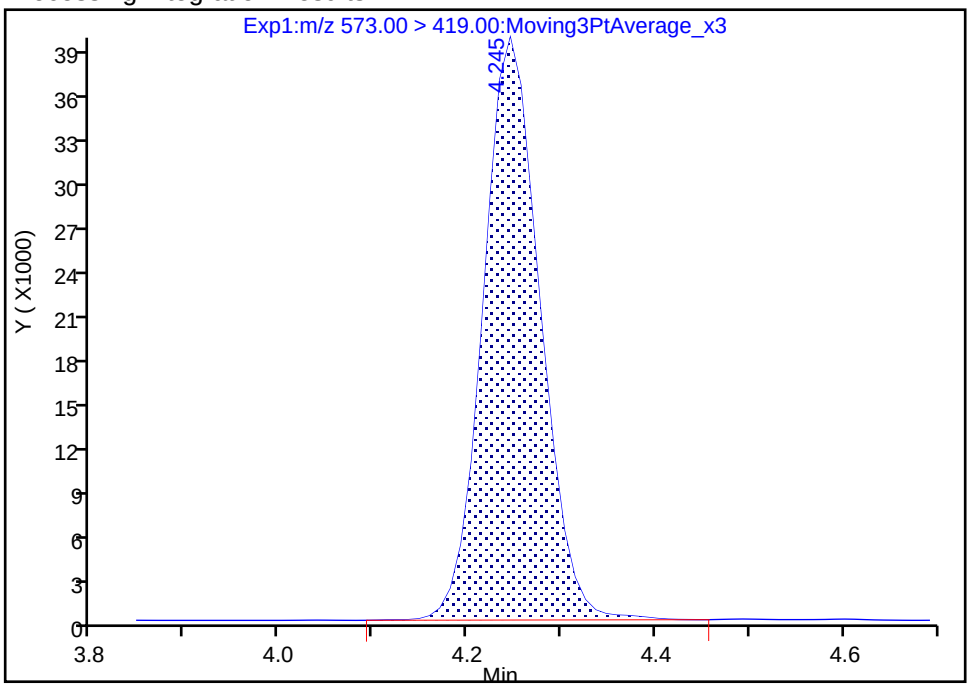
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

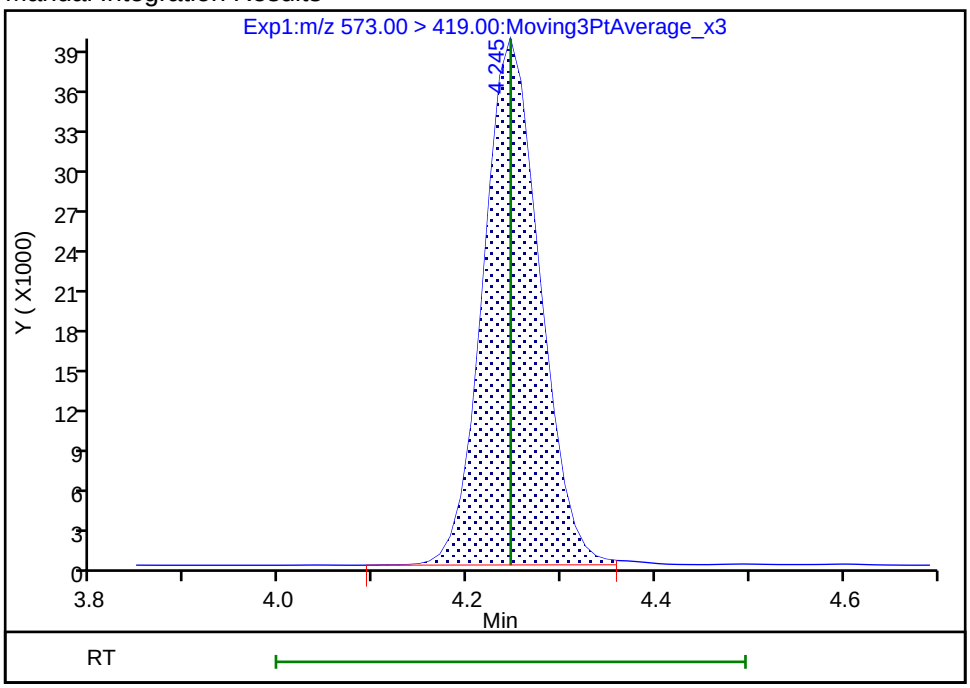
Processing Integration Results

RT: 4.25
Area: 166258
Amount: 1.219048
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 165609
Amount: 1.215256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:48:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

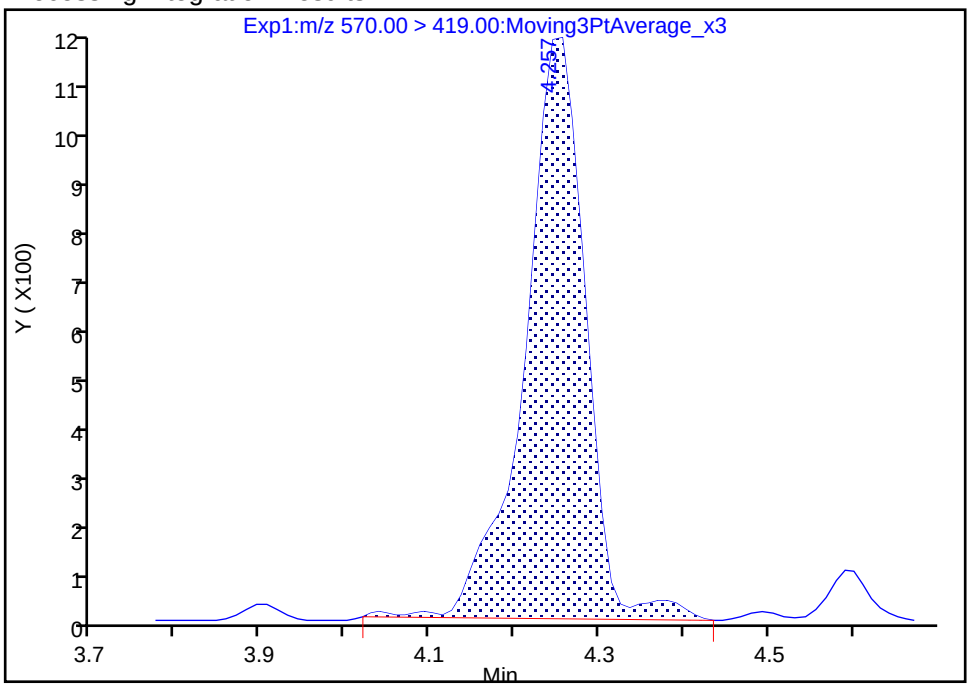
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

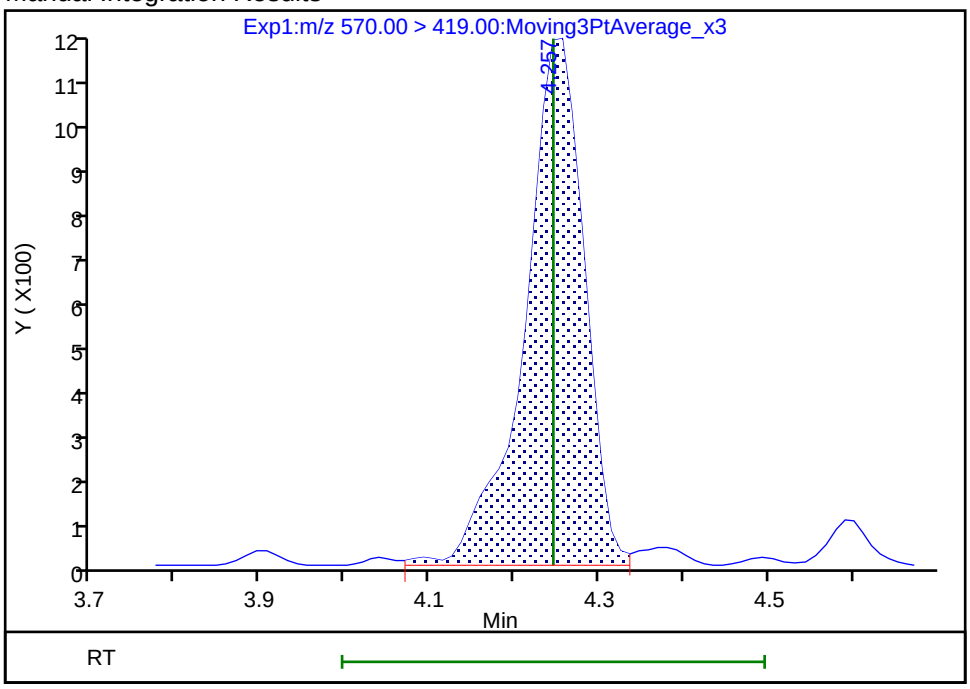
Processing Integration Results

RT: 4.26
Area: 5623
Amount: 0.054991
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 5527
Amount: 0.053103
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

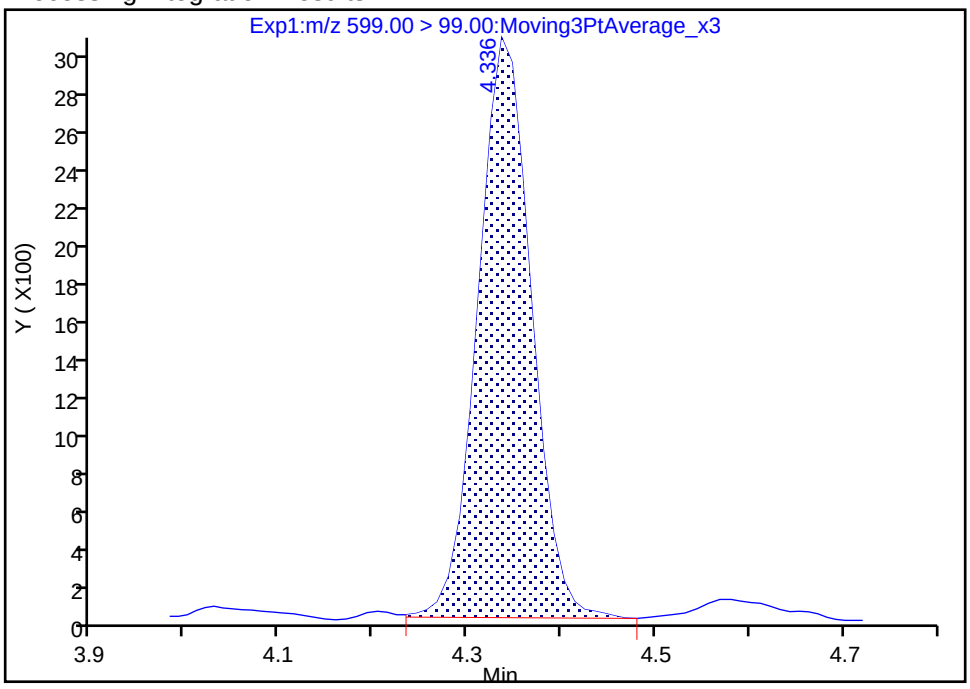
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

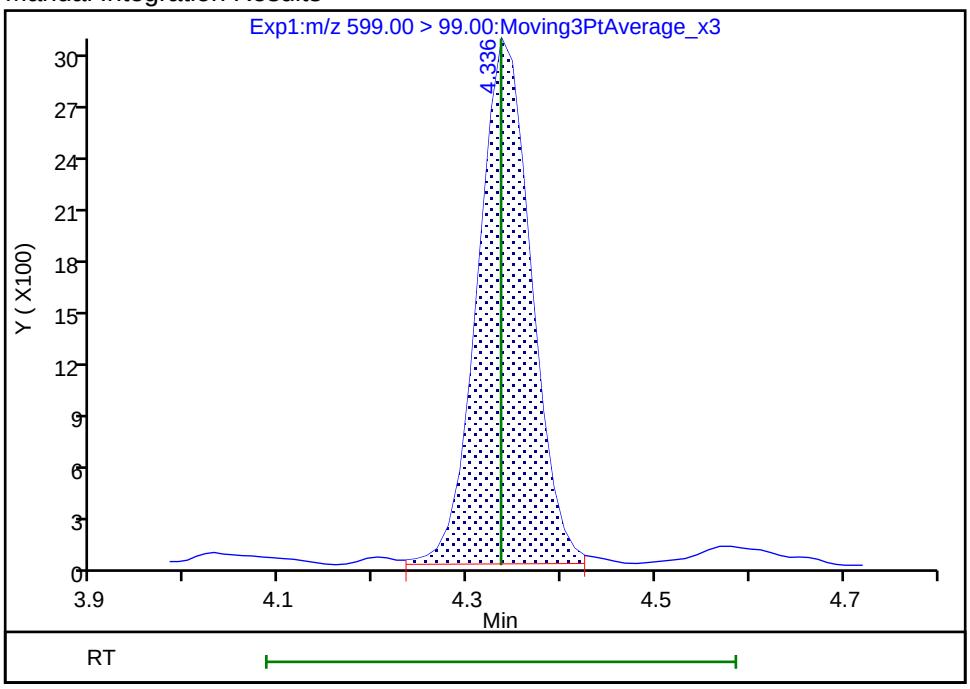
Processing Integration Results

RT: 4.34
Area: 11824
Amount: 0.047665
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 11839
Amount: 0.049486
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

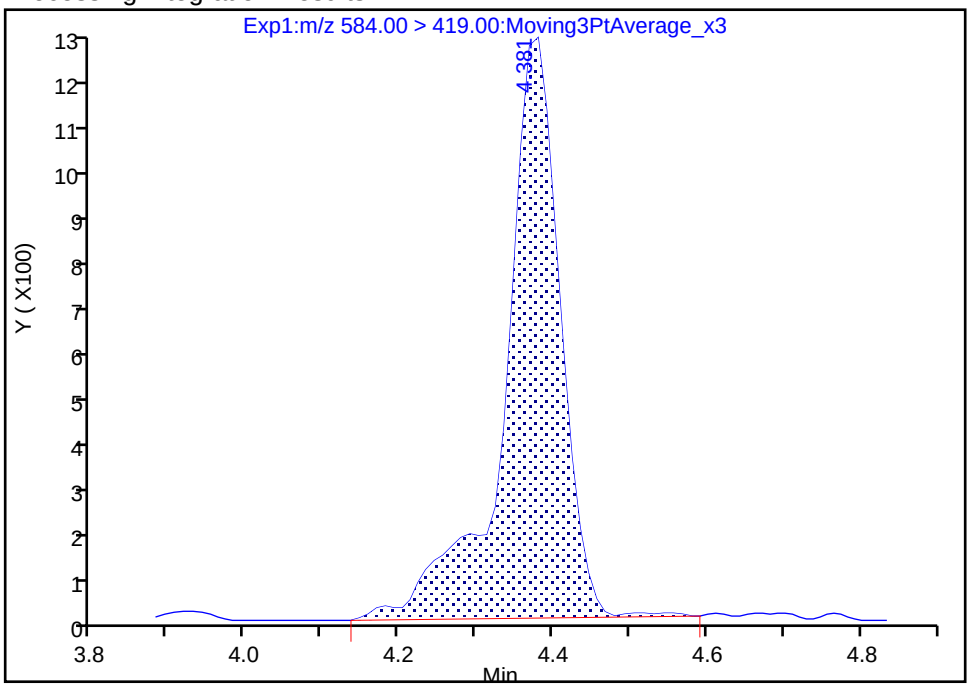
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

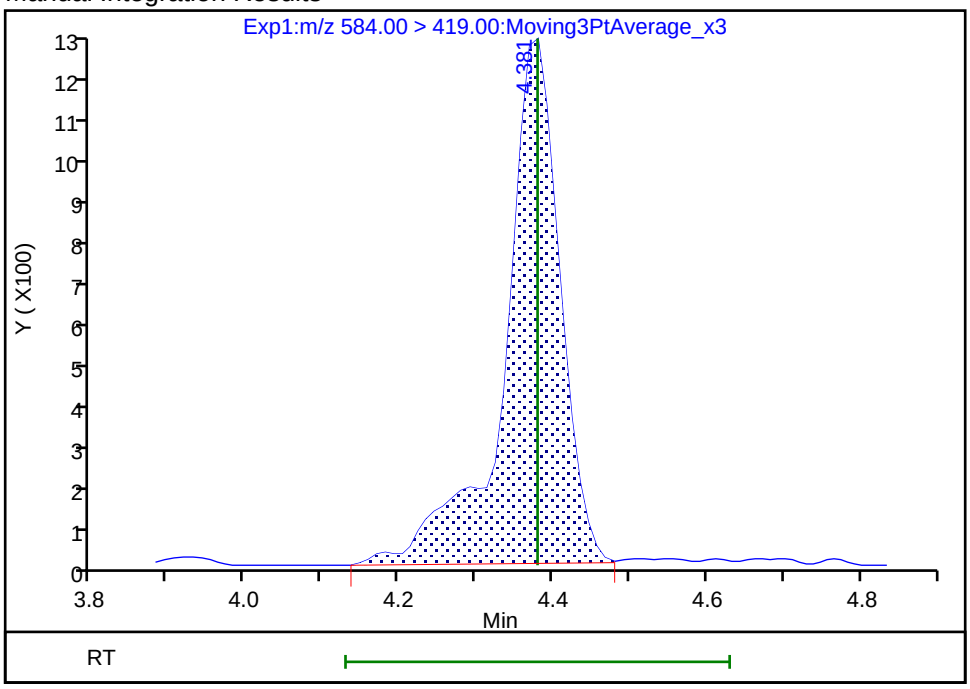
Processing Integration Results

RT: 4.38
Area: 6188
Amount: 0.055124
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 6162
Amount: 0.058446
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

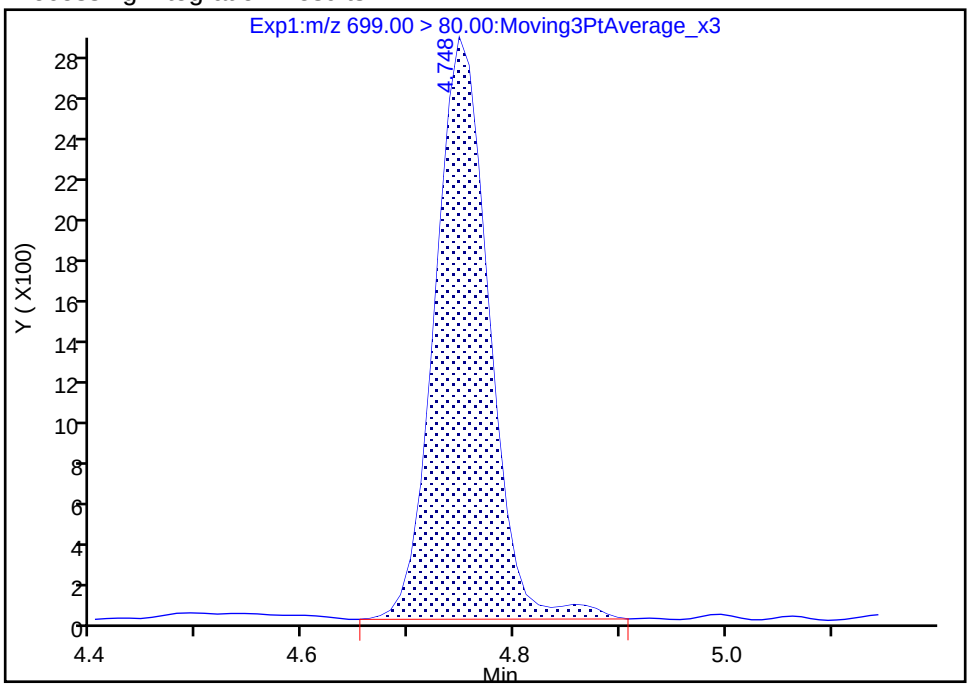
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

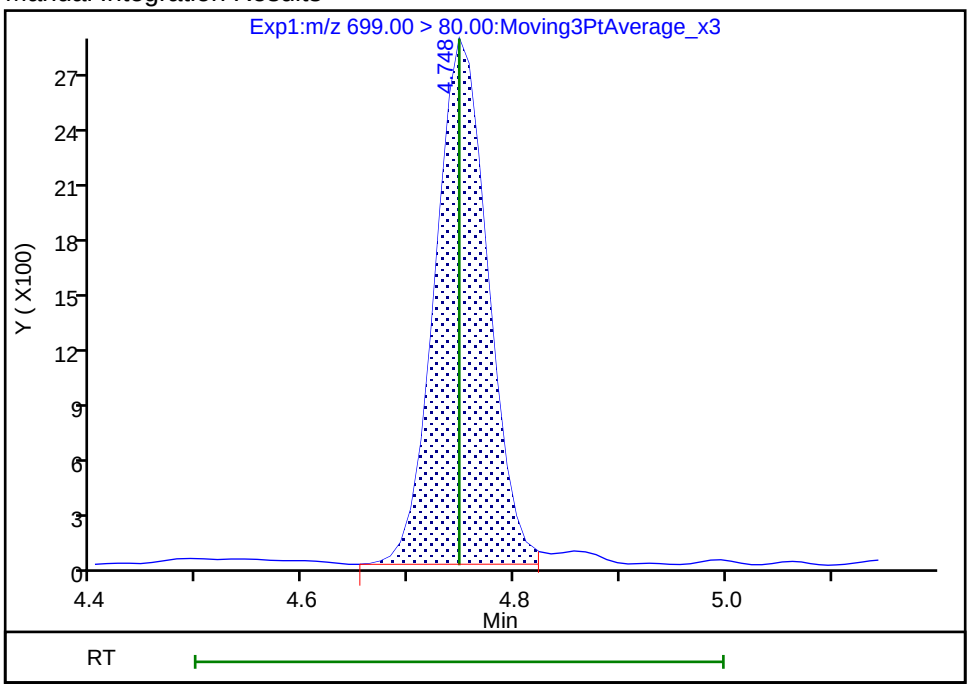
Processing Integration Results

RT: 4.75
Area: 10193
Amount: 0.050368
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 9954
Amount: 0.051040
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:49:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

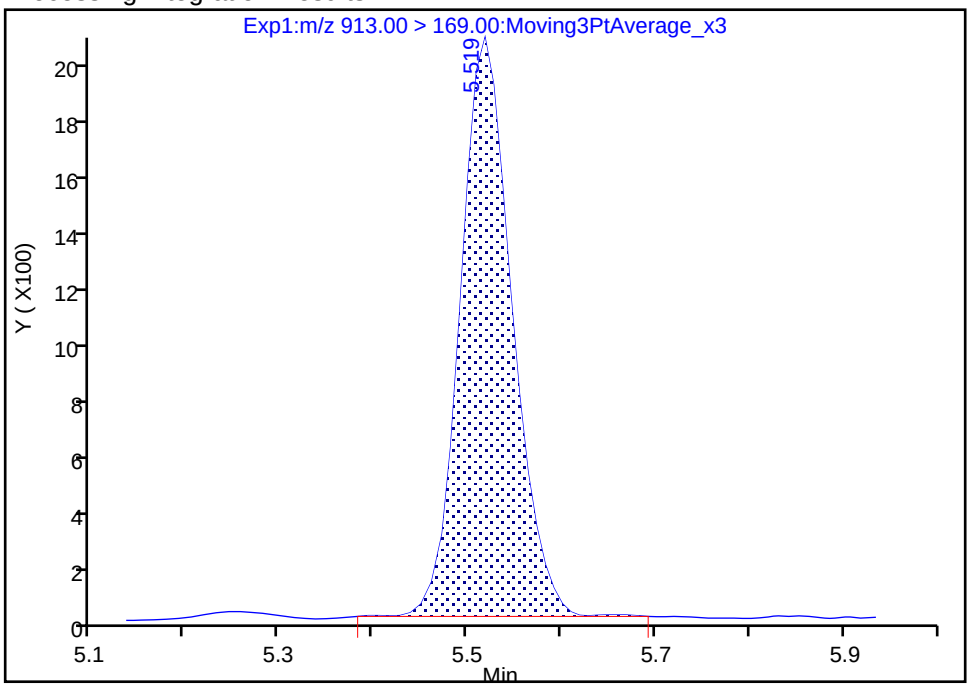
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL02.d
Injection Date: 27-Oct-2021 13:46:14 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

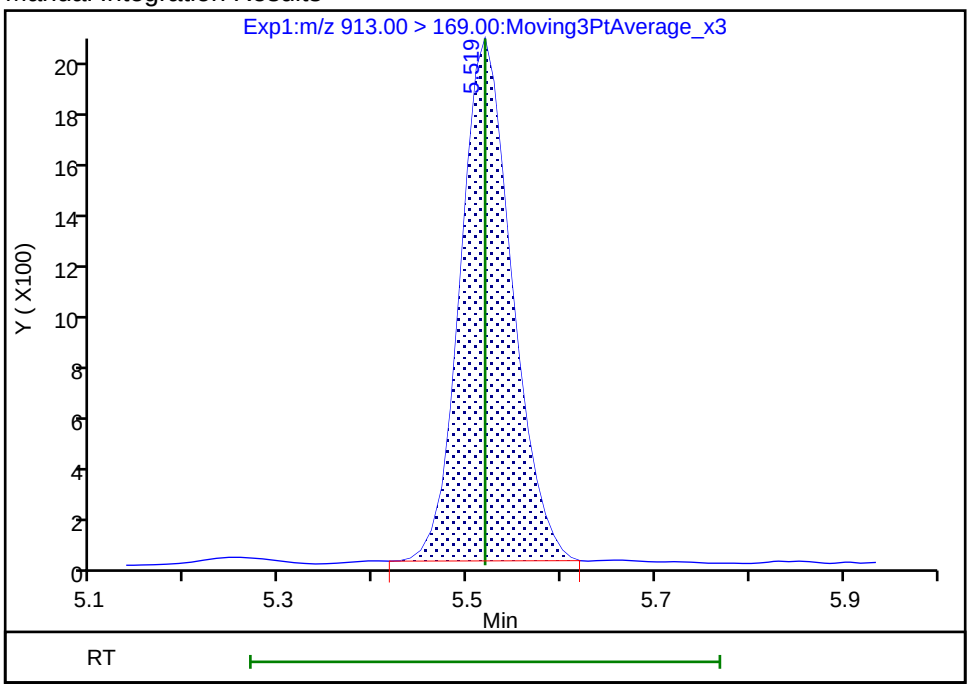
Processing Integration Results

RT: 5.52
Area: 7851
Amount: 0.049358
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 7793
Amount: 0.051734
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:50:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Oct-2021 13:54:32 ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-003 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:09 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 14:59:46
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.596 | 2002798 | 1.23 | | 98.8 | 5880 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 163340 | 0.1078 | | 108 | 12.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.687 | 1641164 | 1.20 | | 96.1 | 2729 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.398 | 0.015 | 1.005 | 137765 | 0.1047 | | 105 | 7.5 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.691 | 2122028 | 1.15 | | 98.7 | 192469 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 187317 | 0.0961 | Target=2.29 | 109 | 172 | |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 79509 | | 2.36(1.15-3.44) | 109 | 26.9 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.720 | 0.014 | 0.783 | 164450 | 1.17 | | 99.9 | 141 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.720 | 0.014 | 1.000 | 30668 | 0.1023 | | 110 | 605 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.756 | 0.014 | 1.000 | 158519 | 0.1103 | Target=12.01 | 110 | 21.6 | M |
| 313.00 > 119.00 | 2.770 | 2.756 | 0.014 | 1.000 | 13979 | | 11.34(6.00-18.01) | 110 | 16.3 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.756 | 0.014 | 0.793 | 1770715 | 1.24 | | 98.8 | 4575 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 161688 | 0.0986 | Target=3.04 | 105 | 239 | |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 53418 | | 3.03(1.52-4.56) | 105 | 56.9 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.821 | 53908 | 1.43 | | 114 | 483 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.865 | 0.015 | 1.004 | 19398 | 0.0994 | | 99.4 | 4.9 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.897 | 1610888 | 1.20 | | 101 | 2603 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 144803 | 0.0967 | Target=3.51 | 106 | 266 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 40713 | | 3.56(1.76-5.27) | 106 | 34.5 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 167428 | 0.1076 | Target=3.83 | 108 | 44.6 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 43469 | | 3.85(1.91-5.74) | 108 | 75.3 | M |
| D 9 13C4 PFHpA | | | | | | | | | | M |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1883272 | 1.25 | | 99.8 | 2668 | M |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 350627 | 0.1008 | Target=2.58 | 107 | 503 | |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 129559 | | 2.71(1.29-3.88) | 107 | 189 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 126449 | 0.1021 | Target=5.12 | 107 | 469 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 24700 | | 5.12(2.56-7.67) | 107 | 57.7 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.995 | 245685 | 1.16 | | 97.7 | 494 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 25961 | 0.0990 | | 104 | 448 | |
| D 14 13C4 PFOA | | | | | | | | | | M |
| 417.00 > 372.00 | 3.492 | 3.483 | 0.009 | 1.000 | 2077322 | 1.26 | | 101 | 2521 | M |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.483 | 0.009 | | 2003365 | 1.25 | | | 3641 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.000 | 191529 | 0.1084 | Target=2.65 | 108 | 32.8 | M |
| 413.00 > 169.00 | 3.492 | 3.483 | 0.009 | 1.000 | 68573 | | 2.79(1.32-3.97) | 108 | 112 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 1187422 | 1.22 | | 102 | 3511 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 111255 | 0.1032 | Target=4.60 | 111 | 140 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 25348 | | 4.39(2.30-6.90) | 111 | 49.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 2005558 | 1.22 | | 97.7 | 3790 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 173658 | 0.1106 | Target=7.58 | 111 | 34.7 | M |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 21301 | | 8.15(3.79-11.37) | 111 | 173 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 161187 | 0.0992 | | 106 | 685 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 85933 | 0.1023 | Target=2.38 | 107 | 518 | M |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 37006 | | 2.32(1.19-3.56) | 107 | 114 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.175 | 2069906 | 1.25 | | 99.9 | 3263 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 188134 | 0.1131 | Target=9.30 | 113 | 110 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 18655 | | 10.08(4.65-13.95) | 113 | 117 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.178 | 288661 | 1.20 | | 100 | 839 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 20820 | 0.1032 | | 108 | 162 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.234 | 4.225 | 0.009 | 1.213 | 1999674 | 1.25 | | 100 | 2029 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.235 | -0.001 | 1.000 | 157927 | 0.1040 | | 104 | 400 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.216 | 207879 | 1.27 | | 102 | 1087 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 13075 | 0.1001 | | 100 | 70.6 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.335 | 4.336 | -0.001 | 1.143 | 69056 | 0.1058 | Target=2.54 | 110 | 593 | |
| 599.00 > 99.00 | 4.335 | 4.336 | -0.001 | 1.143 | 24214 | | 2.85(1.27-3.81) | 110 | 150 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.357 | 4.358 | -0.001 | 1.248 | 1631857 | 1.26 | | 101 | 3280 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.357 | 4.358 | -0.001 | 1.000 | 152692 | 0.1097 | Target=9.37 | 110 | 108 | M |
| 563.00 > 169.00 | 4.357 | 4.358 | -0.001 | 1.000 | 16331 | | 9.35(4.69-14.06) | 110 | 187 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.251 | 192776 | 1.26 | | 101 | 1218 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.003 | 14950 | 0.1131 | | 113 | 175 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.456 | 4.445 | 0.011 | 1.174 | 184947 | 0.0964 | | 102 | 934 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.312 | 1722128 | 1.24 | | 99.1 | 749 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.002 | 148447 | 0.1101 | Target=6.84 | 110 | 25.7 | M |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 22363 | | 6.64(3.42-10.25) | 110 | 155 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 9695 | 0.1041 | | 108 | 192 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.747 | 4.748 | -0.001 | 1.251 | 24558 | 0.1023 | Target=0.51 | 106 | 362 | M |
| 699.00 > 99.00 | 4.747 | 4.748 | -0.001 | 1.251 | 49542 | | 0.50(0.25-0.76) | 106 | 543 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.783 | 4.775 | 0.008 | 1.044 | 125142 | 0.1076 | Target=4.67 | 108 | 29.4 | |
| 663.00 > 169.00 | 4.783 | 4.775 | 0.008 | 1.044 | 26851 | | 4.66(2.33-7.00) | 108 | 397 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.956 | 4.957 | 0.0 | 1.419 | 1335021 | 1.24 | | 99.1 | 3337 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.956 | 4.957 | 0.0 | 1.000 | 18818 | 0.1116 | Target=0.99 | 112 | 316 | |
| 713.00 > 219.00 | 4.947 | 4.957 | -0.009 | 0.998 | 17852 | | 1.05(0.49-1.48) | 112 | 298 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.506 | 1197224 | 1.26 | | 101 | 3117 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 98385 | 0.1016 | Target=4.50 | 102 | 27.0 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 22341 | | 4.40(2.25-6.75) | 102 | 282 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.518 | 5.519 | -0.001 | 1.050 | 89309 | 0.1106 | Target=4.46 | 111 | 46.6 | |
| 913.00 > 169.00 | 5.518 | 5.519 | -0.001 | 1.050 | 20170 | | 4.43(2.23-6.68) | 111 | 352 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC2_00009 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d

Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812

Lims ID: IC

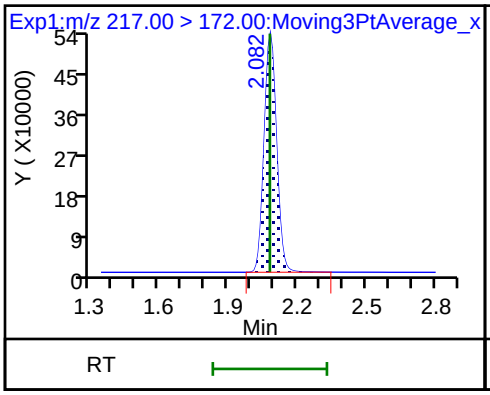
Client ID:

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3

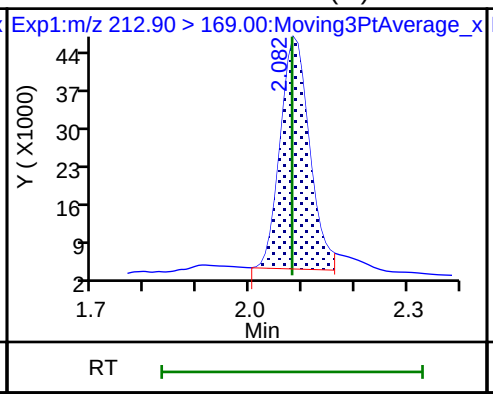
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

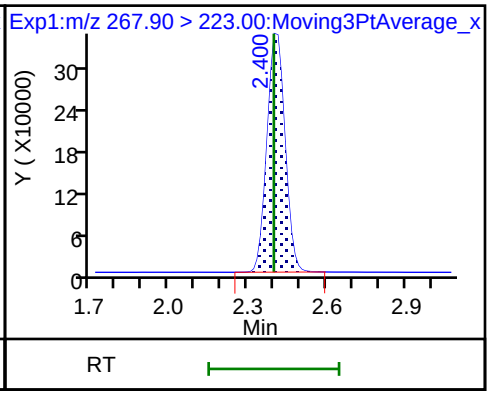
D 1 13C4 PFBA



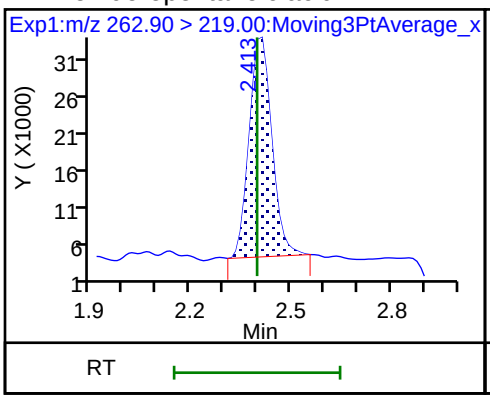

2 Perfluorobutanoic acid (M)



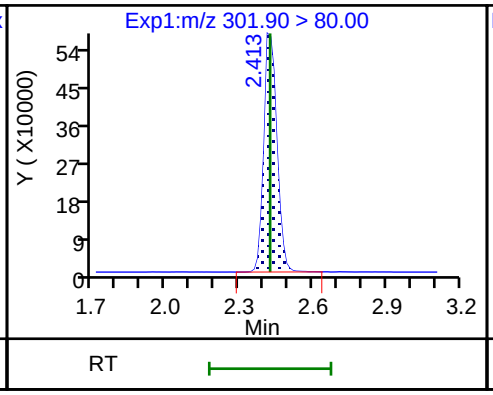

D 3 13C5 PFPeA



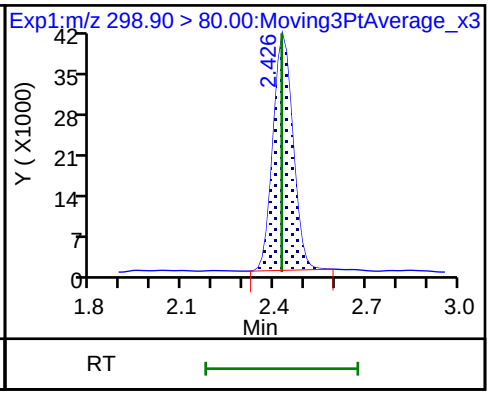

4 Perfluoropentanoic acid



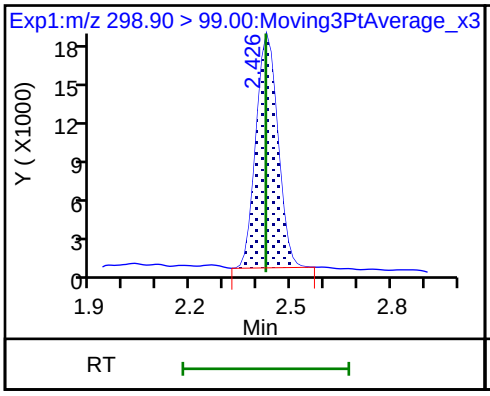

D 47 13C3 PFBS



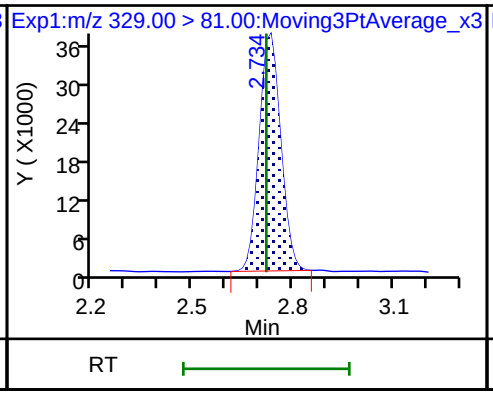

5 Perfluorobutanesulfonic acid



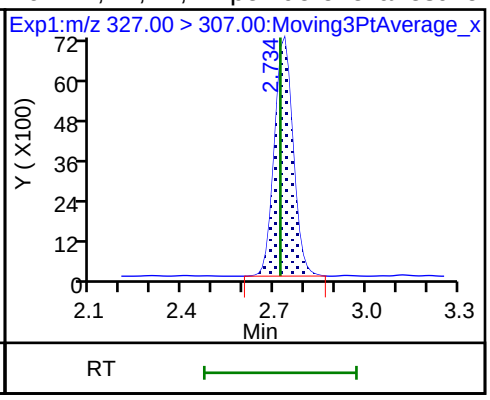

5 Perfluorobutanesulfonic acid



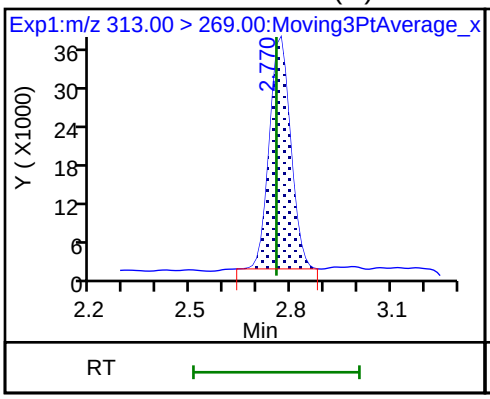

D 60 M2-4:2 FTS



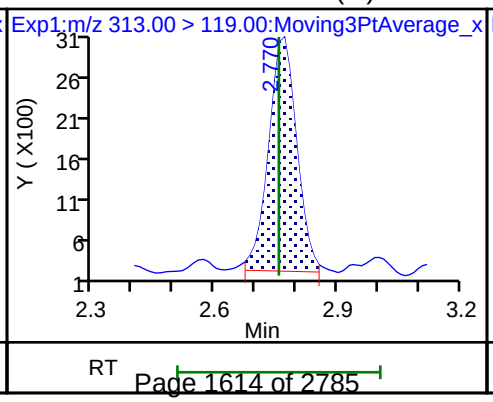

61 1H,1H,2H,2H-perfluorohexanesulfo



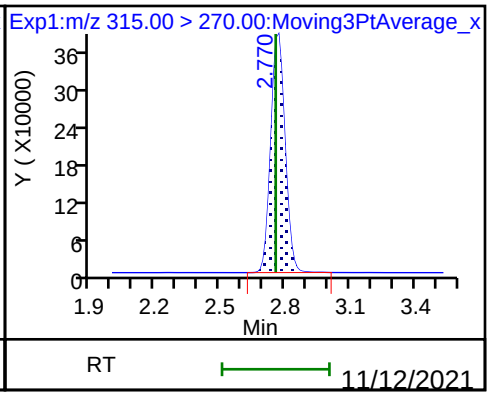

6 Perfluorohexanoic acid (M)



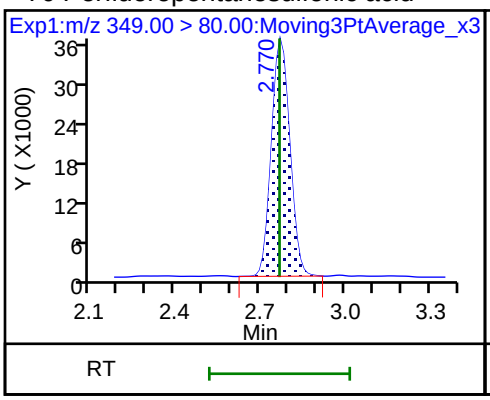

6 Perfluorohexanoic acid (M)



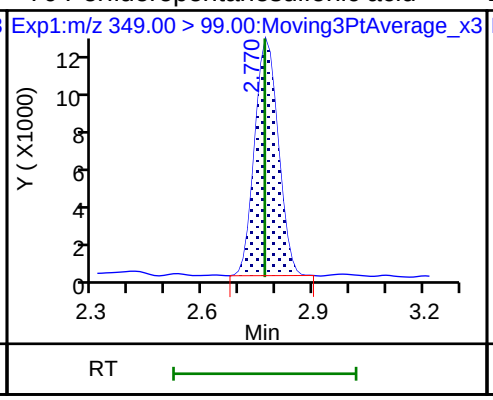

D 7 13C2 PFHxA



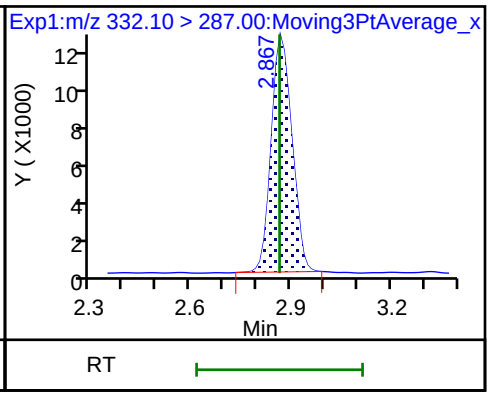
70 Perfluoropentanesulfonic acid



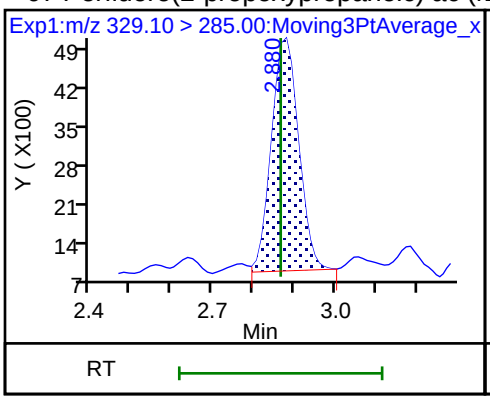

70 Perfluoropentanesulfonic acid



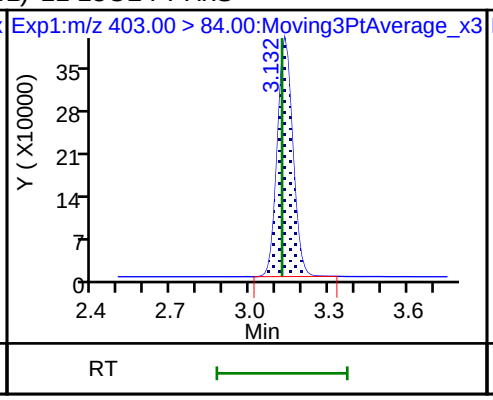

D 64 13C3 HFPO-DA



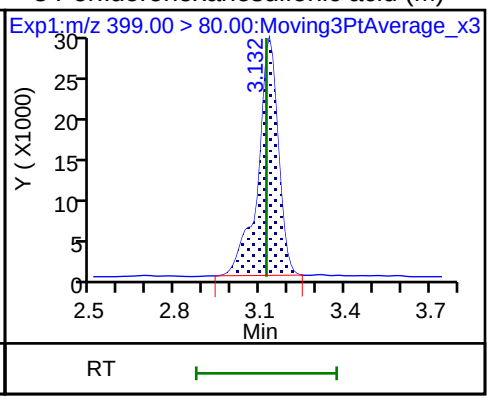

67 Perfluoro(2-propoxypropanoic) ac (M)



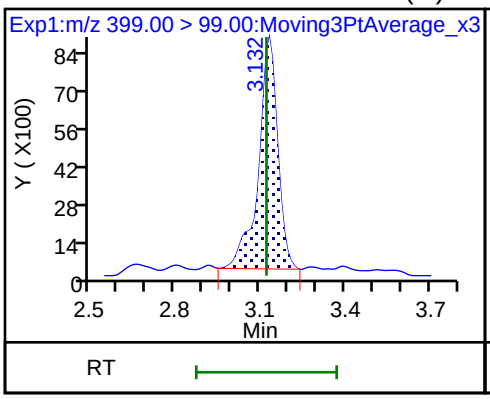

D 11 18O2 PFHxS



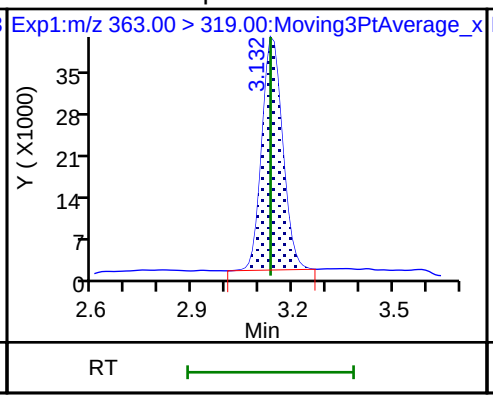

8 Perfluorohexanesulfonic acid (M)



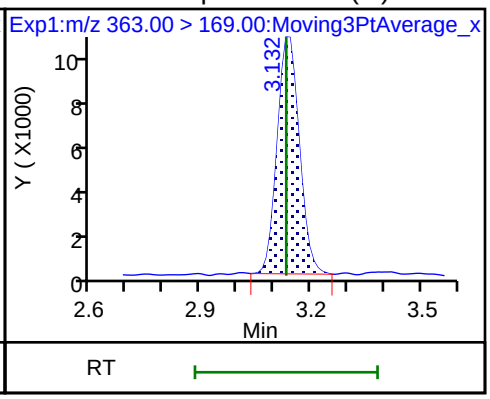

8 Perfluorohexanesulfonic acid (M)



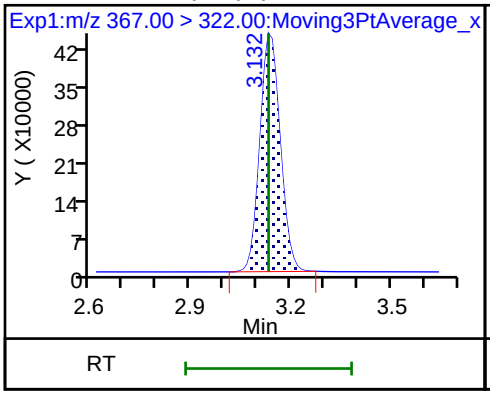

10 Perfluoroheptanoic acid



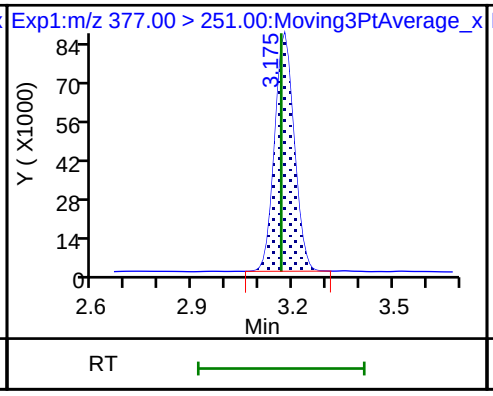

10 Perfluoroheptanoic acid (M)



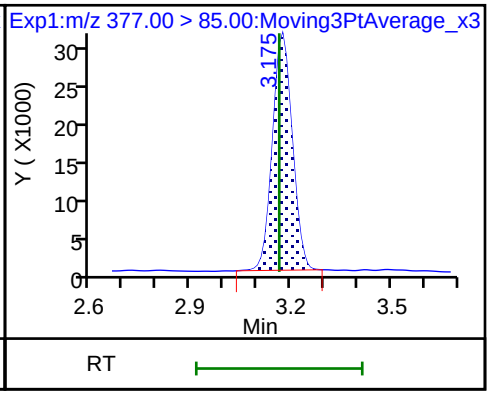

D 9 13C4 PFHpA (M)



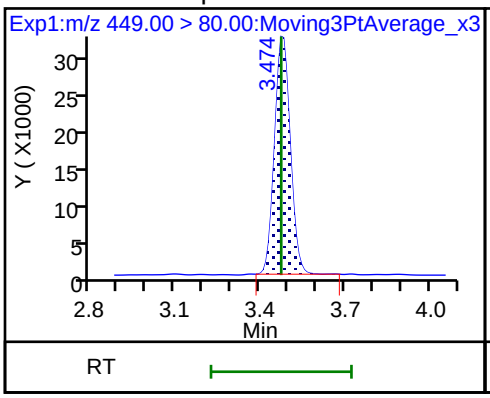

77 DONA



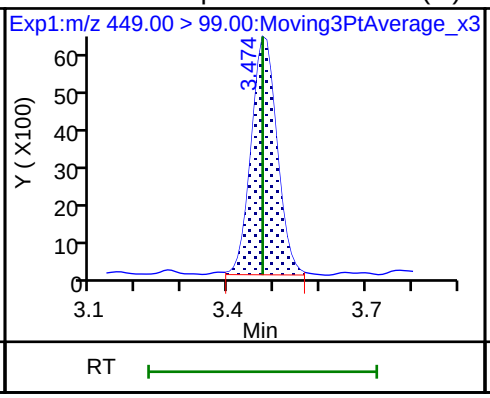

77 DONA



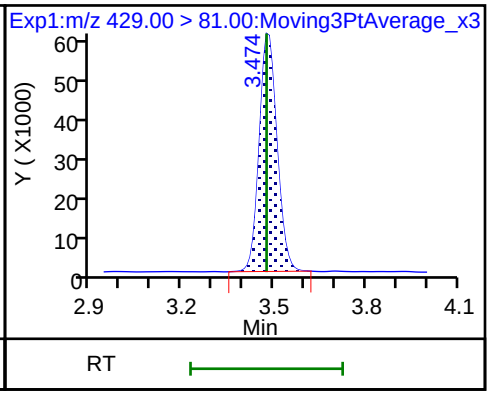
16 Perfluoroheptanesulfonic acid



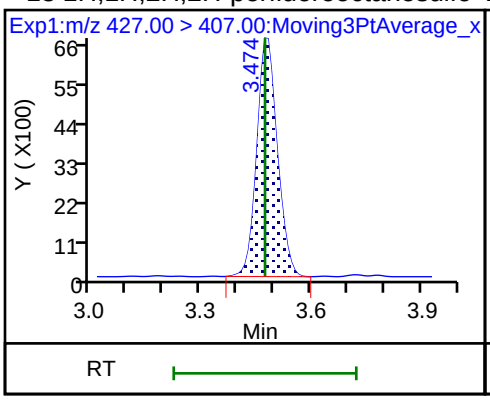

16 Perfluoroheptanesulfonic acid (M)



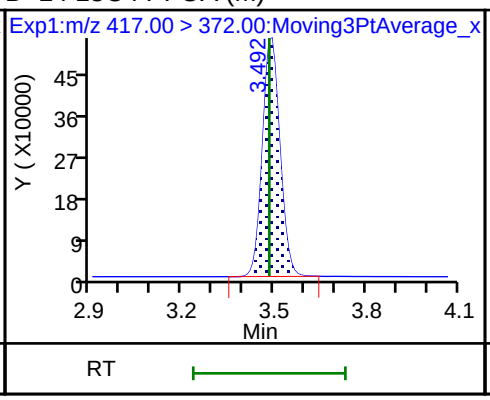

D 12 M2-6:2 FTS



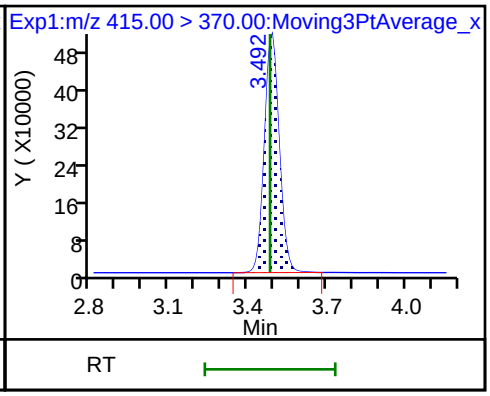

13 1H,1H,2H,2H-perfluorooctanesulfo



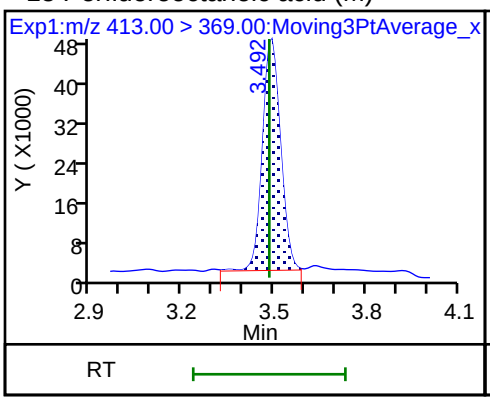

D 14 13C4 PFOA (M)



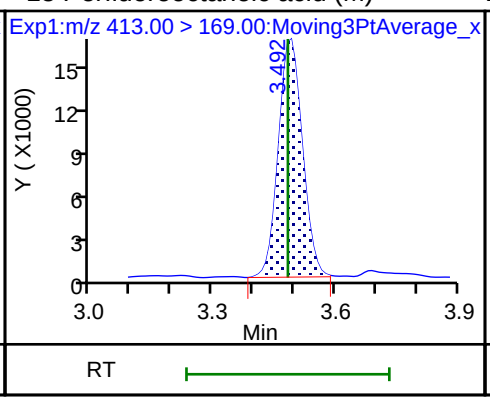

* 62 13C2 PFOA



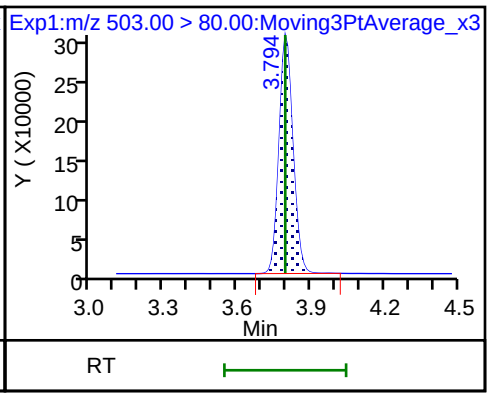

15 Perfluorooctanoic acid (M)



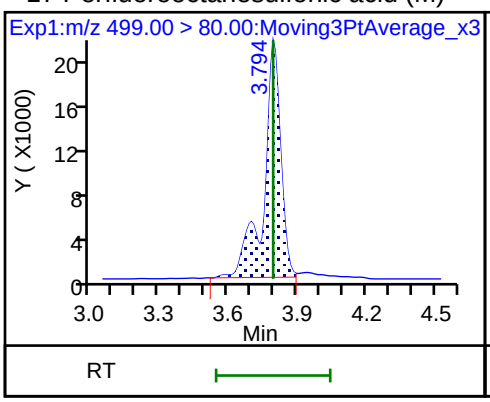

15 Perfluorooctanoic acid (M)



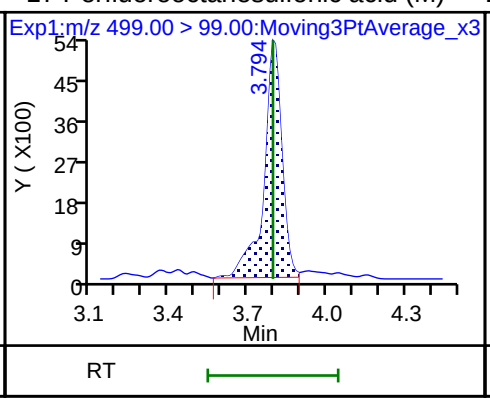

D 18 13C4 PFOS



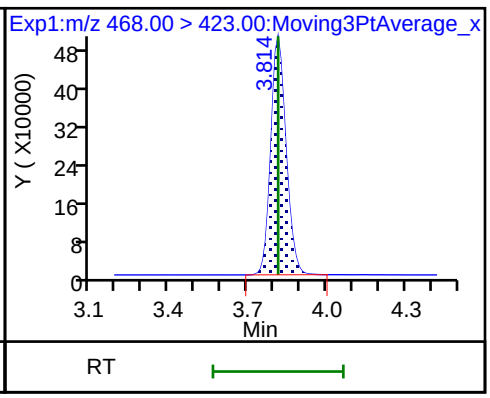

17 Perfluorooctanesulfonic acid (M)



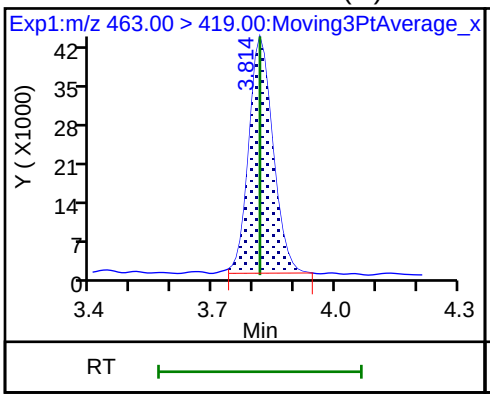

17 Perfluorooctanesulfonic acid (M)



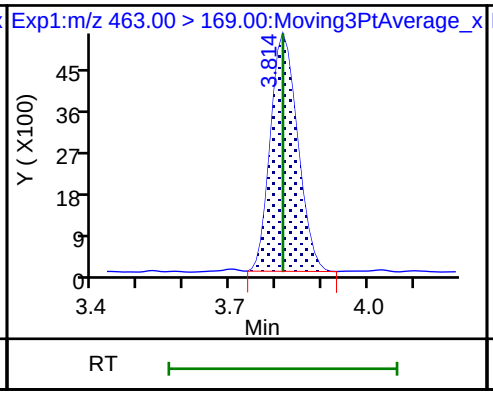

D 19 13C5 PFNA



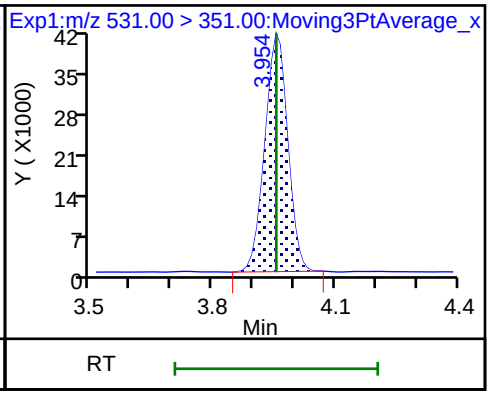
20 Perfluorononanoic acid (M)



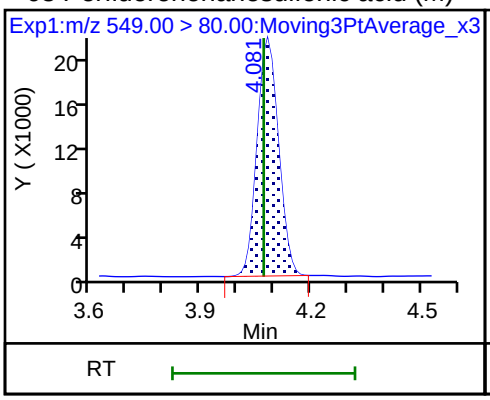

20 Perfluorononanoic acid



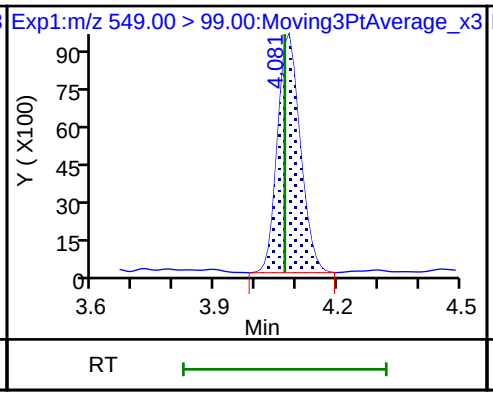

69 9-Chlorohexadecafluoro-3-oxanona



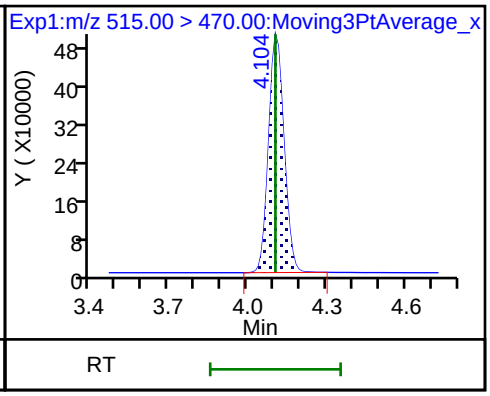

68 Perfluorononanesulfonic acid (M)



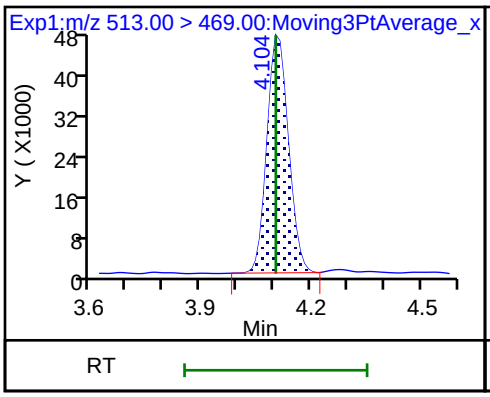

68 Perfluorononanesulfonic acid



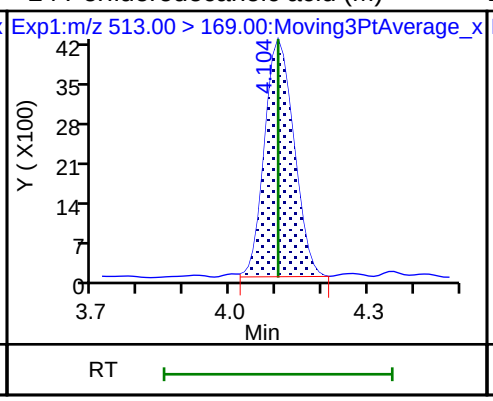

D 23 13C2 PFDA



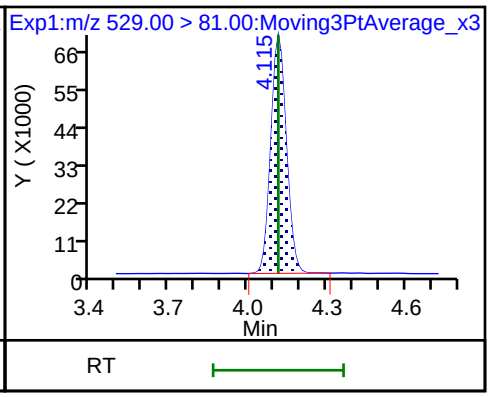

24 Perfluorodecanoic acid



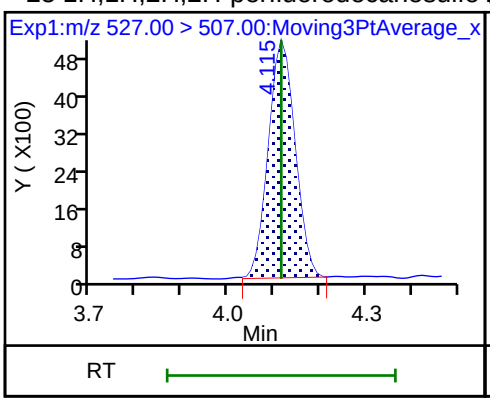

24 Perfluorodecanoic acid (M)



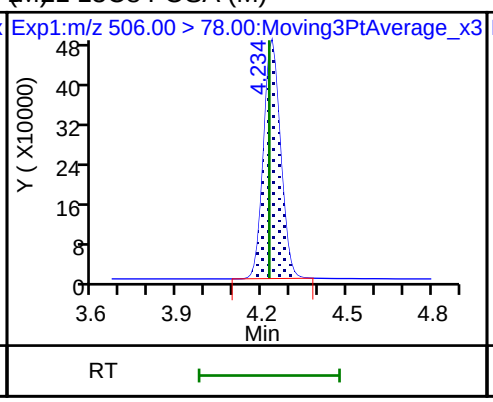

D 26 M2-8:2 FTS



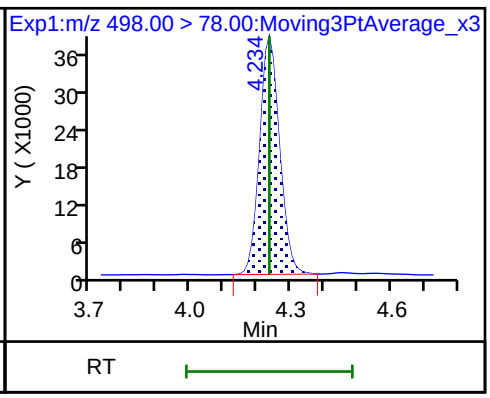

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



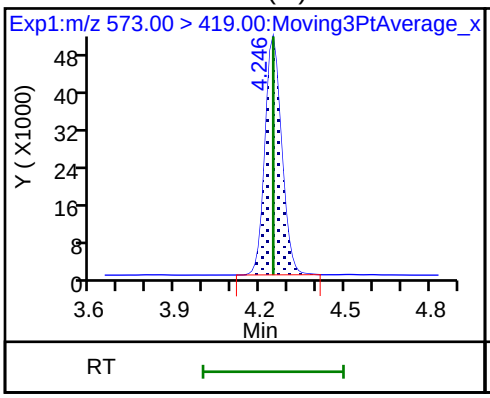

D 21 13C8 FOSA (M)



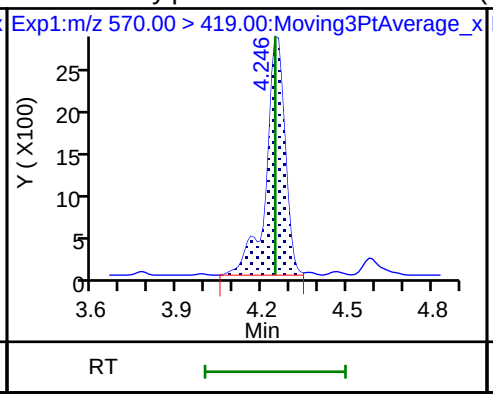

22 Perfluorooctanesulfonamide



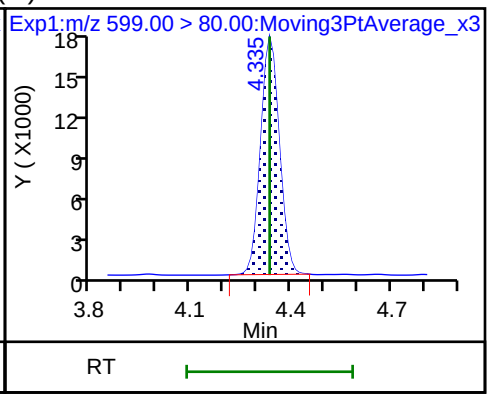
D 27 d3-NMeFOSAA (M)



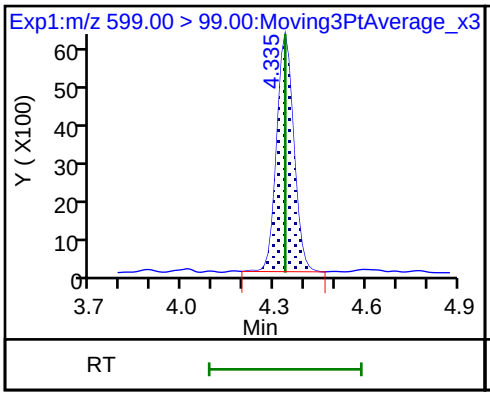

28 N-methylperfluorooctanesulfonami (M)



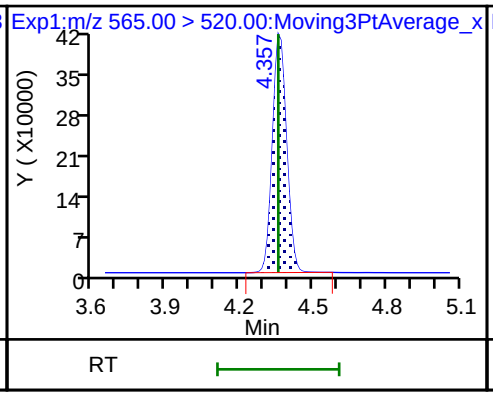

29 Perfluorodecanesulfonic acid



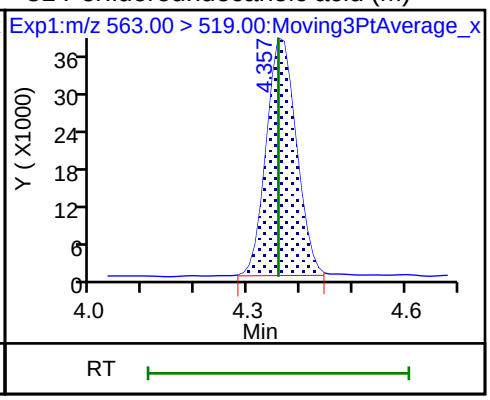

29 Perfluorodecanesulfonic acid



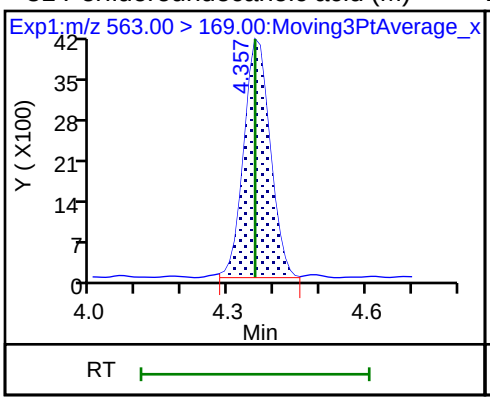

D 30 13C2 PFUnA



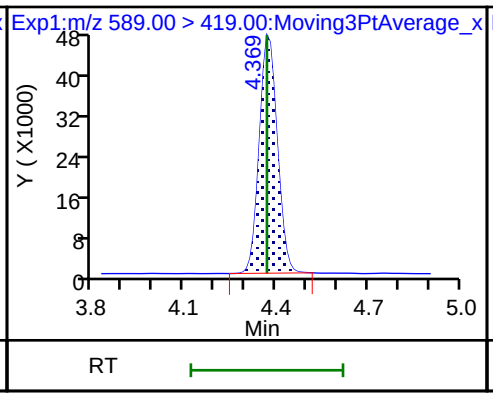

31 Perfluoroundecanoic acid (M)



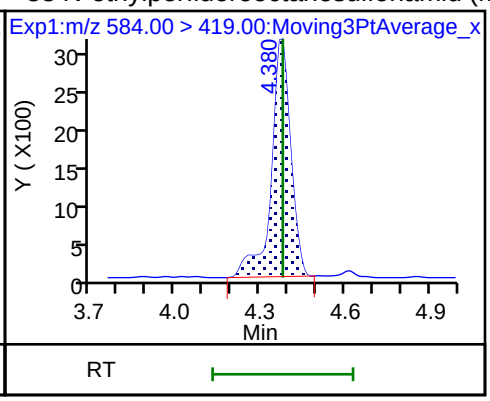

31 Perfluoroundecanoic acid (M)



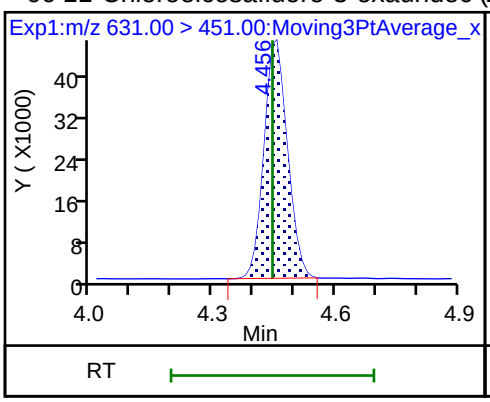

D 32 d5-NEtFOSAA



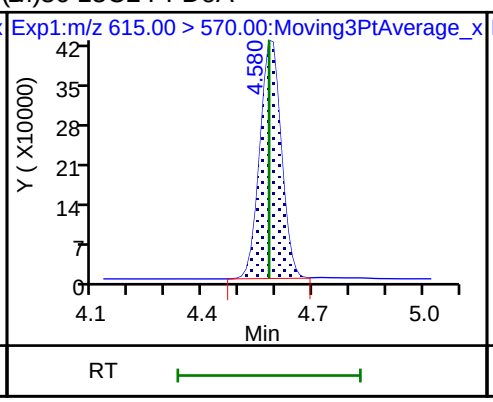

33 N-ethylperfluorooctanesulfonamid (M)



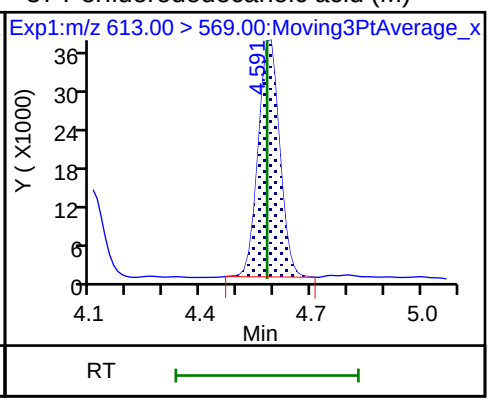

66 11-Chloroeicosafluoro-3-oxaundec (M)



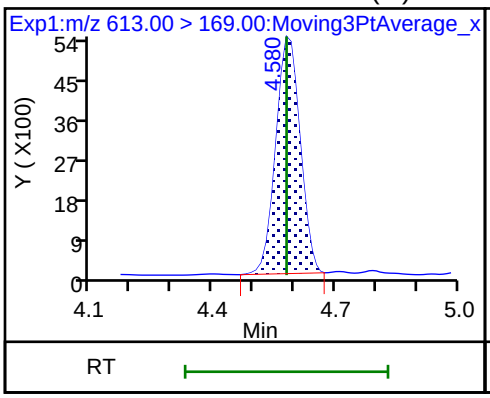

D 36 13C2 PFDoA



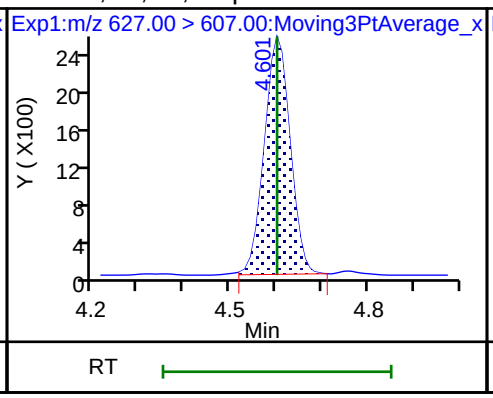

37 Perfluorododecanoic acid (M)



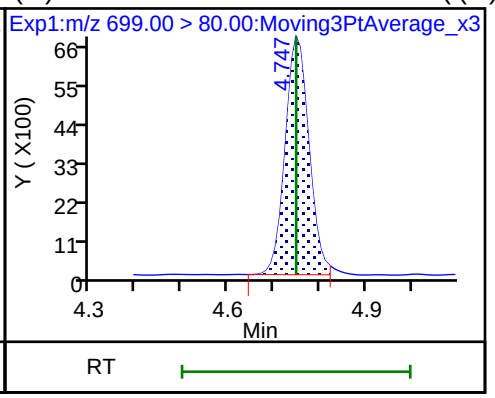
37 Perfluorododecanoic acid (M)



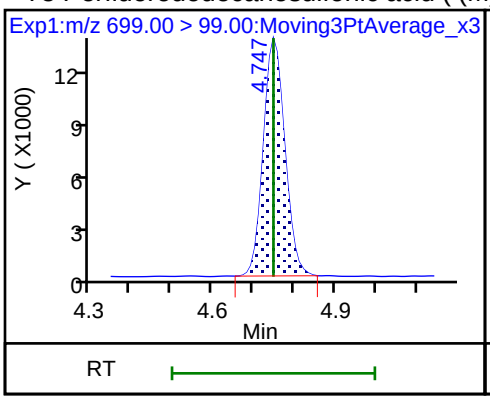

74 1H,1H,2H,2H-perfluorododecanesul (M)



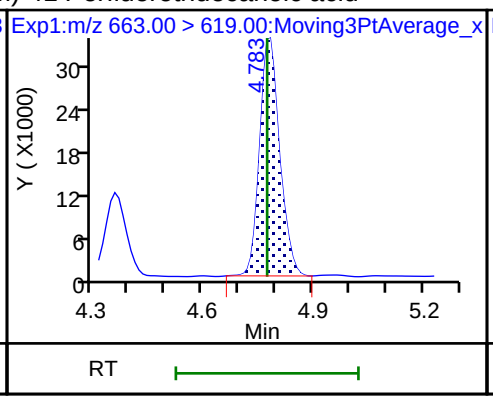

75 Perfluorododecanesulfonic acid ( (M)



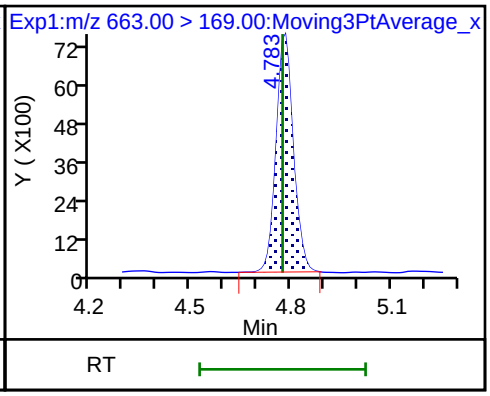

75 Perfluorododecanesulfonic acid ( (M)



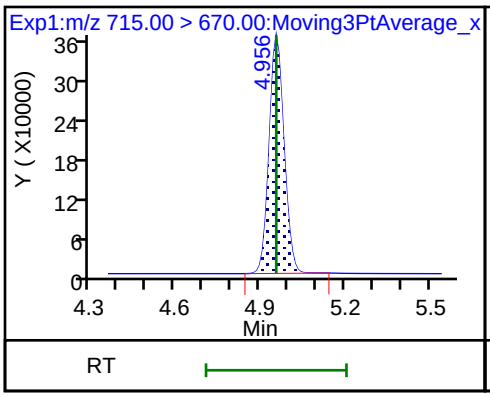

41 Perfluorotridecanoic acid



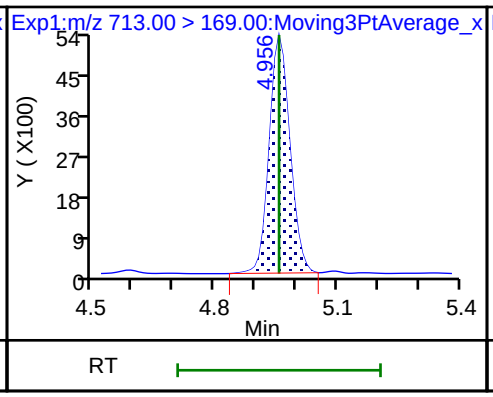

41 Perfluorotridecanoic acid



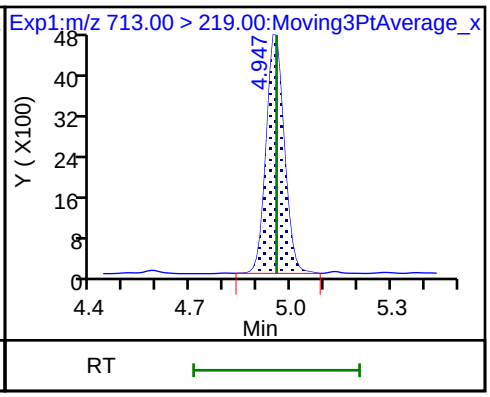

D 43 13C2 PFTeDA



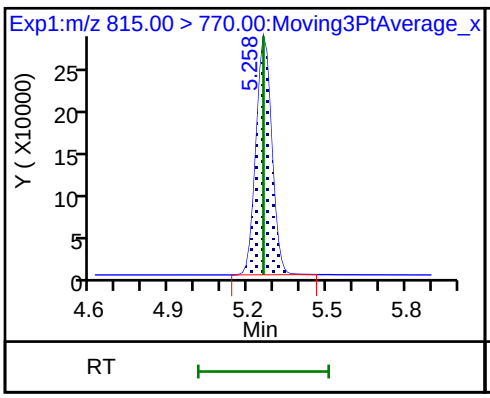

42 Perfluorotetradecanoic acid



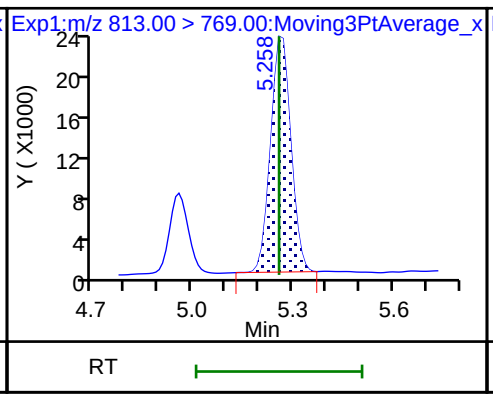

42 Perfluorotetradecanoic acid



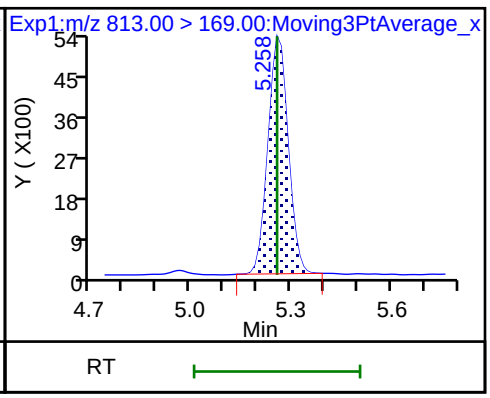

D 44 13C2 PFHxDA



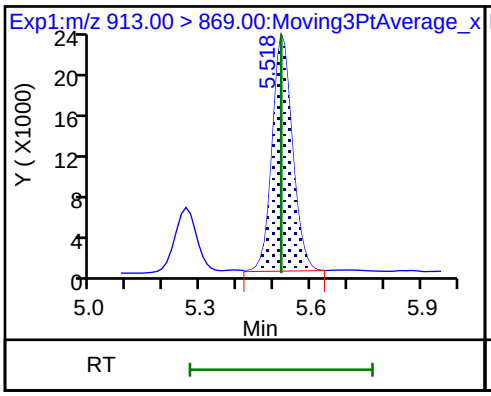

45 Perfluorohexadecanoic acid



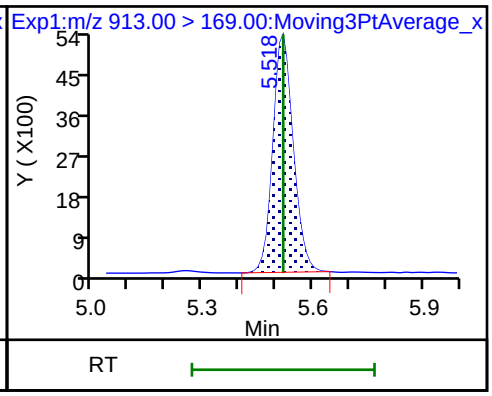

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

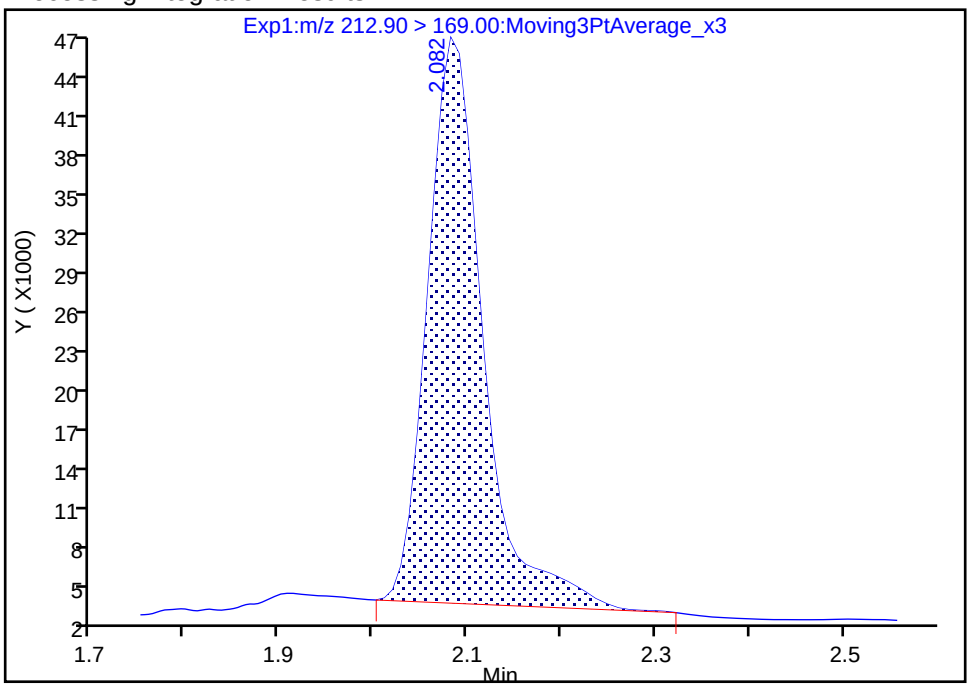
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

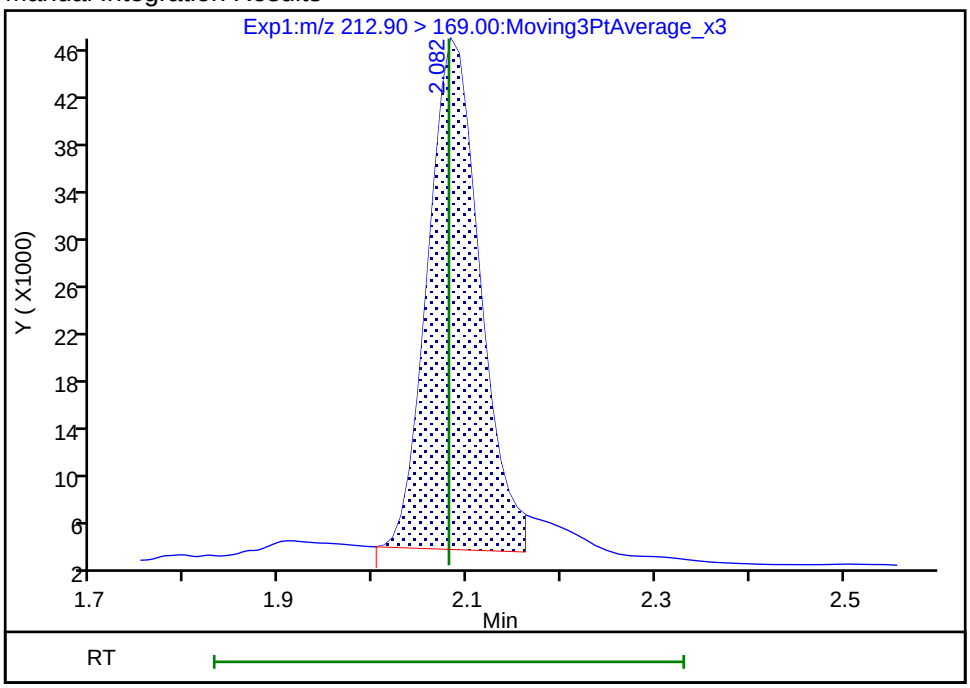
Processing Integration Results

RT: 2.08
Area: 173975
Amount: 0.108335
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 163340
Amount: 0.107814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

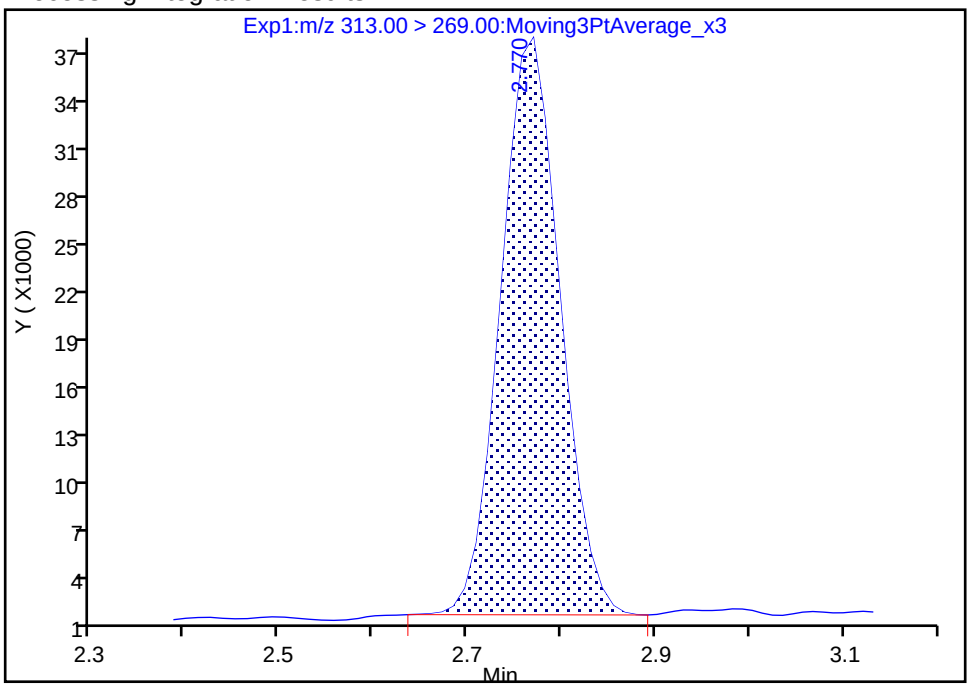
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

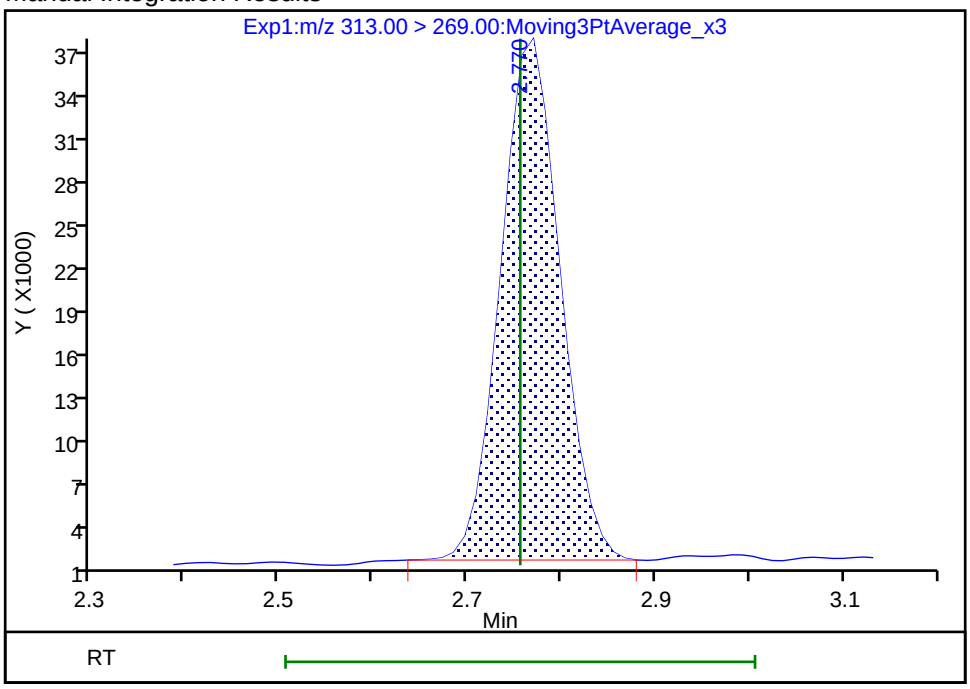
Processing Integration Results

RT: 2.77
Area: 158703
Amount: 0.106258
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 158519
Amount: 0.110339
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

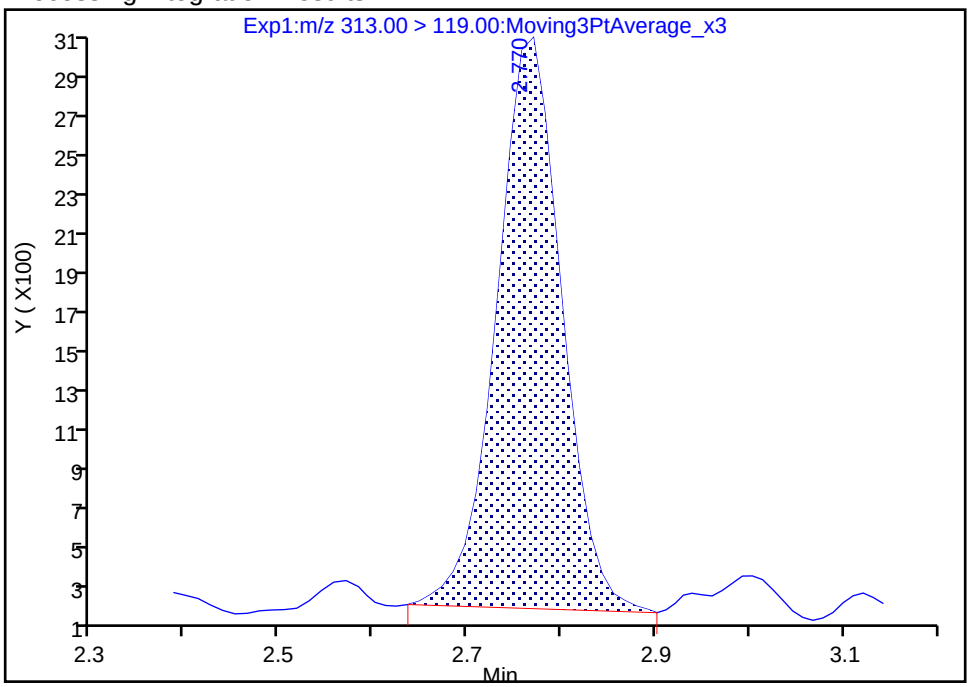
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

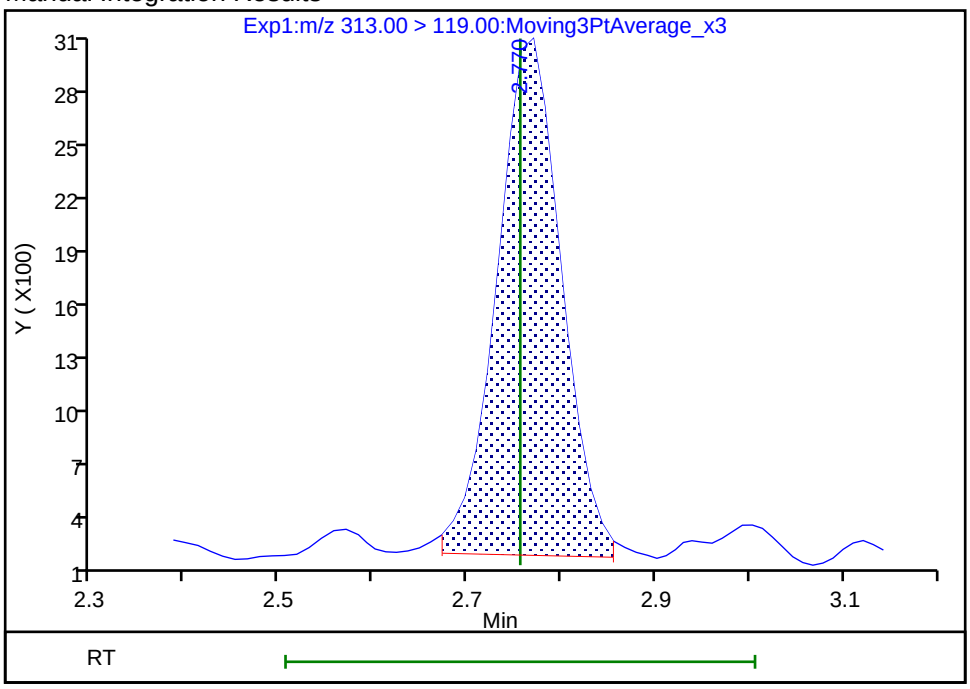
Processing Integration Results

RT: 2.77
Area: 14129
Amount: 0.106258
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 13979
Amount: 0.110339
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

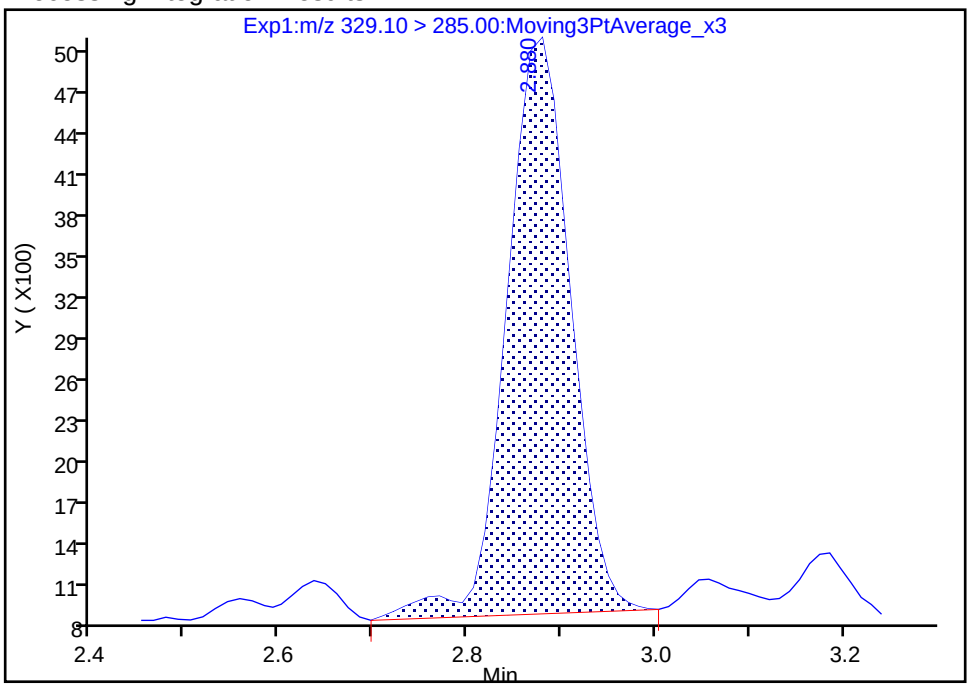
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

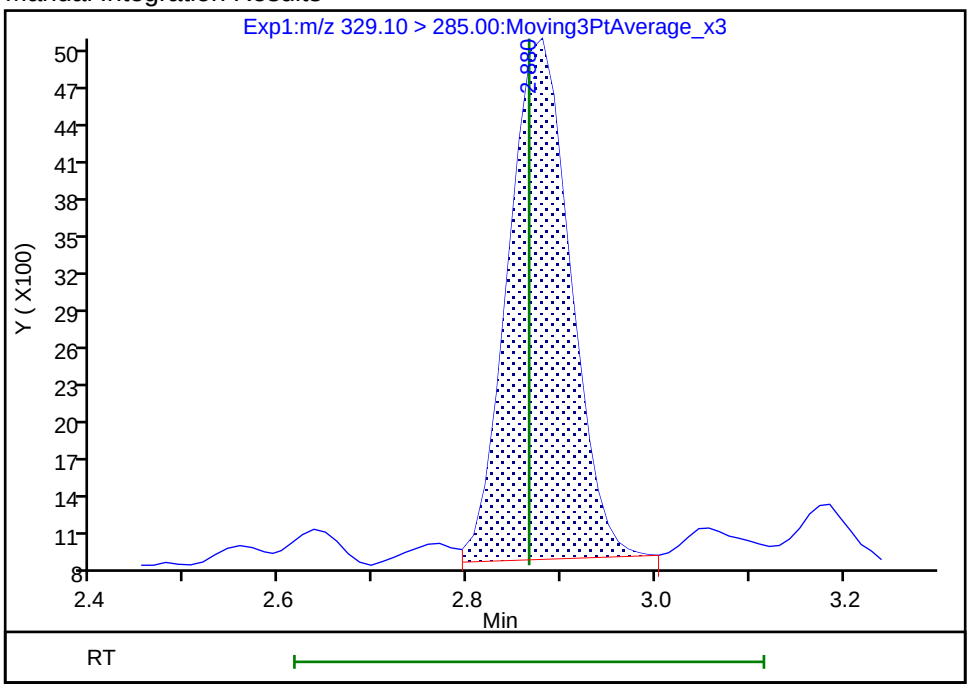
Processing Integration Results

RT: 2.88
Area: 19967
Amount: 0.097427
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 19398
Amount: 0.099399
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:53:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

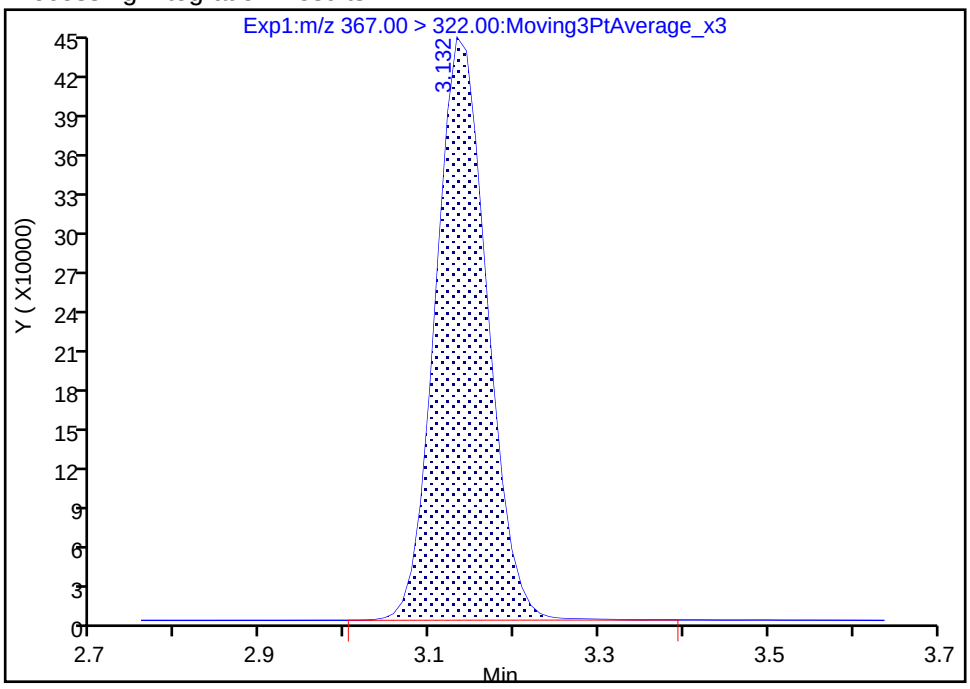
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

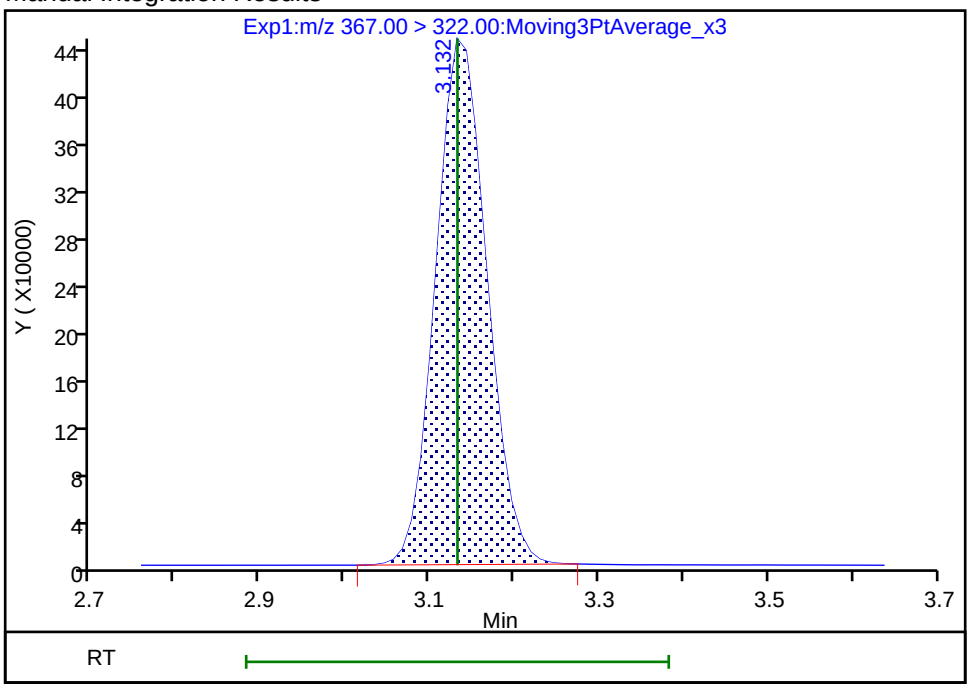
Processing Integration Results

RT: 3.13
Area: 1891793
Amount: 1.252902
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1883272
Amount: 1.247794
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

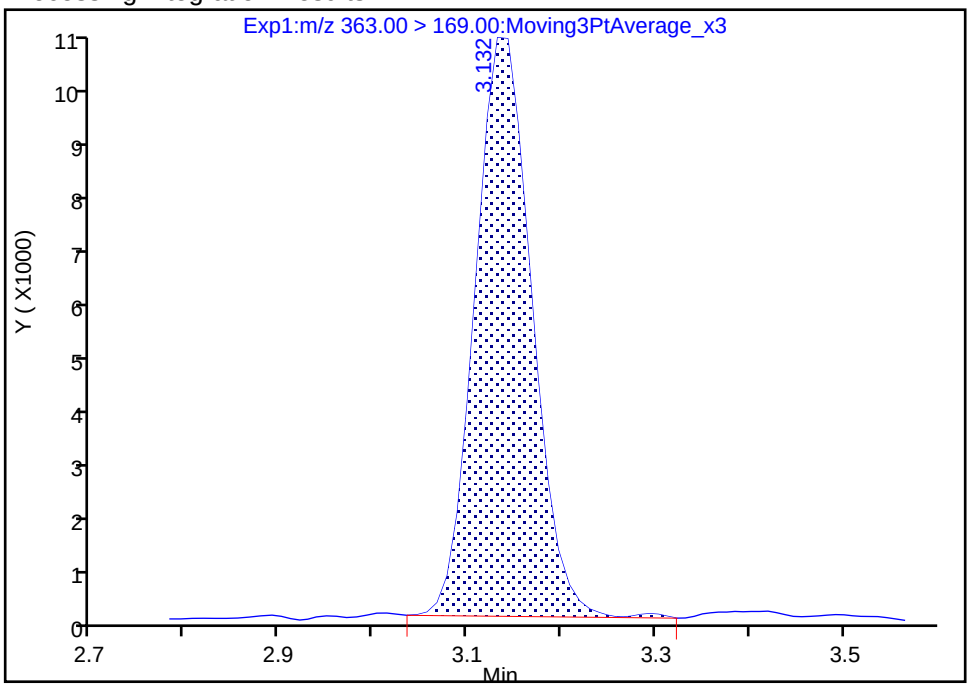
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

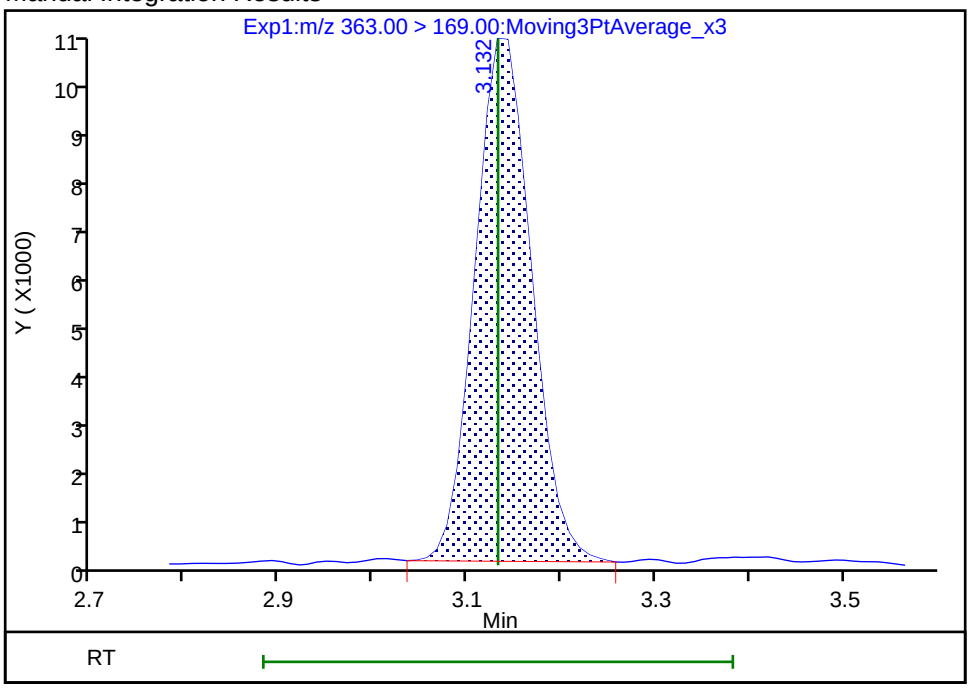
Processing Integration Results

RT: 3.13
Area: 43704
Amount: 0.103271
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 43469
Amount: 0.107556
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

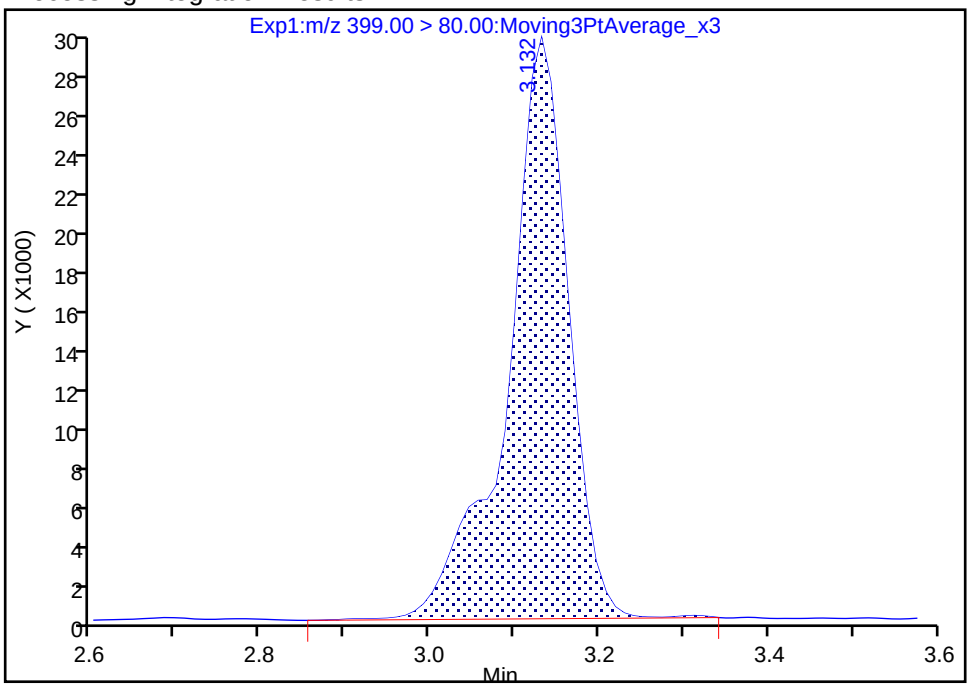
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

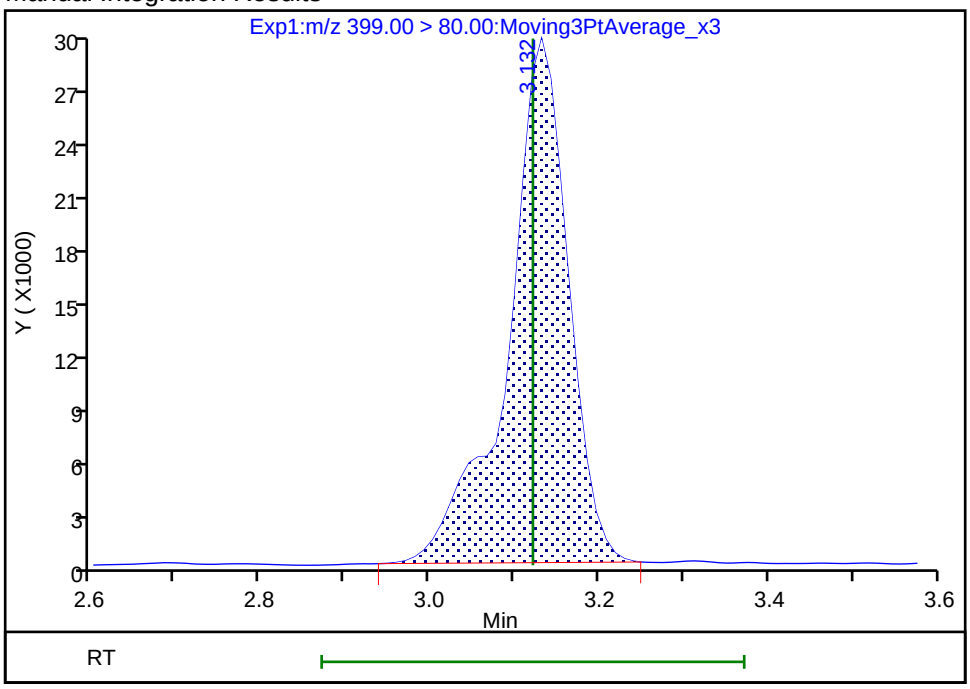
Processing Integration Results

RT: 3.13
Area: 146530
Amount: 0.093897
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 144803
Amount: 0.096682
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

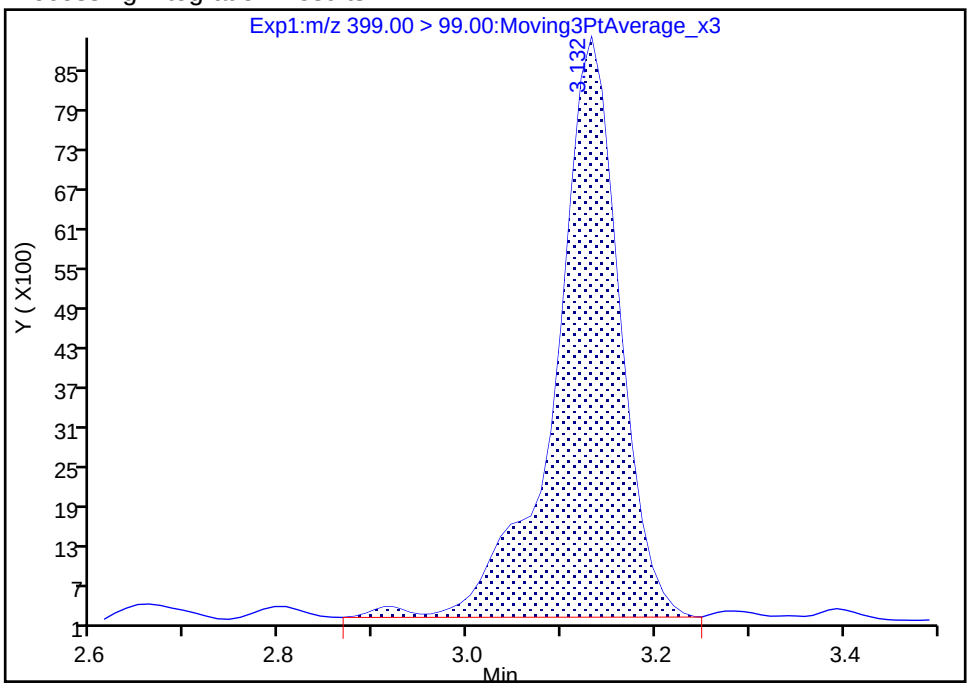
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

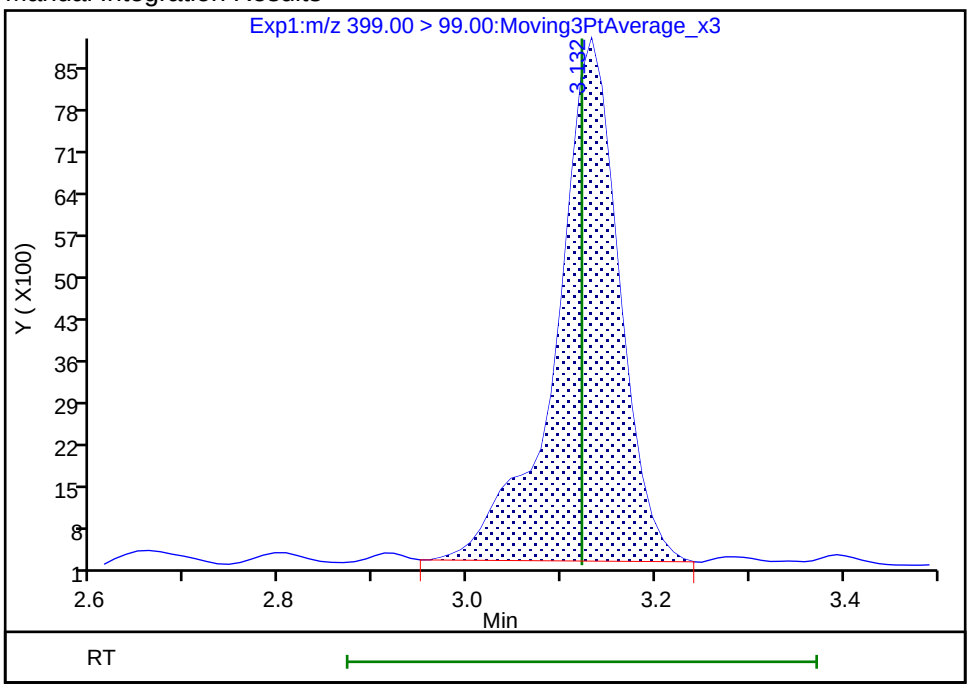
Processing Integration Results

RT: 3.13
Area: 41577
Amount: 0.093897
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 40713
Amount: 0.096682
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

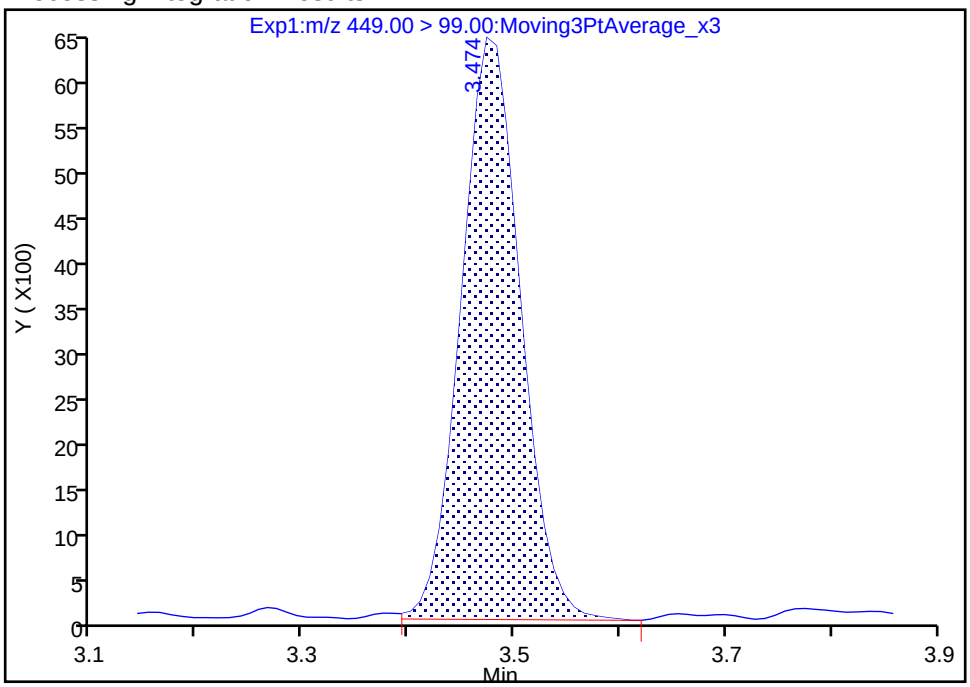
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

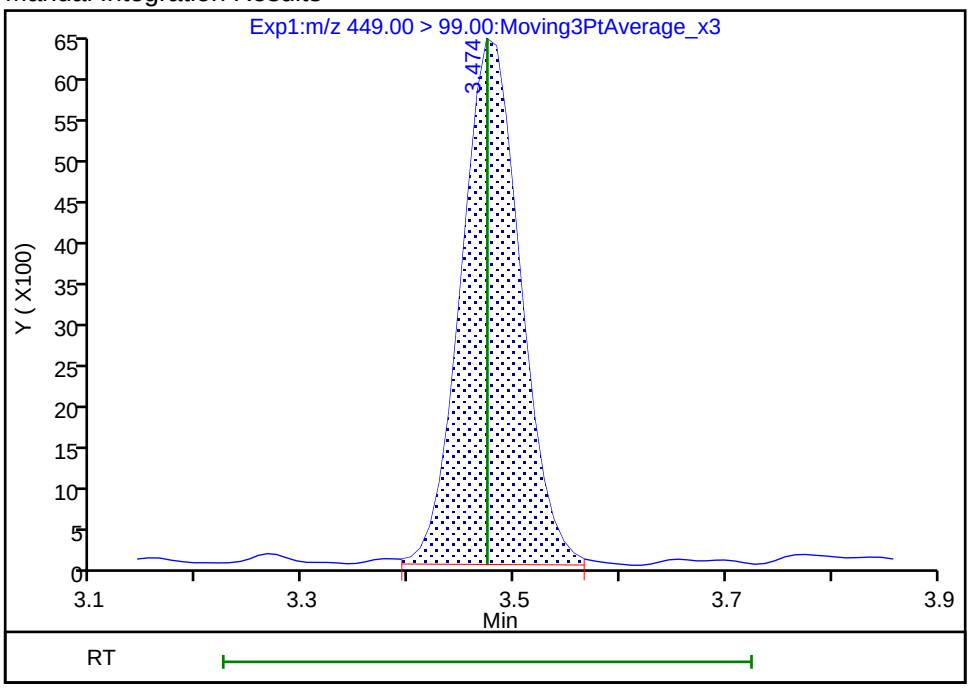
Processing Integration Results

RT: 3.47
Area: 24776
Amount: 0.098809
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 24700
Amount: 0.102081
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:54:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

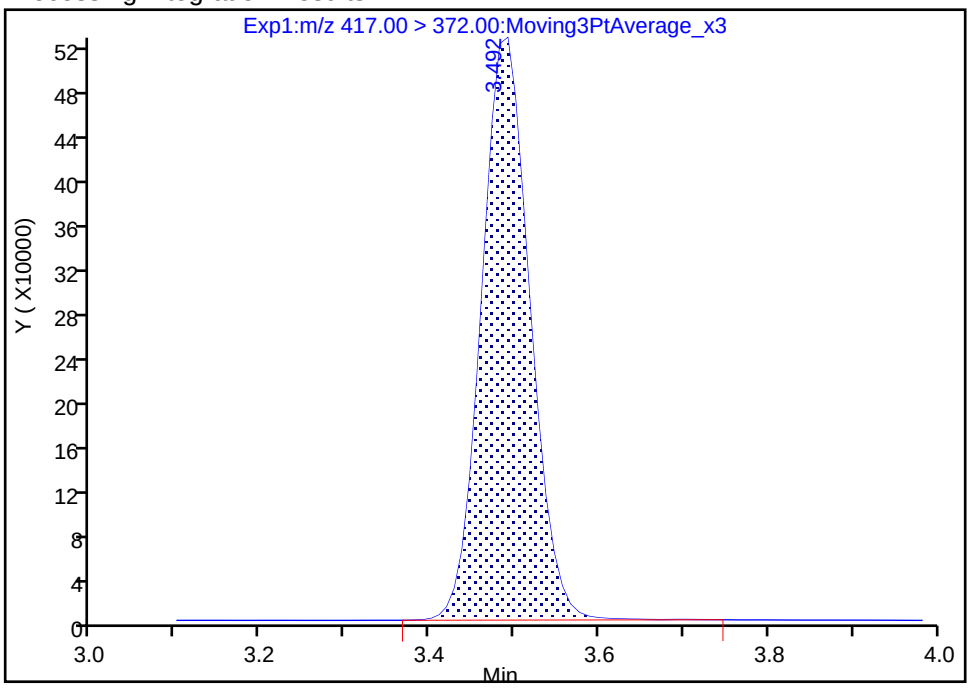
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 14 13C4 PFOA, CAS: STL00990

Signal: 1

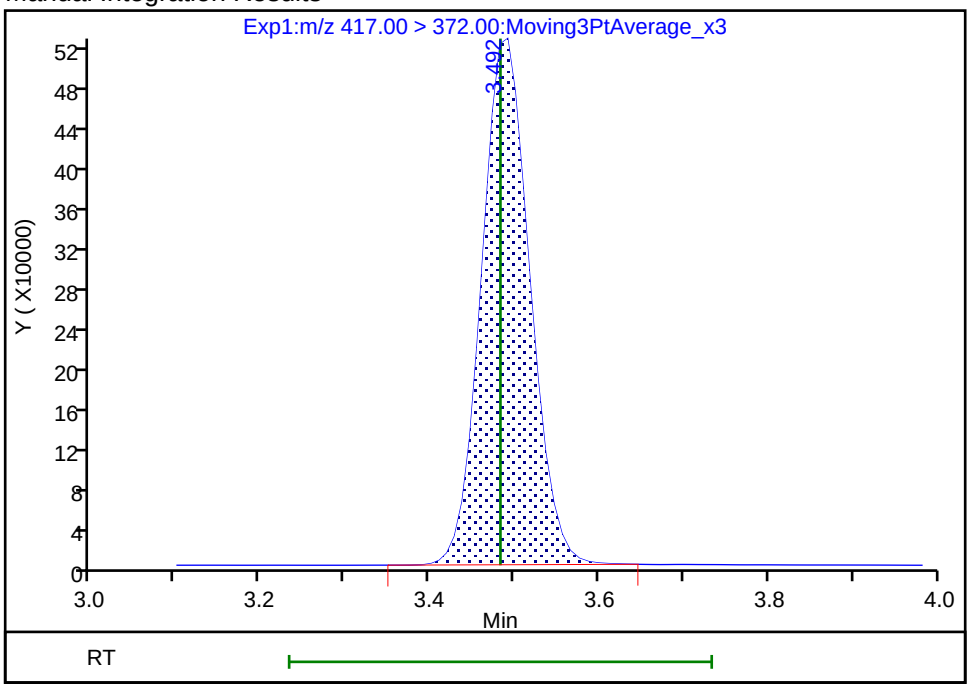
Processing Integration Results

RT: 3.49
Area: 2083166
Amount: 1.265919
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 2077322
Amount: 1.259800
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:55:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

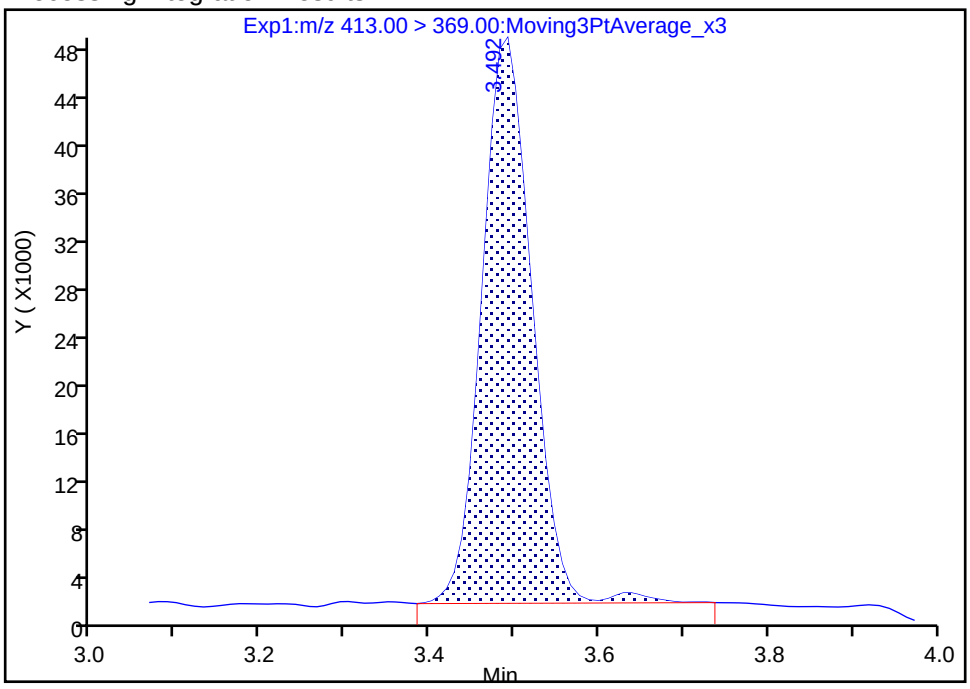
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

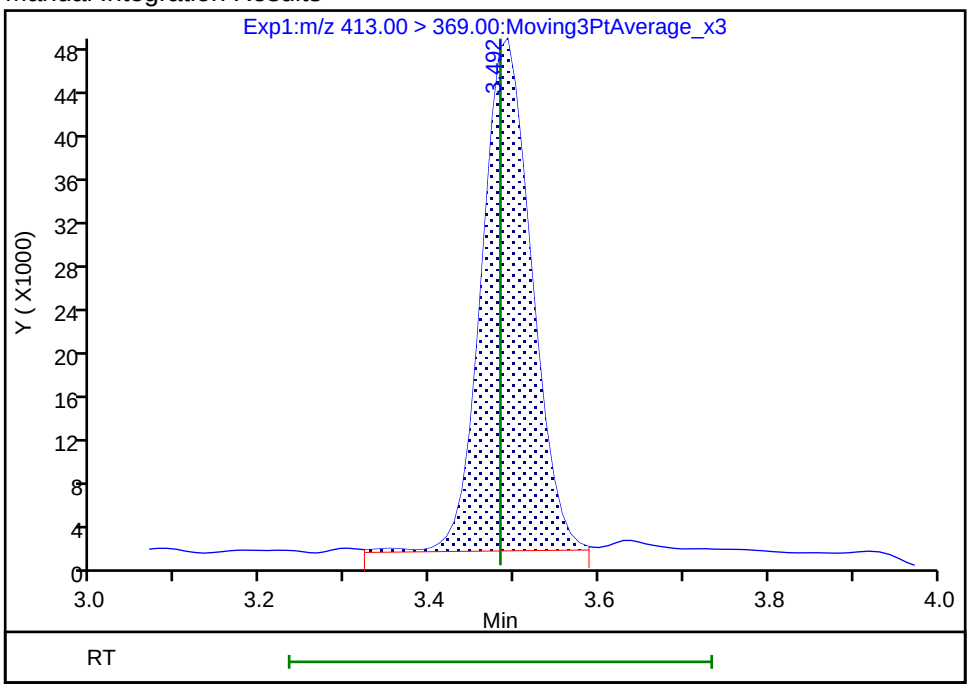
Processing Integration Results

RT: 3.49
Area: 192135
Amount: 0.104199
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 191529
Amount: 0.108375
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

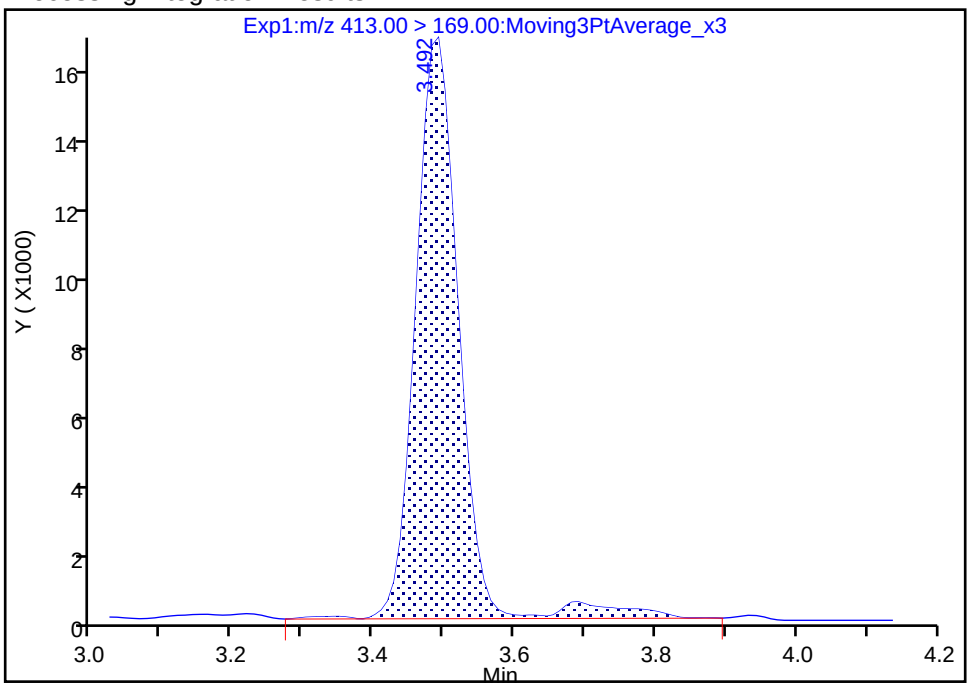
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

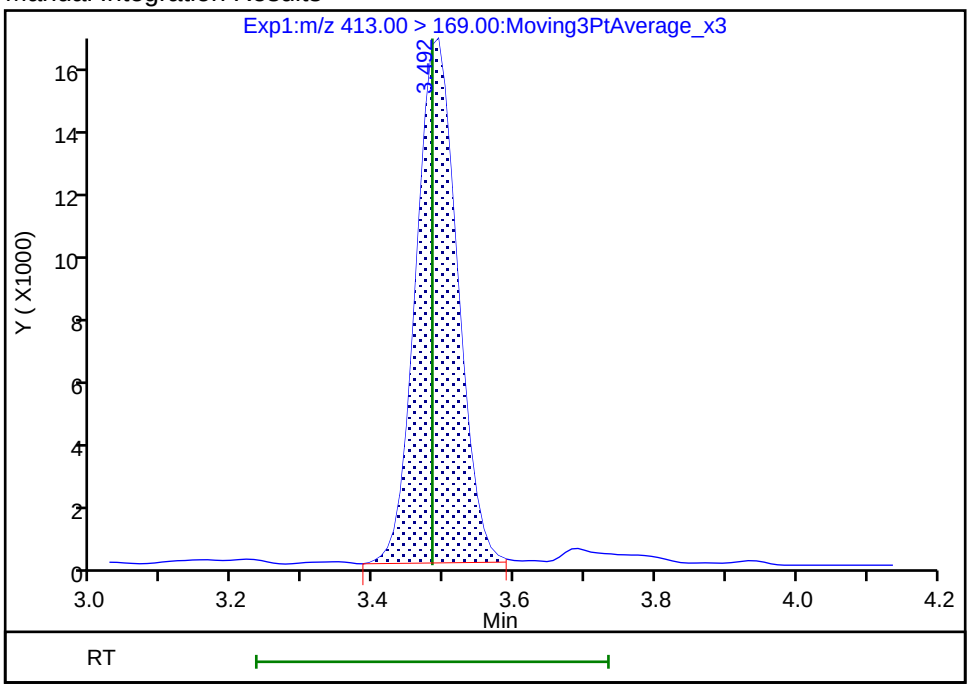
Processing Integration Results

RT: 3.49
Area: 72537
Amount: 0.104199
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 68573
Amount: 0.108375
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

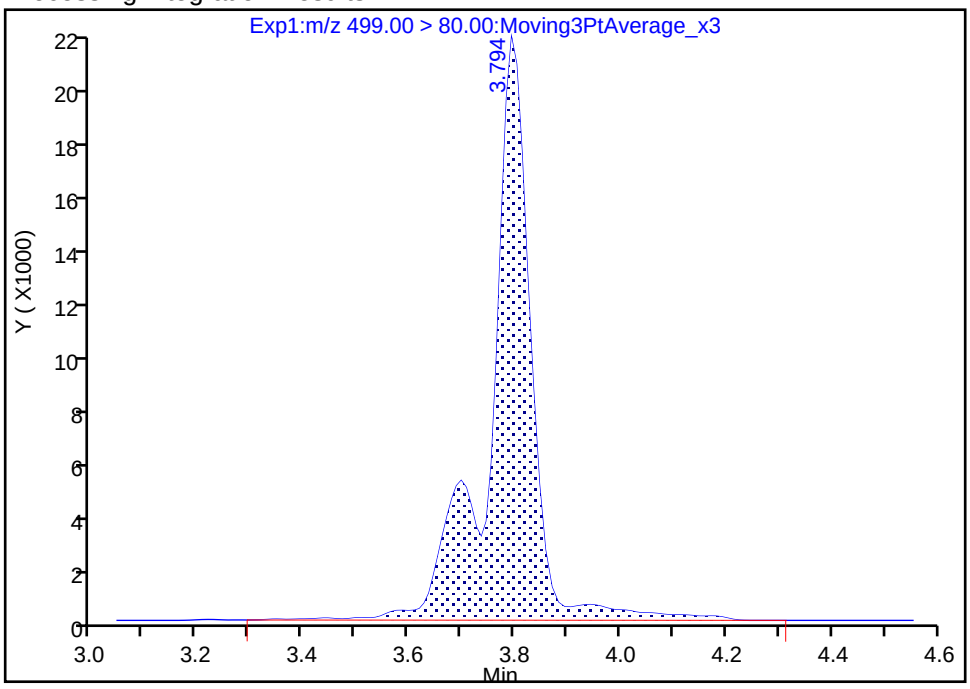
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

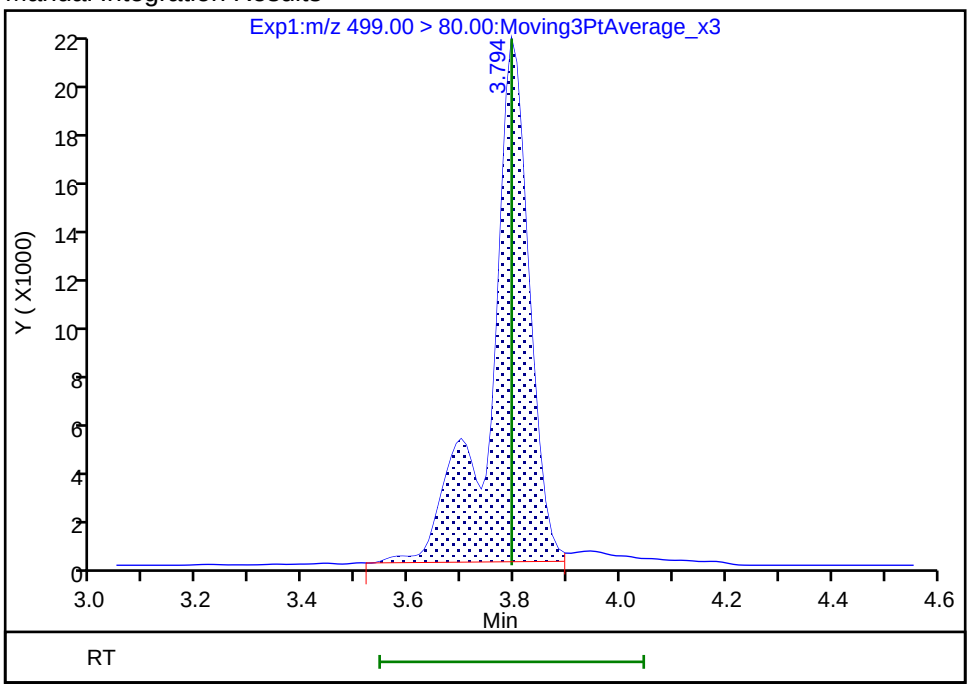
Processing Integration Results

RT: 3.79
Area: 120558
Amount: 0.104376
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 111255
Amount: 0.103188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

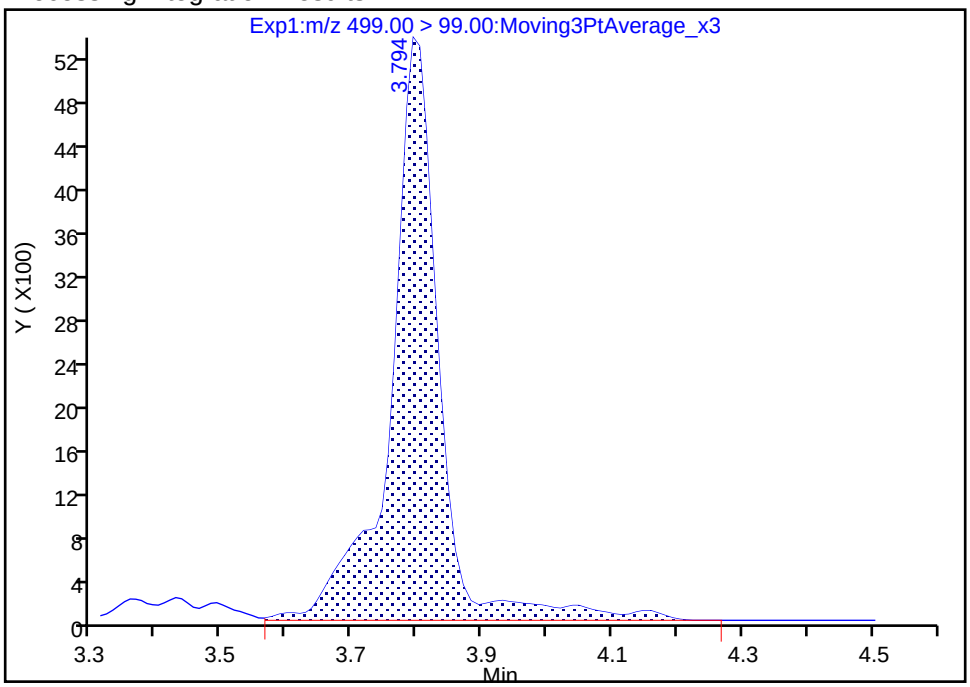
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

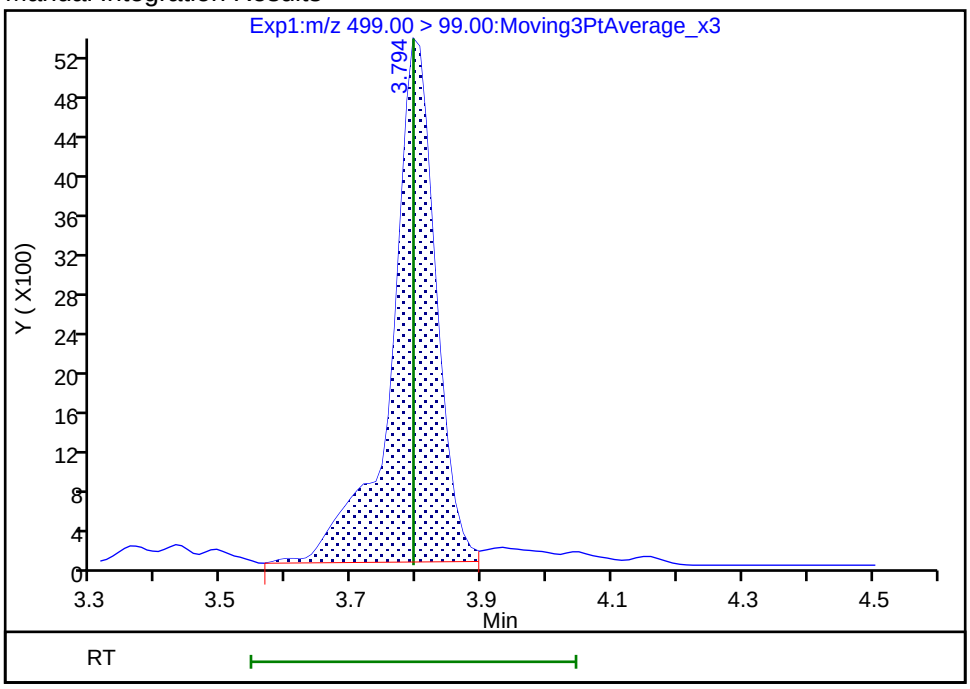
Processing Integration Results

RT: 3.79
Area: 27951
Amount: 0.104376
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 25348
Amount: 0.103188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

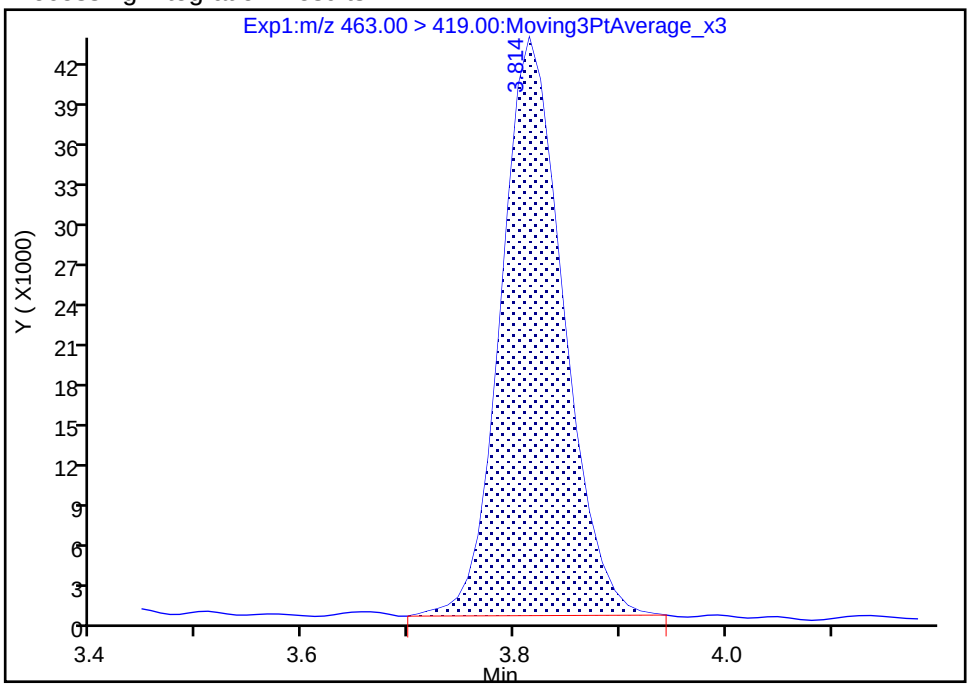
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

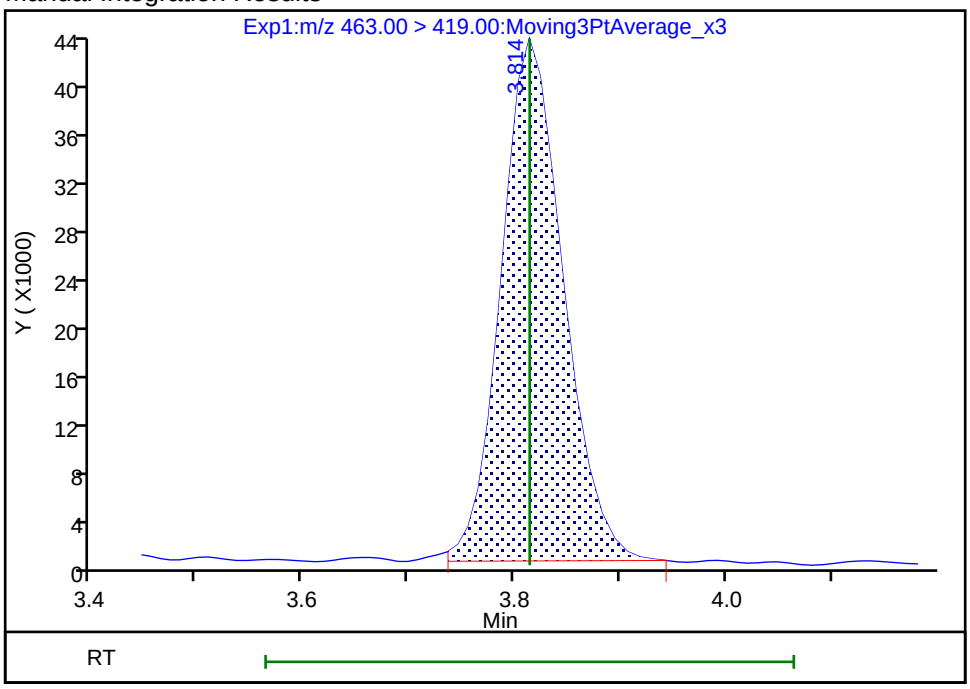
Processing Integration Results

RT: 3.81
Area: 174476
Amount: 0.106721
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 173658
Amount: 0.110633
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

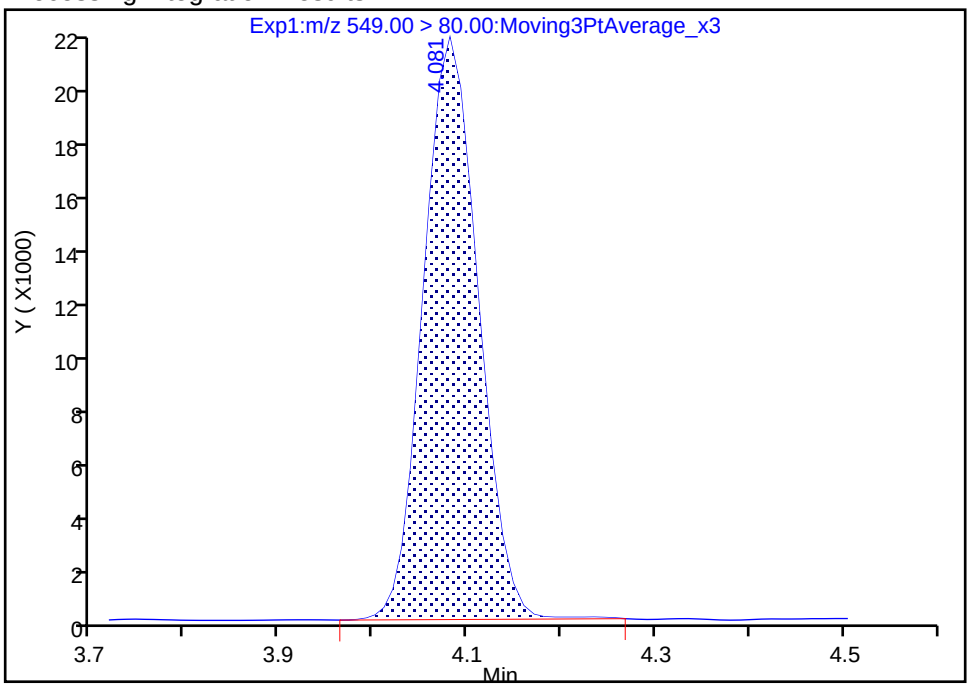
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

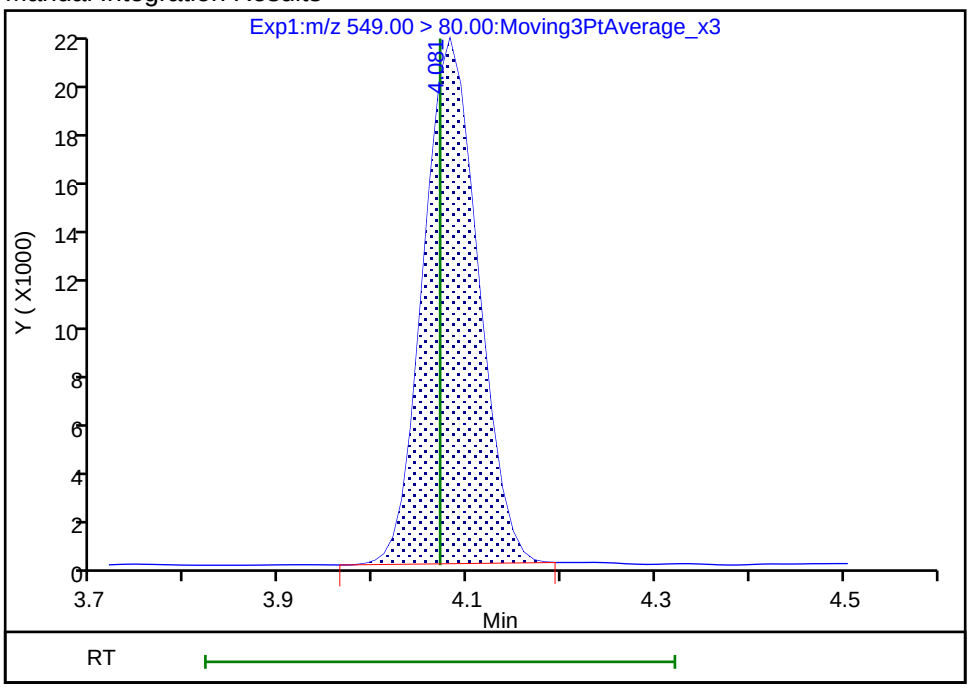
Processing Integration Results

RT: 4.08
Area: 86575
Amount: 0.100095
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 85933
Amount: 0.102320
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:56:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

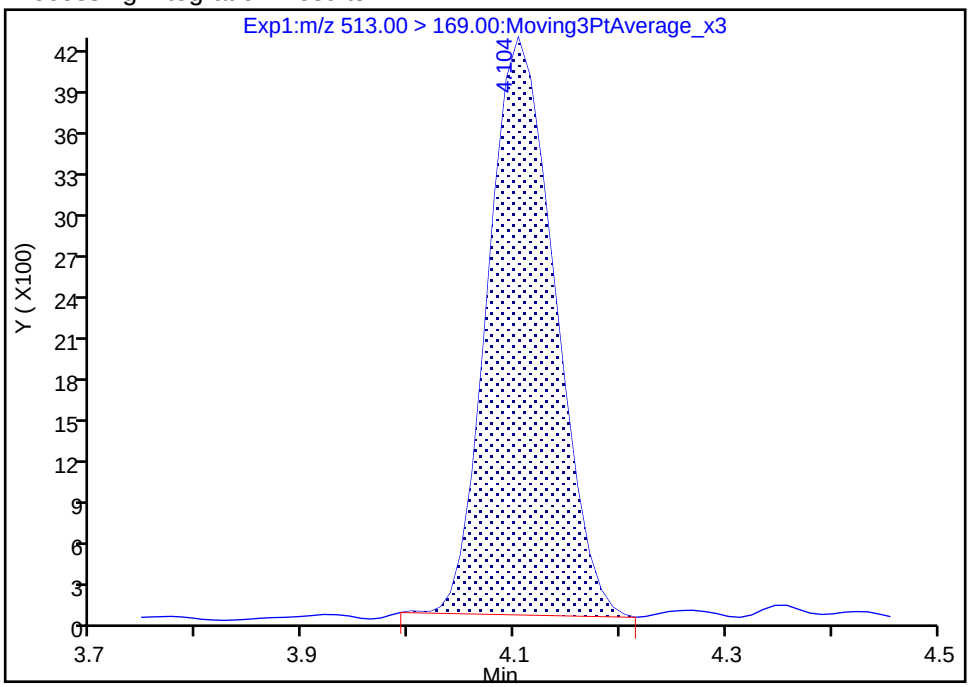
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

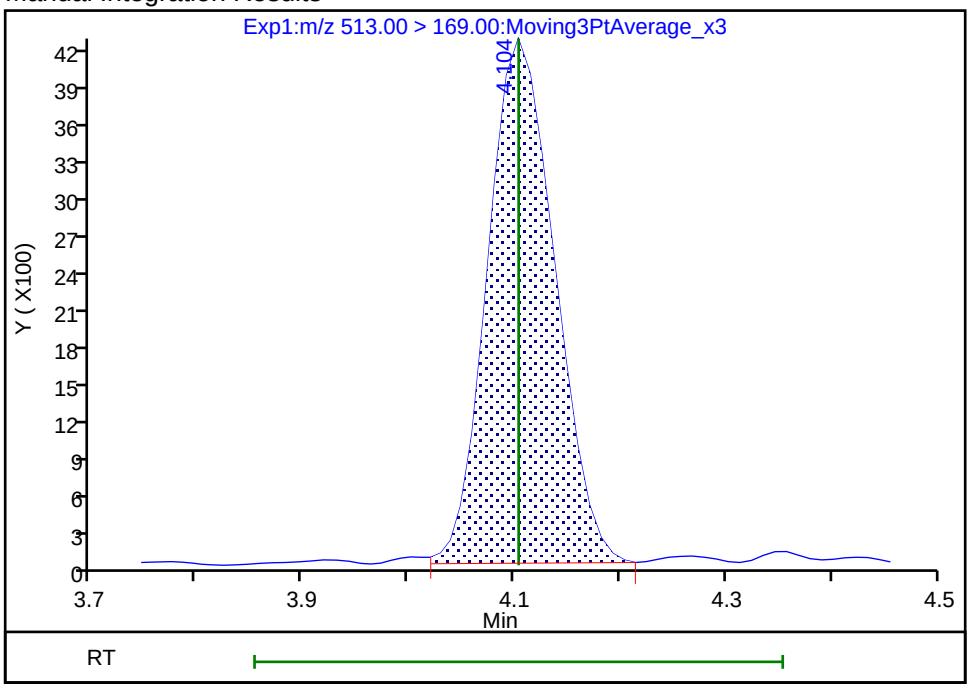
Processing Integration Results

RT: 4.10
Area: 18435
Amount: 0.108313
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 18655
Amount: 0.113067
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

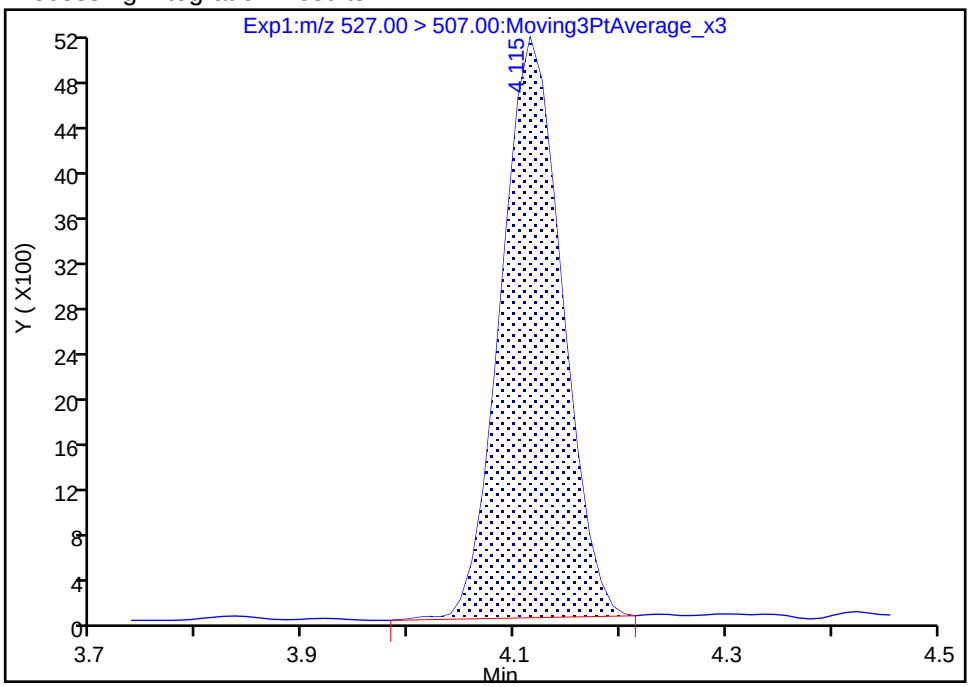
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

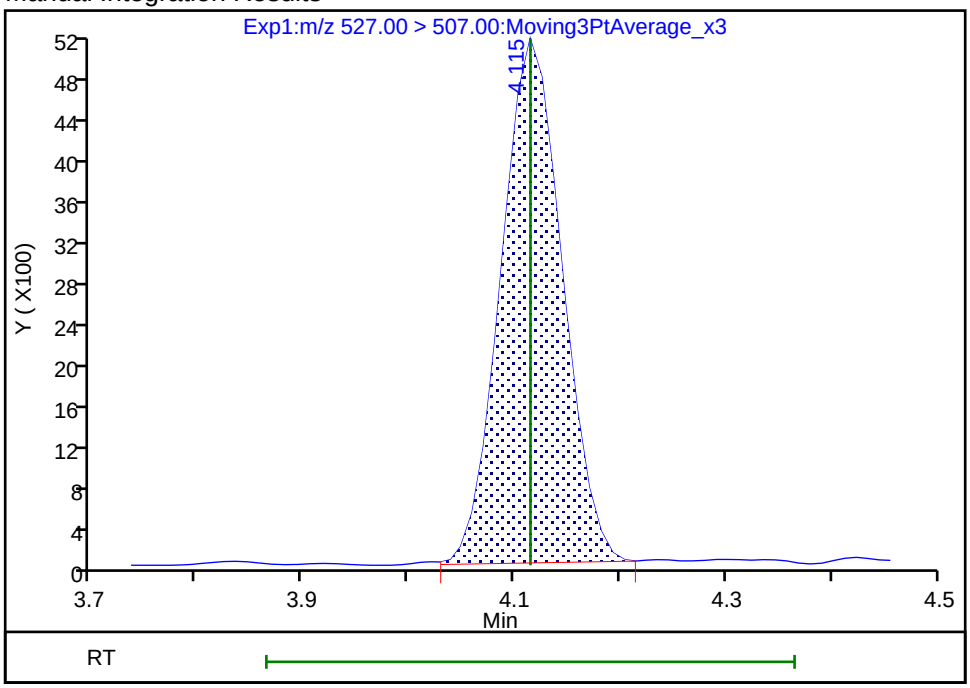
Processing Integration Results

RT: 4.11
Area: 20857
Amount: 0.099865
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 20820
Amount: 0.103247
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

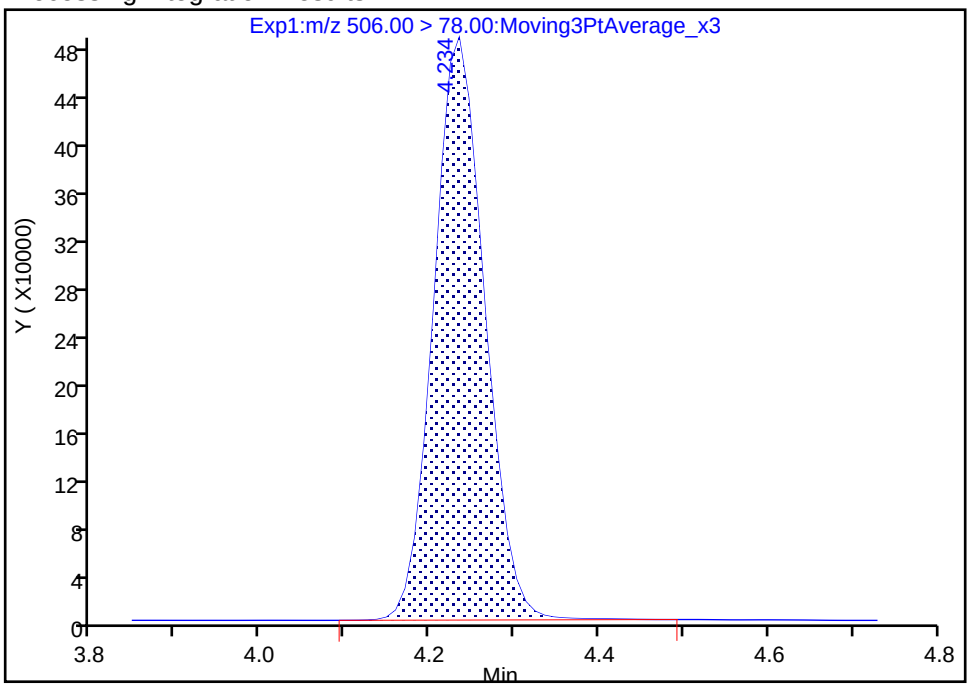
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

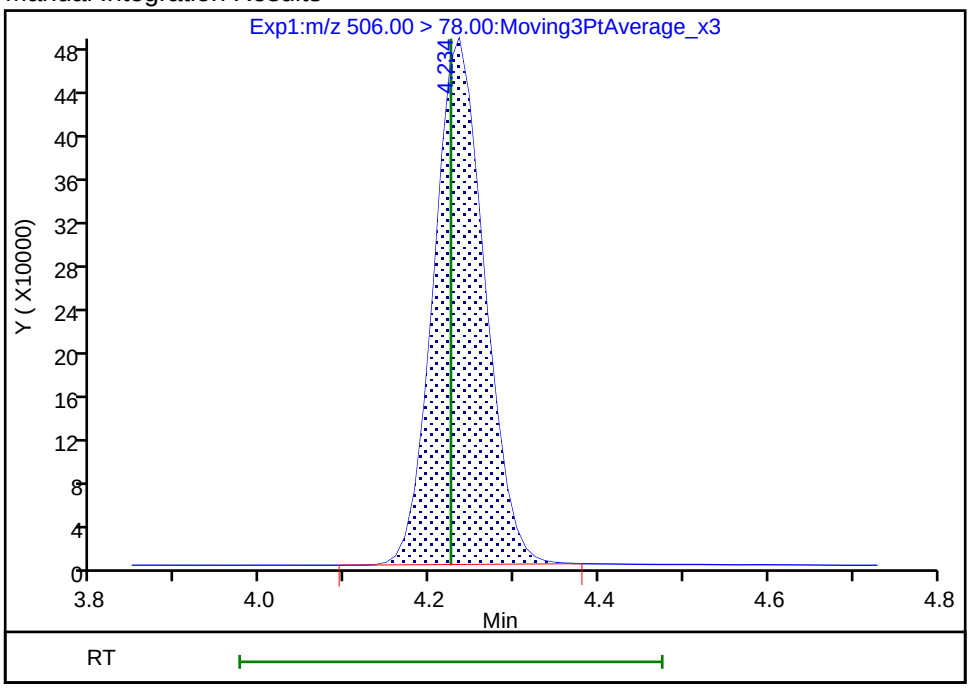
Processing Integration Results

RT: 4.23
Area: 2010154
Amount: 1.257149
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1999674
Amount: 1.250620
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

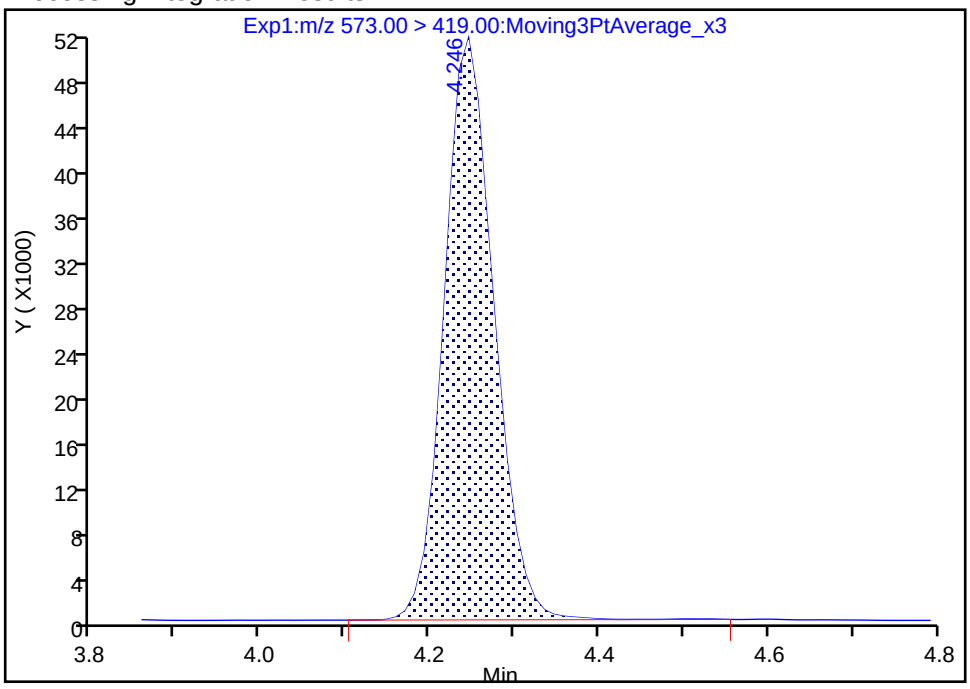
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

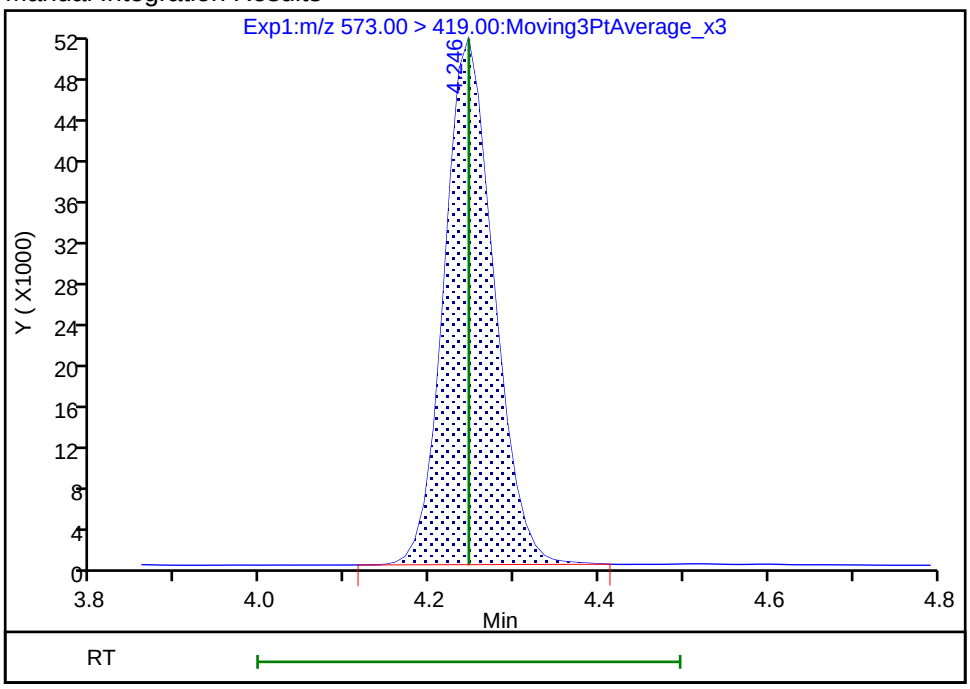
Processing Integration Results

RT: 4.25
Area: 208467
Amount: 1.278680
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 207879
Amount: 1.274874
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:57:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

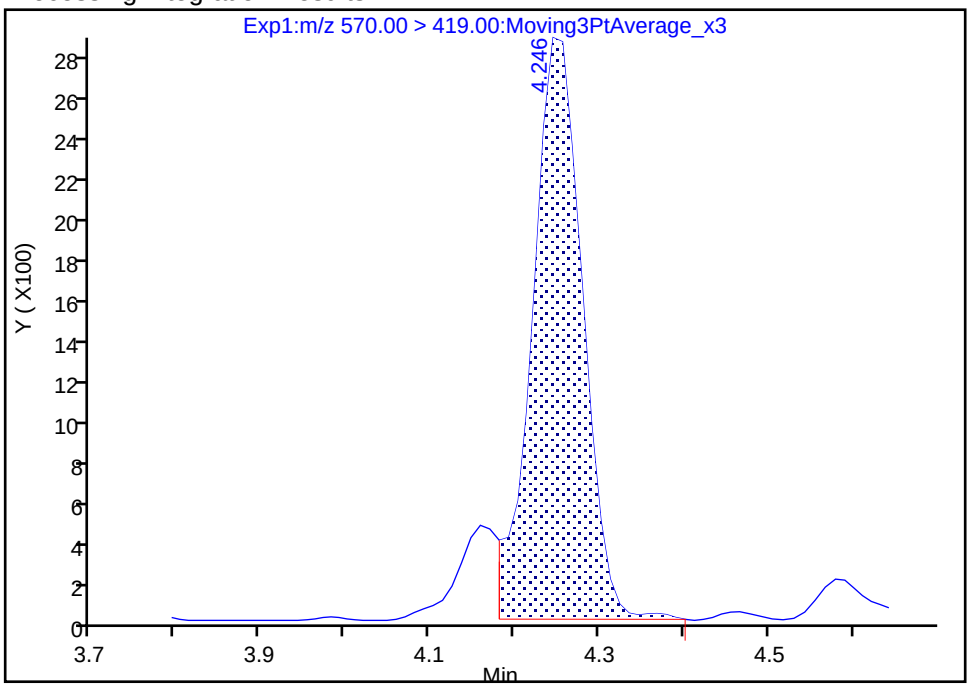
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

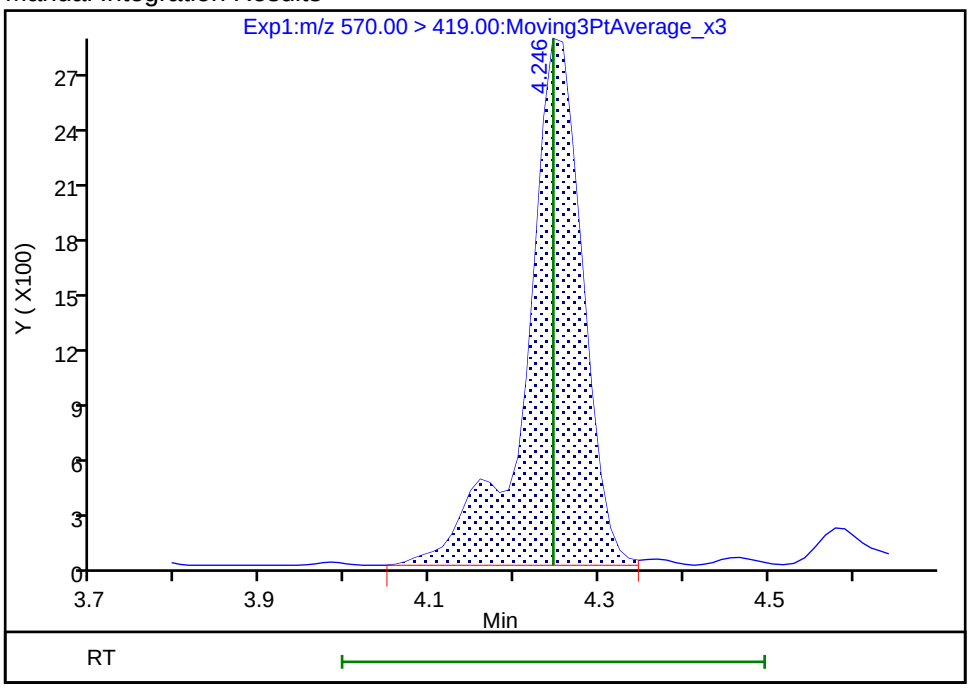
Processing Integration Results

RT: 4.25
Area: 11589
Amount: 0.090658
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 13075
Amount: 0.100079
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

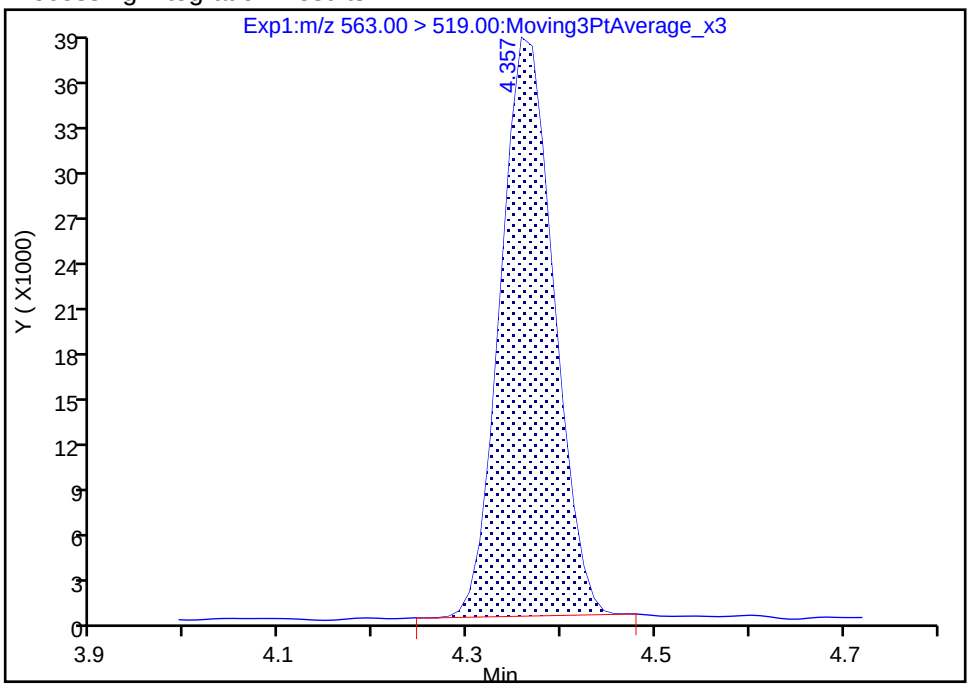
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

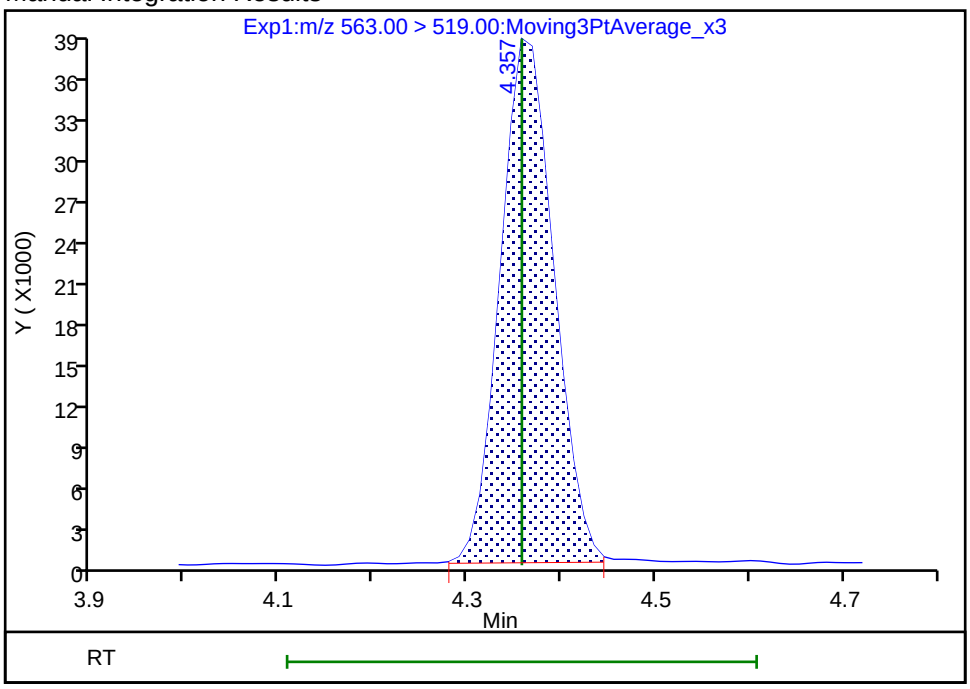
Processing Integration Results

RT: 4.36
Area: 151907
Amount: 0.104821
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 152692
Amount: 0.109717
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

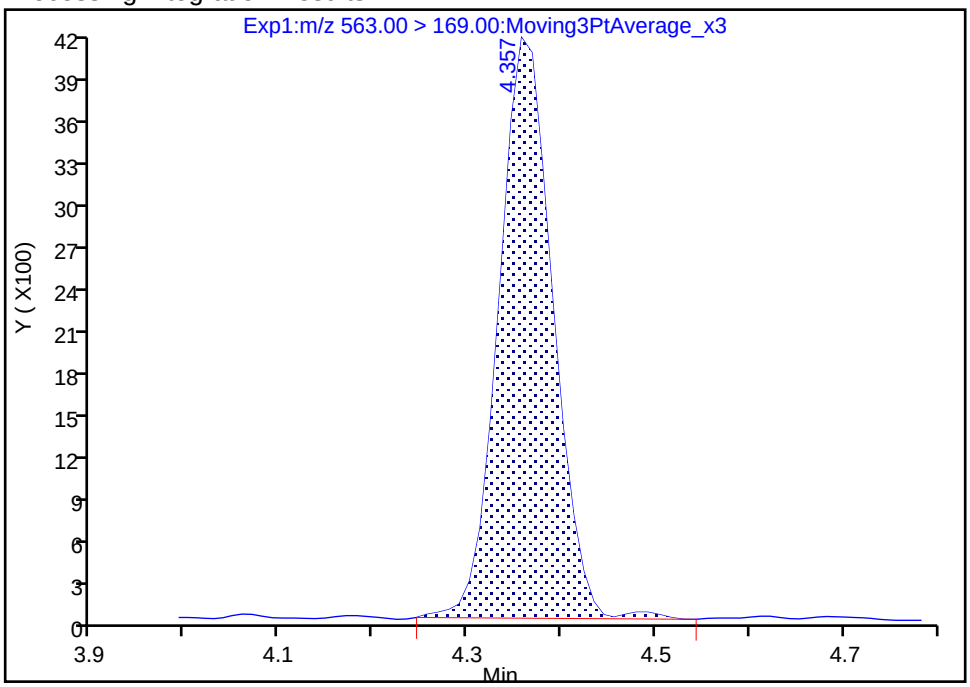
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

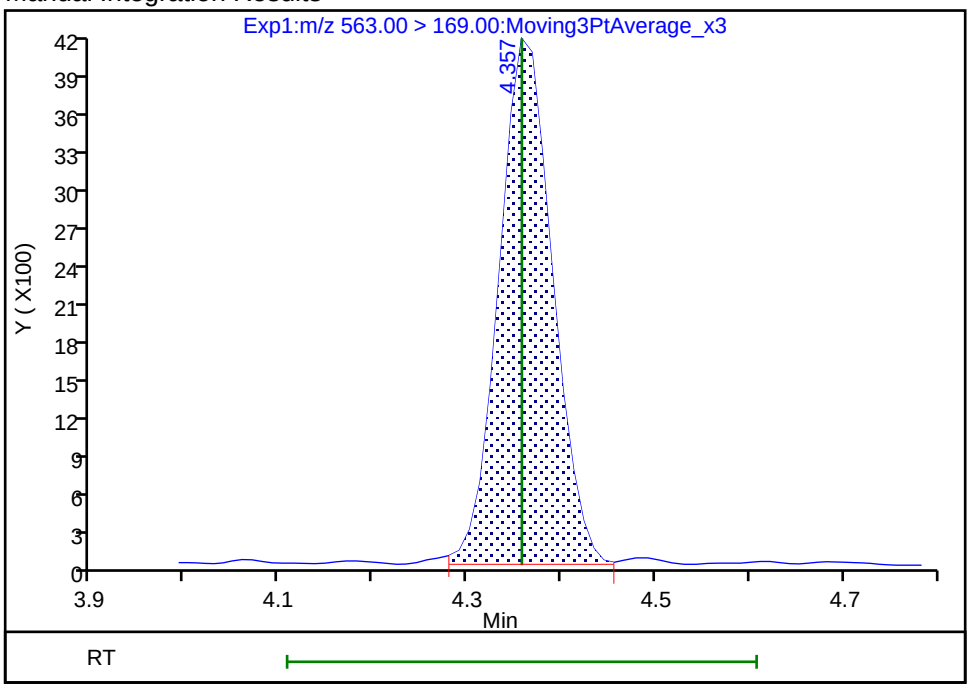
Processing Integration Results

RT: 4.36
Area: 16437
Amount: 0.104821
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 16331
Amount: 0.109717
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

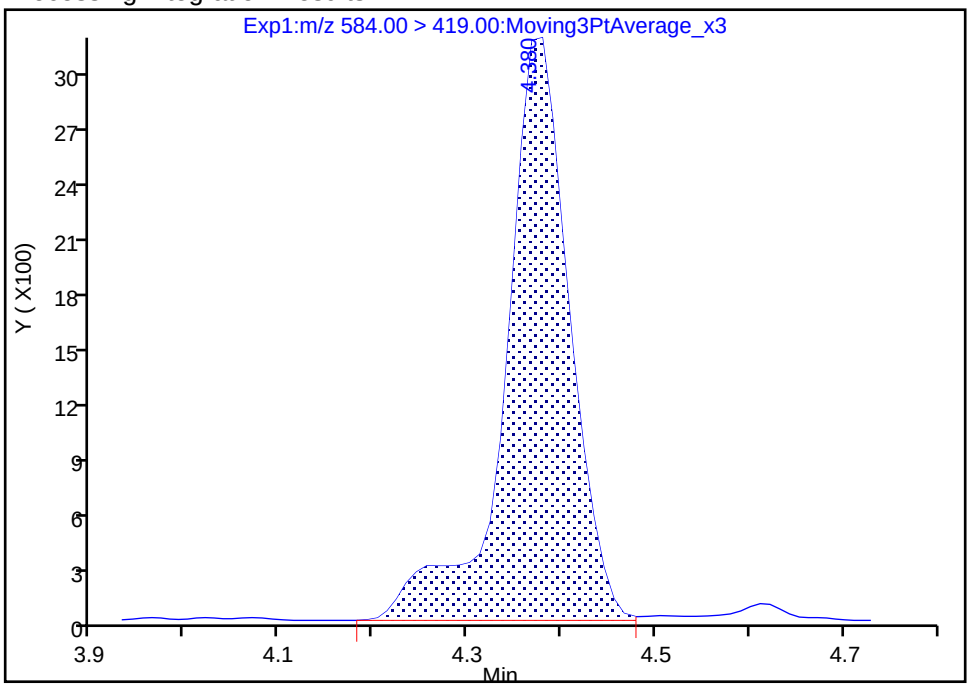
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

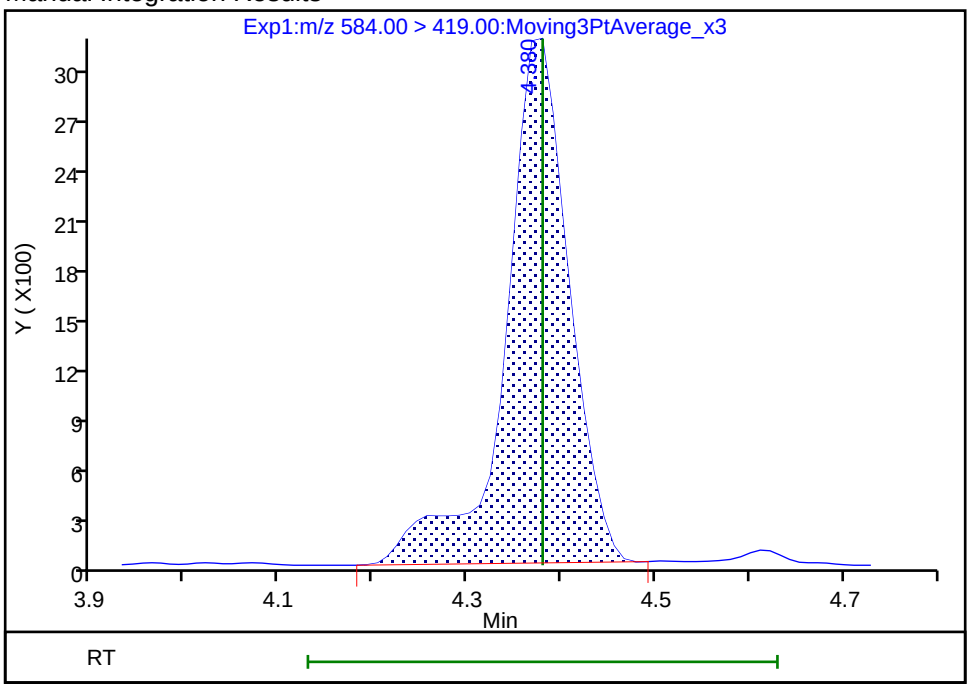
Processing Integration Results

RT: 4.38
Area: 15138
Amount: 0.107711
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 14950
Amount: 0.113129
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

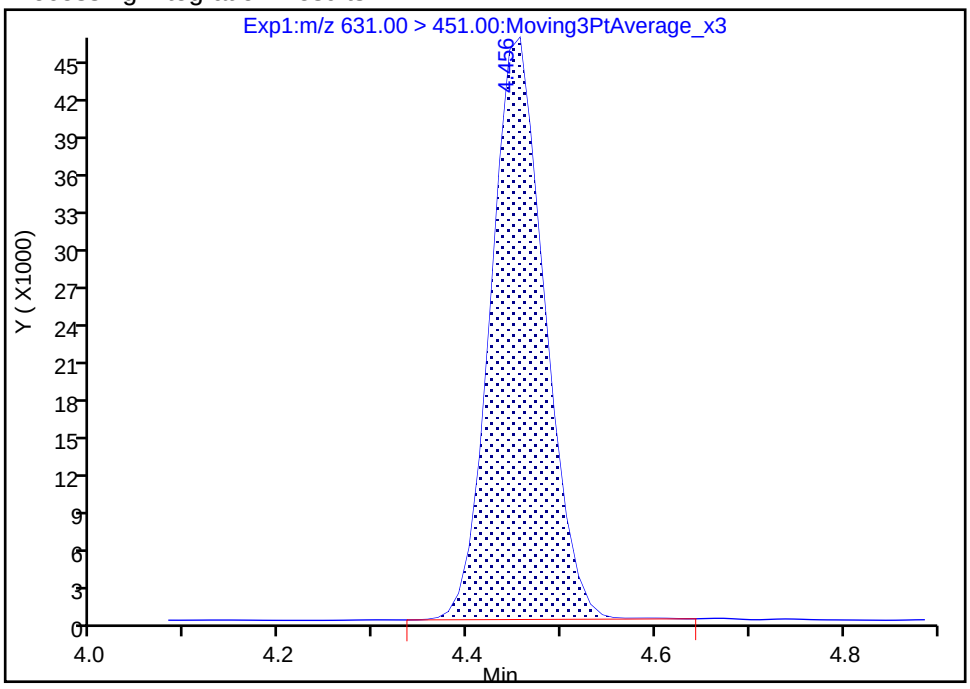
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

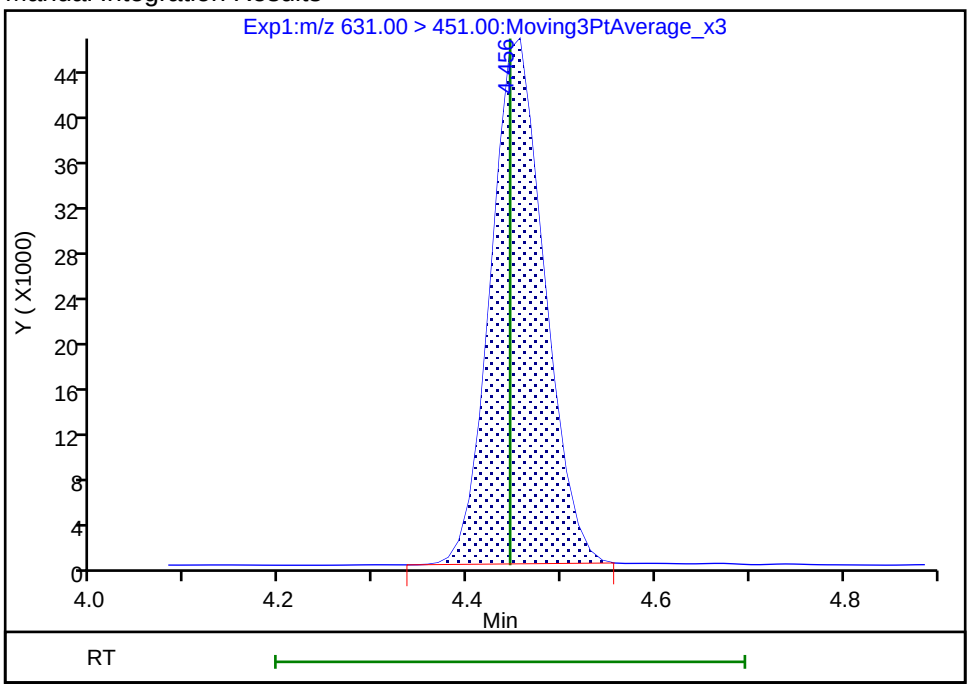
Processing Integration Results

RT: 4.46
Area: 185842
Amount: 0.094948
Amount Units: ng/ml




Manual Integration Results

RT: 4.46
Area: 184947
Amount: 0.096413
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:58:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

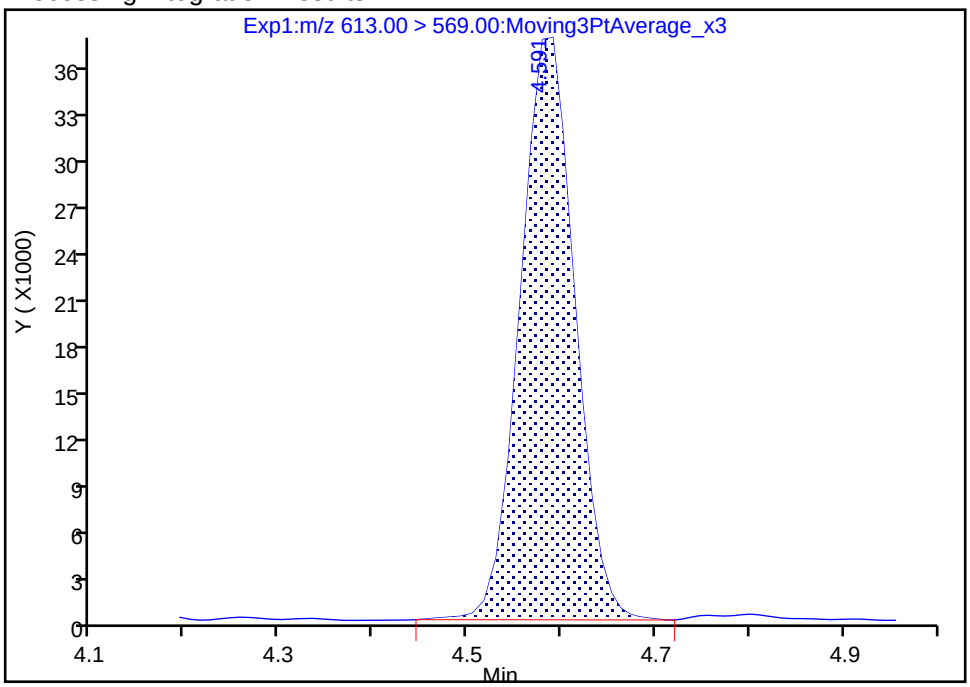
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

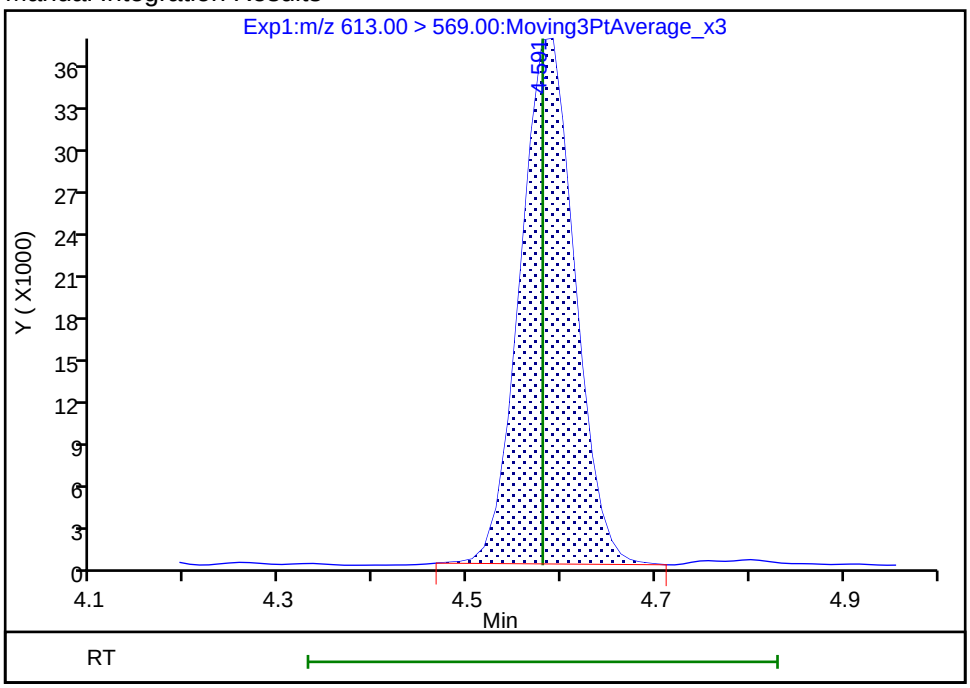
Processing Integration Results

RT: 4.59
Area: 149316
Amount: 0.104807
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 148447
Amount: 0.110055
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

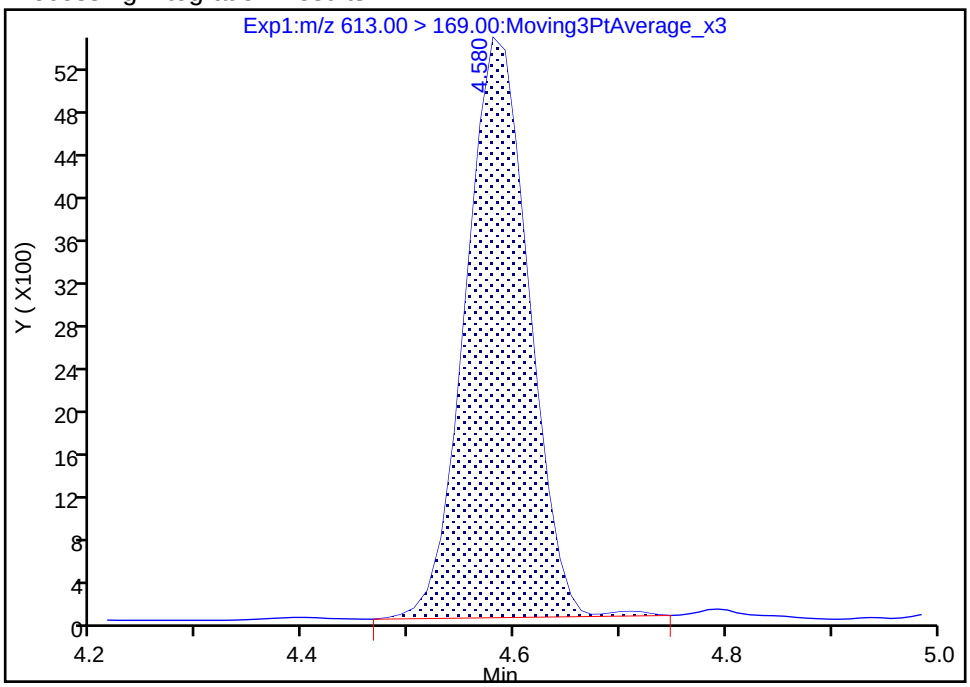
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d | | | | |
| Injection Date: | 27-Oct-2021 13:54:32 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

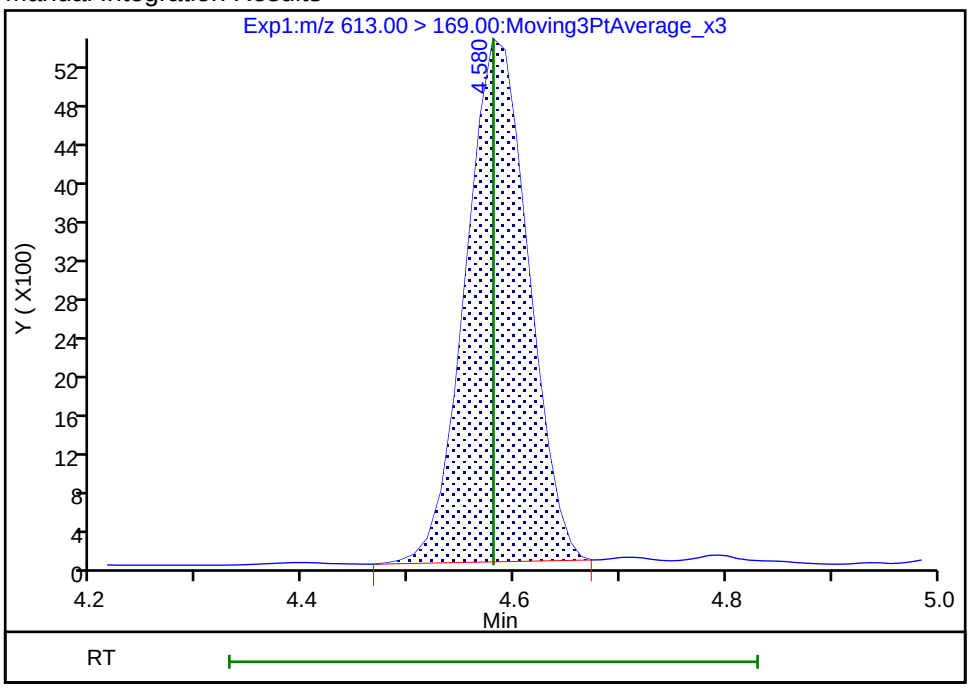
Processing Integration Results

RT: 4.58
Area: 22590
Amount: 0.104807
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 22363
Amount: 0.110055
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

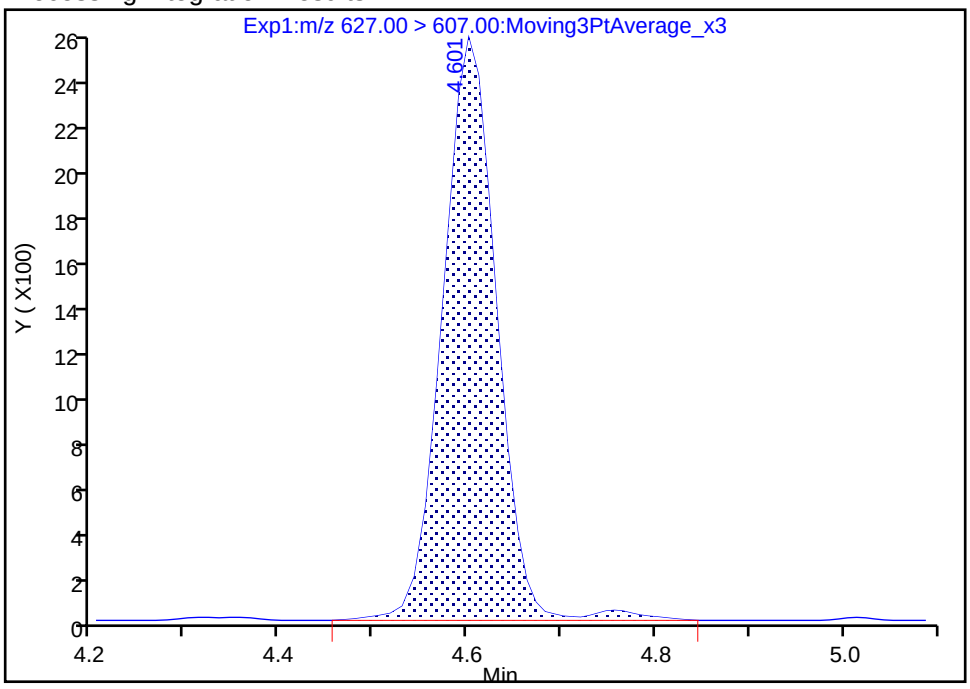
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

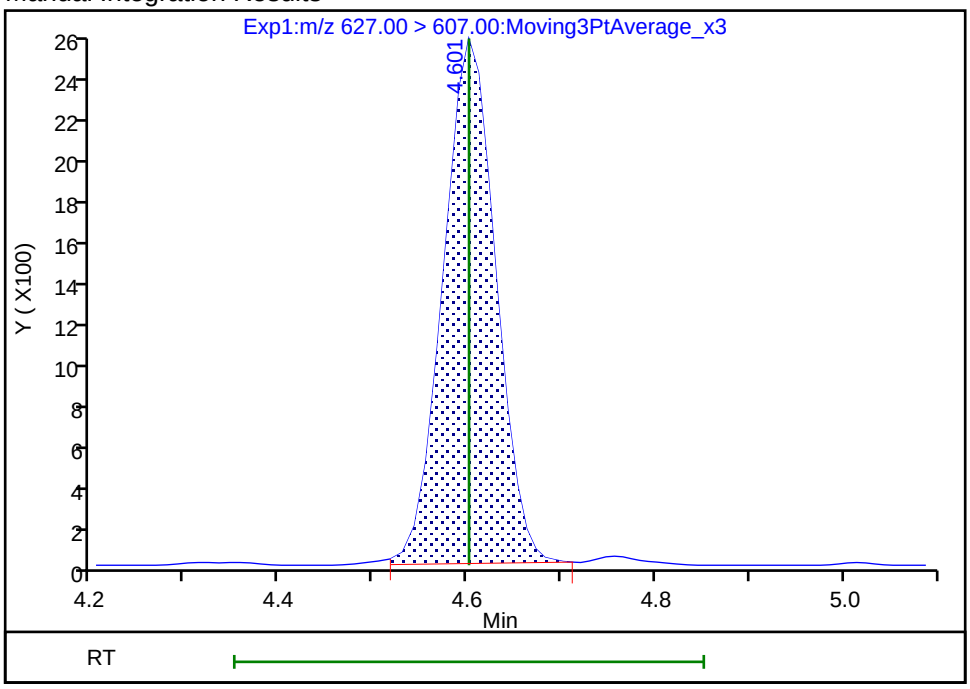
Processing Integration Results

RT: 4.60
Area: 10007
Amount: 0.103625
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 9695
Amount: 0.104060
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

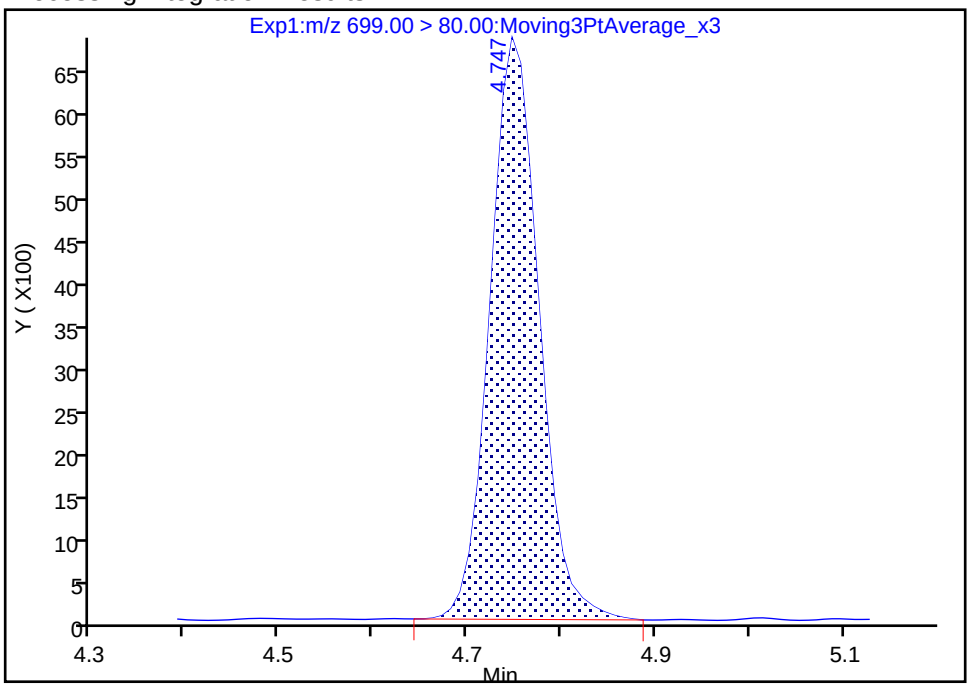
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

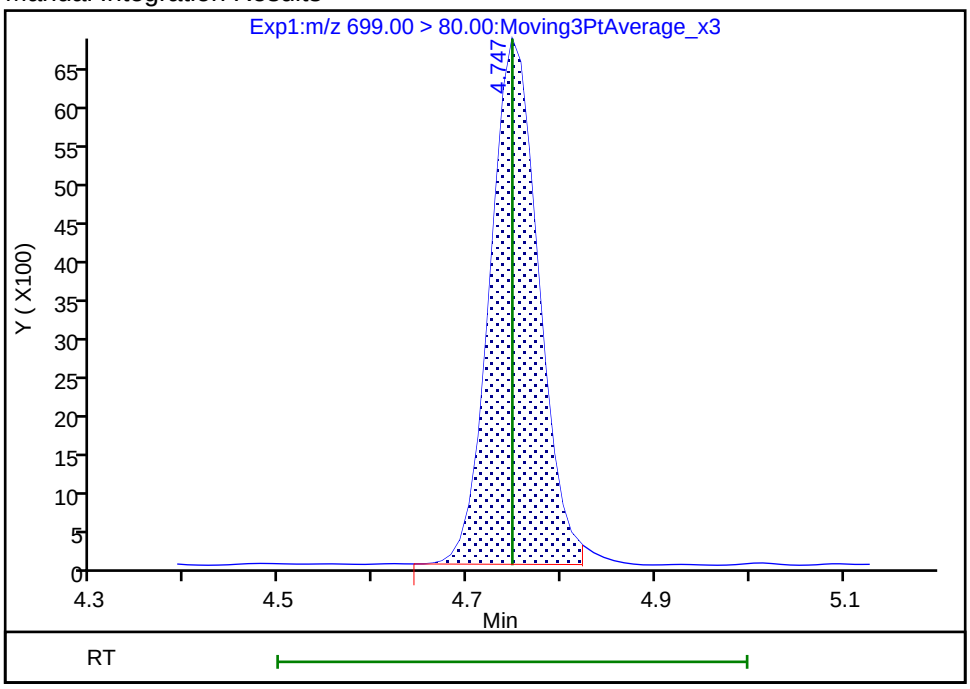
Processing Integration Results

RT: 4.75
Area: 24881
Amount: 0.100450
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 24558
Amount: 0.102252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

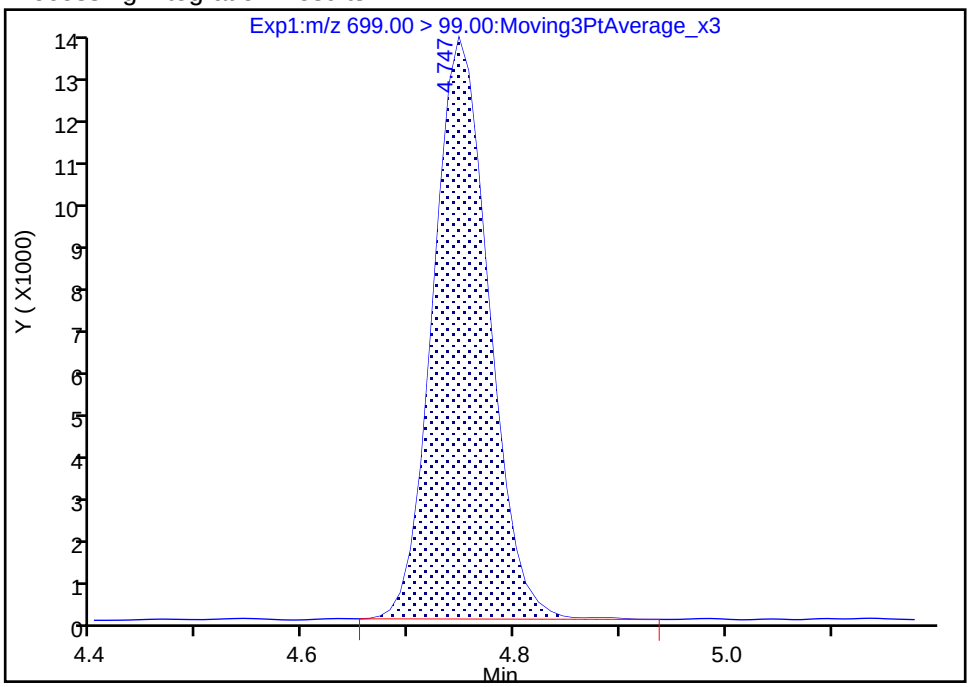
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL03.d
Injection Date: 27-Oct-2021 13:54:32 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

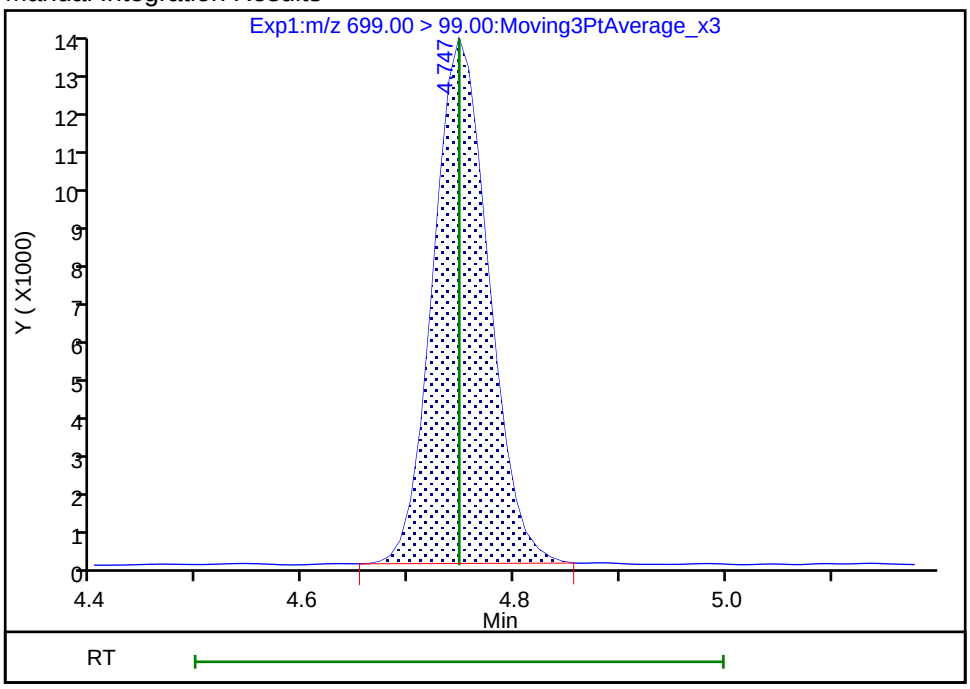
Processing Integration Results

RT: 4.75
Area: 49816
Amount: 0.100450
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 49542
Amount: 0.102252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 14:59:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Oct-2021 14:02:49 ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-004 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:15 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:05:22
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 1751374 | 1.25 | | 100.0 | 5944 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 688237 | 0.5195 | | 104 | 54.3 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.401 | 2.398 | 0.003 | 0.689 | 1485537 | 1.26 | | 101 | 2293 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.401 | 2.398 | 0.003 | 1.000 | 624348 | 0.5244 | | 105 | 33.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.414 | 2.424 | -0.010 | 0.693 | 1819218 | 1.14 | | 97.9 | 175499 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.427 | 2.424 | 0.003 | 1.005 | 799747 | 0.4785 | Target=2.29 | 108 | 763 | |
| 298.90 > 99.00 | 2.427 | 2.424 | 0.003 | 1.005 | 367001 | | 2.18(1.15-3.44) | 108 | 130 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.723 | 2.720 | 0.003 | 0.781 | 143541 | 1.18 | | 101 | 112 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.723 | 2.720 | 0.003 | 1.000 | 128177 | 0.4898 | | 105 | 1369 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.759 | 2.756 | 0.003 | 1.000 | 624268 | 0.4983 | Target=12.01 | 99.7 | 83.1 | M |
| 313.00 > 119.00 | 2.759 | 2.756 | 0.003 | 1.000 | 51849 | | 12.04(6.00-18.01) | 99.7 | 61.6 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.756 | 0.003 | 0.792 | 1544242 | 1.25 | | 99.7 | 3313 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.771 | 2.768 | 0.003 | 0.884 | 661381 | 0.4783 | Target=3.04 | 102 | 915 | |
| 349.00 > 99.00 | 2.771 | 2.768 | 0.003 | 0.884 | 216551 | | 3.05(1.52-4.56) | 102 | 209 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.868 | 2.865 | 0.003 | 0.823 | 39462 | 1.21 | | 96.7 | 391 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.868 | 2.865 | 0.003 | 1.000 | 69564 | 0.4870 | | 97.4 | 18.8 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.122 | 0.011 | 0.899 | 1357826 | 1.17 | | 98.9 | 3336 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.122 | 0.011 | 1.000 | 580723 | 0.4600 | Target=3.51 | 101 | 768 | M |
| 399.00 > 99.00 | 3.122 | 3.122 | 0.0 | 0.997 | 166326 | | 3.49(1.76-5.27) | 101 | 145 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.133 | 3.132 | 0.001 | 1.000 | 702653 | 0.5279 | Target=3.83 | 106 | 188 | |
| 363.00 > 169.00 | 3.133 | 3.132 | 0.001 | 1.000 | 179392 | | 3.92(1.91-5.74) | 106 | 267 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.133 | 3.132 | 0.001 | 0.899 | 1610239 | 1.23 | | 98.8 | 3556 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.834 | 1431405 | 0.5075 | Target=2.58 | 108 | 1549 | M |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.834 | 547095 | | 2.62(1.29-3.88) | 108 | 536 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.475 | 3.474 | 0.001 | 0.915 | 509888 | 0.5076 | Target=5.12 | 107 | 1522 | M |
| 449.00 > 99.00 | 3.475 | 3.474 | 0.001 | 0.915 | 100429 | | 5.08(2.56-7.67) | 107 | 212 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.475 | 3.474 | 0.001 | 0.997 | 220518 | 1.20 | | 101 | 453 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.475 | 3.474 | 0.001 | 1.000 | 119105 | 0.5058 | | 107 | 690 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.484 | 3.483 | 0.001 | 1.000 | 1734402 | 1.22 | | 97.4 | 4648 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.484 | 3.483 | 0.001 | | 1730934 | 1.25 | | | 2477 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.484 | 3.483 | 0.001 | 1.000 | 770517 | 0.5222 | Target=2.65 | 104 | 123 | |
| 413.00 > 169.00 | 3.484 | 3.483 | 0.001 | 1.000 | 292988 | | 2.63(1.32-3.97) | 104 | 410 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.796 | 3.794 | 0.002 | 1.090 | 962917 | 1.15 | | 96.1 | 3770 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.796 | 3.794 | 0.002 | 1.000 | 432797 | 0.4950 | Target=4.60 | 107 | 565 | M |
| 499.00 > 99.00 | 3.796 | 3.794 | 0.002 | 1.000 | 84548 | | 5.12(2.30-6.90) | 107 | 195 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.816 | 3.814 | 0.002 | 1.095 | 1742047 | 1.23 | | 98.2 | 2890 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.816 | 3.814 | 0.002 | 1.000 | 696392 | 0.5108 | Target=7.58 | 102 | 135 | |
| 463.00 > 169.00 | 3.816 | 3.814 | 0.002 | 1.000 | 90994 | | 7.65(3.79-11.37) | 102 | 411 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.957 | 3.955 | 0.002 | 1.043 | 635074 | 0.4821 | | 103 | 1940 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.084 | 4.071 | 0.013 | 1.076 | 333722 | 0.4900 | Target=2.38 | 102 | 1333 | M |
| 549.00 > 99.00 | 4.084 | 4.071 | 0.013 | 1.076 | 138967 | | 2.40(1.19-3.56) | 102 | 330 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.106 | 4.104 | 0.002 | 1.179 | 1732010 | 1.21 | | 96.7 | 2939 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.106 | 4.104 | 0.002 | 1.000 | 710000 | 0.5099 | Target=9.30 | 102 | 379 | M |
| 513.00 > 169.00 | 4.106 | 4.104 | 0.002 | 1.000 | 73895 | | 9.61(4.65-13.95) | 102 | 310 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.118 | 4.115 | 0.003 | 1.182 | 236138 | 1.14 | | 95.0 | 740 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.118 | 4.115 | 0.003 | 1.000 | 87150 | 0.5283 | | 110 | 1098 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.237 | 4.225 | 0.012 | 1.216 | 1730994 | 1.25 | | 100 | 2008 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.237 | 4.235 | 0.002 | 1.000 | 685105 | 0.5209 | | 104 | 1757 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.248 | 4.246 | 0.002 | 1.219 | 177391 | 1.26 | | 101 | 504 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.248 | 4.246 | 0.002 | 1.000 | 54995 | 0.4933 | | 98.7 | 223 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.339 | 4.336 | 0.003 | 1.143 | 273773 | 0.5170 | Target=2.54 | 107 | 1664 | |
| 599.00 > 99.00 | 4.339 | 4.336 | 0.003 | 1.143 | 103908 | | 2.63(1.27-3.81) | 107 | 545 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.361 | 4.358 | 0.003 | 1.252 | 1326229 | 1.19 | | 95.0 | 5285 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.361 | 4.358 | 0.003 | 1.000 | 612929 | 0.5419 | Target=9.37 | 108 | 427 | |
| 563.00 > 169.00 | 4.361 | 4.358 | 0.003 | 1.000 | 66139 | | 9.27(4.69-14.06) | 108 | 634 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.372 | 4.369 | 0.003 | 1.255 | 162762 | 1.23 | | 98.7 | 670 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.384 | 4.380 | 0.004 | 1.003 | 55468 | 0.4971 | | 99.4 | 395 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.449 | 4.445 | 0.004 | 1.172 | 777266 | 0.4997 | | 106 | 3044 | |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.585 | 4.580 | 0.005 | 1.316 | 1443504 | 1.20 | | 96.2 | 694 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.585 | 4.580 | 0.005 | 1.000 | 594650 | 0.5260 | Target=6.84 | 105 | 114 | M |
| 613.00 > 169.00 | 4.585 | 4.580 | 0.005 | 1.000 | 85701 | | 6.94(3.42-10.25) | 105 | 683 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.605 | 4.601 | 0.004 | 1.118 | 39257 | 0.5151 | | 107 | 599 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.752 | 4.748 | 0.004 | 1.252 | 97215 | 0.4991 | Target=0.51 | 103 | 1585 | |
| 699.00 > 99.00 | 4.752 | 4.748 | 0.004 | 1.252 | 193705 | | 0.50(0.25-0.76) | 103 | 1751 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.779 | 4.775 | 0.004 | 1.042 | 497082 | 0.5099 | Target=4.67 | 102 | 121 | M |
| 663.00 > 169.00 | 4.779 | 4.775 | 0.004 | 1.042 | 108142 | | 4.60(2.33-7.00) | 102 | 994 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.959 | 4.957 | 0.003 | 1.424 | 1151594 | 1.24 | | 98.9 | 1818 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.959 | 4.957 | 0.003 | 1.000 | 73965 | 0.5087 | Target=0.99 | 102 | 810 | |
| 713.00 > 219.00 | 4.950 | 4.957 | -0.006 | 0.998 | 75099 | | 0.98(0.49-1.48) | 102 | 1249 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.260 | 5.258 | 0.002 | 1.510 | 1005731 | 1.23 | | 98.1 | 2741 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.260 | 5.258 | 0.002 | 1.000 | 359982 | 0.5057 | Target=4.50 | 101 | 98.5 | |
| 813.00 > 169.00 | 5.260 | 5.258 | 0.002 | 1.000 | 83736 | | 4.30(2.25-6.75) | 101 | 856 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.512 | 5.519 | -0.007 | 1.048 | 355258 | 0.5236 | Target=4.46 | 105 | 182 | |
| 913.00 > 169.00 | 5.512 | 5.519 | -0.007 | 1.048 | 77457 | | 4.59(2.23-6.68) | 105 | 870 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC3_00011 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d

Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812

Lims ID: IC

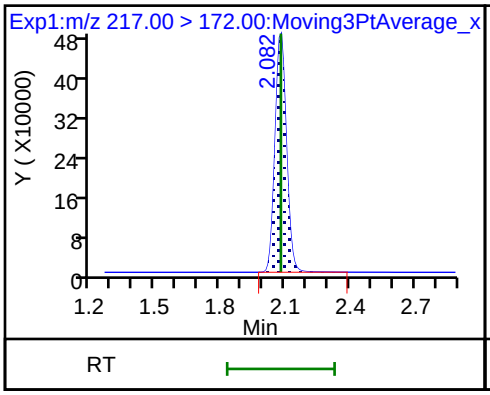
Client ID:

Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4

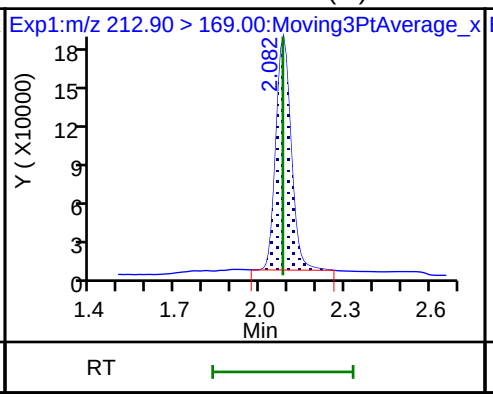
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

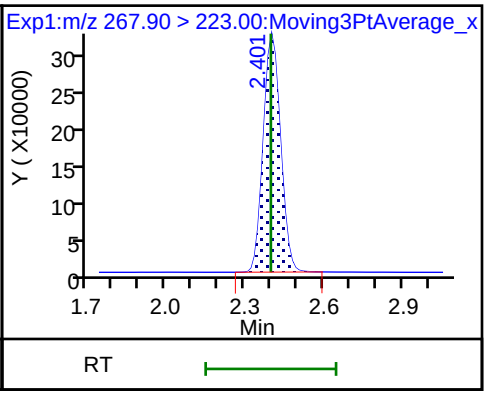
D 1 13C4 PFBA



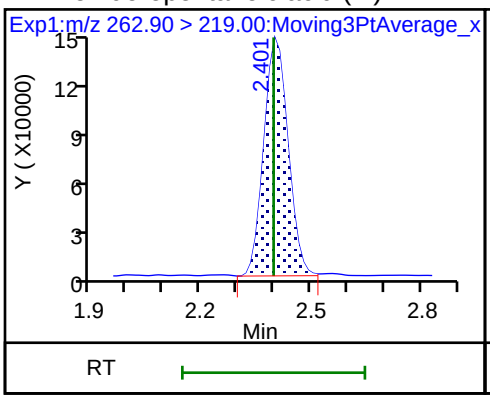

2 Perfluorobutanoic acid (M)



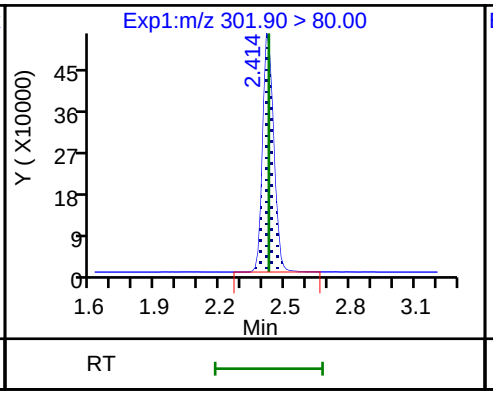

D 3 13C5 PFPeA



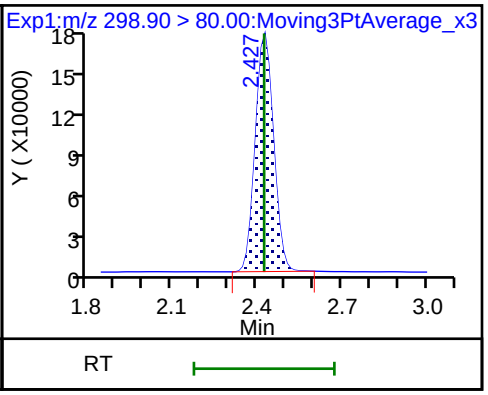

4 Perfluoropentanoic acid (M)



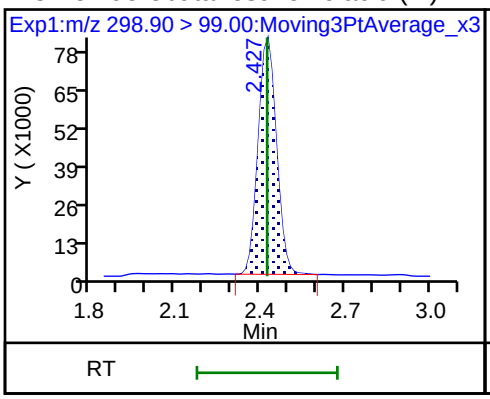

D 47 13C3 PFBS



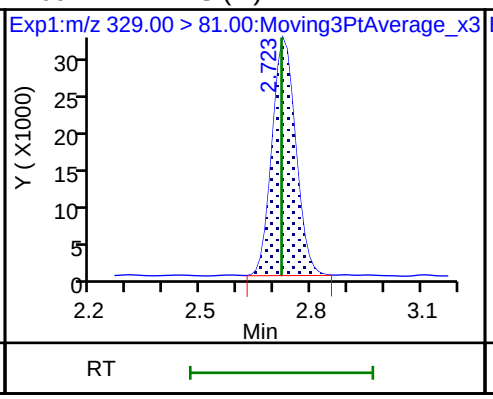

5 Perfluorobutanesulfonic acid



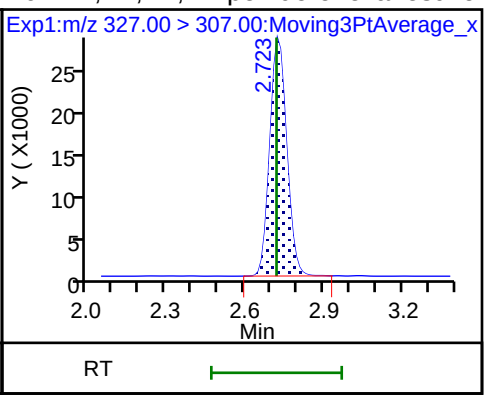

5 Perfluorobutanesulfonic acid (M)



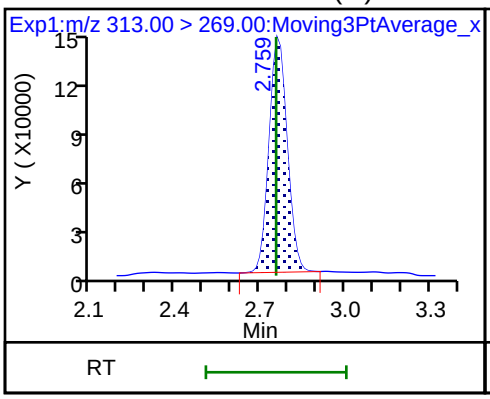

D 60 M2-4:2 FTS (M)



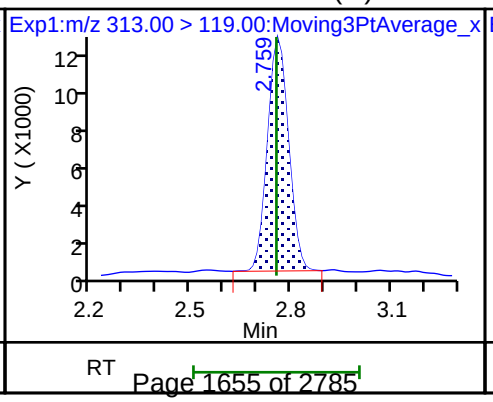

61 1H,1H,2H,2H-perfluorohexanesulfo



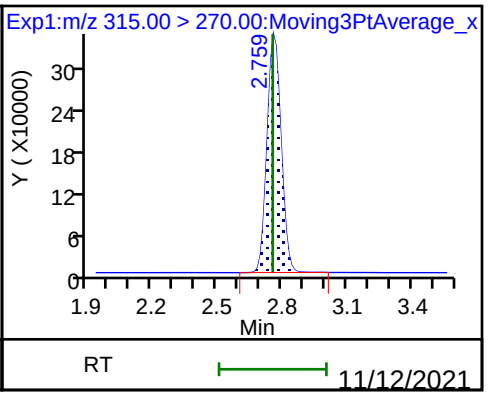

6 Perfluorohexanoic acid (M)



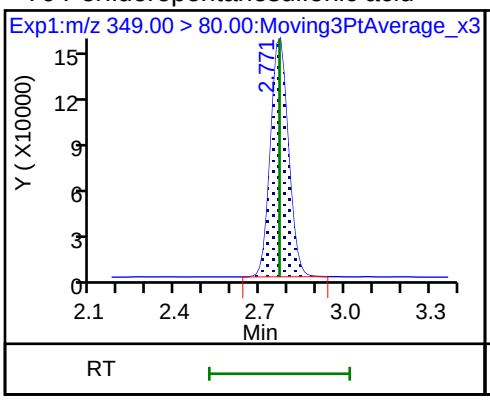

6 Perfluorohexanoic acid (M)



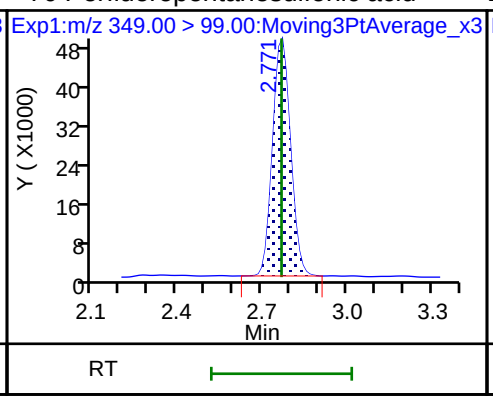

D 7 13C2 PFHxA



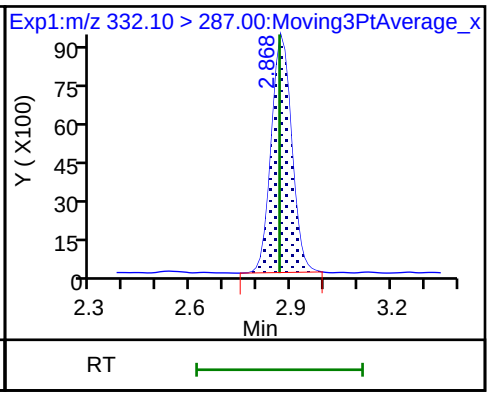
70 Perfluoropentanesulfonic acid



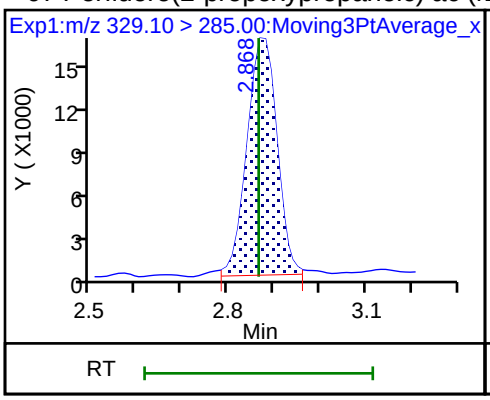

70 Perfluoropentanesulfonic acid



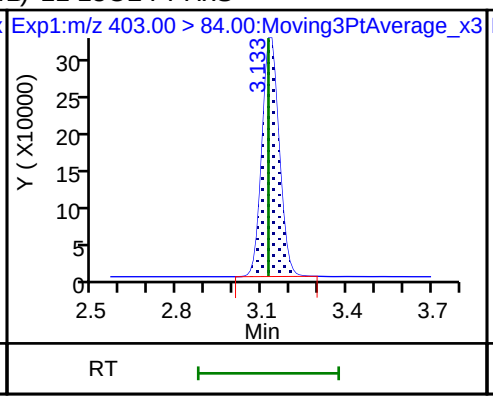

D 64 13C3 HFPO-DA



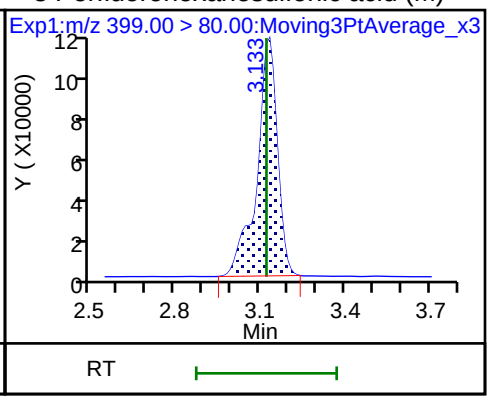

67 Perfluoro(2-propoxypropanoic) ac (M)



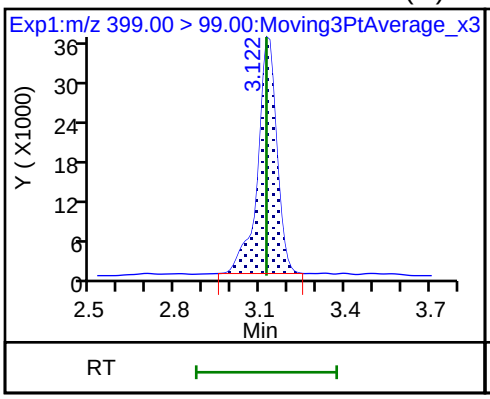

D 11 18O2 PFHxS



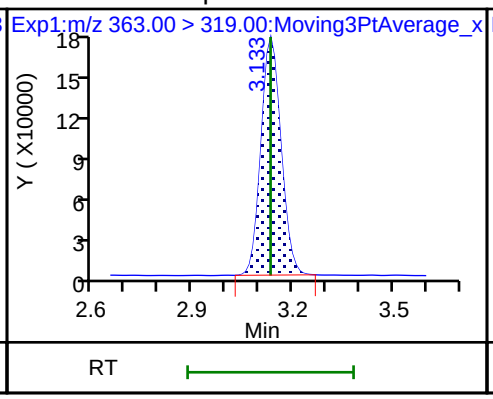

8 Perfluorohexanesulfonic acid (M)



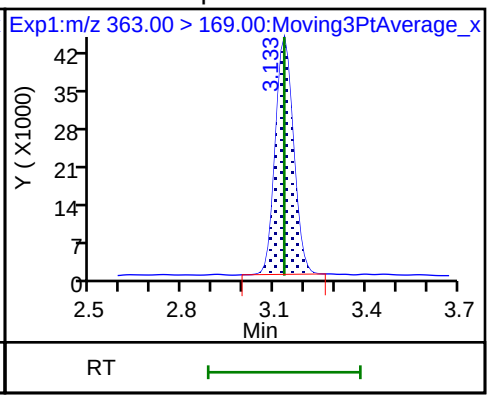

8 Perfluorohexanesulfonic acid (M)



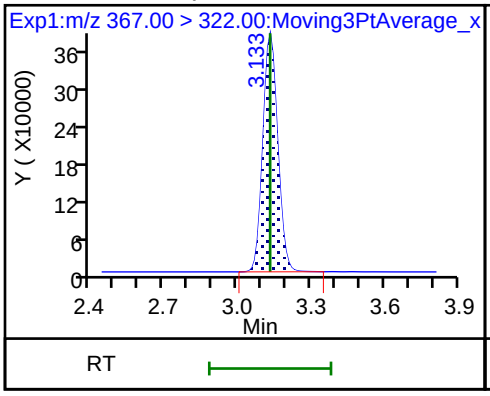

10 Perfluoroheptanoic acid



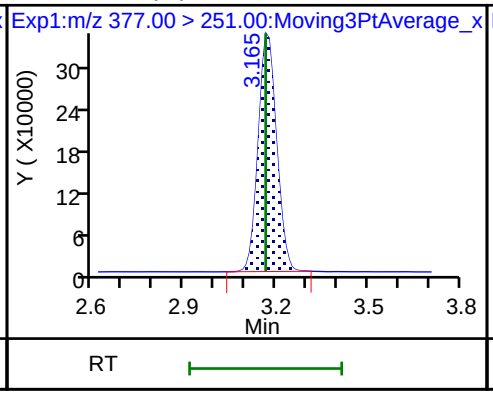

10 Perfluoroheptanoic acid



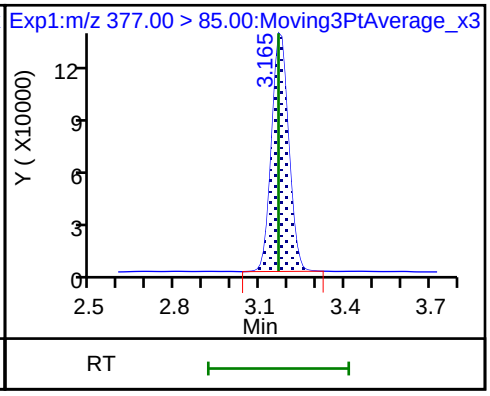

D 9 13C4 PFHpA



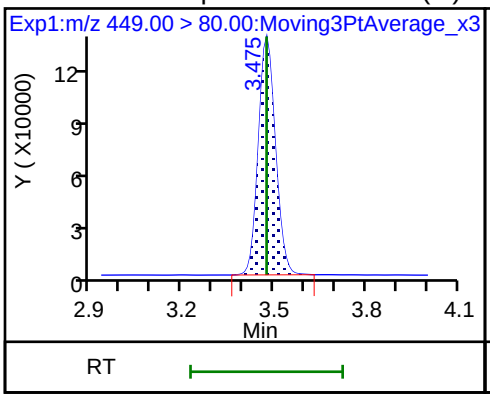

77 DONA (M)



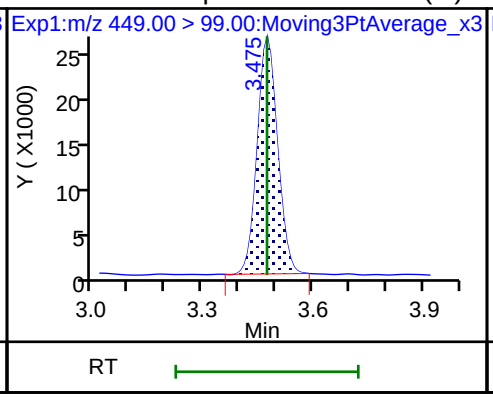

77 DONA



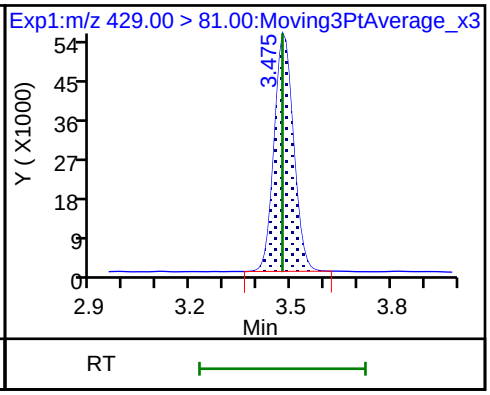
16 Perfluoroheptanesulfonic acid (M)



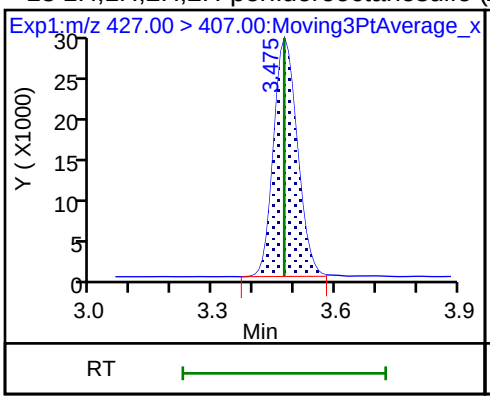

16 Perfluoroheptanesulfonic acid (M)



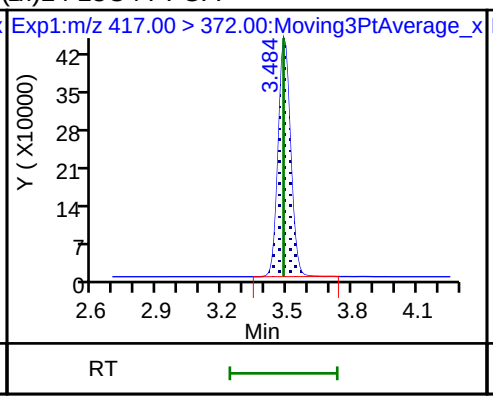

D 12 M2-6:2 FTS



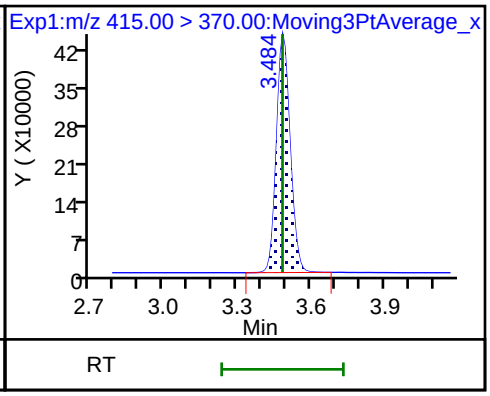

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



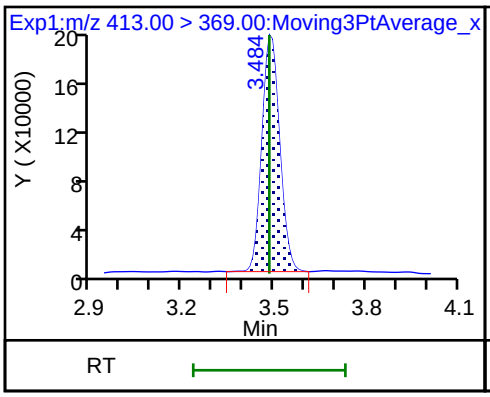

D 14 13C4 PFOA



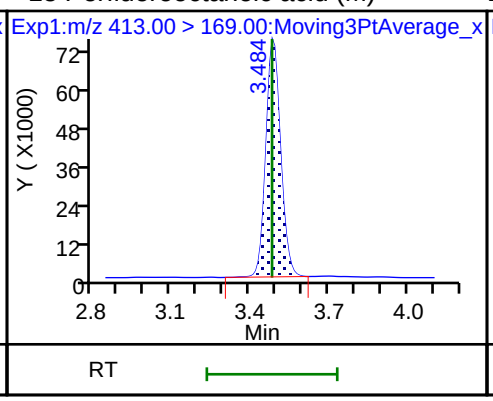

* 62 13C2 PFOA



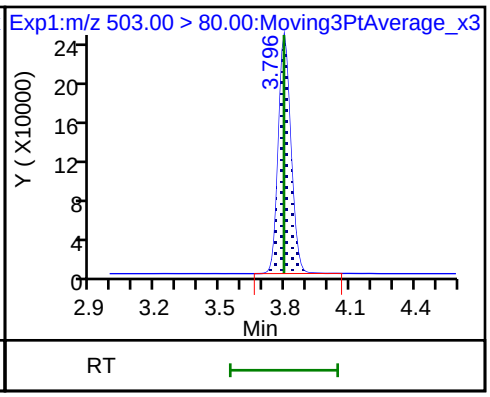

15 Perfluorooctanoic acid



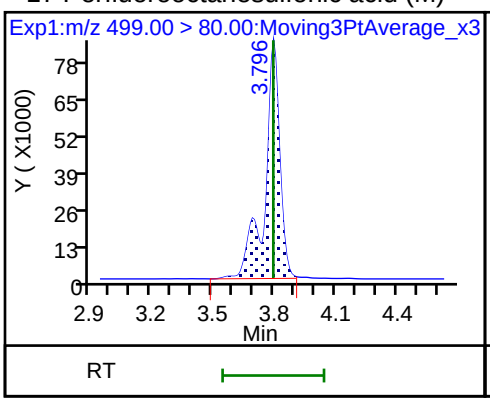

15 Perfluorooctanoic acid (M)



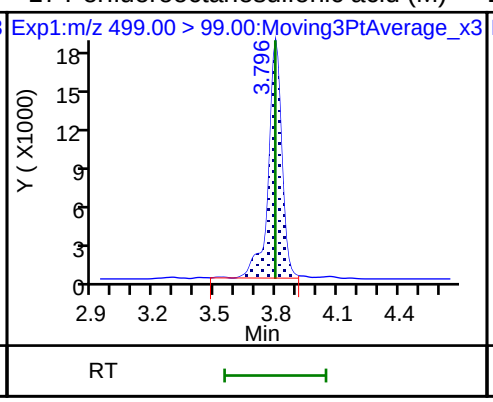

D 18 13C4 PFOS



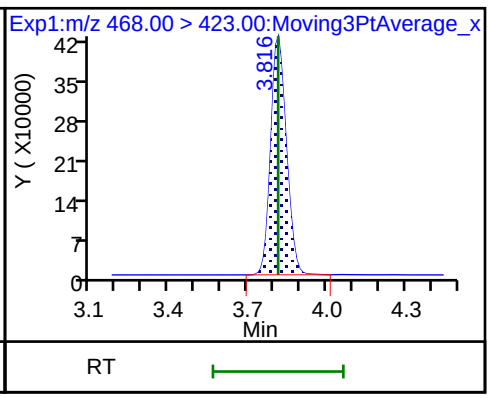

17 Perfluorooctanesulfonic acid (M)



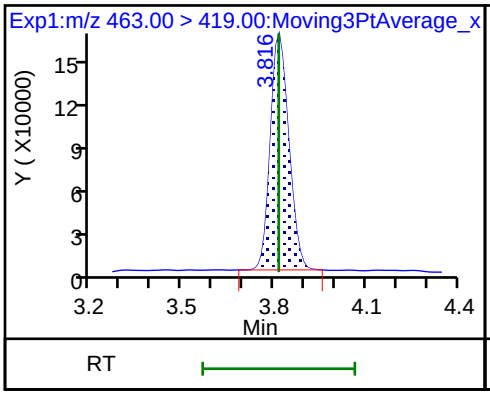

17 Perfluorooctanesulfonic acid (M)



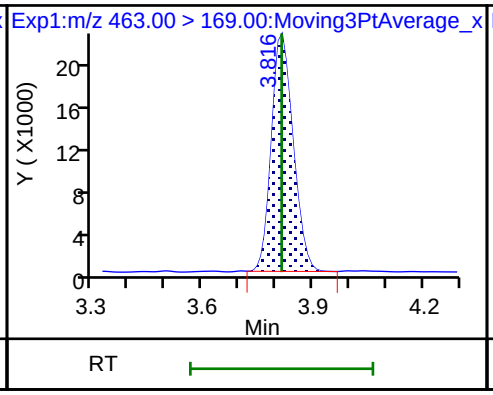

D 19 13C5 PFNA



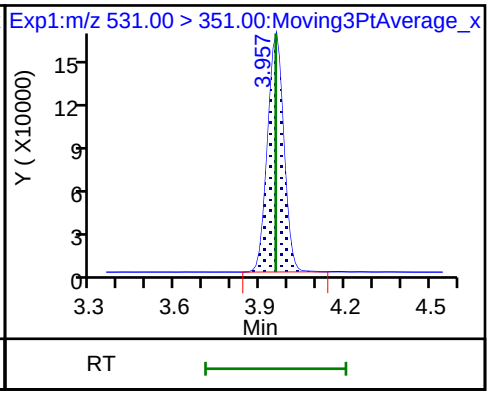
20 Perfluorononanoic acid



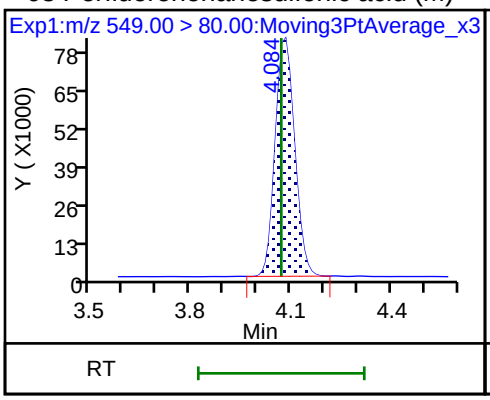

20 Perfluorononanoic acid



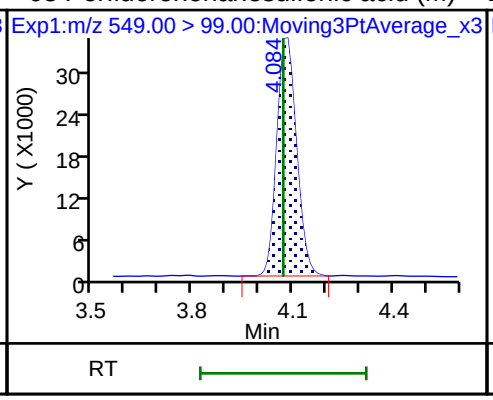

69 9-Chlorohexadecafluoro-3-oxanona



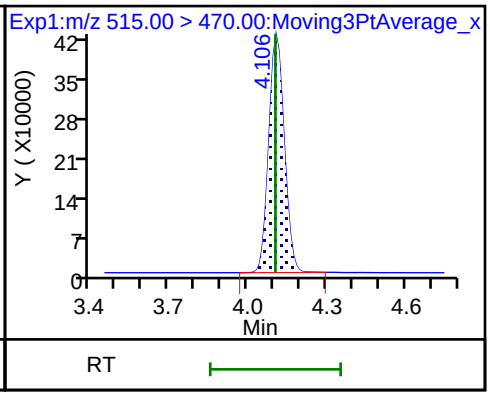

68 Perfluorononanesulfonic acid (M)



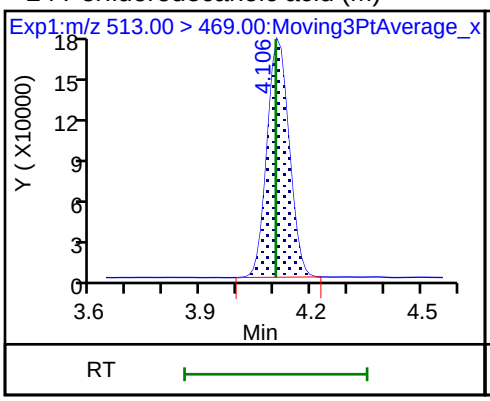

68 Perfluorononanesulfonic acid (M)



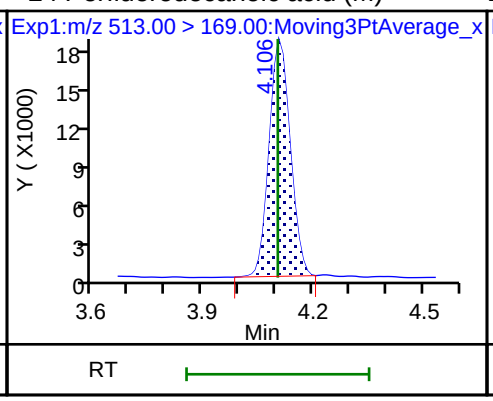

D 23 13C2 PFDA



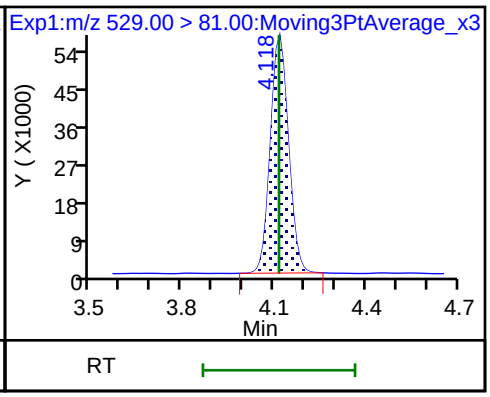

24 Perfluorodecanoic acid (M)



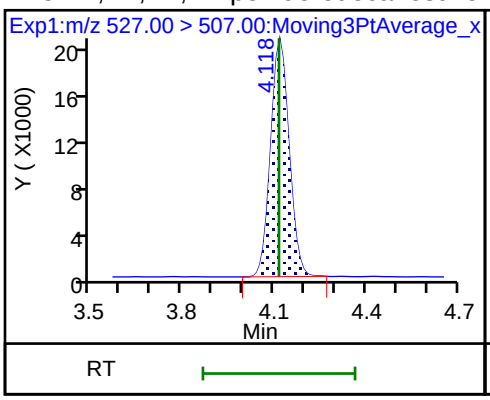

24 Perfluorodecanoic acid (M)



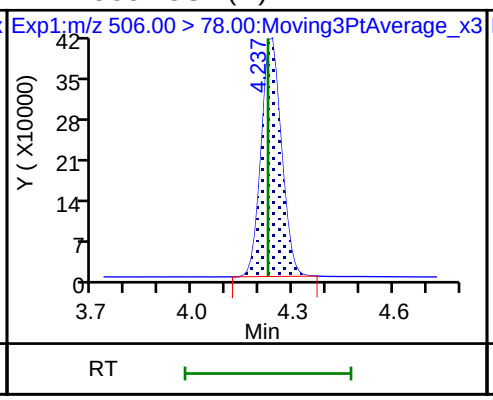

D 26 M2-8:2 FTS



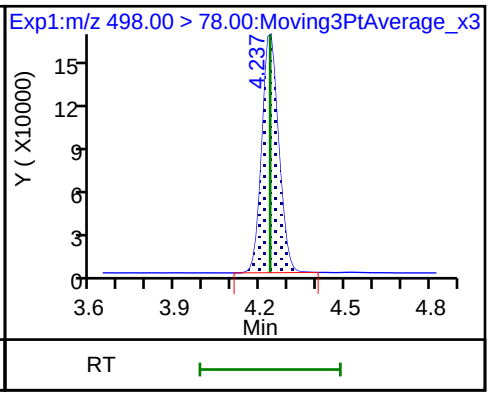

25 1H,1H,2H,2H-perfluorodecanesulfo



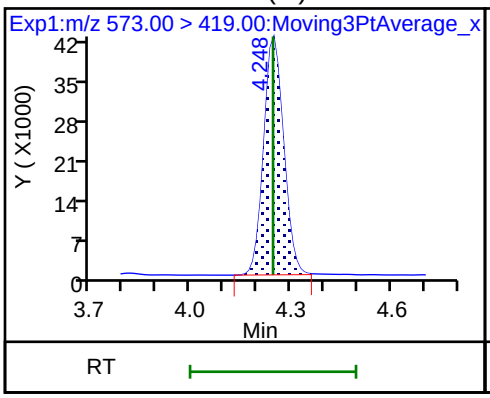

D 21 13C8 FOSA (M)



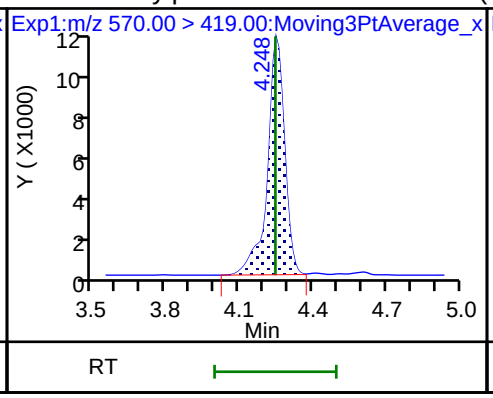

22 Perfluorooctanesulfonamide



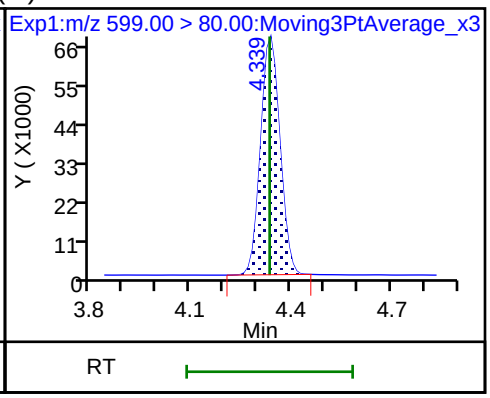
D 27 d3-NMeFOSAA (M)



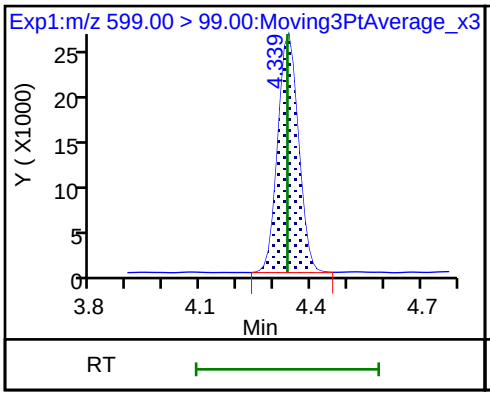

28 N-methylperfluorooctanesulfonami (M)



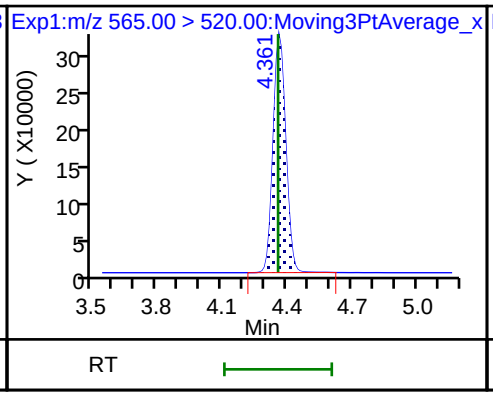

29 Perfluorodecanesulfonic acid



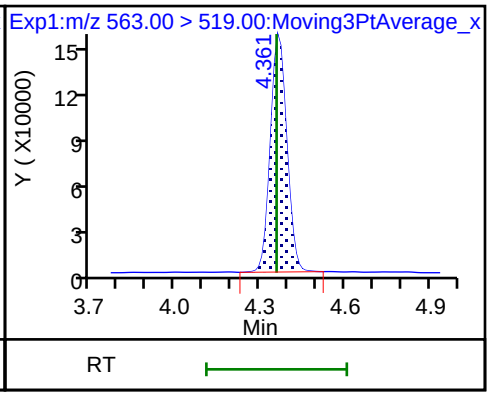

29 Perfluorodecanesulfonic acid



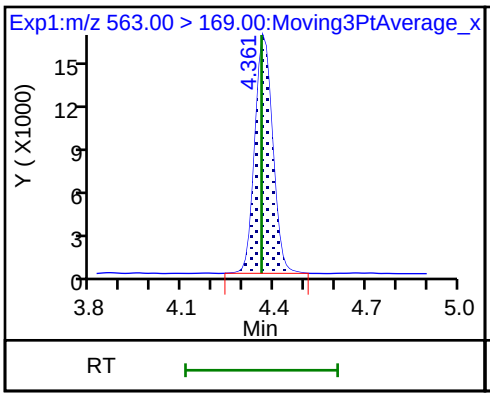

D 30 13C2 PFUnA



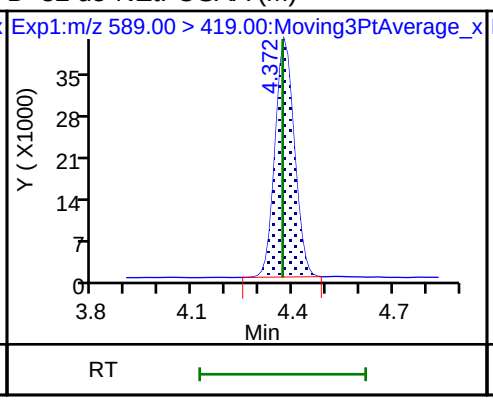

31 Perfluoroundecanoic acid



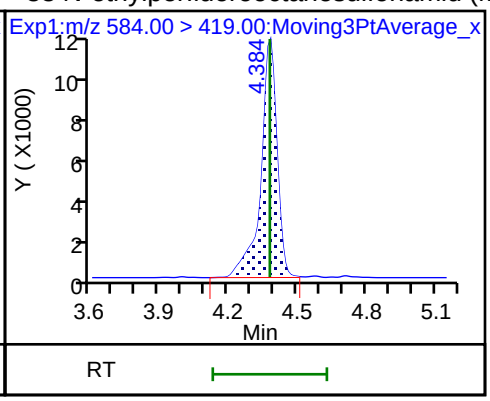

31 Perfluoroundecanoic acid



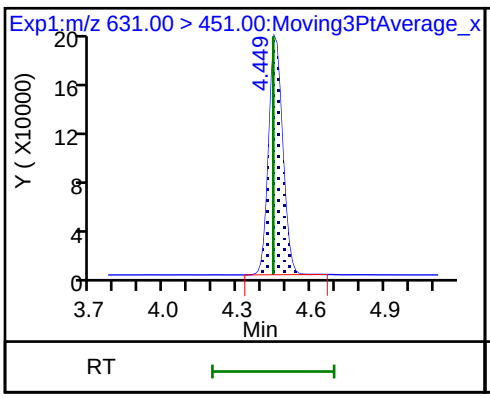

D 32 d5-NEtFOSAA (M)



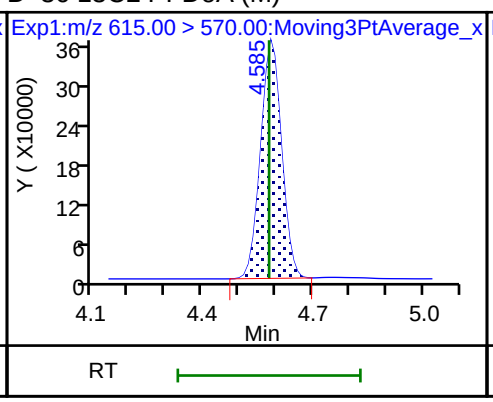

33 N-ethylperfluorooctanesulfonamid (M)



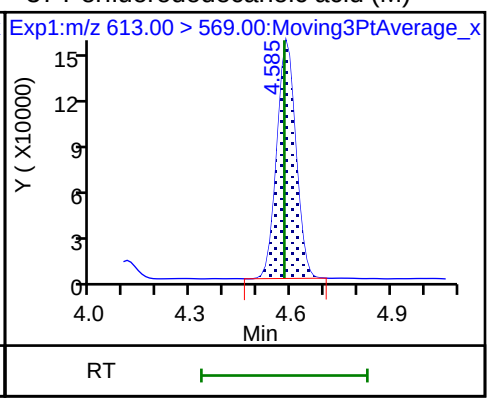

66 11-Chloroeicosafluoro-3-oxaundec



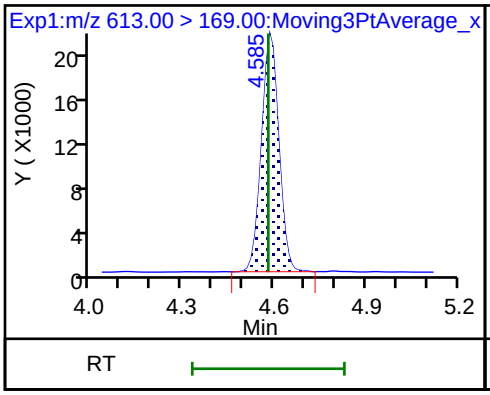

D 36 13C2 PFDoA (M)



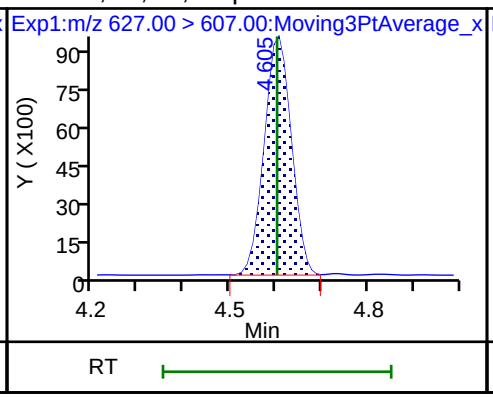

37 Perfluorododecanoic acid (M)



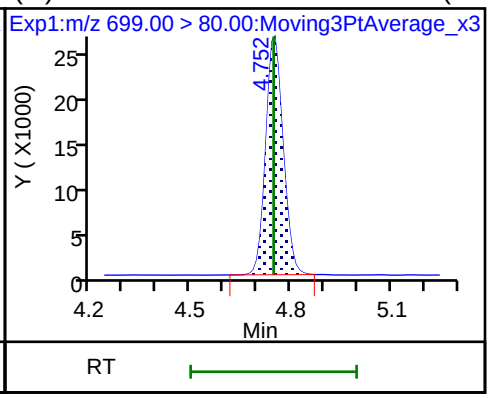
37 Perfluorododecanoic acid



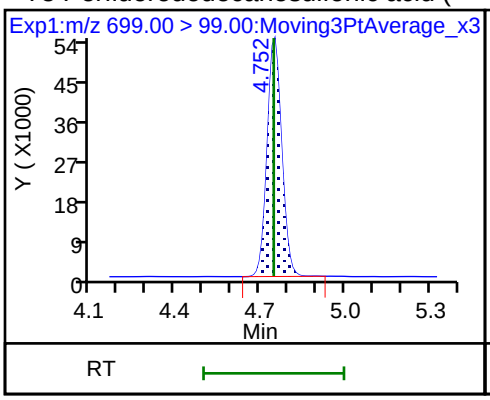

74 1H,1H,2H,2H-perfluorododecanesul (M)



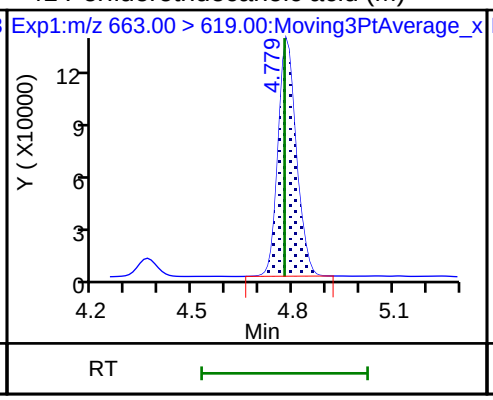

75 Perfluorododecanesulfonic acid (



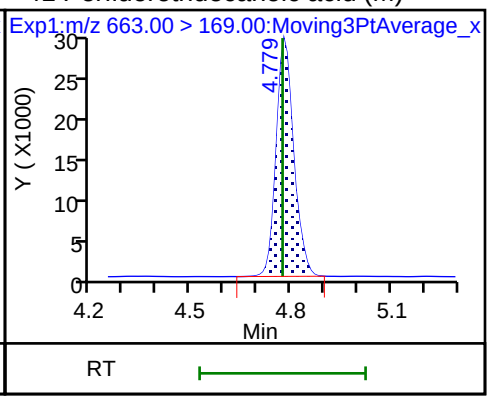

75 Perfluorododecanesulfonic acid (



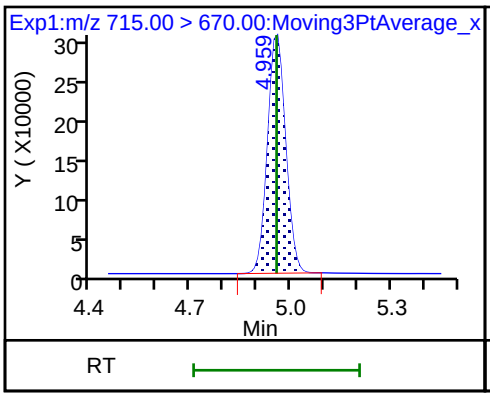

41 Perfluorotridecanoic acid (M)



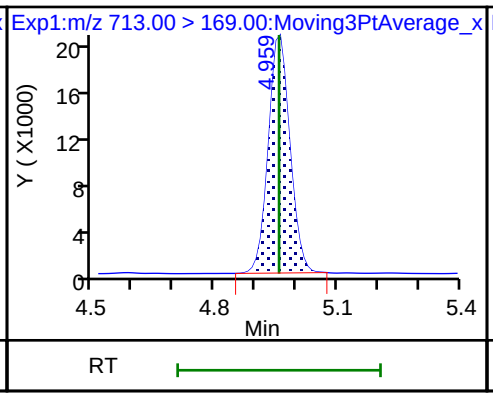

41 Perfluorotridecanoic acid (M)



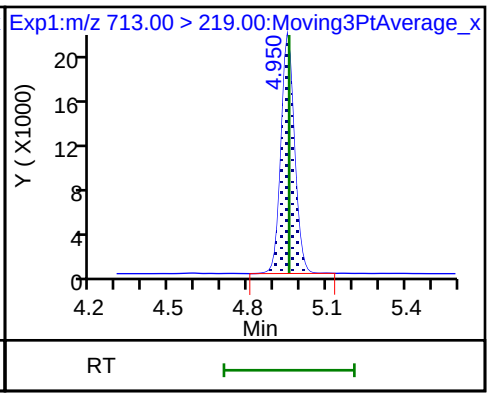

D 43 13C2 PFTeDA



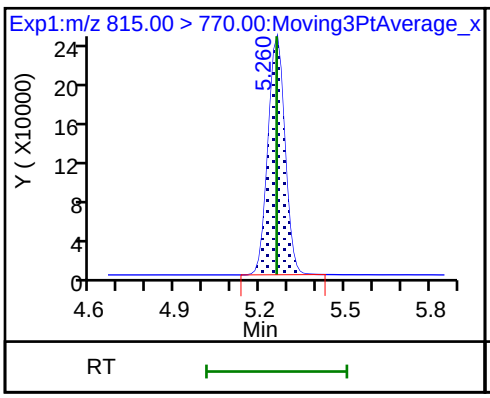

42 Perfluorotetradecanoic acid



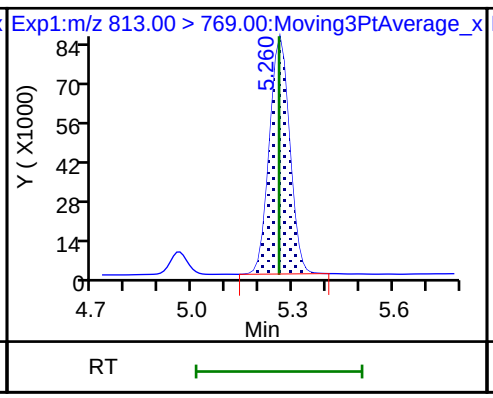

42 Perfluorotetradecanoic acid



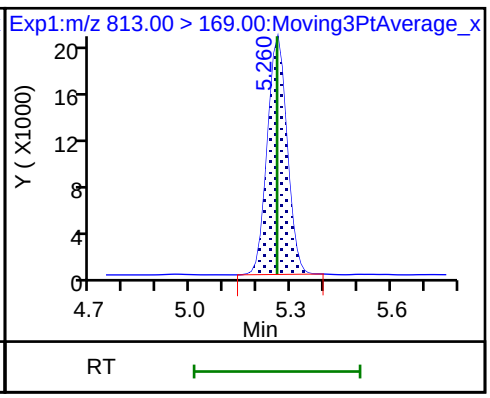

D 44 13C2 PFHxDA



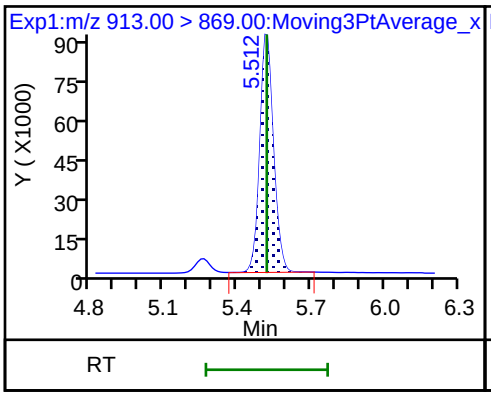

45 Perfluorohexadecanoic acid



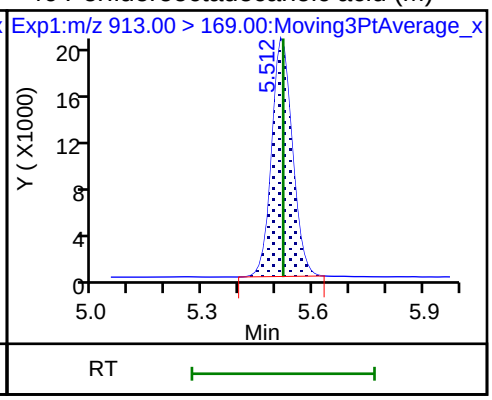

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

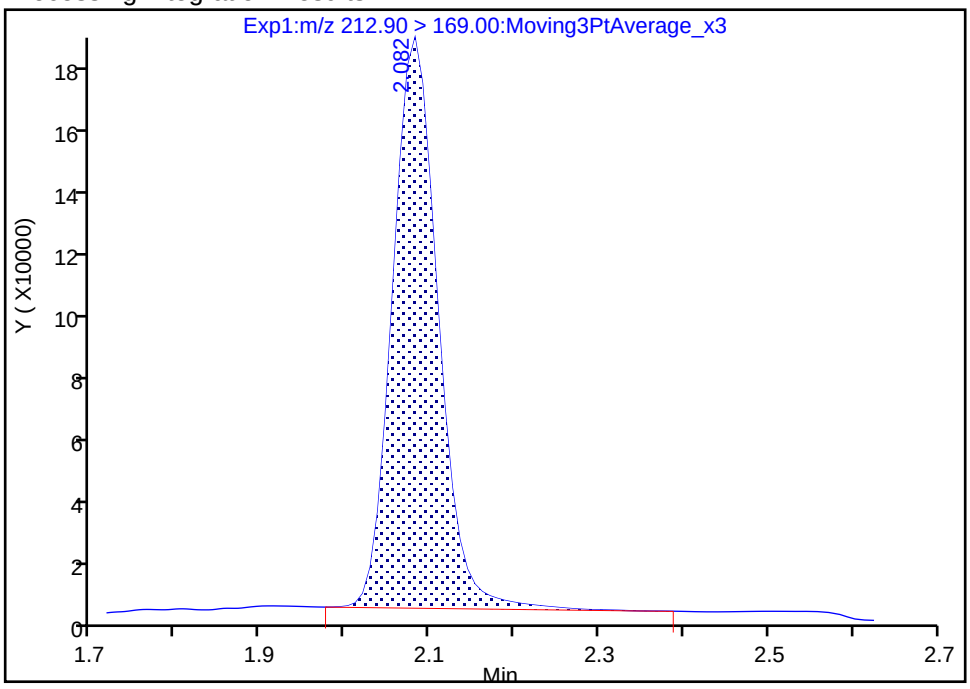
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

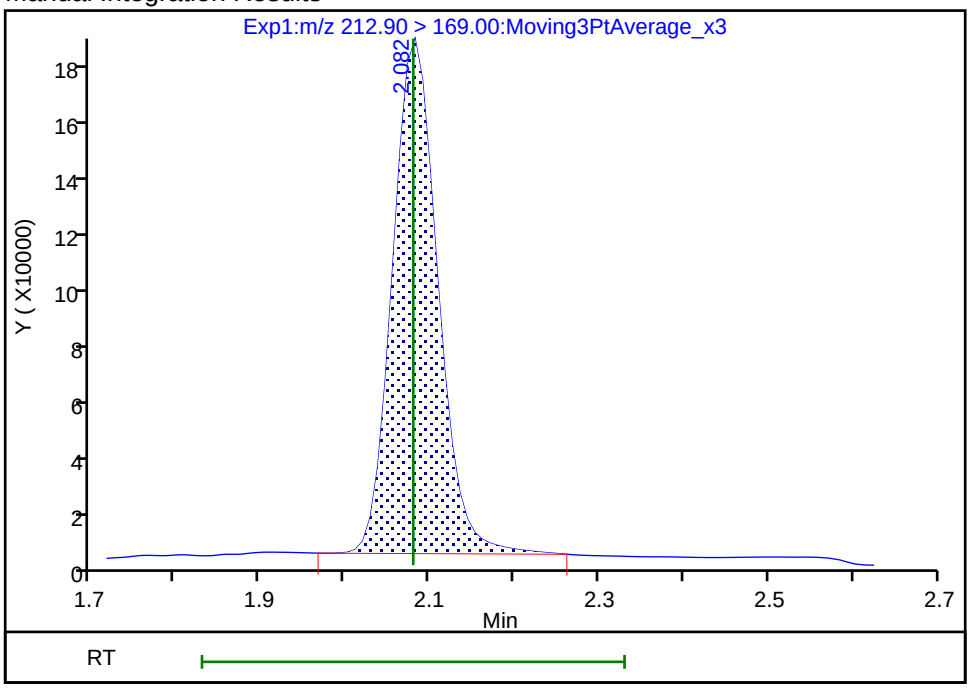
Processing Integration Results

RT: 2.08
Area: 694905
Amount: 0.503172
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 688237
Amount: 0.519494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

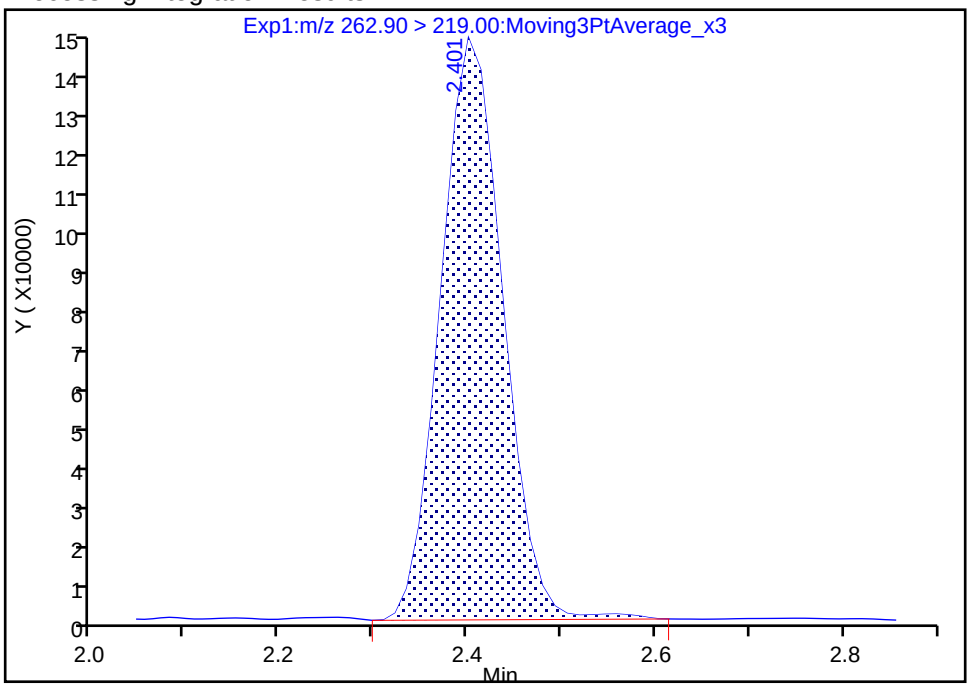
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

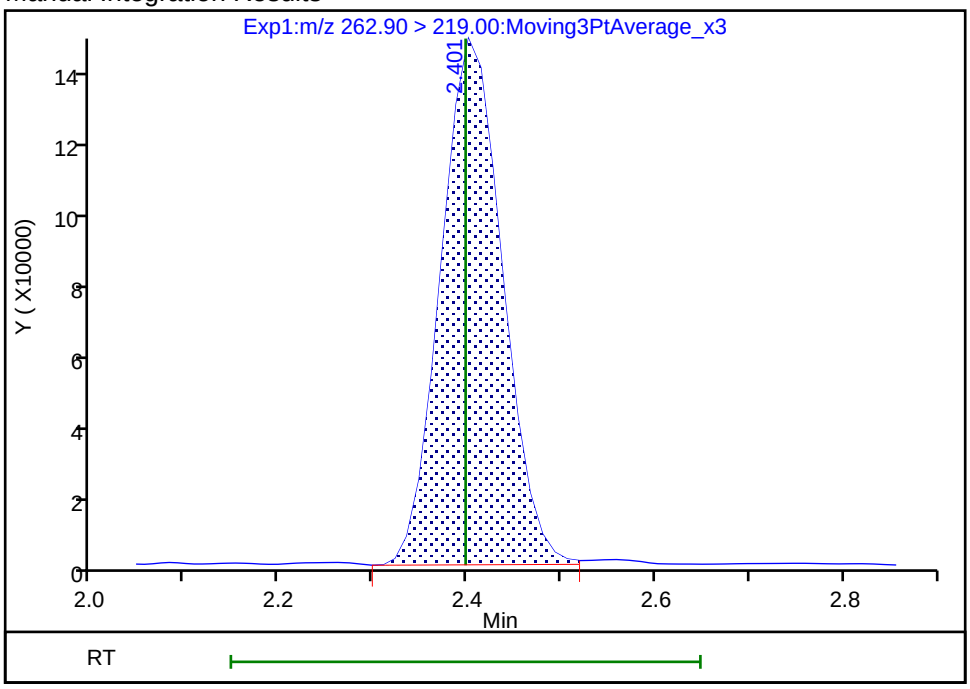
Processing Integration Results

RT: 2.40
Area: 628836
Amount: 0.512450
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 624348
Amount: 0.524449
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

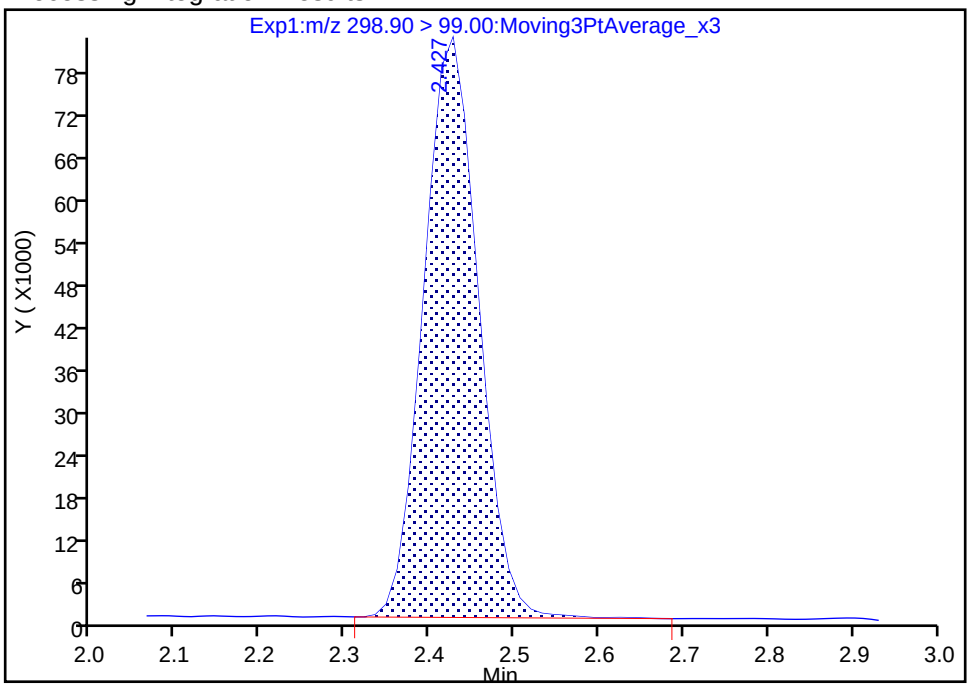
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

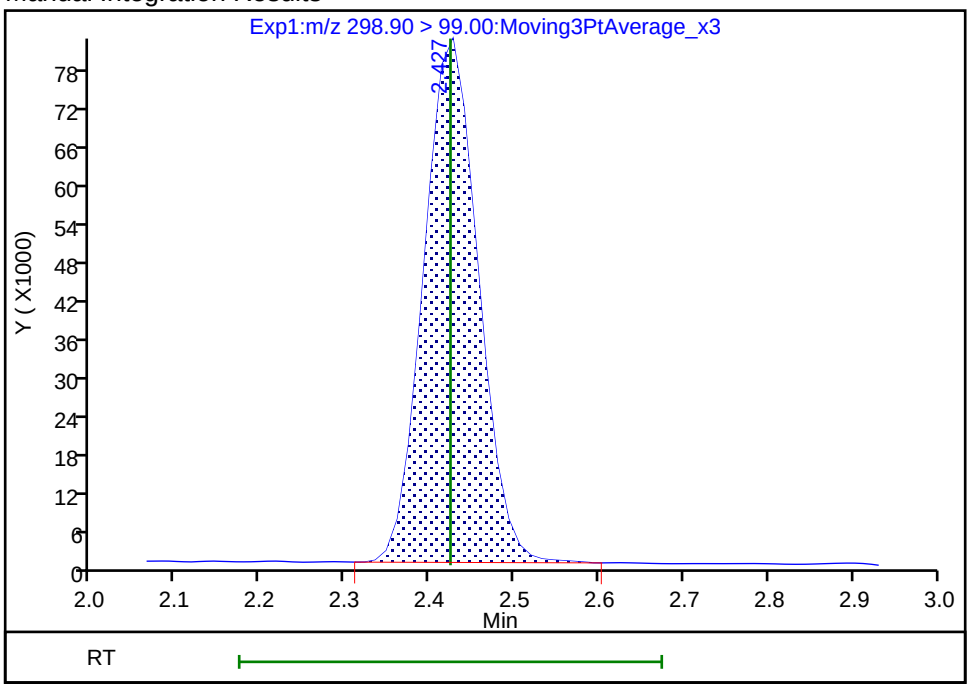
Processing Integration Results

RT: 2.43
Area: 367932
Amount: 0.458272
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 367001
Amount: 0.478480
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

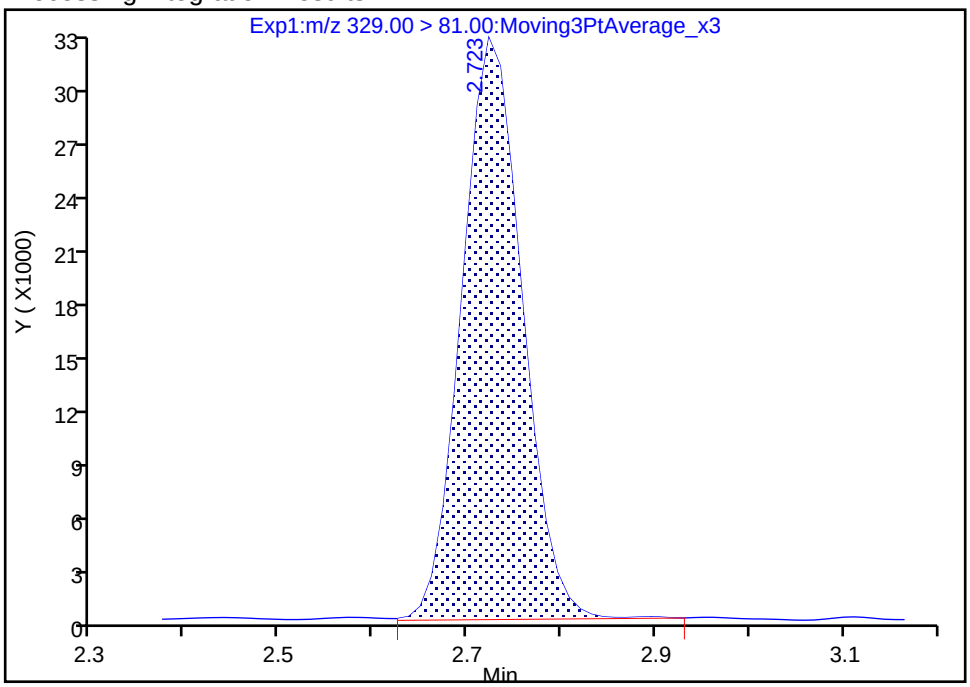
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

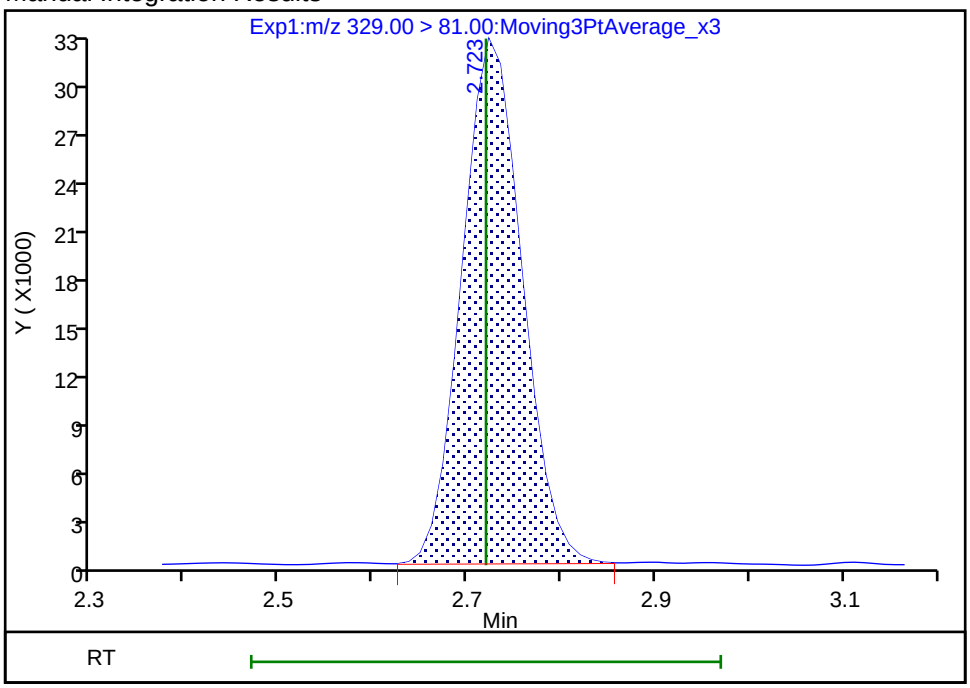
Processing Integration Results

RT: 2.72
Area: 144342
Amount: 1.192447
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 143541
Amount: 1.178807
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:00:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

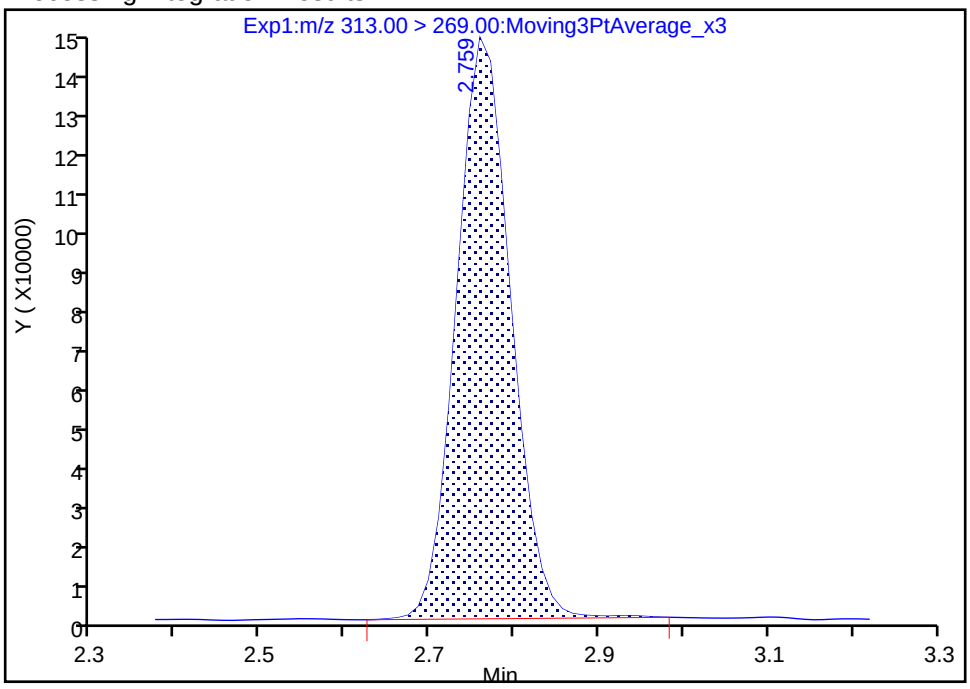
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

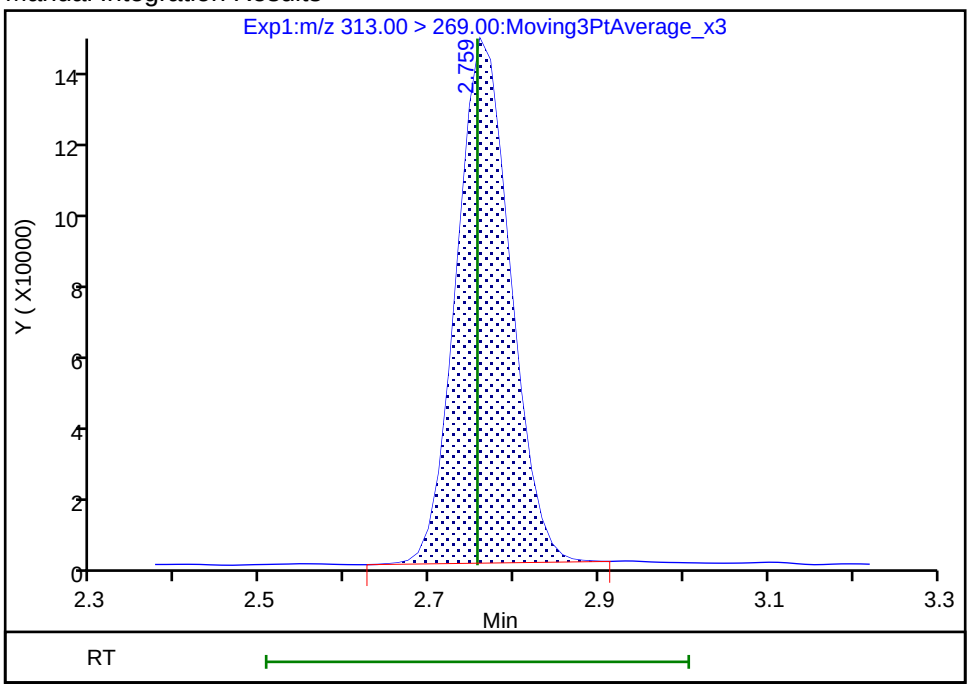
Processing Integration Results

RT: 2.76
Area: 628963
Amount: 0.483024
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 624268
Amount: 0.498256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

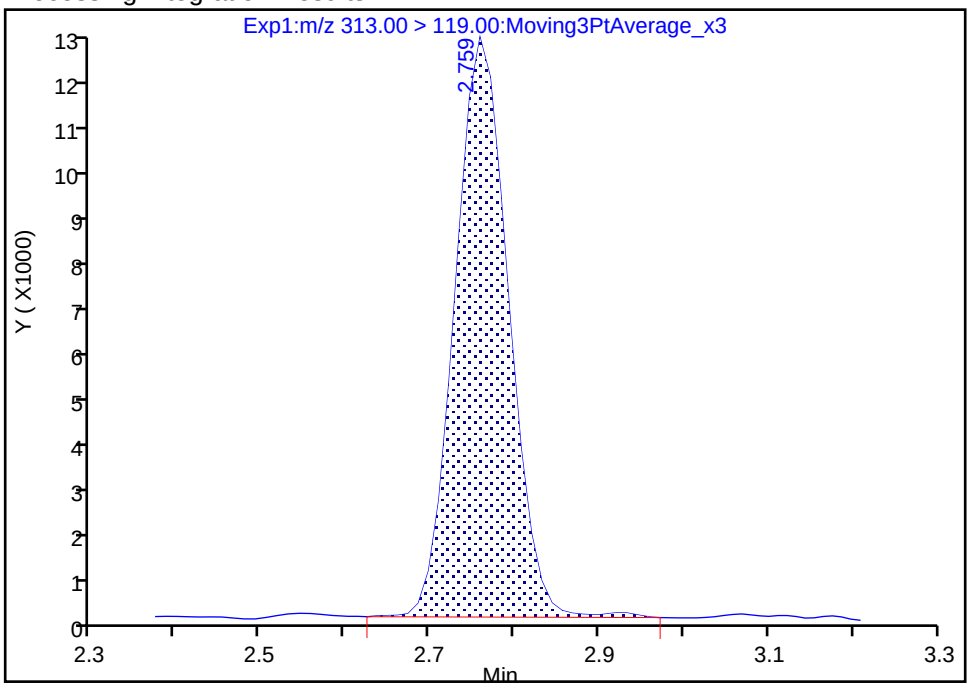
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

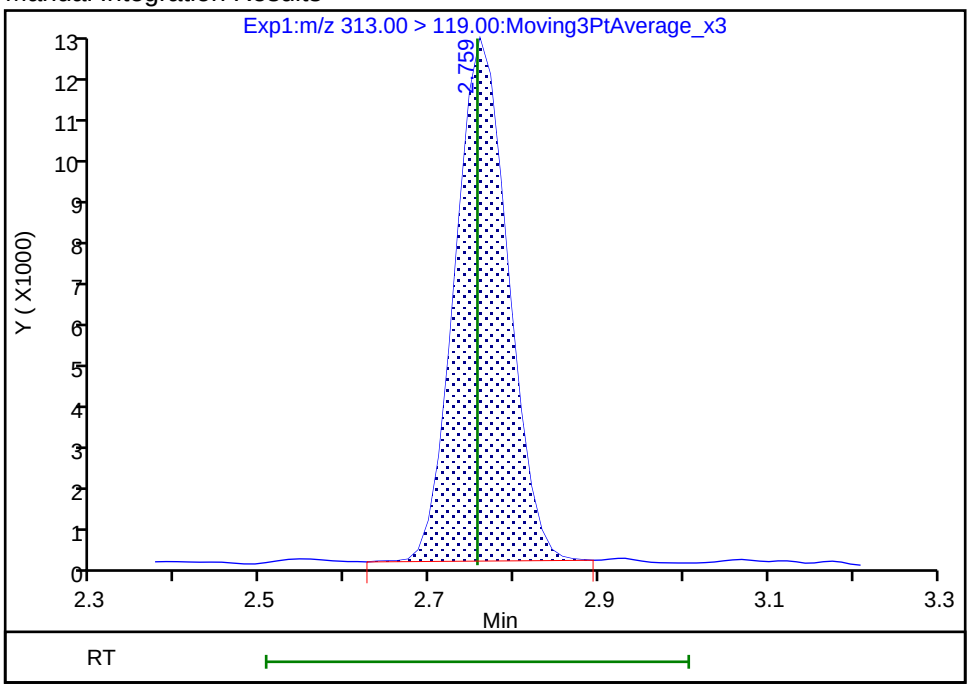
Processing Integration Results

RT: 2.76
Area: 52536
Amount: 0.483024
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 51849
Amount: 0.498256
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

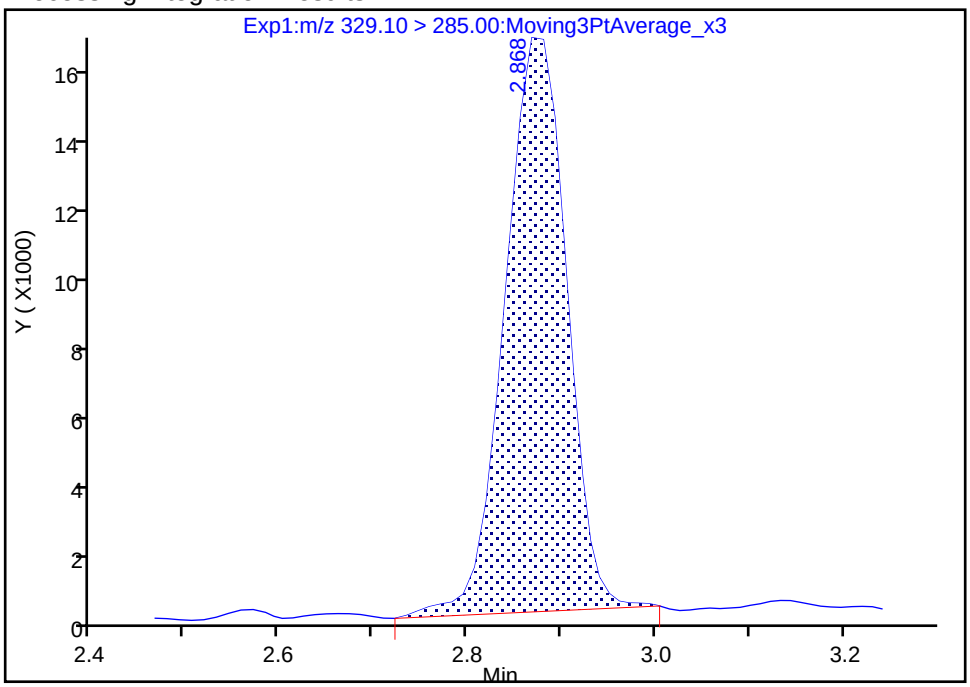
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

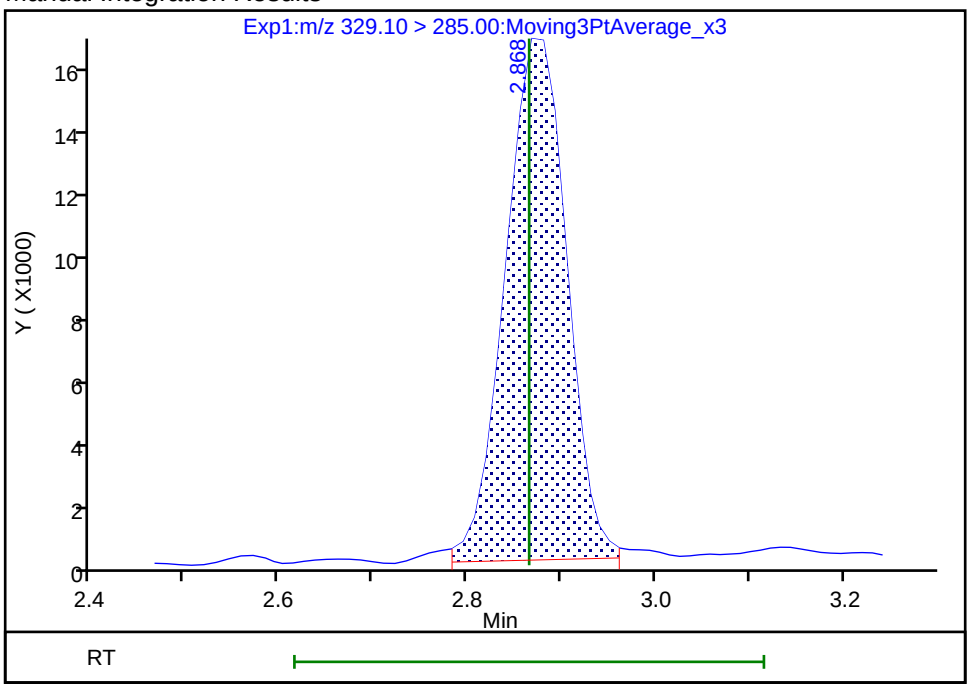
Processing Integration Results

RT: 2.87
Area: 69727
Amount: 0.468024
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 69564
Amount: 0.486951
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

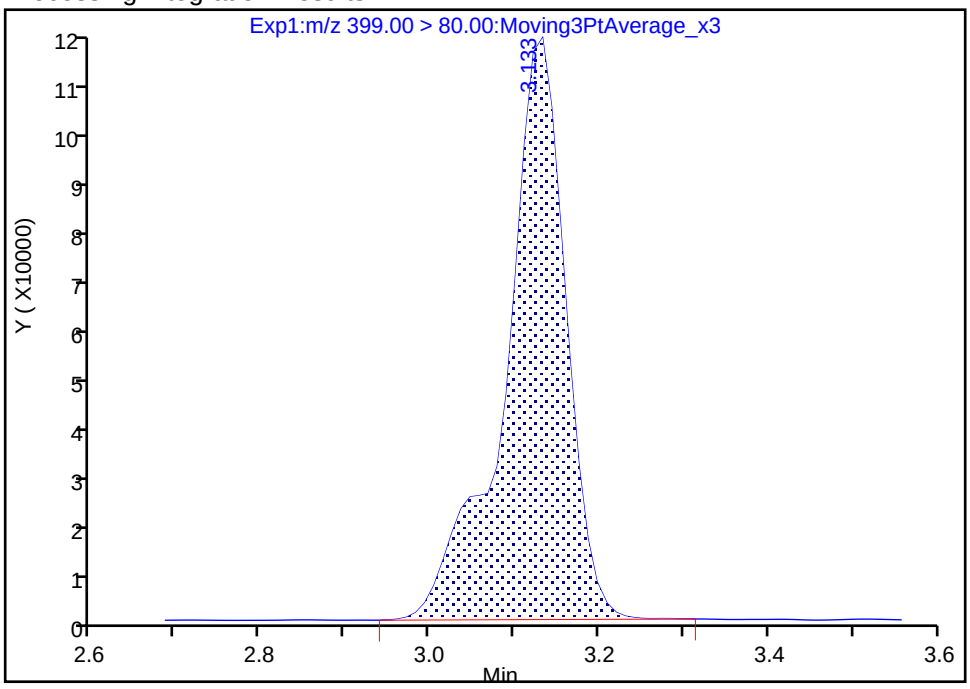
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

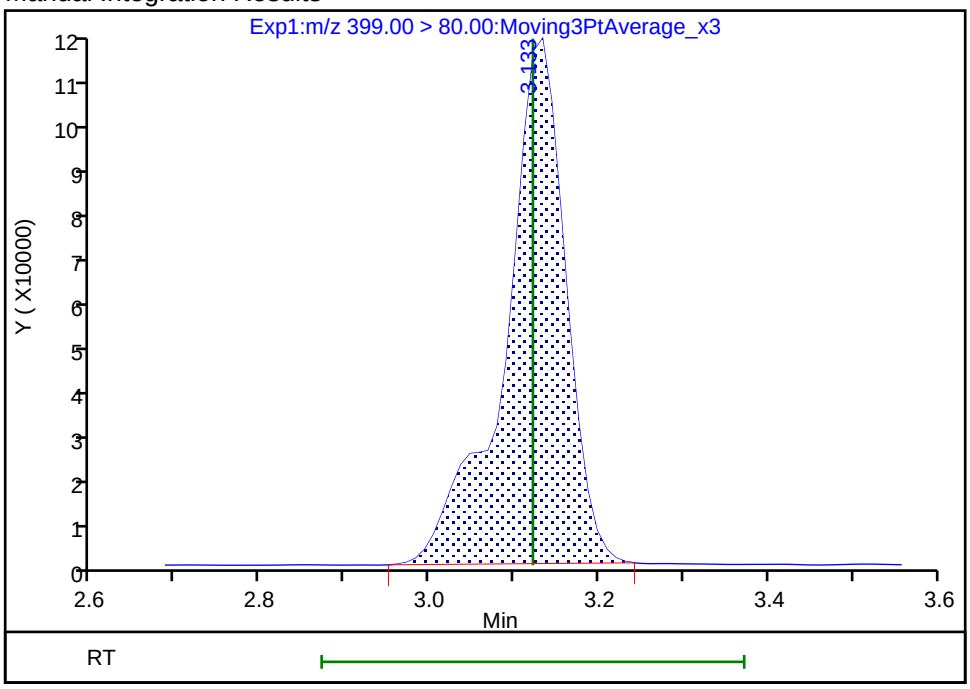
Processing Integration Results

RT: 3.13
Area: 584310
Amount: 0.445566
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 580723
Amount: 0.459999
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

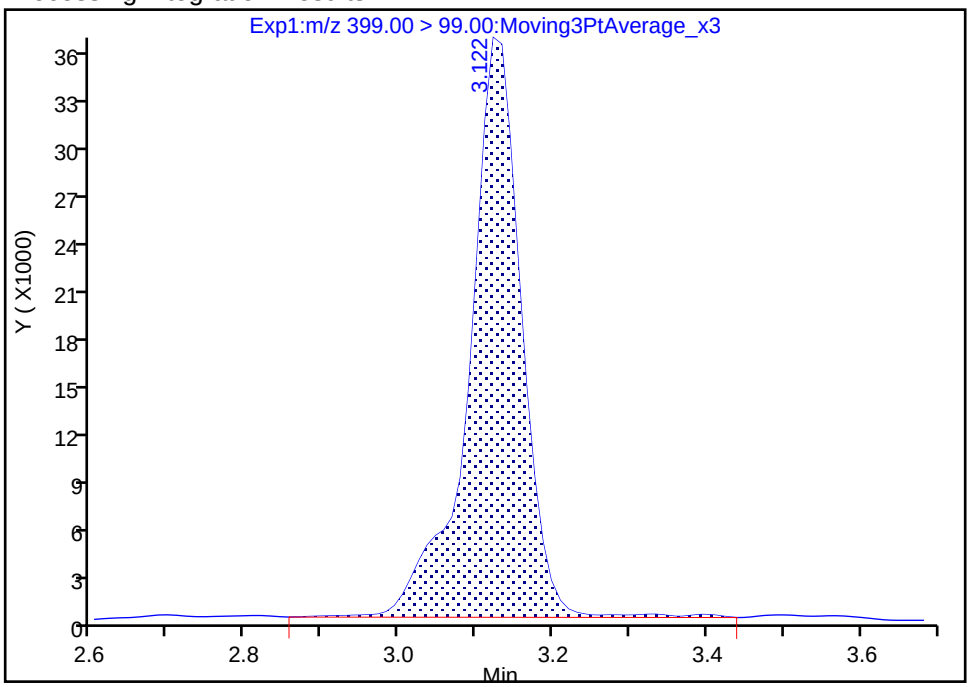
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

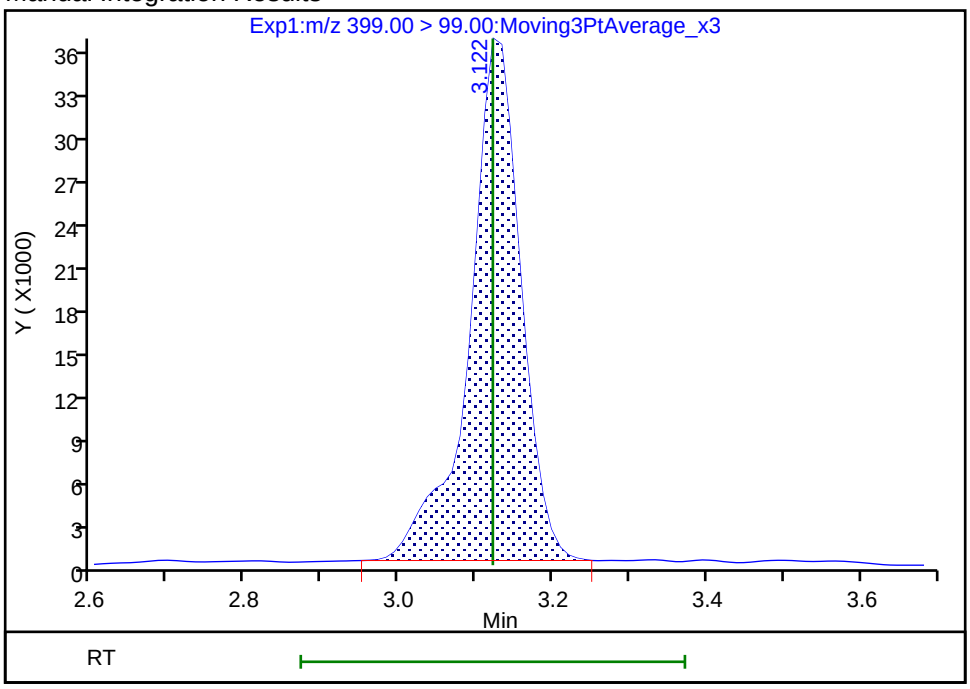
Processing Integration Results

RT: 3.12
Area: 170544
Amount: 0.445566
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 166326
Amount: 0.459999
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

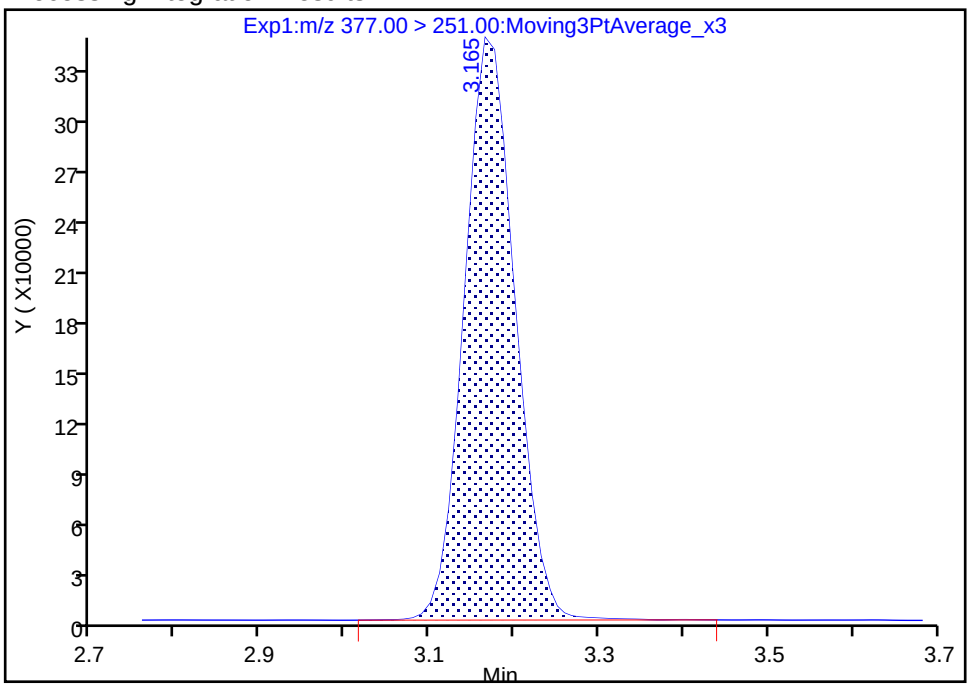
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

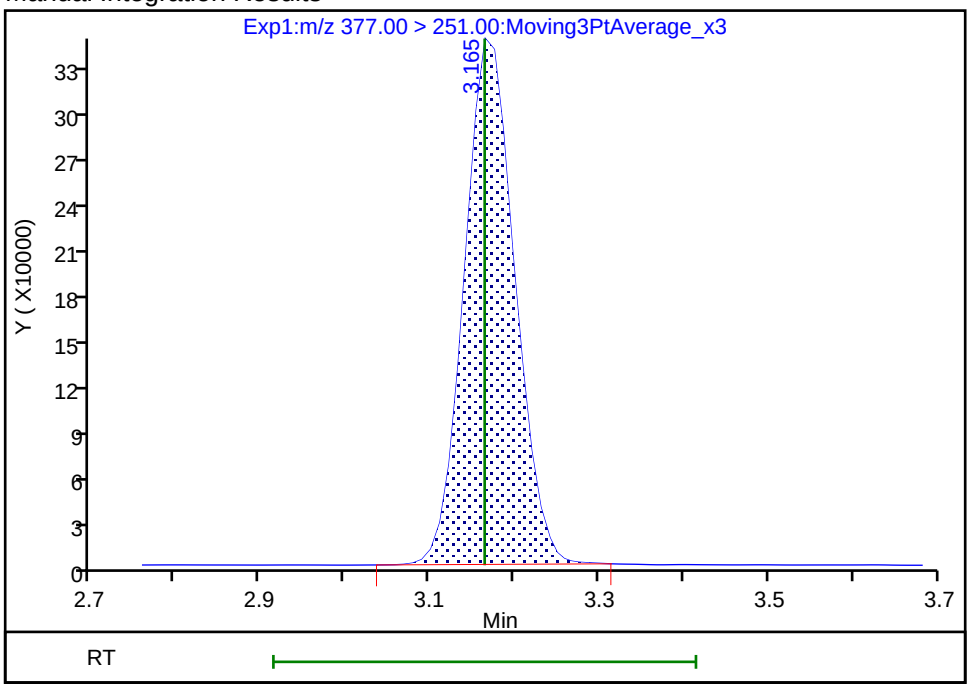
Processing Integration Results

RT: 3.17
Area: 1439508
Amount: 0.490597
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 1431405
Amount: 0.507549
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:01:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

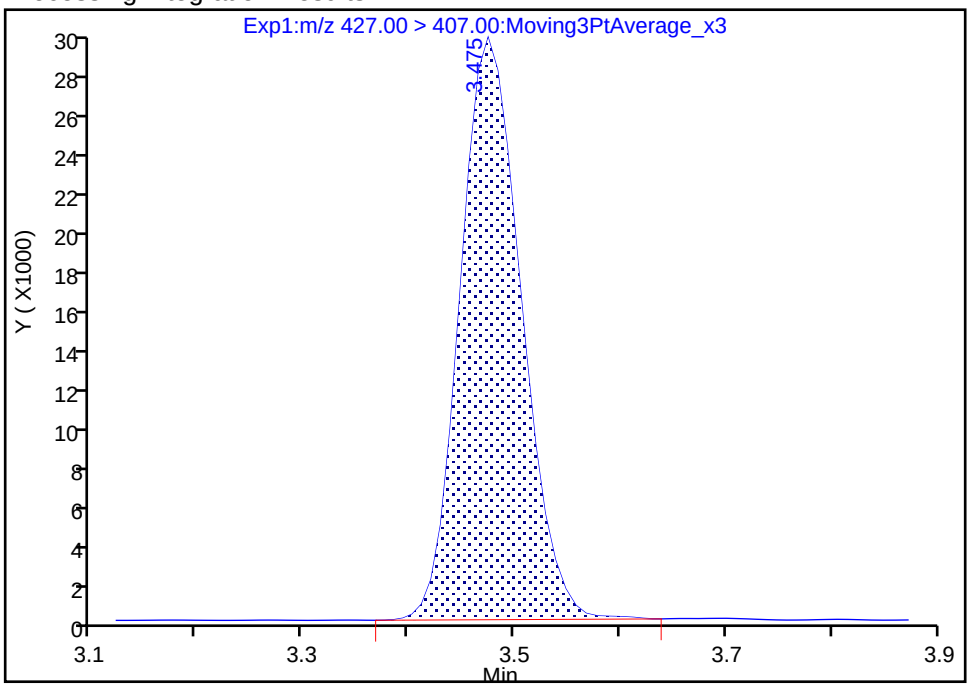
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

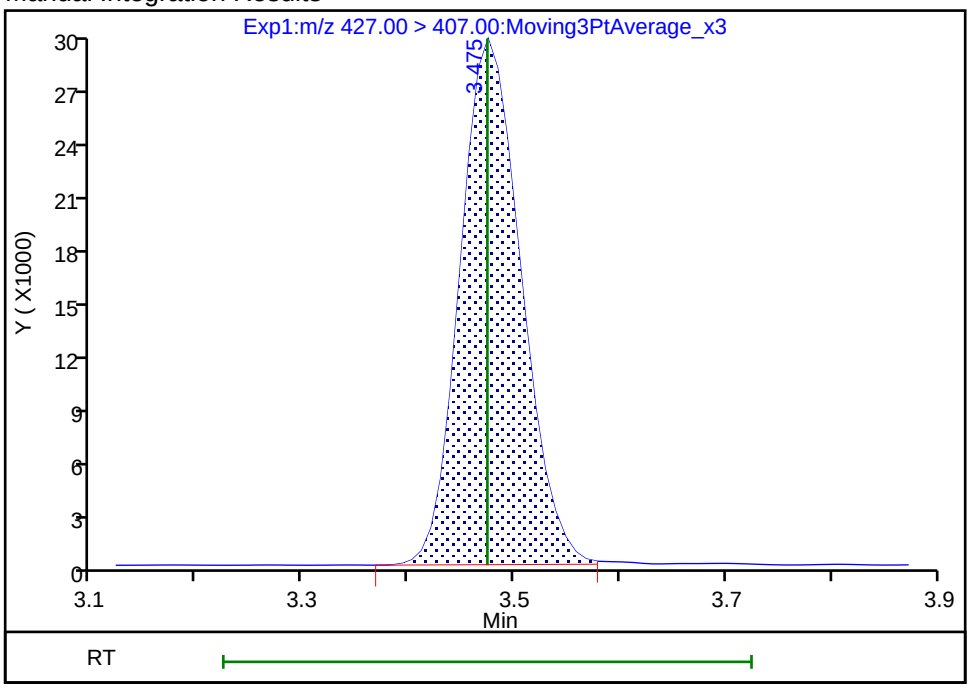
Processing Integration Results

RT: 3.47
Area: 119411
Amount: 0.497803
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 119105
Amount: 0.505783
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

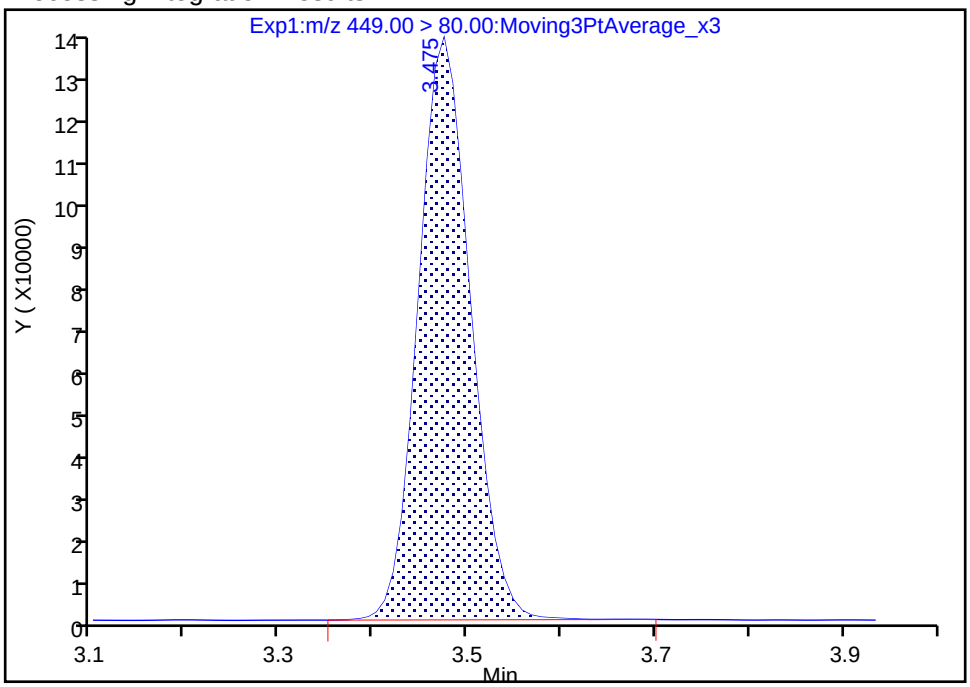
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

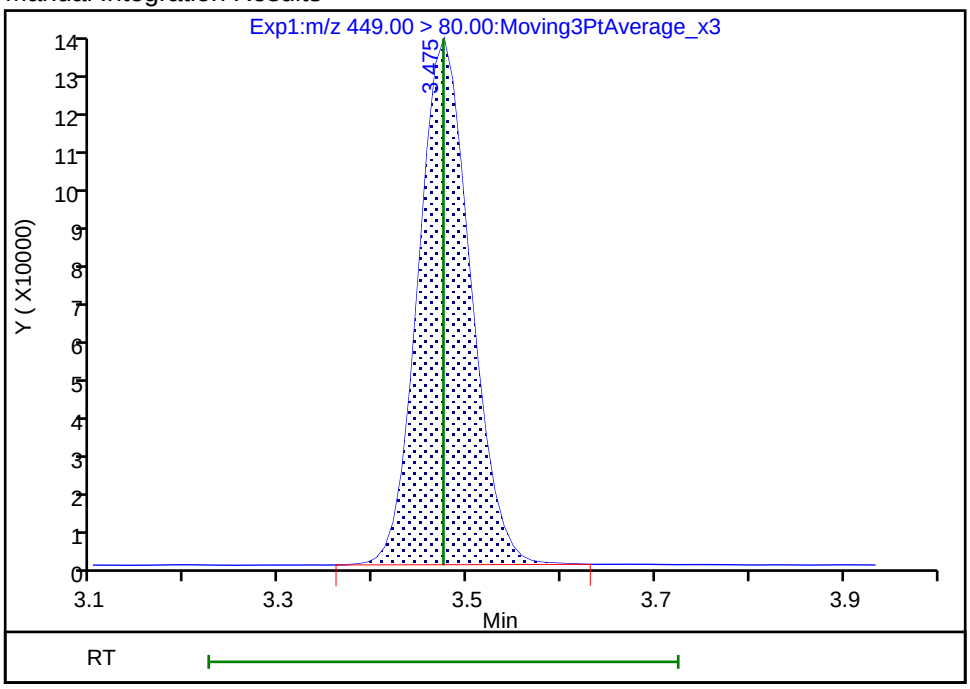
Processing Integration Results

RT: 3.47
Area: 510503
Amount: 0.491921
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 509888
Amount: 0.507597
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

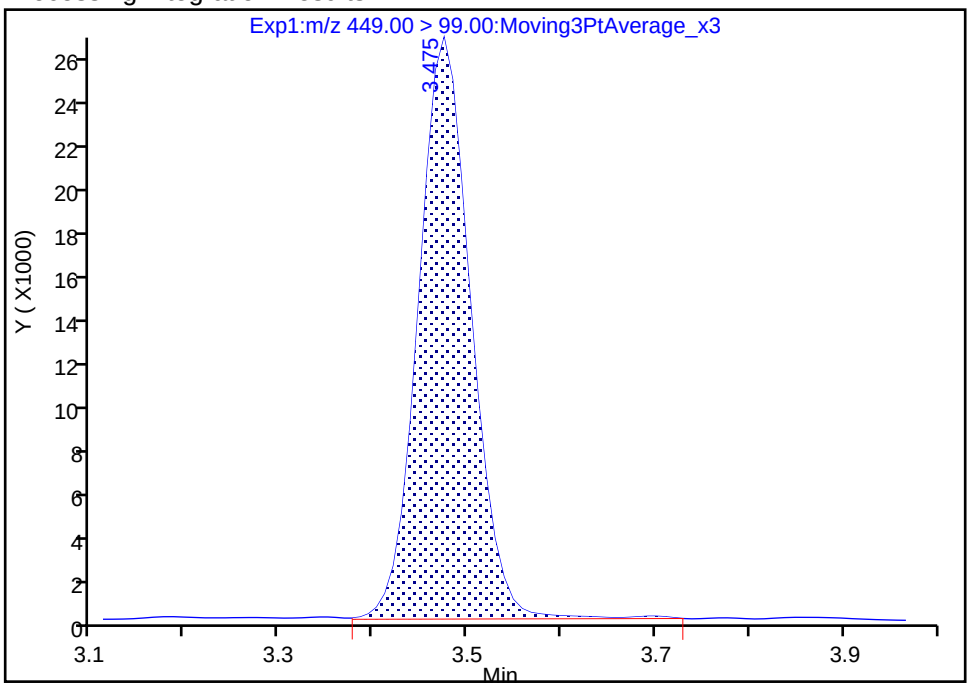
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

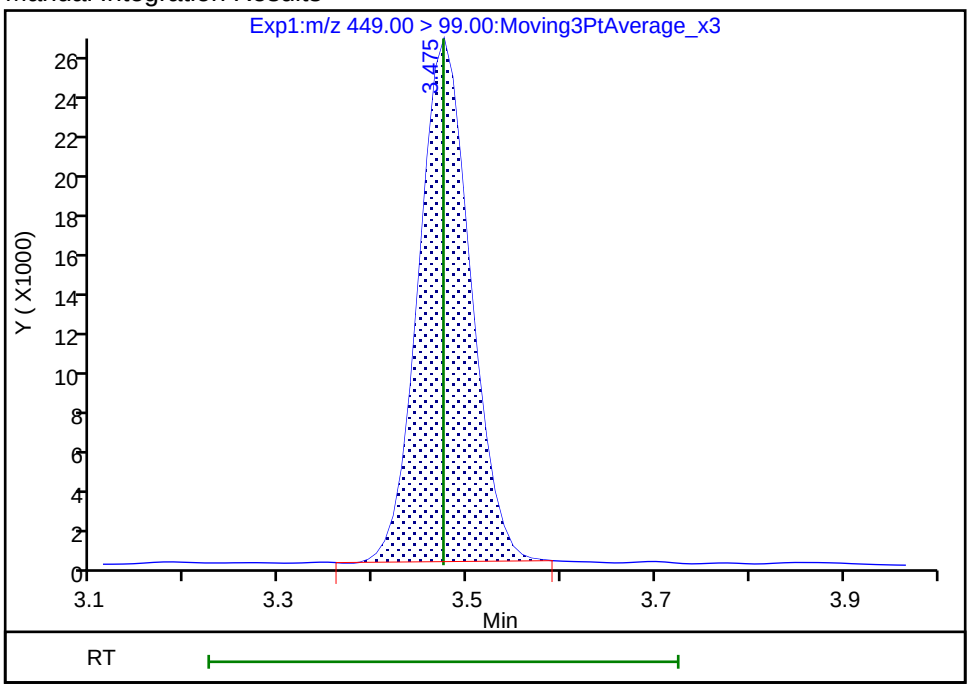
Processing Integration Results

RT: 3.47
Area: 102753
Amount: 0.491921
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 100429
Amount: 0.507597
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

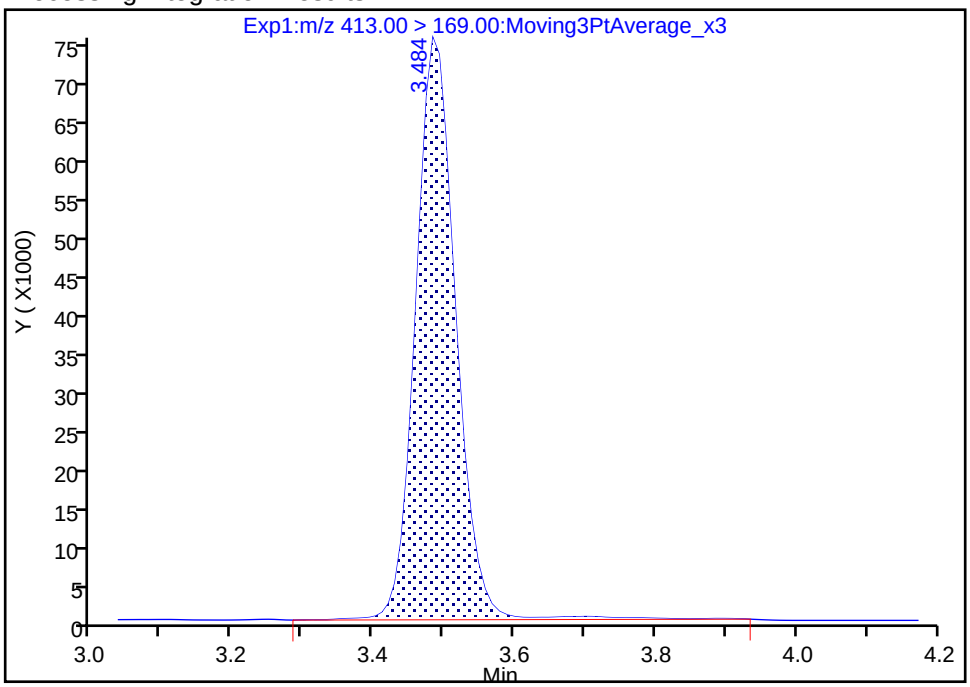
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

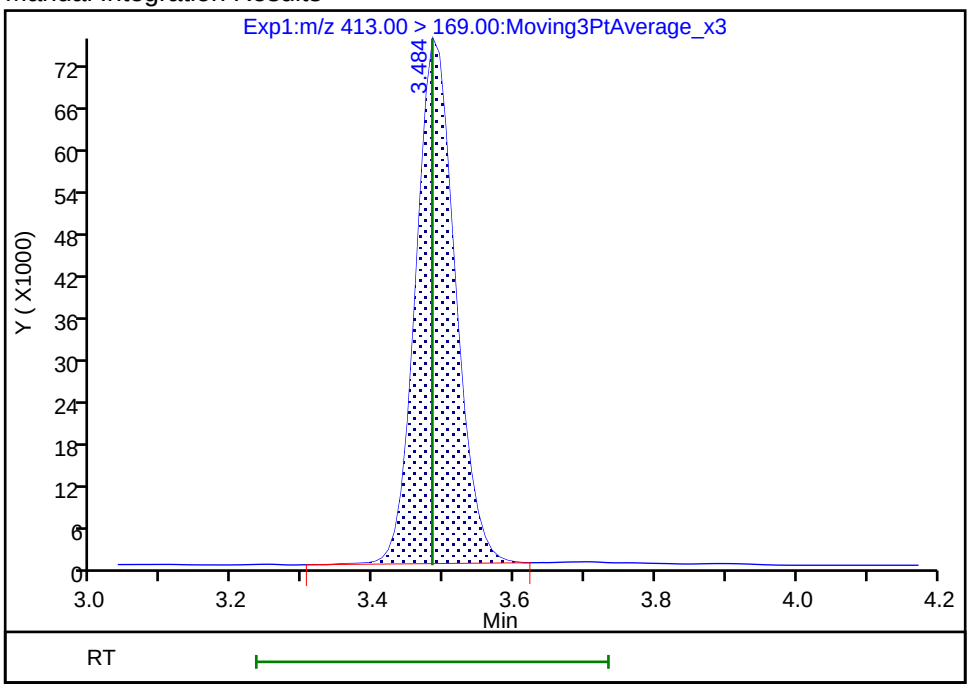
Processing Integration Results

RT: 3.48
Area: 299371
Amount: 0.500901
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 292988
Amount: 0.522192
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

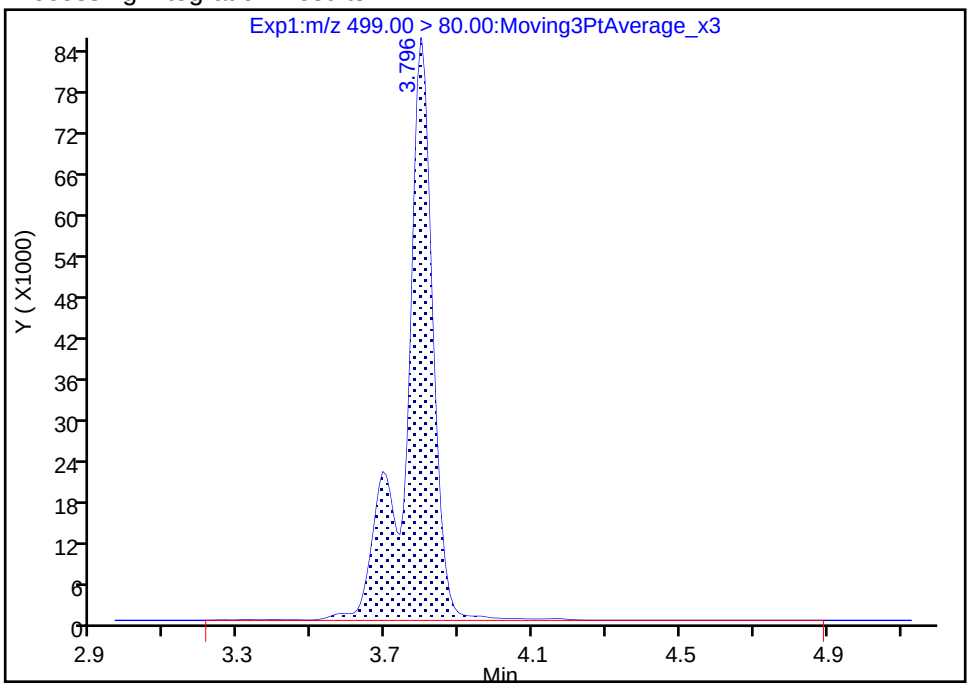
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

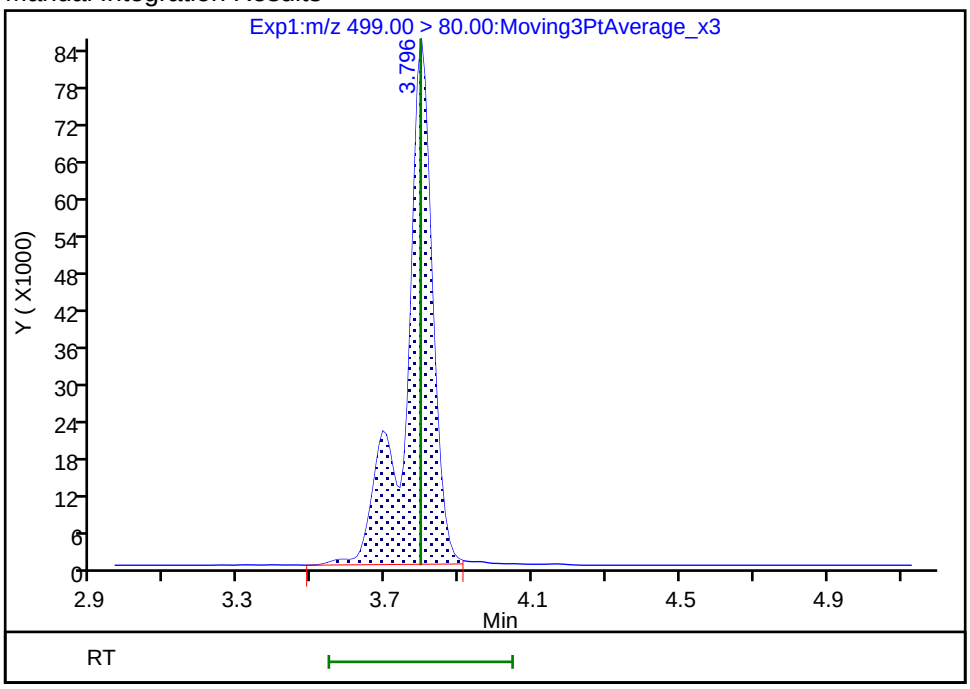
Processing Integration Results

RT: 3.80
Area: 441597
Amount: 0.481919
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 432797
Amount: 0.495007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

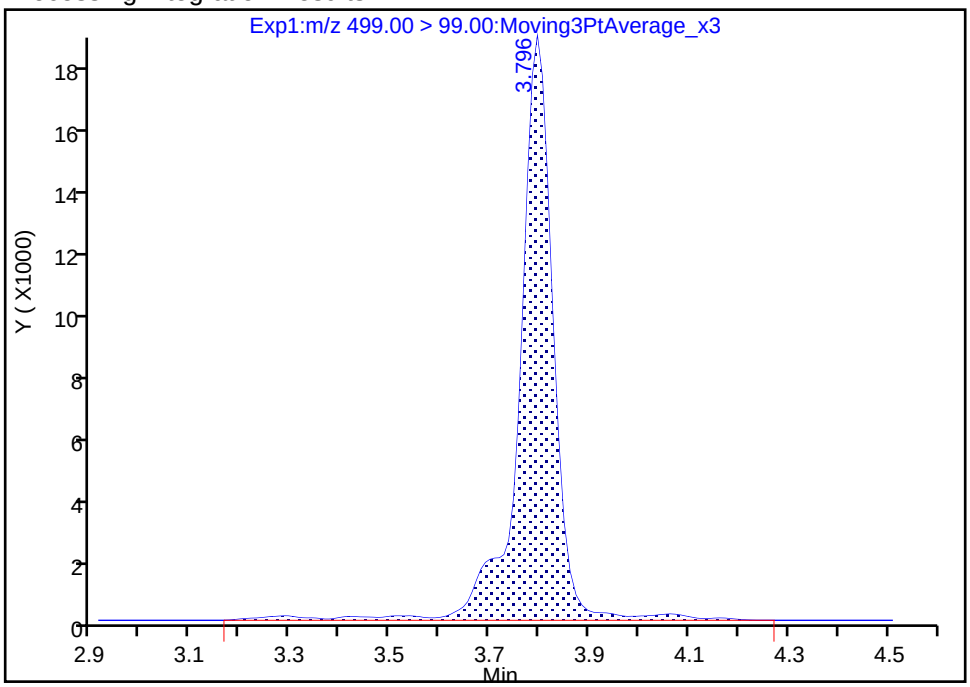
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

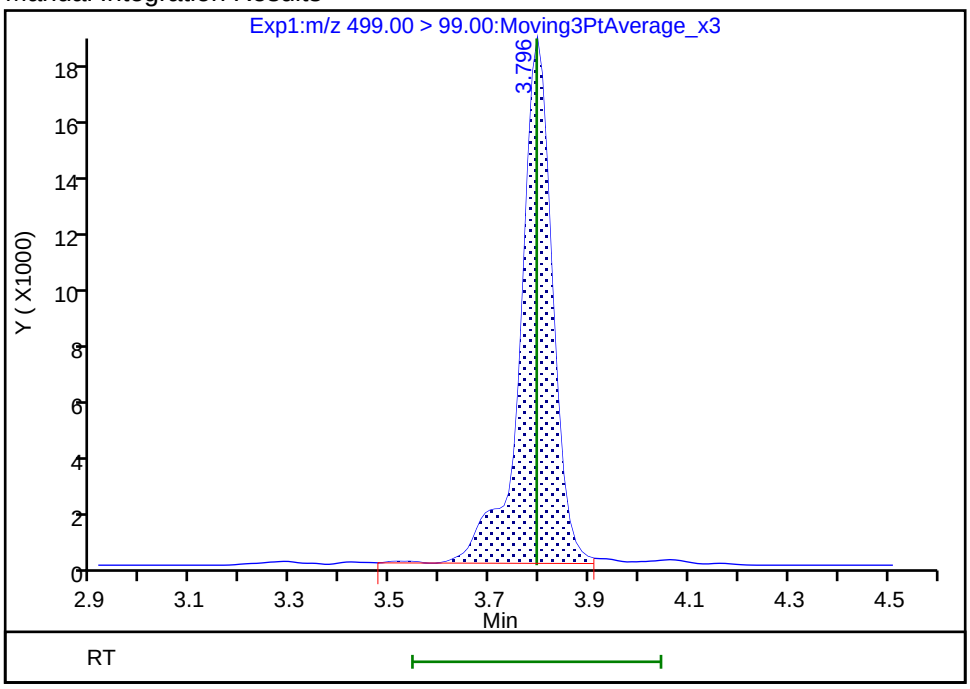
Processing Integration Results

RT: 3.80
Area: 90106
Amount: 0.481919
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 84548
Amount: 0.495007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:02:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

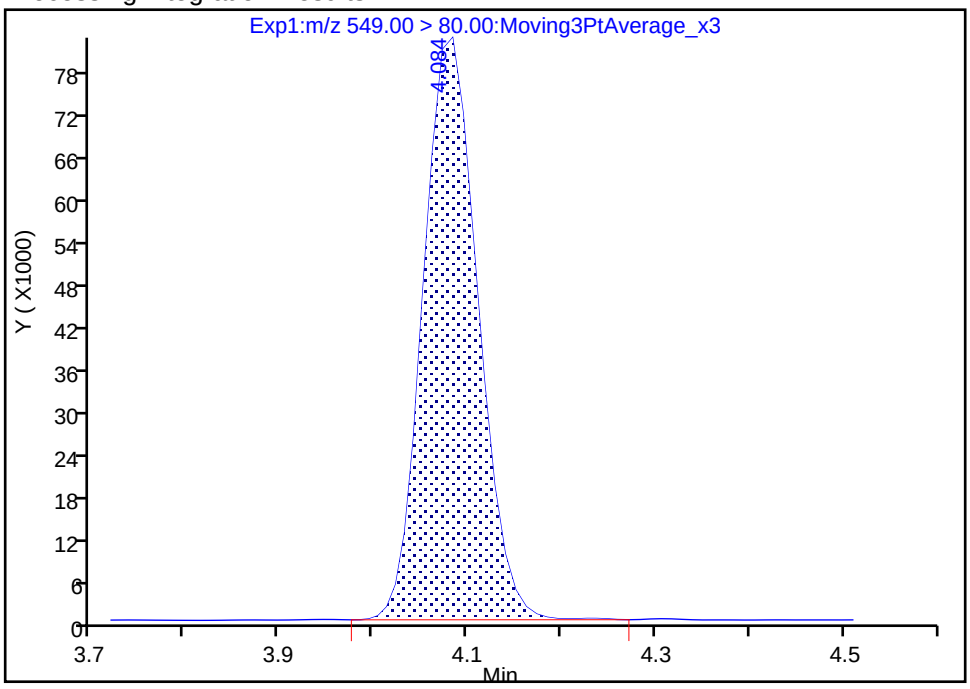
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

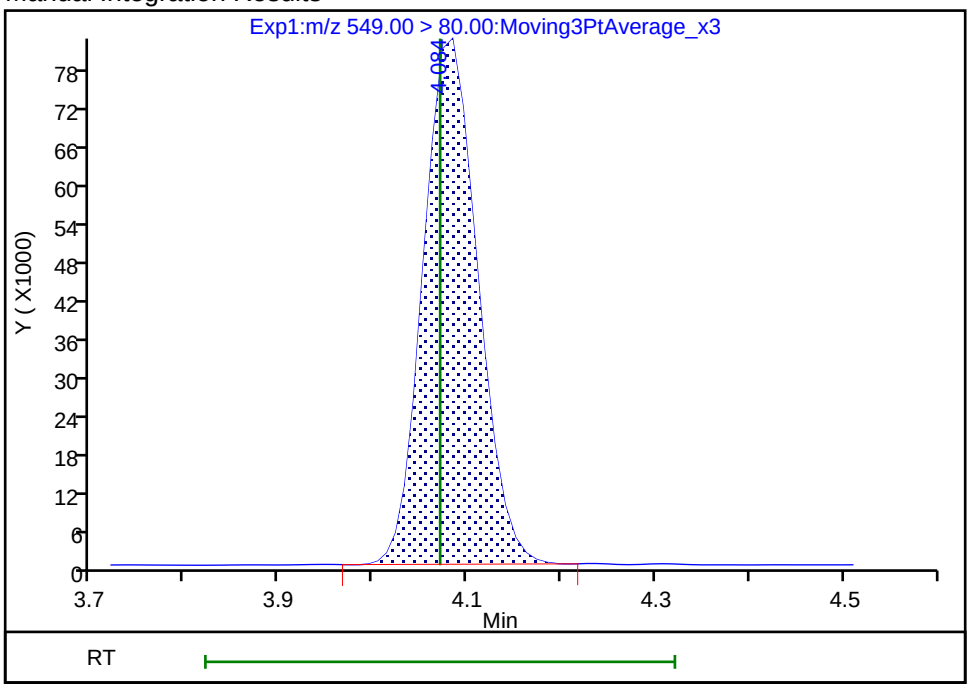
Processing Integration Results

RT: 4.08
Area: 335266
Amount: 0.478923
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 333722
Amount: 0.490004
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

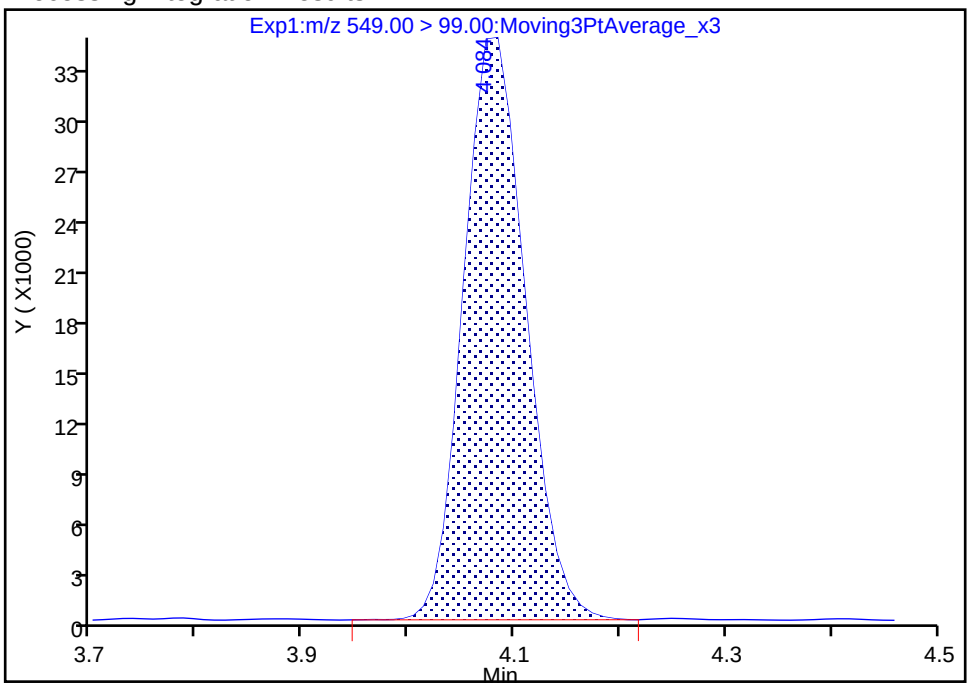
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

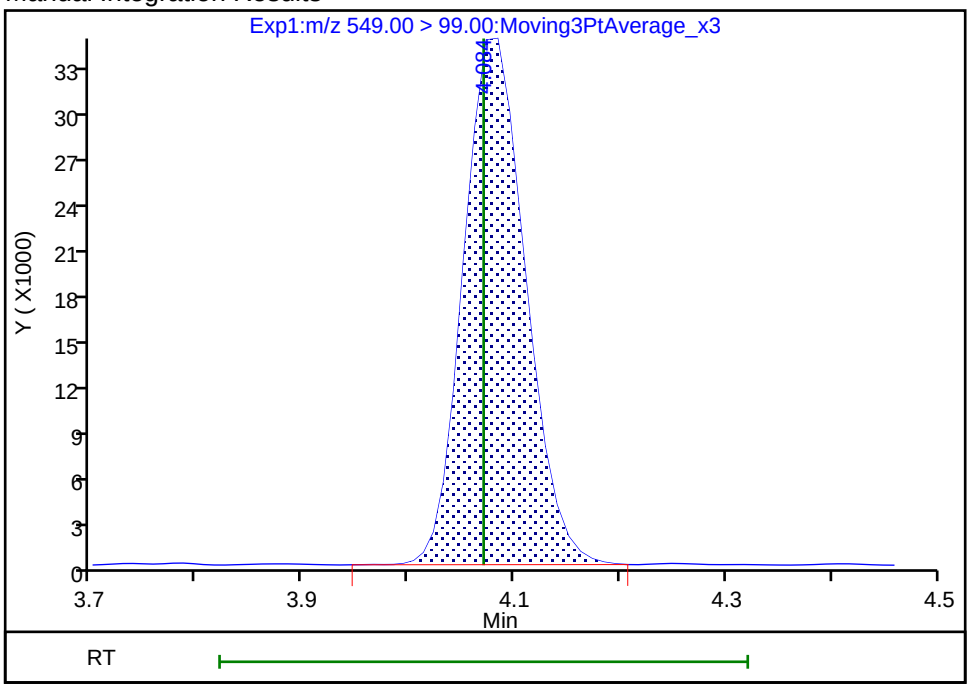
Processing Integration Results

RT: 4.08
Area: 139026
Amount: 0.478923
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 138967
Amount: 0.490004
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

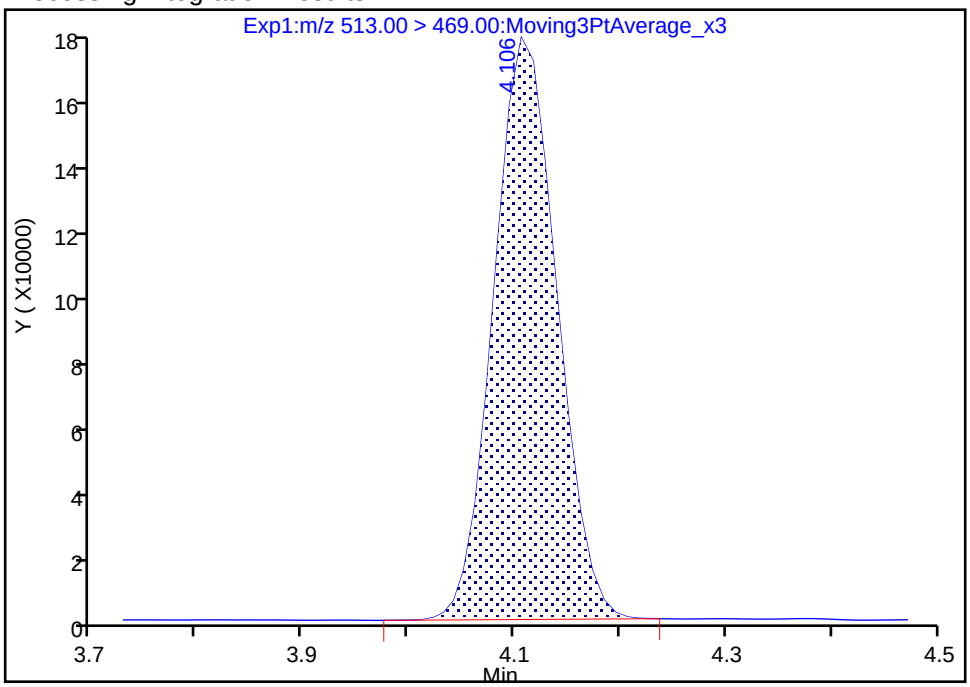
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

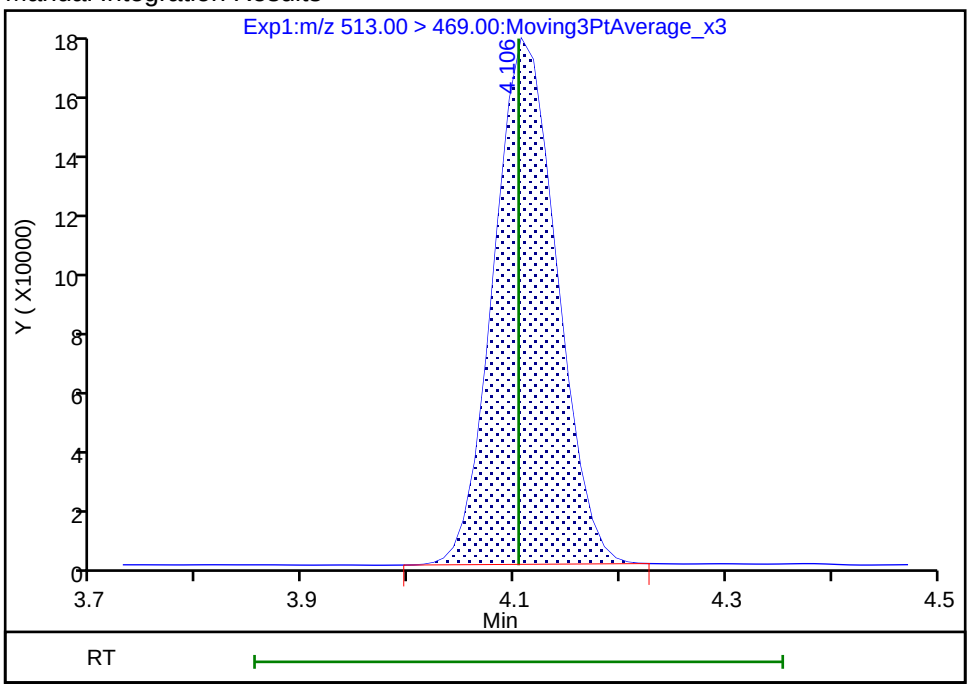
Processing Integration Results

RT: 4.11
Area: 710603
Amount: 0.488924
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 710000
Amount: 0.509950
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

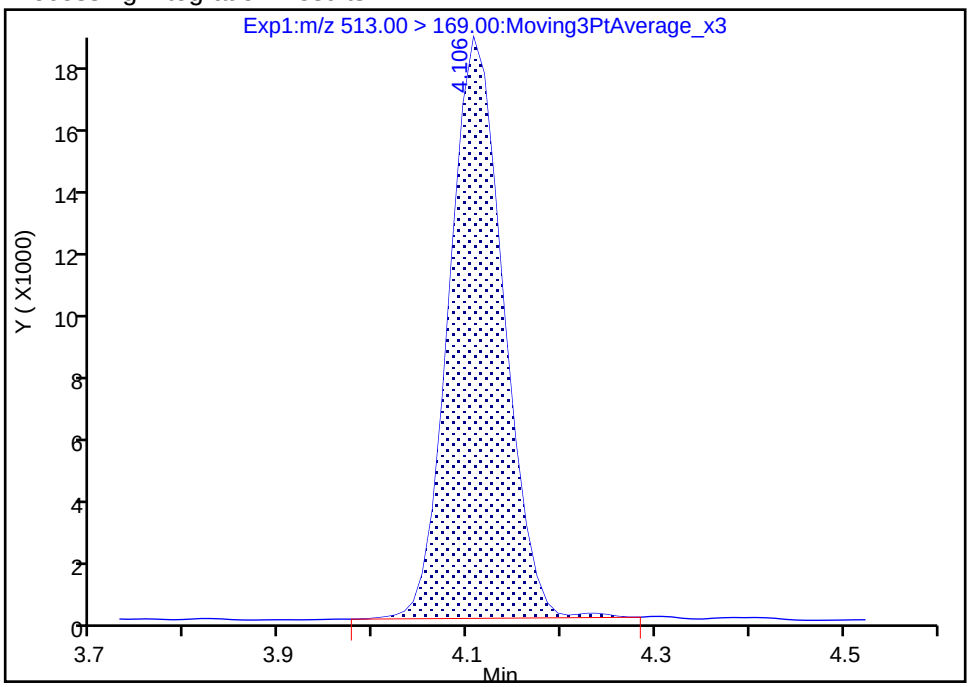
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

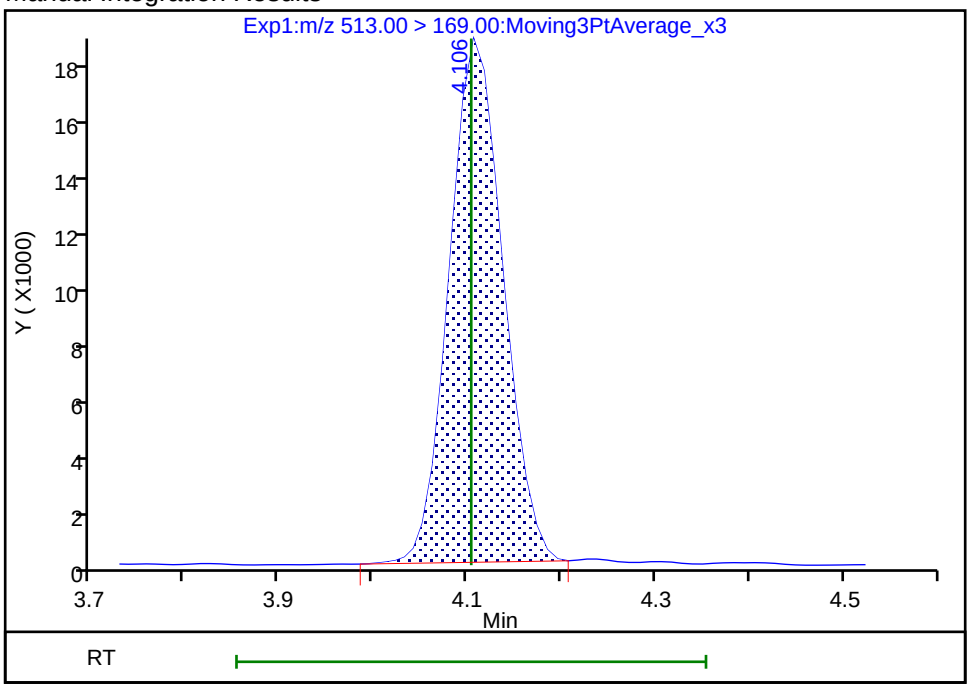
Processing Integration Results

RT: 4.11
Area: 74719
Amount: 0.488924
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 73895
Amount: 0.509950
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

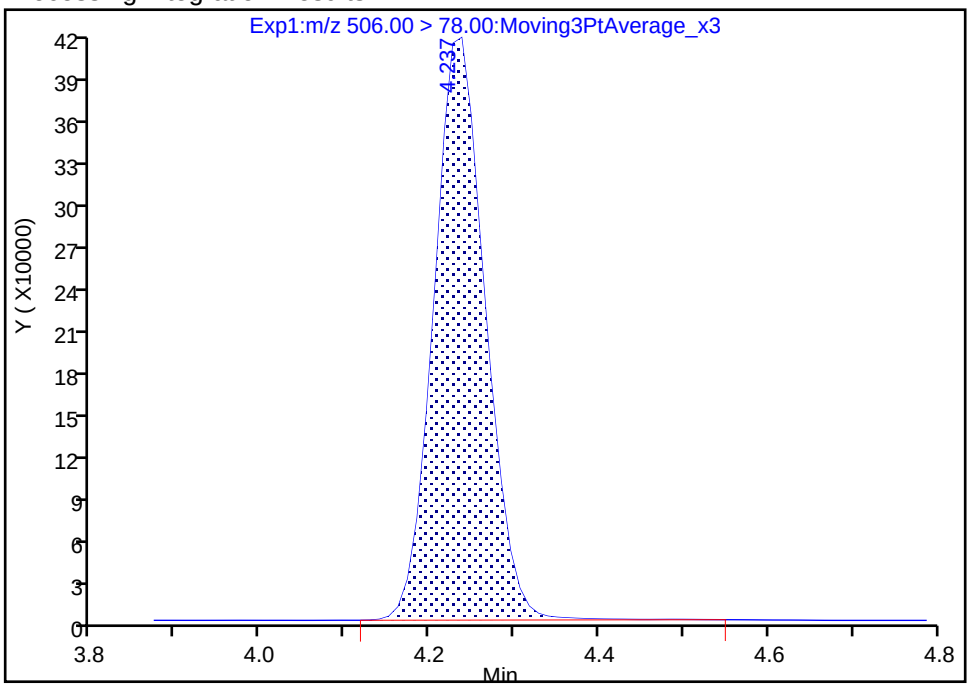
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

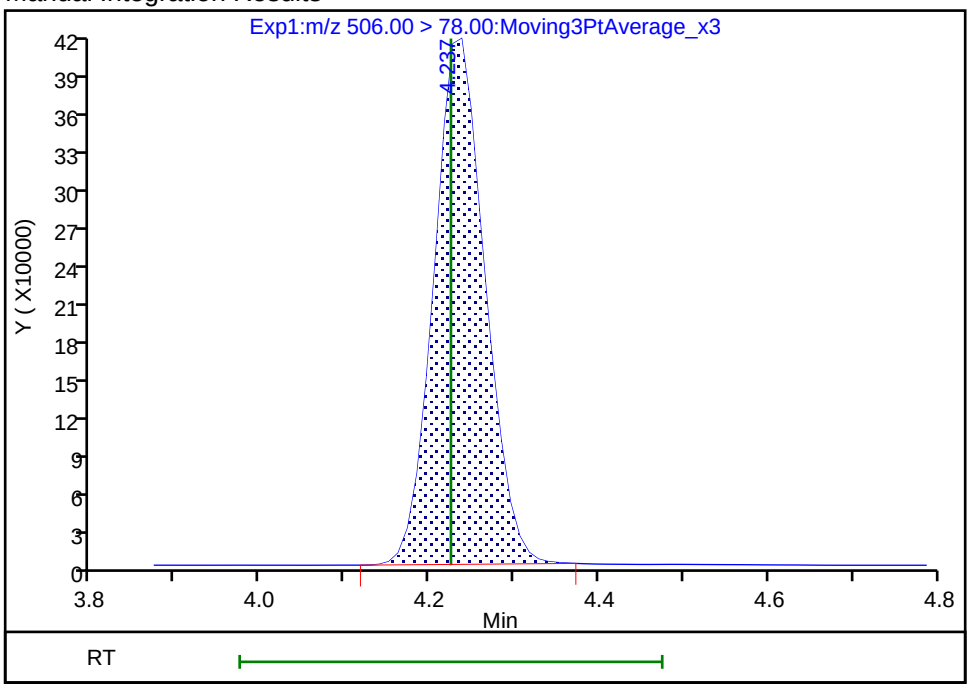
Processing Integration Results

RT: 4.24
Area: 1743171
Amount: 1.263417
Amount Units: ng/ml




Manual Integration Results

RT: 4.24
Area: 1730994
Amount: 1.252971
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

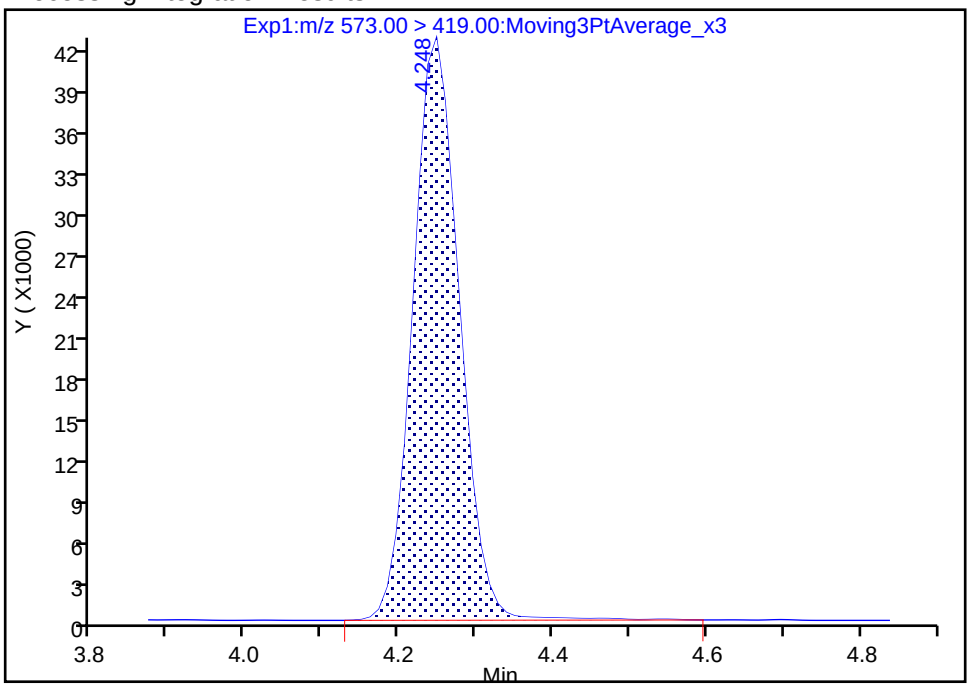
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

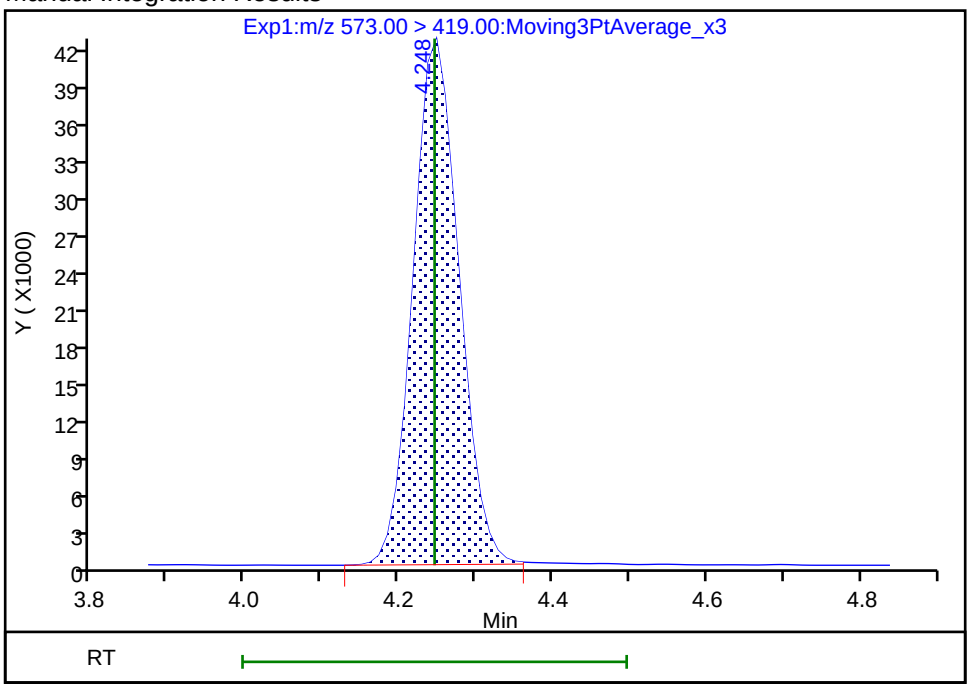
Processing Integration Results

RT: 4.25
Area: 179262
Amount: 1.273520
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 177391
Amount: 1.259122
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

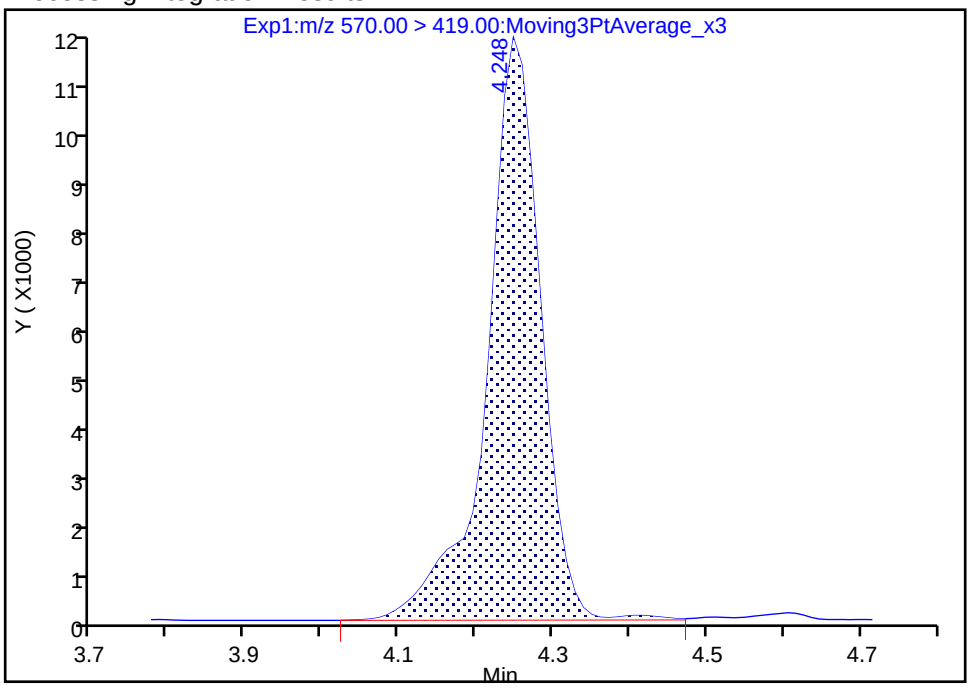
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

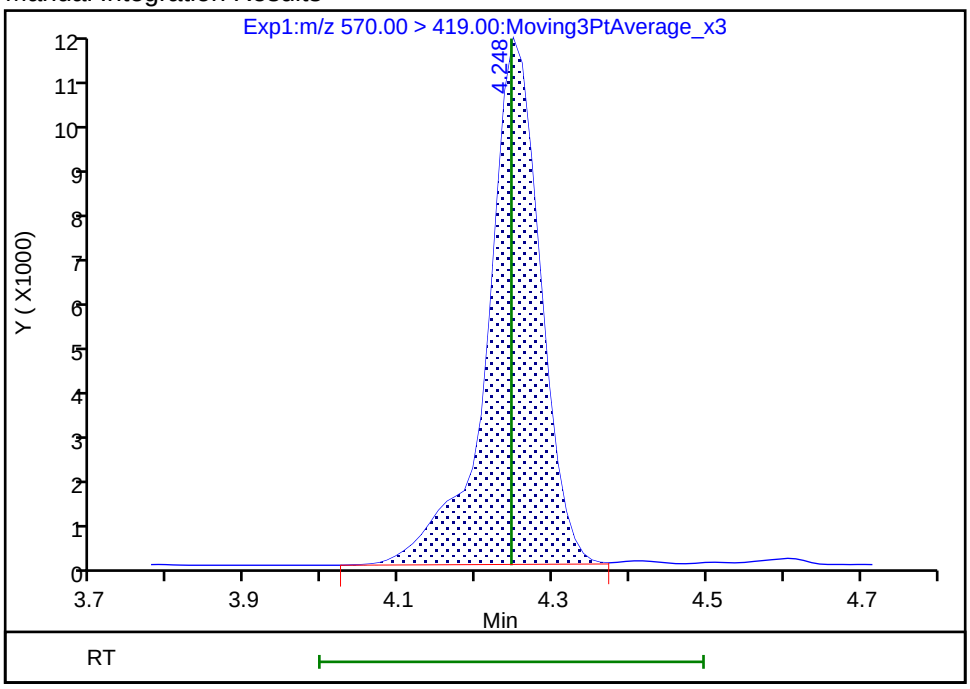
Processing Integration Results

RT: 4.25
Area: 55573
Amount: 0.493788
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 54995
Amount: 0.493292
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:03:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

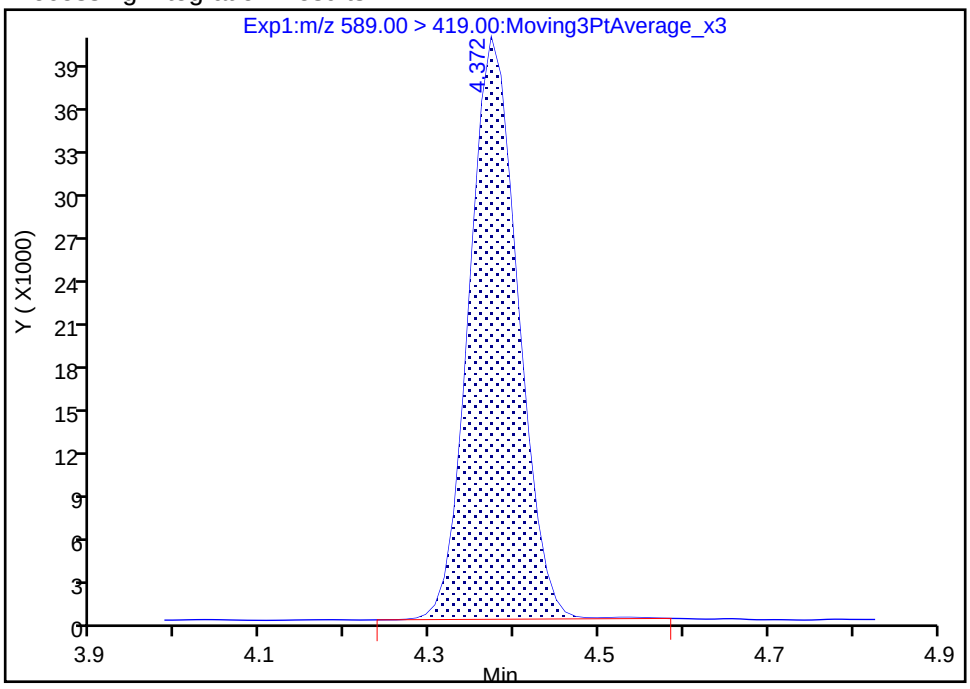
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

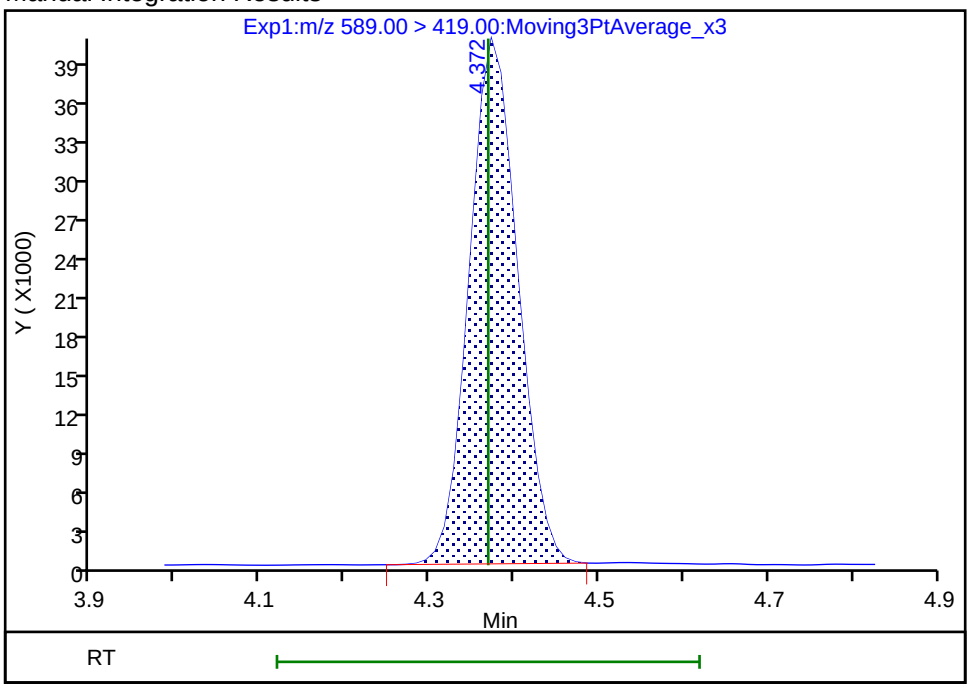
Processing Integration Results

RT: 4.37
Area: 163511
Amount: 1.246587
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 162762
Amount: 1.233352
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

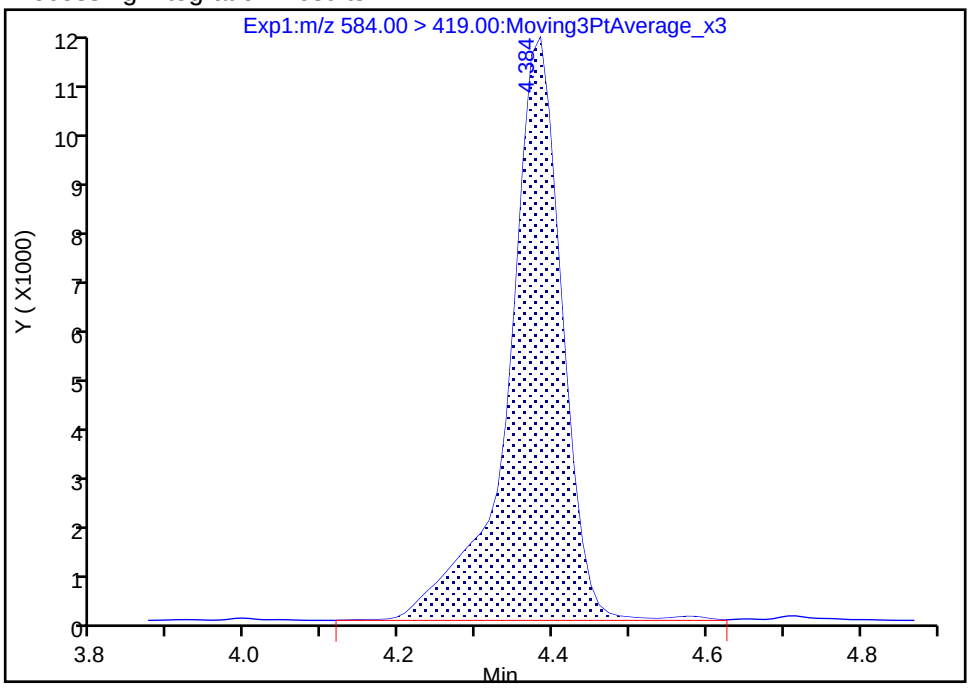
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

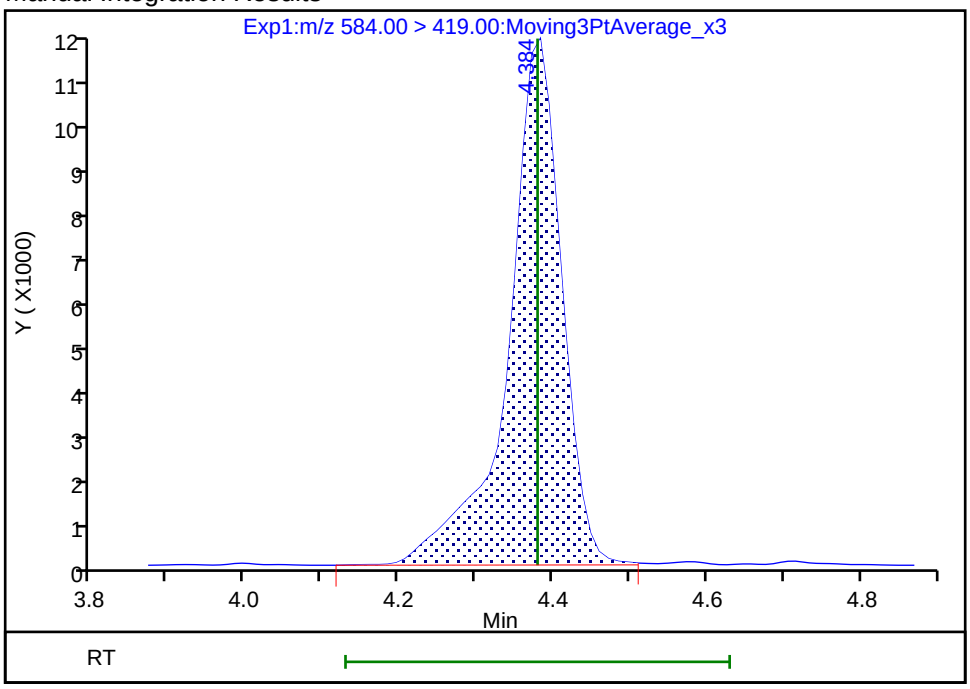
Processing Integration Results

RT: 4.38
Area: 55884
Amount: 0.472025
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 55468
Amount: 0.497138
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

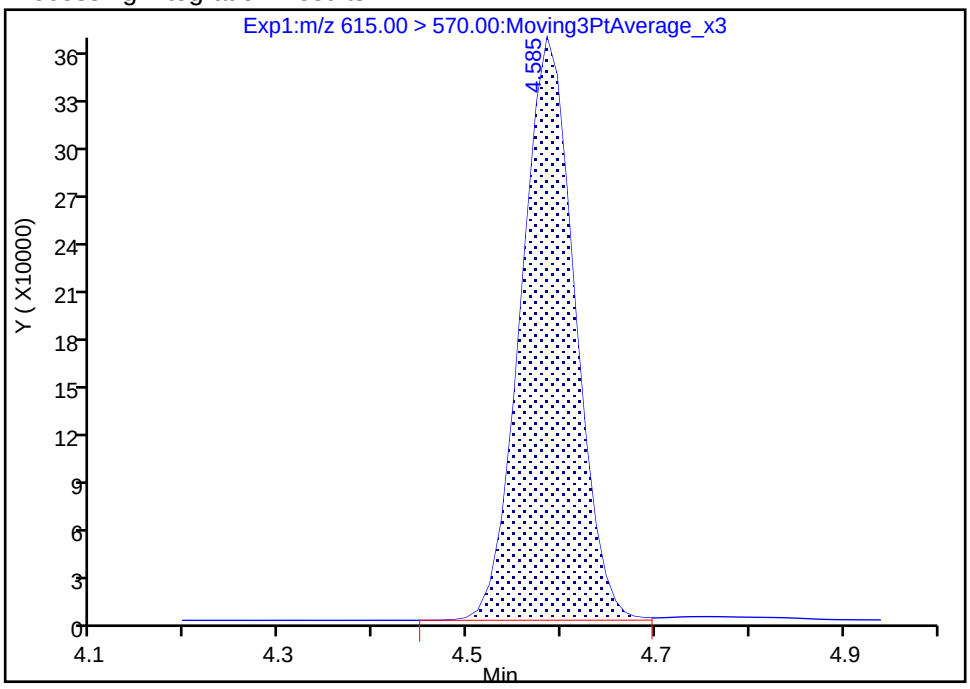
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

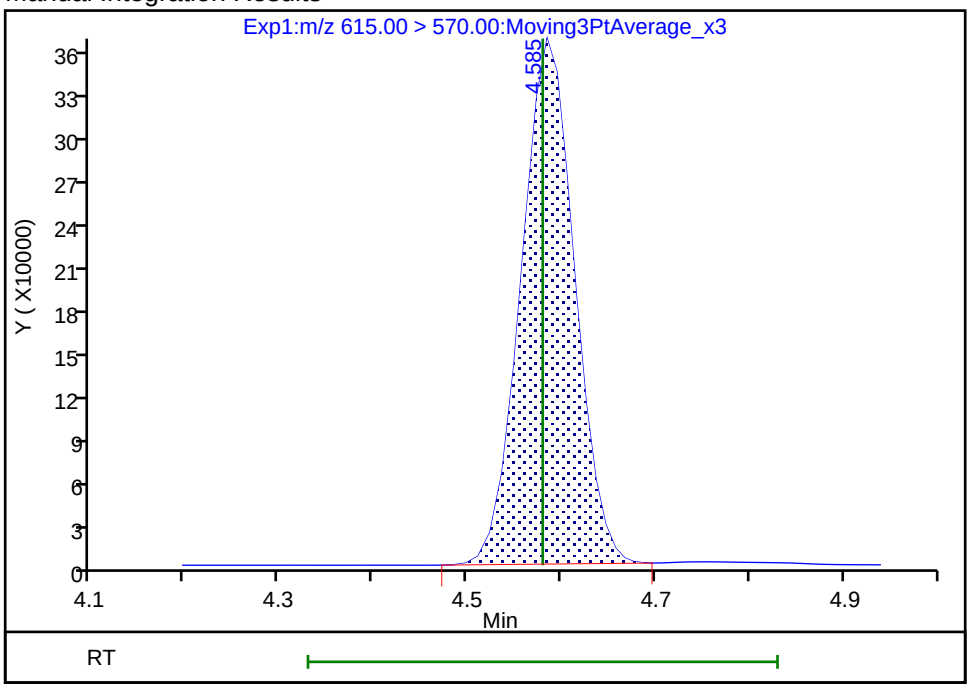
Processing Integration Results

RT: 4.58
Area: 1453068
Amount: 1.235773
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 1443504
Amount: 1.202114
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

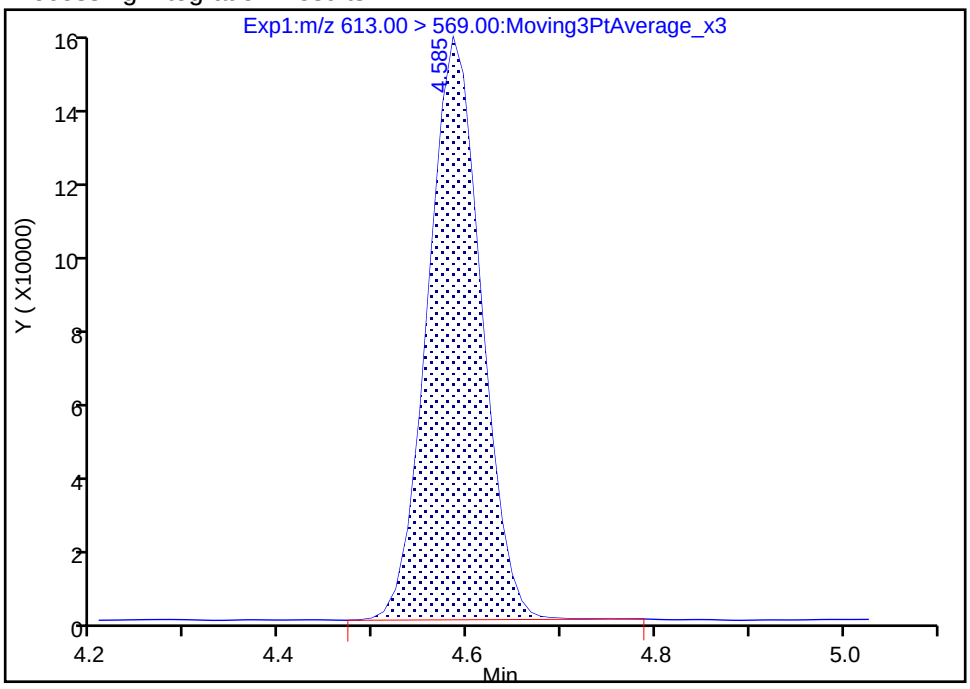
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

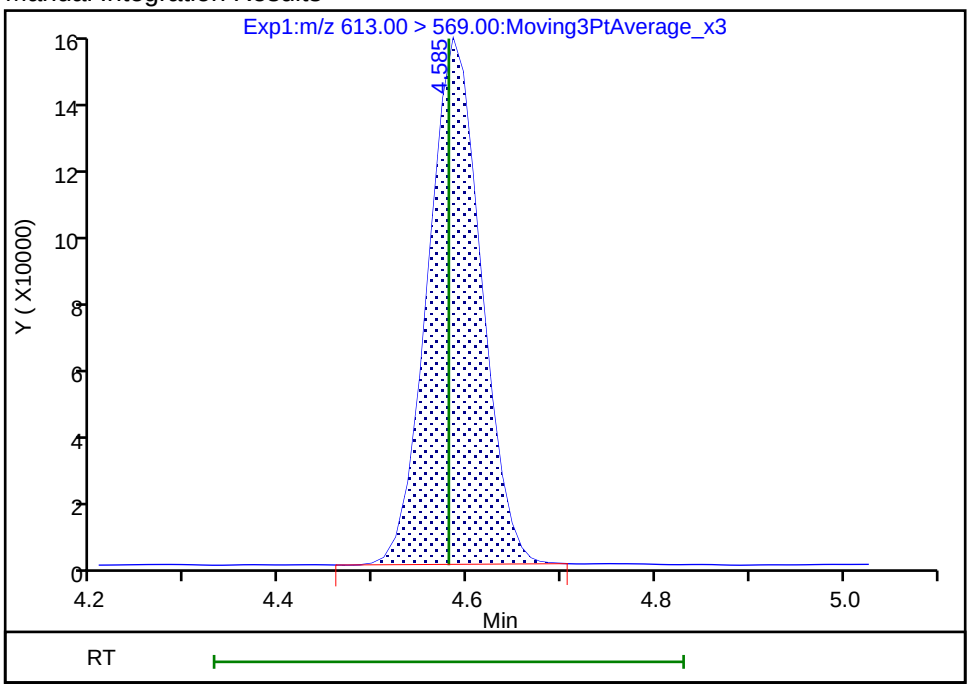
Processing Integration Results

RT: 4.58
Area: 596774
Amount: 0.499675
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 594650
Amount: 0.525952
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

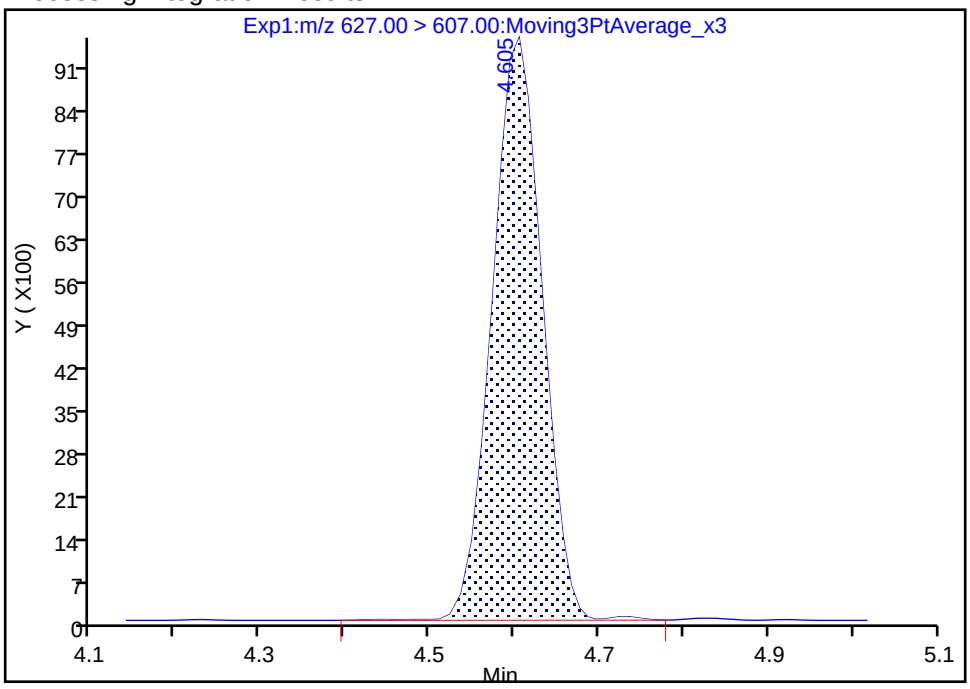
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

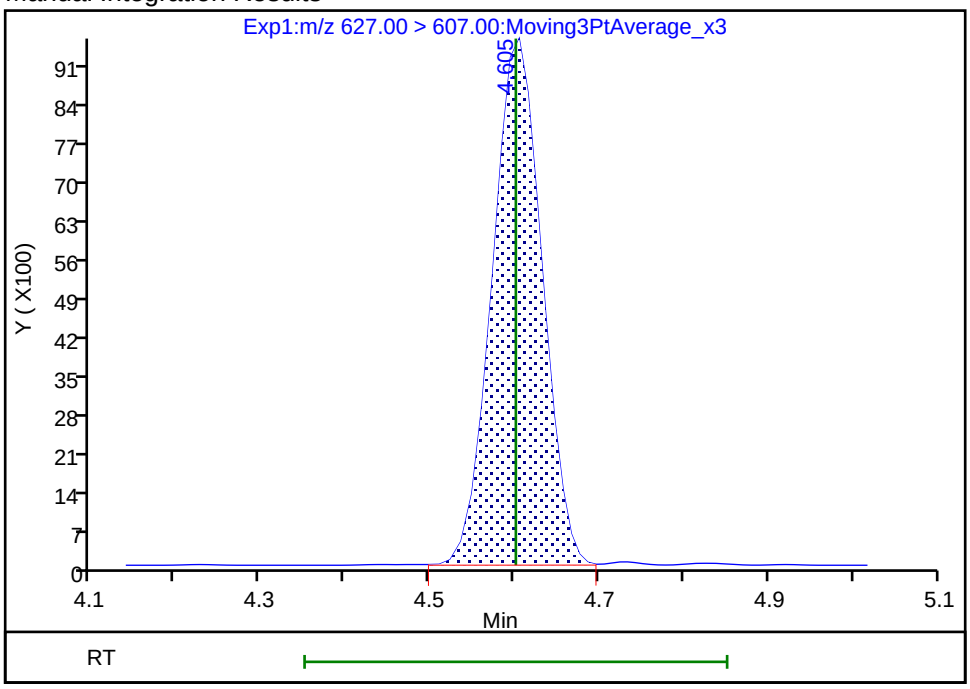
Processing Integration Results

RT: 4.61
Area: 39457
Amount: 0.503689
Amount Units: ng/ml




Manual Integration Results

RT: 4.61
Area: 39257
Amount: 0.515079
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:04:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

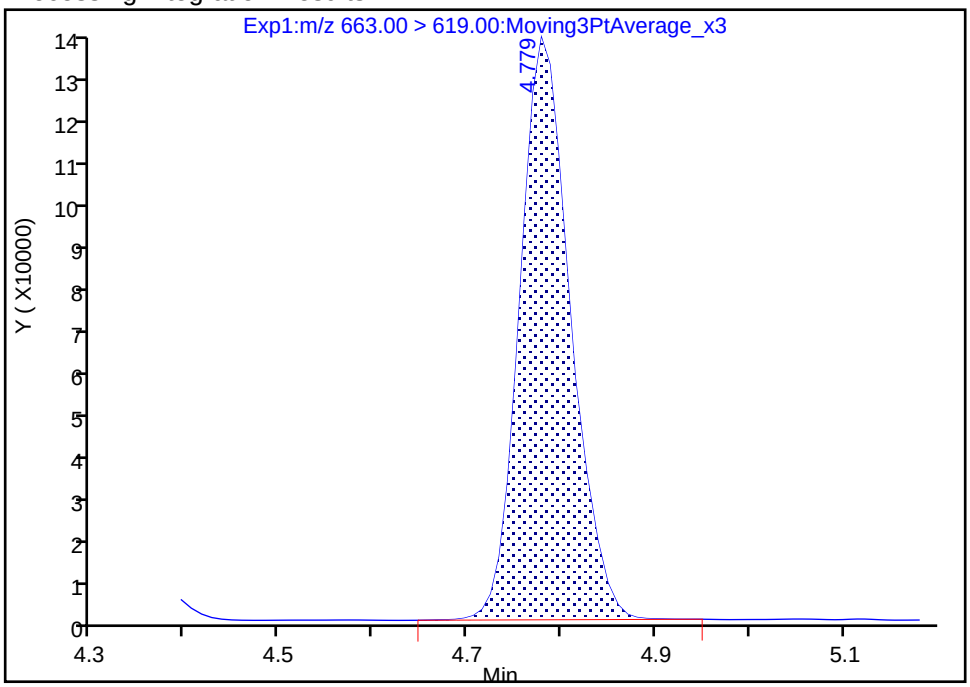
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

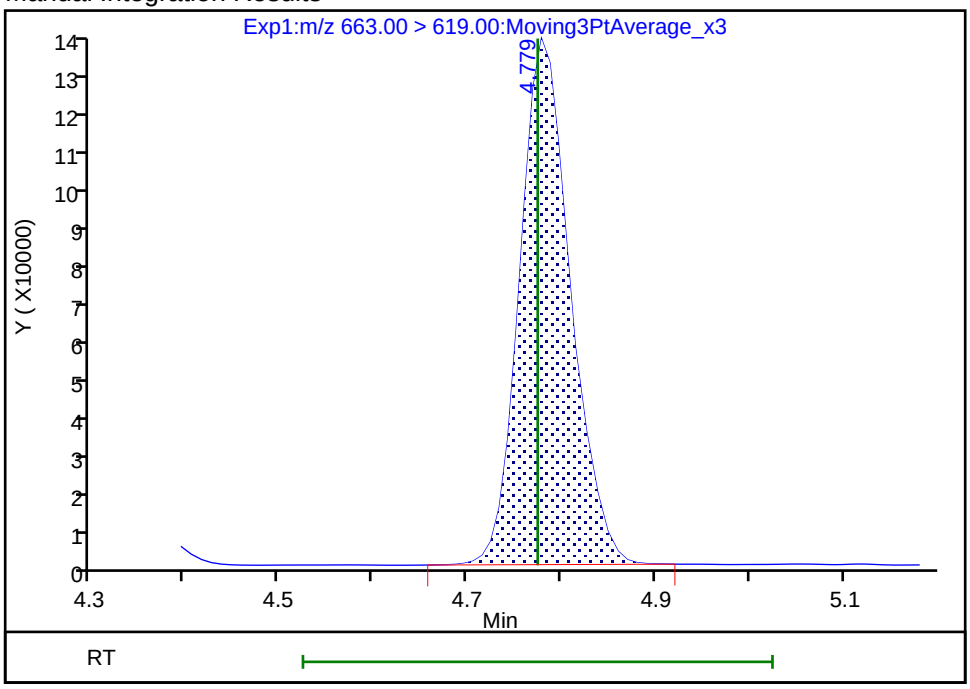
Processing Integration Results

RT: 4.78
Area: 497556
Amount: 0.483729
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 497082
Amount: 0.509947
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

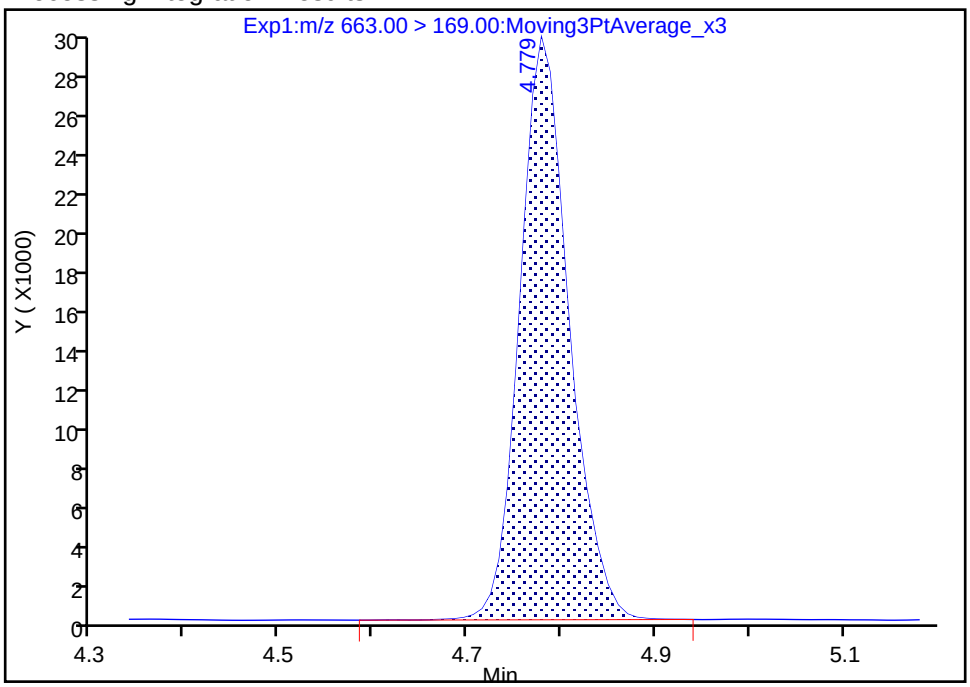
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d | | | | |
| Injection Date: | 27-Oct-2021 14:02:49 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 4 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

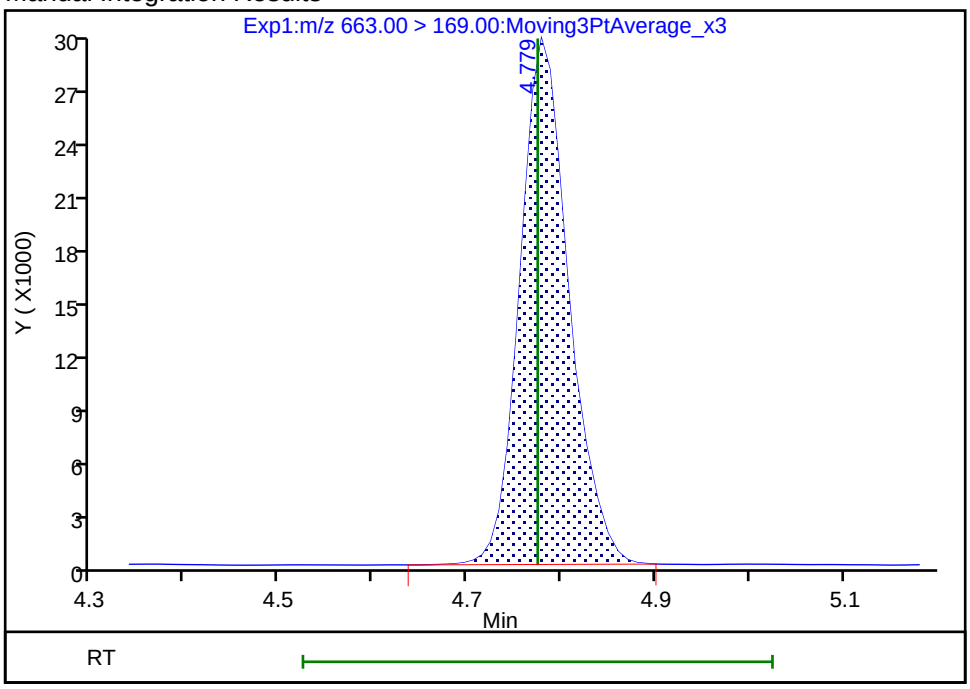
Processing Integration Results

RT: 4.78
Area: 108411
Amount: 0.483729
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 108142
Amount: 0.509947
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

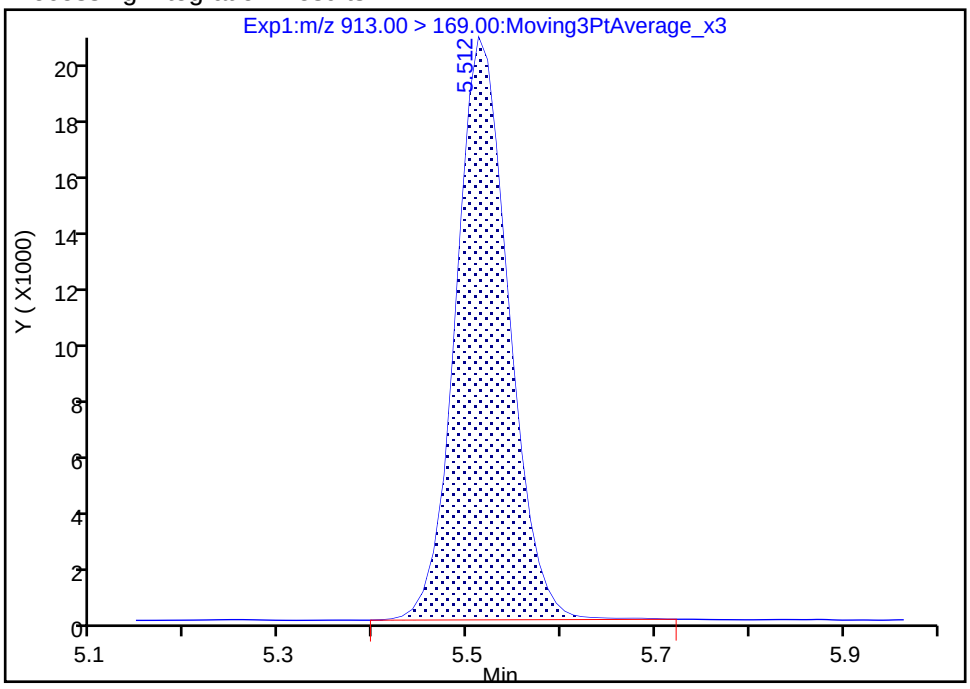
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL04.d
Injection Date: 27-Oct-2021 14:02:49 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

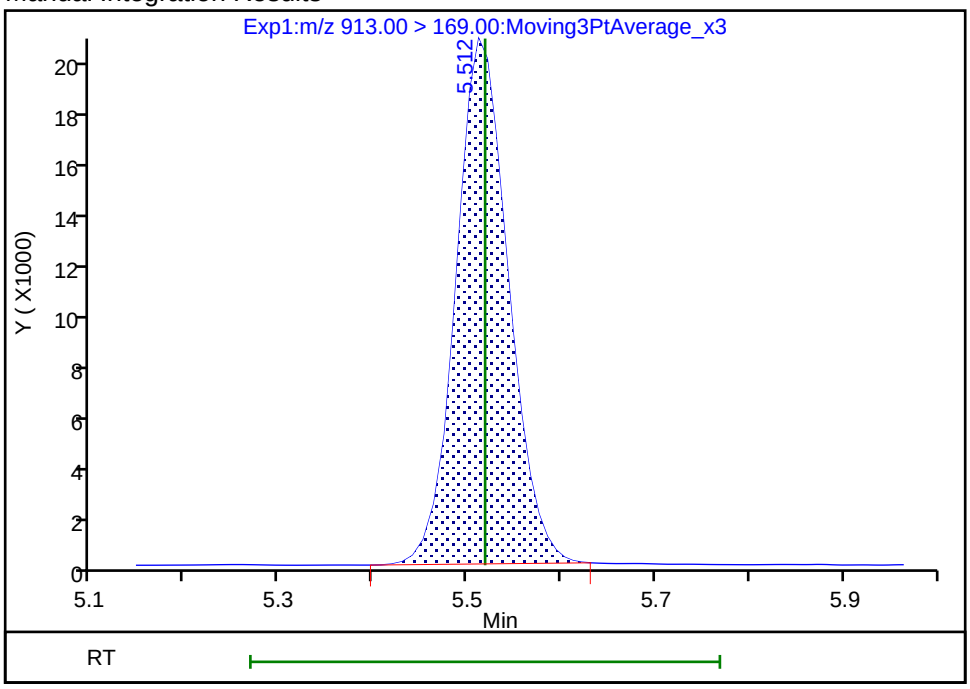
Processing Integration Results

RT: 5.51
Area: 78058
Amount: 0.499525
Amount Units: ng/ml




Manual Integration Results

RT: 5.51
Area: 77457
Amount: 0.523570
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 27-Oct-2021 14:11:07 ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 200-0048181-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:21 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:09:23
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.080 | 2.080 | 0.0 | 0.597 | 1982117 | 1.18 | | 94.2 | 5111 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.080 | 2.080 | 0.0 | 1.000 | 1470004 | 0.9804 | | 98.0 | 118 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.398 | 2.398 | 0.0 | 0.688 | 1755143 | 1.24 | | 99.0 | 2660 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.398 | 2.398 | 0.0 | 1.000 | 1391544 | 0.9893 | | 98.9 | 78.4 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.424 | 2.424 | 0.0 | 0.696 | 2194395 | 1.14 | | 98.4 | 154005 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.424 | 2.424 | 0.0 | 1.000 | 1699240 | 0.8428 | Target=2.29 | 95.3 | 1323 | |
| 298.90 > 99.00 | 2.424 | 2.424 | 0.0 | 1.000 | 731908 | | 2.32(1.15-3.44) | 95.3 | 254 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.720 | 2.720 | 0.0 | 0.781 | 155977 | 1.07 | | 91.4 | 131 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.720 | 2.720 | 0.0 | 1.000 | 279615 | 0.9833 | | 105 | 2925 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.756 | 2.756 | 0.0 | 1.000 | 1428398 | 0.9476 | Target=12.01 | 94.8 | 179 | M |
| 313.00 > 119.00 | 2.756 | 2.756 | 0.0 | 1.000 | 118176 | | 12.09(6.00-18.01) | 94.8 | 162 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.756 | 2.756 | 0.0 | 0.791 | 1857895 | 1.25 | | 99.9 | 2952 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.768 | 2.768 | 0.0 | 0.887 | 1488551 | 0.8914 | Target=3.04 | 95.0 | 1686 | |
| 349.00 > 99.00 | 2.768 | 2.768 | 0.0 | 0.887 | 490767 | | 3.03(1.52-4.56) | 95.0 | 427 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.865 | 2.865 | 0.0 | 0.823 | 42477 | 1.08 | | 86.7 | 286 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.865 | 2.865 | 0.0 | 1.000 | 153961 | 1.00 | | 100 | 39.3 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.122 | 3.122 | 0.0 | 0.896 | 1639762 | 1.18 | | 99.5 | 3393 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.122 | 3.122 | 0.0 | 1.000 | 1287587 | 0.8446 | Target=3.51 | 92.8 | 1132 | M |
| 399.00 > 99.00 | 3.122 | 3.122 | 0.0 | 1.000 | 362786 | | 3.55(1.76-5.27) | 92.8 | 303 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1503783 | 0.9473 | Target=3.83 | 94.7 | 379 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 407853 | | 3.69(1.91-5.74) | 94.7 | 541 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1920576 | 1.23 | | 98.1 | 3478 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.834 | 3115107 | 0.8787 | Target=2.58 | 93.3 | 1928 | M |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.834 | 1216733 | | 2.56(1.29-3.88) | 93.3 | 1081 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1113260 | 0.8817 | Target=5.12 | 92.6 | 1894 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 228238 | | 4.88(2.56-7.67) | 92.6 | 486 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 264731 | 1.20 | | 101 | 498 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 265198 | 0.9381 | | 99.0 | 1344 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 2127384 | 1.24 | | 99.5 | 5608 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 2078811 | 1.25 | | | 2883 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1718391 | 0.9495 | Target=2.65 | 94.9 | 259 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 641965 | | 2.68(1.32-3.97) | 94.9 | 789 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 1210356 | 1.20 | | 101 | 3831 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 964211 | 0.8774 | Target=4.60 | 94.5 | 1180 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 205583 | | 4.69(2.30-6.90) | 94.5 | 472 | M |
| D 19 13C5 PFNA | | | | | | | | | | M |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 2190750 | 1.29 | | 103 | 2531 | M |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1563242 | 0.9117 | Target=7.58 | 91.2 | 289 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 214440 | | 7.29(3.79-11.37) | 91.2 | 915 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.955 | 3.955 | 0.0 | 1.042 | 1497666 | 0.9046 | | 97.1 | 2633 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.071 | 4.071 | 0.0 | 1.073 | 792308 | 0.9255 | Target=2.38 | 96.4 | 1784 | M |
| 549.00 > 99.00 | 4.071 | 4.071 | 0.0 | 1.073 | 337501 | | 2.35(1.19-3.56) | 96.4 | 855 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.178 | 2098041 | 1.22 | | 97.6 | 3926 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 1672723 | 0.99 | Target=9.30 | 99.2 | 820 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 186937 | | 8.95(4.65-13.95) | 99.2 | 652 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 286620 | 1.15 | | 96.1 | 713 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 191300 | 0.9554 | | 99.7 | 1338 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.225 | 4.225 | 0.0 | 1.213 | 2062074 | 1.24 | | 99.4 | 1745 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.002 | 1517479 | 0.9686 | | 96.9 | 1914 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.219 | 208636 | 1.23 | | 98.6 | 756 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 127458 | 0.9721 | | 97.2 | 481 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 610213 | 0.9168 | Target=2.54 | 95.1 | 2080 | M |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 247219 | | 2.47(1.27-3.81) | 95.1 | 1009 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.358 | 0.0 | 1.251 | 1758950 | 1.31 | | 105 | 3983 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.358 | 4.358 | 0.0 | 1.000 | 1375247 | 0.9168 | Target=9.37 | 91.7 | 863 | |
| 563.00 > 169.00 | 4.358 | 4.358 | 0.0 | 1.000 | 148846 | | 9.24(4.69-14.06) | 91.7 | 1505 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.254 | 200276 | 1.26 | | 101 | 1218 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.003 | 126650 | 0.9225 | | 92.2 | 992 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.172 | 1724753 | 0.8821 | | 93.6 | 3401 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.315 | 1756299 | 1.22 | | 97.4 | 904 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.580 | 4.580 | 0.0 | 1.000 | 1418492 | 1.03 | Target=6.84 | 103 | 215 | |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 201548 | | 7.04(3.42-10.25) | 103 | 1232 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 89116 | 0.9633 | | 99.9 | 1611 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 229693 | 0.9383 | Target=0.51 | 96.9 | 2544 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 468736 | | 0.49(0.25-0.76) | 96.9 | 3618 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.775 | 4.775 | 0.0 | 1.042 | 1161247 | 0.9791 | Target=4.67 | 97.9 | 254 | M |
| 663.00 > 169.00 | 4.775 | 4.775 | 0.0 | 1.042 | 248156 | | 4.68(2.33-7.00) | 97.9 | 1444 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.0 | 1.423 | 1364943 | 1.22 | | 97.6 | 2699 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.0 | 1.000 | 174302 | 1.01 | Target=0.99 | 101 | 1690 | |
| 713.00 > 219.00 | 4.947 | 4.957 | -0.009 | 0.998 | 172074 | | 1.01(0.49-1.48) | 101 | 1958 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 1215023 | 1.23 | | 98.7 | 2574 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 870242 | 1.03 | Target=4.50 | 103 | 202 | |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 190383 | | 4.57(2.25-6.75) | 103 | 1515 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.519 | 5.519 | 0.0 | 1.050 | 818298 | 1.00 | Target=4.46 | 99.8 | 331 | M |
| 913.00 > 169.00 | 5.519 | 5.519 | 0.0 | 1.050 | 191537 | | 4.27(2.23-6.68) | 99.8 | 1663 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:22 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d

Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812

Lims ID: ICIS

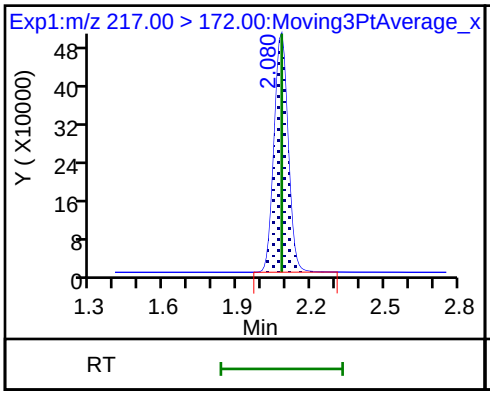
Client ID:

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5

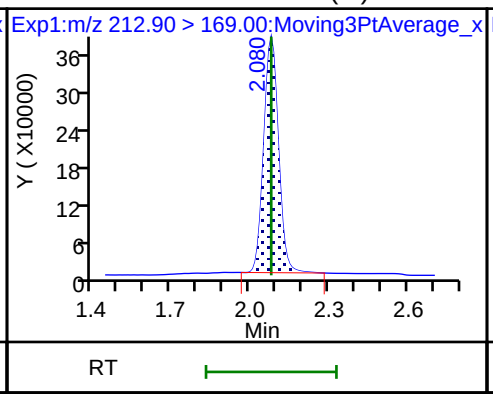
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

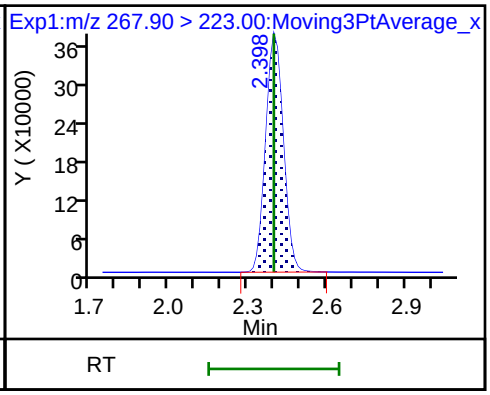
D 1 13C4 PFBA



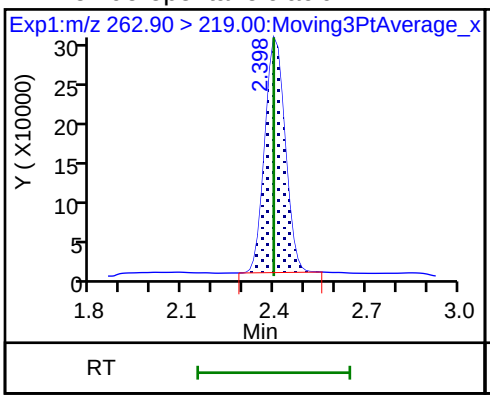

2 Perfluorobutanoic acid (M)



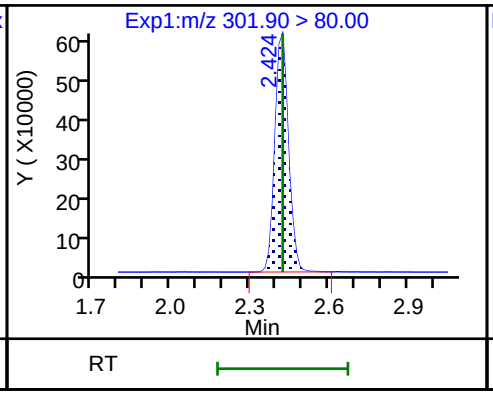

D 3 13C5 PFPeA



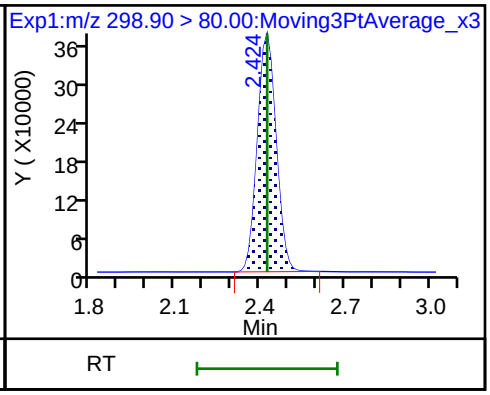

4 Perfluoropentanoic acid



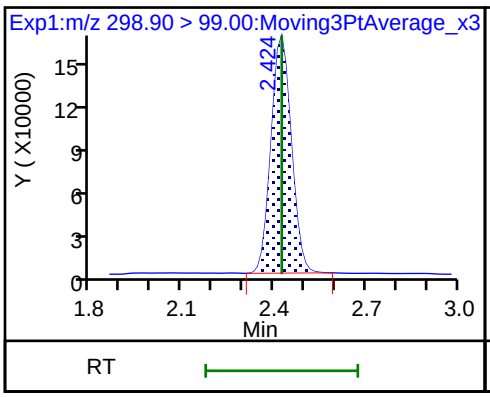

D 47 13C3 PFBS



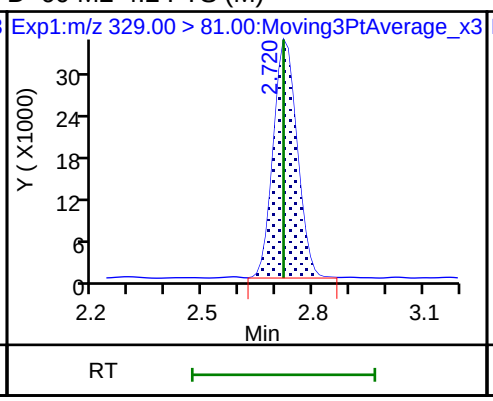

5 Perfluorobutanesulfonic acid



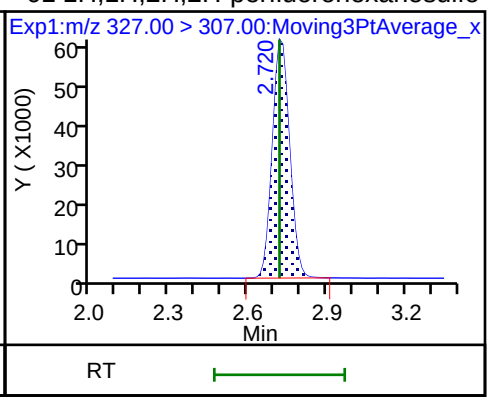

5 Perfluorobutanesulfonic acid



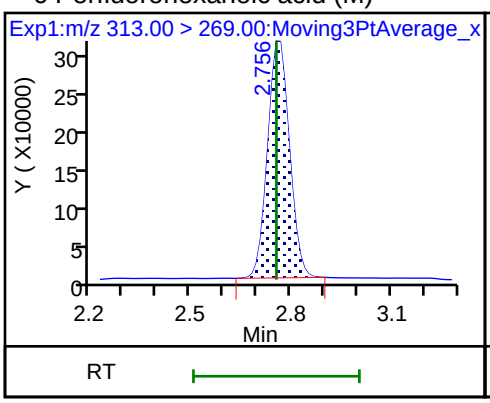

D 60 M2-4:2 FTS (M)



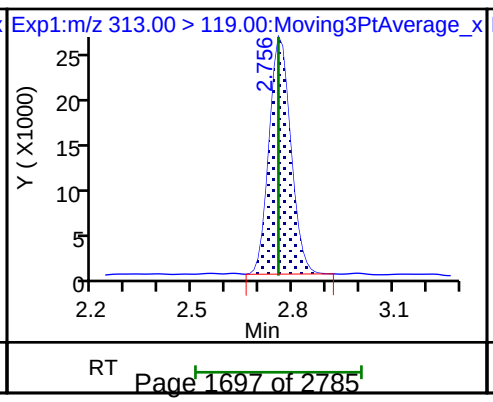

61 1H,1H,2H,2H-perfluorohexanesulfo



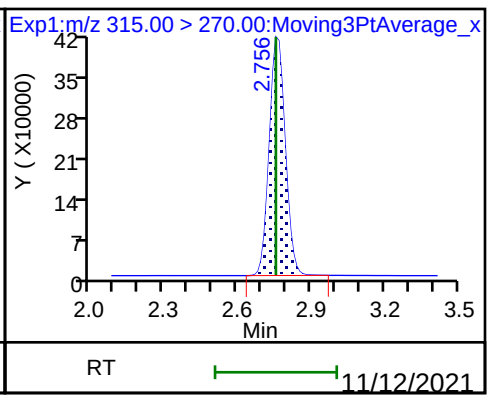

6 Perfluorohexanoic acid (M)



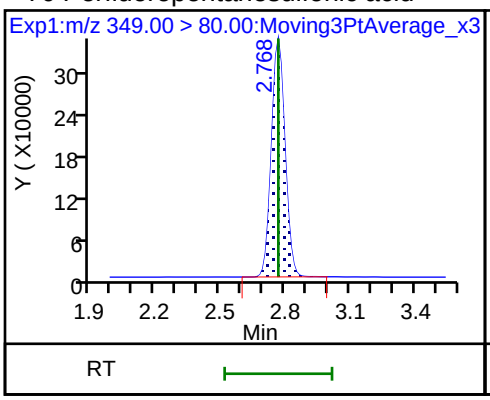

6 Perfluorohexanoic acid




D 7 13C2 PFHxA



70 Perfluoropentanesulfonic acid

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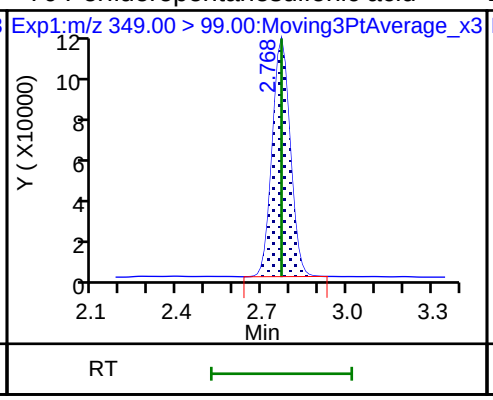
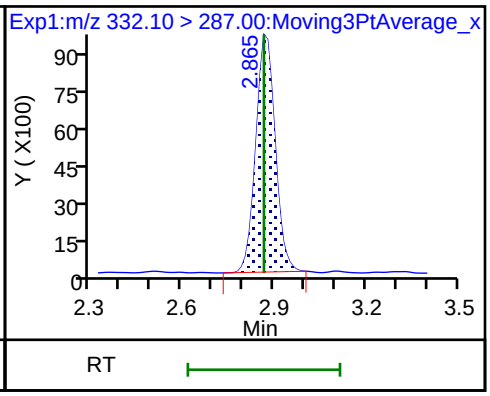
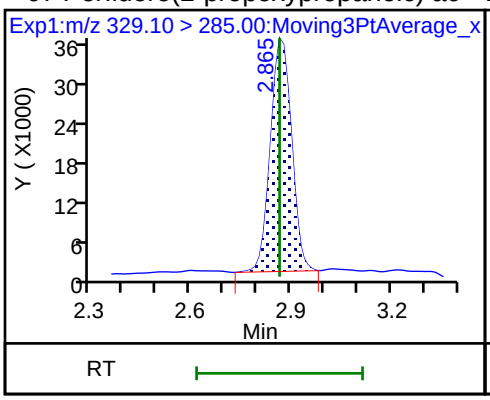


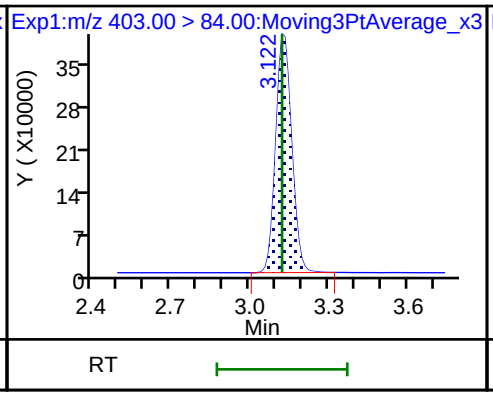

D 64 13C3 HFPO-DA



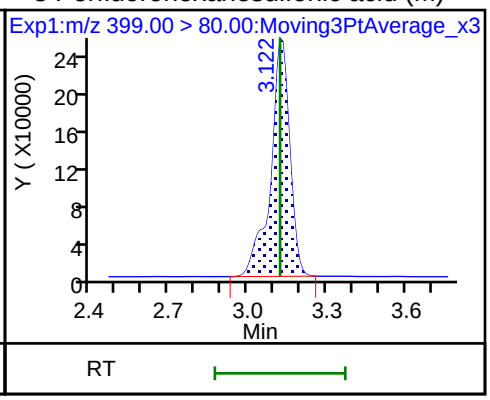

67 Perfluoro(2-propoxypropanoic) ac




D 11 18O2 PFHxS




8 Perfluorohexanesulfonic acid (M)

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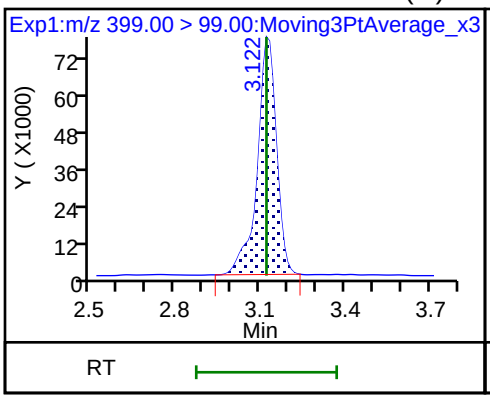
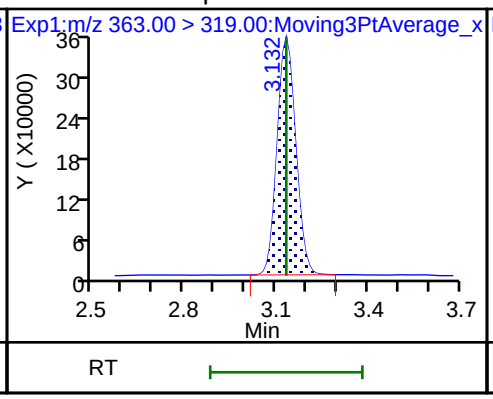
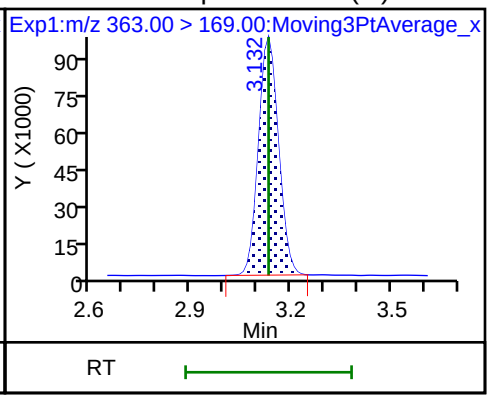


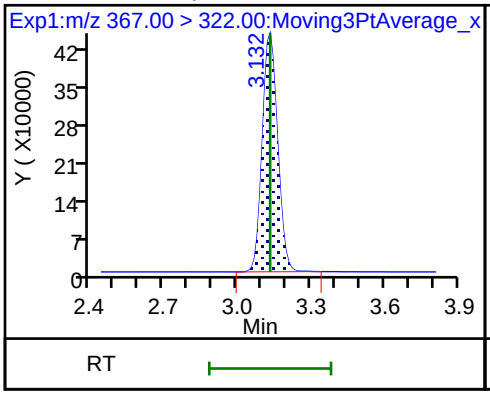

10 Perfluoroheptanoic acid



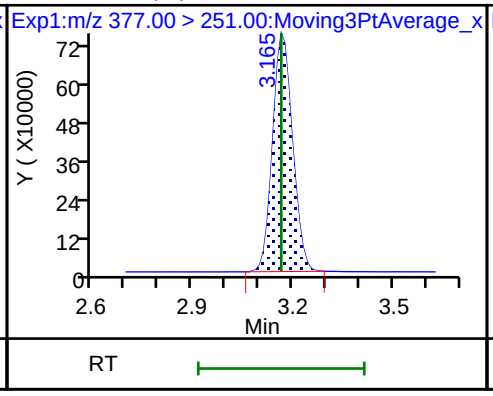

10 Perfluoroheptanoic acid (M)




D 9 13C4 PFHpA




77 DONA (M)

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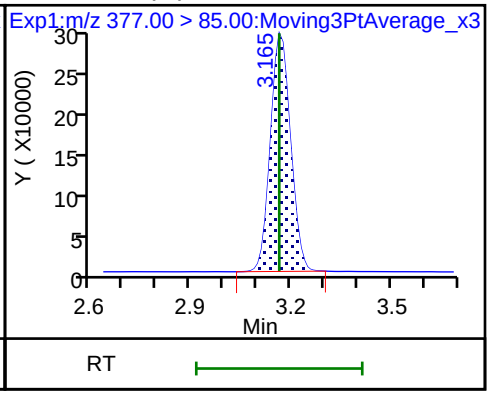
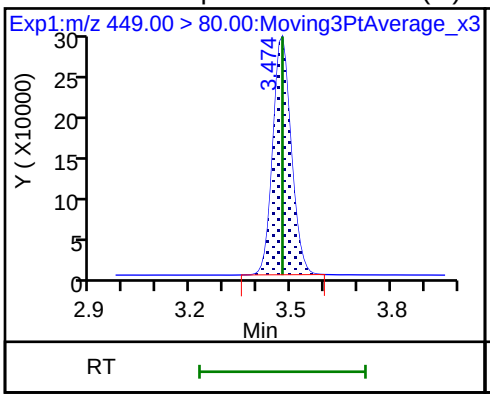
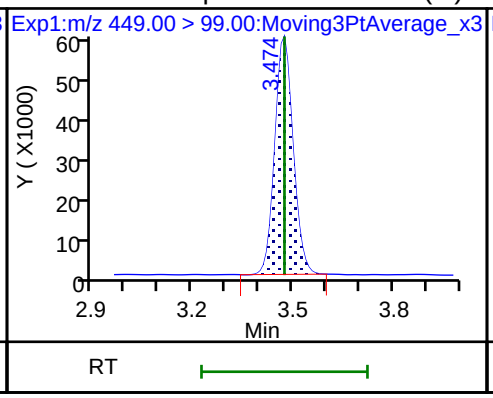


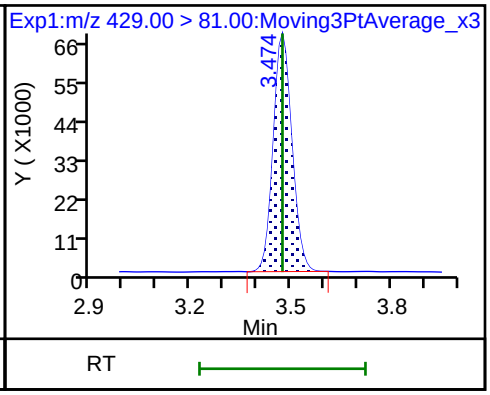
16 Perfluoroheptanesulfonic acid (M)



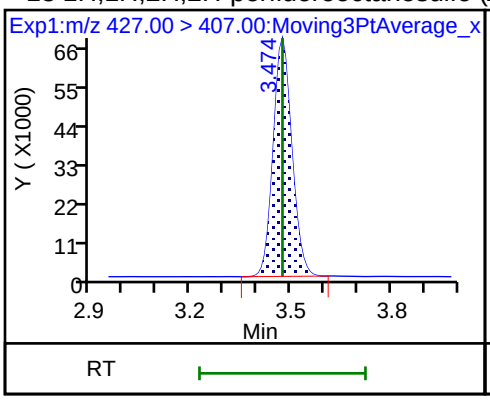

16 Perfluoroheptanesulfonic acid (M)



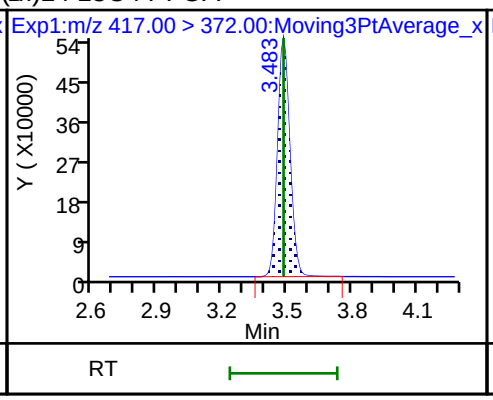

D 12 M2-6:2 FTS



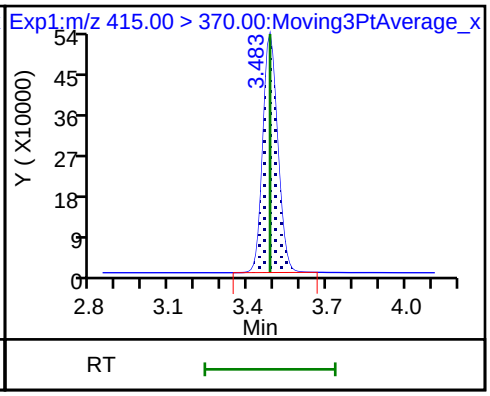

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



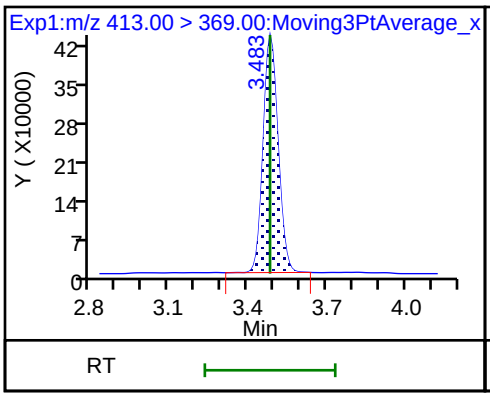

14 13C4 PFOA



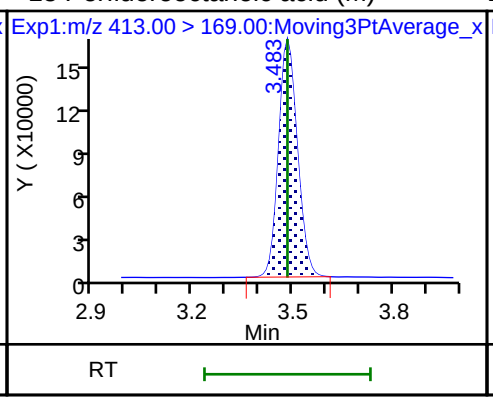

* 62 13C2 PFOA



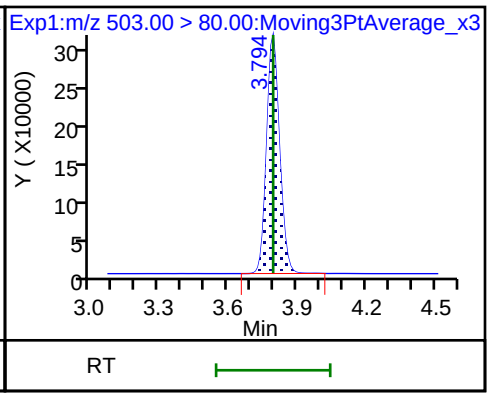

15 Perfluorooctanoic acid



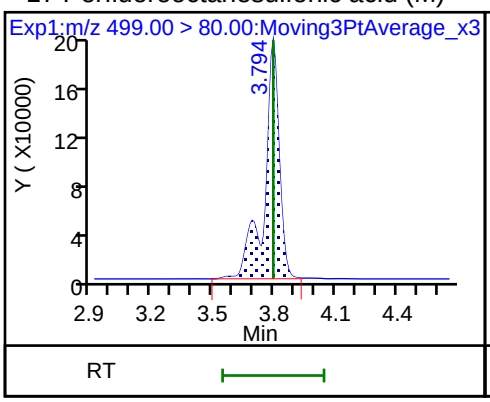

15 Perfluorooctanoic acid (M)




D 18 13C4 PFOS




17 Perfluorooctanesulfonic acid (M)

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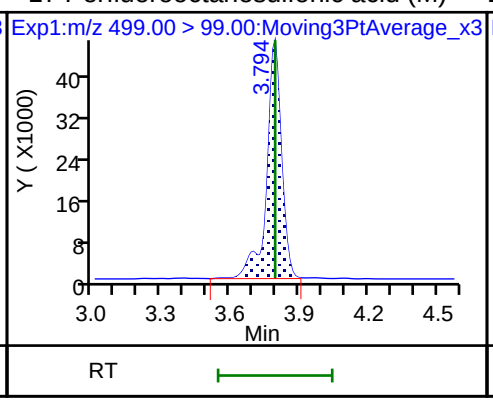
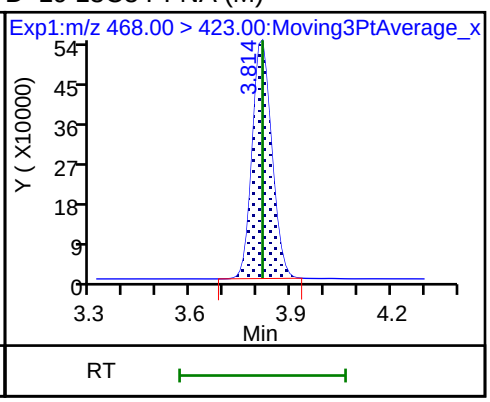
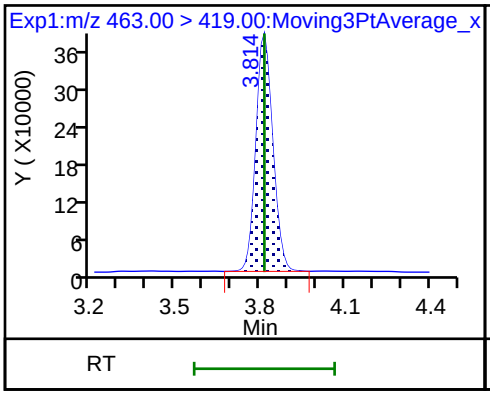


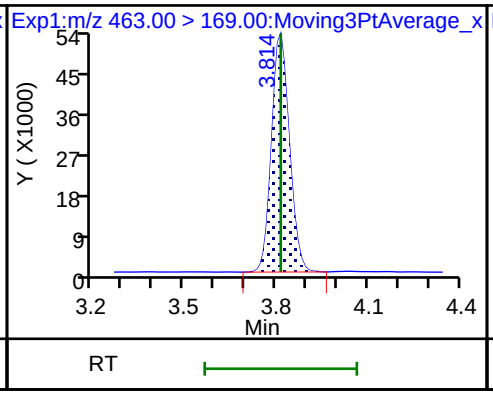

D 19 13C5 PFNA (M)



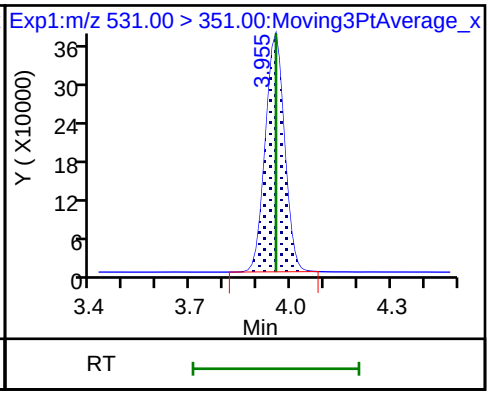
20 Perfluorononanoic acid



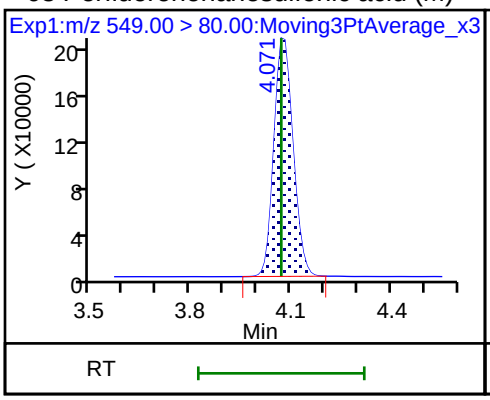

20 Perfluorononanoic acid




69 9-Chlorohexadecafluoro-3-oxanona (M)




68 Perfluorononanesulfonic acid (M)

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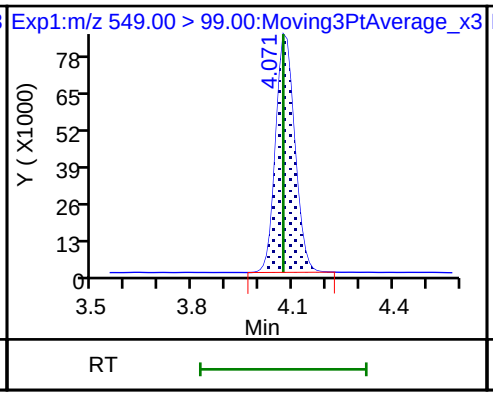
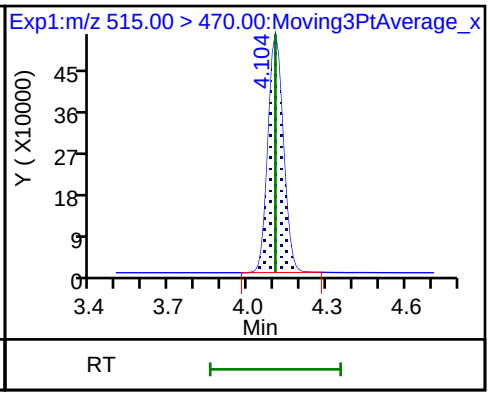
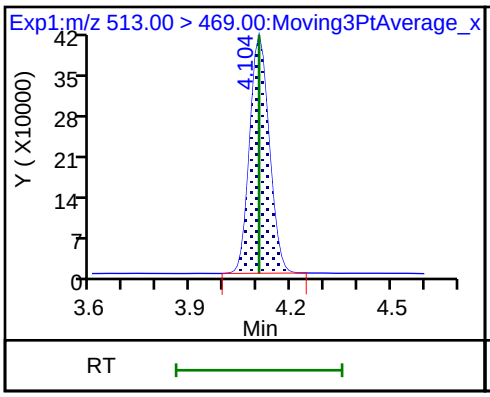


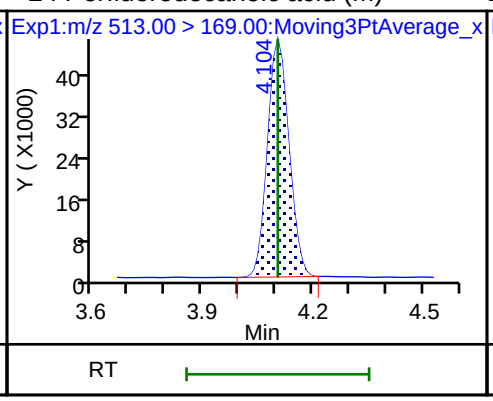

D 23 13C2 PFDA



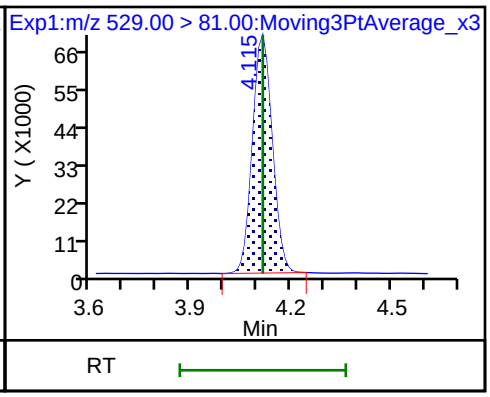

24 Perfluorodecanoic acid



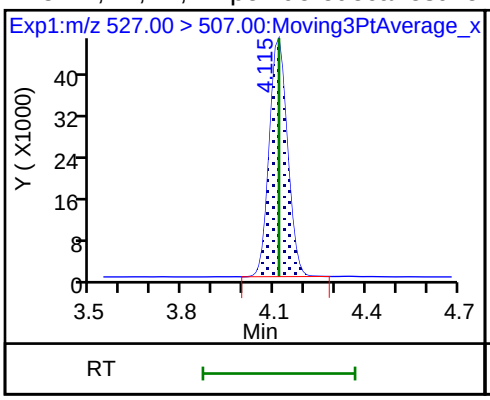

24 Perfluorodecanoic acid (M)



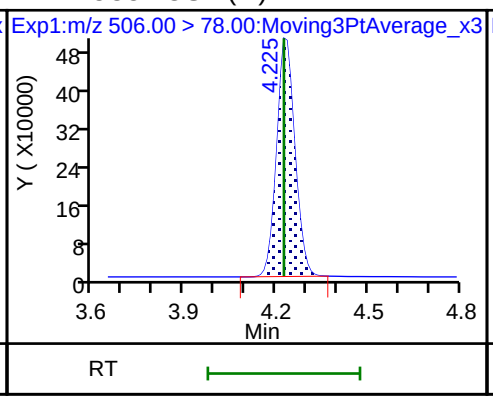

D 26 M2-8:2 FTS



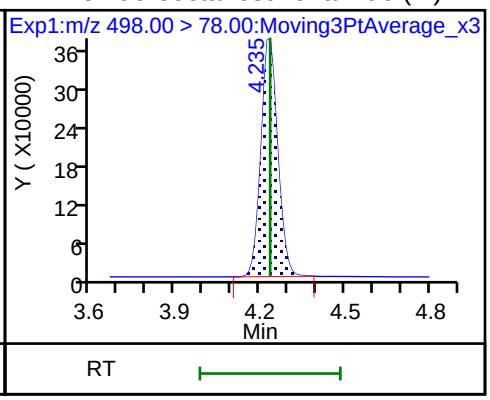

25 1H,1H,2H,2H-perfluorodecanesulfo



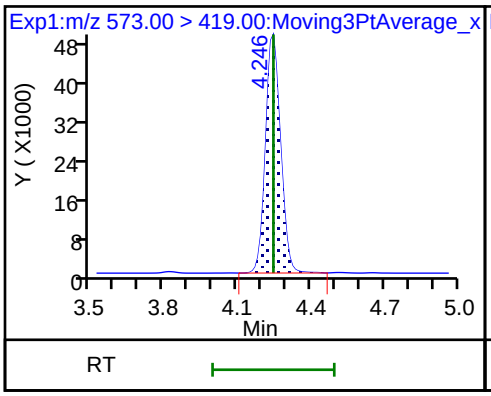

D 21 13C8 FOSA (M)



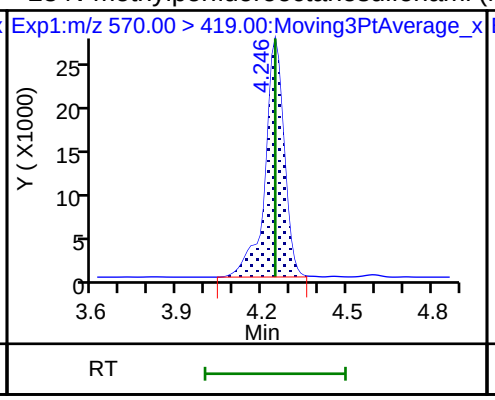

22 Perfluorooctanesulfonamide (M)



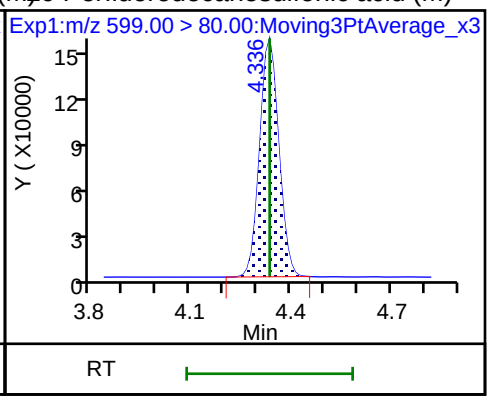
D 27 d3-NMeFOSAA



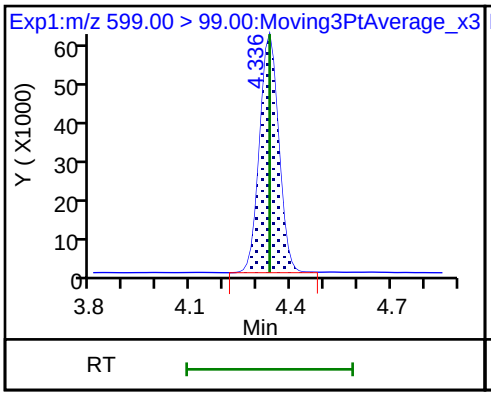

28 N-methylperfluorooctanesulfonami (M)



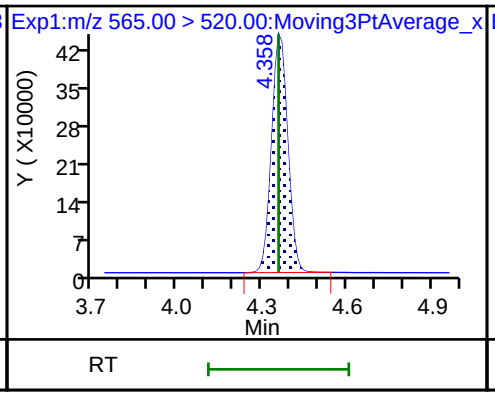

29 Perfluorodecanesulfonic acid (M)



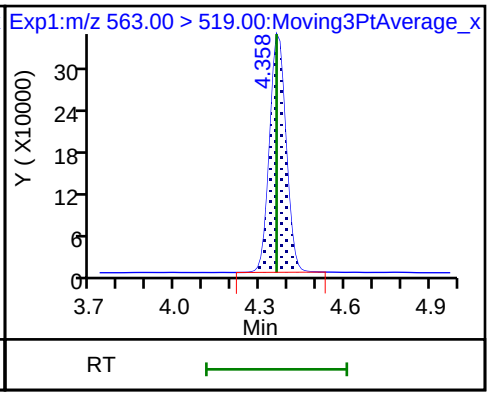

29 Perfluorodecanesulfonic acid



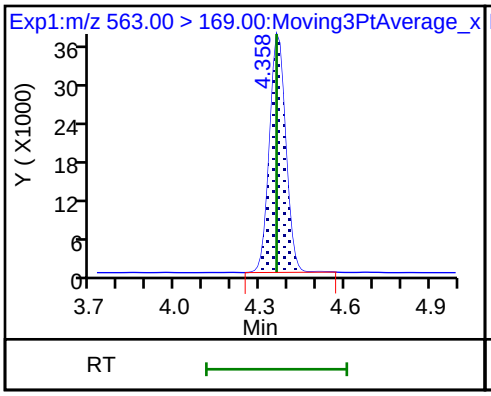

D 30 13C2 PFUnA



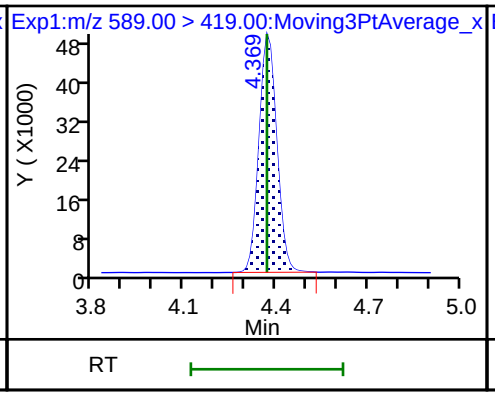

31 Perfluoroundecanoic acid



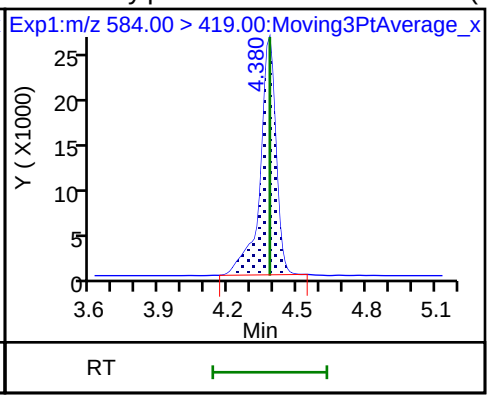

31 Perfluoroundecanoic acid



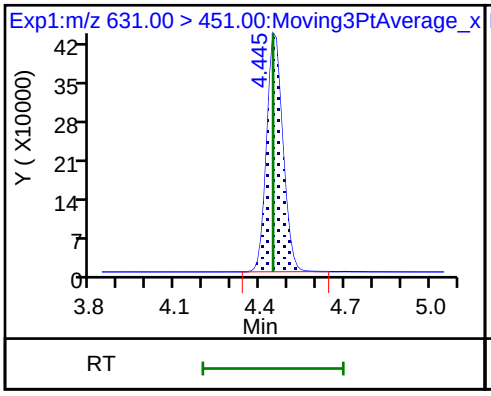

D 32 d5-NEtFOSAA



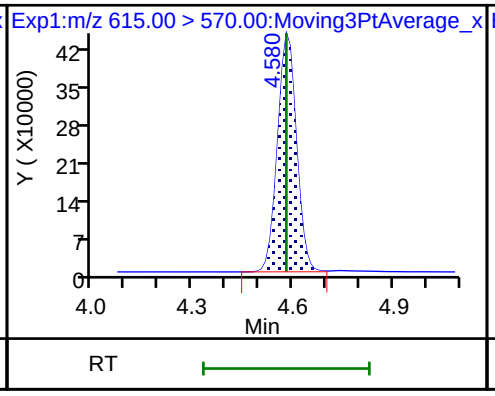

33 N-ethylperfluorooctanesulfonamid (M)



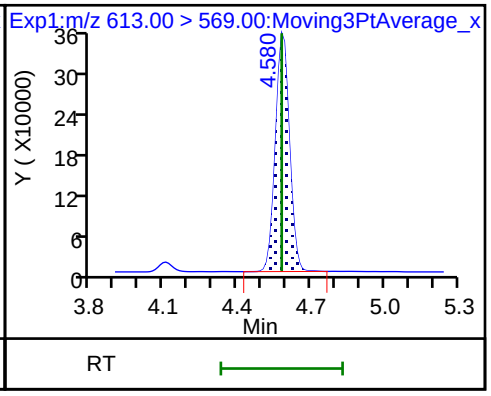

66 11-Chloroeicosafluoro-3-oxaundec



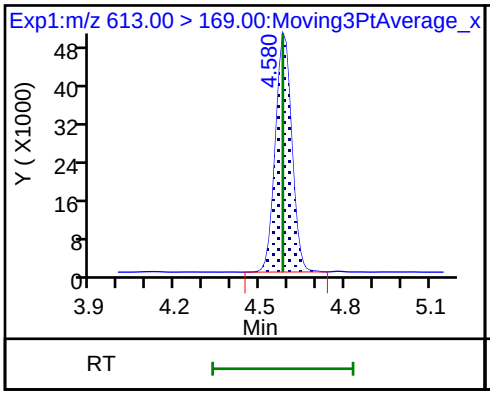

D 36 13C2 PFDoA



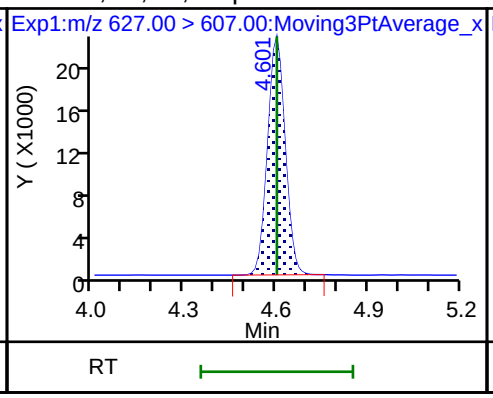

37 Perfluorododecanoic acid



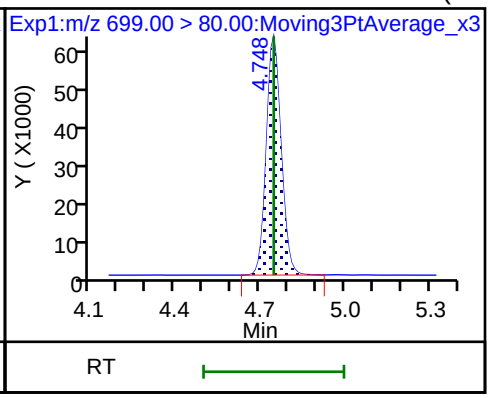
37 Perfluorododecanoic acid



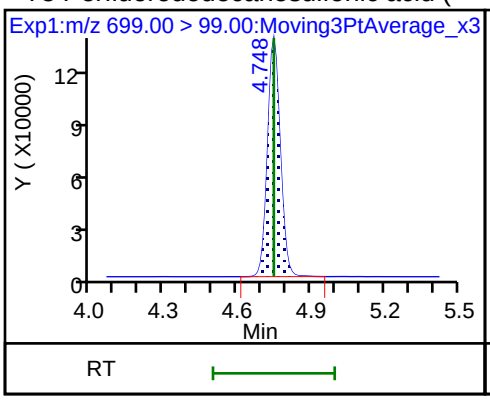

74 1H,1H,2H,2H-perfluorododecanesul



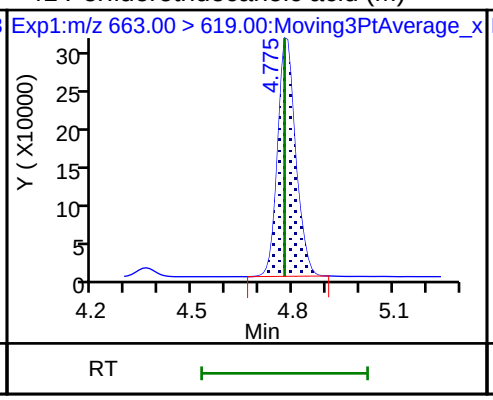

75 Perfluorododecanesulfonic acid (



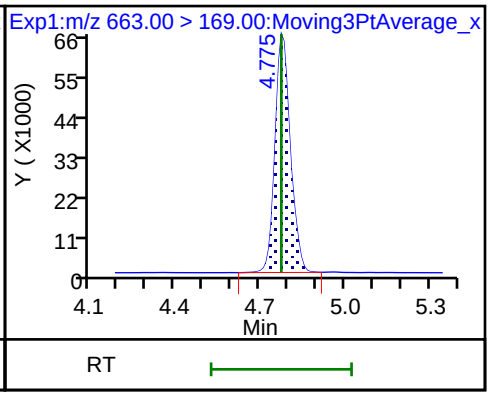

75 Perfluorododecanesulfonic acid (



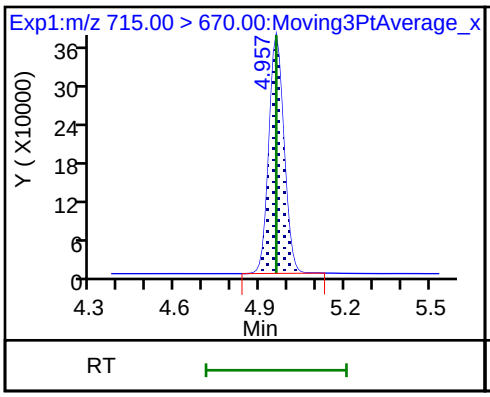

41 Perfluorotridecanoic acid (M)



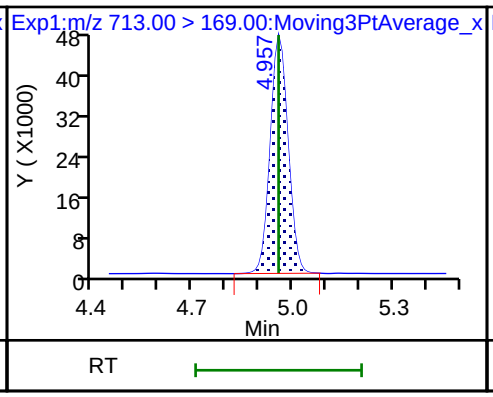

41 Perfluorotridecanoic acid



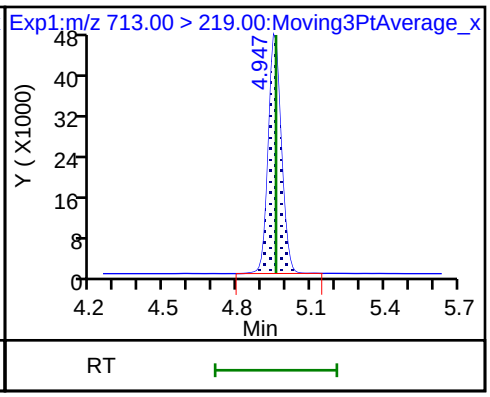

D 43 13C2 PFTeDA



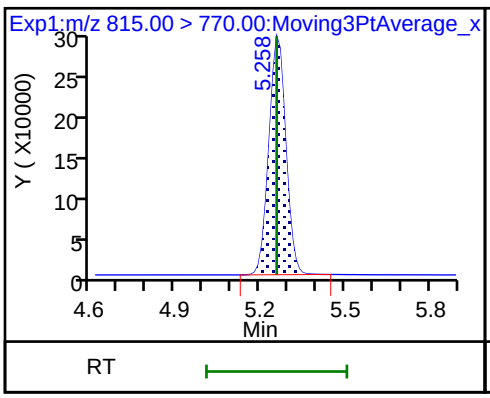

42 Perfluorotetradecanoic acid



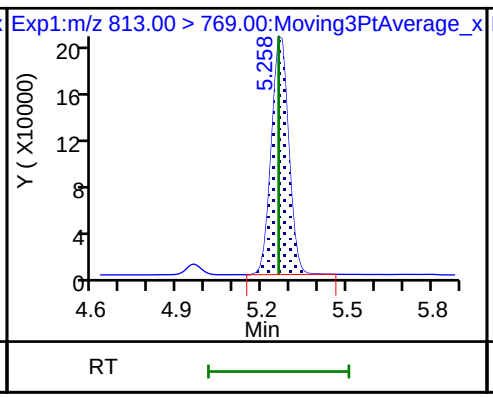

42 Perfluorotetradecanoic acid



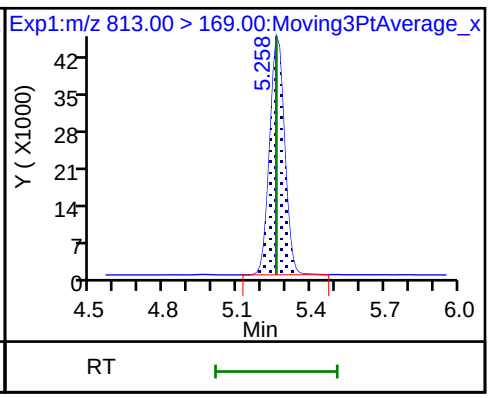

D 44 13C2 PFHxDA



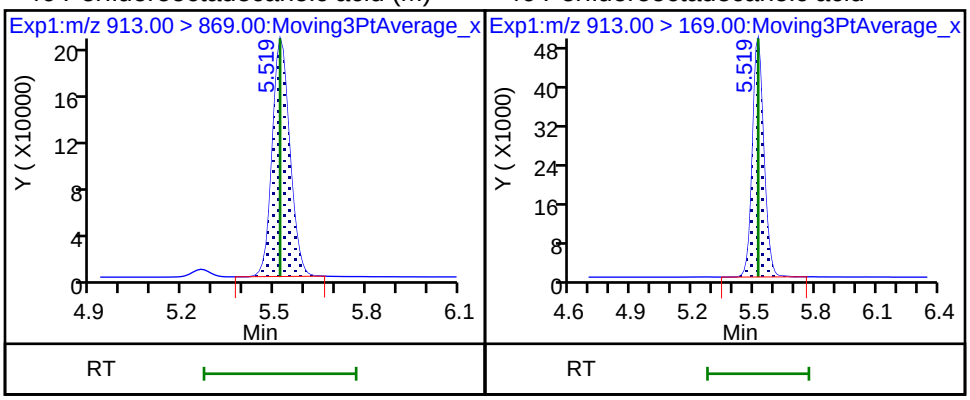

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

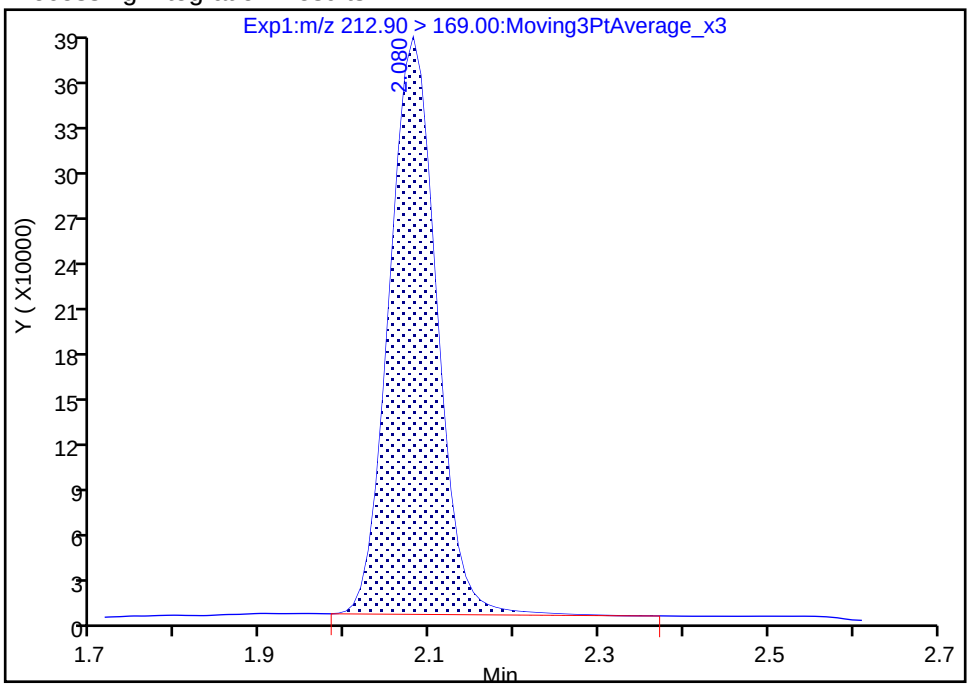
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

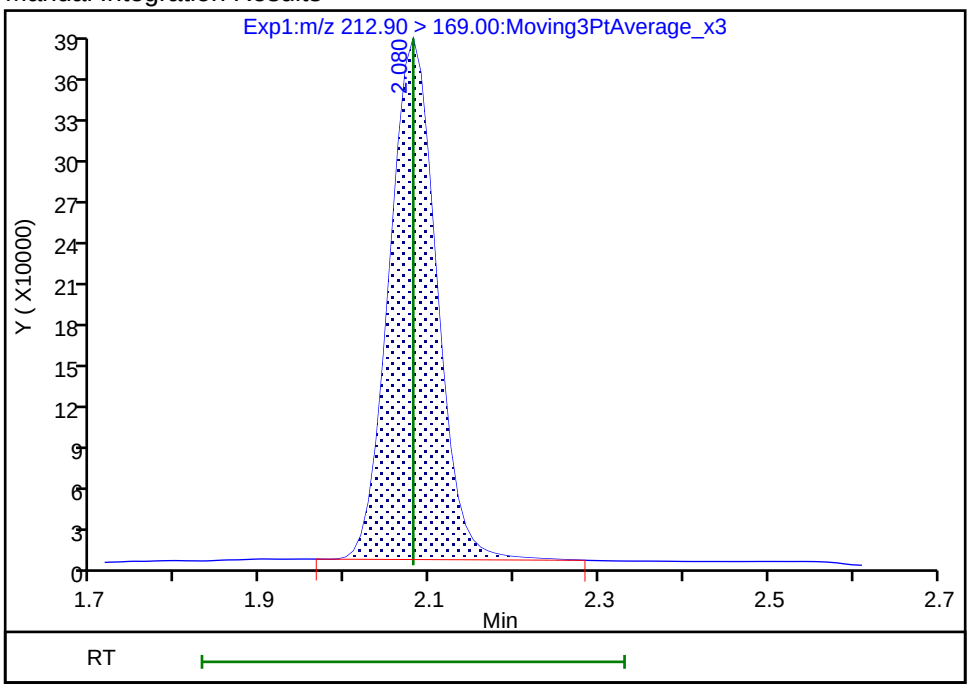
Processing Integration Results

RT: 2.08
Area: 1475193
Amount: 0.946105
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 1470004
Amount: 0.980417
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

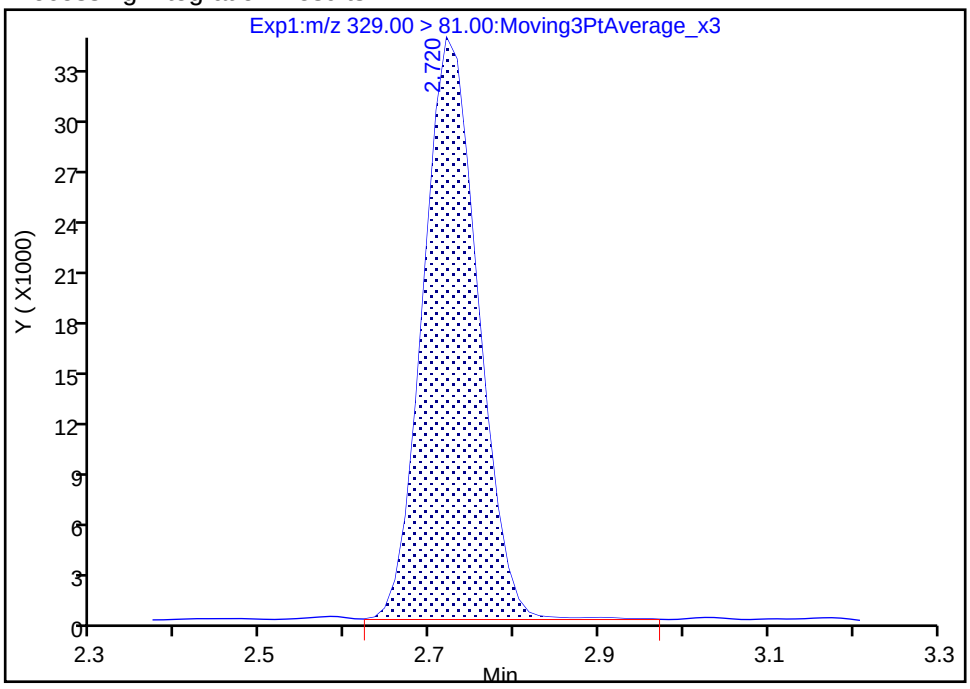
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

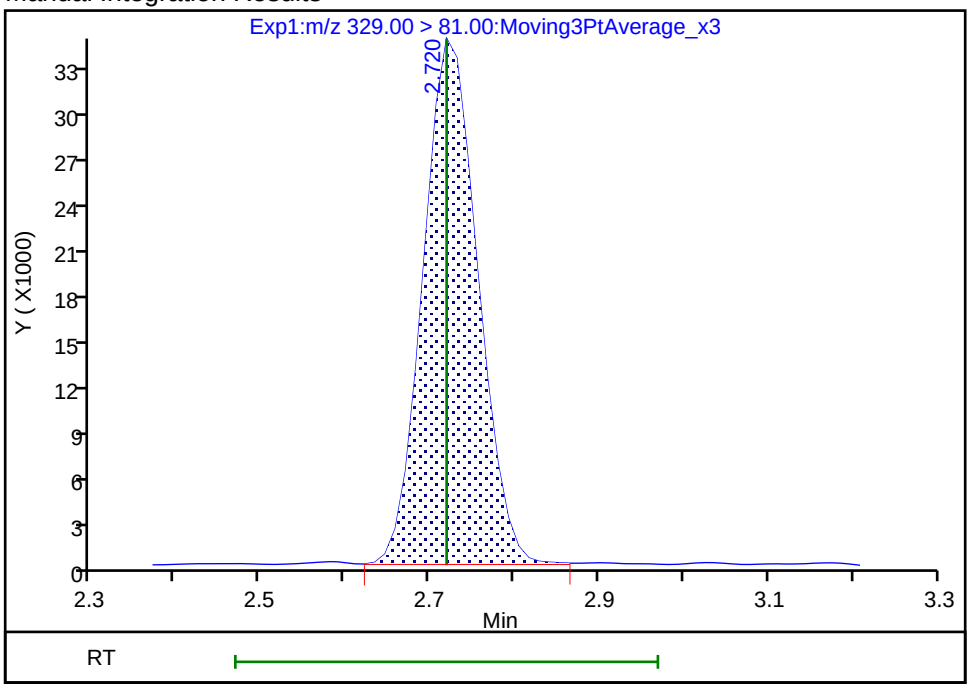
Processing Integration Results

RT: 2.72
Area: 156439
Amount: 1.077637
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 155977
Amount: 1.066579
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:05:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

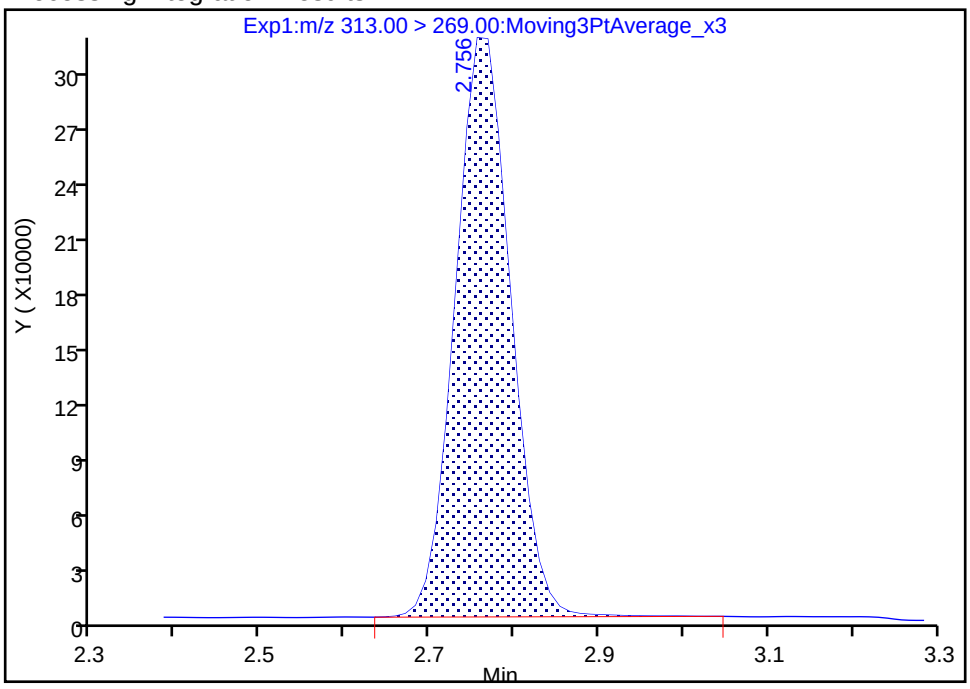
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

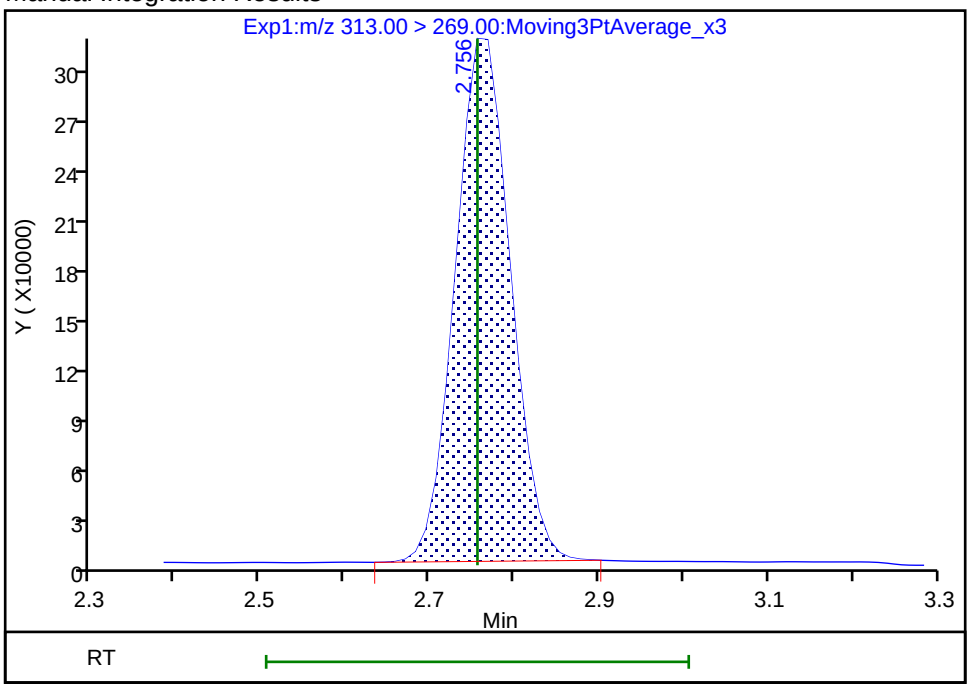
Processing Integration Results

RT: 2.76
Area: 1438735
Amount: 0.920032
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 1428398
Amount: 0.947600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

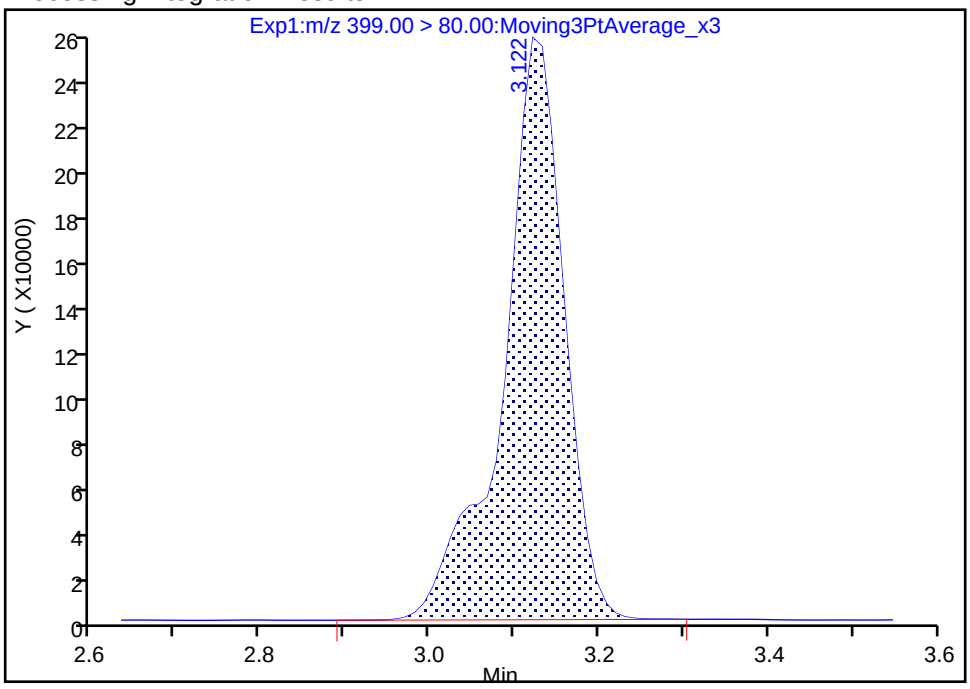
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

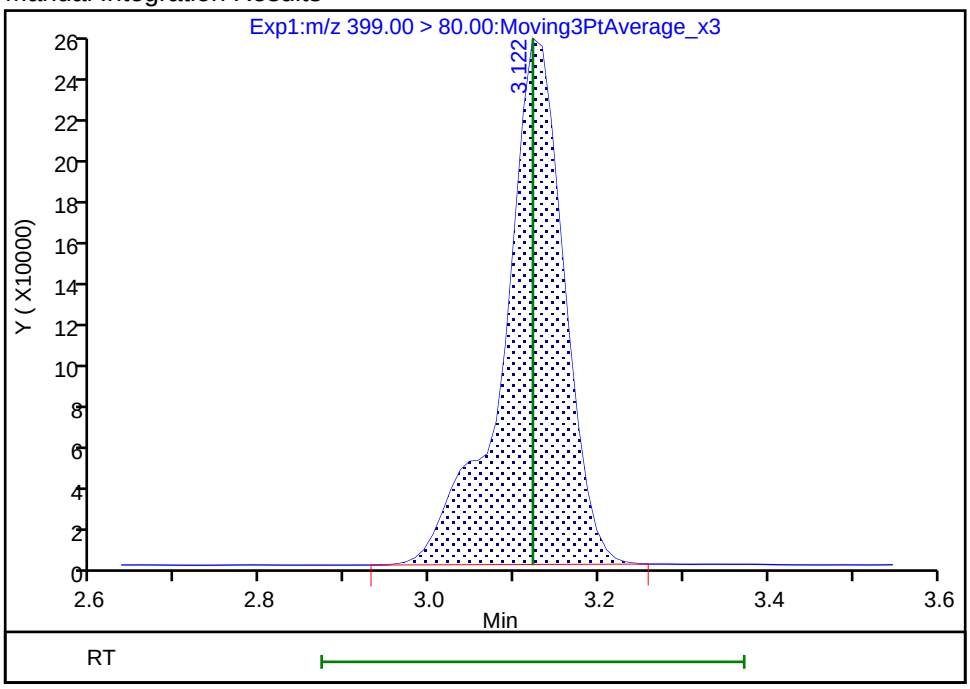
Processing Integration Results

RT: 3.12
Area: 1289432
Amount: 0.815424
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 1287587
Amount: 0.844554
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

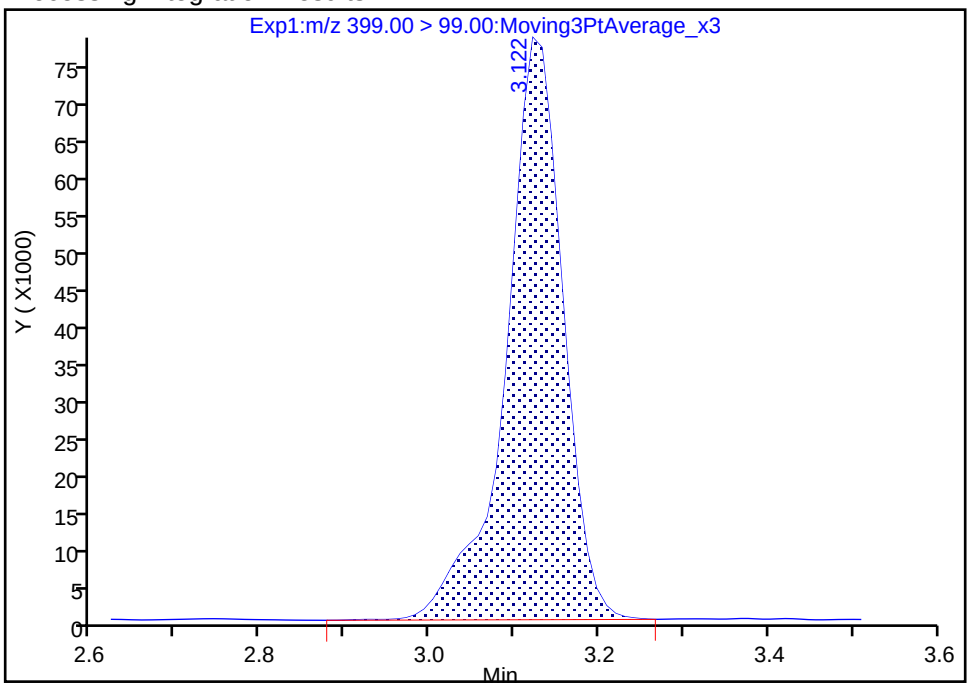
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

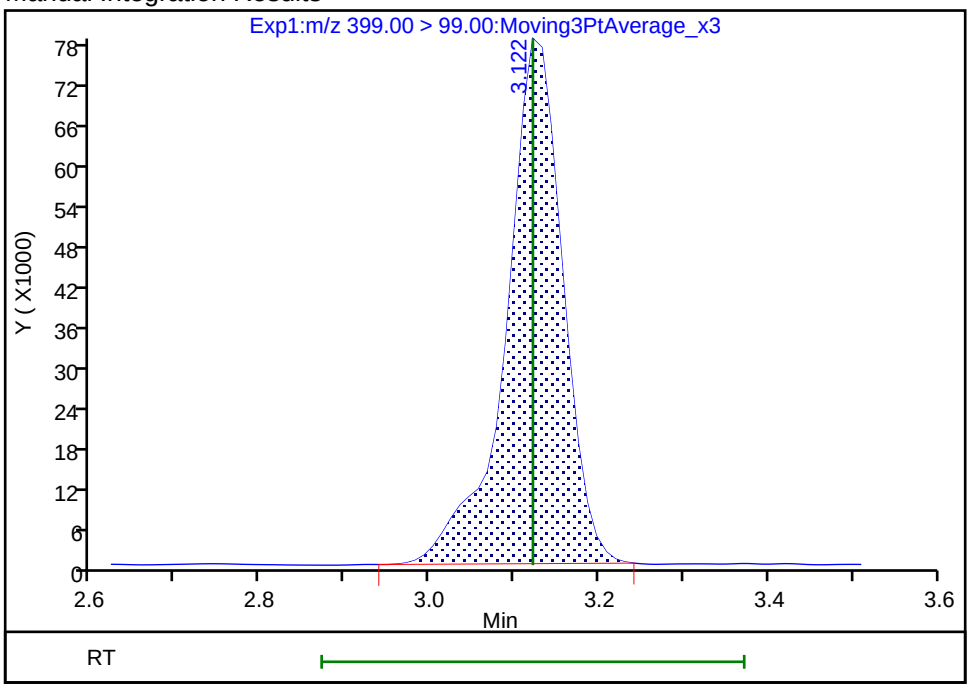
Processing Integration Results

RT: 3.12
Area: 365514
Amount: 0.815424
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 362786
Amount: 0.844554
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

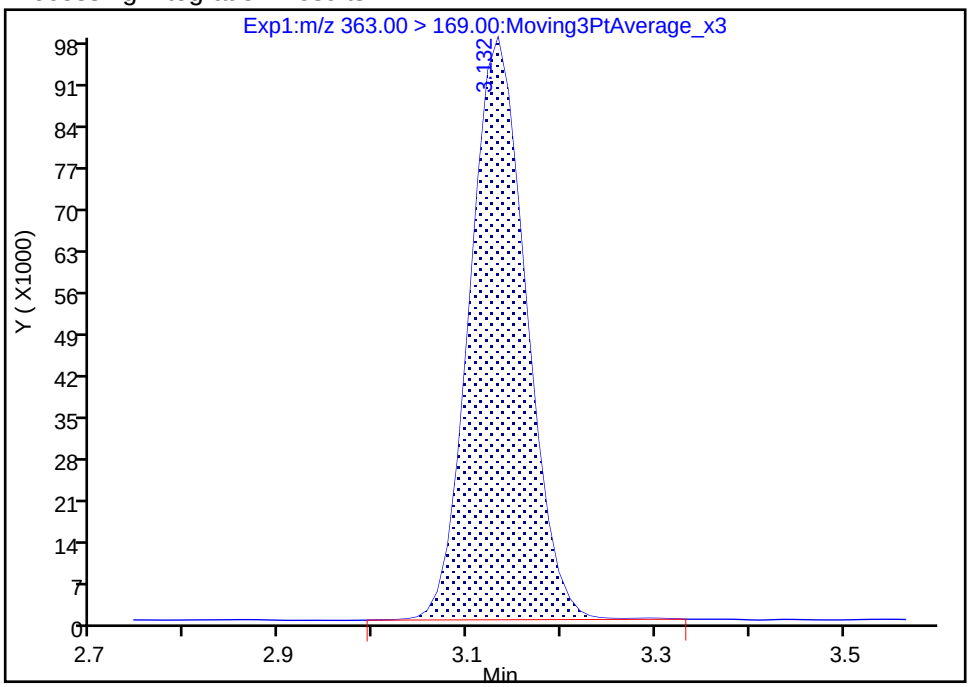
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

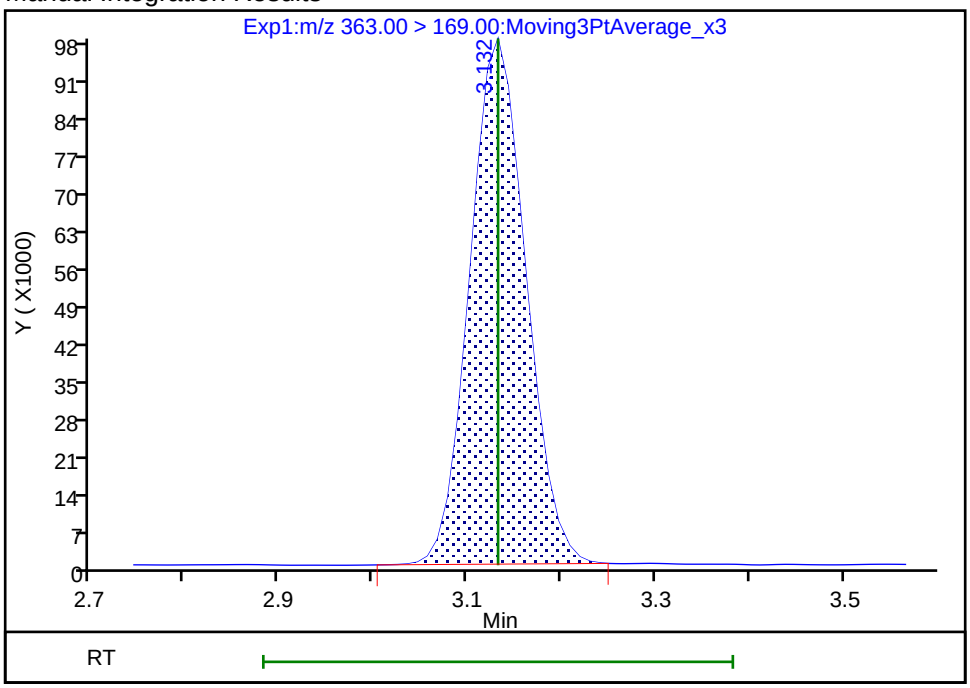
Processing Integration Results

RT: 3.13
Area: 410006
Amount: 0.912580
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 407853
Amount: 0.947265
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

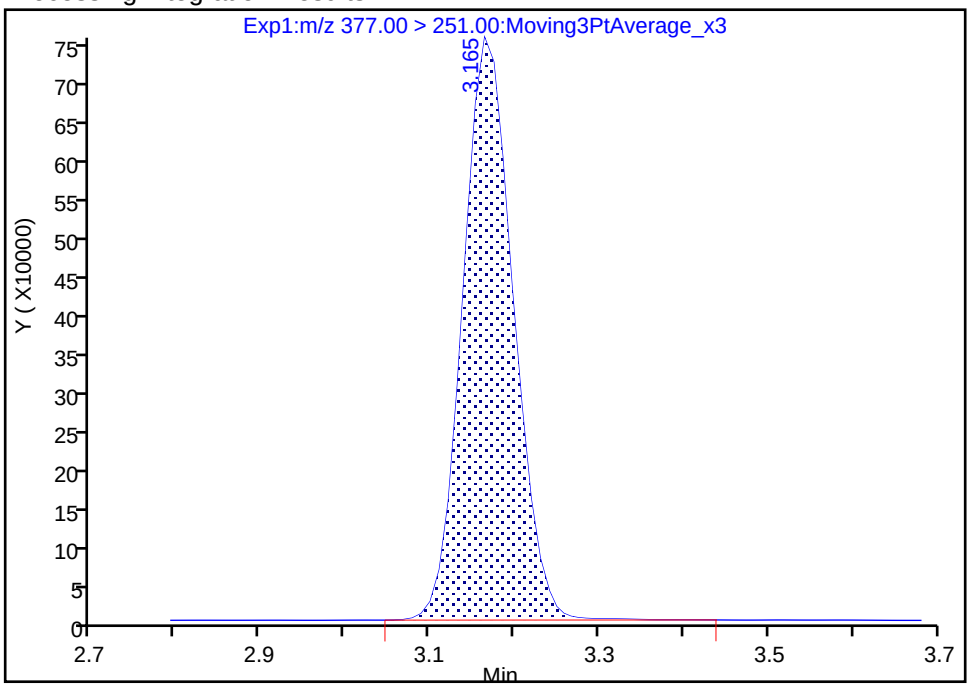
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

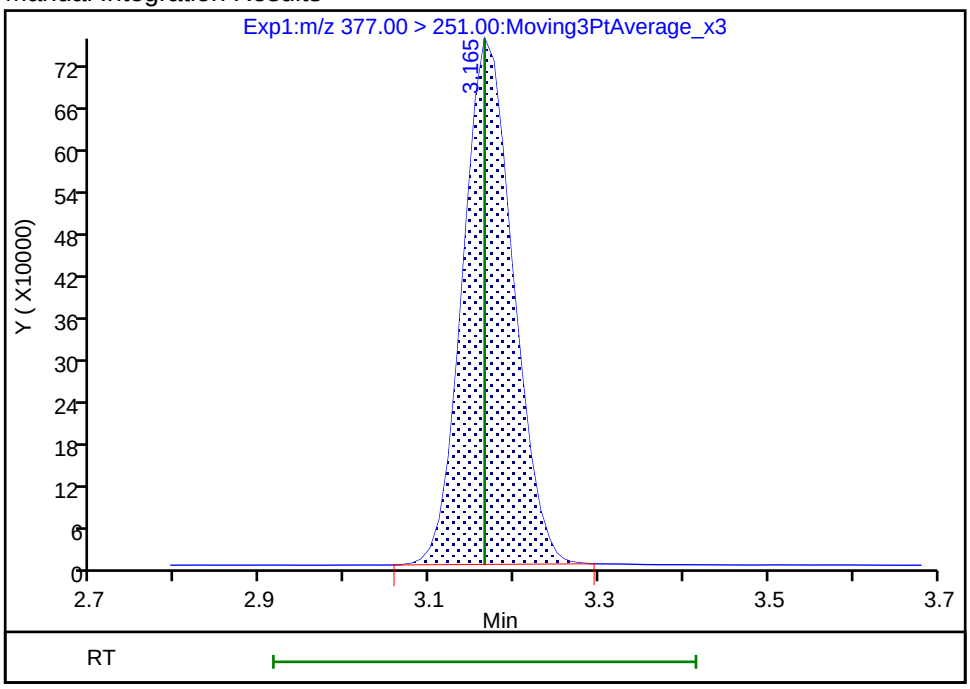
Processing Integration Results

RT: 3.16
Area: 3132618
Amount: 0.850610
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 3115107
Amount: 0.878748
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

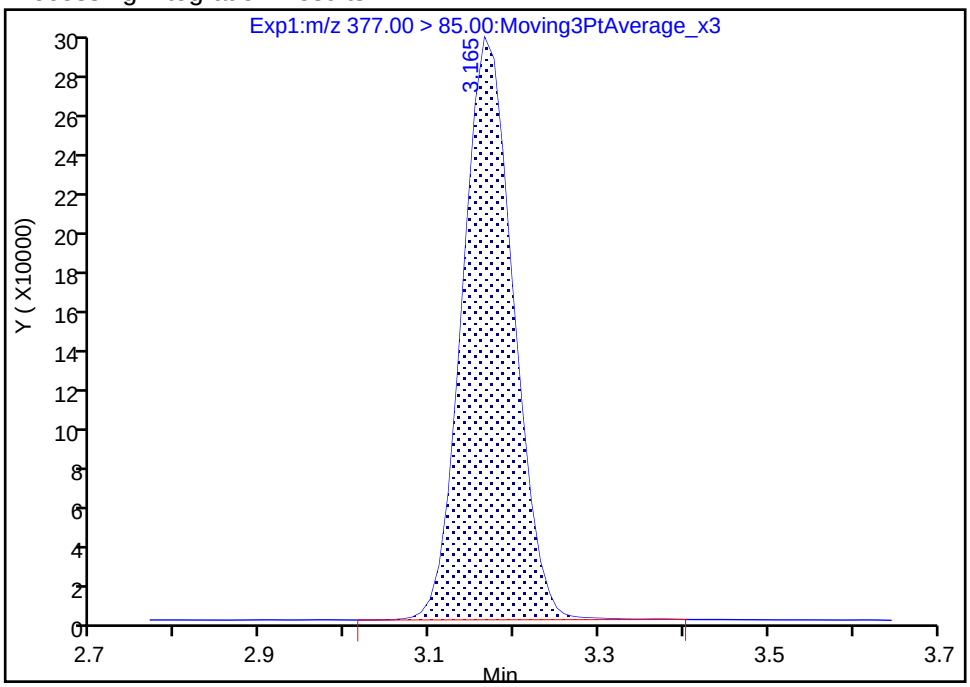
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

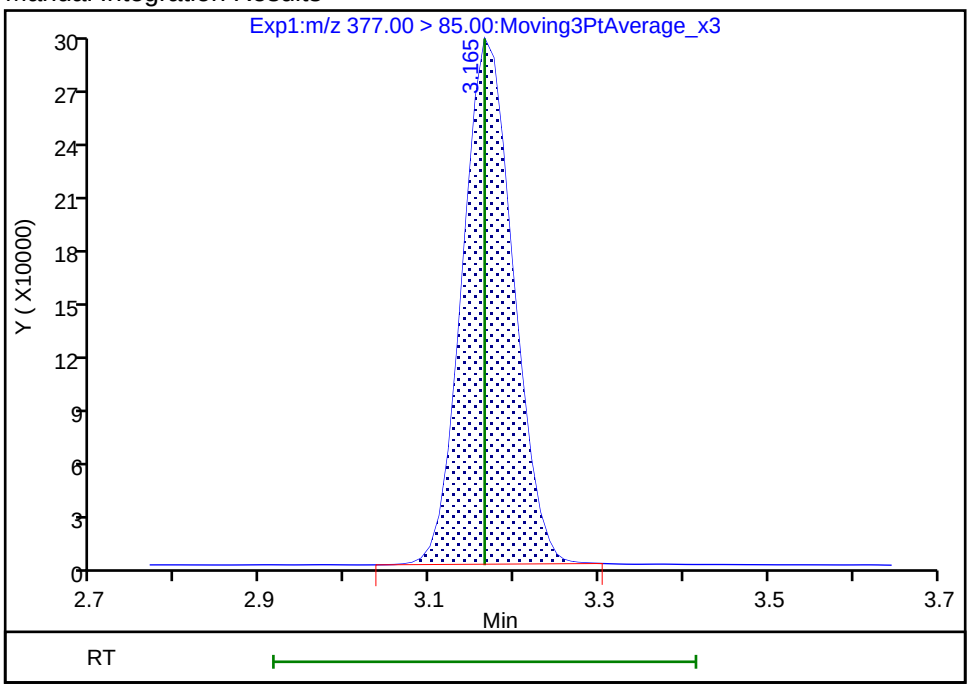
Processing Integration Results

RT: 3.16
Area: 1223001
Amount: 0.850610
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 1216733
Amount: 0.878748
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

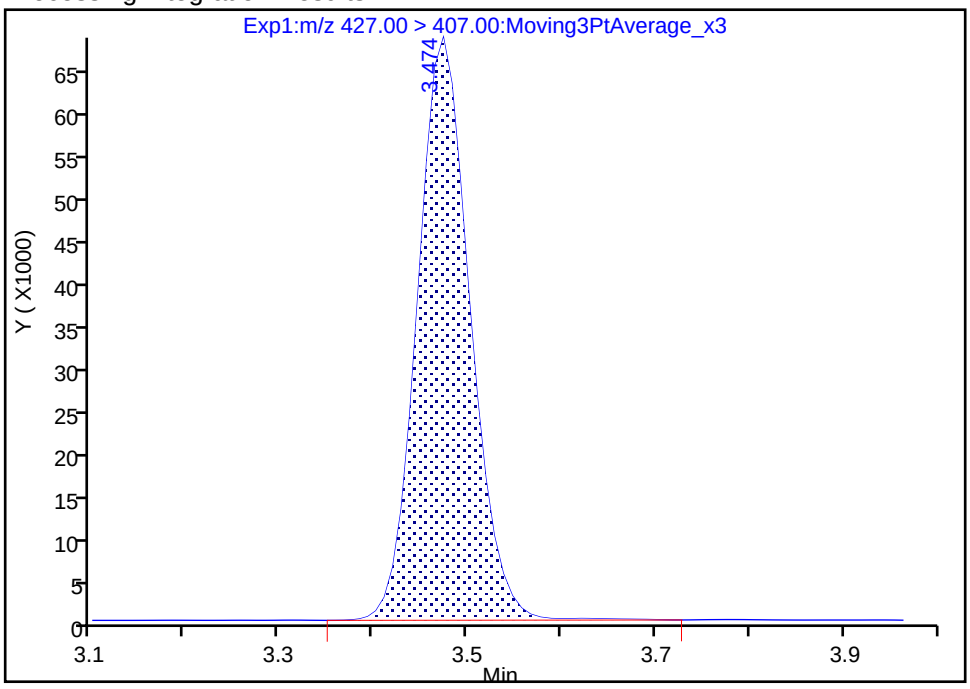
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

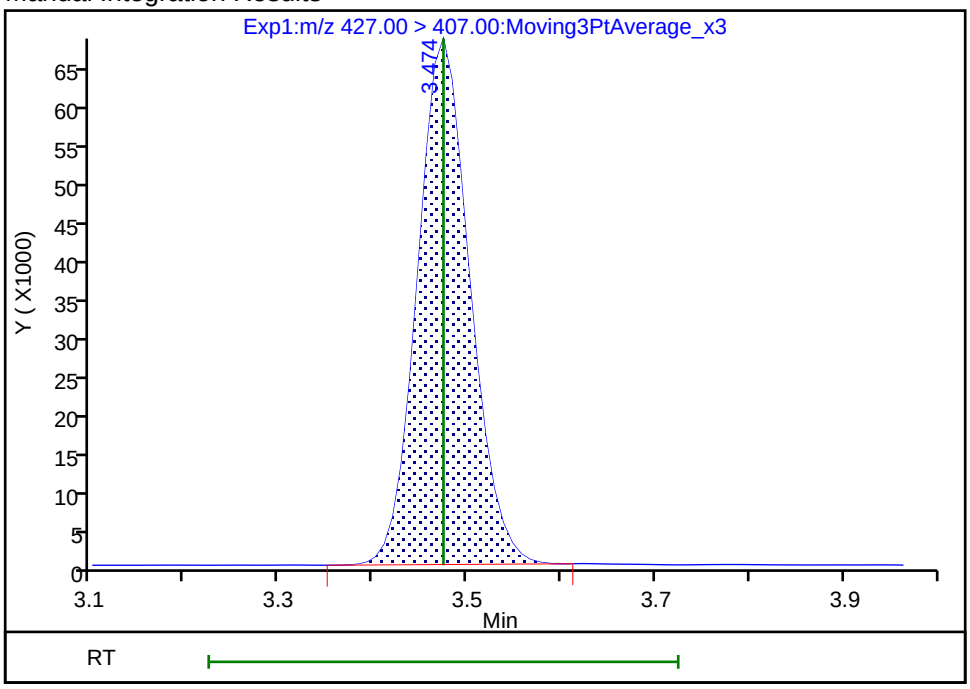
Processing Integration Results

RT: 3.47
Area: 267109
Amount: 0.928182
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 265198
Amount: 0.938087
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

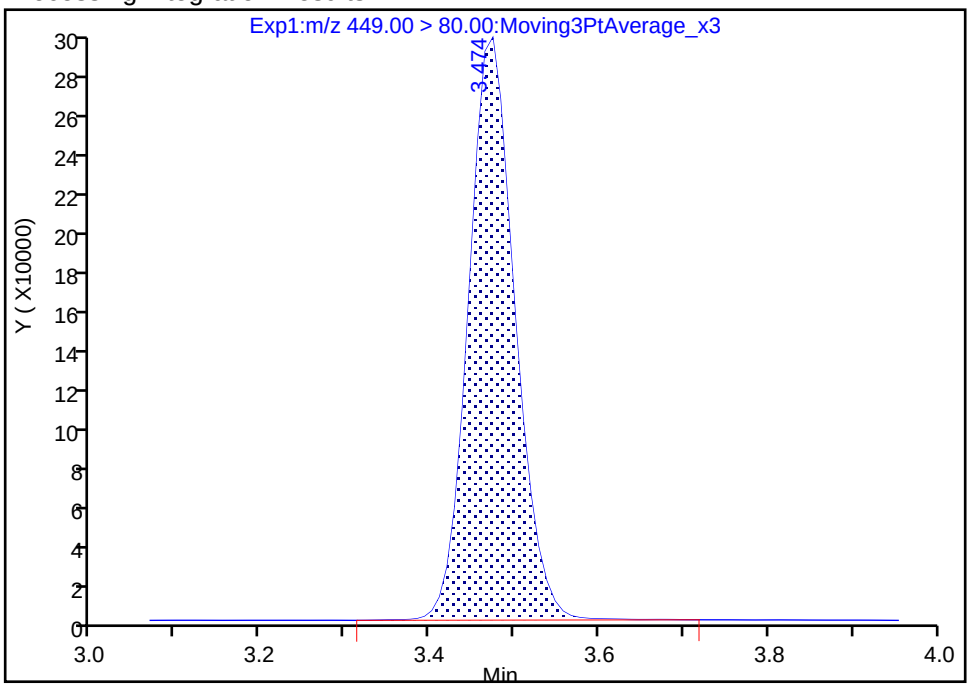
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

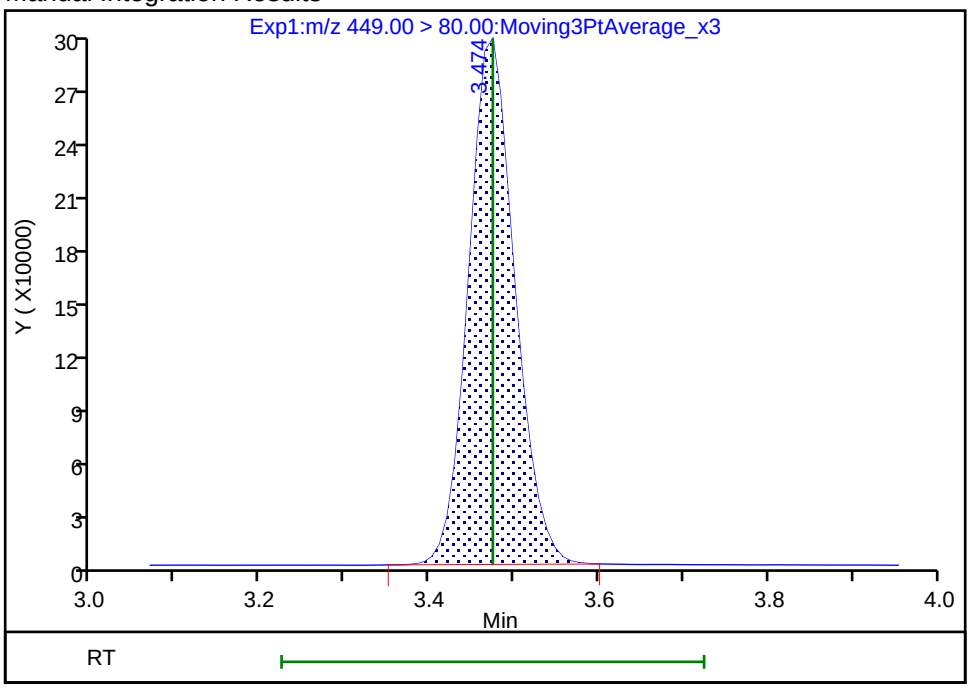
Processing Integration Results

RT: 3.47
Area: 1119691
Amount: 0.858631
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1113260
Amount: 0.881692
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

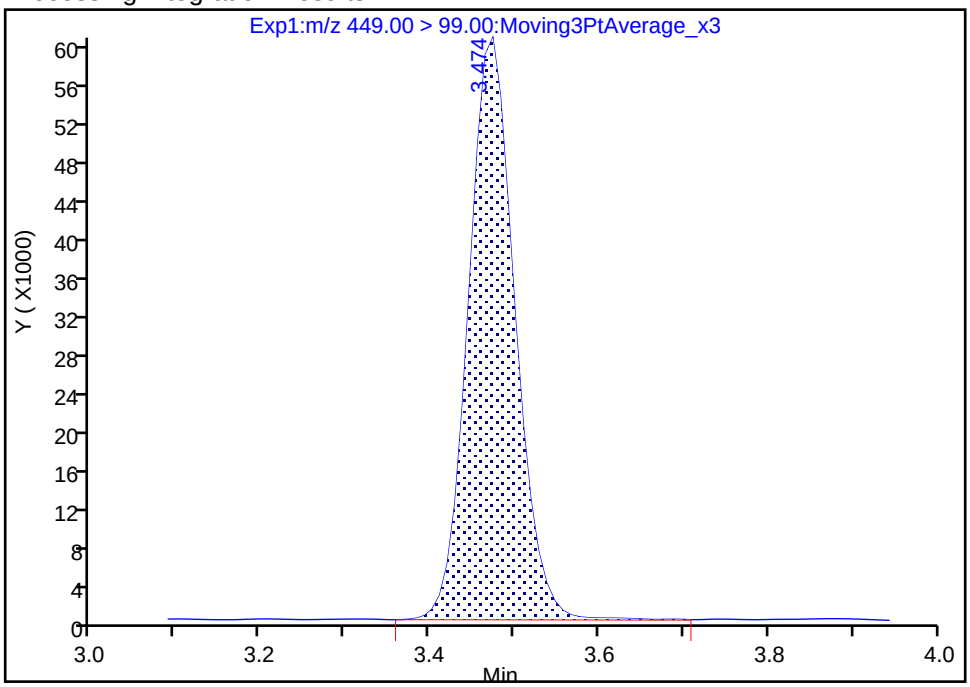
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

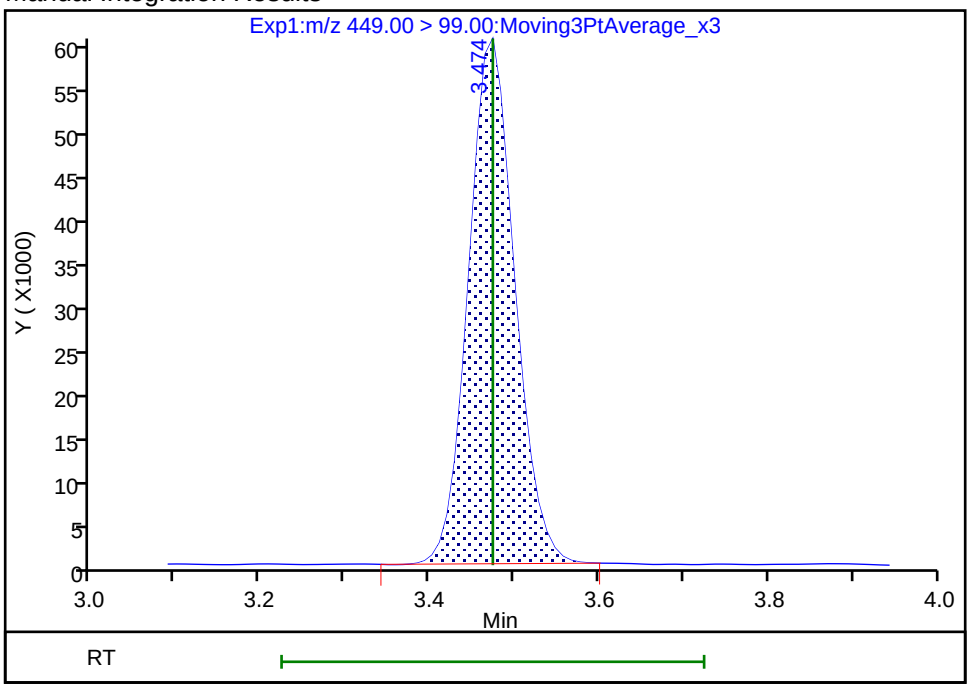
Processing Integration Results

RT: 3.47
Area: 230764
Amount: 0.858631
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 228238
Amount: 0.881692
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:06:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

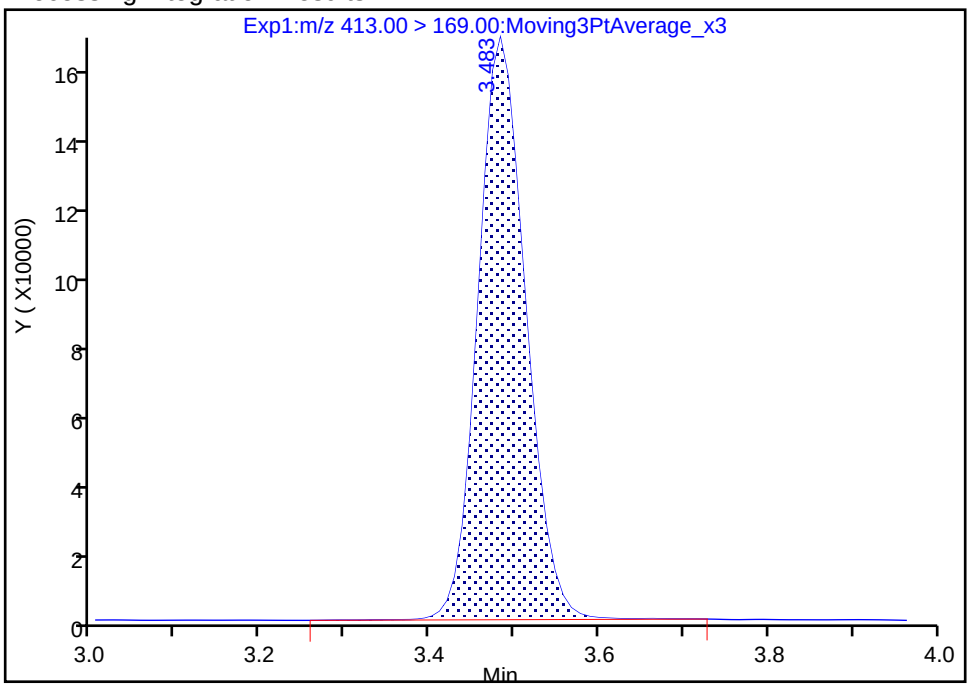
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

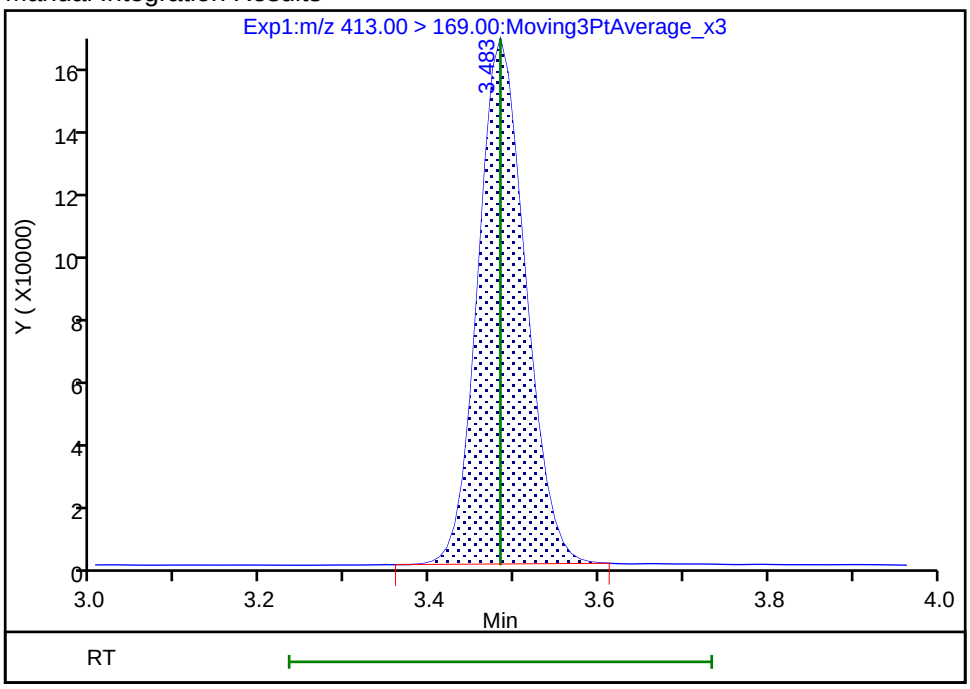
Processing Integration Results

RT: 3.48
Area: 646357
Amount: 0.910742
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 641965
Amount: 0.949454
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

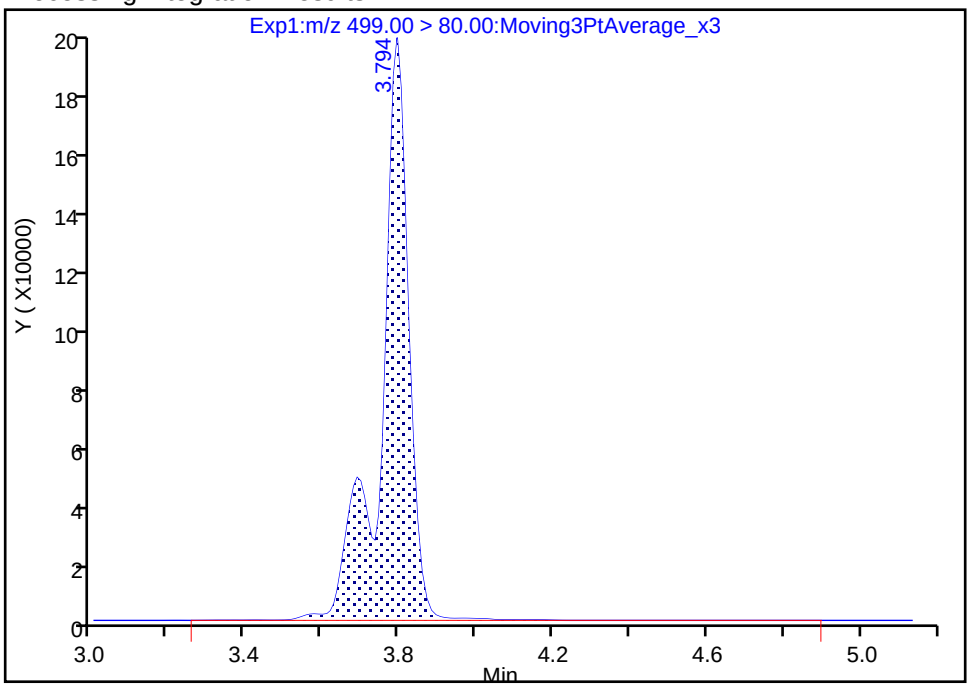
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

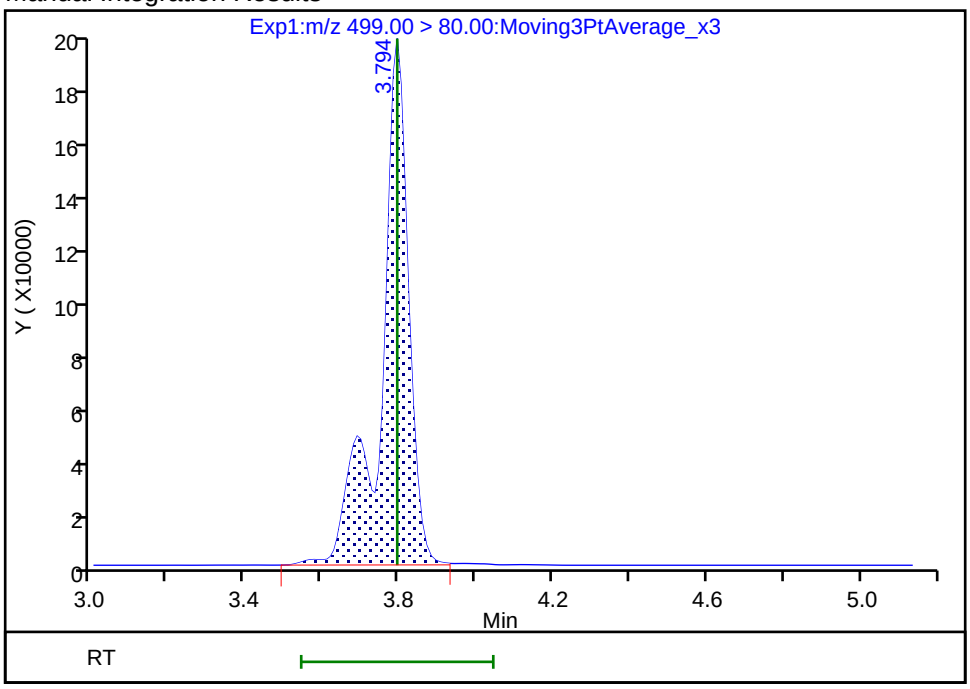
Processing Integration Results

RT: 3.79
Area: 972989
Amount: 0.849150
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 964211
Amount: 0.877354
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

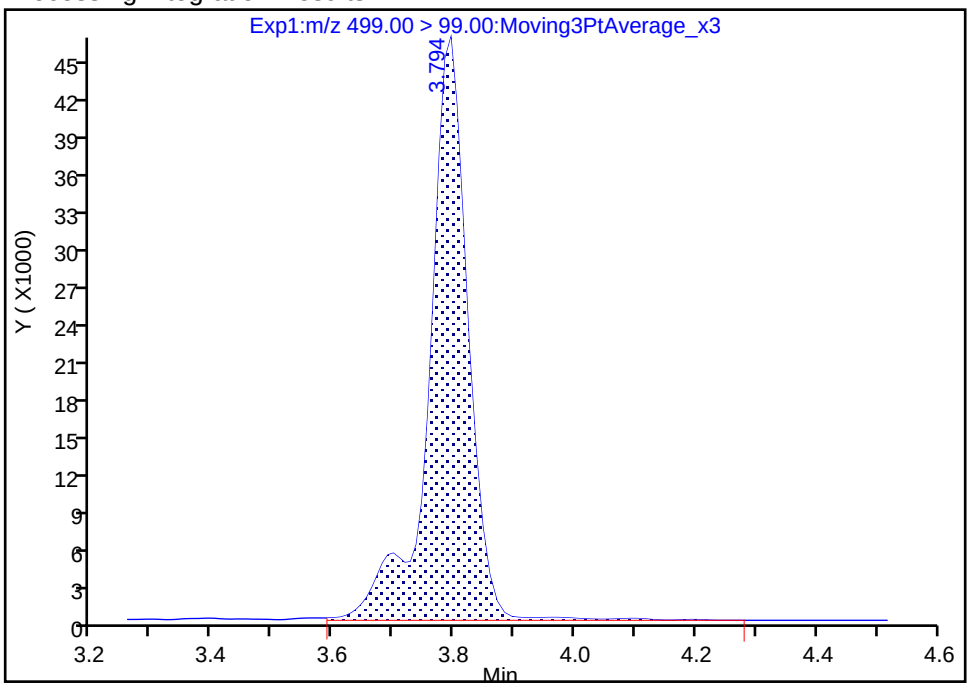
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

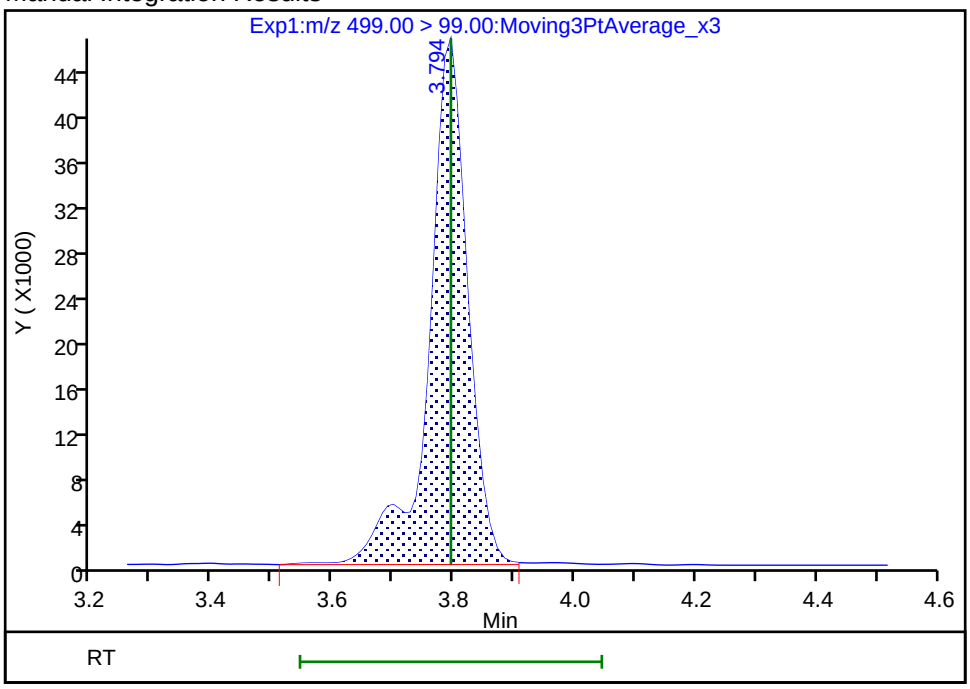
Processing Integration Results

RT: 3.79
Area: 208422
Amount: 0.849150
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 205583
Amount: 0.877354
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

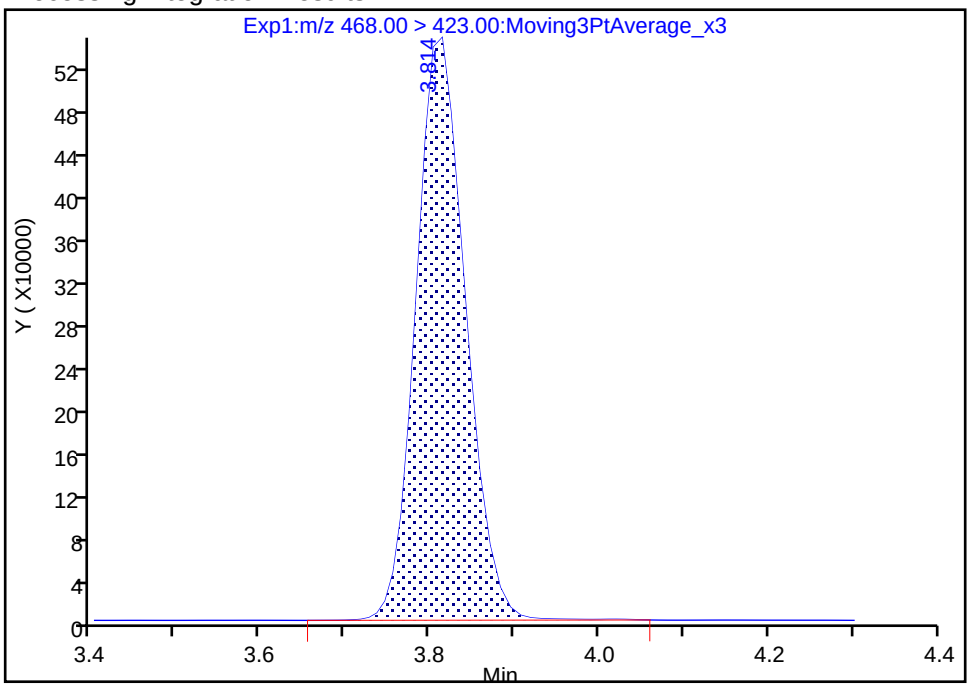
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 19 13C5 PFNA, CAS: STL00995

Signal: 1

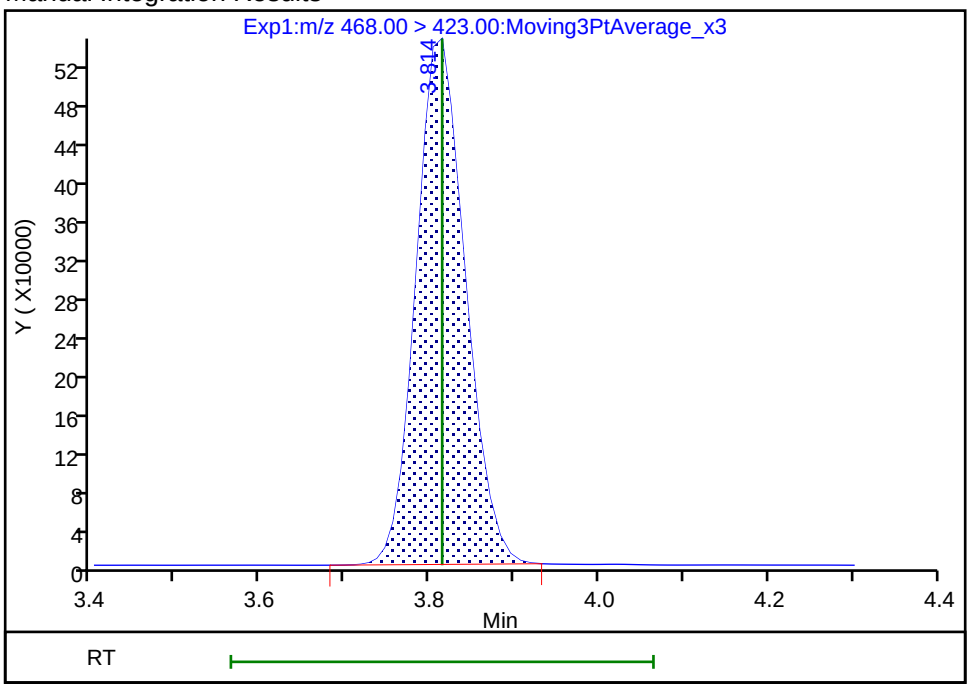
Processing Integration Results

RT: 3.81
Area: 2205481
Amount: 1.299410
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 2190750
Amount: 1.285314
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

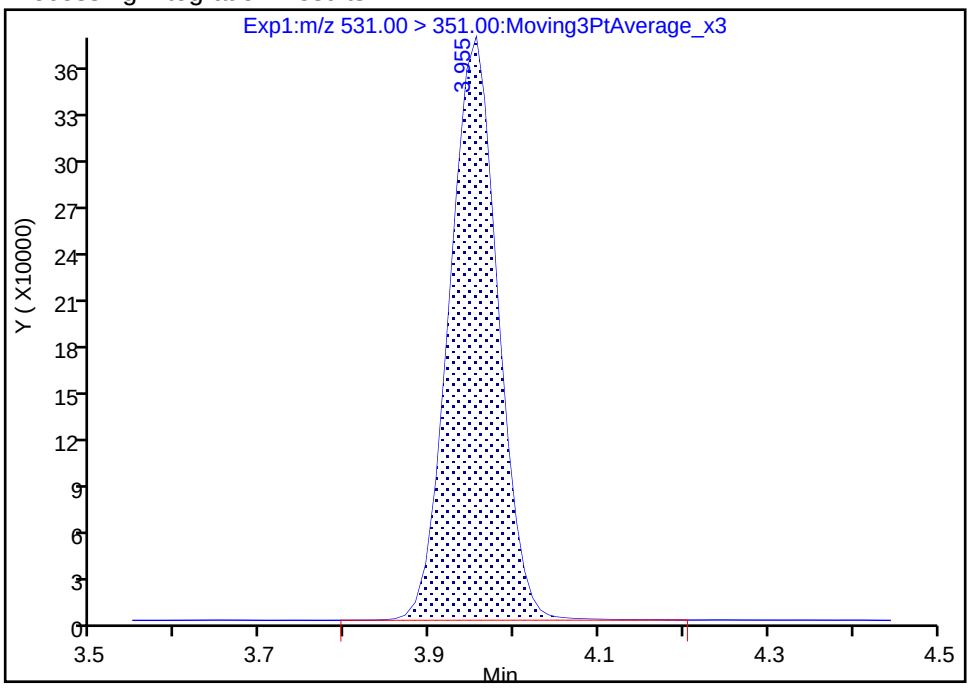
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

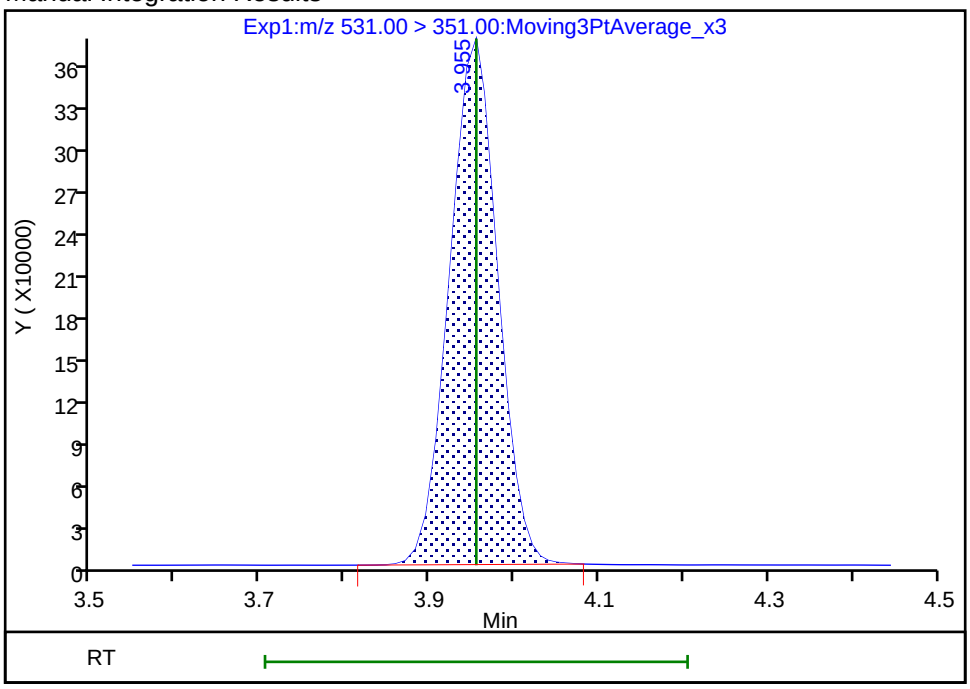
Processing Integration Results

RT: 3.95
Area: 1505461
Amount: 0.880400
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 1497666
Amount: 0.904563
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

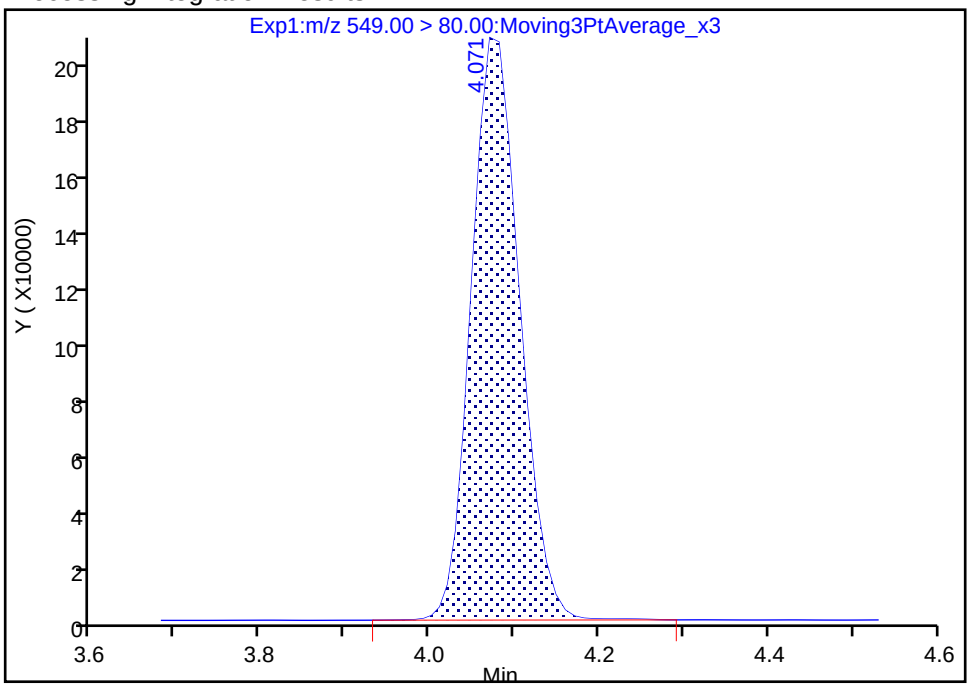
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

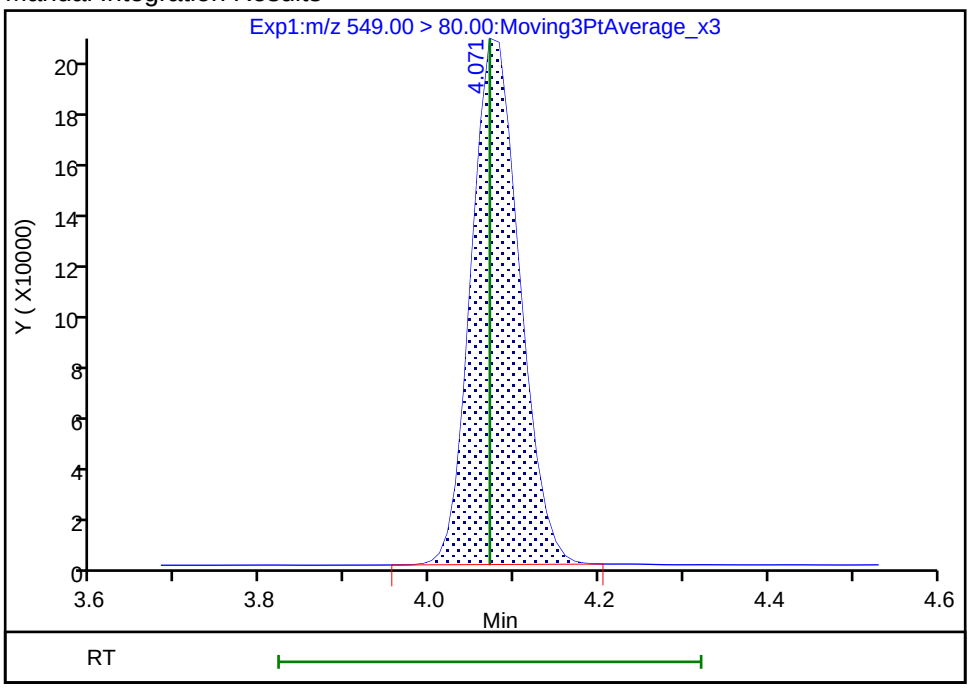
Processing Integration Results

RT: 4.07
Area: 796003
Amount: 0.905662
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 792308
Amount: 0.925518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:07:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

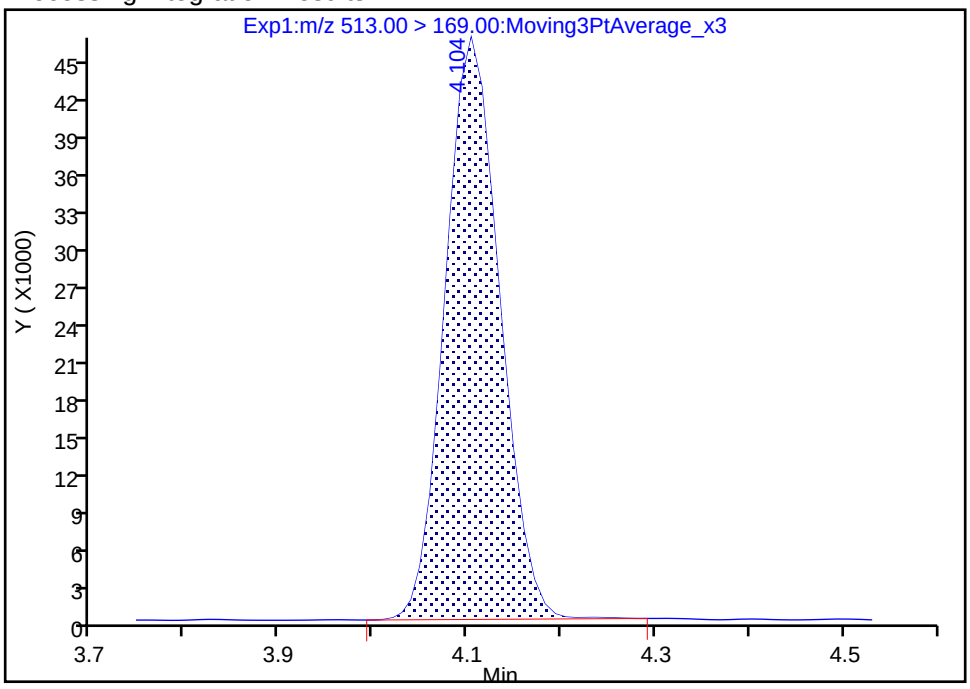
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

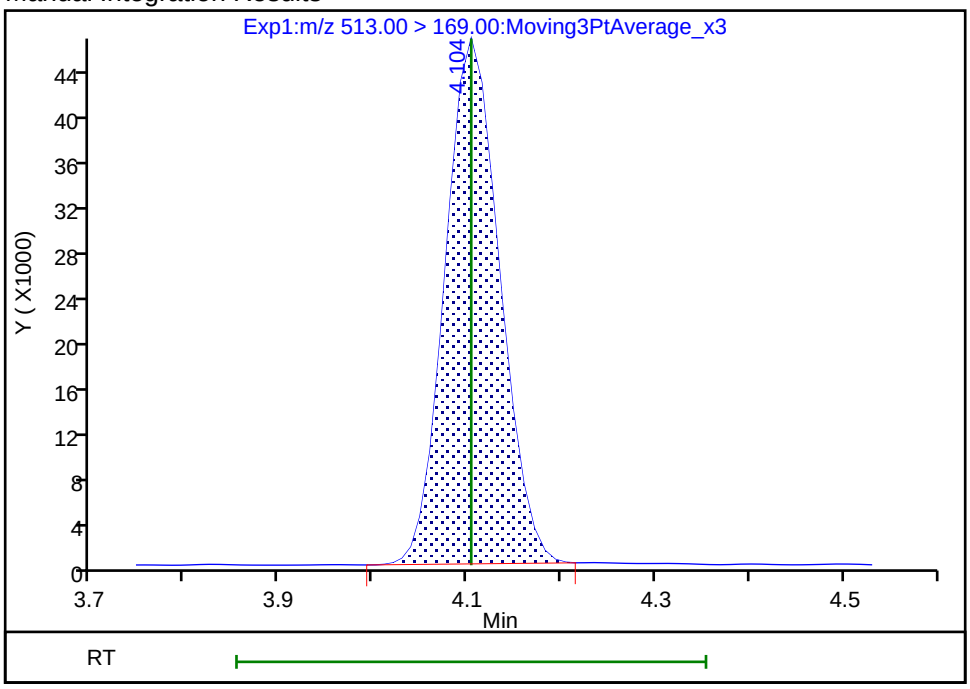
Processing Integration Results

RT: 4.10
Area: 187824
Amount: 0.950310
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 186937
Amount: 0.991812
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

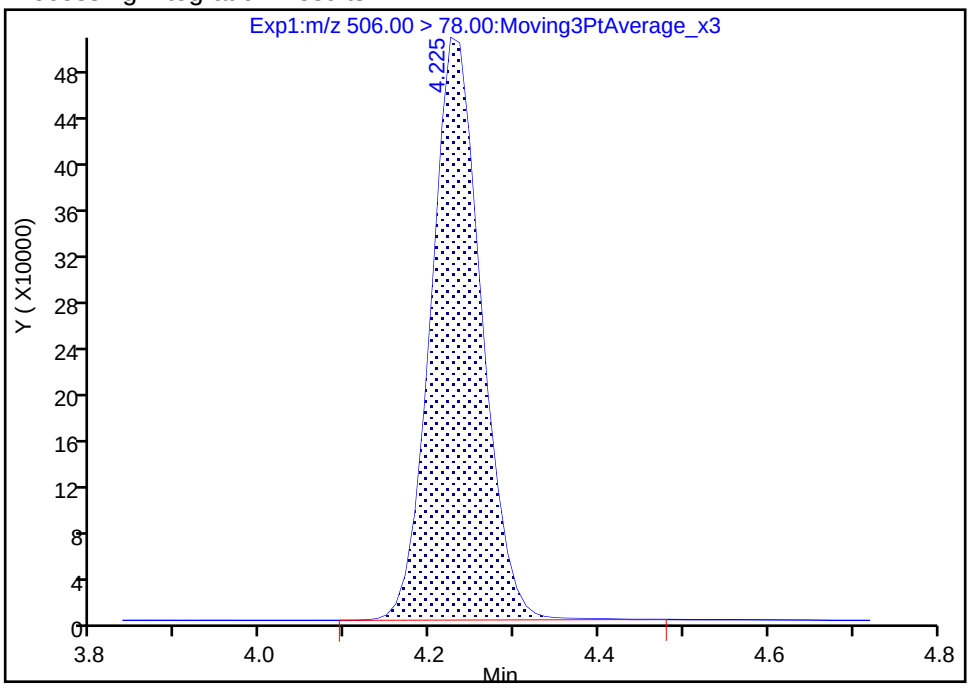
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

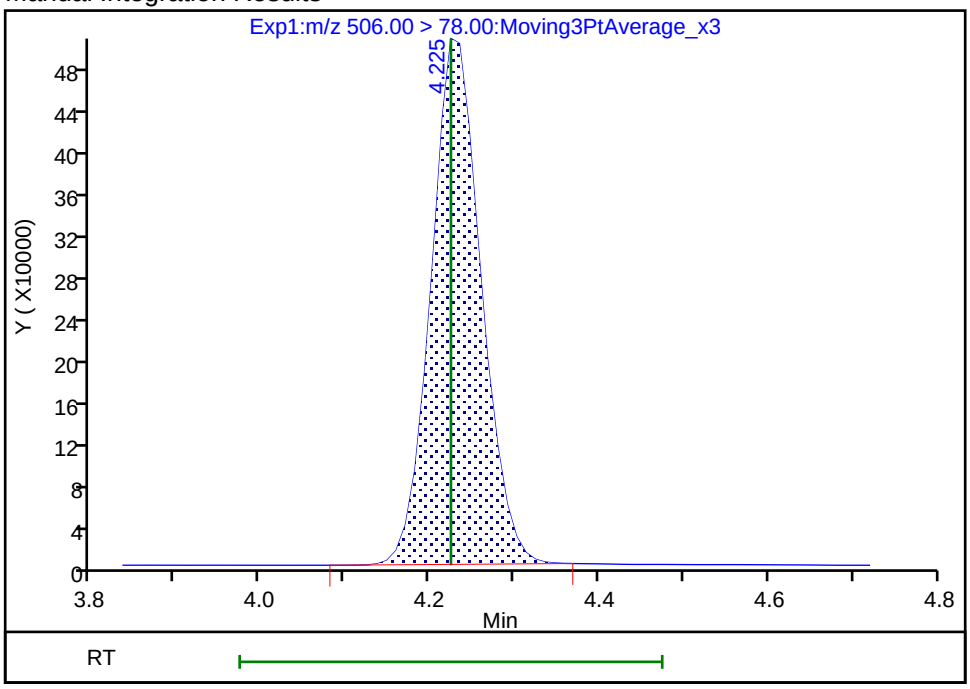
Processing Integration Results

RT: 4.22
Area: 2074361
Amount: 1.254076
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 2062074
Amount: 1.242840
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

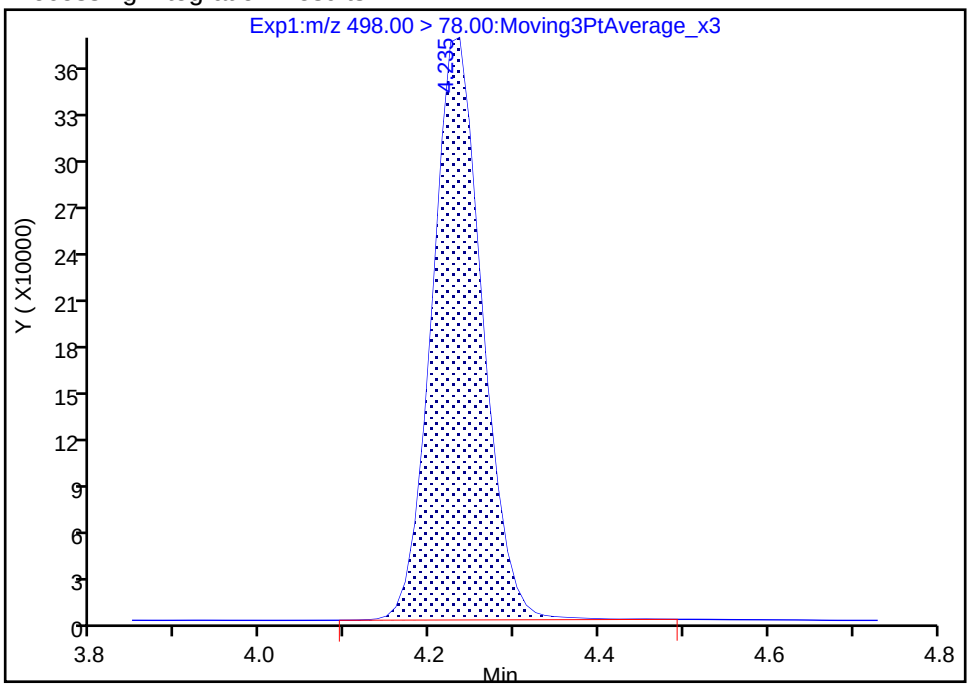
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

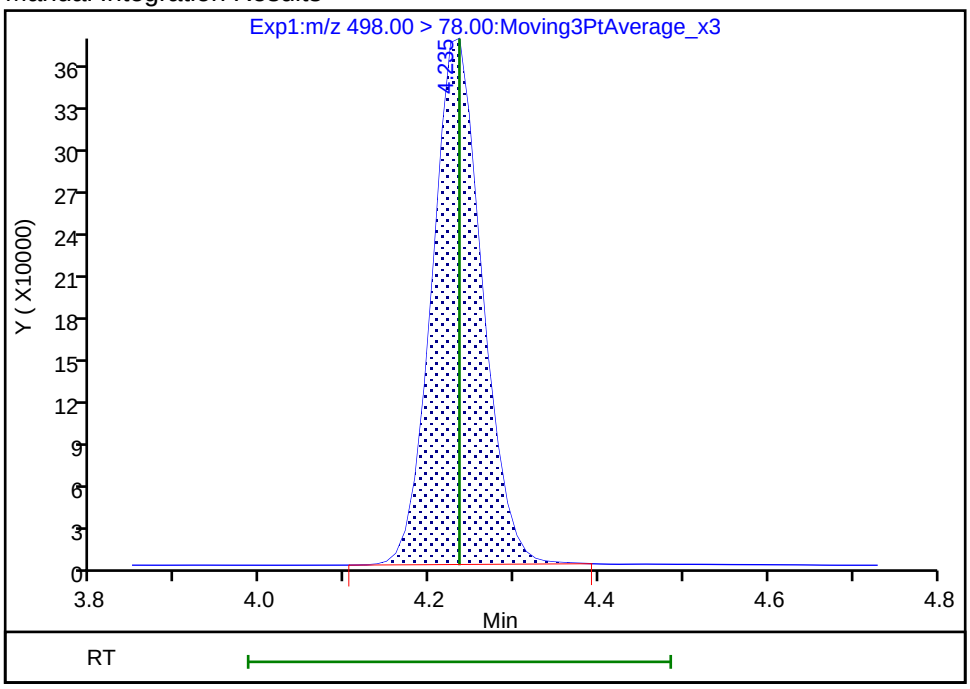
Processing Integration Results

RT: 4.23
Area: 1523749
Amount: 0.950007
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 1517479
Amount: 0.968610
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

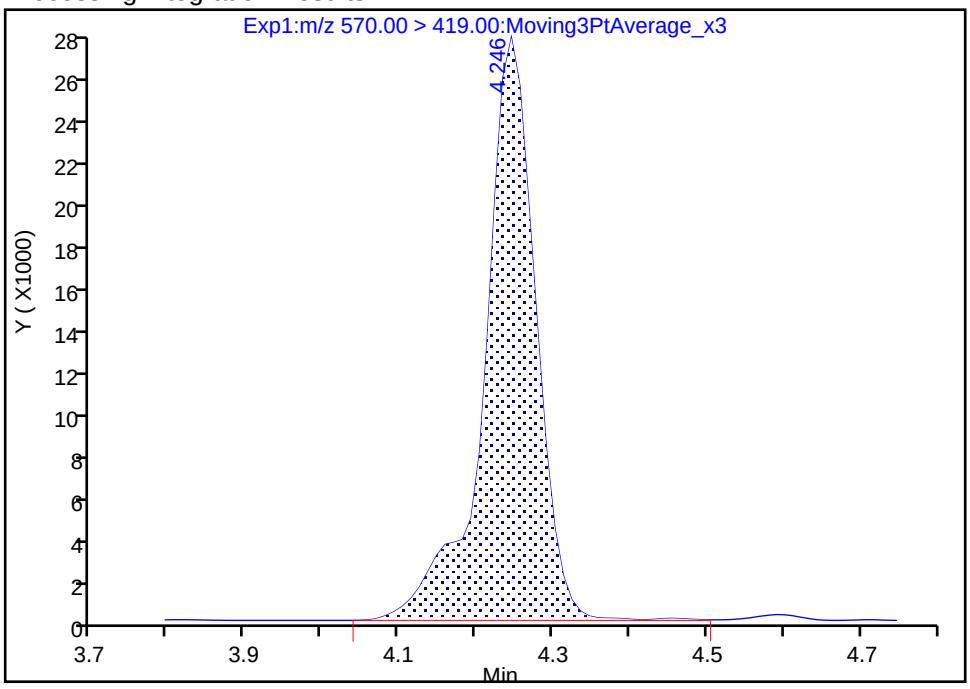
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

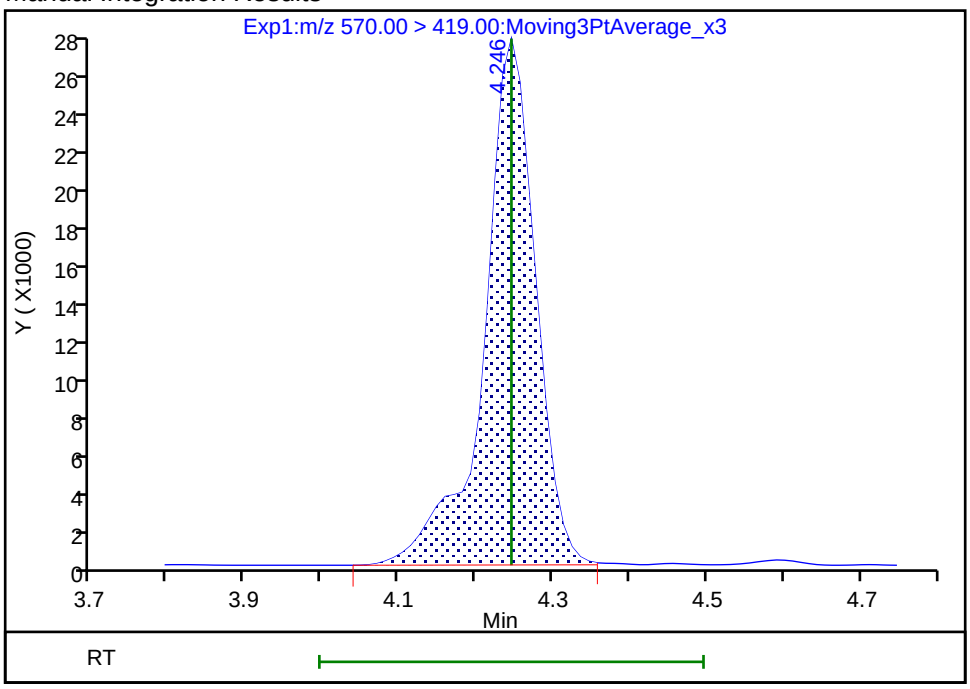
Processing Integration Results

RT: 4.25
Area: 128261
Amount: 0.971472
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 127458
Amount: 0.972054
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

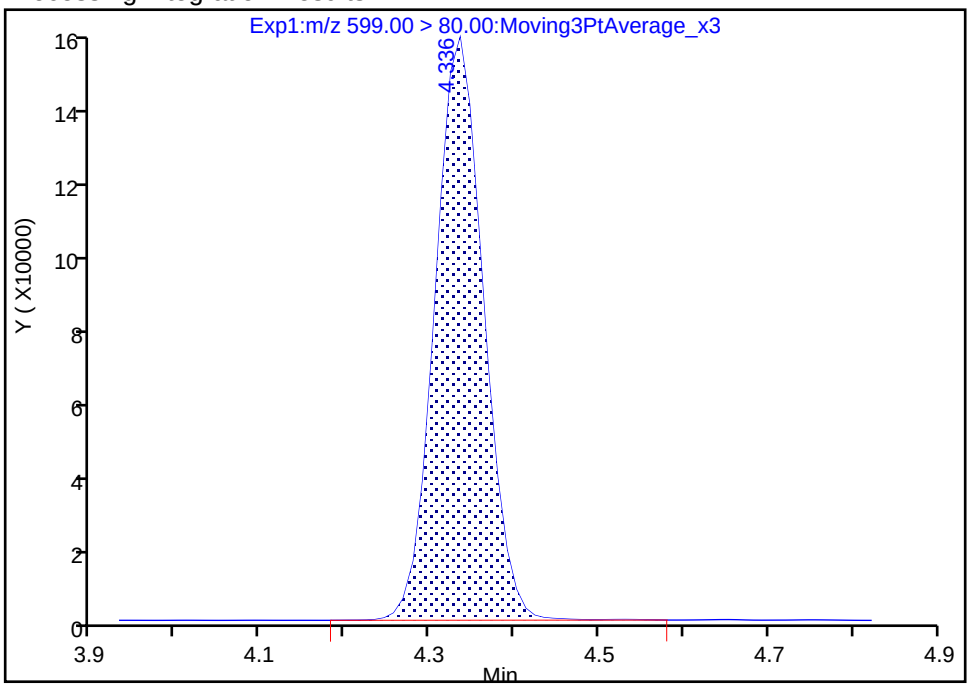
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d | | | | |
| Injection Date: | 27-Oct-2021 14:11:07 | Instrument ID: | LC812 | | |
| Lims ID: | ICIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 7 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

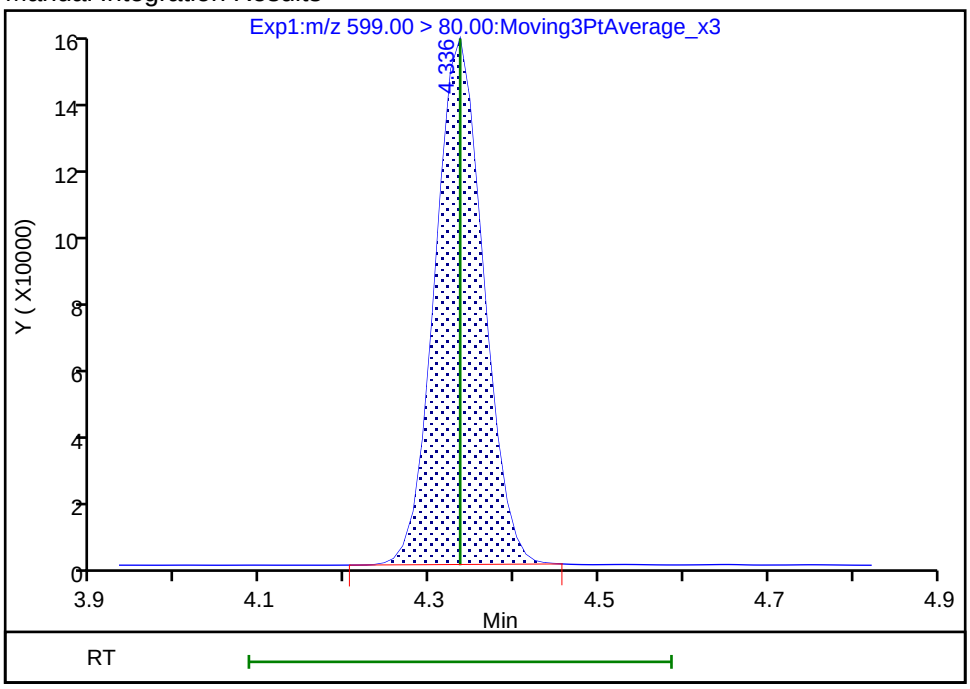
Processing Integration Results

RT: 4.34
Area: 613731
Amount: 0.888127
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 610213
Amount: 0.916771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

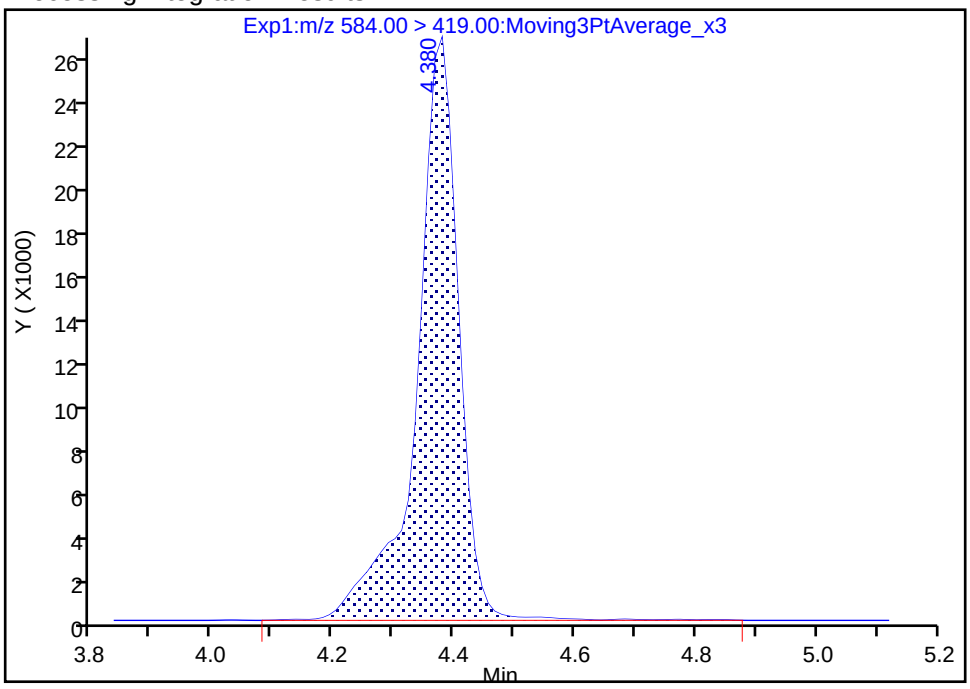
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

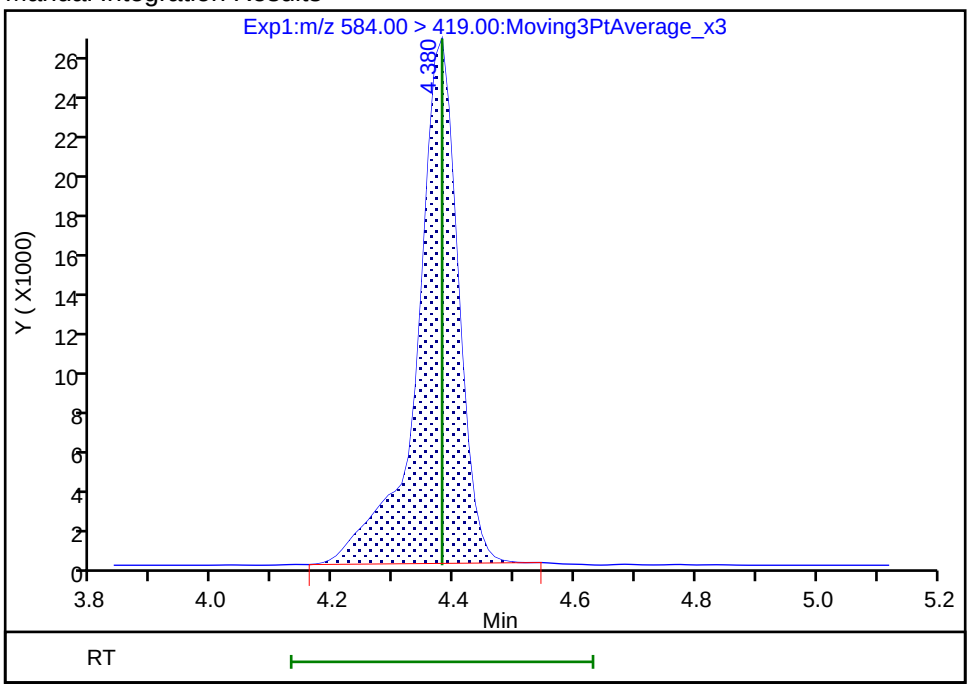
Processing Integration Results

RT: 4.38
Area: 129390
Amount: 0.889747
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 126650
Amount: 0.922494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:08:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

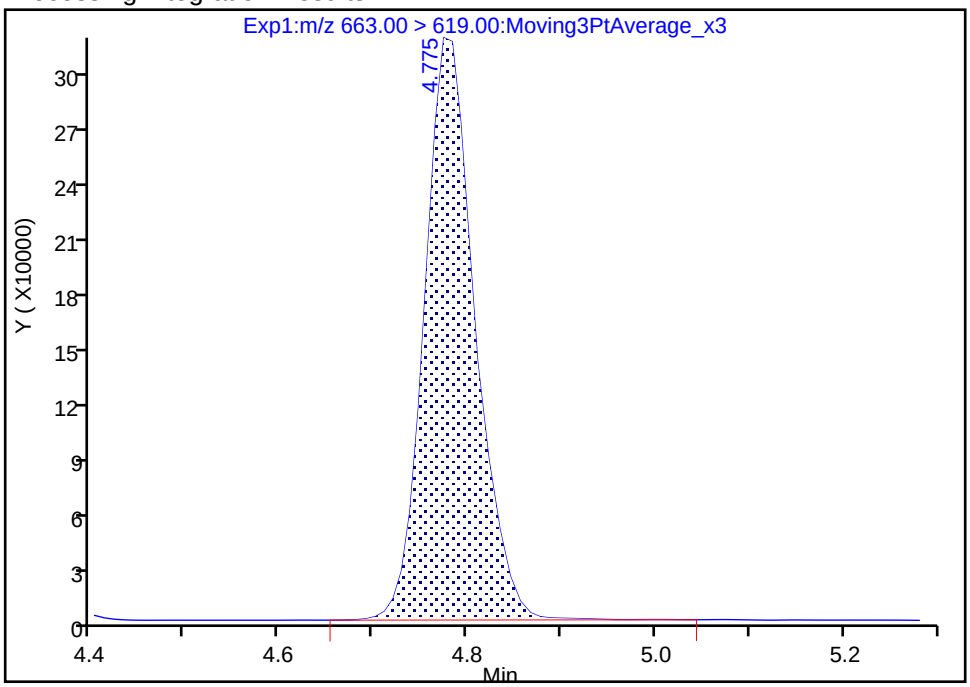
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

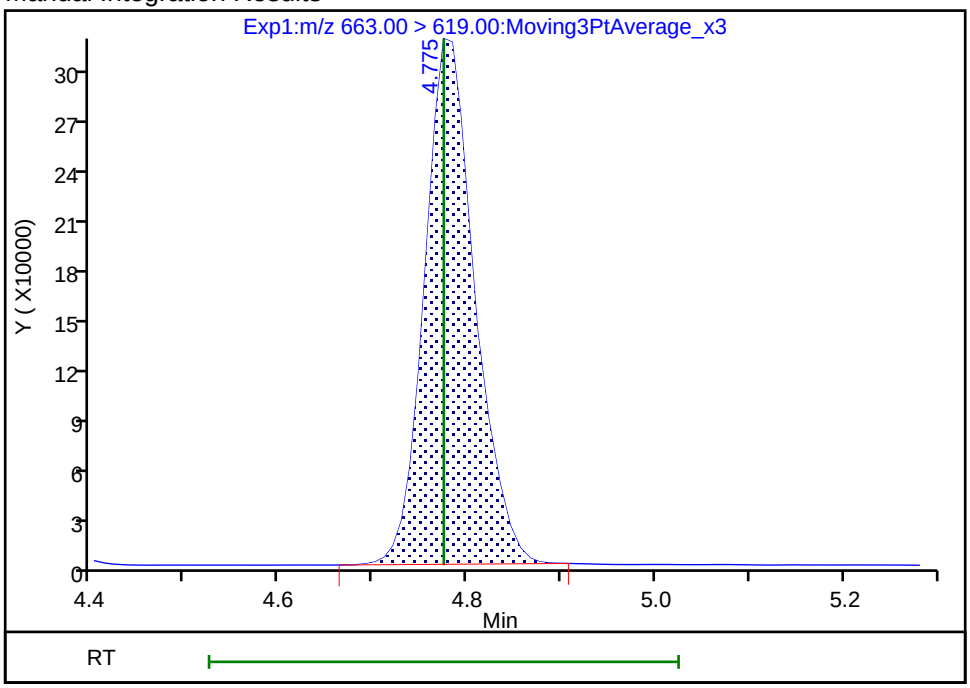
Processing Integration Results

RT: 4.77
Area: 1169235
Amount: 0.934504
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 1161247
Amount: 0.979132
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

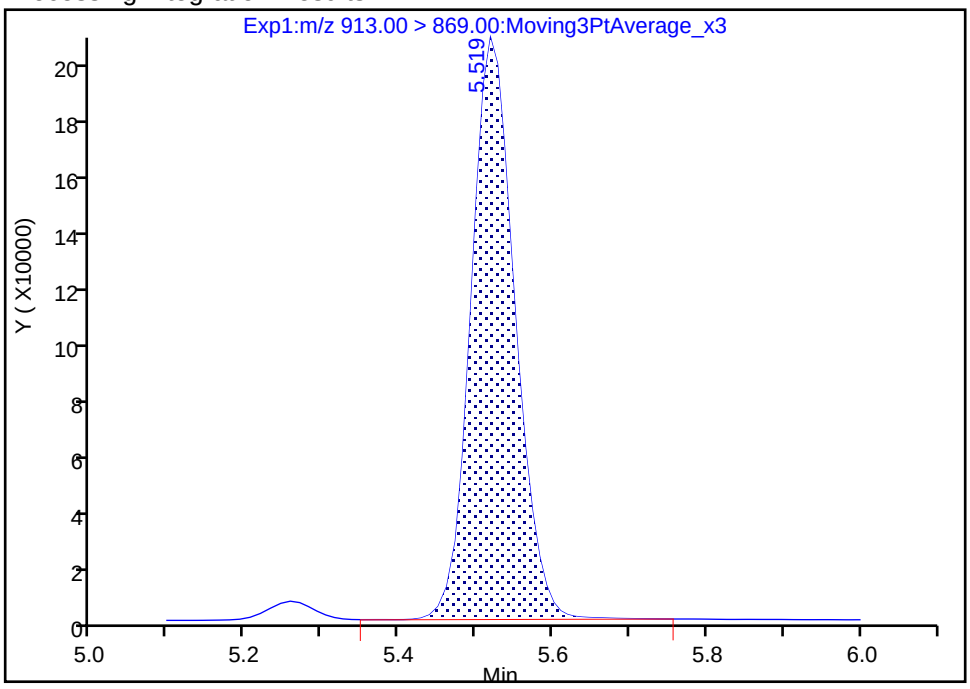
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL05.d
Injection Date: 27-Oct-2021 14:11:07 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

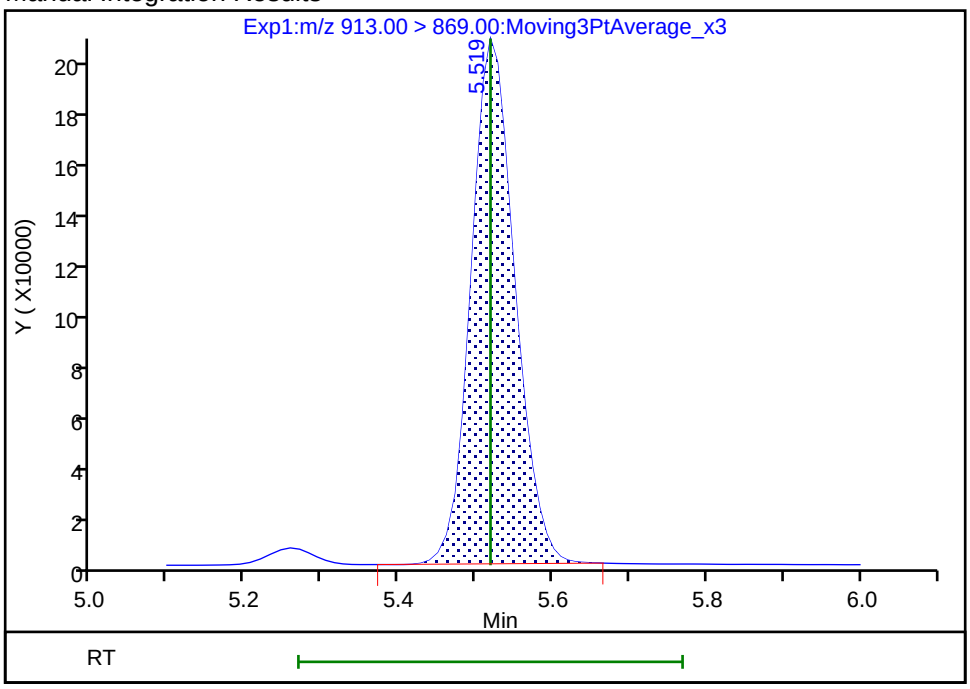
Processing Integration Results

RT: 5.52
Area: 823852
Amount: 0.958871
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 818298
Amount: 0.998252
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Oct-2021 14:19:25 ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:26 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:14:28
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.073 | 2.080 | -0.007 | 0.595 | 1686795 | 1.24 | | 99.6 | 5818 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.073 | 2.080 | -0.007 | 1.000 | 2967709 | 2.33 | | 93.0 | 249 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1426418 | 1.25 | | 100.0 | 2799 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 2762586 | 2.42 | | 96.7 | 158 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 1809434 | 1.17 | | 101 | 269977 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.413 | 2.424 | -0.011 | 1.000 | 3359273 | 2.02 | Target=2.29 | 91.4 | 2715 | M |
| 298.90 > 99.00 | 2.413 | 2.424 | -0.011 | 1.000 | 1463595 | | 2.30(1.15-3.44) | 91.4 | 526 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.781 | 139431 | 1.18 | | 101 | 113 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 559584 | 2.20 | | 94.3 | 2933 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 2833227 | 2.36 | Target=12.01 | 94.3 | 359 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 223009 | | 12.70(6.00-18.01) | 94.3 | 263 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1480926 | 1.24 | | 98.9 | 2896 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.758 | 2.768 | -0.010 | 0.884 | 3014762 | 2.26 | Target=3.04 | 96.6 | 1887 | M |
| 349.00 > 99.00 | 2.758 | 2.768 | -0.010 | 0.884 | 1009803 | | 2.99(1.52-4.56) | 96.6 | 834 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.823 | 33254 | 1.05 | | 84.3 | 223 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.867 | 2.865 | 0.002 | 1.000 | 333546 | 2.77 | | 111 | 89.2 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.121 | 3.122 | -0.001 | 0.896 | 1307238 | 1.17 | | 98.5 | 2914 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.121 | 3.122 | -0.001 | 1.000 | 2594885 | 2.13 | Target=3.51 | 93.8 | 1539 | M |
| 399.00 > 99.00 | 3.121 | 3.122 | -0.001 | 1.000 | 745424 | | 3.48(1.76-5.27) | 93.8 | 562 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3057092 | 2.36 | Target=3.83 | 94.4 | 681 | |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 800647 | | 3.82(1.91-5.74) | 94.4 | 1044 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1567141 | 1.24 | | 99.5 | 2953 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.164 | 3.165 | -0.001 | 0.834 | 6344394 | 2.28 | Target=2.58 | 96.7 | 2807 | M |
| 377.00 > 85.00 | 3.164 | 3.165 | -0.001 | 0.834 | 2516908 | | 2.52(1.29-3.88) | 96.7 | 1732 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.474 | -0.009 | 0.913 | 2265445 | 2.28 | Target=5.12 | 95.9 | 2527 | M |
| 449.00 > 99.00 | 3.465 | 3.474 | -0.009 | 0.913 | 451574 | | 5.02(2.56-7.67) | 95.9 | 818 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 207642 | 1.17 | | 98.8 | 415 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 525537 | 2.37 | | 100 | 1754 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1736905 | 1.26 | | 101 | 4140 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1673185 | 1.25 | | | 1952 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 3421460 | 2.32 | Target=2.65 | 92.6 | 531 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1288271 | | 2.66(1.32-3.97) | 92.6 | 1536 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 951013 | 1.17 | | 98.1 | 2404 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 1848160 | 2.14 | Target=4.60 | 92.3 | 1126 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 406321 | | 4.55(2.30-6.90) | 92.3 | 563 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.814 | -0.010 | 1.092 | 1751163 | 1.28 | | 102 | 3373 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.003 | 3222609 | 2.35 | Target=7.58 | 94.1 | 564 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.003 | 427402 | | 7.54(3.79-11.37) | 94.1 | 2659 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 2958438 | 2.27 | | 97.6 | 2763 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.070 | 4.071 | -0.001 | 1.073 | 1555930 | 2.31 | Target=2.38 | 96.4 | 3529 | |
| 549.00 > 99.00 | 4.070 | 4.071 | -0.001 | 1.073 | 648940 | | 2.40(1.19-3.56) | 96.4 | 1395 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.104 | -0.001 | 1.178 | 1713267 | 1.24 | | 99.0 | 4183 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.104 | -0.001 | 1.000 | 3174577 | 2.31 | Target=9.30 | 92.2 | 1141 | |
| 513.00 > 169.00 | 4.103 | 4.104 | -0.001 | 1.000 | 353320 | | 8.98(4.65-13.95) | 92.2 | 1307 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 249474 | 1.24 | | 104 | 745 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 387800 | 2.23 | | 92.9 | 1686 | |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.224 | 4.225 | -0.001 | 1.213 | 1642092 | 1.23 | | 98.4 | 1730 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.235 | -0.011 | 1.000 | 3043484 | 2.44 | | 97.6 | 2847 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.234 | 4.246 | -0.012 | 1.216 | 163220 | 1.20 | | 95.9 | 290 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.003 | 261621 | 2.55 | | 102 | 730 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.335 | 4.336 | -0.001 | 1.143 | 1188911 | 2.27 | Target=2.54 | 94.3 | 3547 | |
| 599.00 > 99.00 | 4.335 | 4.336 | -0.001 | 1.143 | 473644 | | 2.51(1.27-3.81) | 94.3 | 1754 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.357 | 4.358 | -0.001 | 1.251 | 1376292 | 1.28 | | 102 | 3838 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.357 | 4.358 | -0.001 | 1.000 | 2638255 | 2.25 | Target=9.37 | 89.9 | 1239 | M |
| 563.00 > 169.00 | 4.357 | 4.358 | -0.001 | 1.000 | 292513 | | 9.02(4.69-14.06) | 89.9 | 2461 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.368 | 4.369 | -0.001 | 1.254 | 160452 | 1.26 | | 101 | 995 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.368 | 4.380 | -0.012 | 1.000 | 246673 | 2.24 | | 89.7 | 791 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.172 | 3593181 | 2.34 | | 99.3 | 3392 | M |
| D 36 13C2 PFDoA | | | | | | | | | | M |
| 615.00 > 570.00 | 4.580 | 4.580 | 0.0 | 1.315 | 1536568 | 1.32 | | 106 | 802 | M |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.580 | 0.0 | 1.000 | 2636999 | 2.19 | Target=6.84 | 87.6 | 450 | M |
| 613.00 > 169.00 | 4.580 | 4.580 | 0.0 | 1.000 | 379888 | | 6.94(3.42-10.25) | 87.6 | 2149 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 182391 | 2.27 | | 94.0 | 1458 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.738 | 4.748 | -0.010 | 1.249 | 457314 | 2.38 | Target=0.51 | 98.2 | 2001 | M |
| 699.00 > 99.00 | 4.738 | 4.748 | -0.010 | 1.249 | 871466 | | 0.52(0.25-0.76) | 98.2 | 3605 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.774 | 4.775 | -0.001 | 1.042 | 2301928 | 2.22 | Target=4.67 | 88.7 | 456 | |
| 663.00 > 169.00 | 4.774 | 4.775 | -0.001 | 1.042 | 504202 | | 4.57(2.33-7.00) | 88.7 | 2168 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.956 | 4.957 | 0.0 | 1.423 | 1108790 | 1.23 | | 98.5 | 2382 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.956 | 4.957 | 0.0 | 1.000 | 332972 | 2.38 | Target=0.99 | 95.1 | 2181 | |
| 713.00 > 219.00 | 4.946 | 4.957 | -0.010 | 0.998 | 324405 | | 1.03(0.49-1.48) | 95.1 | 2194 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.258 | 0.0 | 1.510 | 968779 | 1.22 | | 97.8 | 2767 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.258 | 5.258 | 0.0 | 1.000 | 1696788 | 2.55 | Target=4.50 | 102 | 440 | M |
| 813.00 > 169.00 | 5.258 | 5.258 | 0.0 | 1.000 | 349644 | | 4.85(2.25-6.75) | 102 | 1782 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.518 | 5.519 | -0.001 | 1.050 | 1507499 | 2.31 | Target=4.46 | 92.3 | 619 | M |
| 913.00 > 169.00 | 5.518 | 5.519 | -0.001 | 1.050 | 339769 | | 4.44(2.23-6.68) | 92.3 | 1621 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00022 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:28 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d

Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812

Lims ID: IC

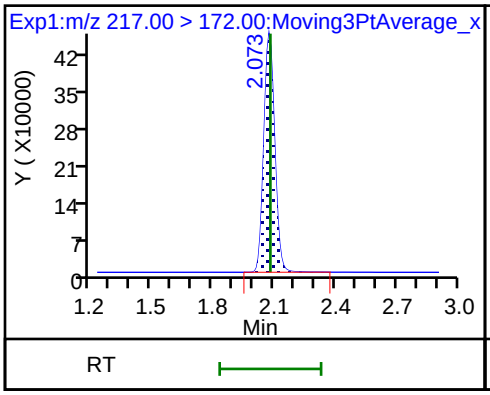
Client ID:

Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6

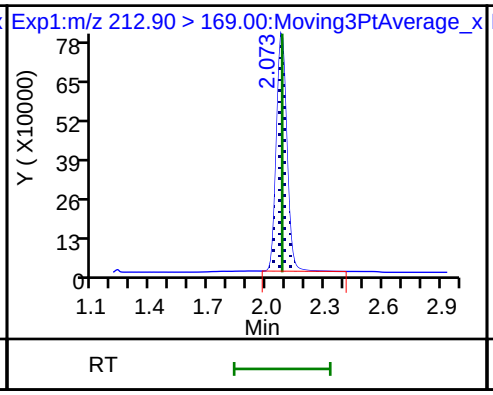
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

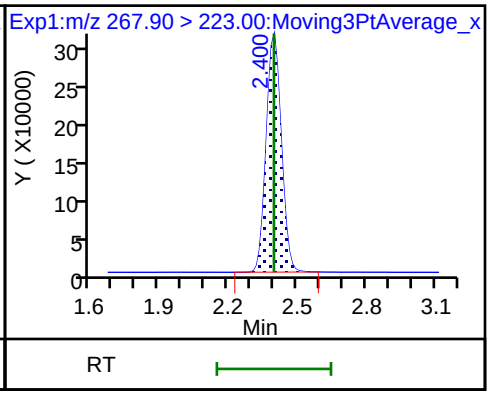
D 1 13C4 PFBA



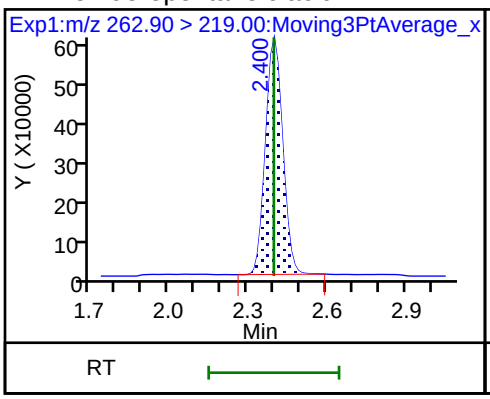

2 Perfluorobutanoic acid



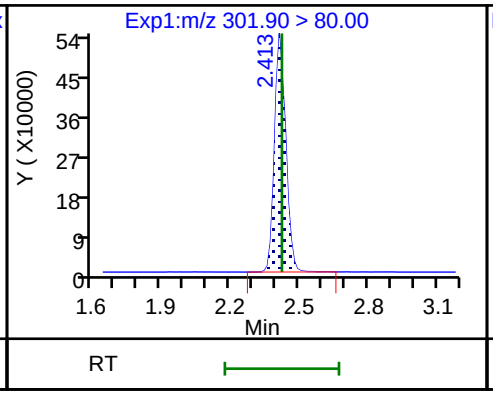

D 3 13C5 PFPeA



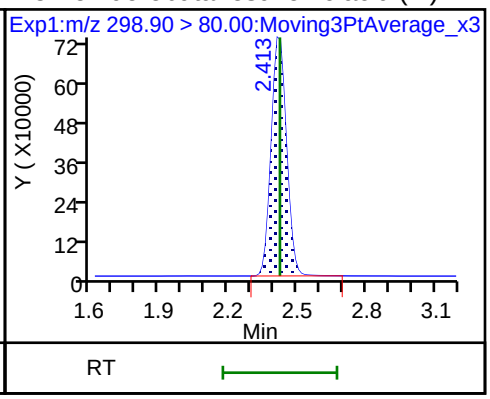

4 Perfluoropentanoic acid



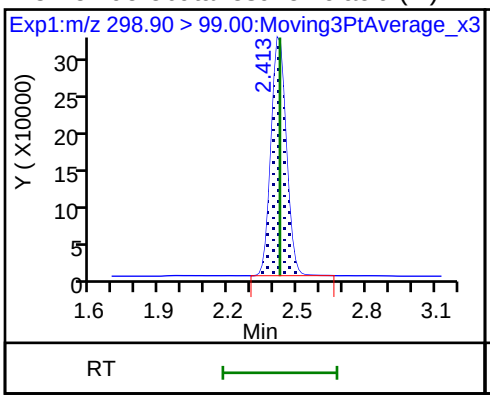

D 47 13C3 PFBS



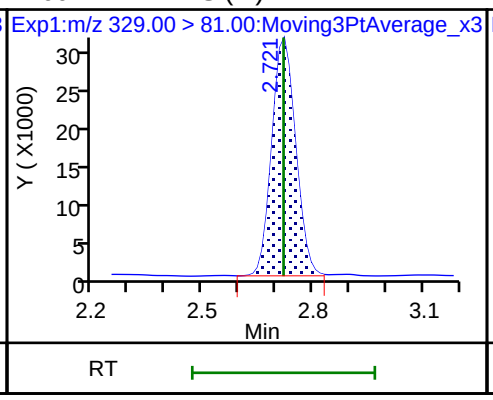

5 Perfluorobutanesulfonic acid (M)



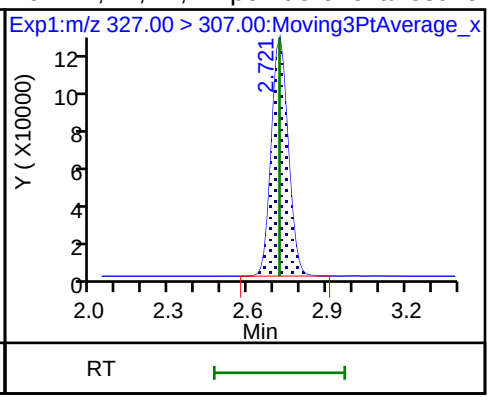

5 Perfluorobutanesulfonic acid (M)



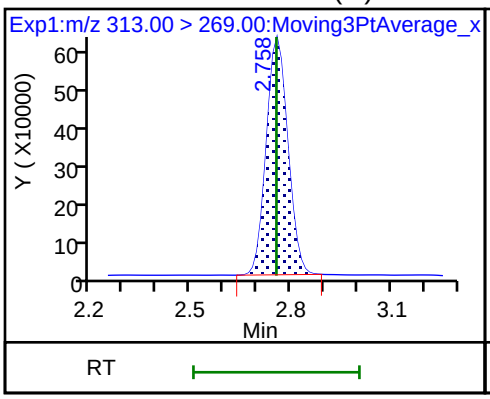

D 60 M2-4:2 FTS (M)



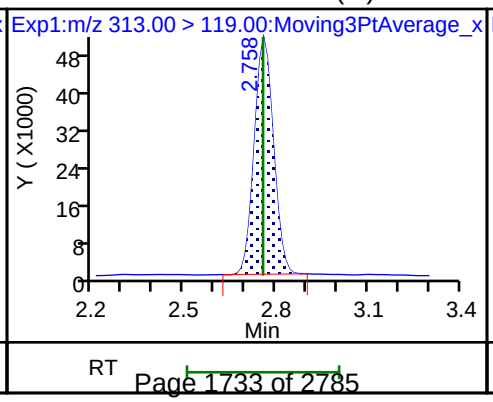

61 1H,1H,2H,2H-perfluorohexanesulfo



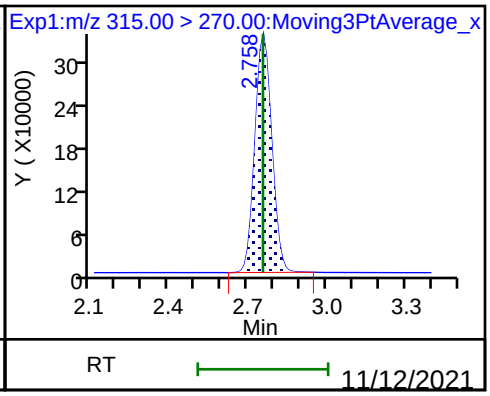

6 Perfluorohexanoic acid (M)



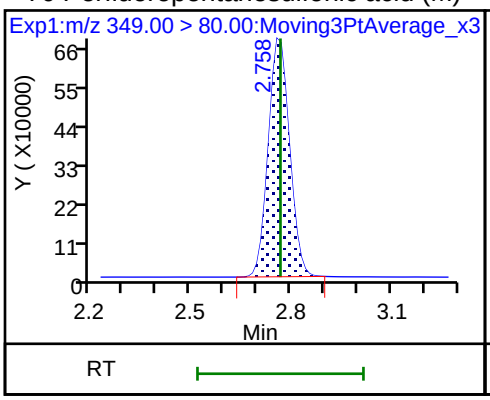

6 Perfluorohexanoic acid (M)



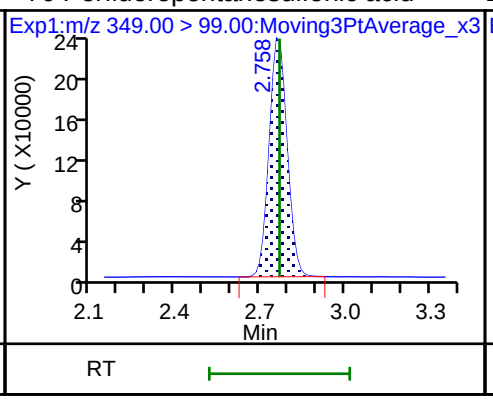

D 7 13C2 PFHxA



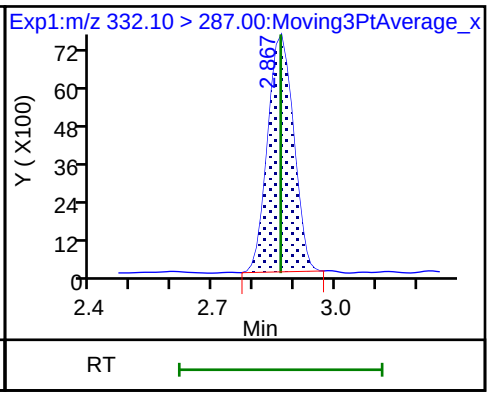
70 Perfluoropentanesulfonic acid (M)



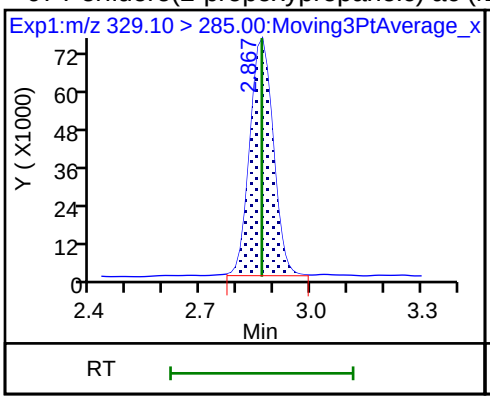

70 Perfluoropentanesulfonic acid



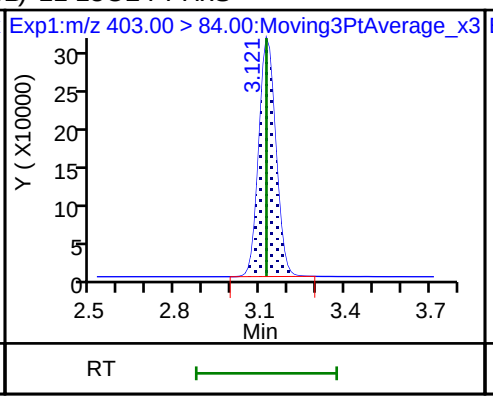

D 64 13C3 HFPO-DA



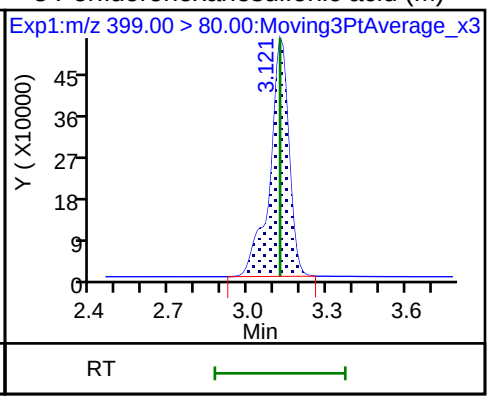

67 Perfluoro(2-propoxypropanoic) ac (M)



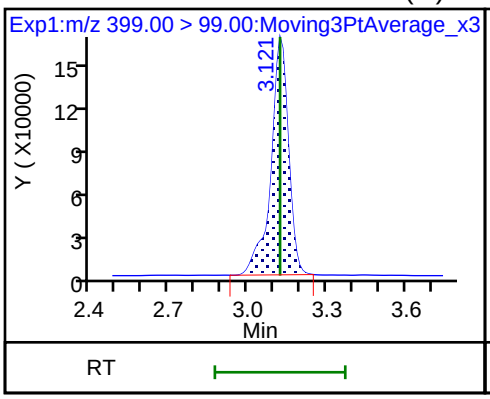

D 11 18O2 PFHxS



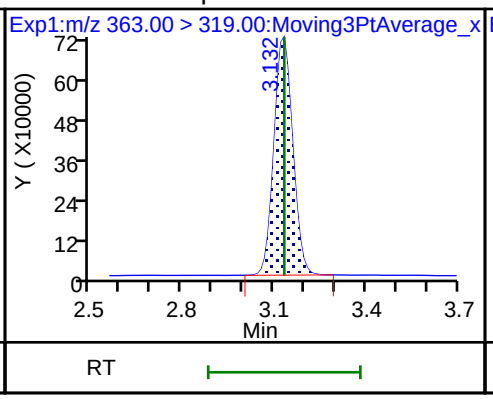

8 Perfluorohexanesulfonic acid (M)



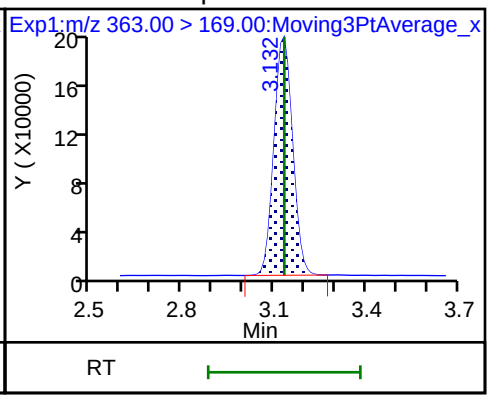

8 Perfluorohexanesulfonic acid (M)



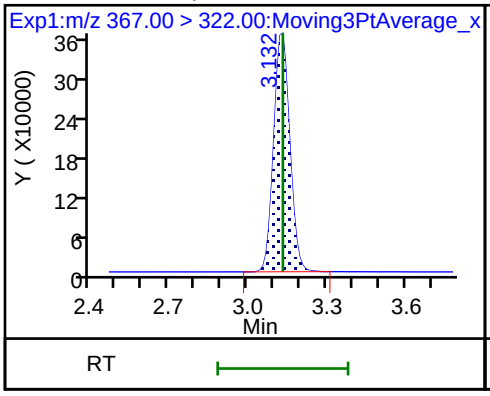

10 Perfluoroheptanoic acid



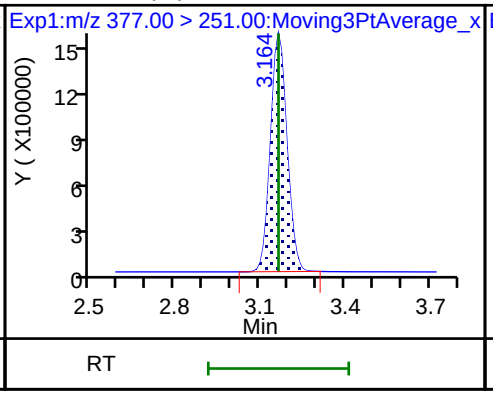

10 Perfluoroheptanoic acid



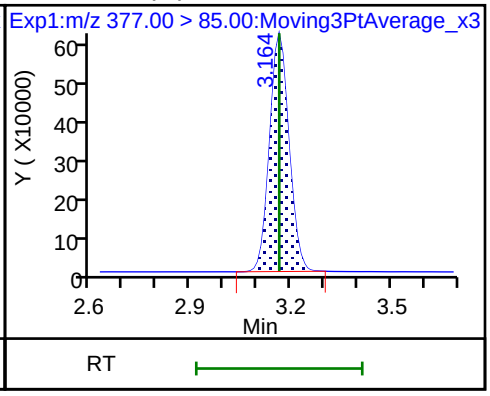

D 9 13C4 PFHpA



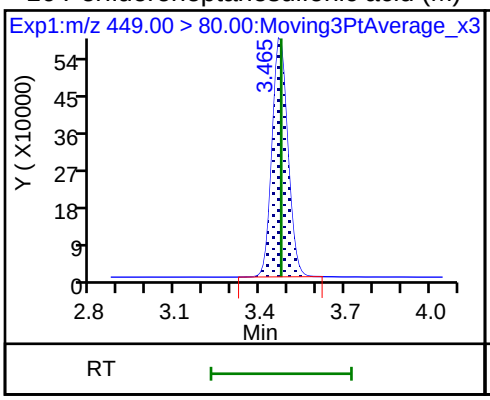

77 DONA (M)



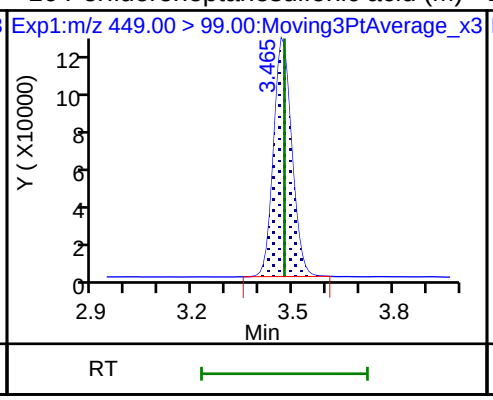

77 DONA (M)



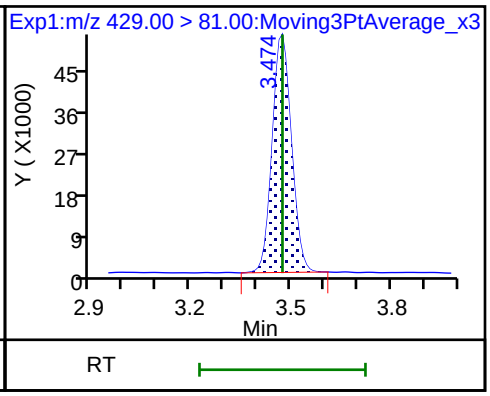
16 Perfluoroheptanesulfonic acid (M)



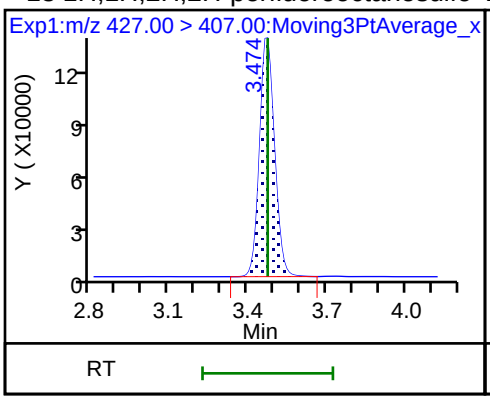

16 Perfluoroheptanesulfonic acid (M)



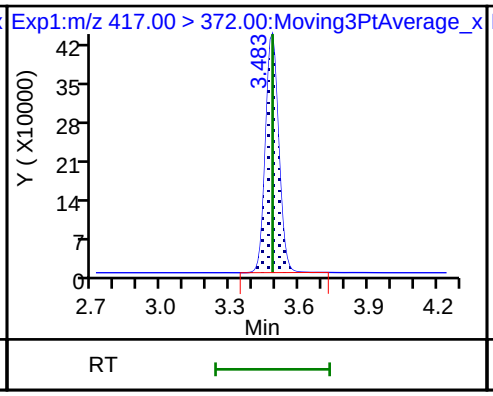

D 12 M2-6:2 FTS



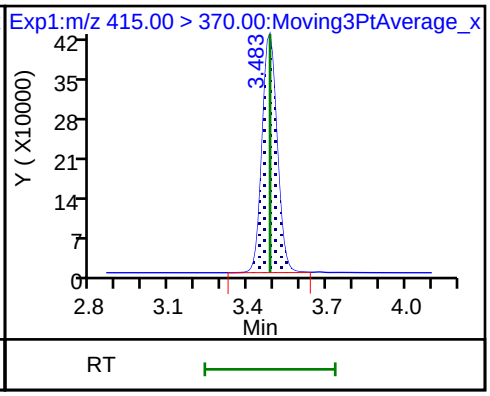

13 1H,1H,2H,2H-perfluorooctanesulfo



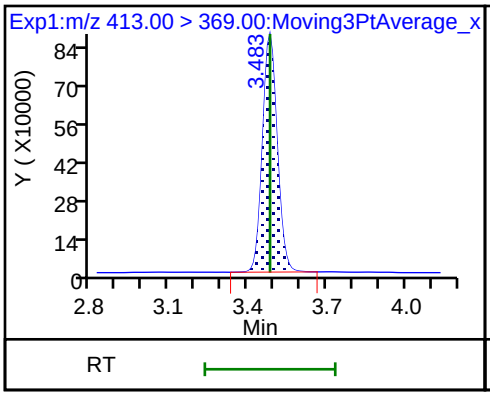

D 14 13C4 PFOA



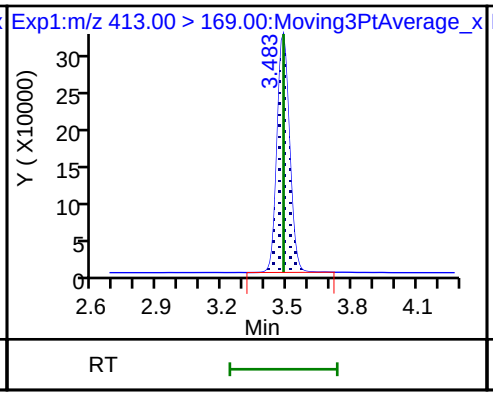

* 62 13C2 PFOA



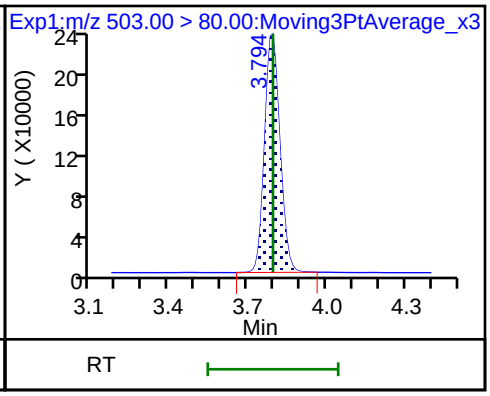

15 Perfluorooctanoic acid



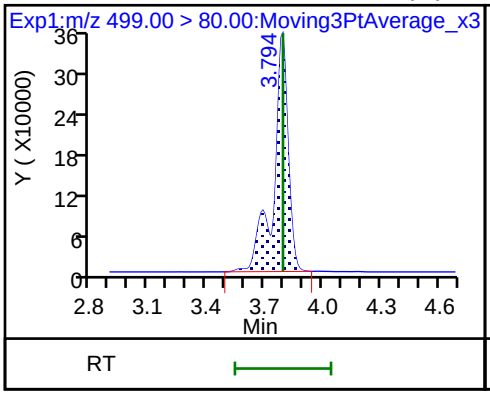

15 Perfluorooctanoic acid



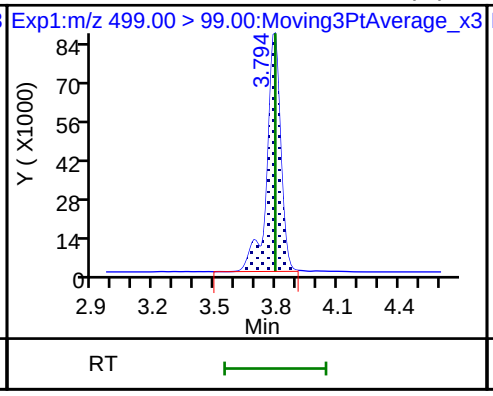

D 18 13C4 PFOS



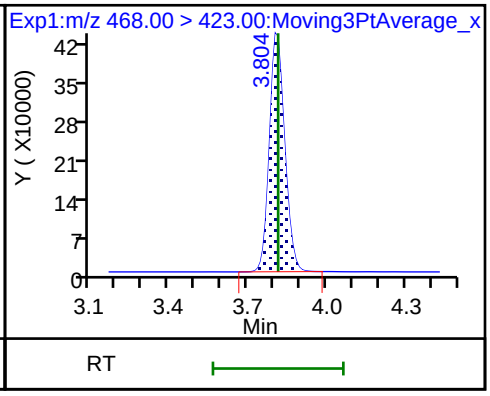

17 Perfluorooctanesulfonic acid (M)



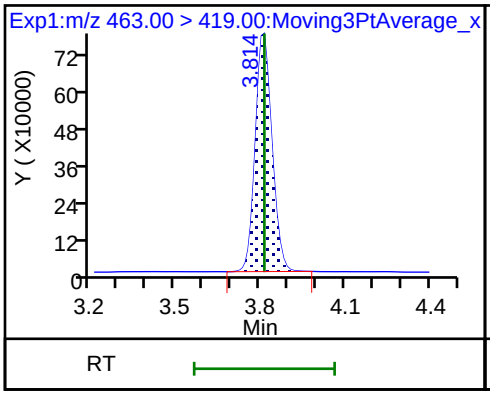

17 Perfluorooctanesulfonic acid (M)



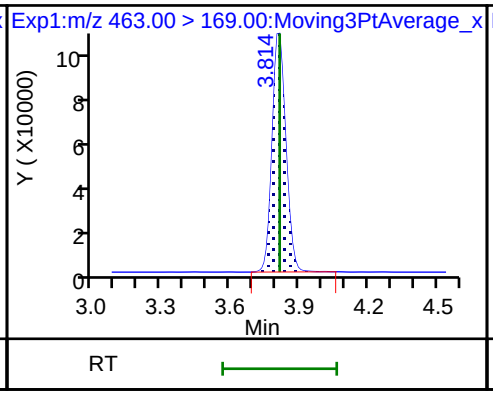

D 19 13C5 PFNA



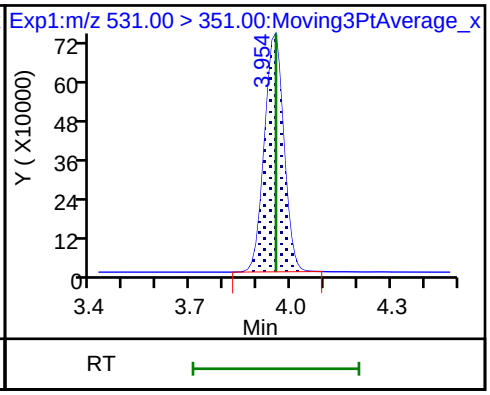
20 Perfluorononanoic acid



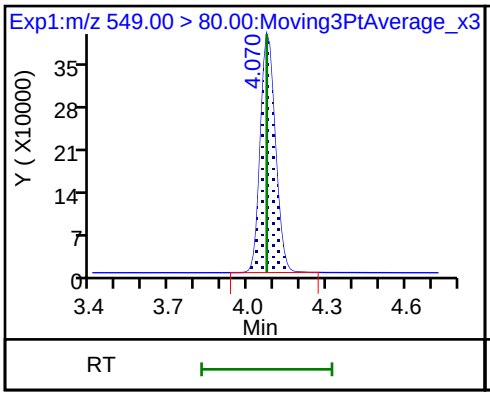

20 Perfluorononanoic acid



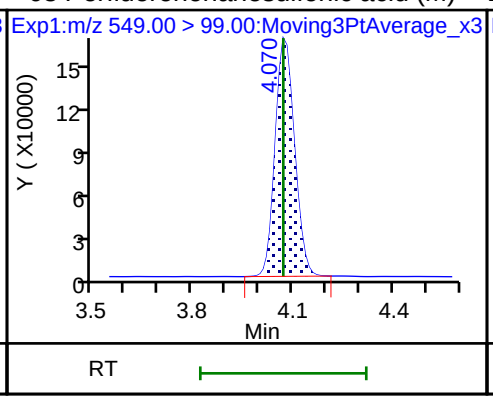

69 9-Chlorohexadecafluoro-3-oxanona (M)



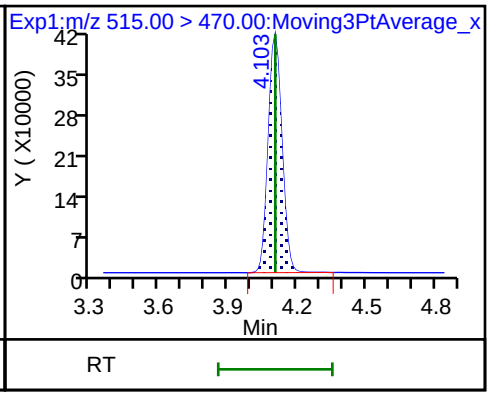

68 Perfluorononanesulfonic acid



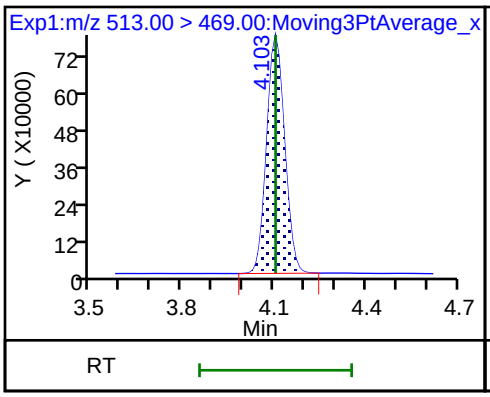

68 Perfluorononanesulfonic acid (M)



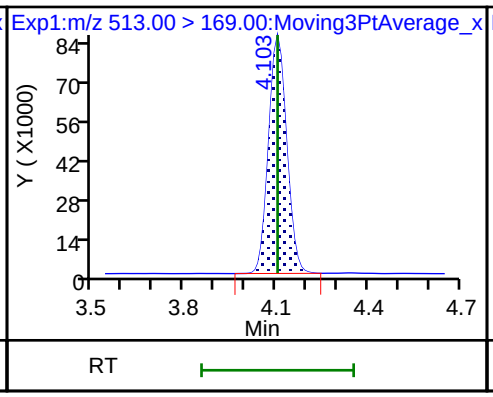

D 23 13C2 PFDA



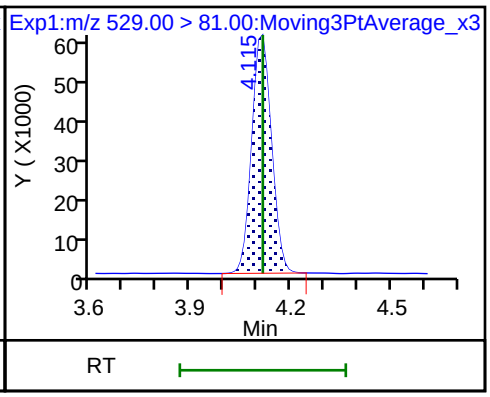

24 Perfluorodecanoic acid



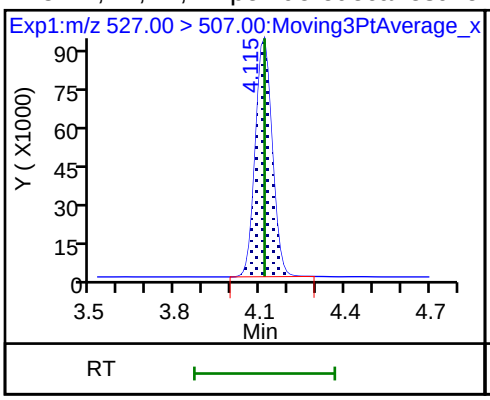

24 Perfluorodecanoic acid



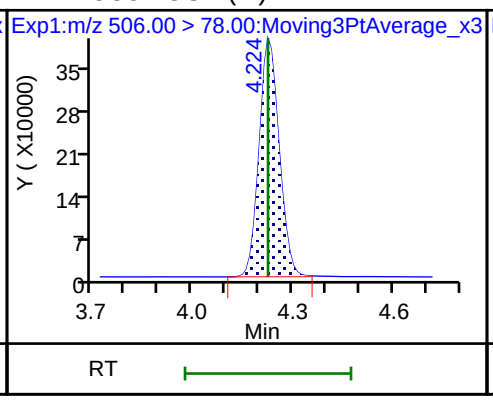

D 26 M2-8:2 FTS



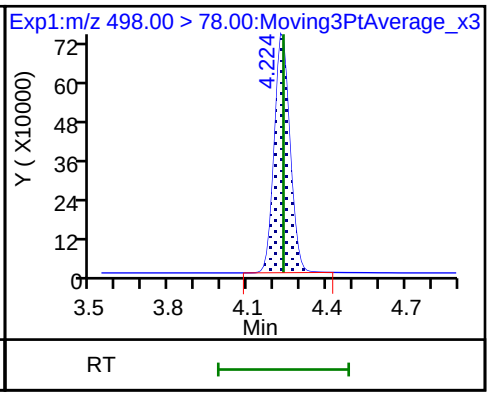

25 1H,1H,2H,2H-perfluorodecanesulfo



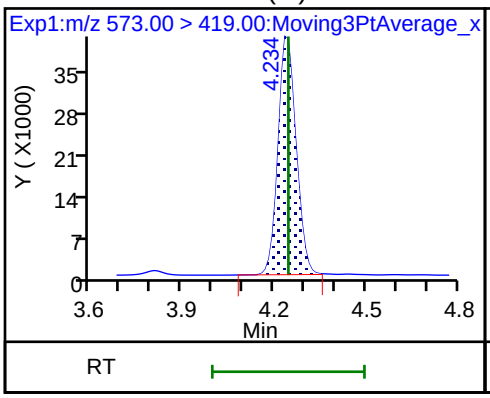

D 21 13C8 FOSA (M)



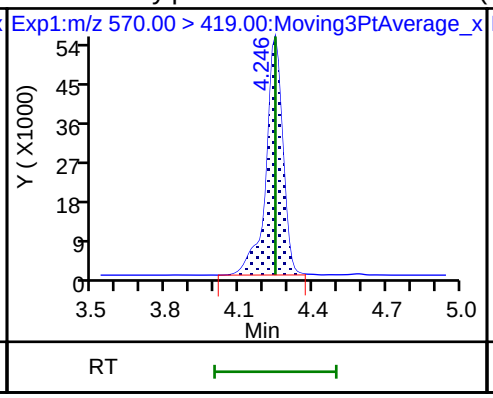

22 Perfluorooctanesulfonamide



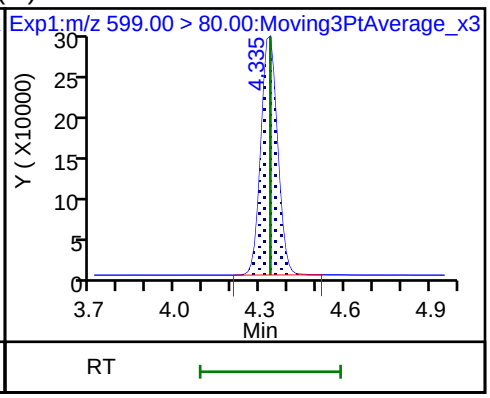
D 27 d3-NMeFOSAA (M)



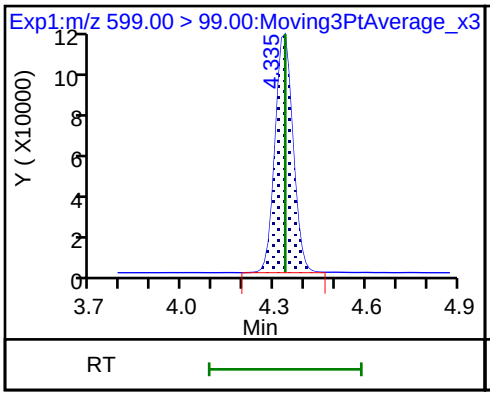

28 N-methylperfluorooctanesulfonami (M)



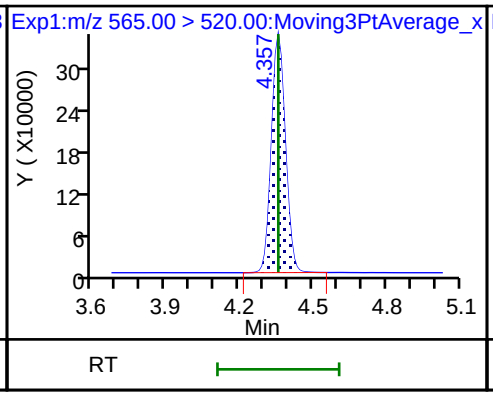

29 Perfluorodecanesulfonic acid



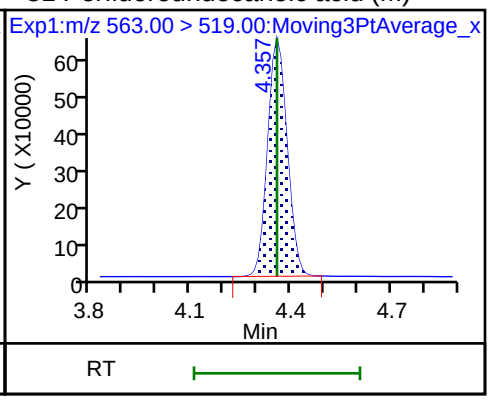

29 Perfluorodecanesulfonic acid



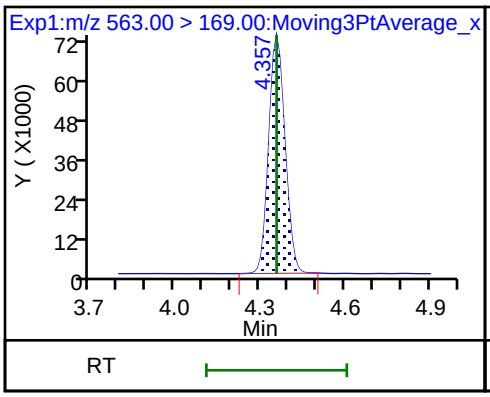

D 30 13C2 PFUnA



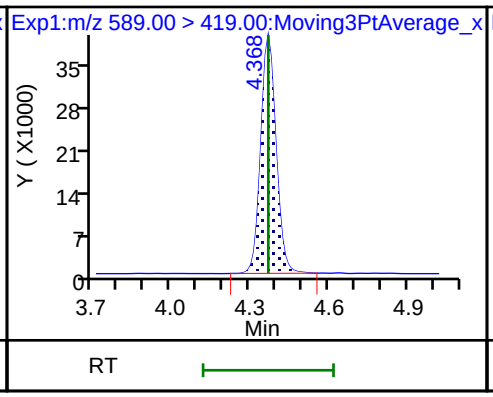

31 Perfluoroundecanoic acid (M)



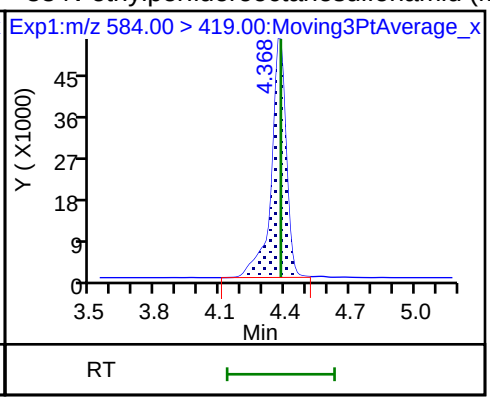

31 Perfluoroundecanoic acid



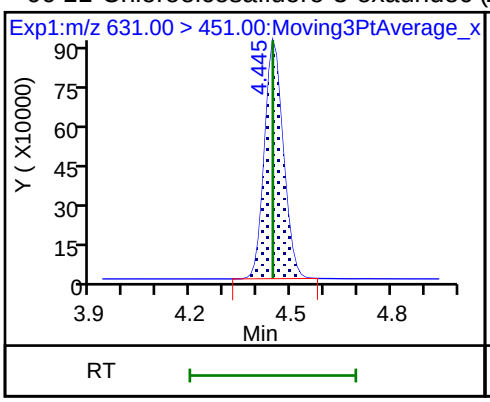

D 32 d5-NEtFOSAA



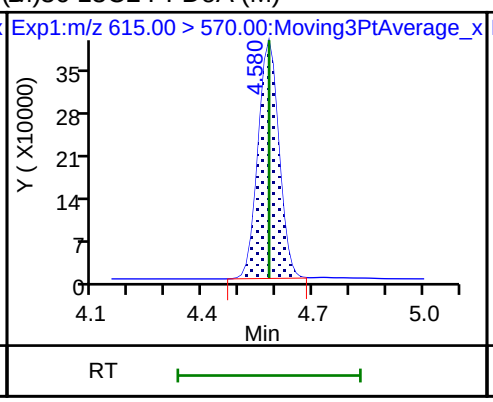

33 N-ethylperfluorooctanesulfonamid (M)



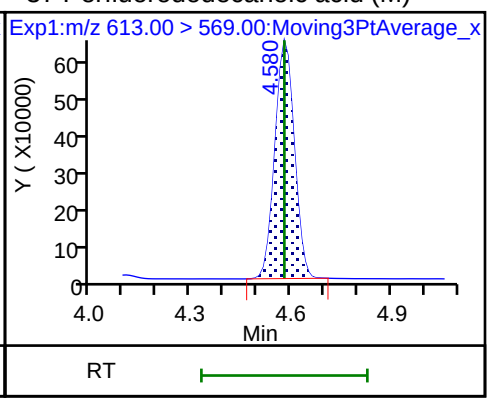

66 11-Chloroeicosafluoro-3-oxaundec (M)



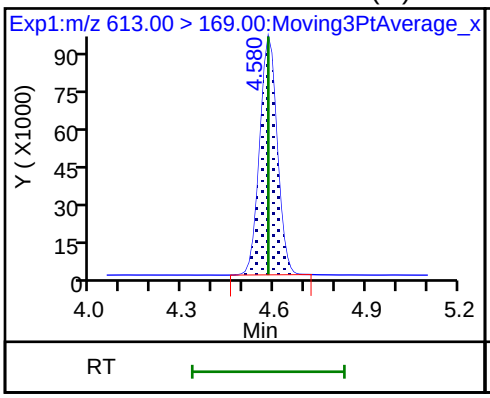

D 36 13C2 PFDoA (M)



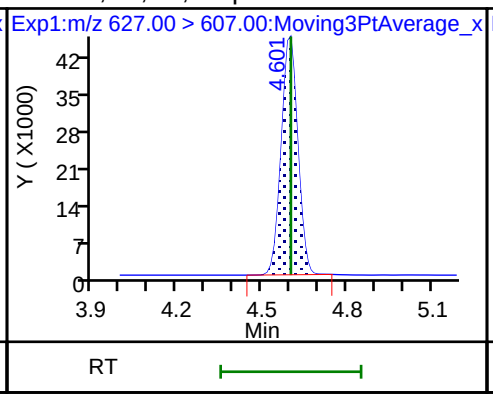

37 Perfluorododecanoic acid (M)



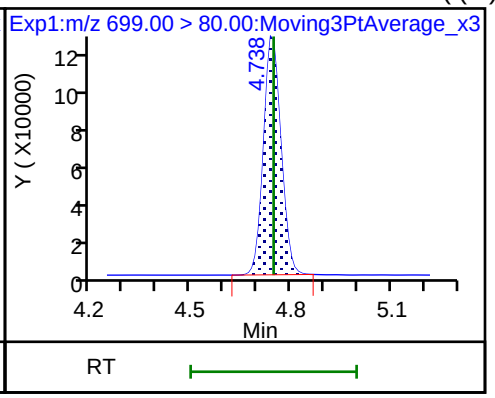
37 Perfluorododecanoic acid (M)



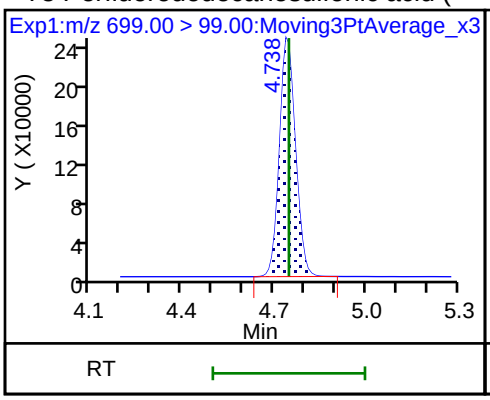

74 1H,1H,2H,2H-perfluorododecanesul



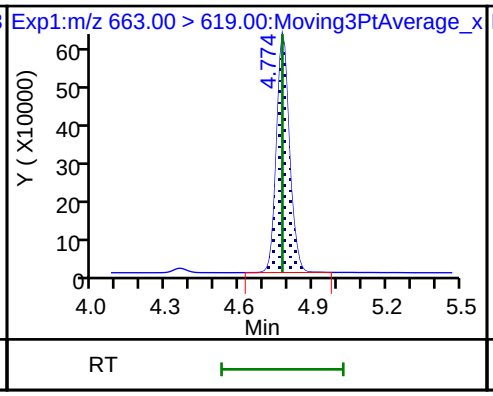

75 Perfluorododecanesulfonic acid ( (M)



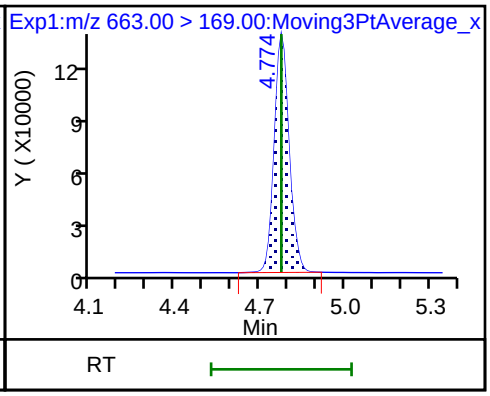

75 Perfluorododecanesulfonic acid (



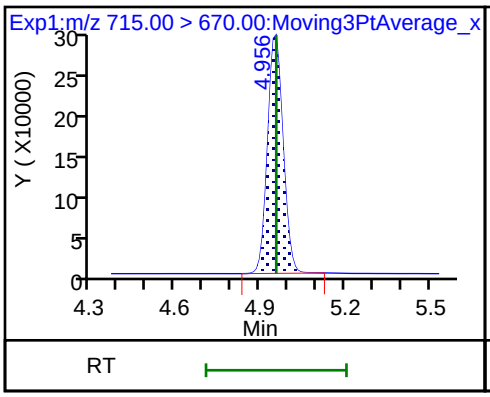

41 Perfluorotridecanoic acid



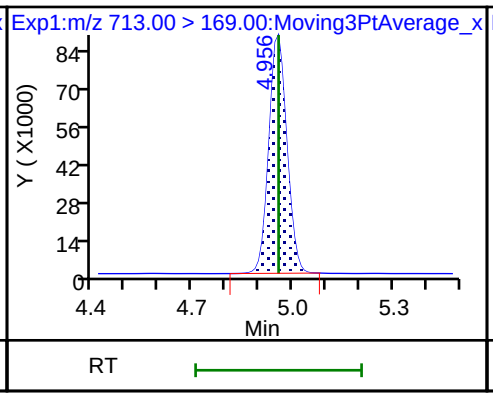

41 Perfluorotridecanoic acid



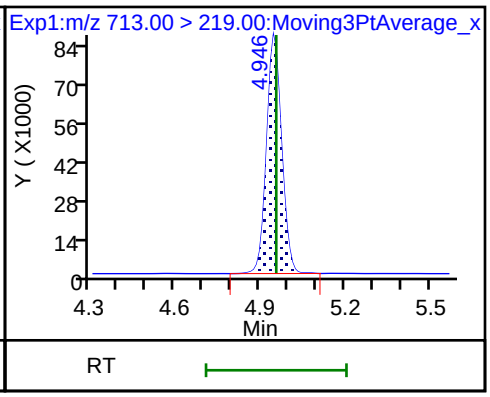

D 43 13C2 PFTeDA



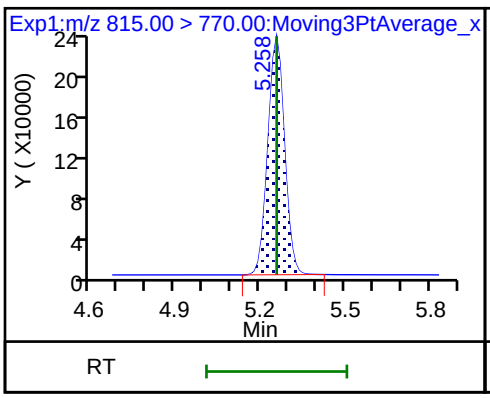

42 Perfluorotetradecanoic acid



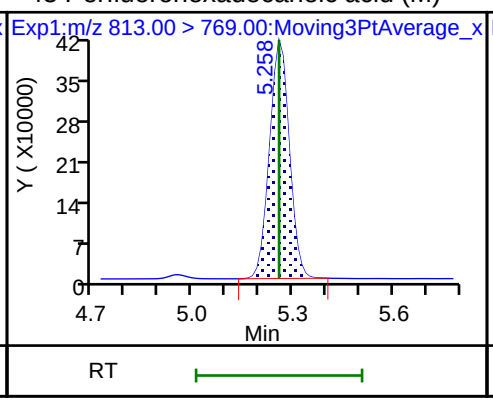

42 Perfluorotetradecanoic acid



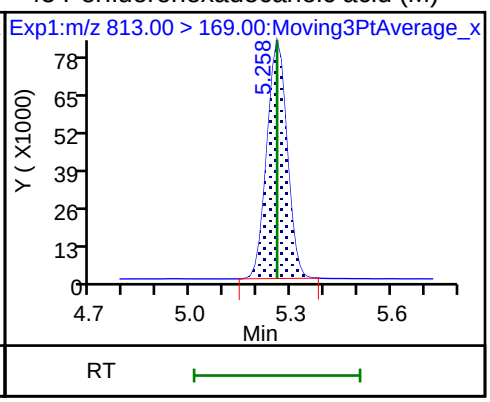

D 44 13C2 PFHxDA



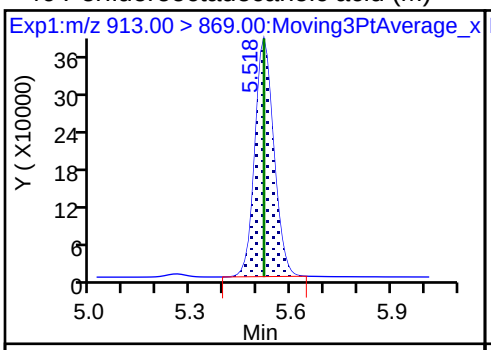

45 Perfluorohexadecanoic acid (M)



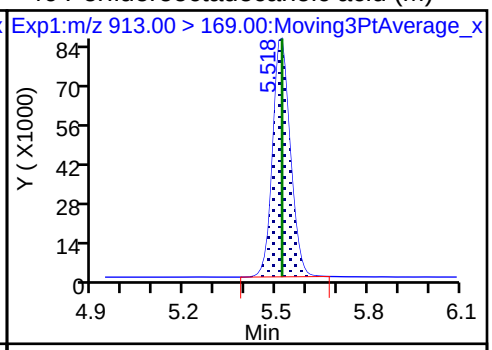

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M)




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

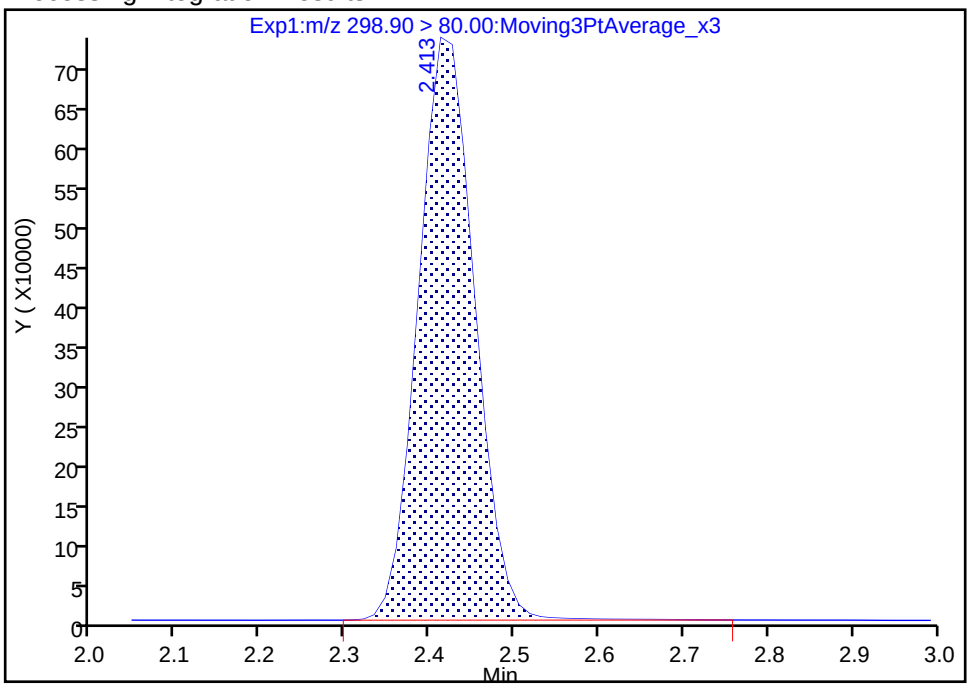
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

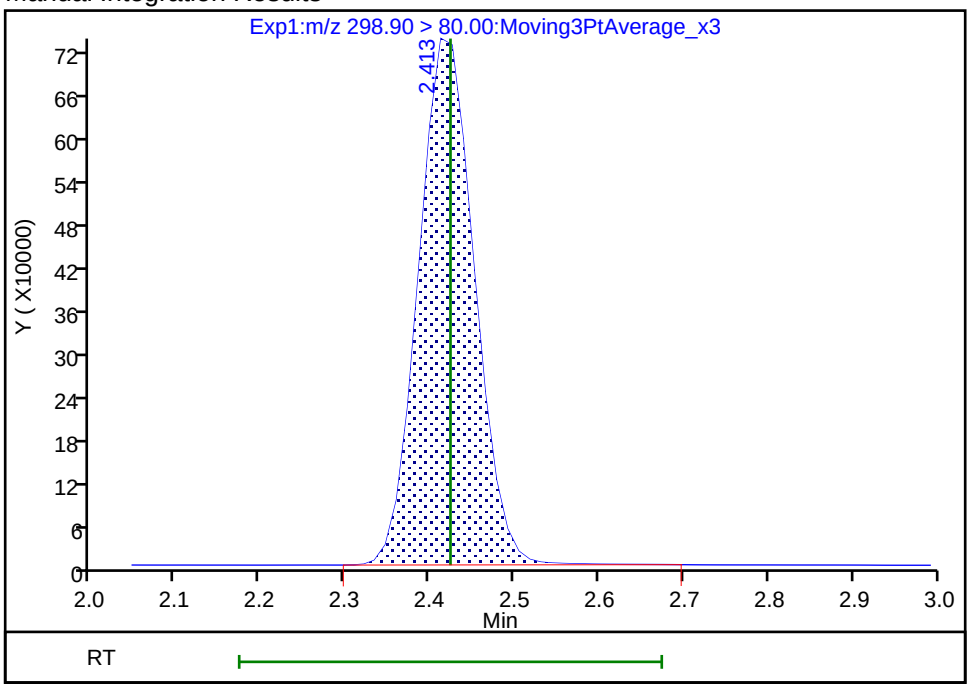
Processing Integration Results

RT: 2.41
Area: 3364127
Amount: 1.987025
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 3359273
Amount: 2.020686
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

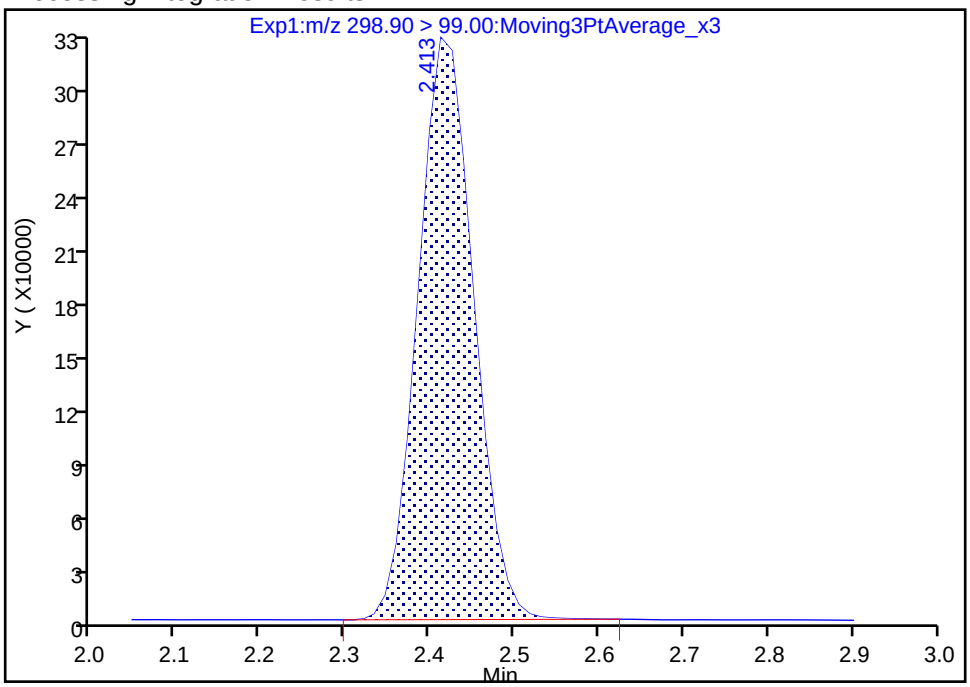
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

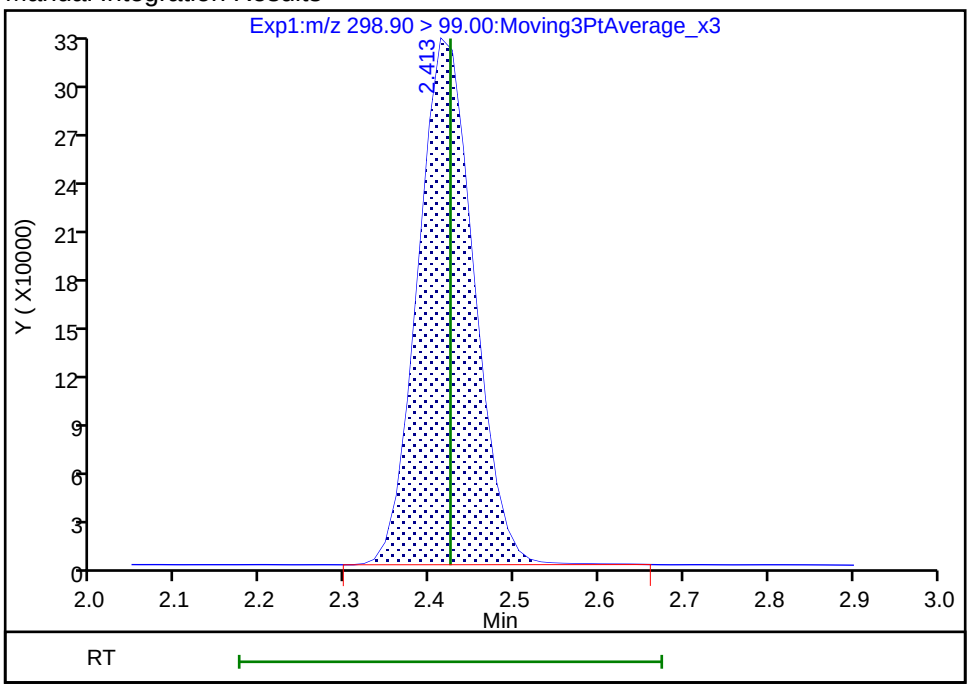
Processing Integration Results

RT: 2.41
Area: 1460913
Amount: 1.987025
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1463595
Amount: 2.020686
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:09:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

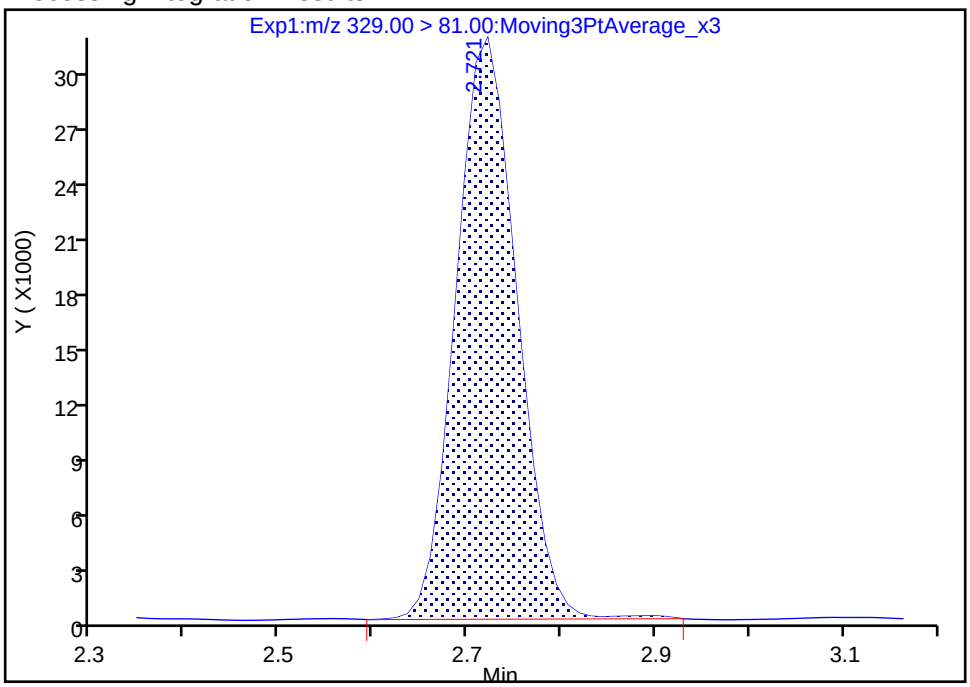
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

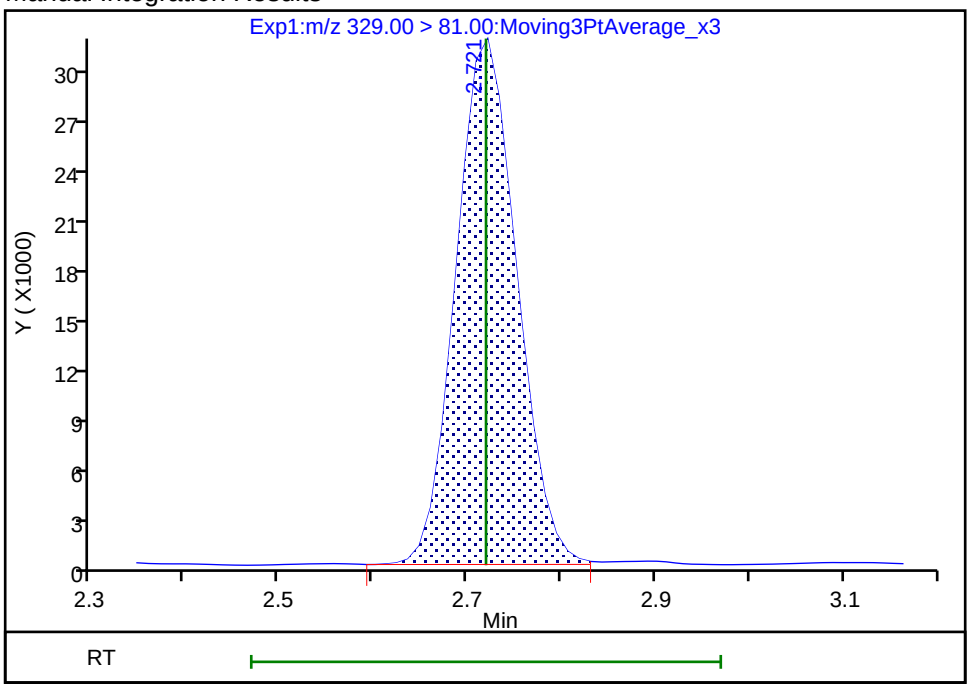
Processing Integration Results

RT: 2.72
Area: 139966
Amount: 1.192342
Amount Units: ng/ml




Manual Integration Results

RT: 2.72
Area: 139431
Amount: 1.184575
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

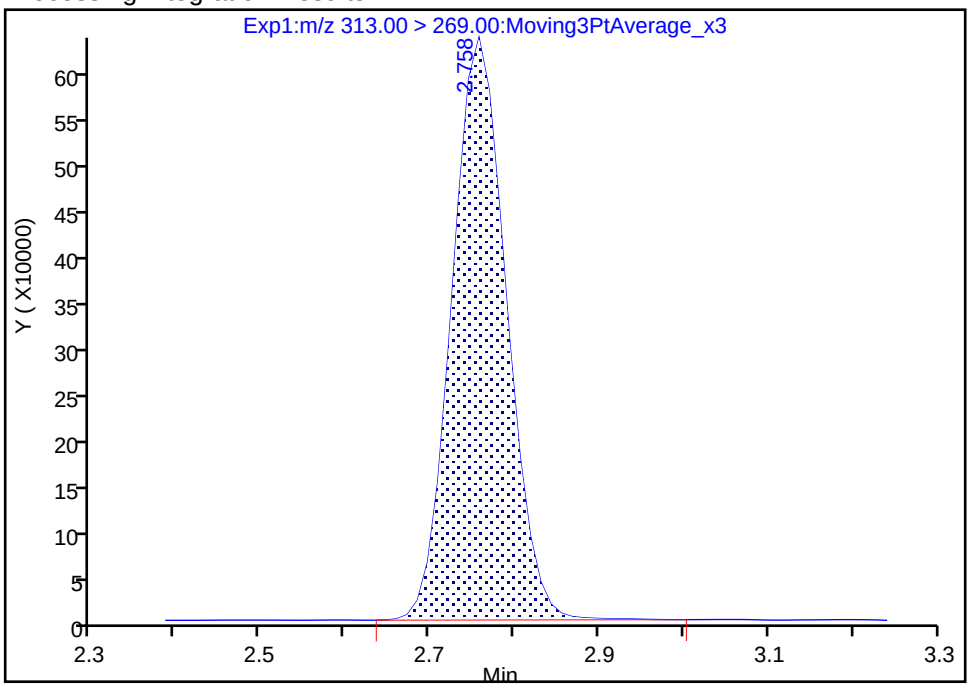
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

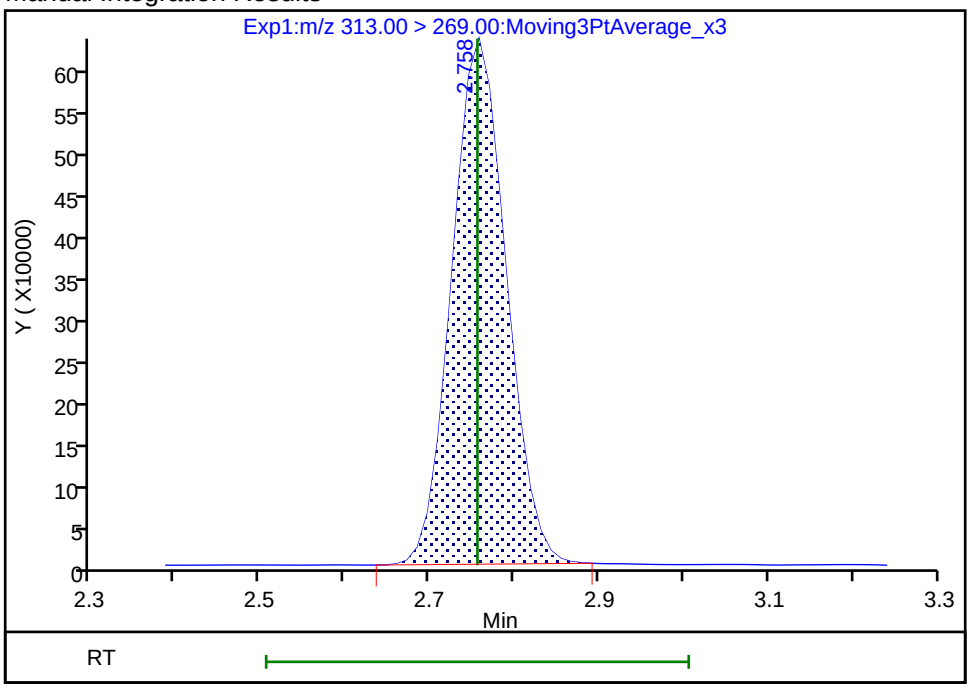
Processing Integration Results

RT: 2.76
Area: 2851646
Amount: 2.330387
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 2833227
Amount: 2.358007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

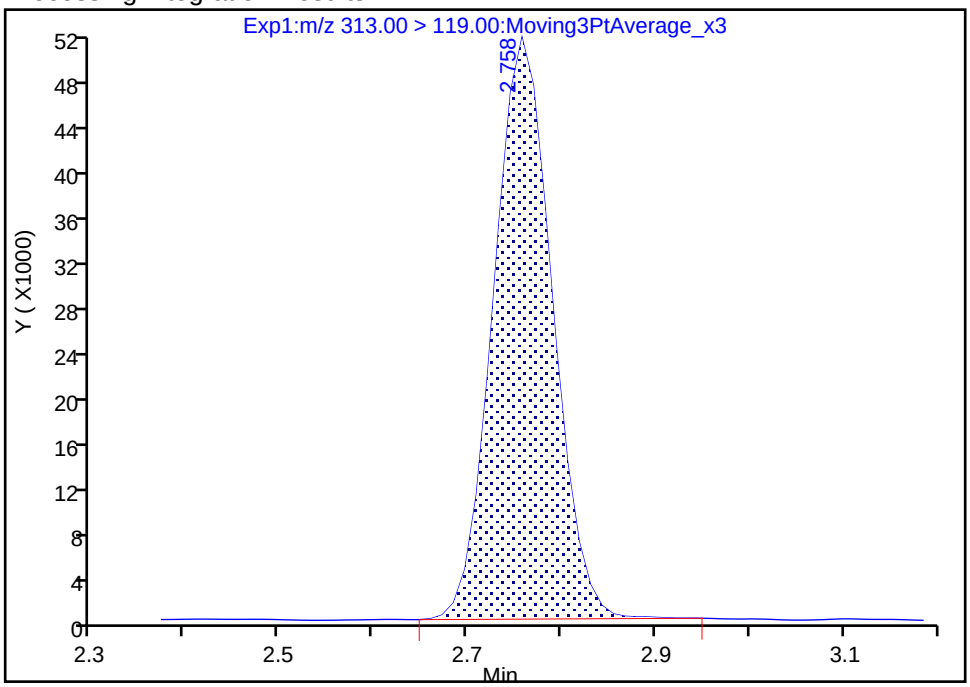
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

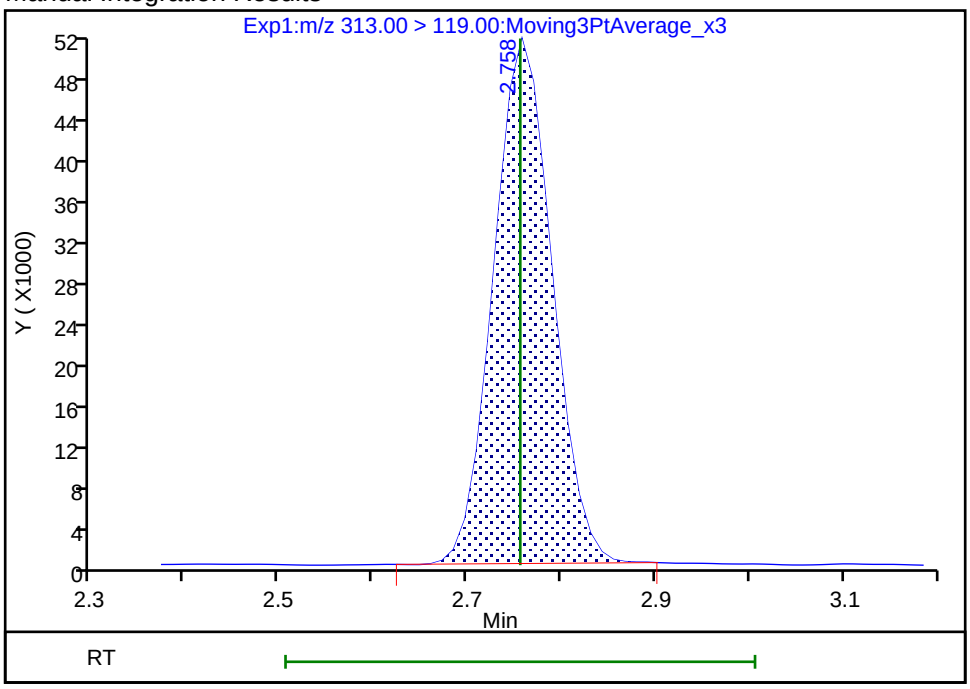
Processing Integration Results

RT: 2.76
Area: 224099
Amount: 2.330387
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 223009
Amount: 2.358007
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

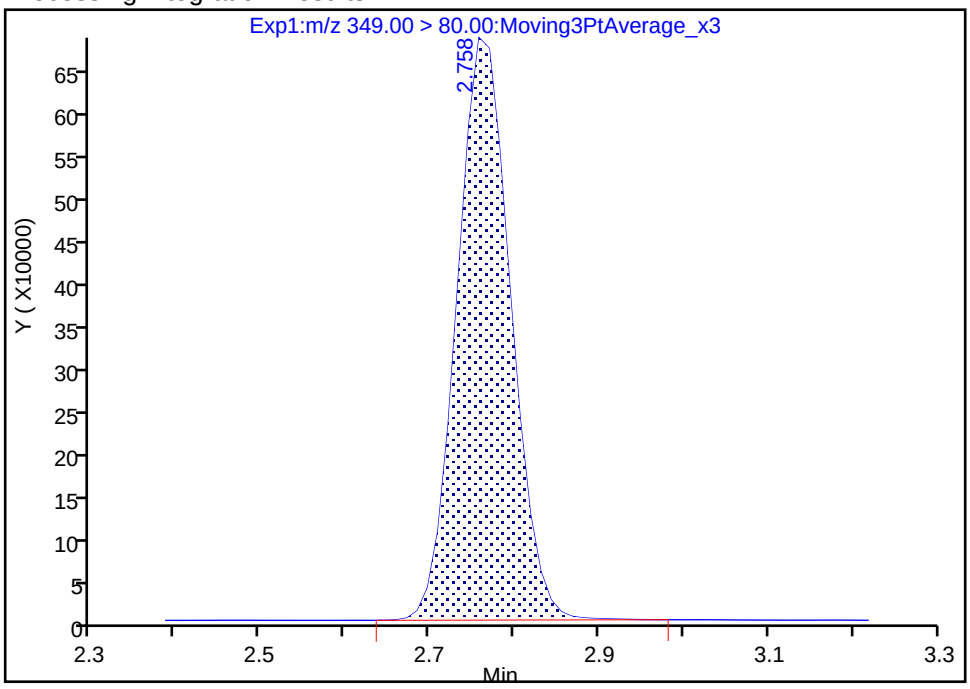
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

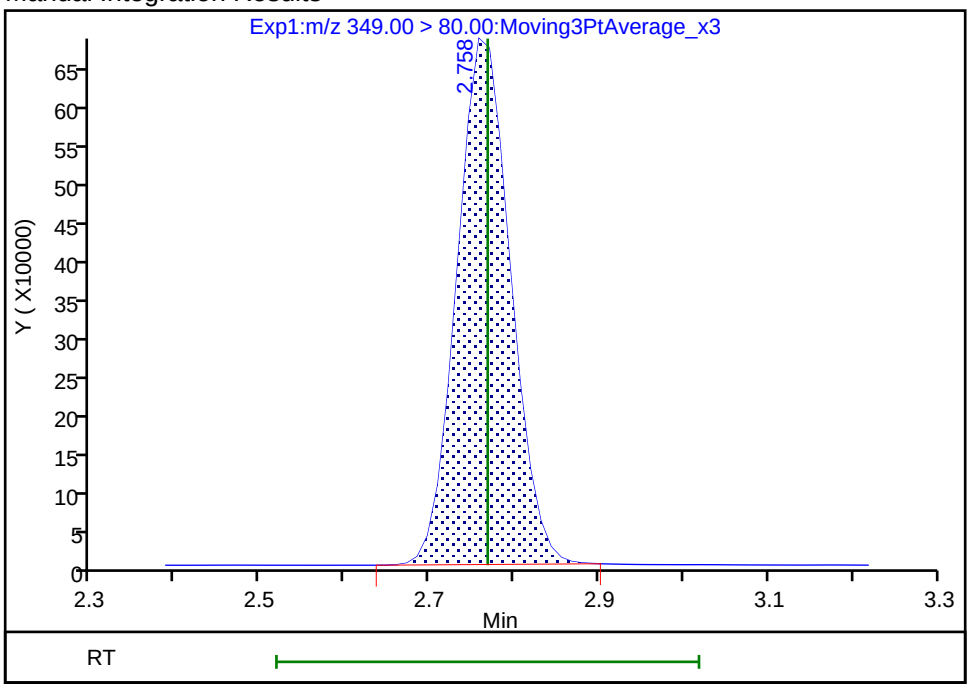
Processing Integration Results

RT: 2.76
Area: 3027530
Amount: 2.243704
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 3014762
Amount: 2.264600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

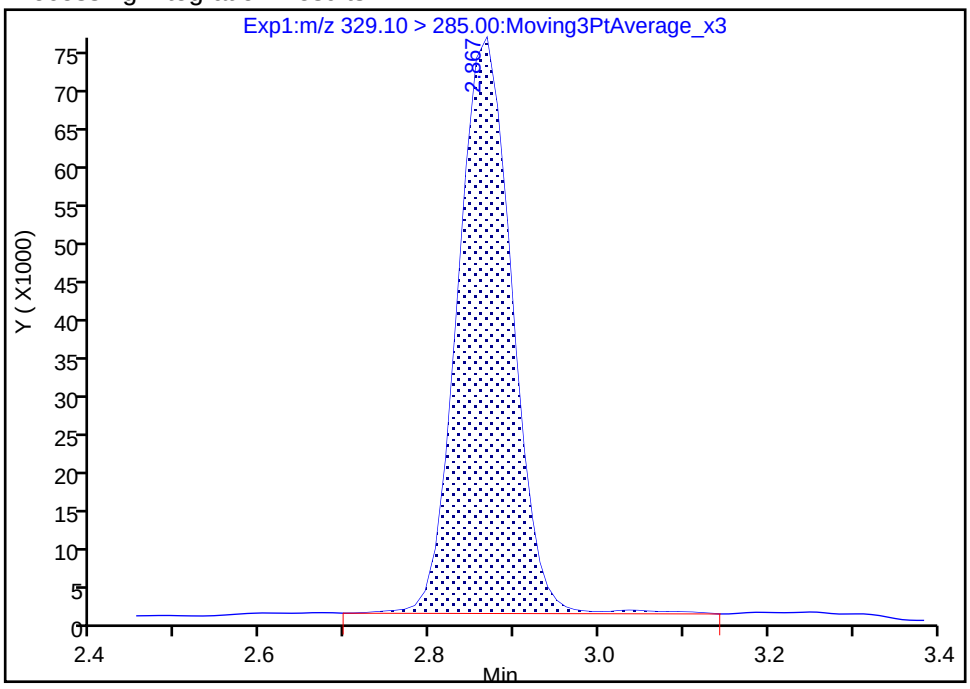
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

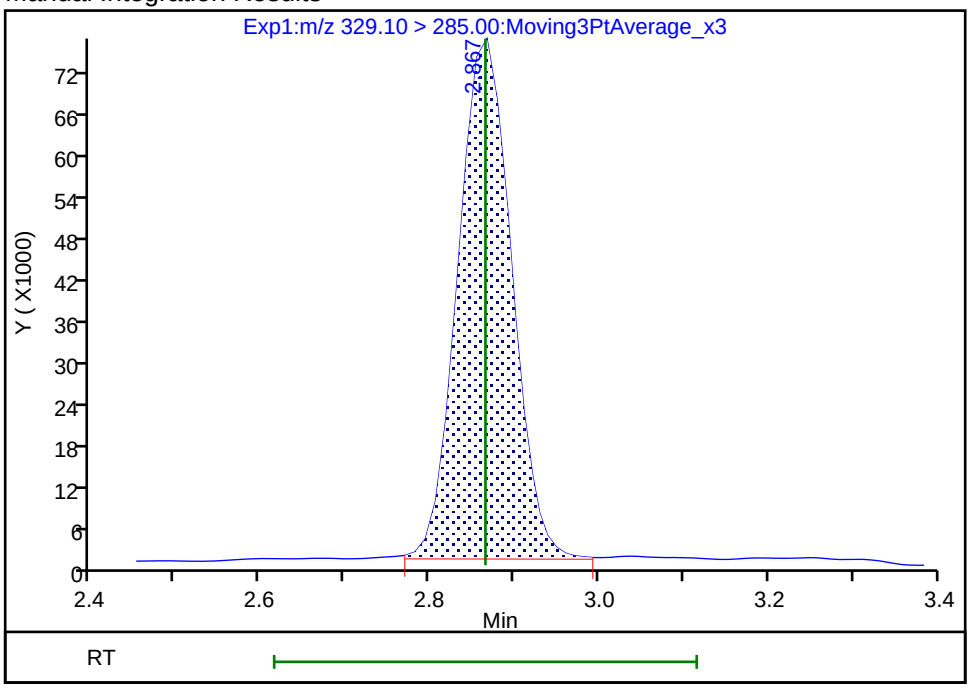
Processing Integration Results

RT: 2.87
Area: 336731
Amount: 2.644778
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 333546
Amount: 2.770716
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

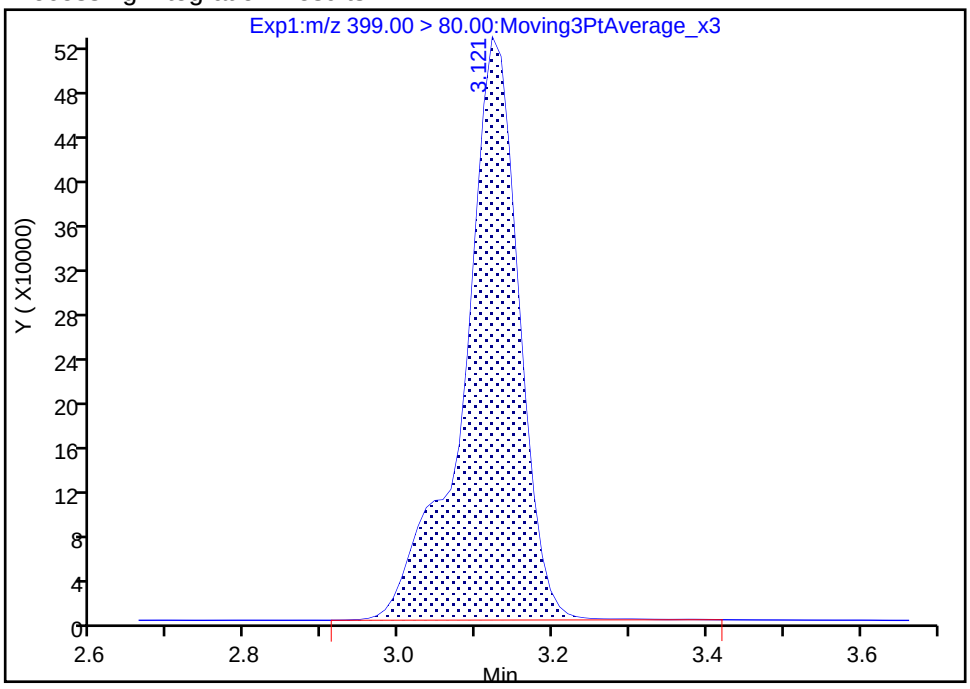
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

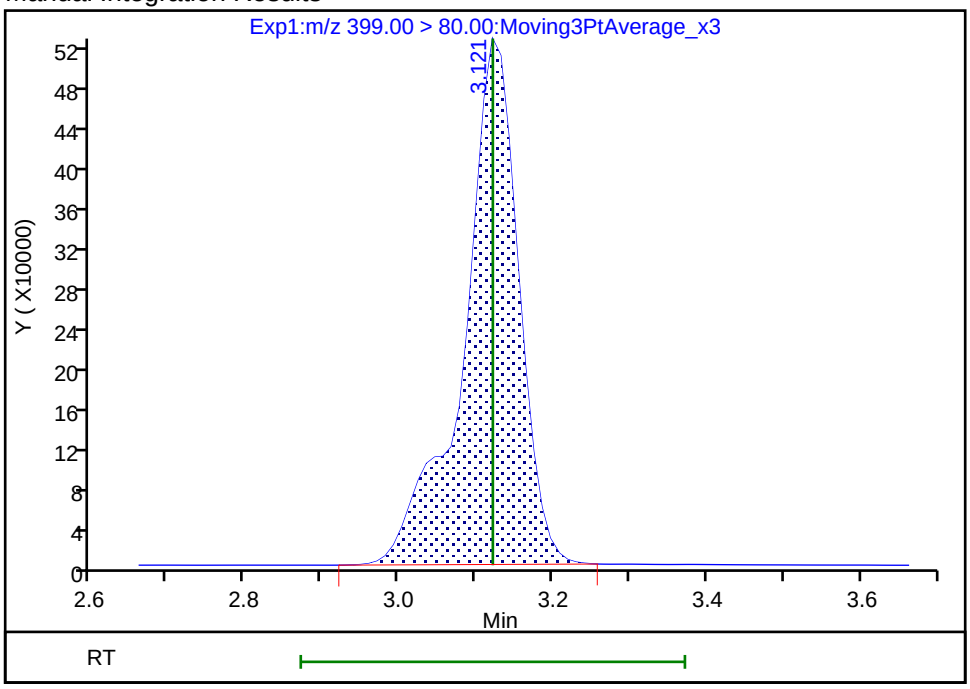
Processing Integration Results

RT: 3.12
Area: 2606777
Amount: 2.106741
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 2594885
Amount: 2.134988
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

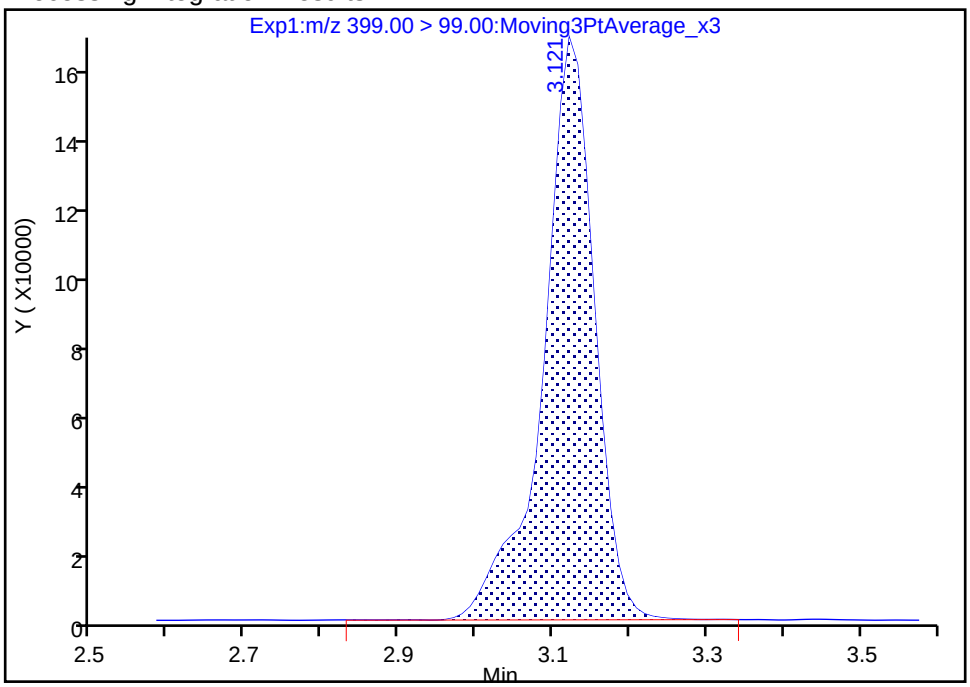
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

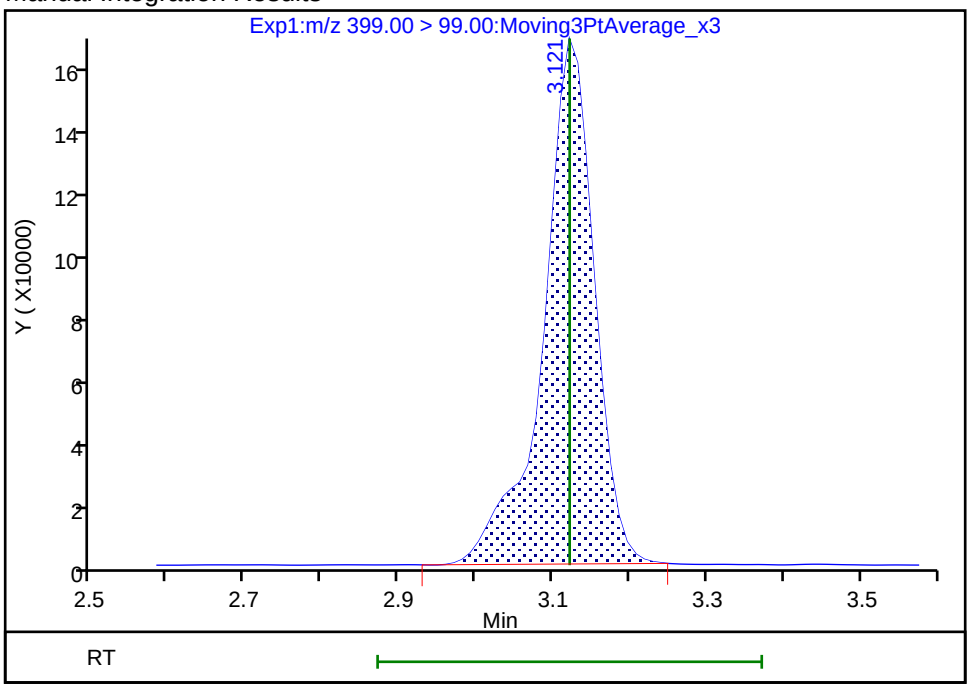
Processing Integration Results

RT: 3.12
Area: 750496
Amount: 2.106741
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 745424
Amount: 2.134988
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:10:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

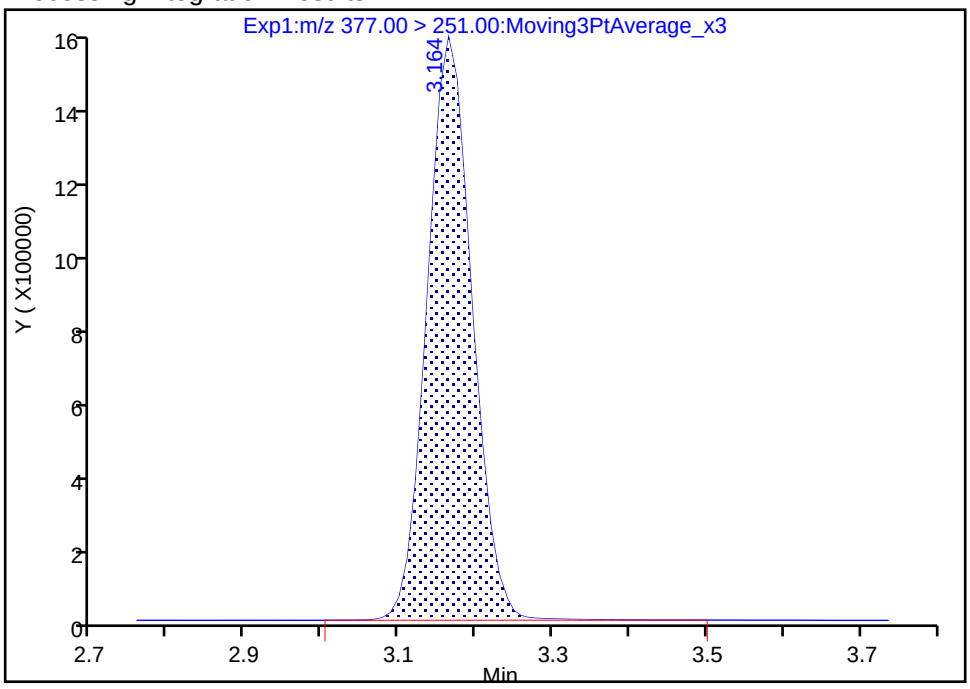
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

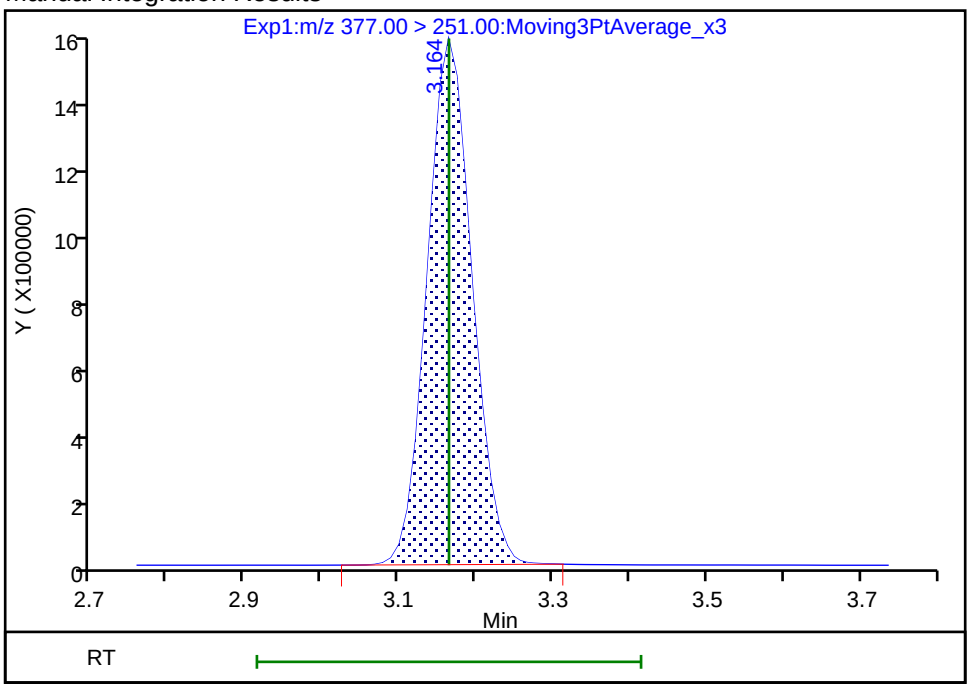
Processing Integration Results

RT: 3.16
Area: 6376625
Amount: 2.234621
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 6344394
Amount: 2.277761
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

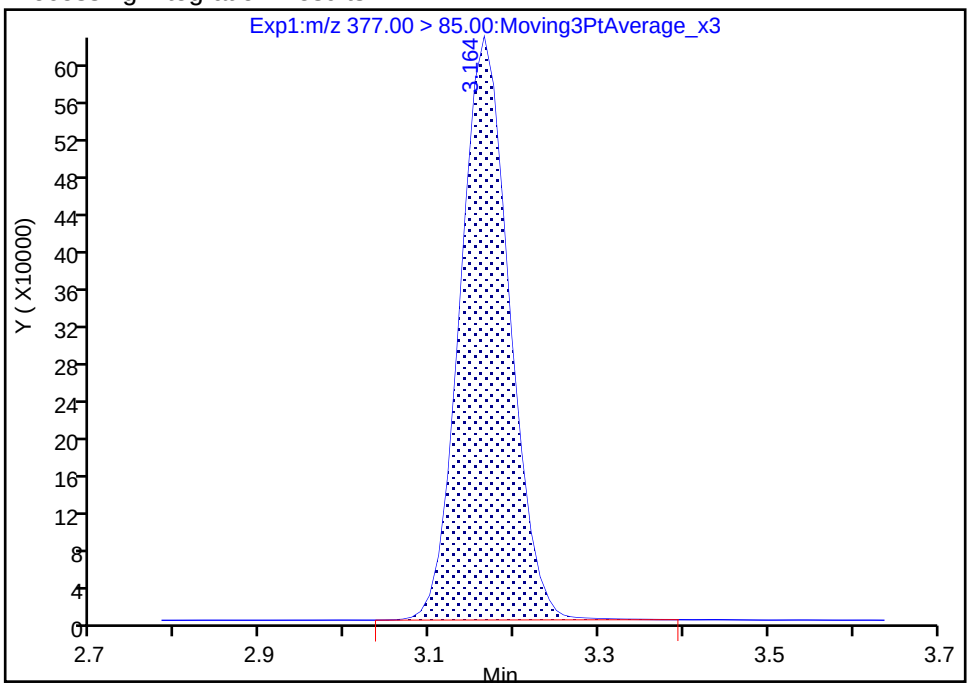
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

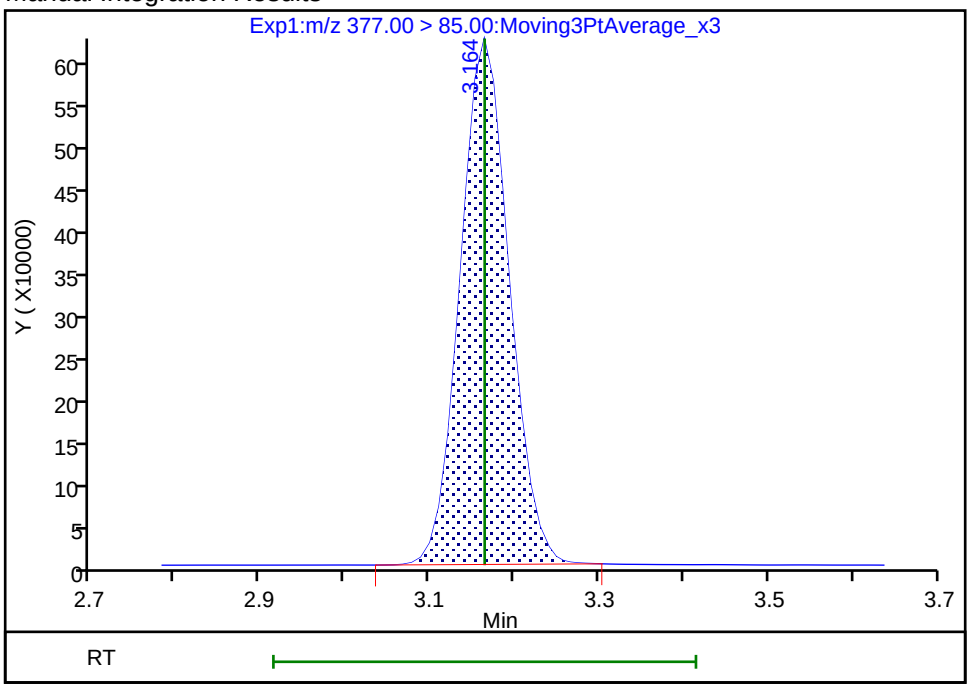
Processing Integration Results

RT: 3.16
Area: 2527704
Amount: 2.234621
Amount Units: ng/ml




Manual Integration Results

RT: 3.16
Area: 2516908
Amount: 2.277761
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

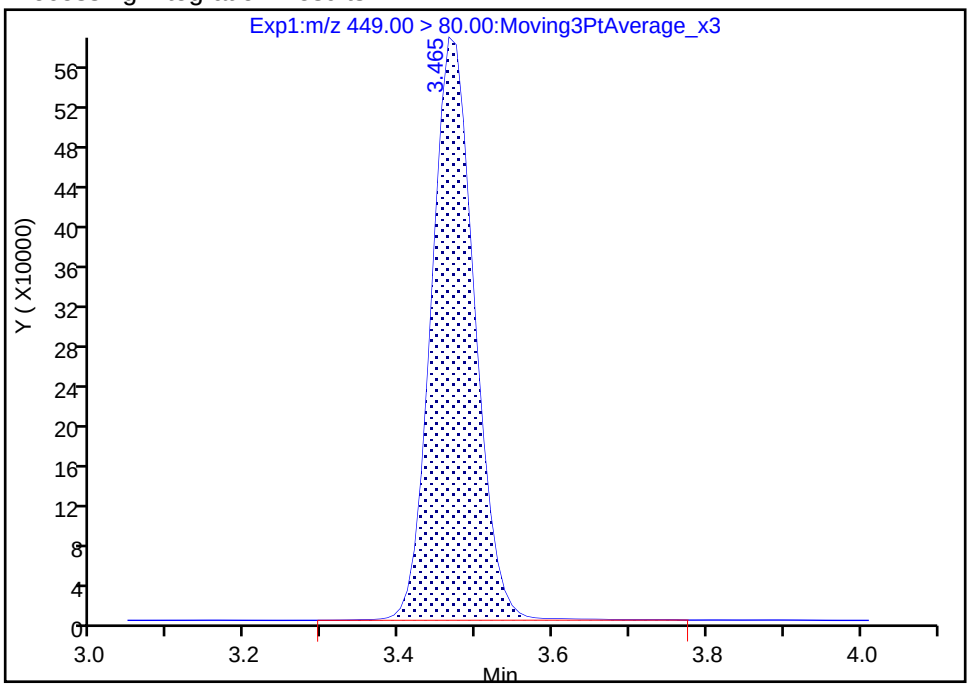
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

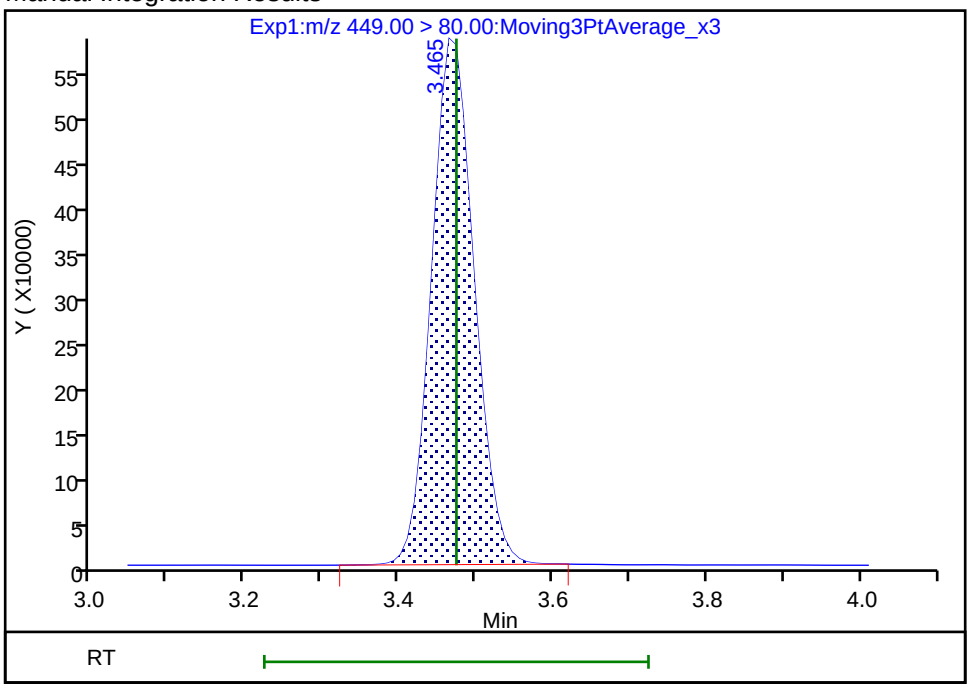
Processing Integration Results

RT: 3.46
Area: 2279685
Amount: 2.256647
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 2265445
Amount: 2.283496
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

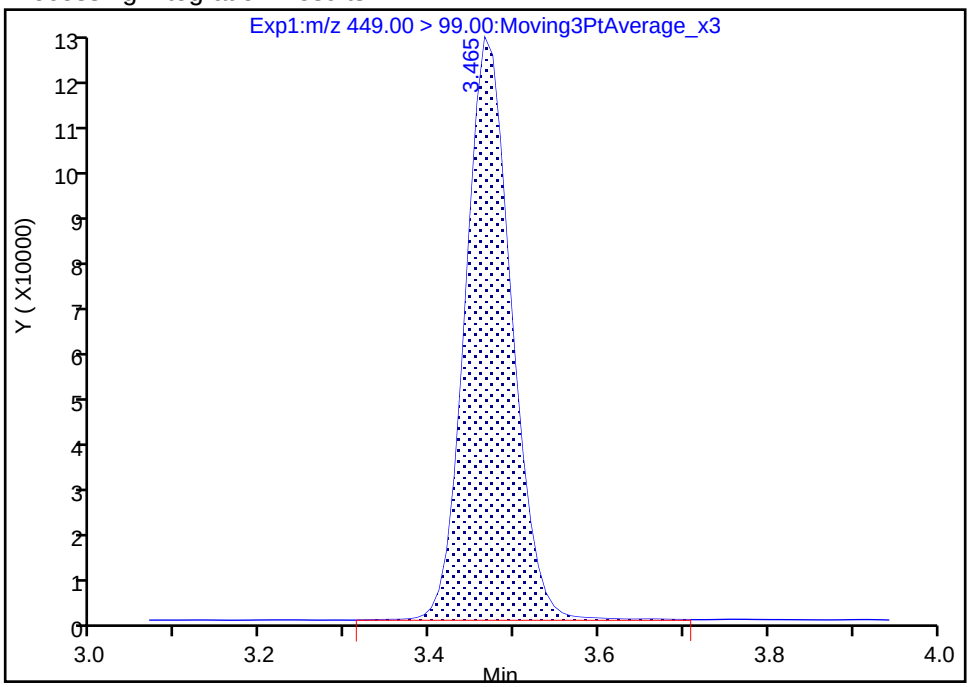
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

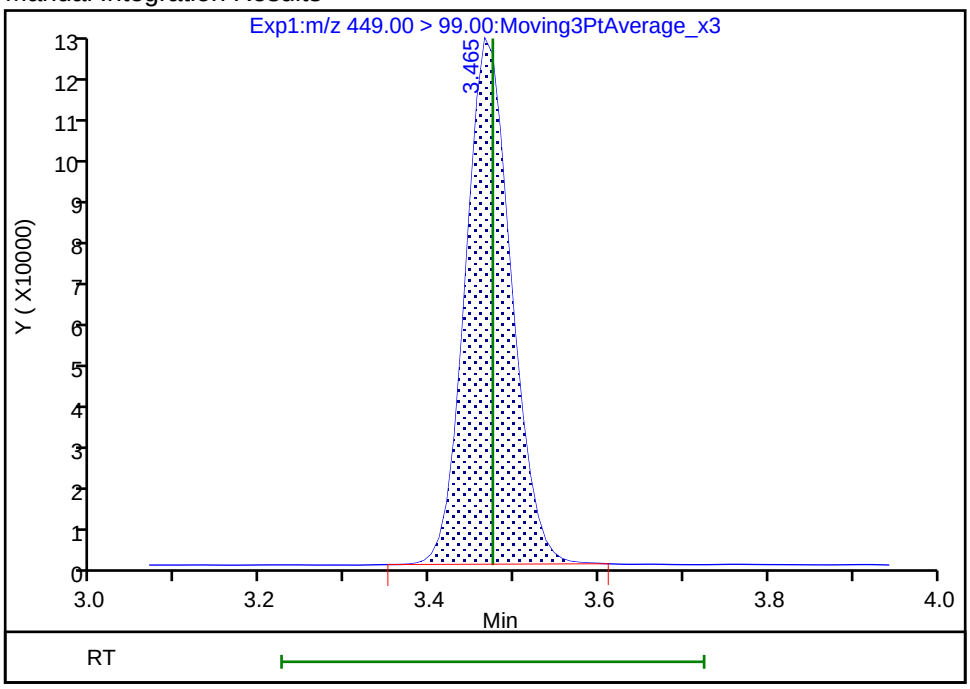
Processing Integration Results

RT: 3.46
Area: 456797
Amount: 2.256647
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 451574
Amount: 2.283496
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

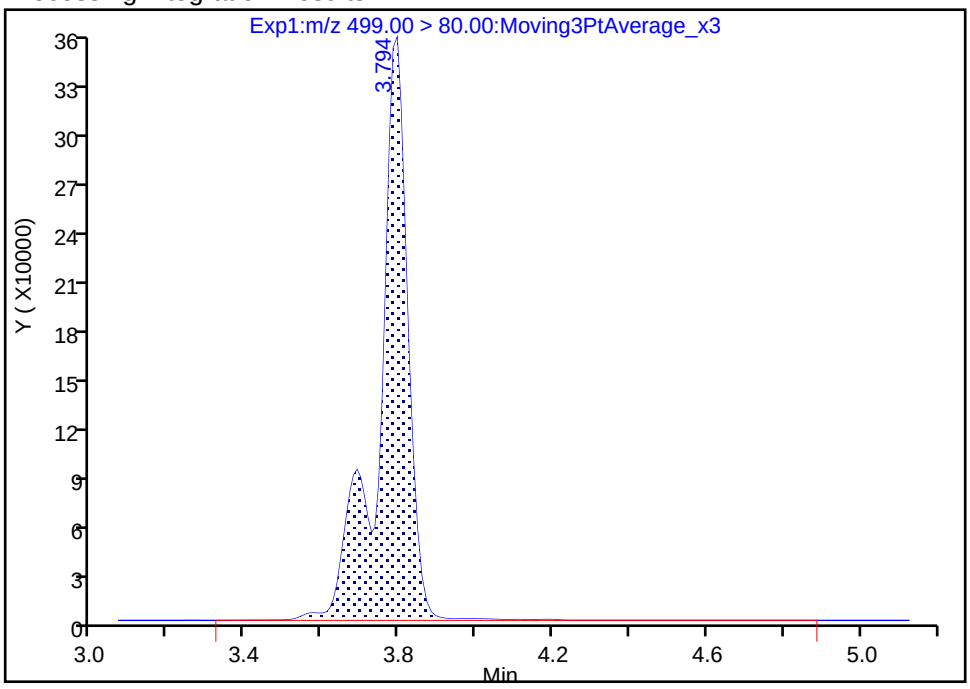
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

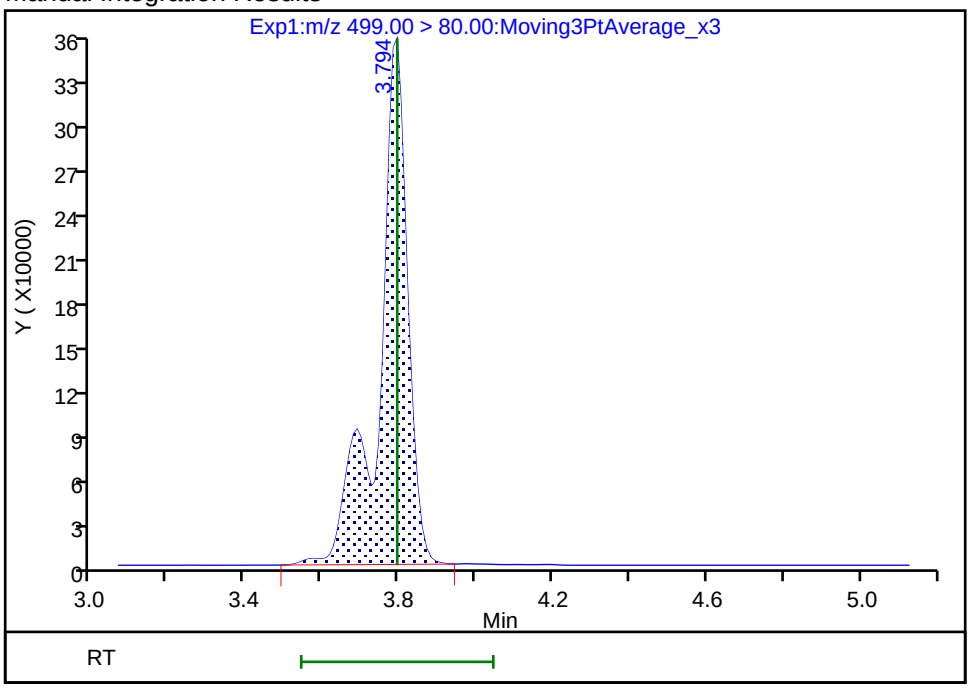
Processing Integration Results

RT: 3.79
Area: 1871198
Amount: 2.126169
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1848160
Amount: 2.140272
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

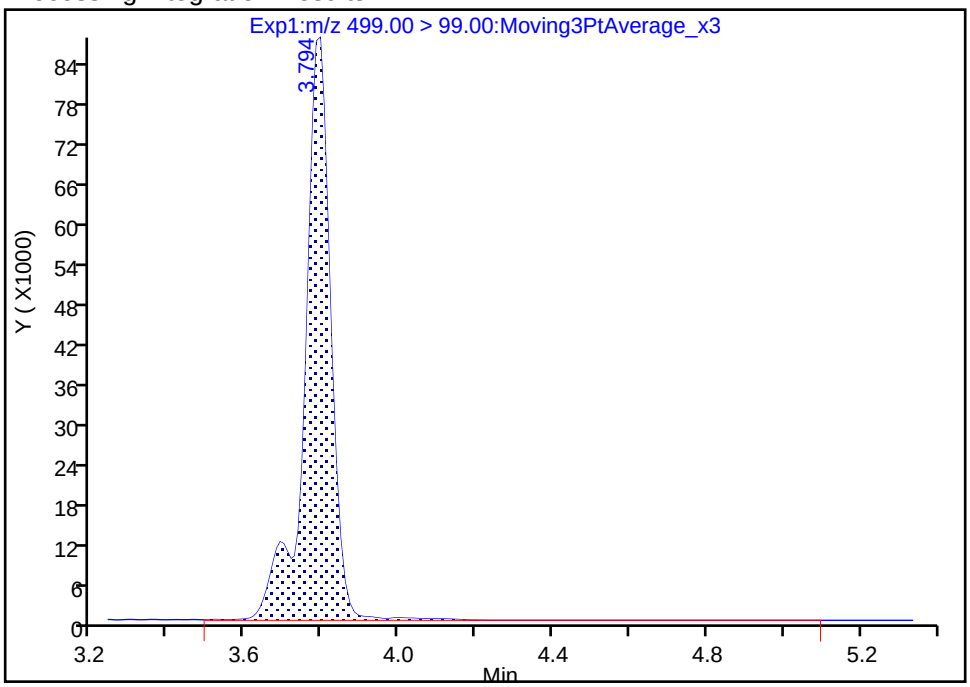
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

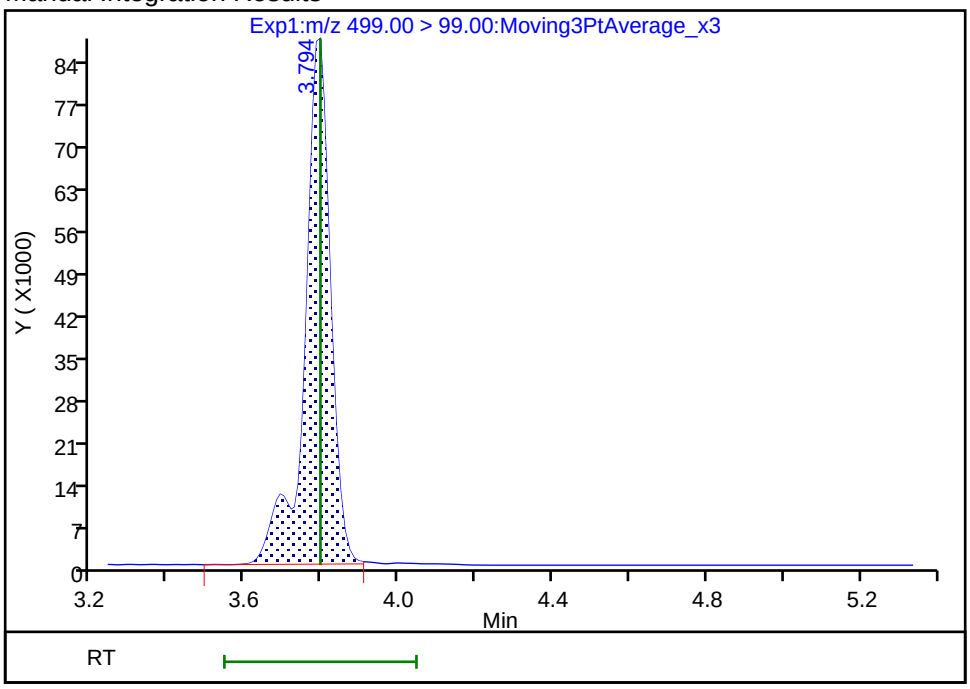
Processing Integration Results

RT: 3.79
Area: 414412
Amount: 2.126169
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 406321
Amount: 2.140272
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:11:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

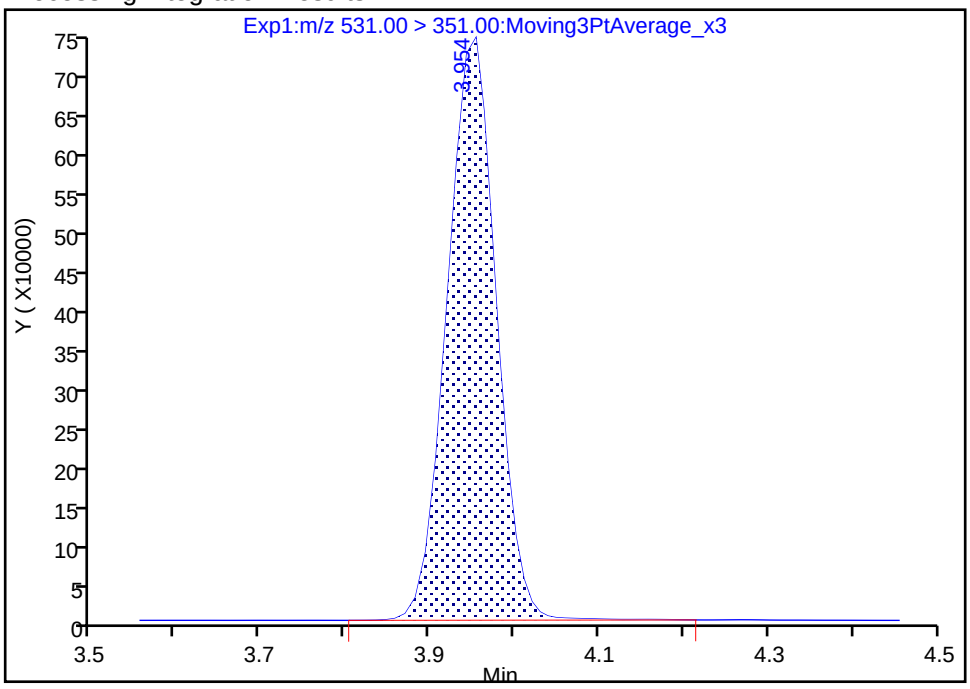
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

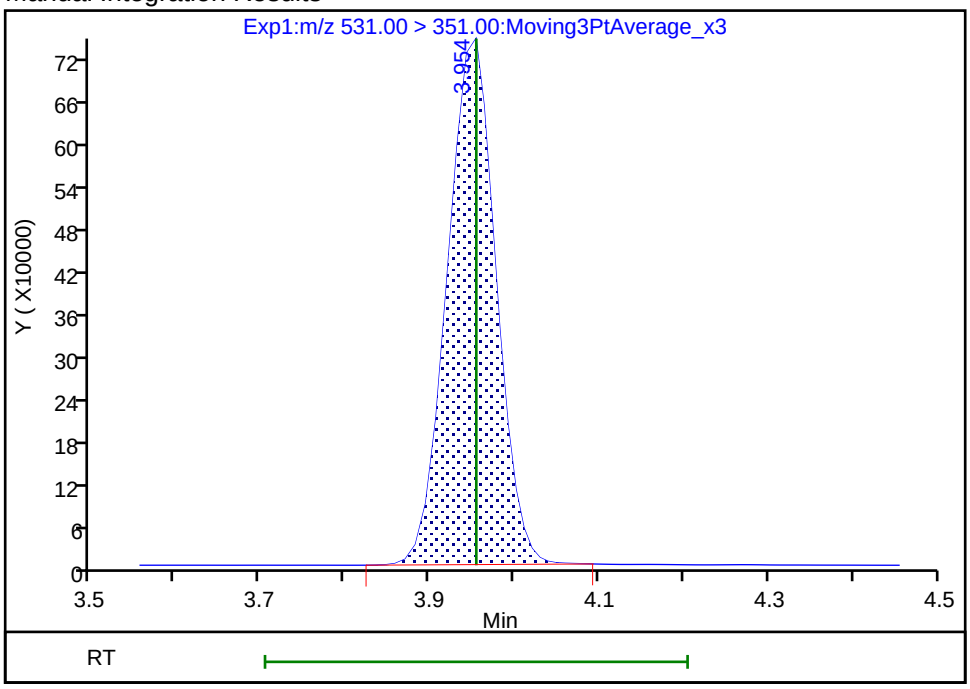
Processing Integration Results

RT: 3.95
Area: 2974791
Amount: 2.238546
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 2958438
Amount: 2.274119
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

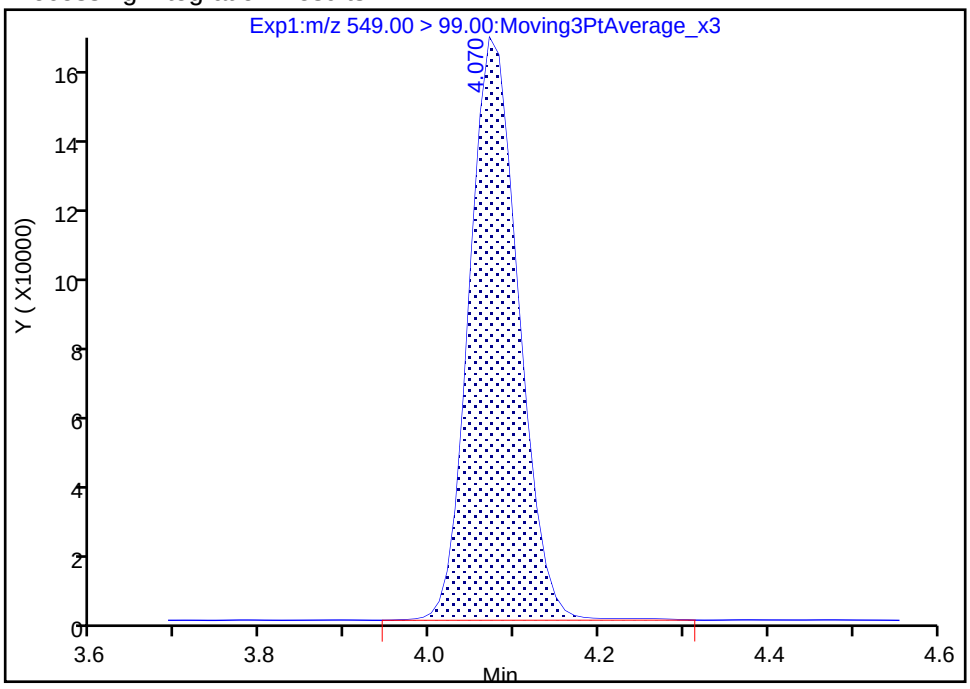
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

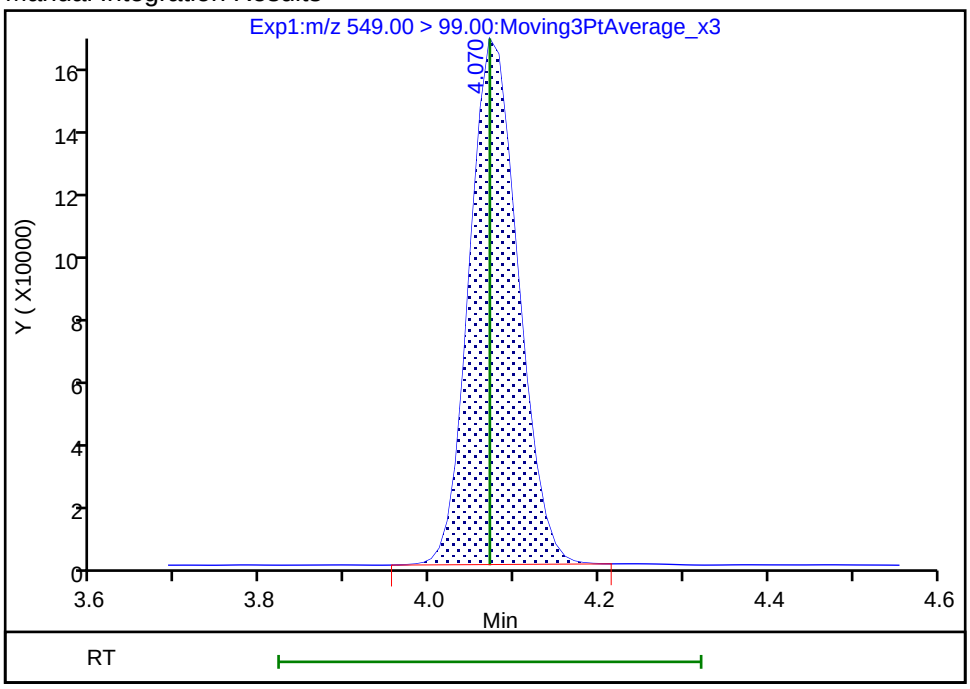
Processing Integration Results

RT: 4.07
Area: 653667
Amount: 2.282995
Amount Units: ng/ml




Manual Integration Results

RT: 4.07
Area: 648940
Amount: 2.313170
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

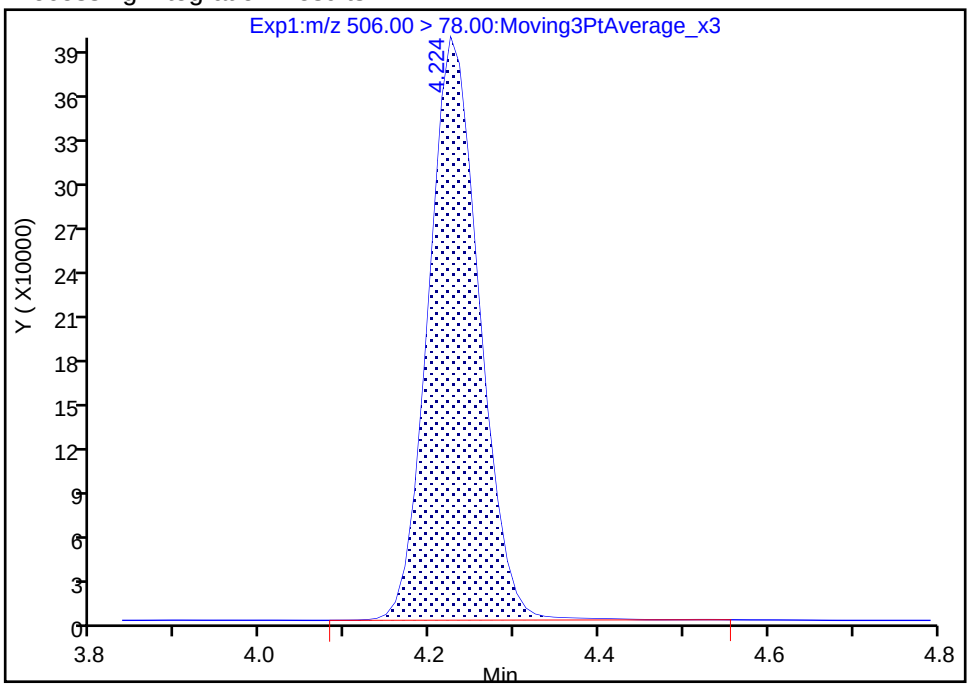
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

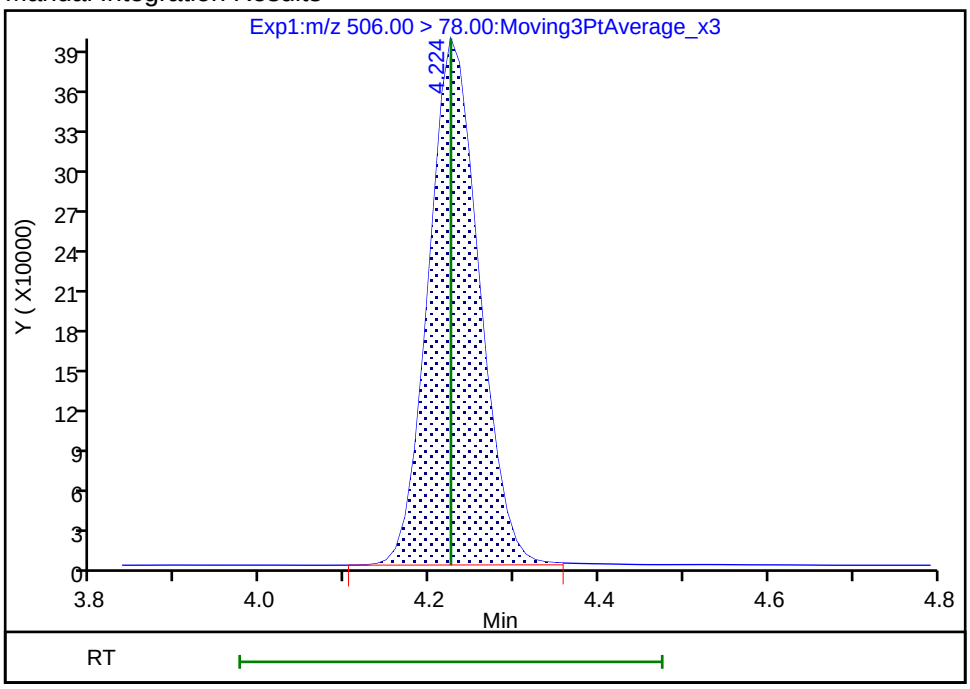
Processing Integration Results

RT: 4.22
Area: 1647809
Amount: 1.241624
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1642092
Amount: 1.229645
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

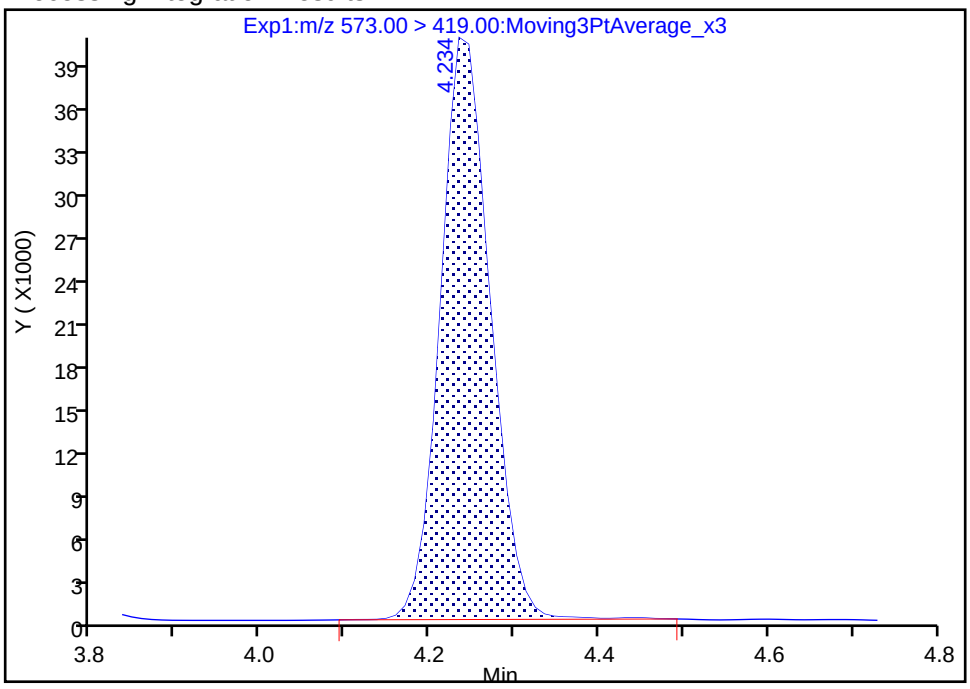
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

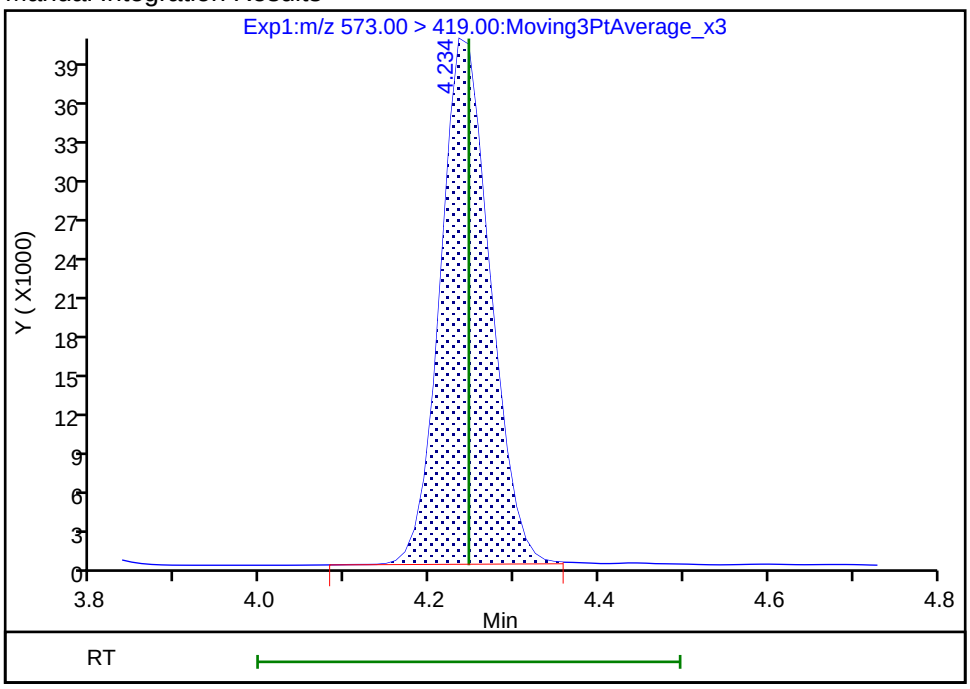
Processing Integration Results

RT: 4.23
Area: 164010
Amount: 1.216654
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 163220
Amount: 1.198522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

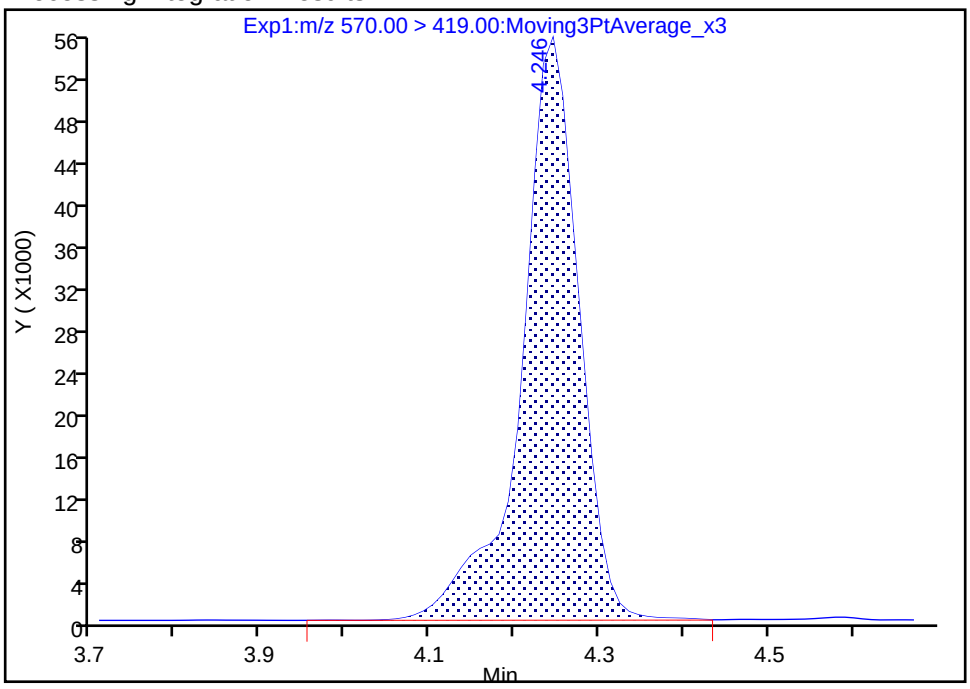
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

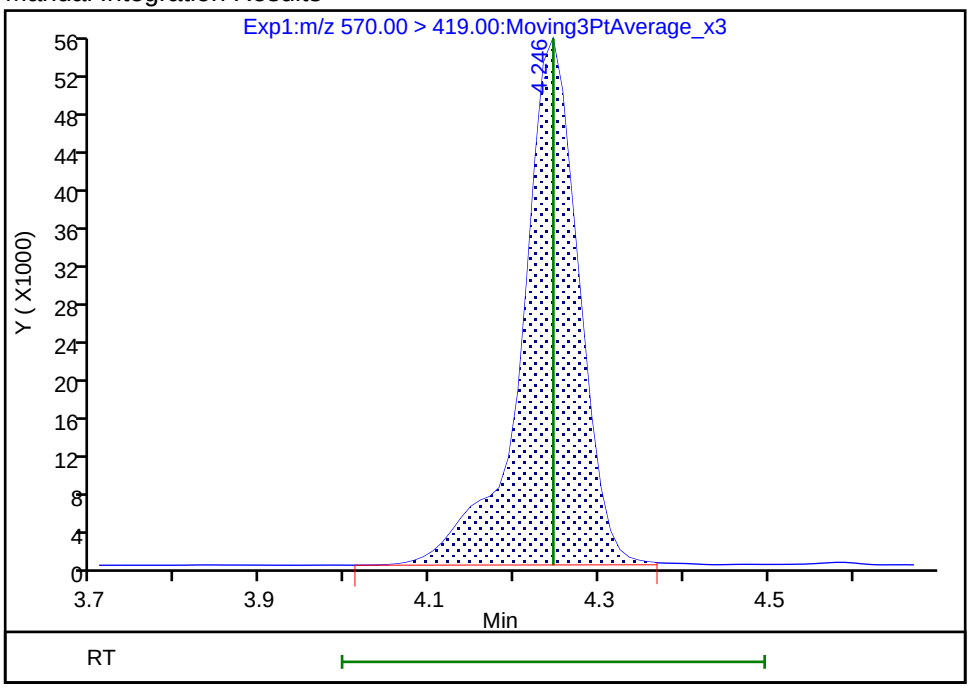
Processing Integration Results

RT: 4.25
Area: 262442
Amount: 2.535675
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 261621
Amount: 2.550420
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:12:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

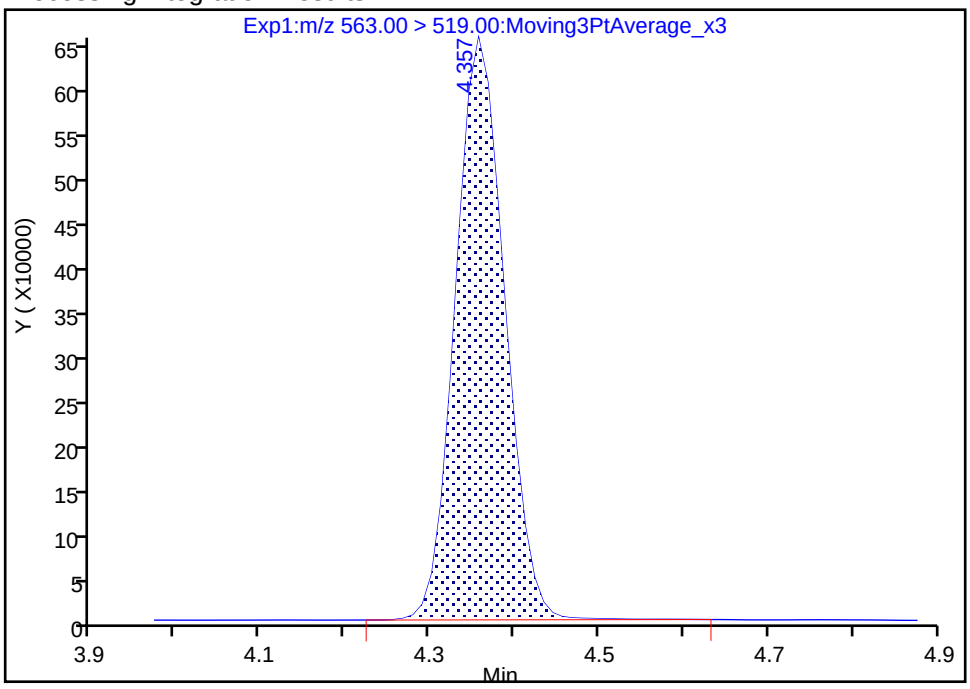
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

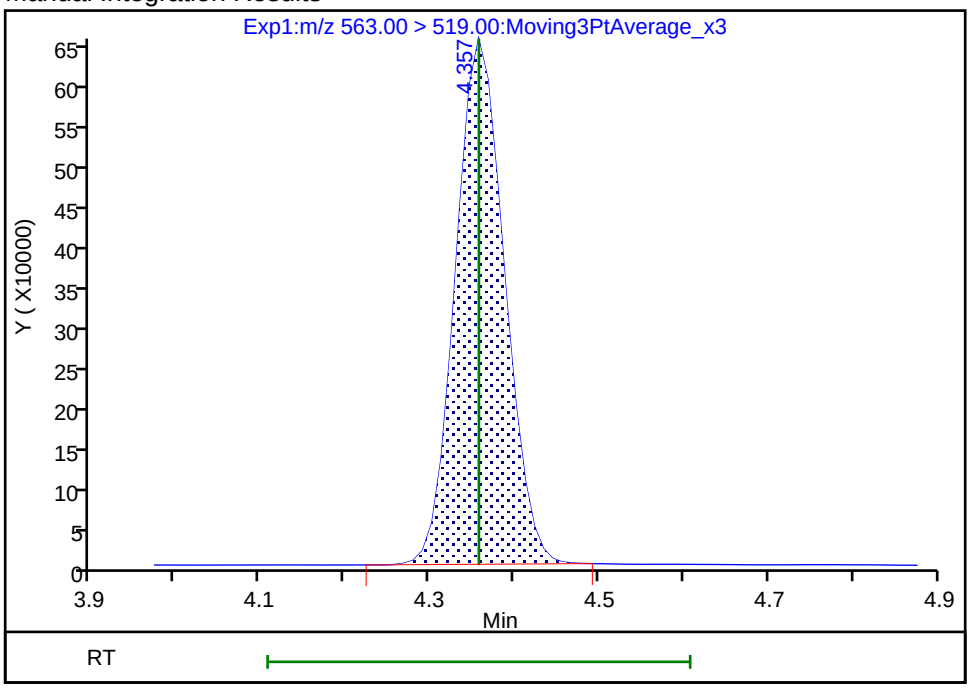
Processing Integration Results

RT: 4.36
Area: 2652813
Amount: 2.226734
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 2638255
Amount: 2.247745
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

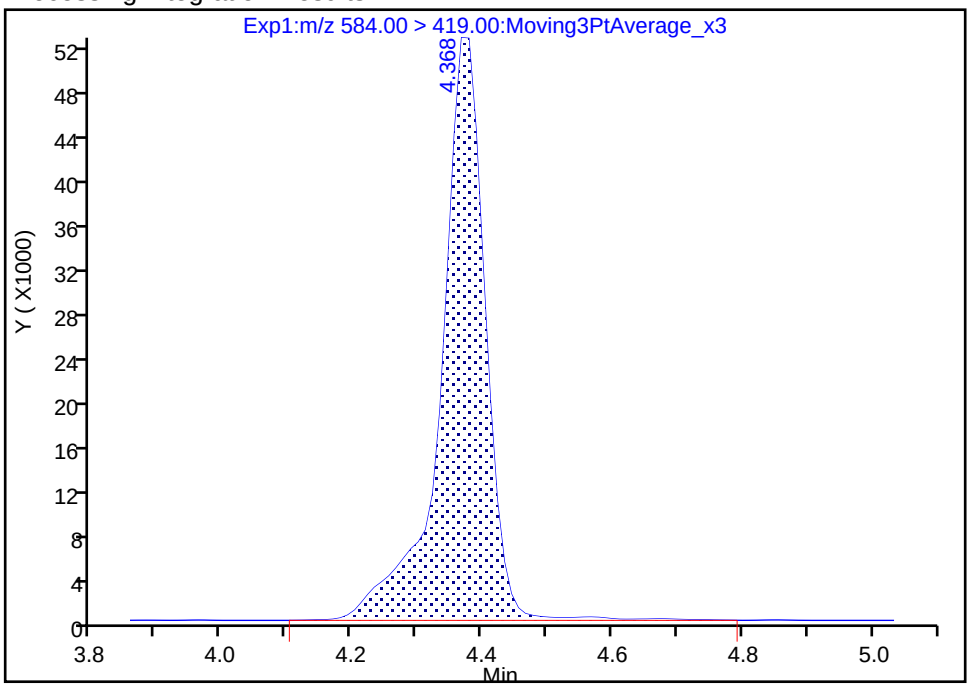
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

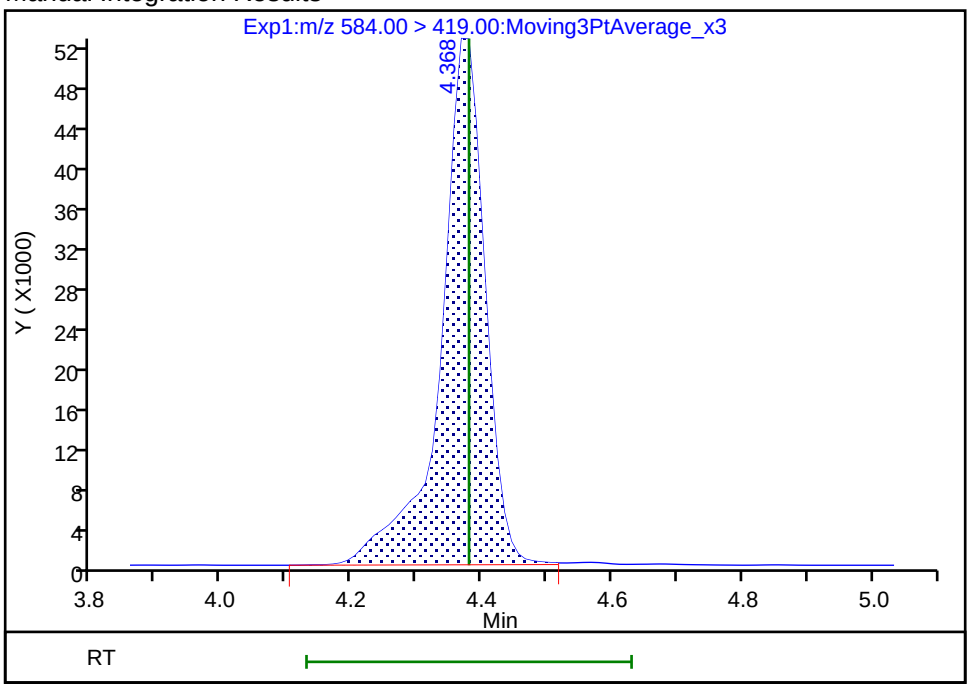
Processing Integration Results

RT: 4.37
Area: 249588
Amount: 2.213969
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 246673
Amount: 2.242662
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

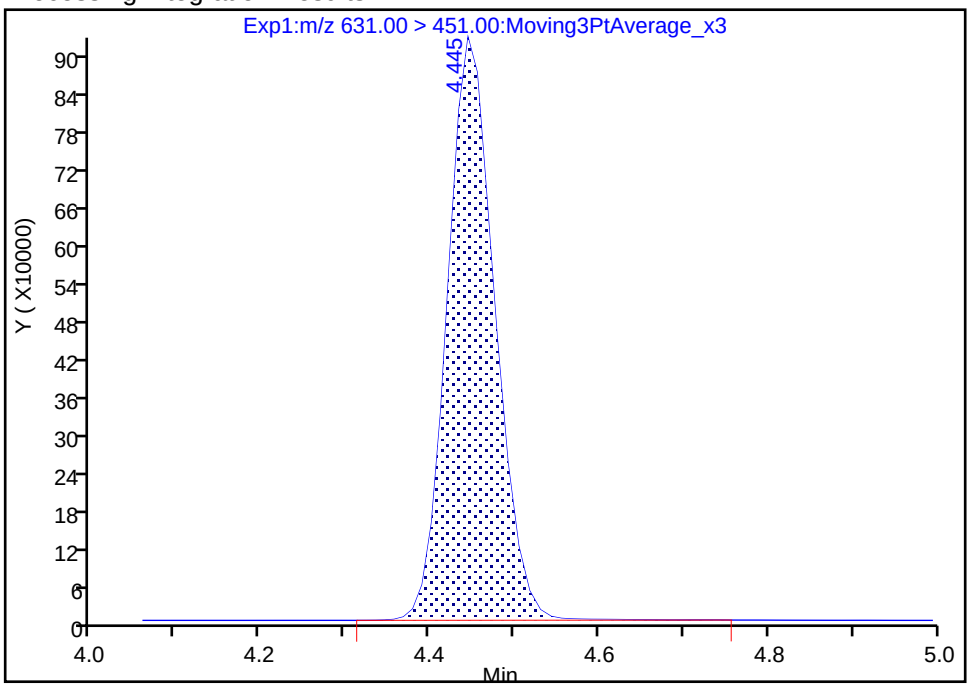
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

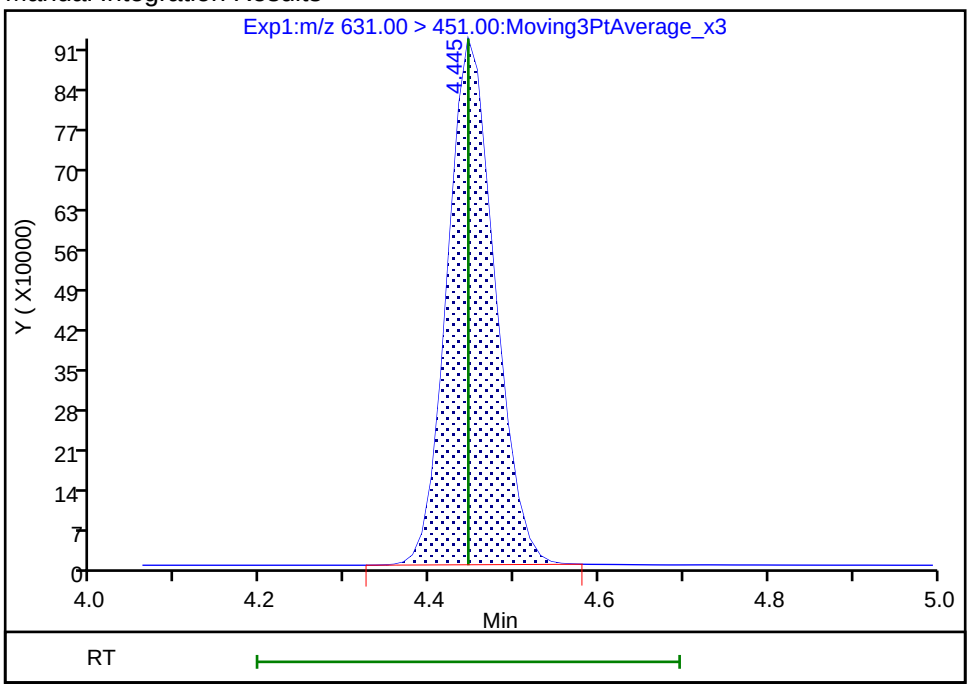
Processing Integration Results

RT: 4.44
Area: 3609805
Amount: 2.315253
Amount Units: ng/ml




Manual Integration Results

RT: 4.44
Area: 3593181
Amount: 2.338766
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

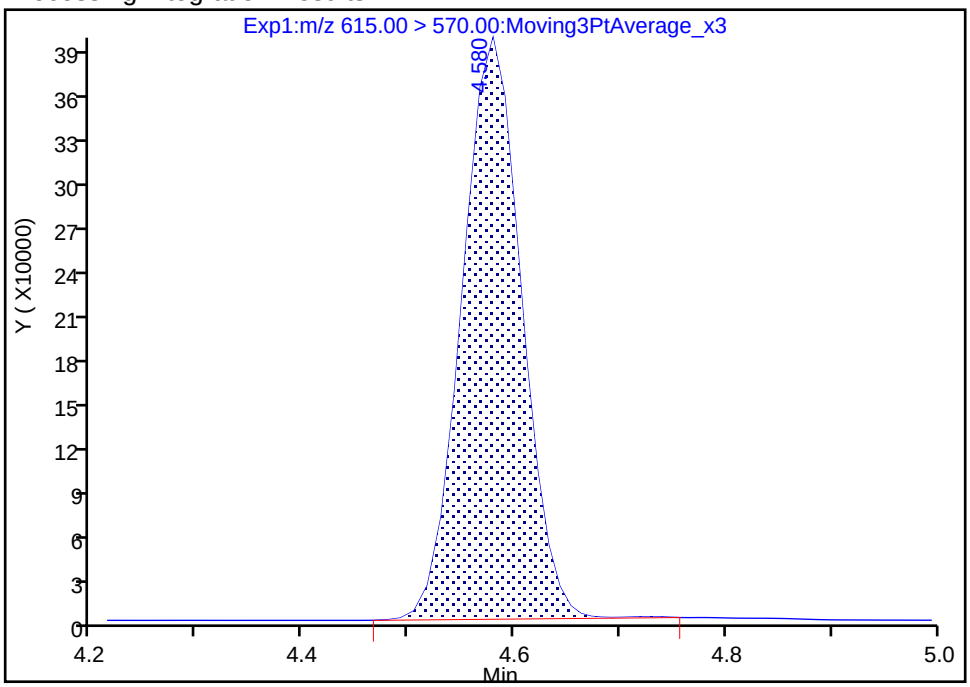
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 36 13C2 PFDoA, CAS: STL00998

Signal: 1

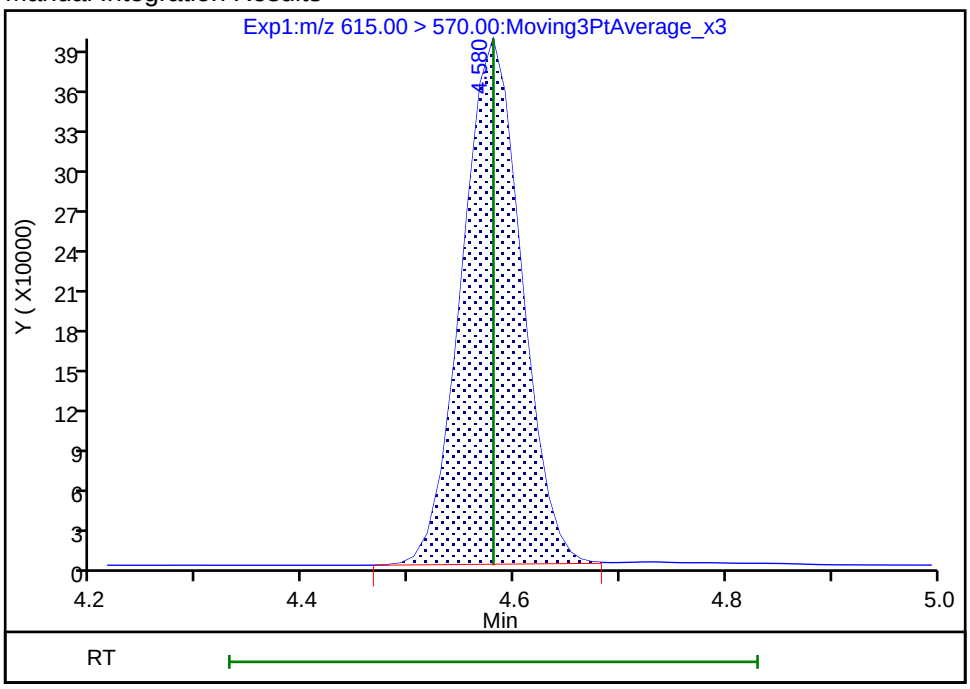
Processing Integration Results

RT: 4.58
Area: 1538968
Amount: 1.333546
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 1536568
Amount: 1.323781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

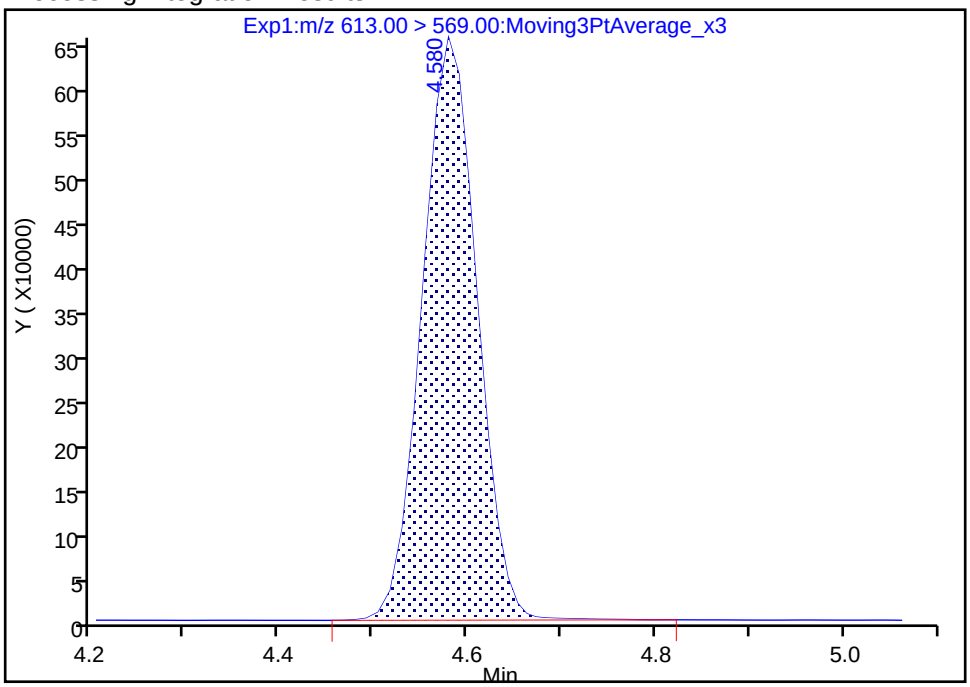
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

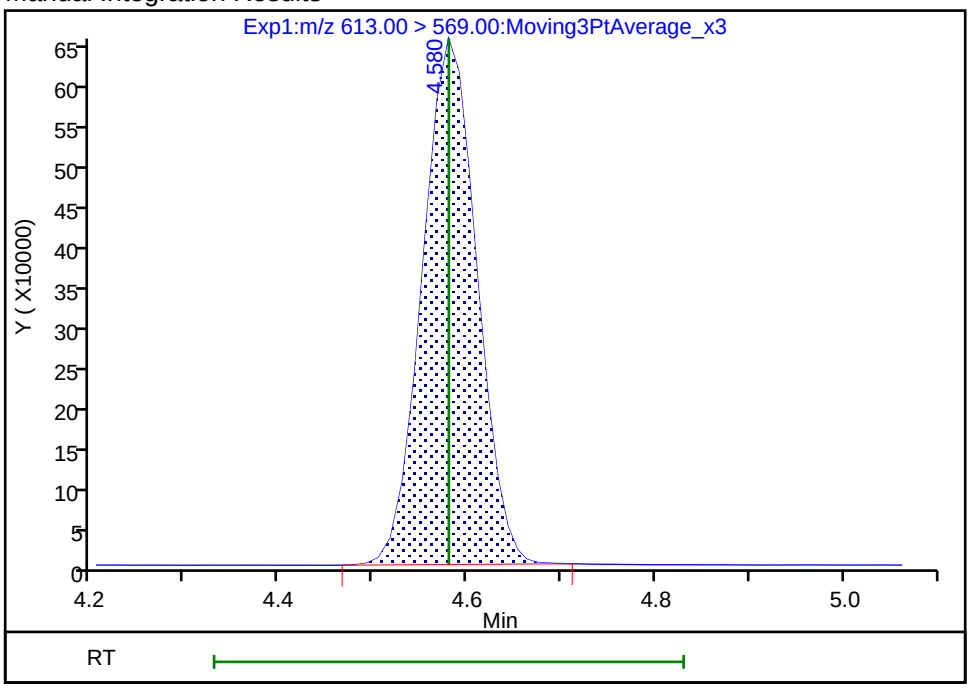
Processing Integration Results

RT: 4.58
Area: 2650934
Amount: 2.158338
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 2636999
Amount: 2.191093
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

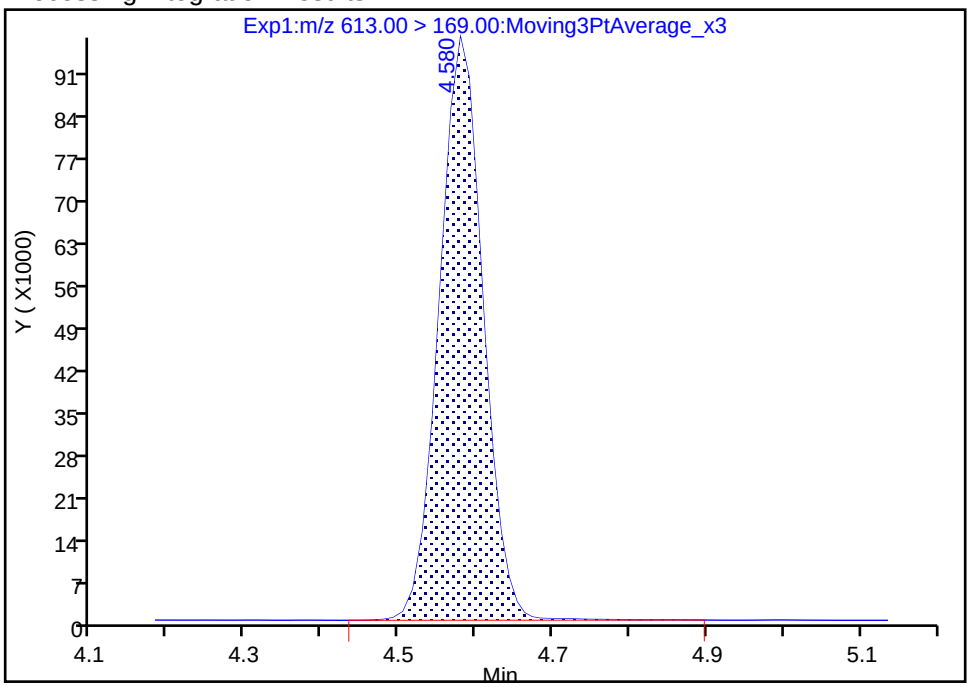
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

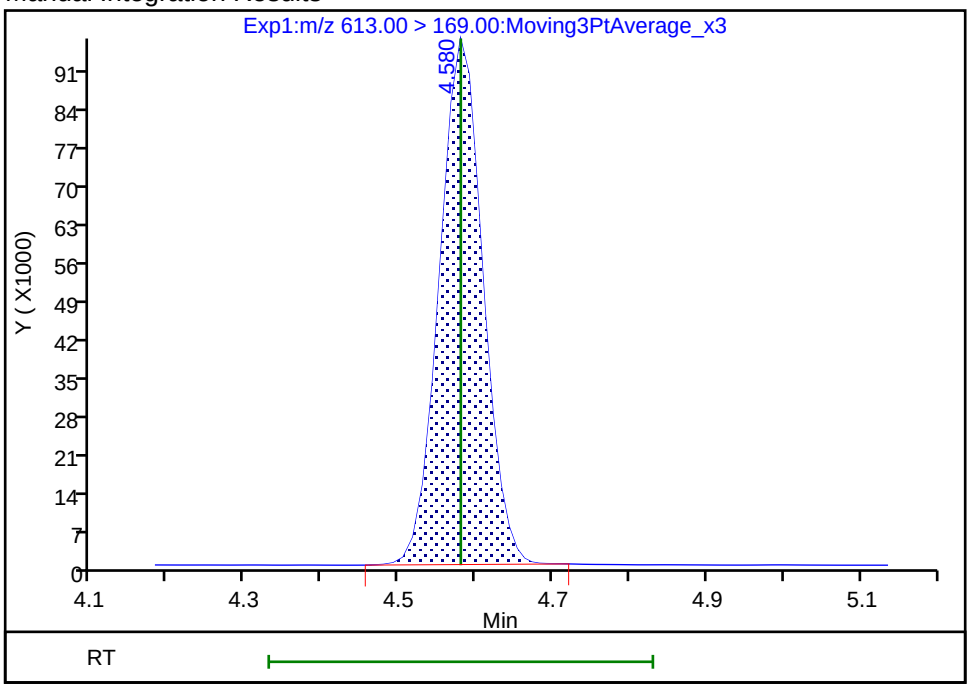
Processing Integration Results

RT: 4.58
Area: 382365
Amount: 2.158338
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 379888
Amount: 2.191093
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

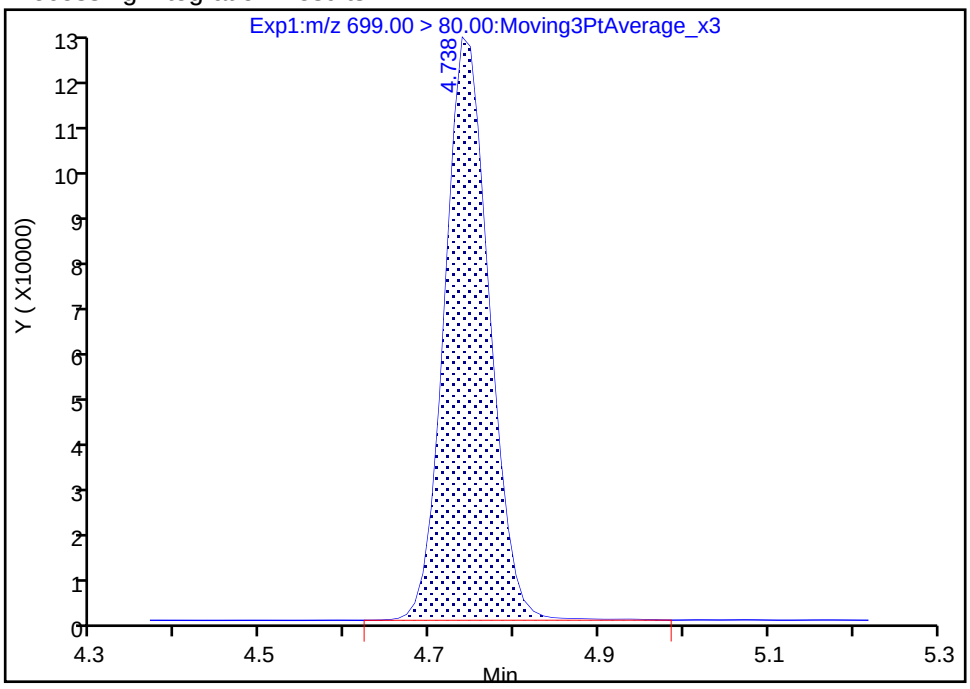
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

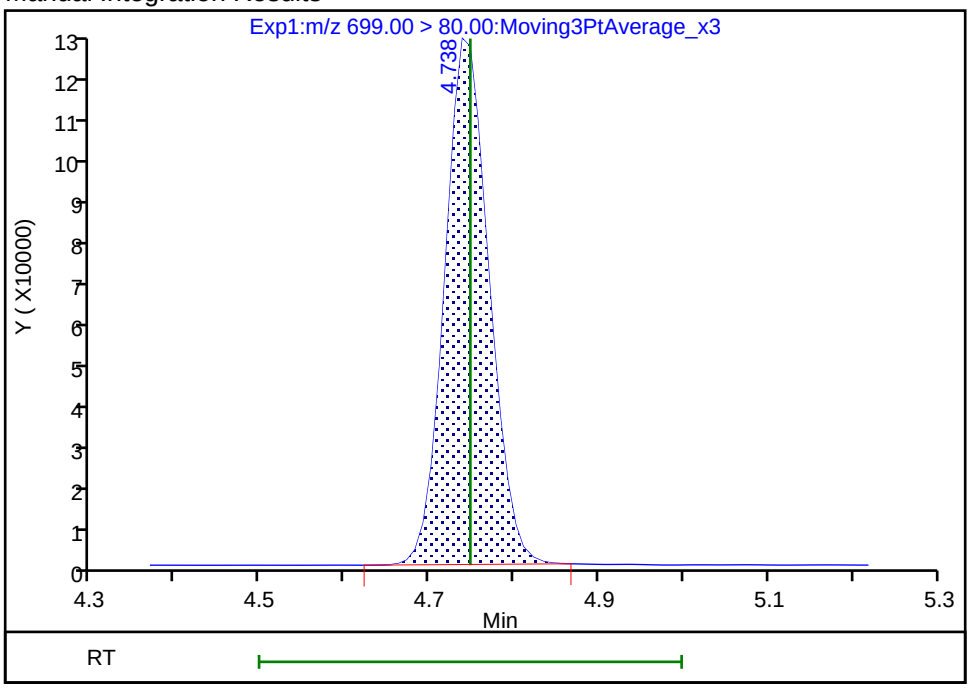
Processing Integration Results

RT: 4.74
Area: 460671
Amount: 2.347460
Amount Units: ng/ml




Manual Integration Results

RT: 4.74
Area: 457314
Amount: 2.377457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:13:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

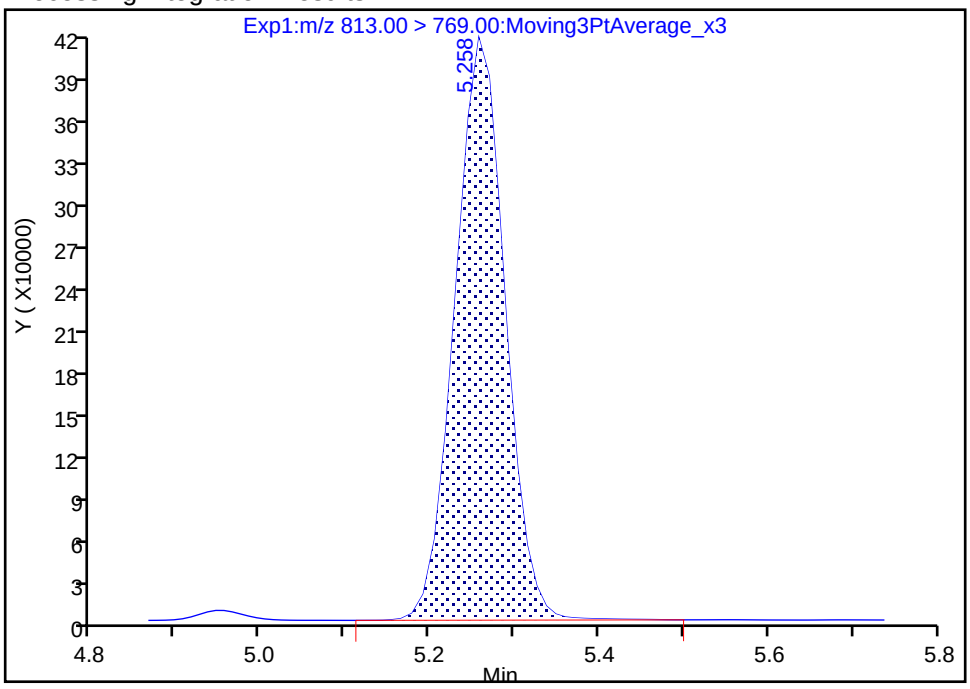
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d | | | | |
| Injection Date: | 27-Oct-2021 14:19:25 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

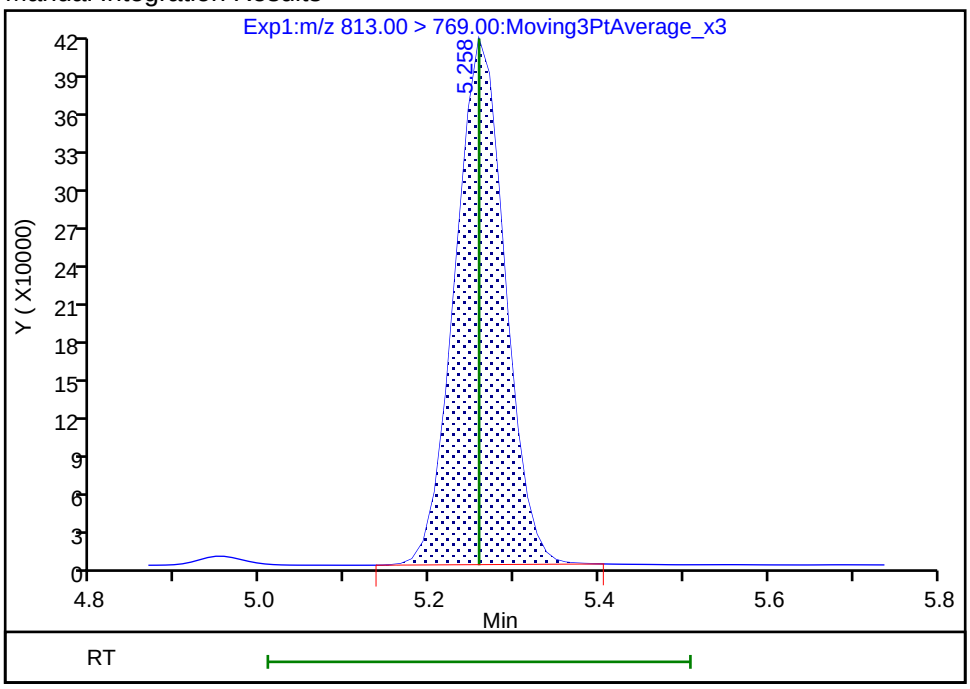
Processing Integration Results

RT: 5.26
Area: 1704682
Amount: 2.497881
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 1696788
Amount: 2.547831
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

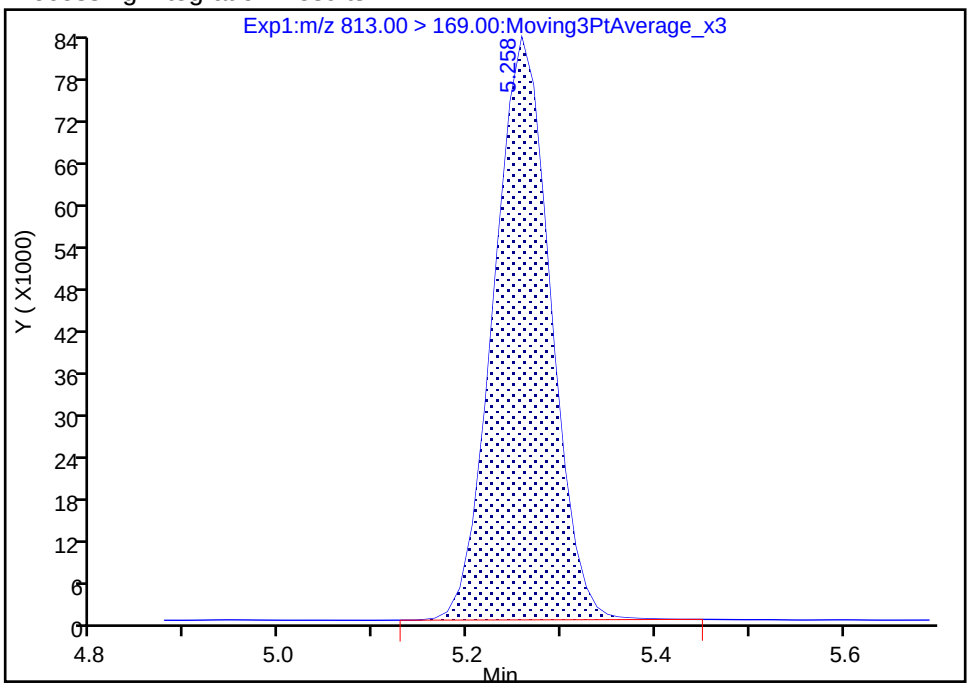
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

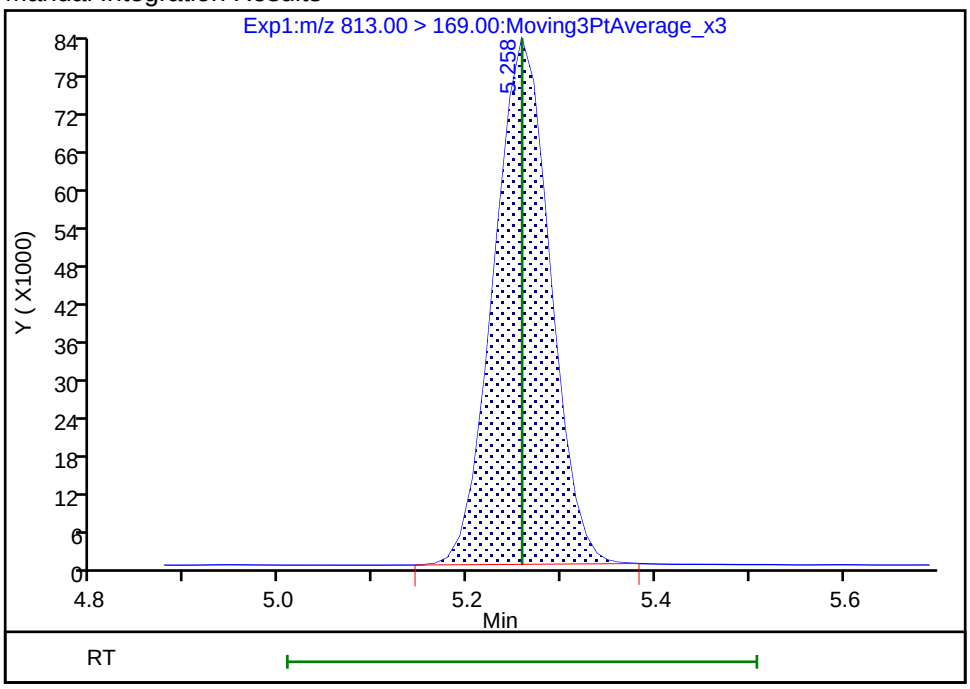
Processing Integration Results

RT: 5.26
Area: 350964
Amount: 2.497881
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 349644
Amount: 2.547831
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

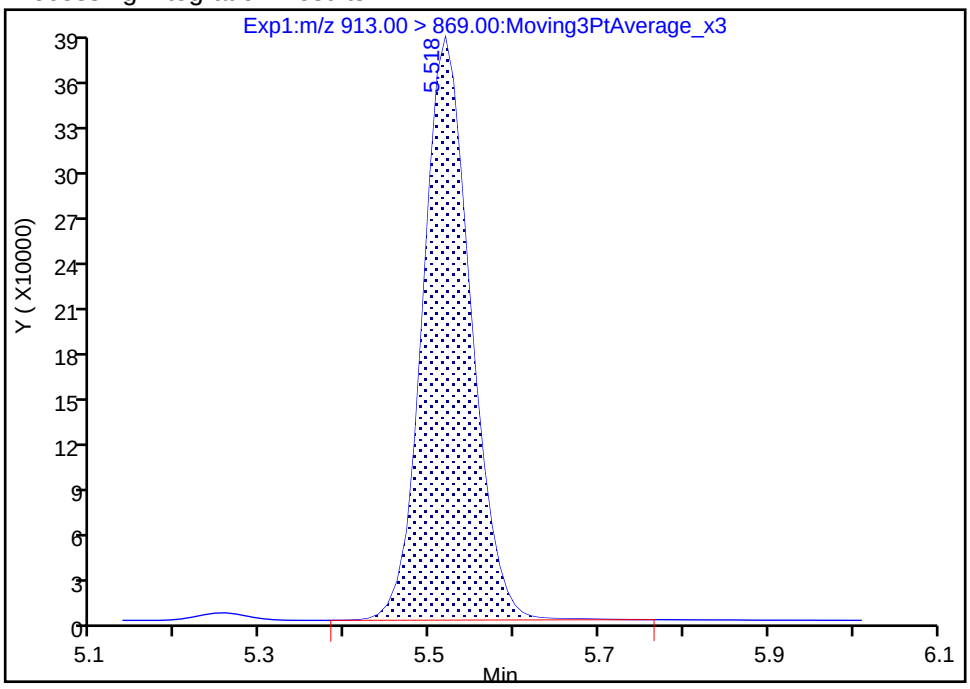
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

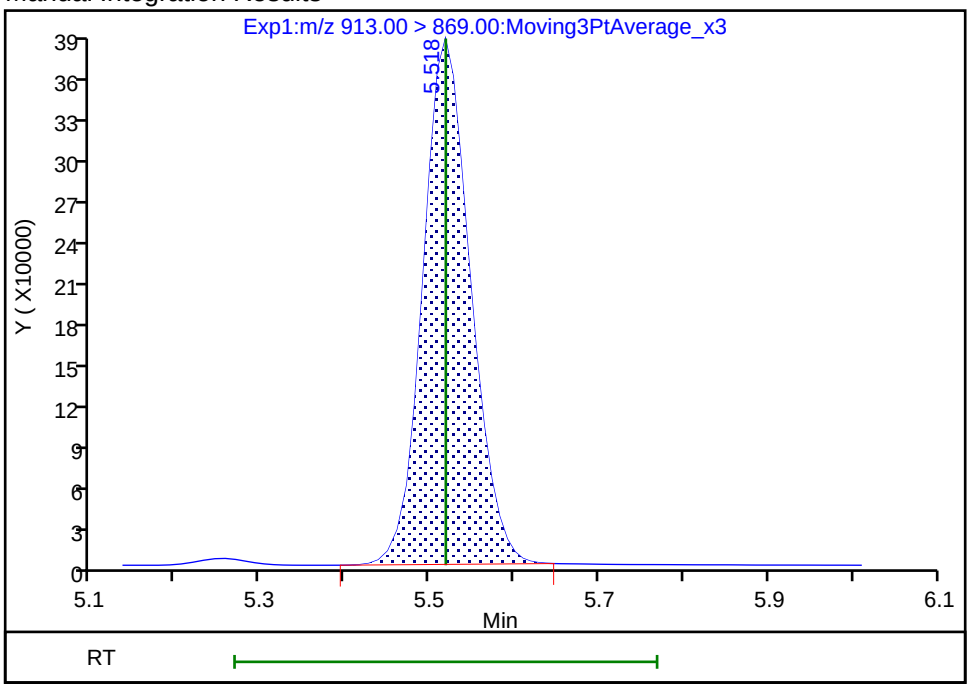
Processing Integration Results

RT: 5.52
Area: 1516935
Amount: 2.269101
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 1507499
Amount: 2.306457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

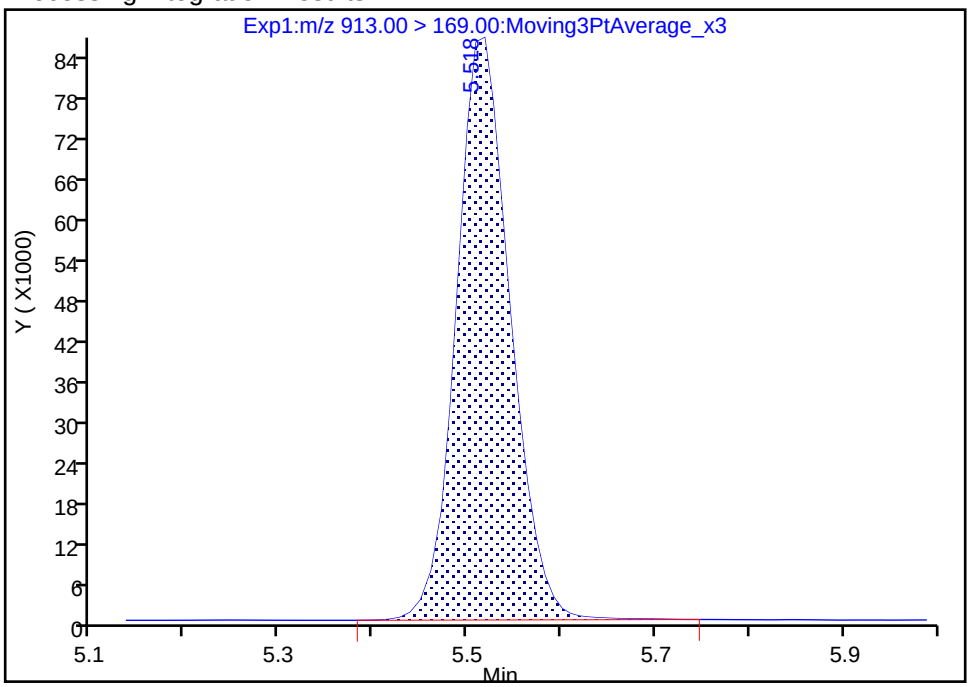
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL06.d
Injection Date: 27-Oct-2021 14:19:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

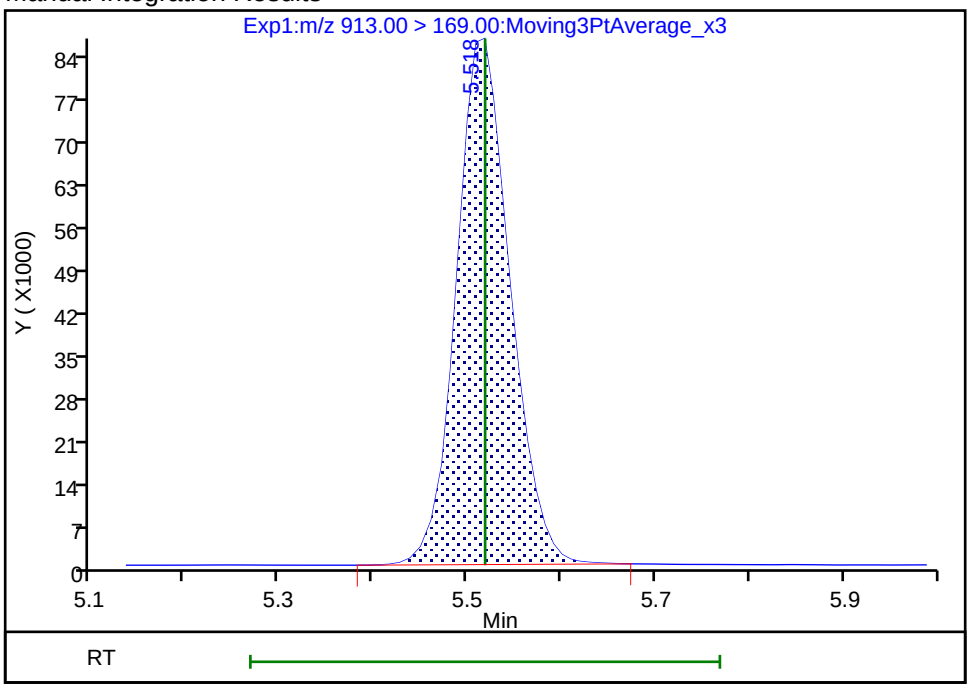
Processing Integration Results

RT: 5.52
Area: 341074
Amount: 2.269101
Amount Units: ng/ml




Manual Integration Results

RT: 5.52
Area: 339769
Amount: 2.306457
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:14:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Oct-2021 14:27:41 ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 200-0048181-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:48:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:47:05
Ratio Calibration: Average of Initial Calibration

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.596 | 1665496 | 1.28 | | 102 | 5812 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 11507928 | 9.13 | | 91.3 | 972 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.687 | 1437251 | 1.31 | | 105 | 2464 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 10570544 | 9.18 | | 91.8 | 558 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.424 | 0.002 | 0.695 | 1804342 | 1.21 | | 104 | 169004 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.000 | 13325047 | 8.04 | Target=2.29 | 90.9 | 4713 | M |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.000 | 6068174 | | 2.20(1.15-3.44) | 90.9 | 1617 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.721 | 2.720 | 0.001 | 0.779 | 134645 | 1.19 | | 102 | 120 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.721 | 2.720 | 0.001 | 1.000 | 2133052 | 8.69 | | 93.0 | 3180 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 10964511 | 9.14 | Target=12.01 | 91.4 | 1039 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 897013 | | 12.22(6.00-18.01) | 91.4 | 818 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.790 | 1478594 | 1.28 | | 103 | 2491 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 11788049 | 8.78 | Target=3.04 | 93.6 | 3332 | M |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 3939690 | | 2.99(1.52-4.56) | 93.6 | 2085 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.865 | 0.002 | 0.821 | 44010 | 1.45 | | 116 | 414 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.879 | 2.865 | 0.014 | 1.004 | 1294536 | 8.13 | | 81.3 | 341 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.897 | 1318214 | 1.22 | | 103 | 2857 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 10194384 | 8.32 | Target=3.51 | 91.4 | 2105 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 2926854 | | 3.48(1.76-5.27) | 91.4 | 1422 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 11431038 | 9.04 | Target=3.83 | 90.4 | 1662 | M |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 3076429 | | 3.72(1.91-5.74) | 90.4 | 2199 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1529883 | 1.26 | | 101 | 2873 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 23507218 | 8.31 | Target=2.58 | 88.2 | 3183 | M |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 9670775 | | 2.43(1.29-3.88) | 88.2 | 2615 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 8770862 | 8.71 | Target=5.12 | 91.5 | 3885 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1751385 | | 5.01(2.56-7.67) | 91.5 | 1918 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.995 | 201400 | 1.18 | | 99.5 | 393 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 1906895 | 8.87 | | 93.5 | 2224 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.483 | 0.009 | 1.000 | 1661142 | 1.25 | | 100 | 3857 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.483 | 0.009 | | 1611342 | 1.25 | | | 2775 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.000 | 12772682 | 9.04 | Target=2.65 | 90.4 | 1283 | M |
| 413.00 > 169.00 | 3.492 | 3.483 | 0.009 | 1.000 | 4908934 | | 2.60(1.32-3.97) | 90.4 | 2165 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 965476 | 1.24 | | 103 | 1872 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 7448626 | 8.50 | Target=4.60 | 91.6 | 2574 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 1580361 | | 4.71(2.30-6.90) | 91.6 | 1993 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1655608 | 1.25 | | 100 | 4865 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 11564350 | 8.92 | Target=7.58 | 89.2 | 1767 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1563770 | | 7.40(3.79-11.37) | 89.2 | 2918 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.954 | 3.955 | -0.001 | 1.042 | 11051728 | 8.37 | | 89.8 | 3548 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 6122325 | 8.97 | Target=2.38 | 93.4 | 2936 | M |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 2514266 | | 2.44(1.19-3.56) | 93.4 | 2460 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.104 | 0.011 | 1.178 | 1701445 | 1.28 | | 102 | 2241 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.104 | 0.011 | 1.000 | 12354501 | 9.03 | Target=9.30 | 90.3 | 3349 | M |
| 513.00 > 169.00 | 4.115 | 4.104 | 0.011 | 1.000 | 1315764 | | 9.39(4.65-13.95) | 90.3 | 2378 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.178 | 231933 | 1.20 | | 100 | 606 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1443544 | 8.91 | | 93.0 | 2160 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.225 | 0.010 | 1.213 | 1662915 | 1.29 | | 103 | 5370 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.000 | 11787729 | 9.33 | | 93.3 | 2371 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.216 | 173007 | 1.32 | | 106 | 98.3 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.246 | 0.011 | 1.003 | 1042012 | 9.58 | | 95.8 | 865 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 4654579 | 8.77 | Target=2.54 | 90.9 | 3341 | M |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 1813571 | | 2.57(1.27-3.81) | 90.9 | 3650 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.358 | 0.012 | 1.251 | 1249906 | 1.20 | | 96.2 | 2573 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.370 | 4.358 | 0.012 | 1.000 | 9912583 | 9.30 | Target=9.37 | 93.0 | 3118 | |
| 563.00 > 169.00 | 4.370 | 4.358 | 0.012 | 1.000 | 1108227 | | 8.94(4.69-14.06) | 93.0 | 4312 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.369 | 0.012 | 1.255 | 157024 | 1.28 | | 102 | 962 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.000 | 953648 | 8.86 | | 88.6 | 1097 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.457 | 4.445 | 0.012 | 1.175 | 13670685 | 8.76 | | 93.0 | 3941 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.580 | 0.011 | 1.315 | 1439938 | 1.29 | | 103 | 742 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.000 | 10172160 | 9.02 | Target=6.84 | 90.2 | 1283 | M |
| 613.00 > 169.00 | 4.591 | 4.580 | 0.011 | 1.000 | 1481045 | | 6.87(3.42-10.25) | 90.2 | 3021 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.602 | 4.601 | 0.001 | 1.118 | 688615 | 9.20 | | 95.4 | 2962 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 1712893 | 8.77 | Target=0.51 | 90.6 | 4133 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 3407477 | | 0.50(0.25-0.76) | 90.6 | 4072 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.042 | 8746311 | 8.99 | Target=4.67 | 89.9 | 1434 | M |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.042 | 1929671 | | 4.53(2.33-7.00) | 89.9 | 2605 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.967 | 4.957 | 0.011 | 1.422 | 1144458 | 1.32 | | 106 | 3045 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.967 | 4.957 | 0.011 | 1.000 | 1241475 | 8.59 | Target=0.99 | 85.9 | 3398 | |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.001 | 0.998 | 1291633 | | 0.96(0.49-1.48) | 85.9 | 3646 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.271 | 5.258 | 0.013 | 1.509 | 982482 | 1.29 | | 103 | 3409 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.271 | 5.258 | 0.013 | 1.000 | 6269085 | 9.33 | Target=4.50 | 93.3 | 1030 | M |
| 813.00 > 169.00 | 5.271 | 5.258 | 0.013 | 1.000 | 1454092 | | 4.31(2.25-6.75) | 93.3 | 3019 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.528 | 5.519 | 0.009 | 1.049 | 5910248 | 8.92 | Target=4.46 | 89.2 | 1372 | M |
| 913.00 > 169.00 | 5.528 | 5.519 | 0.009 | 1.049 | 1313814 | | 4.50(2.23-6.68) | 89.2 | 2306 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC6_00009 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:48:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812

Lims ID: IC

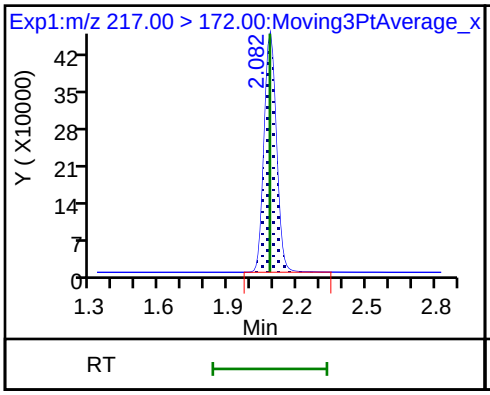
Client ID:

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7

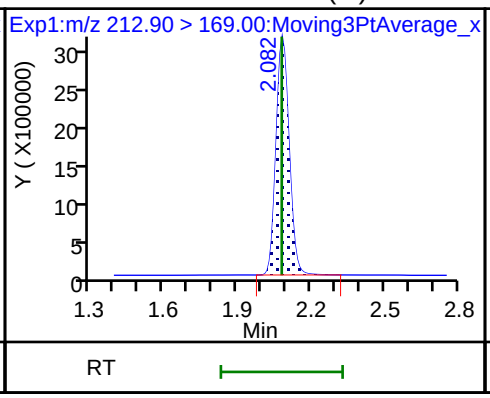
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

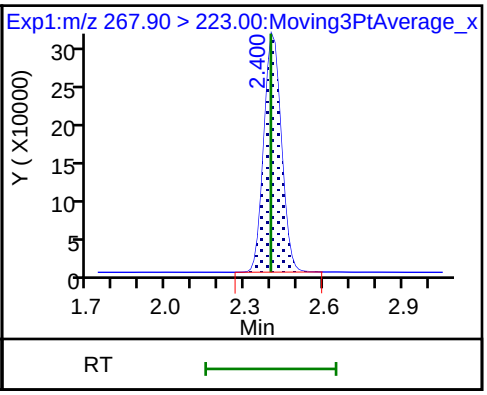
D 1 13C4 PFBA



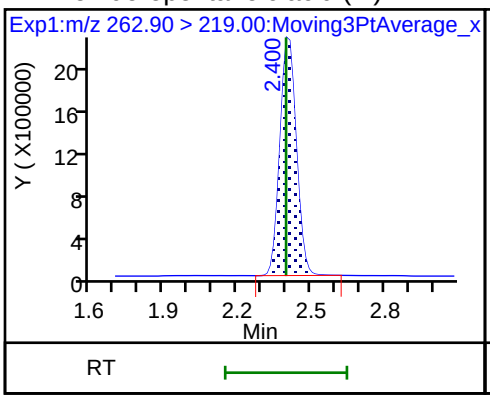

2 Perfluorobutanoic acid (M)



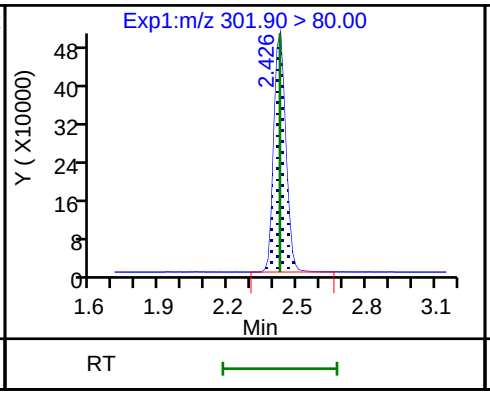

D 3 13C5 PFPeA



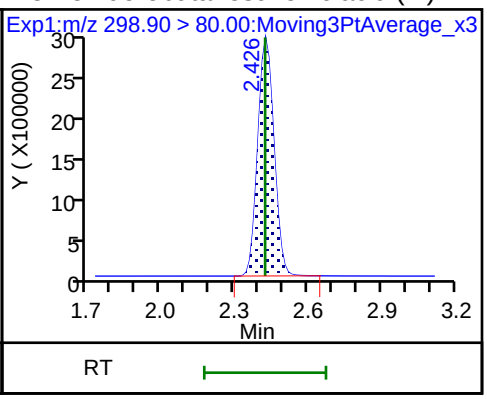

4 Perfluoropentanoic acid (M)



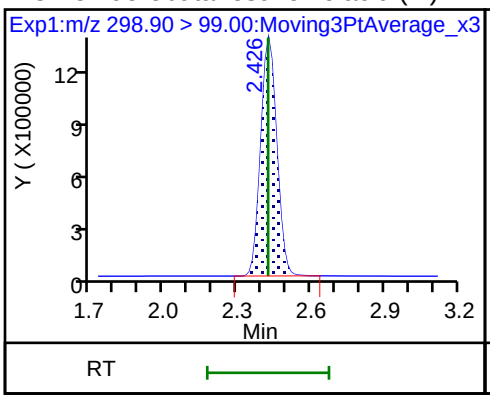

D 47 13C3 PFBS



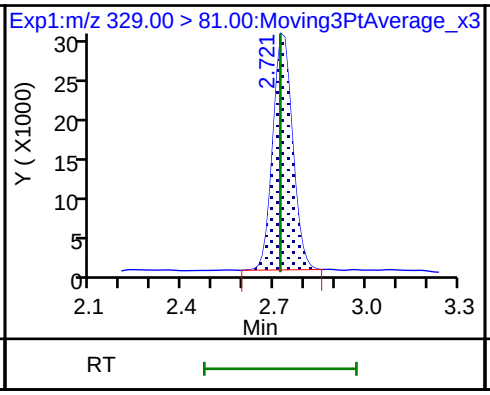

5 Perfluorobutanesulfonic acid (M)



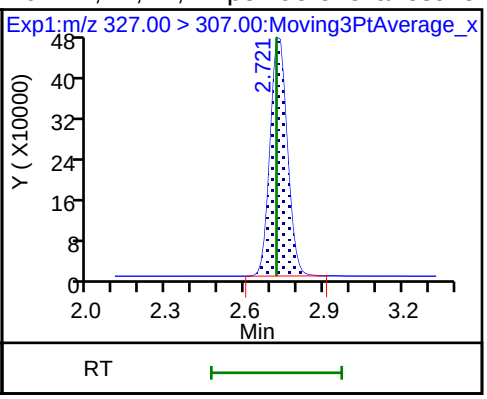

5 Perfluorobutanesulfonic acid (M)



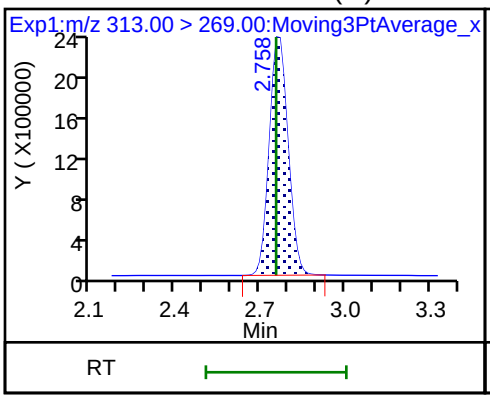

D 60 M2-4:2 FTS



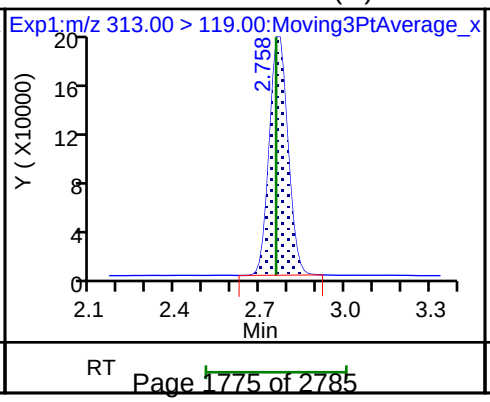

61 1H,1H,2H,2H-perfluorohexanesulfo



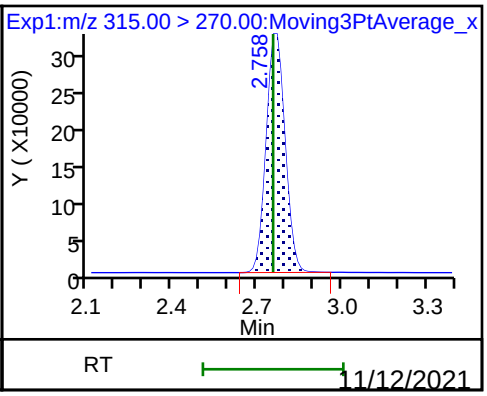

6 Perfluorohexanoic acid (M)



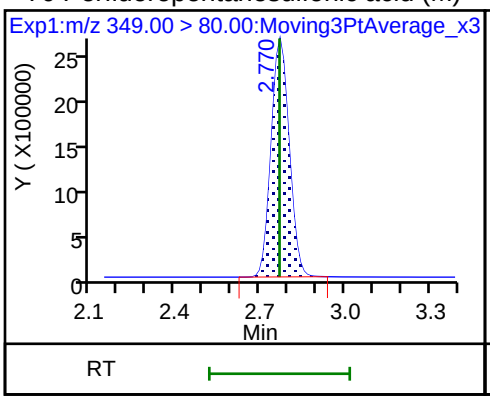

6 Perfluorohexanoic acid (M)



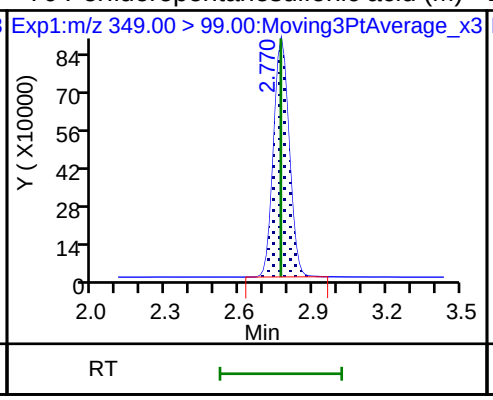

D 7 13C2 PFHxA



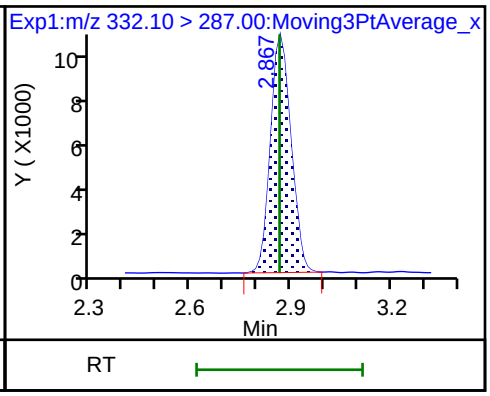
70 Perfluoropentanesulfonic acid (M)



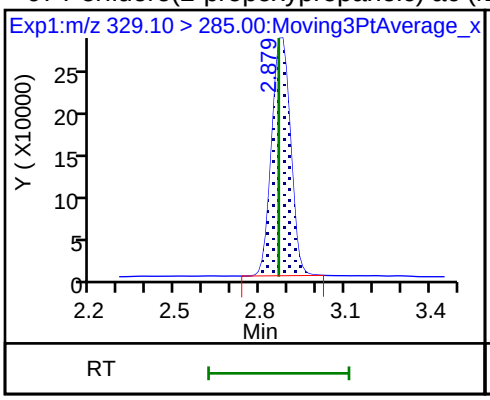

70 Perfluoropentanesulfonic acid (M)



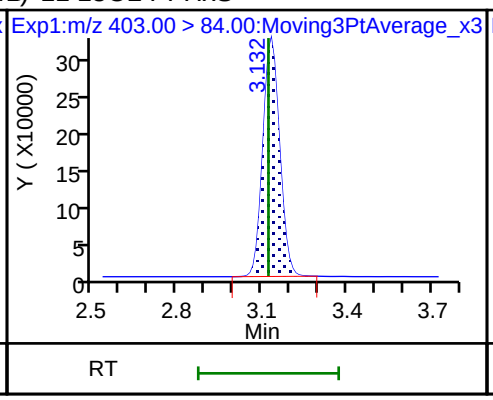

D 64 13C3 HFPO-DA



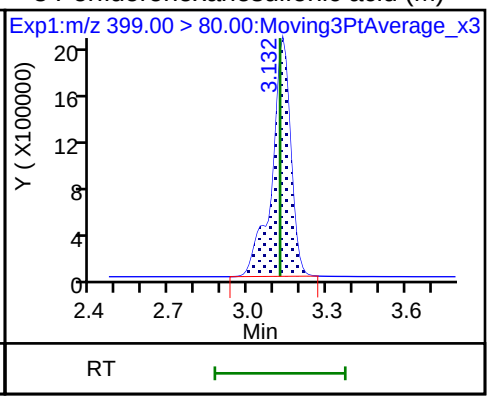

67 Perfluoro(2-propoxypropanoic) ac (M)



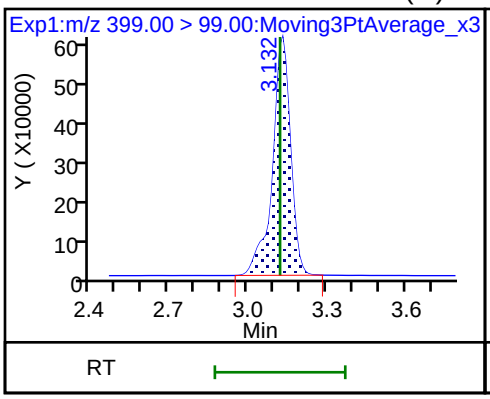

D 11 18O2 PFHxS



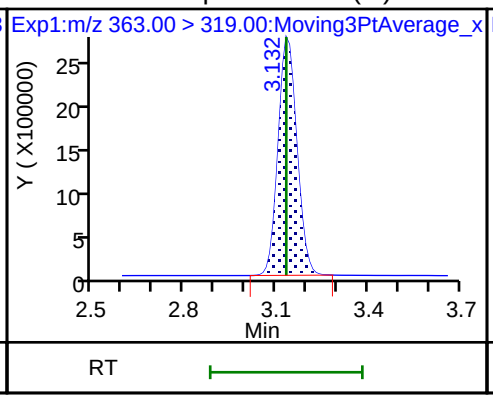

8 Perfluorohexanesulfonic acid (M)



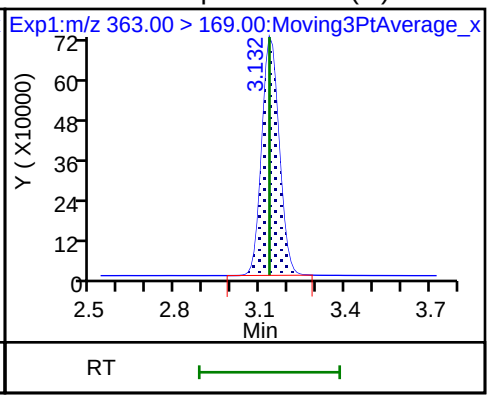

8 Perfluorohexanesulfonic acid (M)



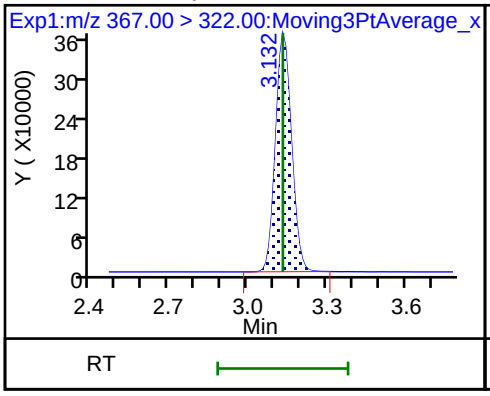

10 Perfluoroheptanoic acid (M)



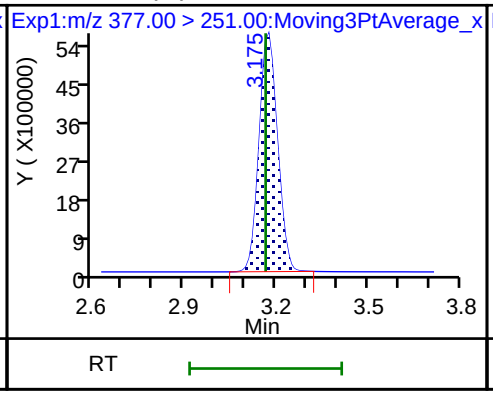

10 Perfluoroheptanoic acid (M)



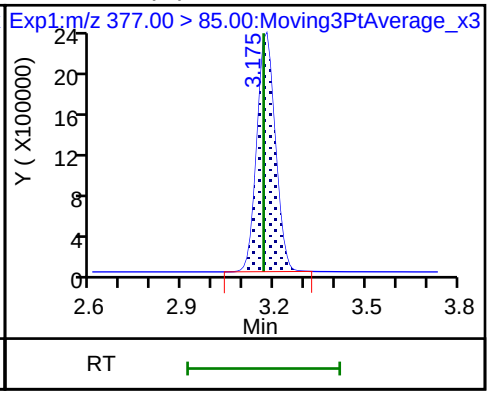

D 9 13C4 PFHpA



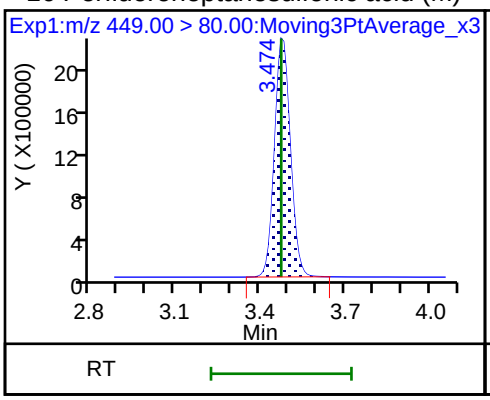

77 DONA (M)



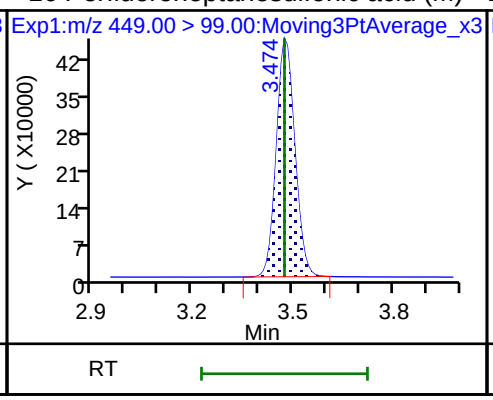

77 DONA (M)



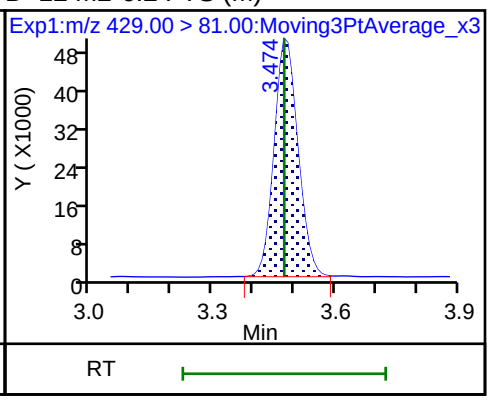
16 Perfluoroheptanesulfonic acid (M)



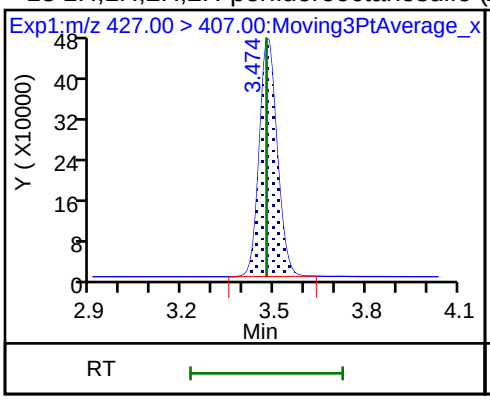

16 Perfluoroheptanesulfonic acid (M)



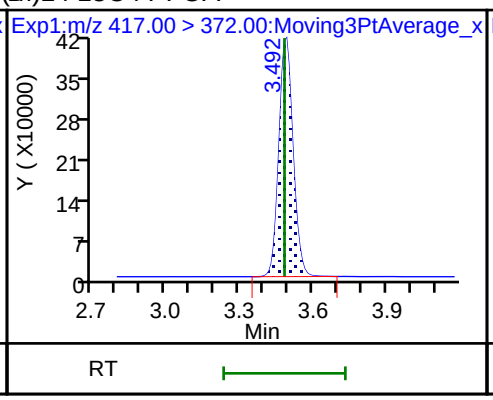

D 12 M2-6:2 FTS (M)



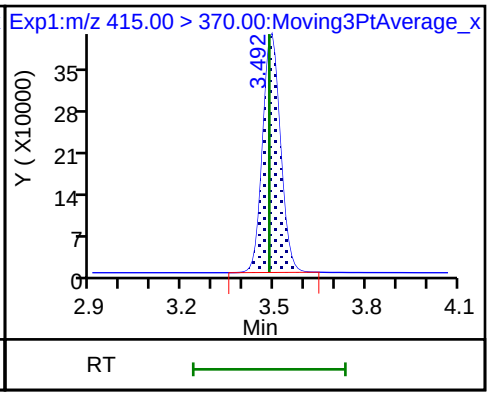

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



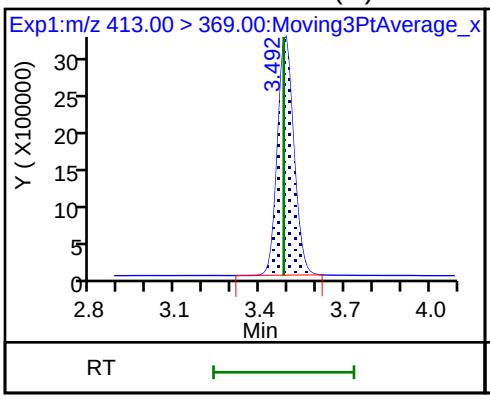

D 14 13C4 PFOA



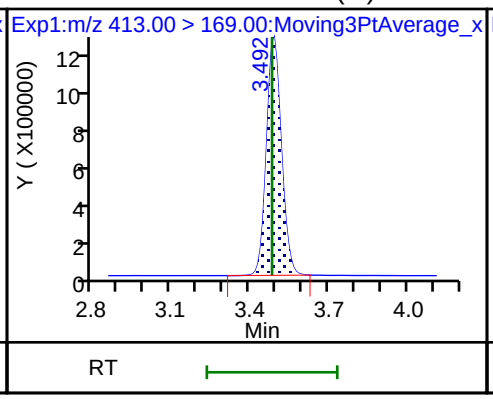

* 62 13C2 PFOA



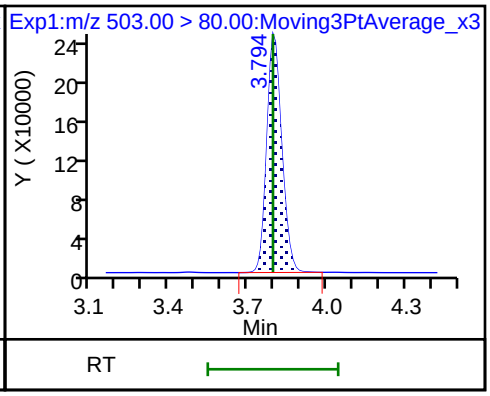

15 Perfluorooctanoic acid (M)



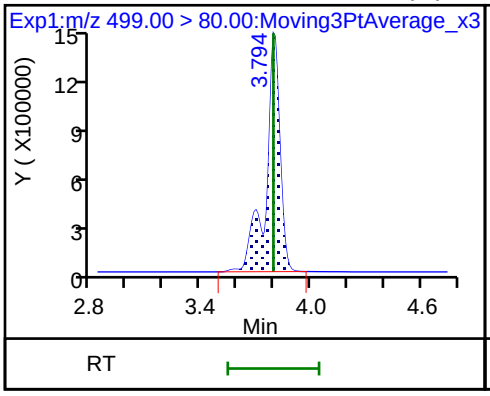

15 Perfluorooctanoic acid (M)



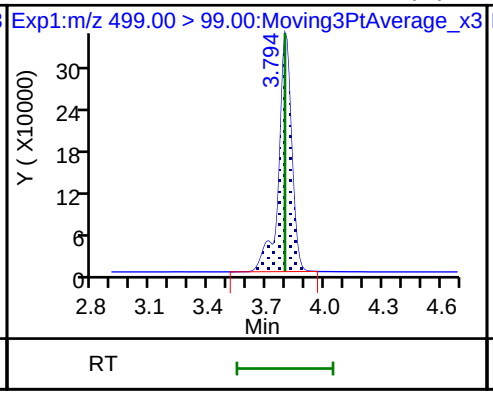

D 18 13C4 PFOS



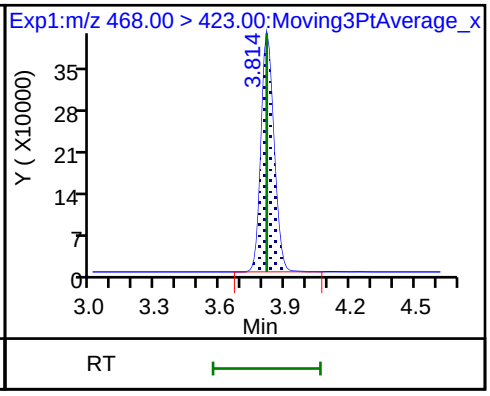

17 Perfluorooctanesulfonic acid (M)



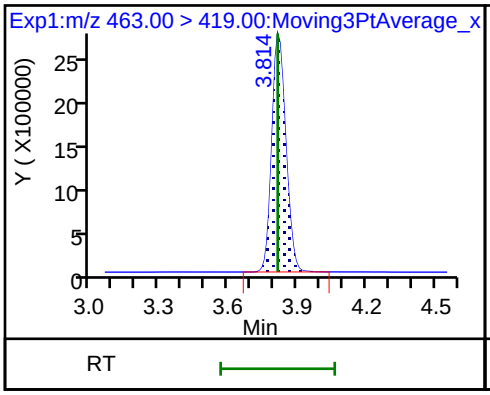

17 Perfluorooctanesulfonic acid (M)



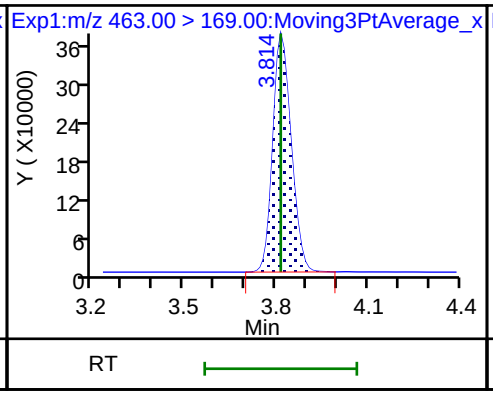

D 19 13C5 PFNA



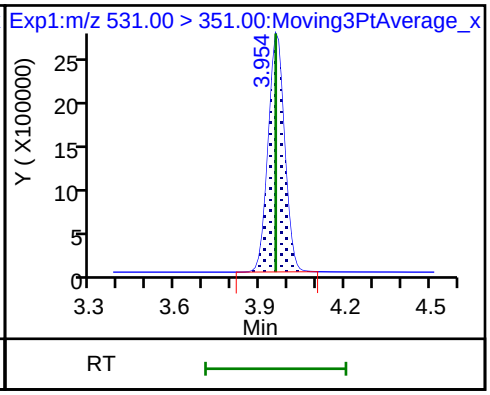
20 Perfluorononanoic acid



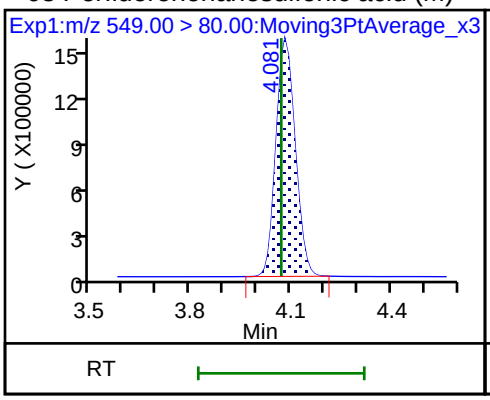

20 Perfluorononanoic acid



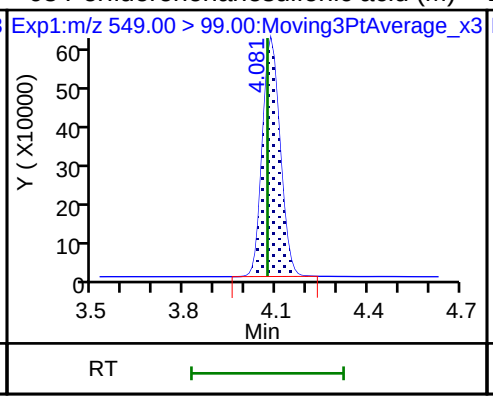

69 9-Chlorohexadecafluoro-3-oxanona (M)



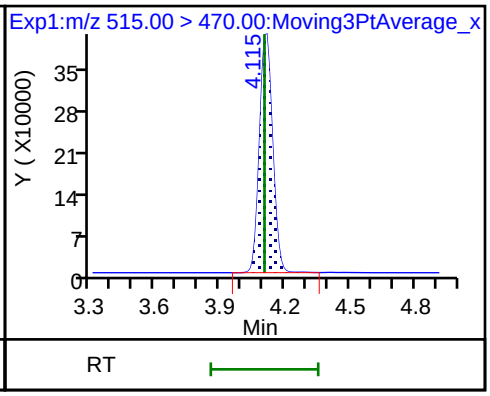

68 Perfluorononanesulfonic acid (M)



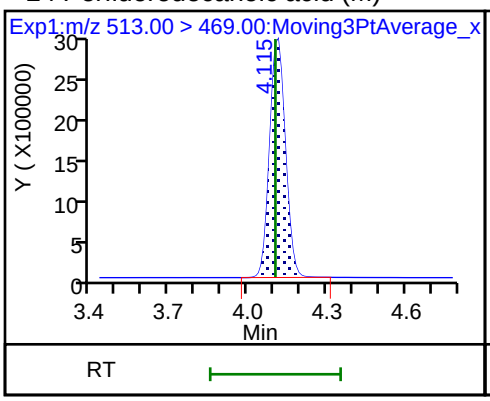

68 Perfluorononanesulfonic acid (M)



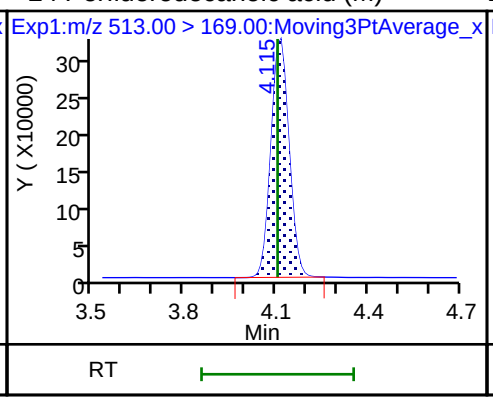

D 23 13C2 PFDA



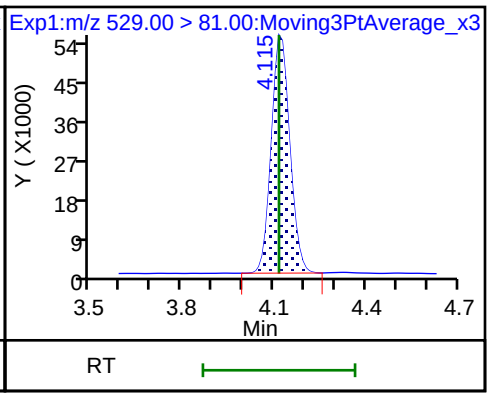

24 Perfluorodecanoic acid (M)



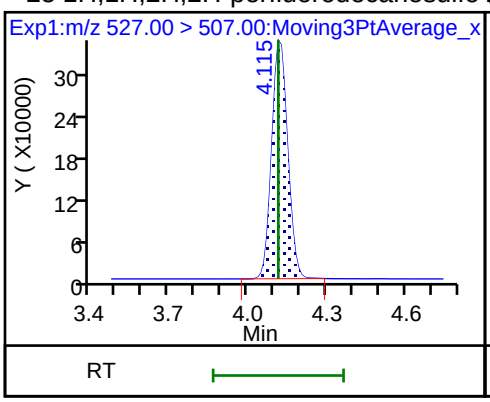

24 Perfluorodecanoic acid (M)



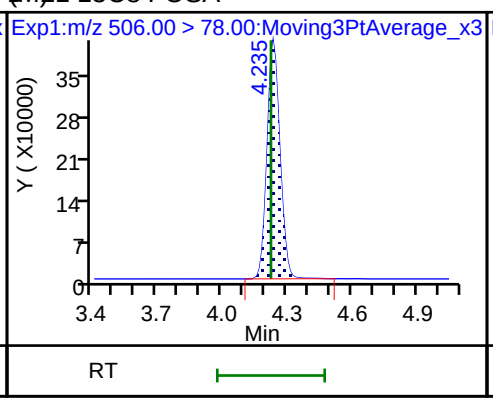

D 26 M2-8:2 FTS



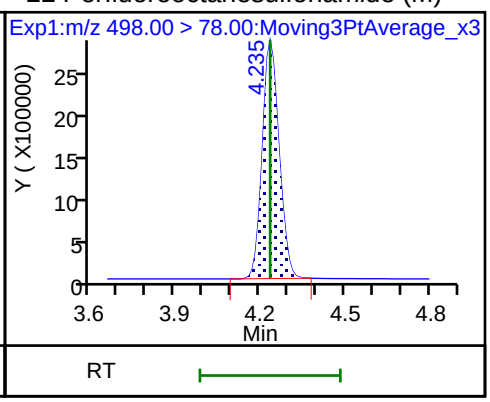

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



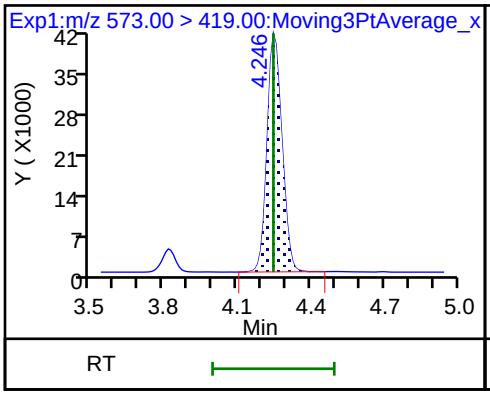

D 21 13C8 FOSA



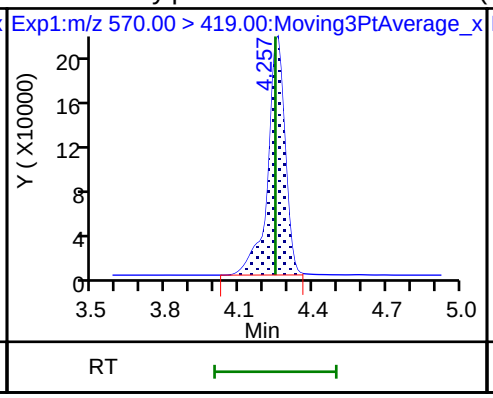

22 Perfluorooctanesulfonamide (M)



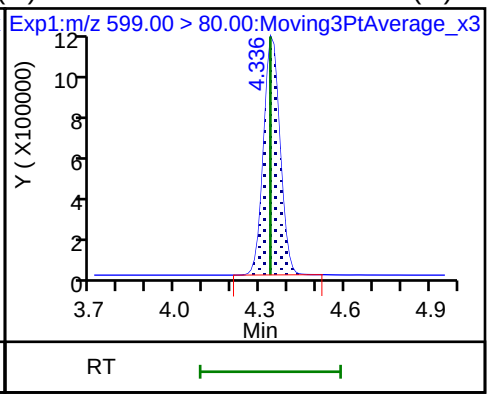
D 27 d3-NMeFOSAA



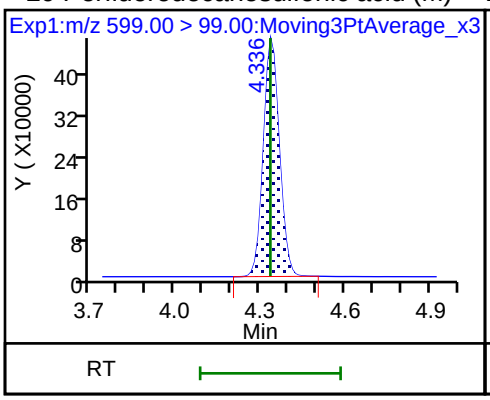

28 N-methylperfluorooctanesulfonami (M)



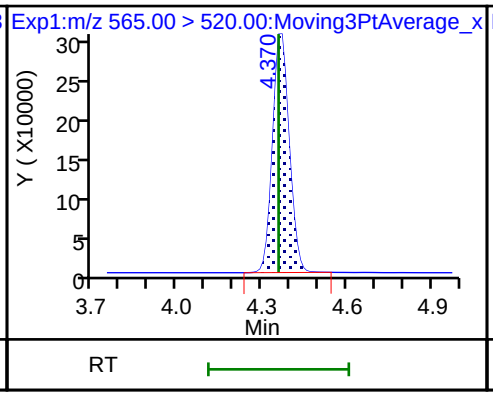

29 Perfluorodecanesulfonic acid (M)



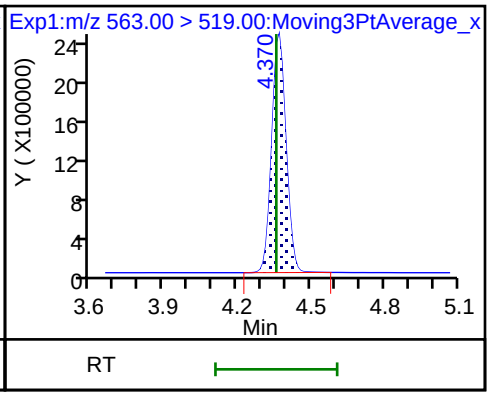

29 Perfluorodecanesulfonic acid (M)



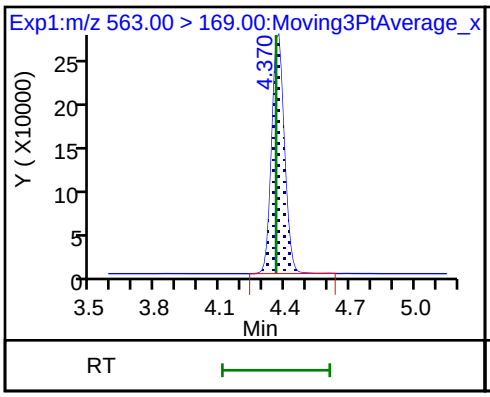

D 30 13C2 PFUnA



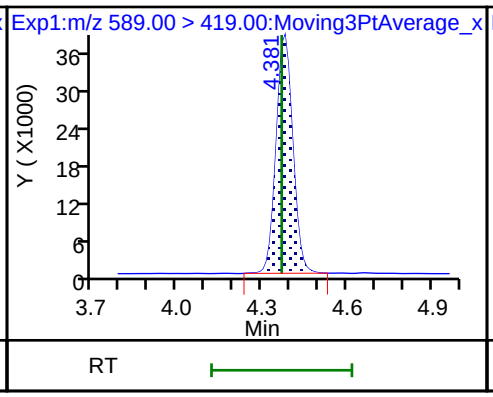

31 Perfluoroundecanoic acid



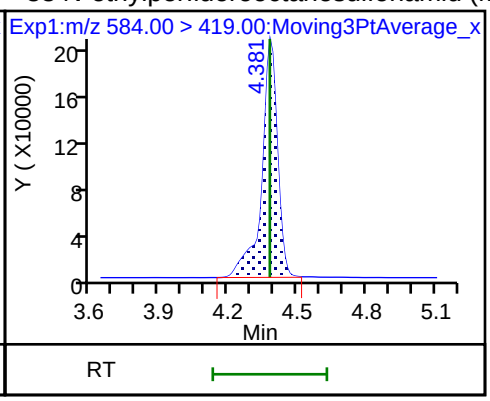

31 Perfluoroundecanoic acid



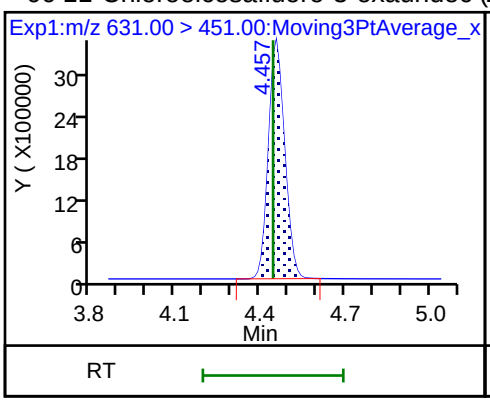

D 32 d5-NEtFOSAA



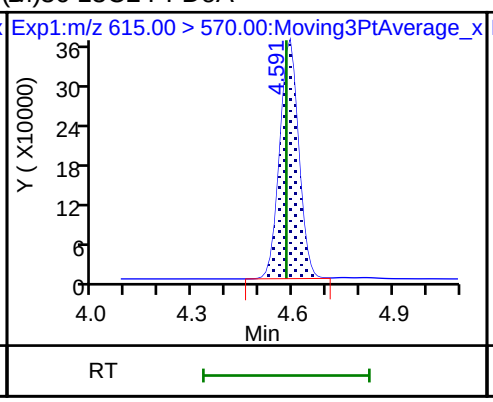

33 N-ethylperfluorooctanesulfonamid (M)



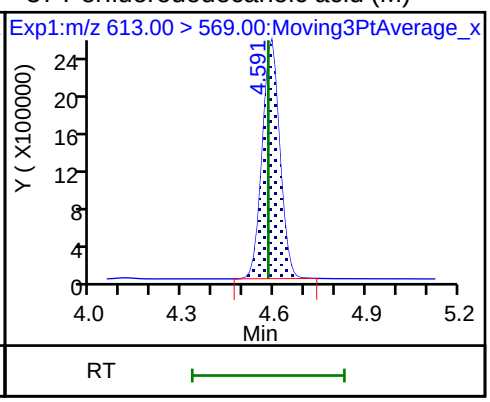

66 11-Chloroeicosafluoro-3-oxaundec (M)



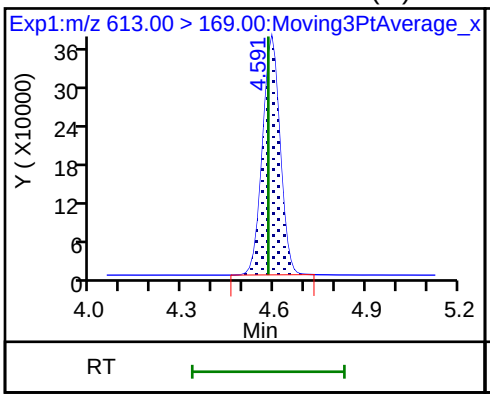

D 36 13C2 PFDoA



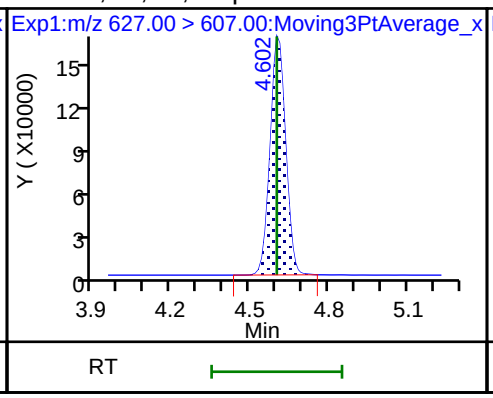

37 Perfluorododecanoic acid (M)



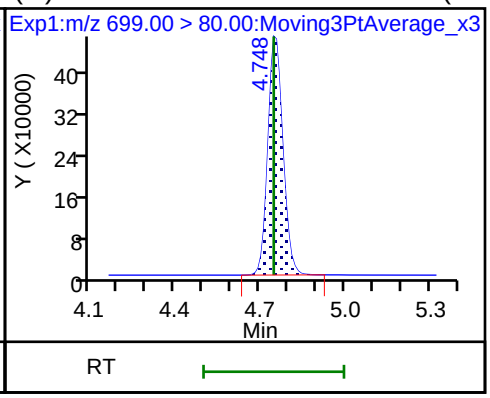
37 Perfluorododecanoic acid (M)



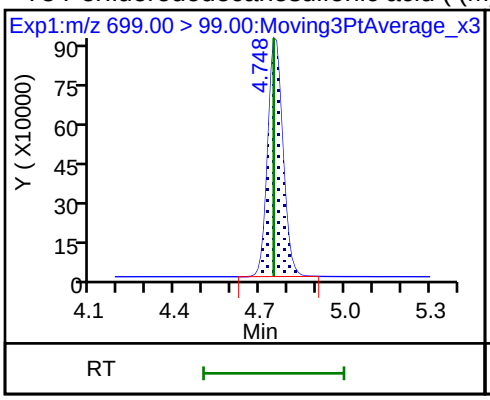

74 1H,1H,2H,2H-perfluorododecanesul (M)



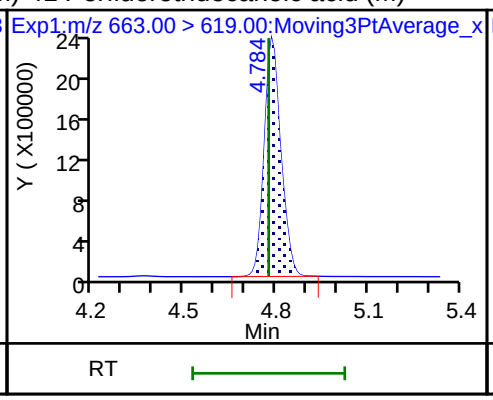

75 Perfluorododecanesulfonic acid (



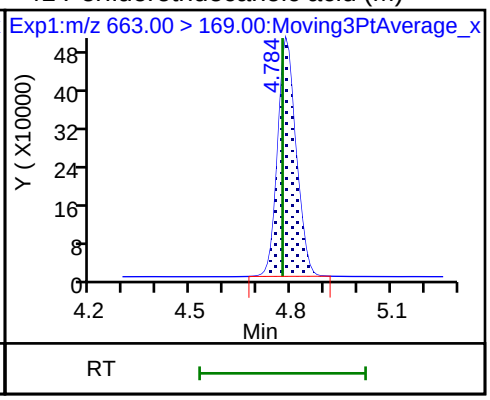

75 Perfluorododecanesulfonic acid ( (M)



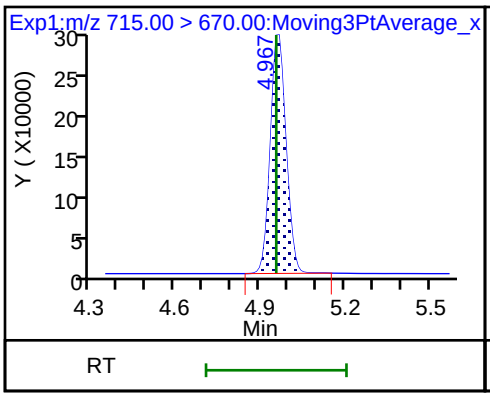

41 Perfluorotridecanoic acid (M)



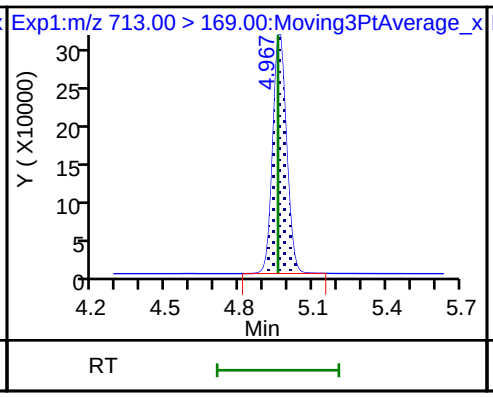

41 Perfluorotridecanoic acid (M)



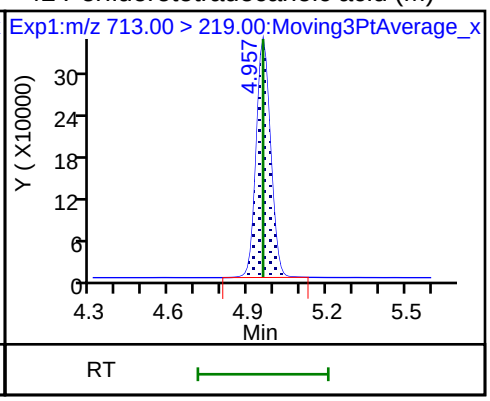

D 43 13C2 PFTeDA



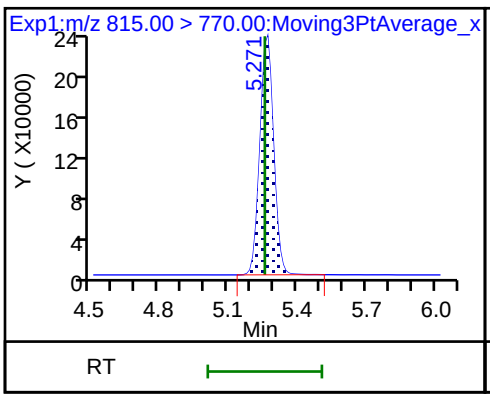

42 Perfluorotetradecanoic acid



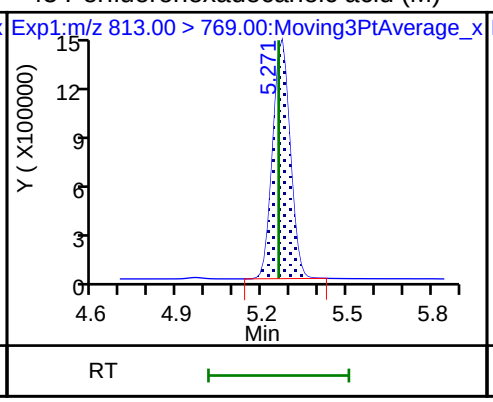

42 Perfluorotetradecanoic acid (M)



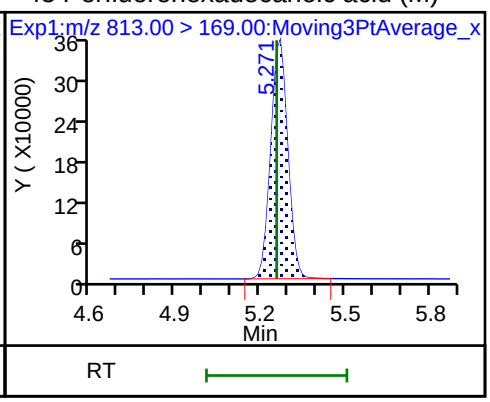

D 44 13C2 PFHxDA



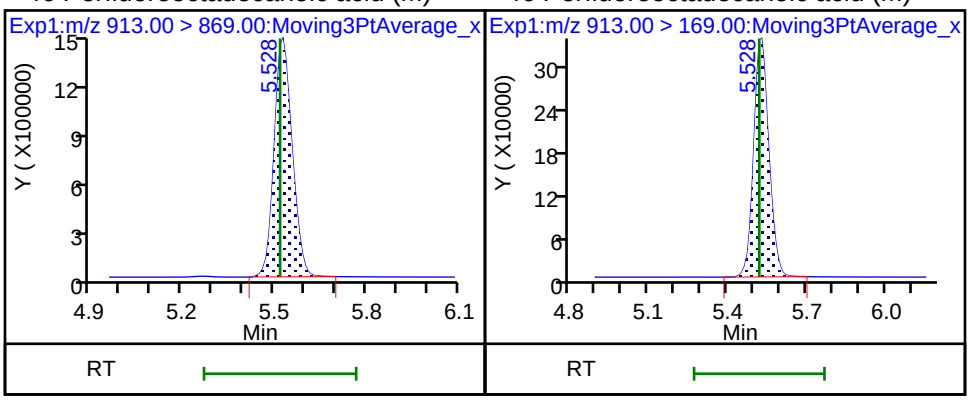

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M)




46 Perfluorooctadecanoic acid (M)

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

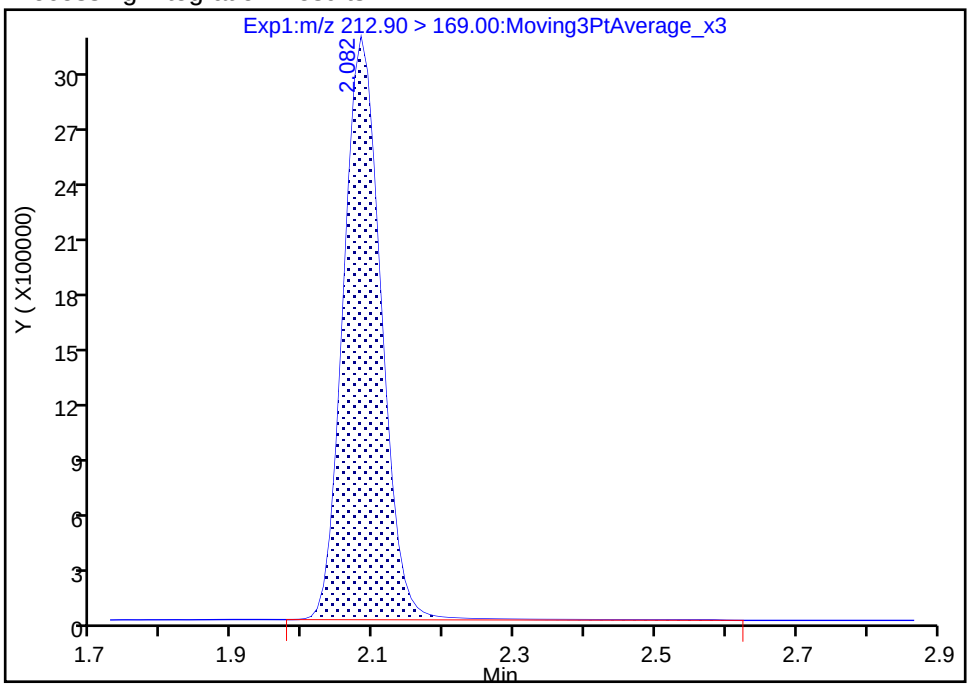
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

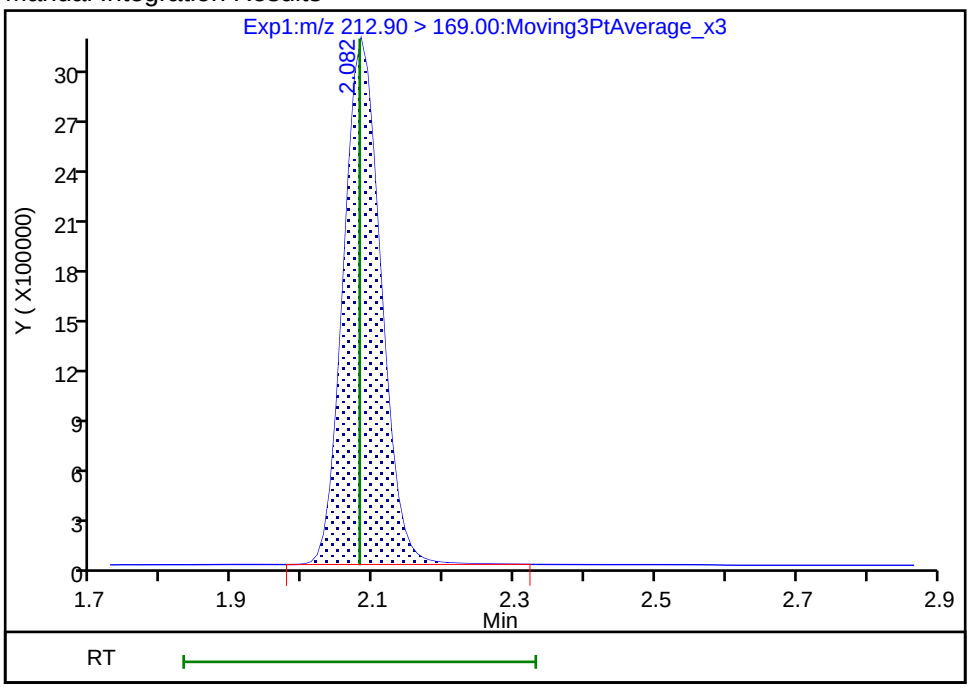
Processing Integration Results

RT: 2.08
Area: 11584973
Amount: 9.186084
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 11507928
Amount: 9.134293
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:15:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

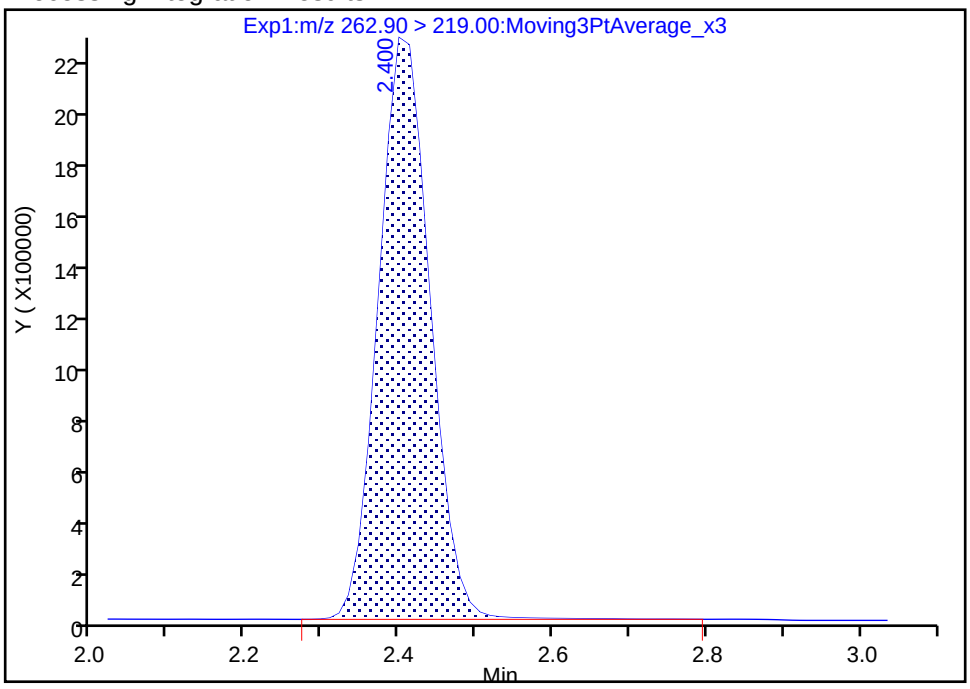
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

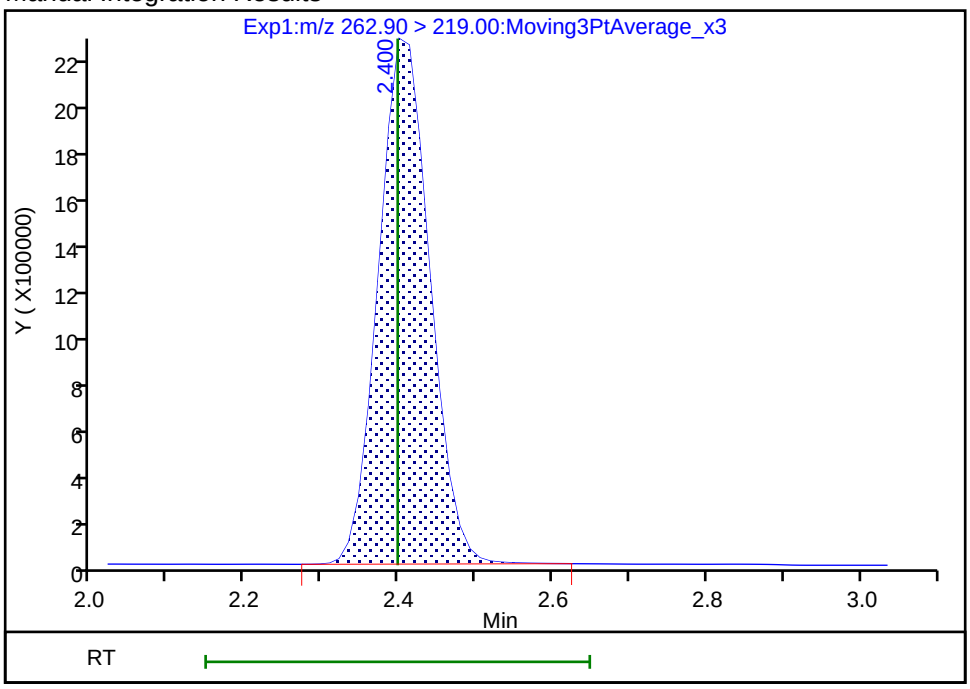
Processing Integration Results

RT: 2.40
Area: 10609985
Amount: 9.206503
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 10570544
Amount: 9.177514
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:15:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

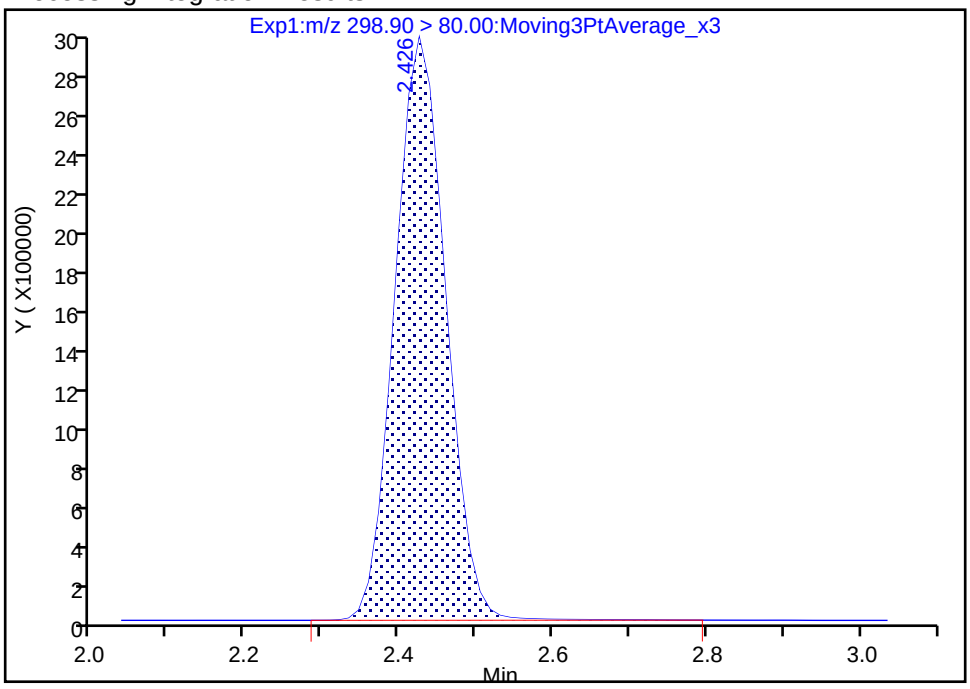
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

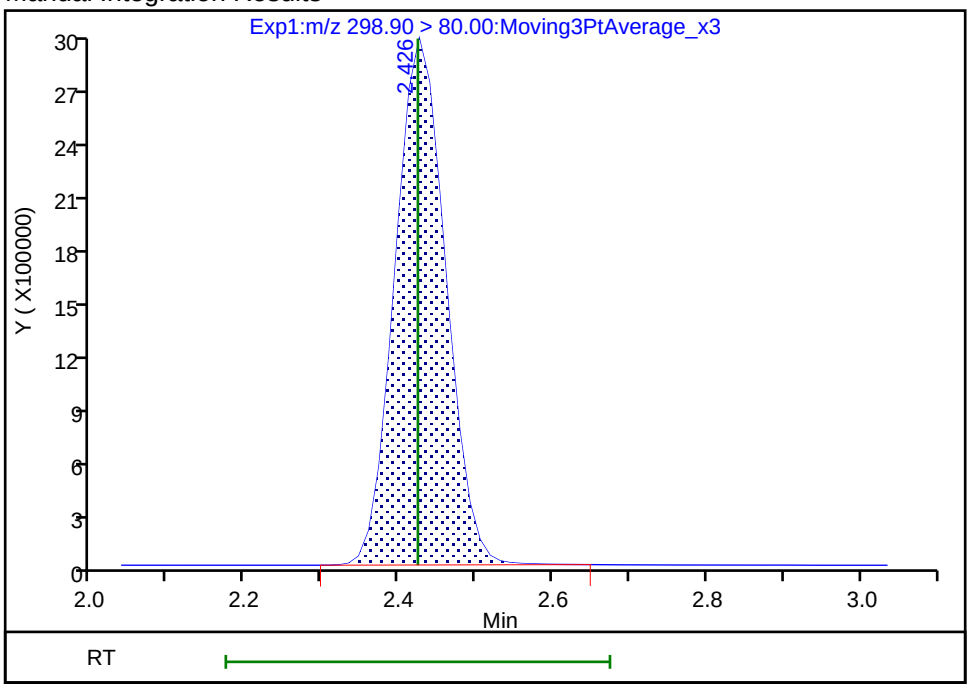
Processing Integration Results

RT: 2.43
Area: 13360994
Amount: 8.056355
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 13325047
Amount: 8.037965
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

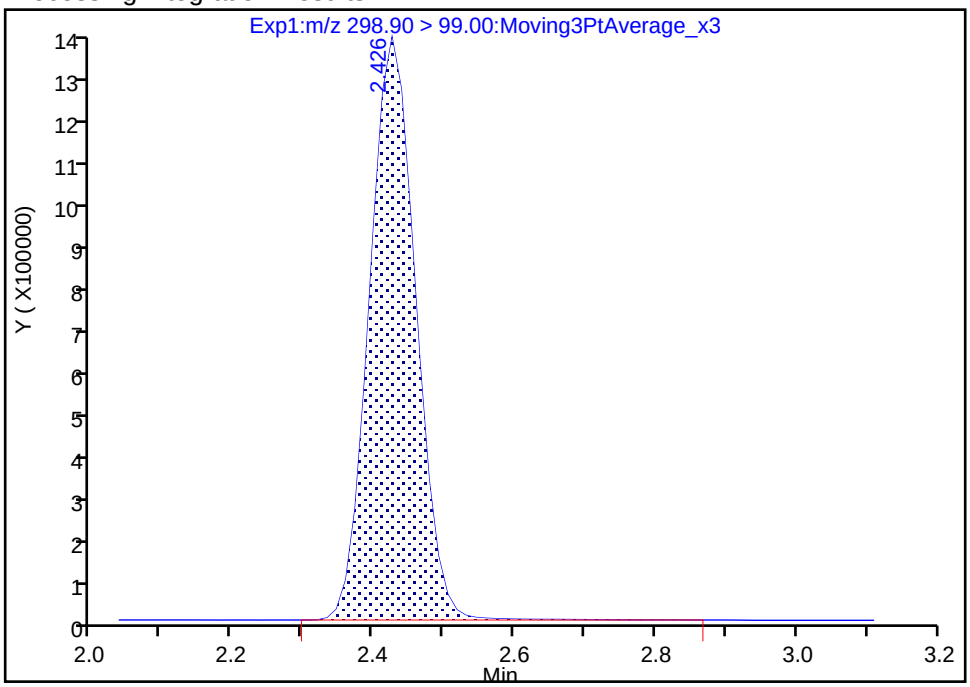
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

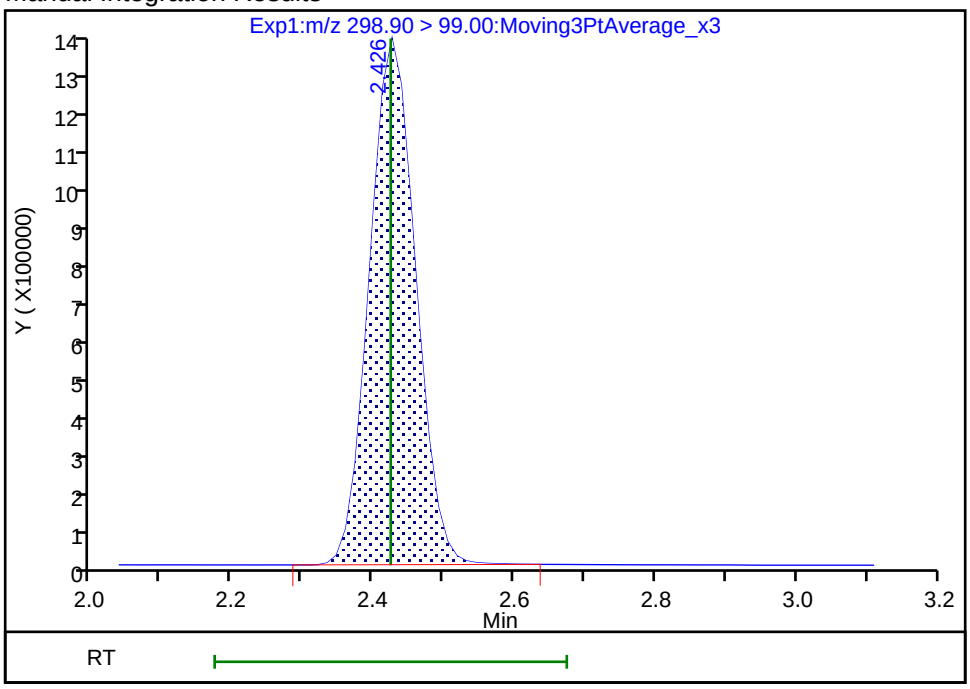
Processing Integration Results

RT: 2.43
Area: 6090919
Amount: 8.056355
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 6068174
Amount: 8.037965
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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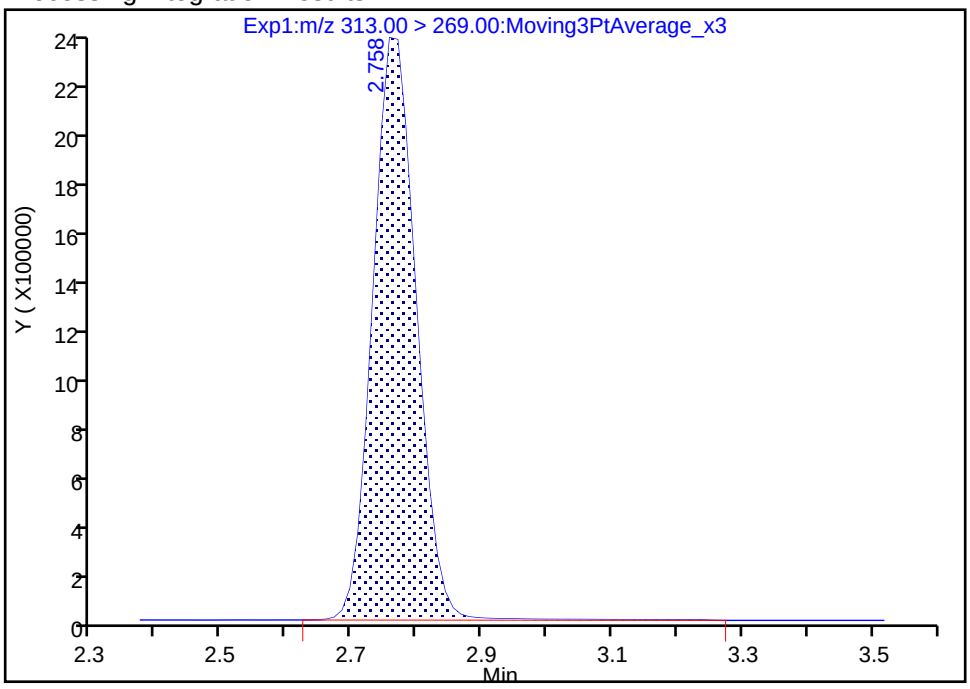
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

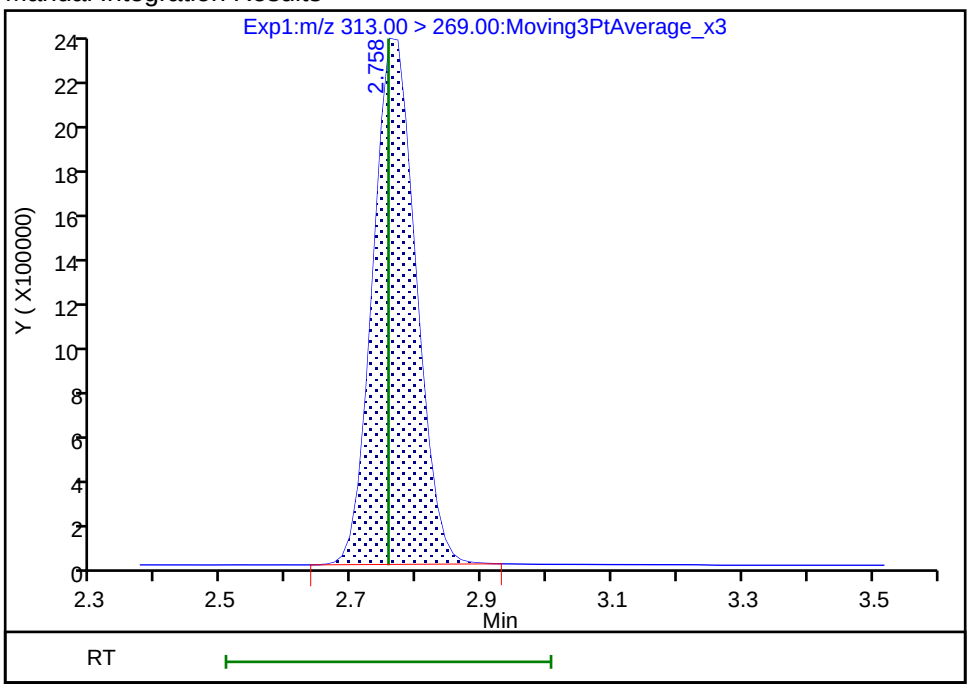
Processing Integration Results

RT: 2.76
Area: 11074582
Amount: 9.217471
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 10964511
Amount: 9.139814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

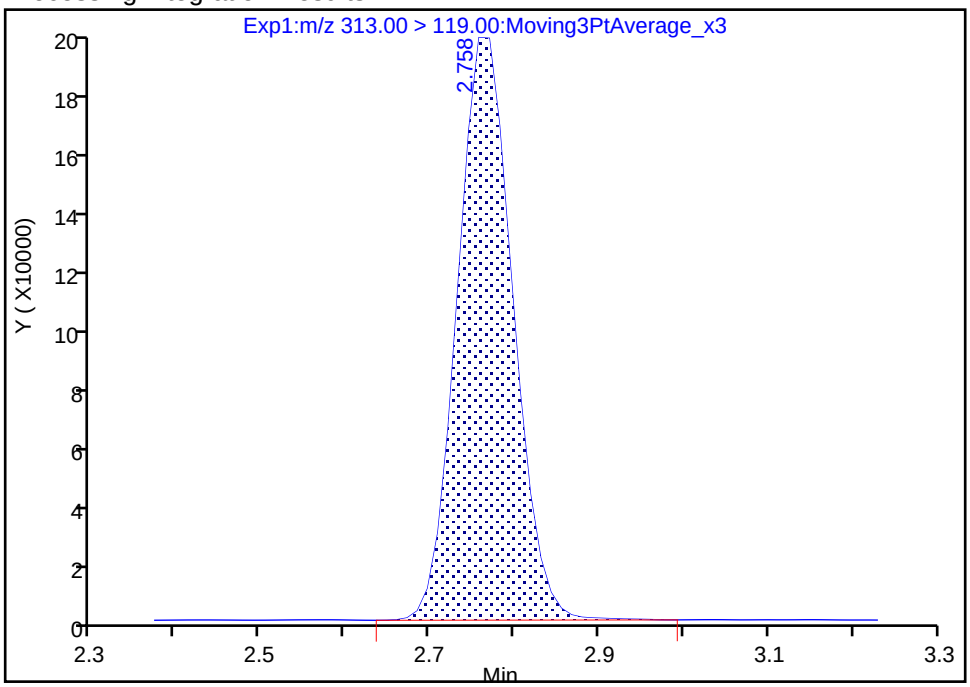
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

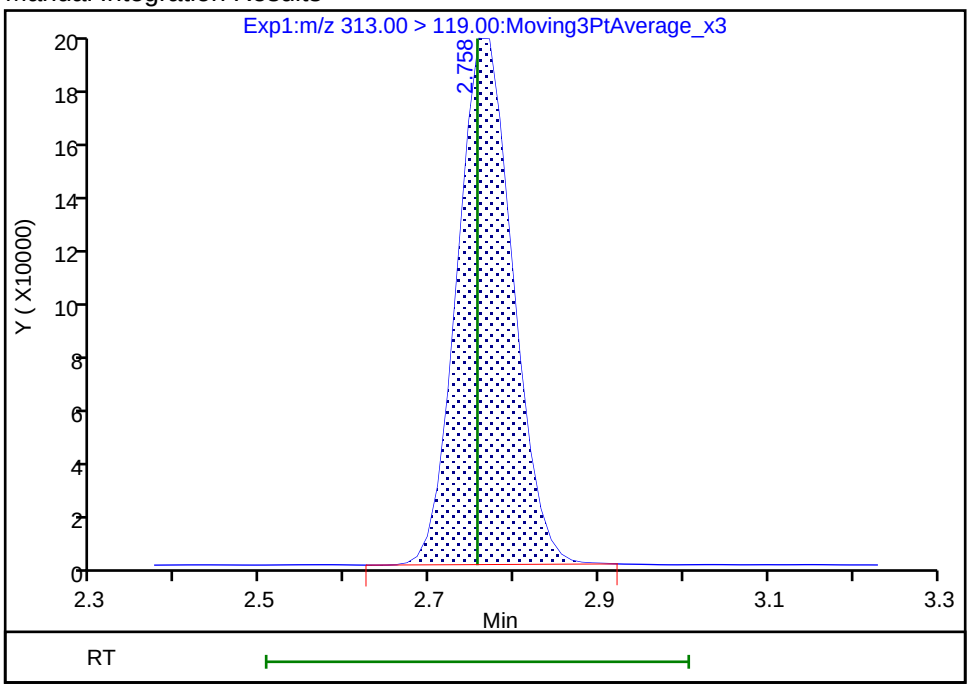
Processing Integration Results

RT: 2.76
Area: 901161
Amount: 9.217471
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 897013
Amount: 9.139814
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:42

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

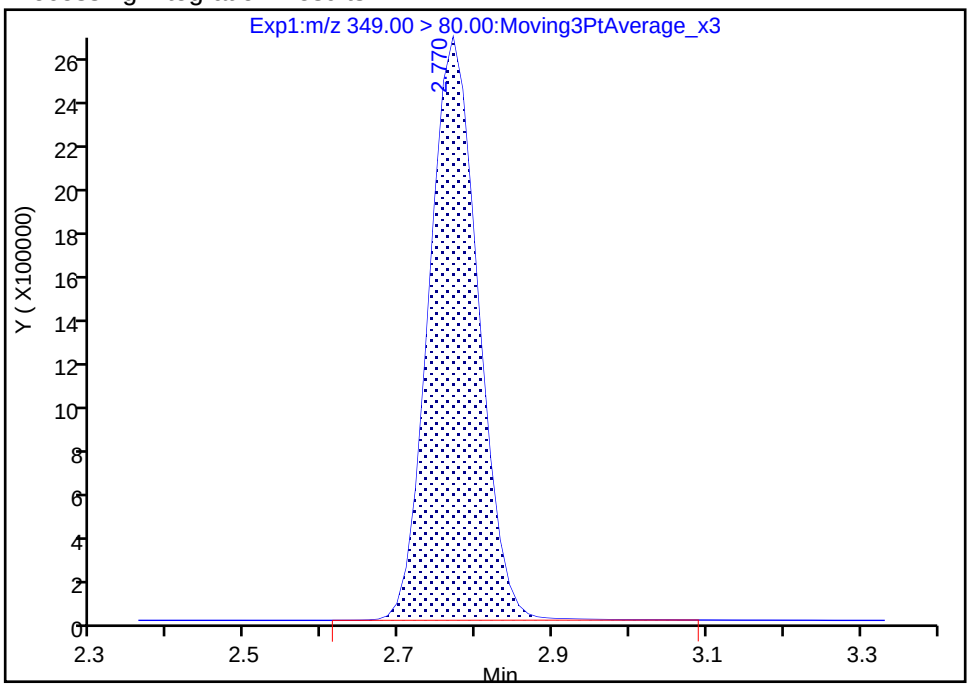
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

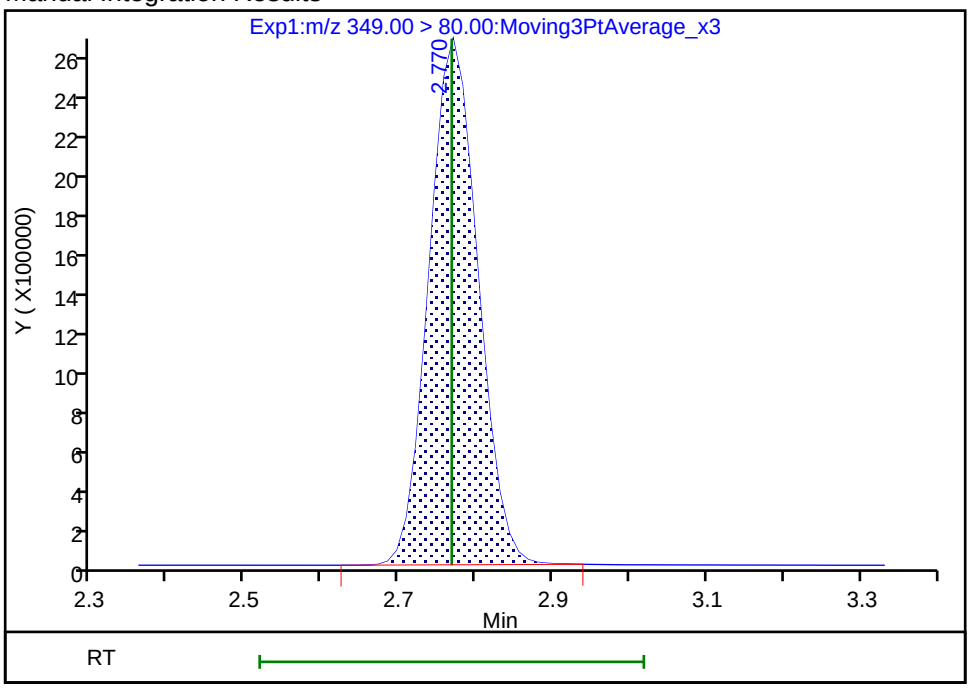
Processing Integration Results

RT: 2.77
Area: 11835103
Amount: 8.810668
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 11788049
Amount: 8.781104
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

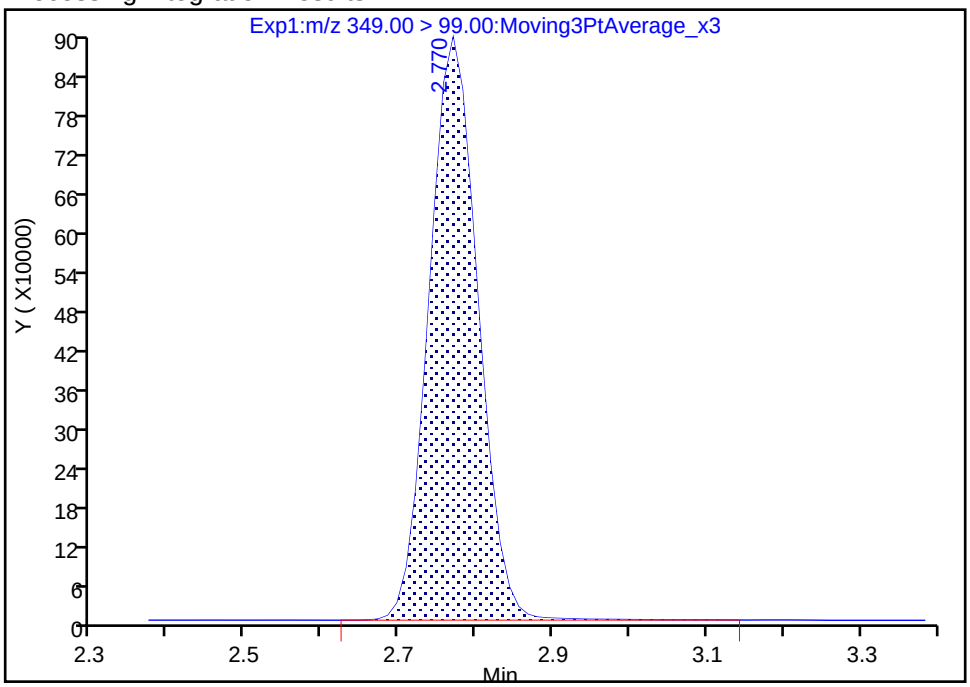
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 2

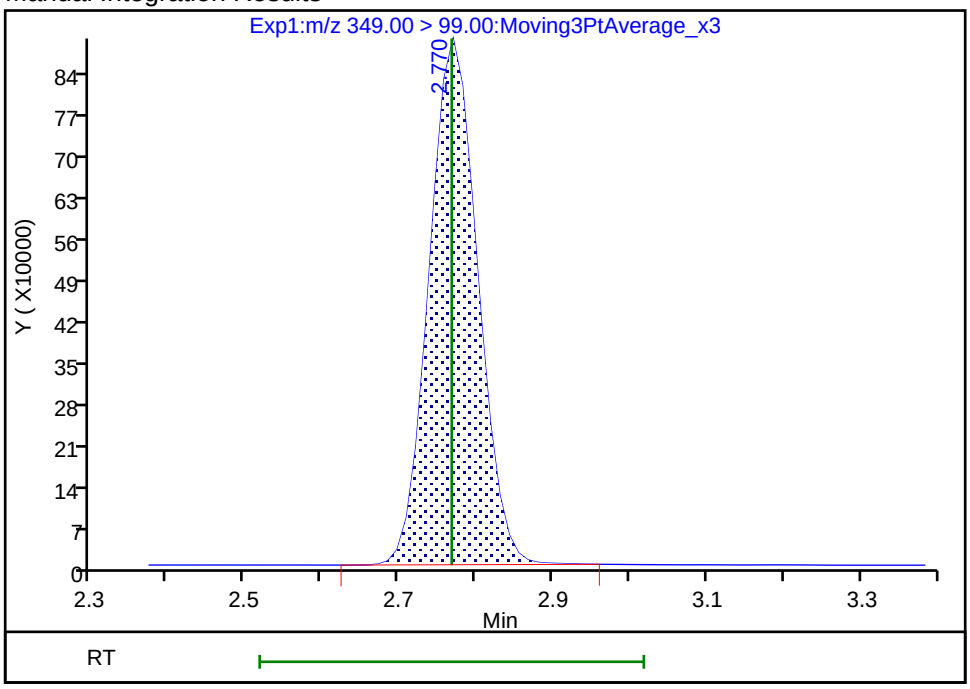
Processing Integration Results

RT: 2.77
Area: 3956964
Amount: 8.810668
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3939690
Amount: 8.781104
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:16:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

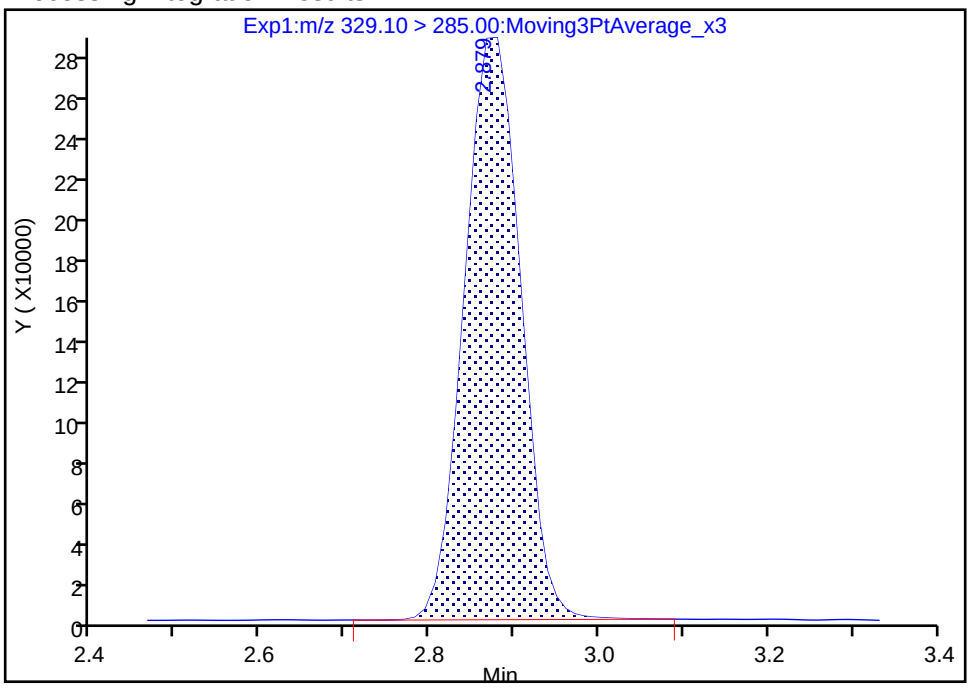
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

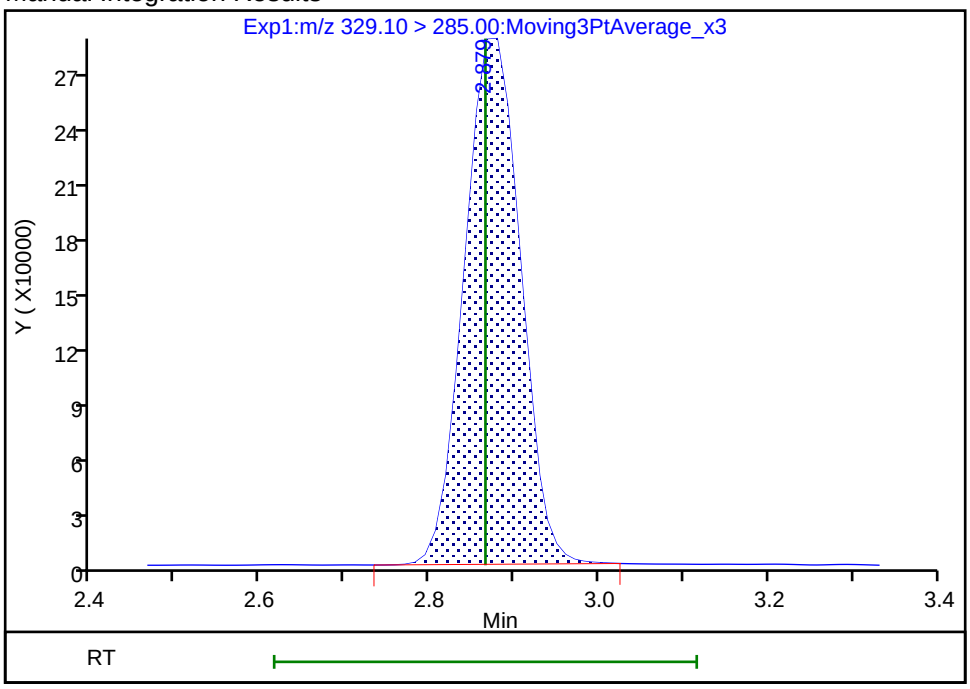
Processing Integration Results

RT: 2.88
Area: 1298993
Amount: 8.029082
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 1294536
Amount: 8.125365
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

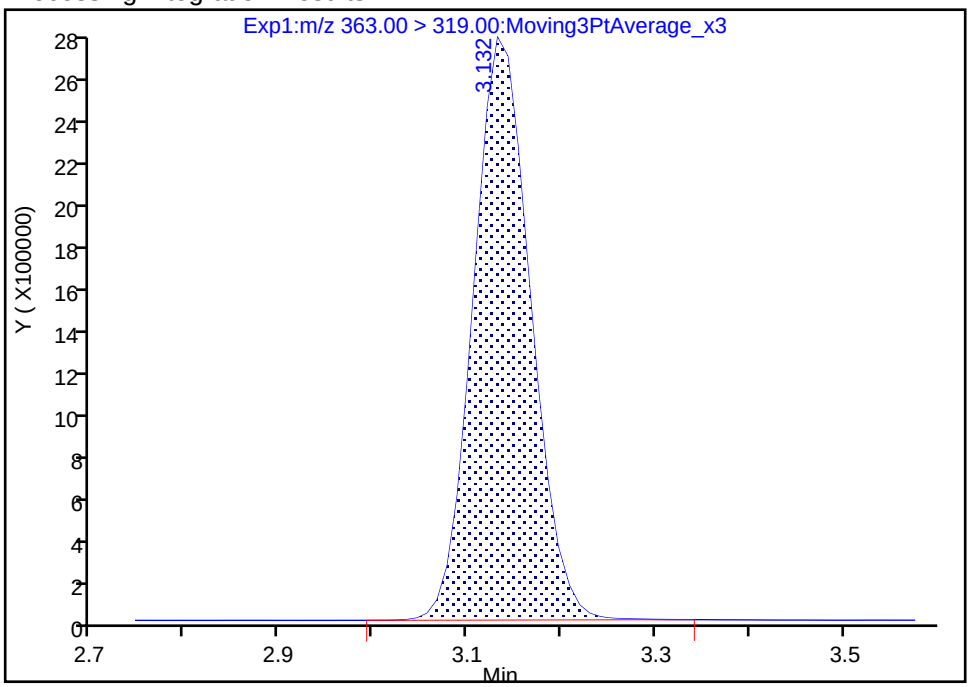
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

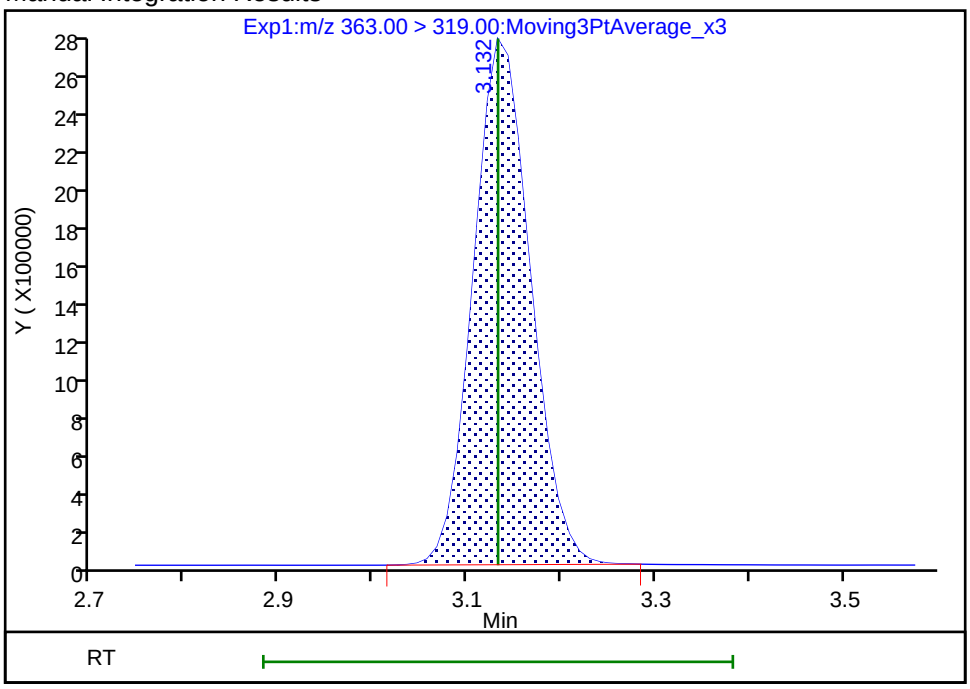
Processing Integration Results

RT: 3.13
Area: 11458224
Amount: 9.057775
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 11431038
Amount: 9.039522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

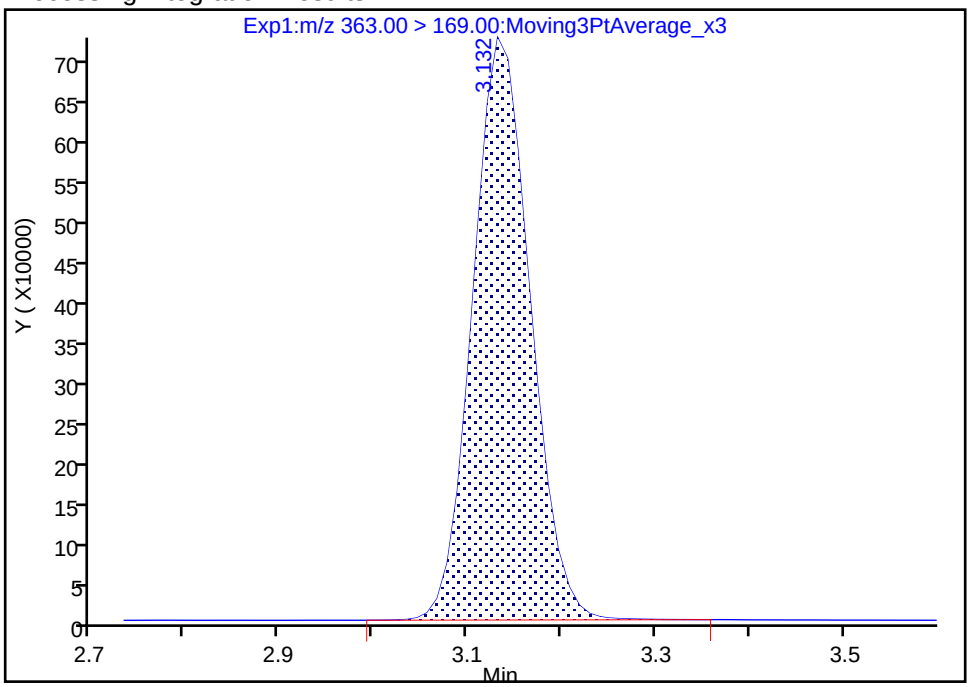
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

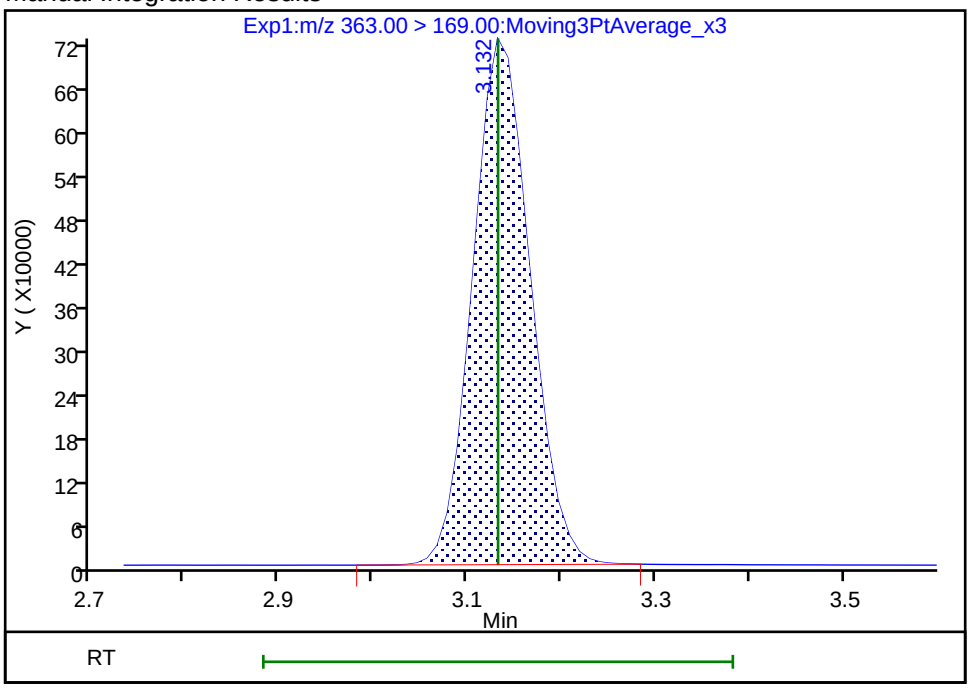
Processing Integration Results

RT: 3.13
Area: 3084383
Amount: 9.057775
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 3076429
Amount: 9.039522
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

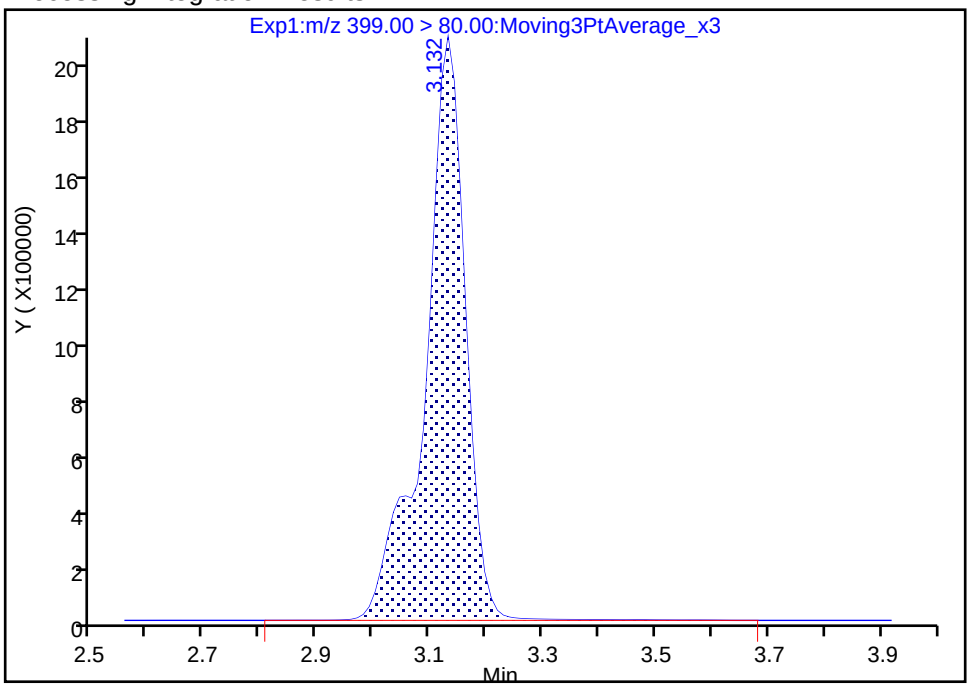
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

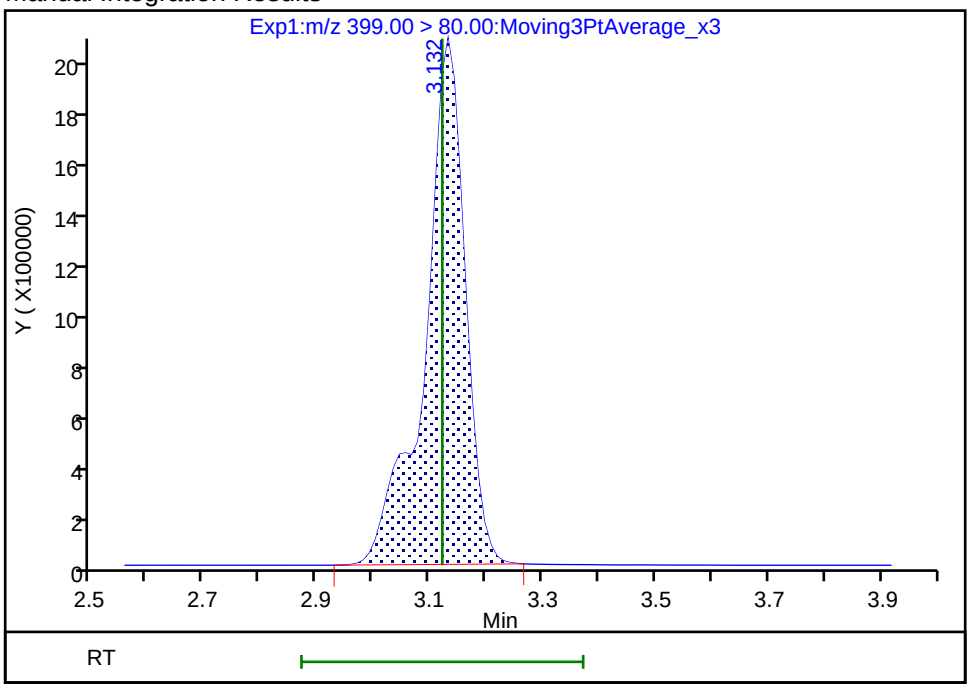
Processing Integration Results

RT: 3.13
Area: 10291218
Amount: 8.384647
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 10194384
Amount: 8.317771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

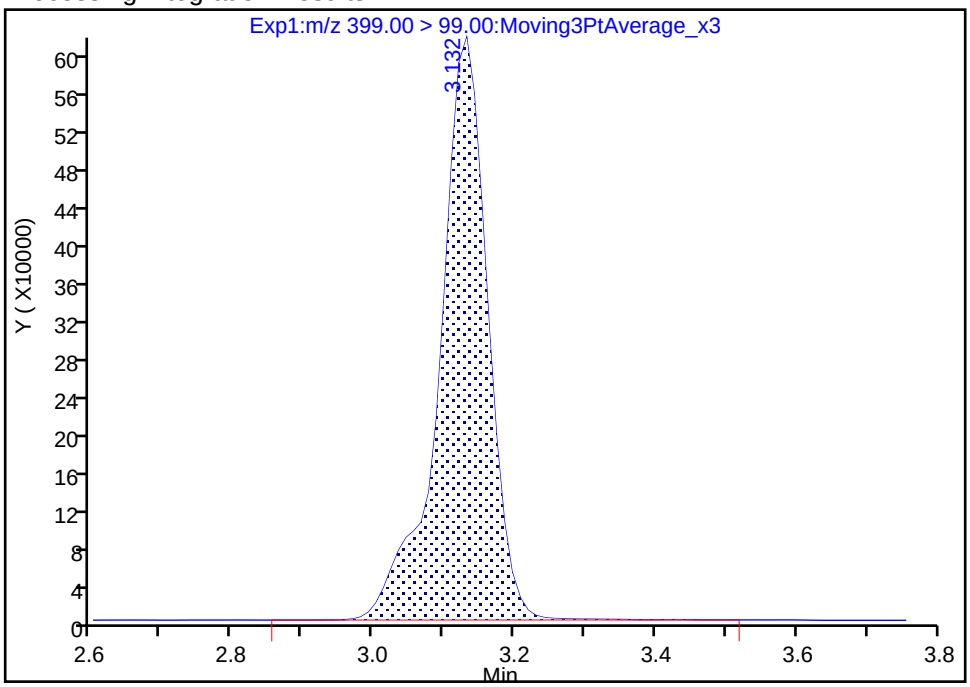
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

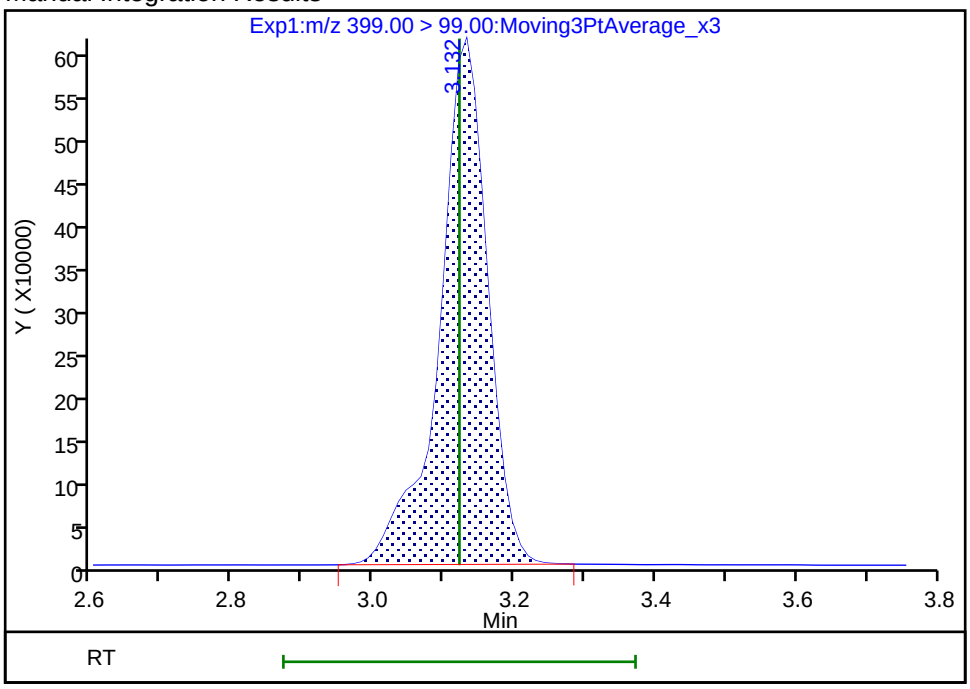
Processing Integration Results

RT: 3.13
Area: 2943526
Amount: 8.384647
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2926854
Amount: 8.317771
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

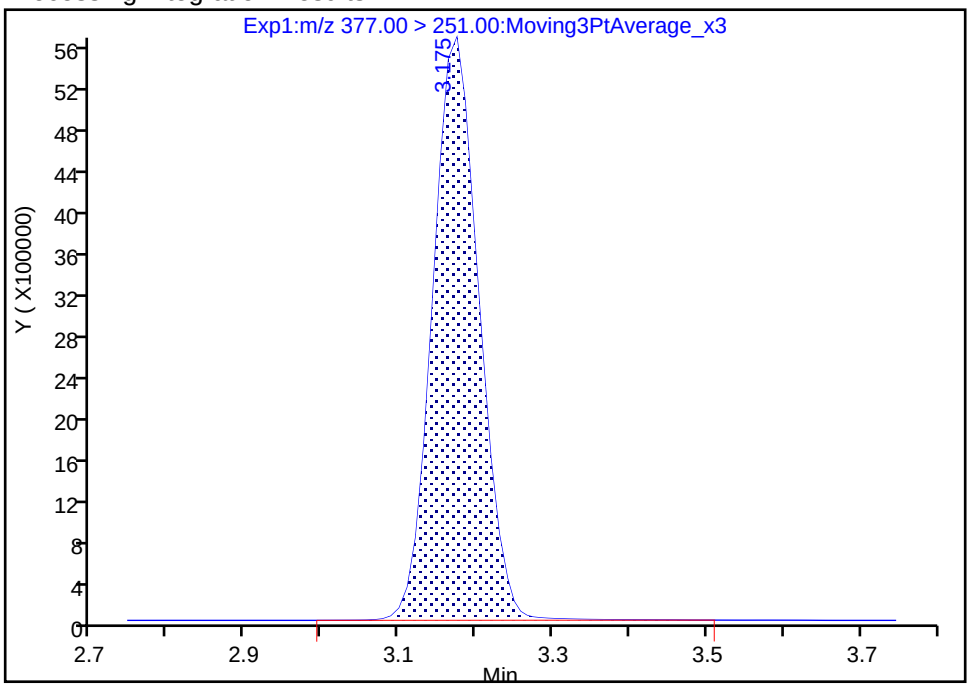
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

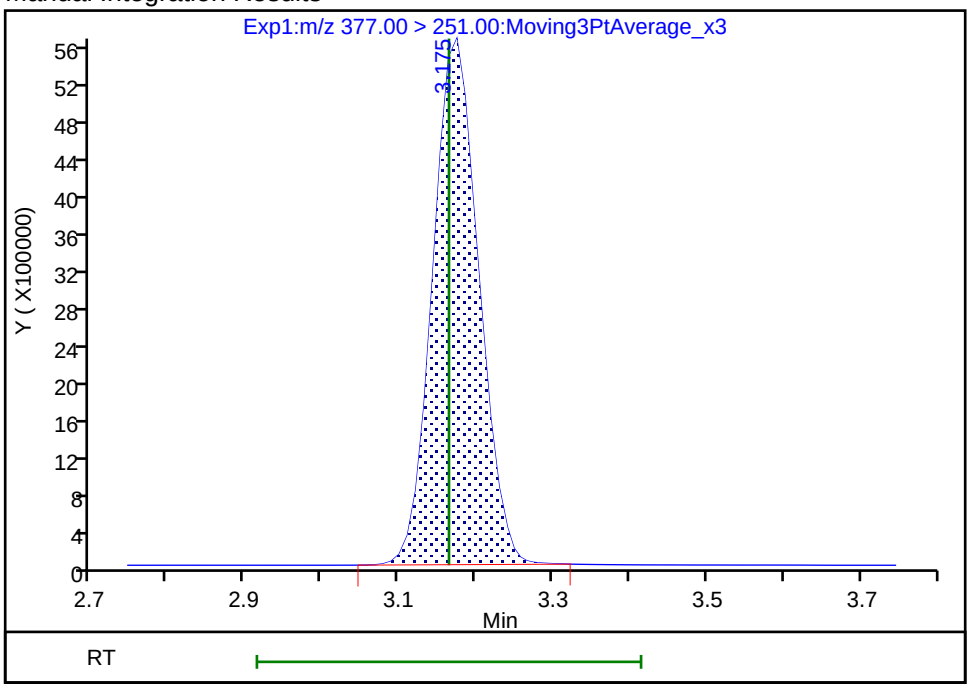
Processing Integration Results

RT: 3.17
Area: 23633712
Amount: 8.351245
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 23507218
Amount: 8.313121
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

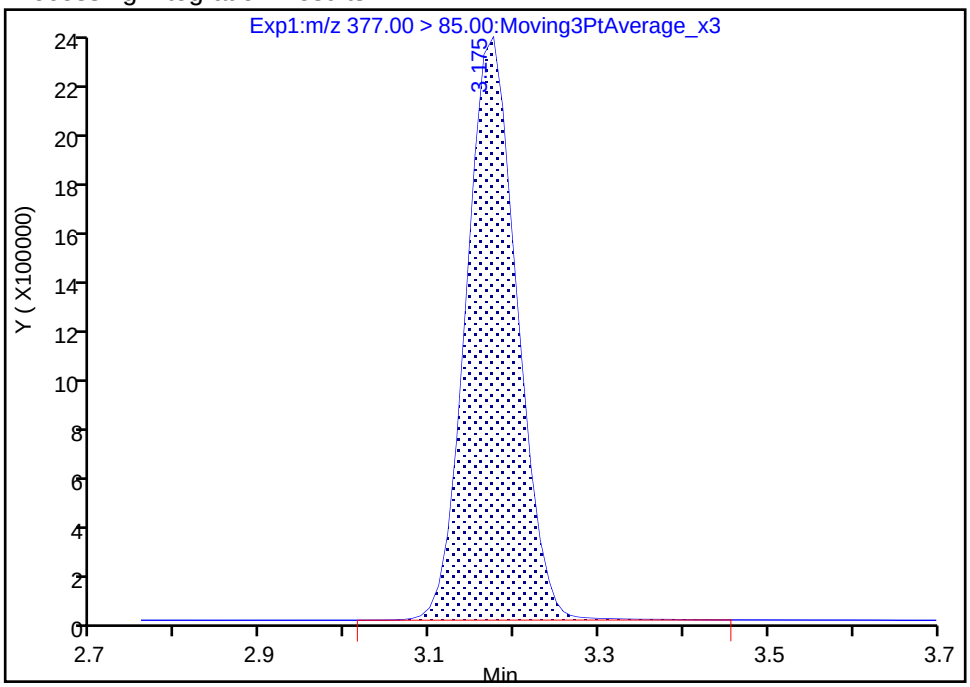
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

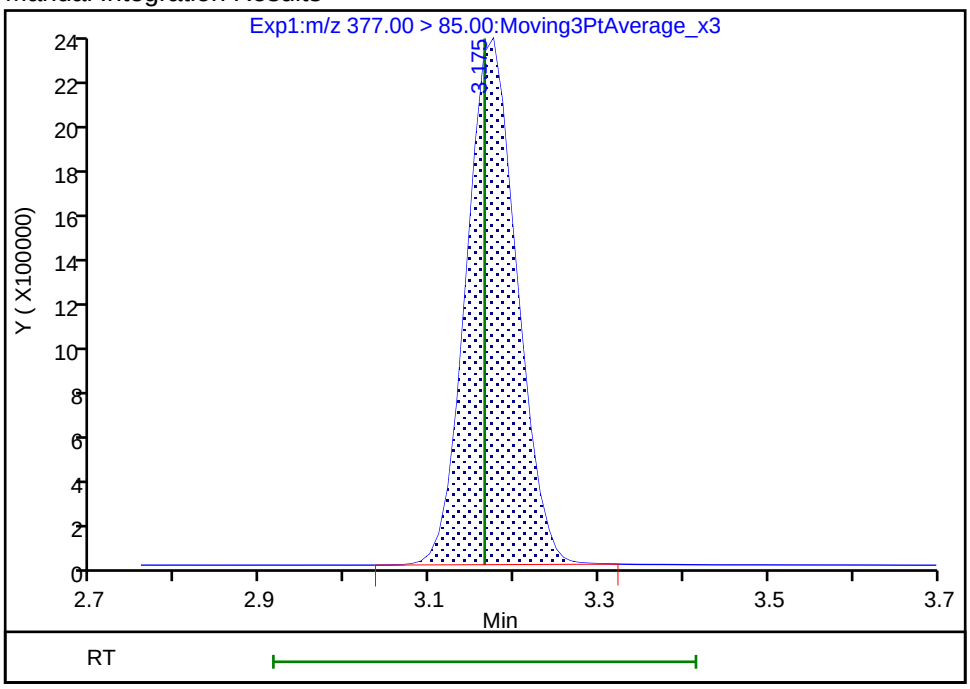
Processing Integration Results

RT: 3.17
Area: 9713406
Amount: 8.351245
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 9670775
Amount: 8.313121
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

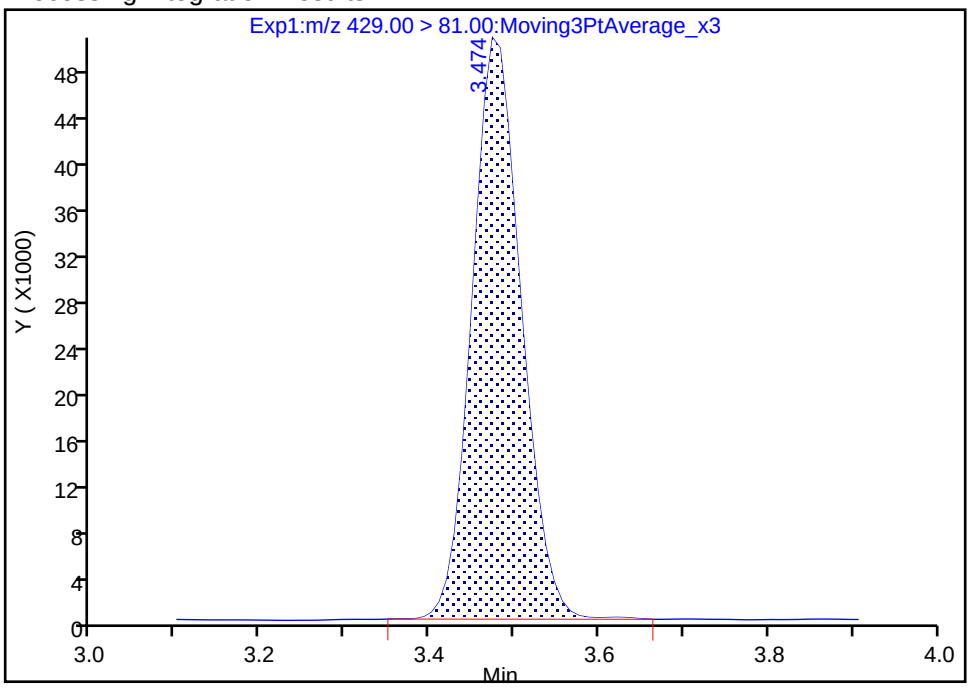
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

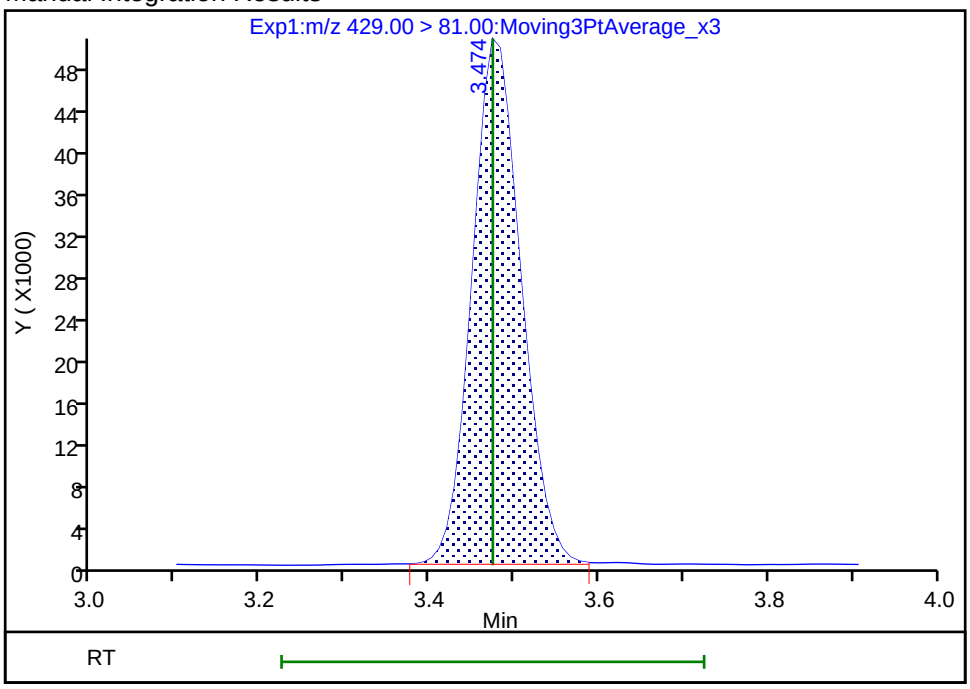
Processing Integration Results

RT: 3.47
Area: 201752
Amount: 1.183589
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 201400
Amount: 1.181867
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

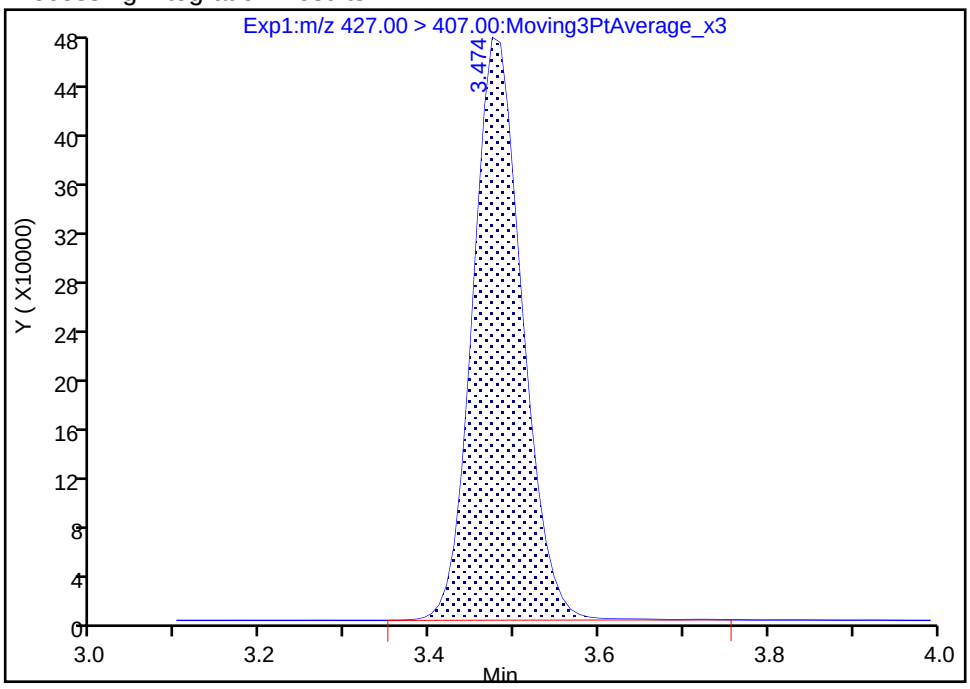
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

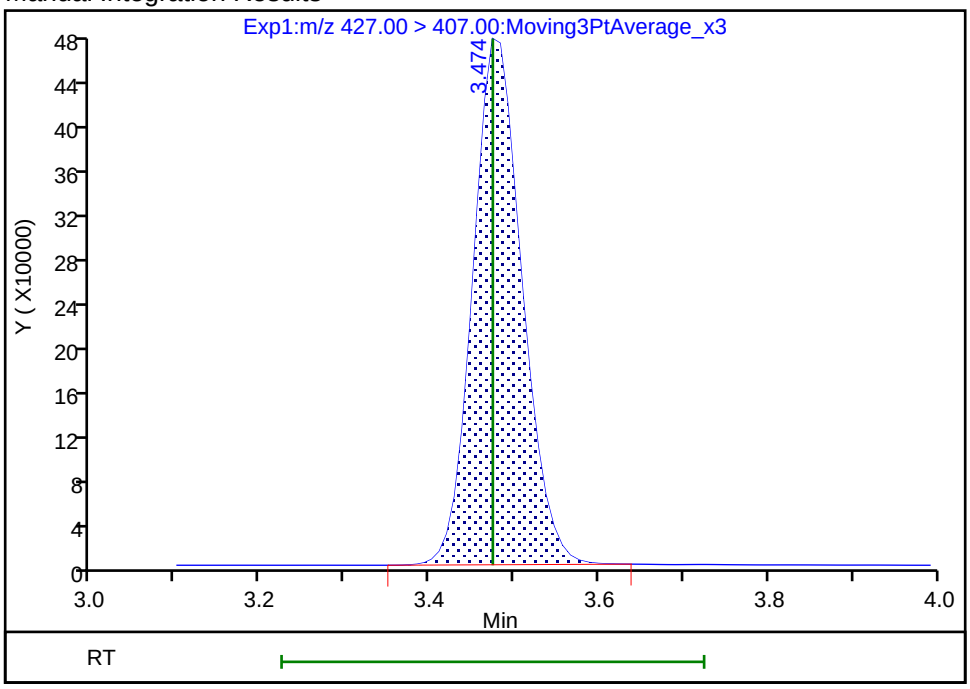
Processing Integration Results

RT: 3.47
Area: 1914658
Amount: 8.896805
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1906895
Amount: 8.866356
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

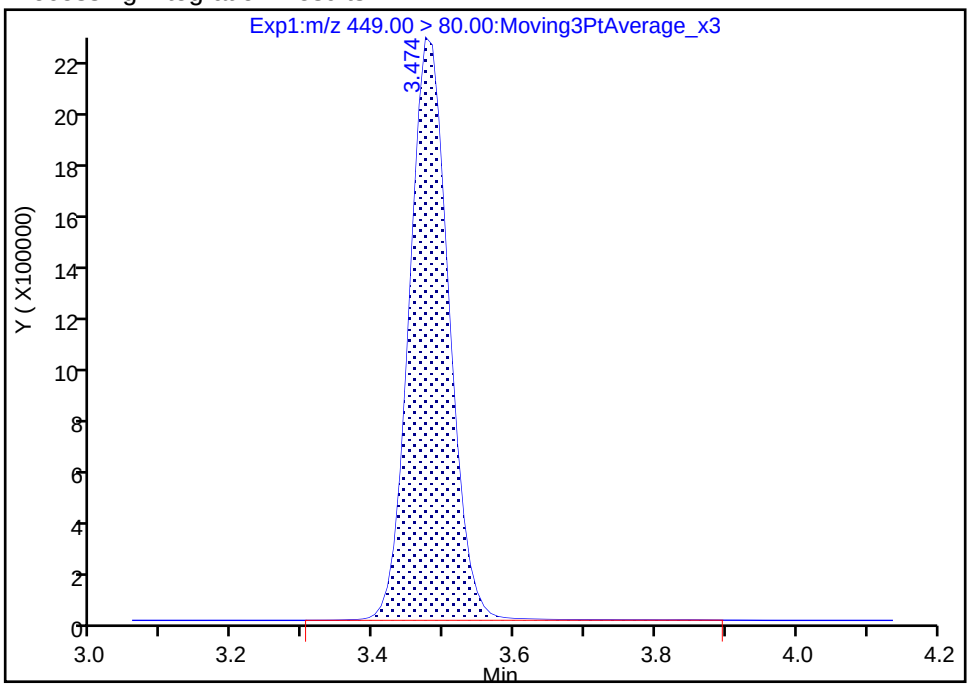
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

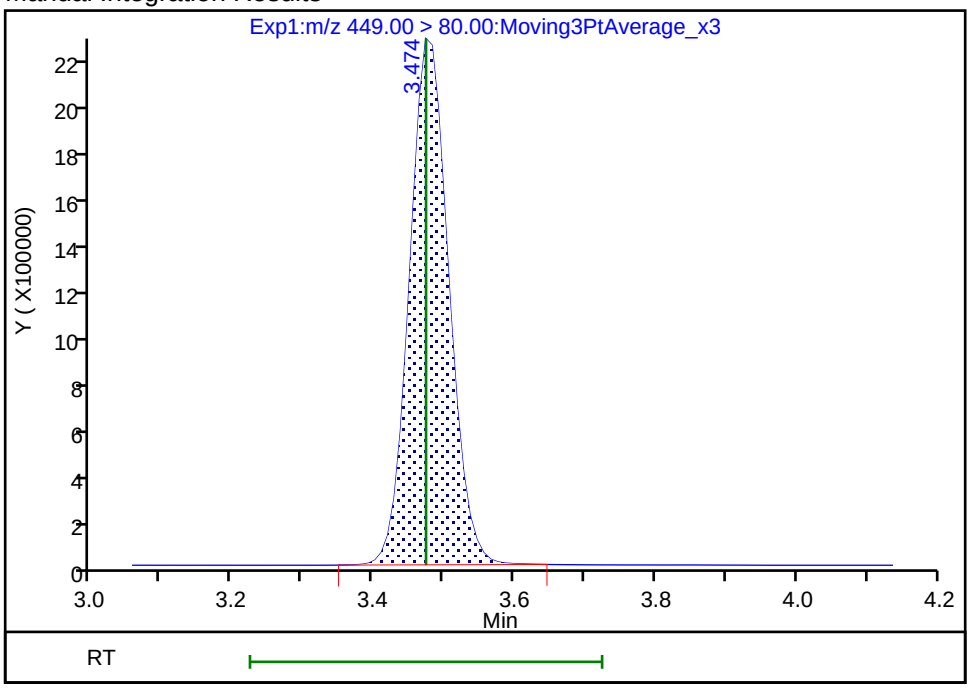
Processing Integration Results

RT: 3.47
Area: 8816764
Amount: 8.746908
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 8770862
Amount: 8.708312
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

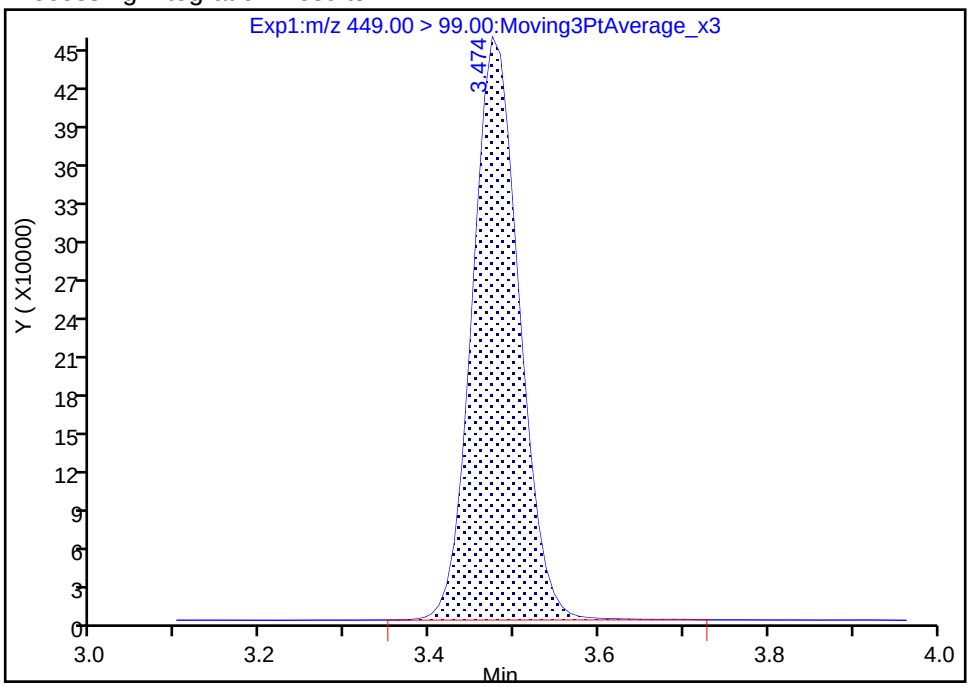
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

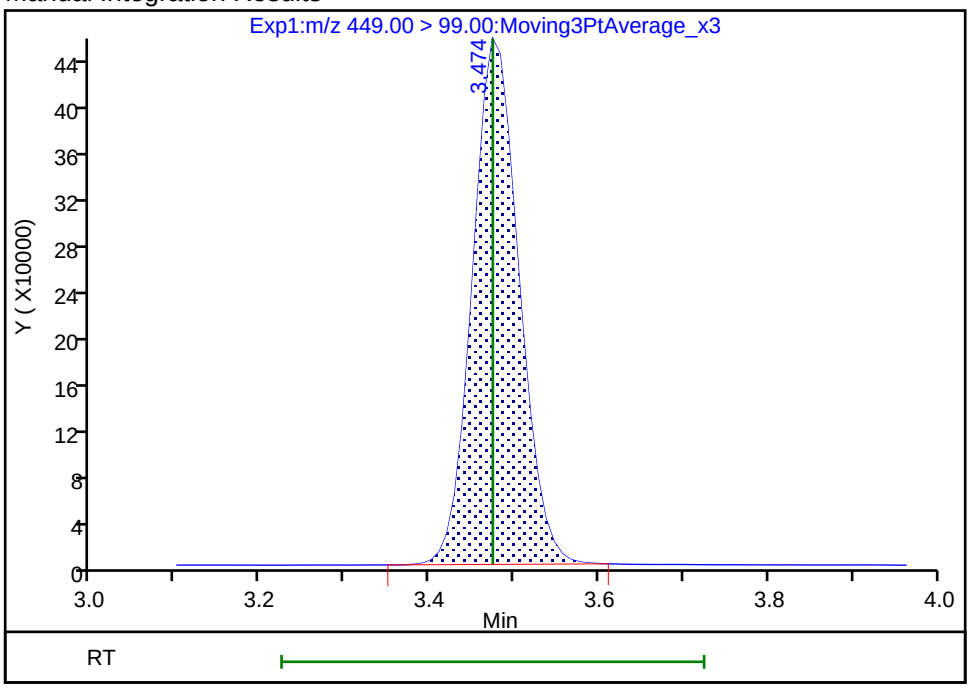
Processing Integration Results

RT: 3.47
Area: 1761320
Amount: 8.746908
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1751385
Amount: 8.708312
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:17:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

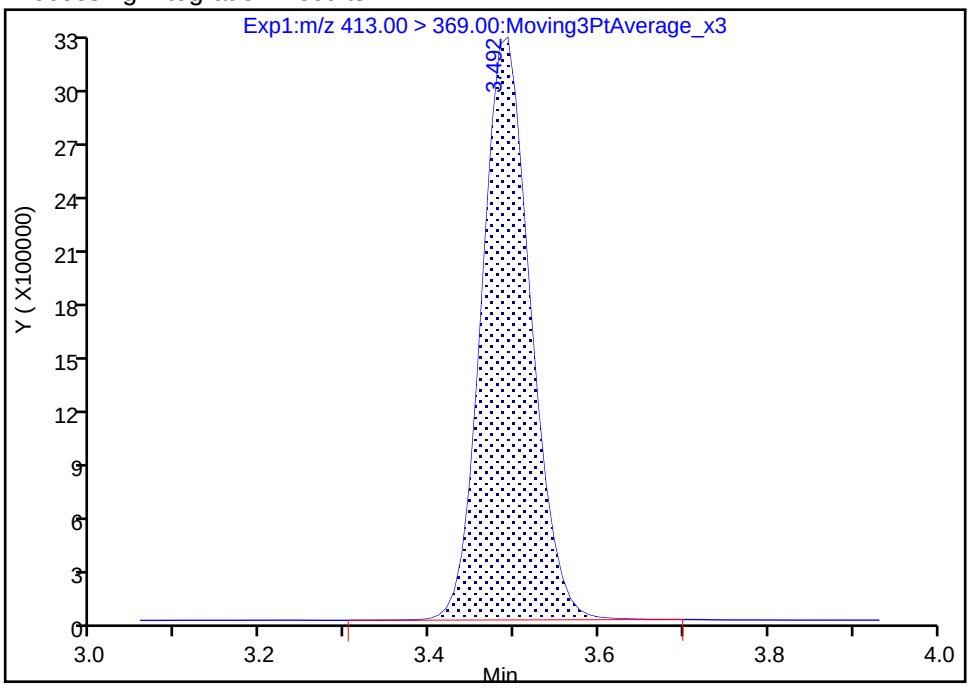
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

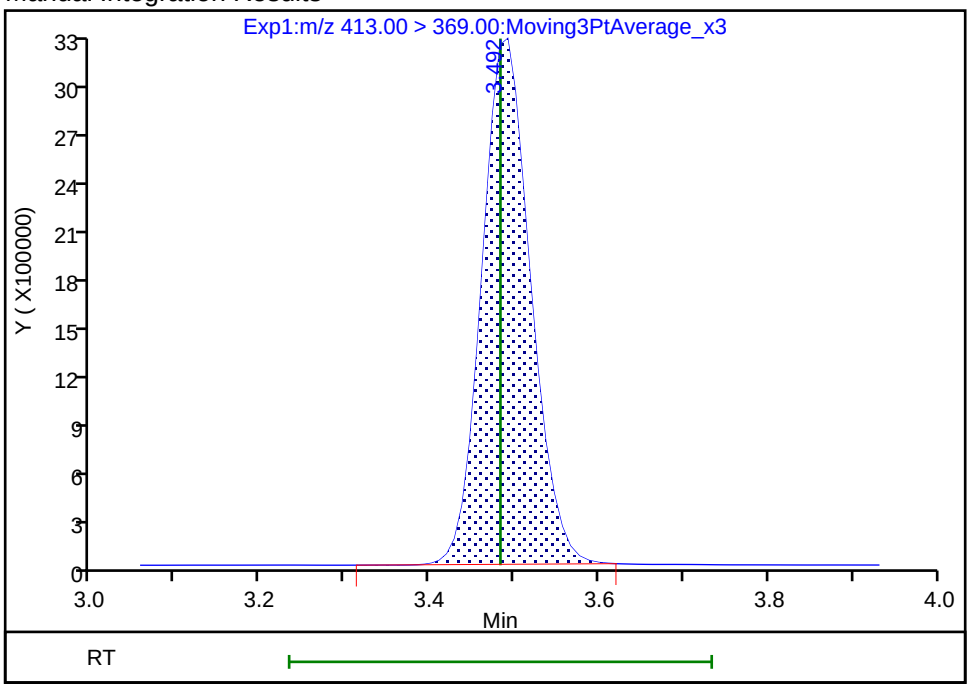
Processing Integration Results

RT: 3.49
Area: 12834137
Amount: 9.074927
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 12772682
Amount: 9.038018
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

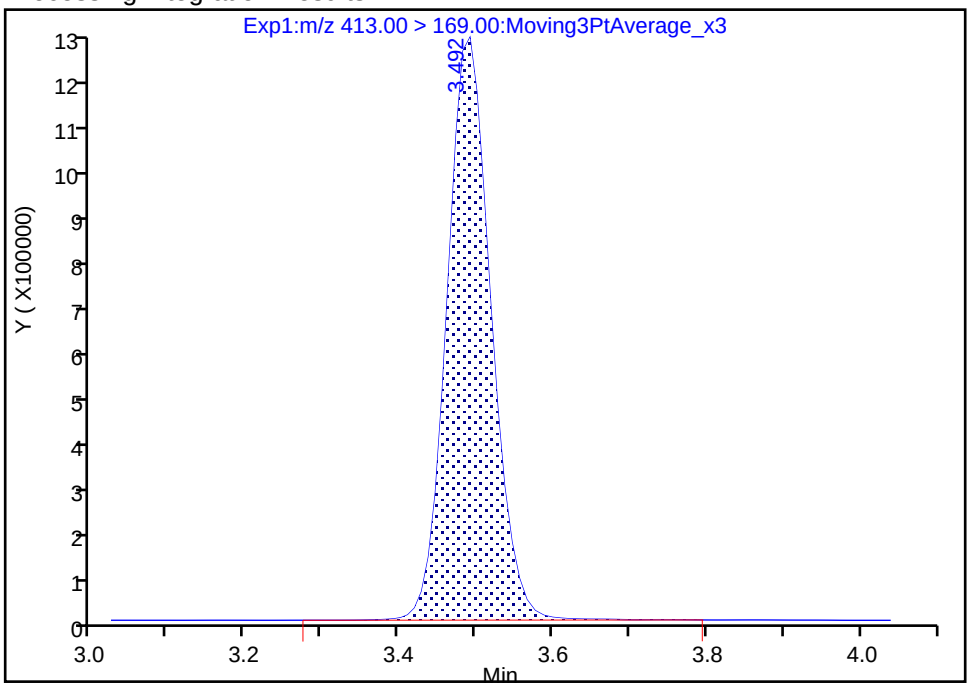
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

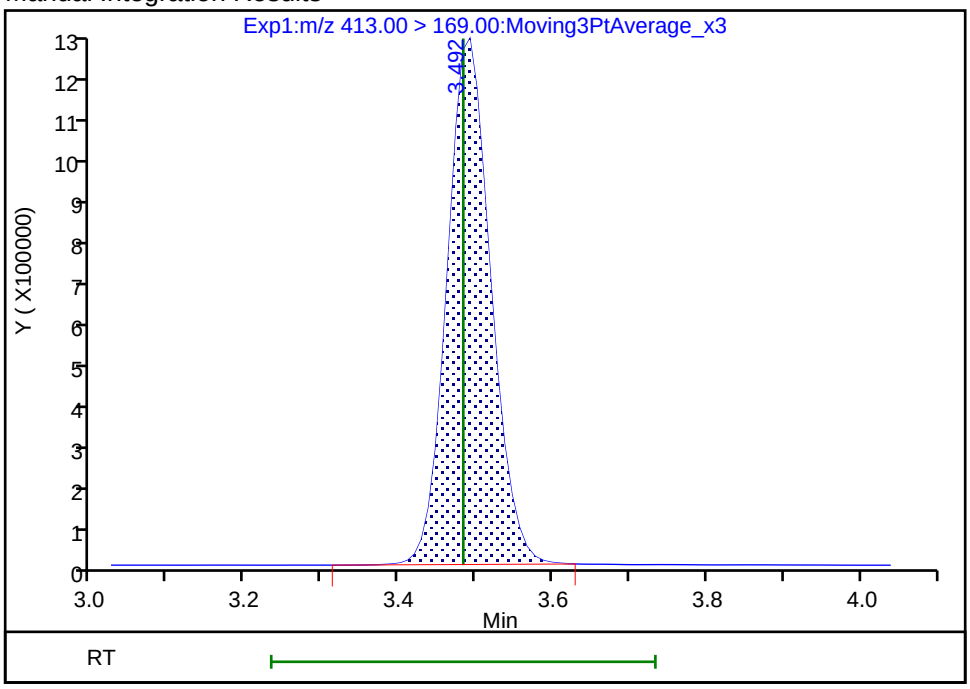
Processing Integration Results

RT: 3.49
Area: 4940570
Amount: 9.074927
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 4908934
Amount: 9.038018
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

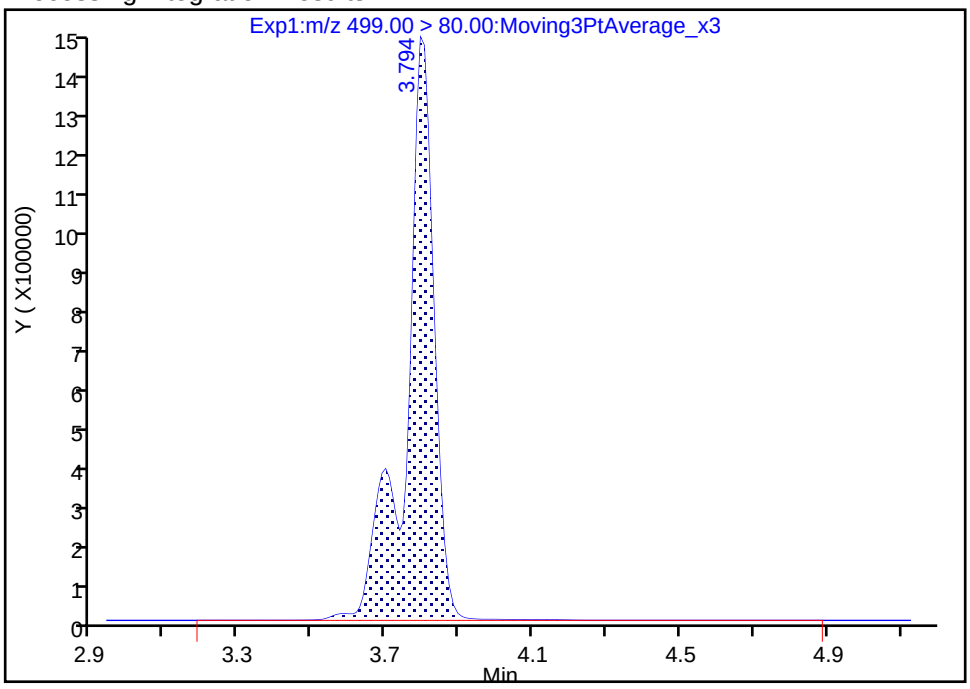
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

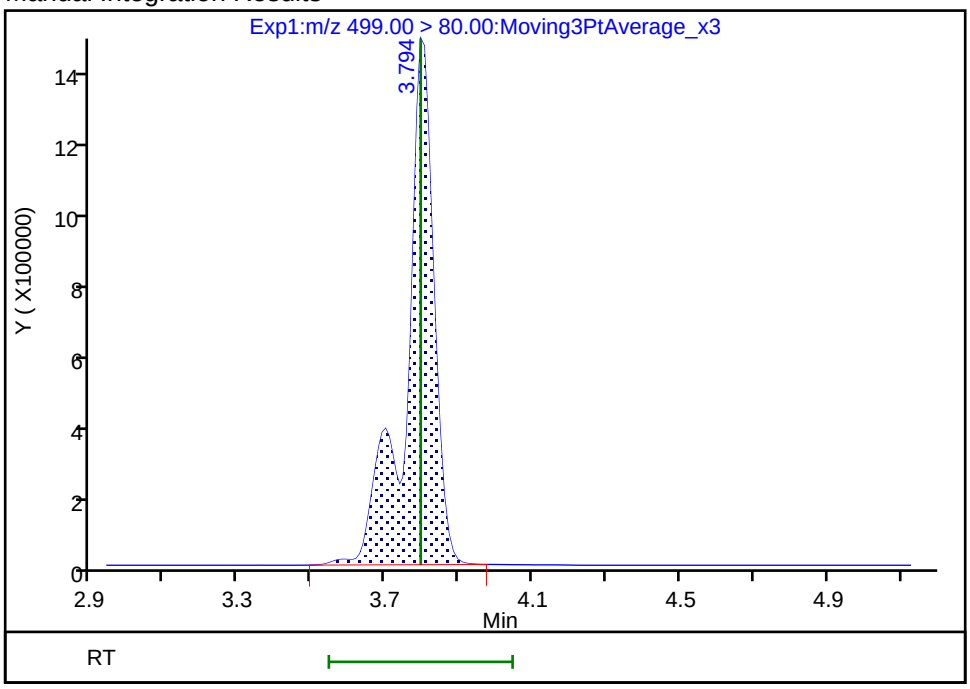
Processing Integration Results

RT: 3.79
Area: 7503566
Amount: 8.549754
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 7448626
Amount: 8.496706
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

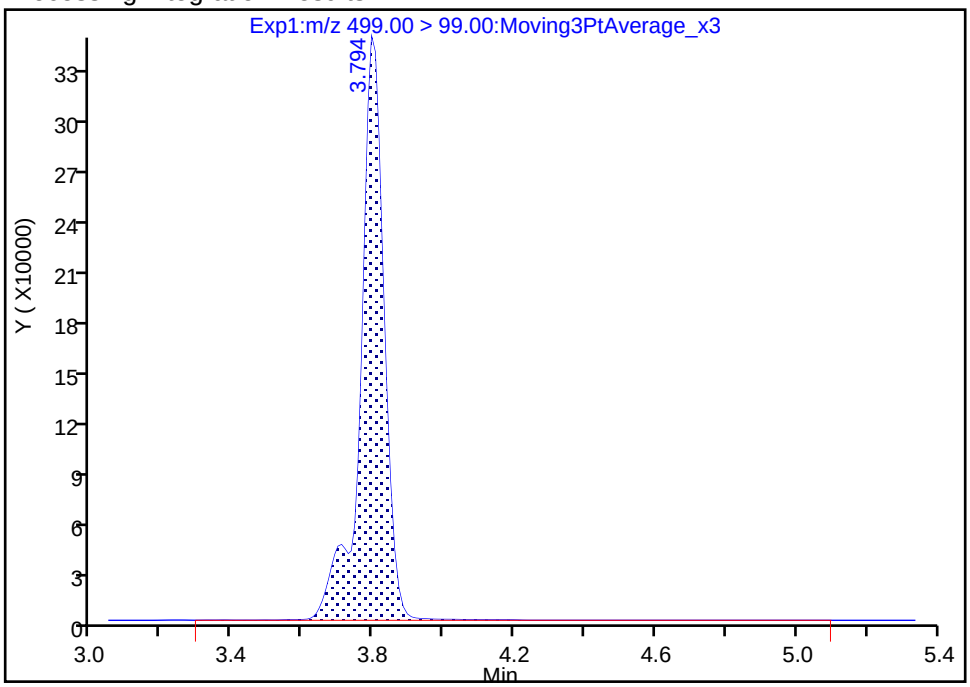
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

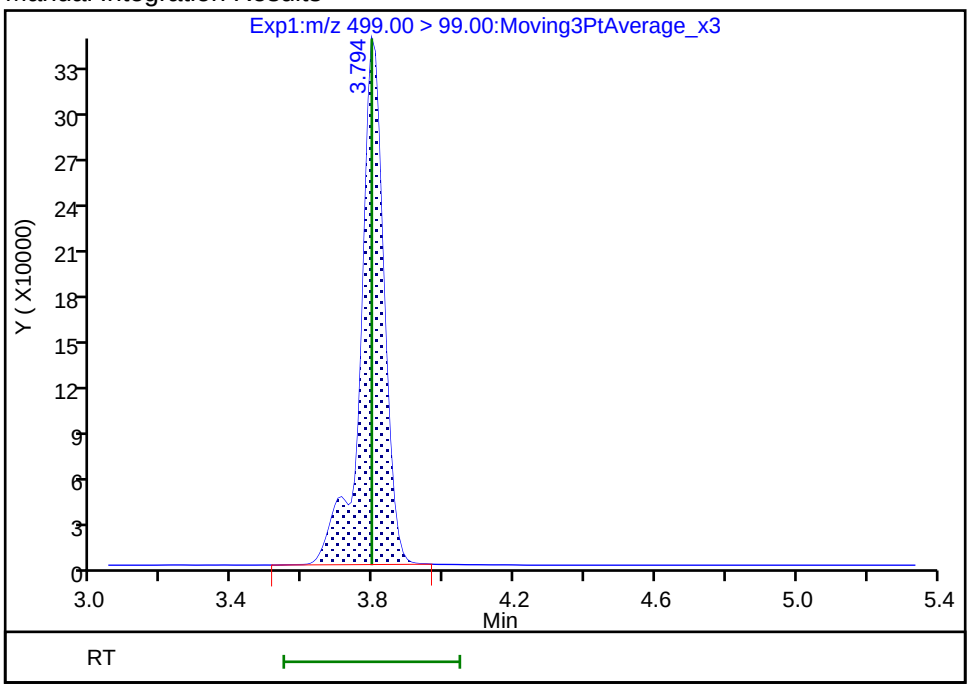
Processing Integration Results

RT: 3.79
Area: 1595792
Amount: 8.549754
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1580361
Amount: 8.496706
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

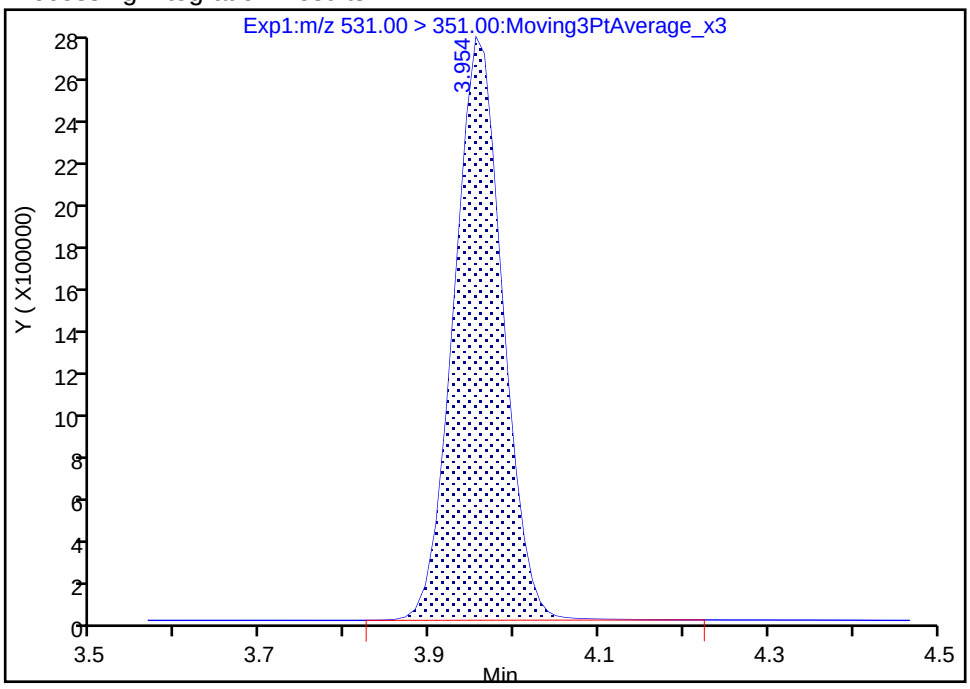
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

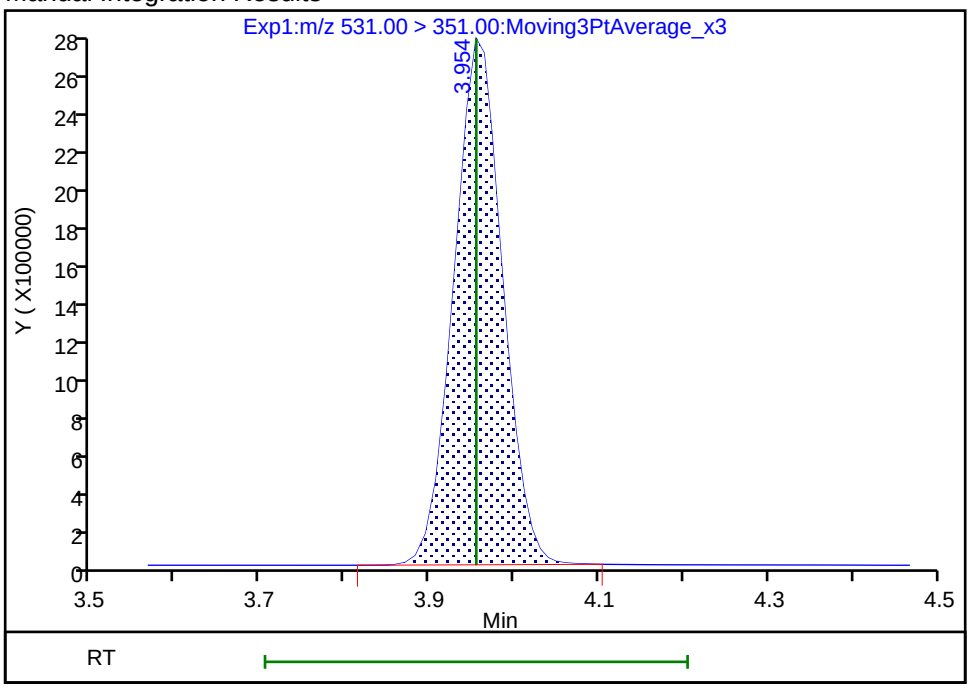
Processing Integration Results

RT: 3.95
Area: 11090425
Amount: 8.392983
Amount Units: ng/ml




Manual Integration Results

RT: 3.95
Area: 11051728
Amount: 8.368080
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

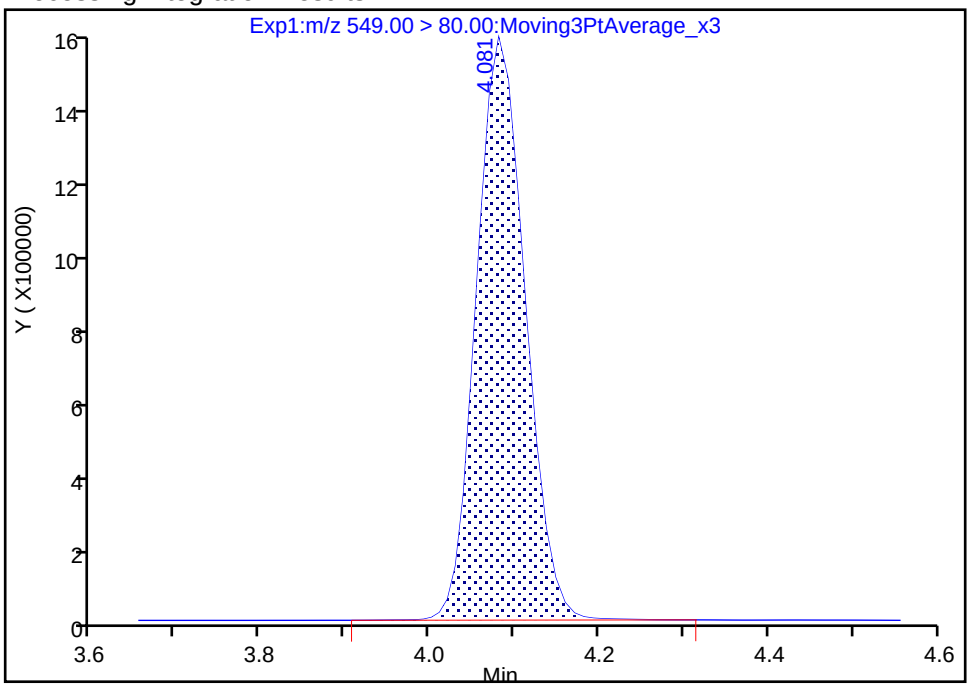
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

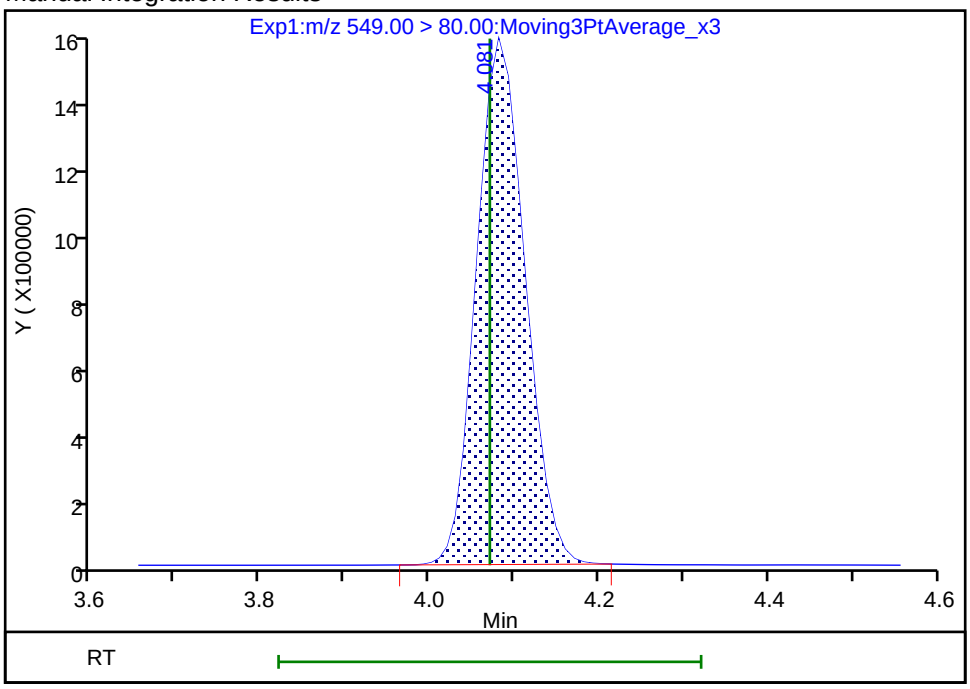
Processing Integration Results

RT: 4.08
Area: 6150066
Amount: 8.999865
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 6122325
Amount: 8.965588
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

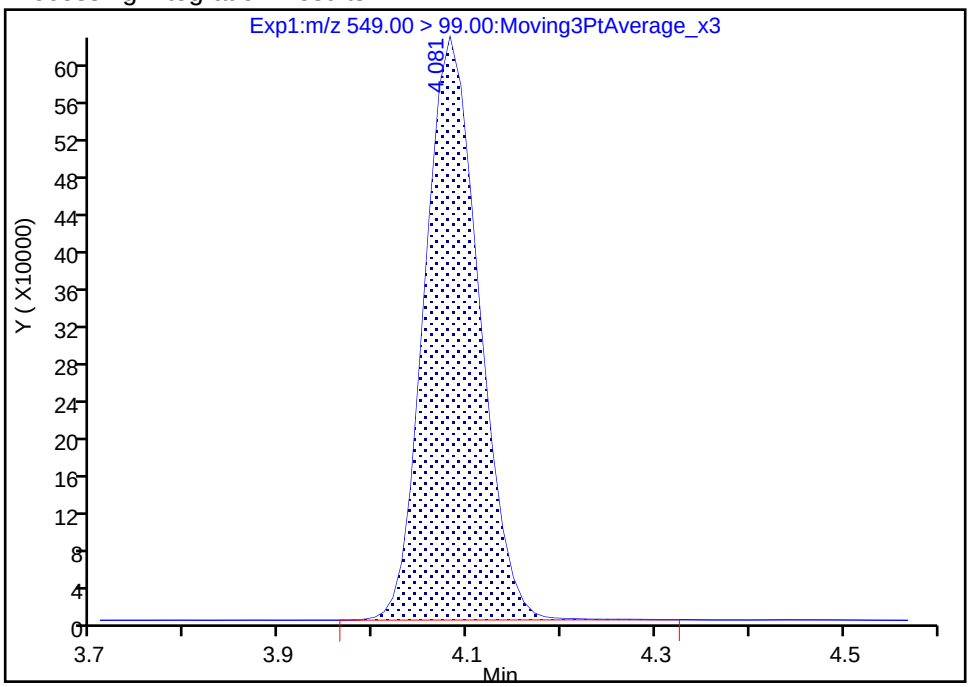
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

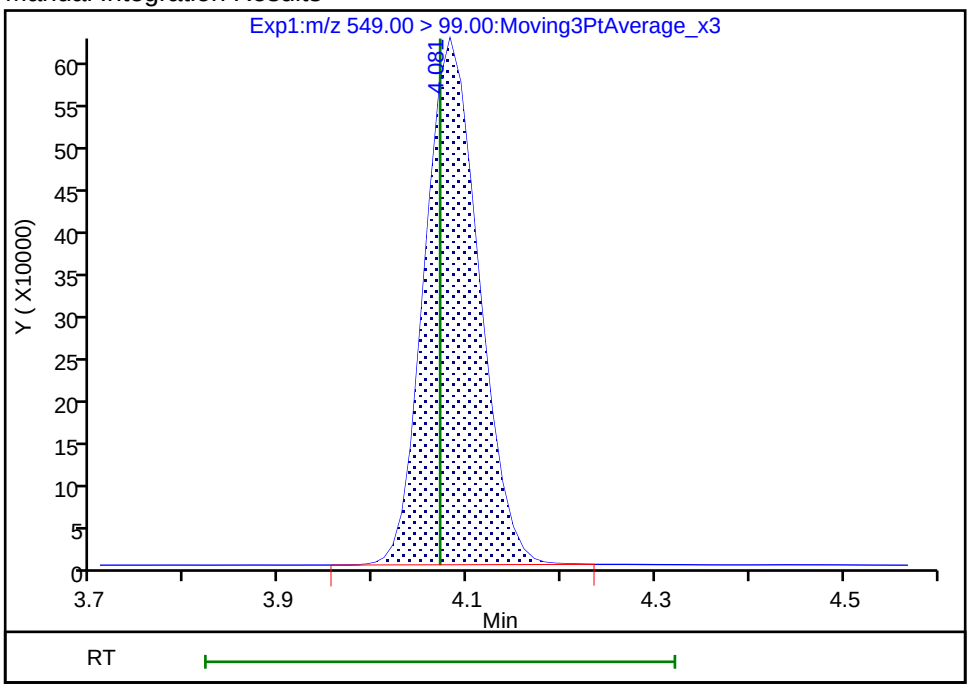
Processing Integration Results

RT: 4.08
Area: 2519947
Amount: 8.999865
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 2514266
Amount: 8.965588
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:18:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

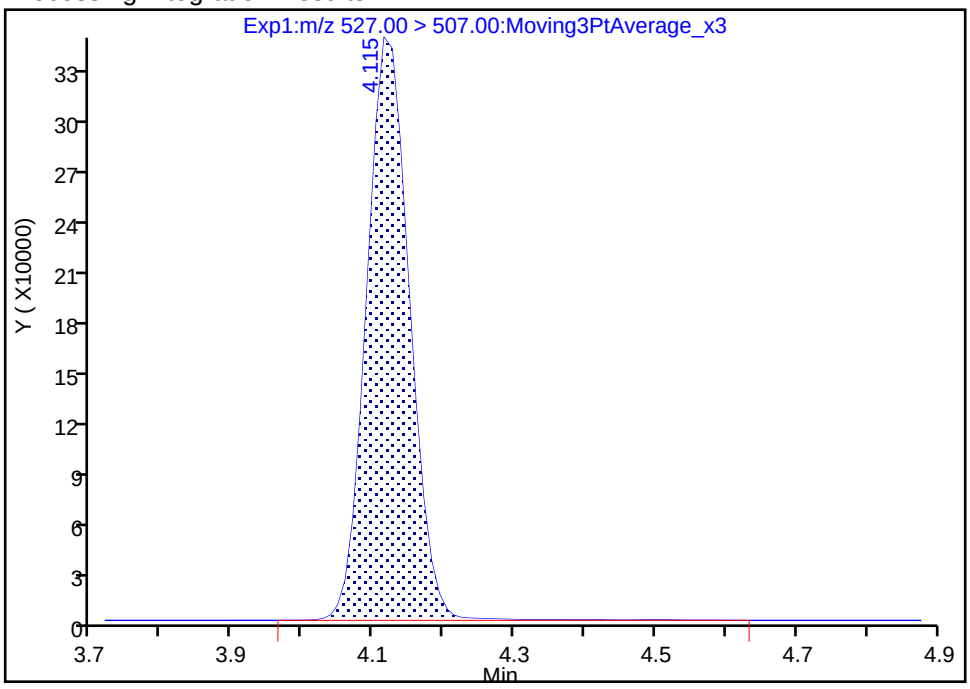
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

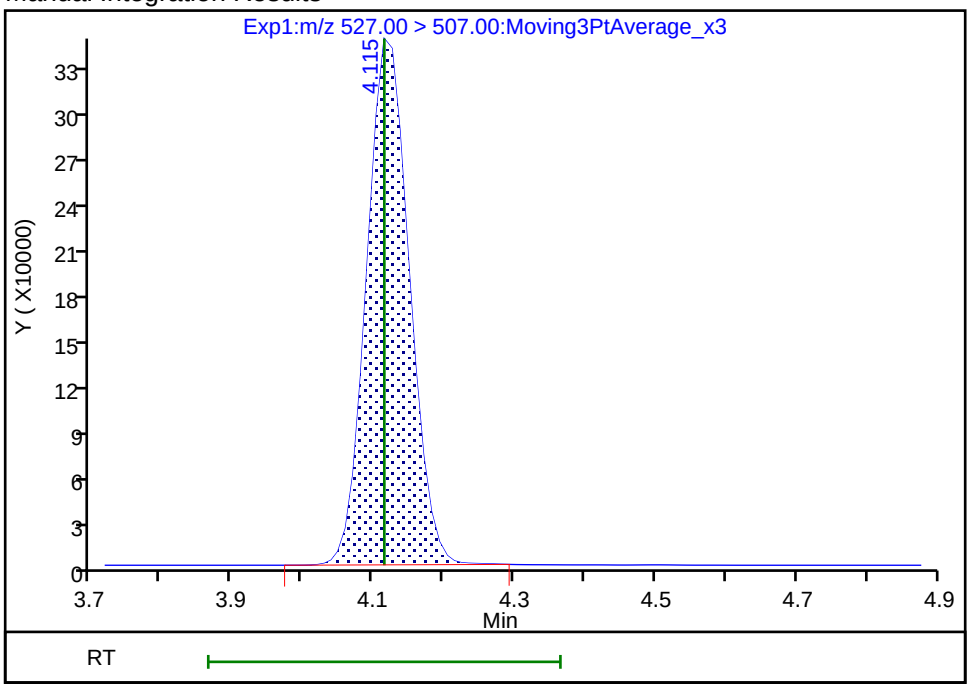
Processing Integration Results

RT: 4.11
Area: 1452659
Amount: 8.956969
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 1443544
Amount: 8.909478
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

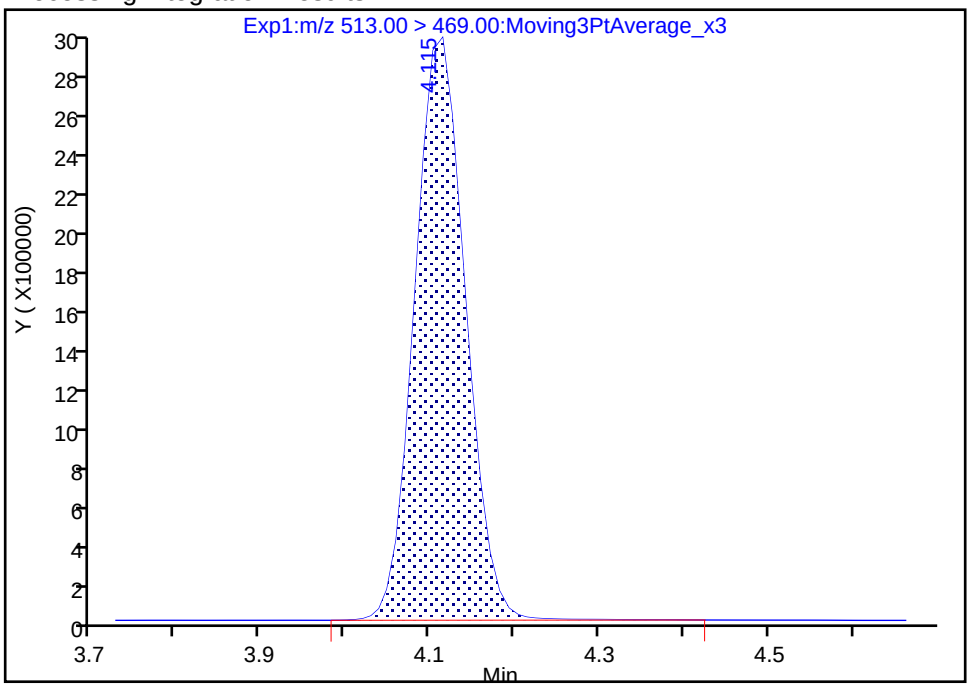
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

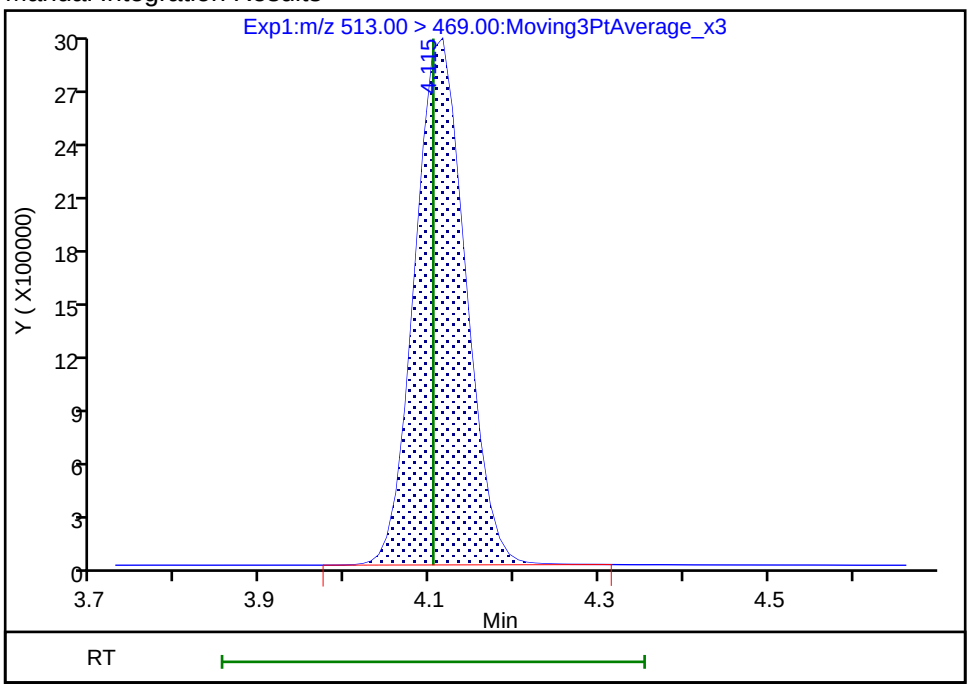
Processing Integration Results

RT: 4.11
Area: 12386303
Amount: 9.052635
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 12354501
Amount: 9.032892
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

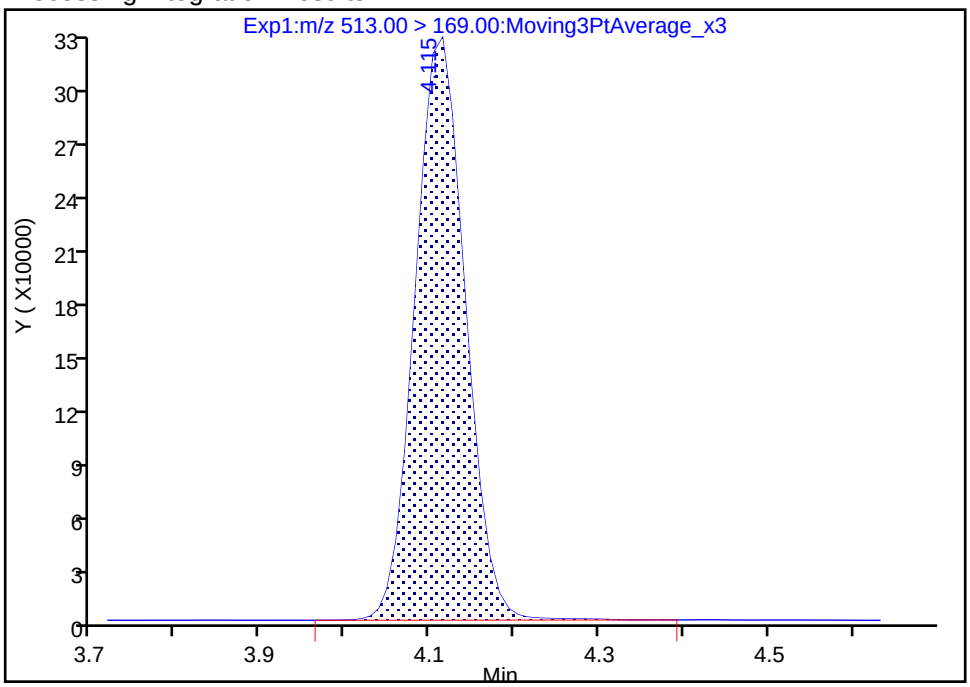
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

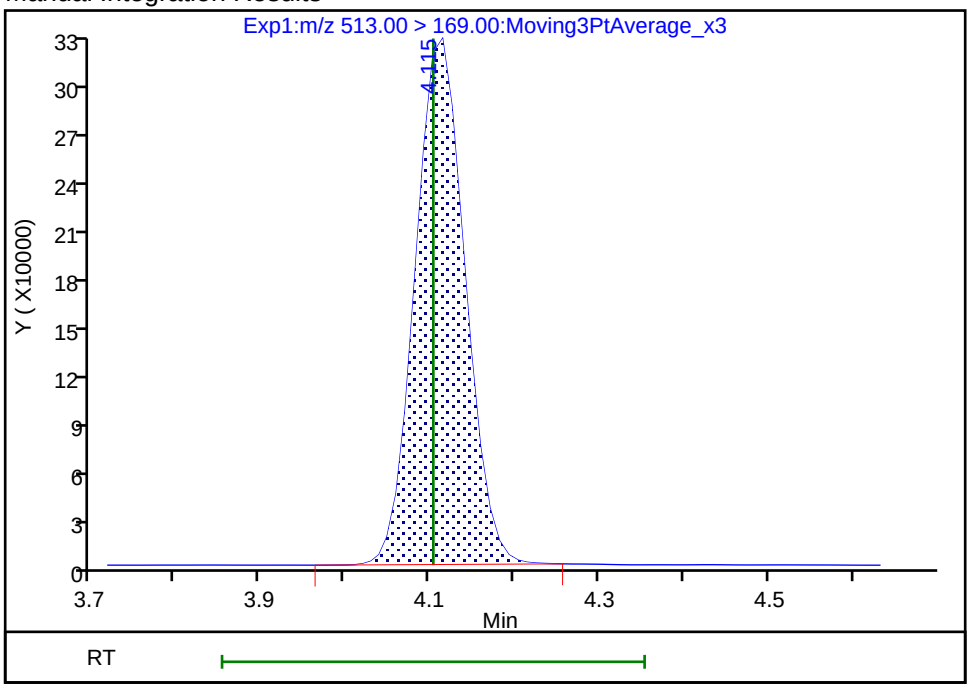
Processing Integration Results

RT: 4.11
Area: 1323609
Amount: 9.052635
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 1315764
Amount: 9.032892
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

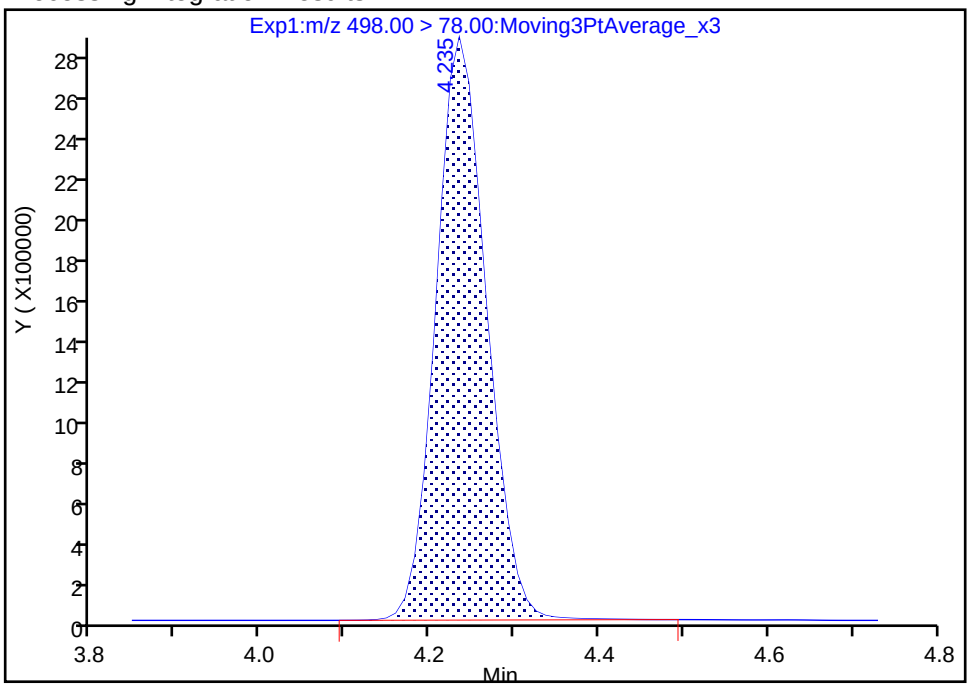
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

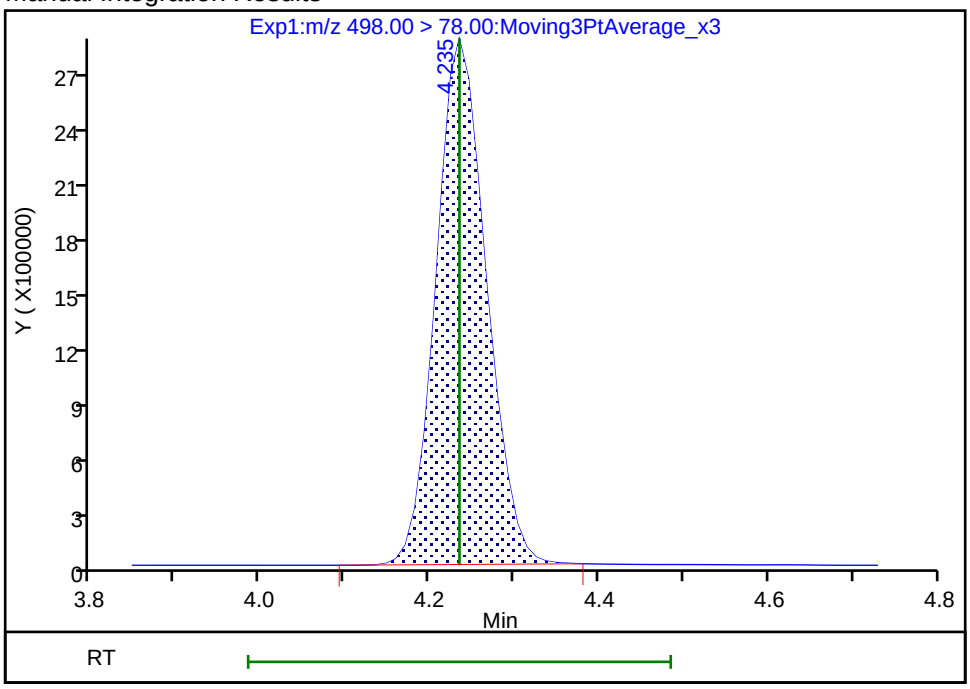
Processing Integration Results

RT: 4.23
Area: 11847382
Amount: 9.370032
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 11787729
Amount: 9.330189
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

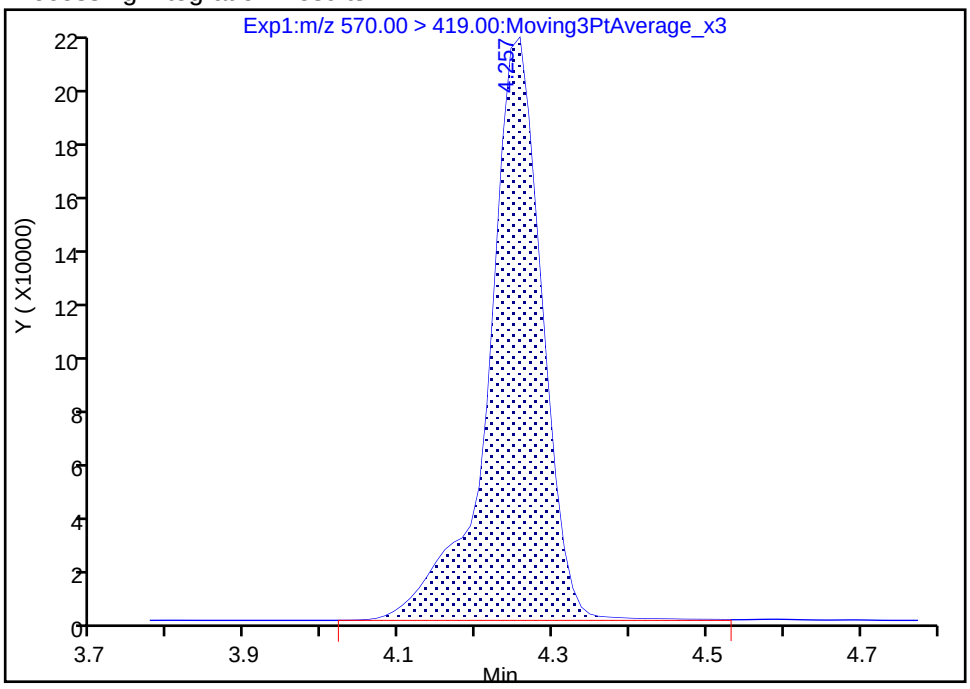
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

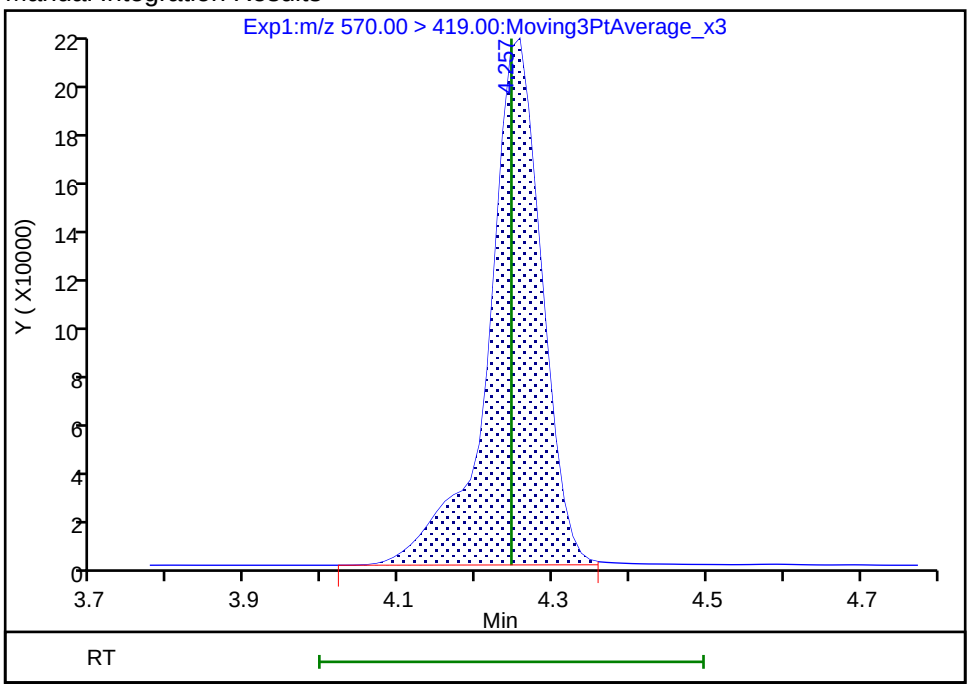
Processing Integration Results

RT: 4.26
Area: 1049769
Amount: 9.643319
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 1042012
Amount: 9.583444
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

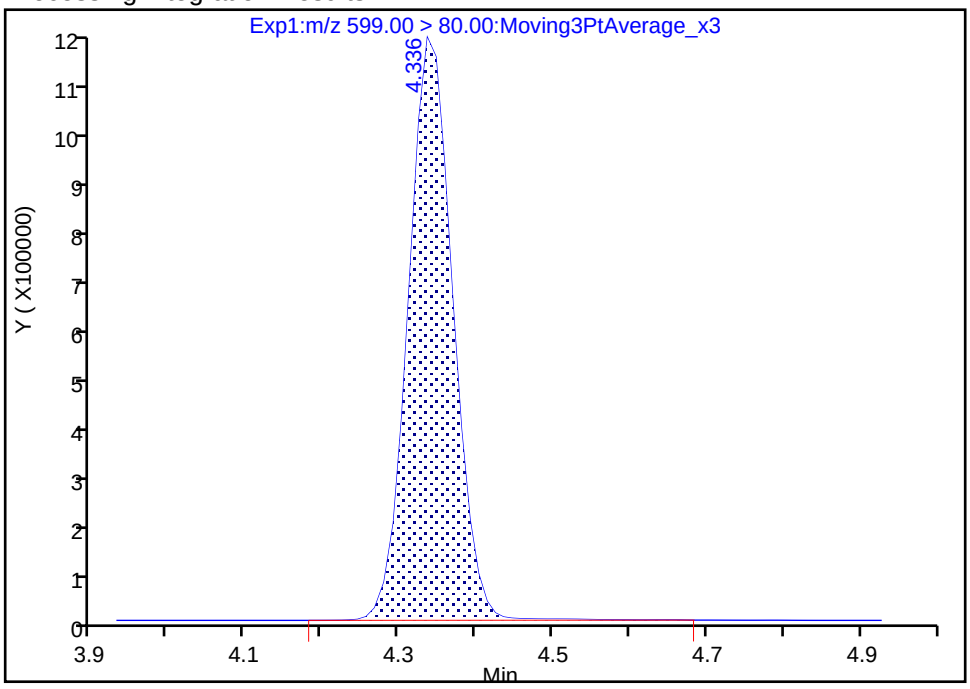
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

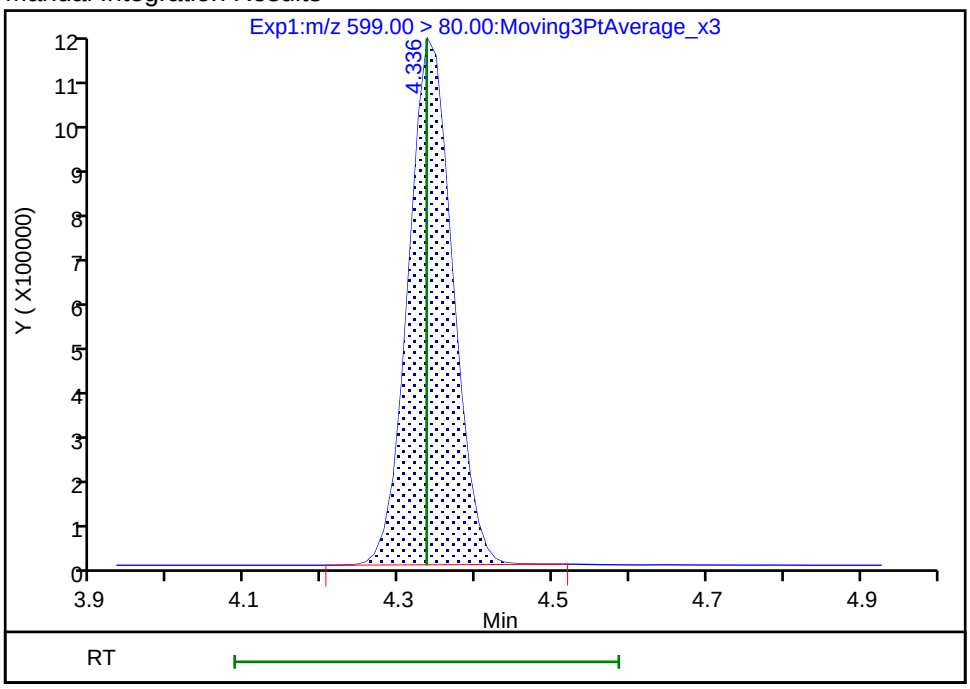
Processing Integration Results

RT: 4.34
Area: 4680172
Amount: 8.807464
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 4654579
Amount: 8.766601
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

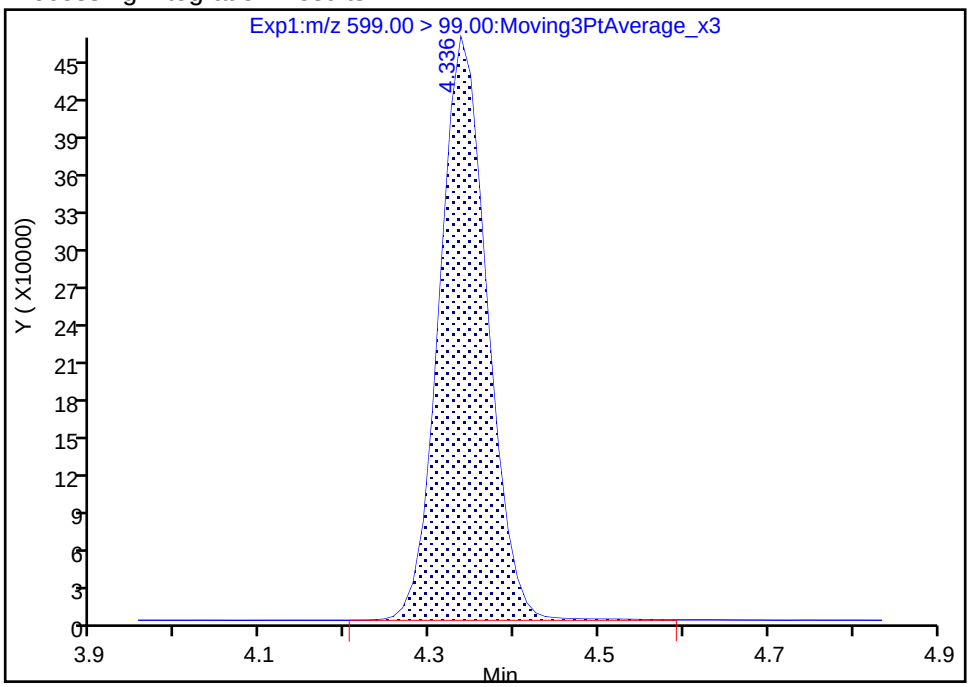
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

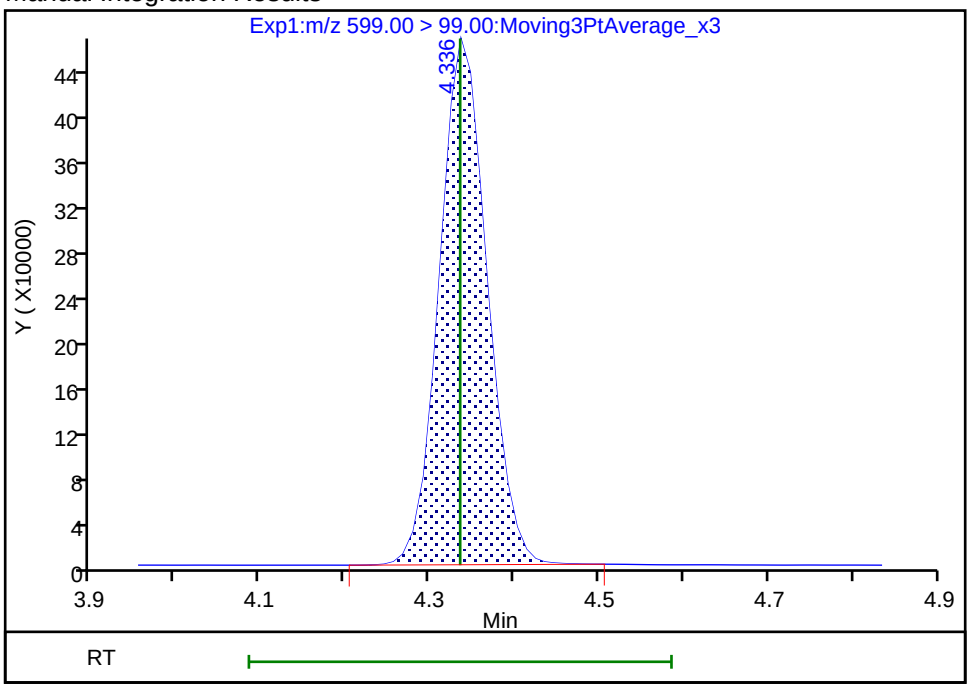
Processing Integration Results

RT: 4.34
Area: 1824493
Amount: 8.807464
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 1813571
Amount: 8.766601
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:19:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

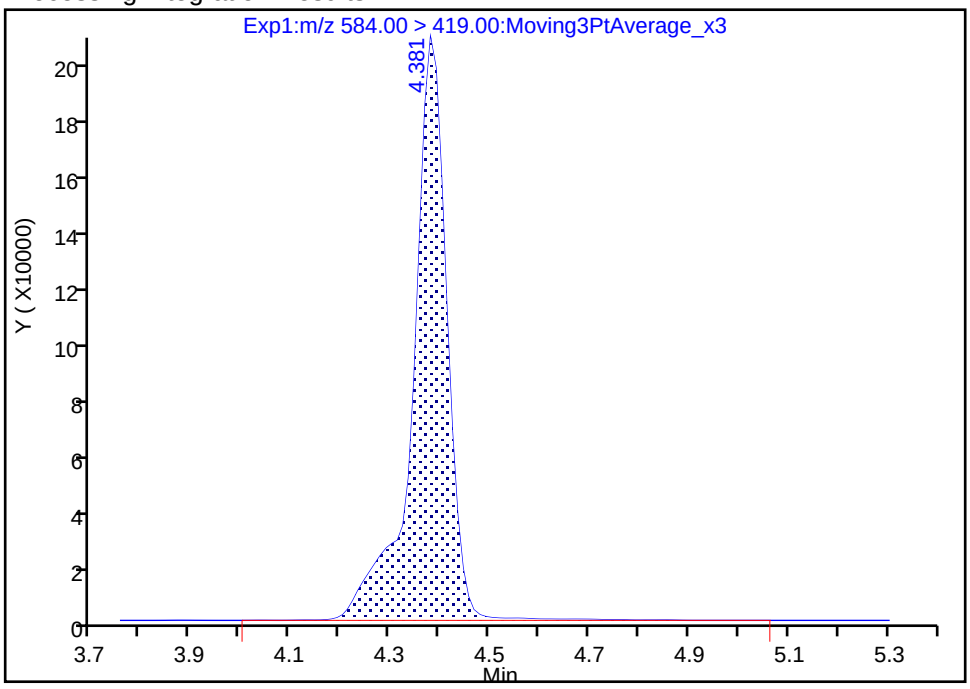
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

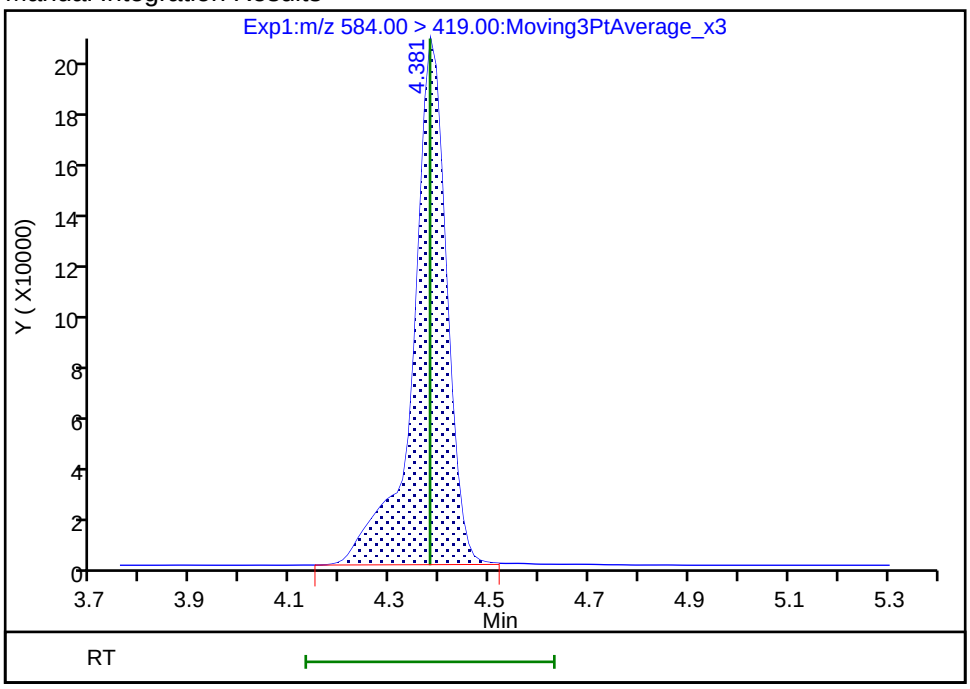
Processing Integration Results

RT: 4.38
Area: 965193
Amount: 8.950756
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 953648
Amount: 8.859502
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

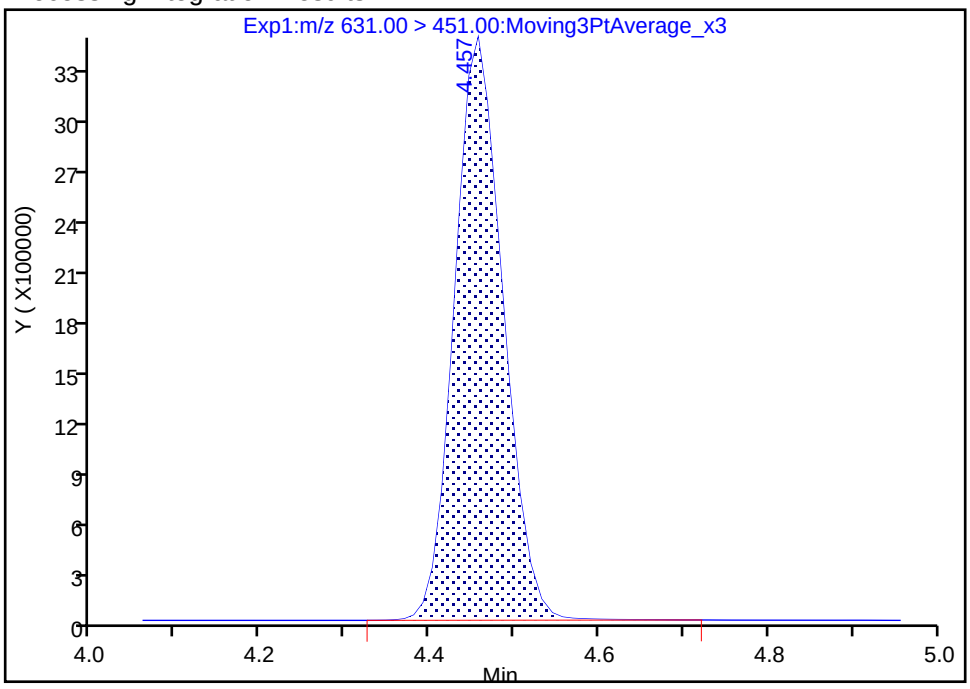
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

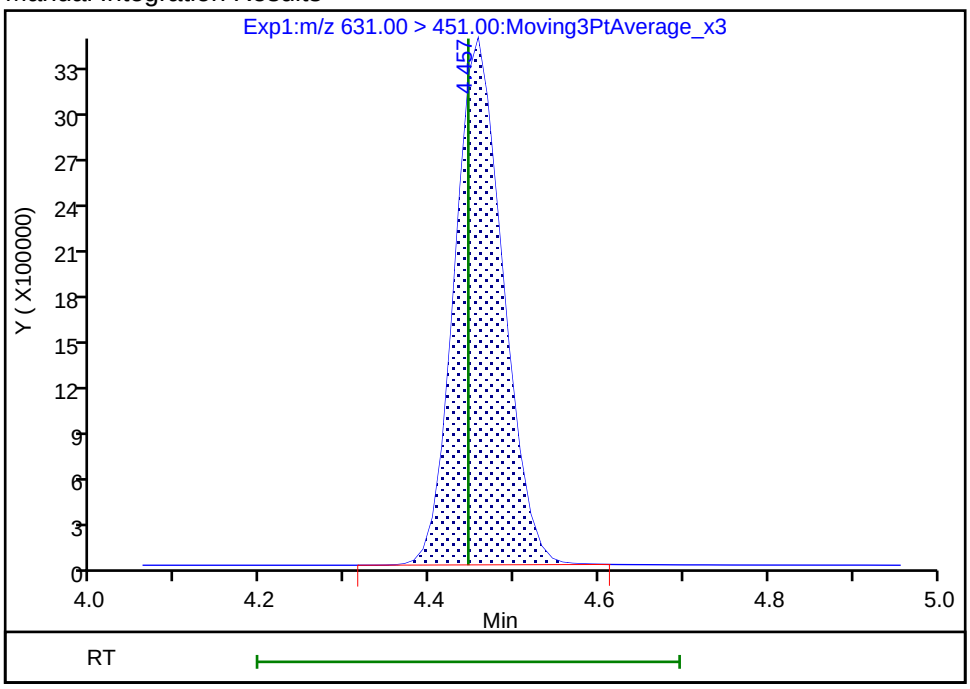
Processing Integration Results

RT: 4.46
Area: 13712008
Amount: 8.787193
Amount Units: ng/ml




Manual Integration Results

RT: 4.46
Area: 13670685
Amount: 8.764818
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

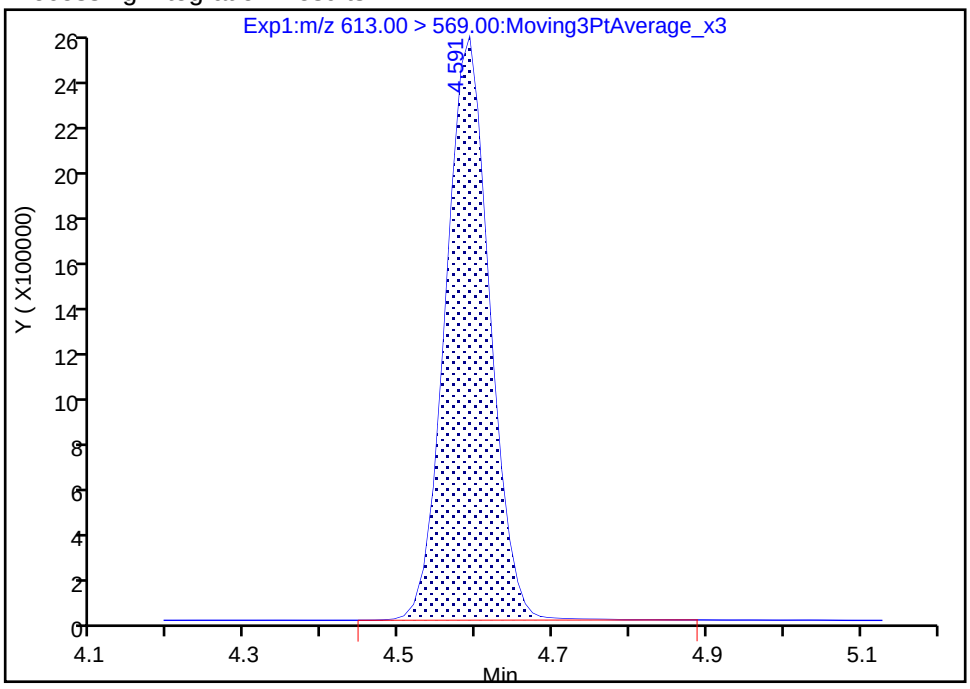
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

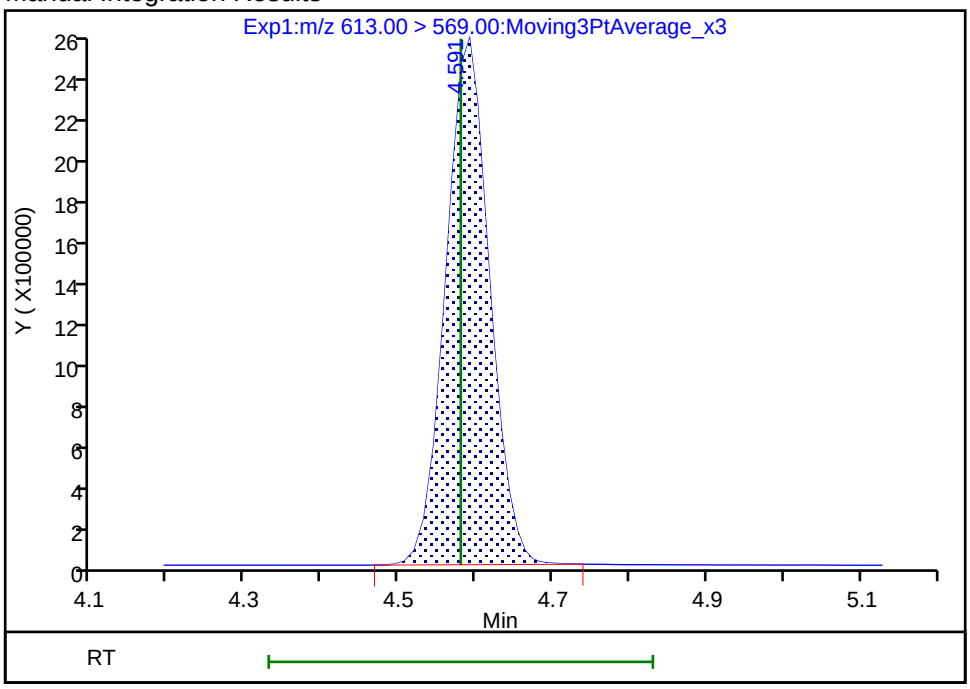
Processing Integration Results

RT: 4.59
Area: 10214644
Amount: 9.051269
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 10172160
Amount: 9.019282
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

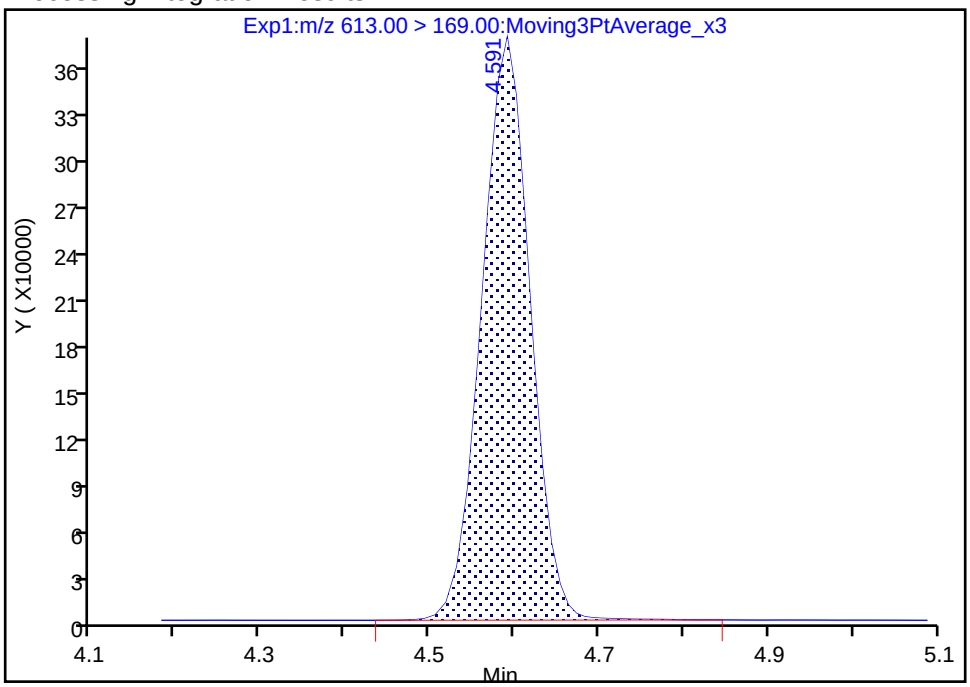
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

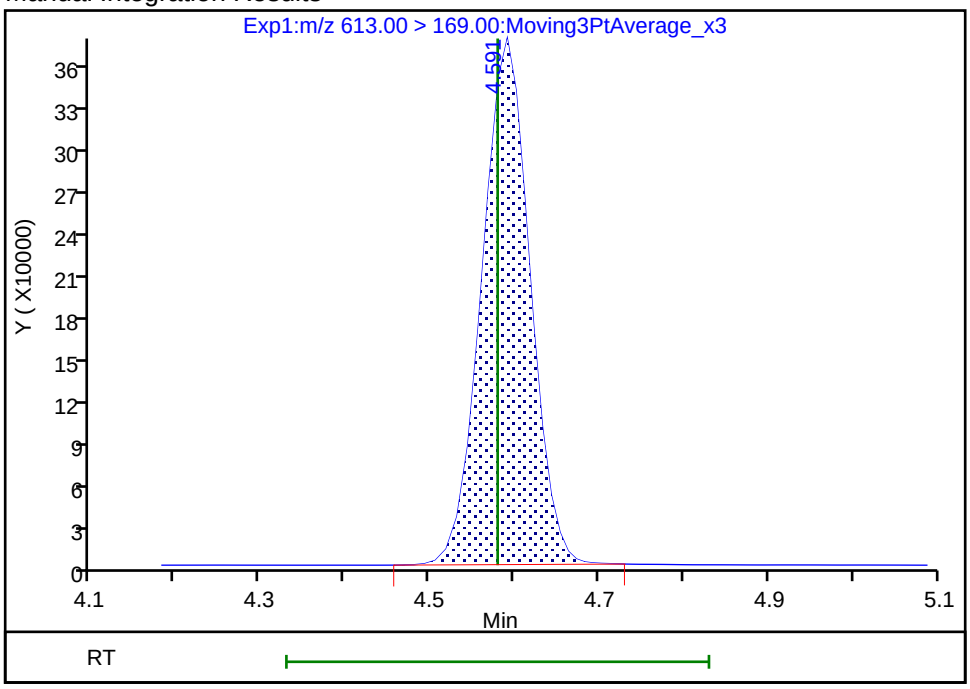
Processing Integration Results

RT: 4.59
Area: 1488002
Amount: 9.051269
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 1481045
Amount: 9.019282
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

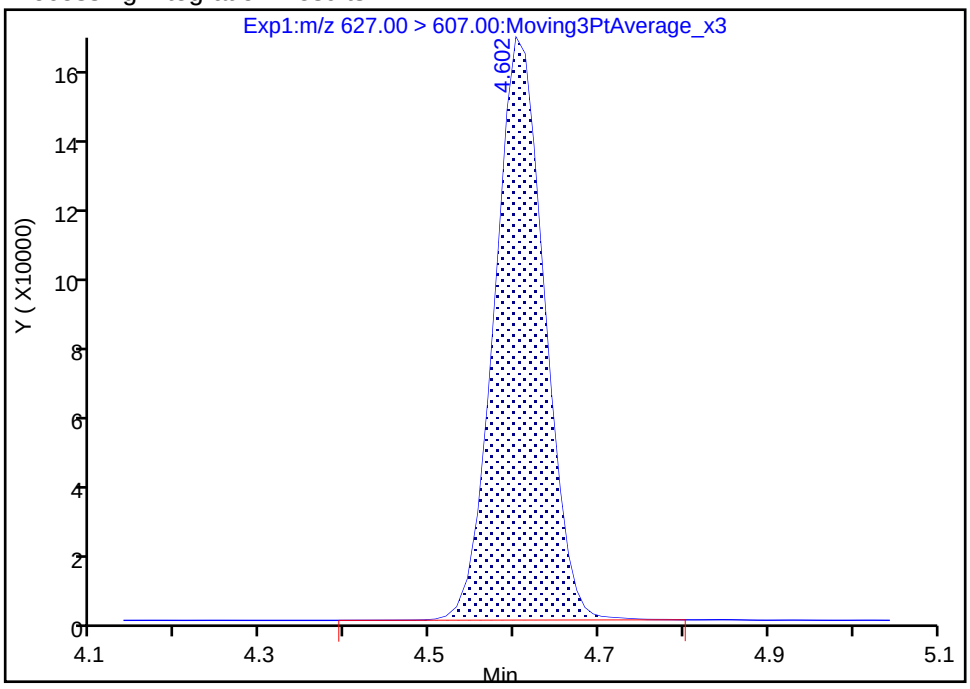
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

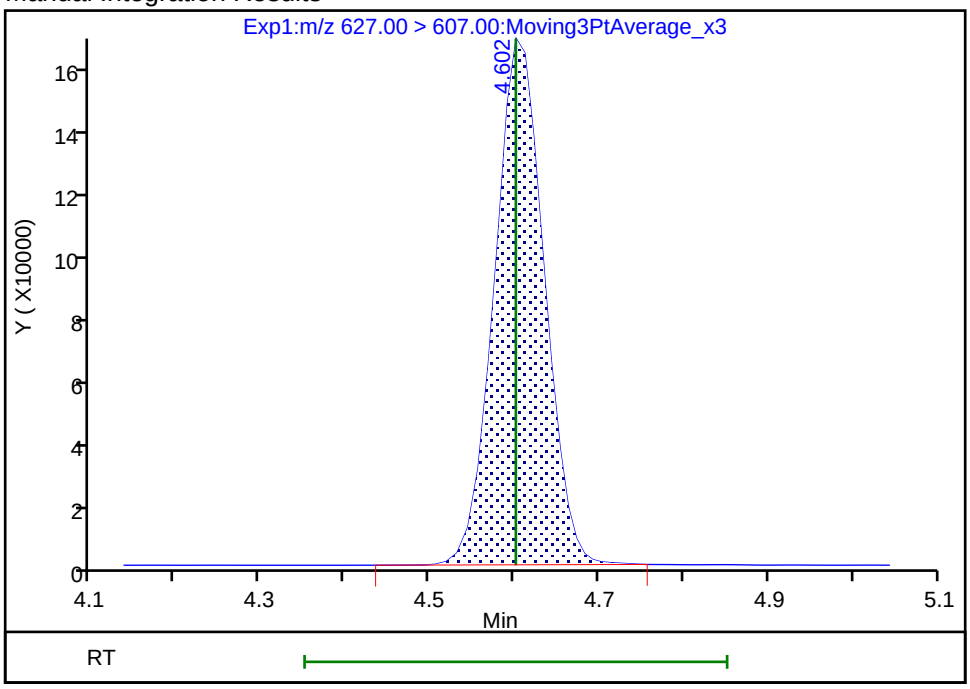
Processing Integration Results

RT: 4.60
Area: 689786
Amount: 9.212070
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 688615
Amount: 9.198918
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

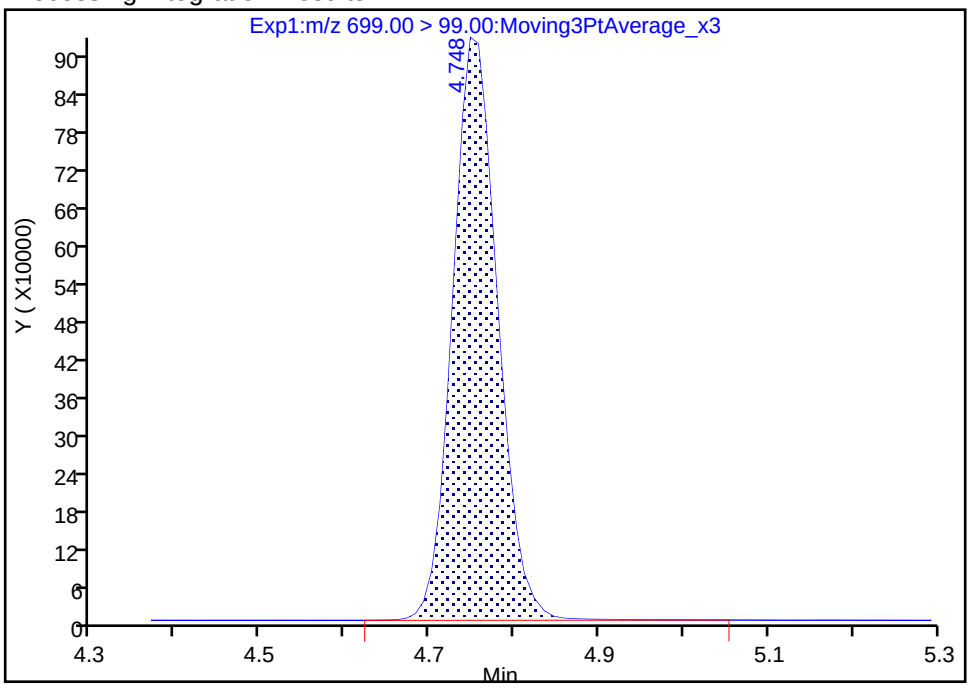
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 2

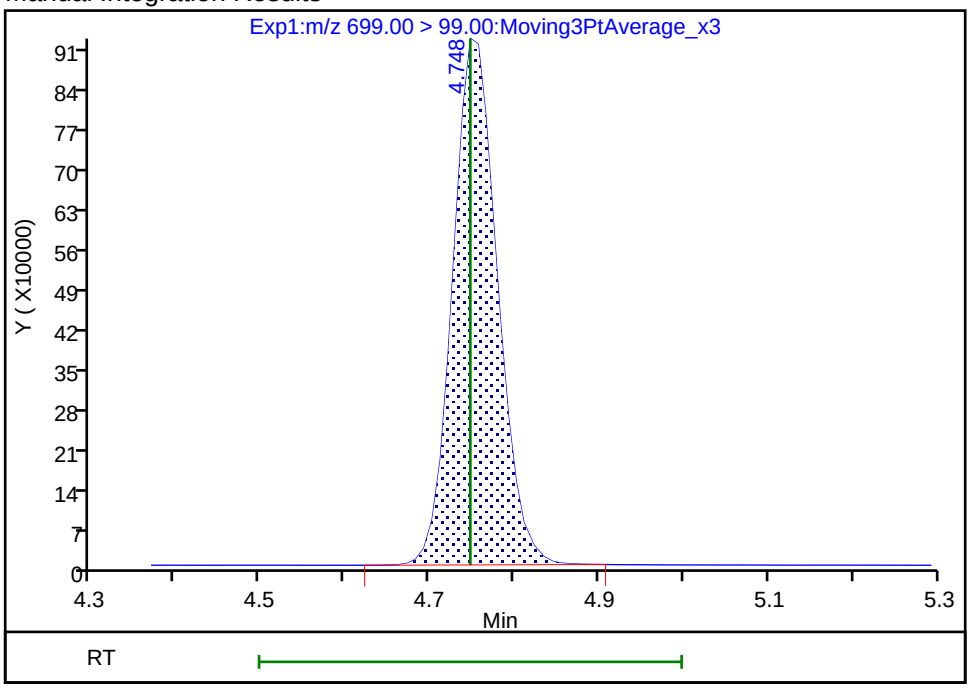
Processing Integration Results

RT: 4.75
Area: 3418943
Amount: 8.771491
Amount Units: ng/ml




Manual Integration Results

RT: 4.75
Area: 3407477
Amount: 8.771491
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

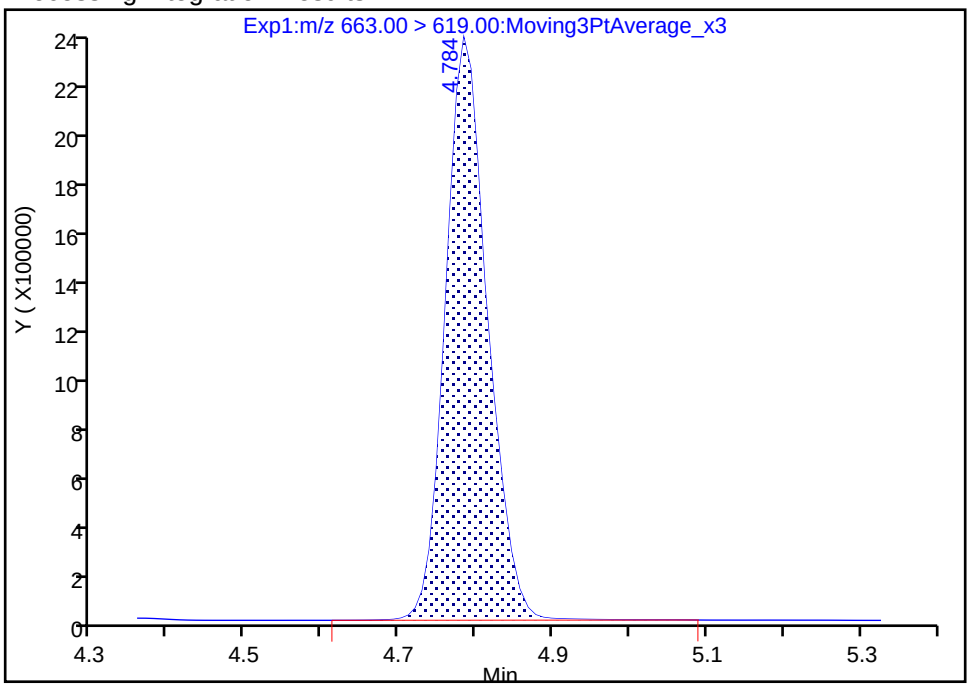
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

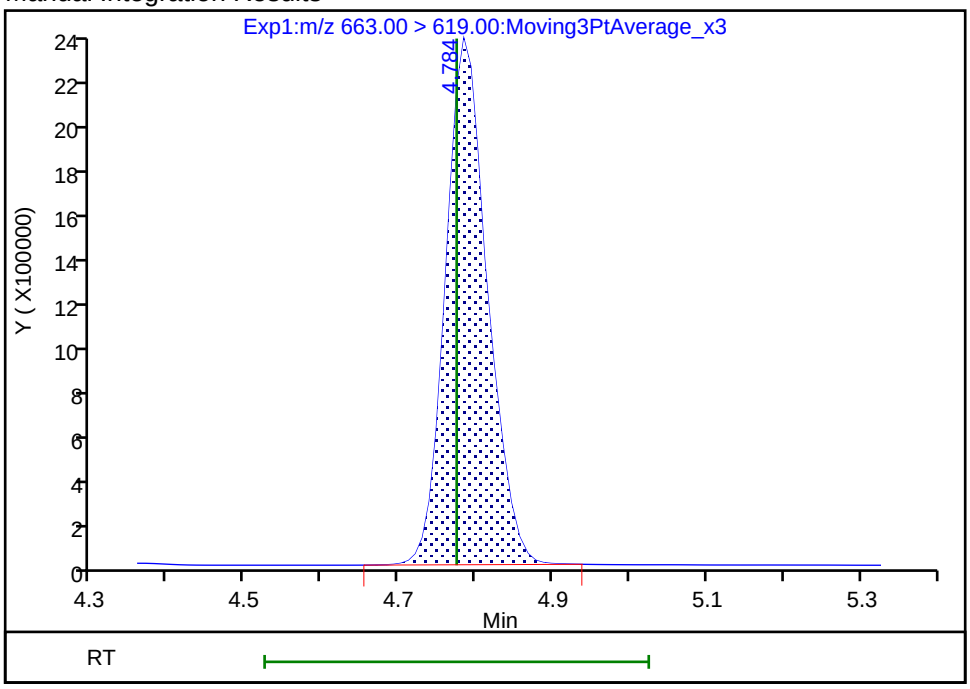
Processing Integration Results

RT: 4.78
Area: 8785712
Amount: 9.029324
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 8746311
Amount: 8.994901
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

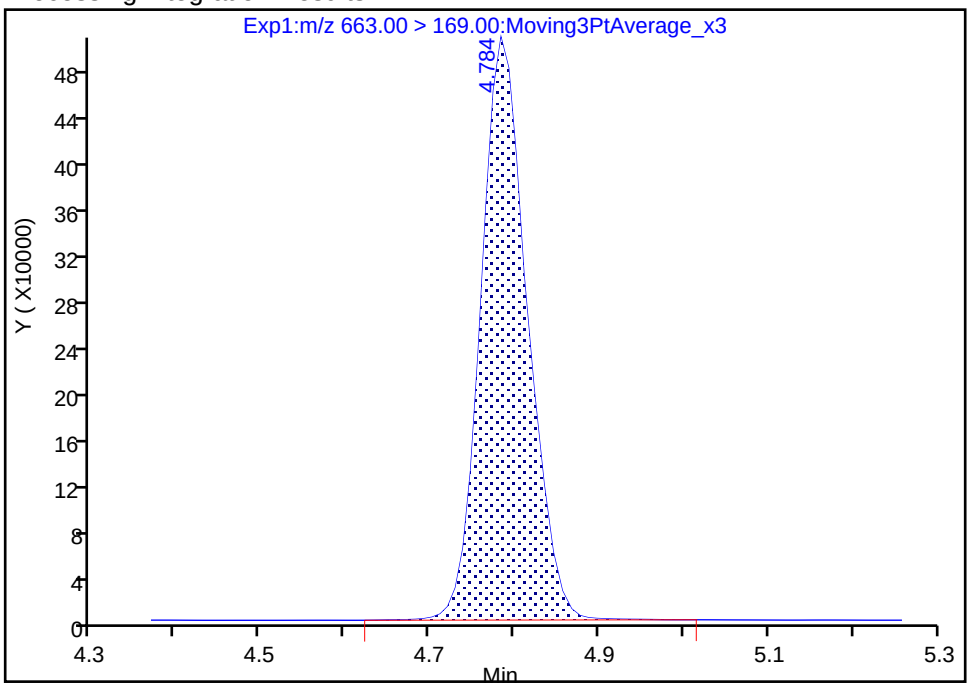
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

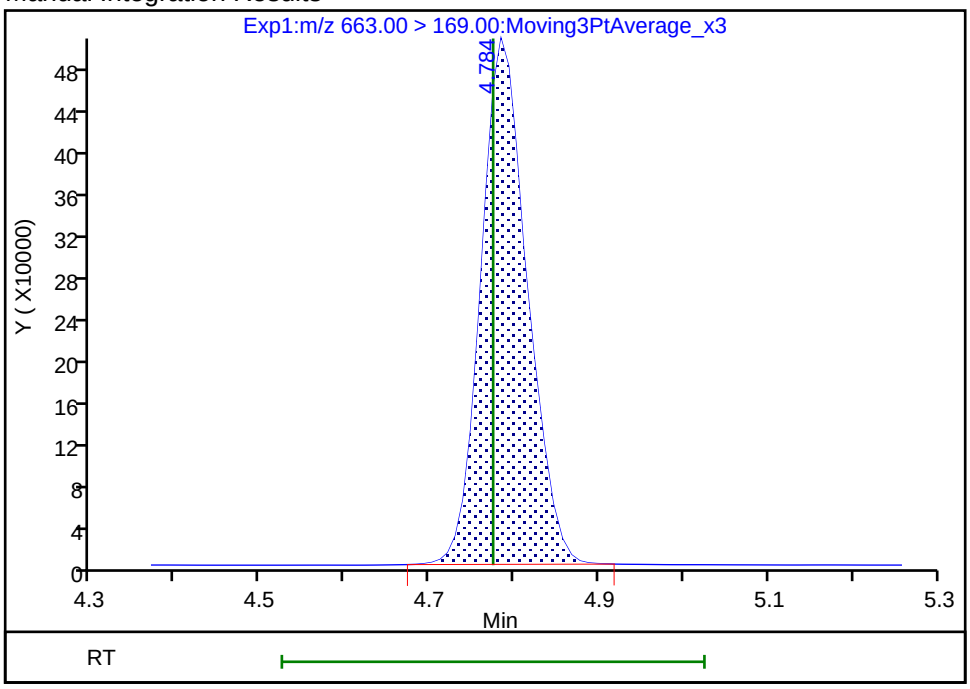
Processing Integration Results

RT: 4.78
Area: 1940597
Amount: 9.029324
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 1929671
Amount: 8.994901
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:20:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

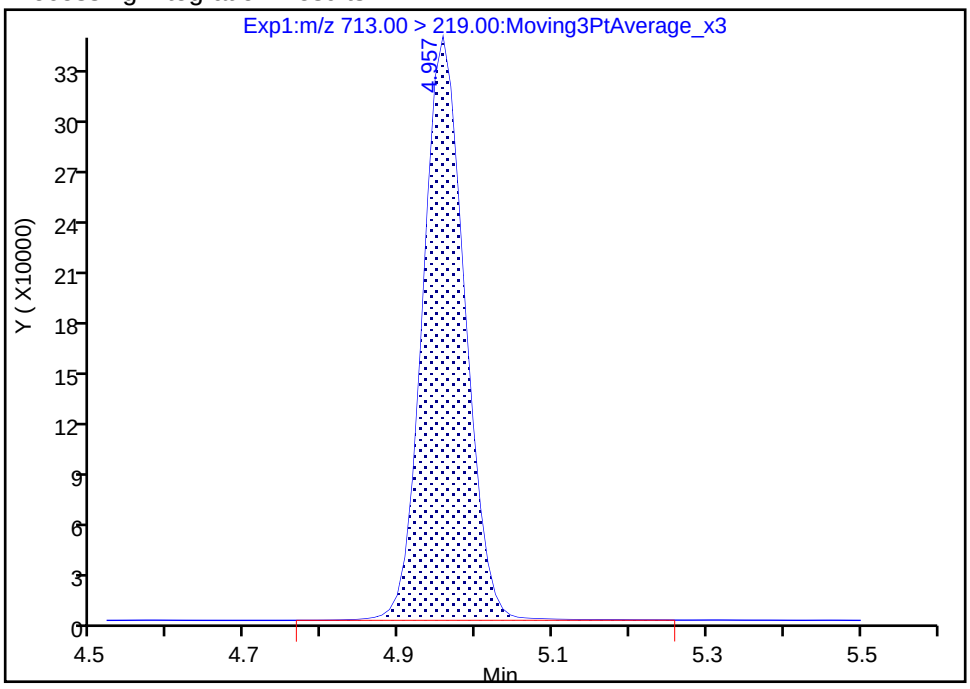
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

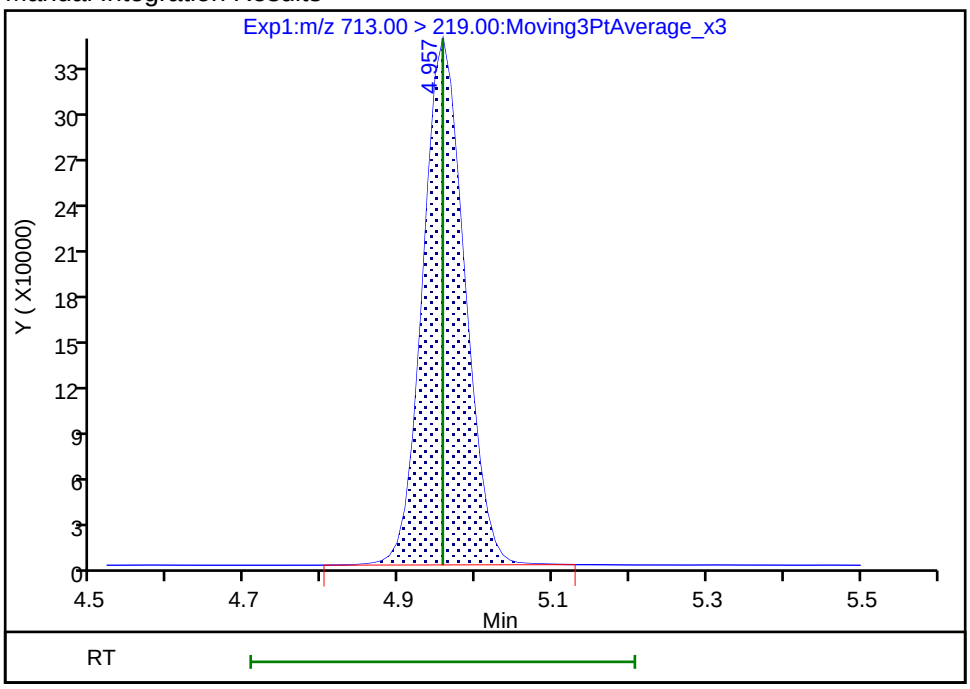
Processing Integration Results

RT: 4.96
Area: 1296731
Amount: 8.591476
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 1291633
Amount: 8.591476
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

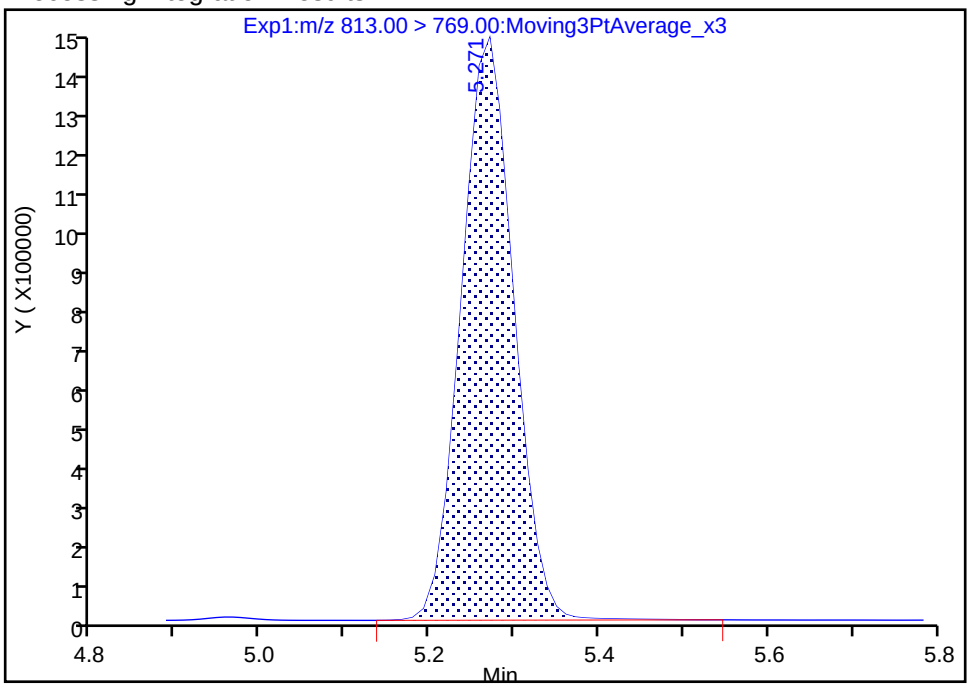
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

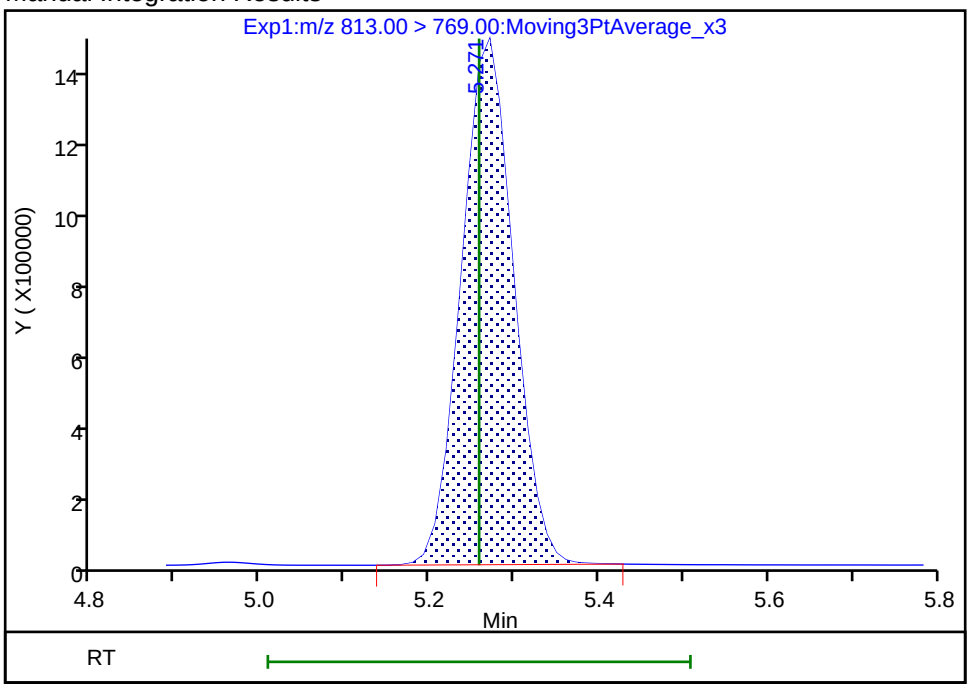
Processing Integration Results

RT: 5.27
Area: 6294559
Amount: 9.360490
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 6269085
Amount: 9.331779
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

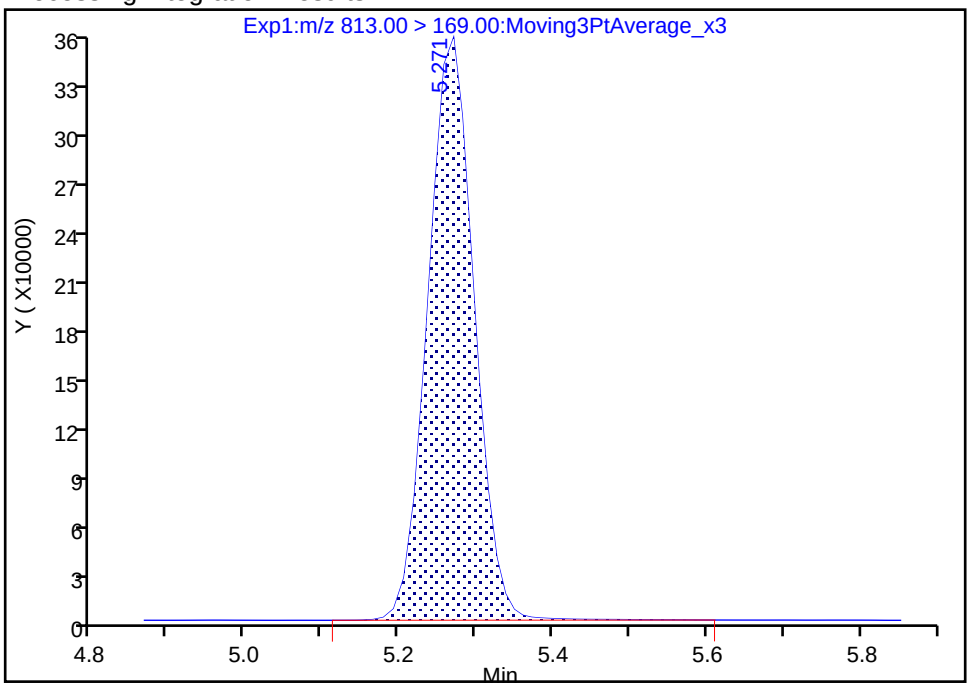
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

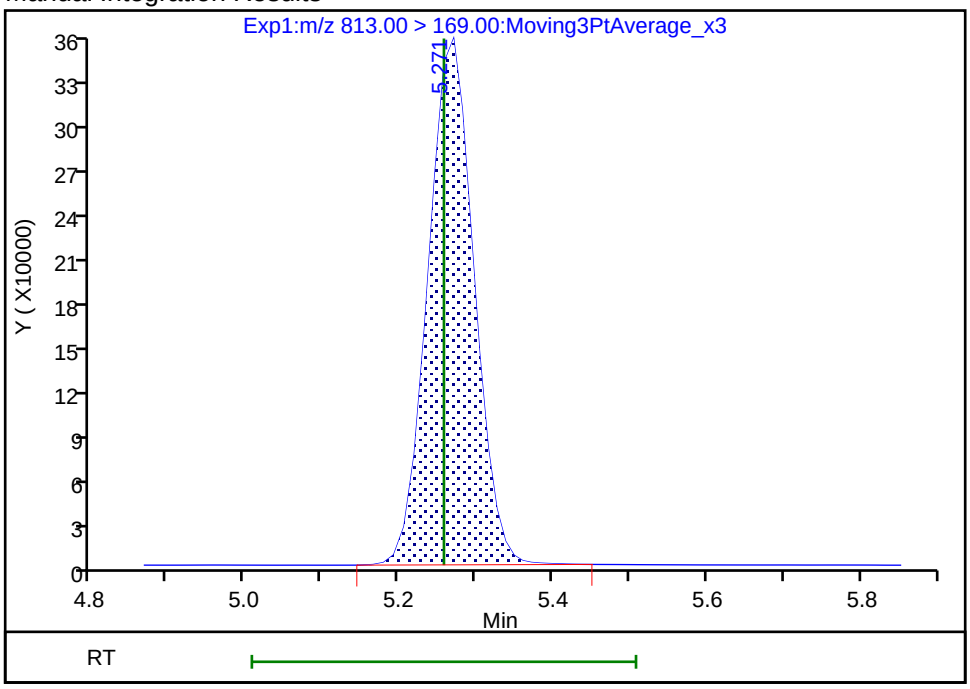
Processing Integration Results

RT: 5.27
Area: 1459535
Amount: 9.360490
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 1454092
Amount: 9.331779
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

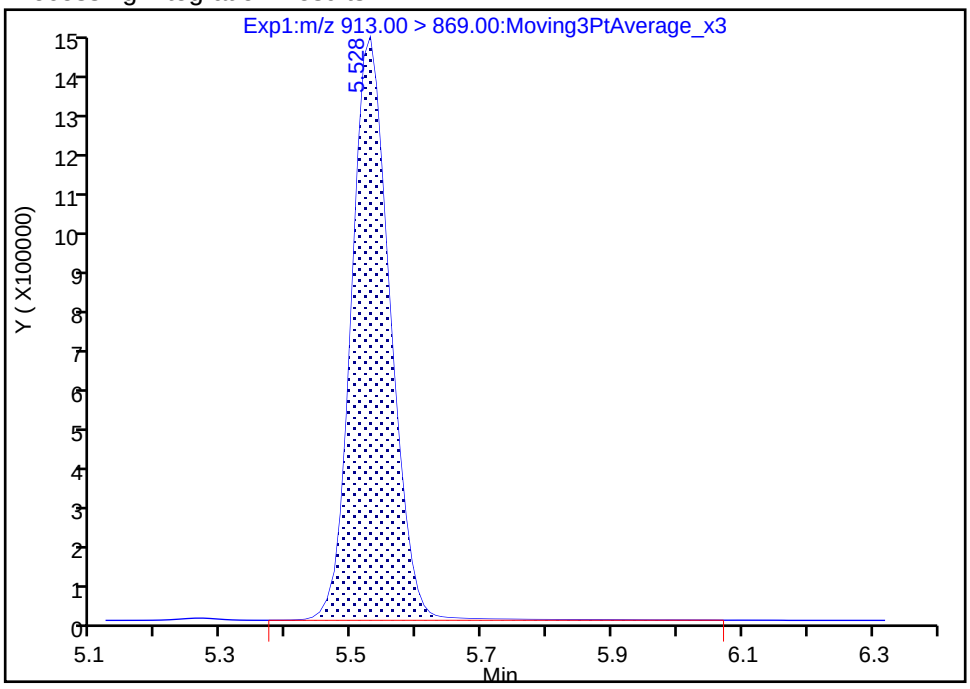
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d | | | | |
| Injection Date: | 27-Oct-2021 14:27:41 | Instrument ID: | LC812 | | |
| Lims ID: | IC | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

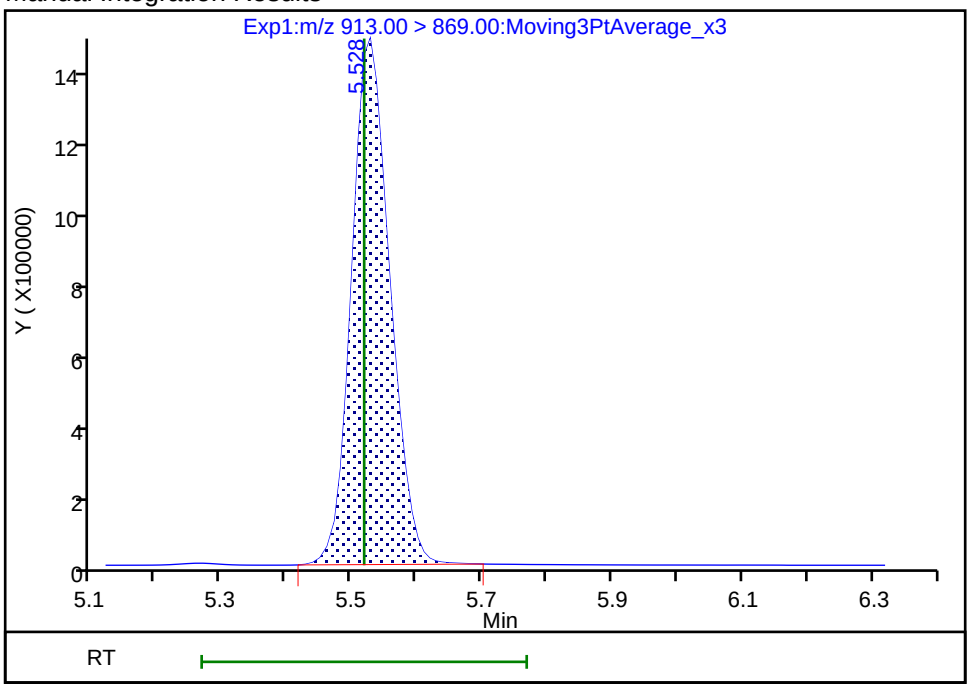
Processing Integration Results

RT: 5.53
Area: 5965487
Amount: 8.987348
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 5910248
Amount: 8.916494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

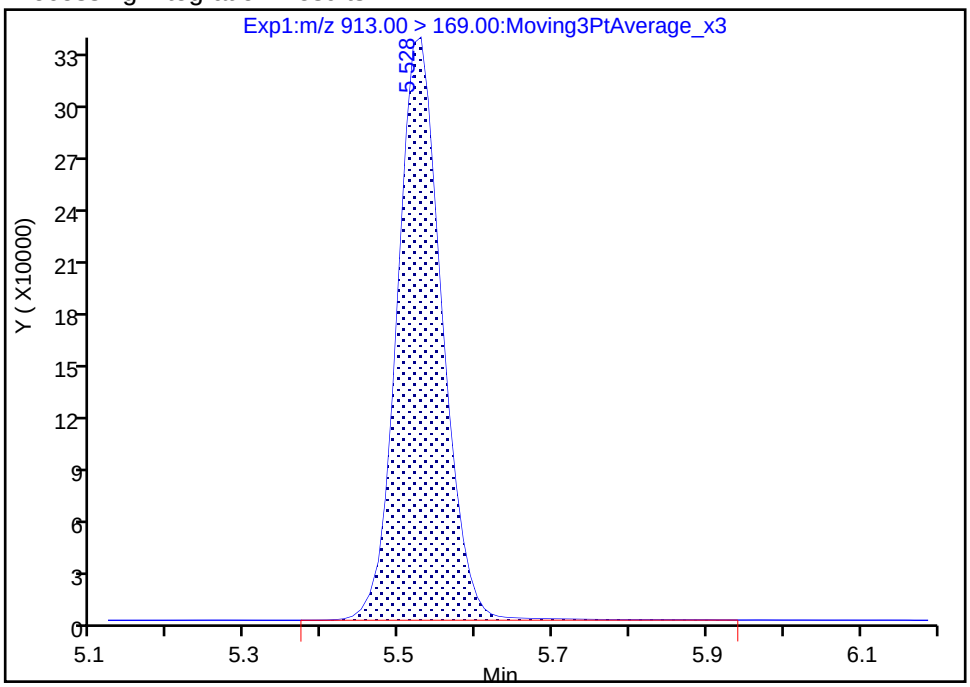
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d
Injection Date: 27-Oct-2021 14:27:41 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

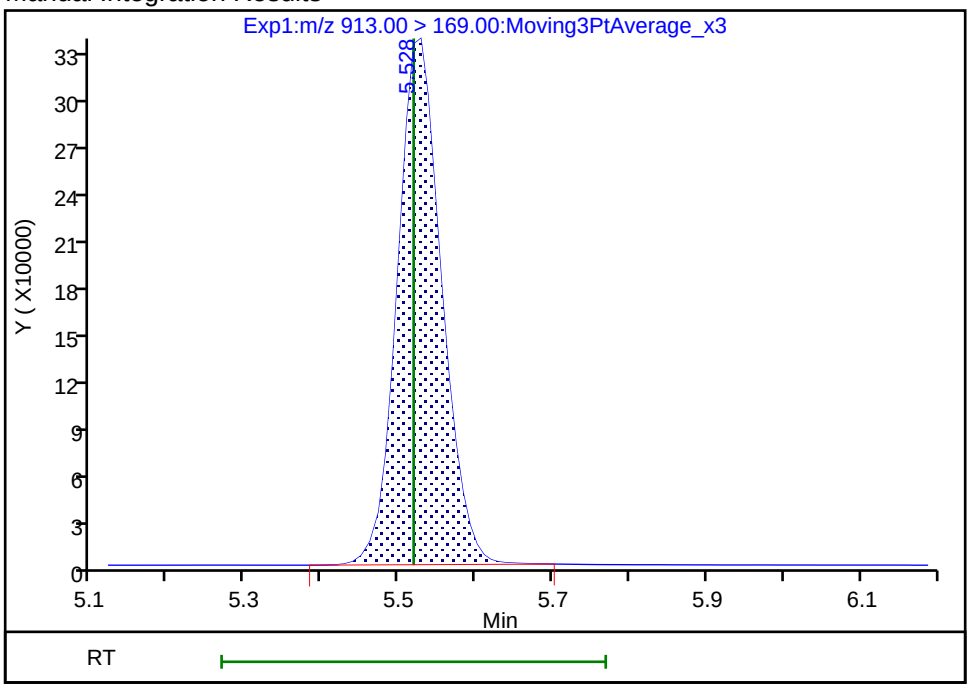
Processing Integration Results

RT: 5.53
Area: 1323104
Amount: 8.987348
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 1313814
Amount: 8.916494
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:21:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

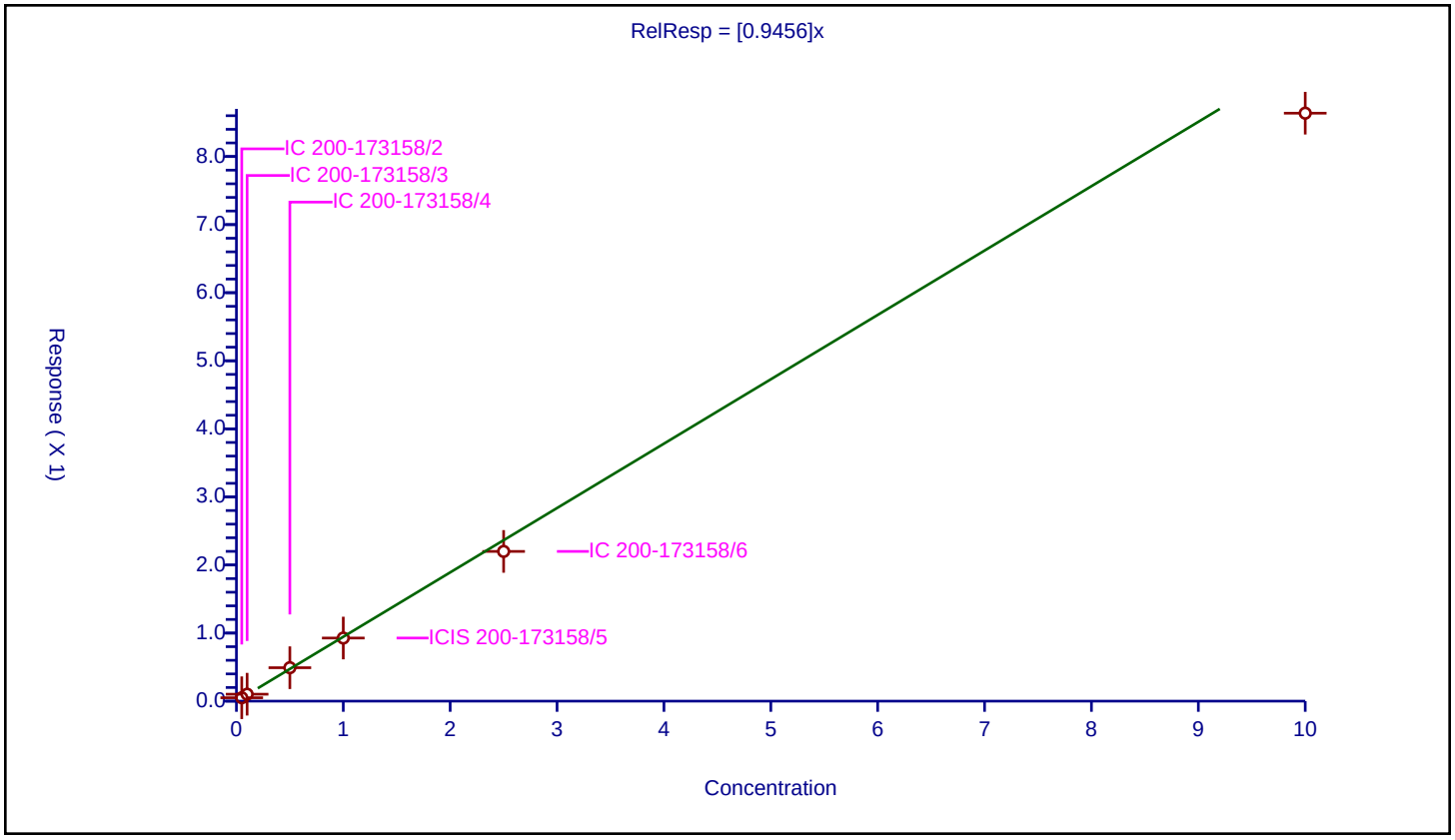
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9456 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5360000 |
| **Relative Standard Error:** | 6.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050052 | 1.25 | 1785802.0 | 1.001049 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.101945 | 1.25 | 2002798.0 | 1.019449 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.491212 | 1.25 | 1751374.0 | 0.982424 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.927042 | 1.25 | 1982117.0 | 0.927042 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.199222 | 1.25 | 1686795.0 | 0.879689 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.637013 | 1.25 | 1665496.0 | 0.863701 | Y |



## Calibration / Perfluoropentanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

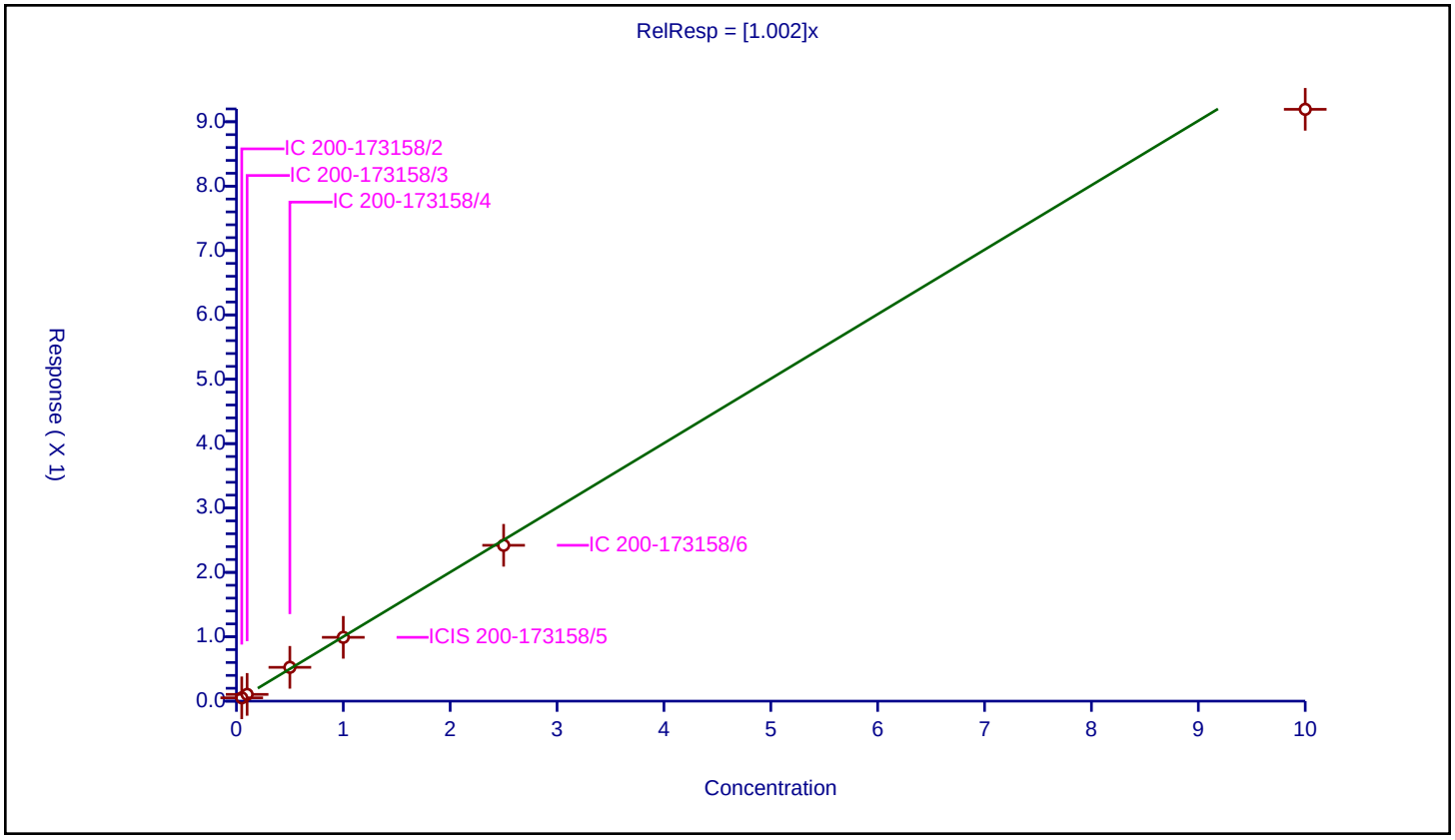
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.002 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4930000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.051581 | 1.25 | 1423500.0 | 1.031612 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.104929 | 1.25 | 1641164.0 | 1.049293 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.525355 | 1.25 | 1485537.0 | 1.050711 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.991047 | 1.25 | 1755143.0 | 0.991047 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.420912 | 1.25 | 1426418.0 | 0.968365 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.19337 | 1.25 | 1437251.0 | 0.919337 | Y |



## Calibration / Perfluorobutanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

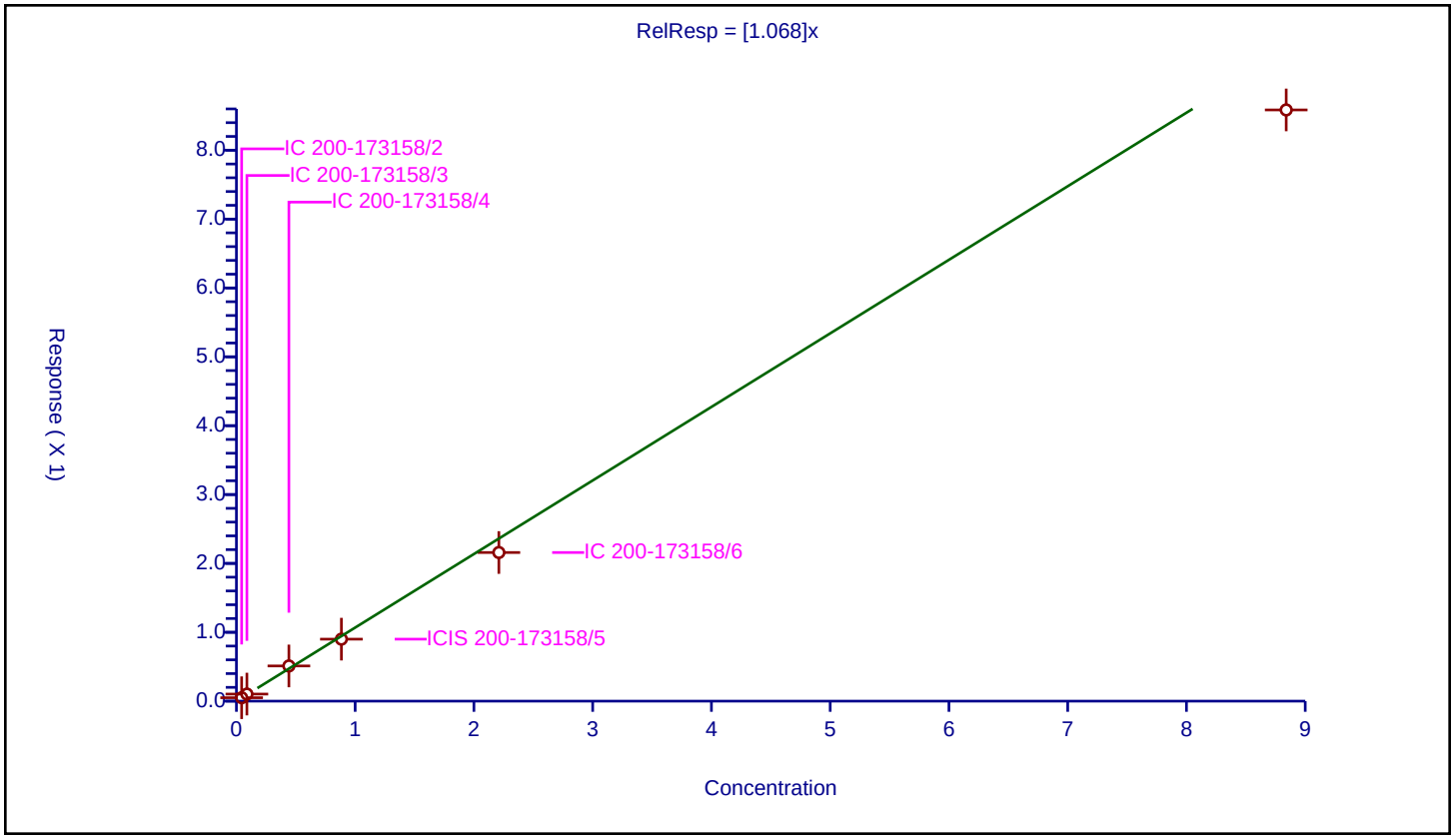
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.068 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6200000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0442 | 0.049738 | 1.1625 | 1793578.0 | 1.125295 | Y |
| 2 | IC 200-173158/3 | 0.0884 | 0.102617 | 1.1625 | 2122028.0 | 1.160825 | Y |
| 3 | IC 200-173158/4 | 0.442 | 0.511047 | 1.1625 | 1819218.0 | 1.156215 | Y |
| 4 | ICIS 200-173158/5 | 0.884 | 0.900187 | 1.1625 | 2194395.0 | 1.018311 | Y |
| 5 | IC 200-173158/6 | 2.21 | 2.158219 | 1.1625 | 1809434.0 | 0.97657 | Y |
| 6 | IC 200-173158/7 | 8.84 | 8.58505 | 1.1625 | 1804342.0 | 0.97116 | Y |



## Calibration / 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

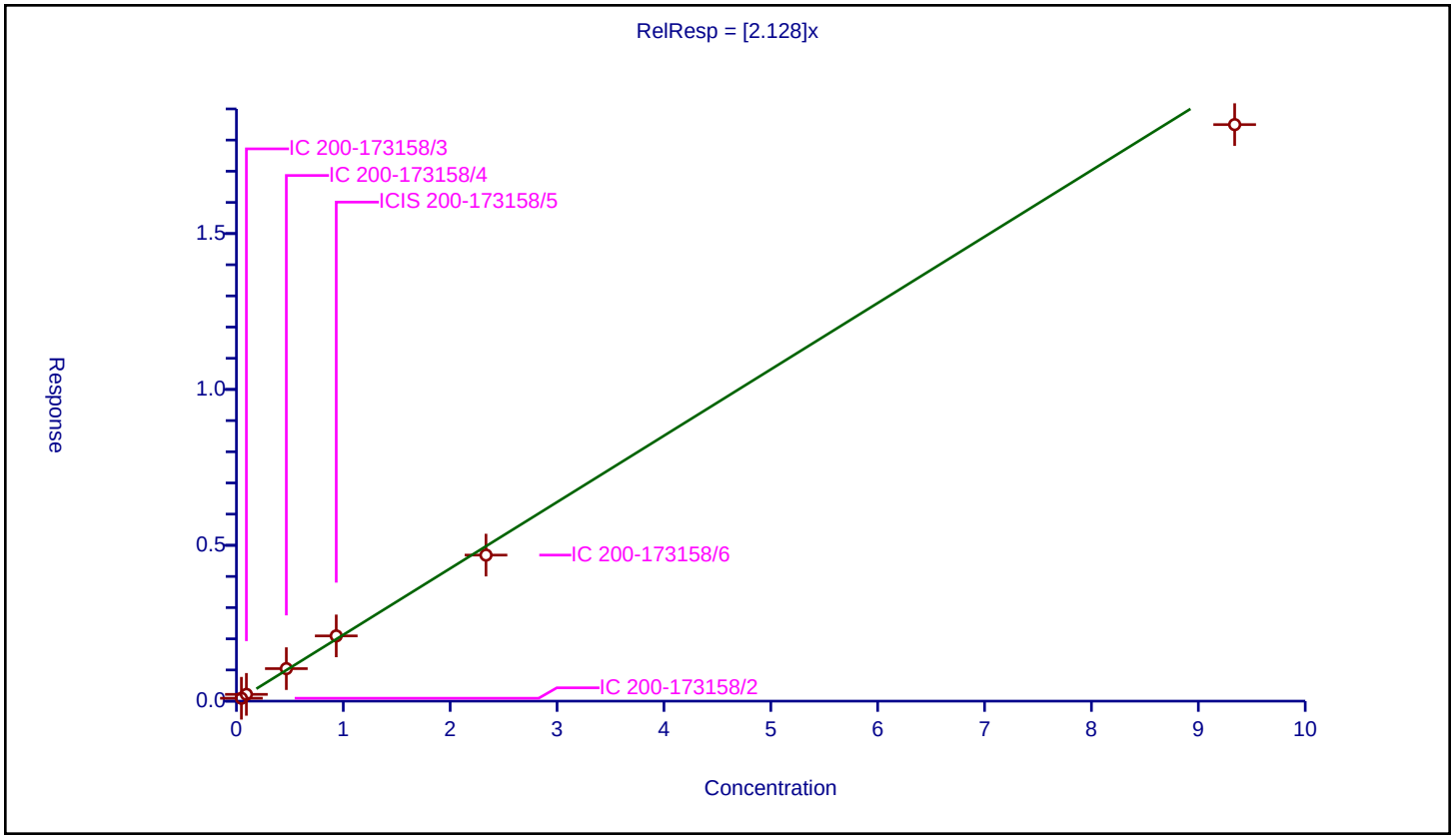
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.128 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 996000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0467 | 0.092449 | 1.1675 | 143738.0 | 1.979644 | Y |
| 2 | IC 200-173158/3 | 0.0934 | 0.217725 | 1.1675 | 164450.0 | 2.331104 | Y |
| 3 | IC 200-173158/4 | 0.467 | 1.042536 | 1.1675 | 143541.0 | 2.232411 | Y |
| 4 | ICIS 200-173158/5 | 0.934 | 2.09294 | 1.1675 | 155977.0 | 2.240835 | Y |
| 5 | IC 200-173158/6 | 2.335 | 4.685574 | 1.1675 | 139431.0 | 2.00667 | Y |
| 6 | IC 200-173158/7 | 9.34 | 18.495586 | 1.1675 | 134645.0 | 1.980255 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

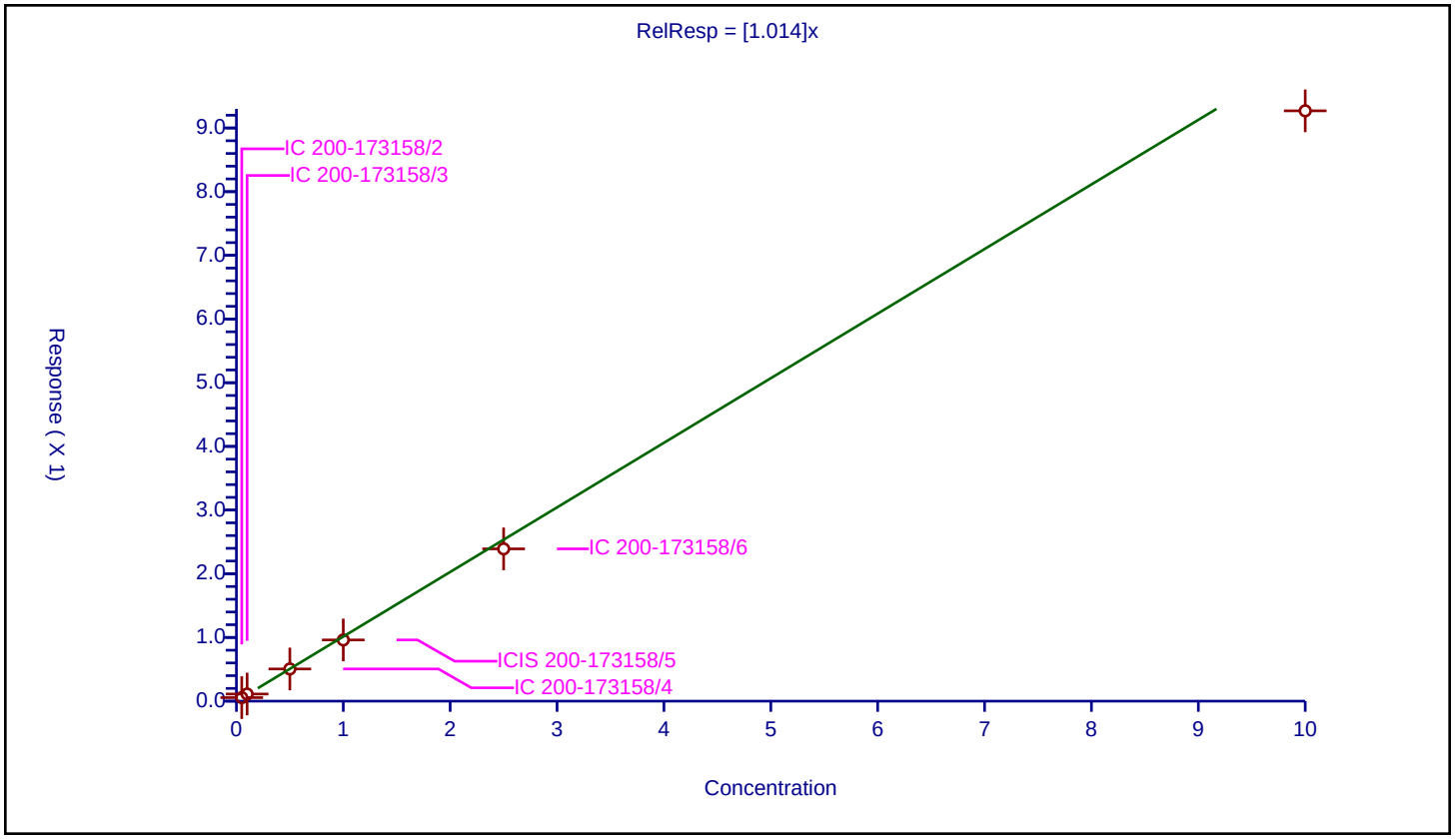
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.014 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5110000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055542 | 1.25 | 1498283.0 | 1.110838 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.111903 | 1.25 | 1770715.0 | 1.119032 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.505319 | 1.25 | 1544242.0 | 1.010638 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.961033 | 1.25 | 1857895.0 | 0.961033 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.391432 | 1.25 | 1480926.0 | 0.956573 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.269373 | 1.25 | 1478594.0 | 0.926937 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

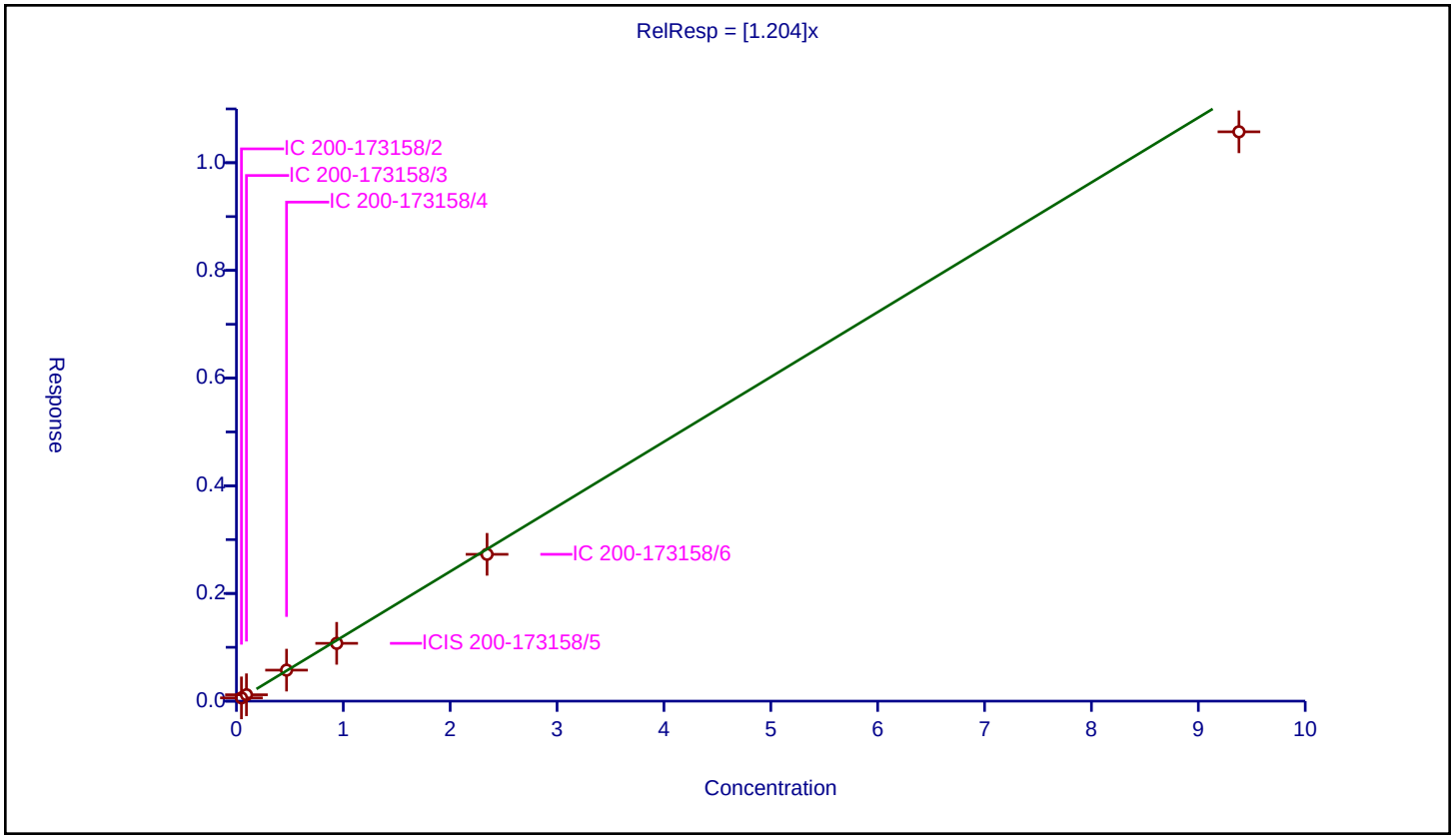
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.204 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5490000 |
| **Relative Standard Error:** | 5.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0469 | 0.060839 | 1.1825 | 1307897.0 | 1.297214 | Y |
| 2 | IC 200-173158/3 | 0.0938 | 0.11869 | 1.1825 | 1610888.0 | 1.26535 | Y |
| 3 | IC 200-173158/4 | 0.469 | 0.575982 | 1.1825 | 1357826.0 | 1.228106 | Y |
| 4 | ICIS 200-173158/5 | 0.938 | 1.073456 | 1.1825 | 1639762.0 | 1.144409 | Y |
| 5 | IC 200-173158/6 | 2.345 | 2.72709 | 1.1825 | 1307238.0 | 1.162938 | Y |
| 6 | IC 200-173158/7 | 9.38 | 10.574435 | 1.1825 | 1318214.0 | 1.127338 | Y |



## Calibration / Perfluoro(2-propoxypropanoic) acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

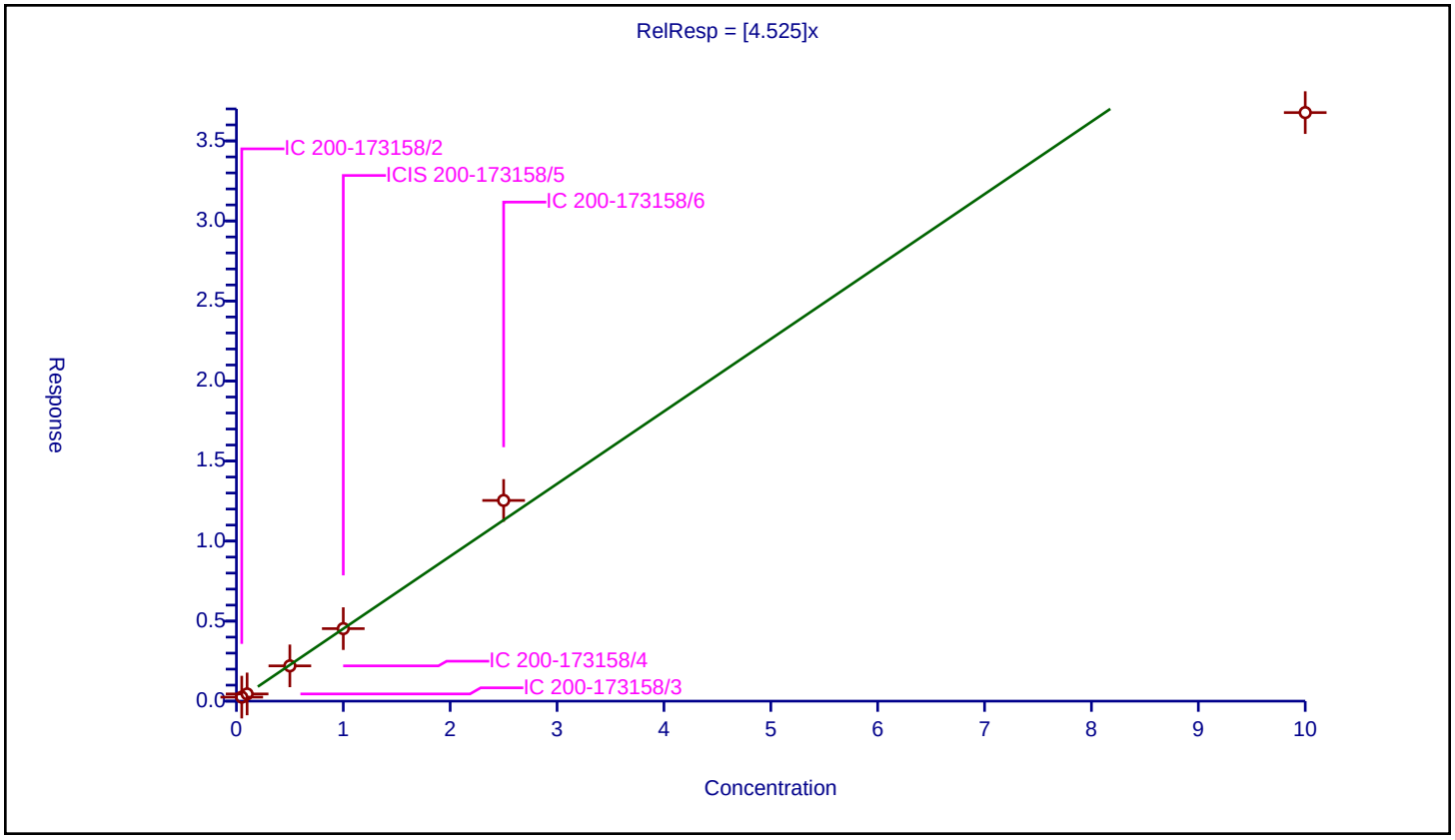
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.525 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 603000 |
| **Relative Standard Error:** | 10.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.251154 | 1.25 | 40304.0 | 5.023075 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.449794 | 1.25 | 53908.0 | 4.497941 | Y |
| 3 | IC 200-173158/4 | 0.5 | 2.203512 | 1.25 | 39462.0 | 4.407024 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 4.530717 | 1.25 | 42477.0 | 4.530717 | Y |
| 5 | IC 200-173158/6 | 2.5 | 12.537815 | 1.25 | 33254.0 | 5.015126 | Y |
| 6 | IC 200-173158/7 | 10.0 | 36.768234 | 1.25 | 44010.0 | 3.676823 | Y |



## Calibration / Perfluorohexanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

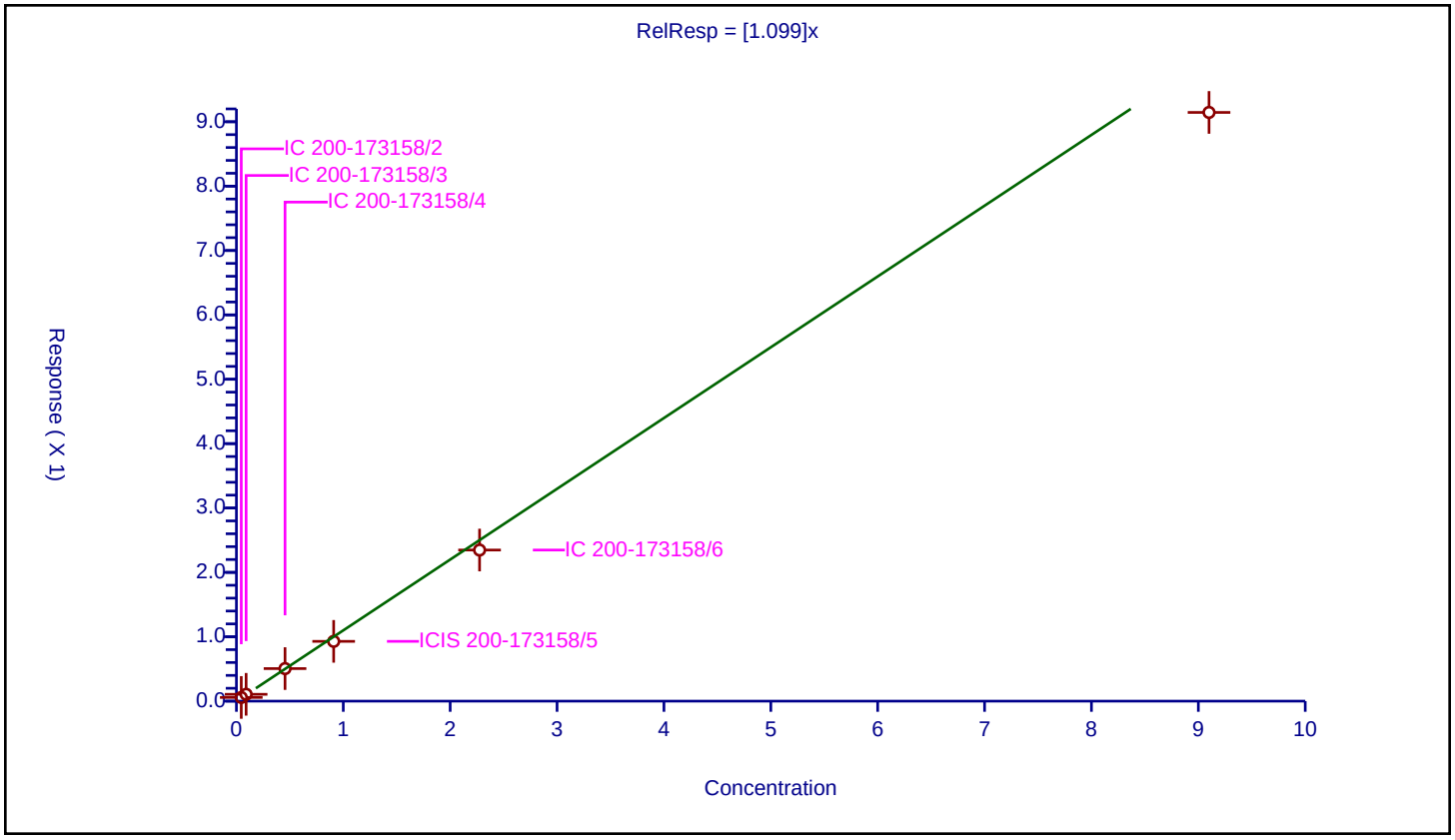
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.099 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4750000 |
| **Relative Standard Error:** | 9.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0455 | 0.057328 | 1.1825 | 1307897.0 | 1.25995 | Y |
| 2 | IC 200-173158/3 | 0.091 | 0.106295 | 1.1825 | 1610888.0 | 1.168078 | Y |
| 3 | IC 200-173158/4 | 0.455 | 0.505739 | 1.1825 | 1357826.0 | 1.111513 | Y |
| 4 | ICIS 200-173158/5 | 0.91 | 0.928532 | 1.1825 | 1639762.0 | 1.020365 | Y |
| 5 | IC 200-173158/6 | 2.275 | 2.347278 | 1.1825 | 1307238.0 | 1.031771 | Y |
| 6 | IC 200-173158/7 | 9.1 | 9.144842 | 1.1825 | 1318214.0 | 1.004928 | Y |



## Calibration / Perfluoroheptanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

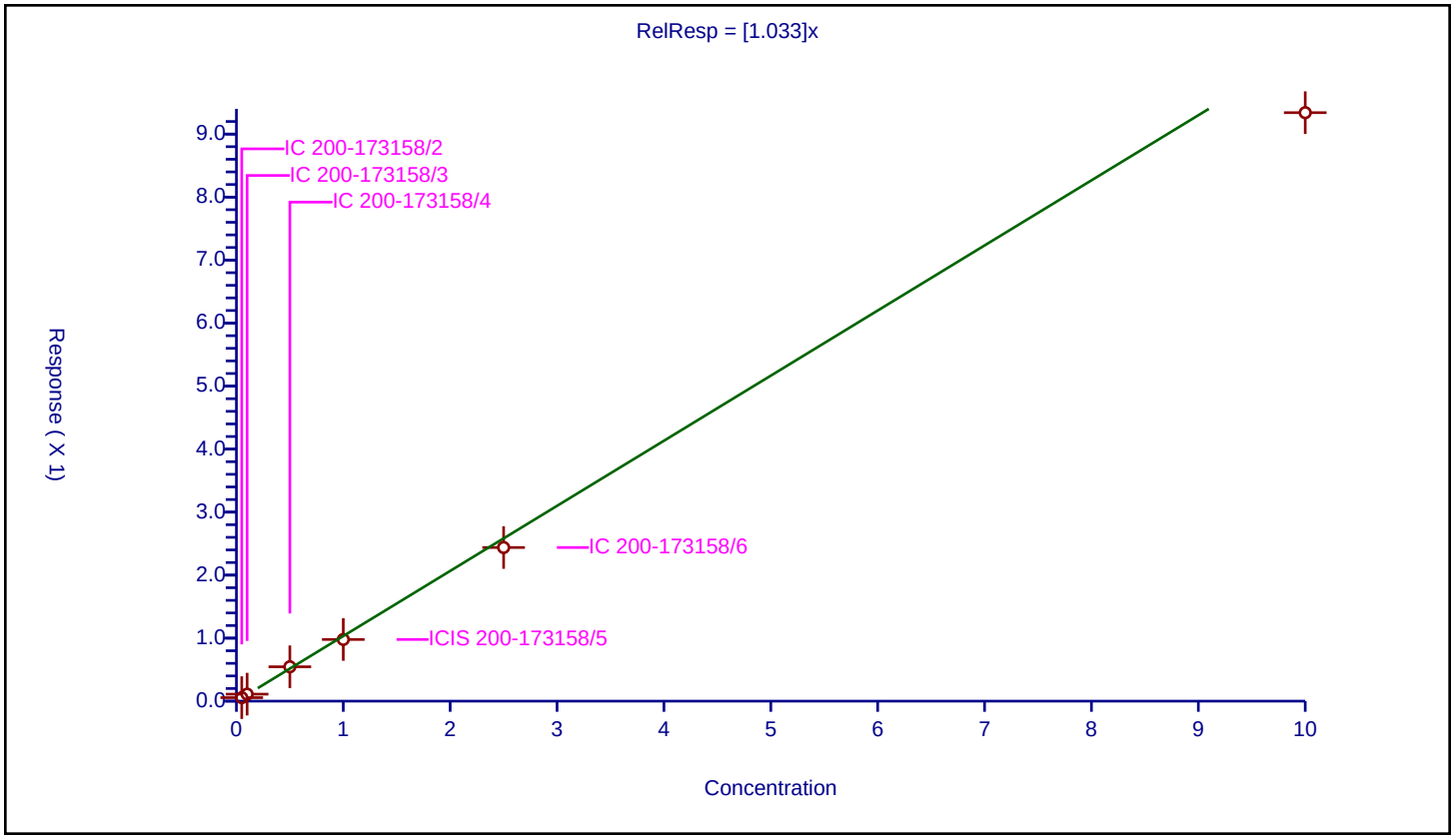
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.033 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5340000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055451 | 1.25 | 1624105.0 | 1.109026 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.111128 | 1.25 | 1883272.0 | 1.111284 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.545457 | 1.25 | 1610239.0 | 1.090914 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.978732 | 1.25 | 1920576.0 | 0.978732 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.438431 | 1.25 | 1567141.0 | 0.975372 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.339798 | 1.25 | 1529883.0 | 0.93398 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

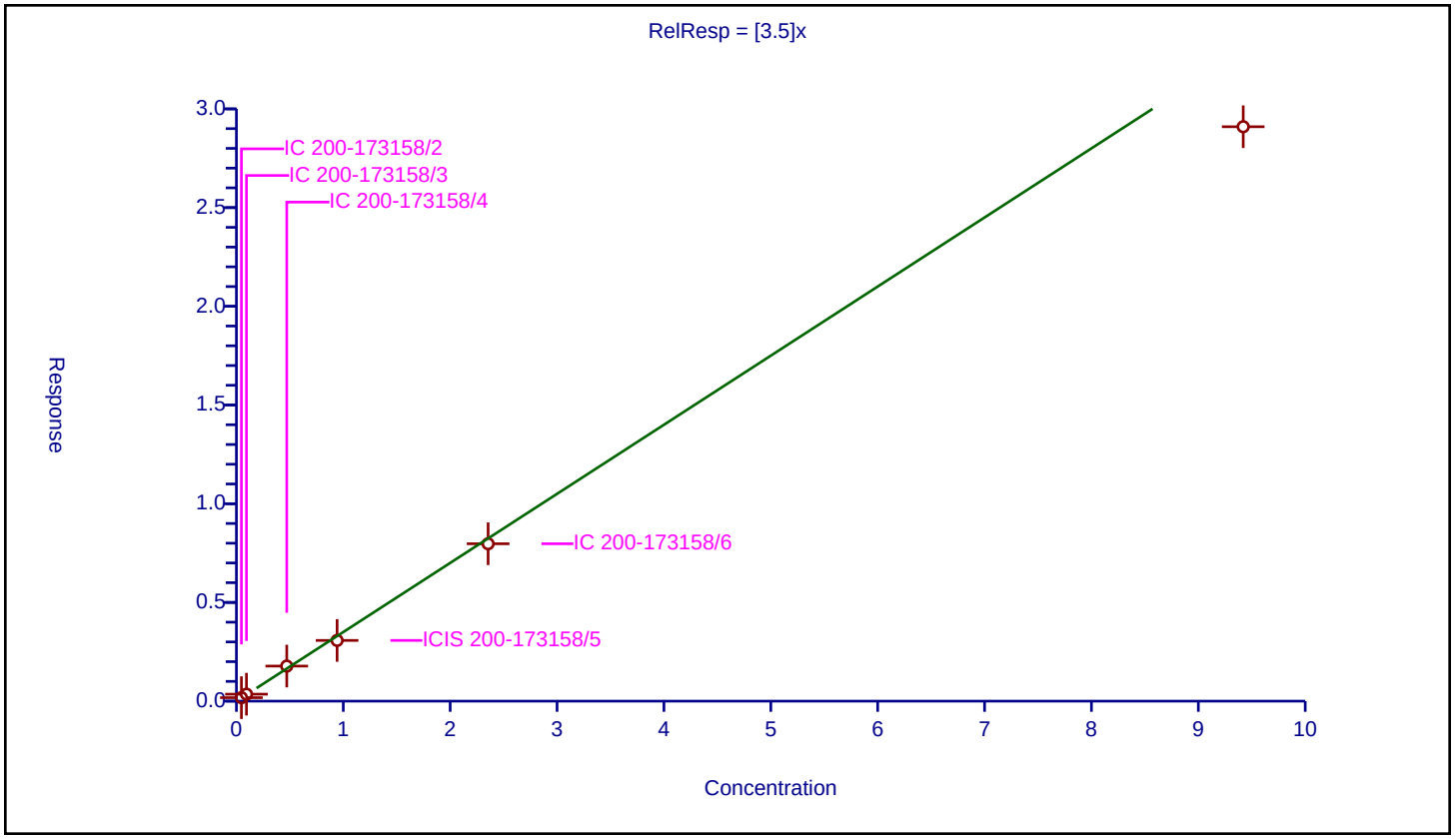
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.5 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 11000000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0471 | 0.176318 | 1.195 | 964211.0 | 3.743484 | Y |
| 2 | IC 200-173158/3 | 0.0942 | 0.352865 | 1.195 | 1187422.0 | 3.745909 | Y |
| 3 | IC 200-173158/4 | 0.471 | 1.776403 | 1.195 | 962917.0 | 3.771557 | Y |
| 4 | ICIS 200-173158/5 | 0.942 | 3.075585 | 1.195 | 1210356.0 | 3.264952 | Y |
| 5 | IC 200-173158/6 | 2.355 | 7.972079 | 1.195 | 951013.0 | 3.385172 | Y |
| 6 | IC 200-173158/7 | 9.42 | 29.095623 | 1.195 | 965476.0 | 3.088707 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

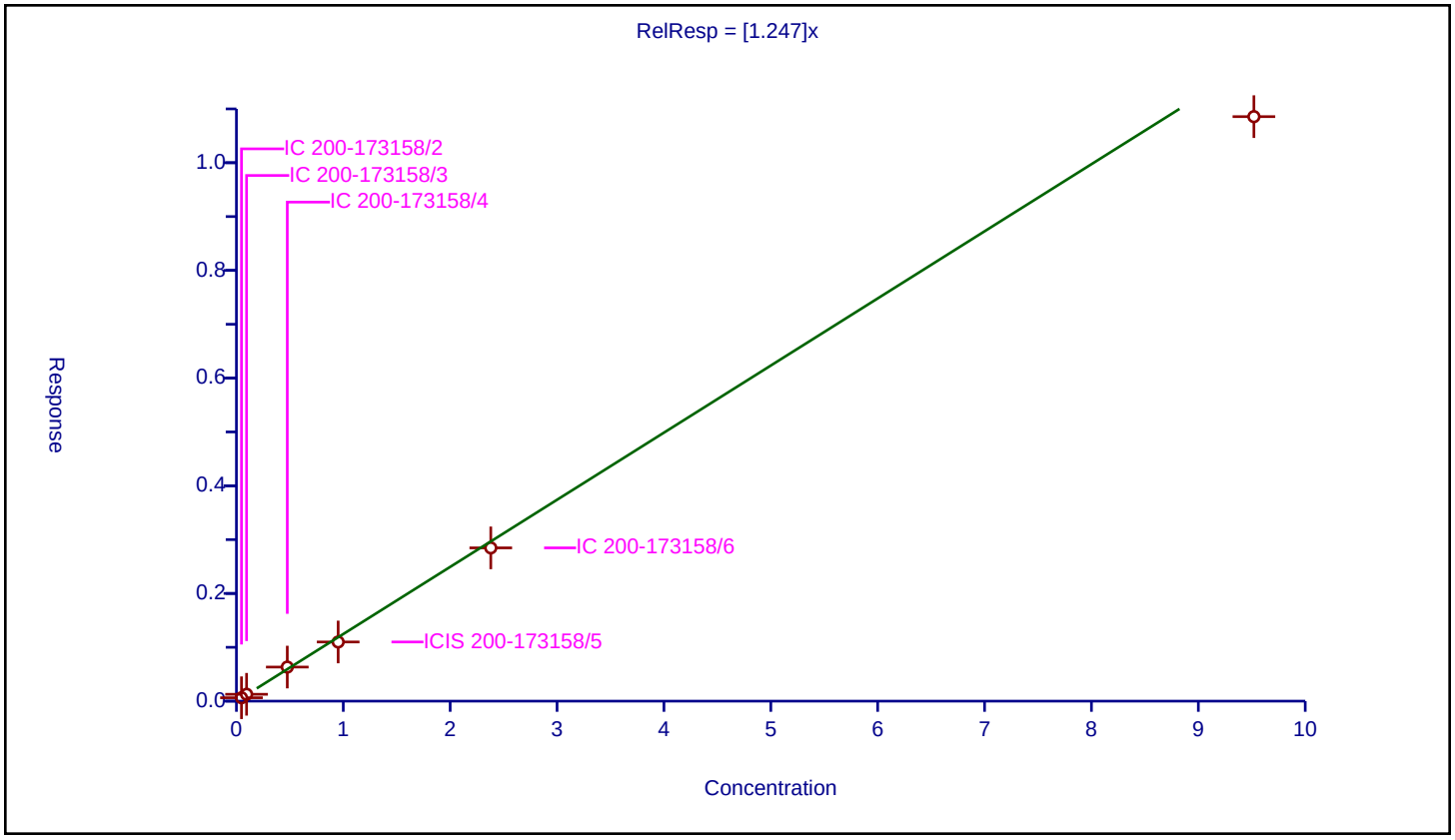
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.247 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4090000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0476 | 0.062959 | 1.195 | 964211.0 | 1.322673 | Y |
| 2 | IC 200-173158/3 | 0.0952 | 0.127256 | 1.195 | 1187422.0 | 1.336723 | Y |
| 3 | IC 200-173158/4 | 0.476 | 0.632782 | 1.195 | 962917.0 | 1.329373 | Y |
| 4 | ICIS 200-173158/5 | 0.952 | 1.099136 | 1.195 | 1210356.0 | 1.154554 | Y |
| 5 | IC 200-173158/6 | 2.38 | 2.846656 | 1.195 | 951013.0 | 1.196074 | Y |
| 6 | IC 200-173158/7 | 9.52 | 10.855972 | 1.195 | 965476.0 | 1.140333 | Y |



## Calibration / 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

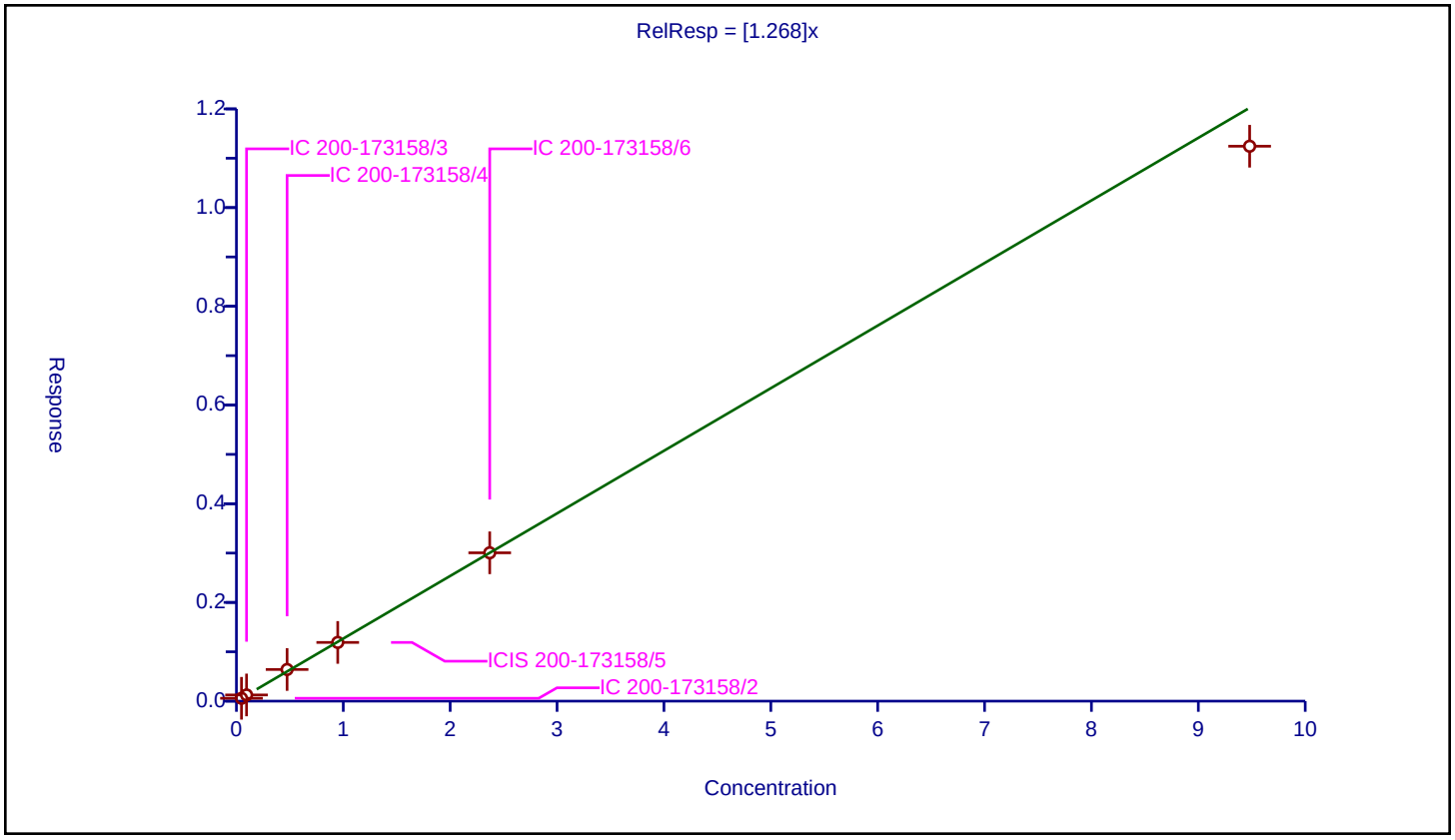
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.268 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 894000 |
| **Relative Standard Error:** | 4.9 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0474 | 0.057963 | 1.1875 | 212699.0 | 1.222843 | Y |
| 2 | IC 200-173158/3 | 0.0948 | 0.125481 | 1.1875 | 245685.0 | 1.323634 | Y |
| 3 | IC 200-173158/4 | 0.474 | 0.641386 | 1.1875 | 220518.0 | 1.353135 | Y |
| 4 | ICIS 200-173158/5 | 0.948 | 1.189595 | 1.1875 | 264731.0 | 1.254847 | Y |
| 5 | IC 200-173158/6 | 2.37 | 3.005534 | 1.1875 | 207642.0 | 1.268158 | Y |
| 6 | IC 200-173158/7 | 9.48 | 11.243485 | 1.1875 | 201400.0 | 1.186022 | Y |



## Calibration / Perfluorooctanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

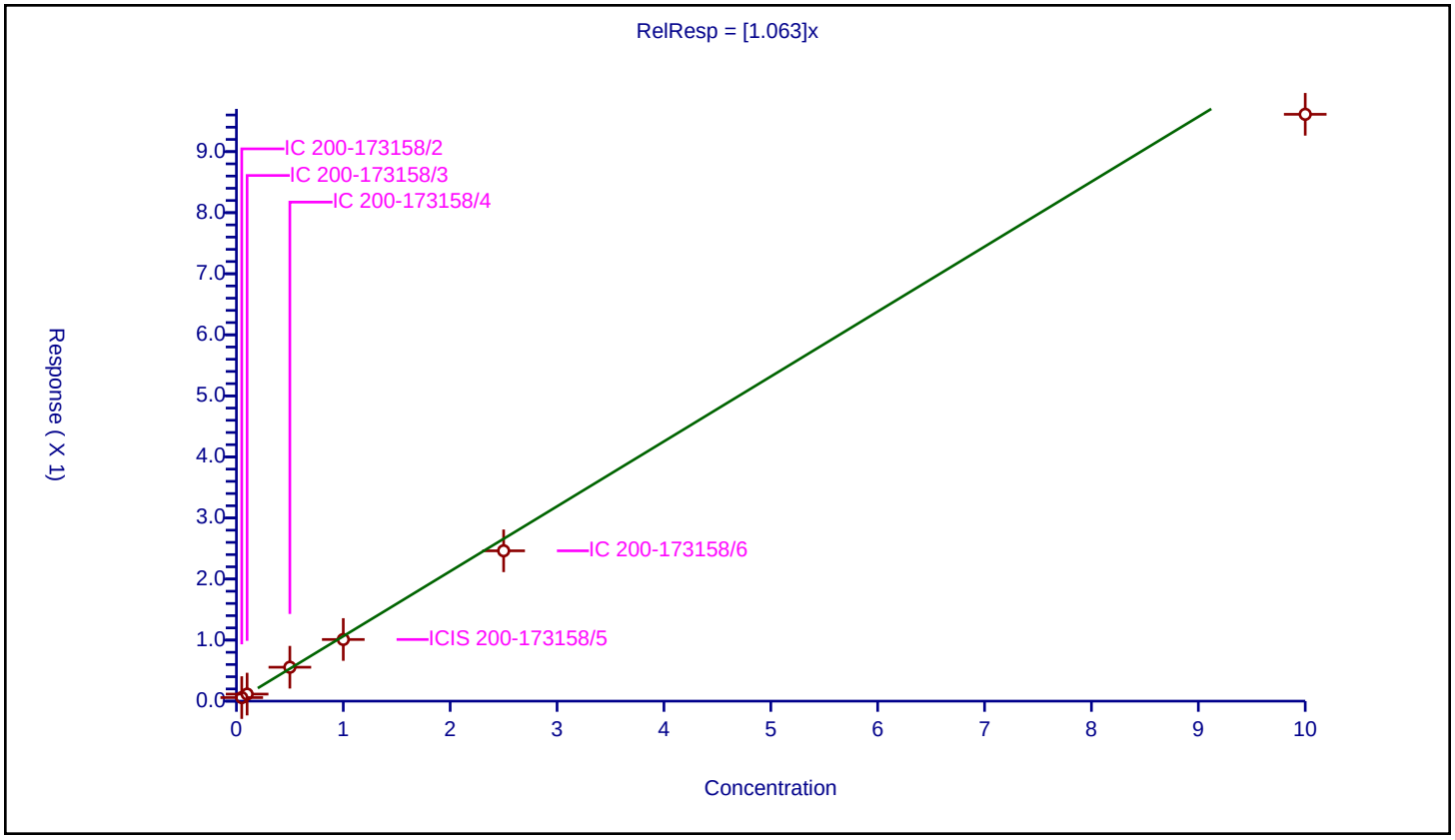
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.063 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5970000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.058087 | 1.25 | 1744327.0 | 1.161737 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.11525 | 1.25 | 2077322.0 | 1.152499 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.555319 | 1.25 | 1734402.0 | 1.110638 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 1.009685 | 1.25 | 2127384.0 | 1.009685 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.462325 | 1.25 | 1736905.0 | 0.98493 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.611371 | 1.25 | 1661142.0 | 0.961137 | Y |



## Calibration / Perfluorooctanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

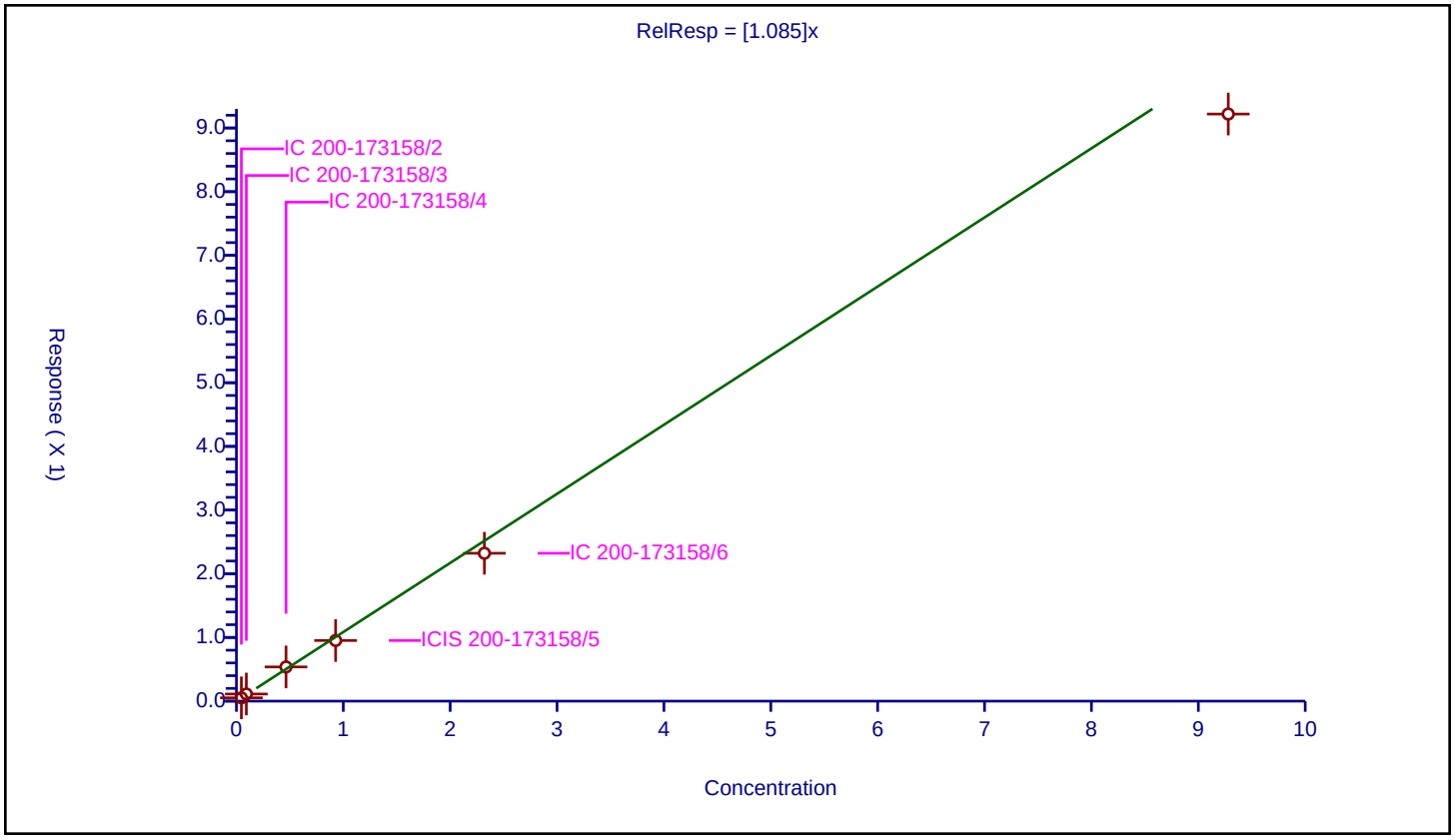
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.085 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3460000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0464 | 0.052244 | 1.195 | 964211.0 | 1.125944 | Y |
| 2 | IC 200-173158/3 | 0.0928 | 0.111965 | 1.195 | 1187422.0 | 1.20652 | Y |
| 3 | IC 200-173158/4 | 0.464 | 0.53711 | 1.195 | 962917.0 | 1.157565 | Y |
| 4 | ICIS 200-173158/5 | 0.928 | 0.951978 | 1.195 | 1210356.0 | 1.025838 | Y |
| 5 | IC 200-173158/6 | 2.32 | 2.322314 | 1.195 | 951013.0 | 1.000998 | Y |
| 6 | IC 200-173158/7 | 9.28 | 9.219399 | 1.195 | 965476.0 | 0.99347 | Y |



## Calibration / Perfluorononanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

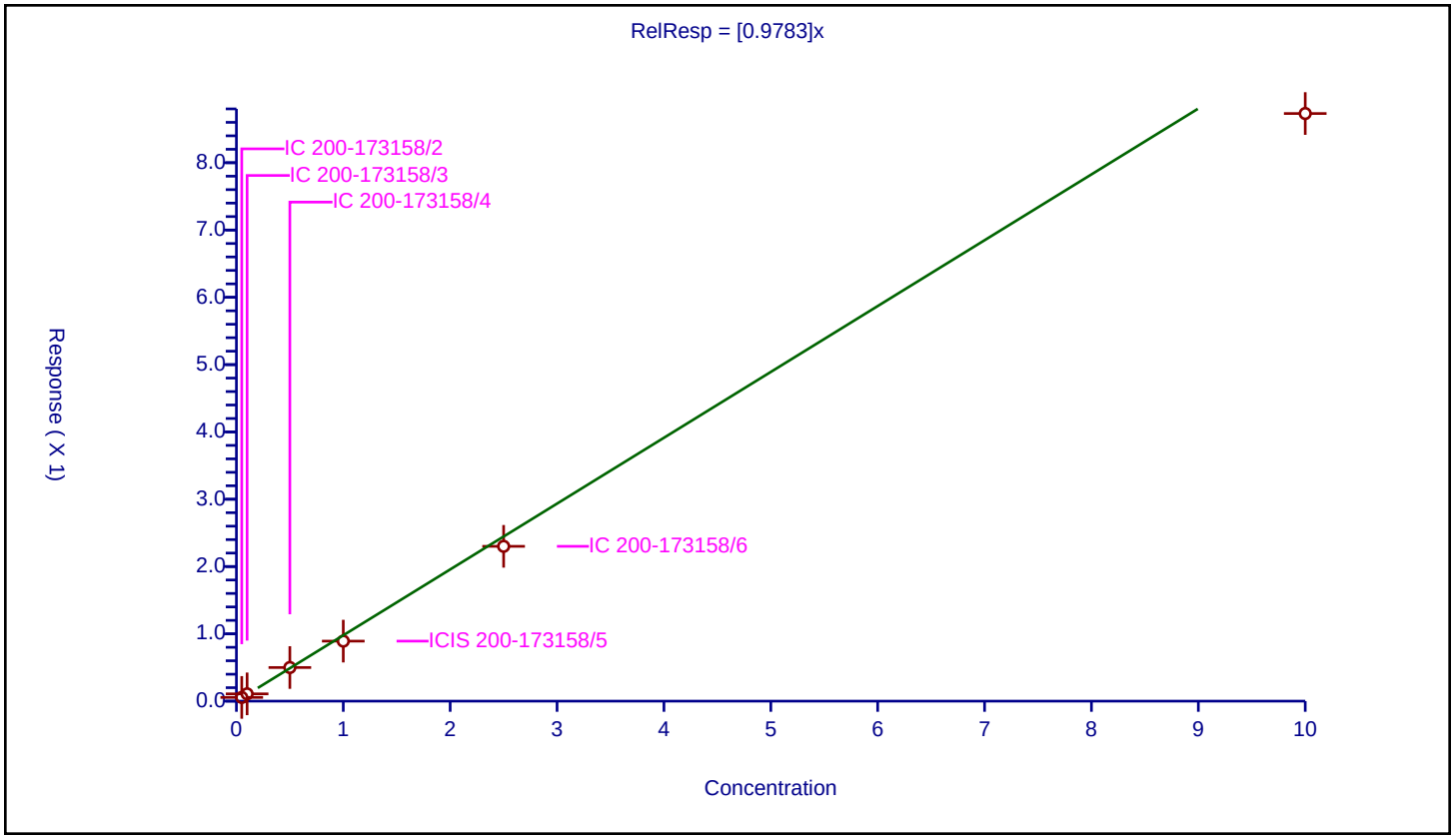
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9783 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5420000 |
| **Relative Standard Error:** | 10.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.055152 | 1.25 | 1697603.0 | 1.103041 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.108235 | 1.25 | 2005558.0 | 1.082355 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.499694 | 1.25 | 1742047.0 | 0.999388 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.891956 | 1.25 | 2190750.0 | 0.891956 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.300335 | 1.25 | 1751163.0 | 0.920134 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.731196 | 1.25 | 1655608.0 | 0.87312 | Y |



## Calibration / 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

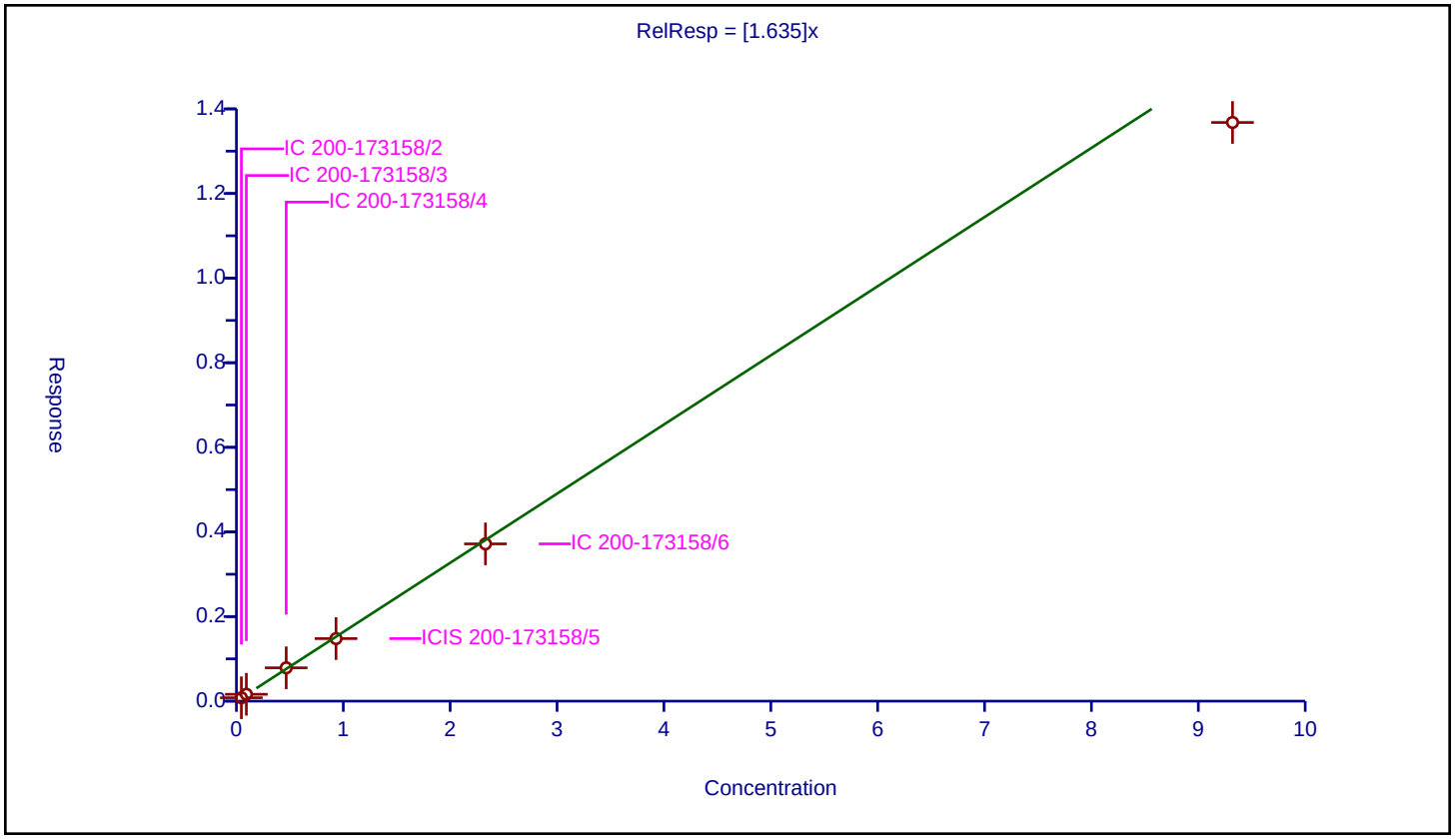
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.635 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5170000 |
| **Relative Standard Error:** | 6.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0466 | 0.080455 | 1.195 | 964211.0 | 1.726507 | Y |
| 2 | IC 200-173158/3 | 0.0932 | 0.162216 | 1.195 | 1187422.0 | 1.740512 | Y |
| 3 | IC 200-173158/4 | 0.466 | 0.78814 | 1.195 | 962917.0 | 1.691288 | Y |
| 4 | ICIS 200-173158/5 | 0.932 | 1.478665 | 1.195 | 1210356.0 | 1.58655 | Y |
| 5 | IC 200-173158/6 | 2.33 | 3.71744 | 1.195 | 951013.0 | 1.595468 | Y |
| 6 | IC 200-173158/7 | 9.32 | 13.679071 | 1.195 | 965476.0 | 1.467712 | Y |



## Calibration / Perfluorononanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

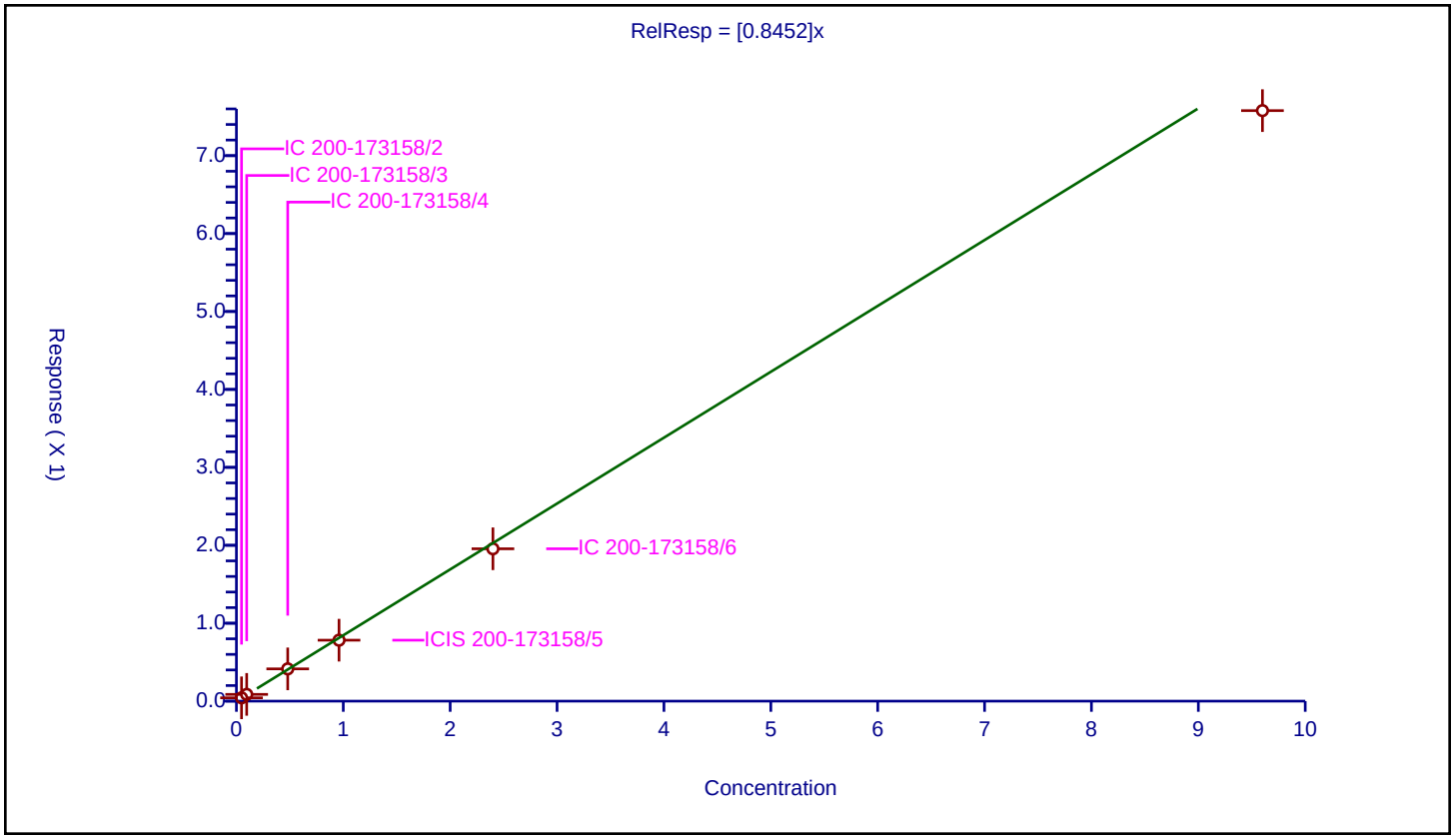
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8452 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2850000 |
| **Relative Standard Error:** | 5.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.048 | 0.04266 | 1.195 | 964211.0 | 0.888747 | Y |
| 2 | IC 200-173158/3 | 0.096 | 0.086481 | 1.195 | 1187422.0 | 0.900848 | Y |
| 3 | IC 200-173158/4 | 0.48 | 0.414156 | 1.195 | 962917.0 | 0.862825 | Y |
| 4 | ICIS 200-173158/5 | 0.96 | 0.782256 | 1.195 | 1210356.0 | 0.81485 | Y |
| 5 | IC 200-173158/6 | 2.4 | 1.955111 | 1.195 | 951013.0 | 0.81463 | Y |
| 6 | IC 200-173158/7 | 9.6 | 7.577794 | 1.195 | 965476.0 | 0.789354 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

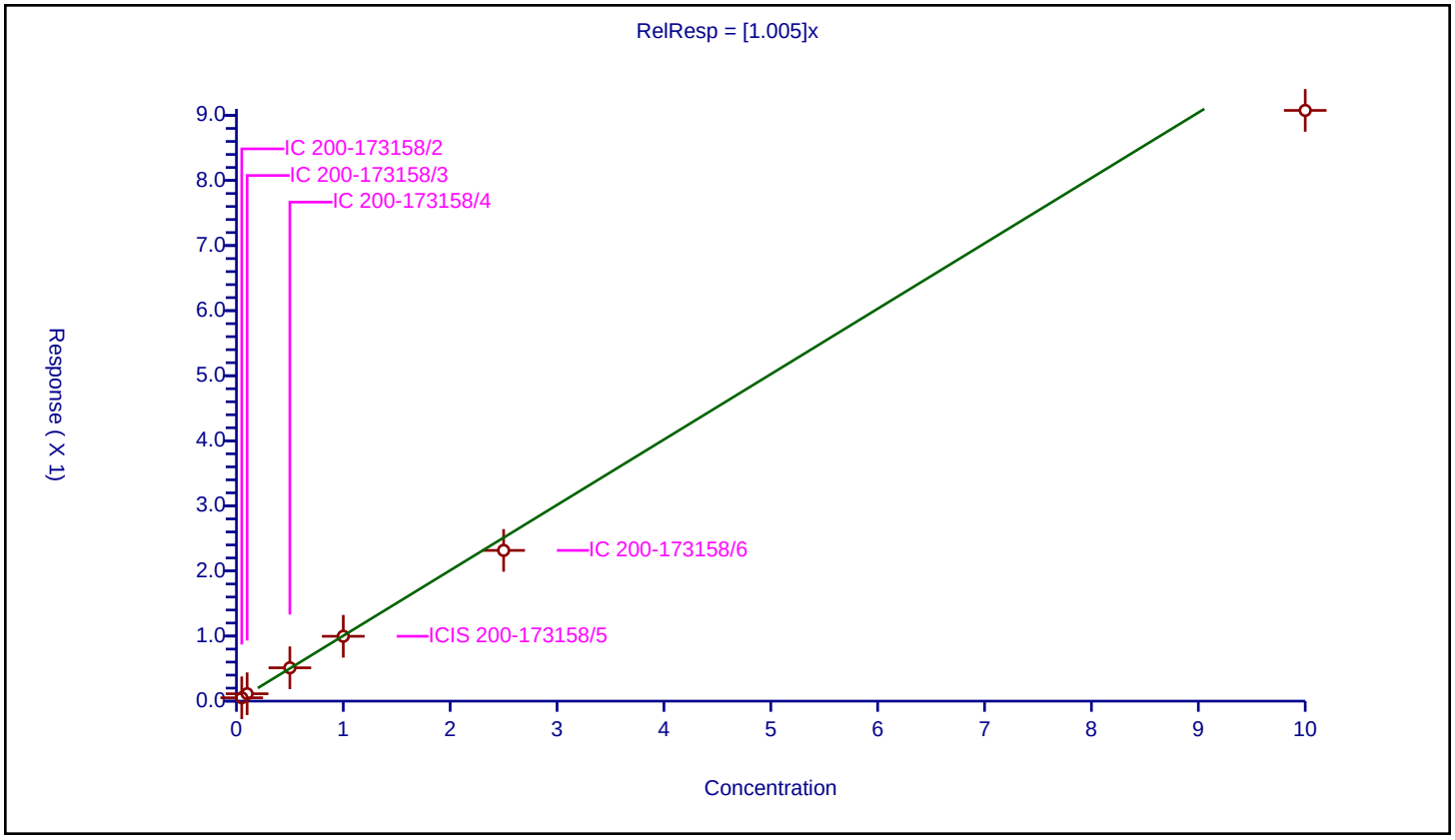
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.005 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5760000 |
| **Relative Standard Error:** | 8.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.051864 | 1.25 | 1813381.0 | 1.037289 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.113613 | 1.25 | 2069906.0 | 1.136126 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.51241 | 1.25 | 1732010.0 | 1.024821 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.996598 | 1.25 | 2098041.0 | 0.996598 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.316172 | 1.25 | 1713267.0 | 0.926469 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.076477 | 1.25 | 1701445.0 | 0.907648 | Y |



## Calibration / 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

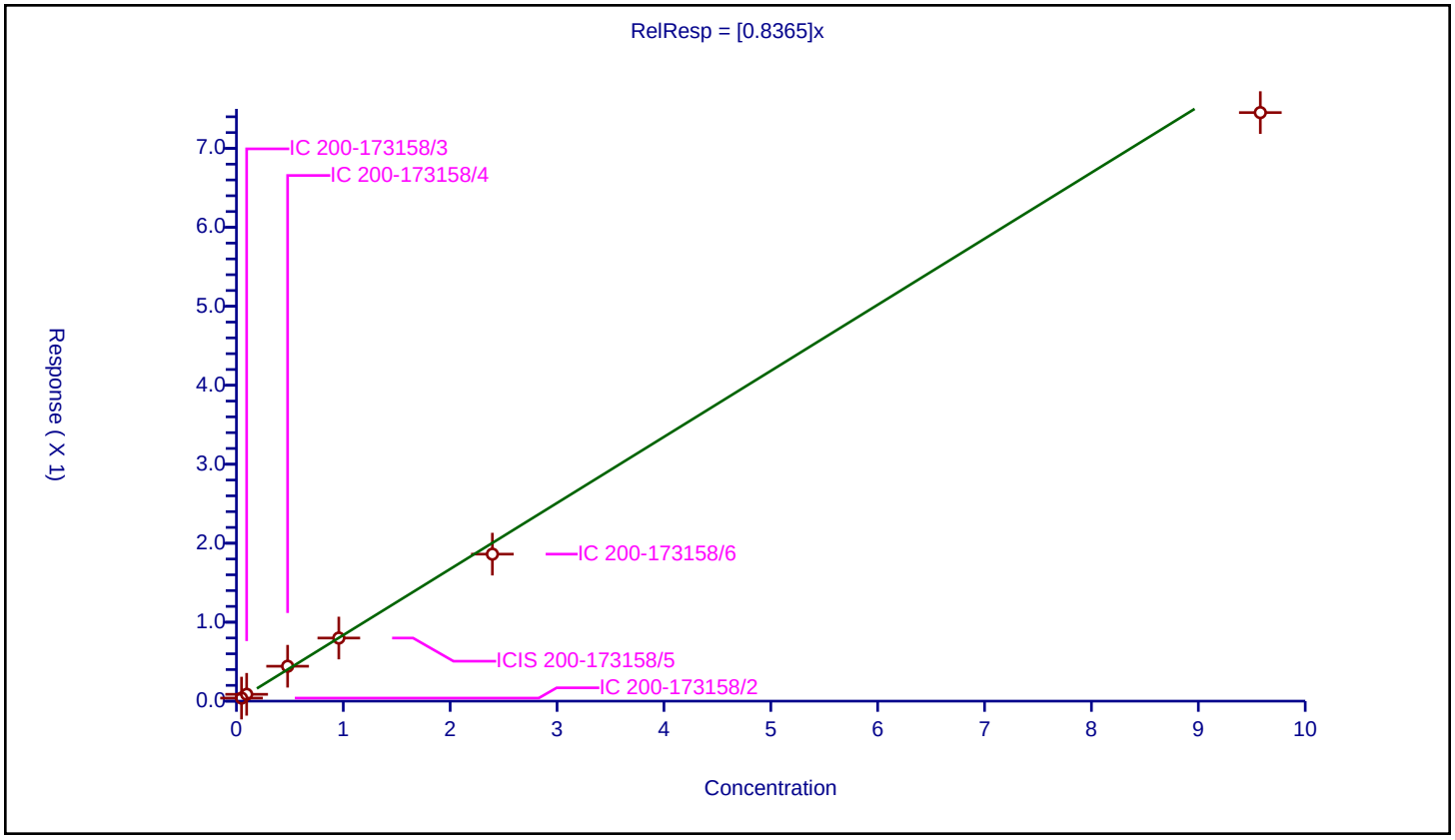
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8365 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 675000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0479 | 0.038585 | 1.1975 | 250892.0 | 0.805526 | Y |
| 2 | IC 200-173158/3 | 0.0958 | 0.086371 | 1.1975 | 288661.0 | 0.901577 | Y |
| 3 | IC 200-173158/4 | 0.479 | 0.441954 | 1.1975 | 236138.0 | 0.92266 | Y |
| 4 | ICIS 200-173158/5 | 0.958 | 0.799252 | 1.1975 | 286620.0 | 0.834293 | Y |
| 5 | IC 200-173158/6 | 2.395 | 1.861479 | 1.1975 | 249474.0 | 0.777235 | Y |
| 6 | IC 200-173158/7 | 9.58 | 7.453204 | 1.1975 | 231933.0 | 0.777996 | Y |



## Calibration / Perfluorooctanesulfonamide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

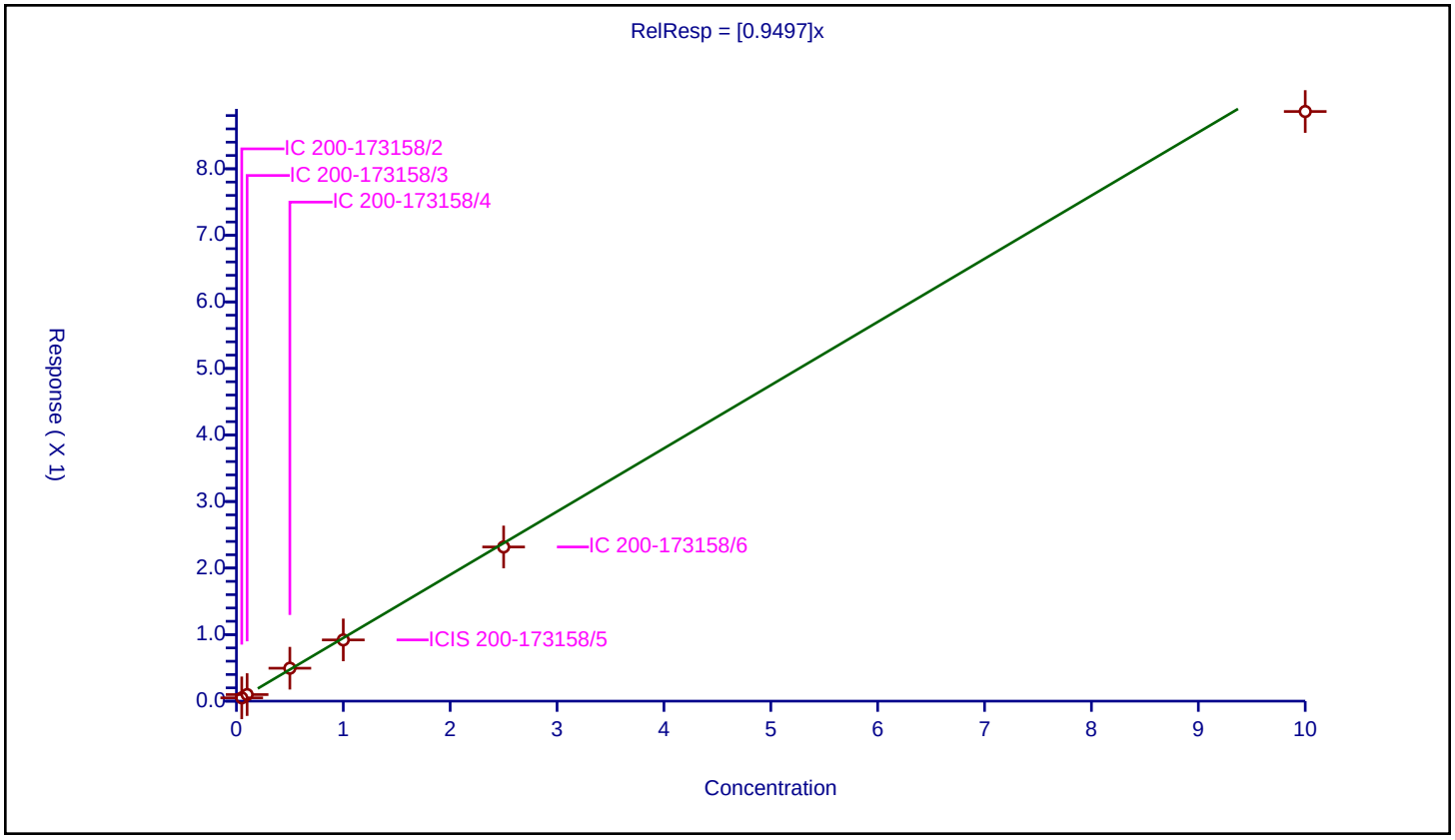
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9497 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5500000 |
| **Relative Standard Error:** | 4.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.049439 | 1.25 | 1644854.0 | 0.988781 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.09872 | 1.25 | 1999674.0 | 0.987205 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.494734 | 1.25 | 1730994.0 | 0.989468 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.919874 | 1.25 | 2062074.0 | 0.919874 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.316773 | 1.25 | 1642092.0 | 0.926709 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.860742 | 1.25 | 1662915.0 | 0.886074 | Y |



## Calibration / N-methylperfluorooctanesulfonamidoacetic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

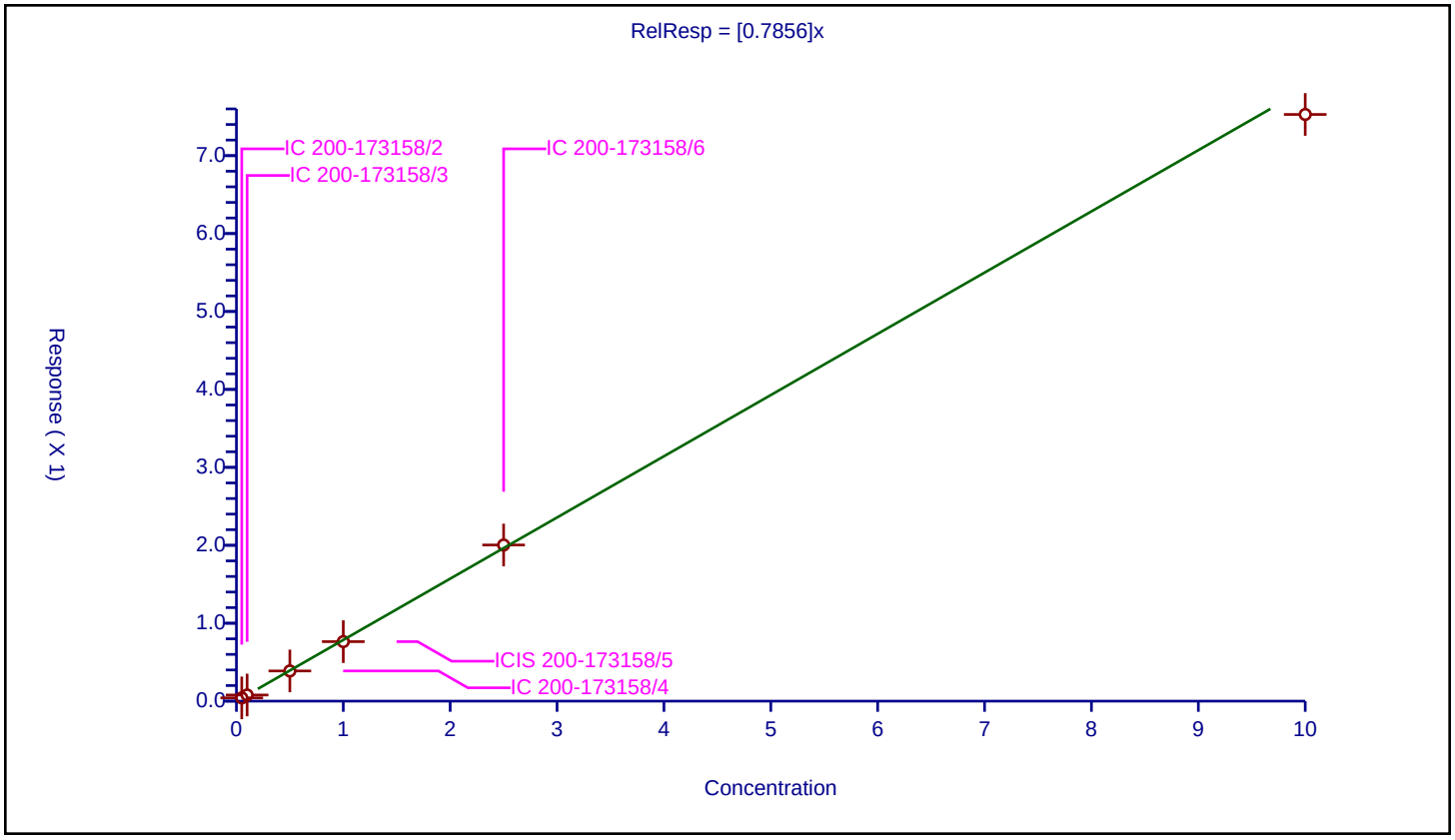
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7856 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 484000 |
| **Relative Standard Error:** | 3.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.041717 | 1.25 | 165609.0 | 0.834345 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.078621 | 1.25 | 207879.0 | 0.786215 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.387527 | 1.25 | 177391.0 | 0.775053 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.763639 | 1.25 | 208636.0 | 0.763639 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.003592 | 1.25 | 163220.0 | 0.801437 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.528684 | 1.25 | 173007.0 | 0.752868 | Y |



## Calibration / Perfluorodecanesulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

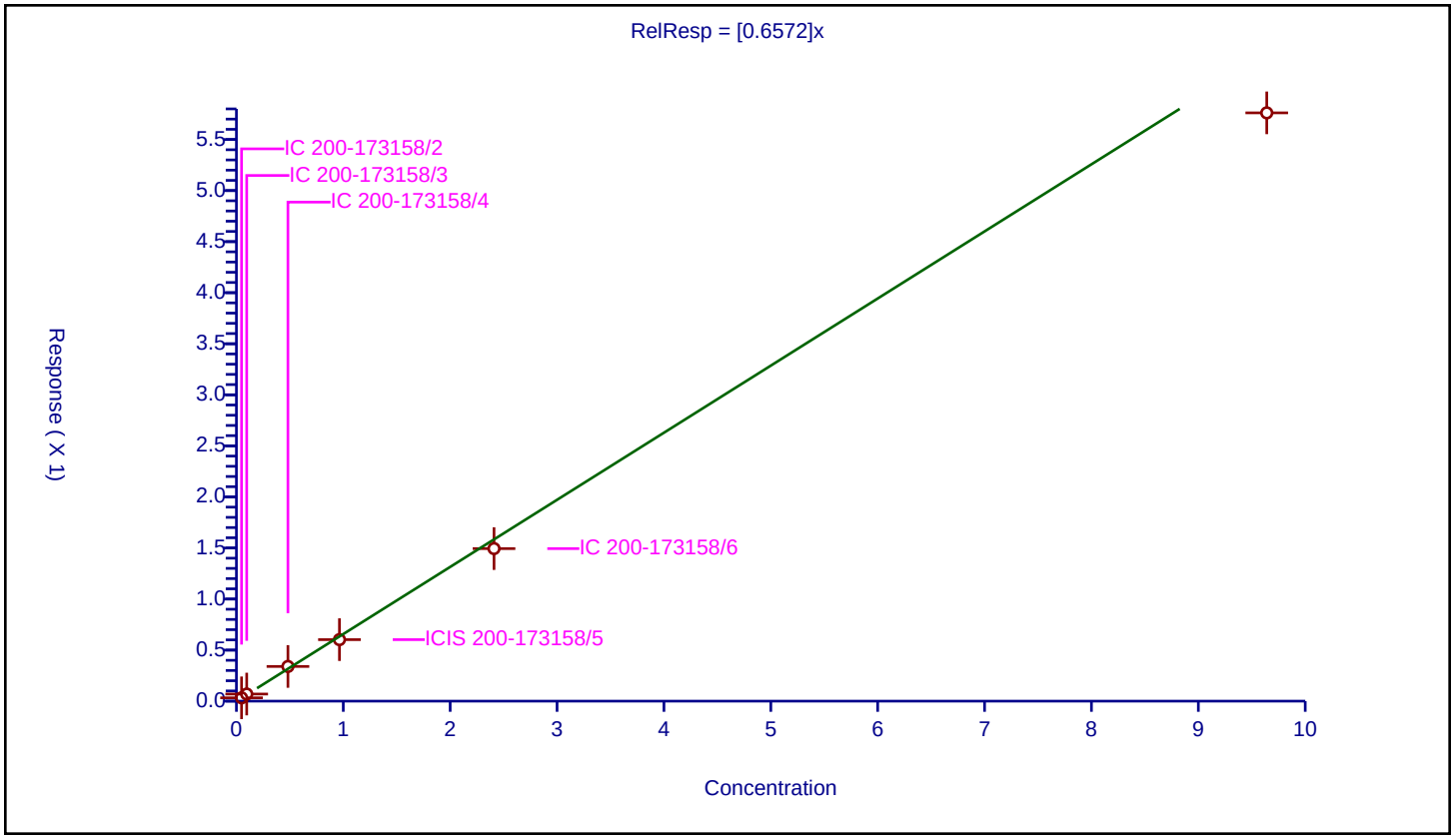
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6572 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2170000 |
| **Relative Standard Error:** | 7.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0482 | 0.032521 | 1.195 | 964211.0 | 0.674703 | Y |
| 2 | IC 200-173158/3 | 0.0964 | 0.069497 | 1.195 | 1187422.0 | 0.72092 | Y |
| 3 | IC 200-173158/4 | 0.482 | 0.339758 | 1.195 | 962917.0 | 0.704892 | Y |
| 4 | ICIS 200-173158/5 | 0.964 | 0.602471 | 1.195 | 1210356.0 | 0.62497 | Y |
| 5 | IC 200-173158/6 | 2.41 | 1.493932 | 1.195 | 951013.0 | 0.619889 | Y |
| 6 | IC 200-173158/7 | 9.64 | 5.761119 | 1.195 | 965476.0 | 0.597626 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

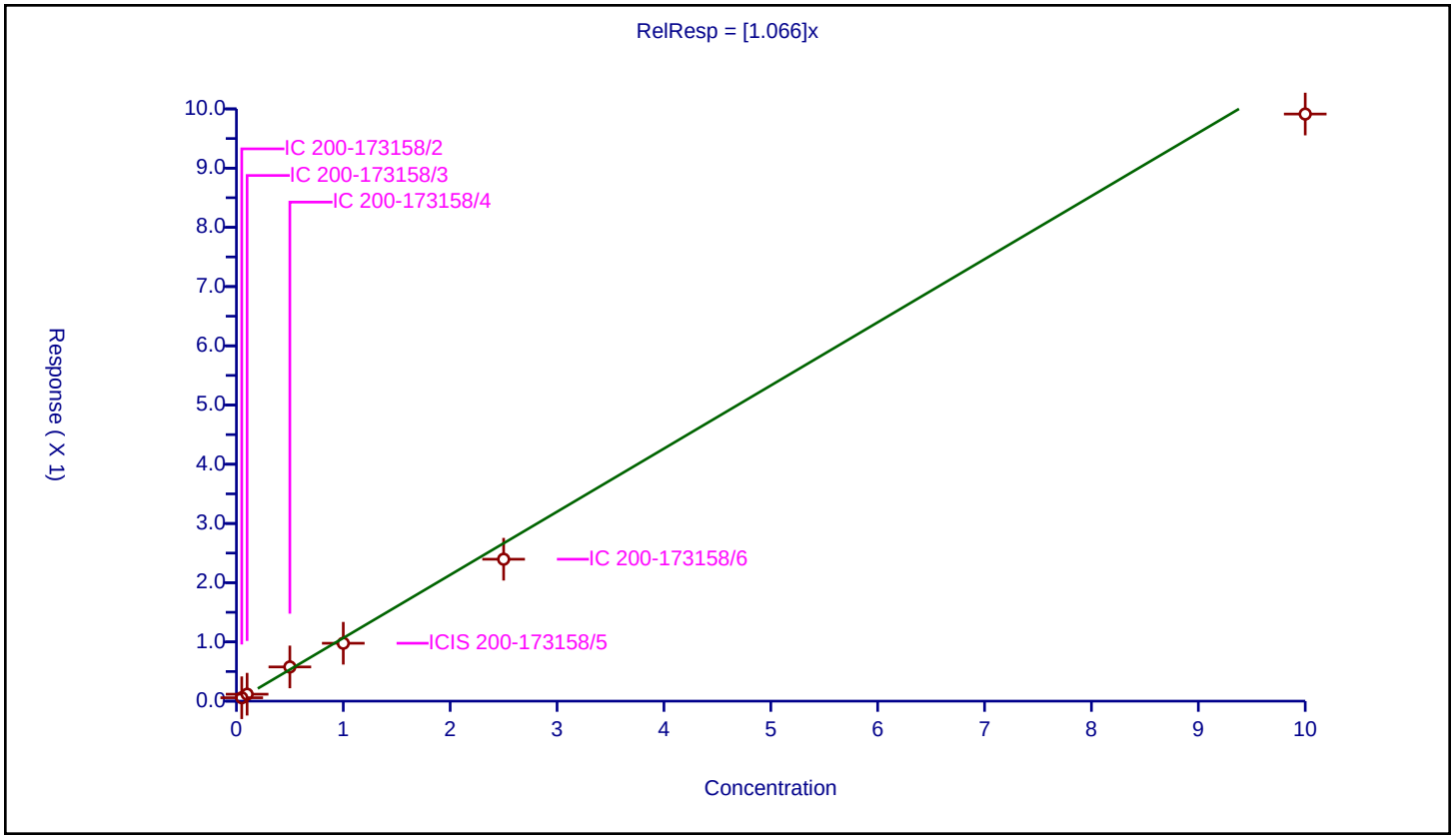
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.066 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4640000 |
| **Relative Standard Error:** | 9.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.057202 | 1.25 | 1359196.0 | 1.14404 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.116962 | 1.25 | 1631857.0 | 1.169618 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.577699 | 1.25 | 1326229.0 | 1.155398 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.977321 | 1.25 | 1758950.0 | 0.977321 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.396162 | 1.25 | 1376292.0 | 0.958465 | Y |
| 6 | IC 200-173158/7 | 10.0 | 9.913328 | 1.25 | 1249906.0 | 0.991333 | Y |



## Calibration / N-ethylperfluorooctanesulfonamidoacetic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

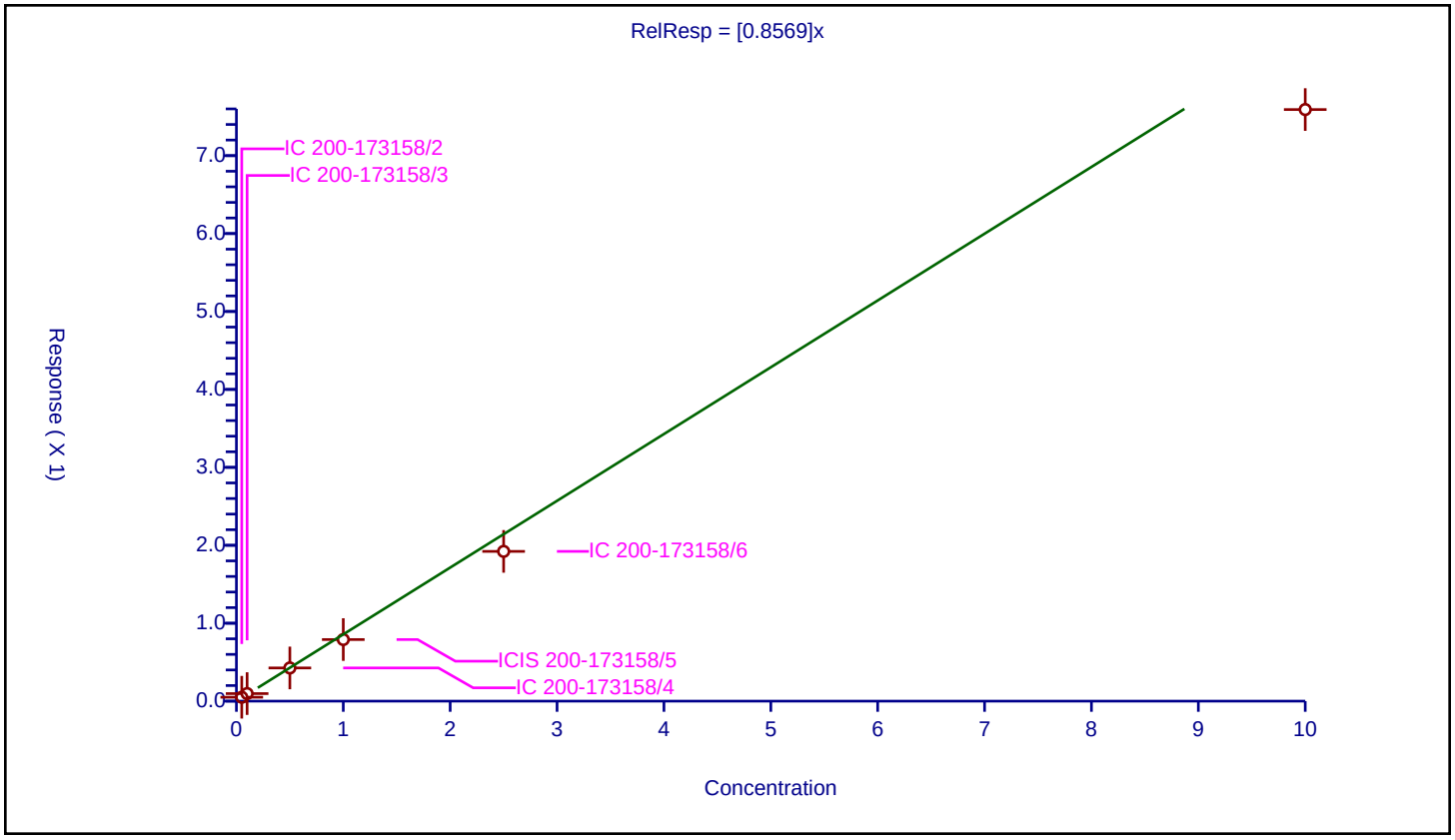
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8569 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 445000 |
| **Relative Standard Error:** | 12.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.977 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050082 | 1.25 | 153799.0 | 1.001632 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.096939 | 1.25 | 192776.0 | 0.969389 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.42599 | 1.25 | 162762.0 | 0.85198 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.790472 | 1.25 | 200276.0 | 0.790472 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.921704 | 1.25 | 160452.0 | 0.768682 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.591578 | 1.25 | 157024.0 | 0.759158 | Y |



## Calibration / 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

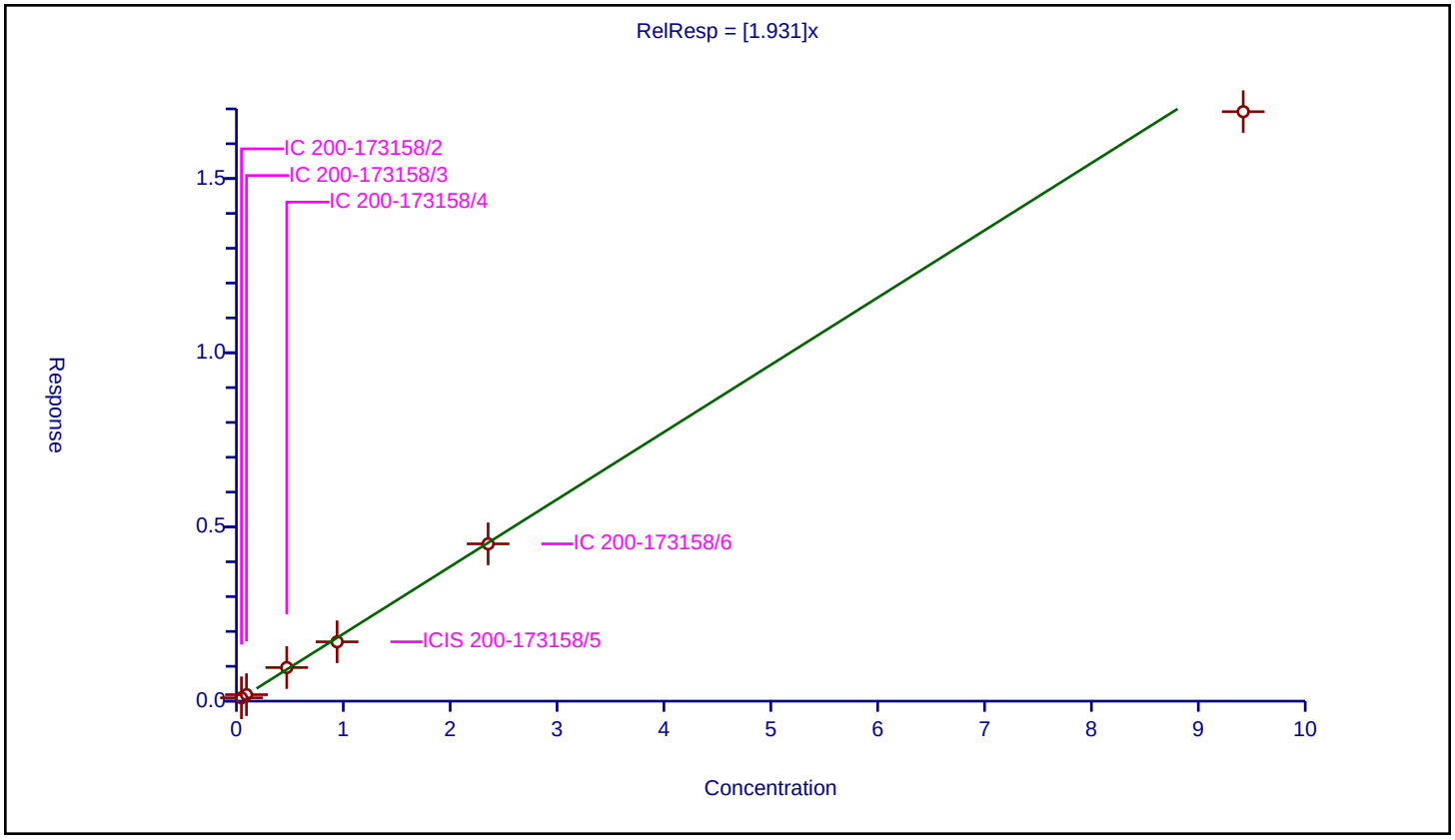
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.931 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6380000 |
| **Relative Standard Error:** | 5.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0471 | 0.095993 | 1.195 | 964211.0 | 2.038068 | Y |
| 2 | IC 200-173158/3 | 0.0942 | 0.186127 | 1.195 | 1187422.0 | 1.975874 | Y |
| 3 | IC 200-173158/4 | 0.471 | 0.964603 | 1.195 | 962917.0 | 2.04799 | Y |
| 4 | ICIS 200-173158/5 | 0.942 | 1.702871 | 1.195 | 1210356.0 | 1.807718 | Y |
| 5 | IC 200-173158/6 | 2.355 | 4.515029 | 1.195 | 951013.0 | 1.91721 | Y |
| 6 | IC 200-173158/7 | 9.42 | 16.920637 | 1.195 | 965476.0 | 1.796246 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

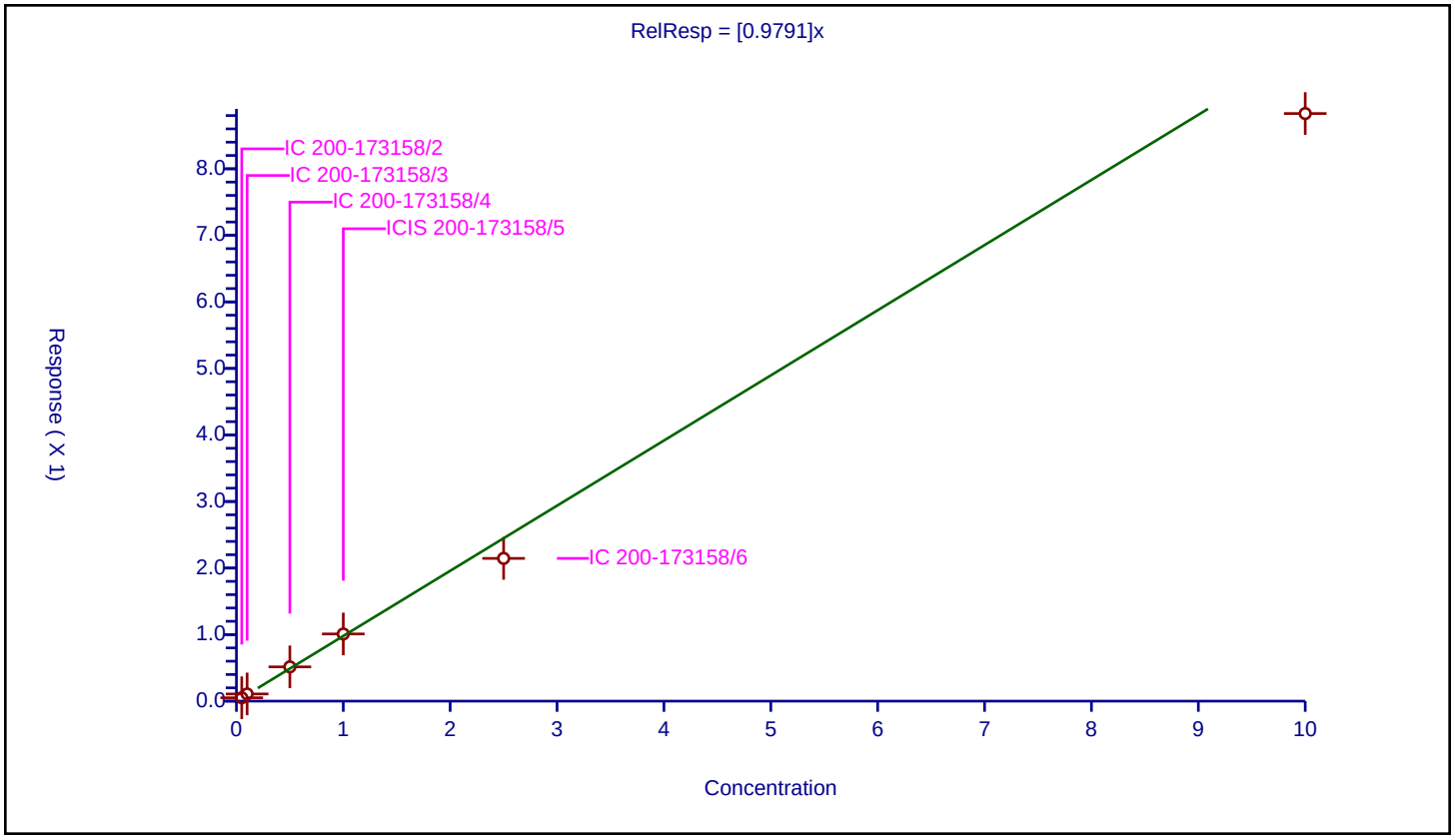
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9791 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4750000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.050814 | 1.25 | 1427497.0 | 1.016272 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.10775 | 1.25 | 1722128.0 | 1.077497 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.514936 | 1.25 | 1443504.0 | 1.029872 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 1.009575 | 1.25 | 1756299.0 | 1.009575 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.145202 | 1.25 | 1536568.0 | 0.858081 | Y |
| 6 | IC 200-173158/7 | 10.0 | 8.83038 | 1.25 | 1439938.0 | 0.883038 | Y |



## Calibration / 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

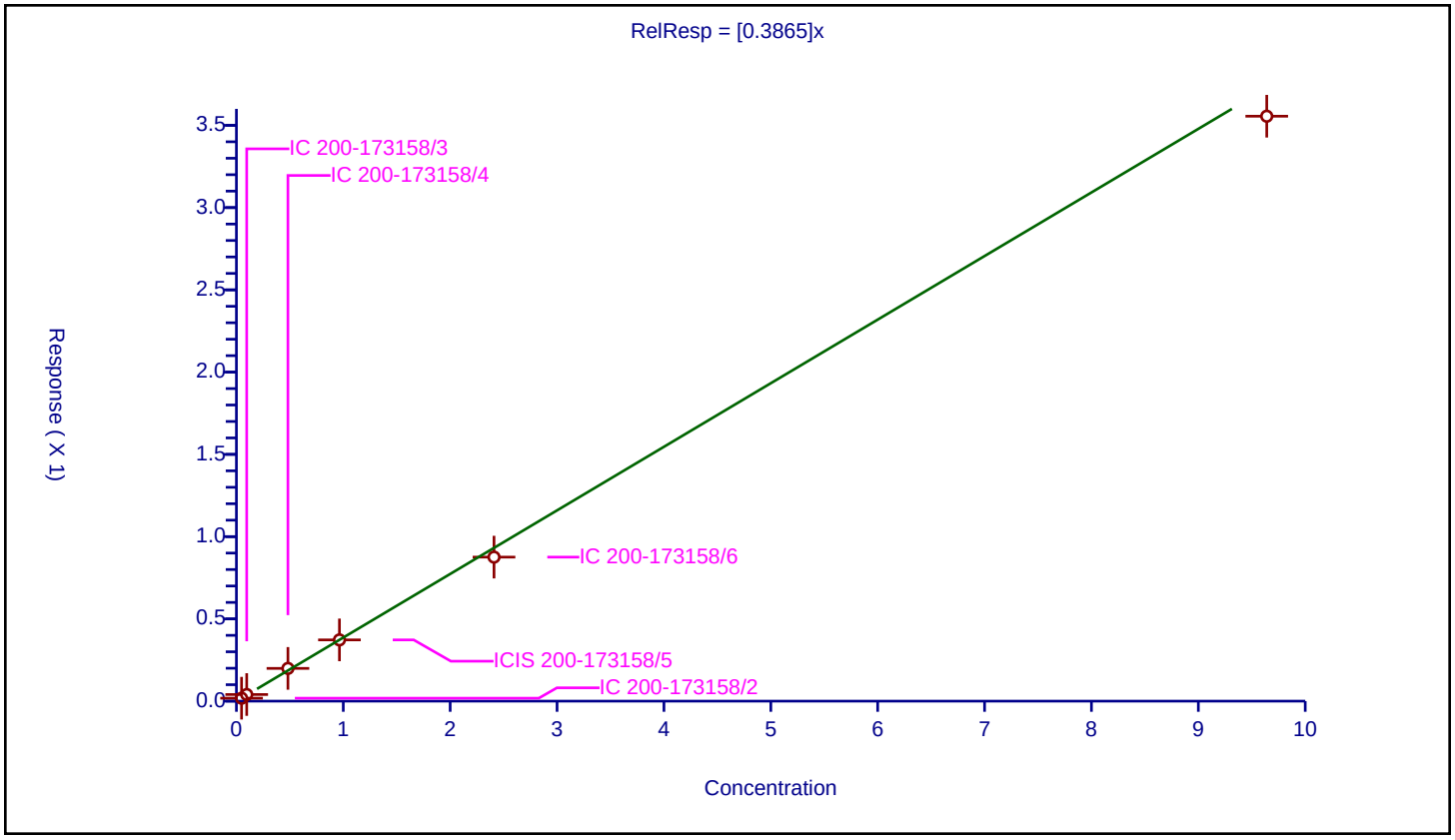
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3865 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 322000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0482 | 0.017856 | 1.1975 | 250892.0 | 0.37045 | Y |
| 2 | IC 200-173158/3 | 0.0964 | 0.040219 | 1.1975 | 288661.0 | 0.417213 | Y |
| 3 | IC 200-173158/4 | 0.482 | 0.19908 | 1.1975 | 236138.0 | 0.413028 | Y |
| 4 | ICIS 200-173158/5 | 0.964 | 0.372327 | 1.1975 | 286620.0 | 0.386231 | Y |
| 5 | IC 200-173158/6 | 2.41 | 0.875495 | 1.1975 | 249474.0 | 0.363276 | Y |
| 6 | IC 200-173158/7 | 9.64 | 3.555408 | 1.1975 | 231933.0 | 0.368818 | Y |



## Calibration / Perfluorododecanesulfonic acid (PFDoS)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

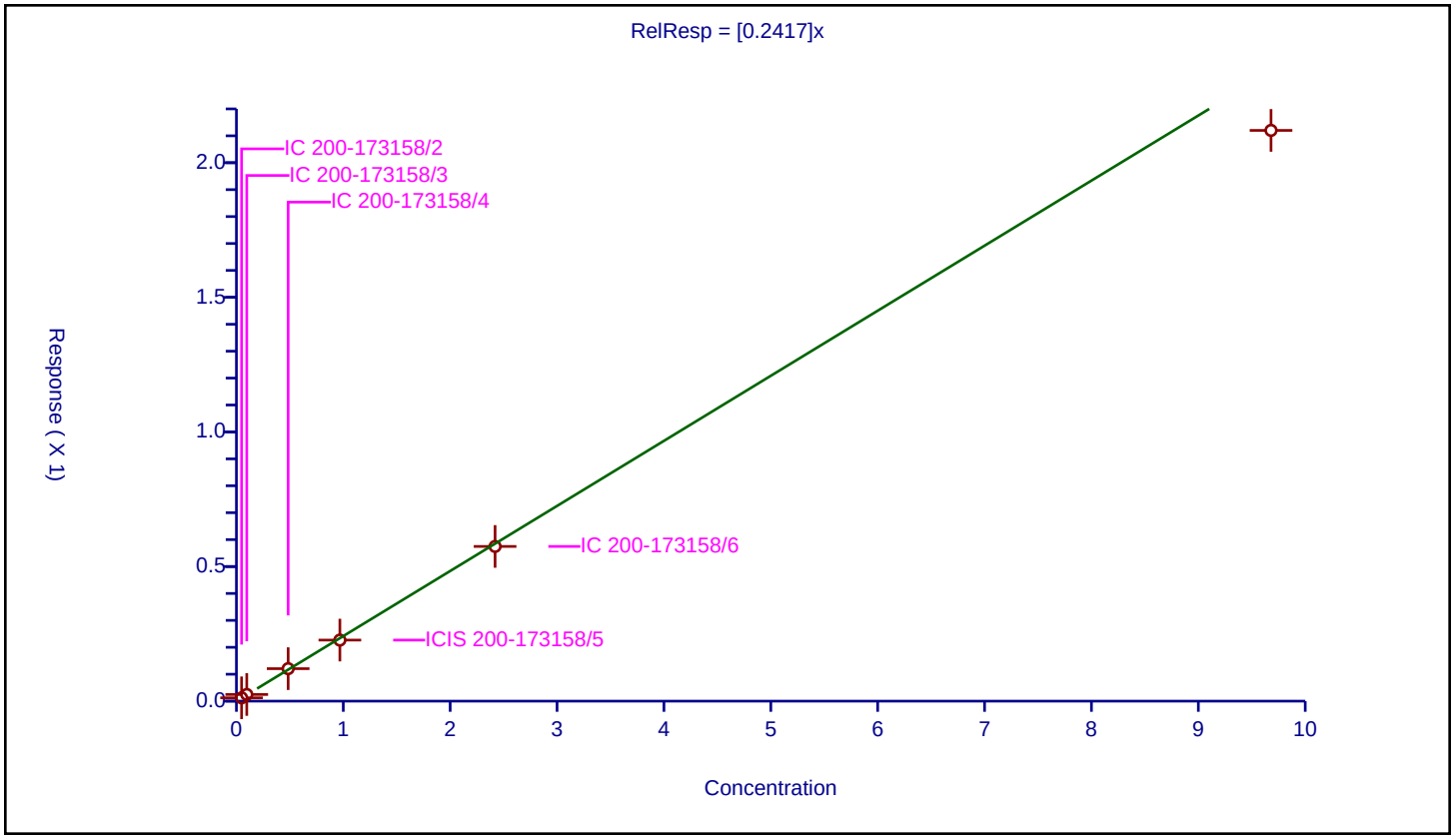
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2417 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 801000 |
| **Relative Standard Error:** | 5.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.0484 | 0.012337 | 1.195 | 964211.0 | 0.254887 | Y |
| 2 | IC 200-173158/3 | 0.0968 | 0.024715 | 1.195 | 1187422.0 | 0.255317 | Y |
| 3 | IC 200-173158/4 | 0.484 | 0.120646 | 1.195 | 962917.0 | 0.249268 | Y |
| 4 | ICIS 200-173158/5 | 0.968 | 0.226779 | 1.195 | 1210356.0 | 0.234276 | Y |
| 5 | IC 200-173158/6 | 2.42 | 0.57464 | 1.195 | 951013.0 | 0.237455 | Y |
| 6 | IC 200-173158/7 | 9.68 | 2.120102 | 1.195 | 965476.0 | 0.219019 | Y |



## Calibration / Perfluorotridecanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

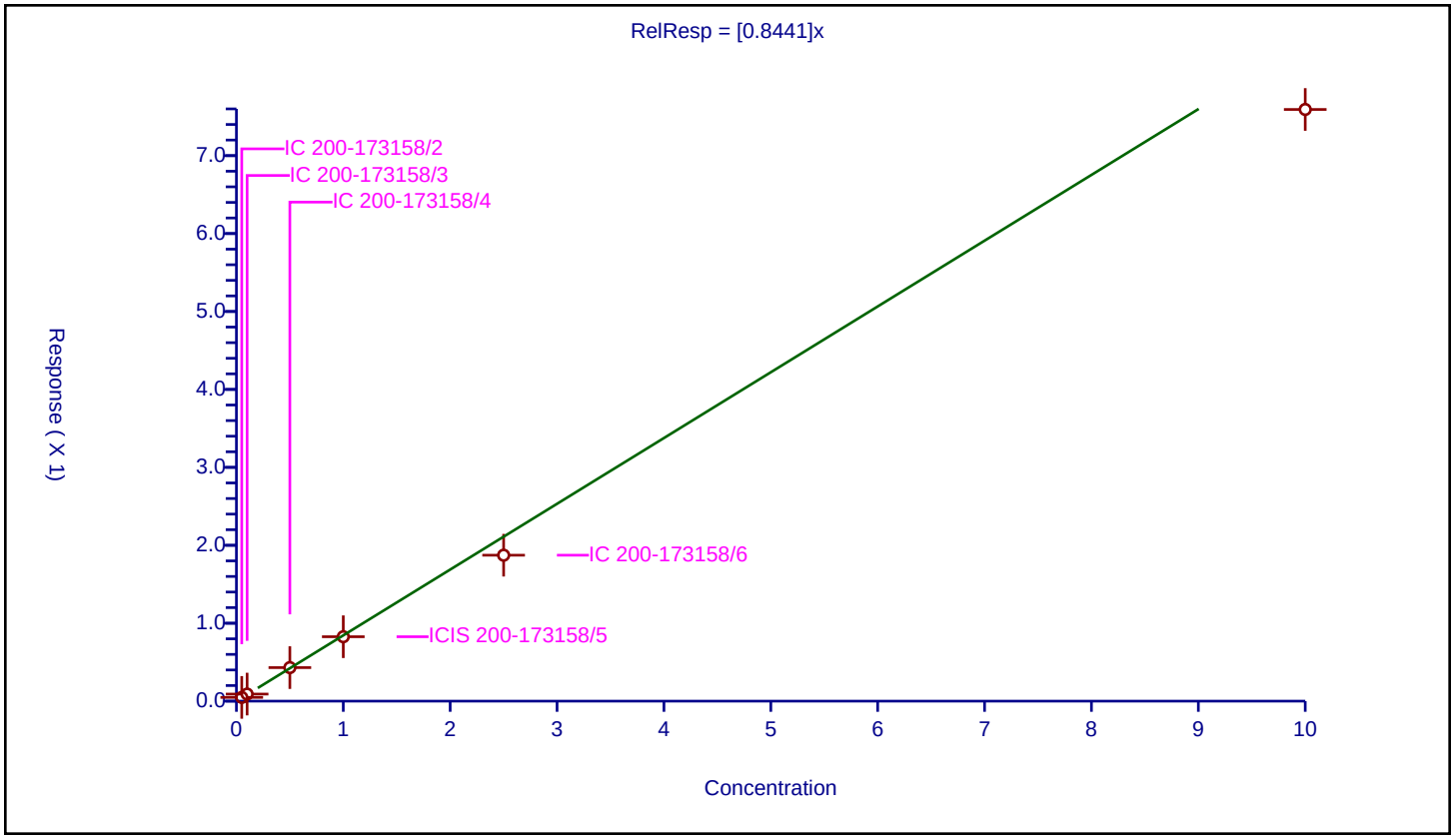
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8441 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4080000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.048029 | 1.25 | 1427497.0 | 0.96058 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.090834 | 1.25 | 1722128.0 | 0.908338 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.430447 | 1.25 | 1443504.0 | 0.860895 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.826487 | 1.25 | 1756299.0 | 0.826487 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.872621 | 1.25 | 1536568.0 | 0.749049 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.592611 | 1.25 | 1439938.0 | 0.759261 | Y |



## Calibration / Perfluorotetradecanoic acid

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

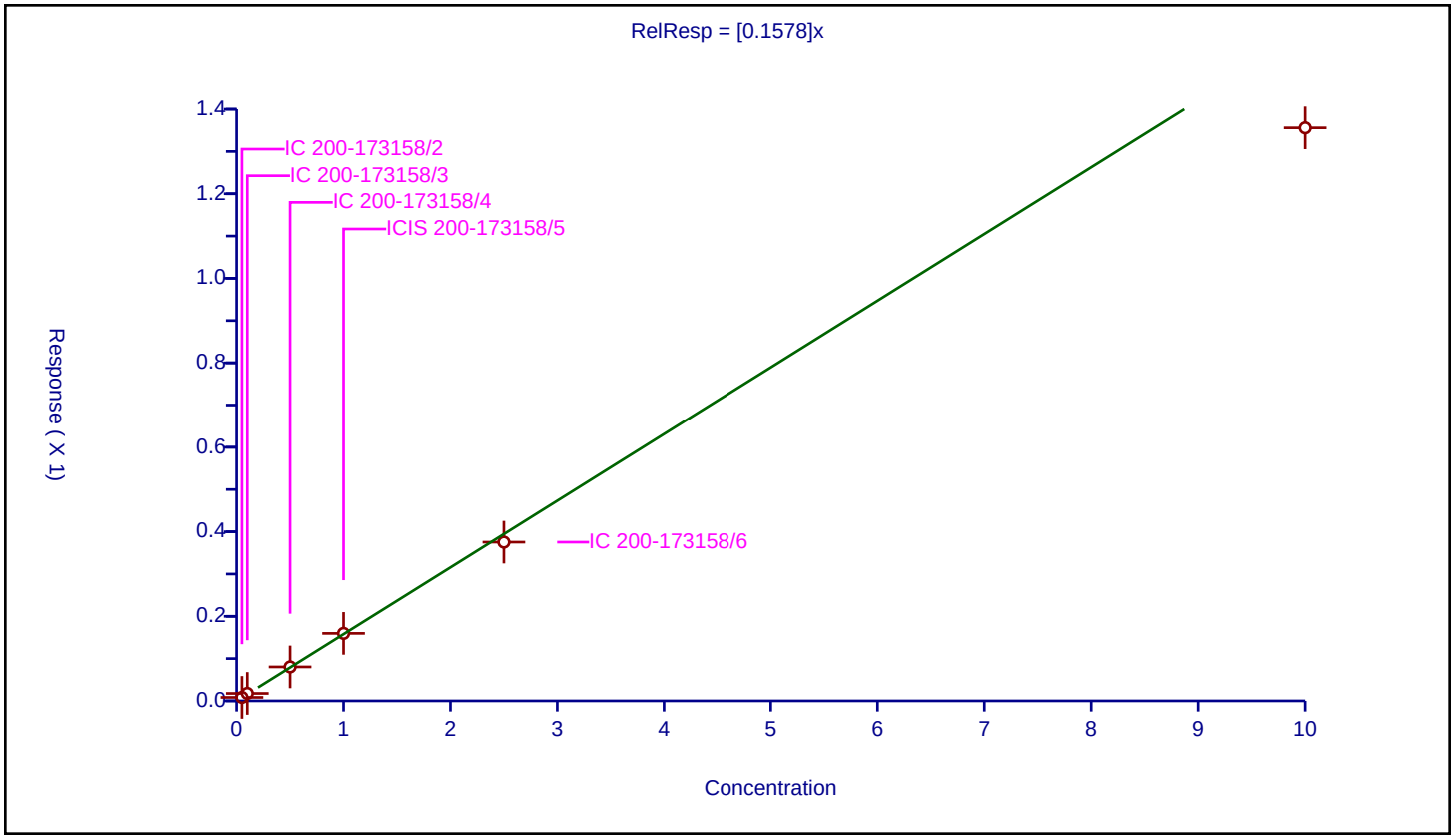
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1578 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 581000 |
| **Relative Standard Error:** | 8.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.008241 | 1.25 | 1128642.0 | 0.164822 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.01762 | 1.25 | 1335021.0 | 0.176196 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.080285 | 1.25 | 1151594.0 | 0.160571 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.159624 | 1.25 | 1364943.0 | 0.159624 | Y |
| 5 | IC 200-173158/6 | 2.5 | 0.375378 | 1.25 | 1108790.0 | 0.150151 | Y |
| 6 | IC 200-173158/7 | 10.0 | 1.355964 | 1.25 | 1144458.0 | 0.135596 | Y |



## Calibration / Perfluorohexadecanoic acid

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

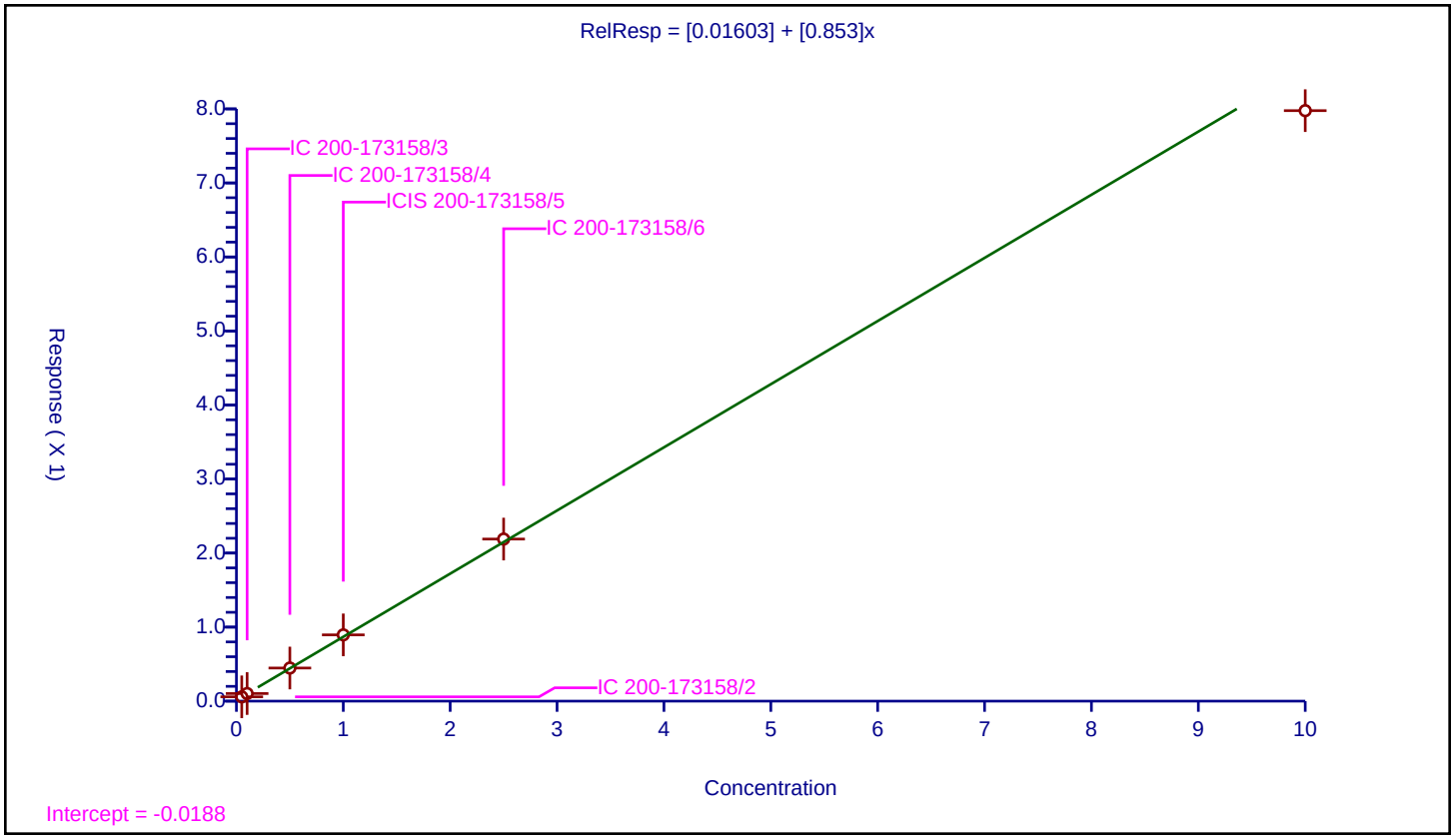
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.01603 |
| **Slope:** | 0.853 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3280000 |
| **Relative Standard Error:** | 4.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.058211 | 1.25 | 1007270.0 | 1.164211 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.102722 | 1.25 | 1197224.0 | 1.02722 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.447413 | 1.25 | 1005731.0 | 0.894827 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.895294 | 1.25 | 1215023.0 | 0.895294 | Y |
| 5 | IC 200-173158/6 | 2.5 | 2.189338 | 1.25 | 968779.0 | 0.875735 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.976081 | 1.25 | 982482.0 | 0.797608 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | IsoDil |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

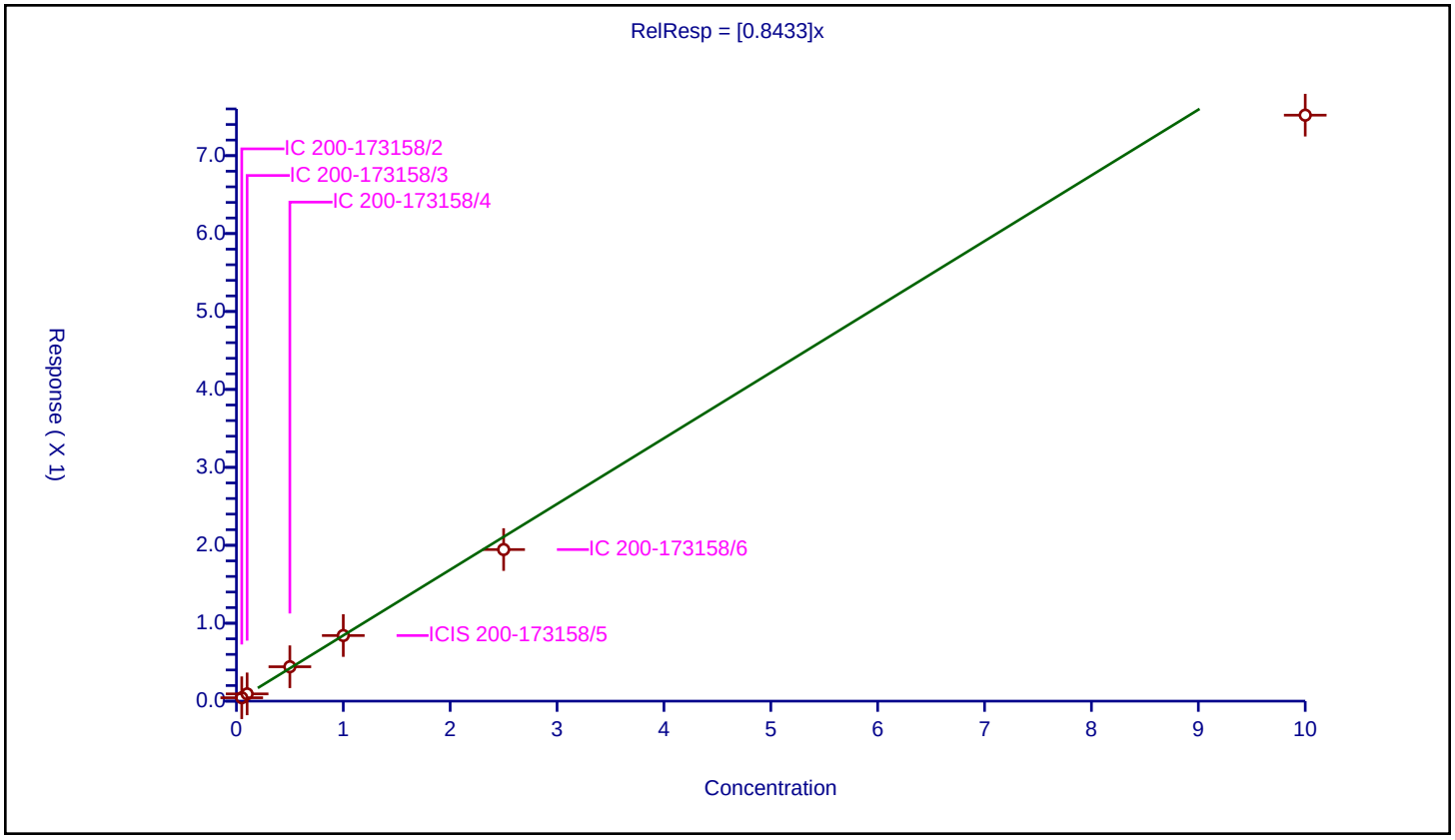
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8433 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2760000 |
| **Relative Standard Error:** | 8.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 200-173158/2 | 0.05 | 0.043629 | 1.25 | 1007270.0 | 0.872581 | Y |
| 2 | IC 200-173158/3 | 0.1 | 0.093246 | 1.25 | 1197224.0 | 0.932459 | Y |
| 3 | IC 200-173158/4 | 0.5 | 0.441542 | 1.25 | 1005731.0 | 0.883084 | Y |
| 4 | ICIS 200-173158/5 | 1.0 | 0.841854 | 1.25 | 1215023.0 | 0.841854 | Y |
| 5 | IC 200-173158/6 | 2.5 | 1.945102 | 1.25 | 968779.0 | 0.778041 | Y |
| 6 | IC 200-173158/7 | 10.0 | 7.519537 | 1.25 | 982482.0 | 0.751954 | Y |



FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: ICV 200-173158/9  Calibration Date: 10/27/2021 14:44

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211027ICAL09.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9934 | | 1.05 | 1.00 | 5.1 | 30.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.057 | | 1.07 | 1.01 | 5.6 | 30.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.041 | | 0.974 | 1.00 | -2.6 | 30.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.100 | | 0.986 | 1.00 | -1.4 | 30.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.024 | | 1.02 | 1.01 | 1.0 | 30.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.239 | | 1.03 | 1.00 | 2.9 | 30.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.137 | | 0.910 | 1.01 | -8.6 | 30.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9701 | | 0.939 | 1.00 | -6.1 | 30.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.096 | | 1.01 | 1.01 | -0.3 | 30.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.617 | | 1.03 | 1.00 | 3.3 | 30.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.288 | | 1.02 | 1.00 | 1.6 | 30.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.245 | | 0.999 | 1.00 | -0.1 | 30.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.060 | | 0.996 | 1.00 | -0.4 | 30.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9529 | | 0.887 | 1.01 | -12.2 | 30.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.054 | | 1.08 | 1.00 | 7.8 | 30.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.616 | | 0.989 | 1.00 | -1.1 | 30.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8435 | | 1.01 | 1.01 | -0.2 | 30.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.010 | | 1.01 | 1.00 | 0.5 | 30.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.8345 | | 1.01 | 1.01 | -0.3 | 30.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9175 | | 0.966 | 1.00 | -3.4 | 30.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8584 | | 1.09 | 1.00 | 9.3 | 30.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6464 | | 0.993 | 1.01 | -1.6 | 30.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.029 | | 0.965 | 1.00 | -3.5 | 30.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.9272 | | 1.08 | 1.00 | 8.2 | 30.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.971 | | 1.02 | 1.00 | 2.1 | 30.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.8783 | | 0.897 | 1.00 | -10.3 | 30.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4394 | | 1.10 | 0.964 | 13.7 | 30.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2574 | | 1.03 | 0.968 | 6.5 | 30.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: ICV 200-173158/9  Calibration Date: 10/27/2021 14:44

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211027ICAL09.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7128 | | 0.844 | 1.00 | -15.6 | 30.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1550 | | 0.982 | 1.00 | -1.8 | 30.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8996 | | 1.04 | 1.00 | 3.6 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7314 | | 0.867 | 1.00 | -13.3 | 30.0 |
| 13C4 PFBA | Ave | 1.012 | 0.8260 | | 1.02 | 1.25 | -18.4 | 50.0 |
| 13C5 PFPeA | Ave | 0.8527 | 0.6847 | | 1.00 | 1.25 | -19.7 | 50.0 |
| 13C3 PFBS | Ave | 1.154 | 0.9238 | | 0.931 | 1.16 | -19.9 | 50.0 |
| M2-4:2 FTS | Ave | 0.0879 | 0.0723 | | 0.960 | 1.17 | -17.8 | 50.0 |
| 13C2 PFHxA | Ave | 0.8946 | 0.7451 | | 1.04 | 1.25 | -16.7 | 50.0 |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0200 | | 1.06 | 1.25 | -15.1 | 50.0 |
| 13C4 PFHpA | Ave | 0.9417 | 0.7903 | | 1.05 | 1.25 | -16.1 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.6868 | | 0.969 | 1.18 | -18.1 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1088 | | 0.977 | 1.19 | -17.7 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 0.8588 | | 1.04 | 1.25 | -16.5 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.4991 | | 0.985 | 1.20 | -17.6 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.8490 | | 1.04 | 1.25 | -17.2 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.8504 | | 1.03 | 1.25 | -17.8 | 50.0 |
| M2-8:2 FTS | Ave | 0.1498 | 0.1249 | | 0.998 | 1.20 | -16.7 | 50.0 |
| 13C8 FOSA | Ave | 0.998 | 0.8263 | | 1.04 | 1.25 | -17.2 | 50.0 |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0837 | | 1.03 | 1.25 | -17.7 | 50.0 |
| 13C2 PFUnA | Ave | 0.8062 | 0.6579 | | 1.02 | 1.25 | -18.4 | 50.0 |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0752 | | 0.987 | 1.25 | -21.1 | 50.0 |
| 13C2 PFDoA | Ave | 0.8672 | 0.7415 | | 1.07 | 1.25 | -14.5 | 50.0 |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5727 | | 1.06 | 1.25 | -14.8 | 50.0 |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5100 | | 1.08 | 1.25 | -13.9 | 50.0 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 27-Oct-2021 14:44:15 ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 200-0048181-009 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist:

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:06:39 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 16:05:53
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.082 | 2.080 | 0.002 | 0.598 | 2138431 | 1.02 | | 81.6 | 5987 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.080 | 0.002 | 1.000 | 1699523 | 1.05 | | | 137 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.398 | 0.002 | 0.689 | 1772461 | 1.00 | | 80.3 | 2774 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.398 | 0.002 | 1.000 | 1514450 | 1.07 | | | 87.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.413 | 2.424 | -0.011 | 0.693 | 2224203 | 0.9308 | | 80.1 | 315649 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.424 | 0.002 | 1.005 | 1991363 | 0.9745 | Target=2.32 | | 1583 | |
| 298.90 > 99.00 | 2.426 | 2.424 | 0.002 | 1.005 | 897423 | | 2.22(1.16-3.48) | | 306 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.722 | 2.720 | 0.002 | 0.781 | 174749 | 0.9595 | | 82.2 | 141 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.722 | 2.720 | 0.002 | 1.000 | 314283 | 0.9865 | | | 2061 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.756 | 0.002 | 1.000 | 1596681 | 1.02 | Target=12.09 | | 204 | M |
| 313.00 > 119.00 | 2.758 | 2.756 | 0.002 | 1.000 | 127959 | | 12.48(6.04-18.13) | | 152 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.756 | 0.002 | 0.792 | 1928974 | 1.04 | | 83.3 | 3054 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.768 | 0.002 | 0.884 | 1762517 | 1.03 | Target=3.03 | | 1425 | M |
| 349.00 > 99.00 | 2.770 | 2.768 | 0.002 | 0.884 | 586066 | | 3.01(1.52-4.55) | | 537 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.865 | 0.015 | 0.827 | 51797 | 1.06 | | 84.9 | 316 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.868 | 2.865 | 0.003 | 0.996 | 173128 | 0.9096 | | | 46.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.122 | 0.010 | 0.899 | 1682073 | 0.9689 | | 81.9 | 3065 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.122 | 0.010 | 1.000 | 1574569 | 1.01 | Target=3.55 | | 1319 | M |
| 399.00 > 99.00 | 3.132 | 3.122 | 0.010 | 1.000 | 420396 | | 3.75(1.77-5.32) | | 348 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1587824 | 0.9389 | Target=3.69 | | 383 | M |
| 363.00 > 169.00 | 3.132 | 3.132 | 0.0 | 1.000 | 437838 | | 3.63(1.84-5.53) | | 746 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 2045905 | 1.05 | | 83.9 | 4587 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.165 | 0.010 | 0.837 | 3738319 | 1.03 | Target=2.56 | | 2012 | M |
| 377.00 > 85.00 | 3.175 | 3.165 | 0.010 | 0.837 | 1445979 | | 2.59(1.28-3.84) | | 1153 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 1287103 | 1.00 | Target=4.88 | | 1906 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 265262 | | 4.85(2.44-7.32) | | 658 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 267508 | 0.9771 | | 82.3 | 483 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 290233 | 1.02 | | | 1330 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 2223267 | 1.04 | | 83.5 | 5026 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 2588794 | 1.25 | | | 3620 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.003 | 1884671 | 1.00 | Target=2.68 | | 294 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 702627 | | 2.68(1.34-4.02) | | 775 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.089 | 1235127 | 0.9845 | | 82.4 | 2650 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.000 | 994741 | 0.8870 | Target=4.69 | | 755 | M |
| 499.00 > 99.00 | 3.794 | 3.794 | 0.0 | 1.000 | 215714 | | 4.61(2.35-7.04) | | 445 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.095 | 2198000 | 1.04 | | 82.8 | 6558 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1854225 | 1.08 | Target=7.29 | | 346 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 240141 | | 7.72(3.64-10.93) | | 1081 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.955 | 3.955 | 0.0 | 1.042 | 1670588 | 0.9888 | | | 3297 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.071 | 0.010 | 1.076 | 880522 | 1.01 | Target=2.35 | | 2199 | |
| 549.00 > 99.00 | 4.081 | 4.071 | 0.010 | 1.076 | 364004 | | 2.42(1.17-3.52) | | 758 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.104 | 0.0 | 1.178 | 2201536 | 1.03 | | 82.2 | 4027 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.104 | 4.104 | 0.0 | 1.000 | 1778491 | 1.00 | Target=8.95 | | 768 | |
| 513.00 > 169.00 | 4.104 | 4.104 | 0.0 | 1.000 | 190807 | | 9.32(4.47-13.42) | | 949 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.115 | 0.0 | 1.181 | 309648 | 1.00 | | 83.3 | 919 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.115 | 0.0 | 1.000 | 217930 | 1.01 | | | 1719 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.235 | 4.225 | 0.010 | 1.216 | 2139037 | 1.04 | | 82.8 | 4394 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.235 | 4.235 | 0.0 | 1.000 | 1570042 | 0.9661 | | | 2329 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.219 | 216683 | 1.03 | | 82.3 | 715 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.246 | 0.0 | 1.000 | 148796 | 1.09 | | | 481 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.336 | 4.336 | 0.0 | 1.143 | 674790 | 0.99 | Target=2.47 | | 3121 | |
| 599.00 > 99.00 | 4.336 | 4.336 | 0.0 | 1.143 | 269271 | | 2.51(1.23-3.70) | | 1856 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.358 | 0.011 | 1.254 | 1703222 | 1.02 | | 81.6 | 4016 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.369 | 4.358 | 0.011 | 1.000 | 1401937 | 0.9652 | Target=9.24 | | 728 | M |
| 563.00 > 169.00 | 4.369 | 4.358 | 0.011 | 1.000 | 160471 | | 8.74(4.62-13.86) | | 431 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.369 | 0.011 | 1.257 | 194745 | 0.9867 | | 78.9 | 1134 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.000 | 144449 | 1.08 | | | 641 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.456 | 4.445 | 0.011 | 1.174 | 2036695 | 1.02 | | | 3965 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.580 | 0.011 | 1.318 | 1919558 | 1.07 | | 85.5 | 959 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.580 | 0.011 | 1.000 | 1348763 | 0.8971 | Target=7.04 | | 194 | M |
| 613.00 > 169.00 | 4.591 | 4.580 | 0.011 | 1.000 | 210862 | | 6.40(3.52-10.56) | | 1060 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.601 | 0.0 | 1.118 | 109540 | 1.10 | | | 1908 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.748 | 4.748 | 0.0 | 1.251 | 257568 | 1.03 | Target=0.49 | | 2754 | |
| 699.00 > 99.00 | 4.748 | 4.748 | 0.0 | 1.251 | 511198 | | 0.50(0.25-0.74) | | 3140 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.784 | 4.775 | 0.009 | 1.042 | 1094580 | 0.8444 | Target=4.68 | | 227 | M |
| 663.00 > 169.00 | 4.784 | 4.775 | 0.009 | 1.042 | 252536 | | 4.33(2.34-7.02) | | 492 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.957 | 0.0 | 1.423 | 1482565 | 1.06 | | 85.2 | 3522 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.957 | 4.957 | 0.0 | 1.000 | 183790 | 0.9818 | Target=1.01 | | 886 | M |
| 713.00 > 219.00 | 4.957 | 4.957 | 0.0 | 1.000 | 181784 | | 1.01(0.51-1.52) | | 489 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.270 | 5.258 | 0.012 | 1.513 | 1320258 | 1.08 | | 86.1 | 3049 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.270 | 5.258 | 0.012 | 1.000 | 950197 | 1.04 | Target=4.57 | | 228 | M |
| 813.00 > 169.00 | 5.270 | 5.258 | 0.012 | 1.000 | 196531 | | 4.83(2.29-6.86) | | 1527 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.528 | 5.519 | 0.009 | 1.049 | 772499 | 0.8673 | Target=4.27 | | 317 | M |
| 913.00 > 169.00 | 5.528 | 5.519 | 0.009 | 1.049 | 178495 | | 4.33(2.14-6.41) | | 1263 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

LCPFAS28NCICV_00008 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:06:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d

Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812

Lims ID: ICV

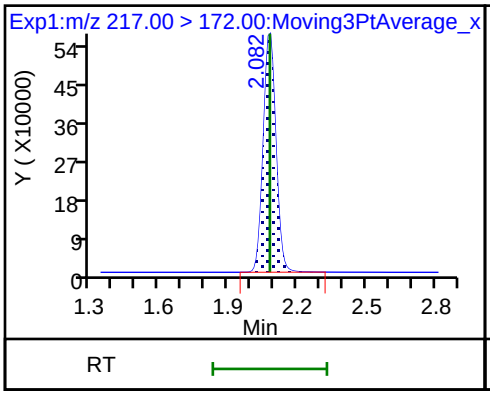
Client ID:

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9

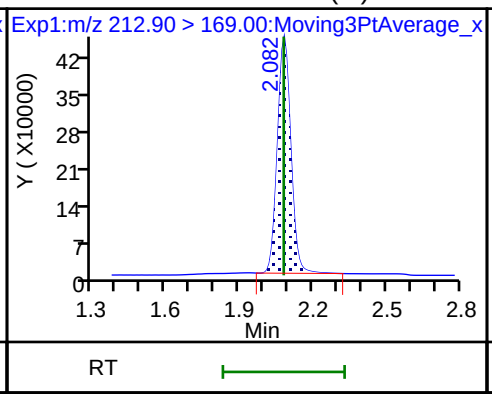
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

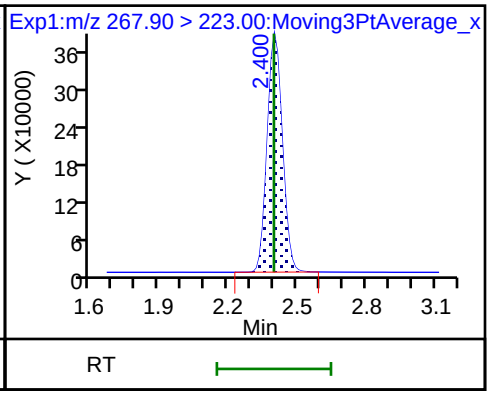
D 1 13C4 PFBA



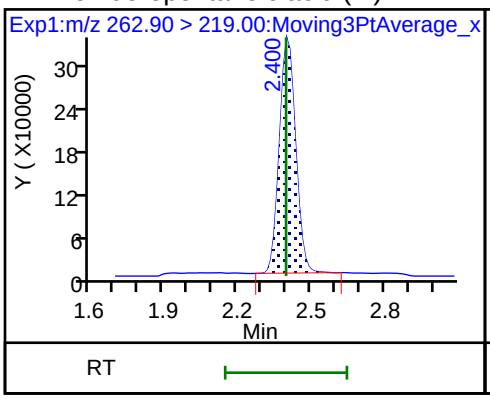

2 Perfluorobutanoic acid (M)



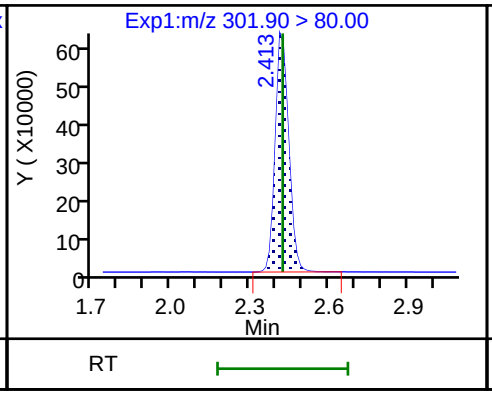

D 3 13C5 PFPeA



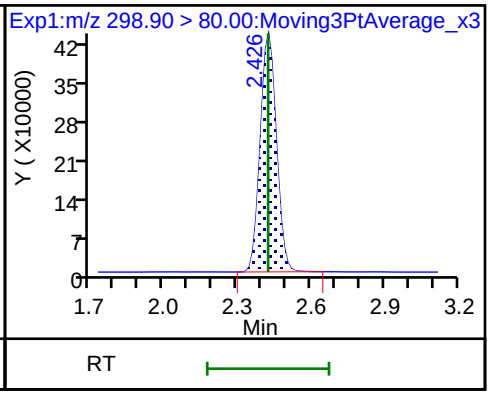

4 Perfluoropentanoic acid (M)



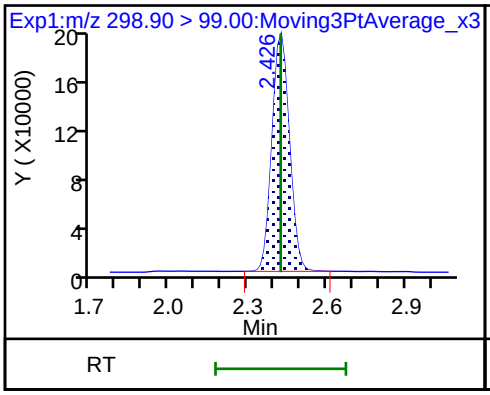

D 47 13C3 PFBS



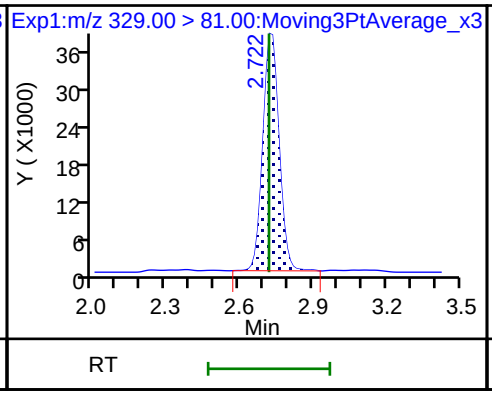

5 Perfluorobutanesulfonic acid



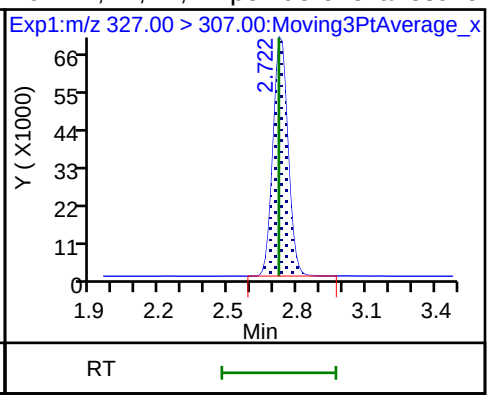

5 Perfluorobutanesulfonic acid



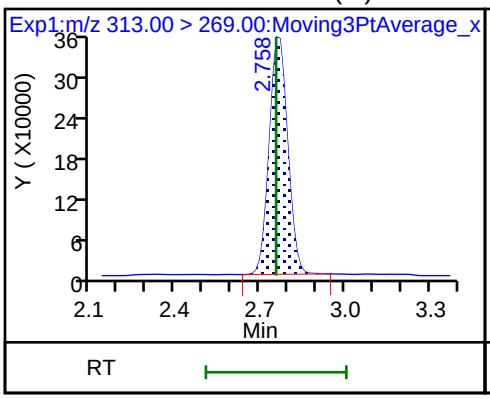

D 60 M2-4:2 FTS



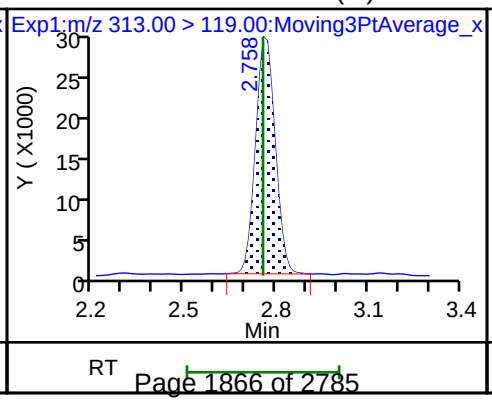

61 1H,1H,2H,2H-perfluorohexanesulfo



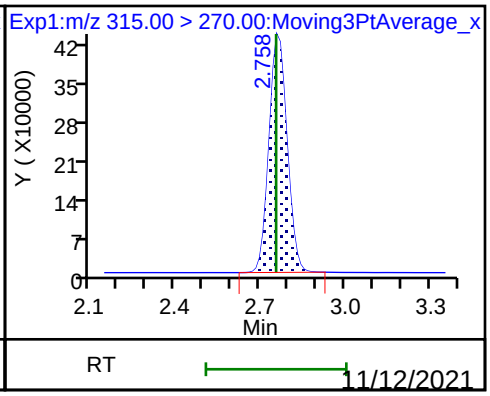

6 Perfluorohexanoic acid (M)



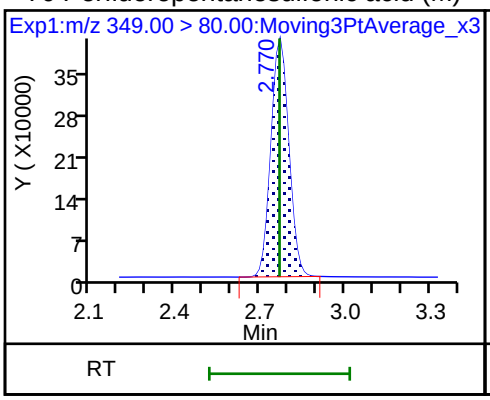

6 Perfluorohexanoic acid (M)



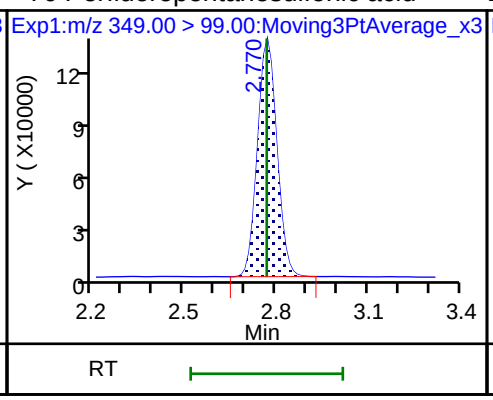

D 7 13C2 PFHxA



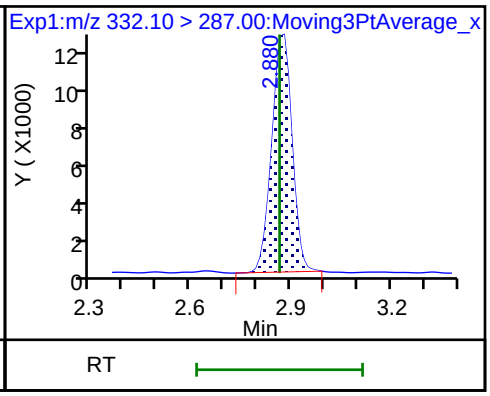
70 Perfluoropentanesulfonic acid (M)



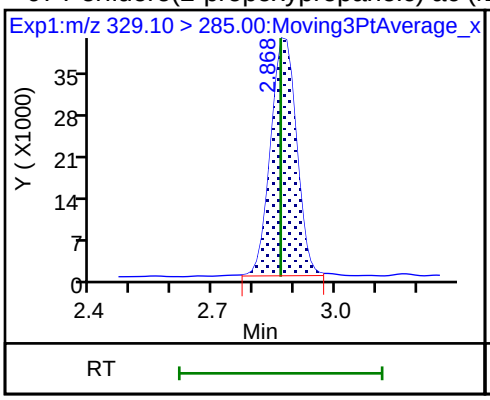

70 Perfluoropentanesulfonic acid



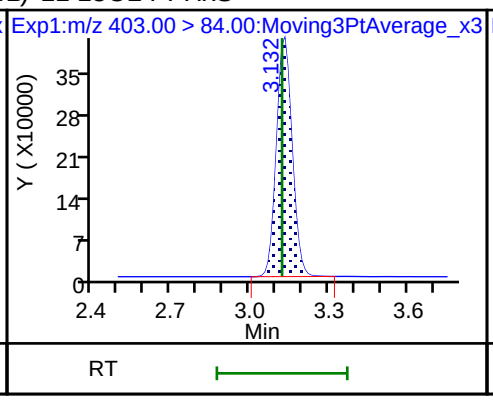

D 64 13C3 HFPO-DA



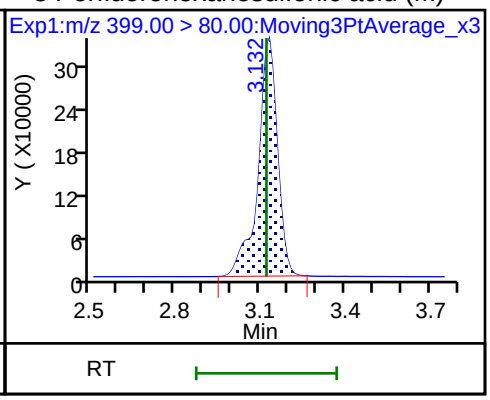

67 Perfluoro(2-propoxypropanoic) ac (M)



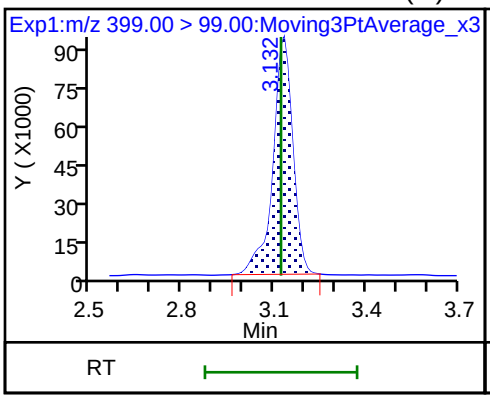

D 11 18O2 PFHxS



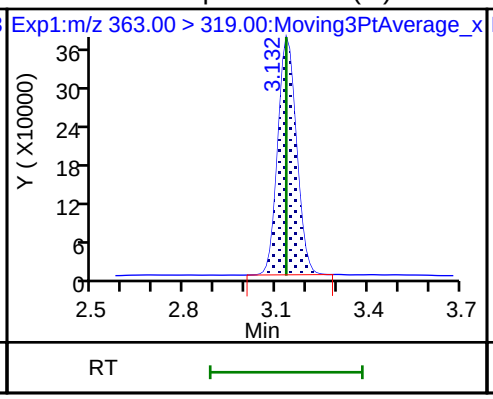

8 Perfluorohexanesulfonic acid (M)



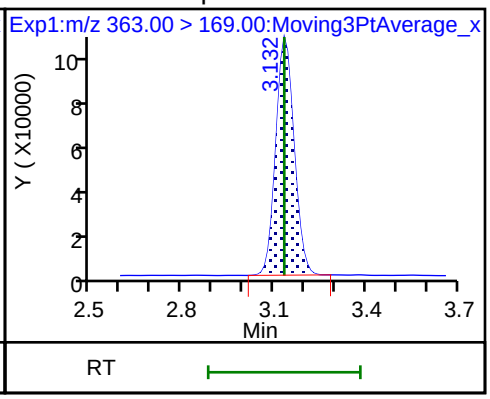

8 Perfluorohexanesulfonic acid (M)



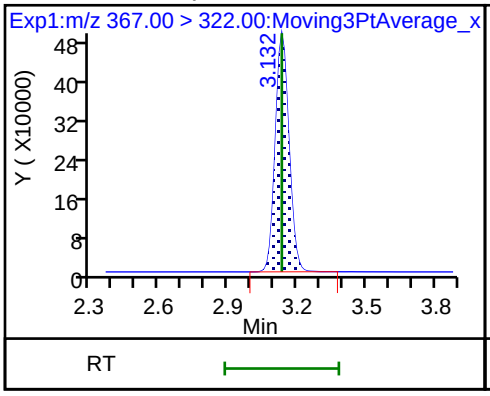

10 Perfluoroheptanoic acid (M)



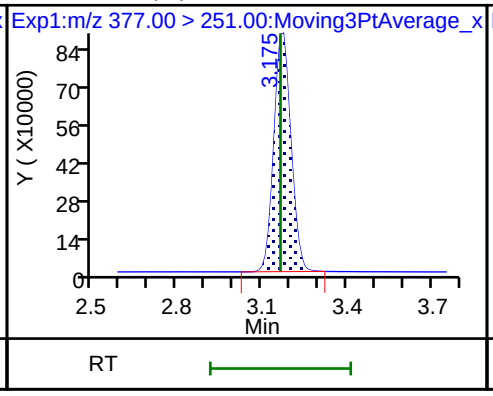

10 Perfluoroheptanoic acid



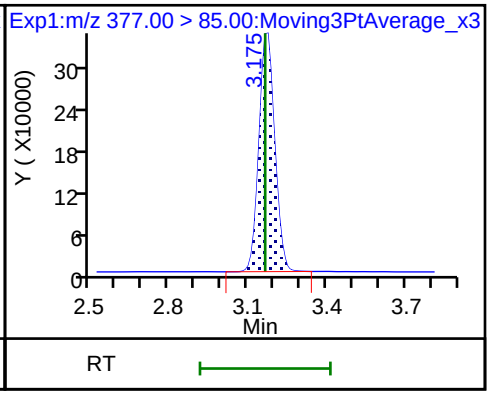

D 9 13C4 PFHpA



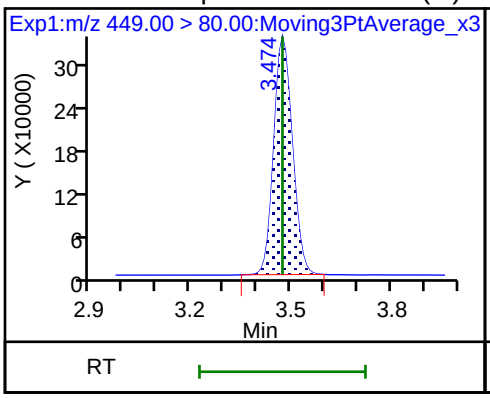

77 DONA (M)



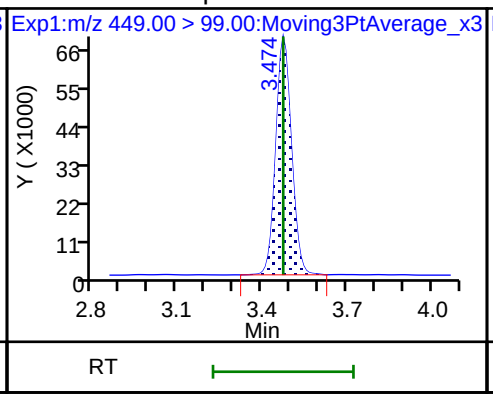

77 DONA



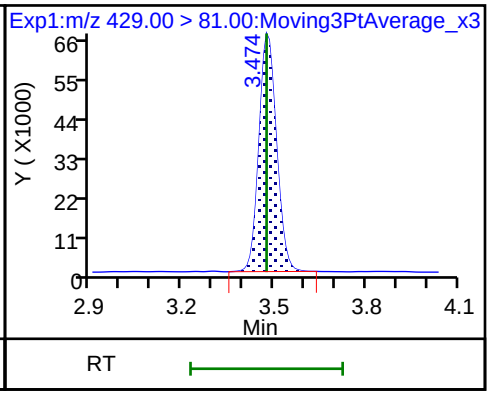
16 Perfluoroheptanesulfonic acid (M)



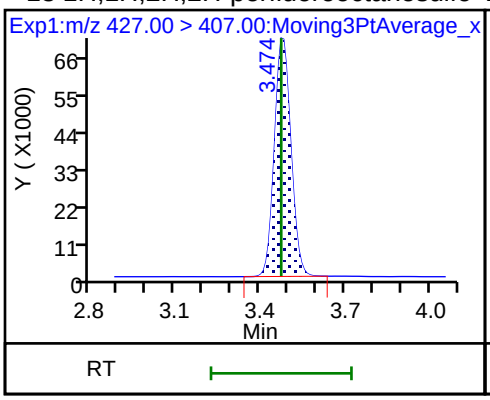

16 Perfluoroheptanesulfonic acid



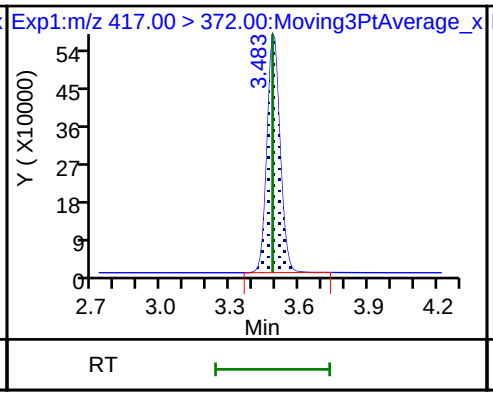

D 12 M2-6:2 FTS



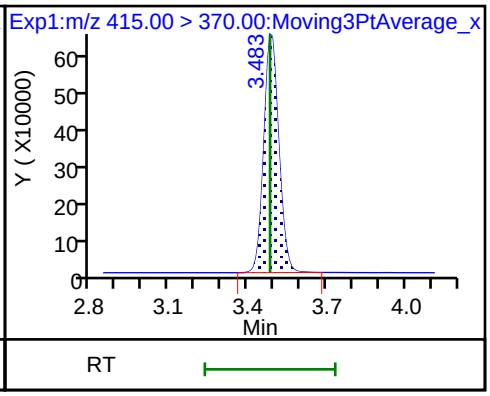

13 1H,1H,2H,2H-perfluorooctanesulfo



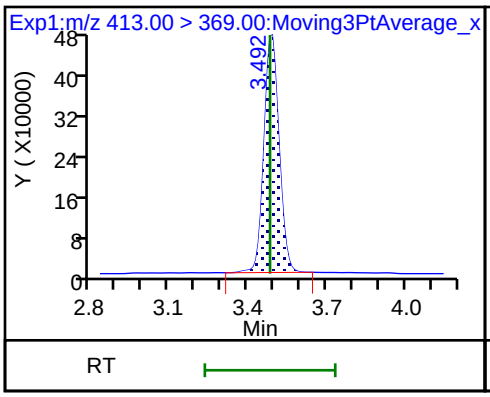

D 14 13C4 PFOA



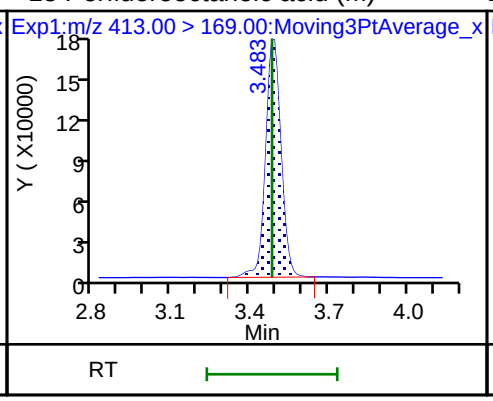

* 62 13C2 PFOA



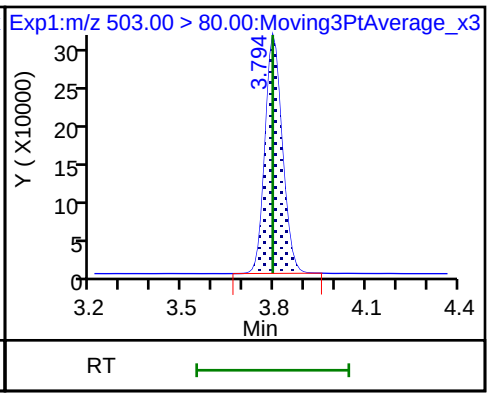

15 Perfluorooctanoic acid



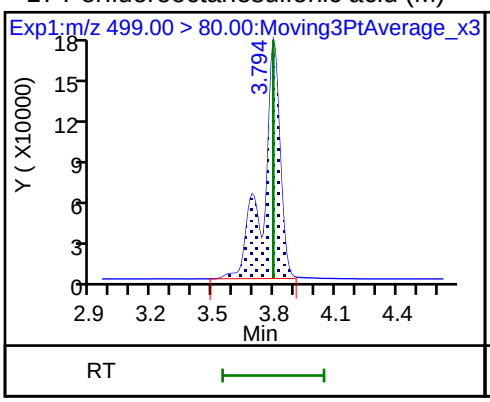

15 Perfluorooctanoic acid (M)



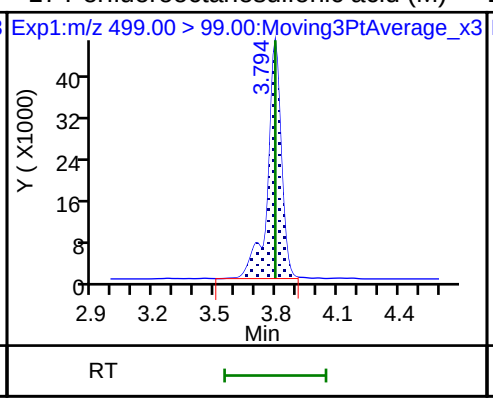

D 18 13C4 PFOS



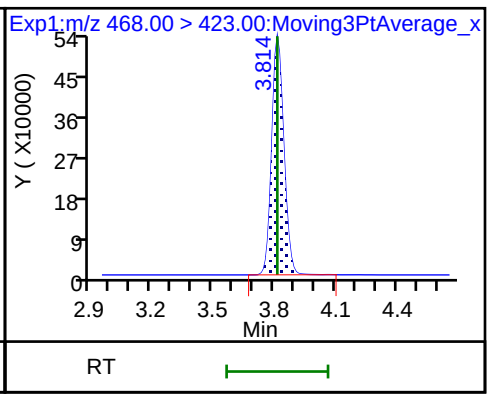

17 Perfluorooctanesulfonic acid (M)



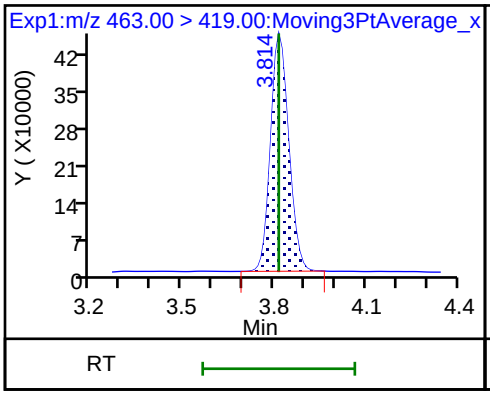

17 Perfluorooctanesulfonic acid (M)



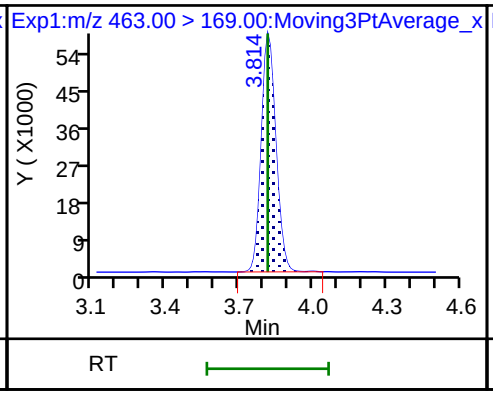

D 19 13C5 PFNA



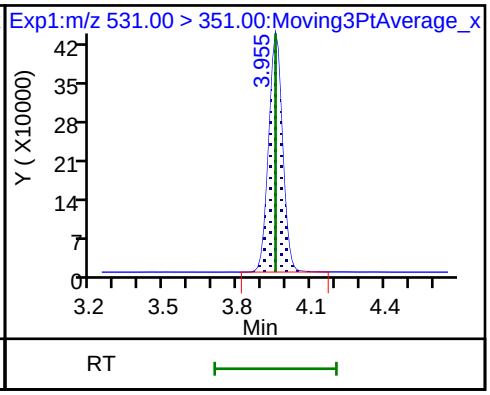
20 Perfluorononanoic acid



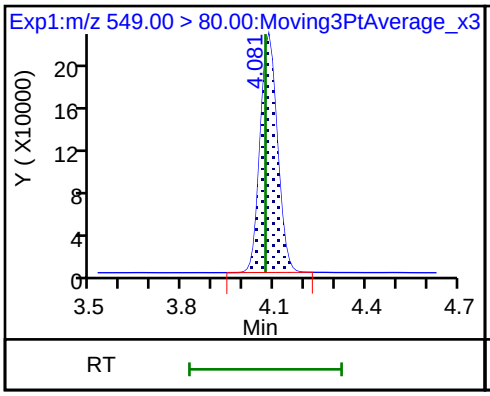

20 Perfluorononanoic acid



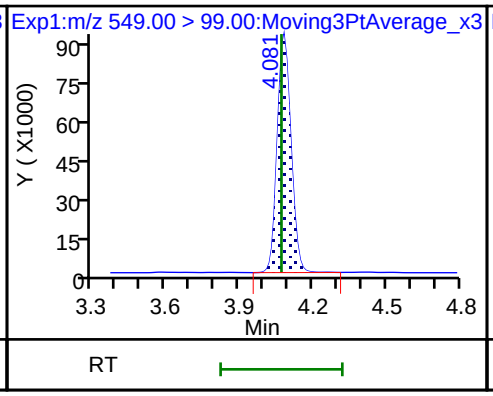

69 9-Chlorohexadecafluoro-3-oxanona



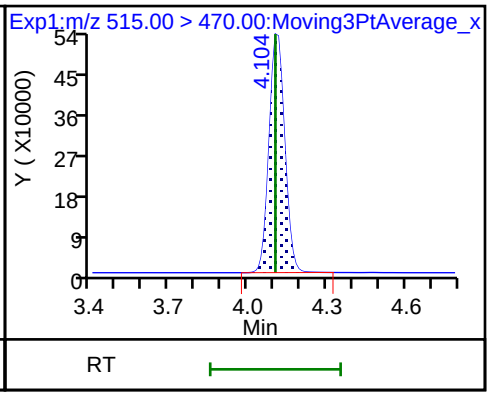

68 Perfluorononanesulfonic acid



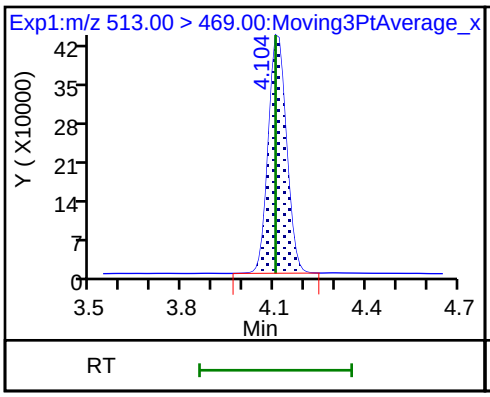

68 Perfluorononanesulfonic acid



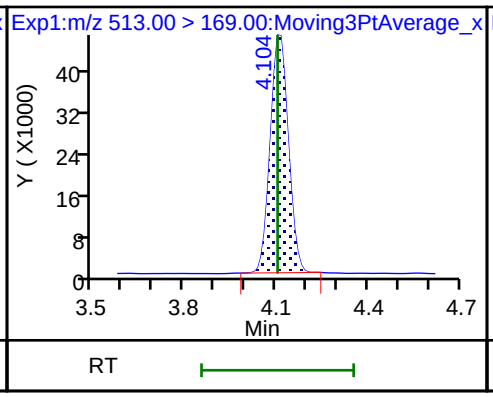

D 23 13C2 PFDA



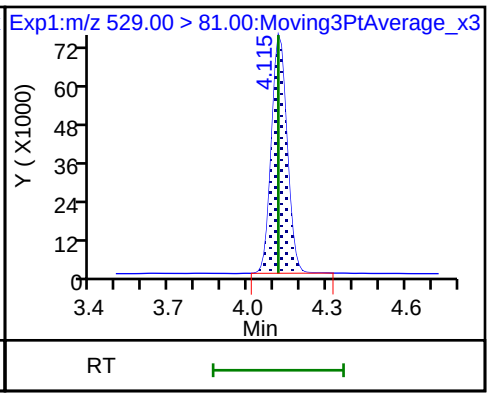

24 Perfluorodecanoic acid



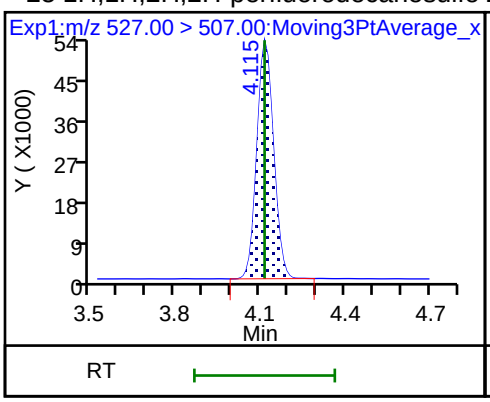

24 Perfluorodecanoic acid



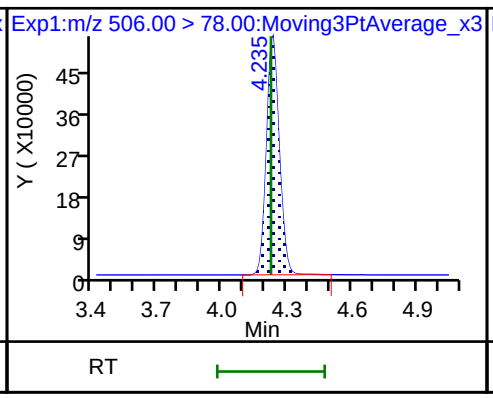

D 26 M2-8:2 FTS



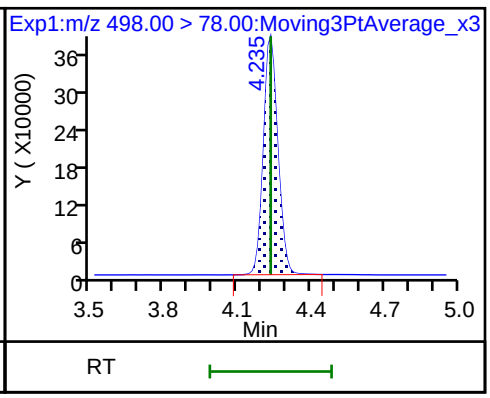

25 1H,1H,2H,2H-perfluorodecanesulfo



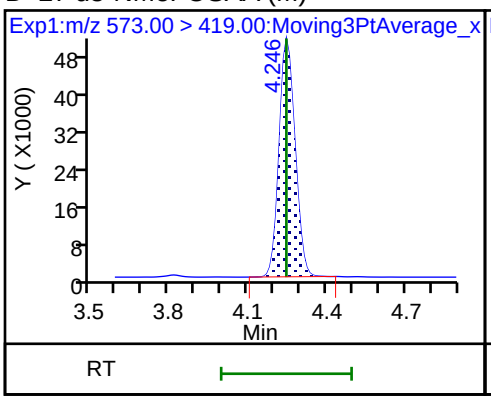

D 21 13C8 FOSA



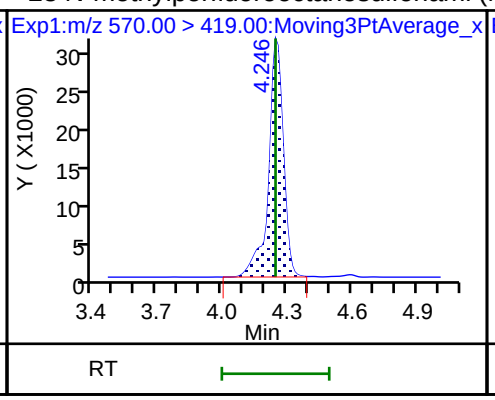

22 Perfluorooctanesulfonamide



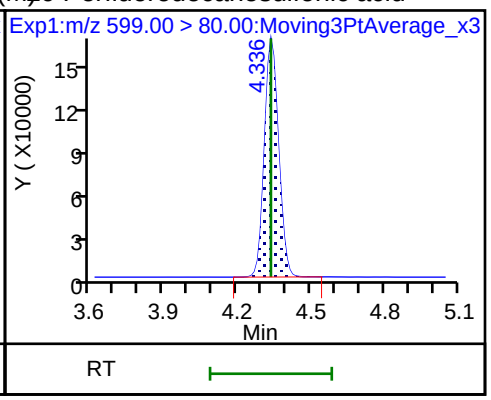
D 27 d3-NMeFOSAA (M)




28 N-methylperfluorooctanesulfonami (M)




29 Perfluorodecanesulfonic acid

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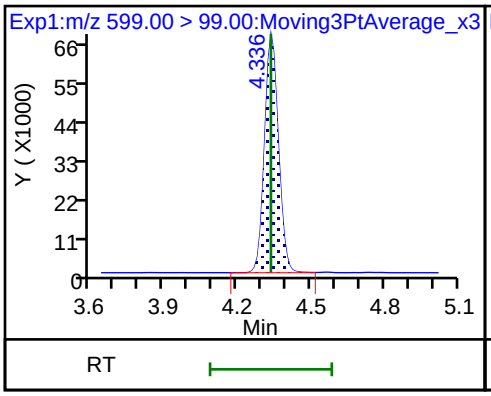
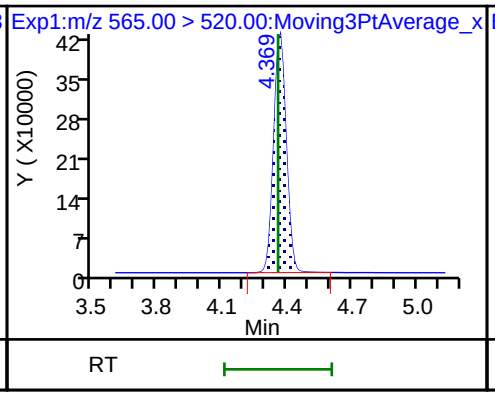
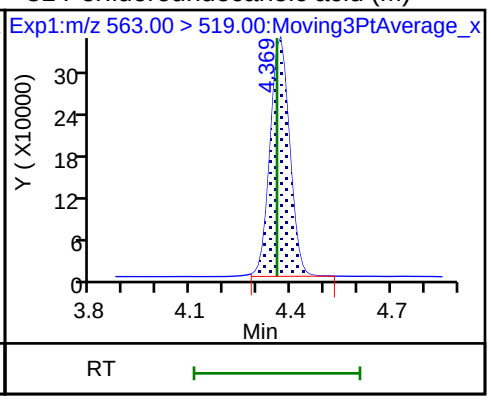


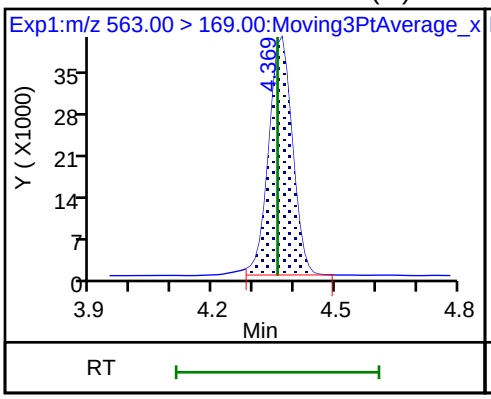

D 30 13C2 PFUnA



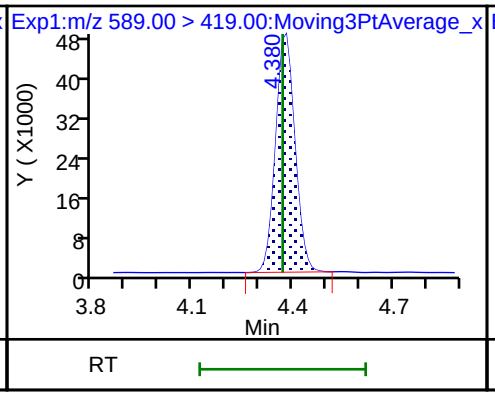

31 Perfluoroundecanoic acid (M)



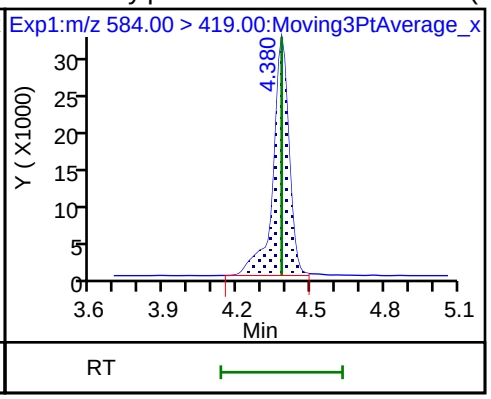

31 Perfluoroundecanoic acid (M)



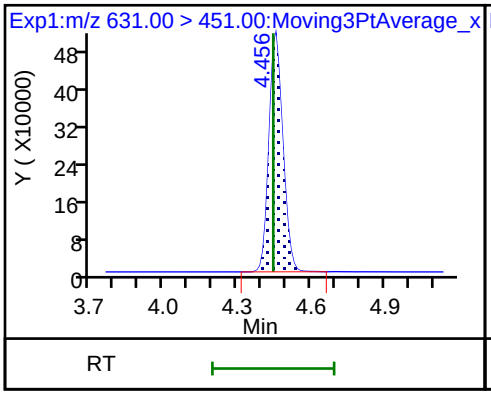

D 32 d5-NEtFOSAA



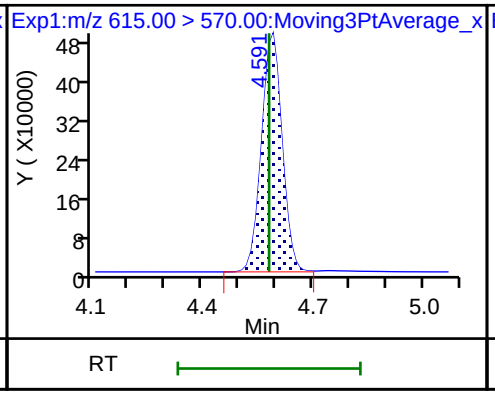

33 N-ethylperfluorooctanesulfonamid (M)



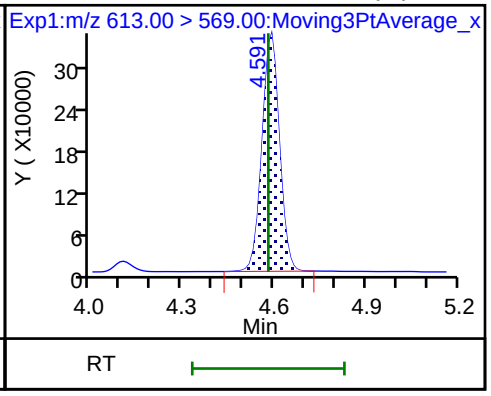

66 11-Chloroeicosafluoro-3-oxaundec



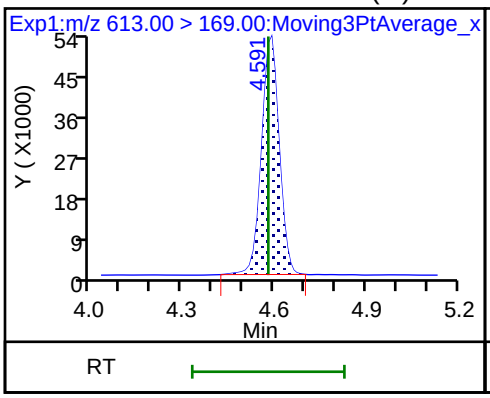

D 36 13C2 PFDoA



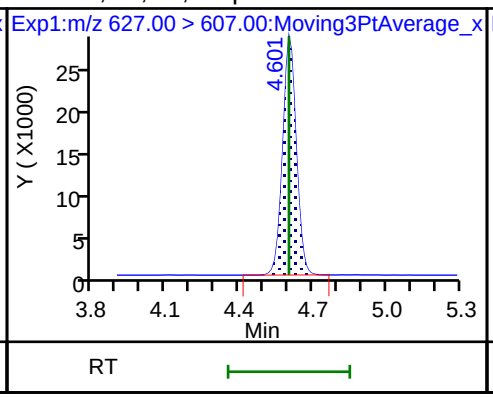

37 Perfluorododecanoic acid (M)



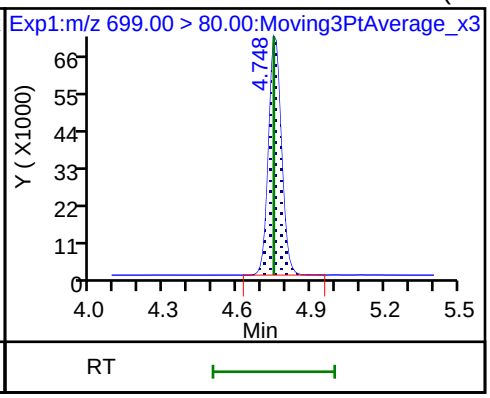
37 Perfluorododecanoic acid (M)



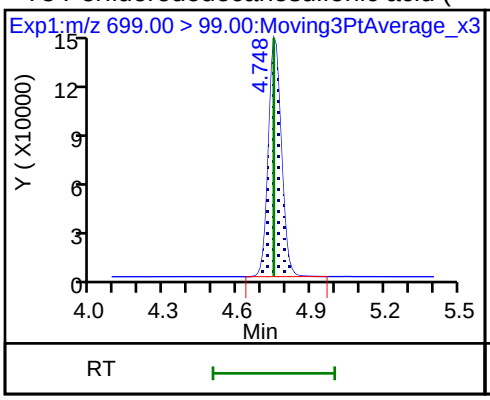

74 1H,1H,2H,2H-perfluorododecanesul



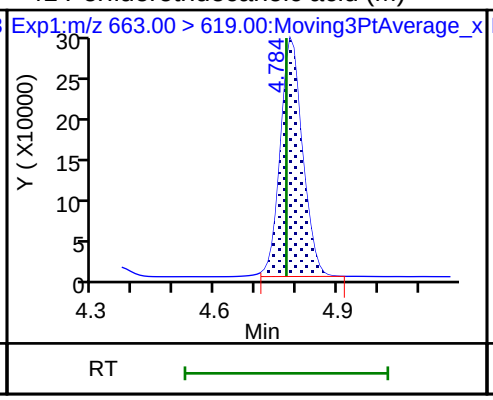

75 Perfluorododecanesulfonic acid (



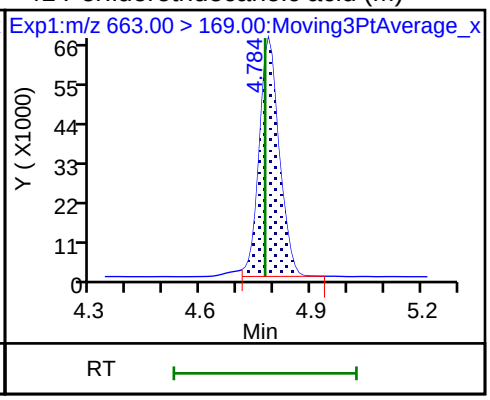

75 Perfluorododecanesulfonic acid (



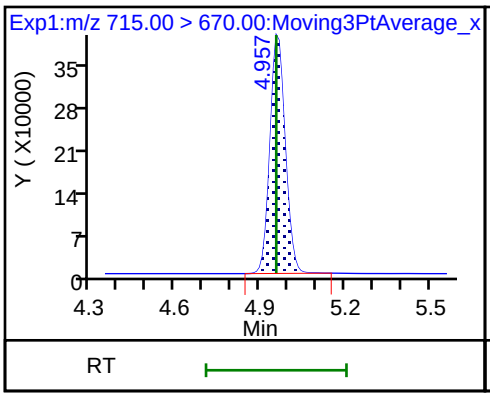

41 Perfluorotridecanoic acid (M)



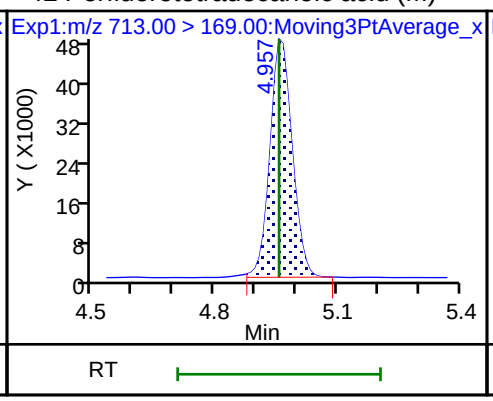

41 Perfluorotridecanoic acid (M)



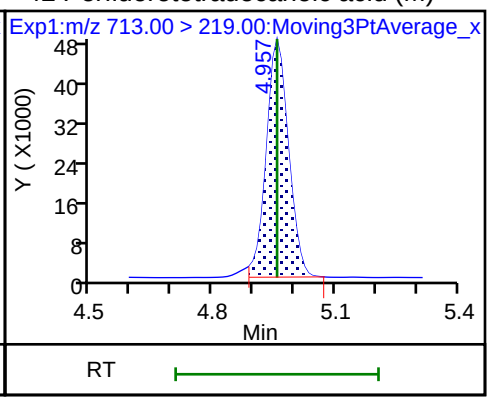

D 43 13C2 PFTeDA



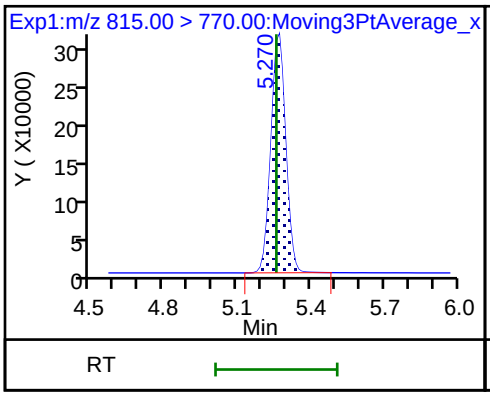

42 Perfluorotetradecanoic acid (M)



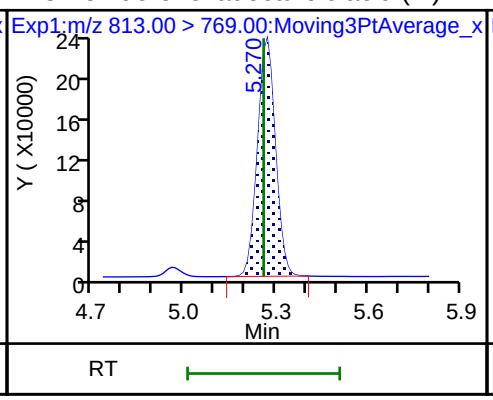

42 Perfluorotetradecanoic acid (M)



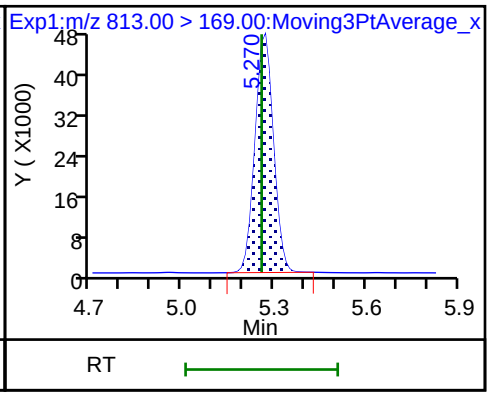

D 44 13C2 PFHxDA



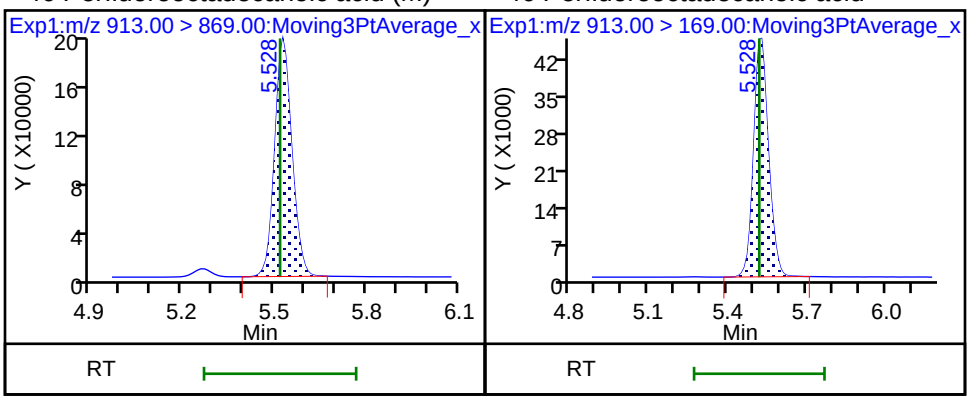

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

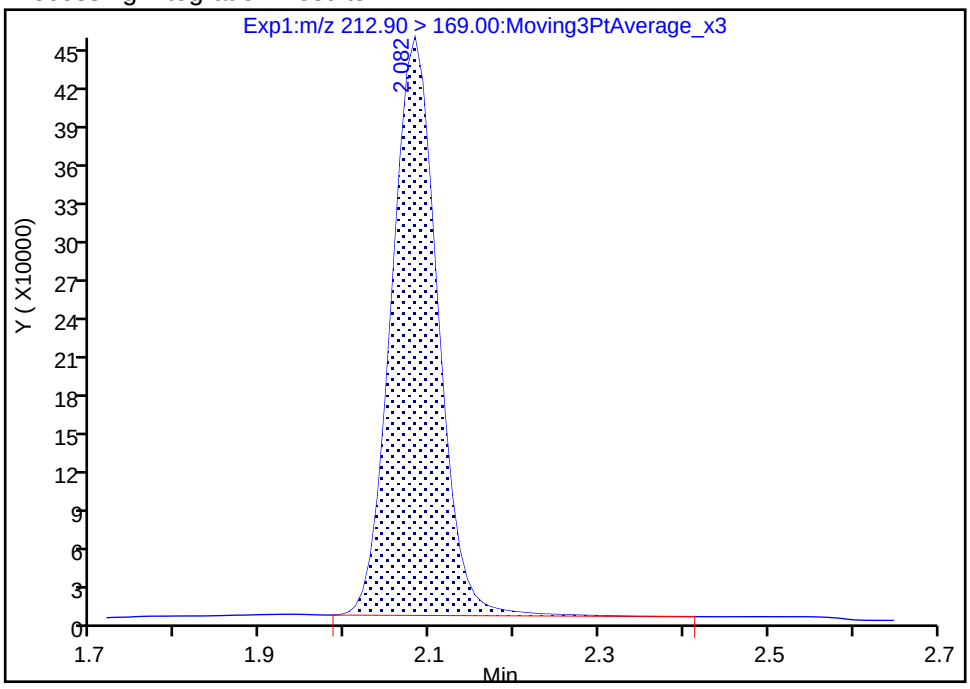
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

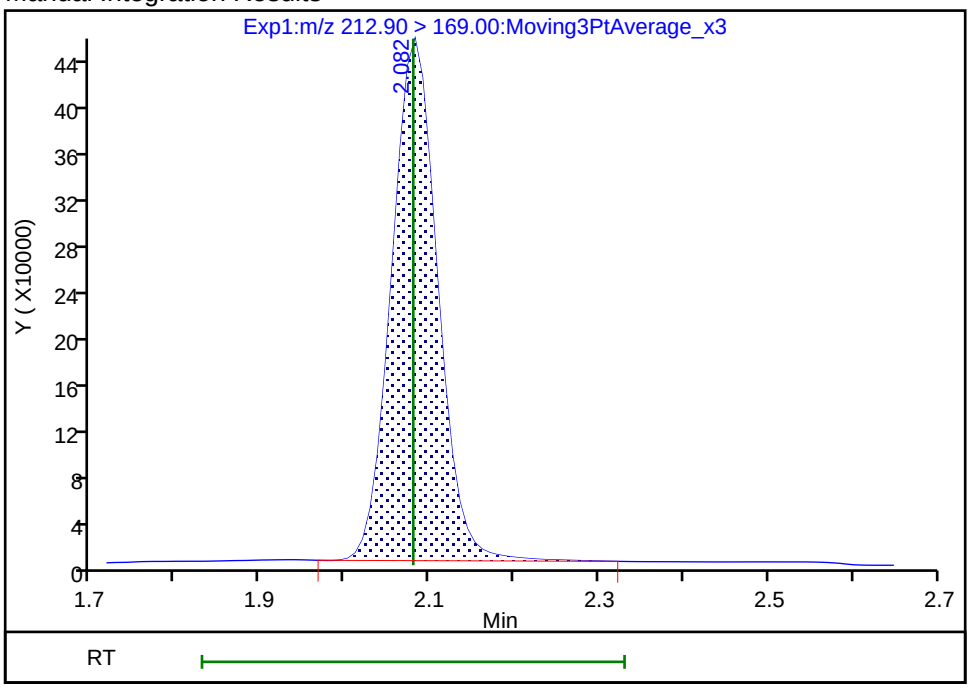
Processing Integration Results

RT: 2.08
Area: 1702417
Amount: 1.052427
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 1699523
Amount: 1.050638
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:00:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

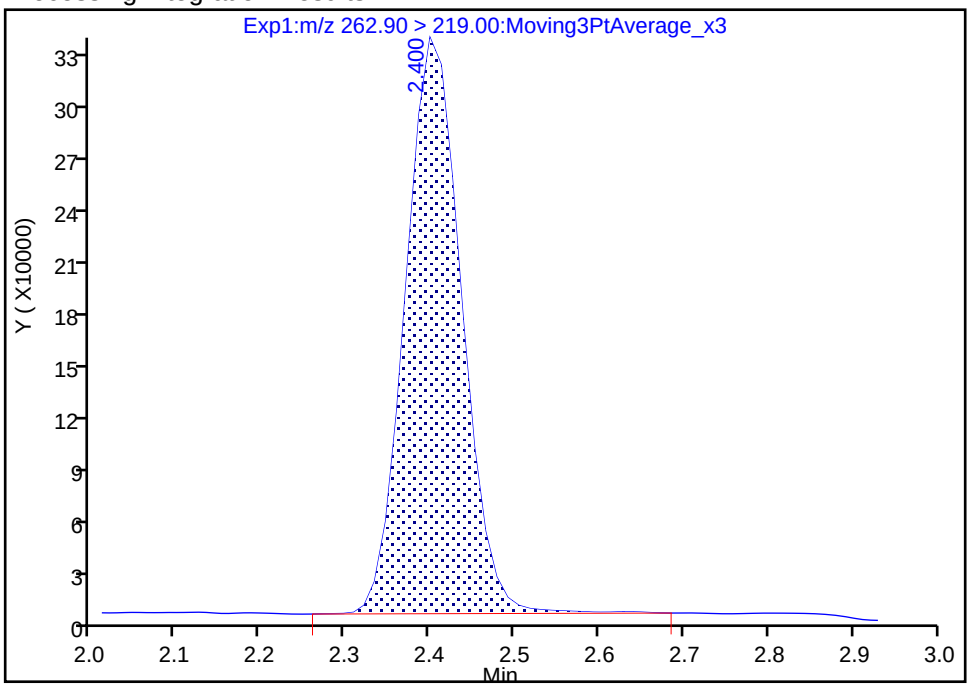
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

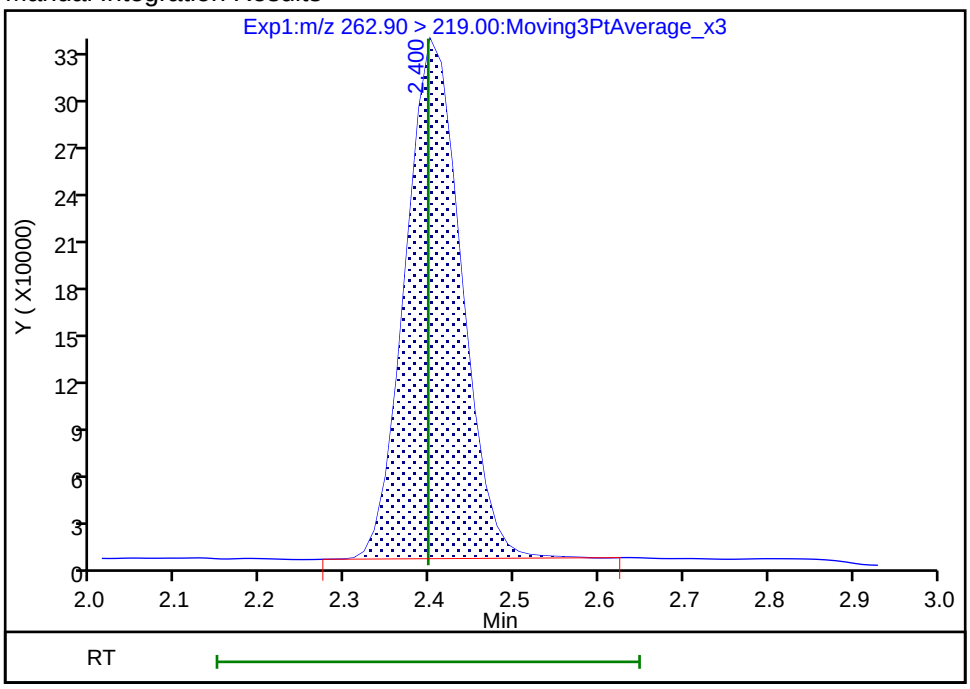
Processing Integration Results

RT: 2.40
Area: 1524900
Amount: 1.073557
Amount Units: ng/ml




Manual Integration Results

RT: 2.40
Area: 1514450
Amount: 1.066200
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:00:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

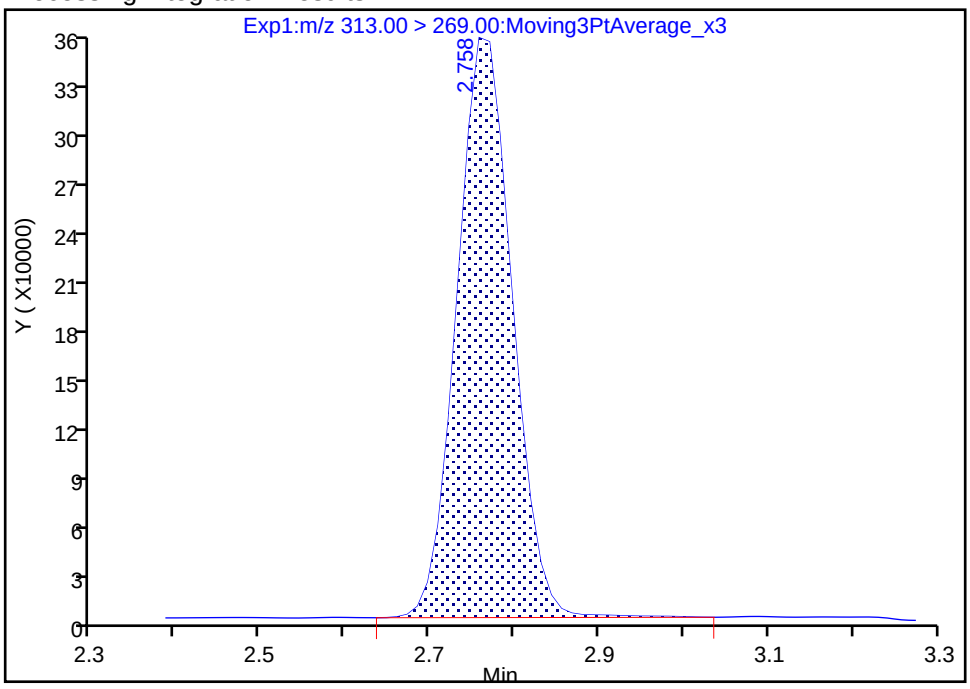
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

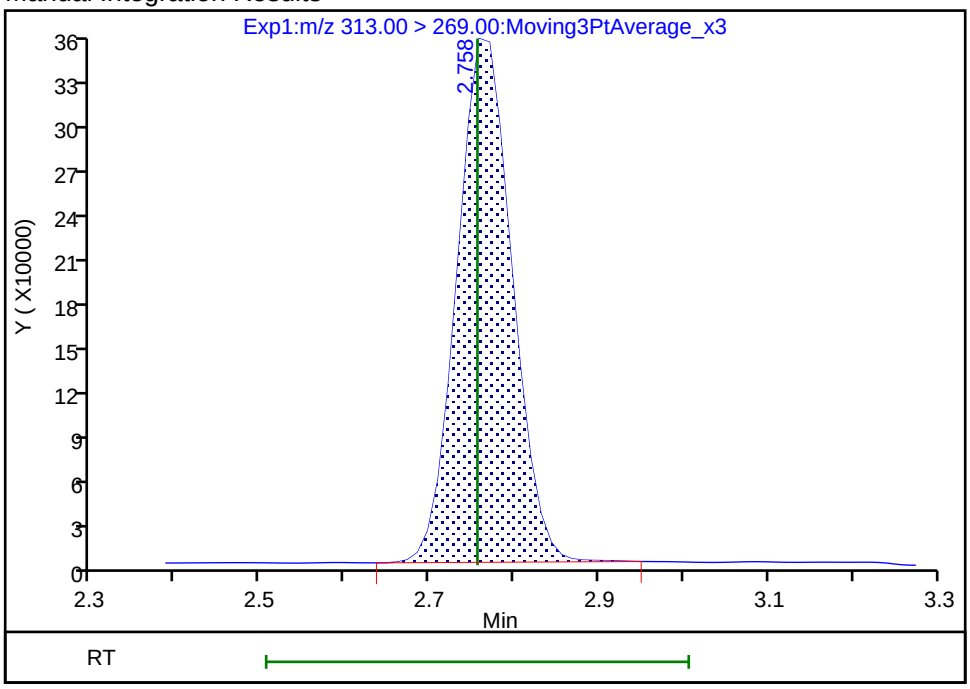
Processing Integration Results

RT: 2.76
Area: 1605293
Amount: 1.025711
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 1596681
Amount: 1.020208
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

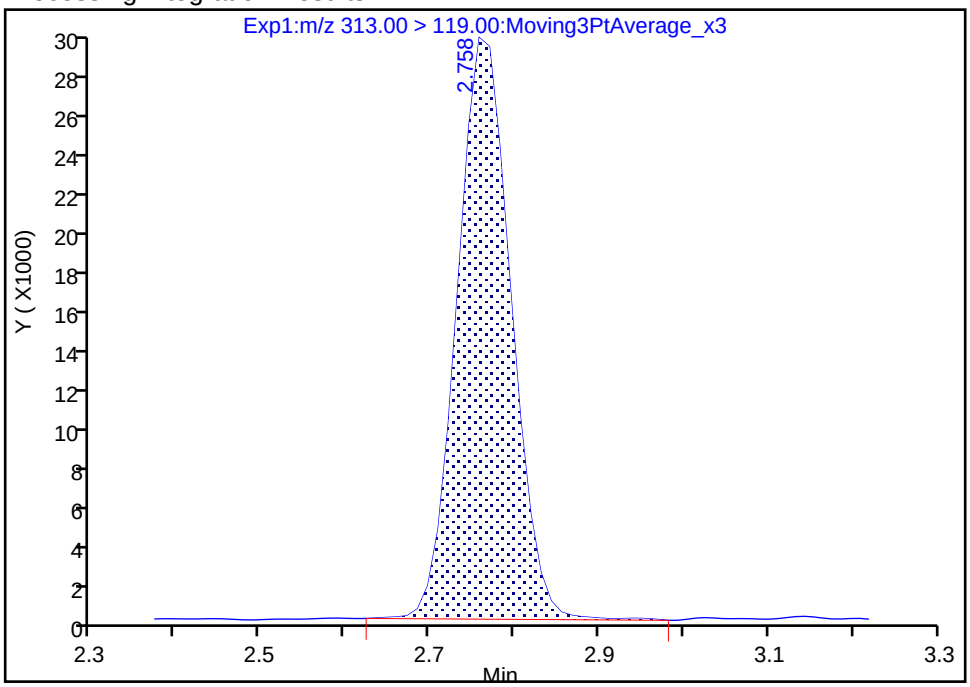
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

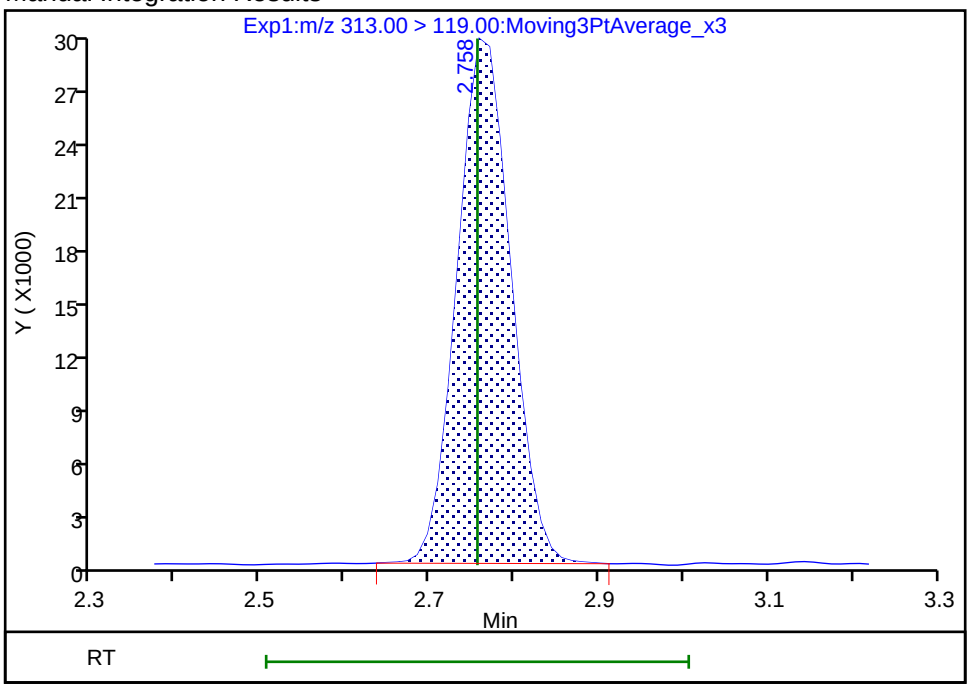
Processing Integration Results

RT: 2.76
Area: 128944
Amount: 1.025711
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 127959
Amount: 1.020208
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

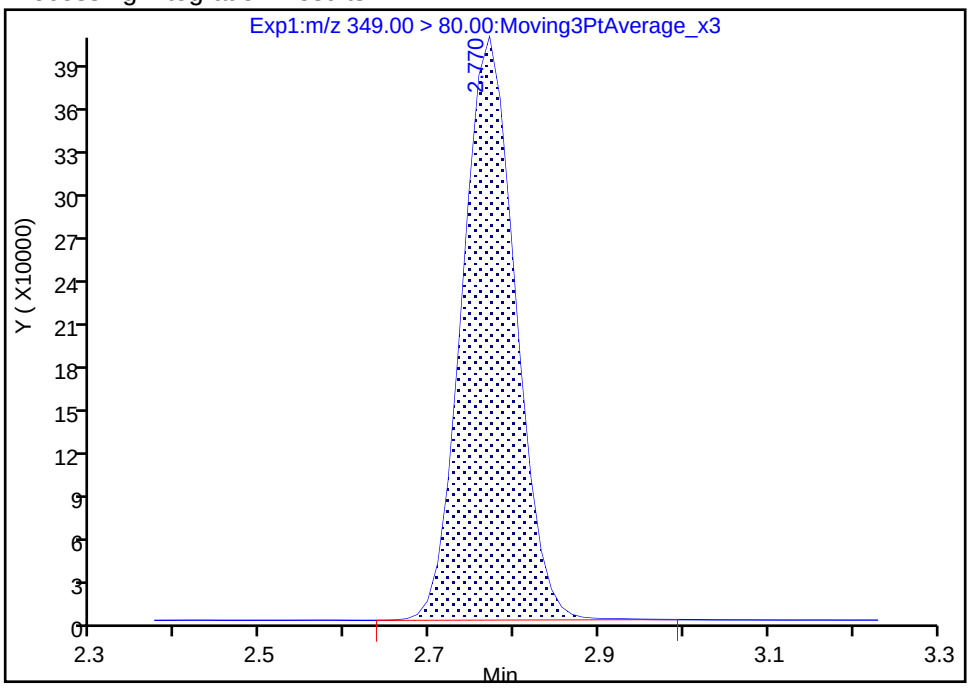
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

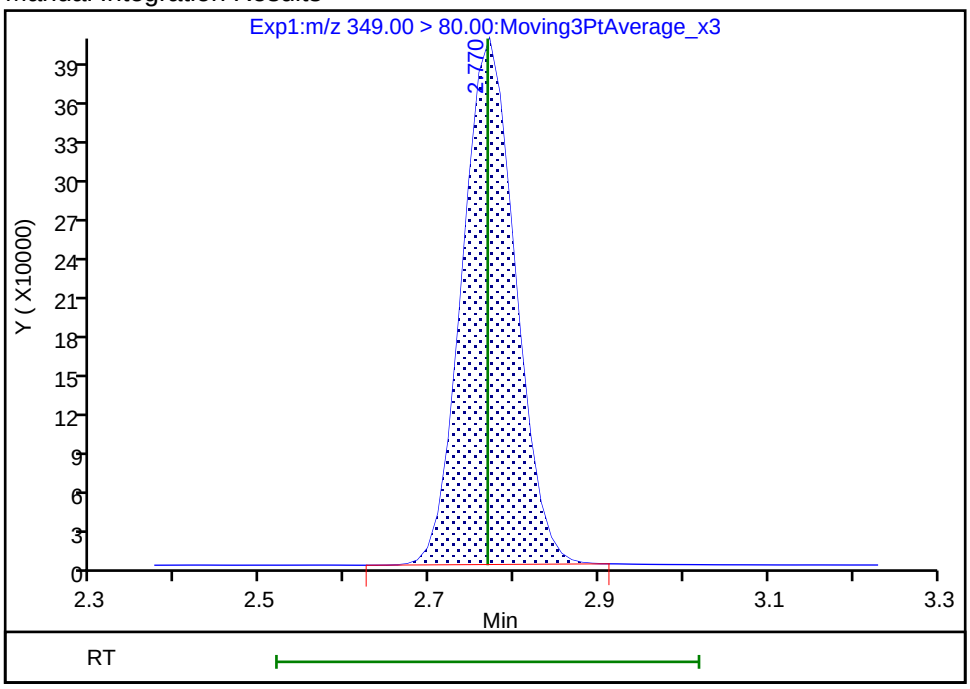
Processing Integration Results

RT: 2.77
Area: 1770101
Amount: 1.033347
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1762517
Amount: 1.028920
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

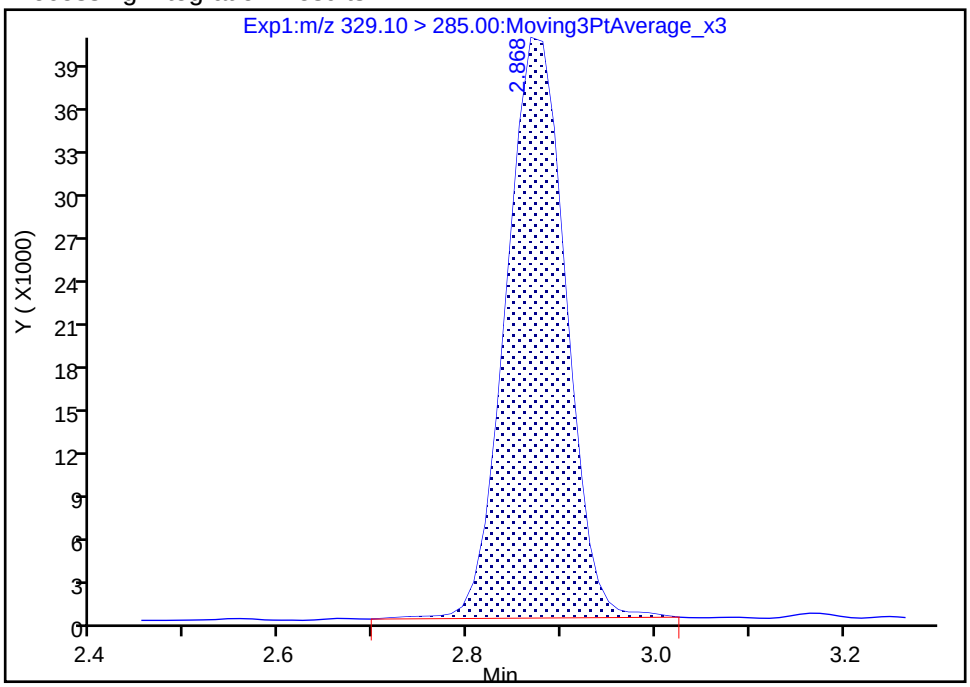
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

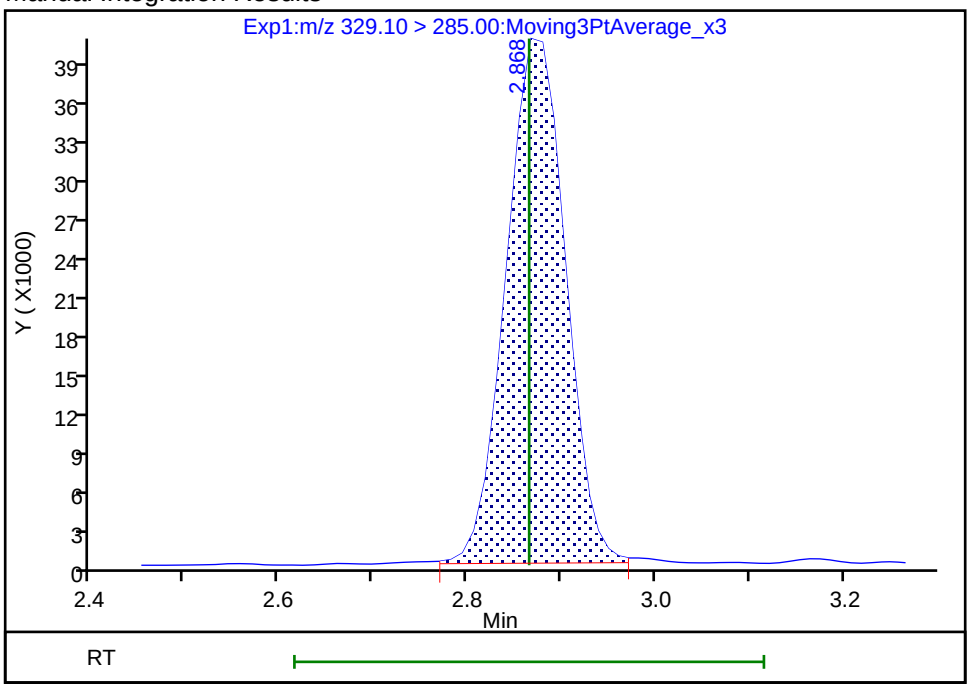
Processing Integration Results

RT: 2.87
Area: 174275
Amount: 0.915673
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 173128
Amount: 0.909646
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

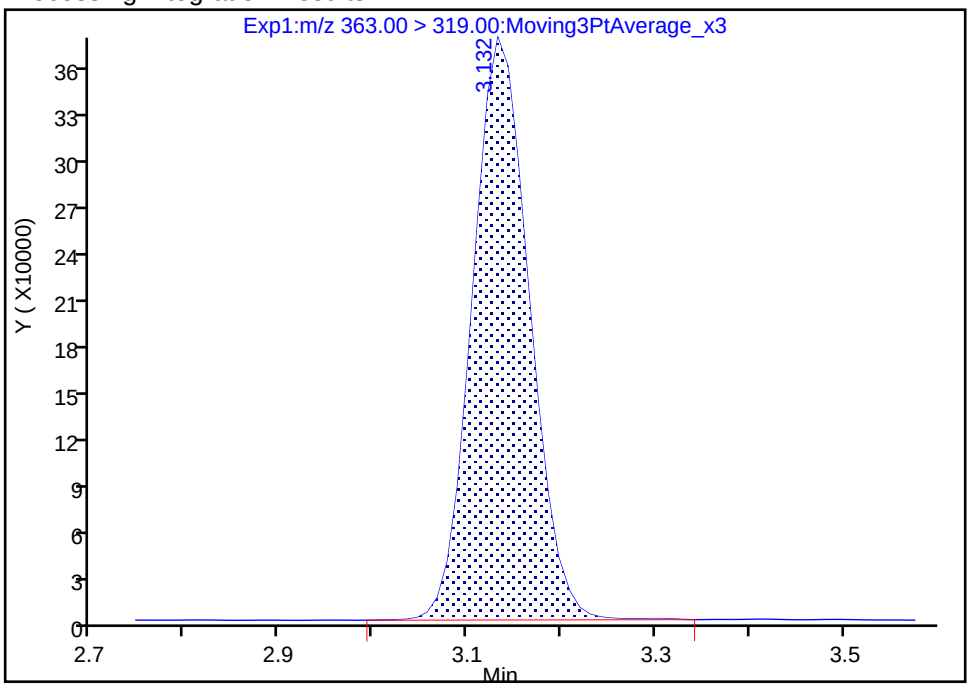
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

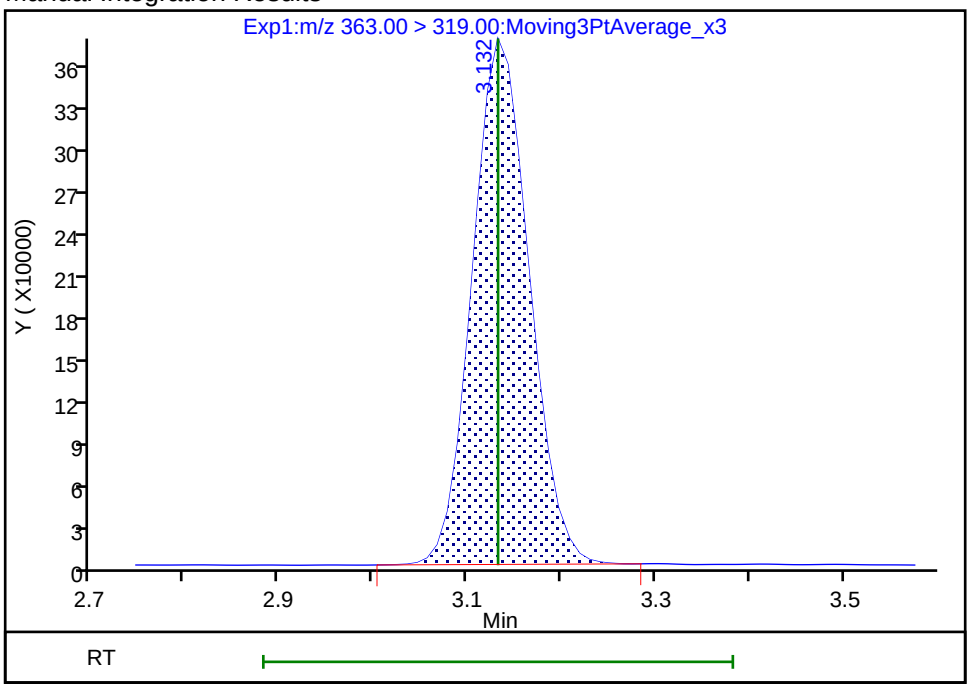
Processing Integration Results

RT: 3.13
Area: 1595526
Amount: 0.943488
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1587824
Amount: 0.938934
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

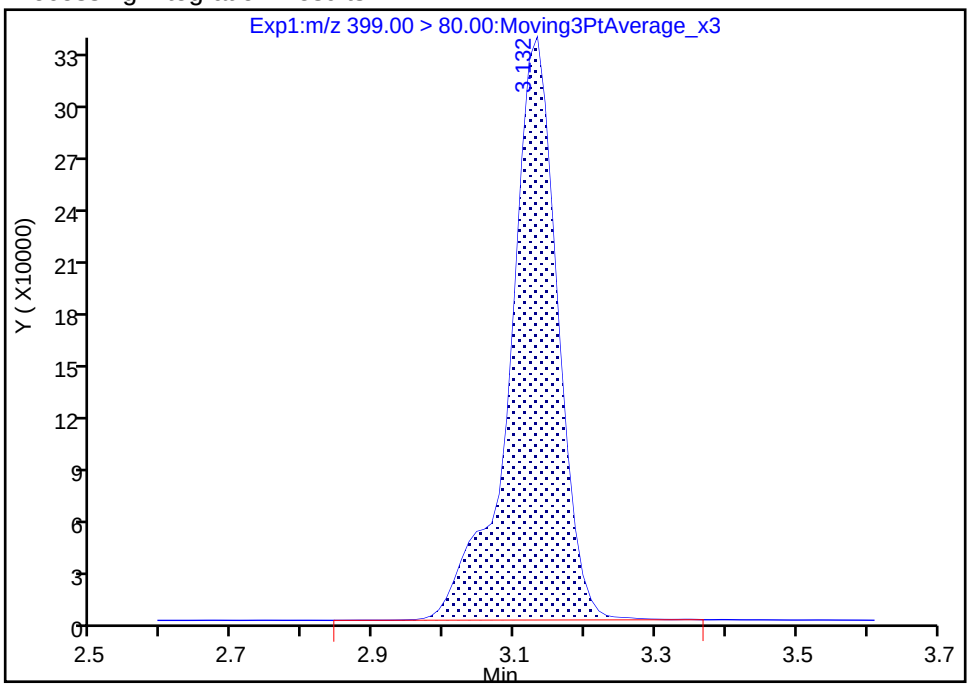
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

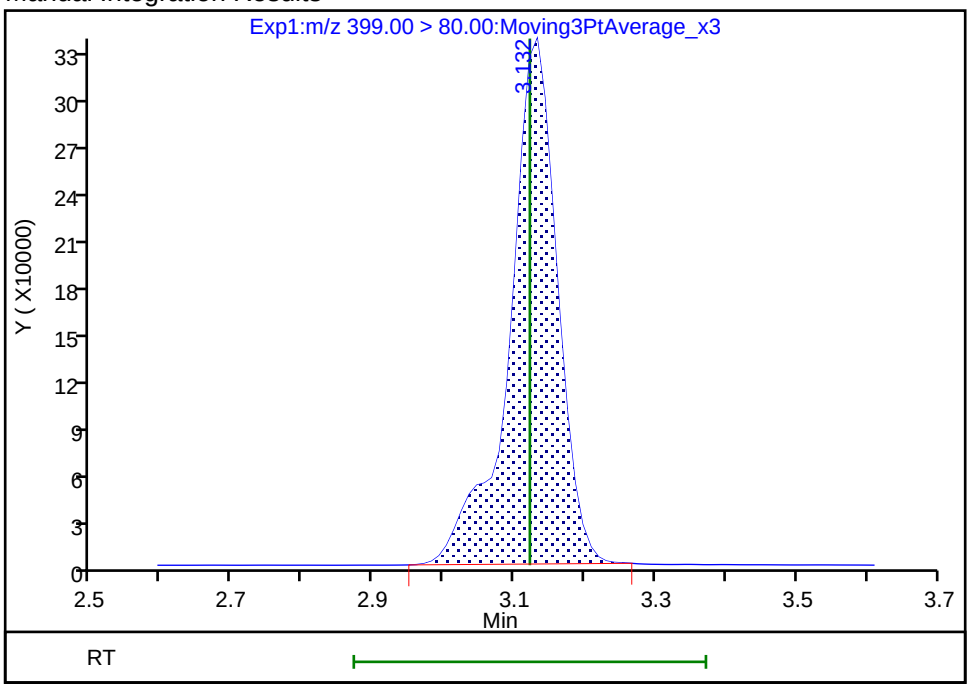
Processing Integration Results

RT: 3.13
Area: 1586343
Amount: 1.014341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1574569
Amount: 1.006813
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

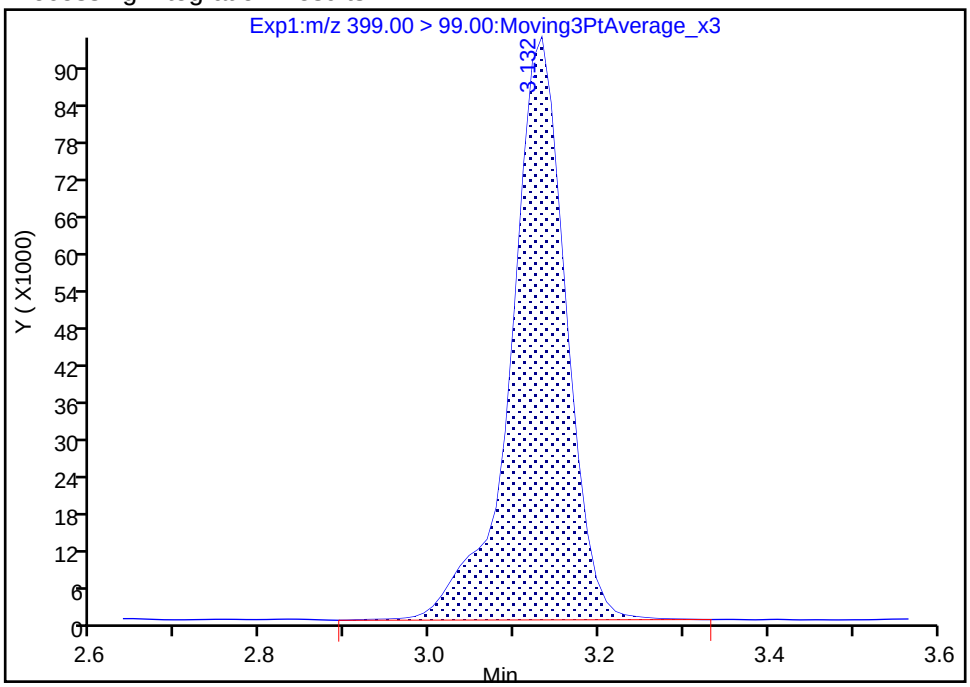
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

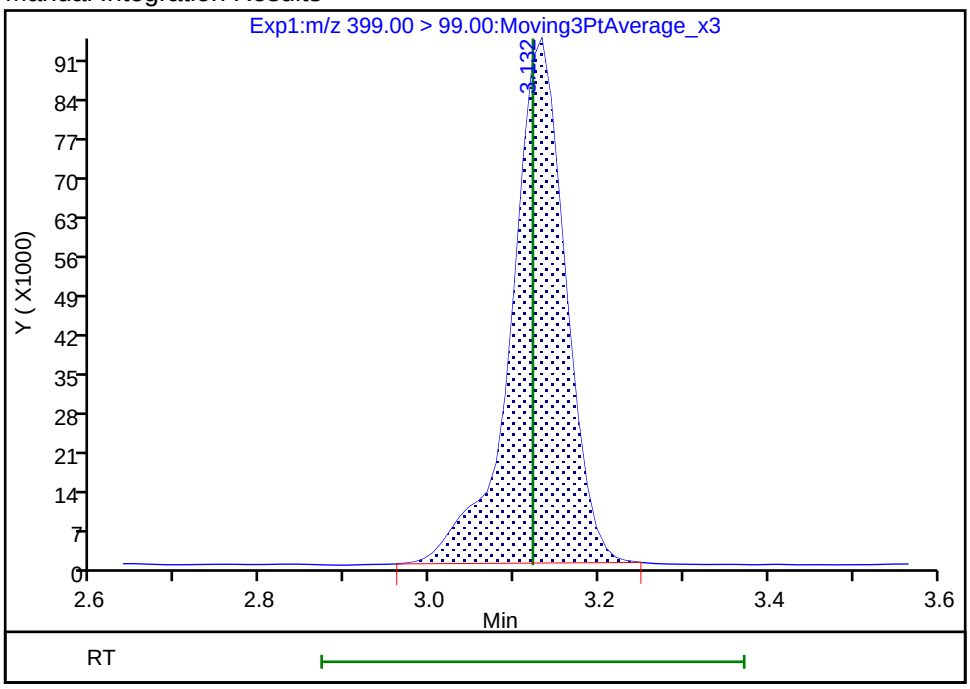
Processing Integration Results

RT: 3.13
Area: 426567
Amount: 1.014341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 420396
Amount: 1.006813
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

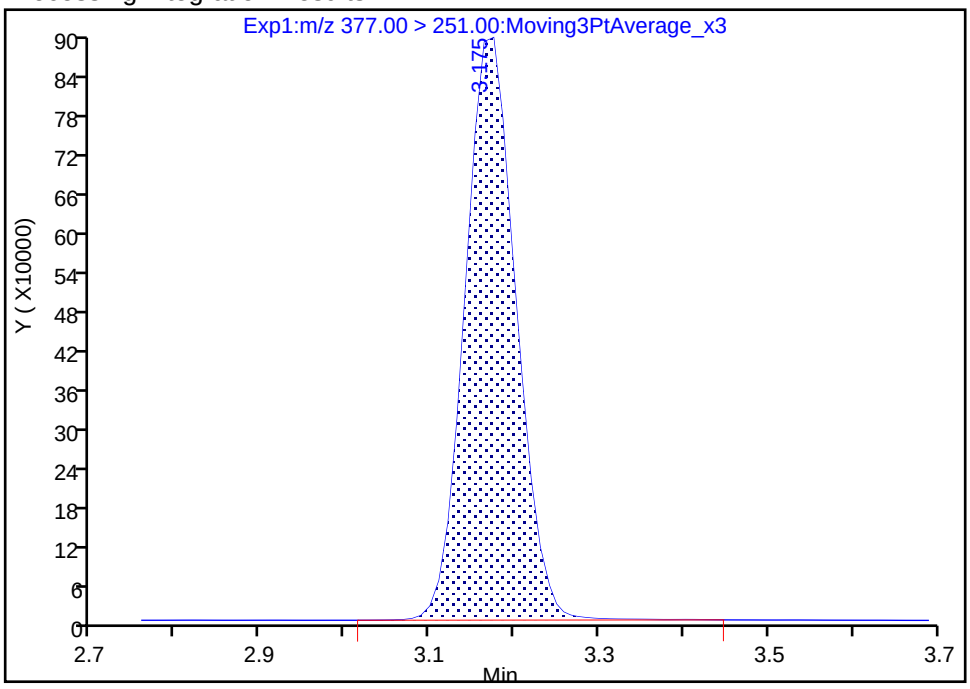
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

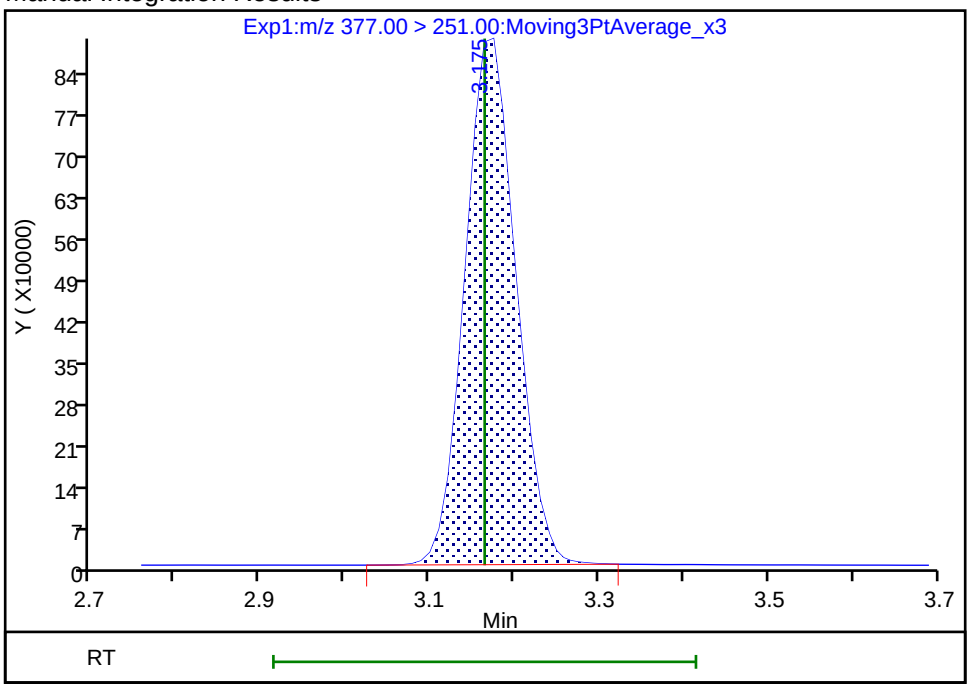
Processing Integration Results

RT: 3.18
Area: 3753045
Amount: 1.037472
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 3738319
Amount: 1.033402
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

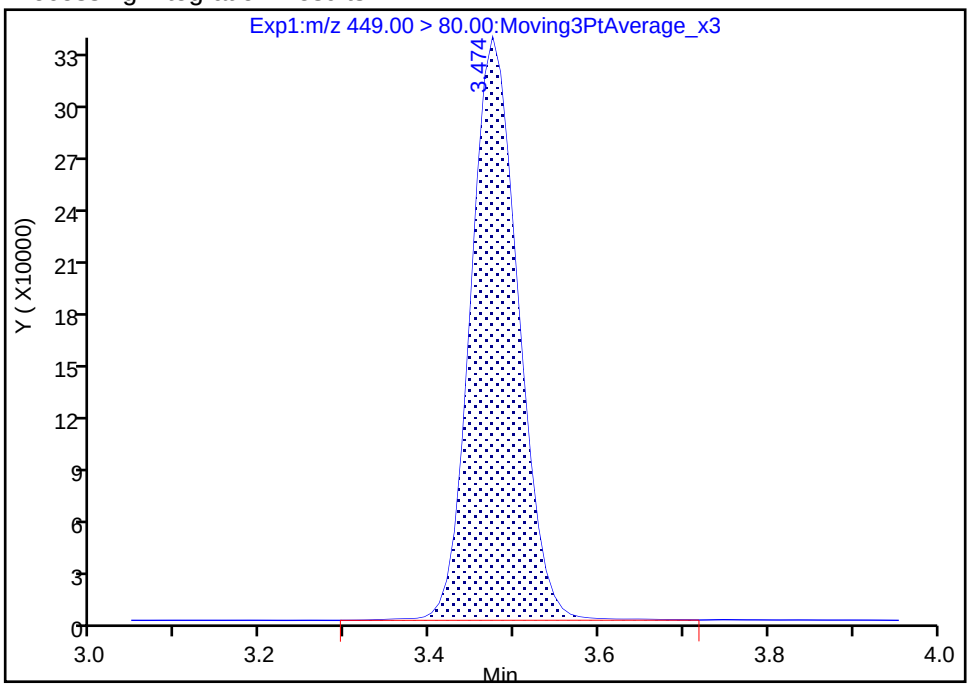
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

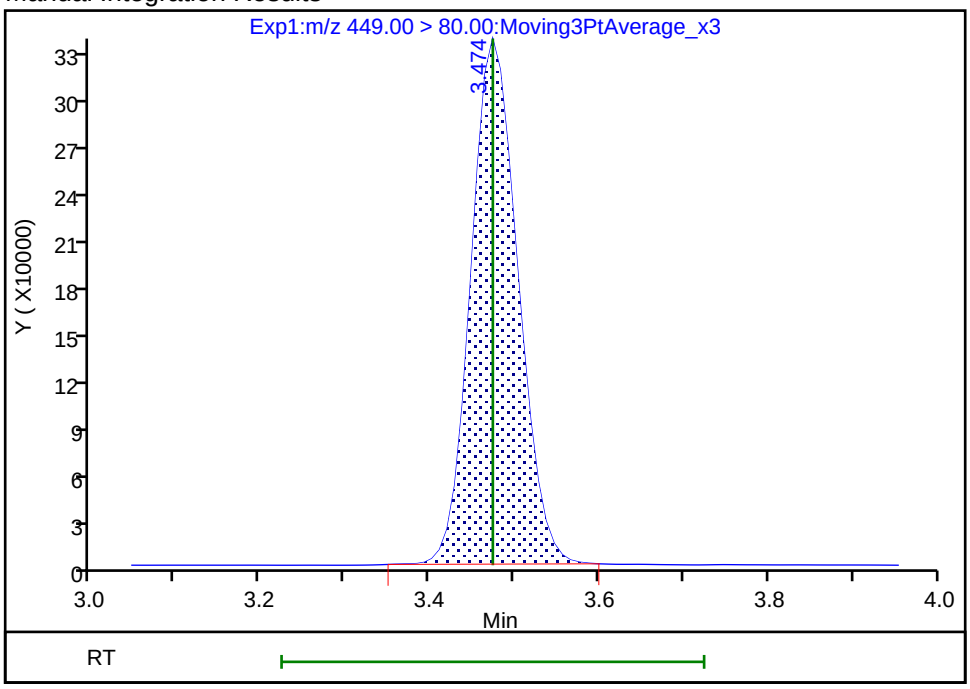
Processing Integration Results

RT: 3.47
Area: 1300204
Amount: 1.009097
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1287103
Amount: 0.998930
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:02:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

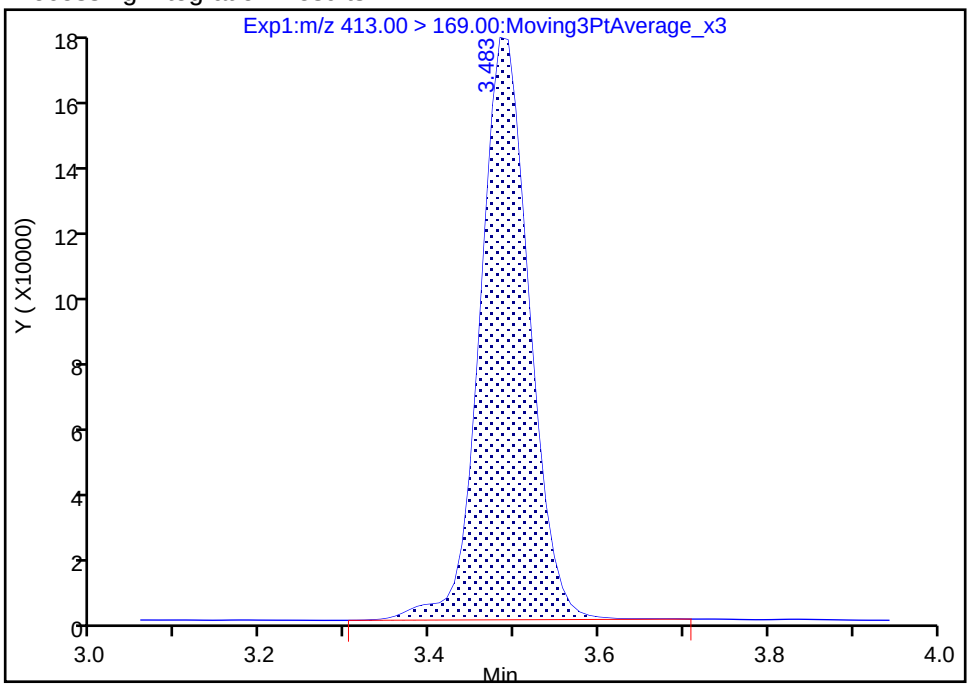
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

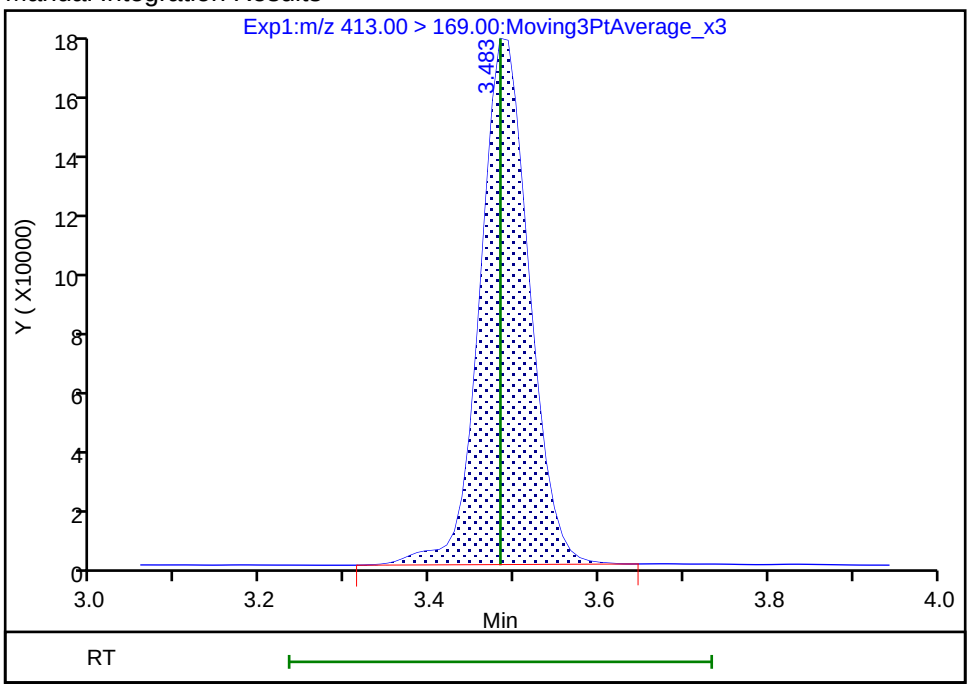
Processing Integration Results

RT: 3.48
Area: 704016
Amount: 0.996419
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 702627
Amount: 0.996419
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

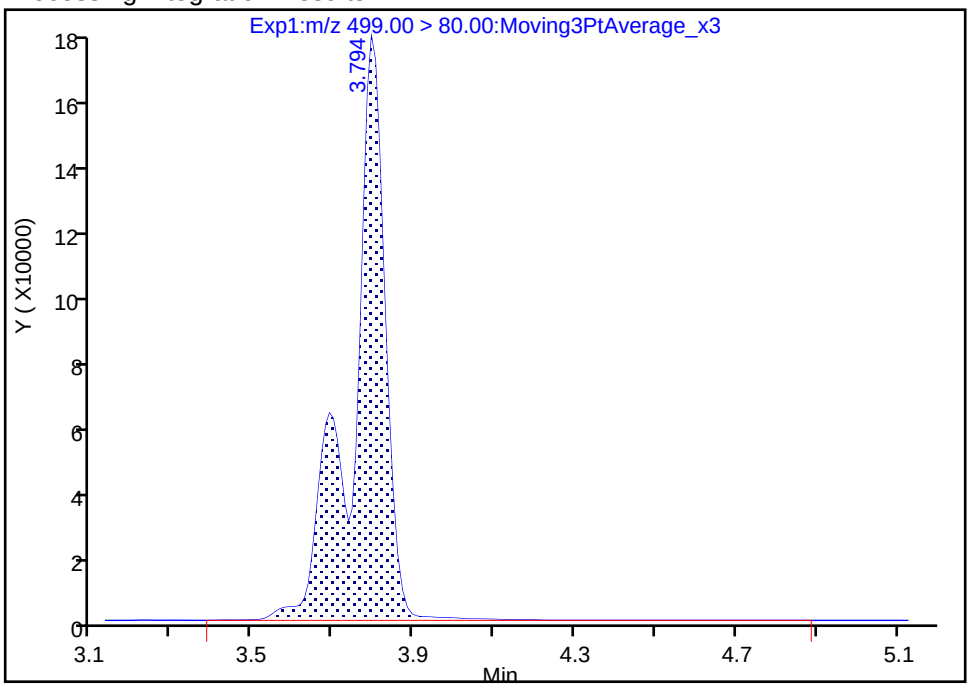
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

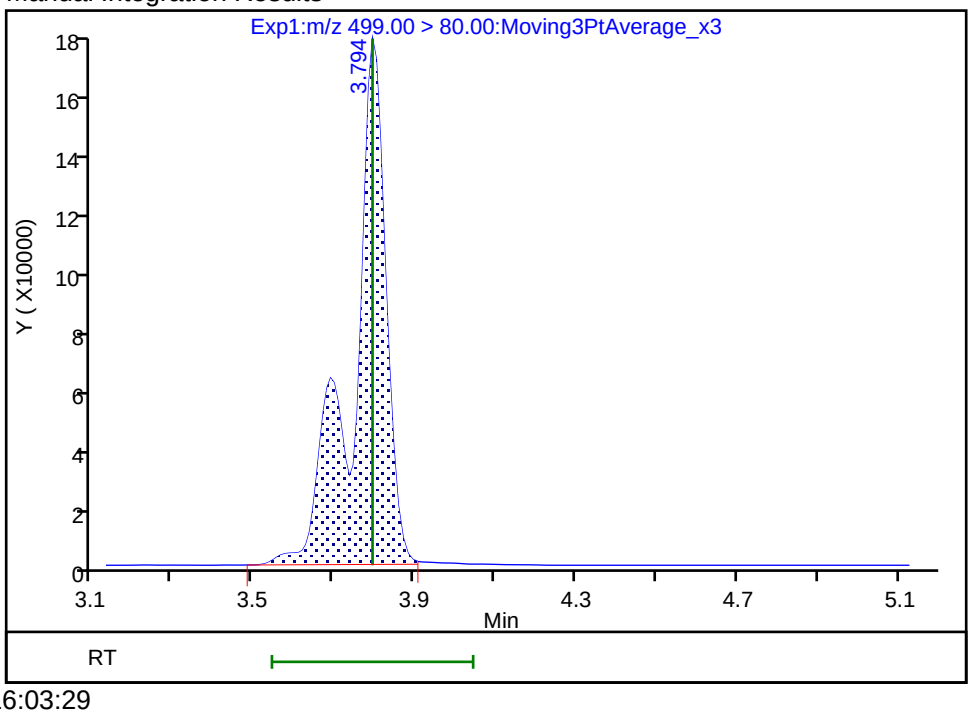
Processing Integration Results

RT: 3.79
Area: 1008988
Amount: 0.899685
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 994741
Amount: 0.886981
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

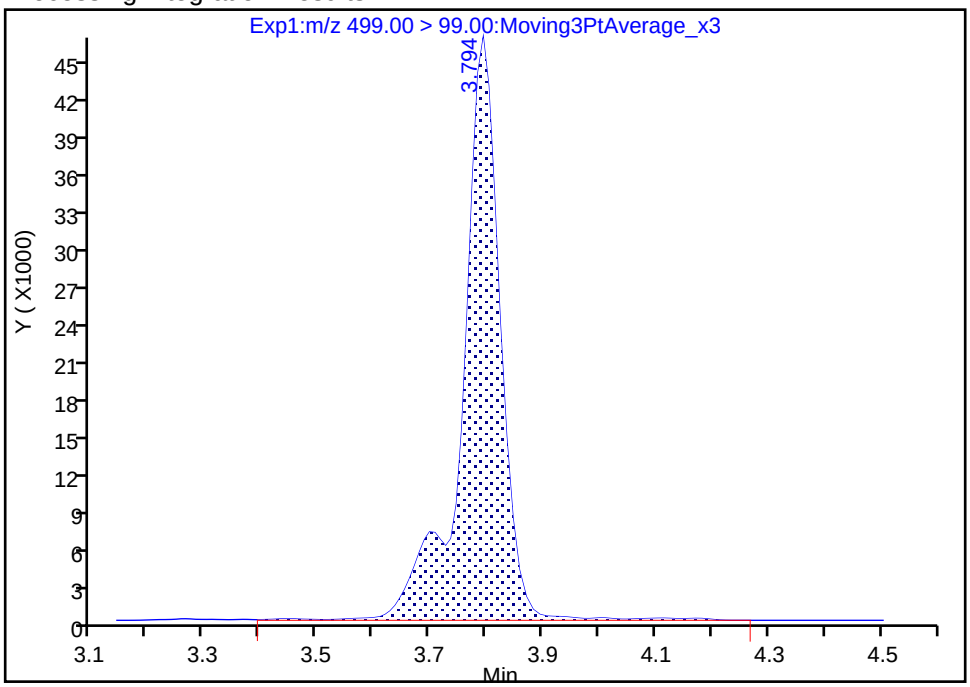
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

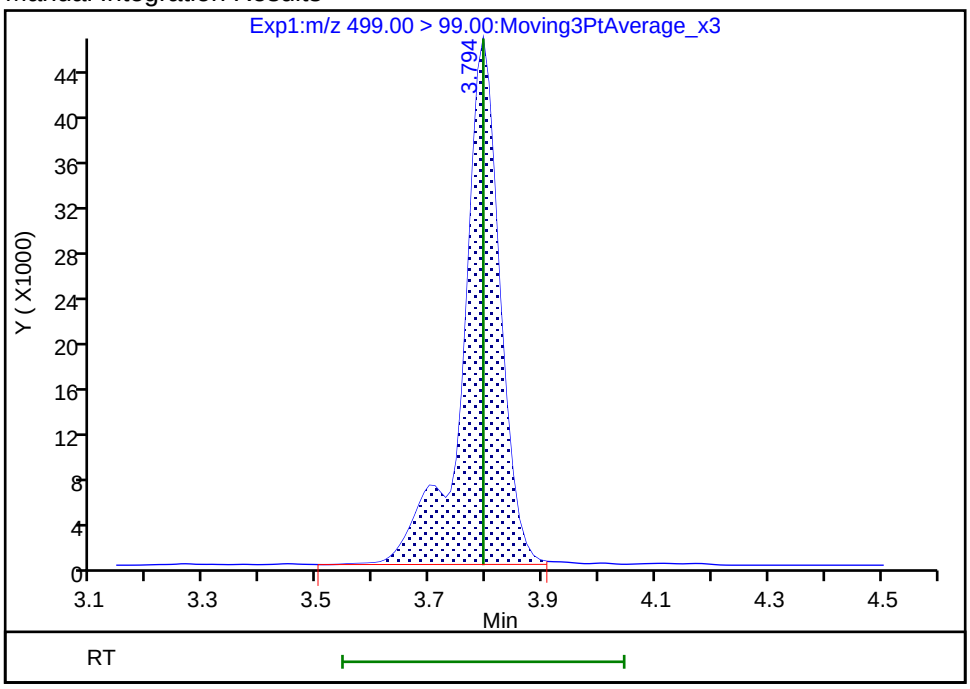
Processing Integration Results

RT: 3.79
Area: 220708
Amount: 0.899685
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 215714
Amount: 0.886981
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

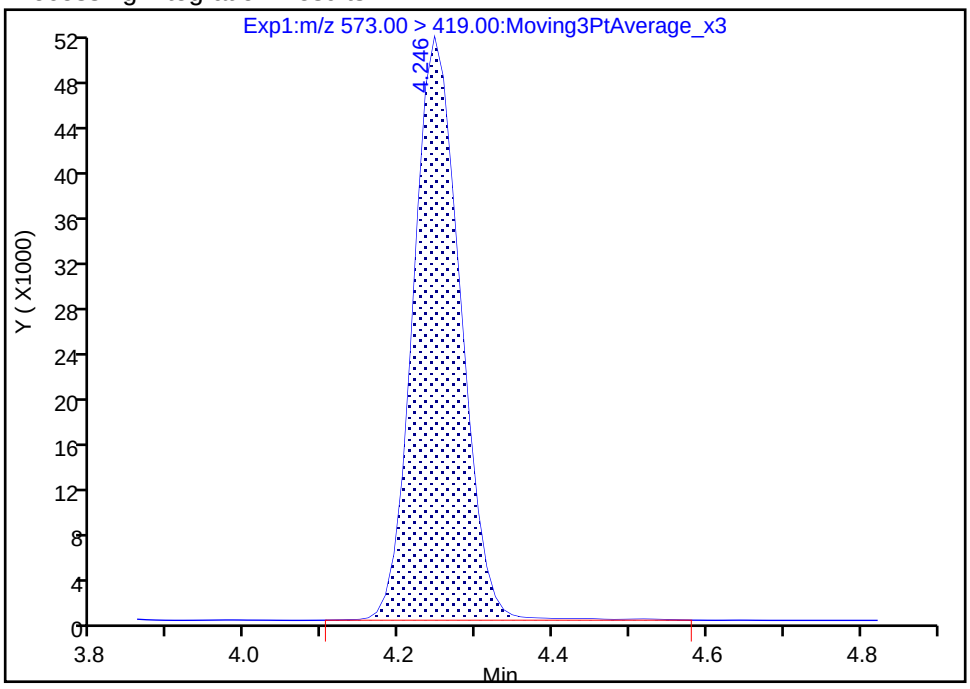
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

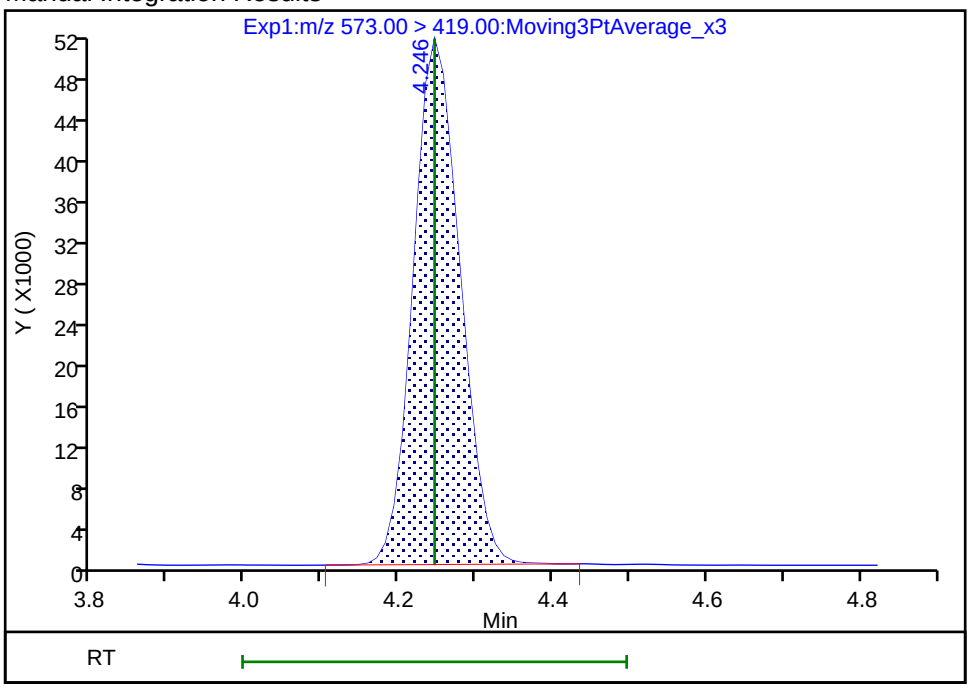
Processing Integration Results

RT: 4.25
Area: 218484
Amount: 1.036905
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 216683
Amount: 1.028357
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:03:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

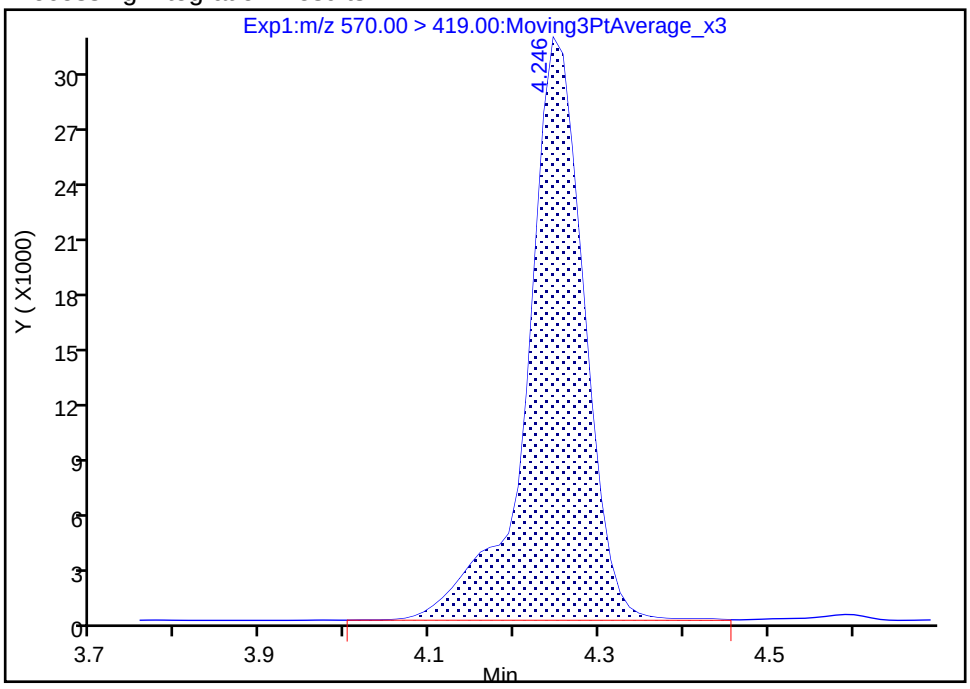
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

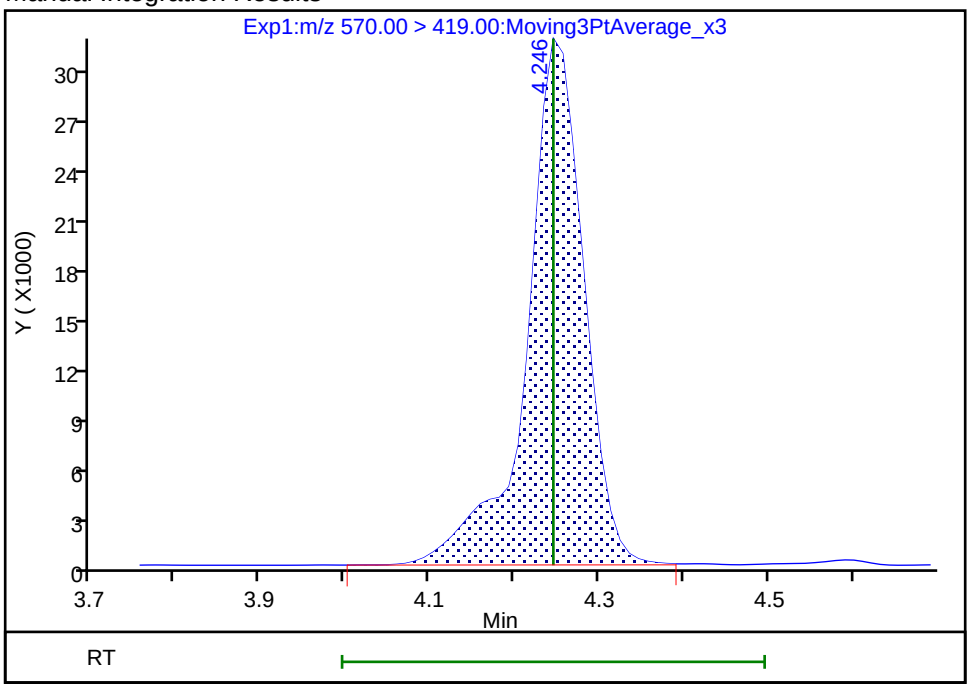
Processing Integration Results

RT: 4.25
Area: 149291
Amount: 1.096280
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 148796
Amount: 1.092645
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

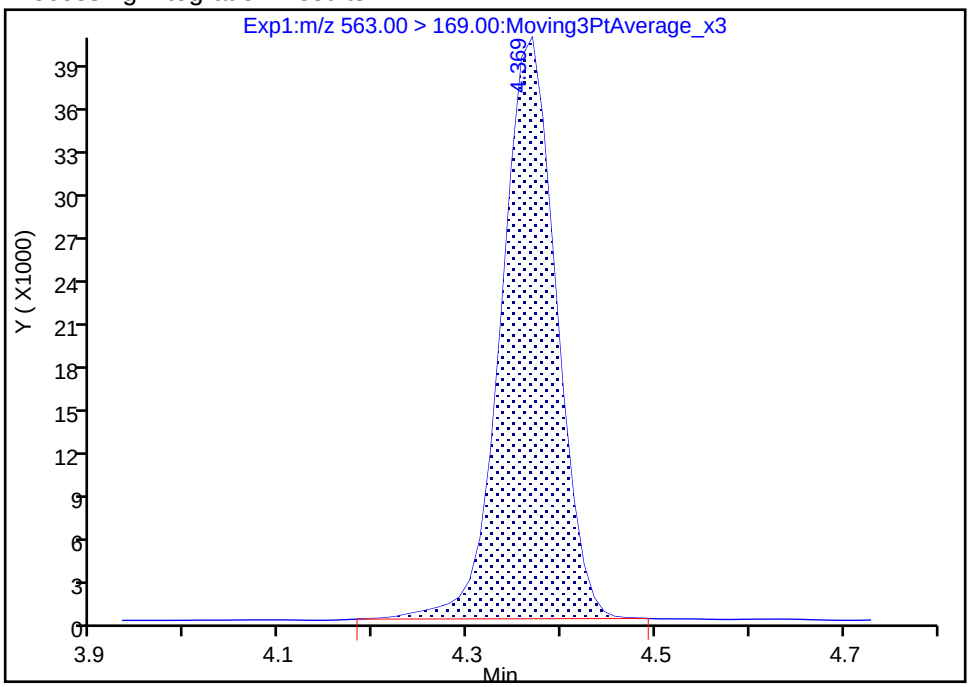
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

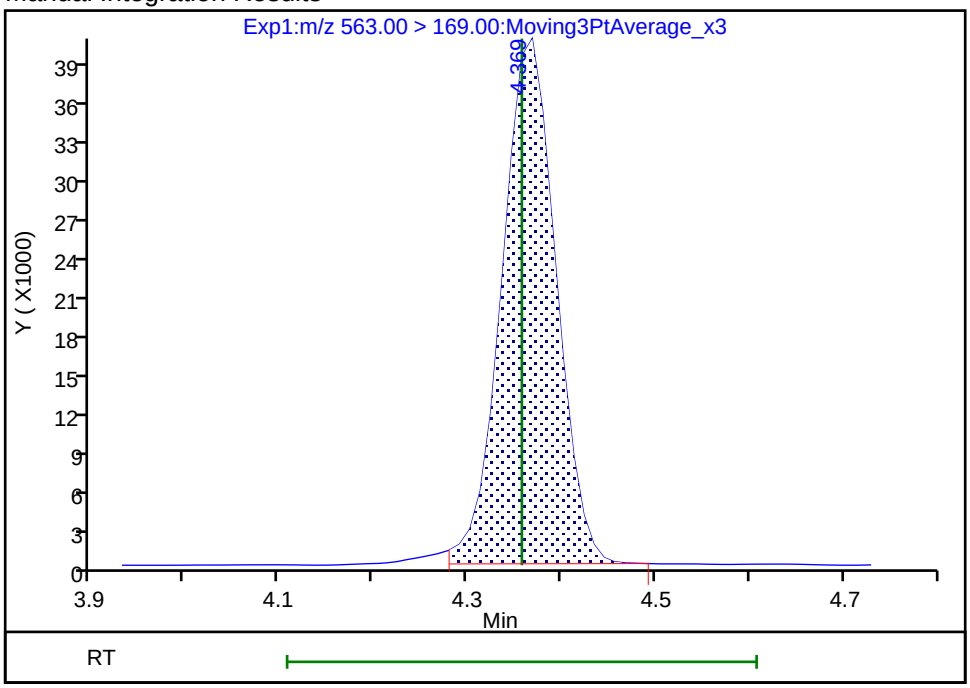
Processing Integration Results

RT: 4.37
Area: 162527
Amount: 0.968834
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 160471
Amount: 0.965157
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

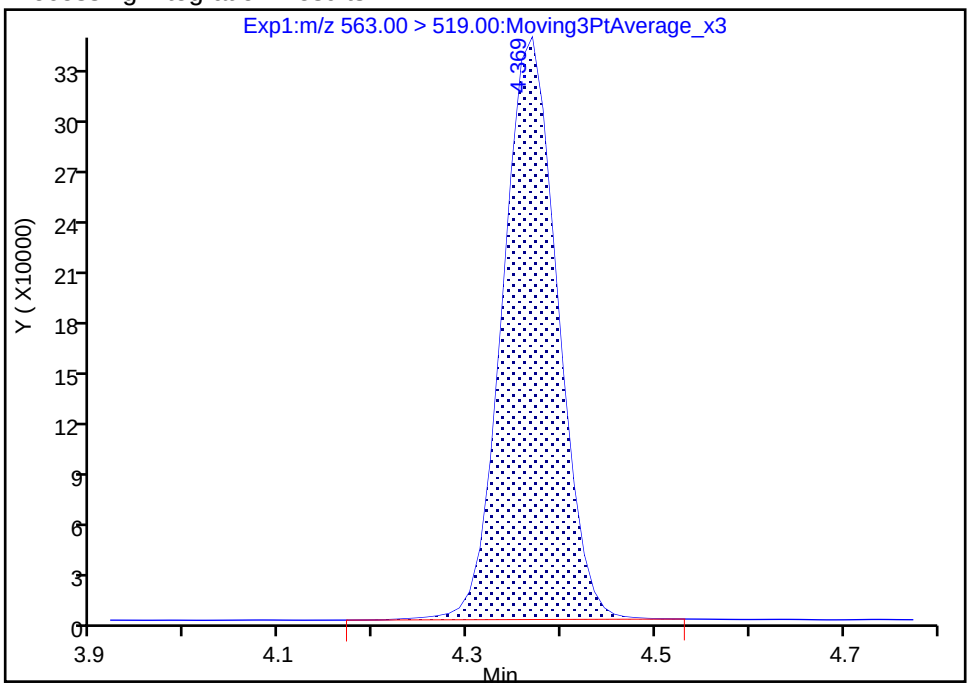
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

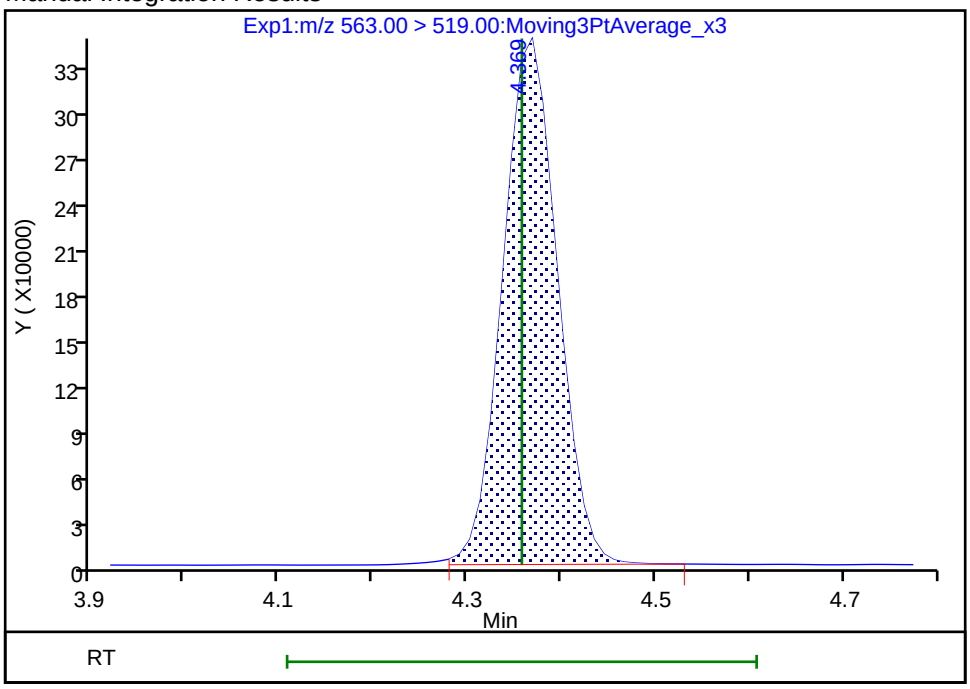
Processing Integration Results

RT: 4.37
Area: 1407277
Amount: 0.968834
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 1401937
Amount: 0.965157
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

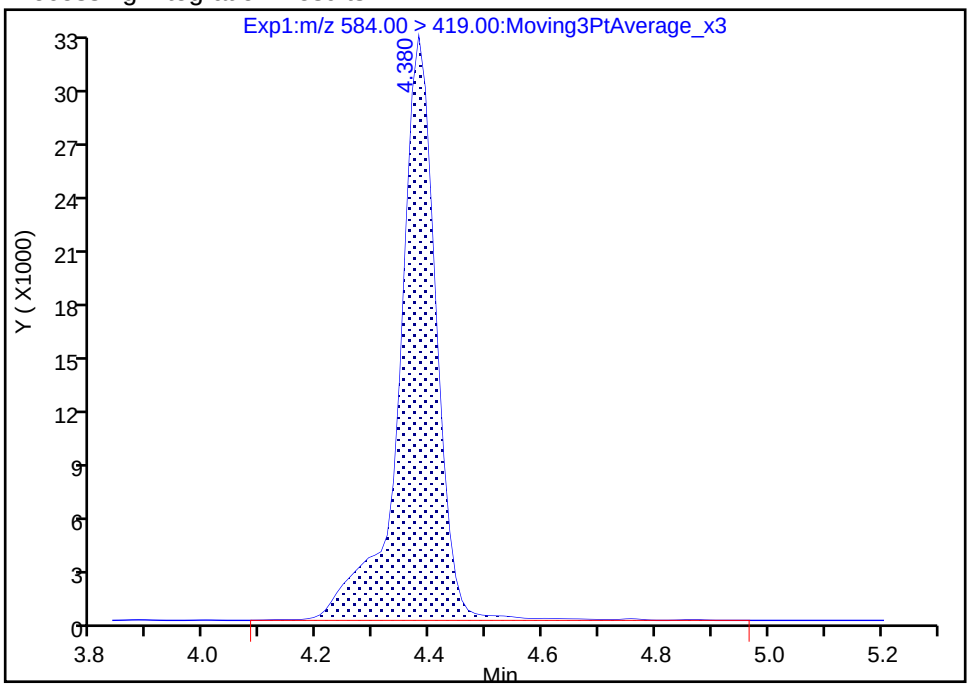
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

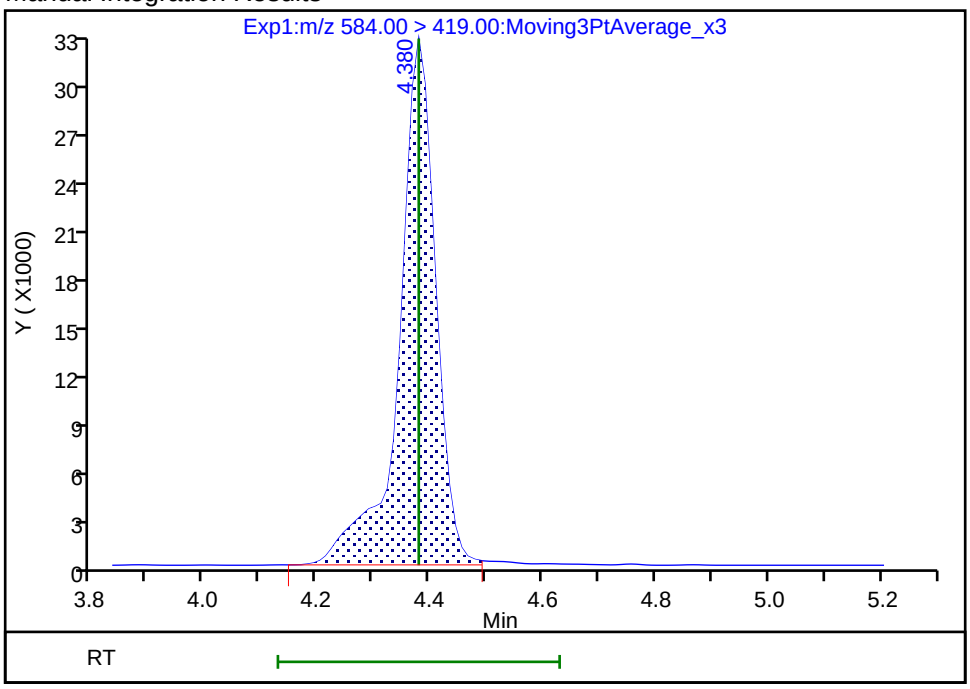
Processing Integration Results

RT: 4.38
Area: 146769
Amount: 1.099399
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 144449
Amount: 1.082020
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

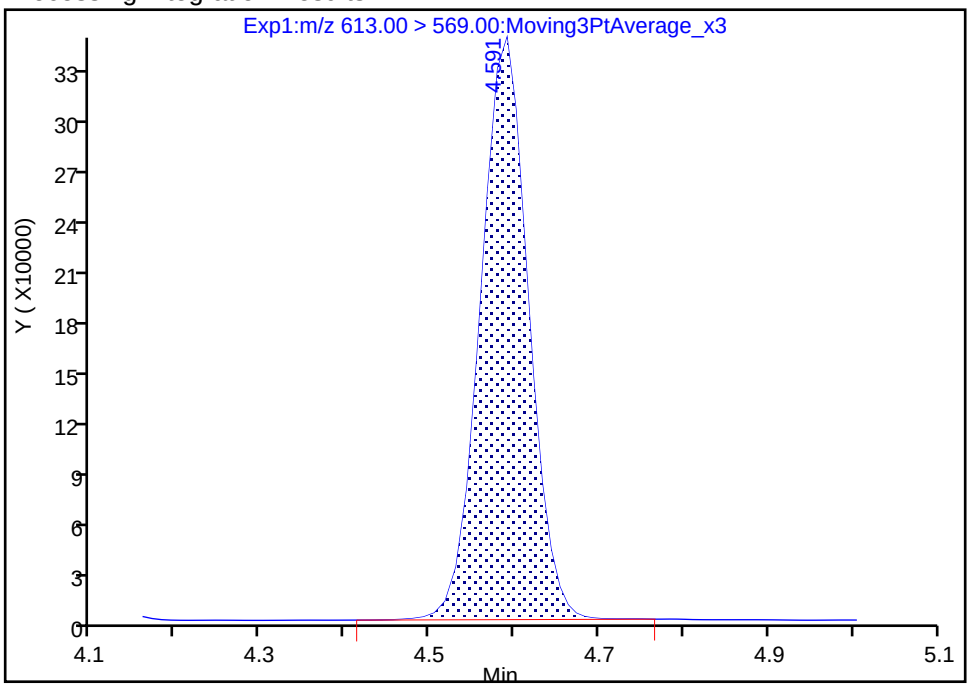
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

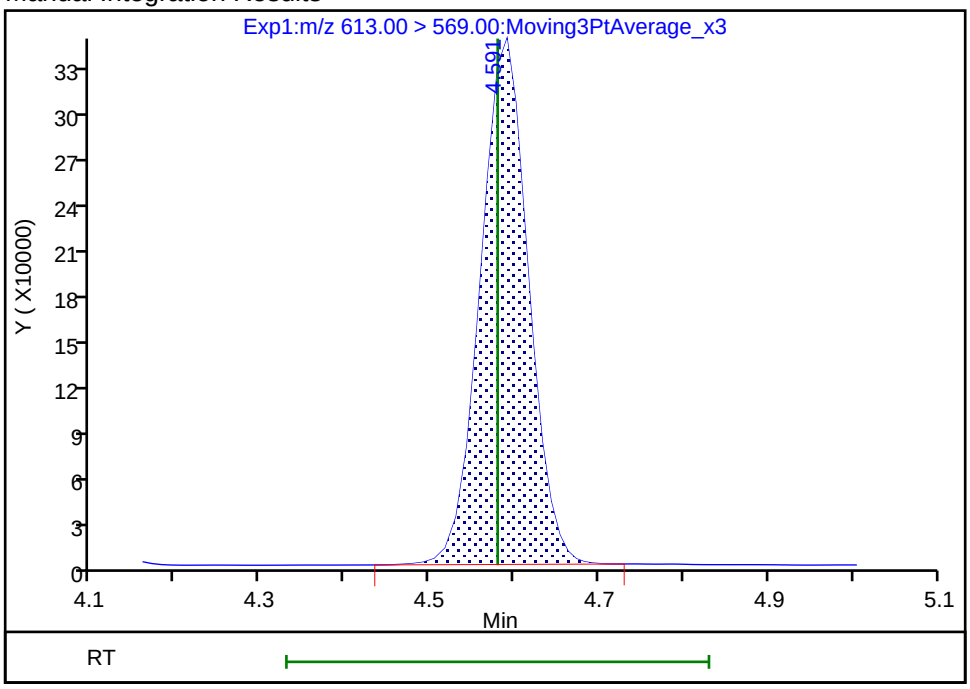
Processing Integration Results

RT: 4.59
Area: 1350692
Amount: 0.898375
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 1348763
Amount: 0.897092
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

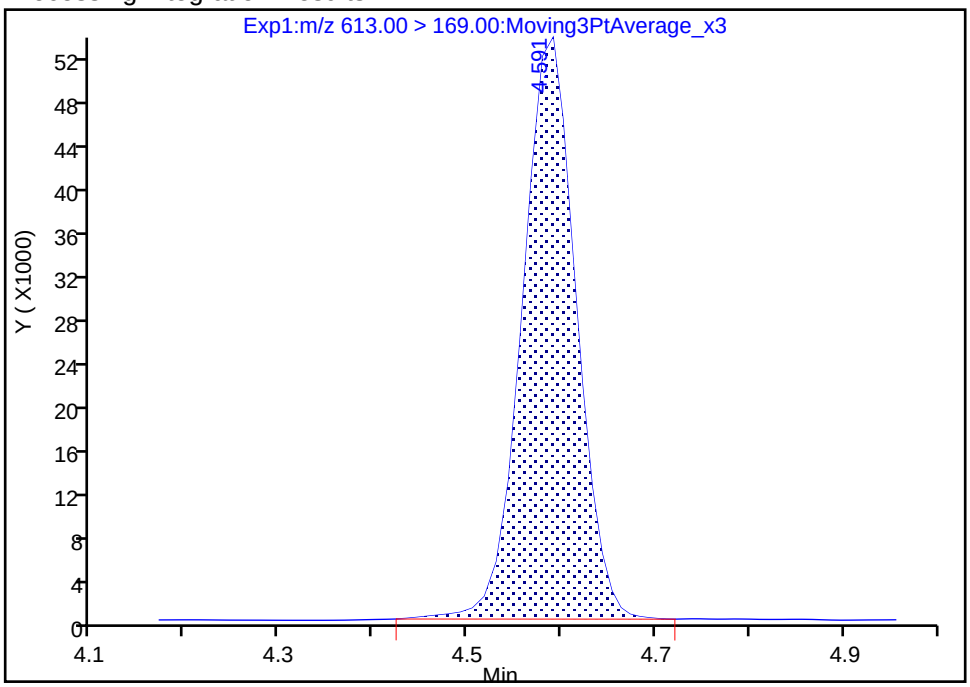
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

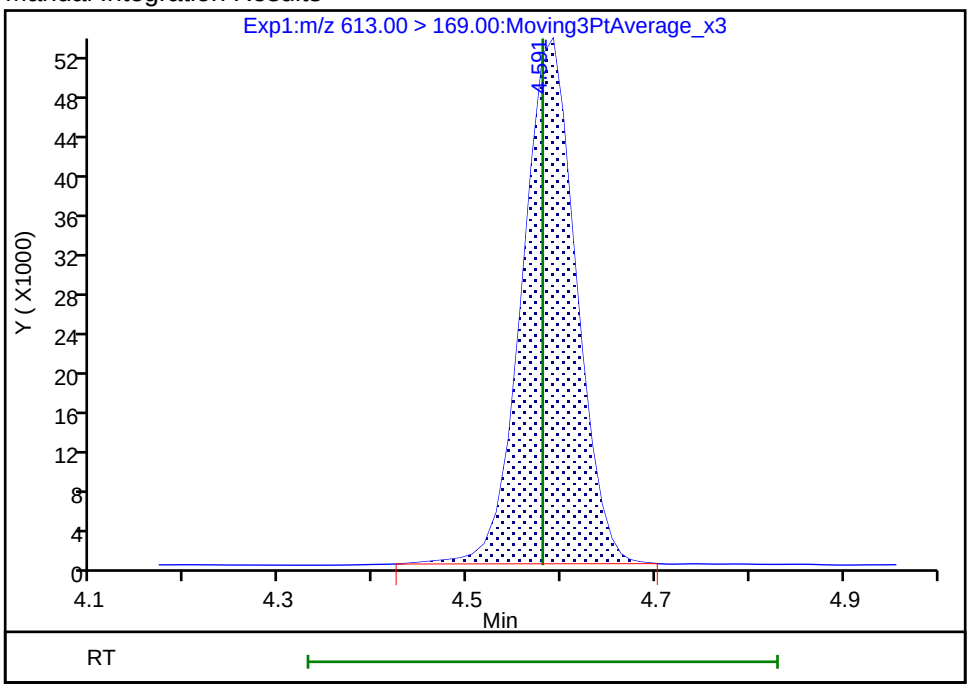
Processing Integration Results

RT: 4.59
Area: 211316
Amount: 0.898375
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 210862
Amount: 0.897092
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:04:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

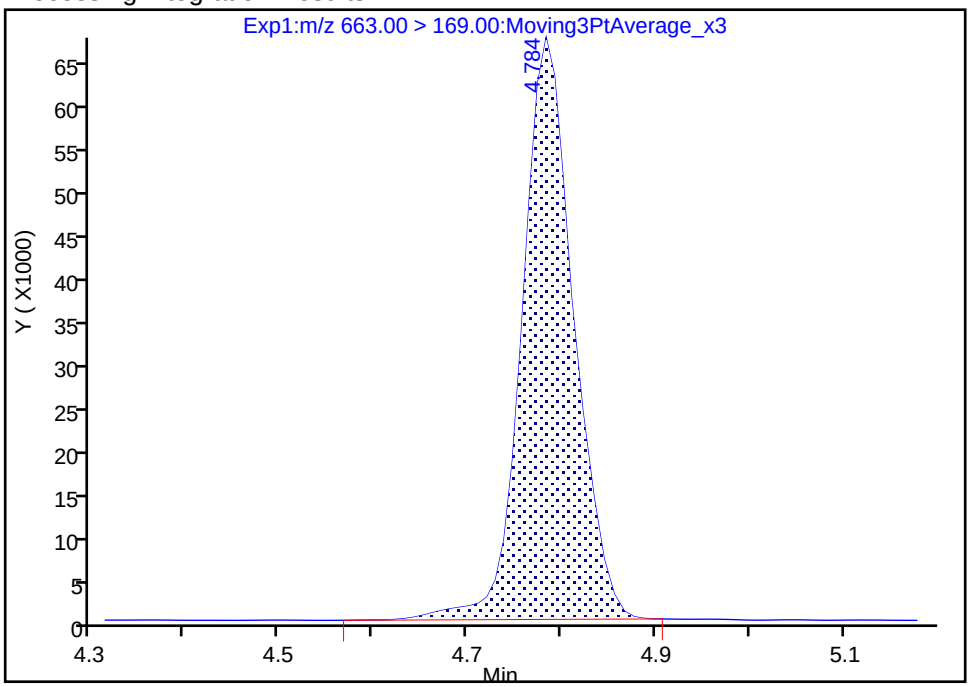
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

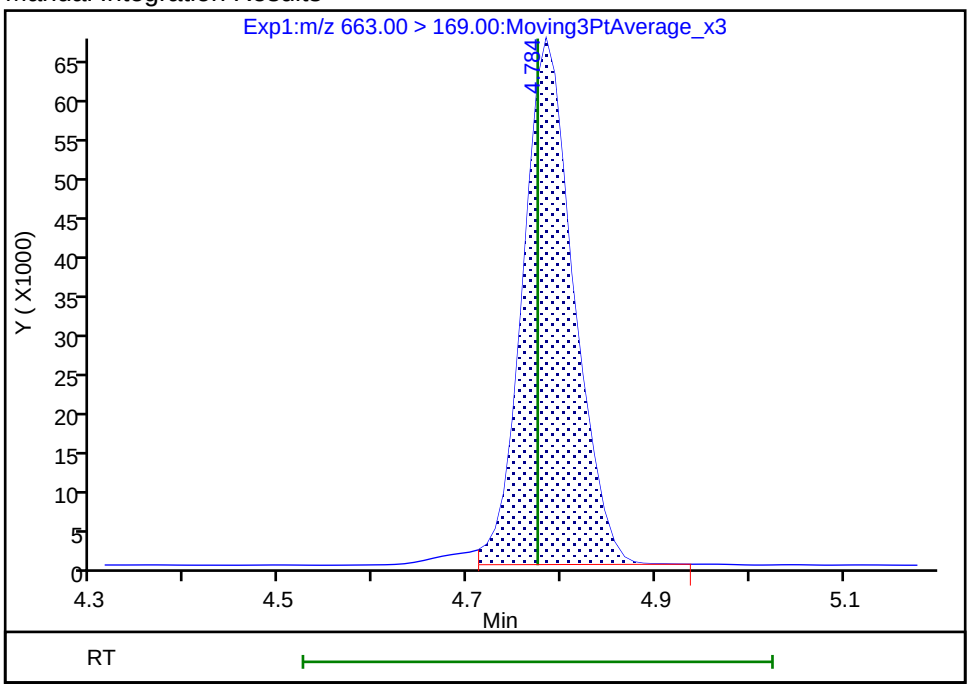
Processing Integration Results

RT: 4.78
Area: 257118
Amount: 0.851296
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 252536
Amount: 0.844426
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

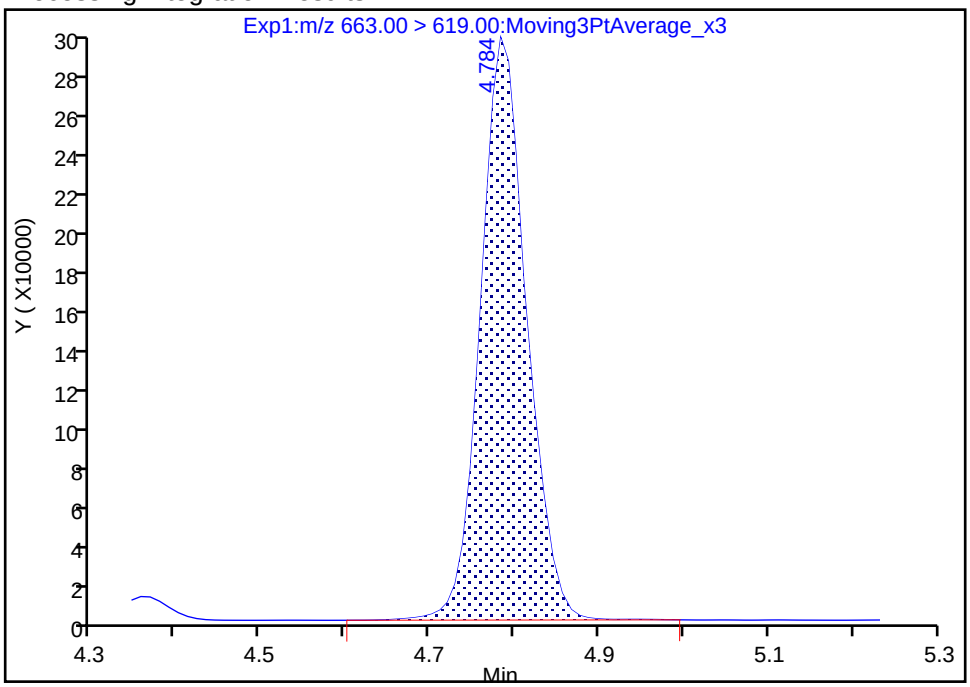
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

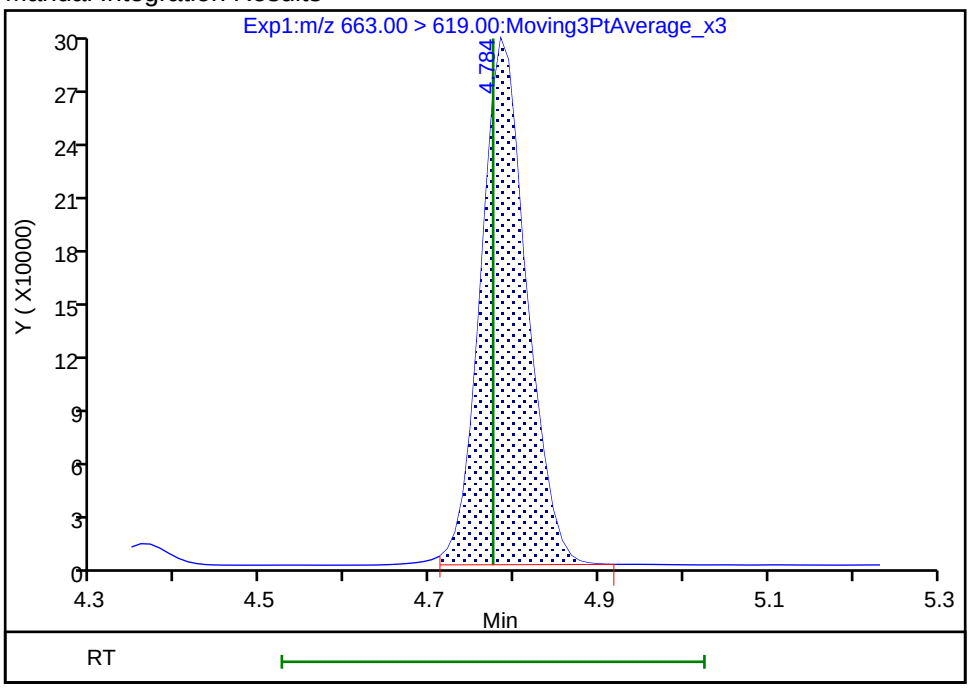
Processing Integration Results

RT: 4.78
Area: 1103486
Amount: 0.851296
Amount Units: ng/ml




Manual Integration Results

RT: 4.78
Area: 1094580
Amount: 0.844426
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

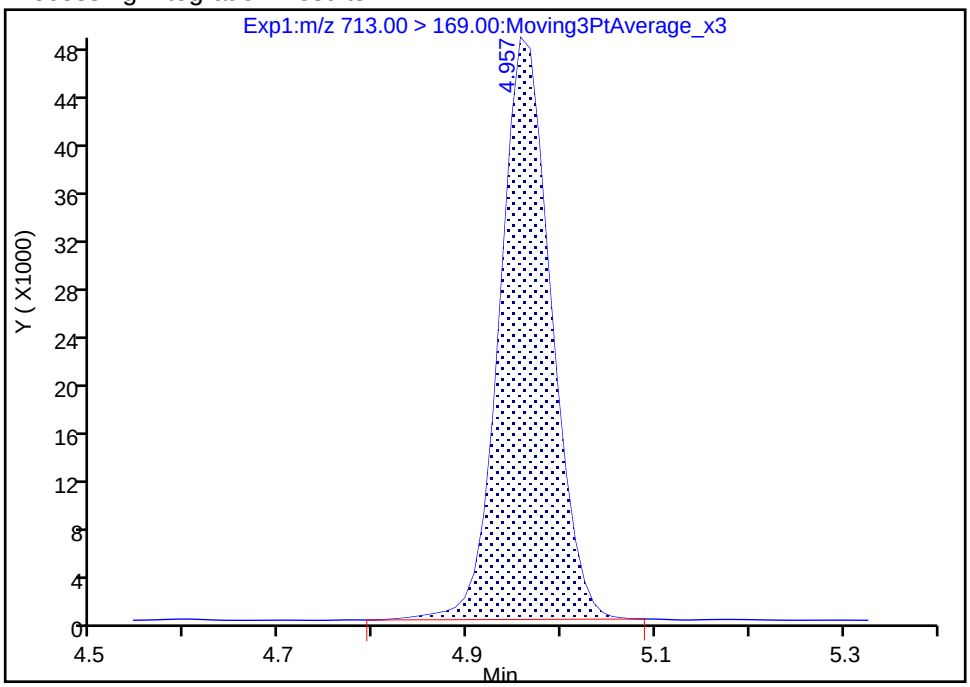
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

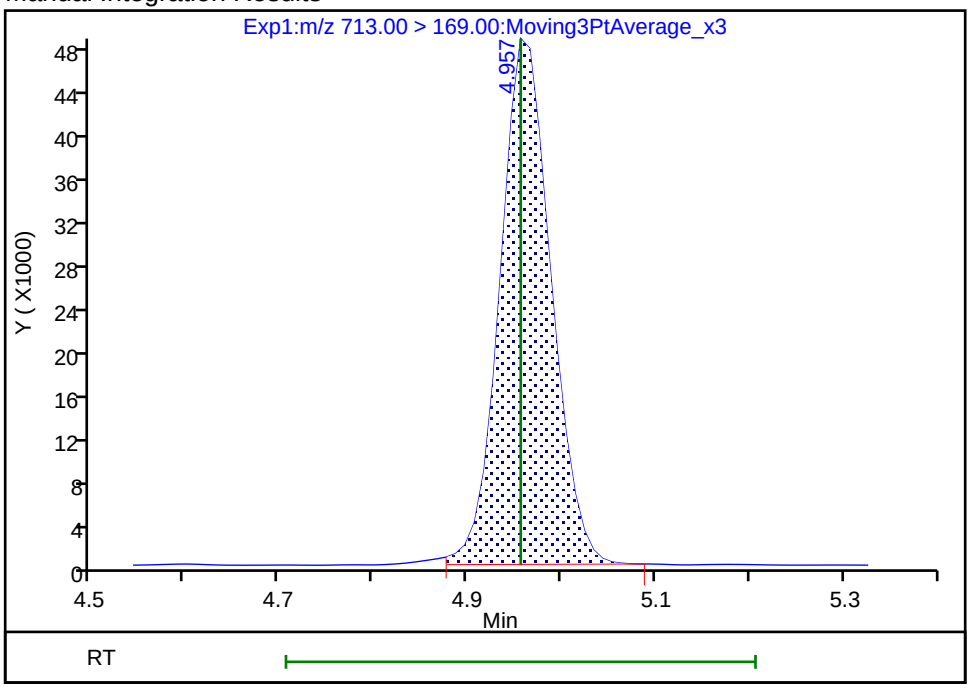
Processing Integration Results

RT: 4.96
Area: 184949
Amount: 0.988025
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 183790
Amount: 0.981833
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

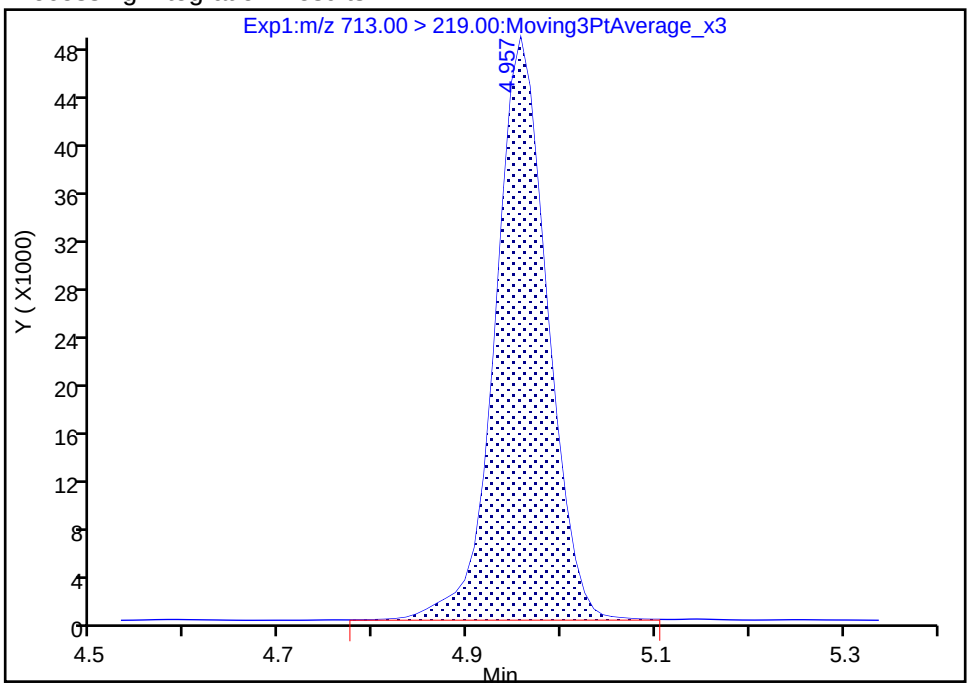
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

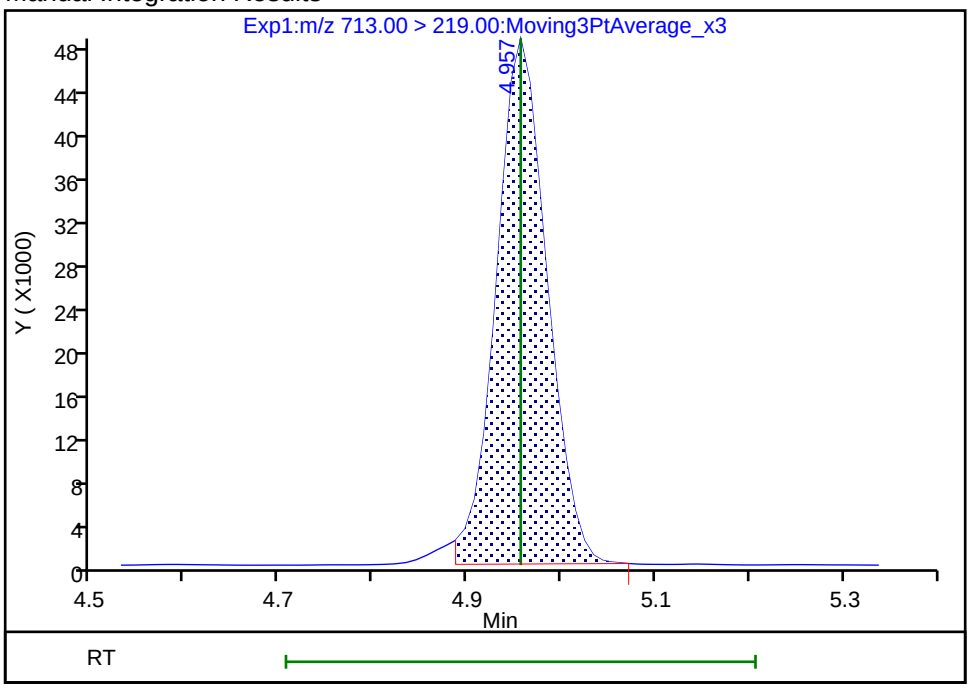
Processing Integration Results

RT: 4.96
Area: 187019
Amount: 0.988025
Amount Units: ng/ml




Manual Integration Results

RT: 4.96
Area: 181784
Amount: 0.981833
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

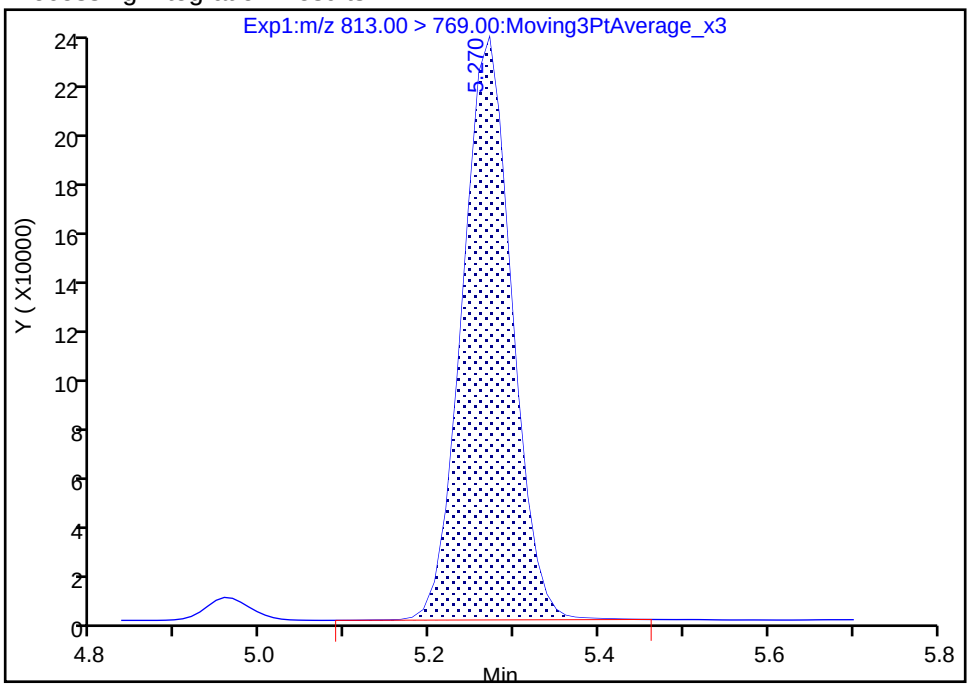
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d
Injection Date: 27-Oct-2021 14:44:15 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

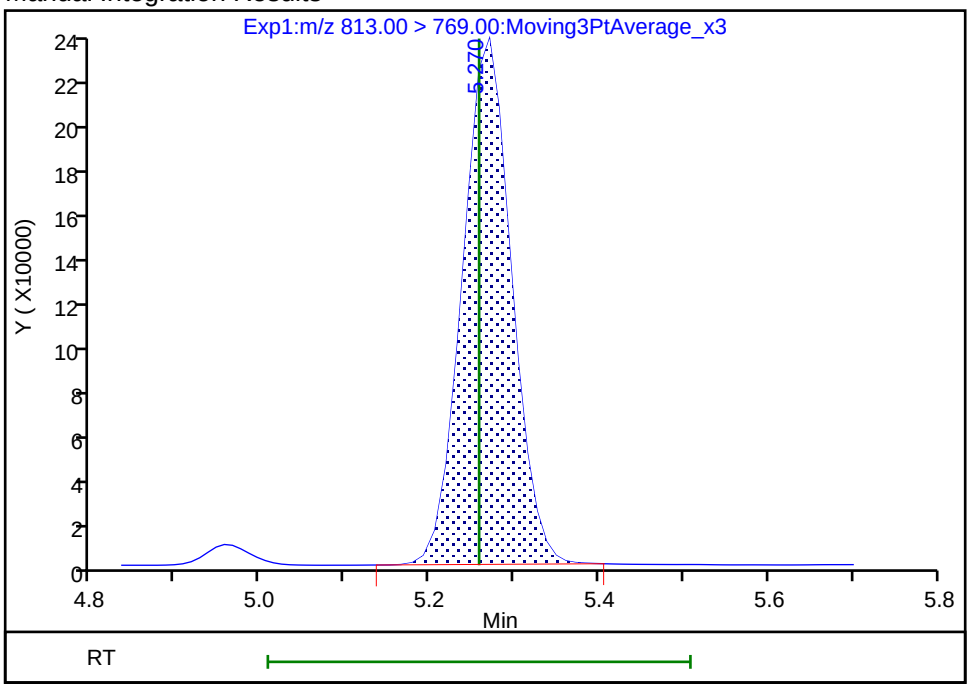
Processing Integration Results

RT: 5.27
Area: 954170
Amount: 1.040284
Amount Units: ng/ml




Manual Integration Results

RT: 5.27
Area: 950197
Amount: 1.035874
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

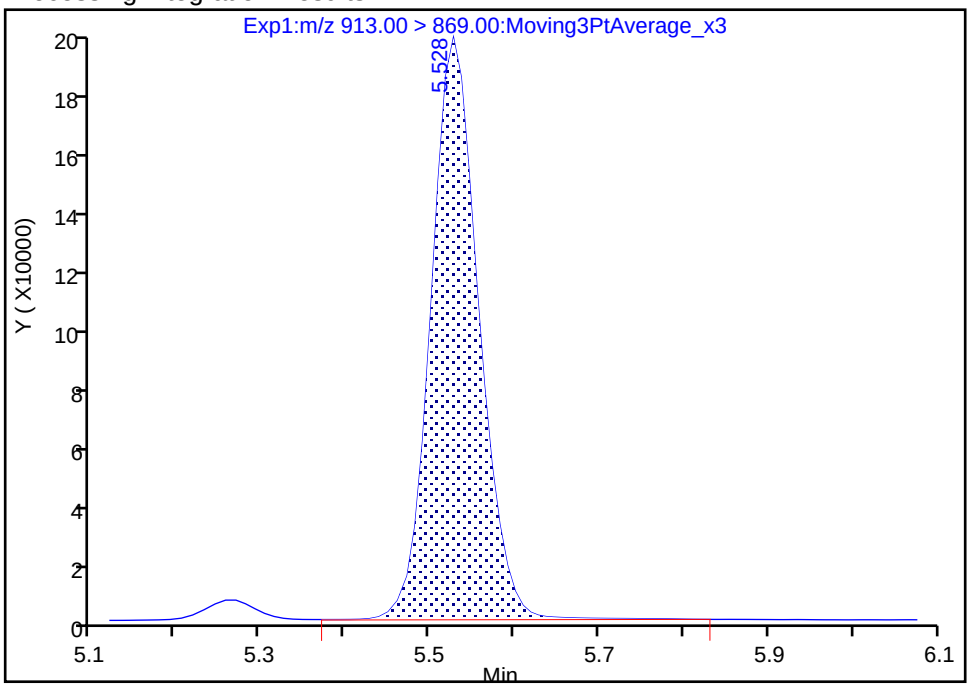
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL09.d | | | | |
| Injection Date: | 27-Oct-2021 14:44:15 | Instrument ID: | LC812 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

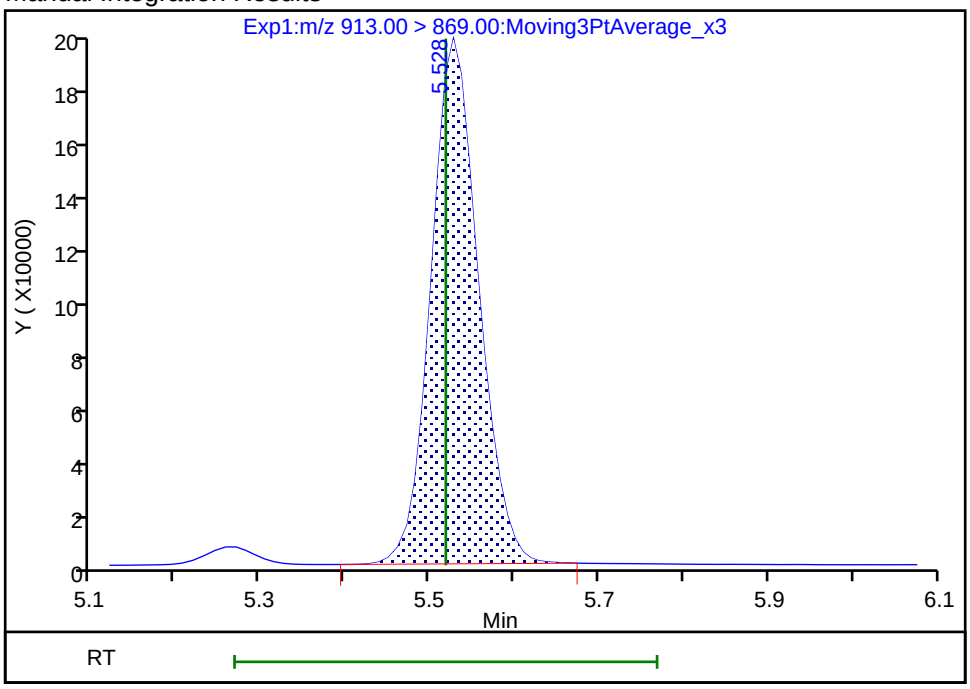
Processing Integration Results

RT: 5.53
Area: 780790
Amount: 0.876574
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 772499
Amount: 0.867266
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 16:05:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173621/5  Calibration Date: 11/08/2021 16:16

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9217 | | 0.122 | 0.125 | -2.5 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.084 | | 0.0541 | 0.0500 | 8.2 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.106 | | 0.0458 | 0.0442 | 3.6 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.110 | | 0.0463 | 0.0467 | -0.9 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.128 | | 0.0556 | 0.0500 | 11.2 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.223 | | 0.0476 | 0.0469 | 1.6 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 6.085 | | 0.134 | 0.100 | 34.5 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.134 | | 0.0470 | 0.0455 | 3.2 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.132 | | 0.0548 | 0.0500 | 9.6 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.323 | | 0.0447 | 0.0471 | -5.1 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.340 | | 0.125 | 0.119 | 5.6 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.212 | | 0.0463 | 0.0476 | -2.8 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.158 | | 0.0544 | 0.0500 | 8.9 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.149 | | 0.0491 | 0.0464 | 5.9 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.020 | | 0.0521 | 0.0500 | 4.2 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.550 | | 0.0442 | 0.0466 | -5.2 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8051 | | 0.0457 | 0.0480 | -4.7 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9446 | | 0.0541 | 0.0479 | 12.9 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9758 | | 0.0486 | 0.0500 | -2.9 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 1.013 | | 0.0533 | 0.0500 | 6.6 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7717 | | 0.123 | 0.125 | -1.8 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.5318 | | 0.0390 | 0.0482 | -19.1 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.104 | | 0.0518 | 0.0500 | 3.6 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8326 | | 0.121 | 0.125 | -2.8 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.829 | | 0.0446 | 0.0471 | -5.3 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.047 | | 0.0535 | 0.0500 | 6.9 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3556 | | 0.0443 | 0.0482 | -8.0 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2458 | | 0.0492 | 0.0484 | 1.7 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173621/5  Calibration Date: 11/08/2021 16:16

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9095 | | 0.0539 | 0.0500 | 7.7 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.2027 | | 0.0642 | 0.0500 | 28.4 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.289 | | 0.0568 | 0.0500 | 13.6 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7474 | | 0.0443 | 0.0500 | -11.4 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.256 | | 1.55 | 1.25 | 24.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.232 | | 1.24 | 1.16 | 6.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9478 | | 1.39 | 1.25 | 11.1 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1004 | | 1.33 | 1.17 | 14.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9765 | | 1.37 | 1.25 | 9.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0205 | | 1.09 | 1.25 | -12.9 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.9454 | | 1.33 | 1.18 | 12.8 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9784 | | 1.30 | 1.25 | 3.9 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1491 | | 1.34 | 1.19 | 12.8 | |
| 13C4 PFOA | Ave | 1.029 | 1.035 | | 1.26 | 1.25 | 0.6 | |
| 13C4 PFOS | Ave | 0.6058 | 0.7115 | | 1.40 | 1.20 | 17.5 | |
| 13C5 PFNA | Ave | 1.025 | 1.047 | | 1.28 | 1.25 | 2.2 | |
| 13C2 PFDA | Ave | 1.034 | 1.082 | | 1.31 | 1.25 | 4.7 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1739 | | 1.39 | 1.20 | 16.1 | |
| 13C8 FOSA | Ave | 0.998 | 1.249 | | 1.57 | 1.25 | 25.2 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0910 | | 1.12 | 1.25 | -10.6 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8160 | | 1.27 | 1.25 | 1.2 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0828 | | 1.09 | 1.25 | -13.2 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7857 | | 1.13 | 1.25 | -9.4 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6332 | | 1.18 | 1.25 | -5.8 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5303 | | 1.12 | 1.25 | -10.5 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 08-Nov-2021 16:16:09 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048331-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:07:18 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 09:35:49
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.226 | 2.226 | 0.0 | 0.639 | 1956838 | 1.55 | | 124 | 1222 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.226 | 2.236 | -0.010 | 1.000 | 180369 | 0.1219 | | 97.5 | 18.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.479 | 2.479 | -0.001 | 0.712 | 1477112 | 1.39 | | 111 | 1994 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.479 | 2.479 | -0.001 | 1.000 | 64050 | 0.0541 | | 108 | 4.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.479 | 2.479 | -0.001 | 0.712 | 1786067 | 1.24 | | 107 | 144207 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.492 | 2.492 | 0.0 | 1.005 | 75131 | 0.0458 | Target=2.32 | 104 | 98.9 | M |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.005 | 33487 | | 2.24(1.16-3.48) | | 23.9 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.758 | 2.758 | 0.0 | 0.792 | 146165 | 1.33 | | 114 | 102 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 1.000 | 12335 | 0.0463 | | 99.1 | 126 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.795 | -0.001 | 0.802 | 1521897 | 1.36 | | 109 | 2192 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.794 | 2.795 | -0.001 | 1.000 | 68668 | 0.0556 | Target=12.09 | 111 | 20.5 | M |
| 313.00 > 119.00 | 2.794 | 2.795 | -0.001 | 1.000 | 4617 | | 14.87(6.04-18.13) | | 3.4 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.794 | 2.795 | -0.001 | 0.892 | 67626 | 0.0476 | Target=3.03 | 102 | 153 | M |
| 349.00 > 99.00 | 2.794 | 2.795 | -0.001 | 0.892 | 23909 | | 2.83(1.52-4.55) | | 63.2 | M |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.892 | 2.892 | 0.0 | 1.000 | 15579 | 0.1345 | | 134 | 12.8 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.892 | 2.892 | 0.0 | 0.830 | 32003 | 1.09 | | 87.1 | 337 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 60841 | 0.0470 | Target=3.55 | 103 | 143 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 17439 | | 3.49(1.77-5.32) | | 28.2 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1393746 | 1.33 | | 113 | 4683 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.902 | 1524733 | 1.30 | | 104 | 3400 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 69053 | 0.0548 | Target=3.69 | 110 | 36.9 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 15854 | | 4.36(1.84-5.53) | | 43.1 | M |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 138826 | 0.0447 | Target=2.56 | 94.9 | 325 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 55407 | | 2.51(1.28-3.84) | | 138 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.465 | 0.009 | 0.916 | 51155 | 0.0463 | Target=4.88 | 97.2 | 264 | M |
| 449.00 > 99.00 | 3.474 | 3.465 | 0.009 | 0.916 | 8925 | | 5.73(2.44-7.32) | | 51.1 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 29510 | 0.1252 | | 106 | 233 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 220740 | 1.34 | | 113 | 666 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.474 | 0.009 | 1.000 | 1613619 | 1.26 | | 101 | 7394 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1558450 | 1.25 | | | 5086 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 74719 | 0.0544 | Target=2.68 | 109 | 18.3 | M |
| 413.00 > 169.00 | 3.492 | 3.483 | 0.009 | 1.003 | 28416 | | 2.63(1.34-4.02) | | 94.8 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.089 | 1060030 | 1.40 | | 117 | 4453 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.000 | 47275 | 0.0491 | Target=4.69 | 106 | 114 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 0.997 | 10324 | | 4.58(2.35-7.04) | | 46.0 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1632119 | 1.28 | | 102 | 6422 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 66570 | 0.0521 | Target=7.29 | 104 | 13.2 | M |
| 463.00 > 169.00 | 3.814 | 3.804 | 0.010 | 1.003 | 8803 | | 7.56(3.64-10.93) | | 106 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.039 | 64058 | 0.0442 | | 94.8 | 364 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.073 | 34279 | 0.0457 | Target=2.35 | 95.3 | 353 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.073 | 14661 | | 2.34(1.17-3.52) | | 78.4 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.092 | 0.012 | 1.178 | 1686995 | 1.31 | | 105 | 3717 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.104 | 4.092 | 0.012 | 1.000 | 65850 | 0.0486 | Target=8.95 | 97.1 | 55.7 | |
| 513.00 > 169.00 | 4.104 | 4.092 | 0.012 | 1.000 | 7640 | | 8.62(4.47-13.42) | | 58.8 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.104 | 0.011 | 1.181 | 259676 | 1.39 | | 116 | 1121 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.104 | 0.0 | 0.997 | 9812 | 0.0541 | | 113 | 136 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.215 | 0.009 | 1.213 | 1946491 | 1.56 | | 125 | 3880 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.215 | 0.009 | 1.000 | 78852 | 0.0533 | | 107 | 398 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.234 | 4.235 | -0.001 | 1.216 | 141774 | 1.12 | | 89.4 | 1007 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.235 | 0.011 | 1.003 | 10940 | 0.1228 | | 98.2 | 40.8 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.336 | 4.324 | 0.012 | 1.143 | 22737 | 0.0390 | Target=2.47 | 80.9 | 149 | |
| 599.00 > 99.00 | 4.336 | 4.324 | 0.012 | 1.143 | 10283 | | 2.21(1.23-3.70) | | 98.3 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.359 | 4.347 | 0.012 | 1.251 | 1271633 | 1.27 | | 101 | 3562 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.359 | 4.347 | 0.012 | 1.000 | 56170 | 0.0518 | Target=9.24 | 104 | 56.1 | M |
| 563.00 > 169.00 | 4.370 | 4.347 | 0.023 | 1.003 | 5109 | | 10.99(4.62-13.86) | | 79.2 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.358 | 0.012 | 1.255 | 128966 | 1.09 | | 86.8 | 1965 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.370 | 4.369 | 0.001 | 1.000 | 10738 | 0.1215 | | 97.2 | 159 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.446 | 4.445 | 0.001 | 1.172 | 76413 | 0.0446 | | 94.7 | 280 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.568 | 0.013 | 1.315 | 1224407 | 1.13 | | 90.6 | 813 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.581 | 4.568 | 0.013 | 1.000 | 51268 | 0.0535 | Target=7.04 | 107 | 12.2 | |
| 613.00 > 169.00 | 4.581 | 4.568 | 0.013 | 1.000 | 8160 | | 6.28(3.52-10.56) | | 112 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.591 | 4.590 | 0.001 | 1.116 | 3717 | 0.0443 | | 92.0 | 97.0 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.739 | 4.738 | 0.001 | 1.249 | 10553 | 0.0492 | Target=0.49 | 102 | 293 | |
| 699.00 > 99.00 | 4.748 | 4.738 | 0.010 | 1.251 | 20389 | | 0.52(0.25-0.74) | | 253 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.775 | 4.765 | 0.010 | 1.042 | 44544 | 0.0539 | Target=4.68 | 108 | 19.5 | |
| 663.00 > 169.00 | 4.775 | 4.765 | 0.010 | 1.042 | 9476 | | 4.70(2.34-7.02) | | 129 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.957 | 4.946 | 0.011 | 1.423 | 986849 | 1.18 | | 94.2 | 2369 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.946 | 0.001 | 0.998 | 8002 | 0.0642 | Target=1.01 | 128 | 194 | |
| 713.00 > 219.00 | 4.947 | 4.946 | 0.001 | 0.998 | 6698 | | 1.19(0.51-1.52) | | 160 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.258 | 5.245 | 0.013 | 1.510 | 826430 | 1.12 | | 89.5 | 3261 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.258 | 5.245 | 0.013 | 1.000 | 42617 | 0.0568 | Target=4.57 | 114 | 20.3 | M |
| 813.00 > 169.00 | 5.258 | 5.245 | 0.013 | 1.000 | 9951 | | 4.28(2.29-6.86) | | 222 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.509 | 5.501 | 0.008 | 1.048 | 24708 | 0.0443 | Target=4.27 | 88.6 | 23.0 | M |
| 913.00 > 169.00 | 5.500 | 5.501 | -0.001 | 1.046 | 5679 | | 4.35(2.14-6.41) | | 170 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:07:19 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d

Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812

Lims ID: CCVL

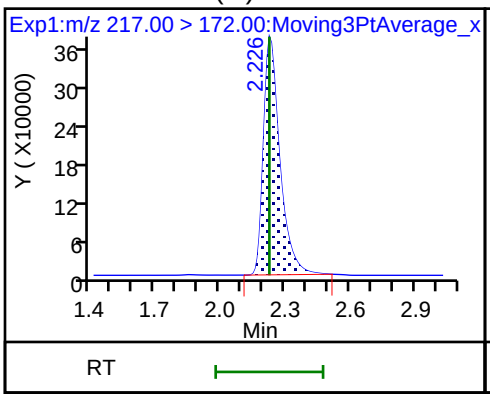
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

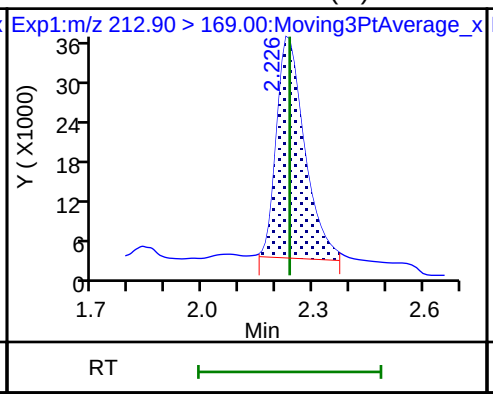
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

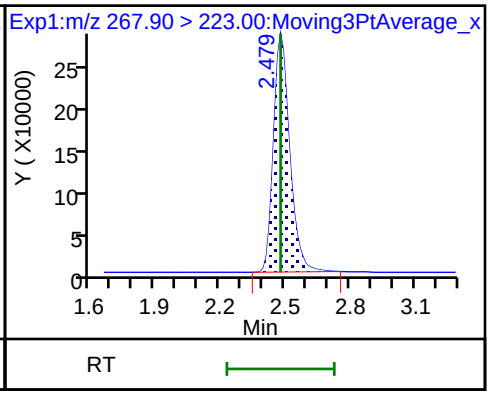
D 1 13C4 PFBA (M)



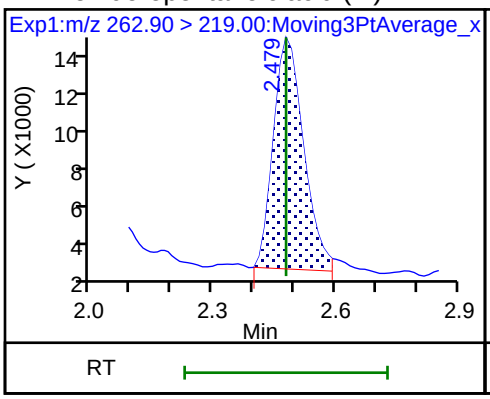

2 Perfluorobutanoic acid (M)



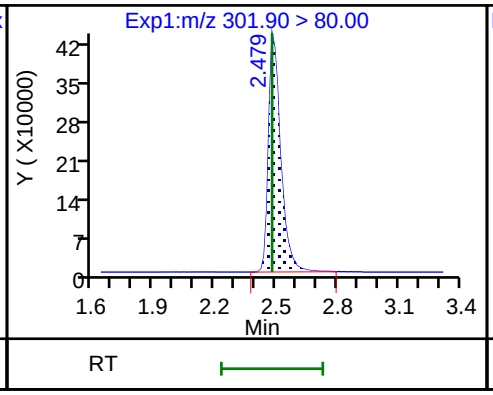

D 3 13C5 PFPeA



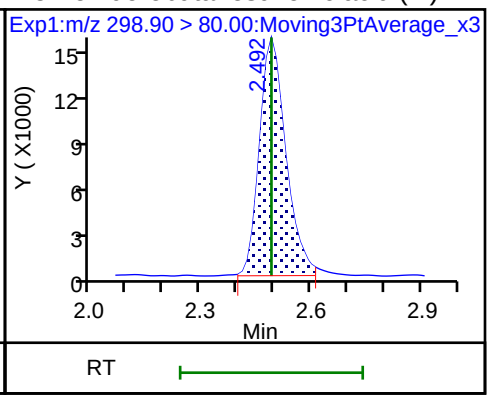

4 Perfluoropentanoic acid (M)



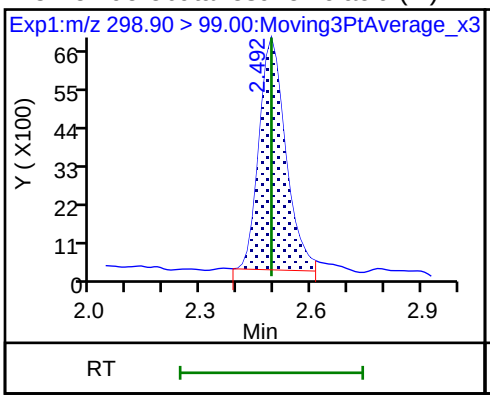

D 47 13C3 PFBS



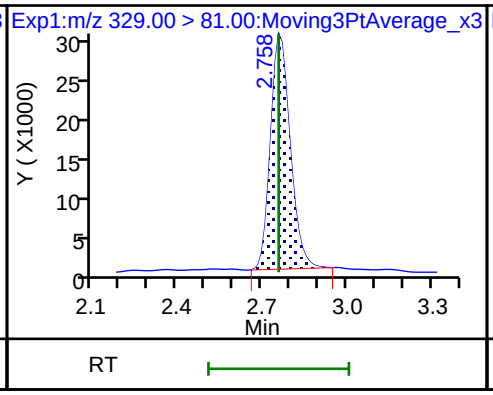

5 Perfluorobutanesulfonic acid (M)



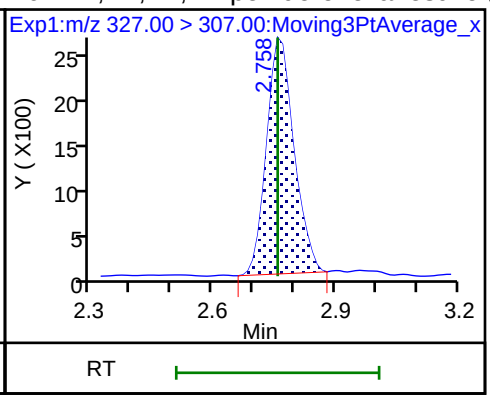

5 Perfluorobutanesulfonic acid (M)



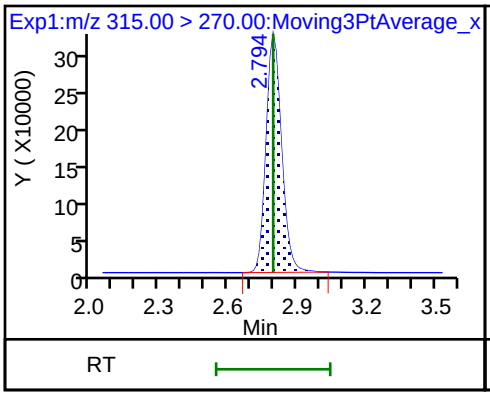

D 60 M2-4:2 FTS



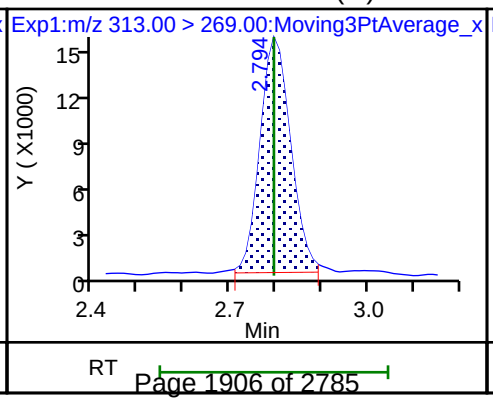

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



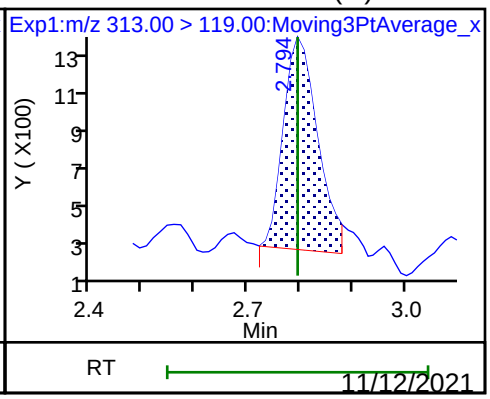

D 7 13C2 PFHxA



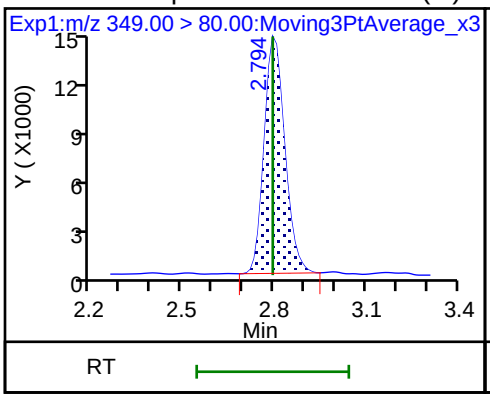

6 Perfluorohexanoic acid (M)



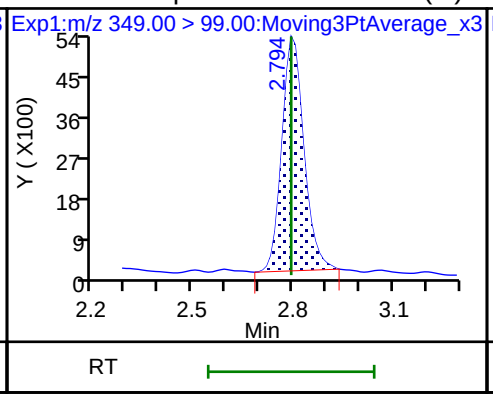

6 Perfluorohexanoic acid (M)



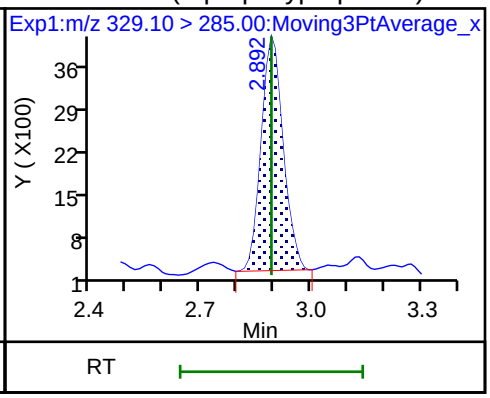
70 Perfluoropentanesulfonic acid (M)



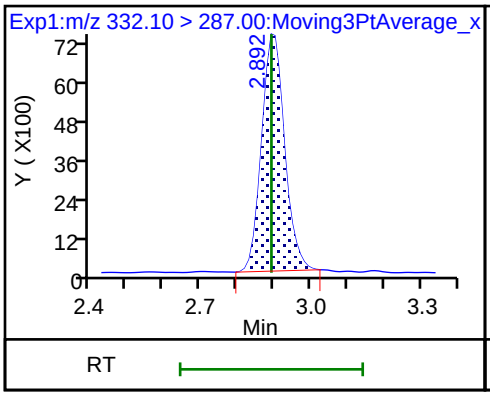

70 Perfluoropentanesulfonic acid (M)



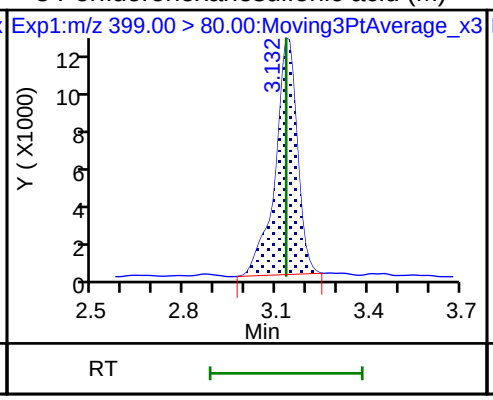

67 Perfluoro(2-propoxypropanoic) ac



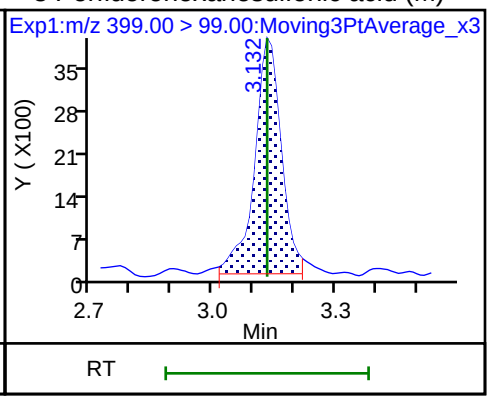

D 64 13C3 HFPO-DA



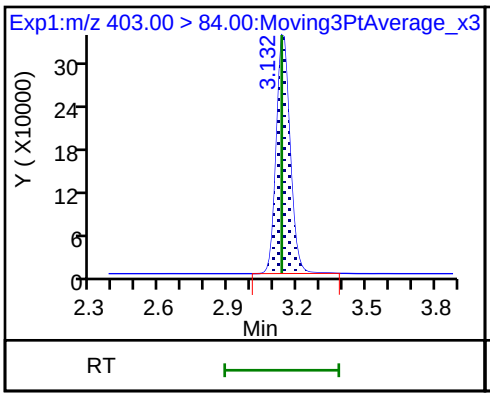

8 Perfluorohexanesulfonic acid (M)



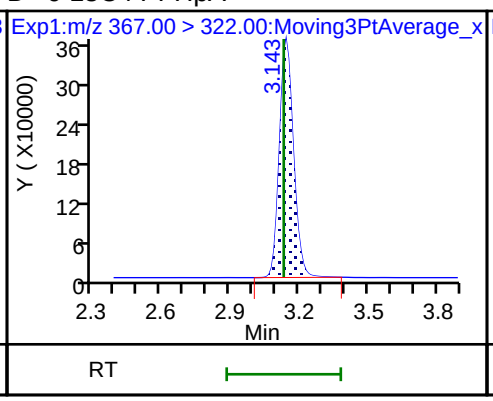

8 Perfluorohexanesulfonic acid (M)



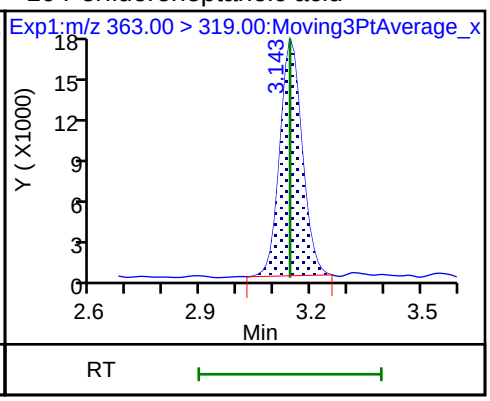

D 11 18O2 PFHxS



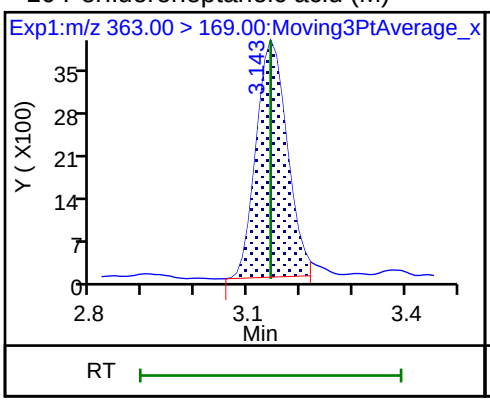

D 9 13C4 PFHpA



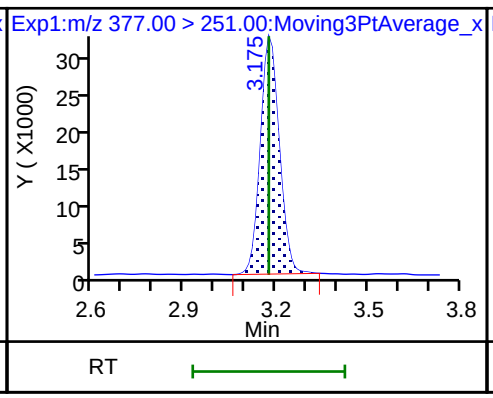

10 Perfluoroheptanoic acid



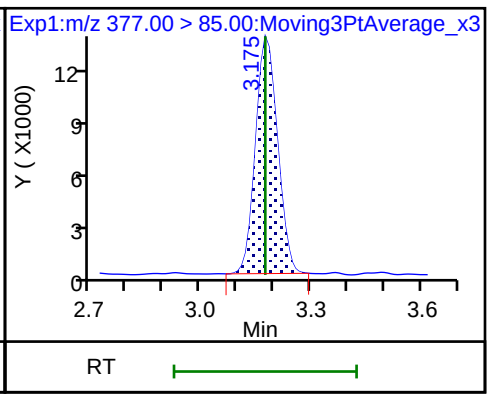

10 Perfluoroheptanoic acid (M)



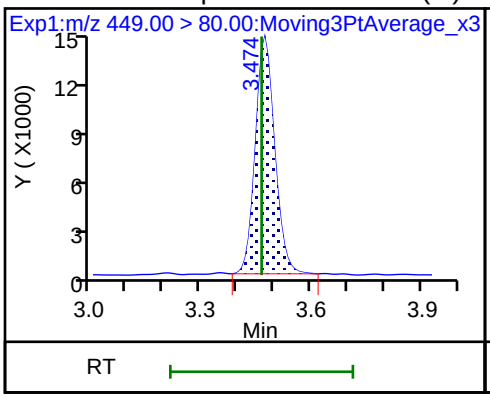

77 DONA



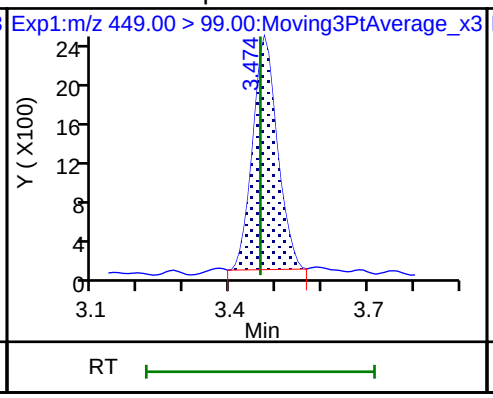

77 DONA



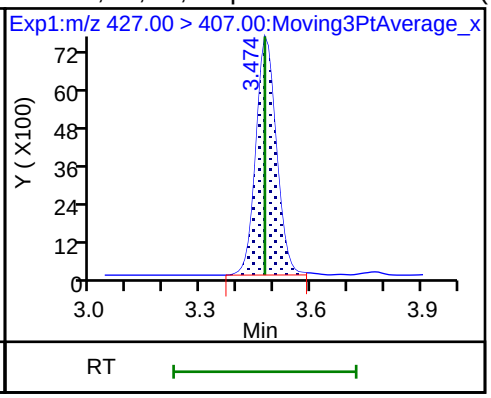
16 Perfluoroheptanesulfonic acid (M)



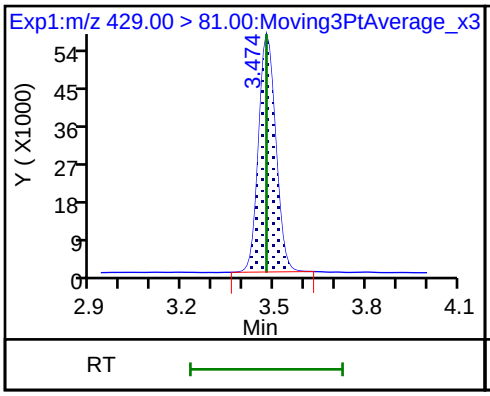

16 Perfluoroheptanesulfonic acid



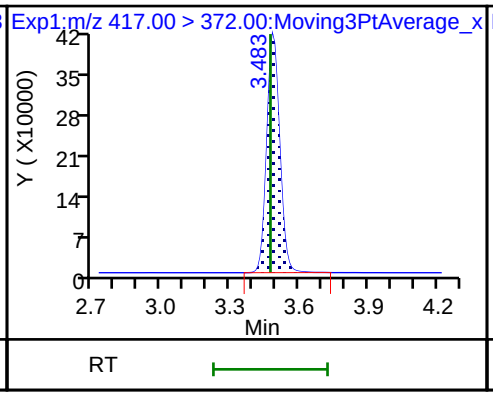

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



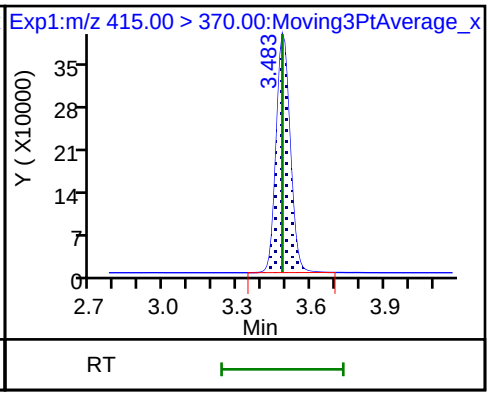

D 12 M2-6:2 FTS



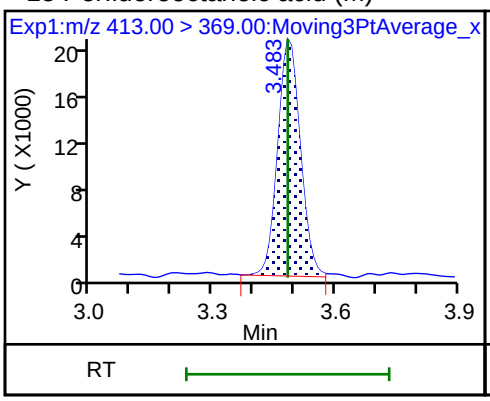

D 14 13C4 PFOA



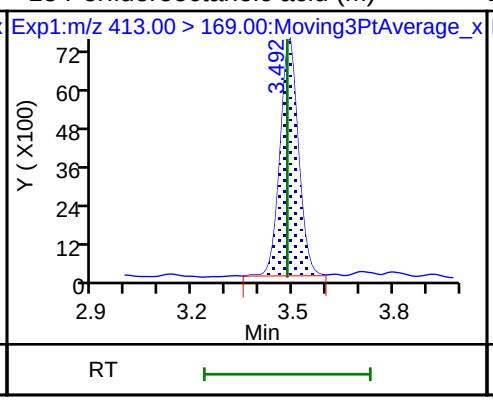

* 62 13C2 PFOA



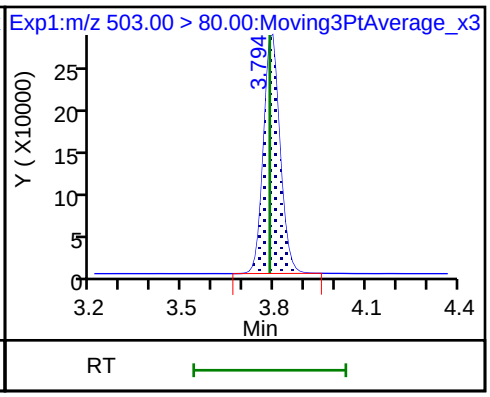

15 Perfluorooctanoic acid (M)



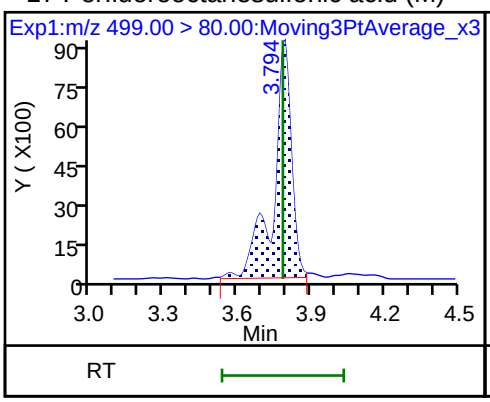

15 Perfluorooctanoic acid (M)



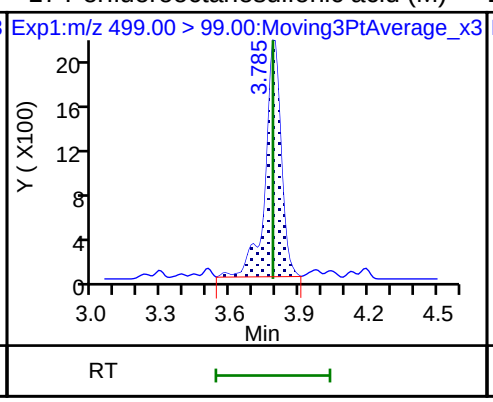

D 18 13C4 PFOS



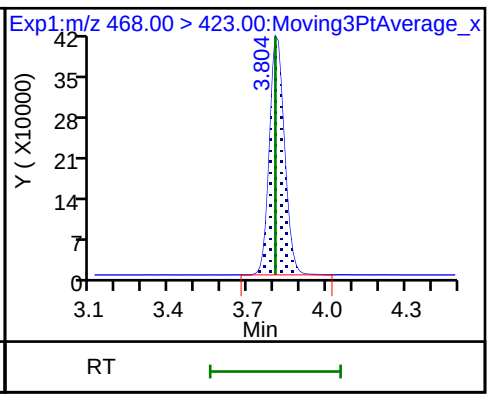

17 Perfluorooctanesulfonic acid (M)



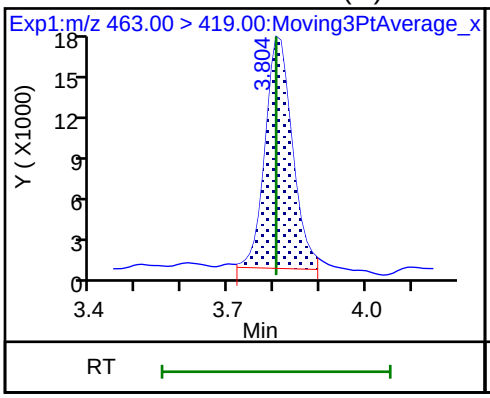

17 Perfluorooctanesulfonic acid (M)



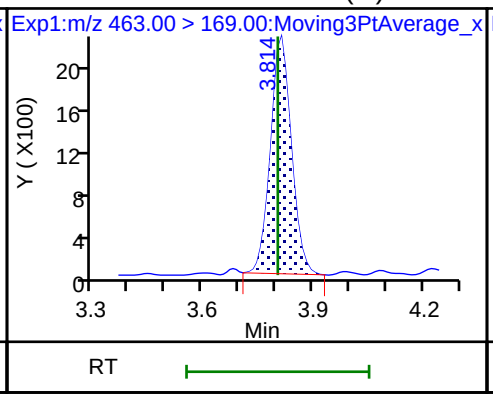

D 19 13C5 PFNA



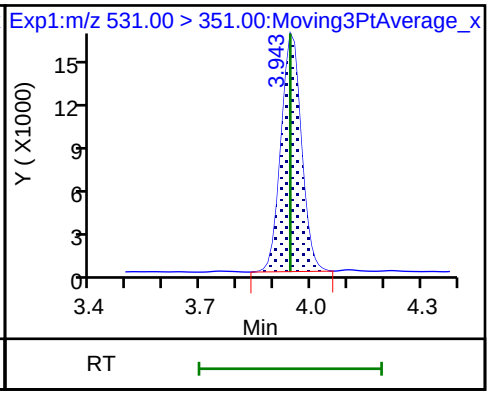
20 Perfluorononanoic acid (M)



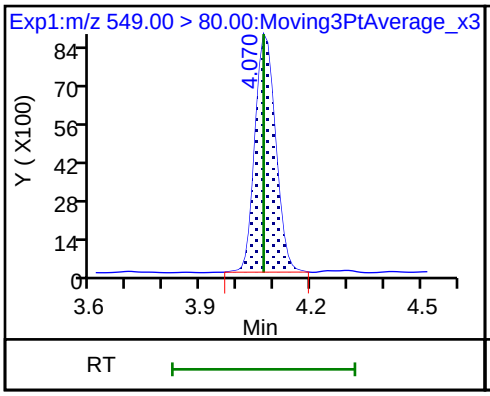

20 Perfluorononanoic acid (M)



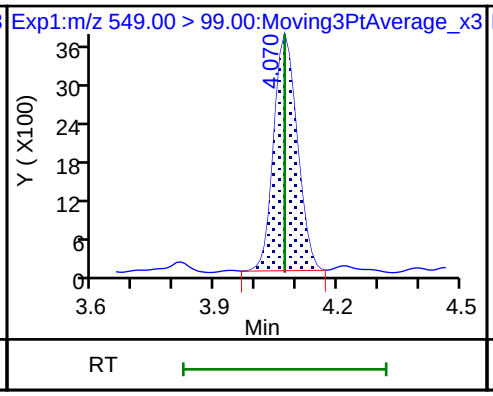

69 9-Chlorohexadecafluoro-3-oxanona



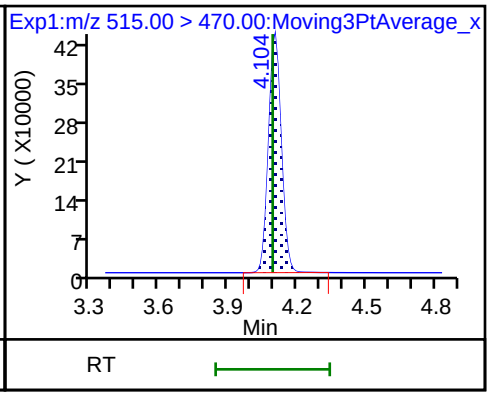

68 Perfluorononanesulfonic acid



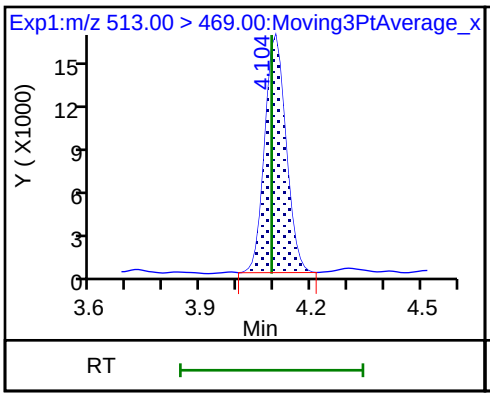

68 Perfluorononanesulfonic acid



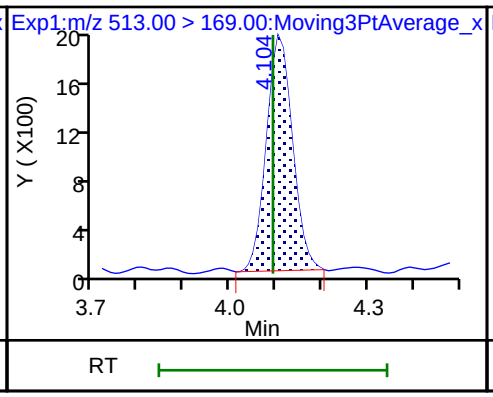

D 23 13C2 PFDA



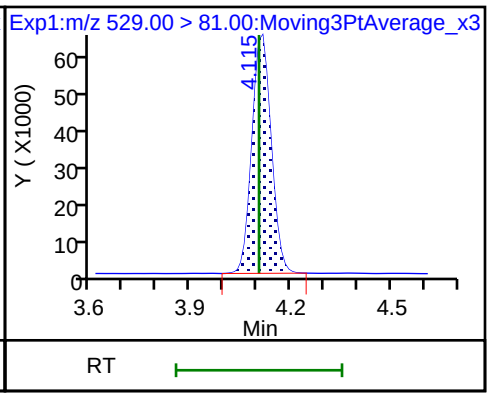

24 Perfluorodecanoic acid



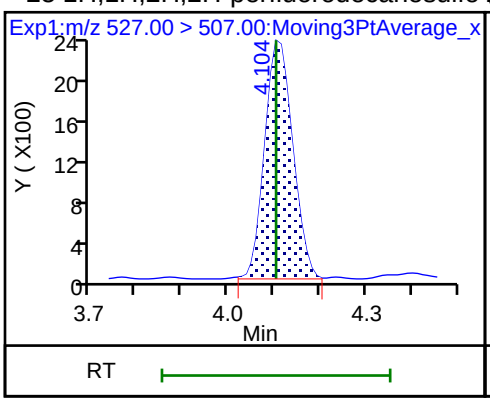

24 Perfluorodecanoic acid



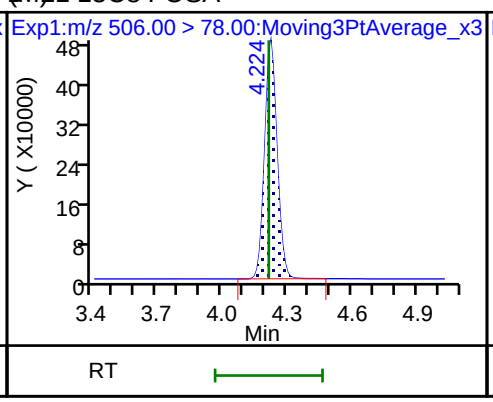

D 26 M2-8:2 FTS



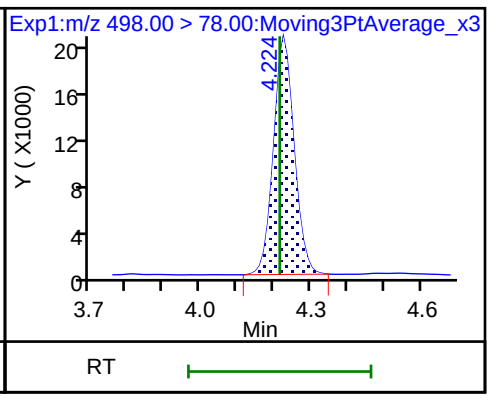

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



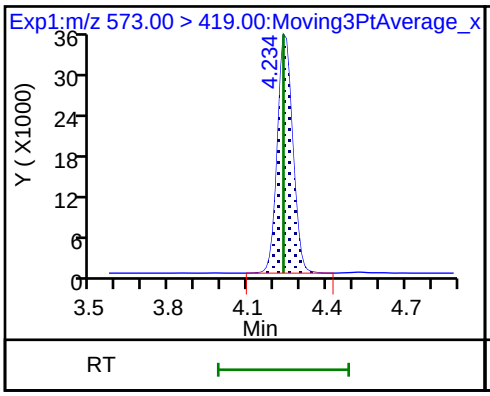

D 21 13C8 FOSA



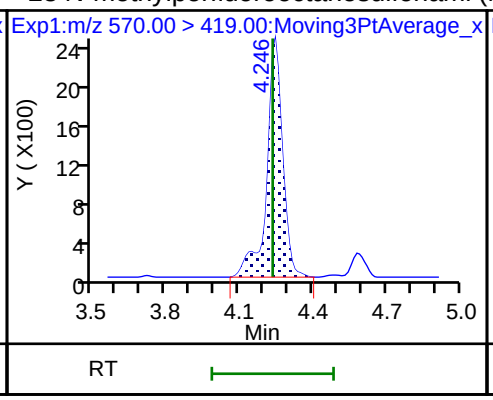

22 Perfluorooctanesulfonamide



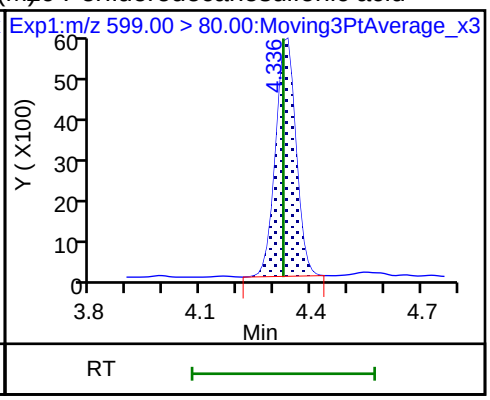
D 27 d3-NMeFOSAA



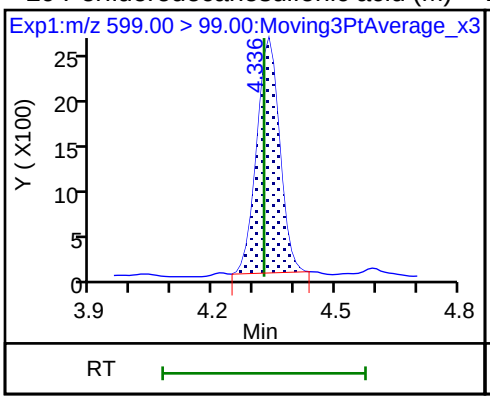

28 N-methylperfluorooctanesulfonami (M)



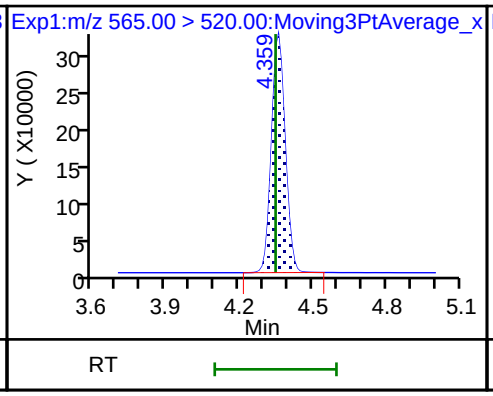

29 Perfluorodecanesulfonic acid



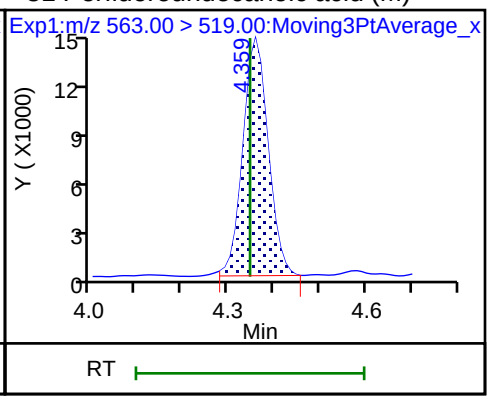

29 Perfluorodecanesulfonic acid (M)



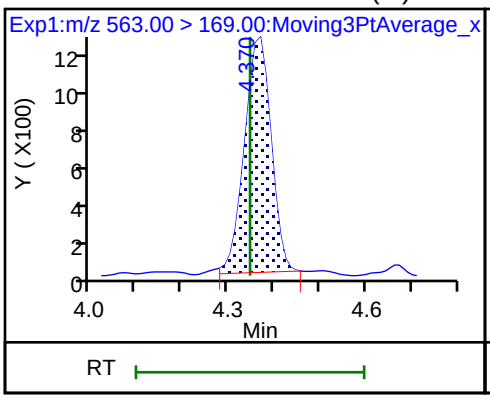

D 30 13C2 PFUnA



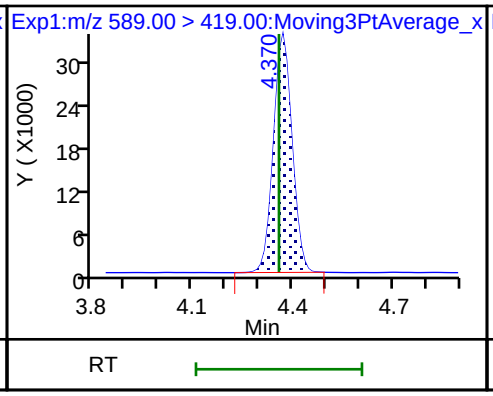

31 Perfluoroundecanoic acid (M)



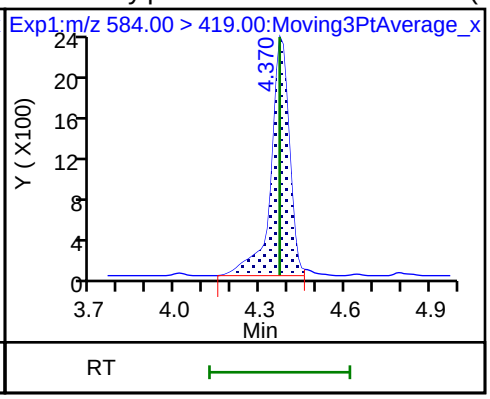

31 Perfluoroundecanoic acid (M)



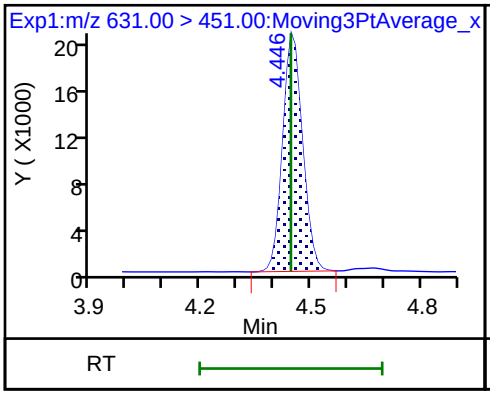

D 32 d5-NEtFOSAA



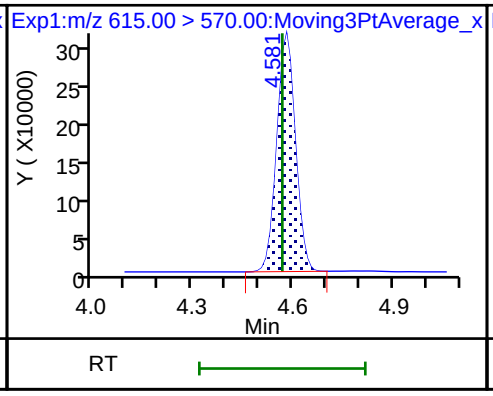

33 N-ethylperfluorooctanesulfonamid (M)



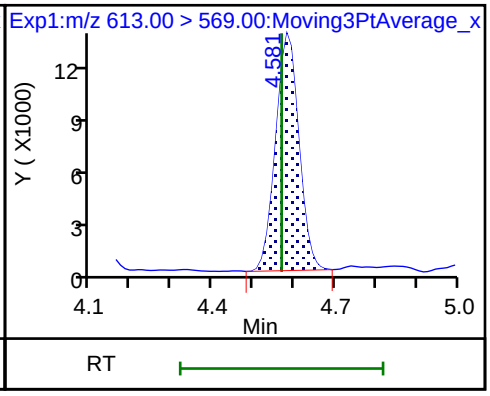

66 11-Chloroeicosafluoro-3-oxaundec



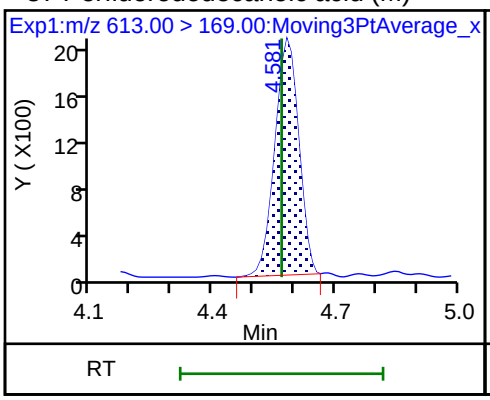

D 36 13C2 PFDoA



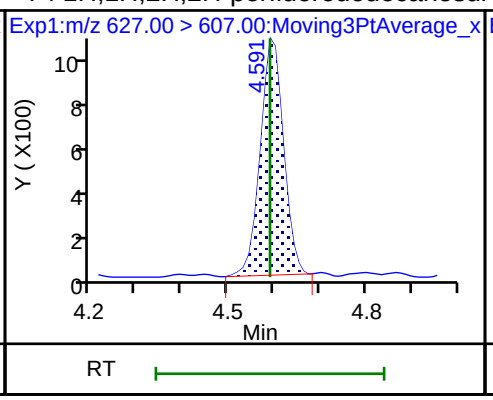

37 Perfluorododecanoic acid



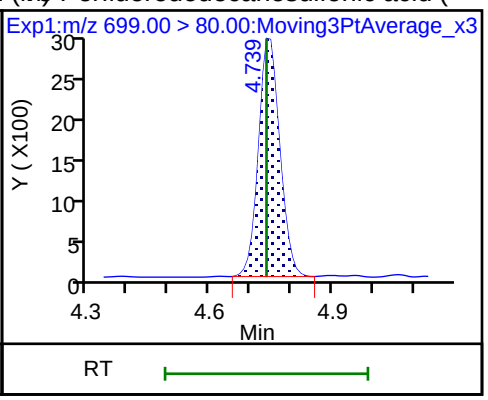
37 Perfluorododecanoic acid (M)



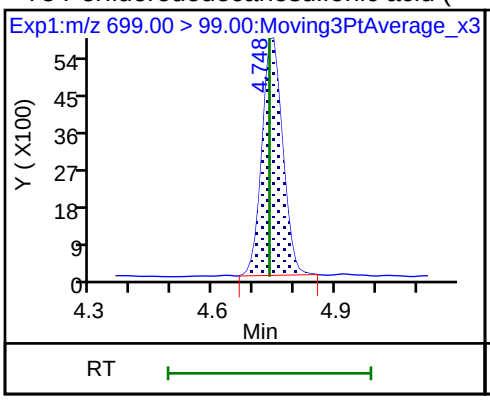

74 1H,1H,2H,2H-perfluorododecanesul (M)



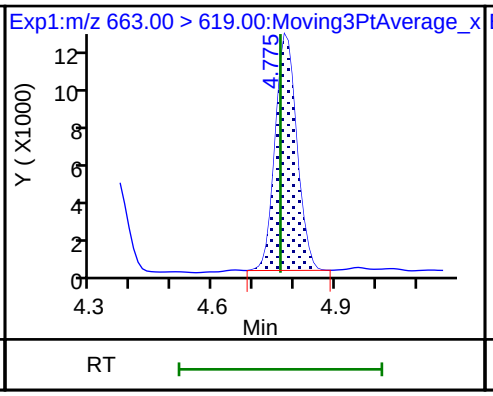

75 Perfluorododecanesulfonic acid (



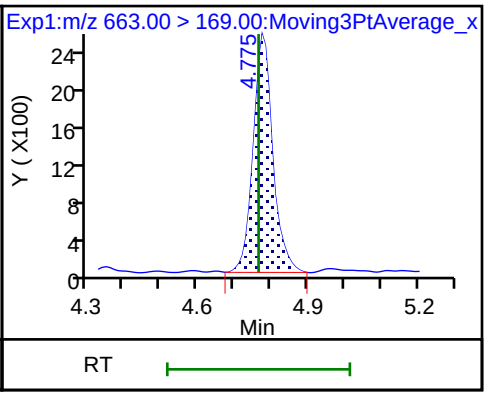

75 Perfluorododecanesulfonic acid (



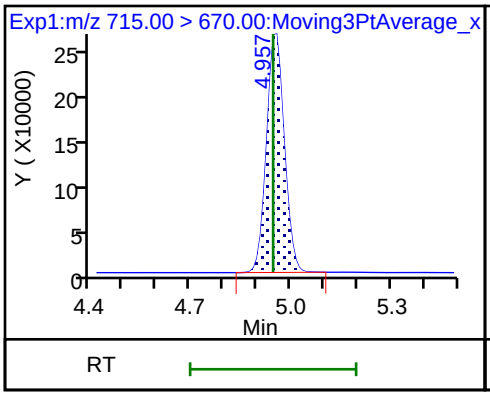

41 Perfluorotridecanoic acid



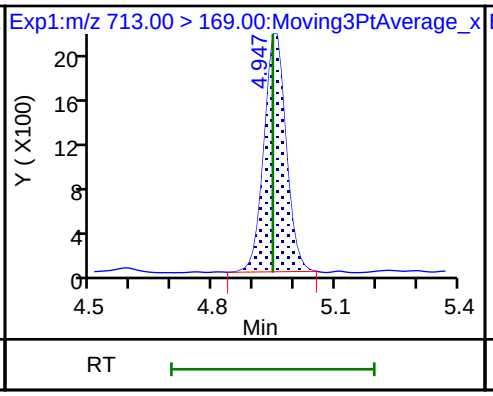

41 Perfluorotridecanoic acid



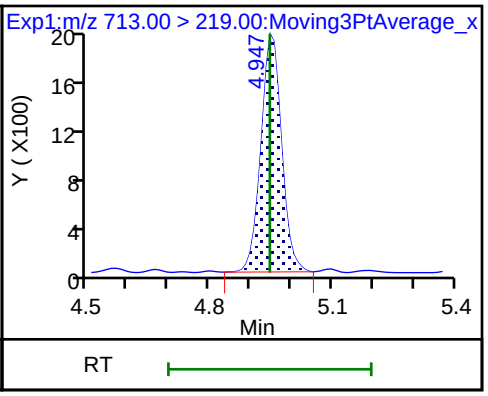

D 43 13C2 PFTeDA



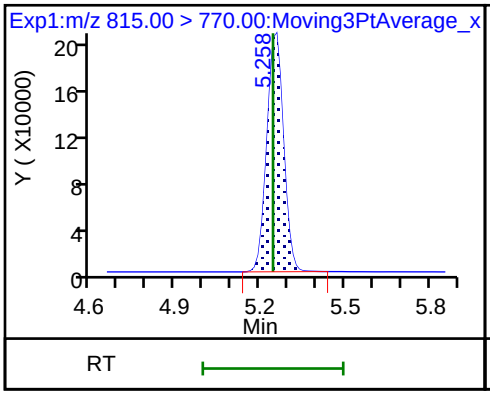

42 Perfluorotetradecanoic acid



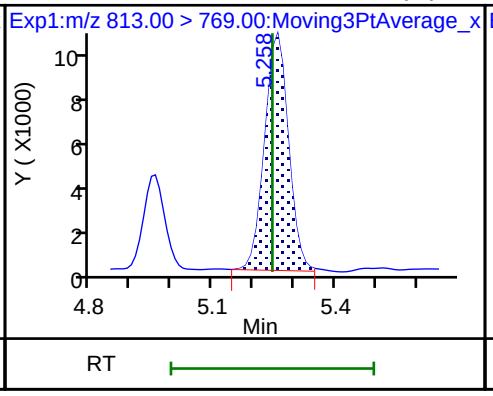

42 Perfluorotetradecanoic acid



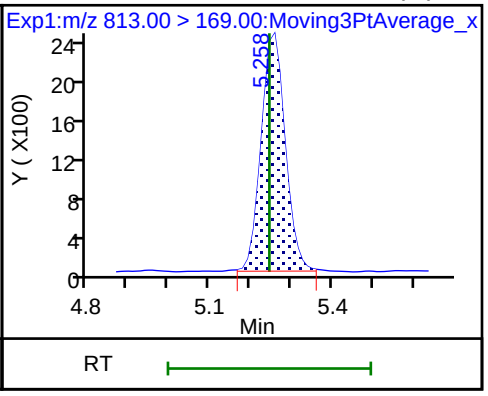

D 44 13C2 PFHxDA



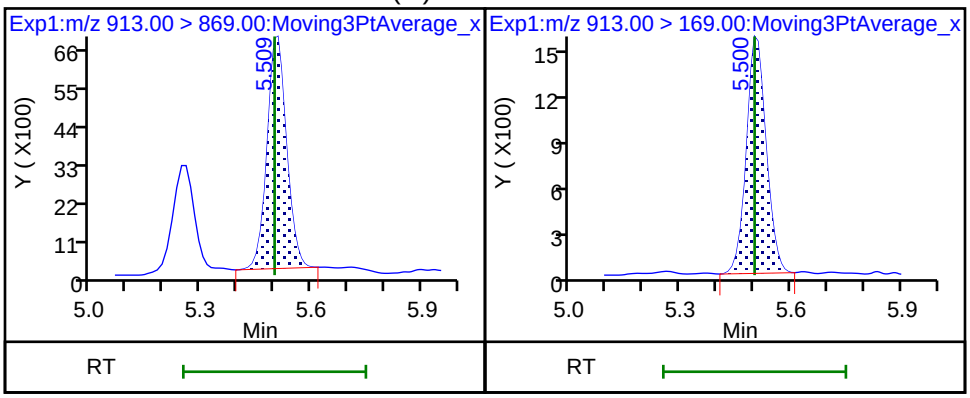

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

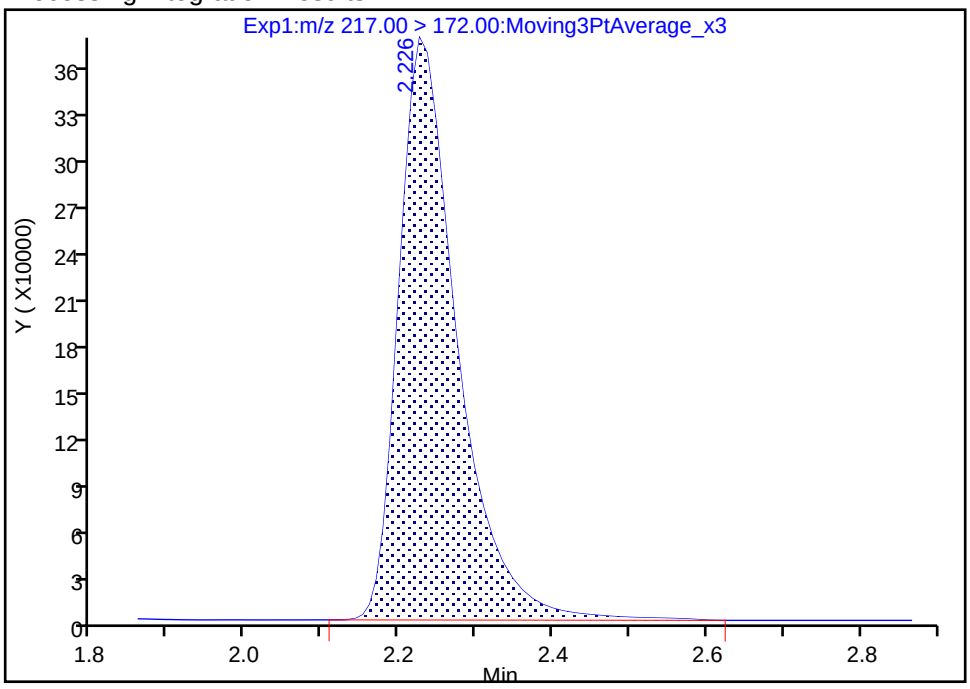
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

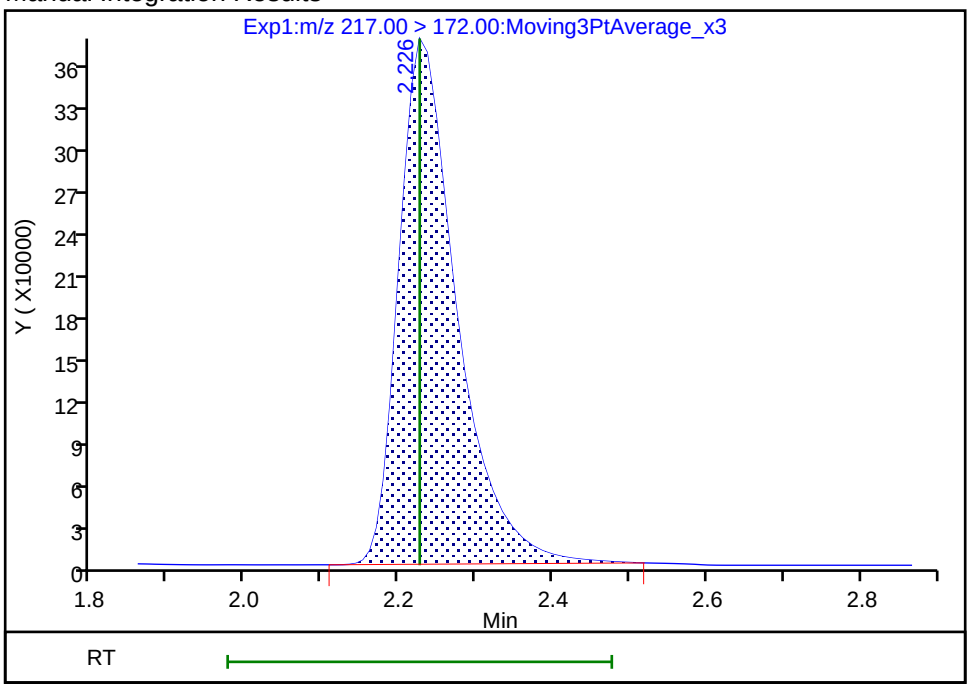
Processing Integration Results

RT: 2.23
Area: 1981753
Amount: 1.570325
Amount Units: ng/ml




Manual Integration Results

RT: 2.23
Area: 1956838
Amount: 1.550582
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:55:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

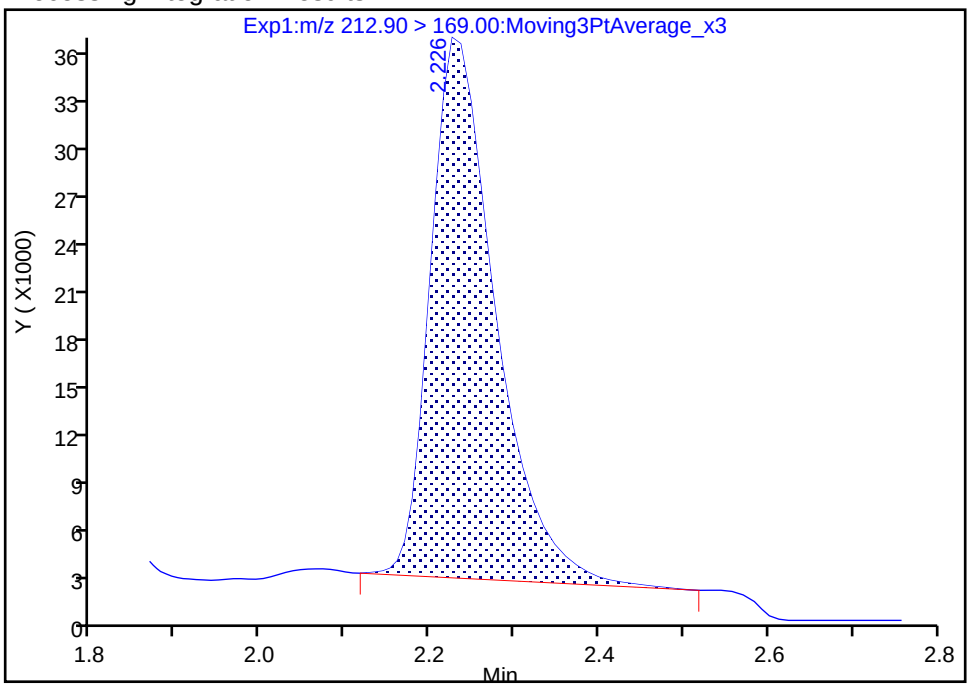
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

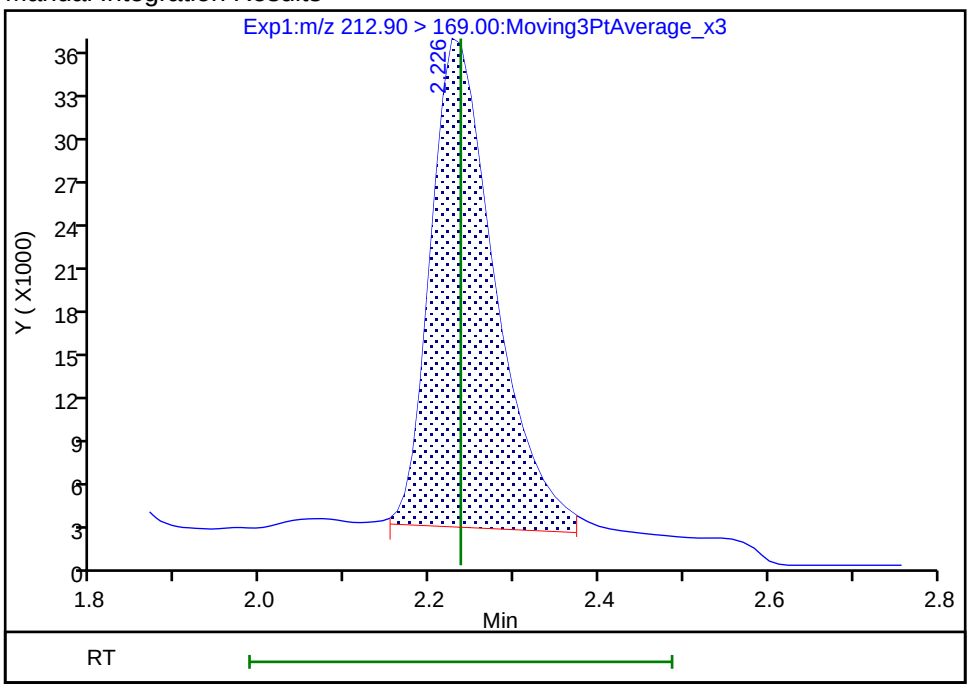
Processing Integration Results

RT: 2.23
Area: 183034
Amount: 0.122097
Amount Units: ng/ml




Manual Integration Results

RT: 2.23
Area: 180369
Amount: 0.121851
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:28:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

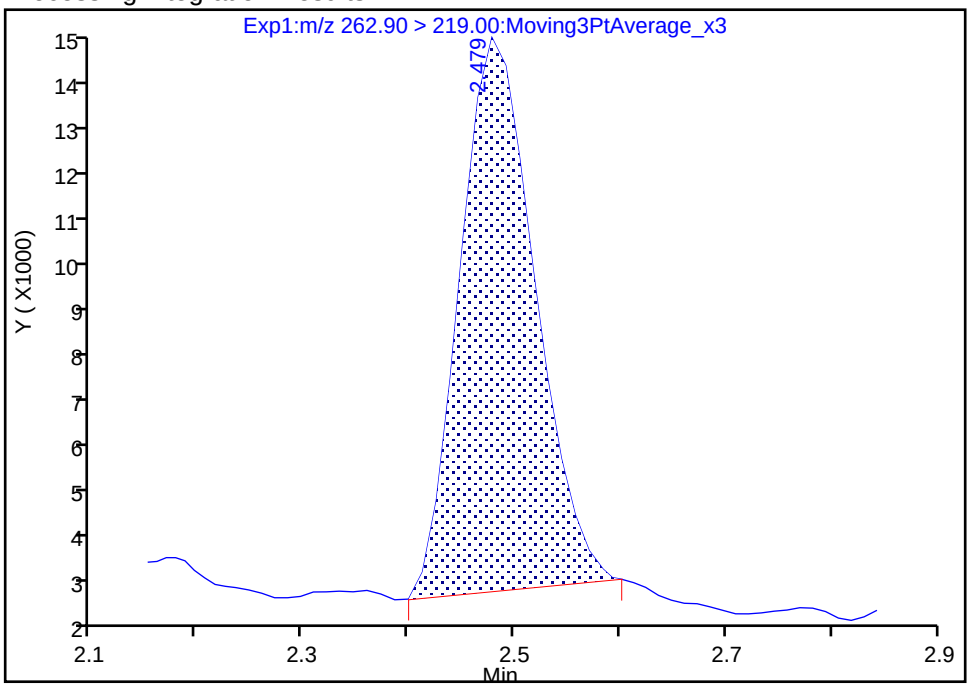
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

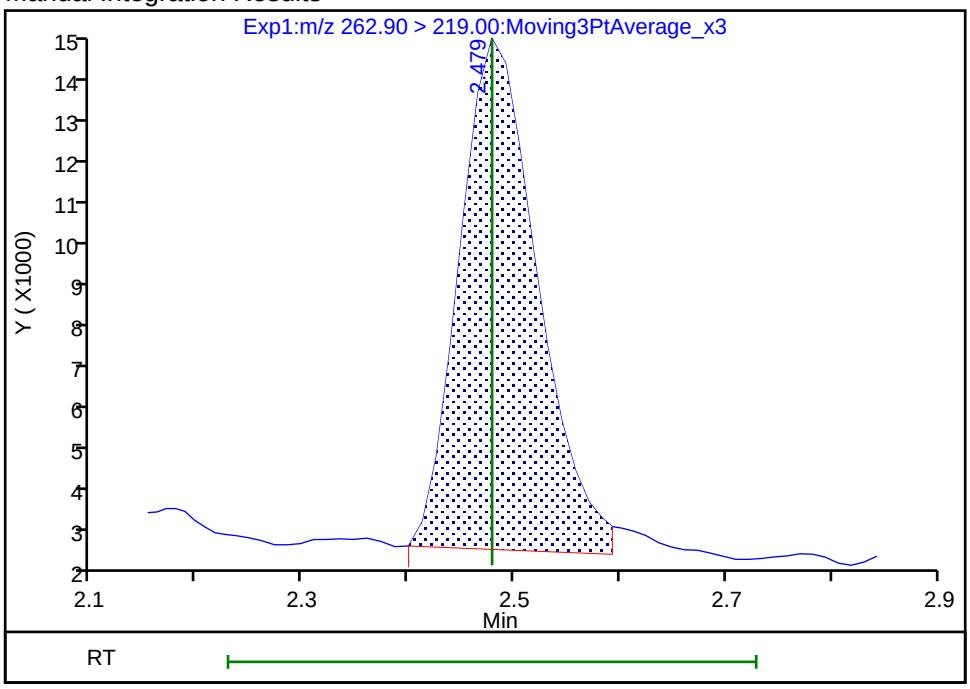
Processing Integration Results

RT: 2.48
Area: 60559
Amount: 0.051159
Amount Units: ng/ml




Manual Integration Results

RT: 2.48
Area: 64050
Amount: 0.054109
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:29:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

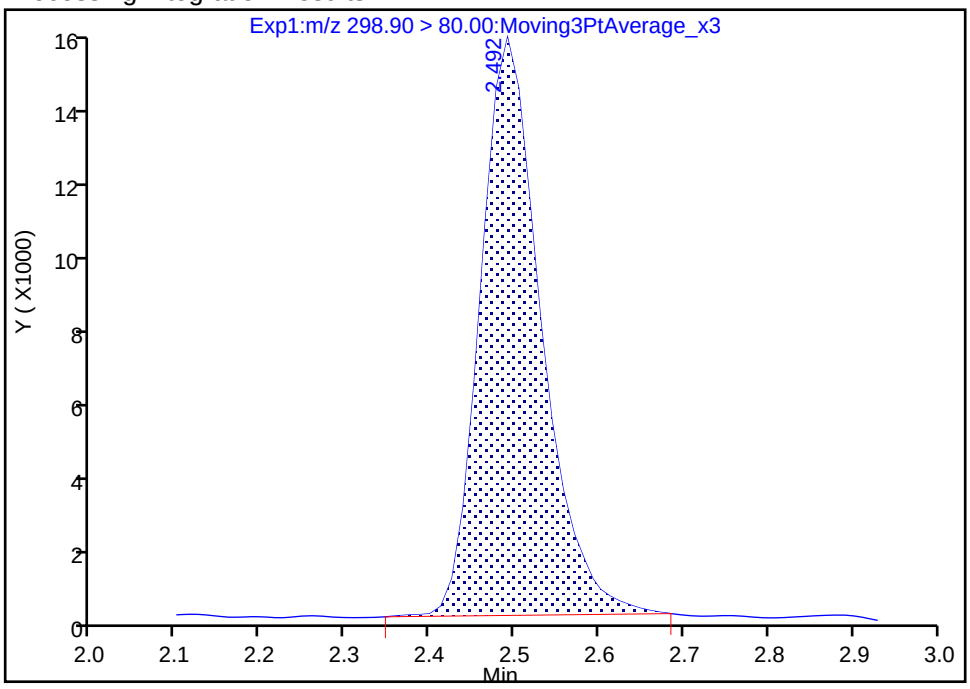
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

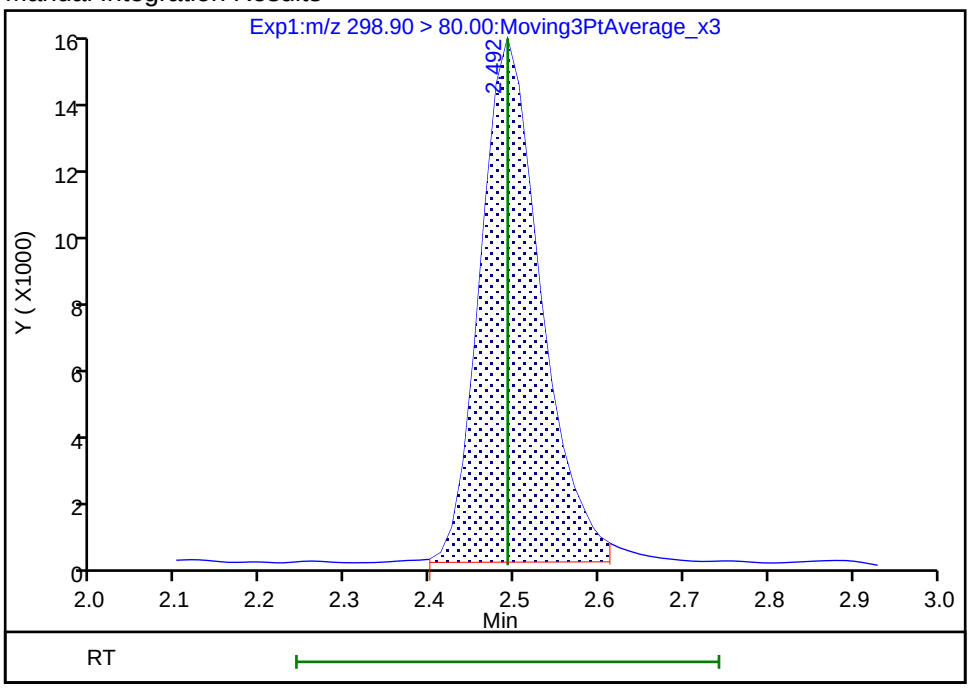
Processing Integration Results

RT: 2.49
Area: 75479
Amount: 0.045996
Amount Units: ng/ml




Manual Integration Results

RT: 2.49
Area: 75131
Amount: 0.045784
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:29:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

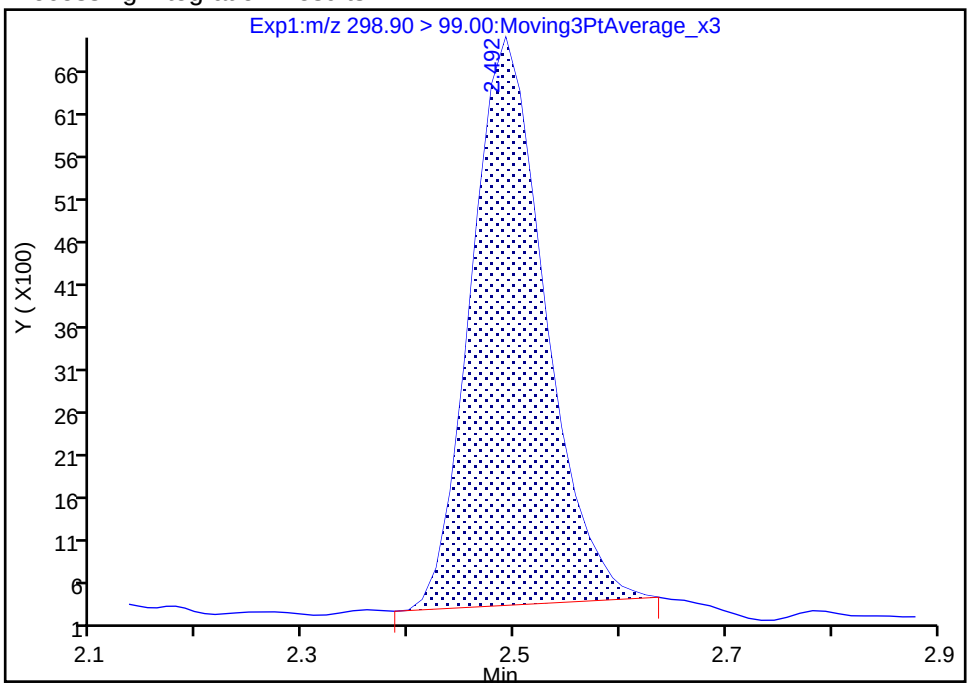
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

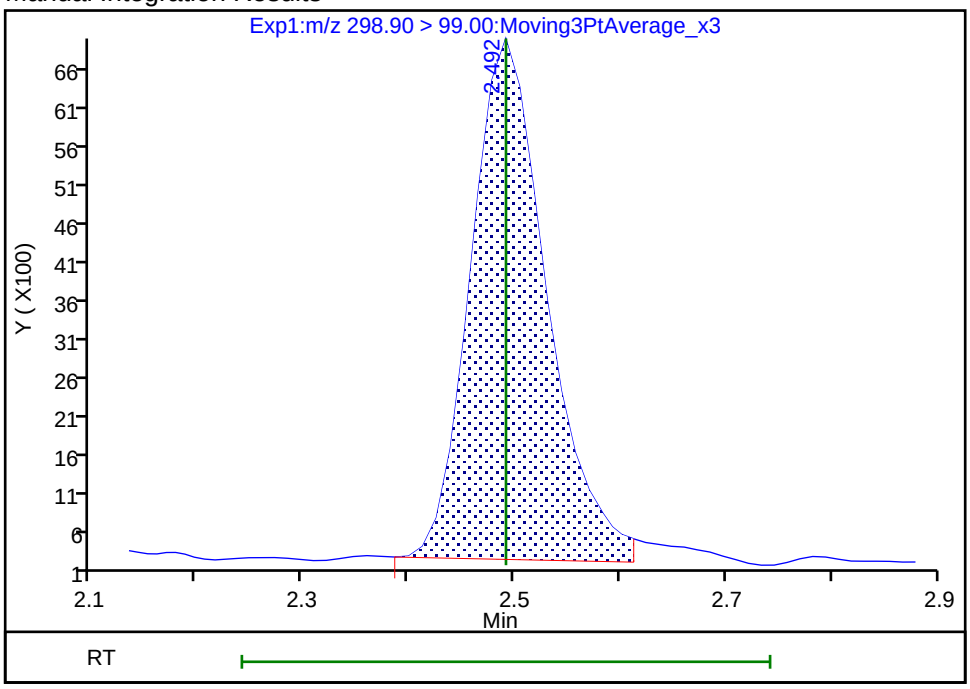
Processing Integration Results

RT: 2.49
Area: 32089
Amount: 0.045996
Amount Units: ng/ml




Manual Integration Results

RT: 2.49
Area: 33487
Amount: 0.045784
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:29:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

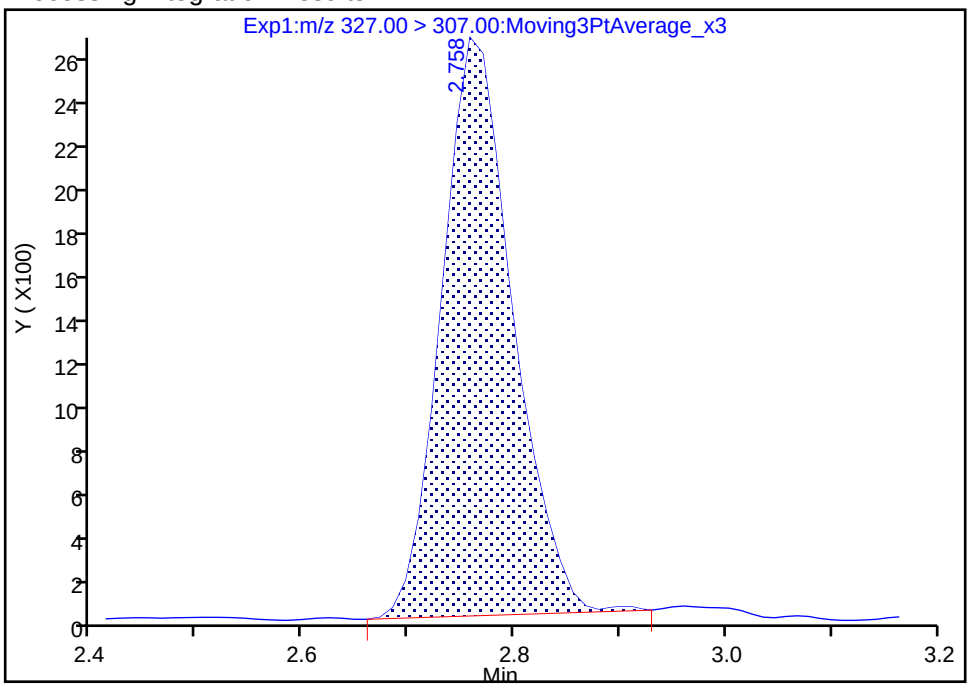
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 61 1H,1H,2H,2H-perfluorohexanesulfo, CAS: 757124-72-4

Signal: 1

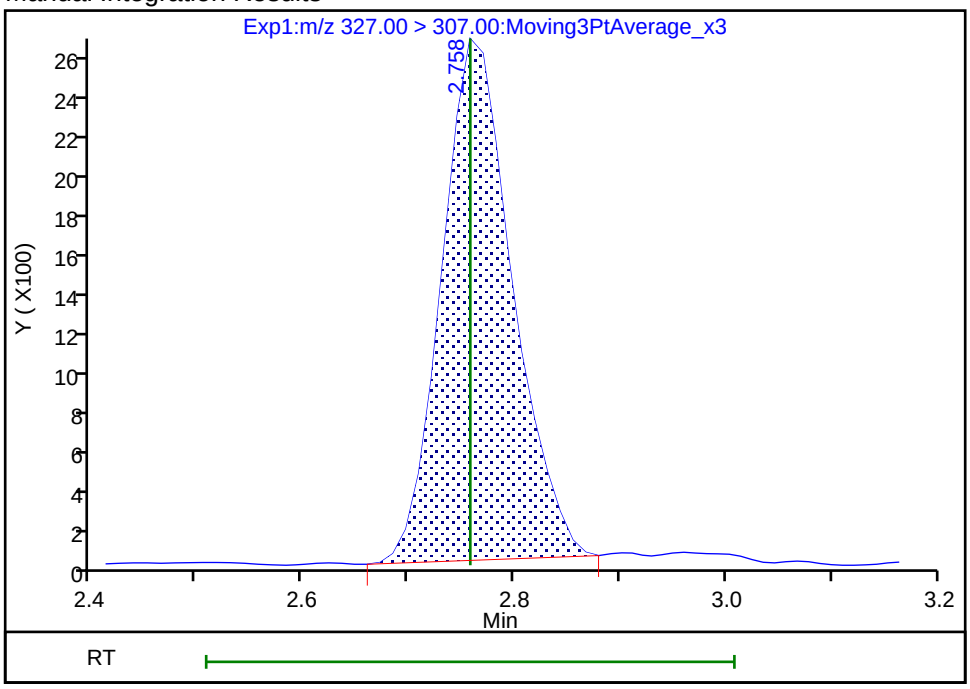
Processing Integration Results

RT: 2.76
Area: 12440
Amount: 0.046683
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 12335
Amount: 0.046289
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:29:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

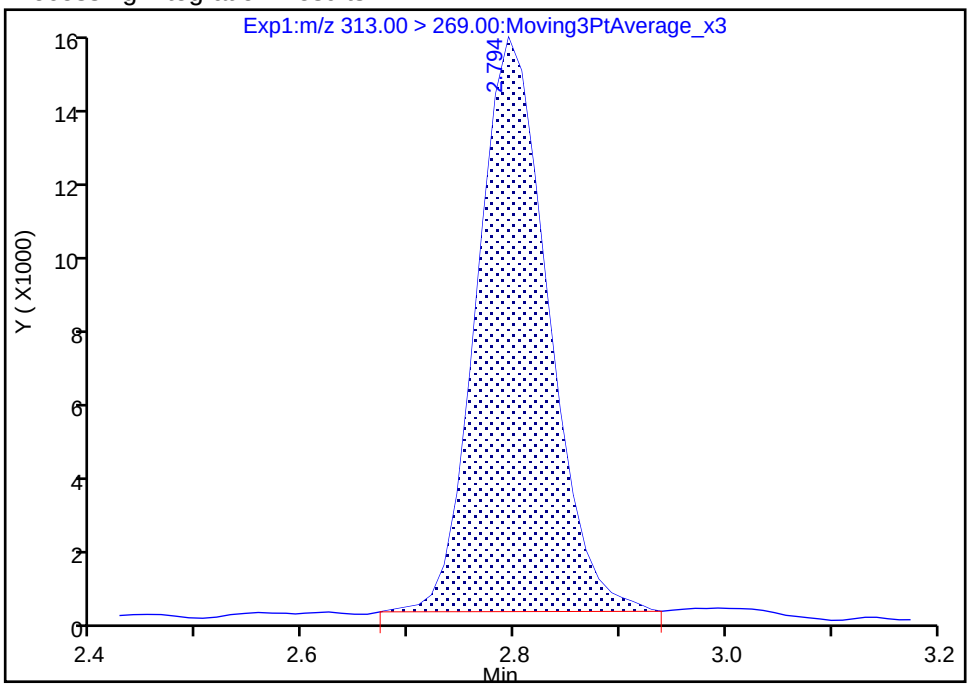
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

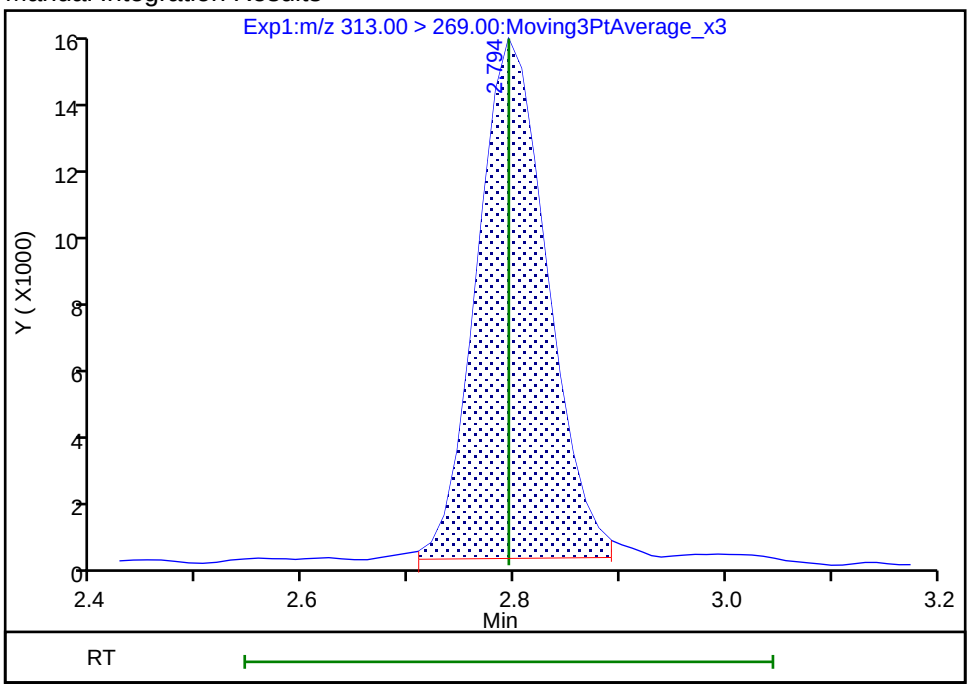
Processing Integration Results

RT: 2.79
Area: 69149
Amount: 0.056001
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 68668
Amount: 0.055612
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

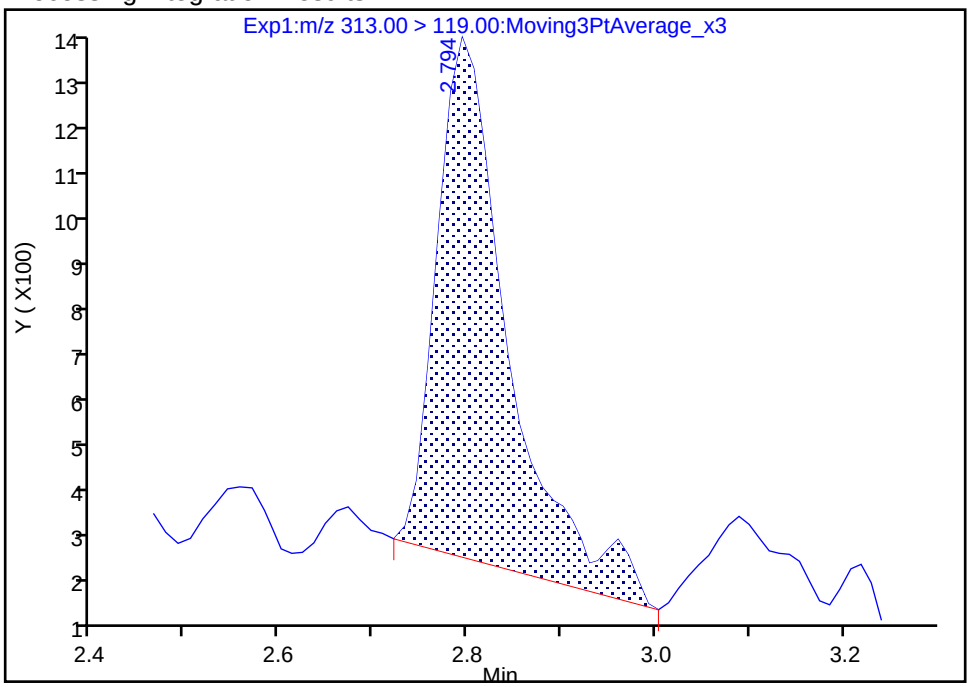
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

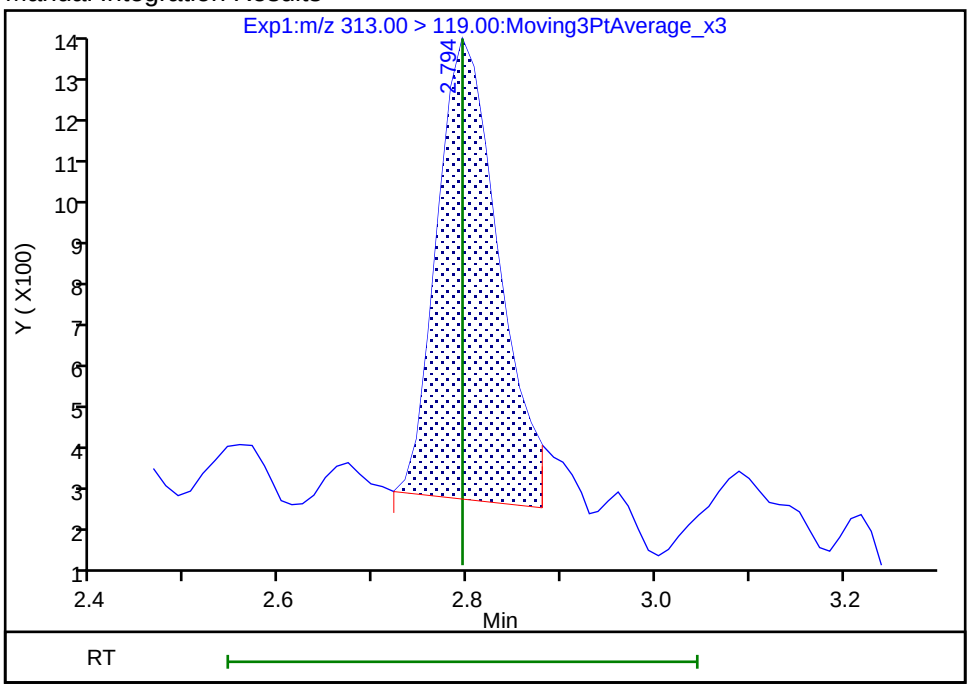
Processing Integration Results

RT: 2.79
Area: 5524
Amount: 0.056001
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 4617
Amount: 0.055612
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

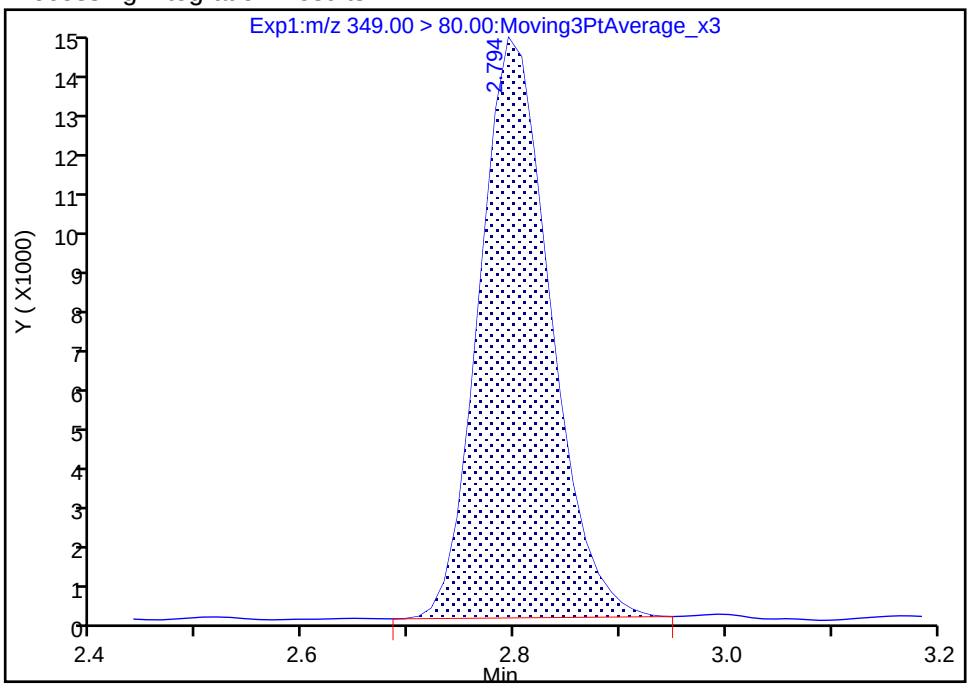
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

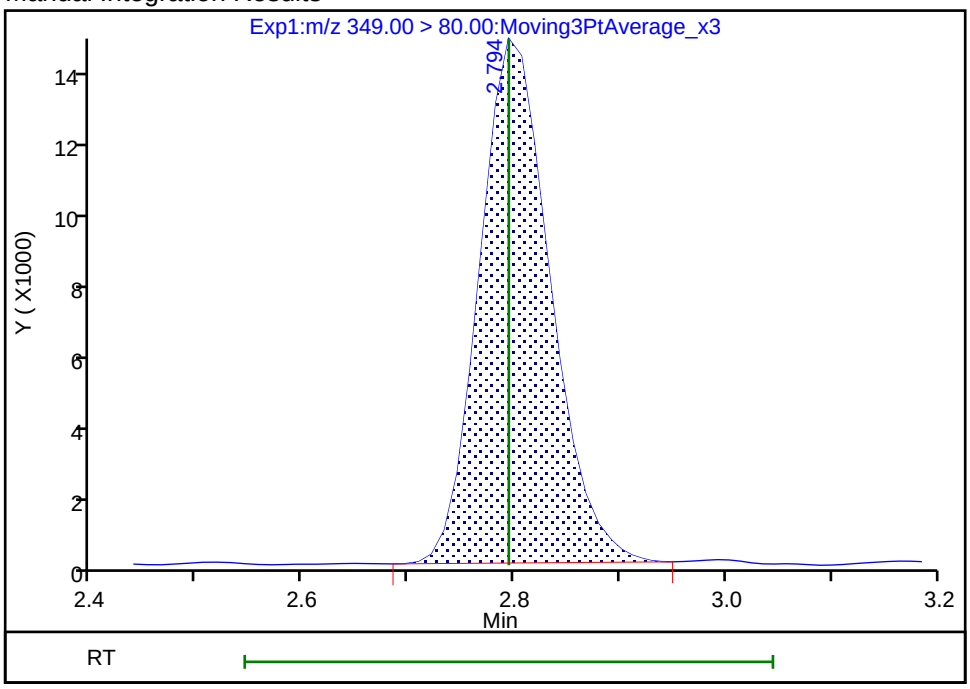
Processing Integration Results

RT: 2.79
Area: 67626
Amount: 0.047646
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 67626
Amount: 0.047646
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

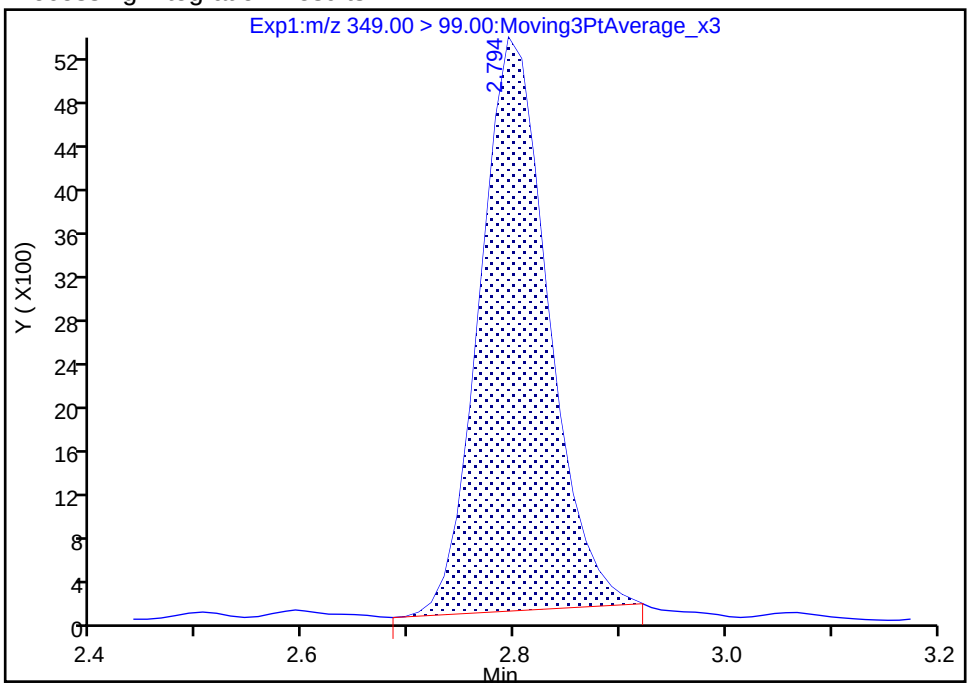
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 2

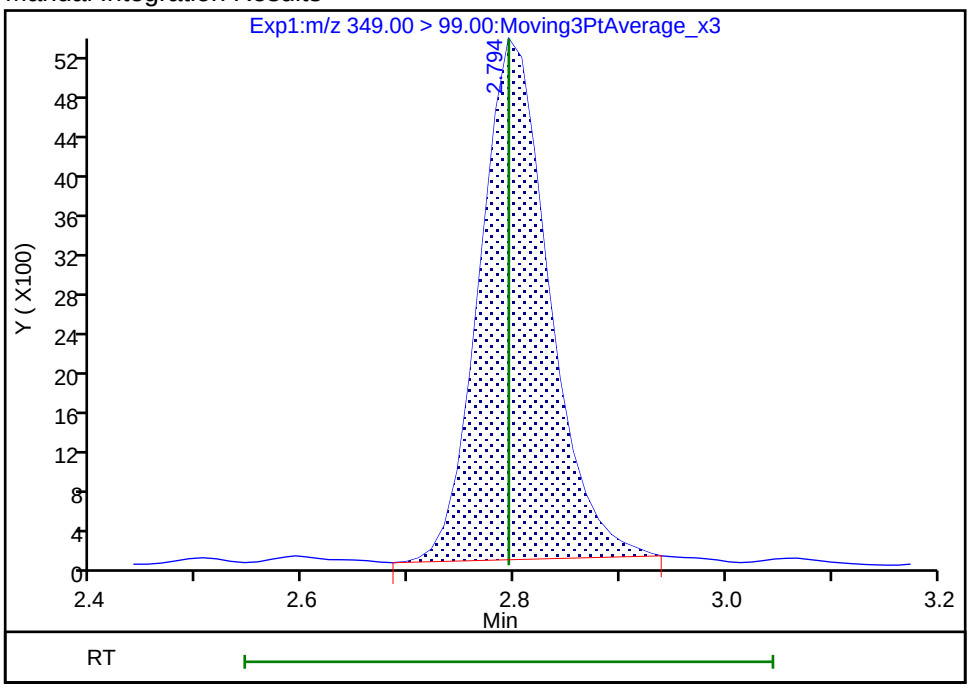
Processing Integration Results

RT: 2.79
Area: 23442
Amount: 0.047646
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 23909
Amount: 0.047646
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

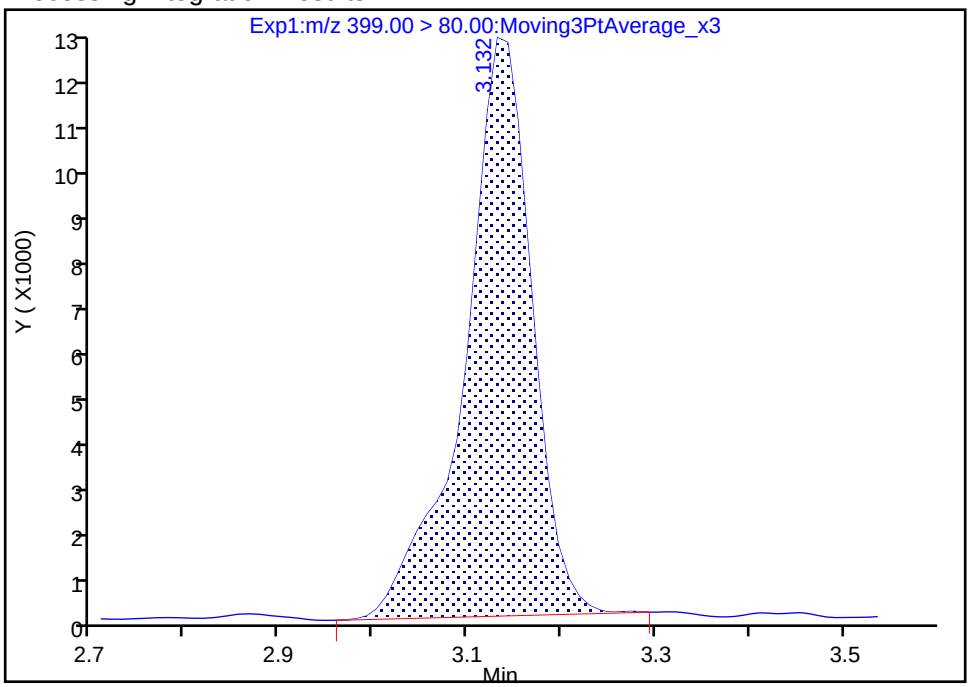
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

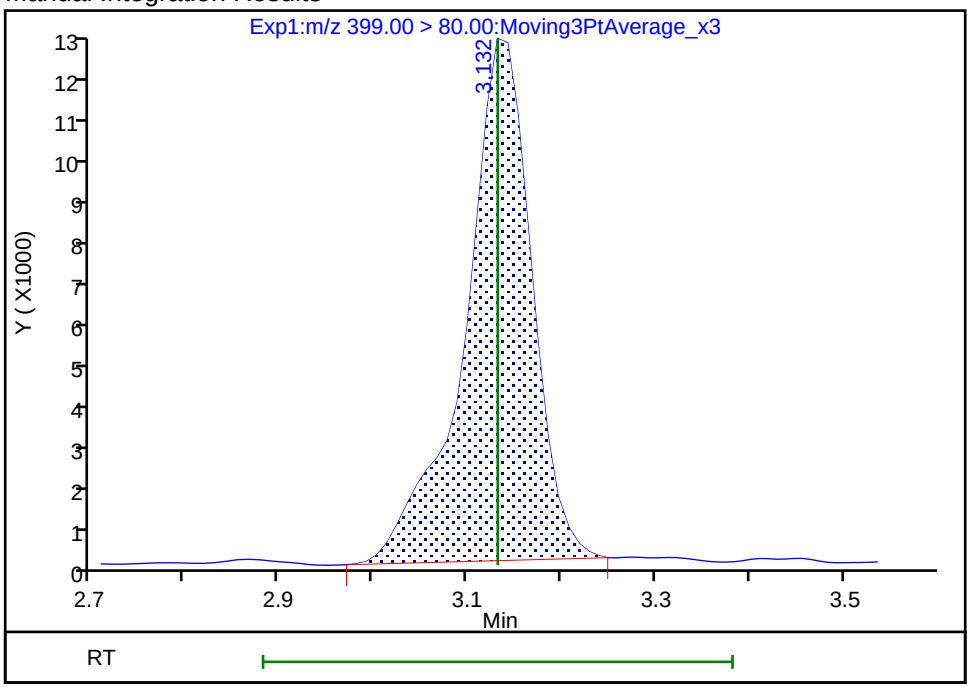
Processing Integration Results

RT: 3.13
Area: 61178
Amount: 0.047211
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 60841
Amount: 0.046951
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

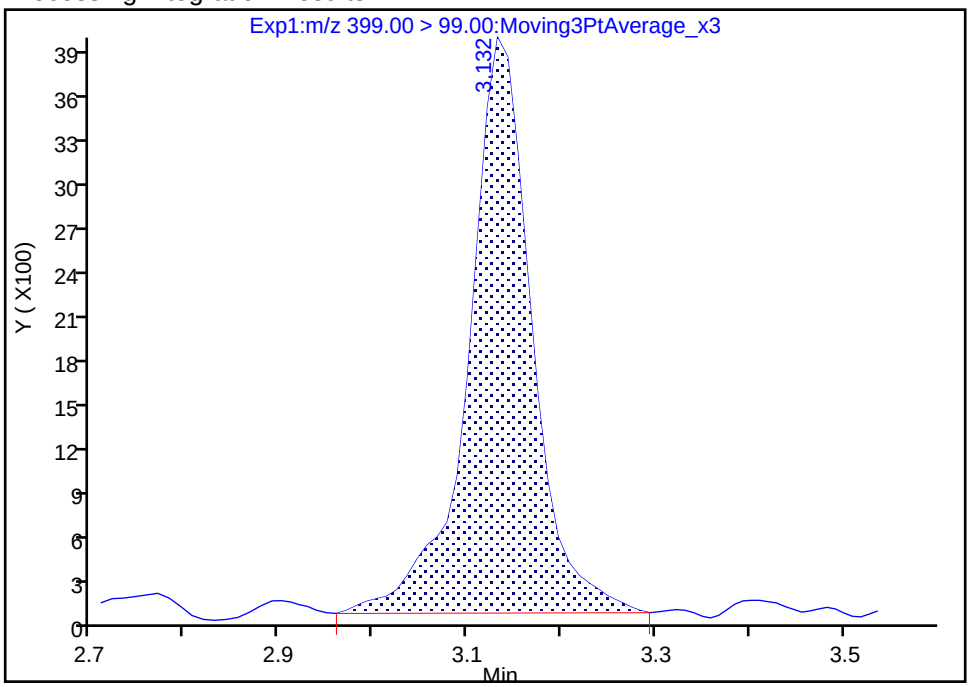
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

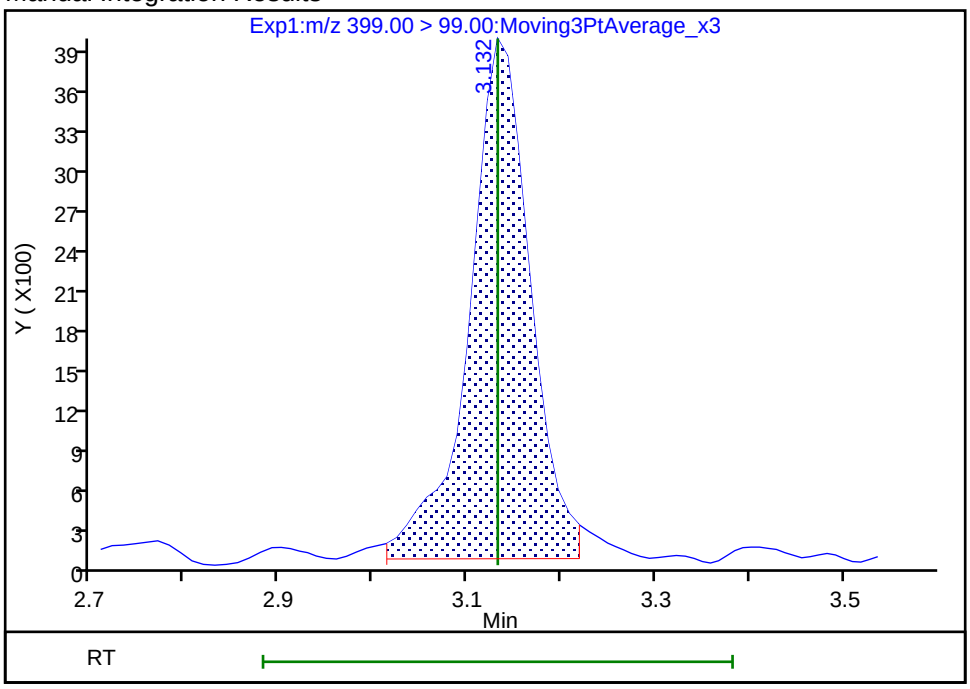
Processing Integration Results

RT: 3.13
Area: 18085
Amount: 0.047211
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 17439
Amount: 0.046951
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:30:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

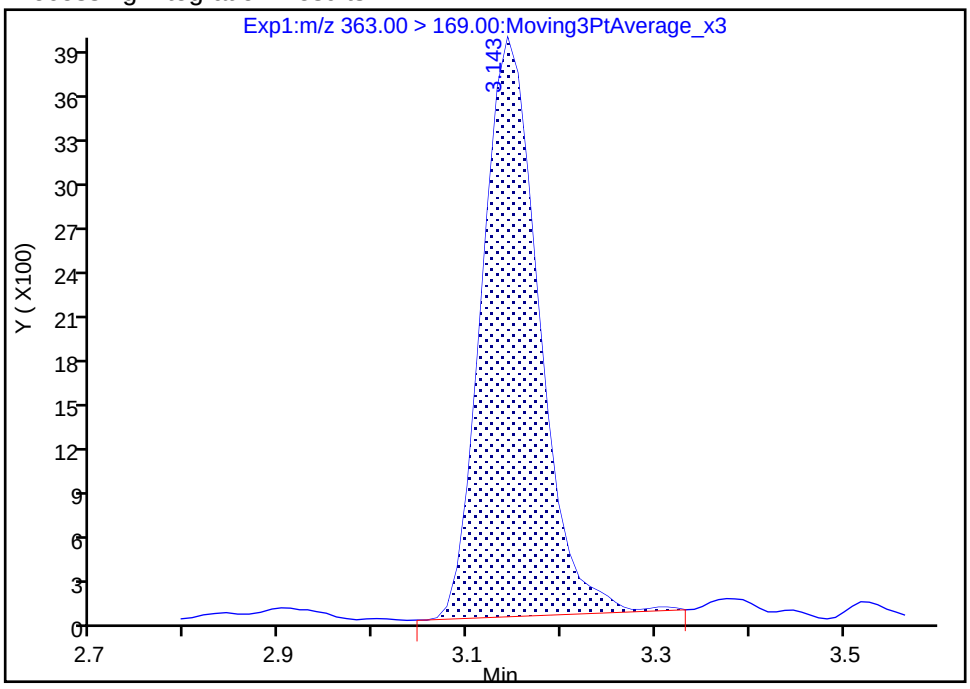
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

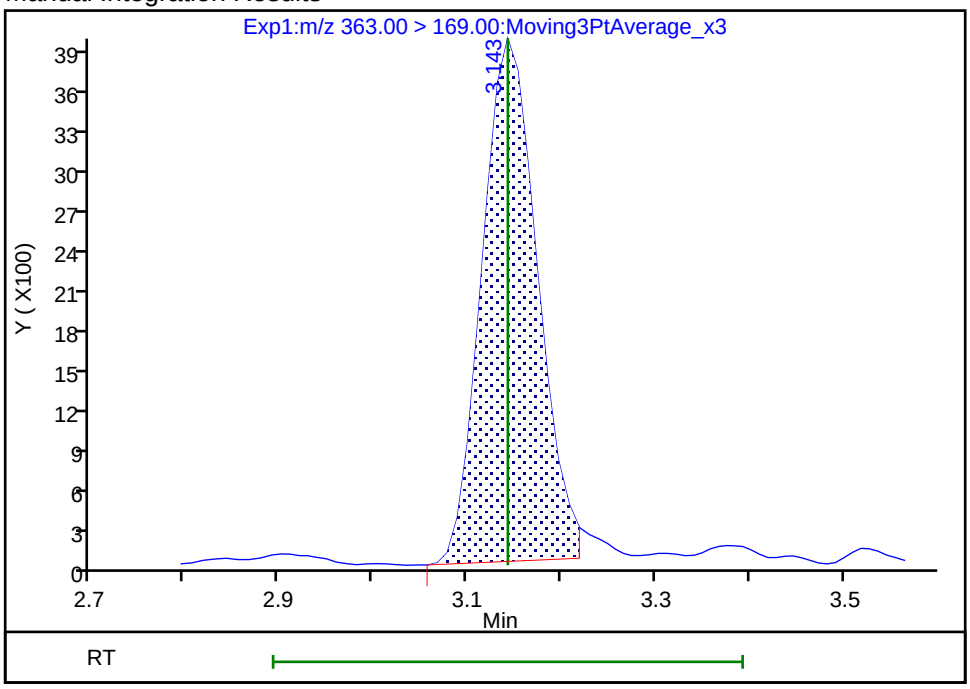
Processing Integration Results

RT: 3.14
Area: 16339
Amount: 0.054791
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 15854
Amount: 0.054791
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:31:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

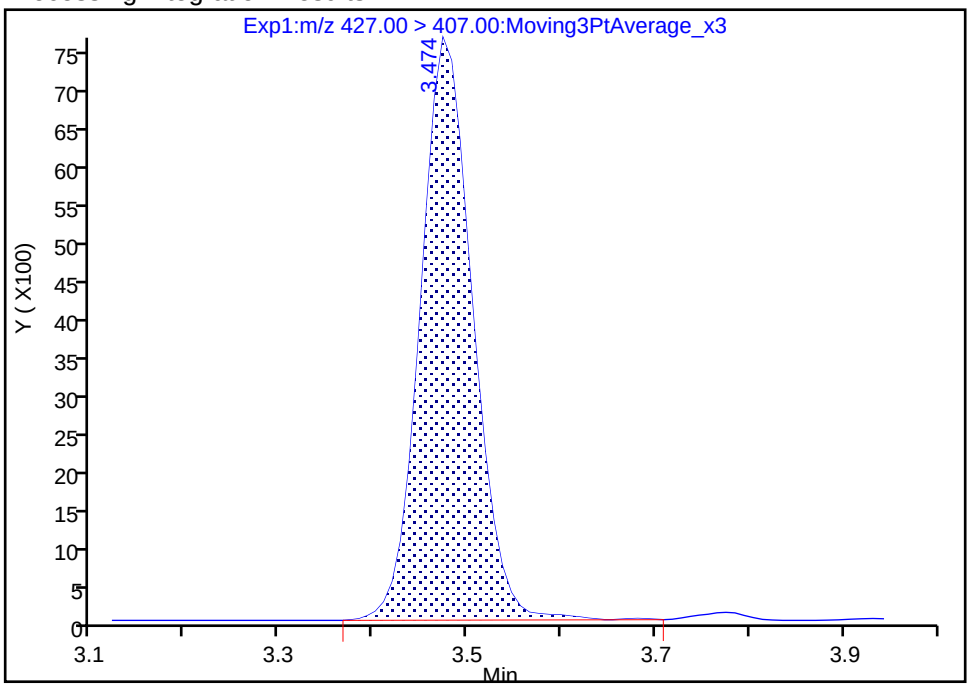
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

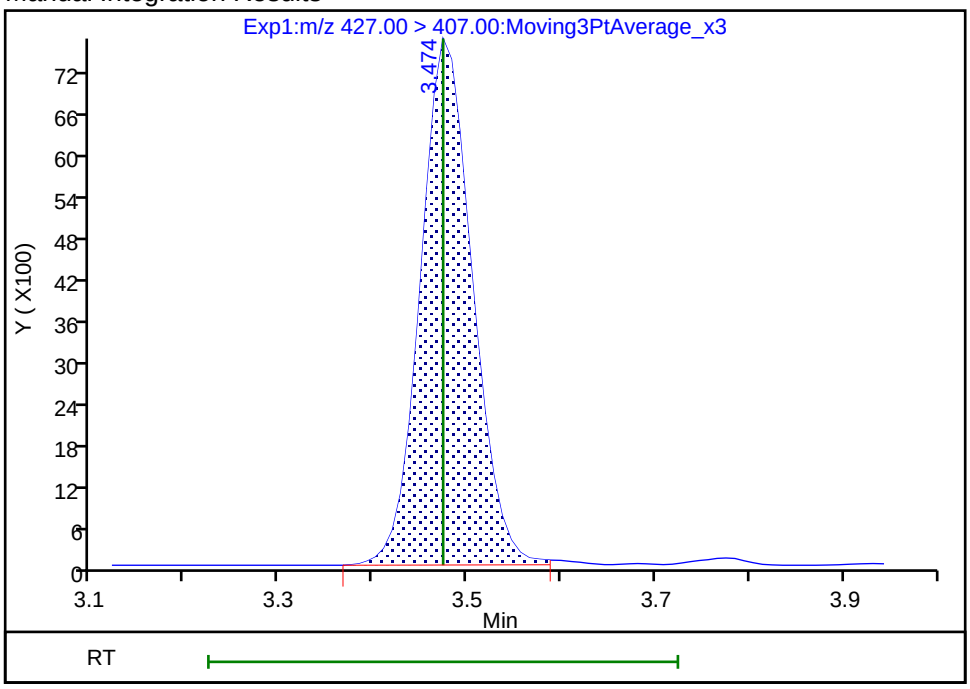
Processing Integration Results

RT: 3.47
Area: 29684
Amount: 0.125927
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 29510
Amount: 0.125189
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:31:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

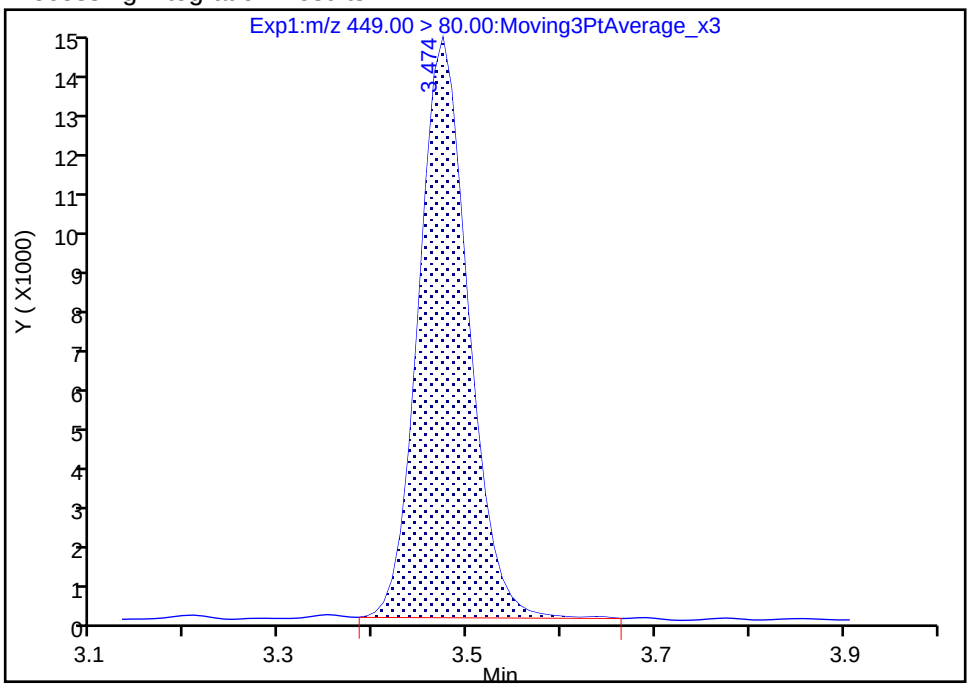
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

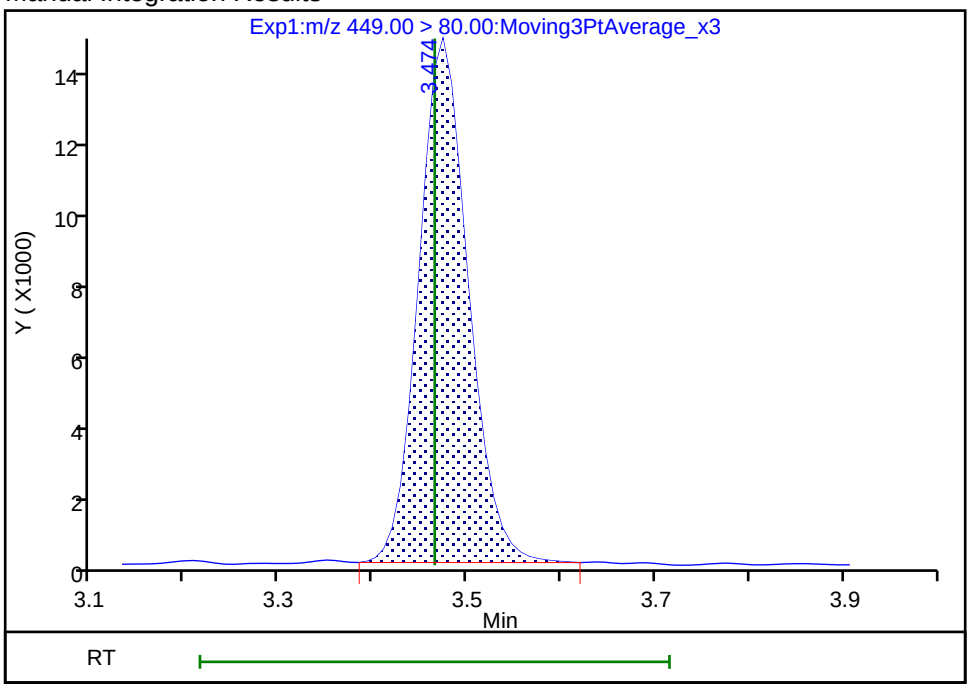
Processing Integration Results

RT: 3.47
Area: 51375
Amount: 0.046459
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 51155
Amount: 0.046260
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:31:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

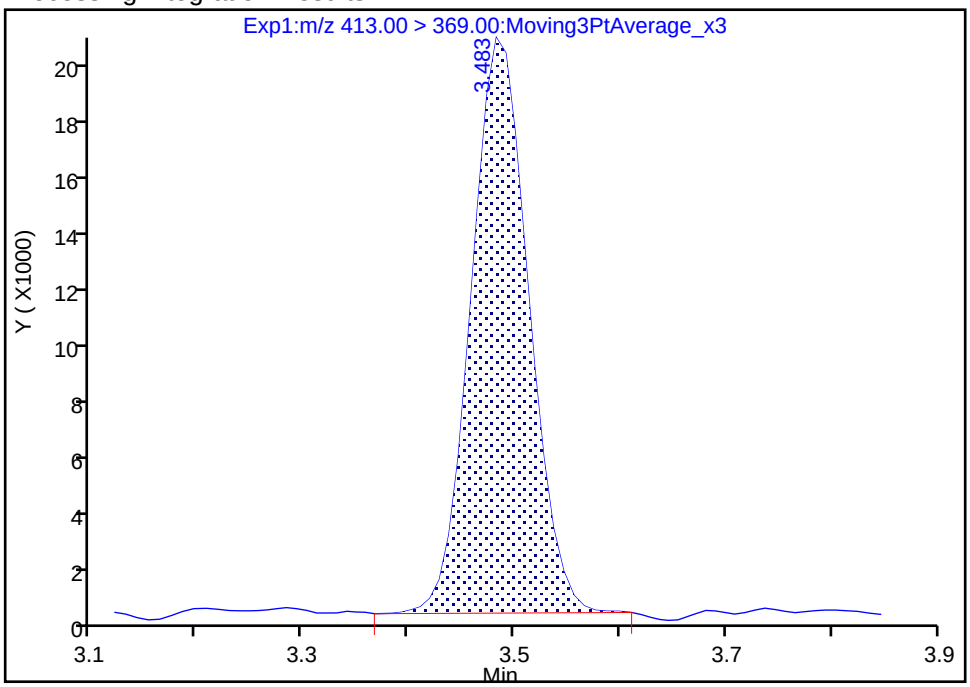
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

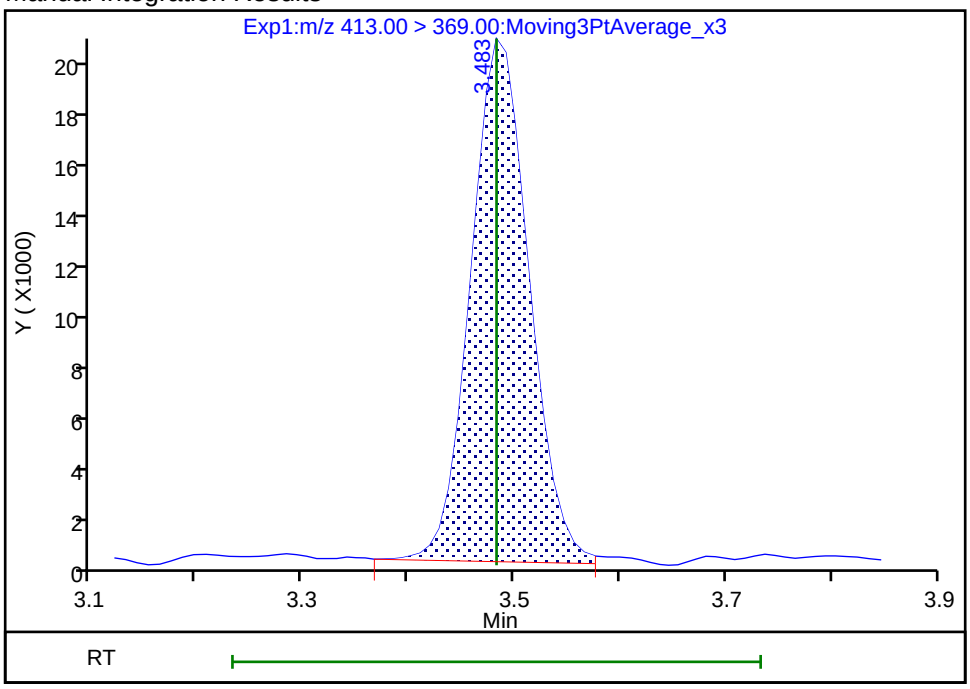
Processing Integration Results

RT: 3.48
Area: 73533
Amount: 0.053565
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 74719
Amount: 0.054429
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:31:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

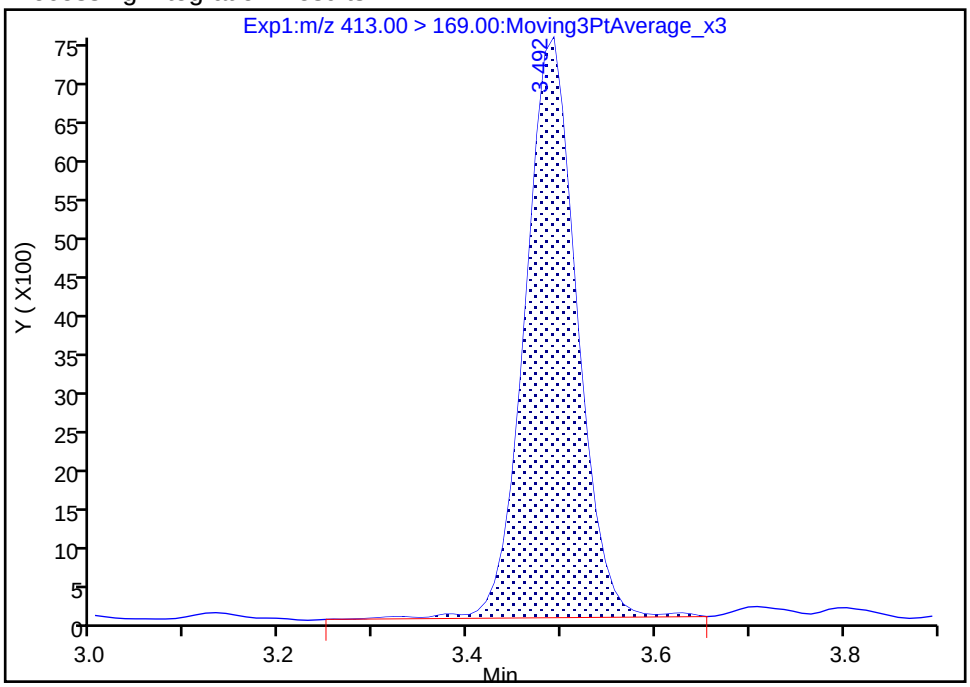
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

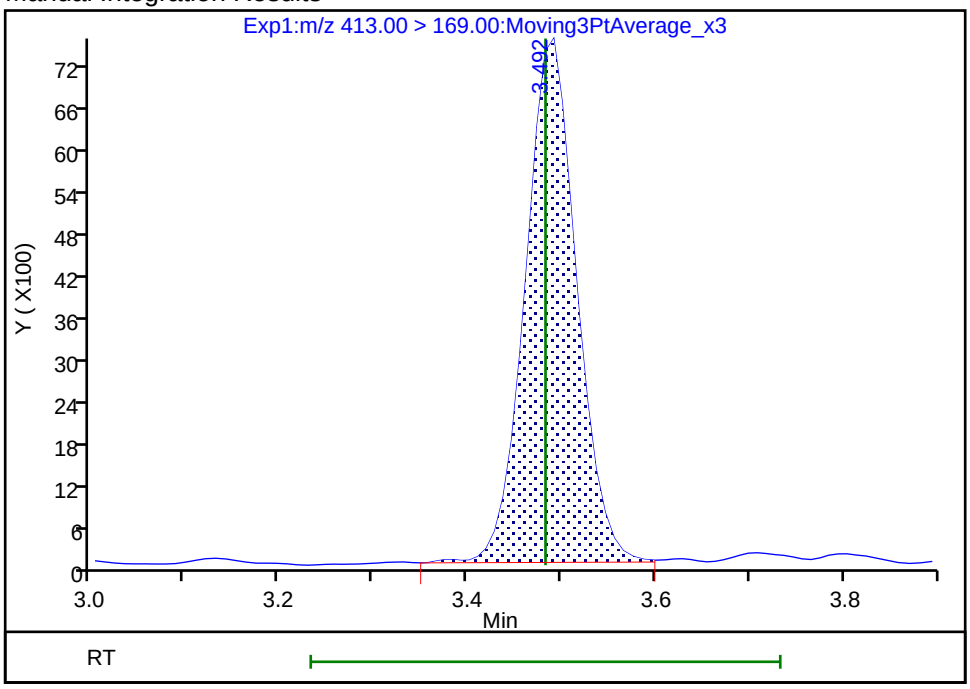
Processing Integration Results

RT: 3.49
Area: 28693
Amount: 0.053565
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 28416
Amount: 0.054429
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:31:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

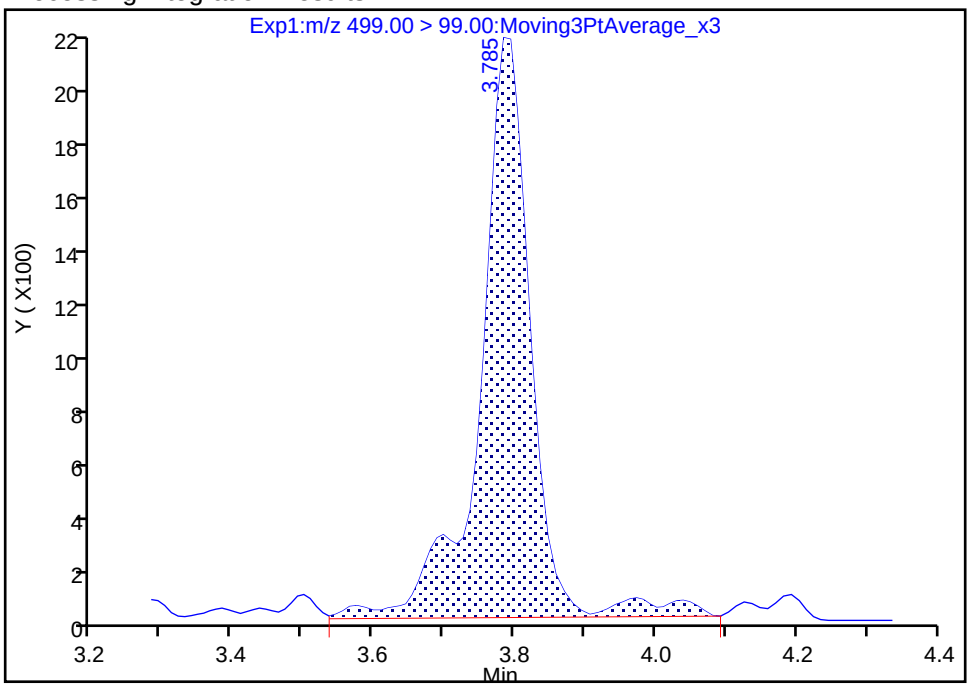
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

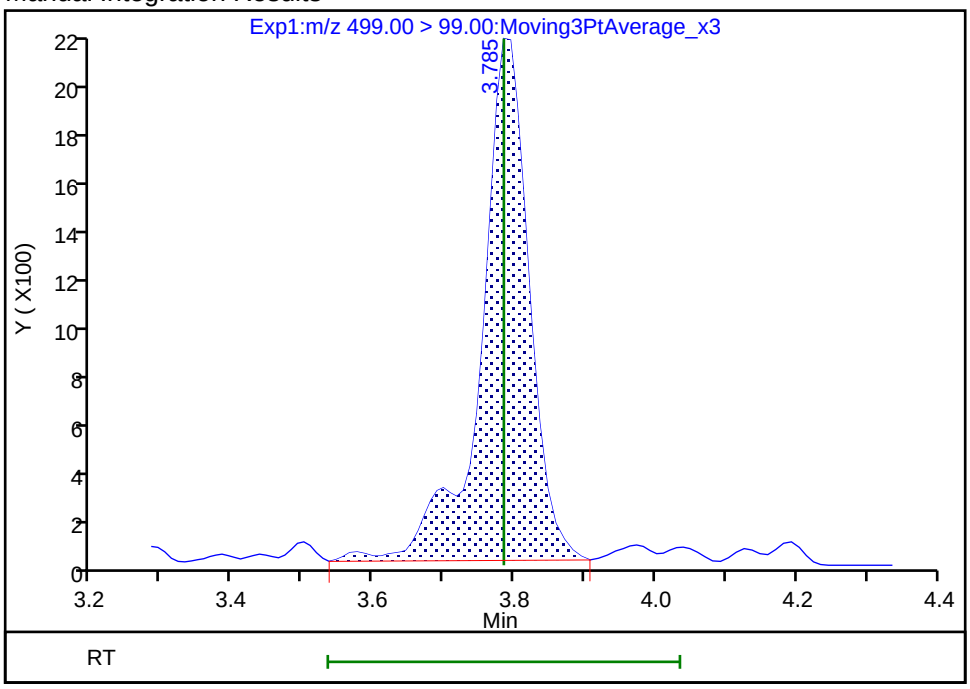
Processing Integration Results

RT: 3.78
Area: 10986
Amount: 0.049754
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 10324
Amount: 0.049117
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:32:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

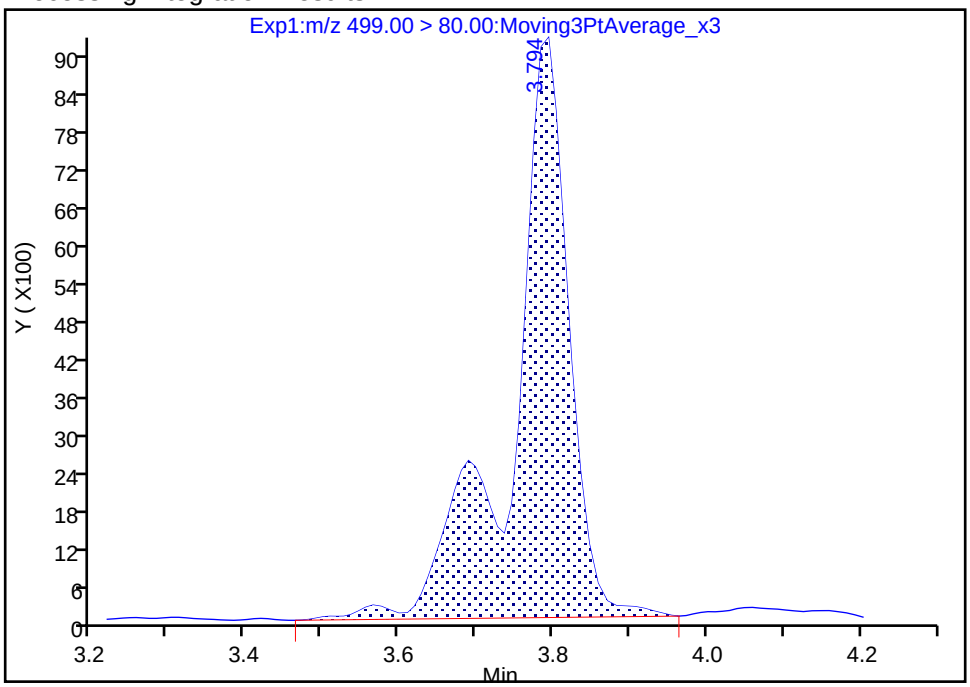
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

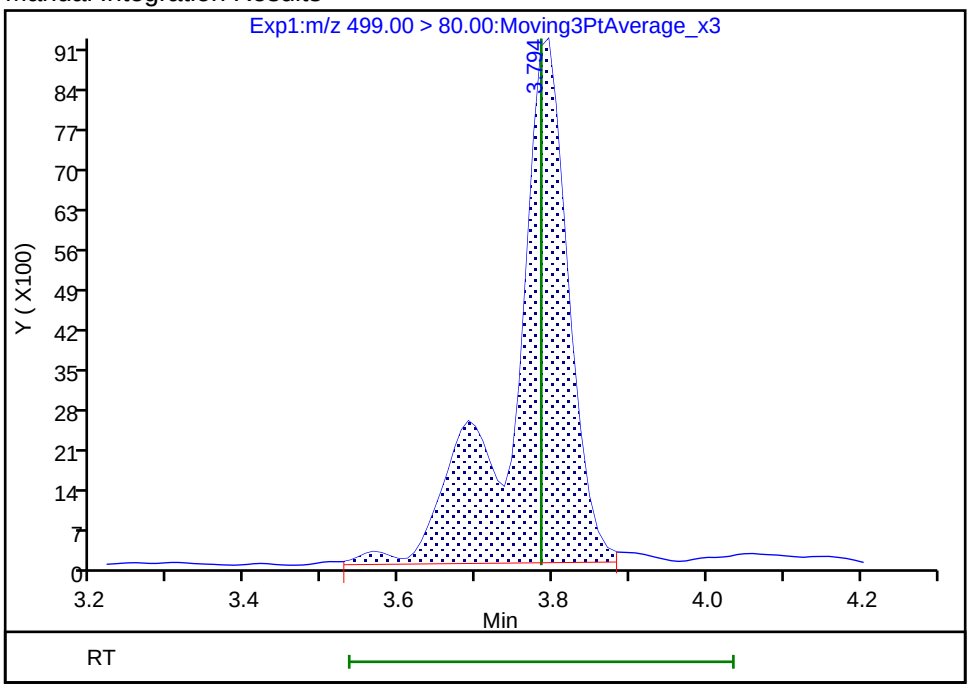
Processing Integration Results

RT: 3.79
Area: 47888
Amount: 0.049754
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 47275
Amount: 0.049117
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:32:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

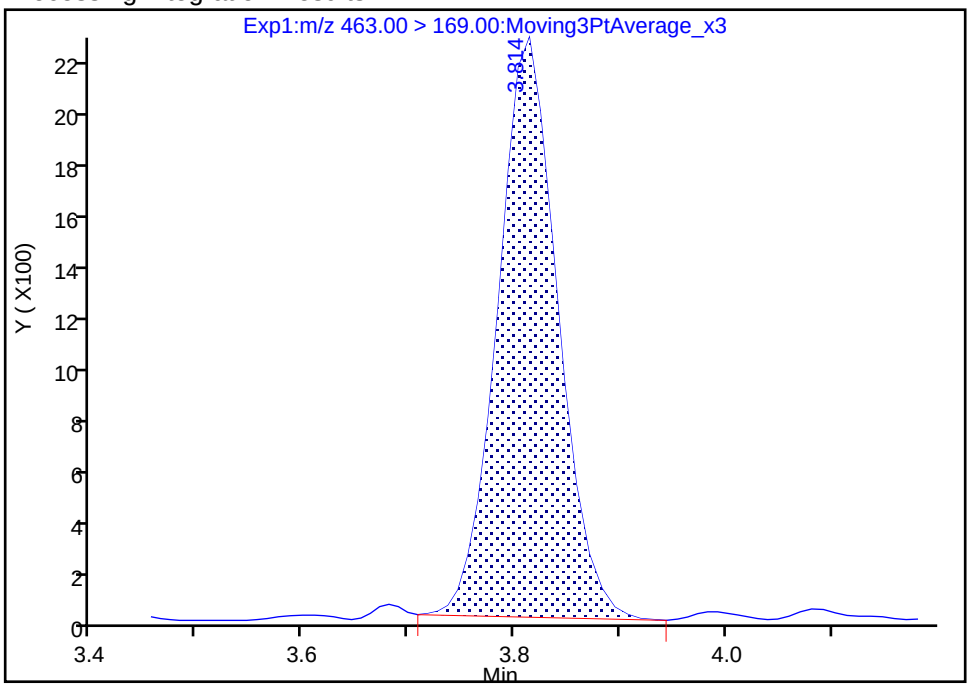
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

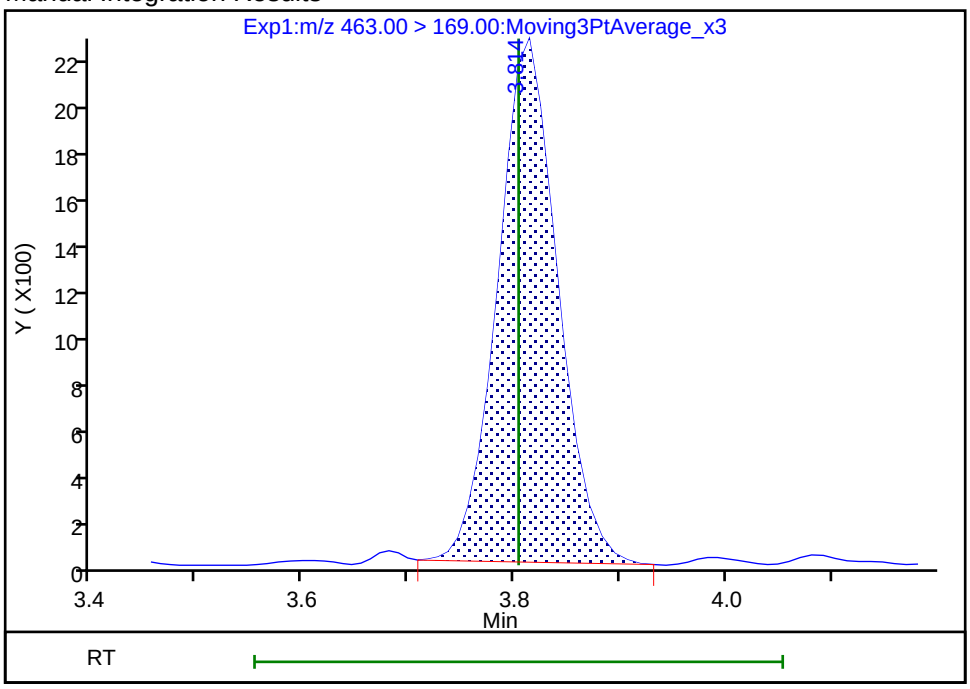
Processing Integration Results

RT: 3.81
Area: 8817
Amount: 0.050784
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 8803
Amount: 0.052114
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:32:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

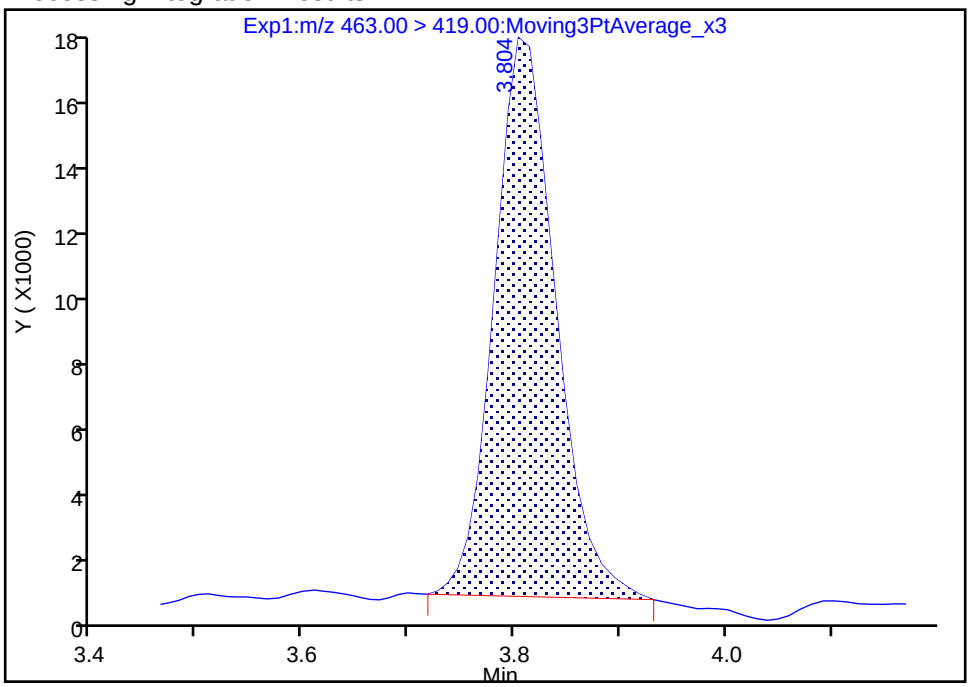
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

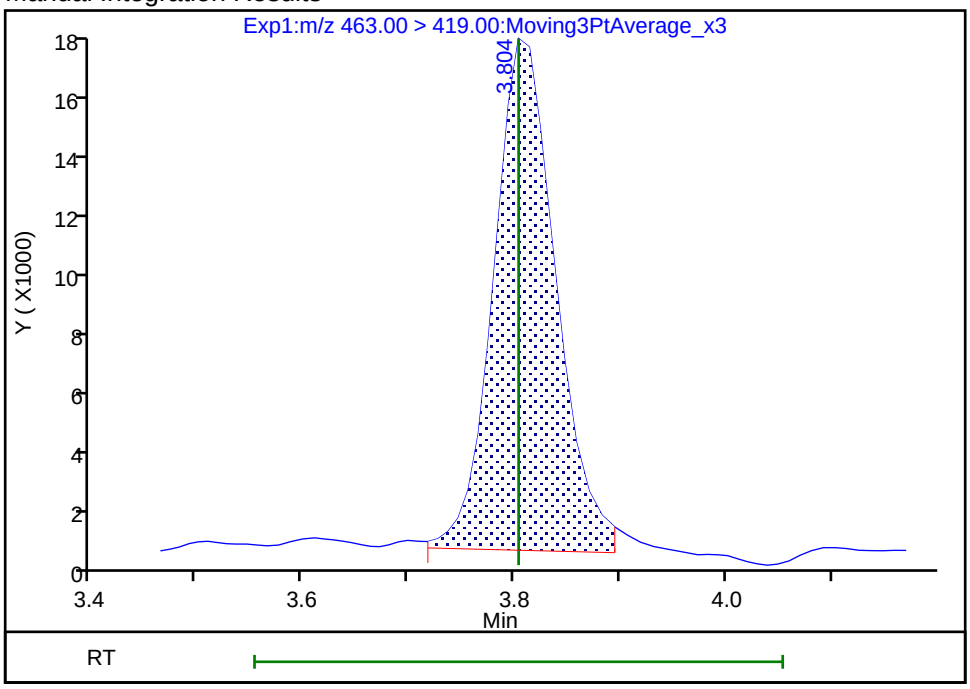
Processing Integration Results

RT: 3.80
Area: 64872
Amount: 0.050784
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 66570
Amount: 0.052114
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:33:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

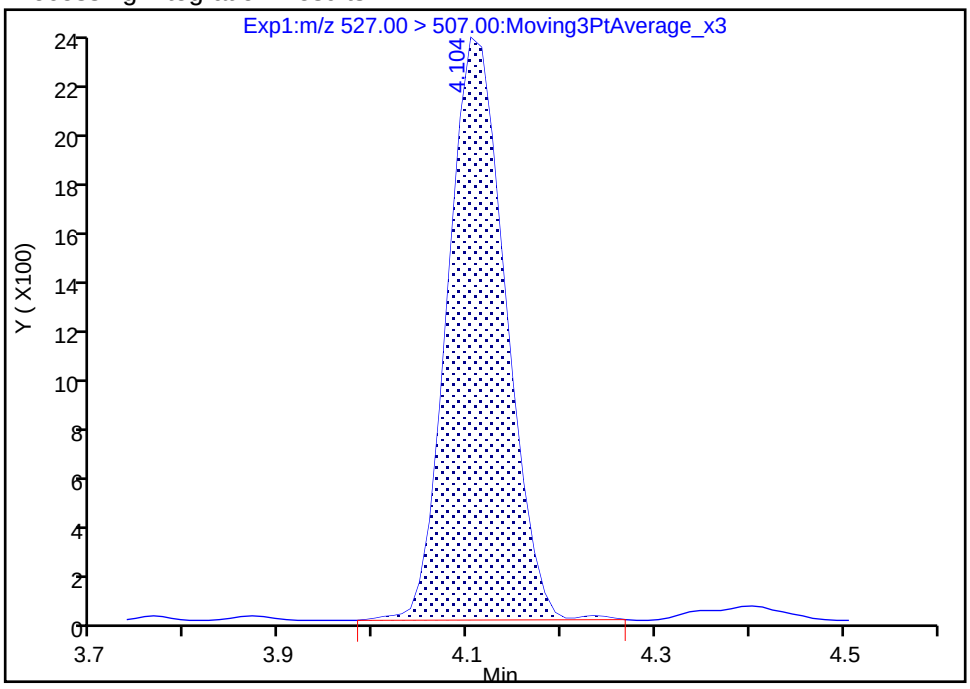
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

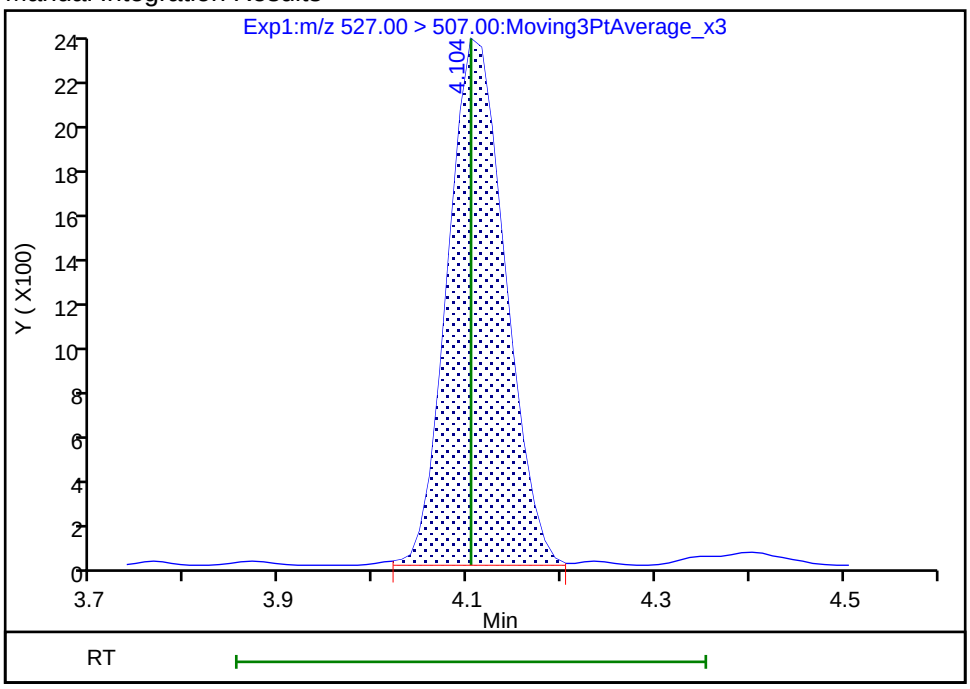
Processing Integration Results

RT: 4.10
Area: 9851
Amount: 0.054304
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 9812
Amount: 0.054089
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:33:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

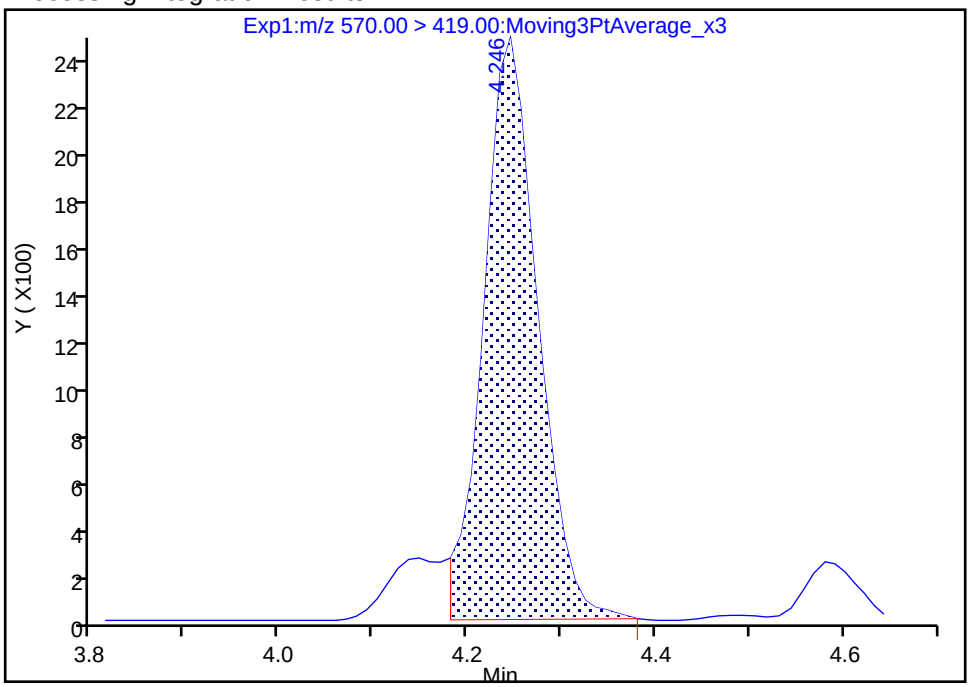
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

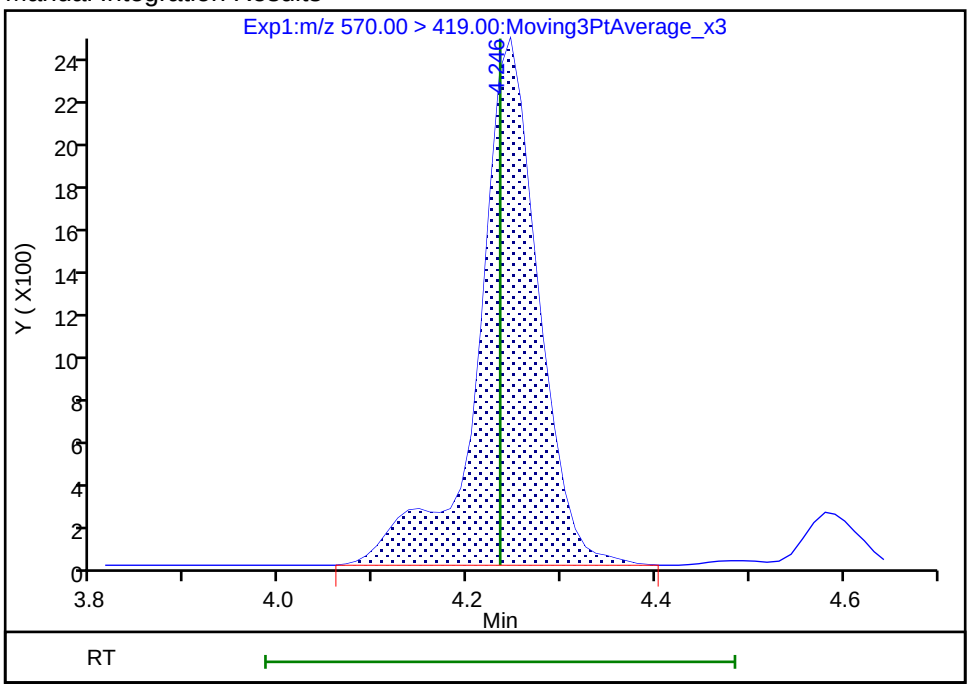
Processing Integration Results

RT: 4.25
Area: 9762
Amount: 0.109561
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 10940
Amount: 0.122782
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:33:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

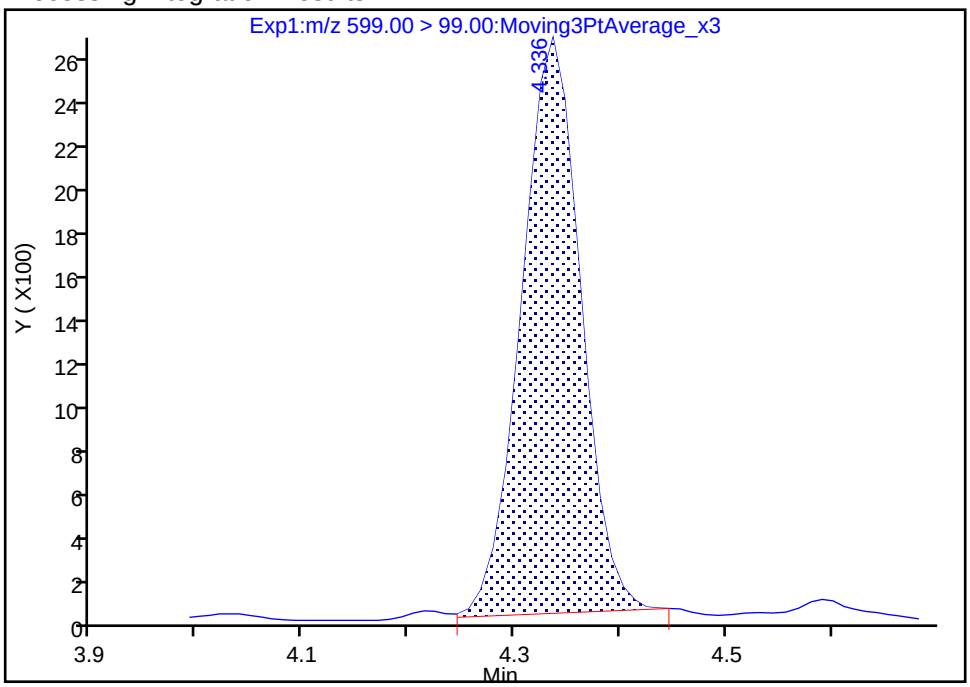
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

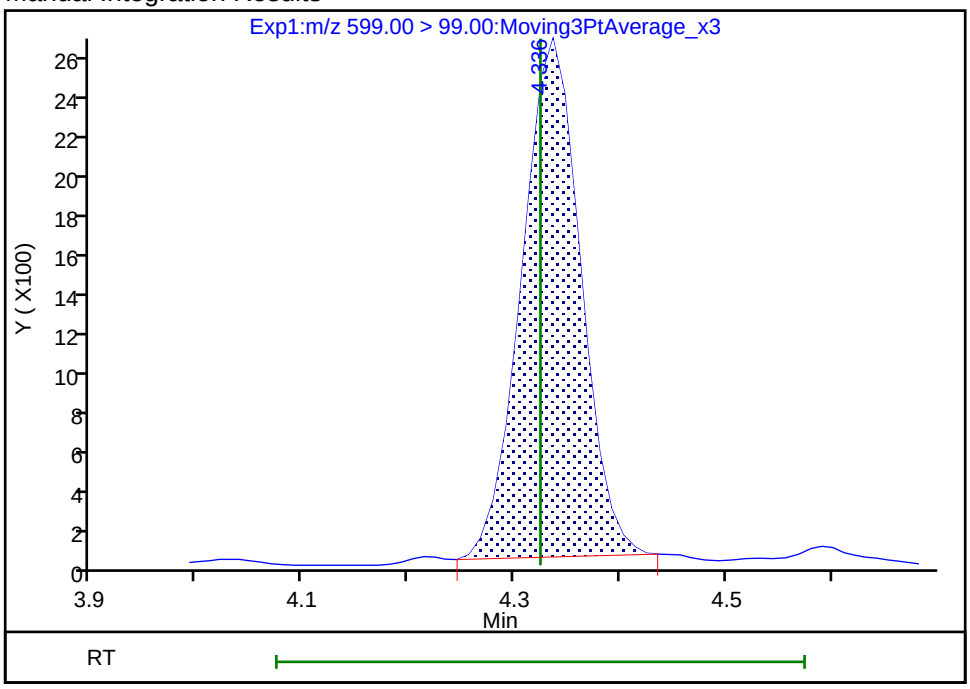
Processing Integration Results

RT: 4.34
Area: 10394
Amount: 0.039004
Amount Units: ng/ml




Manual Integration Results

RT: 4.34
Area: 10283
Amount: 0.039004
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

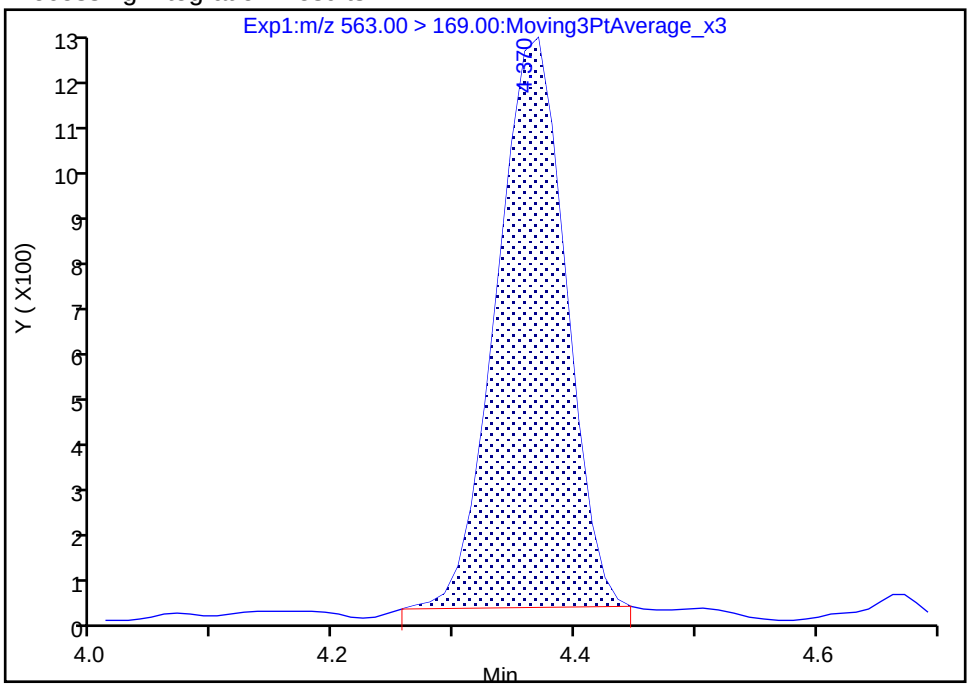
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

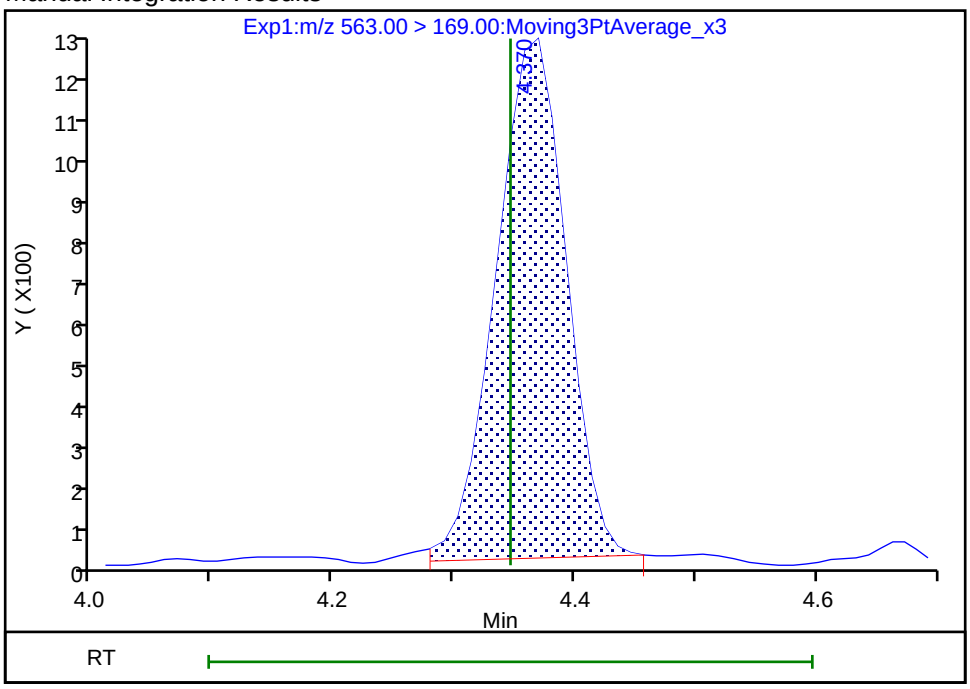
Processing Integration Results

RT: 4.37
Area: 5004
Amount: 0.052088
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 5109
Amount: 0.051794
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

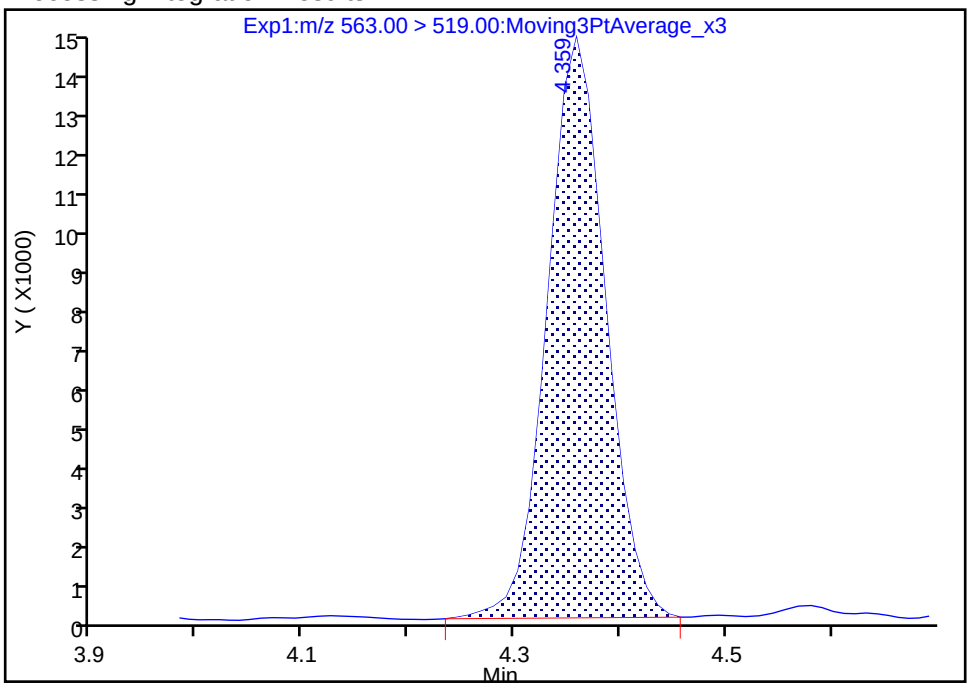
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

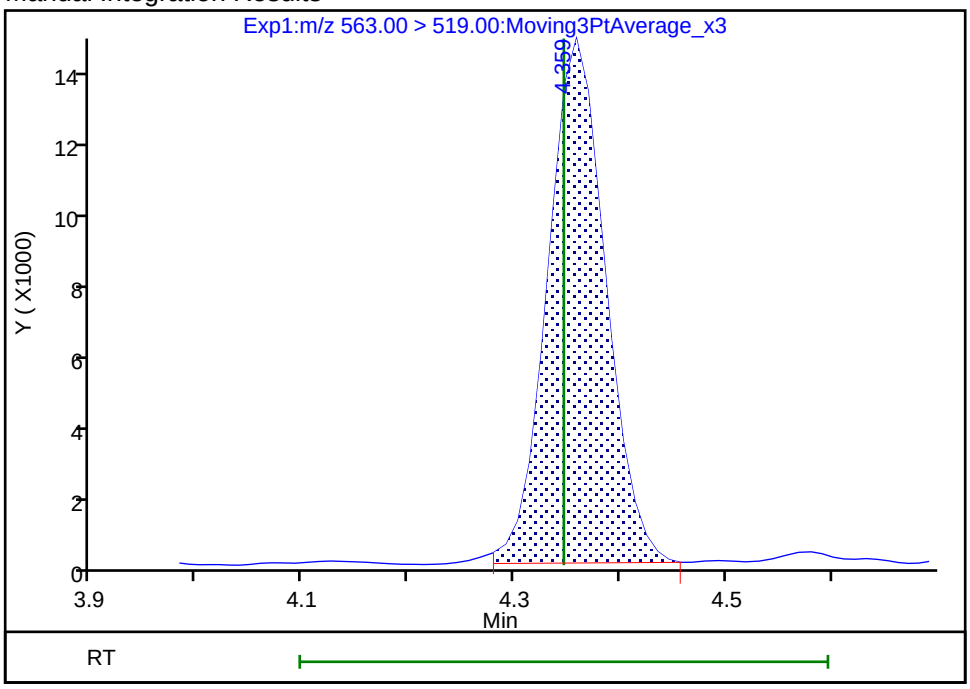
Processing Integration Results

RT: 4.36
Area: 56488
Amount: 0.052088
Amount Units: ng/ml




Manual Integration Results

RT: 4.36
Area: 56170
Amount: 0.051794
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

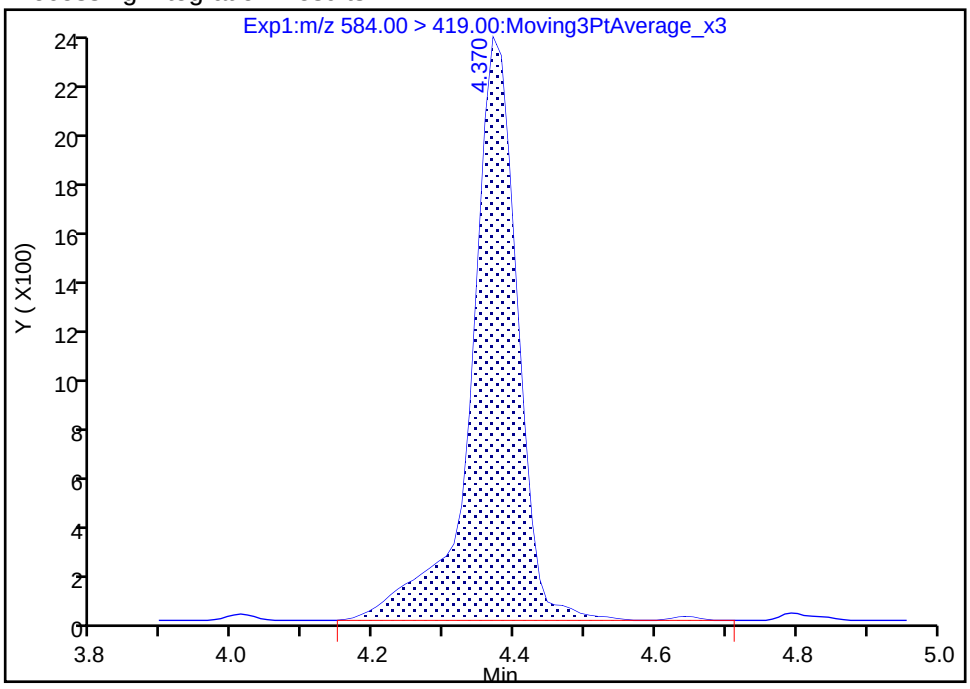
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

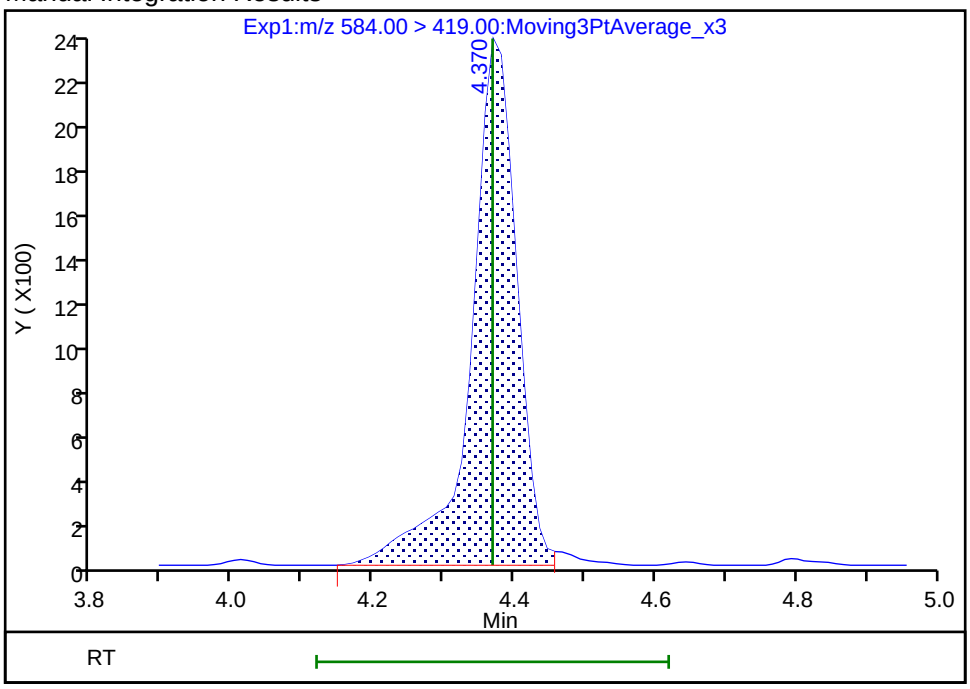
Processing Integration Results

RT: 4.37
Area: 10940
Amount: 0.123745
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 10738
Amount: 0.121461
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

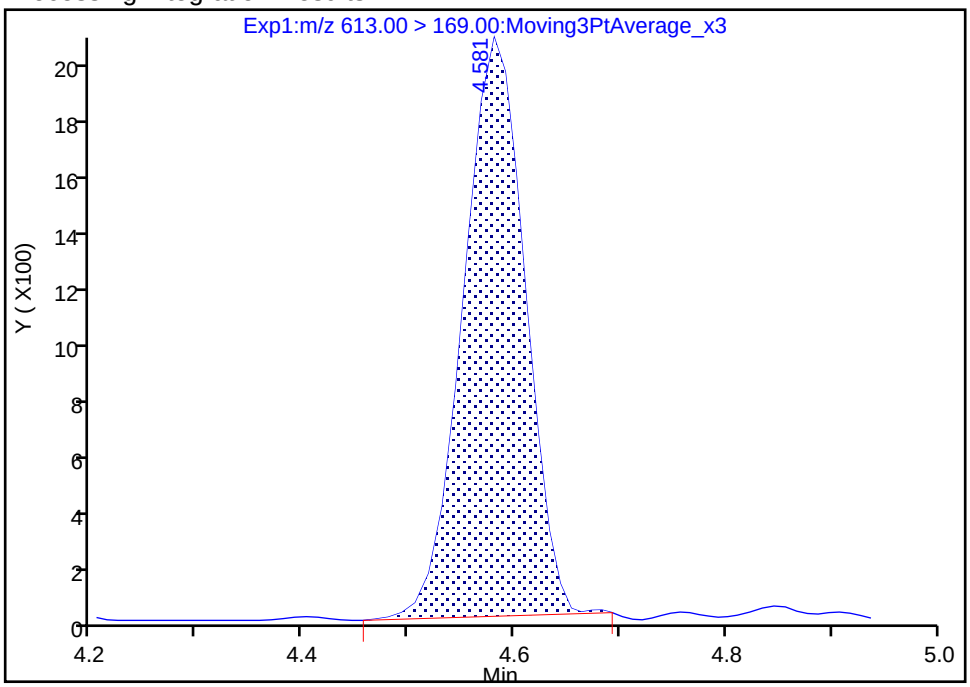
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

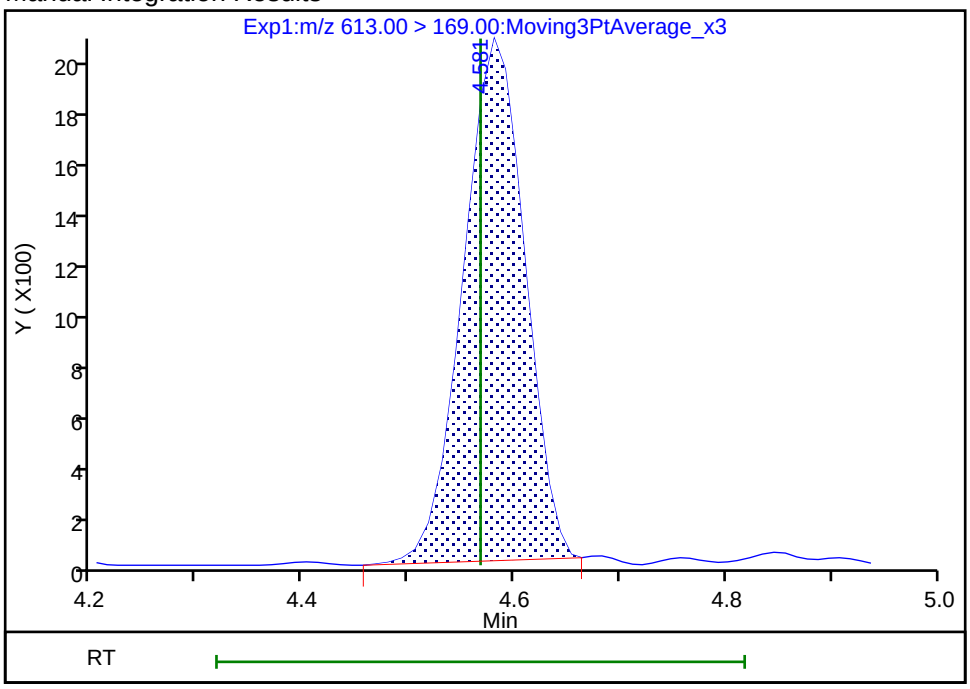
Processing Integration Results

RT: 4.58
Area: 8207
Amount: 0.053459
Amount Units: ng/ml




Manual Integration Results

RT: 4.58
Area: 8160
Amount: 0.053459
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

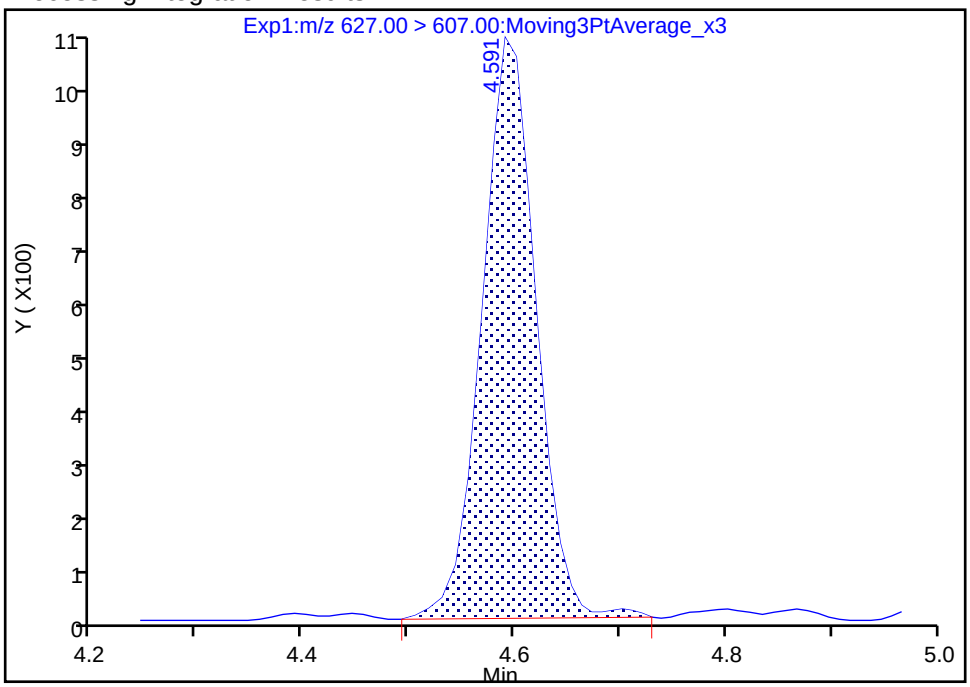
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

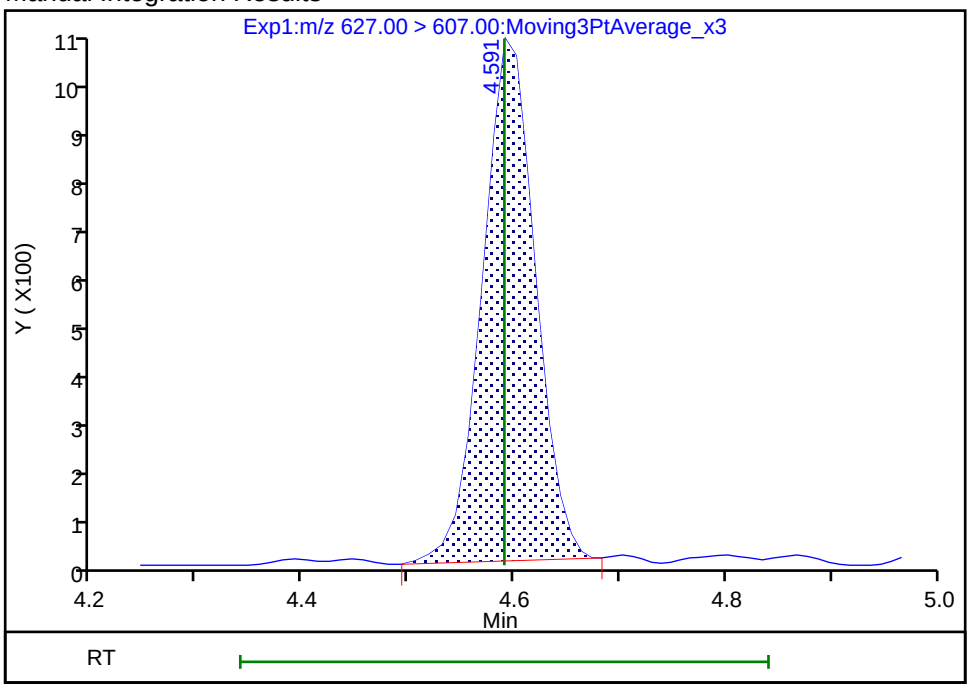
Processing Integration Results

RT: 4.59
Area: 3803
Amount: 0.045375
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 3717
Amount: 0.044349
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:34:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

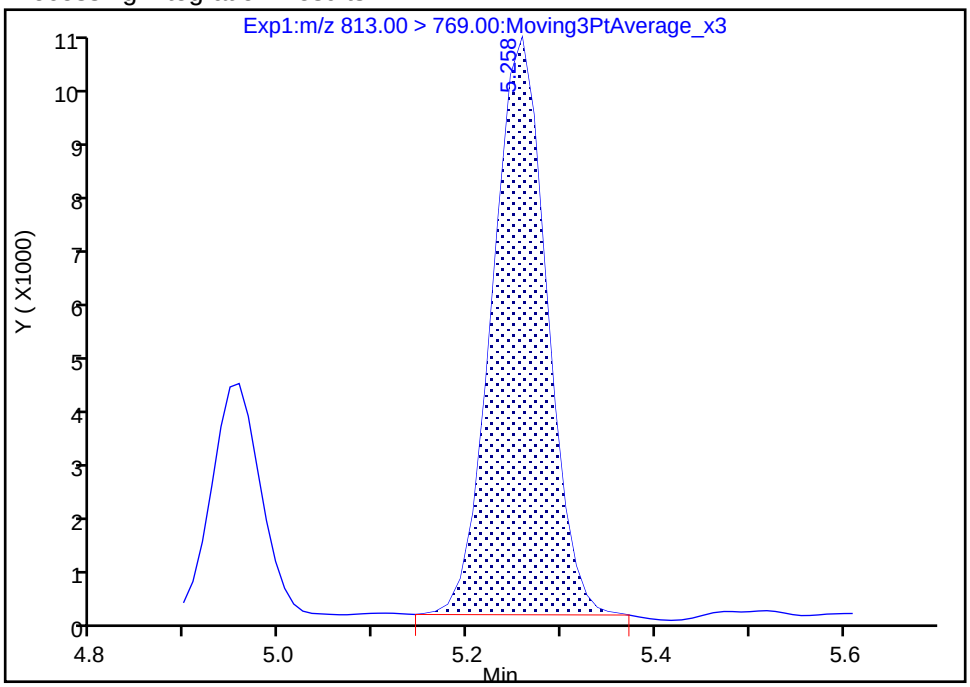
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 1

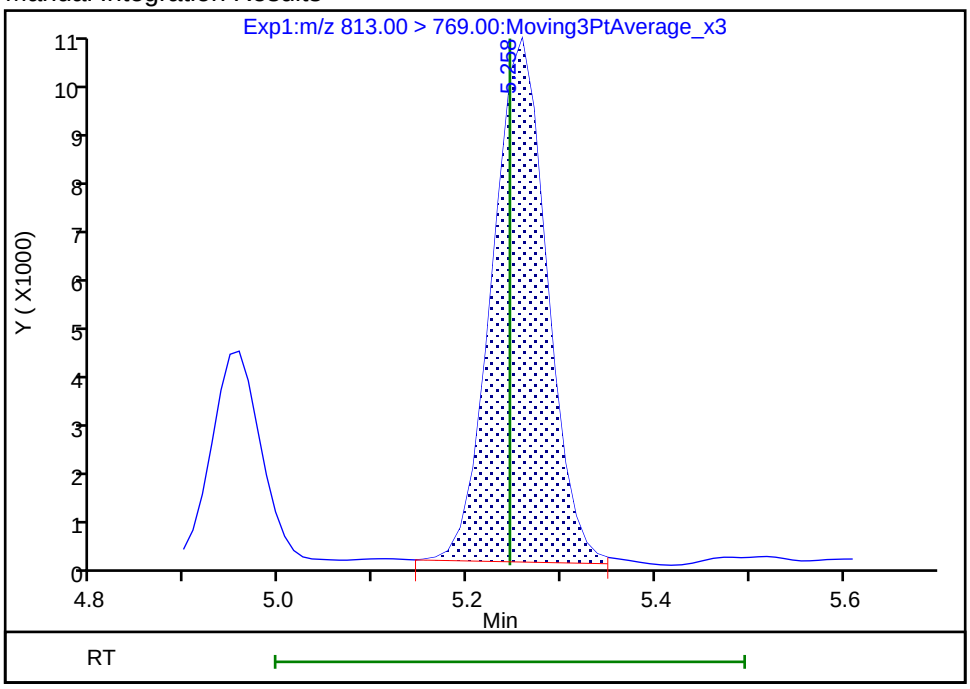
Processing Integration Results

RT: 5.26
Area: 42240
Amount: 0.056112
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 42617
Amount: 0.056780
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:35:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

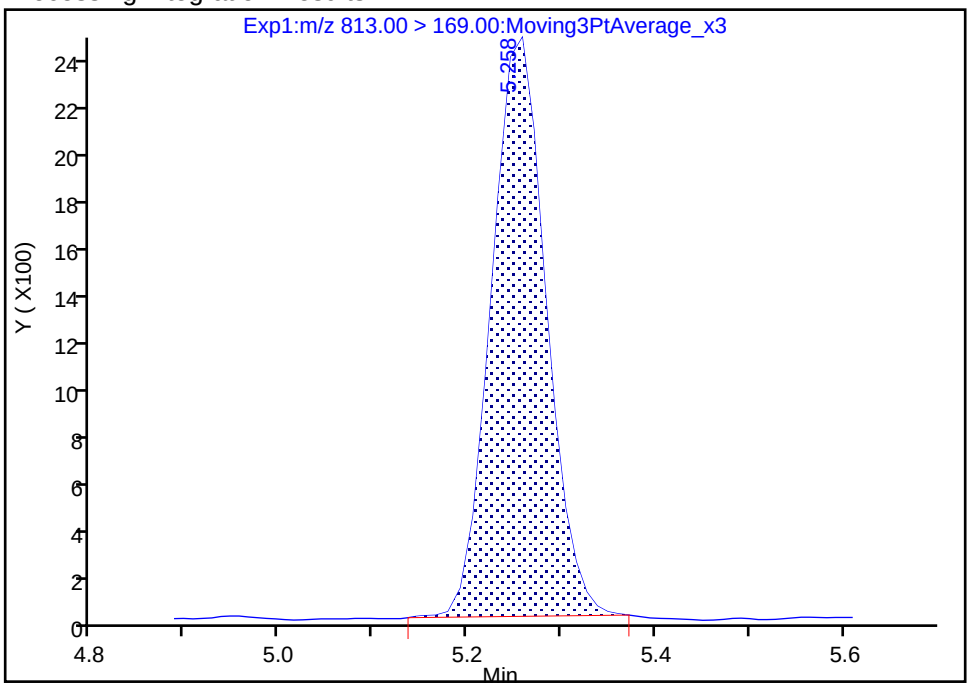
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d
Injection Date: 08-Nov-2021 16:16:09 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 45 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

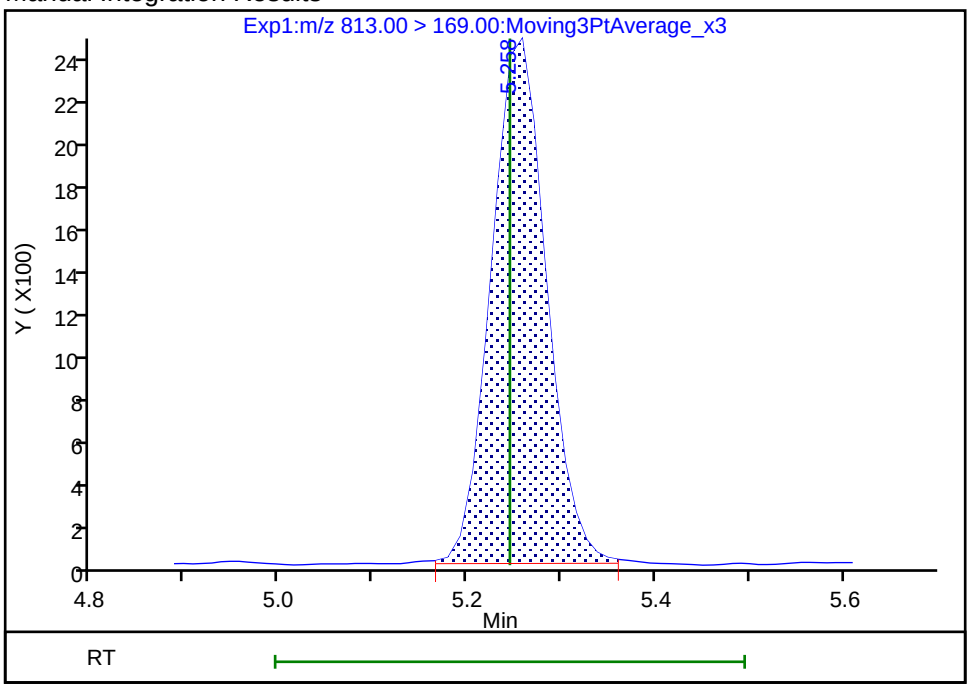
Processing Integration Results

RT: 5.26
Area: 9859
Amount: 0.056112
Amount Units: ng/ml




Manual Integration Results

RT: 5.26
Area: 9951
Amount: 0.056780
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:35:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

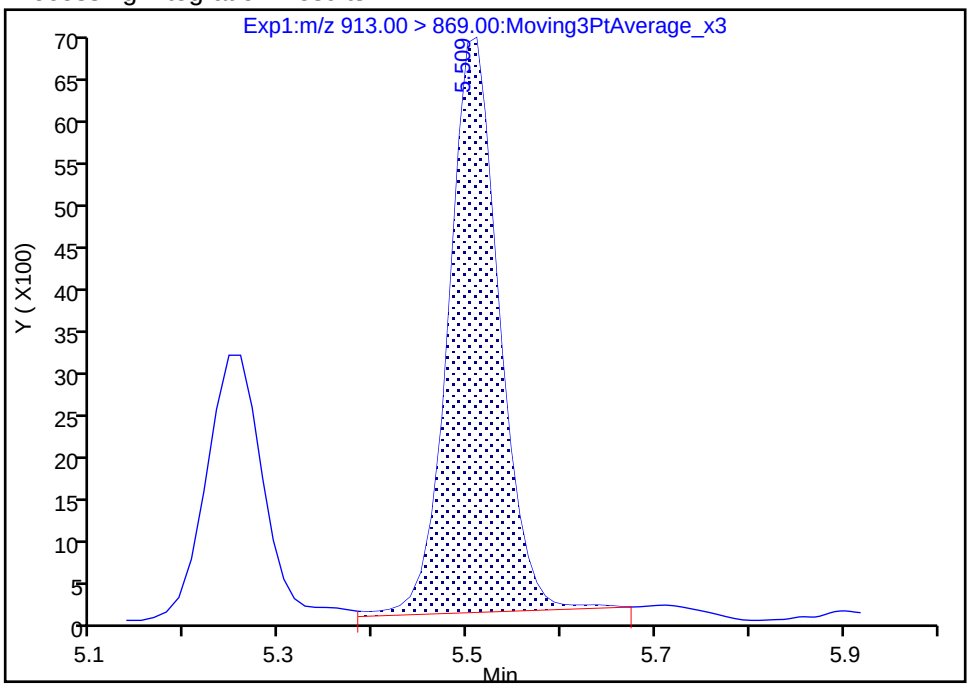
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A05.d | | | | |
| Injection Date: | 08-Nov-2021 16:16:09 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

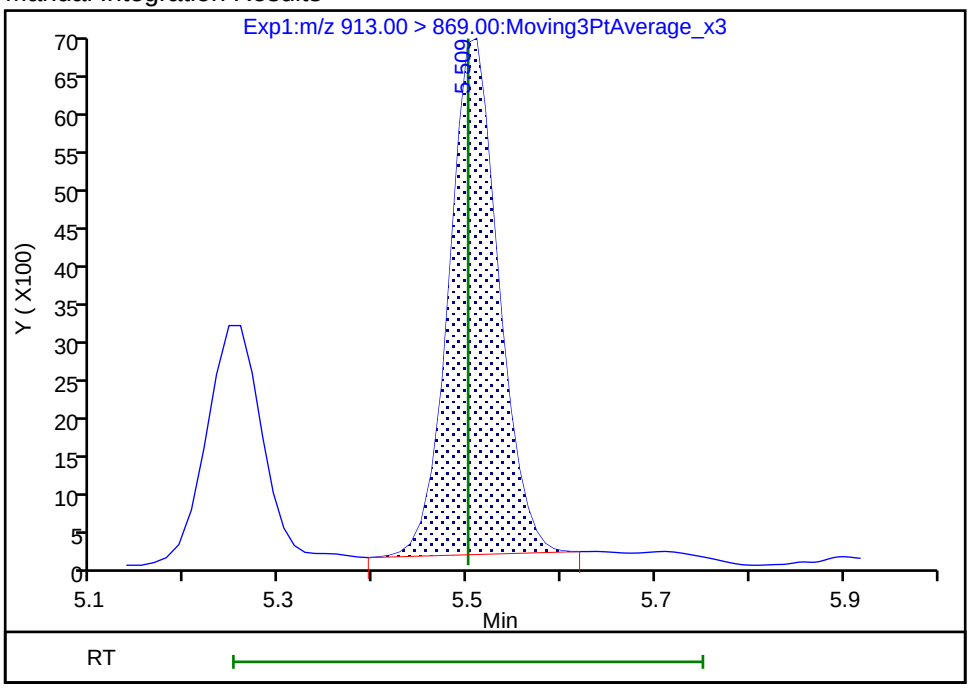
Processing Integration Results

RT: 5.51
Area: 25456
Amount: 0.045656
Amount Units: ng/ml




Manual Integration Results

RT: 5.51
Area: 24708
Amount: 0.044314
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:35:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173621/6  Calibration Date: 11/08/2021 16:23

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8690 | | 0.919 | 1.00 | -8.1 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.998 | | 0.996 | 1.00 | -0.4 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.9874 | | 0.817 | 0.884 | -7.6 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.209 | | 0.969 | 0.934 | 3.8 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9539 | | 0.941 | 1.00 | -5.9 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.195 | | 0.930 | 0.938 | -0.8 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 6.033 | | 1.33 | 1.00 | 33.3 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.042 | | 0.863 | 0.910 | -5.2 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.023 | | 0.990 | 1.00 | -1.0 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.341 | | 0.899 | 0.942 | -4.5 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.245 | | 0.951 | 0.952 | -0.1 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.263 | | 0.944 | 0.948 | -0.4 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.024 | | 0.962 | 1.00 | -3.8 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.053 | | 0.901 | 0.928 | -2.9 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9240 | | 0.944 | 1.00 | -5.6 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.545 | | 0.881 | 0.932 | -5.5 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8242 | | 0.936 | 0.960 | -2.5 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9899 | | 0.985 | 1.00 | -1.5 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7321 | | 0.838 | 0.958 | -12.5 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9129 | | 0.961 | 1.00 | -3.9 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7301 | | 0.929 | 1.00 | -7.1 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6505 | | 0.954 | 0.964 | -1.0 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.034 | | 0.970 | 1.00 | -3.0 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8663 | | 1.01 | 1.00 | 1.1 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.827 | | 0.891 | 0.942 | -5.4 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9548 | | 0.975 | 1.00 | -2.5 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3465 | | 0.864 | 0.964 | -10.3 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2533 | | 1.01 | 0.968 | 4.8 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173621/6  Calibration Date: 11/08/2021 16:23

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8696 | | 1.03 | 1.00 | 3.0 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1776 | | 1.13 | 1.00 | 12.6 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8791 | | 1.01 | 1.00 | 1.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6960 | | 0.825 | 1.00 | -17.5 | |
| 13C4 PFBA | Ave | 1.012 | 1.340 | | 1.66 | 1.25 | 32.4 | |
| 13C3 PFBS | Ave | 1.154 | 1.292 | | 1.30 | 1.16 | 12.0 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9570 | | 1.40 | 1.25 | 12.2 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1016 | | 1.35 | 1.17 | 15.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9603 | | 1.34 | 1.25 | 7.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0187 | | 0.993 | 1.25 | -20.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9436 | | 1.25 | 1.25 | 0.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9097 | | 1.28 | 1.18 | 8.5 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 1.017 | | 1.24 | 1.25 | -1.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1520 | | 1.37 | 1.19 | 15.0 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6441 | | 1.27 | 1.20 | 6.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.046 | | 1.28 | 1.25 | 2.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9799 | | 1.18 | 1.25 | -5.3 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1758 | | 1.41 | 1.20 | 17.3 | |
| 13C8 FOSA | Ave | 0.998 | 1.245 | | 1.56 | 1.25 | 24.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0938 | | 1.15 | 1.25 | -7.9 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7699 | | 1.19 | 1.25 | -4.5 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0829 | | 1.09 | 1.25 | -13.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7924 | | 1.14 | 1.25 | -8.6 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5816 | | 1.08 | 1.25 | -13.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5429 | | 1.15 | 1.25 | -8.3 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Nov-2021 16:23:21 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048331-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:07:23 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 08-Nov-2021 16:42:17
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.226 | 2.226 | 0.0 | 0.639 | 1685348 | 1.65 | | 132 | 1067 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.236 | 2.236 | 0.0 | 1.004 | 1171712 | 0.9191 | | 91.9 | 128 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.479 | 2.479 | 0.0 | 0.712 | 1203457 | 1.40 | | 112 | 1678 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.479 | 2.479 | 0.0 | 1.000 | 960740 | 1.00 | | 99.6 | 62.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.479 | 2.479 | 0.0 | 0.712 | 1511417 | 1.30 | | 112 | 190137 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.492 | 2.492 | 0.0 | 1.005 | 1134867 | 0.8173 | Target=2.32 | 92.4 | 1226 | |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.005 | 525539 | | 2.16(1.16-3.48) | | 332 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.758 | 2.758 | 0.0 | 0.792 | 119330 | 1.35 | | 116 | 81.0 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 1.000 | 210884 | 0.9693 | | 104 | 1003 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.795 | 2.795 | 0.0 | 0.802 | 1207630 | 1.34 | | 107 | 2824 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.795 | 2.795 | 0.0 | 1.000 | 921520 | 0.9405 | Target=12.09 | 94.1 | 233 | M |
| 313.00 > 119.00 | 2.795 | 2.795 | 0.0 | 1.000 | 77505 | | 11.89(6.04-18.13) | | 62.1 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.795 | 2.795 | 0.0 | 0.892 | 1025398 | 0.9304 | Target=3.03 | 99.2 | 1374 | |
| 349.00 > 99.00 | 2.795 | 2.795 | 0.0 | 0.892 | 321895 | | 3.19(1.52-4.55) | | 726 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.892 | 2.892 | 0.0 | 1.000 | 113612 | 1.33 | | 133 | 97.7 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.892 | 2.892 | 0.0 | 0.830 | 23538 | 0.99 | | 79.4 | 176 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 867988 | 0.8627 | Target=3.55 | 94.8 | 1586 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 248462 | | 3.49(1.77-5.32) | | 282 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1082185 | 1.28 | | 109 | 2303 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1186676 | 1.25 | | 100 | 4388 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 971048 | 0.9900 | Target=3.69 | 99.0 | 448 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.003 | 247326 | | 3.93(1.84-5.53) | | 591 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.839 | 2039275 | 0.8991 | Target=2.56 | 95.5 | 1300 | M |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.839 | 781232 | | 2.61(1.28-3.84) | | 890 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.915 | 768186 | 0.9509 | Target=4.88 | 99.9 | 1863 | M |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.915 | 151643 | | 5.07(2.44-7.32) | | 574 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 183174 | 0.9444 | | 99.6 | 1453 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 181633 | 1.37 | | 115 | 544 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.474 | 3.474 | 0.0 | 0.997 | 1278654 | 1.24 | | 98.8 | 3577 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1257573 | 1.25 | | | 3234 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.003 | 1047004 | 0.9625 | Target=2.68 | 96.2 | 247 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.003 | 415526 | | 2.52(1.34-4.02) | | 984 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 774371 | 1.27 | | 106 | 2370 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.000 | 633357 | 0.9008 | Target=4.69 | 97.1 | 1247 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 1.000 | 134901 | | 4.69(2.35-7.04) | | 521 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1315303 | 1.28 | | 102 | 4806 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 972277 | 0.9445 | Target=7.29 | 94.4 | 198 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 1.000 | 135069 | | 7.20(3.64-10.93) | | 1134 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.042 | 933169 | 0.8809 | | 94.5 | 3297 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.076 | 512739 | 0.9362 | Target=2.35 | 97.5 | 3041 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.076 | 207084 | | 2.48(1.17-3.52) | | 733 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.092 | 4.092 | 0.0 | 1.175 | 1232334 | 1.18 | | 94.7 | 2333 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.092 | 4.092 | 0.0 | 1.000 | 975875 | 0.9851 | Target=8.95 | 98.5 | 722 | |
| 513.00 > 169.00 | 4.092 | 4.092 | 0.0 | 1.000 | 107857 | | 9.05(4.47-13.42) | | 657 | |
| D 26 M2-8:2 FTS | | | | | | | | | | M |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.178 | 211807 | 1.41 | | 117 | 922 | M |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.104 | 4.104 | 0.0 | 1.000 | 124043 | 0.8383 | | 87.5 | 1717 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.210 | 1566072 | 1.56 | | 125 | 3279 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.000 | 1143720 | 0.9613 | | 96.1 | 1774 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.216 | 117898 | 1.15 | | 92.1 | 516 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.000 | 68864 | 0.9294 | | 92.9 | 284 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.324 | 4.324 | 0.0 | 1.143 | 406356 | 0.9542 | Target=2.47 | 99.0 | 2481 | |
| 599.00 > 99.00 | 4.324 | 4.324 | 0.0 | 1.143 | 153943 | | 2.64(1.23-3.70) | | 1105 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.347 | 0.0 | 1.248 | 968227 | 1.19 | | 95.5 | 3787 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.347 | 0.0 | 1.000 | 801036 | 0.9701 | Target=9.24 | 97.0 | 675 | |
| 563.00 > 169.00 | 4.347 | 4.347 | 0.0 | 1.000 | 88654 | | 9.04(4.62-13.86) | | 1109 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.358 | 0.0 | 1.251 | 104202 | 1.09 | | 86.9 | 1178 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.003 | 72214 | 1.01 | | 101 | 735 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.175 | 1115057 | 0.8913 | | 94.6 | 1694 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.568 | 0.0 | 1.311 | 996447 | 1.14 | | 91.4 | 782 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.568 | 4.568 | 0.0 | 1.000 | 761156 | 0.9753 | Target=7.04 | 97.5 | 189 | |
| 613.00 > 169.00 | 4.568 | 4.568 | 0.0 | 1.000 | 114052 | | 6.67(3.52-10.56) | | 755 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.590 | 4.590 | 0.0 | 1.119 | 59088 | 0.8643 | | 89.7 | 929 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.738 | 4.738 | 0.0 | 1.252 | 158894 | 1.01 | Target=0.49 | 105 | 1824 | |
| 699.00 > 99.00 | 4.738 | 4.738 | 0.0 | 1.252 | 286151 | | 0.56(0.25-0.74) | | 2157 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.765 | 4.765 | 0.0 | 1.043 | 693215 | 1.03 | Target=4.68 | 103 | 298 | |
| 663.00 > 169.00 | 4.765 | 4.765 | 0.0 | 1.043 | 139589 | | 4.97(2.34-7.02) | | 836 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.946 | 0.0 | 1.420 | 731416 | 1.08 | | 86.5 | 1704 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.946 | 4.946 | 0.0 | 1.000 | 103948 | 1.13 | Target=1.01 | 113 | 1791 | |
| 713.00 > 219.00 | 4.936 | 4.946 | -0.010 | 0.998 | 96677 | | 1.08(0.51-1.52) | | 1575 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.245 | 0.0 | 1.506 | 682755 | 1.15 | | 91.7 | 3420 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.245 | 5.245 | 0.0 | 1.000 | 480183 | 1.01 | Target=4.57 | 101 | 207 | |
| 813.00 > 169.00 | 5.245 | 5.245 | 0.0 | 1.000 | 112057 | | 4.29(2.29-6.86) | | 2136 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.501 | 5.501 | 0.0 | 1.049 | 380159 | 0.8253 | Target=4.27 | 82.5 | 339 | M |
| 913.00 > 169.00 | 5.491 | 5.501 | -0.010 | 1.047 | 82614 | | 4.60(2.14-6.41) | | 970 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:07:24 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d

Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812

Lims ID: CCVIS

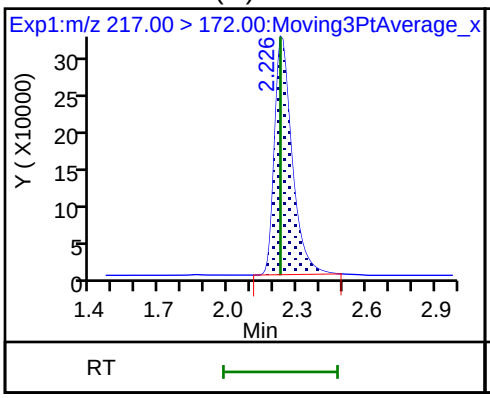
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

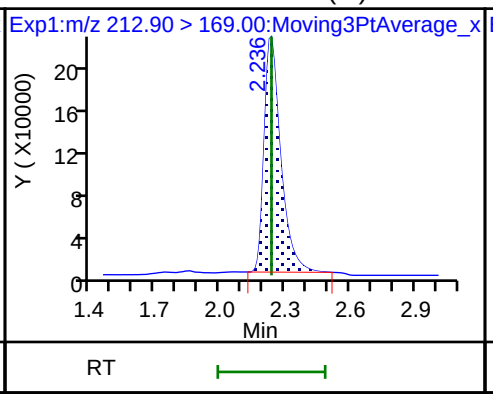
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

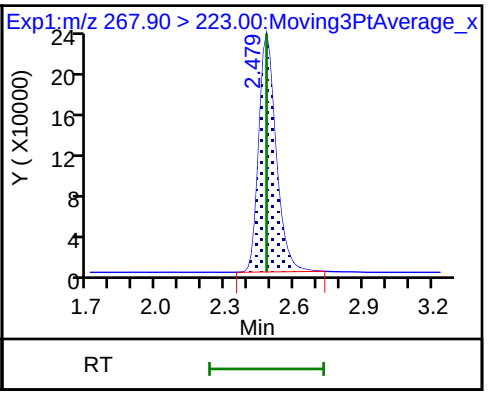
D 1 13C4 PFBA (M)



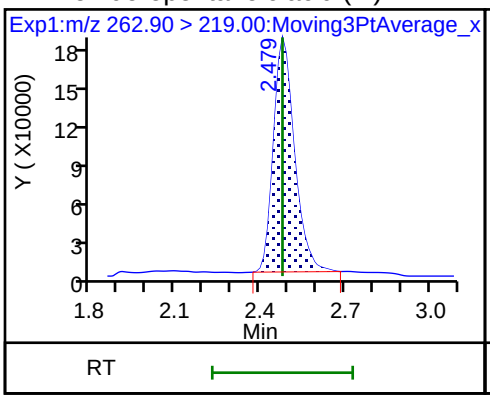

2 Perfluorobutanoic acid (M)



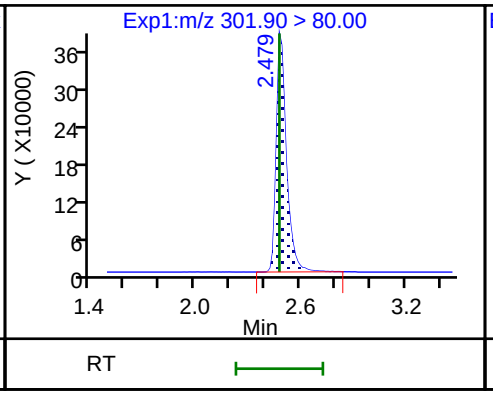

D 3 13C5 PFPeA



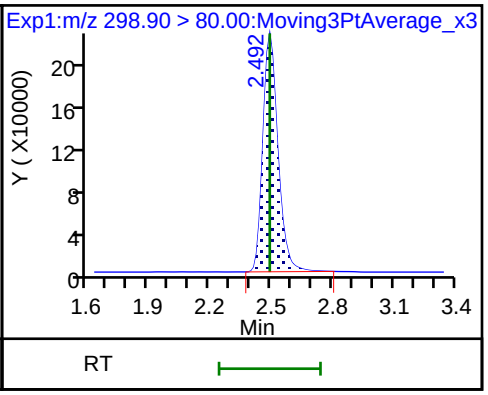

4 Perfluoropentanoic acid (M)



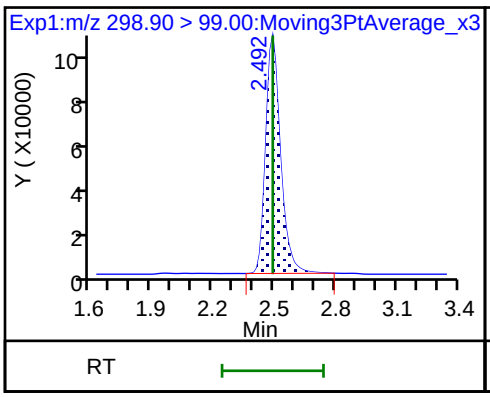

D 47 13C3 PFBS



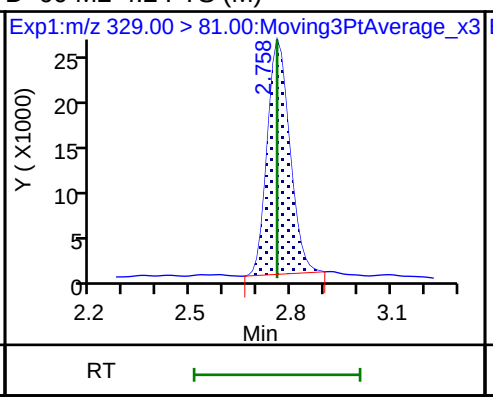

5 Perfluorobutanesulfonic acid



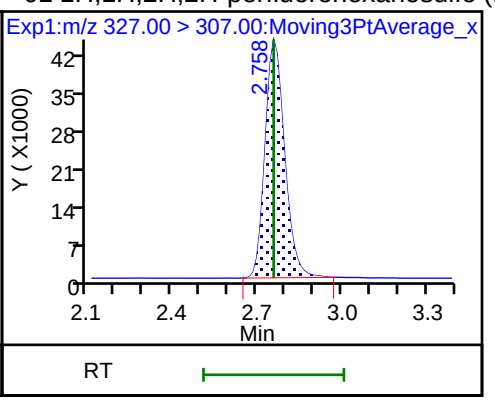

5 Perfluorobutanesulfonic acid



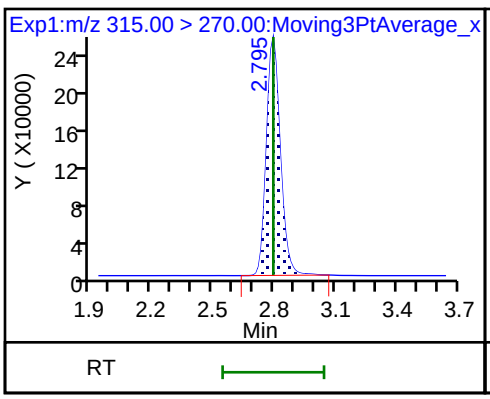

D 60 M2-4:2 FTS (M)



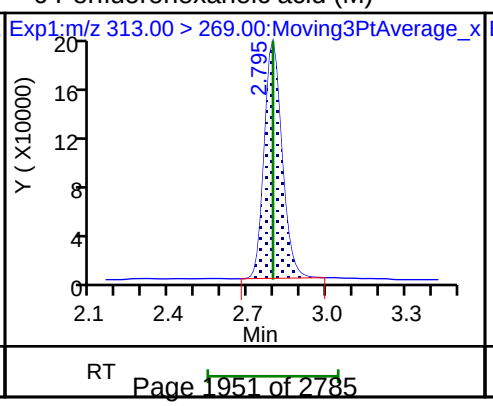

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



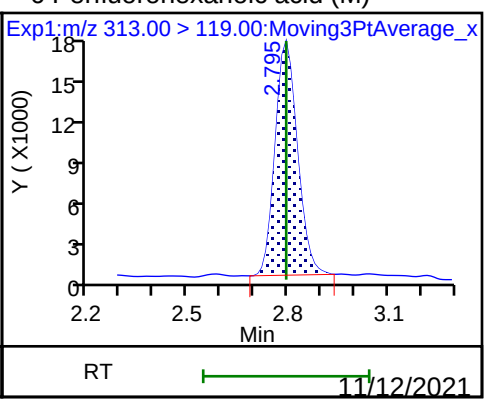

D 7 13C2 PFHxA



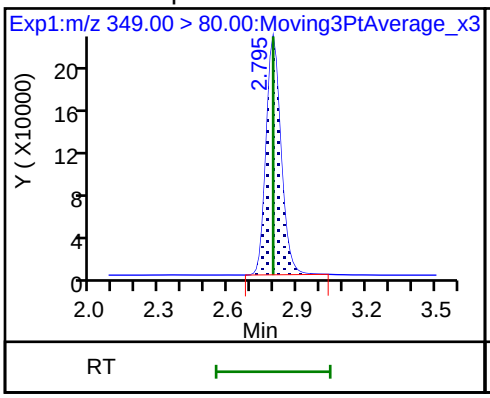

6 Perfluorohexanoic acid (M)



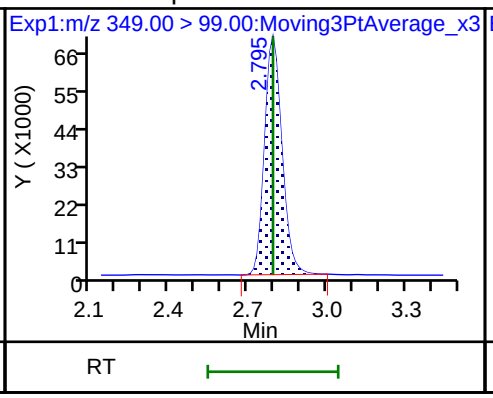

6 Perfluorohexanoic acid (M)



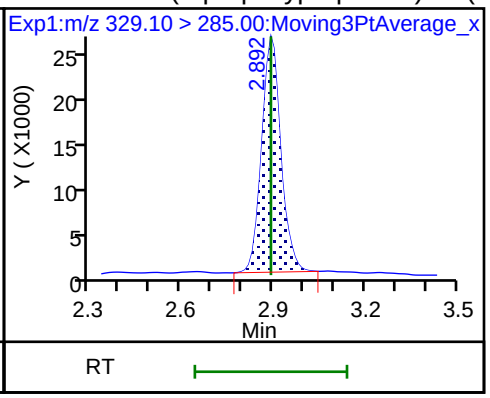
70 Perfluoropentanesulfonic acid



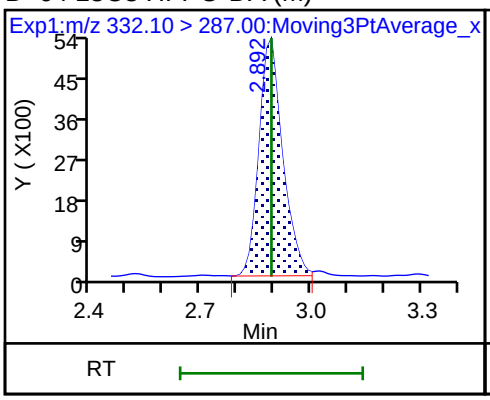

70 Perfluoropentanesulfonic acid



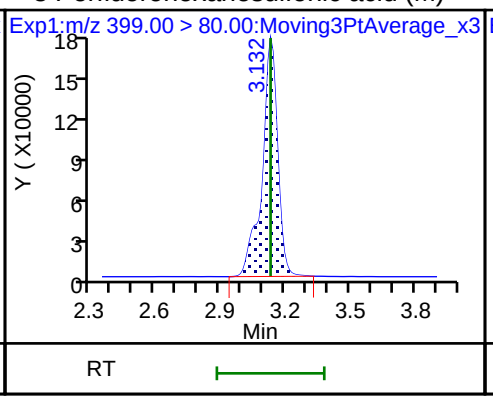

67 Perfluoro(2-propoxypropanoic) ac (M)



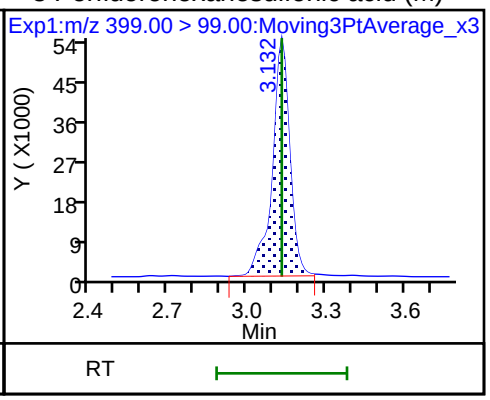

D 64 13C3 HFPO-DA (M)



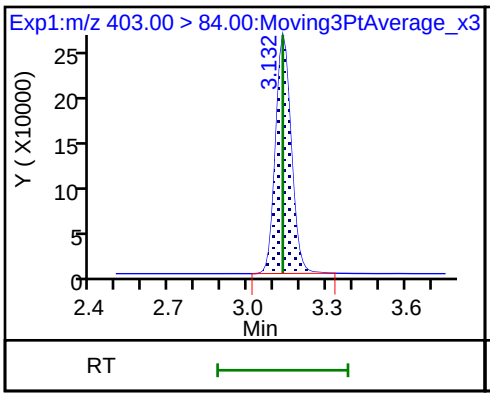

8 Perfluorohexanesulfonic acid (M)



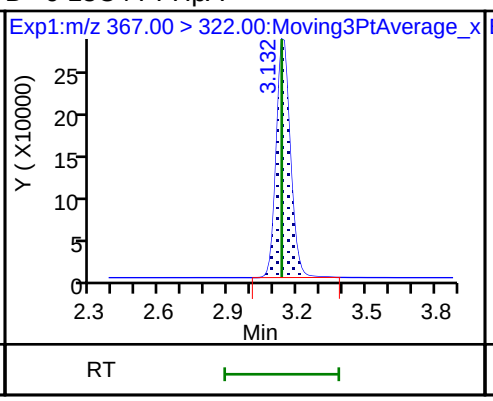

8 Perfluorohexanesulfonic acid (M)



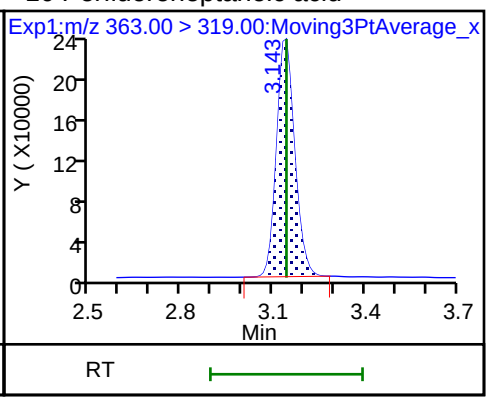

D 11 18O2 PFHxS



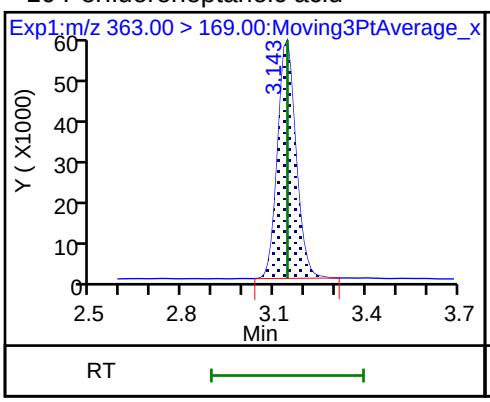

D 9 13C4 PFHpA



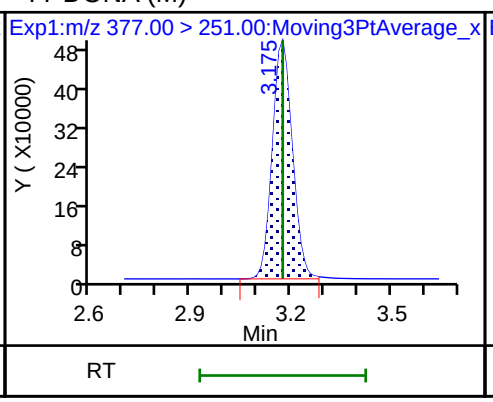

10 Perfluoroheptanoic acid



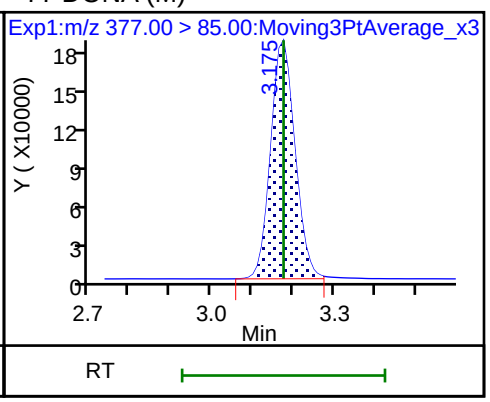

10 Perfluoroheptanoic acid



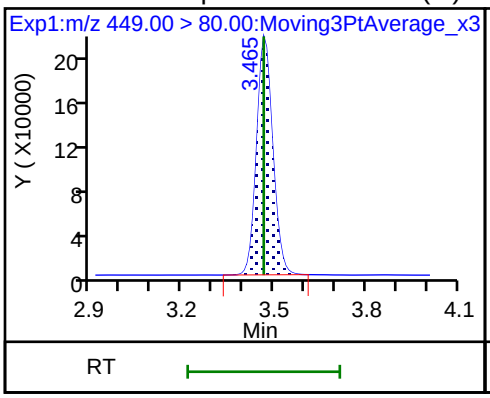

77 DONA (M)



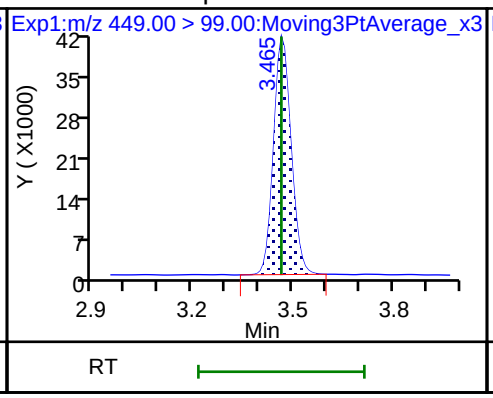

77 DONA (M)



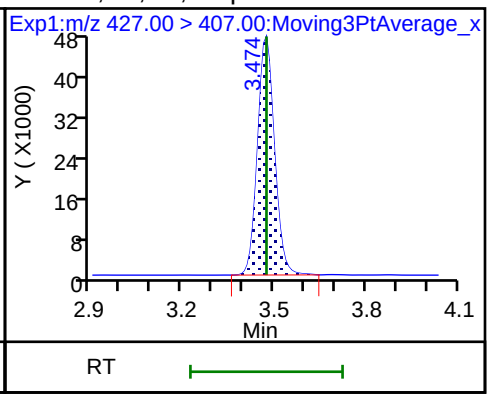
16 Perfluoroheptanesulfonic acid (M)



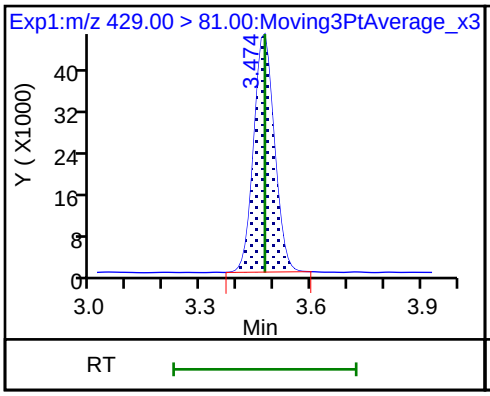

16 Perfluoroheptanesulfonic acid



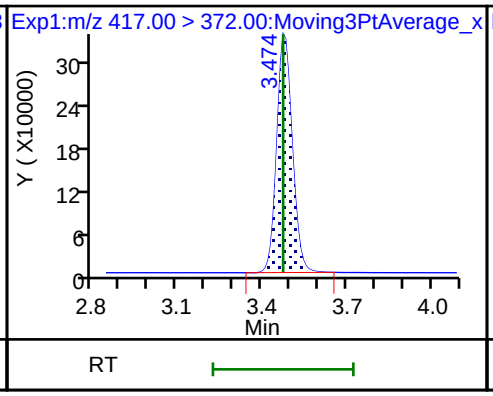

13 1H,1H,2H,2H-perfluorooctanesulfo



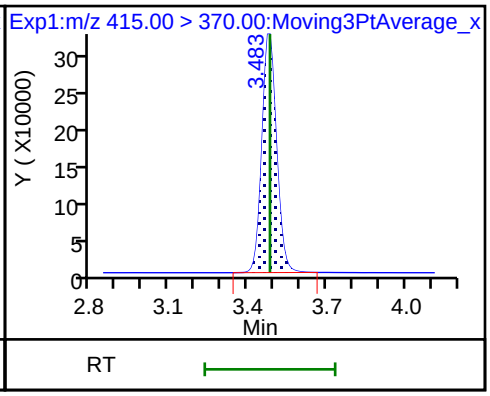

D 12 M2-6:2 FTS



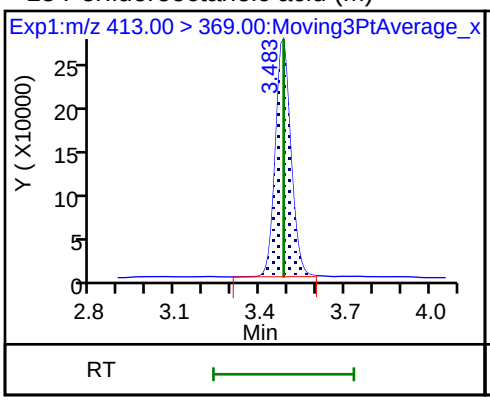

D 14 13C4 PFOA



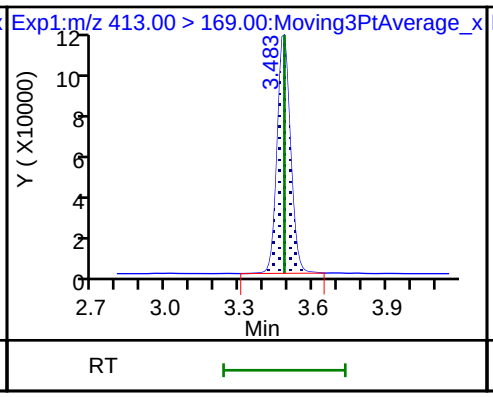

* 62 13C2 PFOA



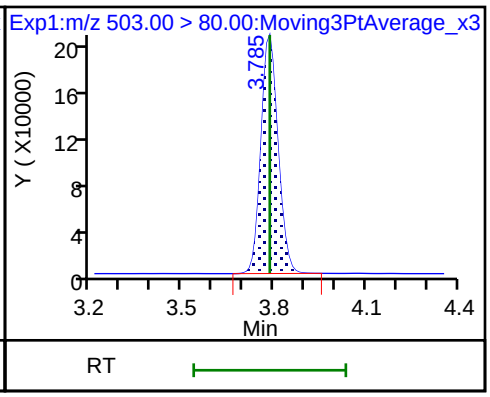

15 Perfluorooctanoic acid (M)



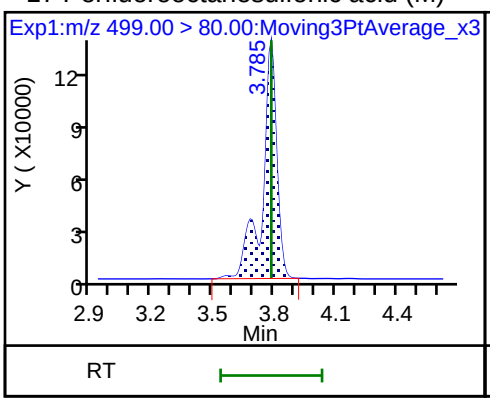

15 Perfluorooctanoic acid



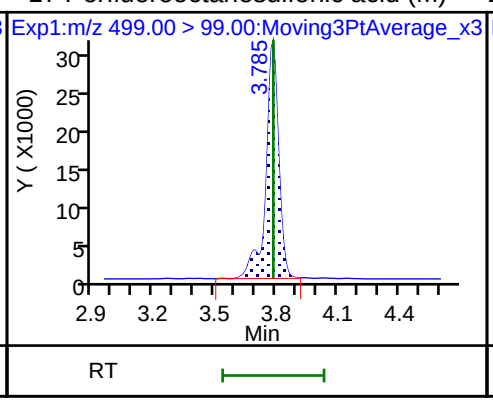

D 18 13C4 PFOS



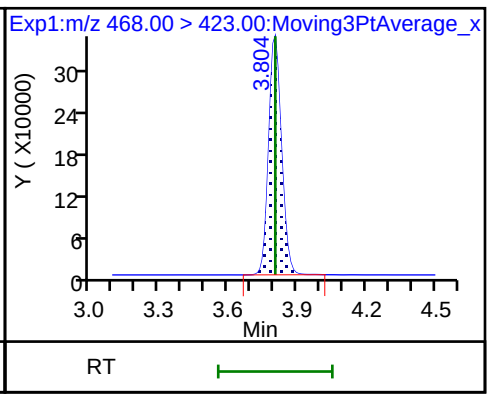

17 Perfluorooctanesulfonic acid (M)



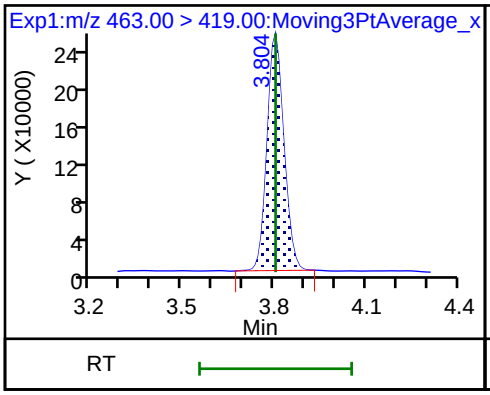

17 Perfluorooctanesulfonic acid (M)



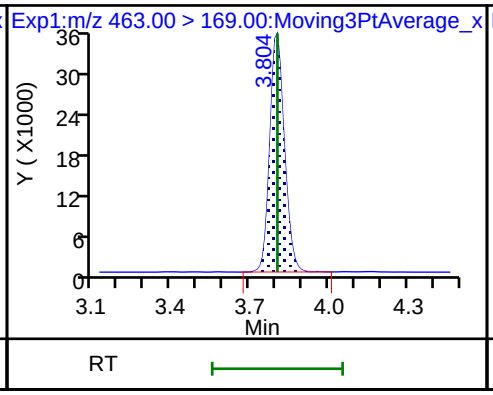

D 19 13C5 PFNA



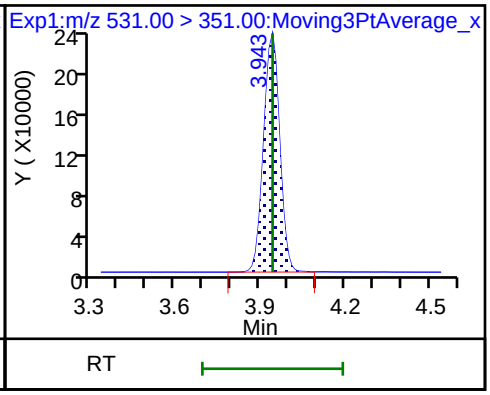
20 Perfluorononanoic acid



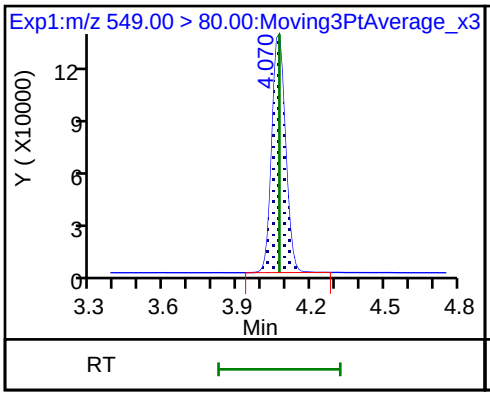

20 Perfluorononanoic acid



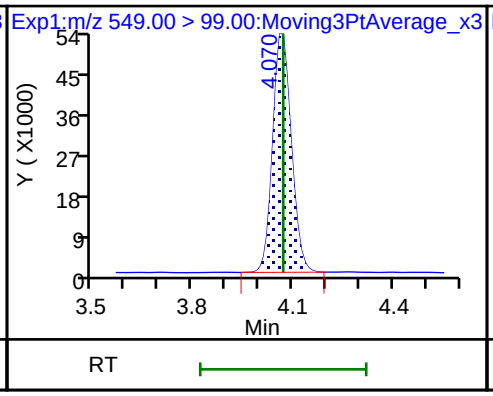

69 9-Chlorohexadecafluoro-3-oxanona (M)



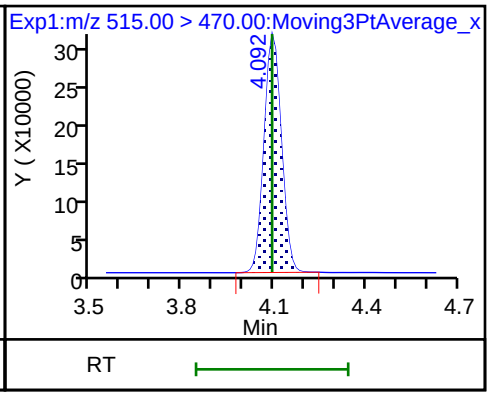

68 Perfluorononanesulfonic acid



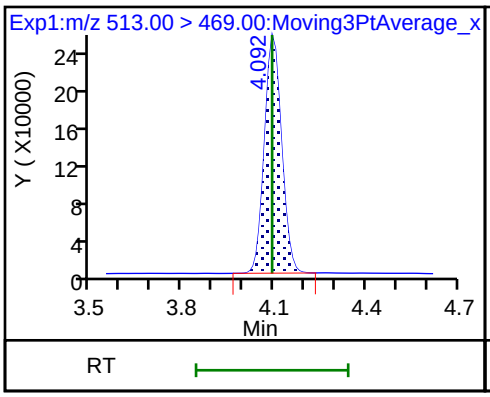

68 Perfluorononanesulfonic acid



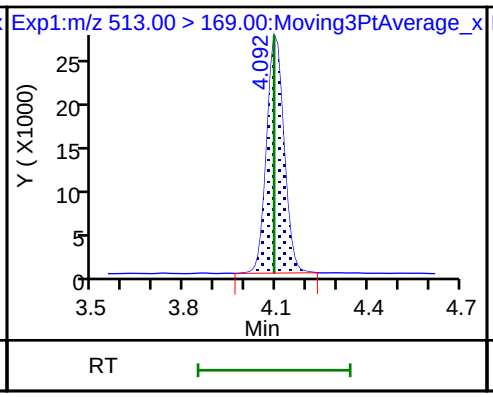

D 23 13C2 PFDA



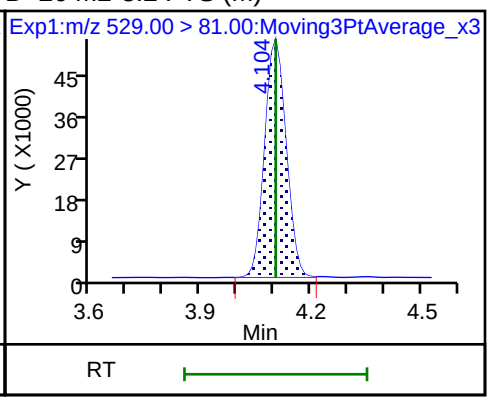

24 Perfluorodecanoic acid



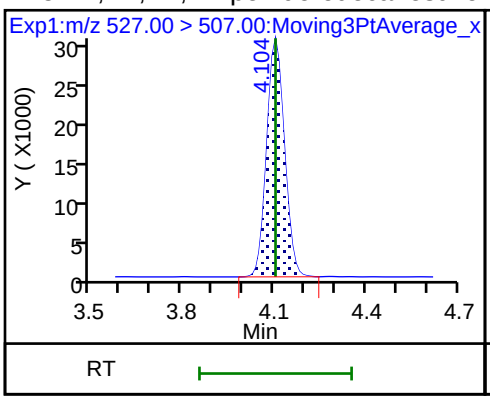

24 Perfluorodecanoic acid



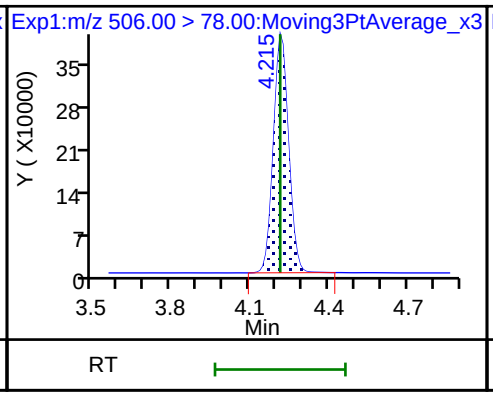

D 26 M2-8:2 FTS (M)



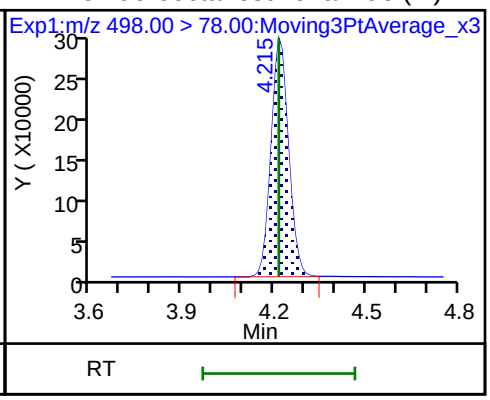

25 1H,1H,2H,2H-perfluorodecanesulfo



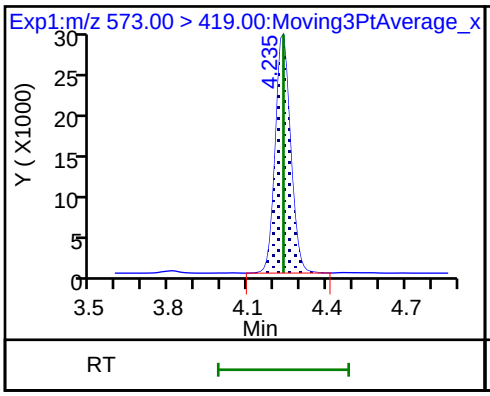

D 21 13C8 FOSA



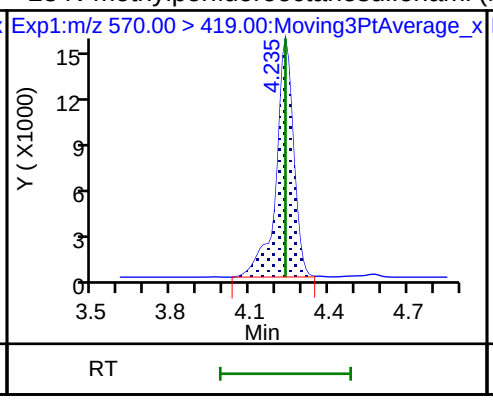

22 Perfluorooctanesulfonamide (M)



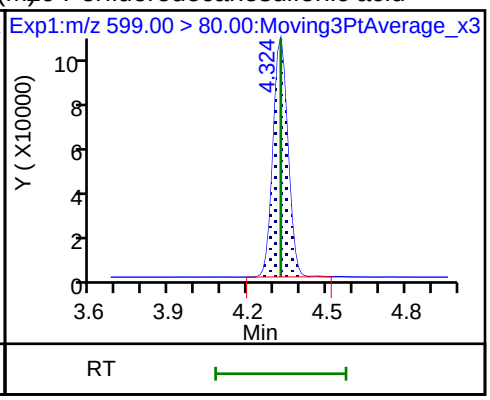
D 27 d3-NMeFOSAA



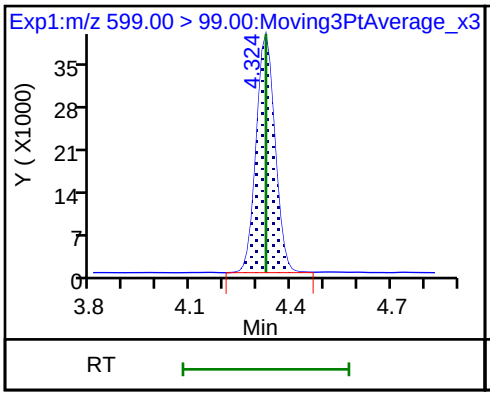

28 N-methylperfluorooctanesulfonami (M)



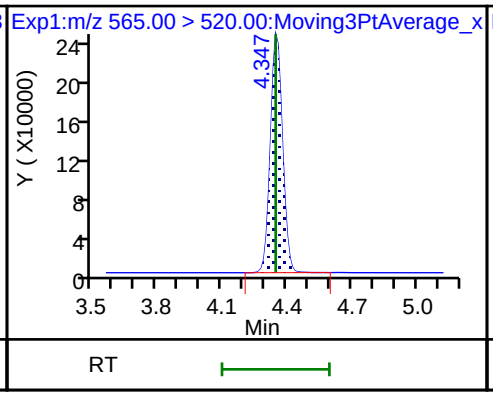

29 Perfluorodecanesulfonic acid



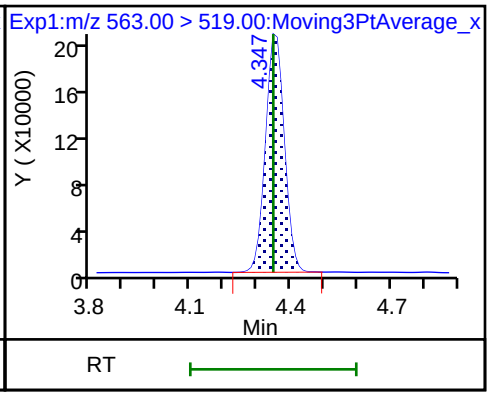

29 Perfluorodecanesulfonic acid



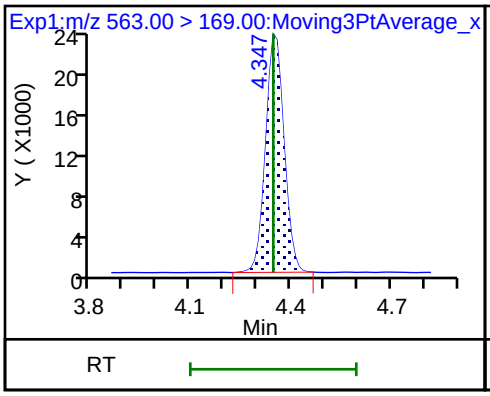

D 30 13C2 PFUnA



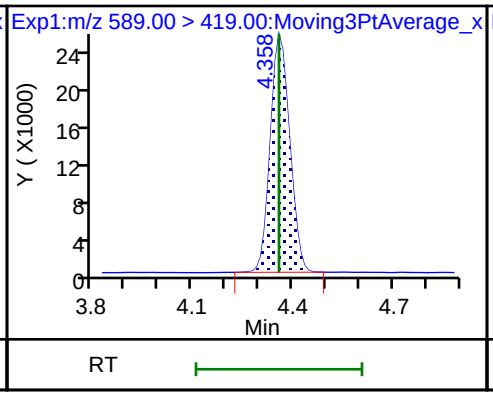

31 Perfluoroundecanoic acid



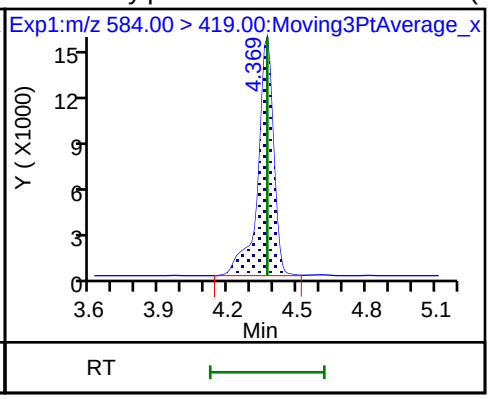

31 Perfluoroundecanoic acid



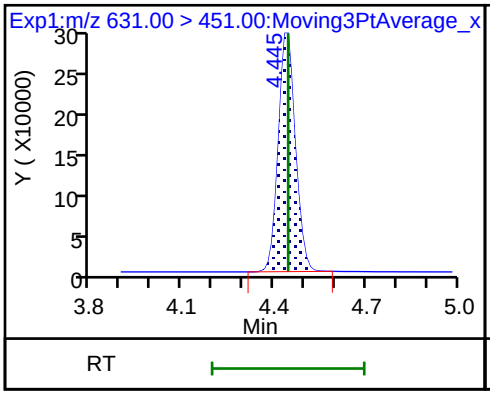

D 32 d5-NEtFOSAA



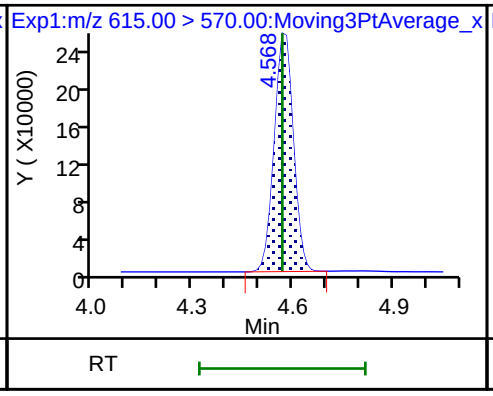

33 N-ethylperfluorooctanesulfonamid (M)



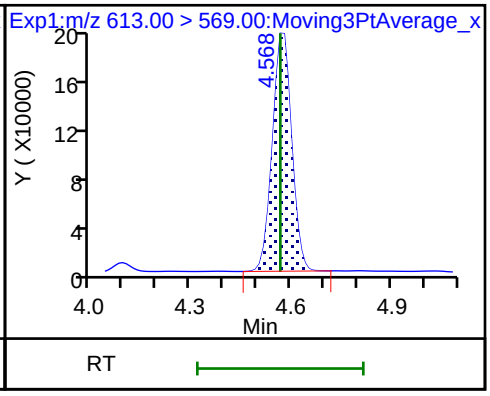

66 11-Chloroeicosafluoro-3-oxaundec



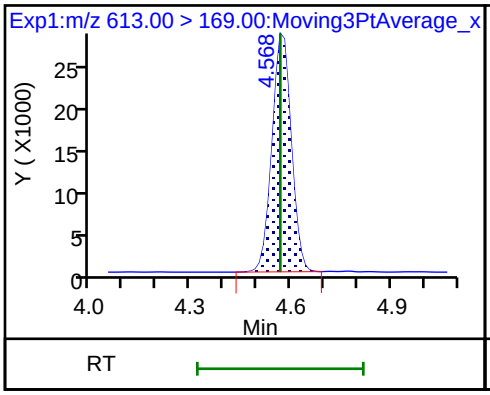

D 36 13C2 PFDoA



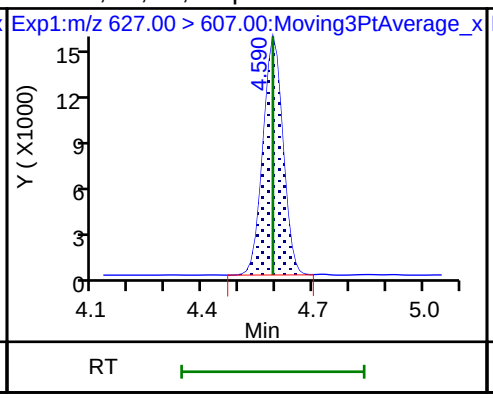

37 Perfluorododecanoic acid



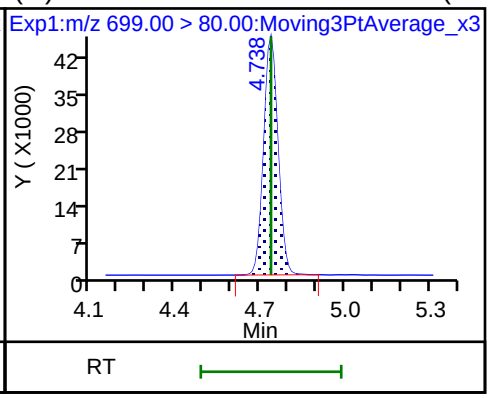
37 Perfluorododecanoic acid



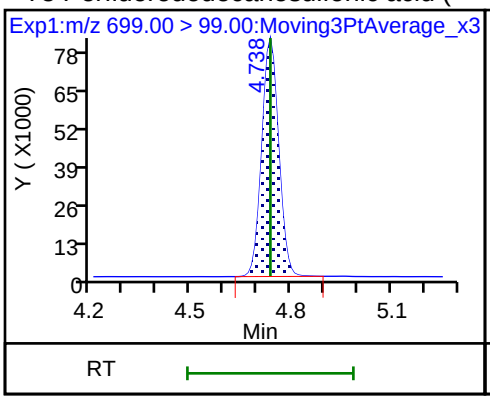

74 1H,1H,2H,2H-perfluorododecanesul (M)



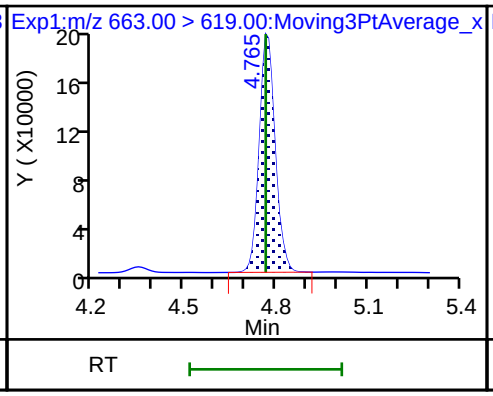

75 Perfluorododecanesulfonic acid (



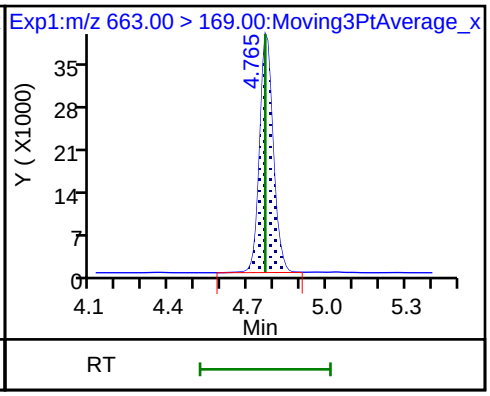

75 Perfluorododecanesulfonic acid (



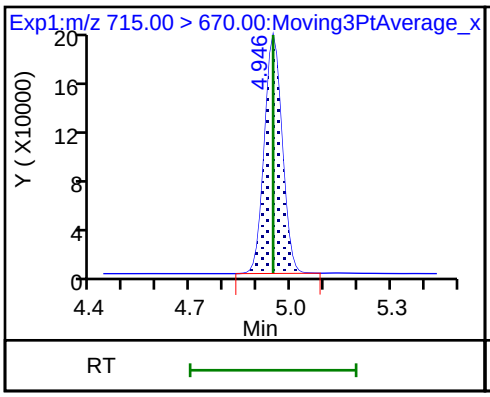

41 Perfluorotridecanoic acid



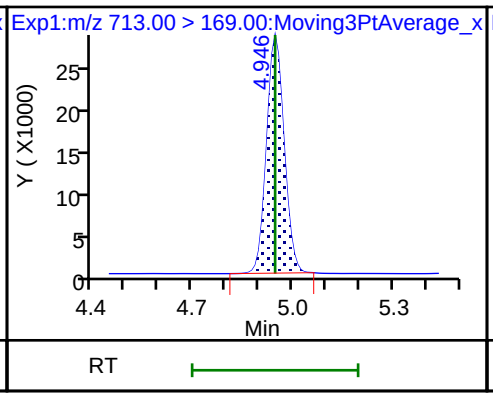

41 Perfluorotridecanoic acid



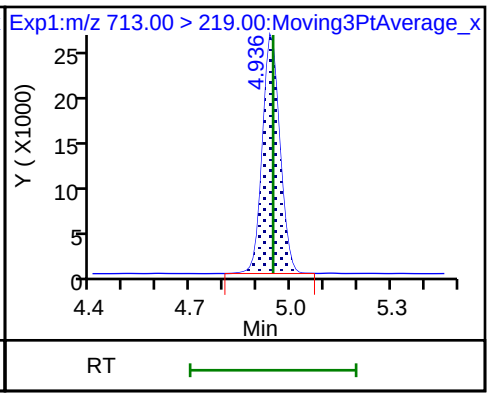

D 43 13C2 PFTeDA



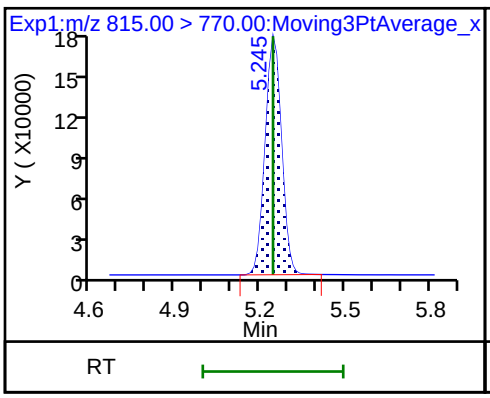

42 Perfluorotetradecanoic acid



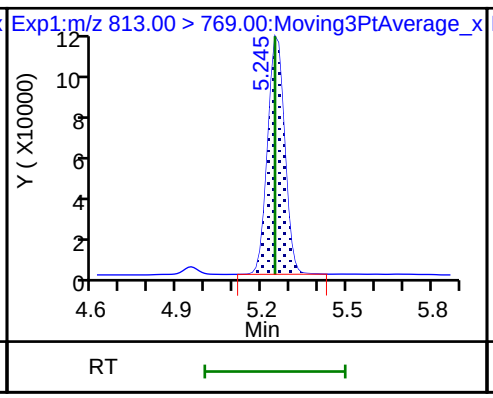

42 Perfluorotetradecanoic acid



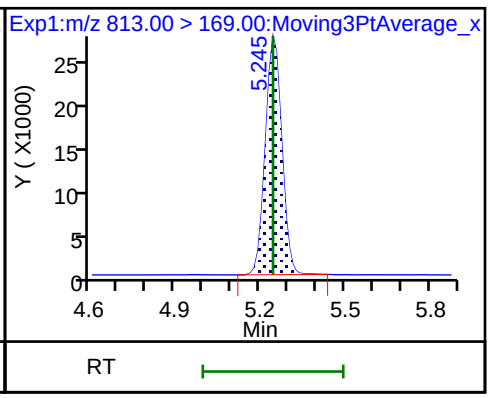

D 44 13C2 PFHxDA



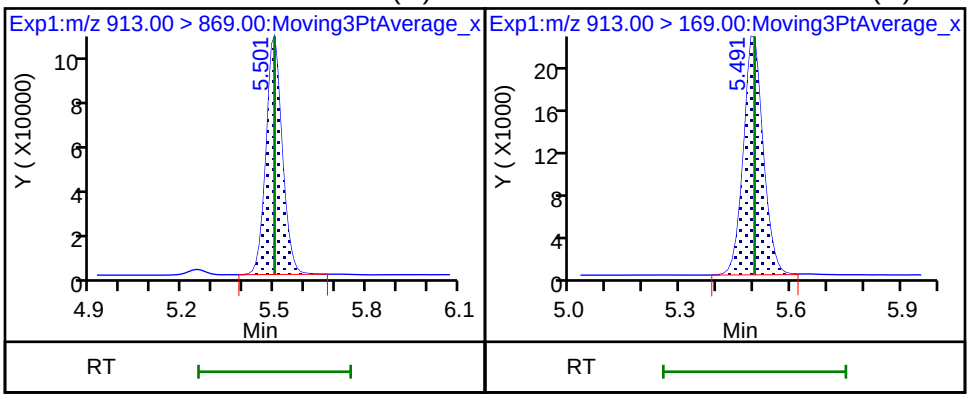

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

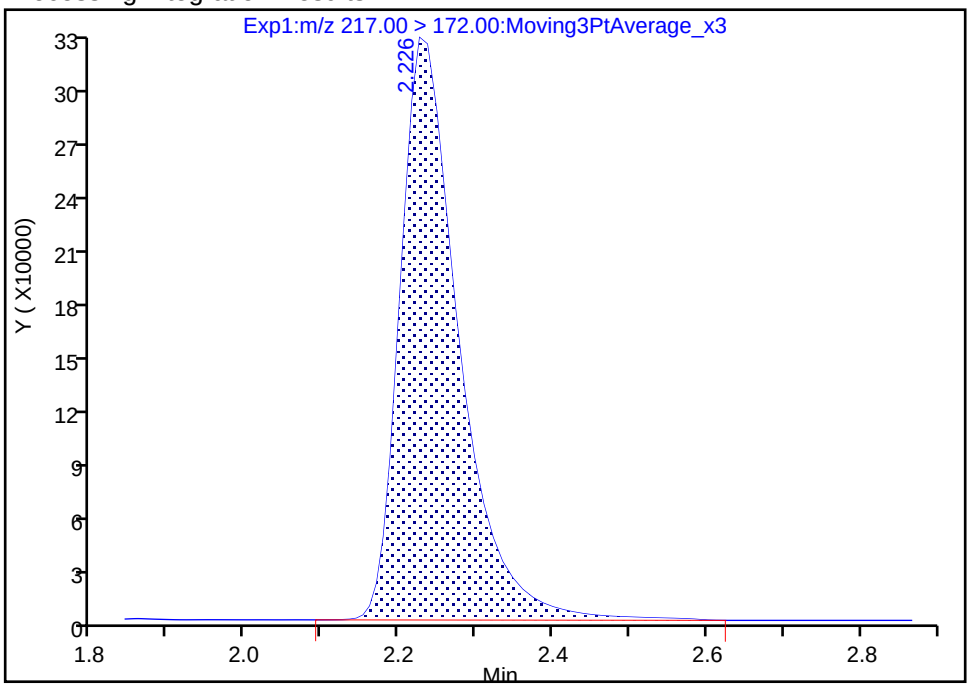
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

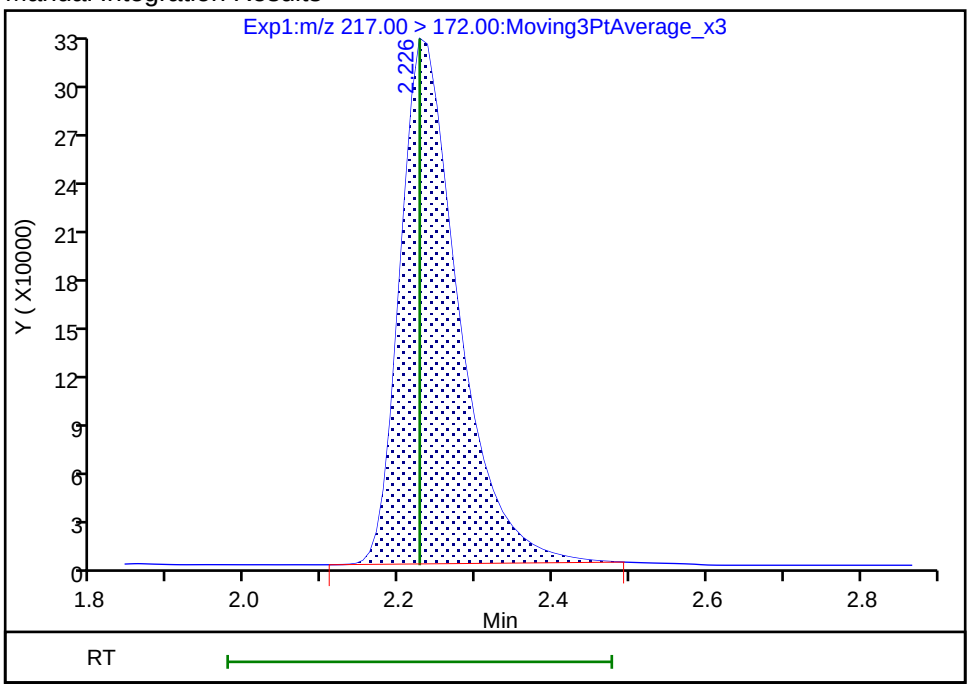
Processing Integration Results

RT: 2.23
Area: 1714331
Amount: 1.683427
Amount Units: ng/ml




Manual Integration Results

RT: 2.23
Area: 1685348
Amount: 1.654967
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:55:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

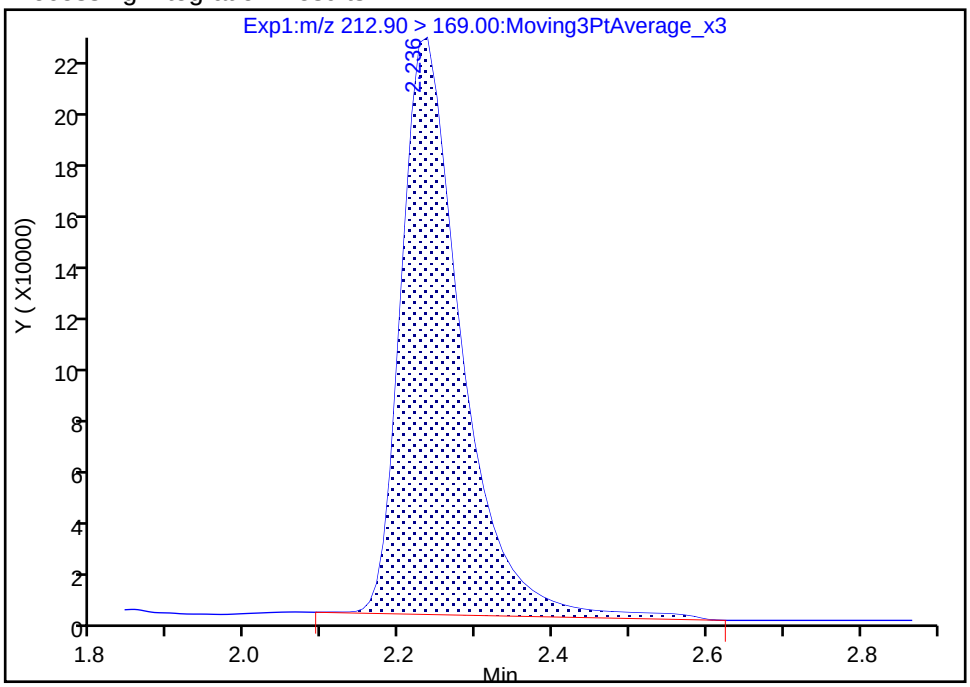
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

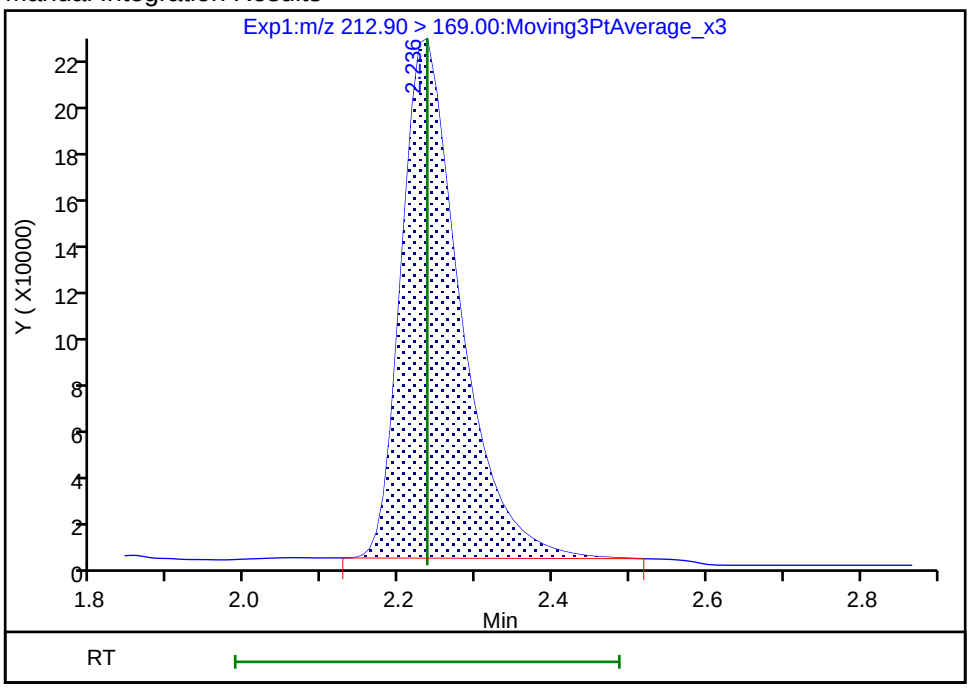
Processing Integration Results

RT: 2.24
Area: 1208145
Amount: 0.931635
Amount Units: ng/ml




Manual Integration Results

RT: 2.24
Area: 1171712
Amount: 0.919079
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:36:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

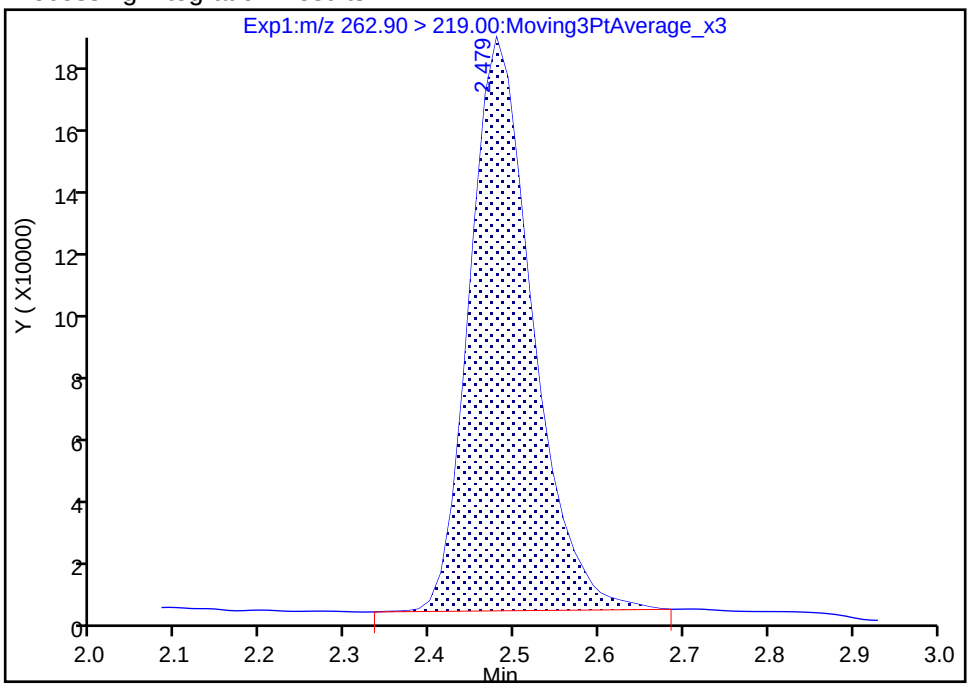
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

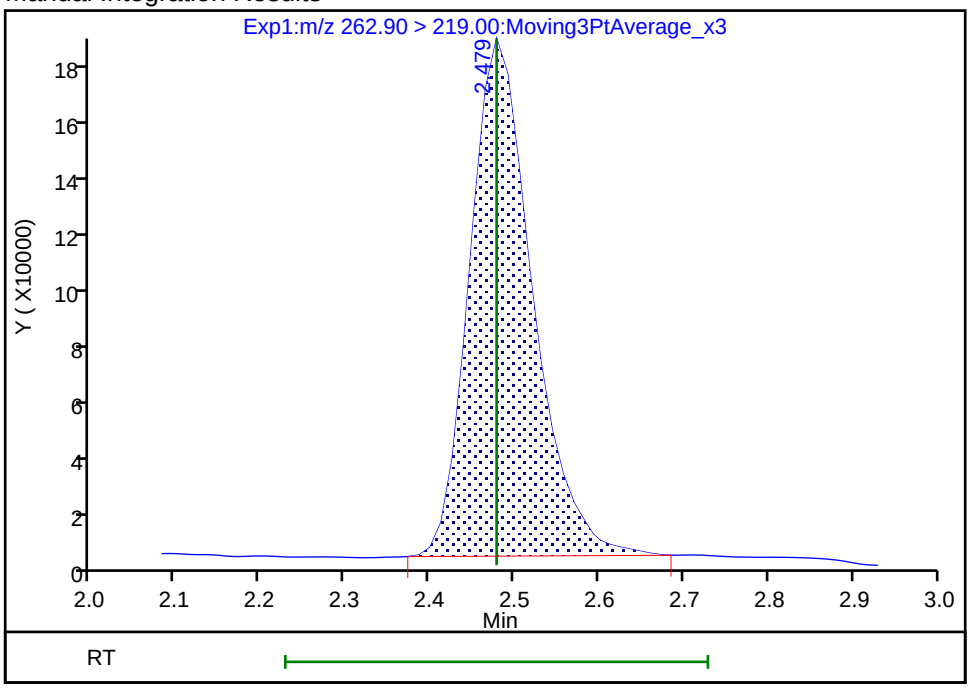
Processing Integration Results

RT: 2.48
Area: 963557
Amount: 0.999096
Amount Units: ng/ml




Manual Integration Results

RT: 2.48
Area: 960740
Amount: 0.996175
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:37:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

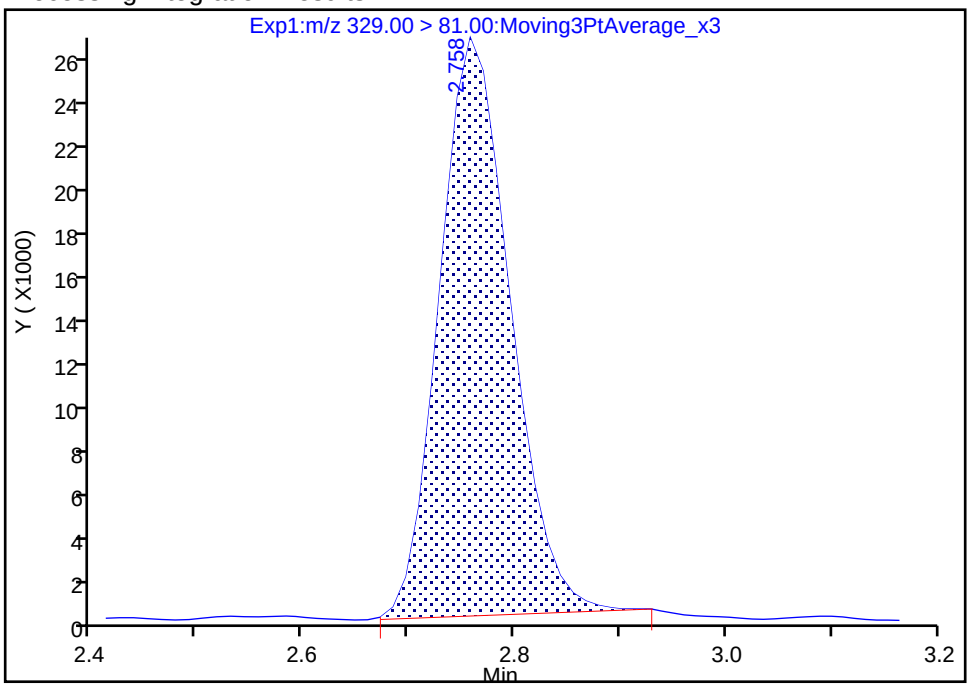
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

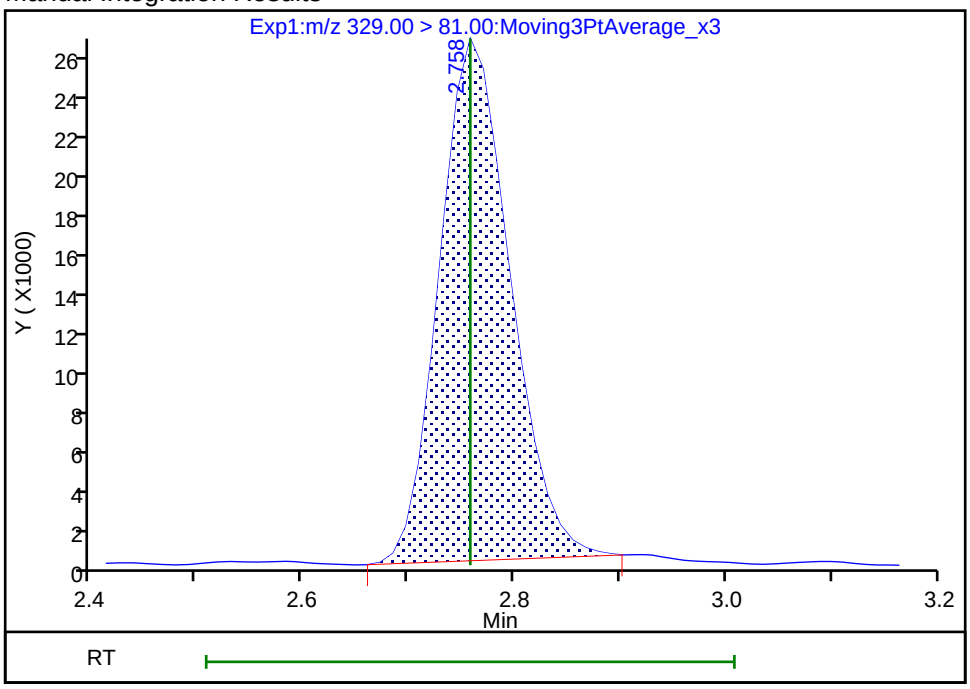
Processing Integration Results

RT: 2.76
Area: 119797
Amount: 1.354129
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 119330
Amount: 1.348850
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:36:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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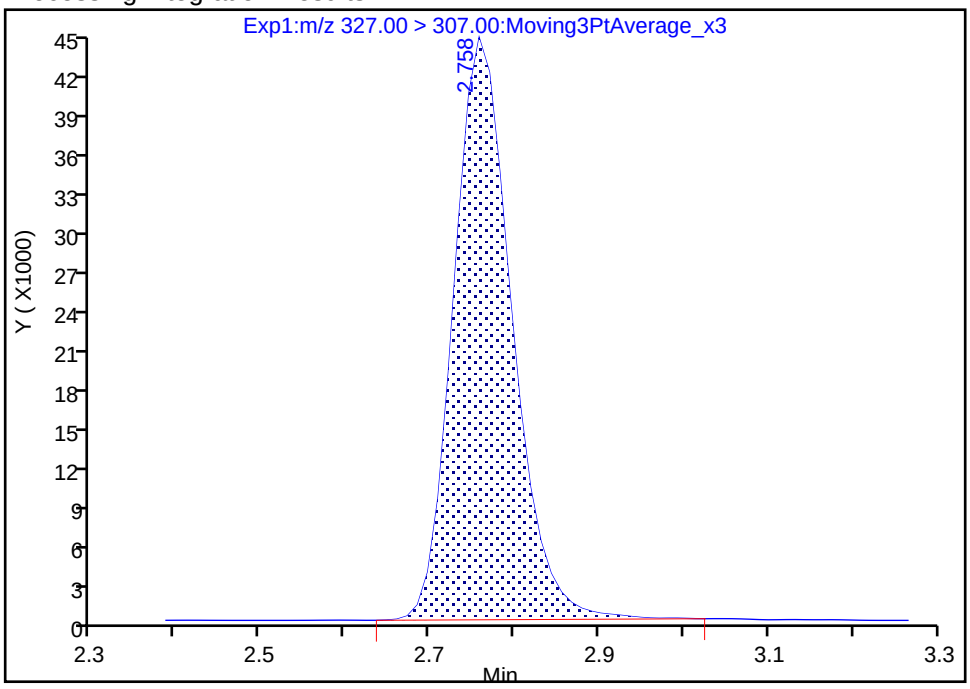
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 61 1H,1H,2H,2H-perfluorohexanesulfo, CAS: 757124-72-4

Signal: 1

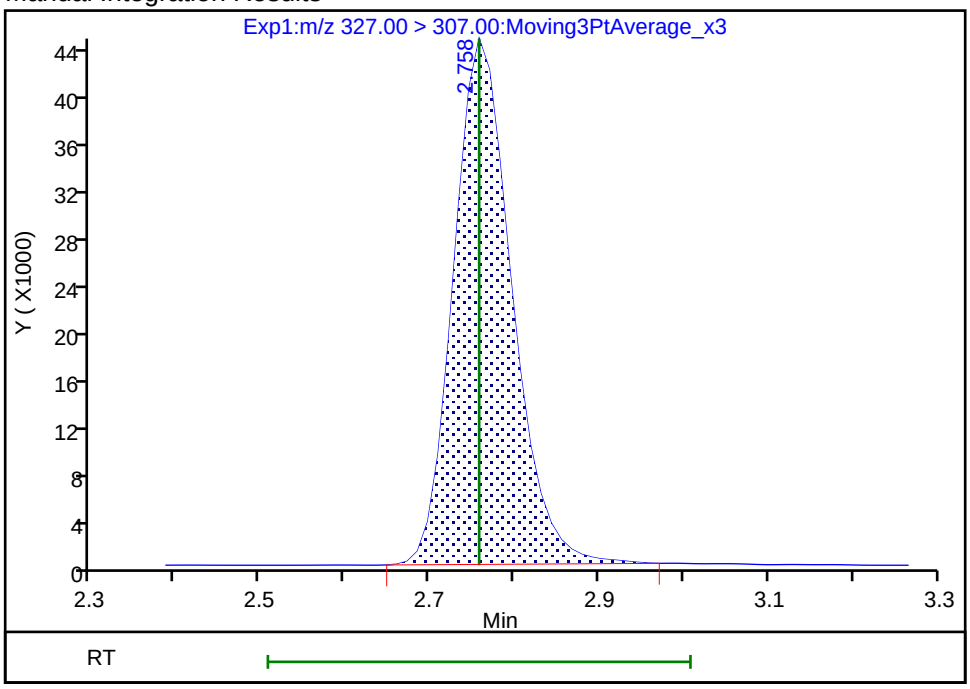
Processing Integration Results

RT: 2.76
Area: 211630
Amount: 0.972778
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 210884
Amount: 0.969349
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:37:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

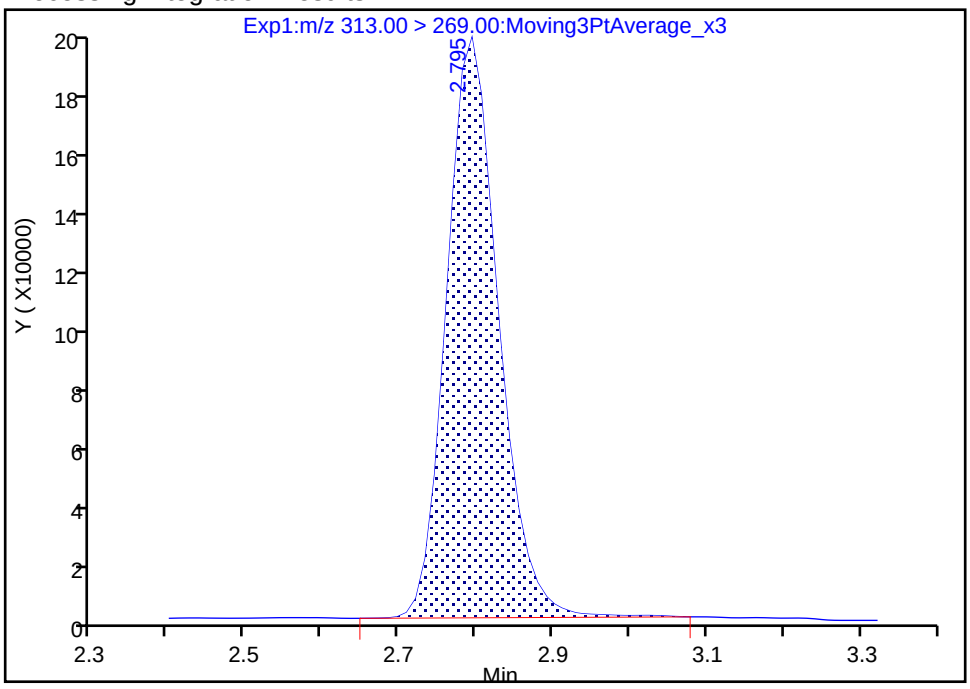
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

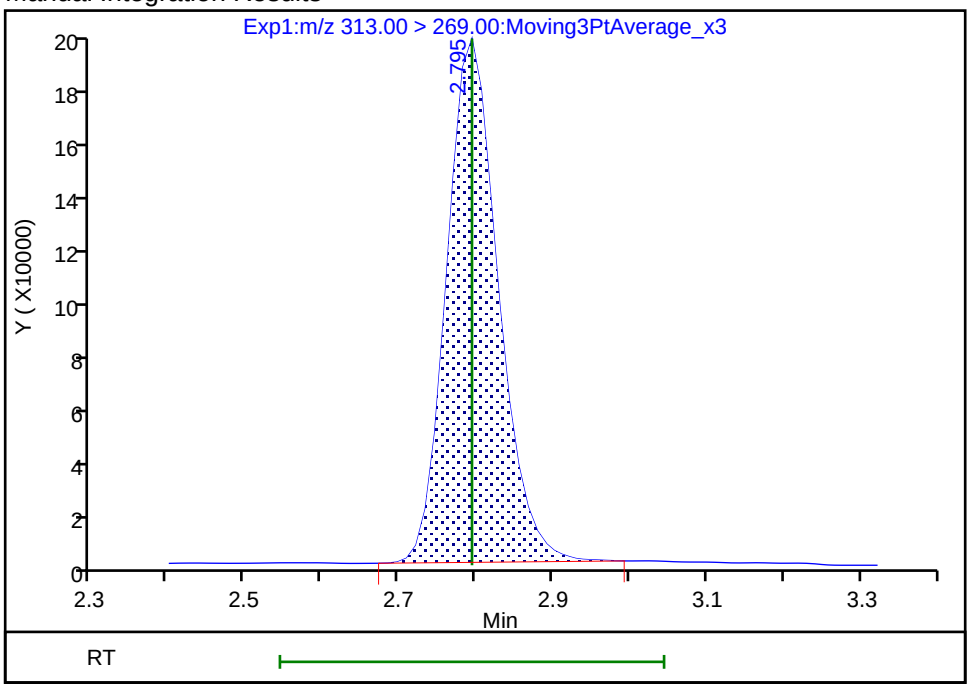
Processing Integration Results

RT: 2.79
Area: 928587
Amount: 0.947732
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 921520
Amount: 0.940520
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:37:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

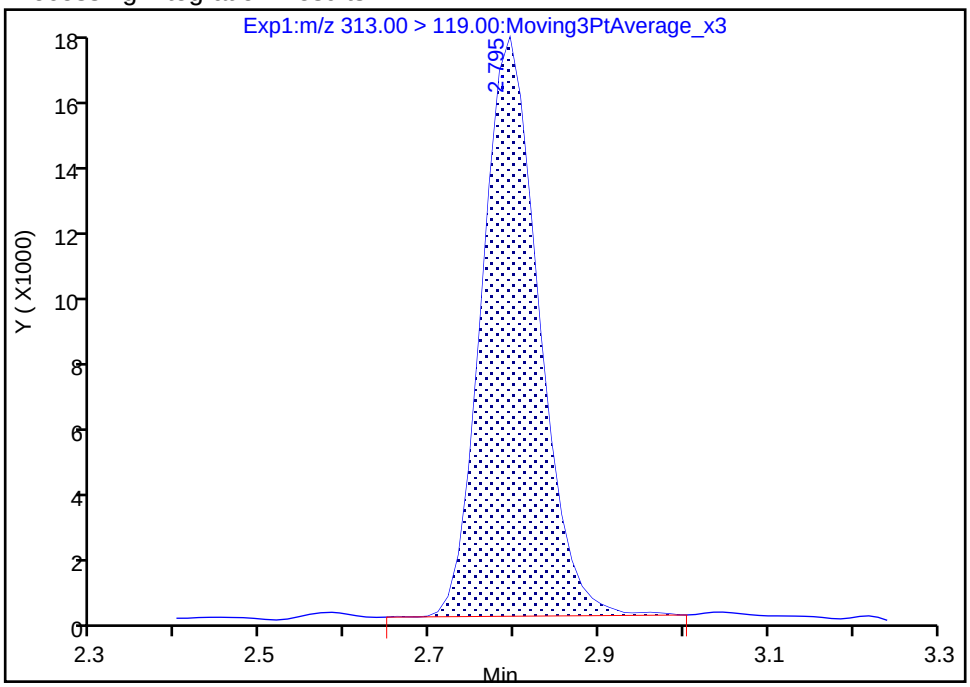
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

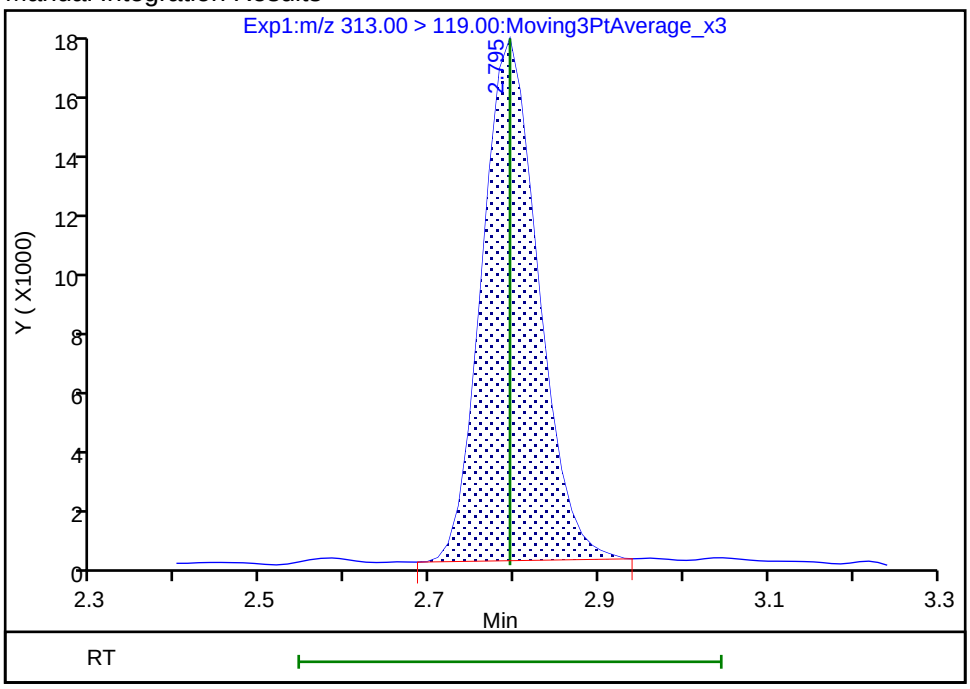
Processing Integration Results

RT: 2.79
Area: 78175
Amount: 0.947732
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 77505
Amount: 0.940520
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:37:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

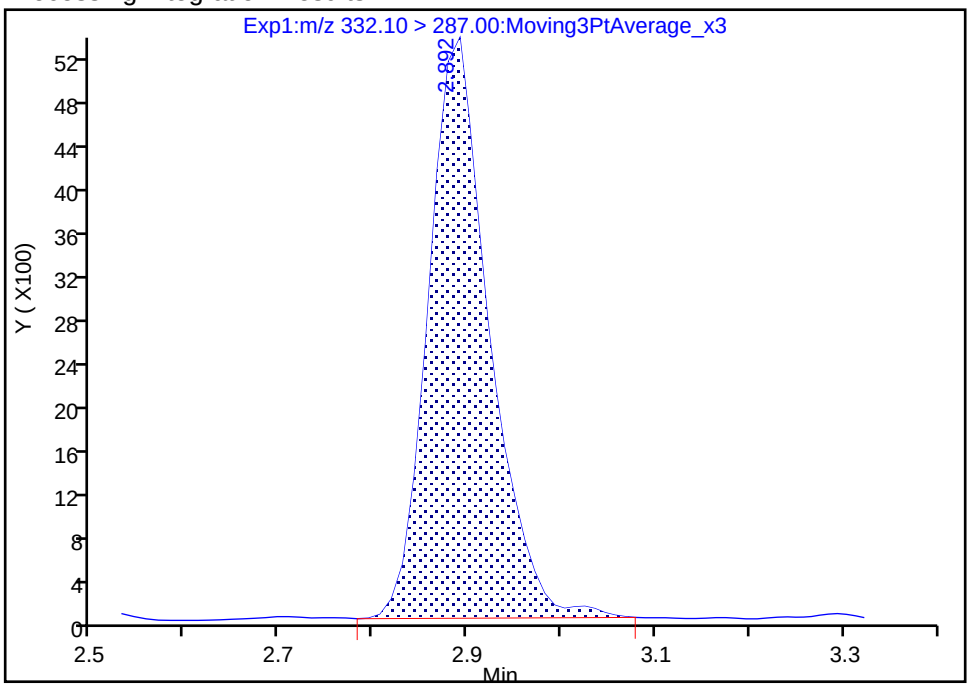
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

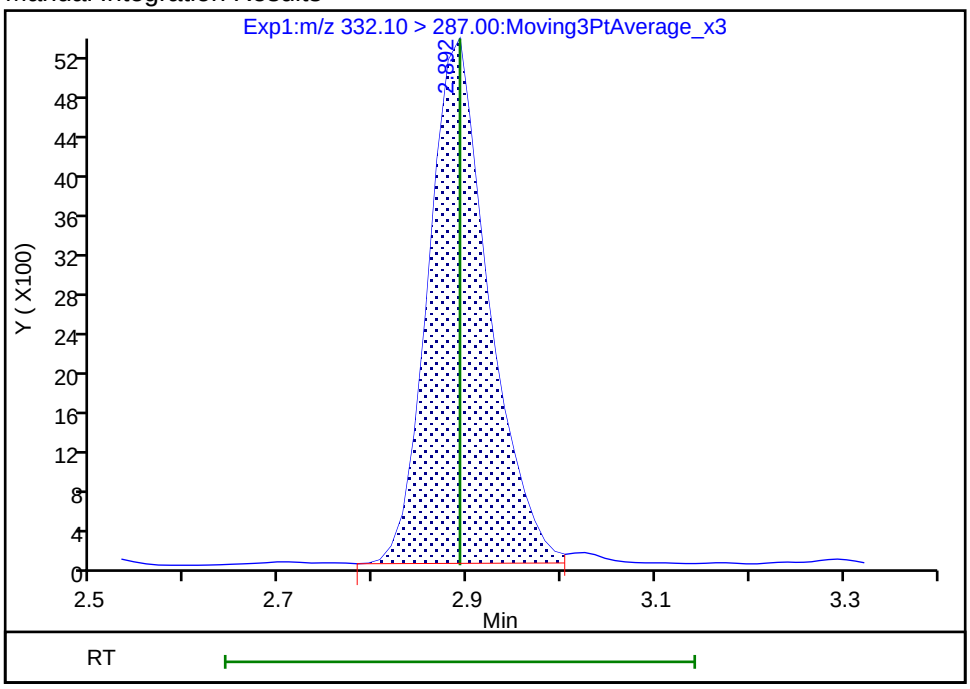
Processing Integration Results

RT: 2.89
Area: 23789
Amount: 1.003358
Amount Units: ng/ml




Manual Integration Results

RT: 2.89
Area: 23538
Amount: 0.992772
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:36:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

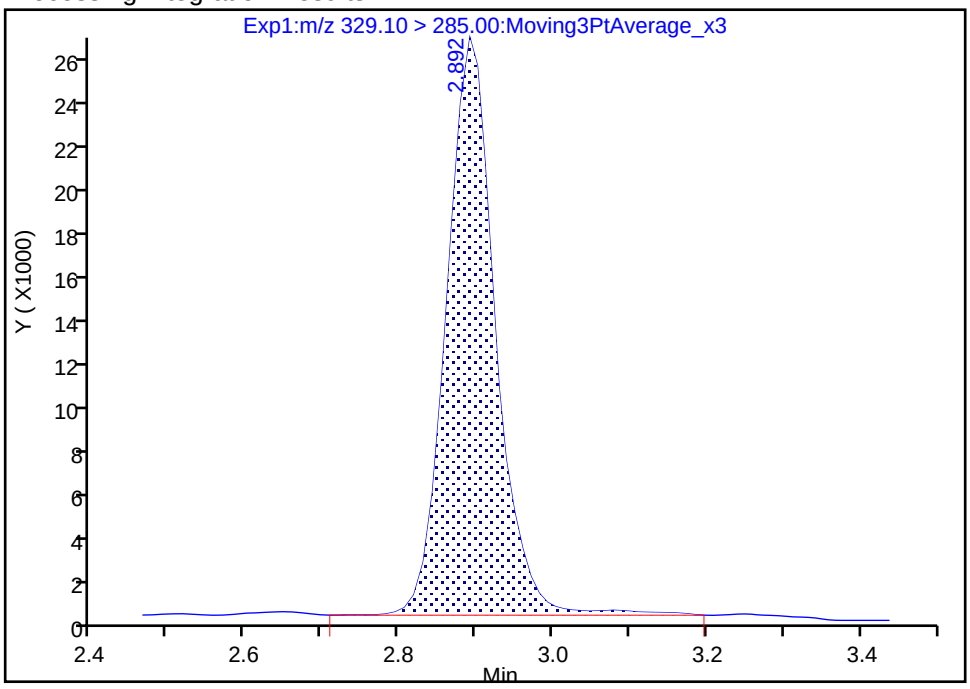
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

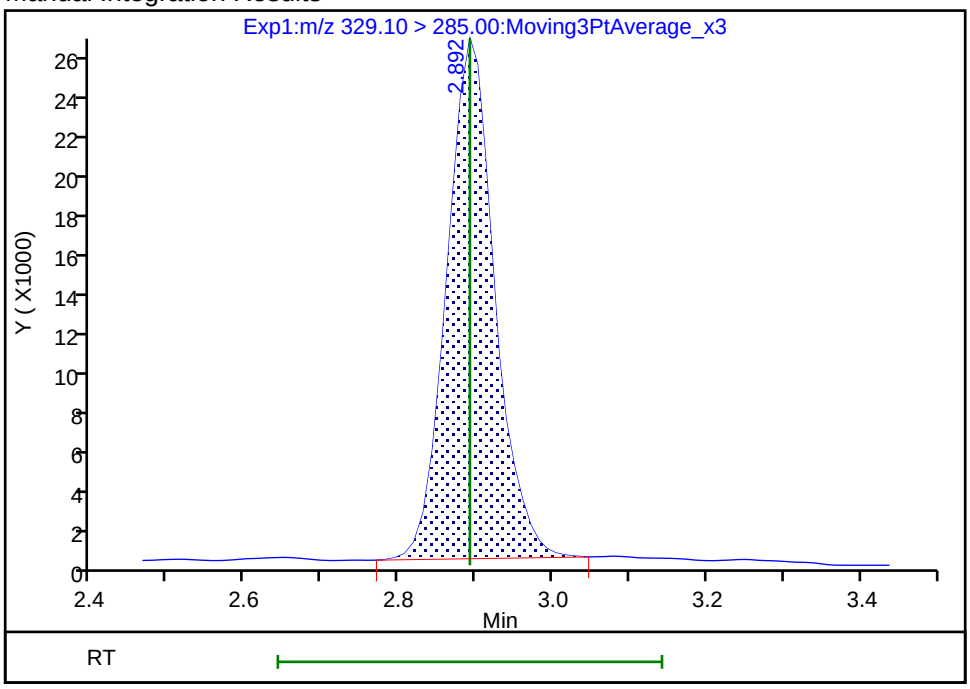
Processing Integration Results

RT: 2.89
Area: 116540
Amount: 1.367683
Amount Units: ng/ml




Manual Integration Results

RT: 2.89
Area: 113612
Amount: 1.333321
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:37:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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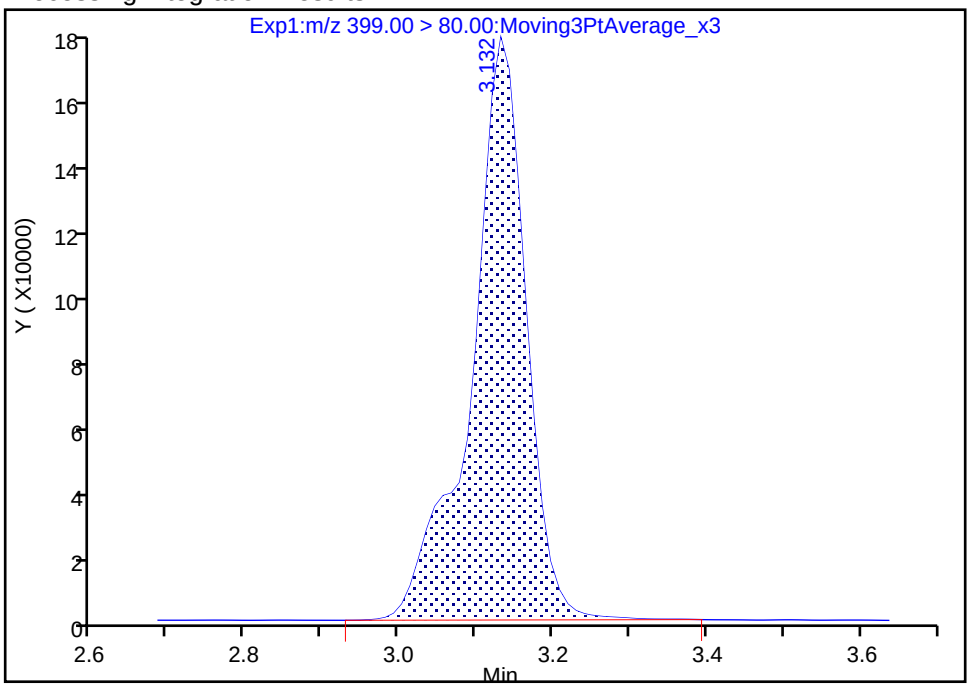
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

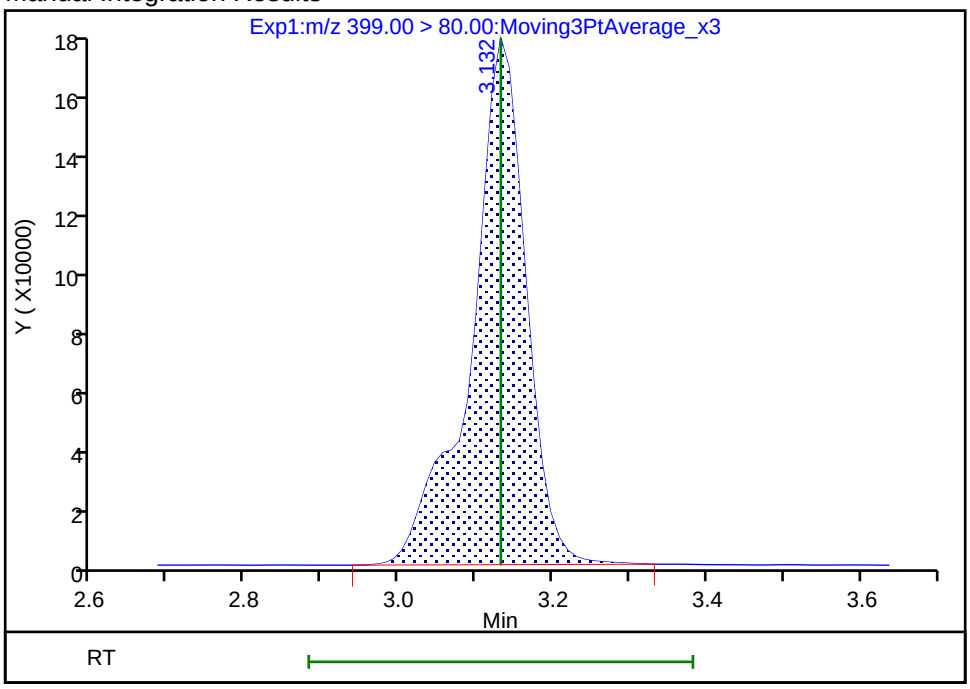
Processing Integration Results

RT: 3.13
Area: 870235
Amount: 0.864902
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 867988
Amount: 0.862669
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:38:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

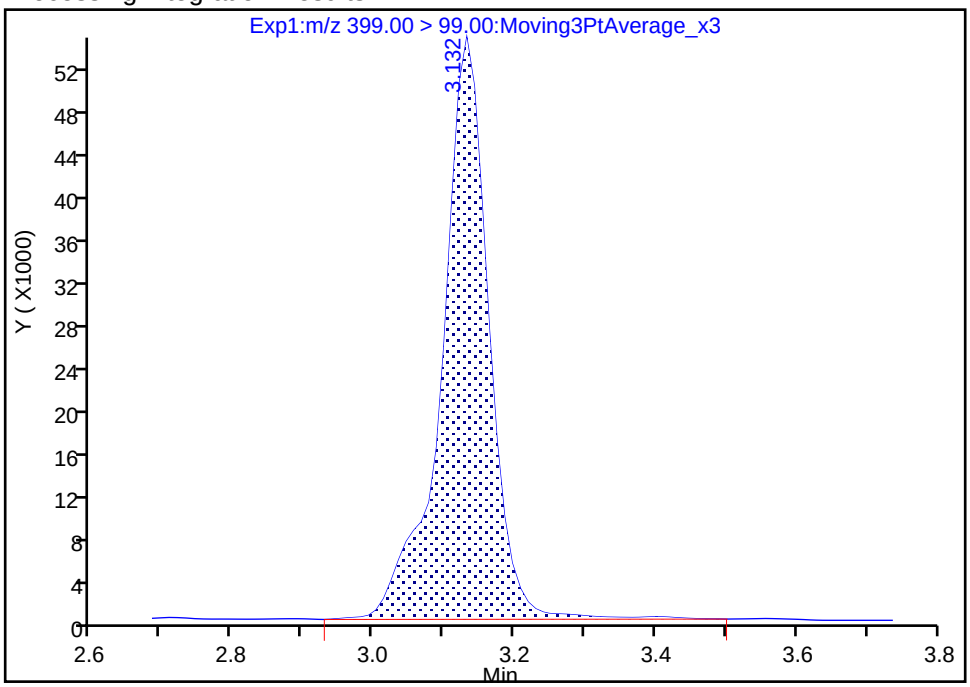
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

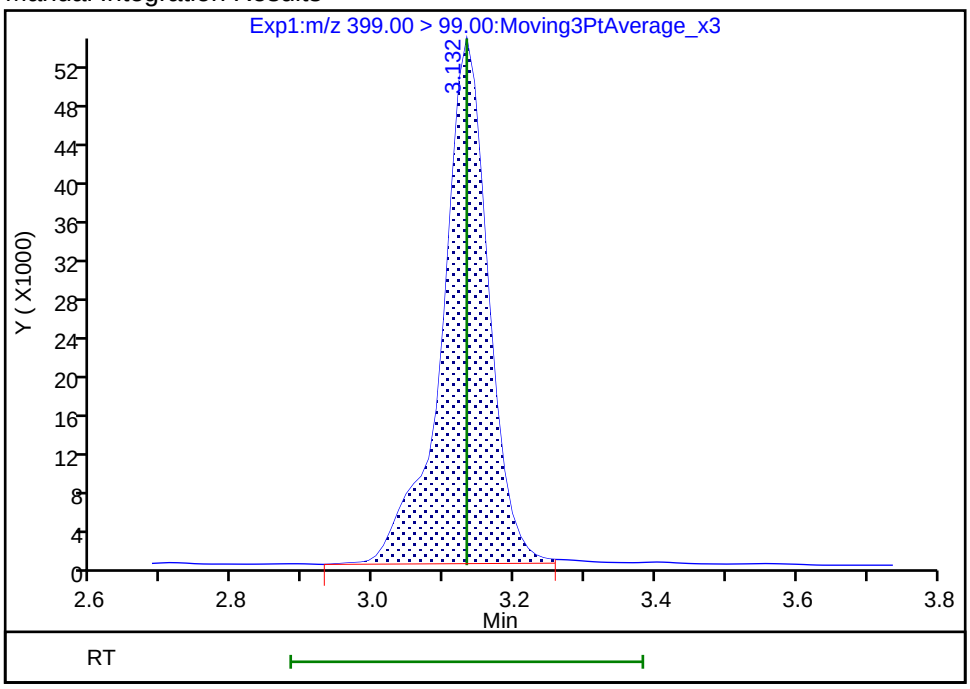
Processing Integration Results

RT: 3.13
Area: 252322
Amount: 0.864902
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 248462
Amount: 0.862669
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:38:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

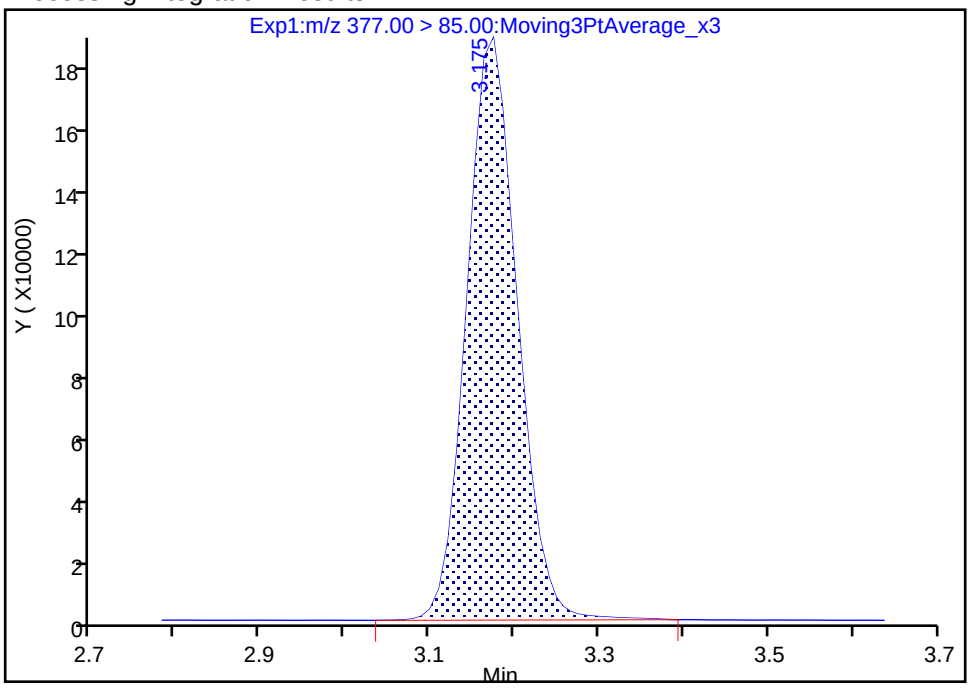
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

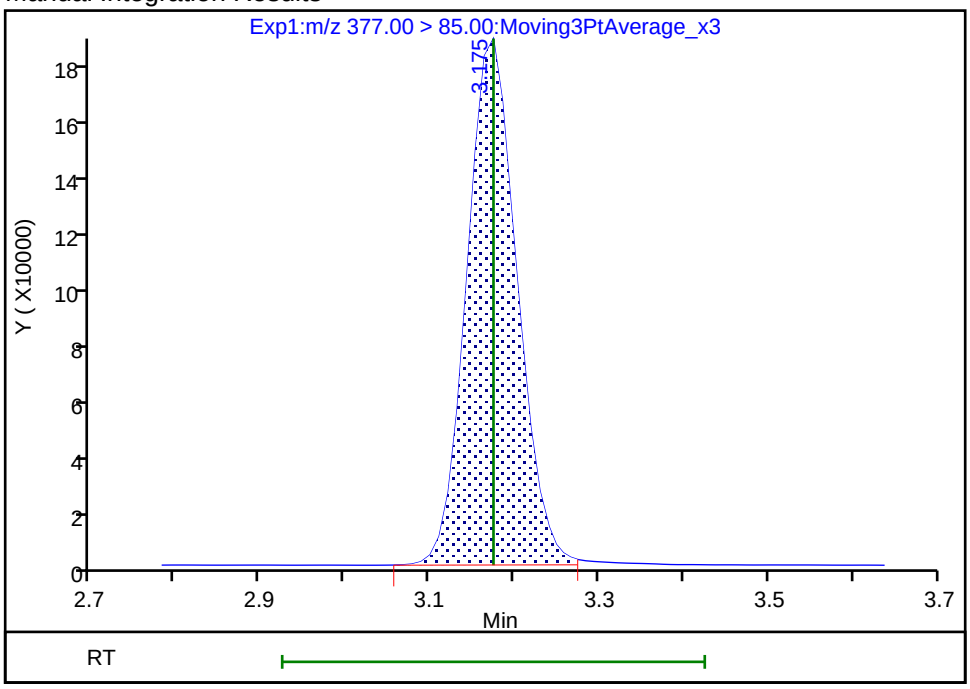
Processing Integration Results

RT: 3.17
Area: 786037
Amount: 0.904168
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 781232
Amount: 0.899148
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:38:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

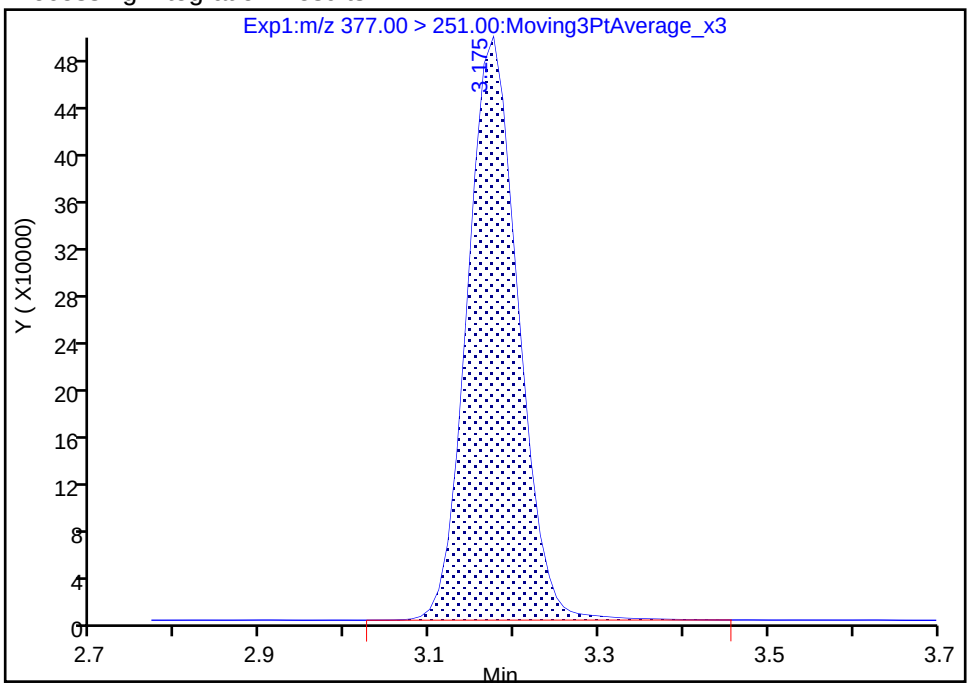
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

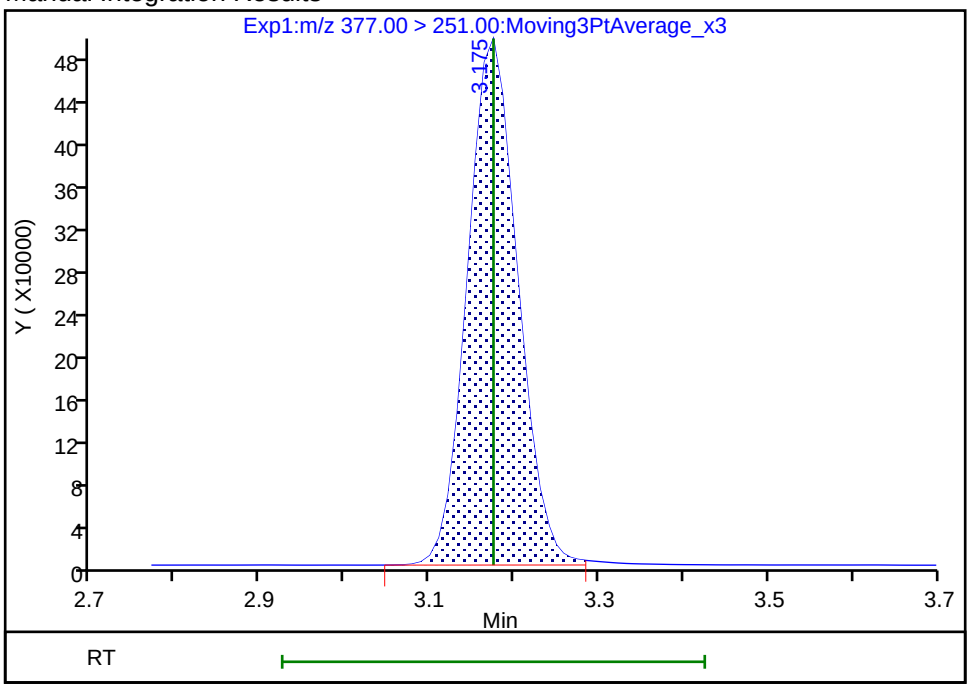
Processing Integration Results

RT: 3.17
Area: 2050662
Amount: 0.904168
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 2039275
Amount: 0.899148
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:38:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

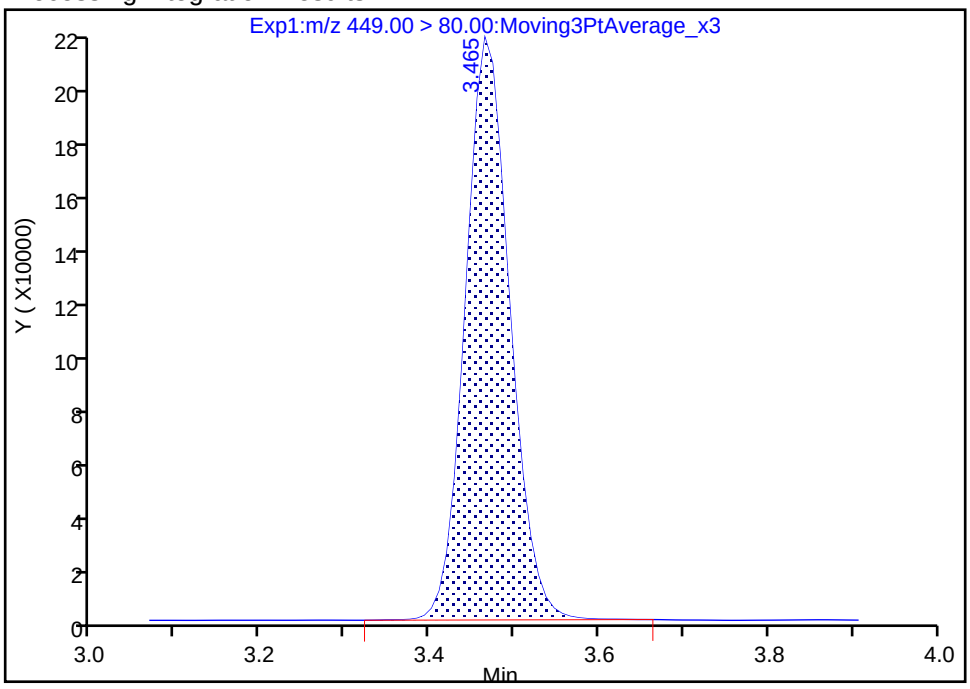
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

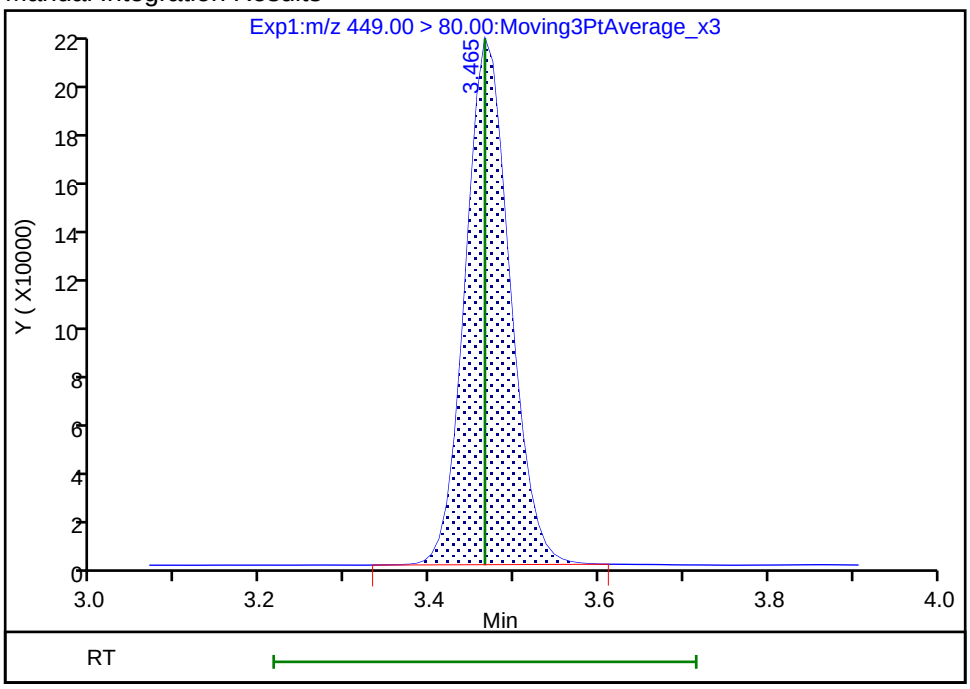
Processing Integration Results

RT: 3.46
Area: 769792
Amount: 0.952922
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 768186
Amount: 0.950934
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:39:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

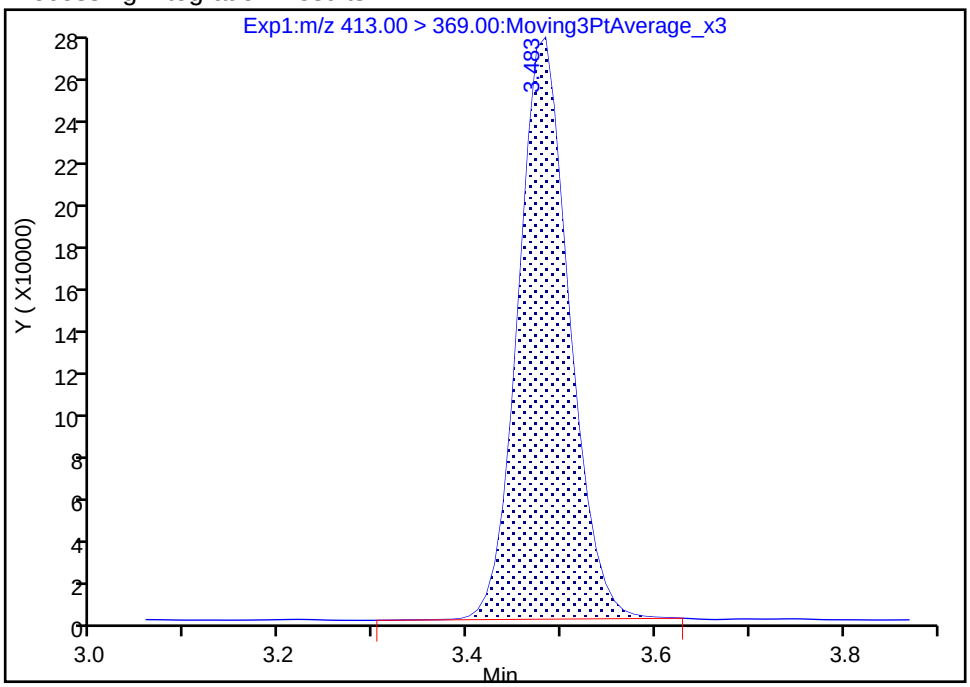
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

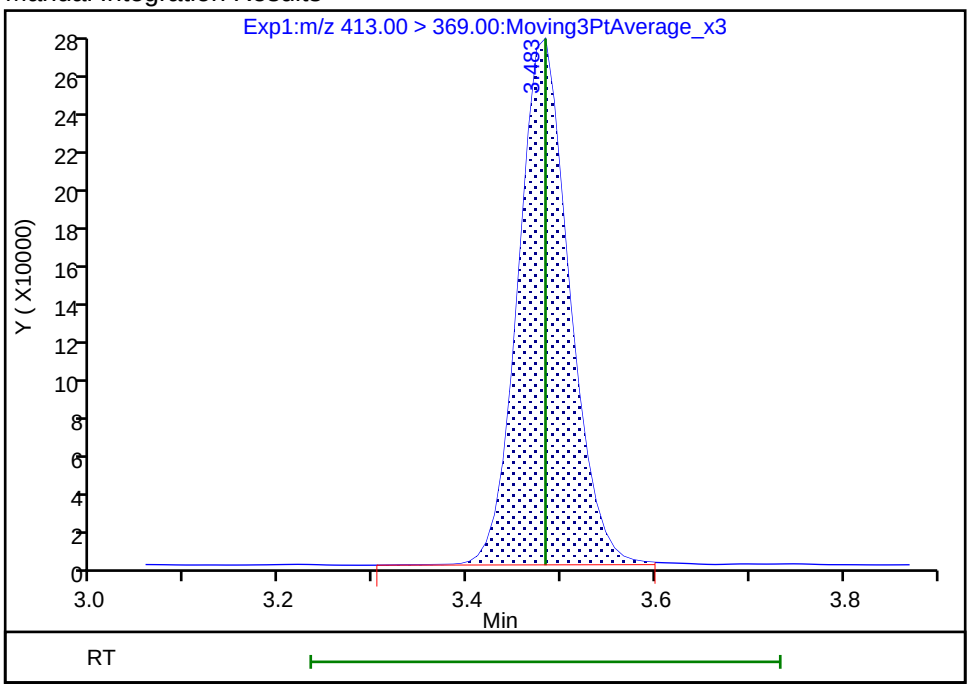
Processing Integration Results

RT: 3.48
Area: 1042160
Amount: 0.958030
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1047004
Amount: 0.962483
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:39:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

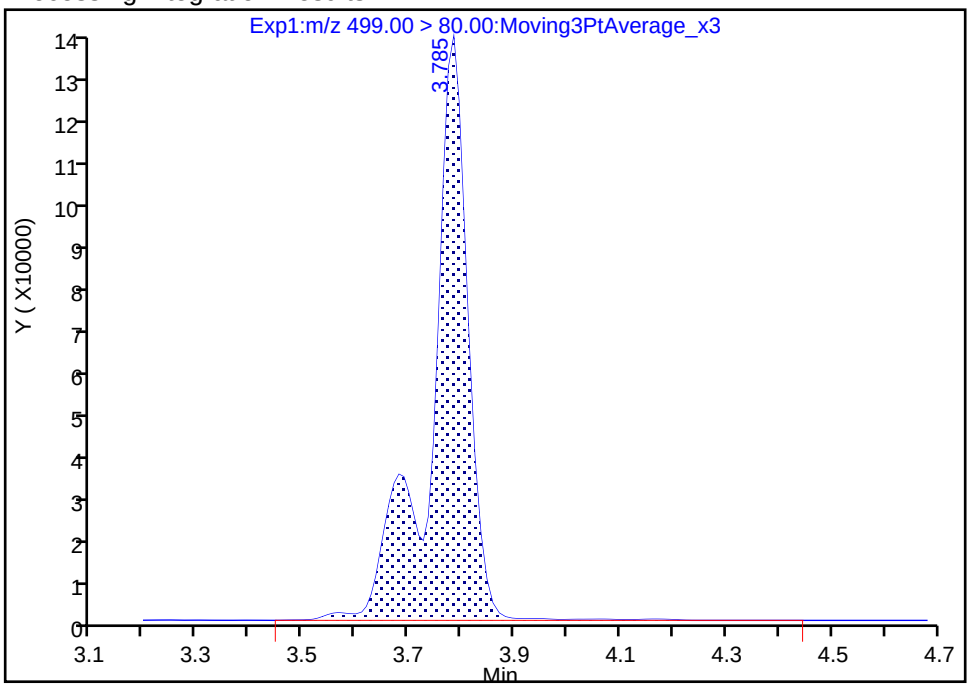
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

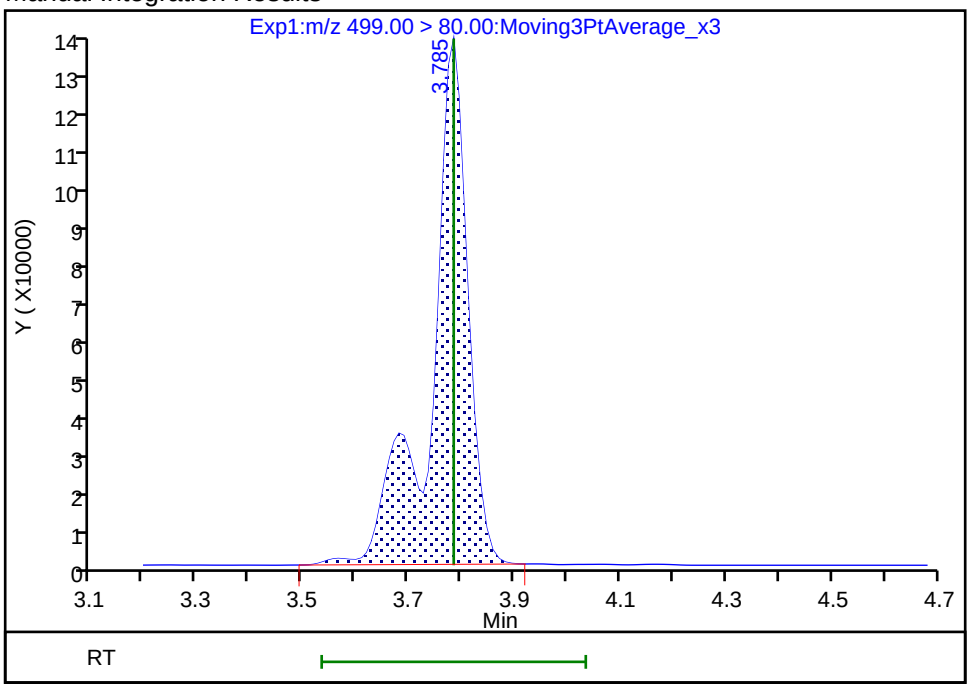
Processing Integration Results

RT: 3.78
Area: 641640
Amount: 0.912553
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 633357
Amount: 0.900773
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:39:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

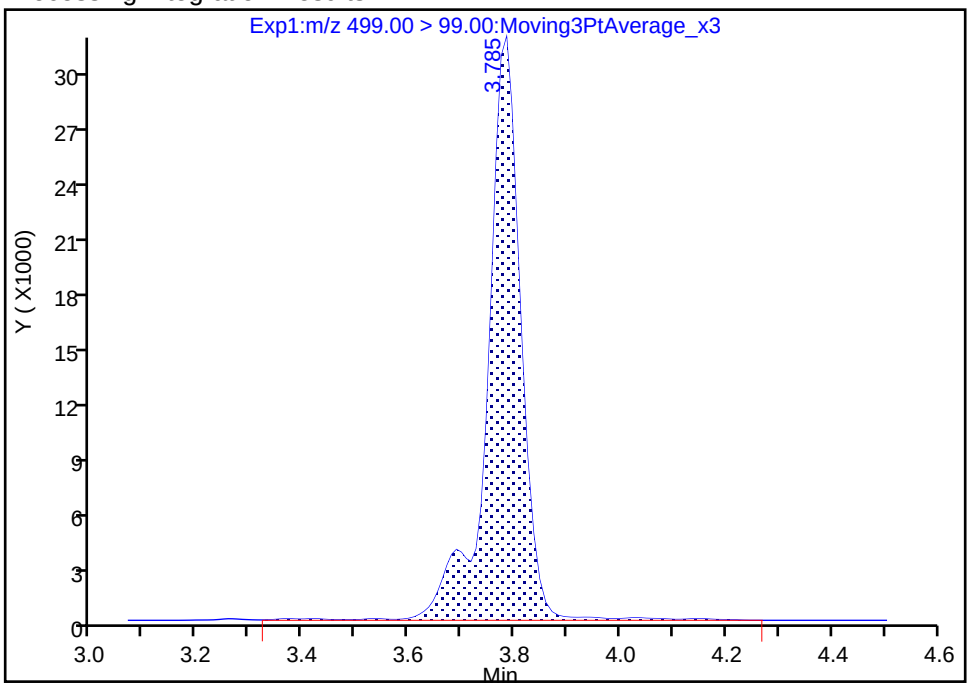
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

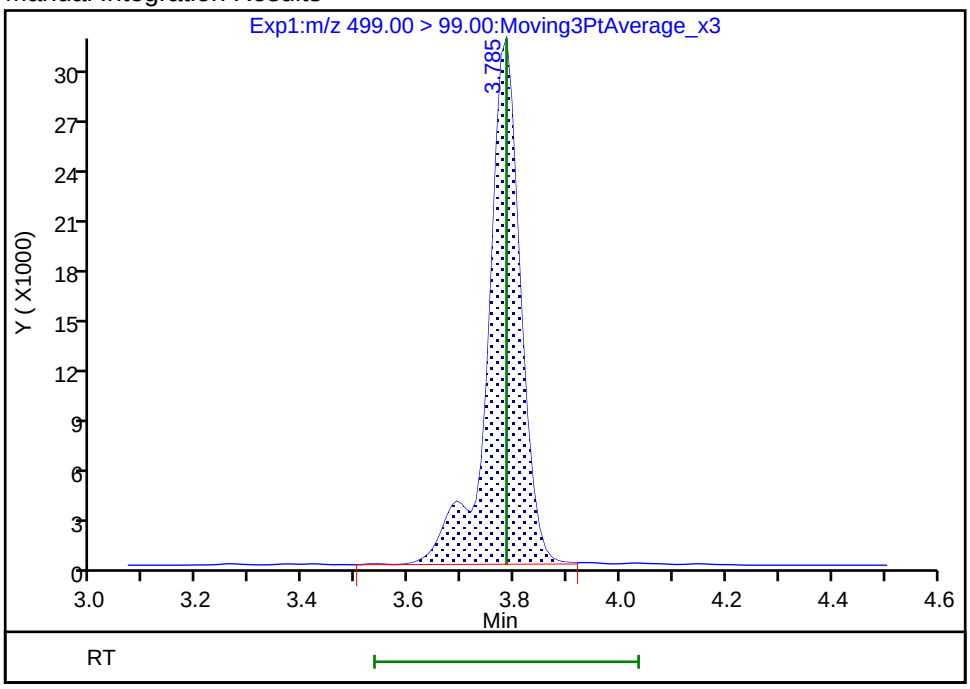
Processing Integration Results

RT: 3.78
Area: 138199
Amount: 0.912553
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 134901
Amount: 0.900773
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:39:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

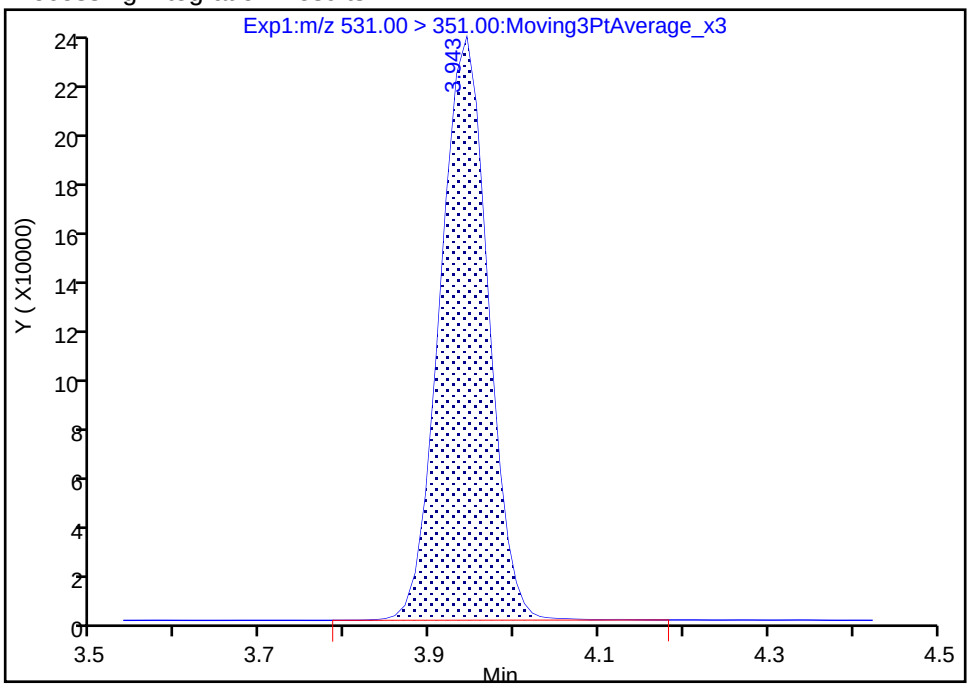
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

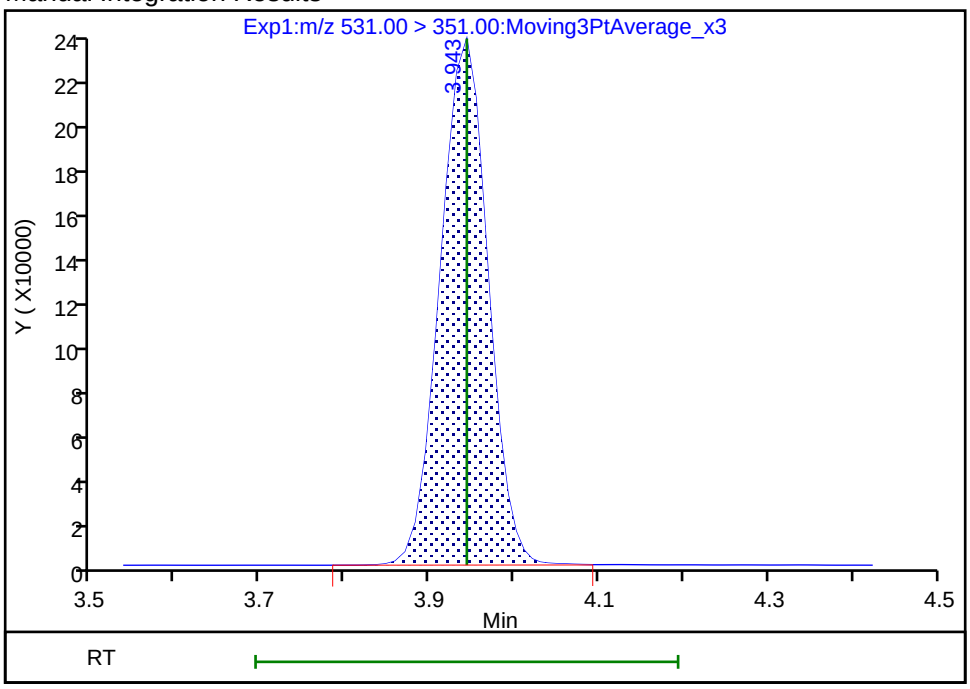
Processing Integration Results

RT: 3.94
Area: 933656
Amount: 0.881404
Amount Units: ng/ml




Manual Integration Results

RT: 3.94
Area: 933169
Amount: 0.880944
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:40:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

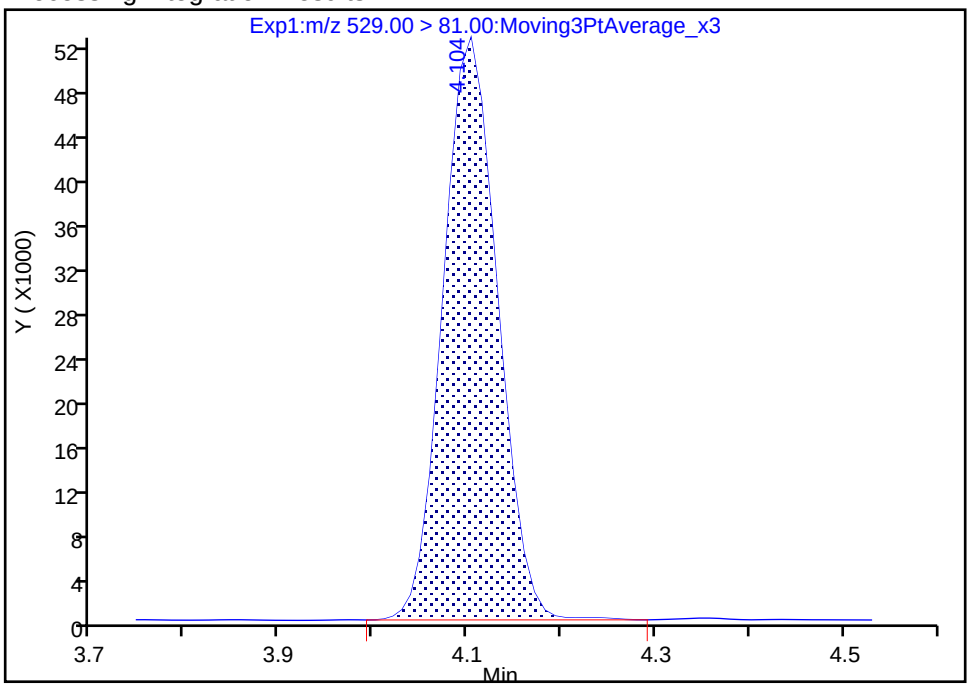
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

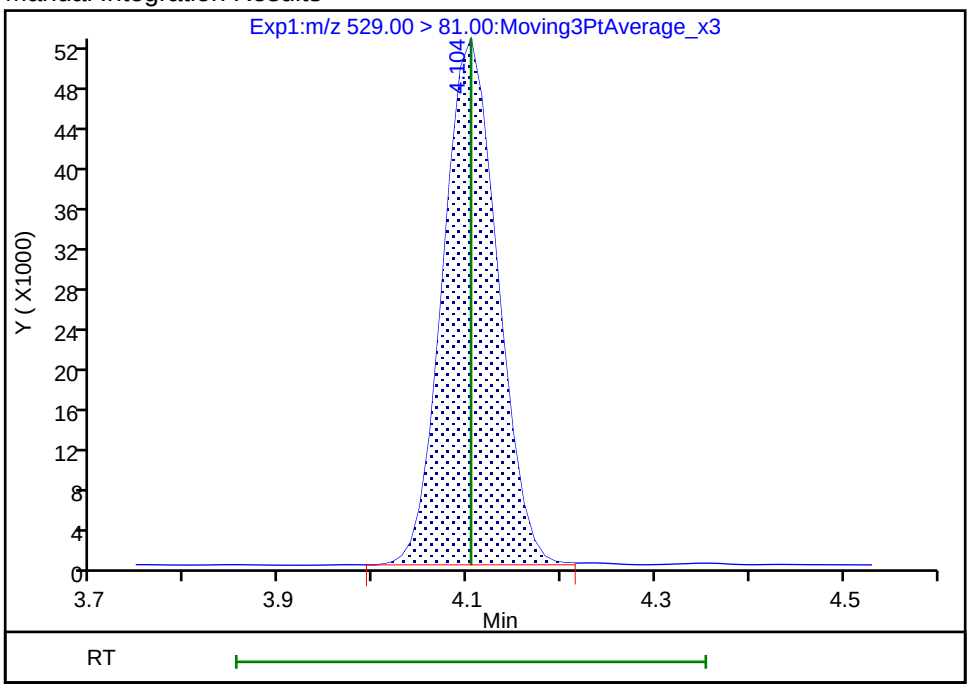
Processing Integration Results

RT: 4.10
Area: 212284
Amount: 1.408214
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 211807
Amount: 1.405050
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:36:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

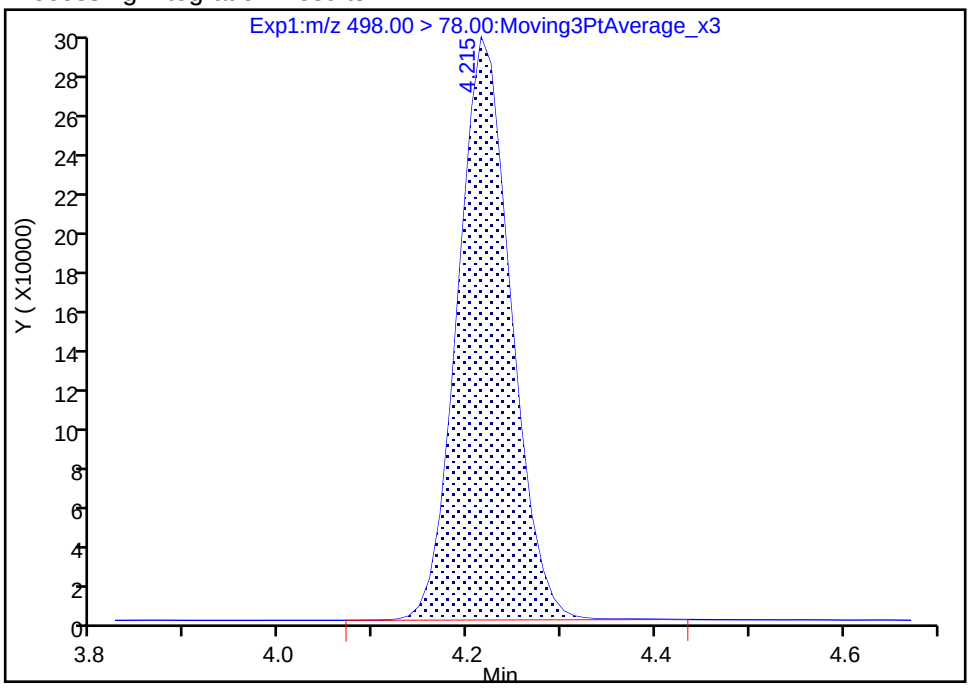
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

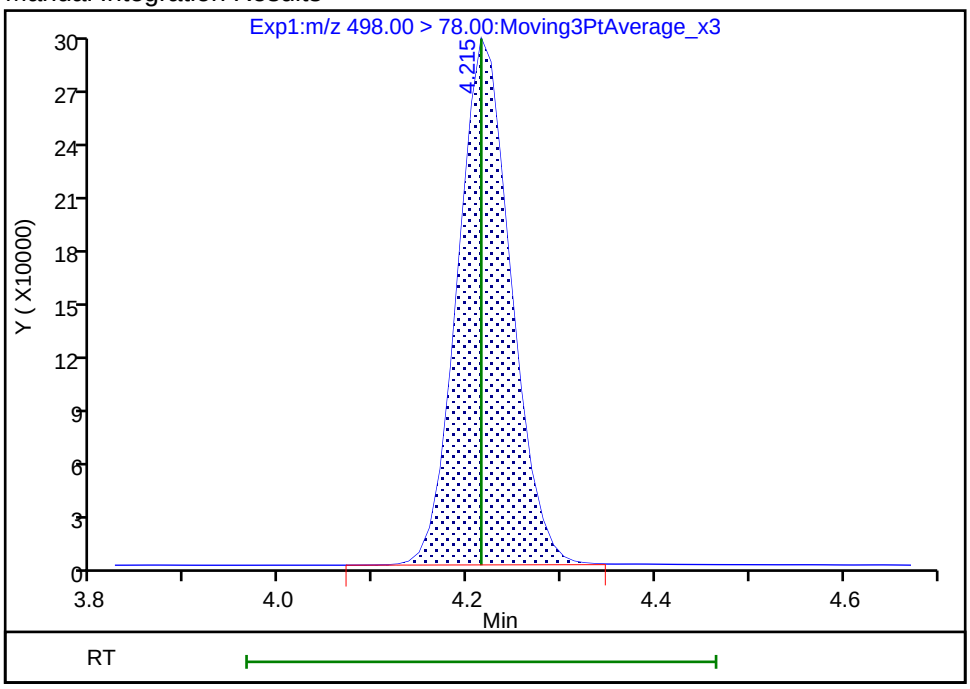
Processing Integration Results

RT: 4.21
Area: 1144790
Amount: 0.962154
Amount Units: ng/ml




Manual Integration Results

RT: 4.21
Area: 1143720
Amount: 0.961254
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:40:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

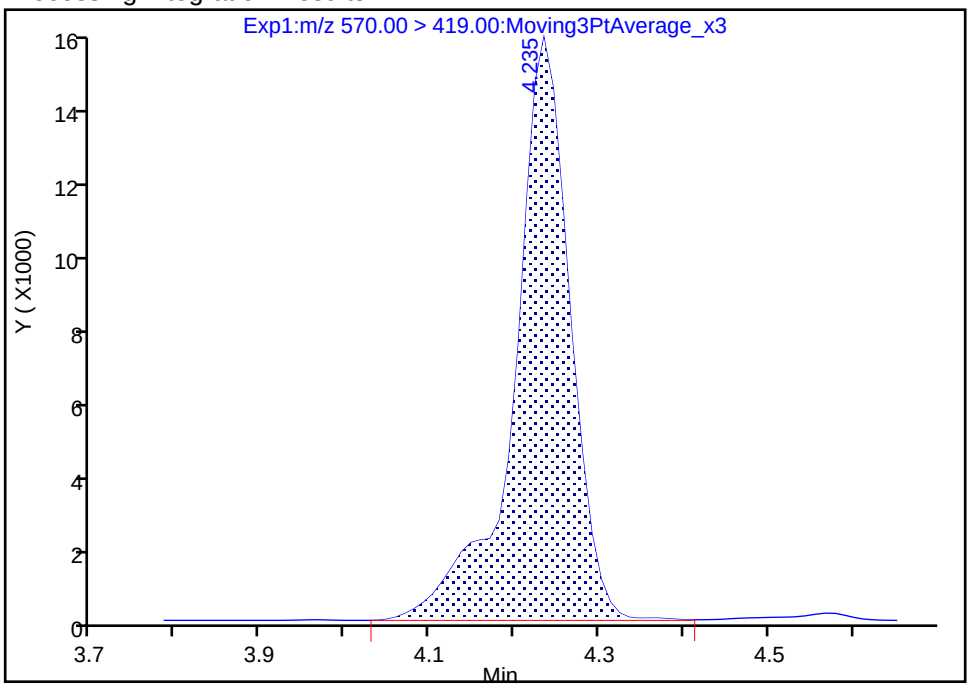
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

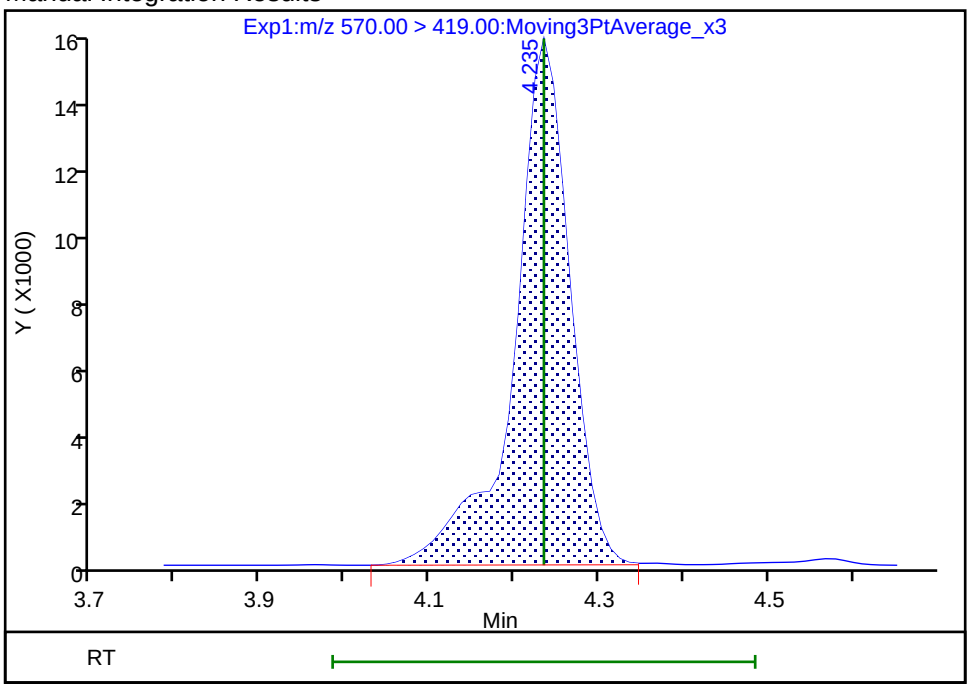
Processing Integration Results

RT: 4.23
Area: 69156
Amount: 0.933332
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 68864
Amount: 0.929391
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:40:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

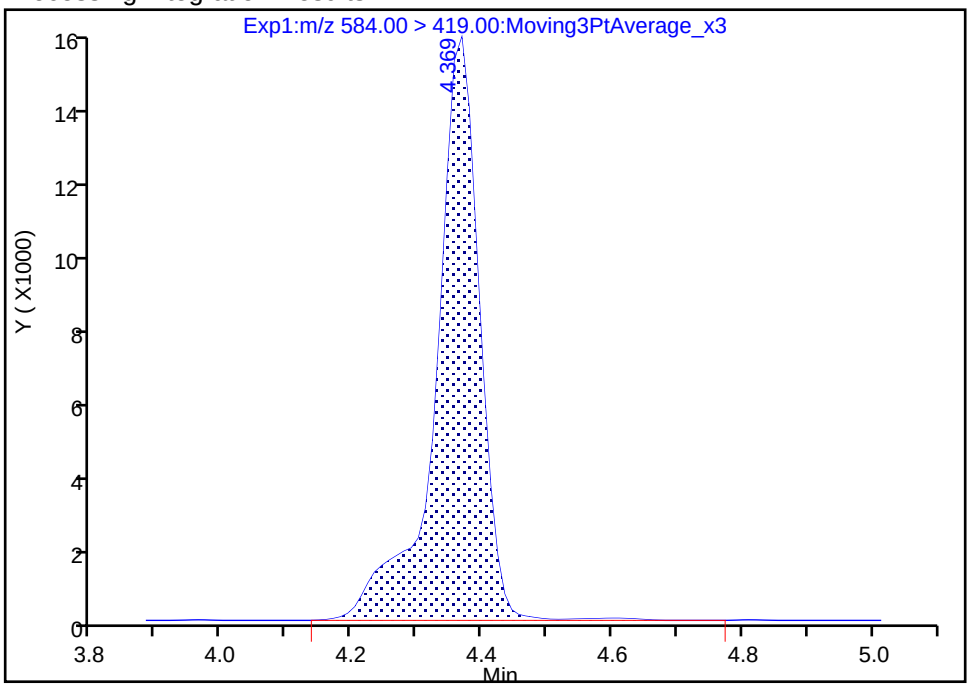
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d | | | | |
| Injection Date: | 08-Nov-2021 16:23:21 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

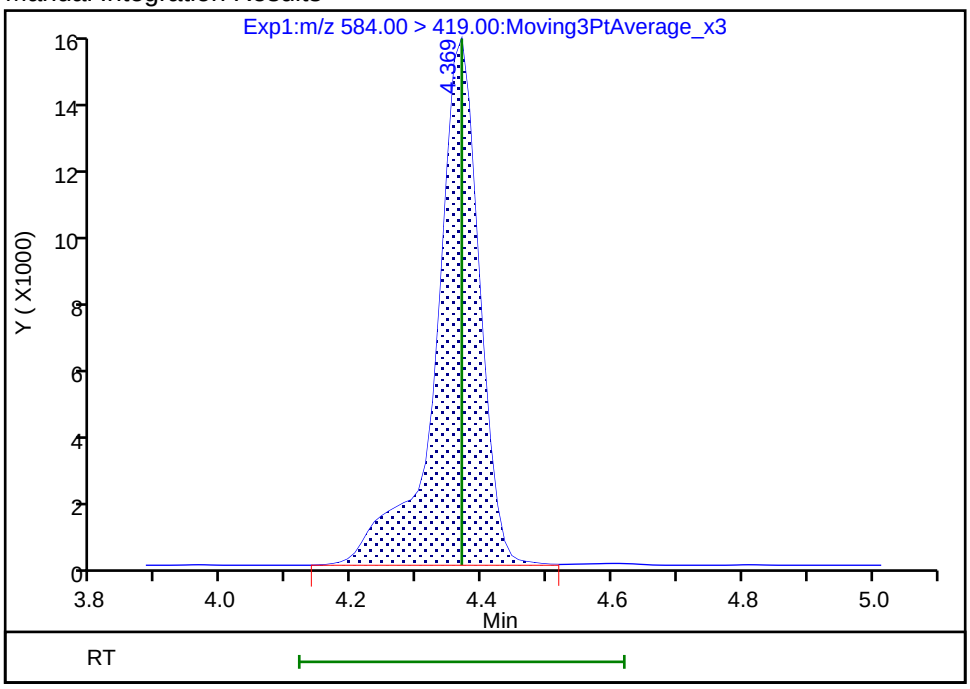
Processing Integration Results

RT: 4.37
Area: 72540
Amount: 1.015521
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 72214
Amount: 1.010957
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:40:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

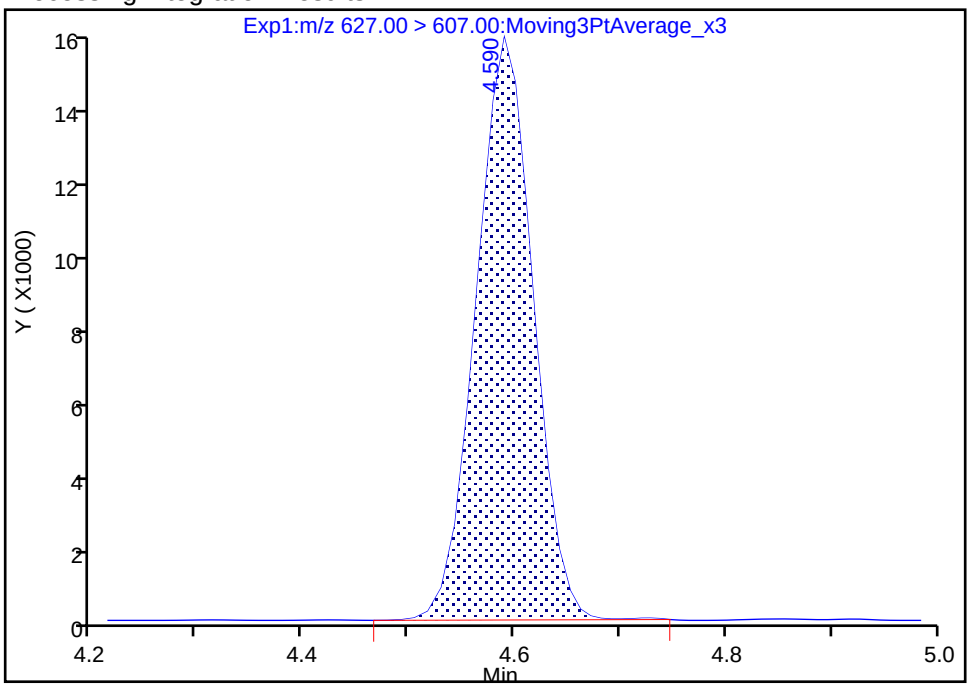
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

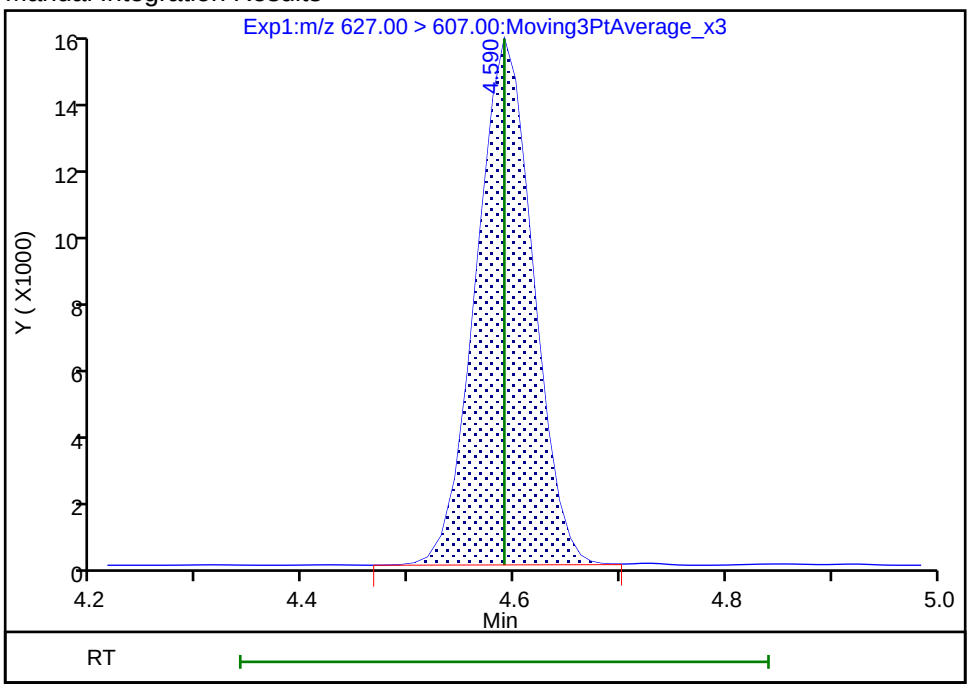
Processing Integration Results

RT: 4.59
Area: 59156
Amount: 0.865329
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 59088
Amount: 0.864334
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:40:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

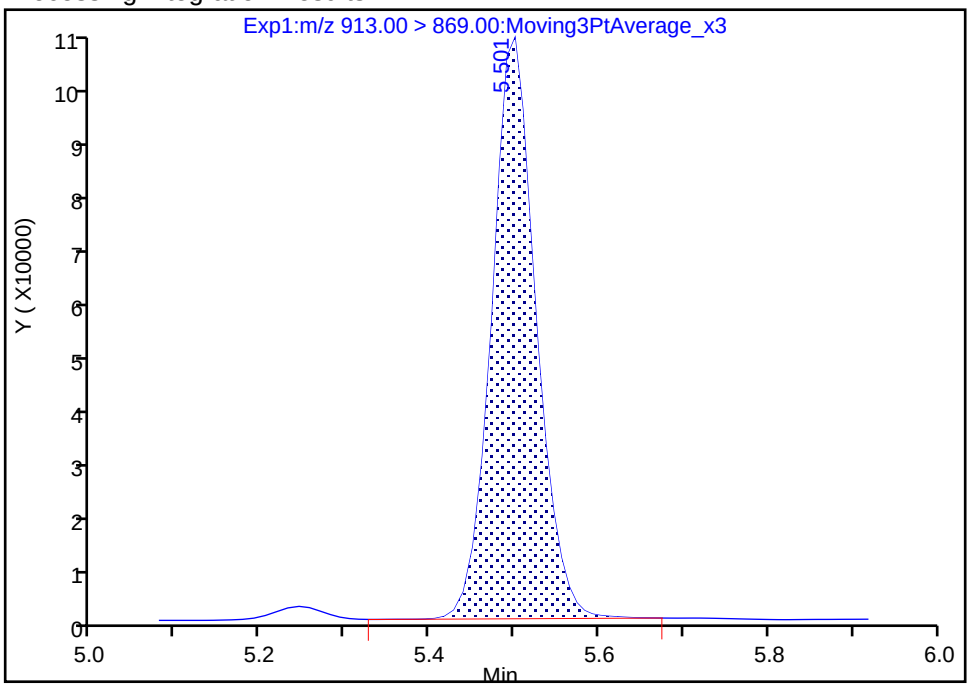
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

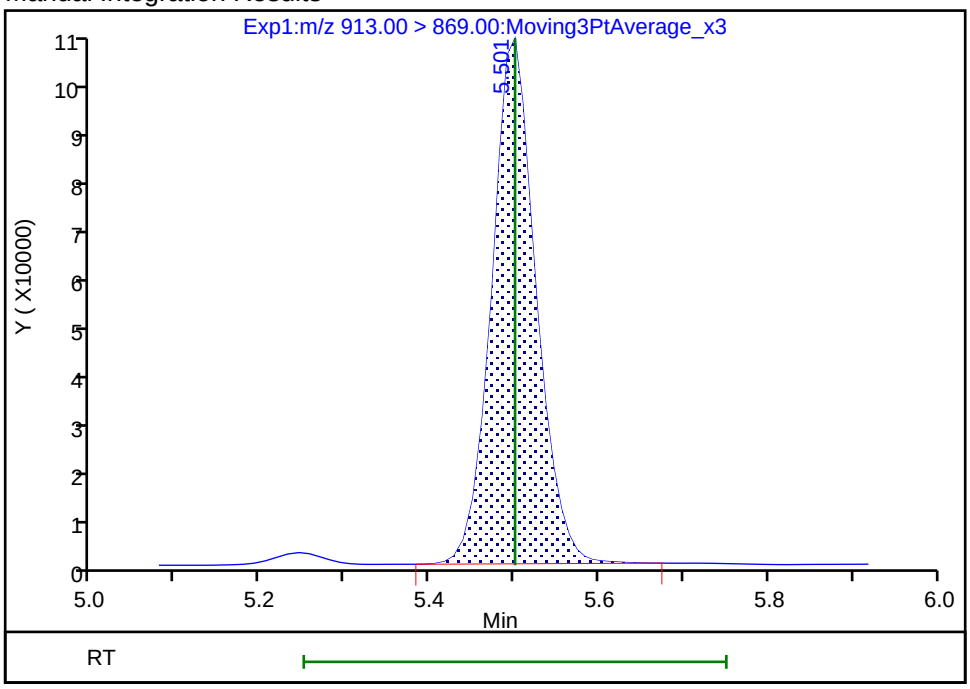
Processing Integration Results

RT: 5.50
Area: 380180
Amount: 0.825349
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 380159
Amount: 0.825303
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:40:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

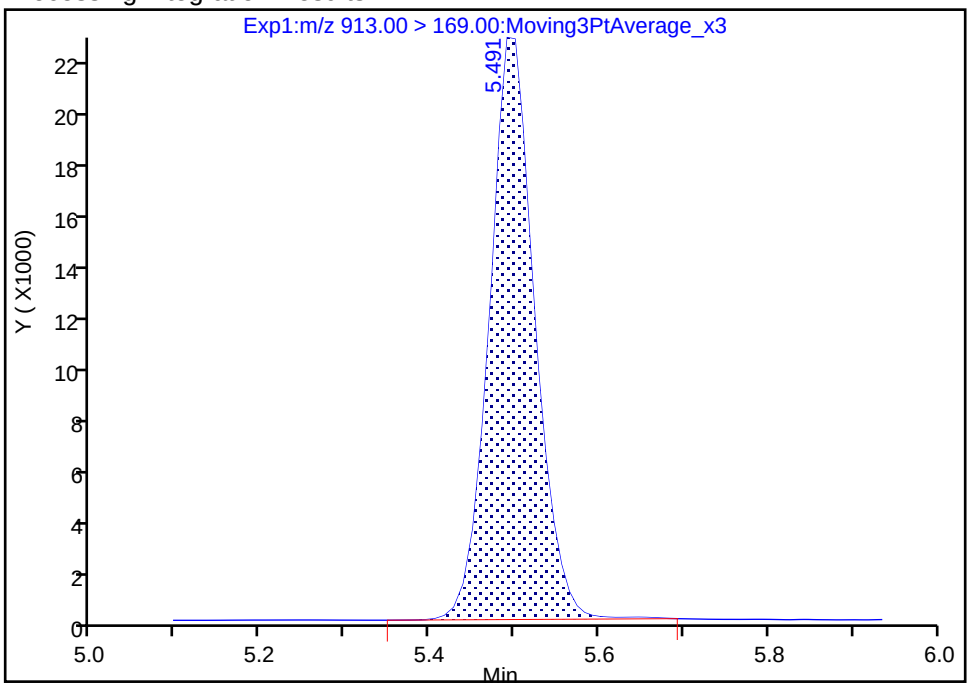
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A06.d
Injection Date: 08-Nov-2021 16:23:21 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

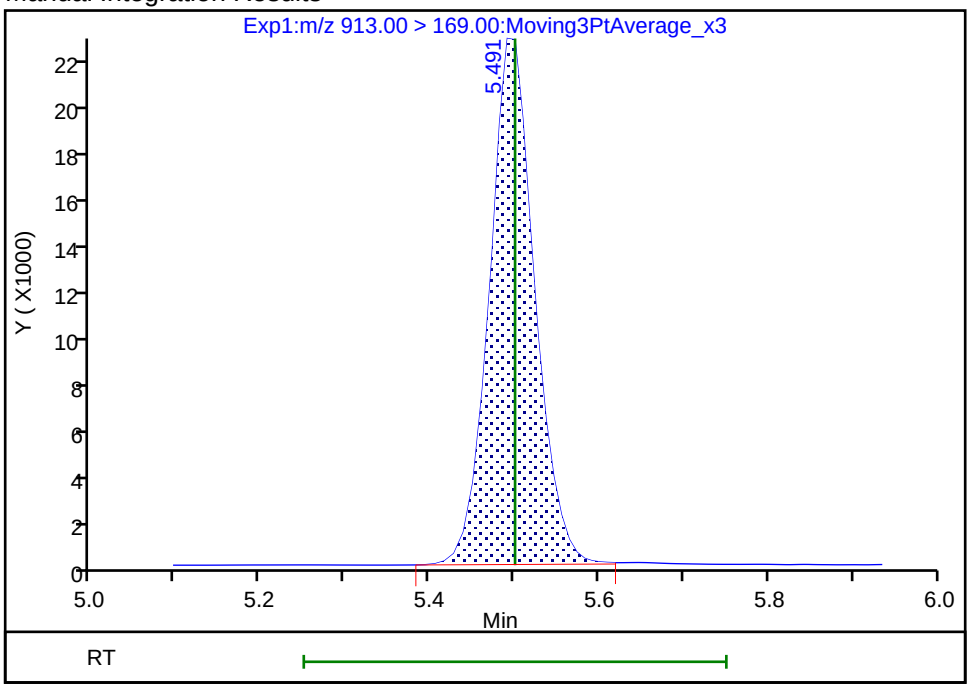
Processing Integration Results

RT: 5.49
Area: 82782
Amount: 0.825349
Amount Units: ng/ml




Manual Integration Results

RT: 5.49
Area: 82614
Amount: 0.825303
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 09:41:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/12  Calibration Date: 11/08/2021 17:06

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A12.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8750 | | 2.31 | 2.50 | -7.5 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.024 | | 2.56 | 2.50 | 2.2 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.9427 | | 1.95 | 2.21 | -11.7 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 1.951 | | 2.14 | 2.34 | -8.4 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9757 | | 2.41 | 2.50 | -3.8 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.221 | | 2.38 | 2.35 | 1.4 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.884 | | 3.25 | 2.50 | 30.0 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.040 | | 2.15 | 2.28 | -5.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.005 | | 2.43 | 2.50 | -2.8 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.363 | | 2.26 | 2.36 | -3.9 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.203 | | 2.30 | 2.38 | -3.5 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.202 | | 2.25 | 2.37 | -5.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.030 | | 2.42 | 2.50 | -3.1 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.026 | | 2.19 | 2.32 | -5.5 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9566 | | 2.44 | 2.50 | -2.2 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.531 | | 2.18 | 2.33 | -6.3 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8140 | | 2.31 | 2.40 | -3.7 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7384 | | 2.11 | 2.40 | -11.7 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9162 | | 2.28 | 2.50 | -8.8 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.8906 | | 2.34 | 2.50 | -6.2 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7947 | | 2.53 | 2.50 | 1.2 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6173 | | 2.26 | 2.41 | -6.1 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 0.9240 | | 2.17 | 2.50 | -13.3 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8007 | | 2.34 | 2.50 | -6.6 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.801 | | 2.20 | 2.36 | -6.7 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9450 | | 2.41 | 2.50 | -3.5 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3331 | | 2.08 | 2.41 | -13.8 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2446 | | 2.45 | 2.42 | 1.2 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/12  Calibration Date: 11/08/2021 17:06

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A12.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8255 | | 2.45 | 2.50 | -2.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1478 | | 2.34 | 2.50 | -6.3 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9074 | | 2.64 | 2.50 | 5.6 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6789 | | 2.01 | 2.50 | -19.5 | |
| 13C4 PFBA | Ave | 1.012 | 1.313 | | 1.62 | 1.25 | 29.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.243 | | 1.25 | 1.16 | 7.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9029 | | 1.32 | 1.25 | 5.9 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1146 | | 1.52 | 1.17 | 30.3 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9708 | | 1.36 | 1.25 | 8.5 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0180 | | 0.953 | 1.25 | -23.7 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9674 | | 1.28 | 1.25 | 2.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9045 | | 1.28 | 1.18 | 7.9 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1467 | | 1.32 | 1.19 | 11.0 | |
| 13C4 PFOA | Ave | 1.029 | 0.997 | | 1.21 | 1.25 | -3.1 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6490 | | 1.28 | 1.20 | 7.1 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.9916 | | 1.21 | 1.25 | -3.2 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.044 | | 1.26 | 1.25 | 1.0 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1752 | | 1.40 | 1.20 | 16.9 | |
| 13C8 FOSA | Ave | 0.998 | 1.256 | | 1.57 | 1.25 | 25.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0926 | | 1.14 | 1.25 | -9.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7840 | | 1.22 | 1.25 | -2.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0841 | | 1.10 | 1.25 | -11.8 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7896 | | 1.14 | 1.25 | -8.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6492 | | 1.21 | 1.25 | -3.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5106 | | 1.08 | 1.25 | -13.8 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 08-Nov-2021 17:06:40 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048331-012 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:07:31 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:36:28
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.207 | 2.226 | -0.019 | 0.634 | 1690328 | 1.62 | | 130 | 1555 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.216 | 2.236 | -0.020 | 1.004 | 2958069 | 2.31 | | 92.5 | 331 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.465 | 2.479 | -0.014 | 0.708 | 1161879 | 1.32 | | 106 | 1508 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.465 | 2.479 | -0.014 | 1.000 | 2379141 | 2.56 | | 102 | 145 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.465 | 2.479 | -0.014 | 0.708 | 1488145 | 1.25 | | 108 | 185977 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.478 | 2.492 | -0.014 | 1.005 | 2666892 | 1.95 | Target=2.32 | 88.3 | 1788 | M |
| 298.90 > 99.00 | 2.478 | 2.492 | -0.014 | 1.005 | 1269121 | | 2.10(1.16-3.48) | | 669 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.758 | 2.758 | 0.0 | 0.792 | 137719 | 1.52 | | 130 | 95.3 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 1.000 | 537290 | 2.14 | | 91.6 | 1804 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.782 | 2.795 | -0.013 | 0.799 | 1249268 | 1.36 | | 109 | 4058 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.782 | 2.795 | -0.013 | 1.000 | 2437831 | 2.41 | Target=12.09 | 96.2 | 536 | M |
| 313.00 > 119.00 | 2.782 | 2.795 | -0.013 | 1.000 | 192225 | | 12.68(6.04-18.13) | | 135 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.794 | 2.795 | -0.001 | 0.892 | 2666106 | 2.38 | Target=3.03 | 101 | 3920 | |
| 349.00 > 99.00 | 2.782 | 2.795 | -0.013 | 0.888 | 845754 | | 3.15(1.52-4.55) | | 1239 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.892 | 2.892 | 0.0 | 1.004 | 272161 | 3.25 | | 130 | 210 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.879 | 2.892 | -0.013 | 0.827 | 23128 | 0.9533 | | 76.3 | 196 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2204177 | 2.15 | Target=3.55 | 94.6 | 1638 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 622927 | | 3.54(1.77-5.32) | | 683 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1101103 | 1.28 | | 108 | 3122 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1244913 | 1.28 | | 103 | 6612 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 2501250 | 2.43 | Target=3.69 | 97.2 | 1098 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 635538 | | 3.94(1.84-5.53) | | 1259 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.839 | 5291800 | 2.26 | Target=2.56 | 96.1 | 6225 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.839 | 2049020 | | 2.58(1.28-3.84) | | 2886 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.915 | 1913894 | 2.30 | Target=4.88 | 96.5 | 2534 | M |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.915 | 378474 | | 5.06(2.44-7.32) | | 1211 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 430351 | 2.25 | | 94.8 | 1574 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 179387 | 1.32 | | 111 | 629 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.474 | 0.009 | 1.000 | 1283547 | 1.21 | | 96.9 | 5320 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1286889 | 1.25 | | | 3899 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 2645023 | 2.42 | Target=2.68 | 96.9 | 614 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1025636 | | 2.58(1.34-4.02) | | 2083 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.784 | 3.785 | -0.001 | 1.087 | 798484 | 1.28 | | 107 | 4035 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.784 | 3.785 | -0.001 | 1.000 | 1590088 | 2.19 | Target=4.69 | 94.5 | 1608 | M |
| 499.00 > 99.00 | 3.784 | 3.785 | -0.001 | 1.000 | 334296 | | 4.76(2.35-7.04) | | 1076 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1276131 | 1.21 | | 96.8 | 4939 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 2441382 | 2.44 | Target=7.29 | 97.8 | 473 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 1.000 | 314962 | | 7.75(3.64-10.93) | | 2589 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.042 | 2383591 | 2.18 | | 93.7 | 6026 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.076 | 1305433 | 2.31 | Target=2.35 | 96.3 | 4058 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.076 | 516152 | | 2.53(1.17-3.52) | | 2008 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.092 | 4.092 | 0.0 | 1.175 | 1343891 | 1.26 | | 101 | 5284 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.092 | 0.011 | 1.003 | 2462591 | 2.28 | Target=8.95 | 91.2 | 1726 | |
| 513.00 > 169.00 | 4.103 | 4.092 | 0.011 | 1.003 | 273075 | | 9.02(4.47-13.42) | | 1392 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.103 | 4.104 | -0.001 | 1.178 | 216012 | 1.40 | | 117 | 972 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.103 | 4.104 | -0.001 | 1.000 | 319024 | 2.11 | | 88.3 | 1510 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.215 | 0.009 | 1.213 | 1616616 | 1.57 | | 126 | 3037 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.215 | 0.009 | 1.000 | 2879513 | 2.34 | | 93.8 | 3480 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.234 | 4.235 | -0.001 | 1.216 | 119161 | 1.14 | | 91.0 | 277 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.234 | 4.235 | -0.001 | 1.000 | 189401 | 2.53 | | 101 | 904 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.325 | 4.324 | 0.001 | 1.143 | 994120 | 2.26 | Target=2.47 | 93.9 | 2382 | |
| 599.00 > 99.00 | 4.325 | 4.324 | 0.001 | 1.143 | 404743 | | 2.46(1.23-3.70) | | 2905 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.347 | 0.011 | 1.251 | 1008975 | 1.22 | | 97.3 | 3155 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.358 | 4.347 | 0.011 | 1.000 | 1864582 | 2.17 | Target=9.24 | 86.7 | 1332 | |
| 563.00 > 169.00 | 4.358 | 4.347 | 0.011 | 1.000 | 223706 | | 8.33(4.62-13.86) | | 1890 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.369 | 4.358 | 0.011 | 1.255 | 108167 | 1.10 | | 88.2 | 1041 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.000 | 173223 | 2.34 | | 93.4 | 1187 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.446 | 4.445 | 0.001 | 1.175 | 2834390 | 2.20 | | 93.3 | 2187 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.568 | 0.013 | 1.315 | 1016142 | 1.14 | | 91.1 | 858 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.581 | 4.568 | 0.013 | 1.000 | 1920547 | 2.41 | Target=7.04 | 96.5 | 438 | |
| 613.00 > 169.00 | 4.581 | 4.568 | 0.013 | 1.000 | 284289 | | 6.76(3.52-10.56) | | 2779 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.591 | 4.590 | 0.001 | 1.119 | 144830 | 2.08 | | 86.2 | 1988 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.739 | 4.738 | 0.001 | 1.252 | 395457 | 2.45 | Target=0.49 | 101 | 2589 | |
| 699.00 > 99.00 | 4.739 | 4.738 | 0.001 | 1.252 | 730938 | | 0.54(0.25-0.74) | | 3406 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.775 | 4.765 | 0.010 | 1.042 | 1677653 | 2.44 | Target=4.68 | 97.8 | 624 | |
| 663.00 > 169.00 | 4.775 | 4.765 | 0.010 | 1.042 | 362212 | | 4.63(2.34-7.02) | | 2897 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.946 | 0.001 | 1.420 | 835496 | 1.21 | | 96.5 | 2242 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.946 | 0.001 | 1.000 | 247018 | 2.34 | Target=1.01 | 93.7 | 2240 | |
| 713.00 > 219.00 | 4.947 | 4.946 | 0.001 | 1.000 | 240349 | | 1.03(0.51-1.52) | | 1993 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.245 | 0.001 | 1.506 | 657148 | 1.08 | | 86.2 | 2934 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.245 | 0.013 | 1.002 | 1192638 | 2.64 | Target=4.57 | 106 | 495 | |
| 813.00 > 169.00 | 5.258 | 5.245 | 0.013 | 1.002 | 285974 | | 4.17(2.29-6.86) | | 2273 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.500 | 5.501 | -0.001 | 1.049 | 892210 | 2.01 | Target=4.27 | 80.5 | 572 | M |
| 913.00 > 169.00 | 5.500 | 5.501 | -0.001 | 1.049 | 207760 | | 4.29(2.14-6.41) | | 1335 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00023 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:07:31 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d

Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812

Lims ID: CCV L5

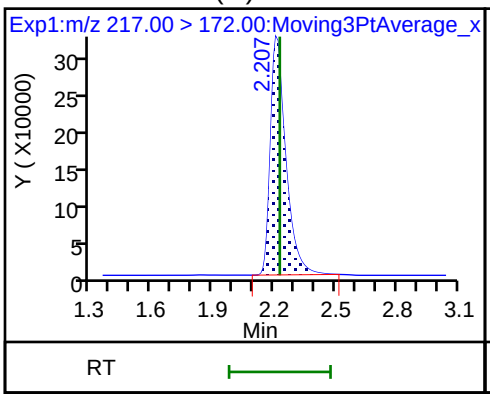
Client ID:

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12

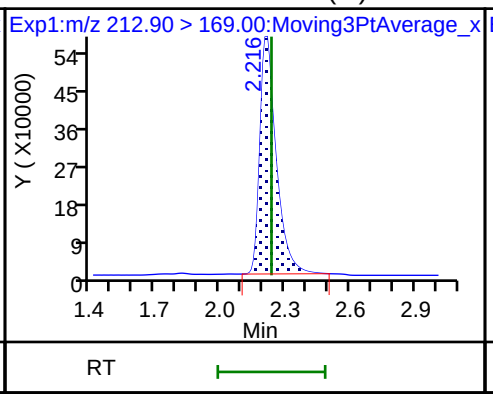
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

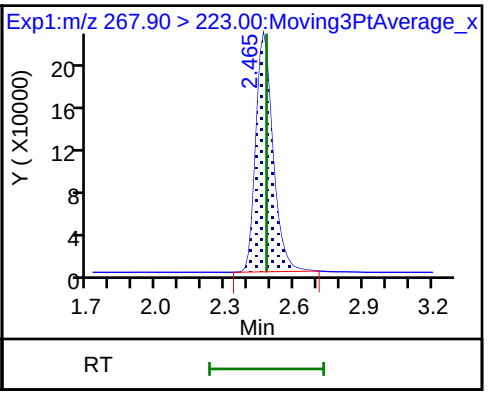
D 1 13C4 PFBA (M)



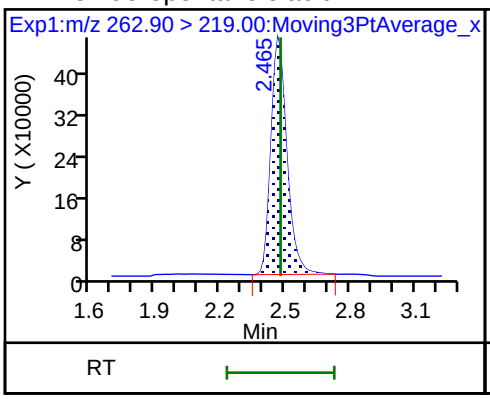

2 Perfluorobutanoic acid (M)



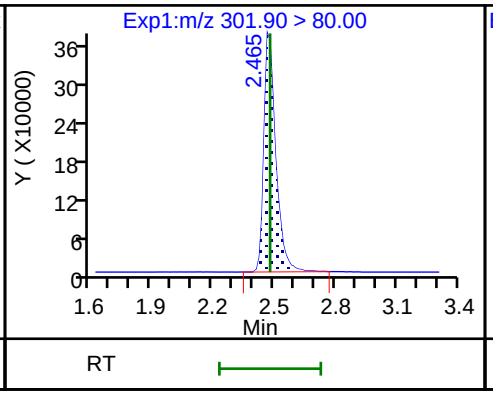

D 3 13C5 PFPeA



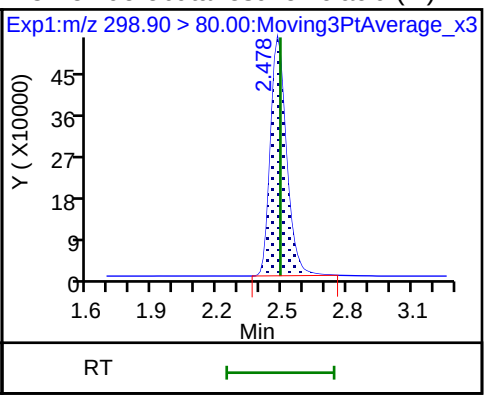

4 Perfluoropentanoic acid



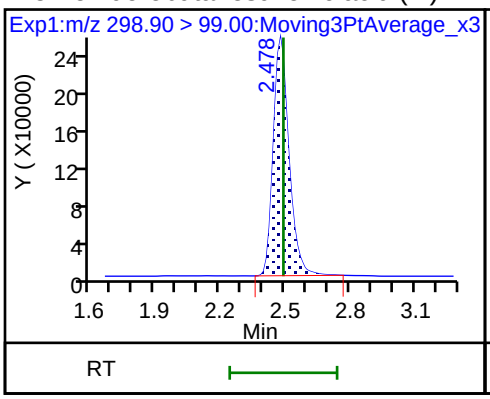

D 47 13C3 PFBS



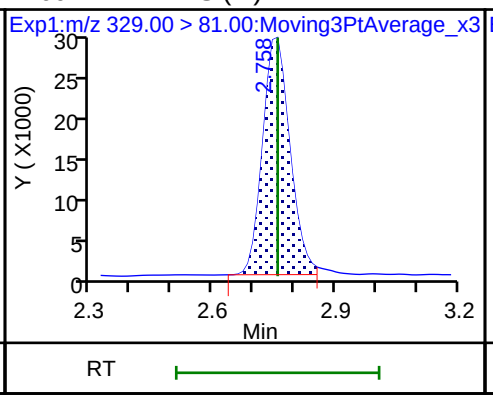

5 Perfluorobutanesulfonic acid (M)



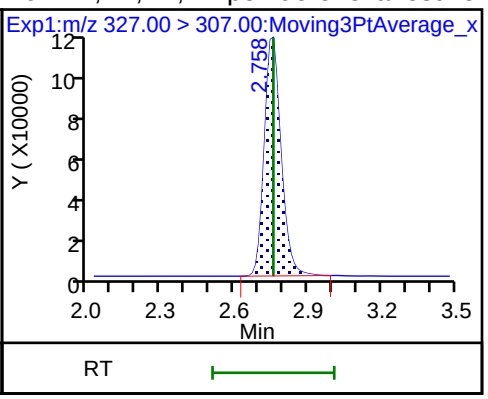

5 Perfluorobutanesulfonic acid (M)



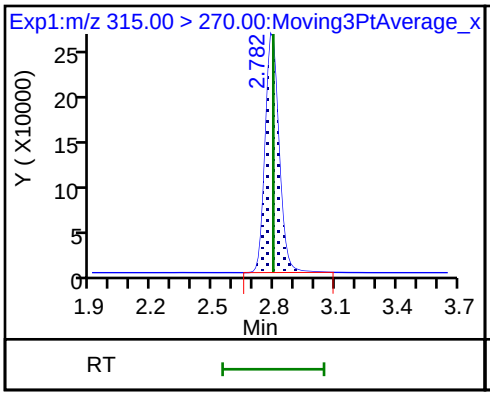

D 60 M2-4:2 FTS (M)



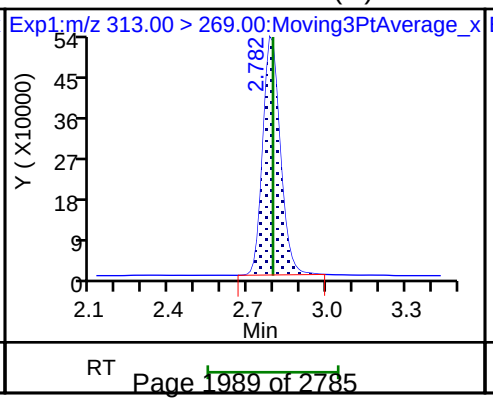

61 1H,1H,2H,2H-perfluorohexanesulfo



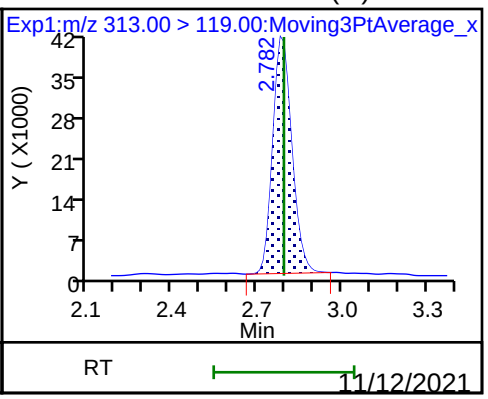

D 7 13C2 PFHxA



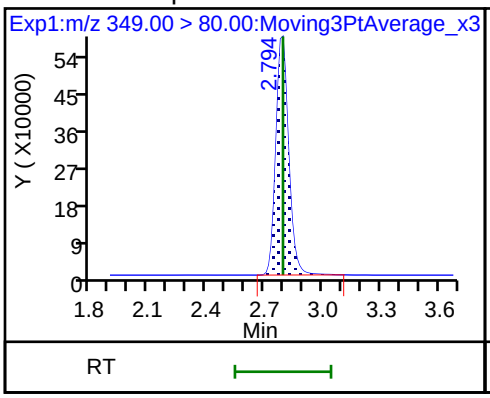

6 Perfluorohexanoic acid (M)



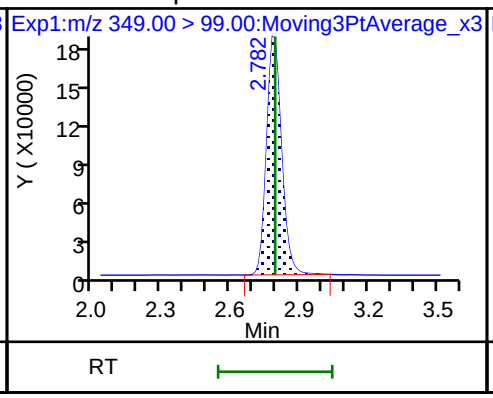

6 Perfluorohexanoic acid (M)



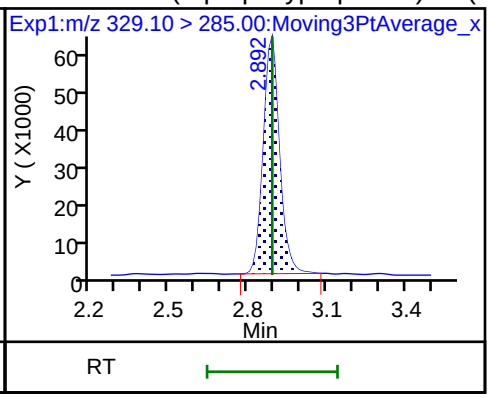
70 Perfluoropentanesulfonic acid



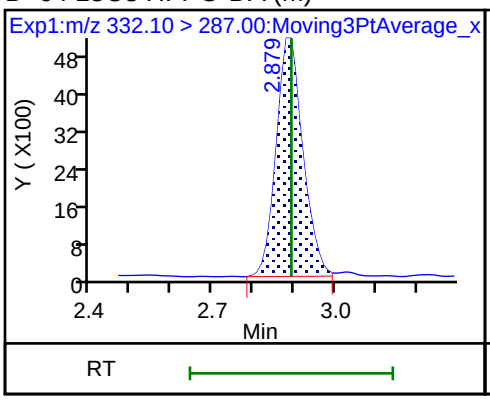

70 Perfluoropentanesulfonic acid



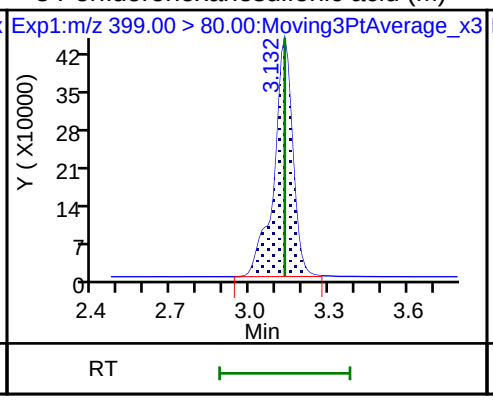

67 Perfluoro(2-propoxypropanoic) ac (M)



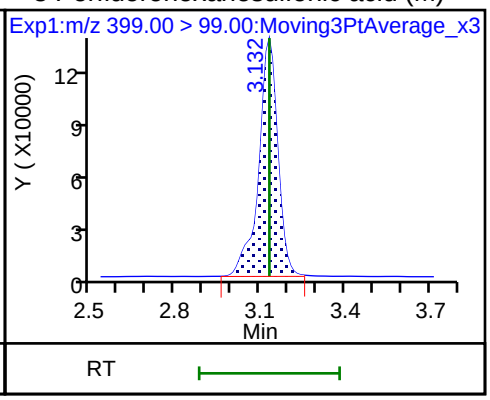

D 64 13C3 HFPO-DA (M)



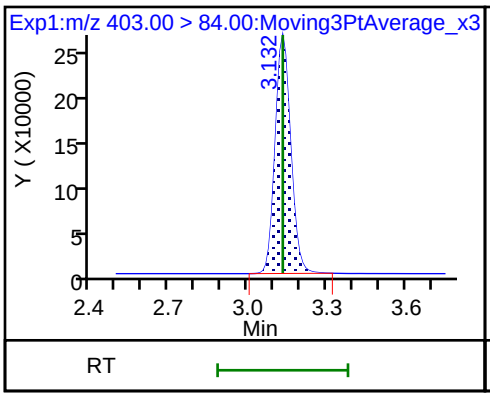

8 Perfluorohexanesulfonic acid (M)



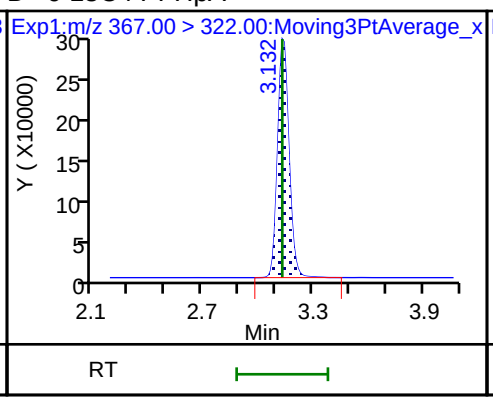

8 Perfluorohexanesulfonic acid (M)



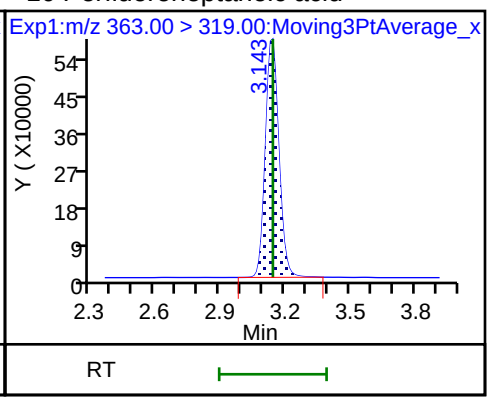

D 11 18O2 PFHxS



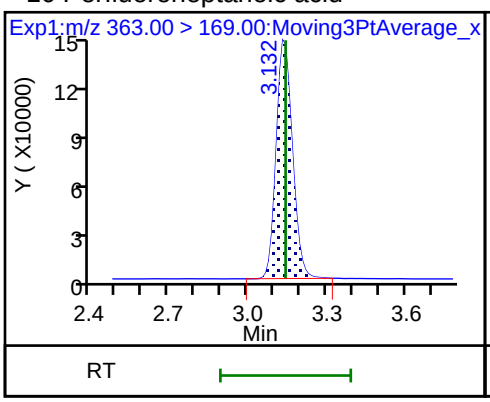

D 9 13C4 PFHpA



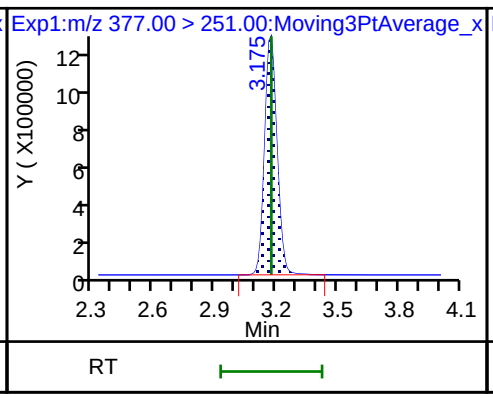

10 Perfluoroheptanoic acid



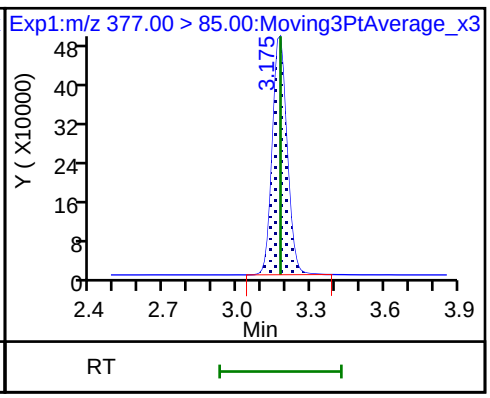

10 Perfluoroheptanoic acid



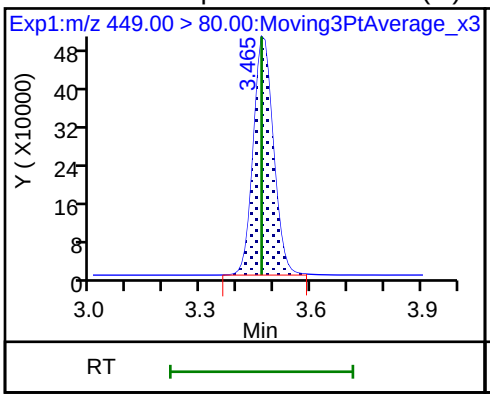

77 DONA



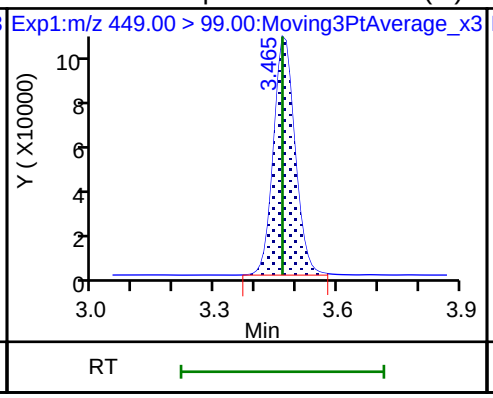

77 DONA



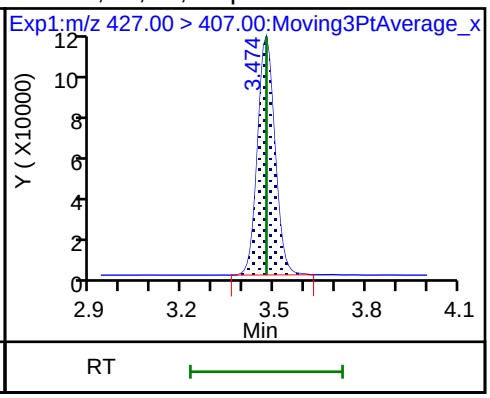
16 Perfluoroheptanesulfonic acid (M)



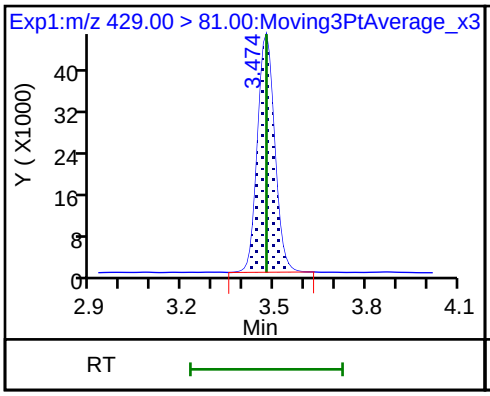

16 Perfluoroheptanesulfonic acid (M)



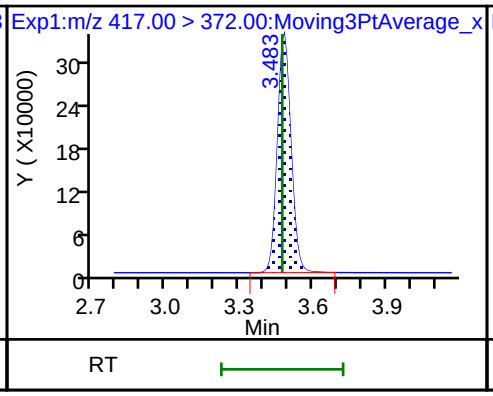

13 1H,1H,2H,2H-perfluorooctanesulfo



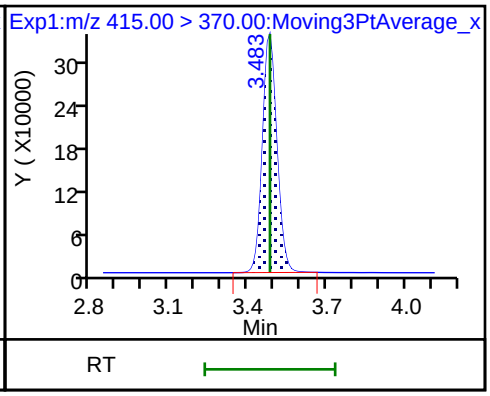

D 12 M2-6:2 FTS



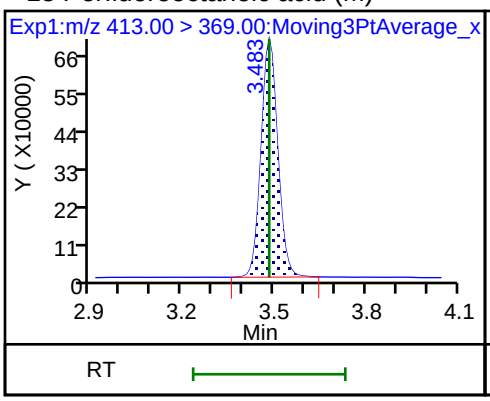

D 14 13C4 PFOA



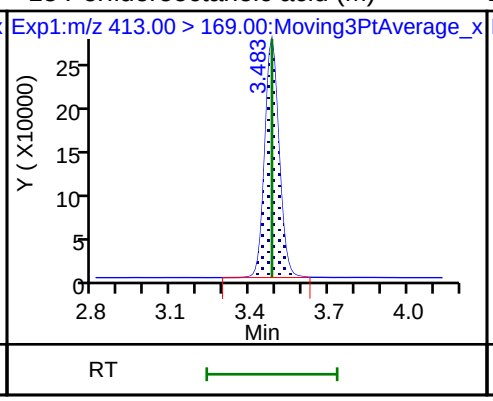

* 62 13C2 PFOA



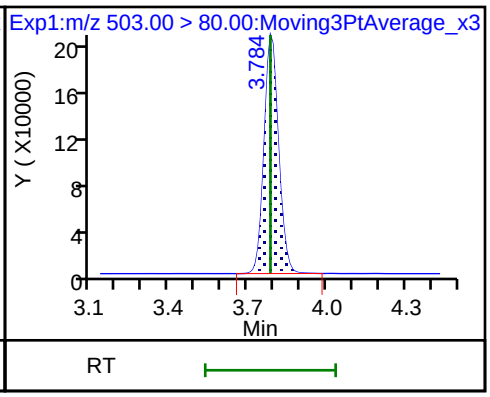

15 Perfluorooctanoic acid (M)



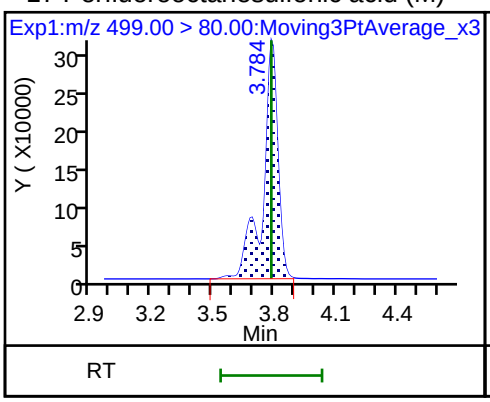

15 Perfluorooctanoic acid (M)



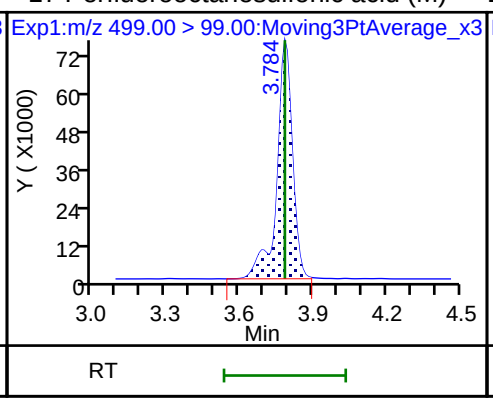

D 18 13C4 PFOS



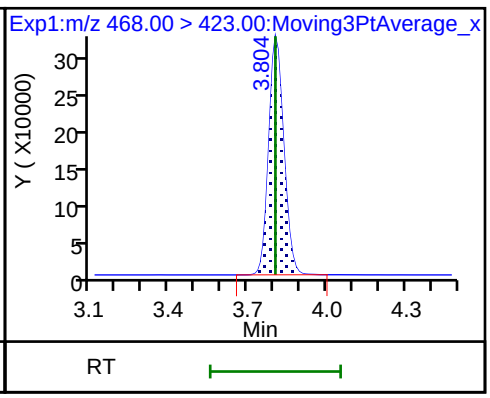

17 Perfluorooctanesulfonic acid (M)



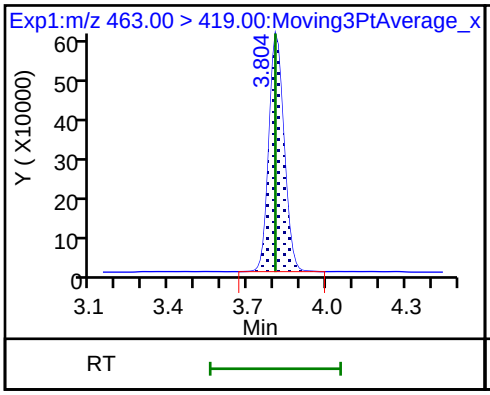

17 Perfluorooctanesulfonic acid (M)



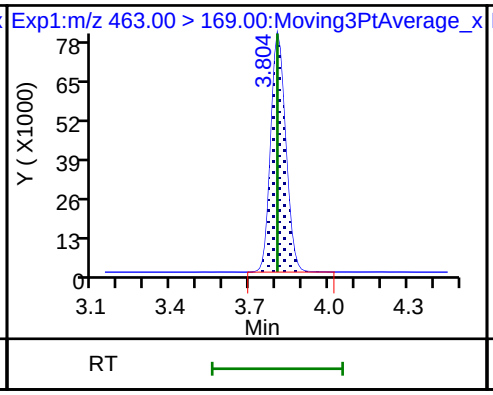

D 19 13C5 PFNA



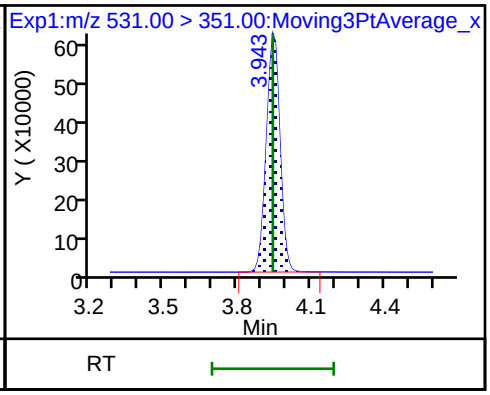
20 Perfluorononanoic acid



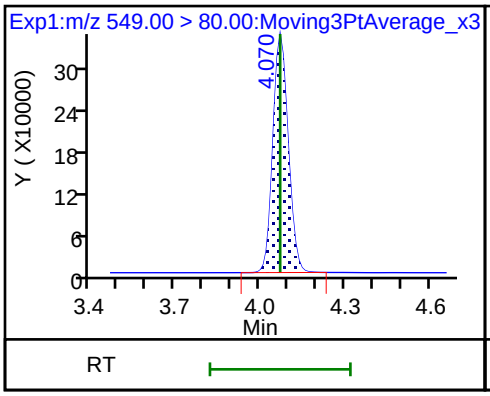

20 Perfluorononanoic acid



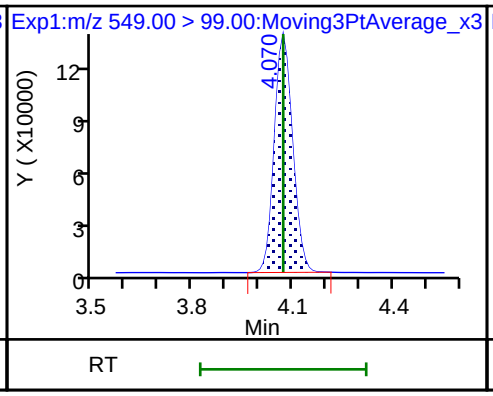

69 9-Chlorohexadecafluoro-3-oxanona



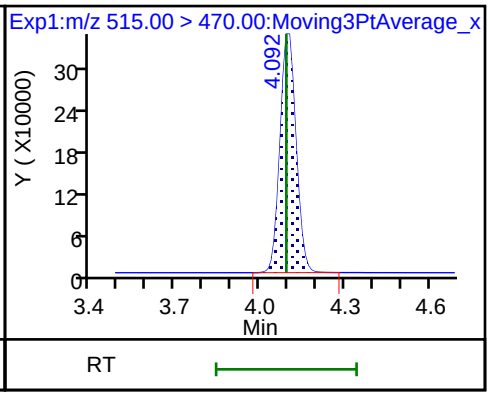

68 Perfluorononanesulfonic acid



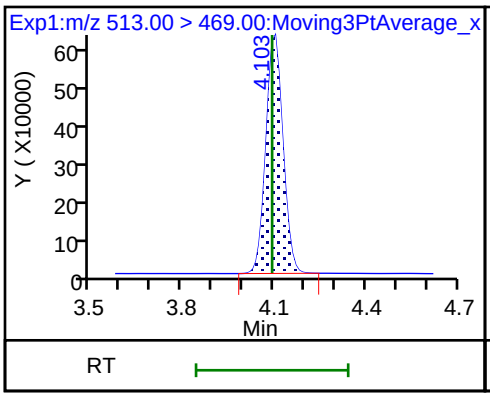

68 Perfluorononanesulfonic acid



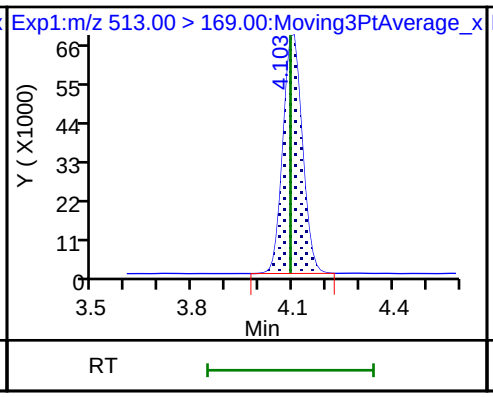

D 23 13C2 PFDA



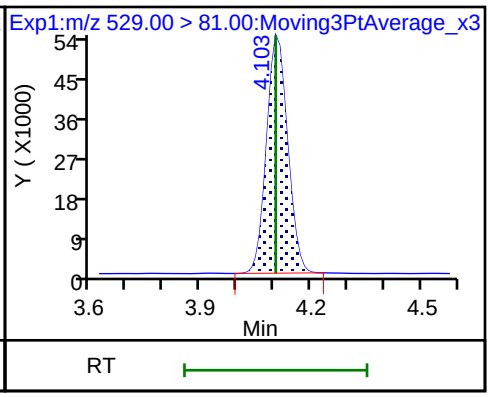

24 Perfluorodecanoic acid



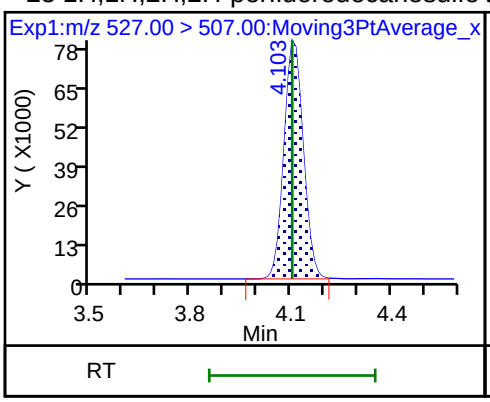

24 Perfluorodecanoic acid



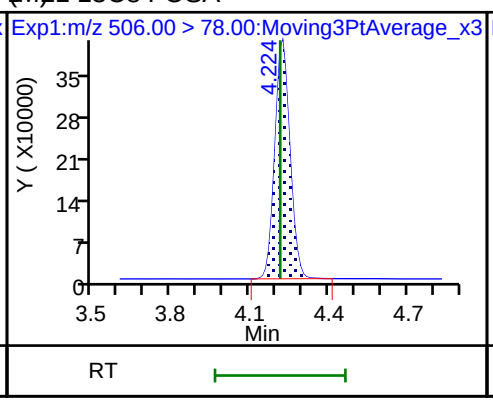

D 26 M2-8:2 FTS



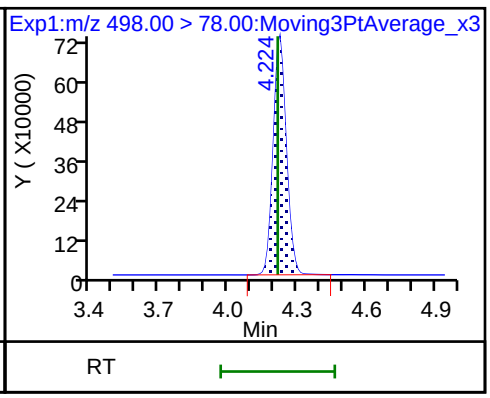

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



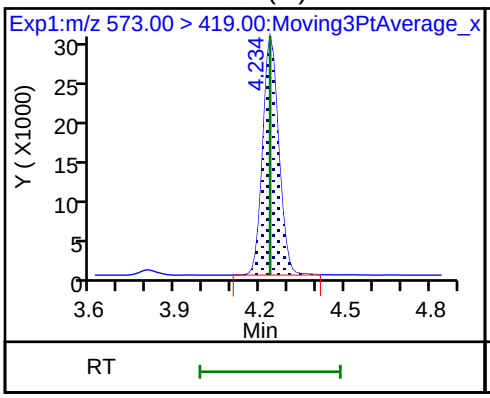

D 21 13C8 FOSA



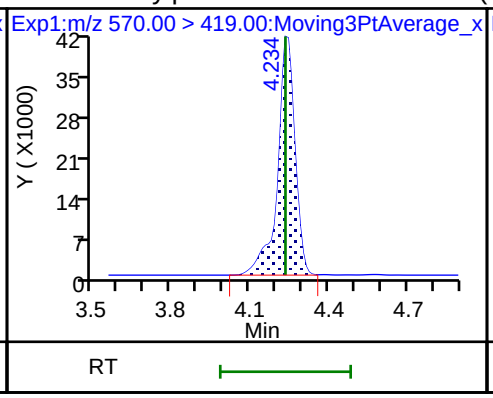

22 Perfluorooctanesulfonamide



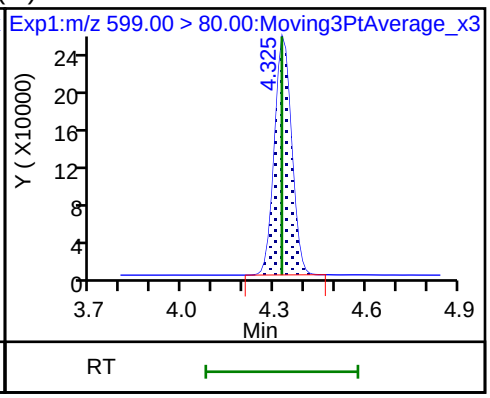
D 27 d3-NMeFOSAA (M)



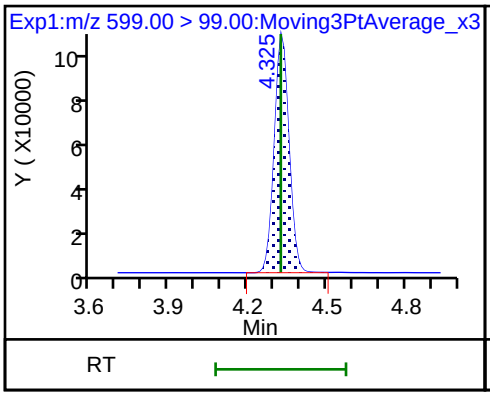

28 N-methylperfluorooctanesulfonami (M)



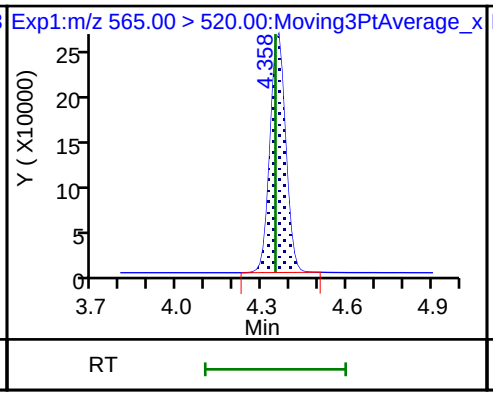

29 Perfluorodecanesulfonic acid



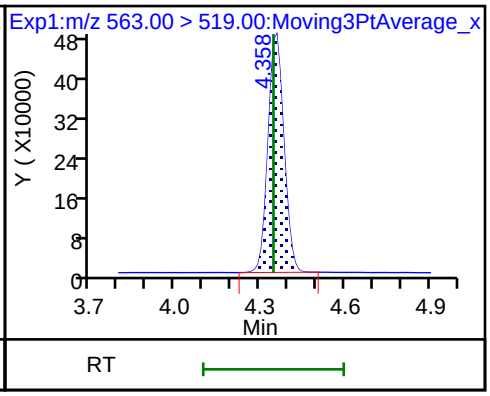

29 Perfluorodecanesulfonic acid



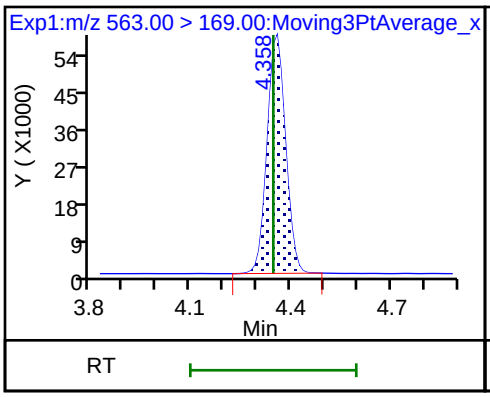

D 30 13C2 PFUnA



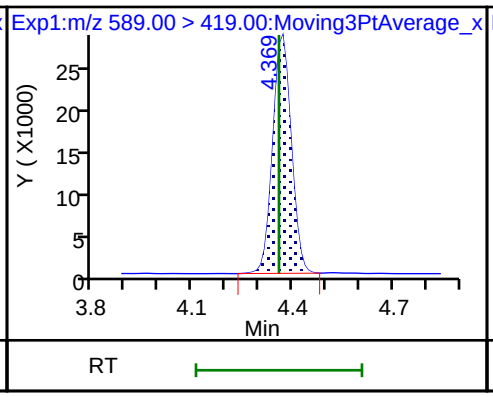

31 Perfluoroundecanoic acid



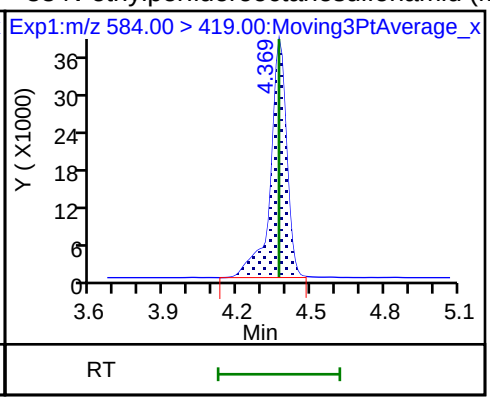

31 Perfluoroundecanoic acid



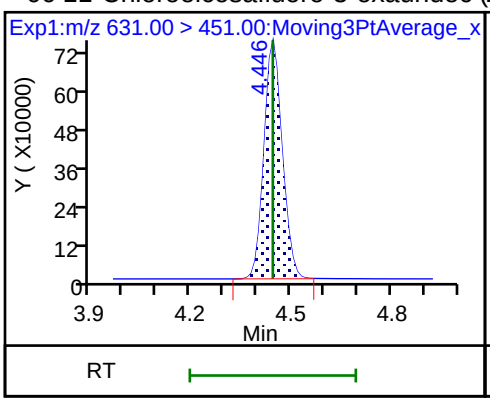

D 32 d5-NEtFOSAA



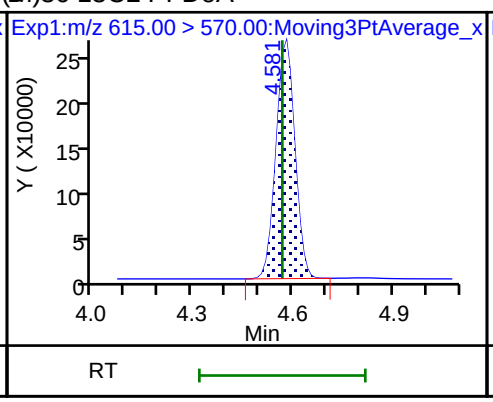

33 N-ethylperfluorooctanesulfonamid (M)



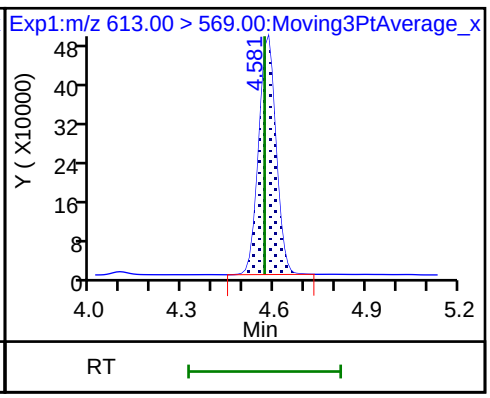

66 11-Chloroeicosafluoro-3-oxaundec (M)



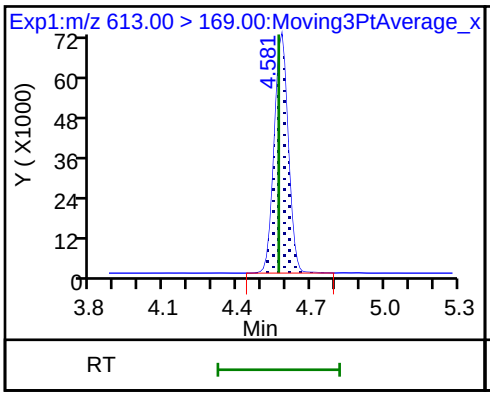

D 36 13C2 PFDoA



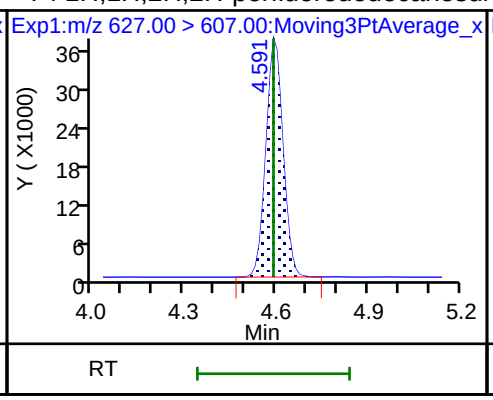

37 Perfluorododecanoic acid



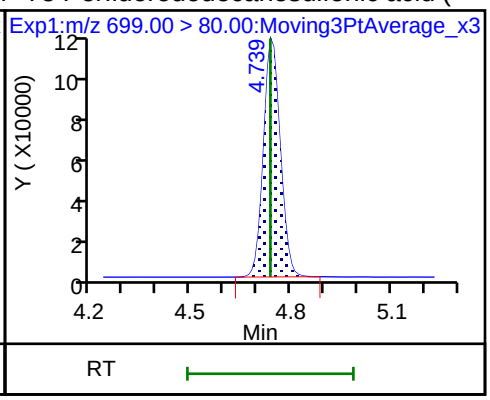
37 Perfluorododecanoic acid



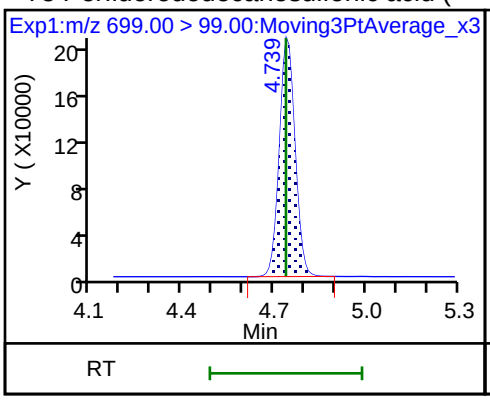

74 1H,1H,2H,2H-perfluorododecanesul



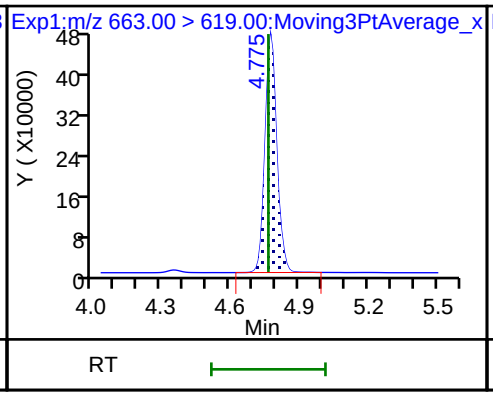

75 Perfluorododecanesulfonic acid (



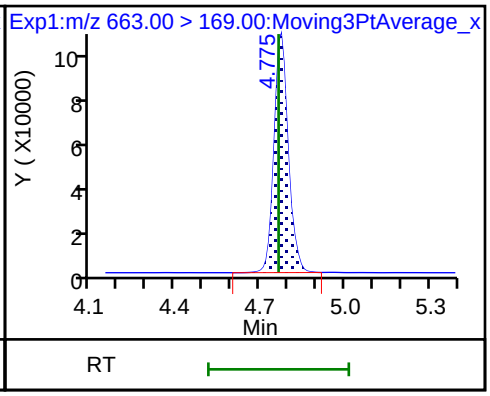

75 Perfluorododecanesulfonic acid (



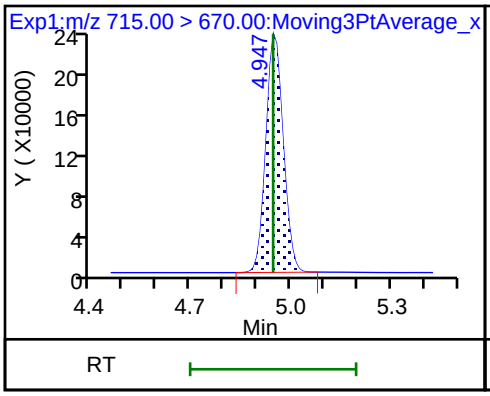

41 Perfluorotridecanoic acid



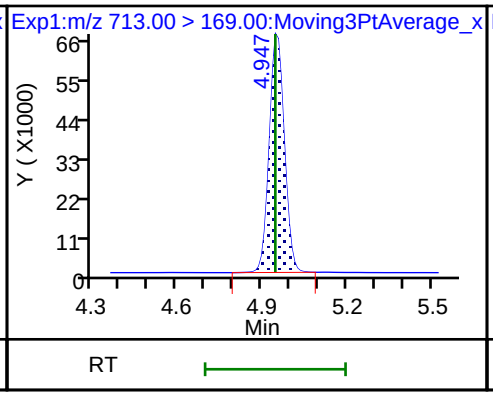

41 Perfluorotridecanoic acid



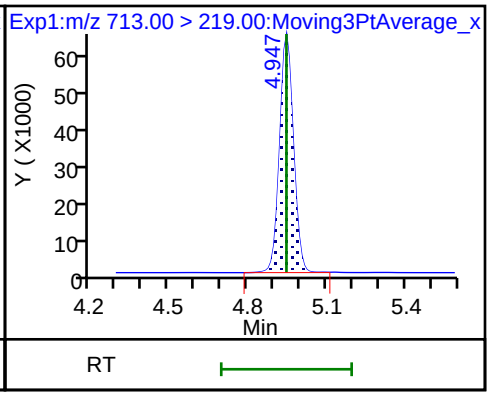

D 43 13C2 PFTeDA



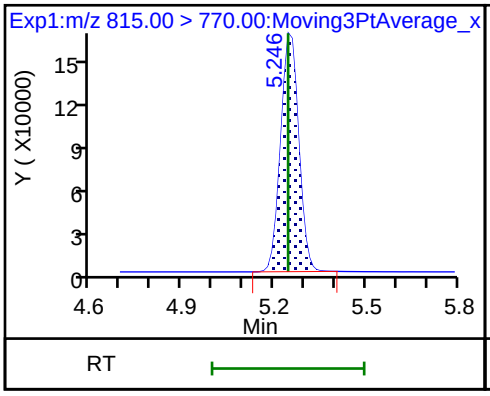

42 Perfluorotetradecanoic acid



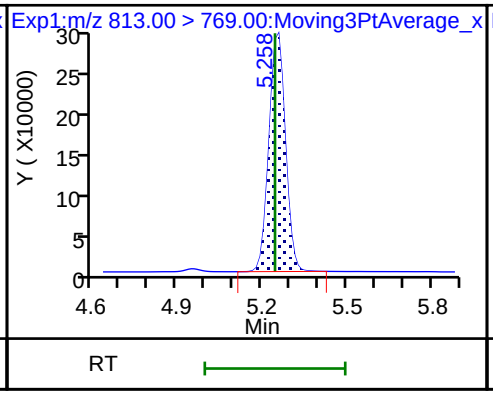

42 Perfluorotetradecanoic acid



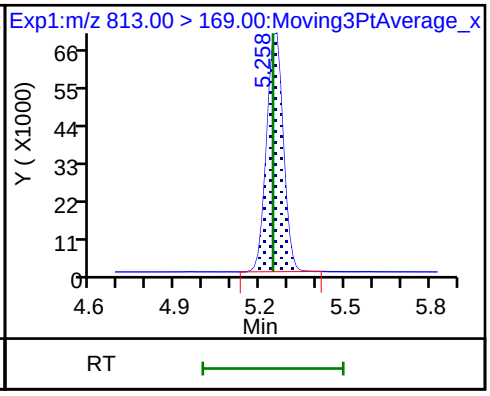

D 44 13C2 PFHxDA



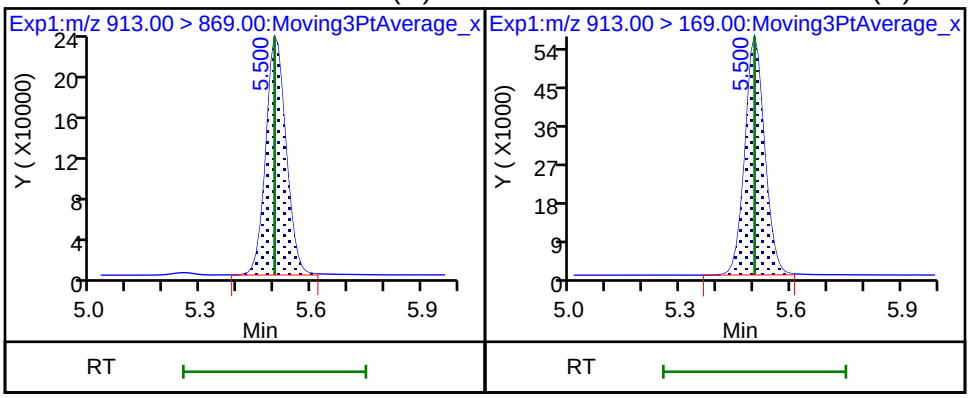

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

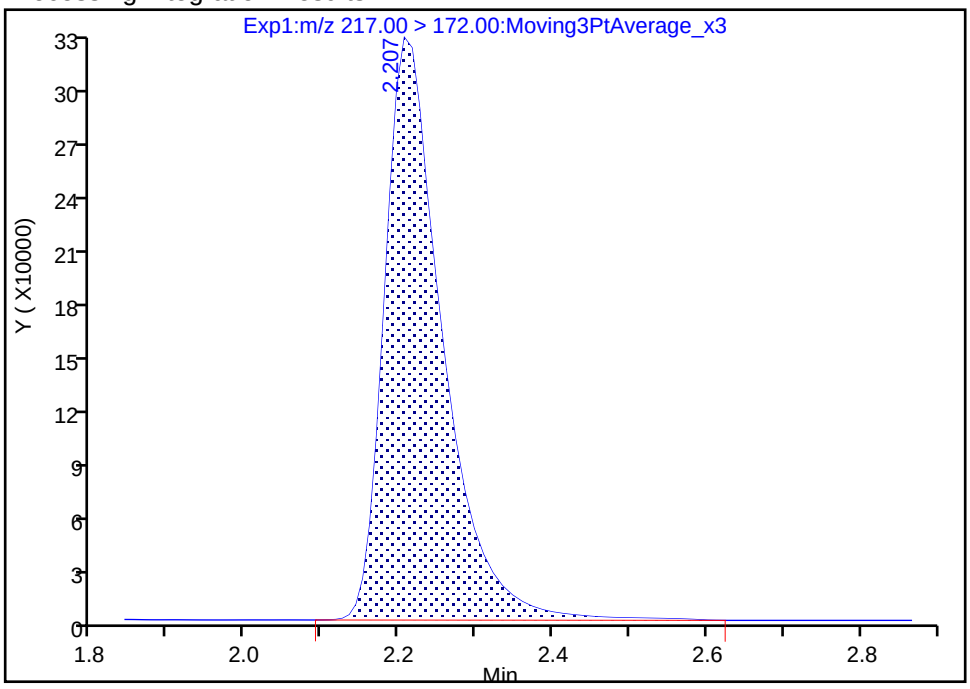
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

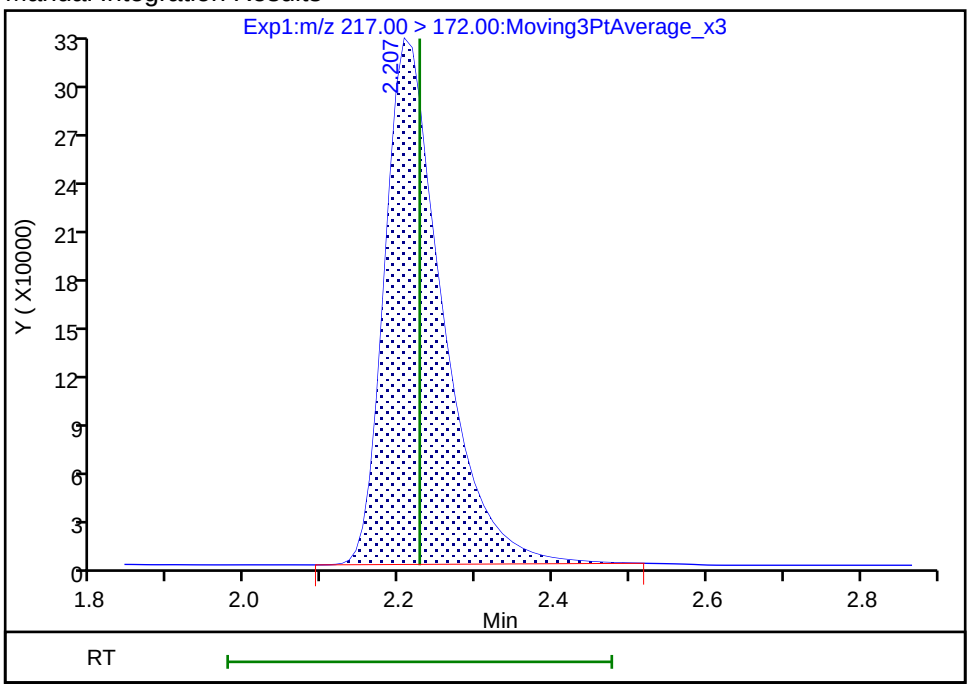
Processing Integration Results

RT: 2.21
Area: 1709074
Amount: 1.640033
Amount Units: ng/ml




Manual Integration Results

RT: 2.21
Area: 1690328
Amount: 1.622044
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:56:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

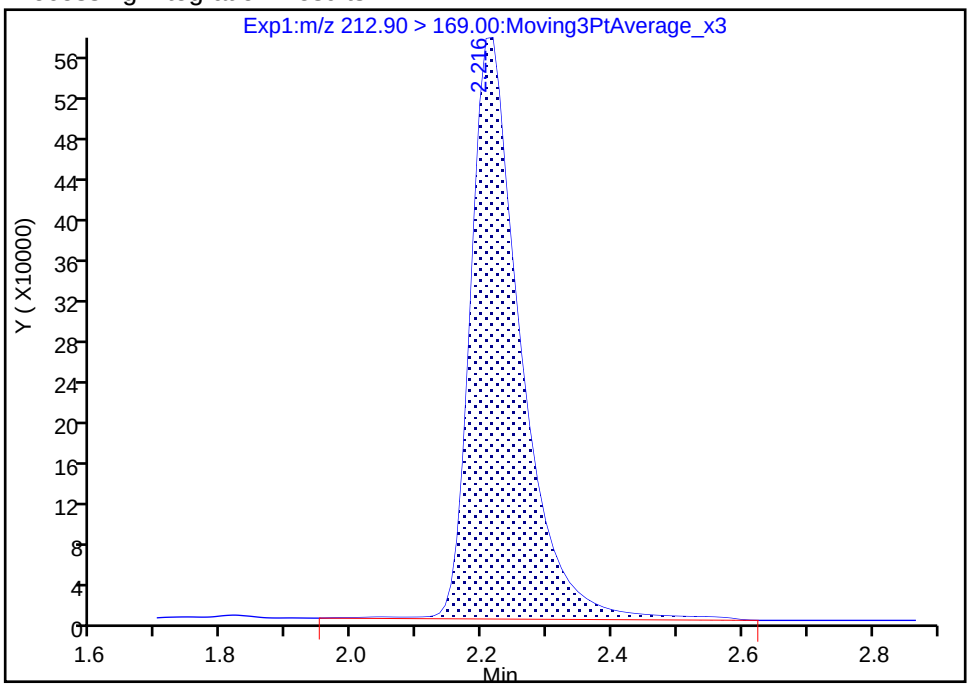
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

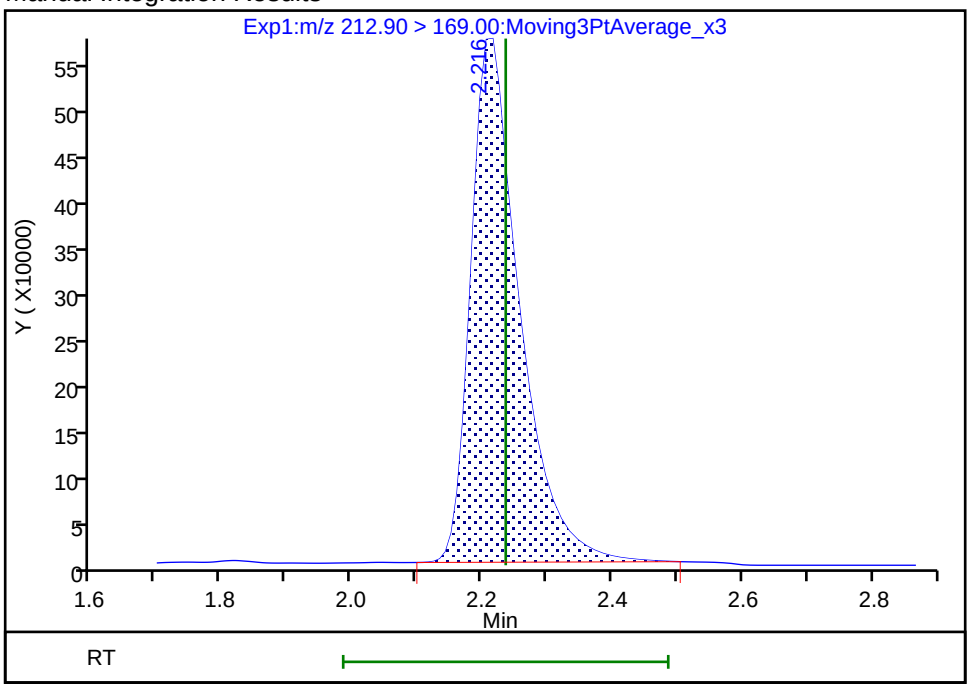
Processing Integration Results

RT: 2.22
Area: 3038733
Amount: 2.350461
Amount Units: ng/ml




Manual Integration Results

RT: 2.22
Area: 2958069
Amount: 2.313443
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

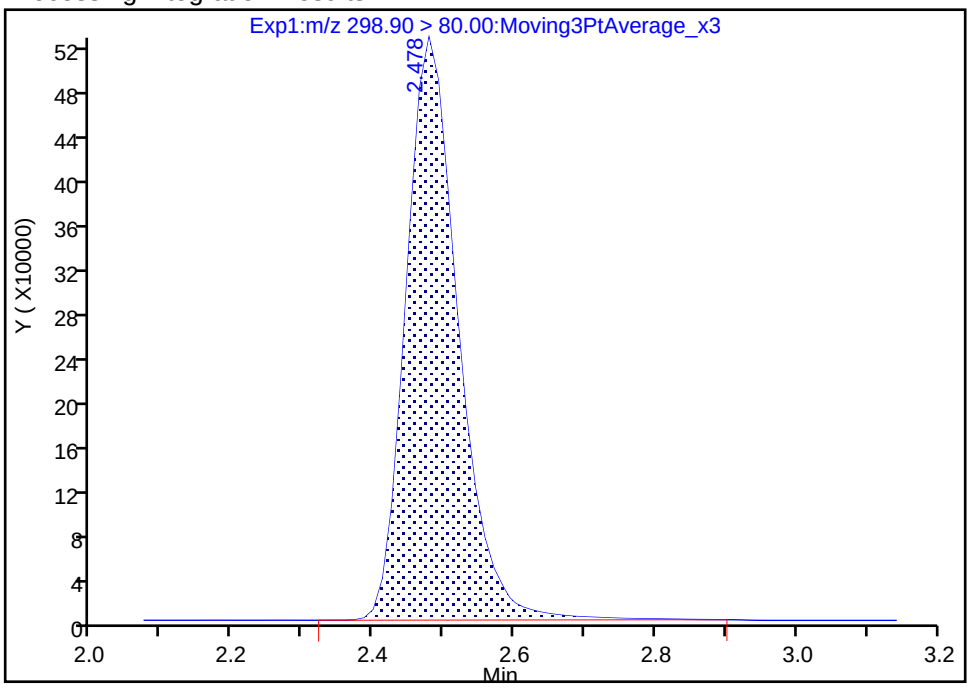
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

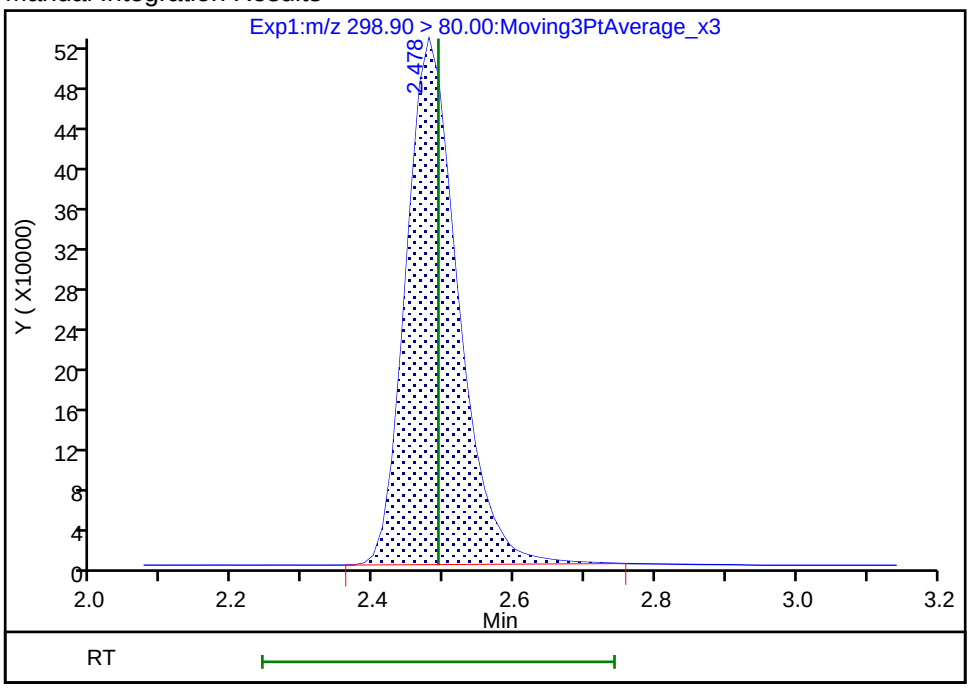
Processing Integration Results

RT: 2.48
Area: 2685694
Amount: 1.964299
Amount Units: ng/ml




Manual Integration Results

RT: 2.48
Area: 2666892
Amount: 1.950547
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d

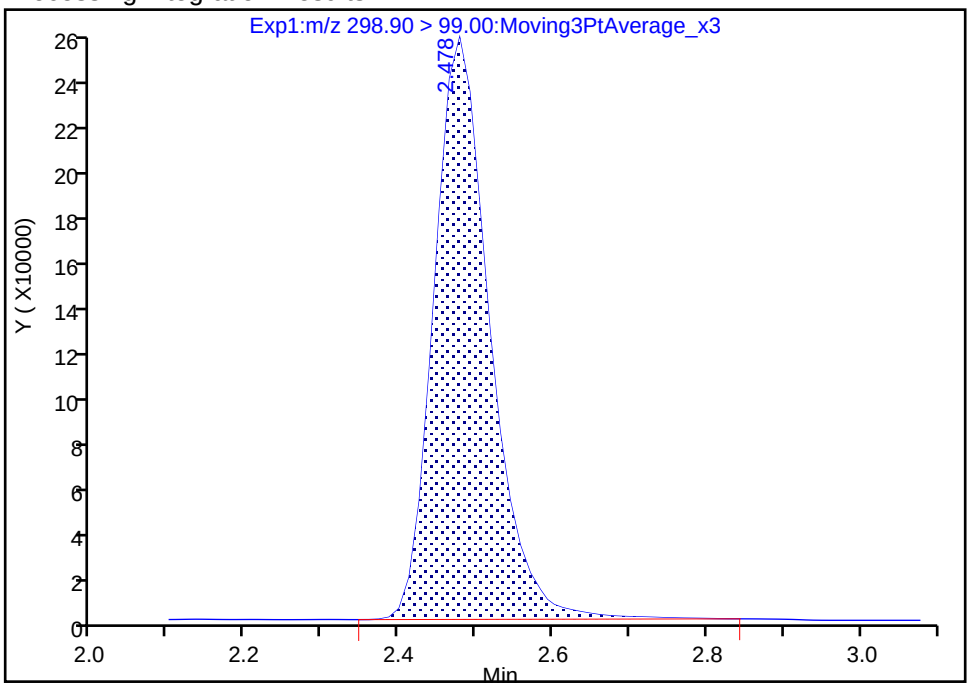
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

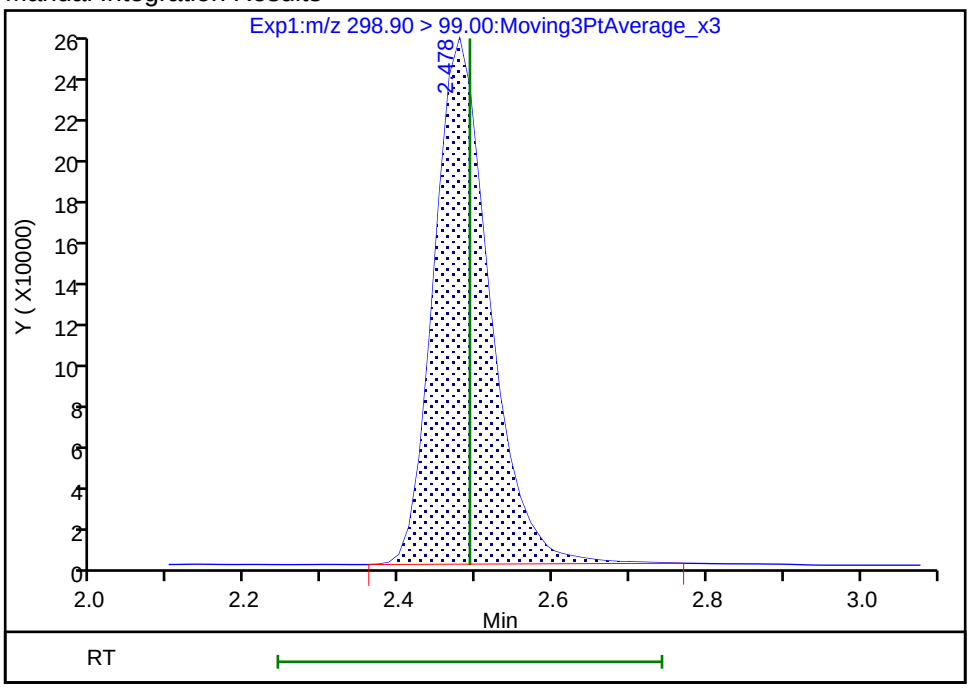
Processing Integration Results

RT: 2.48
Area: 1274094
Amount: 1.964299
Amount Units: ng/ml




Manual Integration Results

RT: 2.48
Area: 1269121
Amount: 1.950547
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

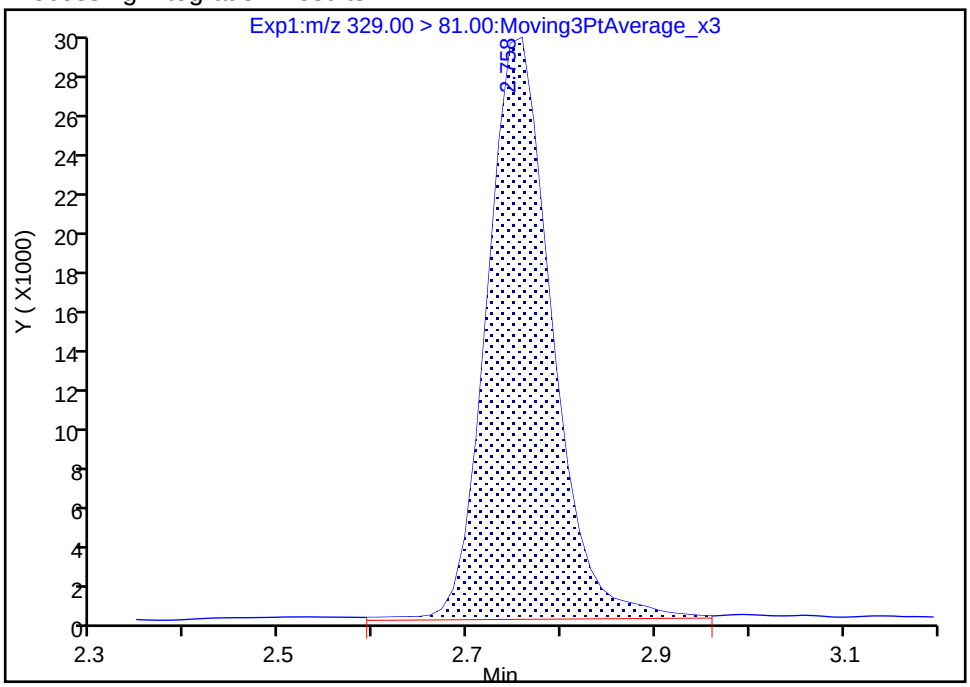
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

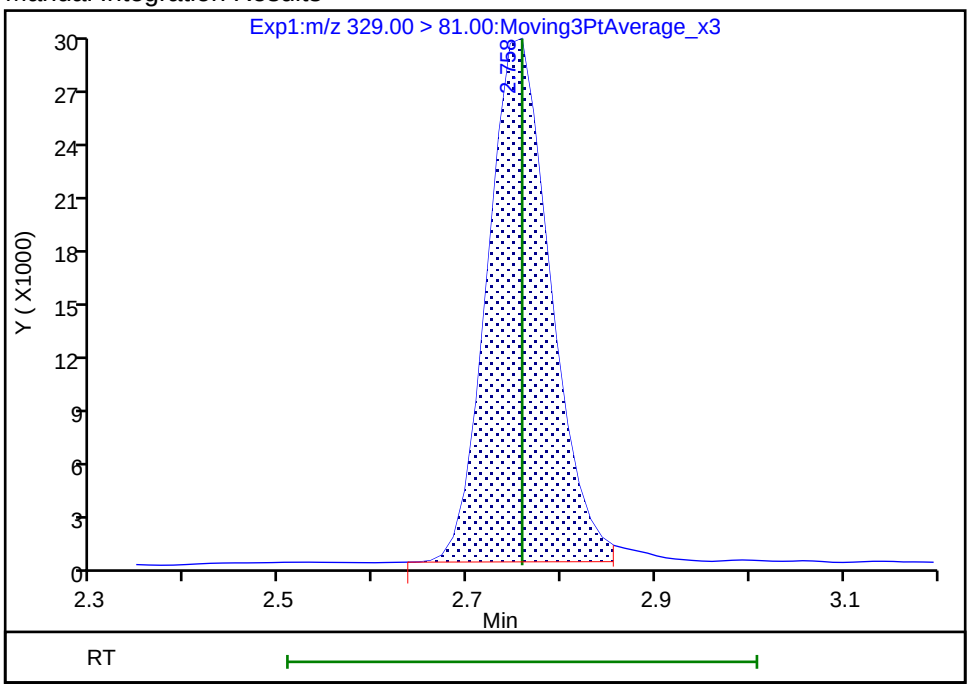
Processing Integration Results

RT: 2.76
Area: 142900
Amount: 1.578478
Amount Units: ng/ml




Manual Integration Results

RT: 2.76
Area: 137719
Amount: 1.521248
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:32:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

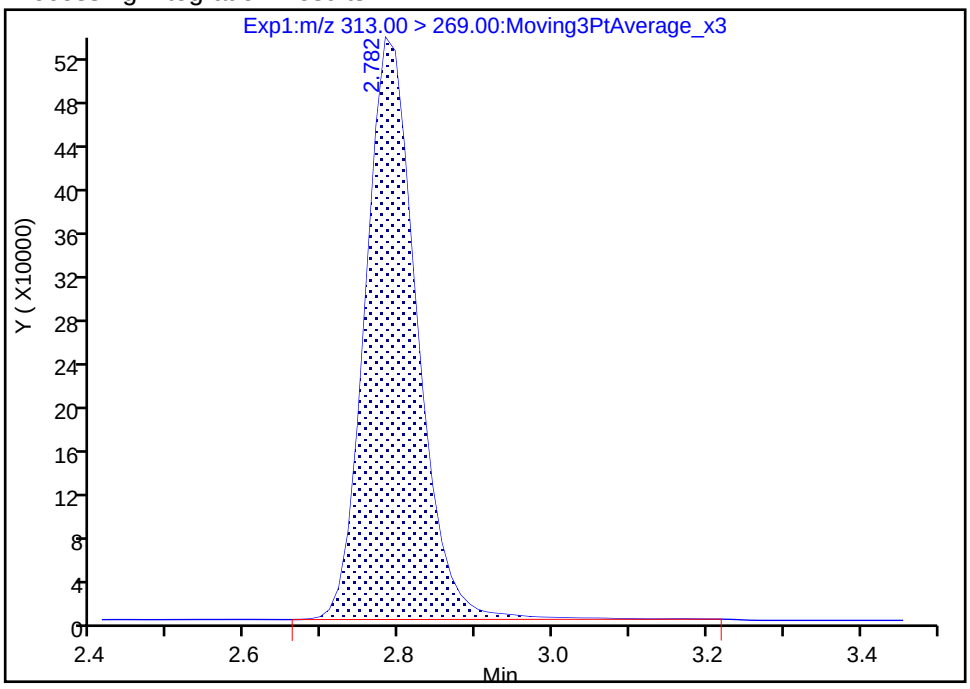
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

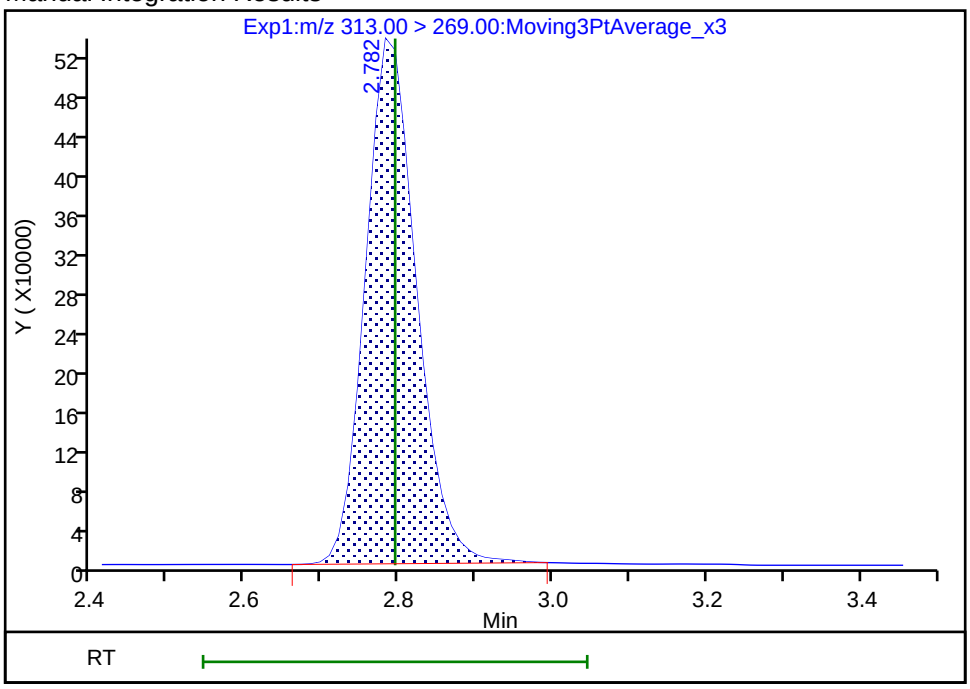
Processing Integration Results

RT: 2.78
Area: 2462454
Amount: 2.429459
Amount Units: ng/ml




Manual Integration Results

RT: 2.78
Area: 2437831
Amount: 2.405166
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

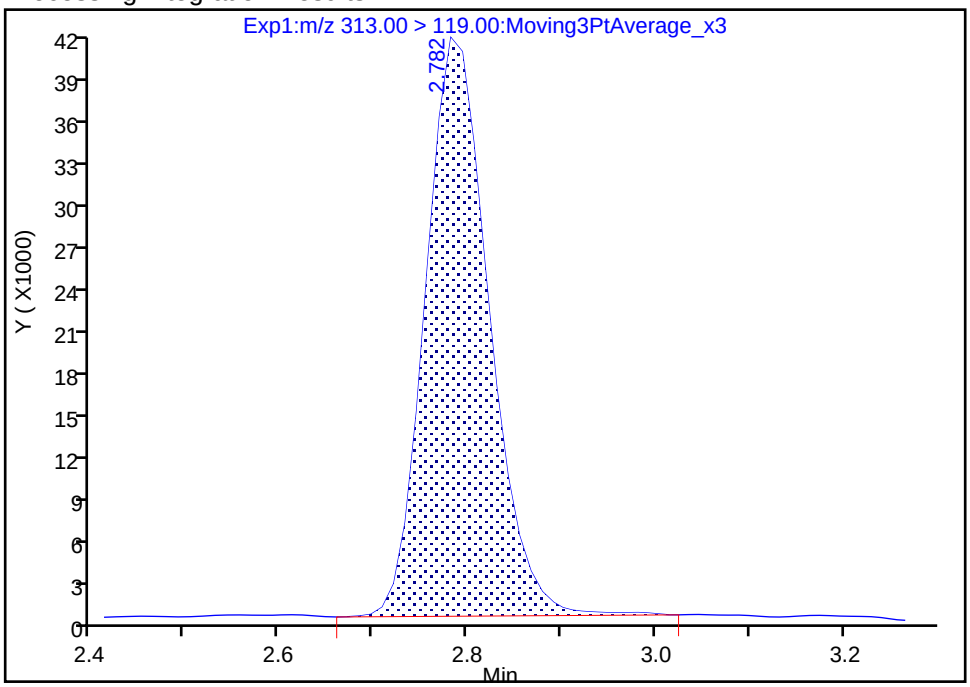
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d | | | | |
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

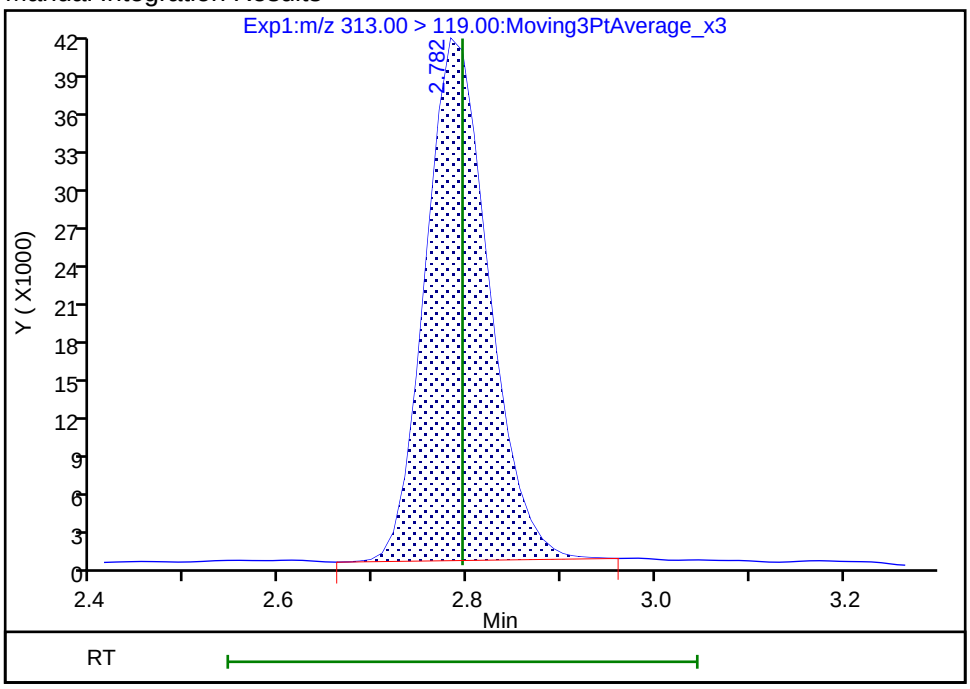
Processing Integration Results

RT: 2.78
Area: 194168
Amount: 2.429459
Amount Units: ng/ml




Manual Integration Results

RT: 2.78
Area: 192225
Amount: 2.405166
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

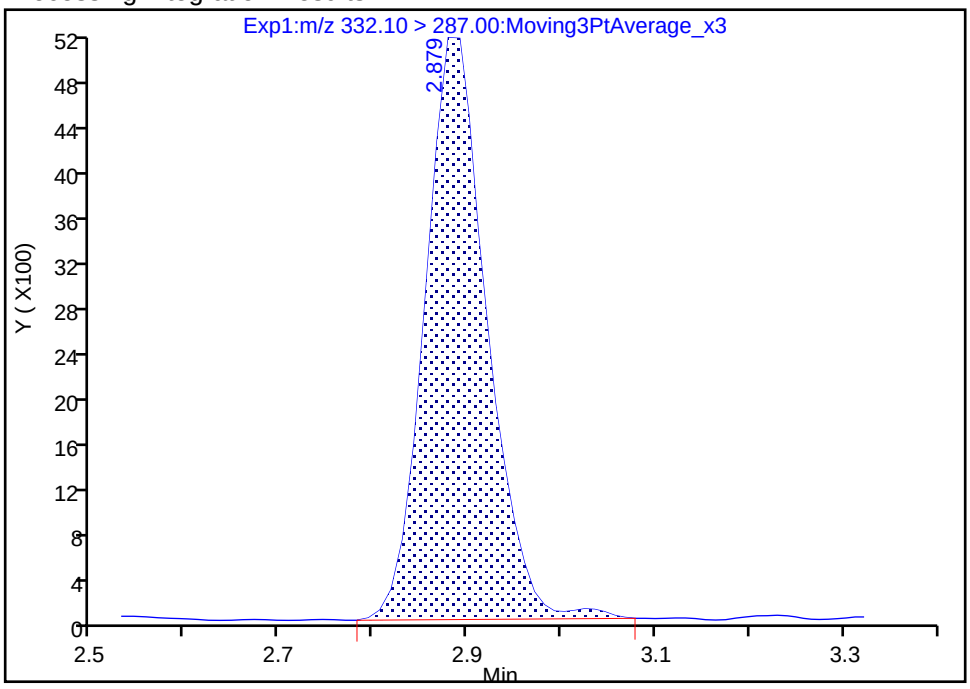
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

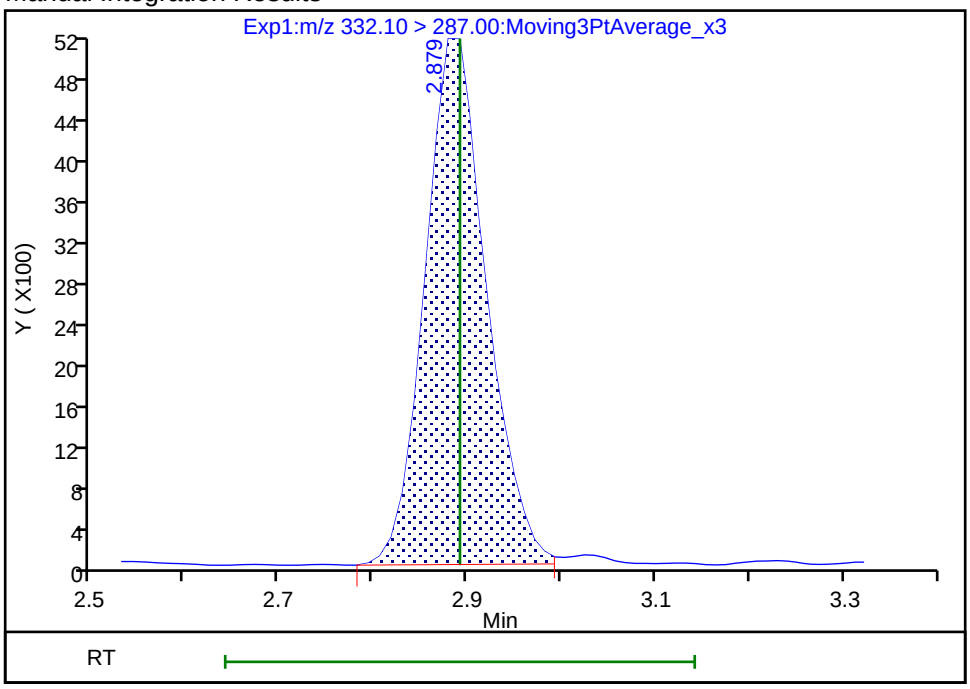
Processing Integration Results

RT: 2.88
Area: 23403
Amount: 0.964592
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 23128
Amount: 0.953257
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

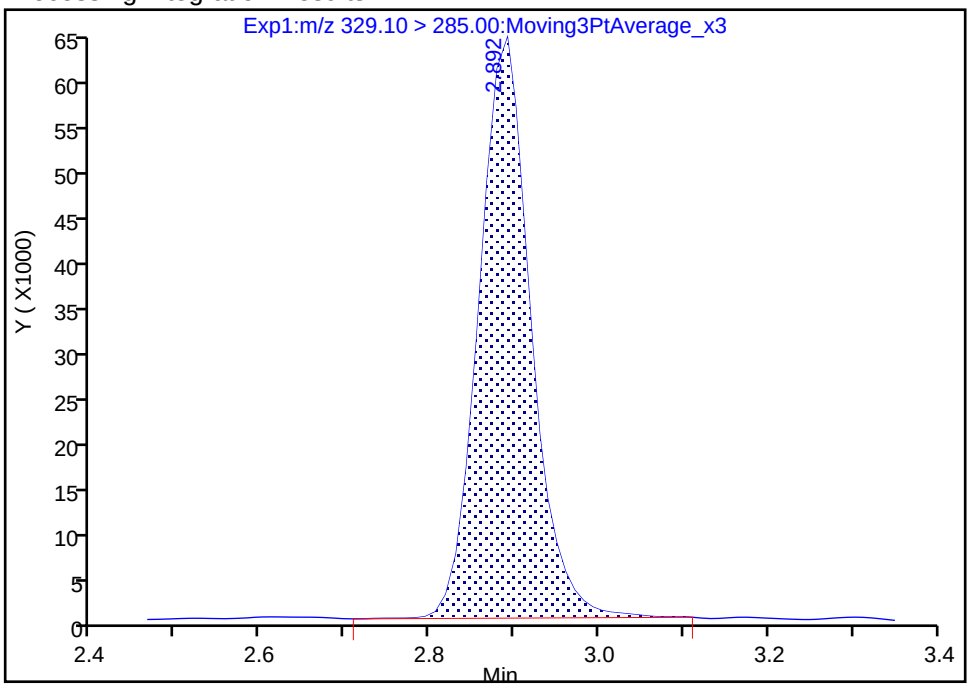
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d | | | | |
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

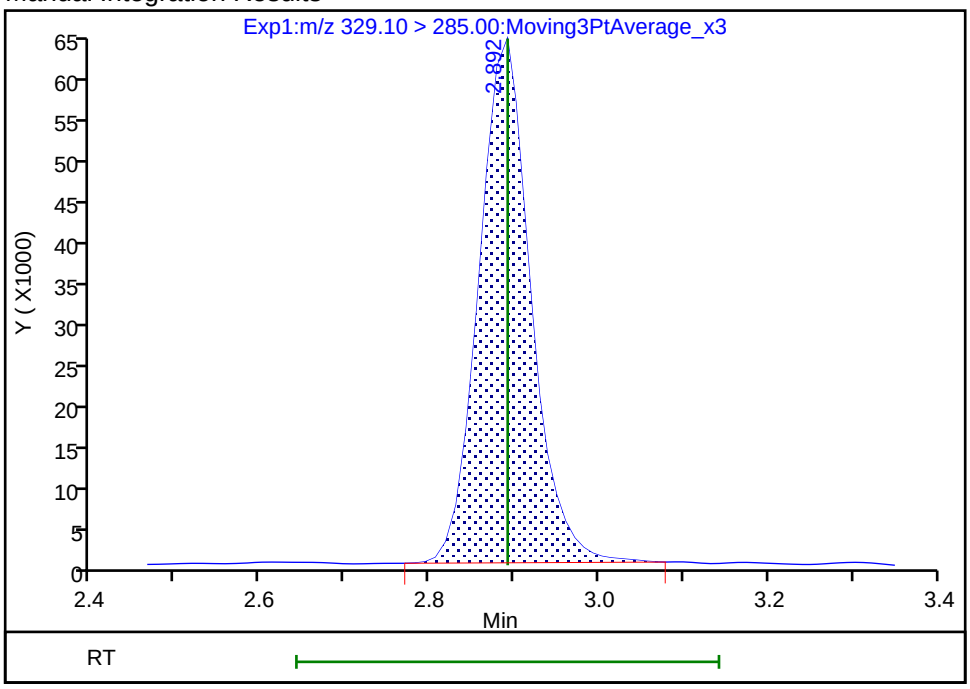
Processing Integration Results

RT: 2.89
Area: 273367
Amount: 3.265037
Amount Units: ng/ml




Manual Integration Results

RT: 2.89
Area: 272161
Amount: 3.250633
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

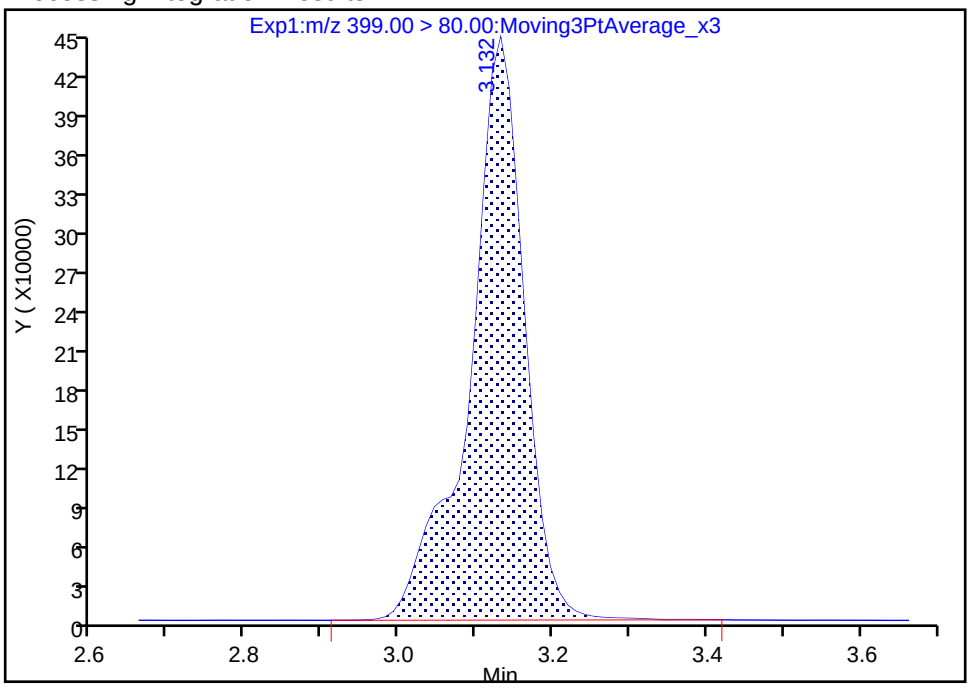
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

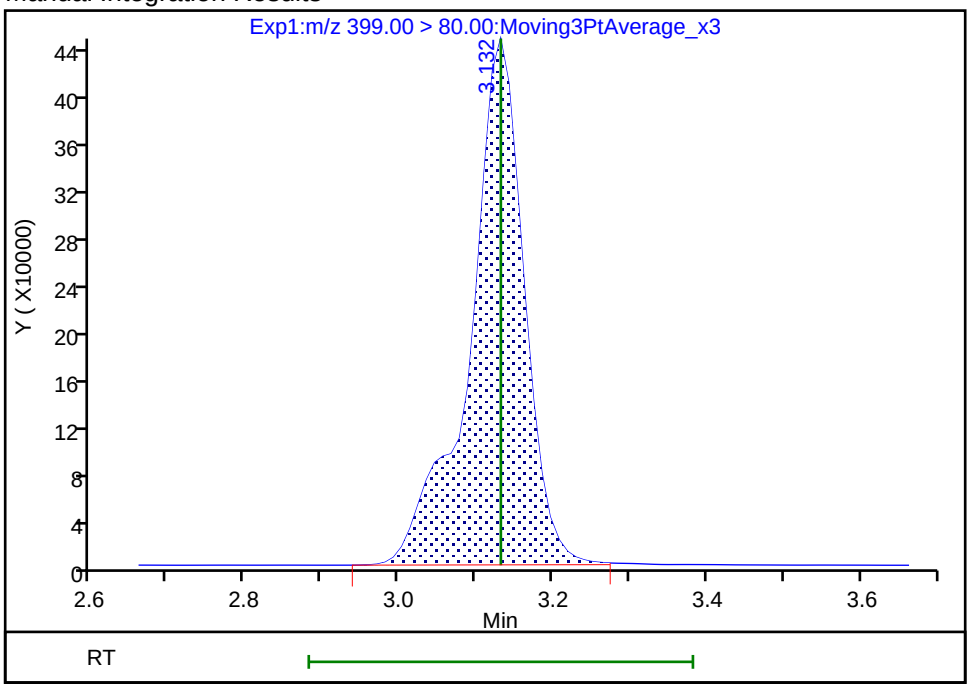
Processing Integration Results

RT: 3.13
Area: 2210213
Amount: 2.158928
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2204177
Amount: 2.153032
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

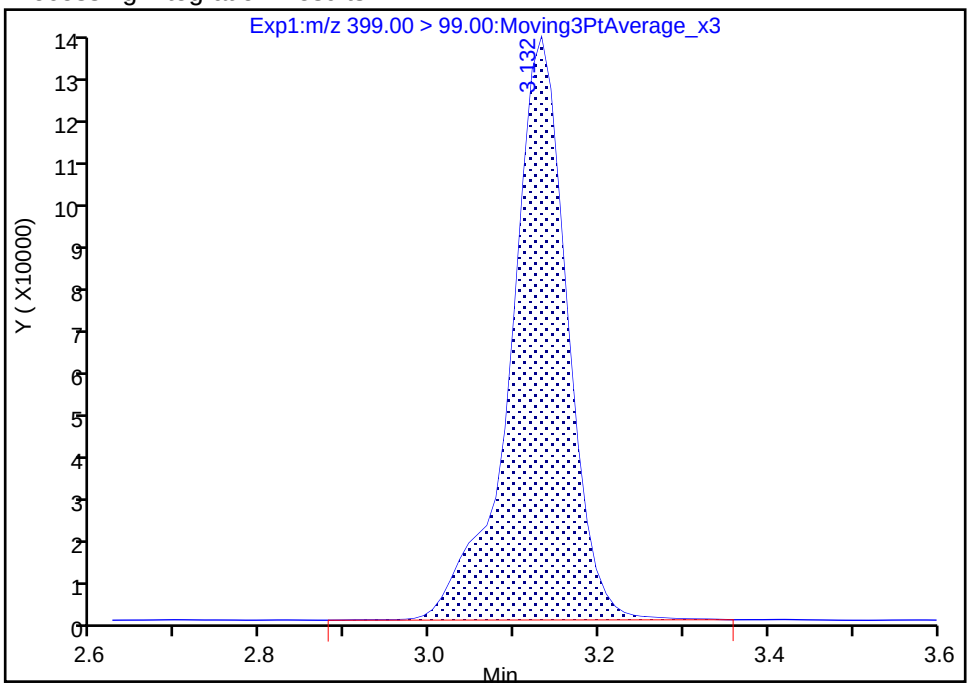
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

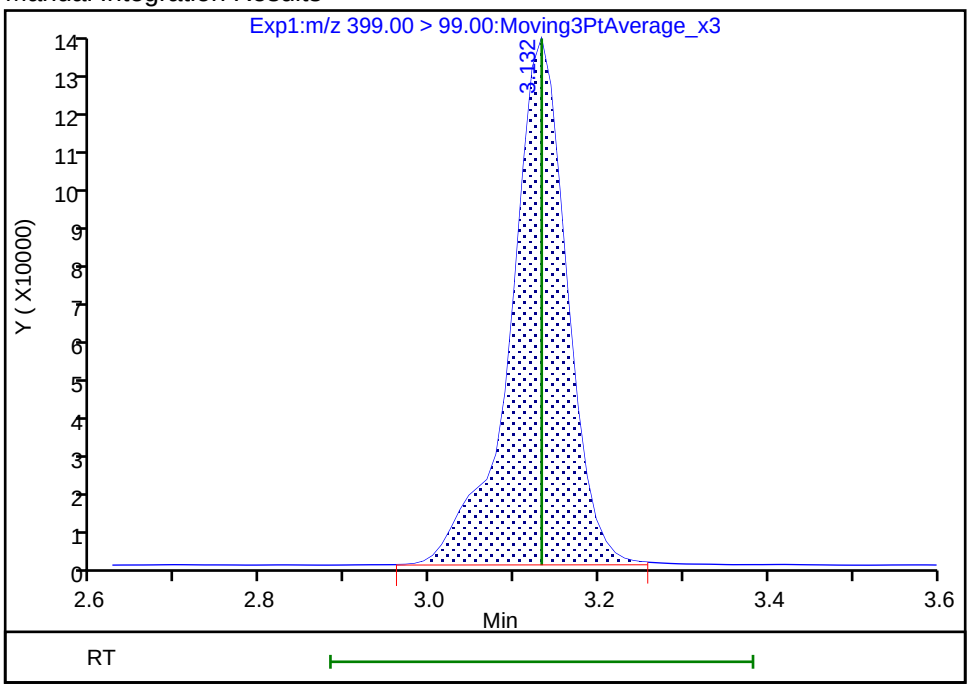
Processing Integration Results

RT: 3.13
Area: 624603
Amount: 2.158928
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 622927
Amount: 2.153032
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

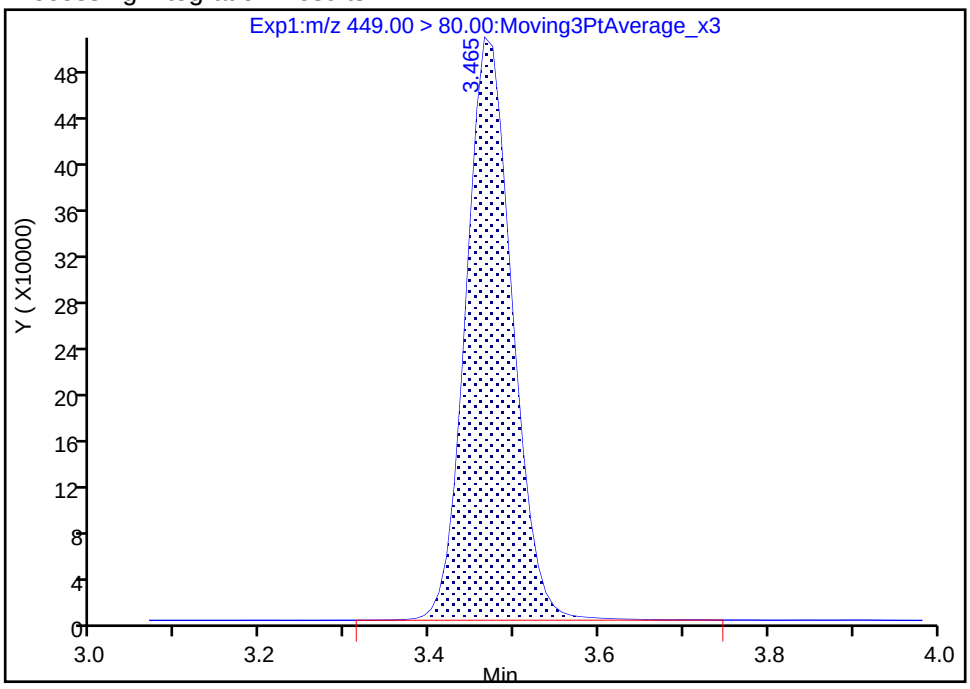
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

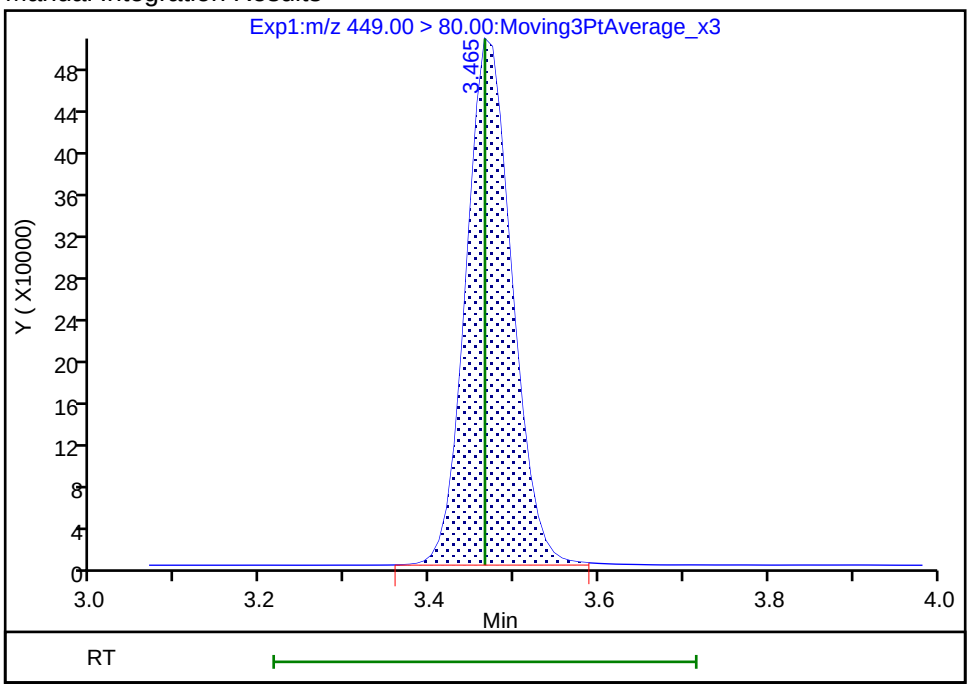
Processing Integration Results

RT: 3.46
Area: 1918569
Amount: 2.303268
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1913894
Amount: 2.297655
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

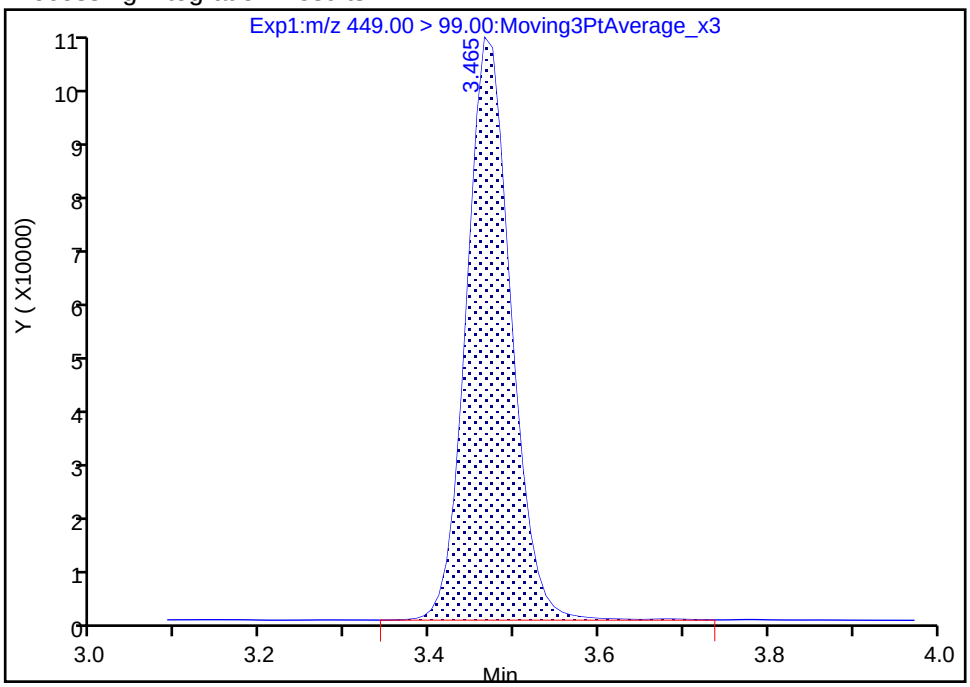
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

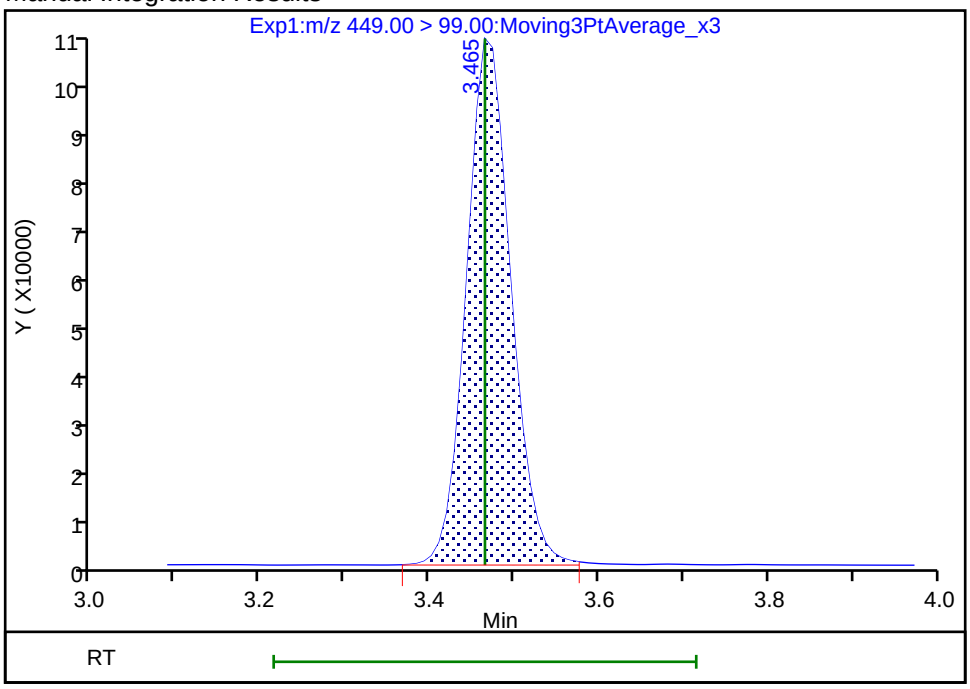
Processing Integration Results

RT: 3.46
Area: 380326
Amount: 2.303268
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 378474
Amount: 2.297655
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:34:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

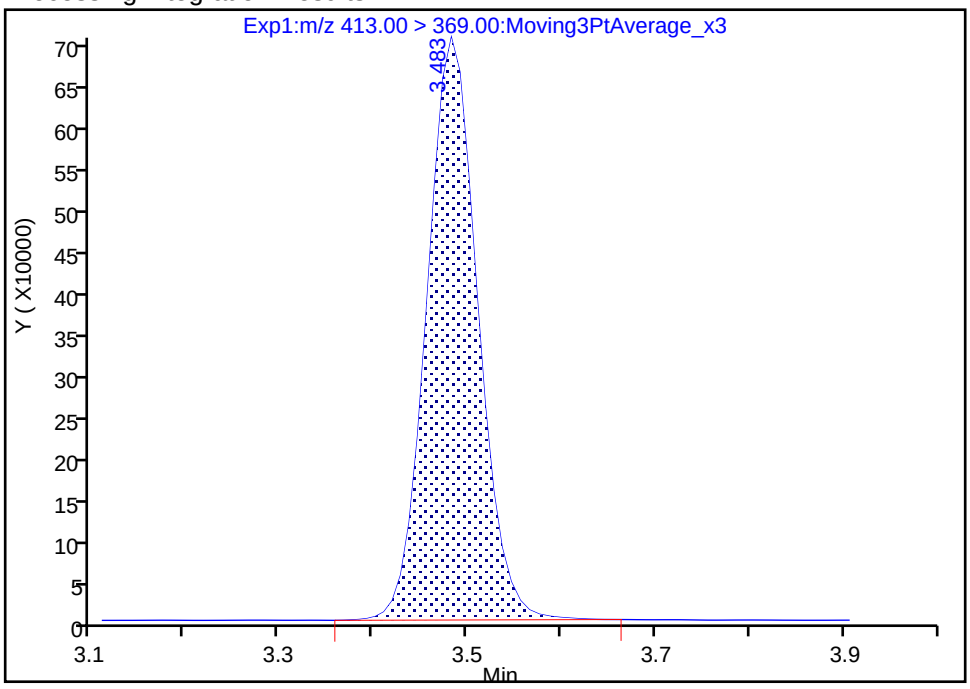
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

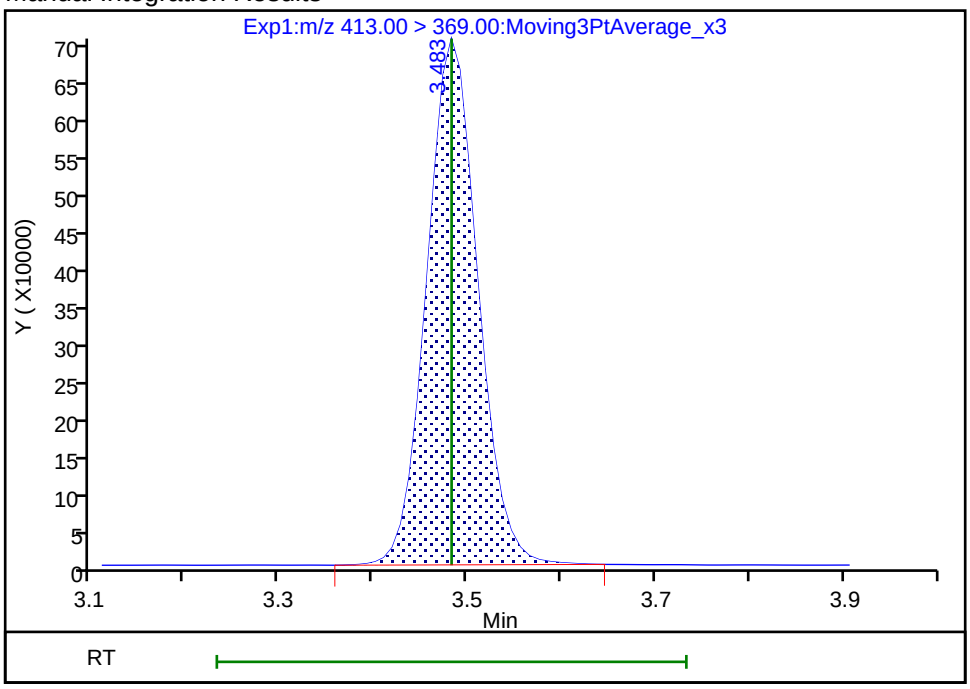
Processing Integration Results

RT: 3.48
Area: 2646401
Amount: 2.423493
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 2645023
Amount: 2.422231
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:35:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

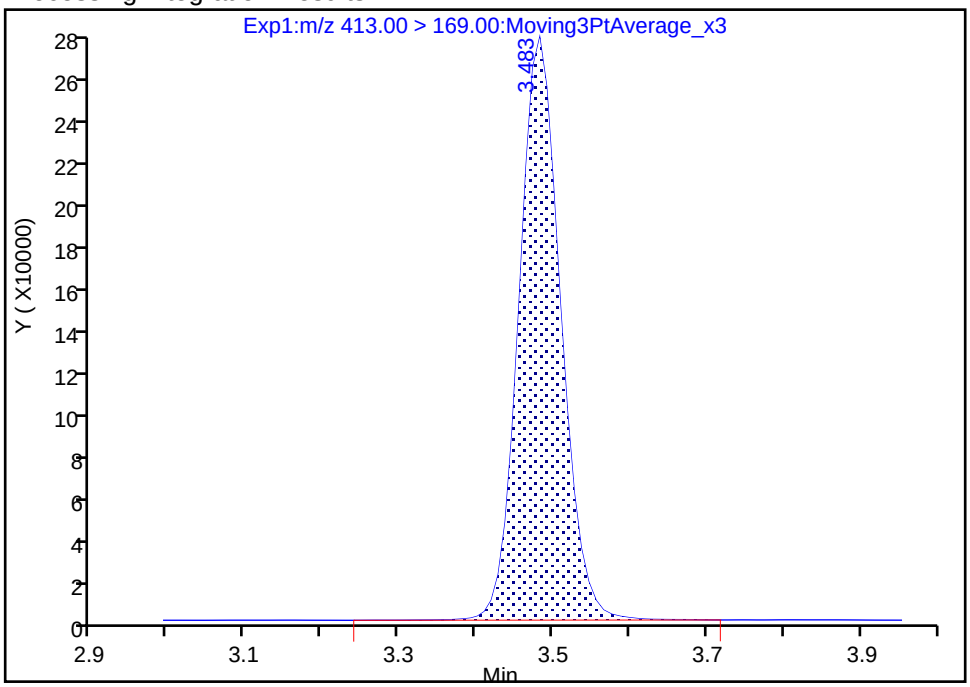
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d | | | | |
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

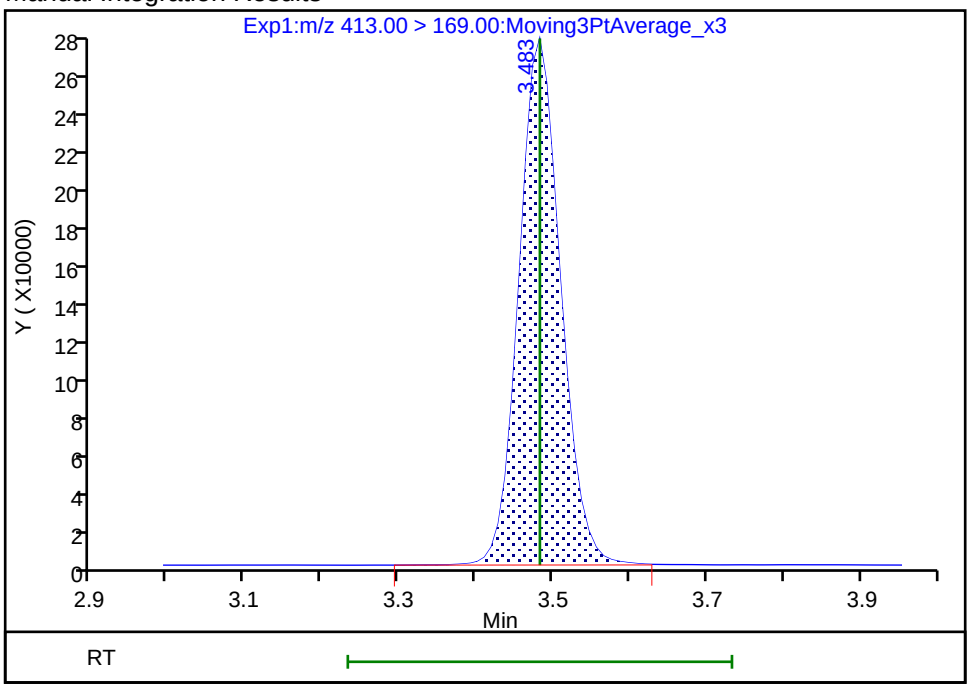
Processing Integration Results

RT: 3.48
Area: 1026701
Amount: 2.423493
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1025636
Amount: 2.422231
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:35:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

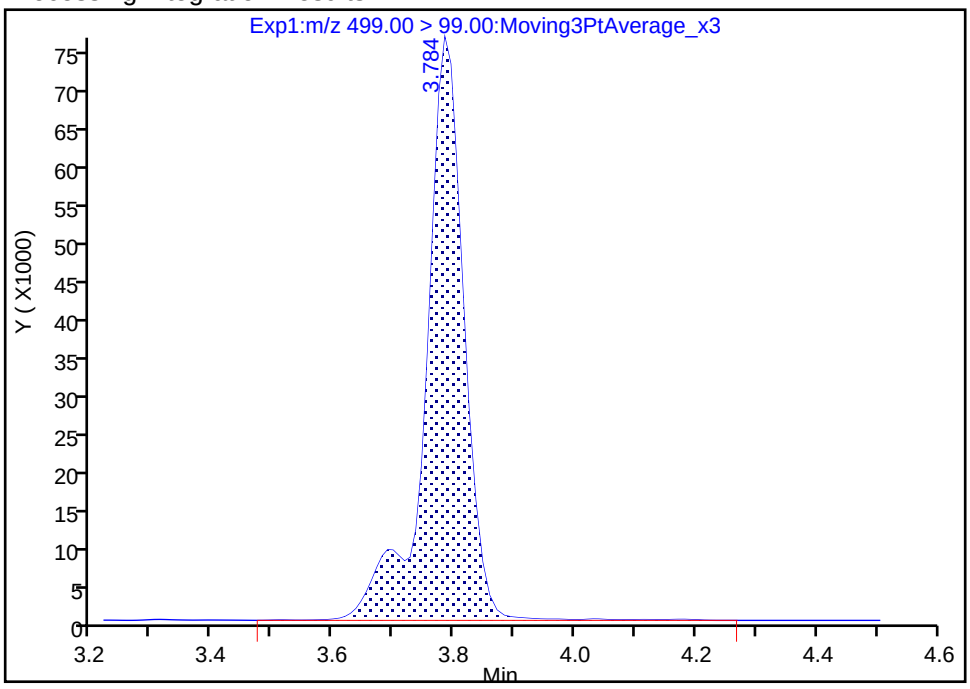
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

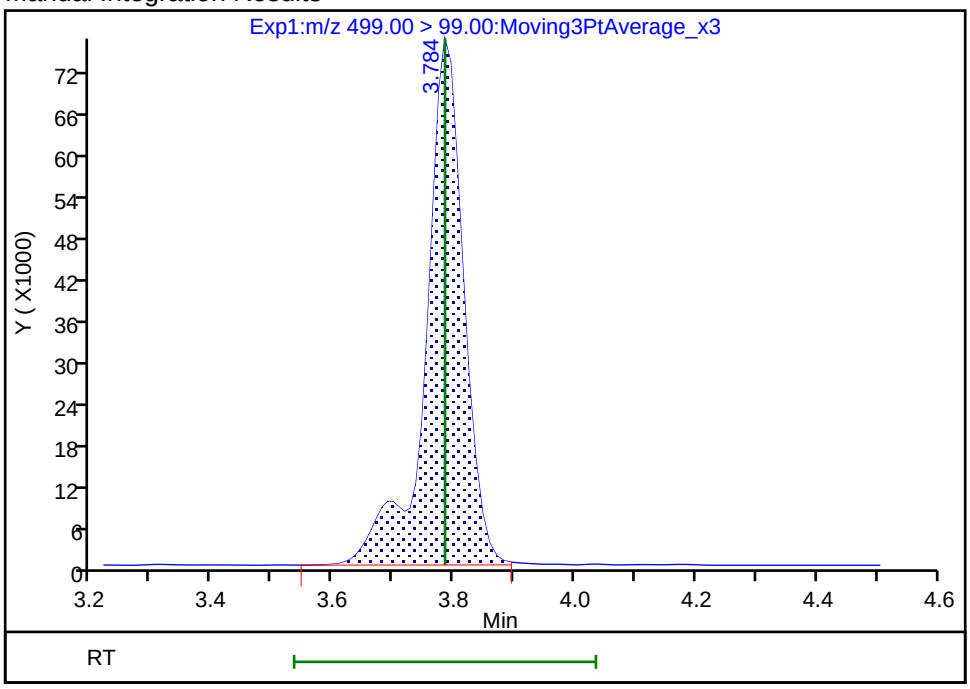
Processing Integration Results

RT: 3.78
Area: 337537
Amount: 2.210551
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 334296
Amount: 2.193163
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:41:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

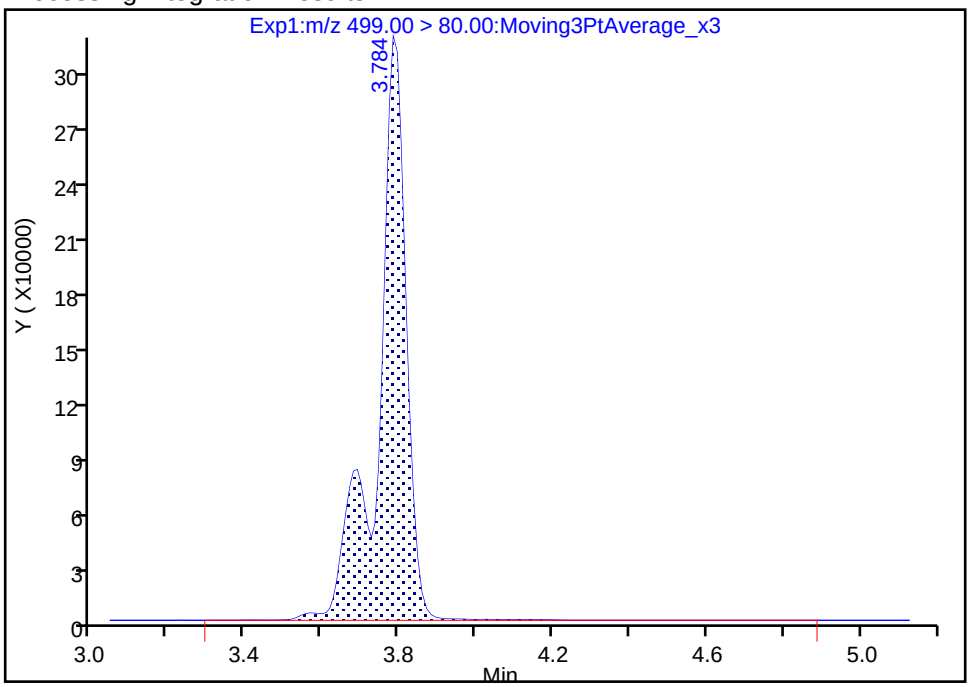
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

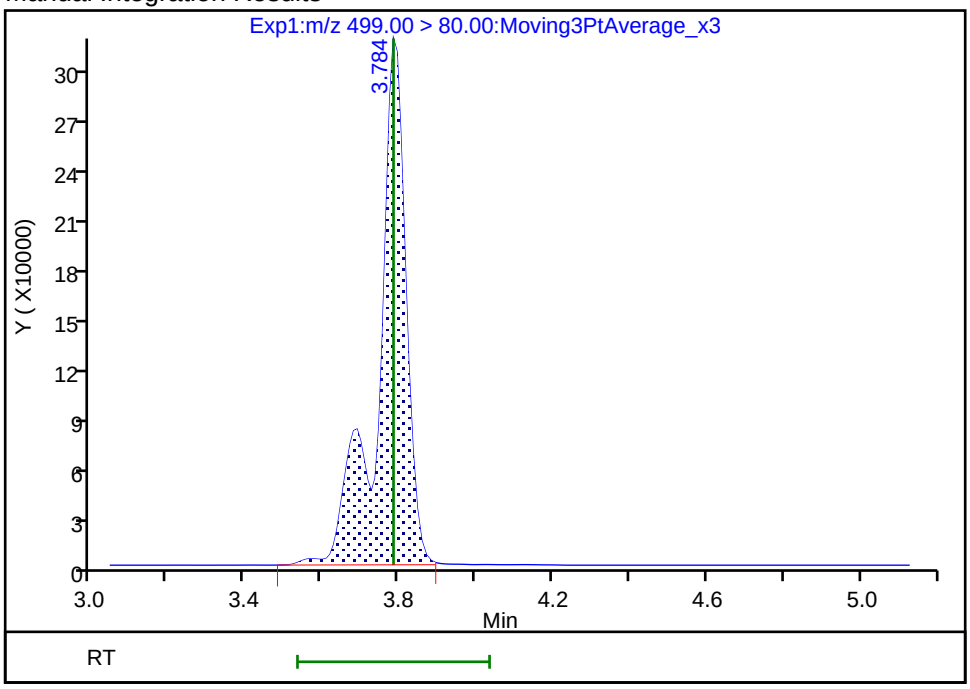
Processing Integration Results

RT: 3.78
Area: 1602695
Amount: 2.210551
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 1590088
Amount: 2.193163
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:41:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

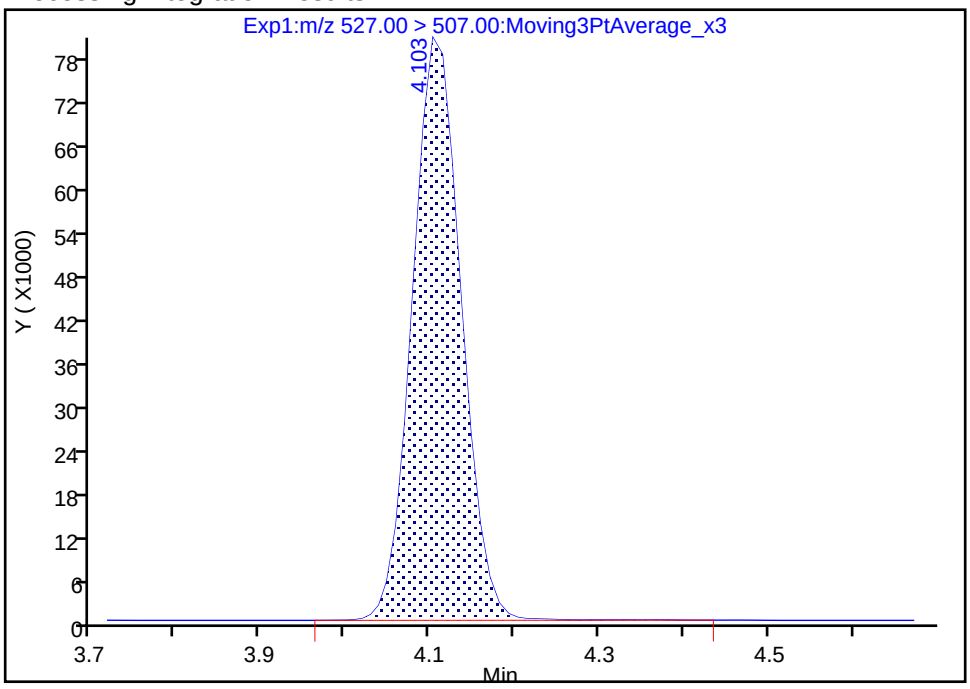
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

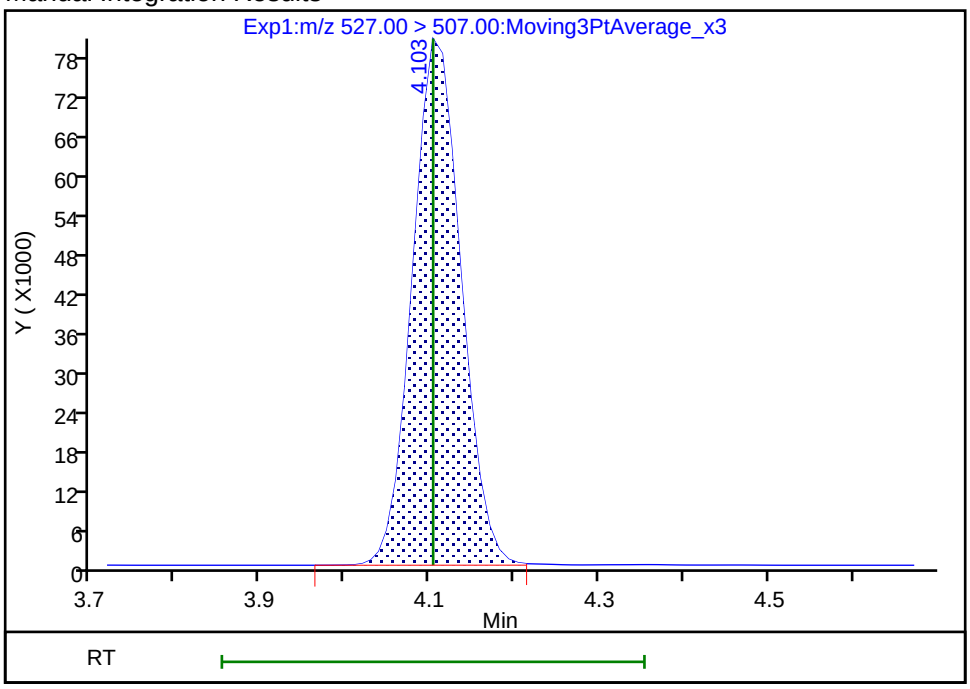
Processing Integration Results

RT: 4.10
Area: 319810
Amount: 2.119332
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 319024
Amount: 2.114123
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:35:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

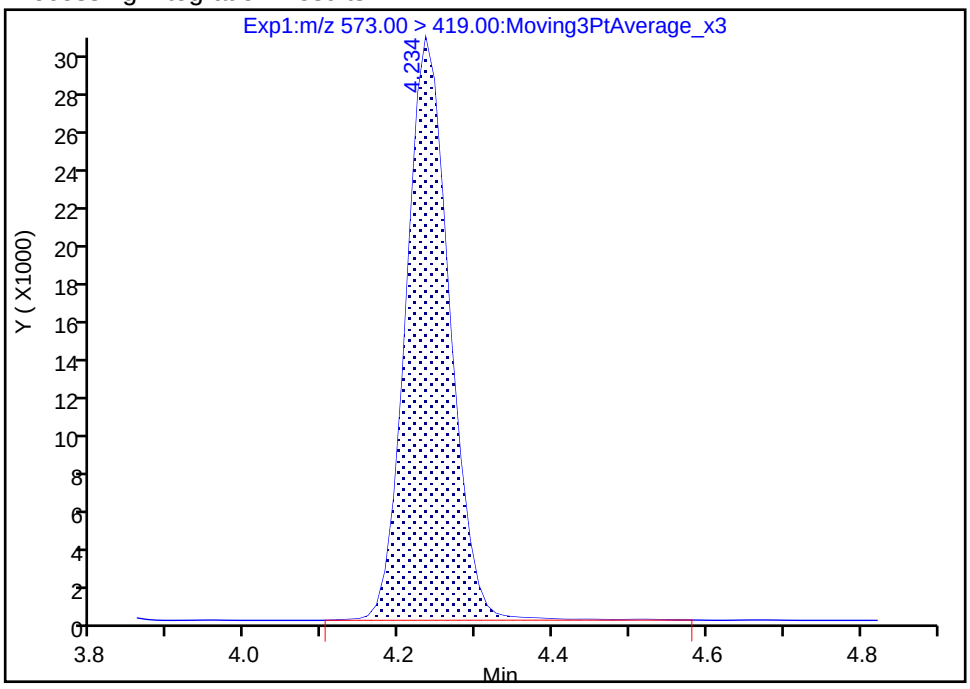
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

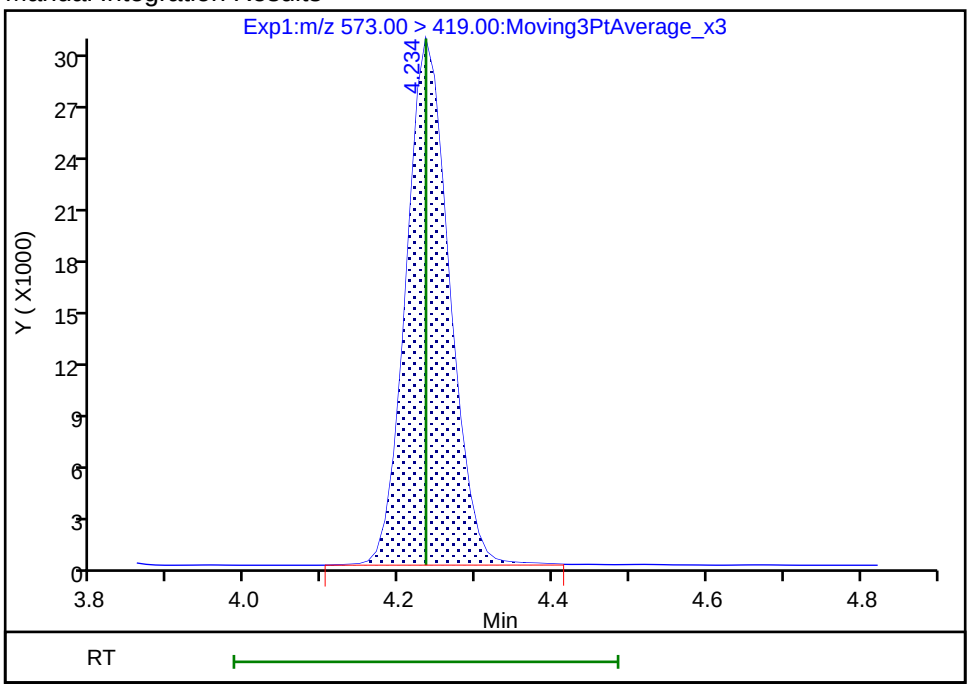
Processing Integration Results

RT: 4.23
Area: 119402
Amount: 1.139954
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 119161
Amount: 1.137653
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:33:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

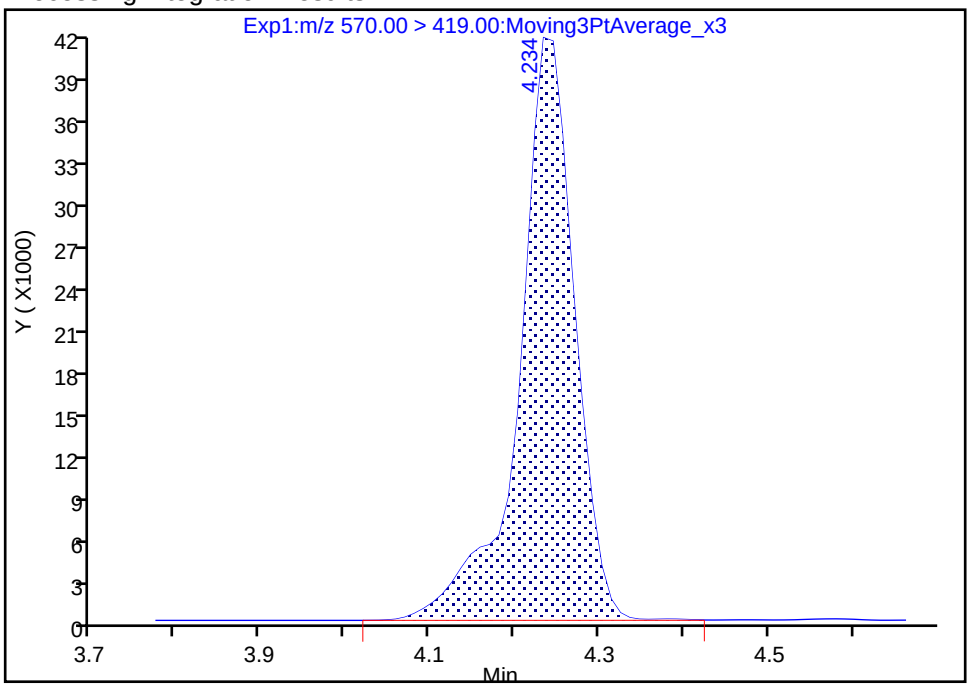
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

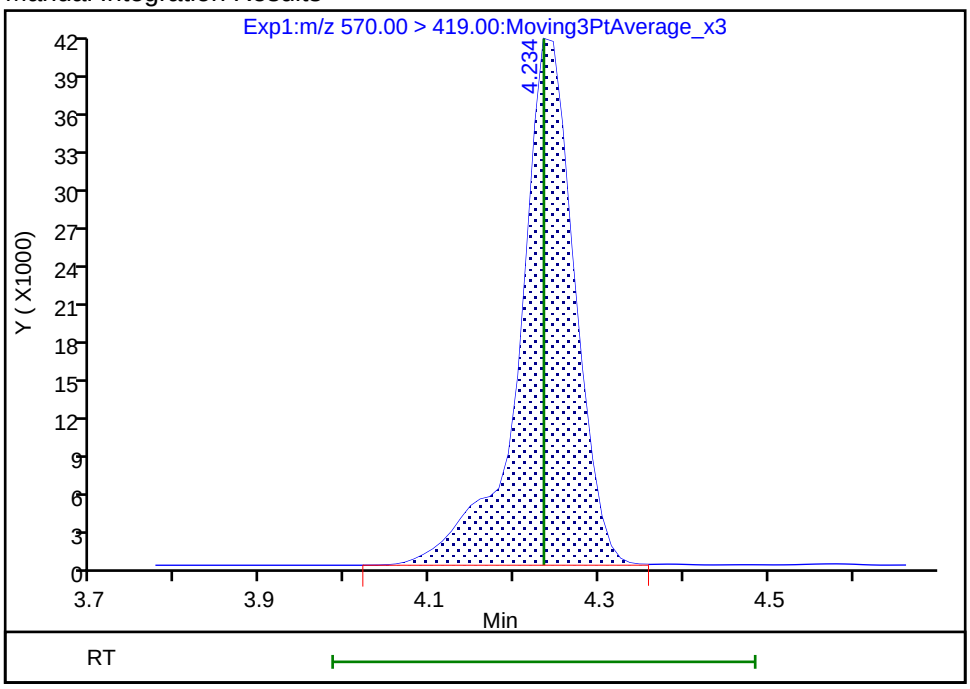
Processing Integration Results

RT: 4.23
Area: 189642
Amount: 2.532287
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 189401
Amount: 2.529069
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:35:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

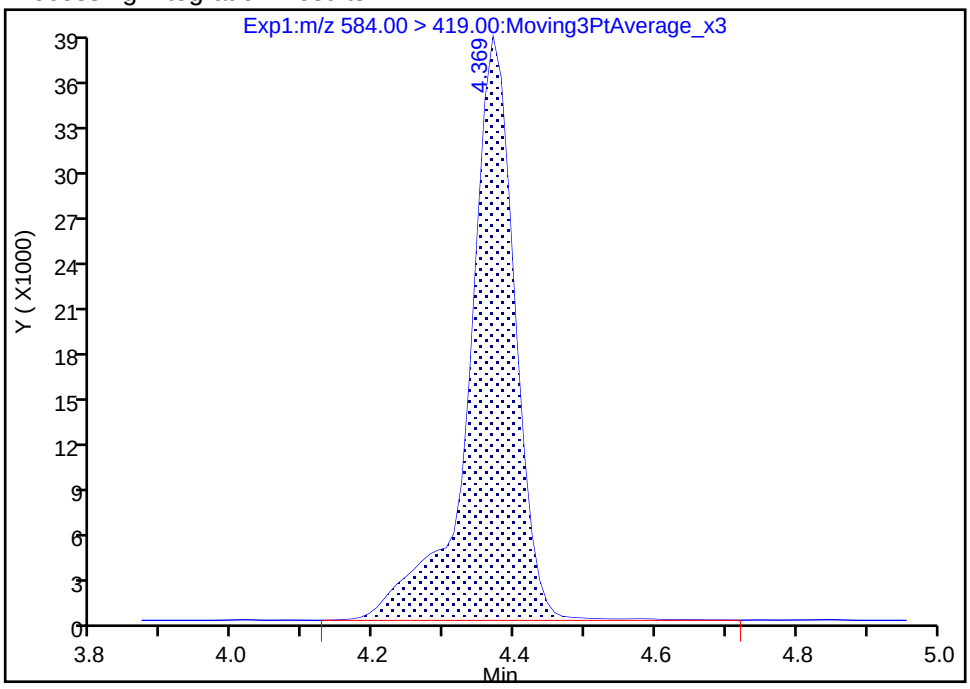
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d | | | | |
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

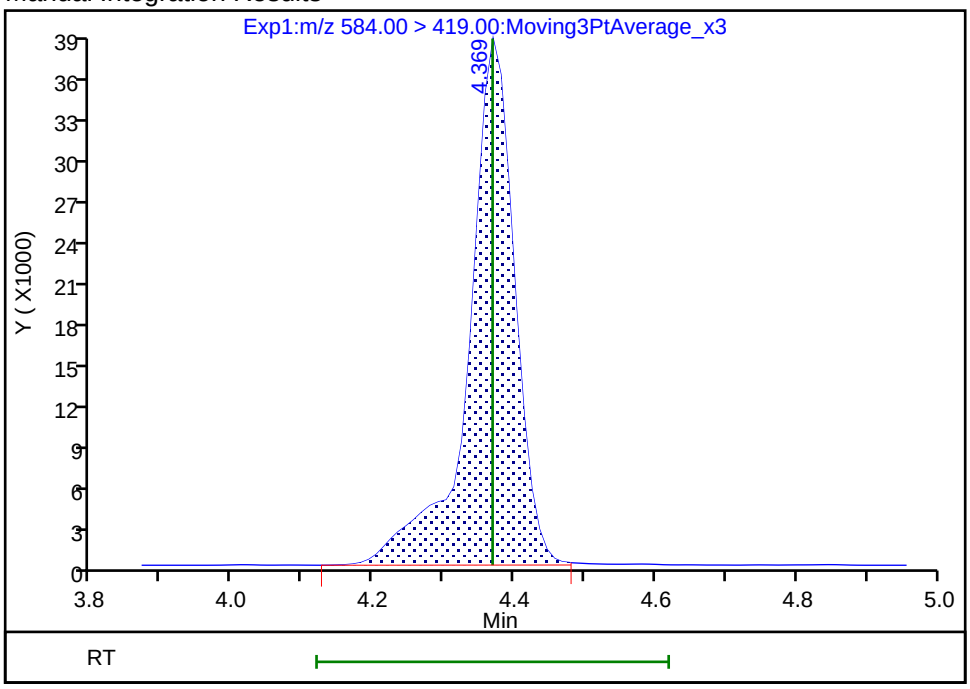
Processing Integration Results

RT: 4.37
Area: 174276
Amount: 2.350337
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 173223
Amount: 2.336135
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:42:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

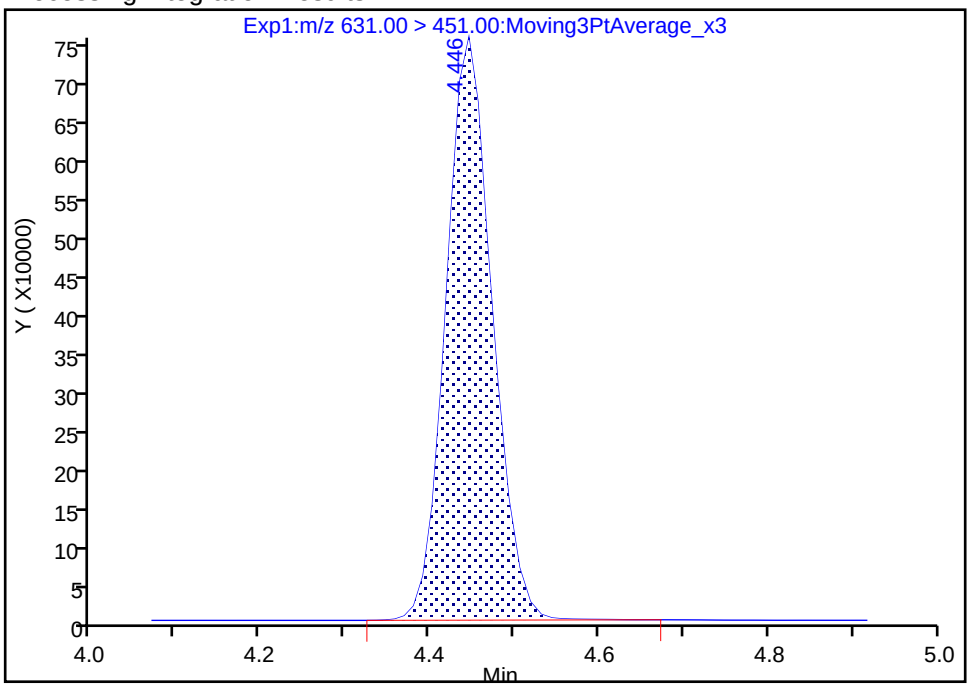
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

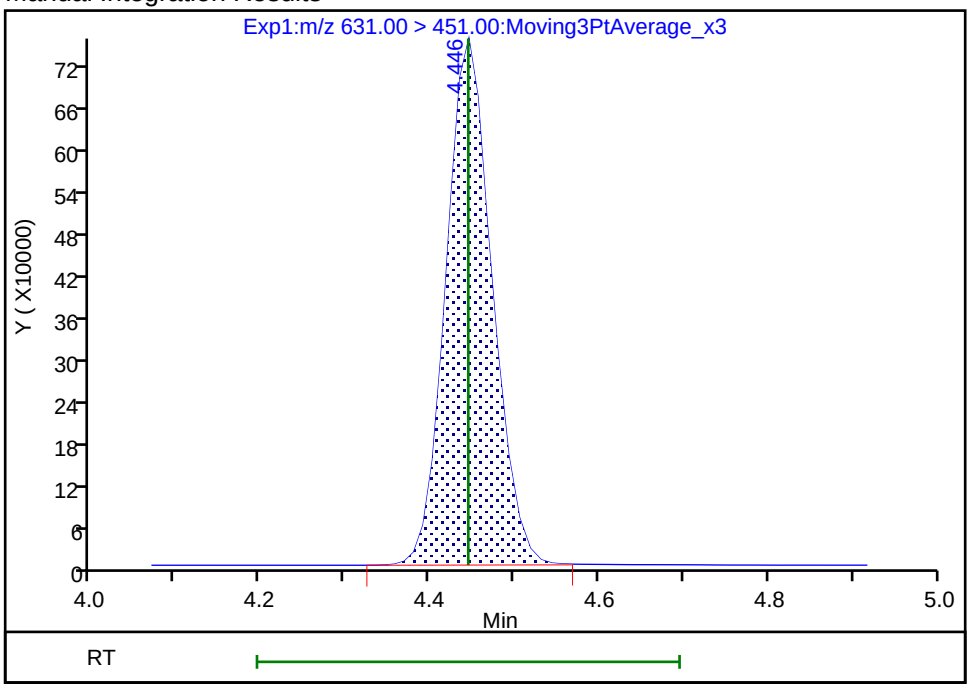
Processing Integration Results

RT: 4.45
Area: 2836840
Amount: 2.199190
Amount Units: ng/ml




Manual Integration Results

RT: 4.45
Area: 2834390
Amount: 2.197291
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:36:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

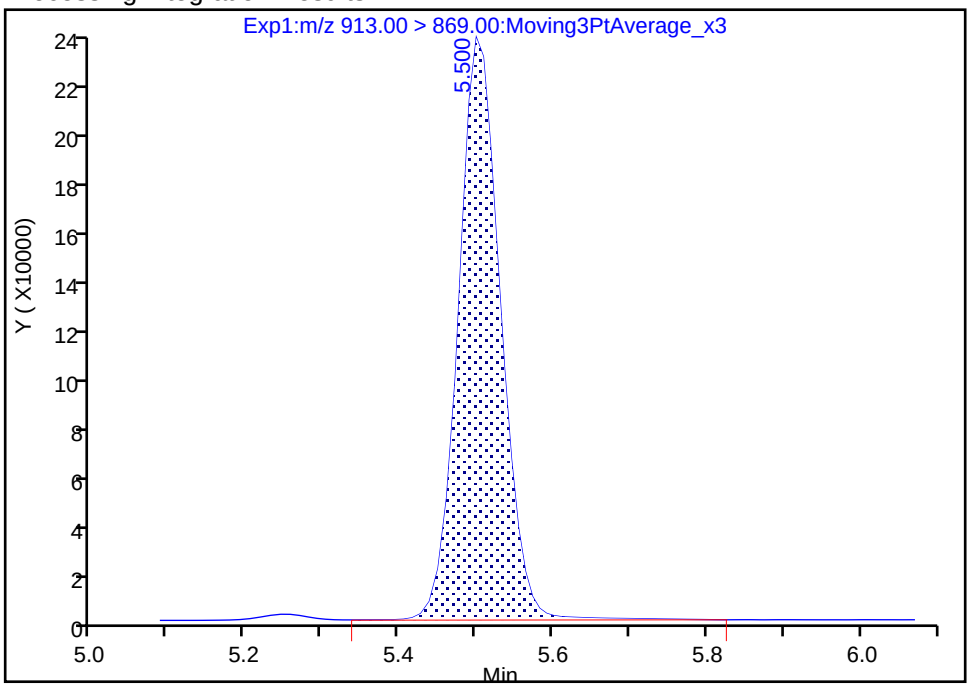
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d
Injection Date: 08-Nov-2021 17:06:40 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

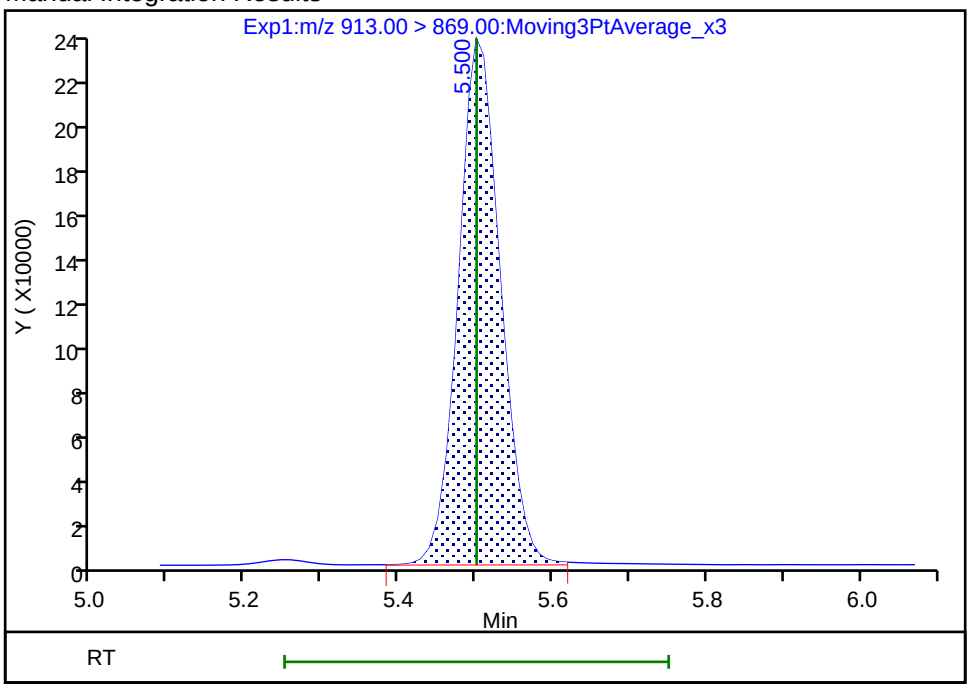
Processing Integration Results

RT: 5.50
Area: 898148
Amount: 2.025805
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 892210
Amount: 2.012412
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:36:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

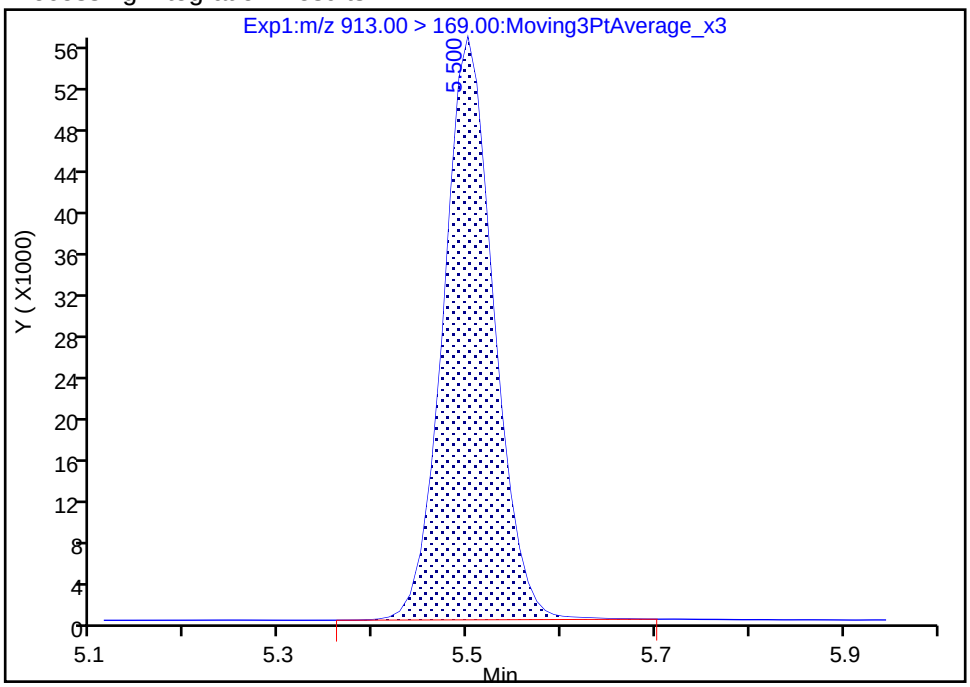
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A12.d | | | | |
| Injection Date: | 08-Nov-2021 17:06:40 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 9 | Worklist Smp#: | 12 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

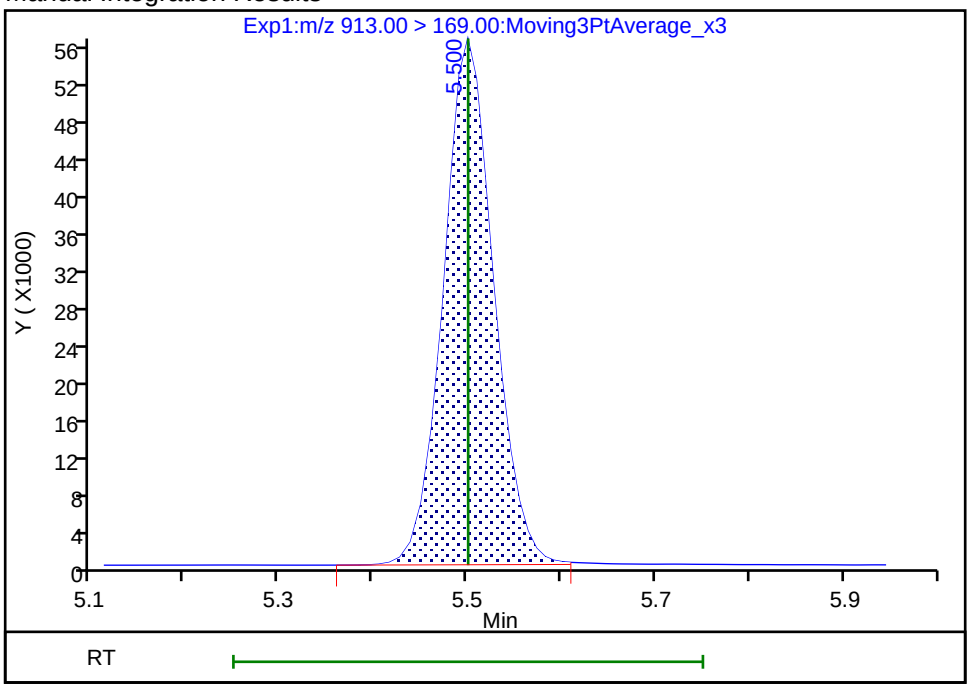
Processing Integration Results

RT: 5.50
Area: 208183
Amount: 2.025805
Amount Units: ng/ml




Manual Integration Results

RT: 5.50
Area: 207760
Amount: 2.012412
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:36:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/26  Calibration Date: 11/08/2021 18:47

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A26.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8790 | | 0.930 | 1.00 | -7.0 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9502 | | 0.949 | 1.00 | -5.1 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.9845 | | 0.815 | 0.884 | -7.8 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.045 | | 0.898 | 0.934 | -3.9 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9664 | | 0.953 | 1.00 | -4.7 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.212 | | 0.944 | 0.938 | 0.7 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.117 | | 1.13 | 1.00 | 13.1 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.051 | | 0.870 | 0.910 | -4.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9842 | | 0.953 | 1.00 | -4.7 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.250 | | 0.875 | 0.942 | -7.1 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.234 | | 0.942 | 0.952 | -1.0 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.224 | | 0.915 | 0.948 | -3.5 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 0.9727 | | 0.915 | 1.00 | -8.5 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.026 | | 0.877 | 0.928 | -5.5 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9643 | | 0.986 | 1.00 | -1.4 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.505 | | 0.858 | 0.932 | -7.9 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8024 | | 0.911 | 0.960 | -5.1 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.047 | | 1.04 | 1.00 | 4.2 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7759 | | 0.889 | 0.958 | -7.2 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9413 | | 0.991 | 1.00 | -0.9 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7863 | | 1.00 | 1.00 | 0.0 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6508 | | 0.955 | 0.964 | -1.0 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.063 | | 0.997 | 1.00 | -0.3 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8217 | | 0.959 | 1.00 | -4.1 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.782 | | 0.870 | 0.942 | -7.7 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9872 | | 1.01 | 1.00 | 0.8 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3465 | | 0.864 | 0.964 | -10.3 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2454 | | 0.983 | 0.968 | 1.5 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/26  Calibration Date: 11/08/2021 18:47

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A26.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8620 | | 1.02 | 1.00 | 2.1 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1548 | | 0.981 | 1.00 | -1.9 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9210 | | 1.06 | 1.00 | 6.1 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7256 | | 0.860 | 1.00 | -14.0 | |
| 13C4 PFBA | Ave | 1.012 | 1.391 | | 1.72 | 1.25 | 37.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 1.009 | | 1.48 | 1.25 | 18.3 | |
| 13C3 PFBS | Ave | 1.154 | 1.352 | | 1.36 | 1.16 | 17.2 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1196 | | 1.59 | 1.17 | 36.0 | |
| 13C2 PFHxA | Ave | 0.8946 | 1.015 | | 1.42 | 1.25 | 13.4 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0227 | | 1.21 | 1.25 | -3.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.047 | | 1.39 | 1.25 | 11.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9441 | | 1.33 | 1.18 | 12.6 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 1.093 | | 1.33 | 1.25 | 6.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1700 | | 1.53 | 1.19 | 28.6 | |
| 13C4 PFOS | Ave | 0.6058 | 0.7016 | | 1.38 | 1.20 | 15.8 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.092 | | 1.33 | 1.25 | 6.5 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9730 | | 1.18 | 1.25 | -5.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1832 | | 1.46 | 1.20 | 22.3 | |
| 13C8 FOSA | Ave | 0.998 | 1.307 | | 1.64 | 1.25 | 31.0 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1004 | | 1.23 | 1.25 | -1.3 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8260 | | 1.28 | 1.25 | 2.5 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0919 | | 1.21 | 1.25 | -3.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8136 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6829 | | 1.27 | 1.25 | 1.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5355 | | 1.13 | 1.25 | -9.6 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 08-Nov-2021 18:47:38 ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0048331-026 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 16:03:07 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:52:59
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.226 | 2.226 | 0.0 | 0.641 | 1662821 | 1.72 | | 137 | 1606 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.226 | 2.236 | -0.010 | 1.000 | 1169237 | 0.9296 | | 93.0 | 110 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.479 | 2.479 | 0.0 | 0.714 | 1205548 | 1.48 | | 118 | 1667 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.479 | 2.479 | 0.0 | 1.000 | 916444 | 0.9486 | | 94.9 | 35.9 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.492 | 2.479 | 0.013 | 0.717 | 1503455 | 1.36 | | 117 | 181326 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.492 | 2.492 | 0.0 | 1.000 | 1125559 | 0.8148 | Target=2.32 | 92.2 | 880 | |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.000 | 507653 | | 2.22(1.16-3.48) | | 241 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.758 | 2.758 | 0.0 | 0.794 | 133486 | 1.59 | | 136 | 107 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 1.000 | 218433 | 0.8976 | | 96.1 | 970 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.795 | -0.001 | 0.804 | 1213043 | 1.42 | | 113 | 3158 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.794 | 2.795 | -0.001 | 1.000 | 937865 | 0.9529 | Target=12.09 | 95.3 | 158 | M |
| 313.00 > 119.00 | 2.794 | 2.795 | -0.001 | 1.000 | 76494 | | 12.26(6.04-18.13) | | 55.0 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.794 | 2.795 | -0.001 | 0.892 | 1026566 | 0.9442 | Target=3.03 | 101 | 1341 | M |
| 349.00 > 99.00 | 2.794 | 2.795 | -0.001 | 0.892 | 326782 | | 3.14(1.52-4.55) | | 460 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.892 | 2.892 | 0.0 | 1.000 | 111117 | 1.13 | | 113 | 63.5 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.892 | 2.892 | 0.0 | 0.832 | 27146 | 1.20 | | 96.4 | 264 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 863567 | 0.8700 | Target=3.55 | 95.6 | 942 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 253395 | | 3.41(1.77-5.32) | | 326 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.902 | 1067583 | 1.33 | | 113 | 5363 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.902 | 1251560 | 1.39 | | 111 | 2924 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 985420 | 0.9525 | Target=3.69 | 95.3 | 339 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 255092 | | 3.86(1.84-5.53) | | 396 | M |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.839 | 2054301 | 0.8748 | Target=2.56 | 92.9 | 2594 | M |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.839 | 816948 | | 2.51(1.28-3.84) | | 1095 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.915 | 787945 | 0.9421 | Target=4.88 | 99.0 | 2133 | M |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.915 | 151272 | | 5.21(2.44-7.32) | | 493 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 188623 | 0.9150 | | 96.5 | 1091 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 1.000 | 193045 | 1.53 | | 129 | 530 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.474 | 3.474 | 0.0 | 1.000 | 1306279 | 1.33 | | 106 | 4996 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.474 | 3.483 | -0.009 | | 1195300 | 1.25 | | | 4499 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.003 | 1016510 | 0.9147 | Target=2.68 | 91.5 | 199 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.003 | 393962 | | 2.58(1.34-4.02) | | 986 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.090 | 801747 | 1.38 | | 116 | 5460 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.000 | 638500 | 0.8771 | Target=4.69 | 94.5 | 1289 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 1.000 | 137795 | | 4.63(2.35-7.04) | | 656 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.095 | 1304798 | 1.33 | | 107 | 4917 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1006556 | 0.9856 | Target=7.29 | 98.6 | 197 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 1.000 | 130724 | | 7.70(3.64-10.93) | | 979 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.944 | 3.943 | 0.001 | 1.042 | 940907 | 0.8579 | | 92.1 | 3821 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.071 | 4.070 | 0.001 | 1.076 | 516822 | 0.9114 | Target=2.35 | 94.9 | 3098 | |
| 549.00 > 99.00 | 4.071 | 4.070 | 0.001 | 1.076 | 203343 | | 2.54(1.17-3.52) | | 808 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.092 | 4.092 | 0.0 | 1.178 | 1163030 | 1.18 | | 94.1 | 2279 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.092 | 4.092 | 0.0 | 1.000 | 974053 | 1.04 | Target=8.95 | 104 | 730 | |
| 513.00 > 169.00 | 4.092 | 4.092 | 0.0 | 1.000 | 99347 | | 9.80(4.47-13.42) | | 762 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.181 | 209790 | 1.46 | | 122 | 787 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.104 | 4.104 | 0.0 | 1.000 | 130223 | 0.8886 | | 92.8 | 1420 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.214 | 4.215 | -0.001 | 1.213 | 1562574 | 1.64 | | 131 | 2934 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.214 | 4.215 | -0.001 | 1.000 | 1176722 | 0.99 | | 99.1 | 1923 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.219 | 120054 | 1.23 | | 98.7 | 530 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.000 | 75522 | 1.00 | | 100 | 507 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.324 | 4.324 | 0.0 | 1.143 | 420902 | 0.9546 | Target=2.47 | 99.0 | 2181 | |
| 599.00 > 99.00 | 4.324 | 4.324 | 0.0 | 1.143 | 160245 | | 2.63(1.23-3.70) | | 1160 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.347 | 0.0 | 1.251 | 987374 | 1.28 | | 102 | 5339 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.347 | 0.0 | 1.000 | 839675 | 1.00 | Target=9.24 | 99.7 | 671 | |
| 563.00 > 169.00 | 4.347 | 4.347 | 0.0 | 1.000 | 96733 | | 8.68(4.62-13.86) | | 891 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.358 | 0.0 | 1.254 | 109877 | 1.21 | | 96.5 | 974 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.003 | 72230 | 0.9590 | | 95.9 | 697 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.445 | 4.445 | 0.0 | 1.174 | 1126498 | 0.8697 | | 92.3 | 4399 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.568 | 0.0 | 1.315 | 972504 | 1.17 | | 93.8 | 1044 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.580 | 4.568 | 0.012 | 1.003 | 768058 | 1.01 | Target=7.04 | 101 | 174 | |
| 613.00 > 169.00 | 4.568 | 4.568 | 0.0 | 1.000 | 120879 | | 6.35(3.52-10.56) | | 1317 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.591 | 4.590 | 0.001 | 1.119 | 58518 | 0.8642 | | 89.7 | 685 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.738 | 4.738 | 0.0 | 1.252 | 159407 | 0.9830 | Target=0.49 | 102 | 2422 | |
| 699.00 > 99.00 | 4.738 | 4.738 | 0.0 | 1.252 | 298548 | | 0.53(0.25-0.74) | | 2571 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.765 | 4.765 | 0.0 | 1.043 | 670611 | 1.02 | Target=4.68 | 102 | 239 | |
| 663.00 > 169.00 | 4.765 | 4.765 | 0.0 | 1.043 | 148255 | | 4.52(2.34-7.02) | | 1431 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.946 | 0.001 | 1.424 | 816227 | 1.27 | | 102 | 3049 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.946 | 0.001 | 1.000 | 101078 | 0.9808 | Target=1.01 | 98.1 | 2198 | |
| 713.00 > 219.00 | 4.937 | 4.946 | -0.009 | 0.998 | 103515 | | 0.98(0.51-1.52) | | 2043 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.245 | 0.001 | 1.510 | 640069 | 1.13 | | 90.4 | 2991 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.246 | 5.245 | 0.001 | 1.000 | 471600 | 1.06 | Target=4.57 | 106 | 189 | |
| 813.00 > 169.00 | 5.246 | 5.245 | 0.001 | 1.000 | 107943 | | 4.37(2.29-6.86) | | 1768 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.500 | 5.501 | -0.001 | 1.049 | 371563 | 0.8604 | Target=4.27 | 86.0 | 272 | |
| 913.00 > 169.00 | 5.491 | 5.501 | -0.010 | 1.047 | 90884 | | 4.09(2.14-6.41) | | 1083 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 16:03:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d

Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812

Lims ID: CCV L4

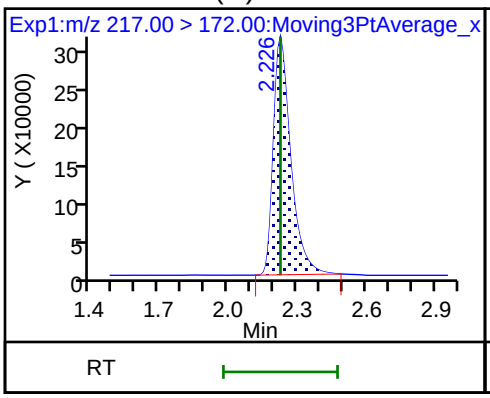
Client ID:

Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26

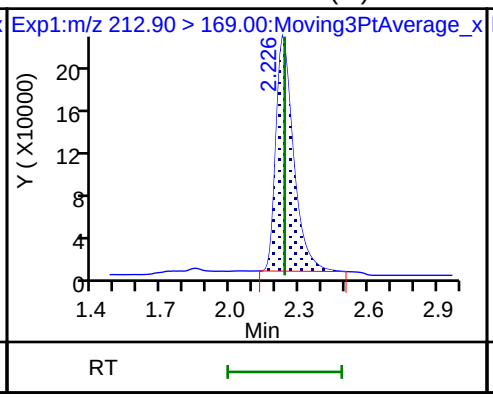
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

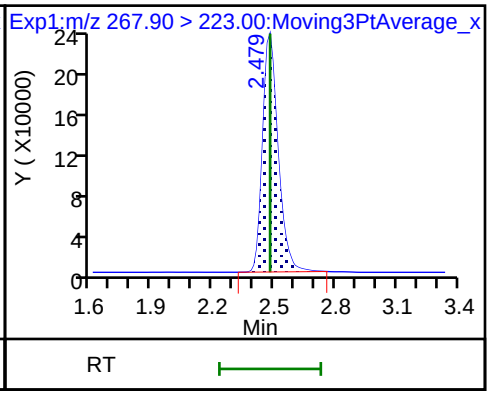
D 1 13C4 PFBA (M)



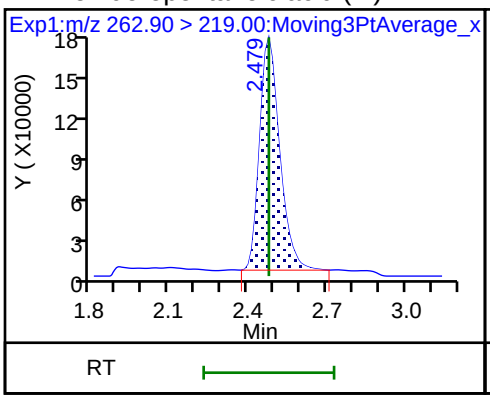

2 Perfluorobutanoic acid (M)



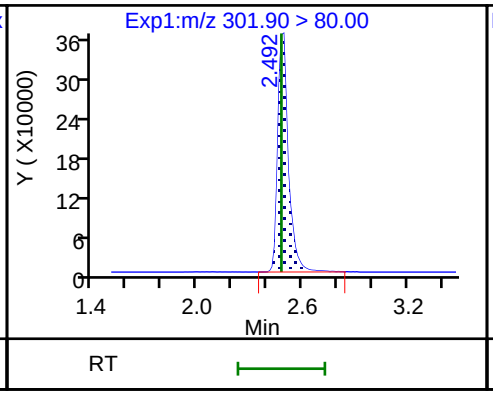

D 3 13C5 PFPeA



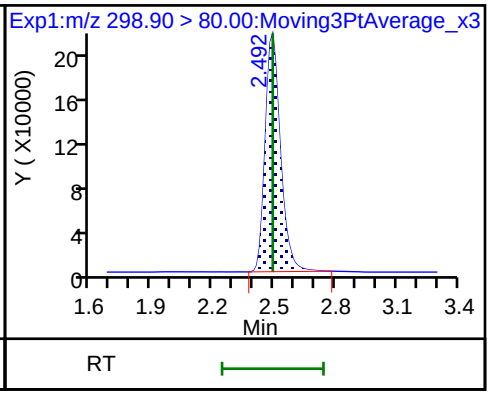

4 Perfluoropentanoic acid (M)



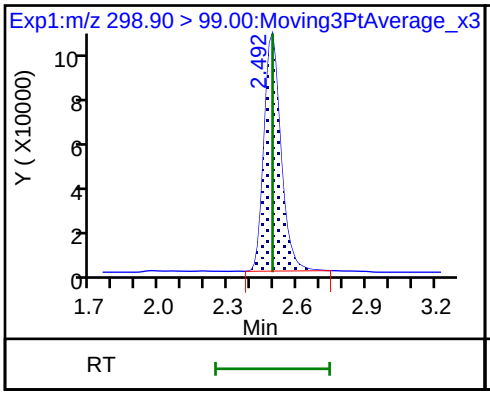

D 47 13C3 PFBS



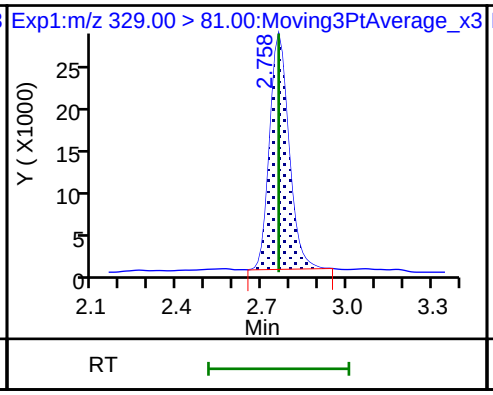

5 Perfluorobutanesulfonic acid



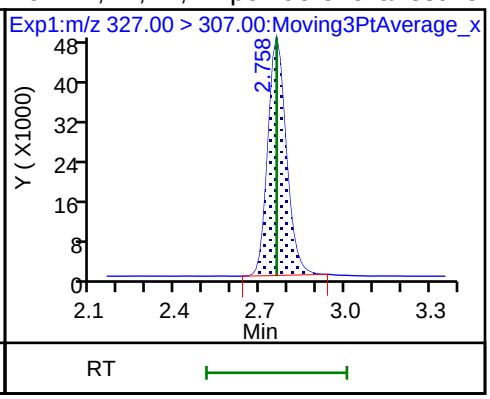

5 Perfluorobutanesulfonic acid



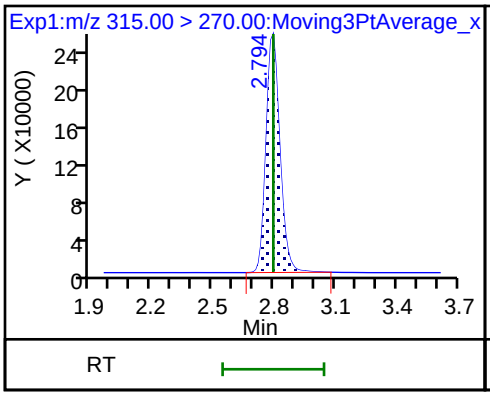

D 60 M2-4:2 FTS



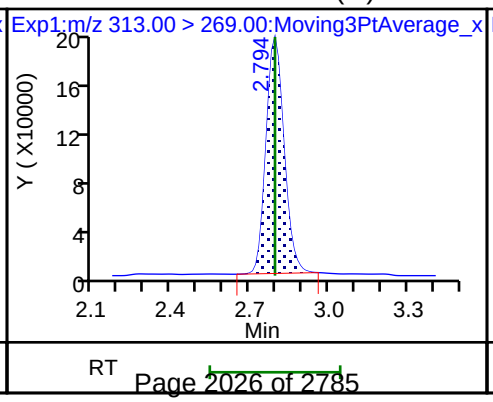

61 1H,1H,2H,2H-perfluorohexanesulfo



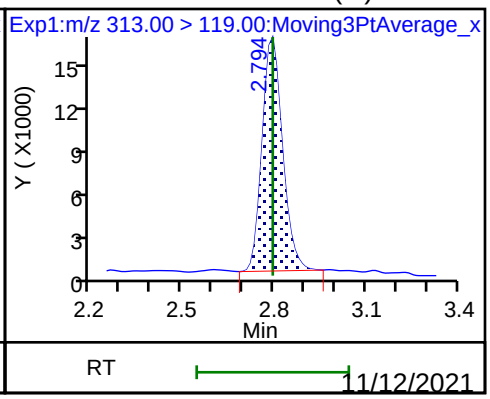

D 7 13C2 PFHxA



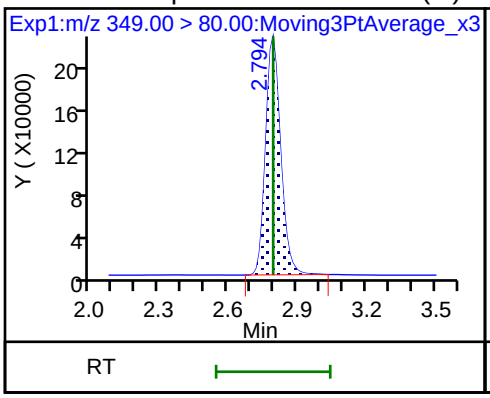

6 Perfluorohexanoic acid (M)



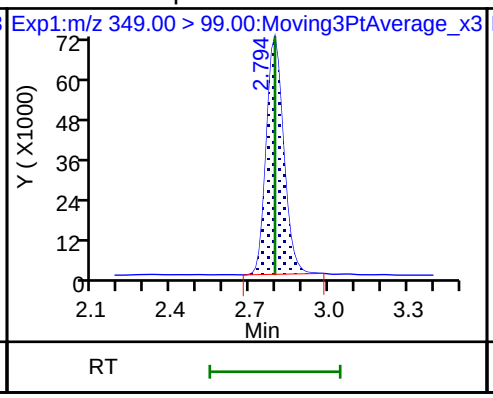

6 Perfluorohexanoic acid (M)



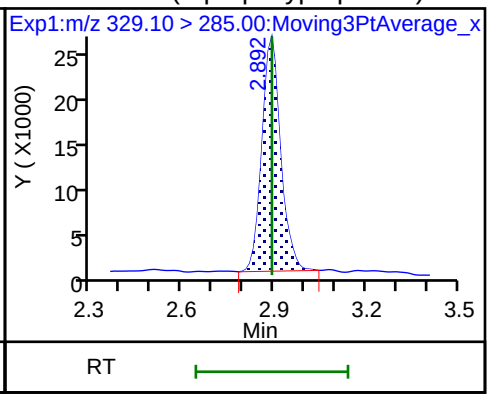
70 Perfluoropentanesulfonic acid (M)



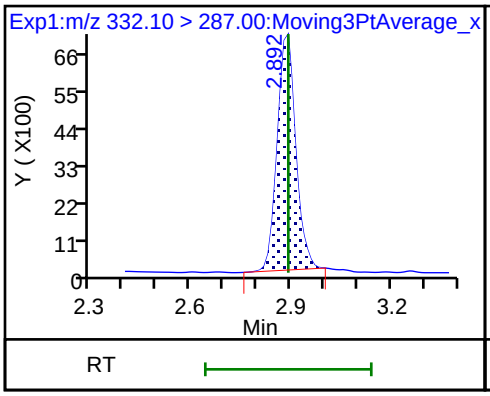

70 Perfluoropentanesulfonic acid



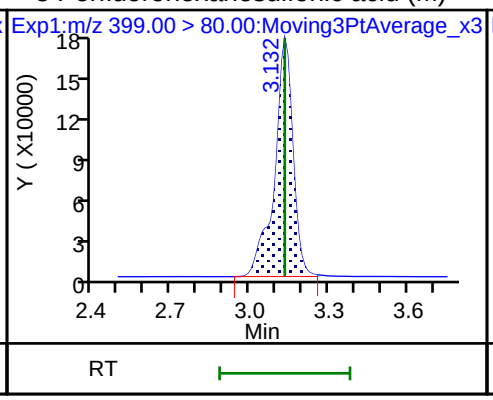

67 Perfluoro(2-propoxypropanoic) ac



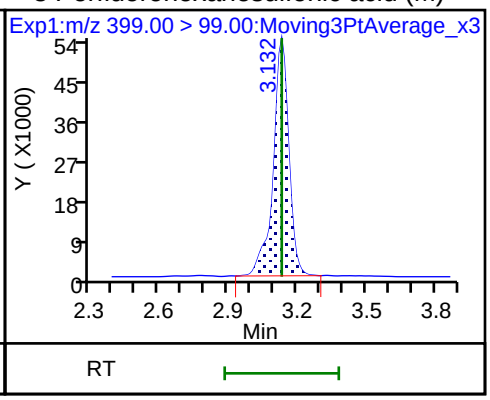

D 64 13C3 HFPO-DA



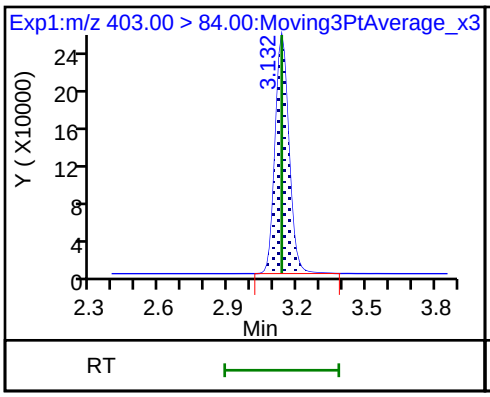

8 Perfluorohexanesulfonic acid (M)



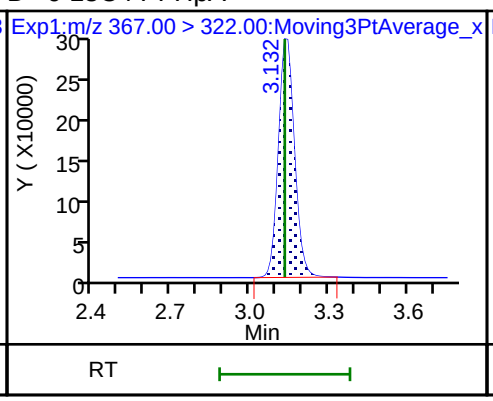

8 Perfluorohexanesulfonic acid (M)



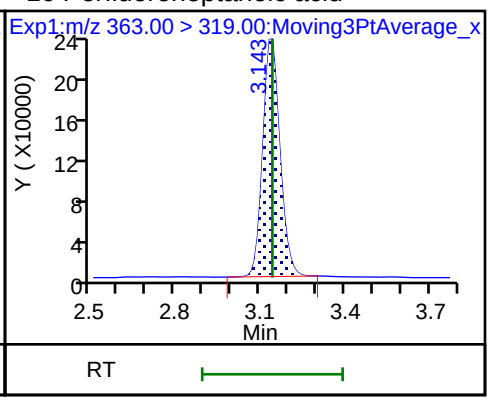

D 11 18O2 PFHxS



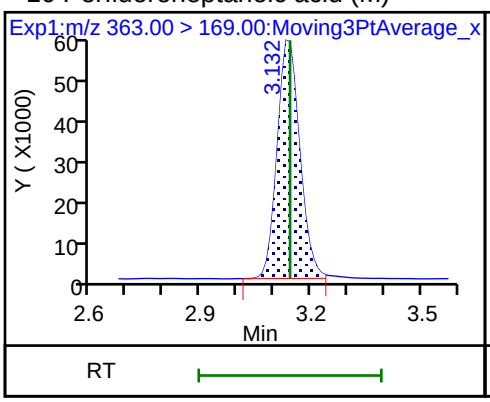

D 9 13C4 PFHpA



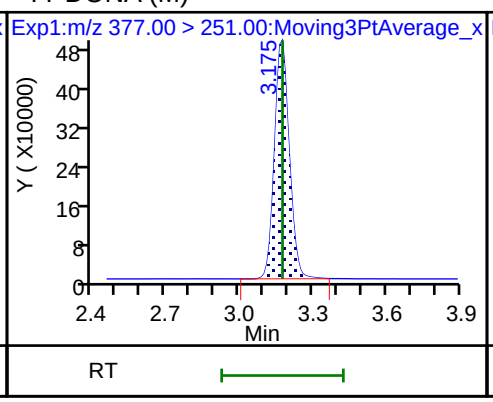

10 Perfluoroheptanoic acid



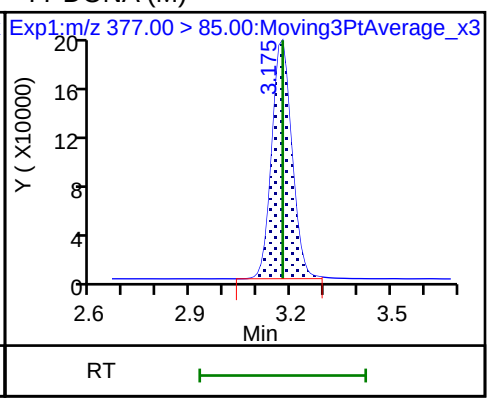

10 Perfluoroheptanoic acid (M)



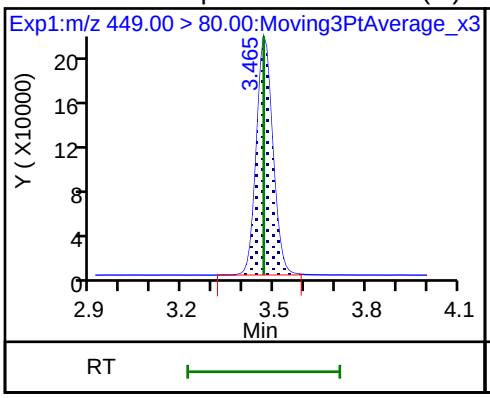

77 DONA (M)



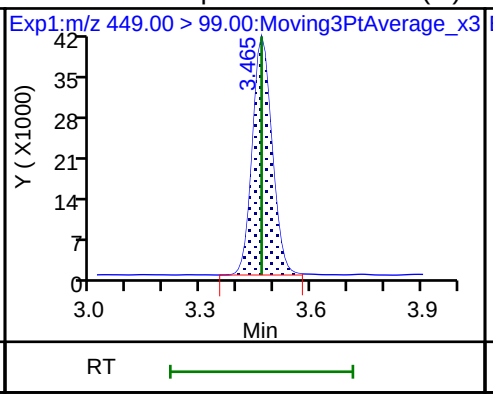

77 DONA (M)



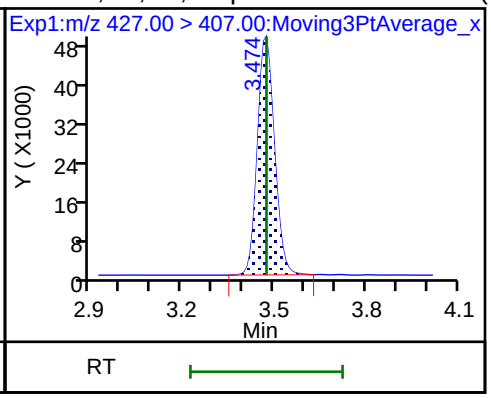
16 Perfluoroheptanesulfonic acid (M)



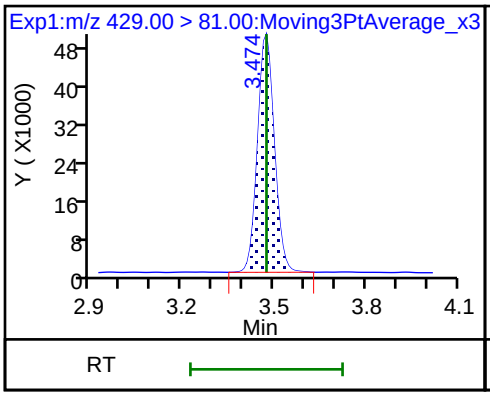

16 Perfluoroheptanesulfonic acid (M)



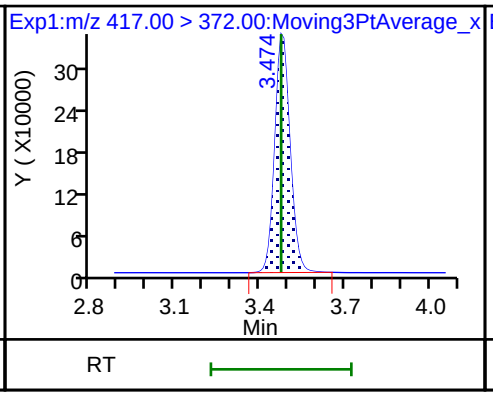

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



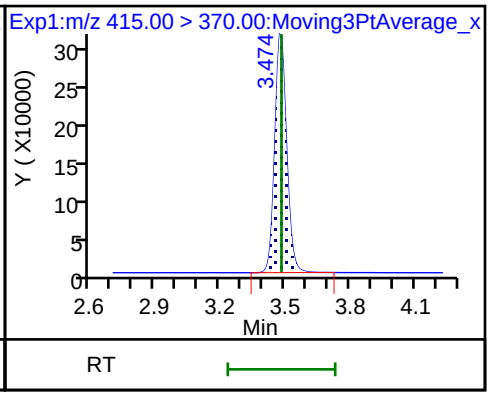

D 12 M2-6:2 FTS



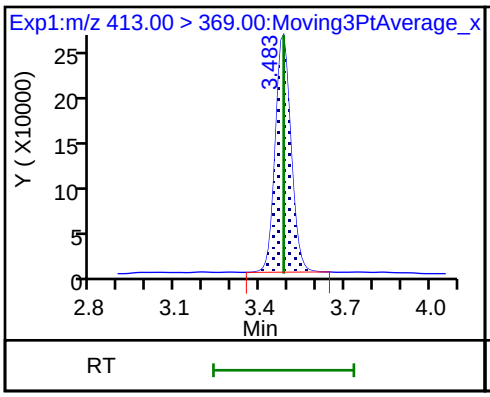

D 14 13C4 PFOA




* 62 13C2 PFOA




15 Perfluorooctanoic acid

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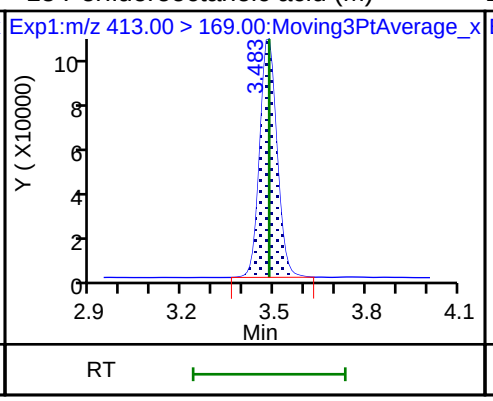
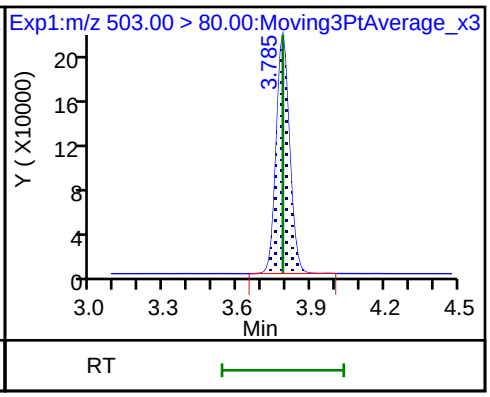
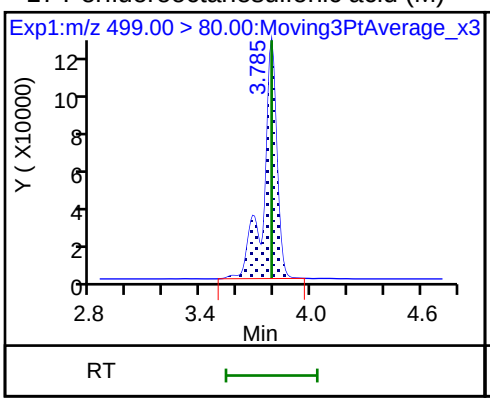



D 18 13C4 PFOS




17 Perfluorooctanesulfonic acid (M)

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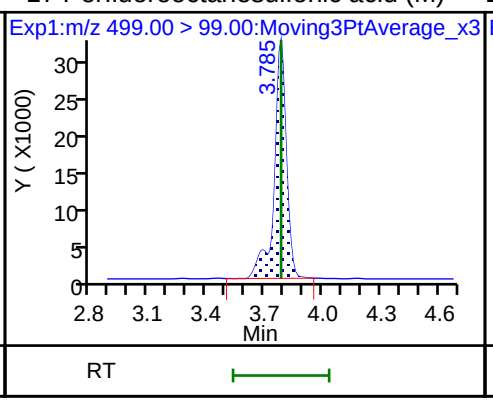
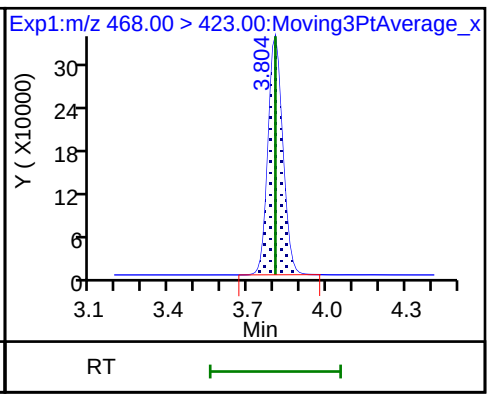
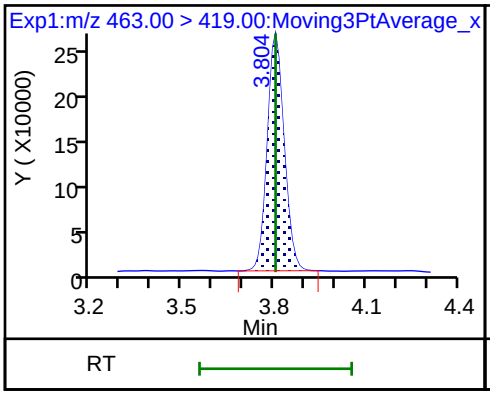



D 19 13C5 PFNA



20 Perfluorononanoic acid

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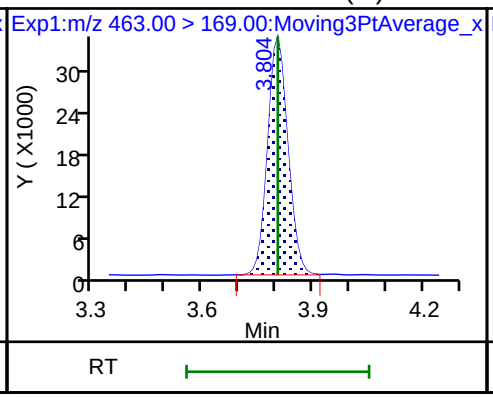
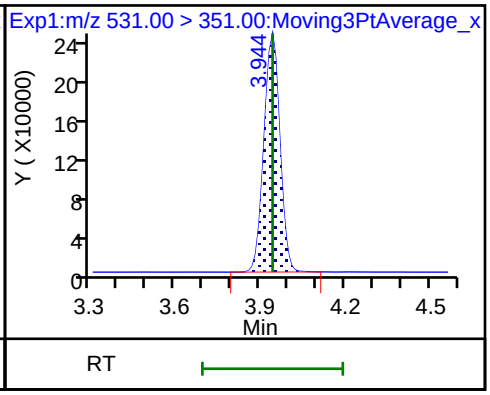
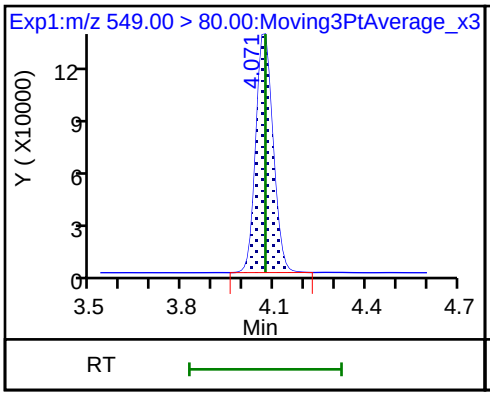



69 9-Chlorohexadecafluoro-3-oxanona




68 Perfluorononanesulfonic acid

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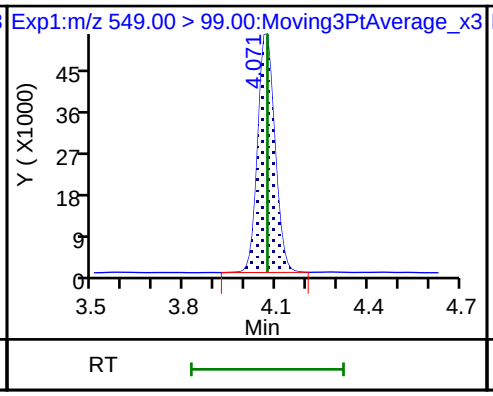
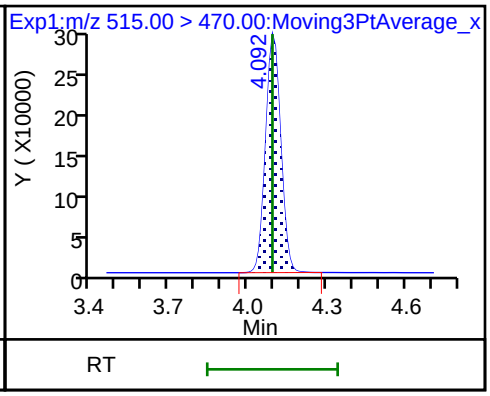
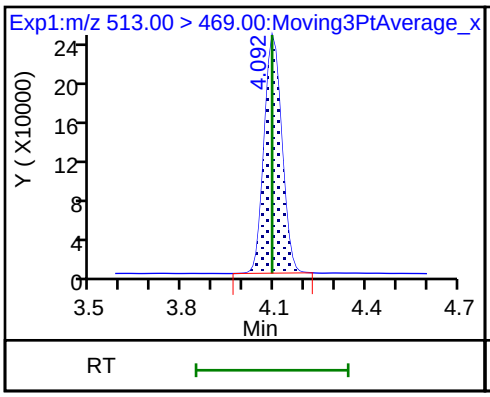


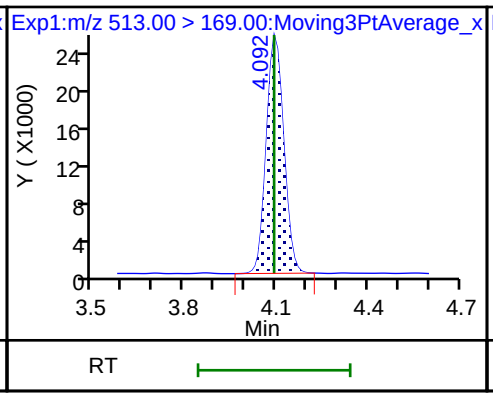

D 23 13C2 PFDA



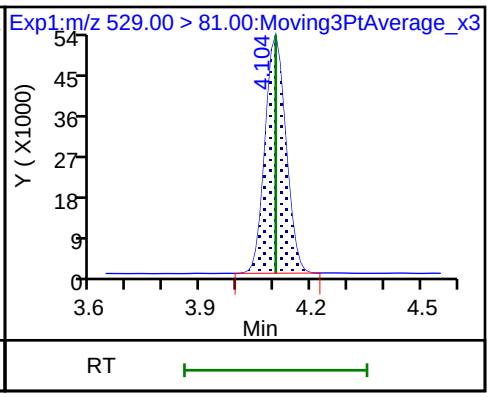

24 Perfluorodecanoic acid



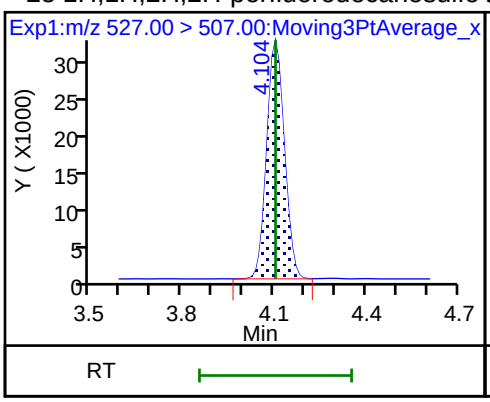

24 Perfluorodecanoic acid



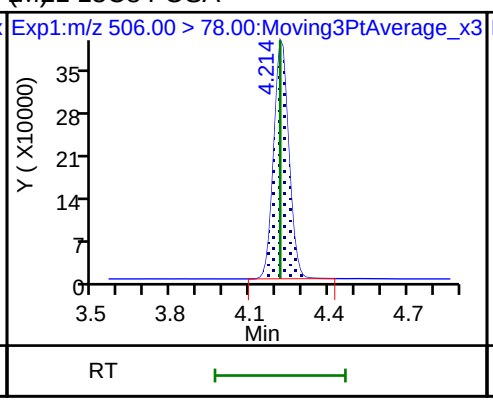

D 26 M2-8:2 FTS



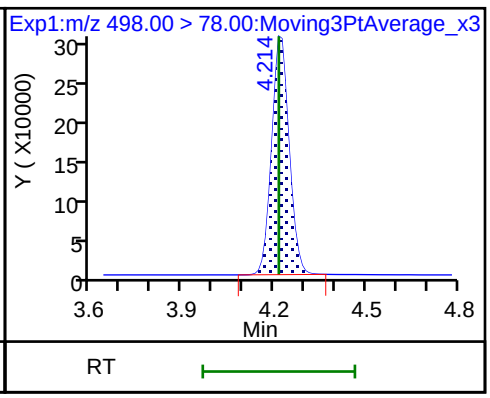

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



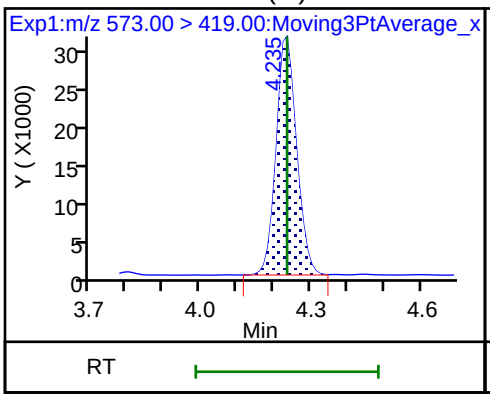

D 21 13C8 FOSA



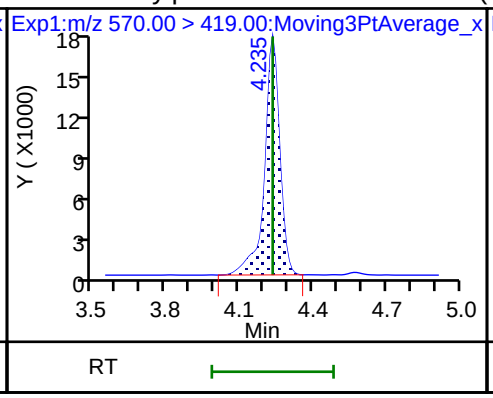

22 Perfluorooctanesulfonamide



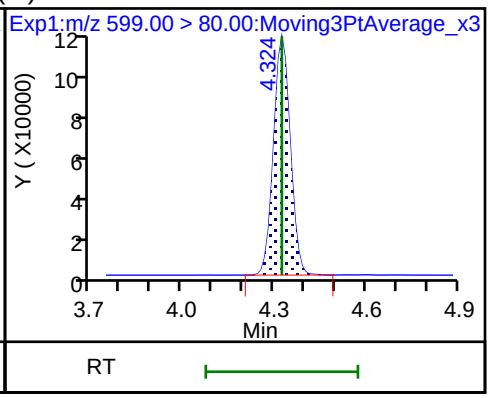
D 27 d3-NMeFOSAA (M)



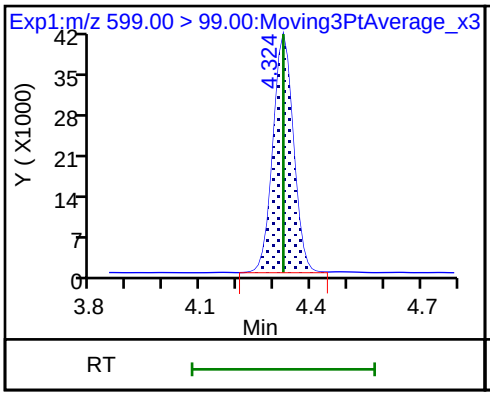

28 N-methylperfluorooctanesulfonami (M)



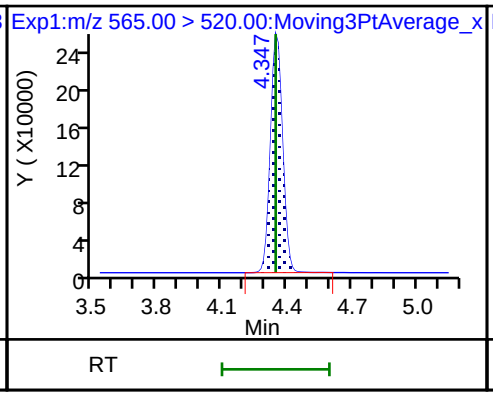

29 Perfluorodecanesulfonic acid



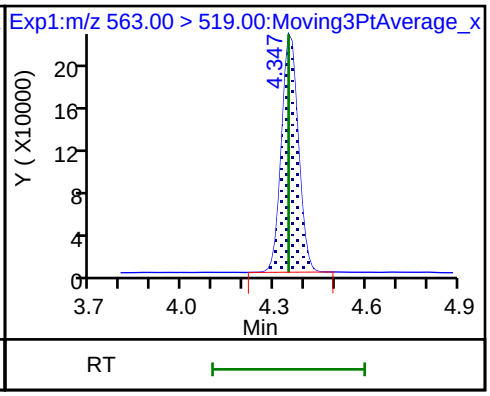

29 Perfluorodecanesulfonic acid



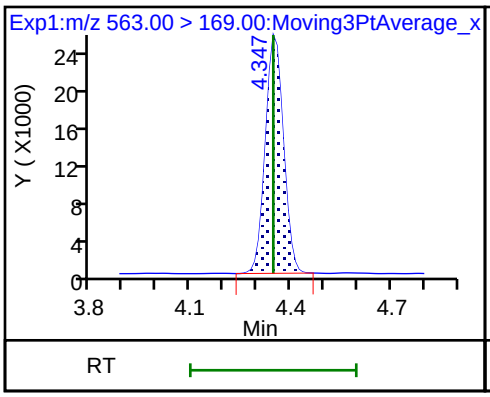

D 30 13C2 PFUnA



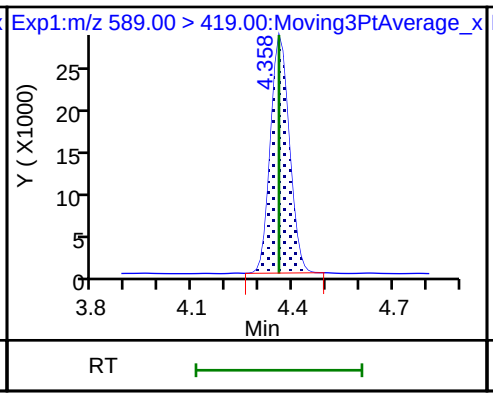

31 Perfluoroundecanoic acid



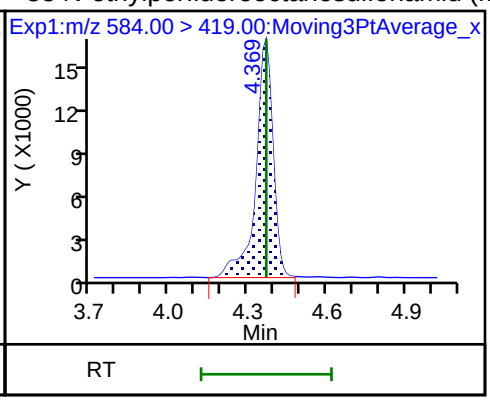

31 Perfluoroundecanoic acid



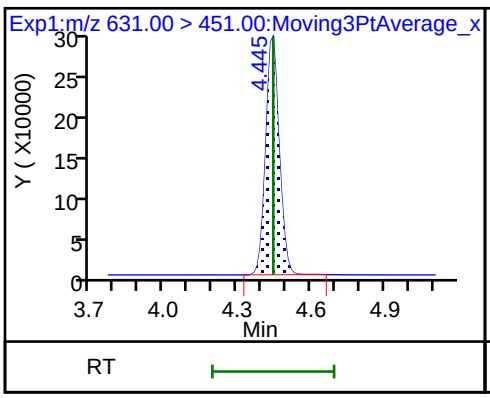

D 32 d5-NEtFOSAA



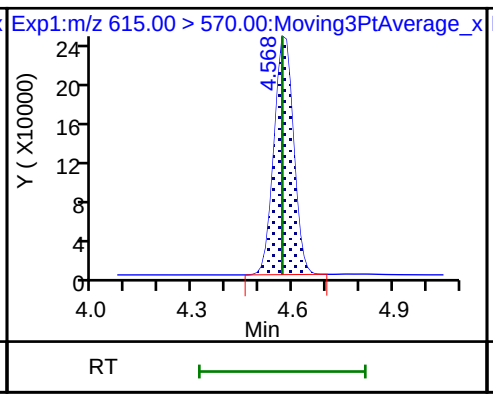

33 N-ethylperfluorooctanesulfonamid (M)



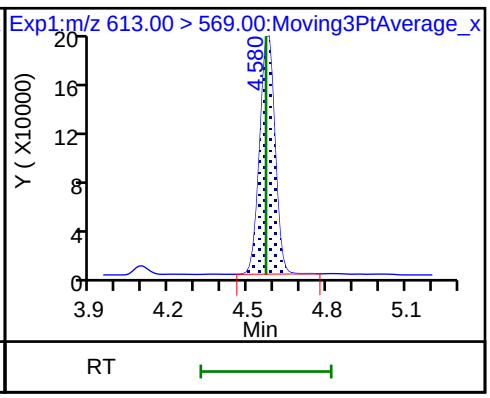

66 11-Chloroeicosafluoro-3-oxaundec



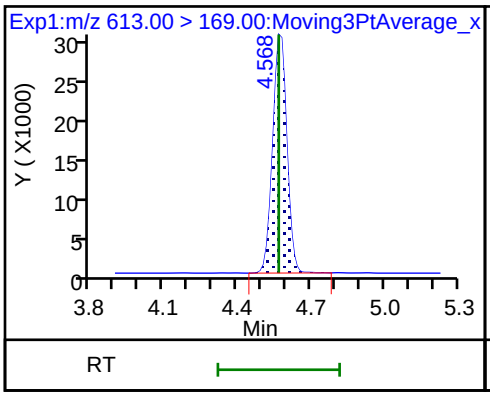

D 36 13C2 PFDoA



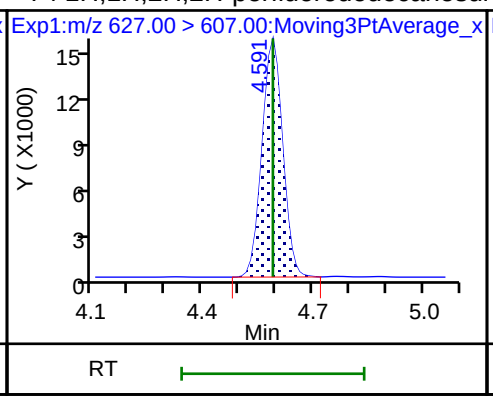

37 Perfluorododecanoic acid



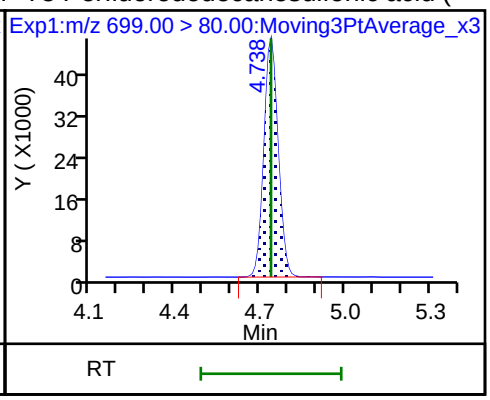
37 Perfluorododecanoic acid



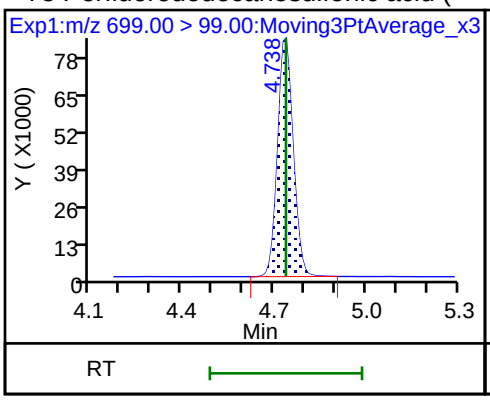

74 1H,1H,2H,2H-perfluorododecanesul



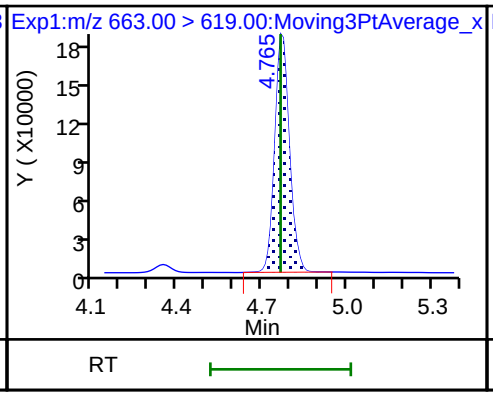

75 Perfluorododecanesulfonic acid (



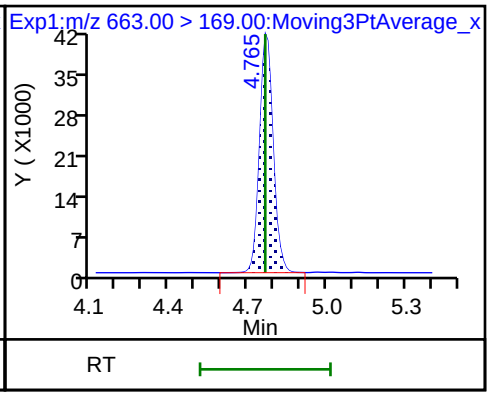

75 Perfluorododecanesulfonic acid (



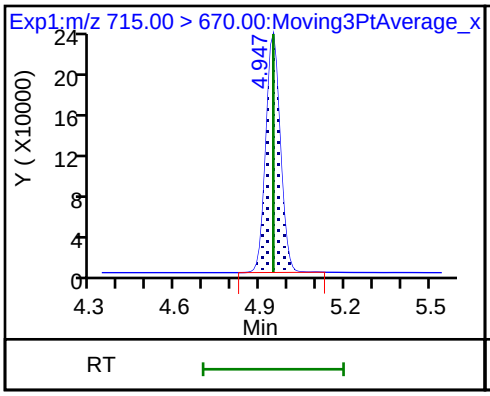

41 Perfluorotridecanoic acid



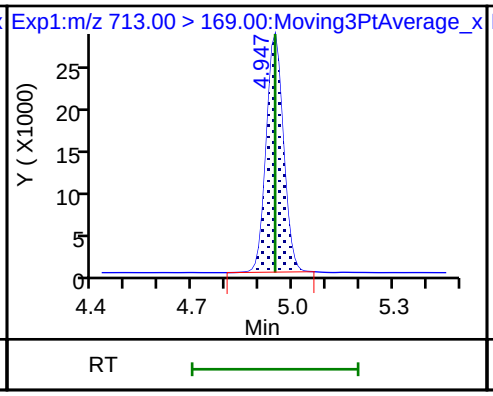

41 Perfluorotridecanoic acid



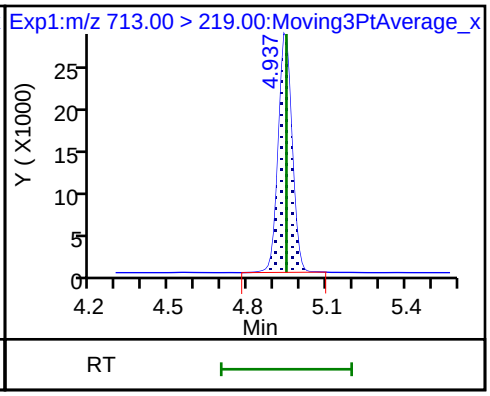

D 43 13C2 PFTeDA



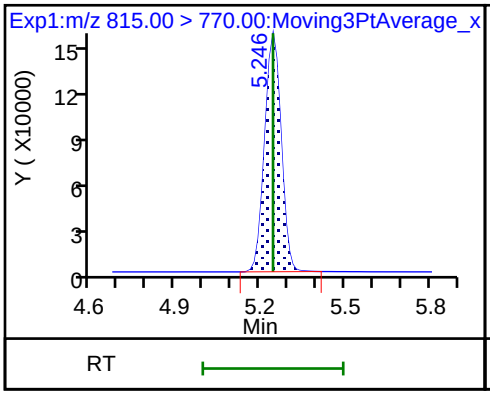

42 Perfluorotetradecanoic acid



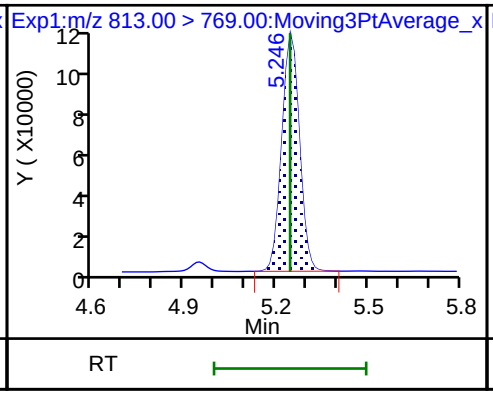

42 Perfluorotetradecanoic acid



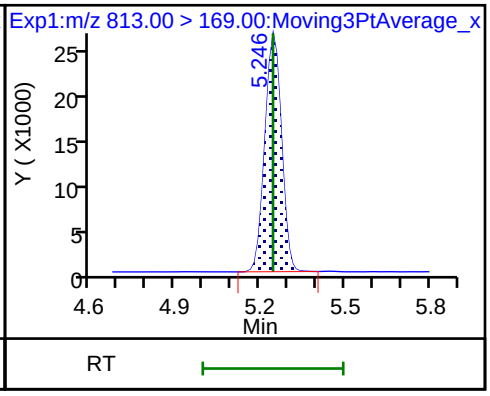

D 44 13C2 PFHxDA



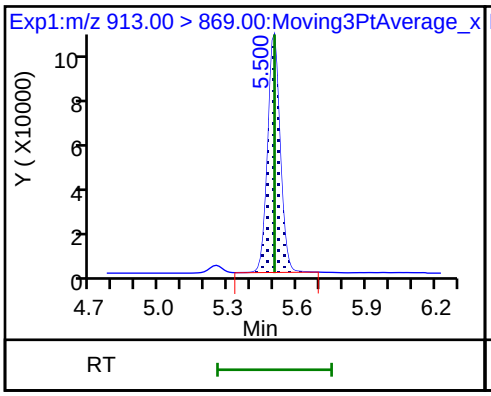

45 Perfluorohexadecanoic acid



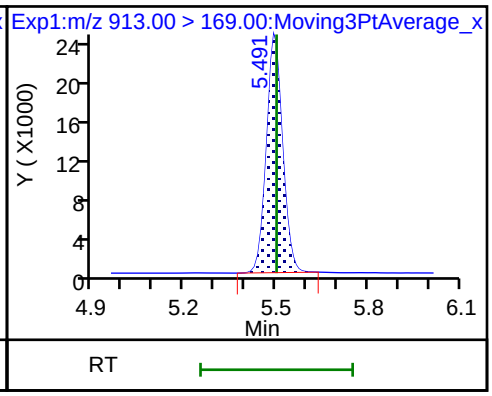

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

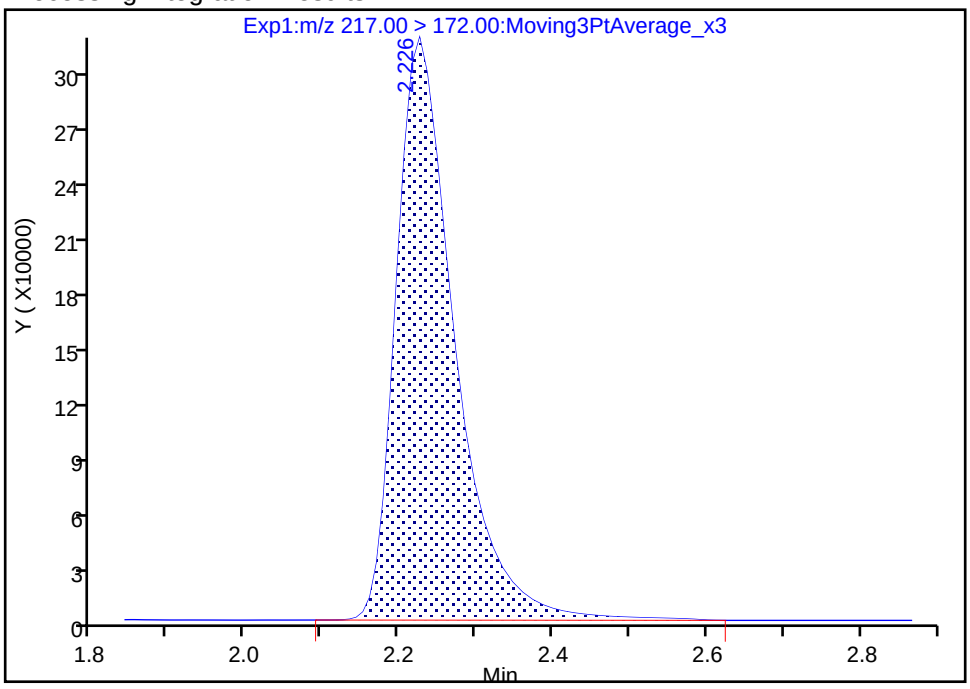
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

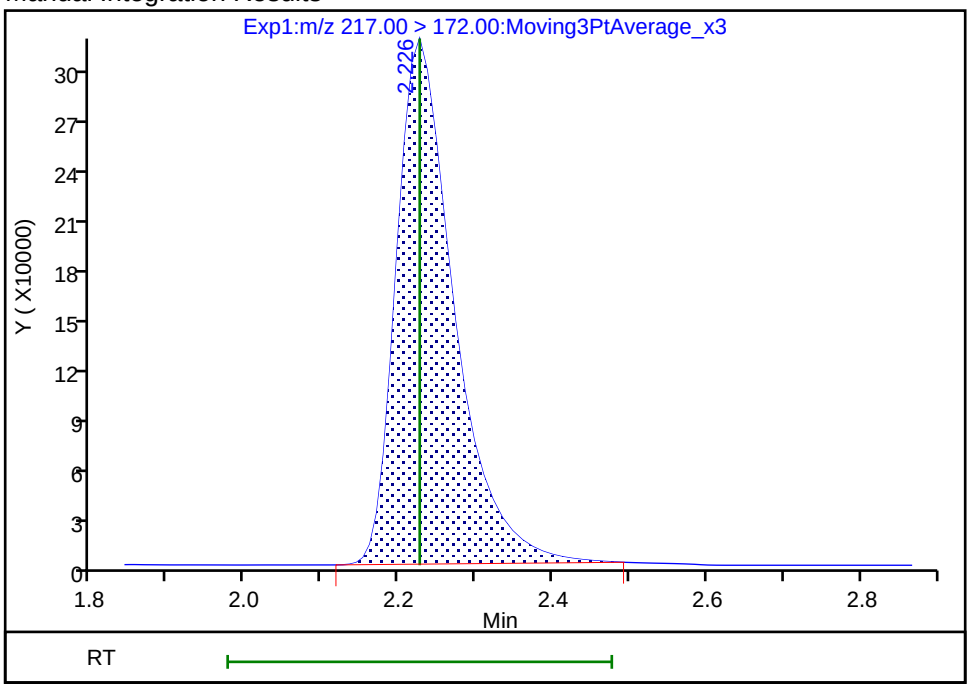
Processing Integration Results

RT: 2.23
Area: 1689726
Amount: 1.745711
Amount Units: ng/ml




Manual Integration Results

RT: 2.23
Area: 1662821
Amount: 1.717914
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:56:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

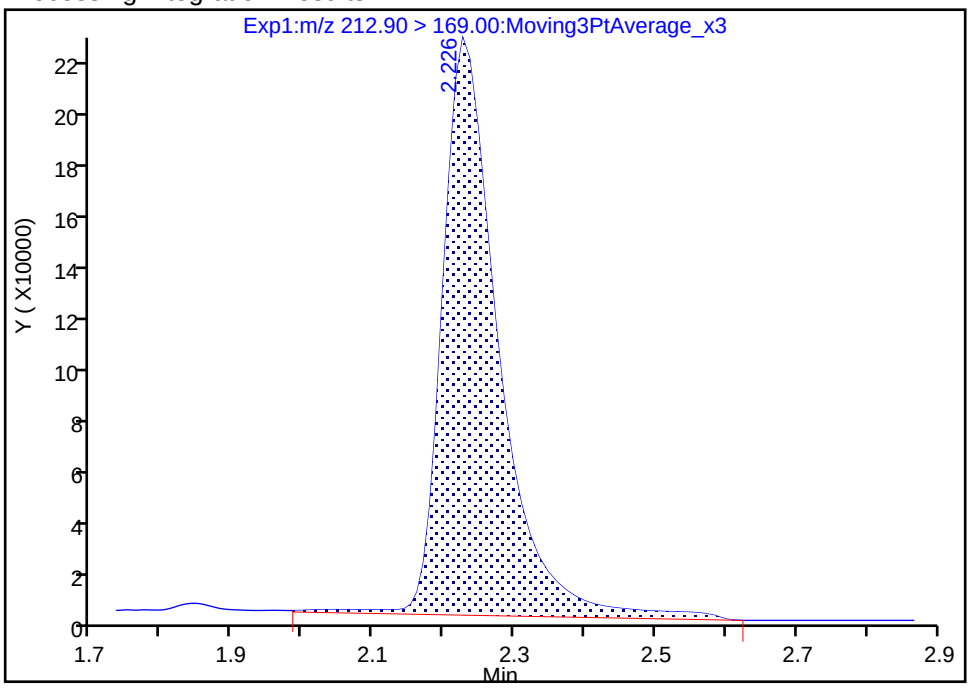
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d | | | | |
| Injection Date: | 08-Nov-2021 18:47:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

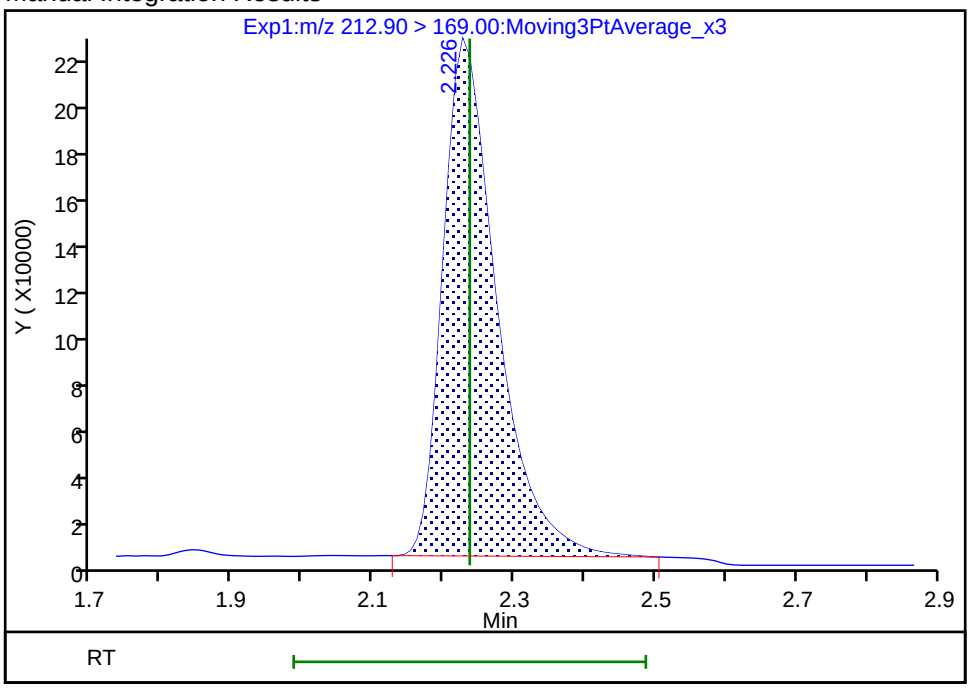
Processing Integration Results

RT: 2.23
Area: 1243978
Amount: 0.973235
Amount Units: ng/ml




Manual Integration Results

RT: 2.23
Area: 1169237
Amount: 0.929562
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:50:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

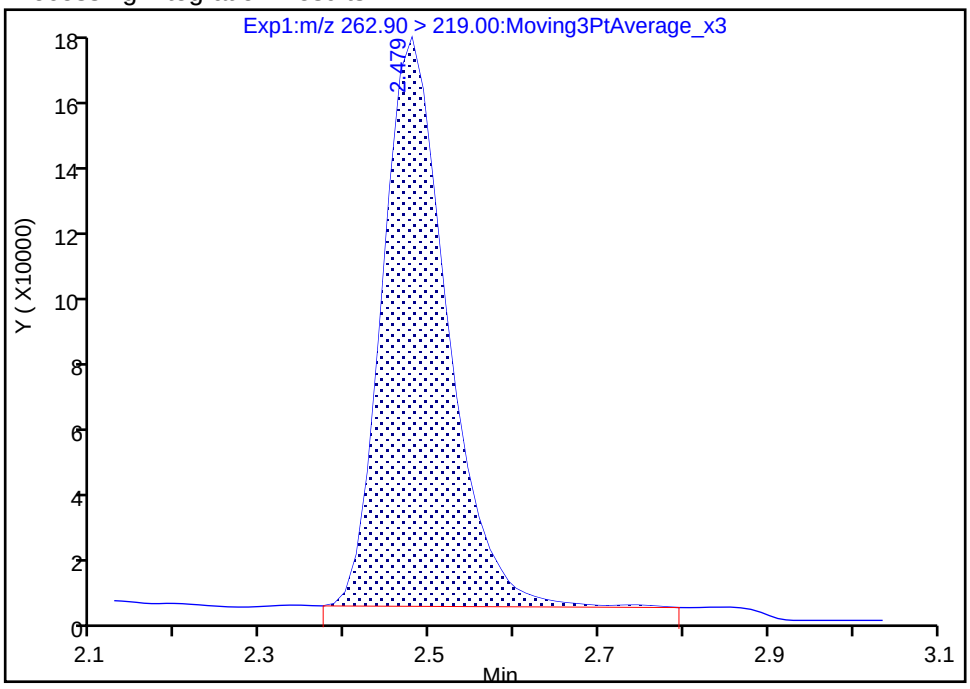
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d | | | | |
| Injection Date: | 08-Nov-2021 18:47:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

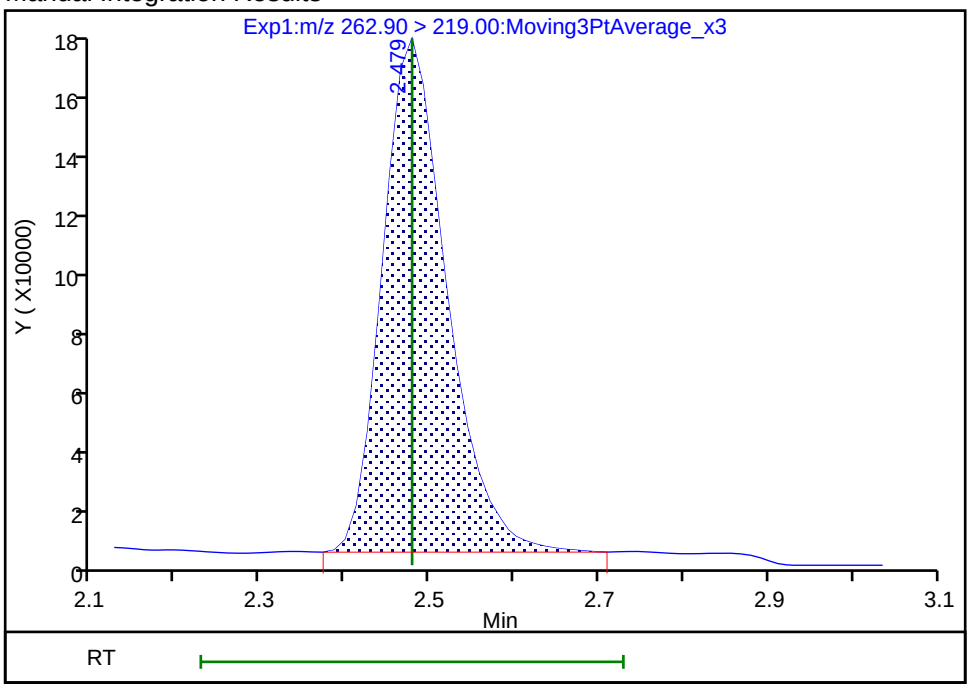
Processing Integration Results

RT: 2.48
Area: 922971
Amount: 0.955353
Amount Units: ng/ml




Manual Integration Results

RT: 2.48
Area: 916444
Amount: 0.948597
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:50:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

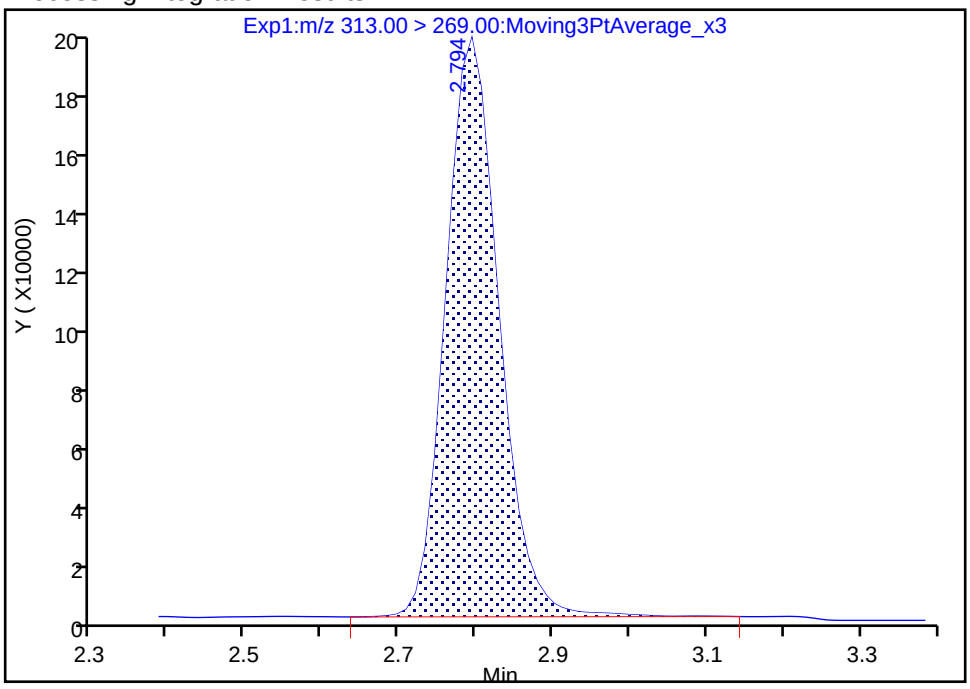
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

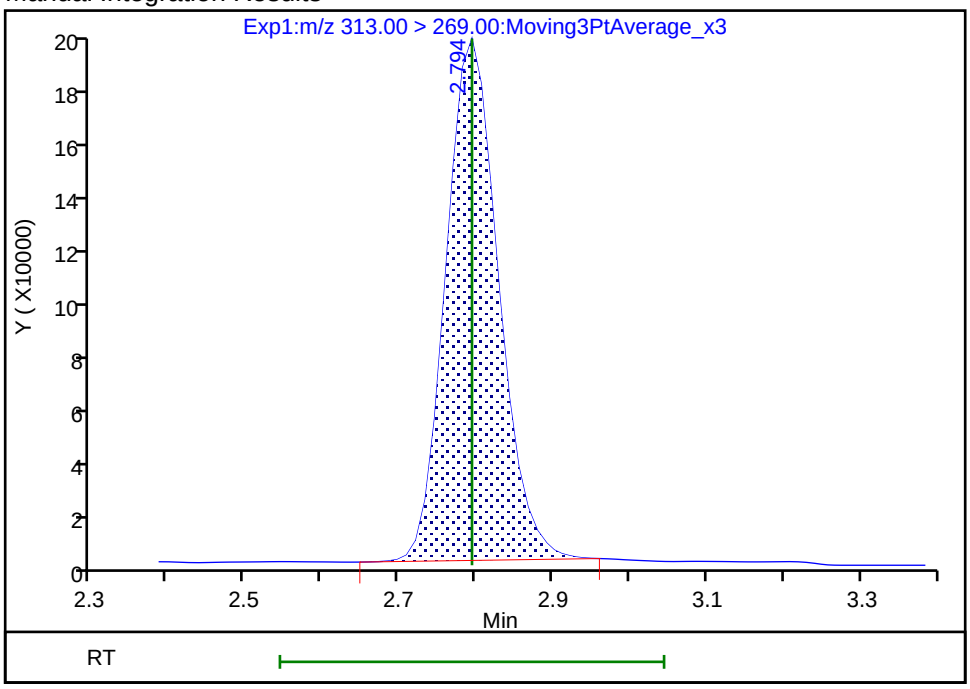
Processing Integration Results

RT: 2.79
Area: 954344
Amount: 0.969674
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 937865
Amount: 0.952930
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:50:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

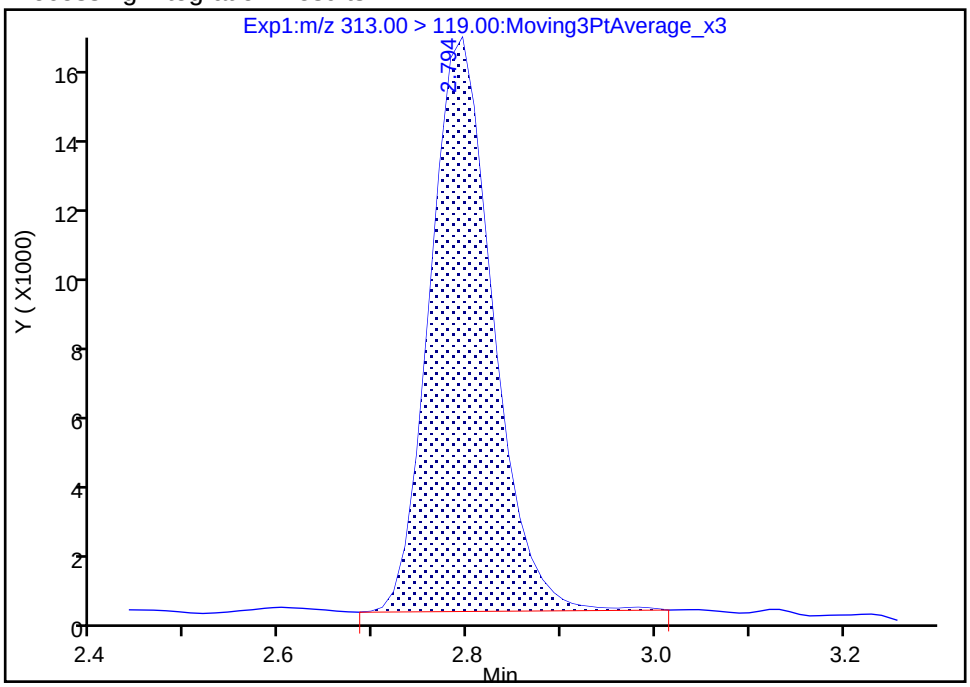
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

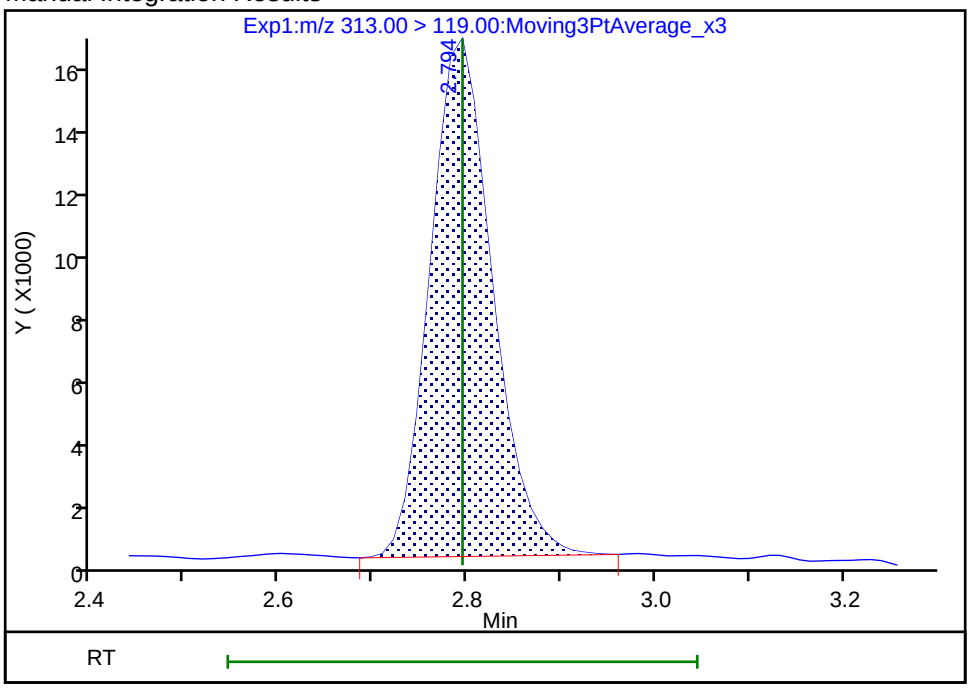
Processing Integration Results

RT: 2.79
Area: 77147
Amount: 0.969674
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 76494
Amount: 0.952930
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:50:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

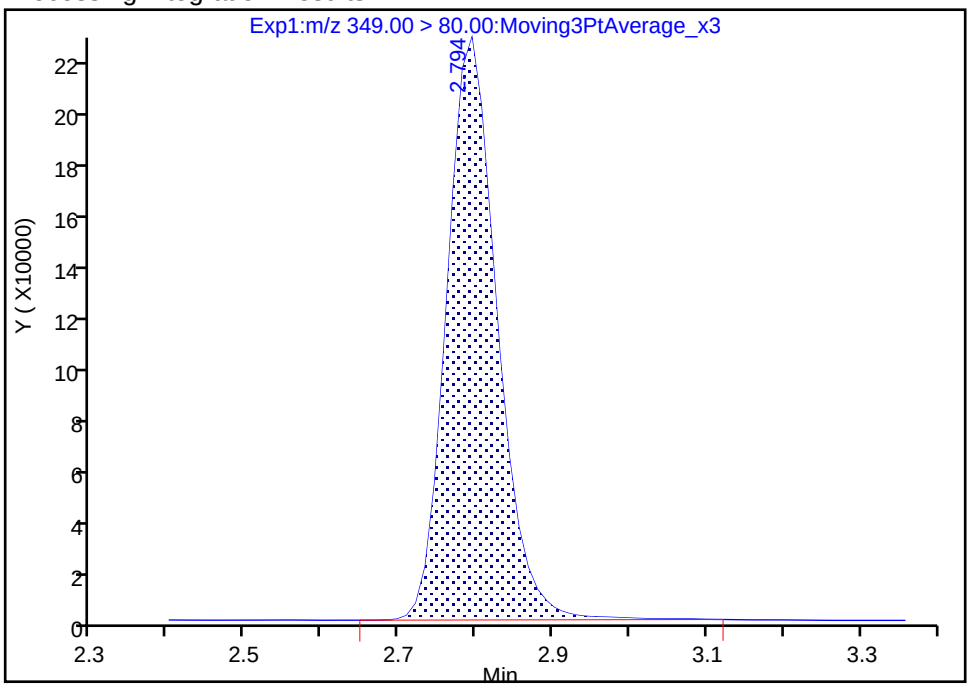
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

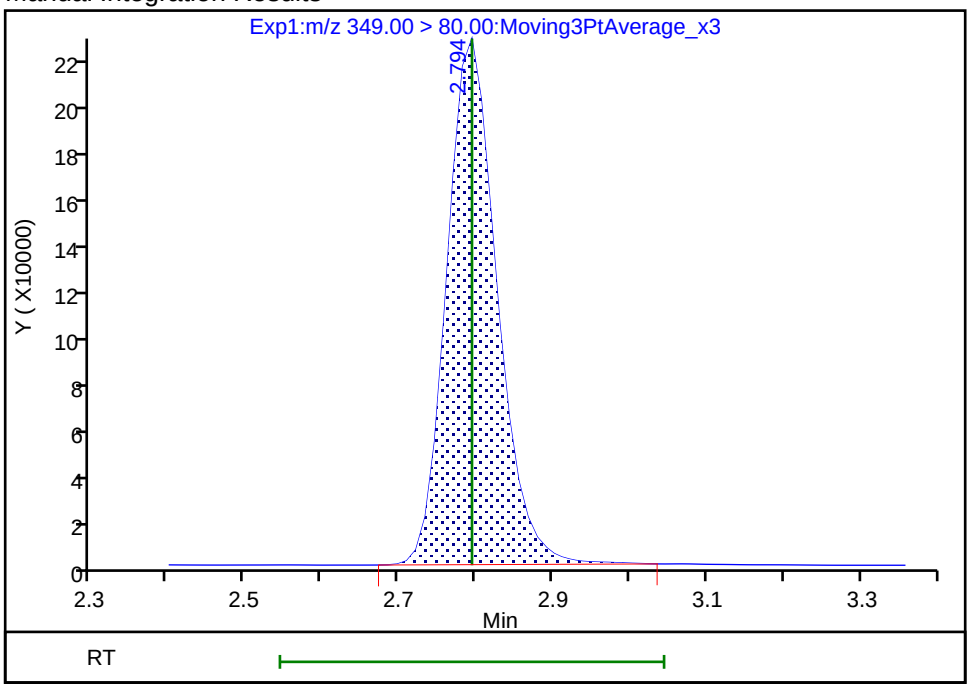
Processing Integration Results

RT: 2.79
Area: 1030696
Amount: 0.948030
Amount Units: ng/ml




Manual Integration Results

RT: 2.79
Area: 1026566
Amount: 0.944231
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:50:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

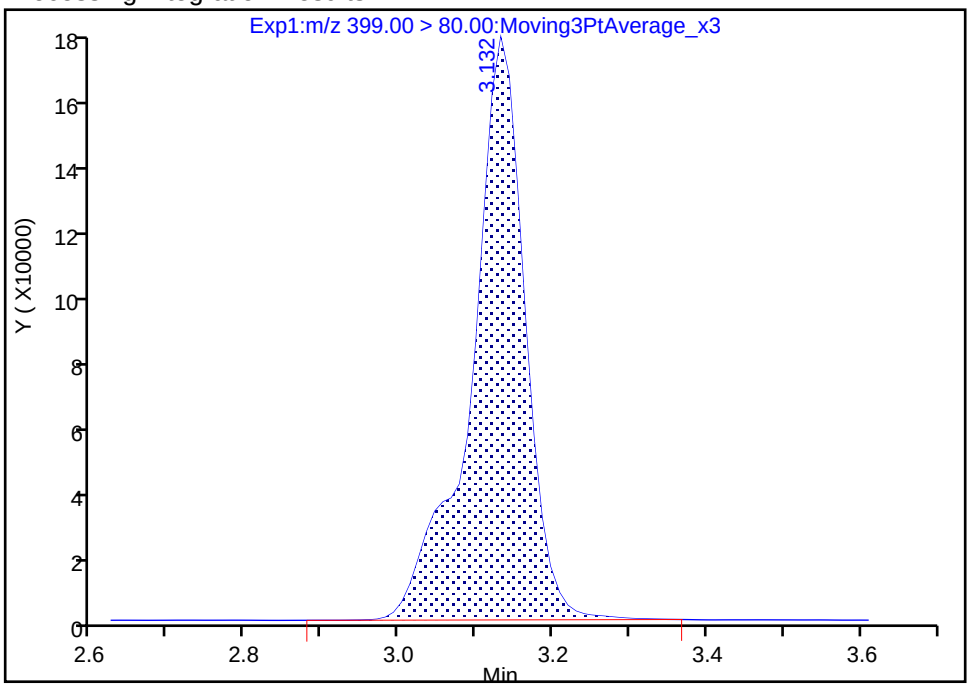
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

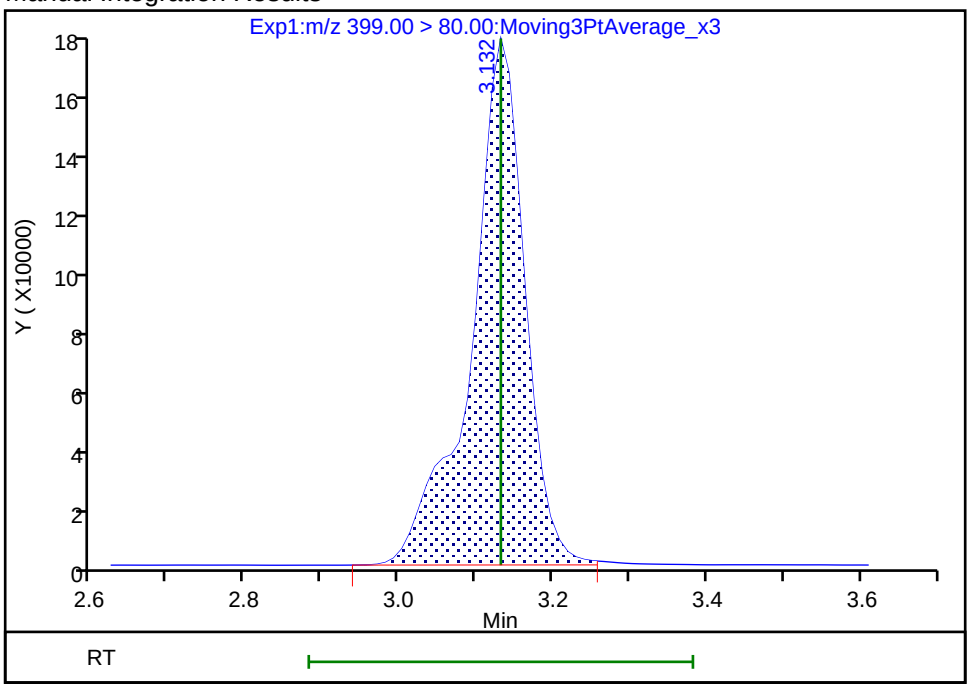
Processing Integration Results

RT: 3.13
Area: 865583
Amount: 0.872045
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 863567
Amount: 0.870014
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

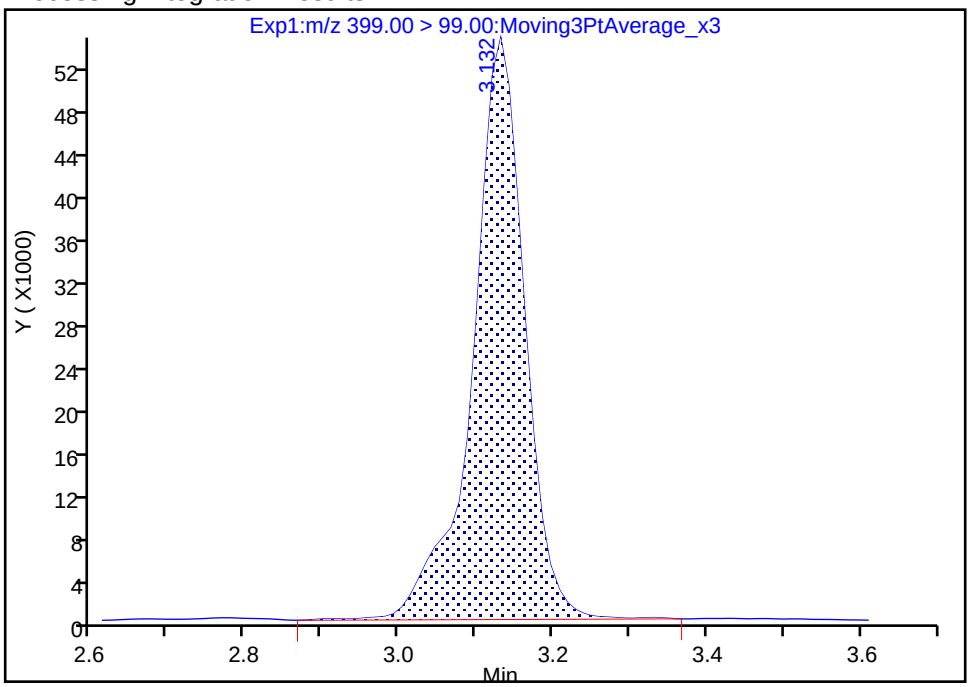
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

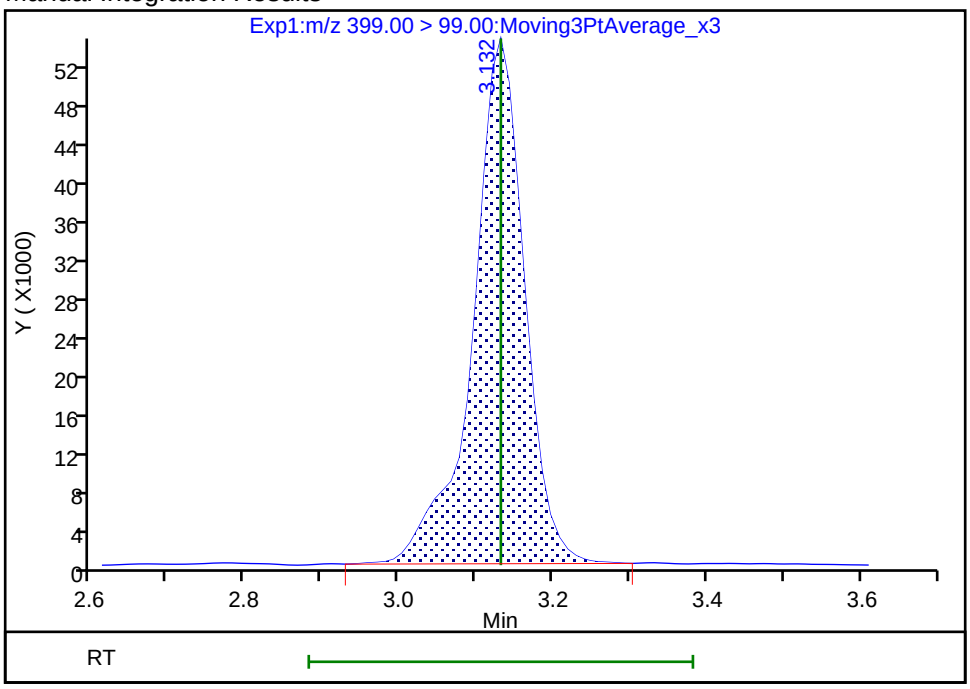
Processing Integration Results

RT: 3.13
Area: 255757
Amount: 0.872045
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 253395
Amount: 0.870014
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

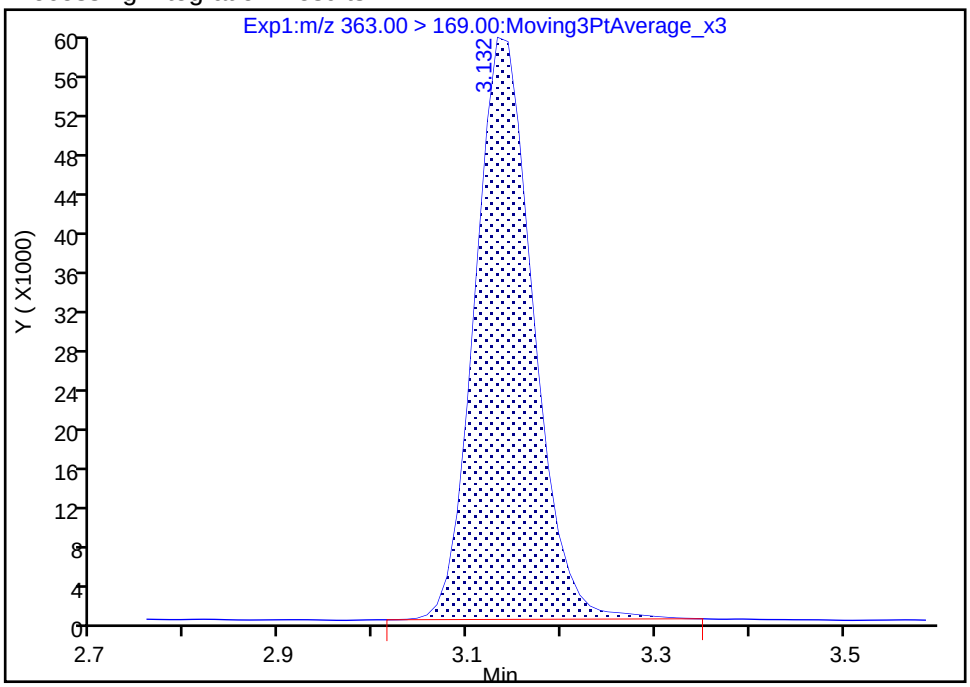
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

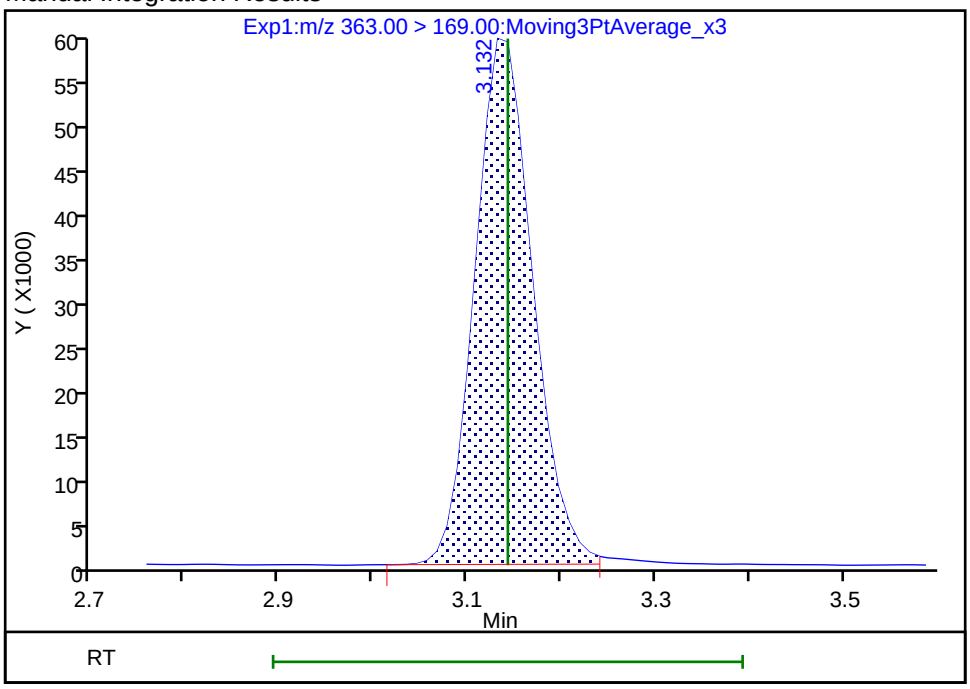
Processing Integration Results

RT: 3.13
Area: 257205
Amount: 0.952550
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 255092
Amount: 0.952550
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

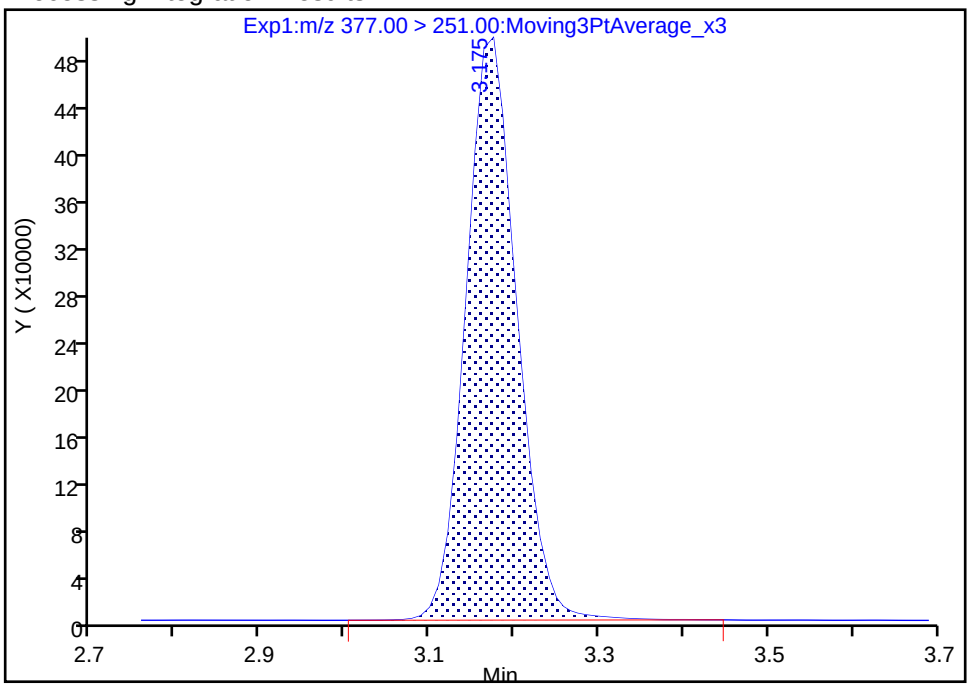
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

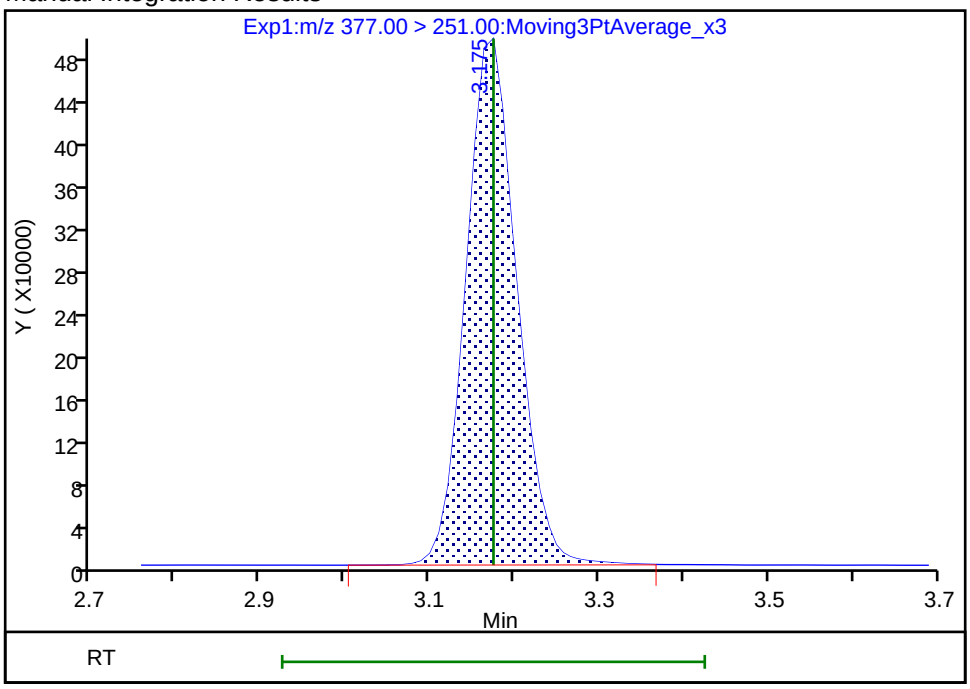
Processing Integration Results

RT: 3.17
Area: 2055031
Amount: 0.875156
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 2054301
Amount: 0.874845
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

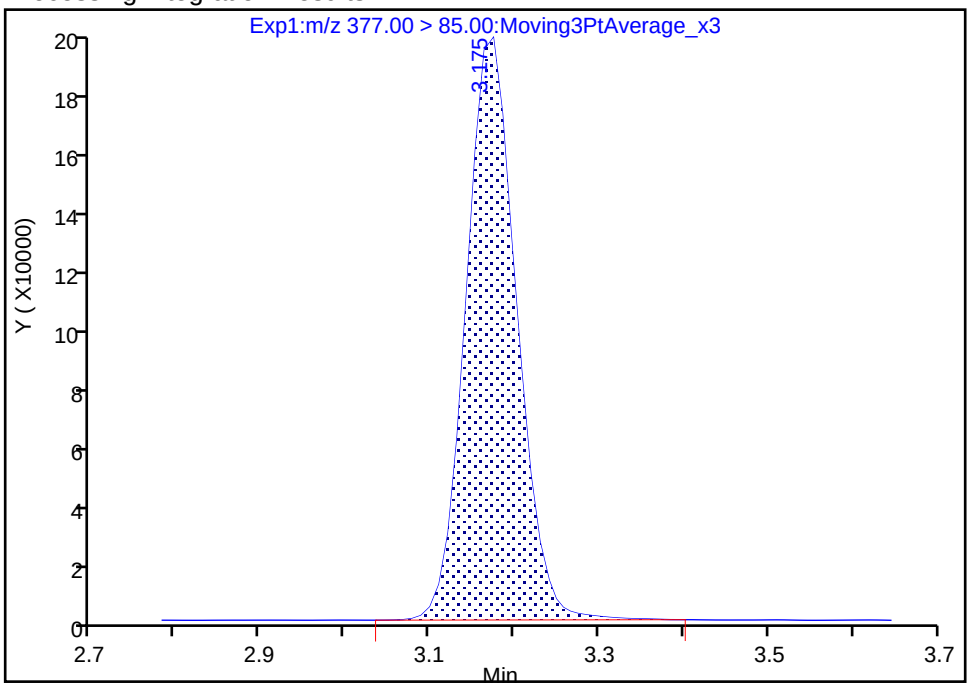
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

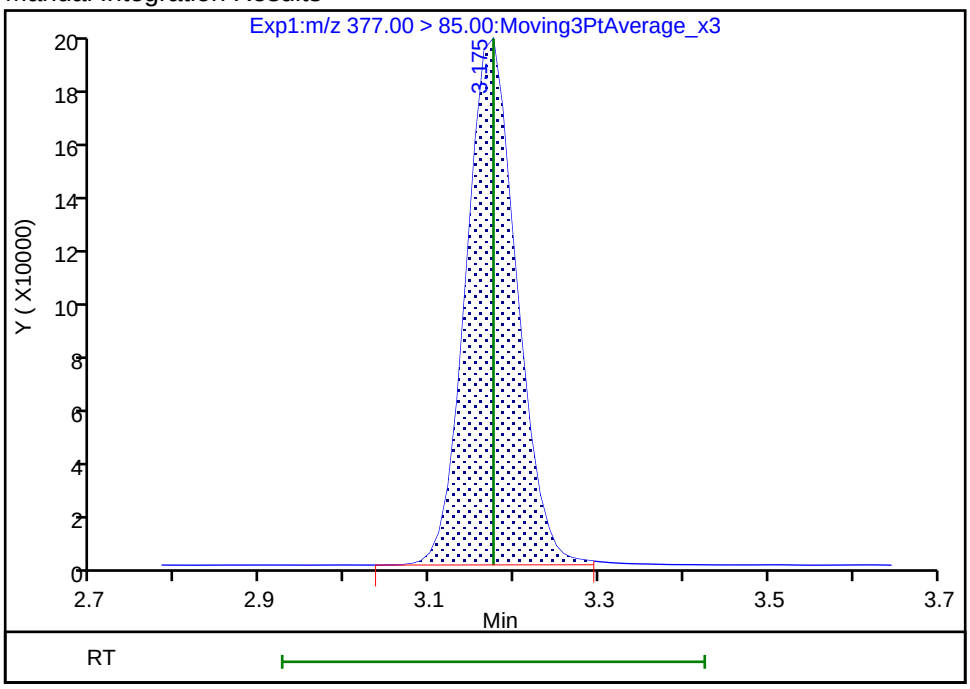
Processing Integration Results

RT: 3.17
Area: 819633
Amount: 0.875156
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 816948
Amount: 0.874845
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

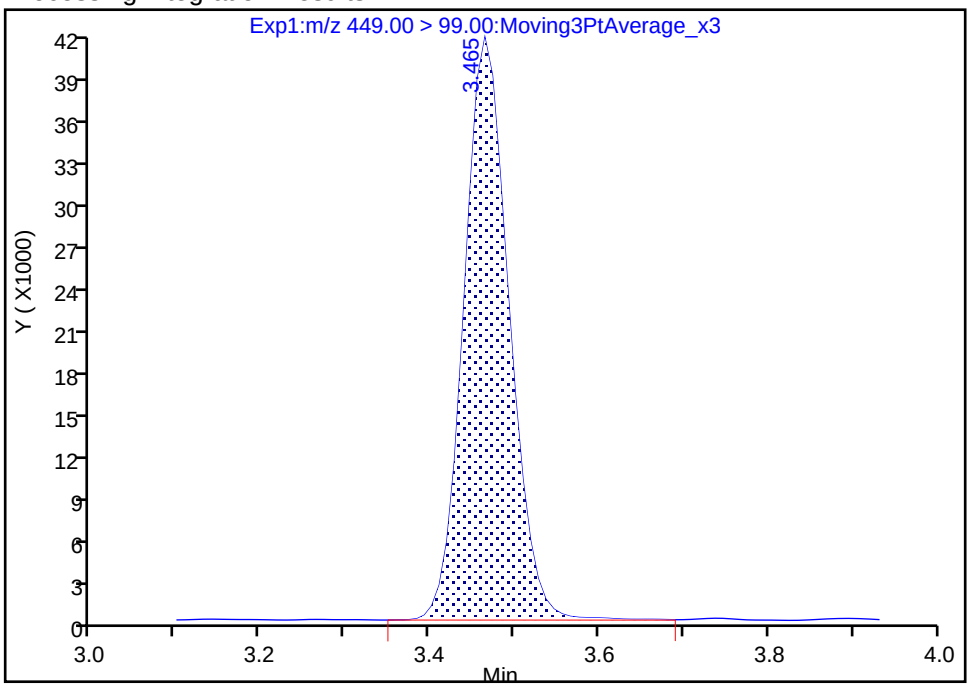
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

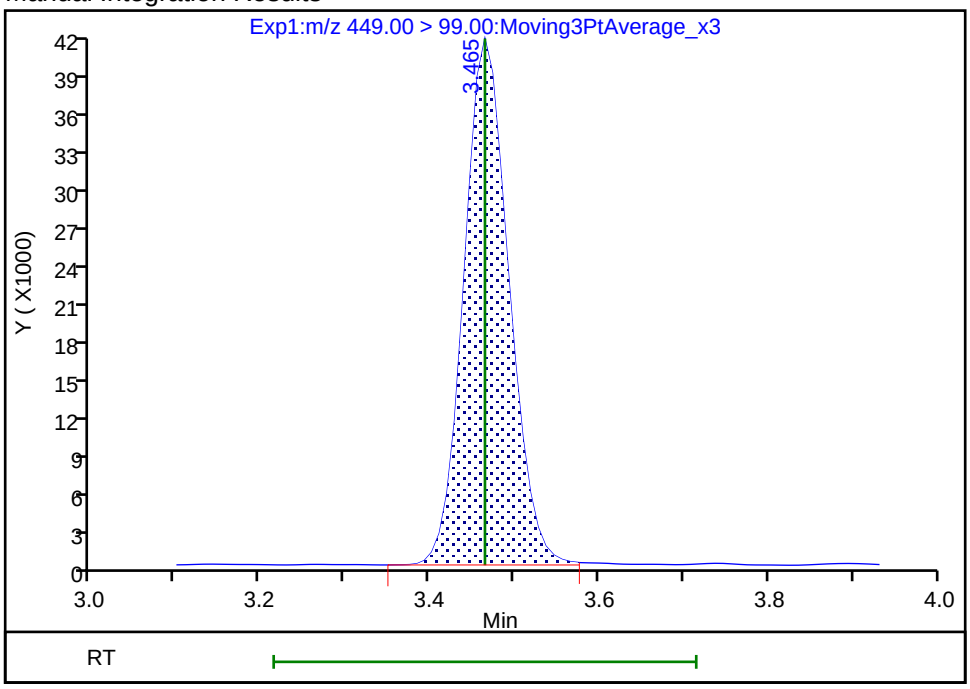
Processing Integration Results

RT: 3.46
Area: 151875
Amount: 0.942960
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 151272
Amount: 0.942089
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

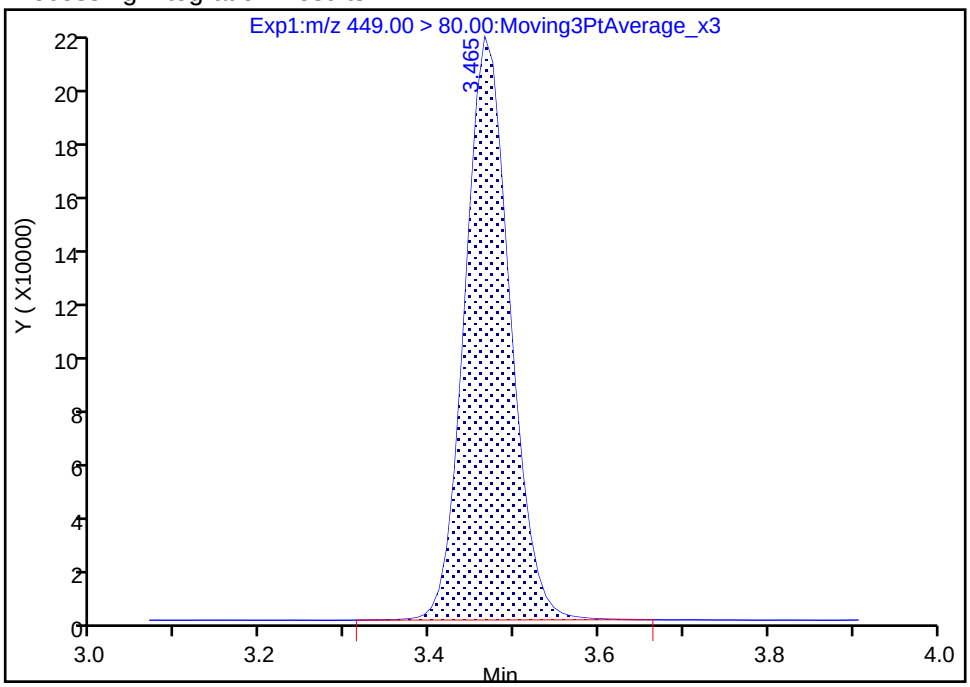
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

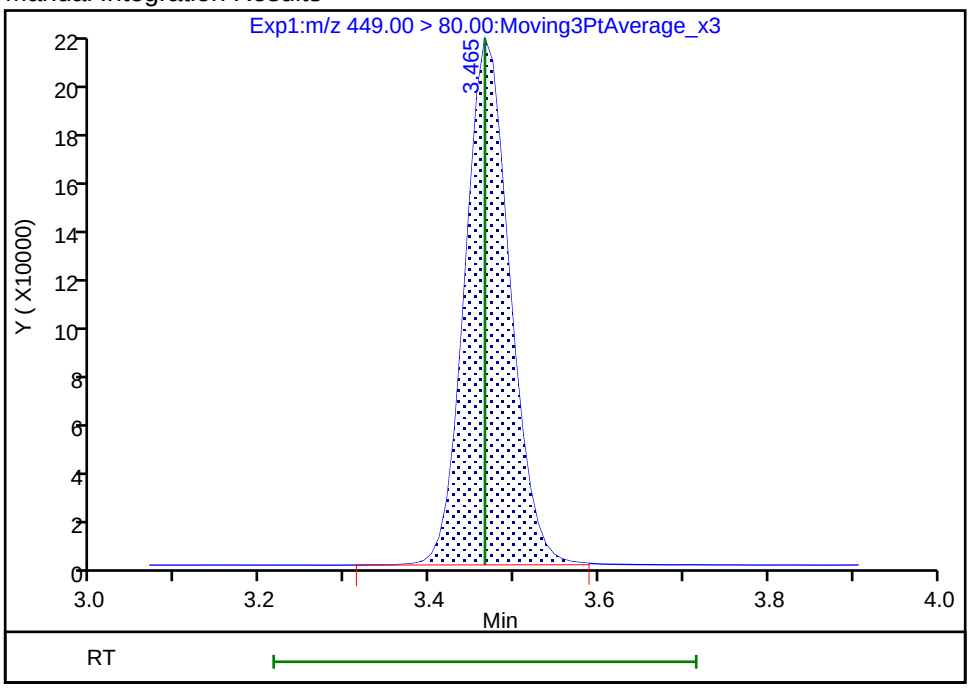
Processing Integration Results

RT: 3.46
Area: 788674
Amount: 0.942960
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 787945
Amount: 0.942089
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

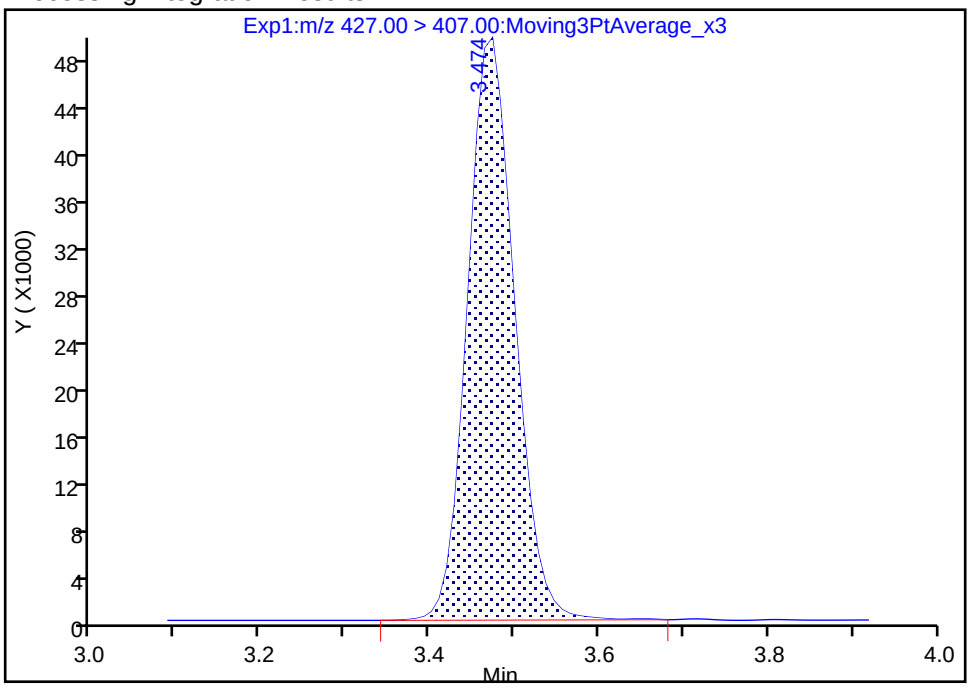
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

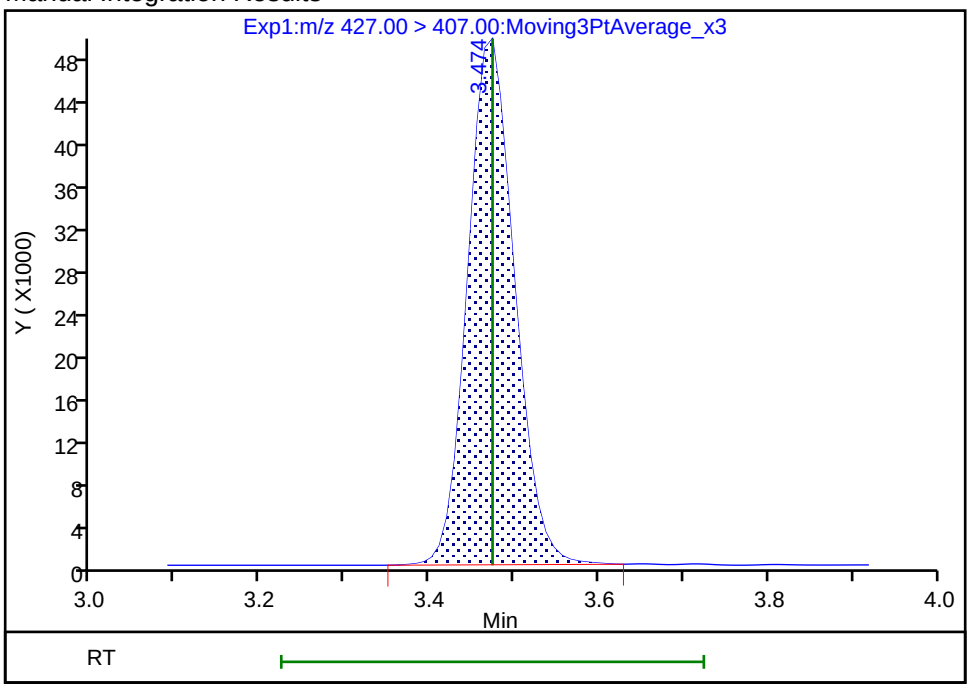
Processing Integration Results

RT: 3.47
Area: 189187
Amount: 0.917721
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 188623
Amount: 0.914985
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:51:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

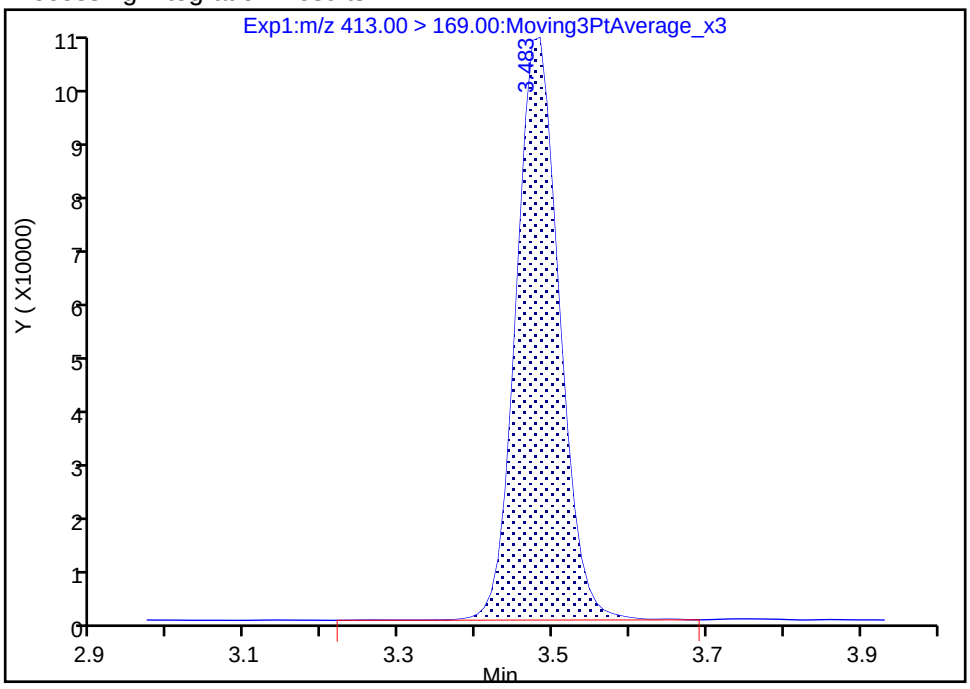
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

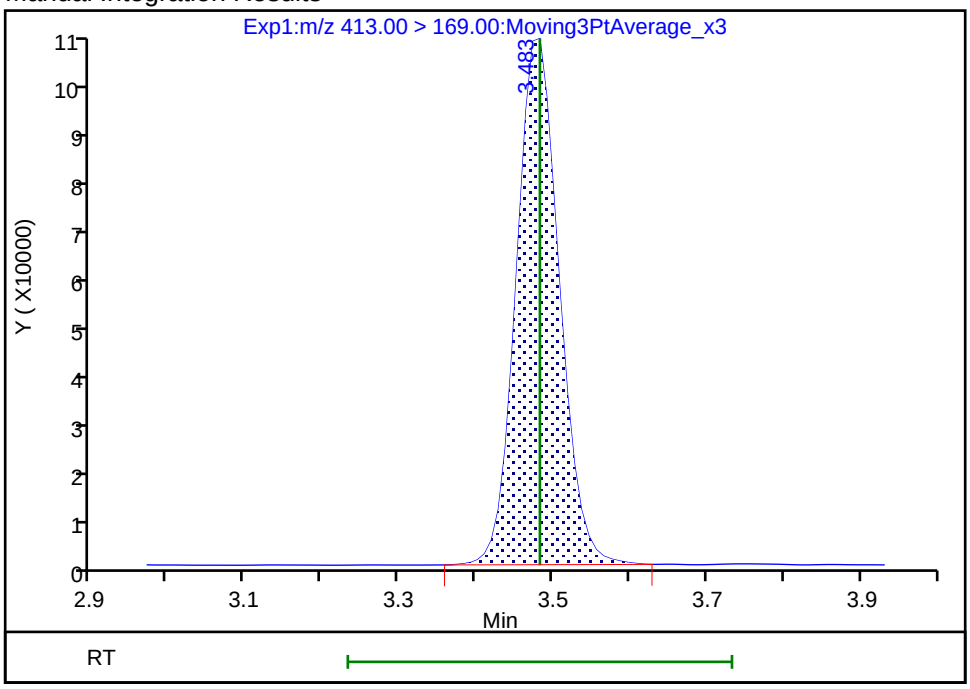
Processing Integration Results

RT: 3.48
Area: 395278
Amount: 0.914689
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 393962
Amount: 0.914689
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:52:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

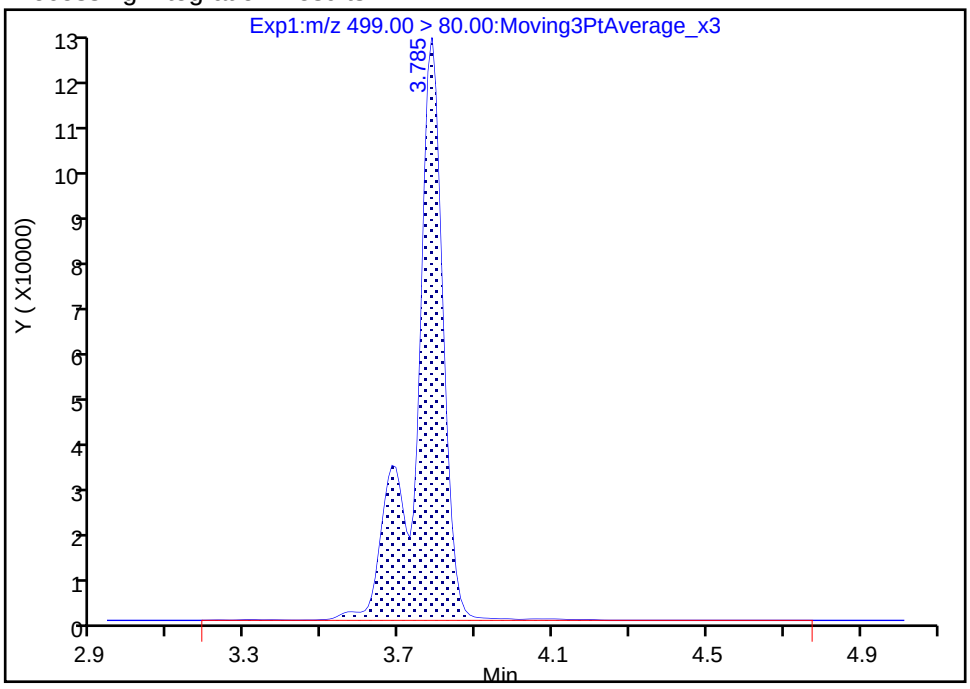
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

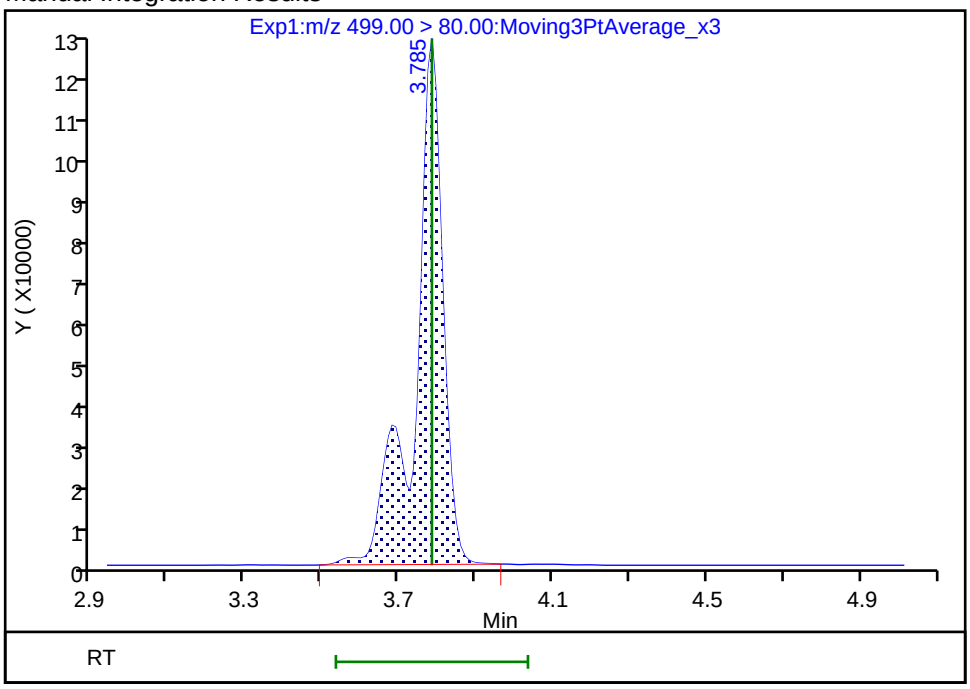
Processing Integration Results

RT: 3.78
Area: 646824
Amount: 0.888515
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 638500
Amount: 0.877081
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:43:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

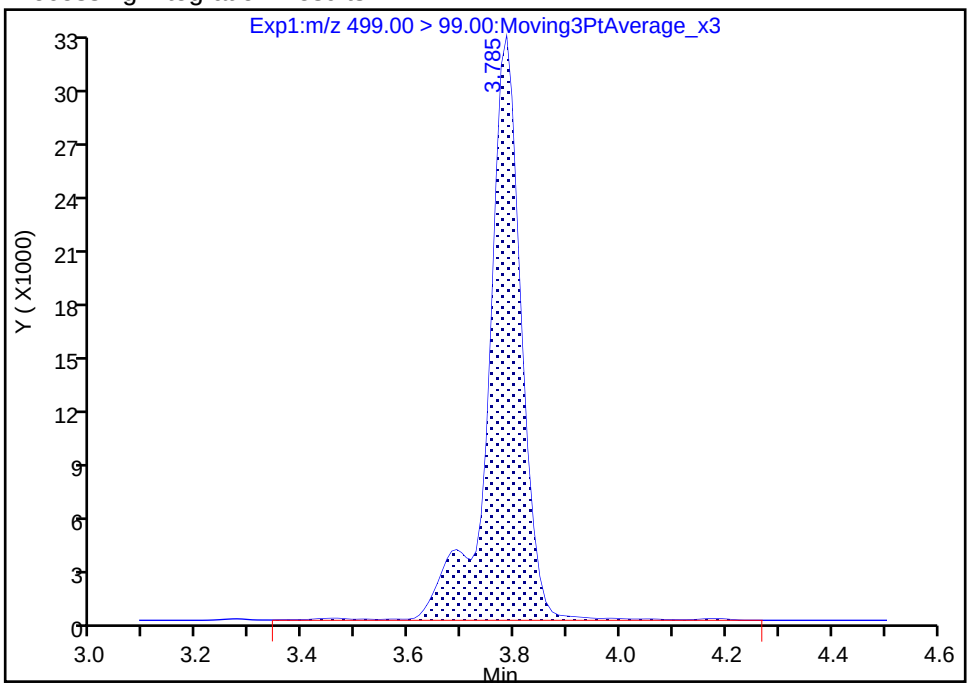
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

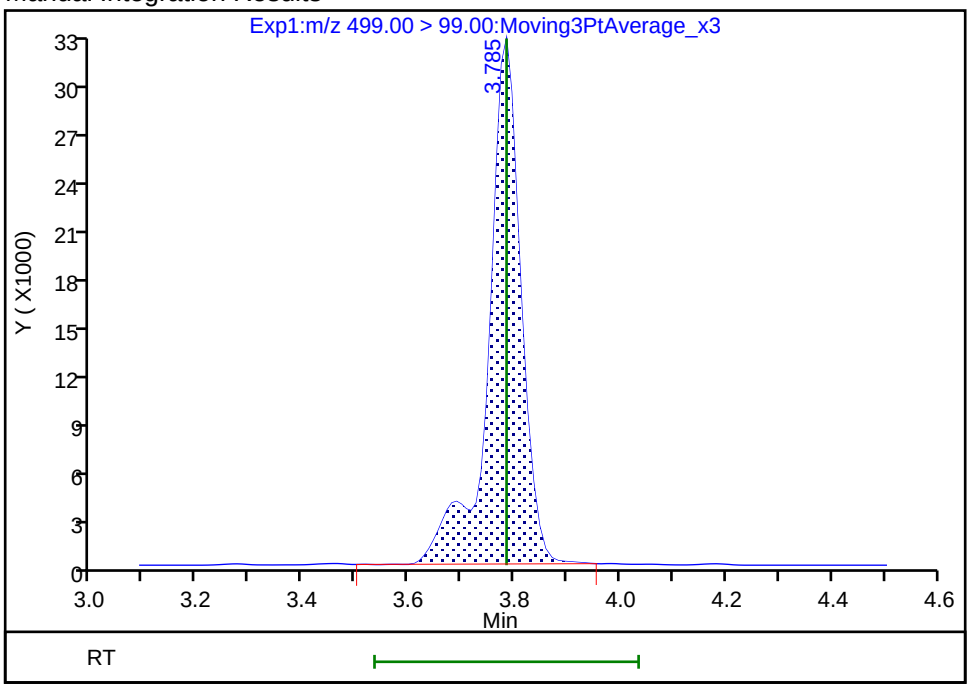
Processing Integration Results

RT: 3.78
Area: 141044
Amount: 0.888515
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 137795
Amount: 0.877081
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:43:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

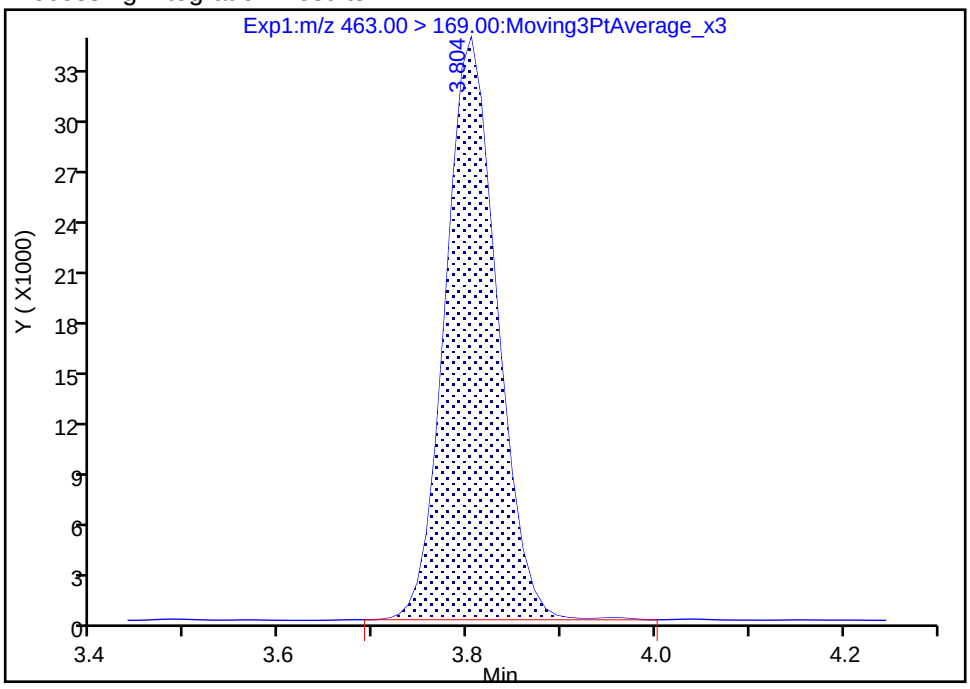
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d | | | | |
| Injection Date: | 08-Nov-2021 18:47:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

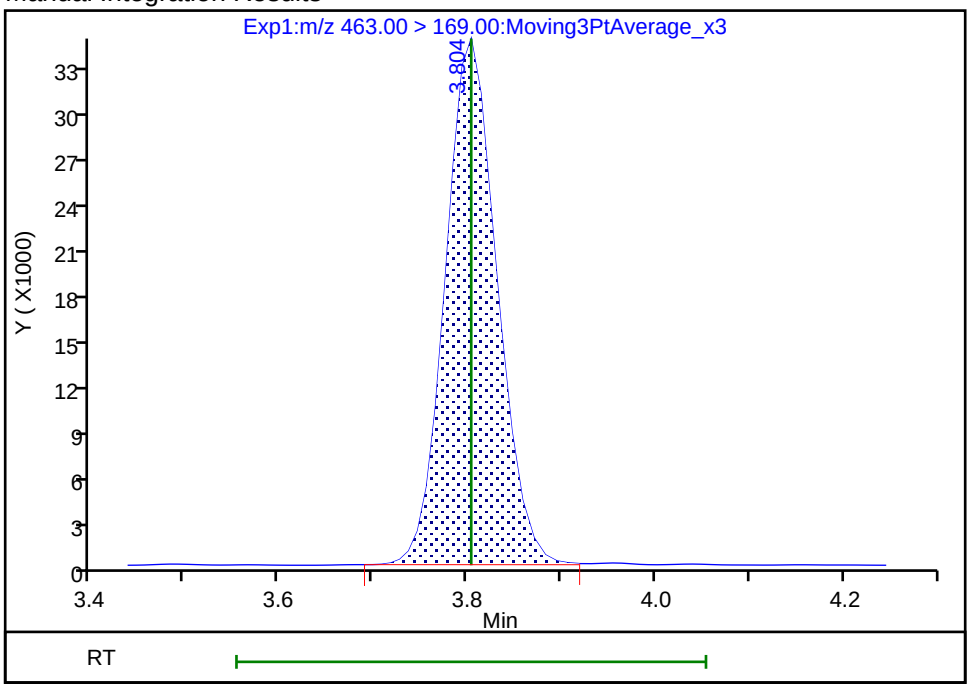
Processing Integration Results

RT: 3.80
Area: 131052
Amount: 0.985640
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 130724
Amount: 0.985640
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:52:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

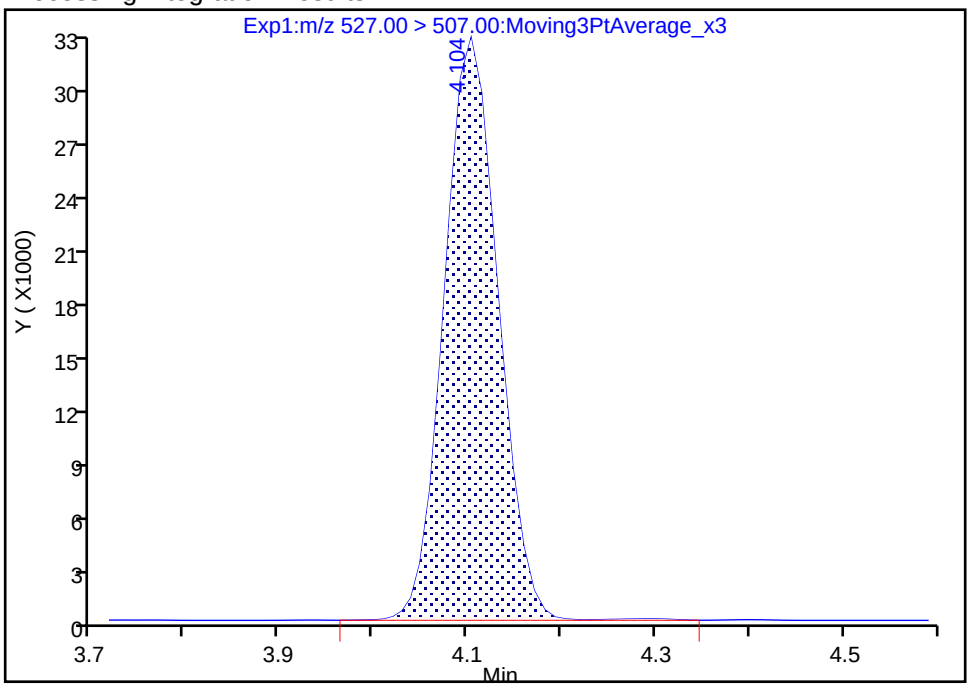
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

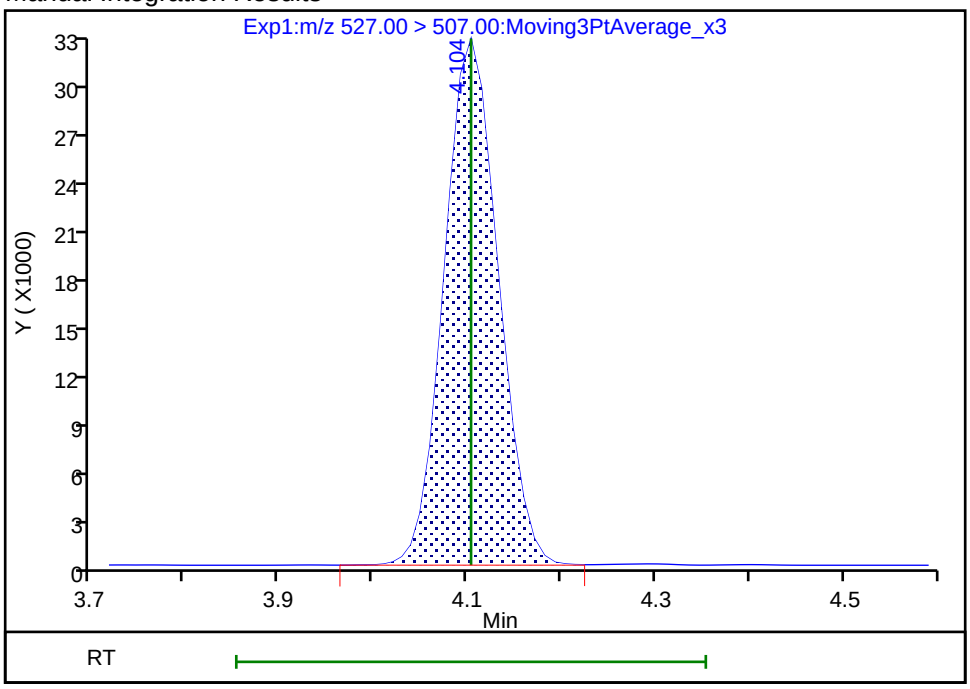
Processing Integration Results

RT: 4.10
Area: 130569
Amount: 0.890923
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 130223
Amount: 0.888562
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:52:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

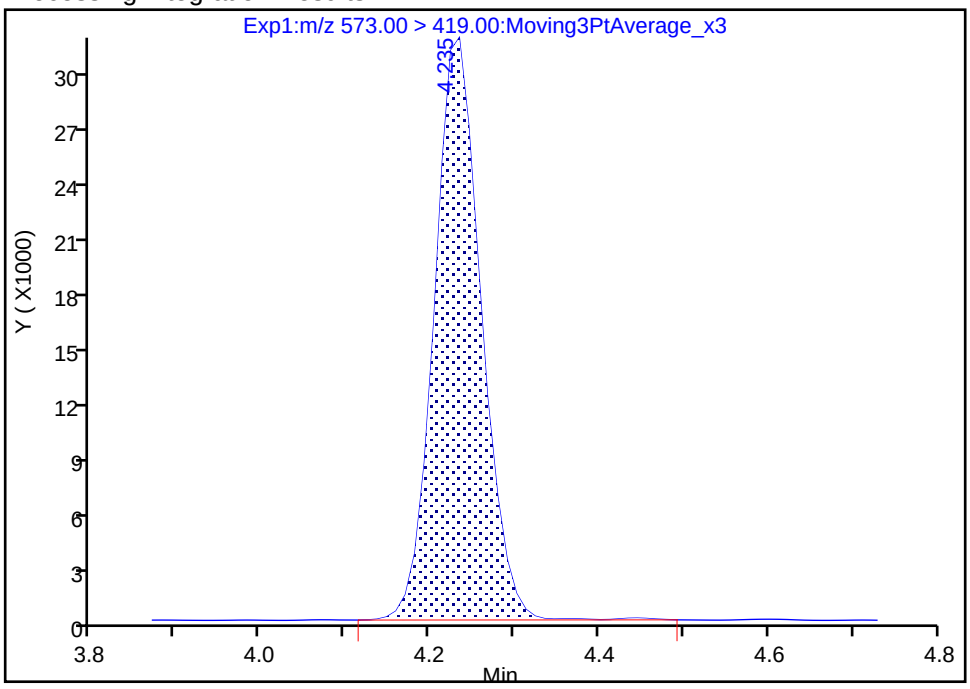
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

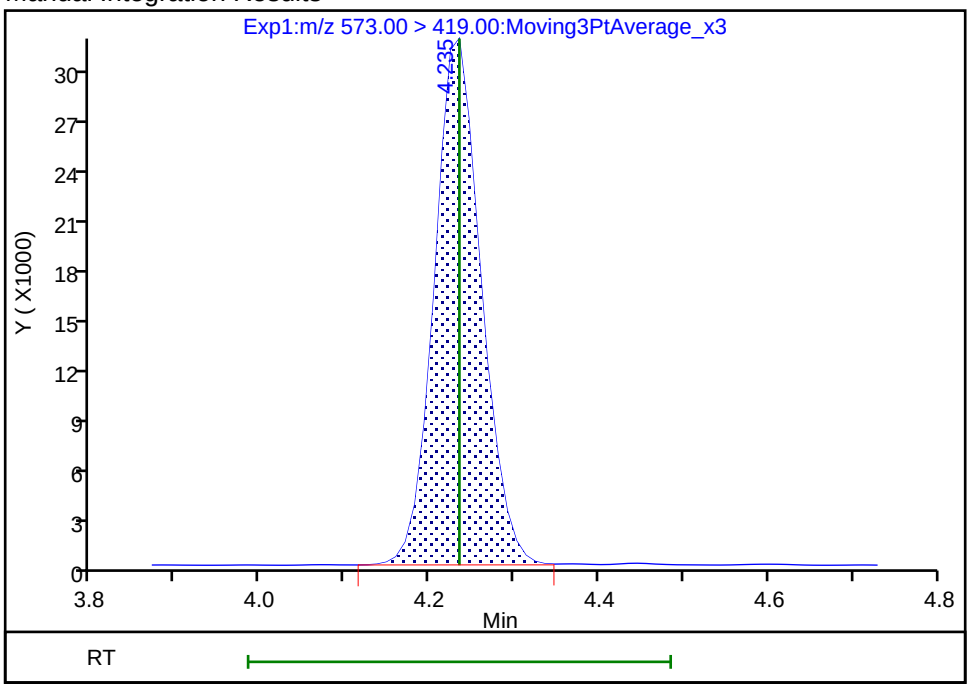
Processing Integration Results

RT: 4.23
Area: 120449
Amount: 1.238064
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 120054
Amount: 1.234004
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:49:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

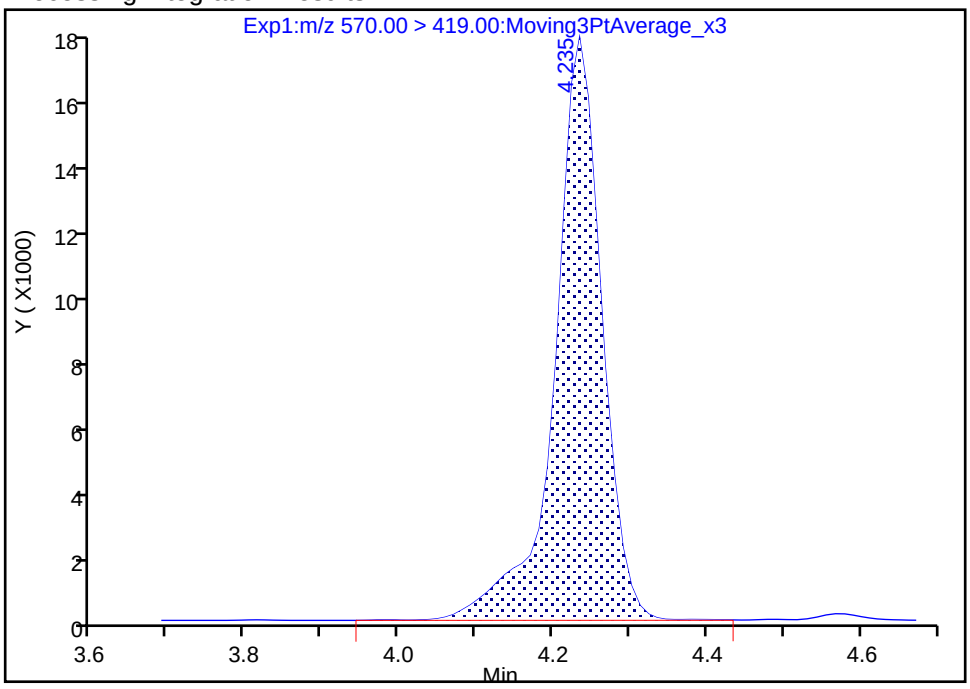
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d | | | | |
| Injection Date: | 08-Nov-2021 18:47:38 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 23 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

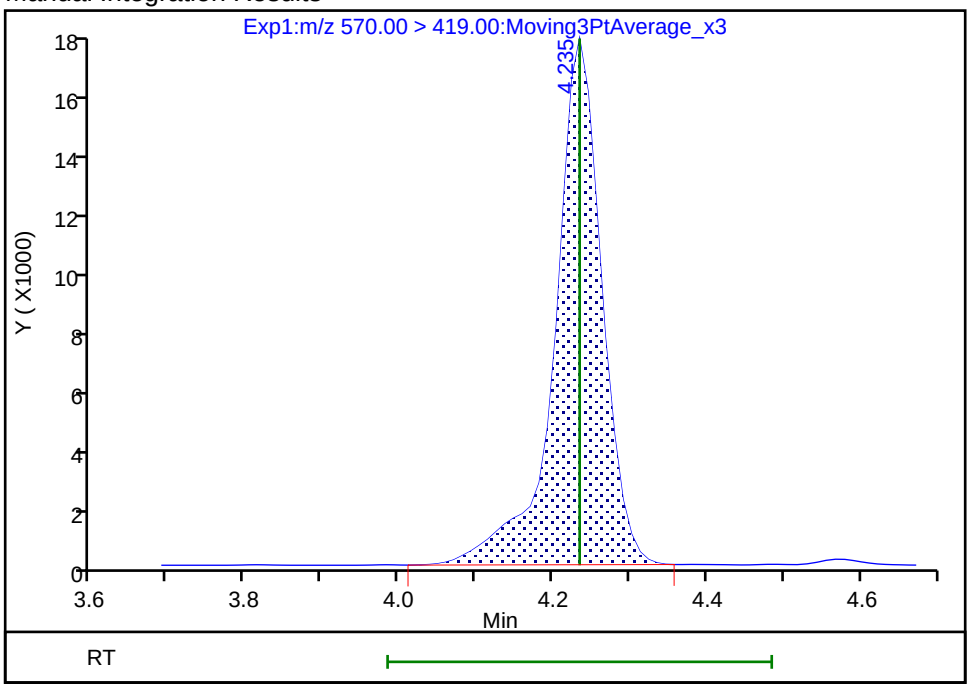
Processing Integration Results

RT: 4.23
Area: 75922
Amount: 1.006245
Amount Units: ng/ml




Manual Integration Results

RT: 4.23
Area: 75522
Amount: 1.000943
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:44:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

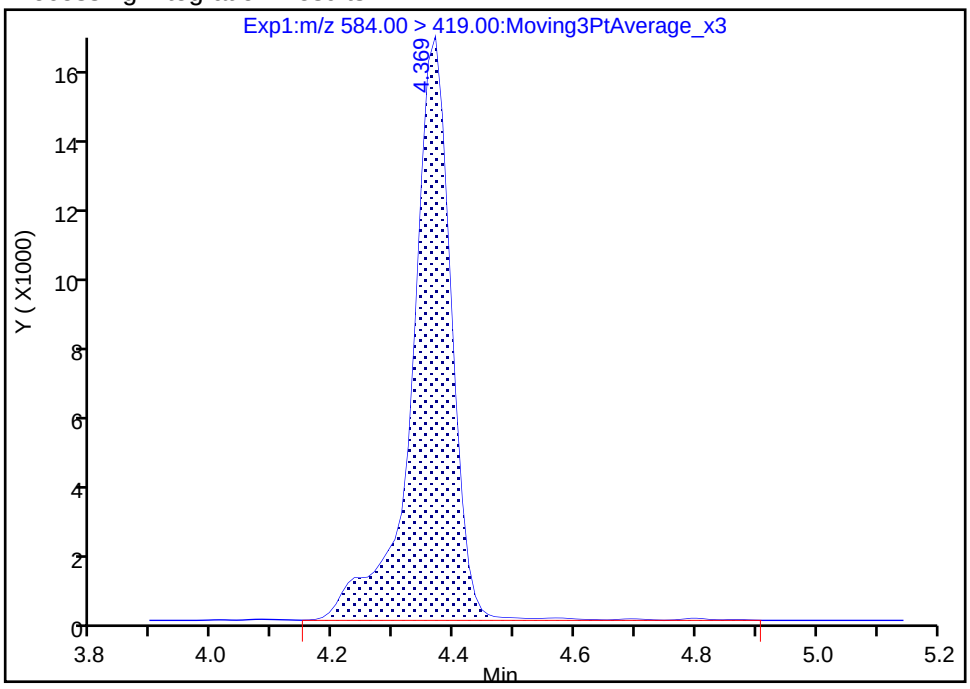
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A26.d
Injection Date: 08-Nov-2021 18:47:38 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

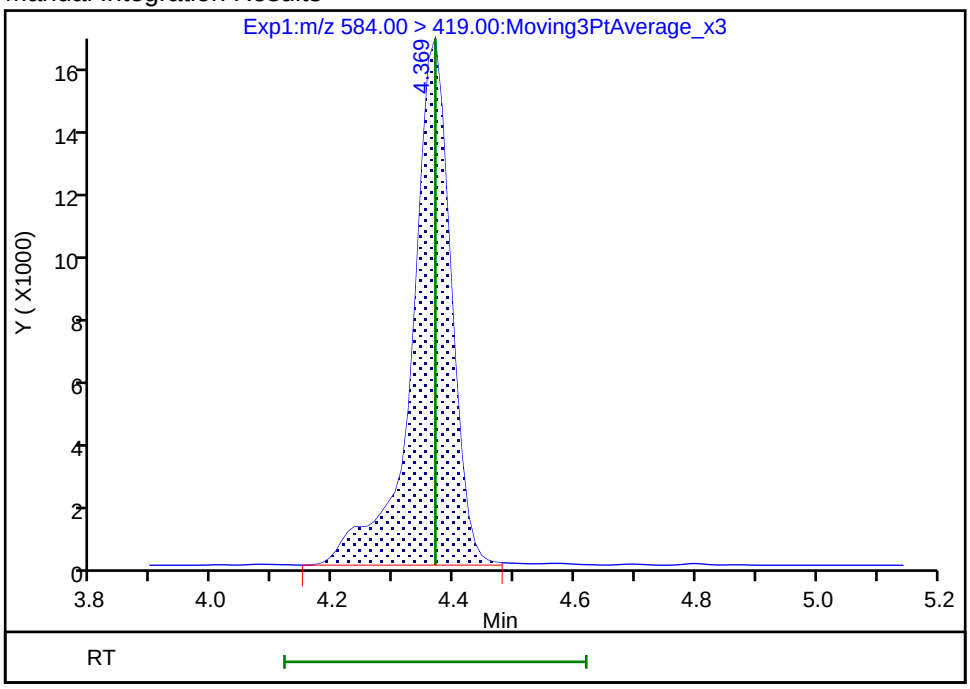
Processing Integration Results

RT: 4.37
Area: 73005
Amount: 0.969244
Amount Units: ng/ml




Manual Integration Results

RT: 4.37
Area: 72230
Amount: 0.958955
Amount Units: ng/ml




Reviewer: deannd, 09-Nov-2021 09:44:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173663/5  Calibration Date: 11/09/2021 12:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9100 | | 0.120 | 0.125 | -3.8 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.007 | | 0.0503 | 0.0500 | 0.5 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.060 | | 0.0439 | 0.0442 | -0.8 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.072 | | 0.0455 | 0.0467 | -2.7 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.098 | | 0.0541 | 0.0500 | 8.2 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.337 | | 0.0521 | 0.0469 | 11.0 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.091 | | 0.113 | 0.100 | 12.5 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.008 | | 0.0488 | 0.0500 | -2.5 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.149 | | 0.0476 | 0.0455 | 4.5 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.717 | | 0.0500 | 0.0471 | 6.2 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.118 | | 0.104 | 0.119 | -11.9 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.243 | | 0.0475 | 0.0476 | -0.3 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.199 | | 0.0564 | 0.0500 | 12.7 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.143 | | 0.0489 | 0.0464 | 5.4 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9861 | | 0.0504 | 0.0500 | 0.8 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.558 | | 0.0444 | 0.0466 | -4.7 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.9033 | | 0.0513 | 0.0480 | 6.9 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.187 | | 0.0591 | 0.0500 | 18.2 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.8852 | | 0.0507 | 0.0479 | 5.8 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 1.056 | | 0.0556 | 0.0500 | 11.2 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8161 | | 0.130 | 0.125 | 3.9 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6997 | | 0.0513 | 0.0482 | 6.5 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.252 | | 0.0587 | 0.0500 | 17.4 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7785 | | 0.114 | 0.125 | -9.1 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.927 | | 0.0470 | 0.0471 | -0.2 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.092 | | 0.0558 | 0.0500 | 11.6 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3133 | | 0.0391 | 0.0482 | -19.0 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2896 | | 0.0580 | 0.0484 | 19.8 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173663/5  Calibration Date: 11/09/2021 12:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9147 | | 0.0542 | 0.0500 | 8.4 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1787 | | 0.0566 | 0.0500 | 13.2 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.159 | | 0.0492 | 0.0500 | -1.7 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6816 | | 0.0404 | 0.0500 | -19.2 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.324 | | 1.64 | 1.25 | 30.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9654 | | 1.42 | 1.25 | 13.2 | |
| 13C3 PFBS | Ave | 1.154 | 1.197 | | 1.21 | 1.16 | 3.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1229 | | 1.63 | 1.17 | 39.8 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.995 | | 1.39 | 1.25 | 11.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0216 | | 1.15 | 1.25 | -8.3 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9802 | | 1.30 | 1.25 | 4.1 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8765 | | 1.24 | 1.18 | 4.6 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1686 | | 1.51 | 1.19 | 27.5 | |
| 13C4 PFOA | Ave | 1.029 | 1.033 | | 1.26 | 1.25 | 0.4 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6322 | | 1.25 | 1.20 | 4.4 | |
| 13C5 PFNA | Ave | 1.025 | 1.029 | | 1.26 | 1.25 | 0.4 | |
| 13C2 PFDA | Ave | 1.034 | 0.9529 | | 1.15 | 1.25 | -7.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1927 | | 1.54 | 1.20 | 28.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.032 | | 1.29 | 1.25 | 3.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0913 | | 1.12 | 1.25 | -10.2 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7359 | | 1.14 | 1.25 | -8.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0904 | | 1.19 | 1.25 | -5.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7830 | | 1.13 | 1.25 | -9.7 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6031 | | 1.12 | 1.25 | -10.3 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5776 | | 1.22 | 1.25 | -2.5 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 09-Nov-2021 12:53:06 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048346-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:41:56 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 11-Nov-2021 15:18:24
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.236 | 2.226 | 0.010 | 0.642 | 1856420 | 1.64 | | 131 | 5350 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.236 | 2.236 | 0.0 | 1.000 | 168942 | 0.1203 | | 96.2 | 18.0 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.479 | 2.478 | 0.001 | 0.712 | 1353469 | 1.42 | | 113 | 1631 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.492 | 2.478 | 0.014 | 1.005 | 54510 | 0.0503 | | 101 | 3.9 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.492 | 2.492 | 0.0 | 0.715 | 1560467 | 1.21 | | 104 | 190559 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.505 | 2.492 | 0.013 | 1.005 | 62891 | 0.0439 | Target=2.32 | 99.2 | 109 | |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.000 | 31034 | | 2.03(1.16-3.48) | | 19.0 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 0.996 | 13341 | 0.0455 | | 97.3 | 231 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.770 | 2.770 | 0.0 | 0.795 | 160988 | 1.63 | | 140 | 130 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.794 | 0.0 | 0.802 | 1395288 | 1.39 | | 111 | 2832 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.794 | 2.794 | 0.0 | 1.000 | 61255 | 0.0541 | Target=12.09 | 108 | 15.7 | |
| 313.00 > 119.00 | 2.794 | 2.794 | 0.0 | 1.000 | 4988 | | 12.28(6.04-18.13) | | 2.0 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.794 | 2.794 | 0.0 | 0.889 | 61637 | 0.0521 | Target=3.03 | 111 | 130 | |
| 349.00 > 99.00 | 2.794 | 2.794 | 0.0 | 0.889 | 18621 | | 3.31(1.52-4.55) | | 41.9 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.902 | 2.892 | 0.010 | 1.000 | 12337 | 0.1125 | | 113 | 8.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.902 | 2.901 | 0.001 | 0.833 | 30289 | 1.15 | | 91.7 | 355 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.143 | 0.0 | 1.000 | 51402 | 0.0476 | Target=3.55 | 105 | 147 | M |
| 399.00 > 99.00 | 3.143 | 3.143 | 0.0 | 1.000 | 16126 | | 3.19(1.77-5.32) | | 18.9 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1162443 | 1.24 | | 105 | 4896 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1374268 | 1.30 | | 104 | 4190 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 55389 | 0.0488 | Target=3.69 | 97.5 | 28.1 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 15215 | | 3.64(1.84-5.53) | | 20.5 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.839 | 124137 | 0.0500 | Target=2.56 | 106 | 266 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.839 | 46850 | | 2.65(1.28-3.84) | | 108 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.918 | 41956 | 0.0475 | Target=4.88 | 99.7 | 255 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.918 | 7861 | | 5.34(2.44-7.32) | | 26.1 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 25039 | 0.1044 | | 88.1 | 255 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 224502 | 1.51 | | 128 | 564 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1447668 | 1.25 | | 100 | 4331 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1401965 | 1.25 | | | 4655 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.483 | 0.009 | 1.003 | 69406 | 0.0564 | Target=2.68 | 113 | 13.7 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 24870 | | 2.79(1.34-4.02) | | 58.4 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 847340 | 1.25 | | 104 | 6097 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.003 | 37620 | 0.0489 | Target=4.69 | 105 | 107 | M |
| 499.00 > 99.00 | 3.794 | 3.785 | 0.009 | 1.003 | 9071 | | 4.15(2.35-7.04) | | 38.9 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1442326 | 1.25 | | 100 | 3823 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 56890 | 0.0504 | Target=7.29 | 101 | 9.5 | |
| 463.00 > 169.00 | 3.814 | 3.804 | 0.010 | 1.003 | 7643 | | 7.44(3.64-10.93) | | 59.7 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.042 | 51468 | 0.0444 | | 95.3 | 186 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.076 | 30744 | 0.0513 | Target=2.35 | 107 | 405 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.076 | 12260 | | 2.51(1.17-3.52) | | 43.1 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.092 | 0.011 | 1.178 | 1335963 | 1.15 | | 92.1 | 4596 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.092 | 0.011 | 1.000 | 63447 | 0.0591 | Target=8.95 | 118 | 48.6 | |
| 513.00 > 169.00 | 4.103 | 4.092 | 0.011 | 1.000 | 6994 | | 9.07(4.47-13.42) | | 65.0 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.104 | 0.011 | 1.181 | 258794 | 1.54 | | 129 | 1126 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.104 | 0.011 | 1.000 | 9163 | 0.0507 | | 106 | 205 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.213 | 1446629 | 1.29 | | 103 | 2964 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.000 | 61105 | 0.0556 | | 111 | 250 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.234 | 4.234 | 0.0 | 1.216 | 128029 | 1.12 | | 89.8 | 1767 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.245 | 4.234 | 0.011 | 1.003 | 10448 | 0.1298 | | 104 | 56.2 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.335 | 4.325 | 0.010 | 1.145 | 23915 | 0.0513 | Target=2.47 | 106 | 265 | |
| 599.00 > 99.00 | 4.335 | 4.325 | 0.010 | 1.145 | 9746 | | 2.45(1.23-3.70) | | 94.9 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.357 | 4.359 | -0.002 | 1.251 | 1031760 | 1.14 | | 91.3 | 3437 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.357 | 4.359 | -0.002 | 1.000 | 51652 | 0.0587 | Target=9.24 | 117 | 37.2 | |
| 563.00 > 169.00 | 4.357 | 4.359 | -0.002 | 1.000 | 5203 | | 9.93(4.62-13.86) | | 90.4 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.368 | 4.370 | -0.002 | 1.254 | 126754 | 1.19 | | 94.9 | 855 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.368 | 4.370 | -0.002 | 1.000 | 9868 | 0.1136 | | 90.9 | 257 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.445 | 4.446 | -0.001 | 1.174 | 64344 | 0.0470 | | 99.8 | 371 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.581 | -0.001 | 1.315 | 1097788 | 1.13 | | 90.3 | 1189 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.580 | 4.581 | -0.001 | 1.000 | 47971 | 0.0558 | Target=7.04 | 112 | 9.2 | |
| 613.00 > 169.00 | 4.580 | 4.581 | -0.001 | 1.000 | 7541 | | 6.36(3.52-10.56) | | 121 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.601 | 4.591 | 0.010 | 1.118 | 3263 | 0.0391 | | 81.0 | 55.0 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.738 | 4.739 | -0.001 | 1.252 | 9938 | 0.0580 | Target=0.49 | 120 | 201 | |
| 699.00 > 99.00 | 4.738 | 4.739 | -0.001 | 1.252 | 17121 | | 0.58(0.25-0.74) | | 132 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.774 | 4.775 | -0.001 | 1.043 | 40164 | 0.0542 | Target=4.68 | 108 | 15.6 | |
| 663.00 > 169.00 | 4.774 | 4.775 | -0.001 | 1.043 | 8633 | | 4.65(2.34-7.02) | | 88.8 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.947 | -0.001 | 1.420 | 845455 | 1.12 | | 89.7 | 1735 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.956 | 4.947 | 0.009 | 1.002 | 6043 | 0.0566 | Target=1.01 | 113 | 113 | |
| 713.00 > 219.00 | 4.947 | 4.947 | -0.001 | 1.000 | 6695 | | 0.90(0.51-1.52) | | 157 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.246 | -0.001 | 1.506 | 809795 | 1.22 | | 97.5 | 3934 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.246 | 0.012 | 1.002 | 37548 | 0.0492 | Target=4.57 | 98.3 | 17.1 | |
| 813.00 > 169.00 | 5.258 | 5.246 | 0.012 | 1.002 | 8477 | | 4.43(2.29-6.86) | | 159 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.500 | 5.500 | 0.0 | 1.049 | 22078 | 0.0404 | Target=4.27 | 80.8 | 20.7 | |
| 913.00 > 169.00 | 5.500 | 5.500 | 0.0 | 1.049 | 4906 | | 4.50(2.14-6.41) | | 103 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:41:56 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d

Injection Date: 09-Nov-2021 12:53:06 Instrument ID: LC812

Lims ID: CCVL

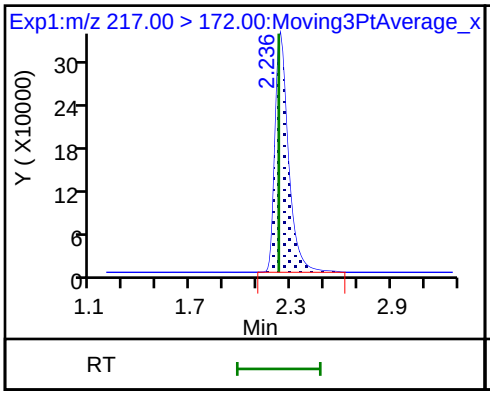
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

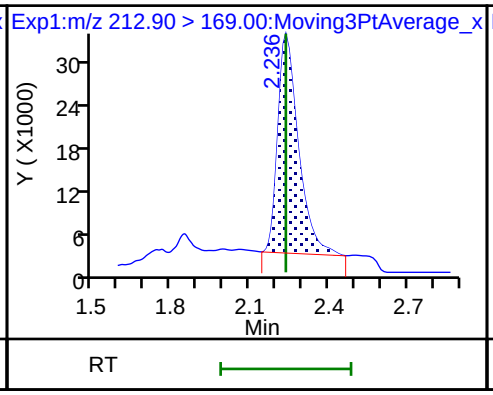
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

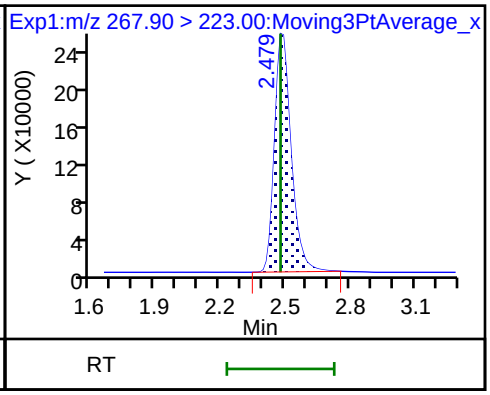
D 1 13C4 PFBA



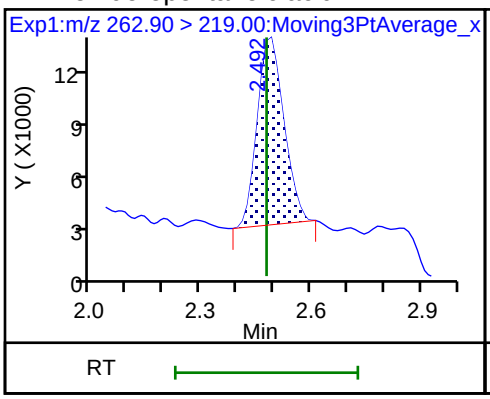

2 Perfluorobutanoic acid



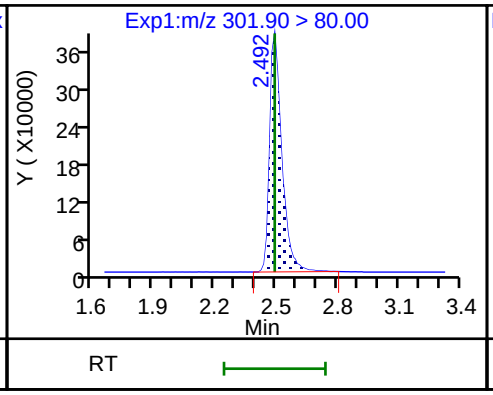

D 3 13C5 PFPeA



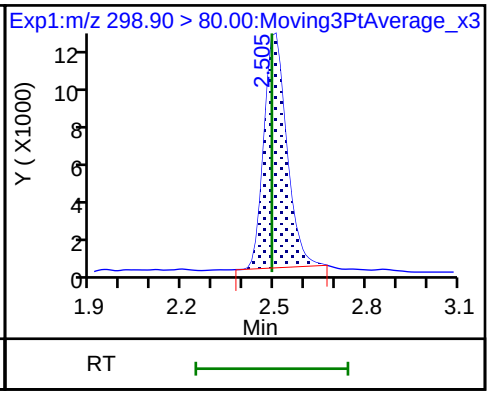

4 Perfluoropentanoic acid



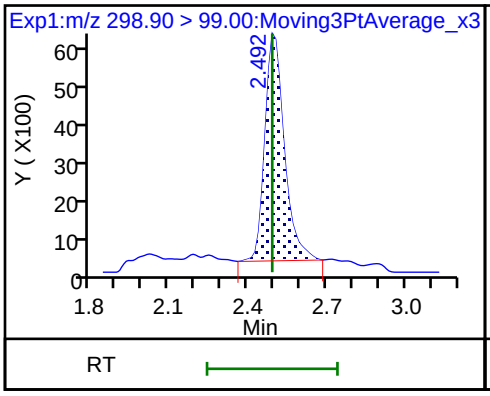

D 47 13C3 PFBS



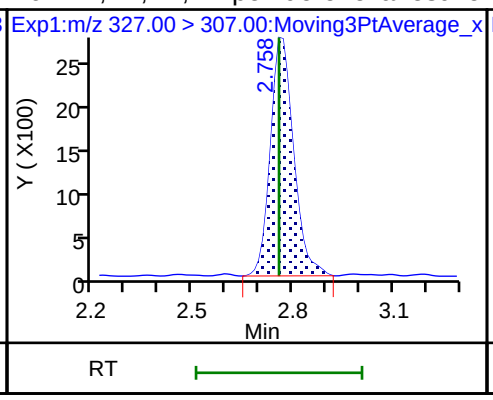

5 Perfluorobutanesulfonic acid



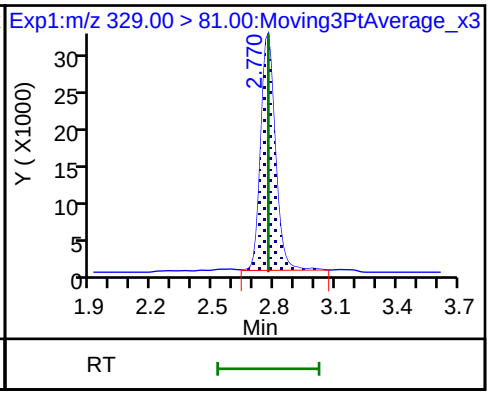

5 Perfluorobutanesulfonic acid



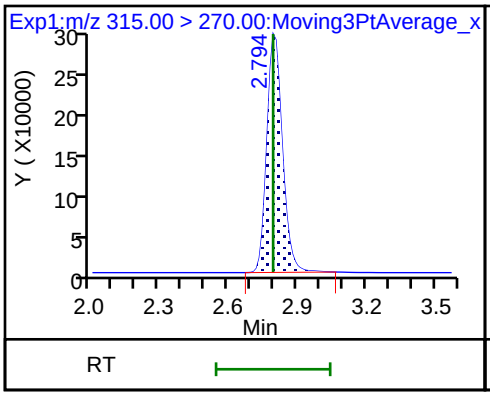

61 1H,1H,2H,2H-perfluorohexanesulfo



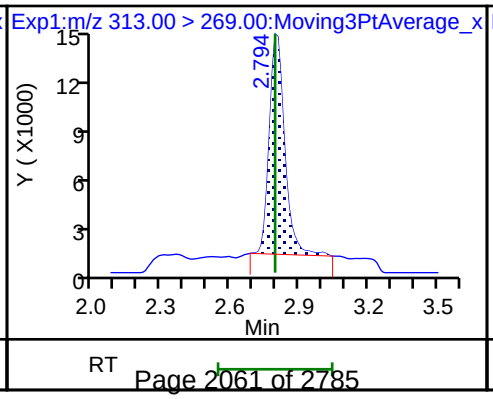

D 60 M2-4:2 FTS



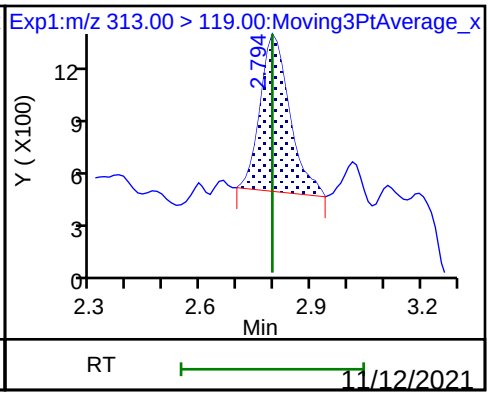

D 7 13C2 PFHxA



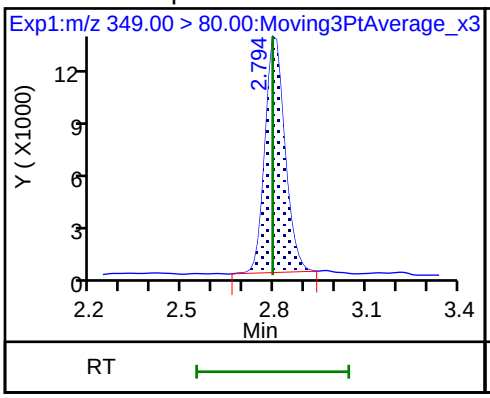

6 Perfluorohexanoic acid




6 Perfluorohexanoic acid



70 Perfluoropentanesulfonic acid

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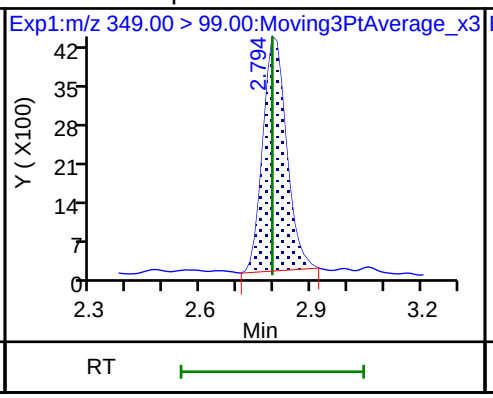
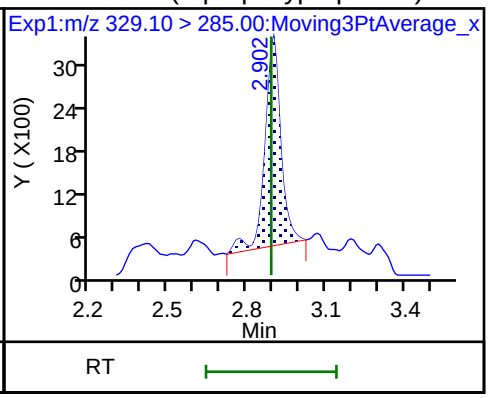
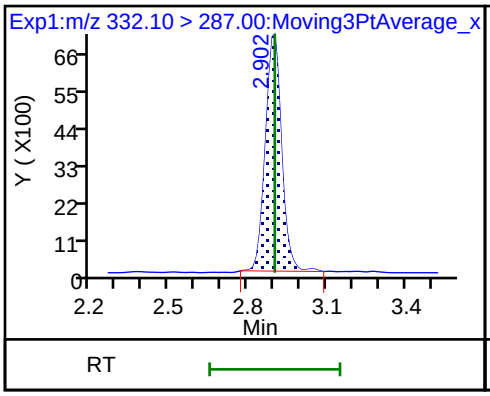


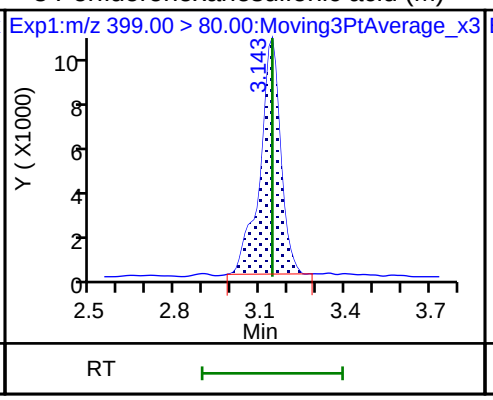

67 Perfluoro(2-propoxypropanoic) ac



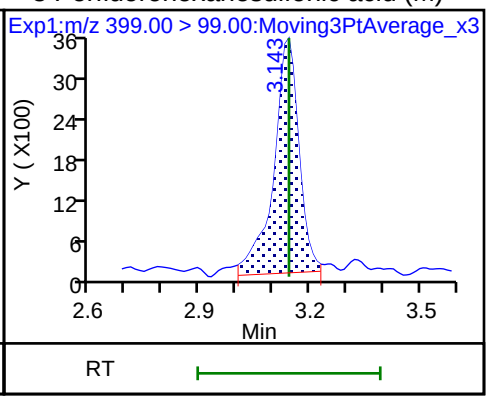

D 64 13C3 HFPO-DA



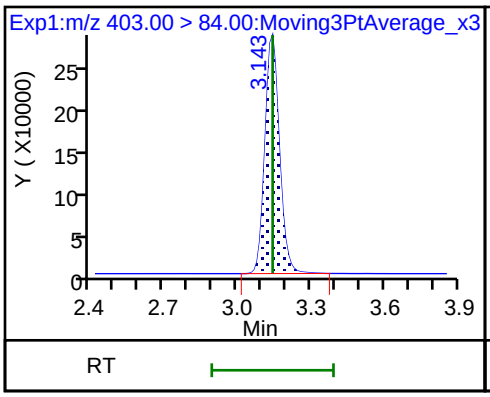

8 Perfluorohexanesulfonic acid (M)




8 Perfluorohexanesulfonic acid (M)




D 11 18O2 PFHxS

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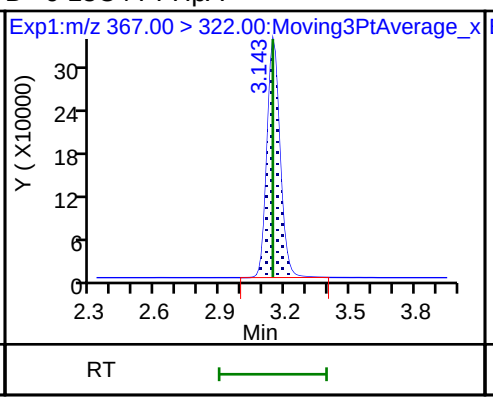
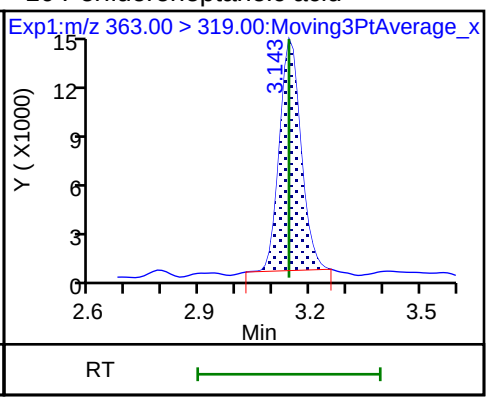
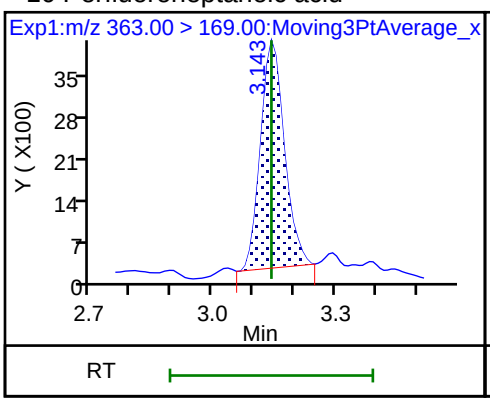


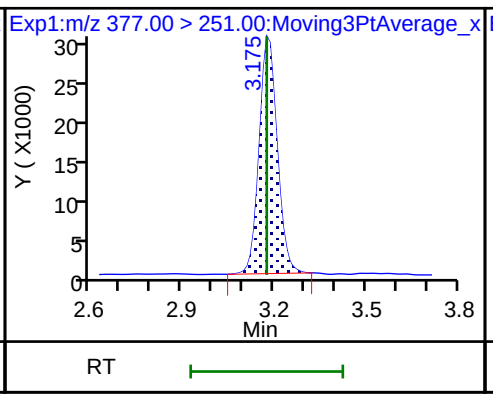

10 Perfluoroheptanoic acid



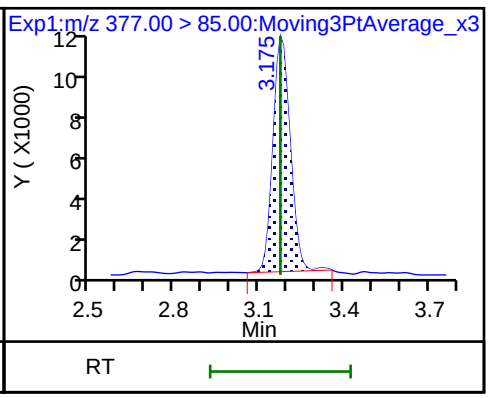

10 Perfluoroheptanoic acid



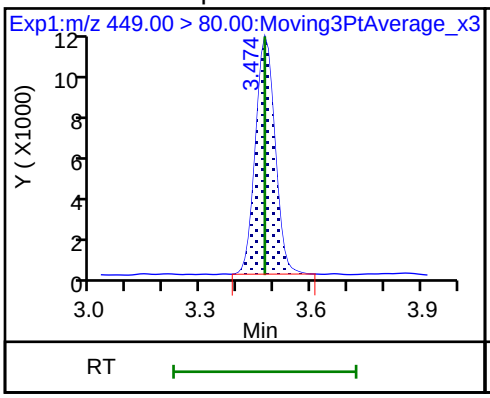

77 DONA



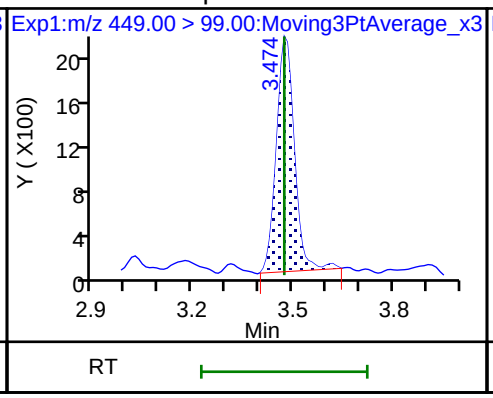

77 DONA



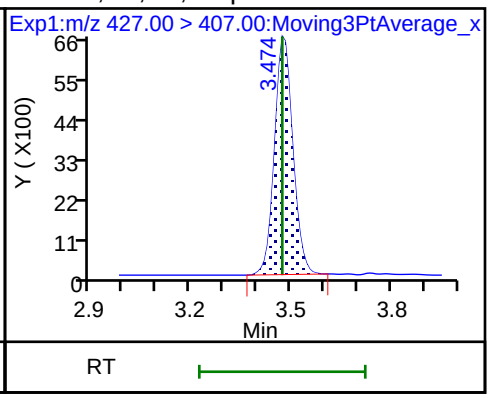
16 Perfluoroheptanesulfonic acid



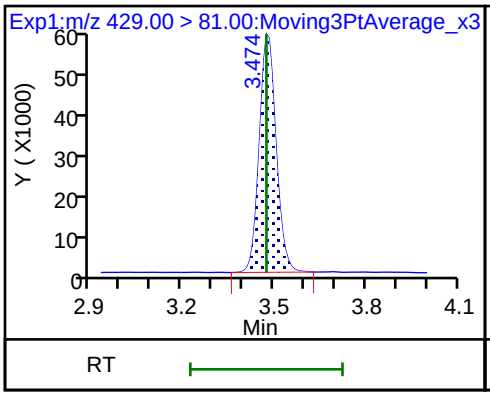

16 Perfluoroheptanesulfonic acid



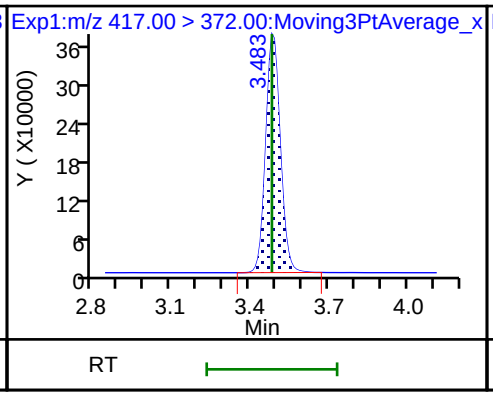

13 1H,1H,2H,2H-perfluorooctanesulfo



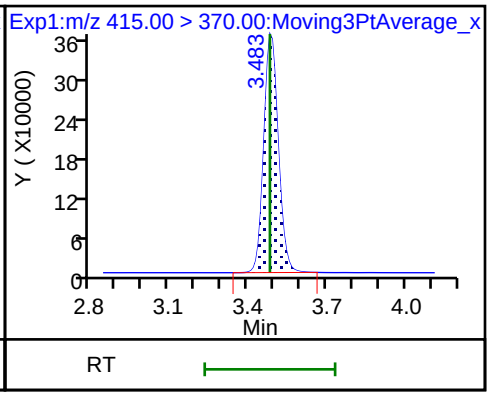

D 12 M2-6:2 FTS



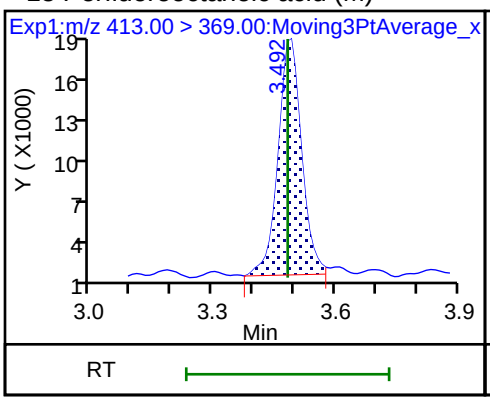

D 14 13C4 PFOA



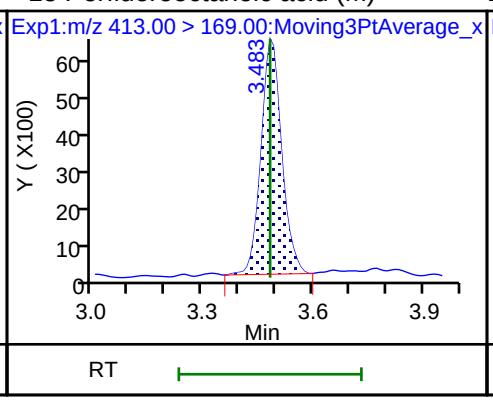

* 62 13C2 PFOA



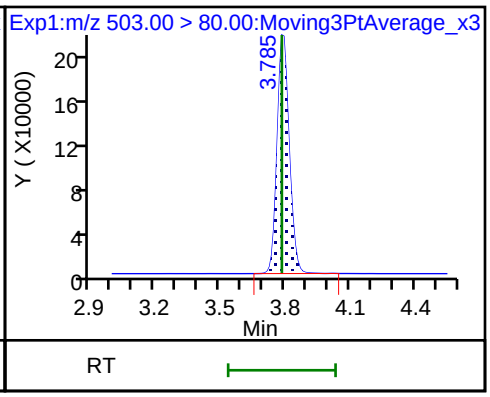

15 Perfluorooctanoic acid (M)



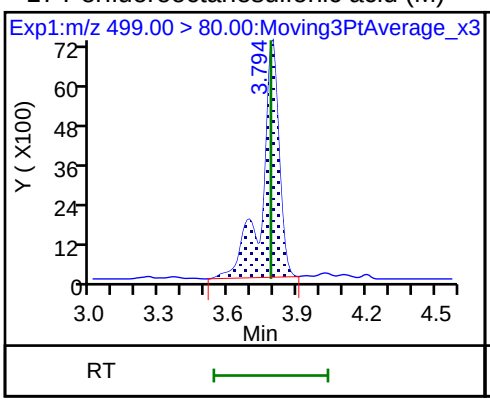

15 Perfluorooctanoic acid (M)



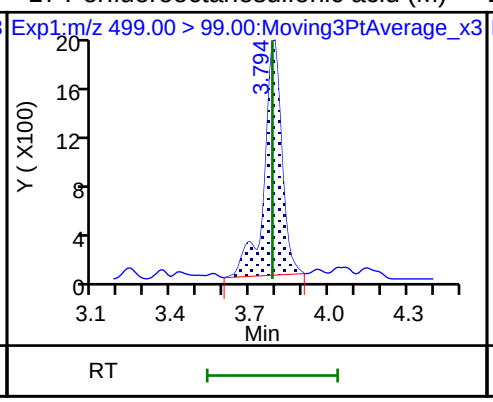

D 18 13C4 PFOS



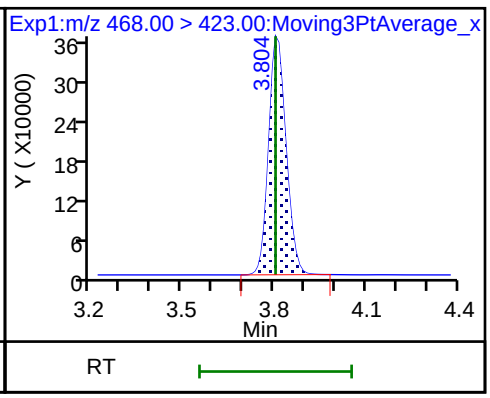

17 Perfluorooctanesulfonic acid (M)



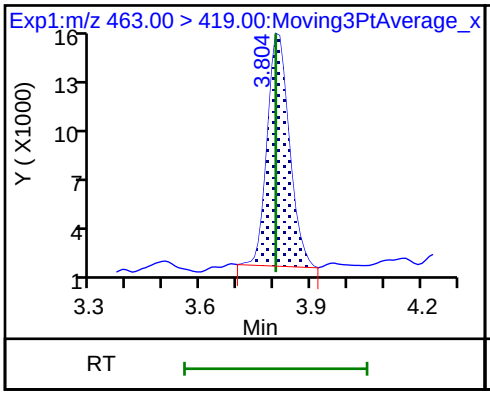

17 Perfluorooctanesulfonic acid (M)



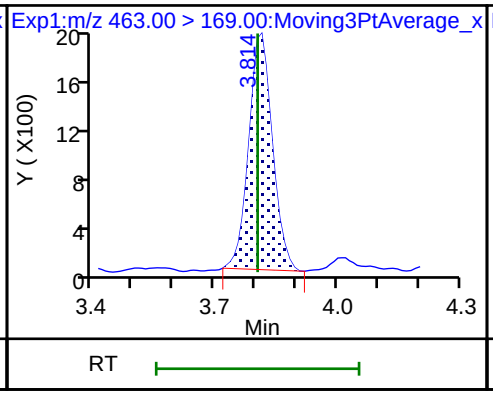

D 19 13C5 PFNA



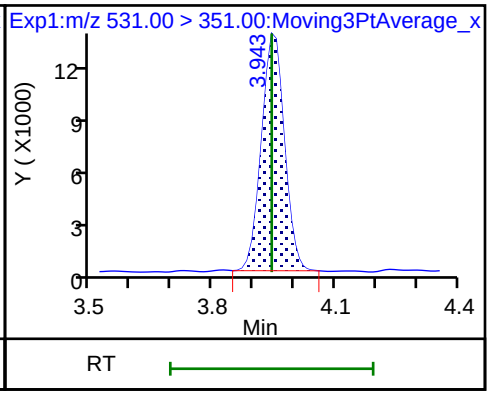
20 Perfluorononanoic acid



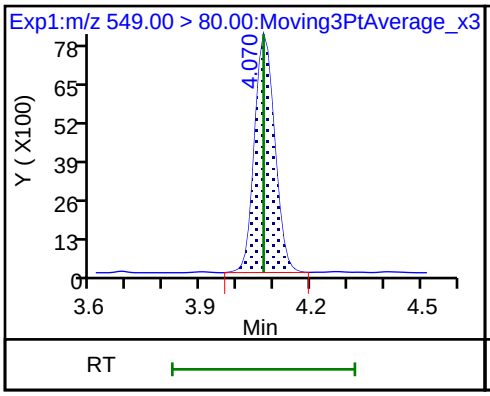

20 Perfluorononanoic acid



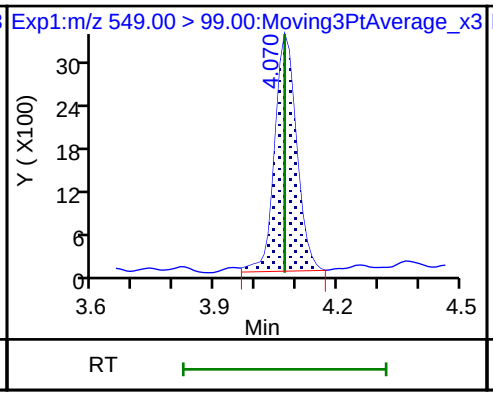

69 9-Chlorohexadecafluoro-3-oxanona



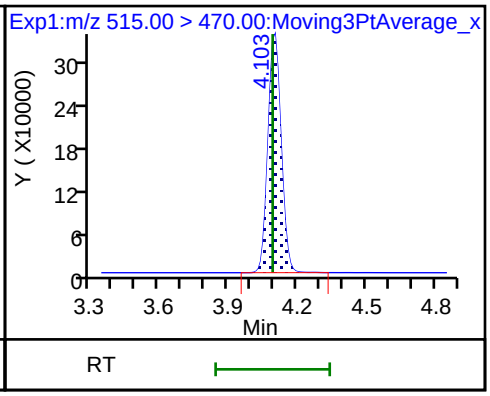

68 Perfluorononanesulfonic acid



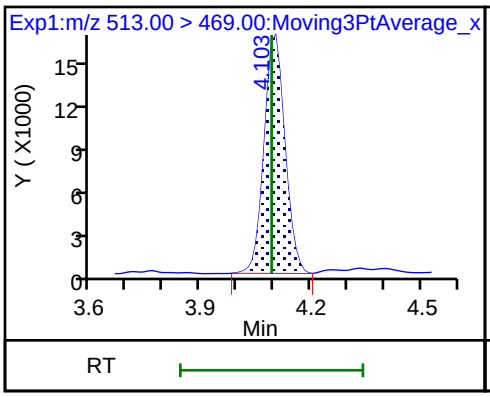

68 Perfluorononanesulfonic acid



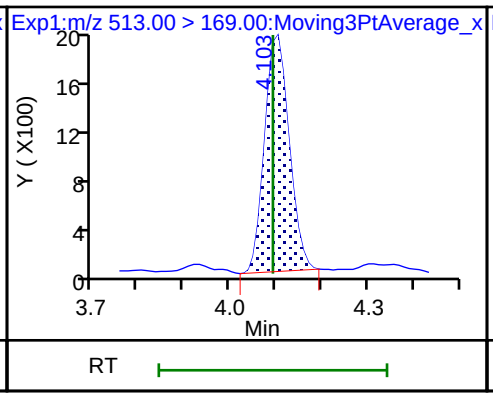

D 23 13C2 PFDA



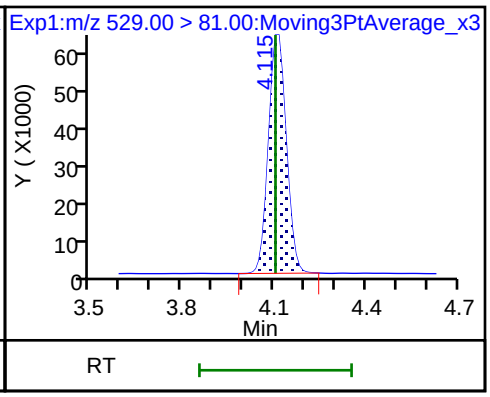

24 Perfluorodecanoic acid



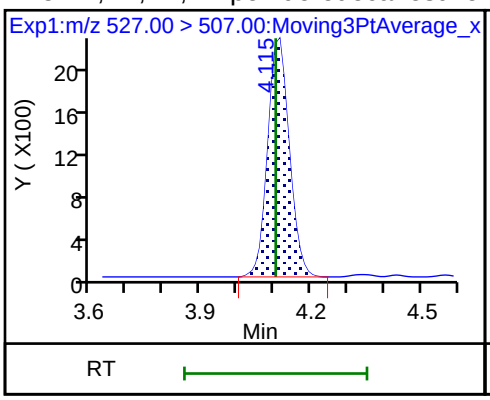

24 Perfluorodecanoic acid



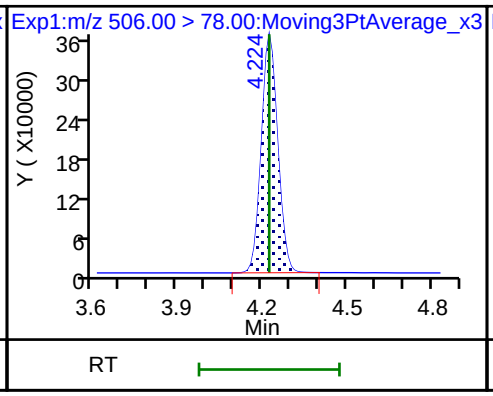

D 26 M2-8:2 FTS



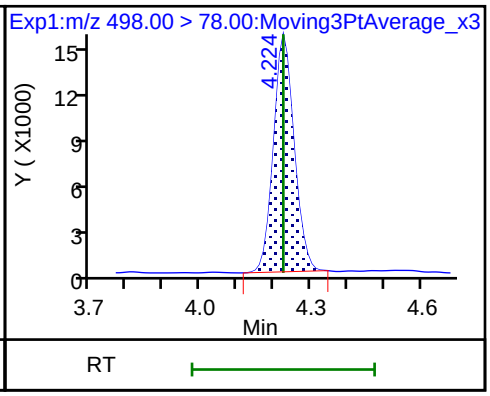

25 1H,1H,2H,2H-perfluorodecanesulfo



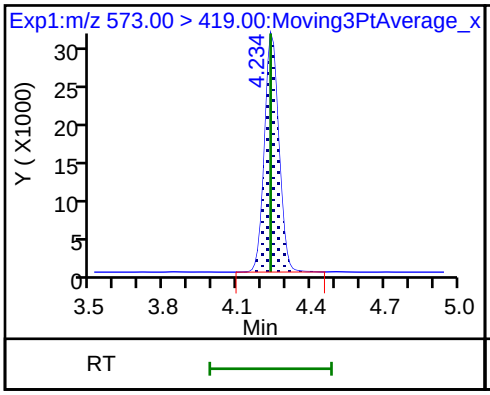

D 21 13C8 FOSA



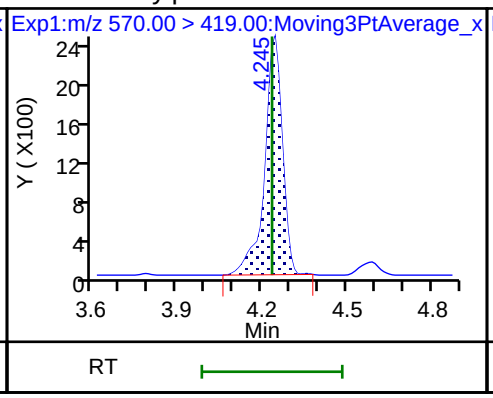

22 Perfluorooctanesulfonamide



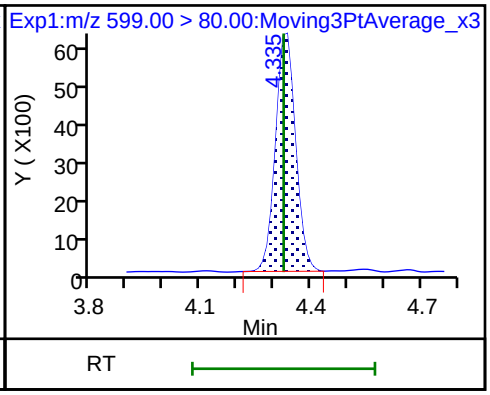
D 27 d3-NMeFOSAA



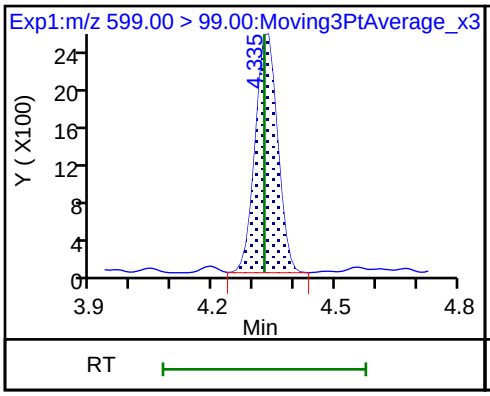

28 N-methylperfluorooctanesulfonami



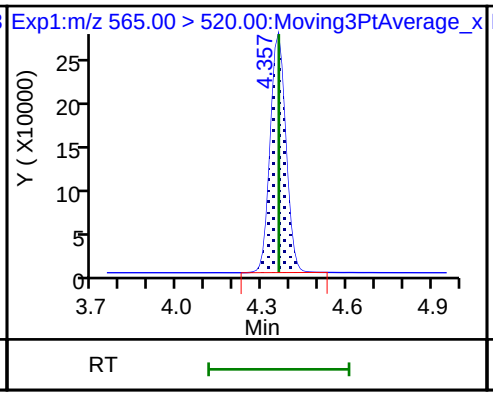

29 Perfluorodecanesulfonic acid



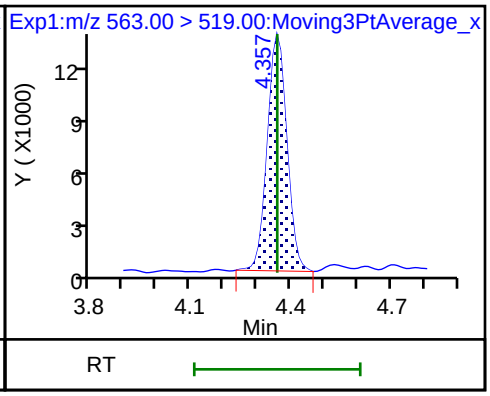

29 Perfluorodecanesulfonic acid



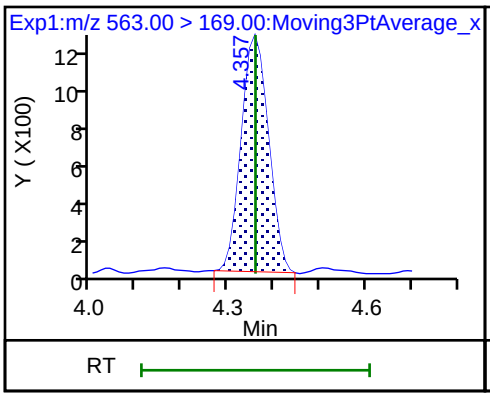

D 30 13C2 PFUnA



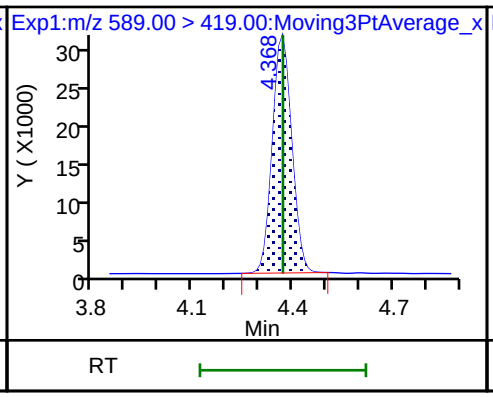

31 Perfluoroundecanoic acid



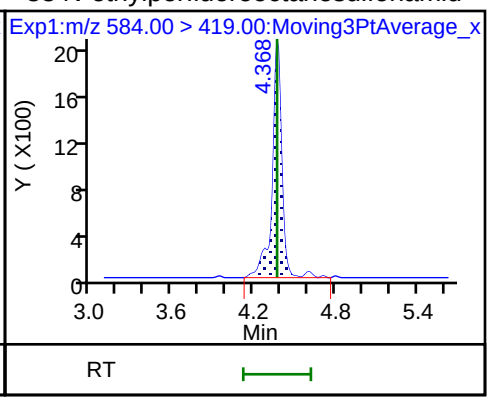

31 Perfluoroundecanoic acid



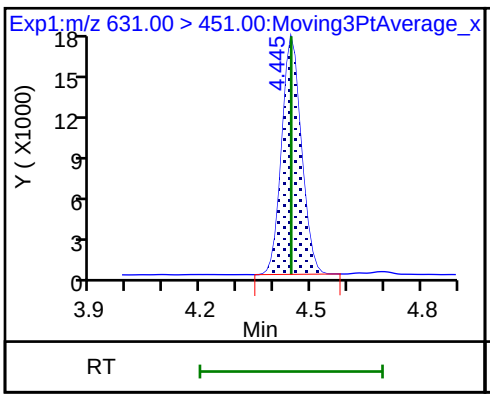

D 32 d5-NEtFOSAA



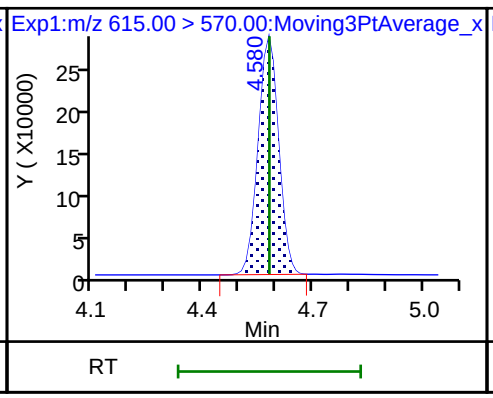

33 N-ethylperfluorooctanesulfonamid



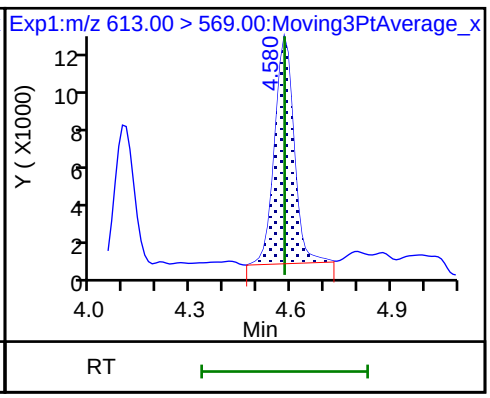

66 11-Chloroeicosafluoro-3-oxaundec



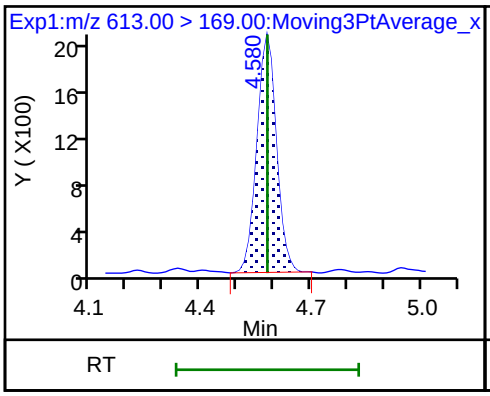

D 36 13C2 PFDoA



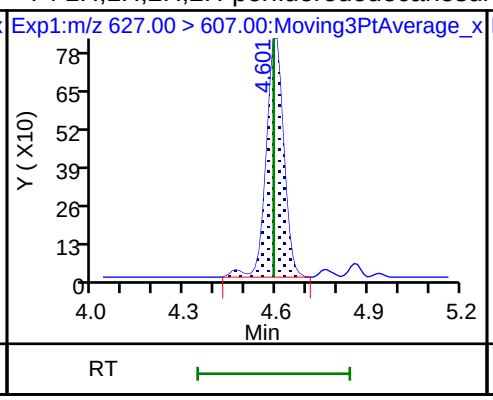

37 Perfluorododecanoic acid



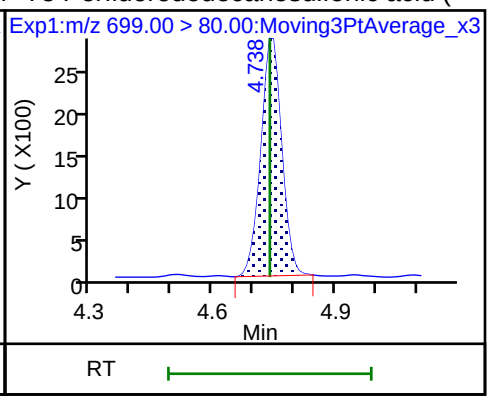
37 Perfluorododecanoic acid



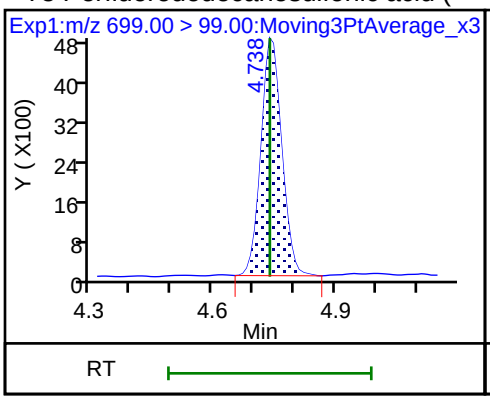

74 1H,1H,2H,2H-perfluorododecanesul



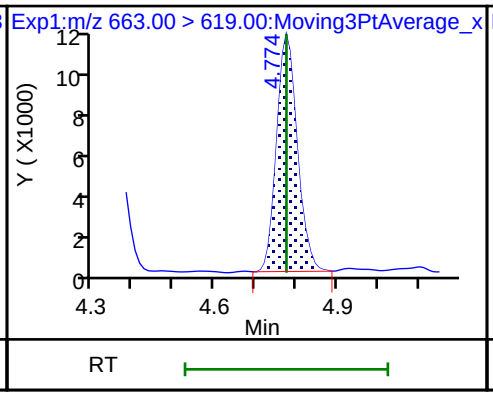

75 Perfluorododecanesulfonic acid (



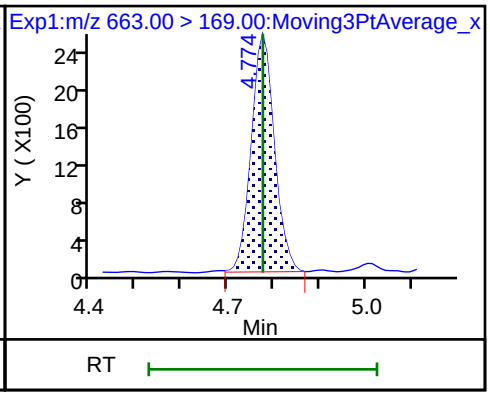

75 Perfluorododecanesulfonic acid (



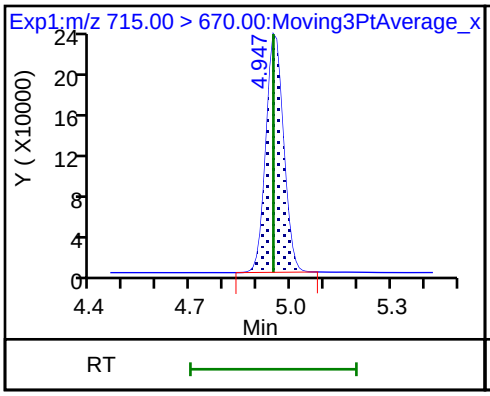

41 Perfluorotridecanoic acid



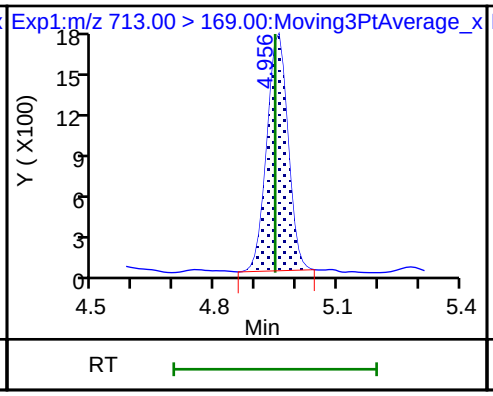

41 Perfluorotridecanoic acid



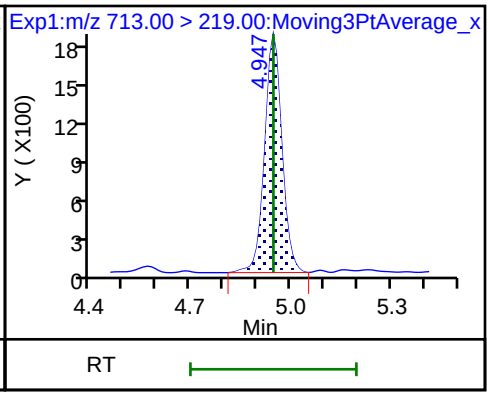

D 43 13C2 PFTeDA



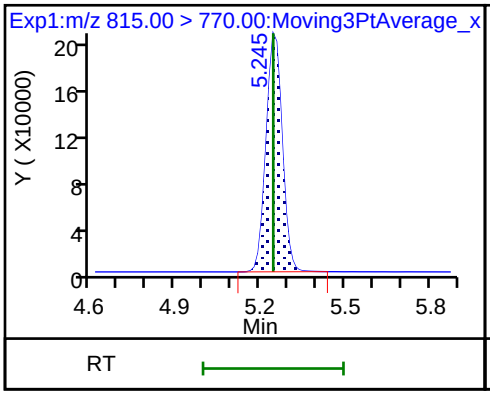

42 Perfluorotetradecanoic acid



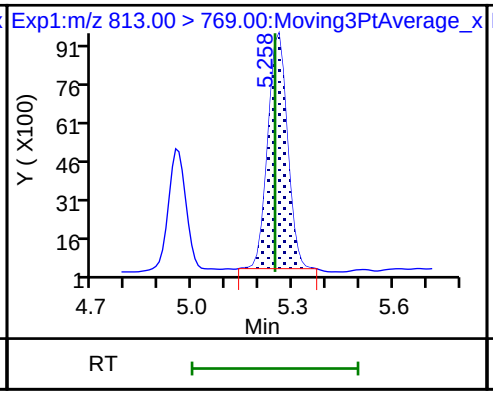

42 Perfluorotetradecanoic acid



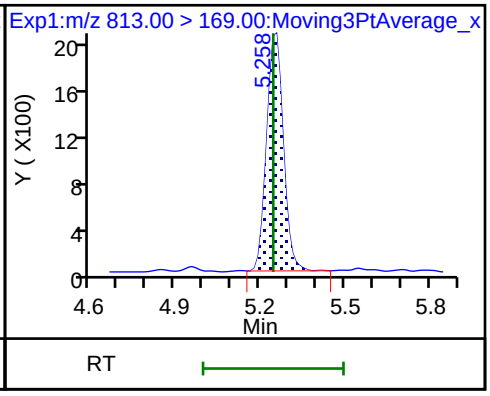

D 44 13C2 PFHxDA



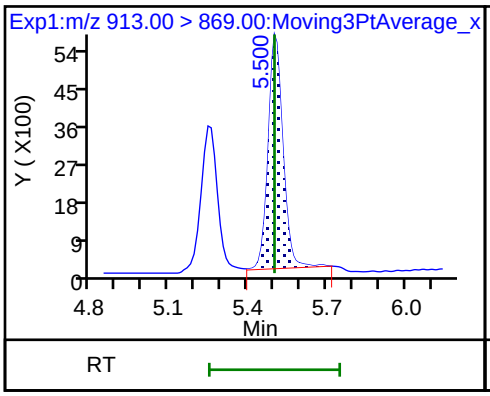

45 Perfluorohexadecanoic acid



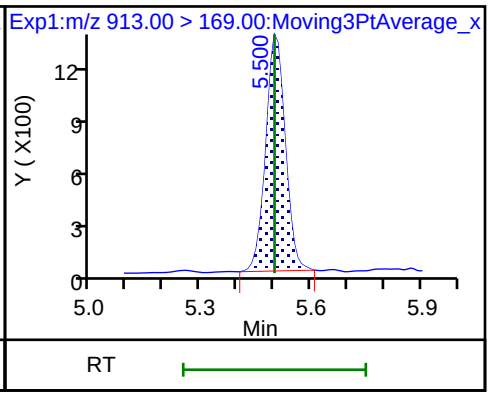

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

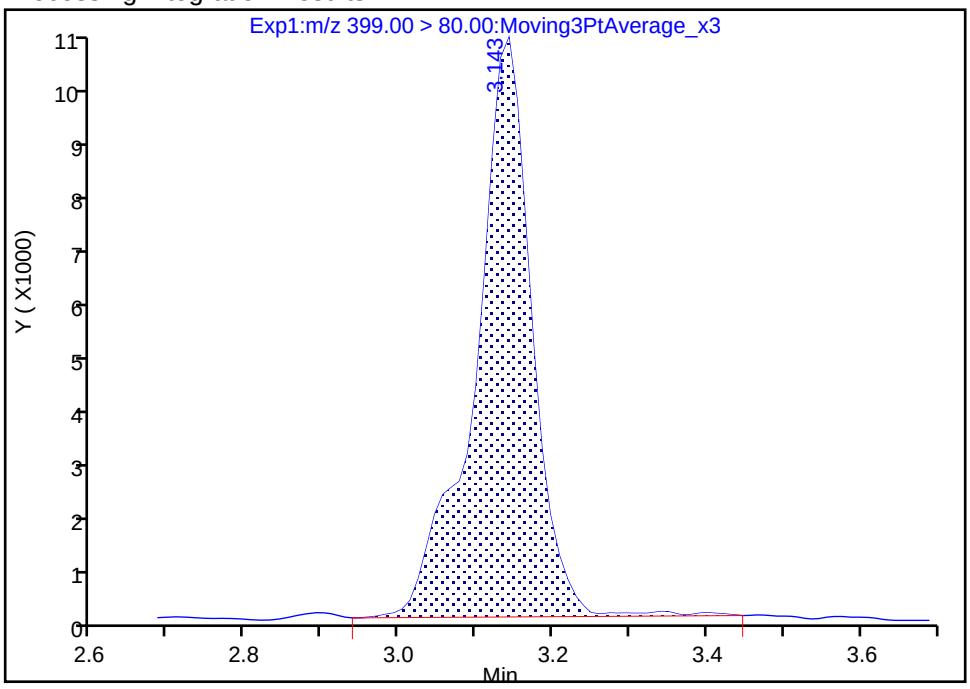
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d | | | | |
| Injection Date: | 09-Nov-2021 12:53:06 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

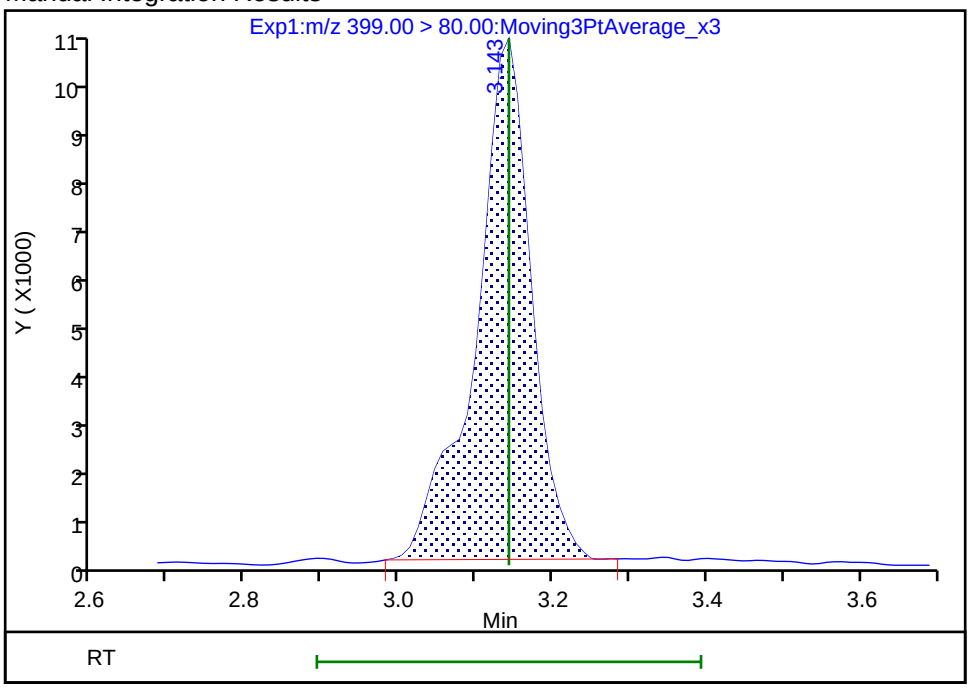
Processing Integration Results

RT: 3.14
Area: 52868
Amount: 0.048916
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 51402
Amount: 0.047560
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:20:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

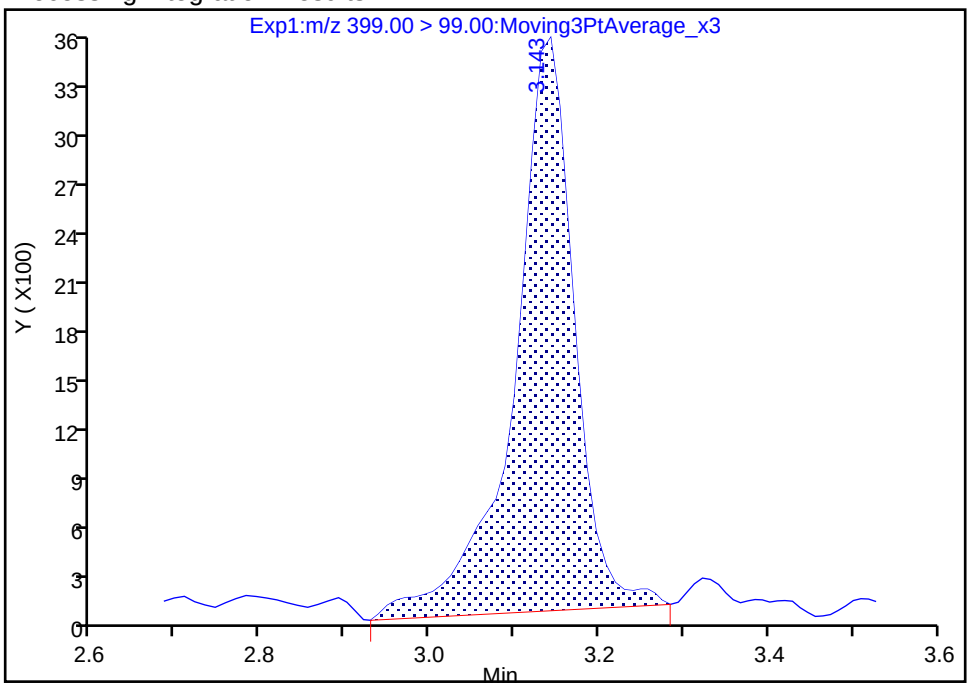
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d
Injection Date: 09-Nov-2021 12:53:06 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

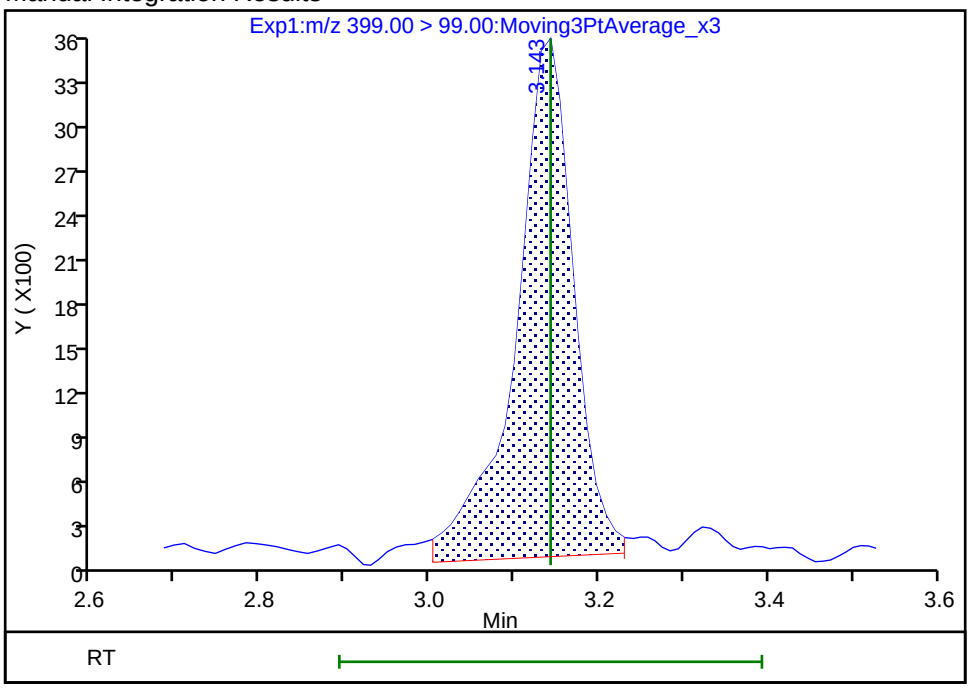
Processing Integration Results

RT: 3.14
Area: 16792
Amount: 0.048916
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 16126
Amount: 0.047560
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:20:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

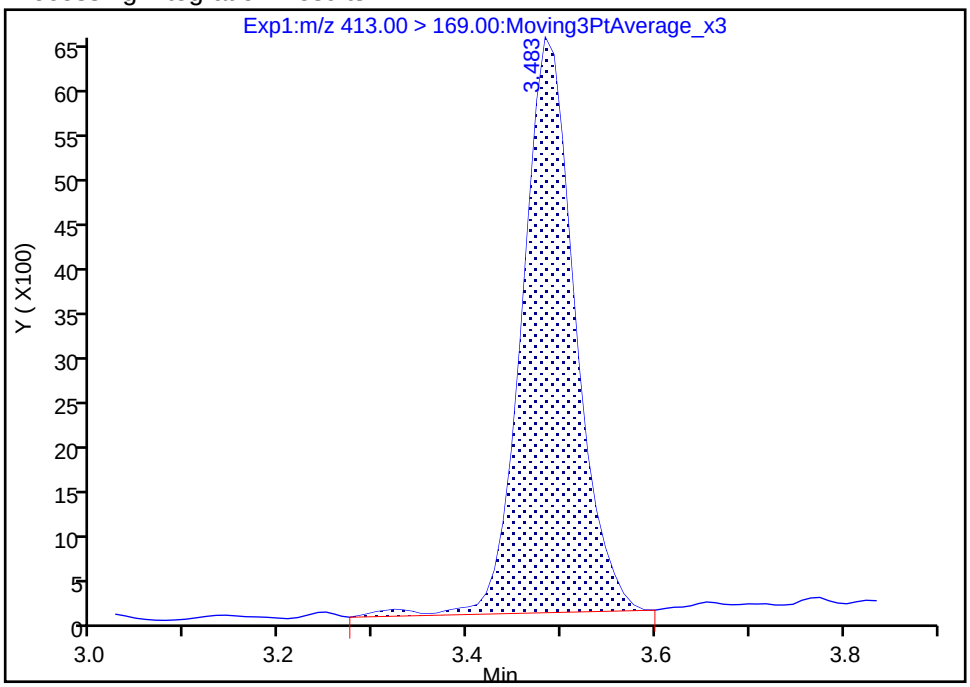
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d | | | | |
| Injection Date: | 09-Nov-2021 12:53:06 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

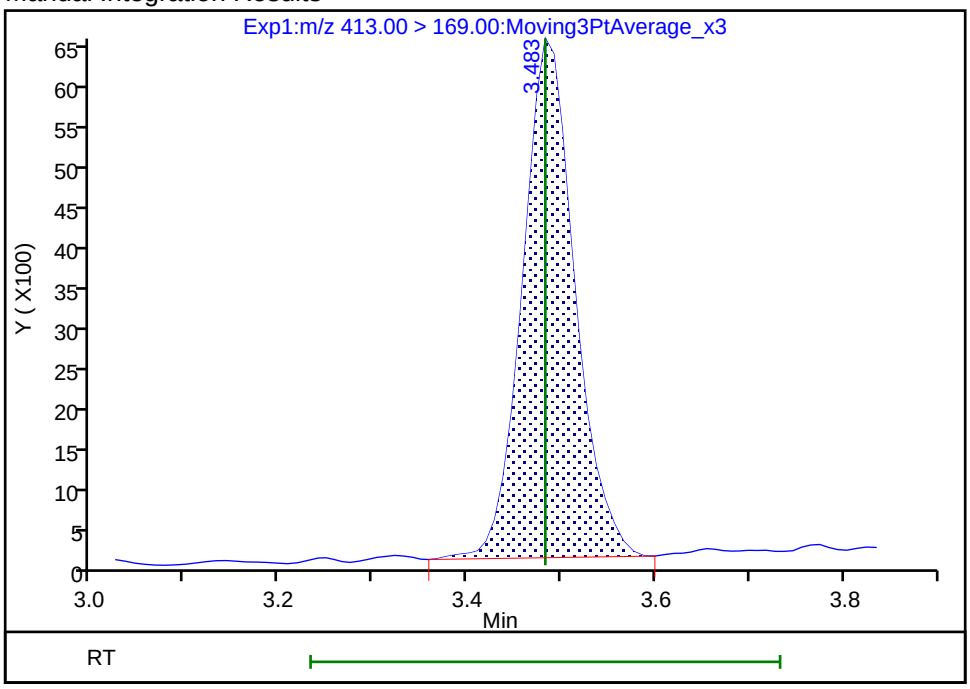
Processing Integration Results

RT: 3.48
Area: 25199
Amount: 0.056193
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 24870
Amount: 0.056354
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:20:54

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

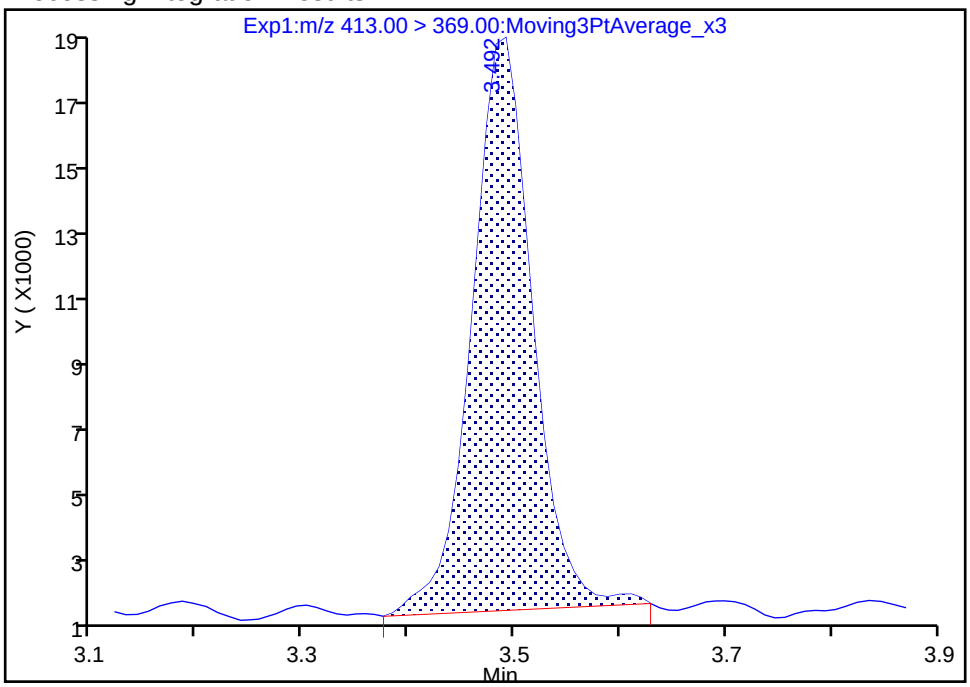
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d | | | | |
| Injection Date: | 09-Nov-2021 12:53:06 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

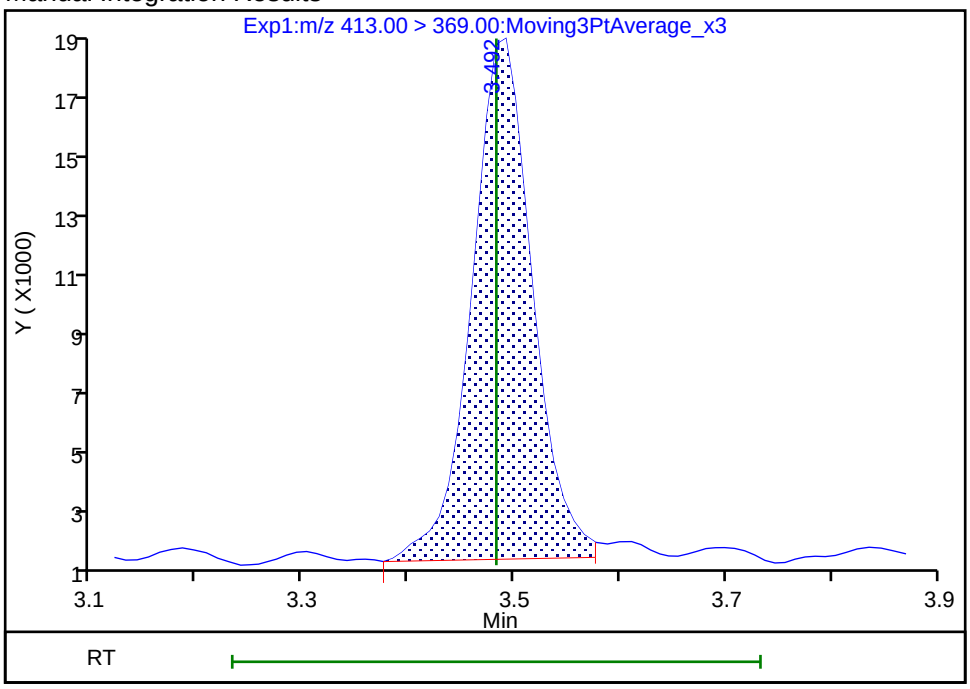
Processing Integration Results

RT: 3.49
Area: 69207
Amount: 0.056193
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 69406
Amount: 0.056354
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:21:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

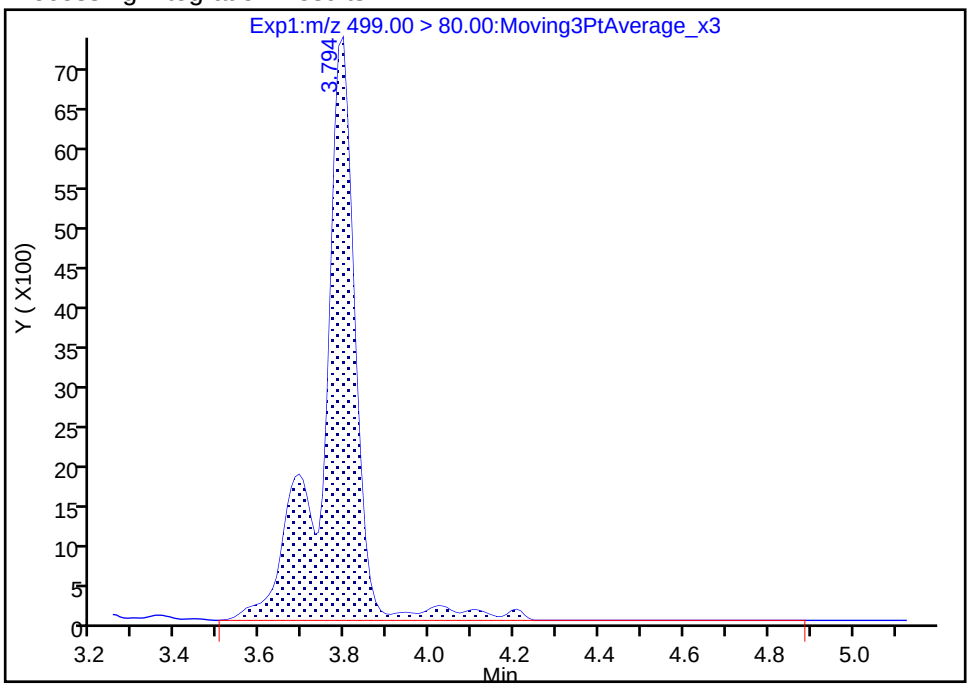
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d
Injection Date: 09-Nov-2021 12:53:06 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

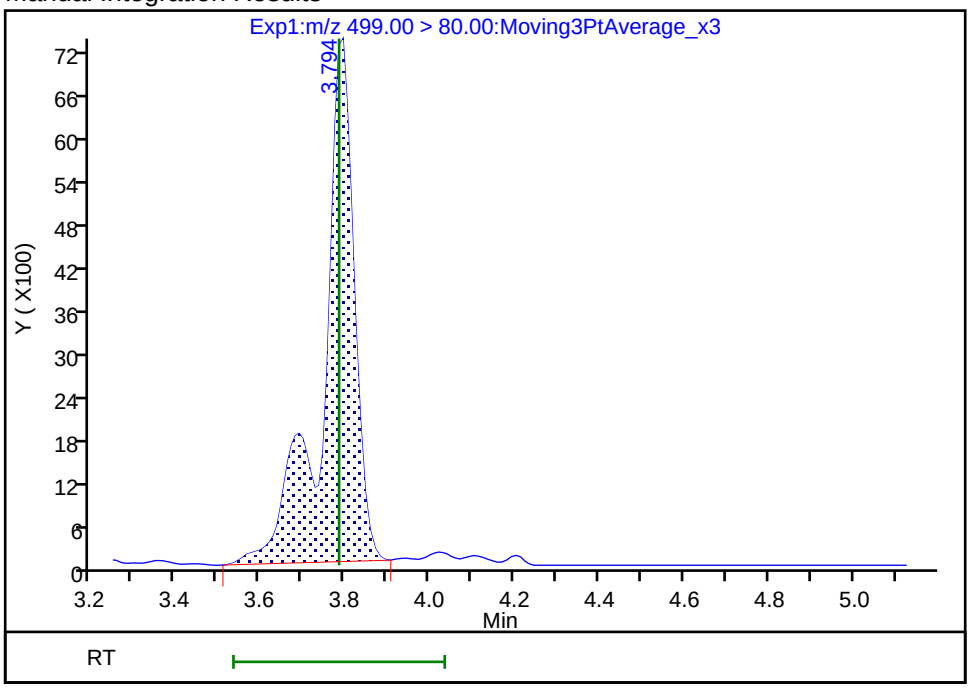
RT: 3.79
Area: 40564
Amount: 0.052723
Amount Units: ng/ml

Processing Integration Results




RT: 3.79
Area: 37620
Amount: 0.048896
Amount Units: ng/ml

Manual Integration Results




Reviewer: deannd, 11-Nov-2021 15:21:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

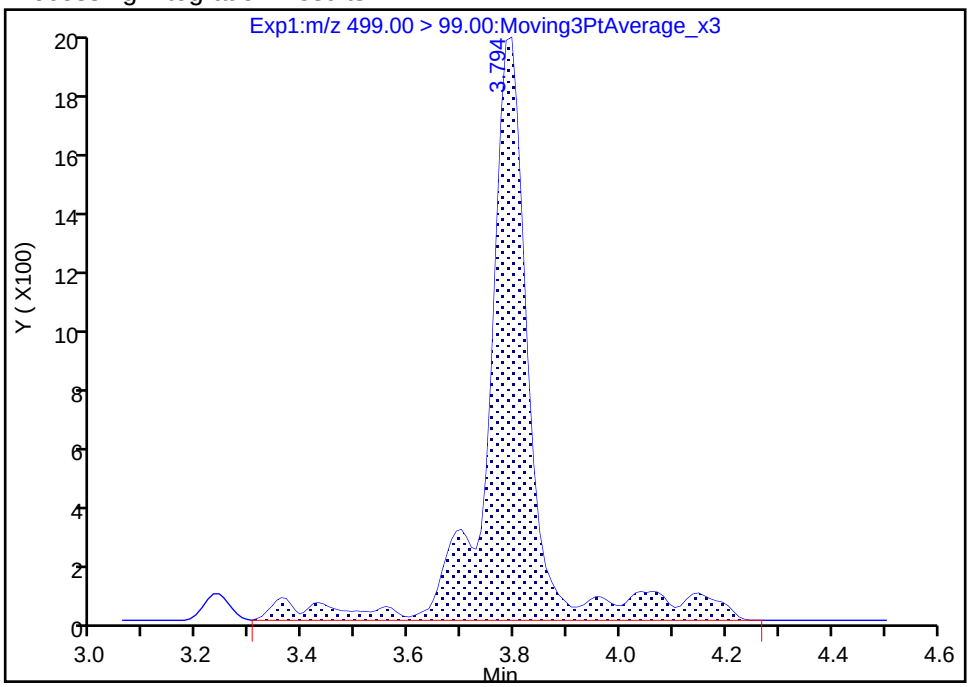
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A05.d
Injection Date: 09-Nov-2021 12:53:06 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

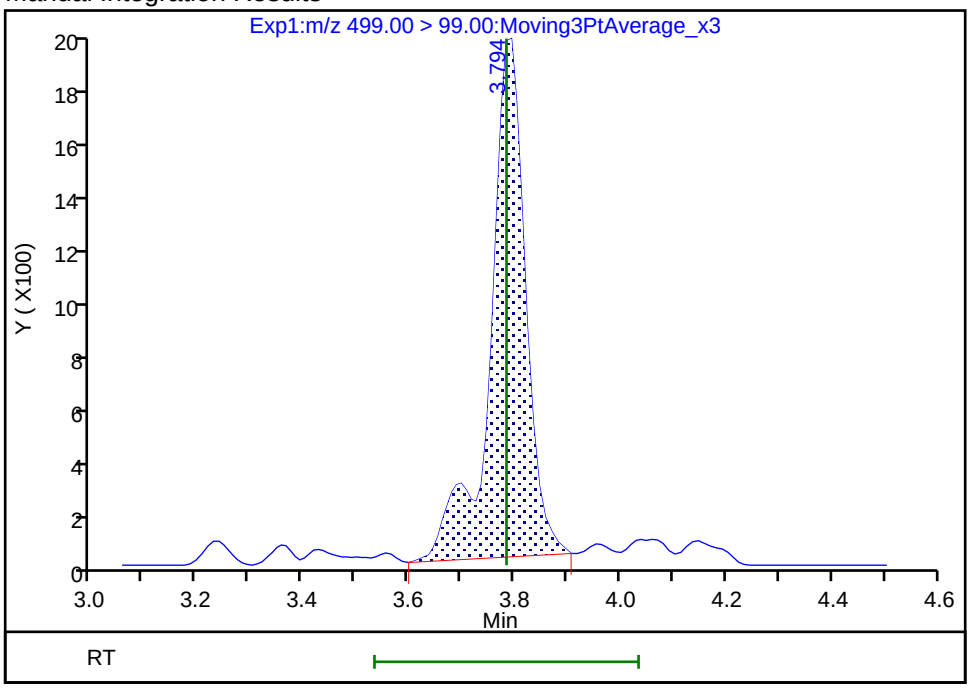
Processing Integration Results

RT: 3.79
Area: 11506
Amount: 0.052723
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 9071
Amount: 0.048896
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:21:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173663/6  Calibration Date: 11/09/2021 13:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9029 | | 0.955 | 1.00 | -4.5 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9857 | | 0.984 | 1.00 | -1.6 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.019 | | 0.843 | 0.884 | -4.6 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.112 | | 0.927 | 0.934 | -0.8 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9878 | | 0.974 | 1.00 | -2.6 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.239 | | 0.965 | 0.938 | 2.9 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.790 | | 1.28 | 1.00 | 27.9 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9902 | | 0.958 | 1.00 | -4.2 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.030 | | 0.853 | 0.910 | -6.3 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.376 | | 0.909 | 0.942 | -3.6 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.246 | | 0.932 | 0.948 | -1.7 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.145 | | 0.875 | 0.952 | -8.1 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.015 | | 0.954 | 1.00 | -4.6 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9808 | | 0.839 | 0.928 | -9.6 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9521 | | 0.973 | 1.00 | -2.7 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.393 | | 0.794 | 0.932 | -14.8 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7538 | | 0.856 | 0.960 | -10.8 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9920 | | 0.987 | 1.00 | -1.3 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7655 | | 0.877 | 0.958 | -8.5 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9371 | | 0.987 | 1.00 | -1.3 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7827 | | 0.996 | 1.00 | -0.4 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.5961 | | 0.874 | 0.964 | -9.3 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.013 | | 0.950 | 1.00 | -5.0 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8140 | | 0.950 | 1.00 | -5.0 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.732 | | 0.845 | 0.942 | -10.3 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9449 | | 0.965 | 1.00 | -3.5 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3581 | | 0.893 | 0.964 | -7.3 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2425 | | 0.971 | 0.968 | 0.3 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173663/6  Calibration Date: 11/09/2021 13:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8258 | | 0.978 | 1.00 | -2.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1611 | | 1.02 | 1.00 | 2.1 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8862 | | 1.02 | 1.00 | 2.0 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6689 | | 0.793 | 1.00 | -20.7 | |
| 13C4 PFBA | Ave | 1.012 | 1.339 | | 1.65 | 1.25 | 32.2 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9706 | | 1.42 | 1.25 | 13.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.193 | | 1.20 | 1.16 | 3.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1228 | | 1.63 | 1.17 | 39.6 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9582 | | 1.34 | 1.25 | 7.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0192 | | 1.02 | 1.25 | -18.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9770 | | 1.30 | 1.25 | 3.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8769 | | 1.24 | 1.18 | 4.6 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1618 | | 1.45 | 1.19 | 22.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.033 | | 1.26 | 1.25 | 0.4 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6442 | | 1.27 | 1.20 | 6.4 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.007 | | 1.23 | 1.25 | -1.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9420 | | 1.14 | 1.25 | -8.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1856 | | 1.48 | 1.20 | 23.8 | |
| 13C8 FOSA | Ave | 0.998 | 1.035 | | 1.30 | 1.25 | 3.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0933 | | 1.15 | 1.25 | -8.3 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7595 | | 1.18 | 1.25 | -5.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0881 | | 1.16 | 1.25 | -7.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7984 | | 1.15 | 1.25 | -7.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5864 | | 1.09 | 1.25 | -12.8 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5385 | | 1.14 | 1.25 | -9.1 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Nov-2021 13:00:18 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048346-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:41:59 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 09-Nov-2021 13:58:47
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.226 | 2.226 | 0.0 | 0.639 | 1833314 | 1.65 | | 132 | 5886 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.236 | 2.236 | 0.0 | 1.004 | 1324180 | 0.9548 | | 95.5 | 144 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.478 | 2.478 | 0.0 | 0.712 | 1329399 | 1.42 | | 114 | 1781 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.478 | 2.478 | 0.0 | 1.000 | 1048277 | 0.9840 | | 98.4 | 64.4 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.492 | 2.492 | 0.0 | 0.715 | 1520000 | 1.20 | | 103 | 185186 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.492 | 2.492 | 0.0 | 1.000 | 1177747 | 0.8433 | Target=2.32 | 95.4 | 1661 | |
| 298.90 > 99.00 | 2.492 | 2.492 | 0.0 | 1.000 | 549535 | | 2.14(1.16-3.48) | | 260 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.758 | 2.758 | 0.0 | 0.996 | 265389 | 0.9267 | | 99.2 | 2129 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.770 | 2.770 | 0.0 | 0.795 | 157087 | 1.63 | | 140 | 120 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.794 | 0.0 | 0.802 | 1312381 | 1.34 | | 107 | 4431 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.794 | 2.794 | 0.0 | 1.000 | 1037120 | 0.9740 | Target=12.09 | 97.4 | 278 | |
| 313.00 > 119.00 | 2.794 | 2.794 | 0.0 | 1.000 | 82979 | | 12.50(6.04-18.13) | | 36.7 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.794 | 2.794 | 0.0 | 0.889 | 1116574 | 0.9650 | Target=3.03 | 103 | 1493 | |
| 349.00 > 99.00 | 2.794 | 2.794 | 0.0 | 0.889 | 350000 | | 3.19(1.52-4.55) | | 499 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.892 | 2.892 | 0.0 | 0.997 | 121629 | 1.28 | | 128 | 71.1 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.901 | 2.901 | 0.0 | 0.833 | 26259 | 1.02 | | 81.4 | 219 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.143 | 0.0 | 1.000 | 900705 | 0.8527 | Target=3.55 | 93.7 | 1145 | M |
| 399.00 > 99.00 | 3.143 | 3.143 | 0.0 | 1.000 | 244051 | | 3.69(1.77-5.32) | | 298 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1136144 | 1.24 | | 105 | 5161 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1338191 | 1.30 | | 104 | 4081 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 1060087 | 0.9584 | Target=3.69 | 95.8 | 482 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 279328 | | 3.80(1.84-5.53) | | 397 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.839 | 2244683 | 0.9086 | Target=2.56 | 96.4 | 2935 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.839 | 869134 | | 2.58(1.28-3.84) | | 1517 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.918 | 769687 | 0.8747 | Target=4.88 | 91.9 | 2996 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.918 | 156553 | | 4.92(2.44-7.32) | | 475 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 209438 | 0.9316 | | 98.3 | 2169 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 210526 | 1.45 | | 122 | 599 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1414762 | 1.25 | | 100 | 3817 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1369630 | 1.25 | | | 4401 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1148567 | 0.9543 | Target=2.68 | 95.4 | 216 | |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 446011 | | 2.58(1.34-4.02) | | 816 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 843543 | 1.27 | | 106 | 3925 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.000 | 642476 | 0.8388 | Target=4.69 | 90.4 | 1144 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 1.000 | 138925 | | 4.62(2.35-7.04) | | 500 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1379104 | 1.23 | | 98.2 | 3934 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1050390 | 0.9731 | Target=7.29 | 97.3 | 191 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 1.000 | 142075 | | 7.39(3.64-10.93) | | 1155 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.042 | 916460 | 0.7942 | | 85.2 | 2657 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.076 | 510817 | 0.8562 | Target=2.35 | 89.2 | 2614 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.076 | 211518 | | 2.42(1.17-3.52) | | 648 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.092 | 4.092 | 0.0 | 1.175 | 1290147 | 1.14 | | 91.1 | 2927 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.092 | 4.092 | 0.0 | 1.000 | 1023813 | 0.9872 | Target=8.95 | 98.7 | 696 | |
| 513.00 > 169.00 | 4.104 | 4.092 | 0.012 | 1.003 | 114733 | | 8.92(4.47-13.42) | | 883 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.178 | 243486 | 1.48 | | 124 | 821 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.104 | 4.104 | 0.0 | 1.000 | 149104 | 0.8766 | | 91.5 | 1373 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.213 | 1418044 | 1.30 | | 104 | 4695 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.000 | 1063107 | 0.9868 | | 98.7 | 2233 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.234 | 4.234 | 0.0 | 1.216 | 127847 | 1.15 | | 91.7 | 528 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.234 | 4.234 | 0.0 | 1.000 | 80056 | 1.00 | | 99.6 | 556 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.325 | 4.325 | 0.0 | 1.143 | 405646 | 0.8744 | Target=2.47 | 90.7 | 2309 | |
| 599.00 > 99.00 | 4.325 | 4.325 | 0.0 | 1.143 | 153301 | | 2.65(1.23-3.70) | | 1051 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.359 | 4.359 | 0.0 | 1.251 | 1040217 | 1.18 | | 94.2 | 3847 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.359 | 4.359 | 0.0 | 1.000 | 843192 | 0.9505 | Target=9.24 | 95.0 | 550 | |
| 563.00 > 169.00 | 4.359 | 4.359 | 0.0 | 1.000 | 96288 | | 8.76(4.62-13.86) | | 1094 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.255 | 120683 | 1.16 | | 92.5 | 1021 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.000 | 78590 | 0.9500 | | 95.0 | 1001 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.446 | 4.446 | 0.0 | 1.175 | 1151698 | 0.8451 | | 89.7 | 2714 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.581 | 0.0 | 1.315 | 1093524 | 1.15 | | 92.1 | 1321 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.581 | 4.581 | 0.0 | 1.000 | 826658 | 0.9652 | Target=7.04 | 96.5 | 160 | |
| 613.00 > 169.00 | 4.581 | 4.581 | 0.0 | 1.000 | 129246 | | 6.40(3.52-10.56) | | 1185 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.591 | 4.591 | 0.0 | 1.119 | 70191 | 0.8932 | | 92.7 | 969 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.739 | 4.739 | 0.0 | 1.252 | 165684 | 0.9711 | Target=0.49 | 100 | 1913 | |
| 699.00 > 99.00 | 4.739 | 4.739 | 0.0 | 1.252 | 300473 | | 0.55(0.25-0.74) | | 1825 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.775 | 4.775 | 0.0 | 1.042 | 722466 | 0.9784 | Target=4.68 | 97.8 | 263 | |
| 663.00 > 169.00 | 4.775 | 4.775 | 0.0 | 1.042 | 161519 | | 4.47(2.34-7.02) | | 1239 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.947 | 0.0 | 1.420 | 803163 | 1.09 | | 87.2 | 2510 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.947 | 0.0 | 1.000 | 103511 | 1.02 | Target=1.01 | 102 | 1687 | |
| 713.00 > 219.00 | 4.947 | 4.947 | 0.0 | 1.000 | 107610 | | 0.96(0.51-1.52) | | 1390 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.246 | 0.0 | 1.506 | 737531 | 1.14 | | 90.9 | 3059 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.246 | 5.246 | 0.0 | 1.000 | 522892 | 1.02 | Target=4.57 | 102 | 215 | |
| 813.00 > 169.00 | 5.246 | 5.246 | 0.0 | 1.000 | 117594 | | 4.45(2.29-6.86) | | 1244 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.500 | 5.500 | 0.0 | 1.049 | 394695 | 0.7932 | Target=4.27 | 79.3 | 303 | |
| 913.00 > 169.00 | 5.500 | 5.500 | 0.0 | 1.049 | 89890 | | 4.39(2.14-6.41) | | 991 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:42:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d

Injection Date: 09-Nov-2021 13:00:18 Instrument ID: LC812

Lims ID: CCVIS

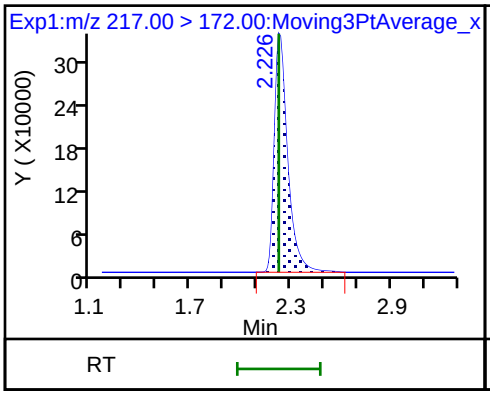
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

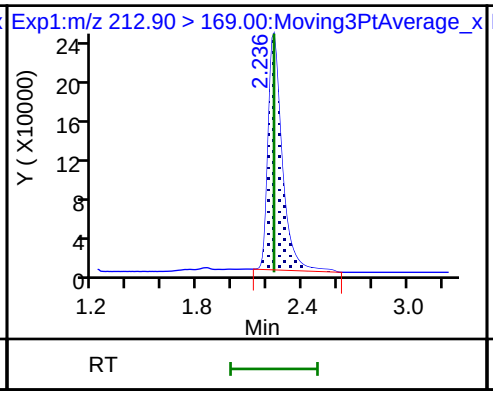
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

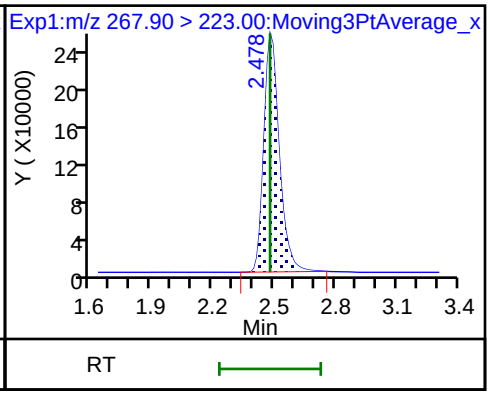
D 1 13C4 PFBA



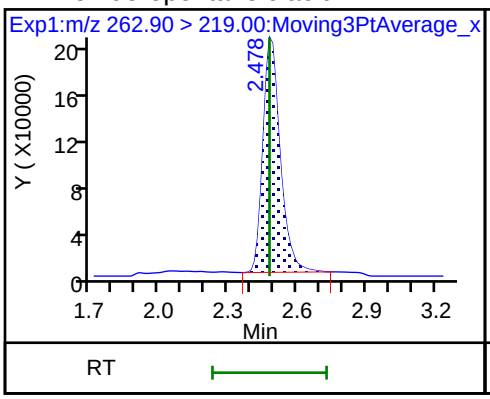

2 Perfluorobutanoic acid



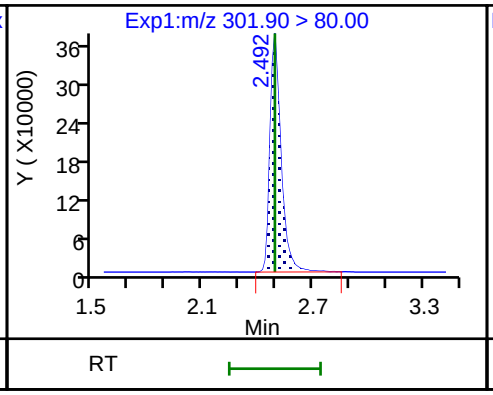

D 3 13C5 PFPeA



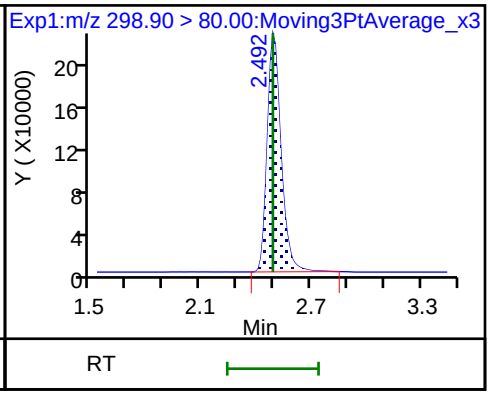

4 Perfluoropentanoic acid



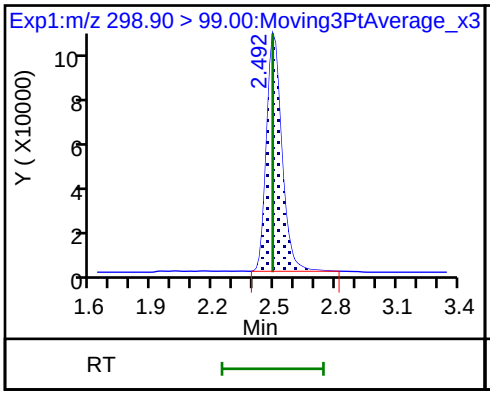

D 47 13C3 PFBS



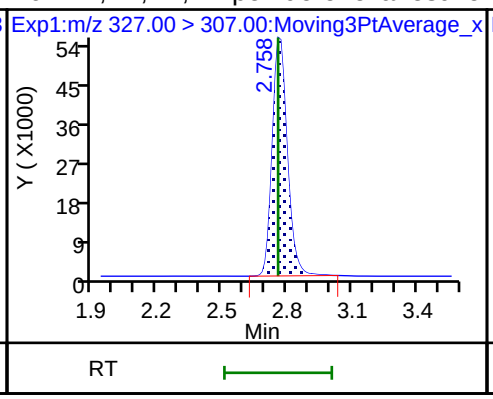

5 Perfluorobutanesulfonic acid



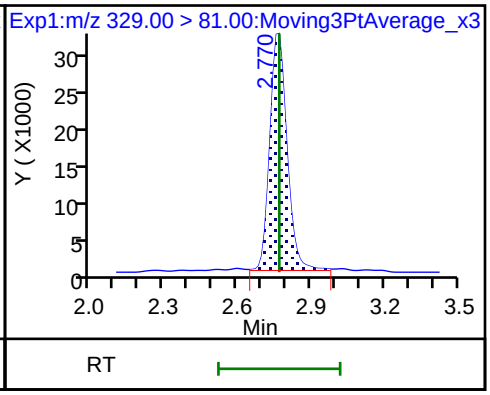

5 Perfluorobutanesulfonic acid



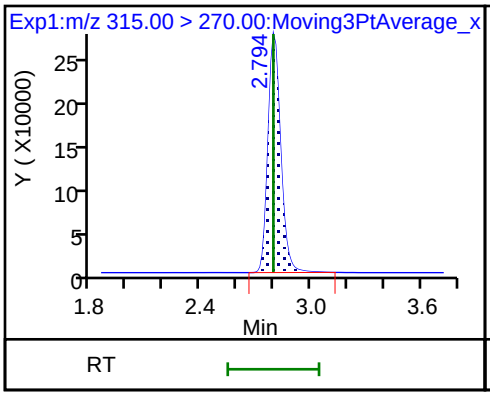

61 1H,1H,2H,2H-perfluorohexanesulfo



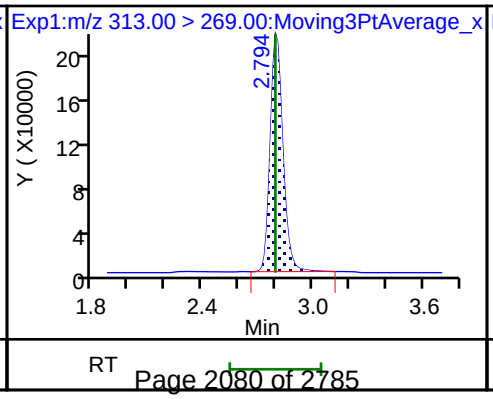

D 60 M2-4:2 FTS



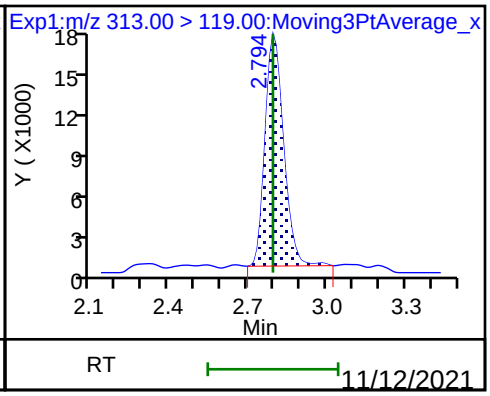

D 7 13C2 PFHxA



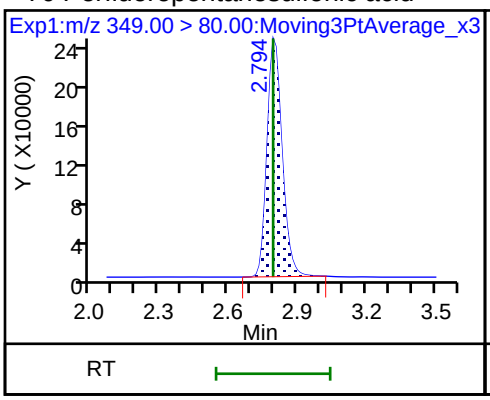

6 Perfluorohexanoic acid



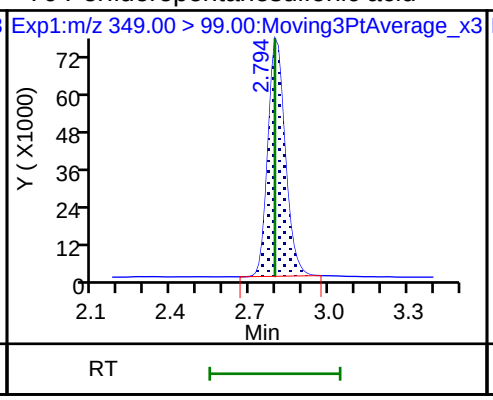

6 Perfluorohexanoic acid



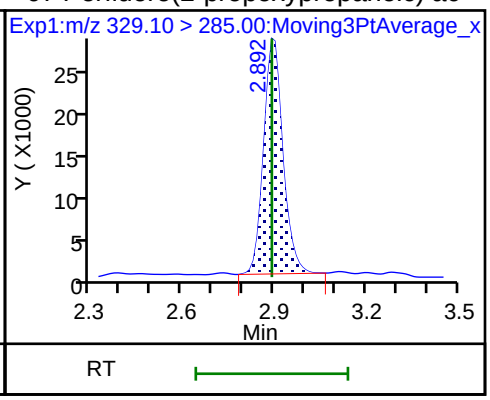
70 Perfluoropentanesulfonic acid



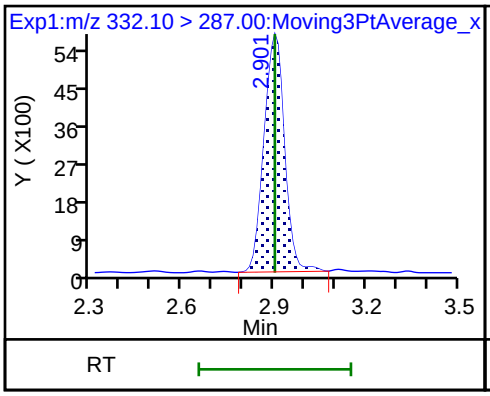

70 Perfluoropentanesulfonic acid



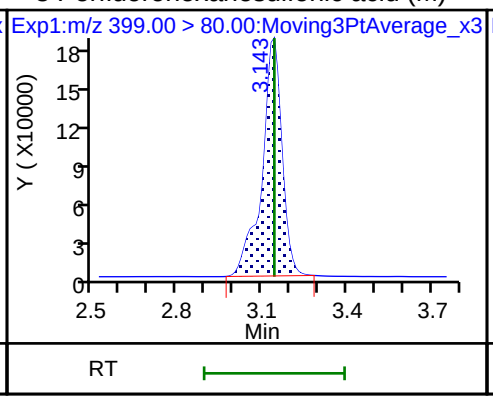

67 Perfluoro(2-propoxypropanoic) ac



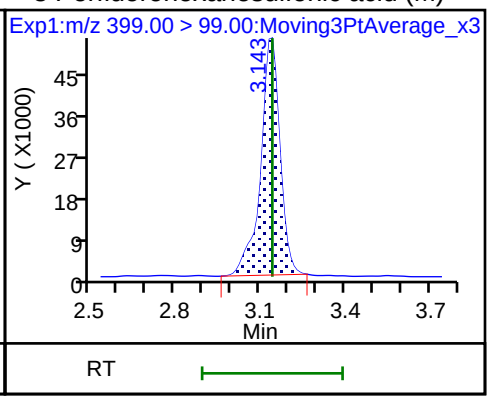

D 64 13C3 HFPO-DA



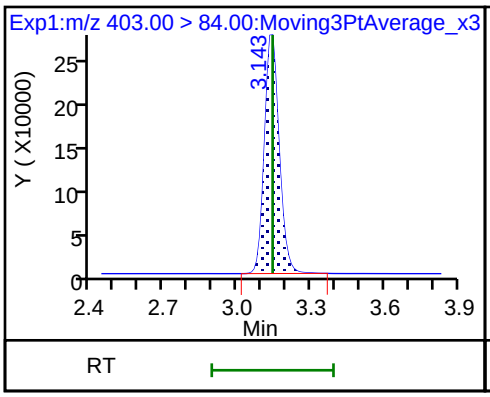

8 Perfluorohexanesulfonic acid (M)



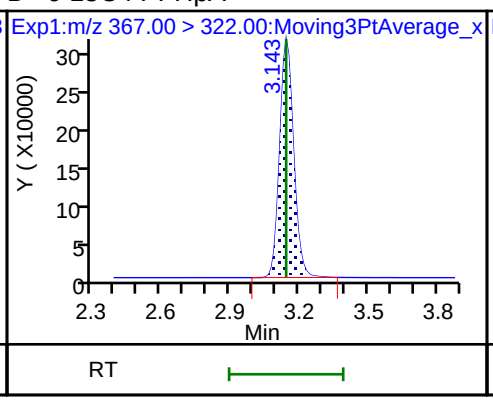

8 Perfluorohexanesulfonic acid (M)



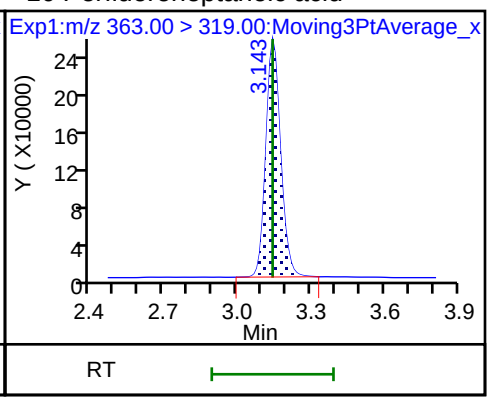

D 11 18O2 PFHxS



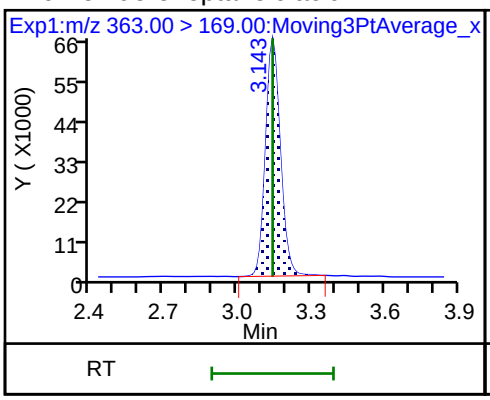

D 9 13C4 PFHpA



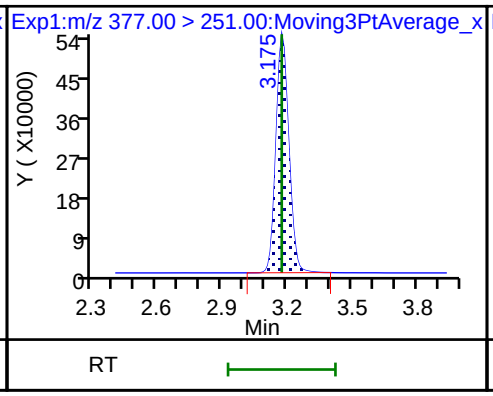

10 Perfluoroheptanoic acid



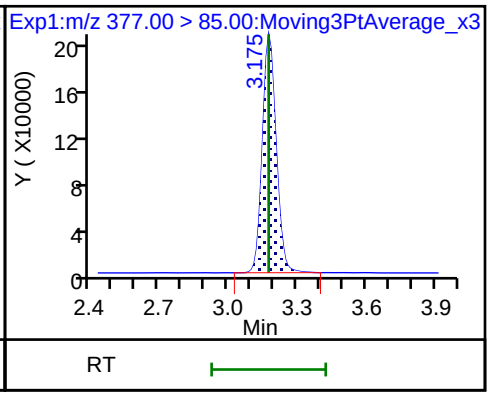

10 Perfluoroheptanoic acid



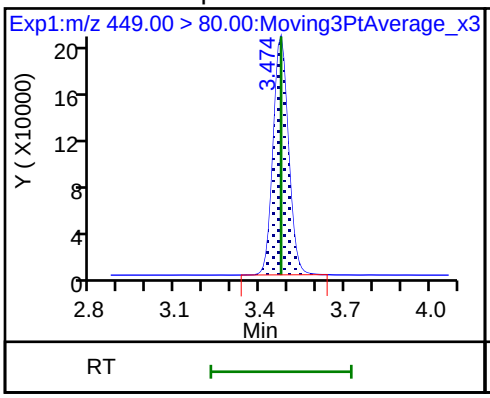

77 DONA



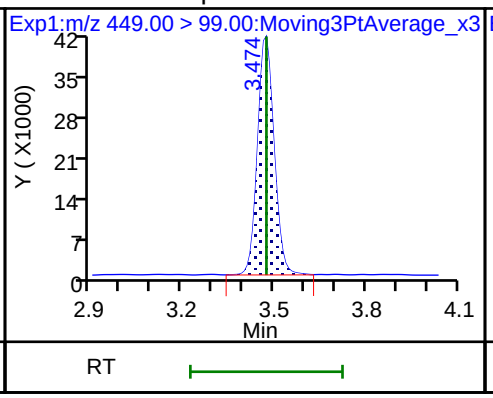

77 DONA



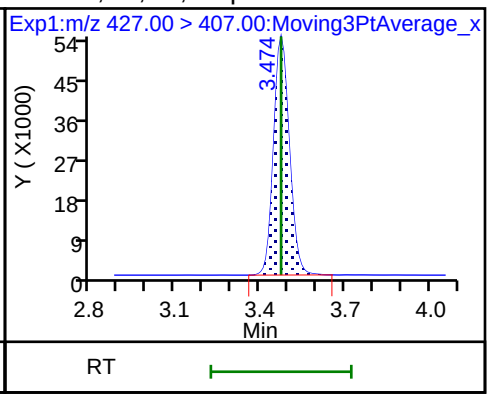
16 Perfluoroheptanesulfonic acid



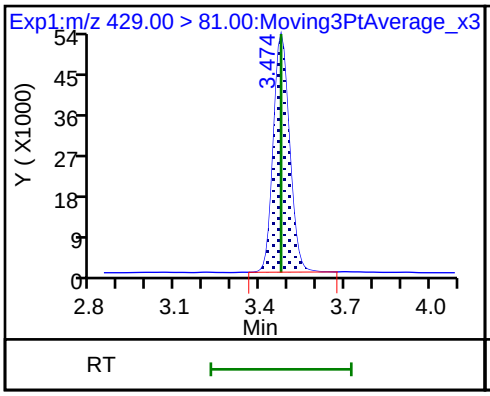

16 Perfluoroheptanesulfonic acid



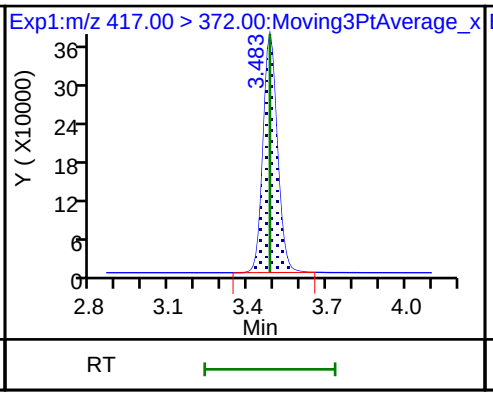

13 1H,1H,2H,2H-perfluorooctanesulfo



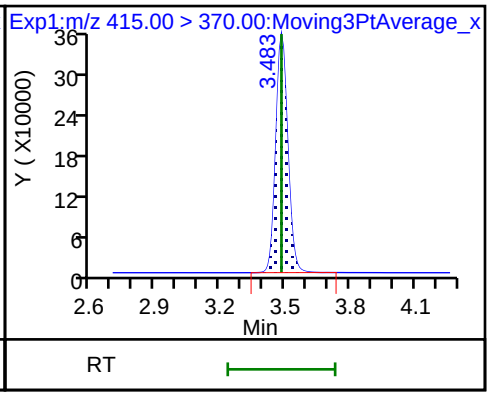

D 12 M2-6:2 FTS



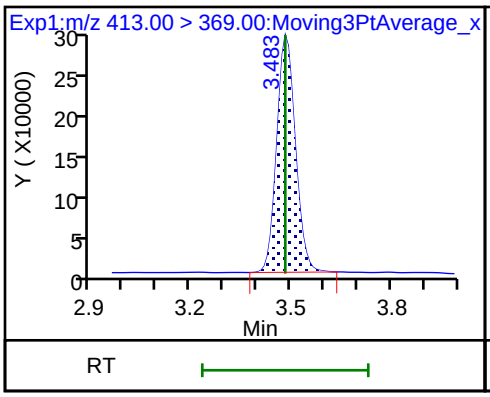

D 14 13C4 PFOA



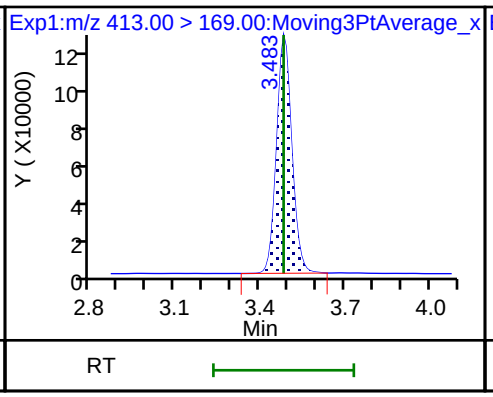

* 62 13C2 PFOA



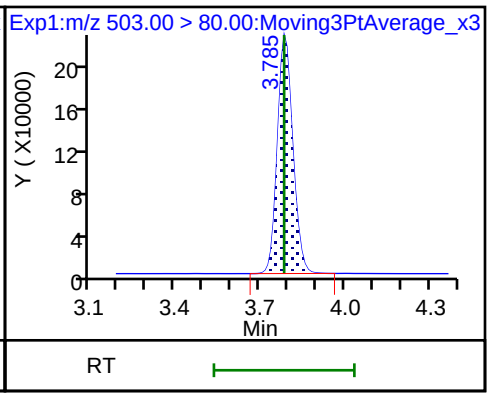

15 Perfluorooctanoic acid



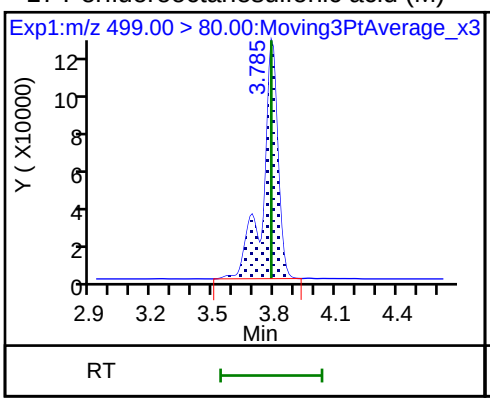

15 Perfluorooctanoic acid



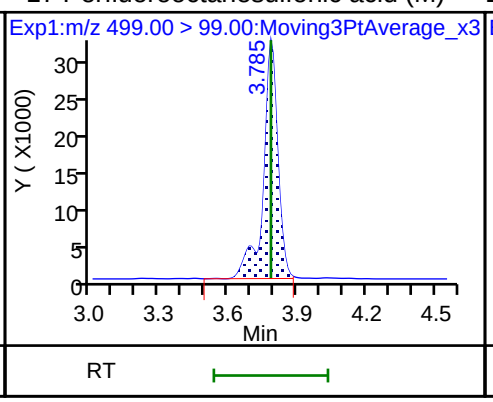

D 18 13C4 PFOS



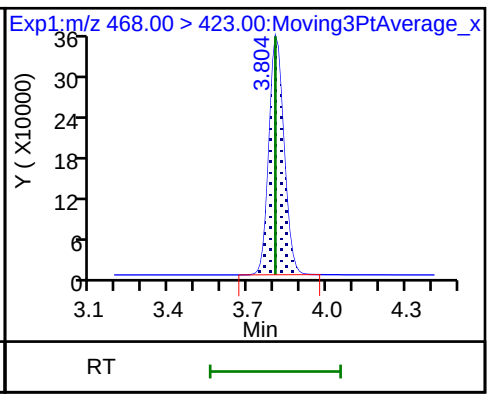

17 Perfluorooctanesulfonic acid (M)



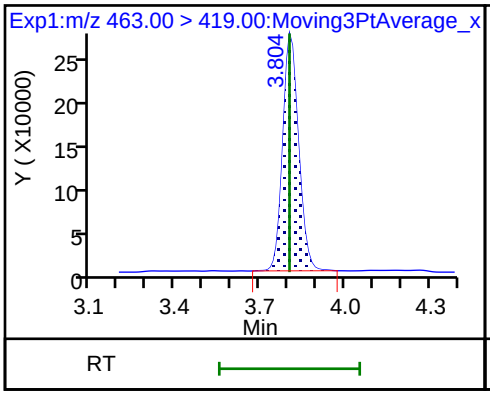

17 Perfluorooctanesulfonic acid (M)



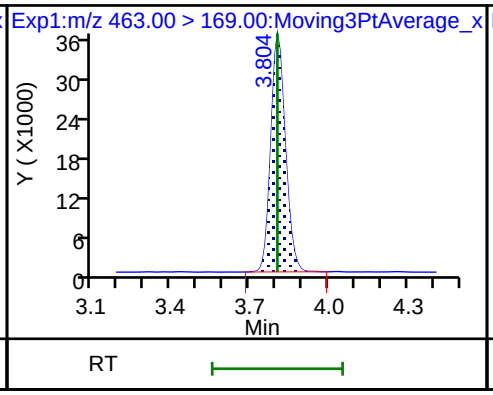

D 19 13C5 PFNA



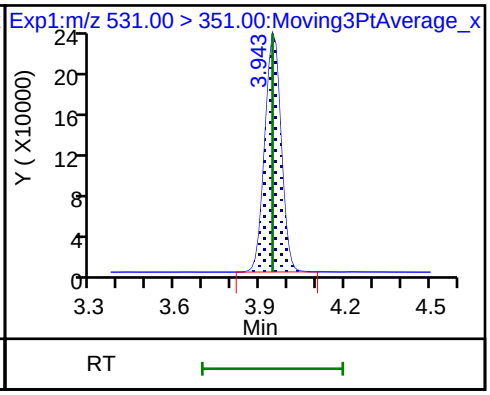
20 Perfluorononanoic acid



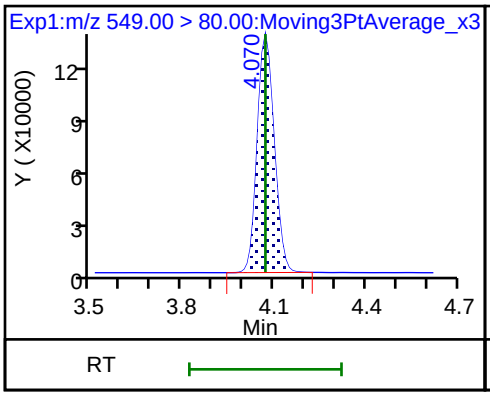

20 Perfluorononanoic acid



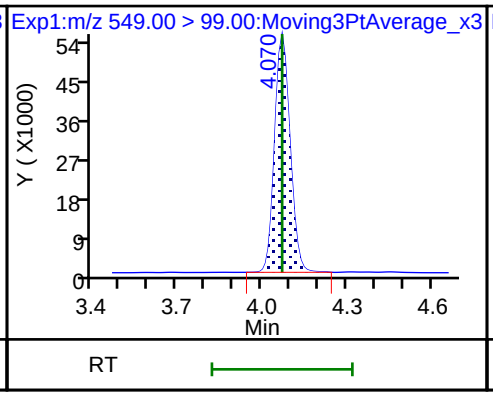

69 9-Chlorohexadecafluoro-3-oxanona



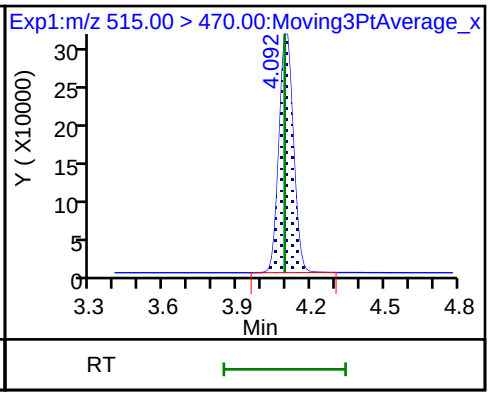

68 Perfluorononanesulfonic acid



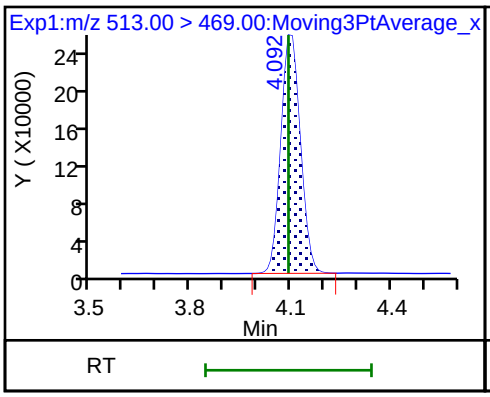

68 Perfluorononanesulfonic acid



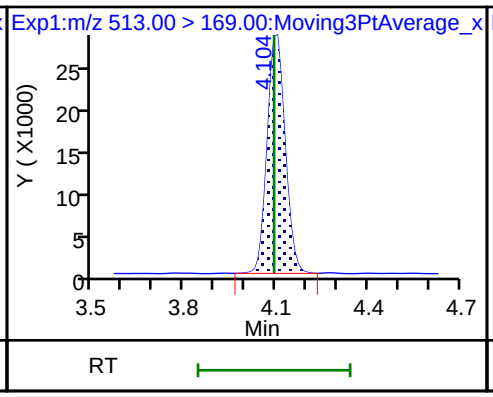

D 23 13C2 PFDA



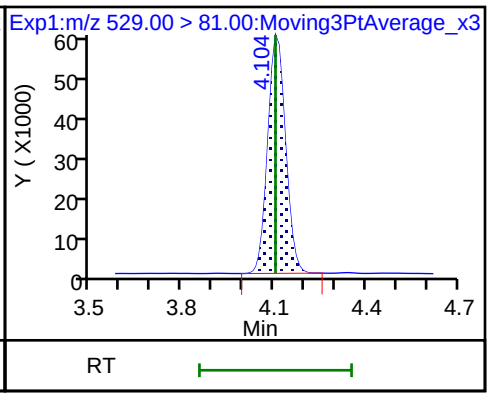

24 Perfluorodecanoic acid



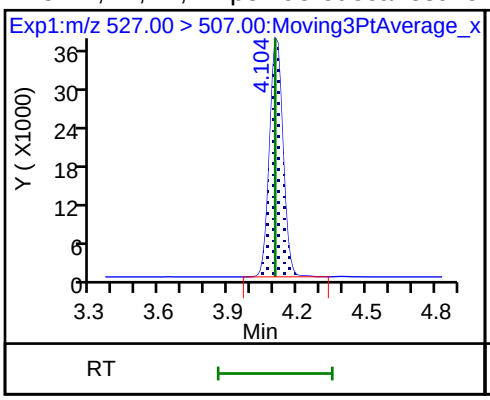

24 Perfluorodecanoic acid



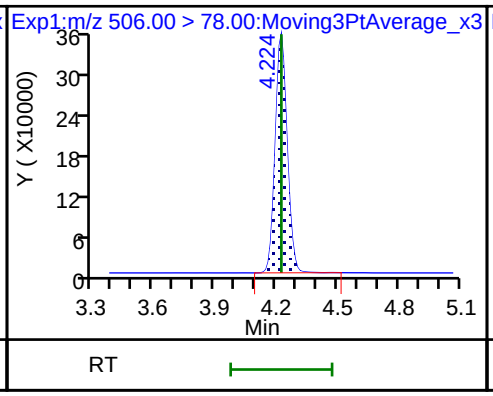

D 26 M2-8:2 FTS



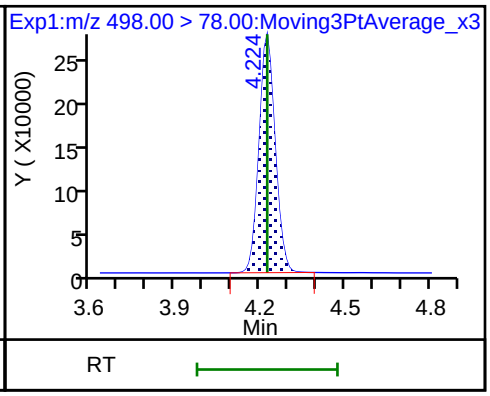

25 1H,1H,2H,2H-perfluorodecanesulfo



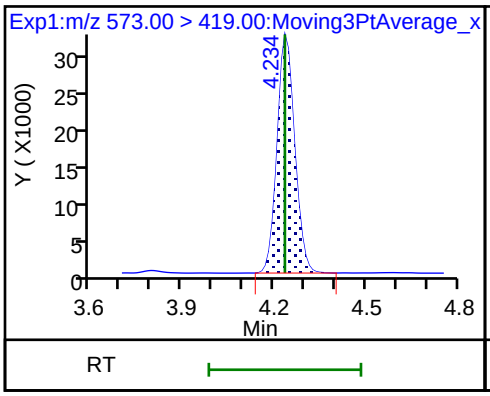

D 21 13C8 FOSA



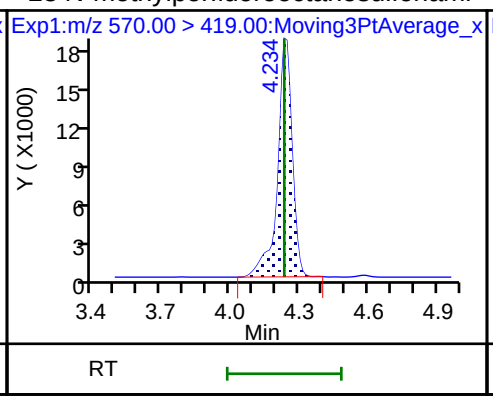

22 Perfluorooctanesulfonamide



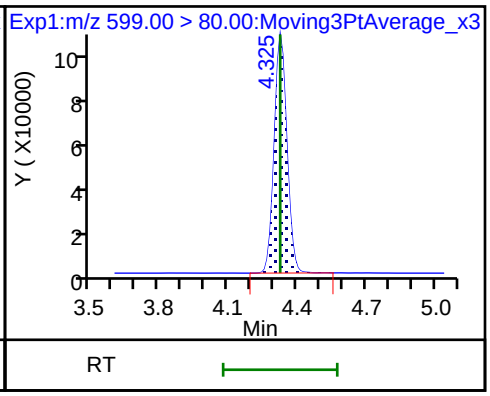
D 27 d3-NMeFOSAA



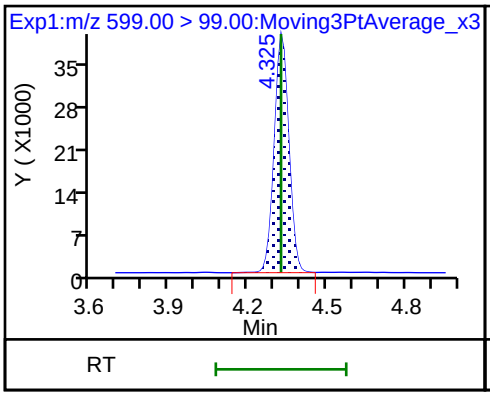

28 N-methylperfluorooctanesulfonami



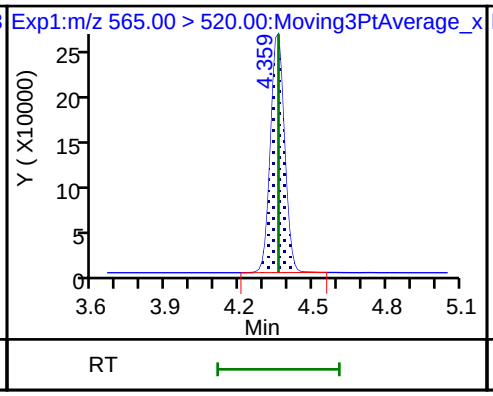

29 Perfluorodecanesulfonic acid



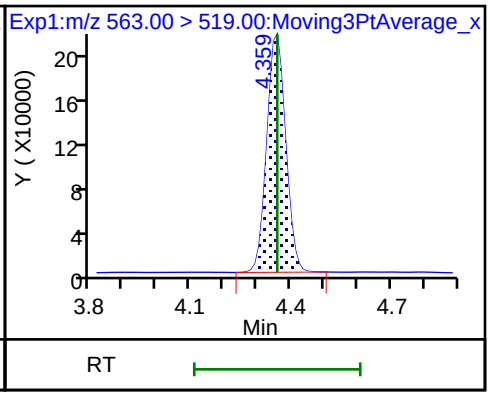

29 Perfluorodecanesulfonic acid



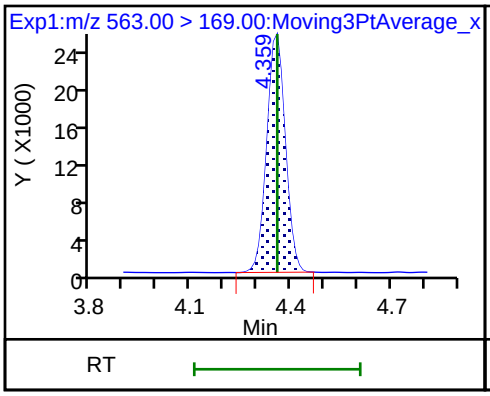

D 30 13C2 PFUnA



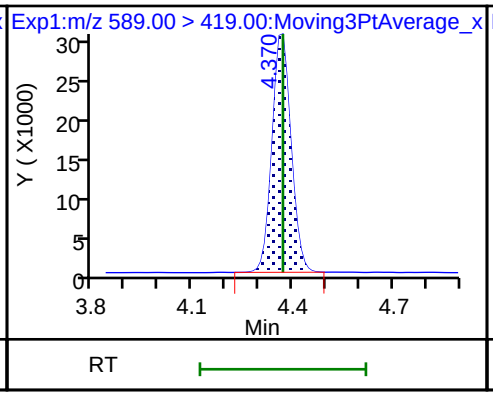

31 Perfluoroundecanoic acid



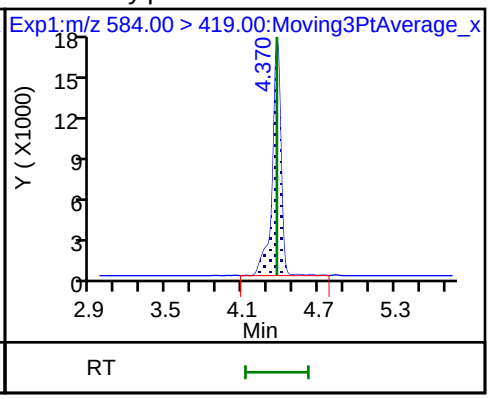

31 Perfluoroundecanoic acid



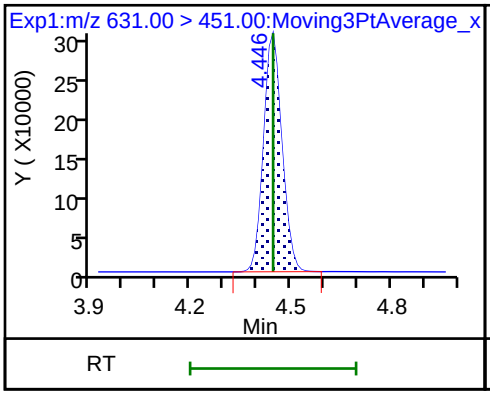

D 32 d5-NEtFOSAA



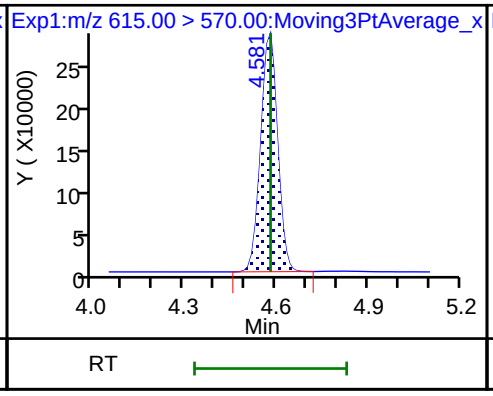

33 N-ethylperfluorooctanesulfonamid



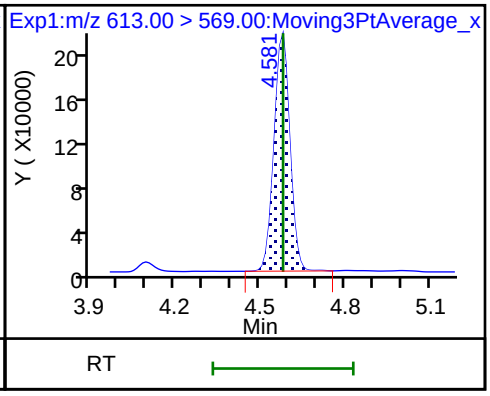

66 11-Chloroeicosafluoro-3-oxaundec



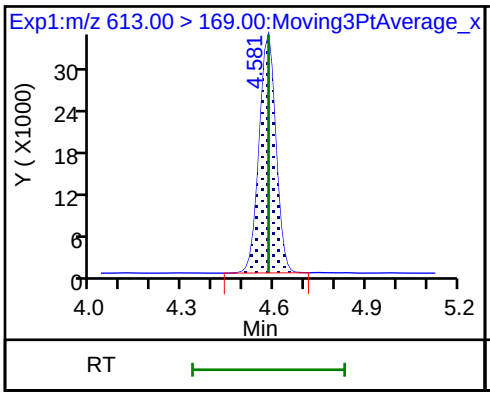

D 36 13C2 PFDoA



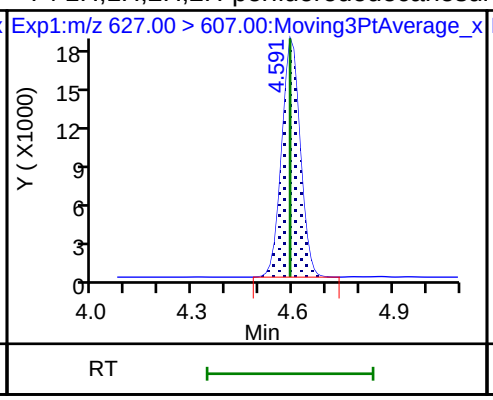

37 Perfluorododecanoic acid



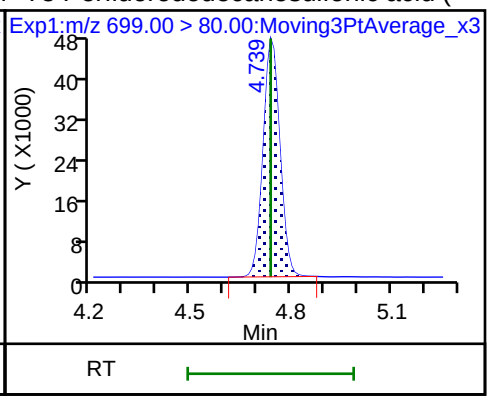
37 Perfluorododecanoic acid



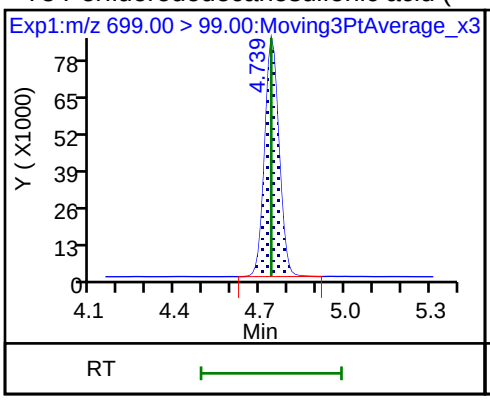

74 1H,1H,2H,2H-perfluorododecanesul



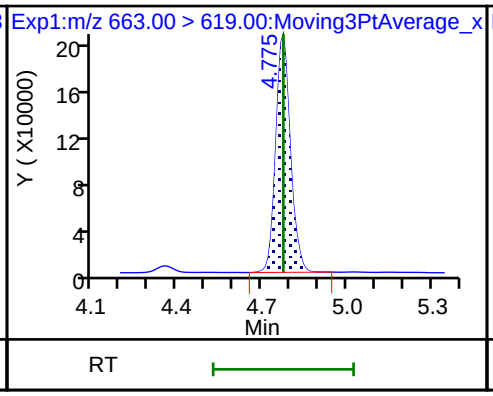

75 Perfluorododecanesulfonic acid (



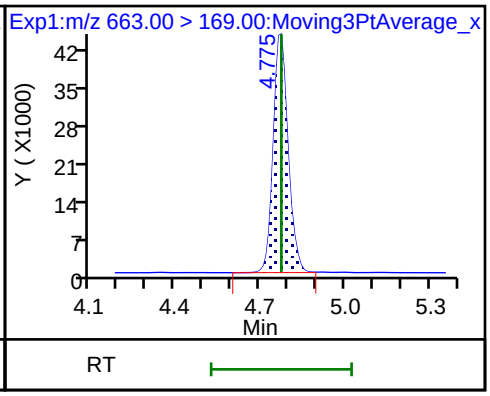

75 Perfluorododecanesulfonic acid (



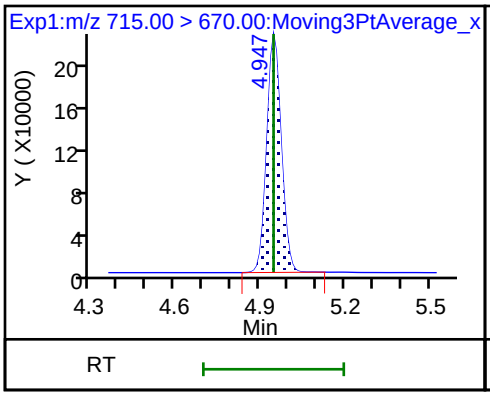

41 Perfluorotridecanoic acid



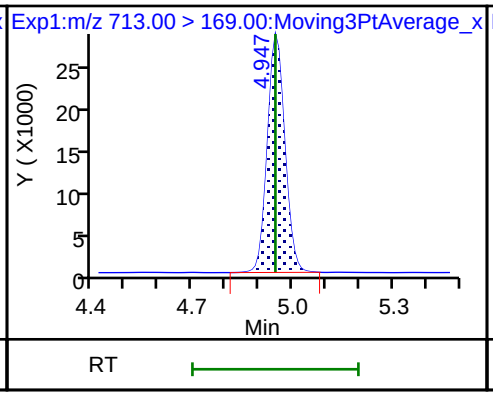

41 Perfluorotridecanoic acid



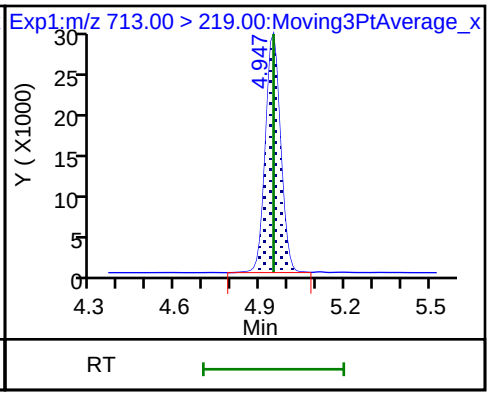

D 43 13C2 PFTeDA



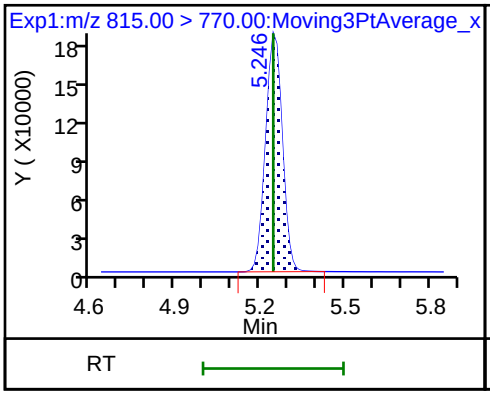

42 Perfluorotetradecanoic acid



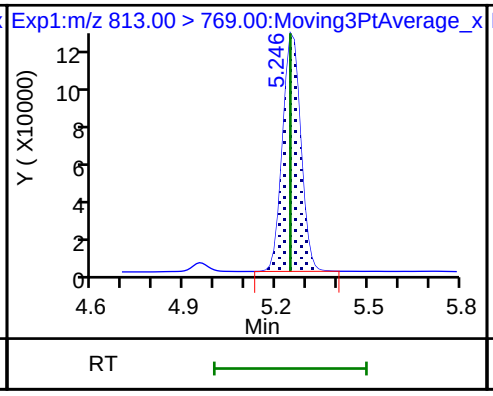

42 Perfluorotetradecanoic acid



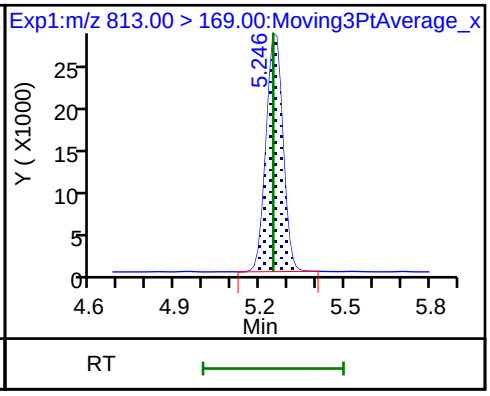

D 44 13C2 PFHxDA



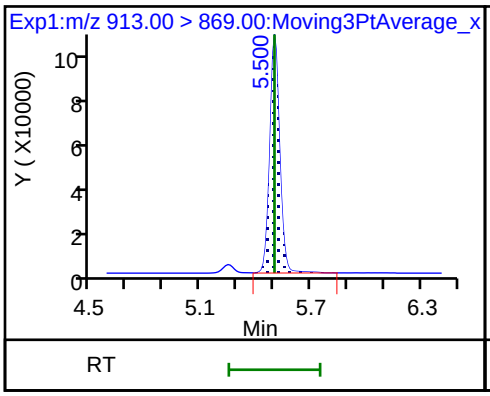

45 Perfluorohexadecanoic acid



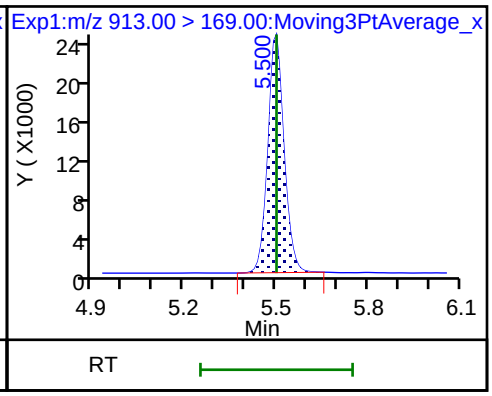

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

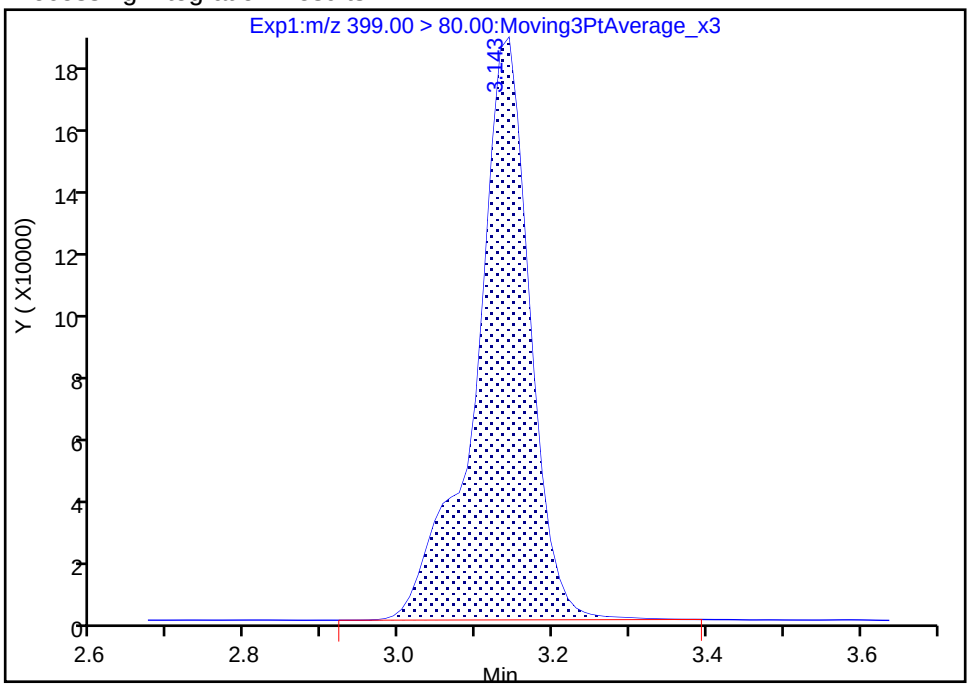
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d | | | | |
| Injection Date: | 09-Nov-2021 13:00:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

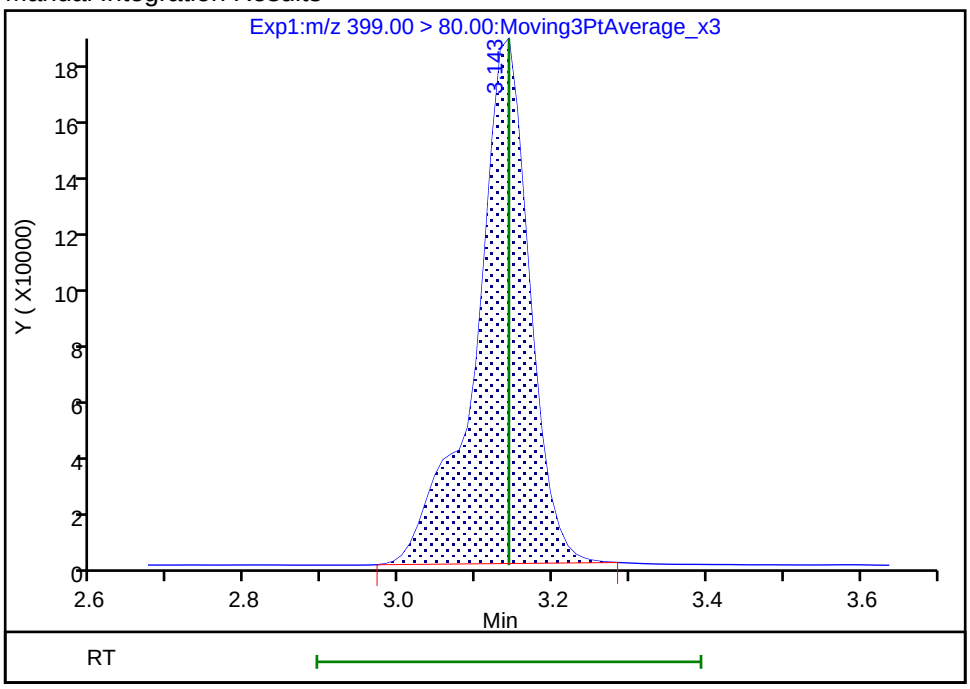
Processing Integration Results

RT: 3.14
Area: 910295
Amount: 0.861749
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 900705
Amount: 0.852670
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:22:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

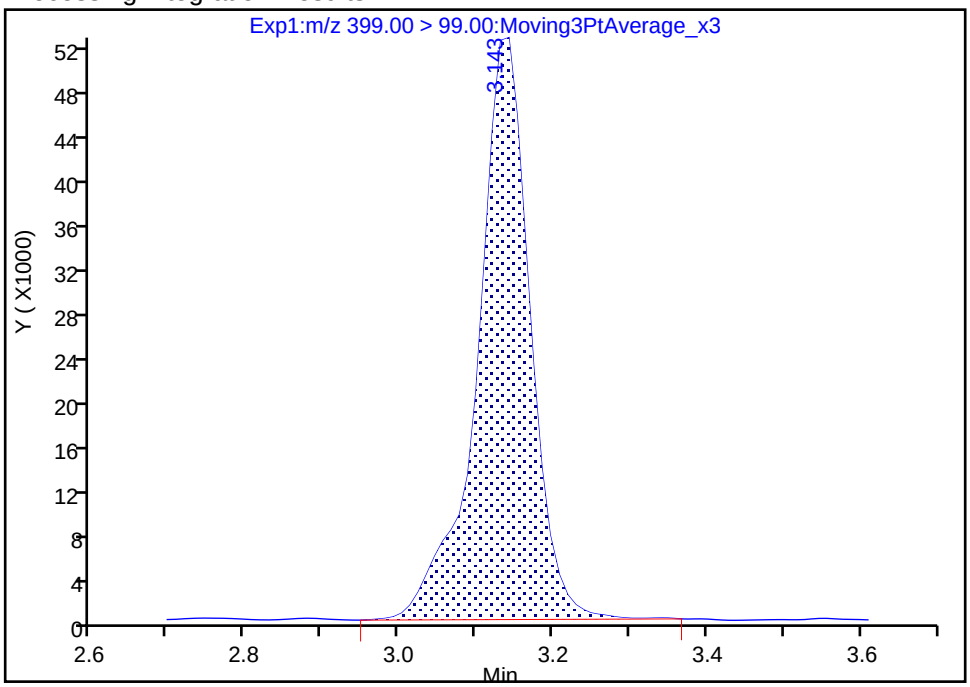
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d
Injection Date: 09-Nov-2021 13:00:18 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

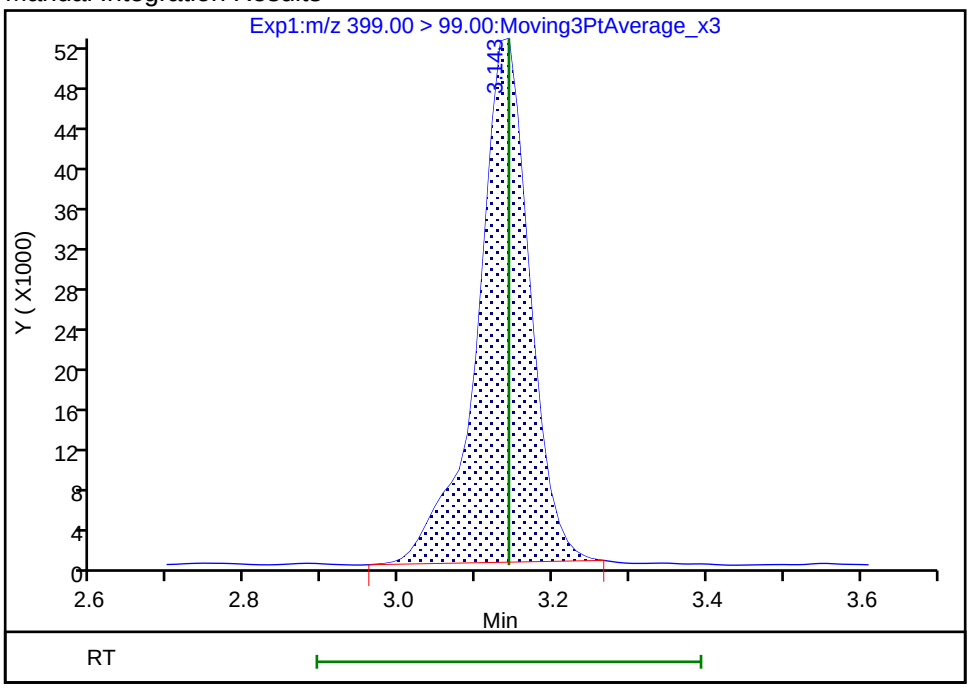
Processing Integration Results

RT: 3.14
Area: 248400
Amount: 0.861749
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 244051
Amount: 0.852670
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:22:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

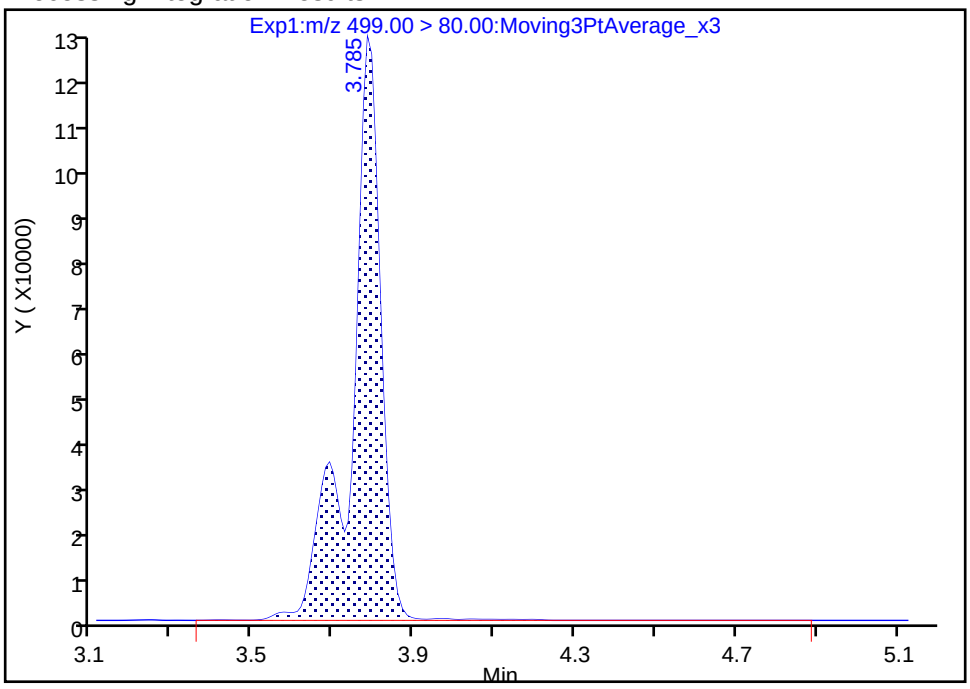
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d | | | | |
| Injection Date: | 09-Nov-2021 13:00:18 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

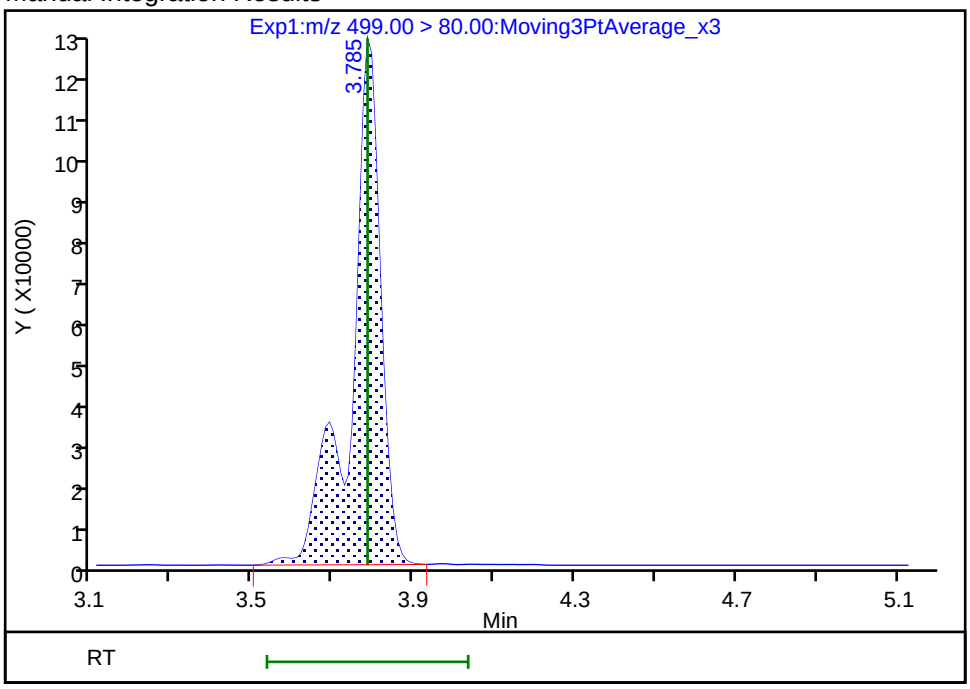
Processing Integration Results

RT: 3.78
Area: 648975
Amount: 0.847299
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 642476
Amount: 0.838814
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:22:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

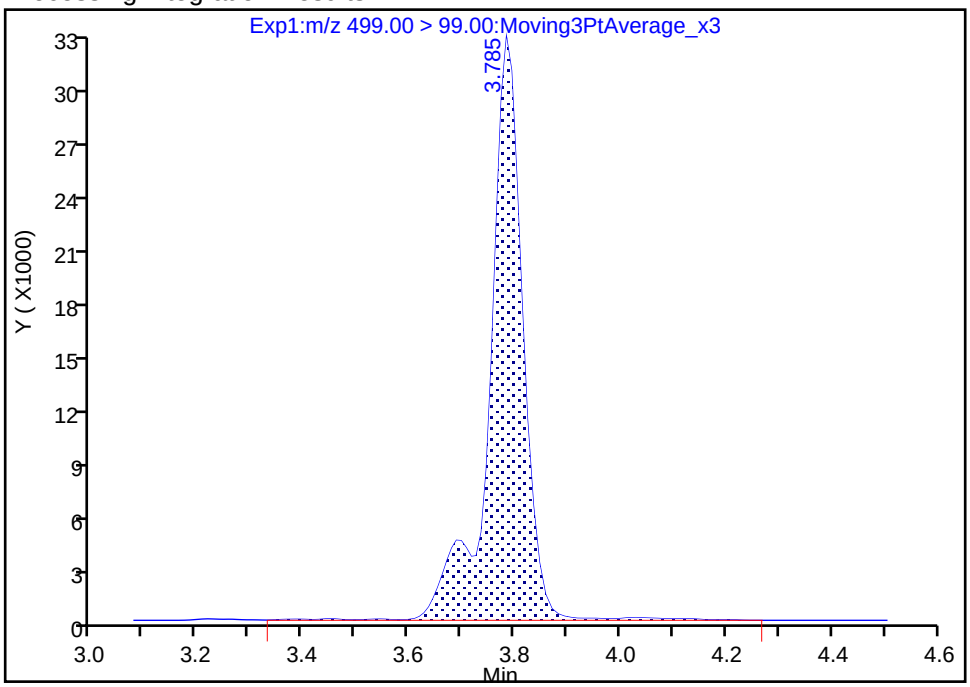
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A06.d
Injection Date: 09-Nov-2021 13:00:18 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

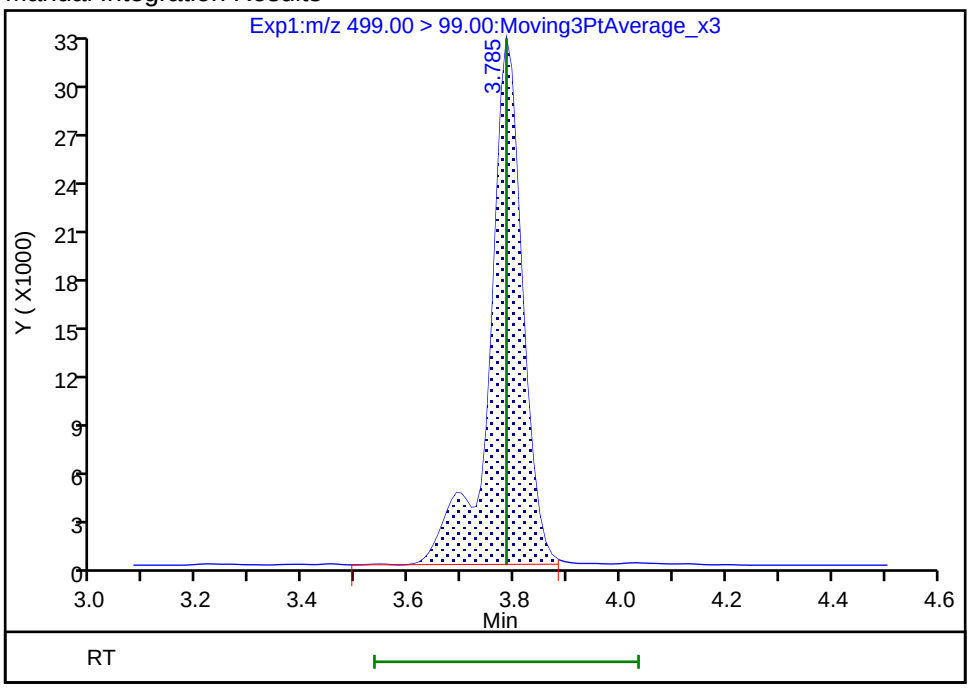
Processing Integration Results

RT: 3.78
Area: 142208
Amount: 0.847299
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 138925
Amount: 0.838814
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:22:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173663/13  Calibration Date: 11/09/2021 13:50

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A13.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8803 | | 2.33 | 2.50 | -6.9 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9620 | | 2.40 | 2.50 | -4.0 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.003 | | 2.08 | 2.21 | -6.1 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.046 | | 2.25 | 2.34 | -3.9 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9313 | | 2.30 | 2.50 | -8.2 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.191 | | 2.32 | 2.35 | -1.1 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.260 | | 2.91 | 2.50 | 16.2 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9705 | | 2.35 | 2.50 | -6.1 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.001 | | 2.07 | 2.28 | -8.9 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.330 | | 2.24 | 2.36 | -4.8 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.299 | | 2.43 | 2.37 | 2.4 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.143 | | 2.18 | 2.38 | -8.3 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.030 | | 2.42 | 2.50 | -3.2 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9782 | | 2.09 | 2.32 | -9.8 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9210 | | 2.35 | 2.50 | -5.9 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.415 | | 2.02 | 2.33 | -13.5 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7797 | | 2.21 | 2.40 | -7.8 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9349 | | 2.33 | 2.50 | -7.0 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7437 | | 2.13 | 2.40 | -11.1 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9502 | | 2.50 | 2.50 | 0.0 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8298 | | 2.64 | 2.50 | 5.6 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.5982 | | 2.19 | 2.41 | -9.0 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.014 | | 2.38 | 2.50 | -4.8 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8063 | | 2.35 | 2.50 | -5.9 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.821 | | 2.22 | 2.36 | -5.7 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9581 | | 2.45 | 2.50 | -2.1 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3757 | | 2.34 | 2.41 | -2.8 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2450 | | 2.45 | 2.42 | 1.3 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173663/13  Calibration Date: 11/09/2021 13:50

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A13.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7962 | | 2.36 | 2.50 | -5.7 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1530 | | 2.42 | 2.50 | -3.1 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9121 | | 2.65 | 2.50 | 6.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6942 | | 2.06 | 2.50 | -17.7 | |
| 13C4 PFBA | Ave | 1.012 | 1.279 | | 1.58 | 1.25 | 26.3 | |
| 13C3 PFBS | Ave | 1.154 | 1.193 | | 1.20 | 1.16 | 3.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9410 | | 1.38 | 1.25 | 10.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1198 | | 1.59 | 1.17 | 36.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9671 | | 1.35 | 1.25 | 8.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0200 | | 1.06 | 1.25 | -15.1 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9771 | | 1.30 | 1.25 | 3.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8691 | | 1.23 | 1.18 | 3.7 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1533 | | 1.38 | 1.19 | 16.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.016 | | 1.23 | 1.25 | -1.2 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6481 | | 1.28 | 1.20 | 7.0 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.035 | | 1.26 | 1.25 | 1.0 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9813 | | 1.19 | 1.25 | -5.1 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1831 | | 1.46 | 1.20 | 22.2 | |
| 13C8 FOSA | Ave | 0.998 | 1.046 | | 1.31 | 1.25 | 4.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1012 | | 1.24 | 1.25 | -0.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7671 | | 1.19 | 1.25 | -4.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0929 | | 1.22 | 1.25 | -2.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8160 | | 1.18 | 1.25 | -5.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6591 | | 1.23 | 1.25 | -2.0 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5390 | | 1.14 | 1.25 | -9.0 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 09-Nov-2021 13:50:48 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048346-013 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 15:41:31 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 11-Nov-2021 15:23:45
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.236 | 2.226 | 0.010 | 0.642 | 2181771 | 1.58 | | 126 | 6579 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.236 | 2.236 | 0.0 | 1.000 | 3841340 | 2.33 | | 93.1 | 348 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.492 | 2.478 | 0.014 | 0.715 | 1605380 | 1.38 | | 110 | 1867 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.492 | 2.478 | 0.014 | 1.000 | 3088811 | 2.40 | | 96.0 | 143 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.492 | 2.492 | 0.0 | 0.715 | 1892636 | 1.20 | | 103 | 441343 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.505 | 2.492 | 0.013 | 1.005 | 3607465 | 2.07 | Target=2.32 | 93.9 | 5705 | |
| 298.90 > 99.00 | 2.505 | 2.492 | 0.013 | 1.005 | 1664785 | | 2.17(1.16-3.48) | | 803 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.770 | 2.758 | 0.012 | 1.000 | 781036 | 2.24 | | 96.1 | 1339 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.770 | 2.770 | 0.0 | 0.795 | 190848 | 1.59 | | 136 | 115 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.794 | 2.794 | 0.0 | 0.802 | 1649880 | 1.35 | | 108 | 5111 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.806 | 2.794 | 0.012 | 1.004 | 3072912 | 2.30 | Target=12.09 | 91.8 | 741 | |
| 313.00 > 119.00 | 2.794 | 2.794 | 0.0 | 1.000 | 248945 | | 12.34(6.04-18.13) | | 111 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.806 | 2.794 | 0.012 | 0.893 | 3312719 | 2.32 | Target=3.03 | 98.9 | 5708 | |
| 349.00 > 99.00 | 2.806 | 2.794 | 0.012 | 0.893 | 1072598 | | 3.09(1.52-4.55) | | 1648 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.901 | 2.892 | 0.009 | 1.003 | 358972 | 2.91 | | 116 | 188 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.892 | 2.901 | -0.009 | 0.830 | 34125 | 1.06 | | 84.9 | 293 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.143 | 0.0 | 1.000 | 2702451 | 2.07 | Target=3.55 | 91.1 | 1430 | M |
| 399.00 > 99.00 | 3.143 | 3.143 | 0.0 | 1.000 | 772127 | | 3.50(1.77-5.32) | | 573 | M |
| D 11 18O2 PFHxS | | | | | | | | | | M |
| 403.00 > 84.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1402631 | 1.23 | | 104 | 2076 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.143 | 0.0 | 0.902 | 1666911 | 1.30 | | 104 | 7629 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 3235431 | 2.35 | Target=3.69 | 93.9 | 1149 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 867556 | | 3.73(1.84-5.53) | | 1075 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 6936739 | 2.24 | Target=2.56 | 95.2 | 5809 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2707554 | | 2.56(1.28-3.84) | | 3642 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 2405531 | 2.18 | Target=4.88 | 91.7 | 9675 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 483131 | | 4.98(2.44-7.32) | | 1568 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 644132 | 2.43 | | 102 | 1275 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 248498 | 1.38 | | 116 | 566 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1733367 | 1.23 | | 98.8 | 4291 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1705965 | 1.25 | | | 4622 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 3569541 | 2.42 | Target=2.68 | 96.8 | 567 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1330632 | | 2.68(1.34-4.02) | | 1448 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.089 | 1056916 | 1.28 | | 107 | 3850 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.785 | 0.009 | 1.000 | 2007195 | 2.09 | Target=4.69 | 90.2 | 1932 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 0.997 | 438867 | | 4.57(2.35-7.04) | | 1335 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.804 | 0.010 | 1.095 | 1765815 | 1.26 | | 101 | 4259 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 0.997 | 3252677 | 2.35 | Target=7.29 | 94.1 | 580 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 0.997 | 431986 | | 7.53(3.64-10.93) | | 3178 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.039 | 2915094 | 2.02 | | 86.5 | 5007 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.073 | 1655031 | 2.21 | Target=2.35 | 92.2 | 6153 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.073 | 647961 | | 2.55(1.17-3.52) | | 2028 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.104 | 4.092 | 0.012 | 1.178 | 1674091 | 1.19 | | 94.9 | 3330 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.104 | 4.092 | 0.012 | 1.000 | 3130340 | 2.33 | Target=8.95 | 93.0 | 1661 | |
| 513.00 > 169.00 | 4.104 | 4.092 | 0.012 | 1.000 | 361927 | | 8.65(4.47-13.42) | | 1817 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.115 | 4.104 | 0.011 | 1.181 | 299207 | 1.46 | | 122 | 1138 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.115 | 4.104 | 0.011 | 1.000 | 445033 | 2.13 | | 88.9 | 1801 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.213 | 1783754 | 1.31 | | 105 | 3007 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.224 | 0.0 | 1.000 | 3389682 | 2.50 | | 100 | 6535 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.234 | 4.234 | 0.0 | 1.216 | 172698 | 1.24 | | 99.5 | 345 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.246 | 4.234 | 0.012 | 1.003 | 286596 | 2.64 | | 106 | 602 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.325 | 4.325 | 0.0 | 1.140 | 1275144 | 2.19 | Target=2.47 | 91.0 | 2863 | |
| 599.00 > 99.00 | 4.325 | 4.325 | 0.0 | 1.140 | 486772 | | 2.62(1.23-3.70) | | 3280 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.359 | 4.359 | 0.0 | 1.251 | 1308596 | 1.19 | | 95.2 | 8147 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.359 | 4.359 | 0.0 | 1.000 | 2654923 | 2.38 | Target=9.24 | 95.2 | 1502 | |
| 563.00 > 169.00 | 4.359 | 4.359 | 0.0 | 1.000 | 305920 | | 8.68(4.62-13.86) | | 2562 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.255 | 158555 | 1.22 | | 97.5 | 1285 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.370 | 4.370 | 0.0 | 1.000 | 255688 | 2.35 | | 94.1 | 3322 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.446 | 4.446 | 0.0 | 1.172 | 3793526 | 2.22 | | 94.3 | 7101 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.581 | 0.0 | 1.315 | 1392090 | 1.18 | | 94.1 | 1611 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.581 | 4.581 | 0.0 | 1.000 | 2667464 | 2.45 | Target=7.04 | 97.9 | 438 | |
| 613.00 > 169.00 | 4.581 | 4.581 | 0.0 | 1.000 | 394048 | | 6.77(3.52-10.56) | | 3073 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.591 | 4.591 | 0.0 | 1.116 | 226243 | 2.34 | | 97.2 | 2424 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.739 | 4.739 | 0.0 | 1.249 | 524292 | 2.45 | Target=0.49 | 101 | 5118 | |
| 699.00 > 99.00 | 4.739 | 4.739 | 0.0 | 1.249 | 954772 | | 0.55(0.25-0.74) | | 3283 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.775 | 4.775 | 0.0 | 1.042 | 2216741 | 2.36 | Target=4.68 | 94.3 | 583 | |
| 663.00 > 169.00 | 4.775 | 4.775 | 0.0 | 1.042 | 495014 | | 4.48(2.34-7.02) | | 2813 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.947 | 0.0 | 1.420 | 1124420 | 1.23 | | 98.0 | 2174 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.947 | 0.0 | 1.000 | 344074 | 2.42 | Target=1.01 | 96.9 | 2960 | |
| 713.00 > 219.00 | 4.947 | 4.947 | 0.0 | 1.000 | 354206 | | 0.97(0.51-1.52) | | 3569 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.246 | 0.0 | 1.506 | 919555 | 1.14 | | 91.0 | 4922 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.246 | 0.012 | 1.002 | 1677455 | 2.65 | Target=4.57 | 106 | 469 | |
| 813.00 > 169.00 | 5.246 | 5.246 | 0.0 | 1.000 | 371515 | | 4.52(2.29-6.86) | | 2786 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.500 | 5.500 | 0.0 | 1.049 | 1276709 | 2.06 | Target=4.27 | 82.3 | 676 | |
| 913.00 > 169.00 | 5.500 | 5.500 | 0.0 | 1.049 | 300712 | | 4.25(2.14-6.41) | | 2261 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00023 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 15:41:32 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d

Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812

Lims ID: CCV L5

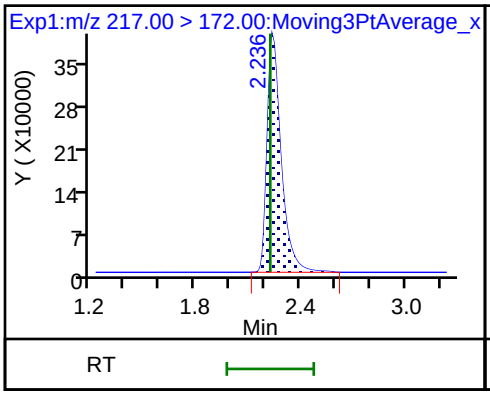
Client ID:

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13

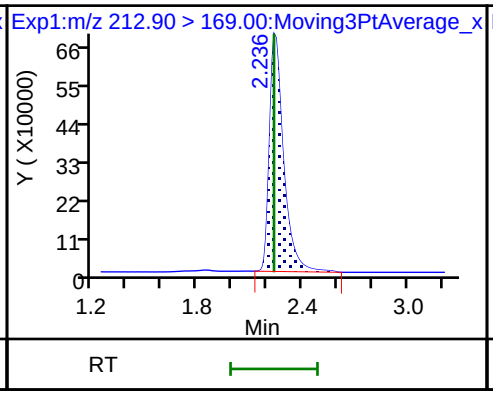
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

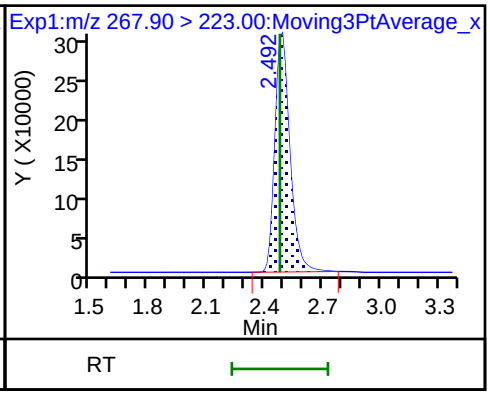
D 1 13C4 PFBA



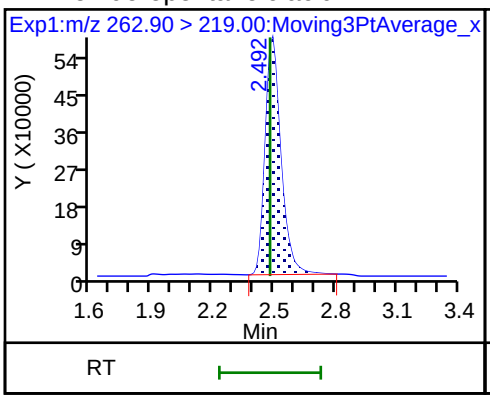

2 Perfluorobutanoic acid



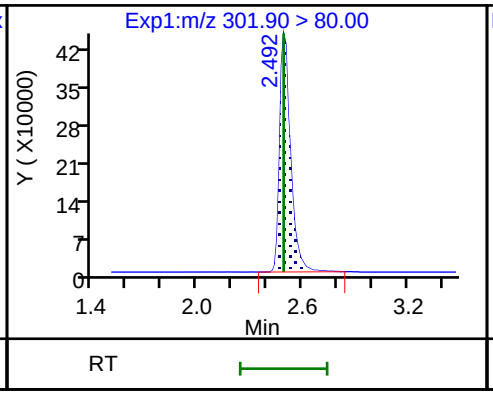

D 3 13C5 PFPeA



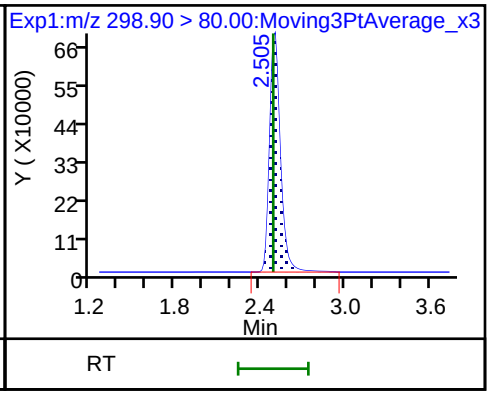

4 Perfluoropentanoic acid



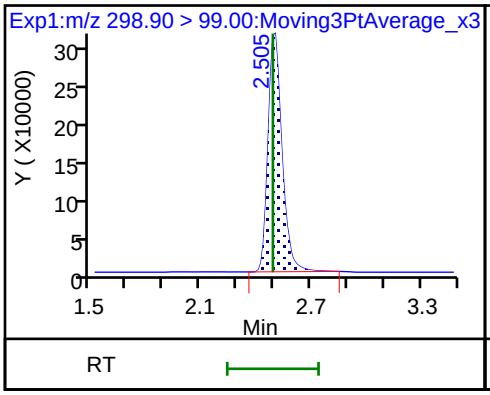

D 47 13C3 PFBS



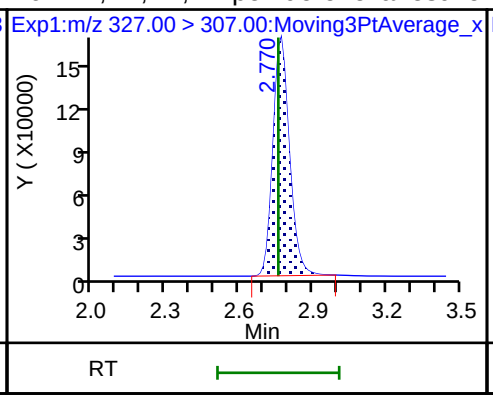

5 Perfluorobutanesulfonic acid



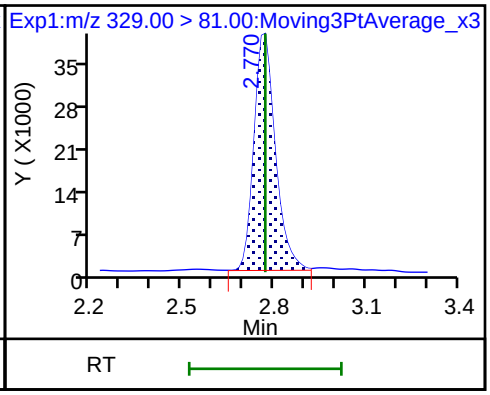

5 Perfluorobutanesulfonic acid



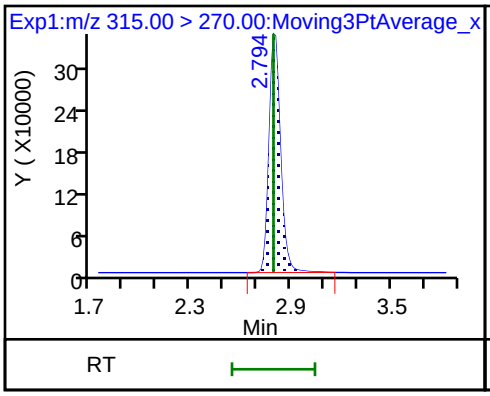

61 1H,1H,2H,2H-perfluorohexanesulfo



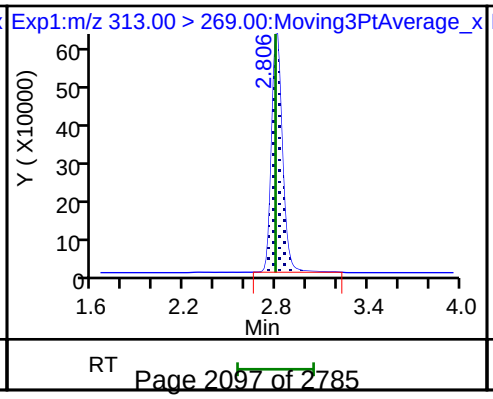

D 60 M2-4:2 FTS



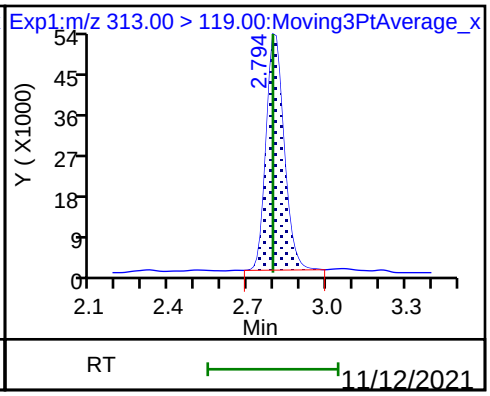

D 7 13C2 PFHxA



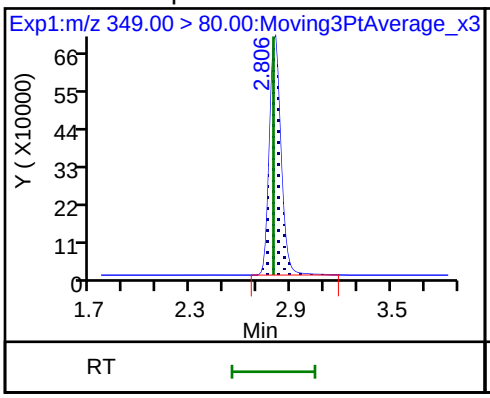

6 Perfluorohexanoic acid



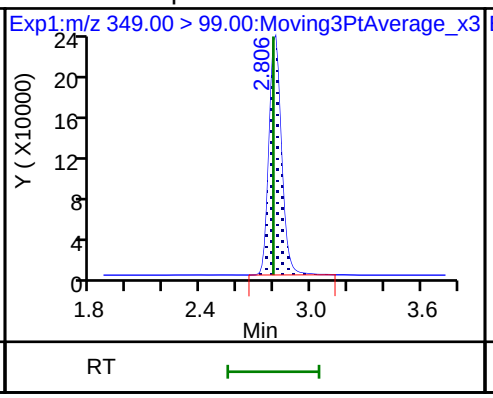

6 Perfluorohexanoic acid



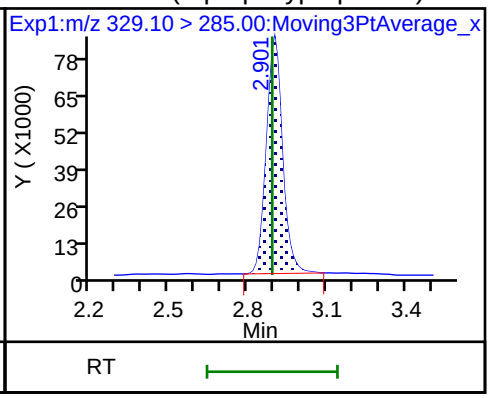
70 Perfluoropentanesulfonic acid



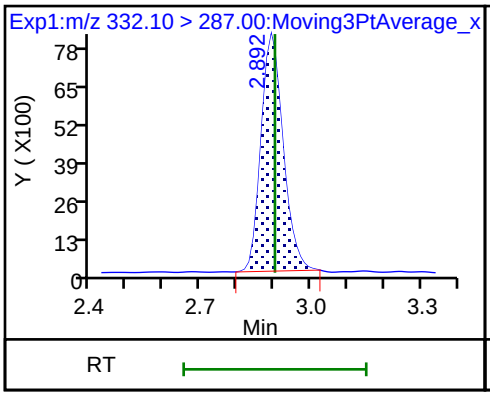

70 Perfluoropentanesulfonic acid



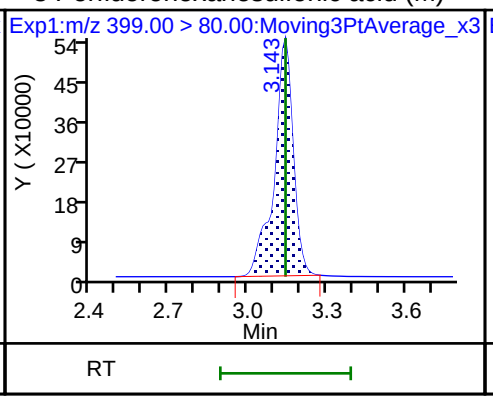

67 Perfluoro(2-propoxypropanoic) ac



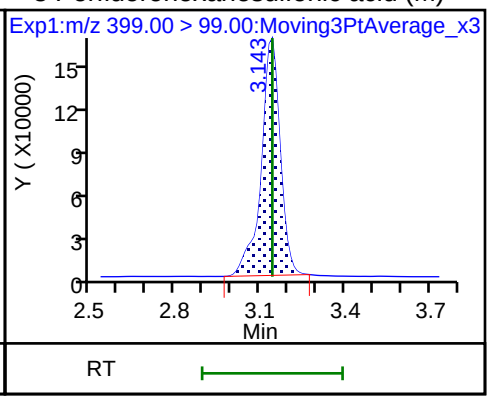

D 64 13C3 HFPO-DA



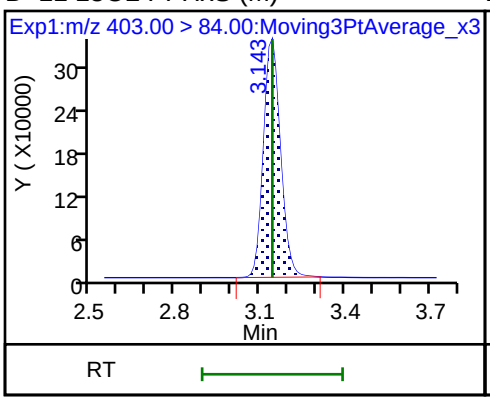

8 Perfluorohexanesulfonic acid (M)



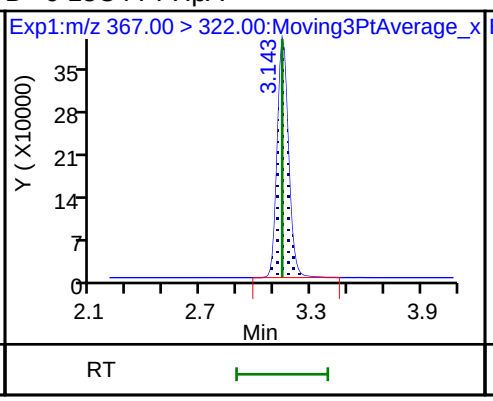

8 Perfluorohexanesulfonic acid (M)



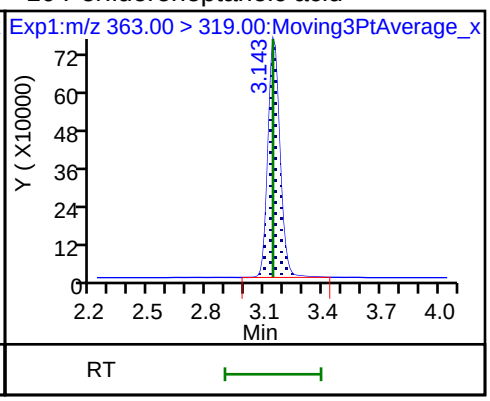

D 11 18O2 PFHxS (M)



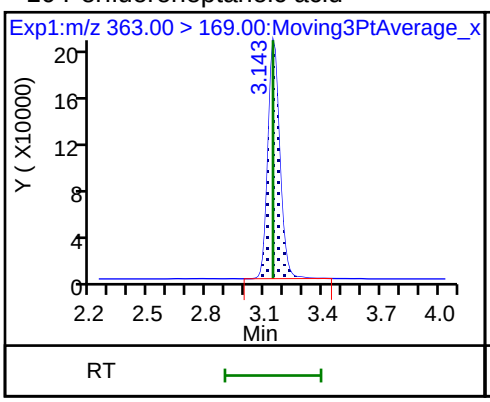

D 9 13C4 PFHpA



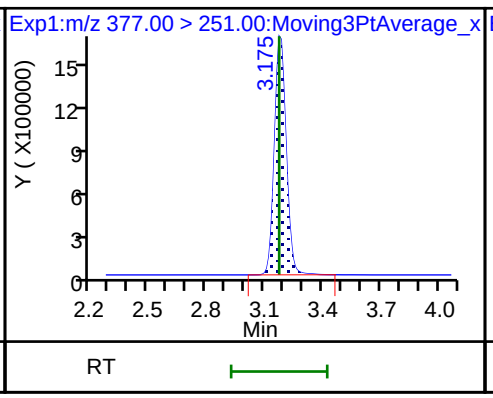

10 Perfluoroheptanoic acid



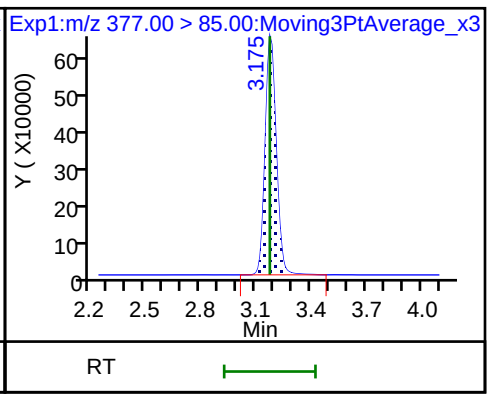

10 Perfluoroheptanoic acid



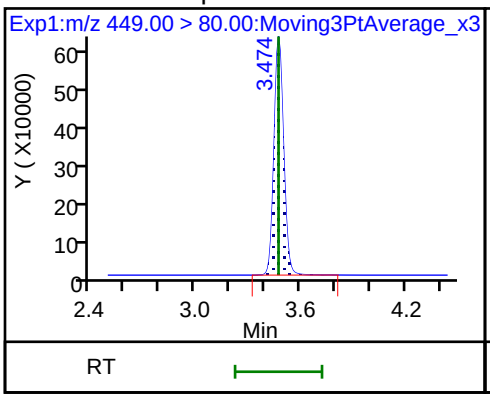

77 DONA



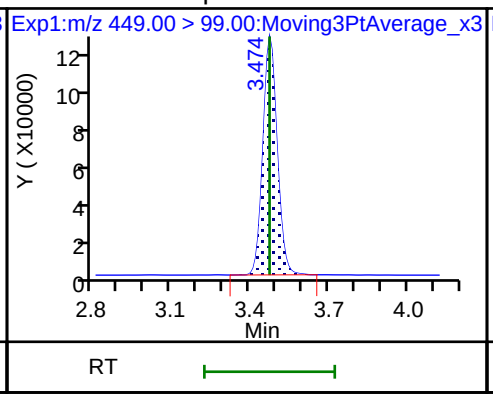

77 DONA



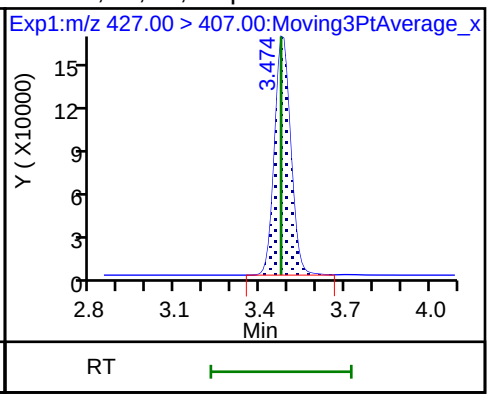
16 Perfluoroheptanesulfonic acid



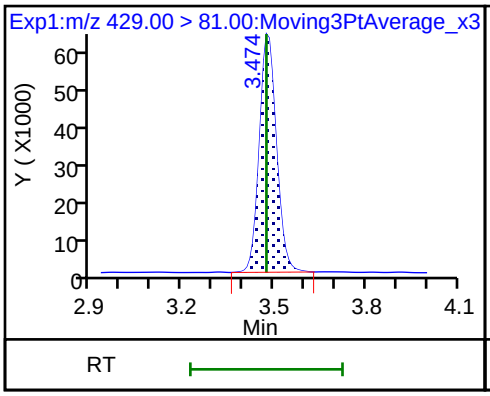

16 Perfluoroheptanesulfonic acid



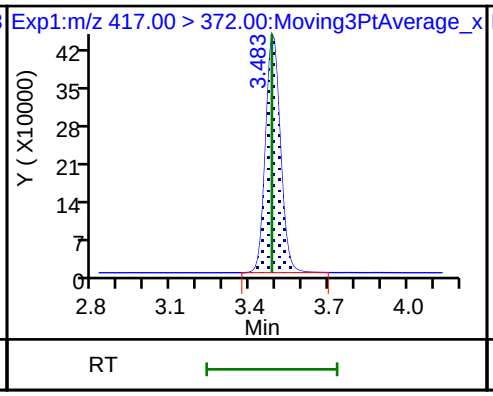

13 1H,1H,2H,2H-perfluorooctanesulfo



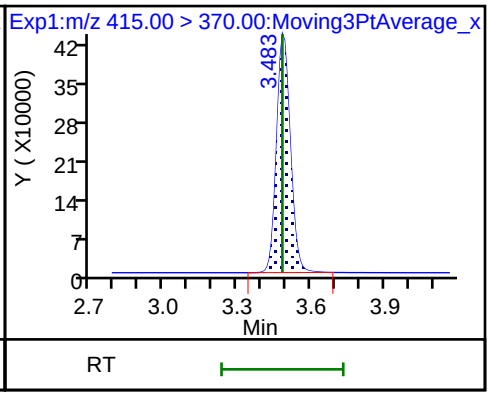

D 12 M2-6:2 FTS



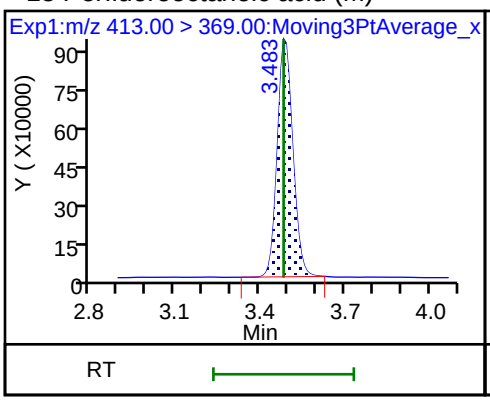

D 14 13C4 PFOA



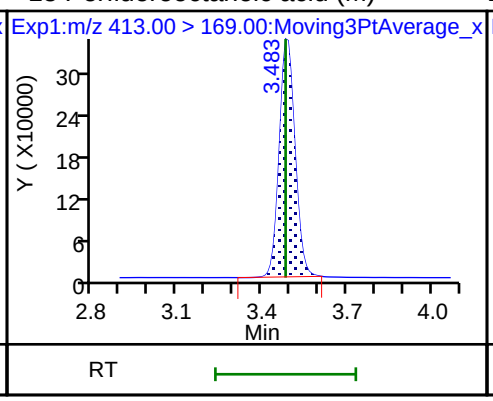

* 62 13C2 PFOA



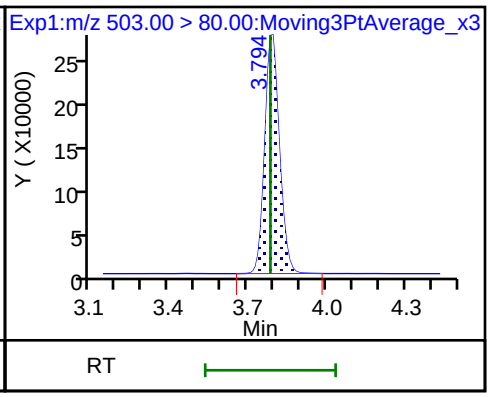

15 Perfluorooctanoic acid (M)



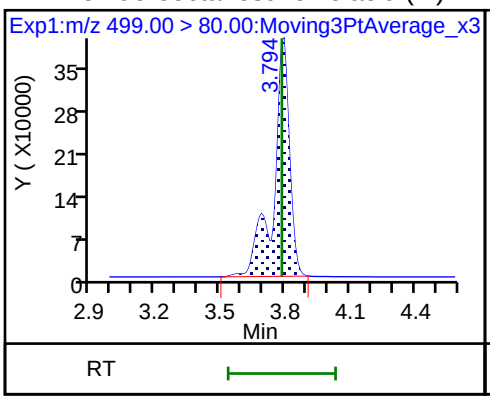

15 Perfluorooctanoic acid (M)



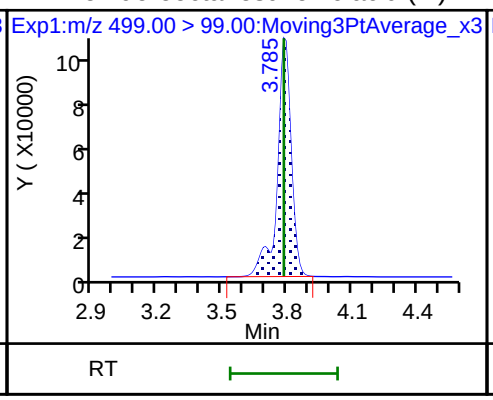

D 18 13C4 PFOS



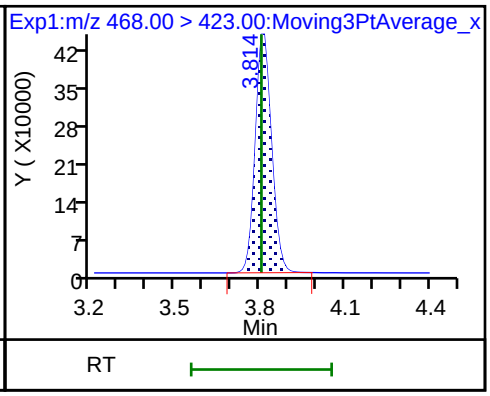

17 Perfluorooctanesulfonic acid (M)



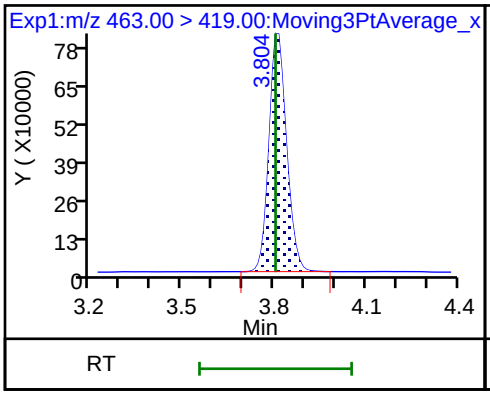

17 Perfluorooctanesulfonic acid (M)



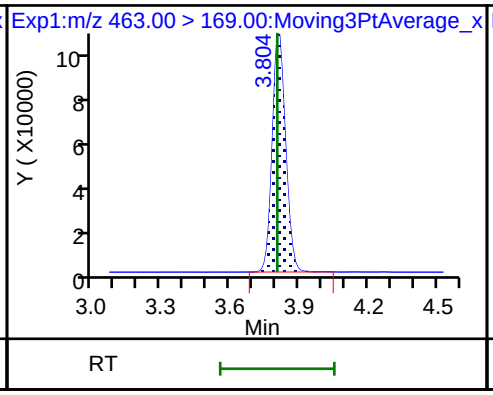

D 19 13C5 PFNA



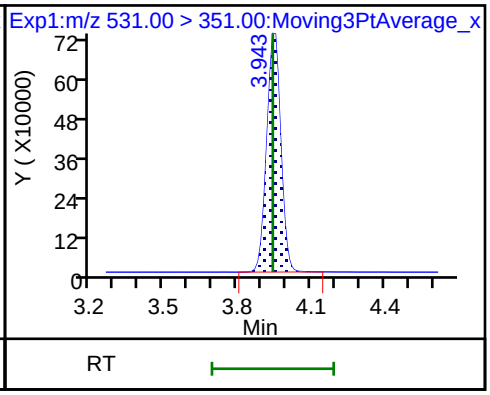
20 Perfluorononanoic acid



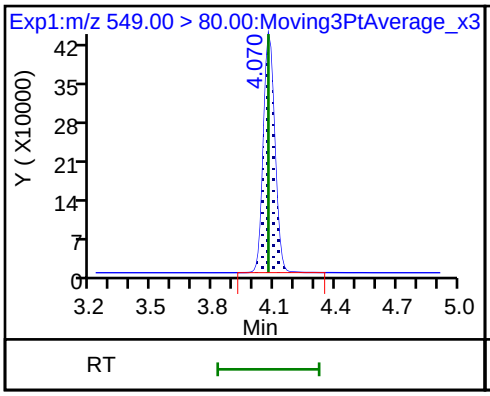

20 Perfluorononanoic acid



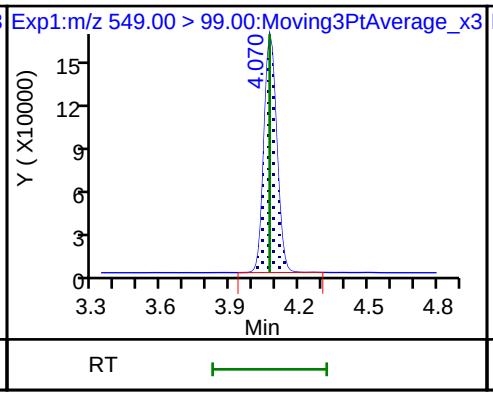

69 9-Chlorohexadecafluoro-3-oxanona



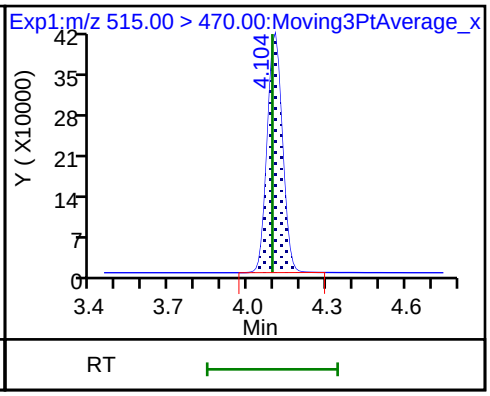

68 Perfluorononanesulfonic acid



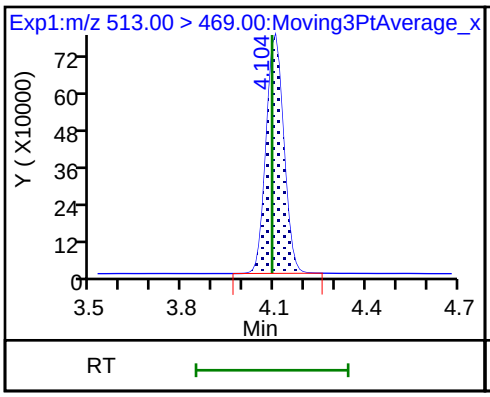

68 Perfluorononanesulfonic acid



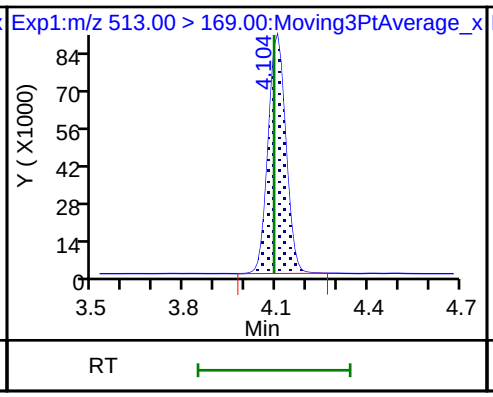

D 23 13C2 PFDA



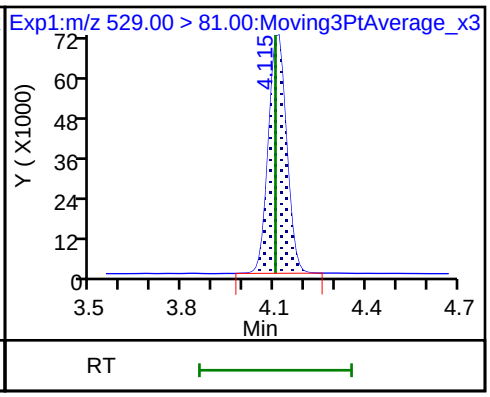

24 Perfluorodecanoic acid



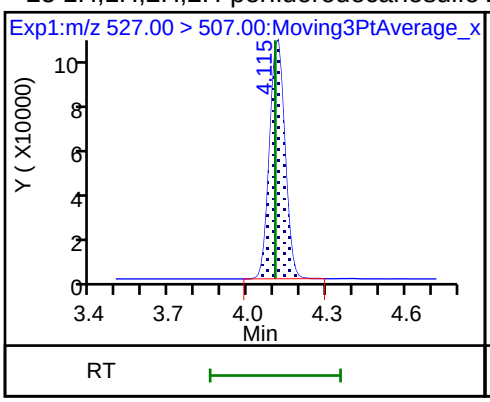

24 Perfluorodecanoic acid



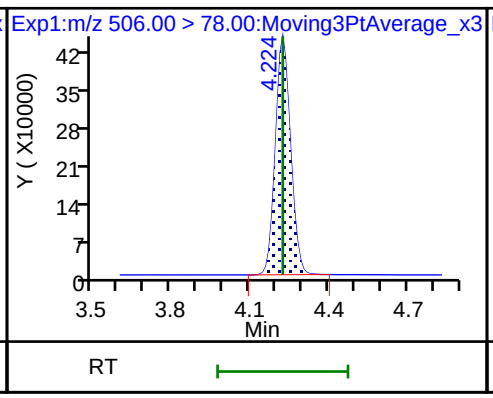

D 26 M2-8:2 FTS



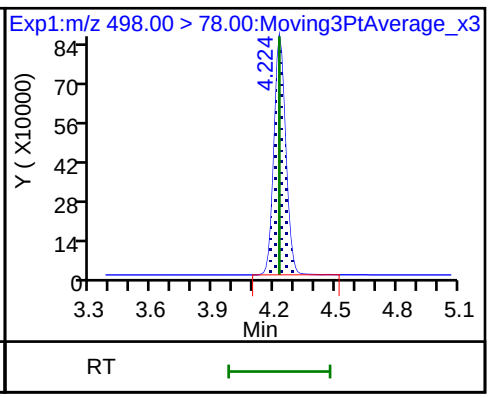

25 1H,1H,2H,2H-perfluorodecanesulfo



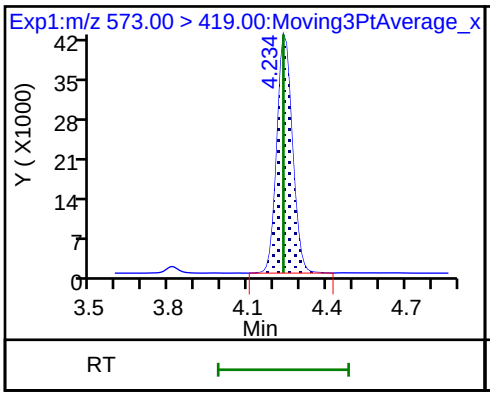

D 21 13C8 FOSA



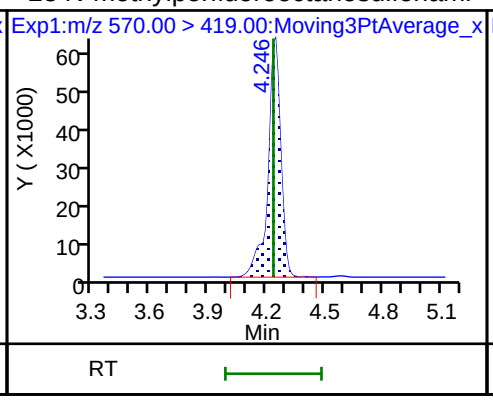

22 Perfluorooctanesulfonamide



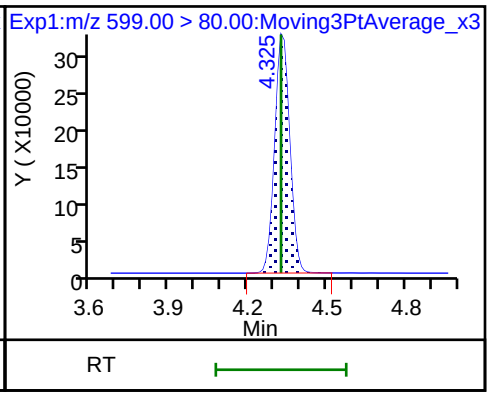
D 27 d3-NMeFOSAA



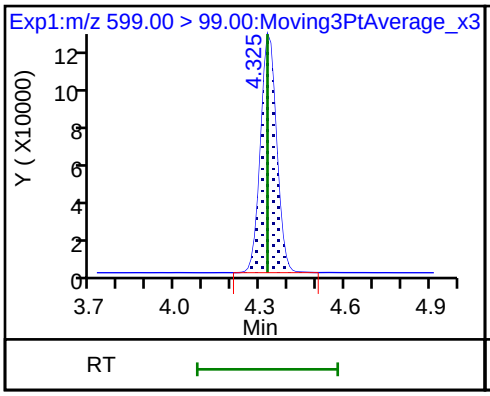

28 N-methylperfluorooctanesulfonami



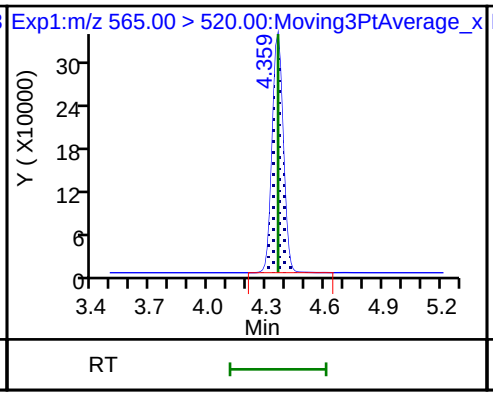

29 Perfluorodecanesulfonic acid



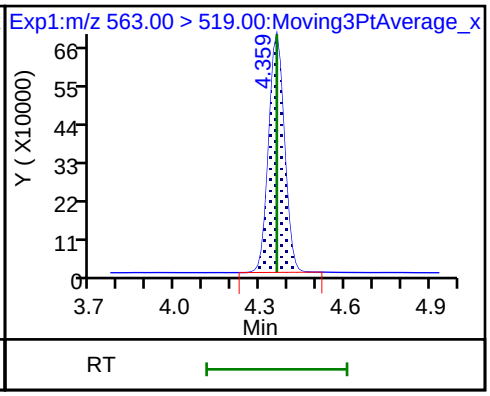

29 Perfluorodecanesulfonic acid



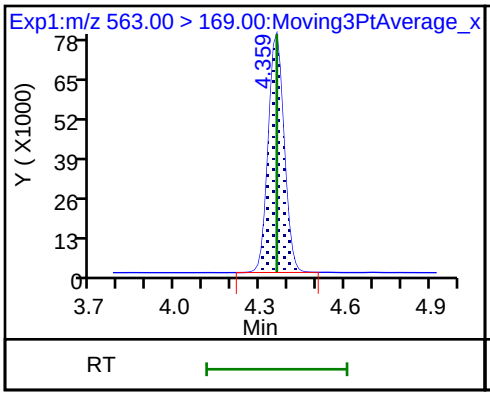

D 30 13C2 PFUnA



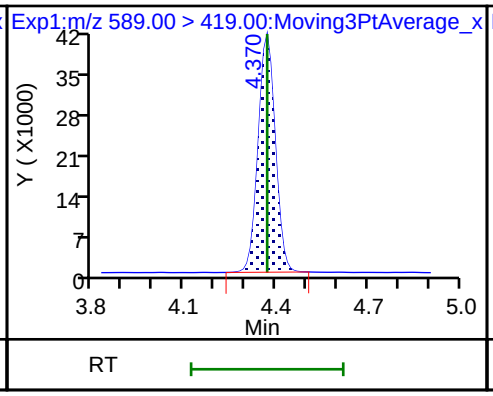

31 Perfluoroundecanoic acid



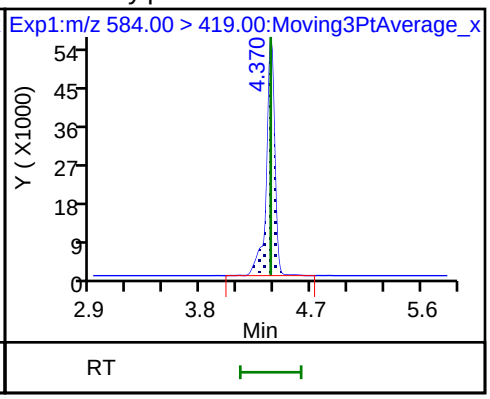

31 Perfluoroundecanoic acid



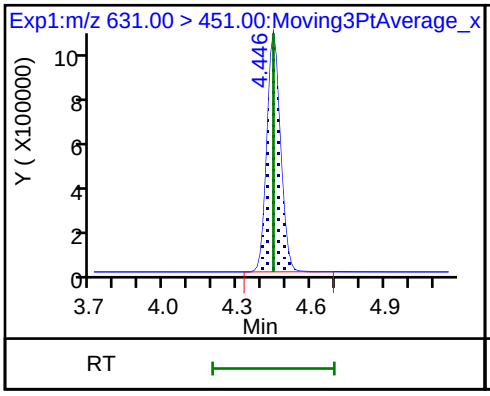

D 32 d5-NEtFOSAA



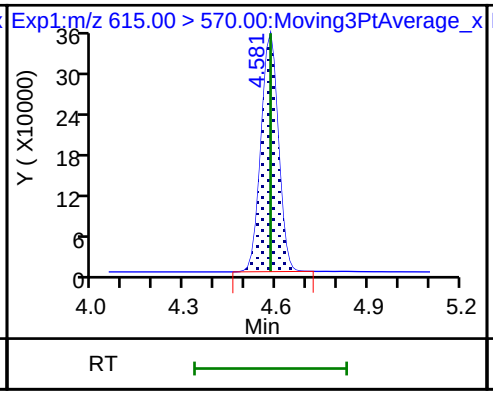

33 N-ethylperfluorooctanesulfonamid



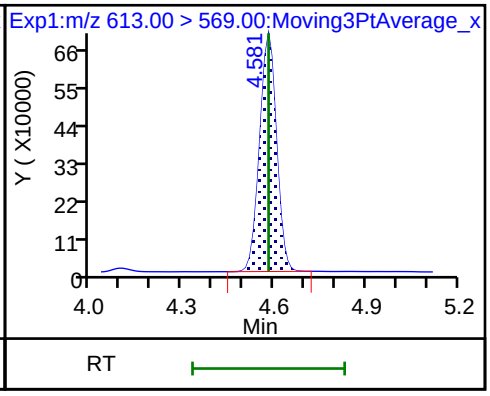

66 11-Chloroeicosafluoro-3-oxaundec



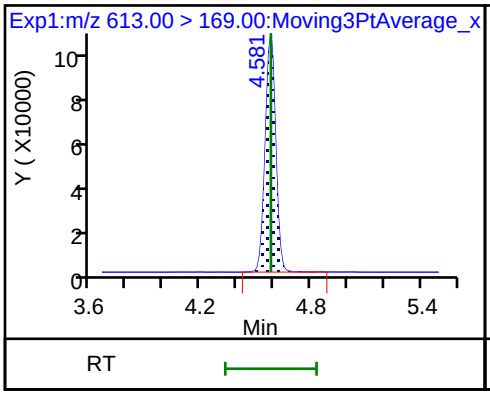

D 36 13C2 PFDoA



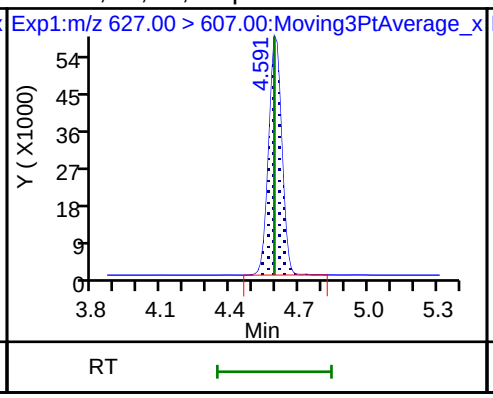

37 Perfluorododecanoic acid



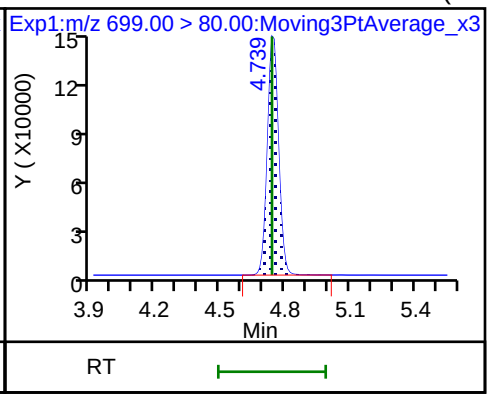
37 Perfluorododecanoic acid



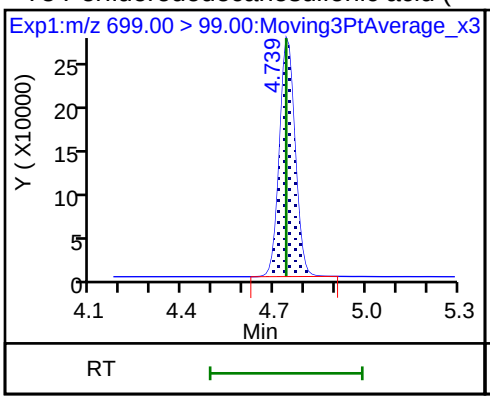

74 1H,1H,2H,2H-perfluorododecanesul



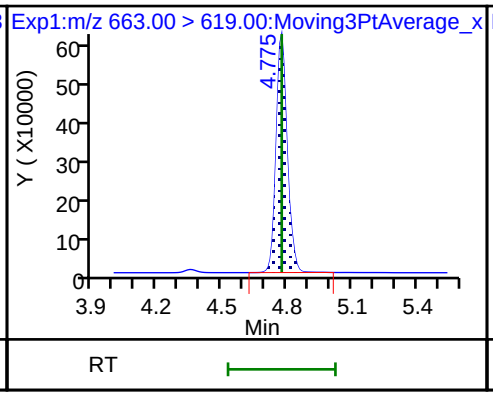

75 Perfluorododecanesulfonic acid (



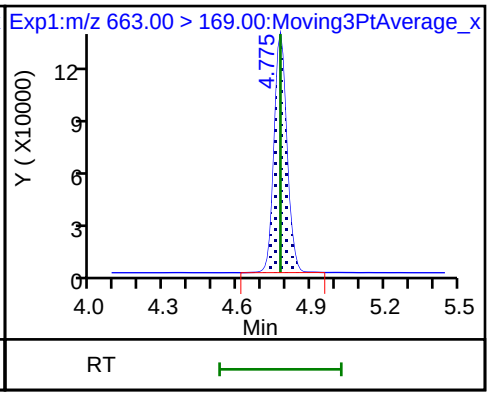

75 Perfluorododecanesulfonic acid (



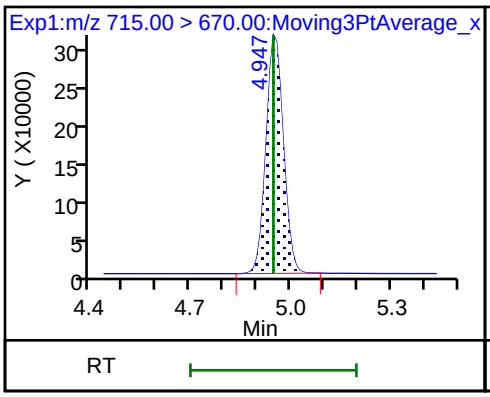

41 Perfluorotridecanoic acid



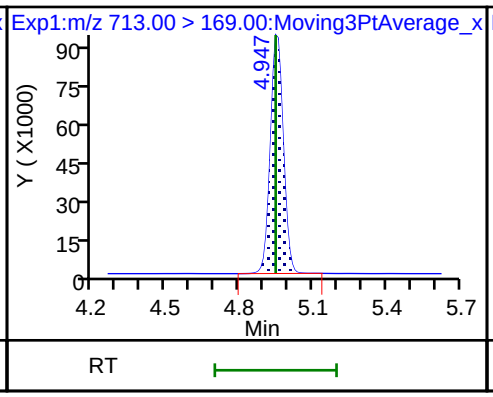

41 Perfluorotridecanoic acid



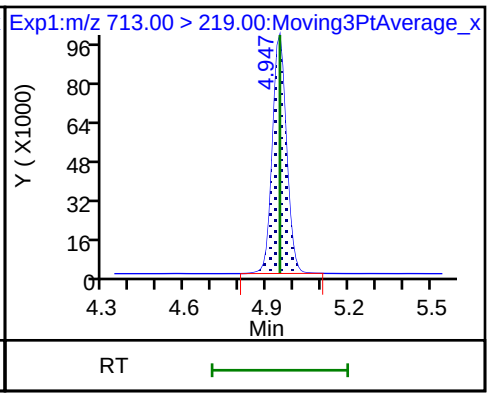

D 43 13C2 PFTeDA



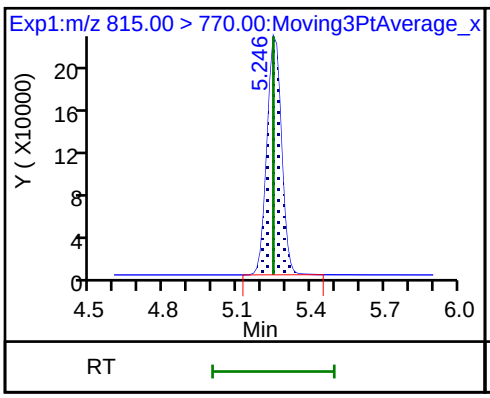

42 Perfluorotetradecanoic acid



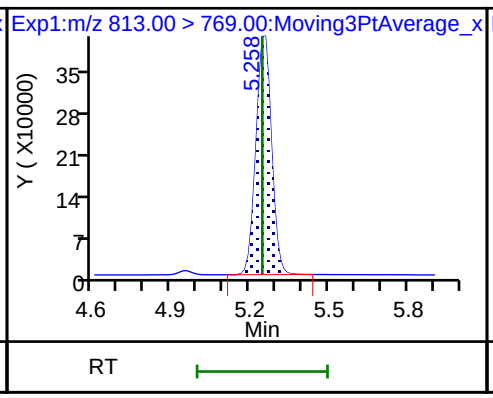

42 Perfluorotetradecanoic acid



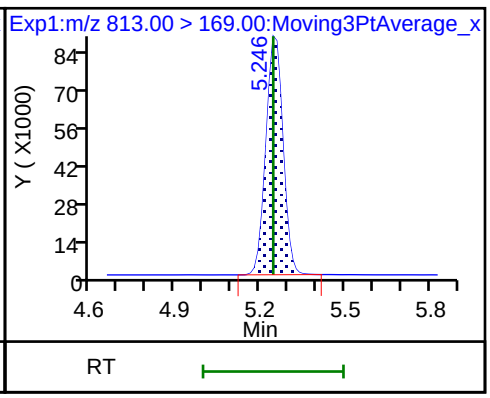

D 44 13C2 PFHxDA



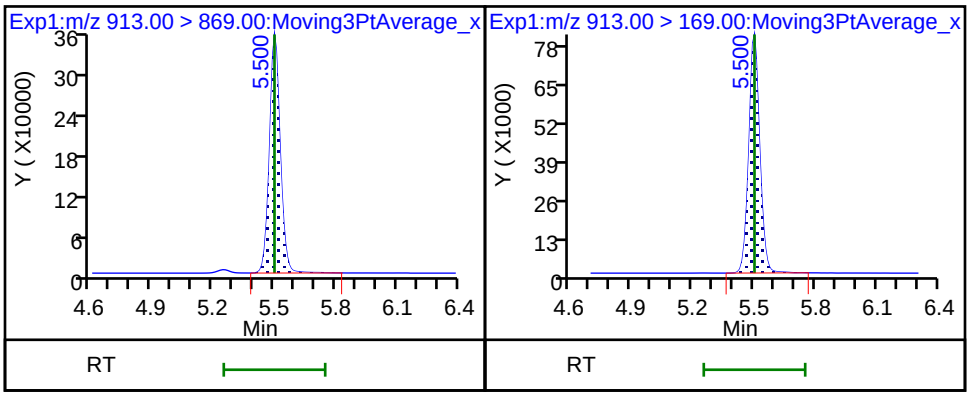

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

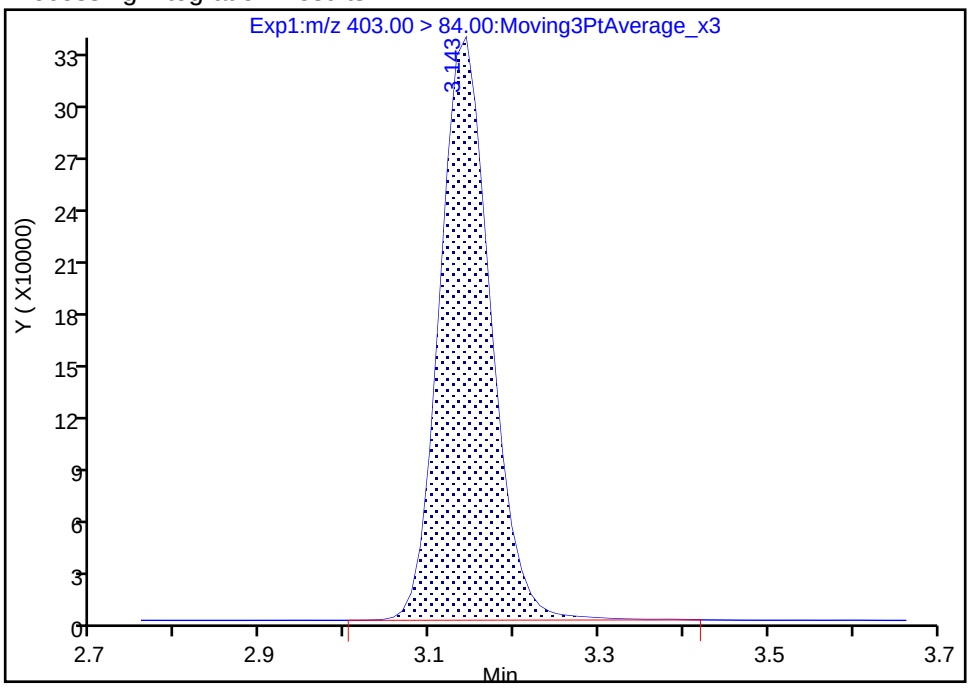
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

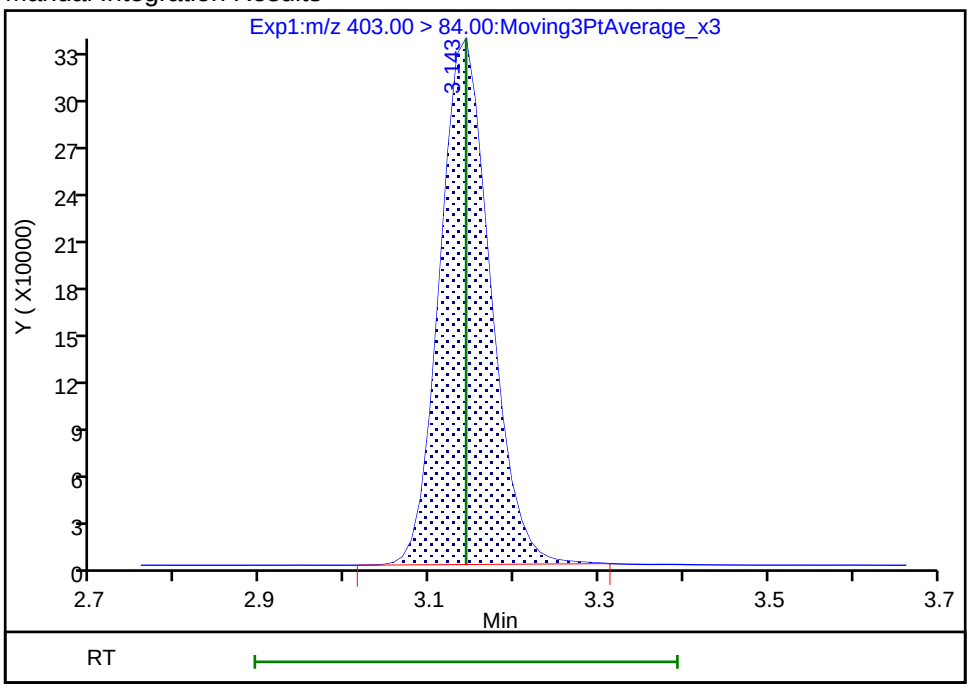
Processing Integration Results

RT: 3.14
Area: 1412066
Amount: 1.234311
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 1402631
Amount: 1.226064
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

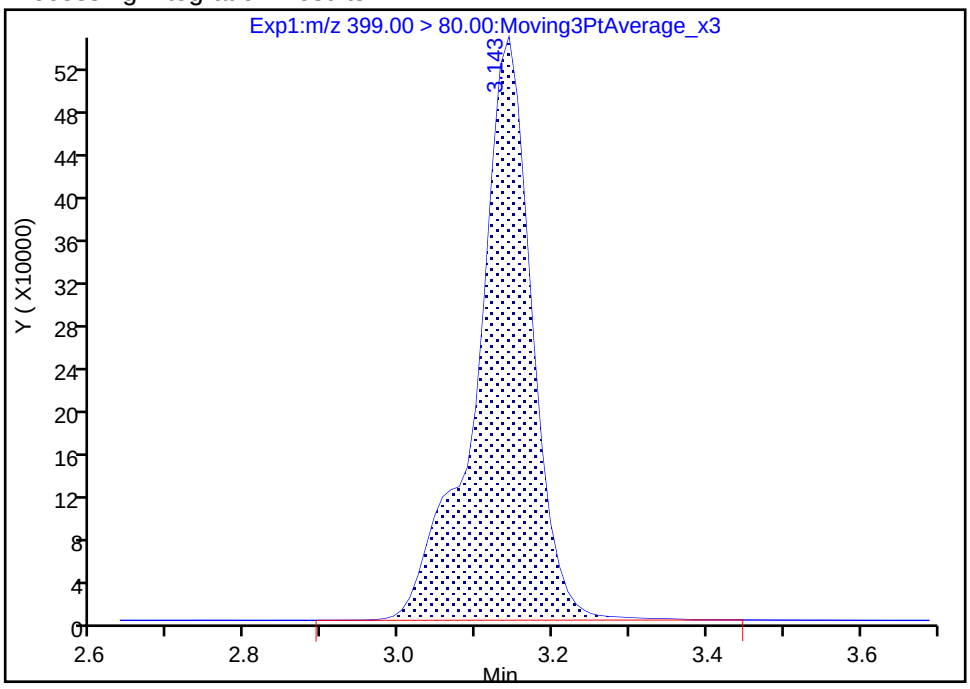
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d | | | | |
| Injection Date: | 09-Nov-2021 13:50:48 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

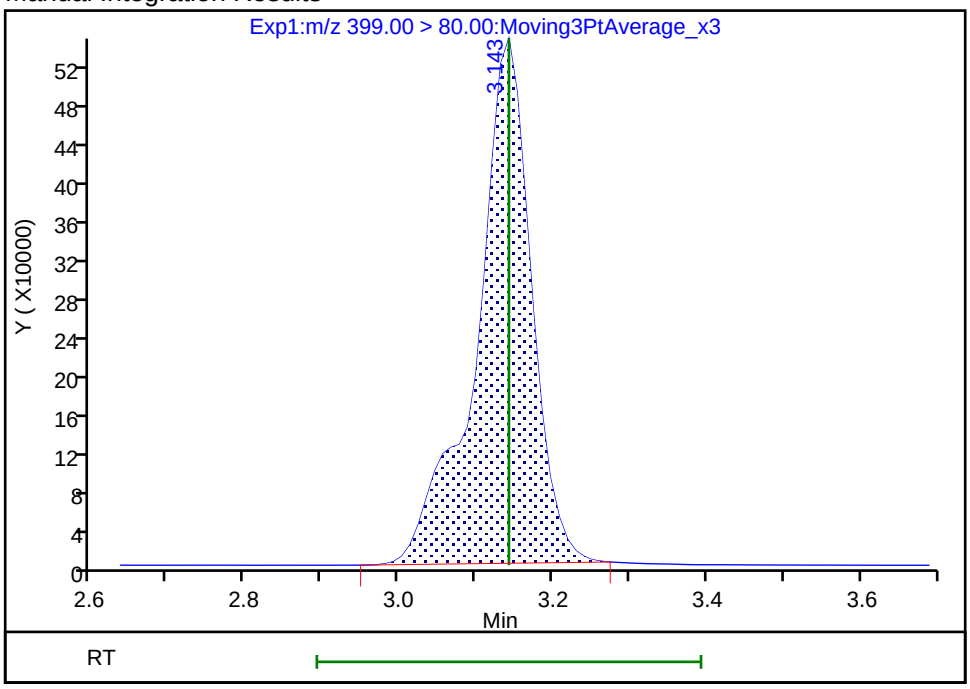
Processing Integration Results

RT: 3.14
Area: 2742963
Amount: 2.089281
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 2702451
Amount: 2.072270
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

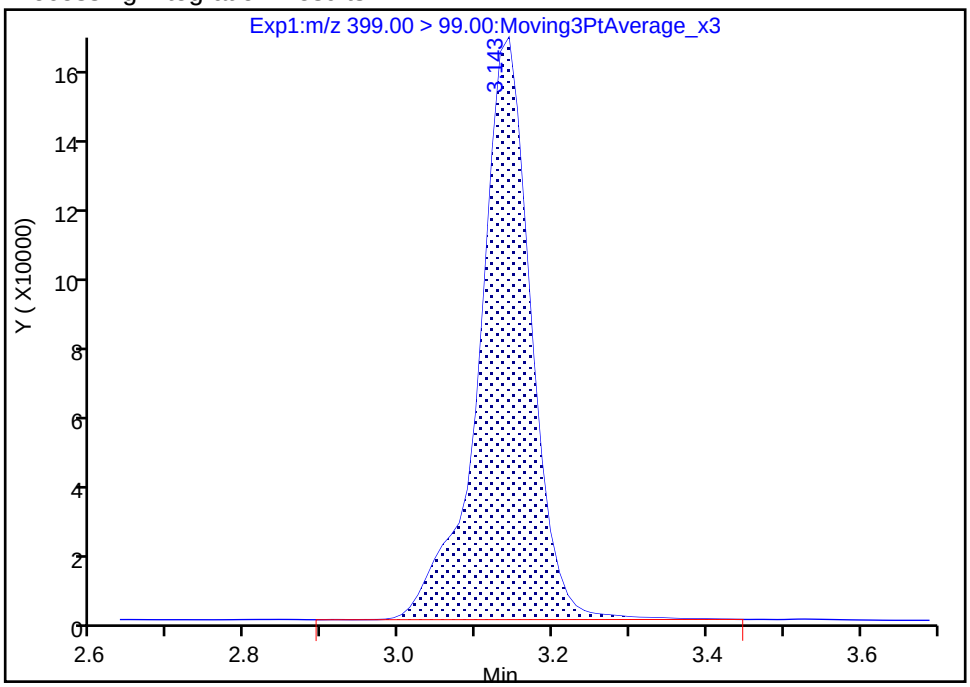
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

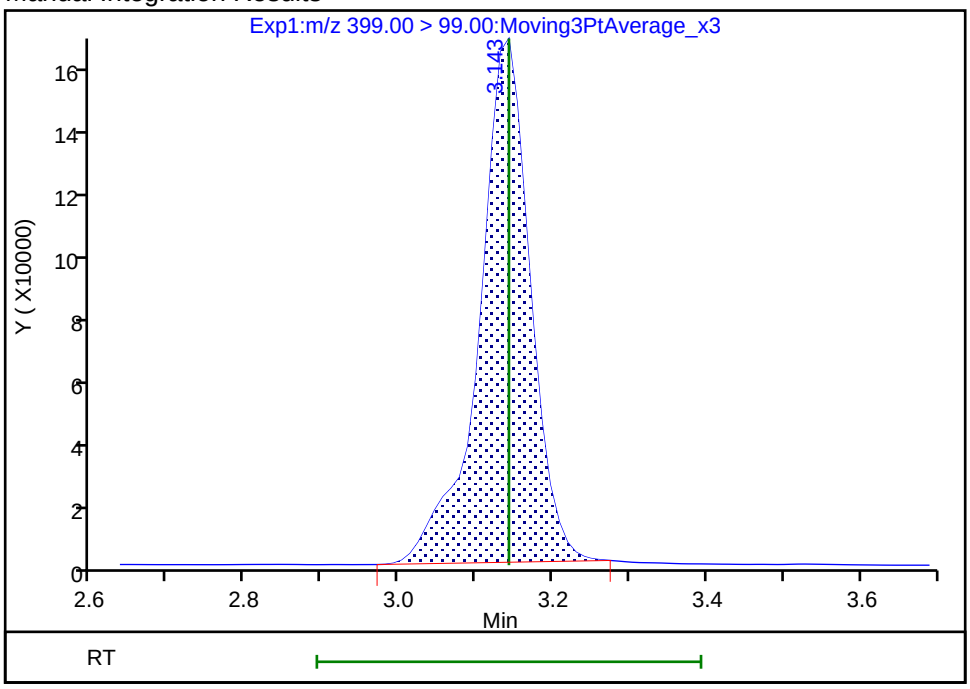
Processing Integration Results

RT: 3.14
Area: 788236
Amount: 2.089281
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 772127
Amount: 2.072270
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

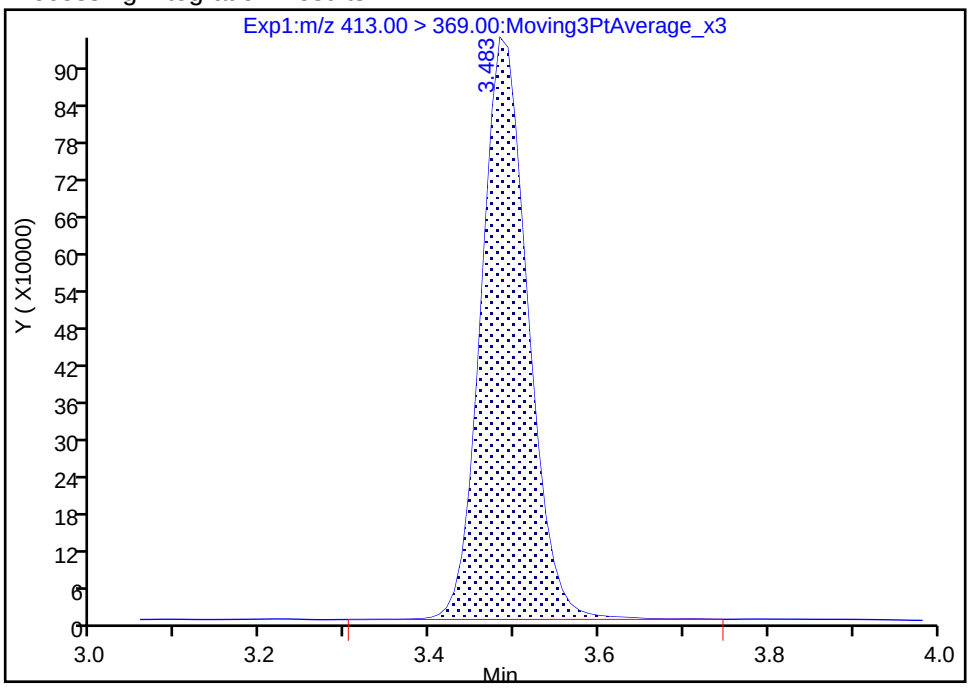
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

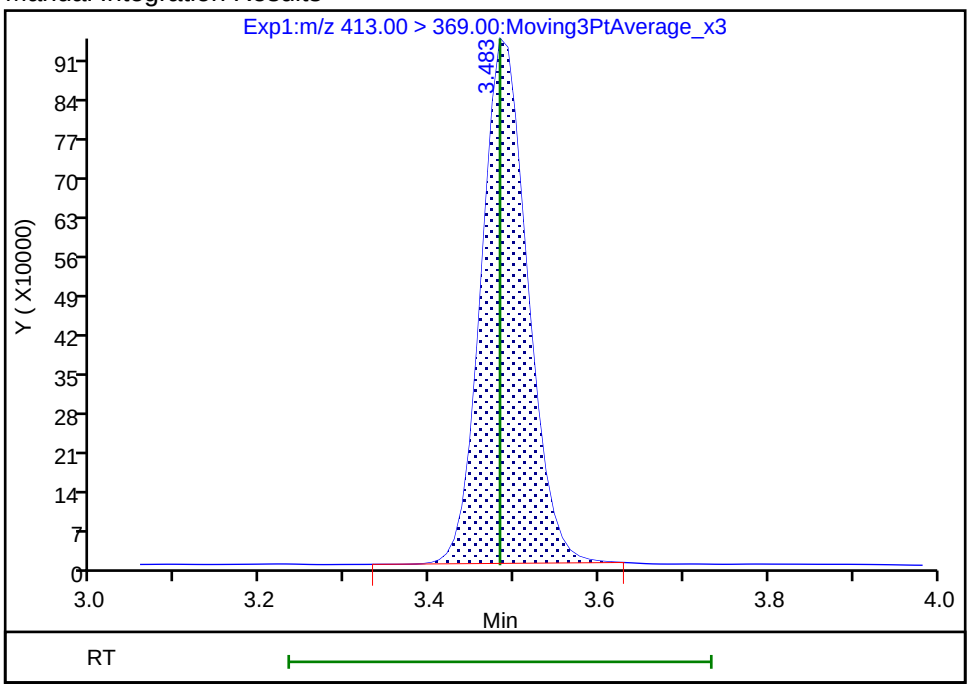
Processing Integration Results

RT: 3.48
Area: 3607024
Amount: 2.446000
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 3569541
Amount: 2.420582
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

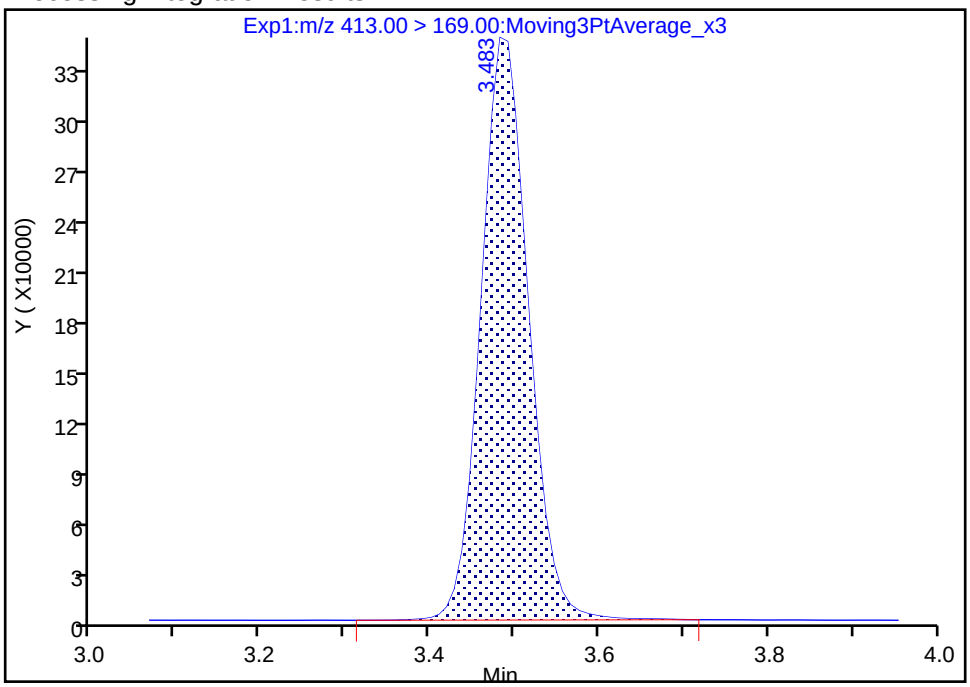
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

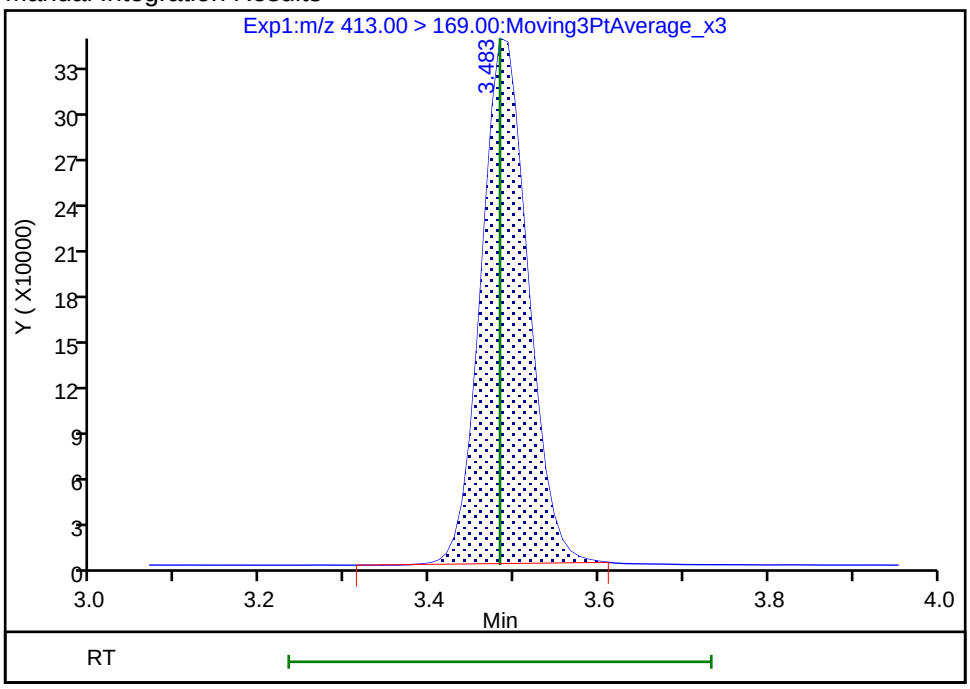
Processing Integration Results

RT: 3.48
Area: 1348112
Amount: 2.446000
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1330632
Amount: 2.420582
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

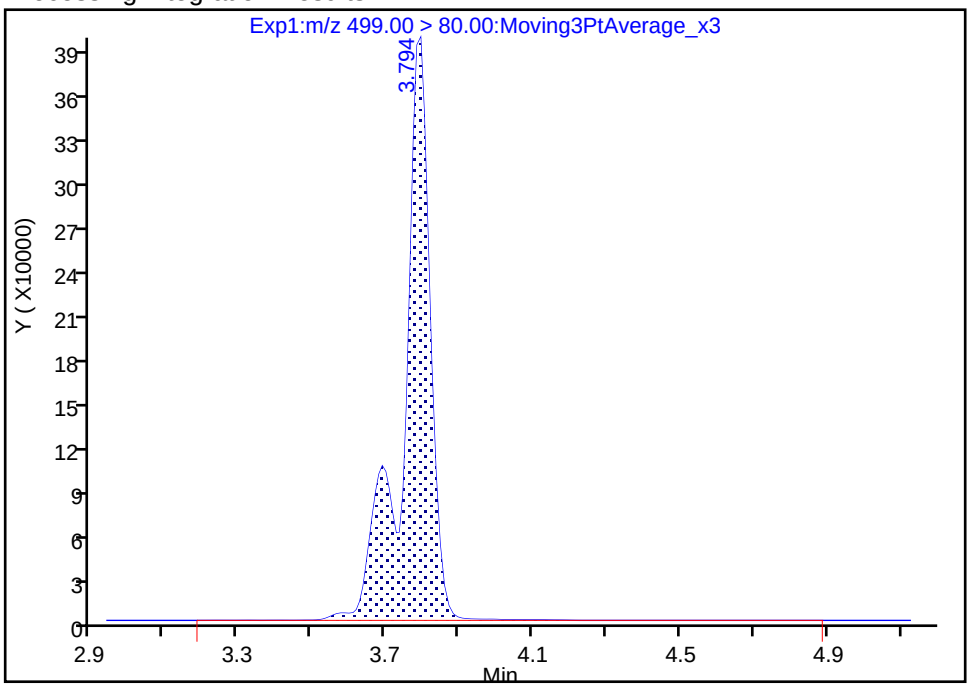
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

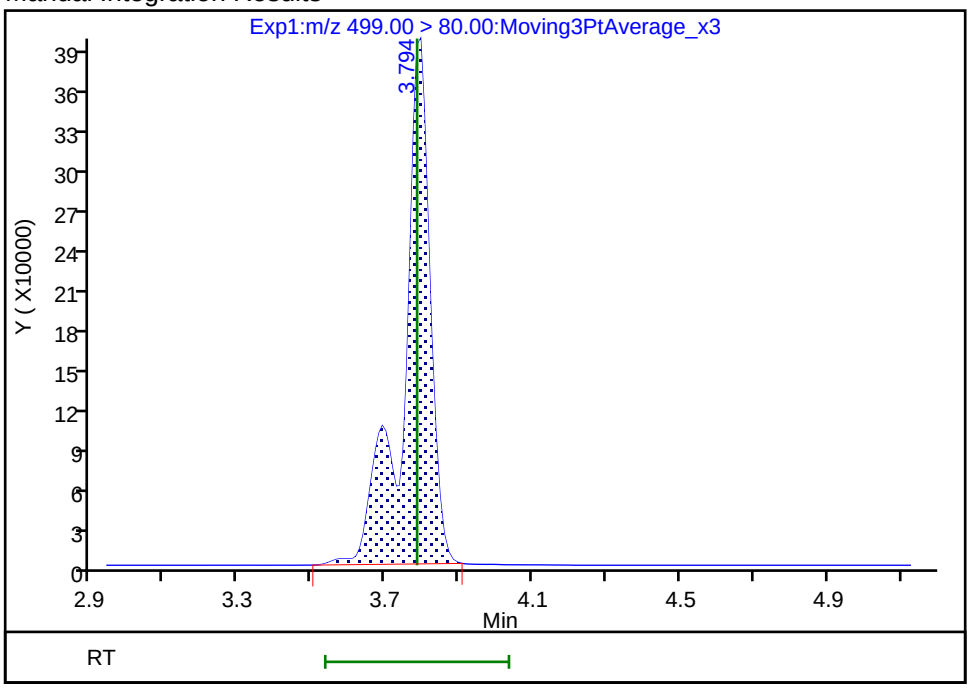
RT: 3.79
Area: 2033769
Amount: 2.119225
Amount Units: ng/ml

Processing Integration Results




RT: 3.79
Area: 2007195
Amount: 2.091534
Amount Units: ng/ml

Manual Integration Results




Reviewer: deannd, 11-Nov-2021 15:23:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

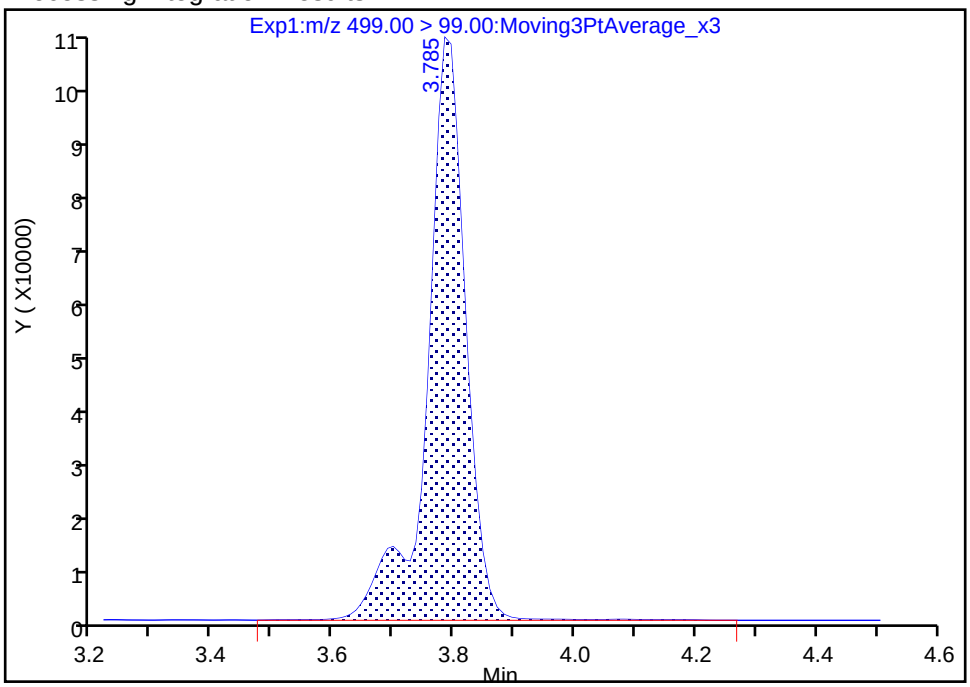
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48346.b\PA211109A13.d
Injection Date: 09-Nov-2021 13:50:48 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

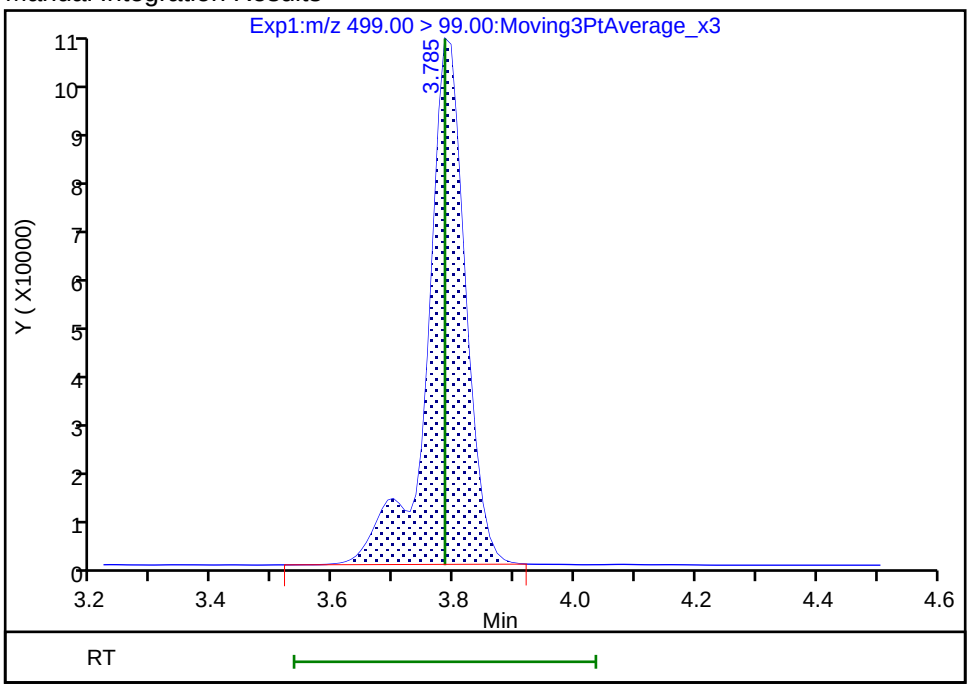
Processing Integration Results

RT: 3.78
Area: 444161
Amount: 2.119225
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 438867
Amount: 2.091534
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:23:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173679/2  Calibration Date: 11/09/2021 17:25

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109AA02.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9452 | | 0.125 | 0.125 | -0.0 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.071 | | 0.0534 | 0.0500 | 6.9 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.122 | | 0.0464 | 0.0442 | 5.0 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.623 | | 0.0576 | 0.0467 | 23.2 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.085 | | 0.0535 | 0.0500 | 7.0 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.335 | | 0.0520 | 0.0469 | 10.9 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 6.006 | | 0.133 | 0.100 | 32.7 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.054 | | 0.0510 | 0.0500 | 2.0 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.152 | | 0.0477 | 0.0455 | 4.8 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.904 | | 0.0525 | 0.0471 | 11.6 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.287 | | 0.120 | 0.119 | 1.5 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.224 | | 0.0467 | 0.0476 | -1.8 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.204 | | 0.0566 | 0.0500 | 13.2 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.198 | | 0.0512 | 0.0464 | 10.4 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.097 | | 0.0561 | 0.0500 | 12.1 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.584 | | 0.0451 | 0.0466 | -3.1 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8664 | | 0.0492 | 0.0480 | 2.5 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.148 | | 0.0571 | 0.0500 | 14.2 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9110 | | 0.0522 | 0.0479 | 8.9 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.997 | | 0.0525 | 0.0500 | 5.0 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8233 | | 0.131 | 0.125 | 4.8 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6460 | | 0.0474 | 0.0482 | -1.7 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.098 | | 0.0515 | 0.0500 | 3.0 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8387 | | 0.122 | 0.125 | -2.1 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.952 | | 0.0476 | 0.0471 | 1.1 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.123 | | 0.0574 | 0.0500 | 14.7 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4245 | | 0.0529 | 0.0482 | 9.8 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2512 | | 0.0503 | 0.0484 | 3.9 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173679/2  Calibration Date: 11/09/2021 17:25

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109AA02.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8821 | | 0.0522 | 0.0500 | 4.5 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1776 | | 0.0563 | 0.0500 | 12.5 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.252 | | 0.0546 | 0.0500 | 9.2 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7640 | | 0.0453 | 0.0500 | -9.4 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.270 | | 1.57 | 1.25 | 25.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9538 | | 1.40 | 1.25 | 11.9 | |
| 13C3 PFBS | Ave | 1.154 | 1.174 | | 1.18 | 1.16 | 1.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1147 | | 1.52 | 1.17 | 30.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9855 | | 1.38 | 1.25 | 10.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0176 | | 0.932 | 1.25 | -25.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9817 | | 1.30 | 1.25 | 4.2 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8607 | | 1.21 | 1.18 | 2.7 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1548 | | 1.39 | 1.19 | 17.1 | |
| 13C4 PFOA | Ave | 1.029 | 1.007 | | 1.22 | 1.25 | -2.1 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6288 | | 1.24 | 1.20 | 3.8 | |
| 13C5 PFNA | Ave | 1.025 | 1.039 | | 1.27 | 1.25 | 1.4 | |
| 13C2 PFDA | Ave | 1.034 | 0.9539 | | 1.15 | 1.25 | -7.8 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1746 | | 1.40 | 1.20 | 16.5 | |
| 13C8 FOSA | Ave | 0.998 | 1.026 | | 1.29 | 1.25 | 2.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0888 | | 1.09 | 1.25 | -12.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7089 | | 1.10 | 1.25 | -12.1 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0895 | | 1.17 | 1.25 | -6.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7570 | | 1.09 | 1.25 | -12.7 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5884 | | 1.09 | 1.25 | -12.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.4937 | | 1.04 | 1.25 | -16.6 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 09-Nov-2021 17:25:08 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048353-002 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 10-Nov-2021 09:49:30 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1662

First Level Reviewer: khanphomeea Date: 10-Nov-2021 09:27:31
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.100 | 0.0 | 0.601 | 1810554 | 1.57 | | 125 | 8611 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.000 | 171125 | 0.1249 | | 100.0 | 25.2 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1360204 | 1.40 | | 112 | 3270 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 58260 | 0.0534 | | 107 | 3.5 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.439 | 2.426 | 0.013 | 0.699 | 1556625 | 1.18 | | 102 | 248672 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.000 | 66402 | 0.0464 | Target=2.32 | 105 | 99.0 | M |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.000 | 32137 | | 2.07(1.16-3.48) | | 20.9 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 16031 | 0.0576 | | 123 | 197 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 152791 | 1.52 | | 130 | 103 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1405331 | 1.38 | | 110 | 2879 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 61000 | 0.0535 | Target=12.09 | 107 | 14.2 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 6384 | | 9.56(6.04-18.13) | | 4.2 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.782 | 2.770 | 0.012 | 0.885 | 61493 | 0.0520 | Target=3.03 | 111 | 121 | M |
| 349.00 > 99.00 | 2.782 | 2.770 | 0.012 | 0.885 | 19630 | | 3.13(1.52-4.55) | | 42.5 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 25054 | 0.9319 | | 74.6 | 222 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.000 | 12037 | 0.1327 | | 133 | 5.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.132 | 0.011 | 1.000 | 51480 | 0.0477 | Target=3.55 | 105 | 144 | M |
| 399.00 > 99.00 | 3.143 | 3.132 | 0.011 | 1.000 | 17403 | | 2.96(1.77-5.32) | | 23.3 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1161118 | 1.21 | | 103 | 4269 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1399921 | 1.30 | | 104 | 3563 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 59028 | 0.0510 | Target=3.69 | 102 | 23.6 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 15303 | | 3.86(1.84-5.53) | | 16.5 | M |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 131927 | 0.0525 | Target=2.56 | 112 | 247 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 47856 | | 2.76(1.28-3.84) | | 99.2 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 41785 | 0.0467 | Target=4.88 | 98.2 | 218 | M |
| 449.00 > 99.00 | 3.492 | 3.474 | 0.018 | 0.918 | 9181 | | 4.55(2.44-7.32) | | 39.4 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 26925 | 0.1202 | | 101 | 318 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 209691 | 1.39 | | 117 | 468 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1436130 | 1.22 | | 97.9 | 3604 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1426024 | 1.25 | | | 4795 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.501 | 3.492 | 0.009 | 1.003 | 69137 | 0.0566 | Target=2.68 | 113 | 9.8 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 25168 | | 2.75(1.34-4.02) | | 54.0 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 857280 | 1.24 | | 104 | 2616 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 39863 | 0.0512 | Target=4.69 | 110 | 77.0 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 0.997 | 8225 | | 4.85(2.35-7.04) | | 29.2 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1482038 | 1.27 | | 101 | 5967 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 65027 | 0.0561 | Target=7.29 | 112 | 12.9 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 8802 | | 7.39(3.64-10.93) | | 105 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 52937 | 0.0451 | | 96.9 | 343 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.092 | 4.081 | 0.011 | 1.076 | 29833 | 0.0492 | Target=2.35 | 103 | 307 | M |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 12129 | | 2.46(1.17-3.52) | | 47.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1360293 | 1.15 | | 92.2 | 3268 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 62454 | 0.0571 | Target=8.95 | 114 | 44.0 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 6742 | | 9.26(4.47-13.42) | | 35.7 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 238557 | 1.40 | | 117 | 813 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 8693 | 0.0522 | | 109 | 182 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.213 | 1462634 | 1.29 | | 103 | 2424 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.000 | 58332 | 0.0525 | | 105 | 223 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 126686 | 1.09 | | 87.3 | 1248 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 10430 | 0.1310 | | 105 | 49.8 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.346 | 4.346 | 0.0 | 1.143 | 22336 | 0.0474 | Target=2.47 | 98.3 | 143 | M |
| 599.00 > 99.00 | 4.346 | 4.346 | 0.0 | 1.143 | 8101 | | 2.76(1.23-3.70) | | 68.7 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1010900 | 1.10 | | 87.9 | 2578 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 44412 | 0.0515 | Target=9.24 | 103 | 34.2 | |
| 563.00 > 169.00 | 4.380 | 4.369 | 0.012 | 1.000 | 4605 | | 9.64(4.62-13.86) | | 68.4 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 127622 | 1.17 | | 93.9 | 864 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.000 | 10704 | 0.1224 | | 97.9 | 126 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.466 | 4.456 | 0.010 | 1.174 | 65949 | 0.0476 | | 101 | 380 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1079571 | 1.09 | | 87.3 | 1248 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 48504 | 0.0574 | Target=7.04 | 115 | 10.8 | |
| 613.00 > 169.00 | 4.591 | 4.591 | 0.0 | 0.998 | 7194 | | 6.74(3.52-10.56) | | 82.8 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 4076 | 0.0529 | | 110 | 79.3 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.756 | 0.009 | 1.253 | 8722 | 0.0503 | Target=0.49 | 104 | 182 | |
| 699.00 > 99.00 | 4.756 | 4.756 | 0.0 | 1.250 | 15726 | | 0.55(0.25-0.74) | | 193 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.792 | 4.792 | 0.0 | 1.042 | 38090 | 0.0522 | Target=4.68 | 104 | 12.8 | |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.042 | 8370 | | 4.55(2.34-7.02) | | 75.1 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.966 | 4.966 | 0.0 | 1.422 | 839129 | 1.09 | | 87.5 | 1496 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.966 | 4.966 | 0.0 | 1.000 | 5961 | 0.0563 | Target=1.01 | 113 | 159 | |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 1.000 | 6503 | | 0.92(0.51-1.52) | | 149 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.270 | 5.270 | 0.0 | 1.509 | 704020 | 1.04 | | 83.4 | 2695 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.281 | 5.270 | 0.011 | 1.002 | 35266 | 0.0546 | Target=4.57 | 109 | 13.7 | |
| 813.00 > 169.00 | 5.281 | 5.270 | 0.011 | 1.002 | 7903 | | 4.46(2.29-6.86) | | 172 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.537 | 5.527 | 0.010 | 1.051 | 21514 | 0.0453 | Target=4.27 | 90.6 | 15.3 | M |
| 913.00 > 169.00 | 5.527 | 5.527 | 0.0 | 1.049 | 4975 | | 4.32(2.14-6.41) | | 151 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

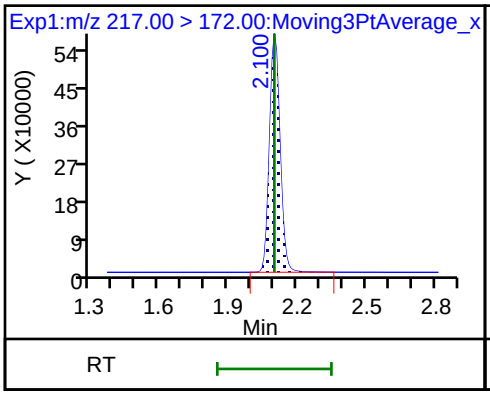
PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 10-Nov-2021 09:49:31 Chrom Revision: 2.3 22-Sep-2021 15:38:46

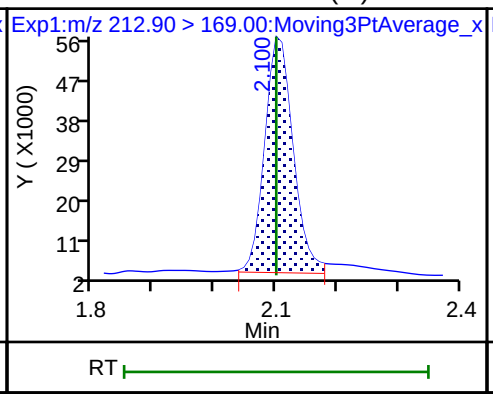
Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL

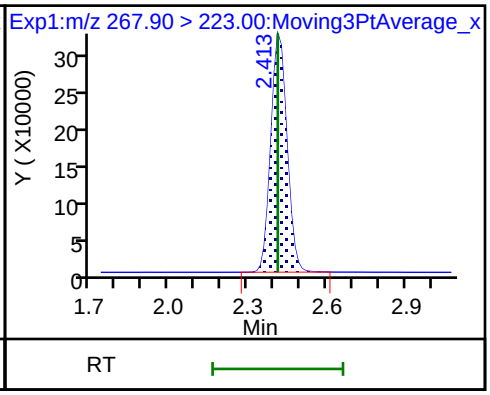
D 1 13C4 PFBA



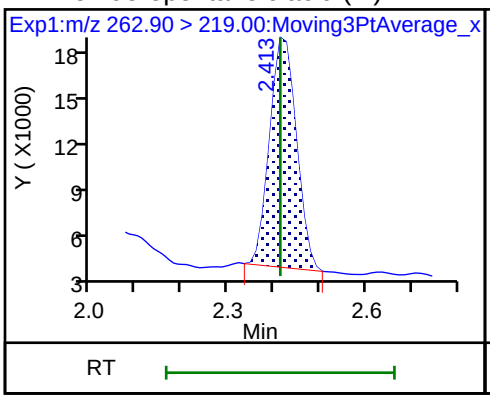

2 Perfluorobutanoic acid (M)



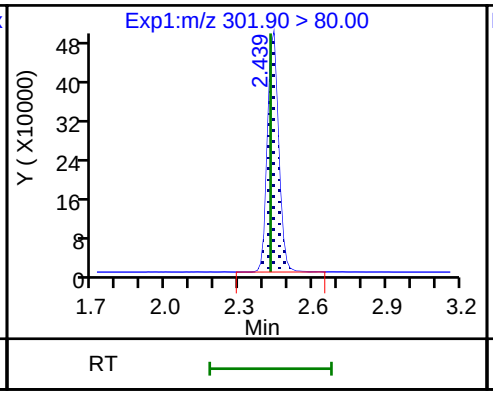

D 3 13C5 PFPeA



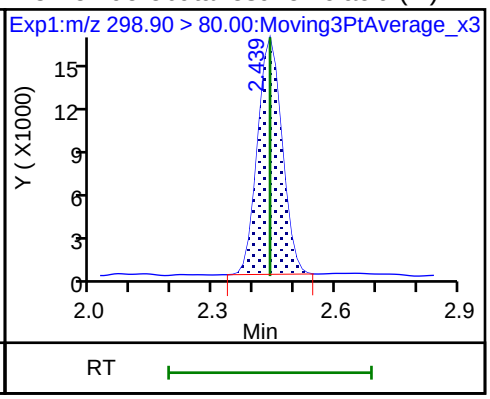

4 Perfluoropentanoic acid (M)



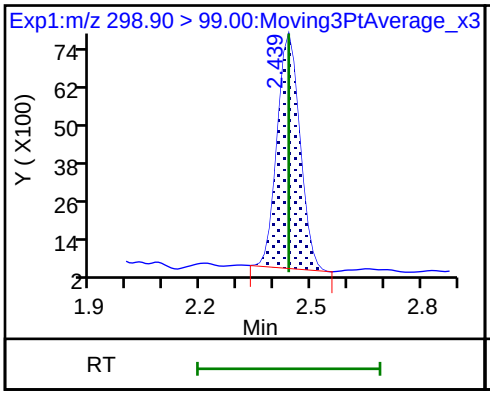

D 47 13C3 PFBS



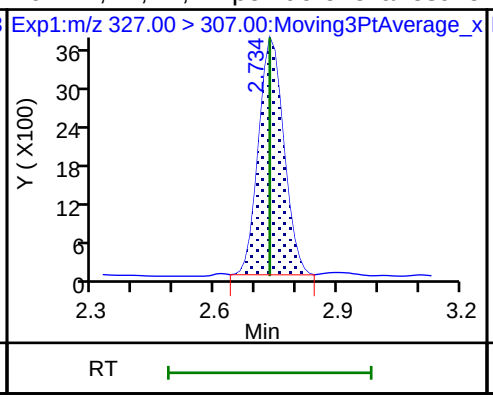

5 Perfluorobutanesulfonic acid (M)



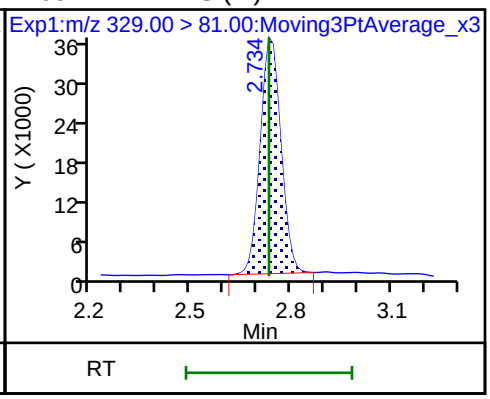

5 Perfluorobutanesulfonic acid



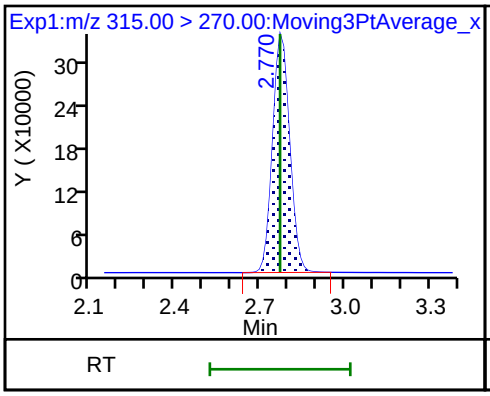

61 1H,1H,2H,2H-perfluorohexanesulfo



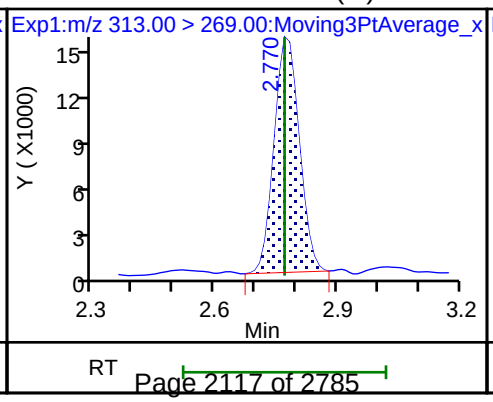

D 60 M2-4:2 FTS (M)



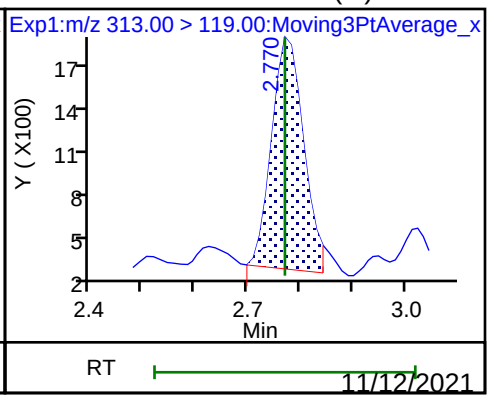

D 7 13C2 PFHxA



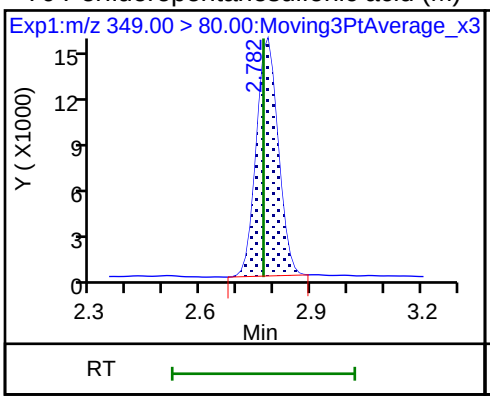

6 Perfluorohexanoic acid (M)



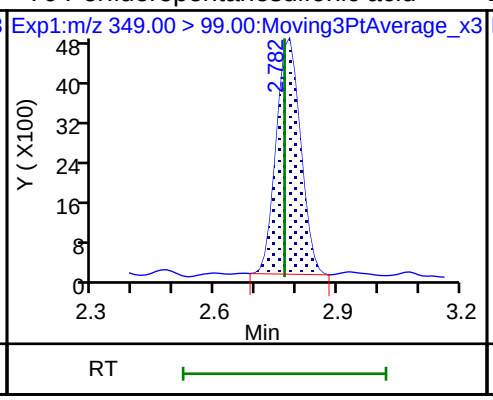

6 Perfluorohexanoic acid (M)



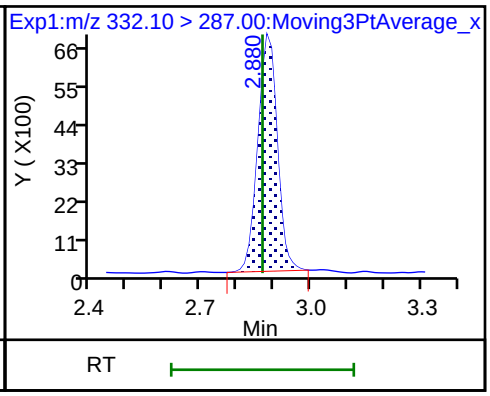
70 Perfluoropentanesulfonic acid (M)



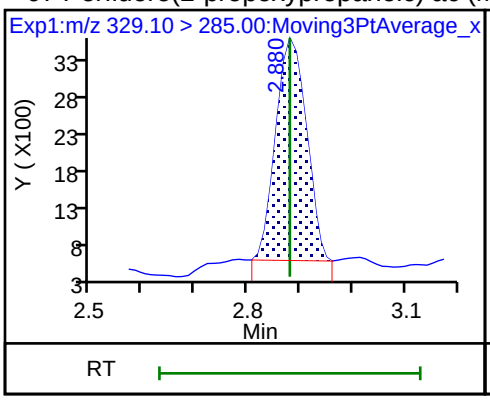

70 Perfluoropentanesulfonic acid



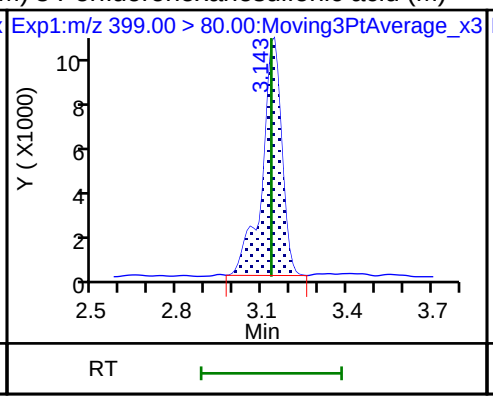

D 64 13C3 HFPO-DA



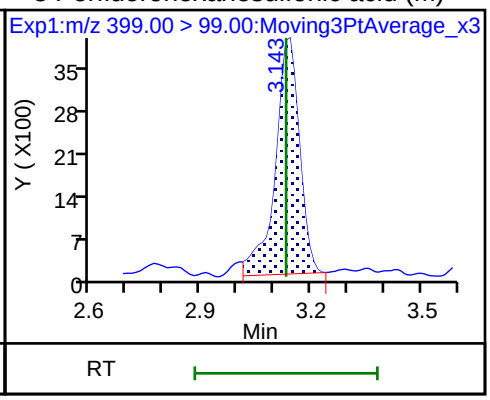

67 Perfluoro(2-propoxypropanoic) ac (M)



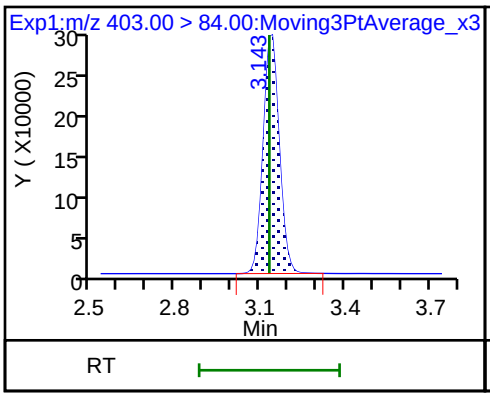

8 Perfluorohexanesulfonic acid (M)



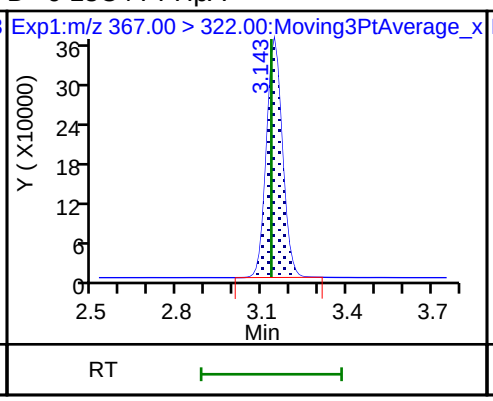

8 Perfluorohexanesulfonic acid (M)



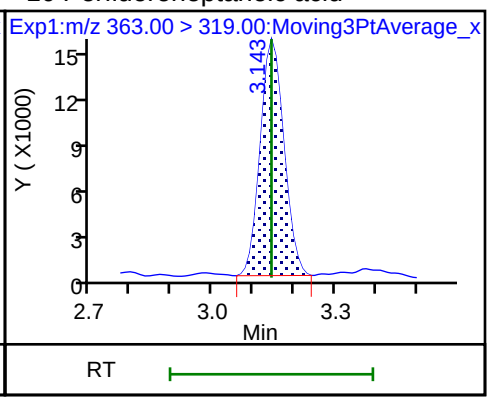

D 11 18O2 PFHxS



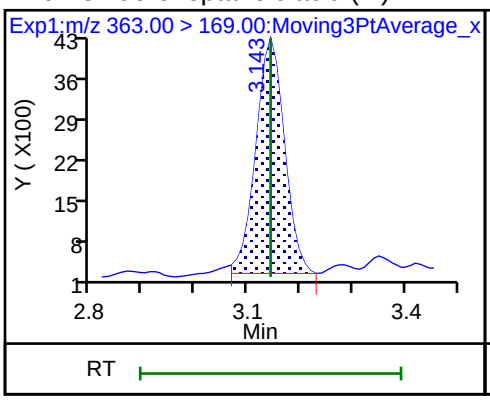

D 9 13C4 PFHpA



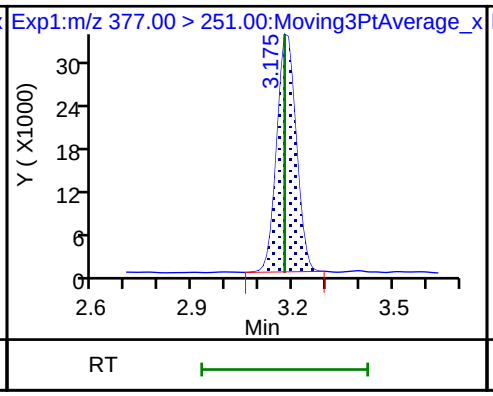

10 Perfluoroheptanoic acid



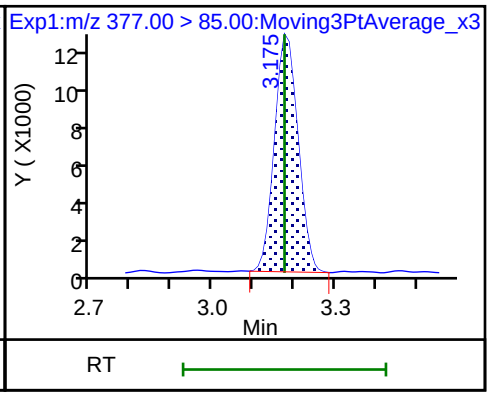

10 Perfluoroheptanoic acid (M)



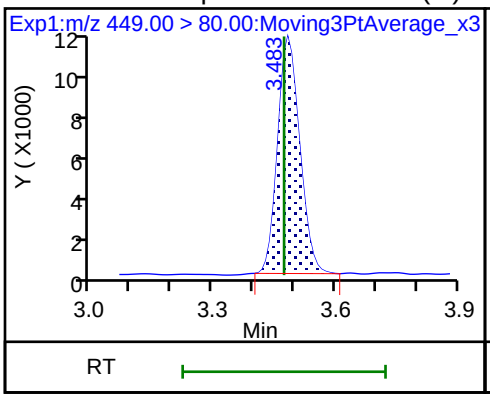

77 DONA



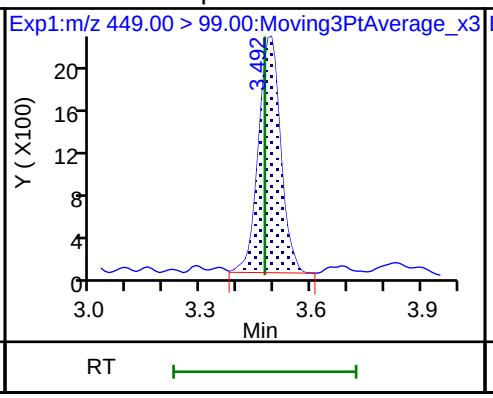

77 DONA



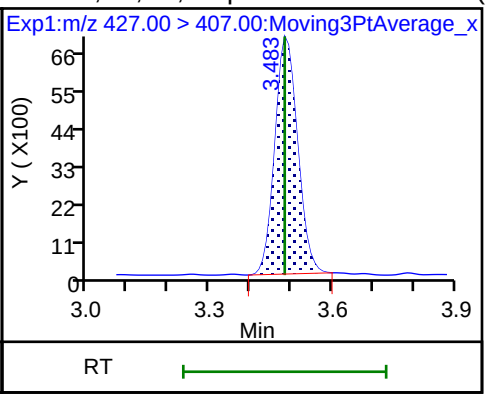
16 Perfluoroheptanesulfonic acid (M)



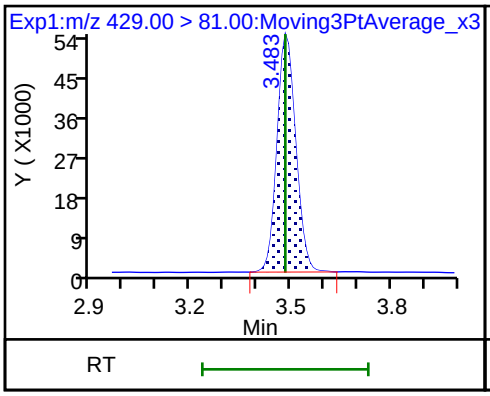

16 Perfluoroheptanesulfonic acid



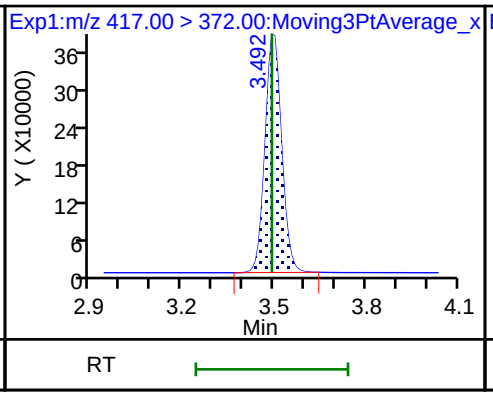

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



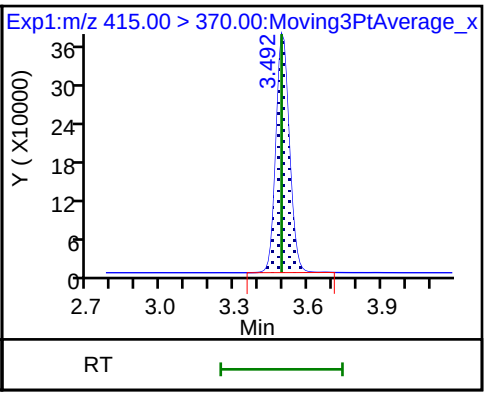

D 12 M2-6:2 FTS



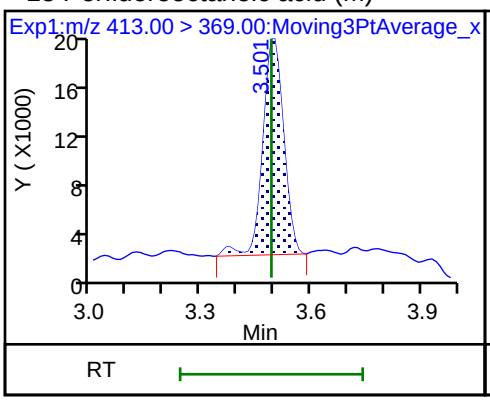

D 14 13C4 PFOA



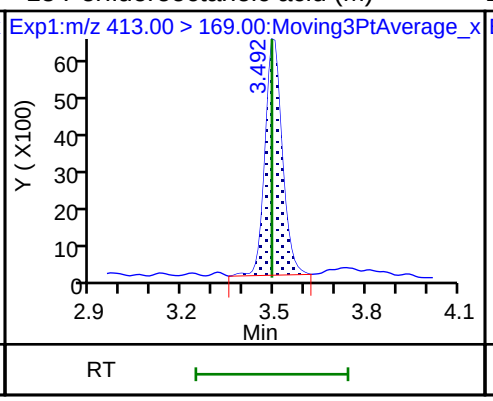

* 62 13C2 PFOA



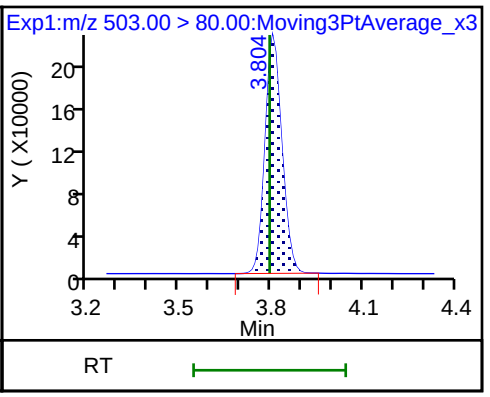

15 Perfluorooctanoic acid (M)



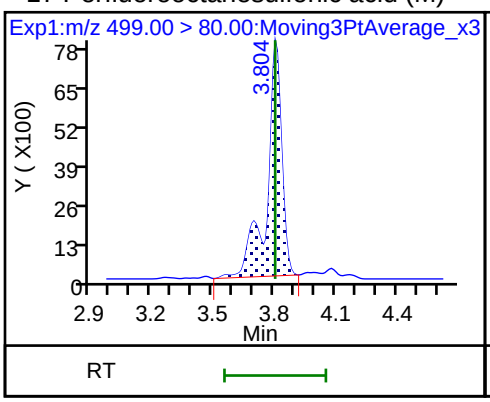

15 Perfluorooctanoic acid (M)



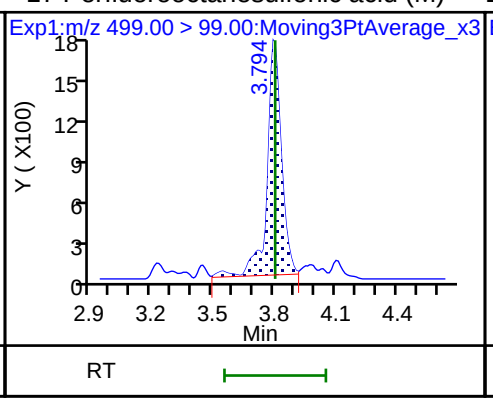

D 18 13C4 PFOS



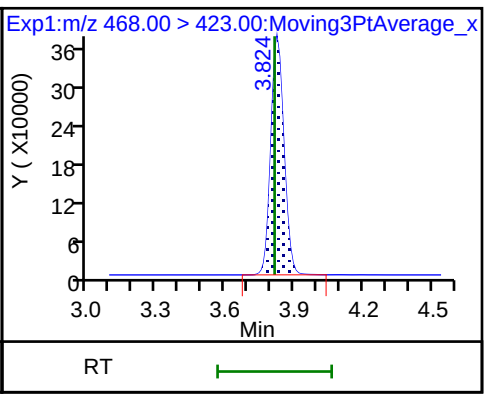

17 Perfluorooctanesulfonic acid (M)



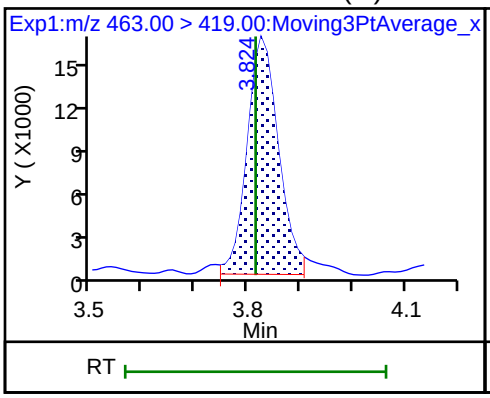

17 Perfluorooctanesulfonic acid (M)



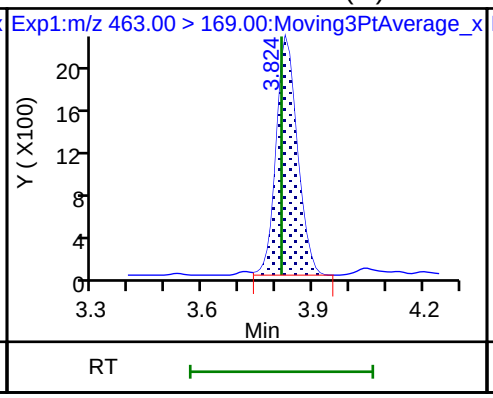

D 19 13C5 PFNA



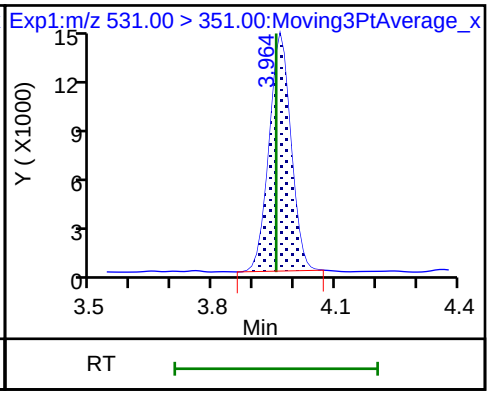
20 Perfluorononanoic acid (M)



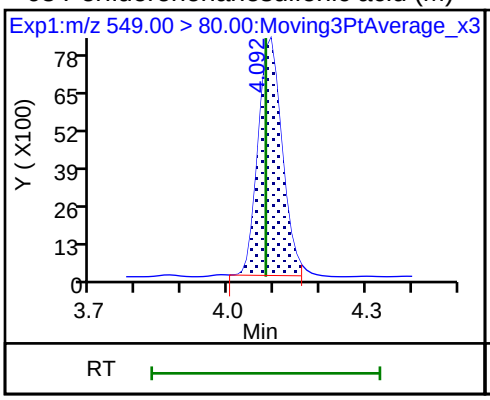

20 Perfluorononanoic acid (M)



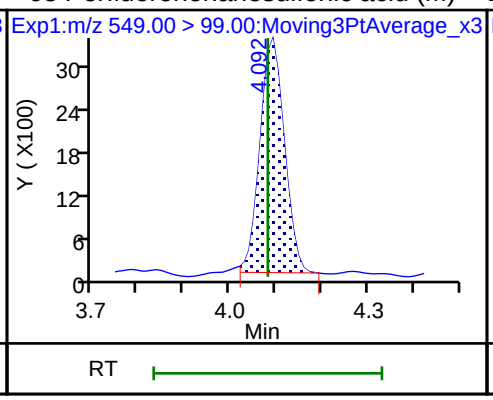

69 9-Chlorohexadecafluoro-3-oxanona



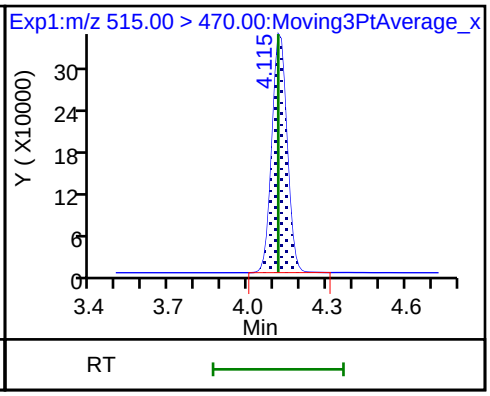

68 Perfluorononanesulfonic acid (M)



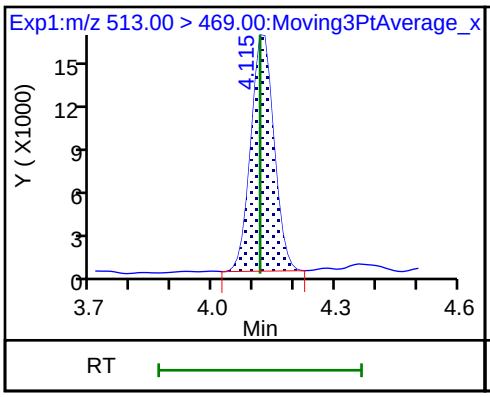

68 Perfluorononanesulfonic acid (M)



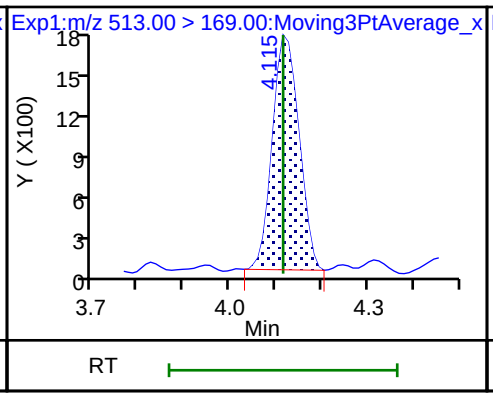

D 23 13C2 PFDA



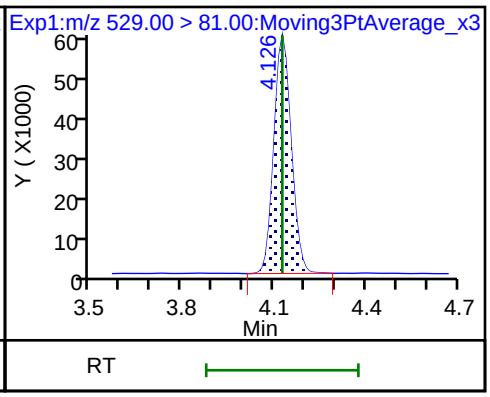

24 Perfluorodecanoic acid



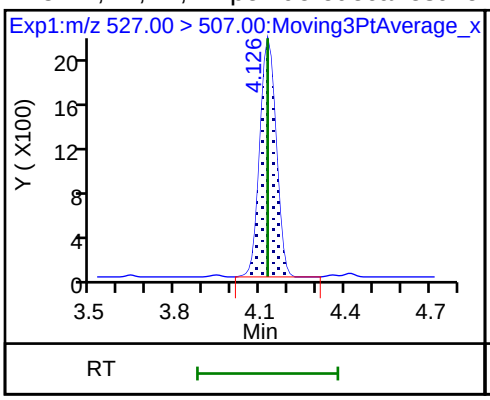

24 Perfluorodecanoic acid



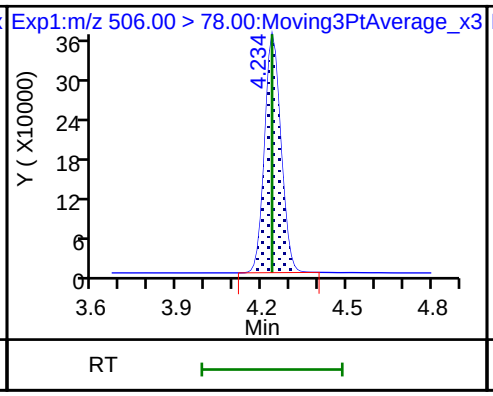

D 26 M2-8:2 FTS



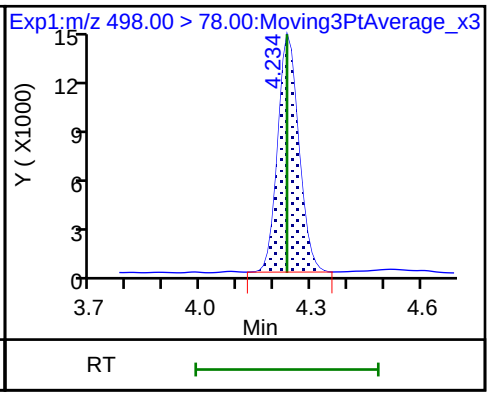

25 1H,1H,2H,2H-perfluorodecanesulfo



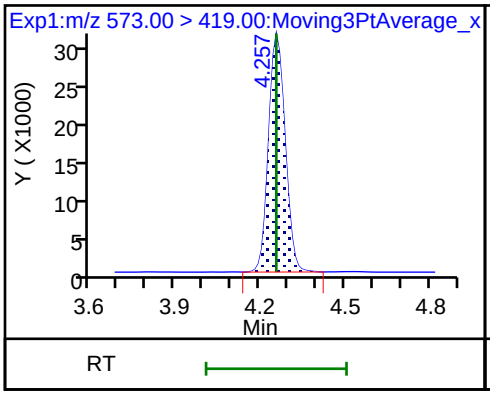

D 21 13C8 FOSA



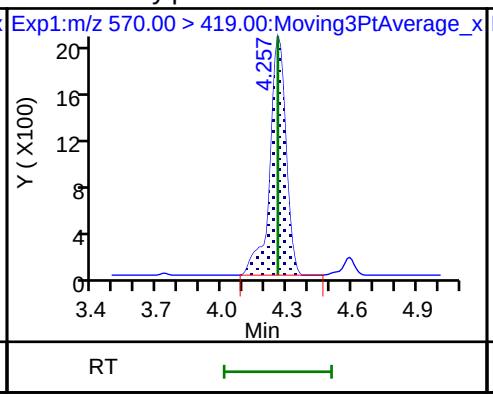

22 Perfluorooctanesulfonamide



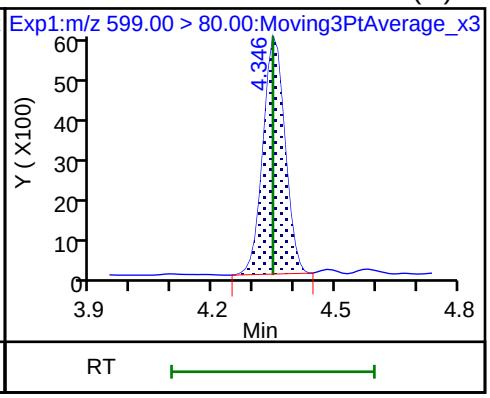
D 27 d3-NMeFOSAA



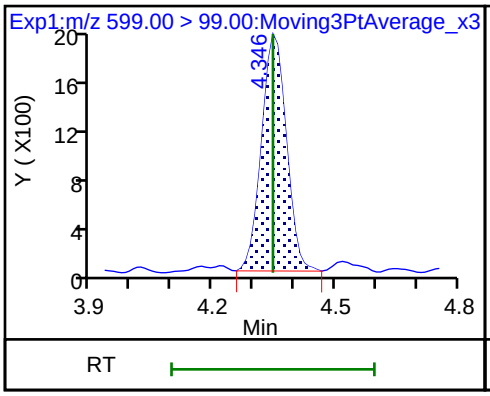

28 N-methylperfluorooctanesulfonami



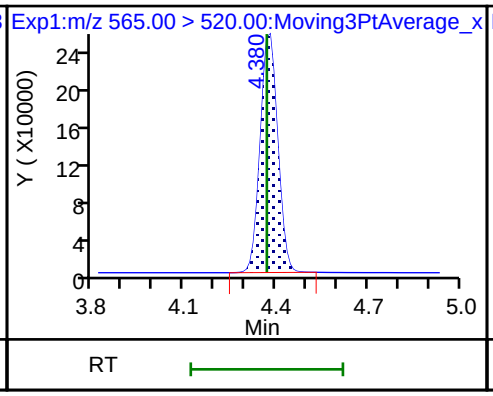

29 Perfluorodecanesulfonic acid (M)



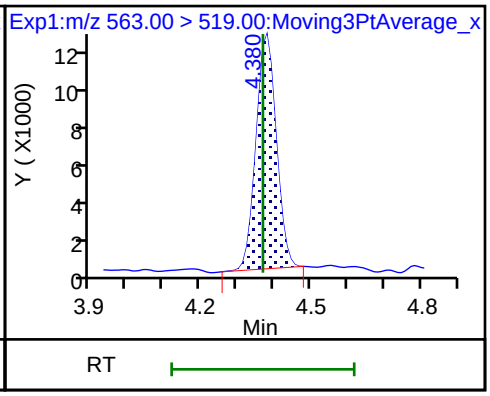

29 Perfluorodecanesulfonic acid



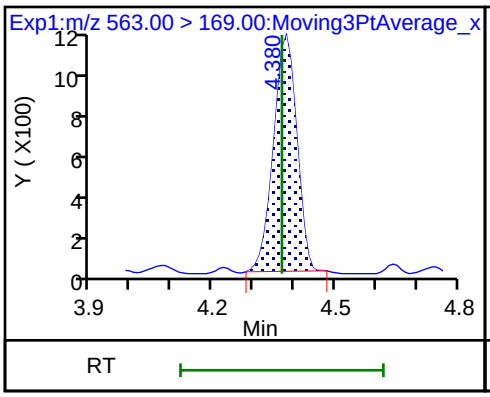

D 30 13C2 PFUnA



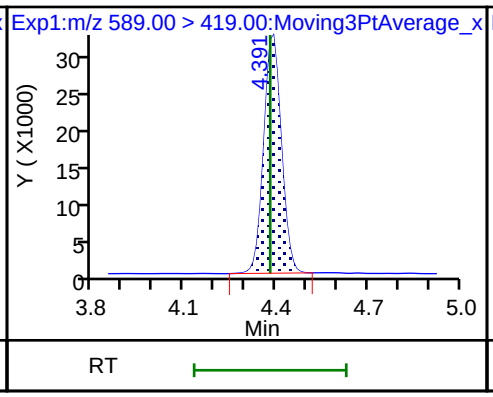

31 Perfluoroundecanoic acid



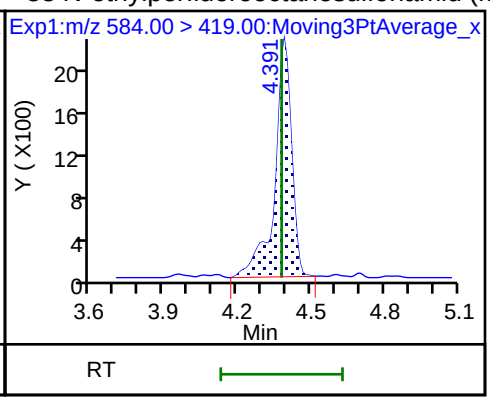

31 Perfluoroundecanoic acid



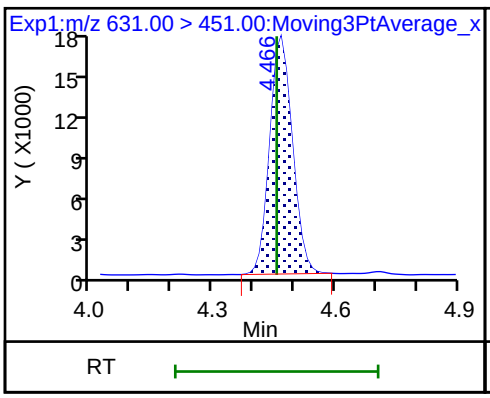

D 32 d5-NEtFOSAA



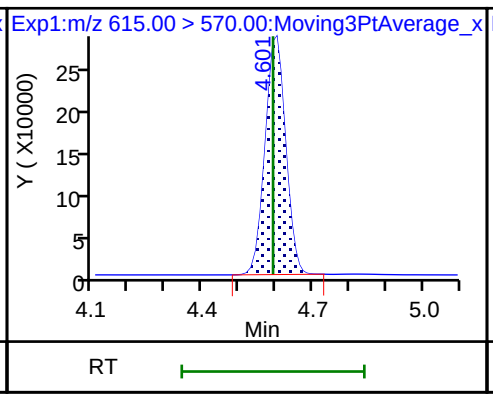

33 N-ethylperfluorooctanesulfonamid (M)



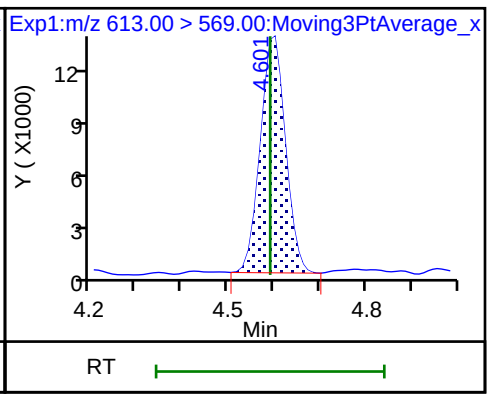

66 11-Chloroeicosafluoro-3-oxaundec



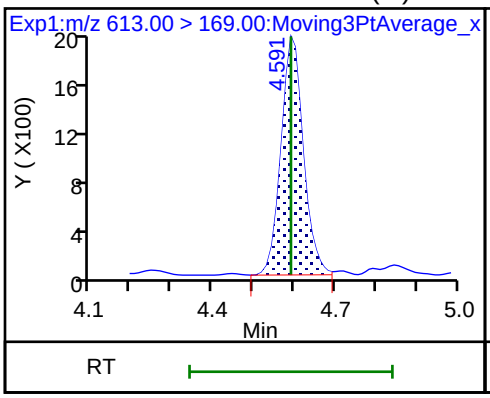

D 36 13C2 PFDoA



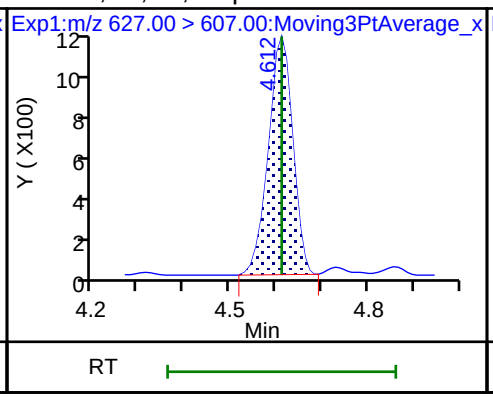

37 Perfluorododecanoic acid



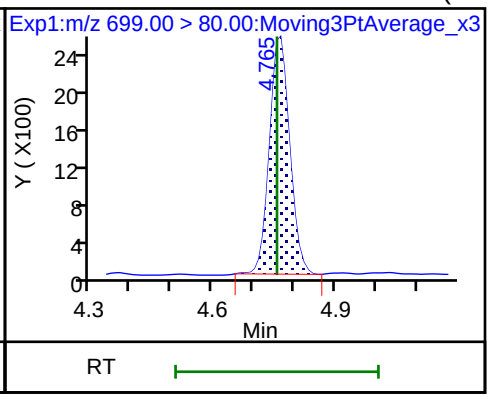
37 Perfluorododecanoic acid (M)



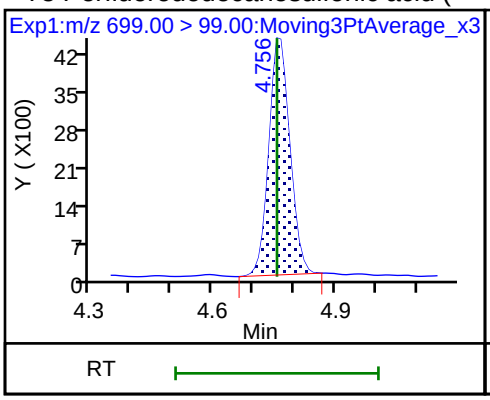

74 1H,1H,2H,2H-perfluorododecanesul



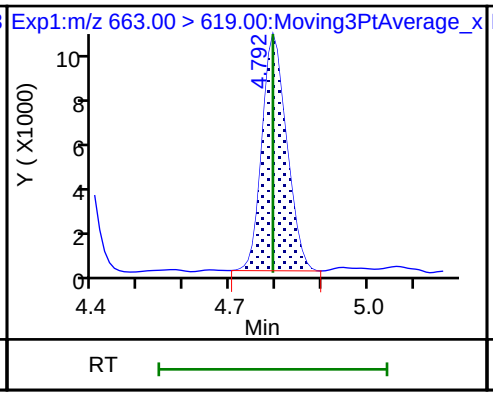

75 Perfluorododecanesulfonic acid (



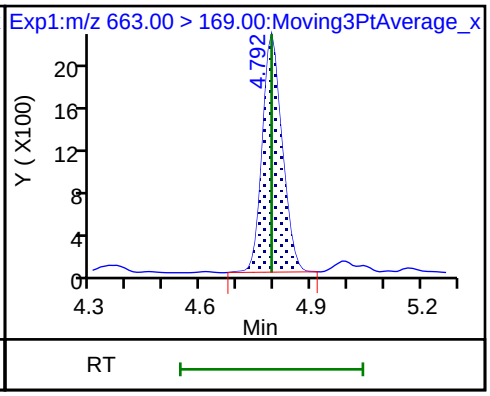

75 Perfluorododecanesulfonic acid (



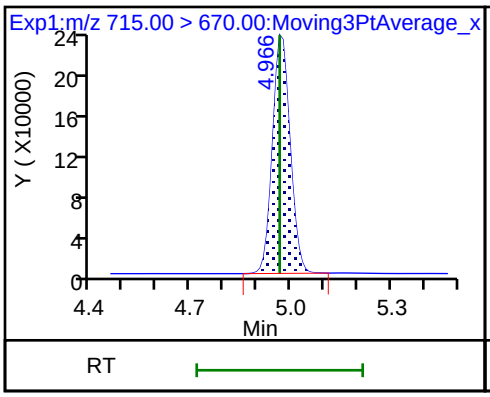

41 Perfluorotridecanoic acid



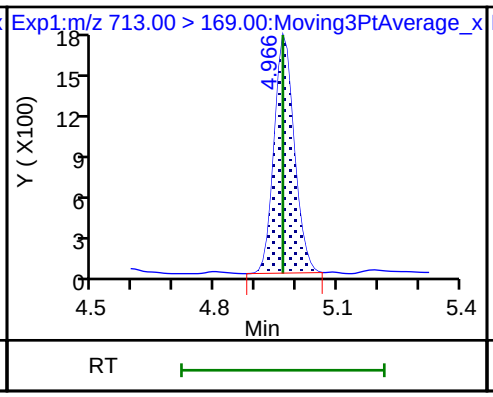

41 Perfluorotridecanoic acid



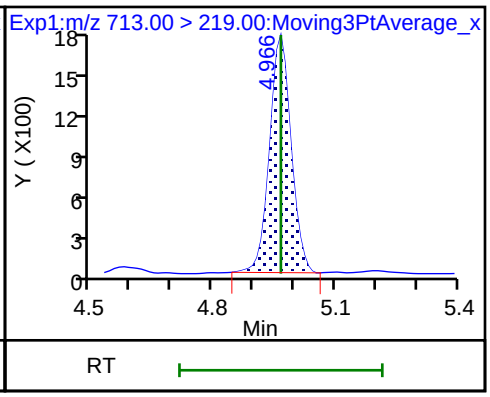

D 43 13C2 PFTeDA



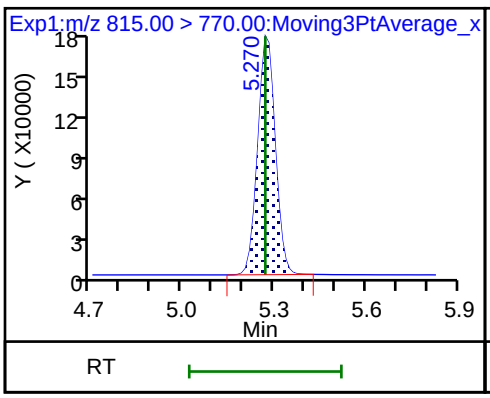

42 Perfluorotetradecanoic acid



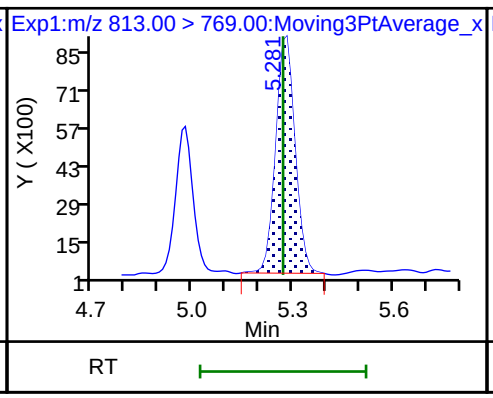

42 Perfluorotetradecanoic acid



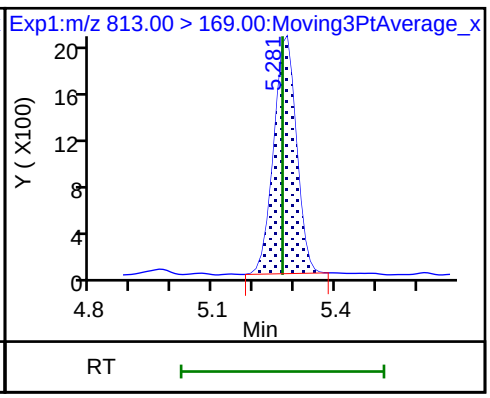

D 44 13C2 PFHxDA



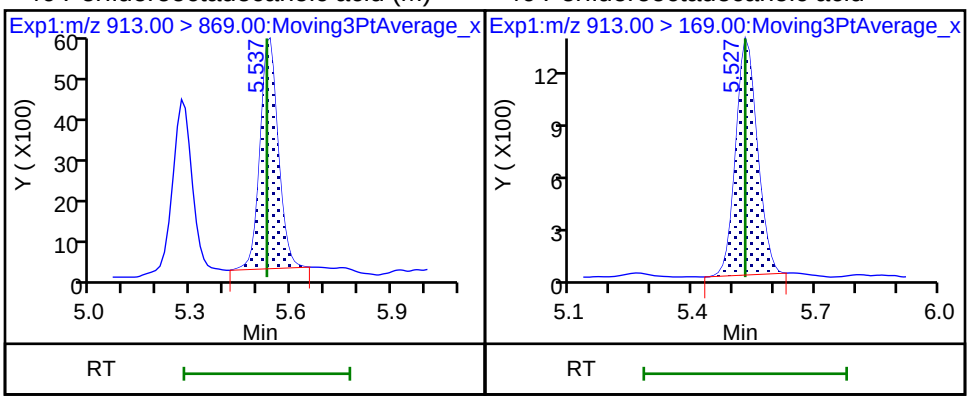

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

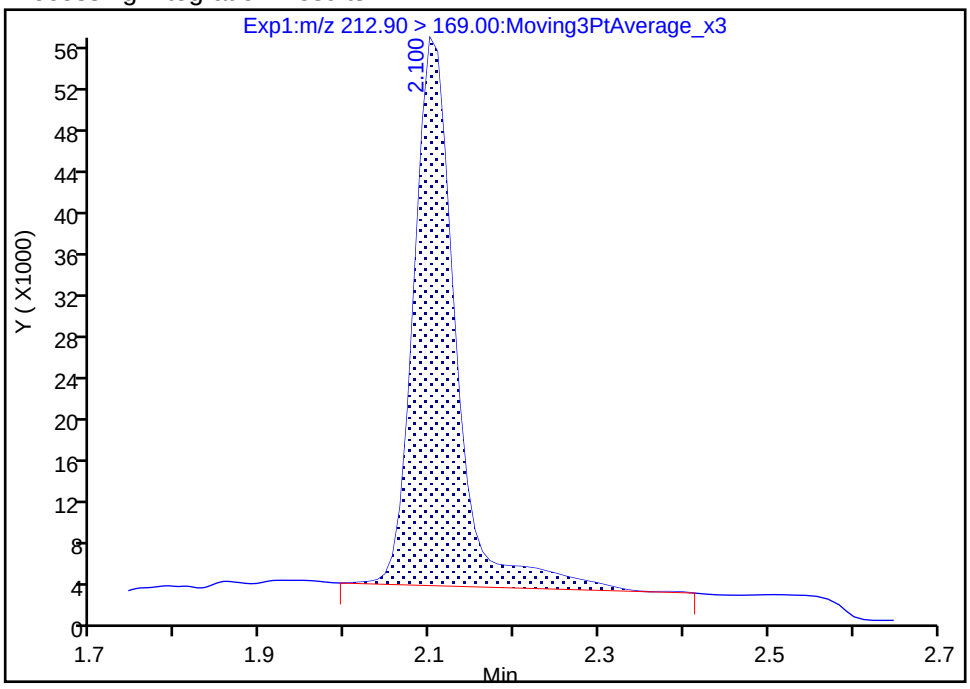
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

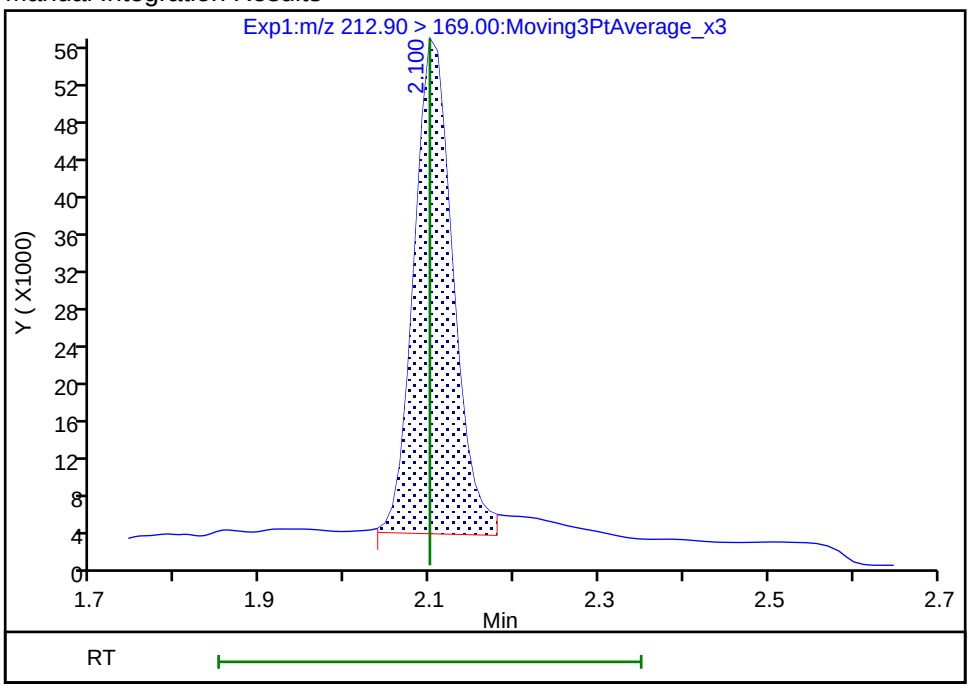
Processing Integration Results

RT: 2.10
Area: 184277
Amount: 0.134549
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 171125
Amount: 0.124946
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:22:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

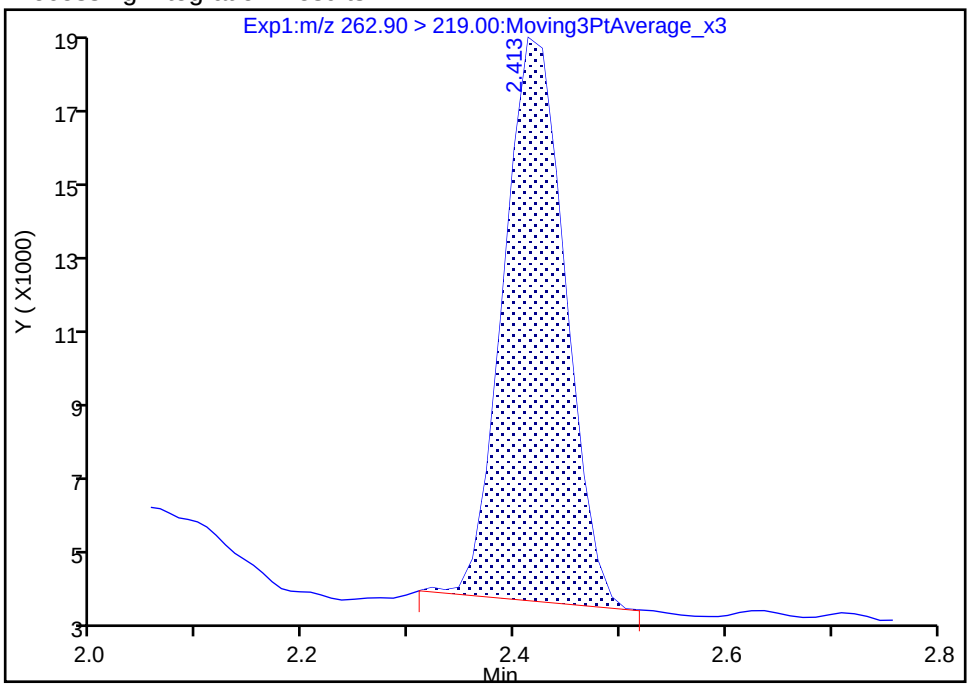
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

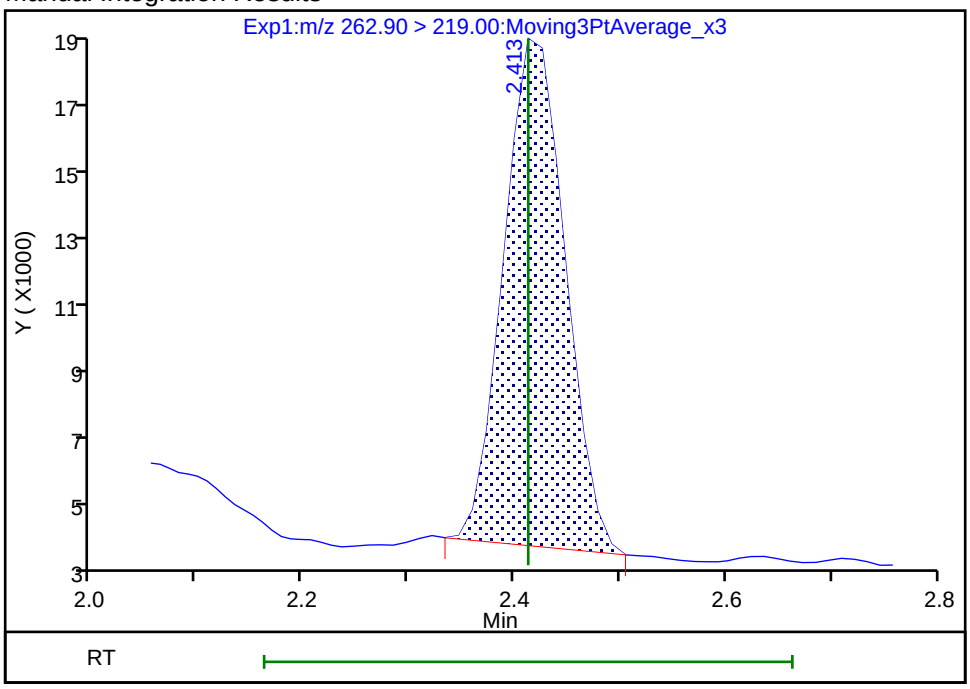
Processing Integration Results

RT: 2.41
Area: 58888
Amount: 0.054024
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 58260
Amount: 0.053447
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:22:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

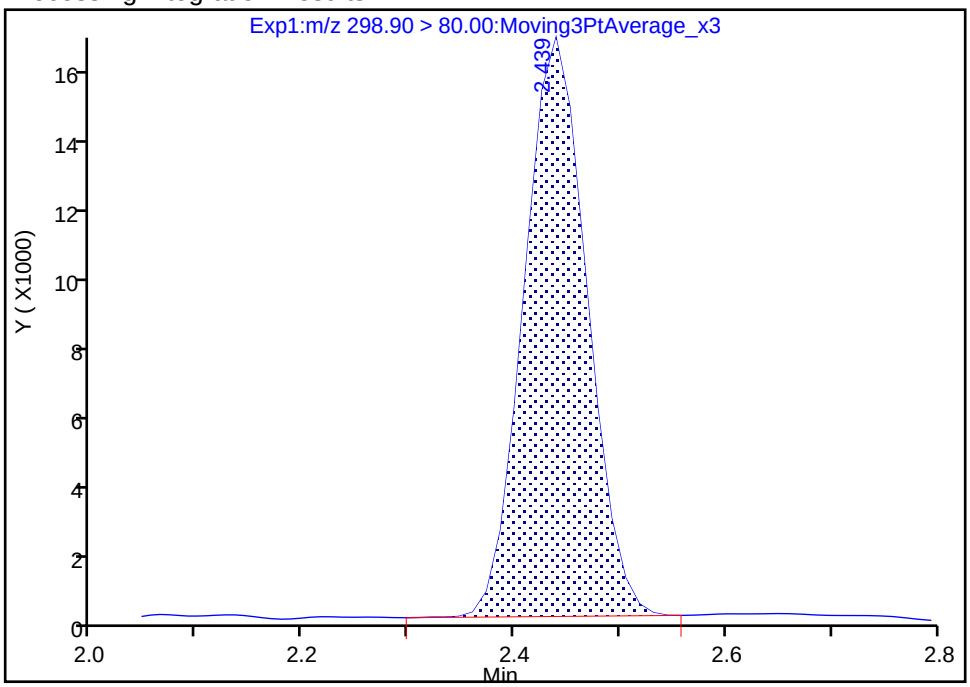
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

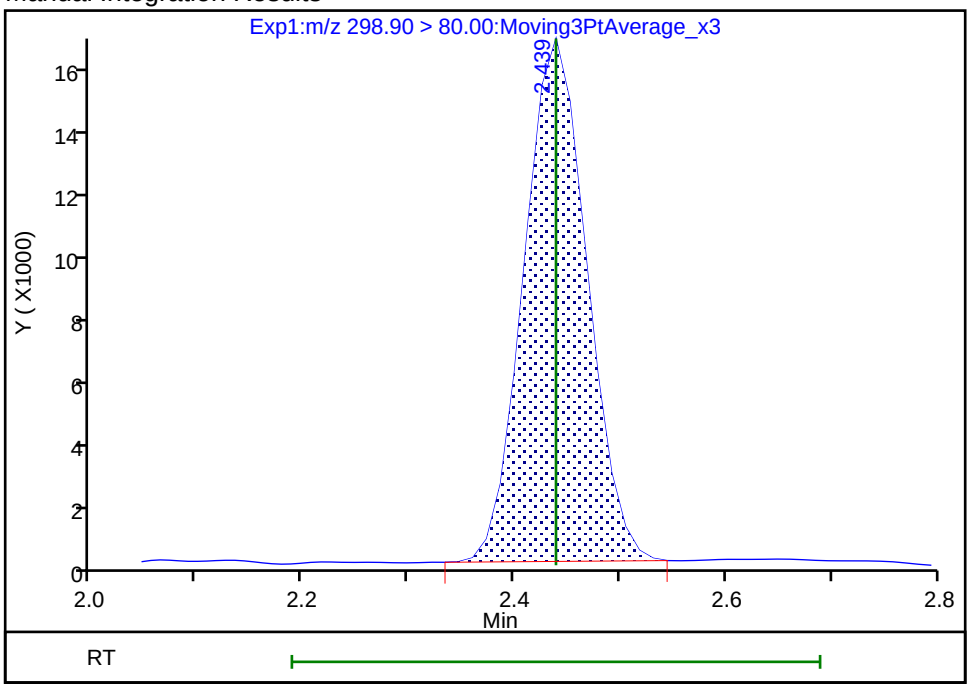
Processing Integration Results

RT: 2.44
Area: 66529
Amount: 0.046518
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 66402
Amount: 0.046429
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:23:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

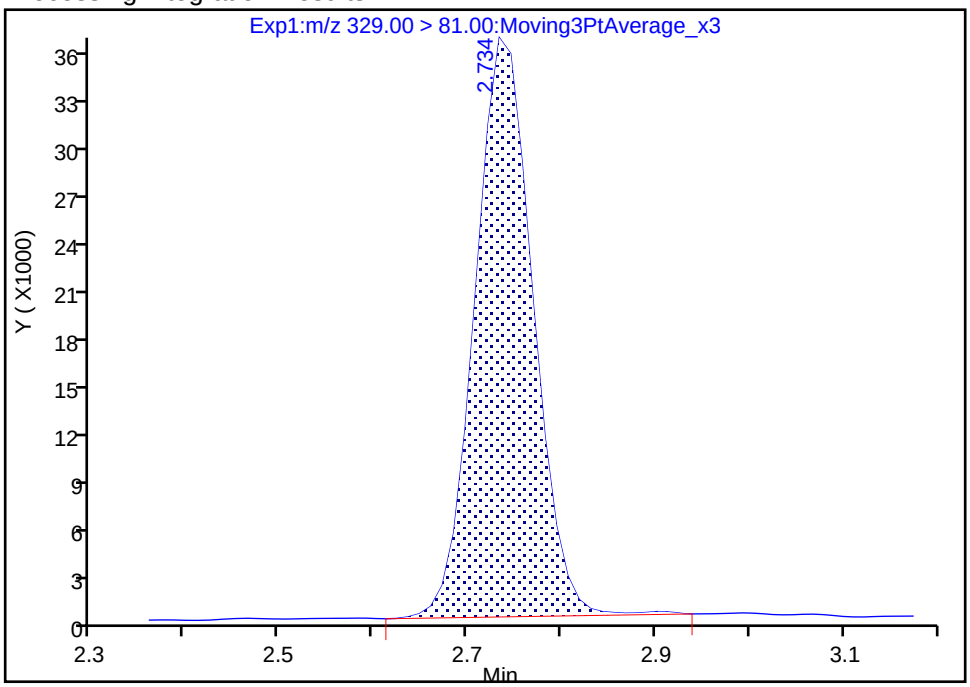
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

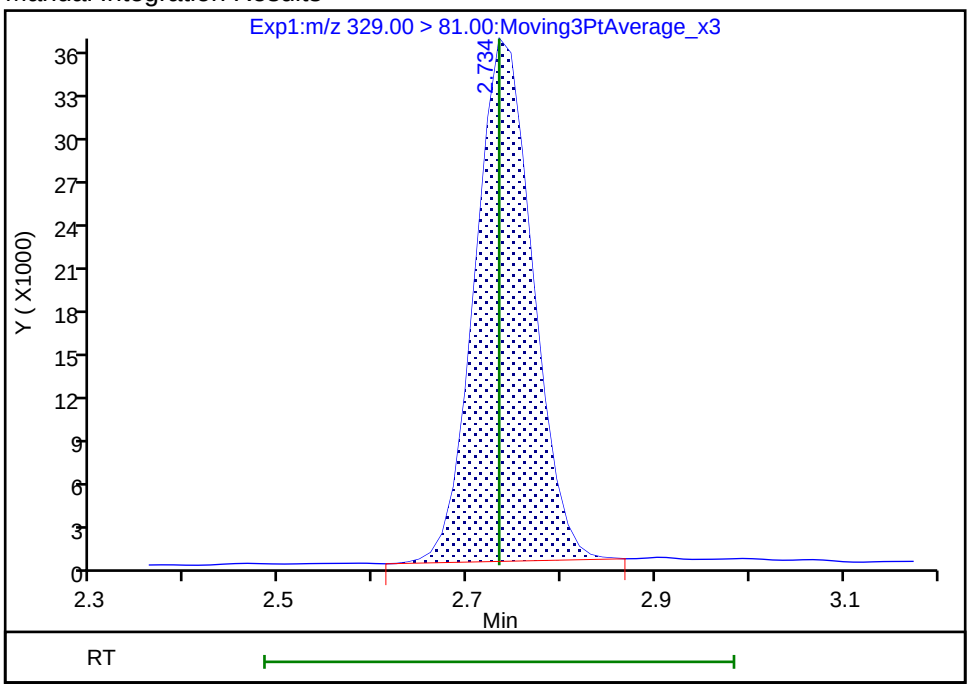
Processing Integration Results

RT: 2.73
Area: 154097
Amount: 1.536083
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 152791
Amount: 1.523064
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:21:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

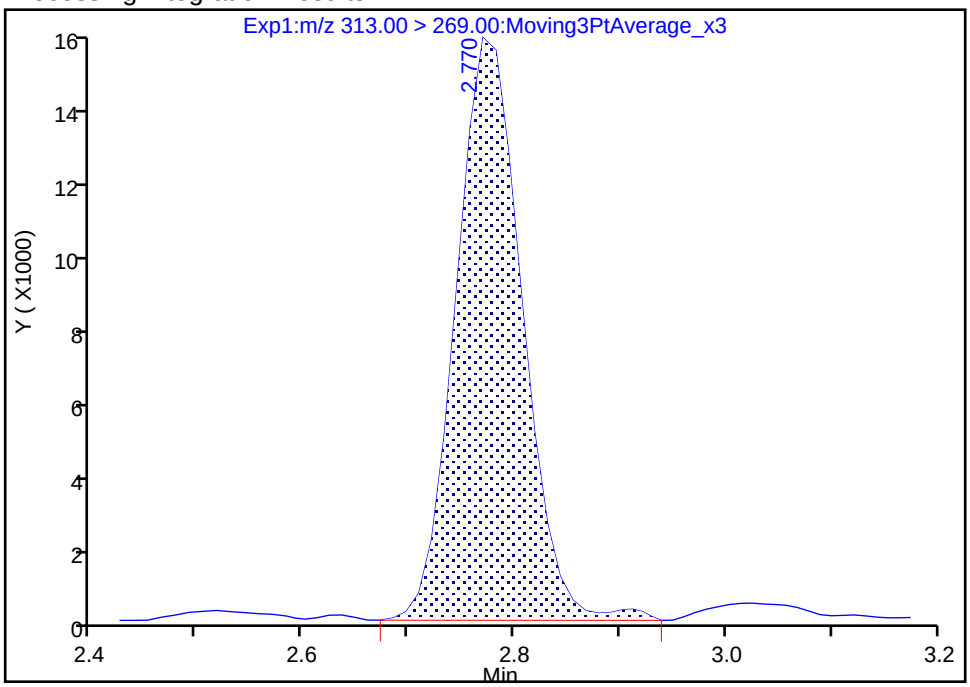
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

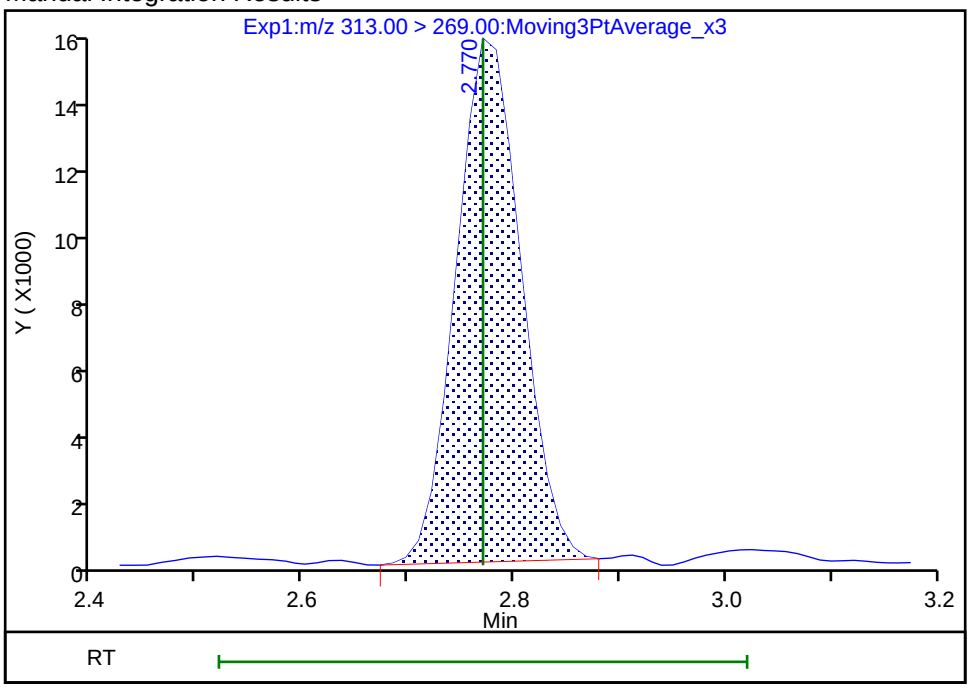
Processing Integration Results

RT: 2.77
Area: 62770
Amount: 0.055052
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 61000
Amount: 0.053499
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:23:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

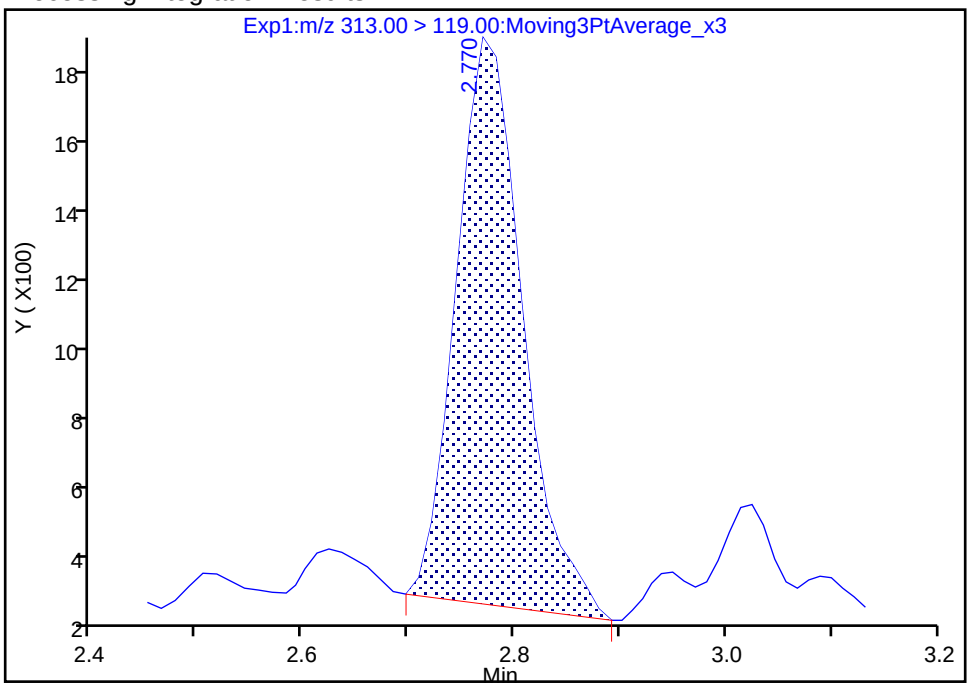
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

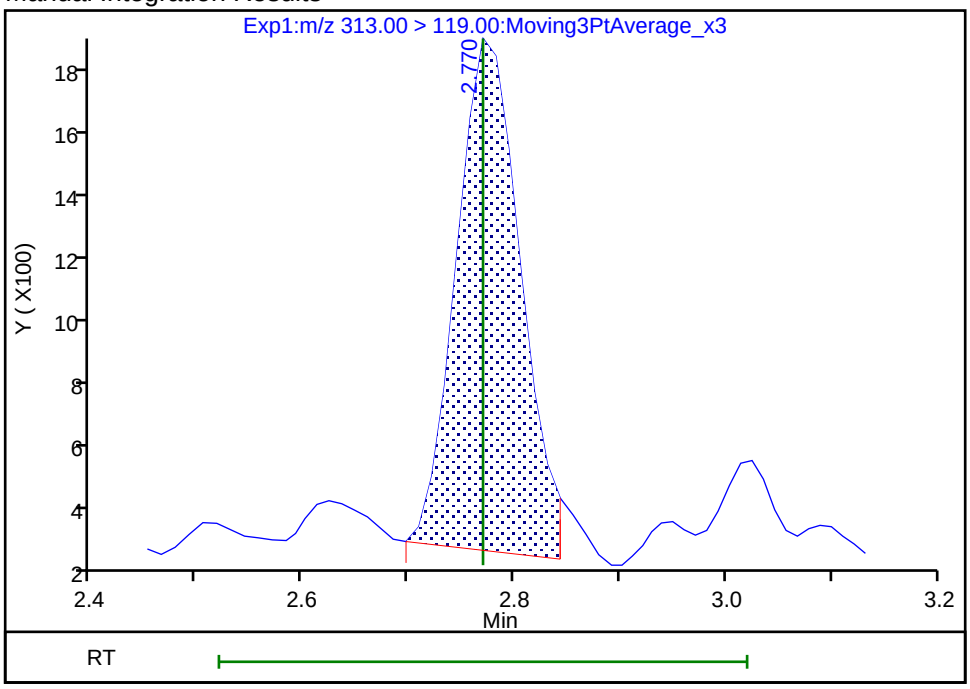
Processing Integration Results

RT: 2.77
Area: 6632
Amount: 0.055052
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 6384
Amount: 0.053499
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:23:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

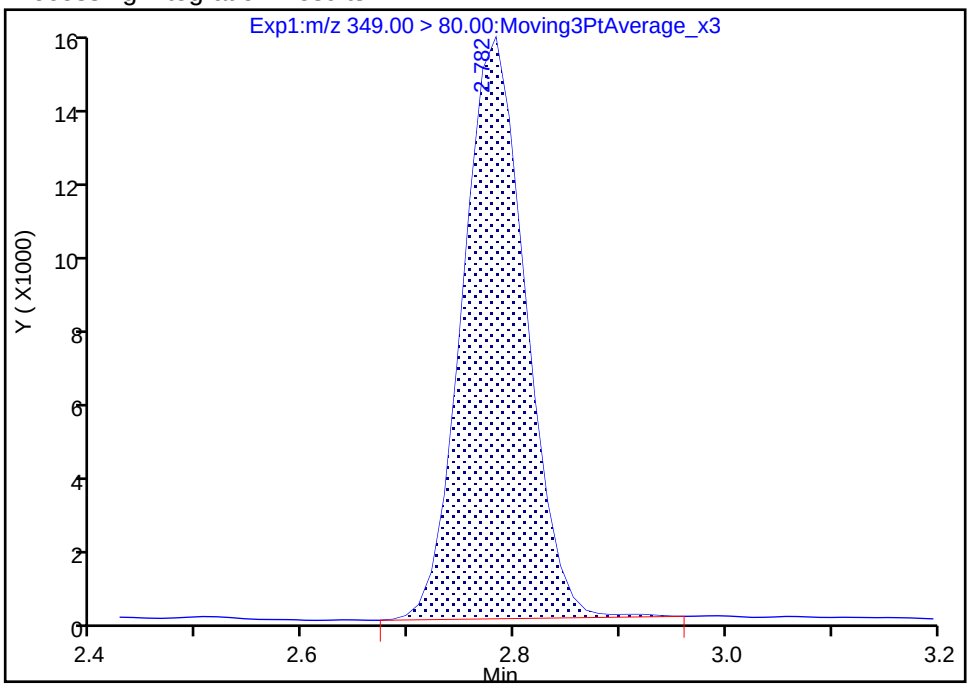
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

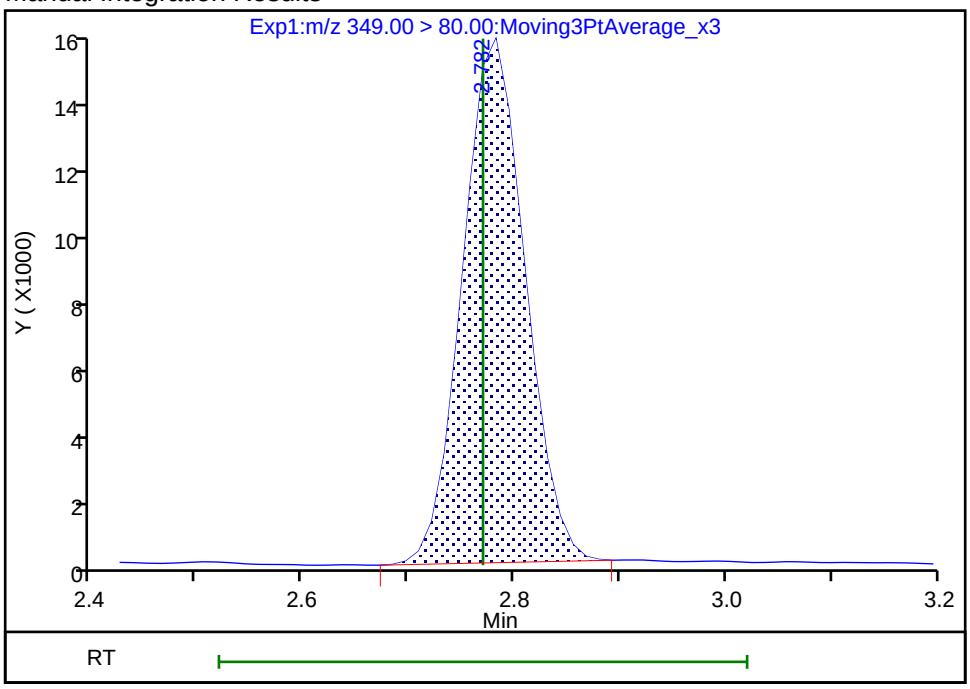
Processing Integration Results

RT: 2.78
Area: 62075
Amount: 0.052497
Amount Units: ng/ml




Manual Integration Results

RT: 2.78
Area: 61493
Amount: 0.052005
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:24:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

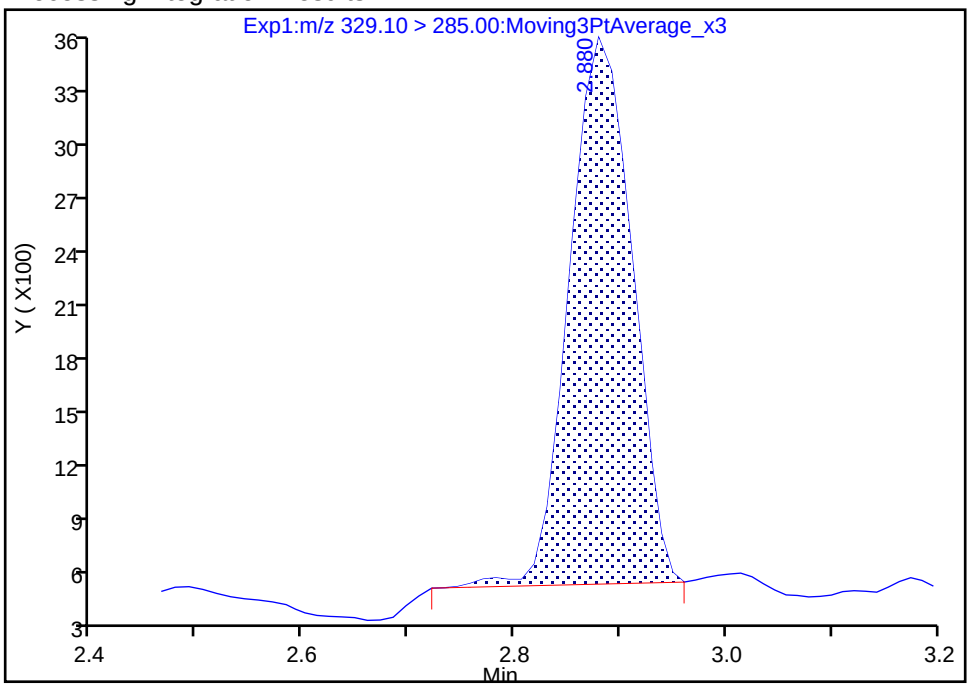
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d | | | | |
| Injection Date: | 09-Nov-2021 17:25:08 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

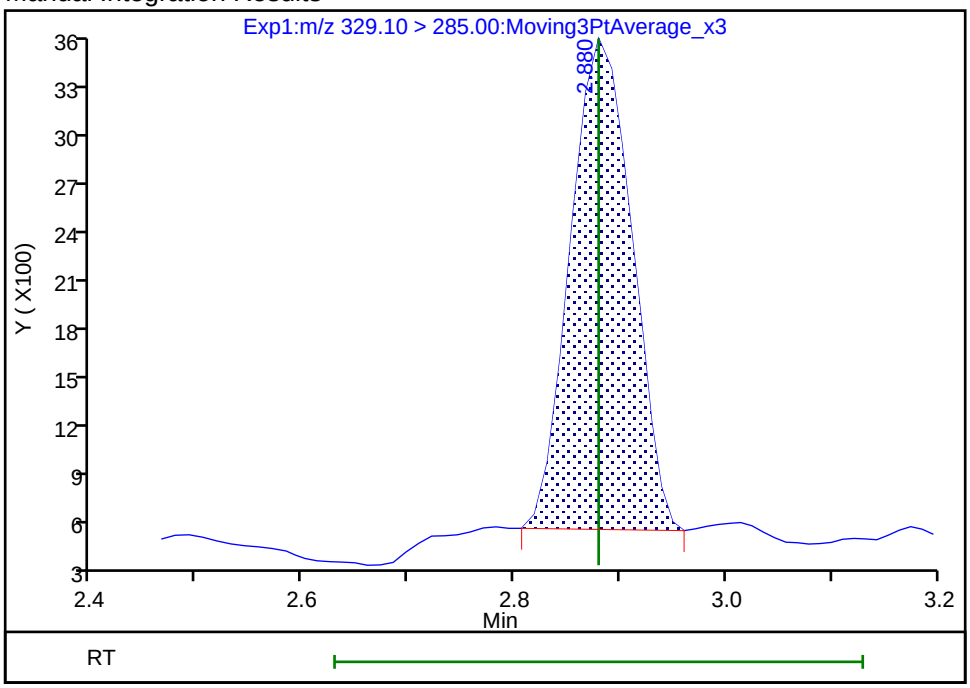
Processing Integration Results

RT: 2.88
Area: 12323
Amount: 0.135869
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 12037
Amount: 0.132715
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:24:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

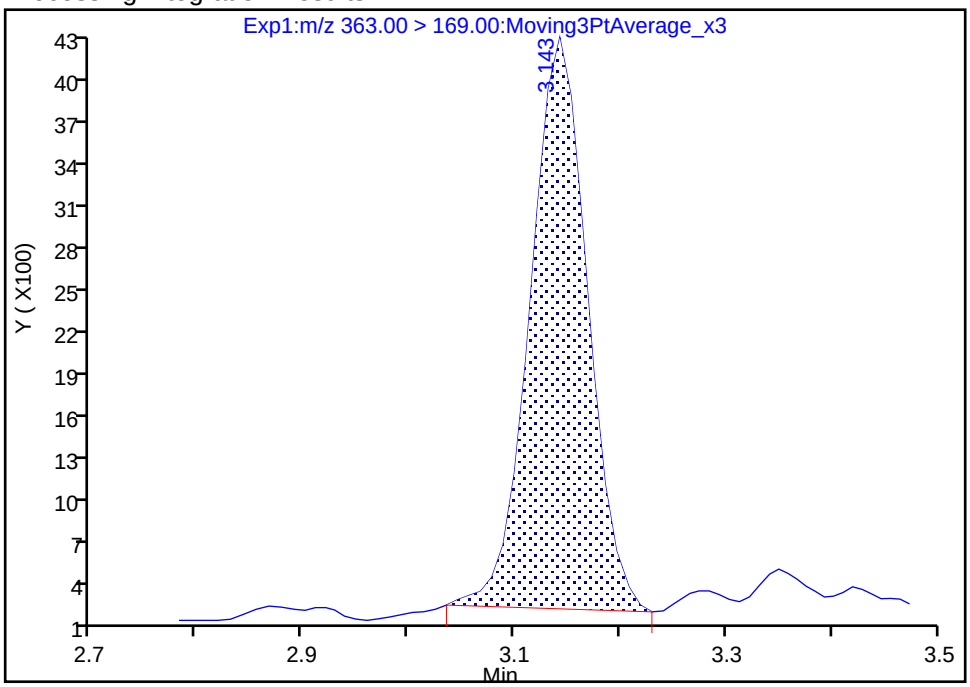
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

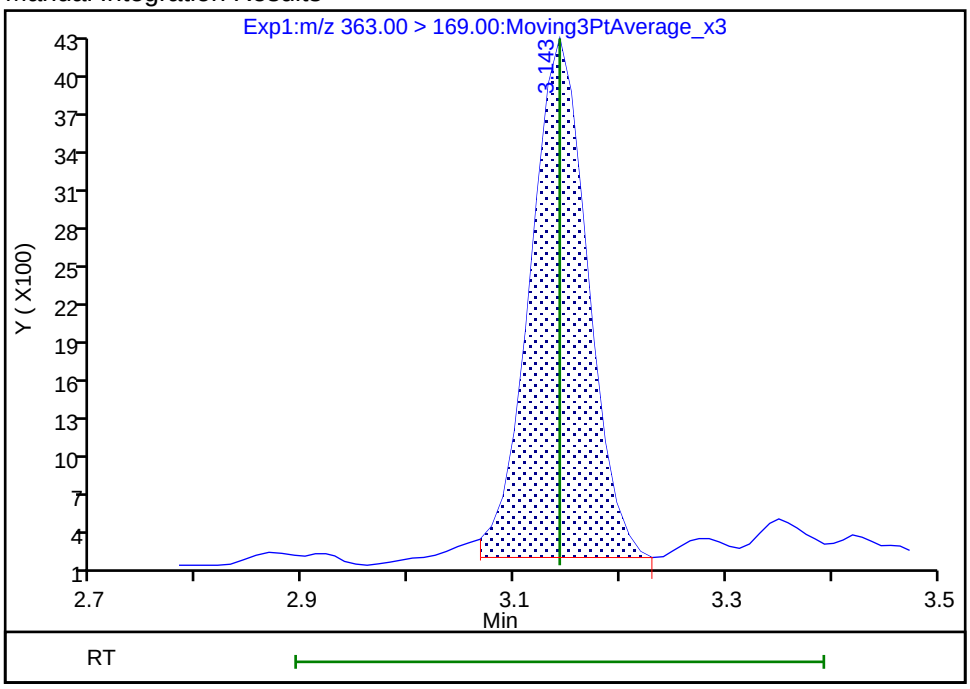
Processing Integration Results

RT: 3.14
Area: 15220
Amount: 0.051012
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 15303
Amount: 0.051012
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

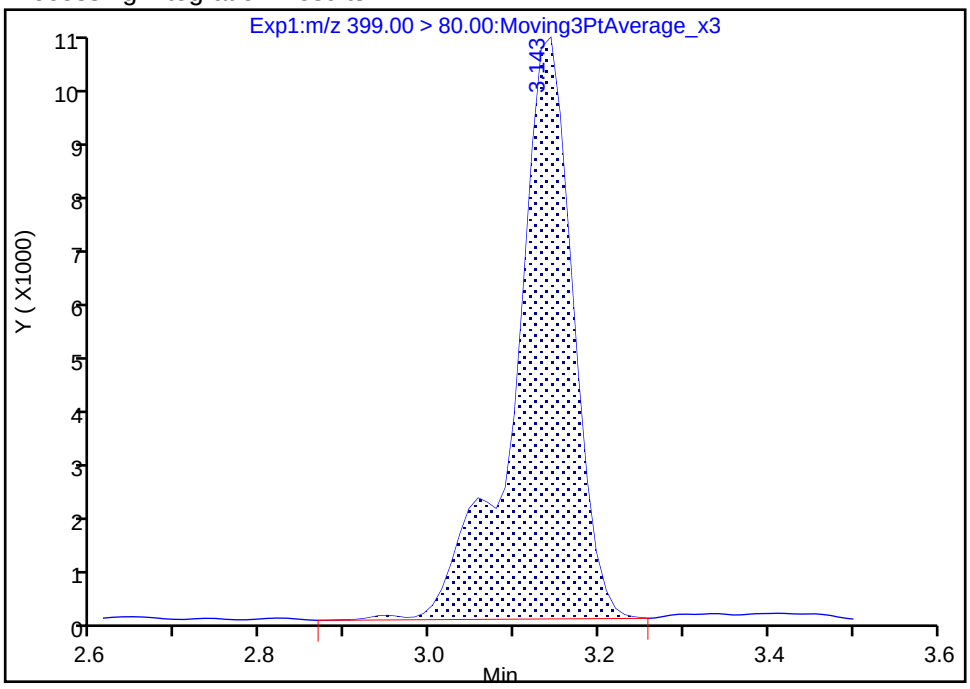
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d | | | | |
| Injection Date: | 09-Nov-2021 17:25:08 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

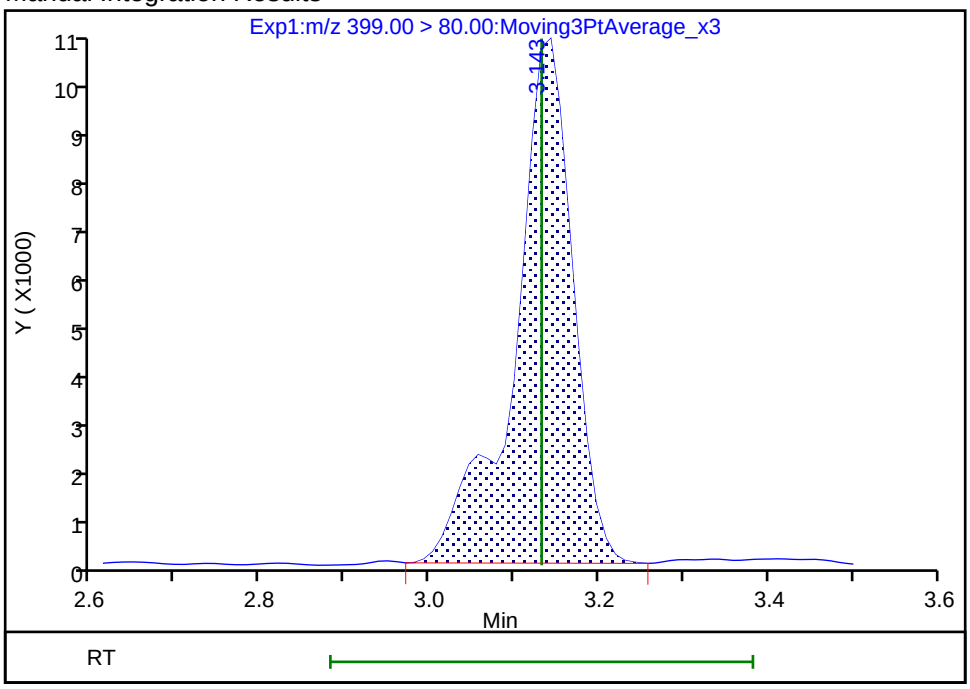
Processing Integration Results

RT: 3.14
Area: 52019
Amount: 0.048186
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 51480
Amount: 0.047686
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:24:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

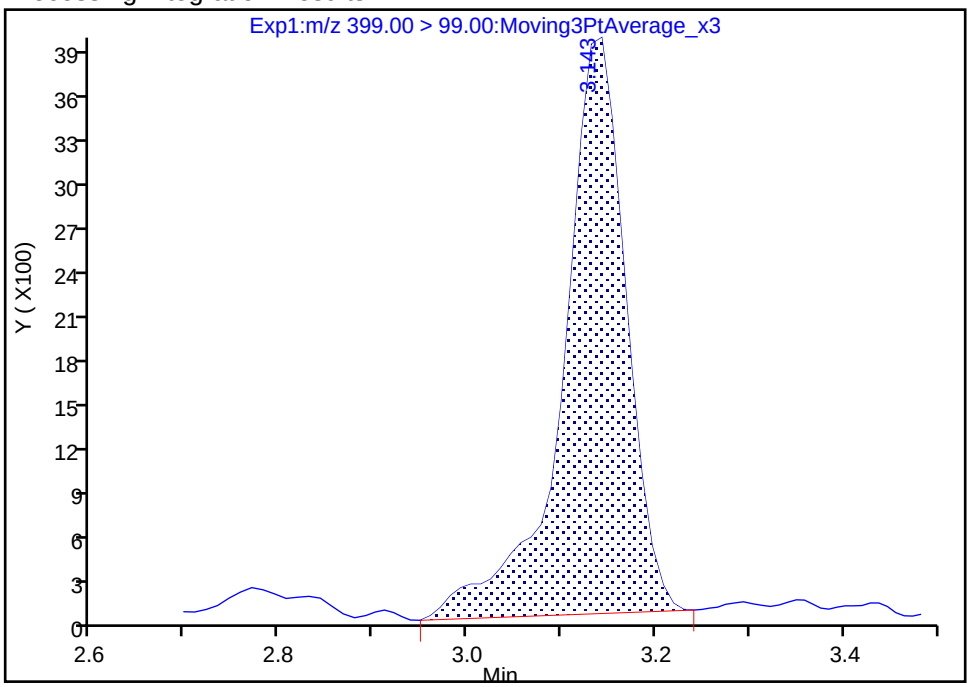
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

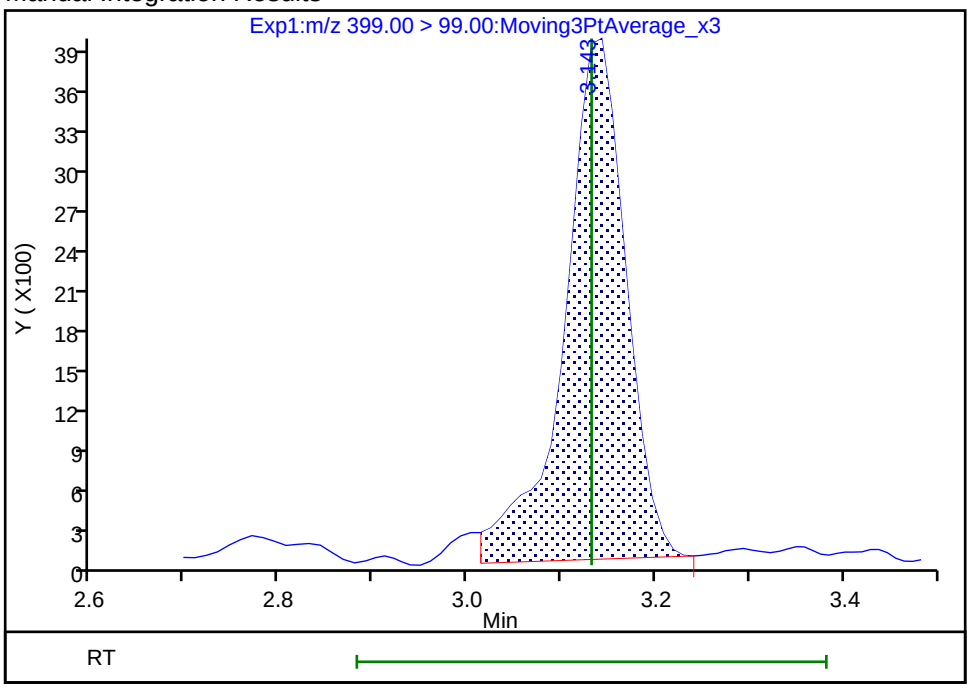
Processing Integration Results

RT: 3.14
Area: 17915
Amount: 0.048186
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 17403
Amount: 0.047686
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:24:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

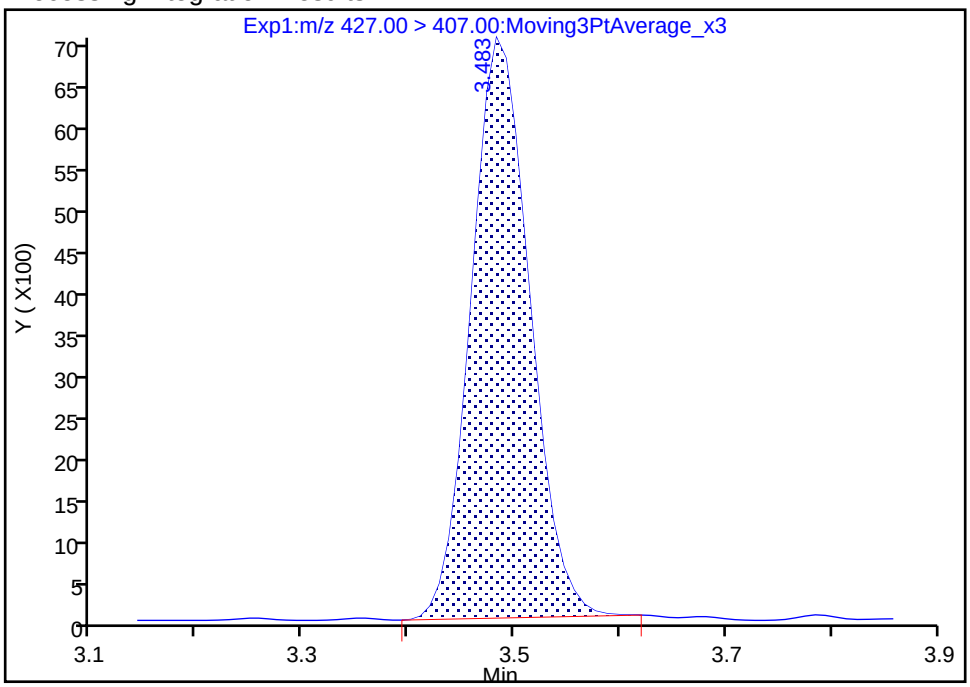
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

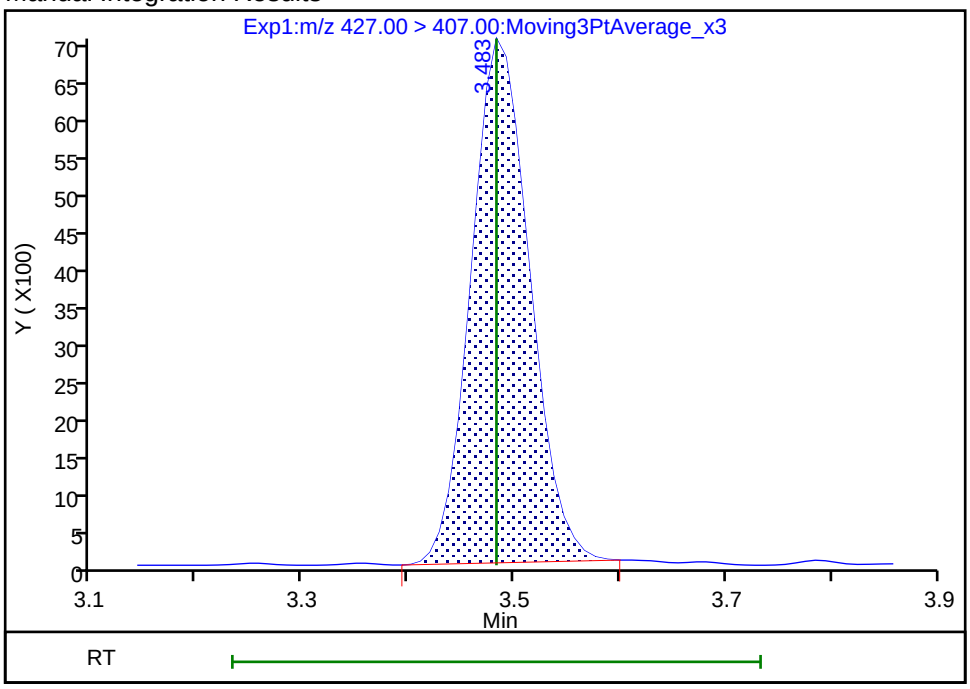
Processing Integration Results

RT: 3.48
Area: 26998
Amount: 0.120567
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 26925
Amount: 0.120241
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

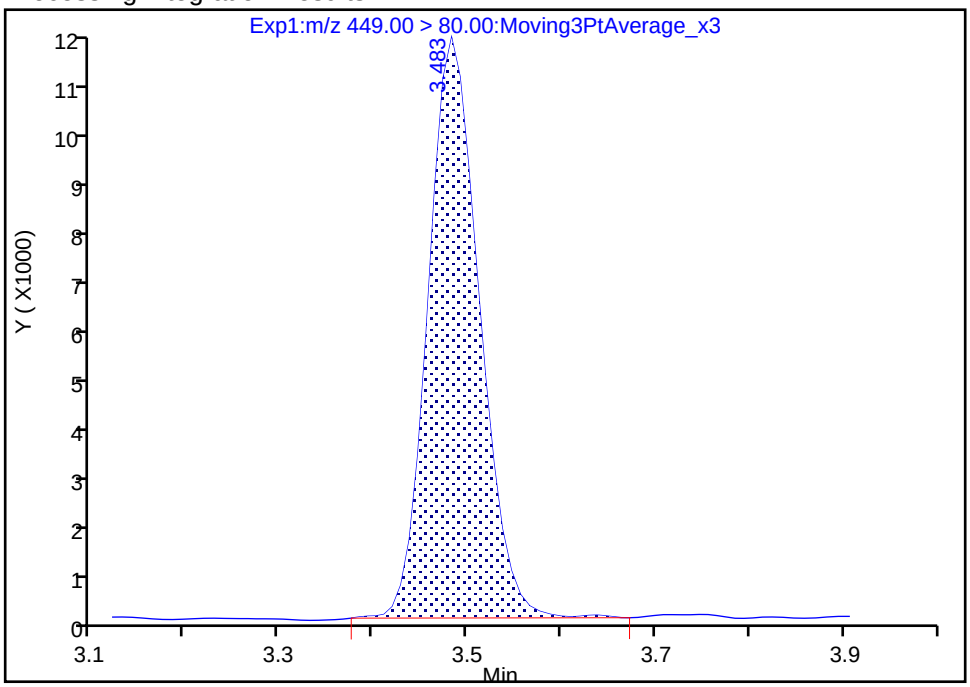
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

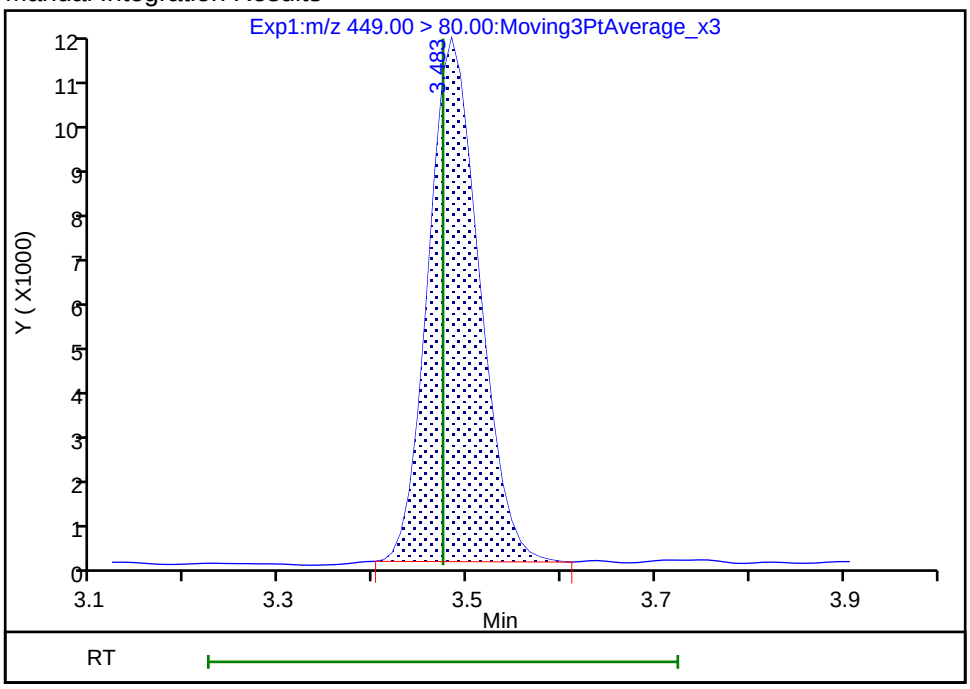
Processing Integration Results

RT: 3.48
Area: 42282
Amount: 0.047279
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 41785
Amount: 0.046723
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

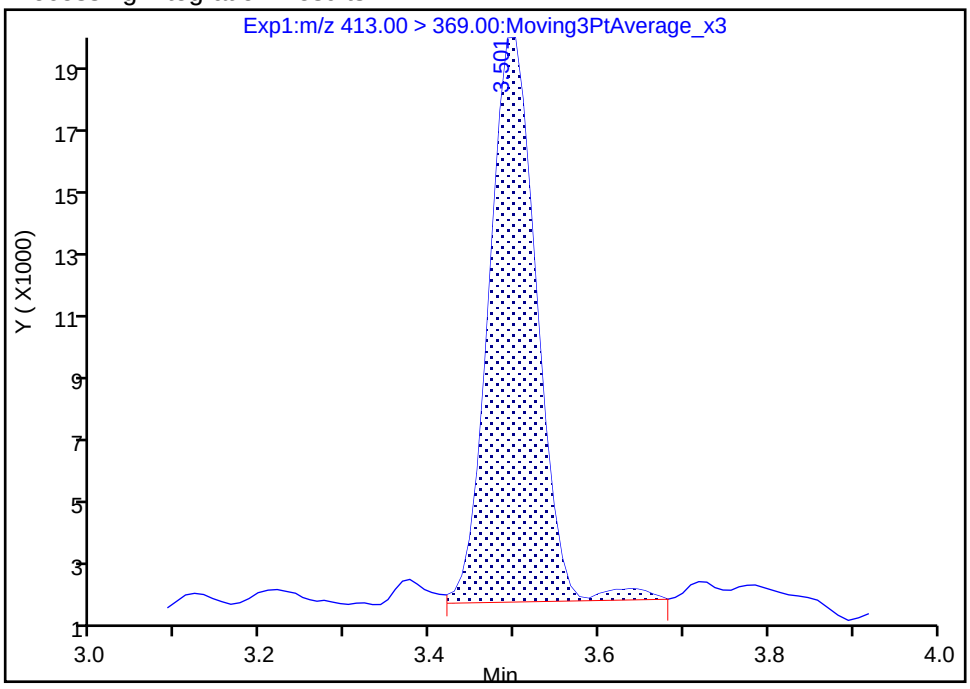
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

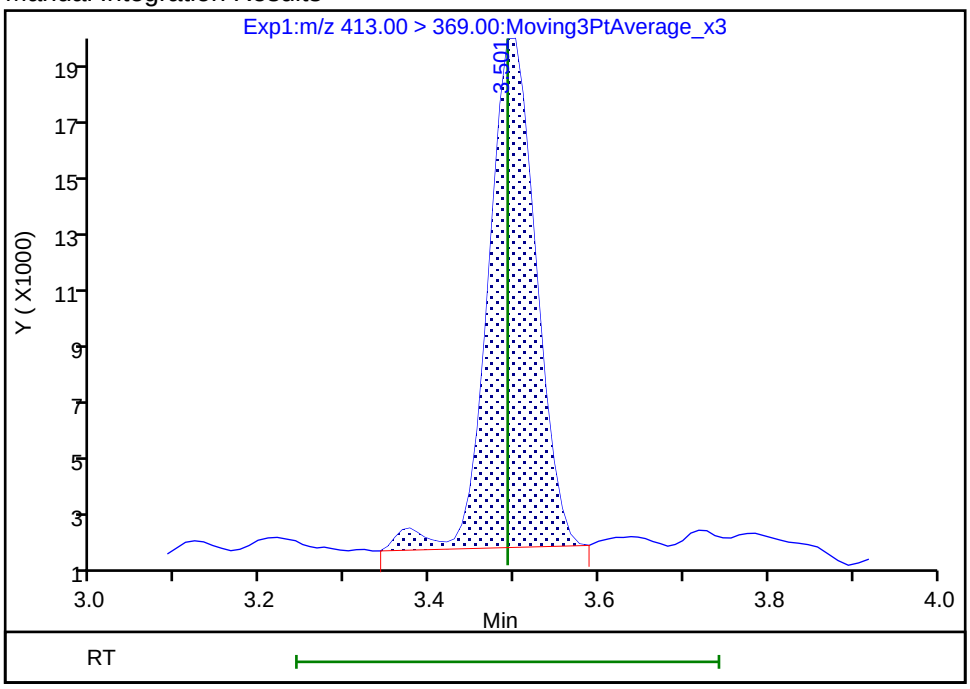
Processing Integration Results

RT: 3.50
Area: 68930
Amount: 0.056417
Amount Units: ng/ml




Manual Integration Results

RT: 3.50
Area: 69137
Amount: 0.056587
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

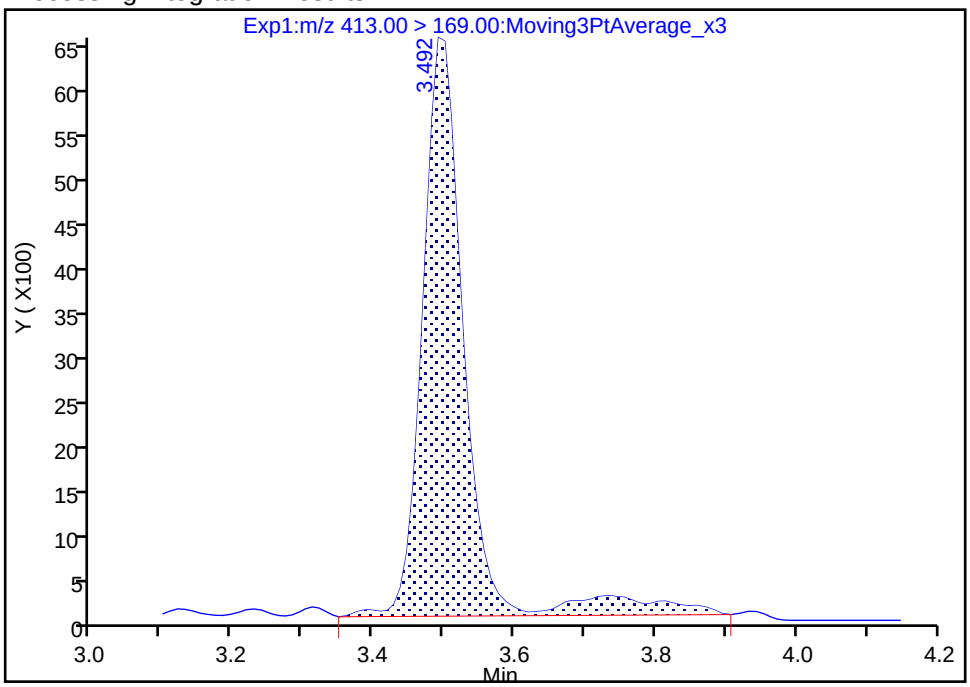
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

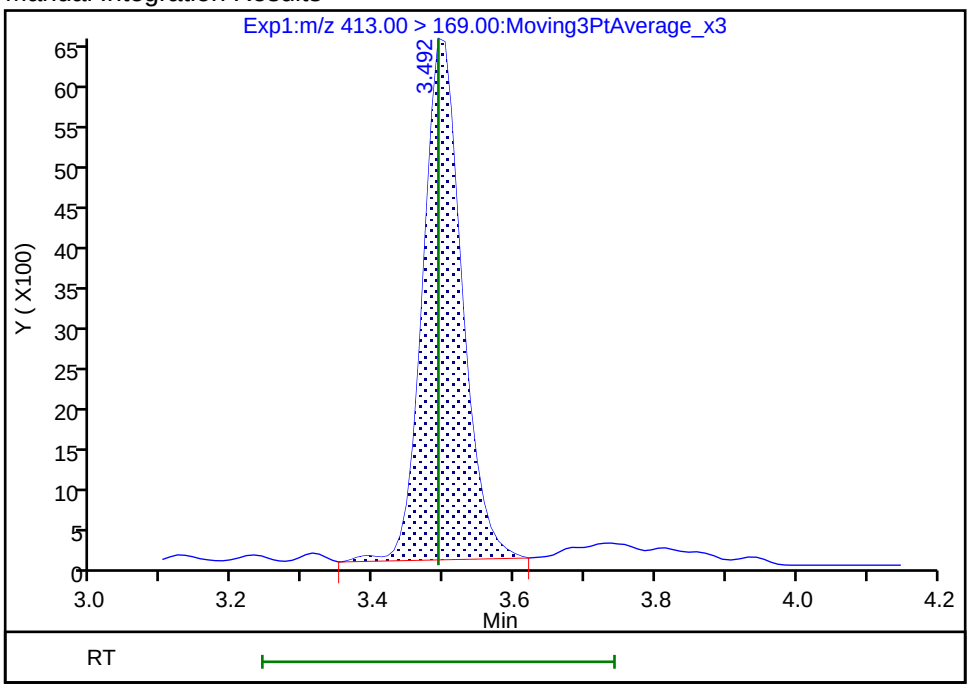
Processing Integration Results

RT: 3.49
Area: 27650
Amount: 0.056417
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 25168
Amount: 0.056587
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

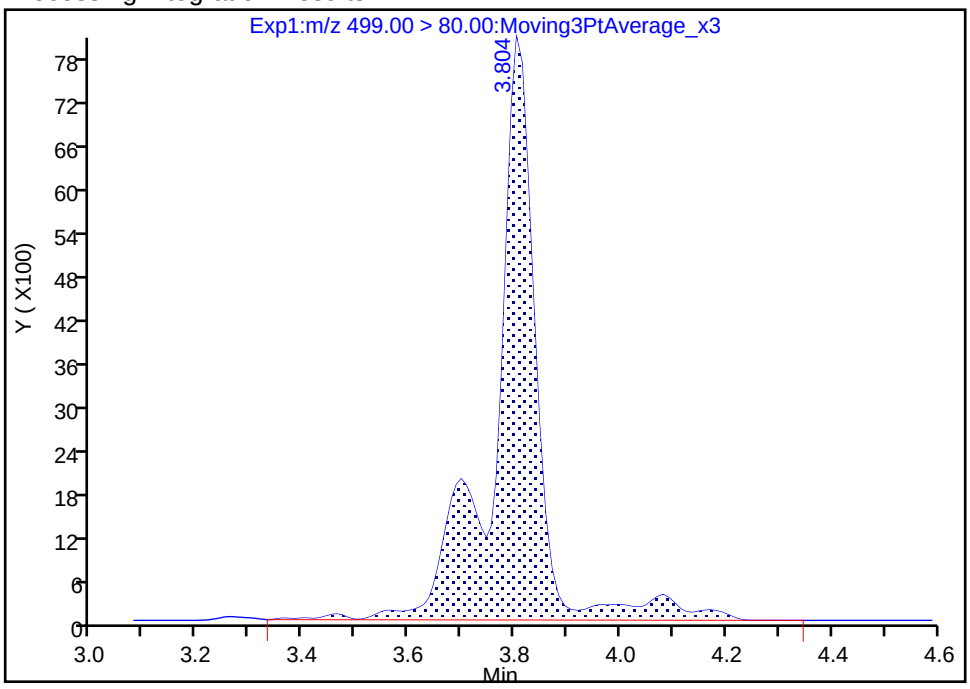
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

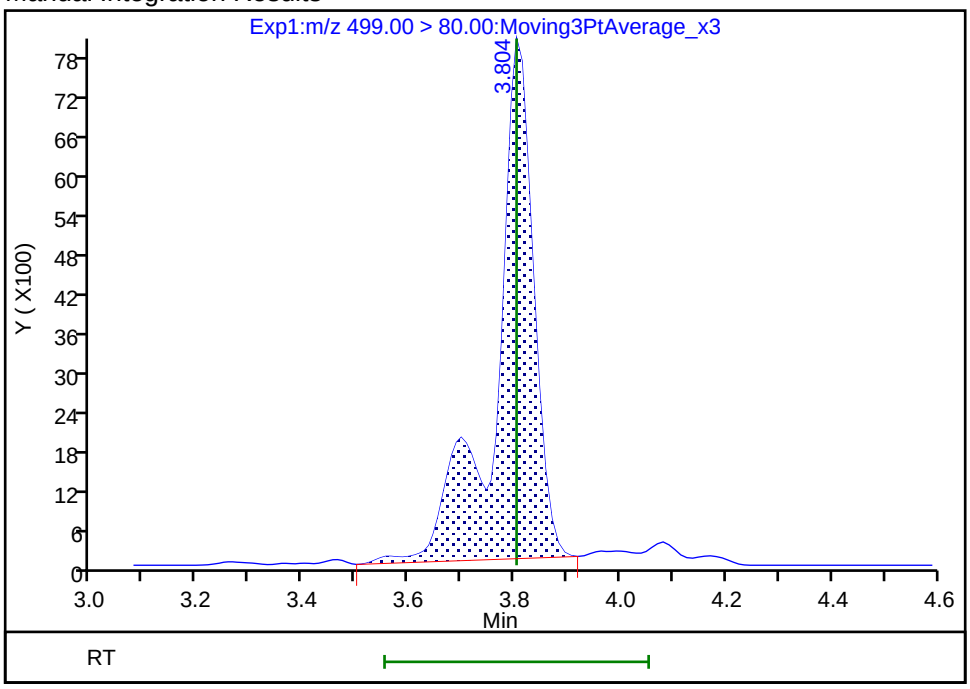
Processing Integration Results

RT: 3.80
Area: 45125
Amount: 0.057971
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 39863
Amount: 0.051211
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:25:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

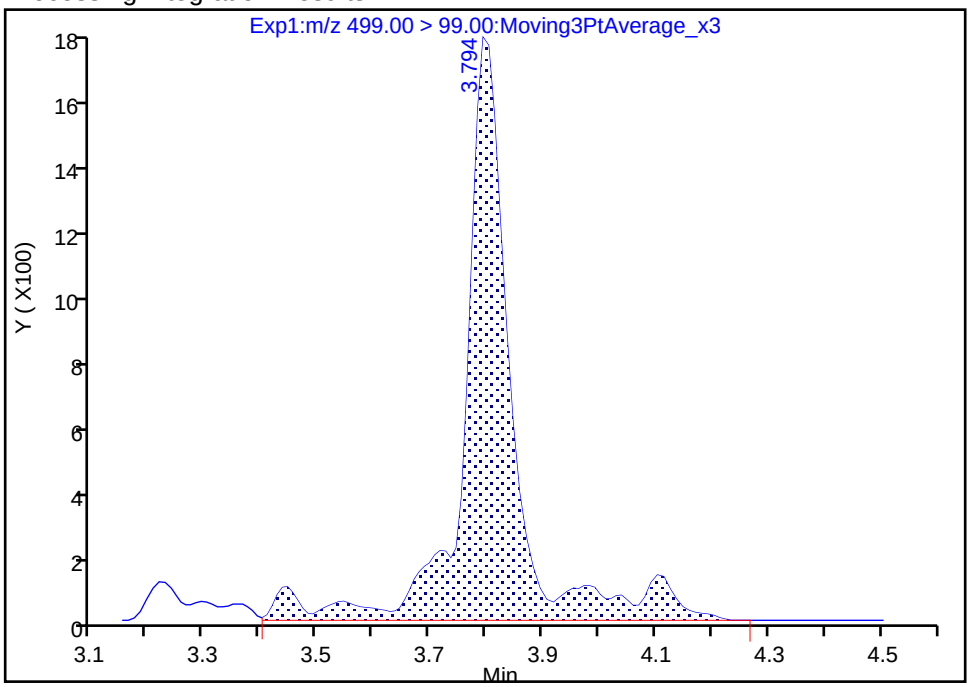
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

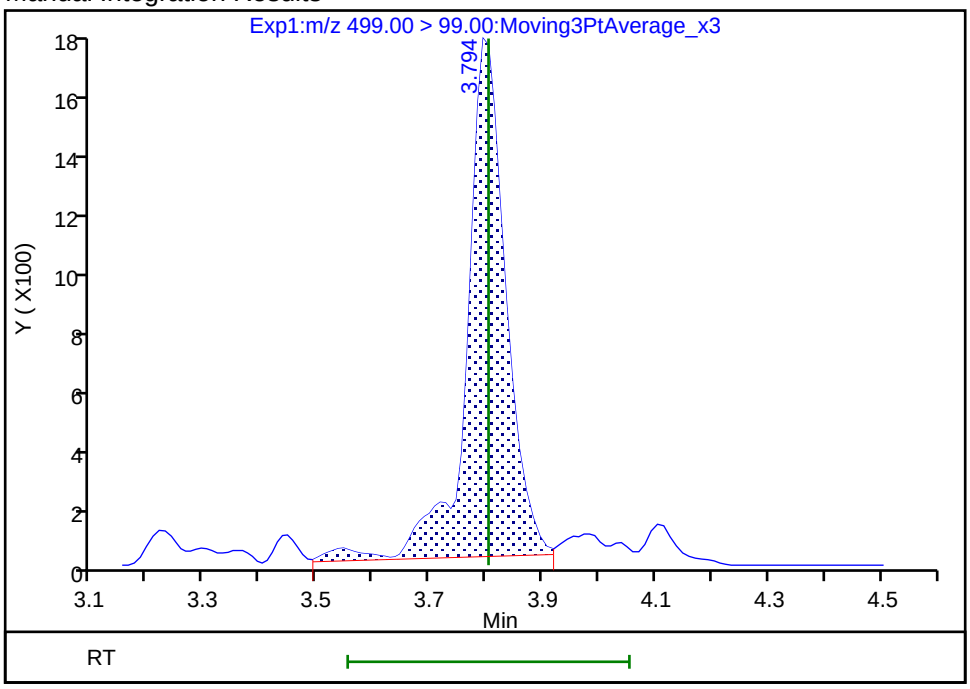
Processing Integration Results

RT: 3.79
Area: 10310
Amount: 0.057971
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 8225
Amount: 0.051211
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:26:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

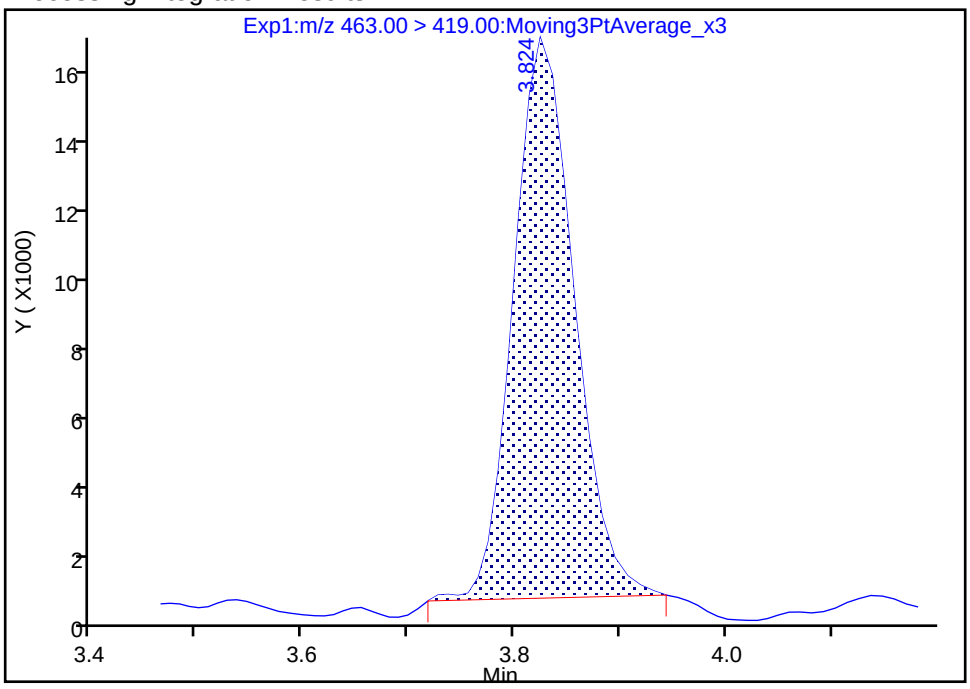
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

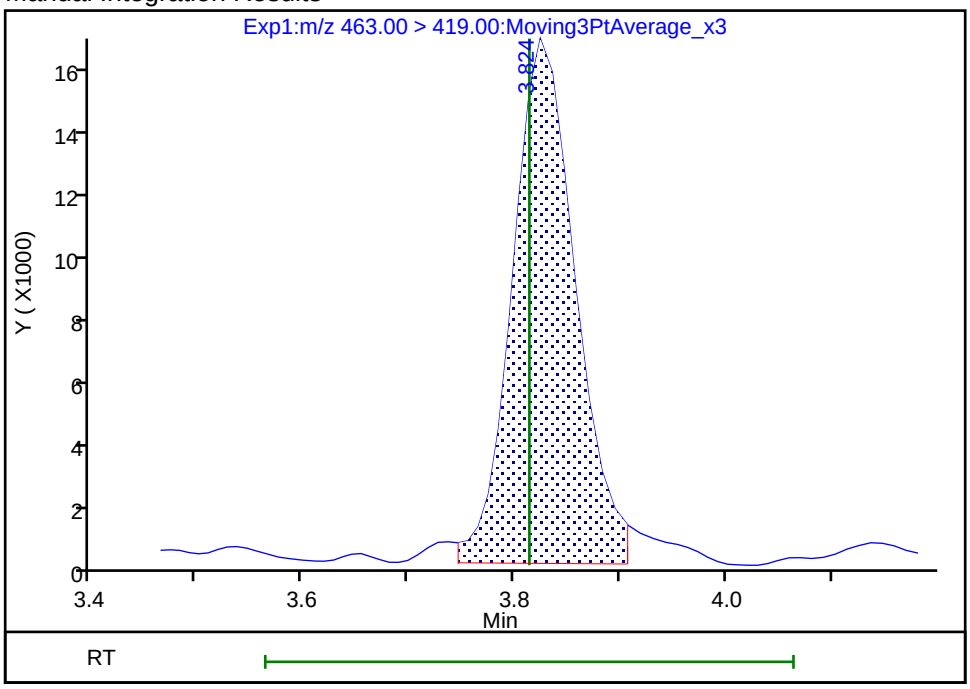
Processing Integration Results

RT: 3.82
Area: 60482
Amount: 0.052142
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 65027
Amount: 0.056061
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:26:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

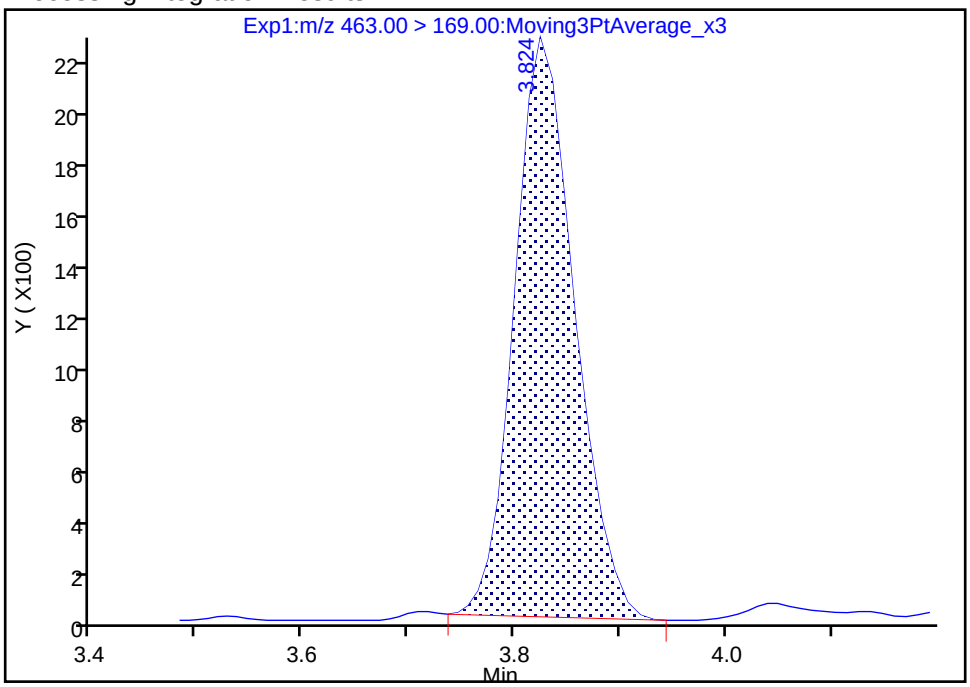
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d | | | | |
| Injection Date: | 09-Nov-2021 17:25:08 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

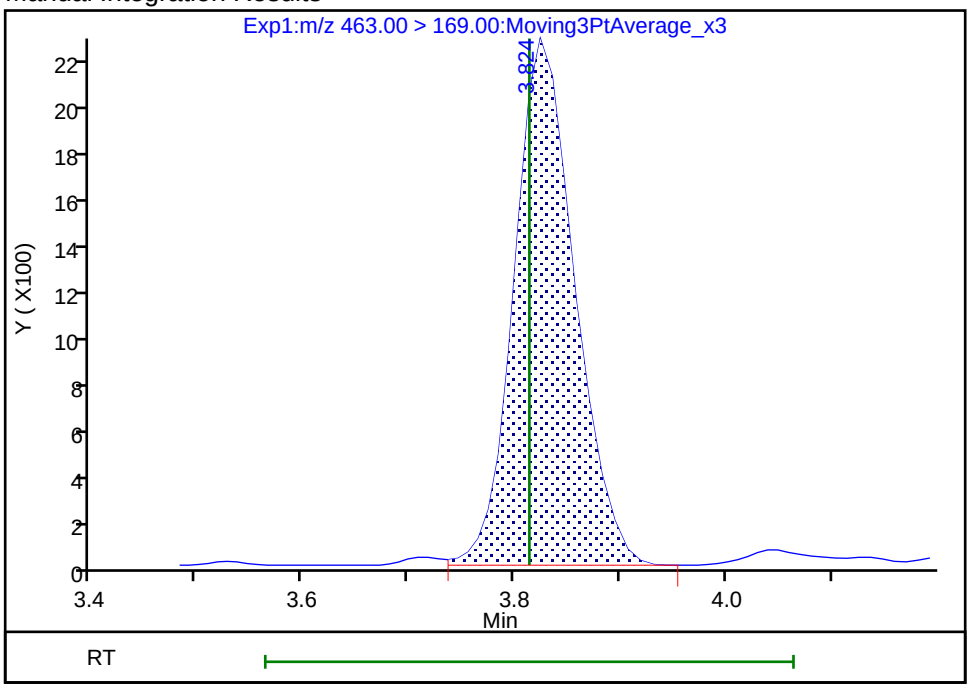
Processing Integration Results

RT: 3.82
Area: 8659
Amount: 0.052142
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 8802
Amount: 0.056061
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:01:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

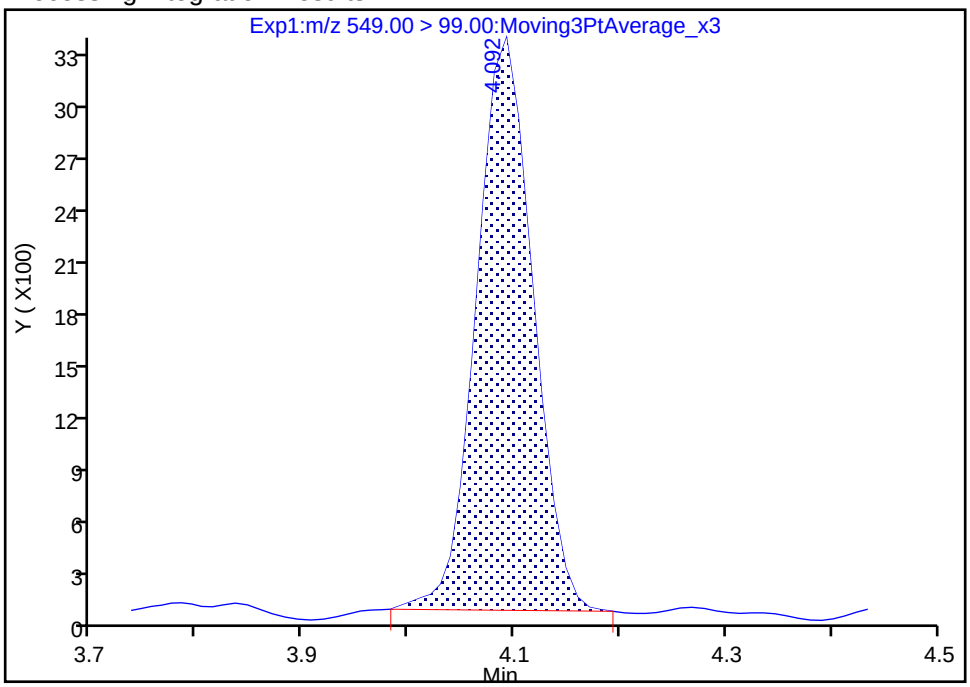
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 2

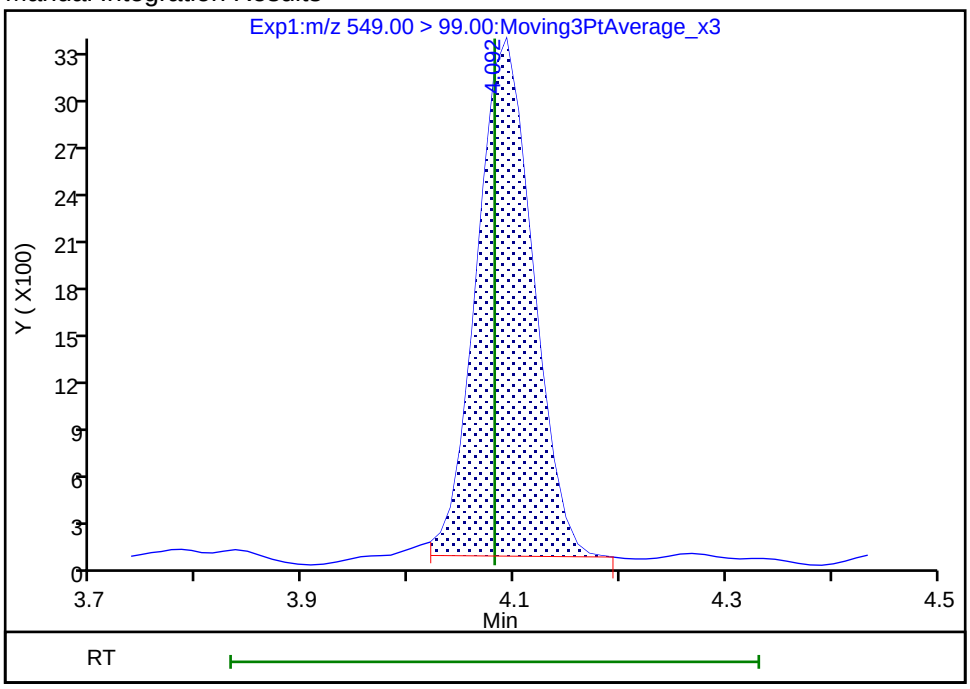
Processing Integration Results

RT: 4.09
Area: 12229
Amount: 0.049817
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 12129
Amount: 0.049201
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:01:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

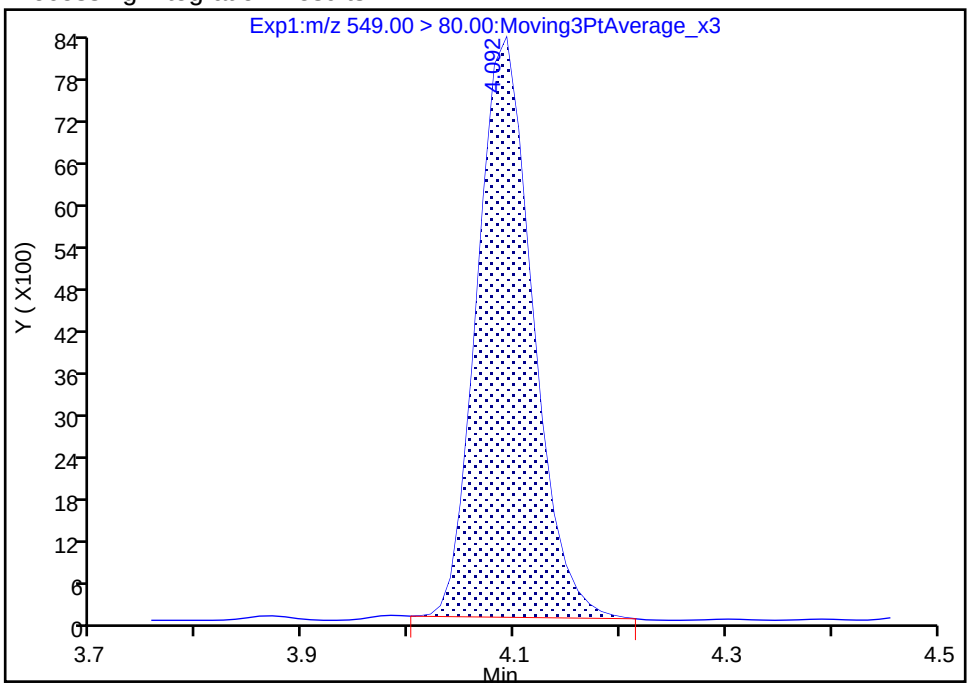
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

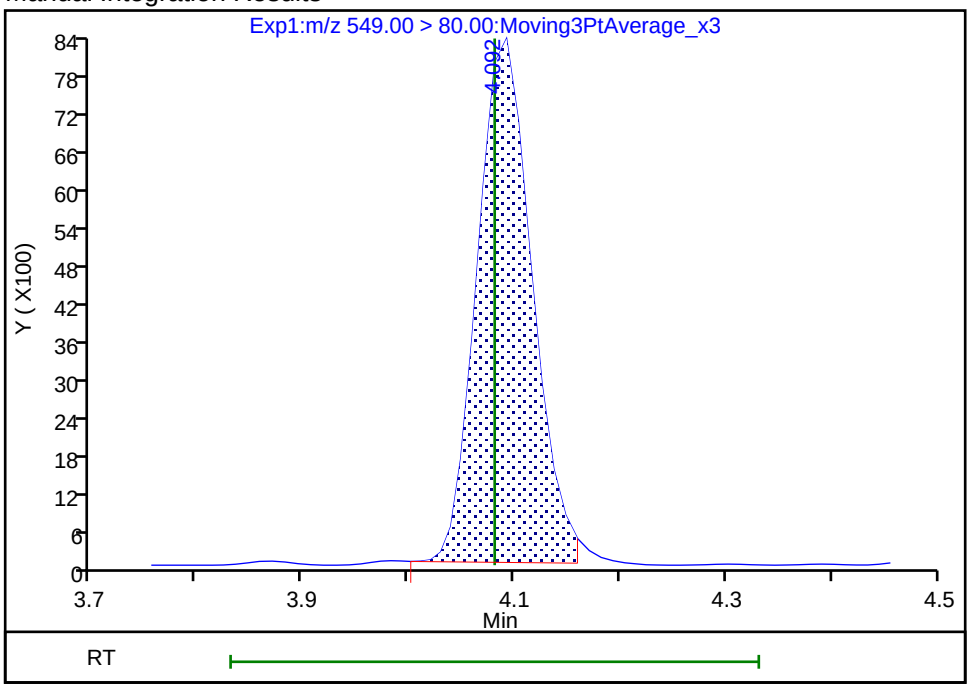
Processing Integration Results

RT: 4.09
Area: 30206
Amount: 0.049817
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 29833
Amount: 0.049201
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:01:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

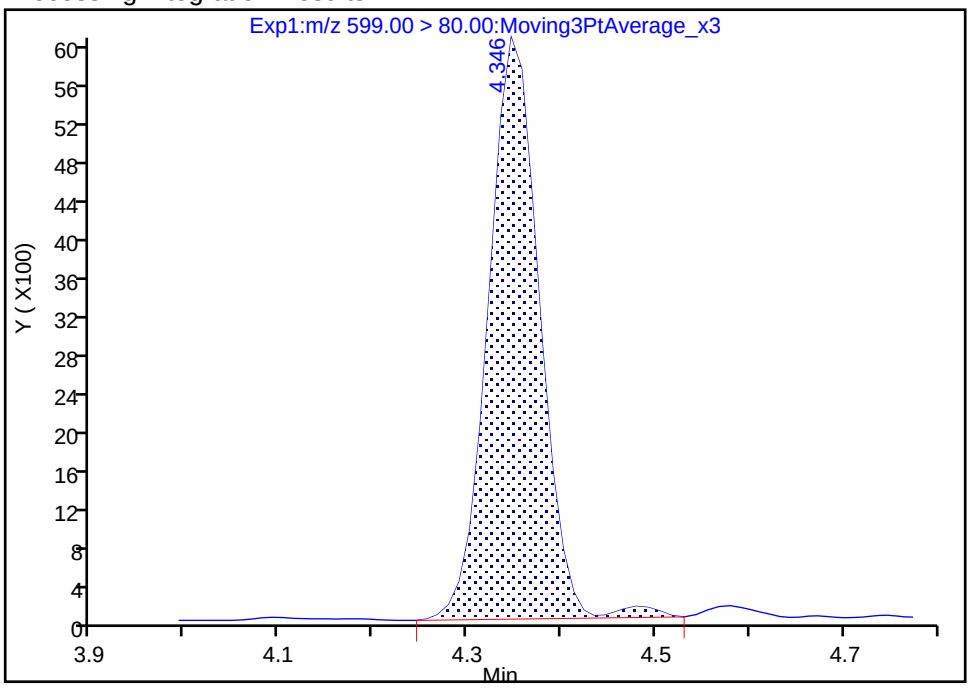
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

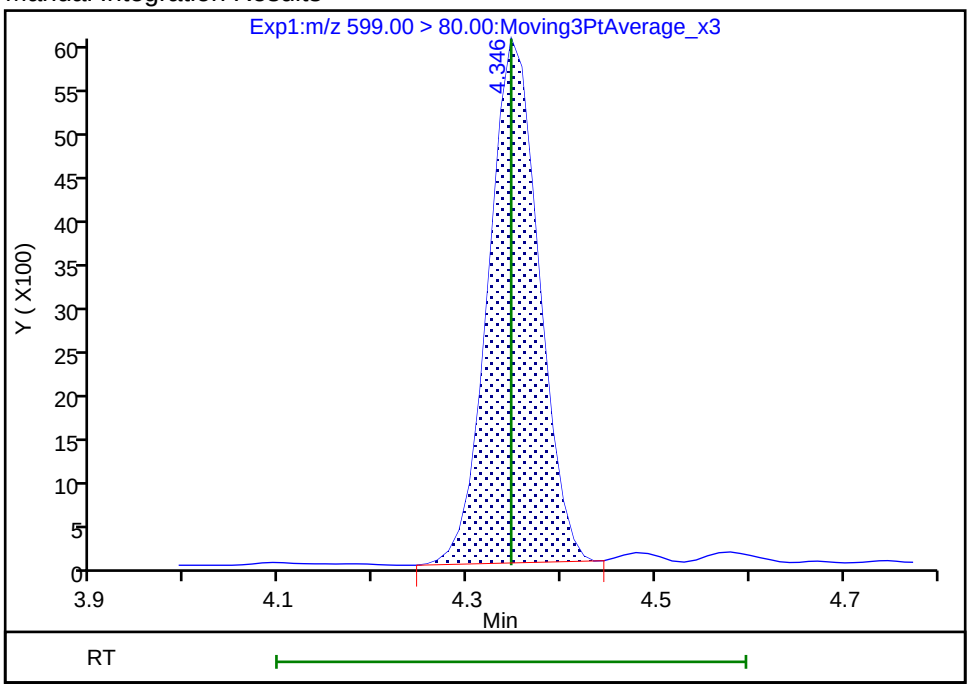
Processing Integration Results

RT: 4.35
Area: 22832
Amount: 0.048430
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 22336
Amount: 0.047378
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:26:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

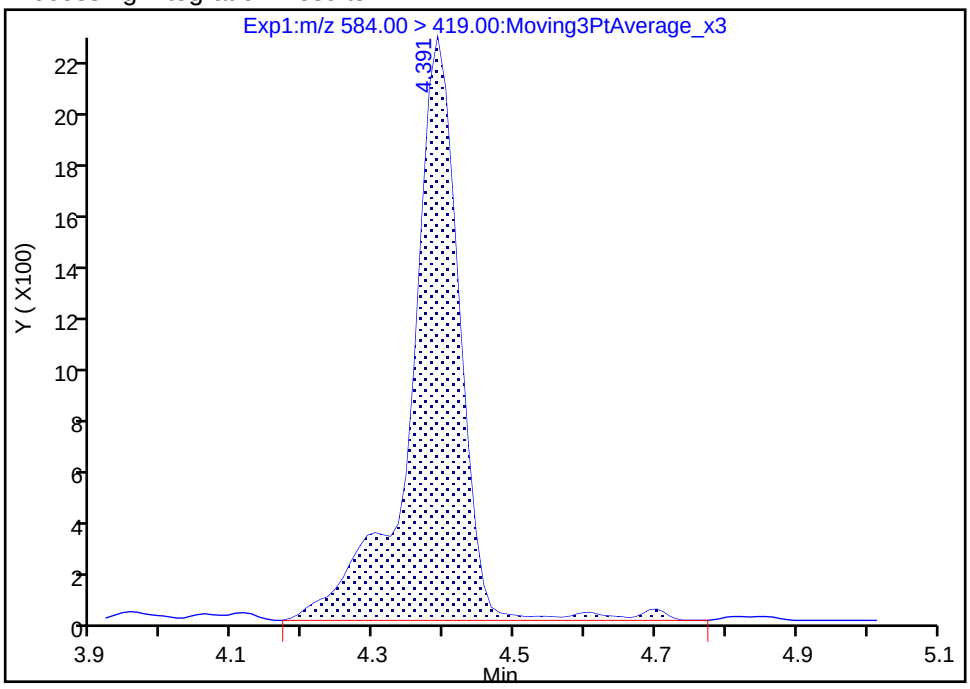
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

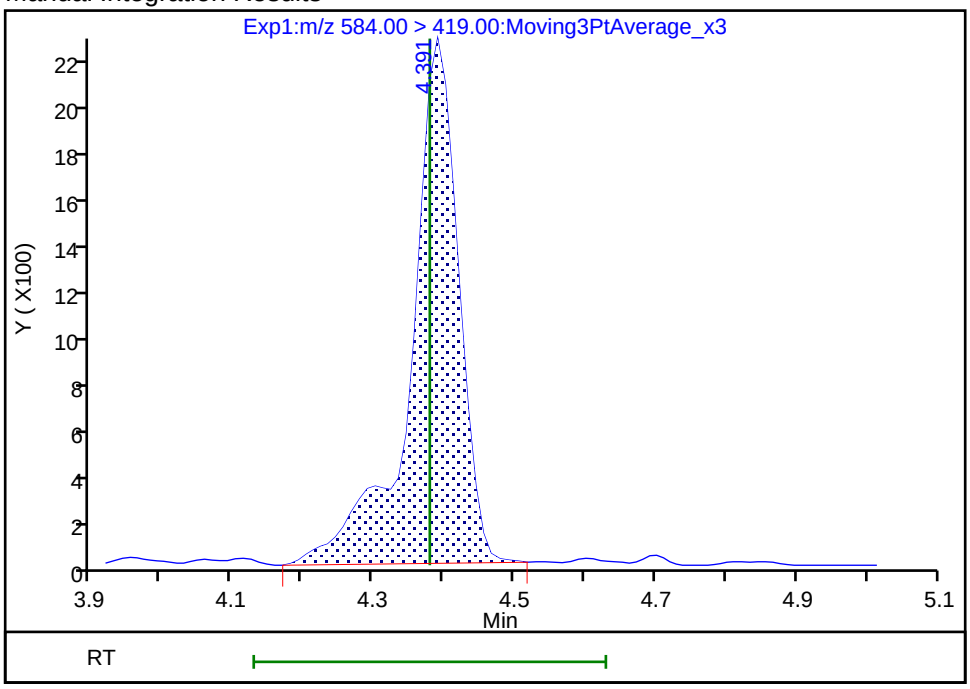
Processing Integration Results

RT: 4.39
Area: 11095
Amount: 0.126820
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 10704
Amount: 0.122351
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:01:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

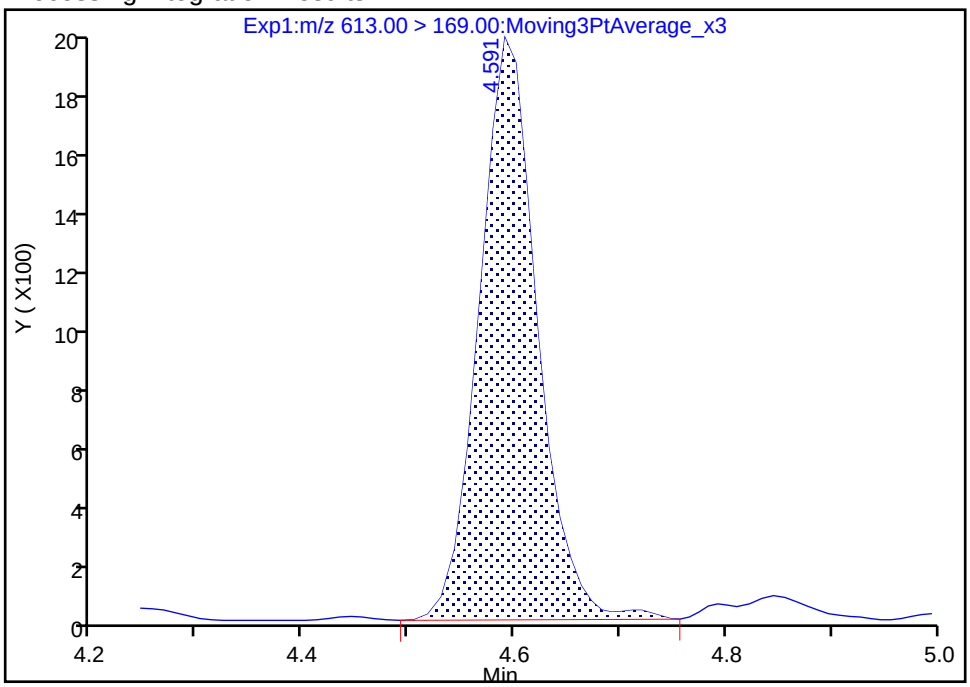
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d | | | | |
| Injection Date: | 09-Nov-2021 17:25:08 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

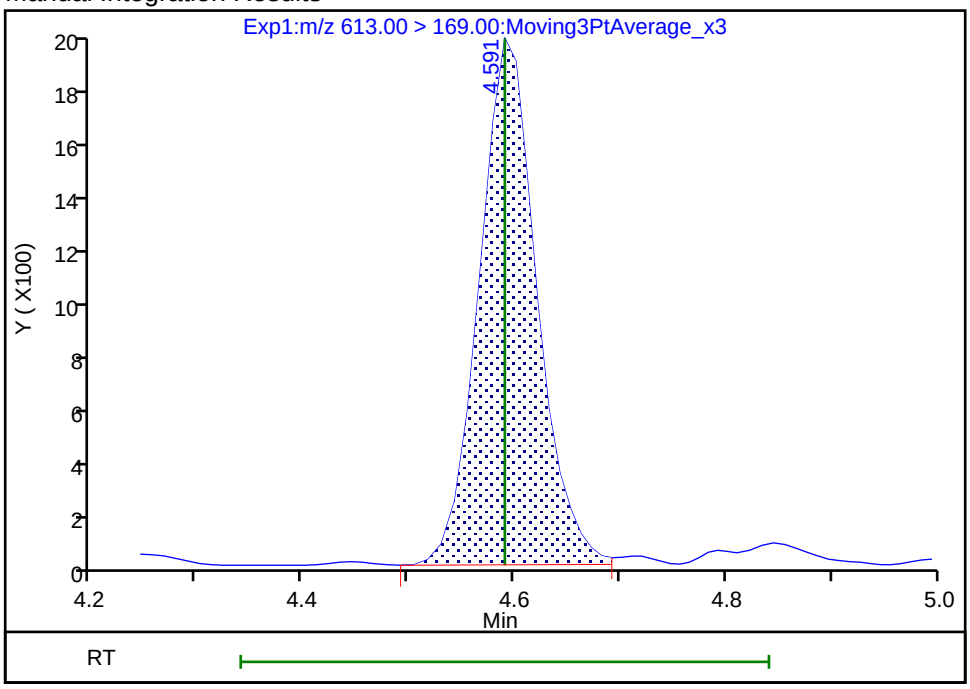
Processing Integration Results

RT: 4.59
Area: 7267
Amount: 0.057363
Amount Units: ng/ml




Manual Integration Results

RT: 4.59
Area: 7194
Amount: 0.057363
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:27:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

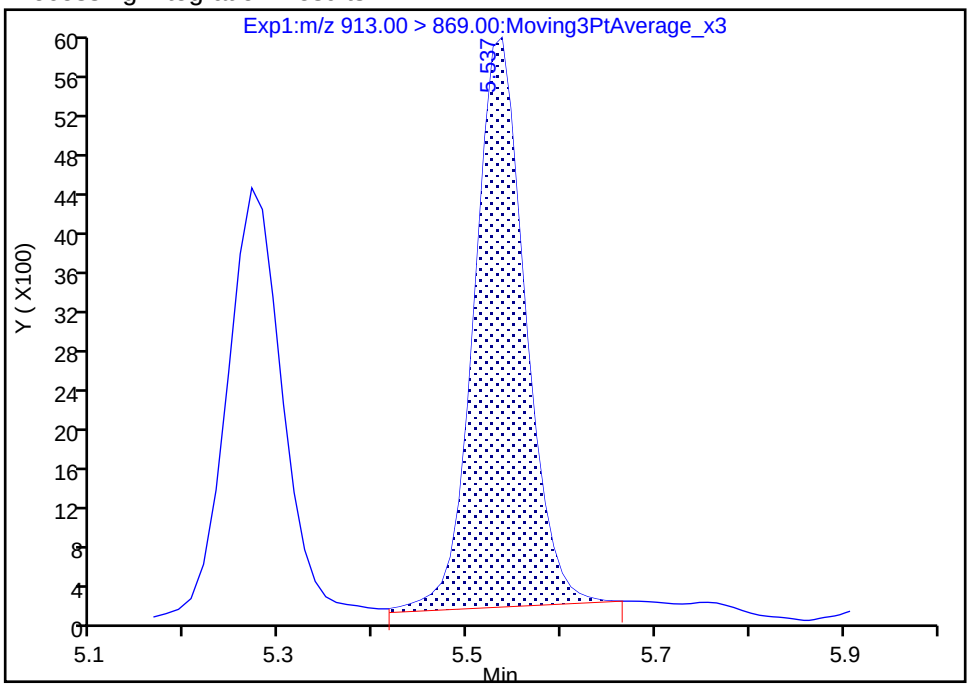
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA02.d
Injection Date: 09-Nov-2021 17:25:08 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

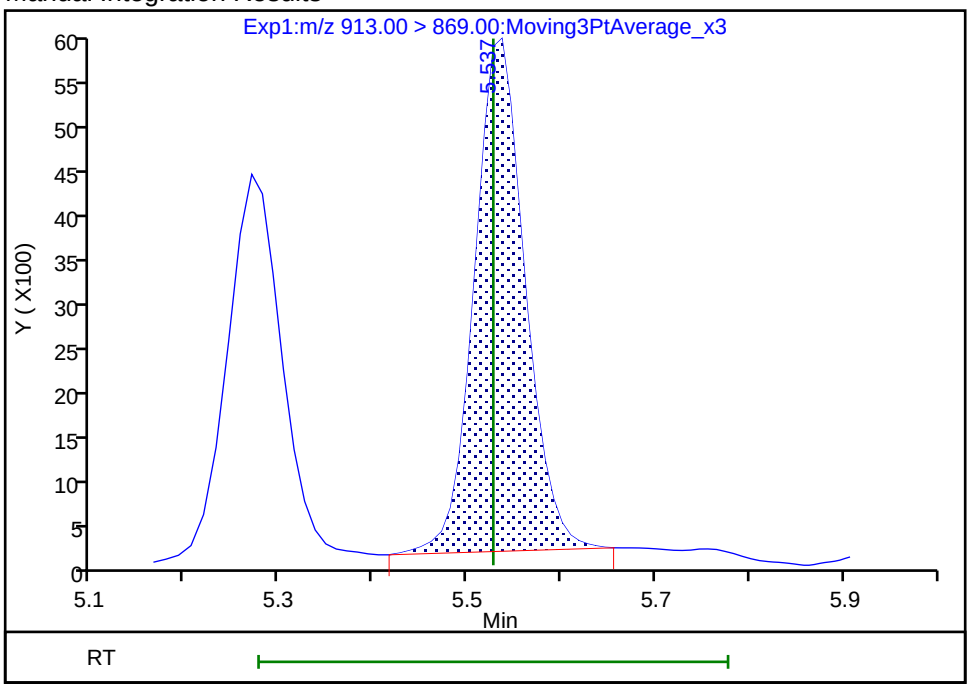
Processing Integration Results

RT: 5.54
Area: 21826
Amount: 0.045952
Amount Units: ng/ml




Manual Integration Results

RT: 5.54
Area: 21514
Amount: 0.045295
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:27:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173679/3  Calibration Date: 11/09/2021 17:33

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109AA03.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8816 | | 0.932 | 1.00 | -6.8 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9805 | | 0.979 | 1.00 | -2.1 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.022 | | 0.846 | 0.884 | -4.3 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.115 | | 0.928 | 0.934 | -0.6 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9748 | | 0.961 | 1.00 | -3.9 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.230 | | 0.958 | 0.938 | 2.1 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.032 | | 1.11 | 1.00 | 11.2 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.048 | | 0.867 | 0.910 | -4.7 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9882 | | 0.956 | 1.00 | -4.4 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.433 | | 0.924 | 0.942 | -1.9 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.176 | | 0.898 | 0.952 | -5.7 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.192 | | 0.891 | 0.948 | -6.0 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 0.998 | | 0.939 | 1.00 | -6.1 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.015 | | 0.868 | 0.928 | -6.4 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9714 | | 0.993 | 1.00 | -0.7 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.483 | | 0.846 | 0.932 | -9.3 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8088 | | 0.919 | 0.960 | -4.3 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9891 | | 0.984 | 1.00 | -1.6 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7708 | | 0.883 | 0.958 | -7.9 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9561 | | 1.01 | 1.00 | 0.7 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8375 | | 1.07 | 1.00 | 6.6 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6140 | | 0.901 | 0.964 | -6.6 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 0.9800 | | 0.919 | 1.00 | -8.1 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7784 | | 0.908 | 1.00 | -9.2 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.803 | | 0.880 | 0.942 | -6.6 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.020 | | 1.04 | 1.00 | 4.2 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3941 | | 0.983 | 0.964 | 2.0 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2371 | | 0.950 | 0.968 | -1.9 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173679/3  Calibration Date: 11/09/2021 17:33

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109AA03.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8823 | | 1.05 | 1.00 | 4.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1623 | | 1.03 | 1.00 | 2.9 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9169 | | 1.06 | 1.00 | 5.6 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6699 | | 0.794 | 1.00 | -20.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.237 | | 1.53 | 1.25 | 22.2 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9321 | | 1.37 | 1.25 | 9.3 | |
| 13C3 PFBS | Ave | 1.154 | 1.159 | | 1.17 | 1.16 | 0.5 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1096 | | 1.46 | 1.17 | 24.7 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9502 | | 1.33 | 1.25 | 6.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0211 | | 1.12 | 1.25 | -10.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9717 | | 1.29 | 1.25 | 3.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8404 | | 1.19 | 1.18 | 0.3 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1560 | | 1.40 | 1.19 | 18.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.023 | | 1.24 | 1.25 | -0.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6380 | | 1.26 | 1.20 | 5.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.013 | | 1.24 | 1.25 | -1.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9557 | | 1.16 | 1.25 | -7.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1754 | | 1.40 | 1.20 | 17.0 | |
| 13C8 FOSA | Ave | 0.998 | 1.015 | | 1.27 | 1.25 | 1.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0981 | | 1.21 | 1.25 | -3.6 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7435 | | 1.15 | 1.25 | -7.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0938 | | 1.23 | 1.25 | -1.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7596 | | 1.10 | 1.25 | -12.4 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6045 | | 1.12 | 1.25 | -10.1 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5236 | | 1.11 | 1.25 | -11.6 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Nov-2021 17:33:20 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048353-003 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 10-Nov-2021 09:49:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1662

First Level Reviewer: deannd Date: 09-Nov-2021 17:57:29
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.100 | 0.0 | 0.601 | 2149620 | 1.53 | | 122 | 11253 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.000 | 1516097 | 0.9324 | | 93.2 | 229 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1620183 | 1.37 | | 109 | 3403 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1270895 | 0.9788 | | 97.9 | 70.3 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1874427 | 1.17 | | 100 | 215468 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 1456524 | 0.8458 | Target=2.32 | 95.7 | 2059 | |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.005 | 662438 | | 2.20(1.16-3.48) | | 400 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 301144 | 0.9279 | | 99.4 | 3394 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 178009 | 1.46 | | 125 | 127 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1651641 | 1.33 | | 106 | 4527 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1288003 | 0.9612 | Target=12.09 | 96.1 | 267 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 108063 | | 11.92(6.04-18.13) | | 76.5 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1347811 | 0.9577 | Target=3.03 | 102 | 1680 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 440242 | | 3.06(1.52-4.55) | | 838 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.867 | 0.0 | 0.821 | 36616 | 1.12 | | 89.4 | 299 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.004 | 147387 | 1.11 | | 111 | 69.2 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1114095 | 0.8671 | Target=3.55 | 95.3 | 1603 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 310442 | | 3.59(1.77-5.32) | | 329 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1381944 | 1.19 | | 100 | 2939 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1689038 | 1.29 | | 103 | 4293 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 1335256 | 0.9564 | Target=3.69 | 95.6 | 526 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.003 | 349799 | | 3.82(1.84-5.53) | | 336 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2869417 | 0.9241 | Target=2.56 | 98.1 | 2518 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 1073791 | | 2.67(1.28-3.84) | | 1478 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 992910 | 0.8977 | Target=4.88 | 94.3 | 2152 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 195149 | | 5.09(2.44-7.32) | | 797 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 245209 | 0.8911 | | 94.0 | 1385 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 257672 | 1.40 | | 118 | 592 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1778391 | 1.24 | | 99.4 | 4018 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1738261 | 1.25 | | | 3897 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1420380 | 0.9388 | Target=2.68 | 93.9 | 204 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 554634 | | 2.56(1.34-4.02) | | 750 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 1060235 | 1.26 | | 105 | 4035 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.003 | 836079 | 0.8685 | Target=4.69 | 93.6 | 1411 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 170864 | | 4.89(2.35-7.04) | | 550 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1761272 | 1.24 | | 98.9 | 3066 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1368651 | 0.99 | Target=7.29 | 99.3 | 313 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 177998 | | 7.69(3.64-10.93) | | 986 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.954 | 3.954 | 0.0 | 1.042 | 1226630 | 0.8458 | | 90.7 | 4574 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.076 | 688893 | 0.9187 | Target=2.35 | 95.7 | 2765 | |
| 549.00 > 99.00 | 4.081 | 4.081 | 0.0 | 1.076 | 272430 | | 2.53(1.17-3.52) | | 1158 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1661256 | 1.15 | | 92.4 | 3210 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1314559 | 0.9844 | Target=8.95 | 98.4 | 706 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 143638 | | 9.15(4.47-13.42) | | 705 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 292043 | 1.40 | | 117 | 810 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 180082 | 0.8827 | | 92.1 | 882 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.213 | 1764747 | 1.27 | | 102 | 6249 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.000 | 1349835 | 1.01 | | 101 | 2288 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 170437 | 1.20 | | 96.4 | 467 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 114189 | 1.07 | | 107 | 470 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.346 | 4.346 | 0.0 | 1.146 | 525153 | 0.9007 | Target=2.47 | 93.4 | 1877 | |
| 599.00 > 99.00 | 4.346 | 4.346 | 0.0 | 1.146 | 196888 | | 2.67(1.23-3.70) | | 2312 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.0 | 1.251 | 1292426 | 1.15 | | 92.2 | 4811 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.0 | 1.000 | 1013294 | 0.9193 | Target=9.24 | 91.9 | 688 | |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.0 | 1.000 | 118662 | | 8.54(4.62-13.86) | | 1454 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 163023 | 1.23 | | 98.4 | 1203 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.000 | 101520 | 0.9084 | | 90.8 | 640 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.456 | 4.456 | 0.0 | 1.174 | 1506726 | 0.8797 | | 93.4 | 2902 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.591 | 0.0 | 1.315 | 1320311 | 1.09 | | 87.6 | 1105 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.591 | 4.591 | 0.0 | 1.000 | 1077401 | 1.04 | Target=7.04 | 104 | 195 | |
| 613.00 > 169.00 | 4.591 | 4.591 | 0.0 | 1.000 | 156337 | | 6.89(3.52-10.56) | | 1336 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 92661 | 0.9830 | | 102 | 1536 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.756 | 4.756 | 0.0 | 1.254 | 203621 | 0.9495 | Target=0.49 | 98.1 | 3198 | |
| 699.00 > 99.00 | 4.756 | 4.756 | 0.0 | 1.254 | 385893 | | 0.53(0.25-0.74) | | 2112 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.792 | 4.792 | 0.0 | 1.044 | 931889 | 1.05 | Target=4.68 | 105 | 235 | |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.044 | 215453 | | 4.33(2.34-7.02) | | 1268 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.966 | 4.966 | 0.0 | 1.422 | 1050765 | 1.12 | | 89.9 | 2984 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.966 | 4.966 | 0.0 | 1.000 | 136471 | 1.03 | Target=1.01 | 103 | 1756 | |
| 713.00 > 219.00 | 4.966 | 4.966 | 0.0 | 1.000 | 129595 | | 1.05(0.51-1.52) | | 1591 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.270 | 5.270 | 0.0 | 1.509 | 910211 | 1.11 | | 88.4 | 3408 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.270 | 5.270 | 0.0 | 1.000 | 667667 | 1.06 | Target=4.57 | 106 | 206 | |
| 813.00 > 169.00 | 5.270 | 5.270 | 0.0 | 1.000 | 155732 | | 4.29(2.29-6.86) | | 2142 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.527 | 5.527 | 0.0 | 1.049 | 487764 | 0.7943 | Target=4.27 | 79.4 | 240 | M |
| 913.00 > 169.00 | 5.527 | 5.527 | 0.0 | 1.049 | 119092 | | 4.10(2.14-6.41) | | 923 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 10-Nov-2021 09:49:34 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d

Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812

Lims ID: CCVIS

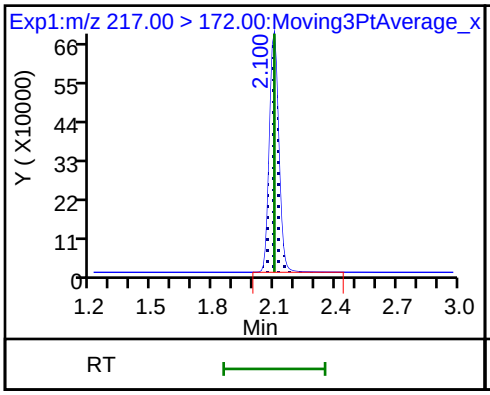
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3

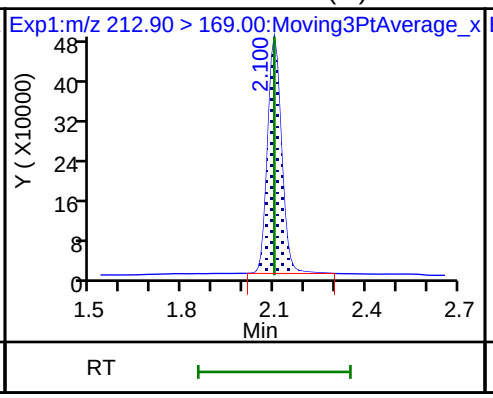
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

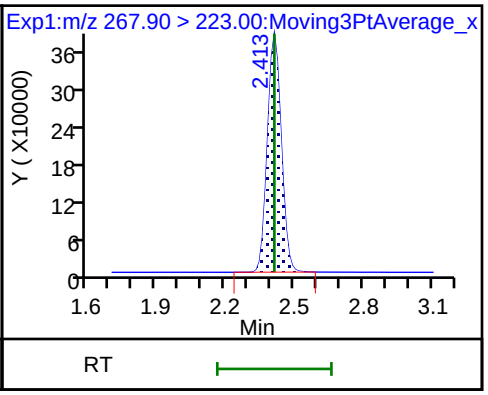
D 1 13C4 PFBA



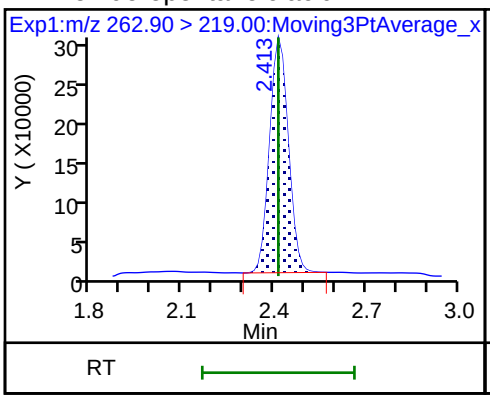

2 Perfluorobutanoic acid (M)



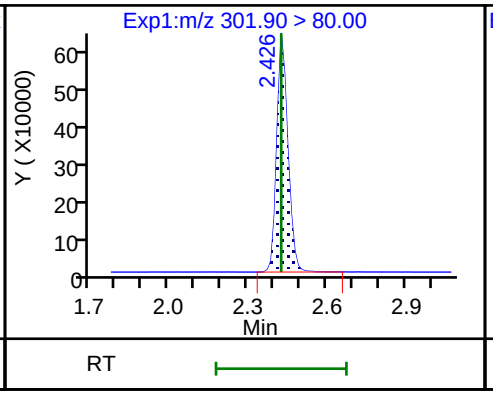

D 3 13C5 PFPeA



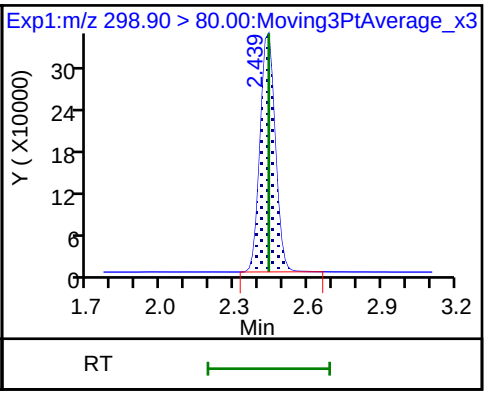

4 Perfluoropentanoic acid



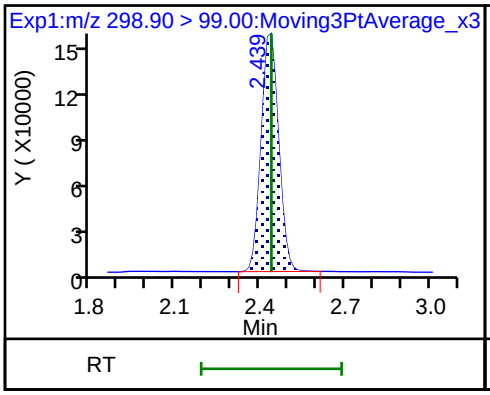

D 47 13C3 PFBS



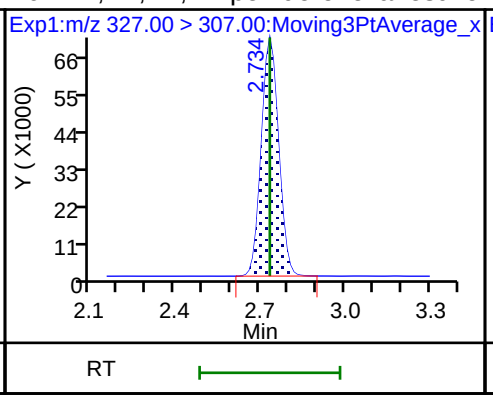

5 Perfluorobutanesulfonic acid



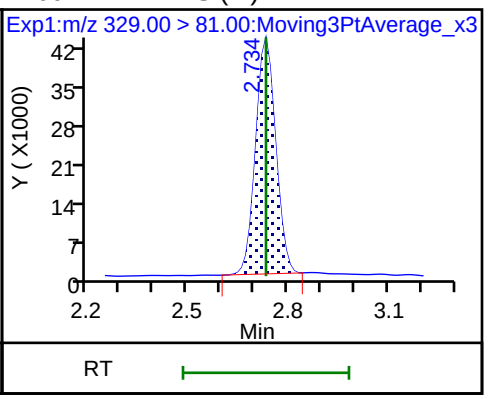

5 Perfluorobutanesulfonic acid



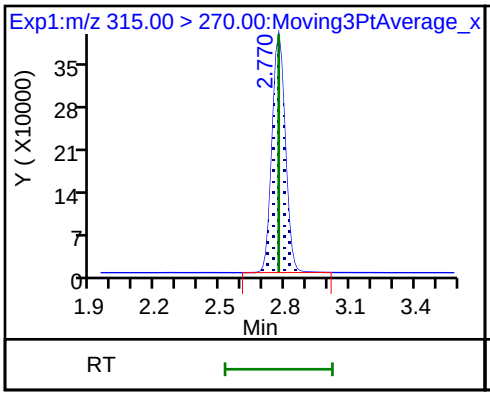

61 1H,1H,2H,2H-perfluorohexanesulfo



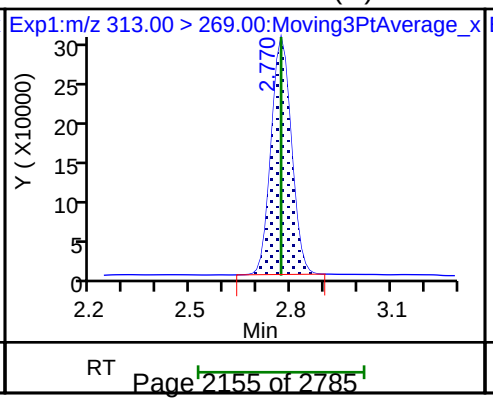

D 60 M2-4:2 FTS (M)



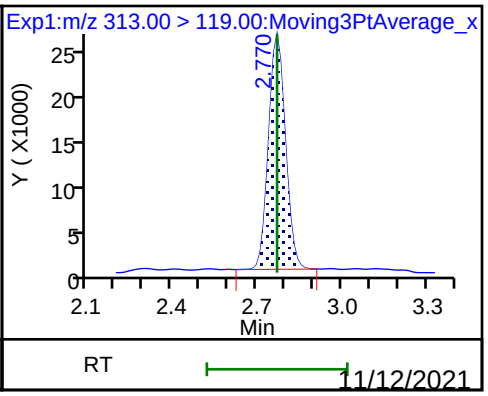

D 7 13C2 PFHxA



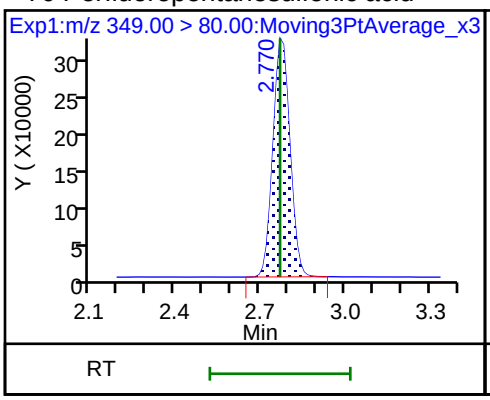

6 Perfluorohexanoic acid (M)



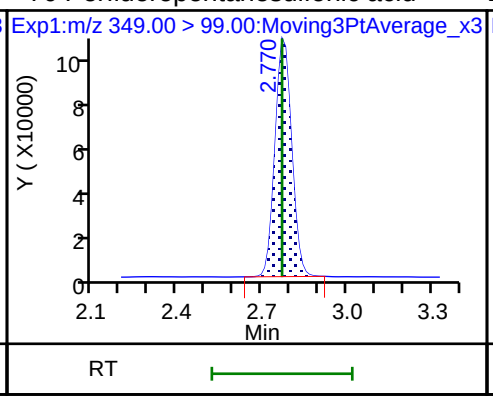

6 Perfluorohexanoic acid



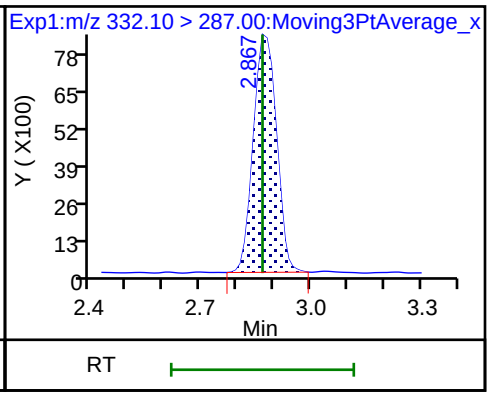
70 Perfluoropentanesulfonic acid



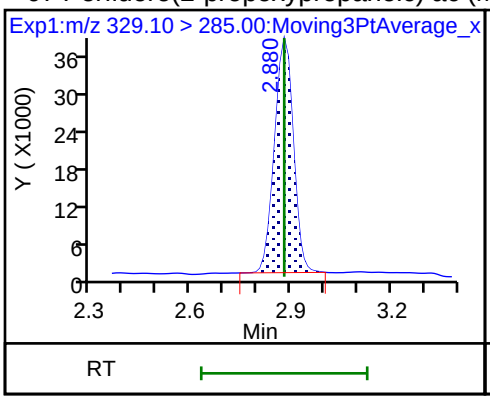

70 Perfluoropentanesulfonic acid



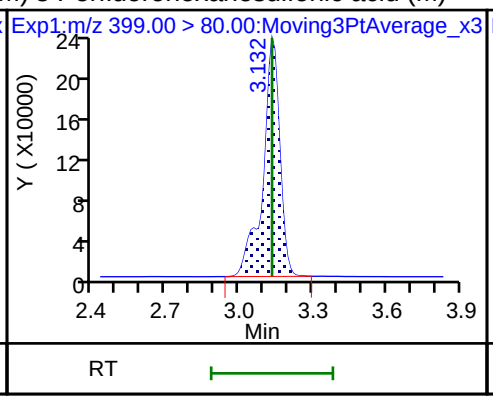

D 64 13C3 HFPO-DA



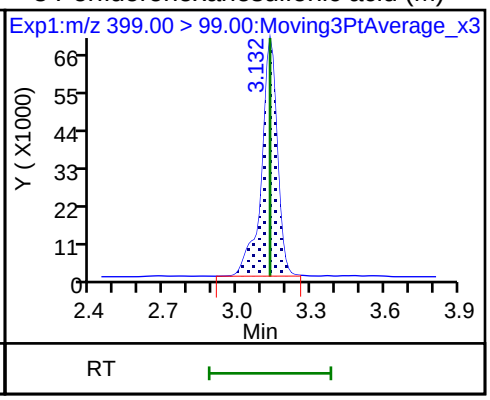

67 Perfluoro(2-propoxypropanoic) ac (M)



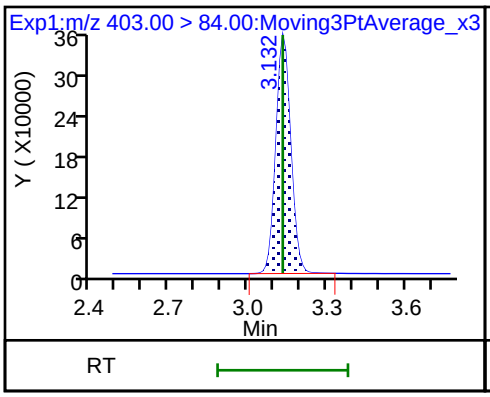

8 Perfluorohexanesulfonic acid (M)



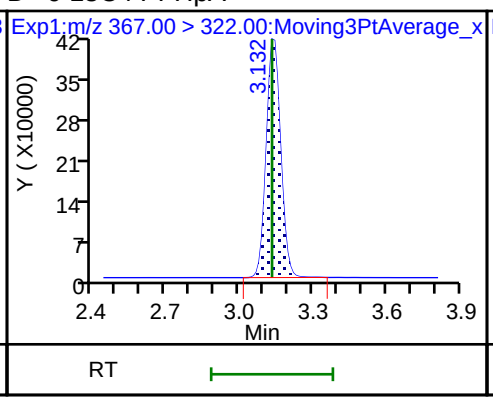

8 Perfluorohexanesulfonic acid (M)



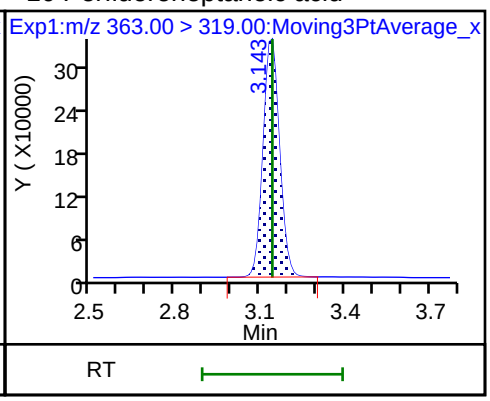

D 11 18O2 PFHxS



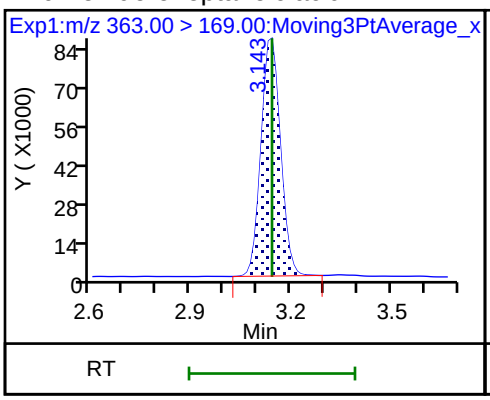

D 9 13C4 PFHpA



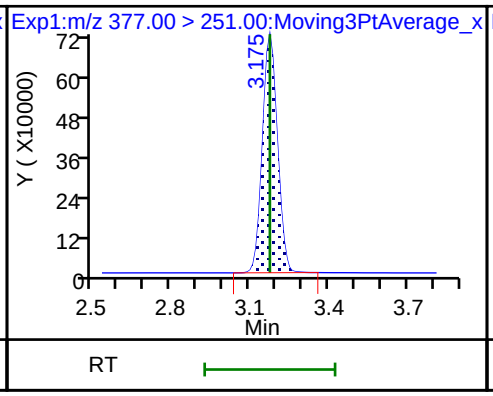

10 Perfluoroheptanoic acid



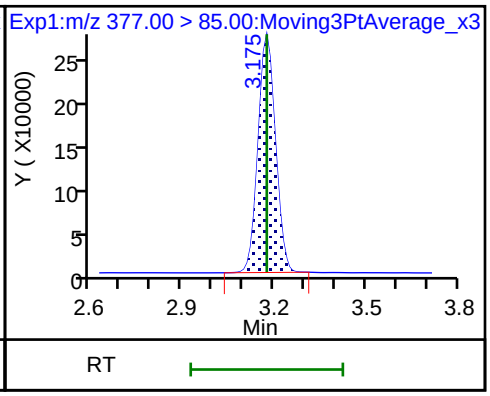

10 Perfluoroheptanoic acid



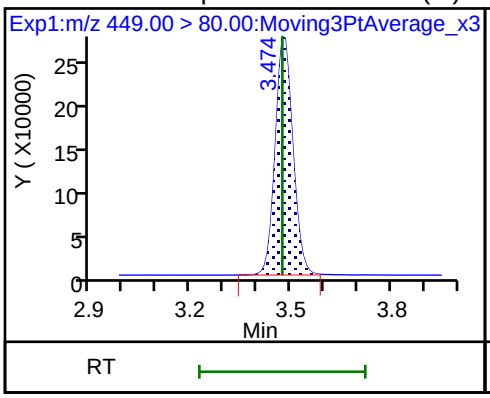

77 DONA



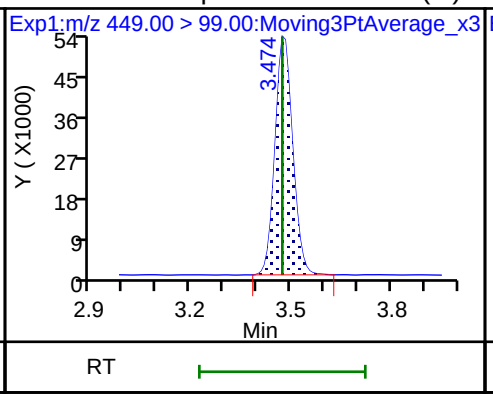

77 DONA



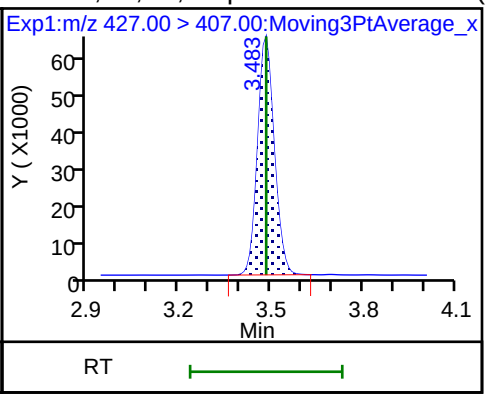
16 Perfluoroheptanesulfonic acid (M)



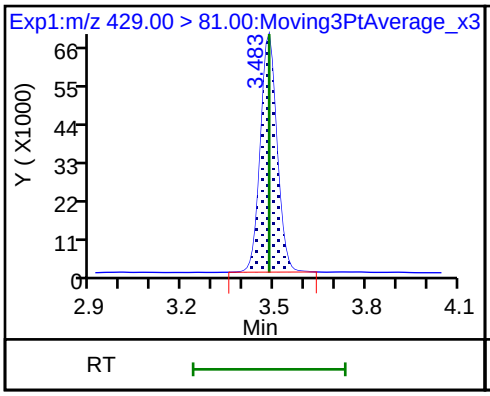

16 Perfluoroheptanesulfonic acid (M)



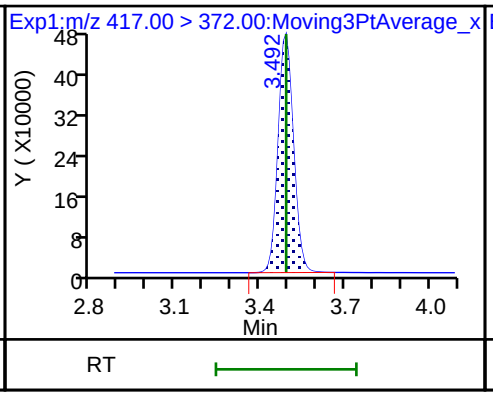

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



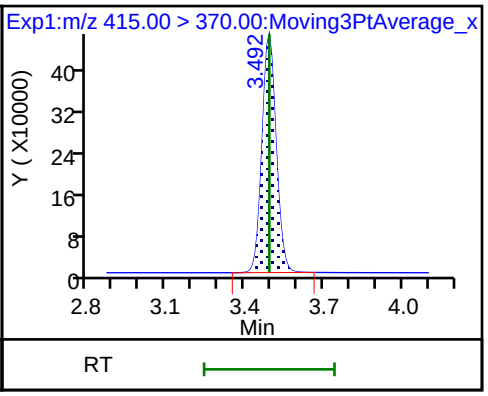

D 12 M2-6:2 FTS



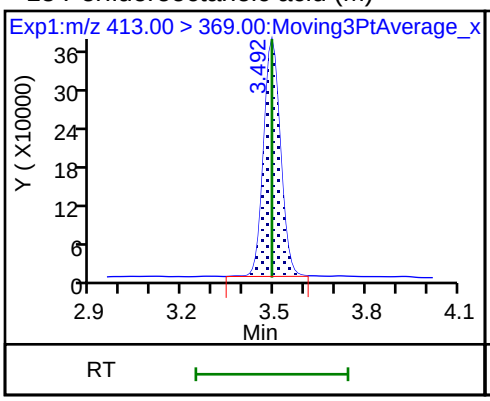

D 14 13C4 PFOA



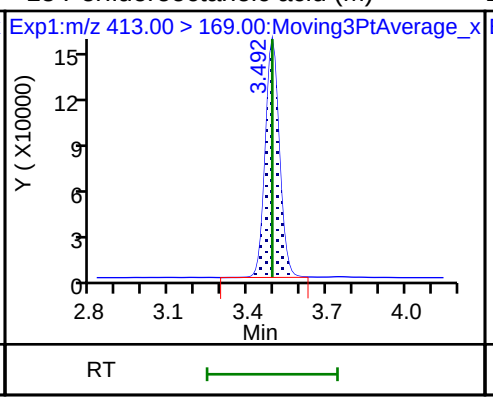

* 62 13C2 PFOA



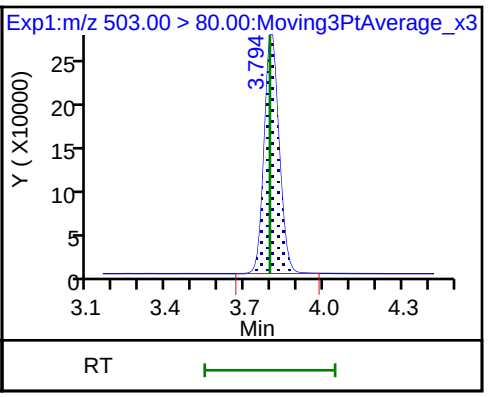

15 Perfluorooctanoic acid (M)



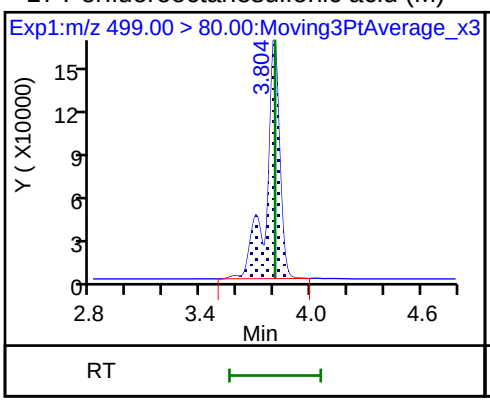

15 Perfluorooctanoic acid (M)



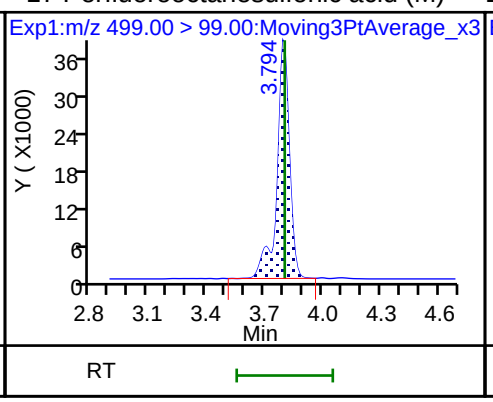

D 18 13C4 PFOS



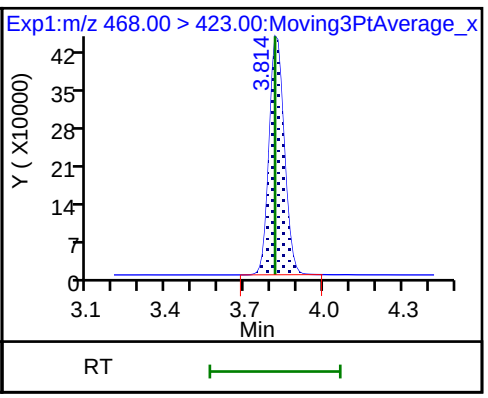

17 Perfluorooctanesulfonic acid (M)



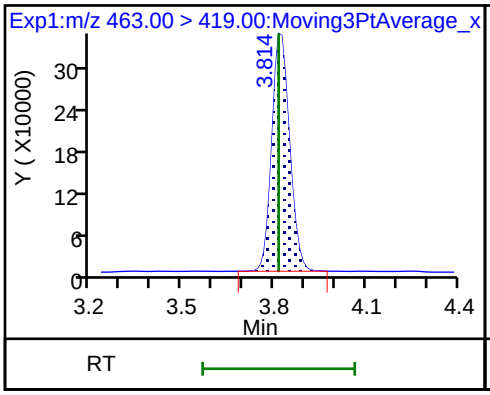

17 Perfluorooctanesulfonic acid (M)



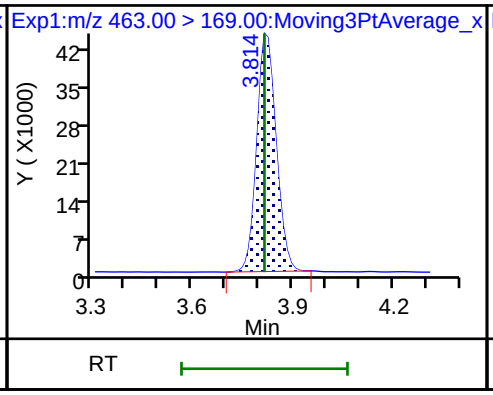

D 19 13C5 PFNA



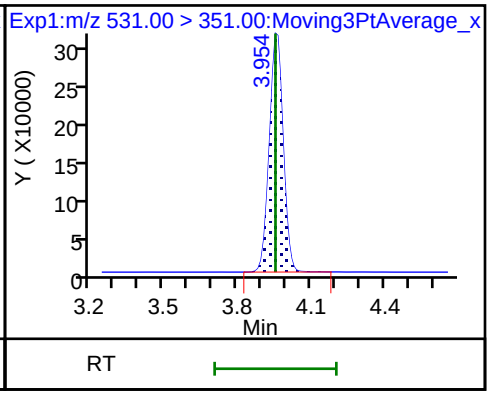
20 Perfluorononanoic acid



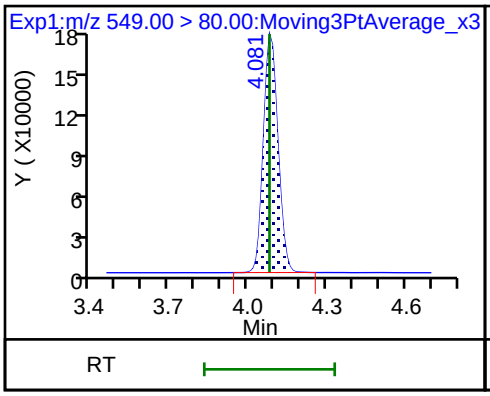

20 Perfluorononanoic acid



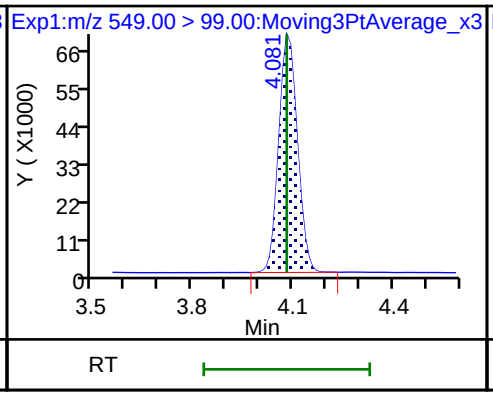

69 9-Chlorohexadecafluoro-3-oxanona



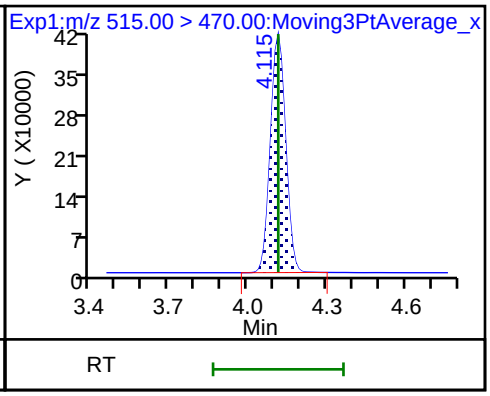

68 Perfluorononanesulfonic acid



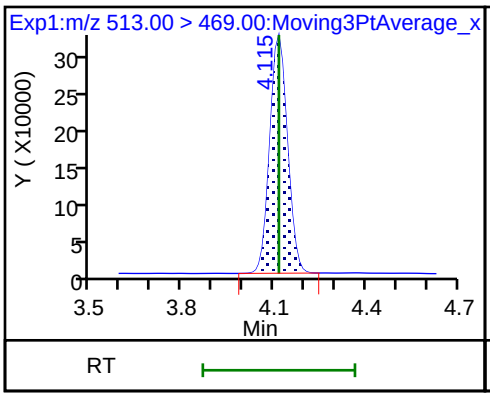

68 Perfluorononanesulfonic acid



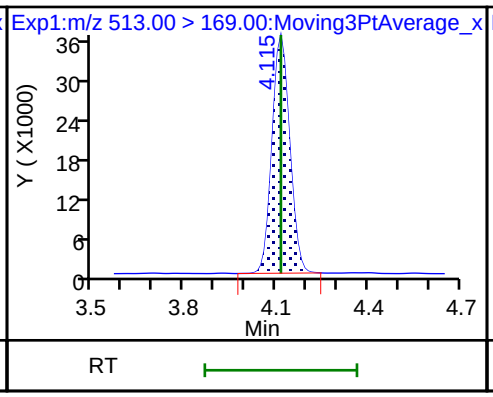

D 23 13C2 PFDA



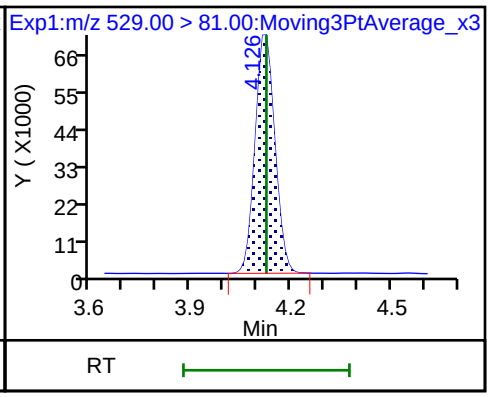

24 Perfluorodecanoic acid



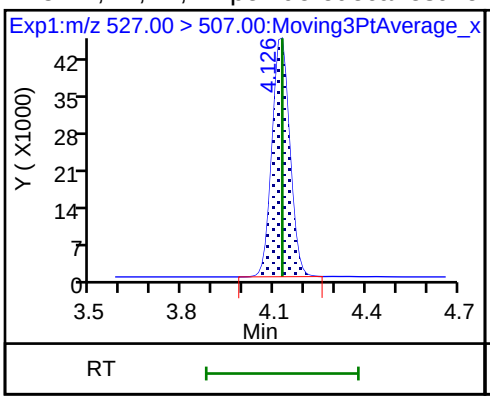

24 Perfluorodecanoic acid



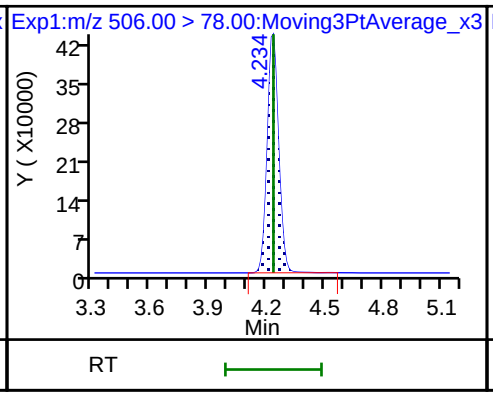

D 26 M2-8:2 FTS



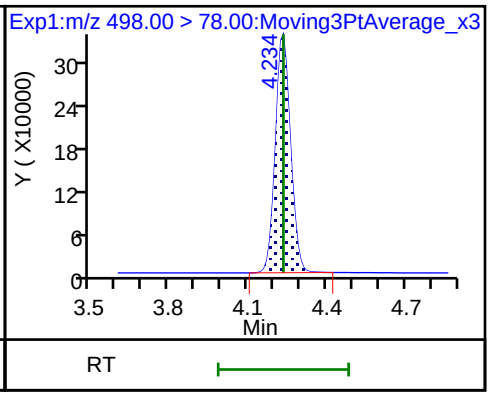

25 1H,1H,2H,2H-perfluorodecanesulfo



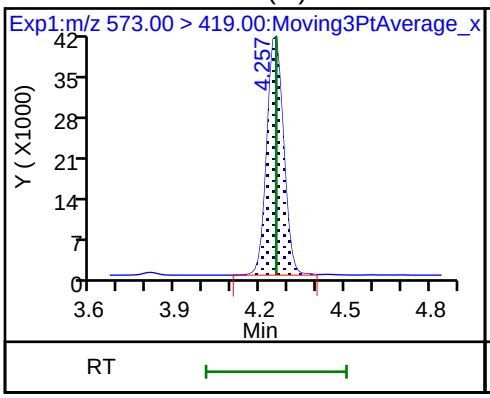

D 21 13C8 FOSA



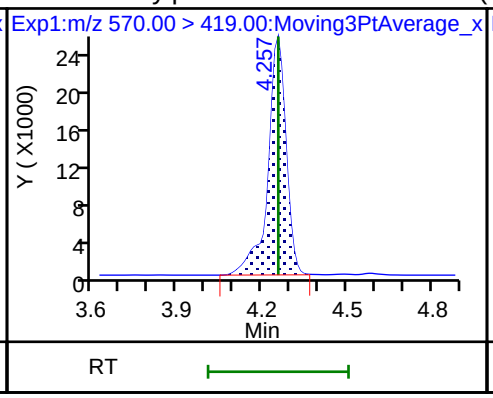

22 Perfluorooctanesulfonamide



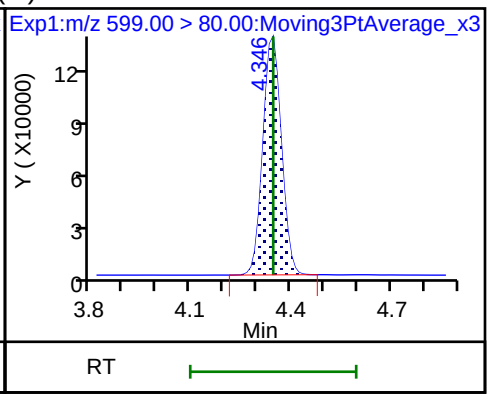
D 27 d3-NMeFOSAA (M)



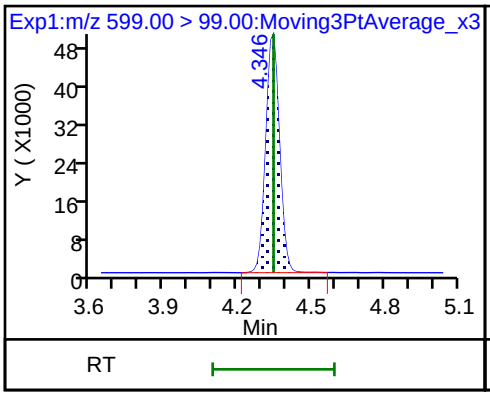

28 N-methylperfluorooctanesulfonami (M)



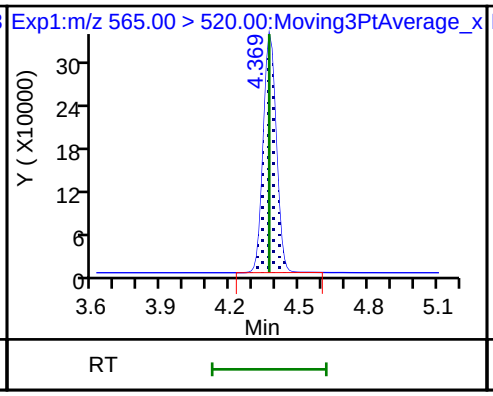

29 Perfluorodecanesulfonic acid



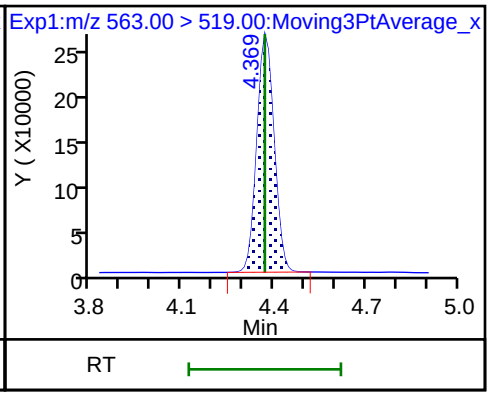

29 Perfluorodecanesulfonic acid



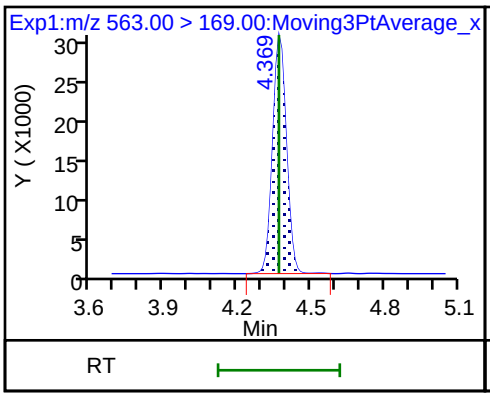

D 30 13C2 PFUnA



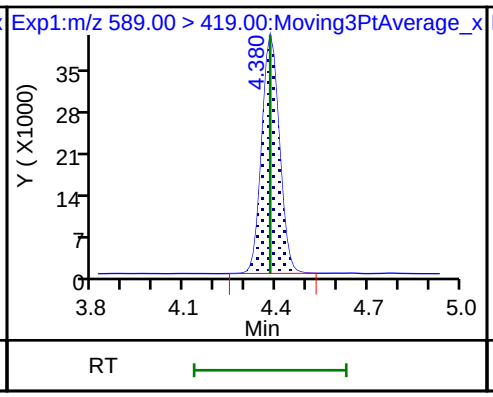

31 Perfluoroundecanoic acid



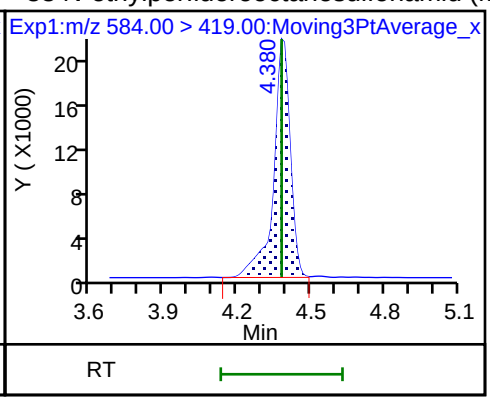

31 Perfluoroundecanoic acid



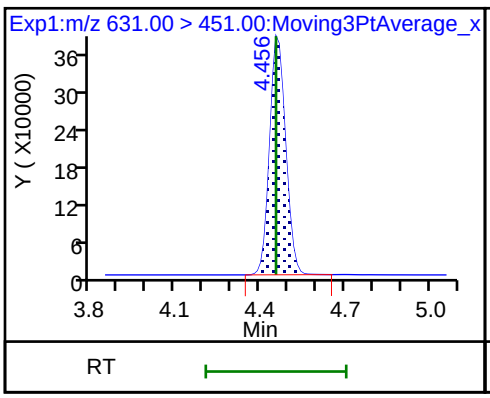

D 32 d5-NEtFOSAA



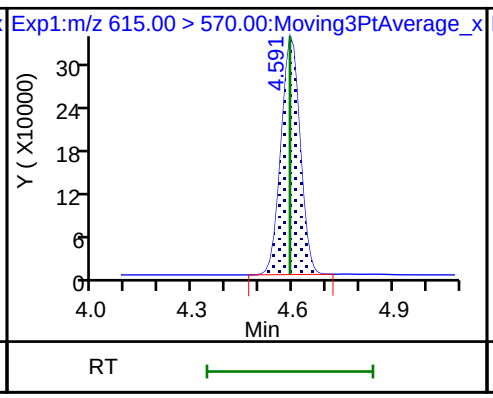

33 N-ethylperfluorooctanesulfonamid (M)



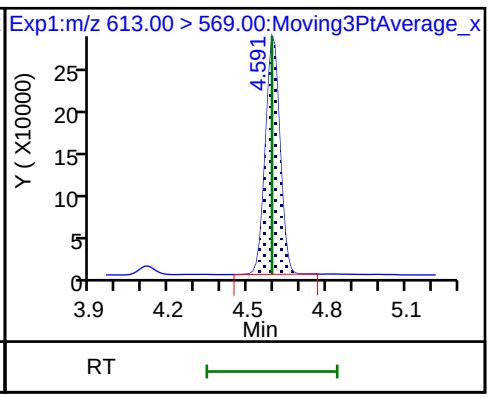

66 11-Chloroeicosafluoro-3-oxaundec



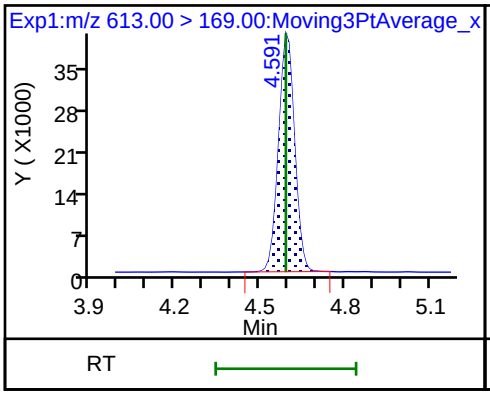

D 36 13C2 PFDoA



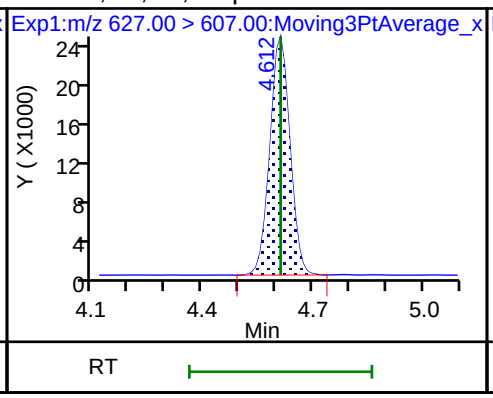

37 Perfluorododecanoic acid



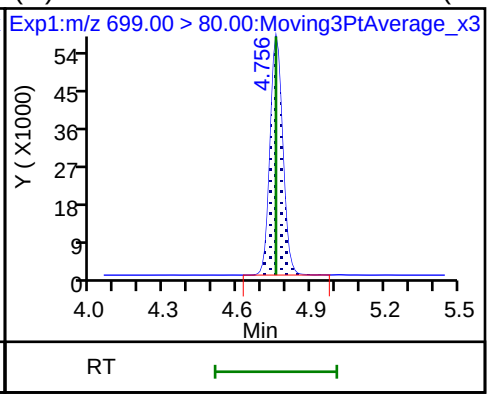
37 Perfluorododecanoic acid



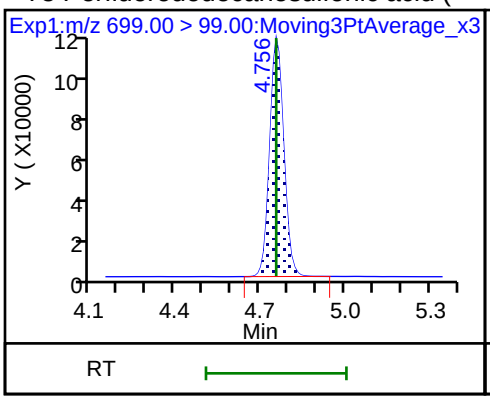

74 1H,1H,2H,2H-perfluorododecanesul (M)



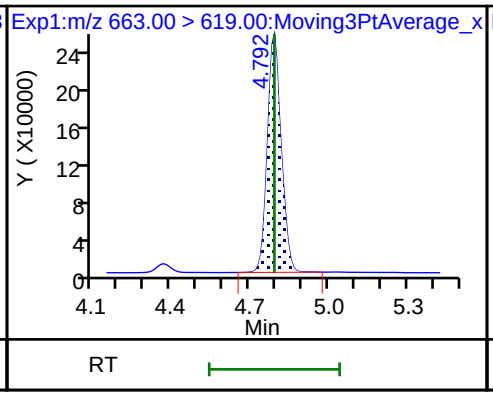

75 Perfluorododecanesulfonic acid (



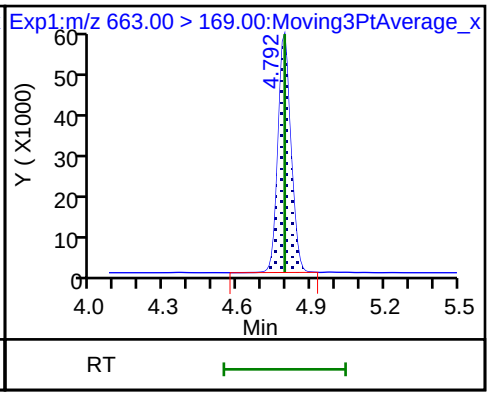

75 Perfluorododecanesulfonic acid (



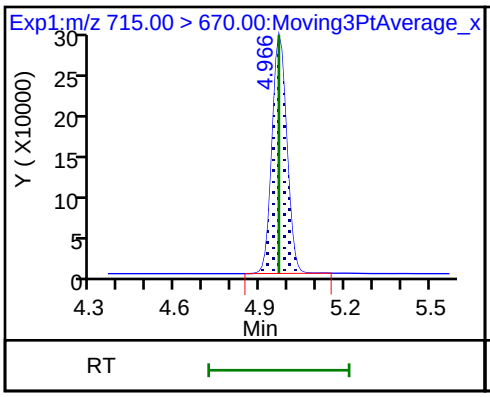

41 Perfluorotridecanoic acid



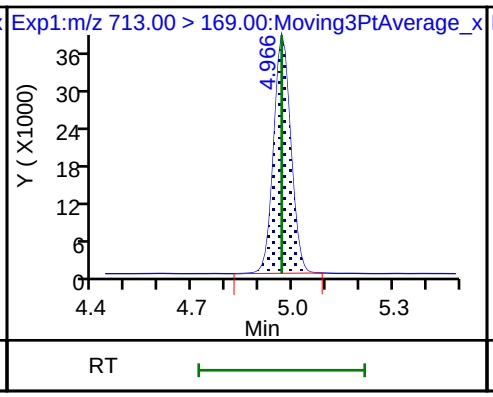

41 Perfluorotridecanoic acid



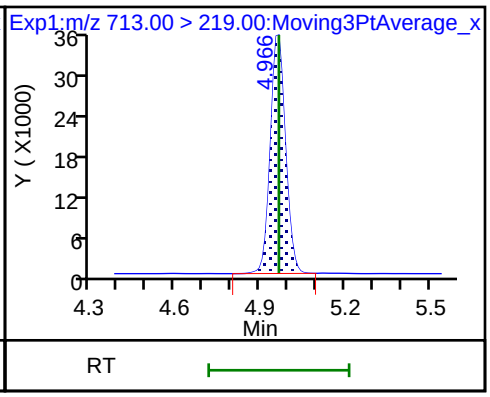

D 43 13C2 PFTeDA



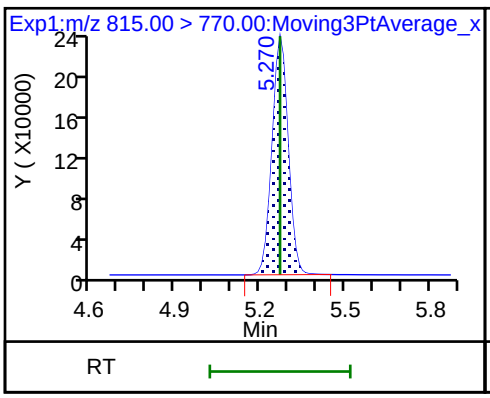

42 Perfluorotetradecanoic acid



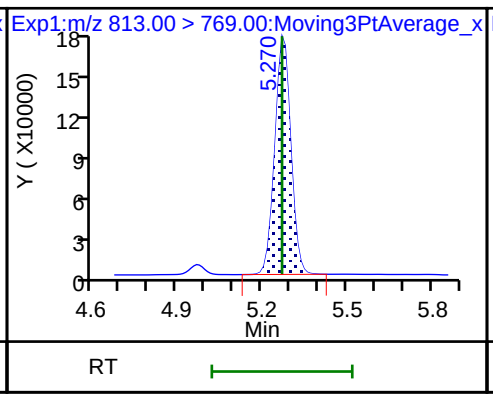

42 Perfluorotetradecanoic acid



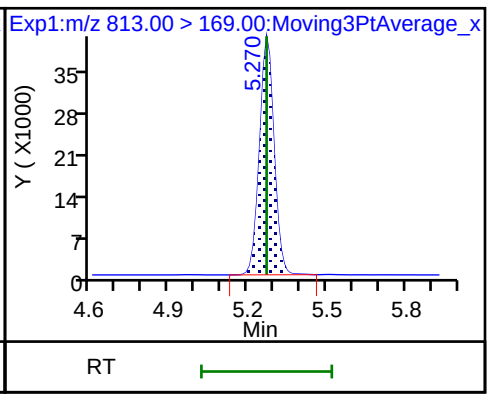

D 44 13C2 PFHxDA



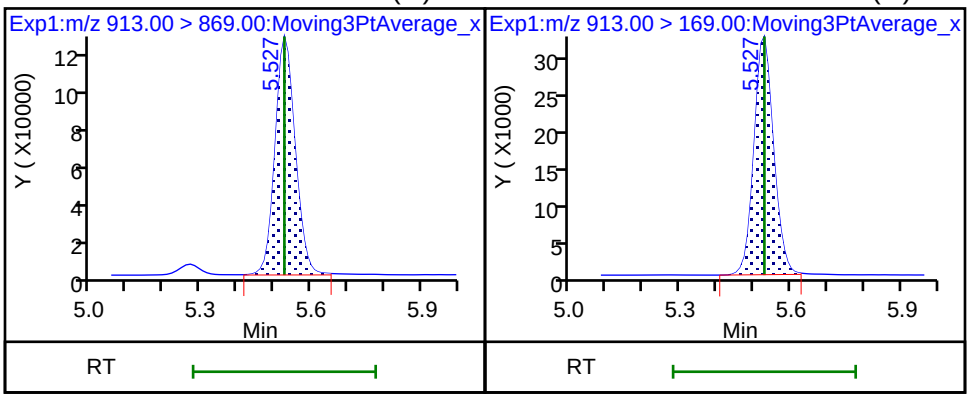

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

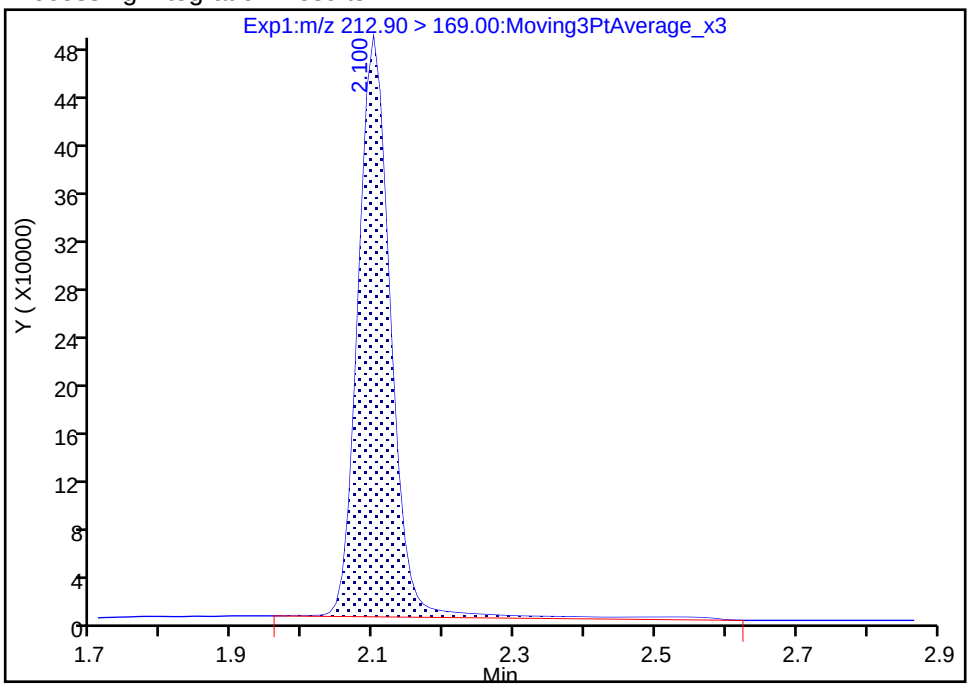
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

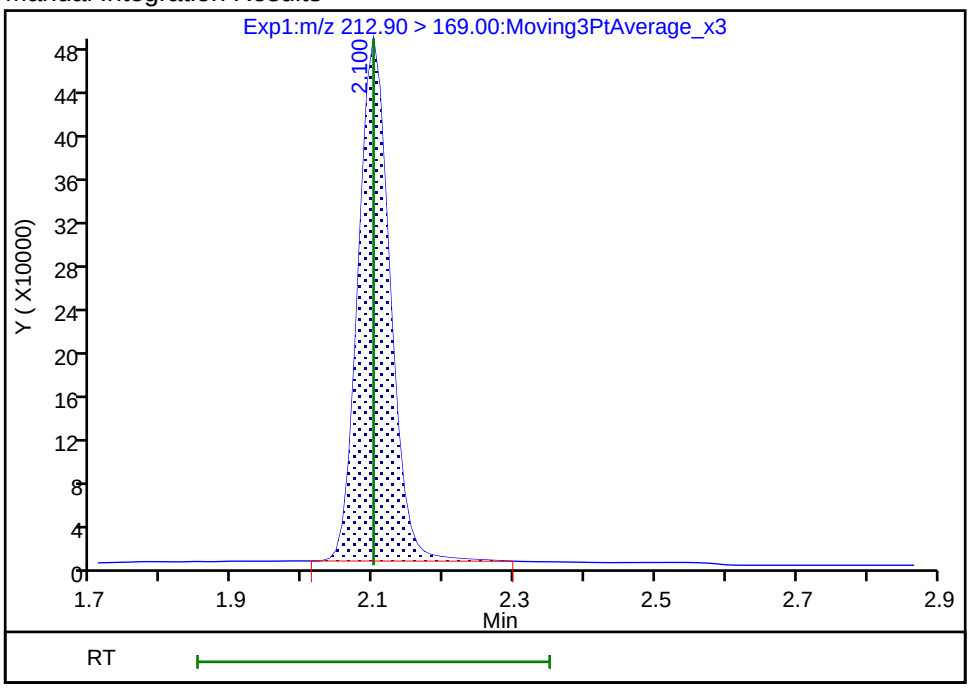
Processing Integration Results

RT: 2.10
Area: 1567327
Amount: 0.963872
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 1516097
Amount: 0.932367
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:28:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

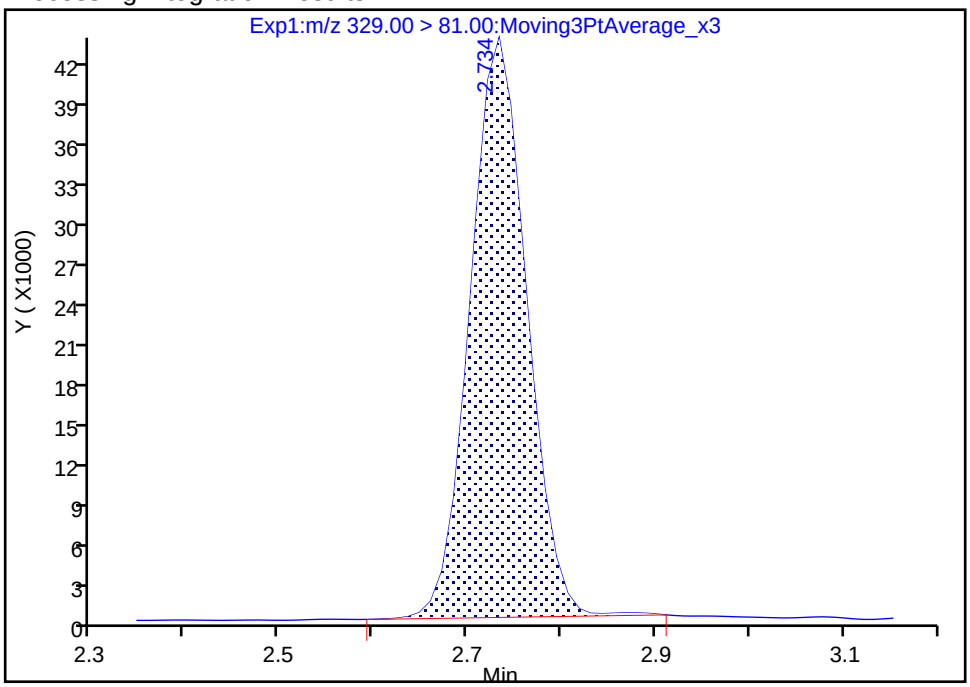
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d | | | | |
| Injection Date: | 09-Nov-2021 17:33:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

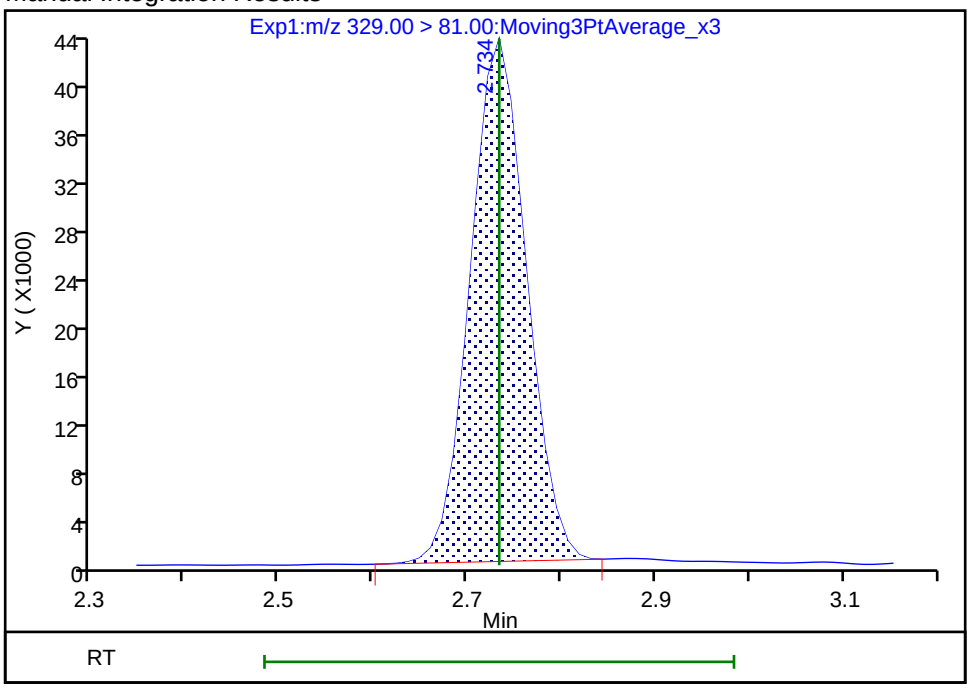
Processing Integration Results

RT: 2.73
Area: 179852
Amount: 1.470780
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 178009
Amount: 1.455708
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:27:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

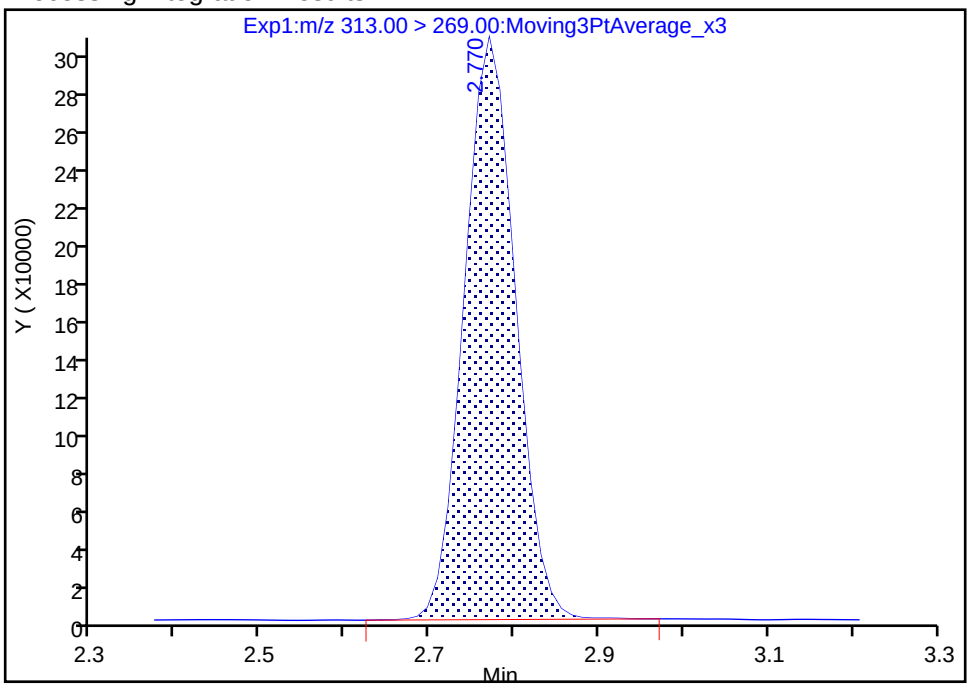
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

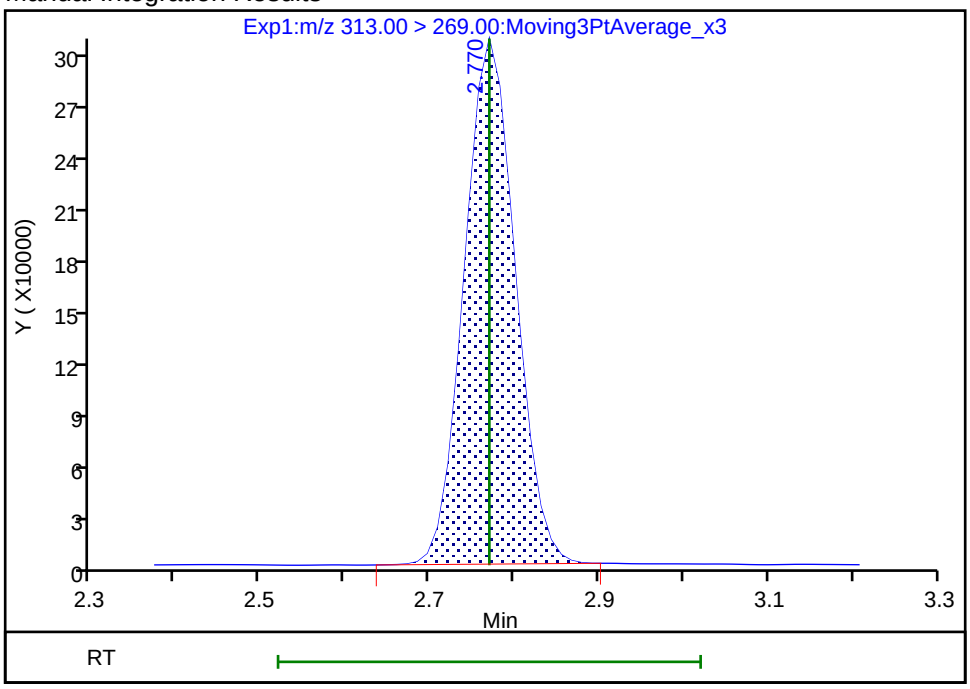
Processing Integration Results

RT: 2.77
Area: 1293080
Amount: 0.964954
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1288003
Amount: 0.961166
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:28:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

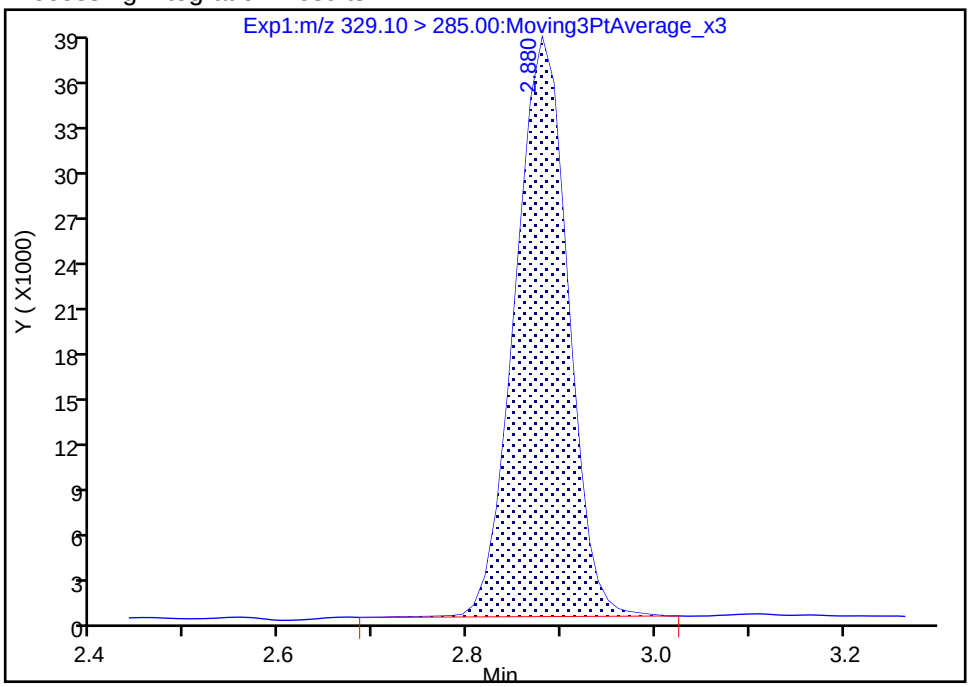
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

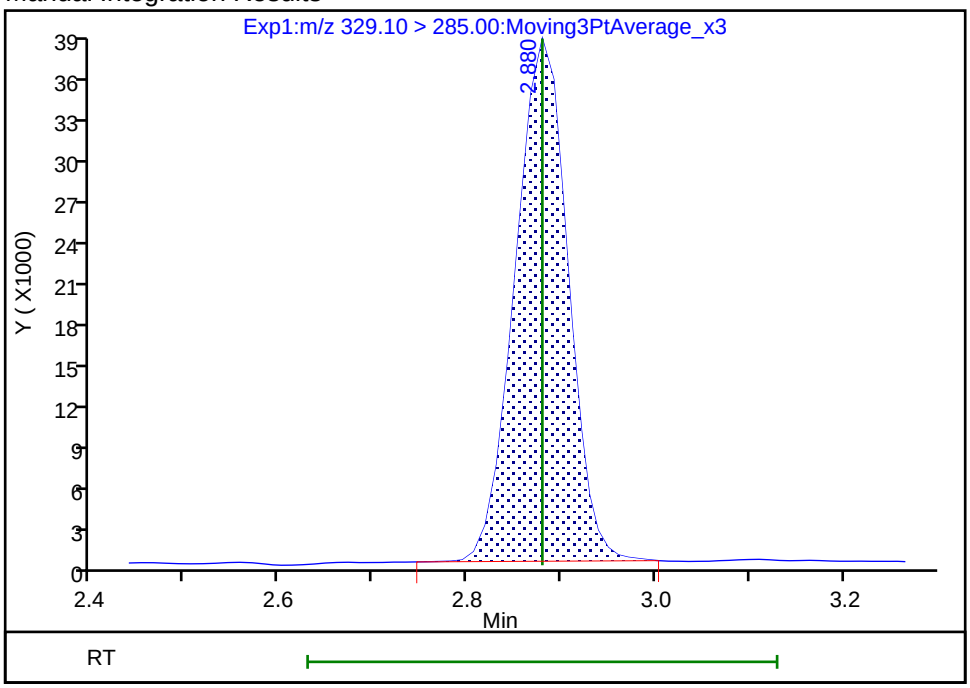
Processing Integration Results

RT: 2.88
Area: 148087
Amount: 1.117188
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 147387
Amount: 1.111907
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:28:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

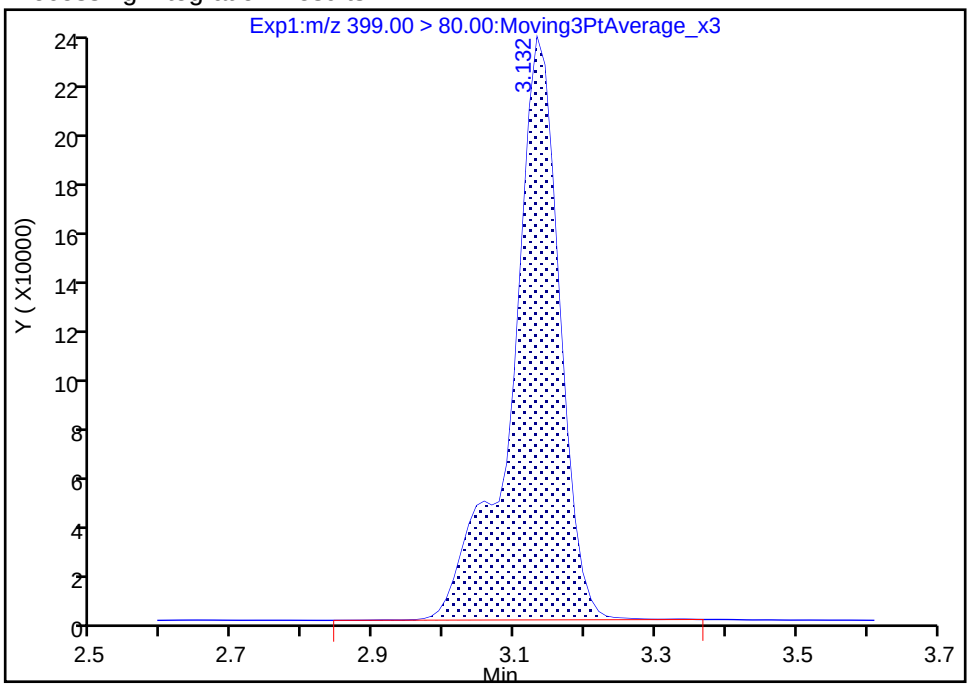
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

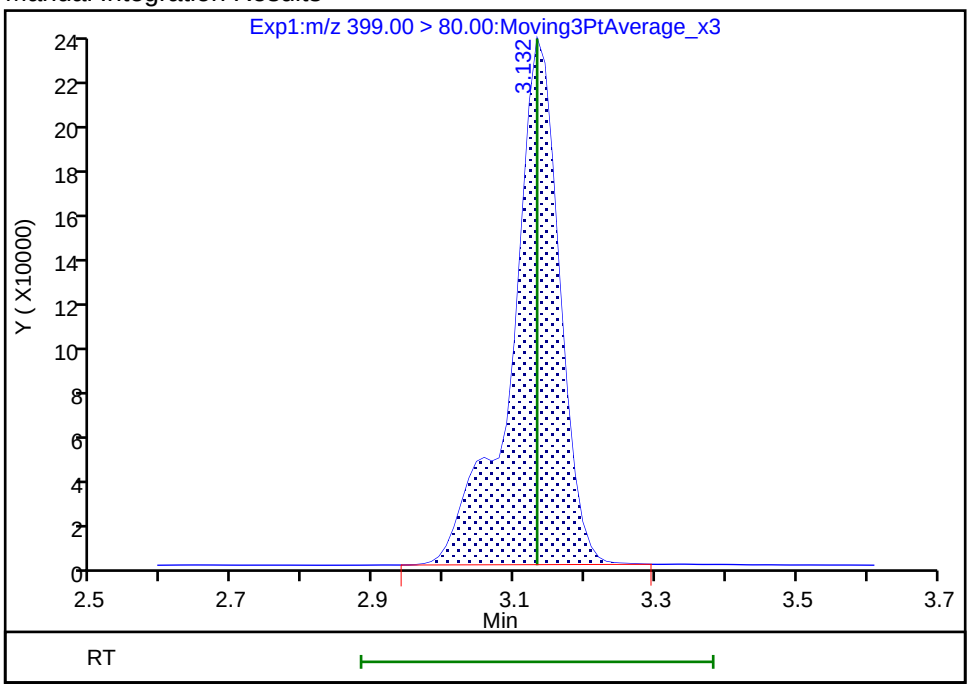
Processing Integration Results

RT: 3.13
Area: 1116210
Amount: 0.868735
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1114095
Amount: 0.867089
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:28:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

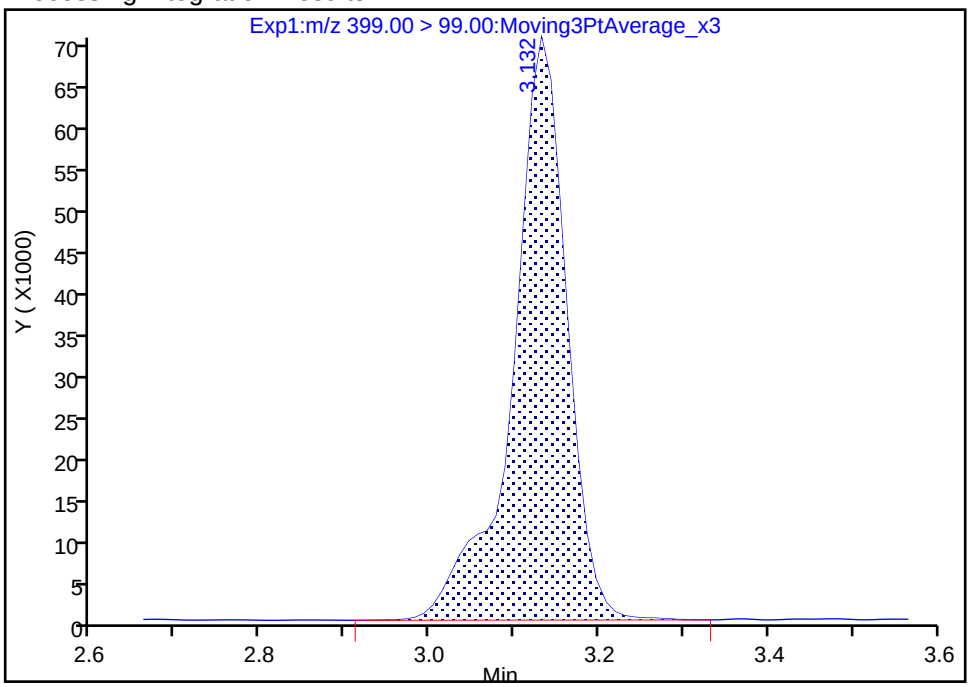
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

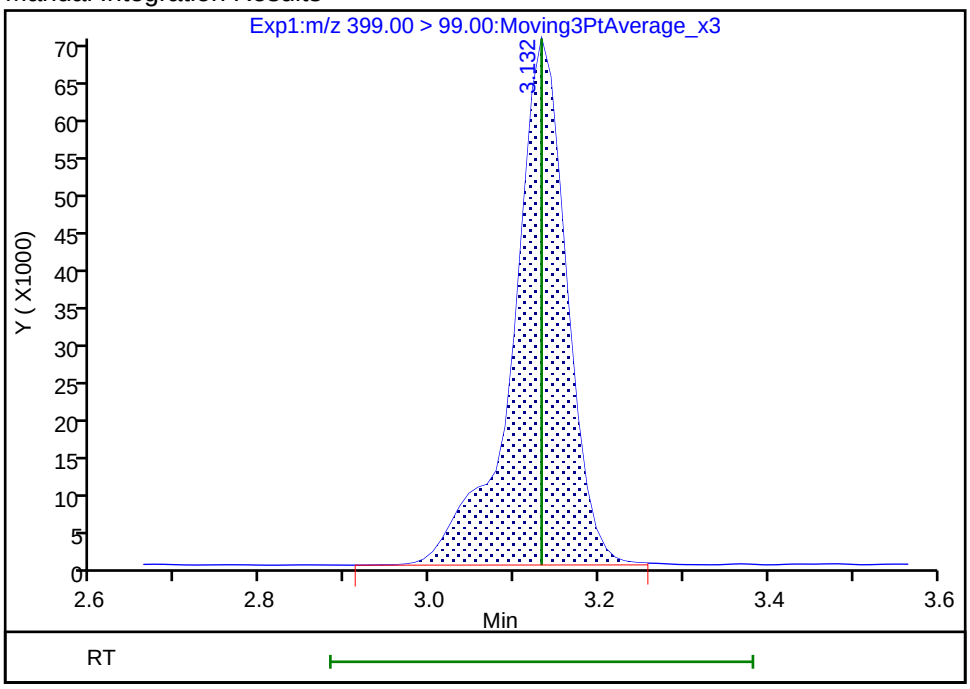
Processing Integration Results

RT: 3.13
Area: 310812
Amount: 0.868735
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 310442
Amount: 0.867089
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:29:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

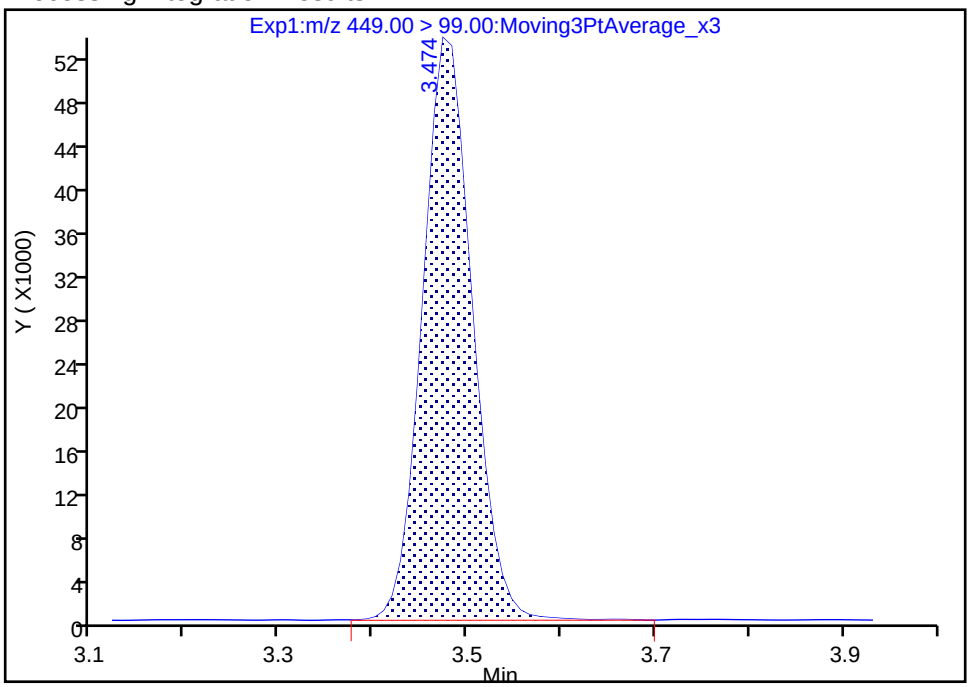
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

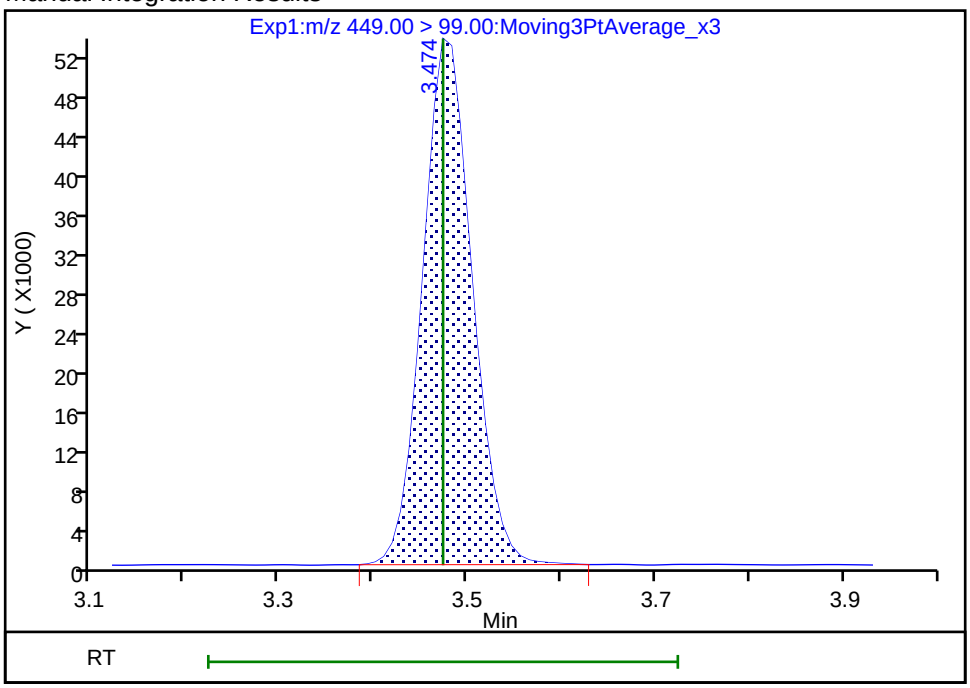
Processing Integration Results

RT: 3.47
Area: 196048
Amount: 0.899906
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 195149
Amount: 0.897720
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:29:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

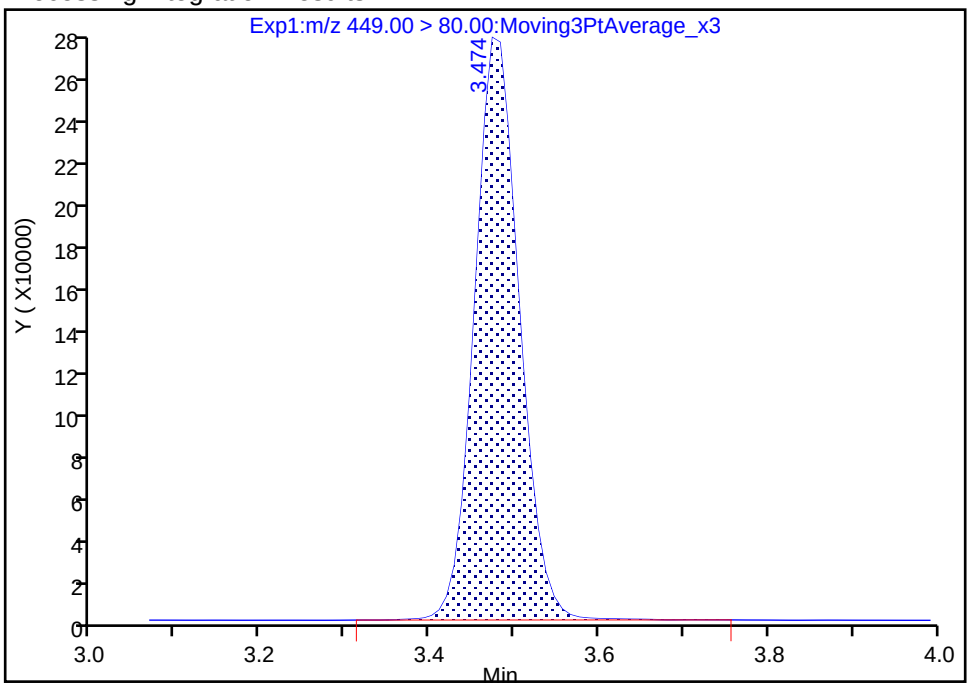
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

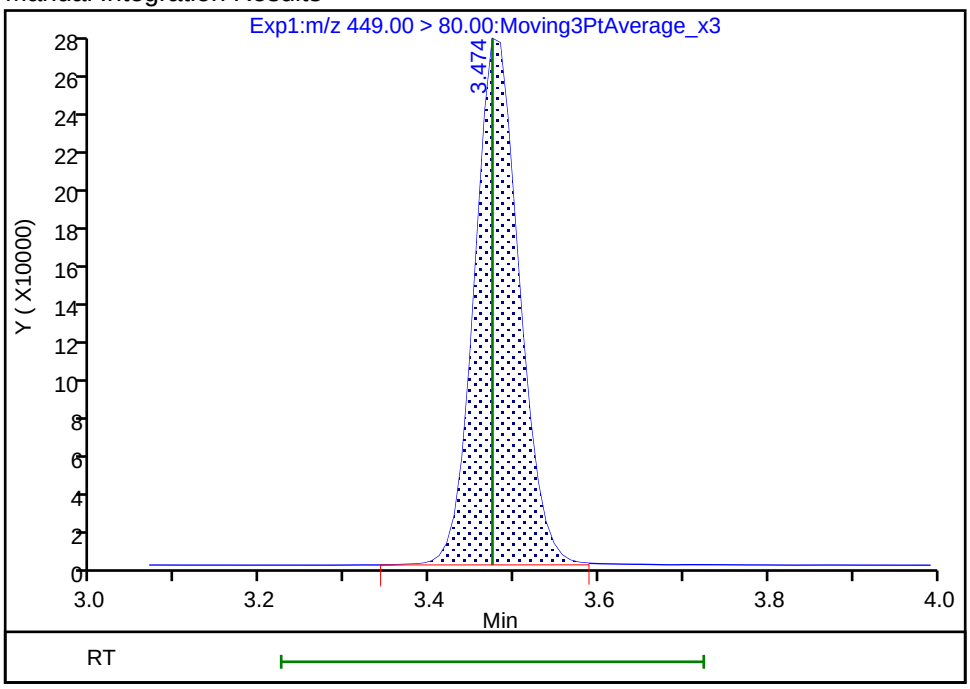
Processing Integration Results

RT: 3.47
Area: 995328
Amount: 0.899906
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 992910
Amount: 0.897720
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:29:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

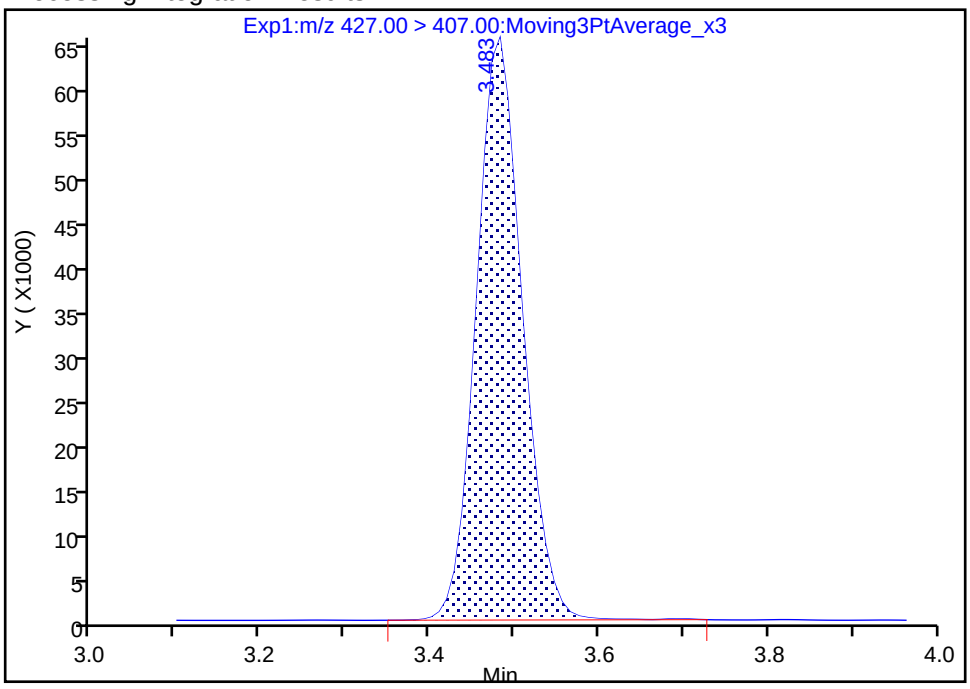
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

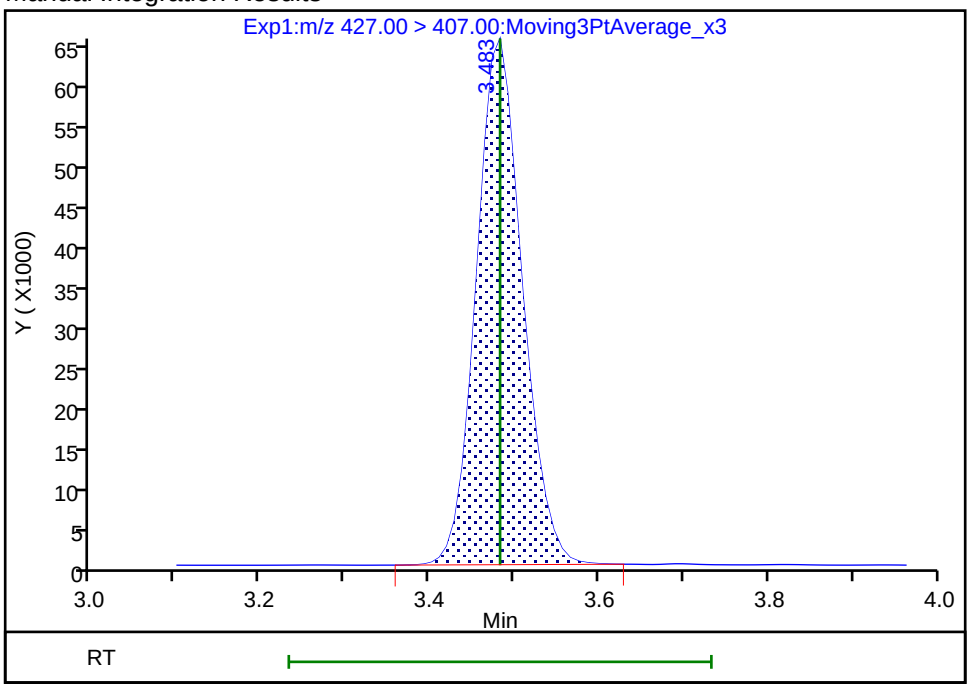
Processing Integration Results

RT: 3.48
Area: 246067
Amount: 0.894260
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 245209
Amount: 0.891142
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:29:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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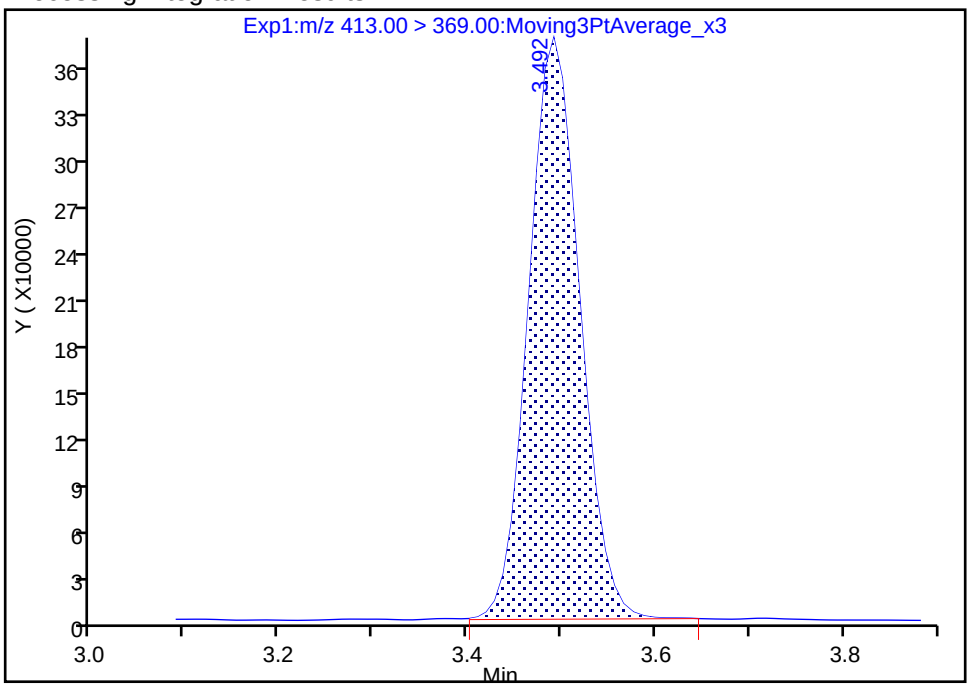
| Injection Date: | 09-Nov-2021 17:33:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

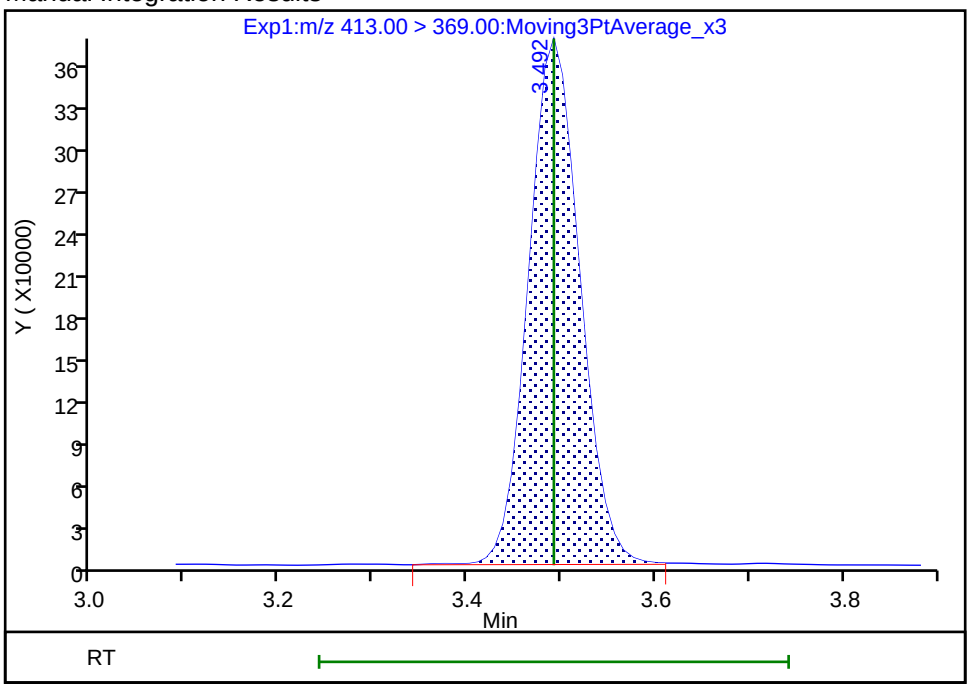
Processing Integration Results

RT: 3.49
Area: 1415997
Amount: 0.935908
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1420380
Amount: 0.938805
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:30:05

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

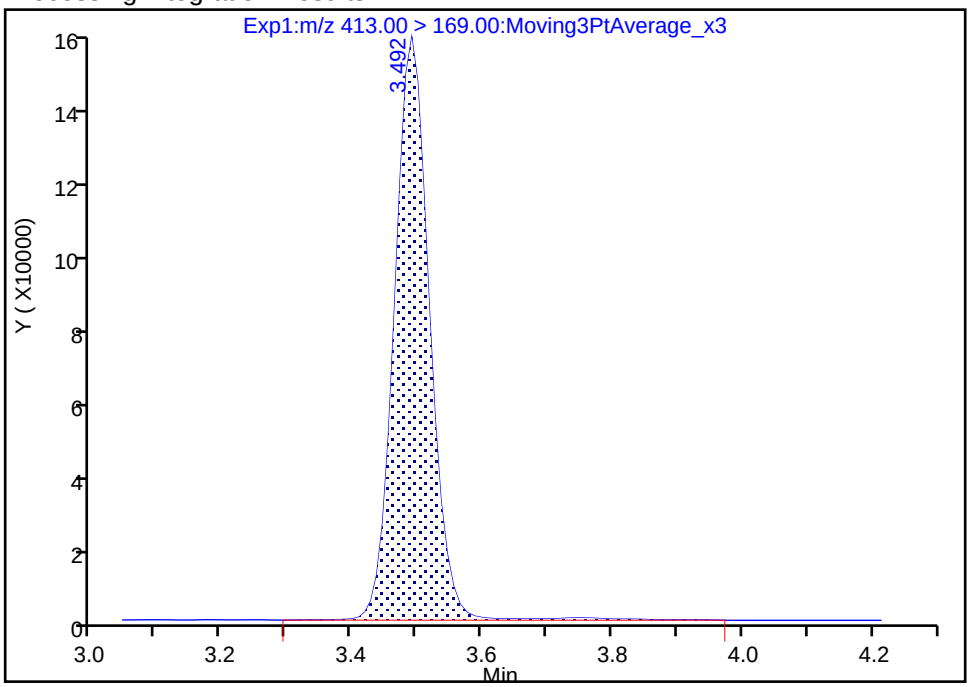
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

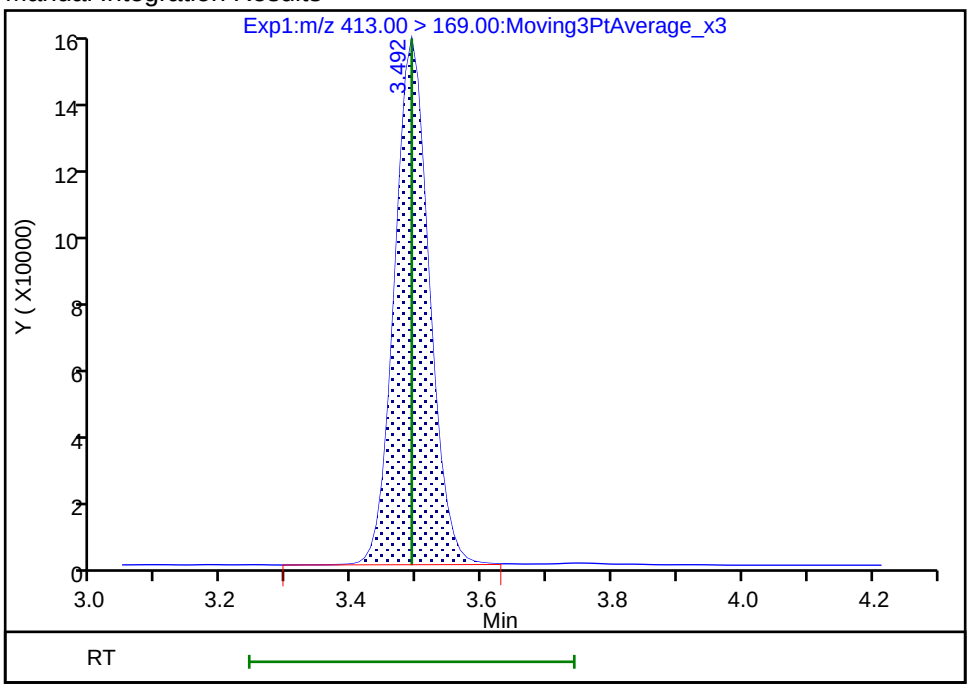
Processing Integration Results

RT: 3.49
Area: 561985
Amount: 0.935908
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 554634
Amount: 0.938805
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:30:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

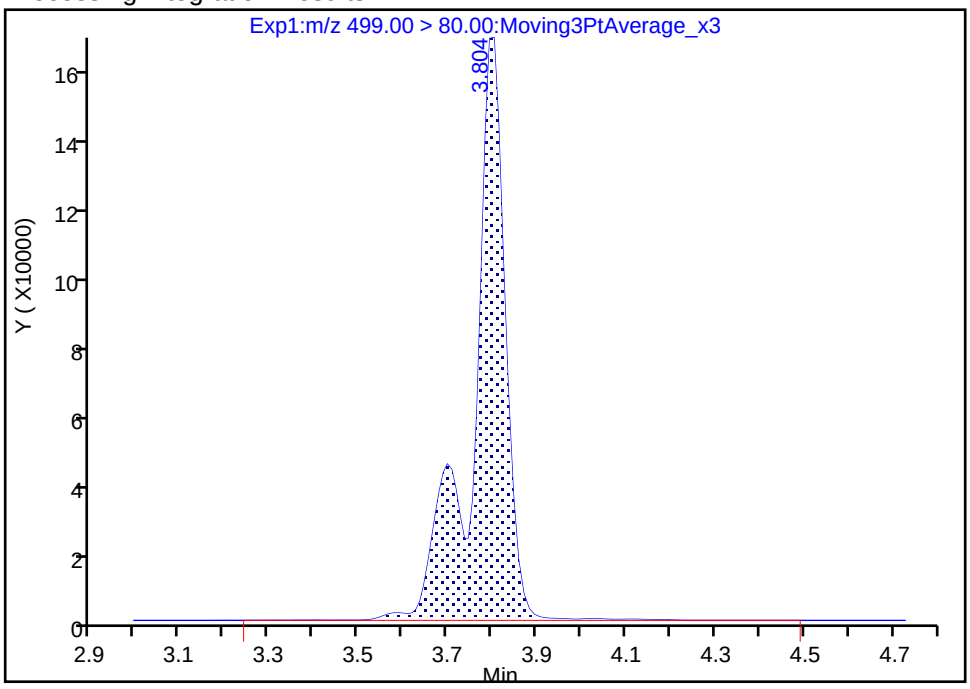
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

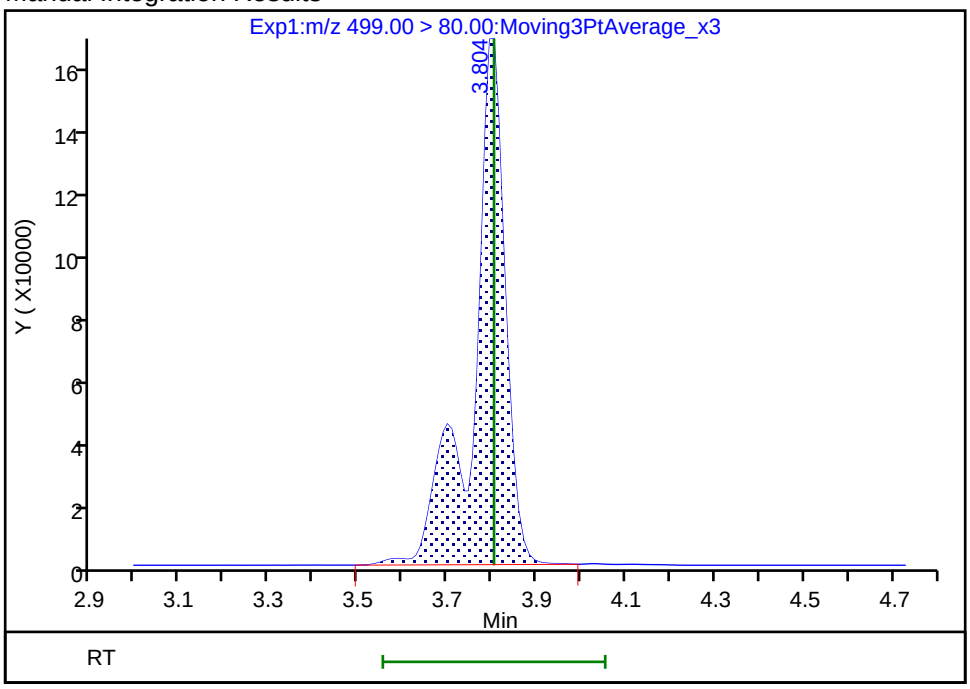
Processing Integration Results

RT: 3.80
Area: 844966
Amount: 0.877714
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 836079
Amount: 0.868483
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:02:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

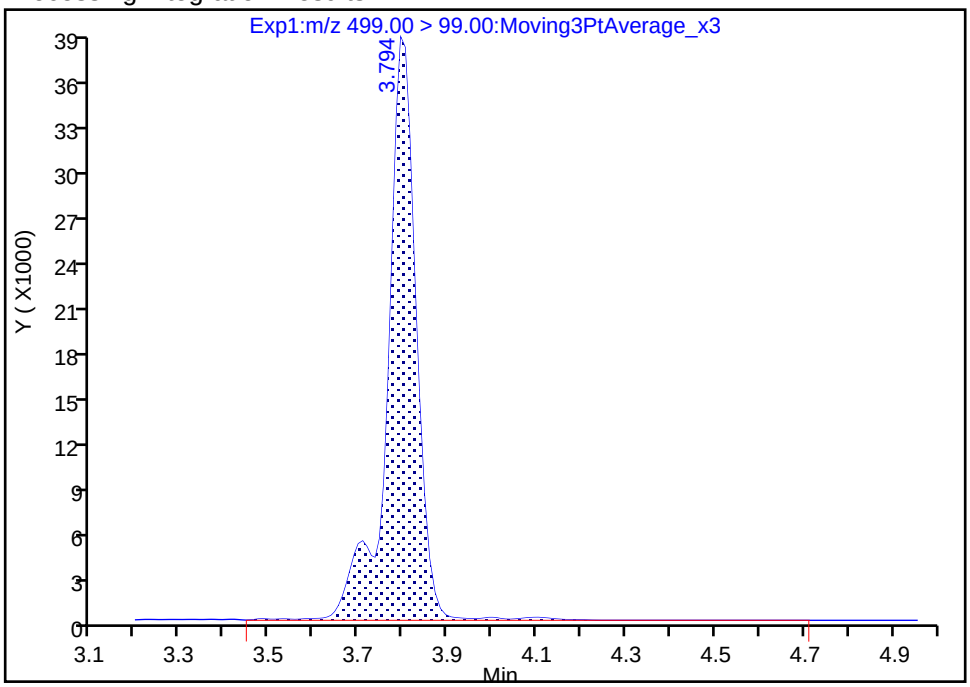
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

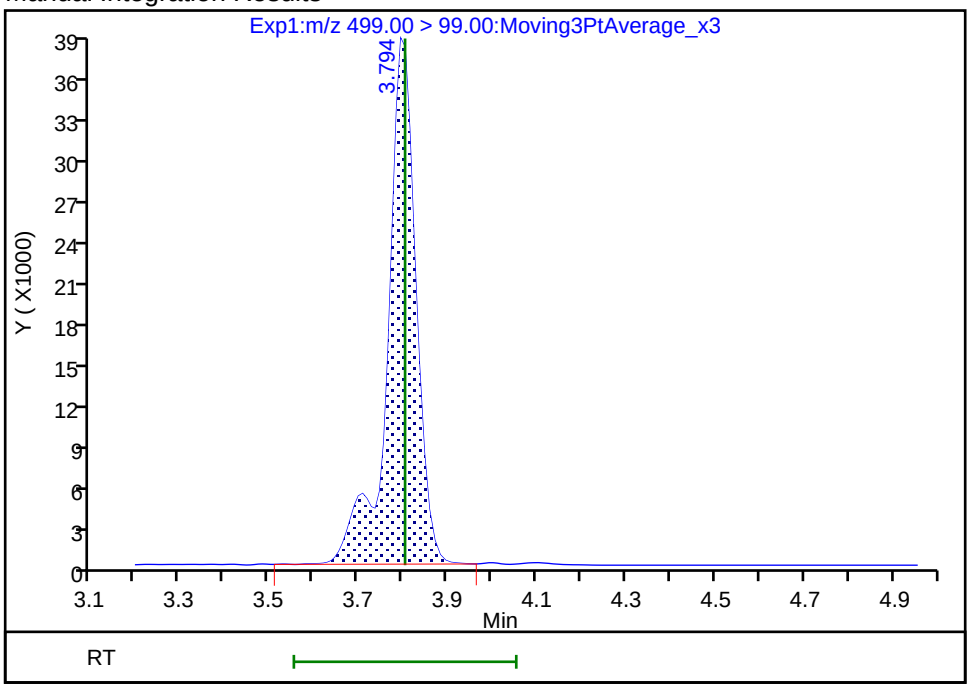
Processing Integration Results

RT: 3.79
Area: 174668
Amount: 0.877714
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 170864
Amount: 0.868483
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:03:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

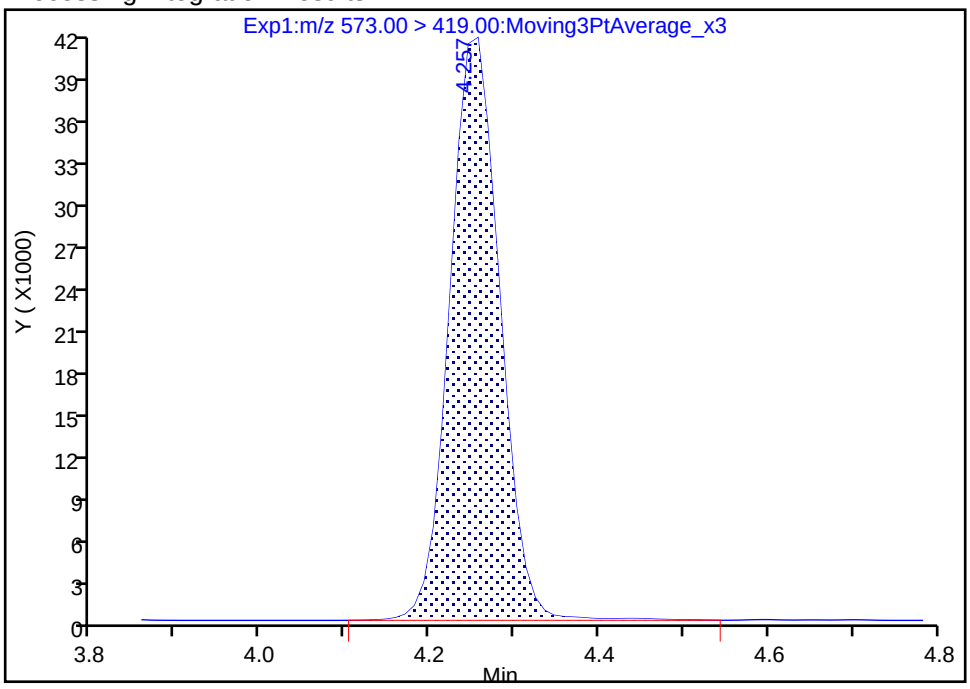
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

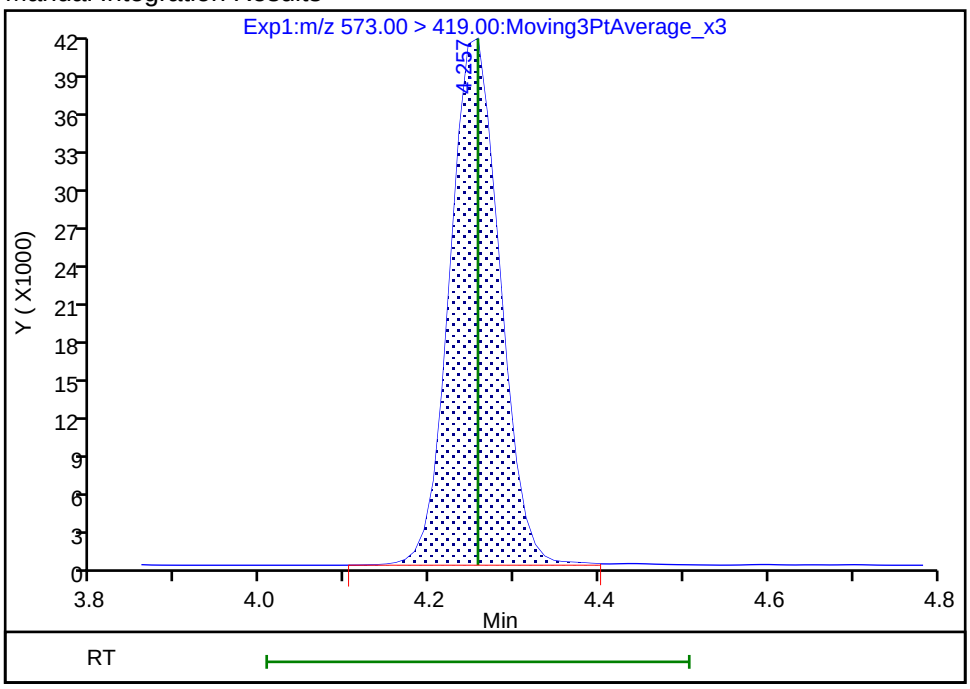
Processing Integration Results

RT: 4.26
Area: 171003
Amount: 1.208664
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 170437
Amount: 1.204663
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:28:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

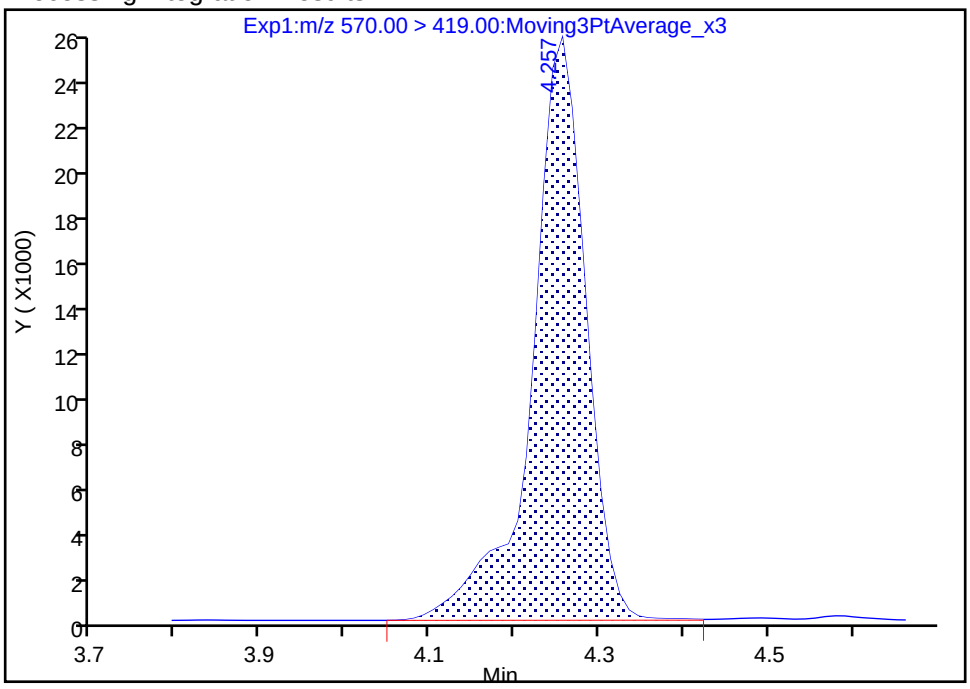
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

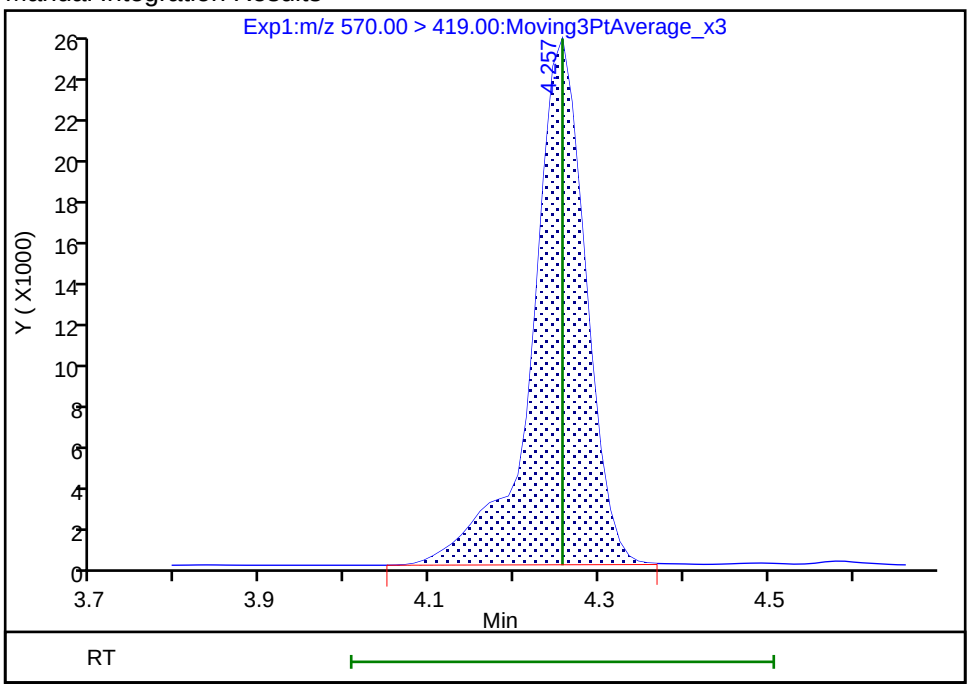
Processing Integration Results

RT: 4.26
Area: 114635
Amount: 1.070202
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 114189
Amount: 1.066039
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:03:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

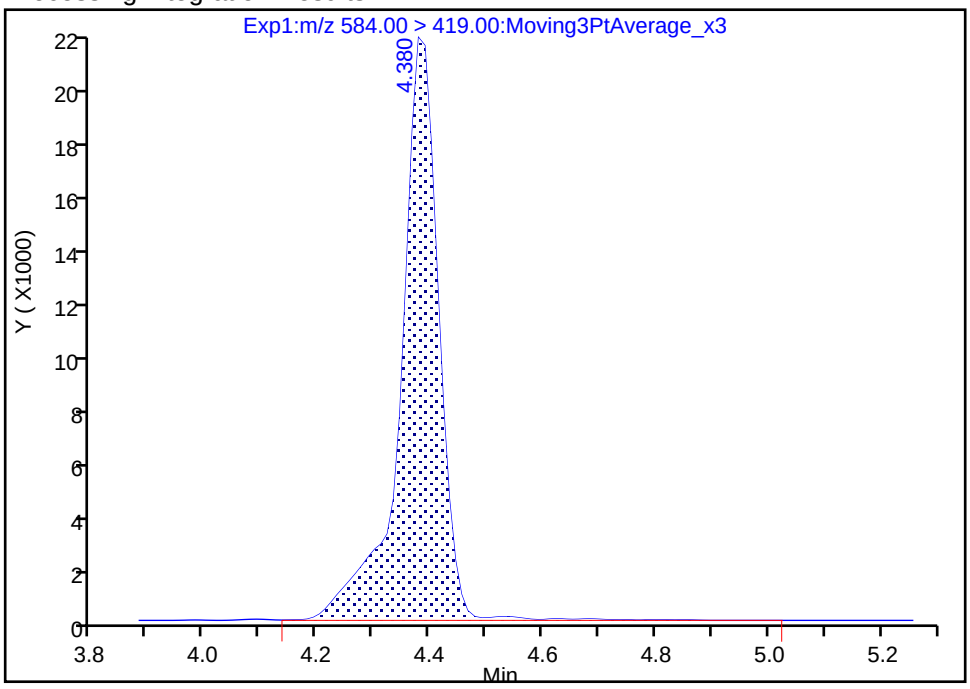
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

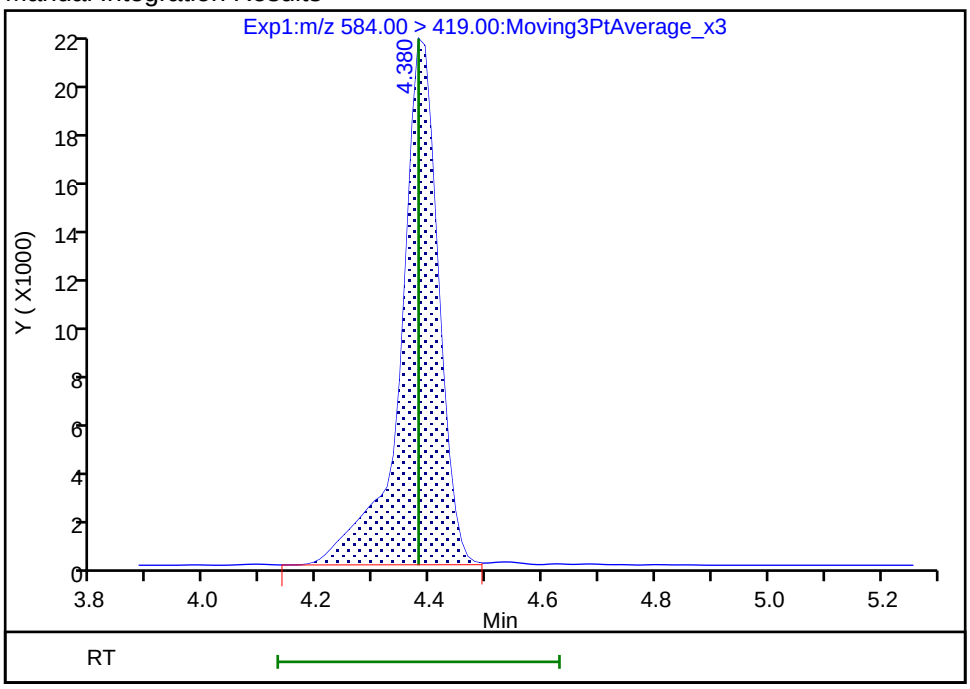
Processing Integration Results

RT: 4.38
Area: 102944
Amount: 0.921169
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 101520
Amount: 0.908427
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:04:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

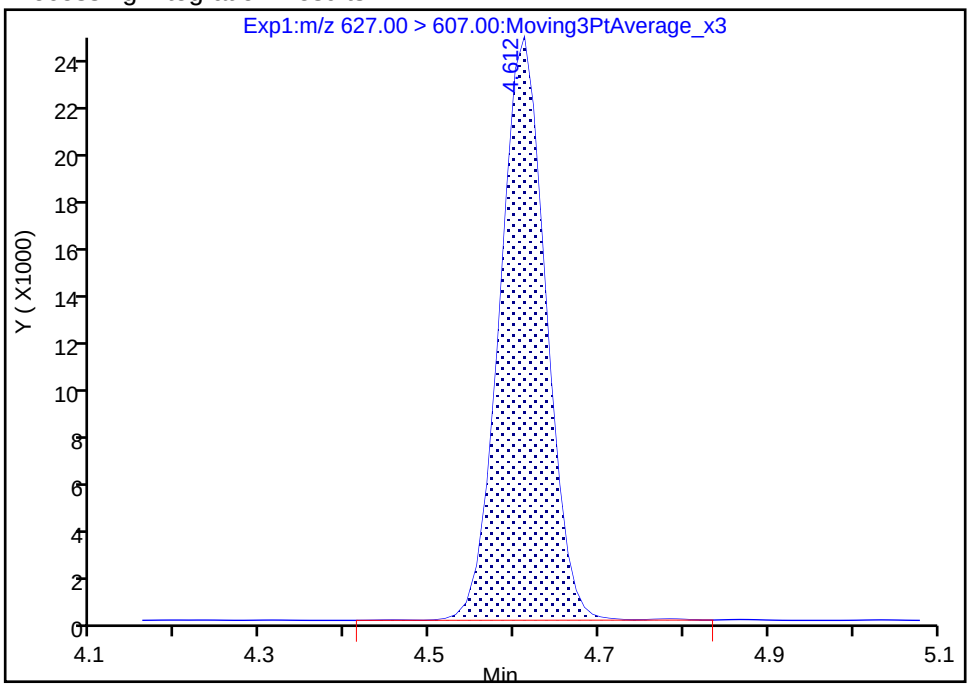
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d | | | | |
| Injection Date: | 09-Nov-2021 17:33:20 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

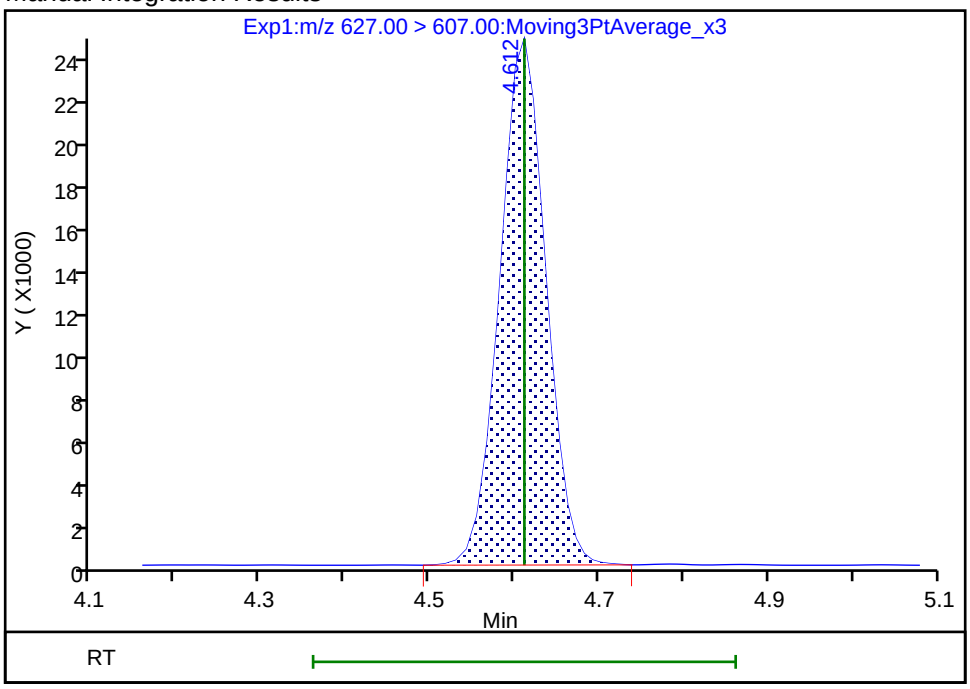
Processing Integration Results

RT: 4.61
Area: 92868
Amount: 0.985240
Amount Units: ng/ml




Manual Integration Results

RT: 4.61
Area: 92661
Amount: 0.983044
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:31:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

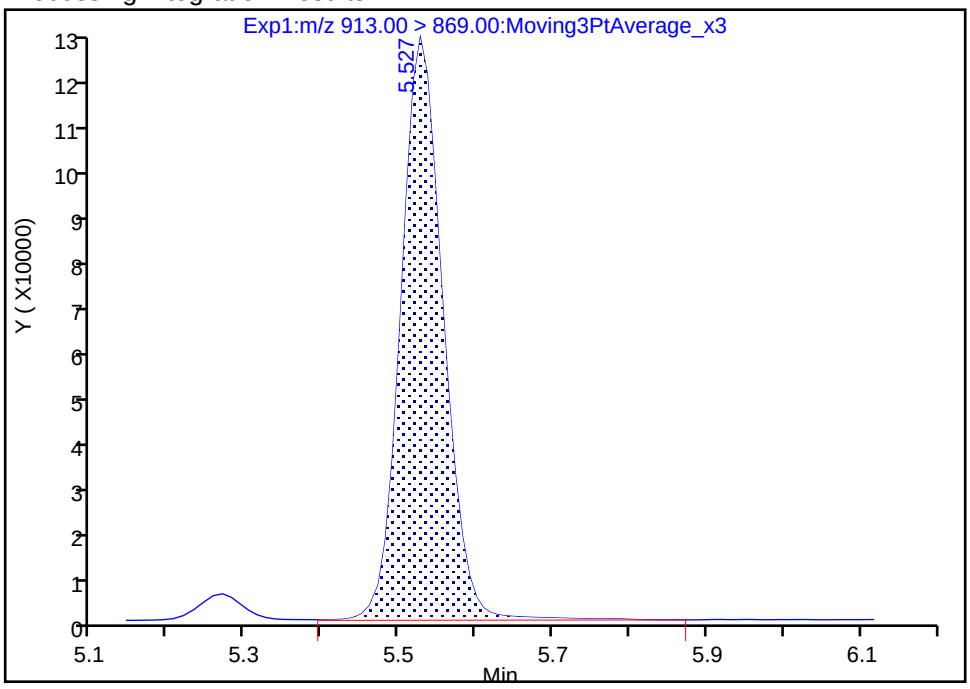
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

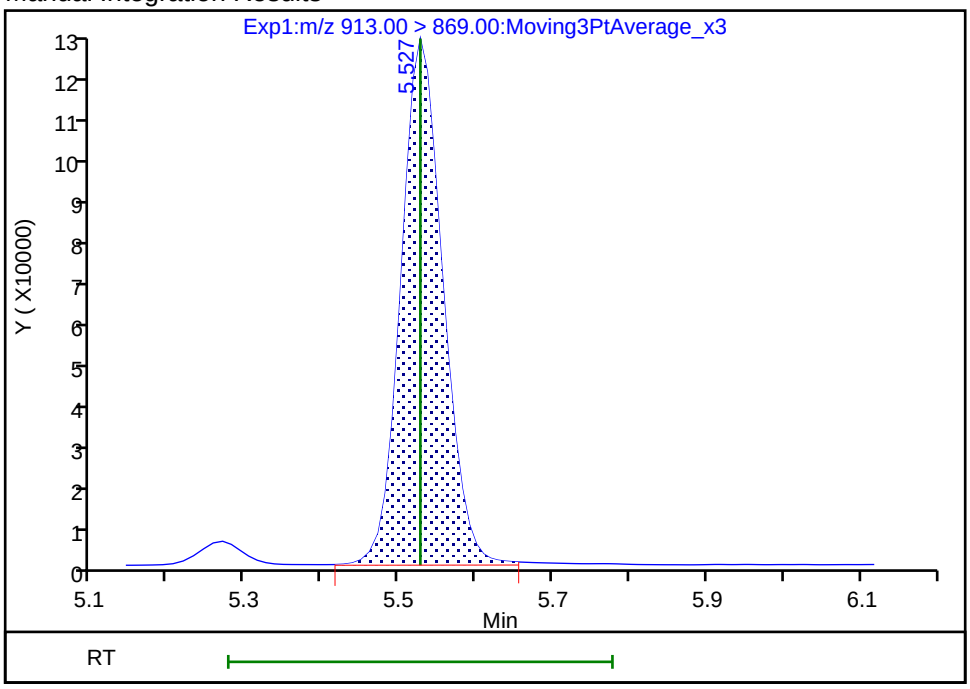
Processing Integration Results

RT: 5.53
Area: 491577
Amount: 0.800502
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 487764
Amount: 0.794293
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:31:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

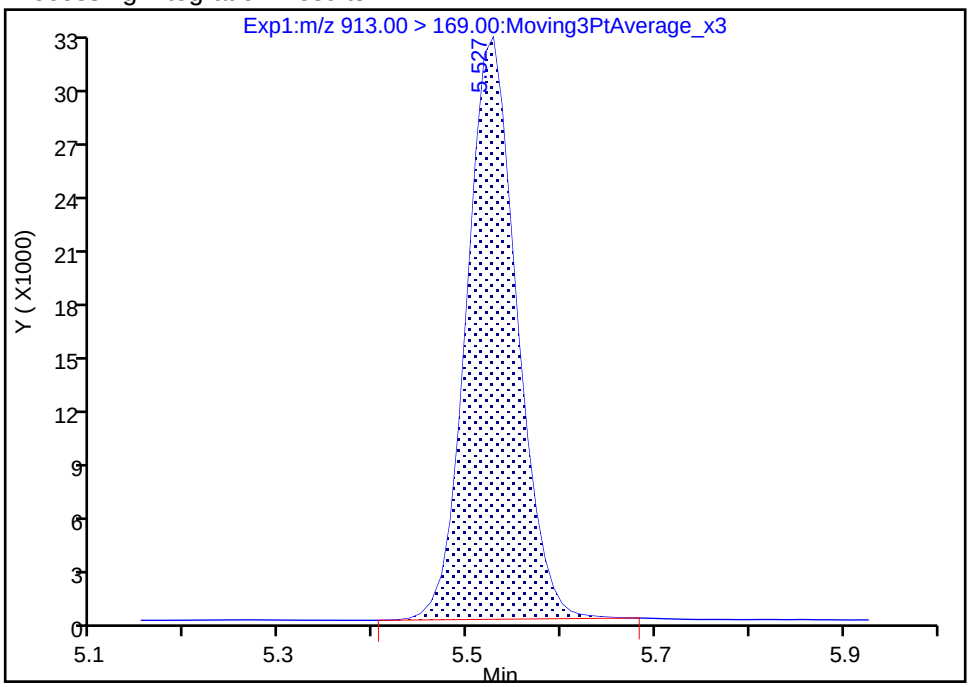
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48353.b\PA211109AA03.d
Injection Date: 09-Nov-2021 17:33:20 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

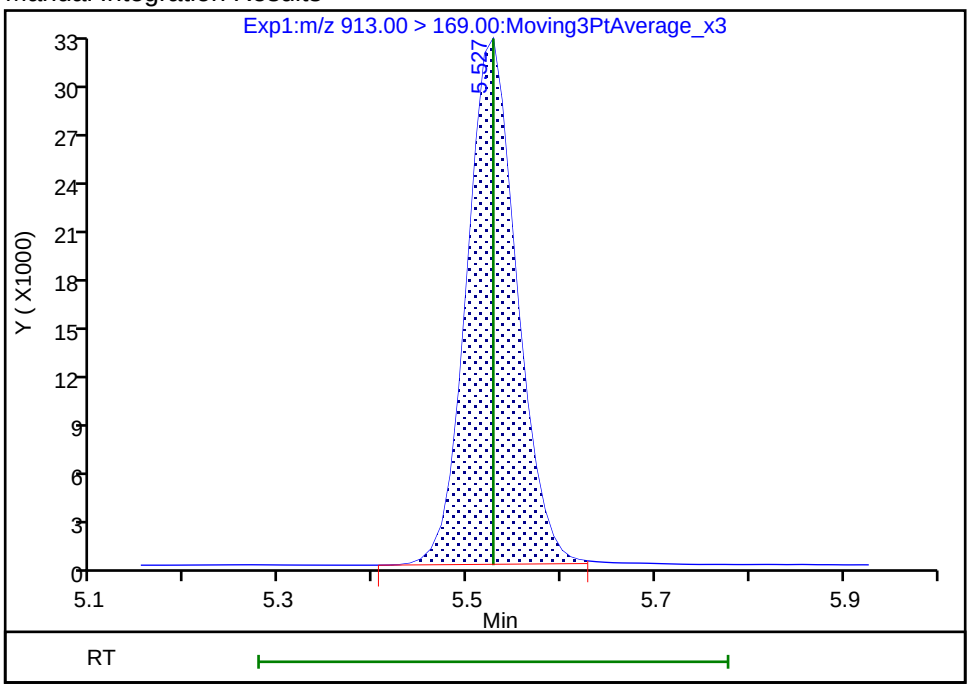
Processing Integration Results

RT: 5.53
Area: 119255
Amount: 0.800502
Amount Units: ng/ml




Manual Integration Results

RT: 5.53
Area: 119092
Amount: 0.794293
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 09:32:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/1  Calibration Date: 11/10/2021 04:12

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D01.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8896 | | 2.35 | 2.50 | -5.9 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9572 | | 2.39 | 2.50 | -4.4 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.038 | | 2.15 | 2.21 | -2.8 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.019 | | 2.22 | 2.34 | -5.2 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9703 | | 2.39 | 2.50 | -4.3 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.177 | | 2.29 | 2.35 | -2.2 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.298 | | 2.93 | 2.50 | 17.1 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9750 | | 2.36 | 2.50 | -5.6 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.035 | | 2.14 | 2.28 | -5.9 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.408 | | 2.29 | 2.36 | -2.6 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.177 | | 2.25 | 2.38 | -5.6 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.176 | | 2.20 | 2.37 | -7.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 0.9869 | | 2.32 | 2.50 | -7.2 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 0.9902 | | 2.12 | 2.32 | -8.7 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9298 | | 2.38 | 2.50 | -5.0 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.452 | | 2.07 | 2.33 | -11.2 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7563 | | 2.15 | 2.40 | -10.5 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9542 | | 2.37 | 2.50 | -5.0 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7257 | | 2.08 | 2.40 | -13.3 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9355 | | 2.46 | 2.50 | -1.5 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7768 | | 2.47 | 2.50 | -1.1 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.5837 | | 2.14 | 2.41 | -11.2 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.071 | | 2.51 | 2.50 | 0.5 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8479 | | 2.47 | 2.50 | -1.0 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.755 | | 2.14 | 2.36 | -9.1 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.8948 | | 2.29 | 2.50 | -8.6 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3284 | | 2.05 | 2.41 | -15.0 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2279 | | 2.28 | 2.42 | -5.7 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/1  Calibration Date: 11/10/2021 04:12

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D01.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7749 | | 2.30 | 2.50 | -8.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1543 | | 2.45 | 2.50 | -2.2 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9123 | | 2.66 | 2.50 | 6.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6887 | | 2.04 | 2.50 | -18.3 | |
| 13C4 PFBA | Ave | 1.012 | 1.288 | | 1.59 | 1.25 | 27.3 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9742 | | 1.43 | 1.25 | 14.2 | |
| 13C3 PFBS | Ave | 1.154 | 1.166 | | 1.17 | 1.16 | 1.0 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1136 | | 1.51 | 1.17 | 29.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9846 | | 1.38 | 1.25 | 10.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0206 | | 1.09 | 1.25 | -12.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.006 | | 1.34 | 1.25 | 6.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8694 | | 1.23 | 1.18 | 3.7 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1632 | | 1.47 | 1.19 | 23.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.046 | | 1.27 | 1.25 | 1.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6529 | | 1.29 | 1.20 | 7.8 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.034 | | 1.26 | 1.25 | 0.9 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.997 | | 1.21 | 1.25 | -3.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1819 | | 1.45 | 1.20 | 21.4 | |
| 13C8 FOSA | Ave | 0.998 | 1.038 | | 1.30 | 1.25 | 4.1 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1086 | | 1.33 | 1.25 | 6.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7060 | | 1.10 | 1.25 | -12.4 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0978 | | 1.28 | 1.25 | 2.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8079 | | 1.17 | 1.25 | -6.8 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5901 | | 1.10 | 1.25 | -12.3 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.4988 | | 1.05 | 1.25 | -15.8 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 10-Nov-2021 04:12:11 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0048356-001 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:27:28 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 11-Nov-2021 11:27:28
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1794211 | 1.59 | | 127 | 9821 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 3192352 | 2.35 | | 94.1 | 437 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1357045 | 1.43 | | 114 | 3548 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 2598010 | 2.39 | | 95.6 | 124 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1509925 | 1.17 | | 101 | 247852 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 2978637 | 2.15 | Target=2.32 | 97.2 | 2979 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1342371 | | 2.22(1.16-3.48) | | 847 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 596568 | 2.21 | | 94.8 | 2845 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 147751 | 1.51 | | 129 | 128 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1371523 | 1.38 | | 110 | 3074 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 2661568 | 2.39 | Target=12.09 | 95.7 | 547 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 224609 | | 11.85(6.04-18.13) | | 203 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 2674231 | 2.29 | Target=3.03 | 97.8 | 3271 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 878853 | | 3.04(1.52-4.55) | | 1441 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 28697 | 1.09 | | 87.4 | 178 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.000 | 304094 | 2.93 | | 117 | 113 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2280415 | 2.14 | Target=3.55 | 94.1 | 1939 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 633932 | | 3.60(1.77-5.32) | | 663 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1145565 | 1.23 | | 104 | 3120 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1401438 | 1.34 | | 107 | 4683 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 2732802 | 2.36 | Target=3.69 | 94.4 | 1018 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 739827 | | 3.69(1.84-5.53) | | 1080 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 5838590 | 2.29 | Target=2.56 | 97.4 | 5504 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 2282428 | | 2.56(1.28-3.84) | | 2339 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.913 | 2037706 | 2.25 | Target=4.88 | 94.4 | 4400 | |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.913 | 387595 | | 5.26(2.44-7.32) | | 1622 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 506958 | 2.20 | | 92.8 | 1042 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 215926 | 1.47 | | 123 | 656 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1456408 | 1.27 | | 102 | 4637 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1392927 | 1.25 | | | 3033 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 2874681 | 2.32 | Target=2.68 | 92.8 | 378 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1109646 | | 2.59(1.34-4.02) | | 1567 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 869433 | 1.29 | | 108 | 2513 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1671475 | 2.12 | Target=4.69 | 91.3 | 2328 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 352468 | | 4.74(2.35-7.04) | | 1112 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1440406 | 1.26 | | 101 | 3600 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.003 | 2678600 | 2.38 | Target=7.29 | 95.0 | 624 | |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.003 | 356095 | | 7.52(3.64-10.93) | | 2256 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 2461934 | 2.07 | | 88.8 | 4955 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.073 | 1320557 | 2.15 | Target=2.35 | 89.5 | 4798 | |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 529678 | | 2.49(1.17-3.52) | | 2016 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1388665 | 1.20 | | 96.4 | 3101 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 2650127 | 2.37 | Target=8.95 | 95.0 | 1899 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 297109 | | 8.92(4.47-13.42) | | 1196 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 242729 | 1.45 | | 121 | 951 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 352274 | 2.08 | | 86.7 | 2288 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.010 | 1.210 | 1446313 | 1.30 | | 104 | 3129 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.010 | 1.000 | 2706037 | 2.46 | | 98.5 | 3286 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 151209 | 1.33 | | 107 | 303 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 234931 | 2.47 | | 98.9 | 787 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.0 | 1.143 | 1023483 | 2.14 | Target=2.47 | 88.8 | 3397 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.0 | 1.143 | 383820 | | 2.67(1.23-3.70) | | 2370 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 983343 | 1.09 | | 87.6 | 3832 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 1.000 | 2106565 | 2.51 | Target=9.24 | 100 | 1281 | |
| 563.00 > 169.00 | 4.380 | 4.369 | 0.012 | 1.003 | 237919 | | 8.85(4.62-13.86) | | 2555 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 136224 | 1.28 | | 103 | 724 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 231012 | 2.47 | | 99.0 | 1007 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.466 | 4.456 | 0.010 | 1.174 | 3006516 | 2.14 | | 90.9 | 5855 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1125354 | 1.16 | | 93.2 | 1628 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 2013953 | 2.28 | Target=7.04 | 91.4 | 372 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 311709 | | 6.46(3.52-10.56) | | 1830 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 160432 | 2.05 | | 85.0 | 1100 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.756 | 0.009 | 1.253 | 401329 | 2.28 | Target=0.49 | 94.3 | 4596 | |
| 699.00 > 99.00 | 4.765 | 4.756 | 0.009 | 1.253 | 729134 | | 0.55(0.25-0.74) | | 2782 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 1743963 | 2.29 | Target=4.68 | 91.8 | 489 | M |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.042 | 405669 | | 4.30(2.34-7.02) | | 1691 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 822014 | 1.10 | | 87.7 | 1676 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 253744 | 2.44 | Target=1.01 | 97.8 | 2194 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 280949 | | 0.90(0.51-1.52) | | 2196 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.281 | 5.270 | 0.011 | 1.512 | 694809 | 1.05 | | 84.2 | 2635 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.002 | 1267733 | 2.65 | Target=4.57 | 106 | 387 | |
| 813.00 > 169.00 | 5.281 | 5.270 | 0.011 | 1.000 | 306643 | | 4.13(2.29-6.86) | | 3694 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.052 | 957074 | 2.04 | Target=4.27 | 81.7 | 445 | |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.050 | 233675 | | 4.10(2.14-6.41) | | 1738 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00022 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 11:27:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d

Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812

Lims ID: CCV L5

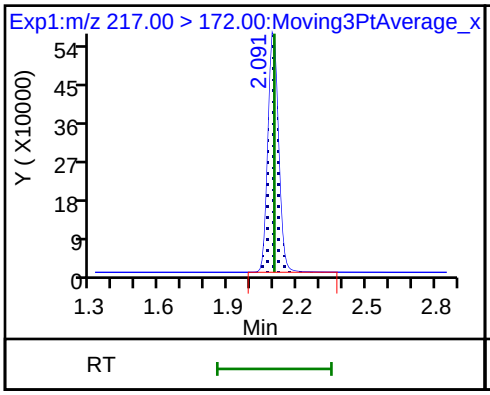
Client ID:

Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1

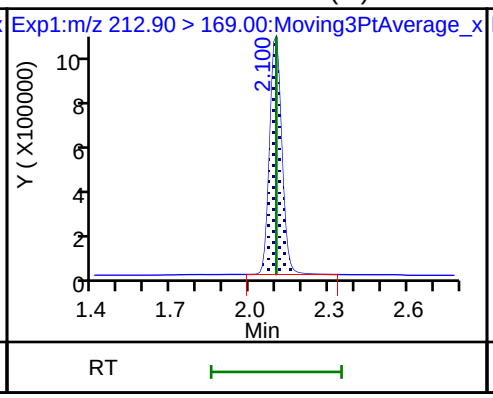
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

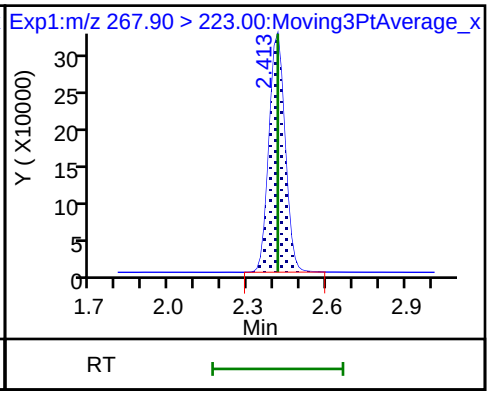
D 1 13C4 PFBA



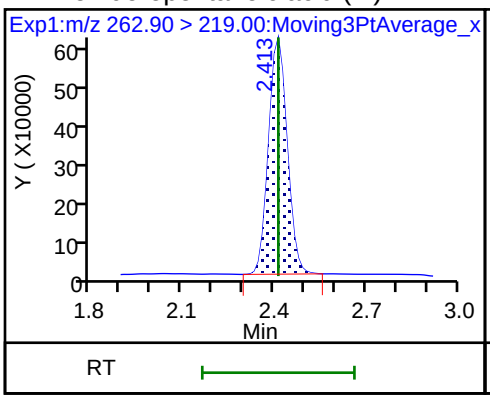

2 Perfluorobutanoic acid (M)



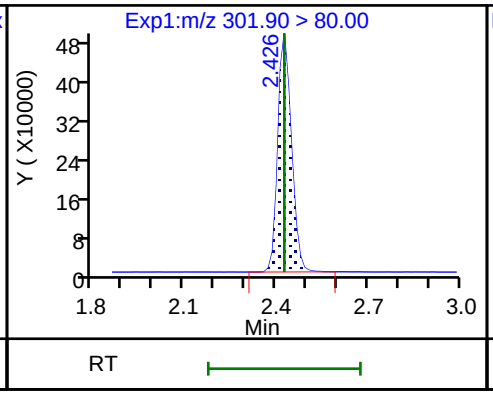

D 3 13C5 PFPeA



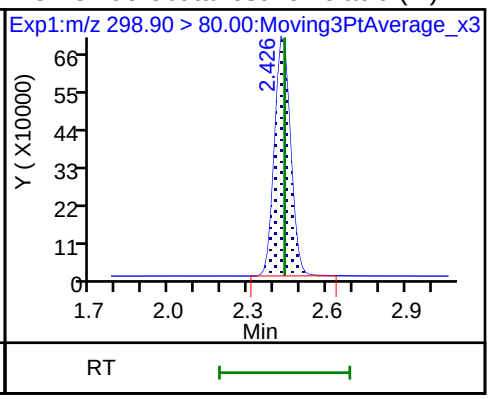

4 Perfluoropentanoic acid (M)



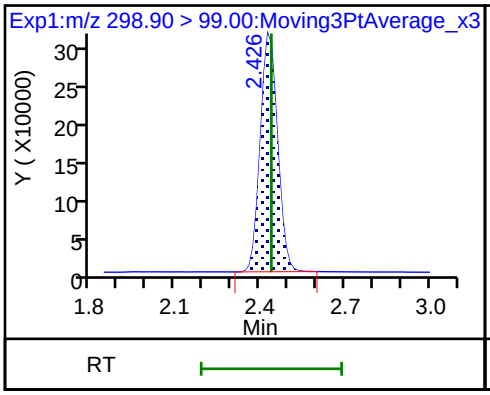

D 47 13C3 PFBS



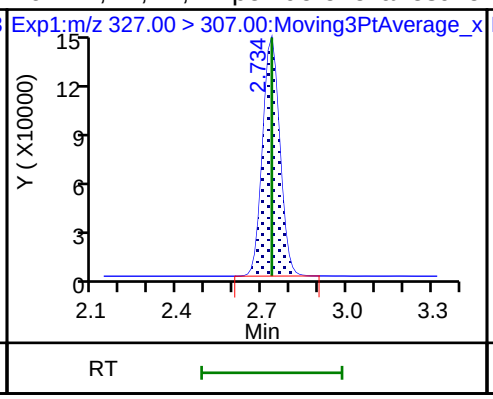

5 Perfluorobutanesulfonic acid (M)



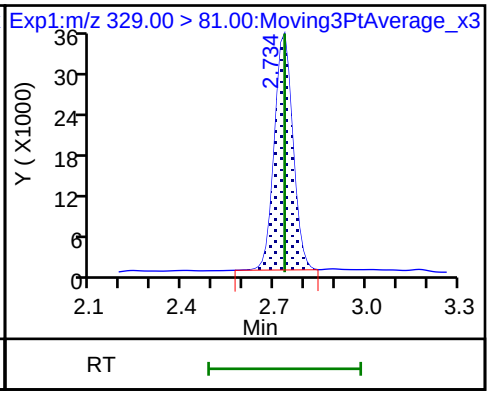

5 Perfluorobutanesulfonic acid



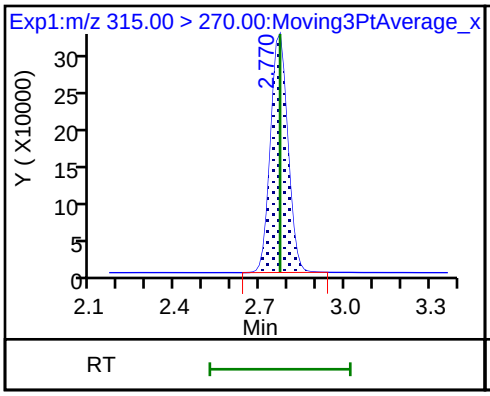

61 1H,1H,2H,2H-perfluorohexanesulfo



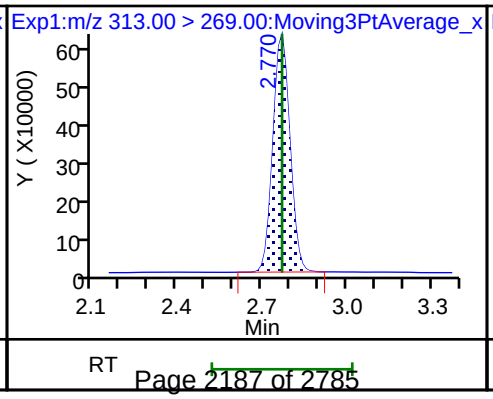

D 60 M2-4:2 FTS



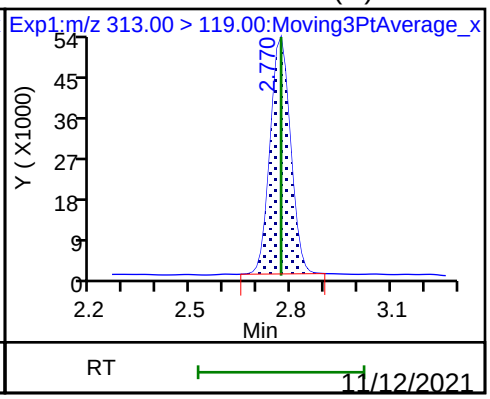

D 7 13C2 PFHxA



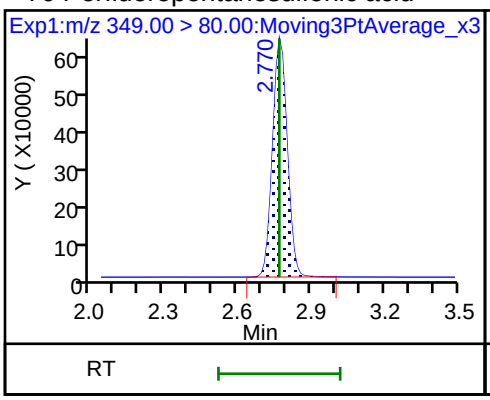

6 Perfluorohexanoic acid



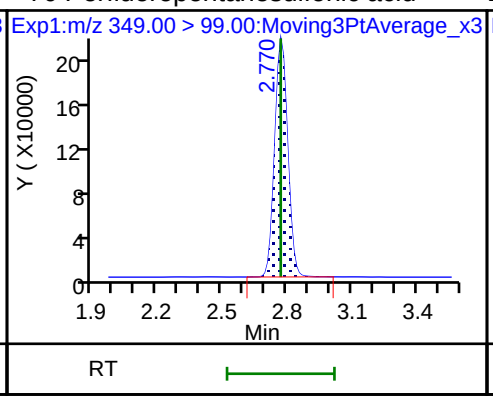

6 Perfluorohexanoic acid (M)



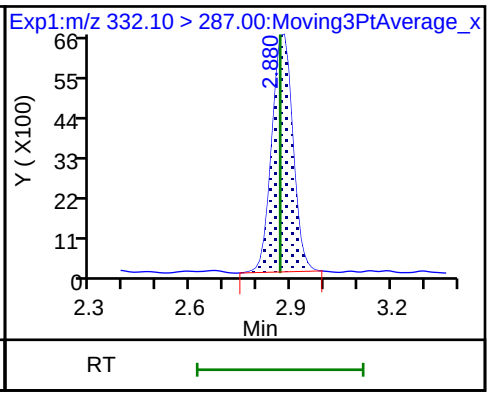
70 Perfluoropentanesulfonic acid



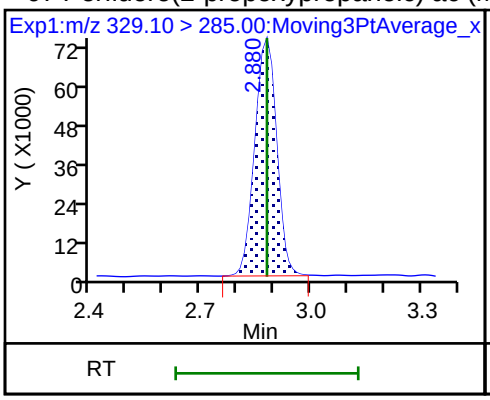

70 Perfluoropentanesulfonic acid



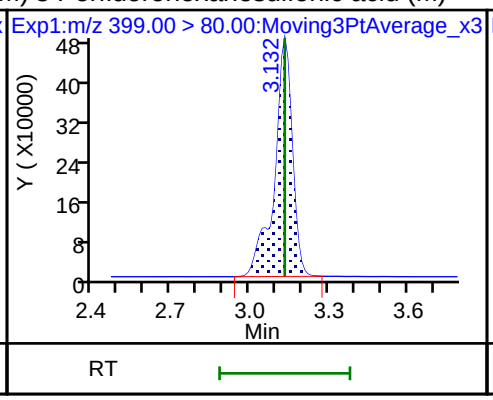

D 64 13C3 HFPO-DA



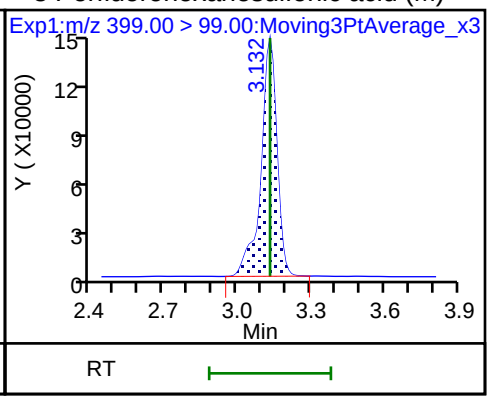

67 Perfluoro(2-propoxypropanoic) ac (M)



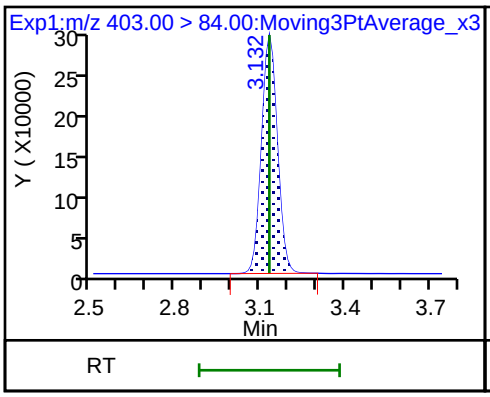

8 Perfluorohexanesulfonic acid (M)



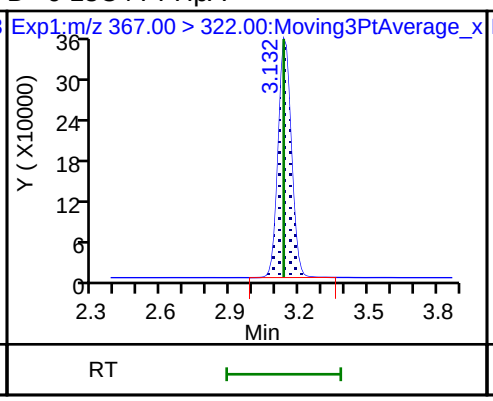

8 Perfluorohexanesulfonic acid (M)



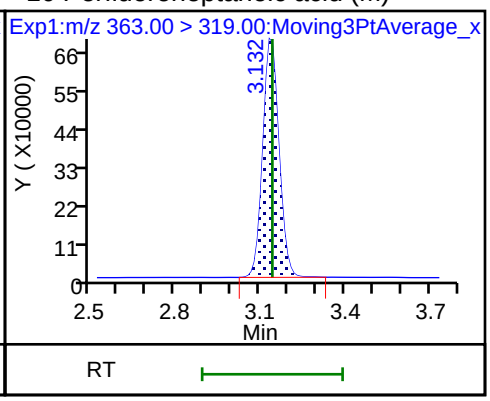

D 11 18O2 PFHxS



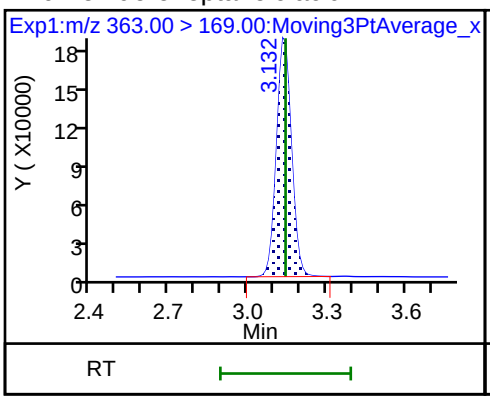

D 9 13C4 PFHpA



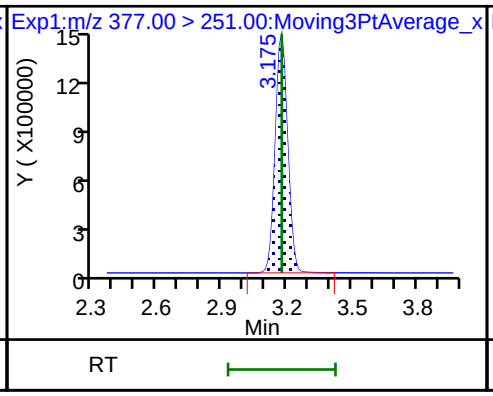

10 Perfluoroheptanoic acid (M)



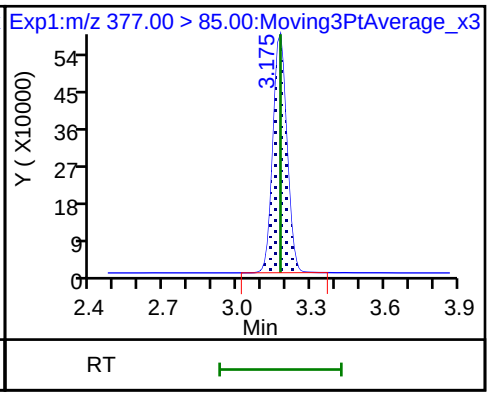

10 Perfluoroheptanoic acid



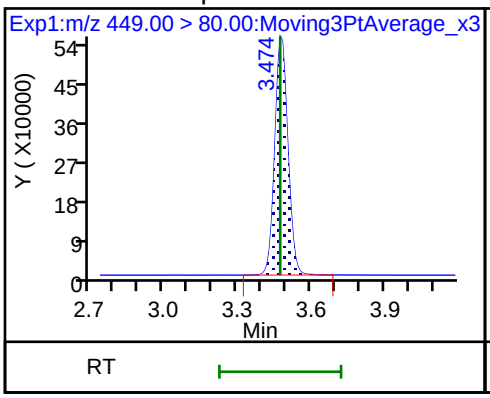

77 DONA



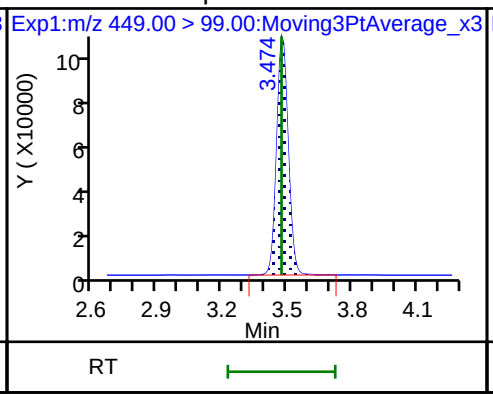

77 DONA



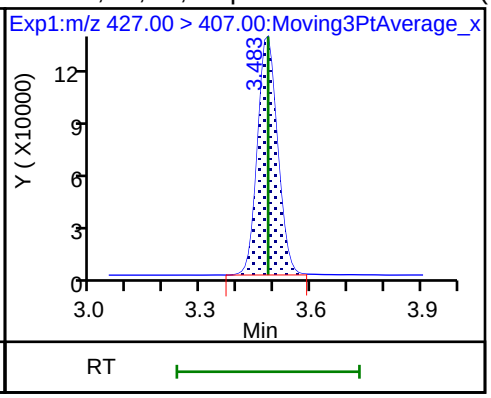
16 Perfluoroheptanesulfonic acid



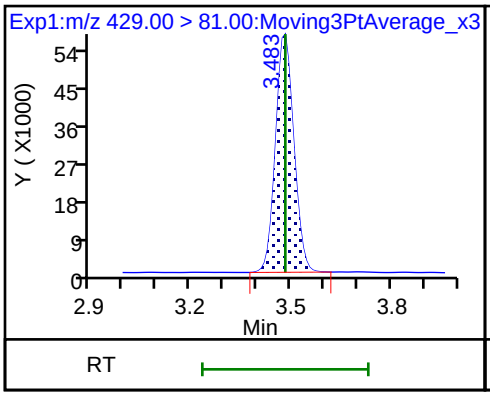

16 Perfluoroheptanesulfonic acid



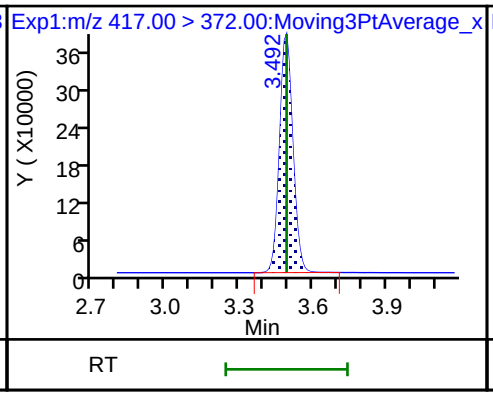

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



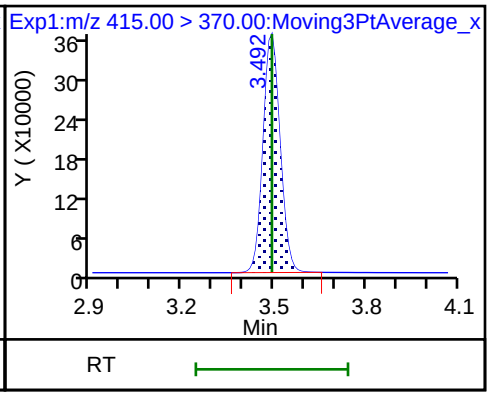

D 12 M2-6:2 FTS



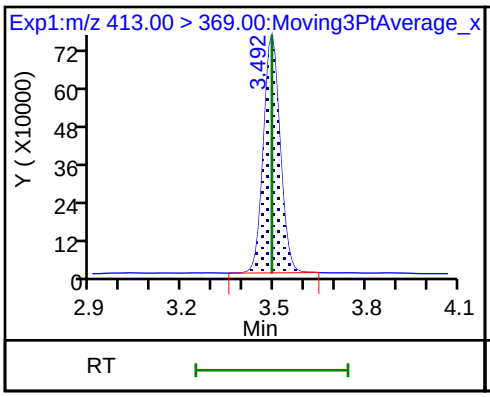

D 14 13C4 PFOA



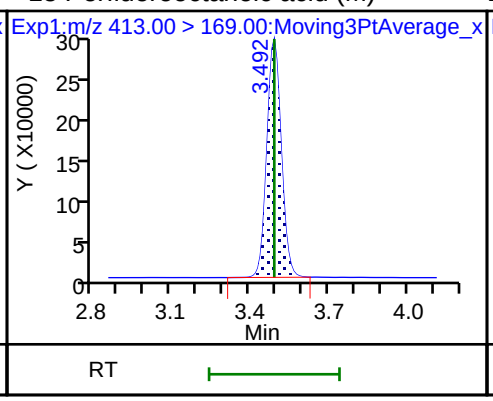

* 62 13C2 PFOA



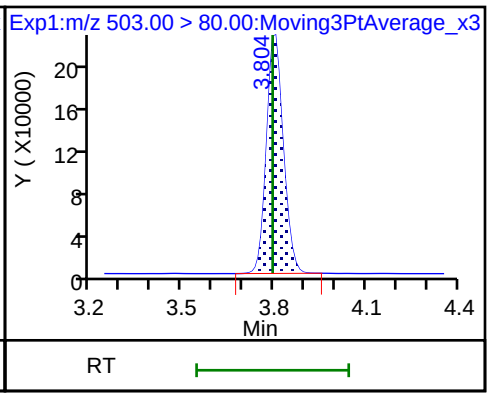

15 Perfluorooctanoic acid



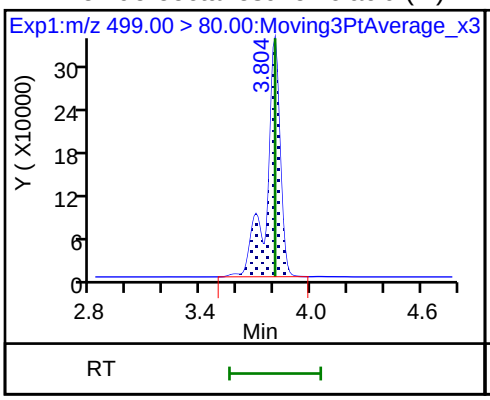

15 Perfluorooctanoic acid (M)



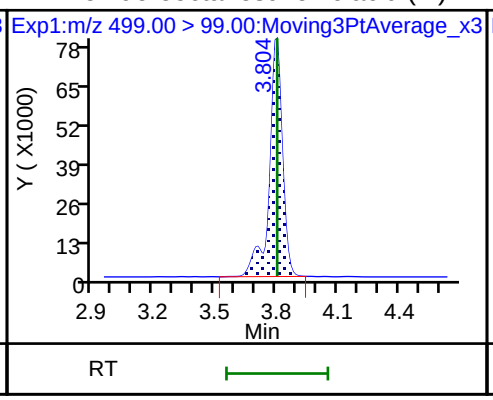

D 18 13C4 PFOS



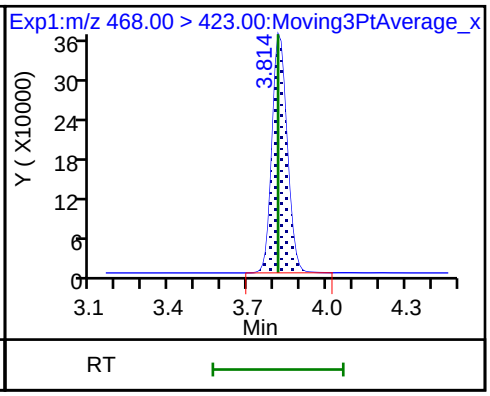

17 Perfluorooctanesulfonic acid (M)



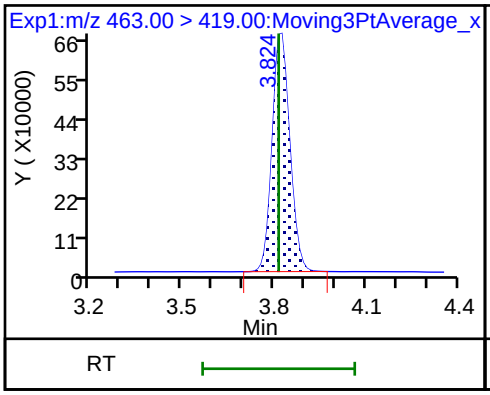

17 Perfluorooctanesulfonic acid (M)



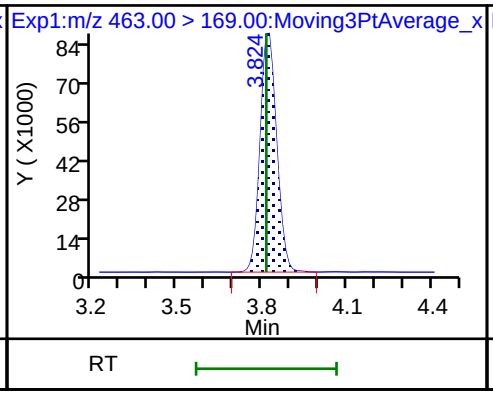

D 19 13C5 PFNA



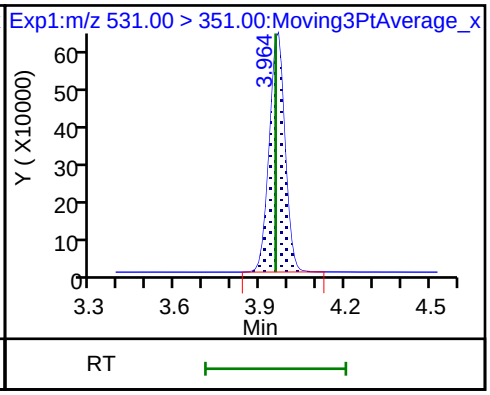
20 Perfluorononanoic acid



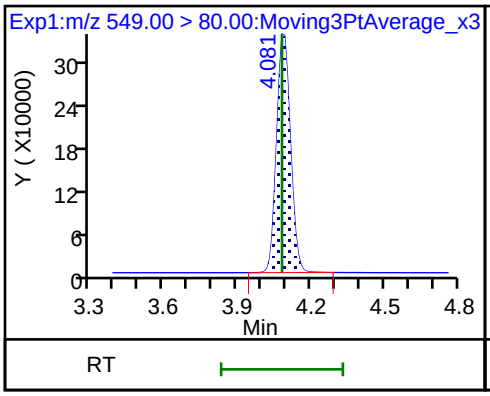

20 Perfluorononanoic acid



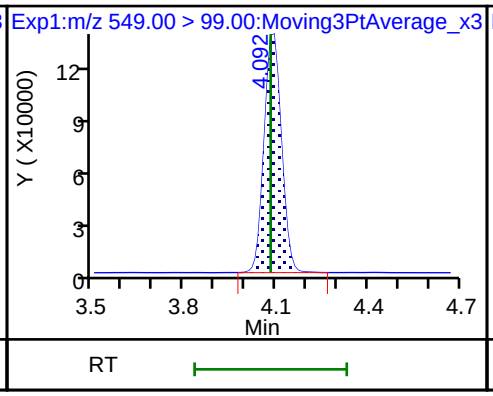

69 9-Chlorohexadecafluoro-3-oxanona



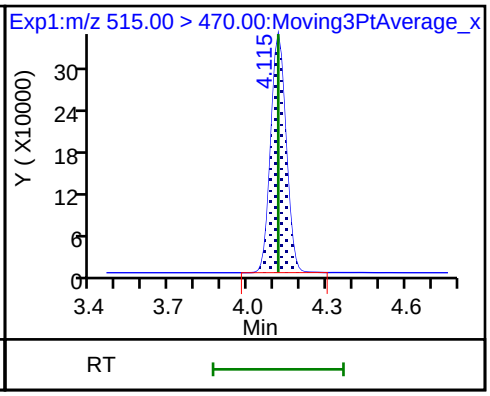

68 Perfluorononanesulfonic acid



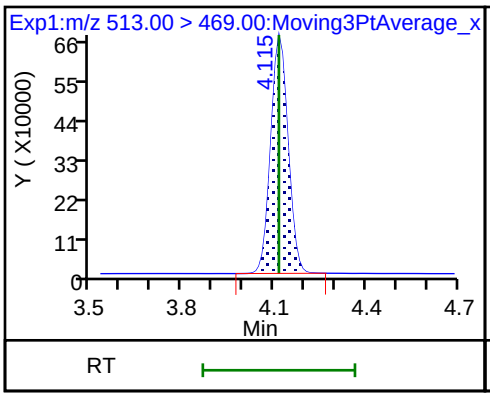

68 Perfluorononanesulfonic acid



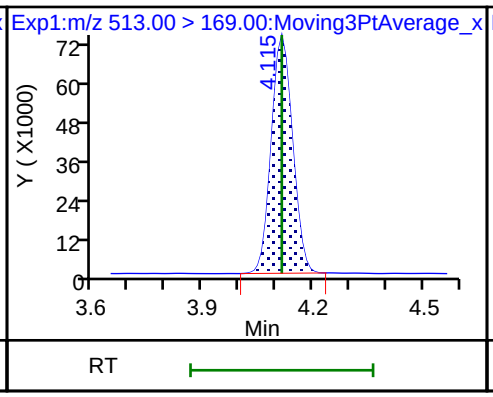

D 23 13C2 PFDA



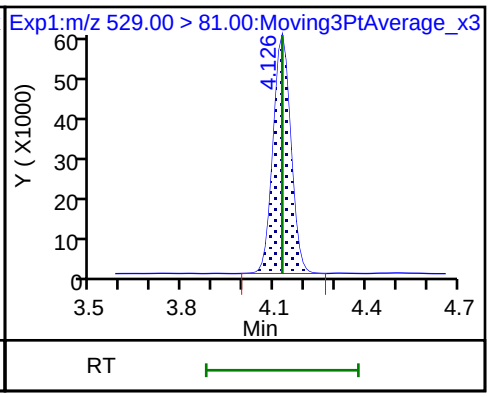

24 Perfluorodecanoic acid



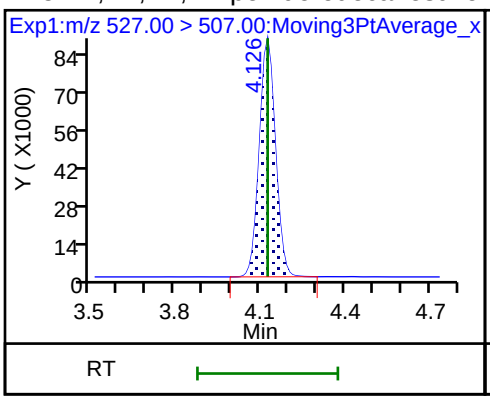

24 Perfluorodecanoic acid



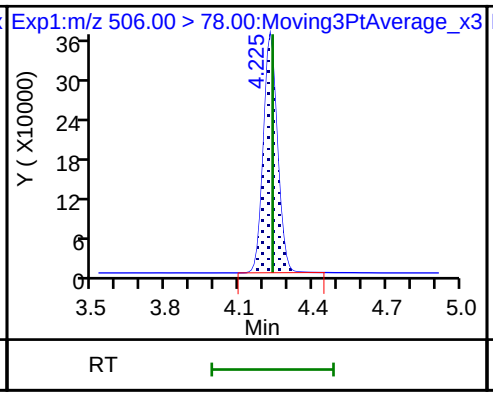

D 26 M2-8:2 FTS



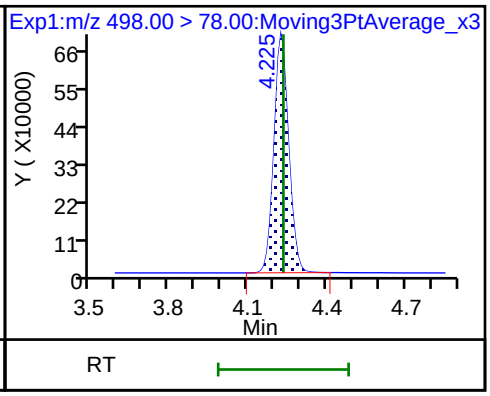

25 1H,1H,2H,2H-perfluorodecanesulfo



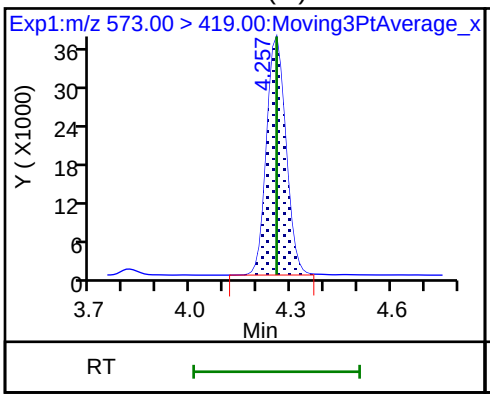

D 21 13C8 FOSA



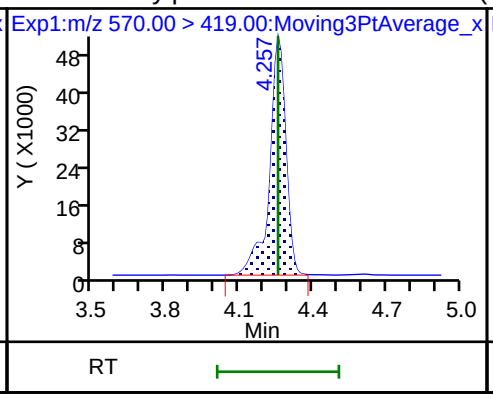

22 Perfluorooctanesulfonamide



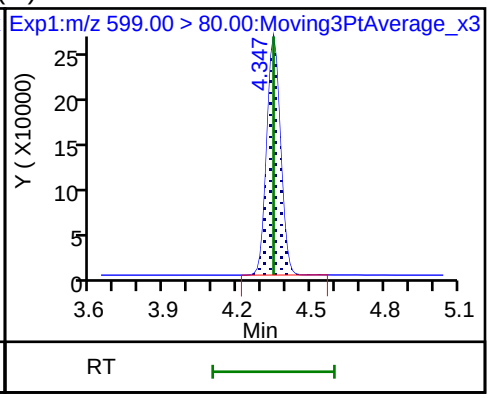
D 27 d3-NMeFOSAA (M)



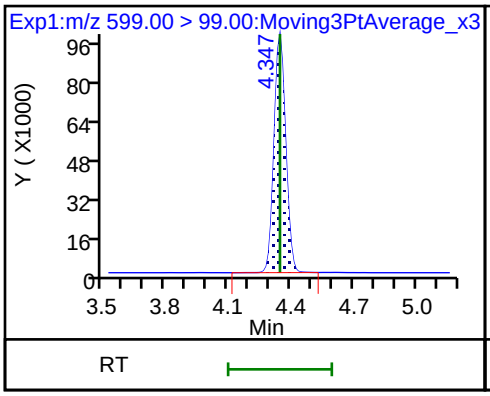

28 N-methylperfluorooctanesulfonami (M)



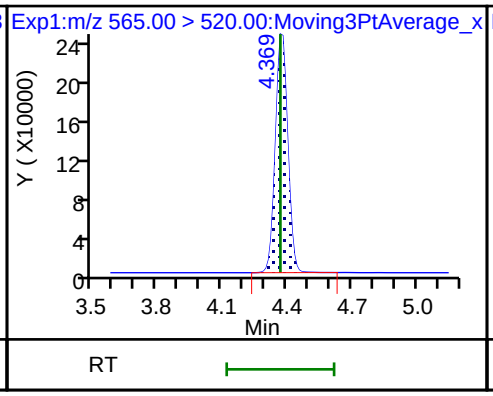

29 Perfluorodecanesulfonic acid



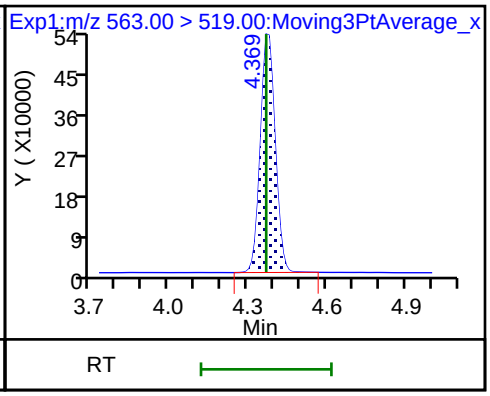

29 Perfluorodecanesulfonic acid



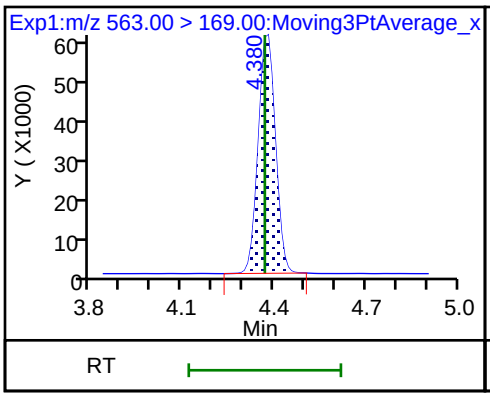

D 30 13C2 PFUnA



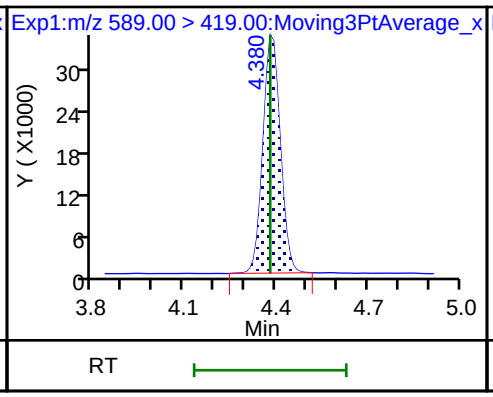

31 Perfluoroundecanoic acid



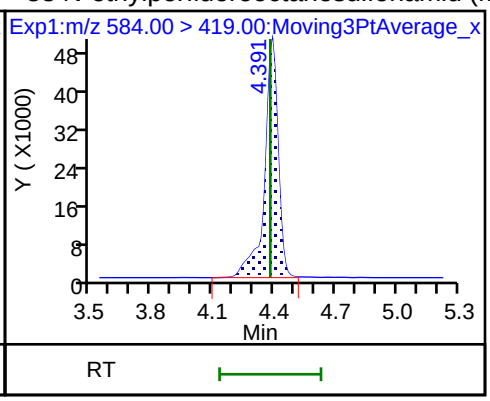

31 Perfluoroundecanoic acid



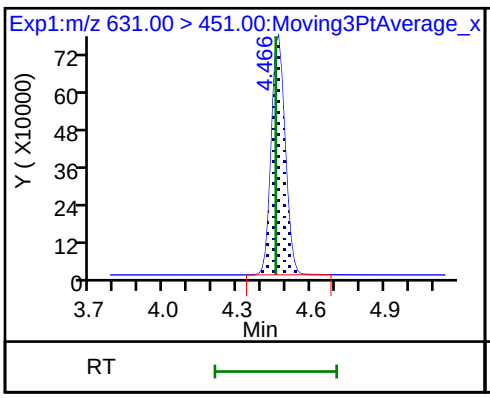

D 32 d5-NEtFOSAA



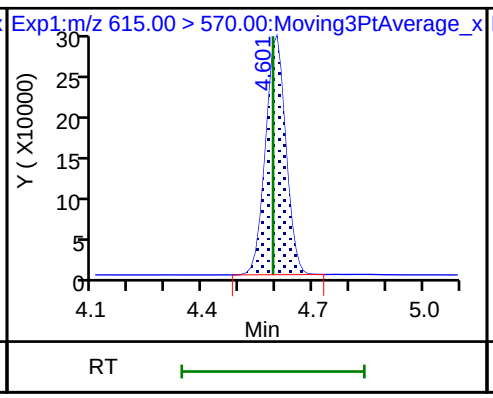

33 N-ethylperfluorooctanesulfonamid (M)



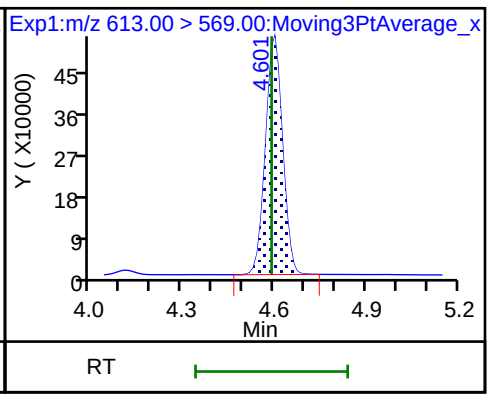

66 11-Chloroeicosafluoro-3-oxaundec



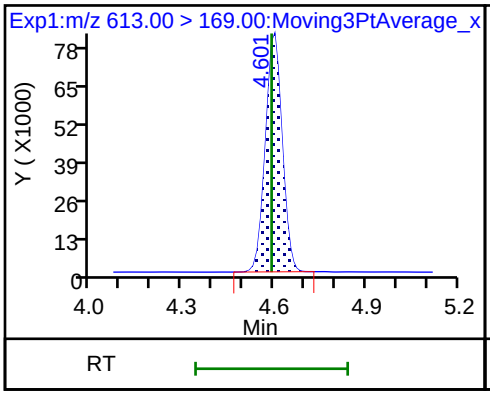

D 36 13C2 PFDoA



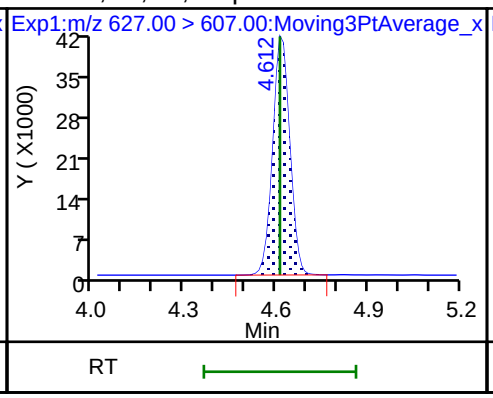

37 Perfluorododecanoic acid



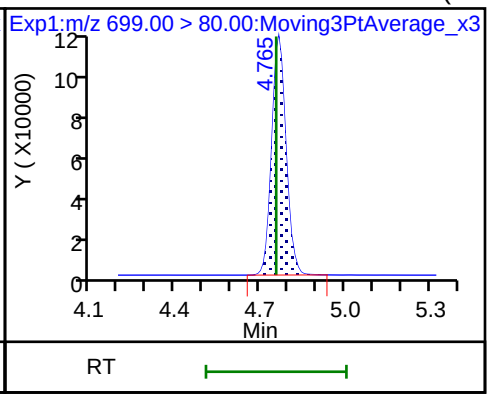
37 Perfluorododecanoic acid



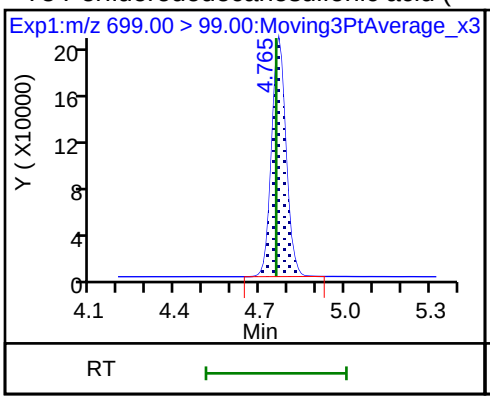

74 1H,1H,2H,2H-perfluorododecanesul



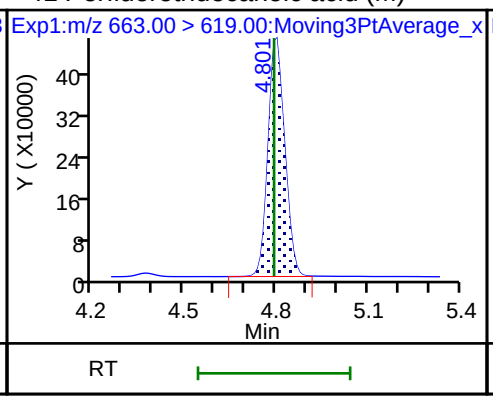

75 Perfluorododecanesulfonic acid (



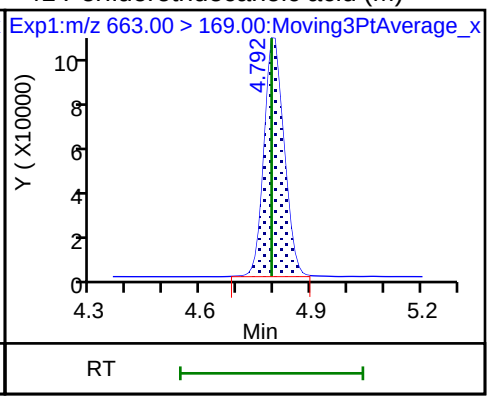

75 Perfluorododecanesulfonic acid (



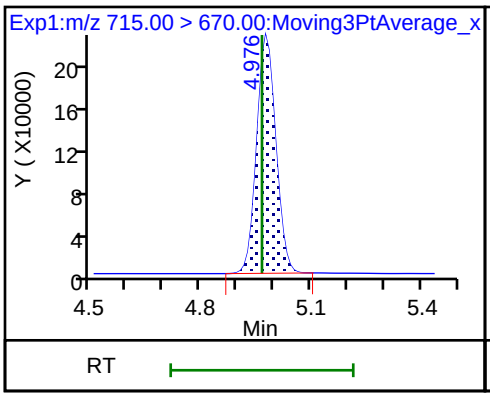

41 Perfluorotridecanoic acid (M)



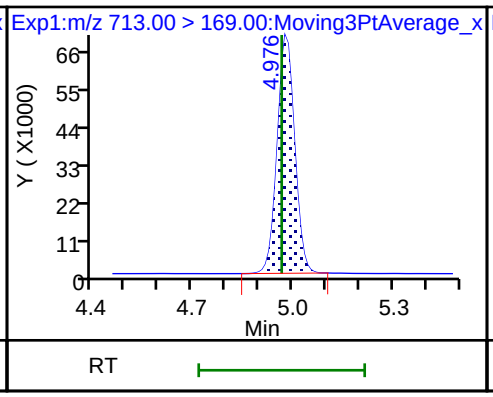

41 Perfluorotridecanoic acid (M)



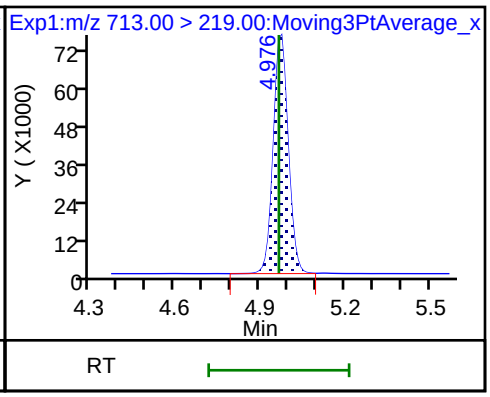

D 43 13C2 PFTeDA



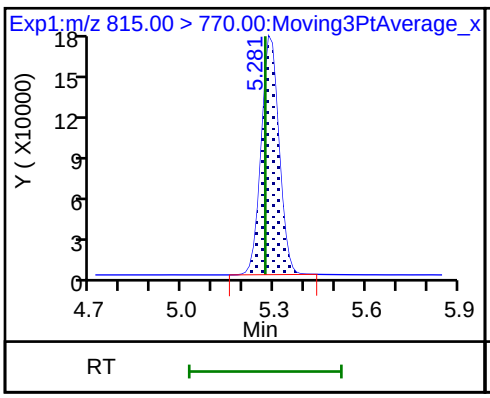

42 Perfluorotetradecanoic acid



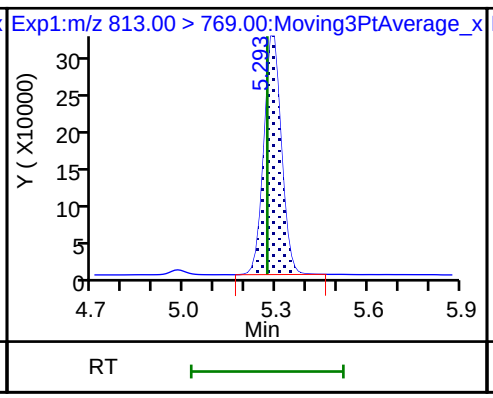

42 Perfluorotetradecanoic acid



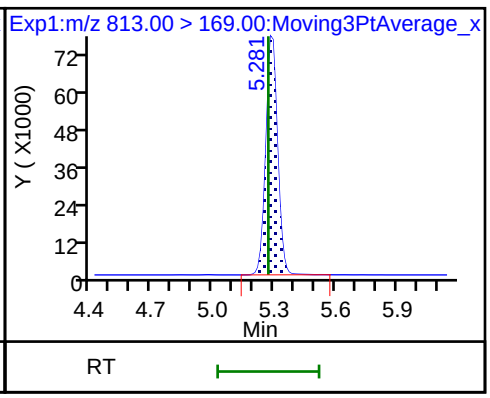

D 44 13C2 PFHxDA



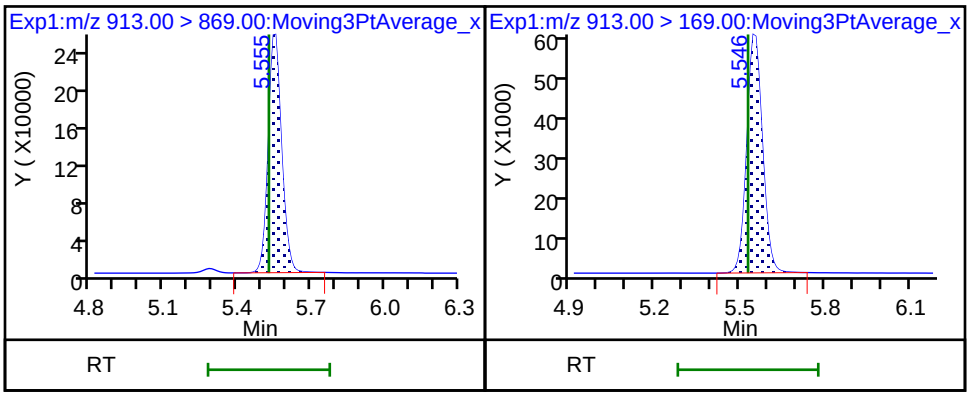

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid

Eurofins TestAmerica, Burlington

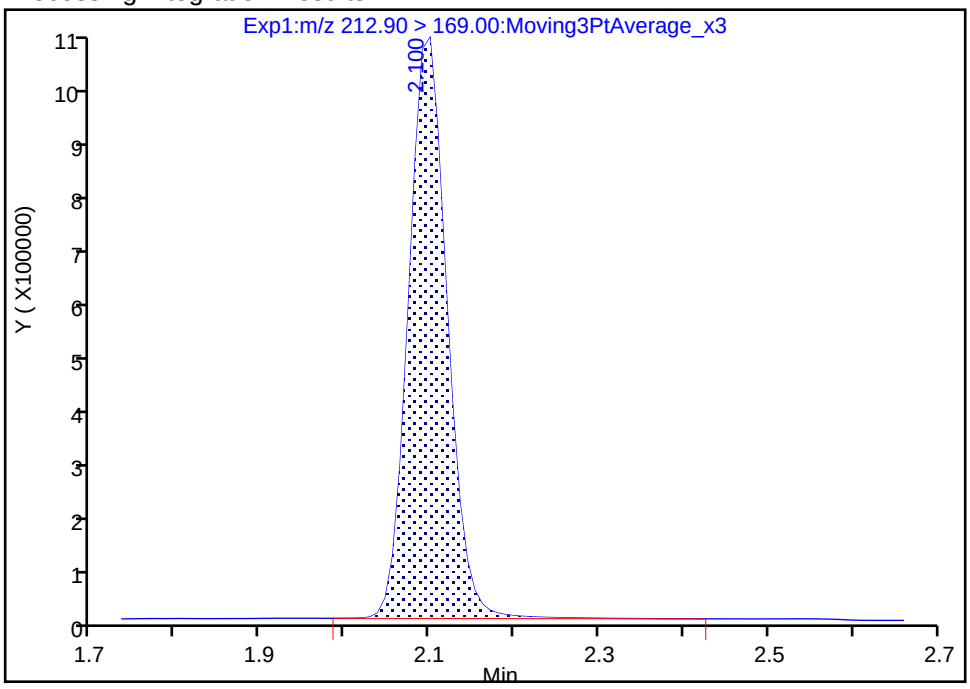
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

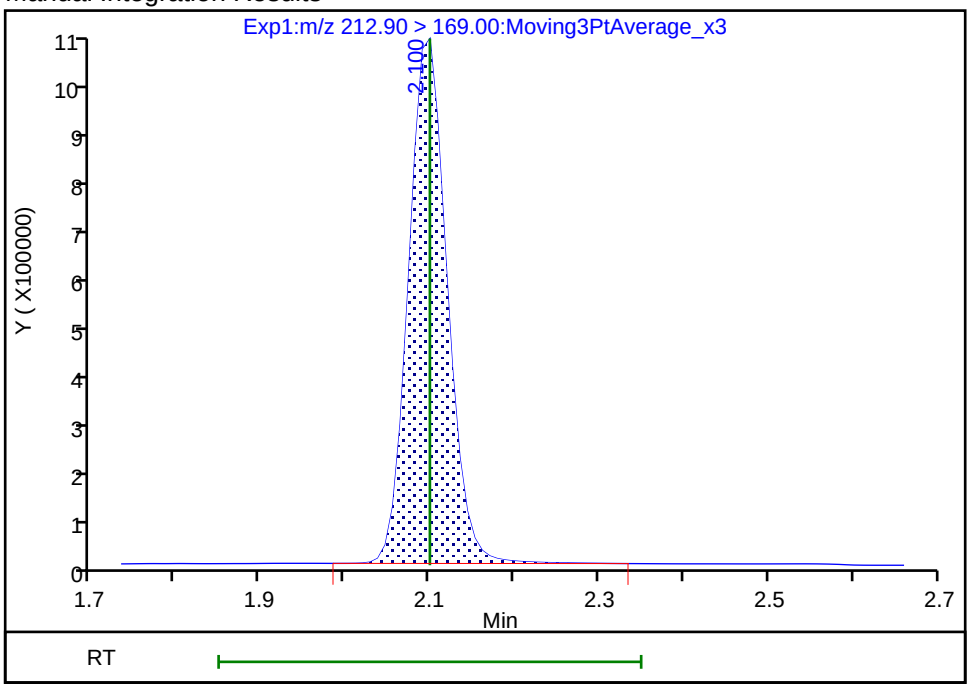
Processing Integration Results

RT: 2.10
Area: 3197212
Amount: 2.355696
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 3192352
Amount: 2.352116
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

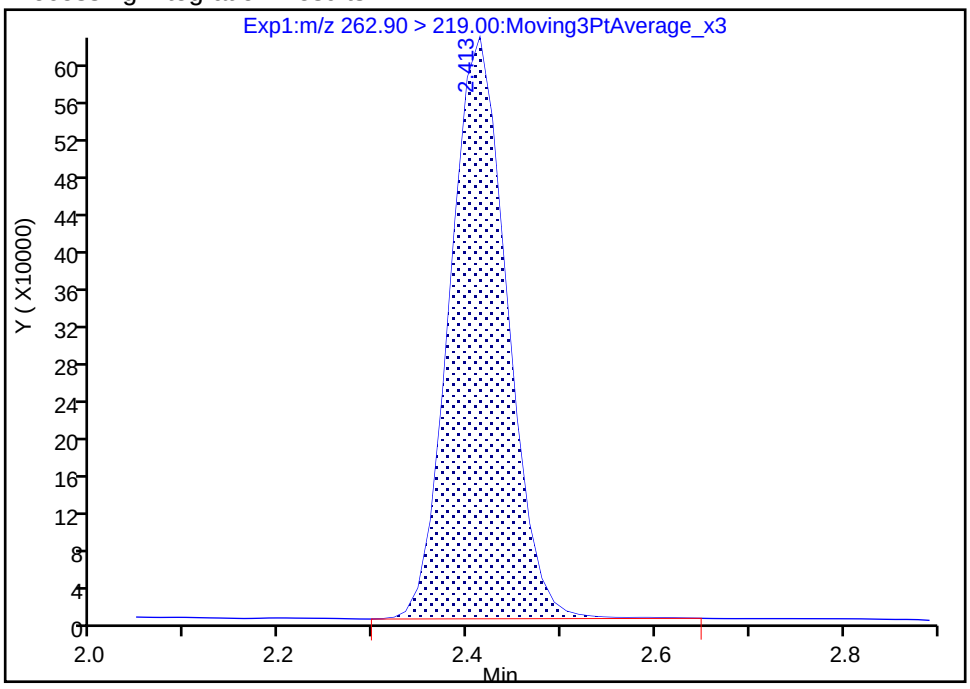
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

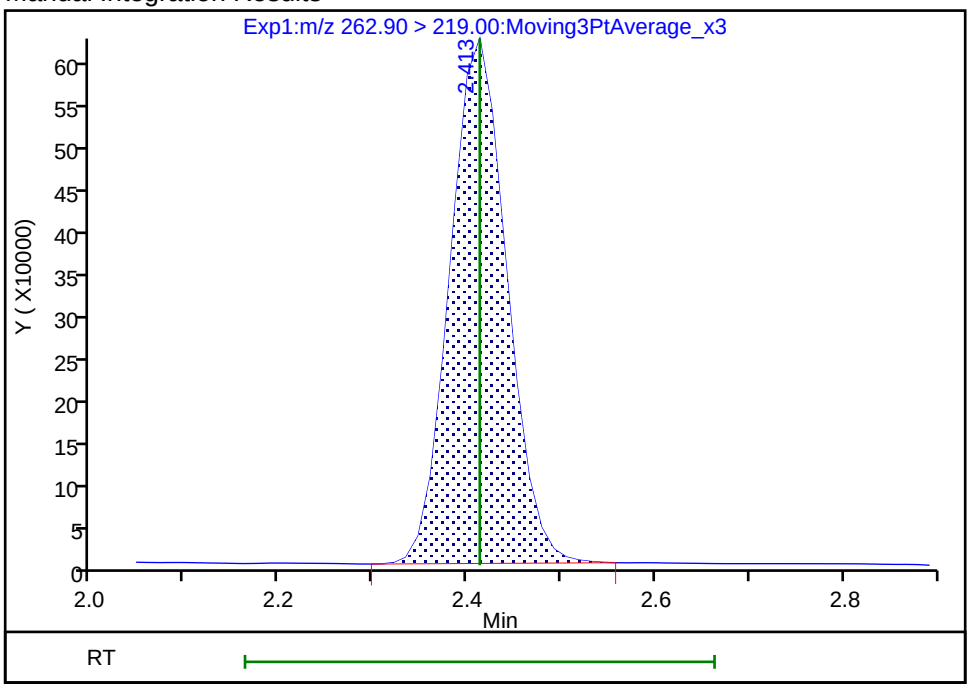
Processing Integration Results

RT: 2.41
Area: 2609048
Amount: 2.399099
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 2598010
Amount: 2.388949
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

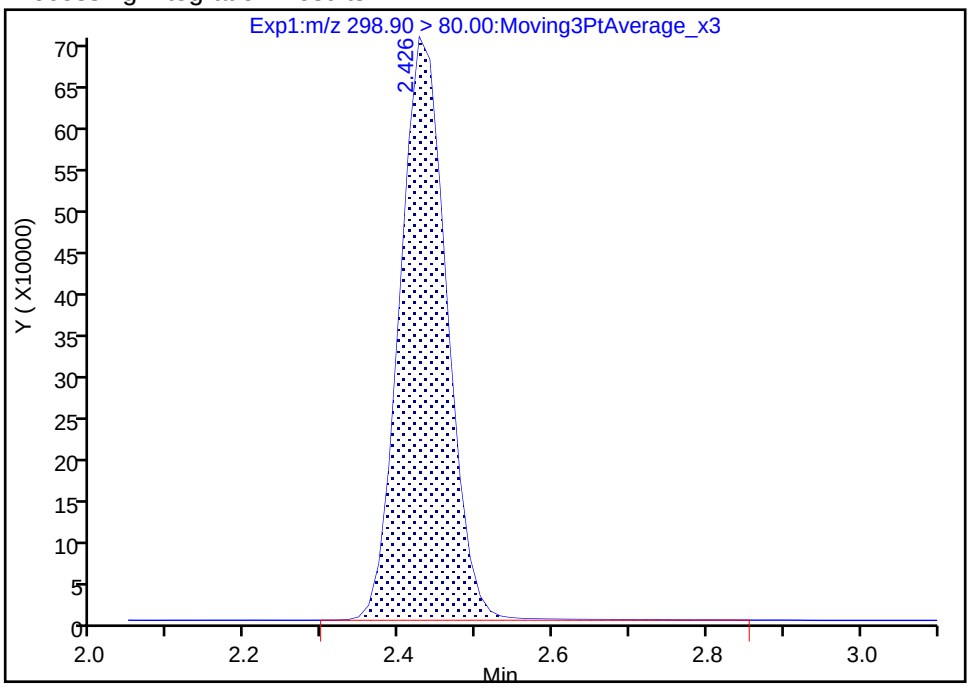
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

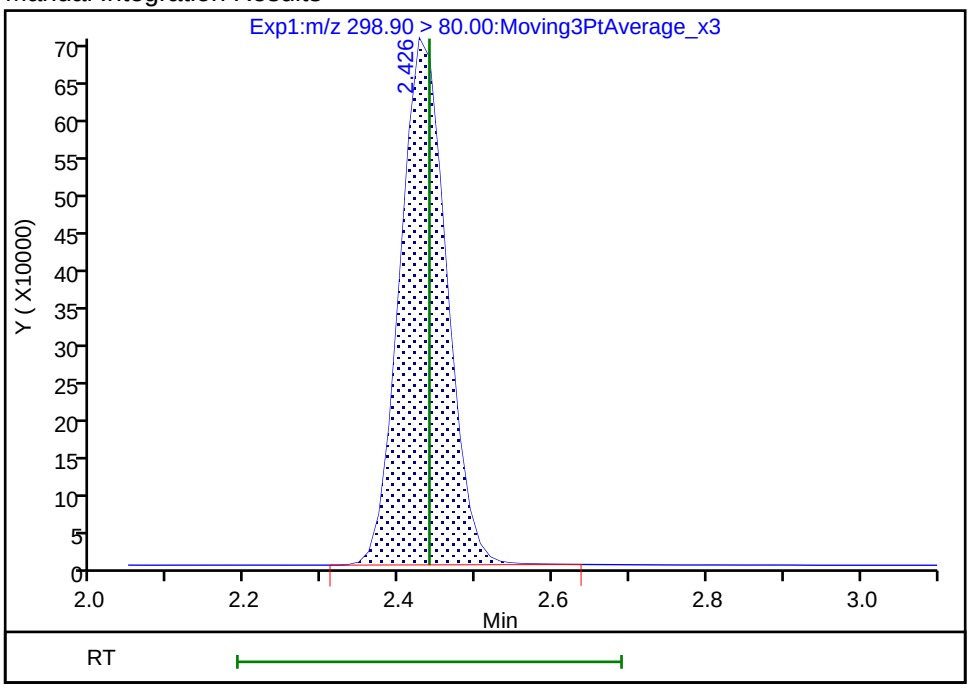
Processing Integration Results

RT: 2.43
Area: 2990855
Amount: 2.155938
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 2978637
Amount: 2.147130
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

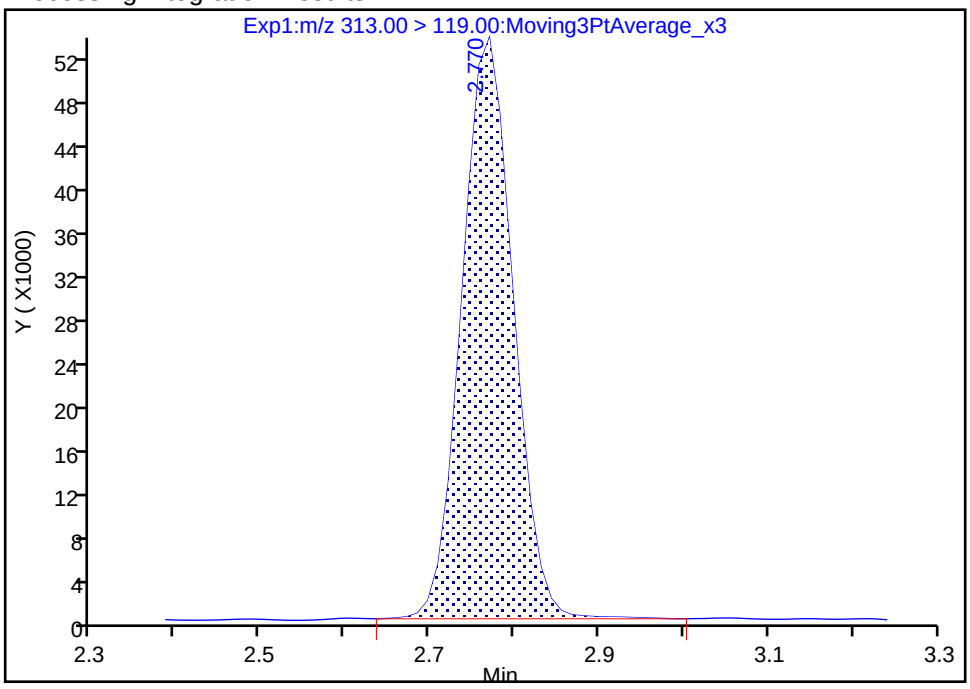
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

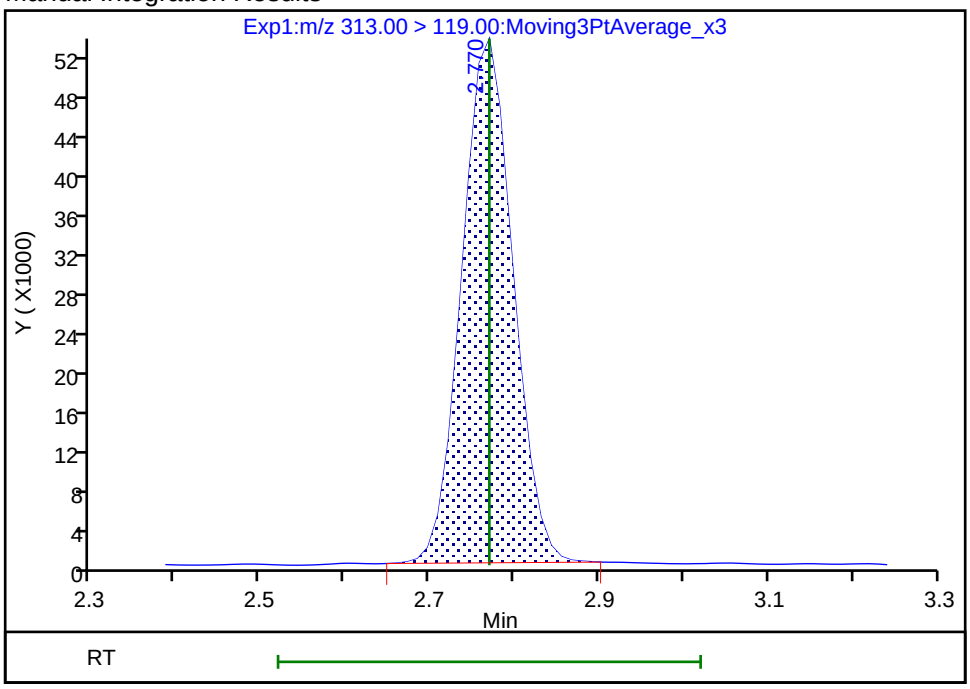
Processing Integration Results

RT: 2.77
Area: 226725
Amount: 2.391836
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 224609
Amount: 2.391836
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

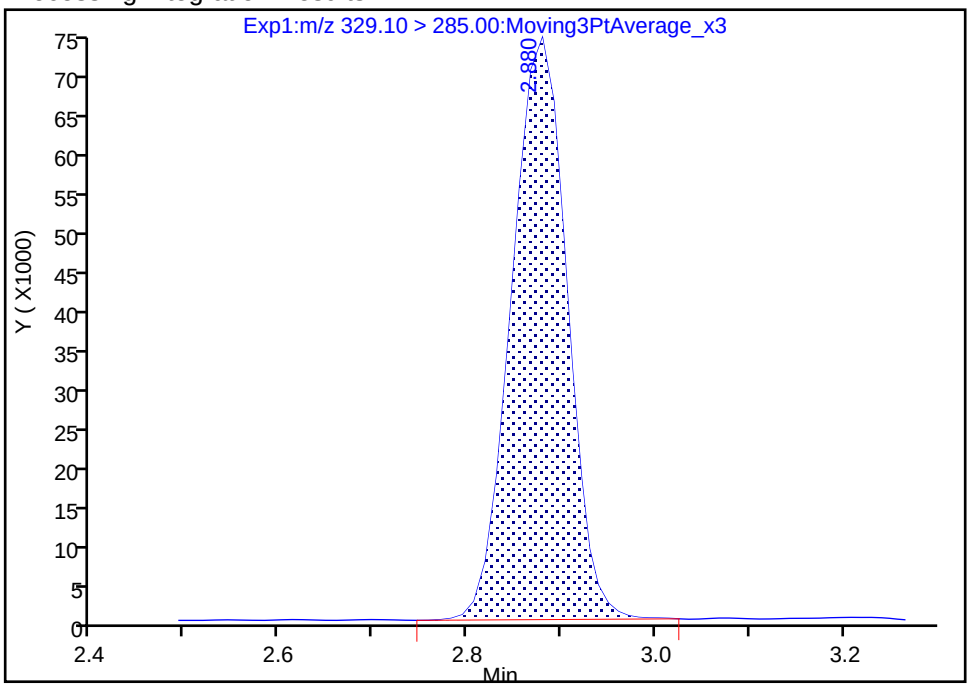
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d | | | | |
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

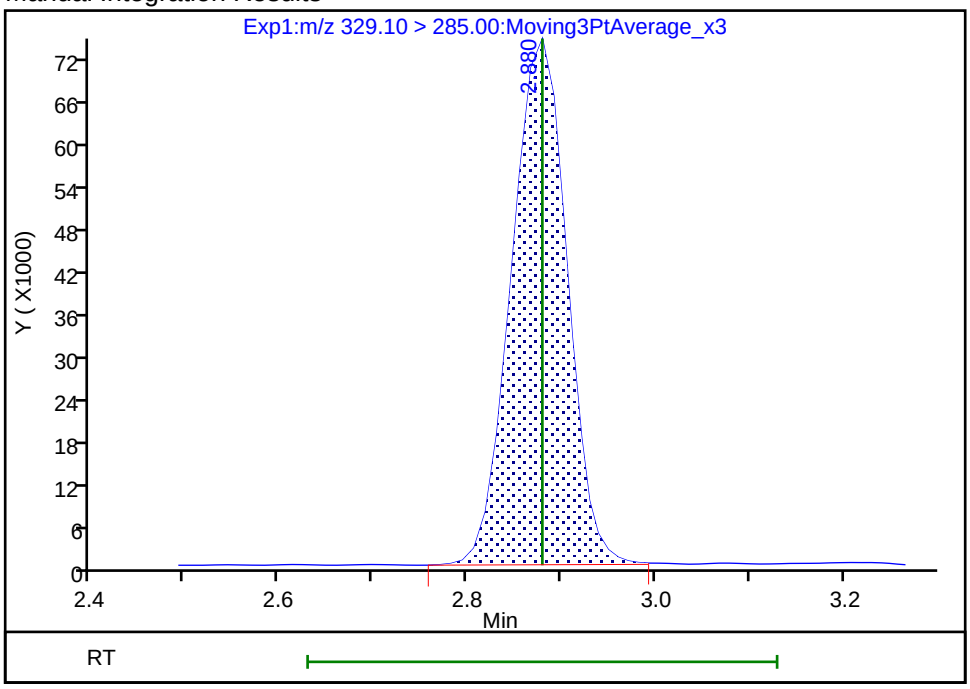
Processing Integration Results

RT: 2.88
Area: 303881
Amount: 2.925144
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 304094
Amount: 2.927194
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

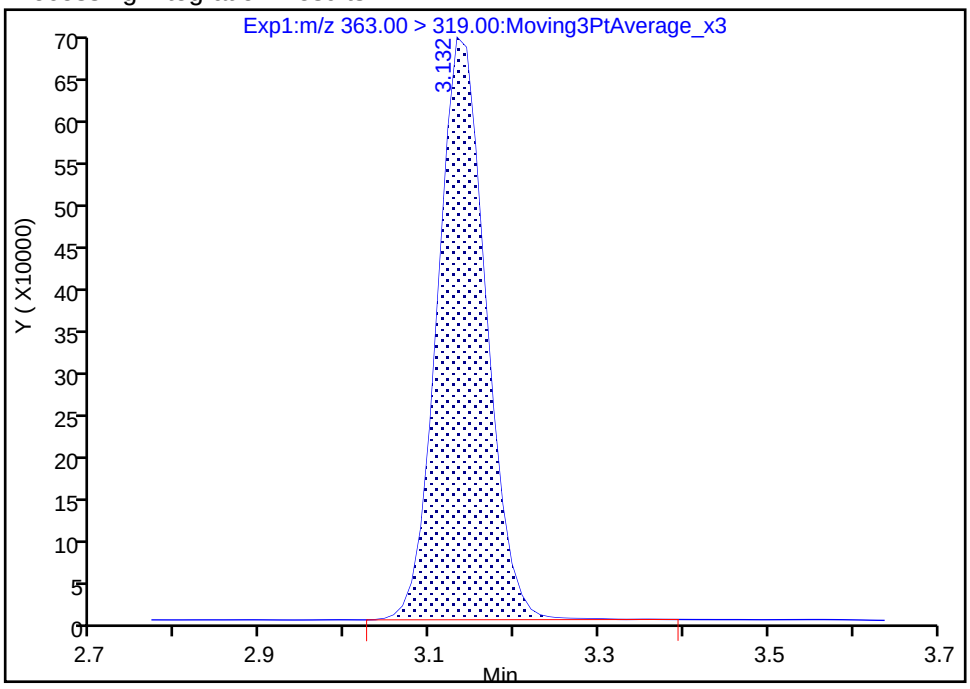
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d | | | | |
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

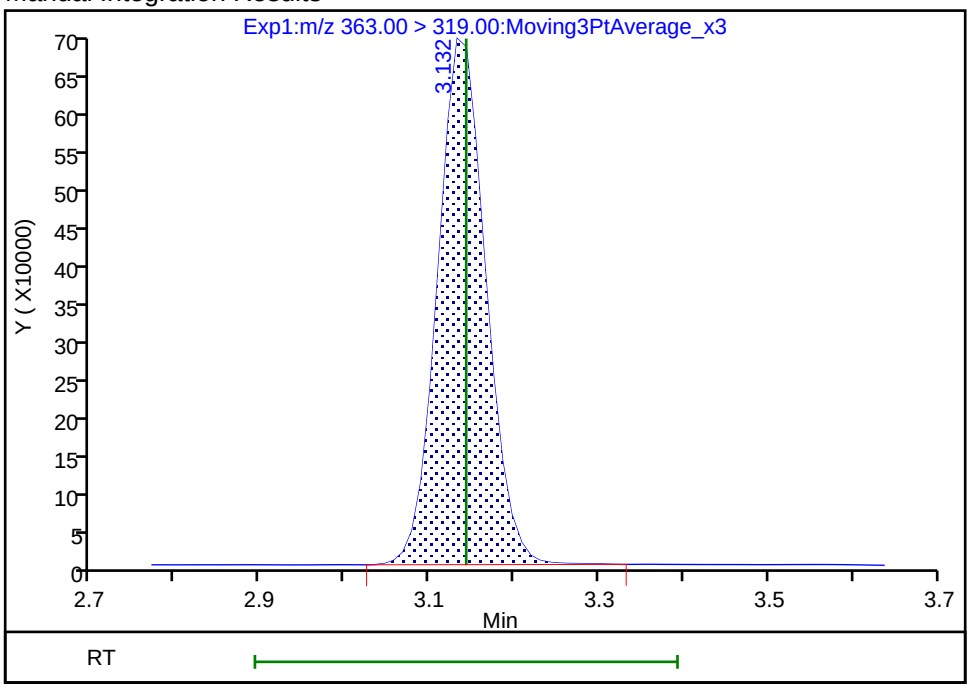
Processing Integration Results

RT: 3.13
Area: 2734433
Amount: 2.360540
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2732802
Amount: 2.359132
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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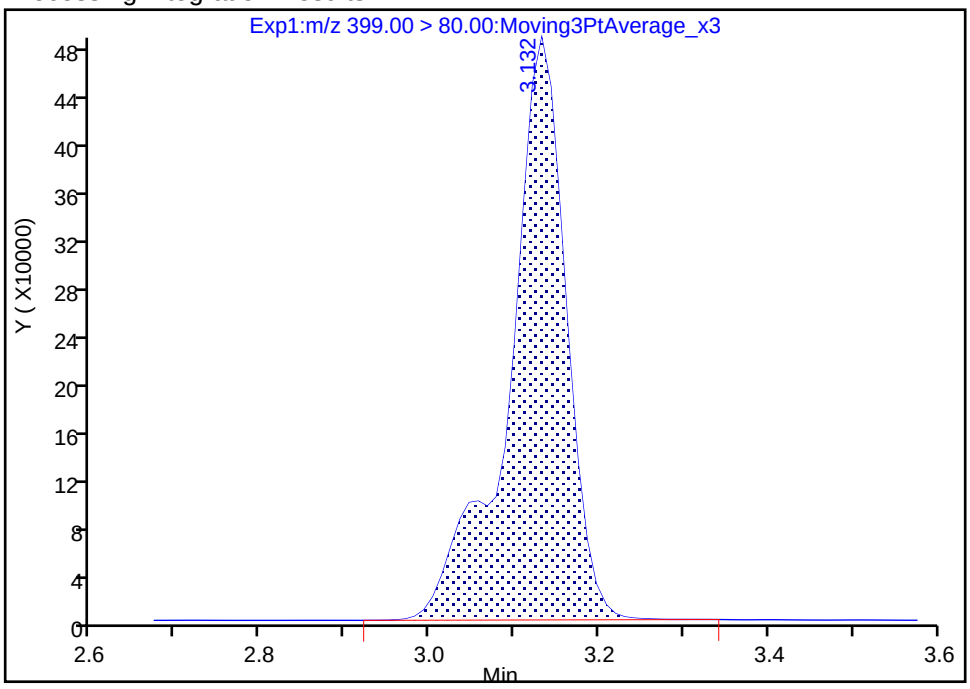
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d | | | | |
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

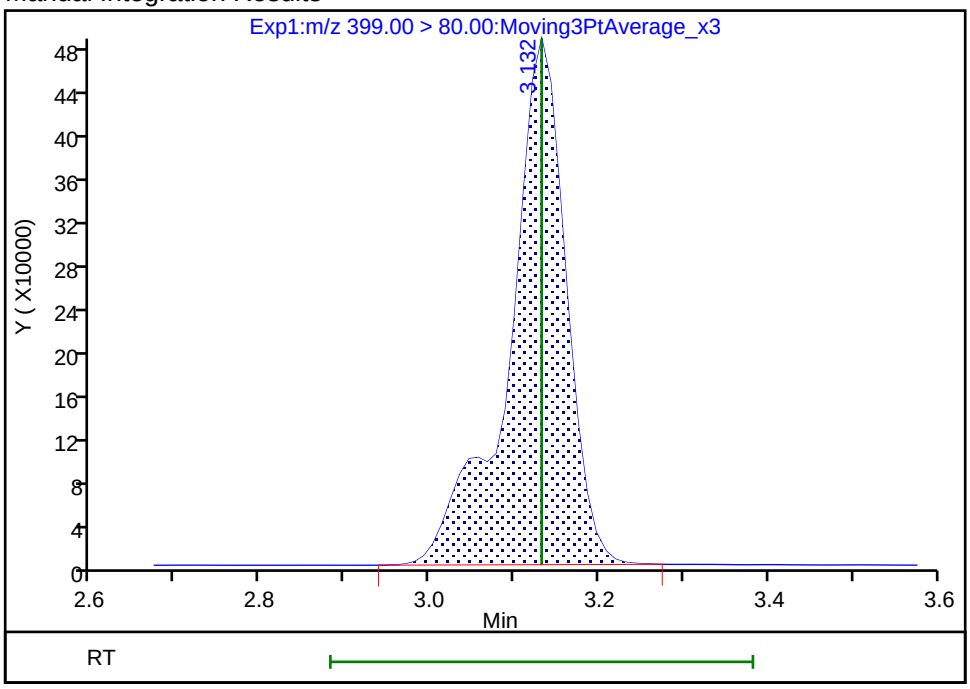
Processing Integration Results

RT: 3.13
Area: 2283924
Amount: 2.144341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2280415
Amount: 2.141046
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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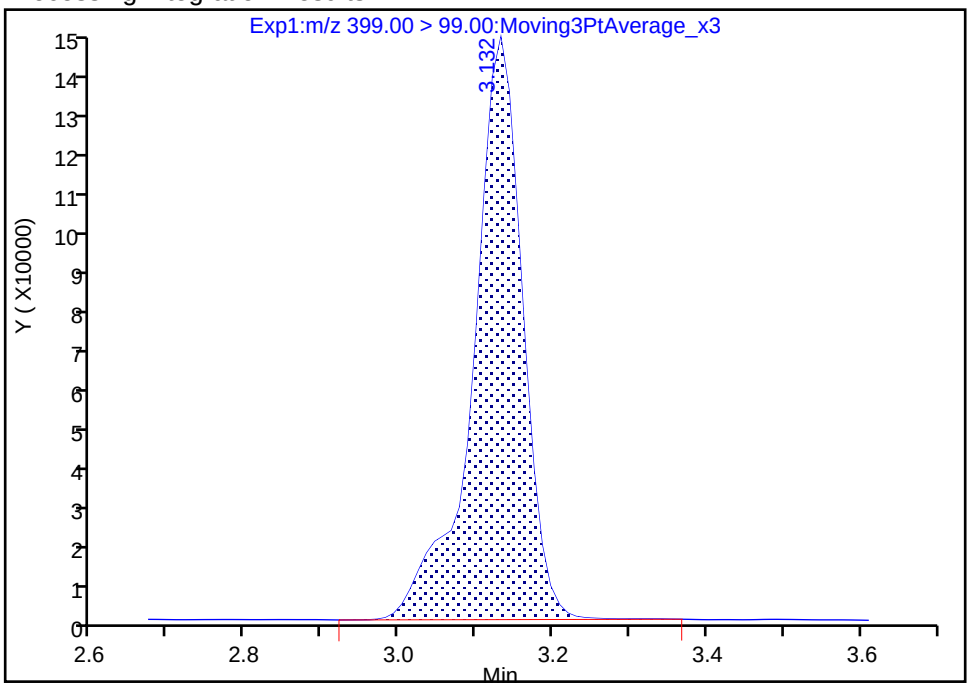
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

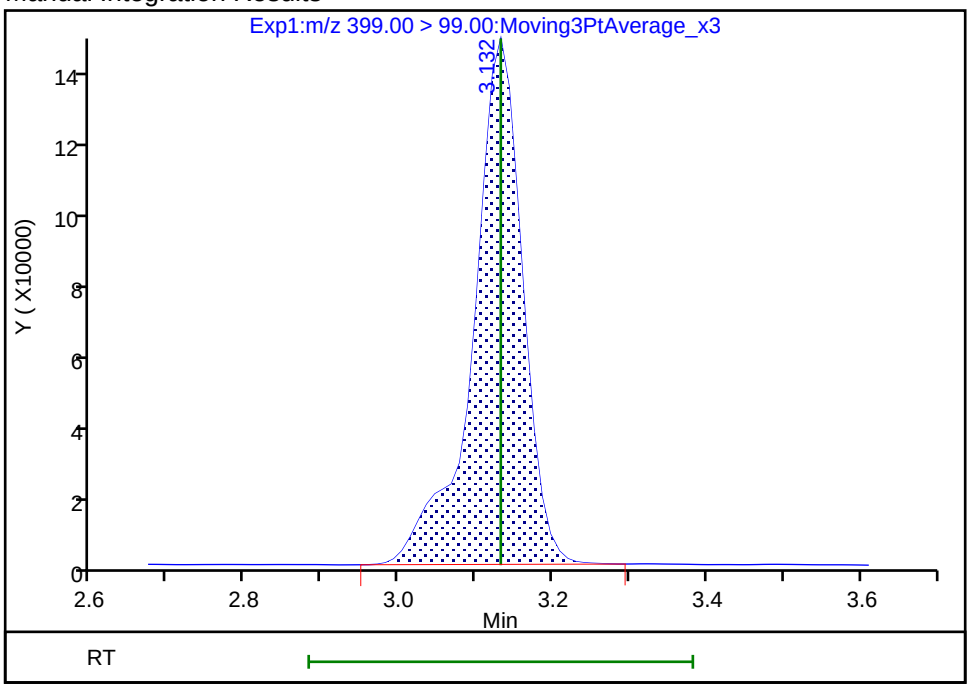
Processing Integration Results

RT: 3.13
Area: 635307
Amount: 2.144341
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 633932
Amount: 2.141046
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

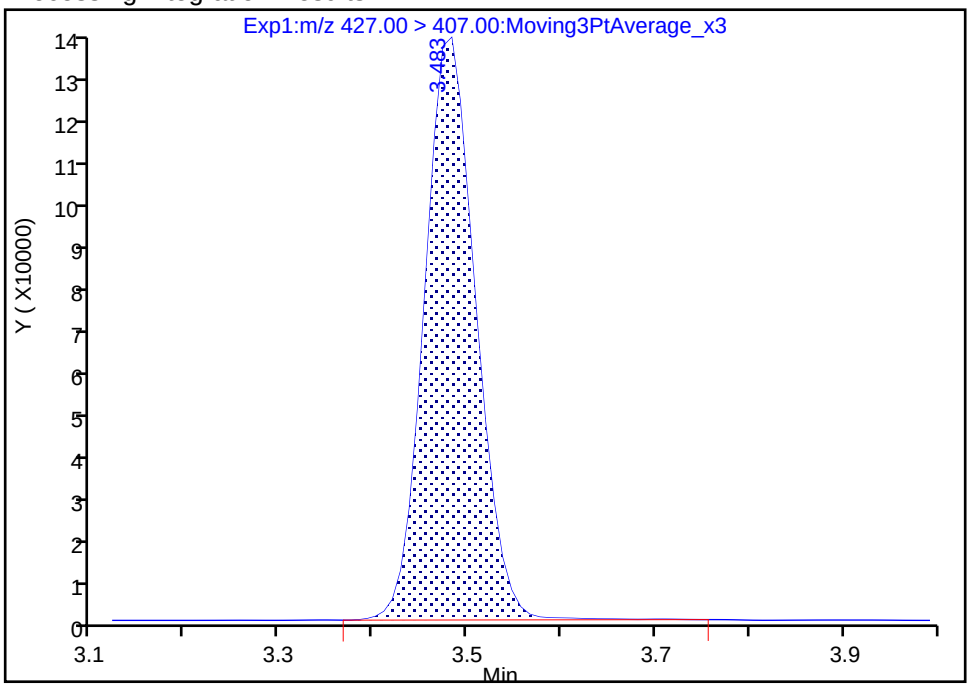
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

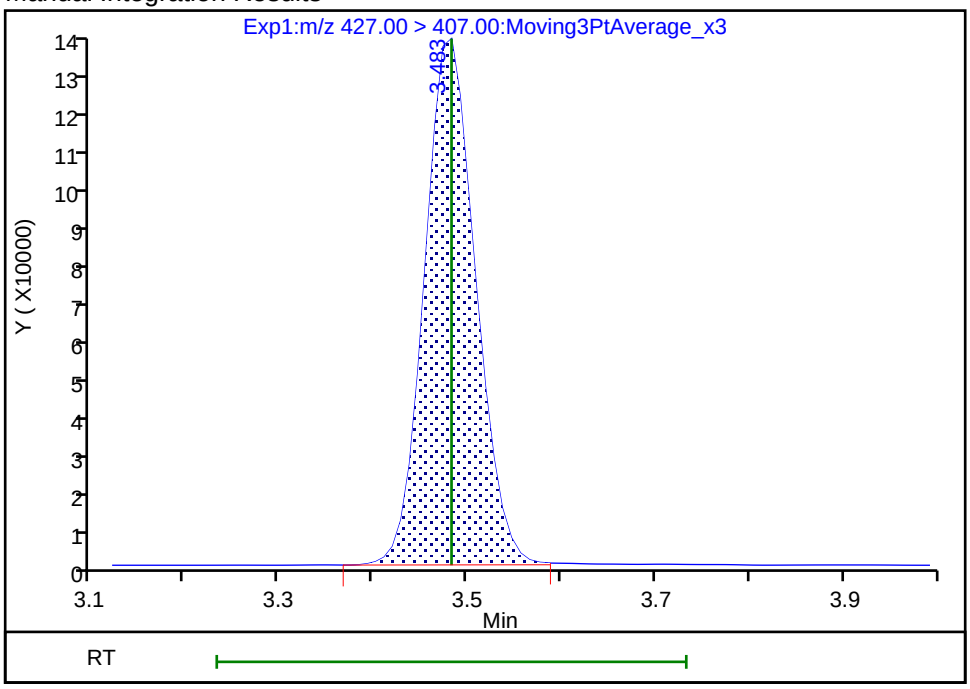
Processing Integration Results

RT: 3.48
Area: 508495
Amount: 2.205259
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 506958
Amount: 2.198593
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

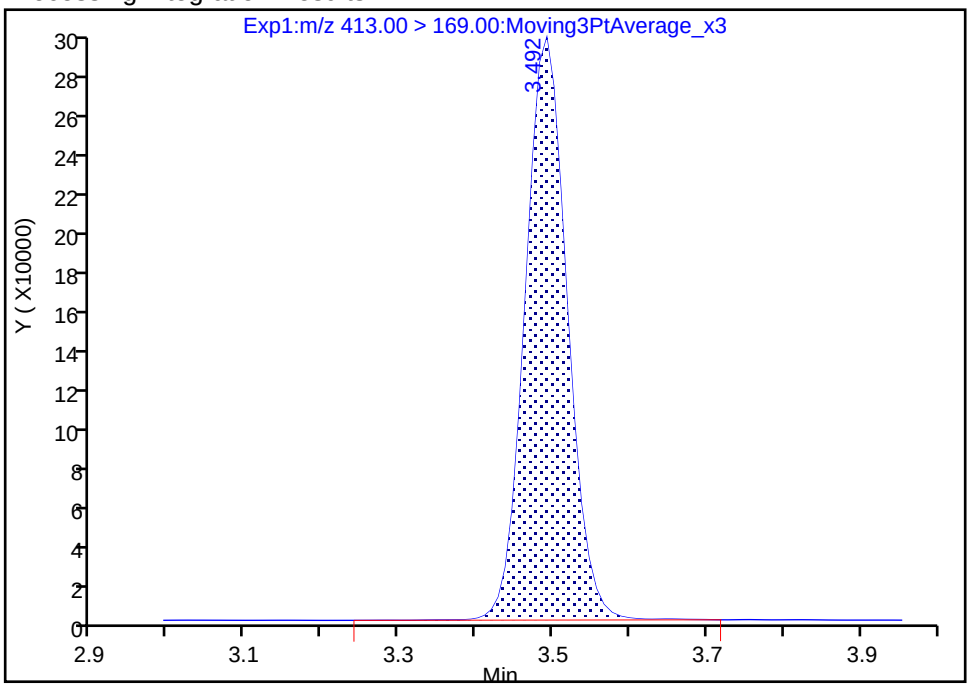
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

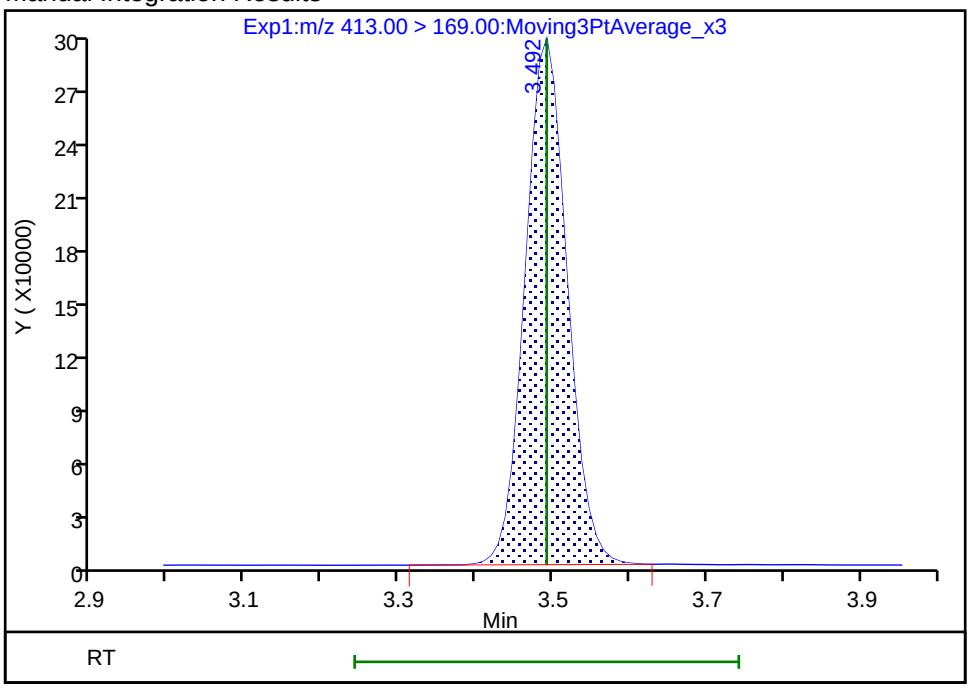
Processing Integration Results

RT: 3.49
Area: 1113777
Amount: 2.320088
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1109646
Amount: 2.320088
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

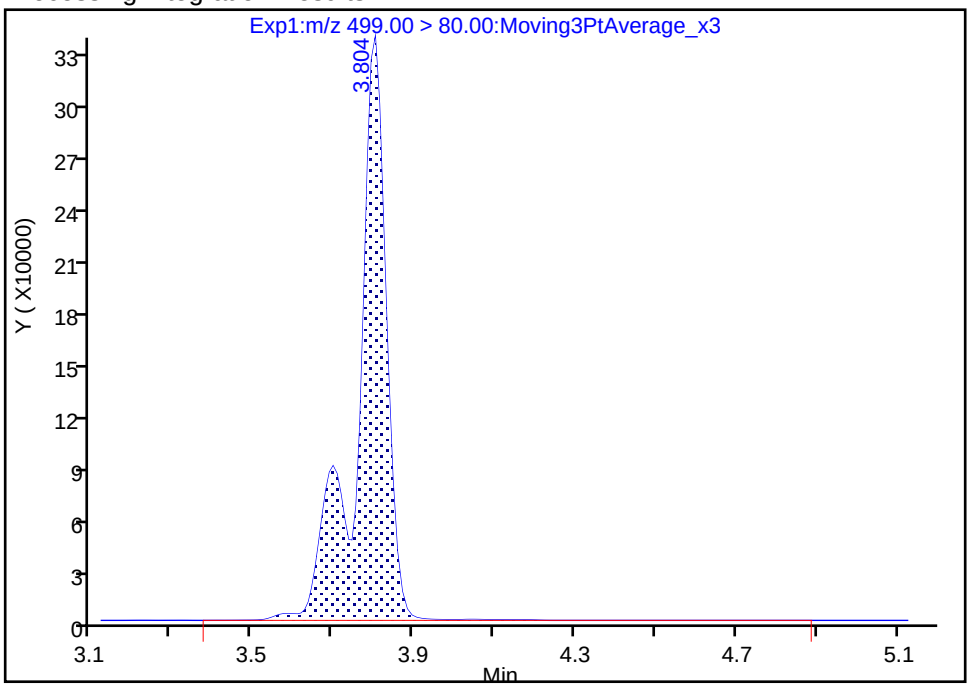
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d | | | | |
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

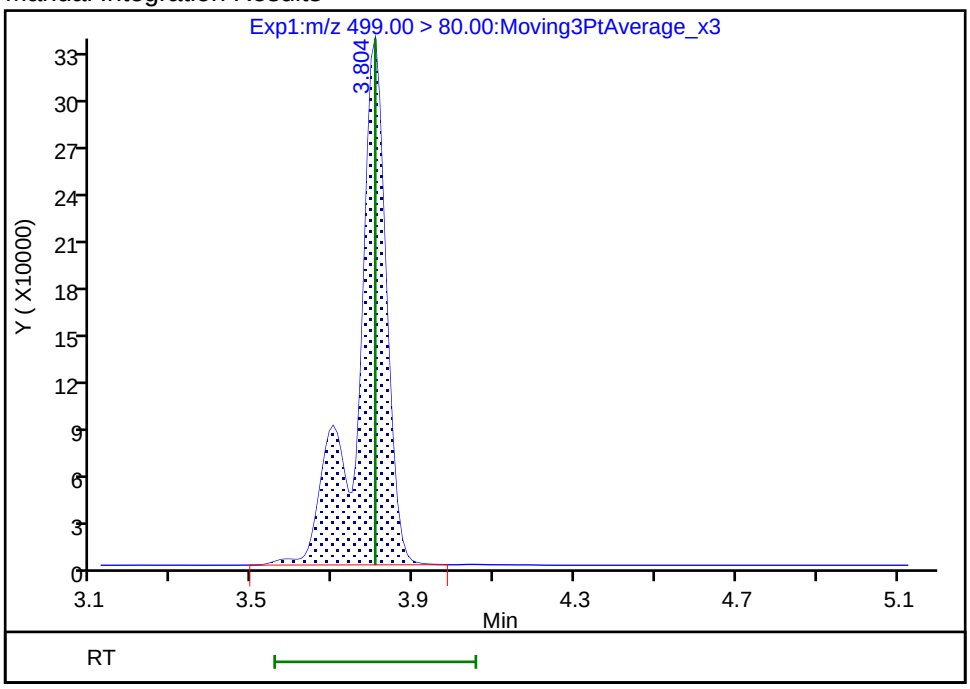
Processing Integration Results

RT: 3.80
Area: 1682446
Amount: 2.131184
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1671475
Amount: 2.117287
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:17:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

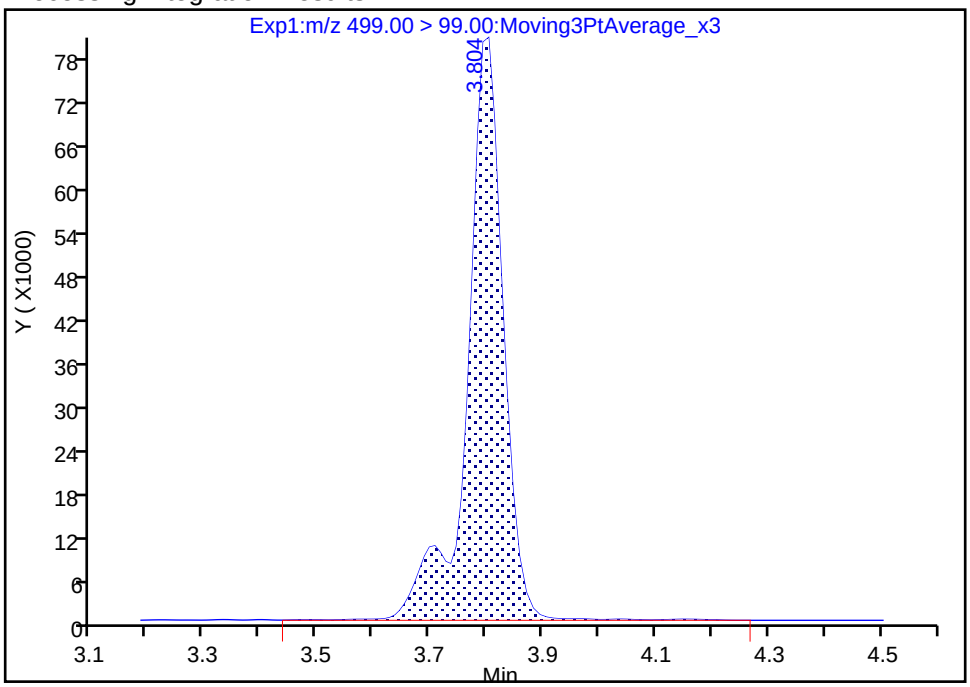
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

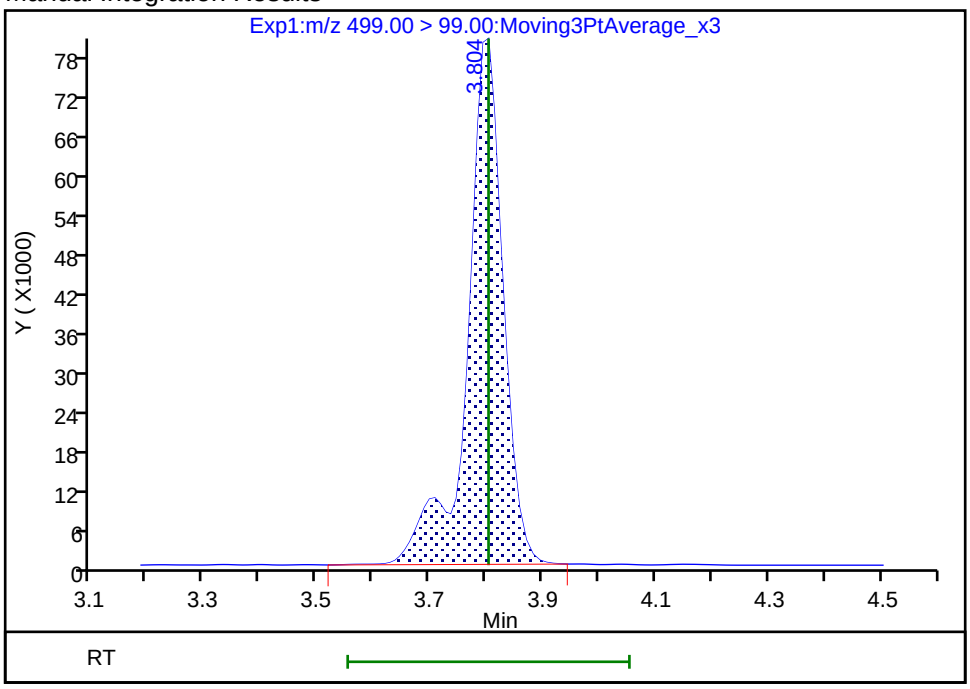
Processing Integration Results

RT: 3.80
Area: 357123
Amount: 2.131184
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 352468
Amount: 2.117287
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:17:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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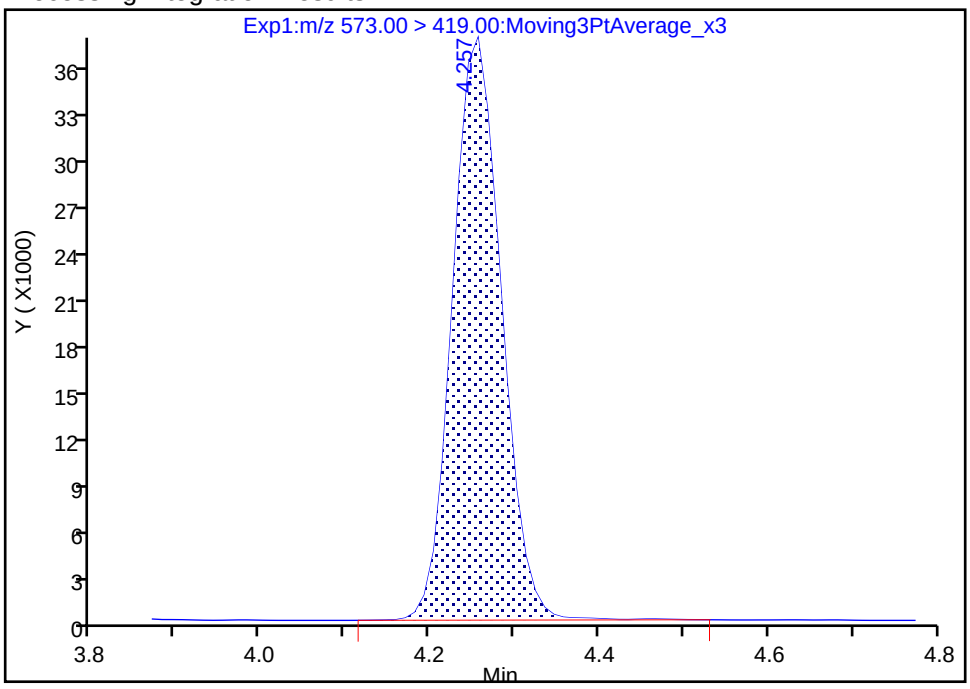
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

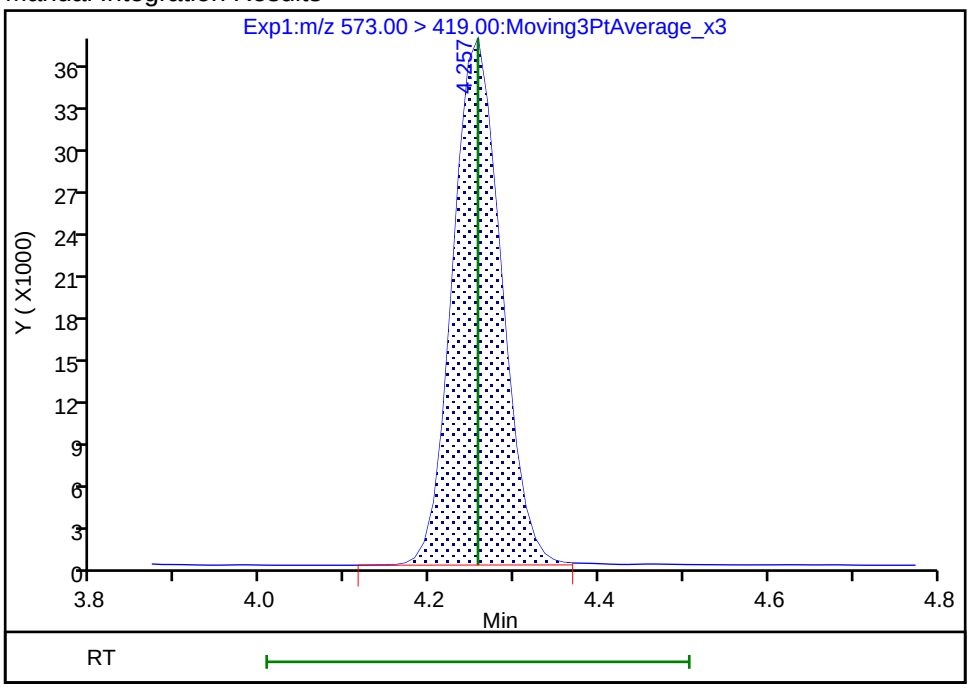
Processing Integration Results

RT: 4.26
Area: 151678
Amount: 1.337861
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 151209
Amount: 1.333724
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:29:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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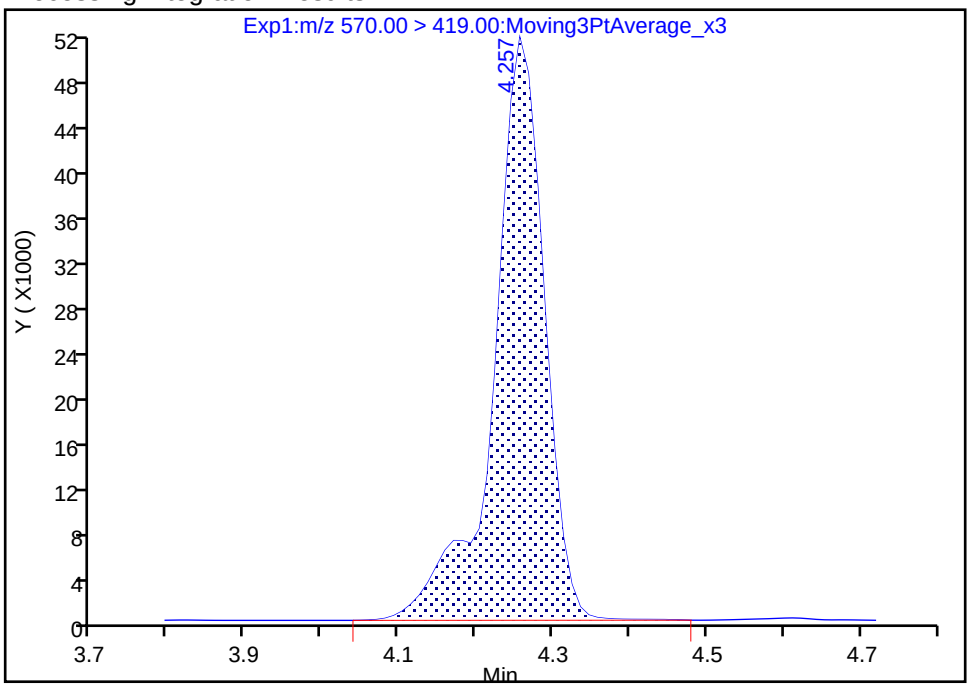
| Injection Date: | 10-Nov-2021 04:12:11 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

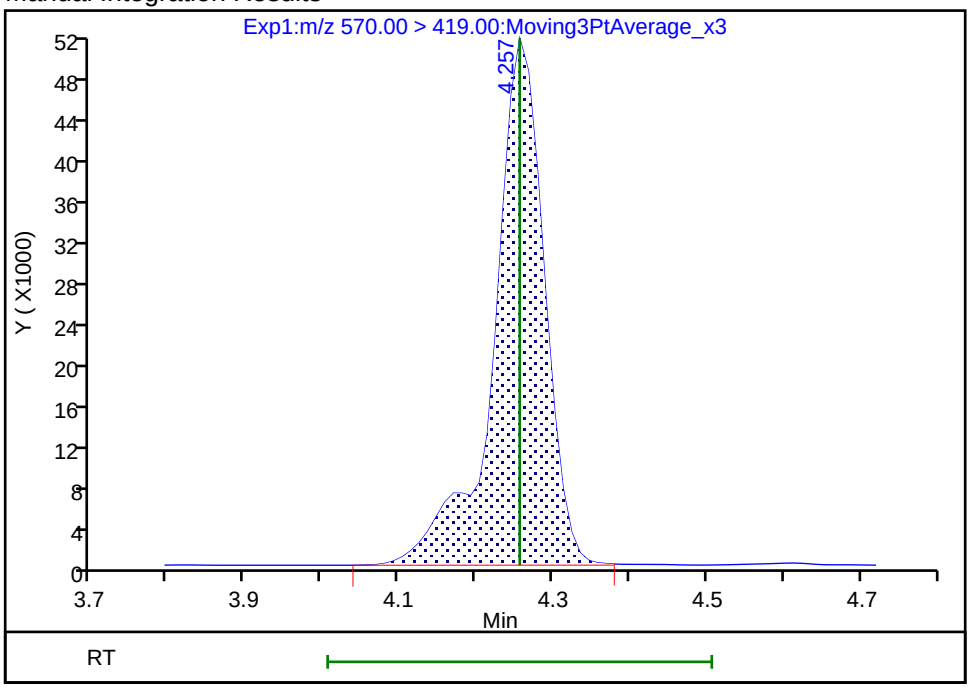
Processing Integration Results

RT: 4.26
Area: 235265
Amount: 2.475667
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 234931
Amount: 2.472152
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

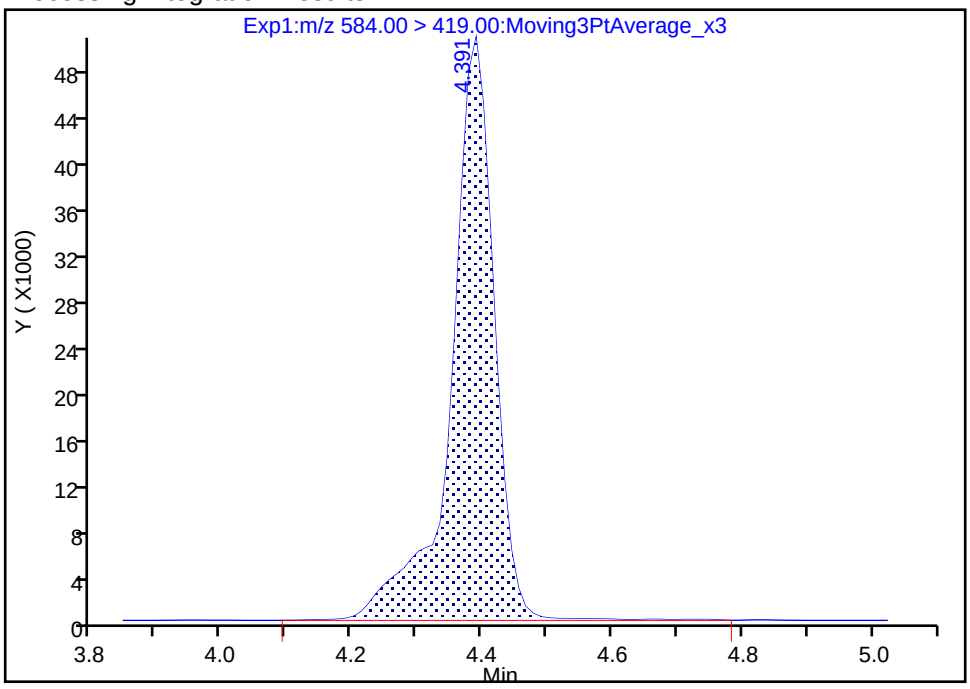
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

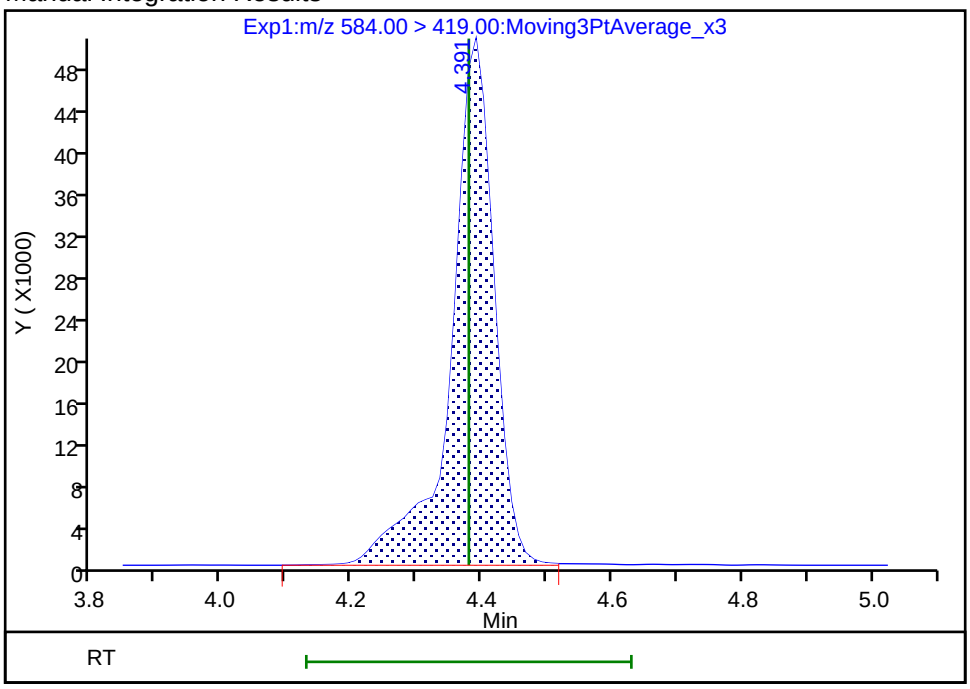
Processing Integration Results

RT: 4.39
Area: 232377
Amount: 2.488438
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 231012
Amount: 2.473820
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:30:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

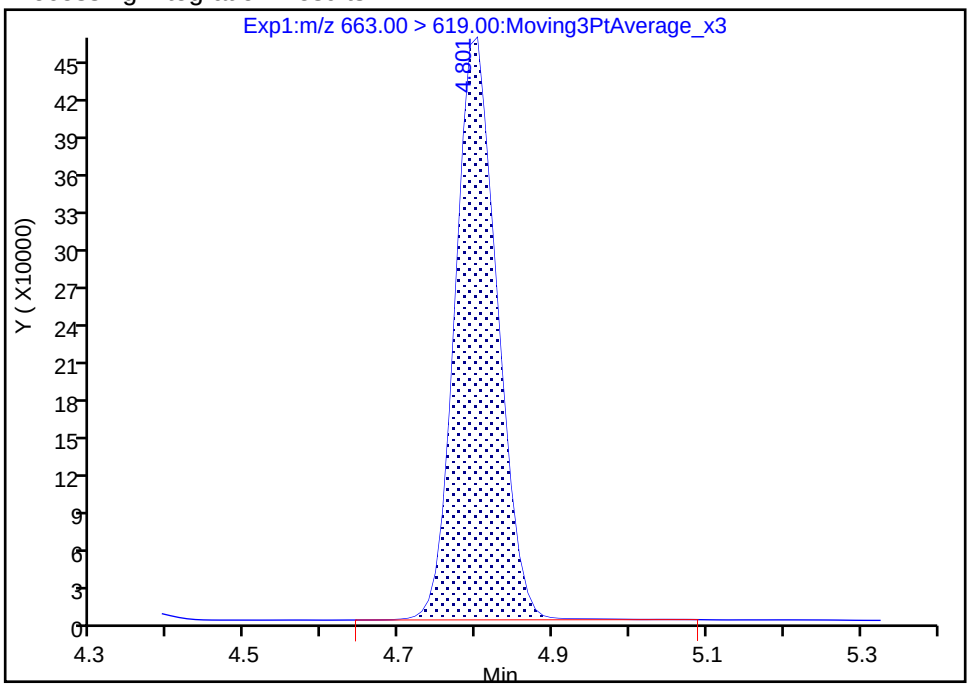
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

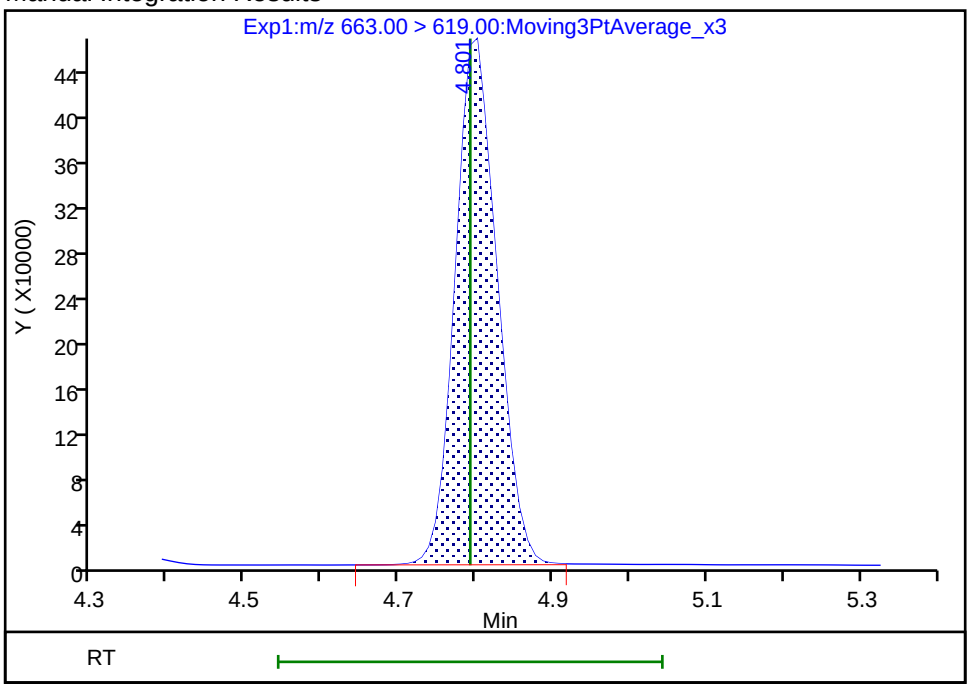
Processing Integration Results

RT: 4.80
Area: 1747058
Amount: 2.298971
Amount Units: ng/ml




Manual Integration Results

RT: 4.80
Area: 1743963
Amount: 2.294898
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:31:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

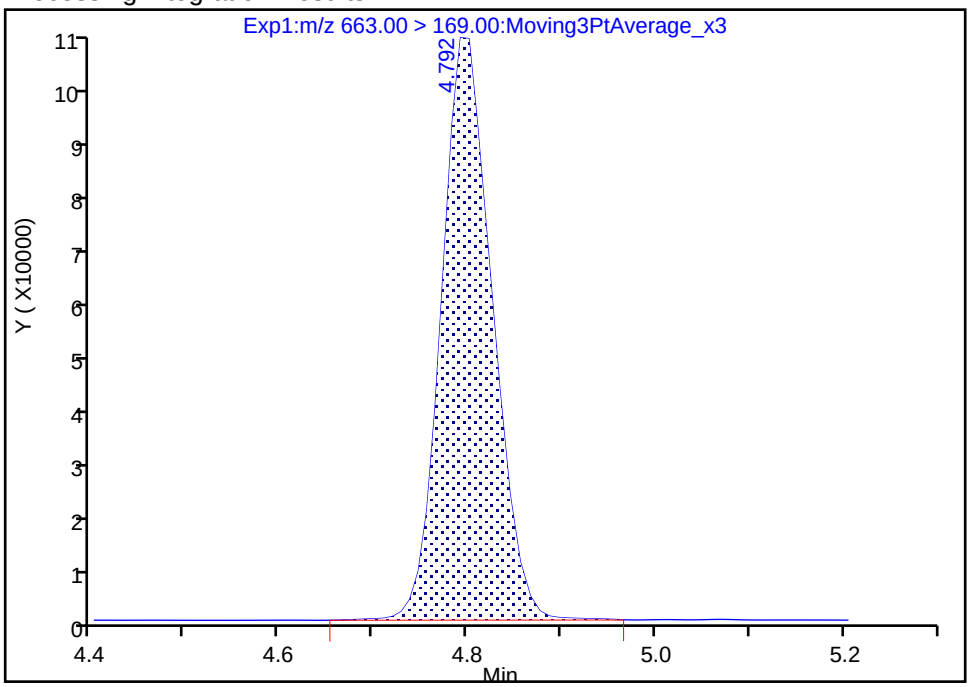
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D01.d
Injection Date: 10-Nov-2021 04:12:11 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

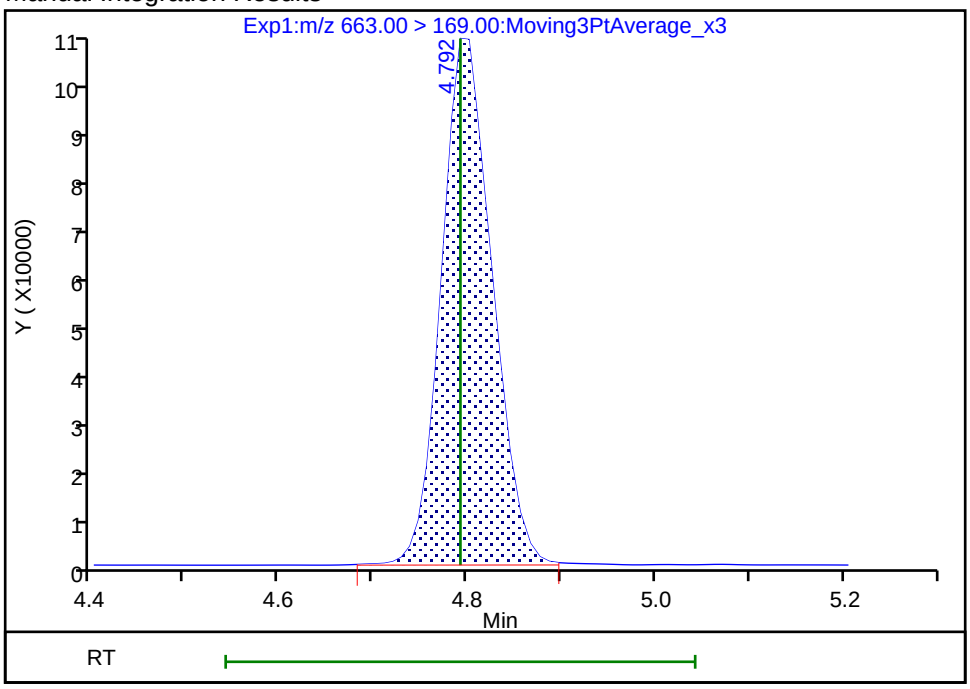
Processing Integration Results

RT: 4.79
Area: 406757
Amount: 2.298971
Amount Units: ng/ml




Manual Integration Results

RT: 4.79
Area: 405669
Amount: 2.294898
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:31:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/15  Calibration Date: 11/10/2021 06:06

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D15.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8913 | | 0.943 | 1.00 | -5.7 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.998 | | 0.996 | 1.00 | -0.4 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.007 | | 0.833 | 0.884 | -5.7 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.090 | | 0.917 | 0.934 | -1.8 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.010 | | 0.995 | 1.00 | -0.5 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.198 | | 0.933 | 0.938 | -0.5 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.828 | | 1.29 | 1.00 | 28.8 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.045 | | 0.865 | 0.910 | -5.0 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.997 | | 0.965 | 1.00 | -3.5 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.539 | | 0.953 | 0.942 | 1.1 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.234 | | 0.942 | 0.952 | -1.0 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.266 | | 0.946 | 0.948 | -0.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.021 | | 0.960 | 1.00 | -4.0 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.062 | | 0.908 | 0.928 | -2.1 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9332 | | 0.954 | 1.00 | -4.6 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.525 | | 0.870 | 0.932 | -6.7 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8283 | | 0.941 | 0.960 | -2.0 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.002 | | 0.997 | 1.00 | -0.3 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7704 | | 0.882 | 0.958 | -7.9 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9250 | | 0.974 | 1.00 | -2.6 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8840 | | 1.13 | 1.00 | 12.5 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6137 | | 0.900 | 0.964 | -6.6 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.036 | | 0.972 | 1.00 | -2.8 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8352 | | 0.975 | 1.00 | -2.5 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.830 | | 0.893 | 0.942 | -5.2 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9552 | | 0.976 | 1.00 | -2.4 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3416 | | 0.852 | 0.964 | -11.6 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2556 | | 1.02 | 0.968 | 5.8 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/15  Calibration Date: 11/10/2021 06:06

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D15.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8286 | | 0.982 | 1.00 | -1.8 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1656 | | 1.05 | 1.00 | 4.9 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8357 | | 0.961 | 1.00 | -3.9 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6895 | | 0.818 | 1.00 | -18.2 | |
| 13C4 PFBA | Ave | 1.012 | 1.247 | | 1.54 | 1.25 | 23.2 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9381 | | 1.38 | 1.25 | 10.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.179 | | 1.19 | 1.16 | 2.2 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1084 | | 1.44 | 1.17 | 23.3 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9680 | | 1.35 | 1.25 | 8.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0195 | | 1.03 | 1.25 | -17.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9812 | | 1.30 | 1.25 | 4.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8654 | | 1.22 | 1.18 | 3.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1498 | | 1.35 | 1.19 | 13.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.015 | | 1.23 | 1.25 | -1.4 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6088 | | 1.20 | 1.20 | 0.5 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.9840 | | 1.20 | 1.25 | -4.0 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9667 | | 1.17 | 1.25 | -6.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1821 | | 1.46 | 1.20 | 21.5 | |
| 13C8 FOSA | Ave | 0.998 | 1.004 | | 1.26 | 1.25 | 0.6 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0981 | | 1.21 | 1.25 | -3.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7441 | | 1.15 | 1.25 | -7.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0995 | | 1.31 | 1.25 | 4.4 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7672 | | 1.11 | 1.25 | -11.5 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5636 | | 1.05 | 1.25 | -16.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5087 | | 1.07 | 1.25 | -14.1 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 10-Nov-2021 06:06:51 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048356-015 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: deannd Date: 10-Nov-2021 08:21:27
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1796052 | 1.54 | | 123 | 8963 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 1280634 | 0.9426 | | 94.3 | 169 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1351269 | 1.38 | | 110 | 2921 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1078818 | 1.00 | | 99.6 | 44.7 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1579101 | 1.19 | | 102 | 180000 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1208900 | 0.8333 | Target=2.32 | 94.3 | 1324 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 560489 | | 2.16(1.16-3.48) | | 338 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 243900 | 0.9173 | | 98.2 | 1707 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 145845 | 1.44 | | 123 | 123 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1394277 | 1.35 | | 108 | 3163 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1126019 | 1.00 | Target=12.09 | 99.5 | 208 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 85008 | | 13.25(6.04-18.13) | | 73.2 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1120847 | 0.9333 | Target=3.03 | 99.5 | 1654 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 367765 | | 3.05(1.52-4.55) | | 587 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 28042 | 1.03 | | 82.6 | 178 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.000 | 130741 | 1.29 | | 129 | 47.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 947899 | 0.8646 | Target=3.55 | 95.0 | 1274 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 268119 | | 3.54(1.77-5.32) | | 352 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1179224 | 1.22 | | 103 | 3845 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1413348 | 1.30 | | 104 | 2962 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 1127412 | 0.9651 | Target=3.69 | 96.5 | 338 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 305748 | | 3.69(1.84-5.53) | | 446 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 2338894 | 0.9526 | Target=2.56 | 101 | 2499 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 912614 | | 2.56(1.28-3.84) | | 1139 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.913 | 824113 | 0.9424 | Target=4.88 | 99.0 | 2084 | |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 159164 | | 5.18(2.44-7.32) | | 625 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 207216 | 0.9464 | | 99.8 | 3128 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 205041 | 1.35 | | 113 | 475 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1461518 | 1.23 | | 98.6 | 2940 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1440362 | 1.25 | | | 2760 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1193415 | 0.9598 | Target=2.68 | 96.0 | 155 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 459238 | | 2.60(1.34-4.02) | | 743 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 838315 | 1.20 | | 101 | 2955 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 691397 | 0.9083 | Target=4.69 | 97.9 | 1059 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 147268 | | 4.69(2.35-7.04) | | 565 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1417275 | 1.20 | | 96.0 | 4066 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.003 | 1058076 | 0.9539 | Target=7.29 | 95.4 | 254 | |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.003 | 141231 | | 7.49(3.64-10.93) | | 1206 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 997287 | 0.8697 | | 93.3 | 4692 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.093 | 4.081 | 0.012 | 1.076 | 557807 | 0.9408 | Target=2.35 | 98.0 | 3733 | |
| 549.00 > 99.00 | 4.081 | 4.081 | 0.0 | 1.073 | 224955 | | 2.48(1.17-3.52) | | 1028 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1392336 | 1.17 | | 93.5 | 3434 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1115789 | 1.00 | Target=8.95 | 99.7 | 888 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 126225 | | 8.84(4.47-13.42) | | 805 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 251232 | 1.46 | | 122 | 1132 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 154835 | 0.8822 | | 92.1 | 1660 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1446171 | 1.26 | | 101 | 1915 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 1070191 | 0.9740 | | 97.4 | 1970 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 141364 | 1.21 | | 96.5 | 520 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 99968 | 1.13 | | 113 | 461 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 415004 | 0.9002 | Target=2.47 | 93.4 | 2055 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.143 | 165978 | | 2.50(1.23-3.70) | | 1880 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 1071736 | 1.15 | | 92.3 | 4575 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.003 | 887967 | 0.9715 | Target=9.24 | 97.2 | 629 | |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 1.000 | 101325 | | 8.76(4.62-13.86) | | 1357 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 143321 | 1.31 | | 104 | 1384 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 95762 | 0.9747 | | 97.5 | 1014 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.174 | 1209305 | 0.8929 | | 94.8 | 3686 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1105041 | 1.11 | | 88.5 | 1919 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 844467 | 0.9757 | Target=7.04 | 97.6 | 179 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 127849 | | 6.61(3.52-10.56) | | 1461 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.622 | 4.612 | 0.010 | 1.120 | 69086 | 0.8520 | | 88.4 | 1495 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.766 | 4.756 | 0.010 | 1.253 | 173591 | 1.02 | Target=0.49 | 106 | 3500 | |
| 699.00 > 99.00 | 4.766 | 4.756 | 0.010 | 1.253 | 305845 | | 0.57(0.25-0.74) | | 1896 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 732512 | 0.9816 | Target=4.68 | 98.2 | 201 | |
| 663.00 > 169.00 | 4.801 | 4.792 | 0.009 | 1.043 | 164195 | | 4.46(2.34-7.02) | | 1695 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 811856 | 1.05 | | 83.8 | 1591 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 107549 | 1.05 | Target=1.01 | 105 | 1430 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 108536 | | 0.99(0.51-1.52) | | 1364 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.282 | 5.270 | 0.012 | 1.513 | 732736 | 1.07 | | 85.9 | 3175 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.002 | 489896 | 0.9610 | Target=4.57 | 96.1 | 165 | |
| 813.00 > 169.00 | 5.293 | 5.270 | 0.023 | 1.002 | 121503 | | 4.03(2.29-6.86) | | 1337 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.052 | 404193 | 0.8176 | Target=4.27 | 81.8 | 216 | |
| 913.00 > 169.00 | 5.555 | 5.527 | 0.028 | 1.052 | 93847 | | 4.31(2.14-6.41) | | 1145 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 11:26:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d

Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812

Lims ID: CCV L4

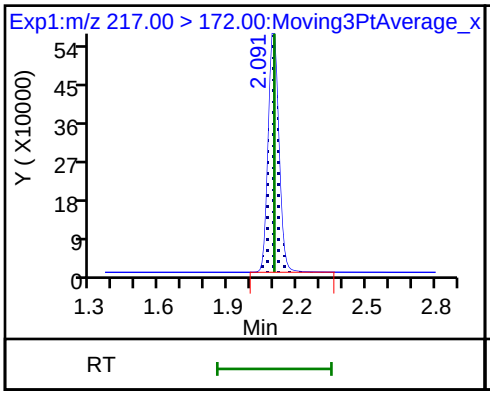
Client ID:

Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15

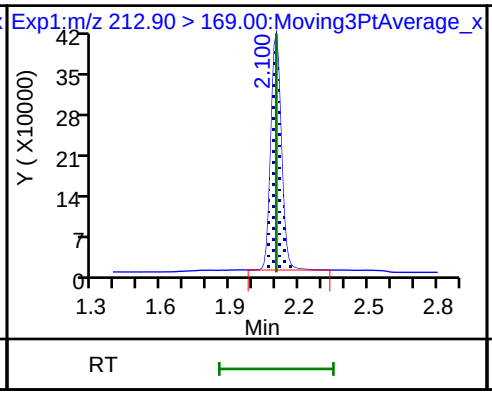
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

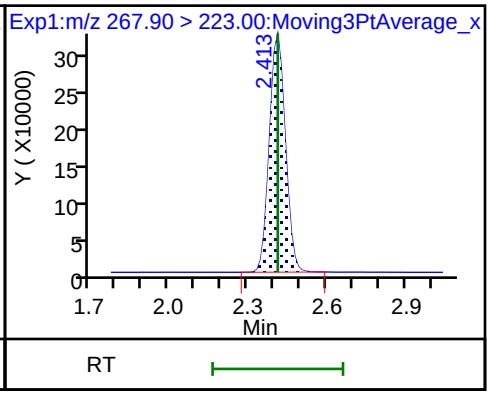
D 1 13C4 PFBA



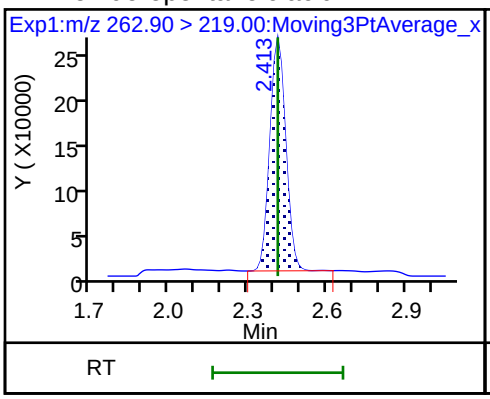

2 Perfluorobutanoic acid



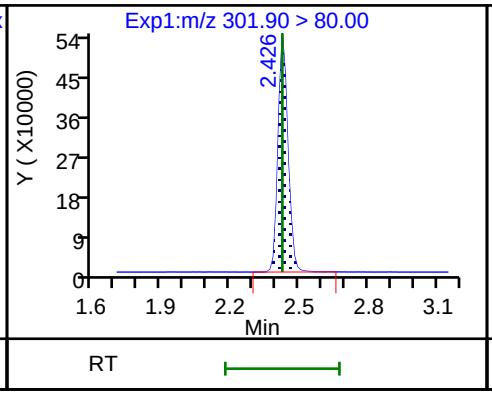

D 3 13C5 PFPeA



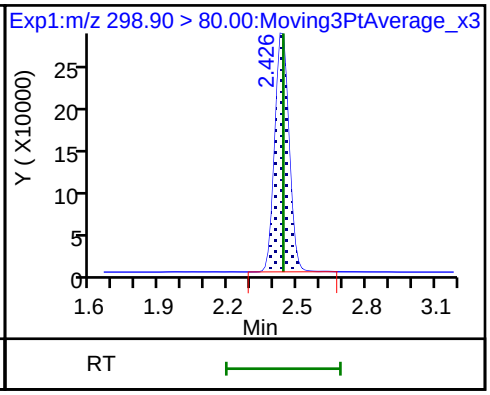

4 Perfluoropentanoic acid



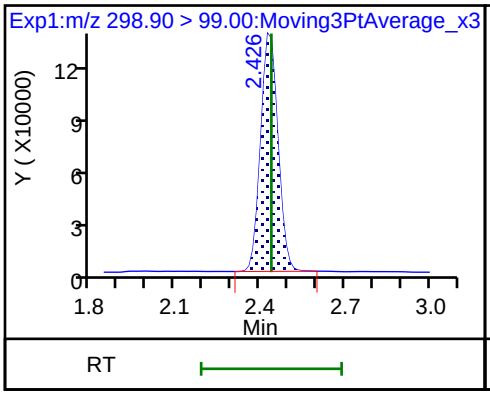

D 47 13C3 PFBS



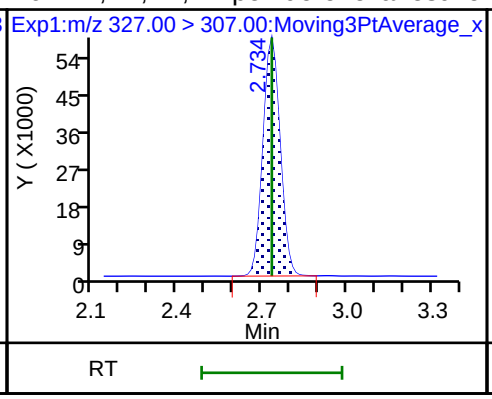

5 Perfluorobutanesulfonic acid



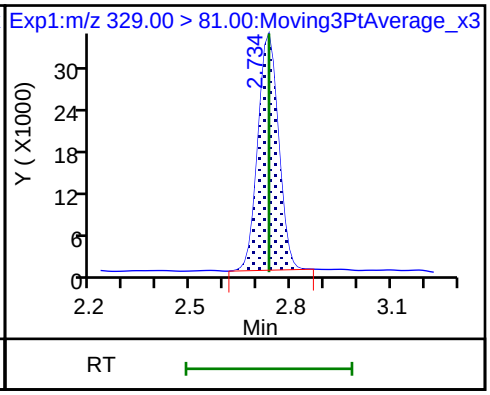

5 Perfluorobutanesulfonic acid



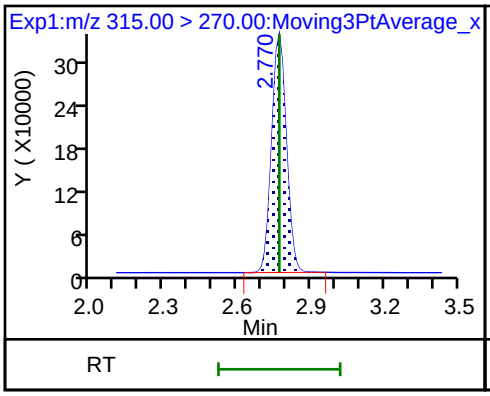

61 1H,1H,2H,2H-perfluorohexanesulfo



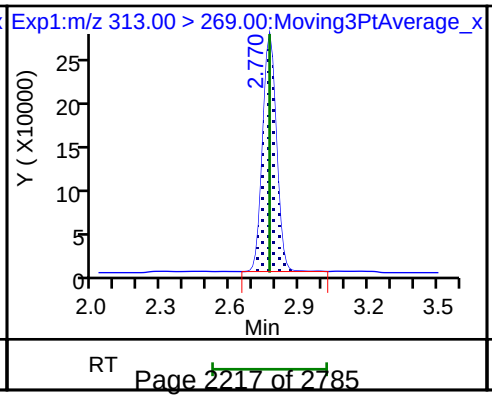

D 60 M2-4:2 FTS



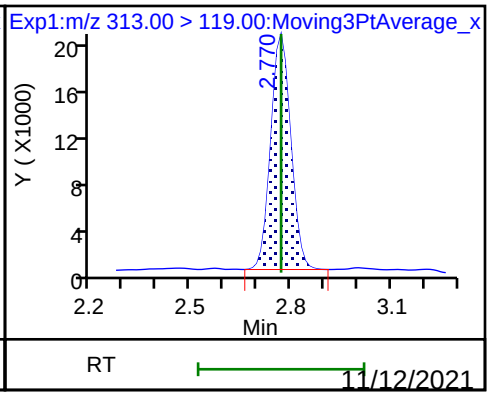

D 7 13C2 PFHxA



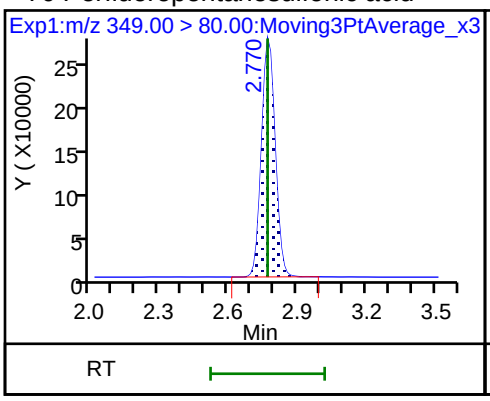

6 Perfluorohexanoic acid



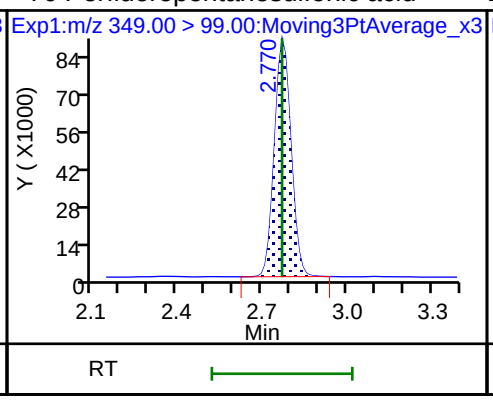

6 Perfluorohexanoic acid



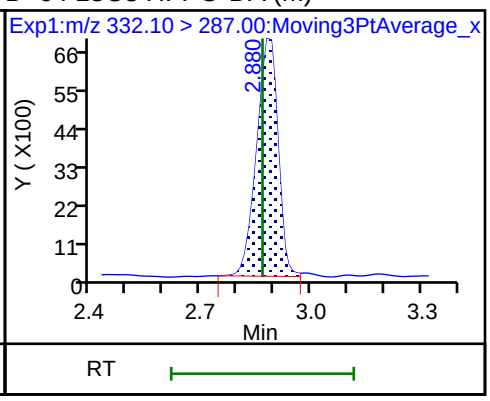
70 Perfluoropentanesulfonic acid



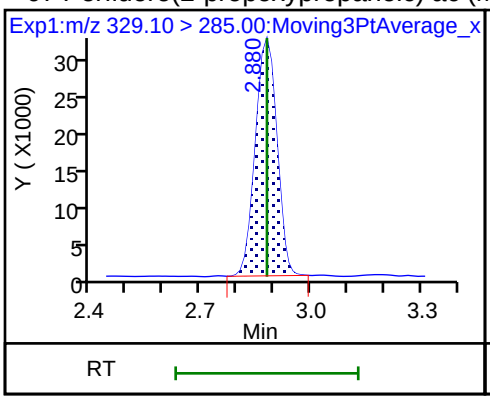

70 Perfluoropentanesulfonic acid



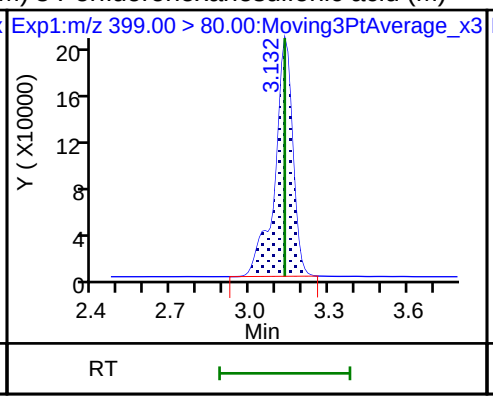

D 64 13C3 HFPO-DA (M)



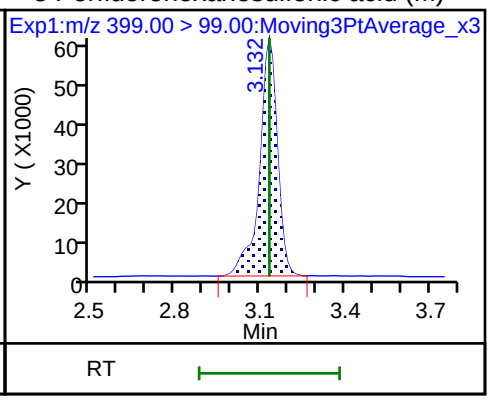

67 Perfluoro(2-propoxypropanoic) ac (M)



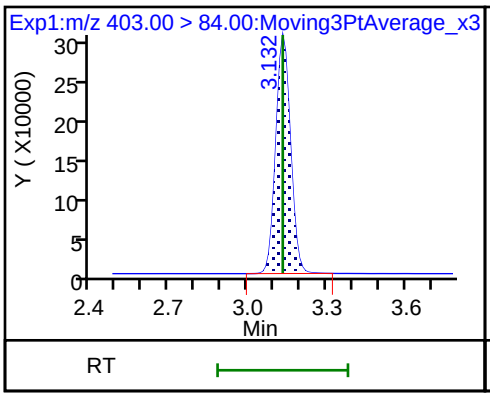

8 Perfluorohexanesulfonic acid (M)



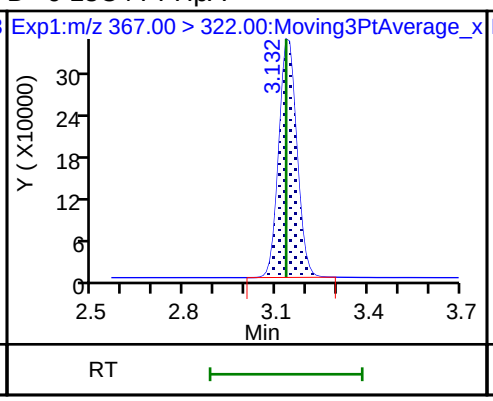

8 Perfluorohexanesulfonic acid (M)



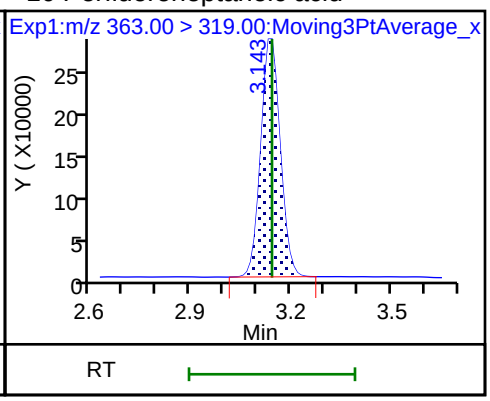

D 11 18O2 PFHxS



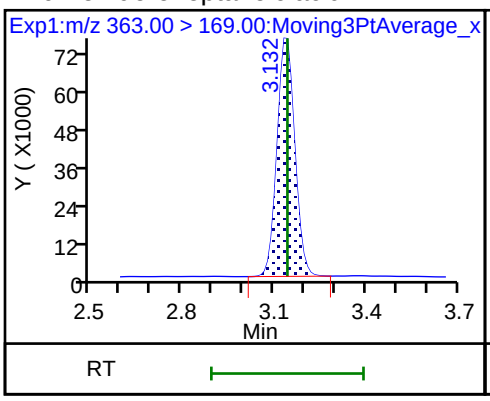

D 9 13C4 PFHpA



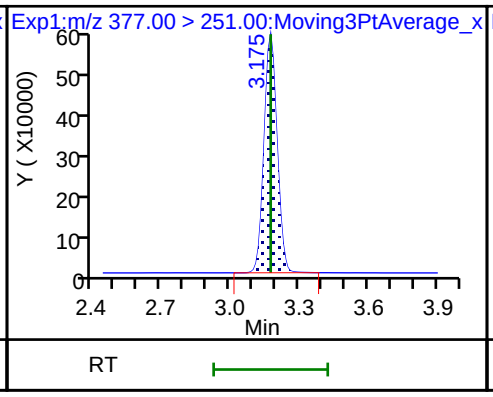

10 Perfluoroheptanoic acid



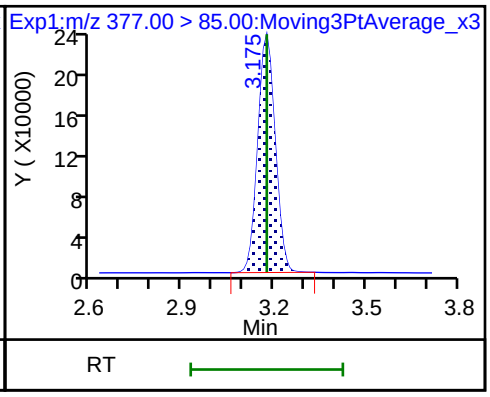

10 Perfluoroheptanoic acid



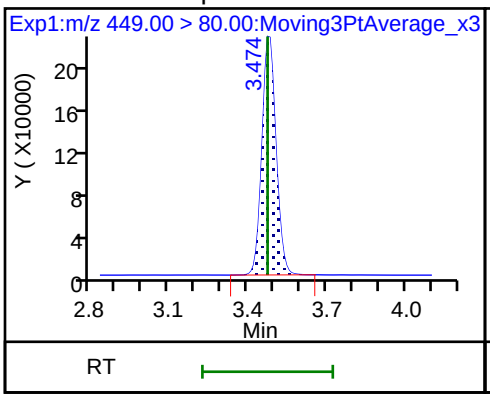

77 DONA



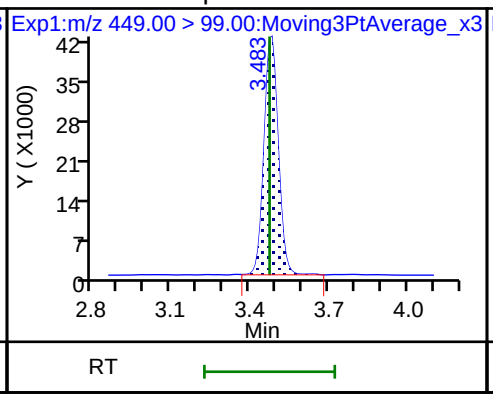

77 DONA



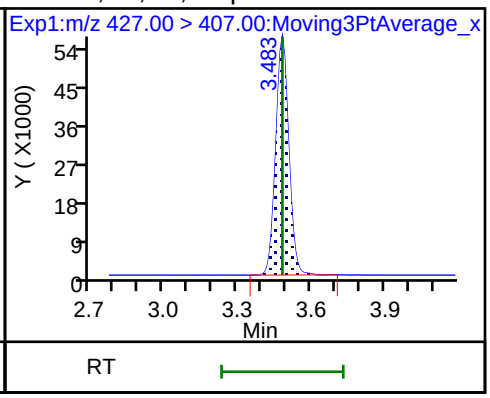
16 Perfluoroheptanesulfonic acid



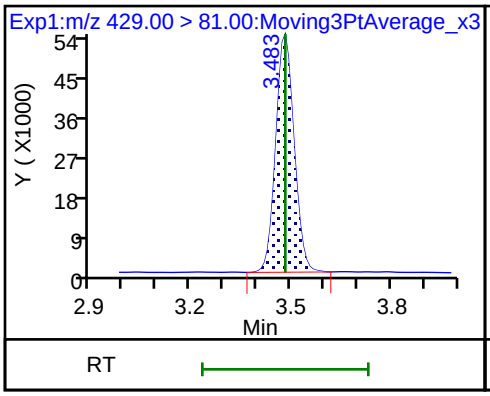

16 Perfluoroheptanesulfonic acid



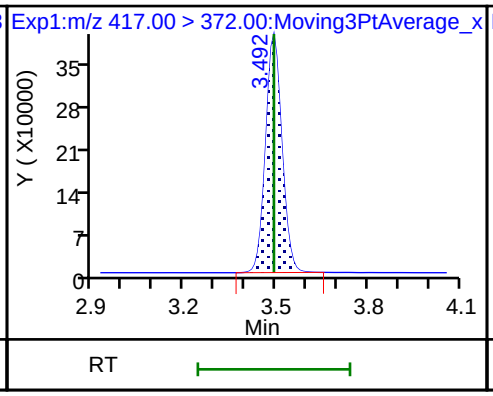

13 1H,1H,2H,2H-perfluorooctanesulfo



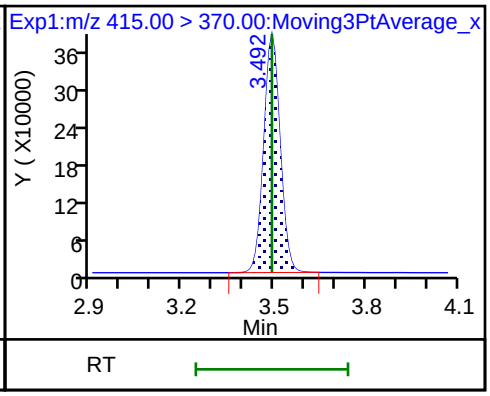

D 12 M2-6:2 FTS



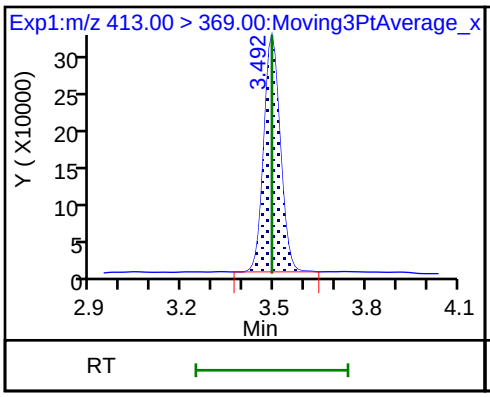

D 14 13C4 PFOA



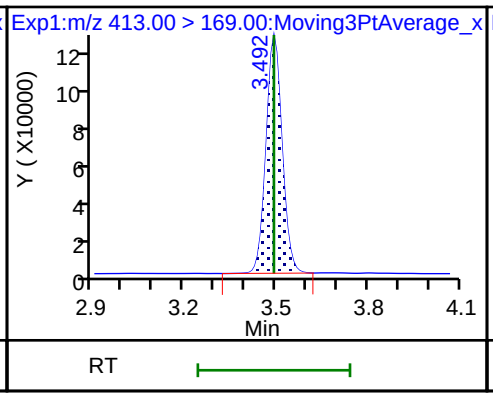

* 62 13C2 PFOA



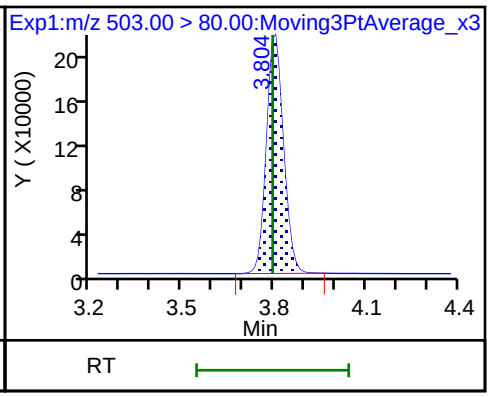

15 Perfluorooctanoic acid



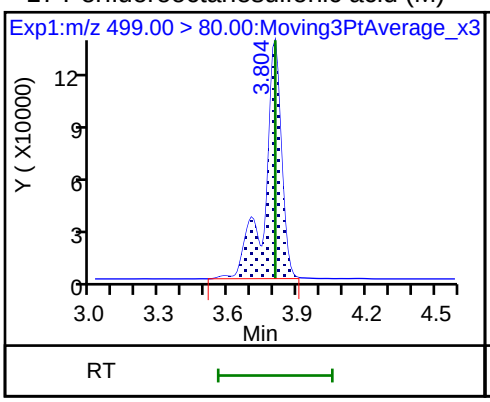

15 Perfluorooctanoic acid



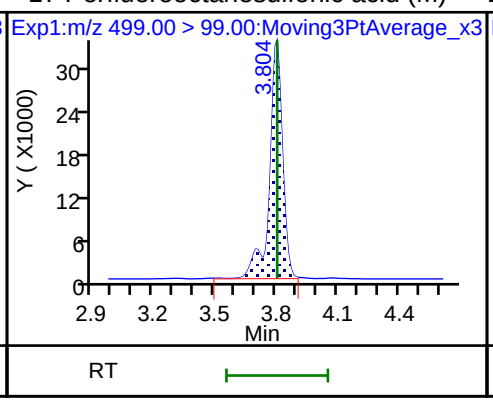

D 18 13C4 PFOS



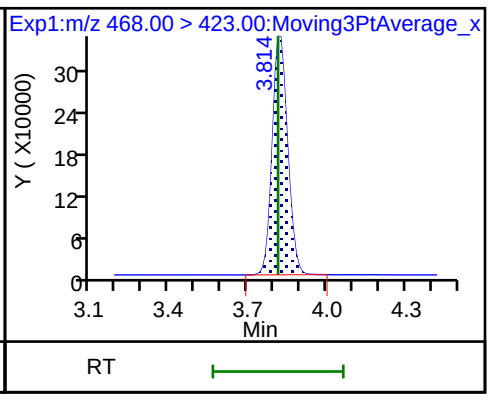

17 Perfluorooctanesulfonic acid (M)



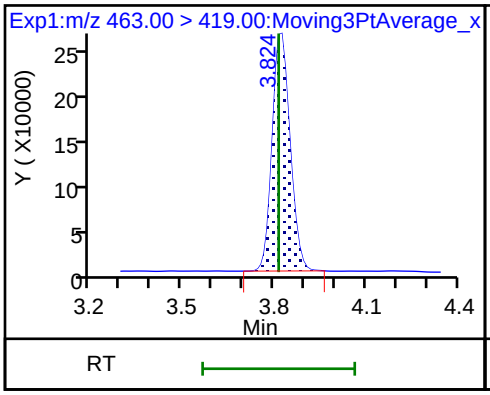

17 Perfluorooctanesulfonic acid (M)



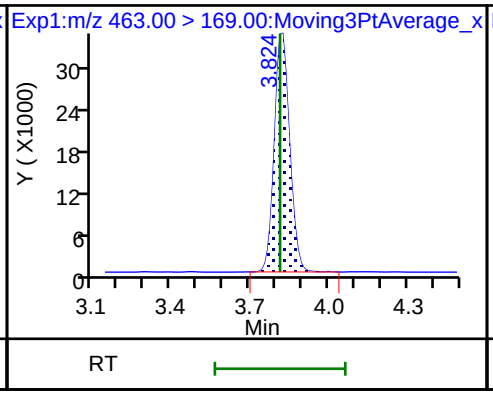

D 19 13C5 PFNA



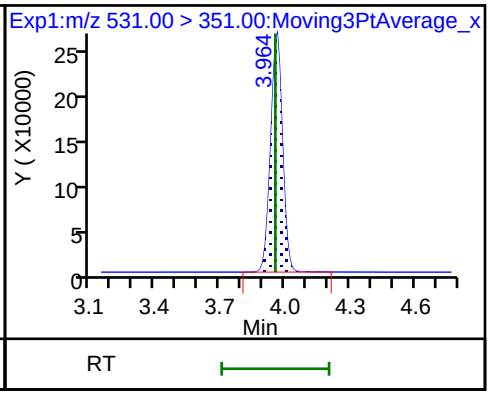
20 Perfluorononanoic acid



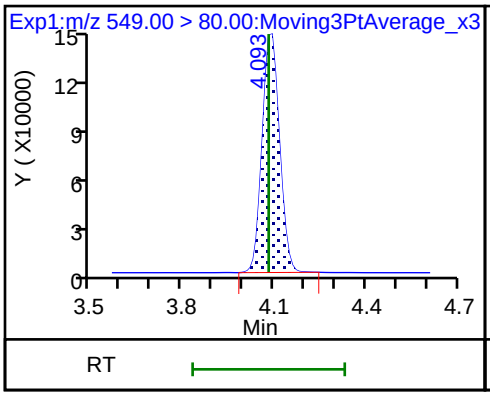

20 Perfluorononanoic acid



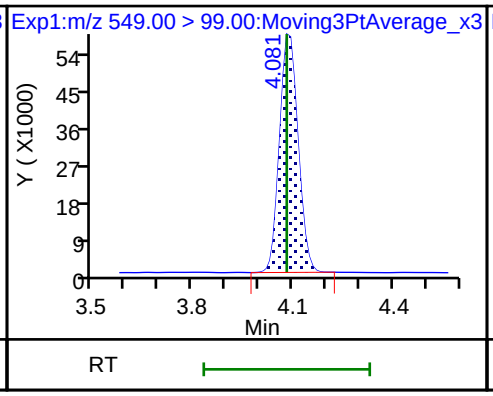

69 9-Chlorohexadecafluoro-3-oxanona



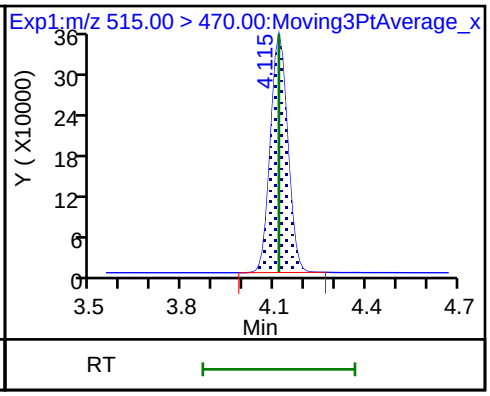

68 Perfluorononanesulfonic acid



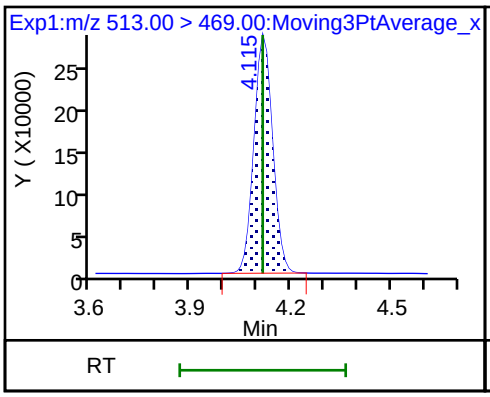

68 Perfluorononanesulfonic acid



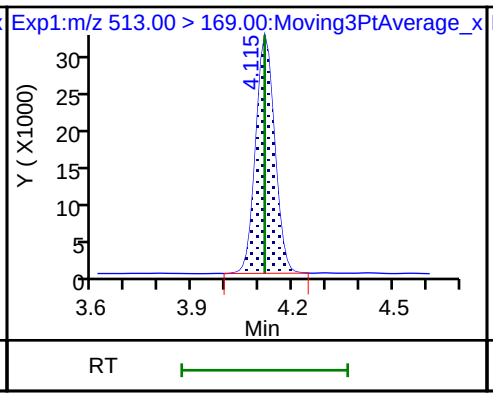

D 23 13C2 PFDA



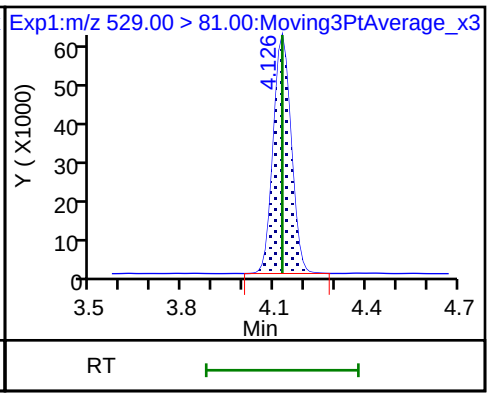

24 Perfluorodecanoic acid



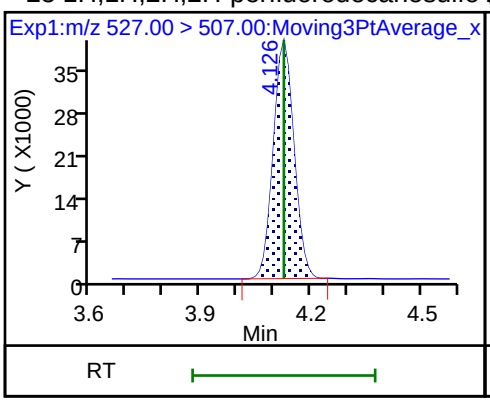

24 Perfluorodecanoic acid



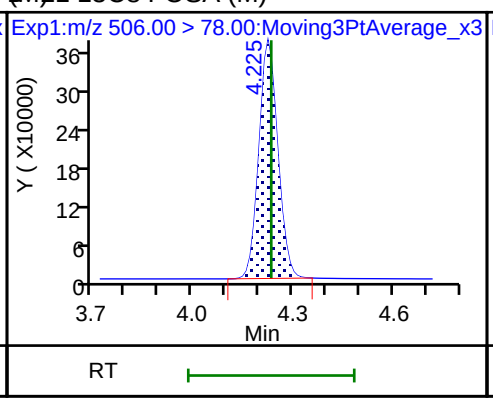

D 26 M2-8:2 FTS



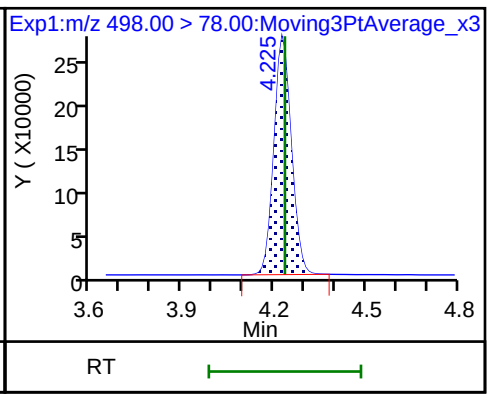

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



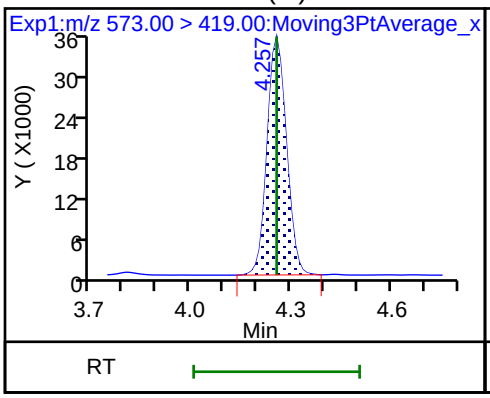

D 21 13C8 FOSA (M)



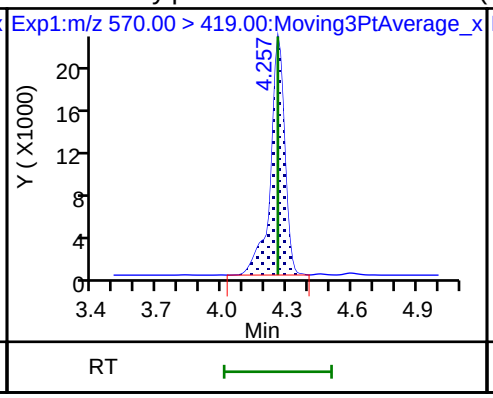

22 Perfluorooctanesulfonamide



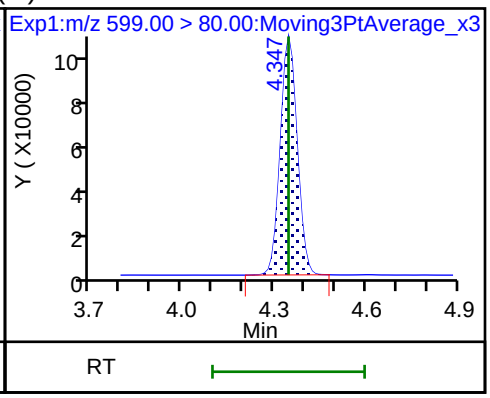
D 27 d3-NMeFOSAA (M)



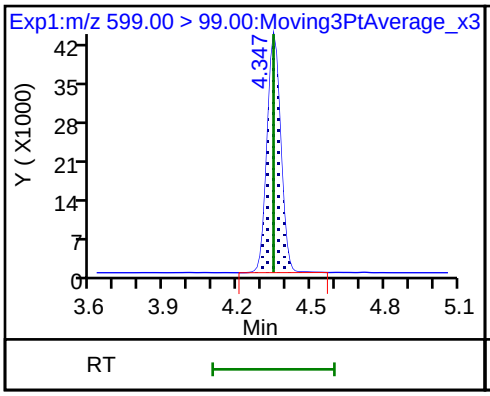

28 N-methylperfluorooctanesulfonami (M)



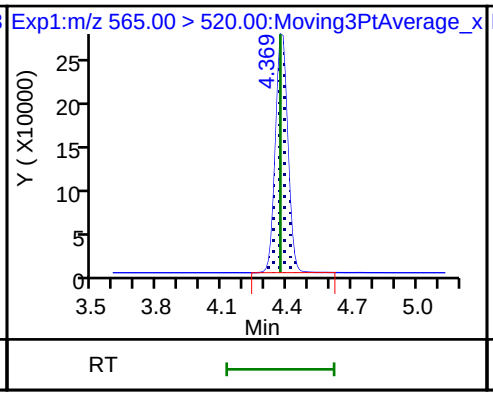

29 Perfluorodecanesulfonic acid



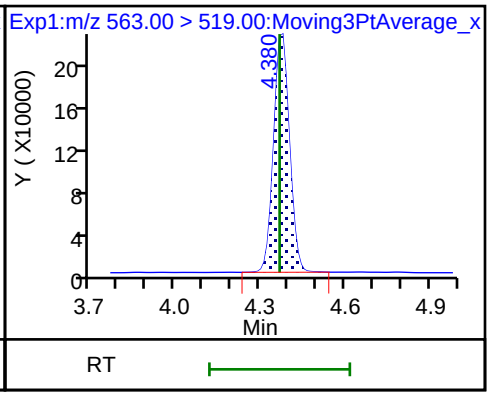

29 Perfluorodecanesulfonic acid



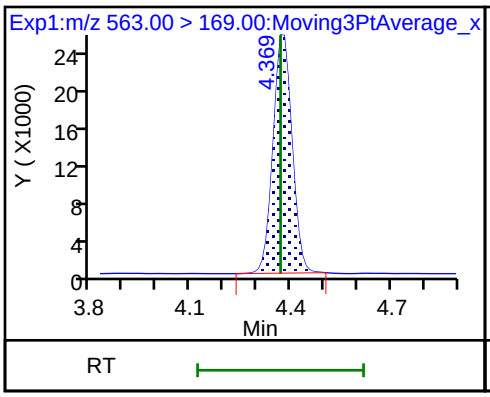

D 30 13C2 PFUnA



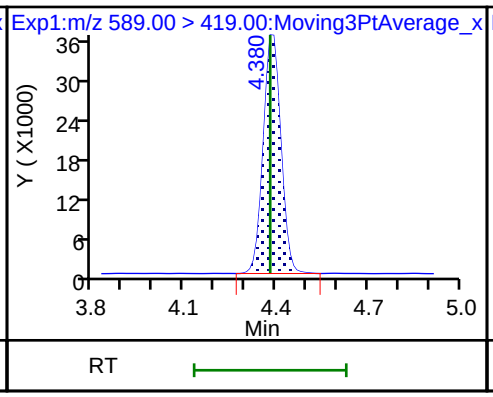

31 Perfluoroundecanoic acid



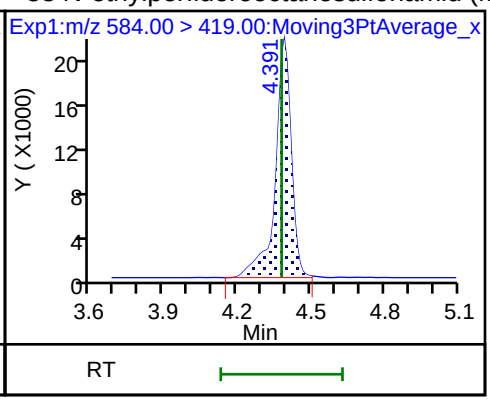

31 Perfluoroundecanoic acid



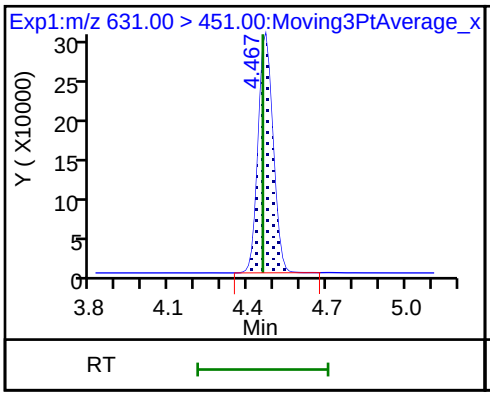

D 32 d5-NEtFOSAA



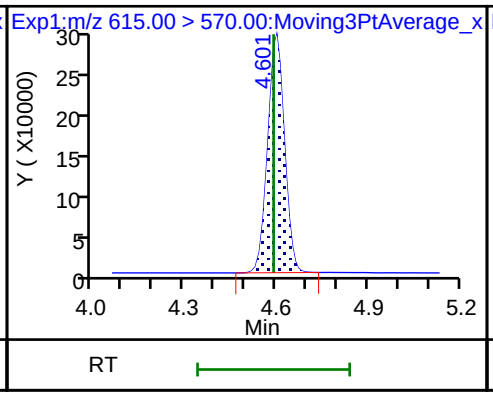

33 N-ethylperfluorooctanesulfonamid (M)



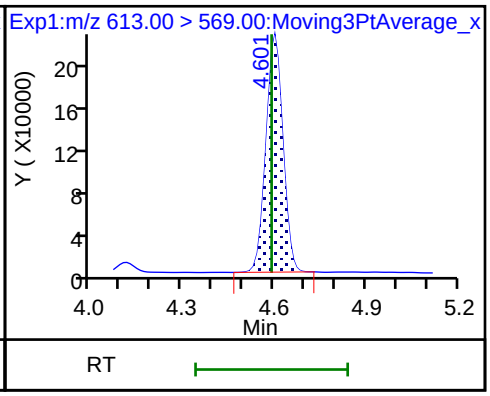

66 11-Chloroeicosafluoro-3-oxaundec



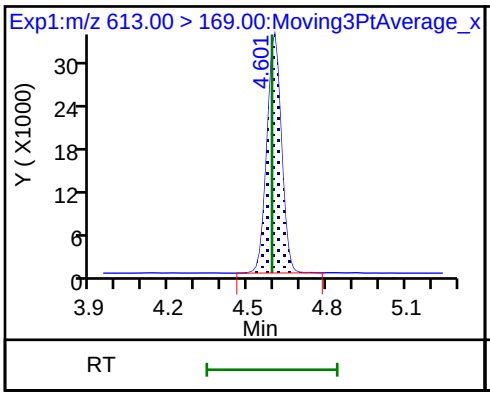

D 36 13C2 PFDoA



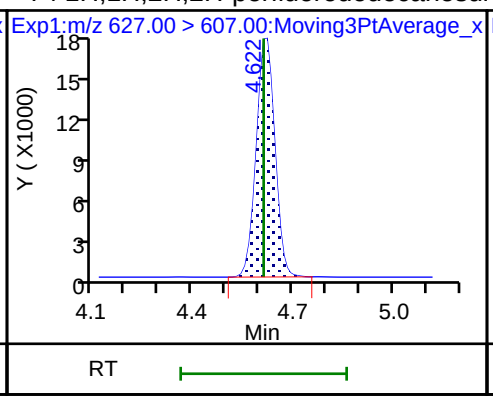

37 Perfluorododecanoic acid



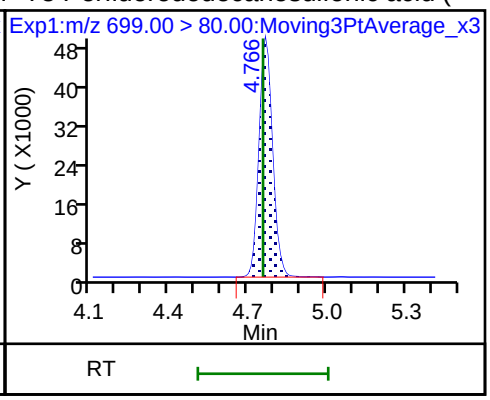
37 Perfluorododecanoic acid



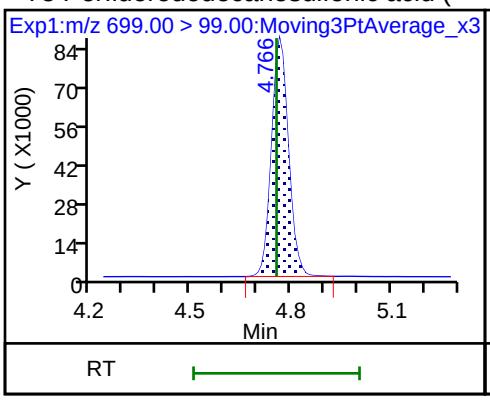

74 1H,1H,2H,2H-perfluorododecanesul



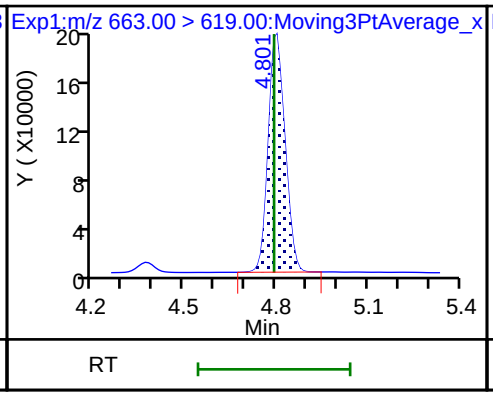

75 Perfluorododecanesulfonic acid (



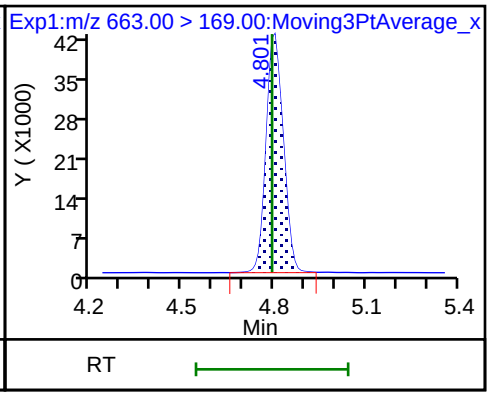

75 Perfluorododecanesulfonic acid (



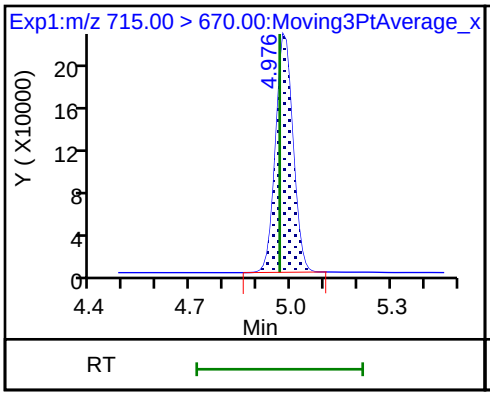

41 Perfluorotridecanoic acid



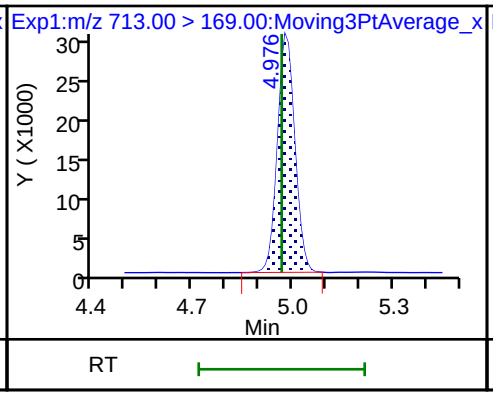

41 Perfluorotridecanoic acid



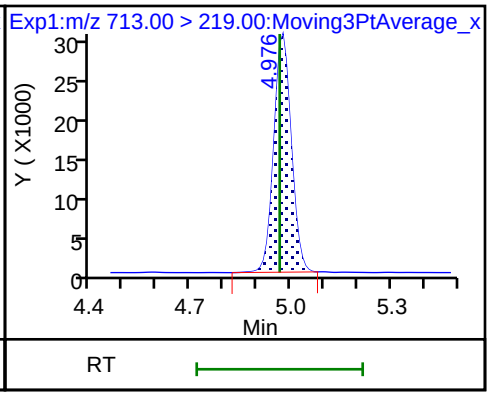

D 43 13C2 PFTeDA



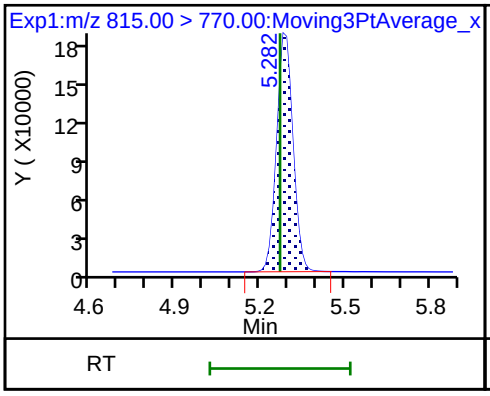

42 Perfluorotetradecanoic acid



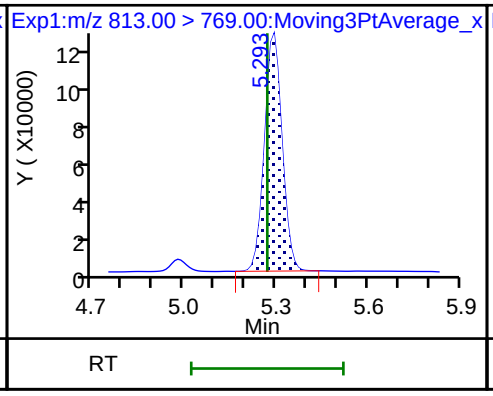

42 Perfluorotetradecanoic acid



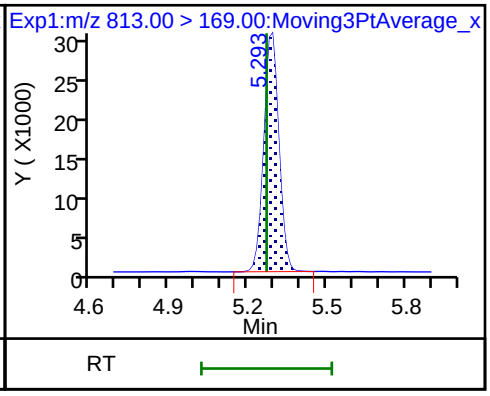

D 44 13C2 PFHxDA



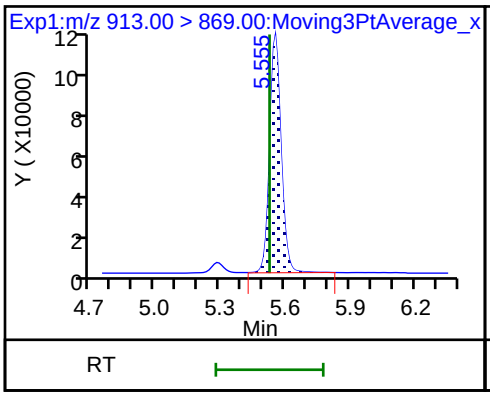

45 Perfluorohexadecanoic acid



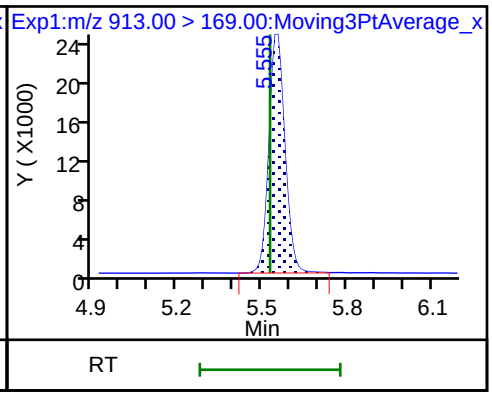

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

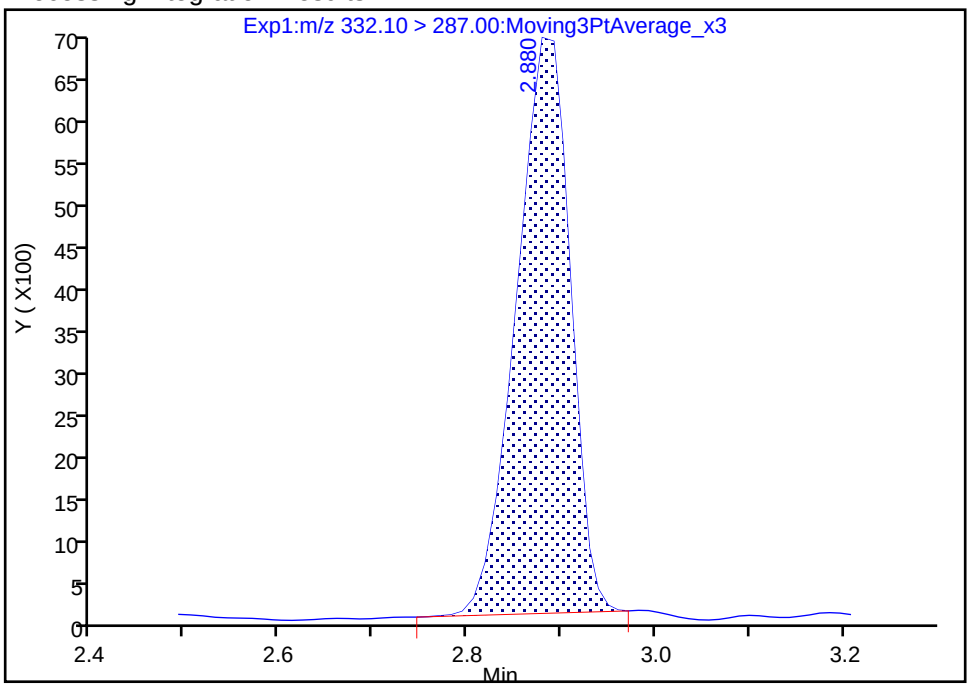
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d | | | | |
| Injection Date: | 10-Nov-2021 06:06:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

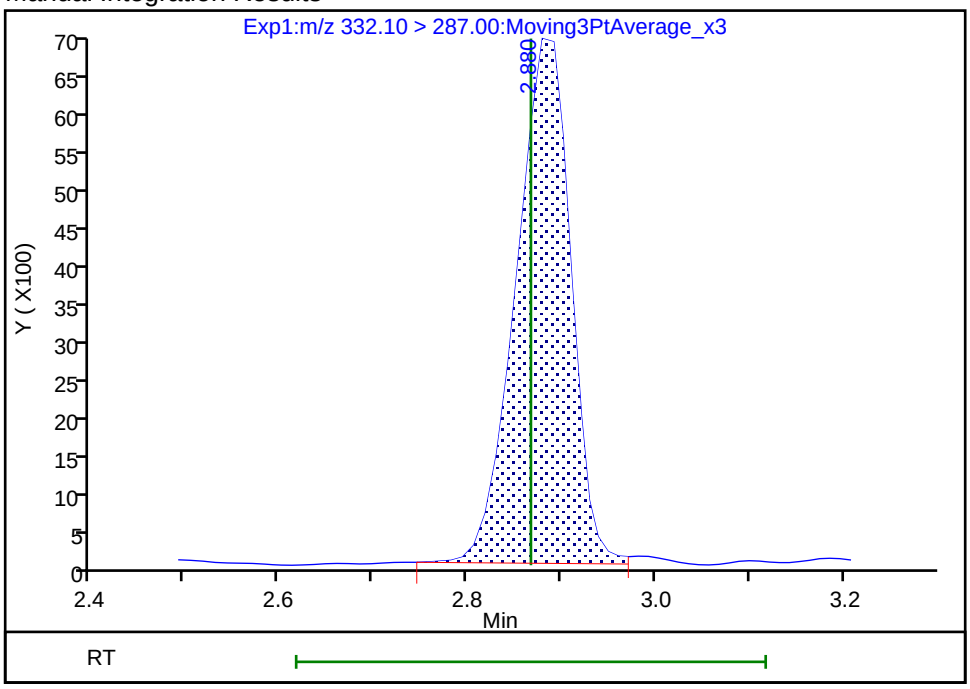
Processing Integration Results

RT: 2.88
Area: 27387
Amount: 1.008523
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 28042
Amount: 1.032643
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:02:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

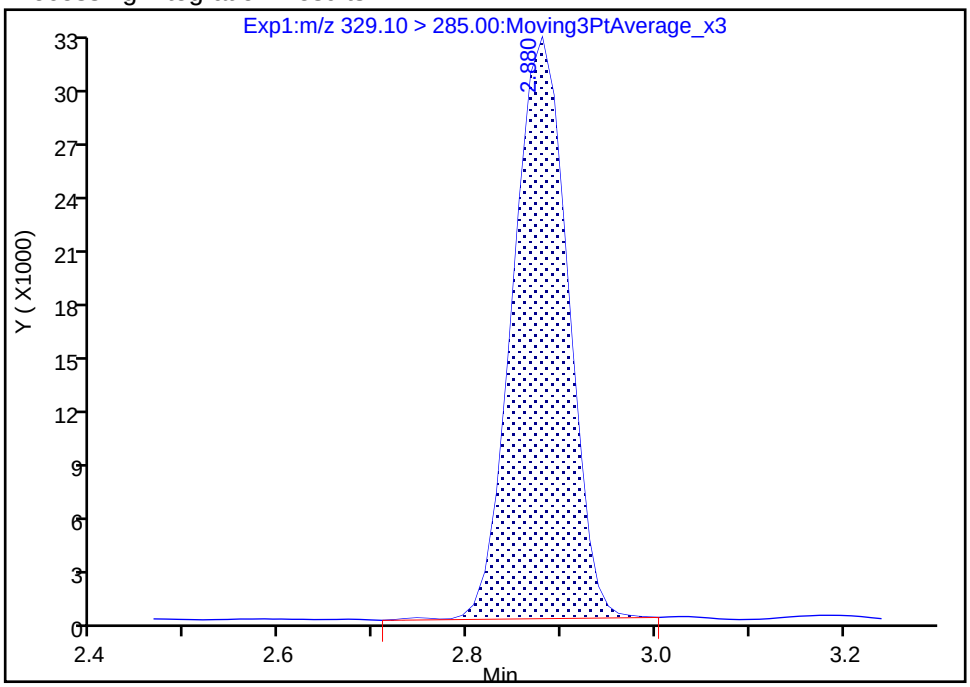
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

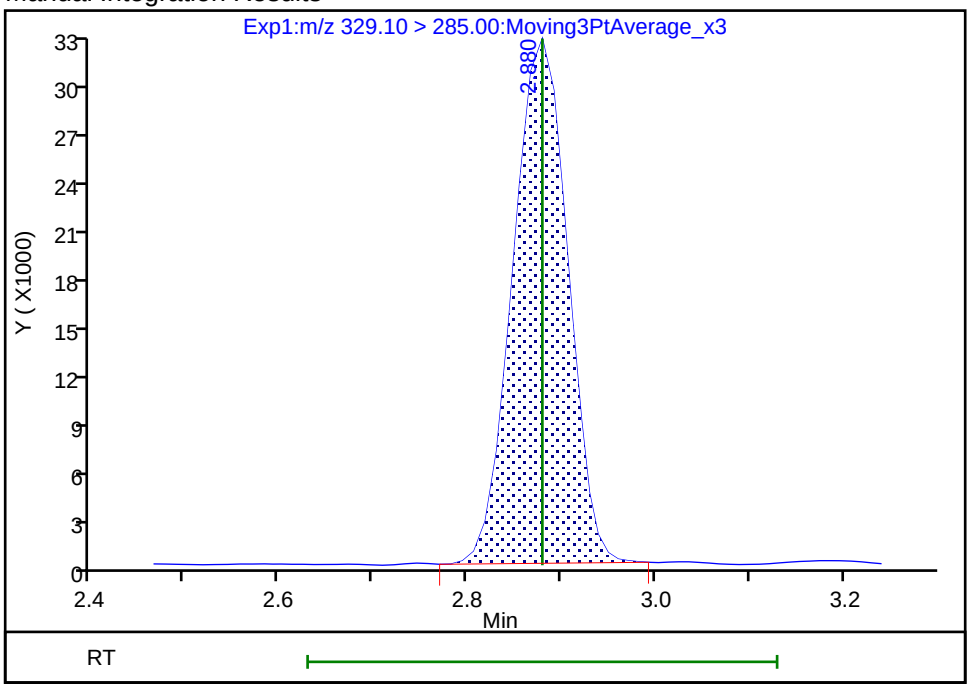
Processing Integration Results

RT: 2.88
Area: 131306
Amount: 1.324403
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 130741
Amount: 1.287902
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:18:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

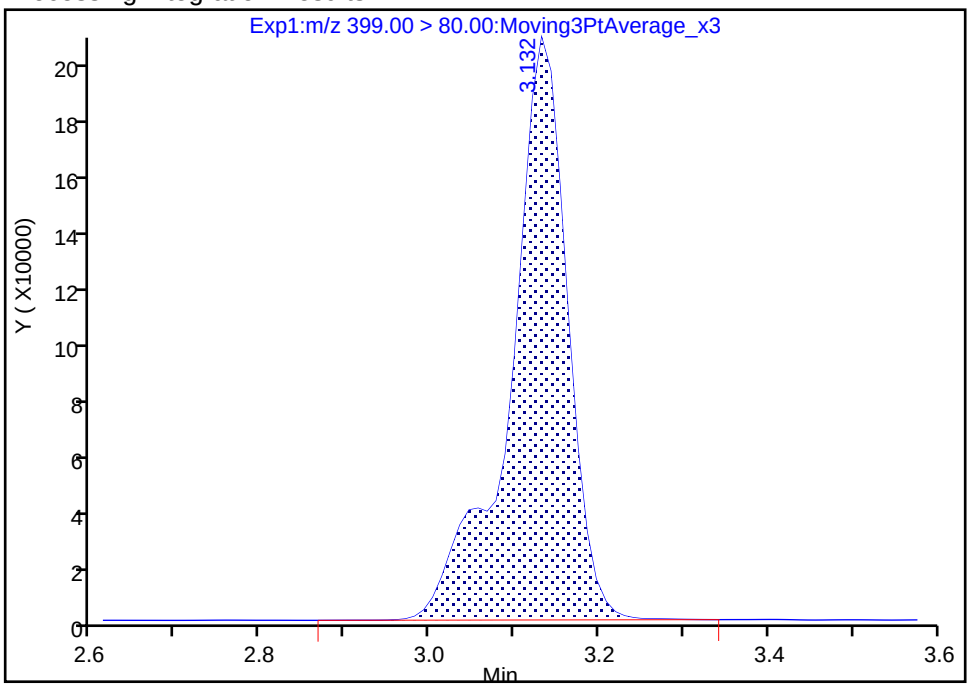
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

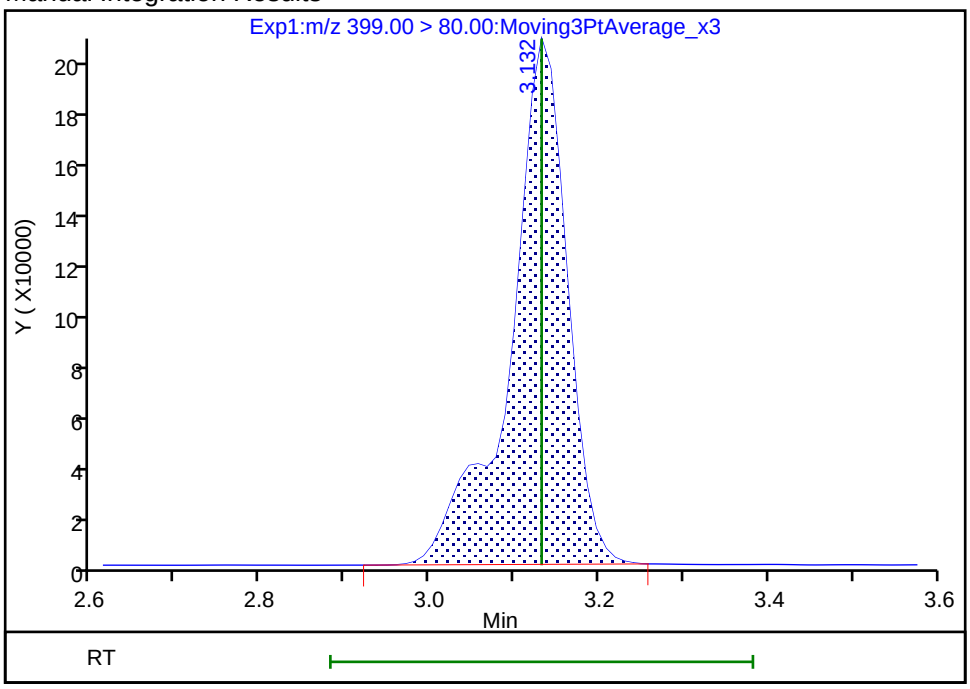
Processing Integration Results

RT: 3.13
Area: 951854
Amount: 0.868172
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 947899
Amount: 0.864565
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:18:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

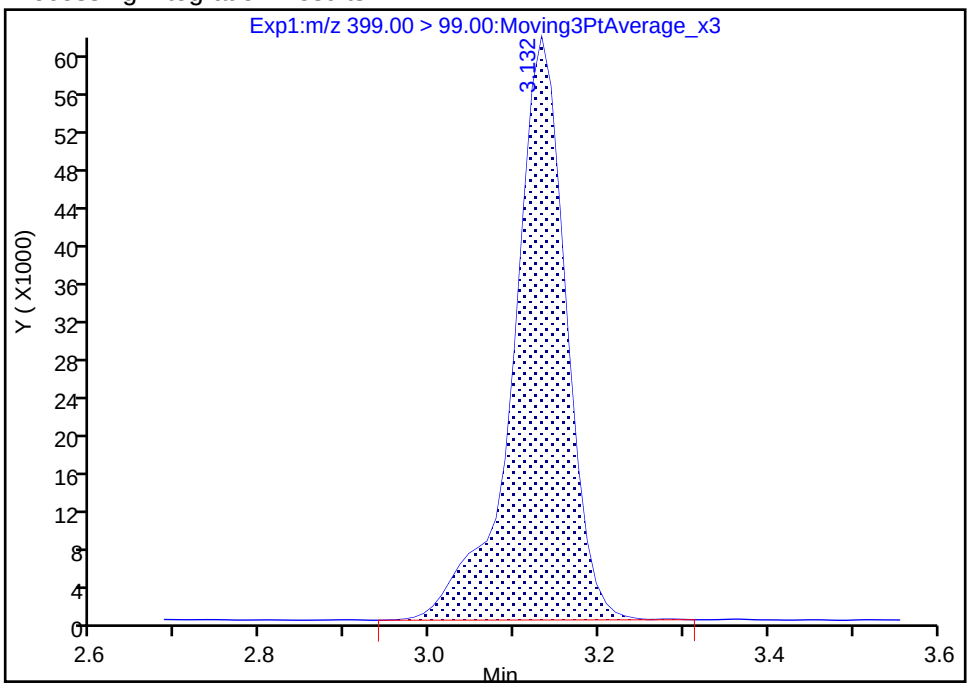
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d | | | | |
| Injection Date: | 10-Nov-2021 06:06:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

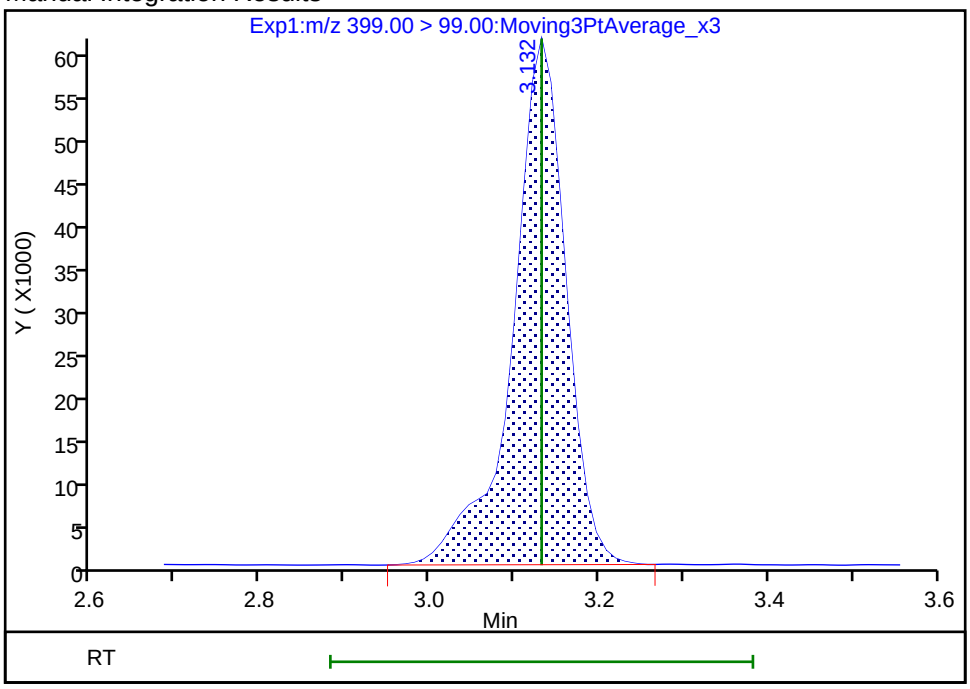
Processing Integration Results

RT: 3.13
Area: 268641
Amount: 0.868172
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 268119
Amount: 0.864565
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:18:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

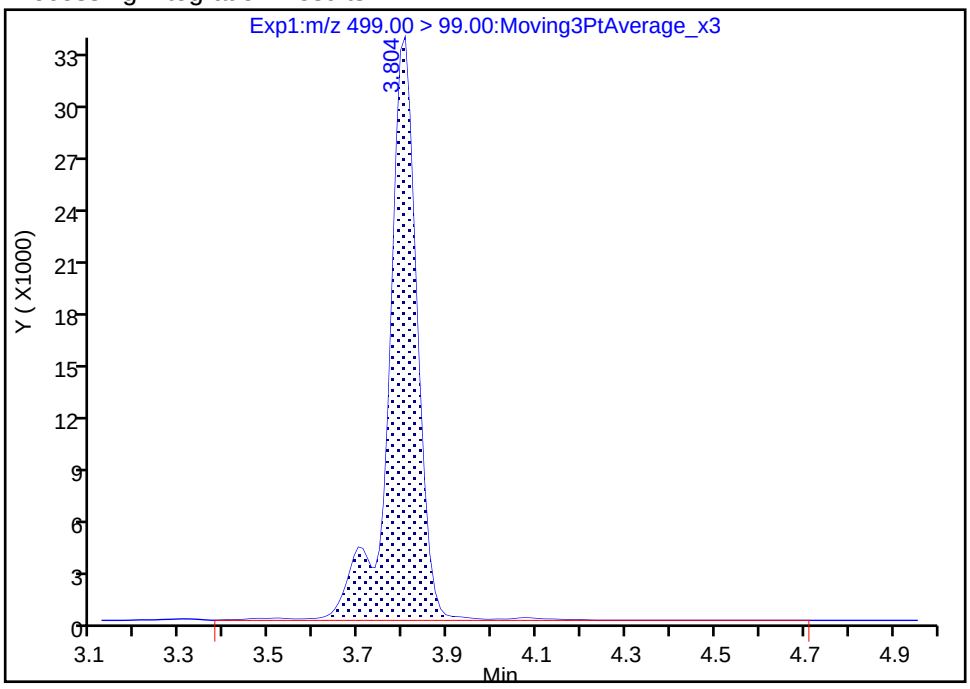
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

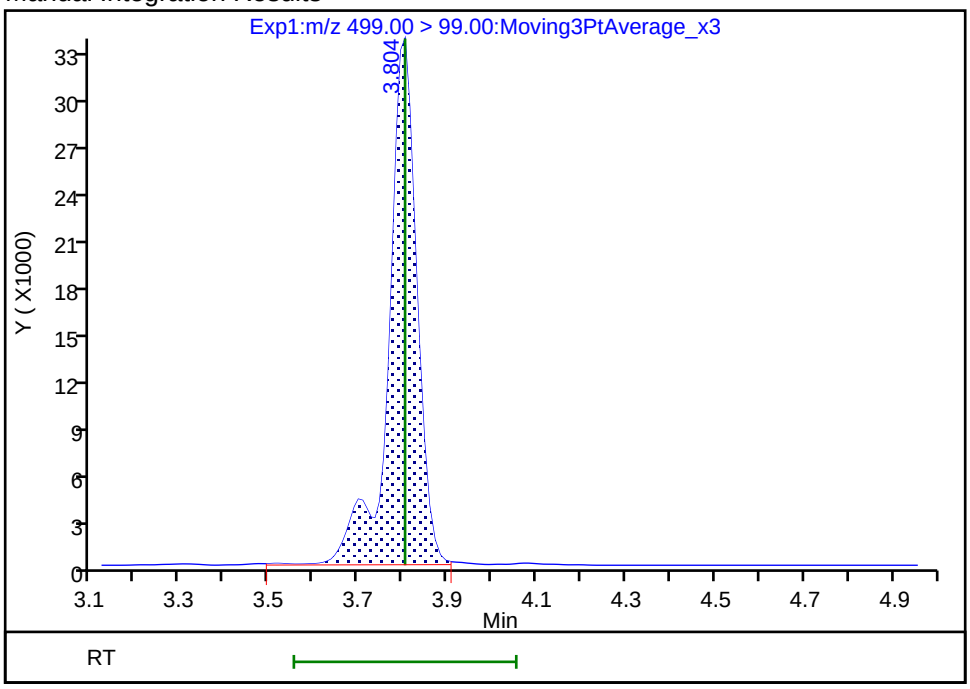
Processing Integration Results

RT: 3.80
Area: 149820
Amount: 0.919720
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 147268
Amount: 0.908314
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:19:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

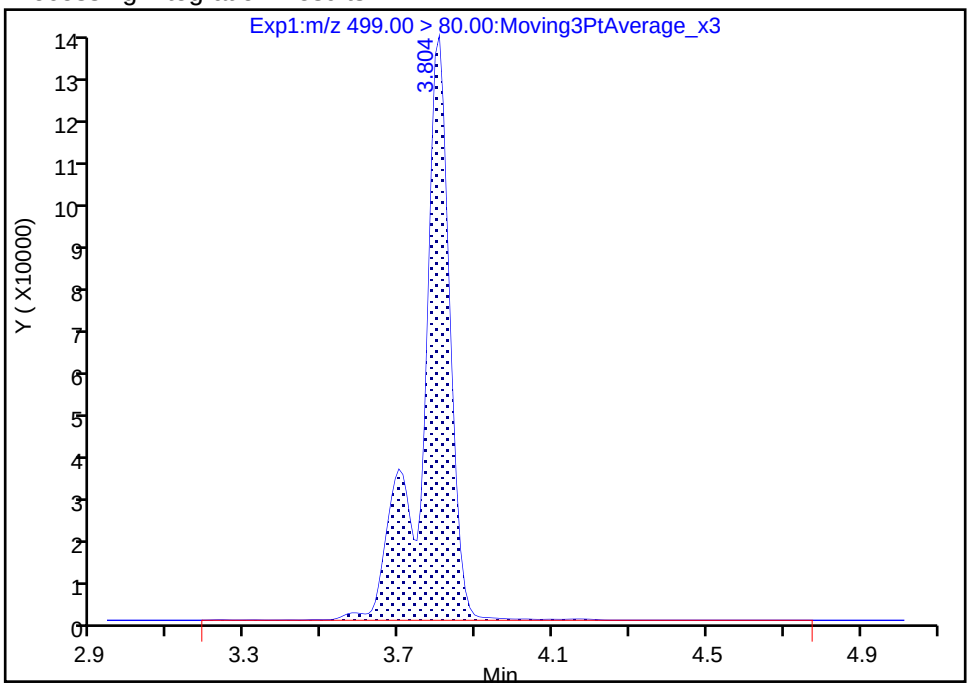
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

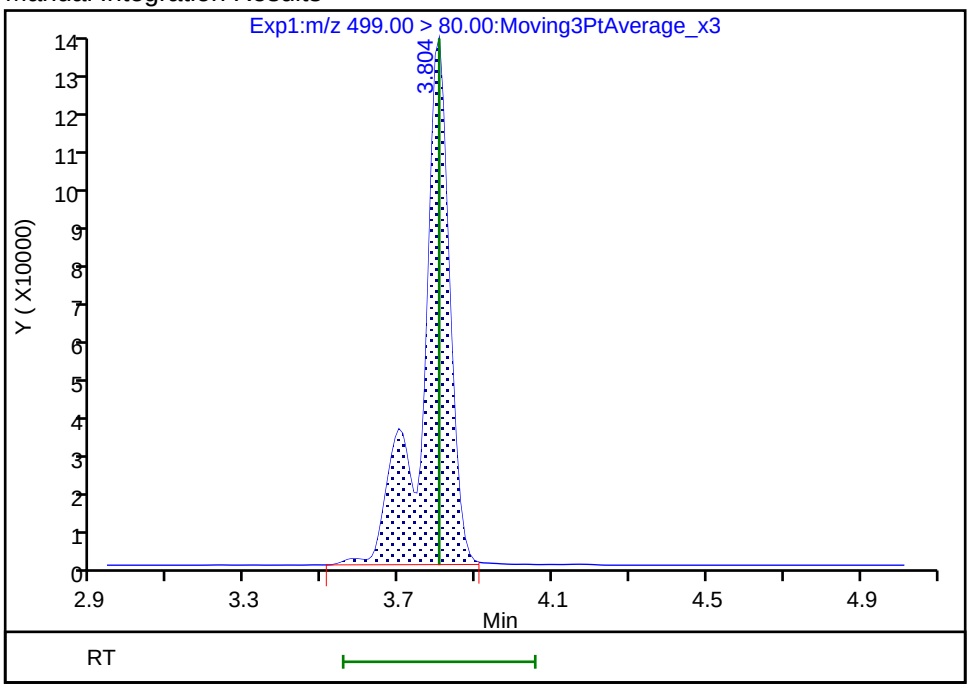
Processing Integration Results

RT: 3.80
Area: 700079
Amount: 0.919720
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 691397
Amount: 0.908314
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:19:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

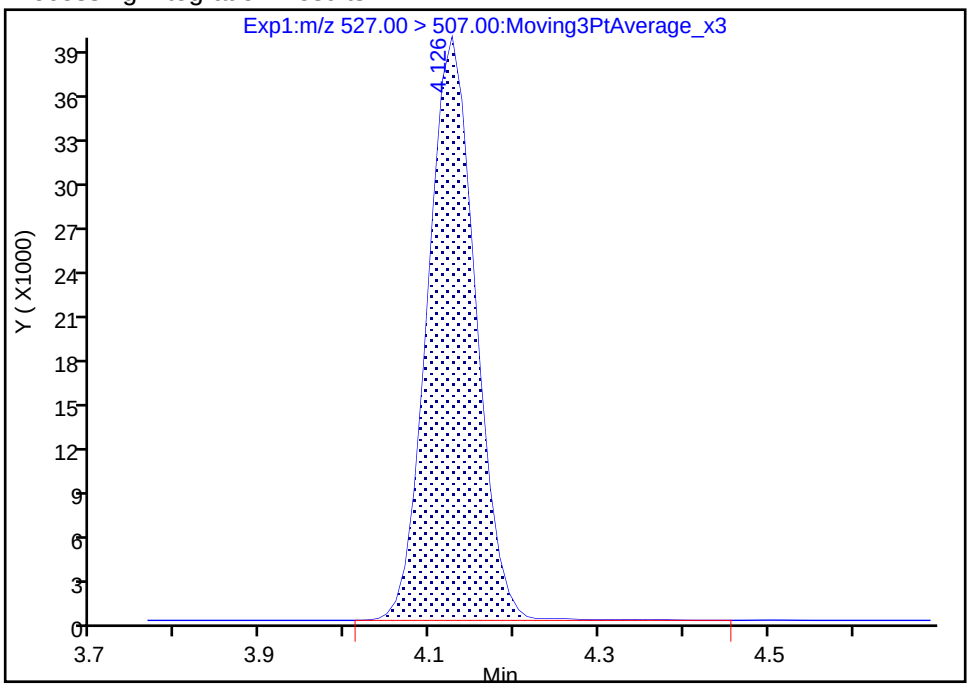
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

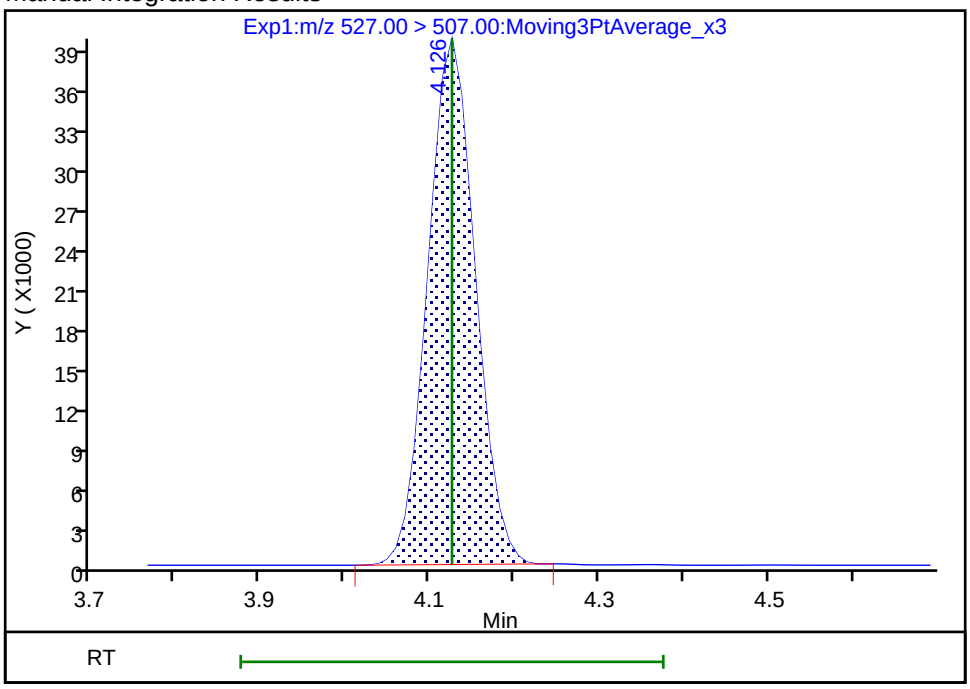
Processing Integration Results

RT: 4.13
Area: 156013
Amount: 0.888936
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 154835
Amount: 0.882224
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:19:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

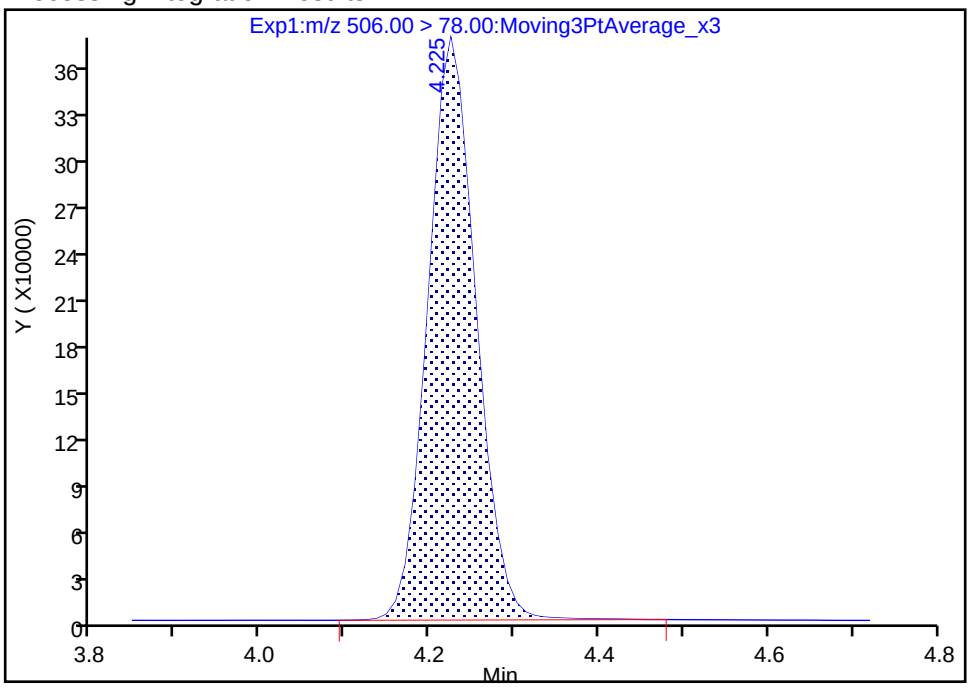
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

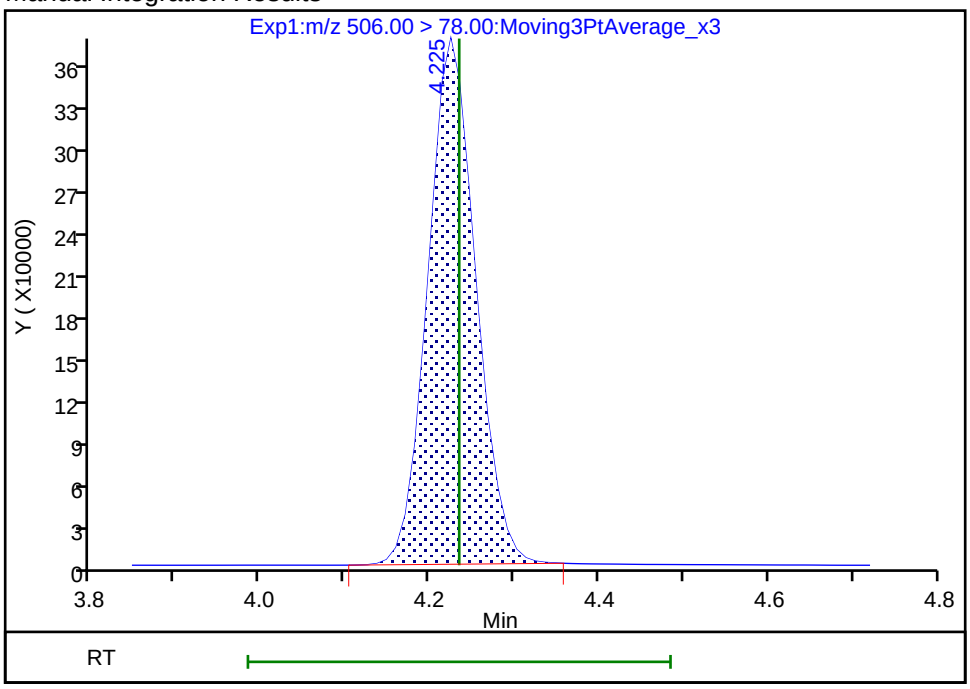
Processing Integration Results

RT: 4.22
Area: 1456916
Amount: 1.267328
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1446171
Amount: 1.257981
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:19:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

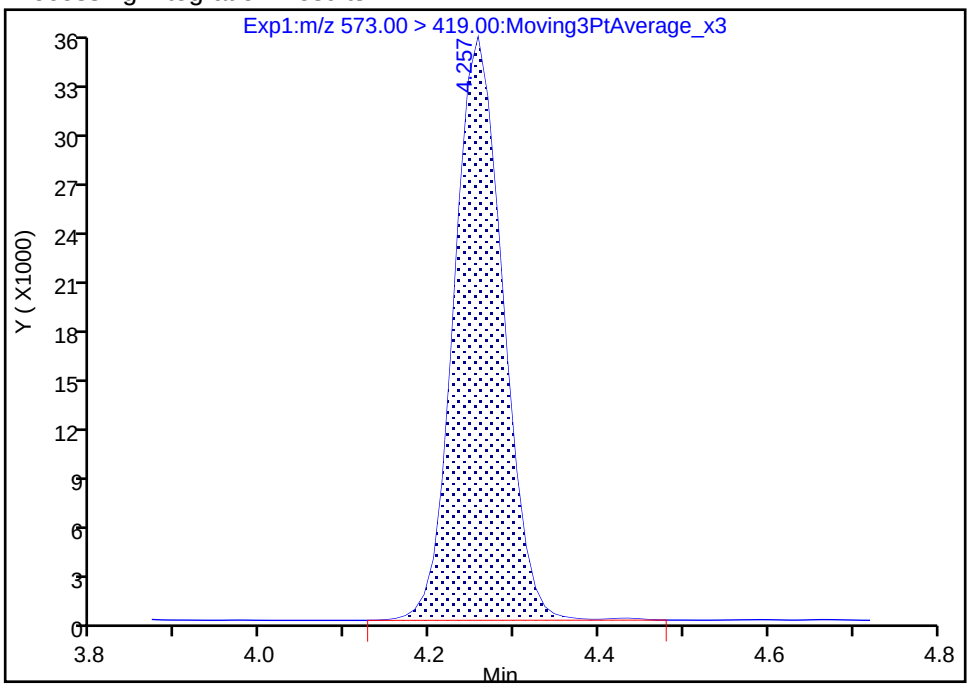
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d | | | | |
| Injection Date: | 10-Nov-2021 06:06:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

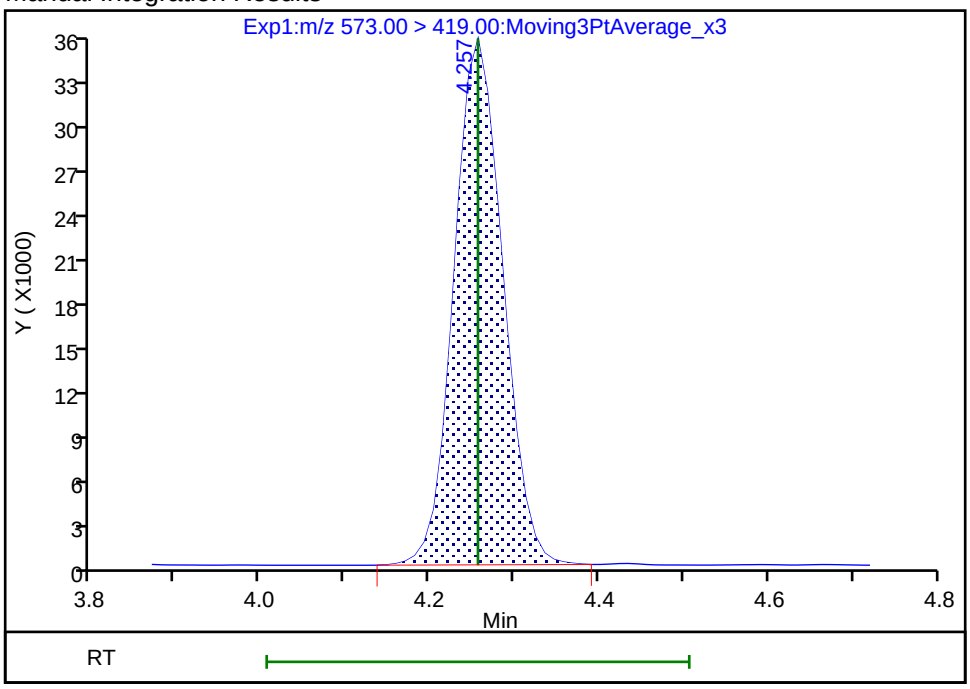
Processing Integration Results

RT: 4.26
Area: 141983
Amount: 1.211104
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 141364
Amount: 1.205824
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:20:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

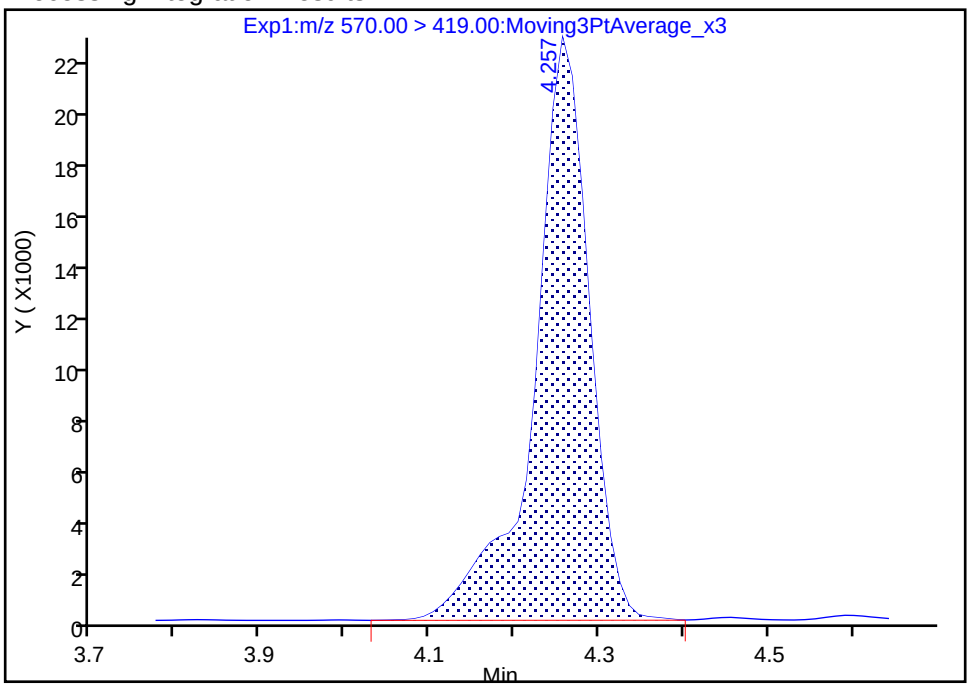
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d | | | | |
| Injection Date: | 10-Nov-2021 06:06:51 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

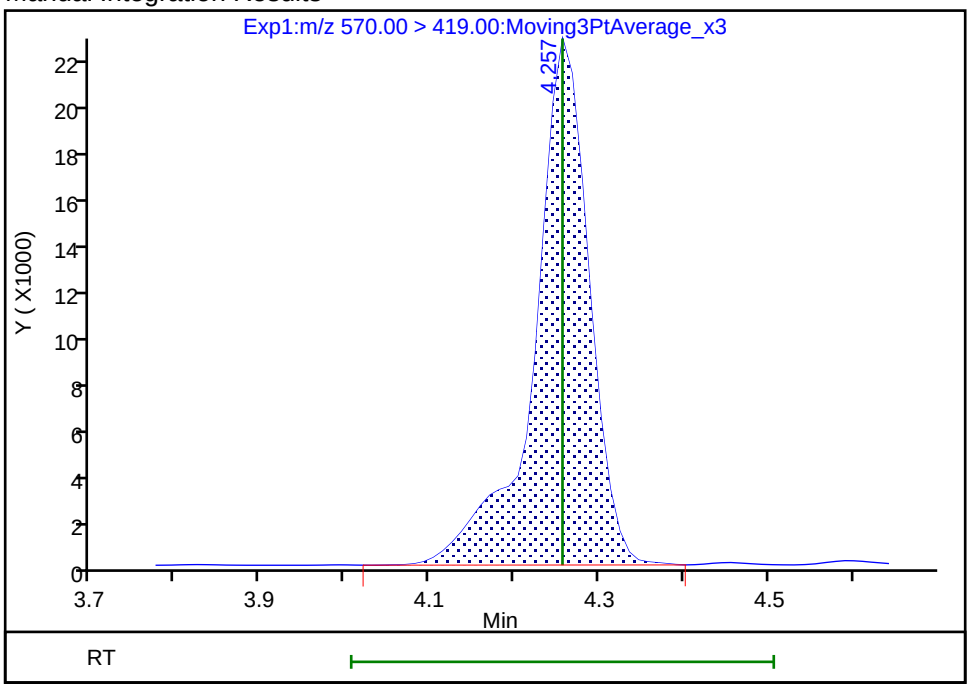
Processing Integration Results

RT: 4.26
Area: 100083
Amount: 1.126507
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 99968
Amount: 1.125213
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:20:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

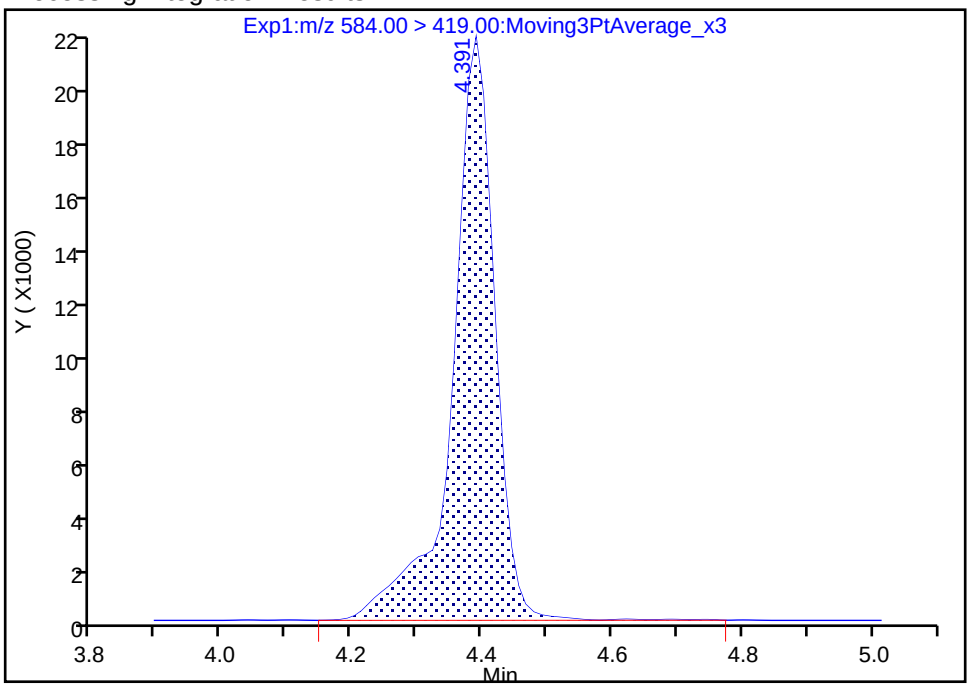
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D15.d
Injection Date: 10-Nov-2021 06:06:51 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

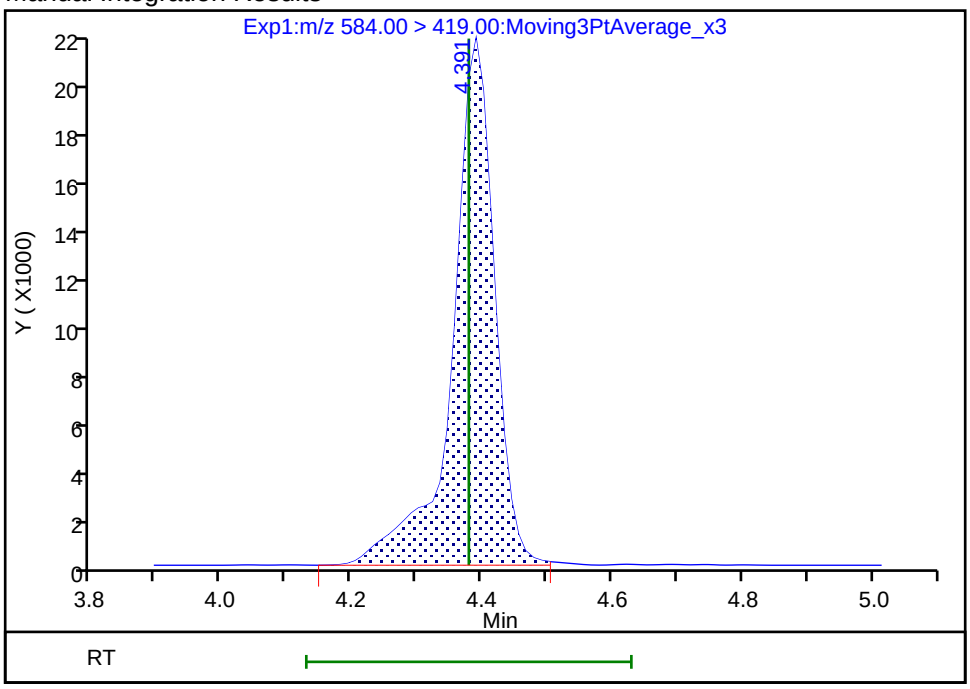
Processing Integration Results

RT: 4.39
Area: 96271
Amount: 0.979880
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 95762
Amount: 0.974699
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:21:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/28  Calibration Date: 11/10/2021 07:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D28.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8960 | | 2.37 | 2.50 | -5.2 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9333 | | 2.33 | 2.50 | -6.8 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.034 | | 2.14 | 2.21 | -3.2 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.043 | | 2.24 | 2.34 | -4.0 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9367 | | 2.31 | 2.50 | -7.6 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.171 | | 2.28 | 2.35 | -2.8 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.279 | | 2.36 | 2.50 | -5.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9777 | | 2.37 | 2.50 | -5.4 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.022 | | 2.12 | 2.28 | -7.0 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.458 | | 2.33 | 2.36 | -1.2 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.170 | | 2.23 | 2.38 | -6.1 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.239 | | 2.32 | 2.37 | -2.3 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 0.999 | | 2.35 | 2.50 | -6.1 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.015 | | 2.17 | 2.32 | -6.5 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9459 | | 2.42 | 2.50 | -3.3 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.498 | | 2.14 | 2.33 | -8.4 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7724 | | 2.19 | 2.40 | -8.6 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9780 | | 2.43 | 2.50 | -2.7 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7381 | | 2.11 | 2.40 | -11.8 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9272 | | 2.44 | 2.50 | -2.4 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8109 | | 2.58 | 2.50 | 3.2 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6342 | | 2.33 | 2.41 | -3.5 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 0.9450 | | 2.22 | 2.50 | -11.4 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7981 | | 2.33 | 2.50 | -6.9 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.871 | | 2.28 | 2.36 | -3.1 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.8921 | | 2.28 | 2.50 | -8.9 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3255 | | 2.03 | 2.41 | -15.8 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2487 | | 2.49 | 2.42 | 2.9 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/28  Calibration Date: 11/10/2021 07:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D28.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7896 | | 2.34 | 2.50 | -6.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1589 | | 2.52 | 2.50 | 0.7 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9128 | | 2.66 | 2.50 | 6.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6912 | | 2.05 | 2.50 | -18.0 | |
| 13C4 PFBA | Ave | 1.012 | 1.221 | | 1.51 | 1.25 | 20.6 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9390 | | 1.38 | 1.25 | 10.1 | |
| 13C3 PFBS | Ave | 1.154 | 1.139 | | 1.15 | 1.16 | -1.3 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1131 | | 1.50 | 1.17 | 28.6 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9661 | | 1.35 | 1.25 | 8.0 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0253 | | 1.34 | 1.25 | 7.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.997 | | 1.32 | 1.25 | 5.9 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8853 | | 1.25 | 1.18 | 5.6 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1506 | | 1.35 | 1.19 | 14.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.025 | | 1.25 | 1.25 | -0.3 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6397 | | 1.26 | 1.20 | 5.6 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.015 | | 1.24 | 1.25 | -1.0 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.031 | | 1.25 | 1.25 | -0.3 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1921 | | 1.54 | 1.20 | 28.2 | |
| 13C8 FOSA | Ave | 0.998 | 1.012 | | 1.27 | 1.25 | 1.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1129 | | 1.39 | 1.25 | 11.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7930 | | 1.23 | 1.25 | -1.6 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1040 | | 1.37 | 1.25 | 9.2 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8381 | | 1.21 | 1.25 | -3.3 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6306 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5452 | | 1.15 | 1.25 | -7.9 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 10-Nov-2021 07:53:19 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0048356-028 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:48 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: deannd Date: 10-Nov-2021 08:25:58
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 2076835 | 1.51 | | 121 | 10123 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 3721860 | 2.37 | | 94.8 | 488 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1596984 | 1.38 | | 110 | 3035 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 2981033 | 2.33 | | 93.2 | 117 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1801162 | 1.15 | | 98.7 | 152639 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 3541735 | 2.14 | Target=2.32 | 96.8 | 3542 | |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1617943 | | 2.19(1.16-3.48) | | 841 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 734057 | 2.24 | | 96.0 | 3163 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 179674 | 1.50 | | 129 | 160 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1643087 | 1.35 | | 108 | 4244 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 3078289 | 2.31 | Target=12.09 | 92.4 | 449 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 253815 | | 12.13(6.04-18.13) | | 232 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 3306632 | 2.28 | Target=3.03 | 97.2 | 1979 | M |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1067176 | | 3.10(1.52-4.55) | | 1340 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.868 | 2.867 | 0.001 | 0.821 | 43039 | 1.34 | | 107 | 288 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.004 | 368349 | 2.36 | | 94.6 | 118 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2800374 | 2.11 | Target=3.55 | 93.0 | 1989 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 787269 | | 3.56(1.77-5.32) | | 724 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1424328 | 1.25 | | 106 | 3924 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1695803 | 1.32 | | 106 | 3016 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 3316116 | 2.37 | Target=3.69 | 94.6 | 864 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 864374 | | 3.84(1.84-5.53) | | 1495 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 7087700 | 2.33 | Target=2.56 | 98.8 | 2742 | M |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2733479 | | 2.59(1.28-3.84) | | 2221 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 2423566 | 2.23 | Target=4.88 | 93.9 | 2794 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 488645 | | 4.96(2.44-7.32) | | 1365 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.003 | 601688 | 2.31 | | 97.7 | 1528 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | M |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.995 | 243394 | 1.35 | | 114 | 504 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.492 | -0.009 | 0.997 | 1743643 | 1.25 | | 99.7 | 5031 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1700684 | 1.25 | | | 3359 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.003 | 3482942 | 2.35 | Target=2.68 | 93.9 | 409 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.003 | 1335132 | | 2.61(1.34-4.02) | | 2311 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 1040067 | 1.26 | | 106 | 3842 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.003 | 2049498 | 2.17 | Target=4.69 | 93.5 | 2101 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 443084 | | 4.63(2.35-7.04) | | 1283 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1725761 | 1.24 | | 99.0 | 4606 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 3264877 | 2.42 | Target=7.29 | 96.7 | 711 | |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.003 | 436344 | | 7.48(3.64-10.93) | | 2554 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.045 | 3037261 | 2.13 | | 91.6 | 5648 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.076 | 1613314 | 2.19 | Target=2.35 | 91.4 | 3368 | M |
| 549.00 > 99.00 | 4.081 | 4.081 | 0.0 | 1.076 | 649814 | | 2.48(1.17-3.52) | | 1770 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1753798 | 1.25 | | 99.7 | 2486 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 3430268 | 2.43 | Target=8.95 | 97.3 | 1801 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 393311 | | 8.72(4.47-13.42) | | 2026 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 312961 | 1.54 | | 128 | 1018 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 462024 | 2.11 | | 88.2 | 1830 | M |
| D 21 13C8 FOSA | | | | | | | | | | M |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1720832 | 1.27 | | 101 | 2391 | M |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 3191103 | 2.44 | | 97.6 | 2196 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 192034 | 1.39 | | 111 | 305 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 311431 | 2.58 | | 103 | 1056 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.146 | 1330158 | 2.33 | Target=2.47 | 96.5 | 3639 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.146 | 495158 | | 2.69(1.23-3.70) | | 2410 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 1348605 | 1.23 | | 98.4 | 2722 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 1.000 | 2548779 | 2.22 | Target=9.24 | 88.6 | 1403 | |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 1.000 | 311296 | | 8.19(4.62-13.86) | | 2568 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 176928 | 1.36 | | 109 | 1512 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 282399 | 2.33 | | 93.1 | 1511 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.177 | 3835431 | 2.28 | | 96.9 | 4713 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1425422 | 1.21 | | 96.7 | 1957 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 2543254 | 2.28 | Target=7.04 | 91.1 | 447 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 391960 | | 6.49(3.52-10.56) | | 2834 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 204986 | 2.03 | | 84.2 | 1956 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.766 | 4.756 | 0.010 | 1.256 | 523878 | 2.49 | Target=0.49 | 103 | 2508 | M |
| 699.00 > 99.00 | 4.766 | 4.756 | 0.010 | 1.256 | 964764 | | 0.54(0.25-0.74) | | 2516 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 2250901 | 2.34 | Target=4.68 | 93.5 | 477 | |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.042 | 496824 | | 4.53(2.34-7.02) | | 1702 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 1072391 | 1.17 | | 93.8 | 2023 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 340841 | 2.52 | Target=1.01 | 101 | 2937 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 330004 | | 1.03(0.51-1.52) | | 2170 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.281 | 5.270 | 0.011 | 1.512 | 927240 | 1.15 | | 92.1 | 4088 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.002 | 1692790 | 2.66 | Target=4.57 | 106 | 407 | |
| 813.00 > 169.00 | 5.281 | 5.270 | 0.011 | 1.000 | 388039 | | 4.36(2.29-6.86) | | 3449 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.052 | 1281832 | 2.05 | Target=4.27 | 82.0 | 470 | M |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.050 | 305394 | | 4.20(2.14-6.41) | | 2093 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00022 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 11:26:49 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d

Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812

Lims ID: CCV L5

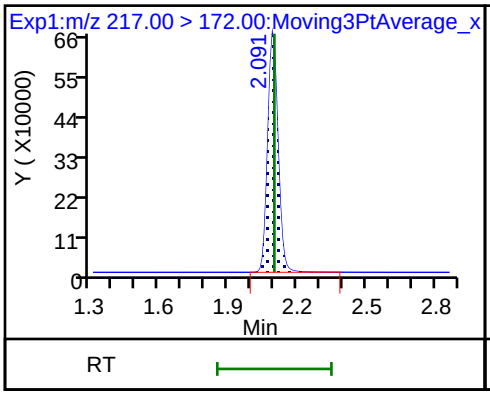
Client ID:

Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28

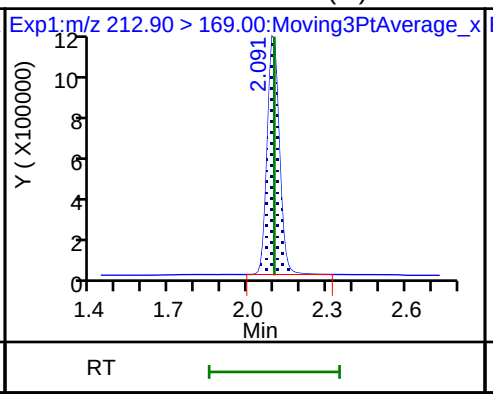
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

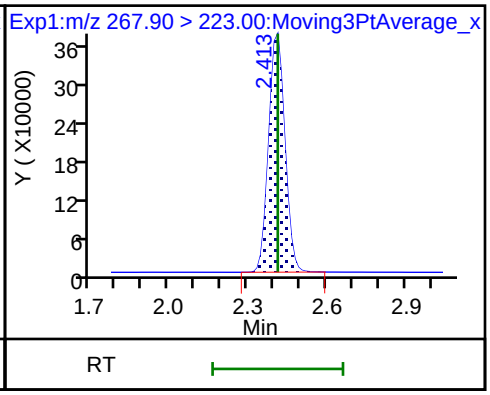
D 1 13C4 PFBA



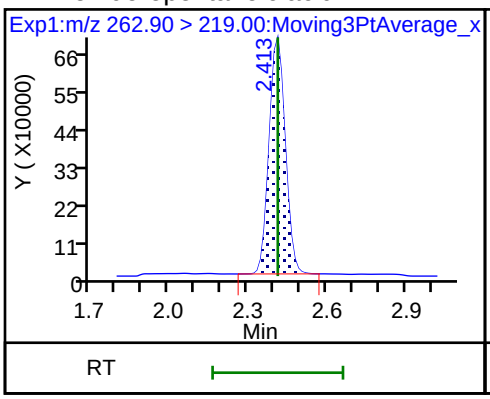

2 Perfluorobutanoic acid (M)



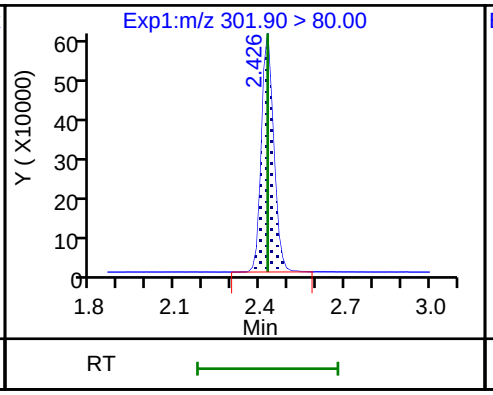

D 3 13C5 PFPeA



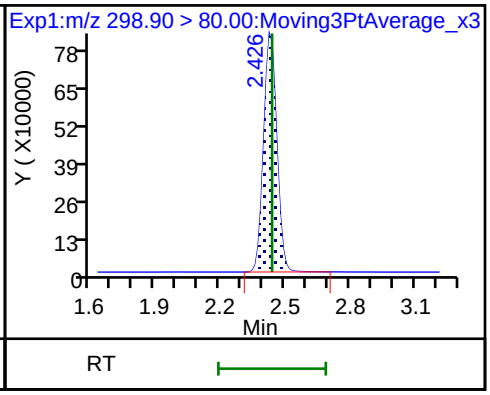

4 Perfluoropentanoic acid



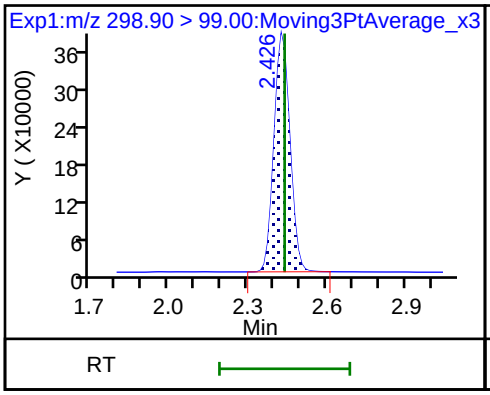

D 47 13C3 PFBS



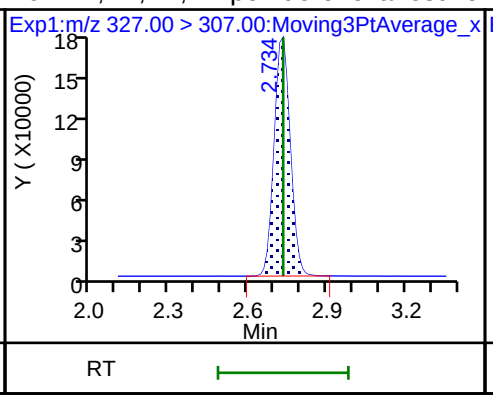

5 Perfluorobutanesulfonic acid



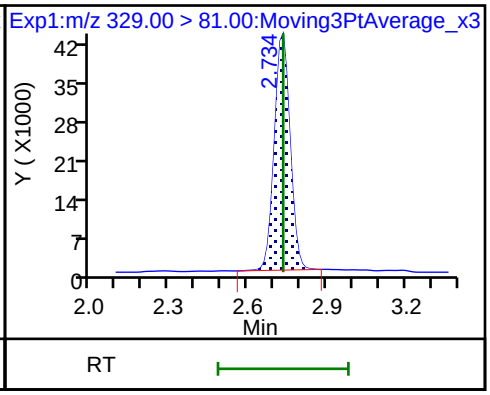

5 Perfluorobutanesulfonic acid



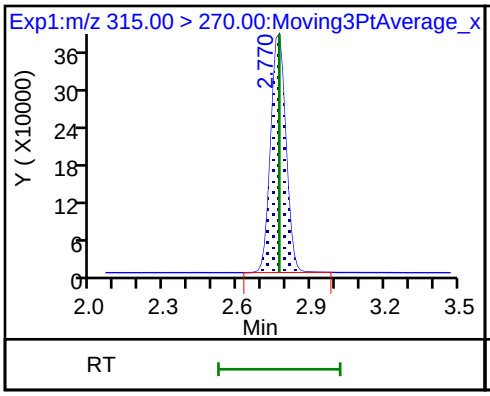

61 1H,1H,2H,2H-perfluorohexanesulfo



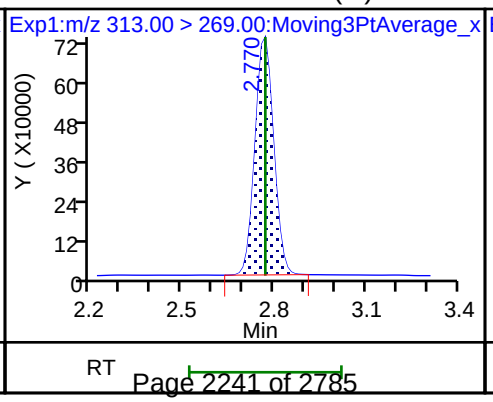

D 60 M2-4:2 FTS



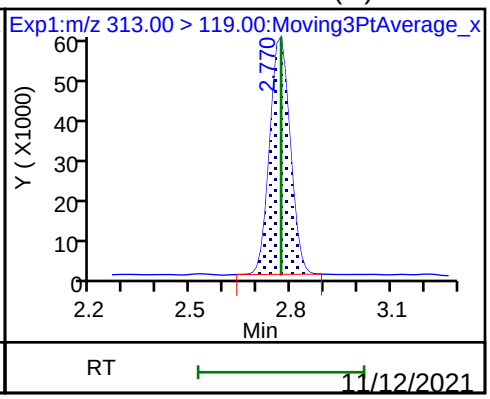

D 7 13C2 PFHxA



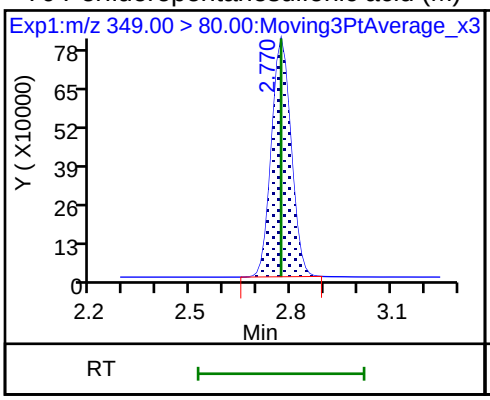

6 Perfluorohexanoic acid (M)



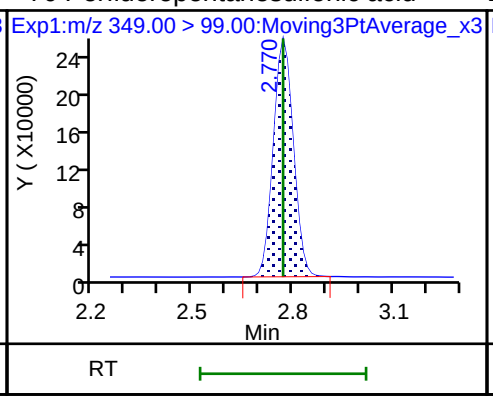

6 Perfluorohexanoic acid (M)



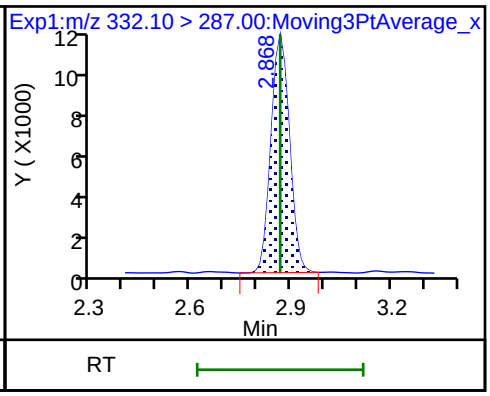
70 Perfluoropentanesulfonic acid (M)



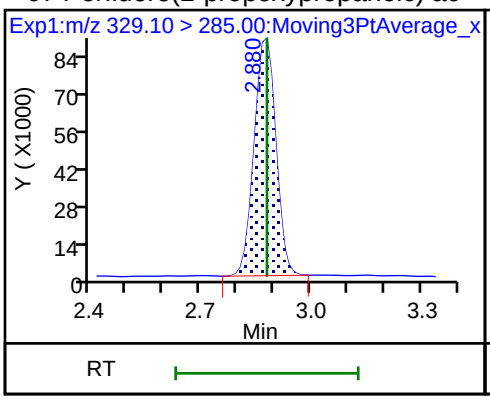

70 Perfluoropentanesulfonic acid



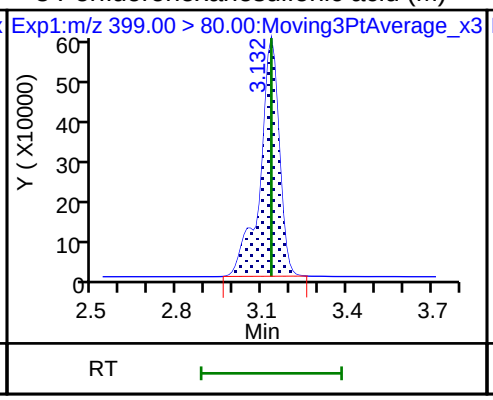

D 64 13C3 HFPO-DA



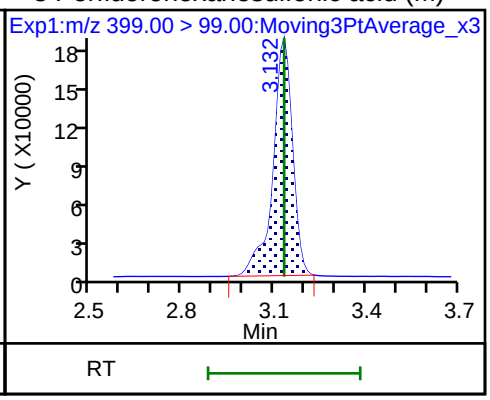

67 Perfluoro(2-propoxypropanoic) ac



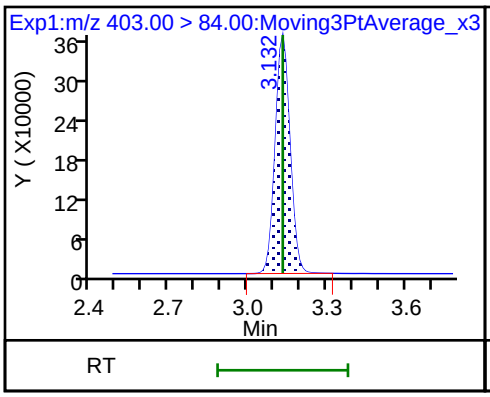

8 Perfluorohexanesulfonic acid (M)



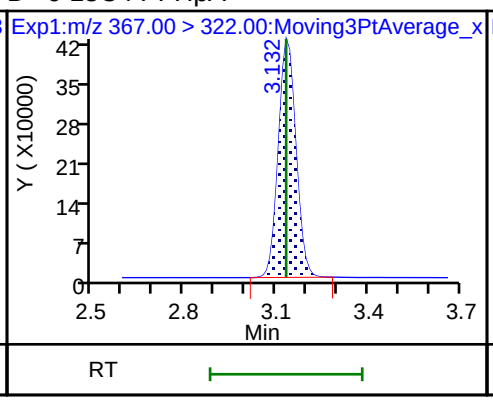

8 Perfluorohexanesulfonic acid (M)



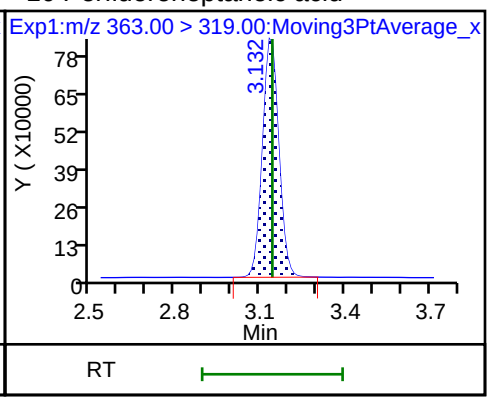

D 11 18O2 PFHxS



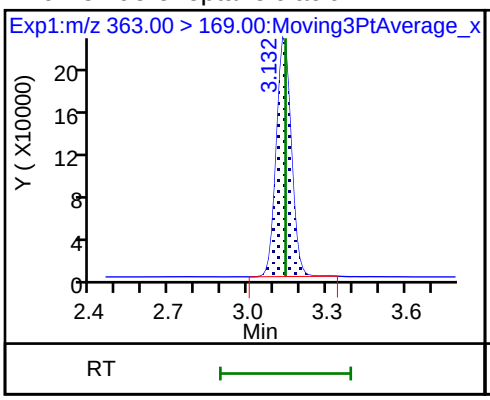

D 9 13C4 PFHpA



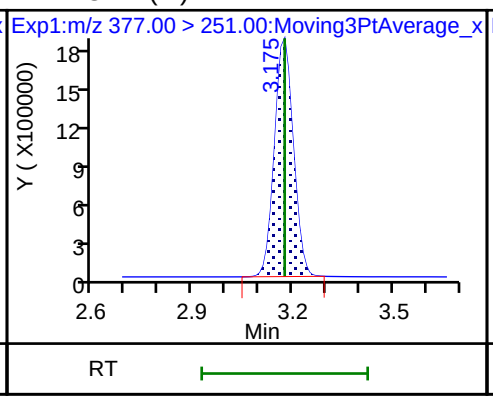

10 Perfluoroheptanoic acid



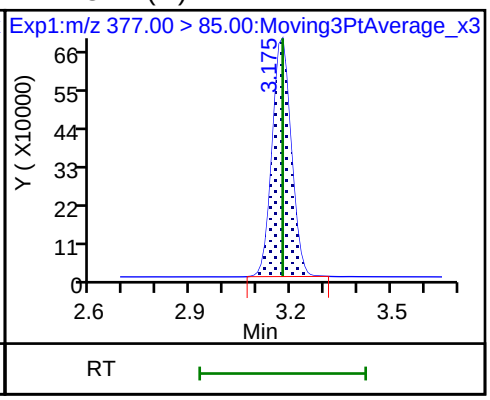

10 Perfluoroheptanoic acid



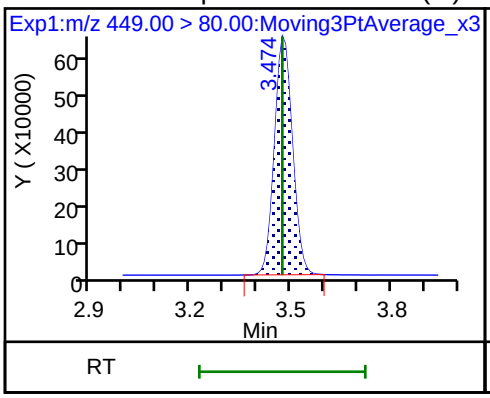

77 DONA (M)



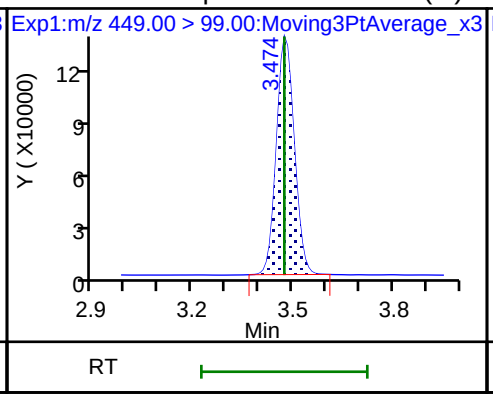

77 DONA (M)



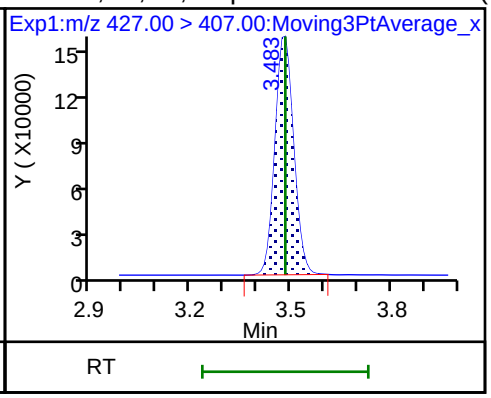
16 Perfluoroheptanesulfonic acid (M)



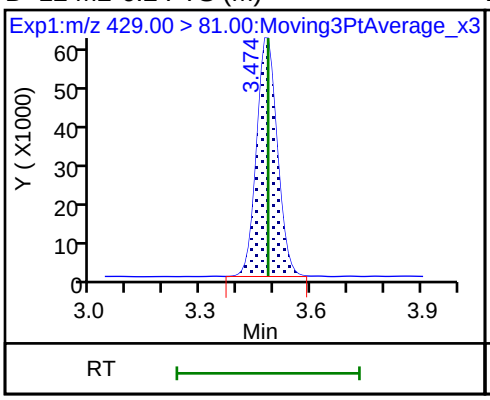

16 Perfluoroheptanesulfonic acid (M)



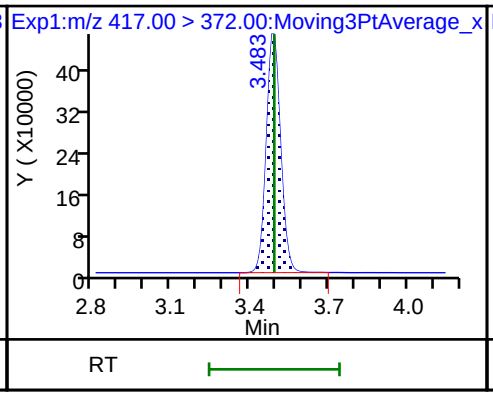

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



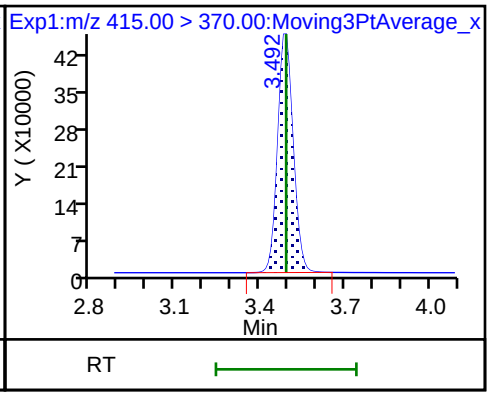

D 12 M2-6:2 FTS (M)



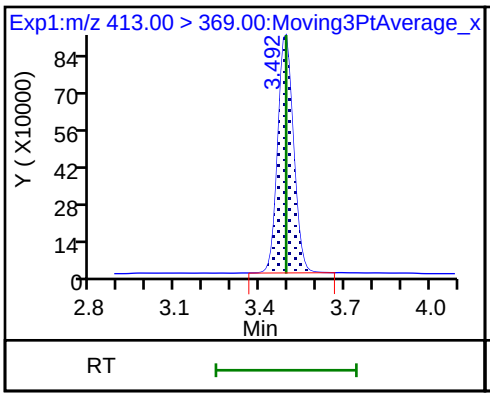

D 14 13C4 PFOA



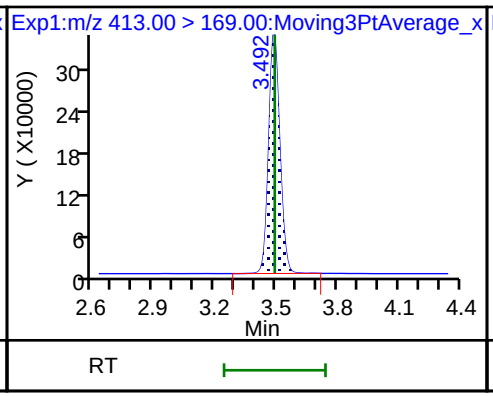

* 62 13C2 PFOA



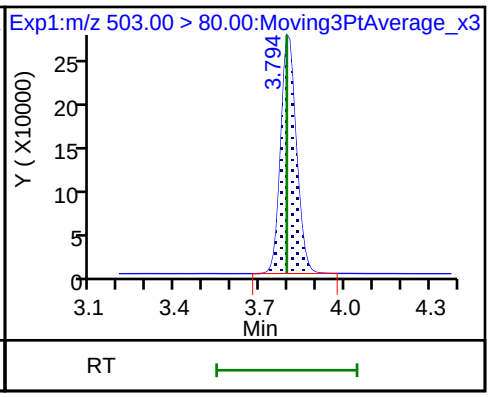

15 Perfluorooctanoic acid



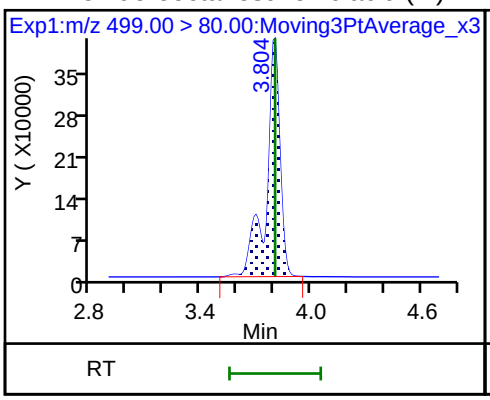

15 Perfluorooctanoic acid



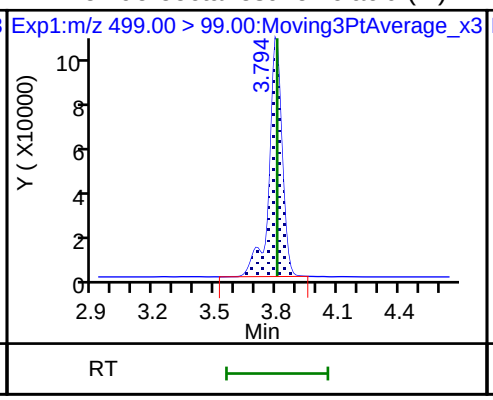

D 18 13C4 PFOS



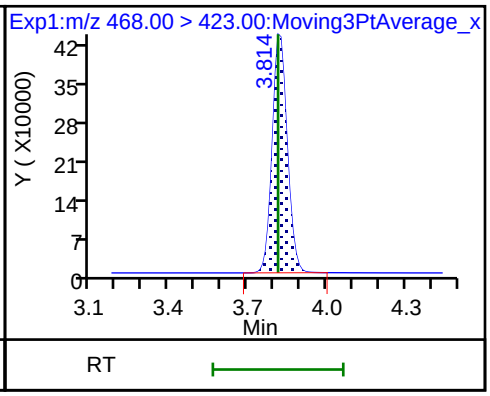

17 Perfluorooctanesulfonic acid (M)



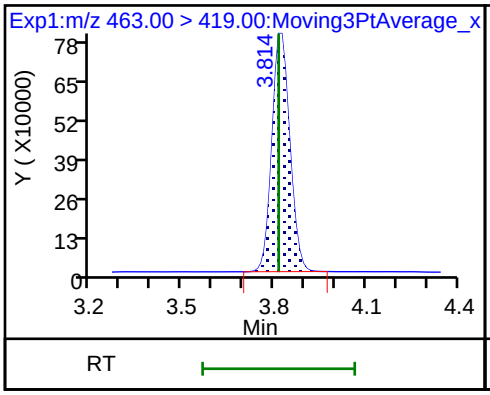

17 Perfluorooctanesulfonic acid (M)



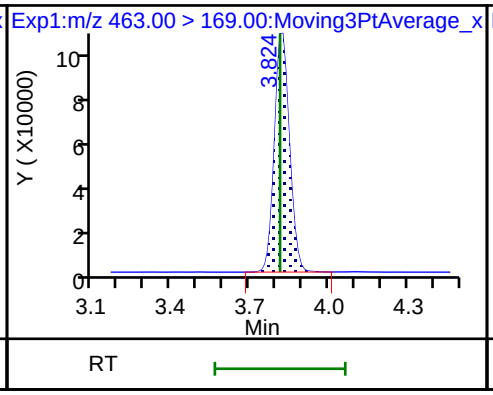

D 19 13C5 PFNA



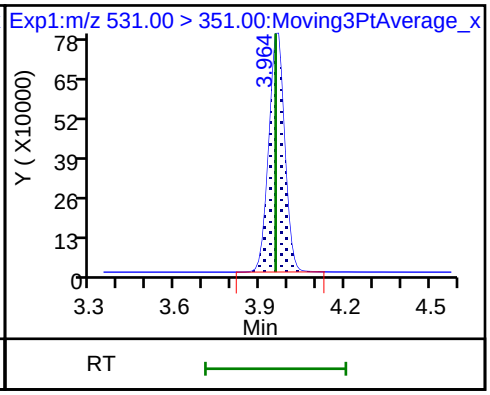
20 Perfluorononanoic acid



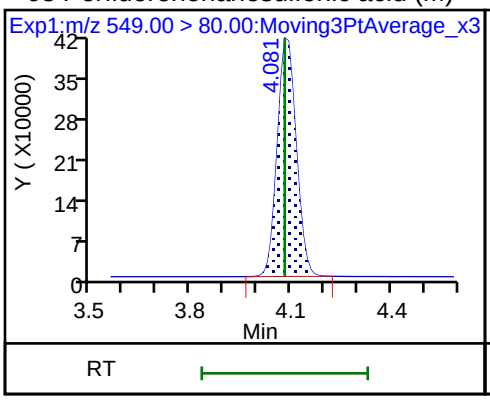

20 Perfluorononanoic acid



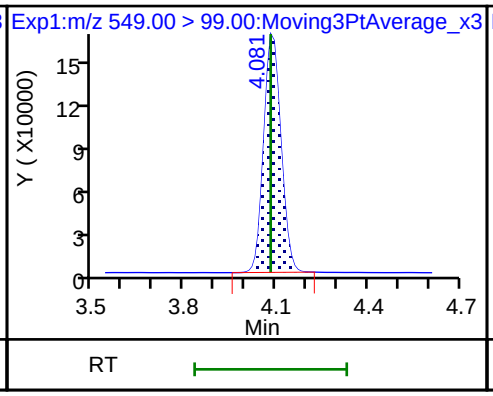

69 9-Chlorohexadecafluoro-3-oxanona (M)



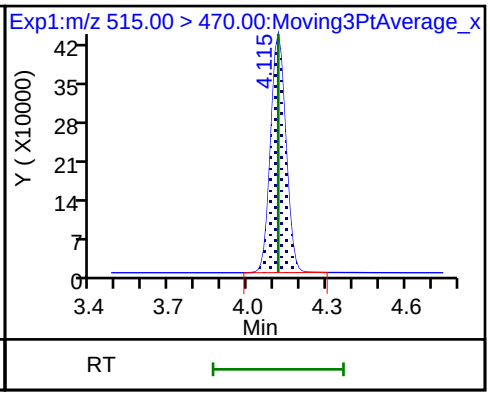

68 Perfluorononanesulfonic acid (M)



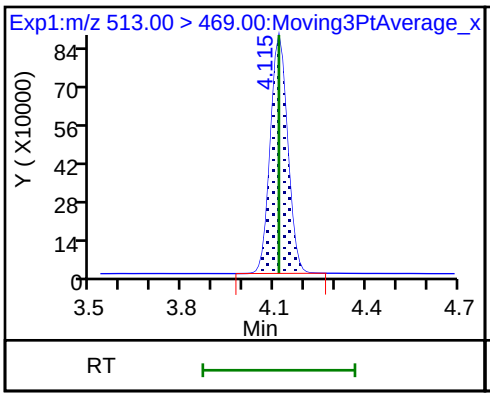

68 Perfluorononanesulfonic acid



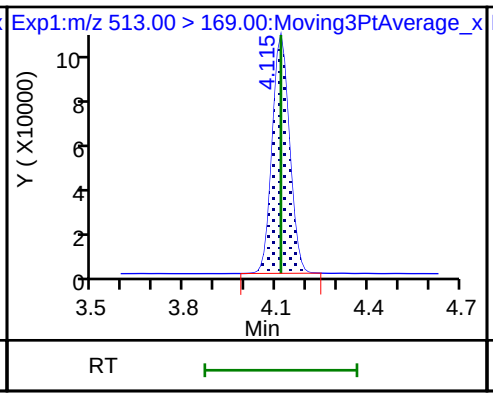

D 23 13C2 PFDA



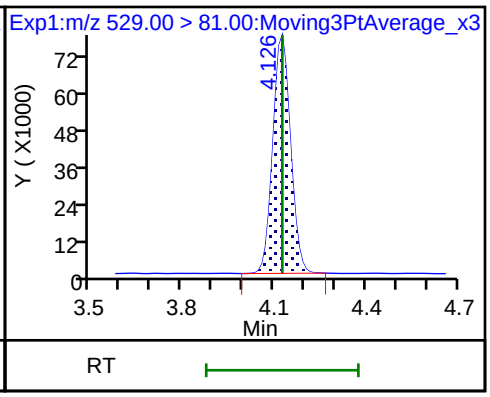

24 Perfluorodecanoic acid



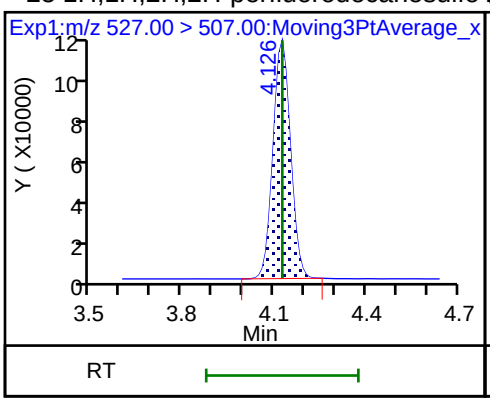

24 Perfluorodecanoic acid



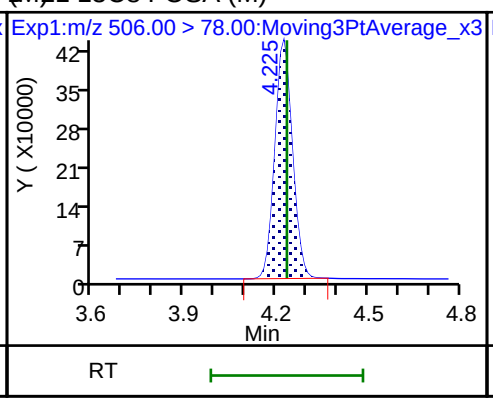

D 26 M2-8:2 FTS



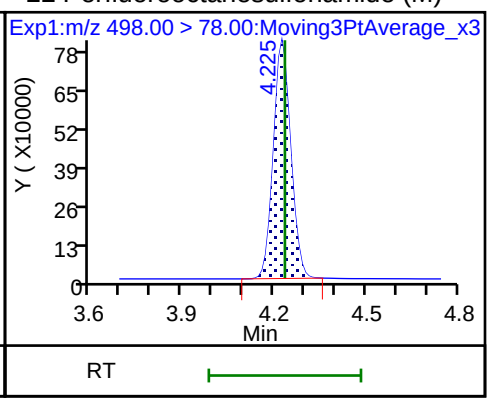

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



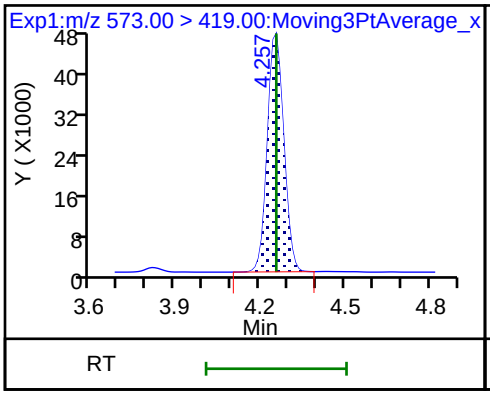

D 21 13C8 FOSA (M)



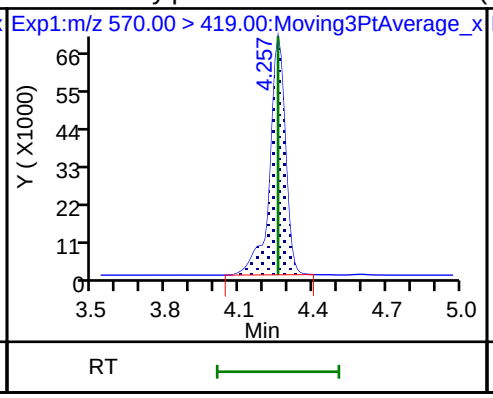

22 Perfluorooctanesulfonamide (M)



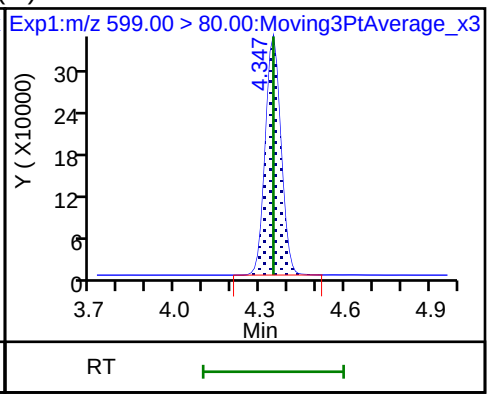
D 27 d3-NMeFOSAA



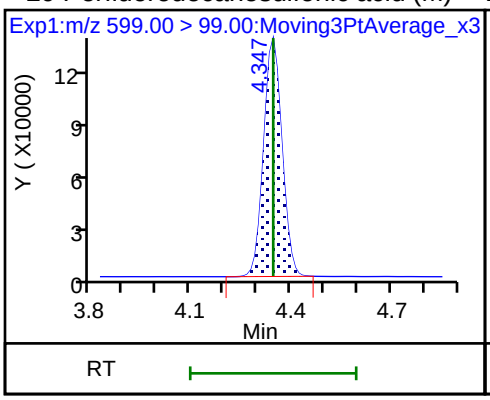

28 N-methylperfluorooctanesulfonami (M)



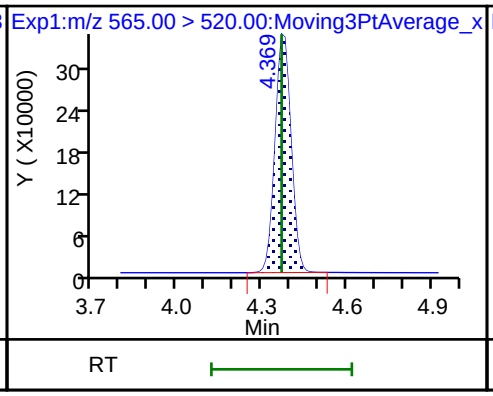

29 Perfluorodecanesulfonic acid



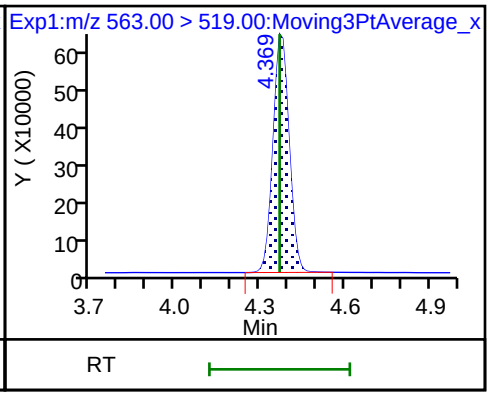

29 Perfluorodecanesulfonic acid (M)



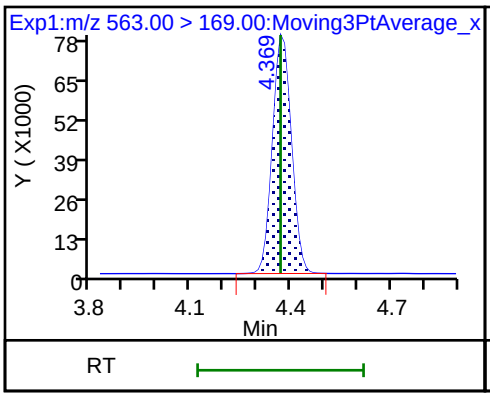

D 30 13C2 PFUnA



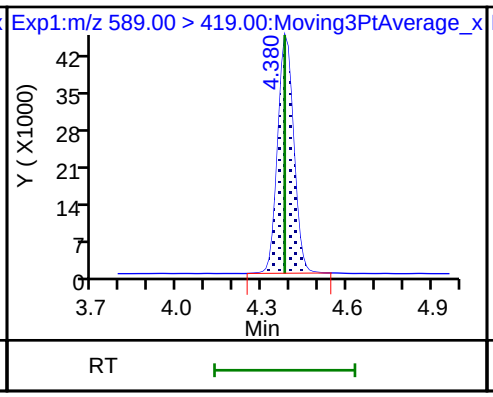

31 Perfluoroundecanoic acid



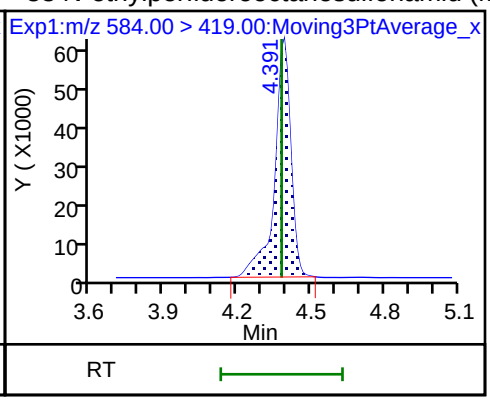

31 Perfluoroundecanoic acid



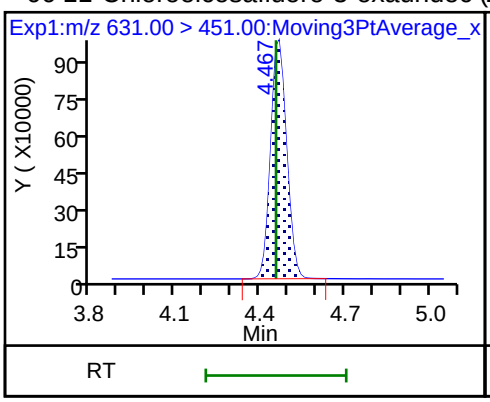

D 32 d5-NEtFOSAA



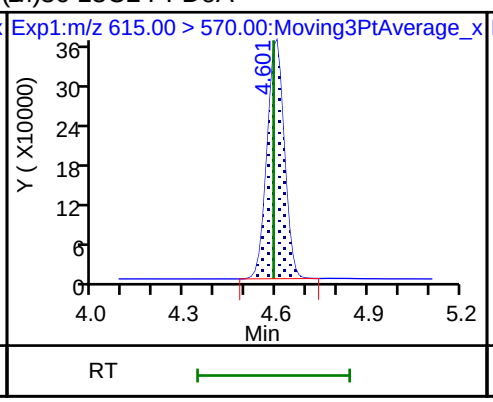

33 N-ethylperfluorooctanesulfonamid (M)



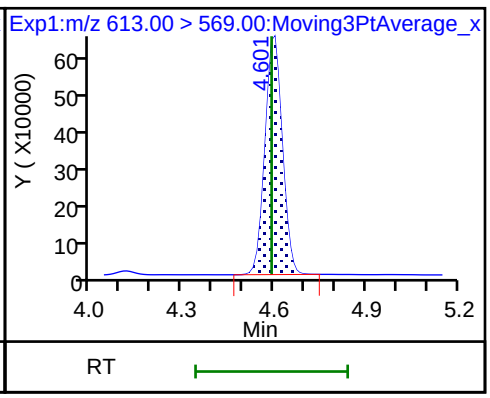

66 11-Chloroeicosafluoro-3-oxaundec (M)



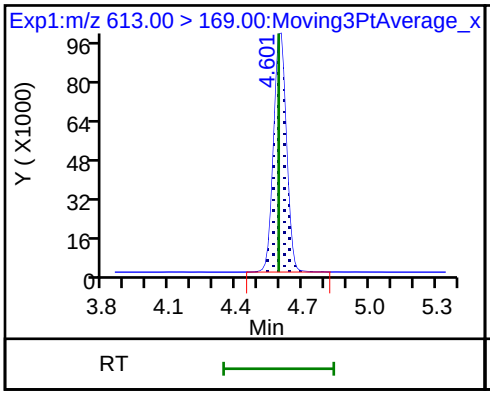

D 36 13C2 PFDoA



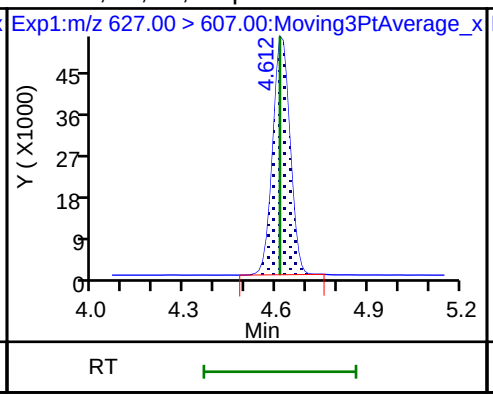

37 Perfluorododecanoic acid



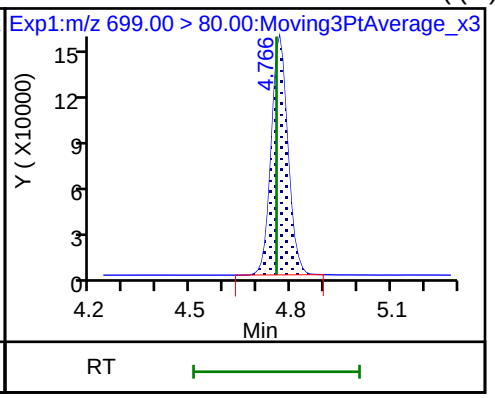
37 Perfluorododecanoic acid



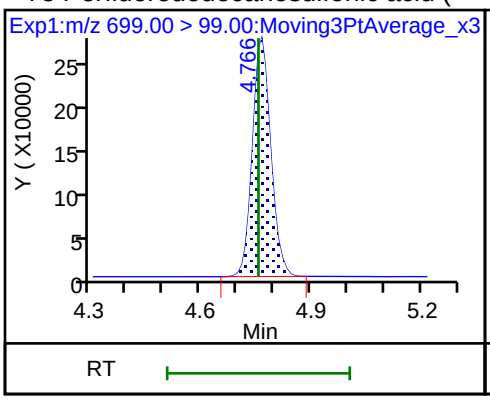

74 1H,1H,2H,2H-perfluorododecanesul



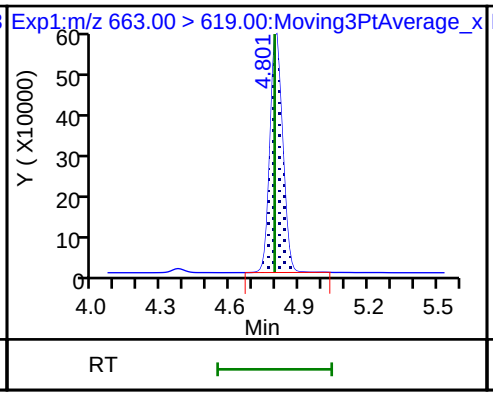

75 Perfluorododecanesulfonic acid ( (M)



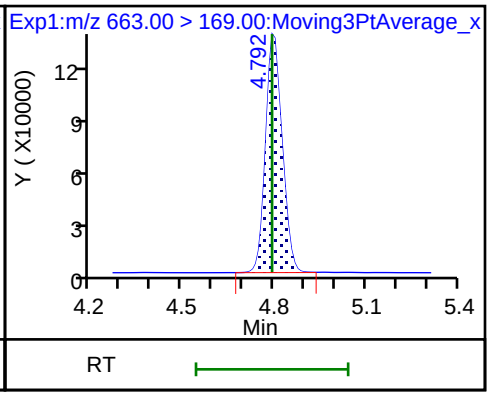

75 Perfluorododecanesulfonic acid (



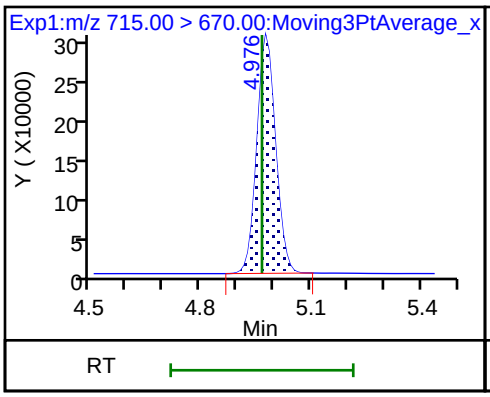

41 Perfluorotridecanoic acid



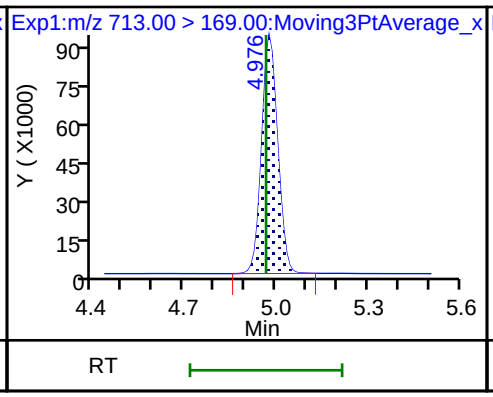

41 Perfluorotridecanoic acid



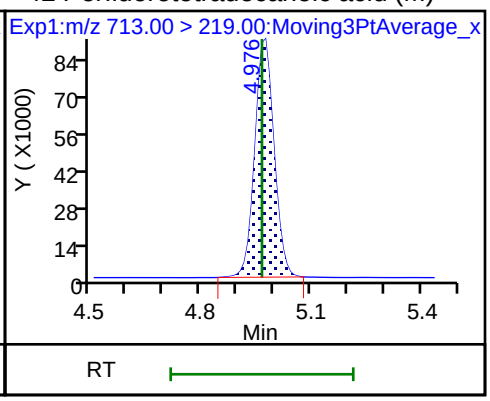

D 43 13C2 PFTeDA



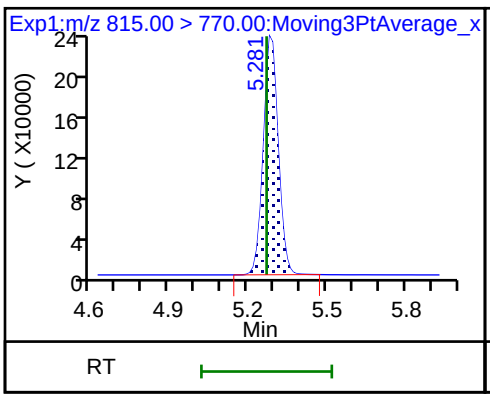

42 Perfluorotetradecanoic acid



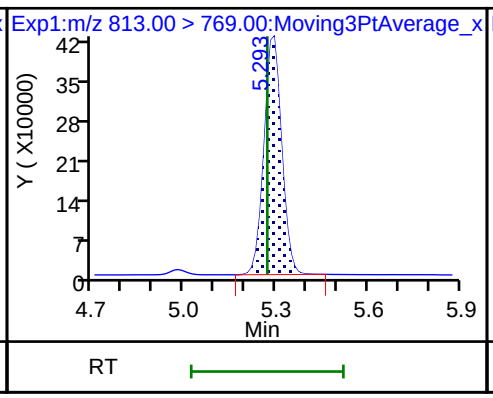

42 Perfluorotetradecanoic acid (M)



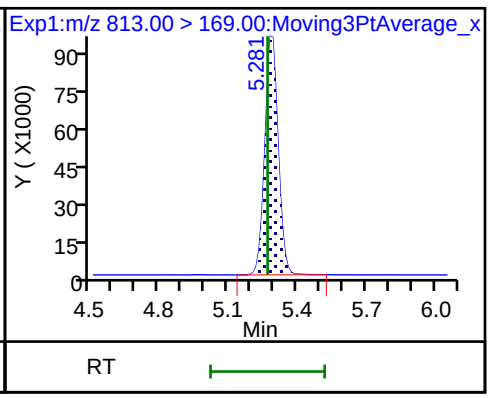

D 44 13C2 PFHxDA



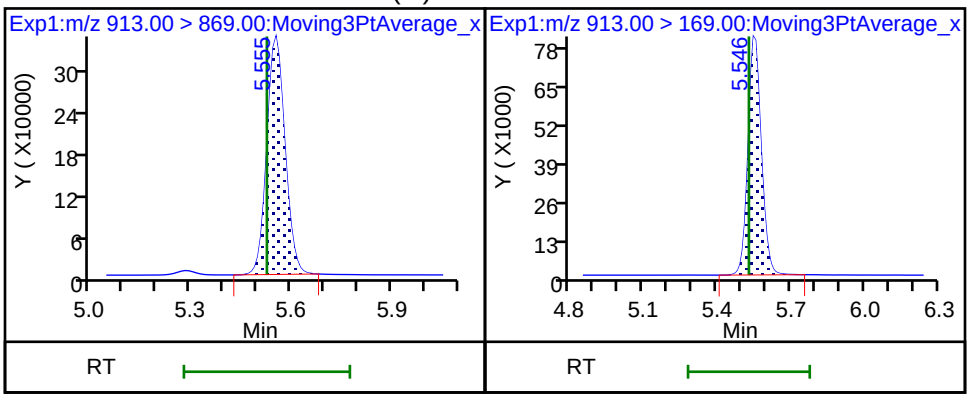

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

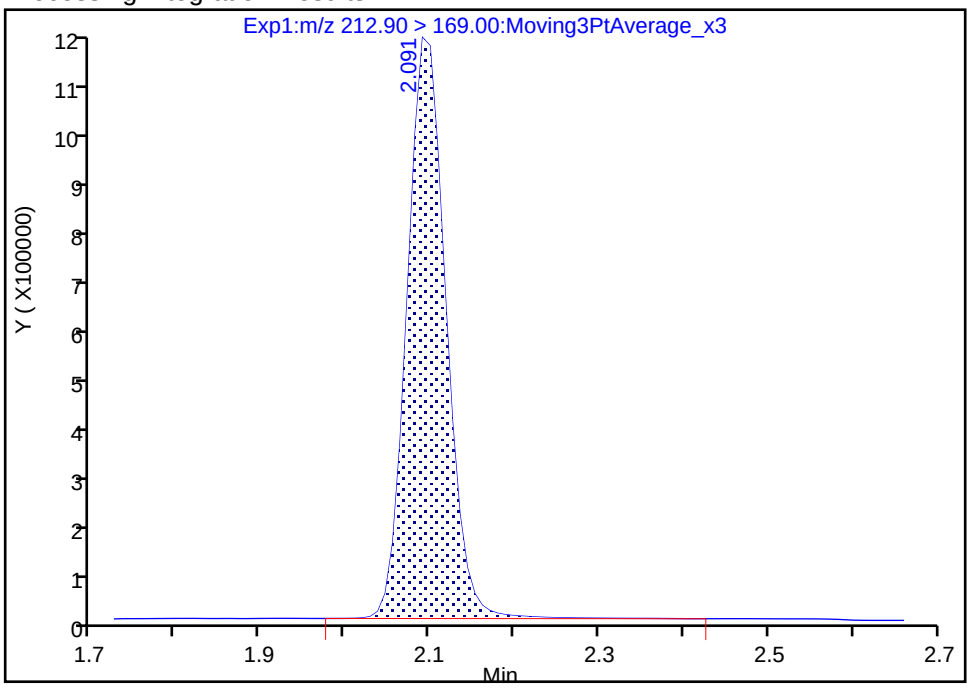
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

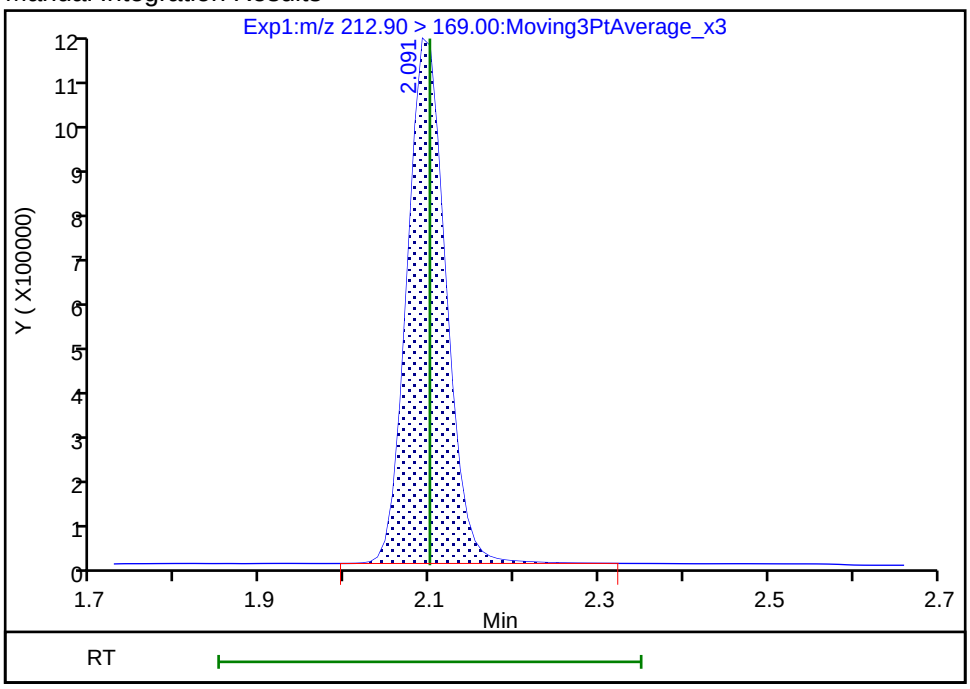
Processing Integration Results

RT: 2.09
Area: 3731847
Amount: 2.375436
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 3721860
Amount: 2.369078
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:22:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

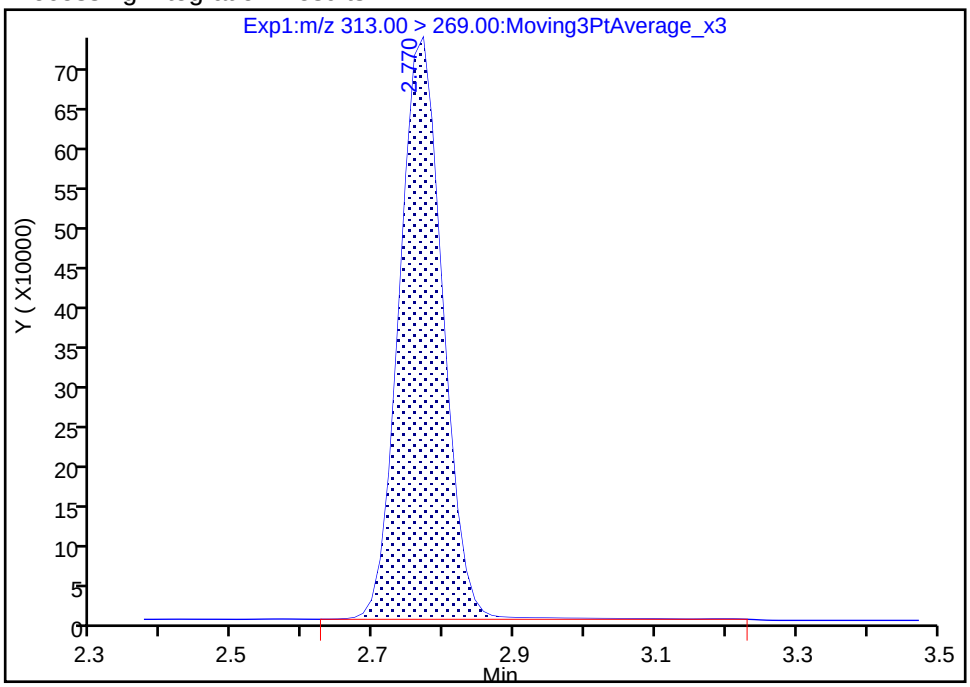
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

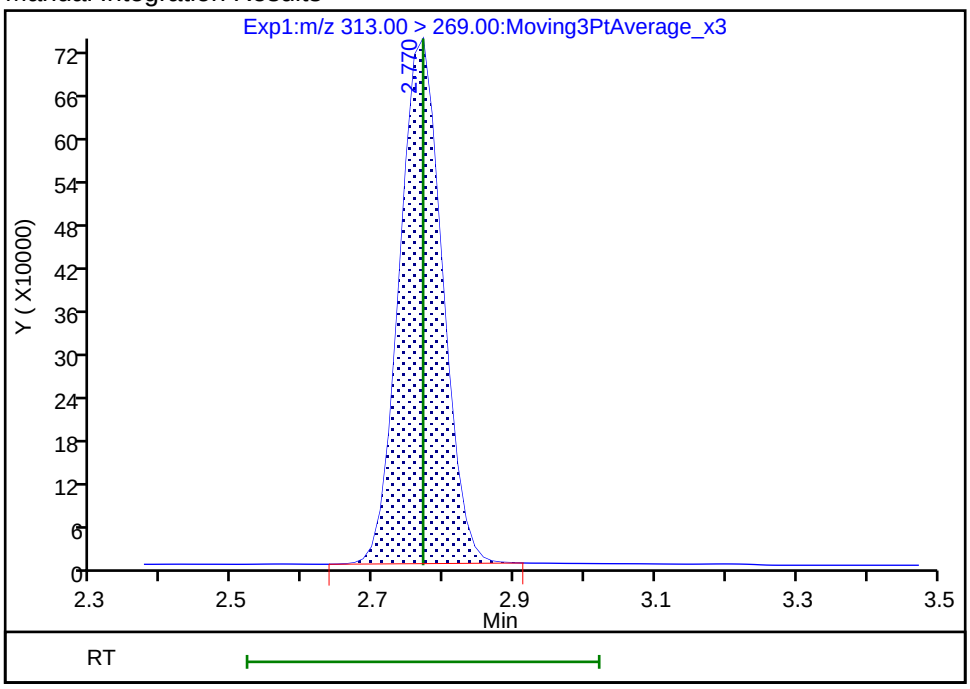
Processing Integration Results

RT: 2.77
Area: 3107064
Amount: 2.330701
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3078289
Amount: 2.309116
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

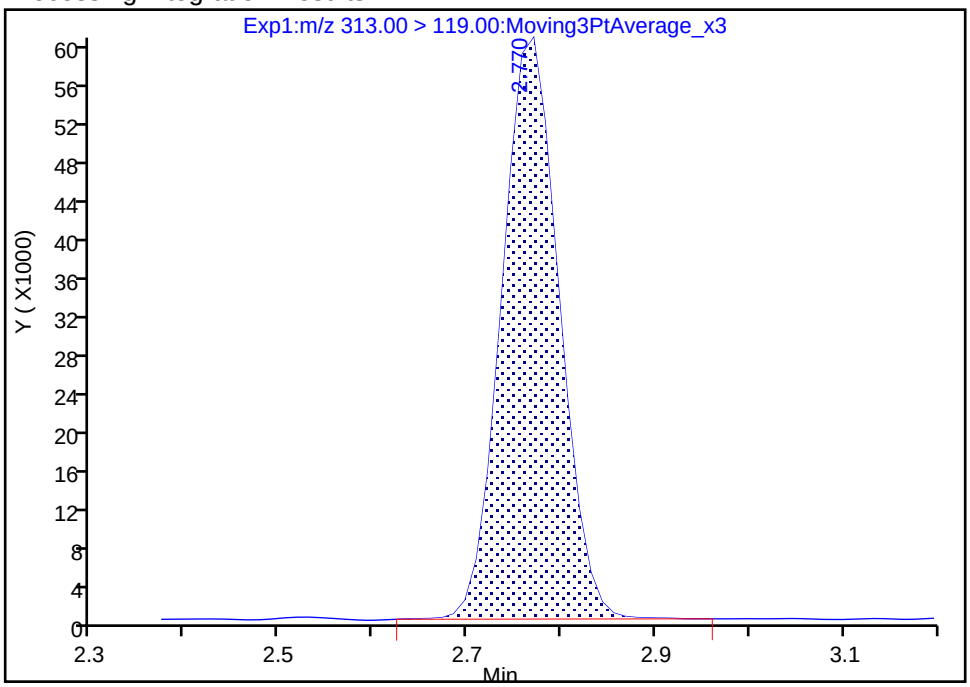
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

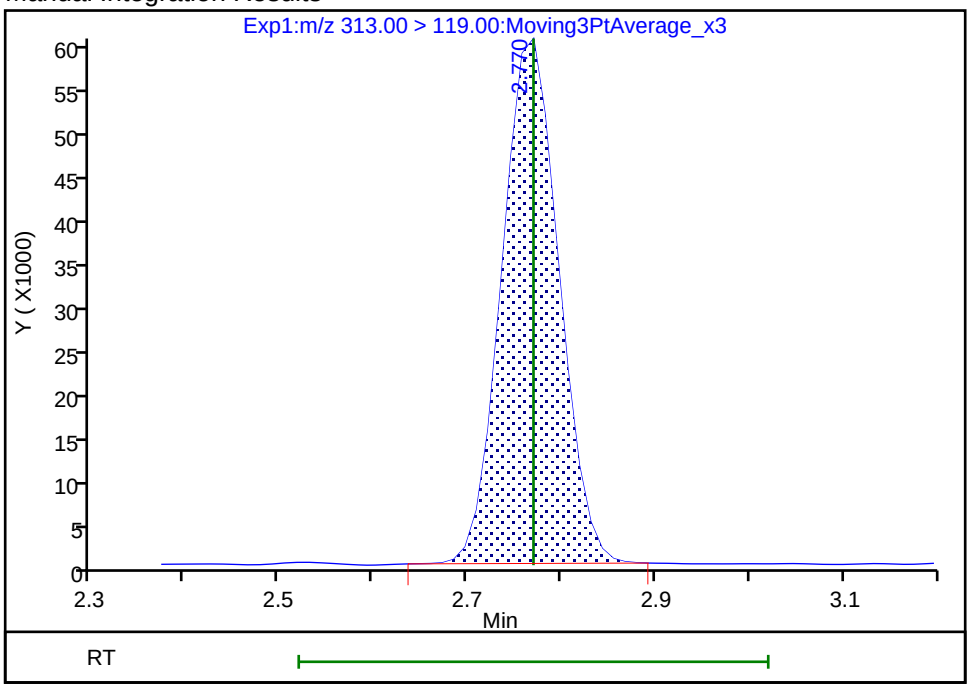
Processing Integration Results

RT: 2.77
Area: 255059
Amount: 2.330701
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 253815
Amount: 2.309116
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

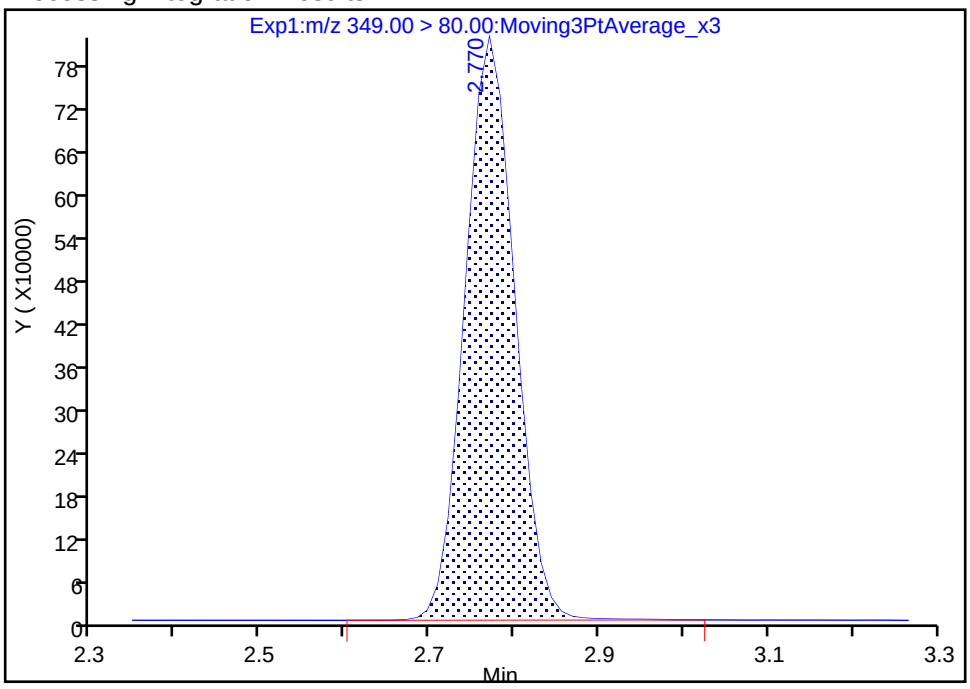
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

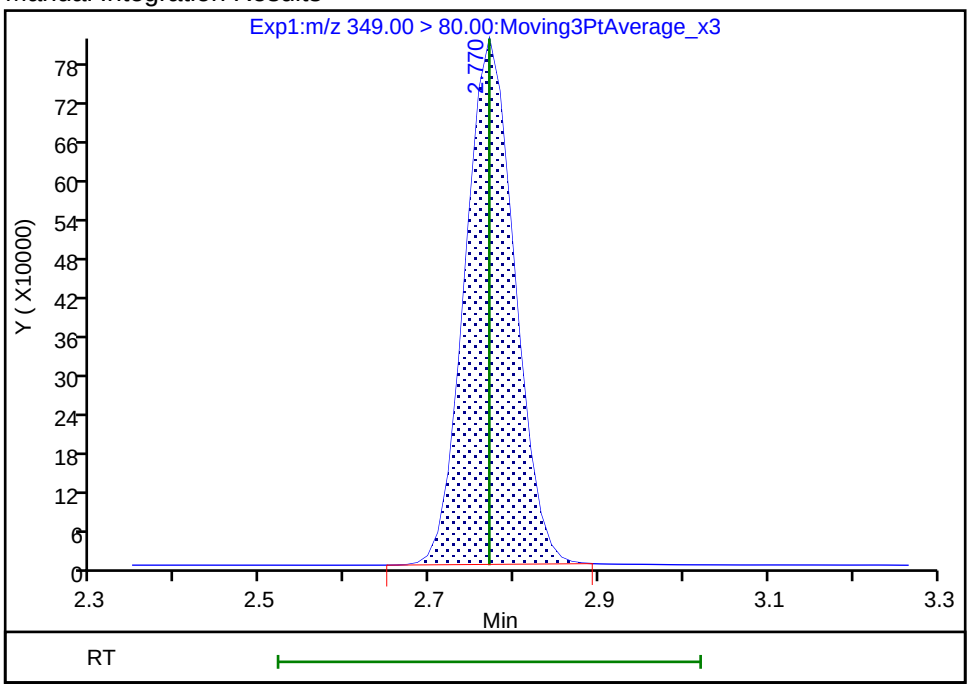
Processing Integration Results

RT: 2.77
Area: 3327326
Amount: 2.293921
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3306632
Amount: 2.279654
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

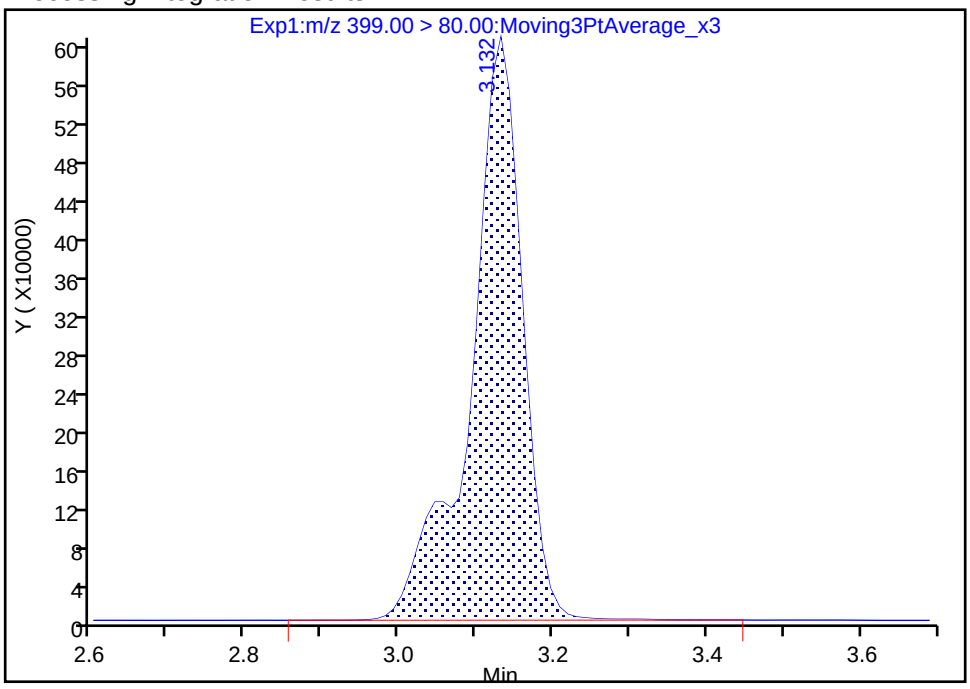
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

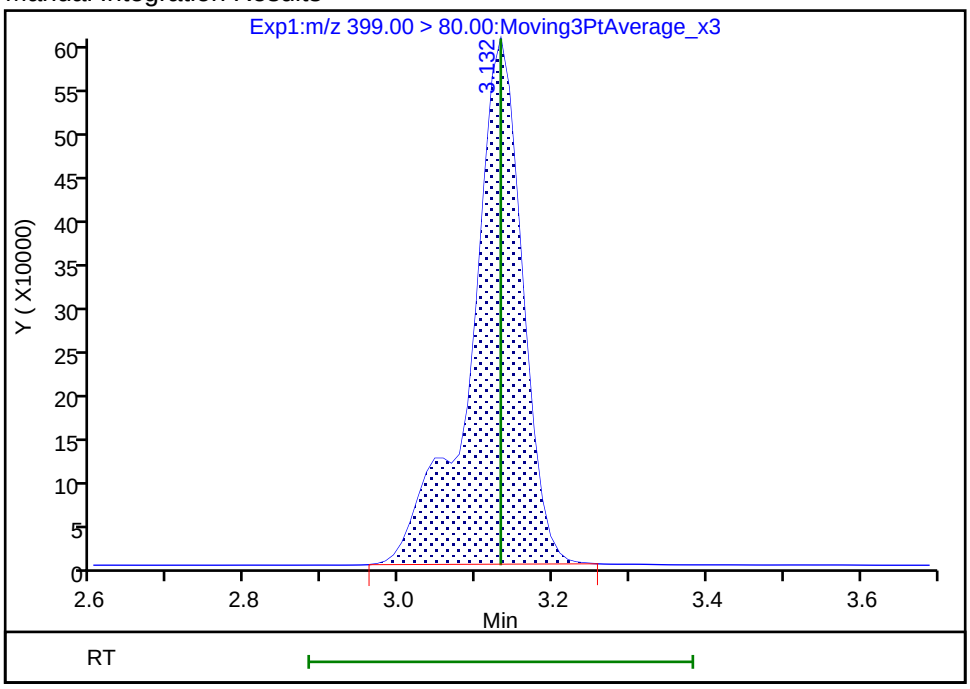
Processing Integration Results

RT: 3.13
Area: 2822627
Amount: 2.131451
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2800374
Amount: 2.114647
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

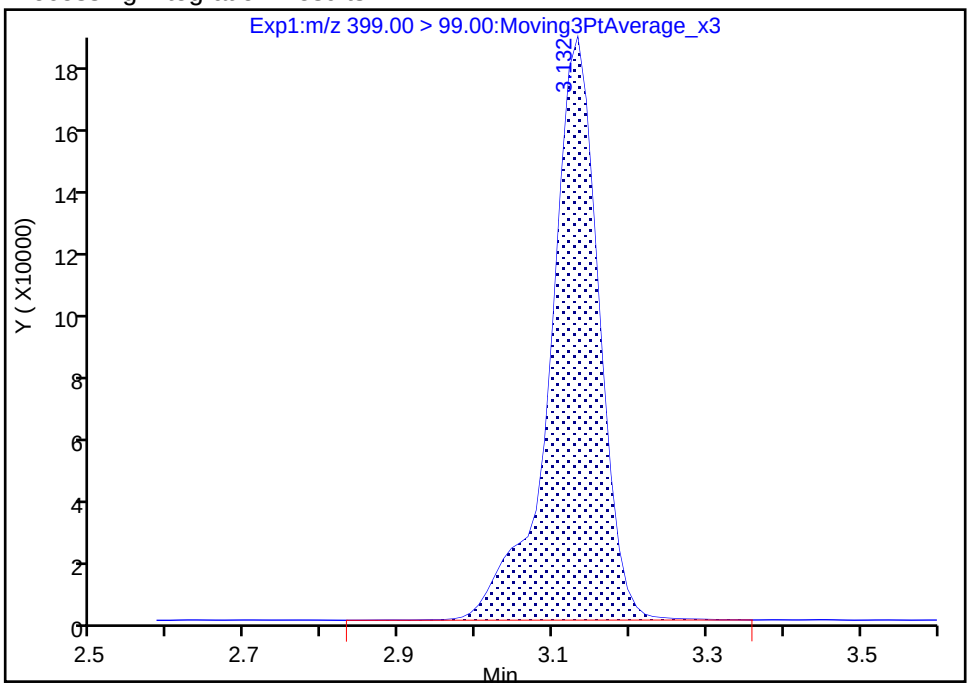
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

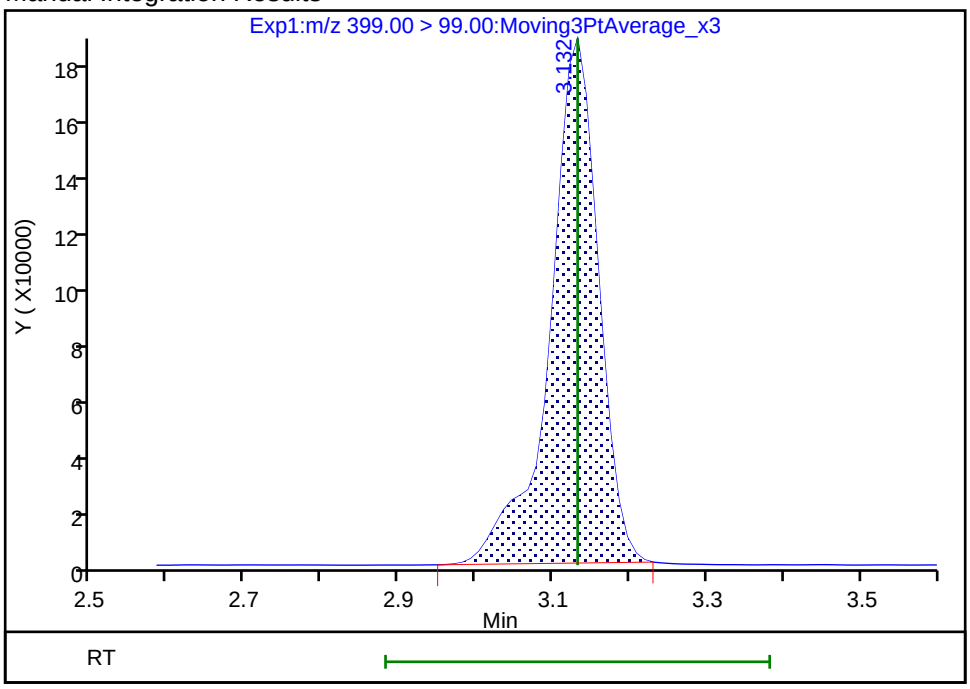
Processing Integration Results

RT: 3.13
Area: 798815
Amount: 2.131451
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 787269
Amount: 2.114647
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

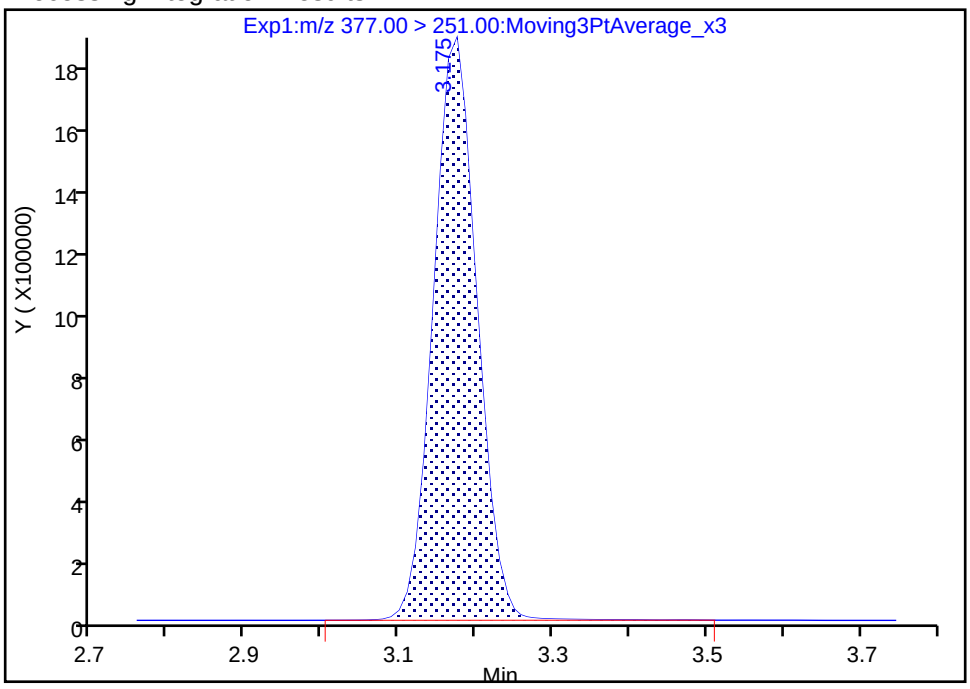
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

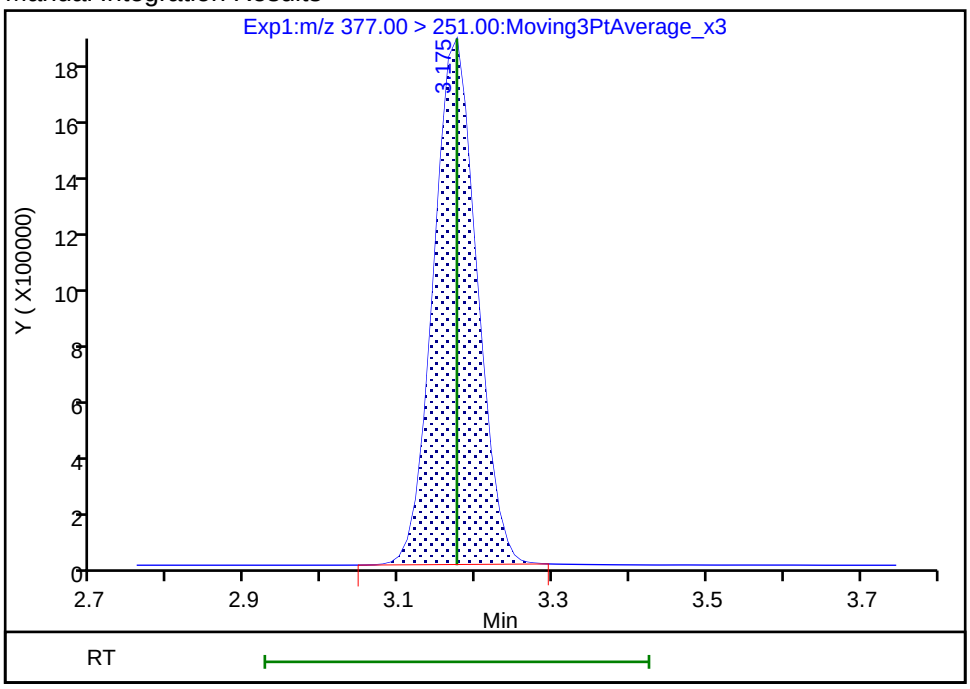
Processing Integration Results

RT: 3.18
Area: 7135745
Amount: 2.342515
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 7087700
Amount: 2.326743
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

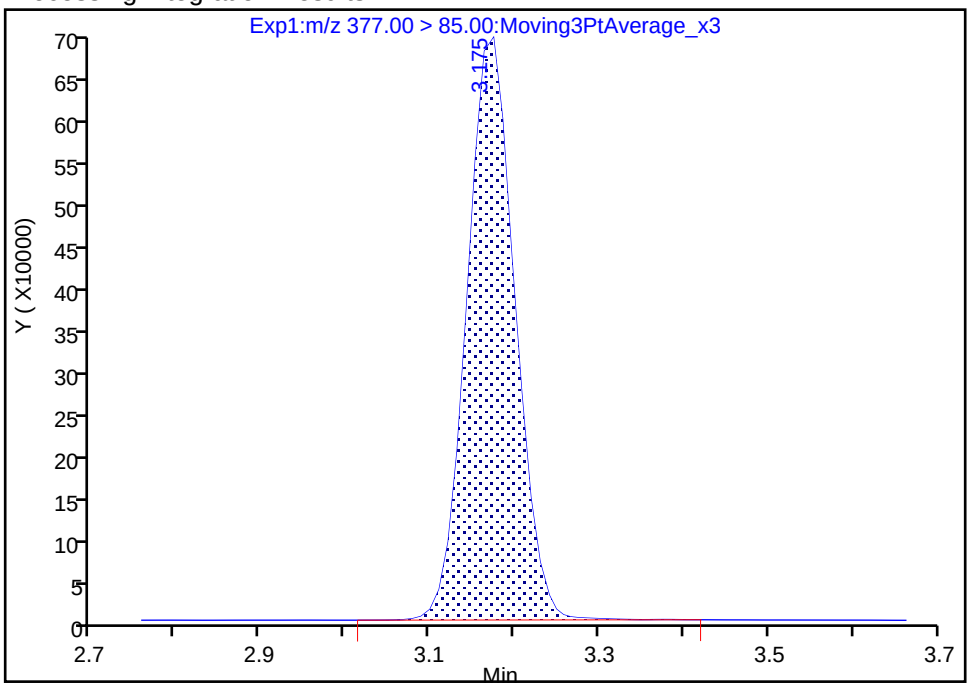
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

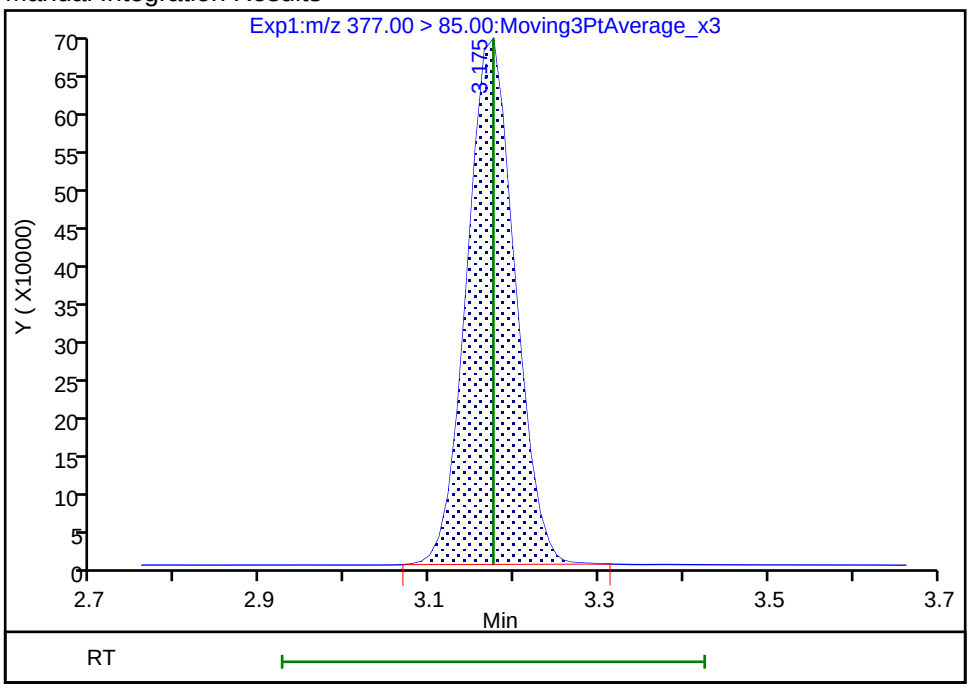
Processing Integration Results

RT: 3.18
Area: 2746374
Amount: 2.342515
Amount Units: ng/ml




Manual Integration Results

RT: 3.18
Area: 2733479
Amount: 2.326743
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

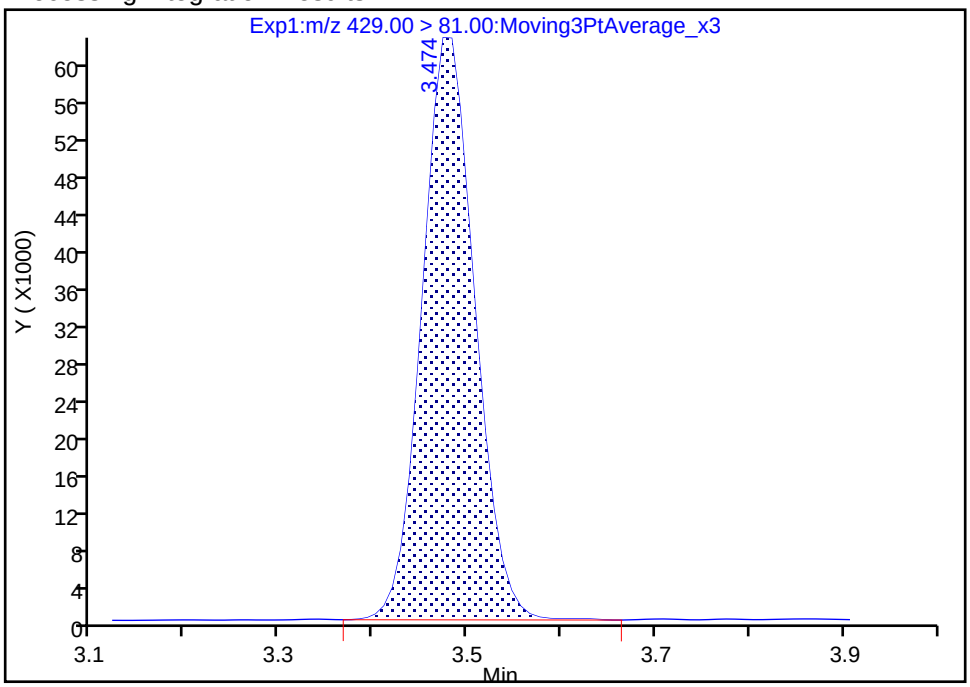
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 12 M2-6:2 FTS, CAS: STL02279

Signal: 1

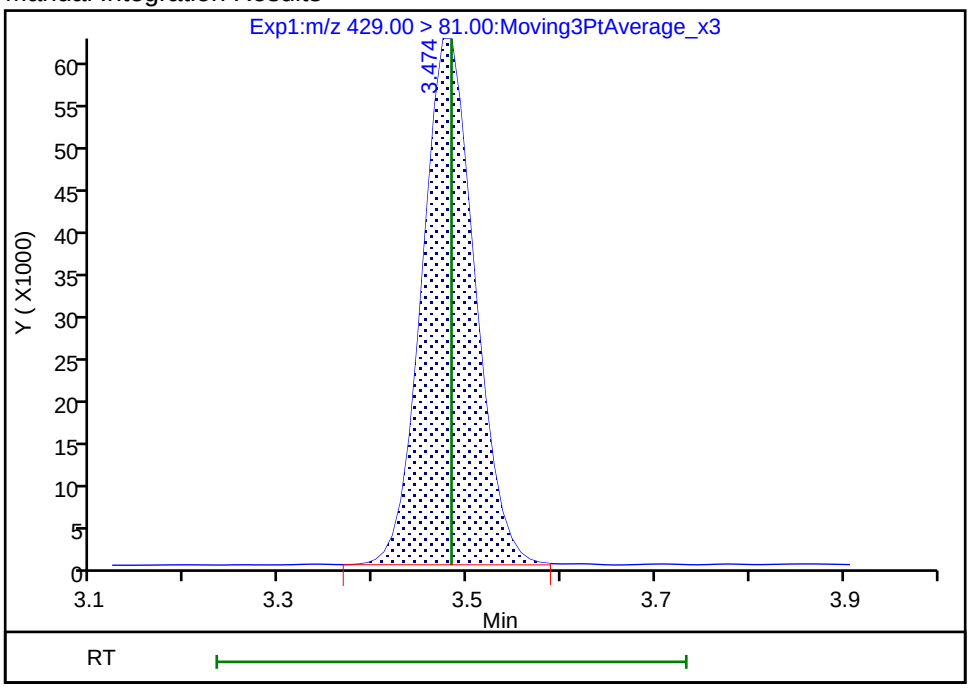
Processing Integration Results

RT: 3.47
Area: 243783
Amount: 1.355429
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 243394
Amount: 1.353266
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

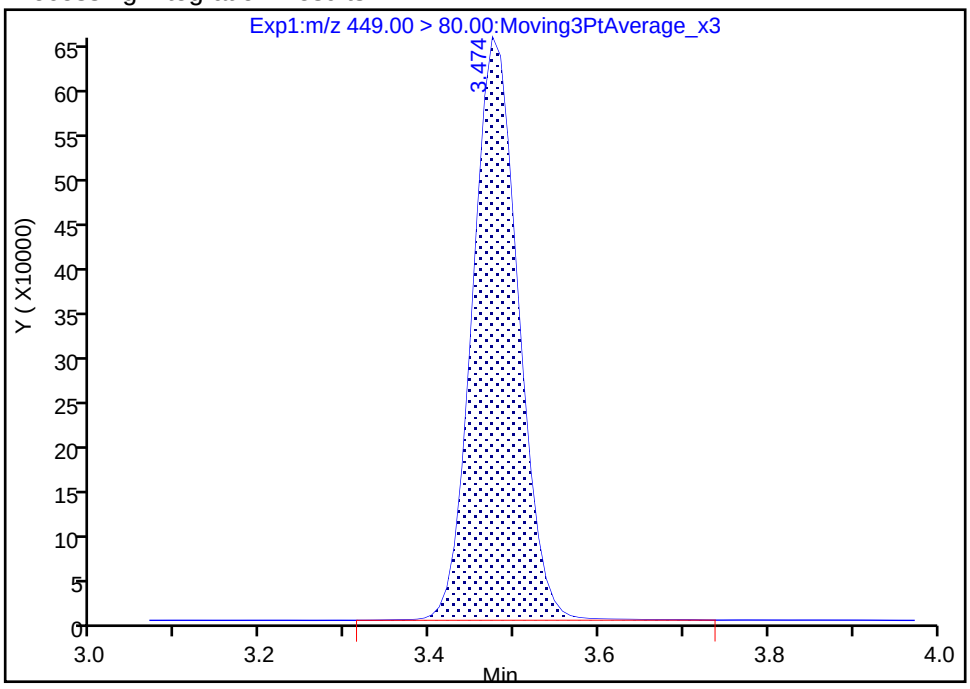
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

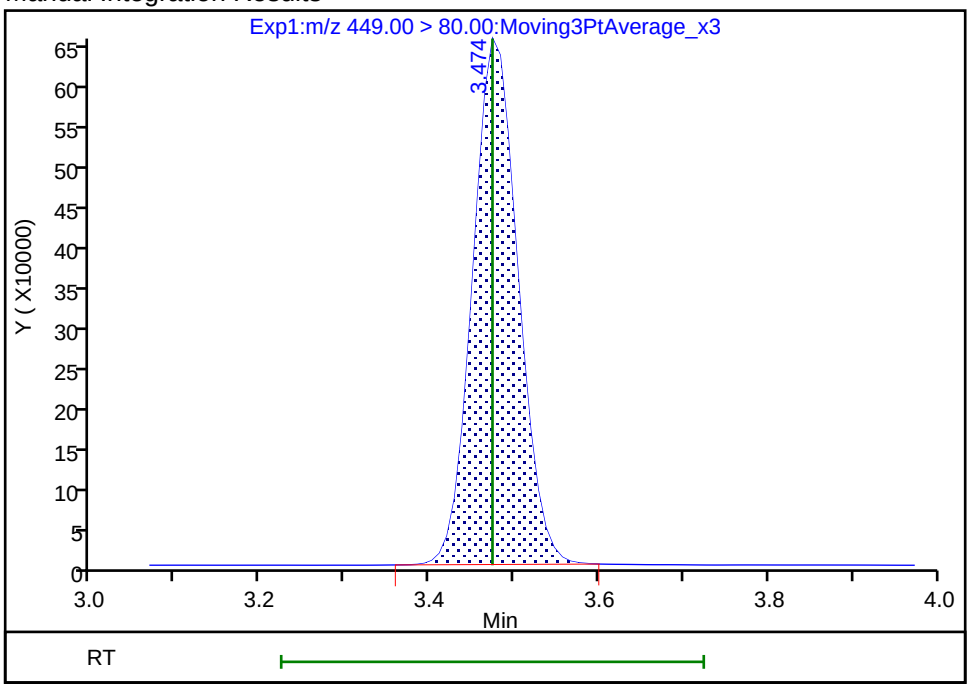
Processing Integration Results

RT: 3.47
Area: 2439776
Amount: 2.248650
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 2423566
Amount: 2.233710
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

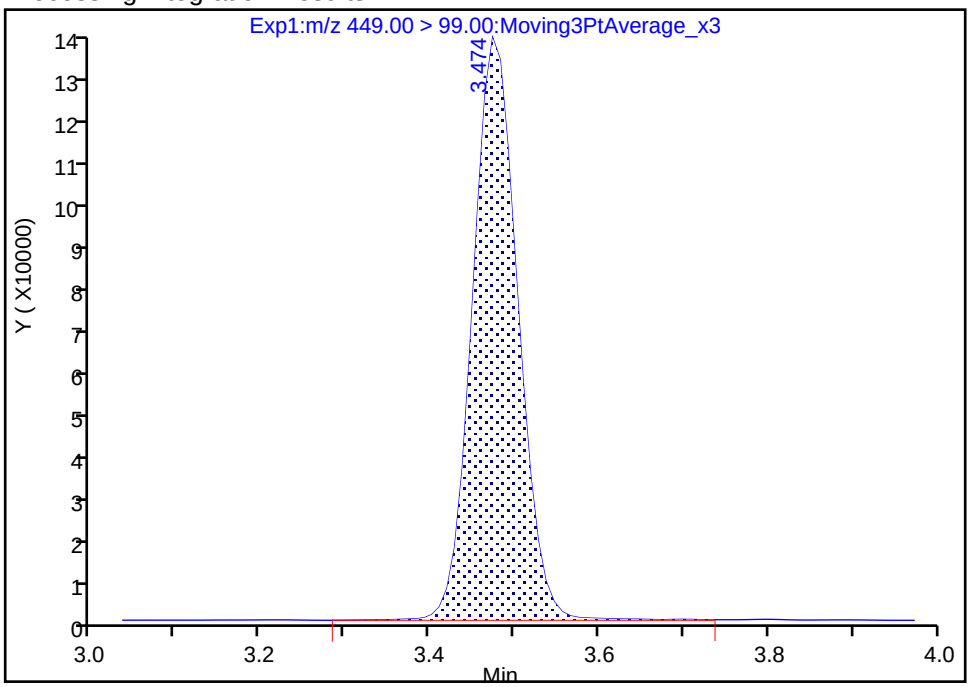
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

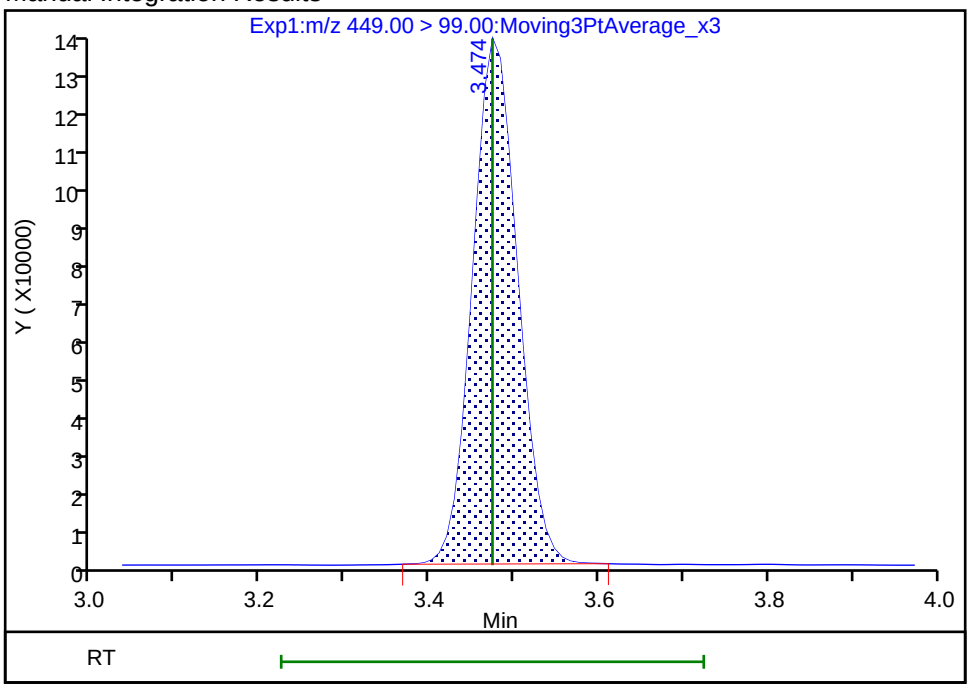
Processing Integration Results

RT: 3.47
Area: 495015
Amount: 2.248650
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 488645
Amount: 2.233710
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

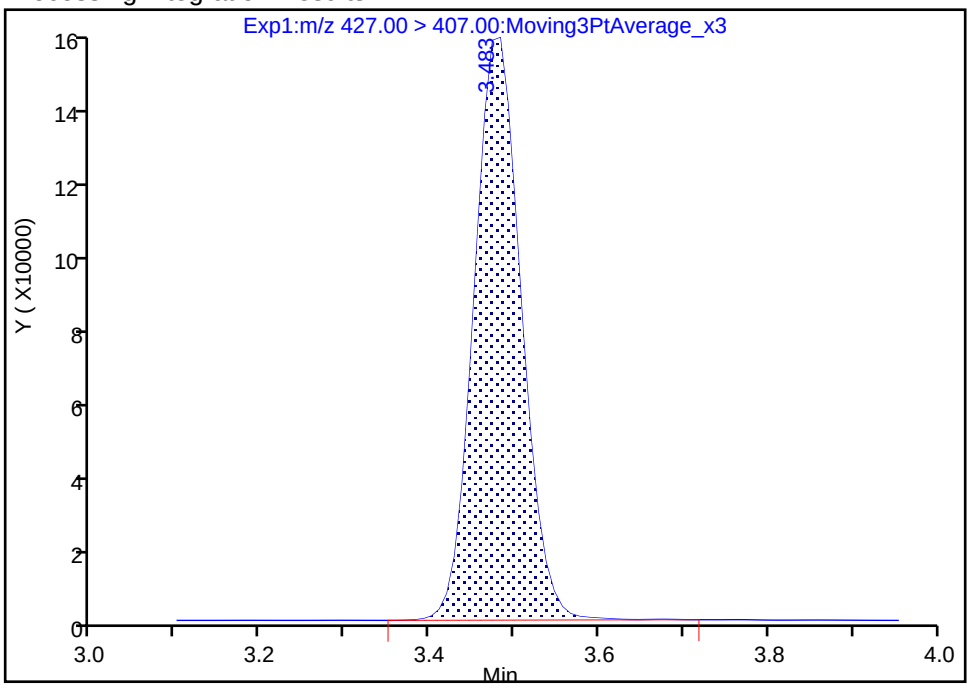
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

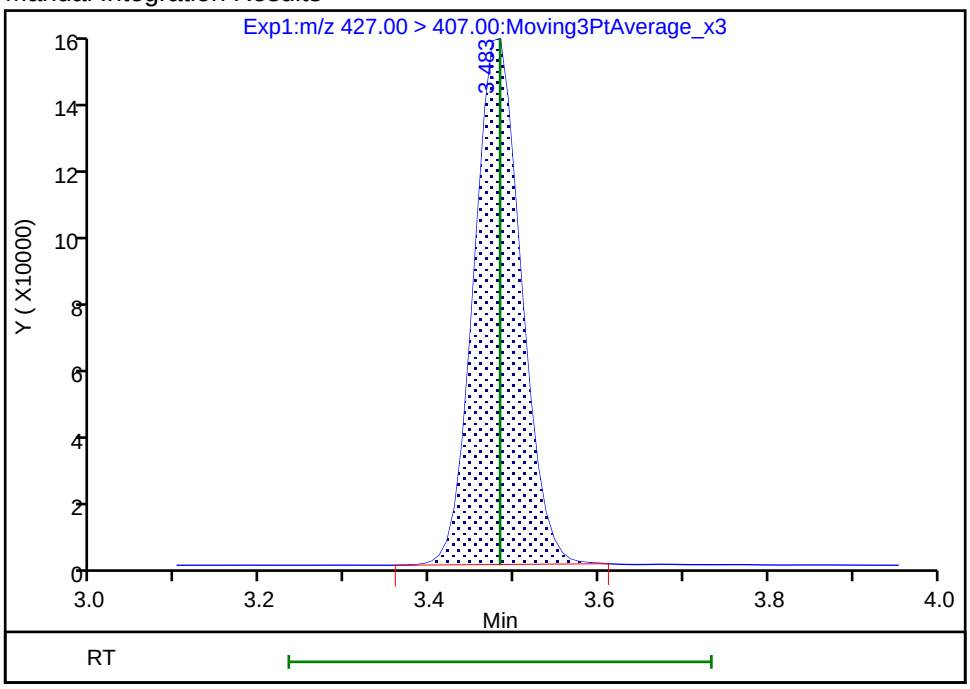
Processing Integration Results

RT: 3.48
Area: 604723
Amount: 2.322902
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 601688
Amount: 2.314938
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:23:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

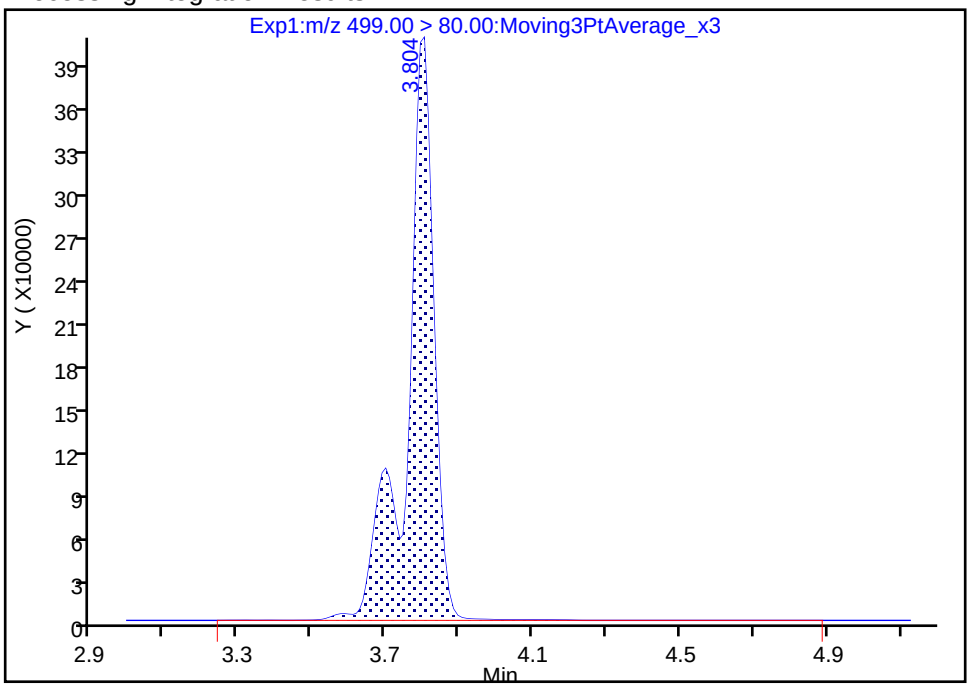
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

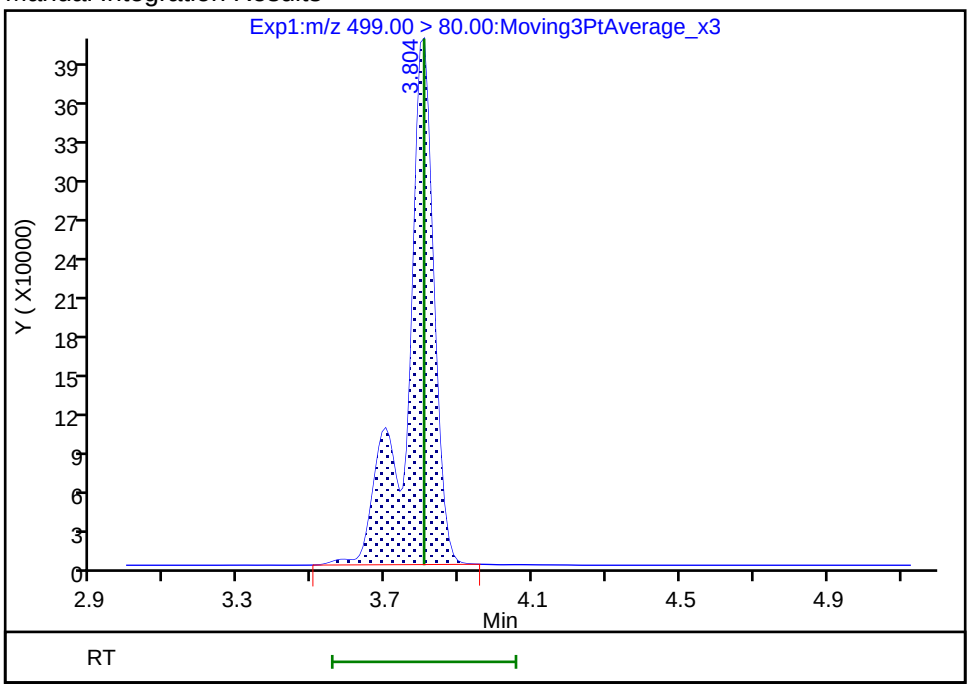
RT: 3.80
Area: 2067790
Amount: 2.189581
Amount Units: ng/ml

Processing Integration Results




Manual Integration Results

RT: 3.80
Area: 2049498
Amount: 2.170212
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

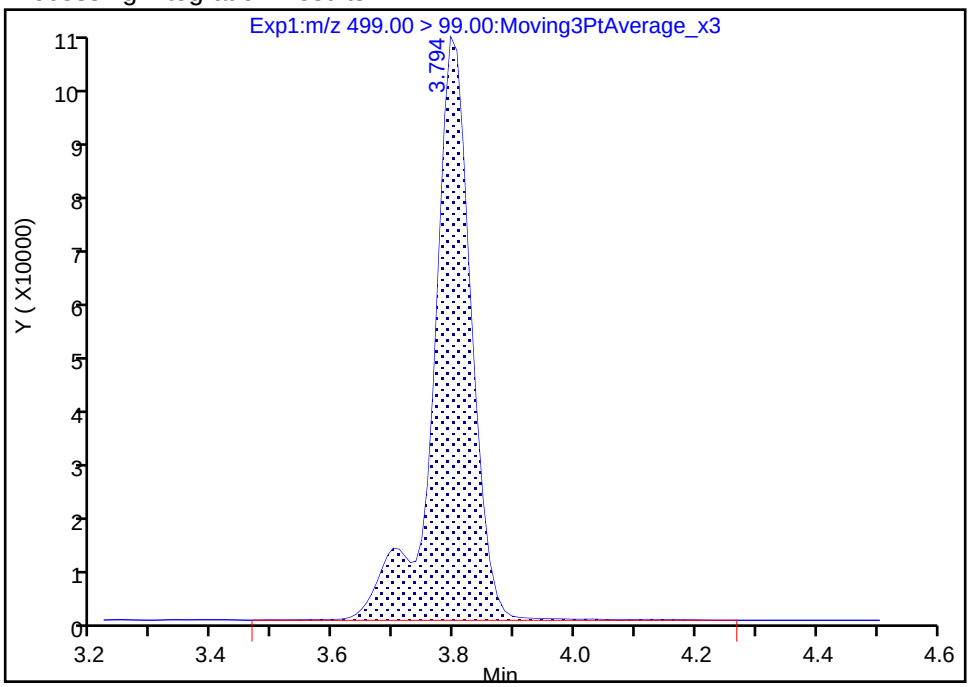
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

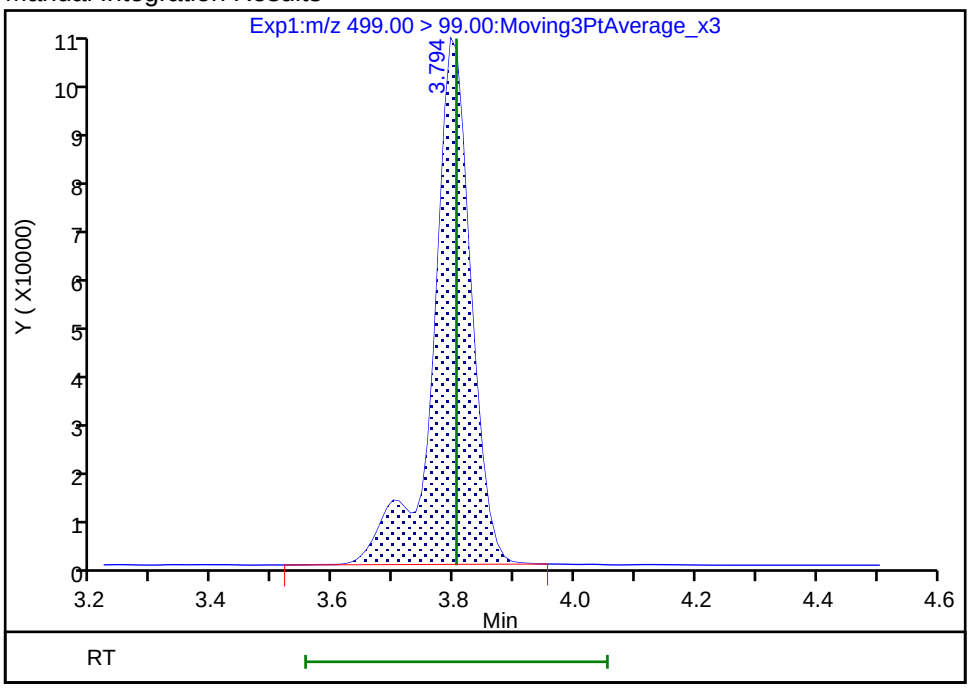
Processing Integration Results

RT: 3.79
Area: 448362
Amount: 2.189581
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 443084
Amount: 2.170212
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

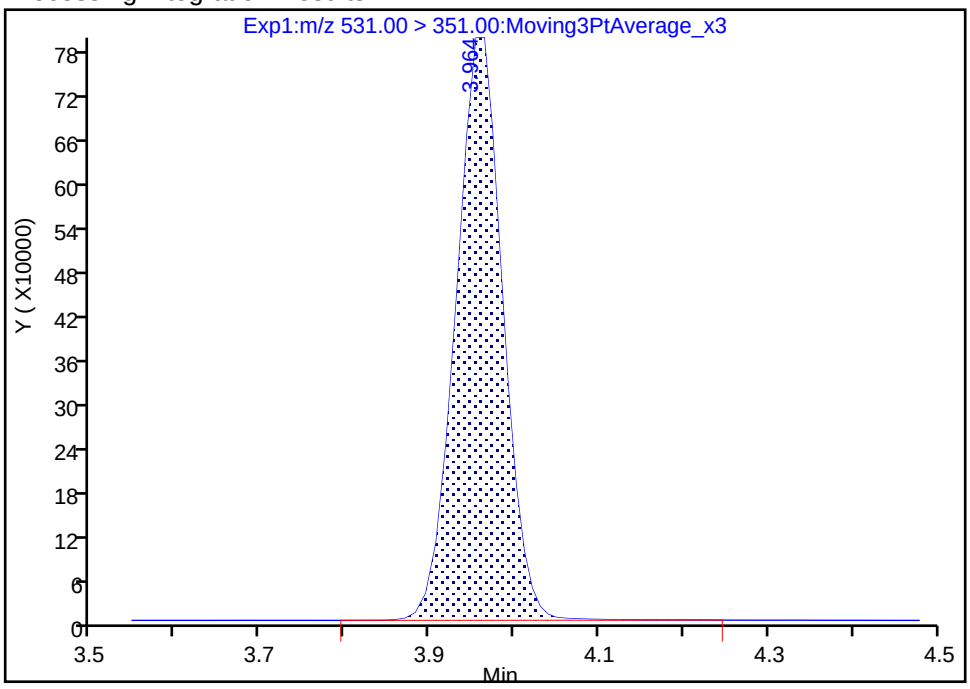
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

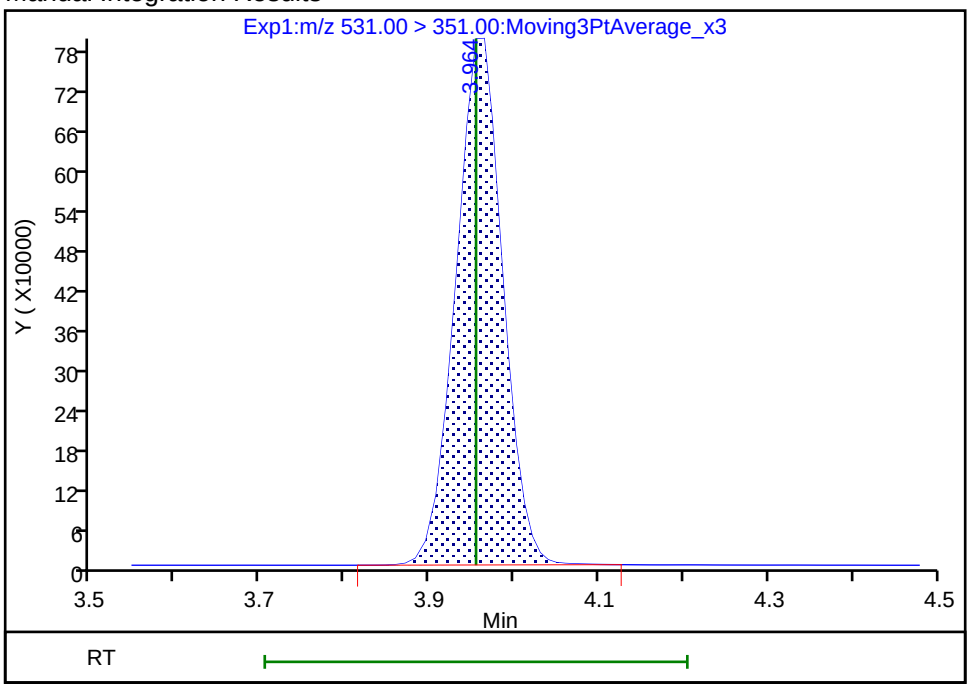
Processing Integration Results

RT: 3.96
Area: 3045109
Amount: 2.140320
Amount Units: ng/ml




Manual Integration Results

RT: 3.96
Area: 3037261
Amount: 2.134804
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

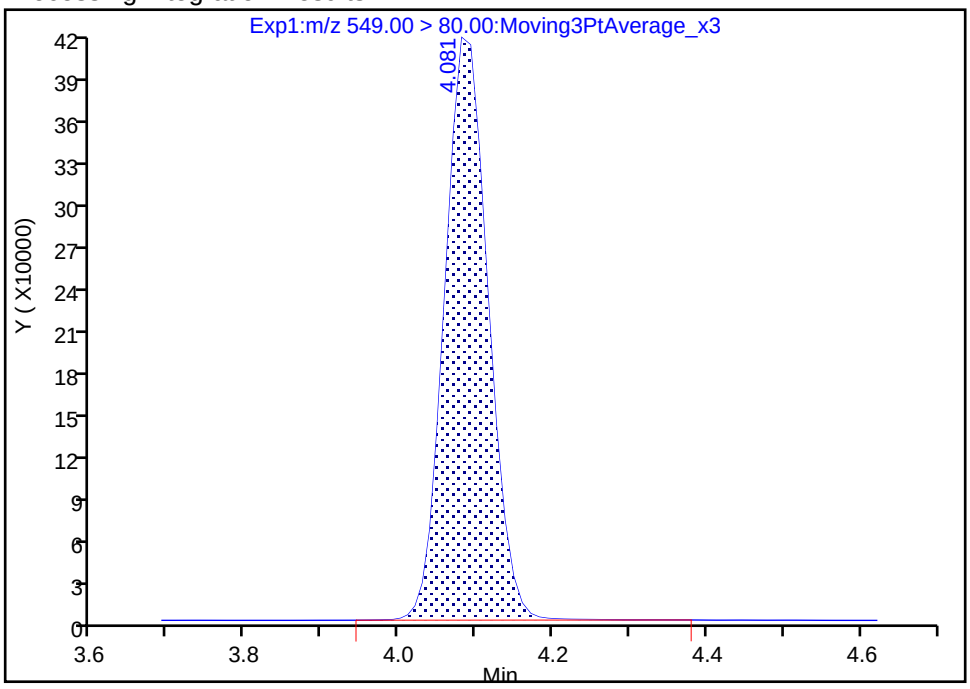
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

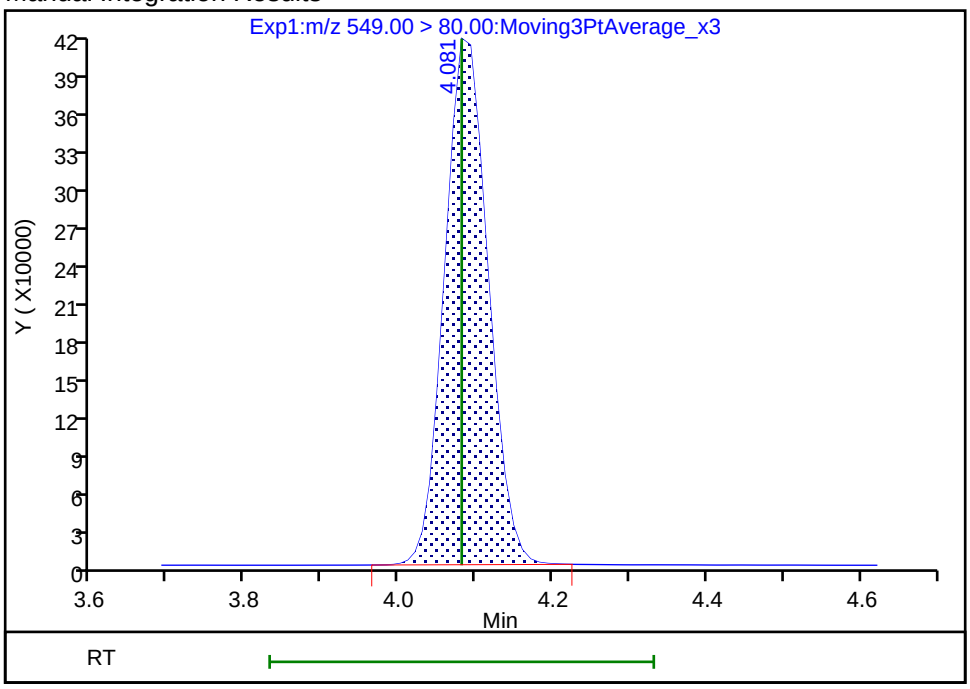
Processing Integration Results

RT: 4.08
Area: 1619005
Amount: 2.200852
Amount Units: ng/ml




Manual Integration Results

RT: 4.08
Area: 1613314
Amount: 2.193115
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

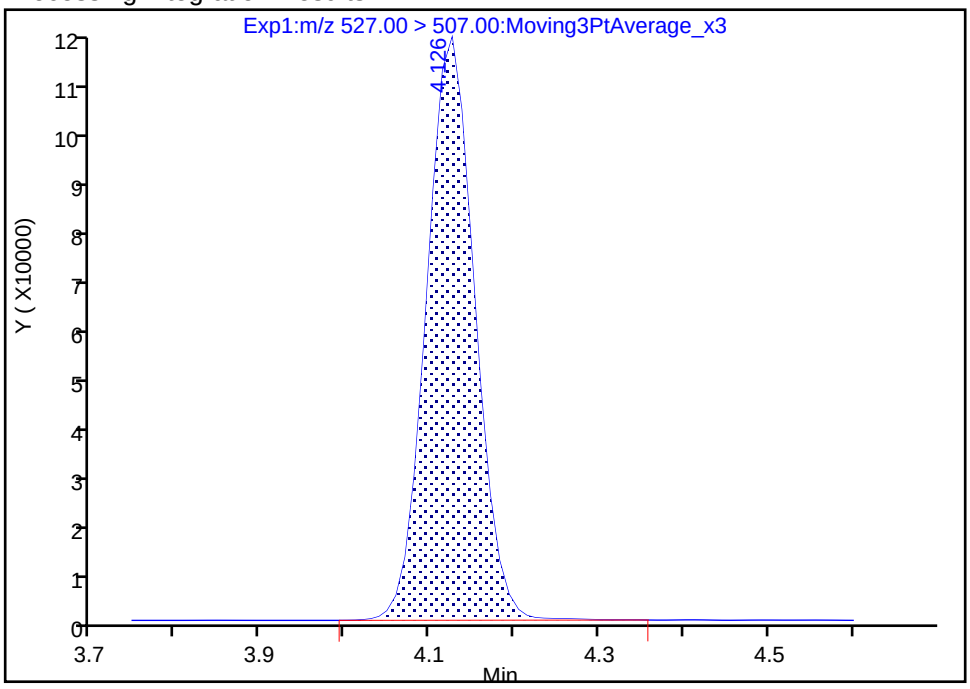
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

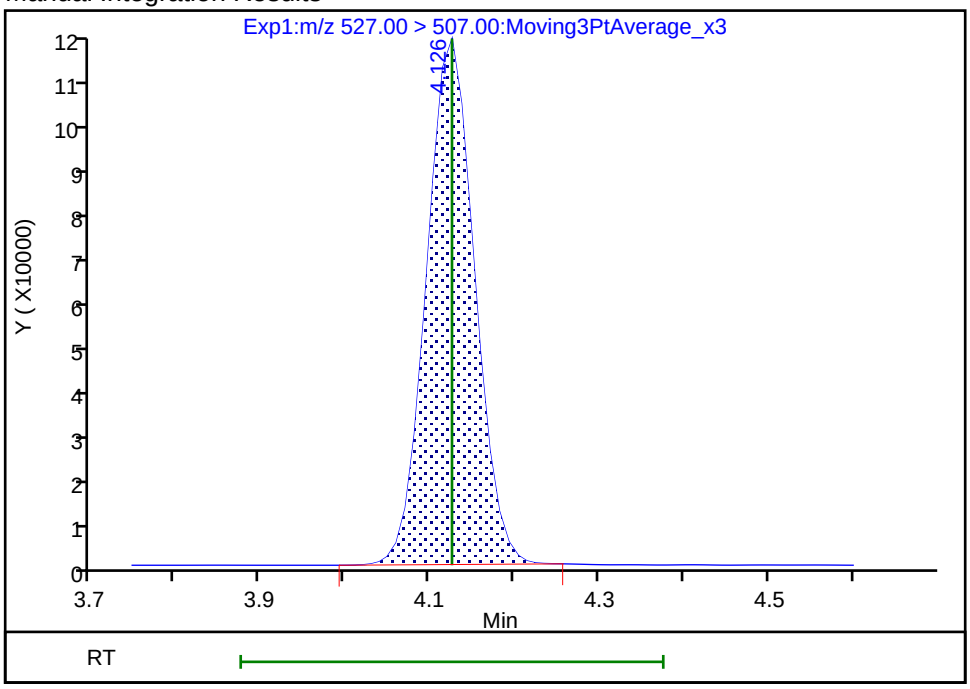
Processing Integration Results

RT: 4.13
Area: 464673
Amount: 2.125407
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 462024
Amount: 2.113290
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

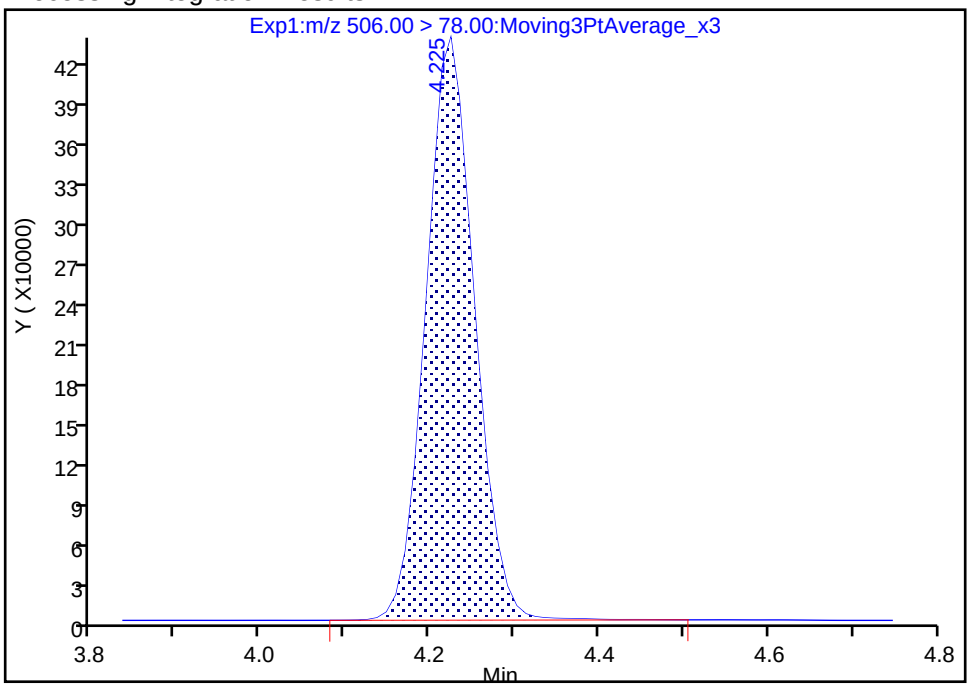
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 21 13C8 FOSA, CAS: STL01056

Signal: 1

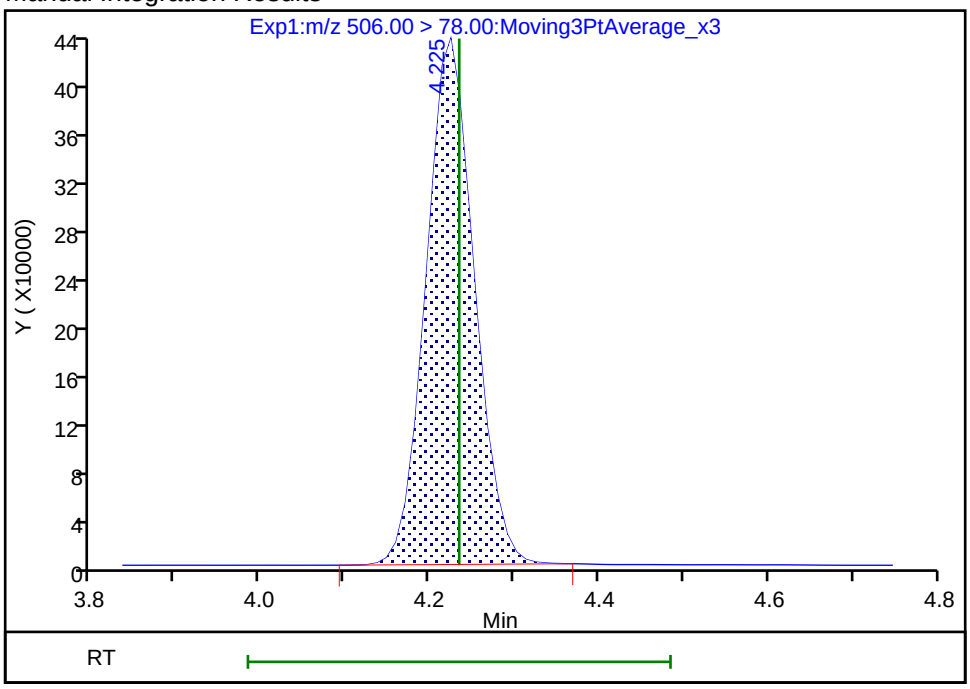
Processing Integration Results

RT: 4.22
Area: 1731647
Amount: 1.275739
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1720832
Amount: 1.267771
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

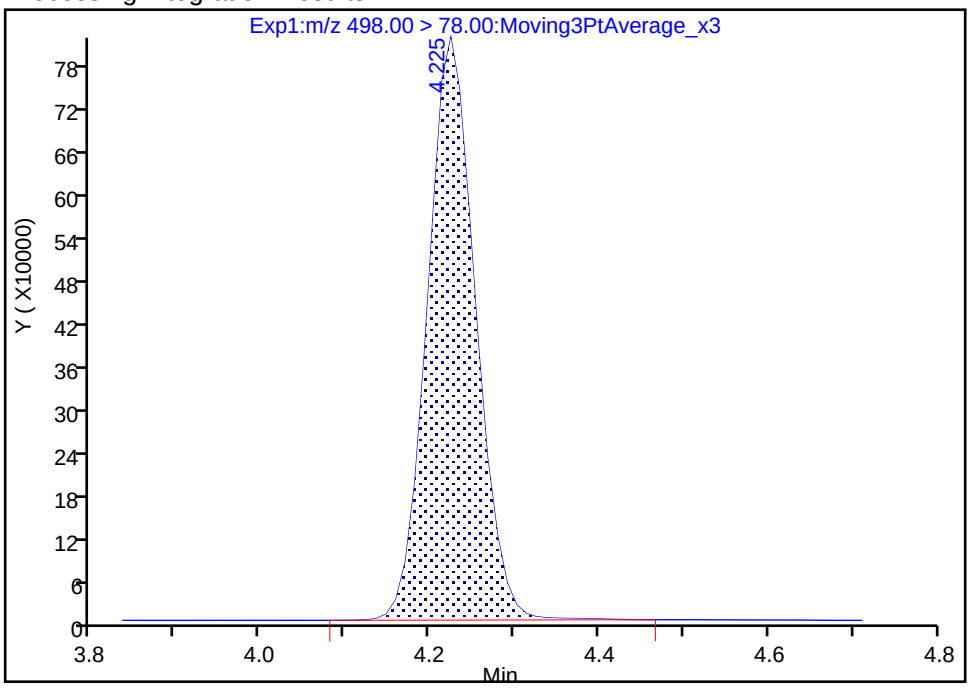
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

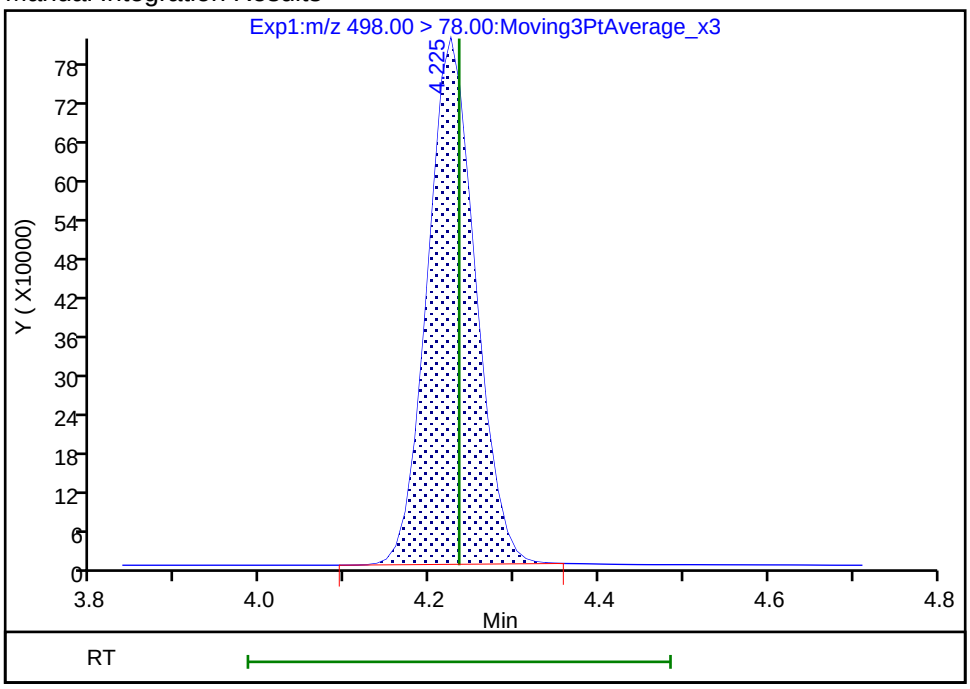
Processing Integration Results

RT: 4.22
Area: 3213688
Amount: 2.442726
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 3191103
Amount: 2.440803
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:24:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

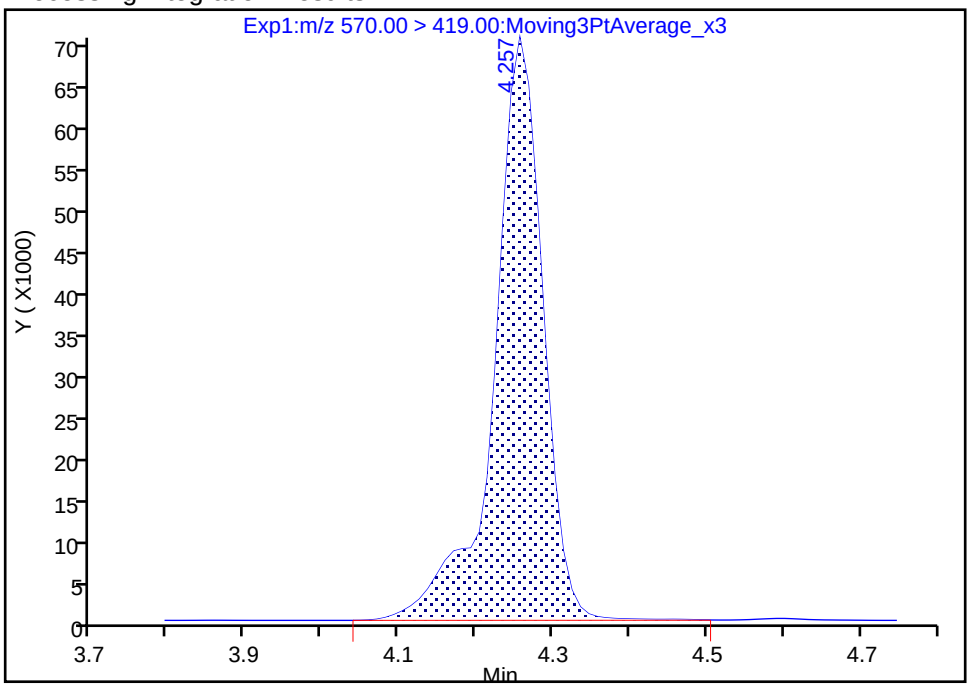
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

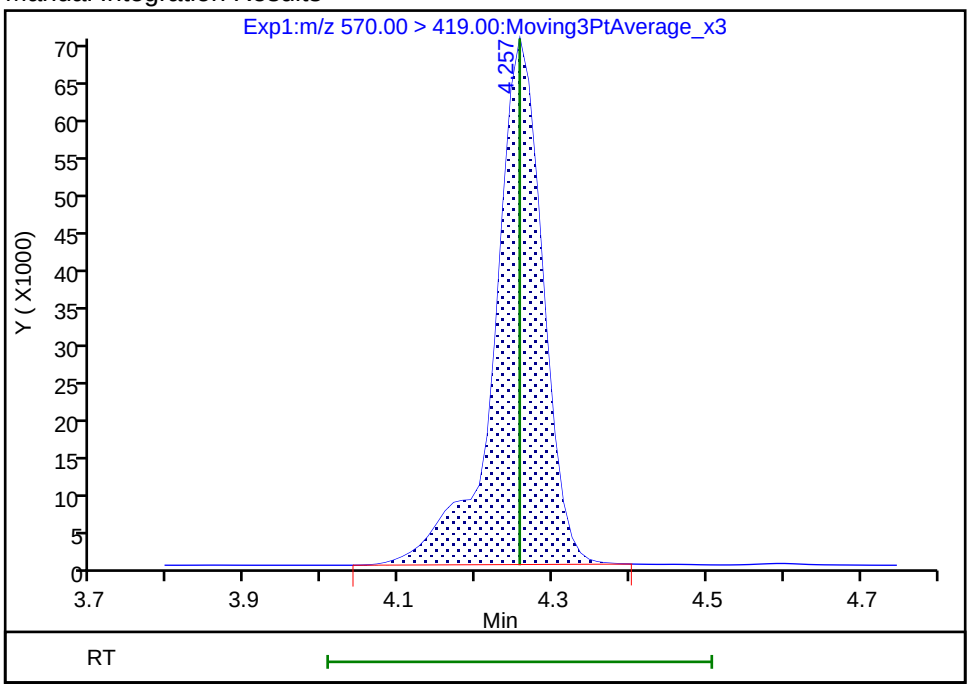
Processing Integration Results

RT: 4.26
Area: 313597
Amount: 2.598402
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 311431
Amount: 2.580455
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

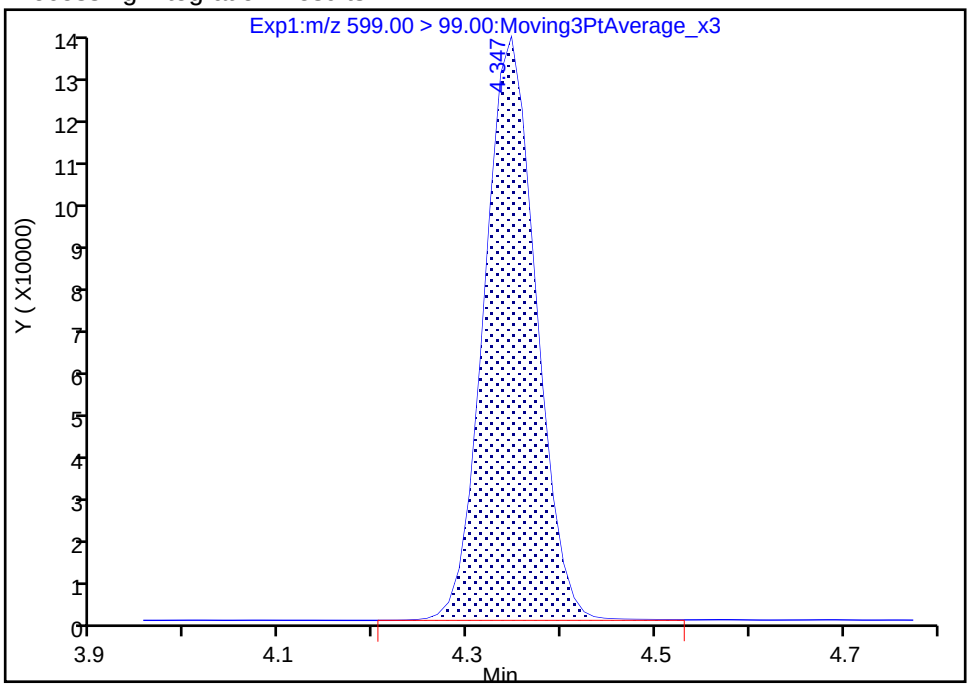
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

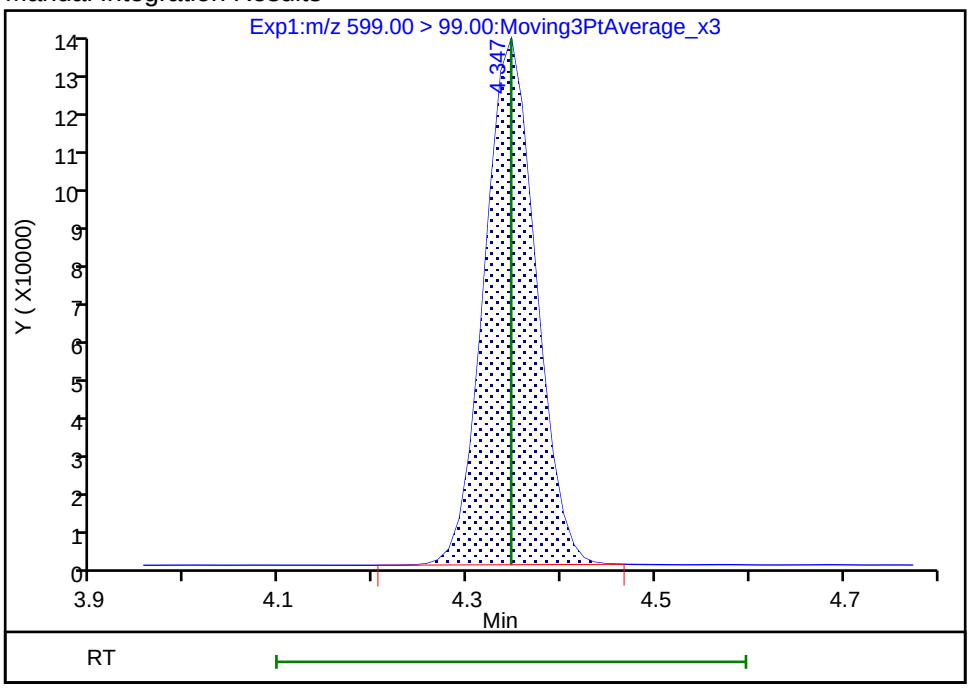
Processing Integration Results

RT: 4.35
Area: 497524
Amount: 2.325596
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 495158
Amount: 2.325596
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

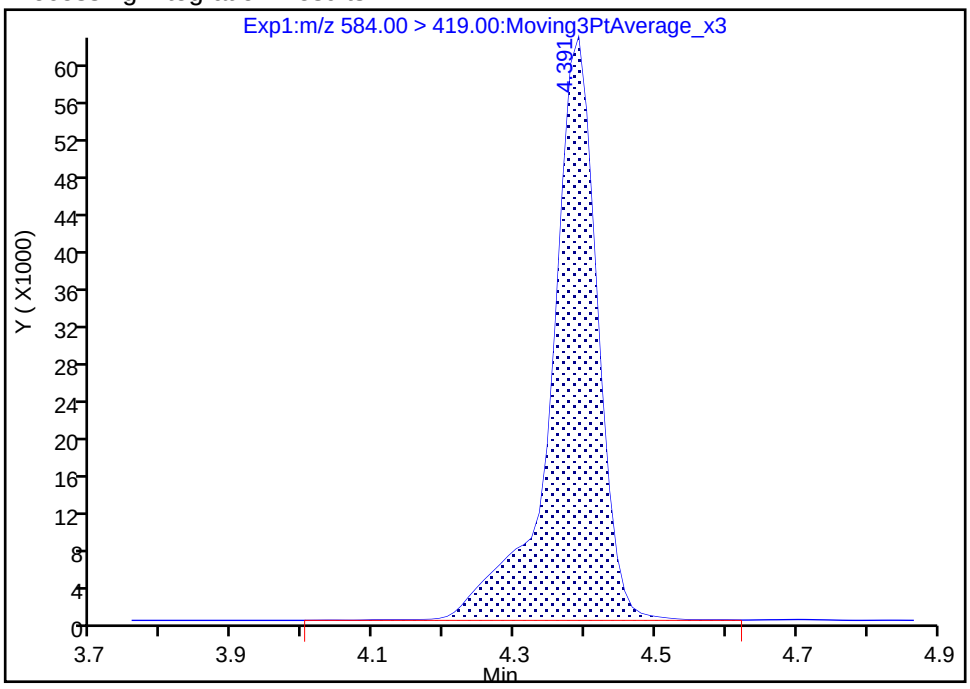
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

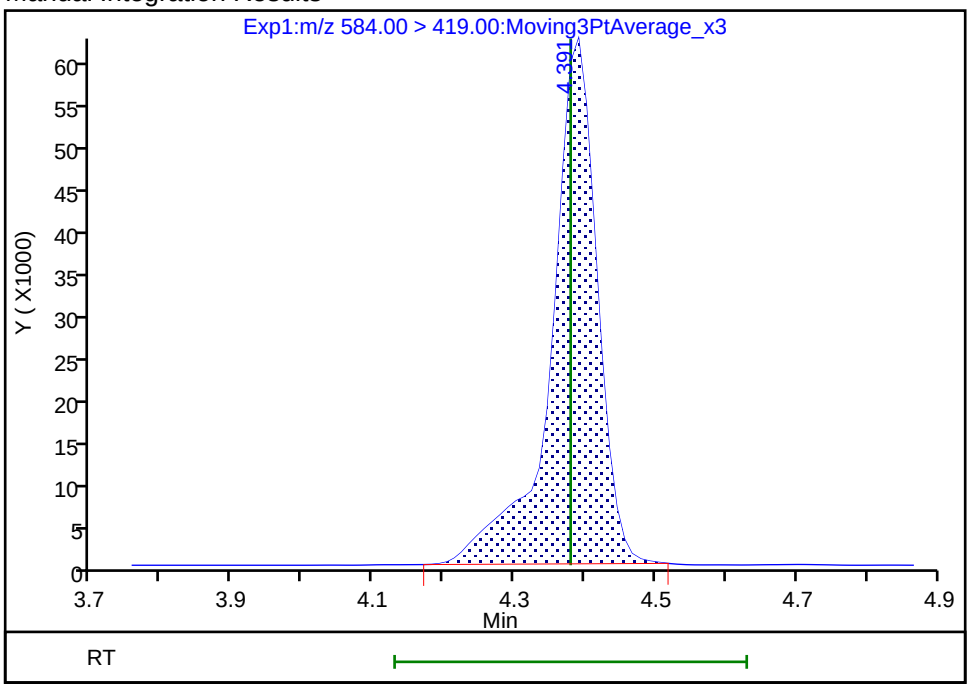
Processing Integration Results

RT: 4.39
Area: 286262
Amount: 2.360230
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 282399
Amount: 2.328380
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

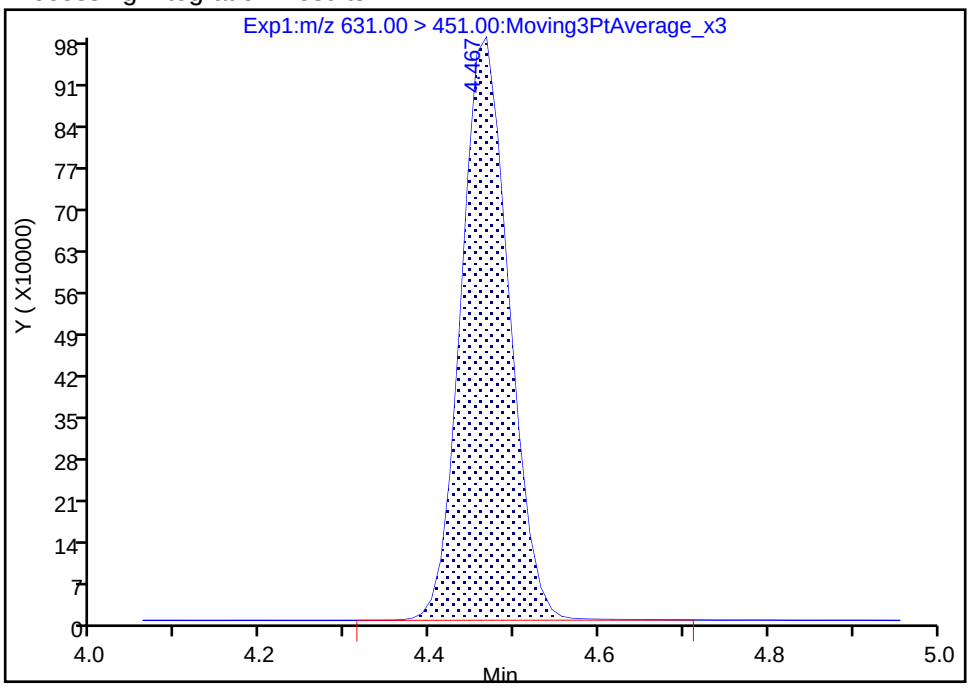
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

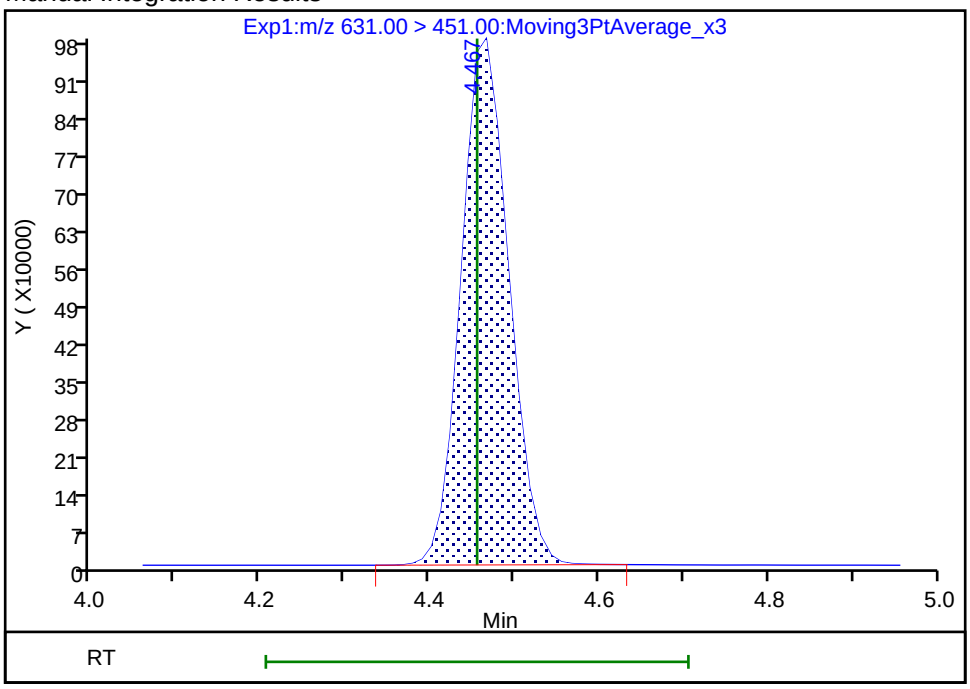
Processing Integration Results

RT: 4.47
Area: 3843460
Amount: 2.287469
Amount Units: ng/ml




Manual Integration Results

RT: 4.47
Area: 3835431
Amount: 2.282690
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

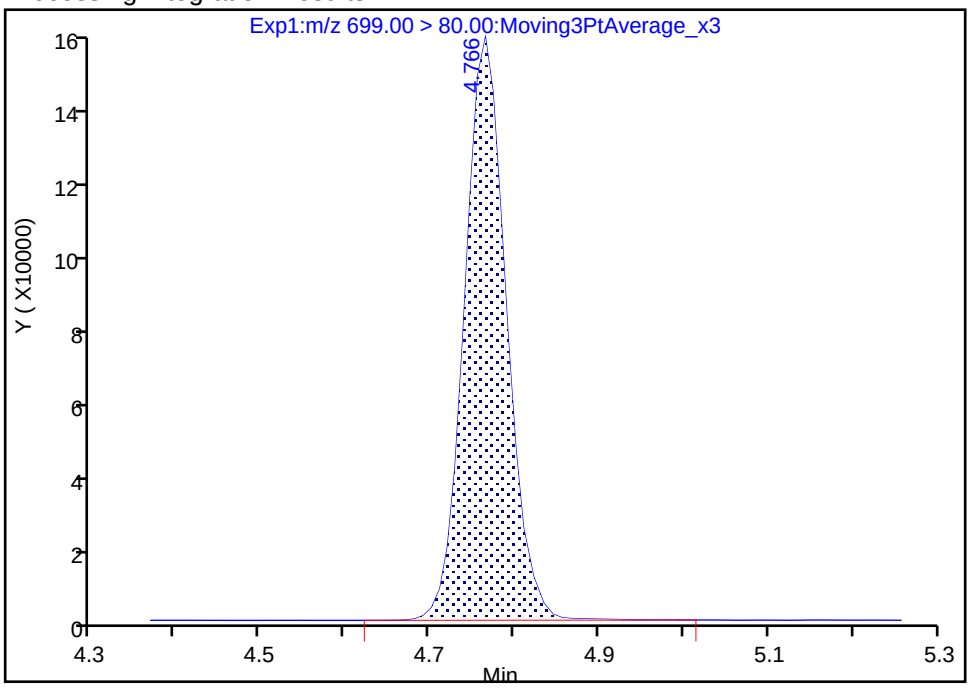
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d | | | | |
| Injection Date: | 10-Nov-2021 07:53:19 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

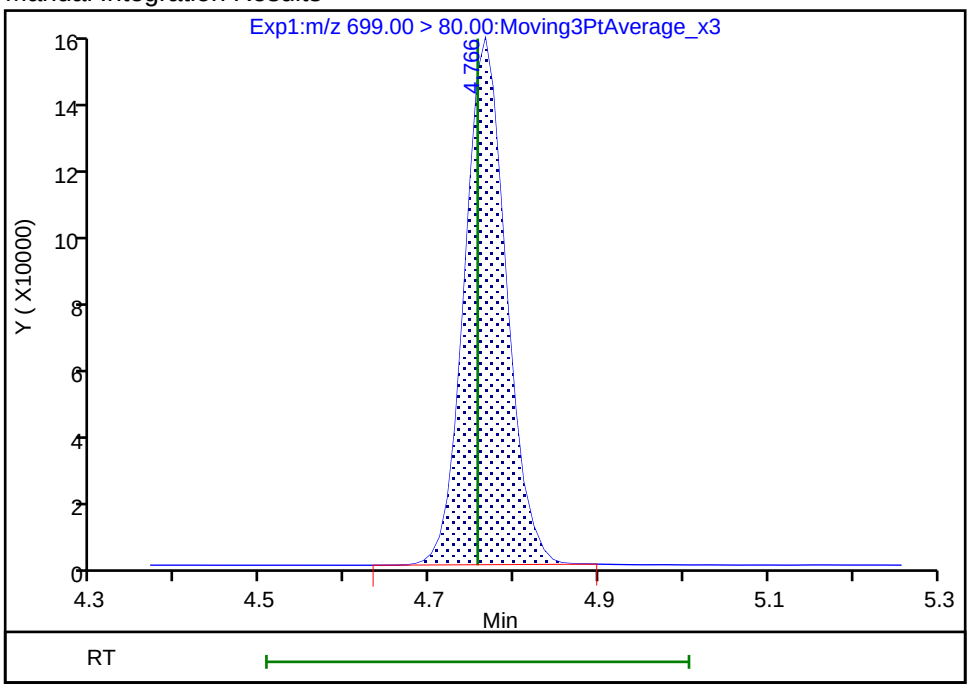
Processing Integration Results

RT: 4.77
Area: 526552
Amount: 2.503022
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 523878
Amount: 2.490311
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

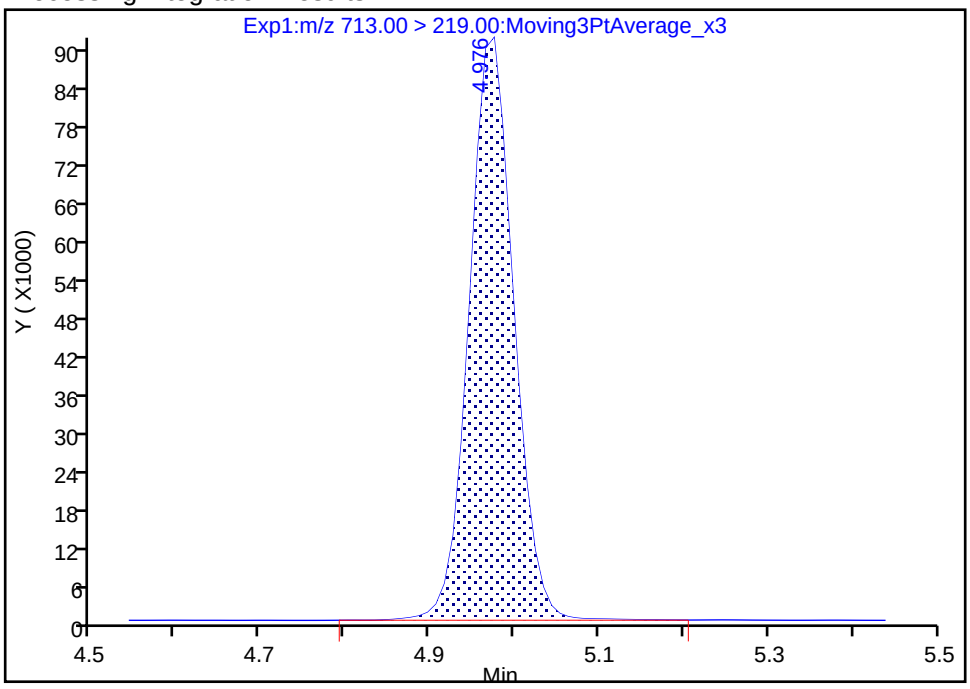
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

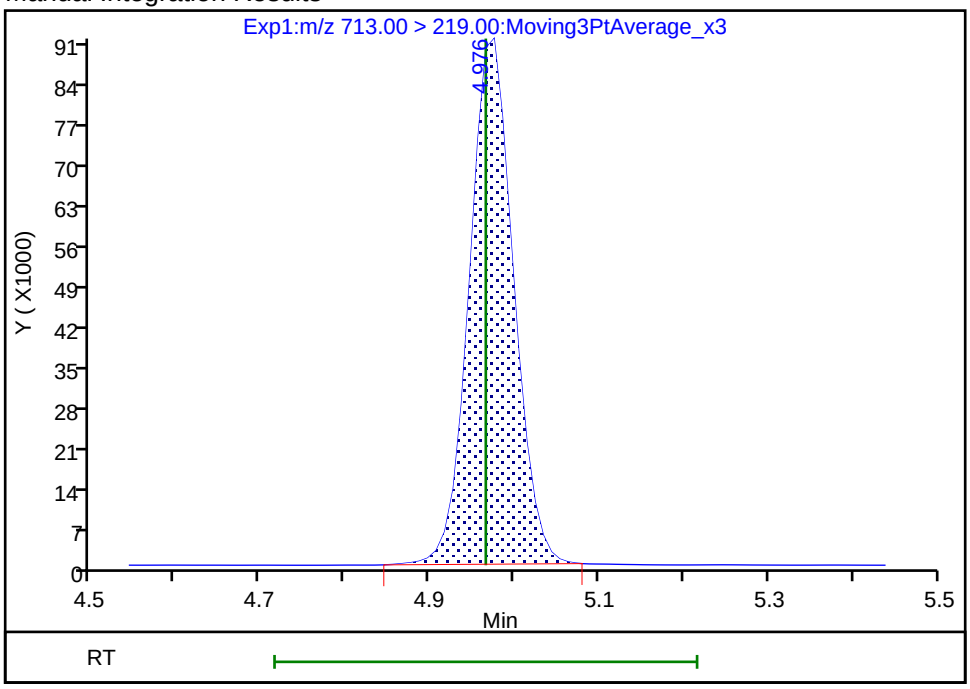
Processing Integration Results

RT: 4.98
Area: 332913
Amount: 2.517261
Amount Units: ng/ml




Manual Integration Results

RT: 4.98
Area: 330004
Amount: 2.517261
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

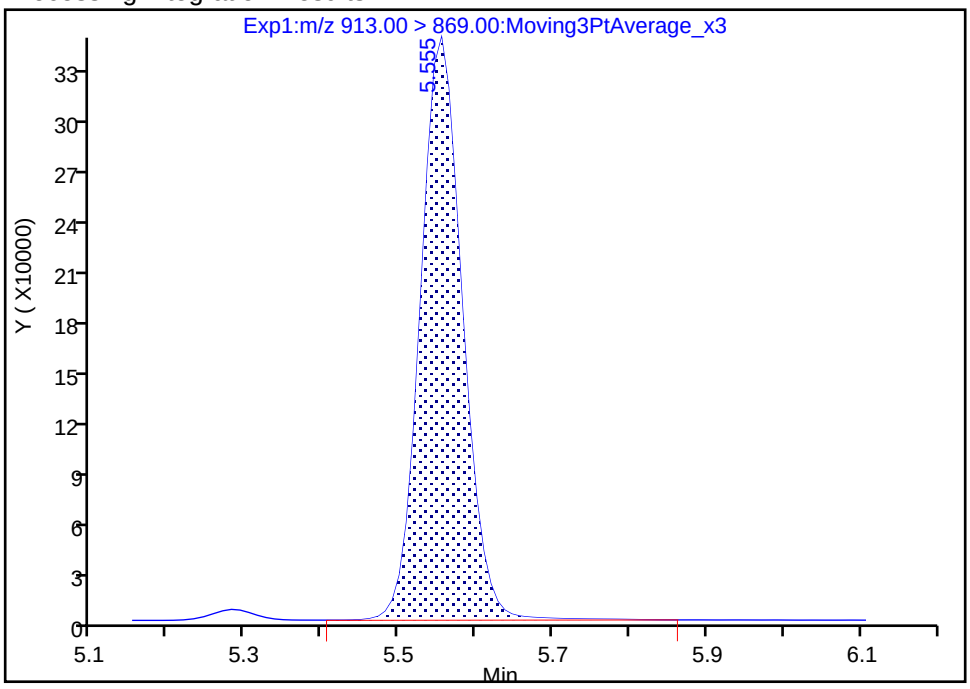
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D28.d
Injection Date: 10-Nov-2021 07:53:19 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

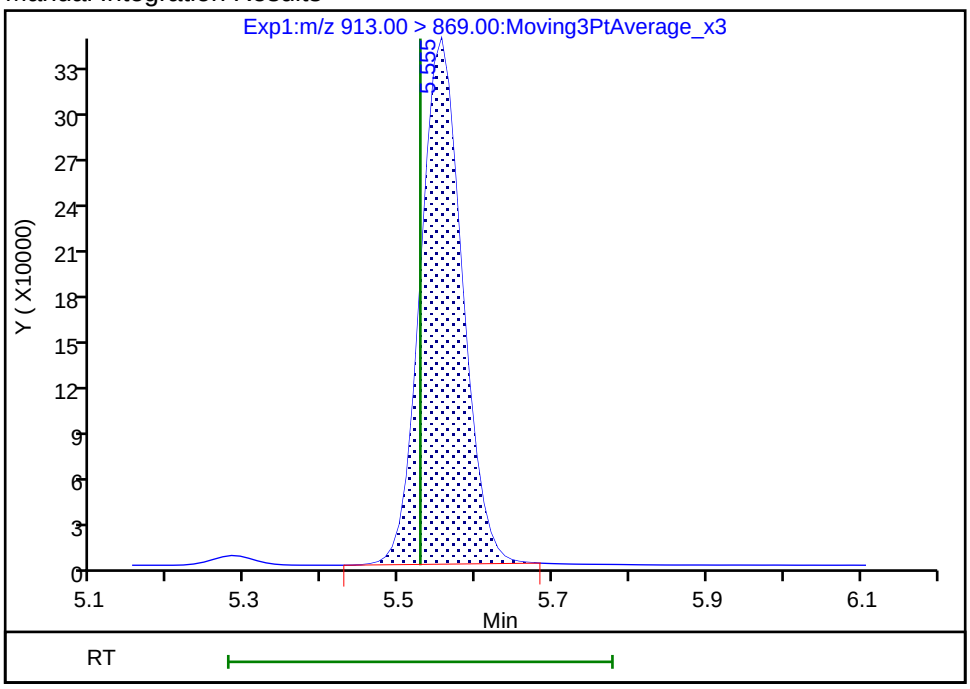
Processing Integration Results

RT: 5.55
Area: 1298147
Amount: 2.075127
Amount Units: ng/ml




Manual Integration Results

RT: 5.55
Area: 1281832
Amount: 2.049047
Amount Units: ng/ml




Reviewer: deannd, 10-Nov-2021 08:25:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173694/5  Calibration Date: 11/10/2021 11:55

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9208 | | 0.122 | 0.125 | -2.6 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.047 | | 0.0522 | 0.0500 | 4.5 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.094 | | 0.0453 | 0.0442 | 2.4 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.469 | | 0.0542 | 0.0467 | 16.0 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.044 | | 0.0514 | 0.0500 | 2.9 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.319 | | 0.0514 | 0.0469 | 9.5 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.456 | | 0.0985 | 0.100 | -1.5 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.241 | | 0.0513 | 0.0455 | 12.8 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.039 | | 0.0503 | 0.0500 | 0.6 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.642 | | 0.0490 | 0.0471 | 4.1 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.304 | | 0.122 | 0.119 | 2.8 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.249 | | 0.0477 | 0.0476 | 0.2 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.169 | | 0.0550 | 0.0500 | 10.0 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.168 | | 0.0499 | 0.0464 | 7.6 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.040 | | 0.0531 | 0.0500 | 6.3 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.521 | | 0.0434 | 0.0466 | -7.0 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7966 | | 0.0452 | 0.0480 | -5.8 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.120 | | 0.0557 | 0.0500 | 11.5 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7048 | | 0.0404 | 0.0479 | -15.7 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9897 | | 0.0521 | 0.0500 | 4.2 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7244 | | 0.115 | 0.125 | -7.8 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6663 | | 0.0489 | 0.0482 | 1.4 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.005 | | 0.0471 | 0.0500 | -5.7 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8343 | | 0.122 | 0.125 | -2.6 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.889 | | 0.0461 | 0.0471 | -2.1 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.146 | | 0.0585 | 0.0500 | 17.0 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4625 | | 0.0577 | 0.0482 | 19.7 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2514 | | 0.0503 | 0.0484 | 4.0 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173694/5  Calibration Date: 11/10/2021 11:55

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9182 | | 0.0544 | 0.0500 | 8.8 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1793 | | 0.0568 | 0.0500 | 13.6 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.160 | | 0.0492 | 0.0500 | -1.6 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7387 | | 0.0438 | 0.0500 | -12.4 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.206 | | 1.49 | 1.25 | 19.1 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9333 | | 1.37 | 1.25 | 9.4 | |
| 13C3 PFBS | Ave | 1.154 | 1.131 | | 1.14 | 1.16 | -2.0 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1016 | | 1.35 | 1.17 | 15.6 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9624 | | 1.35 | 1.25 | 7.6 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0240 | | 1.27 | 1.25 | 1.7 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8423 | | 1.19 | 1.18 | 0.5 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9790 | | 1.30 | 1.25 | 4.0 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1476 | | 1.33 | 1.19 | 11.6 | |
| 13C4 PFOA | Ave | 1.029 | 1.034 | | 1.26 | 1.25 | 0.5 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6343 | | 1.25 | 1.20 | 4.7 | |
| 13C5 PFNA | Ave | 1.025 | 0.9903 | | 1.21 | 1.25 | -3.4 | |
| 13C2 PFDA | Ave | 1.034 | 0.9497 | | 1.15 | 1.25 | -8.2 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1777 | | 1.42 | 1.20 | 18.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.016 | | 1.27 | 1.25 | 1.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1071 | | 1.32 | 1.25 | 5.2 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7617 | | 1.18 | 1.25 | -5.5 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0977 | | 1.28 | 1.25 | 2.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7904 | | 1.14 | 1.25 | -8.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5813 | | 1.08 | 1.25 | -13.6 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5211 | | 1.10 | 1.25 | -12.0 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 10-Nov-2021 11:55:25 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: 200-0048360-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:00 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:29:30
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.091 | 0.009 | 0.601 | 2179671 | 1.49 | | 119 | 1809 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.091 | 0.009 | 1.000 | 200710 | 0.1217 | | 97.4 | 38.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1686734 | 1.37 | | 109 | 3808 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 70626 | 0.0522 | | 104 | 3.6 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1900857 | 1.14 | | 98.0 | 202875 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.005 | 79073 | 0.0453 | Target=2.32 | 102 | 130 | |
| 298.90 > 99.00 | 2.439 | 2.427 | 0.012 | 1.005 | 37382 | | 2.12(1.16-3.48) | | 27.3 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.000 | 16937 | 0.0542 | | 116 | 281 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.735 | -0.001 | 0.783 | 171522 | 1.35 | | 116 | 157 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1739230 | 1.34 | | 108 | 4758 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 72599 | 0.0514 | Target=12.09 | 103 | 18.1 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 6369 | | 11.40(6.04-18.13) | | 6.8 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.771 | -0.001 | 0.884 | 75327 | 0.0514 | Target=3.03 | 110 | 202 | |
| 349.00 > 99.00 | 2.770 | 2.771 | -0.001 | 0.884 | 25171 | | 2.99(1.52-4.55) | | 54.6 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.880 | 2.869 | 0.011 | 0.825 | 43303 | 1.27 | | 102 | 311 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.881 | -0.001 | 1.000 | 15437 | 0.0985 | | 98.5 | 5.5 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 68740 | 0.0513 | Target=3.55 | 113 | 204 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 21022 | | 3.27(1.77-5.32) | | 29.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1440113 | 1.19 | | 100 | 3366 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1769332 | 1.30 | | 104 | 7845 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 73529 | 0.0503 | Target=3.69 | 101 | 31.8 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 19556 | | 3.76(1.84-5.53) | | 32.8 | M |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.166 | 0.009 | 0.835 | 157319 | 0.0490 | Target=2.56 | 104 | 269 | |
| 377.00 > 85.00 | 3.175 | 3.166 | 0.009 | 0.835 | 64084 | | 2.45(1.28-3.84) | | 115 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 54526 | 0.0477 | Target=4.88 | 100 | 296 | |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 10436 | | 5.22(2.44-7.32) | | 60.5 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 32959 | 0.1218 | | 103 | 457 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 253372 | 1.33 | | 112 | 680 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1869578 | 1.26 | | 101 | 5894 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1807269 | 1.25 | | | 3905 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 87449 | 0.0550 | Target=2.68 | 110 | 12.2 | M |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 31825 | | 2.75(1.34-4.02) | | 84.4 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 1095862 | 1.25 | | 105 | 4120 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 49701 | 0.0499 | Target=4.69 | 108 | 96.2 | M |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 9954 | | 4.99(2.35-7.04) | | 51.3 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1789758 | 1.21 | | 96.6 | 5031 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 74450 | 0.0531 | Target=7.29 | 106 | 19.6 | M |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.000 | 10895 | | 6.83(3.64-10.93) | | 120 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.959 | 0.005 | 1.042 | 64989 | 0.0434 | | 93.0 | 680 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.092 | 4.086 | 0.006 | 1.076 | 35065 | 0.0452 | Target=2.35 | 94.2 | 421 | |
| 549.00 > 99.00 | 4.092 | 4.086 | 0.006 | 1.076 | 14684 | | 2.39(1.17-3.52) | | 74.9 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1716385 | 1.15 | | 91.8 | 5330 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 76891 | 0.0557 | Target=8.95 | 111 | 78.3 | M |
| 513.00 > 169.00 | 4.126 | 4.108 | 0.018 | 1.003 | 8333 | | 9.23(4.47-13.42) | | 58.1 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 307726 | 1.42 | | 119 | 1482 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 8676 | 0.0404 | | 84.3 | 200 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 1836182 | 1.27 | | 102 | 3403 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 72691 | 0.0521 | | 104 | 351 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 193510 | 1.32 | | 105 | 2121 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.000 | 14017 | 0.1153 | | 92.2 | 105 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.342 | 0.005 | 1.143 | 29450 | 0.0489 | Target=2.47 | 101 | 340 | |
| 599.00 > 99.00 | 4.347 | 4.342 | 0.005 | 1.143 | 11985 | | 2.46(1.23-3.70) | | 159 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.375 | -0.005 | 1.251 | 1376566 | 1.18 | | 94.5 | 4199 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.381 | 4.375 | 0.006 | 1.003 | 55335 | 0.0471 | Target=9.24 | 94.3 | 43.5 | |
| 563.00 > 169.00 | 4.381 | 4.375 | 0.006 | 1.003 | 7110 | | 7.78(4.62-13.86) | | 106 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.375 | 0.006 | 1.255 | 176555 | 1.28 | | 103 | 1024 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.392 | 4.387 | 0.005 | 1.003 | 14730 | 0.1217 | | 97.4 | 210 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.463 | 0.004 | 1.175 | 81597 | 0.0461 | | 97.9 | 637 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.598 | 0.004 | 1.318 | 1428414 | 1.14 | | 91.1 | 2399 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.602 | 4.598 | 0.004 | 1.000 | 65464 | 0.0585 | Target=7.04 | 117 | 12.4 | |
| 613.00 > 169.00 | 4.602 | 4.598 | 0.004 | 1.000 | 10427 | | 6.28(3.52-10.56) | | 103 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.622 | 4.619 | 0.003 | 1.120 | 5729 | 0.0577 | | 120 | 121 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.766 | 4.763 | 0.003 | 1.253 | 11159 | 0.0503 | Target=0.49 | 104 | 185 | |
| 699.00 > 99.00 | 4.766 | 4.763 | 0.003 | 1.253 | 21717 | | 0.51(0.25-0.74) | | 248 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.802 | 4.799 | 0.003 | 1.043 | 52462 | 0.0544 | Target=4.68 | 109 | 13.4 | |
| 663.00 > 169.00 | 4.802 | 4.799 | 0.003 | 1.043 | 11394 | | 4.60(2.34-7.02) | | 137 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 1050604 | 1.08 | | 86.4 | 1760 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 7533 | 0.0568 | Target=1.01 | 114 | 187 | |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 7685 | | 0.98(0.51-1.52) | | 145 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.282 | 5.280 | 0.002 | 1.513 | 941725 | 1.10 | | 88.0 | 3751 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.280 | 0.013 | 1.002 | 43705 | 0.0492 | Target=4.57 | 98.4 | 12.3 | |
| 813.00 > 169.00 | 5.293 | 5.280 | 0.013 | 1.002 | 9556 | | 4.57(2.29-6.86) | | 217 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.546 | 5.544 | 0.002 | 1.050 | 27826 | 0.0438 | Target=4.27 | 87.6 | 13.8 | M |
| 913.00 > 169.00 | 5.546 | 5.544 | 0.002 | 1.050 | 6743 | | 4.13(2.14-6.41) | | 203 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCLOQV_00019 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 12:40:01 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d

Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812

Lims ID: CCVL

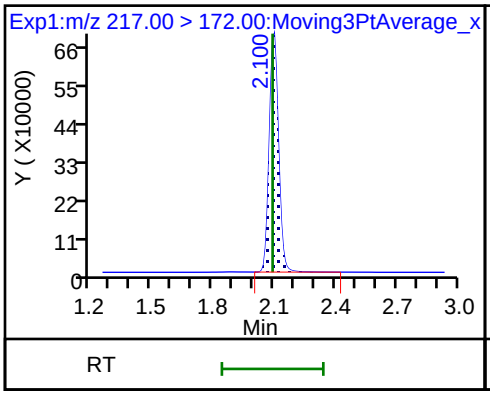
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

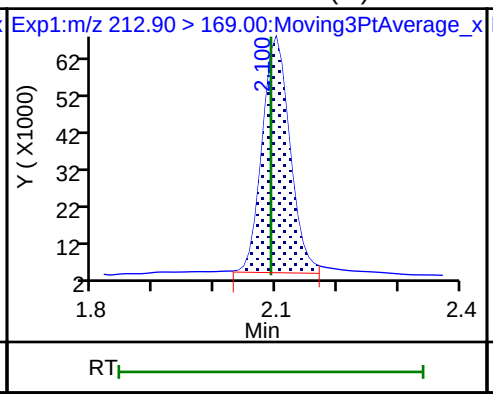
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

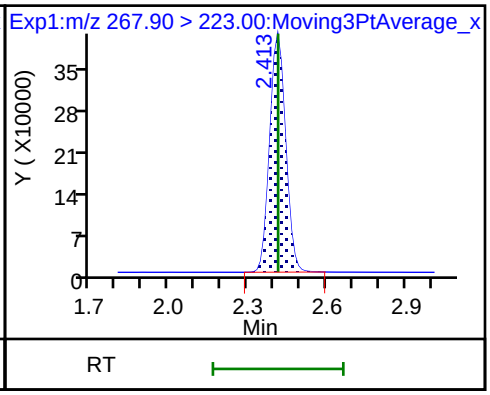
D 1 13C4 PFBA



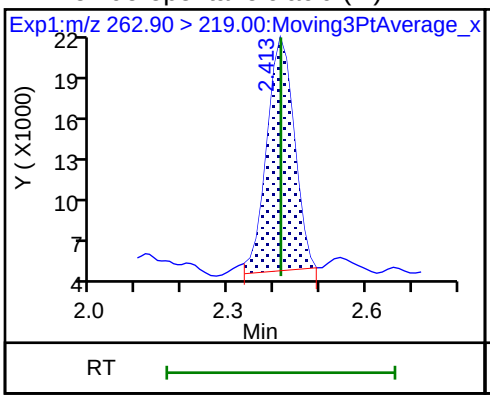

2 Perfluorobutanoic acid (M)



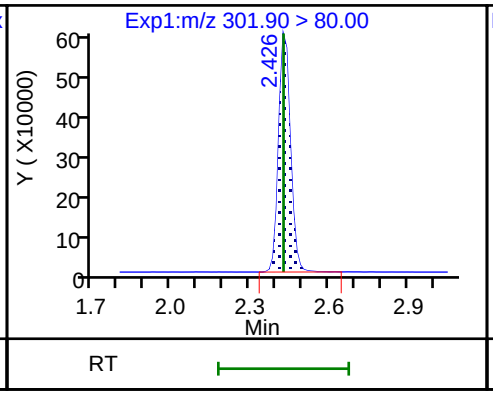

D 3 13C5 PFPeA



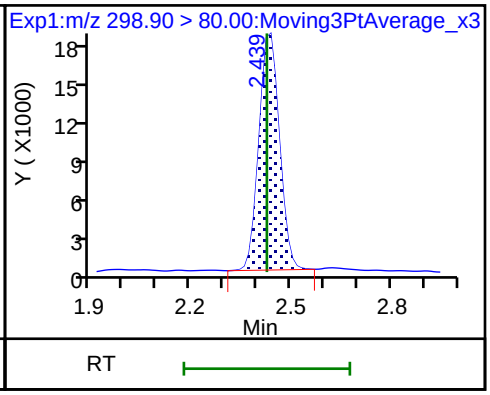

4 Perfluoropentanoic acid (M)



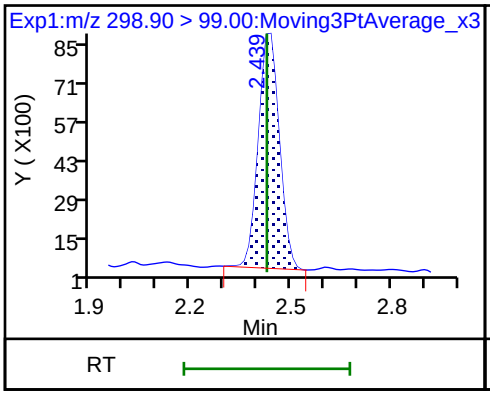

D 47 13C3 PFBS



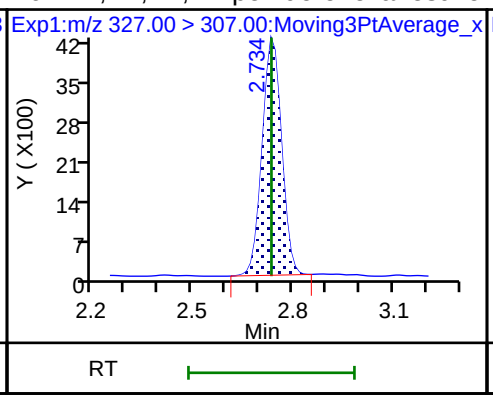

5 Perfluorobutanesulfonic acid



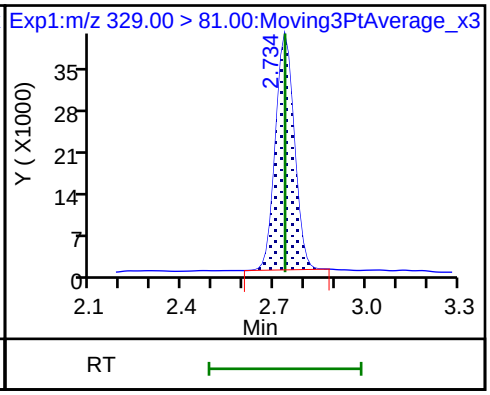

5 Perfluorobutanesulfonic acid



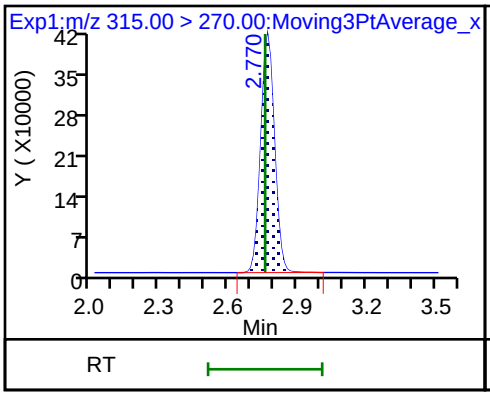

61 1H,1H,2H,2H-perfluorohexanesulfo



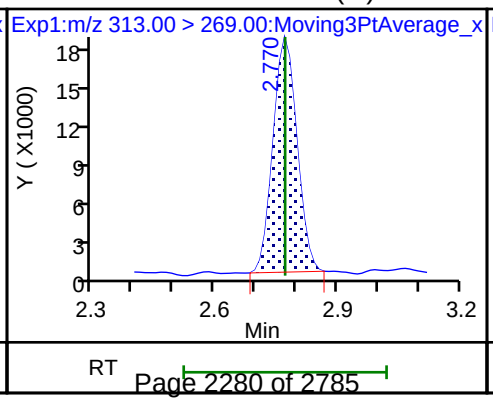

D 60 M2-4:2 FTS



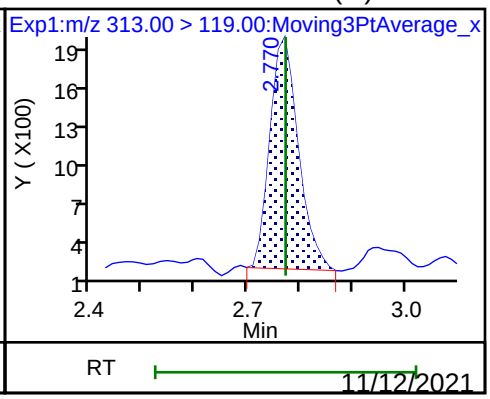

D 7 13C2 PFHxA



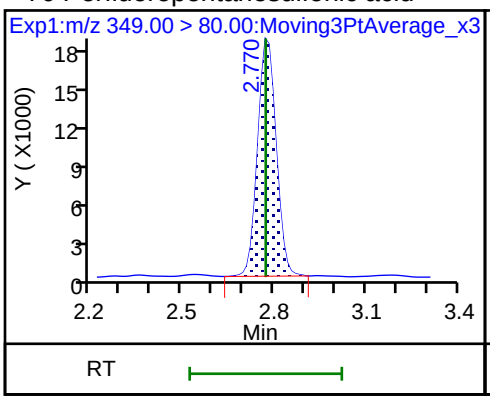

6 Perfluorohexanoic acid (M)



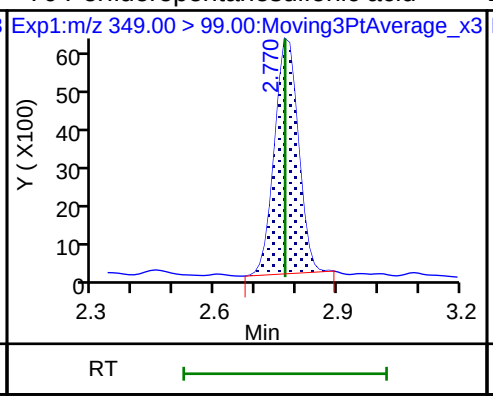

6 Perfluorohexanoic acid (M)



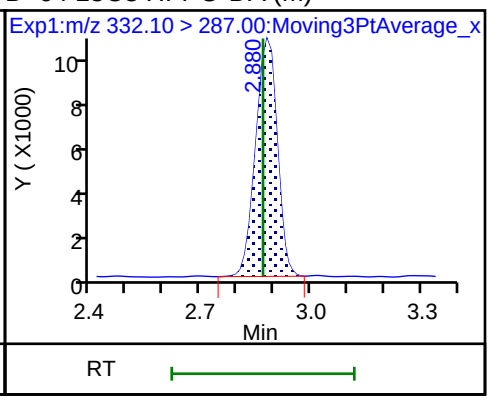
70 Perfluoropentanesulfonic acid



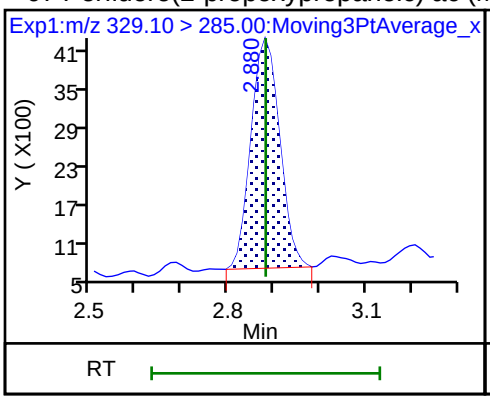

70 Perfluoropentanesulfonic acid



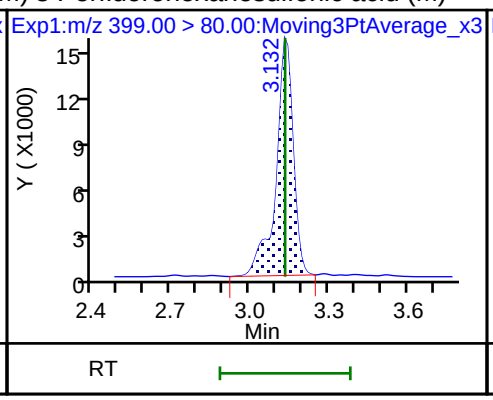

D 64 13C3 HFPO-DA (M)



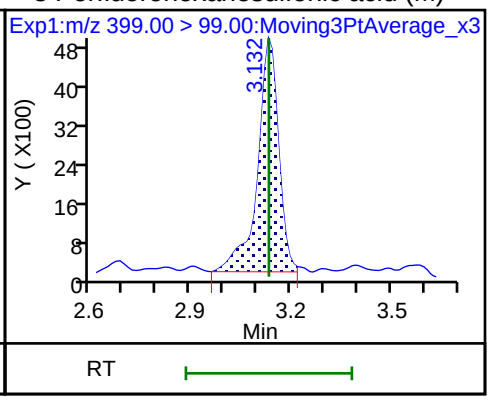

67 Perfluoro(2-propoxypropanoic) ac (M)



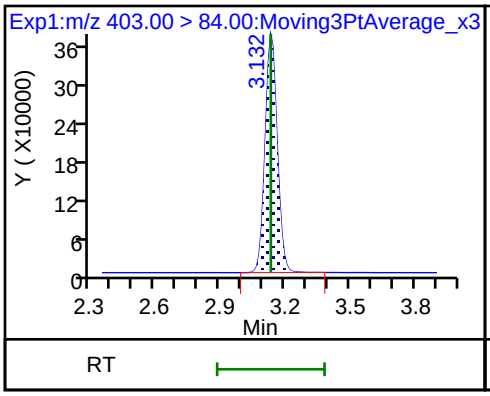

8 Perfluorohexanesulfonic acid (M)



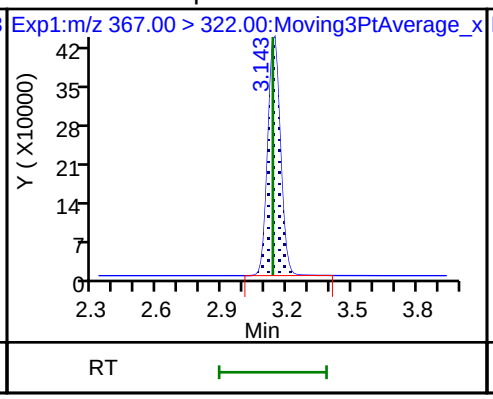

8 Perfluorohexanesulfonic acid (M)



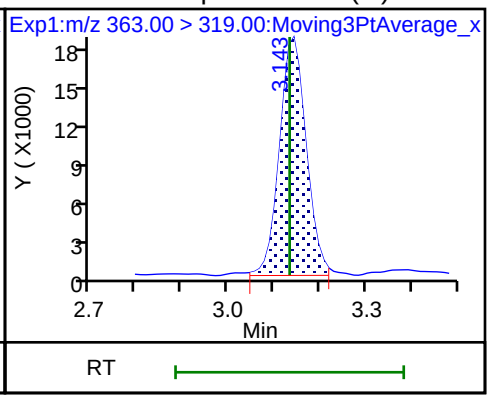

D 11 18O2 PFHxS



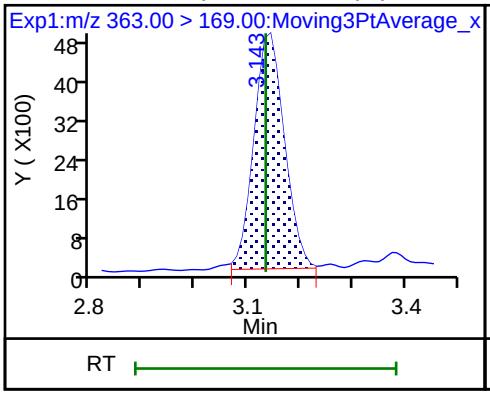

D 9 13C4 PFHpA



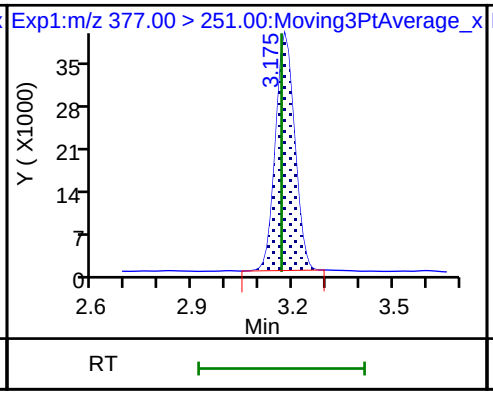

10 Perfluoroheptanoic acid (M)



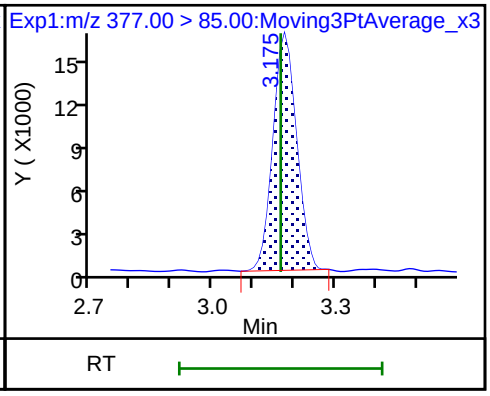

10 Perfluoroheptanoic acid (M)



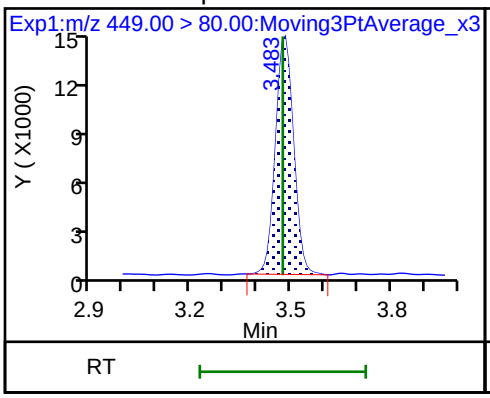

77 DONA



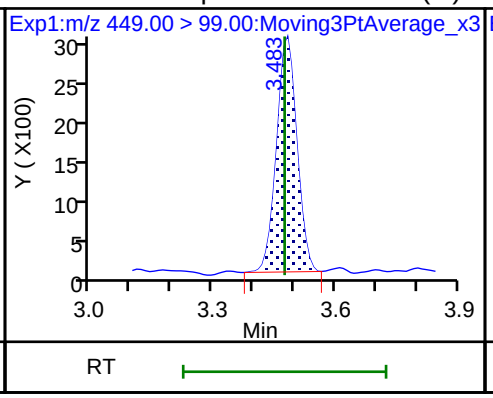

77 DONA



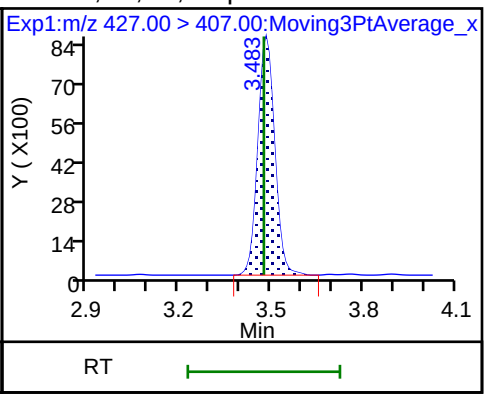
16 Perfluoroheptanesulfonic acid



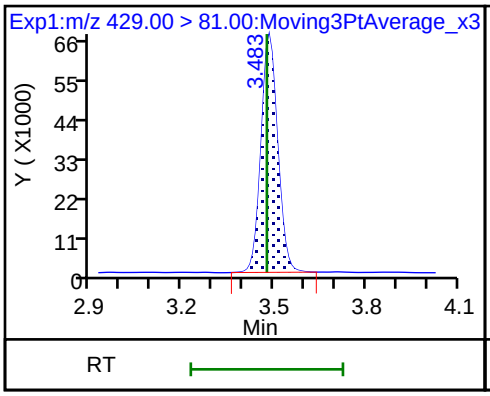

16 Perfluoroheptanesulfonic acid (M)



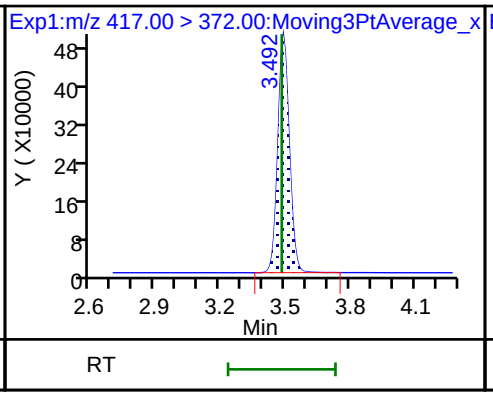

13 1H,1H,2H,2H-perfluorooctanesulfo



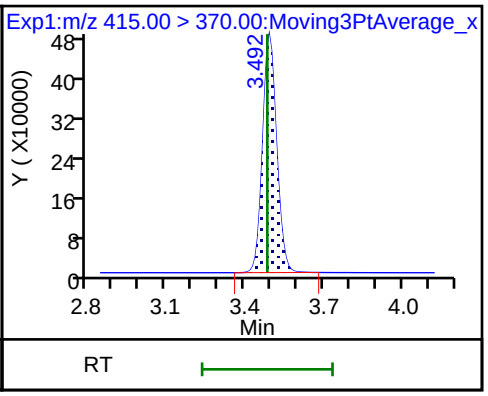

D 12 M2-6:2 FTS



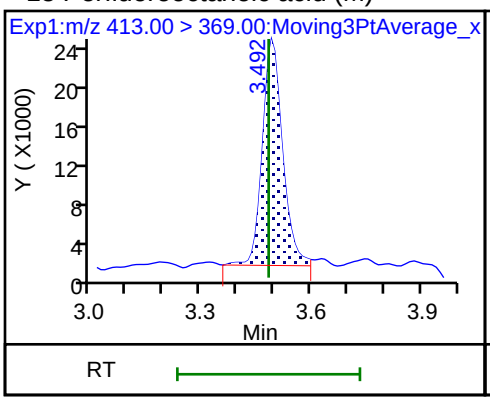

D 14 13C4 PFOA



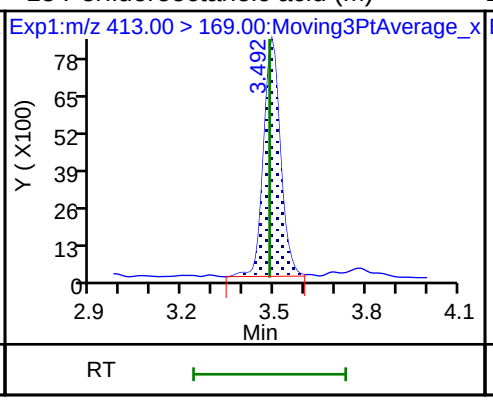

* 62 13C2 PFOA



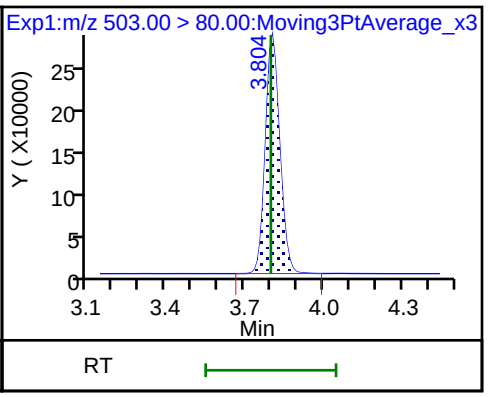

15 Perfluorooctanoic acid (M)



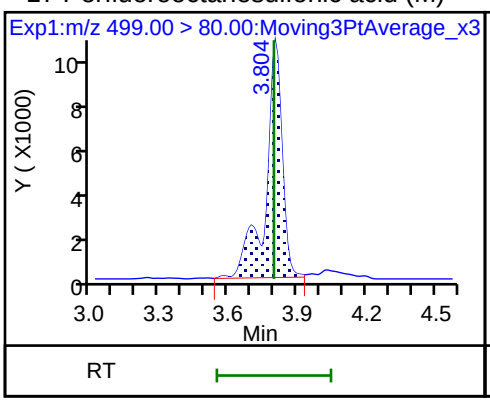

15 Perfluorooctanoic acid (M)



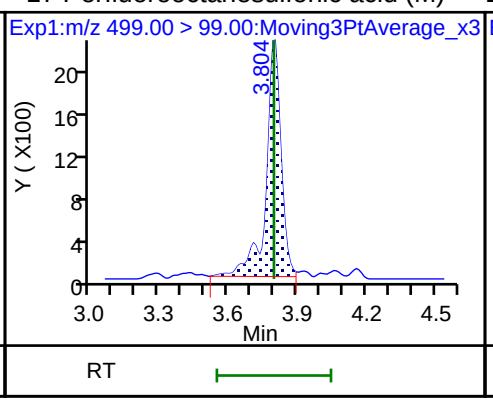

D 18 13C4 PFOS



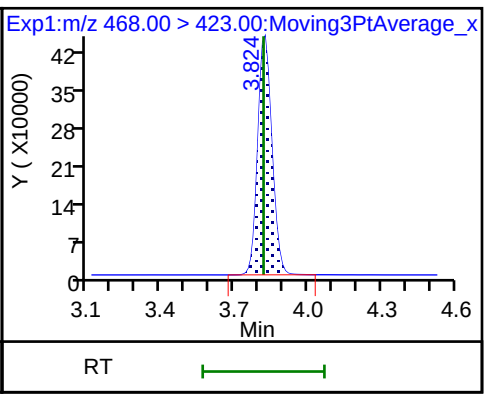

17 Perfluorooctanesulfonic acid (M)



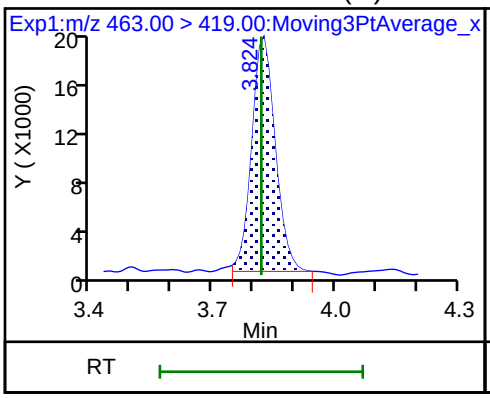

17 Perfluorooctanesulfonic acid (M)



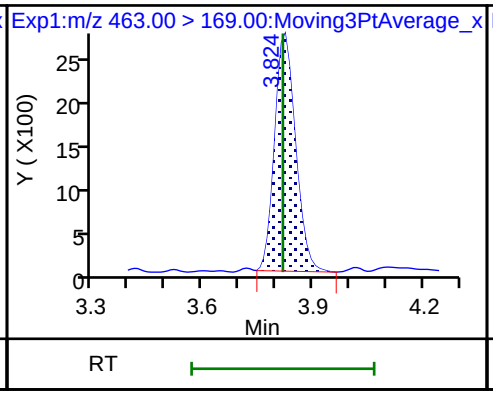

D 19 13C5 PFNA



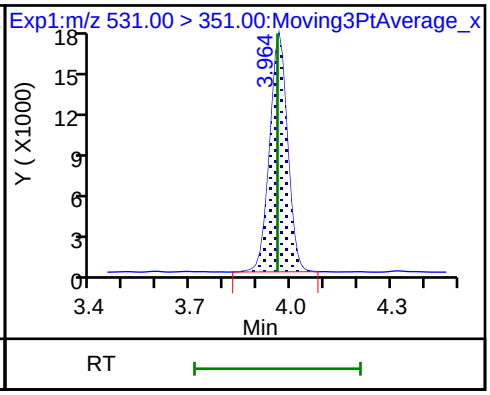
20 Perfluorononanoic acid (M)



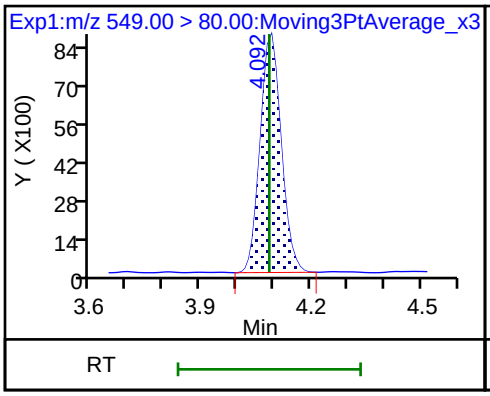

20 Perfluorononanoic acid



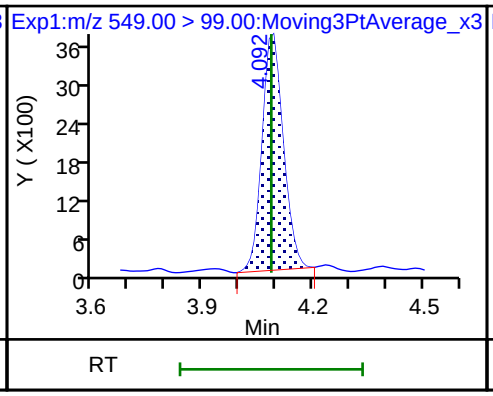

69 9-Chlorohexadecafluoro-3-oxanona



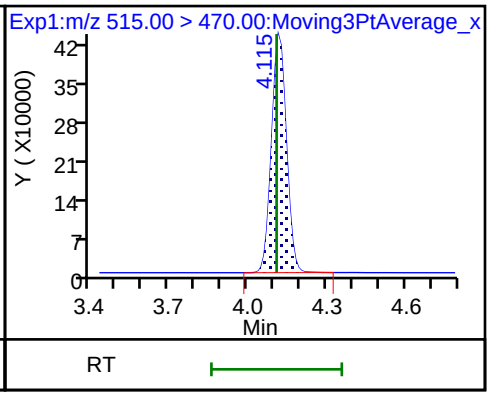

68 Perfluorononanesulfonic acid



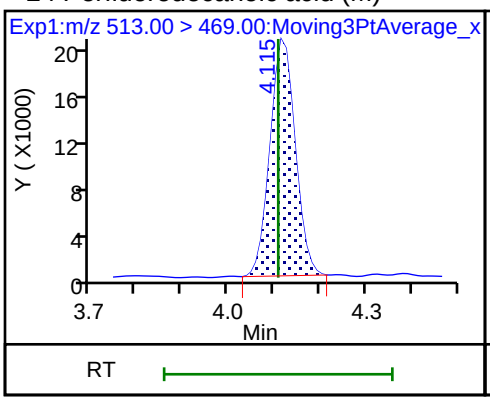

68 Perfluorononanesulfonic acid



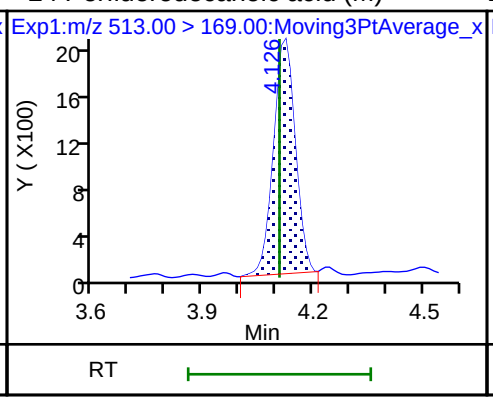

D 23 13C2 PFDA



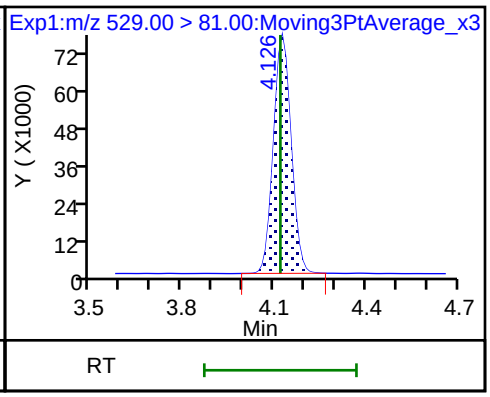

24 Perfluorodecanoic acid (M)



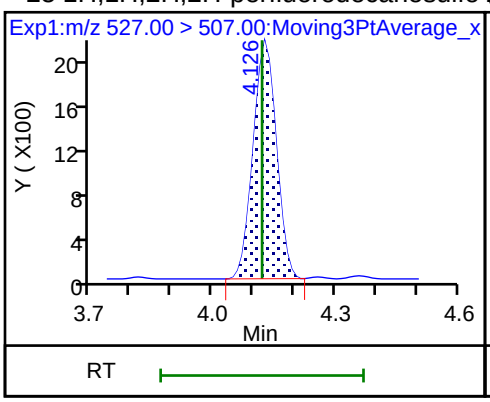

24 Perfluorodecanoic acid (M)



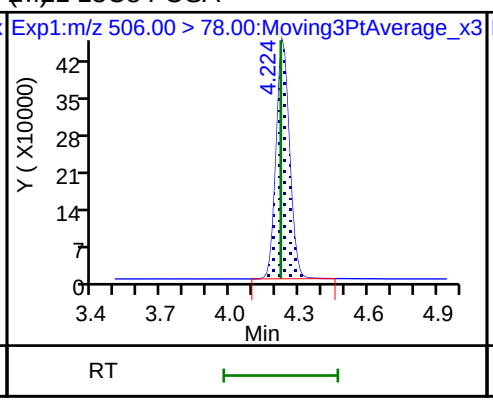

D 26 M2-8:2 FTS



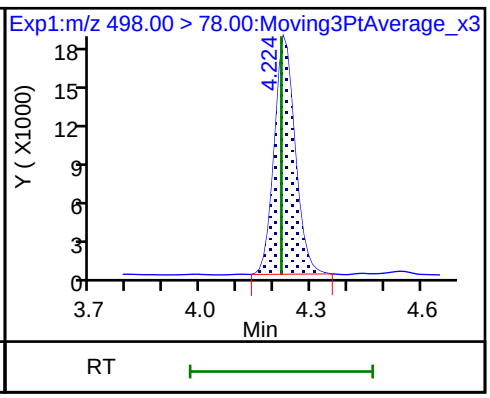

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



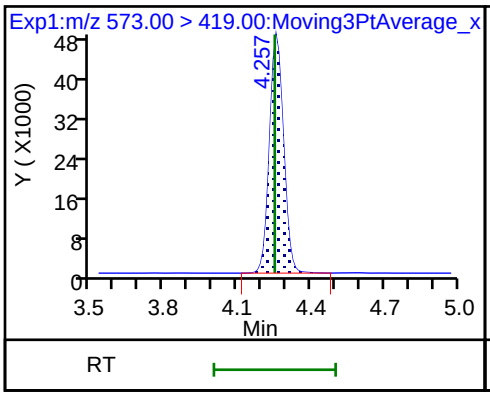

D 21 13C8 FOSA



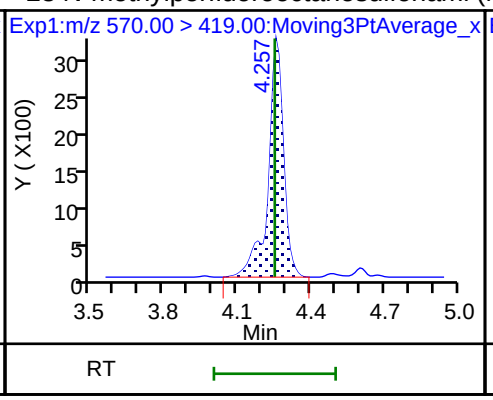

22 Perfluorooctanesulfonamide



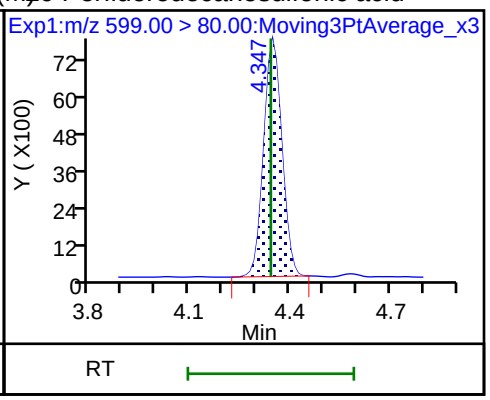
D 27 d3-NMeFOSAA



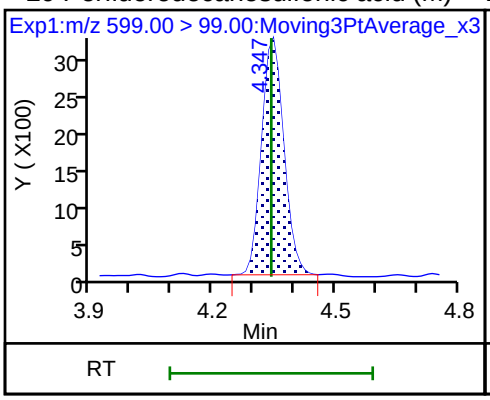

28 N-methylperfluorooctanesulfonami (M)



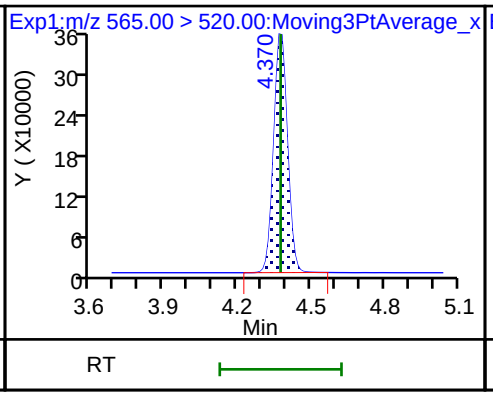

29 Perfluorodecanesulfonic acid



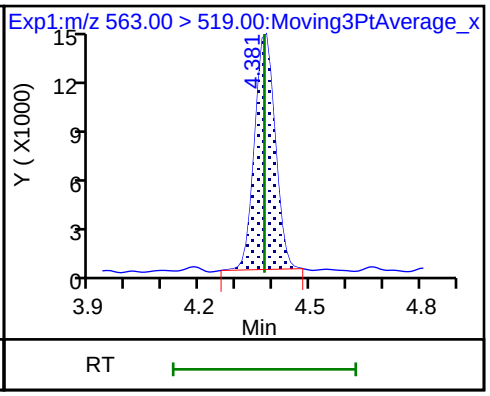

29 Perfluorodecanesulfonic acid (M)



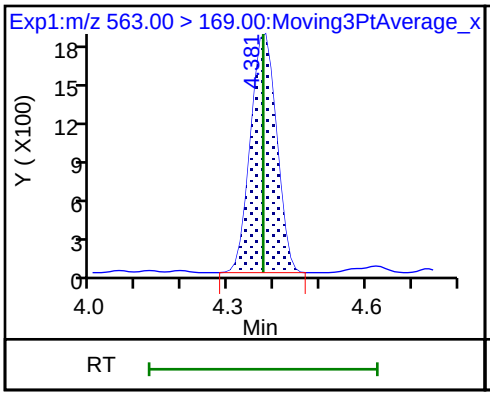

D 30 13C2 PFUnA



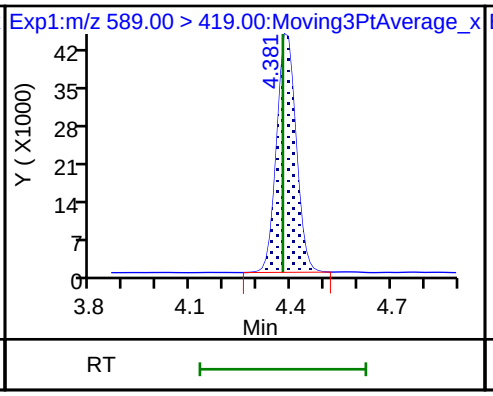

31 Perfluoroundecanoic acid



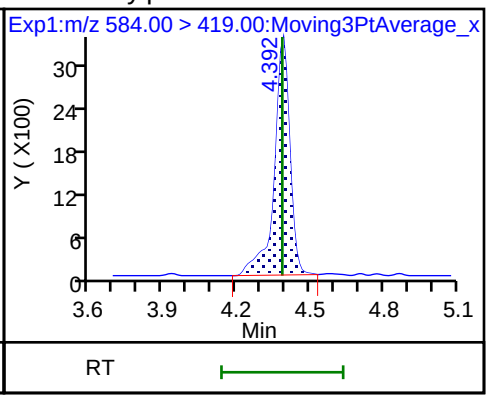

31 Perfluoroundecanoic acid



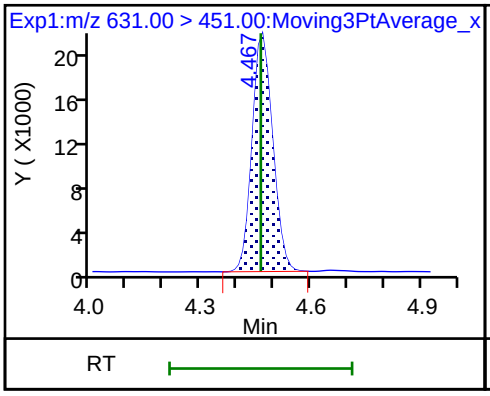

D 32 d5-NEtFOSAA



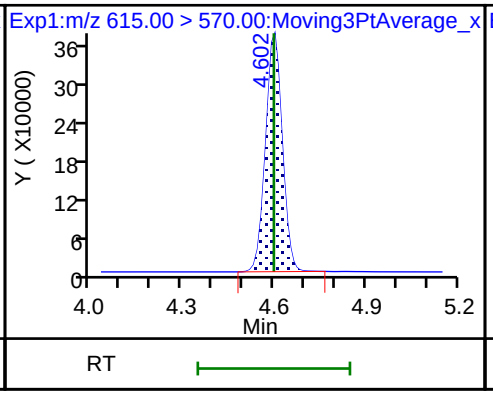

33 N-ethylperfluorooctanesulfonamid



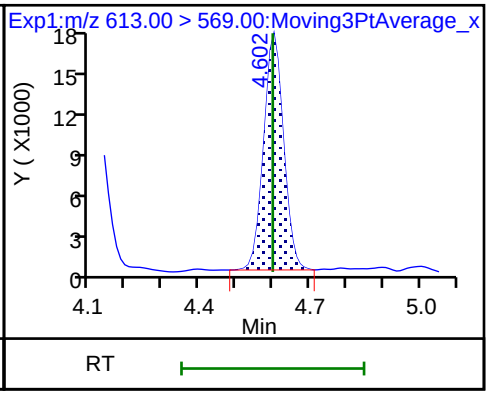

66 11-Chloroeicosafluoro-3-oxaundec



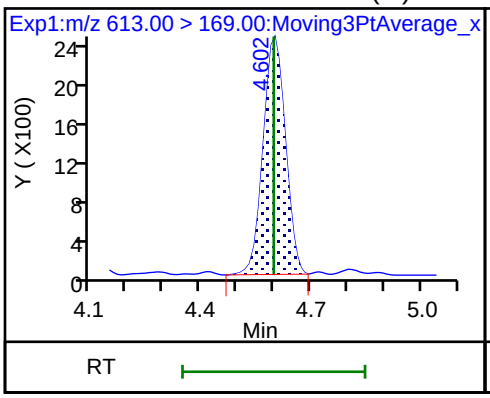

D 36 13C2 PFDoA



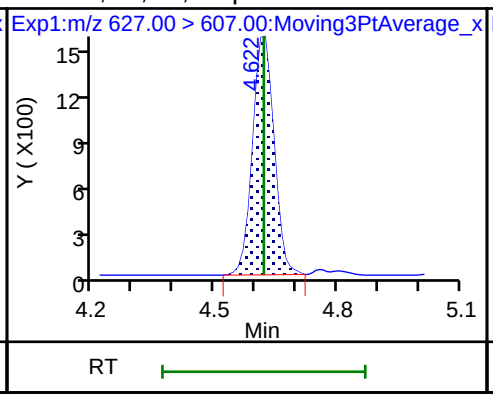

37 Perfluorododecanoic acid



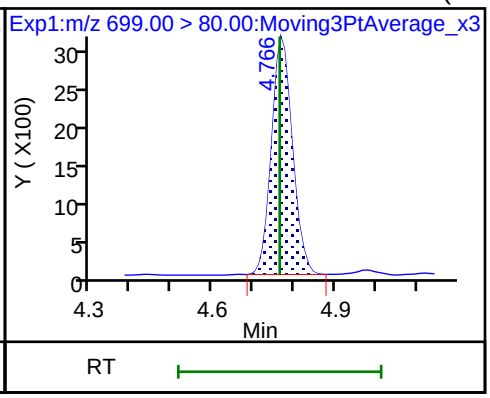
37 Perfluorododecanoic acid (M)



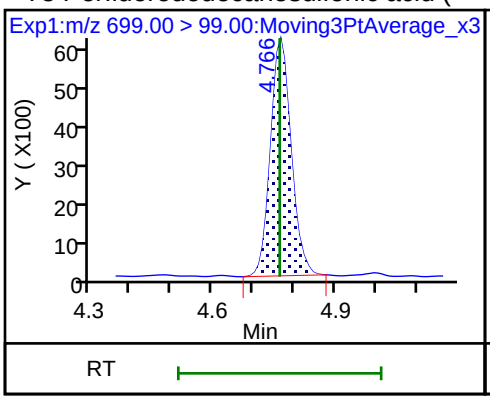

74 1H,1H,2H,2H-perfluorododecanesul



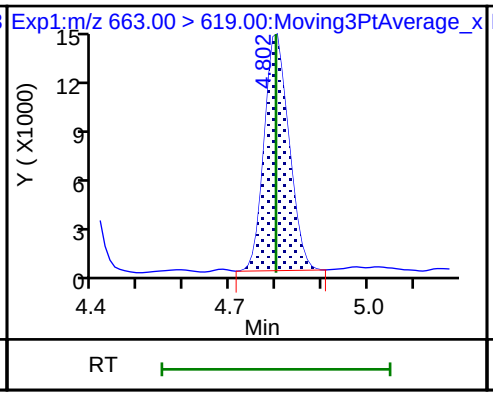

75 Perfluorododecanesulfonic acid (



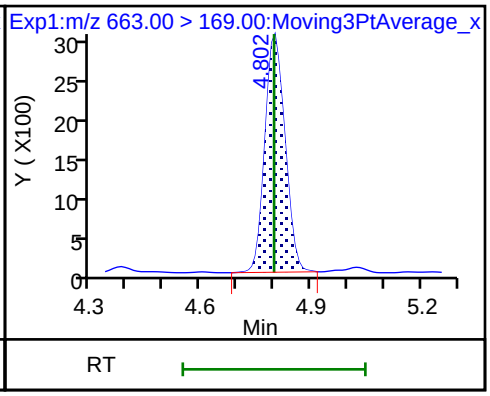

75 Perfluorododecanesulfonic acid (



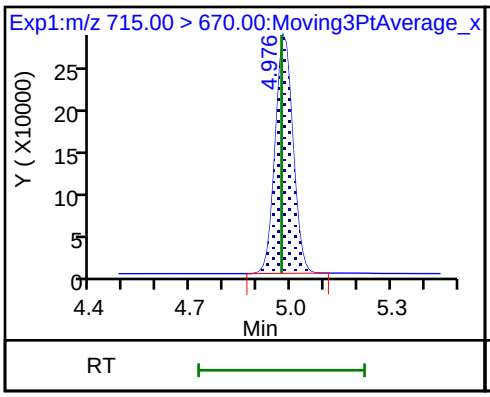

41 Perfluorotridecanoic acid



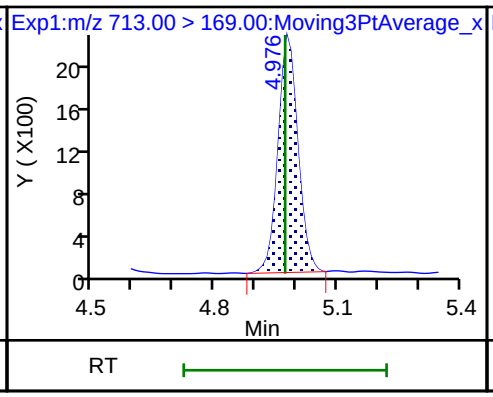

41 Perfluorotridecanoic acid



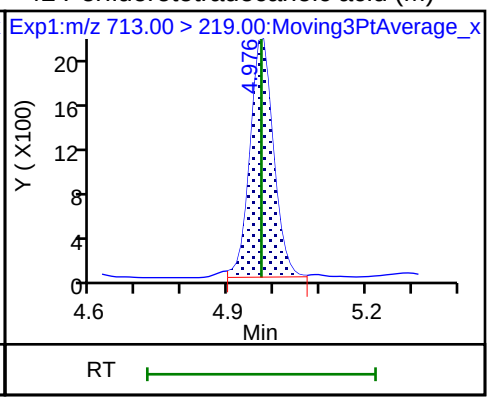

D 43 13C2 PFTeDA



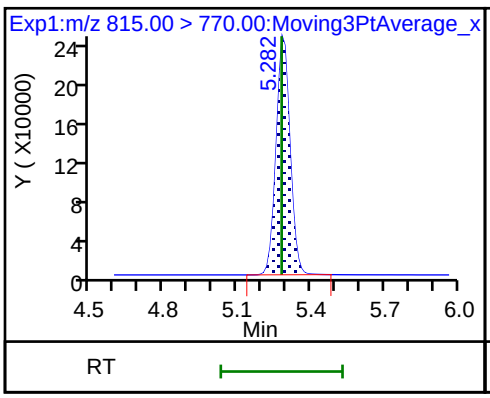

42 Perfluorotetradecanoic acid



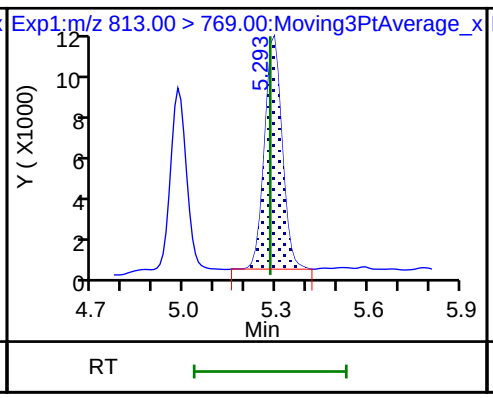

42 Perfluorotetradecanoic acid (M)



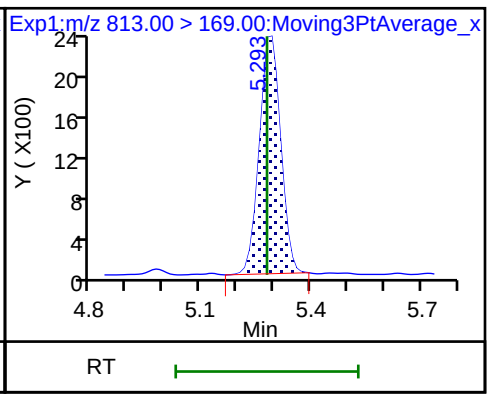

D 44 13C2 PFHxDA



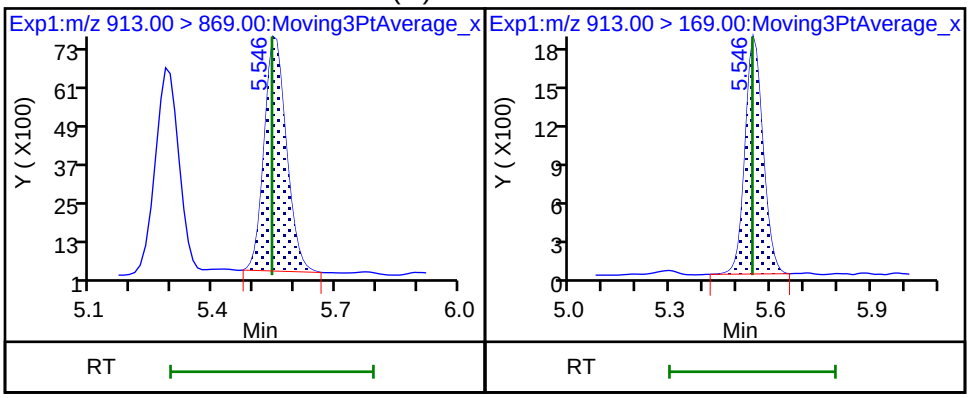

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

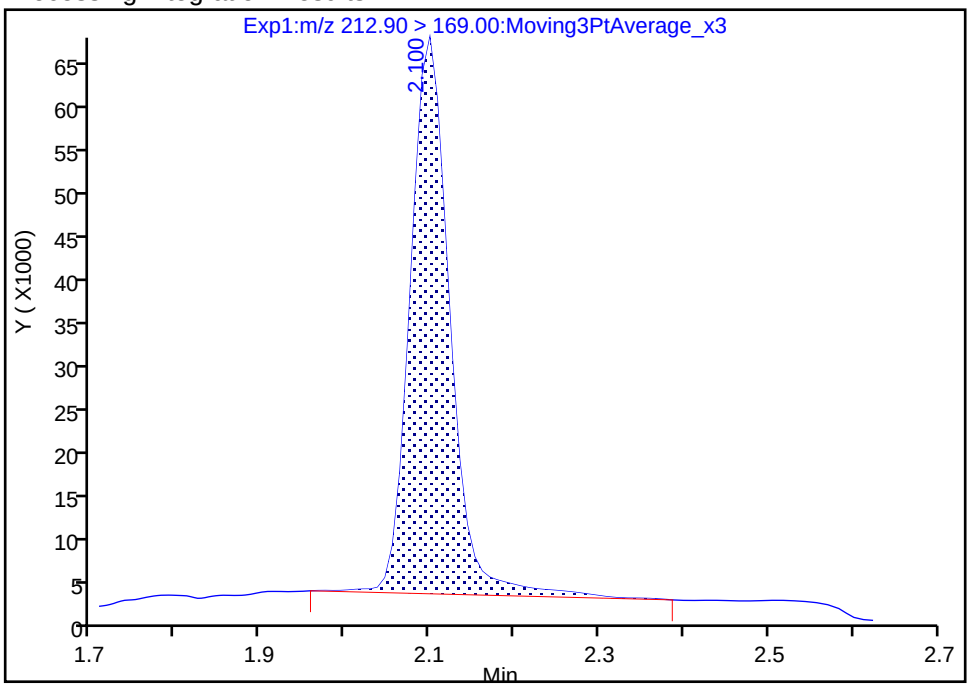
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

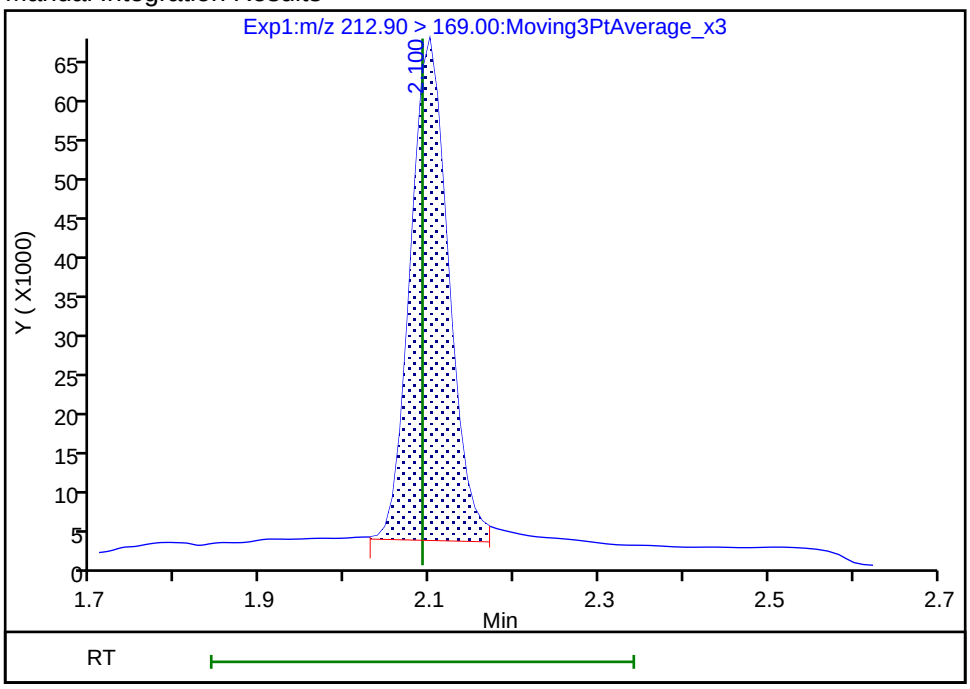
Processing Integration Results

RT: 2.10
Area: 210084
Amount: 0.127416
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 200710
Amount: 0.121731
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:26:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

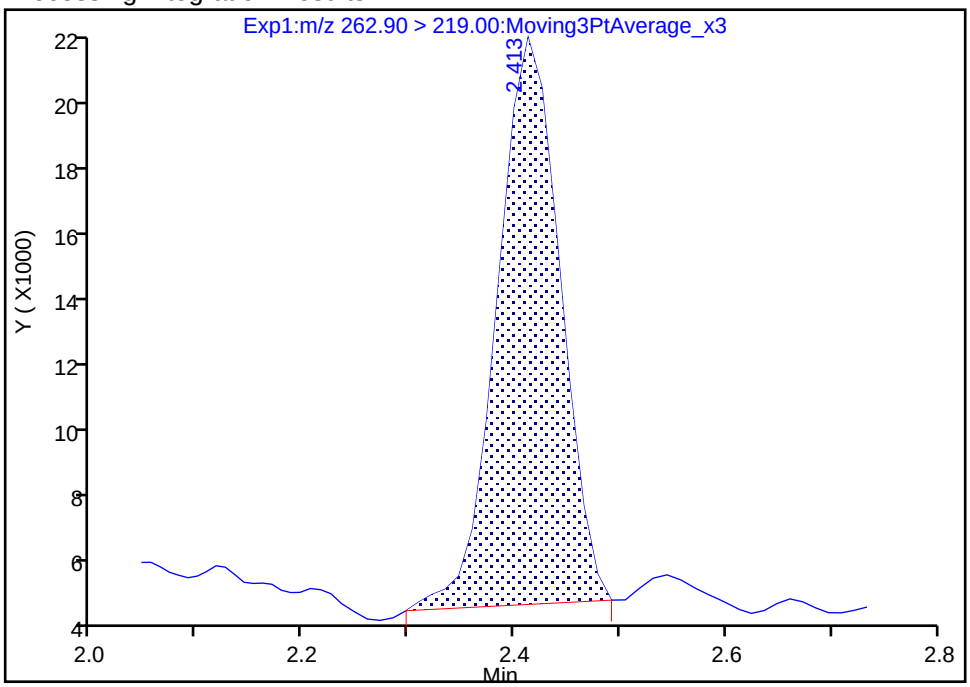
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

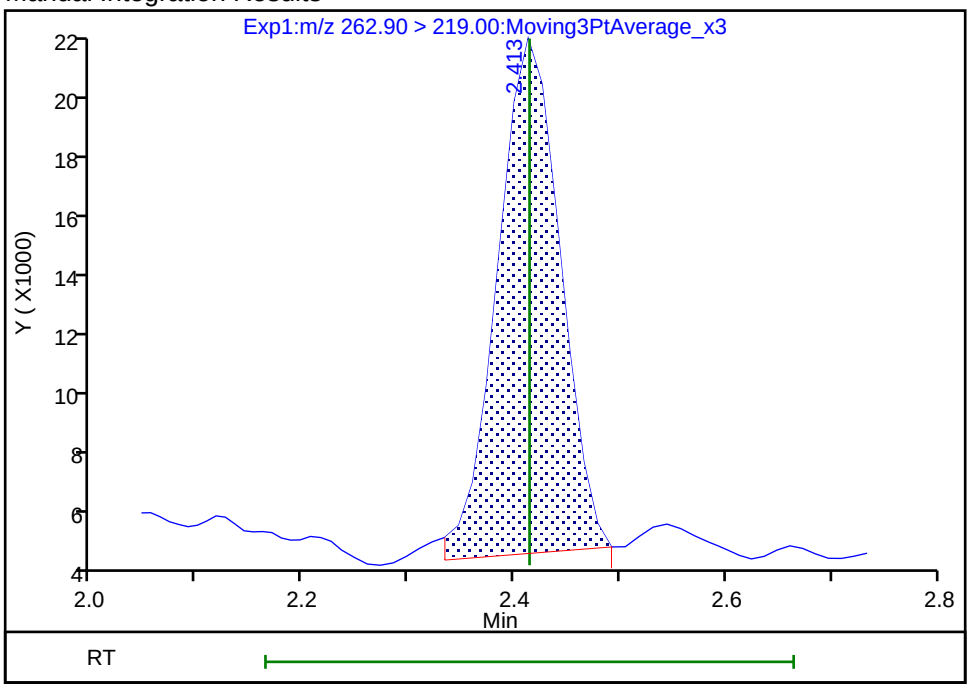
Processing Integration Results

RT: 2.41
Area: 70509
Amount: 0.052162
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 70626
Amount: 0.052249
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:26:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

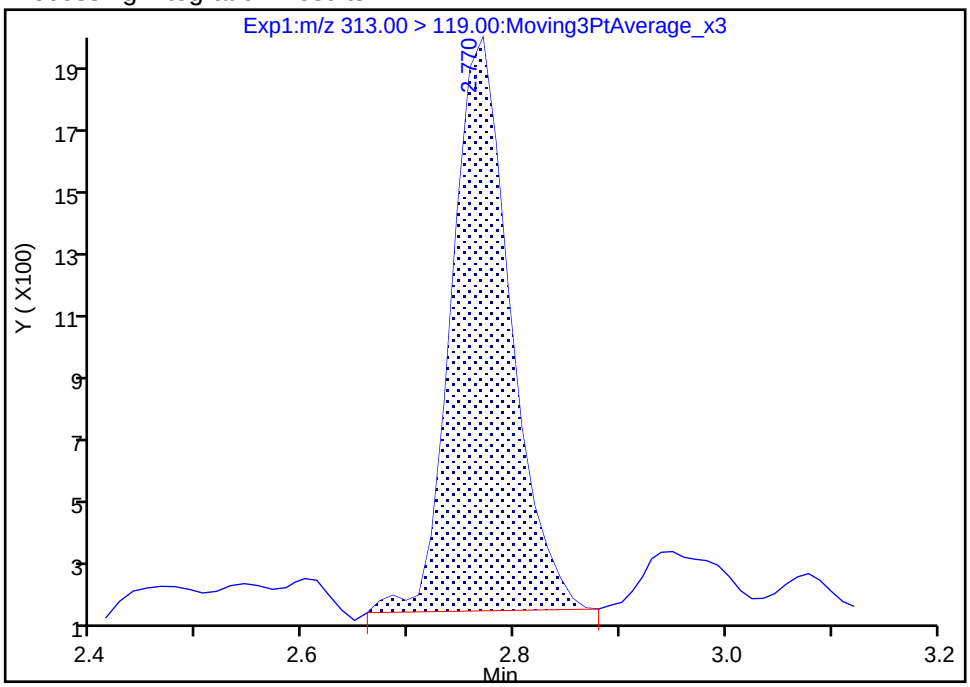
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

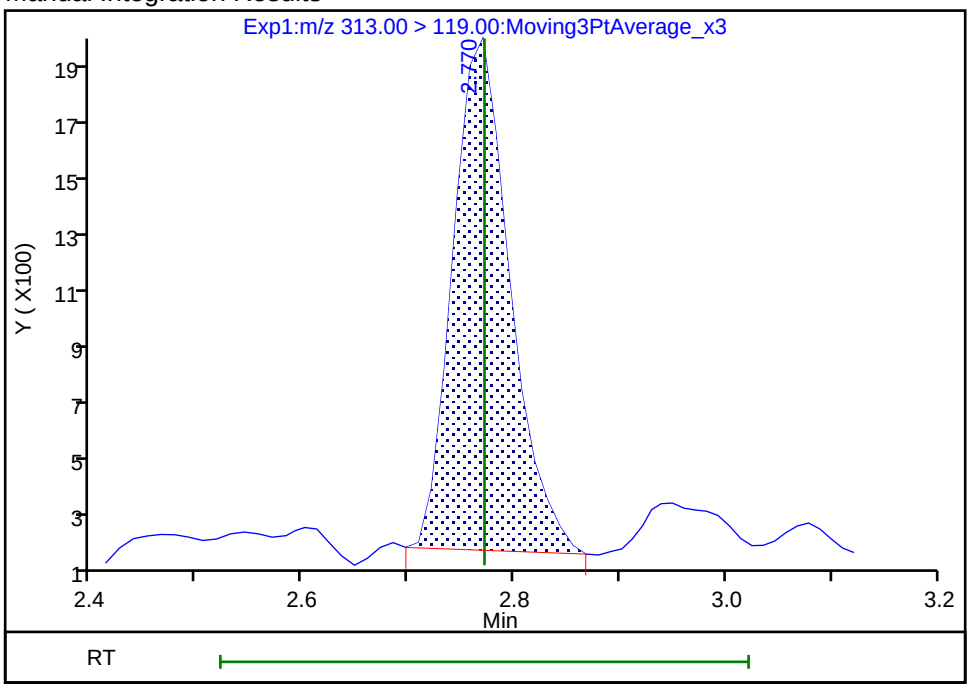
Processing Integration Results

RT: 2.77
Area: 6638
Amount: 0.051644
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 6369
Amount: 0.051448
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:26:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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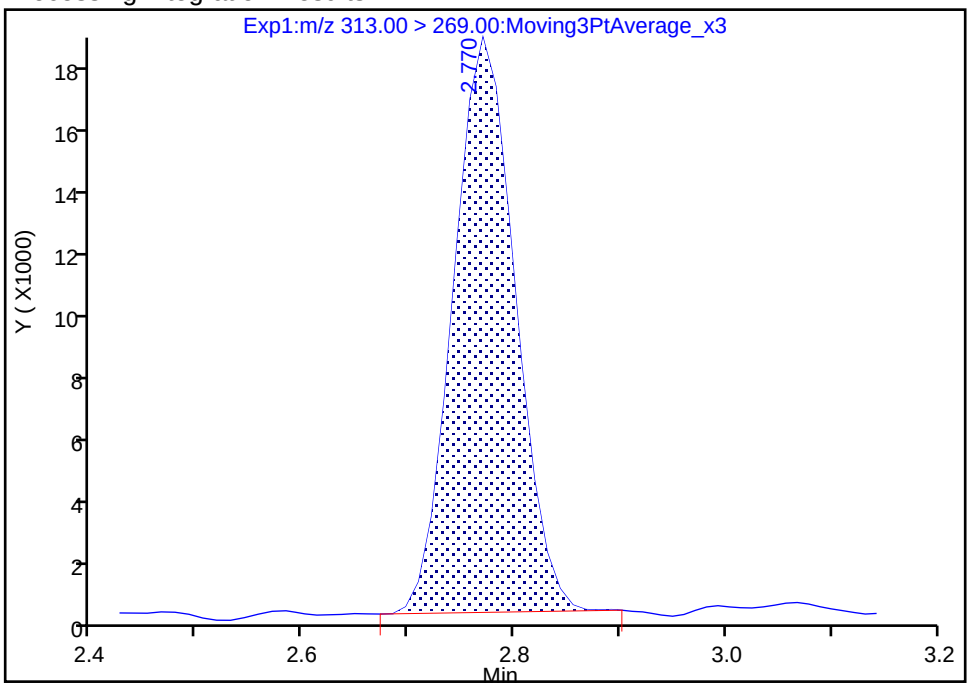
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

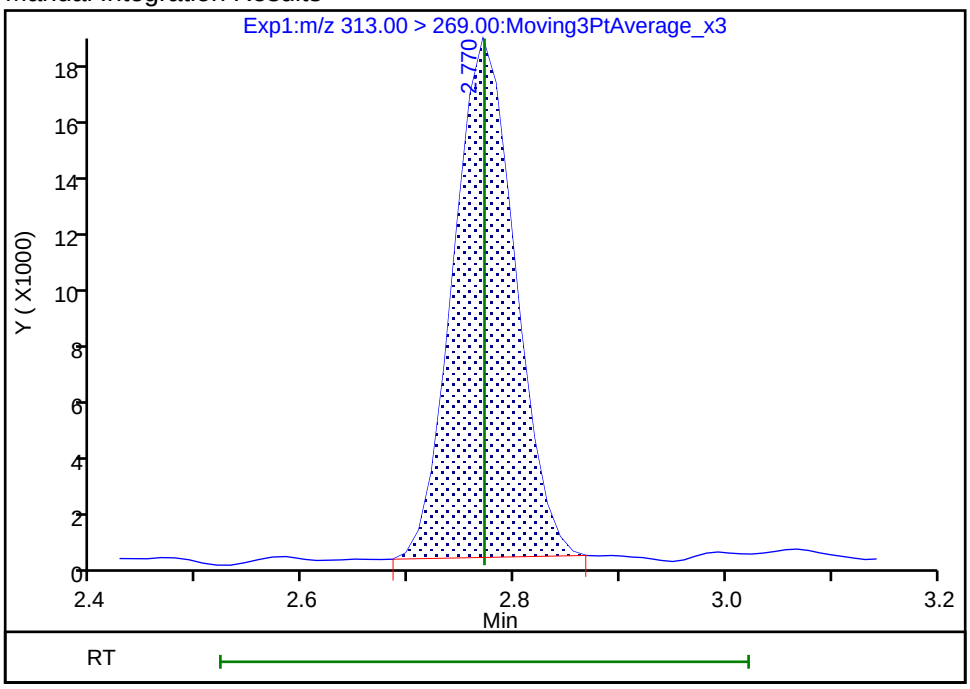
Processing Integration Results

RT: 2.77
Area: 72875
Amount: 0.051644
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 72599
Amount: 0.051448
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:26:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

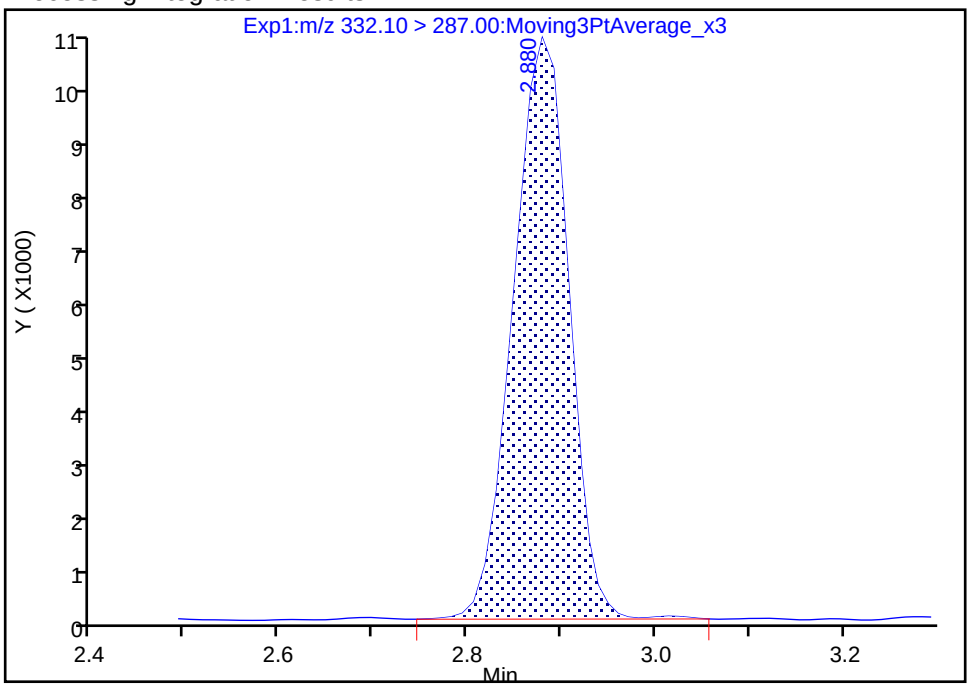
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

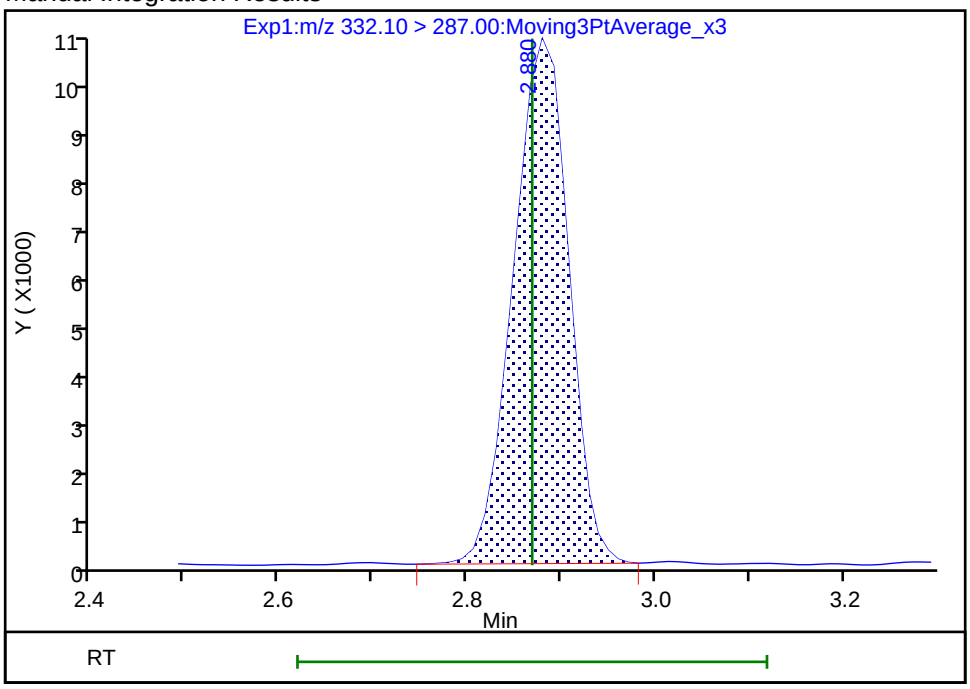
Processing Integration Results

RT: 2.88
Area: 43552
Amount: 1.278199
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 43303
Amount: 1.270891
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:26:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

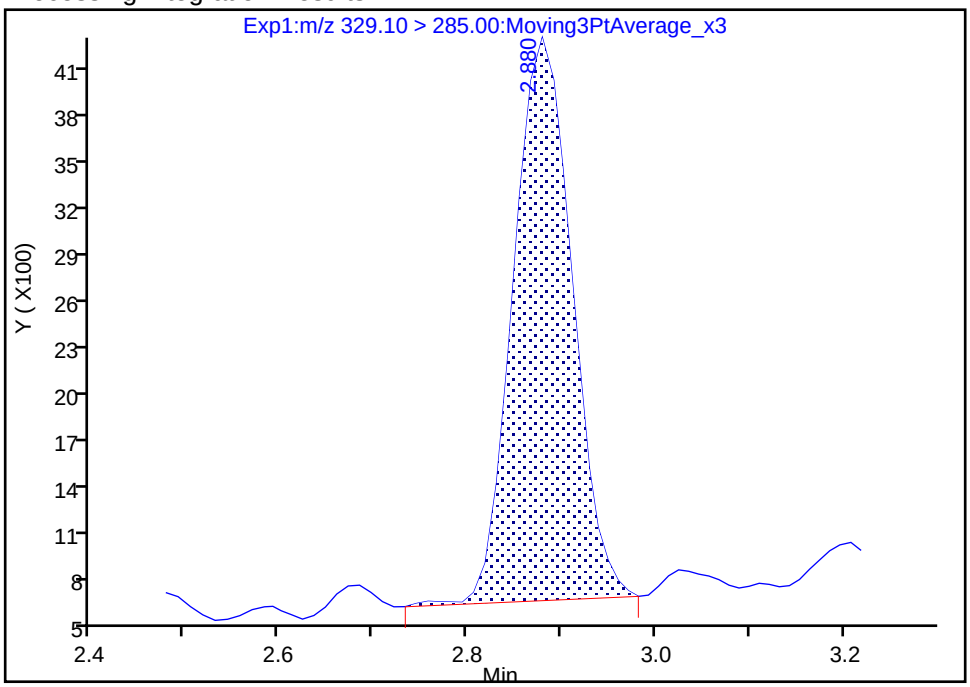
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

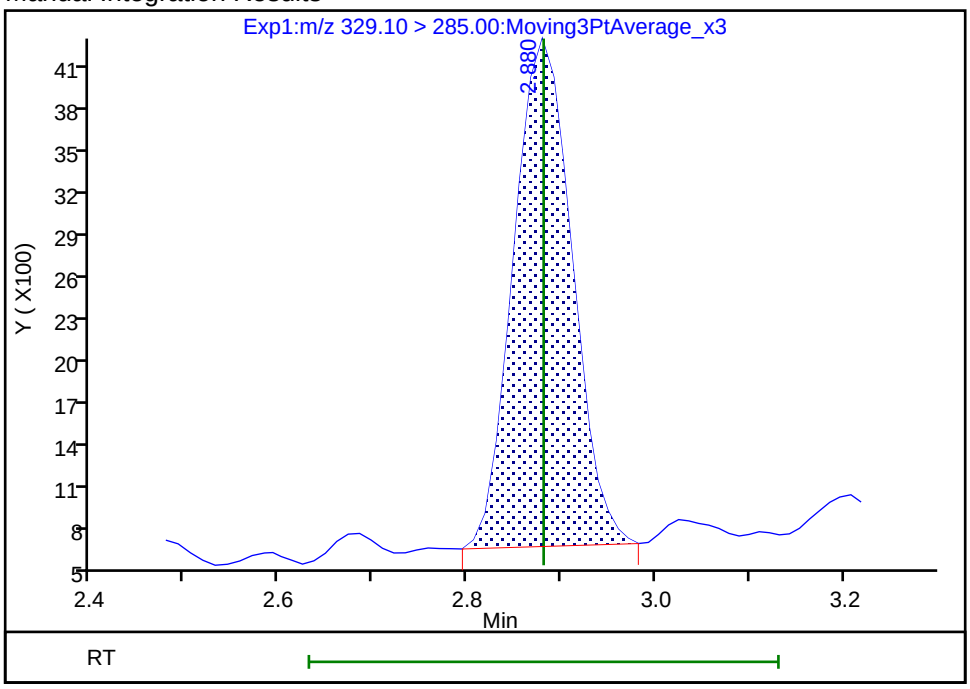
Processing Integration Results

RT: 2.88
Area: 15570
Amount: 0.099323
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 15437
Amount: 0.098475
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

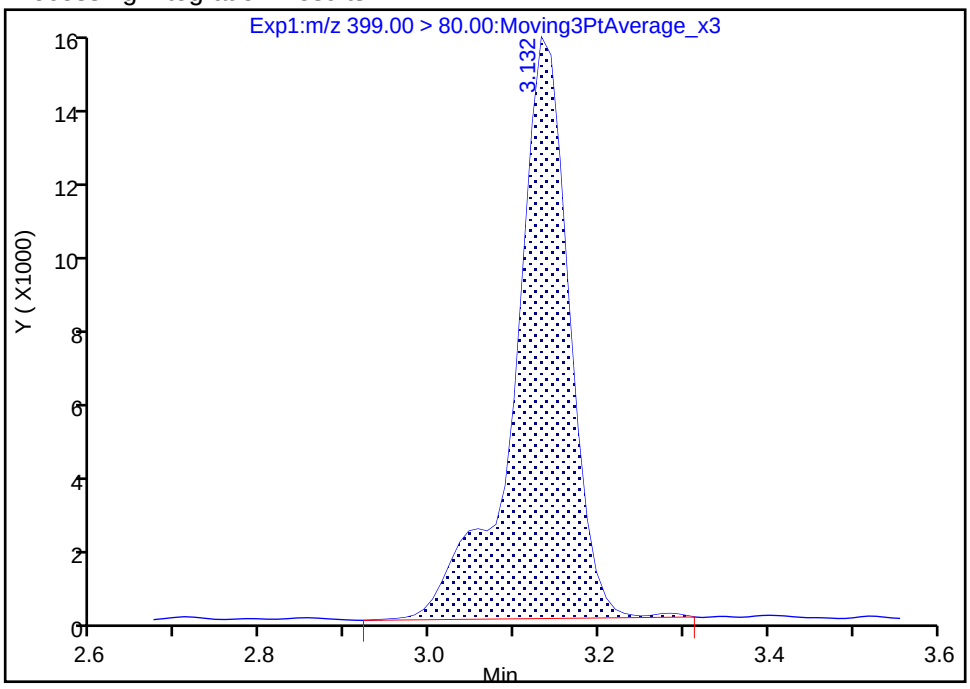
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

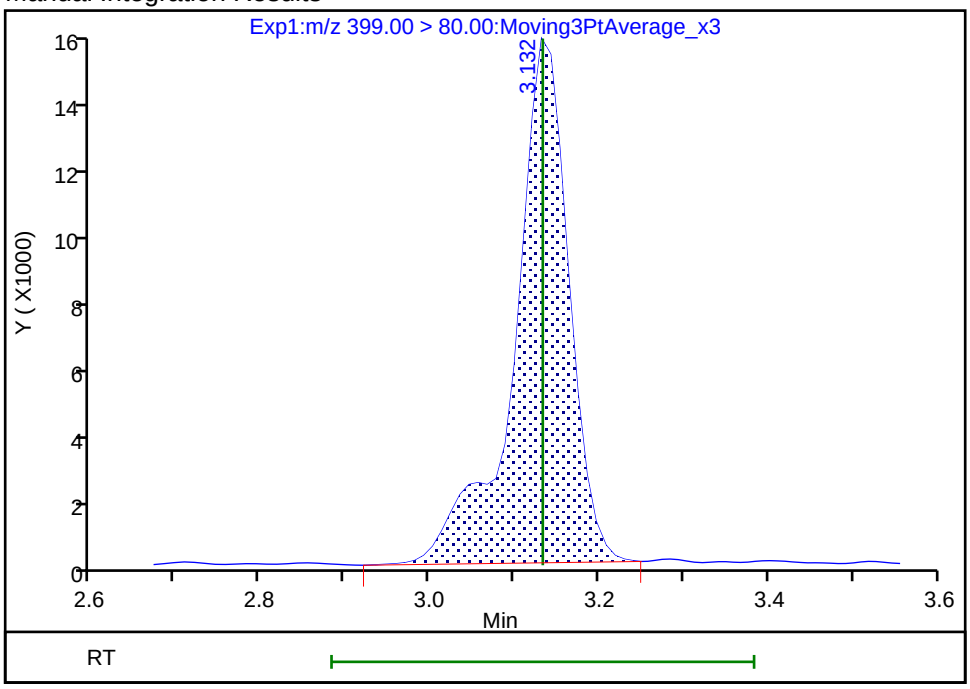
Processing Integration Results

RT: 3.13
Area: 69322
Amount: 0.051773
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 68740
Amount: 0.051339
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

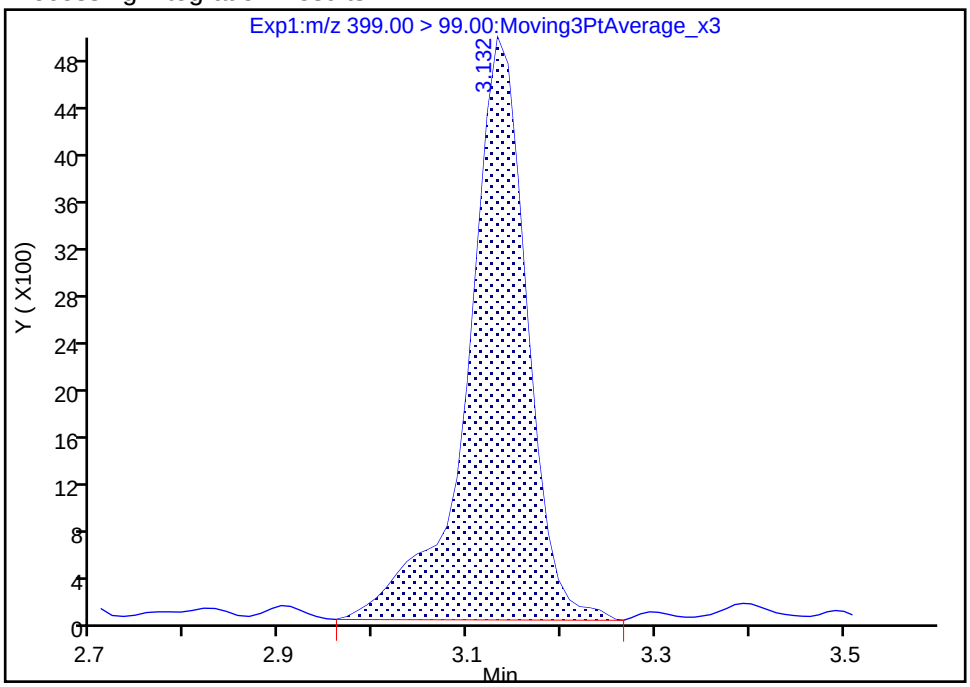
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

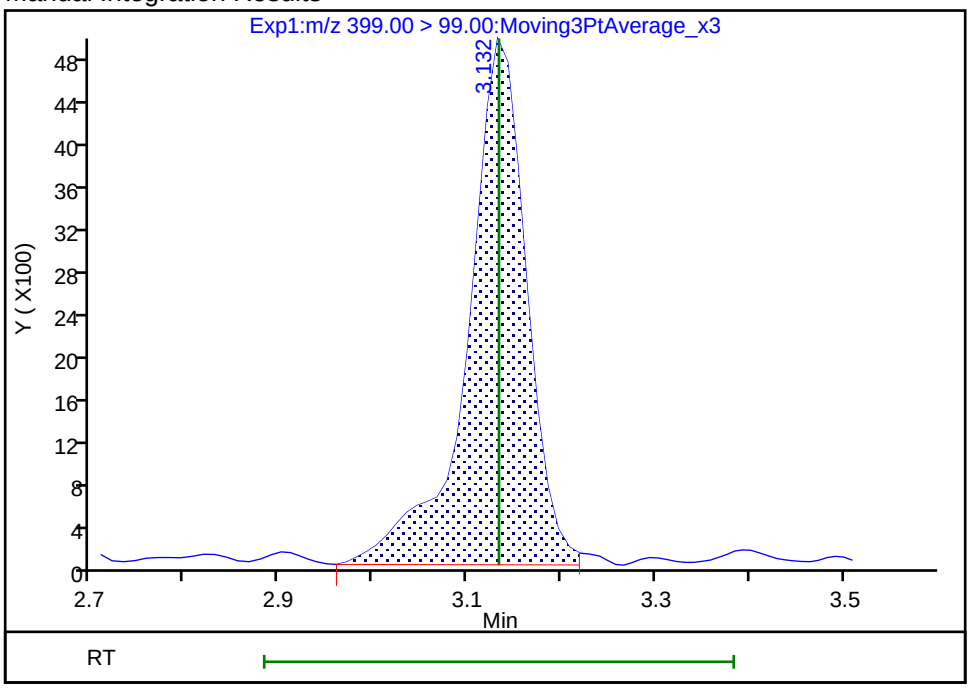
Processing Integration Results

RT: 3.13
Area: 21203
Amount: 0.051773
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 21022
Amount: 0.051339
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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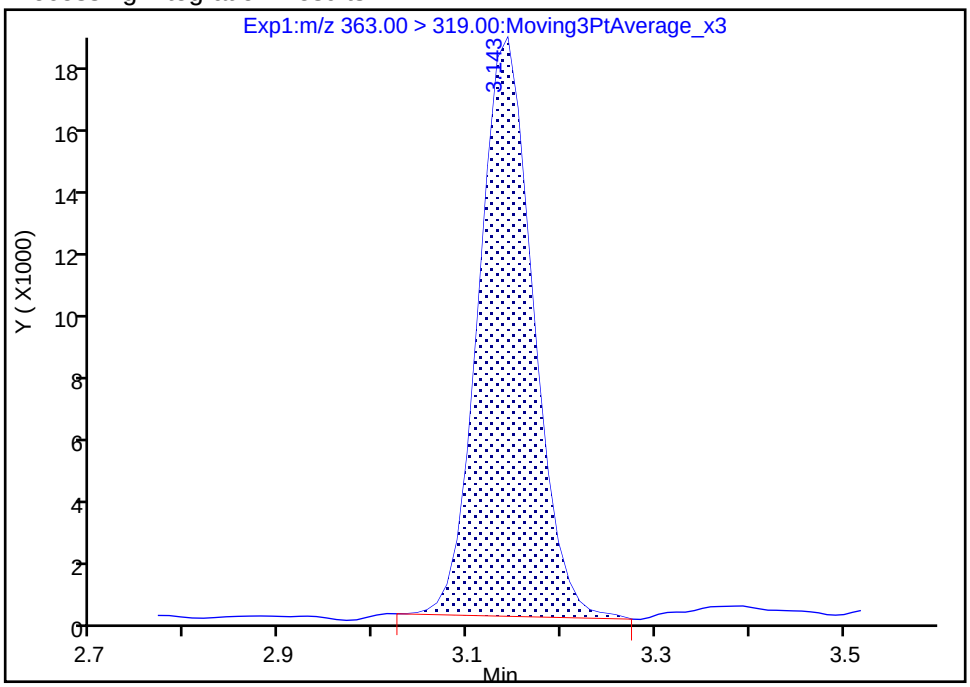
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

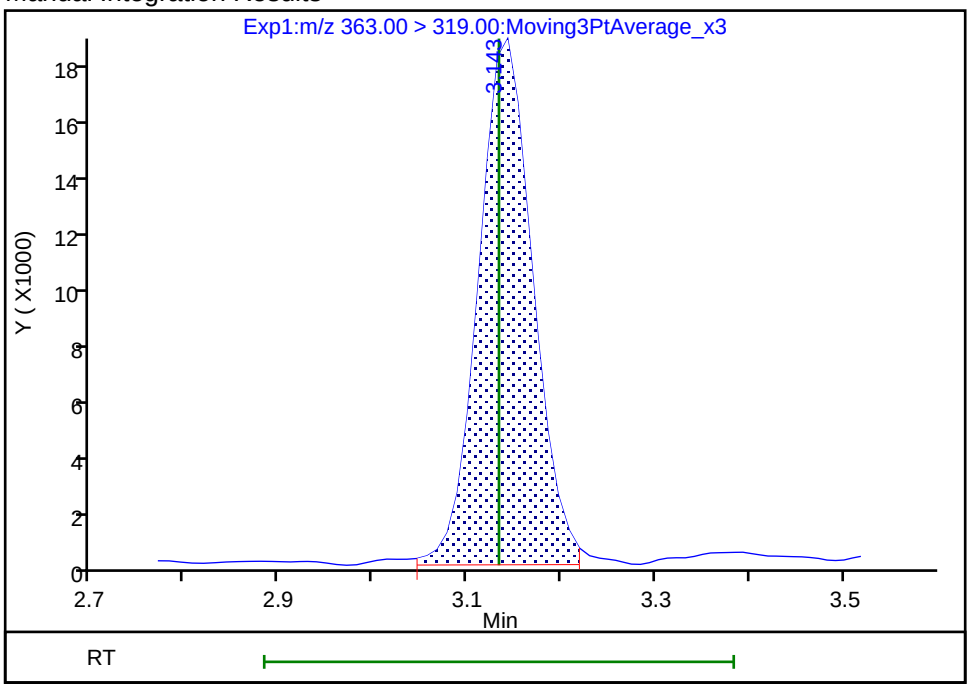
Processing Integration Results

RT: 3.14
Area: 72927
Amount: 0.049865
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 73529
Amount: 0.050277
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

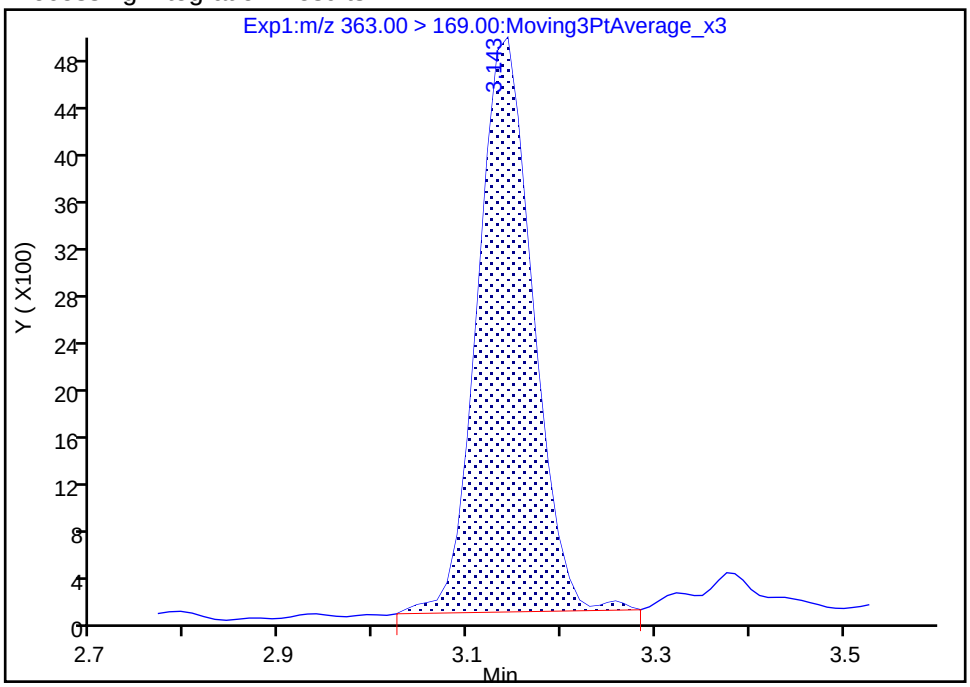
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

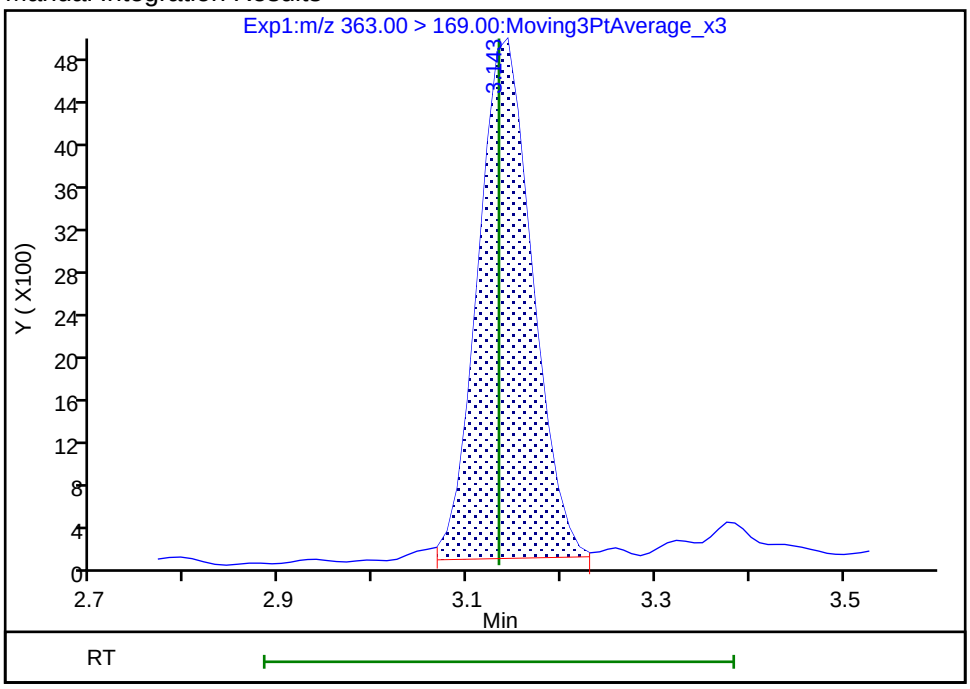
Processing Integration Results

RT: 3.14
Area: 19799
Amount: 0.049865
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 19556
Amount: 0.050277
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

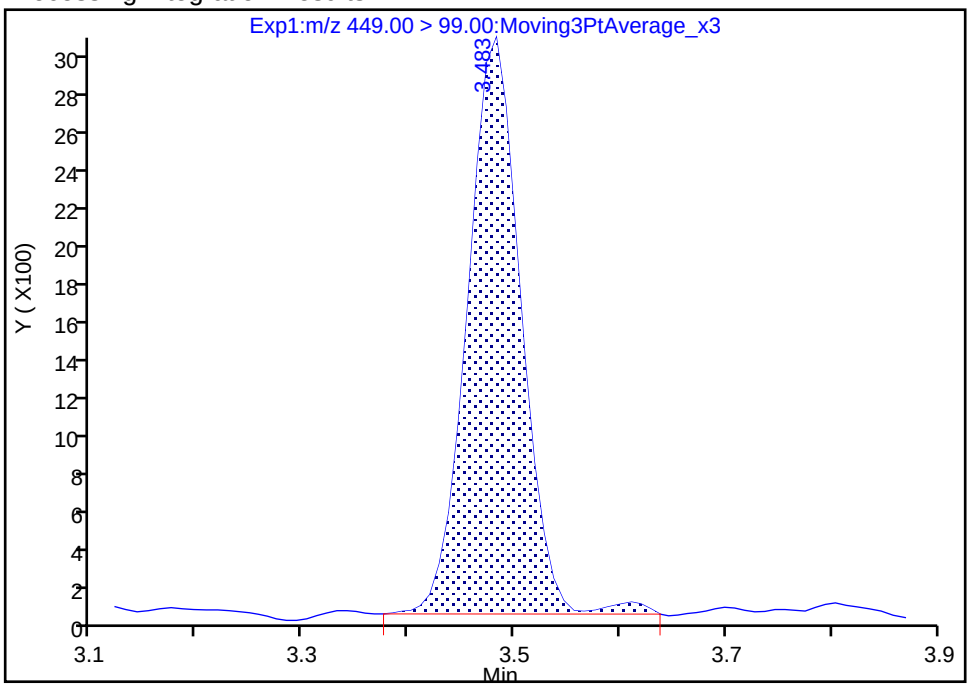
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

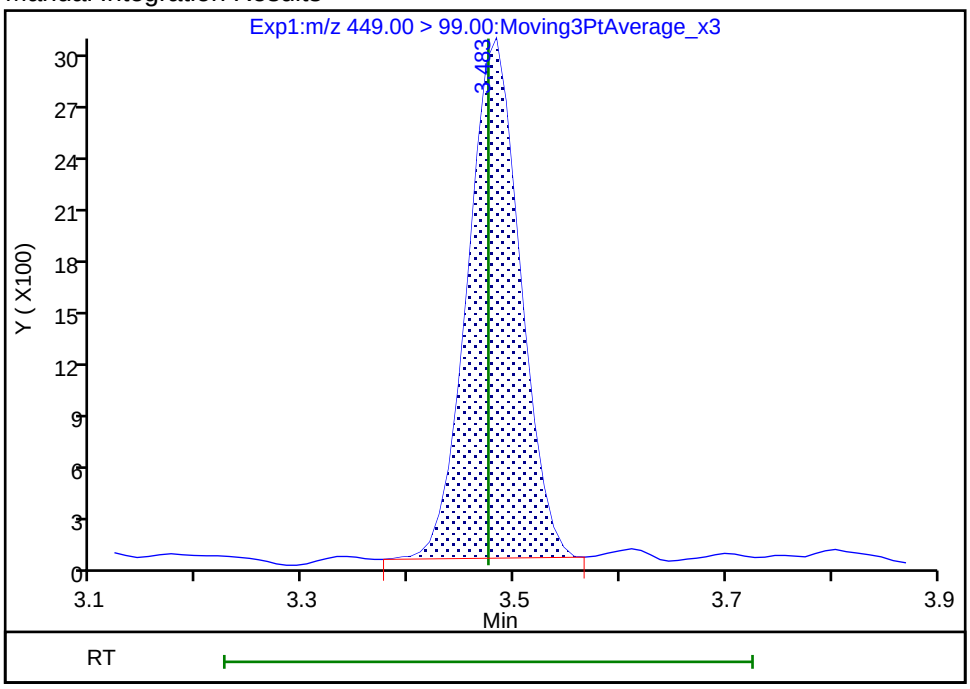
Processing Integration Results

RT: 3.48
Area: 10674
Amount: 0.047696
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 10436
Amount: 0.047696
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

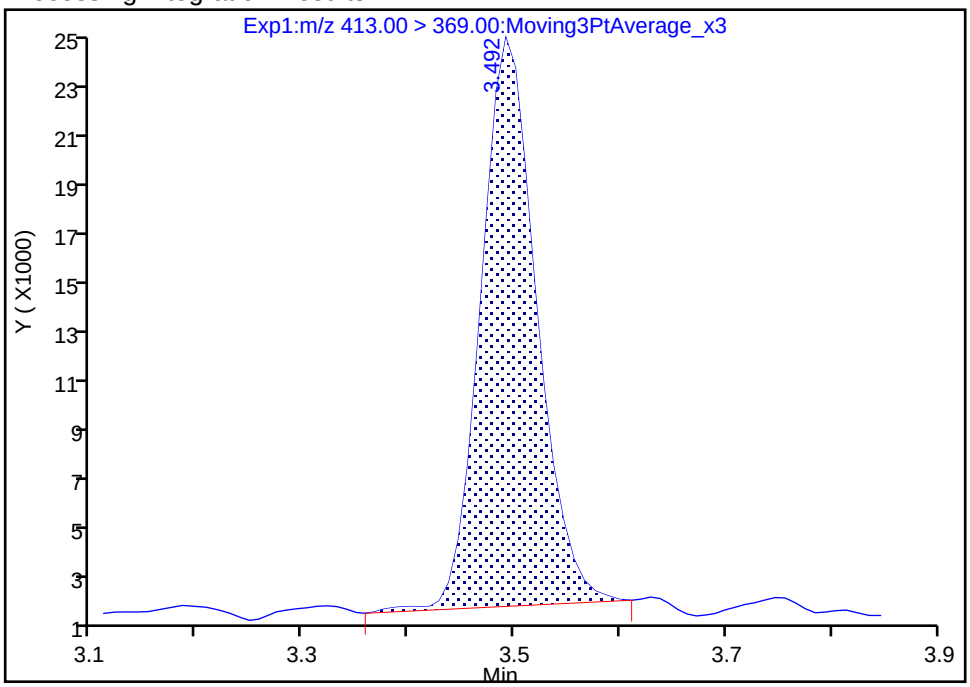
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

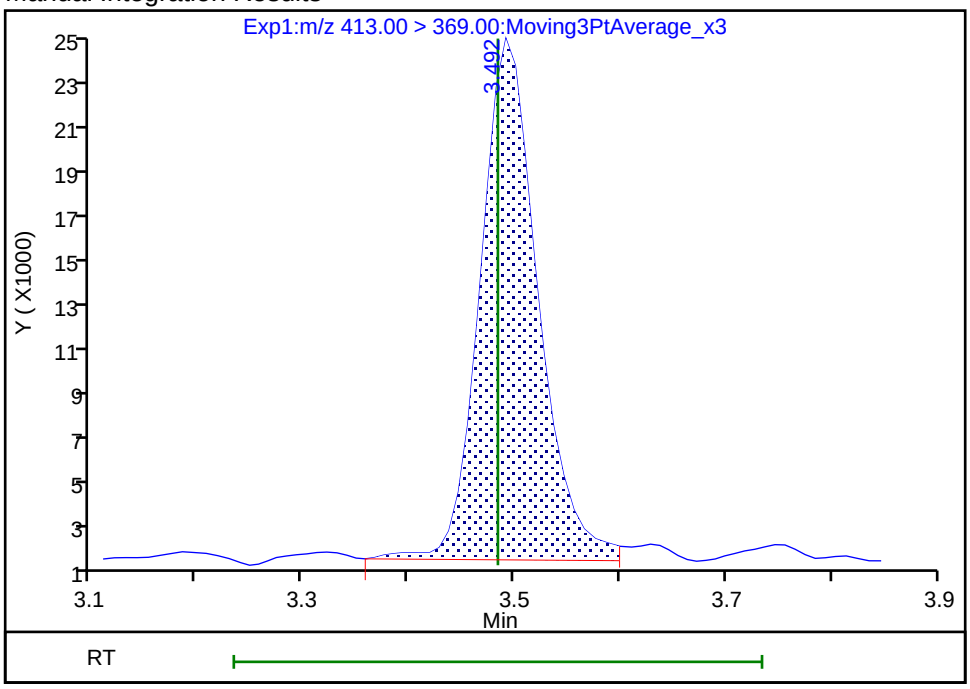
Processing Integration Results

RT: 3.49
Area: 83292
Amount: 0.052367
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 87449
Amount: 0.054981
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:27:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

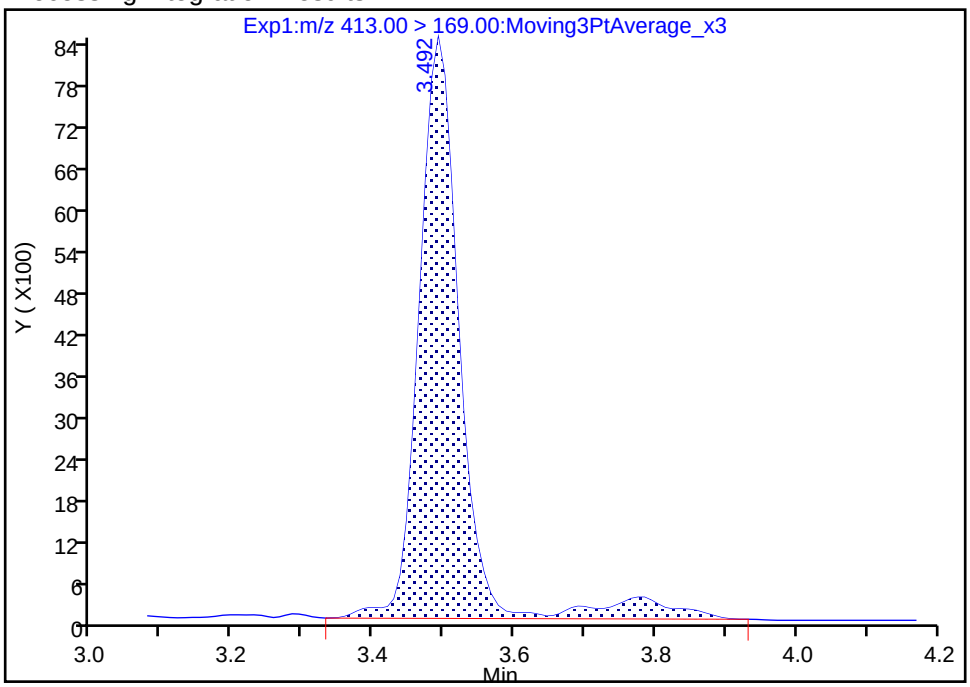
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

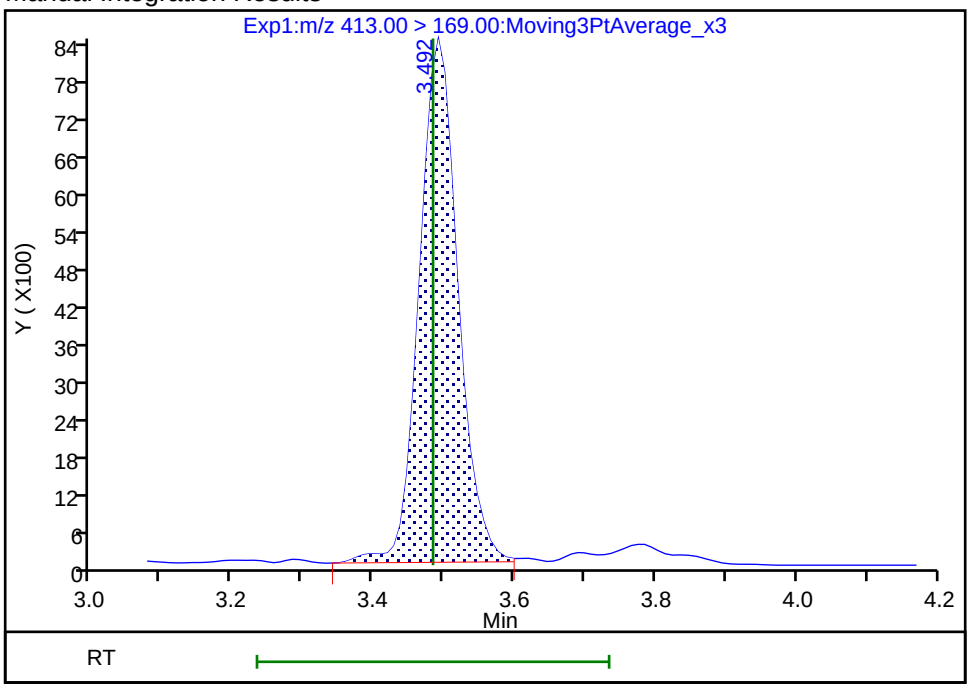
Processing Integration Results

RT: 3.49
Area: 34700
Amount: 0.052367
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 31825
Amount: 0.054981
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

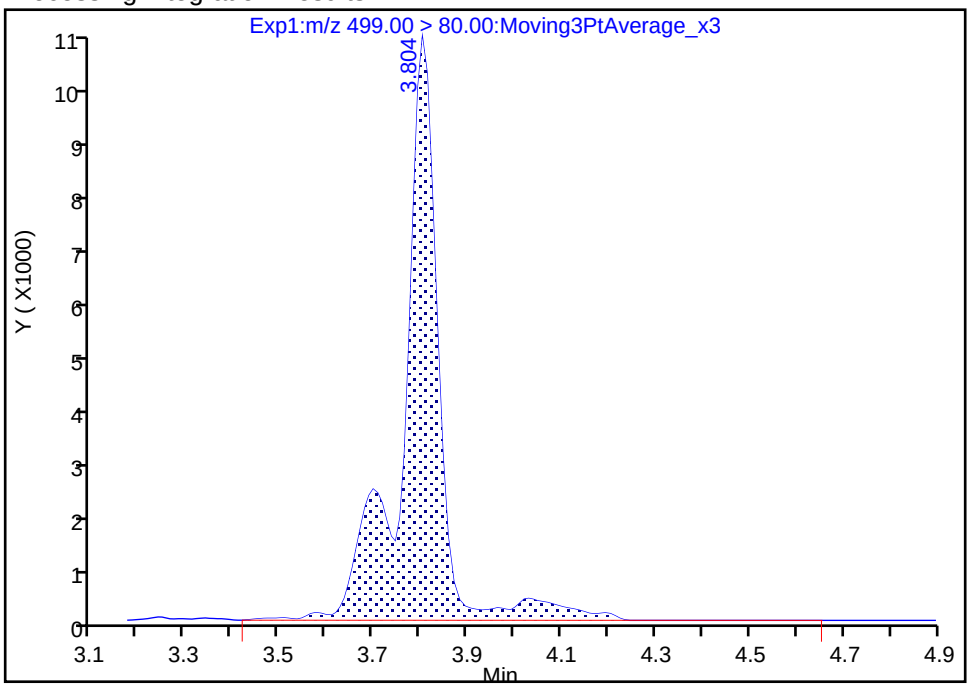
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

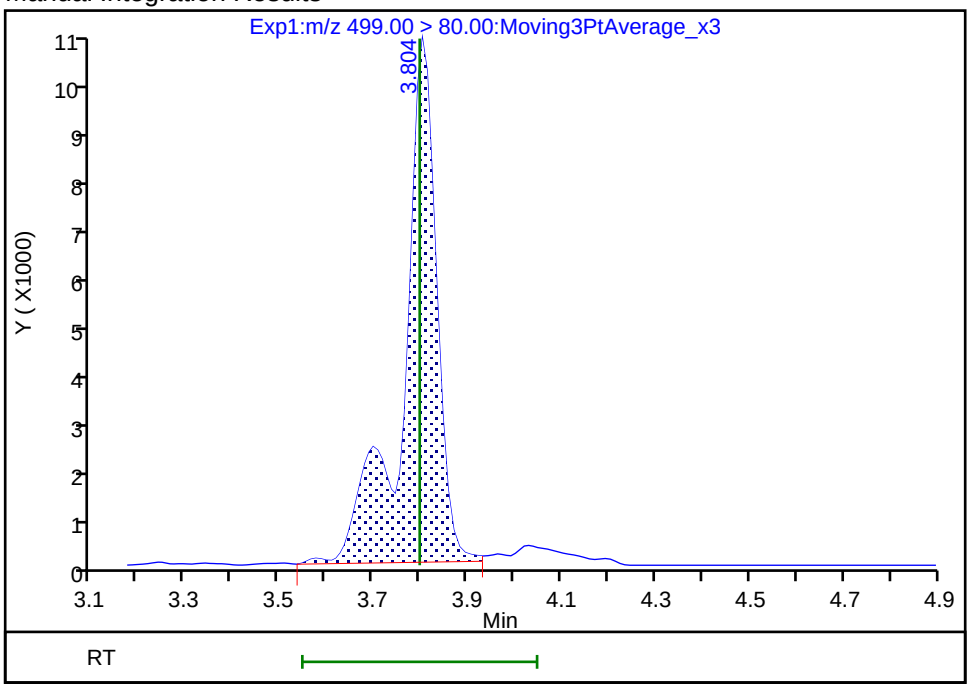
Processing Integration Results

RT: 3.80
Area: 54698
Amount: 0.054971
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 49701
Amount: 0.049949
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

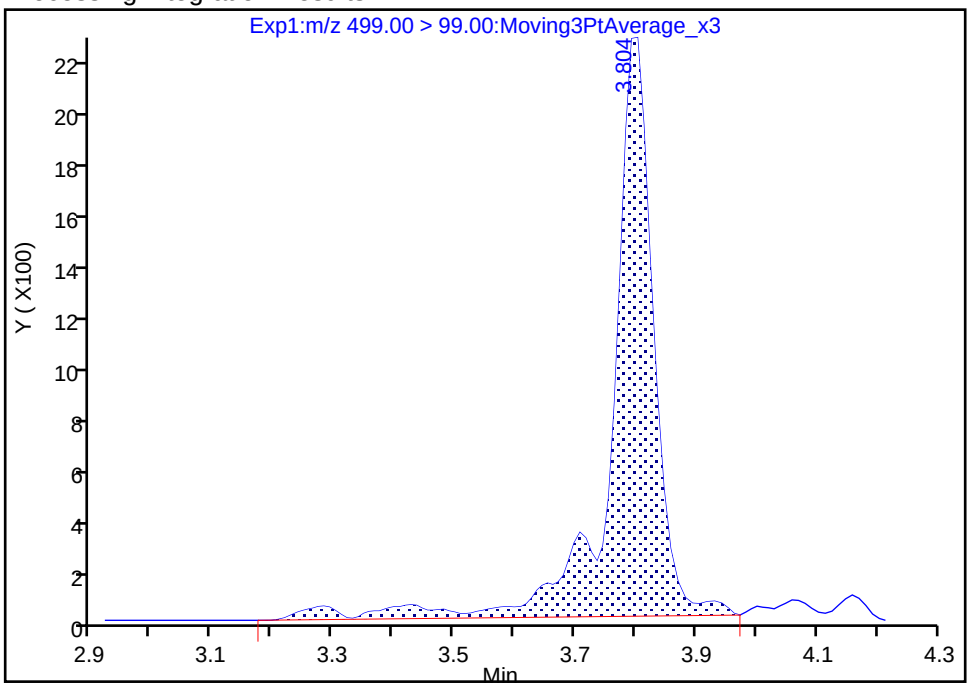
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

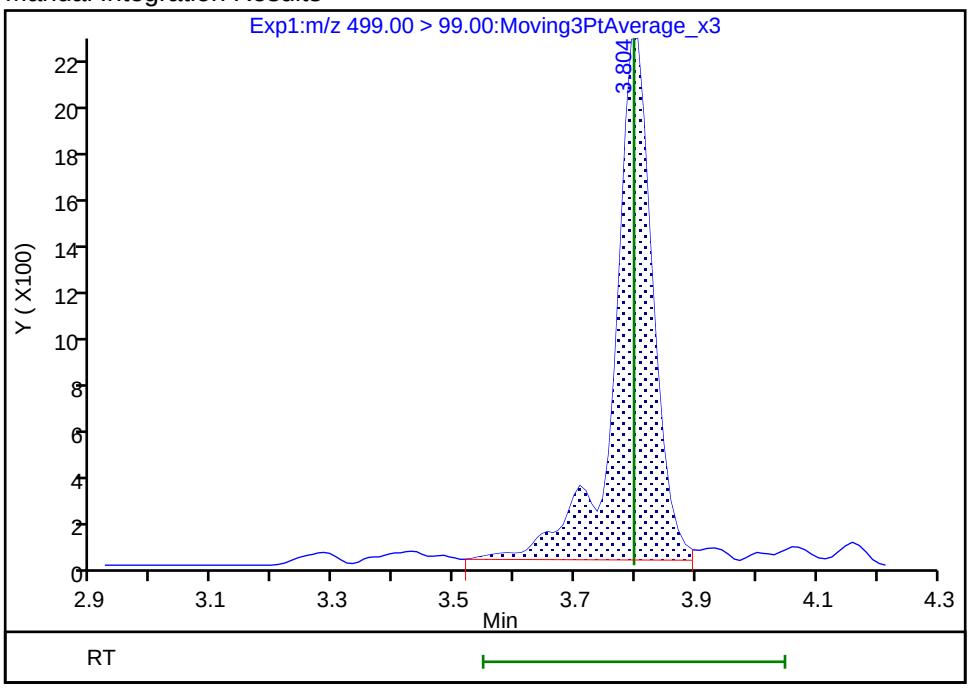
Processing Integration Results

RT: 3.80
Area: 10931
Amount: 0.054971
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 9954
Amount: 0.049949
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

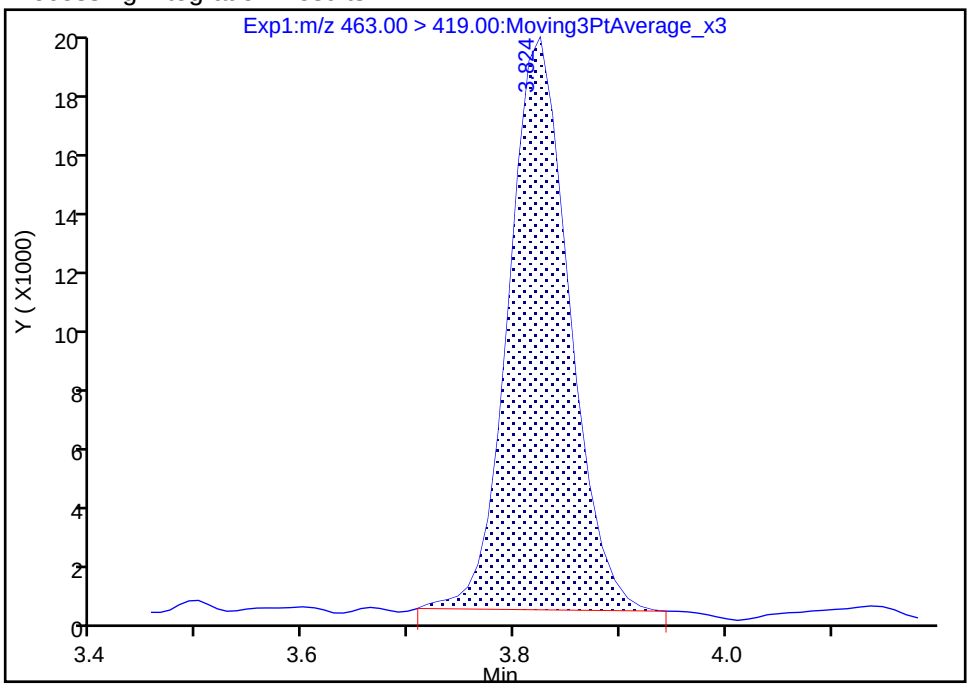
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

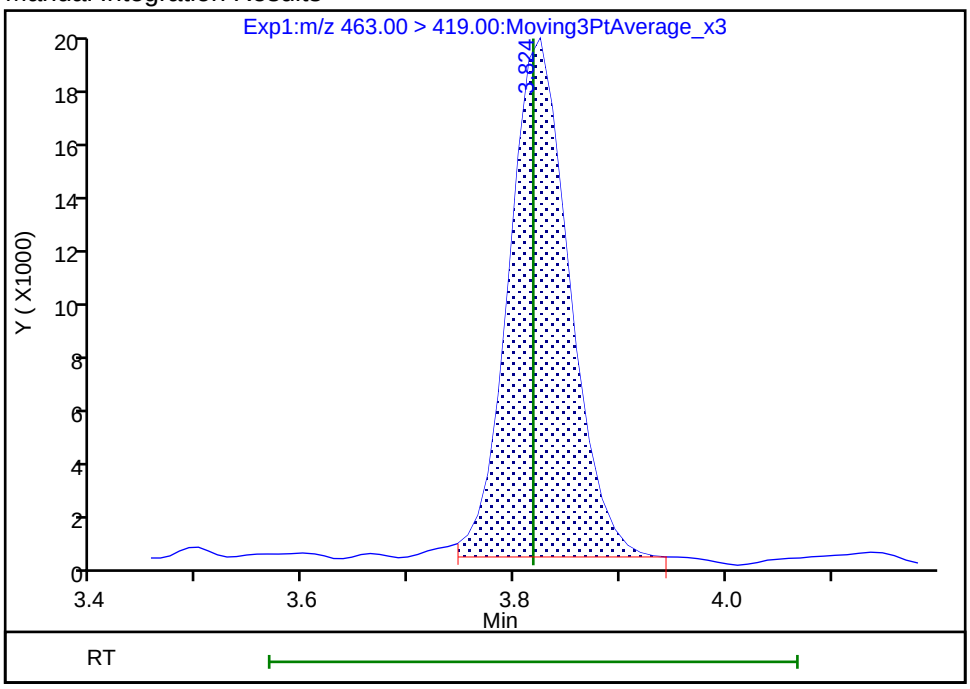
Processing Integration Results

RT: 3.82
Area: 74499
Amount: 0.053184
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 74450
Amount: 0.053149
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:38:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

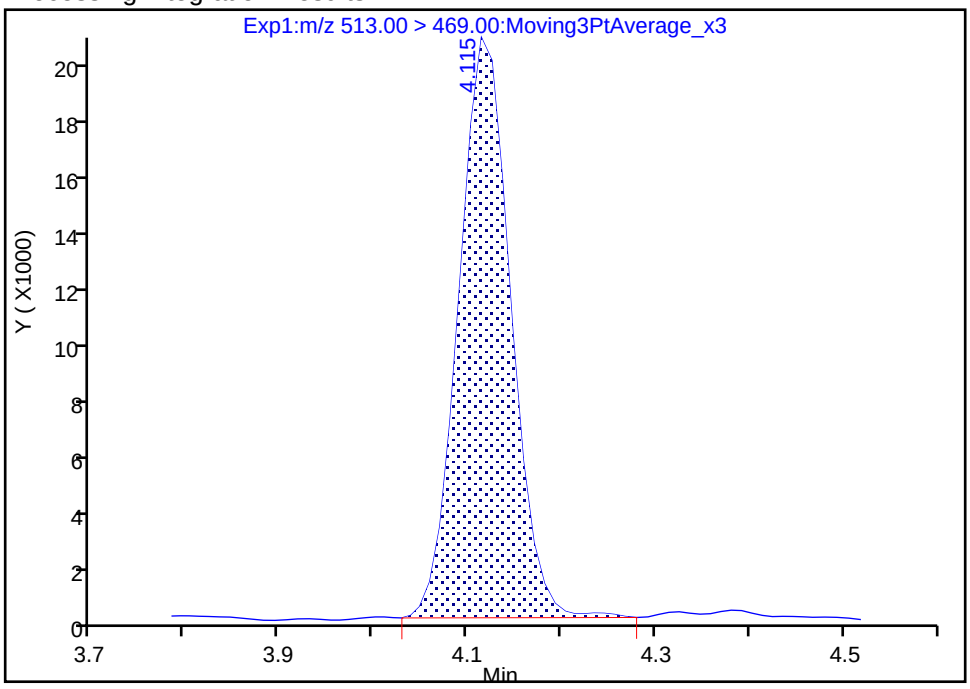
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

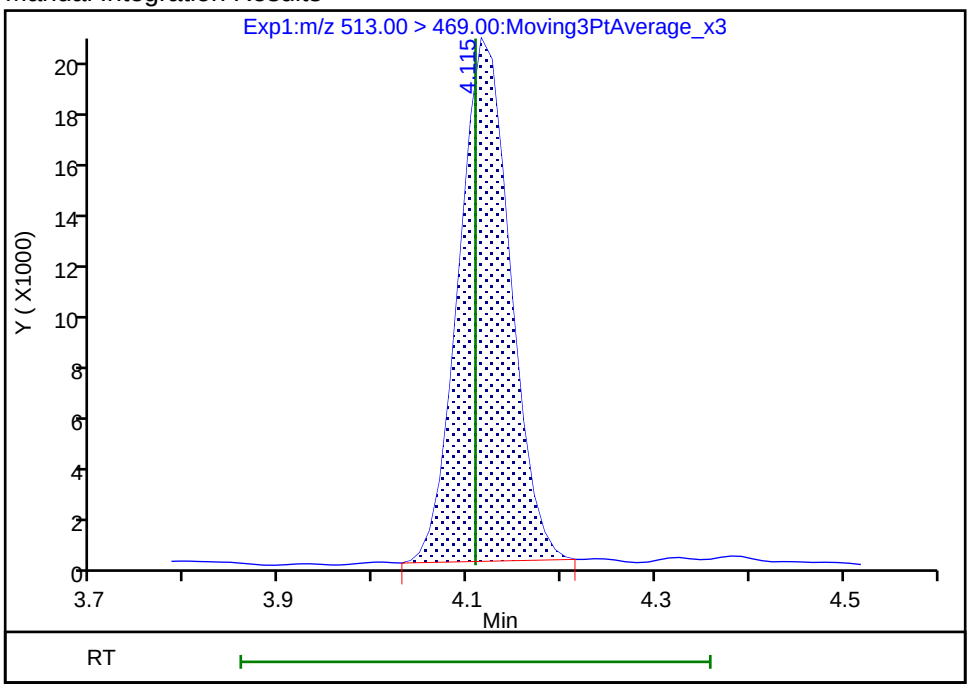
Processing Integration Results

RT: 4.11
Area: 78012
Amount: 0.056541
Amount Units: ng/ml




Manual Integration Results

RT: 4.11
Area: 76891
Amount: 0.055729
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

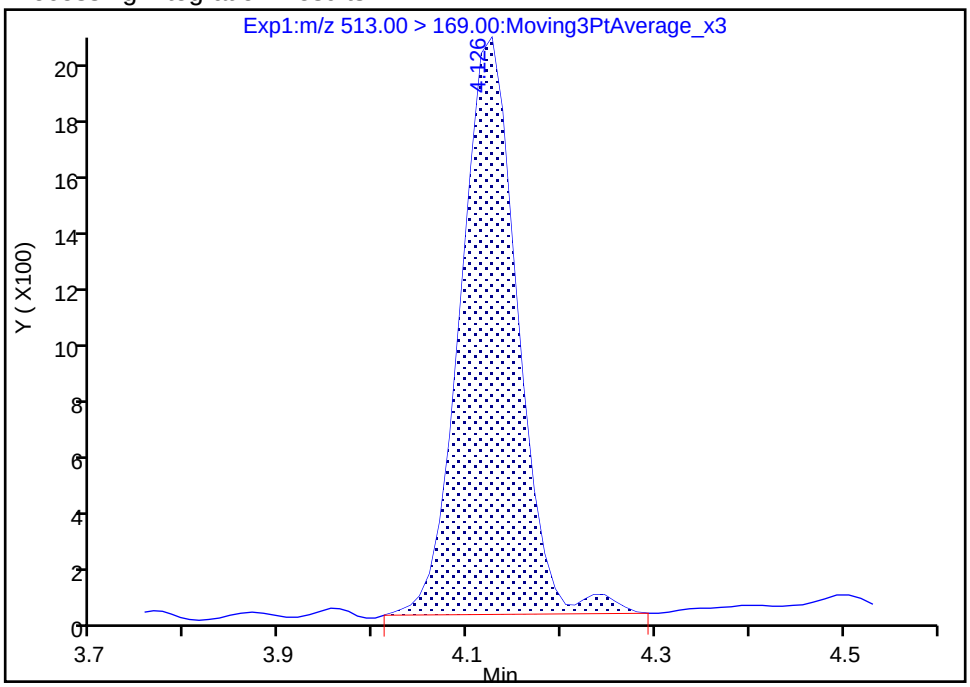
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

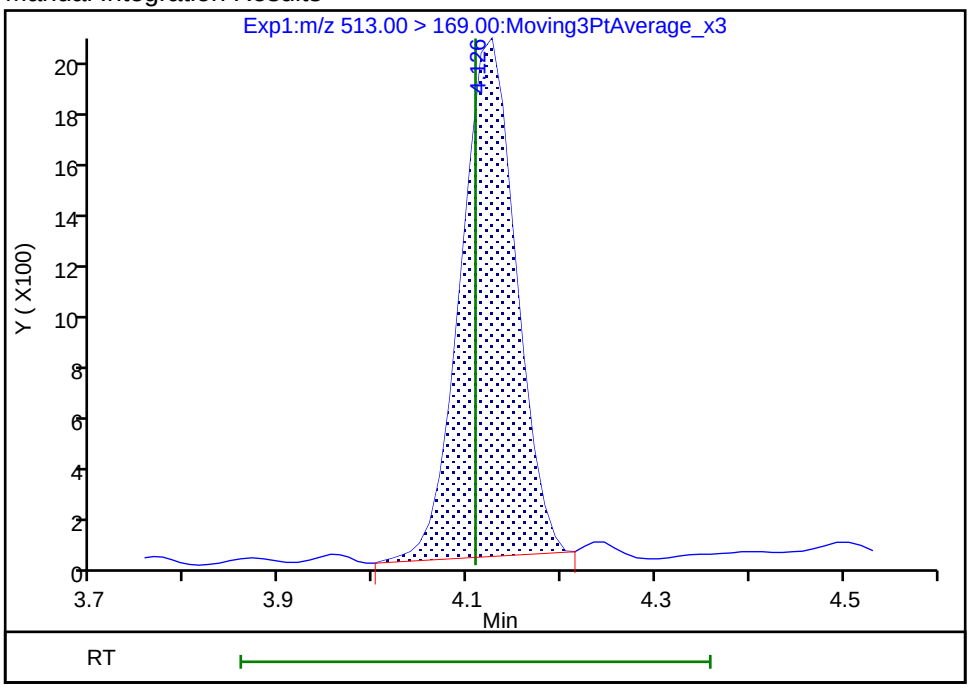
Processing Integration Results

RT: 4.13
Area: 8639
Amount: 0.056541
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 8333
Amount: 0.055729
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

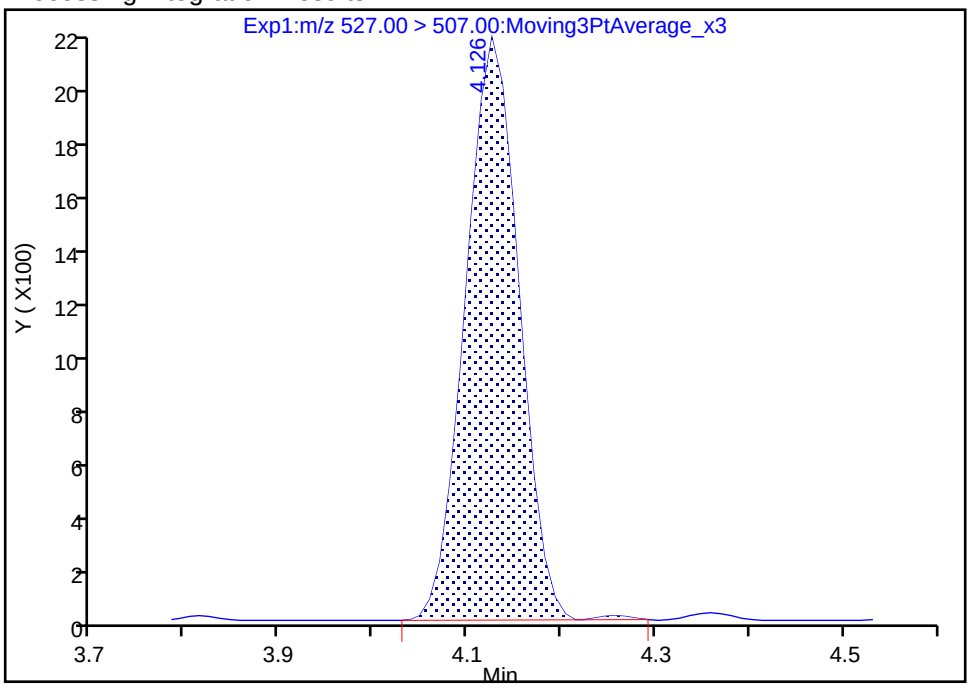
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

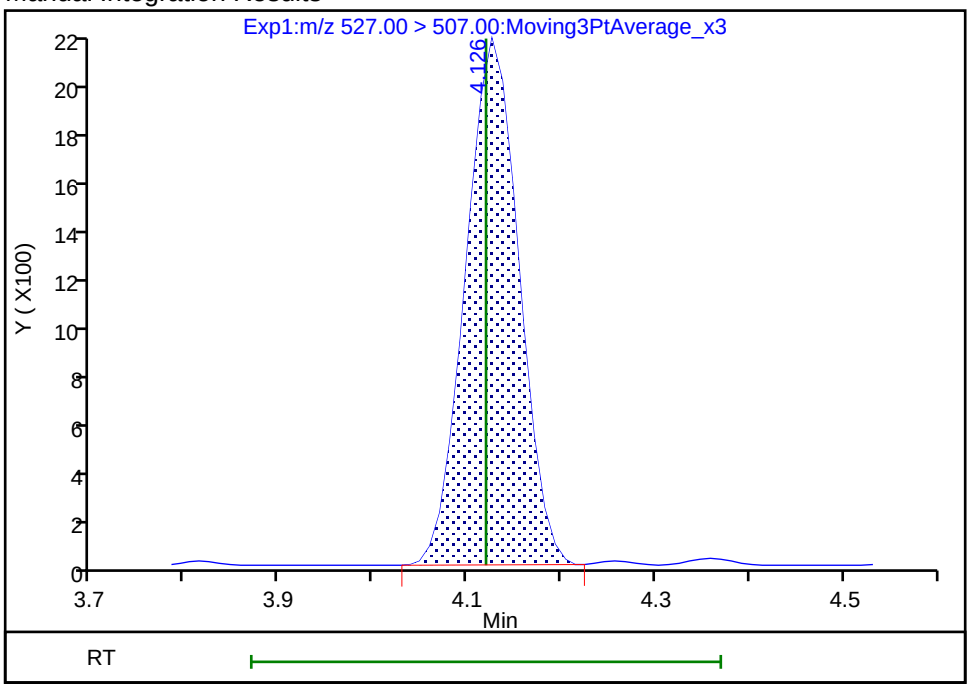
Processing Integration Results

RT: 4.13
Area: 8715
Amount: 0.040540
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 8676
Amount: 0.040359
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

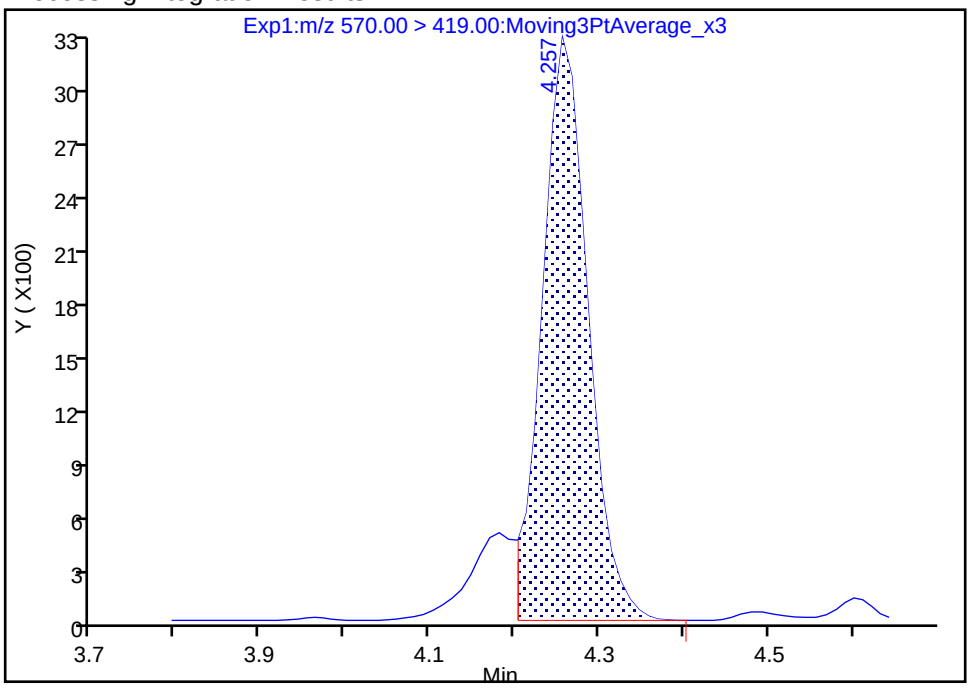
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

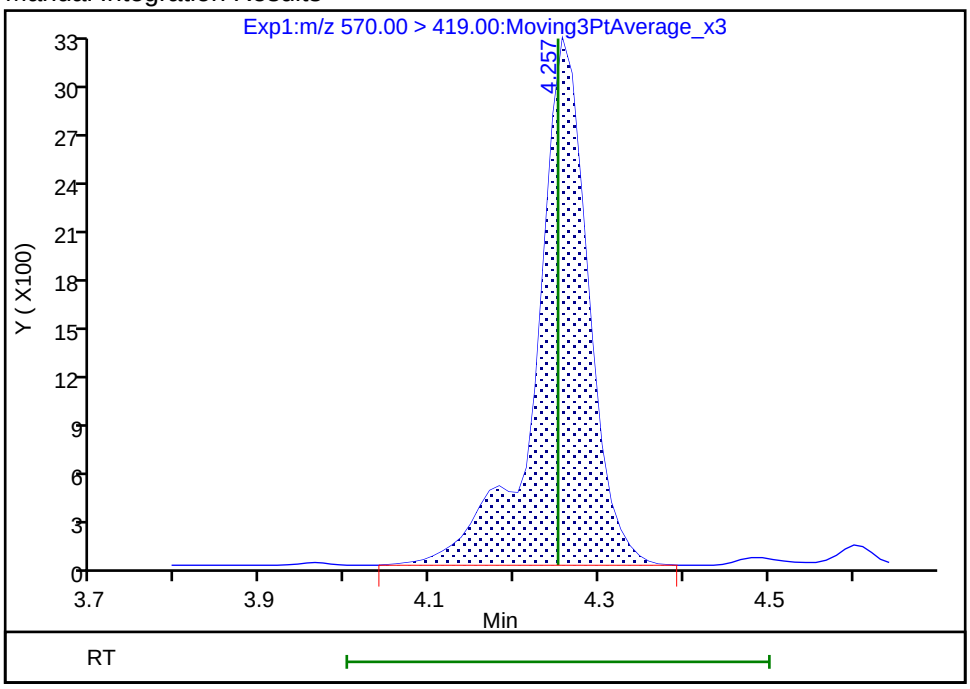
Processing Integration Results

RT: 4.26
Area: 12171
Amount: 0.100077
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 14017
Amount: 0.115256
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:28:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

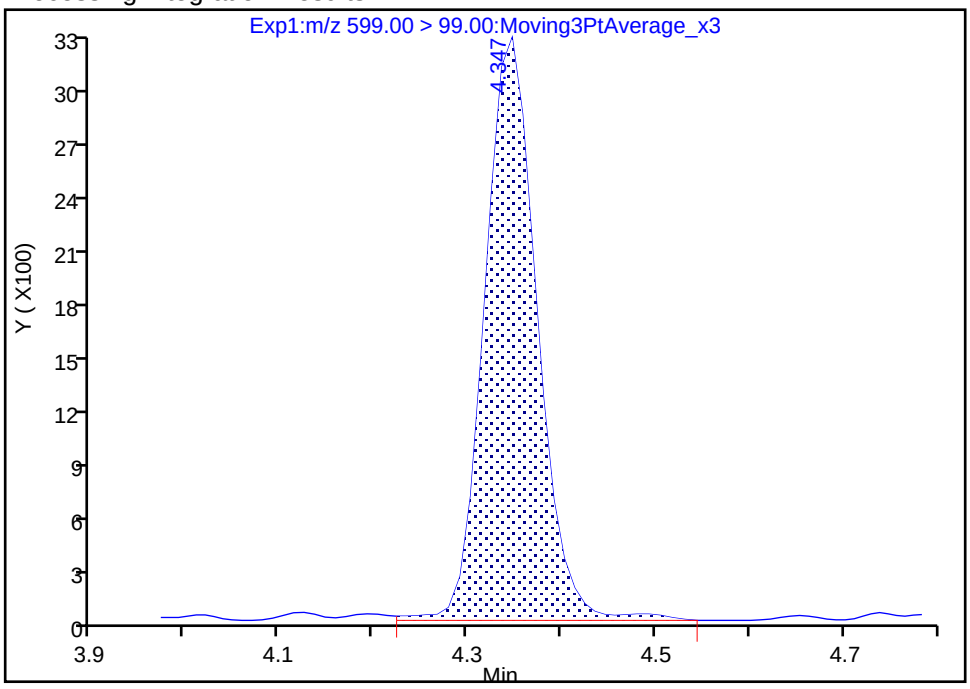
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

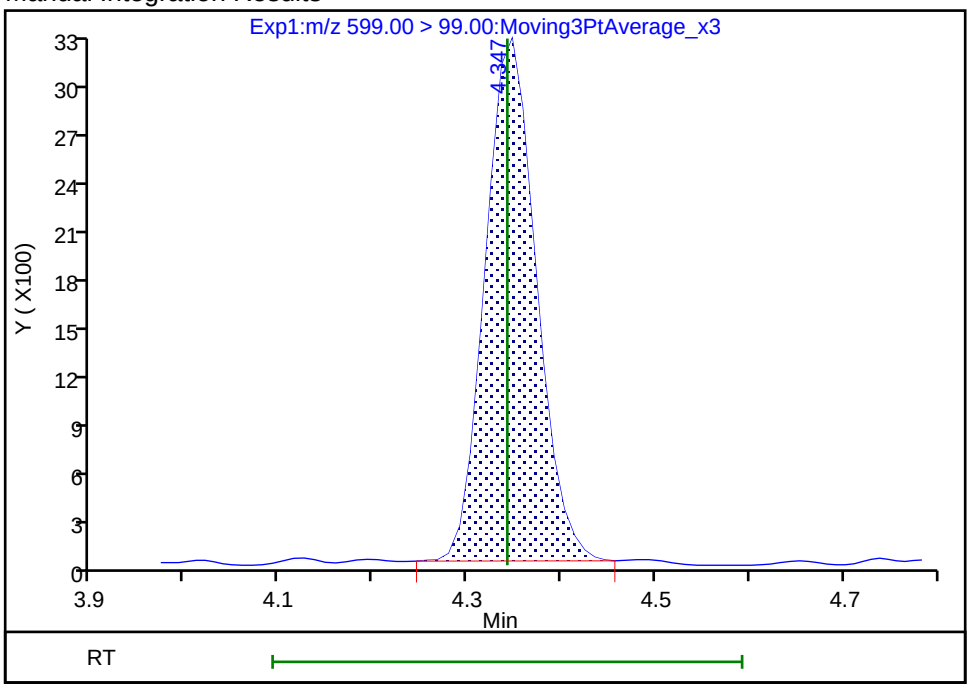
Processing Integration Results

RT: 4.35
Area: 12462
Amount: 0.048868
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 11985
Amount: 0.048868
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:29:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

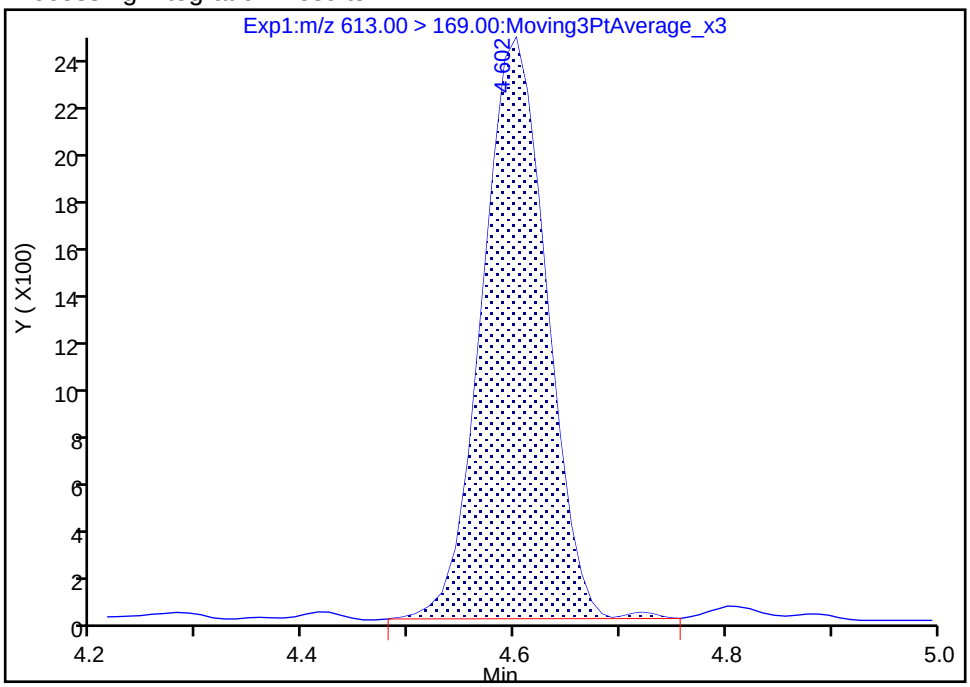
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d | | | | |
| Injection Date: | 10-Nov-2021 11:55:25 | Instrument ID: | LC812 | | |
| Lims ID: | CCVL | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 5 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

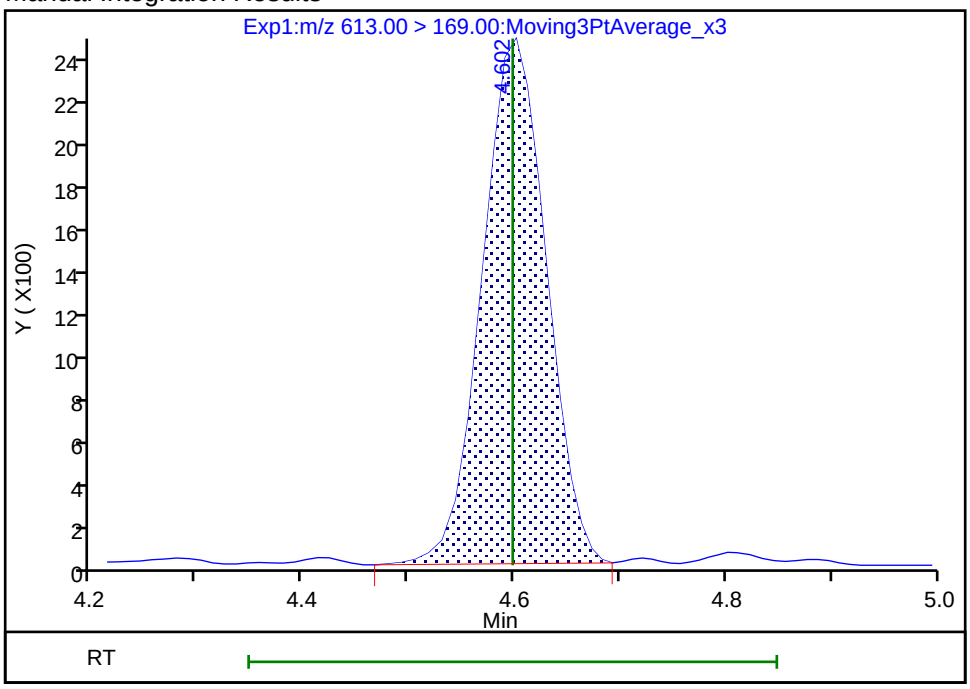
Processing Integration Results

RT: 4.60
Area: 10477
Amount: 0.058513
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 10427
Amount: 0.058513
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:29:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

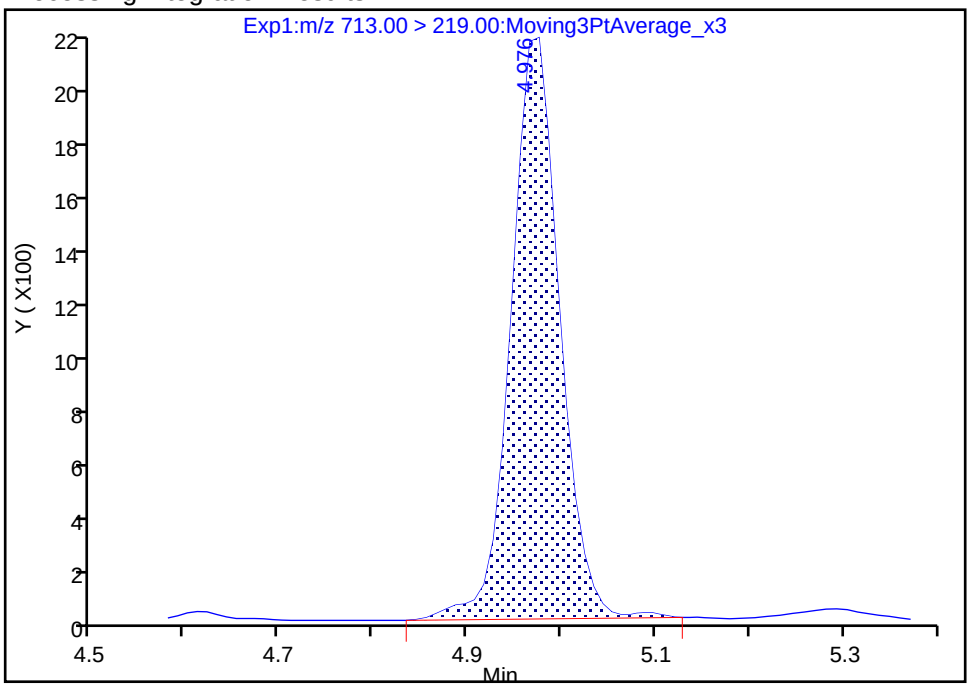
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

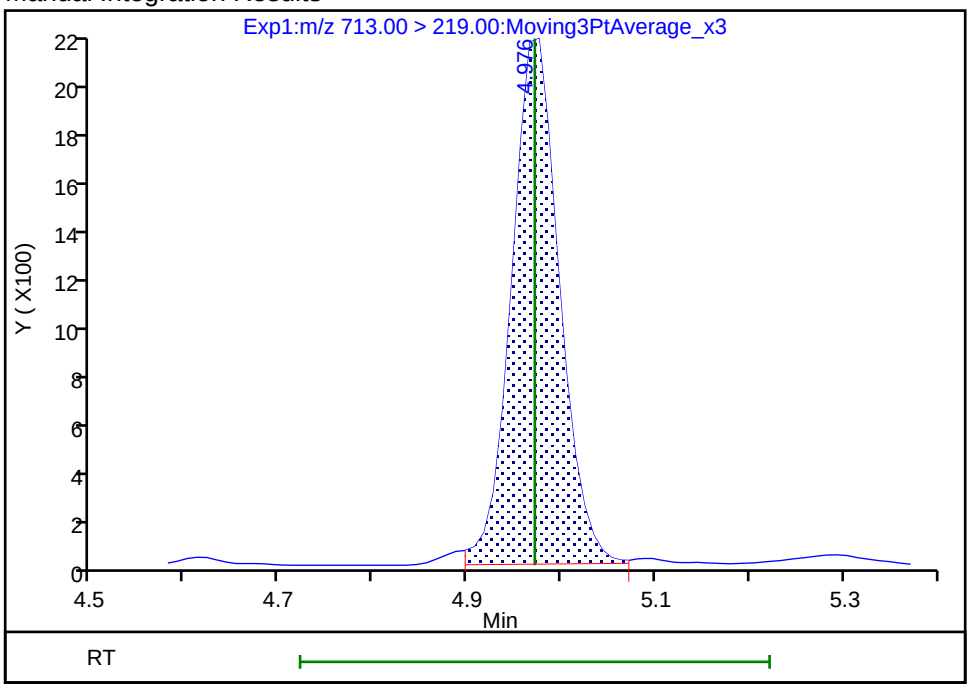
Processing Integration Results

RT: 4.98
Area: 7816
Amount: 0.056788
Amount Units: ng/ml




Manual Integration Results

RT: 4.98
Area: 7685
Amount: 0.056788
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:29:22
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

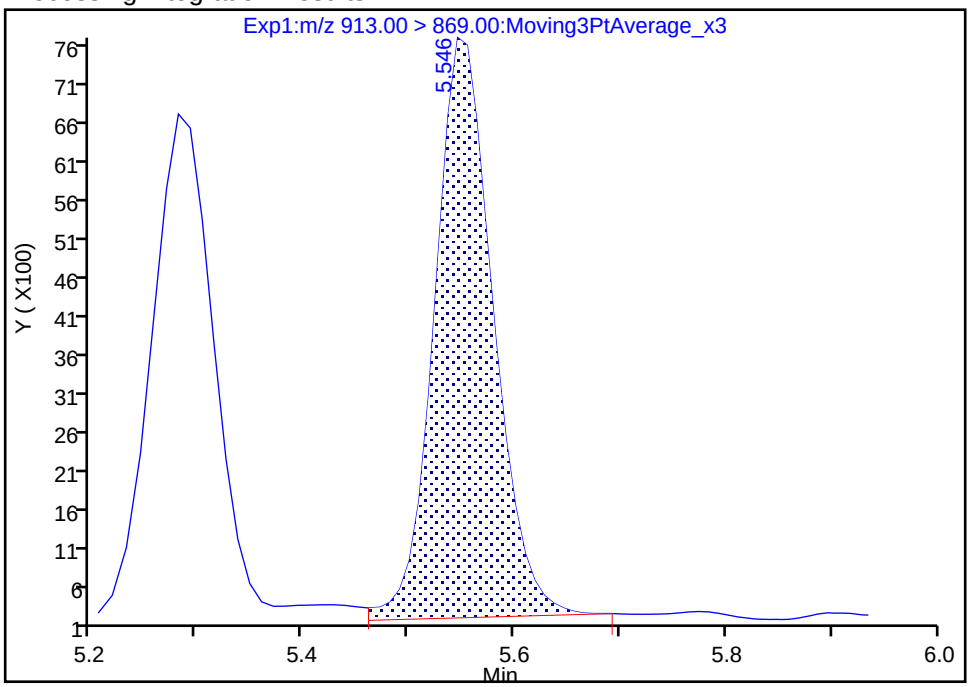
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A05.d
Injection Date: 10-Nov-2021 11:55:25 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 1

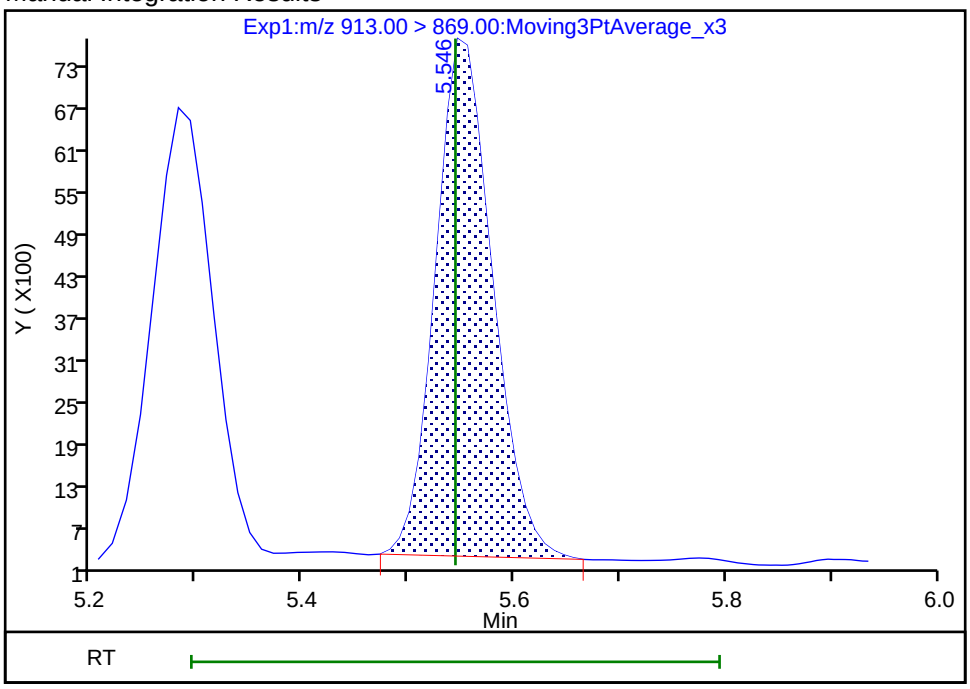
Processing Integration Results

RT: 5.55
Area: 29008
Amount: 0.045657
Amount Units: ng/ml




Manual Integration Results

RT: 5.55
Area: 27826
Amount: 0.043797
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:29:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173694/6  Calibration Date: 11/10/2021 12:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8856 | | 0.937 | 1.00 | -6.3 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9621 | | 0.960 | 1.00 | -4.0 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.9825 | | 0.813 | 0.884 | -8.0 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.109 | | 0.925 | 0.934 | -0.9 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9851 | | 0.971 | 1.00 | -2.9 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.193 | | 0.929 | 0.938 | -0.9 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.993 | | 1.32 | 1.00 | 32.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.049 | | 1.02 | 1.00 | 1.5 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.044 | | 0.864 | 0.910 | -5.0 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.417 | | 0.920 | 0.942 | -2.4 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.214 | | 0.907 | 0.948 | -4.3 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.194 | | 0.911 | 0.952 | -4.3 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.004 | | 0.944 | 1.00 | -5.6 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.009 | | 0.863 | 0.928 | -7.0 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9240 | | 0.944 | 1.00 | -5.6 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.417 | | 0.808 | 0.932 | -13.3 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7695 | | 0.874 | 0.960 | -9.0 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.032 | | 1.03 | 1.00 | 2.7 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7848 | | 0.899 | 0.958 | -6.2 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9184 | | 0.967 | 1.00 | -3.3 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.8108 | | 1.03 | 1.00 | 3.2 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.5934 | | 0.870 | 0.964 | -9.7 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.037 | | 0.973 | 1.00 | -2.7 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8130 | | 0.949 | 1.00 | -5.1 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.728 | | 0.843 | 0.942 | -10.5 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.027 | | 1.05 | 1.00 | 4.9 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3826 | | 0.954 | 0.964 | -1.0 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2448 | | 0.980 | 0.968 | 1.3 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173694/6  Calibration Date: 11/10/2021 12:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7941 | | 0.941 | 1.00 | -5.9 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1618 | | 1.03 | 1.00 | 2.5 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9346 | | 1.08 | 1.00 | 7.7 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6898 | | 0.818 | 1.00 | -18.2 | |
| 13C4 PFBA | Ave | 1.012 | 1.279 | | 1.58 | 1.25 | 26.3 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9625 | | 1.41 | 1.25 | 12.9 | |
| 13C3 PFBS | Ave | 1.154 | 1.208 | | 1.22 | 1.16 | 4.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1083 | | 1.44 | 1.17 | 23.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9762 | | 1.36 | 1.25 | 9.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0167 | | 0.885 | 1.25 | -29.2 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9594 | | 1.27 | 1.25 | 1.9 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8675 | | 1.22 | 1.18 | 3.5 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1568 | | 1.41 | 1.19 | 18.6 | |
| 13C4 PFOA | Ave | 1.029 | 1.043 | | 1.27 | 1.25 | 1.4 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6510 | | 1.28 | 1.20 | 7.5 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.013 | | 1.24 | 1.25 | -1.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9559 | | 1.16 | 1.25 | -7.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1709 | | 1.37 | 1.20 | 14.0 | |
| 13C8 FOSA | Ave | 0.998 | 1.042 | | 1.31 | 1.25 | 4.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1090 | | 1.34 | 1.25 | 7.2 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7358 | | 1.14 | 1.25 | -8.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1036 | | 1.36 | 1.25 | 8.7 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7973 | | 1.15 | 1.25 | -8.1 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5942 | | 1.10 | 1.25 | -11.7 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5220 | | 1.10 | 1.25 | -11.9 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 10-Nov-2021 12:03:36 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 200-0048360-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: deannd Date: 10-Nov-2021 15:40:05
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.600 | 1824542 | 1.58 | | 126 | 1412 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 1292702 | 0.9366 | | 93.7 | 250 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.414 | 2.414 | 0.0 | 0.693 | 1373379 | 1.41 | | 113 | 2967 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.414 | 2.414 | 0.0 | 1.000 | 1057035 | 0.9604 | | 96.0 | 51.2 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.427 | 2.427 | 0.0 | 0.697 | 1602924 | 1.22 | | 105 | 180041 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.427 | 2.427 | 0.0 | 1.000 | 1197624 | 0.8132 | Target=2.32 | 92.0 | 1586 | |
| 298.90 > 99.00 | 2.427 | 2.427 | 0.0 | 1.000 | 553784 | | 2.16(1.16-3.48) | | 397 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.735 | 2.735 | 0.0 | 1.000 | 243427 | 0.9253 | | 99.1 | 2422 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.735 | 2.735 | 0.0 | 0.785 | 144298 | 1.44 | | 123 | 134 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.759 | 0.0 | 0.792 | 1392939 | 1.36 | | 109 | 2964 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.771 | 2.771 | 0.0 | 1.004 | 1097760 | 0.9713 | Target=12.09 | 97.1 | 264 | |
| 313.00 > 119.00 | 2.771 | 2.771 | 0.0 | 1.004 | 87158 | | 12.60(6.04-18.13) | | 84.9 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.771 | 2.771 | 0.0 | 0.885 | 1108355 | 0.9294 | Target=3.03 | 99.1 | 1810 | |
| 349.00 > 99.00 | 2.771 | 2.771 | 0.0 | 0.885 | 362866 | | 3.05(1.52-4.55) | | 719 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | M |
| 332.10 > 287.00 | 2.869 | 2.869 | 0.0 | 0.823 | 23818 | 0.8853 | | 70.8 | 158 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.881 | 2.881 | 0.0 | 1.004 | 114189 | 1.32 | | 132 | 45.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.133 | 0.0 | 1.000 | 941110 | 0.8643 | Target=3.55 | 95.0 | 1096 | M |
| 399.00 > 99.00 | 3.133 | 3.133 | 0.0 | 1.000 | 263551 | | 3.57(1.77-5.32) | | 341 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.133 | 0.0 | 0.899 | 1171082 | 1.22 | | 103 | 3965 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.133 | 3.133 | 0.0 | 0.899 | 1369090 | 1.27 | | 102 | 5219 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.133 | 3.133 | 0.0 | 1.000 | 1148599 | 1.01 | Target=3.69 | 101 | 462 | |
| 363.00 > 169.00 | 3.133 | 3.133 | 0.0 | 1.000 | 290413 | | 3.96(1.84-5.53) | | 456 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.166 | 3.166 | 0.0 | 0.834 | 2392338 | 0.9198 | Target=2.56 | 97.6 | 2634 | |
| 377.00 > 85.00 | 3.166 | 3.166 | 0.0 | 0.834 | 922933 | | 2.59(1.28-3.84) | | 1280 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.475 | 3.475 | 0.0 | 0.915 | 844401 | 0.9114 | Target=4.88 | 95.7 | 2687 | |
| 449.00 > 99.00 | 3.475 | 3.475 | 0.0 | 0.915 | 160390 | | 5.26(2.44-7.32) | | 714 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.475 | 3.475 | 0.0 | 1.000 | 205905 | 0.9072 | | 95.7 | 1447 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.475 | 3.475 | 0.0 | 0.997 | 212529 | 1.41 | | 119 | 505 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.484 | 3.484 | 0.0 | 1.000 | 1487993 | 1.27 | | 101 | 5068 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.484 | 3.484 | 0.0 | | 1426960 | 1.25 | | | 4275 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.484 | 3.484 | 0.0 | 1.000 | 1195447 | 0.9443 | Target=2.68 | 94.4 | 168 | M |
| 413.00 > 169.00 | 3.484 | 3.484 | 0.0 | 1.000 | 454680 | | 2.63(1.34-4.02) | | 919 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.798 | 3.798 | 0.0 | 1.090 | 888084 | 1.28 | | 107 | 3934 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.798 | 3.798 | 0.0 | 1.000 | 695922 | 0.8630 | Target=4.69 | 93.0 | 1120 | M |
| 499.00 > 99.00 | 3.798 | 3.798 | 0.0 | 1.000 | 147144 | | 4.73(2.35-7.04) | | 504 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.818 | 3.818 | 0.0 | 1.096 | 1446054 | 1.24 | | 98.9 | 4107 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.818 | 3.818 | 0.0 | 1.000 | 1068963 | 0.9445 | Target=7.29 | 94.4 | 265 | |
| 463.00 > 169.00 | 3.818 | 3.818 | 0.0 | 1.000 | 150863 | | 7.09(3.64-10.93) | | 1033 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.959 | 3.959 | 0.0 | 1.042 | 981273 | 0.8077 | | 86.7 | 2664 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.086 | 4.086 | 0.0 | 1.076 | 548969 | 0.8740 | Target=2.35 | 91.0 | 3347 | |
| 549.00 > 99.00 | 4.086 | 4.086 | 0.0 | 1.076 | 212598 | | 2.58(1.17-3.52) | | 1053 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.108 | 4.108 | 0.0 | 1.179 | 1363960 | 1.16 | | 92.4 | 4731 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.108 | 4.108 | 0.0 | 1.000 | 1126135 | 1.03 | Target=8.95 | 103 | 783 | |
| 513.00 > 169.00 | 4.108 | 4.108 | 0.0 | 1.000 | 124670 | | 9.03(4.47-13.42) | | 773 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.120 | 4.120 | 0.0 | 1.182 | 233607 | 1.37 | | 114 | 1040 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.120 | 4.120 | 0.0 | 1.000 | 146667 | 0.8987 | | 93.8 | 1297 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.219 | 4.219 | 0.0 | 1.211 | 1486193 | 1.30 | | 104 | 2858 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.219 | 4.219 | 0.0 | 1.000 | 1091897 | 0.9670 | | 96.7 | 1881 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.251 | 4.251 | 0.0 | 1.220 | 155590 | 1.34 | | 107 | 498 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.251 | 4.251 | 0.0 | 1.000 | 100921 | 1.03 | | 103 | 355 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.342 | 4.342 | 0.0 | 1.143 | 425085 | 0.8704 | Target=2.47 | 90.3 | 1760 | |
| 599.00 > 99.00 | 4.342 | 4.342 | 0.0 | 1.143 | 168293 | | 2.53(1.23-3.70) | | 1794 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.375 | 4.375 | 0.0 | 1.256 | 1049944 | 1.14 | | 91.3 | 4203 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.375 | 4.375 | 0.0 | 1.000 | 871173 | 0.9729 | Target=9.24 | 97.3 | 619 | |
| 563.00 > 169.00 | 4.375 | 4.375 | 0.0 | 1.000 | 100045 | | 8.71(4.62-13.86) | | 1204 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.375 | 4.375 | 0.0 | 1.256 | 147805 | 1.36 | | 109 | 1101 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.387 | 4.387 | 0.0 | 1.003 | 96136 | 0.9488 | | 94.9 | 679 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.463 | 4.463 | 0.0 | 1.175 | 1209432 | 0.8430 | | 89.5 | 3196 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.598 | 4.598 | 0.0 | 1.320 | 1137669 | 1.15 | | 91.9 | 1612 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.598 | 4.598 | 0.0 | 1.000 | 934365 | 1.05 | Target=7.04 | 105 | 185 | |
| 613.00 > 169.00 | 4.598 | 4.598 | 0.0 | 1.000 | 137450 | | 6.80(3.52-10.56) | | 1596 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.619 | 4.619 | 0.0 | 1.121 | 71949 | 0.9542 | | 99.0 | 1126 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.763 | 4.763 | 0.0 | 1.254 | 176071 | 0.9802 | Target=0.49 | 101 | 1833 | |
| 699.00 > 99.00 | 4.763 | 4.763 | 0.0 | 1.254 | 311416 | | 0.57(0.25-0.74) | | 1698 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.799 | 4.799 | 0.0 | 1.044 | 722754 | 0.9408 | Target=4.68 | 94.1 | 208 | |
| 663.00 > 169.00 | 4.799 | 4.799 | 0.0 | 1.044 | 160378 | | 4.51(2.34-7.02) | | 1275 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.972 | 4.972 | 0.0 | 1.427 | 847864 | 1.10 | | 88.3 | 1749 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.972 | 4.972 | 0.0 | 1.000 | 109771 | 1.03 | Target=1.01 | 103 | 1379 | |
| 713.00 > 219.00 | 4.972 | 4.972 | 0.0 | 1.000 | 111864 | | 0.98(0.51-1.52) | | 2357 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.280 | 5.280 | 0.0 | 1.515 | 744855 | 1.10 | | 88.1 | 3301 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.280 | 5.280 | 0.0 | 1.000 | 556941 | 1.08 | Target=4.57 | 108 | 169 | |
| 813.00 > 169.00 | 5.280 | 5.280 | 0.0 | 1.000 | 121023 | | 4.60(2.29-6.86) | | 1784 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.544 | 5.544 | 0.0 | 1.050 | 411066 | 0.8180 | Target=4.27 | 81.8 | 192 | |
| 913.00 > 169.00 | 5.544 | 5.544 | 0.0 | 1.050 | 93668 | | 4.39(2.14-6.41) | | 1244 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 12:40:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d

Injection Date: 10-Nov-2021 12:03:36 Instrument ID: LC812

Lims ID: CCVIS

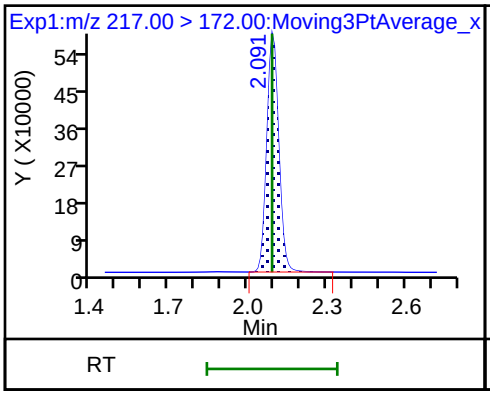
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

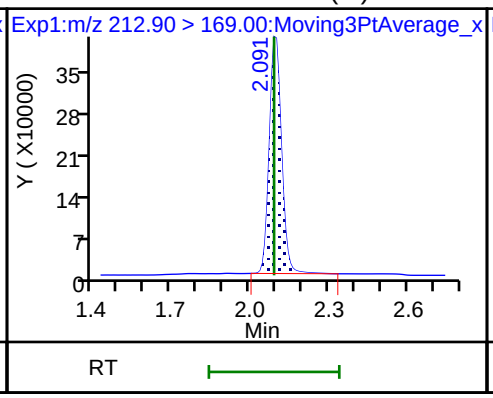
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

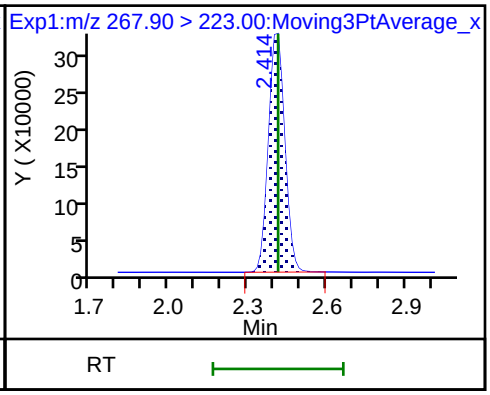
D 1 13C4 PFBA



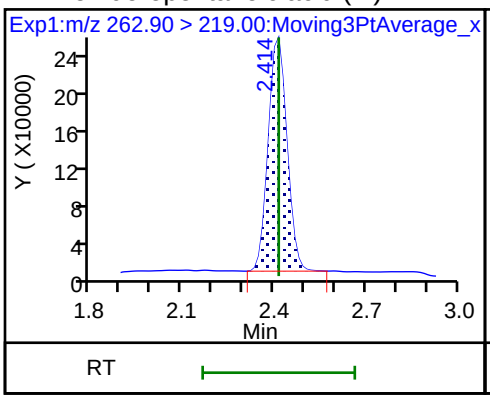

2 Perfluorobutanoic acid (M)



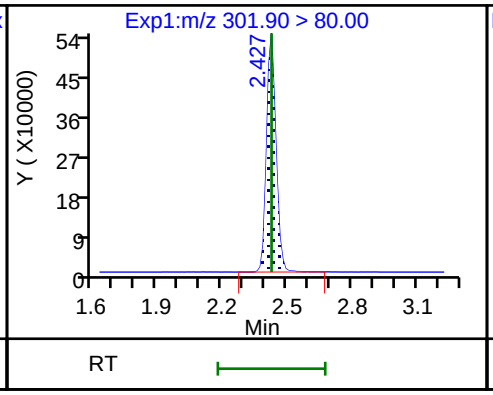

D 3 13C5 PFPeA



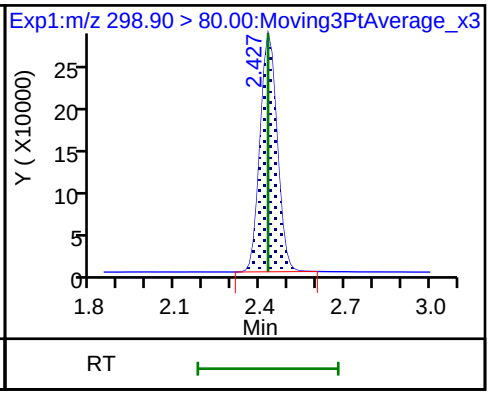

4 Perfluoropentanoic acid (M)



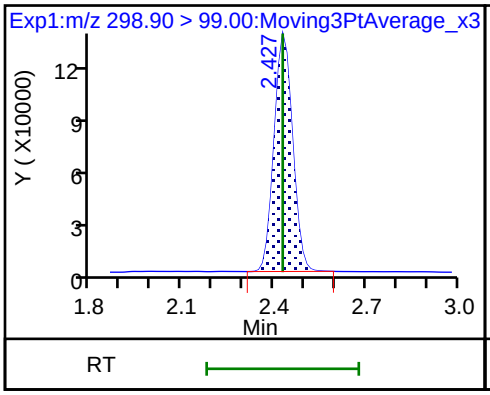

D 47 13C3 PFBS



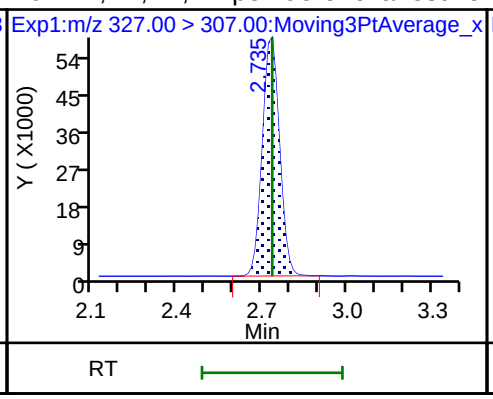

5 Perfluorobutanesulfonic acid



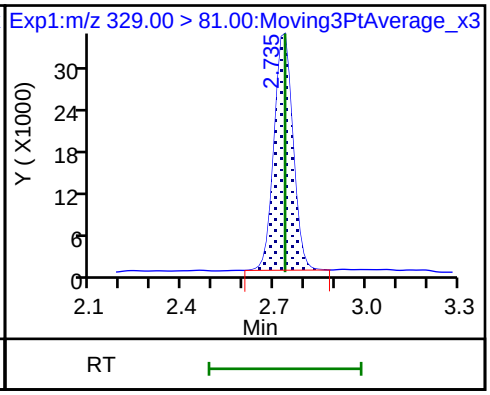

5 Perfluorobutanesulfonic acid



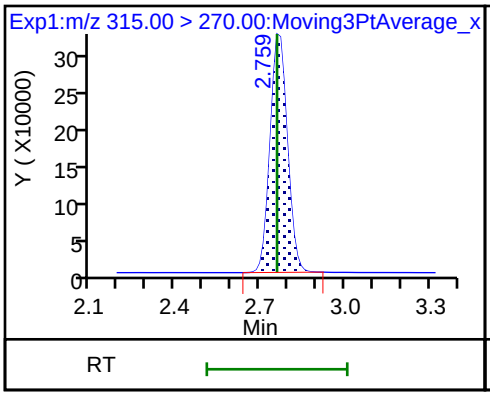

61 1H,1H,2H,2H-perfluorohexanesulfo



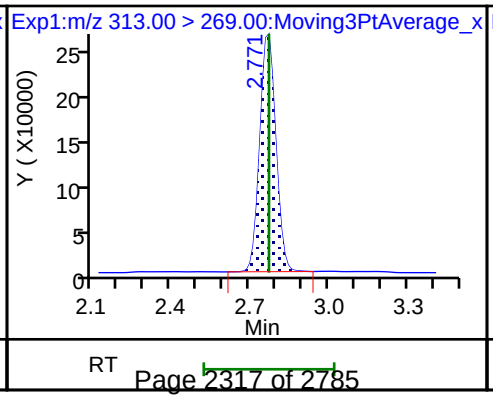

D 60 M2-4:2 FTS



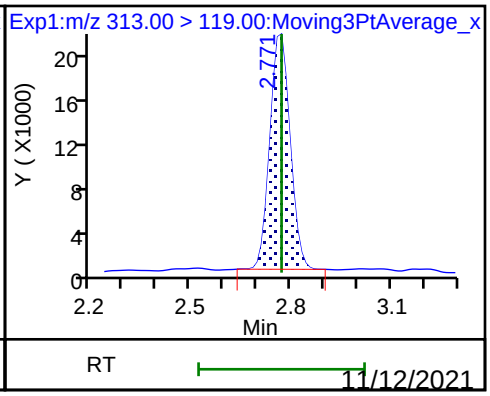

D 7 13C2 PFHxA



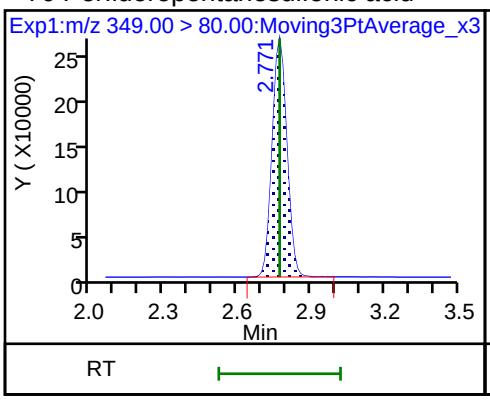

6 Perfluorohexanoic acid



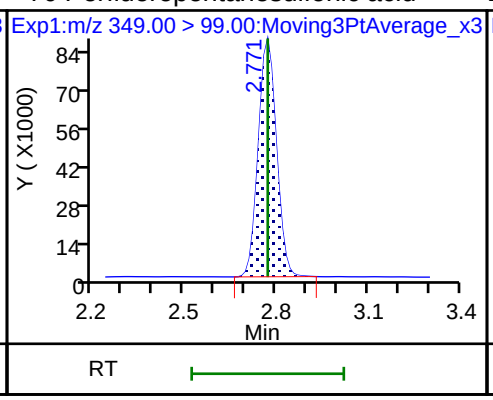

6 Perfluorohexanoic acid



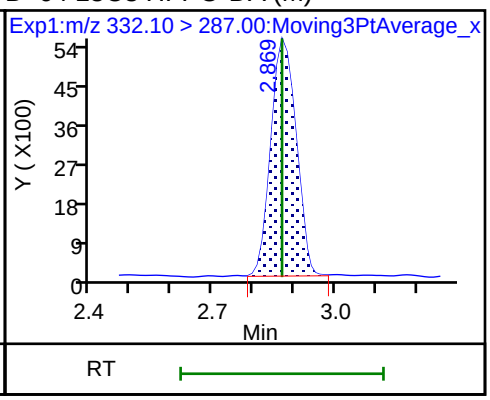
70 Perfluoropentanesulfonic acid



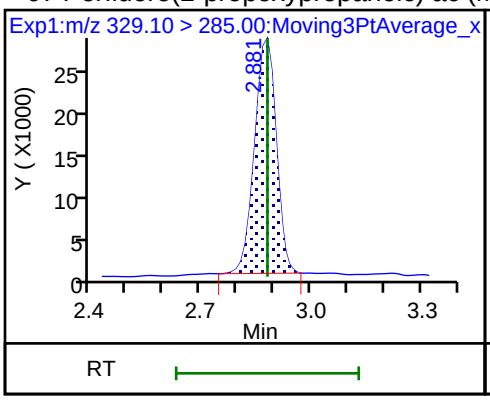

70 Perfluoropentanesulfonic acid



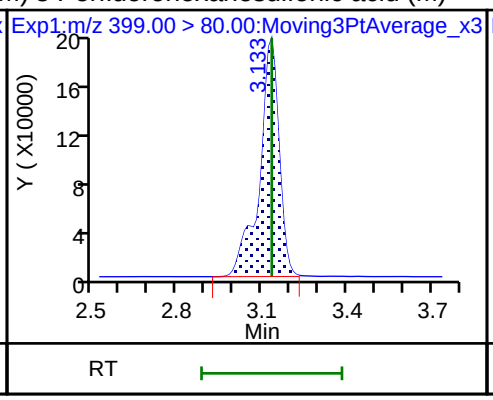

D 64 13C3 HFPO-DA (M)



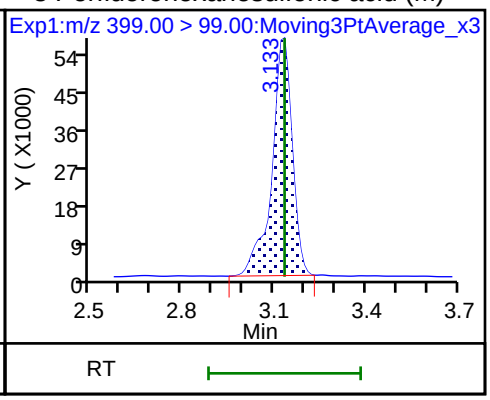

67 Perfluoro(2-propoxypropanoic) ac (M)



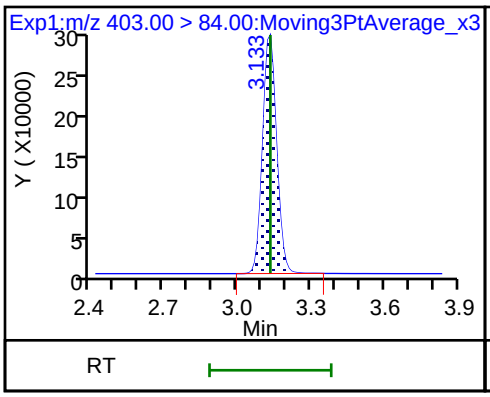

8 Perfluorohexanesulfonic acid (M)



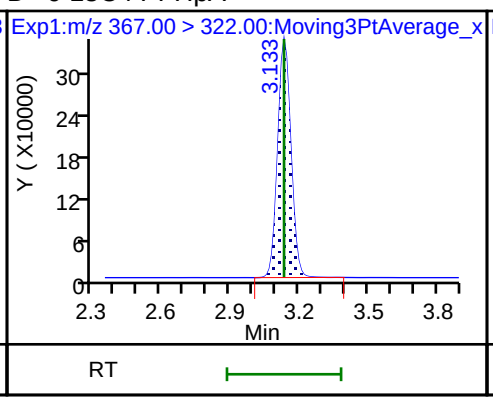

8 Perfluorohexanesulfonic acid (M)



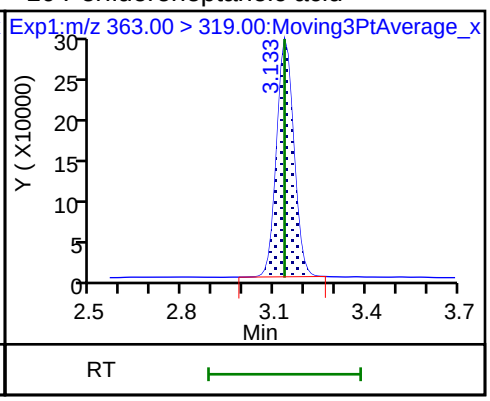

D 11 18O2 PFHxS



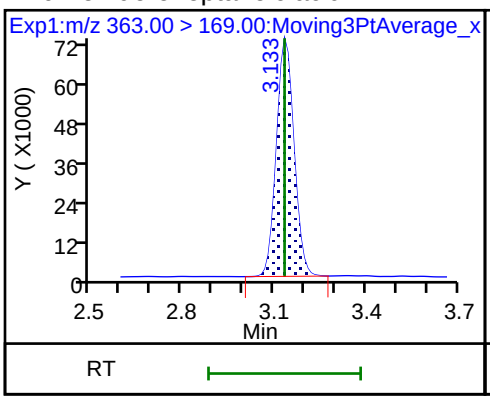

D 9 13C4 PFHpA



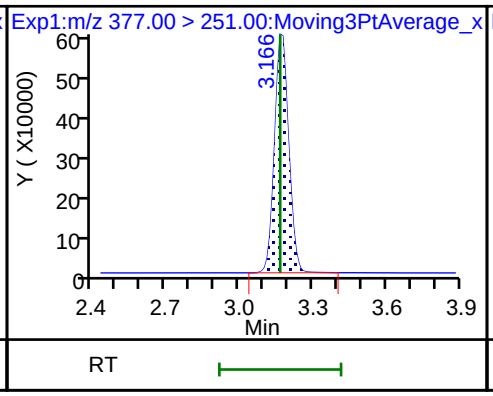

10 Perfluoroheptanoic acid



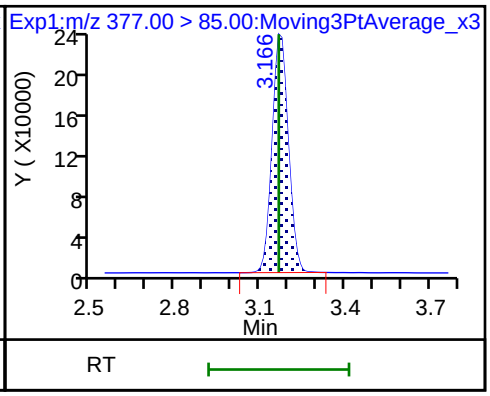

10 Perfluoroheptanoic acid



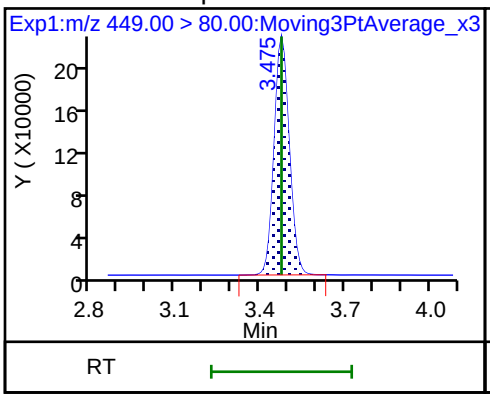

77 DONA



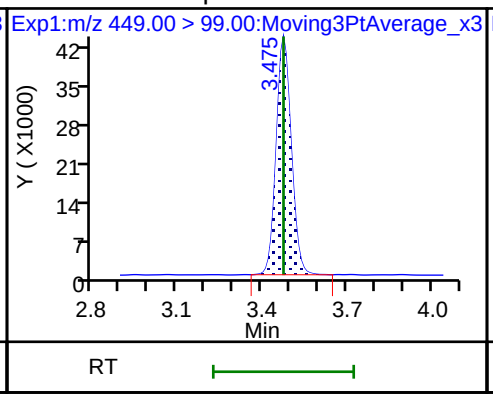

77 DONA



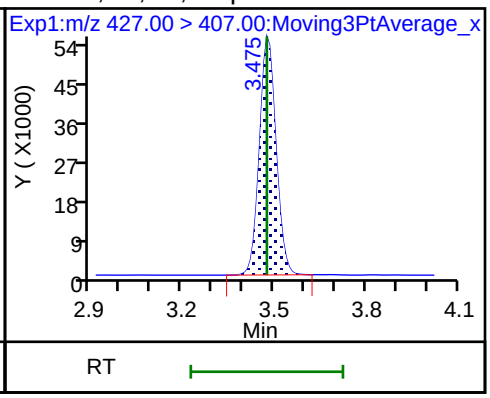
16 Perfluoroheptanesulfonic acid



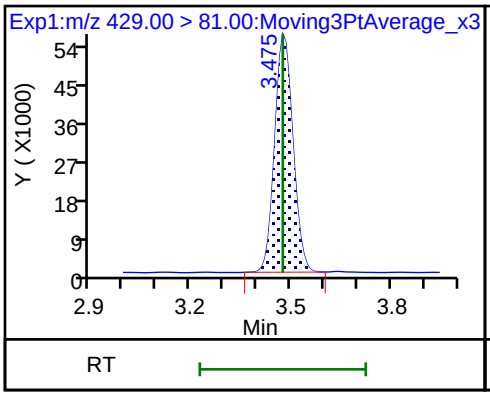

16 Perfluoroheptanesulfonic acid



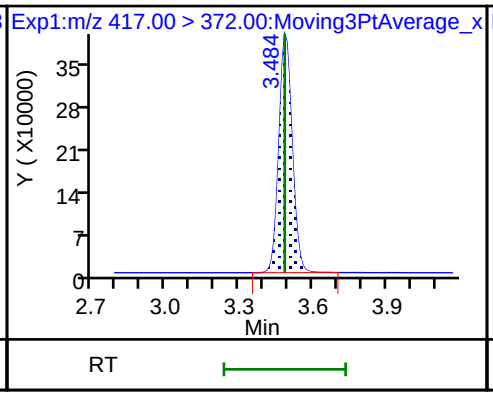

13 1H,1H,2H,2H-perfluorooctanesulfo



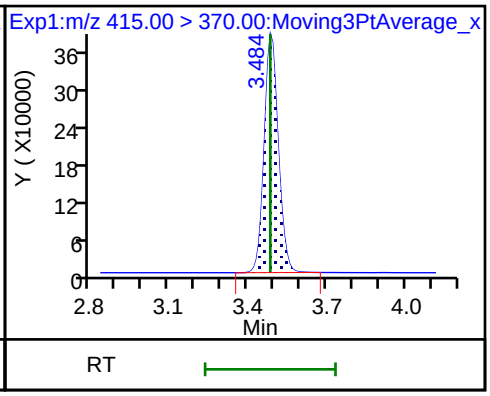

D 12 M2-6:2 FTS



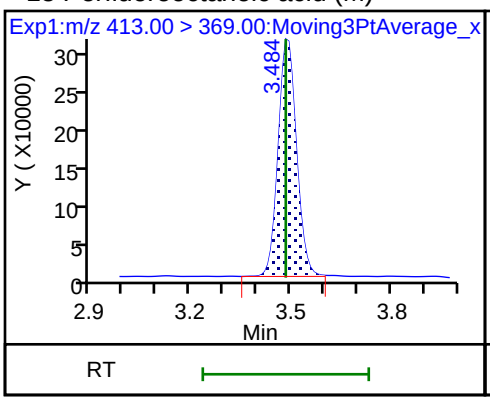

D 14 13C4 PFOA



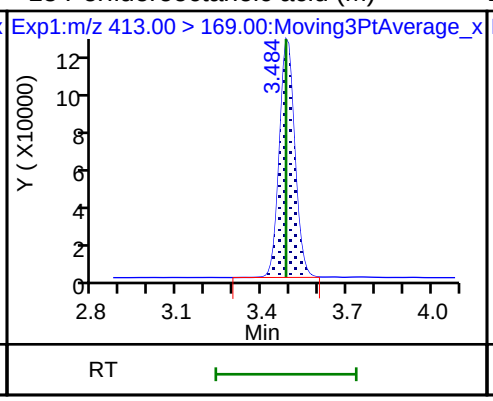

* 62 13C2 PFOA



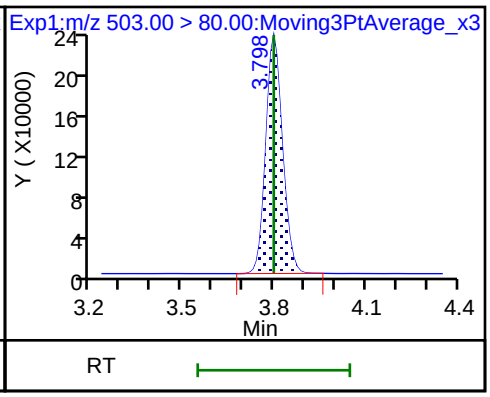

15 Perfluorooctanoic acid (M)



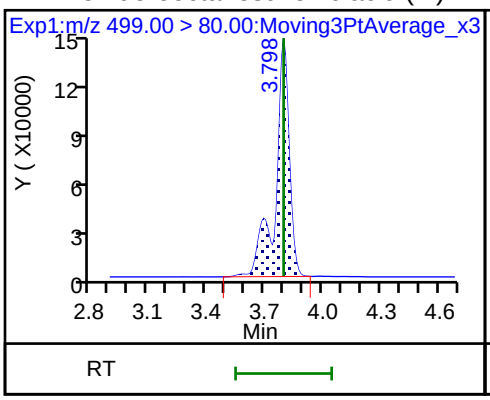

15 Perfluorooctanoic acid (M)



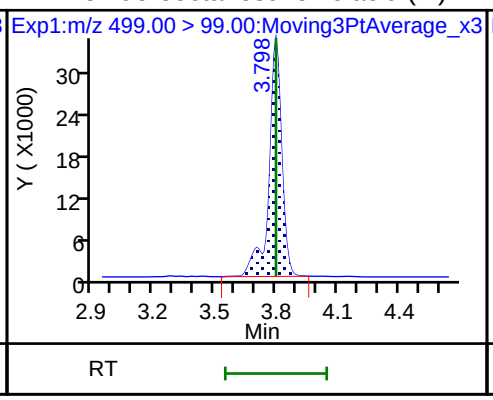

D 18 13C4 PFOS



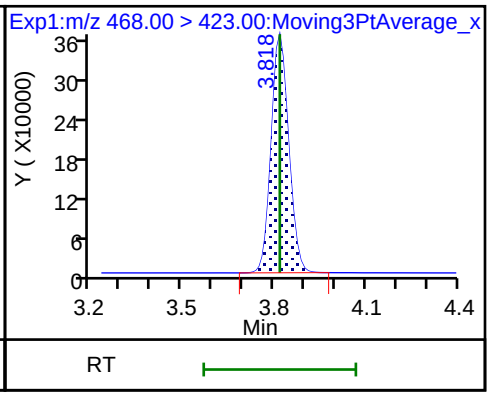

17 Perfluorooctanesulfonic acid (M)



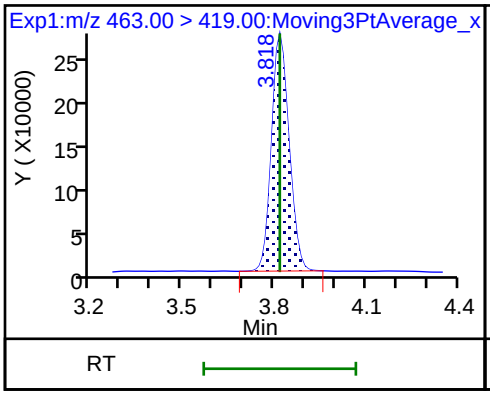

17 Perfluorooctanesulfonic acid (M)



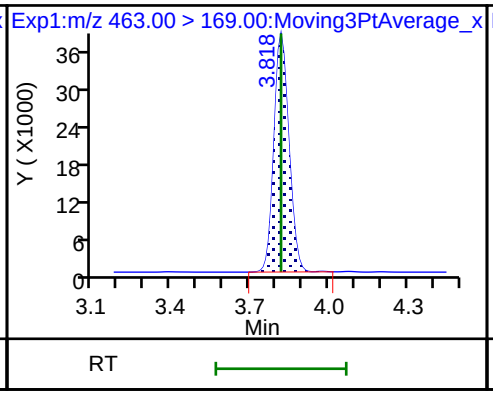

D 19 13C5 PFNA



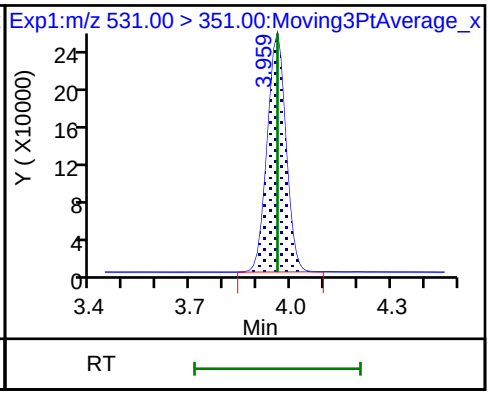
20 Perfluorononanoic acid



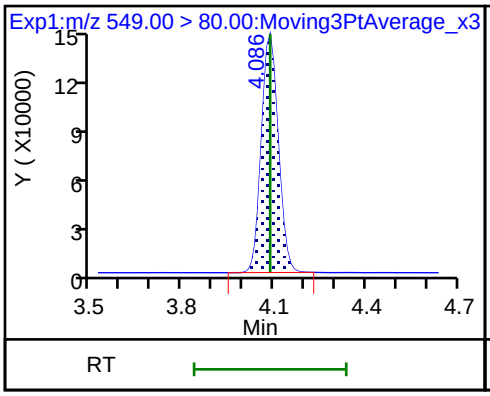

20 Perfluorononanoic acid



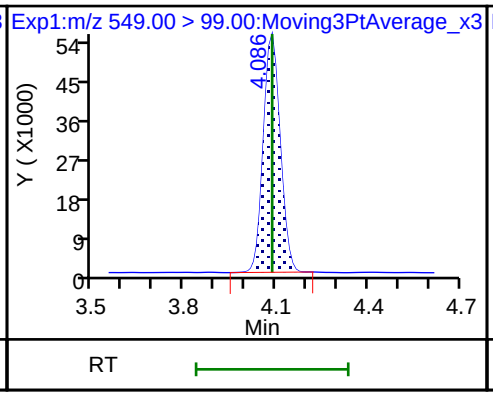

69 9-Chlorohexadecafluoro-3-oxanona



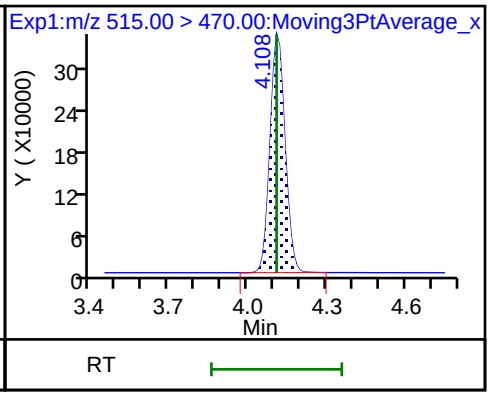

68 Perfluorononanesulfonic acid



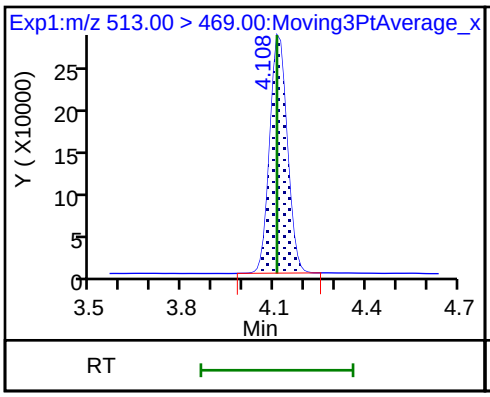

68 Perfluorononanesulfonic acid



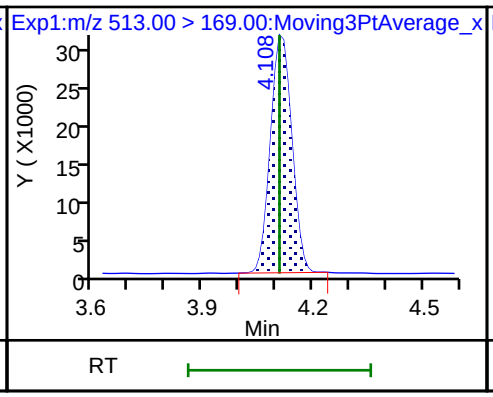

D 23 13C2 PFDA



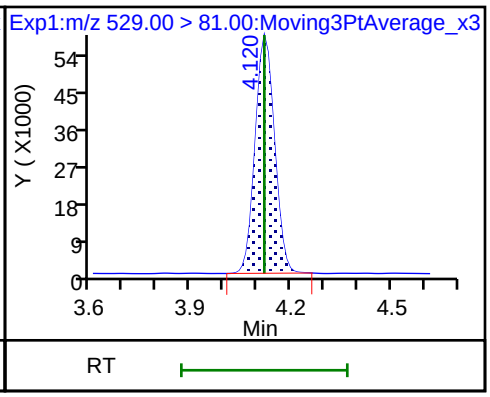

24 Perfluorodecanoic acid



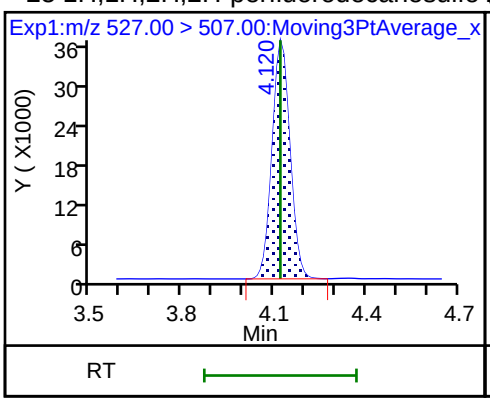

24 Perfluorodecanoic acid



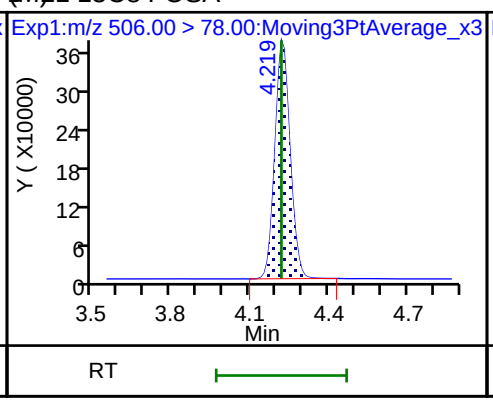

D 26 M2-8:2 FTS



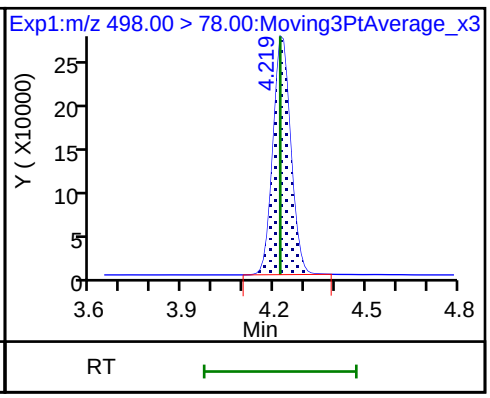

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



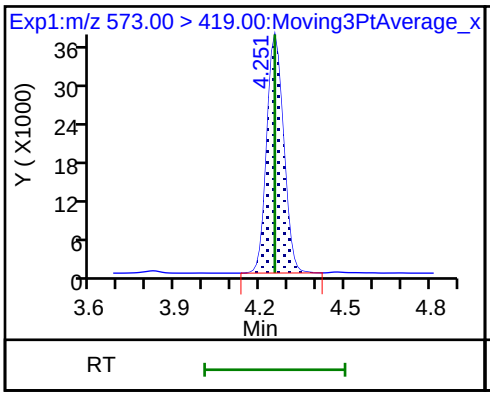

D 21 13C8 FOSA



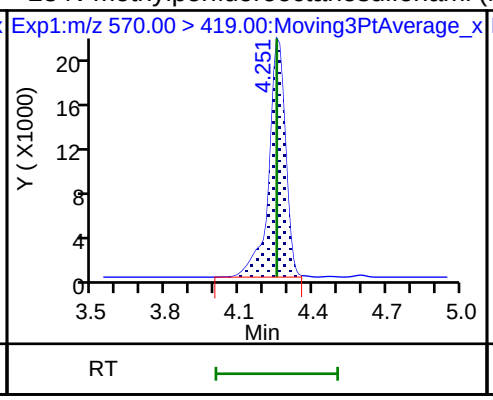

22 Perfluorooctanesulfonamide



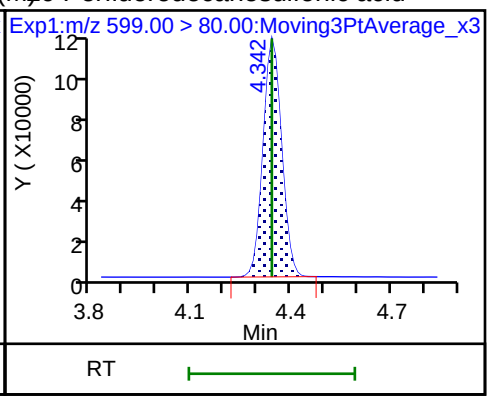
D 27 d3-NMeFOSAA



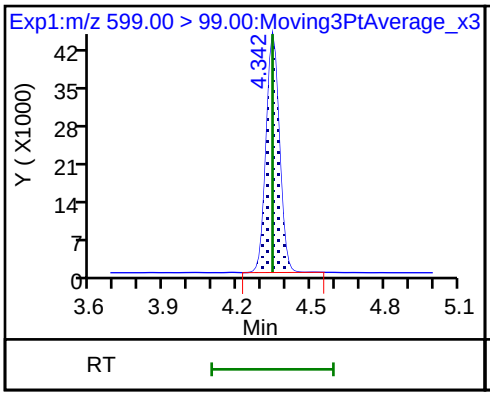

28 N-methylperfluorooctanesulfonami (M)



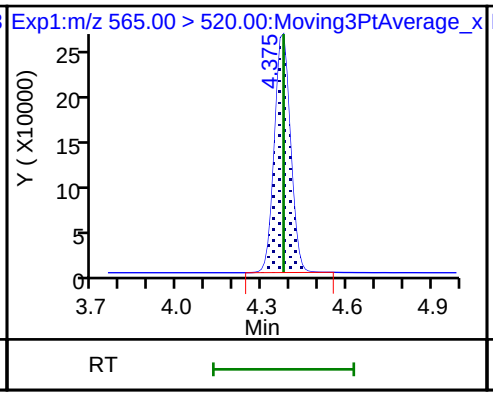

29 Perfluorodecanesulfonic acid



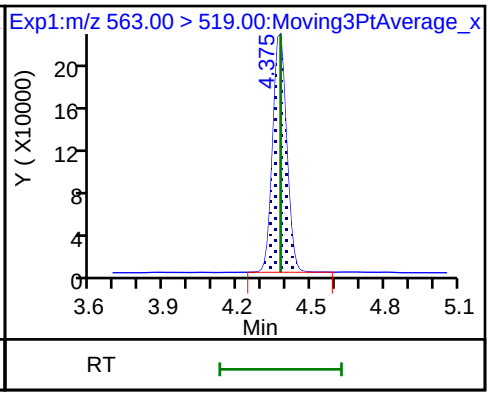

29 Perfluorodecanesulfonic acid



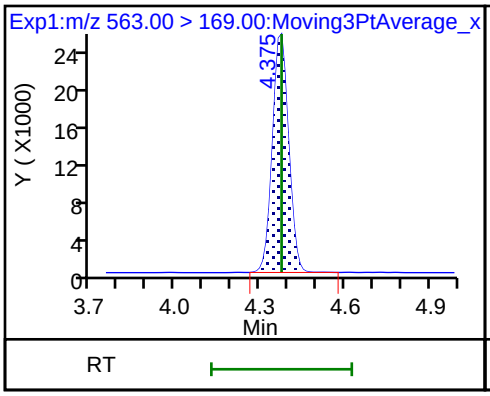

D 30 13C2 PFUnA



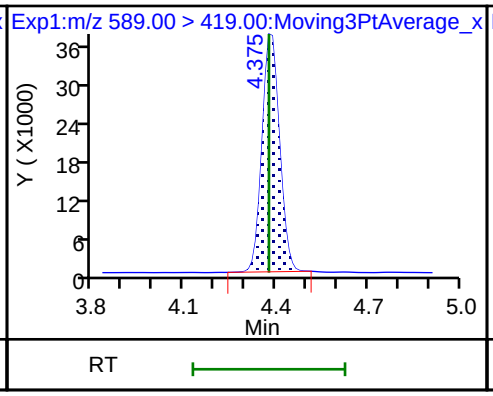

31 Perfluoroundecanoic acid



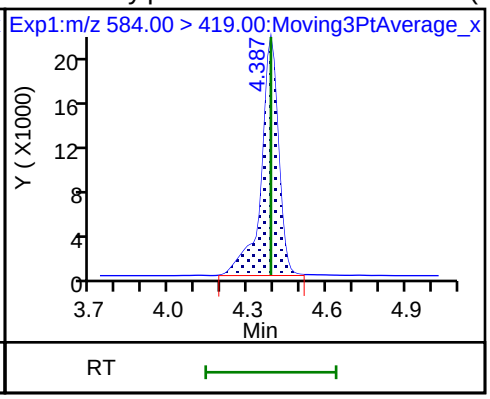

31 Perfluoroundecanoic acid



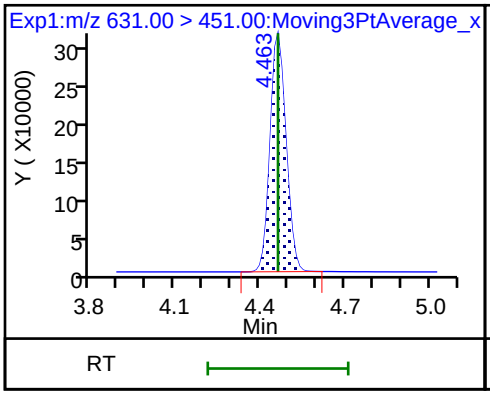

D 32 d5-NEtFOSAA



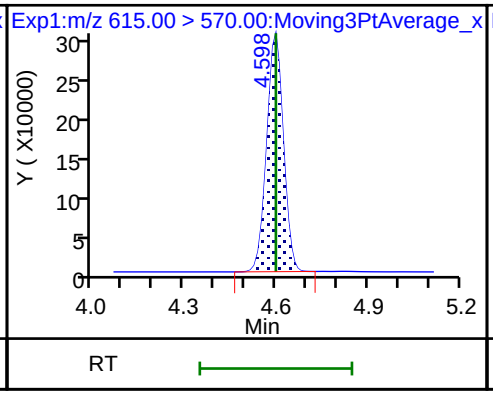

33 N-ethylperfluorooctanesulfonamid (M)



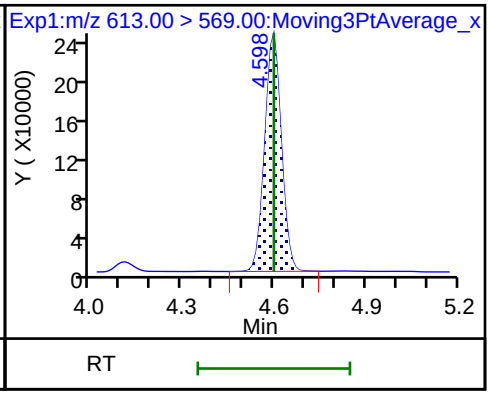

66 11-Chloroeicosafluoro-3-oxaundec



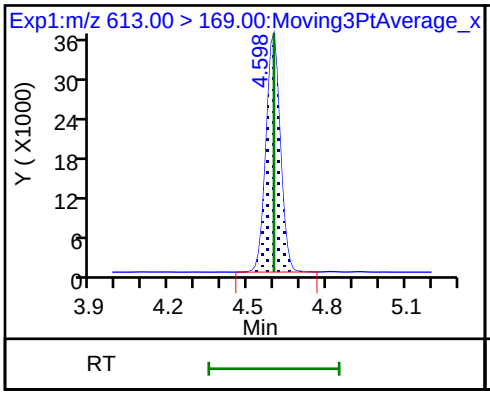

D 36 13C2 PFDoA



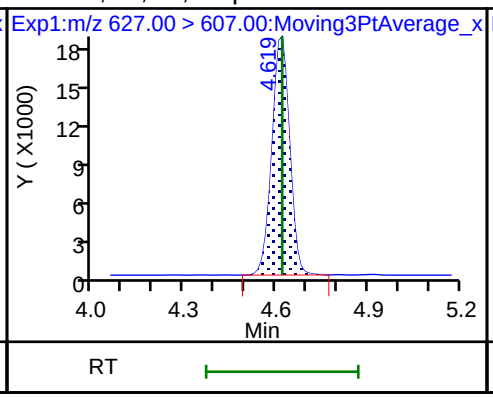

37 Perfluorododecanoic acid



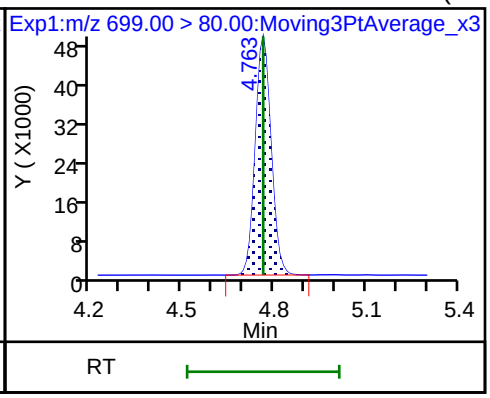
37 Perfluorododecanoic acid



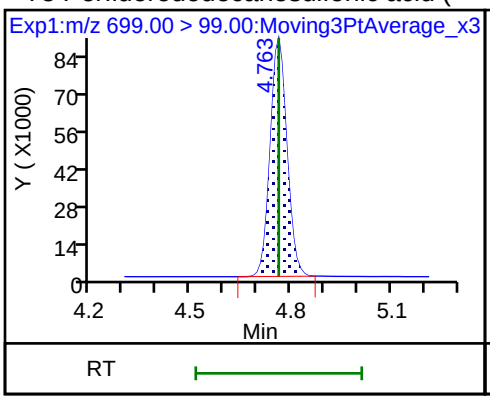

74 1H,1H,2H,2H-perfluorododecanesul



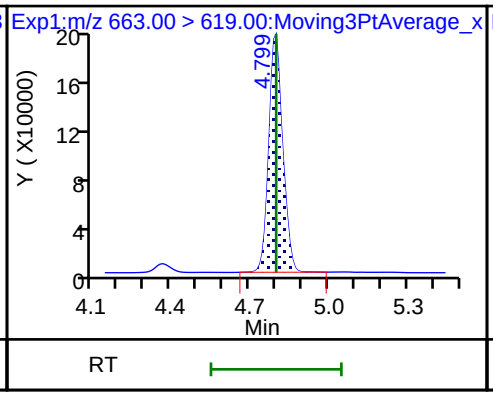

75 Perfluorododecanesulfonic acid (



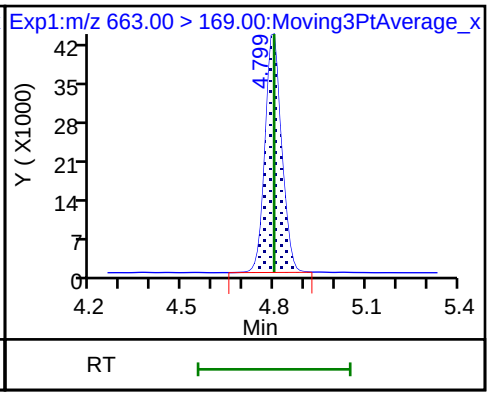

75 Perfluorododecanesulfonic acid (



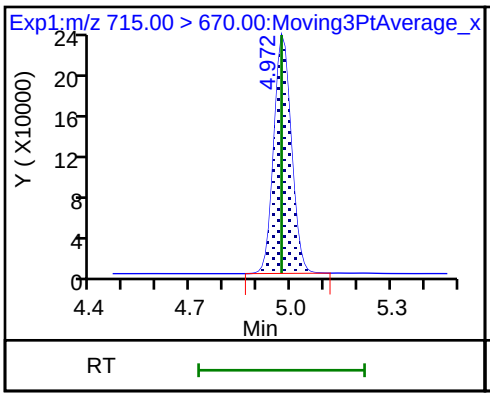

41 Perfluorotridecanoic acid



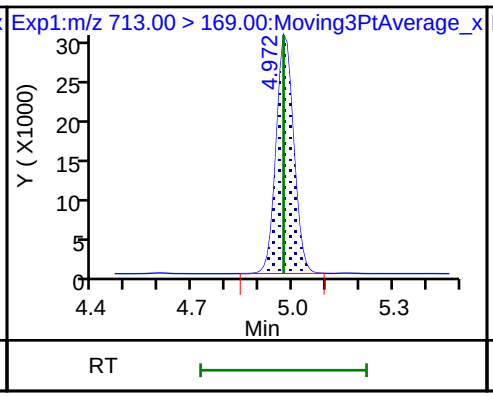

41 Perfluorotridecanoic acid



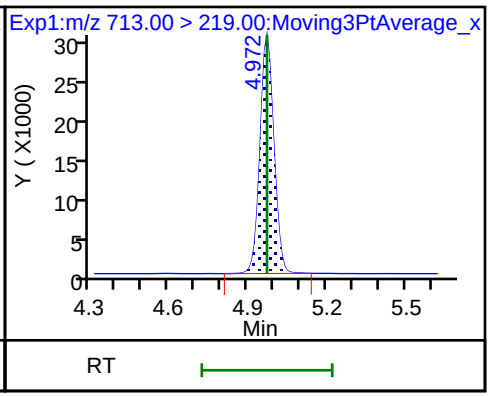

D 43 13C2 PFTeDA



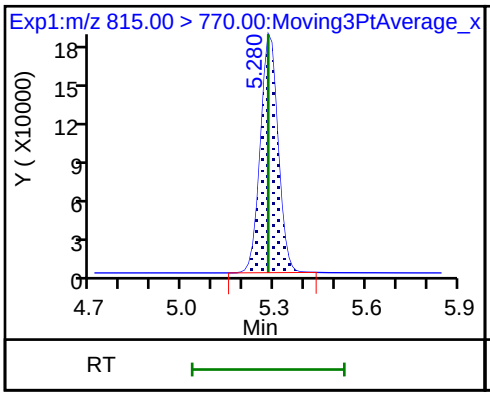

42 Perfluorotetradecanoic acid



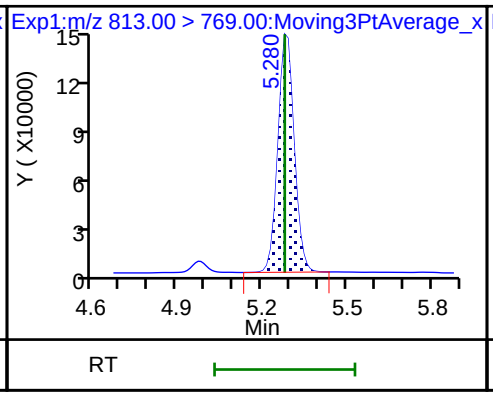

42 Perfluorotetradecanoic acid



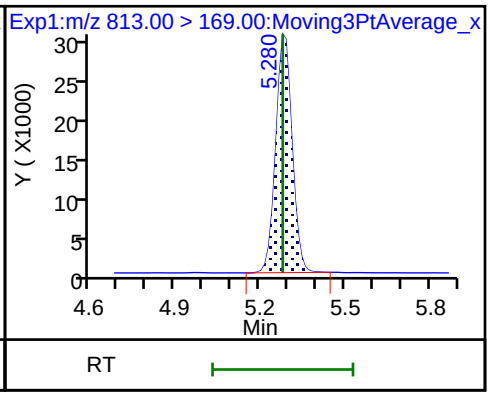

D 44 13C2 PFHxDA



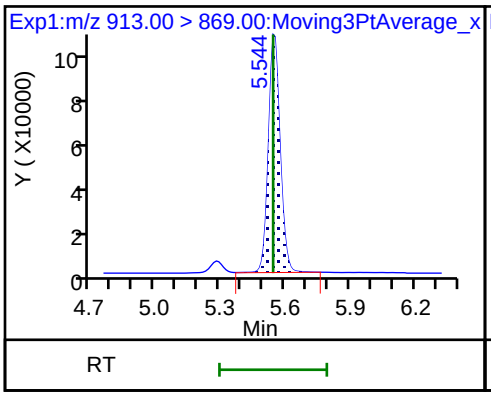

45 Perfluorohexadecanoic acid



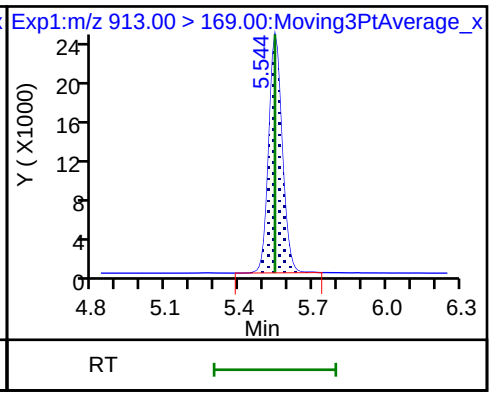

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

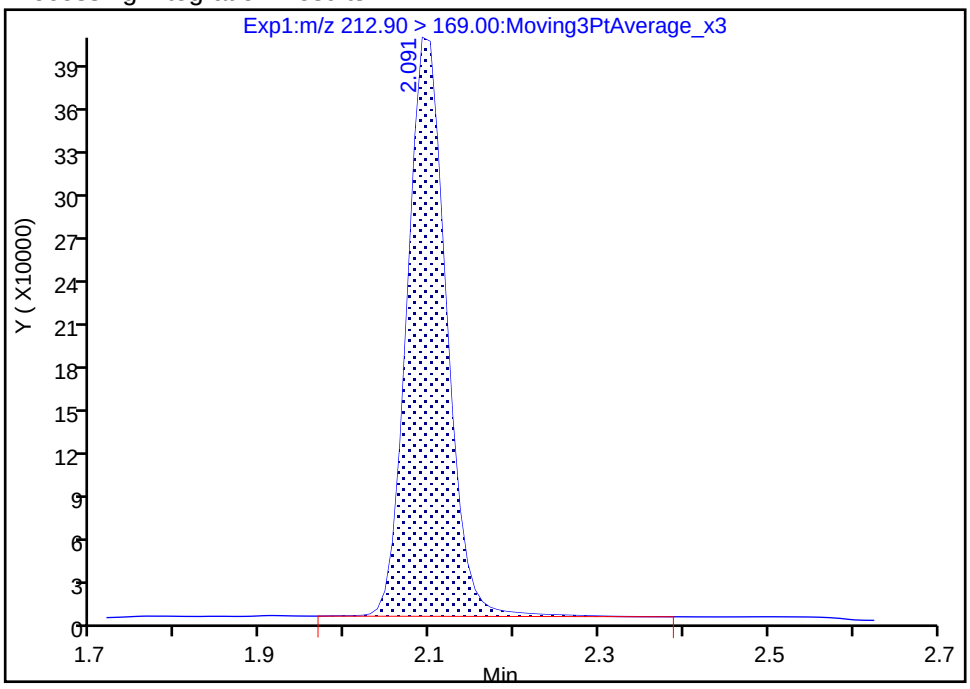
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

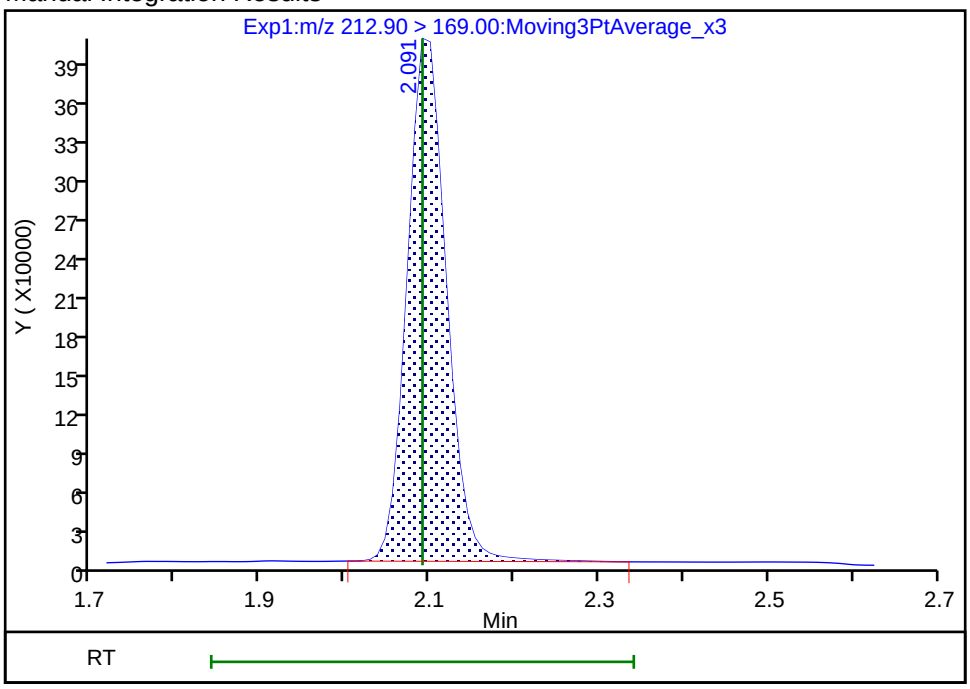
Processing Integration Results

RT: 2.09
Area: 1296506
Amount: 0.939382
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1292702
Amount: 0.936625
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:33:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

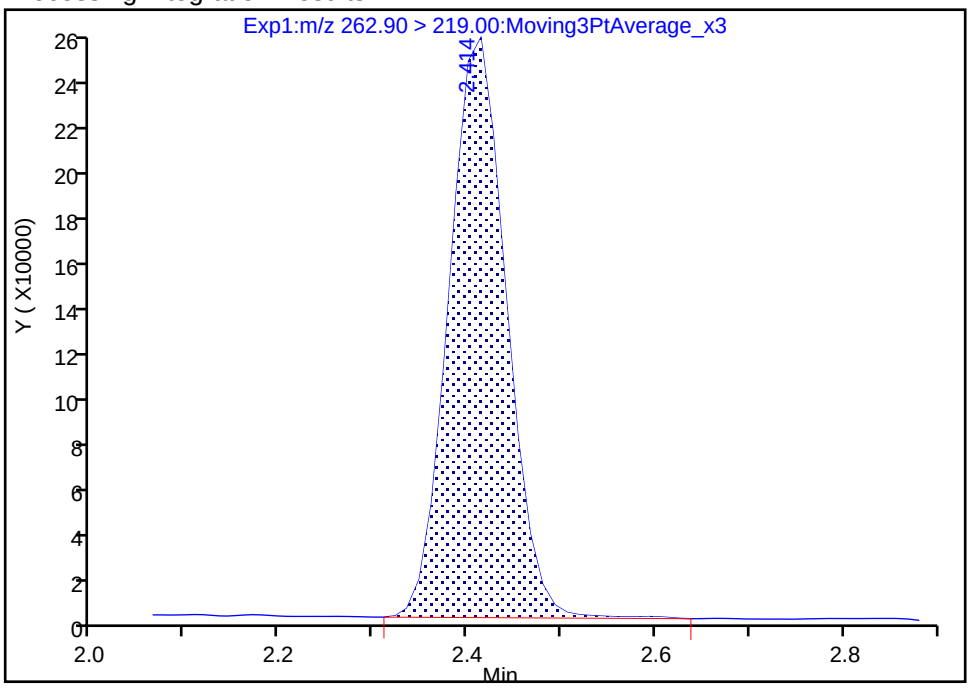
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

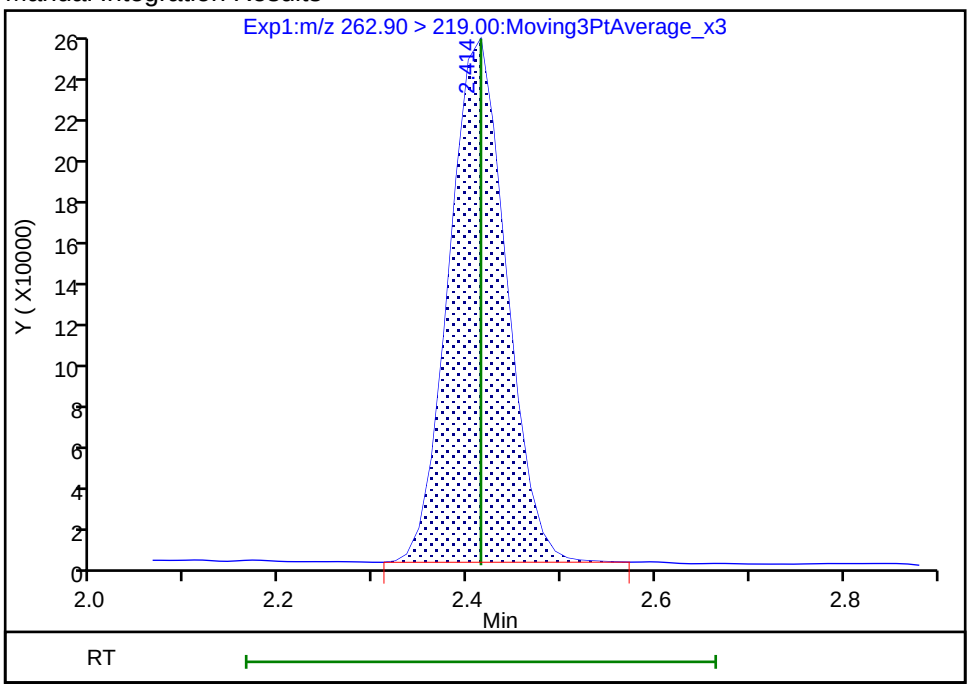
Processing Integration Results

RT: 2.41
Area: 1063887
Amount: 0.966642
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1057035
Amount: 0.960416
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:33:35

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

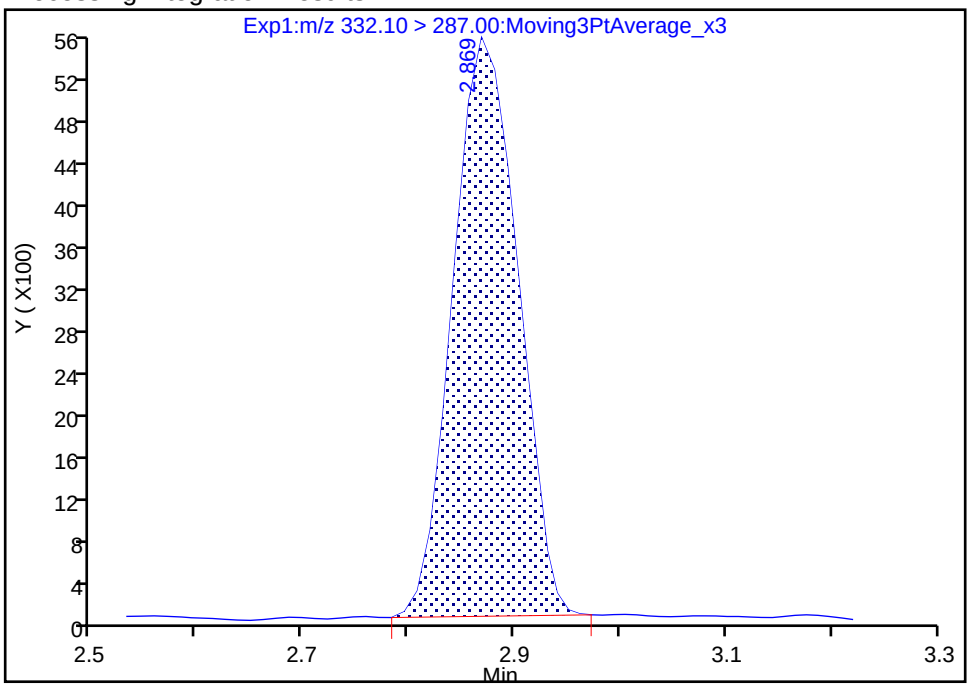
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

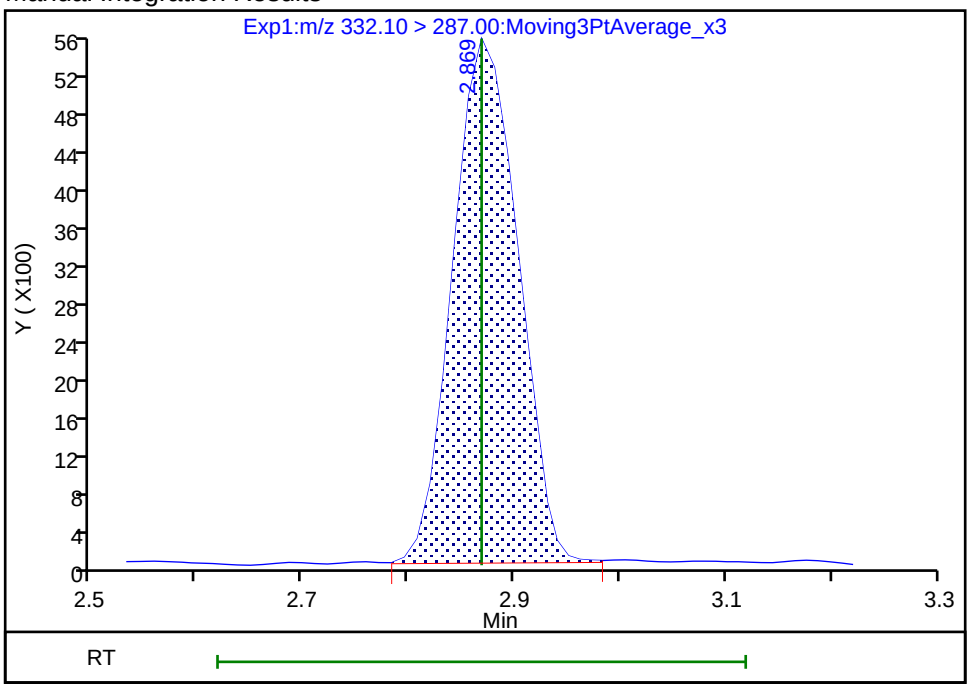
Processing Integration Results

RT: 2.87
Area: 23607
Amount: 0.877490
Amount Units: ng/ml




Manual Integration Results

RT: 2.87
Area: 23818
Amount: 0.885333
Amount Units: ng/ml




Reviewer: wisniewskik, 11-Nov-2021 09:04:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

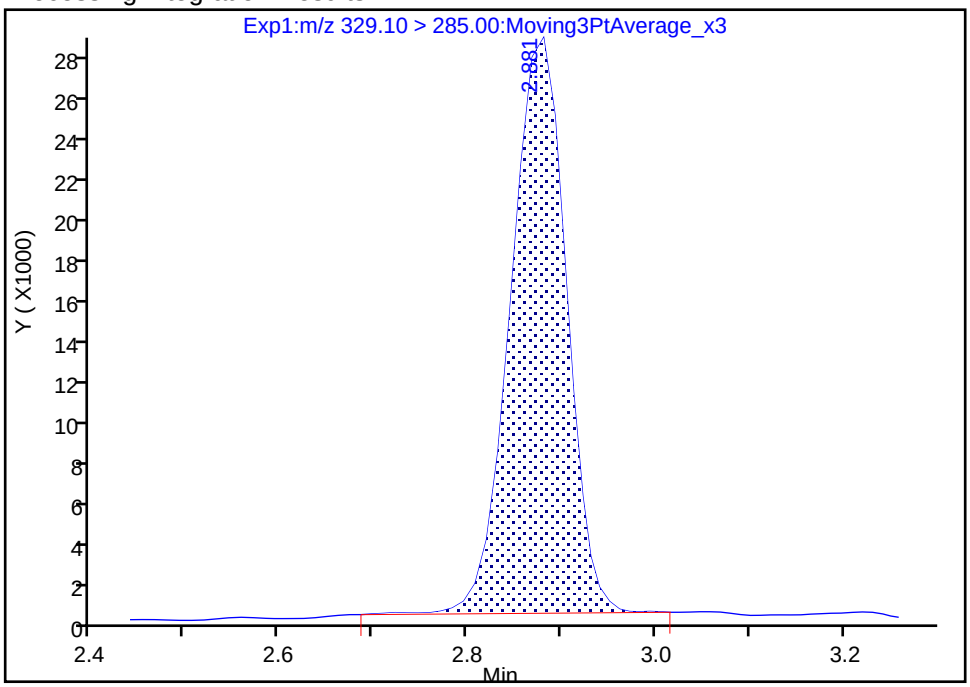
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

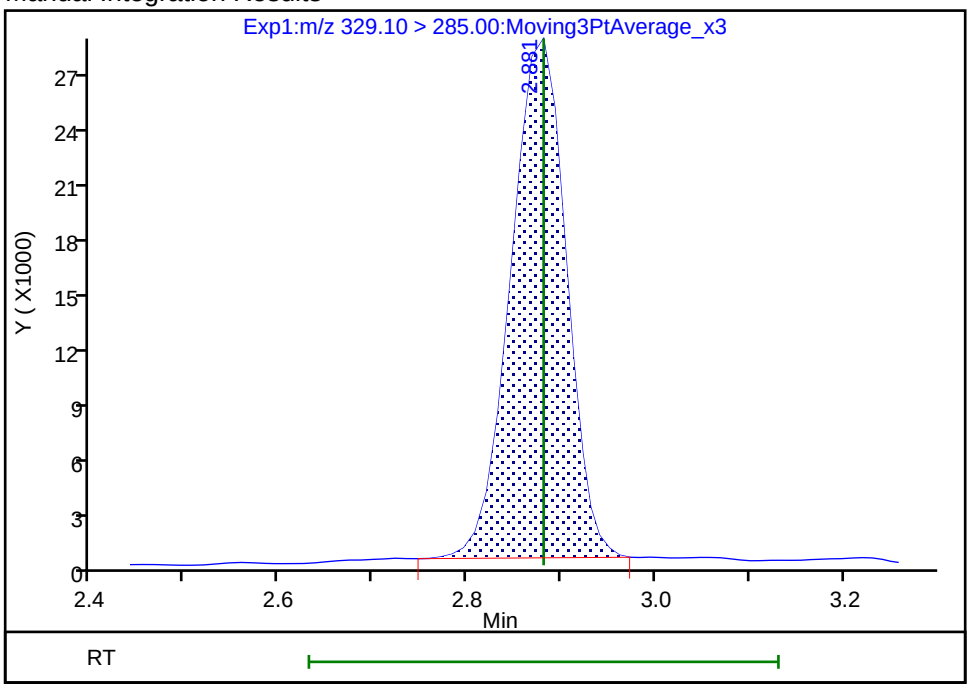
Processing Integration Results

RT: 2.88
Area: 115183
Amount: 1.347807
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 114189
Amount: 1.324339
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:33:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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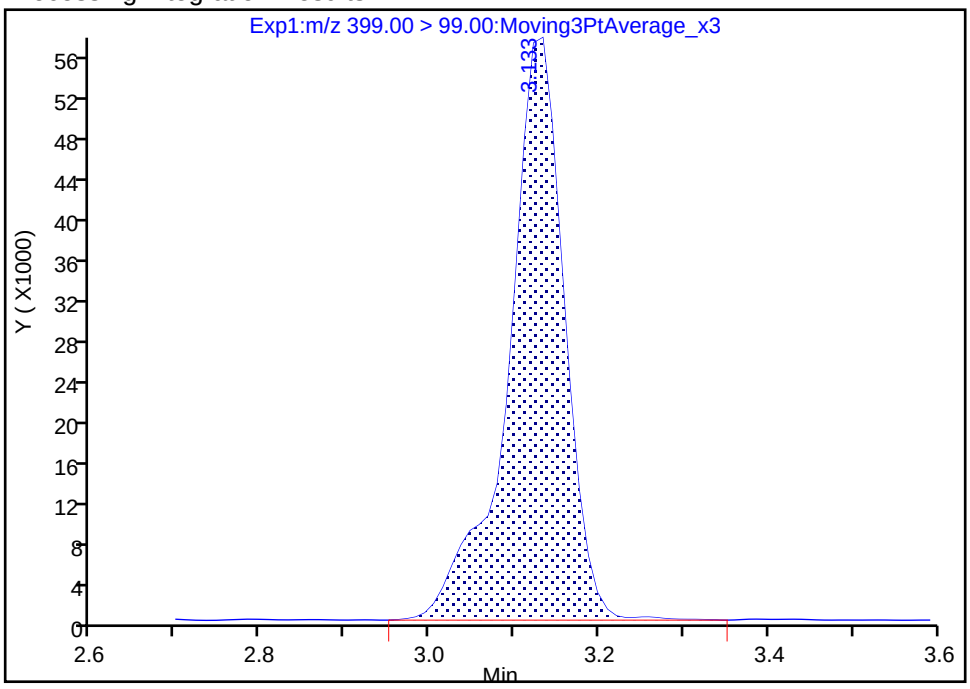
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

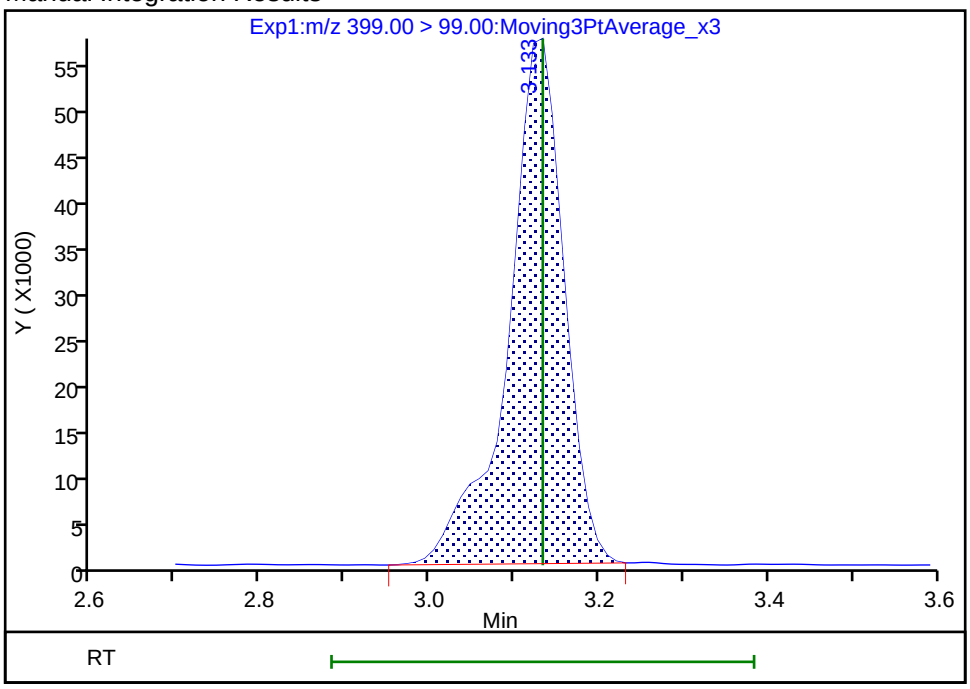
Processing Integration Results

RT: 3.13
Area: 266459
Amount: 0.865738
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 263551
Amount: 0.864341
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:33:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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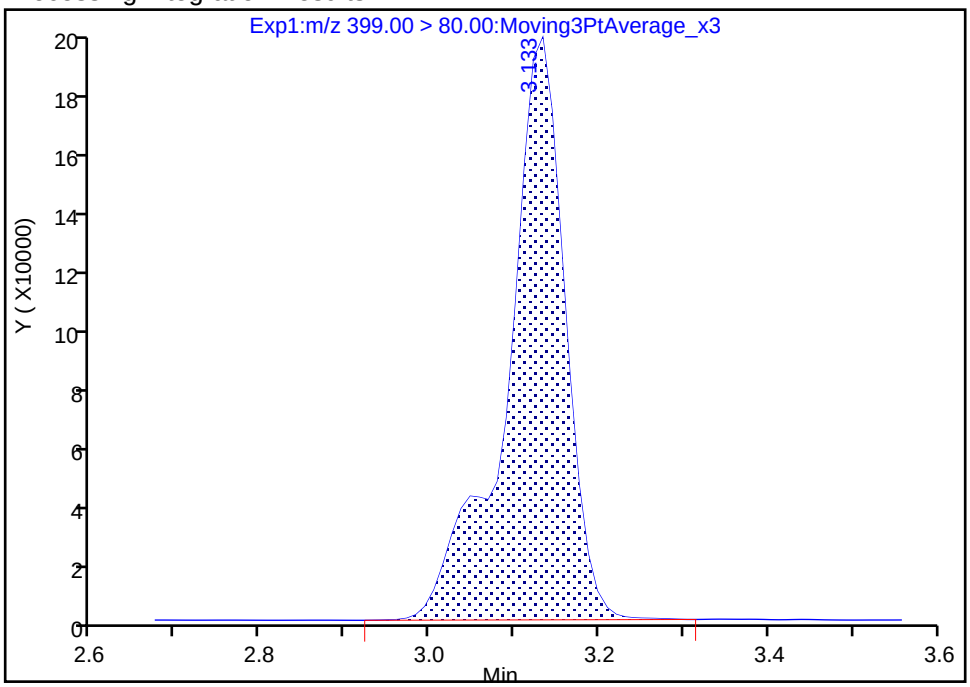
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

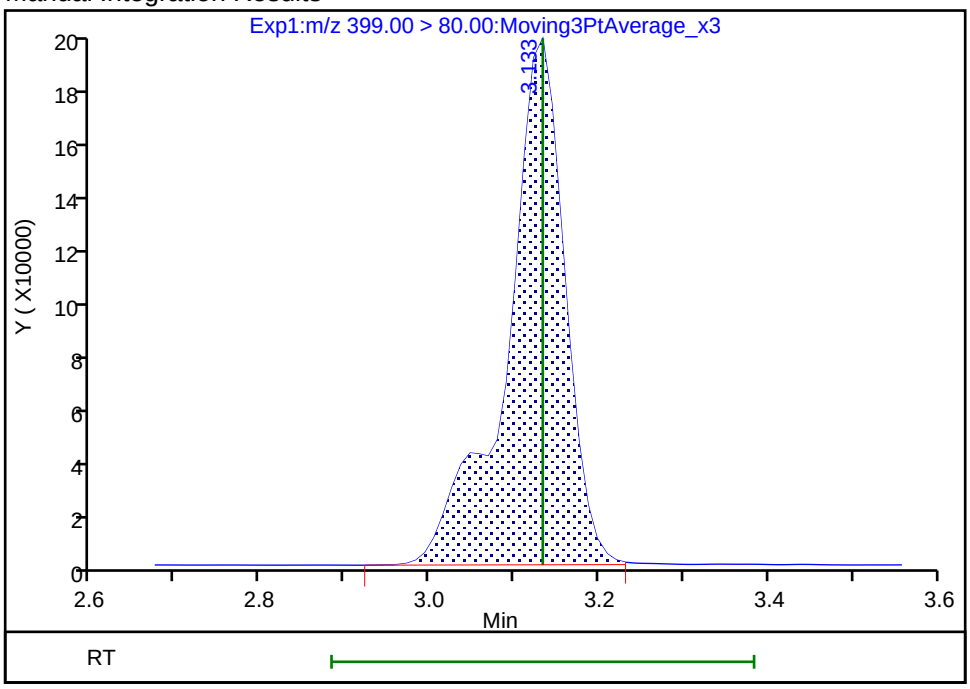
Processing Integration Results

RT: 3.13
Area: 942631
Amount: 0.865738
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 941110
Amount: 0.864341
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:40:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

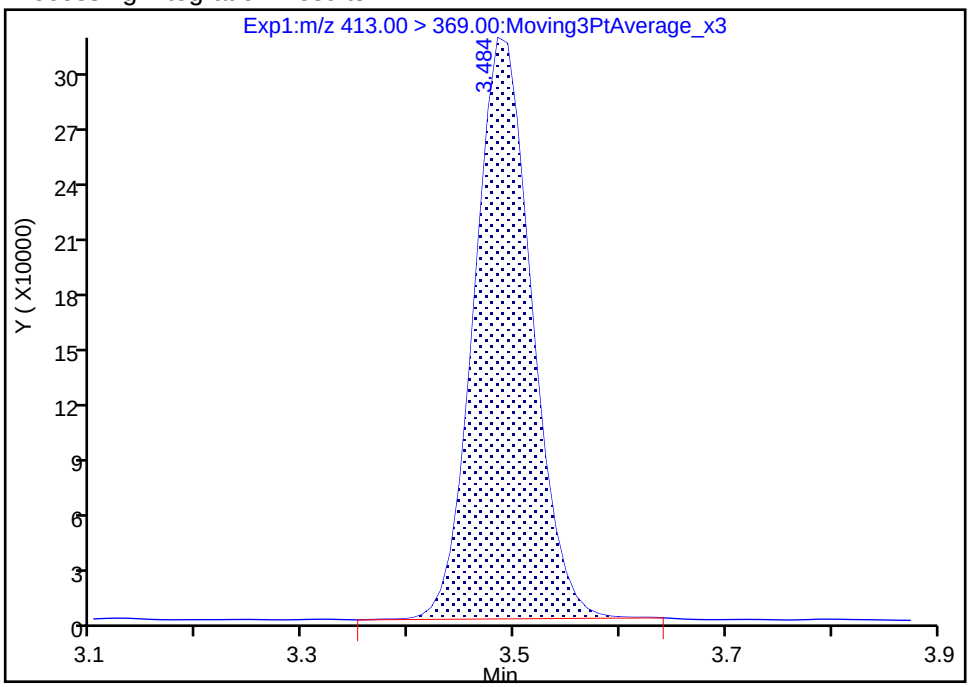
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d
Injection Date: 10-Nov-2021 12:03:36 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

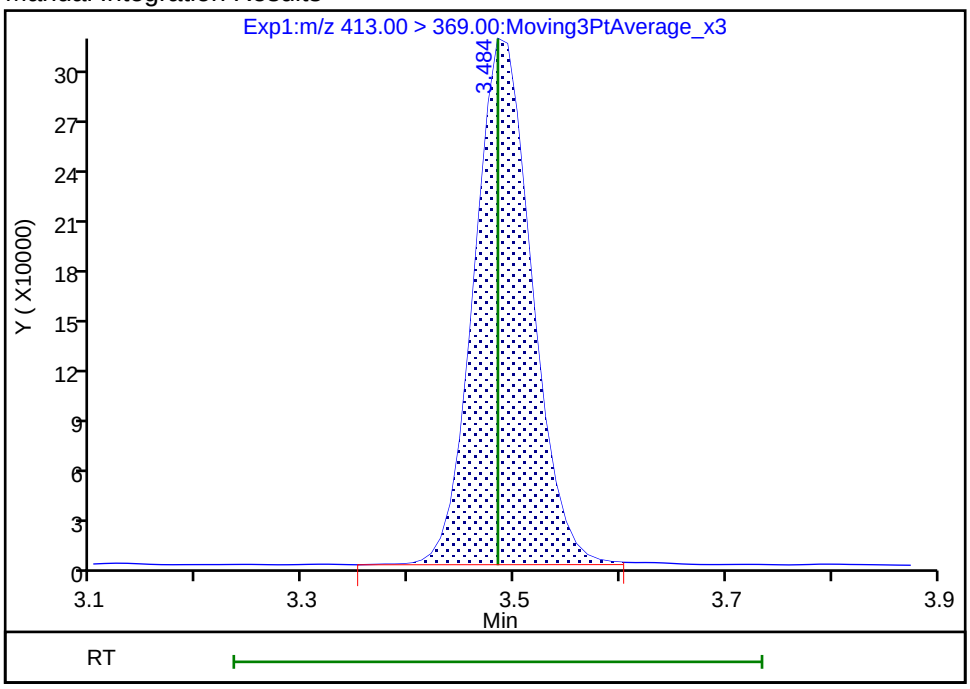
Processing Integration Results

RT: 3.48
Area: 1189696
Amount: 0.939795
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1195447
Amount: 0.944338
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:34:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

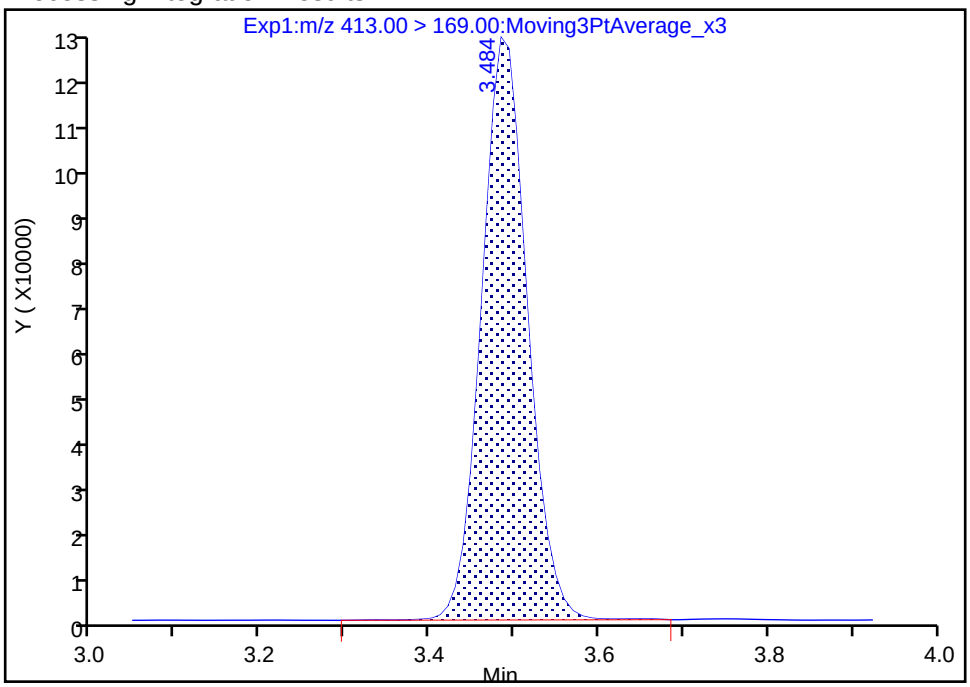
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

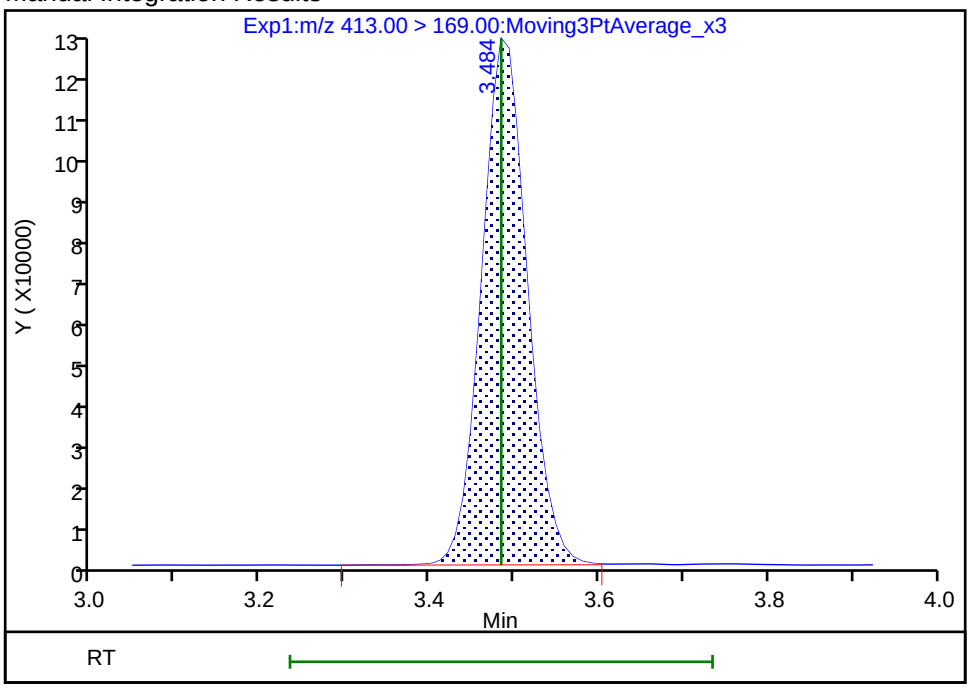
Processing Integration Results

RT: 3.48
Area: 455365
Amount: 0.939795
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 454680
Amount: 0.944338
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:34:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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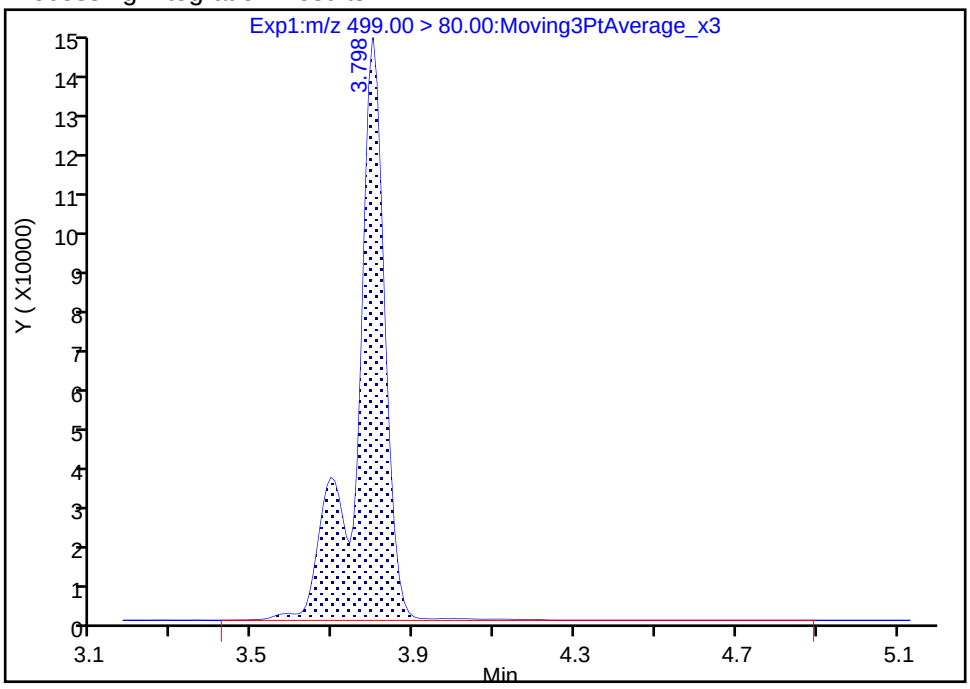
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

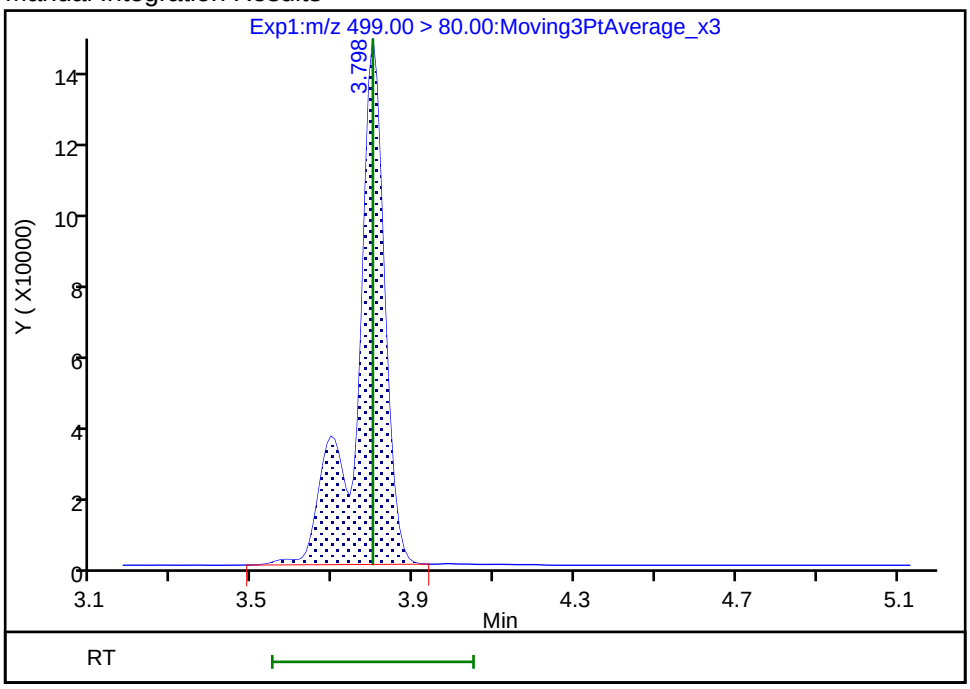
Processing Integration Results

RT: 3.80
Area: 705027
Amount: 0.874314
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 695922
Amount: 0.863023
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:41:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

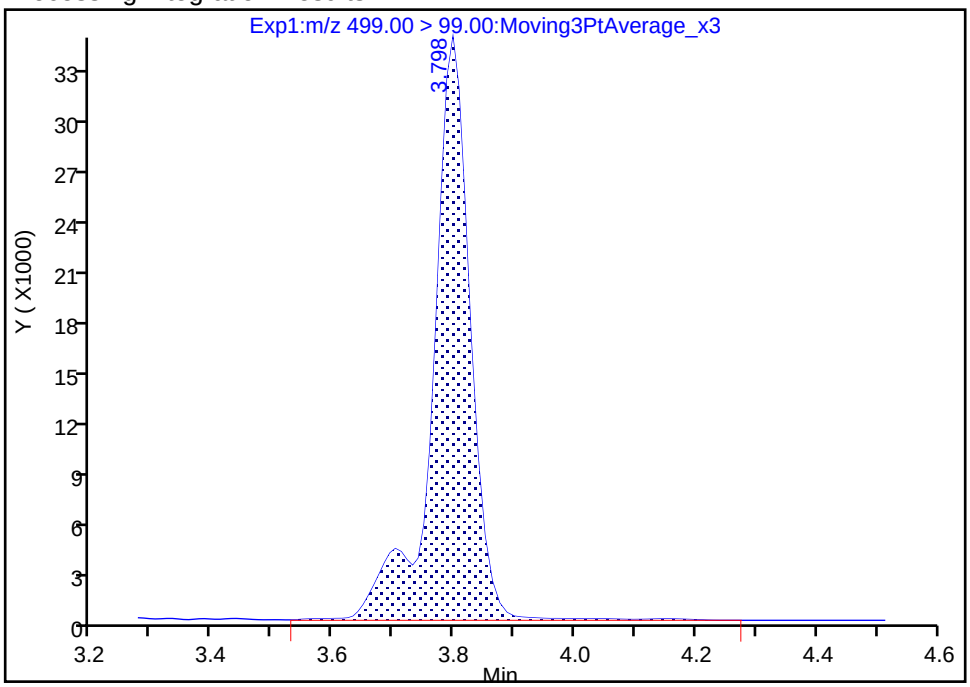
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d
Injection Date: 10-Nov-2021 12:03:36 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

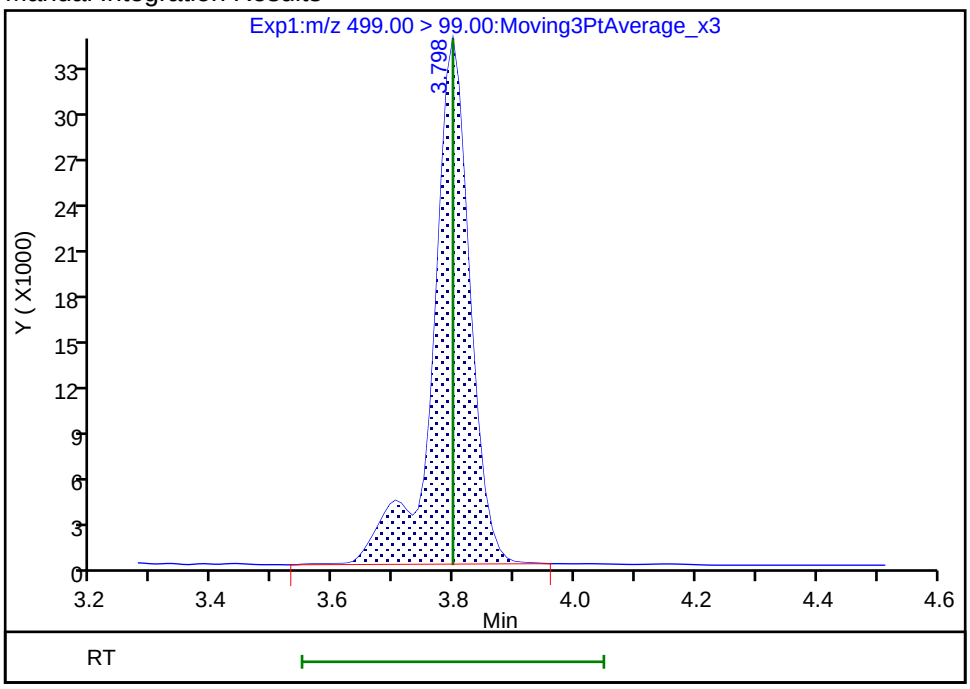
Processing Integration Results

RT: 3.80
Area: 149845
Amount: 0.874314
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 147144
Amount: 0.863023
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:41:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

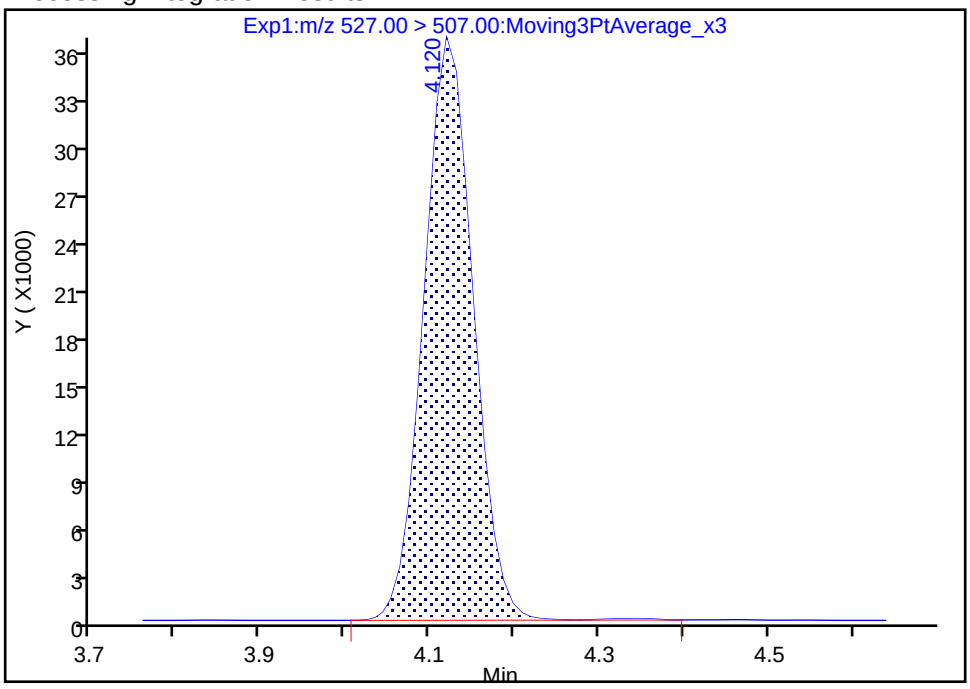
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

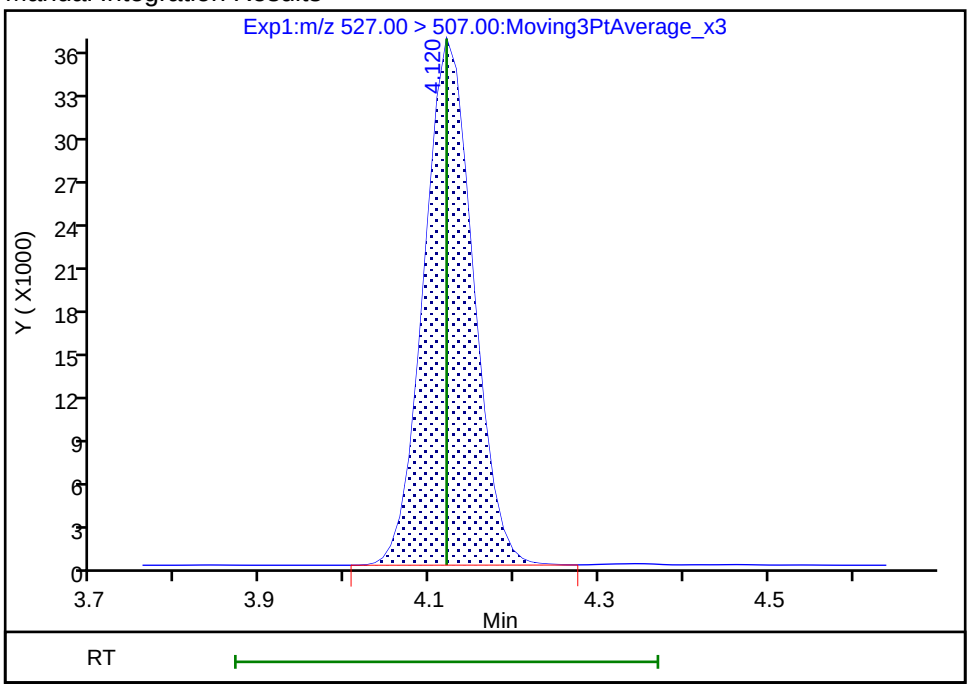
Processing Integration Results

RT: 4.12
Area: 147002
Amount: 0.900787
Amount Units: ng/ml




Manual Integration Results

RT: 4.12
Area: 146667
Amount: 0.898734
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:34:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

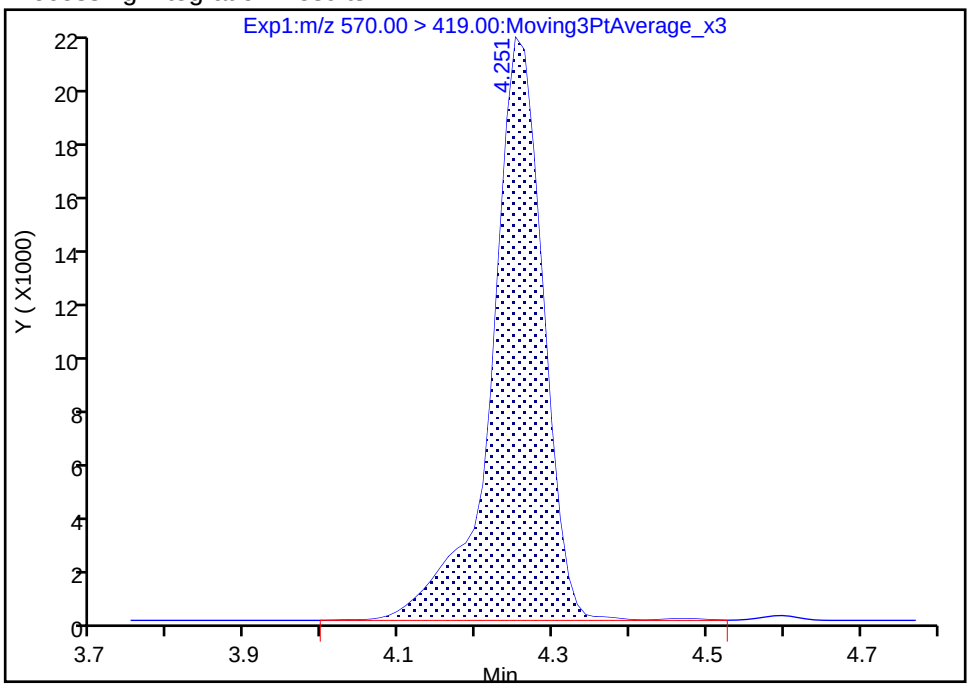
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

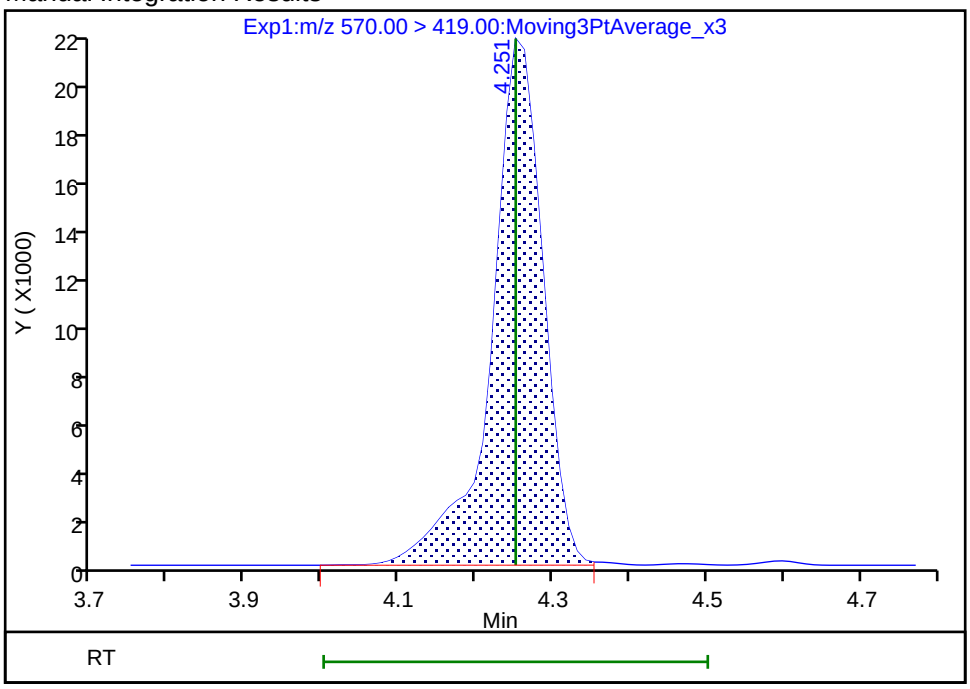
Processing Integration Results

RT: 4.25
Area: 101472
Amount: 1.037713
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 100921
Amount: 1.032078
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:41:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

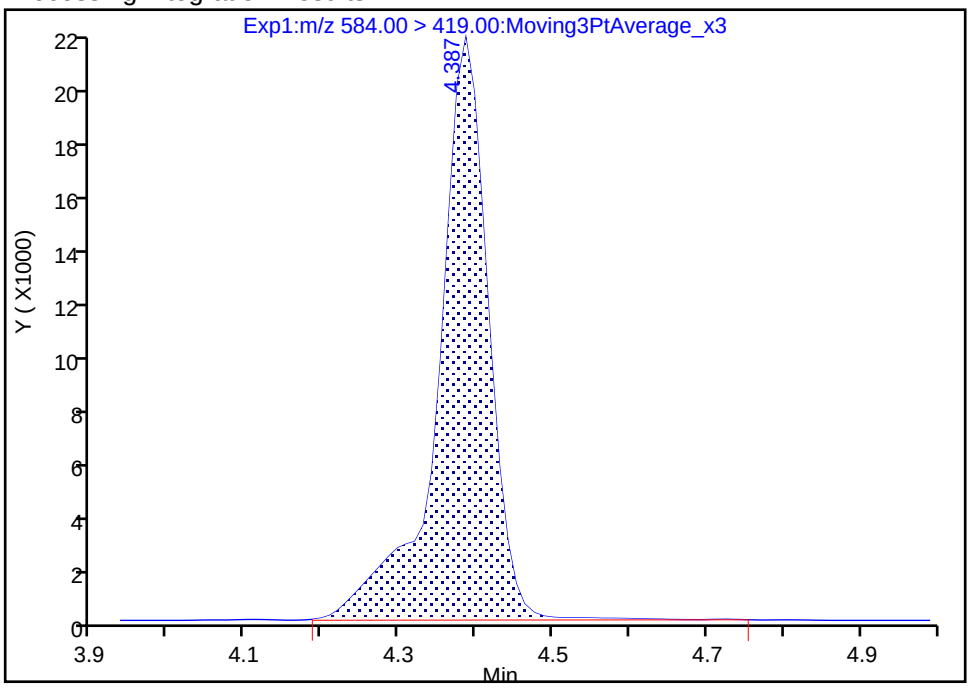
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A06.d | | | | |
| Injection Date: | 10-Nov-2021 12:03:36 | Instrument ID: | LC812 | | |
| Lims ID: | CCVIS | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 6 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

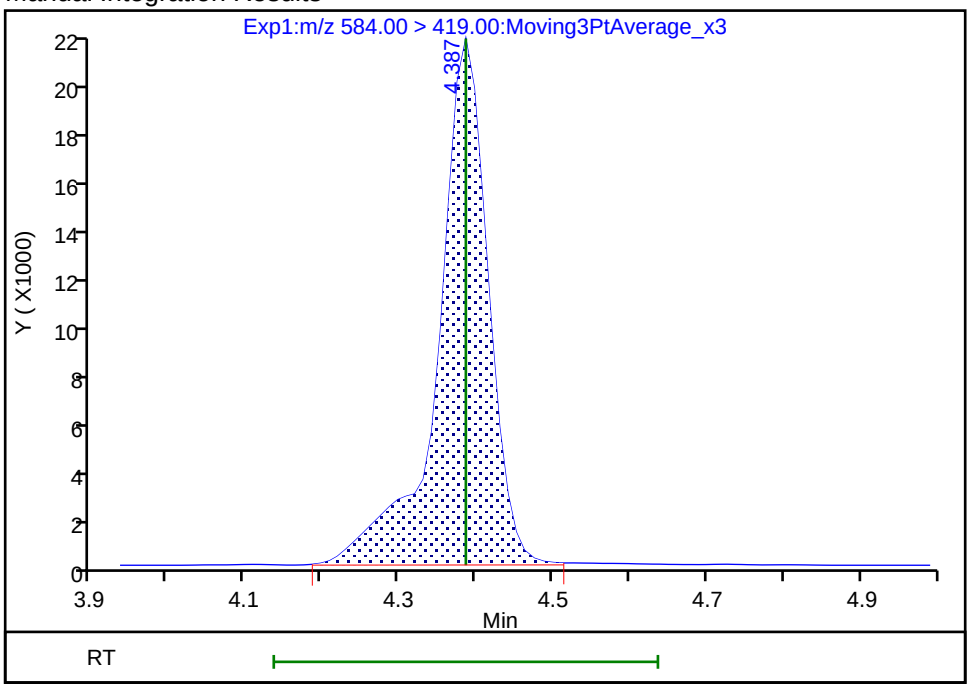
Processing Integration Results

RT: 4.39
Area: 96620
Amount: 0.953598
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 96136
Amount: 0.948821
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:34:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173694/18  Calibration Date: 11/10/2021 13:41

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8784 | | 2.32 | 2.50 | -7.1 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9700 | | 2.42 | 2.50 | -3.2 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 0.9833 | | 2.04 | 2.21 | -7.9 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 1.991 | | 2.18 | 2.34 | -6.5 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9807 | | 2.42 | 2.50 | -3.3 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.178 | | 2.30 | 2.35 | -2.1 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.197 | | 2.87 | 2.50 | 14.9 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.018 | | 2.11 | 2.28 | -7.4 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 0.9533 | | 2.31 | 2.50 | -7.7 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.293 | | 2.22 | 2.36 | -5.9 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.235 | | 2.31 | 2.37 | -2.6 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.157 | | 2.21 | 2.38 | -7.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.015 | | 2.39 | 2.50 | -4.6 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.023 | | 2.19 | 2.32 | -5.7 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9708 | | 2.48 | 2.50 | -0.8 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.448 | | 2.06 | 2.33 | -11.4 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7835 | | 2.23 | 2.40 | -7.3 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9608 | | 2.39 | 2.50 | -4.4 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.7806 | | 2.24 | 2.40 | -6.7 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9157 | | 2.41 | 2.50 | -3.6 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7801 | | 2.48 | 2.50 | -0.7 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6158 | | 2.26 | 2.41 | -6.3 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.028 | | 2.41 | 2.50 | -3.6 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8160 | | 2.38 | 2.50 | -4.8 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.805 | | 2.20 | 2.36 | -6.5 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.8556 | | 2.19 | 2.50 | -12.6 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3848 | | 2.40 | 2.41 | -0.4 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2587 | | 2.59 | 2.42 | 7.0 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173694/18  Calibration Date: 11/10/2021 13:41

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A18.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7155 | | 2.12 | 2.50 | -15.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1522 | | 2.41 | 2.50 | -3.6 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9080 | | 2.64 | 2.50 | 5.7 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7274 | | 2.16 | 2.50 | -13.8 | |
| 13C4 PFBA | Ave | 1.012 | 1.222 | | 1.51 | 1.25 | 20.7 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9276 | | 1.36 | 1.25 | 8.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.217 | | 1.23 | 1.16 | 5.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1073 | | 1.43 | 1.17 | 22.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9428 | | 1.32 | 1.25 | 5.4 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0203 | | 1.08 | 1.25 | -13.8 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.9023 | | 1.27 | 1.18 | 7.6 | 50.0 |
| 13C4 PFHpA | Ave | 0.9417 | 0.9913 | | 1.32 | 1.25 | 5.3 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1457 | | 1.31 | 1.19 | 10.2 | |
| 13C4 PFOA | Ave | 1.029 | 1.023 | | 1.24 | 1.25 | -0.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6653 | | 1.31 | 1.20 | 9.8 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.9605 | | 1.17 | 1.25 | -6.3 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.000 | | 1.21 | 1.25 | -3.3 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1702 | | 1.36 | 1.20 | 13.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.070 | | 1.34 | 1.25 | 7.2 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1132 | | 1.39 | 1.25 | 11.3 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7337 | | 1.14 | 1.25 | -9.0 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1047 | | 1.37 | 1.25 | 9.9 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.9289 | | 1.34 | 1.25 | 7.1 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6446 | | 1.20 | 1.25 | -4.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5091 | | 1.08 | 1.25 | -14.0 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 10-Nov-2021 13:41:47 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0048360-018 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:33 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:47:35
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 2129796 | 1.51 | | 121 | 2348 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.091 | 0.009 | 1.004 | 3741492 | 2.32 | | 92.9 | 733 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1616454 | 1.36 | | 109 | 3529 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 3135776 | 2.42 | | 96.8 | 128 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1971814 | 1.23 | | 105 | 211393 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.005 | 3685848 | 2.03 | Target=2.32 | 92.1 | 2580 | M |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 1687430 | | 2.18(1.16-3.48) | | 816 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.000 | 695527 | 2.18 | | 93.5 | 2869 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.735 | -0.001 | 0.783 | 174698 | 1.42 | | 122 | 173 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1642977 | 1.32 | | 105 | 3745 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 3222411 | 2.42 | Target=12.09 | 96.7 | 580 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 262345 | | 12.28(6.04-18.13) | | 276 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.771 | -0.001 | 0.884 | 3476336 | 2.29 | Target=3.03 | 97.9 | 3245 | M |
| 349.00 > 99.00 | 2.770 | 2.771 | -0.001 | 0.884 | 1125701 | | 3.09(1.52-4.55) | | 1781 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.869 | -0.002 | 0.821 | 35412 | 1.08 | | 86.2 | 204 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.881 | -0.001 | 1.004 | 368097 | 2.87 | | 115 | 128 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 2914432 | 2.11 | Target=3.55 | 92.6 | 1685 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 840448 | | 3.47(1.77-5.32) | | 936 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1487577 | 1.27 | | 108 | 3346 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1727615 | 1.32 | | 105 | 3781 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 3293715 | 2.31 | Target=3.69 | 92.3 | 1006 | |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 884966 | | 3.72(1.84-5.53) | | 1505 | |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.166 | 0.009 | 0.835 | 7191858 | 2.22 | Target=2.56 | 94.1 | 2973 | M |
| 377.00 > 85.00 | 3.175 | 3.166 | 0.009 | 0.835 | 2859562 | | 2.52(1.28-3.84) | | 3331 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 2554449 | 2.21 | Target=4.88 | 92.8 | 2732 | M |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 516898 | | 4.94(2.44-7.32) | | 1495 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 594685 | 2.31 | | 97.4 | 1301 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 241247 | 1.31 | | 110 | 580 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1782605 | 1.24 | | 99.4 | 3969 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1742707 | 1.25 | | | 3020 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 3617343 | 2.39 | Target=2.68 | 95.4 | 485 | |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1374107 | | 2.63(1.34-4.02) | | 2119 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 1108341 | 1.31 | | 110 | 3484 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 2200669 | 2.19 | Target=4.69 | 94.3 | 1394 | M |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 475457 | | 4.63(2.35-7.04) | | 1441 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.818 | 0.006 | 1.095 | 1673842 | 1.17 | | 93.7 | 4054 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.000 | 3249894 | 2.48 | Target=7.29 | 99.2 | 758 | |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.000 | 430895 | | 7.54(3.64-10.93) | | 4097 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.964 | 3.959 | 0.005 | 1.042 | 3128812 | 2.06 | | 88.6 | 4903 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.092 | 4.086 | 0.006 | 1.076 | 1744095 | 2.22 | Target=2.35 | 92.7 | 4849 | |
| 549.00 > 99.00 | 4.092 | 4.086 | 0.006 | 1.076 | 711346 | | 2.45(1.17-3.52) | | 2404 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1743360 | 1.21 | | 96.7 | 4454 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 3349943 | 2.39 | Target=8.95 | 95.6 | 1789 | |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 394902 | | 8.48(4.47-13.42) | | 2240 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 284173 | 1.36 | | 114 | 1031 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 443640 | 2.23 | | 93.3 | 2183 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.210 | 1863894 | 1.34 | | 107 | 6966 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 3413509 | 2.41 | | 96.4 | 3009 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 197334 | 1.39 | | 111 | 323 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.251 | 0.017 | 1.003 | 307892 | 2.48 | | 99.3 | 969 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.346 | 4.342 | 0.004 | 1.143 | 1376460 | 2.26 | Target=2.47 | 93.7 | 3037 | |
| 599.00 > 99.00 | 4.346 | 4.342 | 0.004 | 1.143 | 545206 | | 2.52(1.23-3.70) | | 2015 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 1278687 | 1.14 | | 91.0 | 7366 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.375 | 0.005 | 1.000 | 2628023 | 2.41 | Target=9.24 | 96.4 | 1593 | |
| 563.00 > 169.00 | 4.380 | 4.375 | 0.005 | 1.000 | 300276 | | 8.75(4.62-13.86) | | 2163 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 182507 | 1.37 | | 110 | 1259 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.000 | 297863 | 2.38 | | 95.2 | 1032 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.466 | 4.463 | 0.003 | 1.174 | 3942134 | 2.20 | | 93.5 | 3441 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1618716 | 1.34 | | 107 | 2274 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.601 | 4.598 | 0.003 | 1.000 | 2770074 | 2.18 | Target=7.04 | 87.4 | 441 | |
| 613.00 > 169.00 | 4.601 | 4.598 | 0.003 | 1.000 | 443615 | | 6.24(3.52-10.56) | | 2737 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.622 | 4.619 | 0.003 | 1.120 | 220083 | 2.40 | | 99.6 | 1748 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.763 | 0.002 | 1.253 | 580734 | 2.59 | Target=0.49 | 107 | 2842 | |
| 699.00 > 99.00 | 4.765 | 4.763 | 0.002 | 1.253 | 1028126 | | 0.56(0.25-0.74) | | 3940 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.043 | 2316389 | 2.12 | Target=4.68 | 84.8 | 484 | M |
| 663.00 > 169.00 | 4.801 | 4.799 | 0.002 | 1.043 | 520434 | | 4.45(2.34-7.02) | | 2333 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.972 | 0.013 | 1.428 | 1123403 | 1.20 | | 95.8 | 2003 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.000 | 341903 | 2.41 | Target=1.01 | 96.4 | 3743 | |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 0.998 | 364589 | | 0.94(0.51-1.52) | | 4830 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.280 | 0.013 | 1.516 | 887279 | 1.07 | | 86.0 | 3485 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.280 | 0.013 | 1.000 | 1611323 | 2.64 | Target=4.57 | 106 | 380 | |
| 813.00 > 169.00 | 5.293 | 5.280 | 0.013 | 1.000 | 375516 | | 4.29(2.29-6.86) | | 3463 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.544 | 0.011 | 1.050 | 1290741 | 2.16 | Target=4.27 | 86.2 | 499 | |
| 913.00 > 169.00 | 5.555 | 5.544 | 0.011 | 1.050 | 302192 | | 4.27(2.14-6.41) | | 2029 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC5_00023 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 12:40:34 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d

Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812

Lims ID: CCV L5

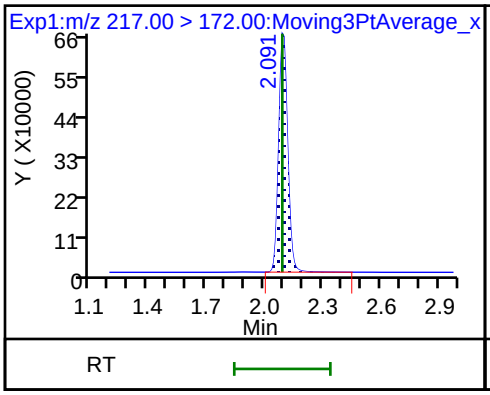
Client ID:

Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18

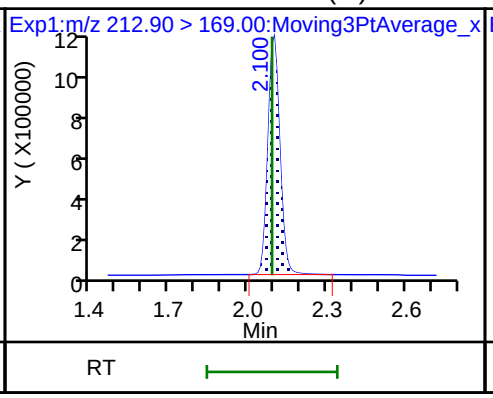
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

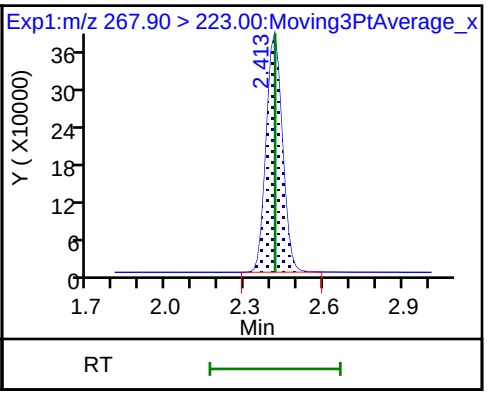
D 1 13C4 PFBA



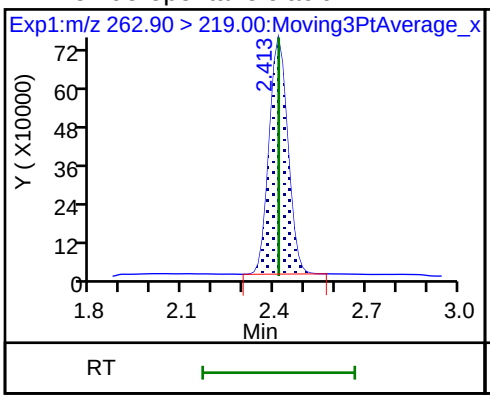

2 Perfluorobutanoic acid (M)



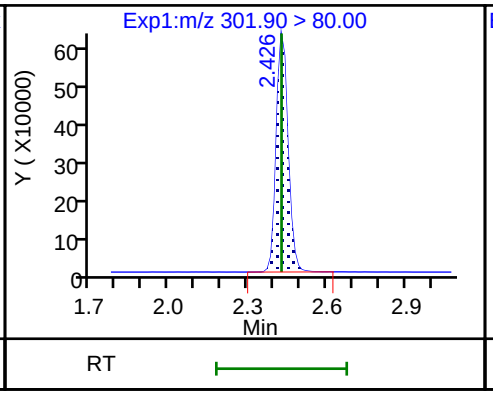

D 3 13C5 PFPeA



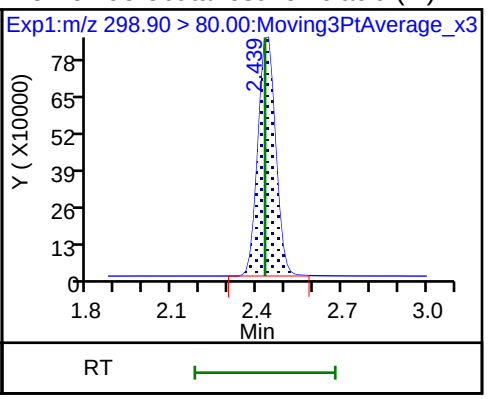

4 Perfluoropentanoic acid



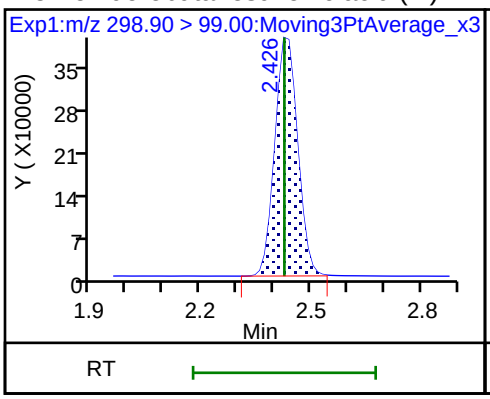

D 47 13C3 PFBS



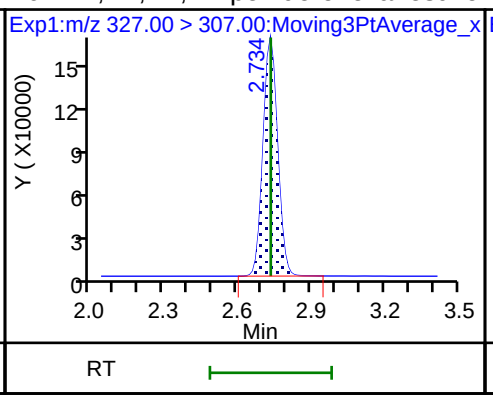

5 Perfluorobutanesulfonic acid (M)



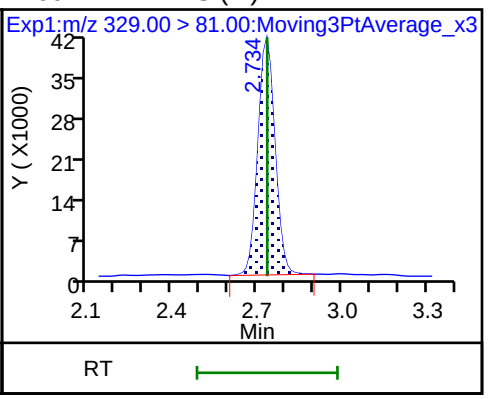

5 Perfluorobutanesulfonic acid (M)



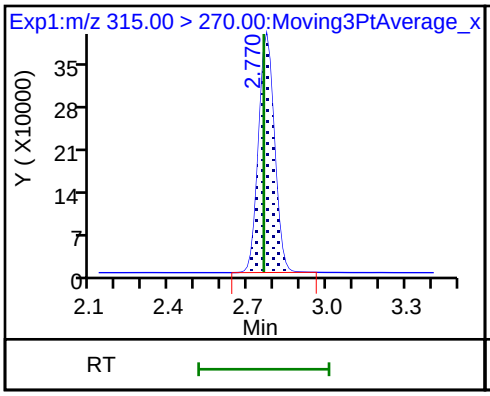

61 1H,1H,2H,2H-perfluorohexanesulfo



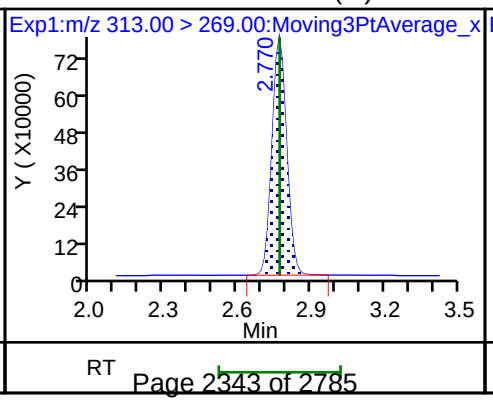

D 60 M2-4:2 FTS (M)



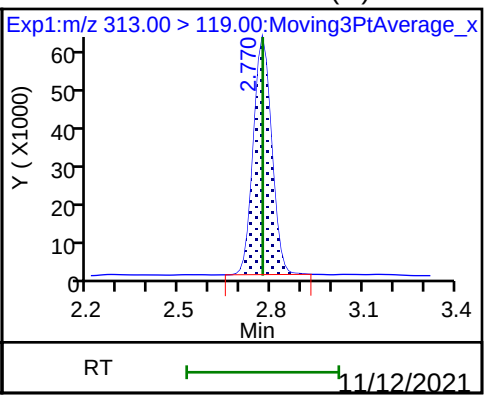

D 7 13C2 PFHxA



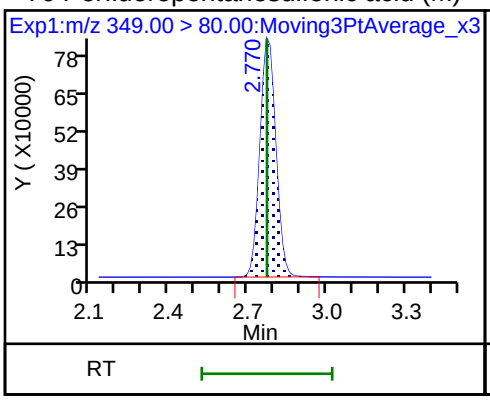

6 Perfluorohexanoic acid (M)



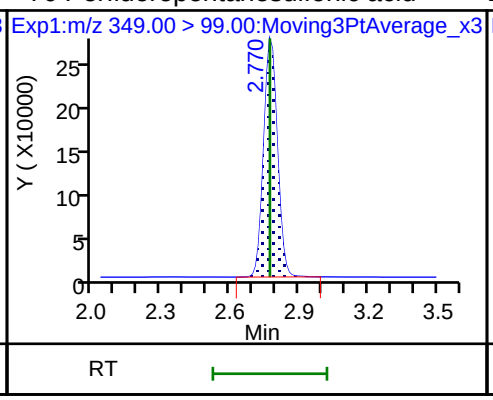

6 Perfluorohexanoic acid (M)



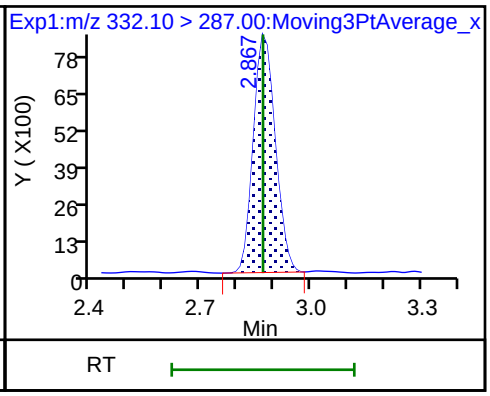
70 Perfluoropentanesulfonic acid (M)



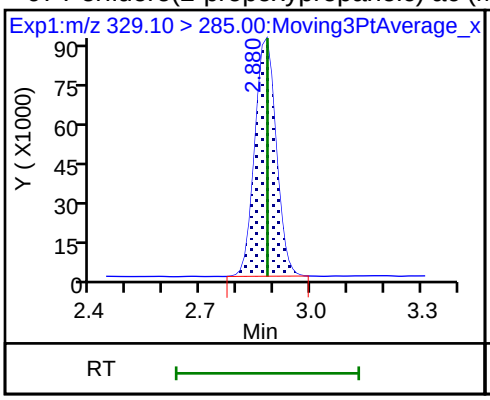

70 Perfluoropentanesulfonic acid



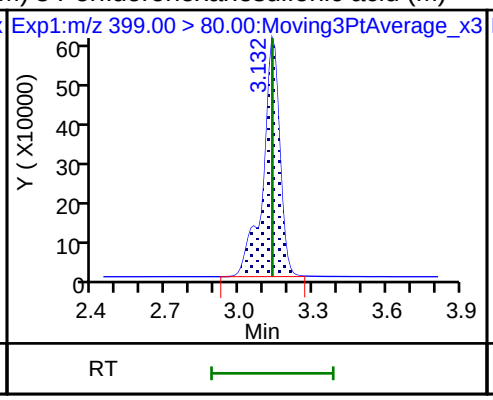

D 64 13C3 HFPO-DA



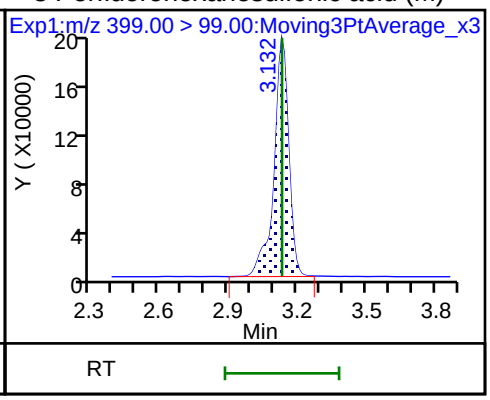

67 Perfluoro(2-propoxypropanoic) ac (M)



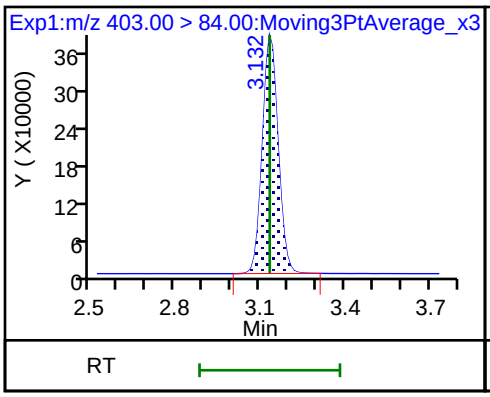

8 Perfluorohexanesulfonic acid (M)



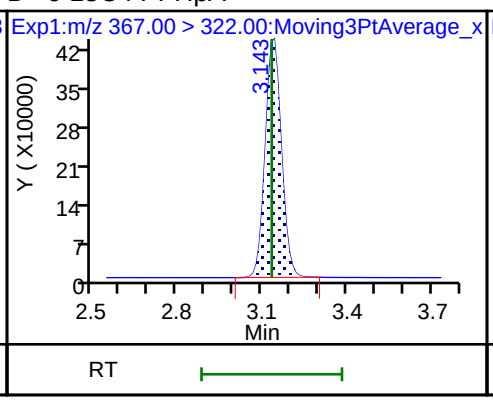

8 Perfluorohexanesulfonic acid (M)



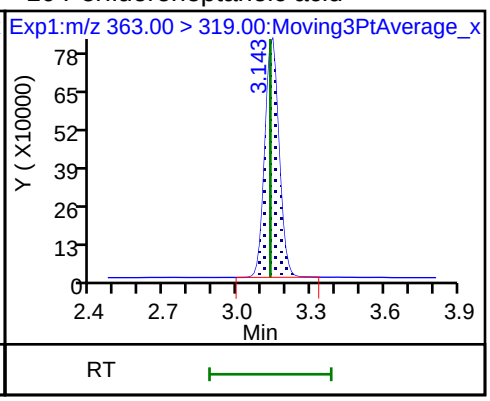

D 11 18O2 PFHxS



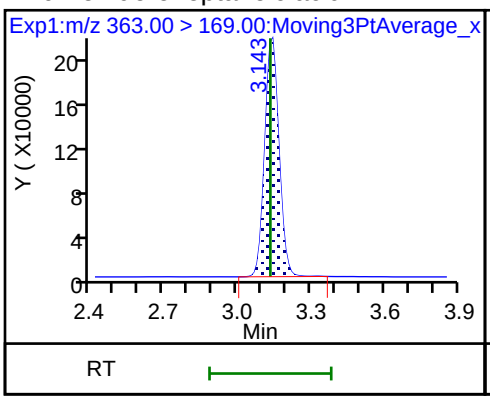

D 9 13C4 PFHpA



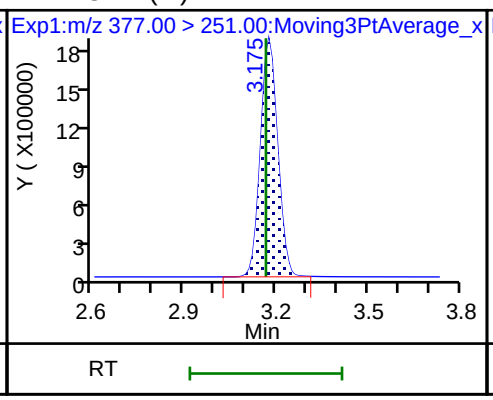

10 Perfluoroheptanoic acid



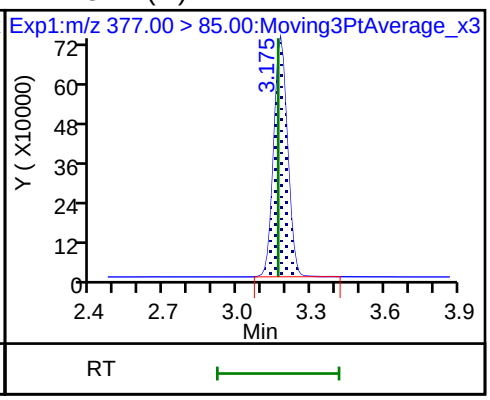

10 Perfluoroheptanoic acid



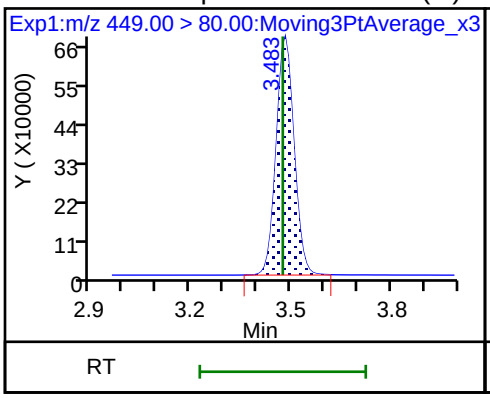

77 DONA (M)



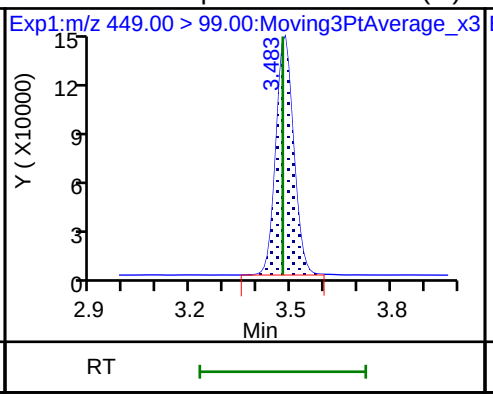

77 DONA (M)



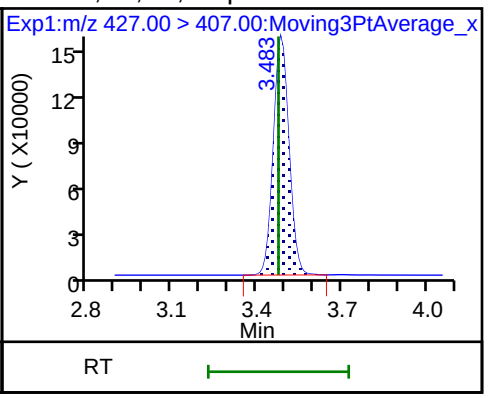
16 Perfluoroheptanesulfonic acid (M)



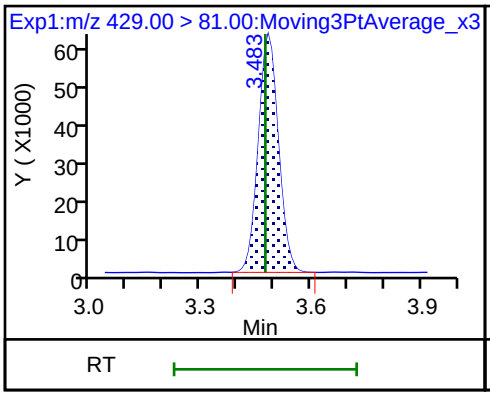

16 Perfluoroheptanesulfonic acid (M)



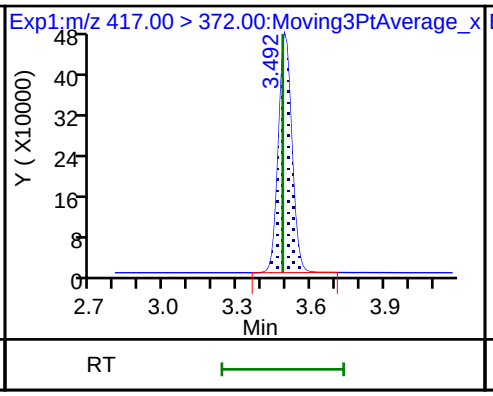

13 1H,1H,2H,2H-perfluorooctanesulfo



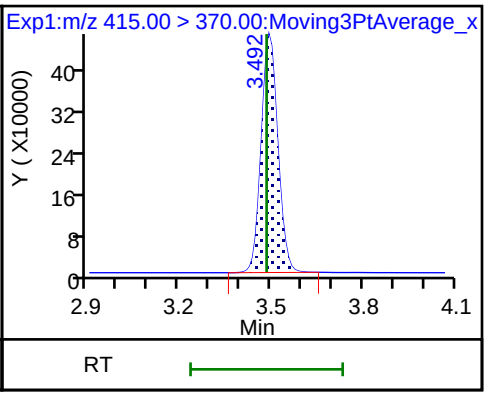

D 12 M2-6:2 FTS



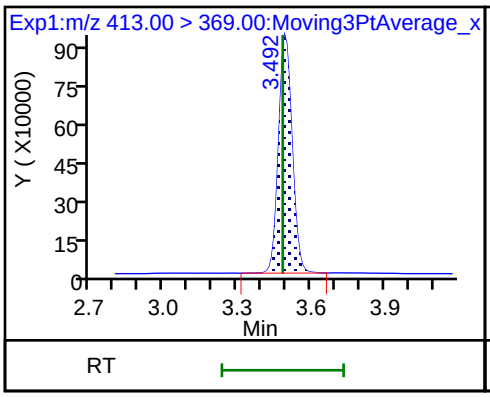

D 14 13C4 PFOA



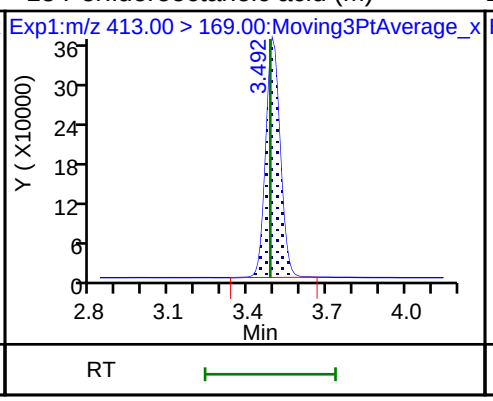

* 62 13C2 PFOA



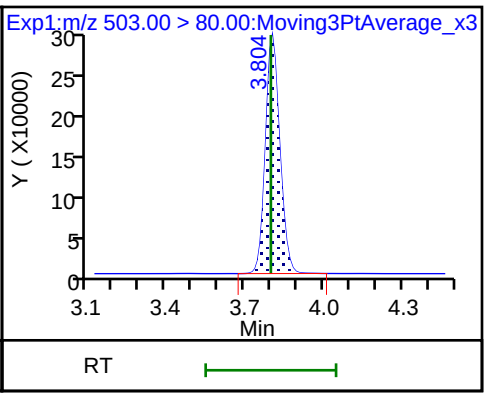

15 Perfluorooctanoic acid



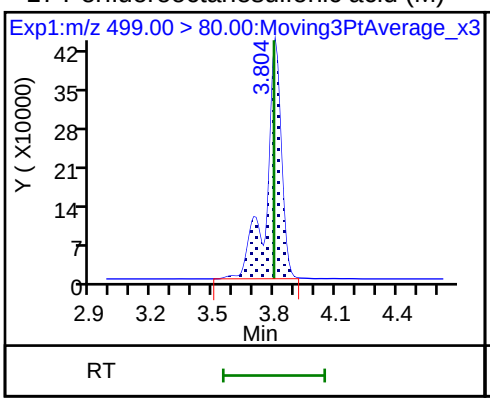

15 Perfluorooctanoic acid (M)



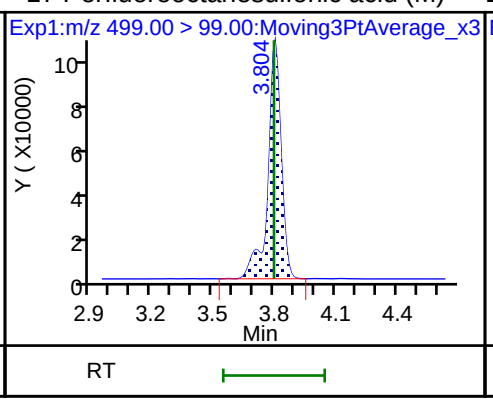

D 18 13C4 PFOS



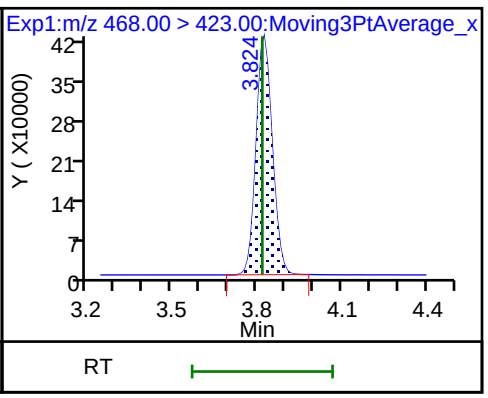

17 Perfluorooctanesulfonic acid (M)



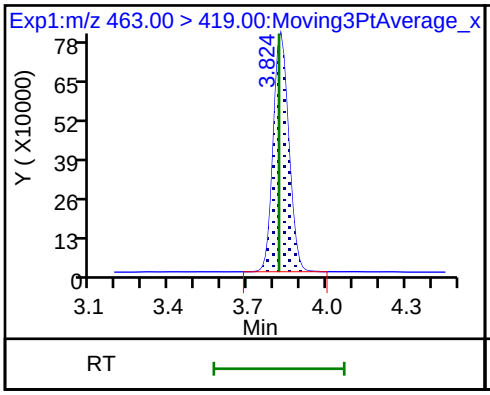

17 Perfluorooctanesulfonic acid (M)



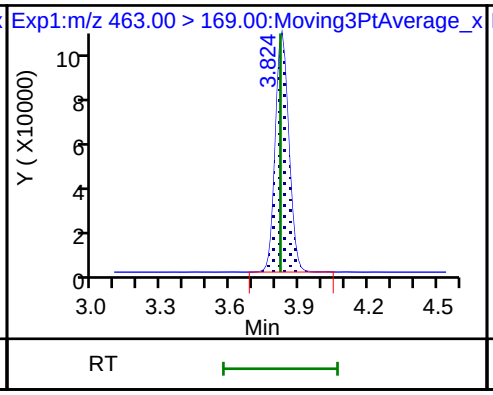

D 19 13C5 PFNA



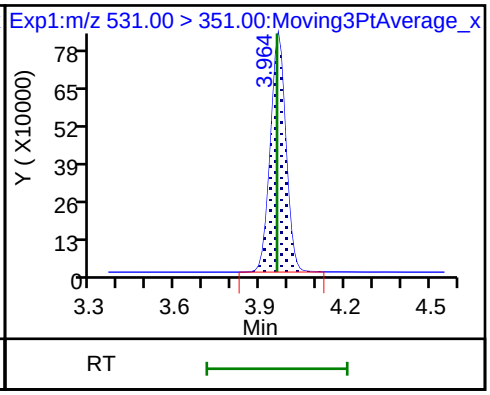
20 Perfluorononanoic acid



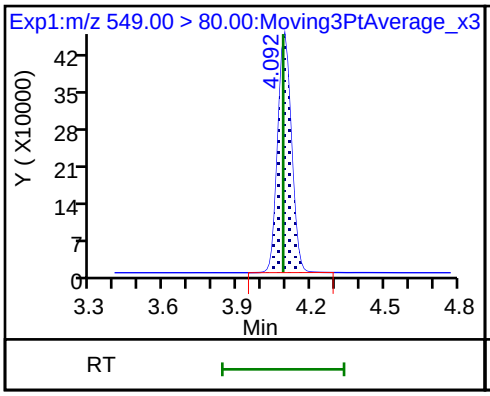

20 Perfluorononanoic acid



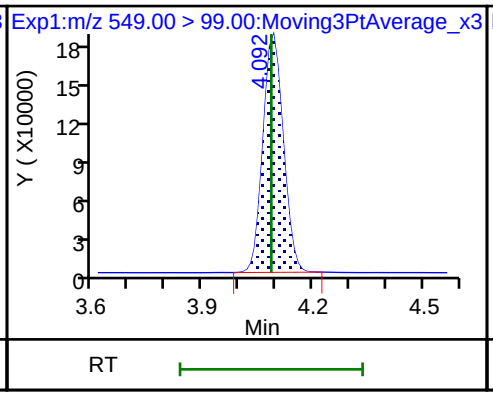

69 9-Chlorohexadecafluoro-3-oxanona (M)



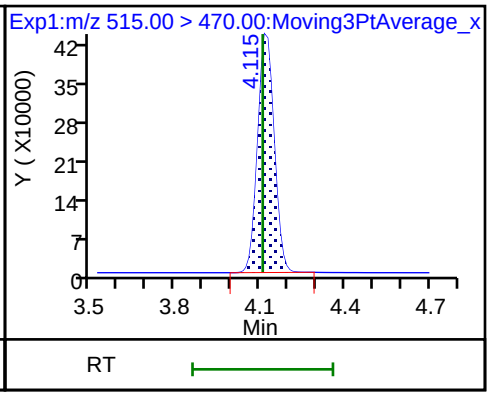

68 Perfluorononanesulfonic acid



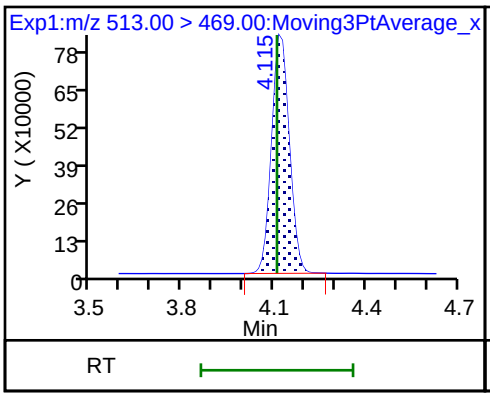

68 Perfluorononanesulfonic acid



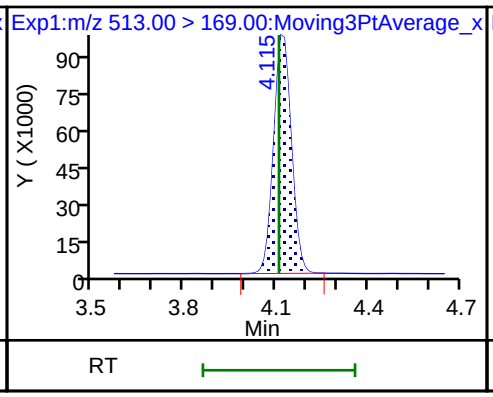

D 23 13C2 PFDA



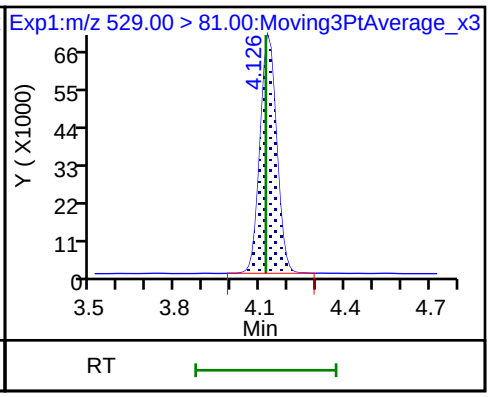

24 Perfluorodecanoic acid



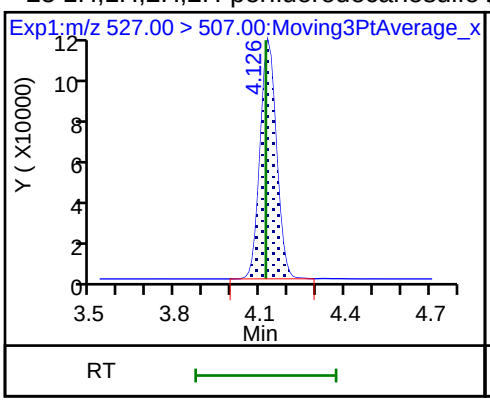

24 Perfluorodecanoic acid



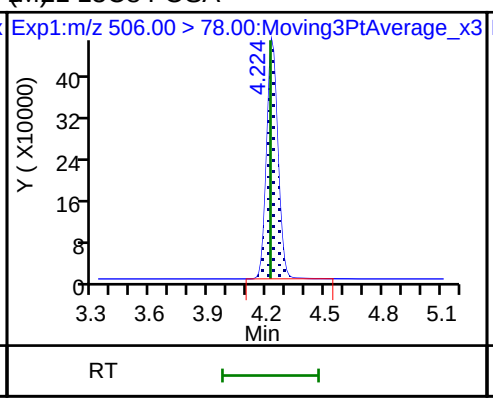

D 26 M2-8:2 FTS



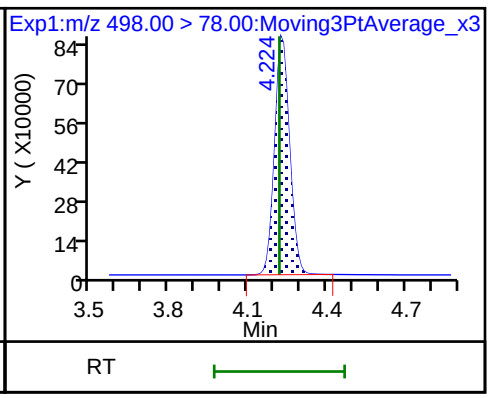

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



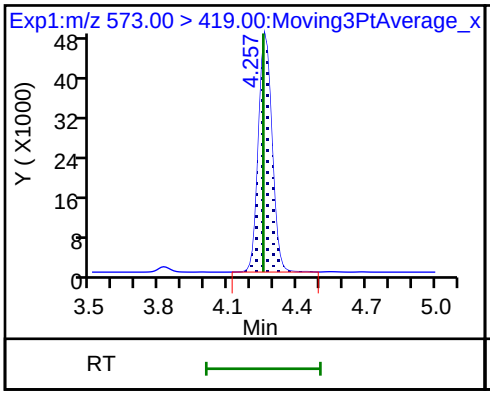

D 21 13C8 FOSA



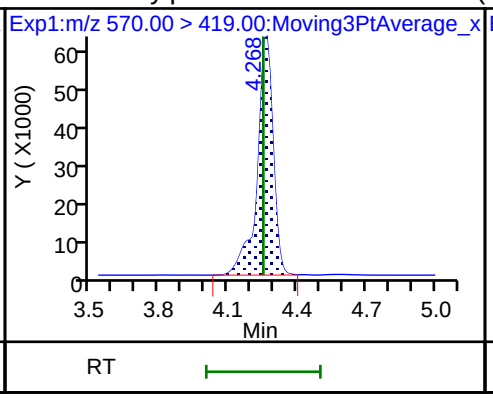

22 Perfluorooctanesulfonamide



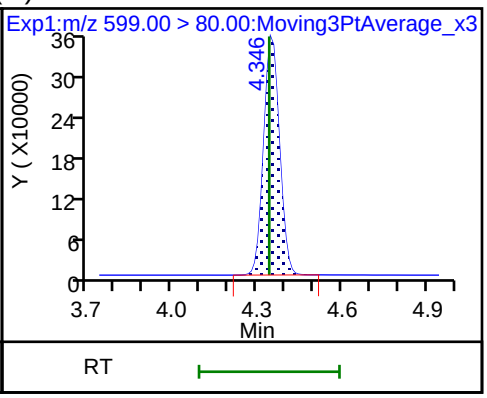
D 27 d3-NMeFOSAA



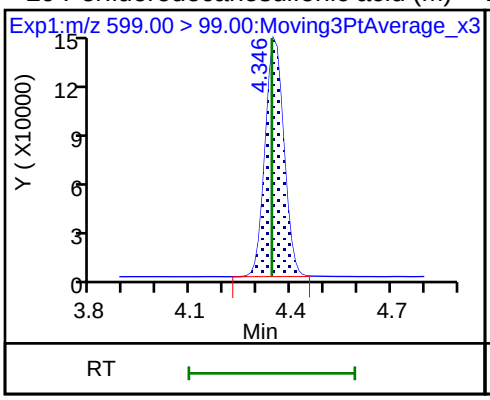

28 N-methylperfluorooctanesulfonami (M)



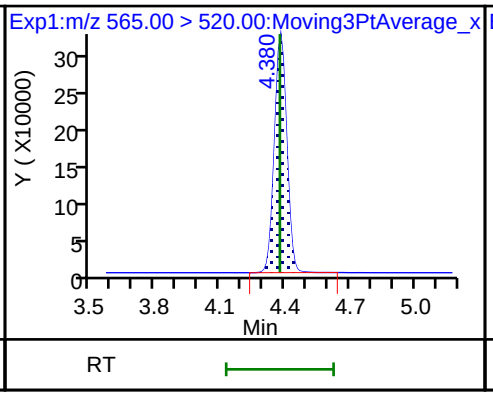

29 Perfluorodecanesulfonic acid



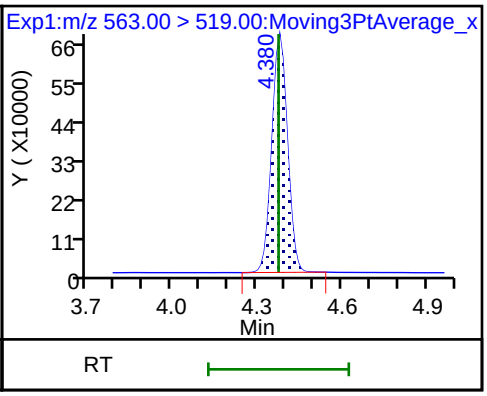

29 Perfluorodecanesulfonic acid (M)



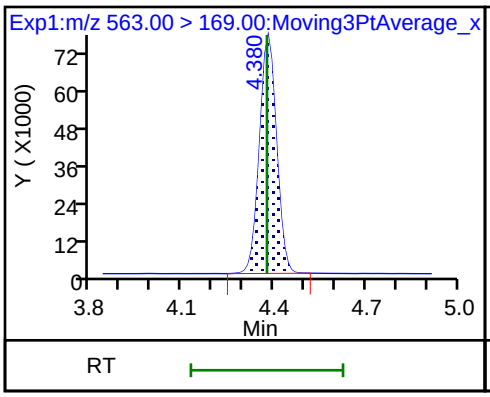

D 30 13C2 PFUnA



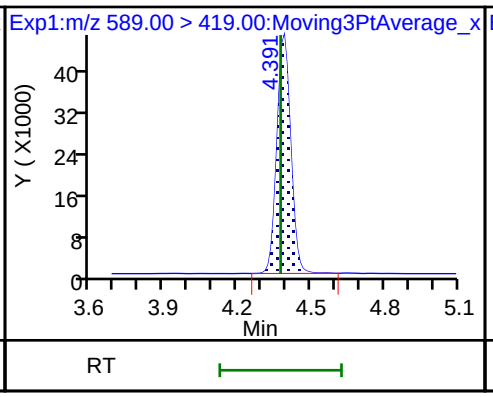

31 Perfluoroundecanoic acid



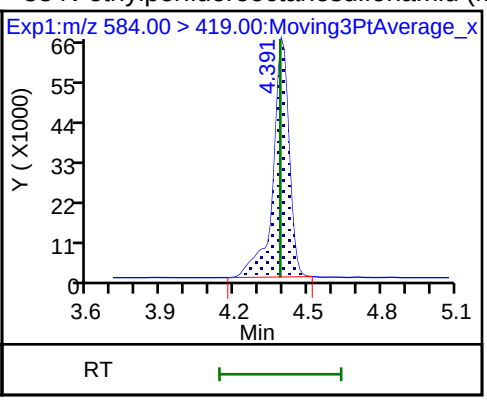

31 Perfluoroundecanoic acid



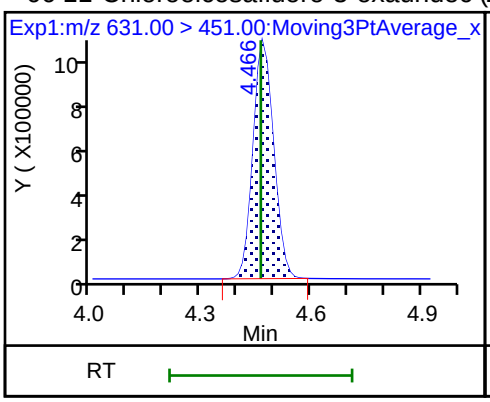

D 32 d5-NEtFOSAA



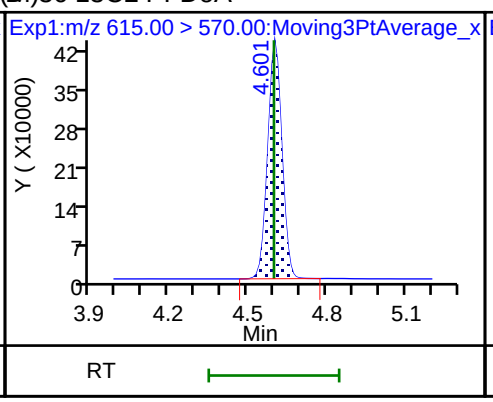

33 N-ethylperfluorooctanesulfonamid (M)



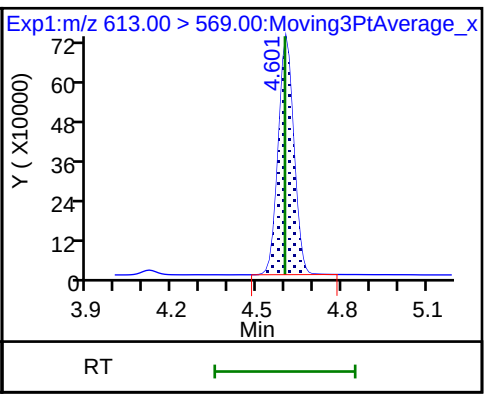

66 11-Chloroeicosafluoro-3-oxaundec (M)



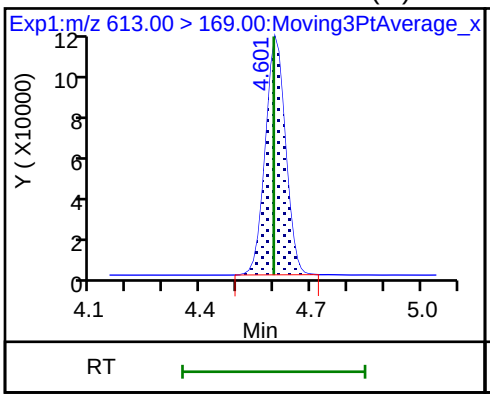

D 36 13C2 PFDoA



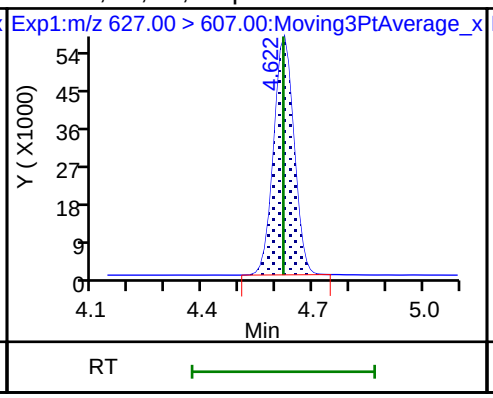

37 Perfluorododecanoic acid



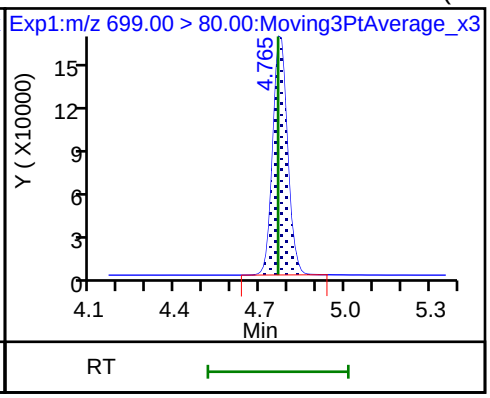
37 Perfluorododecanoic acid (M)



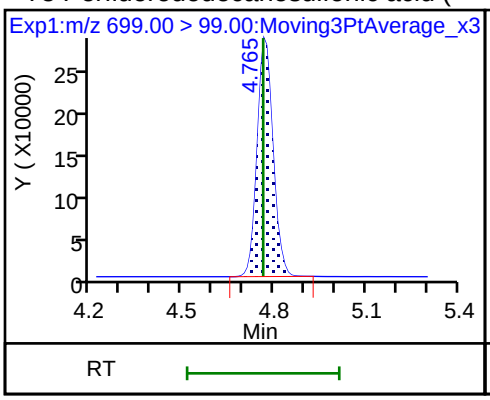

74 1H,1H,2H,2H-perfluorododecanesul



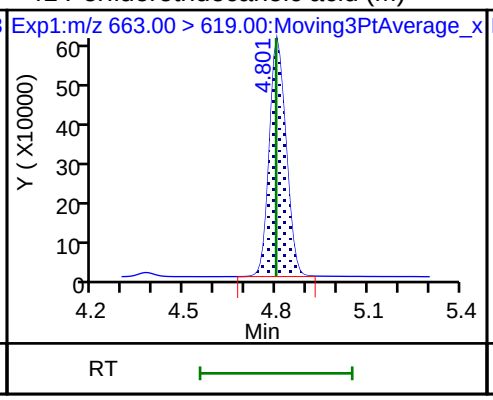

75 Perfluorododecanesulfonic acid (



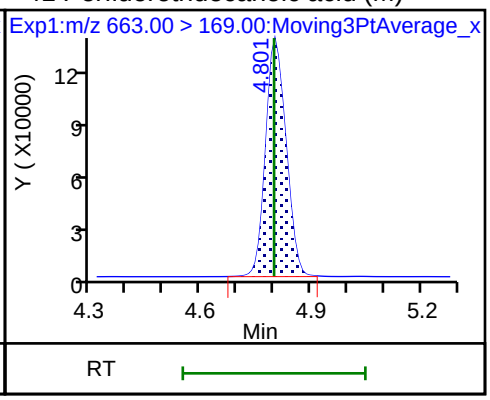

75 Perfluorododecanesulfonic acid (



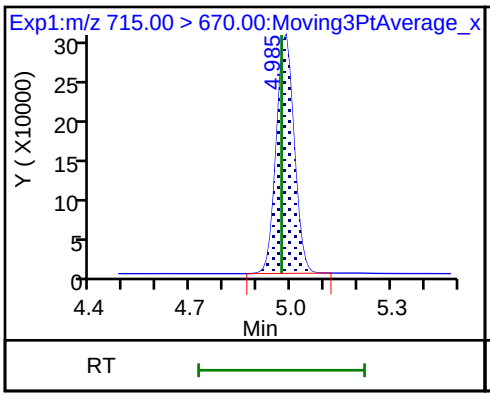

41 Perfluorotridecanoic acid (M)



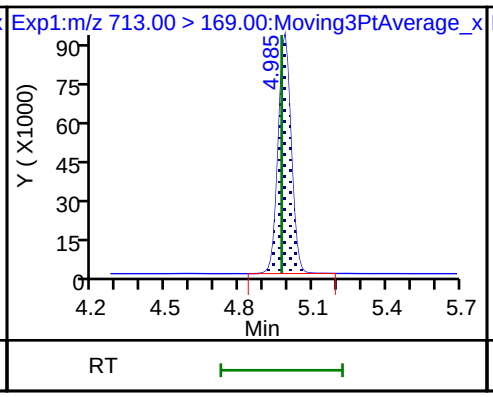

41 Perfluorotridecanoic acid (M)



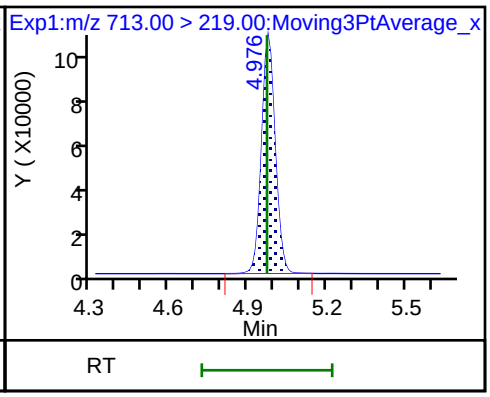

D 43 13C2 PFTeDA



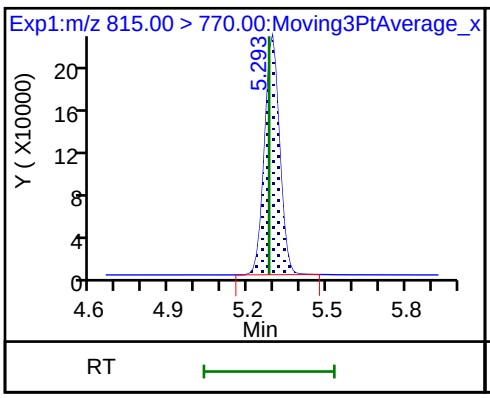

42 Perfluorotetradecanoic acid



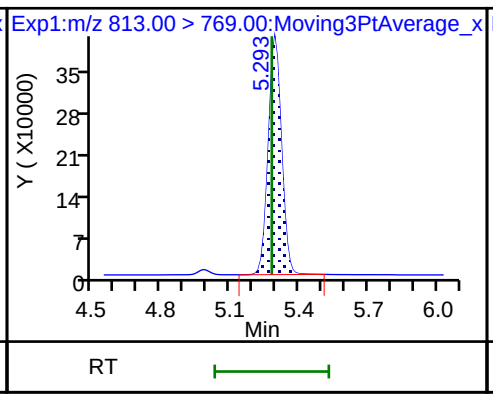

42 Perfluorotetradecanoic acid



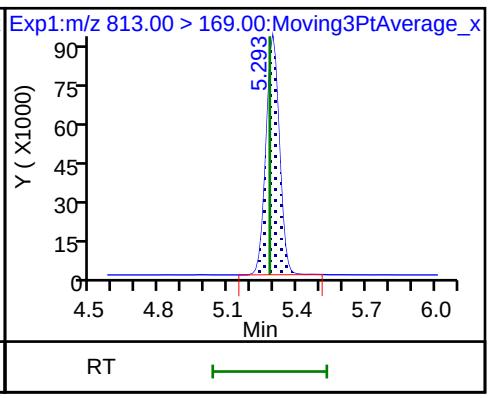

D 44 13C2 PFHxDA



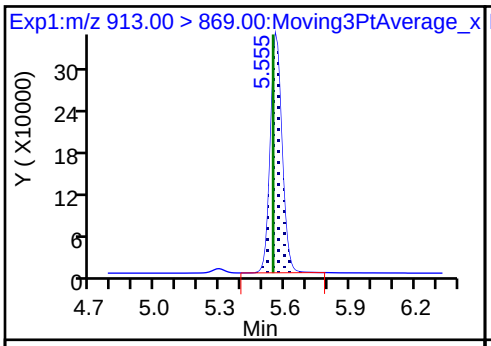

45 Perfluorohexadecanoic acid



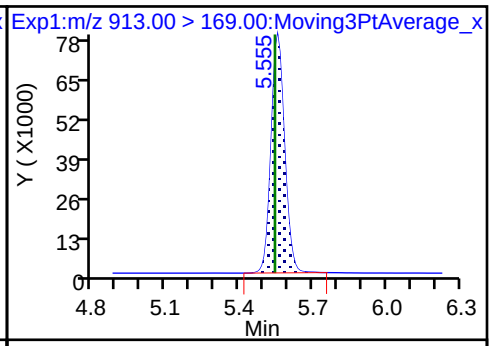

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

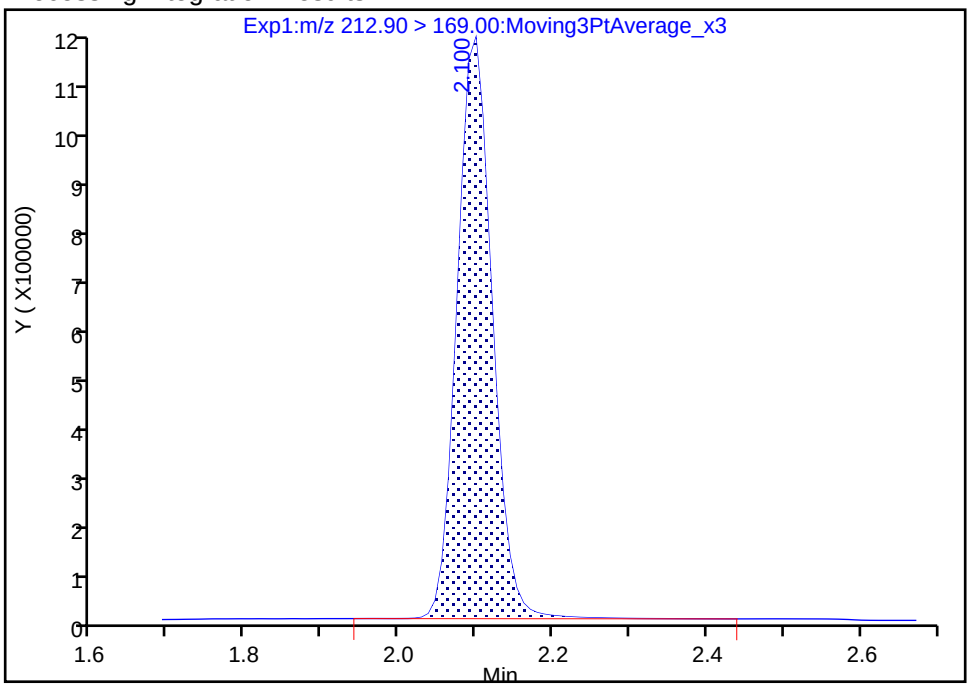
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

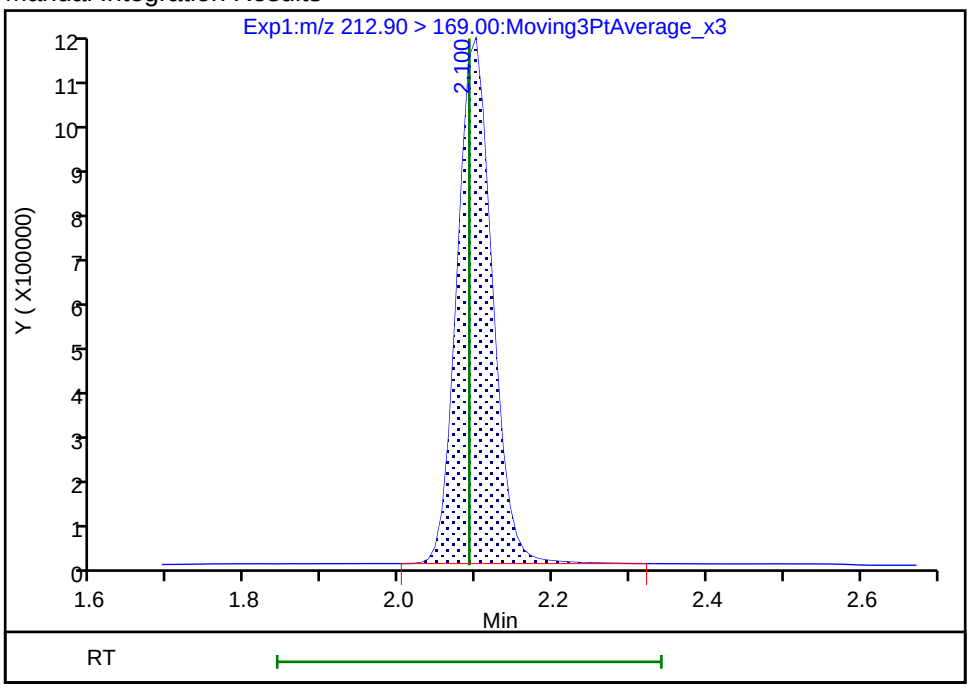
Processing Integration Results

RT: 2.10
Area: 3750230
Amount: 2.327777
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 3741492
Amount: 2.322353
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

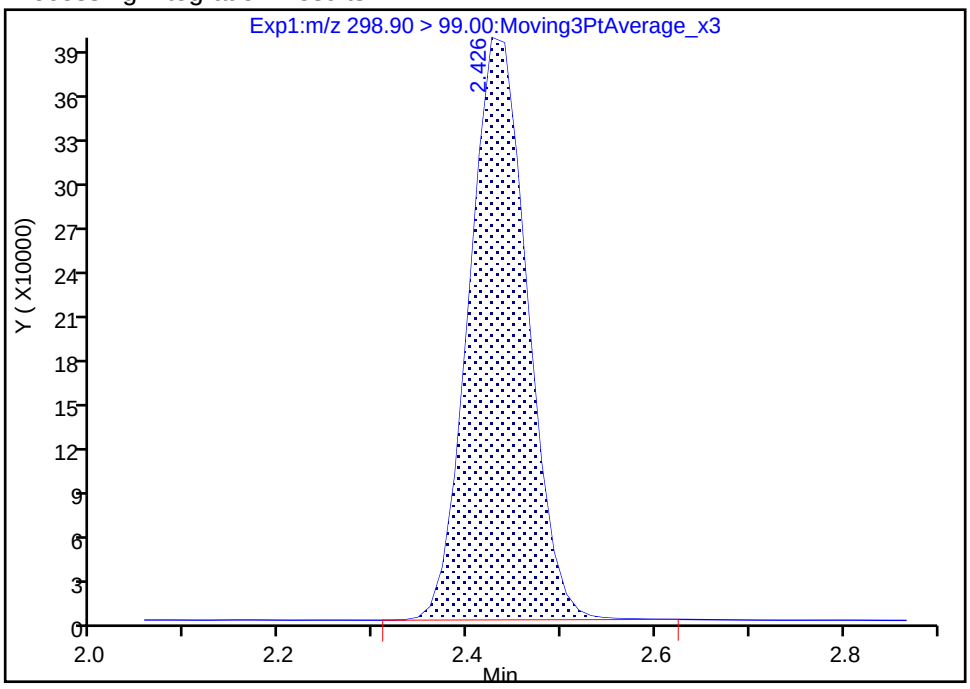
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

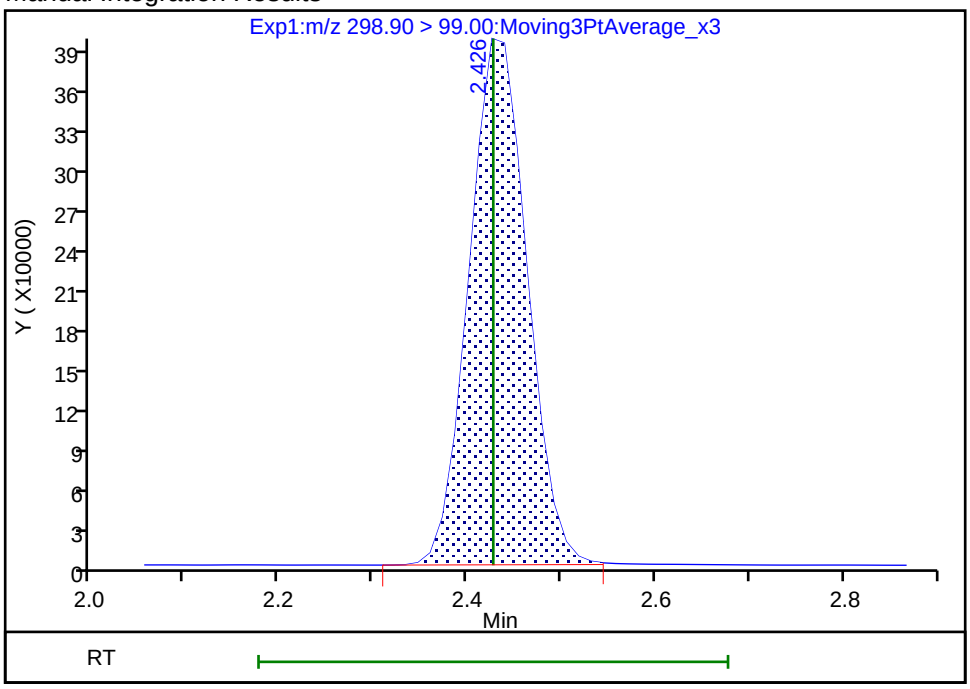
Processing Integration Results

RT: 2.43
Area: 1689271
Amount: 2.038359
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1687430
Amount: 2.034547
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

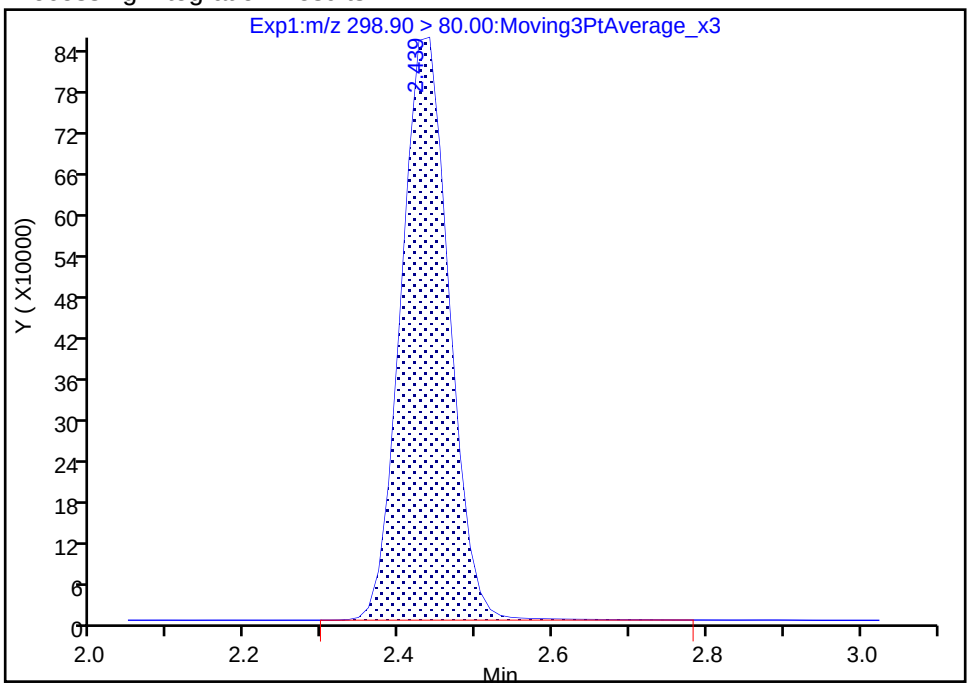
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

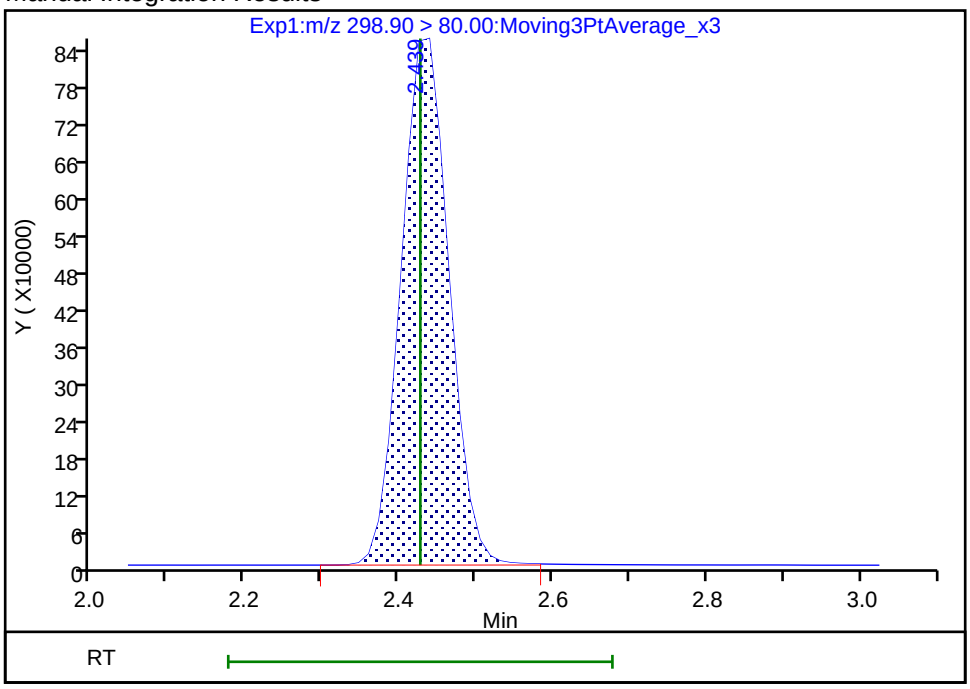
Processing Integration Results

RT: 2.44
Area: 3692755
Amount: 2.038359
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 3685848
Amount: 2.034547
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

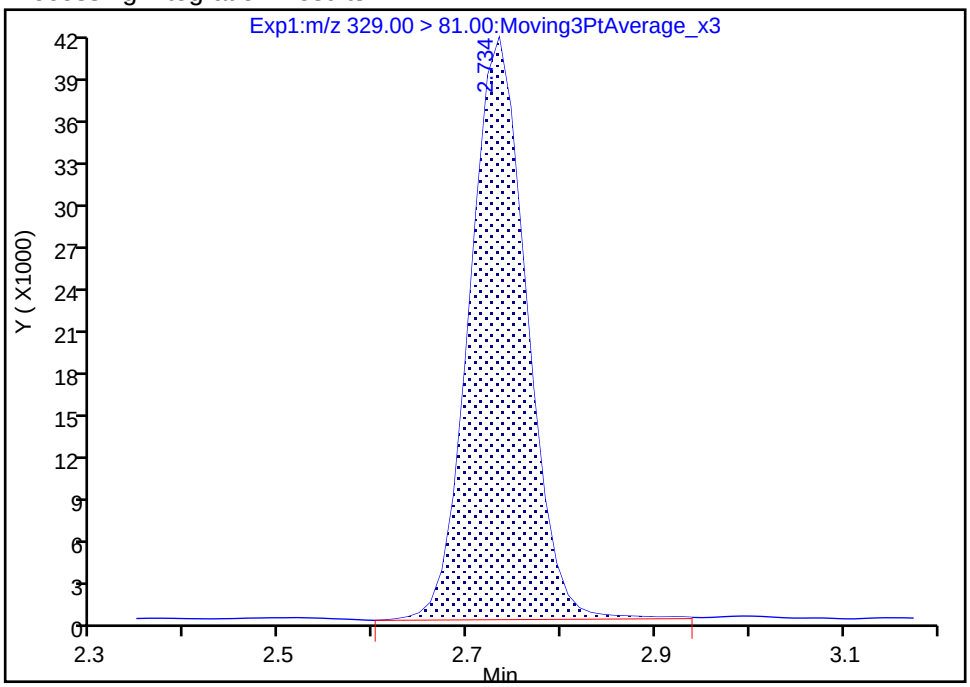
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d | | | | |
| Injection Date: | 10-Nov-2021 13:41:47 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

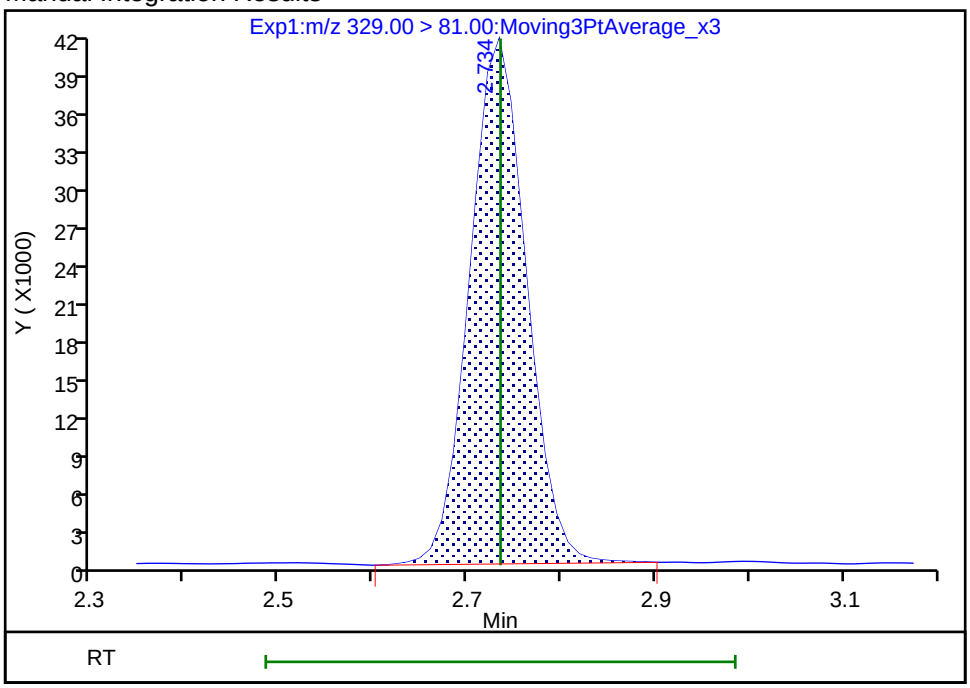
Processing Integration Results

RT: 2.73
Area: 176033
Amount: 1.435876
Amount Units: ng/ml




Manual Integration Results

RT: 2.73
Area: 174698
Amount: 1.424987
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:44:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

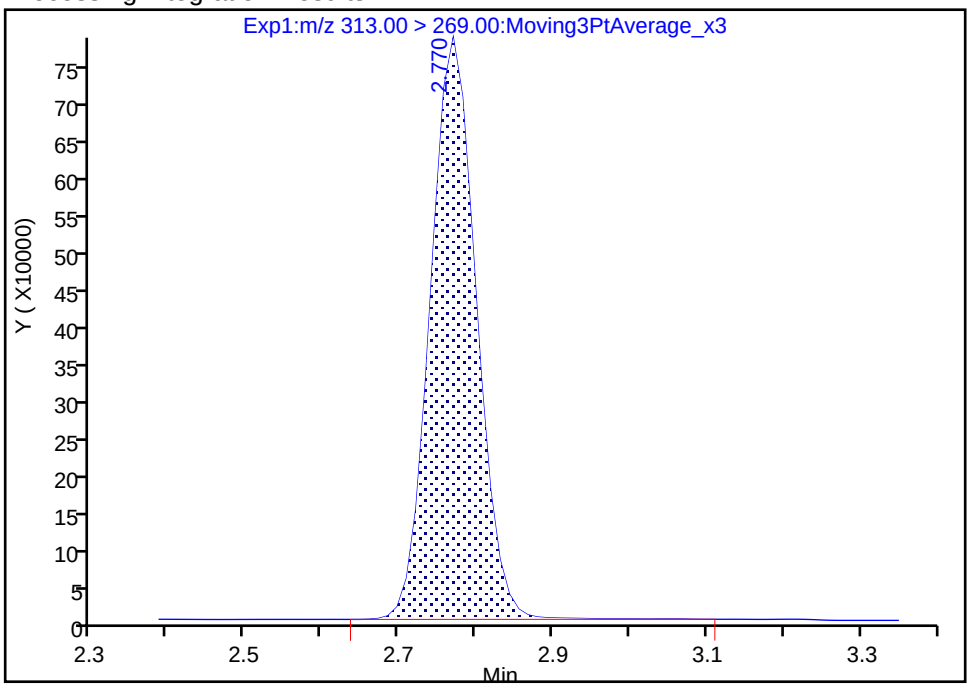
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

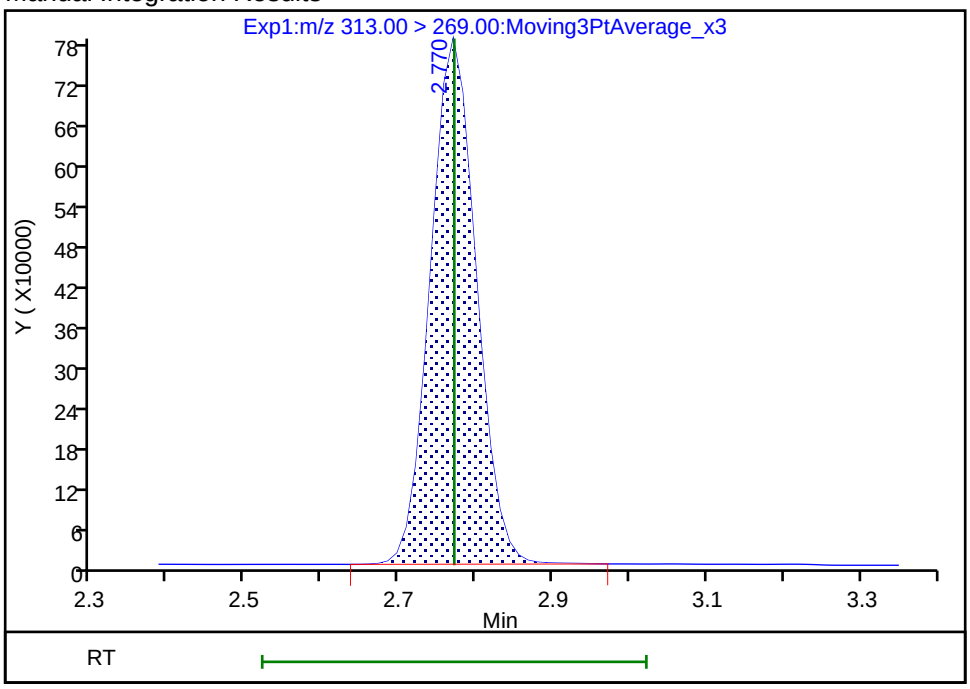
Processing Integration Results

RT: 2.77
Area: 3230871
Amount: 2.423735
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3222411
Amount: 2.417389
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

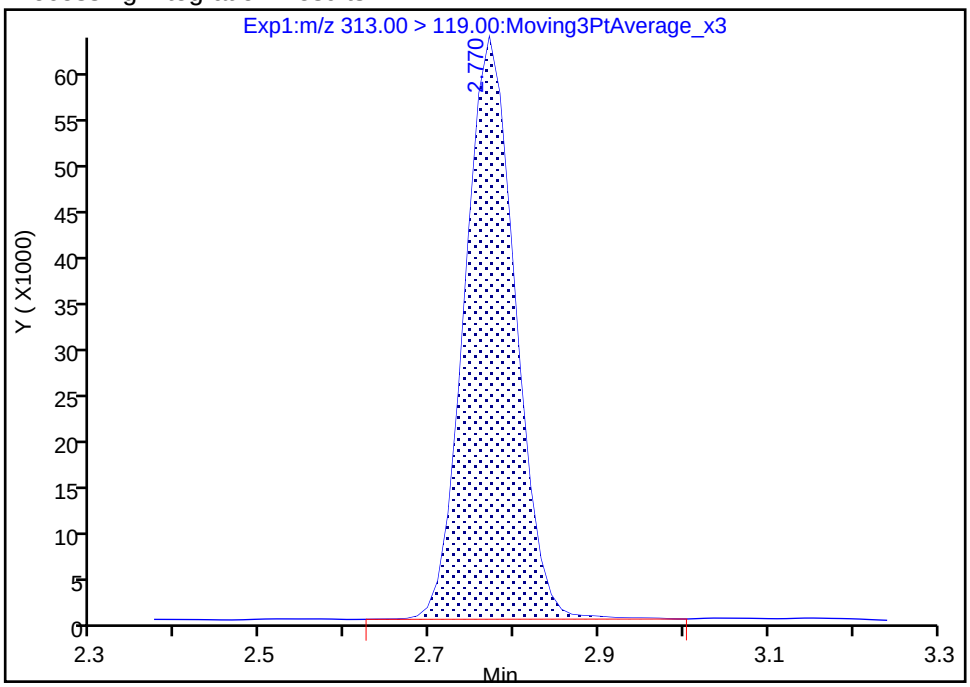
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

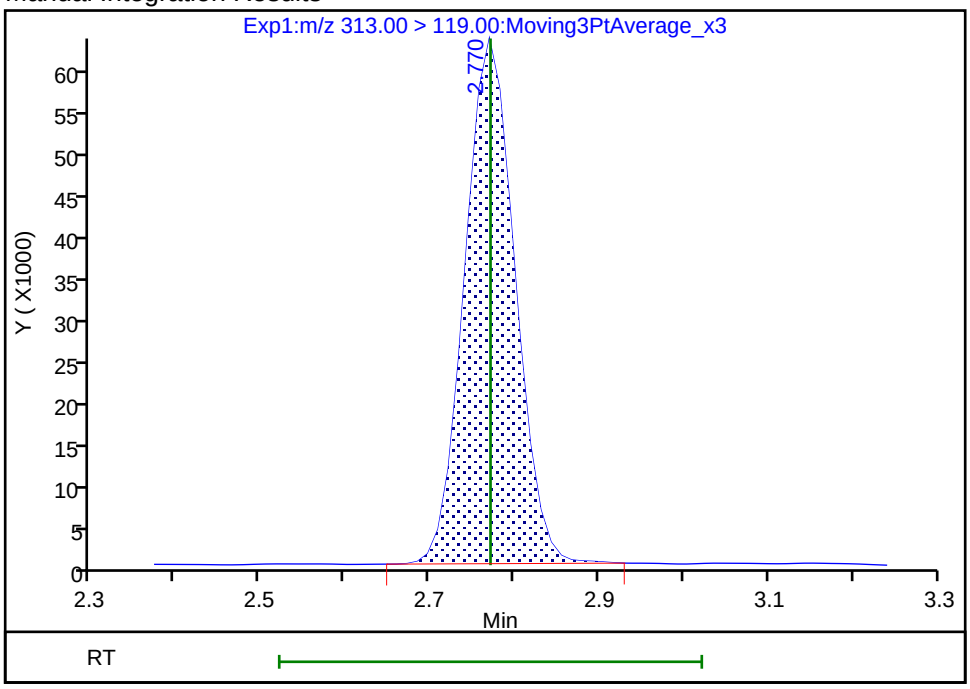
Processing Integration Results

RT: 2.77
Area: 263808
Amount: 2.423735
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 262345
Amount: 2.417389
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

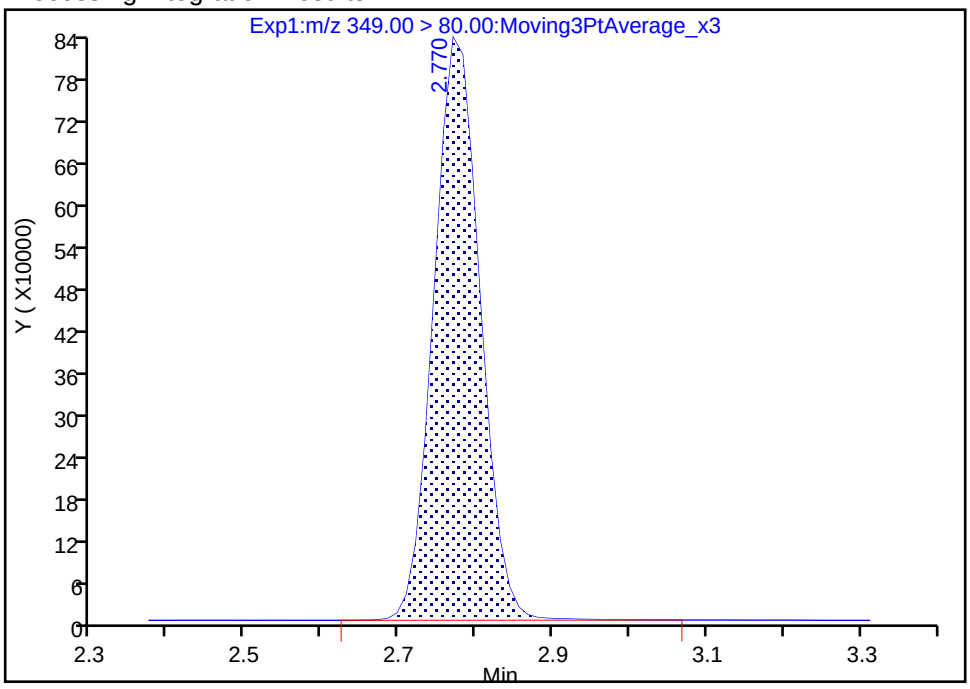
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d | | | | |
| Injection Date: | 10-Nov-2021 13:41:47 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 70 Perfluoropentanesulfonic acid, CAS: 2706-91-4

Signal: 1

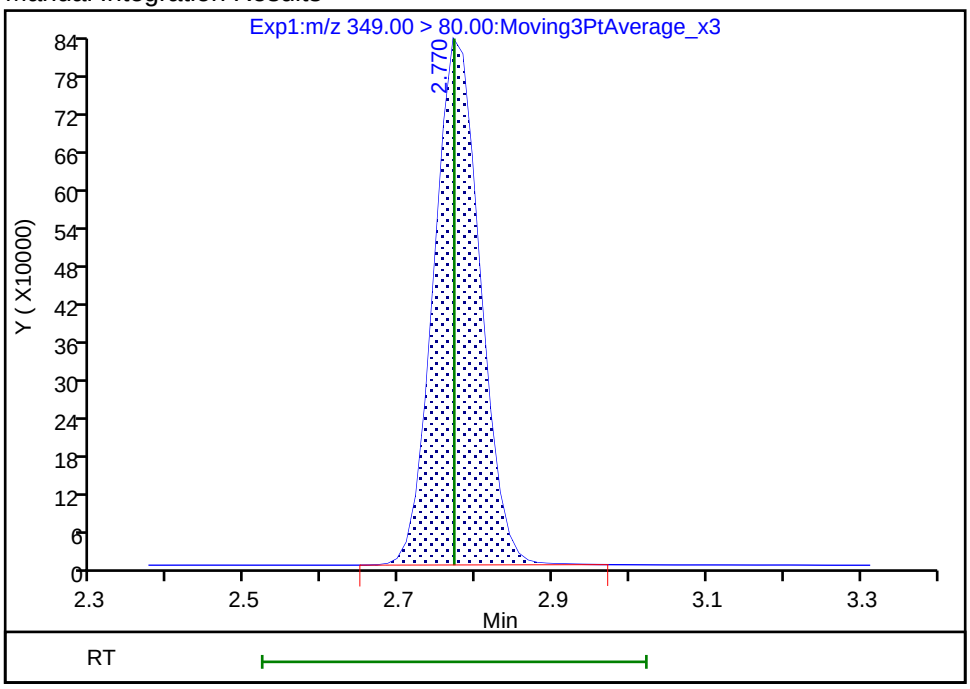
Processing Integration Results

RT: 2.77
Area: 3483602
Amount: 2.299547
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 3476336
Amount: 2.294750
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

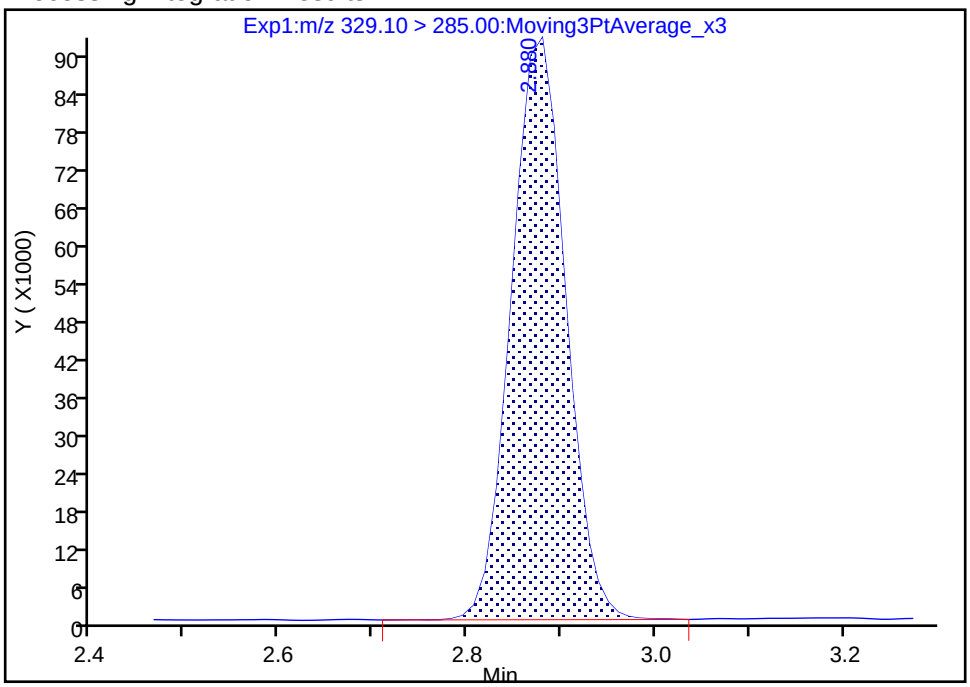
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

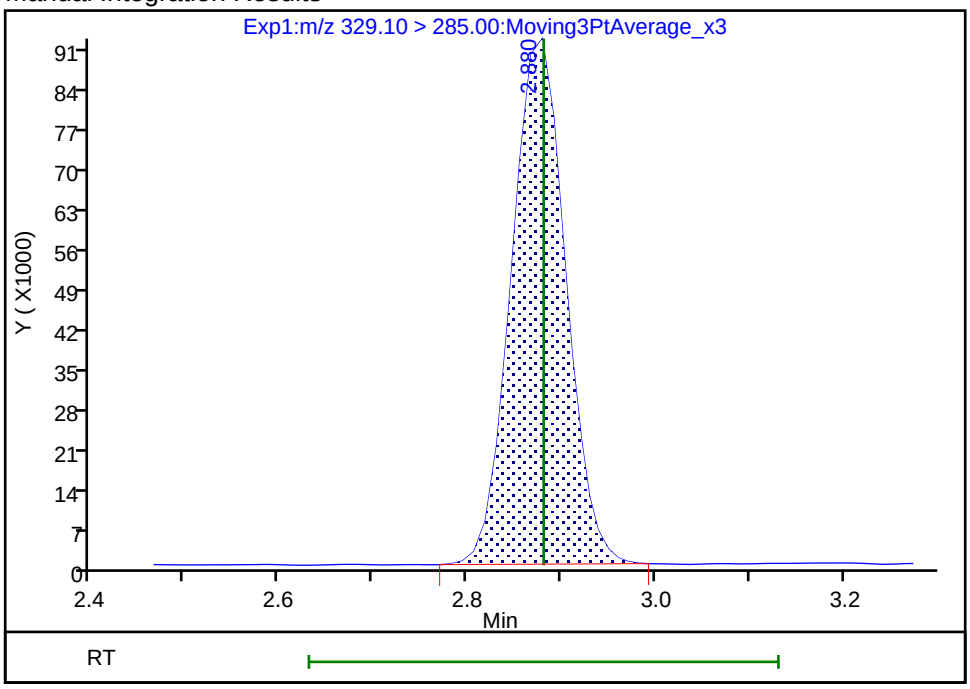
Processing Integration Results

RT: 2.88
Area: 369590
Amount: 2.883035
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 368097
Amount: 2.871389
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

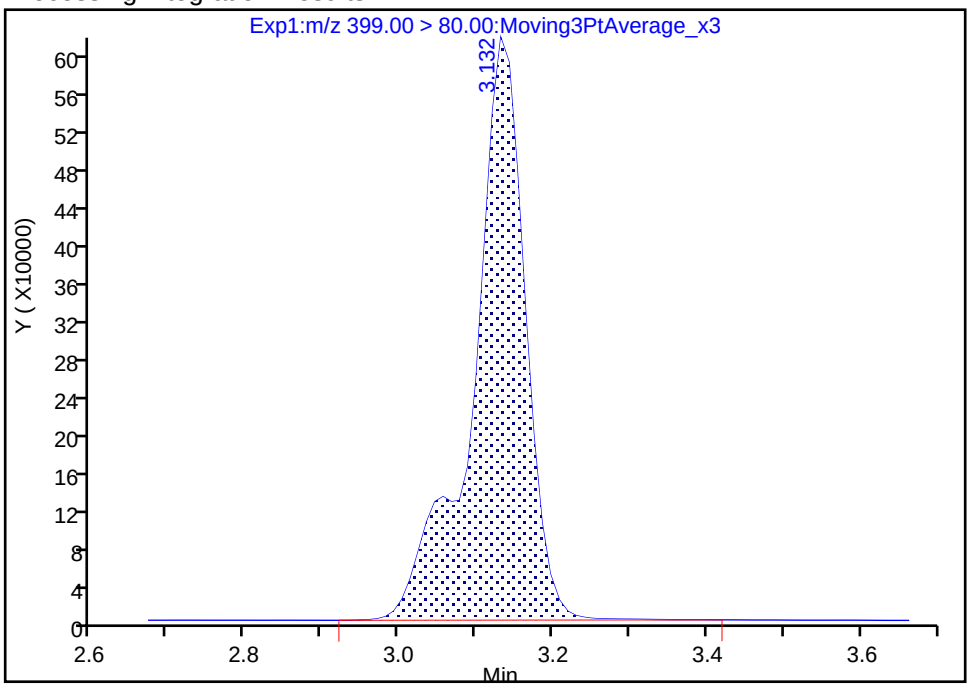
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d | | | | |
| Injection Date: | 10-Nov-2021 13:41:47 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

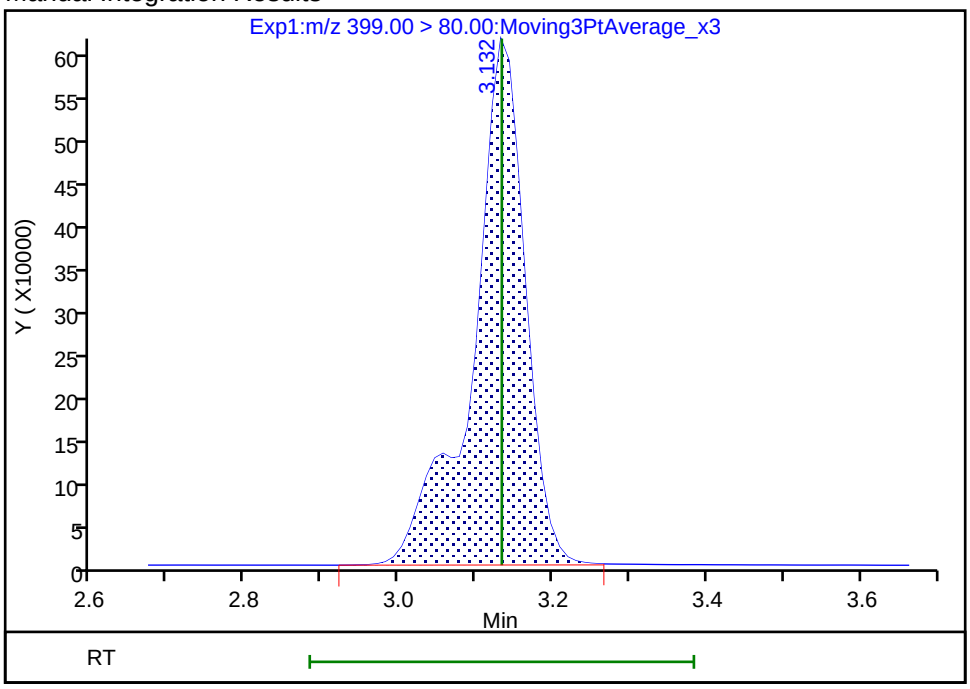
Processing Integration Results

RT: 3.13
Area: 2918661
Amount: 2.110261
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2914432
Amount: 2.107203
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:45:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

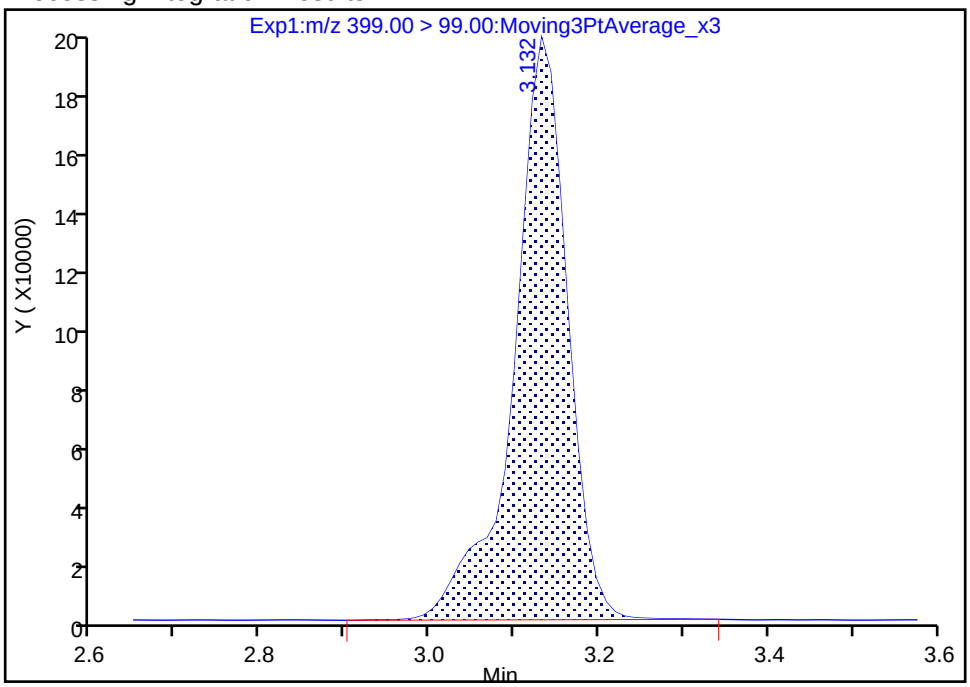
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

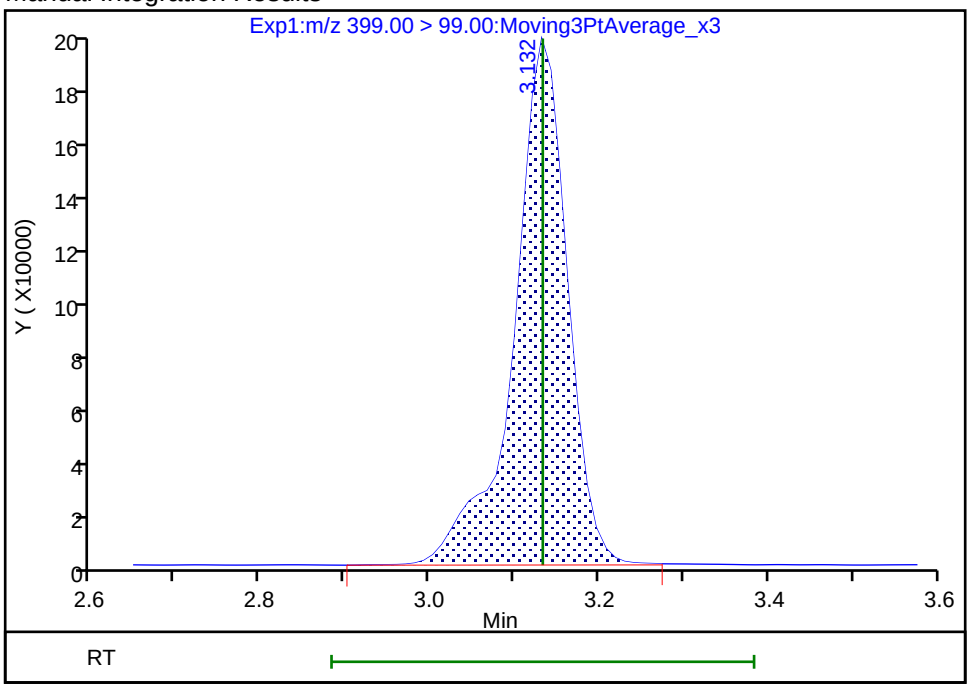
Processing Integration Results

RT: 3.13
Area: 838992
Amount: 2.110261
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 840448
Amount: 2.107203
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

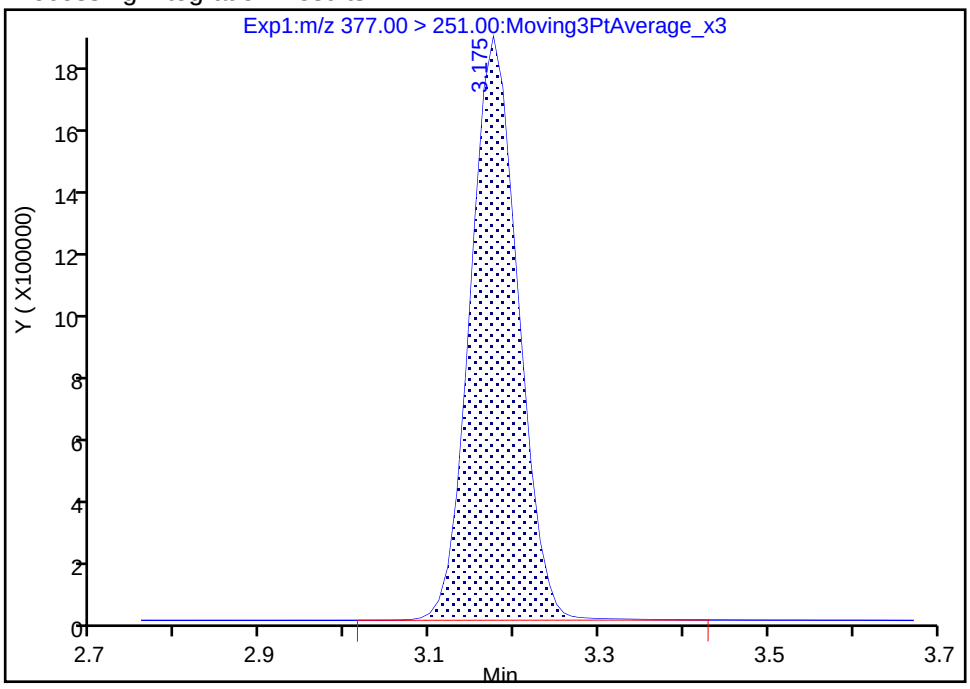
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 1

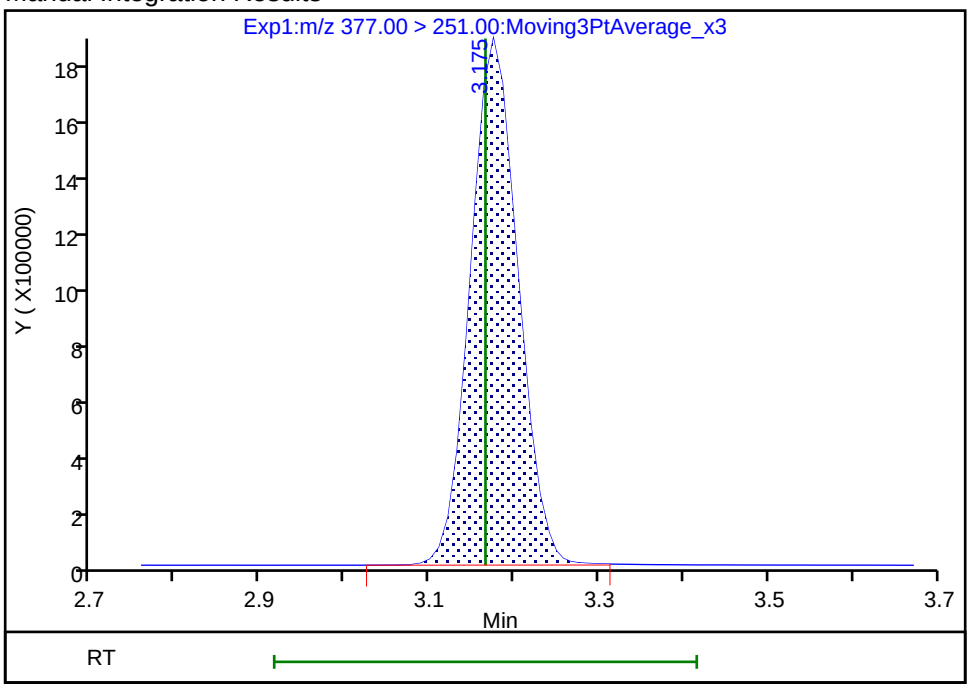
Processing Integration Results

RT: 3.17
Area: 7200523
Amount: 2.218171
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 7191858
Amount: 2.215502
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

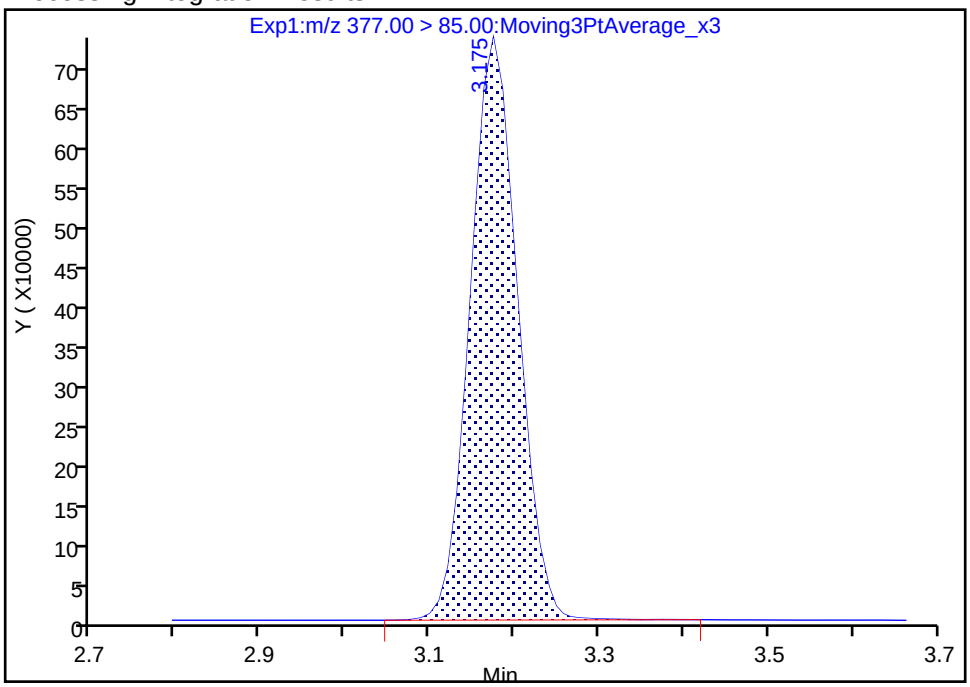
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 77 DONA, CAS: 919005-14-4

Signal: 2

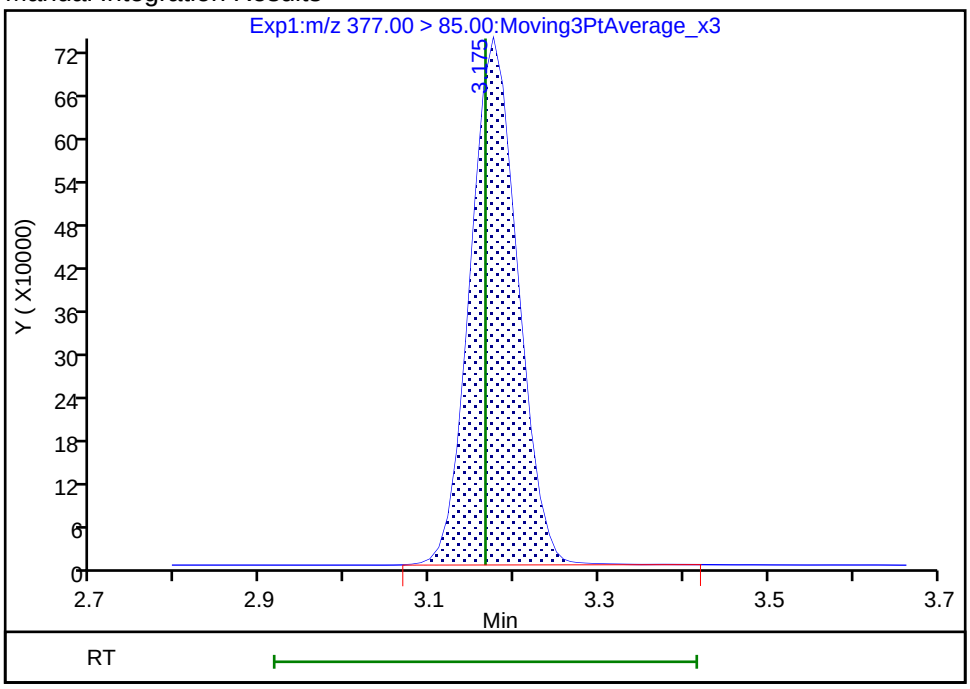
Processing Integration Results

RT: 3.17
Area: 2859649
Amount: 2.218171
Amount Units: ng/ml




Manual Integration Results

RT: 3.17
Area: 2859562
Amount: 2.215502
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

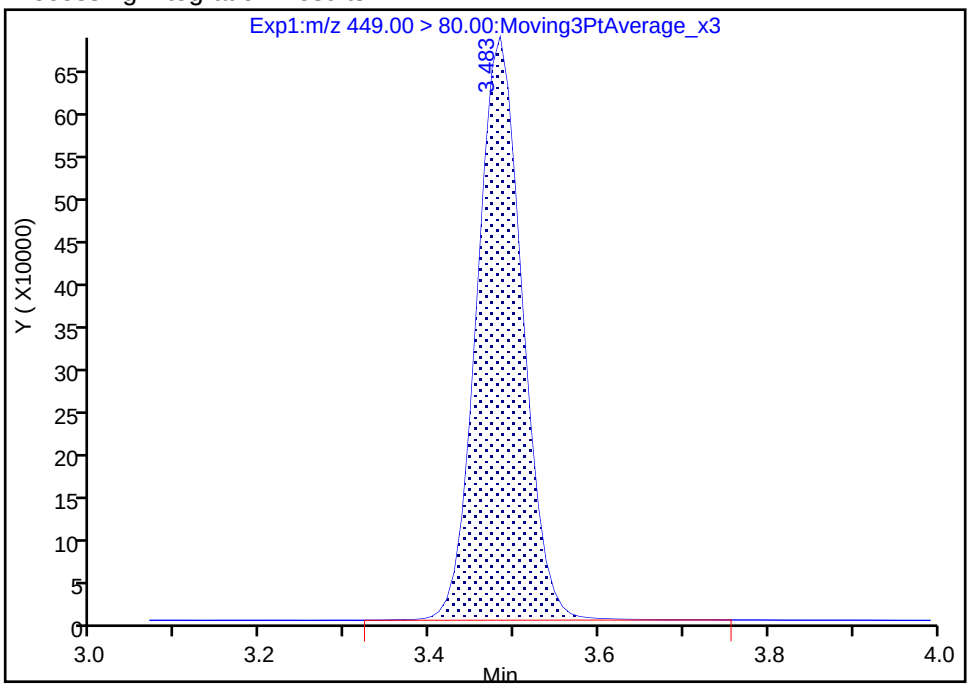
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

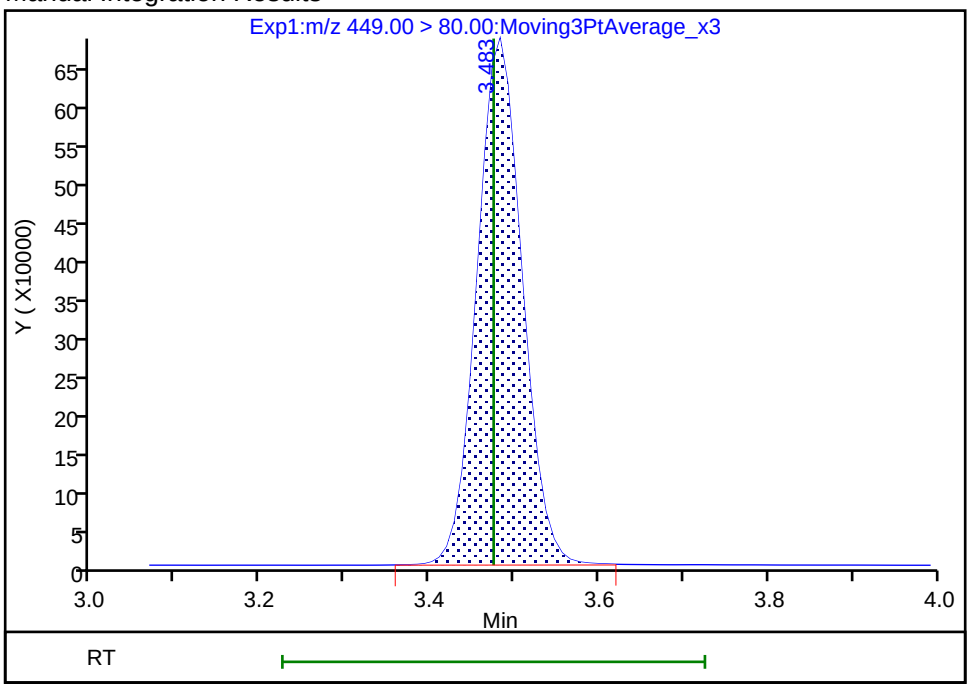
Processing Integration Results

RT: 3.48
Area: 2557278
Amount: 2.211759
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 2554449
Amount: 2.209312
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

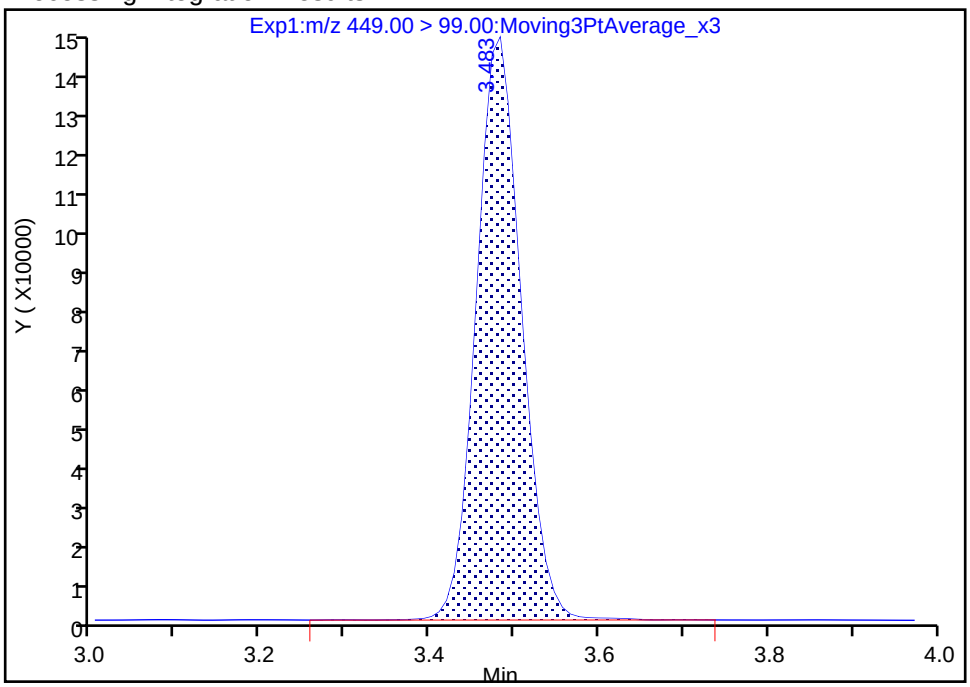
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

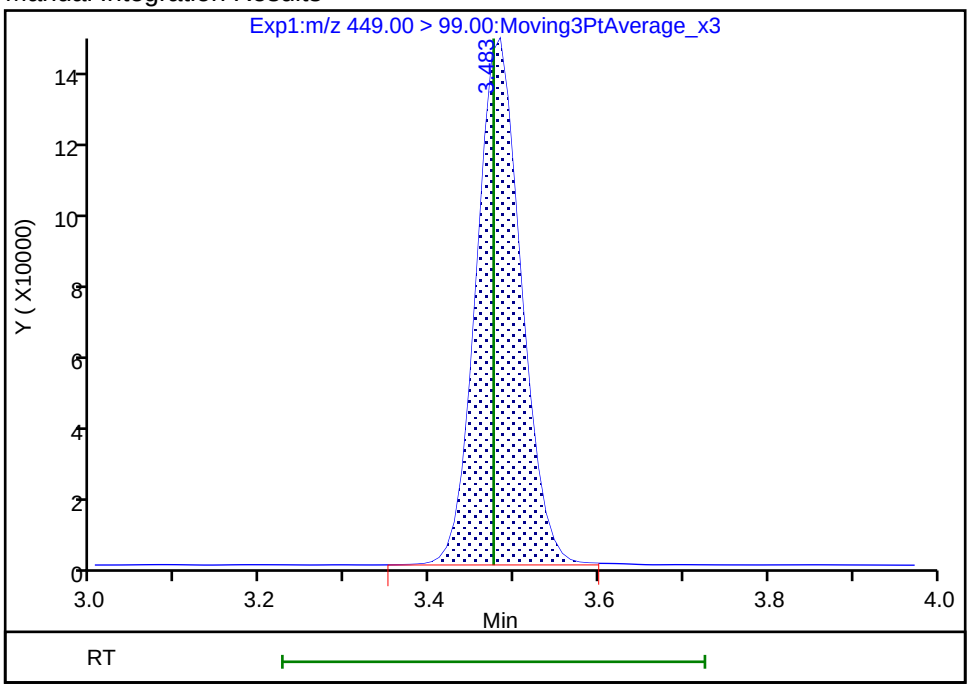
Processing Integration Results

RT: 3.48
Area: 518147
Amount: 2.211759
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 516898
Amount: 2.209312
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

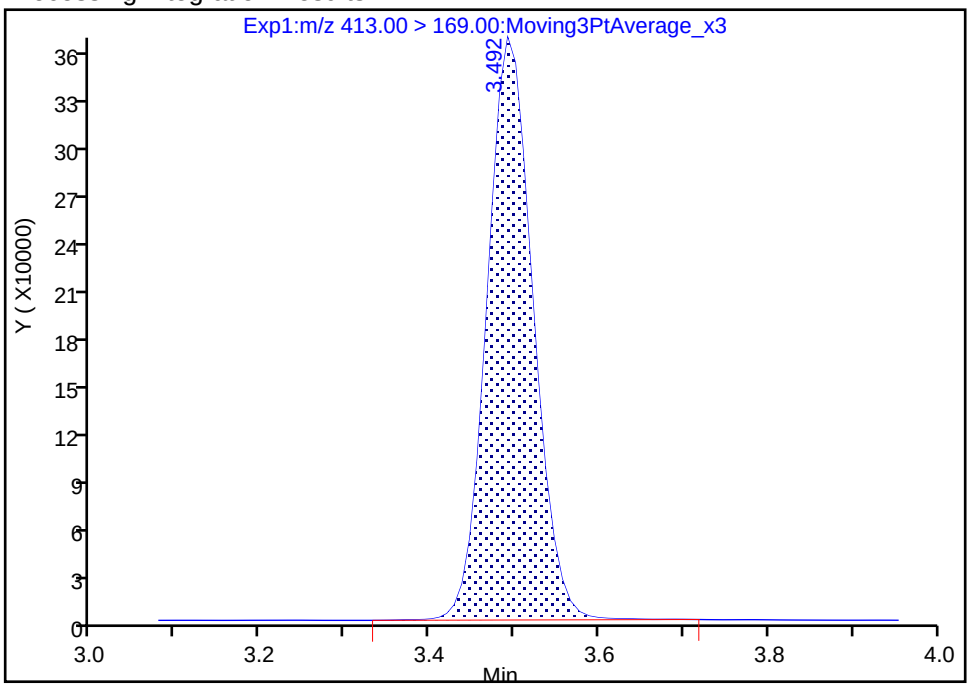
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d | | | | |
| Injection Date: | 10-Nov-2021 13:41:47 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

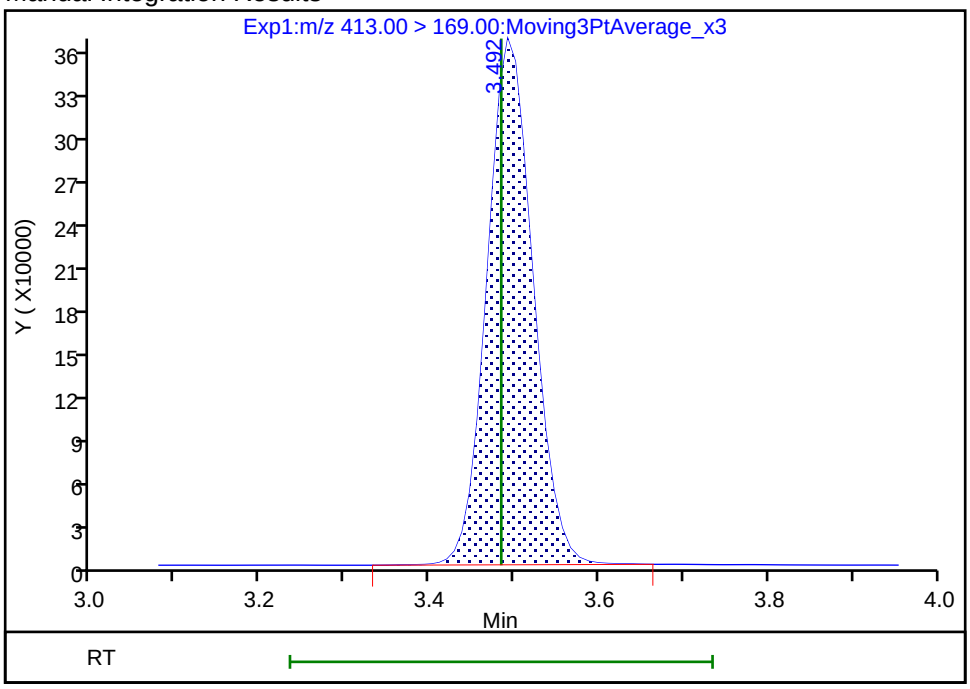
Processing Integration Results

RT: 3.49
Area: 1376163
Amount: 2.385242
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1374107
Amount: 2.385242
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:46:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

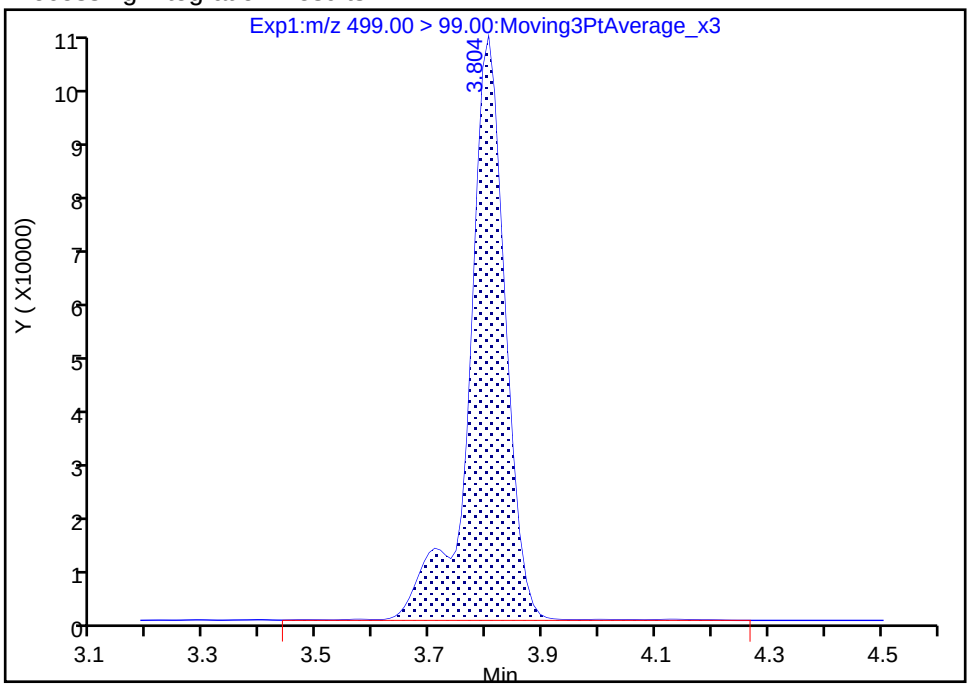
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

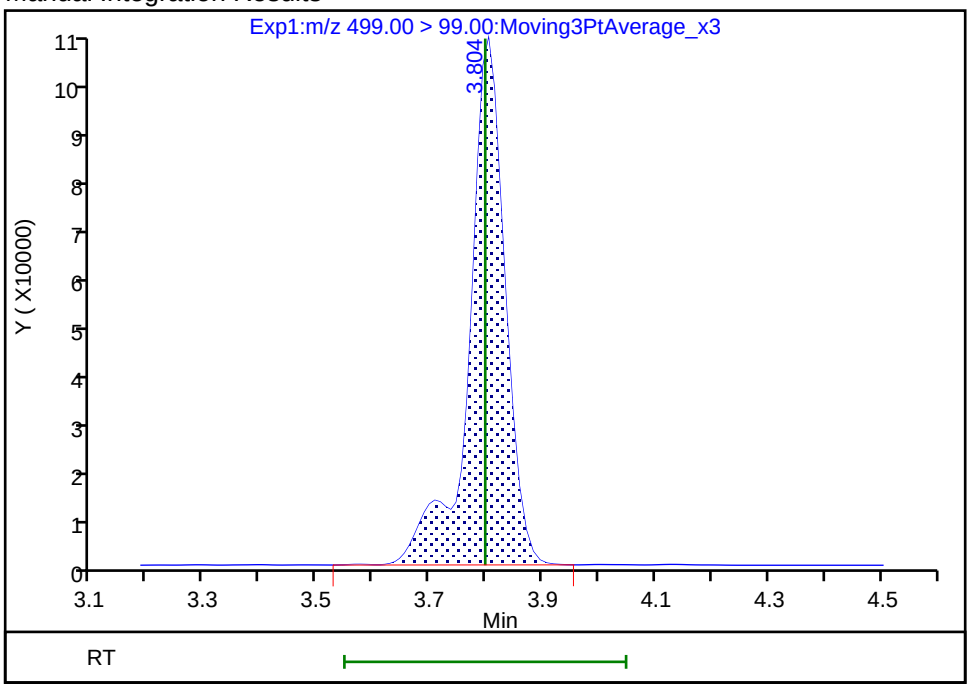
Processing Integration Results

RT: 3.80
Area: 478982
Amount: 2.205129
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 475457
Amount: 2.186740
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:43:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

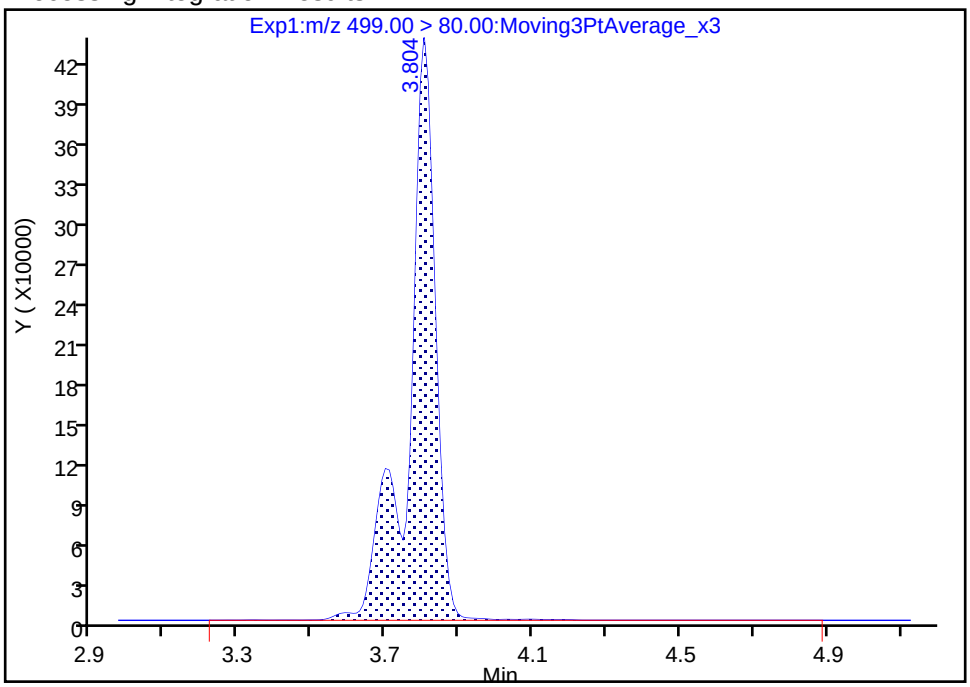
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

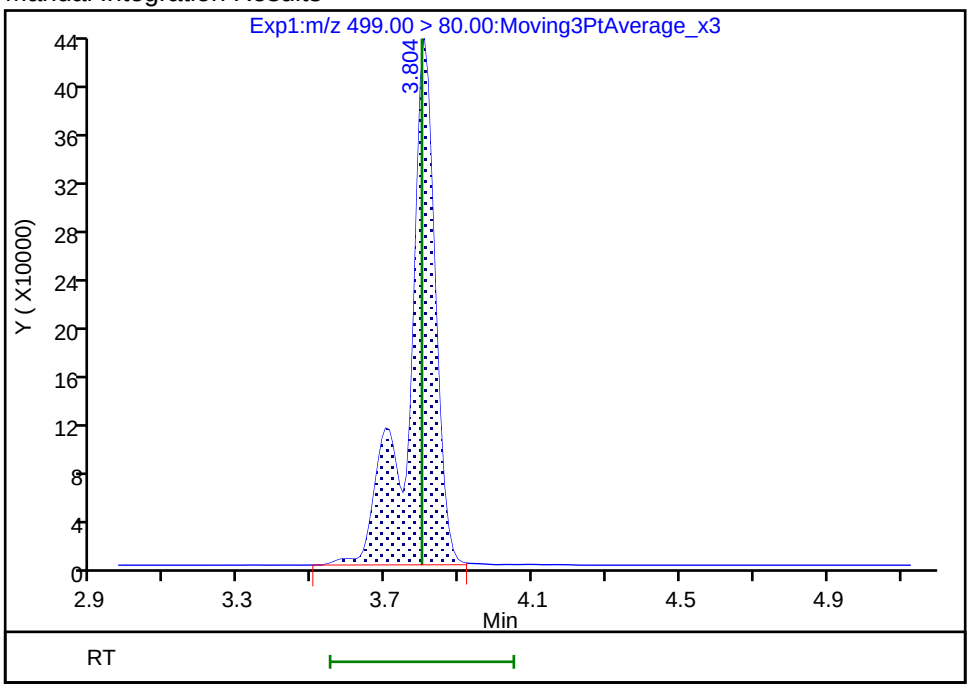
Processing Integration Results

RT: 3.80
Area: 2219175
Amount: 2.205129
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 2200669
Amount: 2.186740
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:43:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

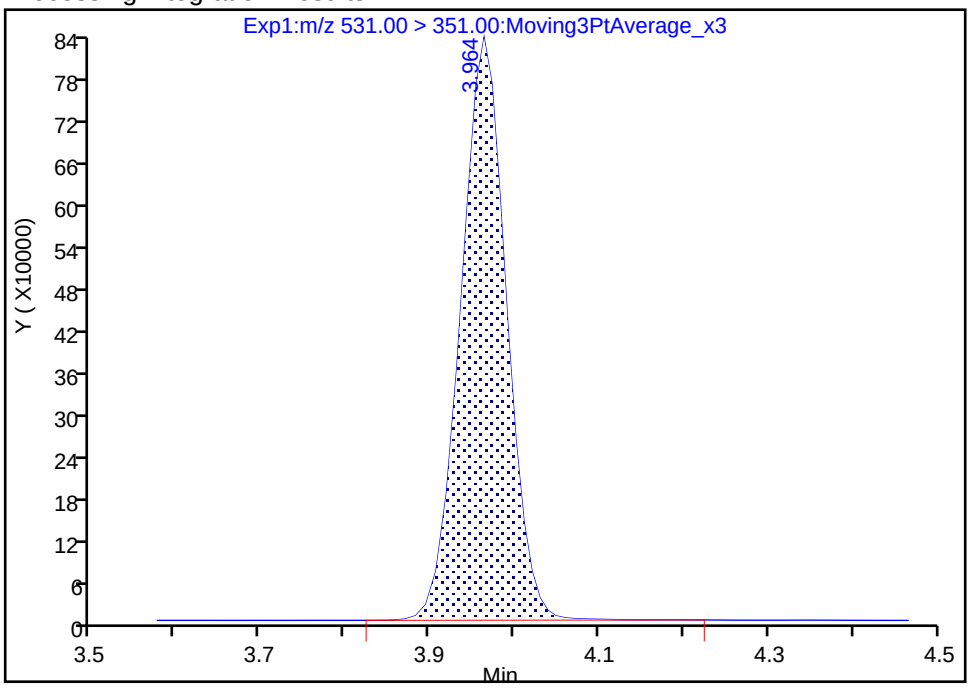
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

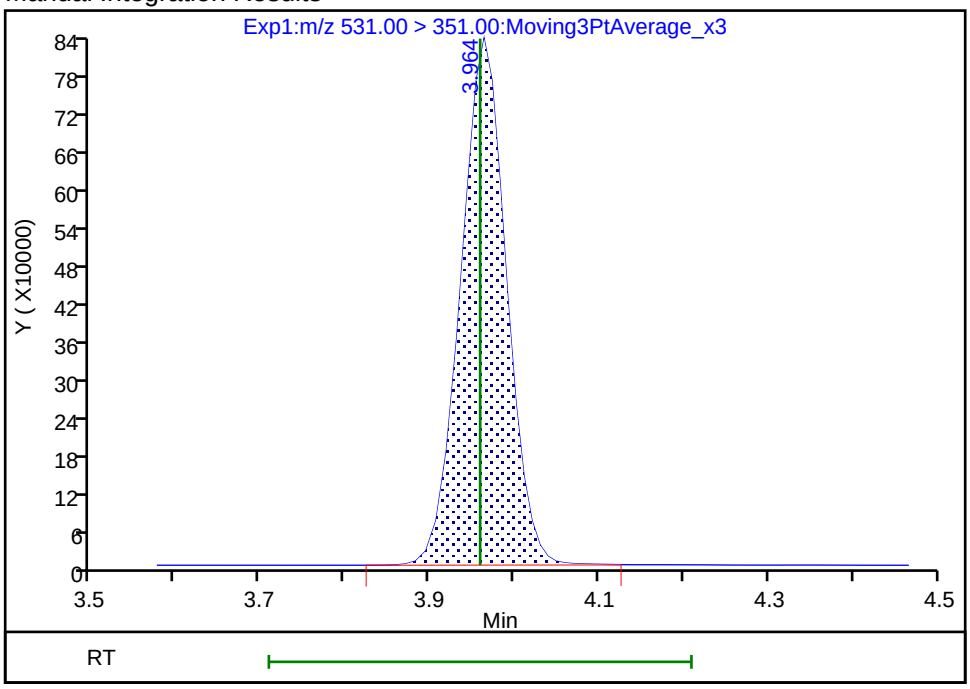
Processing Integration Results

RT: 3.96
Area: 3130164
Amount: 2.064576
Amount Units: ng/ml




Manual Integration Results

RT: 3.96
Area: 3128812
Amount: 2.063684
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:47:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

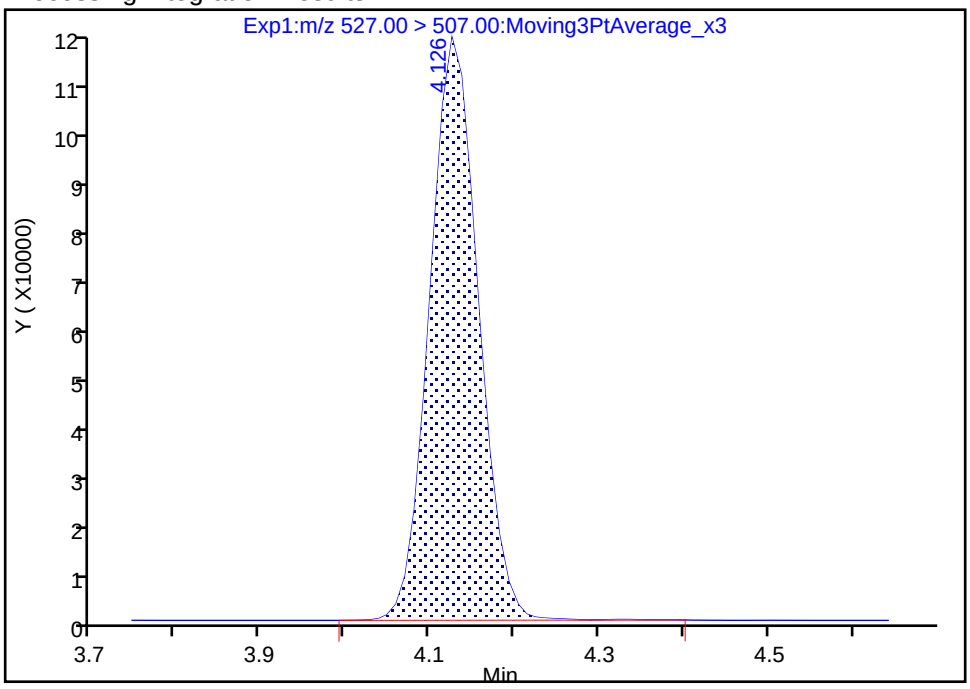
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

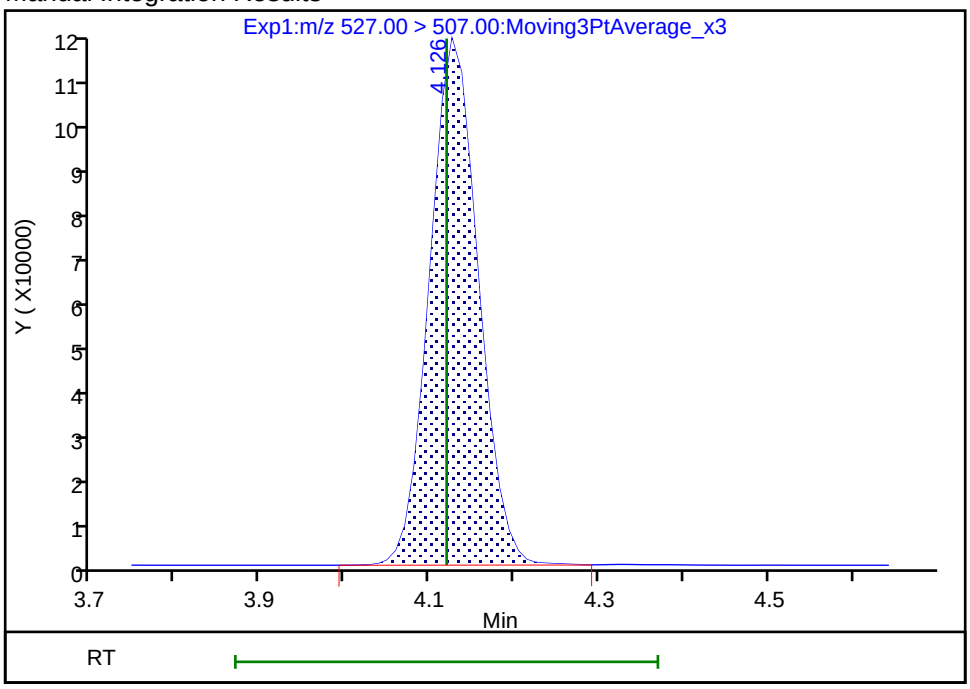
Processing Integration Results

RT: 4.13
Area: 444038
Amount: 2.236774
Amount Units: ng/ml




Manual Integration Results

RT: 4.13
Area: 443640
Amount: 2.234769
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:47:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

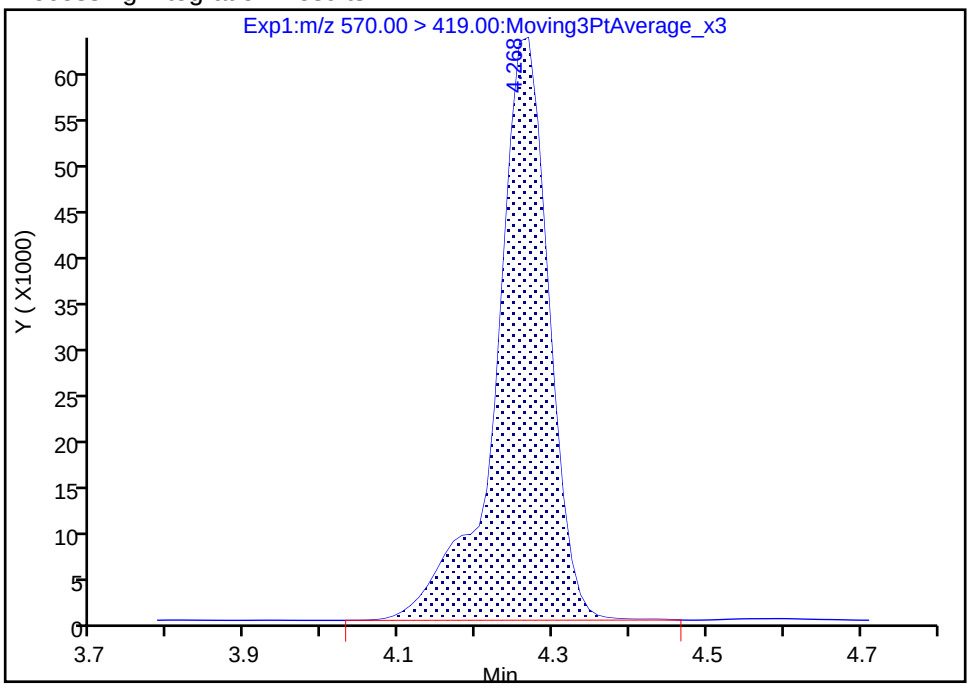
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

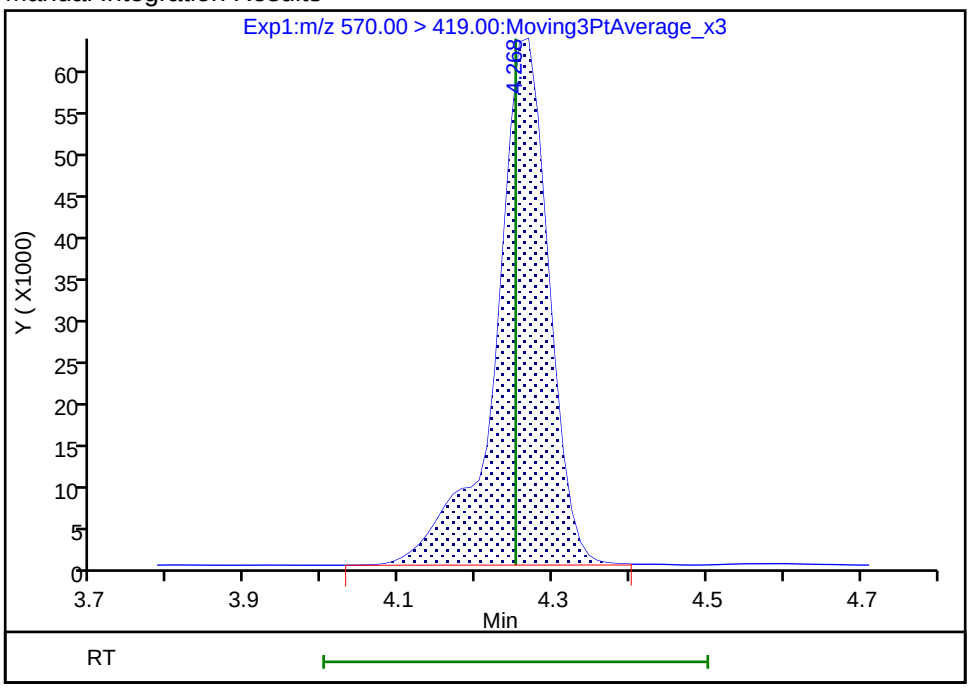
Processing Integration Results

RT: 4.27
Area: 308148
Amount: 2.484677
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 307892
Amount: 2.482613
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:47:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

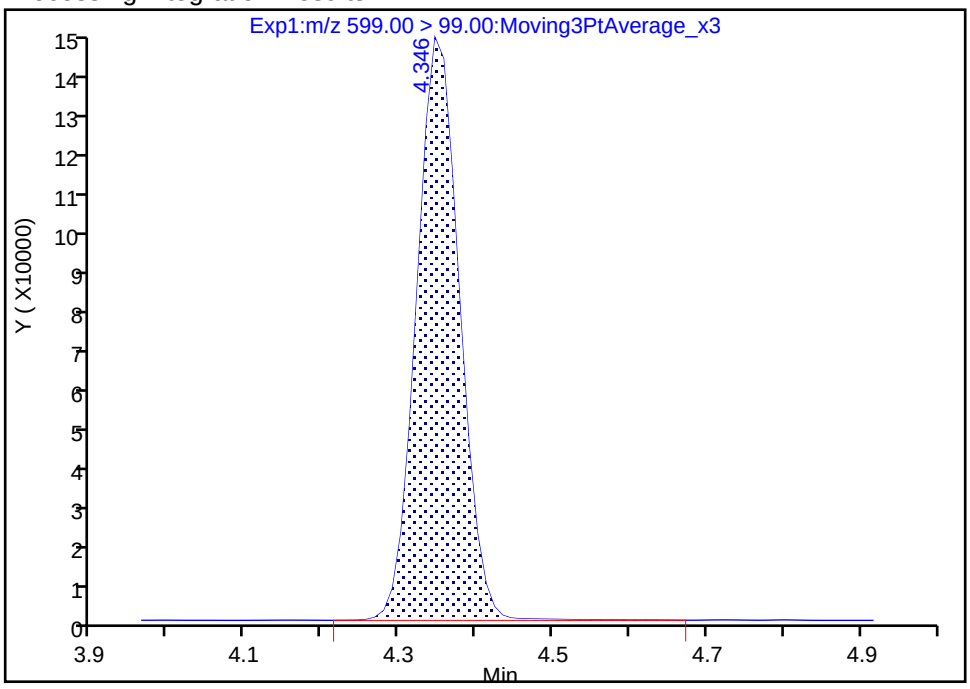
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

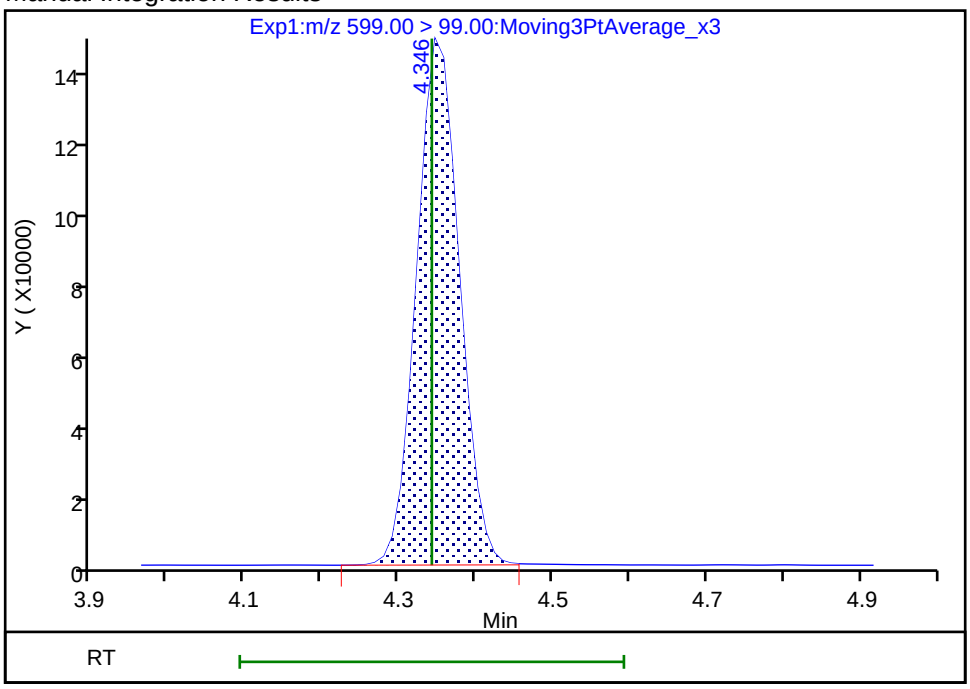
Processing Integration Results

RT: 4.35
Area: 548069
Amount: 2.258305
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 545206
Amount: 2.258305
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:43:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

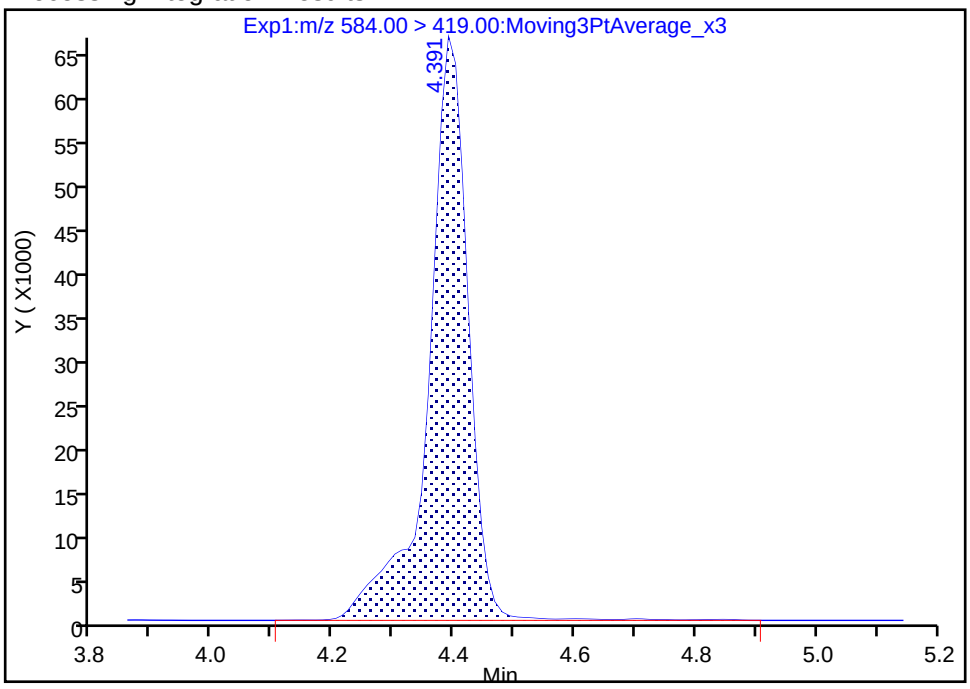
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

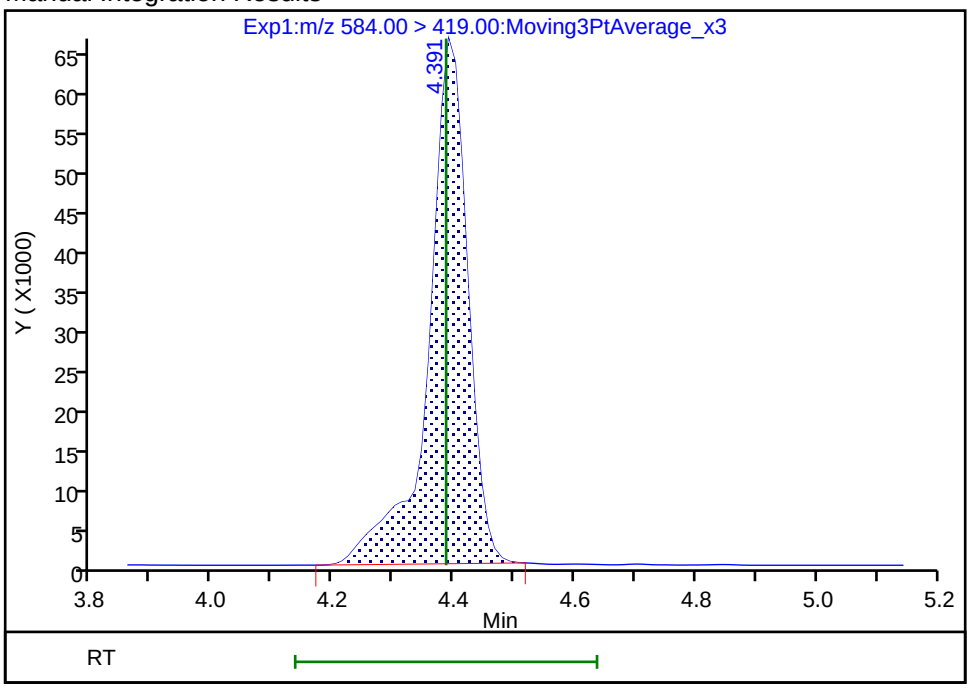
Processing Integration Results

RT: 4.39
Area: 303146
Amount: 2.423034
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 297863
Amount: 2.380808
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:44:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

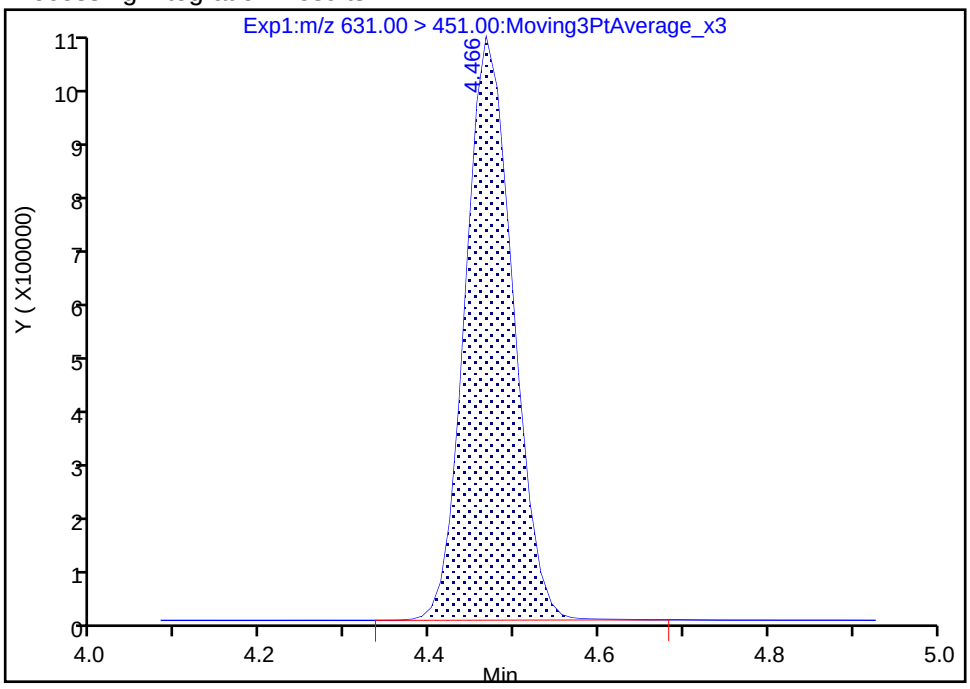
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d | | | | |
| Injection Date: | 10-Nov-2021 13:41:47 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 15 | Worklist Smp#: | 18 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 66 11-Chloroeicosafluoro-3-oxaundec, CAS: 763051-92-9

Signal: 1

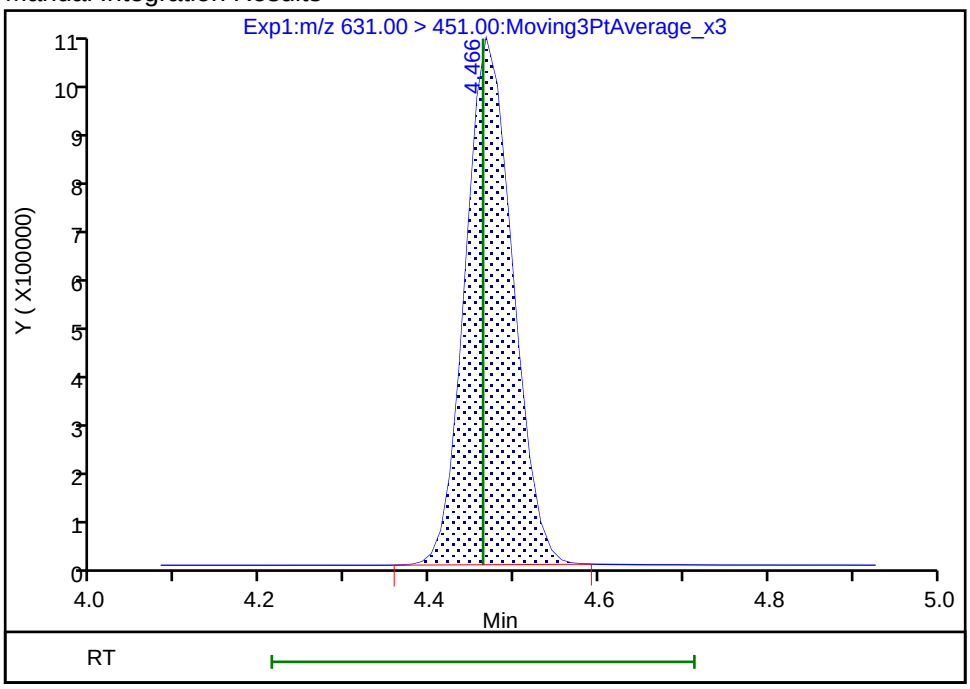
Processing Integration Results

RT: 4.47
Area: 3954906
Amount: 2.208802
Amount Units: ng/ml




Manual Integration Results

RT: 4.47
Area: 3942134
Amount: 2.201669
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:44:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

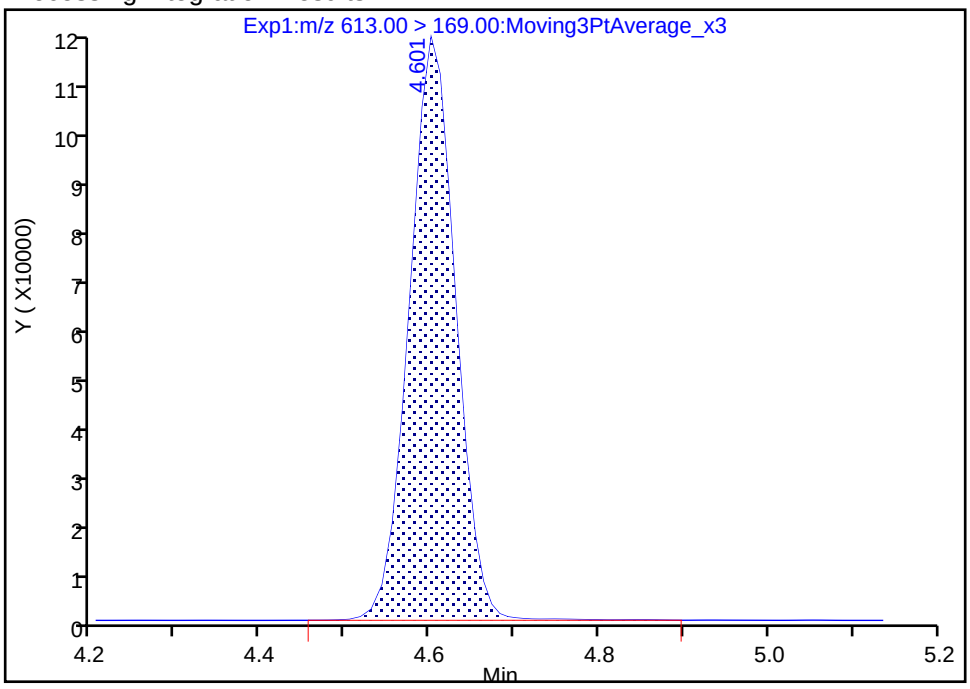
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

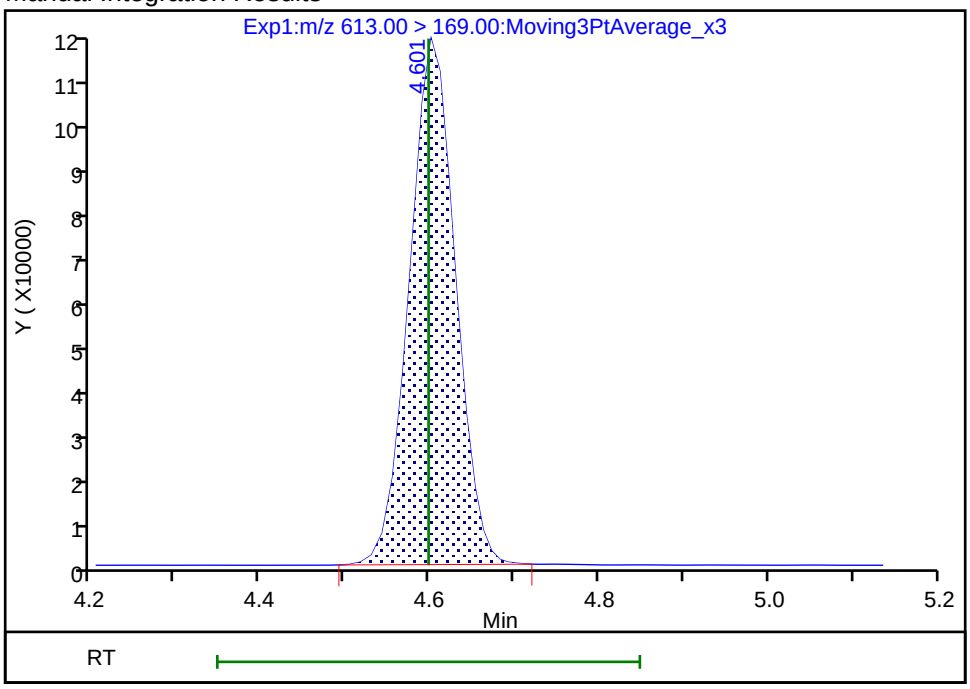
Processing Integration Results

RT: 4.60
Area: 446524
Amount: 2.184858
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 443615
Amount: 2.184858
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:44:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

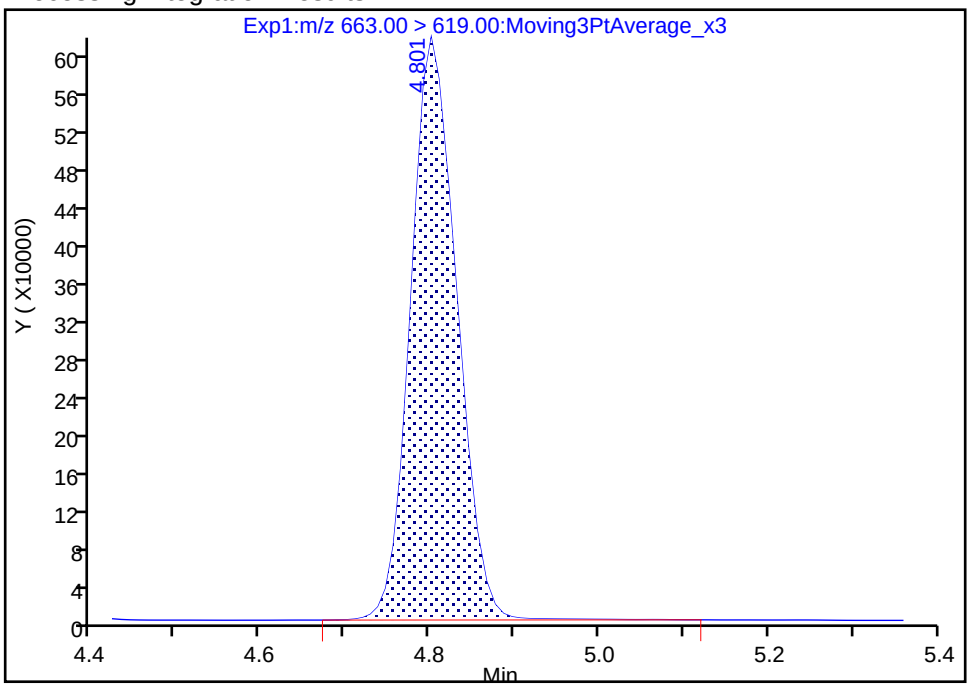
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

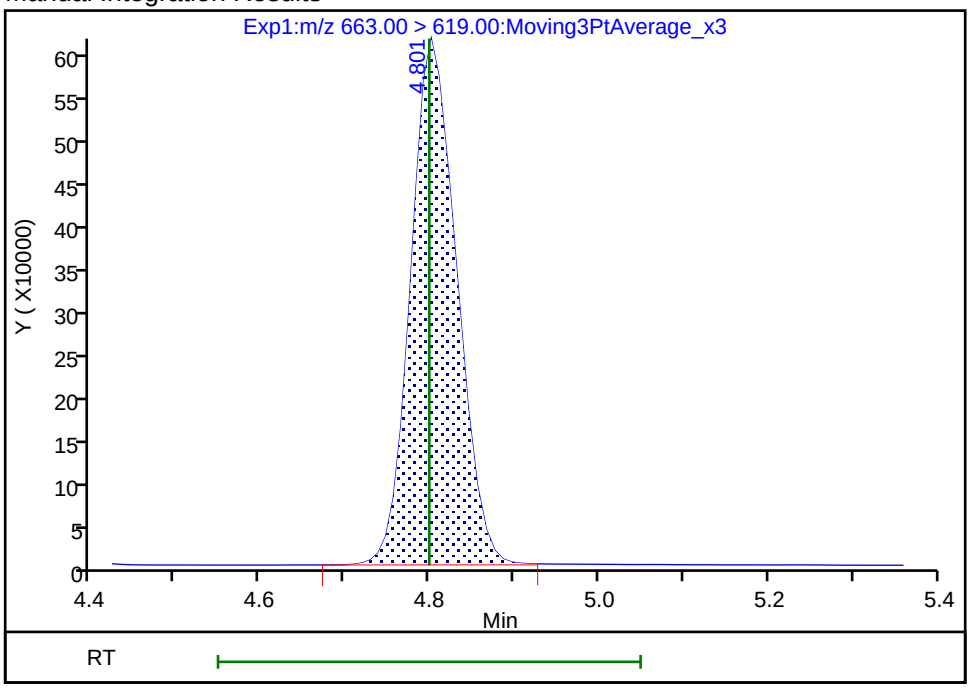
Processing Integration Results

RT: 4.80
Area: 2321906
Amount: 2.124170
Amount Units: ng/ml




Manual Integration Results

RT: 4.80
Area: 2316389
Amount: 2.119123
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:47:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

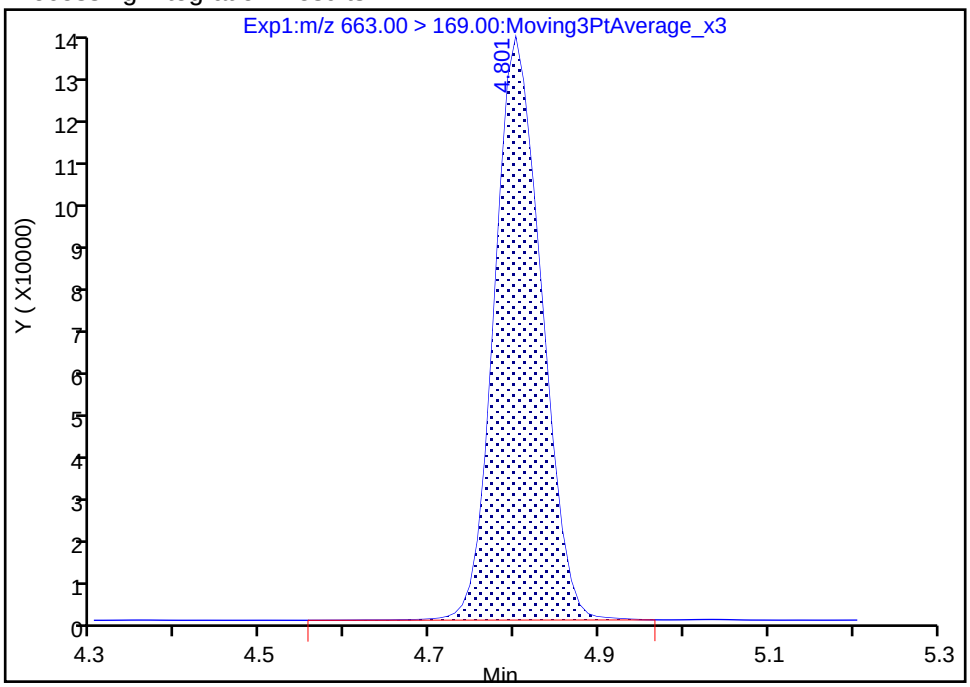
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A18.d
Injection Date: 10-Nov-2021 13:41:47 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

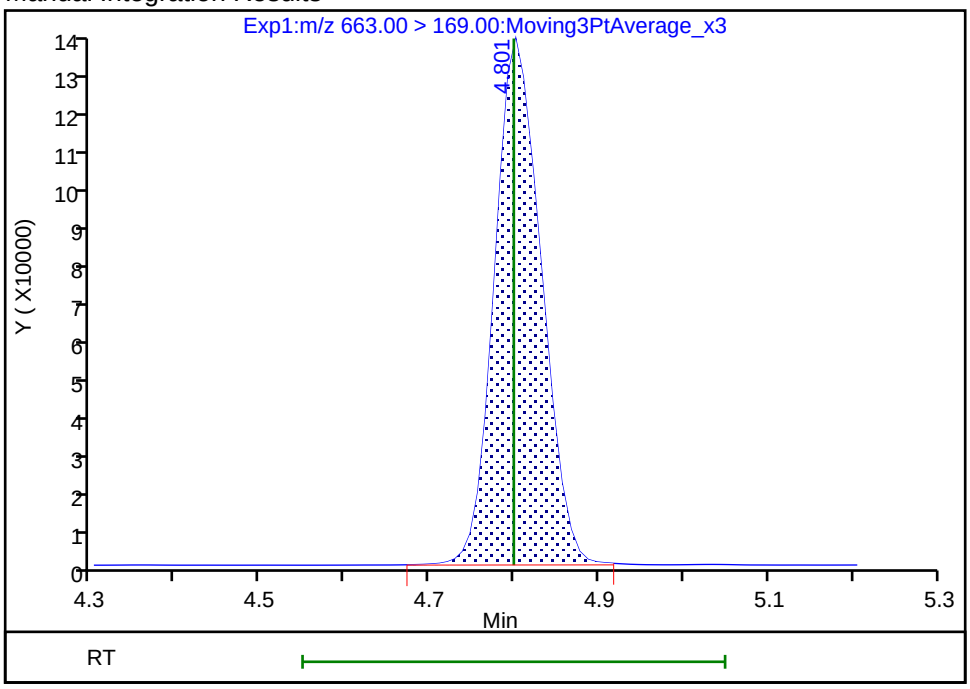
Processing Integration Results

RT: 4.80
Area: 521013
Amount: 2.124170
Amount Units: ng/ml




Manual Integration Results

RT: 4.80
Area: 520434
Amount: 2.119123
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:47:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173694/30  Calibration Date: 11/10/2021 15:20

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A30.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.8810 | | 0.932 | 1.00 | -6.8 | |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 0.9870 | | 0.985 | 1.00 | -1.5 | |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.047 | | 0.867 | 0.884 | -1.9 | |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.115 | | 0.928 | 0.934 | -0.6 | |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9487 | | 0.935 | 1.00 | -6.5 | |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.179 | | 0.918 | 0.938 | -2.1 | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 6.120 | | 1.35 | 1.00 | 35.2 | |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.005 | | 0.972 | 1.00 | -2.8 | |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.020 | | 0.844 | 0.910 | -7.2 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.370 | | 0.907 | 0.942 | -3.7 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.231 | | 0.920 | 0.948 | -2.9 | |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.169 | | 0.893 | 0.952 | -6.2 | |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.038 | | 0.976 | 1.00 | -2.4 | |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.008 | | 0.862 | 0.928 | -7.1 | |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 0.9336 | | 0.954 | 1.00 | -4.6 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.499 | | 0.854 | 0.932 | -8.3 | |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.8094 | | 0.919 | 0.960 | -4.2 | |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.6973 | | 0.798 | 0.958 | -16.7 | |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 0.9704 | | 0.966 | 1.00 | -3.4 | |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9471 | | 0.997 | 1.00 | -0.3 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7779 | | 0.990 | 1.00 | -1.0 | |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6221 | | 0.913 | 0.964 | -5.3 | |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.035 | | 0.971 | 1.00 | -2.9 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.8474 | | 0.989 | 1.00 | -1.1 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.779 | | 0.868 | 0.942 | -7.8 | |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 0.9871 | | 1.01 | 1.00 | 0.8 | |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3851 | | 0.961 | 0.964 | -0.4 | |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.2565 | | 1.03 | 0.968 | 6.1 | |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173694/30  Calibration Date: 11/10/2021 15:20

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A30.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8738 | | 1.04 | 1.00 | 3.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1590 | | 1.01 | 1.00 | 0.7 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8659 | | 0.996 | 1.00 | -0.4 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6866 | | 0.814 | 1.00 | -18.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.220 | | 1.51 | 1.25 | 20.5 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9275 | | 1.36 | 1.25 | 8.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.154 | | 1.16 | 1.16 | 0.0 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1007 | | 1.34 | 1.17 | 14.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9832 | | 1.37 | 1.25 | 9.9 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0171 | | 0.904 | 1.25 | -27.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9761 | | 1.30 | 1.25 | 3.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8901 | | 1.26 | 1.18 | 6.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1454 | | 1.31 | 1.19 | 10.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.013 | | 1.23 | 1.25 | -1.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6621 | | 1.31 | 1.20 | 9.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.053 | | 1.28 | 1.25 | 2.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.009 | | 1.22 | 1.25 | -2.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1781 | | 1.42 | 1.20 | 18.9 | |
| 13C8 FOSA | Ave | 0.998 | 1.066 | | 1.34 | 1.25 | 6.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1139 | | 1.40 | 1.25 | 12.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7510 | | 1.16 | 1.25 | -6.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1025 | | 1.35 | 1.25 | 7.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8137 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6295 | | 1.17 | 1.25 | -6.4 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5542 | | 1.17 | 1.25 | -6.4 | |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 10-Nov-2021 15:20:00 ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0048360-030 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:41:01 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:50:18
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.100 | 2.091 | 0.009 | 0.601 | 2147311 | 1.51 | | 121 | 4146 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.091 | 0.009 | 1.000 | 1513353 | 0.9317 | | 93.2 | 298 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1632716 | 1.36 | | 109 | 3721 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 1289200 | 0.9853 | | 98.5 | 53.1 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.439 | 2.427 | 0.012 | 0.699 | 1889489 | 1.16 | | 100 | 199741 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.439 | 2.427 | 0.012 | 1.000 | 1504909 | 0.8669 | Target=2.32 | 98.1 | 1907 | |
| 298.90 > 99.00 | 2.439 | 2.427 | 0.012 | 1.000 | 687057 | | 2.19(1.16-3.48) | | 424 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.000 | 280156 | 0.9280 | | 99.4 | 2420 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.734 | 2.735 | -0.001 | 0.783 | 165590 | 1.34 | | 115 | 139 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1730622 | 1.37 | | 110 | 4250 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 1313477 | 0.9354 | Target=12.09 | 93.5 | 275 | |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 103983 | | 12.63(6.04-18.13) | | 111 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.782 | 2.771 | 0.011 | 0.885 | 1385746 | 0.9181 | Target=3.03 | 97.9 | 1776 | |
| 349.00 > 99.00 | 2.782 | 2.771 | 0.011 | 0.885 | 447399 | | 3.10(1.52-4.55) | | 815 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.869 | 0.011 | 0.825 | 30017 | 0.9045 | | 72.4 | 234 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.881 | -0.001 | 1.000 | 146965 | 1.35 | | 135 | 49.2 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.143 | 3.133 | 0.010 | 1.000 | 1163271 | 0.8441 | Target=3.55 | 92.8 | 1257 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 0.997 | 330874 | | 3.52(1.77-5.32) | | 403 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1482174 | 1.26 | | 106 | 5178 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.133 | 0.010 | 0.900 | 1718181 | 1.30 | | 104 | 3182 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.000 | 1381061 | 0.9724 | Target=3.69 | 97.2 | 465 | |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.000 | 373506 | | 3.70(1.84-5.53) | | 737 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.166 | 0.009 | 0.835 | 2960043 | 0.9070 | Target=2.56 | 96.3 | 3040 | |
| 377.00 > 85.00 | 3.175 | 3.166 | 0.009 | 0.835 | 1111007 | | 2.66(1.28-3.84) | | 1661 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.483 | 3.475 | 0.008 | 0.916 | 1037582 | 0.8926 | Target=4.88 | 93.8 | 2597 | |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.916 | 202711 | | 5.12(2.44-7.32) | | 865 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.000 | 238921 | 0.9202 | | 97.1 | 943 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.475 | 0.008 | 0.997 | 243143 | 1.31 | | 110 | 563 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1782657 | 1.23 | | 98.4 | 3728 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1760267 | 1.25 | | | 3329 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1480176 | 0.9760 | Target=2.68 | 97.6 | 212 | |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 576271 | | 2.57(1.34-4.02) | | 1180 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 1114254 | 1.31 | | 109 | 2591 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 872025 | 0.8619 | Target=4.69 | 92.9 | 758 | M |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 182122 | | 4.79(2.35-7.04) | | 743 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.818 | 0.006 | 1.095 | 1853870 | 1.28 | | 103 | 5024 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.825 | 3.818 | 0.006 | 1.000 | 1384582 | 0.9543 | Target=7.29 | 95.4 | 357 | |
| 463.00 > 169.00 | 3.825 | 3.818 | 0.006 | 1.000 | 192002 | | 7.21(3.64-10.93) | | 1887 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.964 | 3.959 | 0.005 | 1.042 | 1302356 | 0.8544 | | 91.7 | 3266 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.093 | 4.086 | 0.007 | 1.076 | 724535 | 0.9193 | Target=2.35 | 95.8 | 2745 | M |
| 549.00 > 99.00 | 4.093 | 4.086 | 0.007 | 1.076 | 285965 | | 2.53(1.17-3.52) | | 1570 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.126 | 4.108 | 0.018 | 1.182 | 1775692 | 1.22 | | 97.5 | 5184 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.126 | 4.108 | 0.018 | 1.000 | 1378508 | 0.9657 | Target=8.95 | 96.6 | 904 | |
| 513.00 > 169.00 | 4.126 | 4.108 | 0.018 | 1.000 | 154489 | | 8.92(4.47-13.42) | | 1088 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 300370 | 1.42 | | 119 | 1334 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 167547 | 0.7985 | | 83.3 | 1869 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.210 | 1876101 | 1.34 | | 107 | 3425 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.225 | 4.219 | 0.006 | 1.000 | 1421507 | 1.00 | | 99.7 | 2083 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 200506 | 1.40 | | 112 | 517 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.251 | 0.017 | 1.003 | 124774 | 0.99 | | 99.0 | 474 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.358 | 4.342 | 0.016 | 1.146 | 559148 | 0.9125 | Target=2.47 | 94.7 | 2561 | |
| 599.00 > 99.00 | 4.347 | 4.342 | 0.005 | 1.143 | 219201 | | 2.55(1.23-3.70) | | 1704 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.375 | 0.005 | 1.254 | 1321947 | 1.16 | | 93.2 | 4971 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.375 | 0.005 | 1.000 | 1094743 | 0.9710 | Target=9.24 | 97.1 | 940 | |
| 563.00 > 169.00 | 4.380 | 4.375 | 0.005 | 1.000 | 127541 | | 8.58(4.62-13.86) | | 1728 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.375 | 0.016 | 1.257 | 180448 | 1.34 | | 108 | 1041 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.000 | 122333 | 0.9890 | | 98.9 | 672 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.463 | 0.004 | 1.174 | 1562568 | 0.8681 | | 92.2 | 3990 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1432402 | 1.17 | | 93.8 | 1844 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.601 | 4.598 | 0.003 | 1.000 | 1131162 | 1.01 | Target=7.04 | 101 | 211 | M |
| 613.00 > 169.00 | 4.601 | 4.598 | 0.003 | 1.000 | 175188 | | 6.46(3.52-10.56) | | 1368 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.622 | 4.619 | 0.003 | 1.120 | 93125 | 0.9606 | | 99.6 | 959 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.775 | 4.763 | 0.012 | 1.255 | 231503 | 1.03 | Target=0.49 | 106 | 1412 | M |
| 699.00 > 99.00 | 4.775 | 4.763 | 0.012 | 1.255 | 420591 | | 0.55(0.25-0.74) | | 2357 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.802 | 4.799 | 0.003 | 1.043 | 1001262 | 1.04 | Target=4.68 | 104 | 240 | M |
| 663.00 > 169.00 | 4.802 | 4.799 | 0.003 | 1.043 | 227627 | | 4.40(2.34-7.02) | | 1345 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.972 | 0.014 | 1.428 | 1108010 | 1.17 | | 93.6 | 4118 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.986 | 4.972 | 0.014 | 1.000 | 140932 | 1.01 | Target=1.01 | 101 | 2054 | |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 0.998 | 157186 | | 0.90(0.51-1.52) | | 2204 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.280 | 0.013 | 1.516 | 975575 | 1.17 | | 93.6 | 3833 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.280 | 0.013 | 1.000 | 675764 | 1.00 | Target=4.57 | 99.6 | 184 | |
| 813.00 > 169.00 | 5.293 | 5.280 | 0.013 | 1.000 | 164122 | | 4.12(2.29-6.86) | | 2631 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.544 | 0.011 | 1.050 | 535895 | 0.8142 | Target=4.27 | 81.4 | 231 | |
| 913.00 > 169.00 | 5.555 | 5.544 | 0.011 | 1.050 | 124995 | | 4.29(2.14-6.41) | | 1585 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCIC4_00027 Amount Added: 100.00 Units: uL

Report Date: 11-Nov-2021 12:41:02 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d

Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812

Lims ID: CCV L4

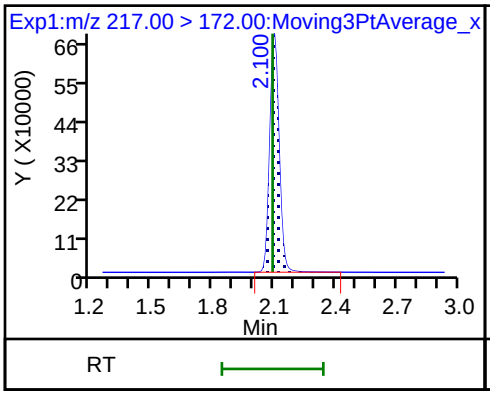
Client ID:

Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30

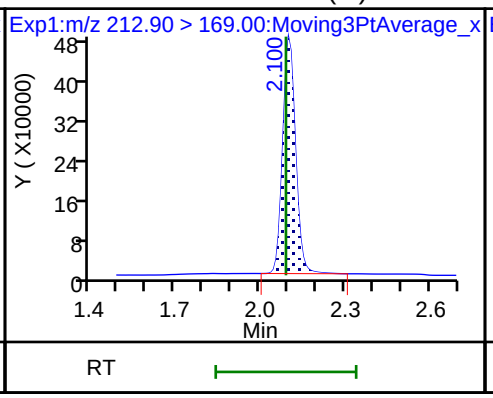
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

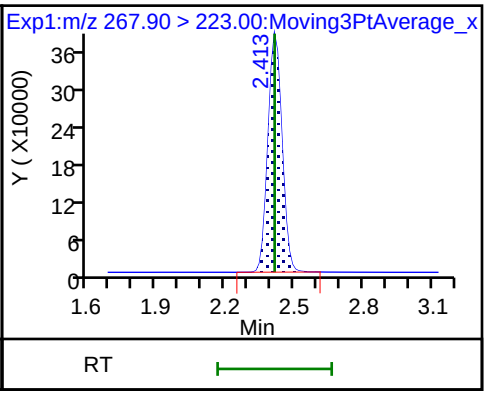
D 1 13C4 PFBA



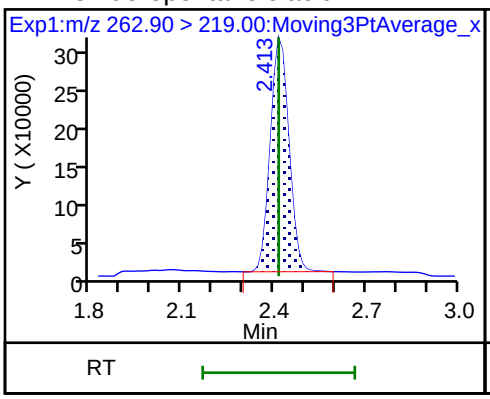

2 Perfluorobutanoic acid (M)



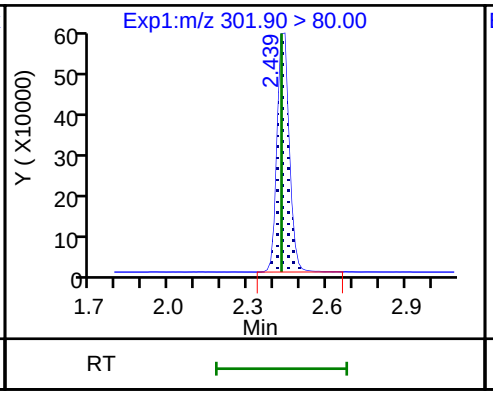

D 3 13C5 PFPeA



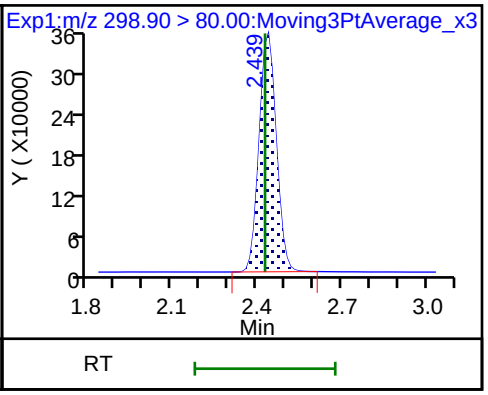

4 Perfluoropentanoic acid



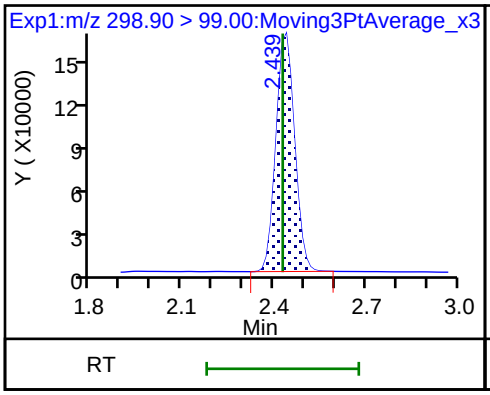

D 47 13C3 PFBS



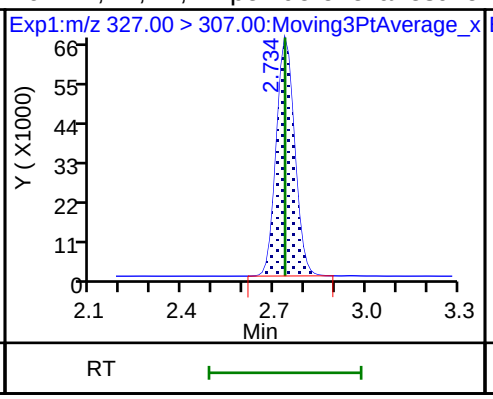

5 Perfluorobutanesulfonic acid



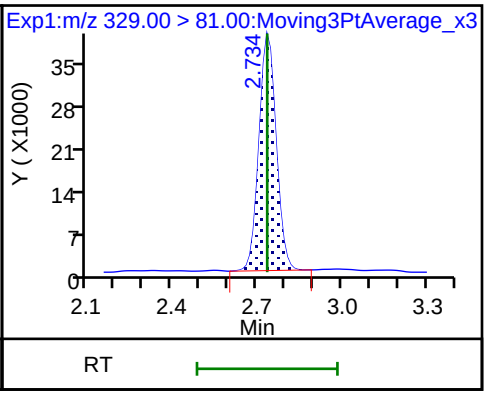

5 Perfluorobutanesulfonic acid



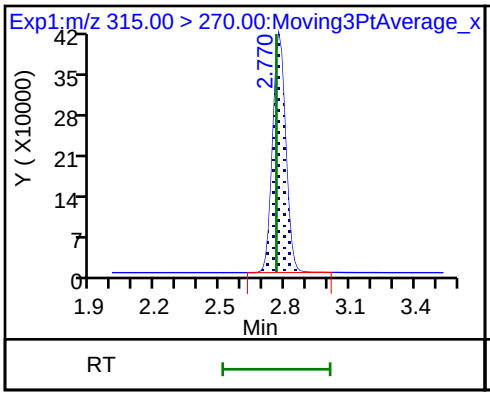

61 1H,1H,2H,2H-perfluorohexanesulfo



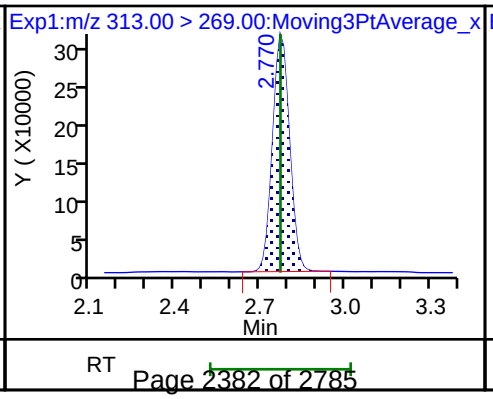

D 60 M2-4:2 FTS



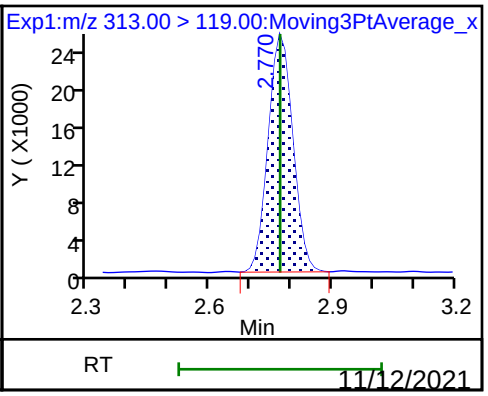

D 7 13C2 PFHxA



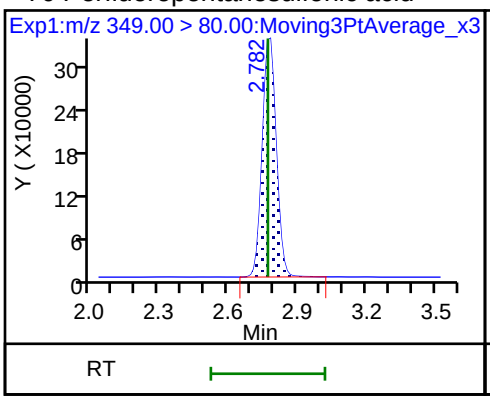

6 Perfluorohexanoic acid



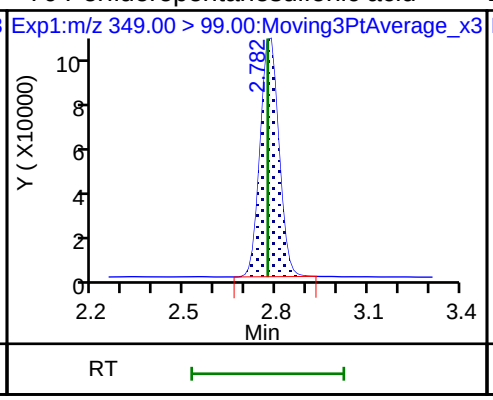

6 Perfluorohexanoic acid



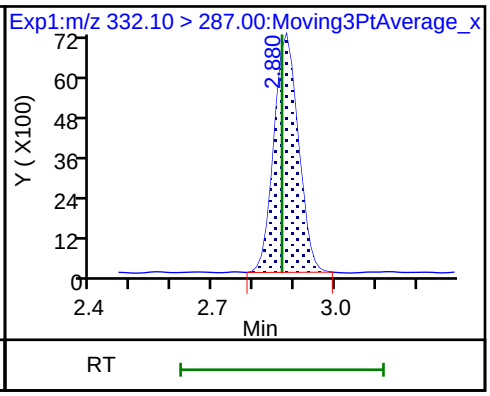
70 Perfluoropentanesulfonic acid



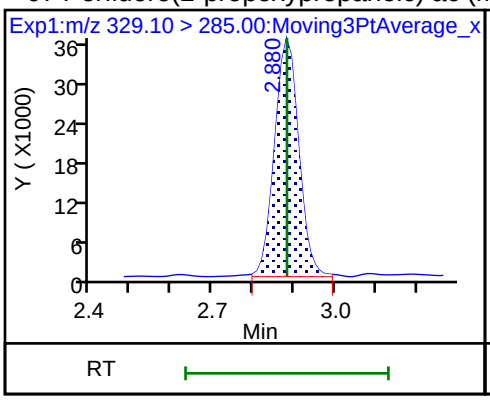

70 Perfluoropentanesulfonic acid



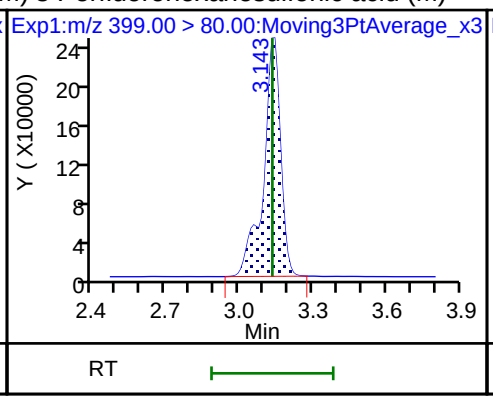

D 64 13C3 HFPO-DA



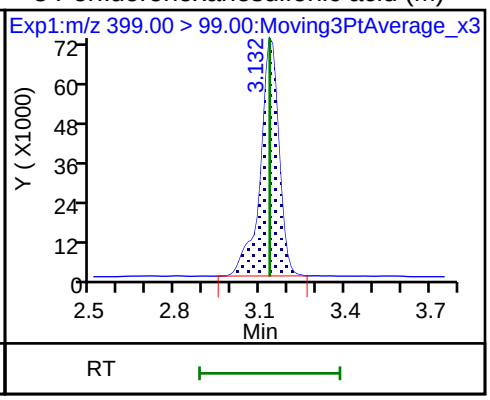

67 Perfluoro(2-propoxypropanoic) ac (M)



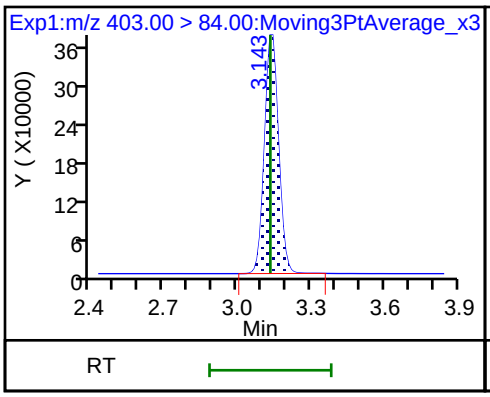

8 Perfluorohexanesulfonic acid (M)



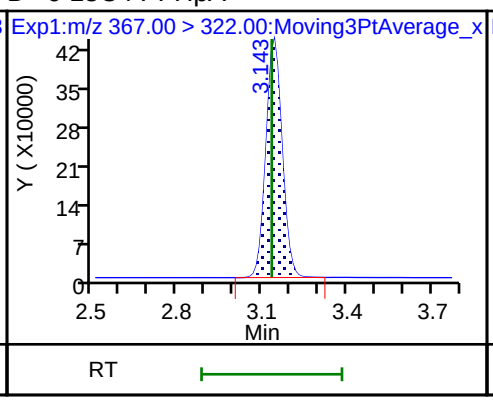

8 Perfluorohexanesulfonic acid (M)



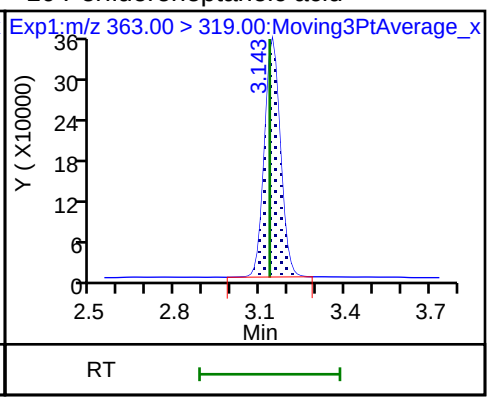

D 11 18O2 PFHxS



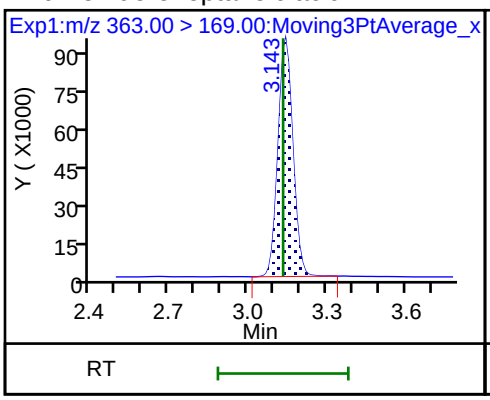

D 9 13C4 PFHpA



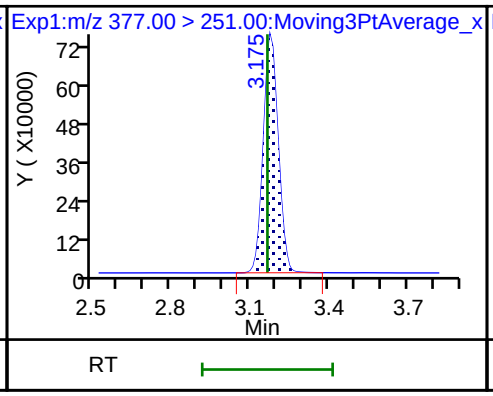

10 Perfluoroheptanoic acid



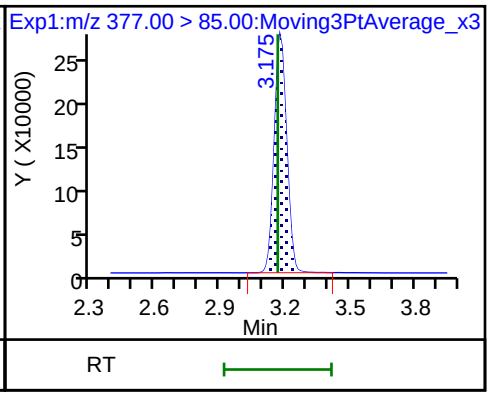

10 Perfluoroheptanoic acid



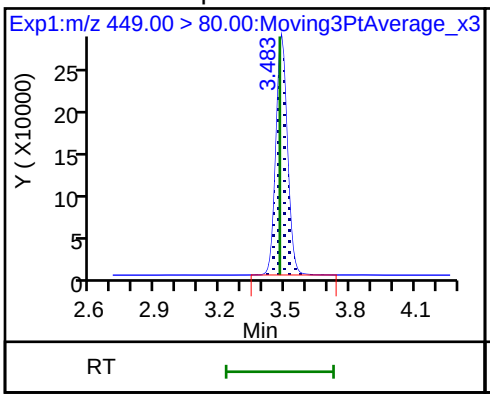

77 DONA



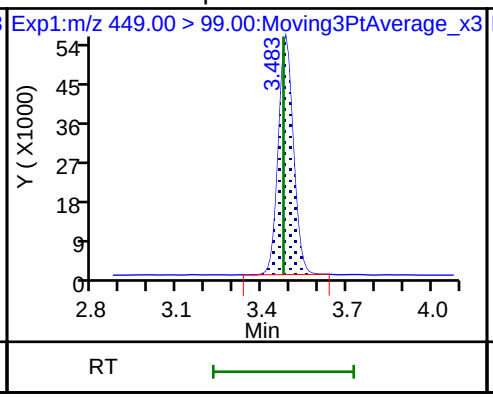

77 DONA



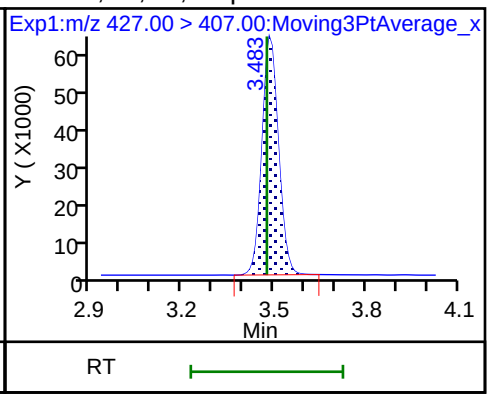
16 Perfluoroheptanesulfonic acid



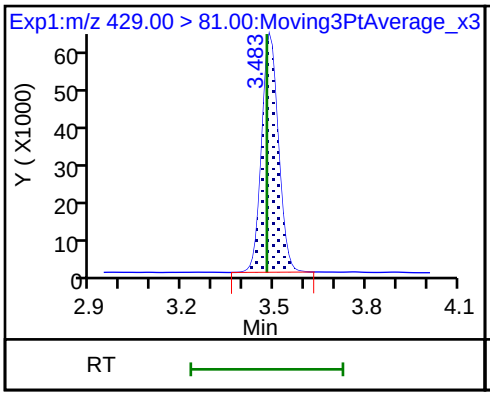

16 Perfluoroheptanesulfonic acid



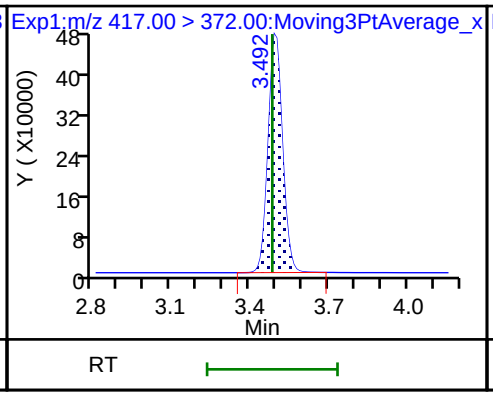

13 1H,1H,2H,2H-perfluorooctanesulfo



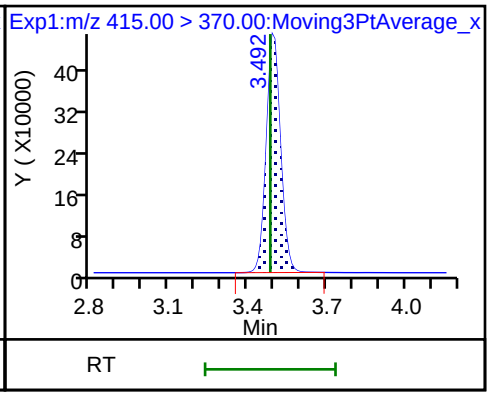

D 12 M2-6:2 FTS



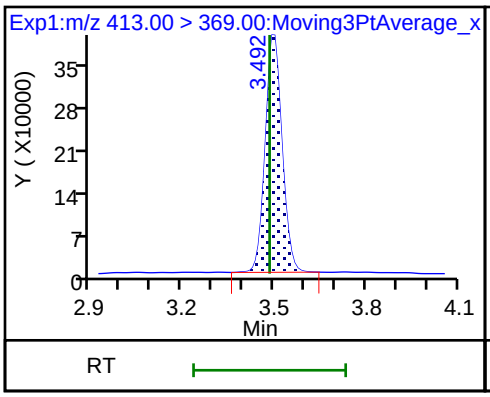

D 14 13C4 PFOA



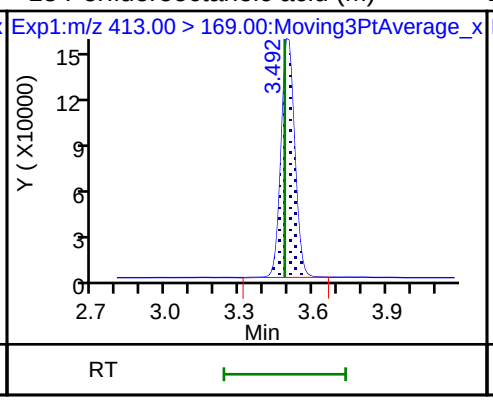

* 62 13C2 PFOA



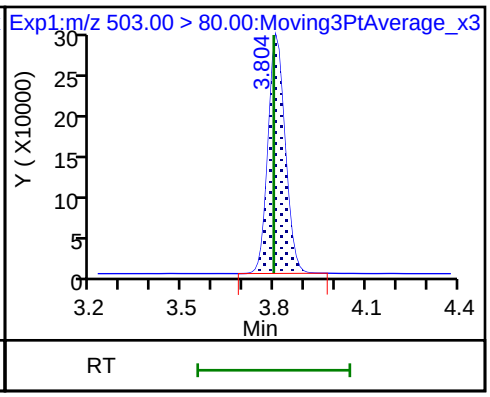

15 Perfluorooctanoic acid



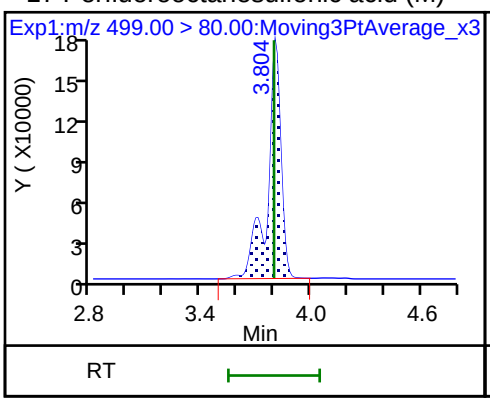

15 Perfluorooctanoic acid (M)



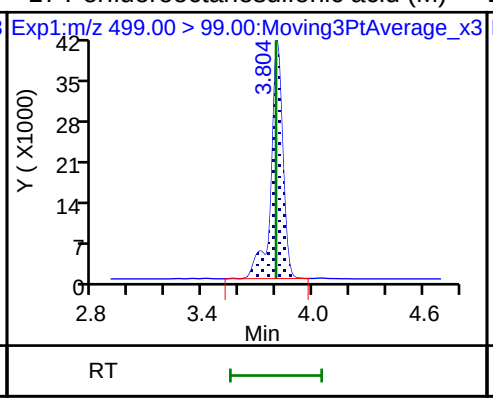

D 18 13C4 PFOS



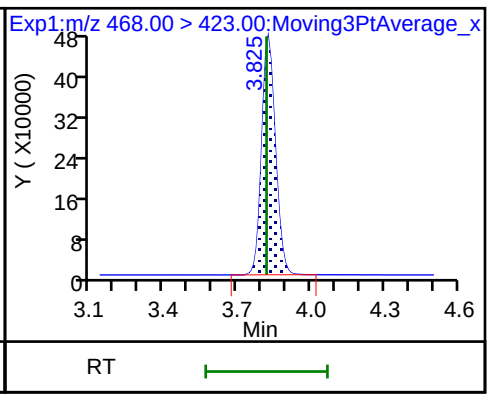

17 Perfluorooctanesulfonic acid (M)



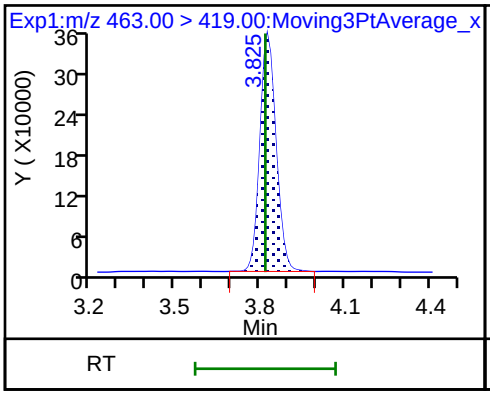

17 Perfluorooctanesulfonic acid (M)



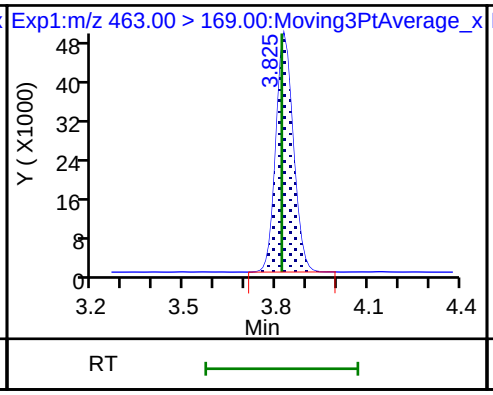

D 19 13C5 PFNA



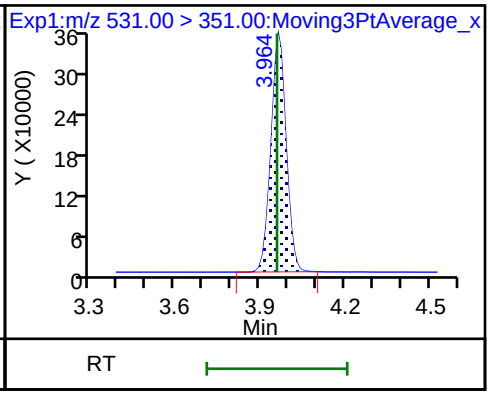
20 Perfluorononanoic acid



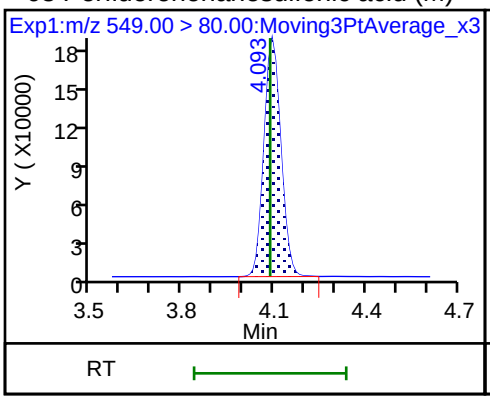

20 Perfluorononanoic acid



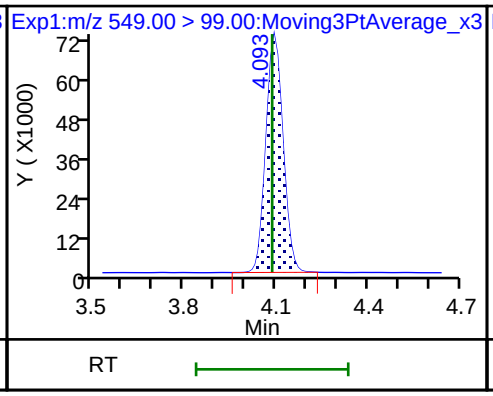

69 9-Chlorohexadecafluoro-3-oxanona (M)



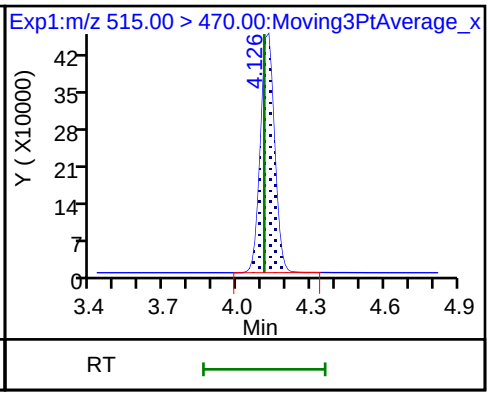

68 Perfluorononanesulfonic acid (M)



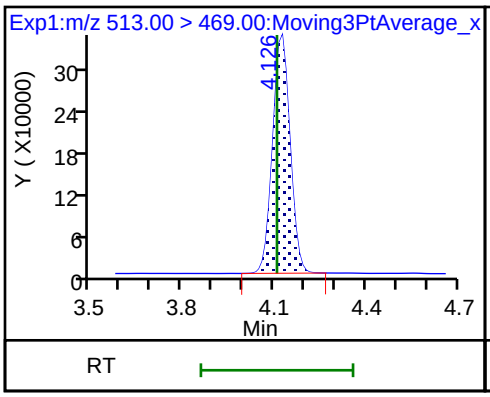

68 Perfluorononanesulfonic acid



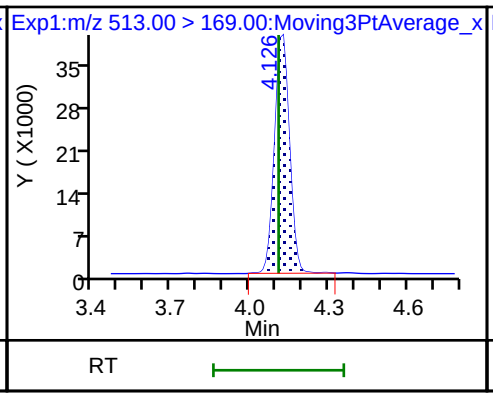

D 23 13C2 PFDA



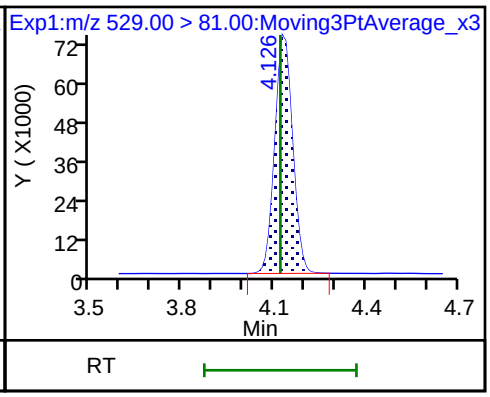

24 Perfluorodecanoic acid



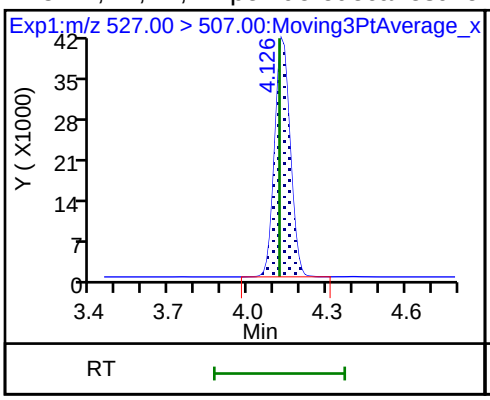

24 Perfluorodecanoic acid



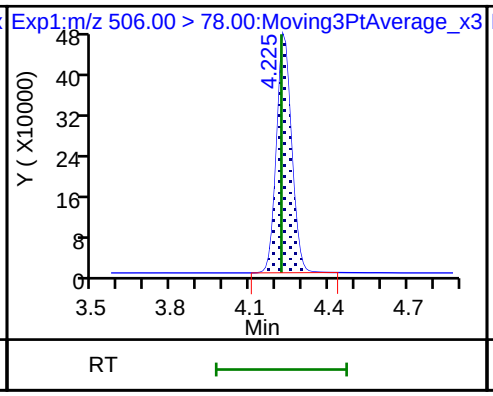

D 26 M2-8:2 FTS



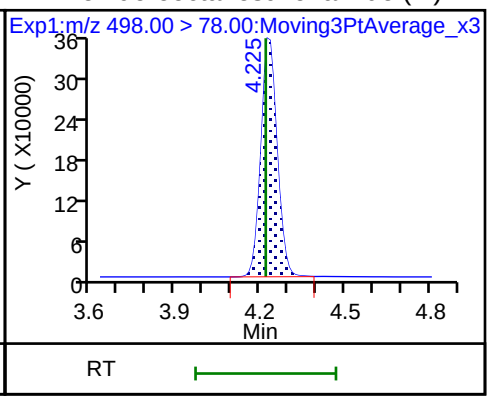

25 1H,1H,2H,2H-perfluorodecanesulfo



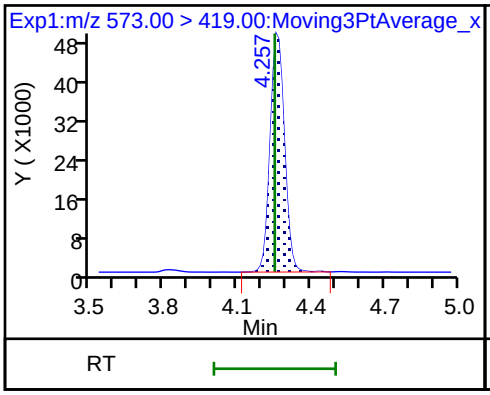

D 21 13C8 FOSA



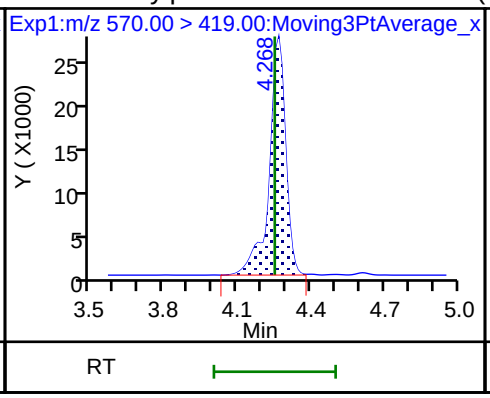

22 Perfluorooctanesulfonamide (M)



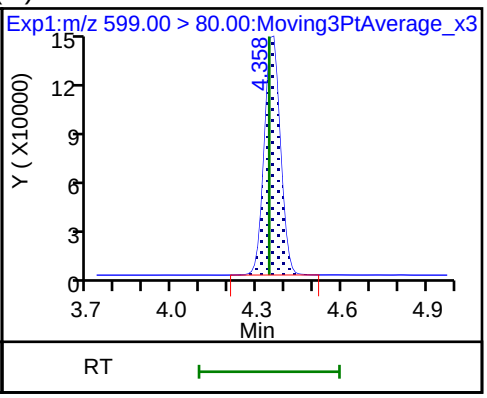
D 27 d3-NMeFOSAA



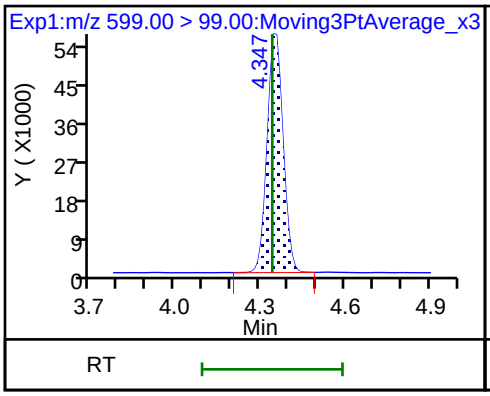

28 N-methylperfluorooctanesulfonami (M)



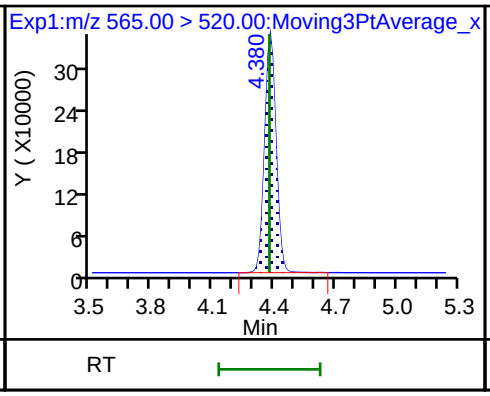

29 Perfluorodecanesulfonic acid



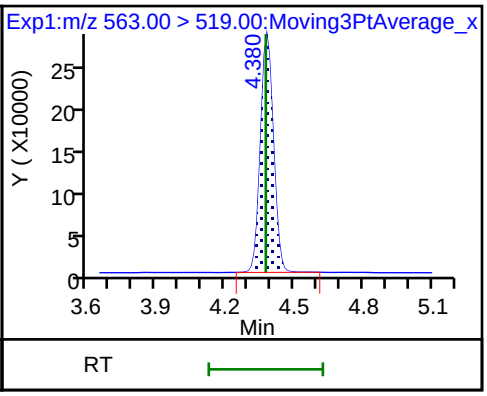

29 Perfluorodecanesulfonic acid



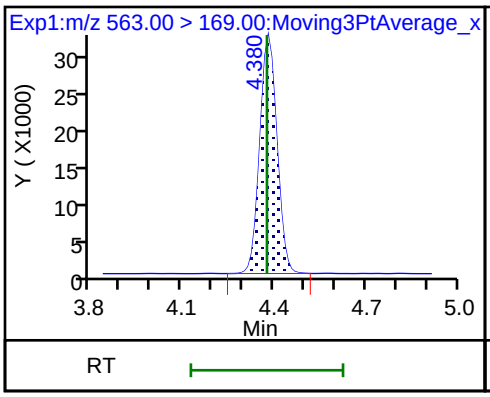

D 30 13C2 PFUnA



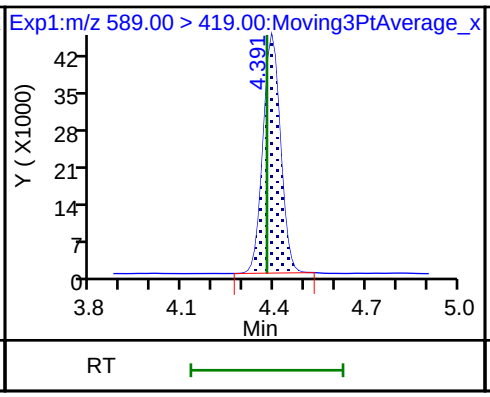

31 Perfluoroundecanoic acid



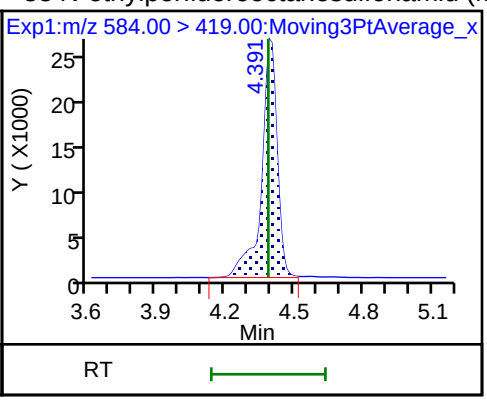

31 Perfluoroundecanoic acid



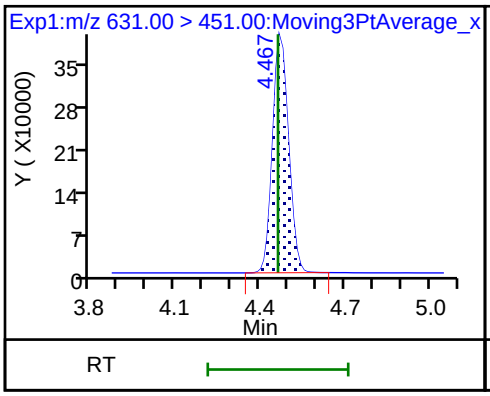

D 32 d5-NEtFOSAA



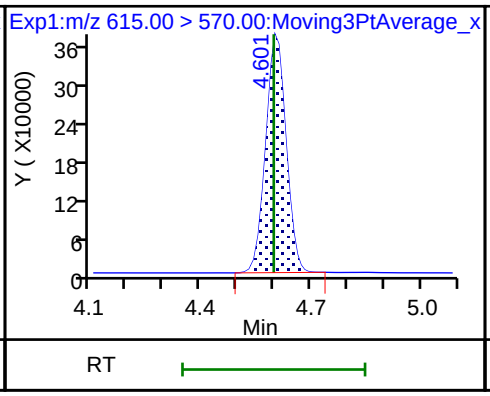

33 N-ethylperfluorooctanesulfonamid (M)



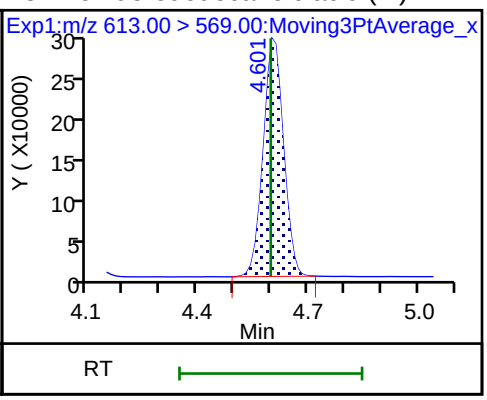

66 11-Chloroeicosafluoro-3-oxaundec



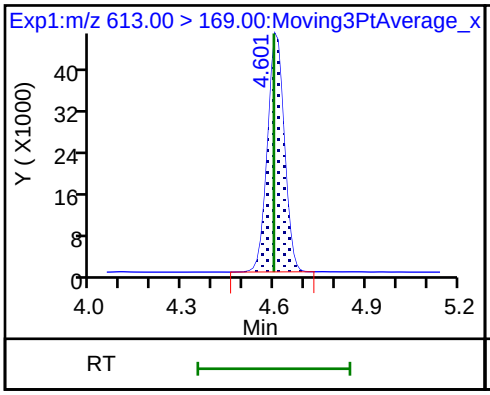

D 36 13C2 PFDoA



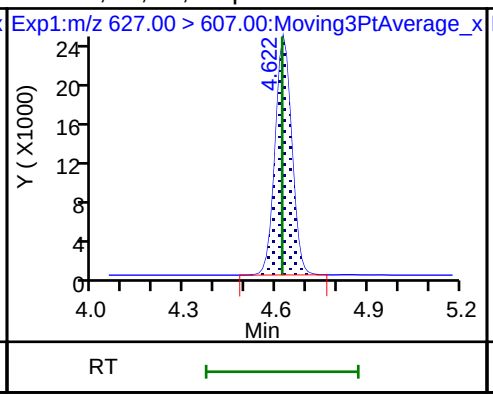

37 Perfluorododecanoic acid (M)



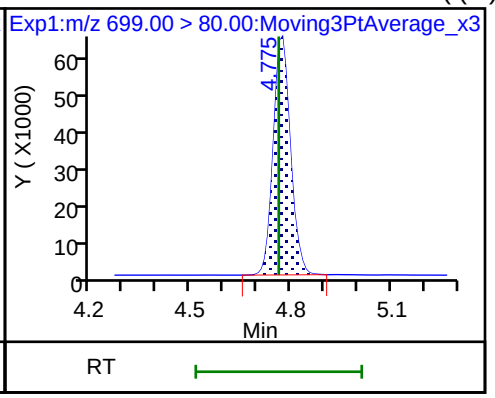
37 Perfluorododecanoic acid



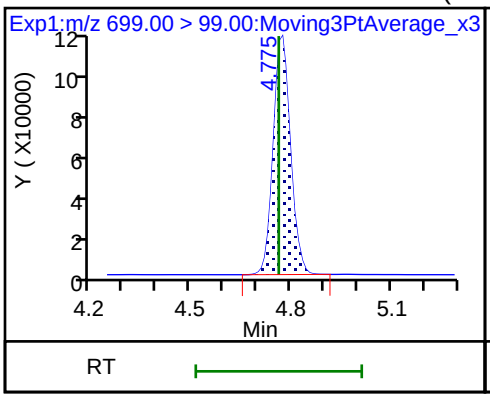

74 1H,1H,2H,2H-perfluorododecanesul



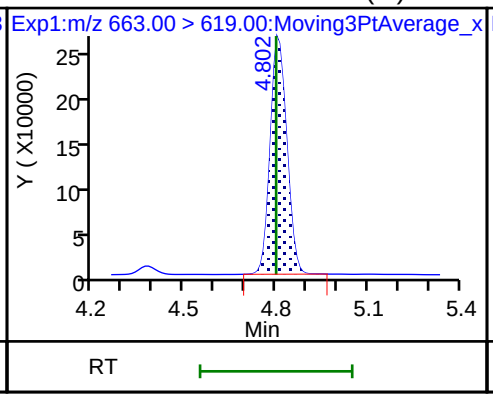

75 Perfluorododecanesulfonic acid ( (M)



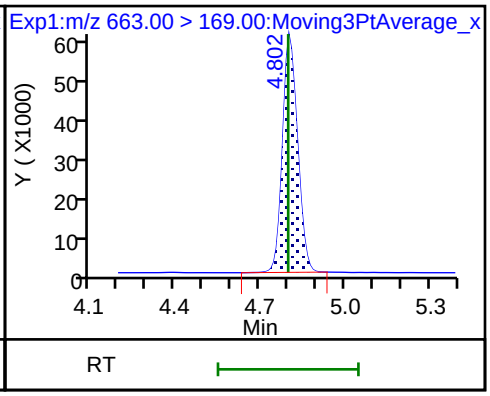

75 Perfluorododecanesulfonic acid (



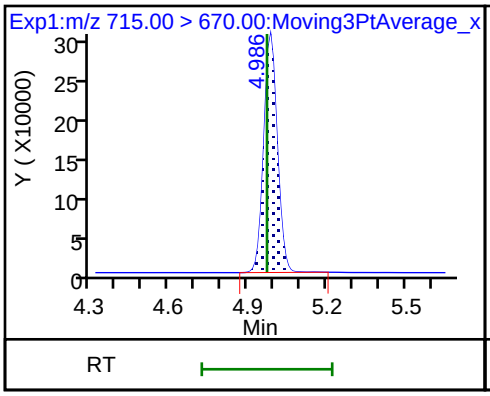

41 Perfluorotridecanoic acid (M)



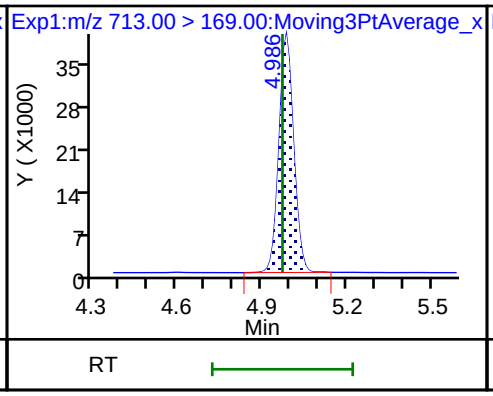

41 Perfluorotridecanoic acid



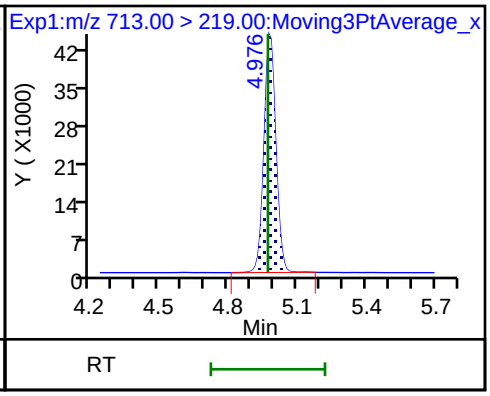

D 43 13C2 PFTeDA



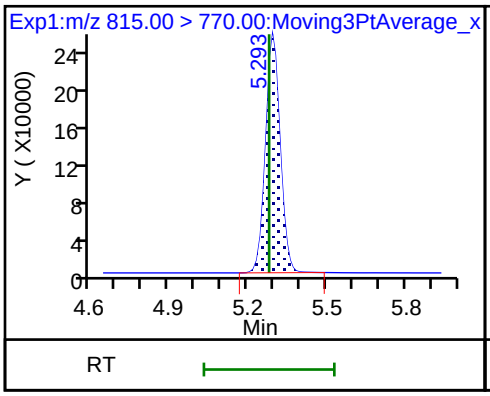

42 Perfluorotetradecanoic acid



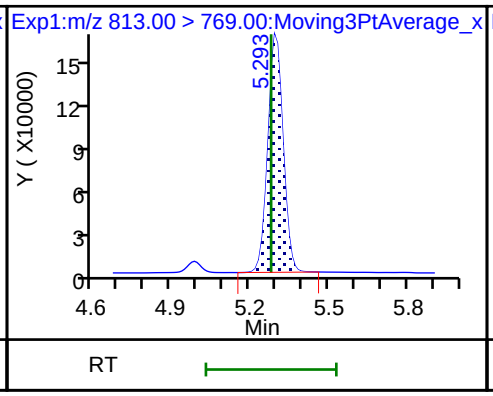

42 Perfluorotetradecanoic acid



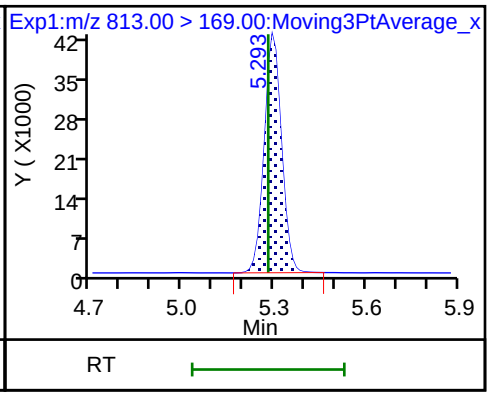

D 44 13C2 PFHxDA



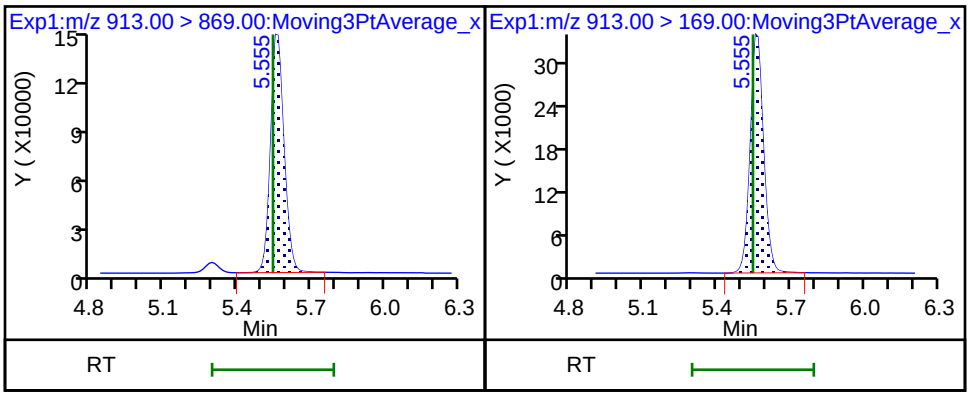

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

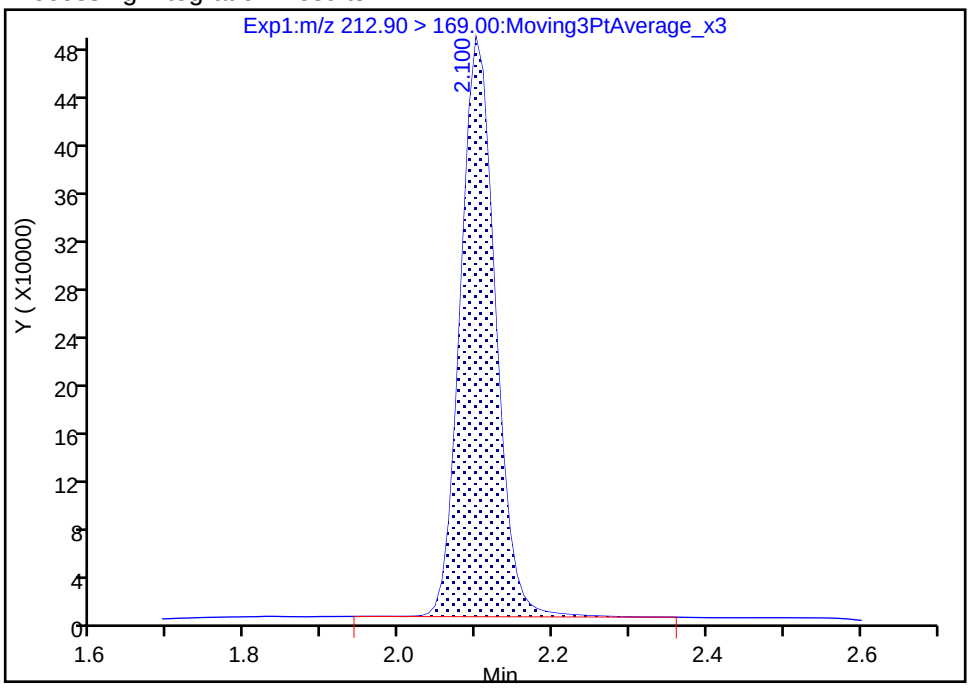
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

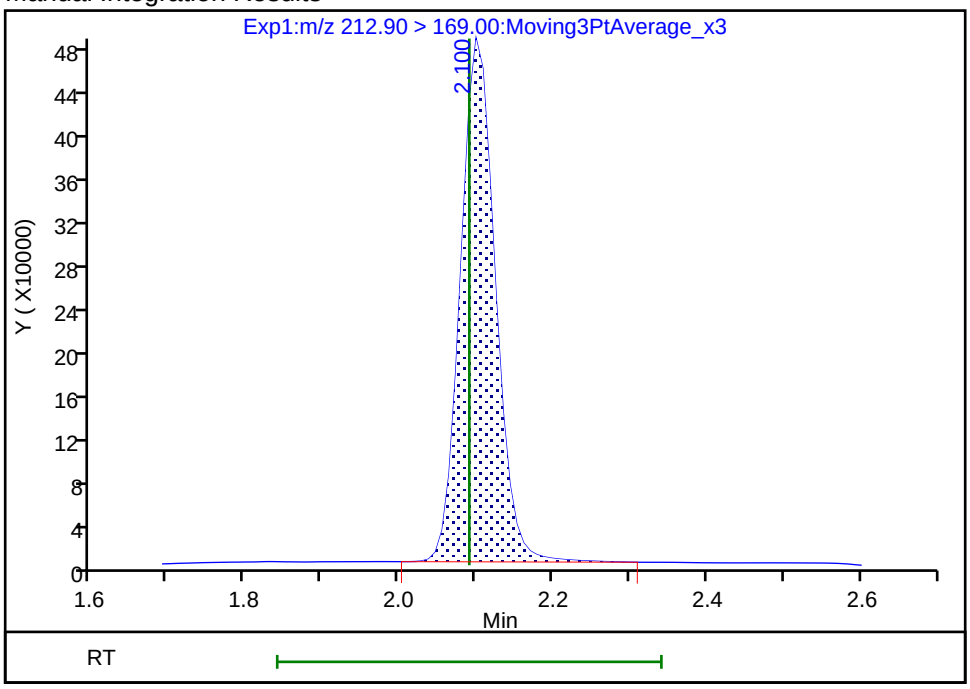
Processing Integration Results

RT: 2.10
Area: 1515388
Amount: 0.932933
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 1513353
Amount: 0.931680
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:48:04

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

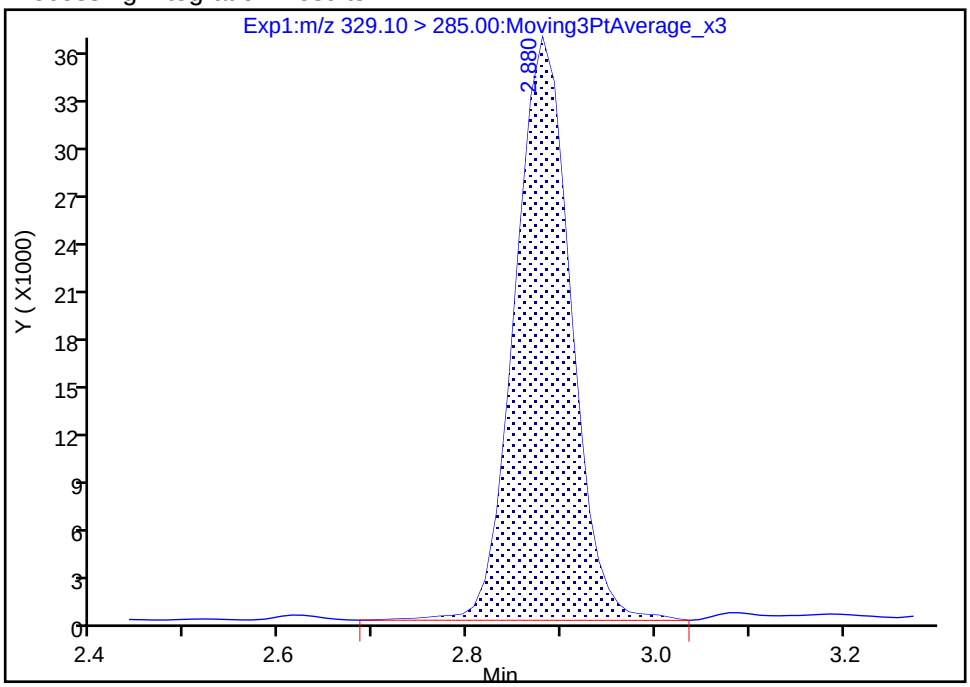
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

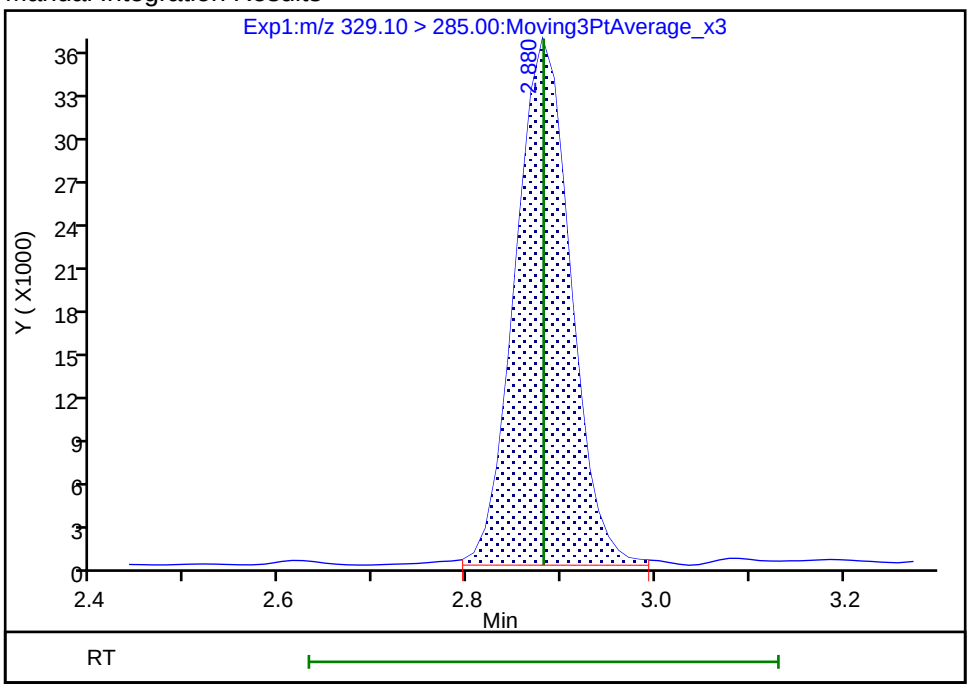
Processing Integration Results

RT: 2.88
Area: 148297
Amount: 1.364725
Amount Units: ng/ml




Manual Integration Results

RT: 2.88
Area: 146965
Amount: 1.352467
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:48:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

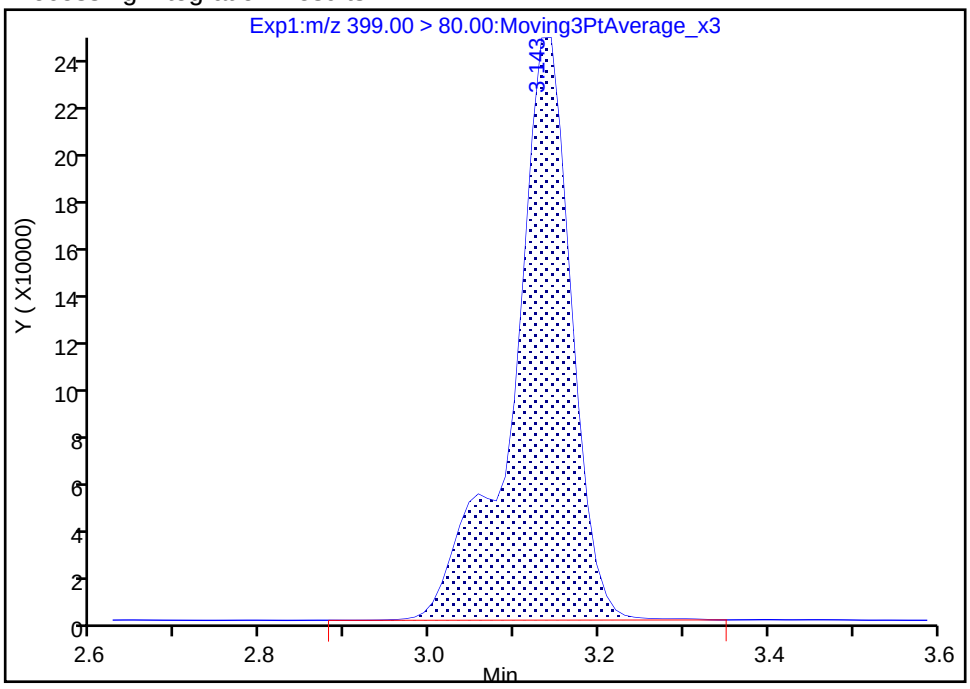
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

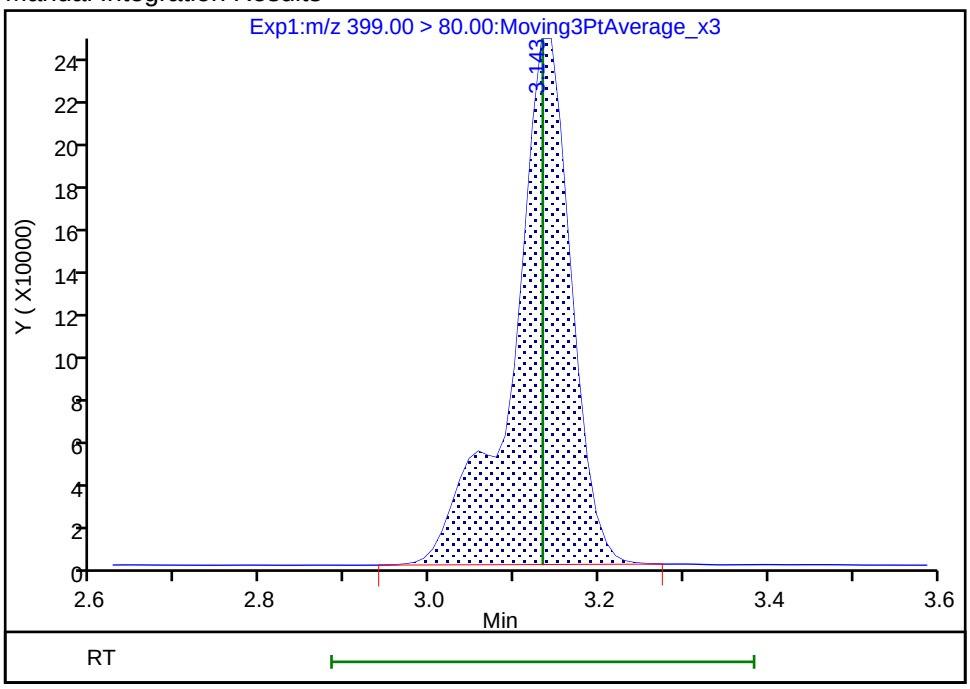
Processing Integration Results

RT: 3.14
Area: 1168534
Amount: 0.847957
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 1163271
Amount: 0.844138
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:49:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

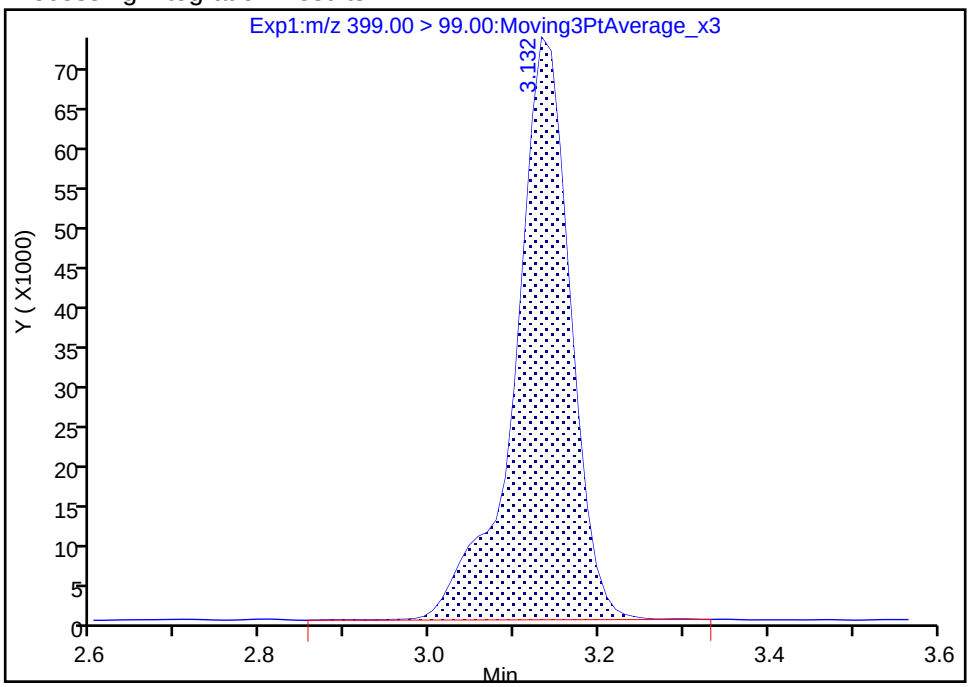
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

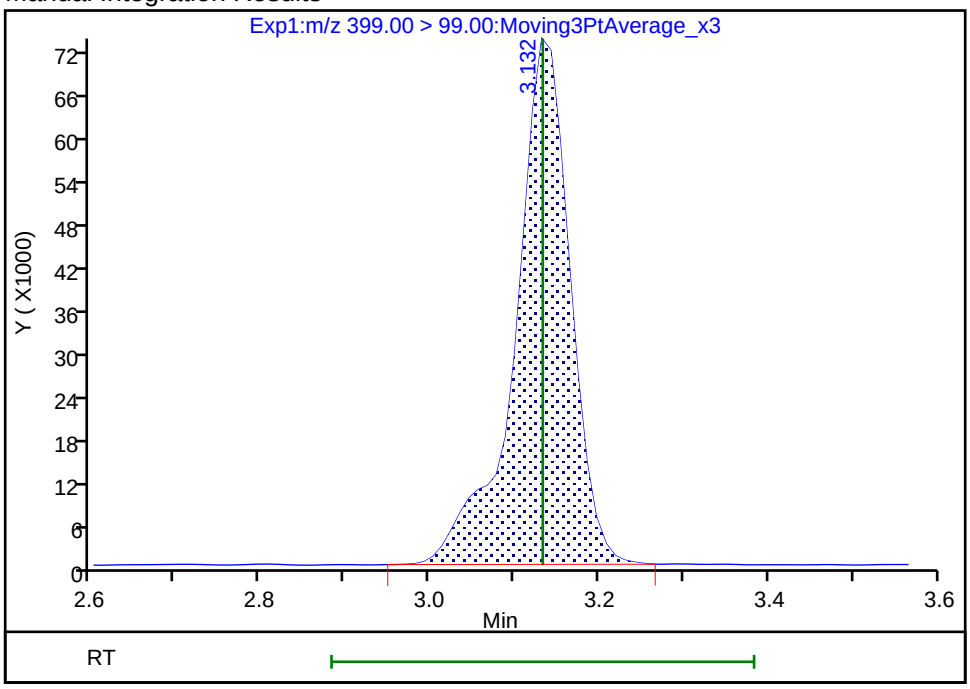
Processing Integration Results

RT: 3.13
Area: 332240
Amount: 0.847957
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 330874
Amount: 0.844138
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:49:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

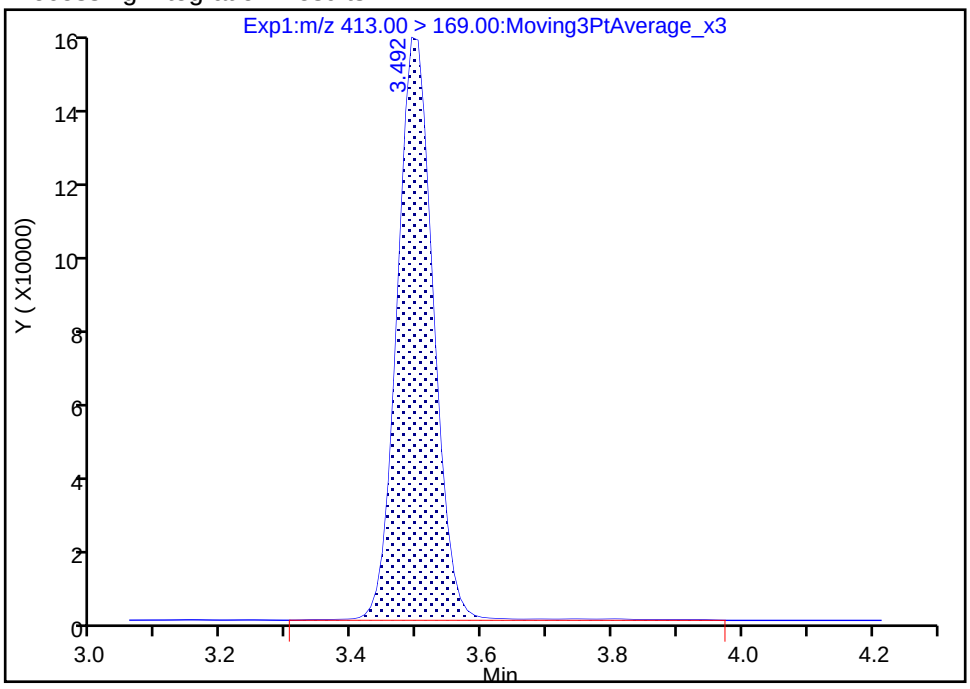
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

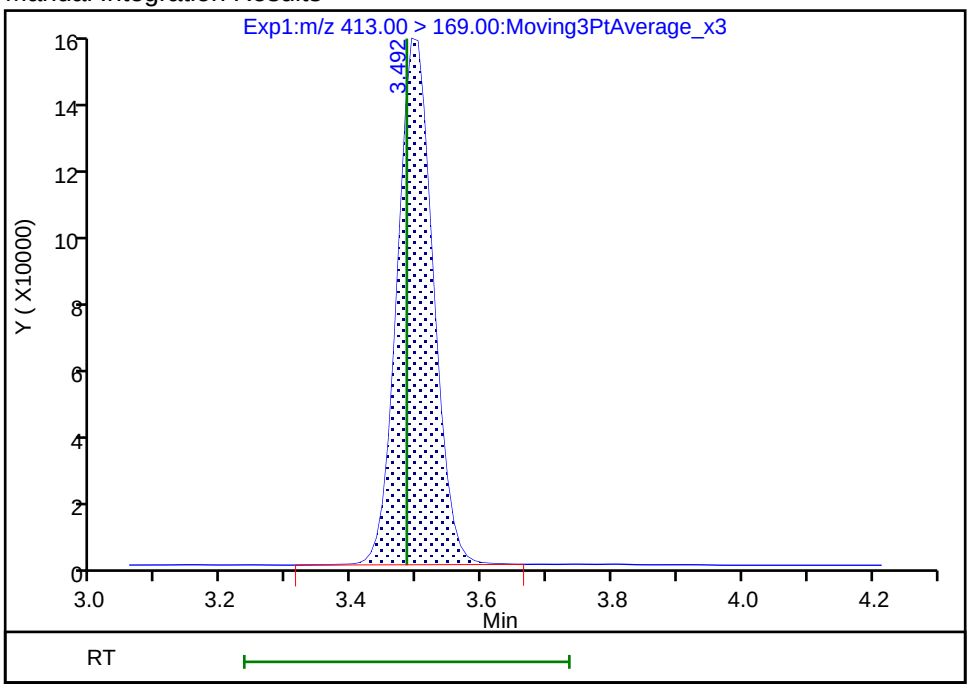
Processing Integration Results

RT: 3.49
Area: 582245
Amount: 0.975986
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 576271
Amount: 0.975986
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:49:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

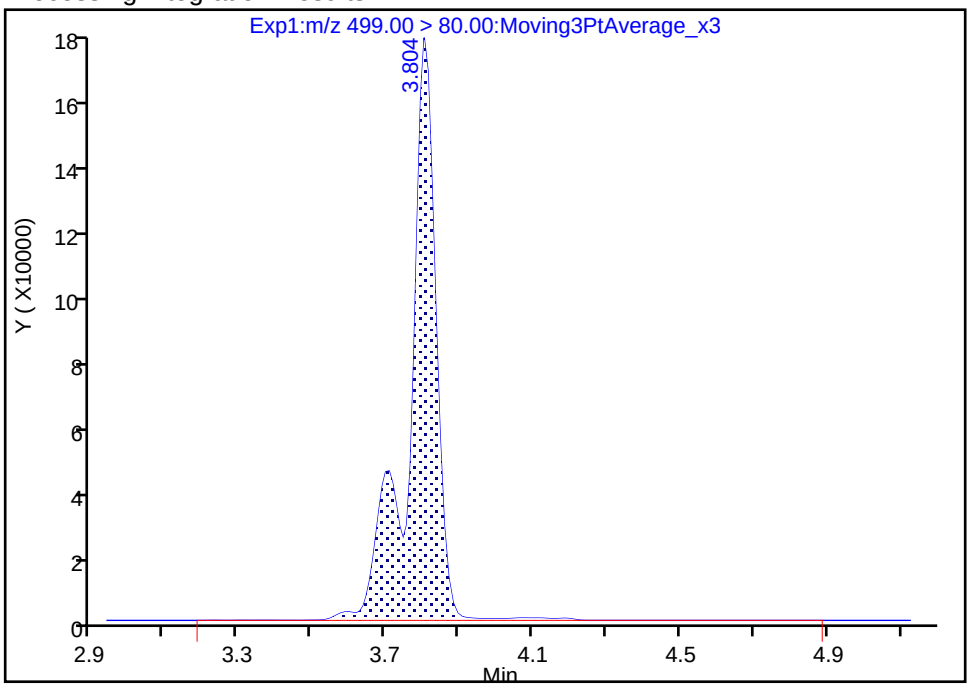
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

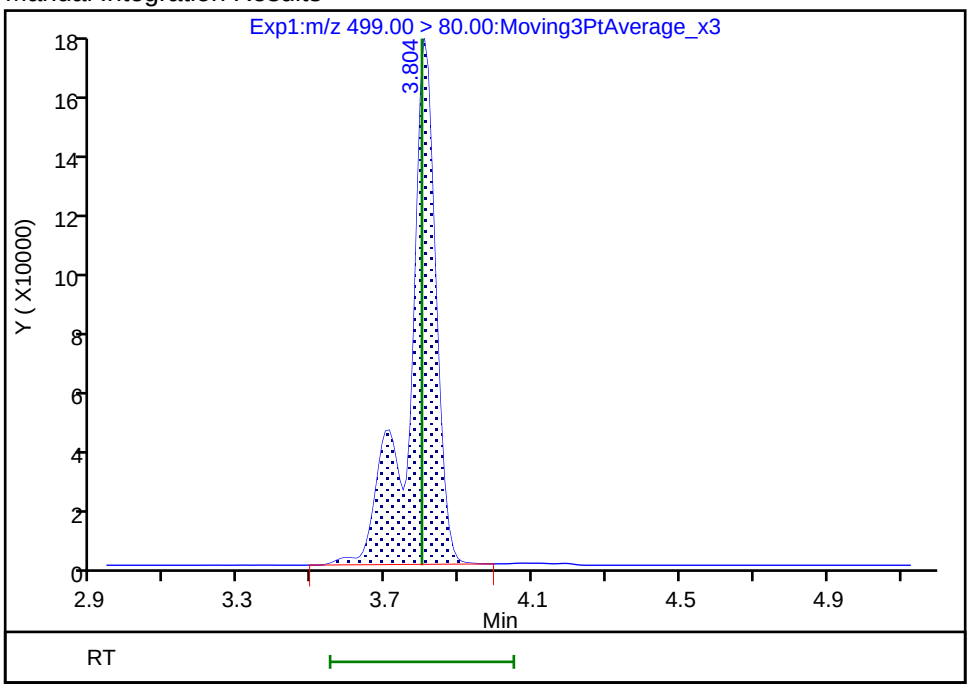
Processing Integration Results

RT: 3.80
Area: 887575
Amount: 0.877277
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 872025
Amount: 0.861907
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:45:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d

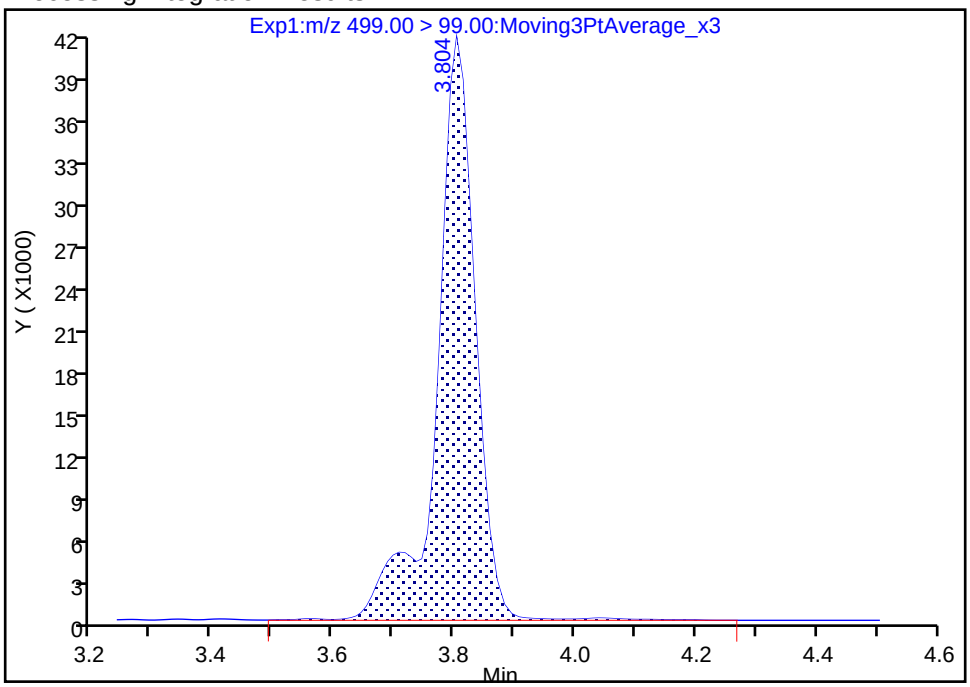
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

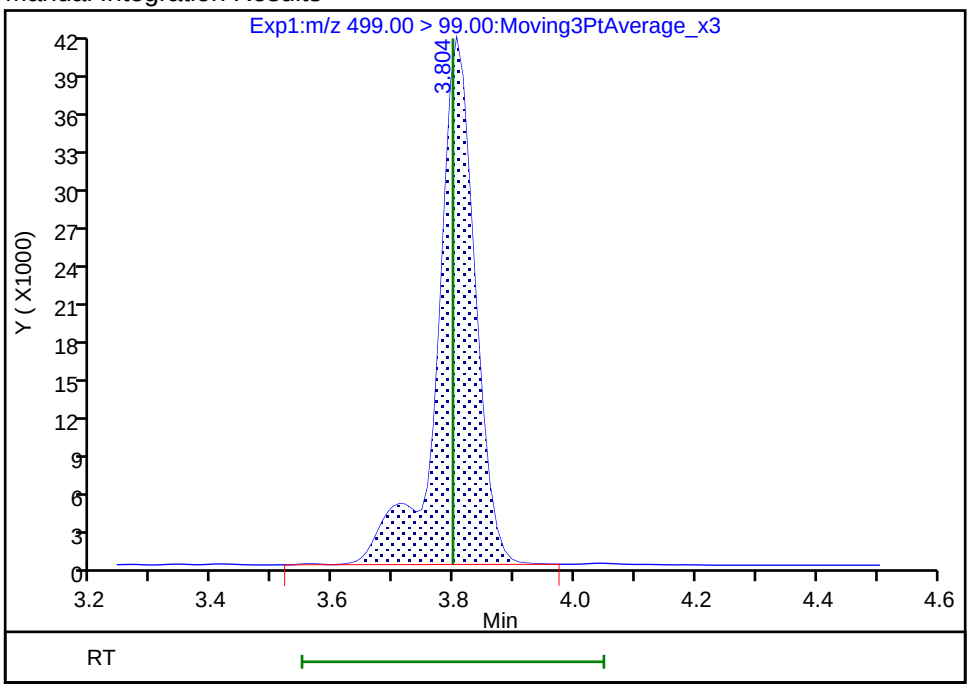
Processing Integration Results

RT: 3.80
Area: 184593
Amount: 0.877277
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 182122
Amount: 0.861907
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:45:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

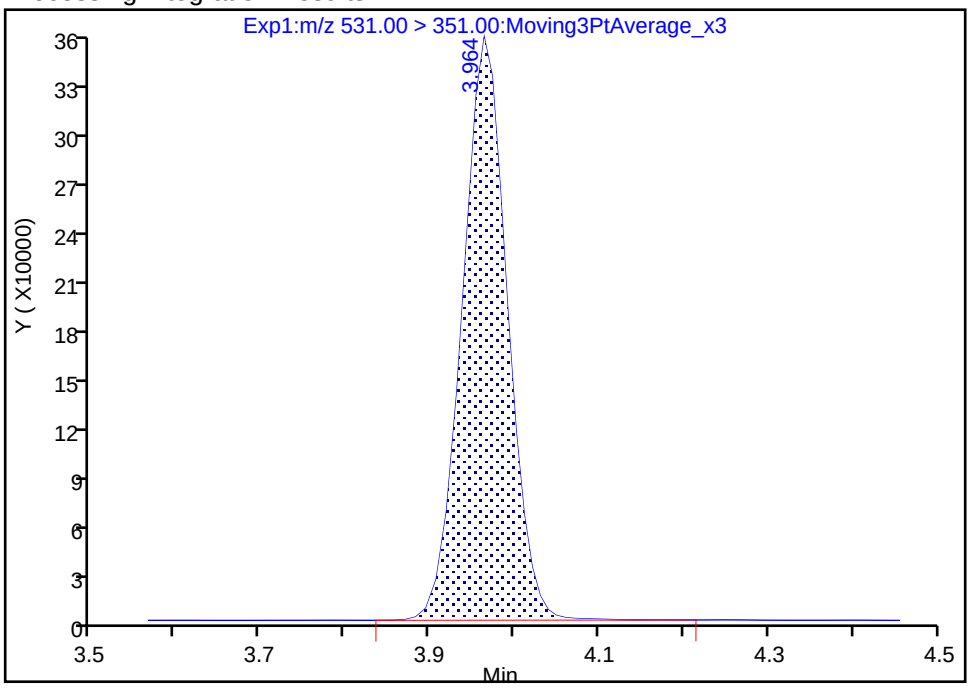
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 69 9-Chlorohexadecafluoro-3-oxanona, CAS: 756426-58-1

Signal: 1

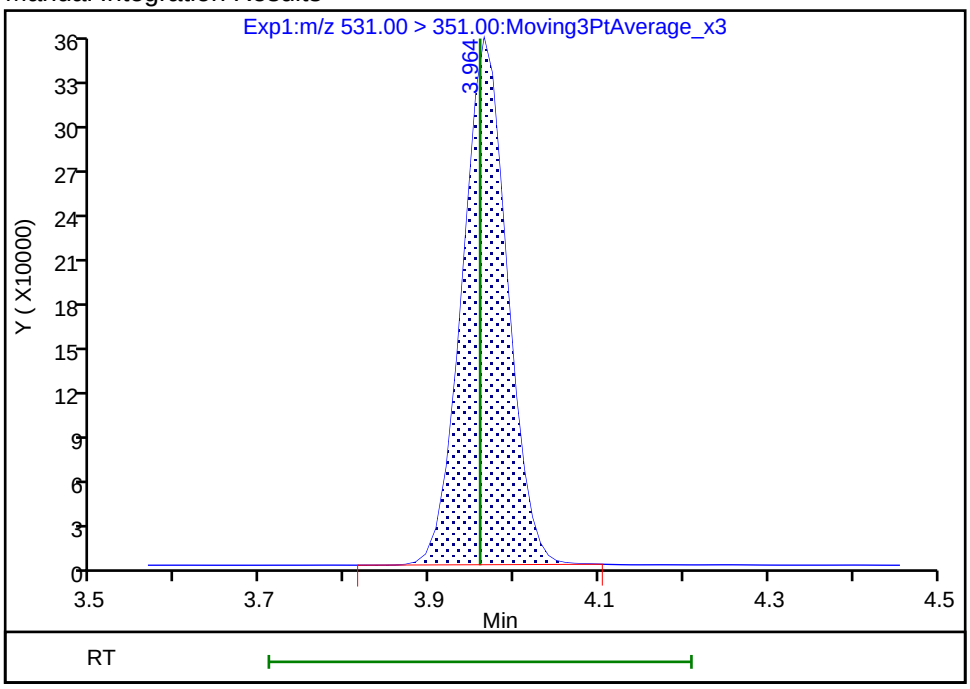
Processing Integration Results

RT: 3.96
Area: 1307623
Amount: 0.857898
Amount Units: ng/ml




Manual Integration Results

RT: 3.96
Area: 1302356
Amount: 0.854442
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:45:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

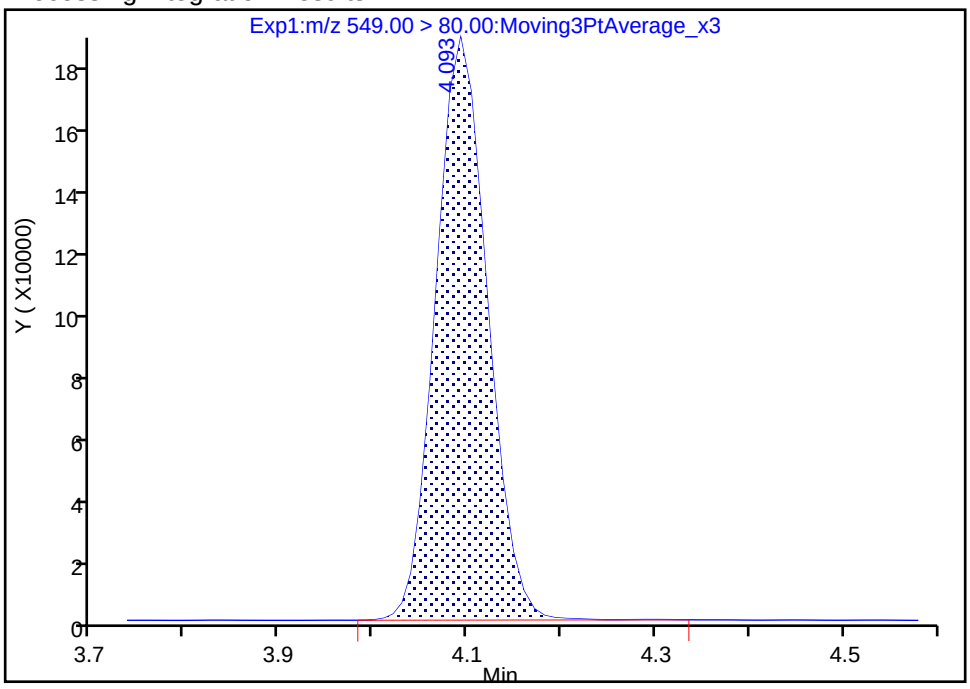
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 68 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

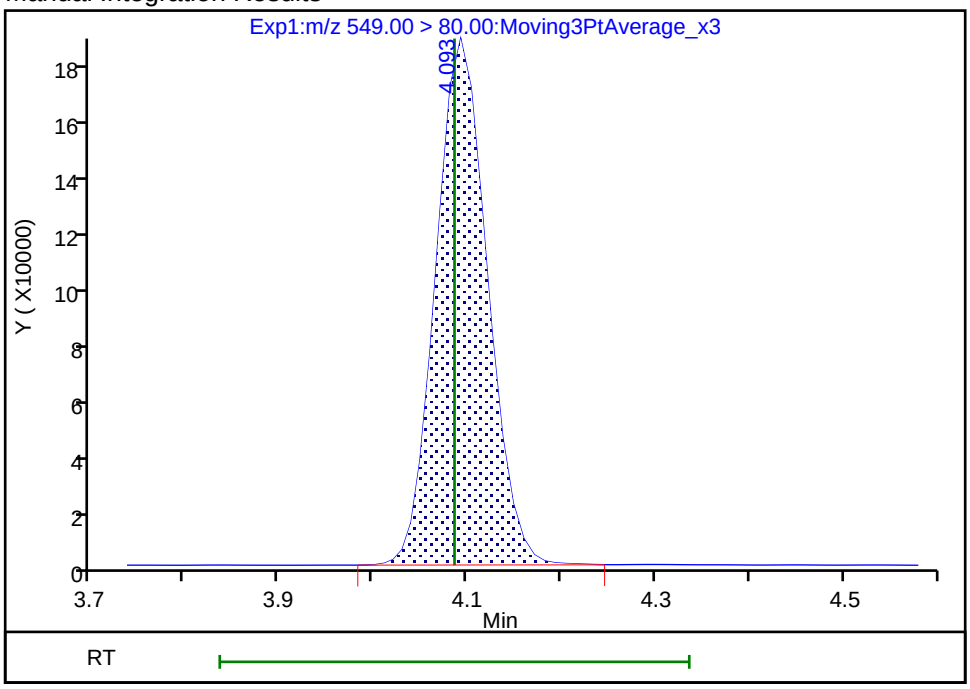
Processing Integration Results

RT: 4.09
Area: 724884
Amount: 0.919789
Amount Units: ng/ml




Manual Integration Results

RT: 4.09
Area: 724535
Amount: 0.919346
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:49:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

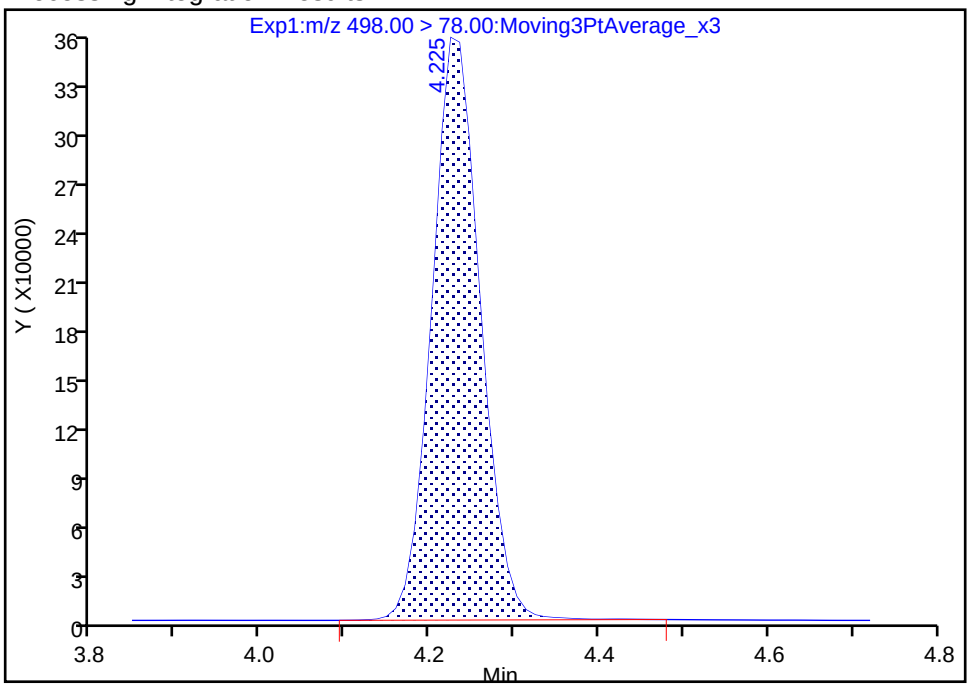
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

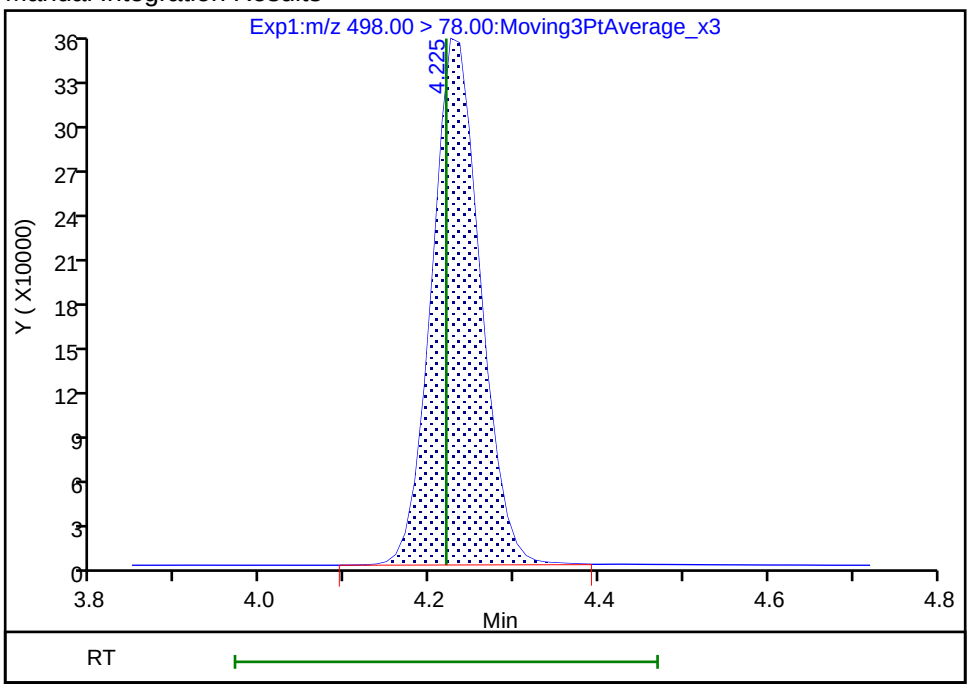
Processing Integration Results

RT: 4.22
Area: 1422456
Amount: 0.997960
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 1421507
Amount: 0.997294
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:49:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

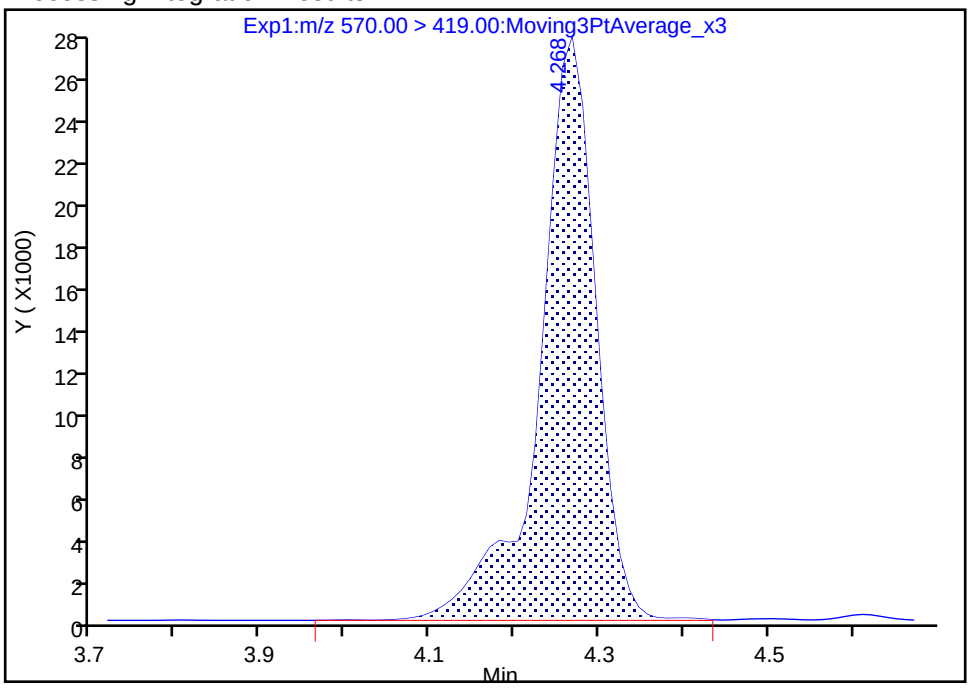
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

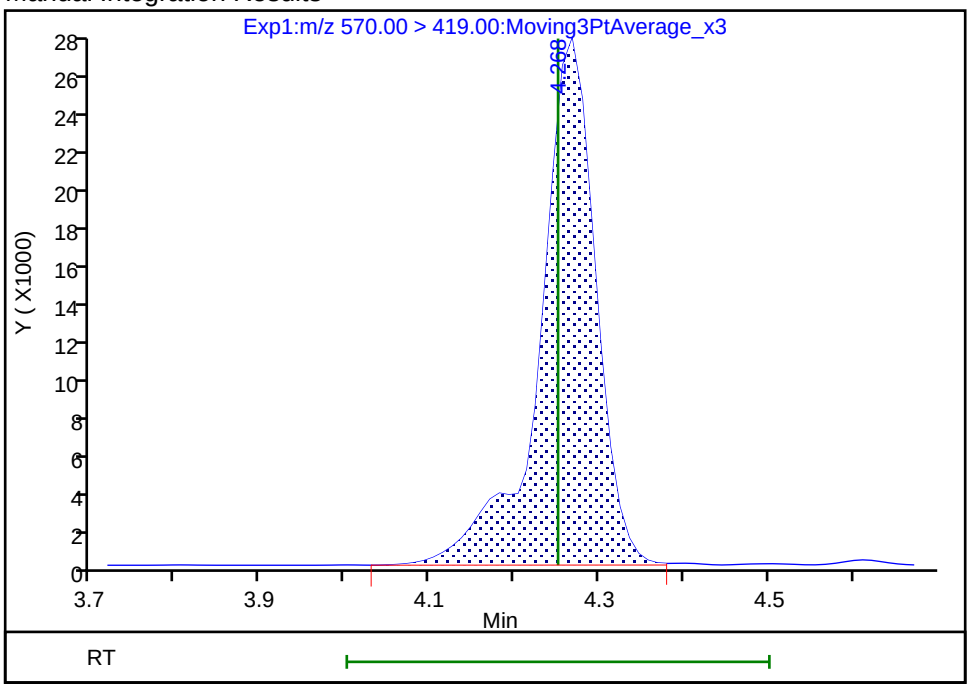
Processing Integration Results

RT: 4.27
Area: 125223
Amount: 0.993732
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 124774
Amount: 0.990169
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:46:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

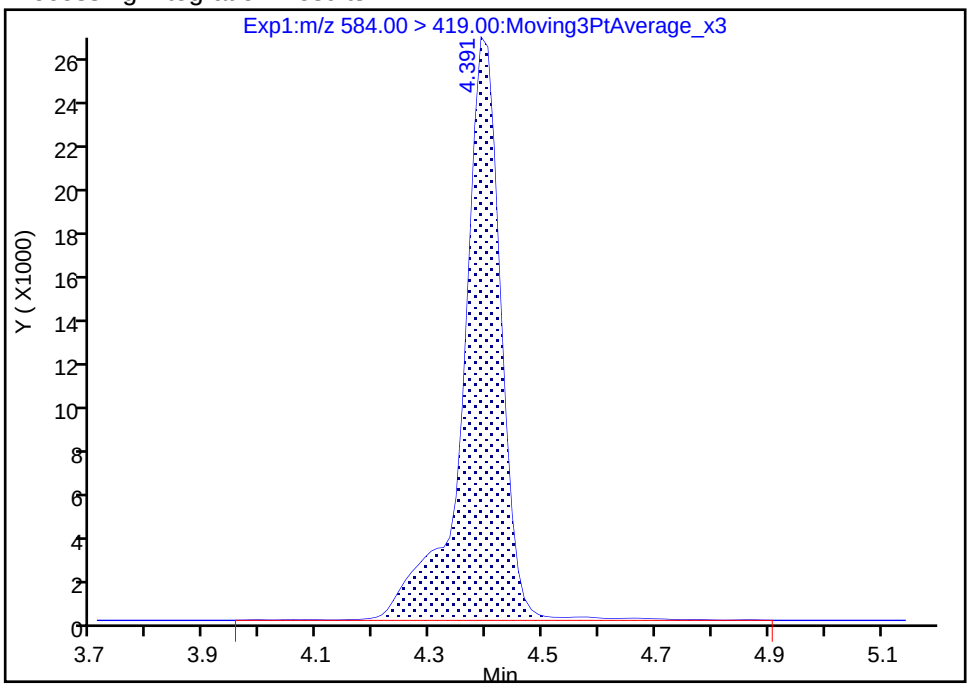
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

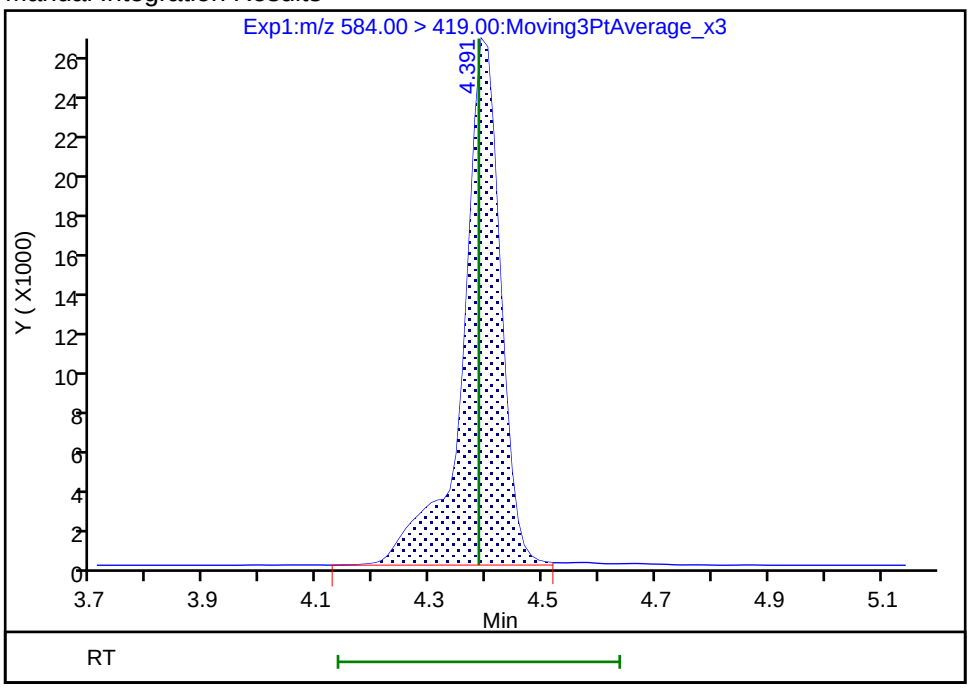
Processing Integration Results

RT: 4.39
Area: 123902
Amount: 1.001644
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 122333
Amount: 0.988960
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:46:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

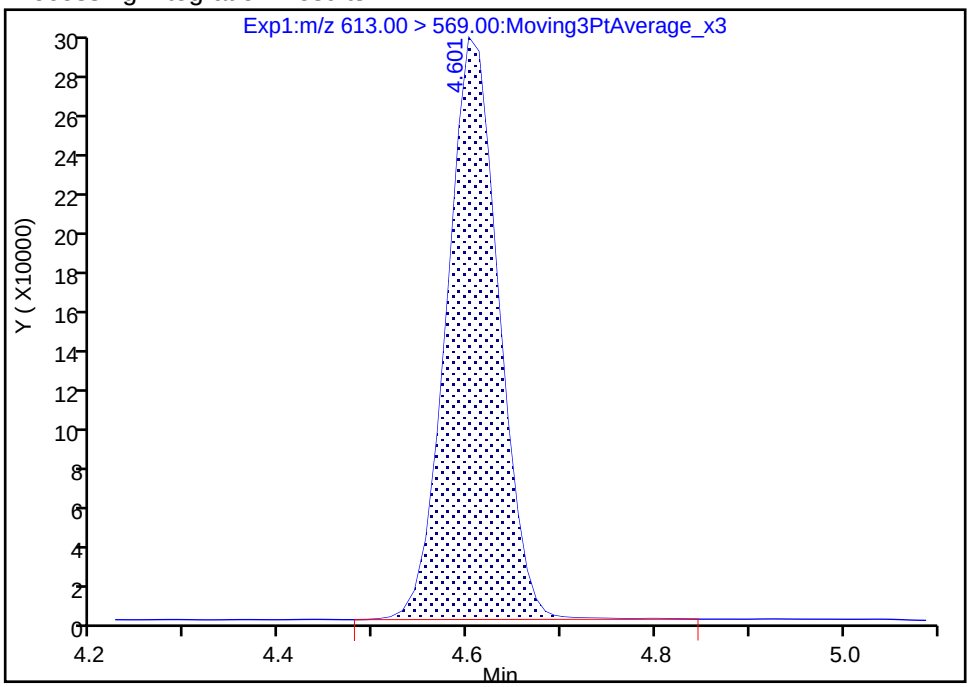
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

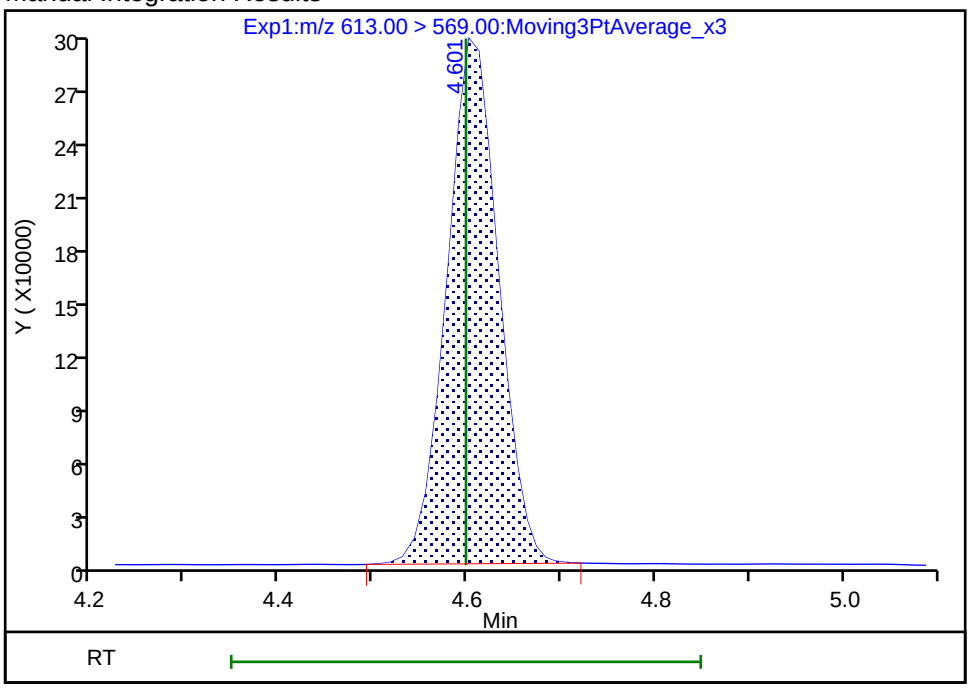
Processing Integration Results

RT: 4.60
Area: 1138763
Amount: 1.015012
Amount Units: ng/ml




Manual Integration Results

RT: 4.60
Area: 1131162
Amount: 1.008237
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:46:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

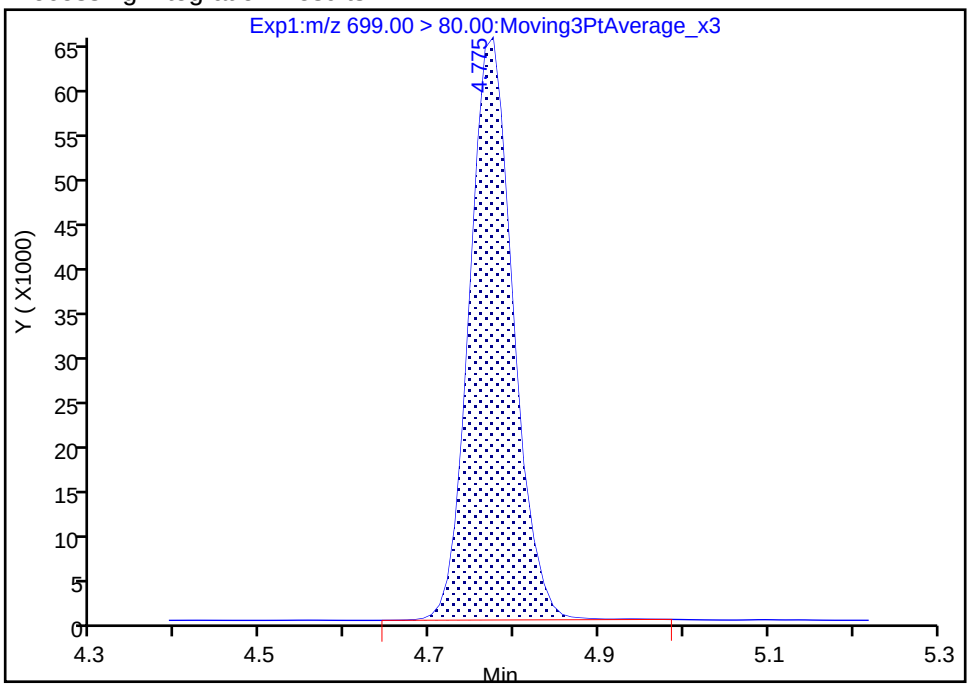
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d | | | | |
| Injection Date: | 10-Nov-2021 15:20:00 | Instrument ID: | LC812 | | |
| Lims ID: | CCV L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 30 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

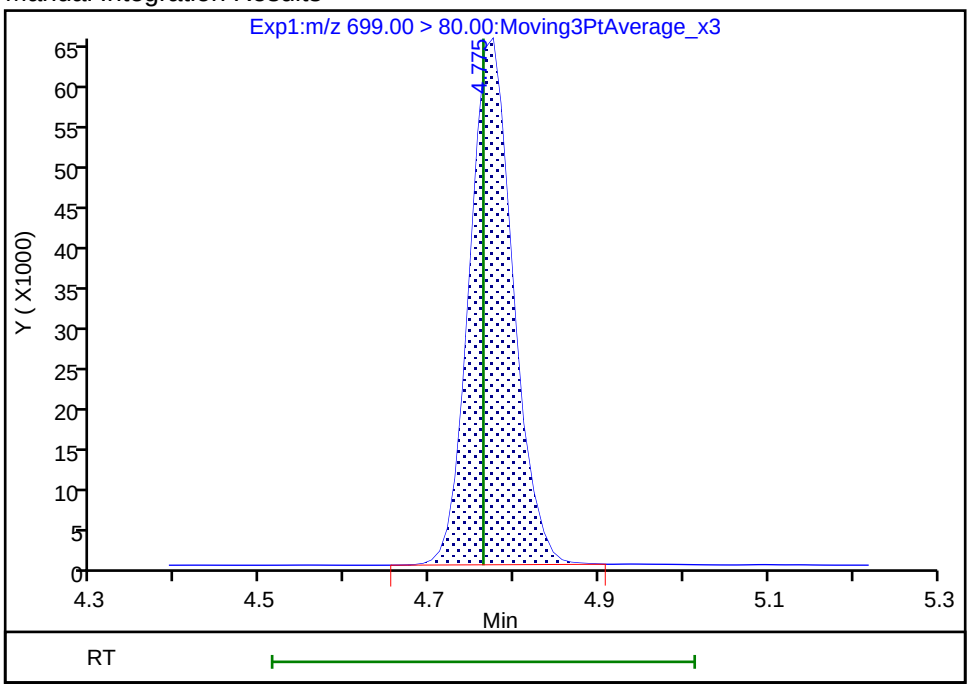
Processing Integration Results

RT: 4.77
Area: 231968
Amount: 1.029268
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 231503
Amount: 1.027205
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:46:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

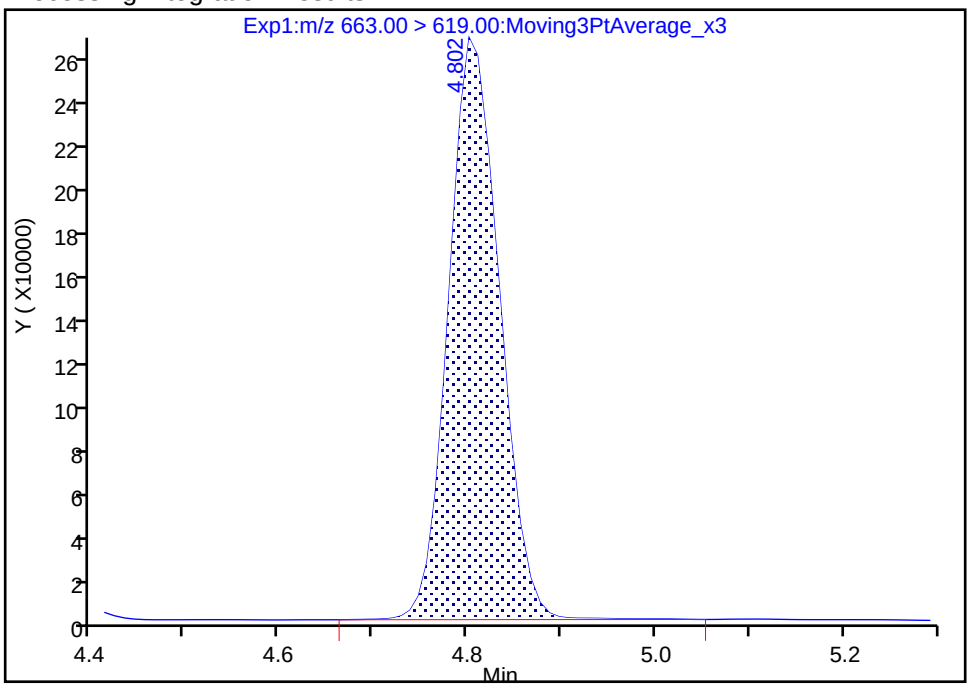
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A30.d
Injection Date: 10-Nov-2021 15:20:00 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

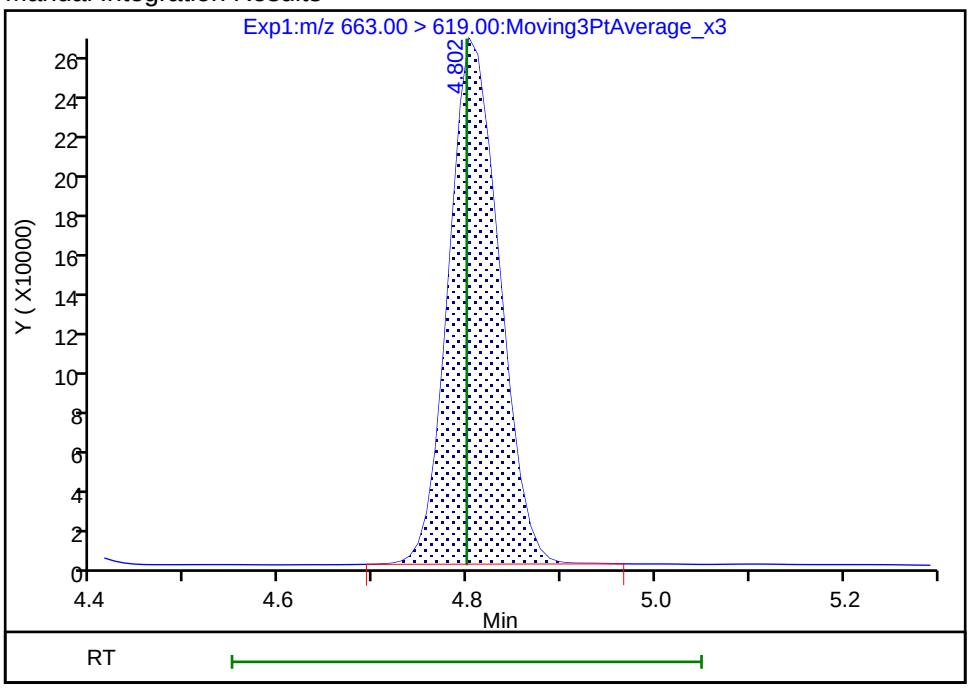
Processing Integration Results

RT: 4.80
Area: 1006457
Amount: 1.040508
Amount Units: ng/ml




Manual Integration Results

RT: 4.80
Area: 1001262
Amount: 1.035138
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:46:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173528/1-A

Matrix: Water  Lab File ID: PA211109D02.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 04:20

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.25 | U | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.879 | J | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173528/1-A

Matrix: Water  Lab File ID: PA211109D02.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 04:20

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL01892 | 13C4 PFHpA | 101 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 97 | | 50-150 |
| STL00995 | 13C5 PFNA | 96 | | 50-150 |
| STL00992 | 13C4 PFBA | 118 | | 25-150 |
| STL00993 | 13C2 PFHxA | 104 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 84 | | 50-150 |
| STL00998 | 13C2 PFDoA | 77 | | 50-150 |
| STL01056 | 13C8 FOSA | 82 | | 25-150 |
| STL01893 | 13C5 PFPeA | 107 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 71 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 95 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 96 | | 50-150 |
| STL02279 | M2-6:2 FTS | 111 | | 25-150 |
| STL02280 | M2-8:2 FTS | 111 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Lims ID: MB 200-173528/1-A
Client ID:
Sample Type: MB
Inject. Date: 10-Nov-2021 04:20:21 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: MB 200-173528/1-A
Misc. Info.: 200-0048356-002 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 10-Nov-2021 16:40:43
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 2087369 | 1.48 | | 118 | 9300 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 6422 | 0.004067 | | | 0.5 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.413 | -0.013 | 0.687 | 1598268 | 1.34 | | 107 | 3344 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.400 | 2.413 | -0.013 | 1.000 | 7163 | 0.005592 | | | 0.3 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1746887 | 1.08 | | 93.3 | 284526 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 3676 | 0.002290 | Target=2.32 | | 5.5 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 2098 | | 1.75(1.16-3.48) | | 1.4 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 352 | 0.001172 | | | 6.4 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 164684 | 1.34 | | 115 | 137 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1617878 | 1.30 | | 104 | 2939 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 3044 | 0.002319 | Target=12.09 | | 0.7 | M |
| 313.00 > 119.00 | 2.782 | 2.770 | 0.012 | 1.004 | 356 | | 8.55(6.04-18.13) | | 0.4 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.867 | 0.0 | 0.821 | 39082 | 1.19 | | 95.0 | 313 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 6477 | 0.005372 | Target=3.55 | | 18.5 | M |
| 399.00 > 99.00 | 3.121 | 3.132 | -0.011 | 0.997 | 1422 | | 4.55(1.77-5.32) | | 1.9 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1296823 | 1.11 | | 93.7 | 2768 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1662459 | 1.26 | | 101 | 4070 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.003 | 2505 | 0.001823 | Target=3.69 | | 0.9 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 458 | | 5.47(1.84-5.53) | | 1.1 | M |
| 77 DONA | | | | | | | | | | RM |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2398 | 0.000833 | Target=2.56 | | 4.0 | R |
| 377.00 > 85.00 | 3.164 | 3.175 | -0.011 | 0.834 | 1885 | | 1.27(1.28-3.84) | | 2.8 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.492 | 3.483 | 0.009 | 1.005 | 236 | 0.000905 | | | 4.0 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.995 | 244262 | 1.32 | | 111 | 675 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1718036 | 1.20 | | 95.7 | 7165 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1745010 | 1.25 | | | 5920 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 2533 | 0.001733 | Target=2.68 | | 0.5 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1570 | | 1.61(1.34-4.02) | | 3.8 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 982892 | 1.16 | | 97.3 | 3954 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.003 | 2950 | 0.003305 | Target=4.69 | | 5.2 | M |
| 499.00 > 99.00 | 3.664 | 3.804 | -0.140 | 0.966 | 1137 | | 2.59(2.35-7.04) | | 2.4 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1717622 | 1.20 | | 96.0 | 6254 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 2993 | 0.002226 | Target=7.29 | | 0.8 | M |
| 463.00 > 169.00 | 3.804 | 3.814 | -0.010 | 0.997 | 673 | | 4.45(3.64-10.93) | | 7.1 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.045 | 1069 | 0.000795 | | | 6.6 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.104 | 4.081 | 0.023 | 1.082 | 673 | 0.000968 | Target=2.35 | | 11.2 | M |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.079 | 569 | | 1.18(1.17-3.52) | | 3.0 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1570351 | 1.09 | | 87.0 | 6664 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 2640 | 0.002091 | Target=8.95 | | 2.2 | M |
| 513.00 > 169.00 | 4.104 | 4.115 | -0.011 | 0.997 | 461 | | 5.73(4.47-13.42) | | 3.6 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 278603 | 1.33 | | 111 | 965 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 217 | 0.001115 | | | 7.4 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1430502 | 1.03 | | 82.2 | 2927 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 2507 | 0.002307 | | | 9.2 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 168367 | 1.19 | | 94.8 | 1159 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.257 | -0.011 | 0.997 | 2232 | 0.0211 | | | 9.1 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | RM |
| 599.00 > 80.00 | 4.337 | 4.346 | -0.009 | 1.143 | 358 | 0.000662 | Target=2.47 | | 5.0 | RM |
| 599.00 > 99.00 | 4.348 | 4.346 | 0.002 | 1.146 | 74 | | 4.84(1.23-3.70) | | 1.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.370 | 4.369 | 0.002 | 1.251 | 1185908 | 1.05 | | 84.3 | 4060 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.370 | 4.369 | 0.002 | 1.000 | 1759 | 0.001739 | Target=9.24 | | 1.5 | M |
| 563.00 > 169.00 | 4.370 | 4.369 | 0.002 | 1.000 | 356 | | 4.94(4.62-13.86) | | 8.5 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.255 | 159614 | 1.20 | | 96.0 | 1189 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.381 | 4.380 | 0.001 | 1.000 | 2405 | 0.0220 | | | 22.0 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.468 | 4.456 | 0.012 | 1.177 | 1555 | 0.000979 | | | 10.3 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.591 | 0.0 | 1.315 | 1168866 | 0.9656 | | 77.2 | 1613 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.591 | 4.591 | 0.0 | 1.000 | 2747 | 0.003001 | Target=7.04 | | 0.7 | |
| 613.00 > 169.00 | 4.581 | 4.591 | -0.010 | 0.998 | 284 | | 9.67(3.52-10.56) | | 4.5 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.633 | 4.612 | 0.021 | 1.123 | 208 | 0.002313 | | | 5.5 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.766 | 4.756 | 0.010 | 1.256 | 300 | 0.001509 | Target=0.49 | | 6.3 | M |
| 699.00 > 99.00 | 4.784 | 4.756 | 0.028 | 1.261 | 483 | | 0.62(0.25-0.74) | | 5.7 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.802 | 4.792 | 0.010 | 1.046 | 1986 | 0.002516 | Target=4.68 | | 0.7 | |
| 663.00 > 169.00 | 4.811 | 4.792 | 0.019 | 1.048 | 618 | | 3.21(2.34-7.02) | | 6.2 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 831867 | 0.8860 | | 70.9 | 2599 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.966 | 4.966 | 0.0 | 0.998 | 220 | 0.002095 | Target=1.01 | | 7.3 | RM |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 499 | | 0.44(0.51-1.52) | | 12.7 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.282 | 5.270 | 0.012 | 1.513 | 757304 | 0.9160 | | 73.3 | 3607 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.002 | 8390 | -0.002553 | Target=4.57 | | 3.2 | |
| 813.00 > 169.00 | 5.282 | 5.270 | 0.012 | 1.000 | 1738 | | 4.83(2.29-6.86) | | 43.3 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.052 | 1299 | 0.002542 | Target=4.27 | | 0.9 | |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.050 | 528 | | 2.46(2.14-6.41) | | 16.0 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

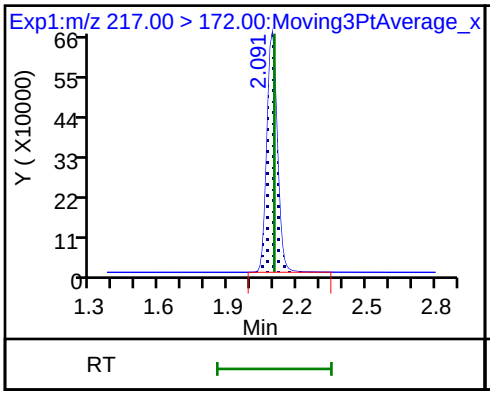
M - Manually Integrated

Report Date: 11-Nov-2021 11:25:49 Chrom Revision: 2.3 22-Sep-2021 15:38:46

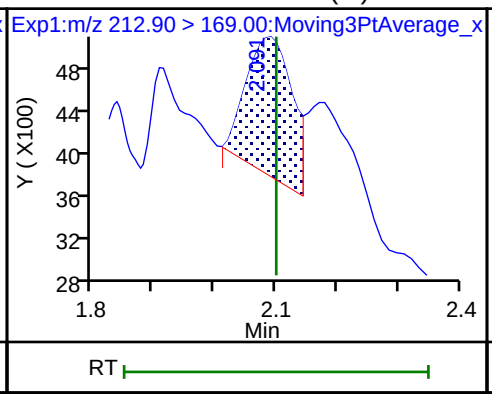
Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL

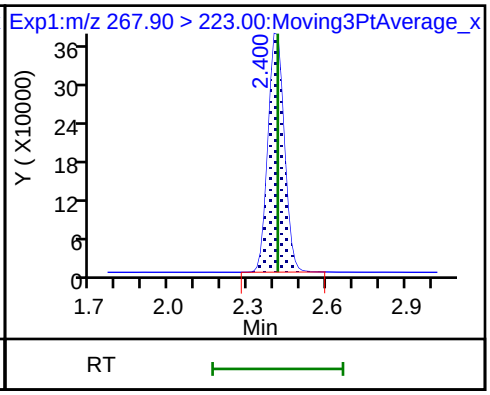
D 1 13C4 PFBA



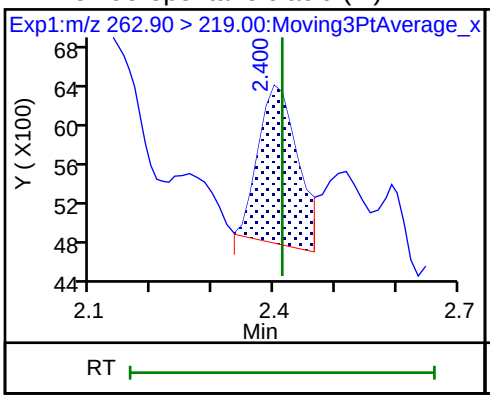

2 Perfluorobutanoic acid (M)



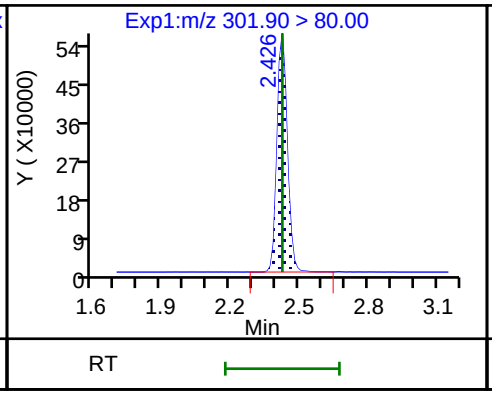

D 3 13C5 PFPeA



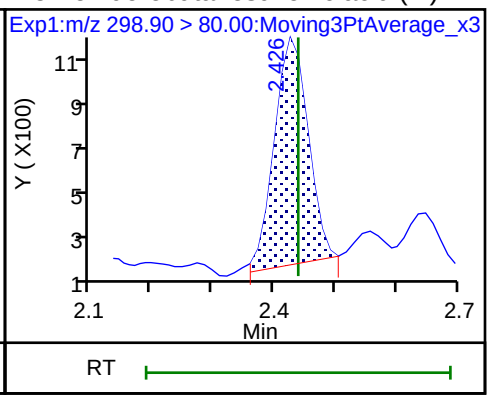

4 Perfluoropentanoic acid (M)



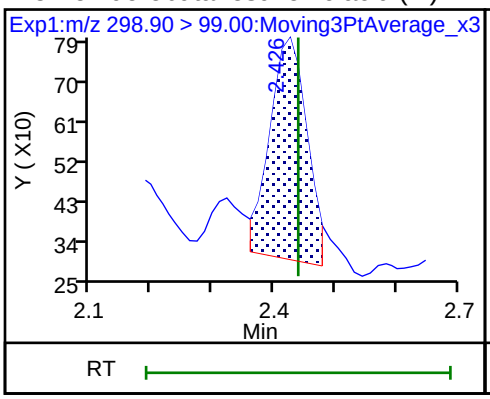

D 47 13C3 PFBS



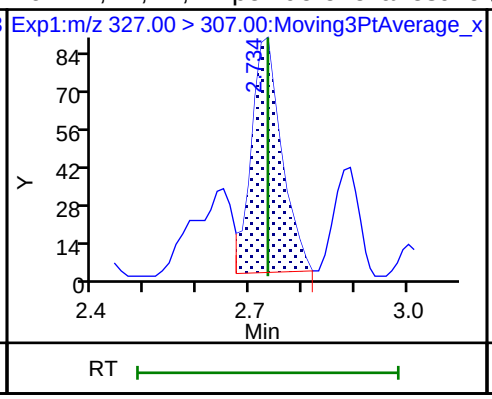

5 Perfluorobutanesulfonic acid (M)



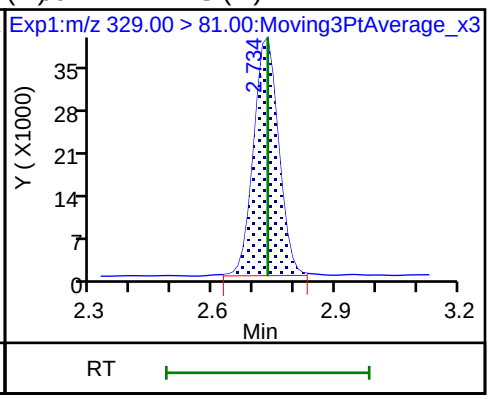

5 Perfluorobutanesulfonic acid (M)



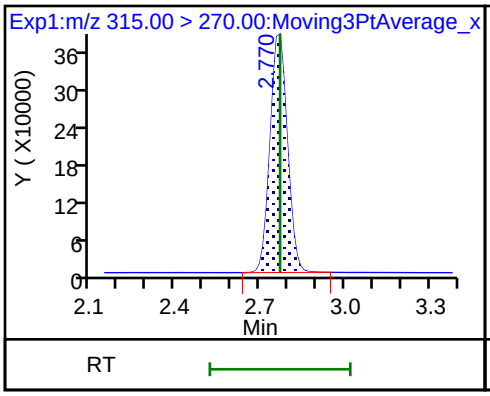

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



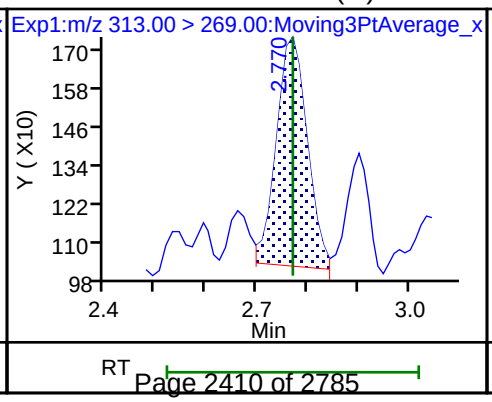

60 M2-4:2 FTS (M)



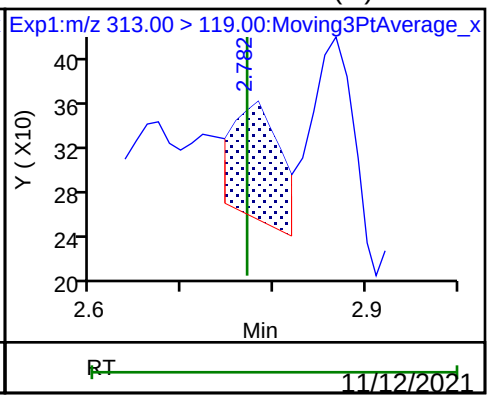

D 7 13C2 PFHxA



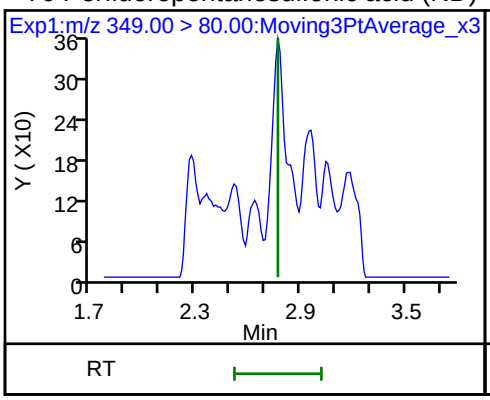

6 Perfluorohexanoic acid (M)



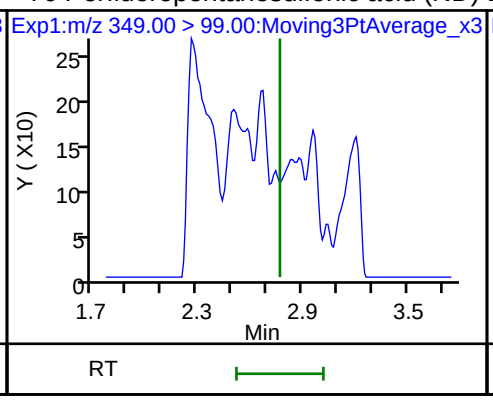

6 Perfluorohexanoic acid (M)



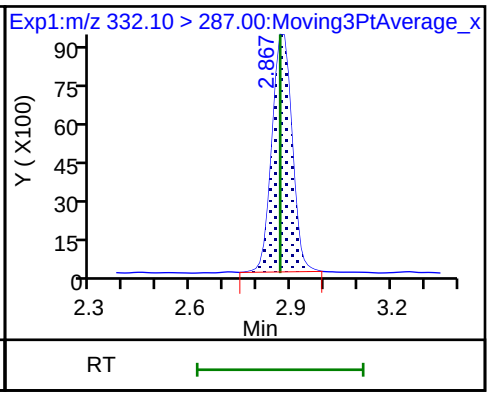
70 Perfluoropentanesulfonic acid (ND)



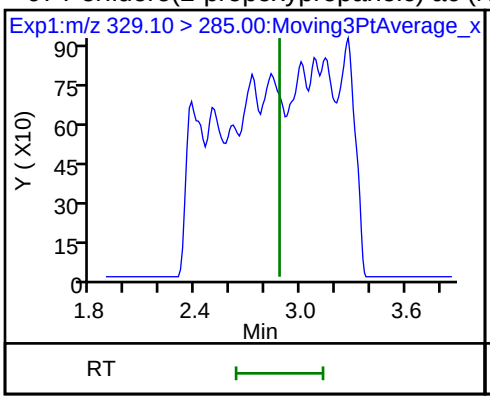

70 Perfluoropentanesulfonic acid (ND) D



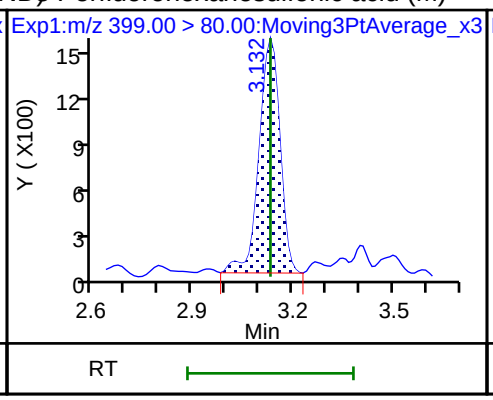

64 13C3 HFPO-DA




67 Perfluoro(2-propoxypropanoic) ac (ND)




8 Perfluorohexanesulfonic acid (M)

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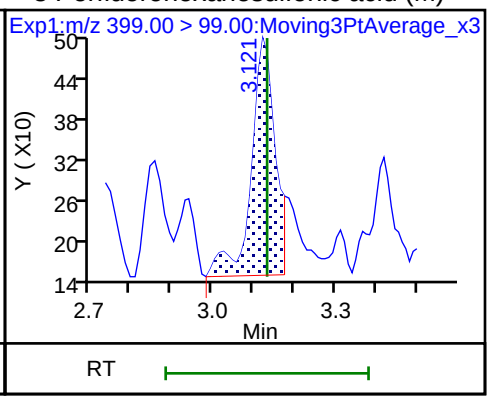
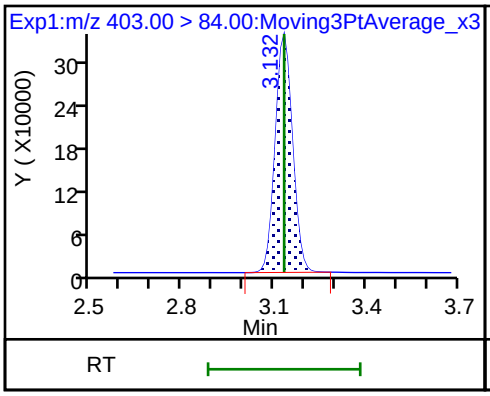
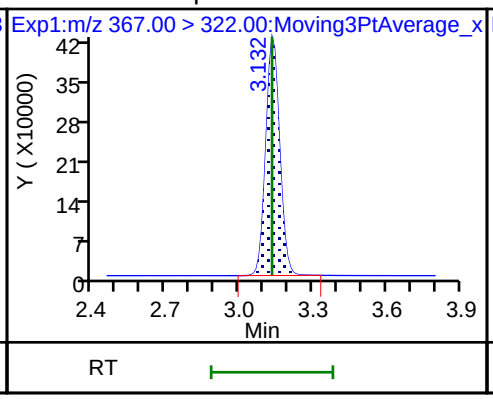


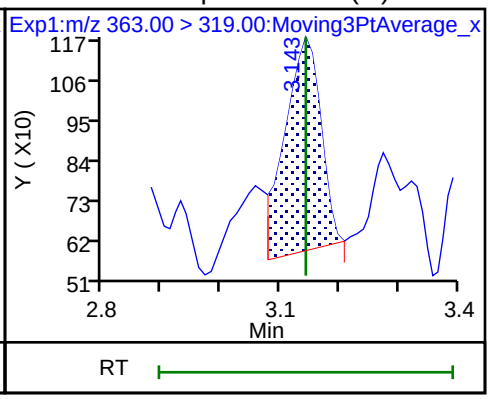

D 11 18O2 PFHxS




D 9 13C4 PFHpA




10 Perfluoroheptanoic acid (M)

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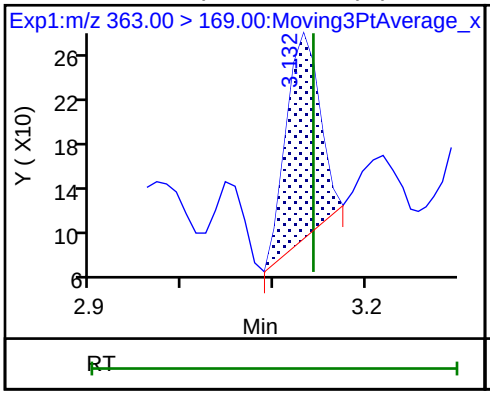
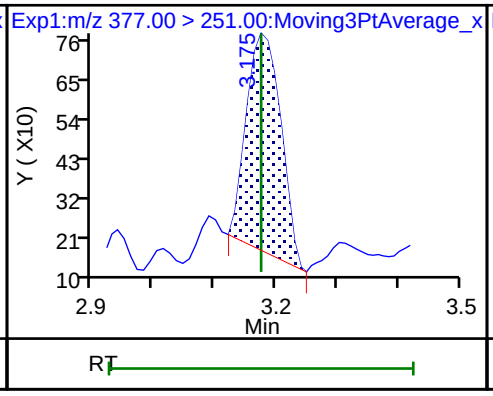
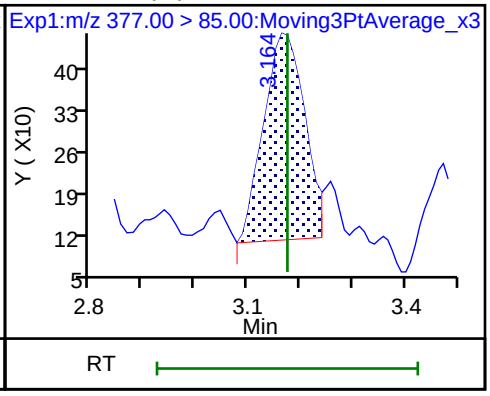


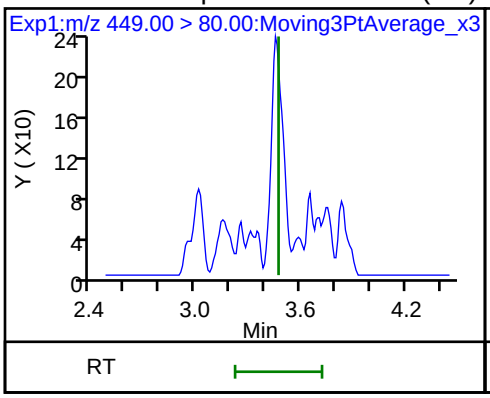

77 DONA




77 DONA (M)



16 Perfluoroheptanesulfonic acid (ND)

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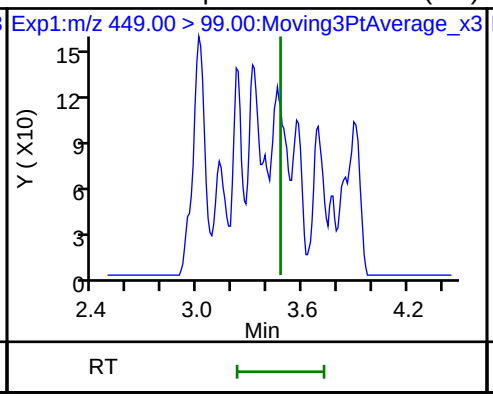
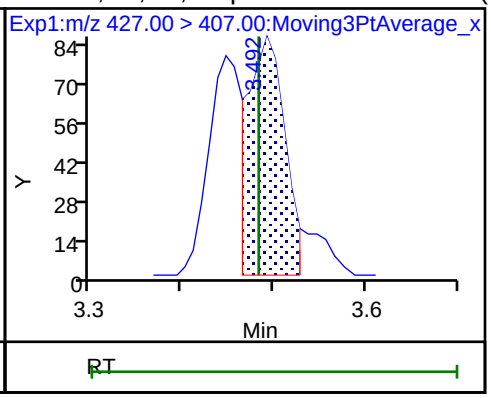
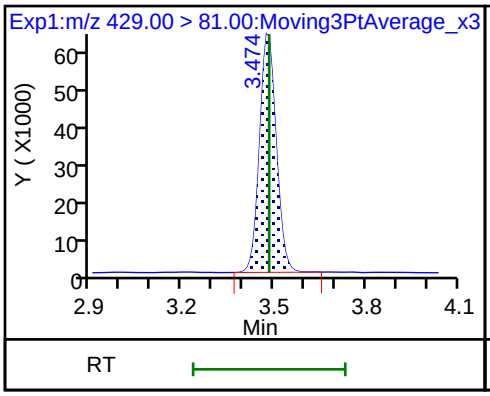


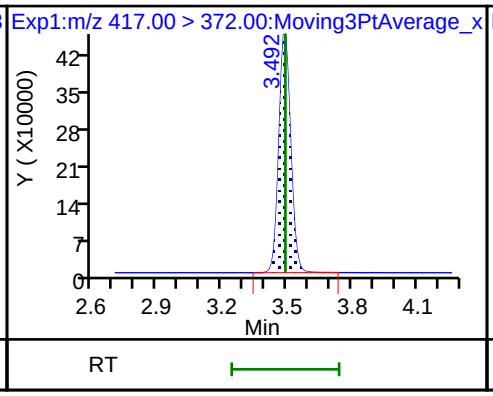

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



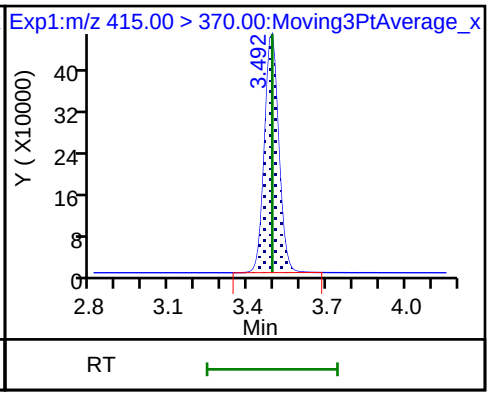

D 12 M2-6:2 FTS



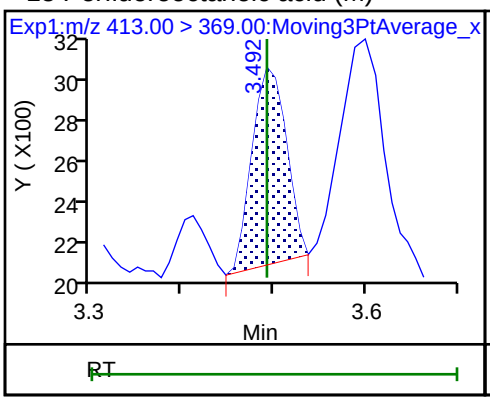

D 14 13C4 PFOA




* 62 13C2 PFOA




15 Perfluorooctanoic acid (M)

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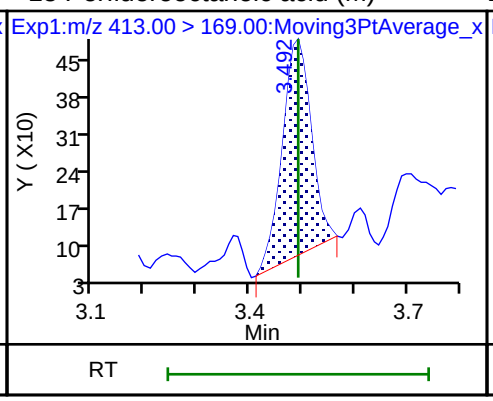
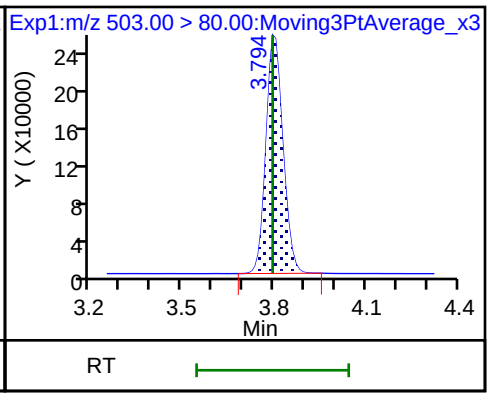
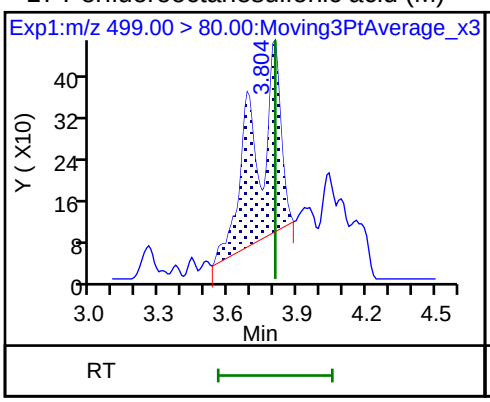


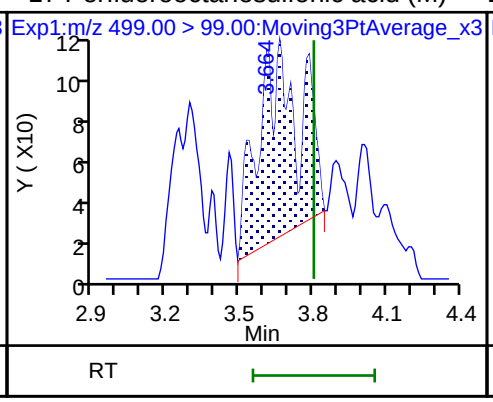

D 18 13C4 PFOS



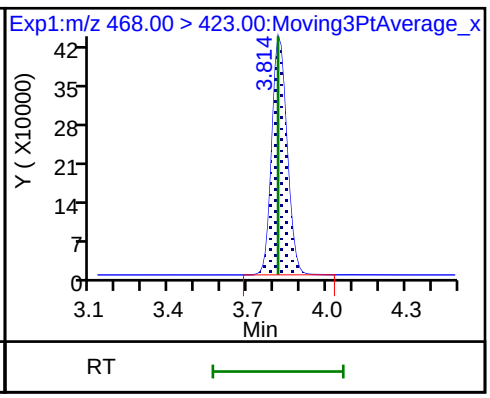

17 Perfluorooctanesulfonic acid (M)



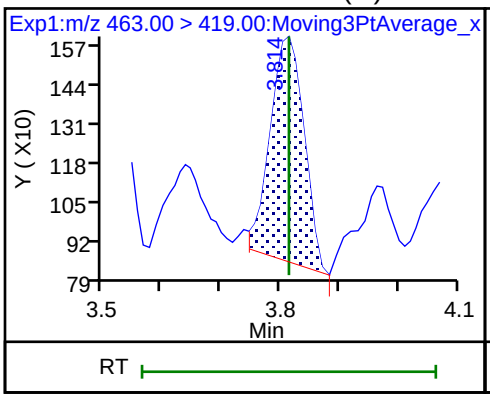

17 Perfluorooctanesulfonic acid (M)



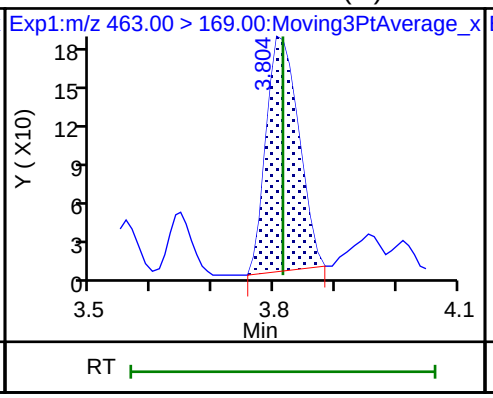

D 19 13C5 PFNA



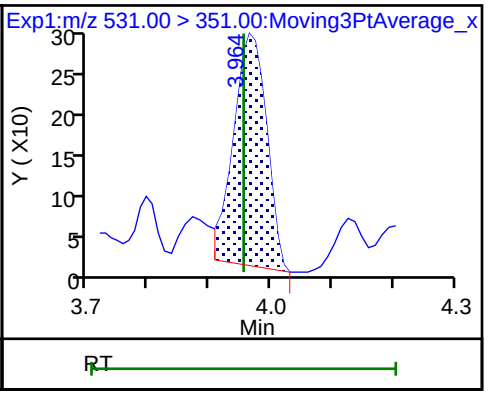
20 Perfluorononanoic acid (M)



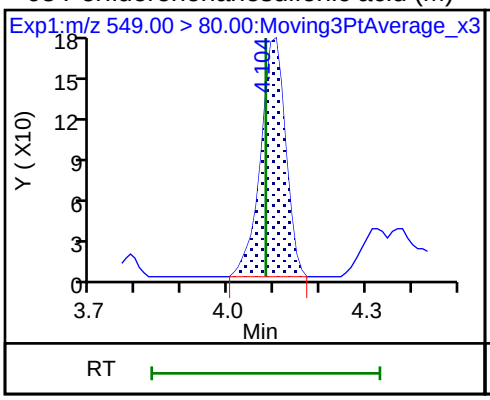

20 Perfluorononanoic acid (M)



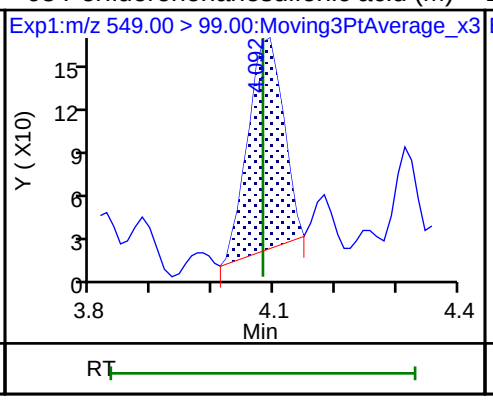

69 9-Chlorohexadecafluoro-3-oxanona (M)



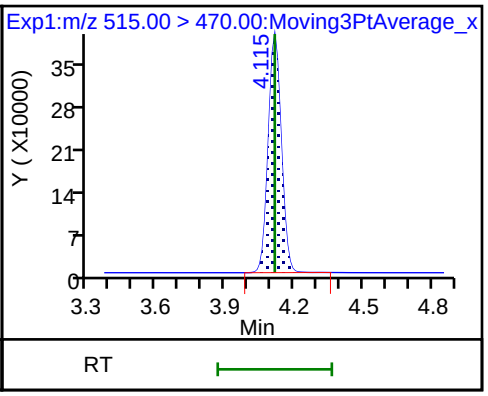

68 Perfluorononanesulfonic acid (M)



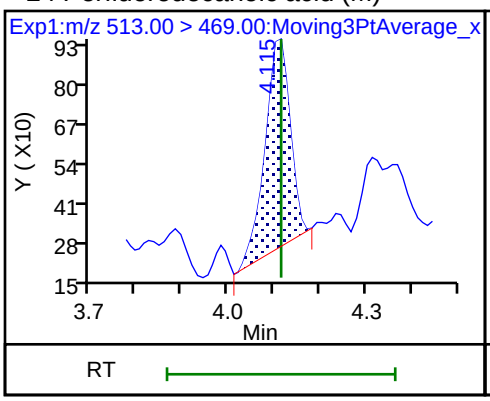

68 Perfluorononanesulfonic acid (M)



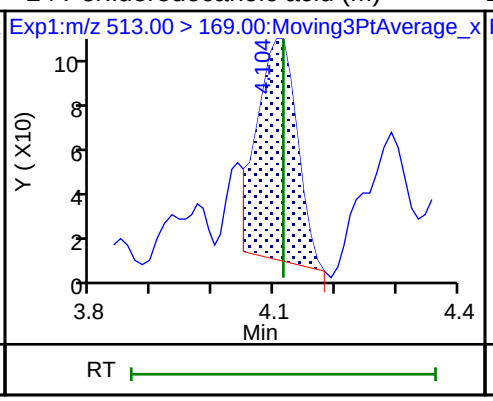

D 23 13C2 PFDA



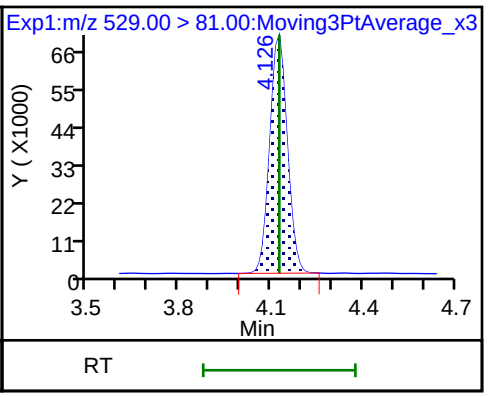

24 Perfluorodecanoic acid (M)



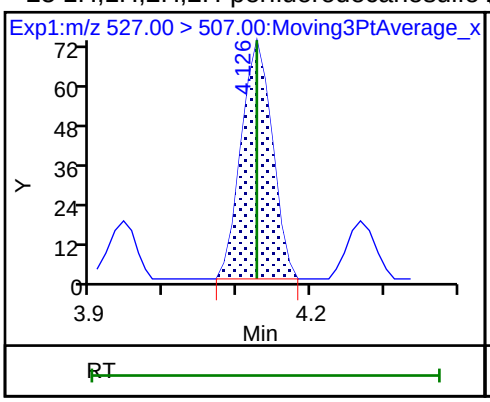

24 Perfluorodecanoic acid (M)



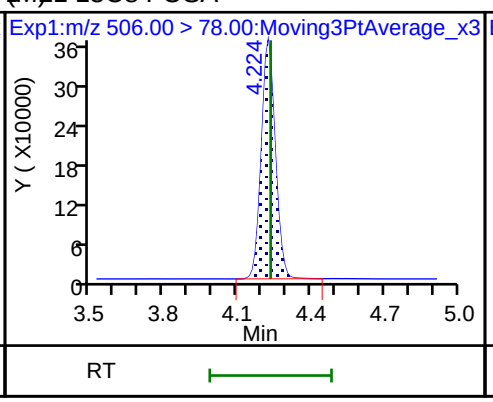

D 26 M2-8:2 FTS



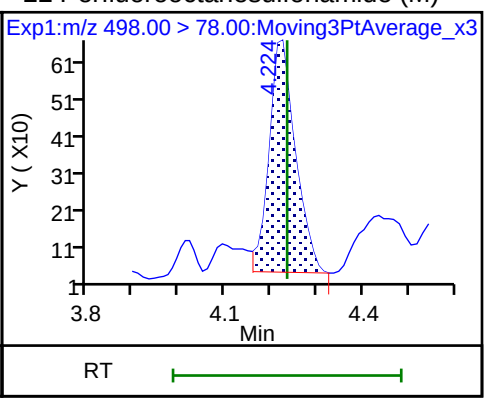

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



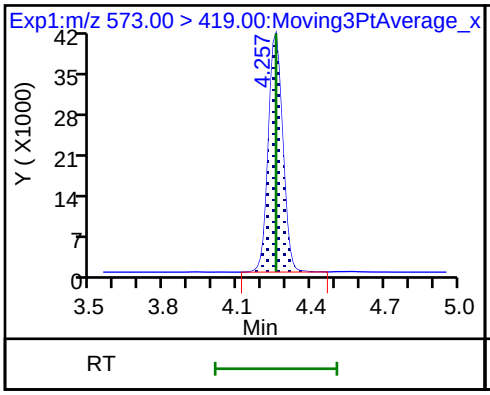

D 21 13C8 FOSA



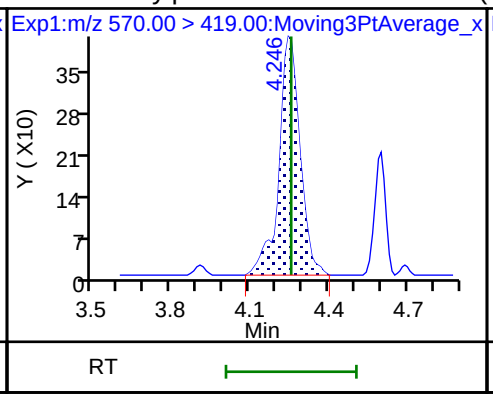

22 Perfluorooctanesulfonamide (M)



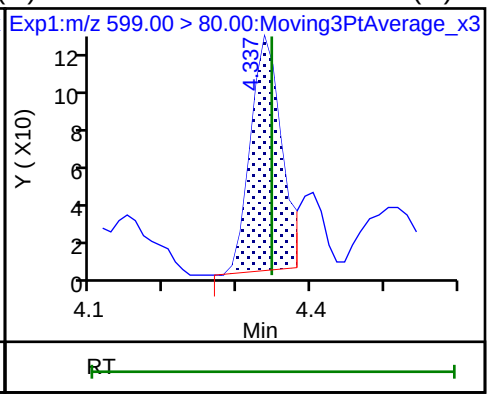
D 27 d3-NMeFOSAA



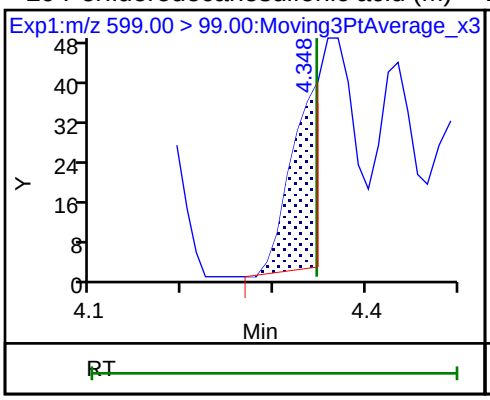

28 N-methylperfluorooctanesulfonami (M)



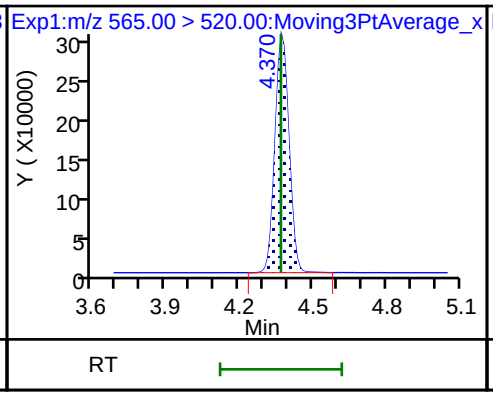

29 Perfluorodecanesulfonic acid (M)



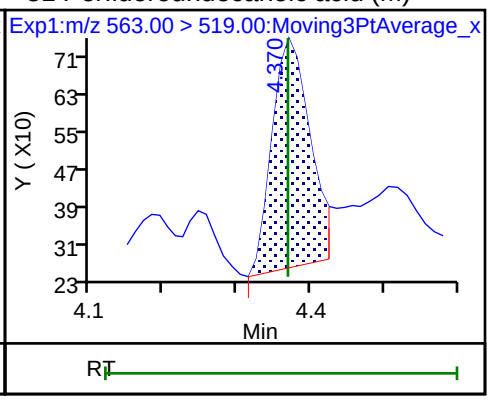

29 Perfluorodecanesulfonic acid (M)



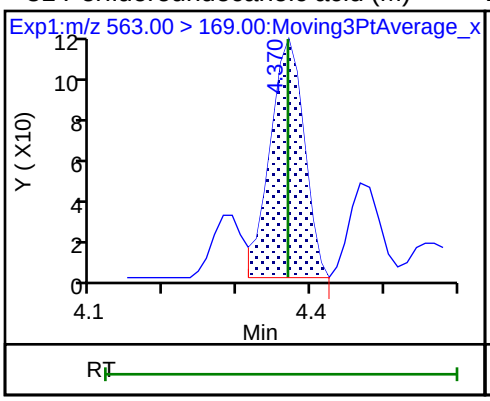

D 30 13C2 PFUnA



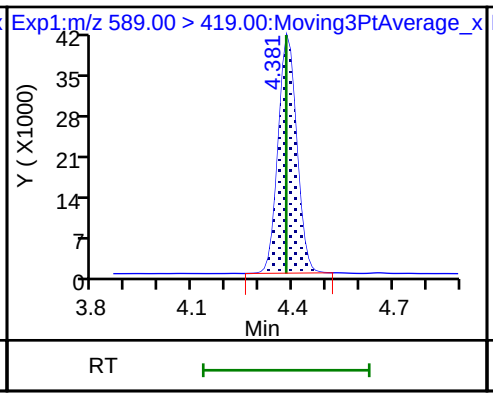

31 Perfluoroundecanoic acid (M)



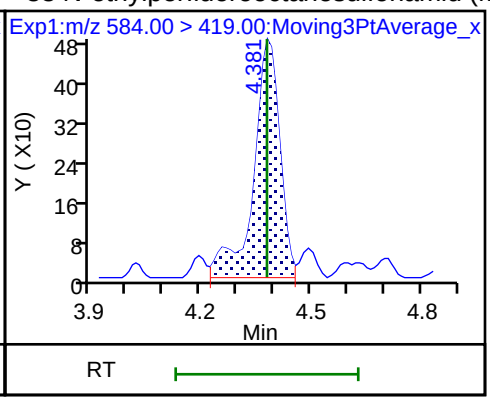

31 Perfluoroundecanoic acid (M)



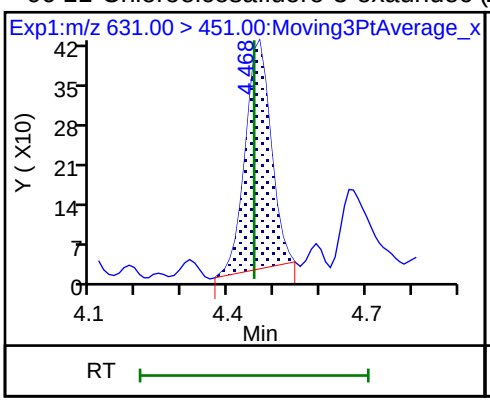

D 32 d5-NEtFOSAA



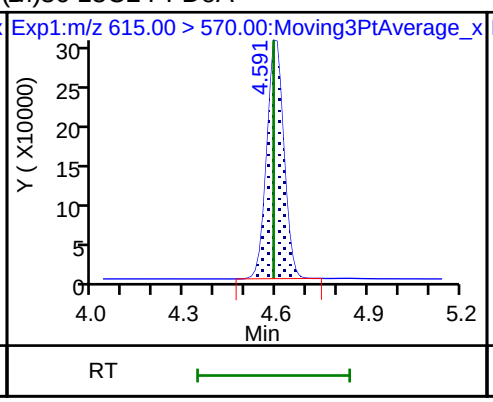

33 N-ethylperfluorooctanesulfonamid (M)



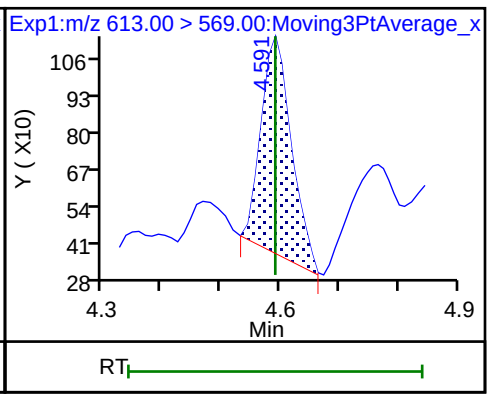

66 11-Chloroeicosafluoro-3-oxaundec (M)



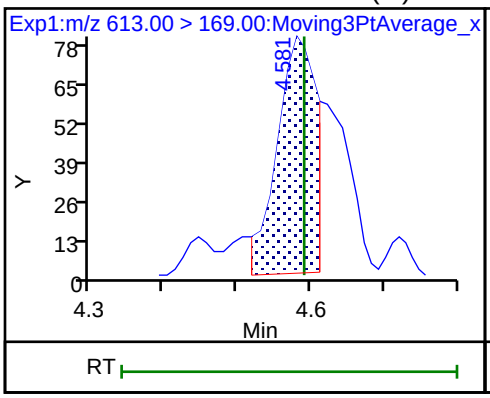

D 36 13C2 PFDoA



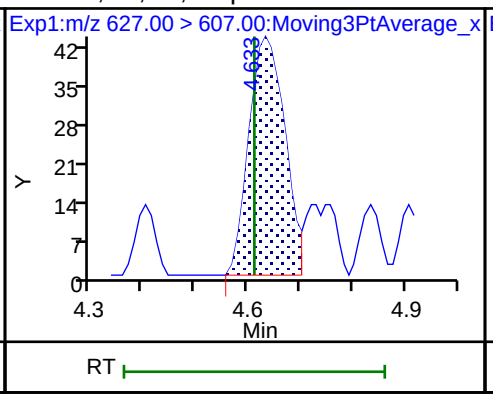

37 Perfluorododecanoic acid



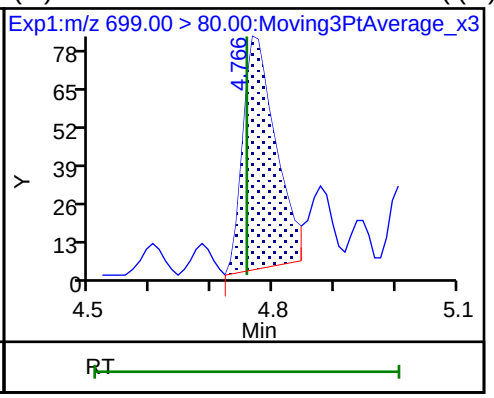
37 Perfluorododecanoic acid (M)



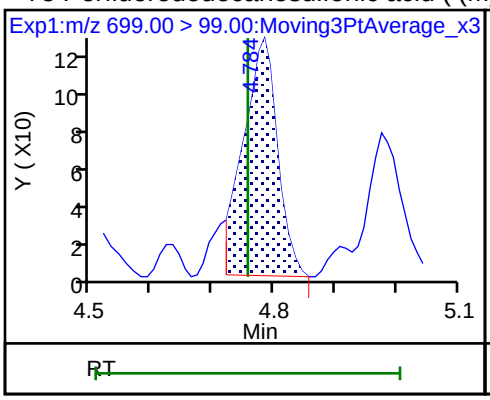

74 1H,1H,2H,2H-perfluorododecanesul (M)



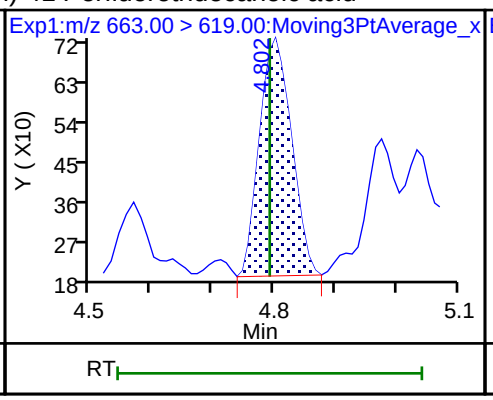

75 Perfluorododecanesulfonic acid ( (M)



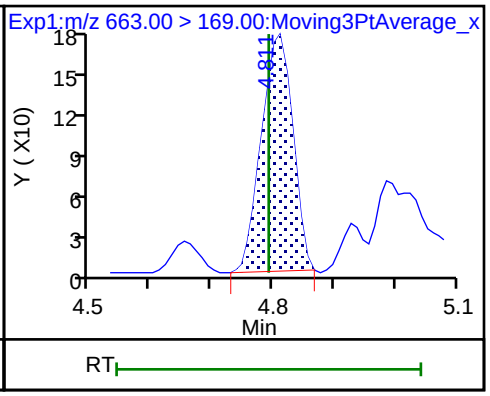

75 Perfluorododecanesulfonic acid ( (M)



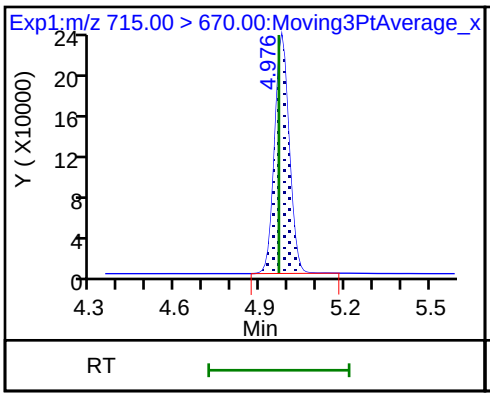

41 Perfluorotridecanoic acid



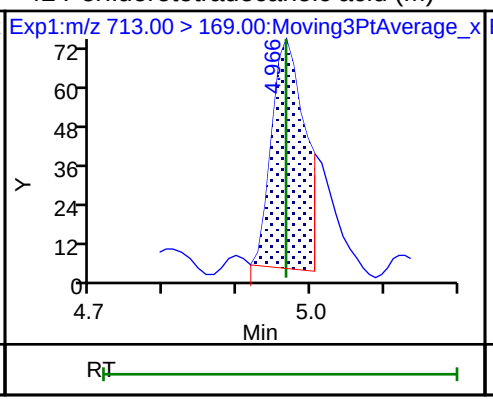

41 Perfluorotridecanoic acid



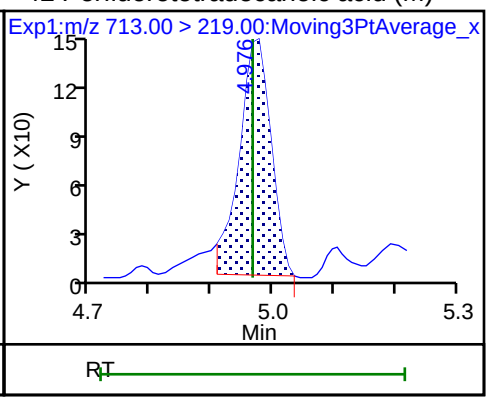

D 43 13C2 PFTeDA



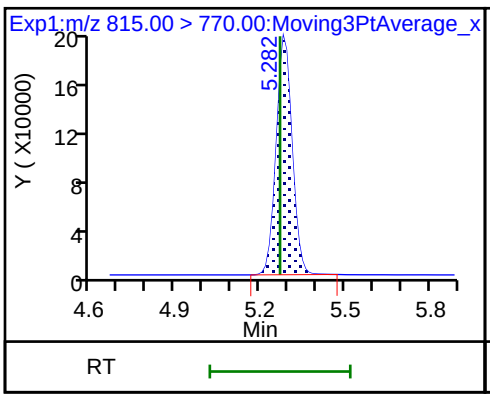

42 Perfluorotetradecanoic acid (M)



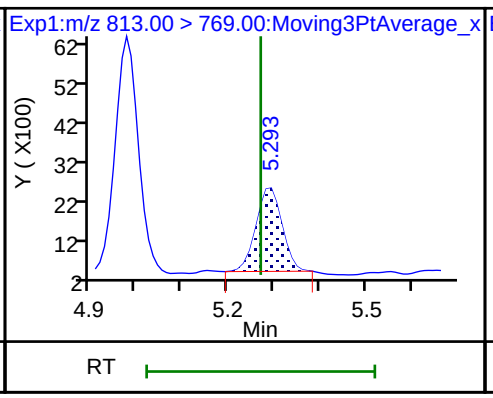

42 Perfluorotetradecanoic acid (M)



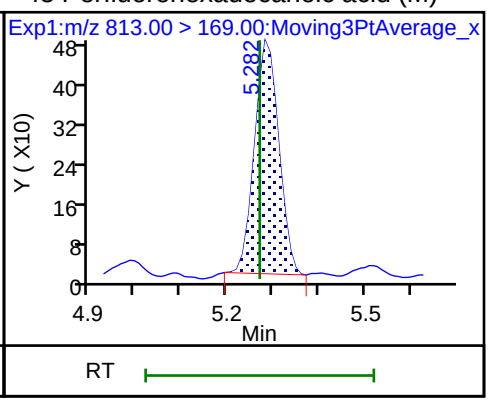

D 44 13C2 PFHxDA



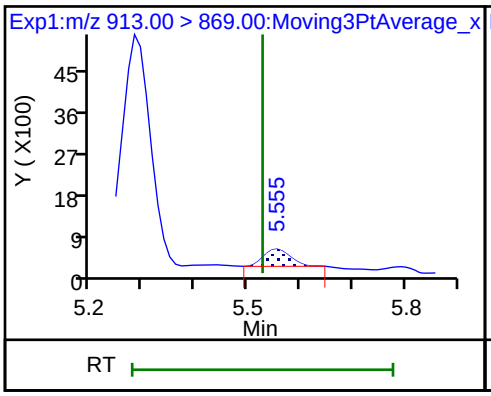

45 Perfluorohexadecanoic acid



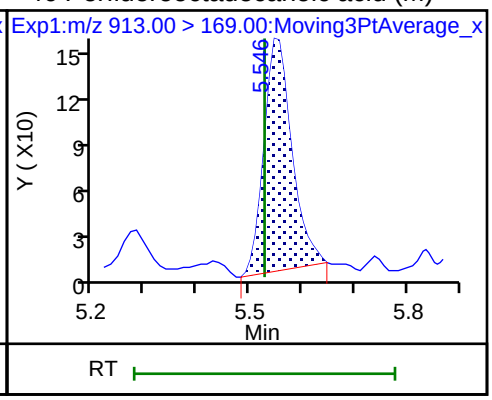

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

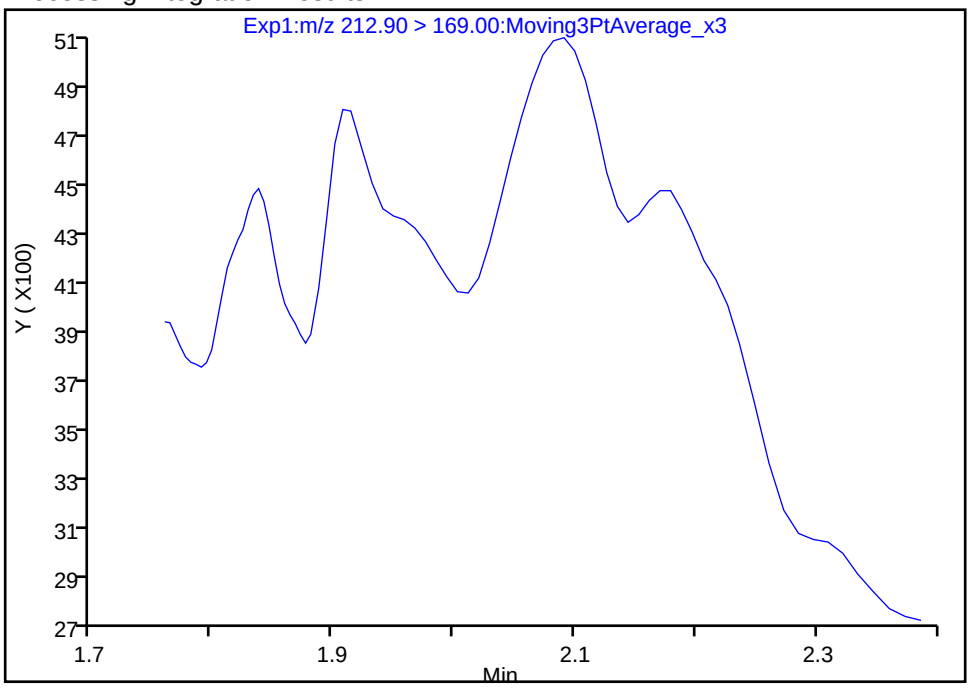
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

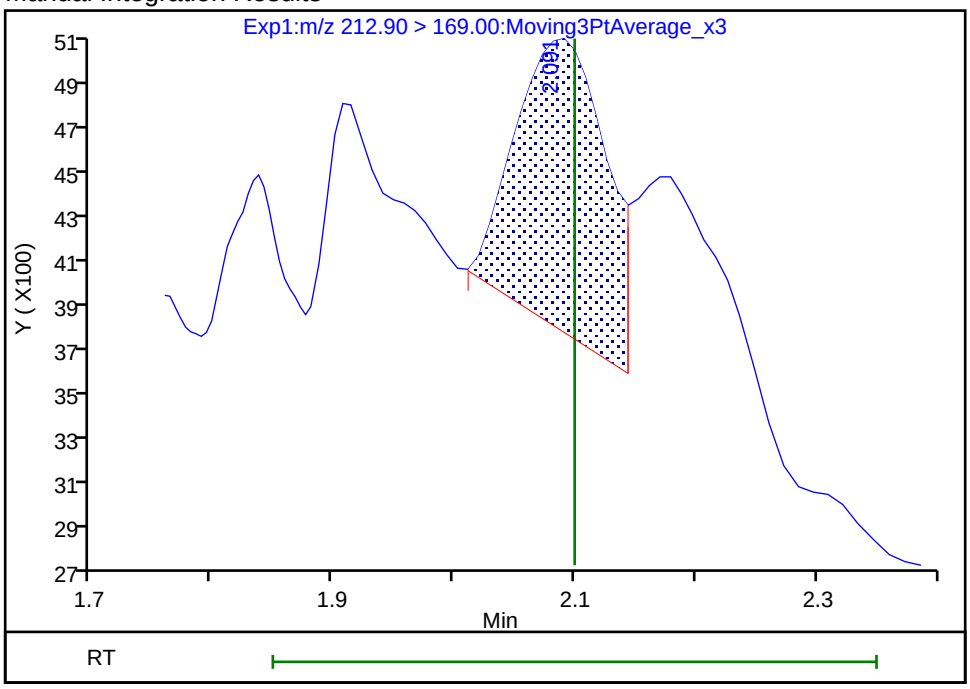
Not Detected
Expected RT: 2.10

Processing Integration Results




Manual Integration Results

RT: 2.09
Area: 6422
Amount: 0.004067
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:15:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

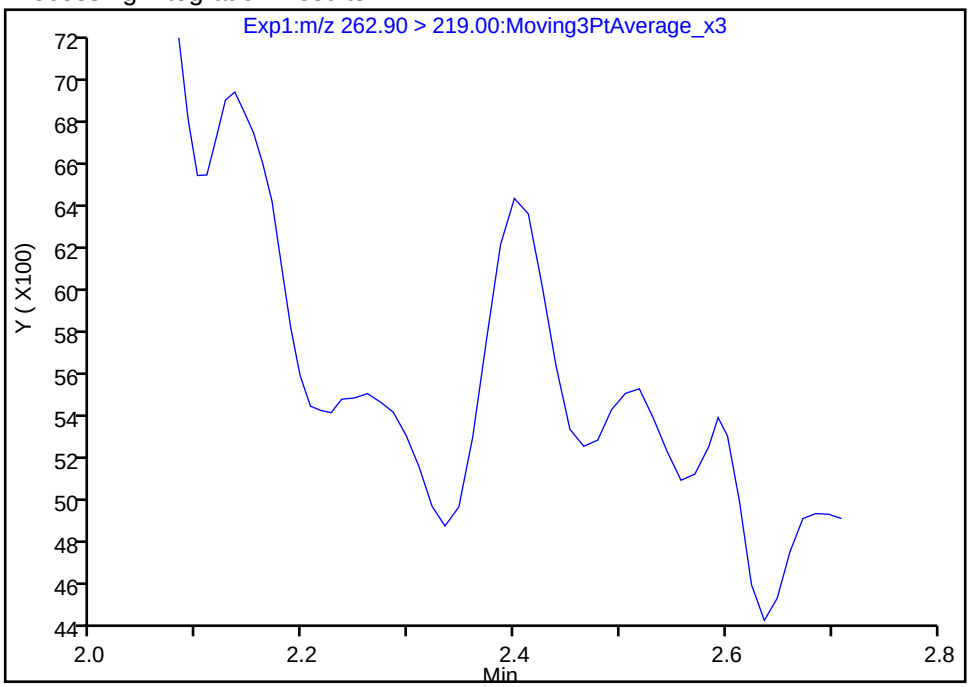
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

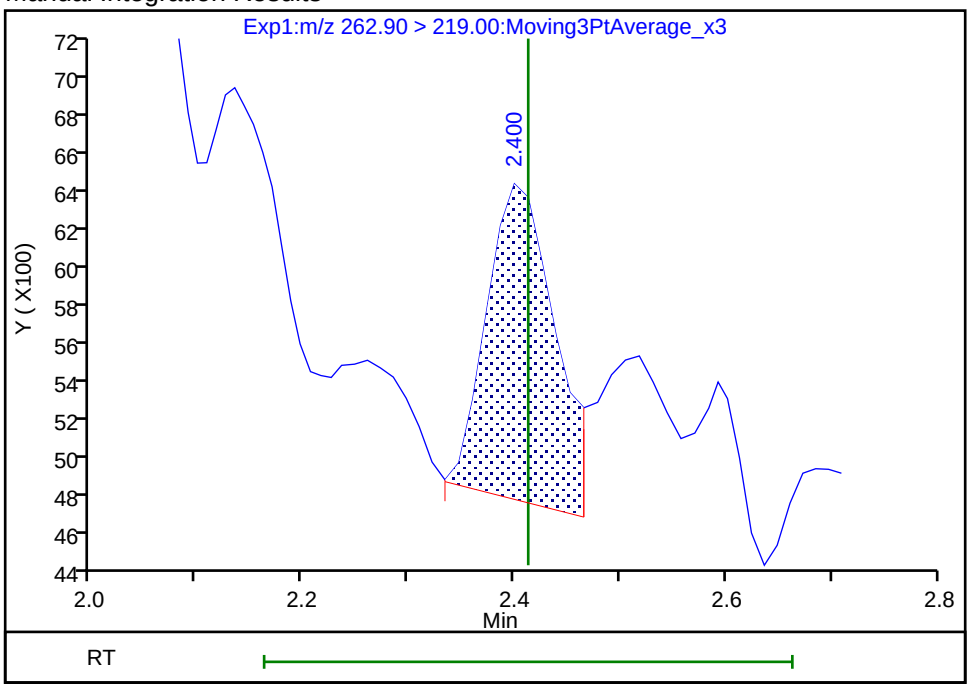
Not Detected
Expected RT: 2.41

Processing Integration Results




Manual Integration Results

RT: 2.40
Area: 7163
Amount: 0.005592
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:16:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

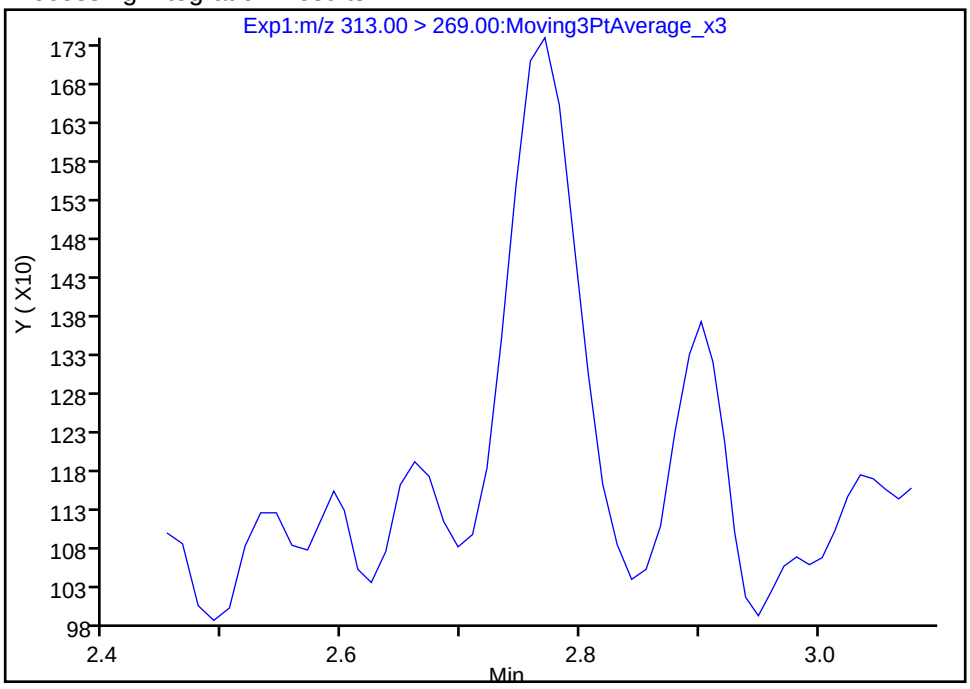
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

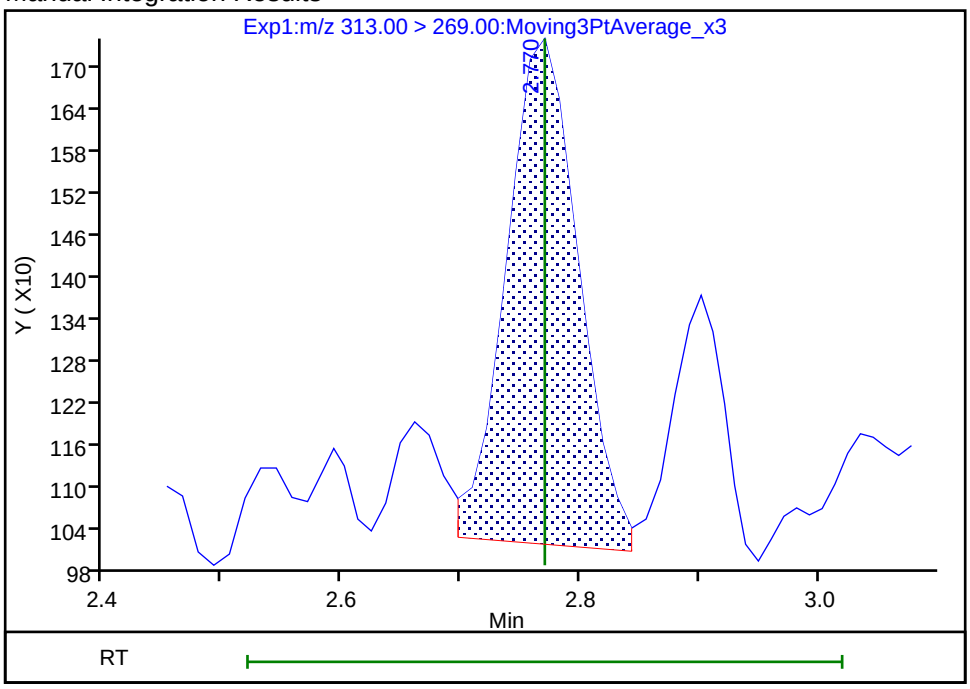
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.77
Area: 3044
Amount: 0.002319
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:16:54
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

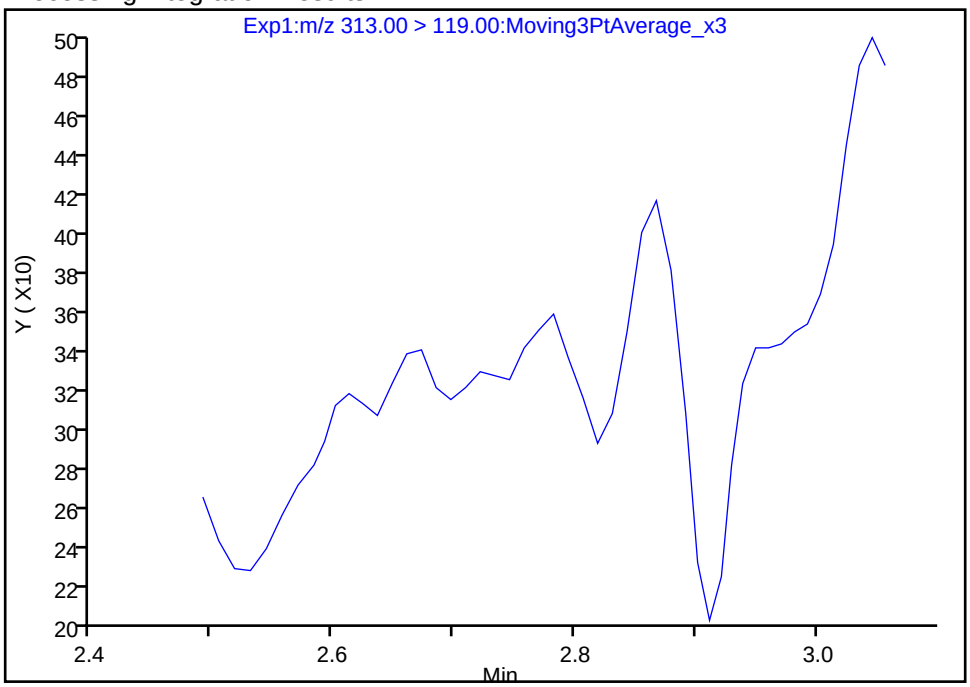
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

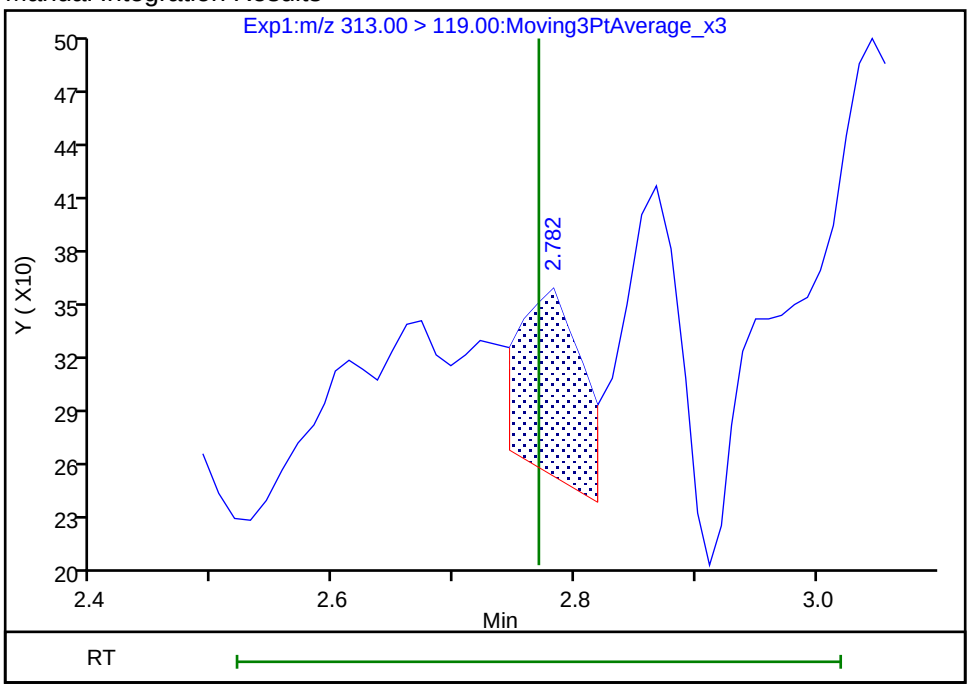
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.78
Area: 356
Amount: 0.002319
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:17:12
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

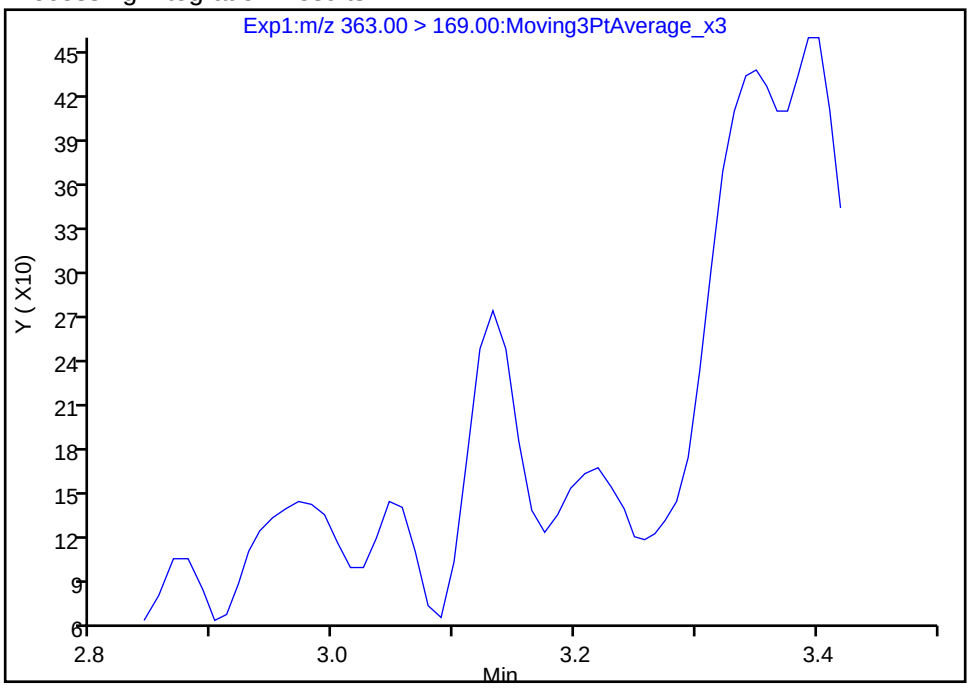
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

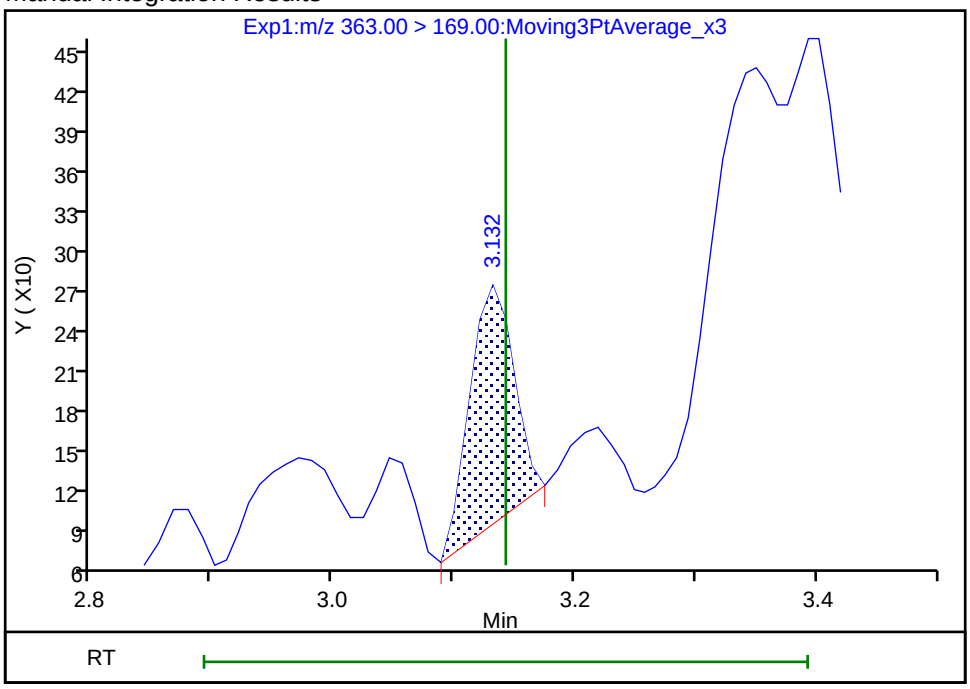
Not Detected
Expected RT: 3.14

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 458
Amount: 0.001823
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:37:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

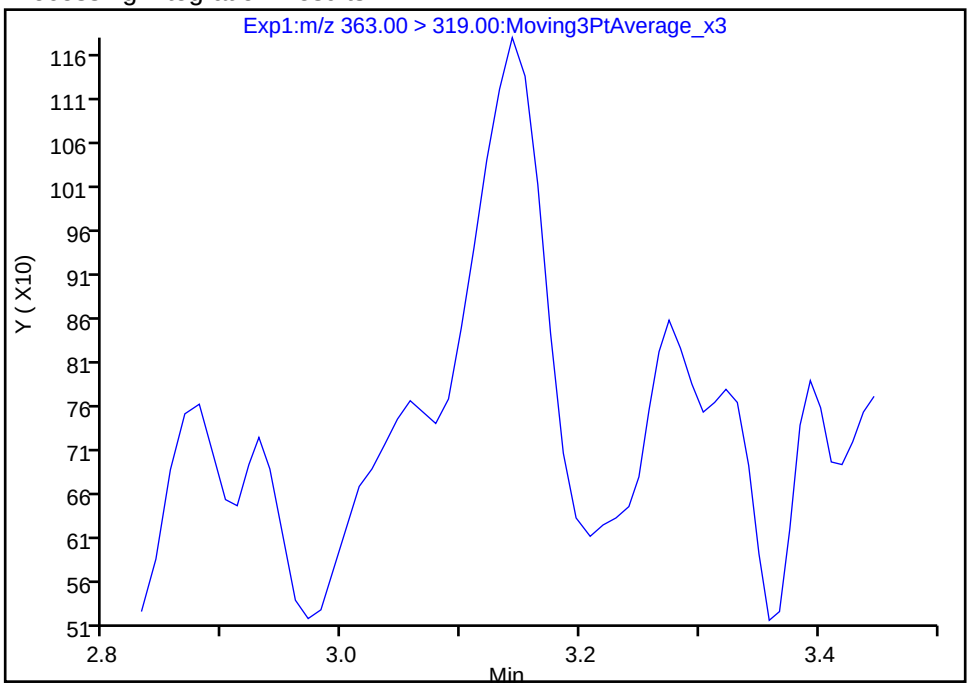
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

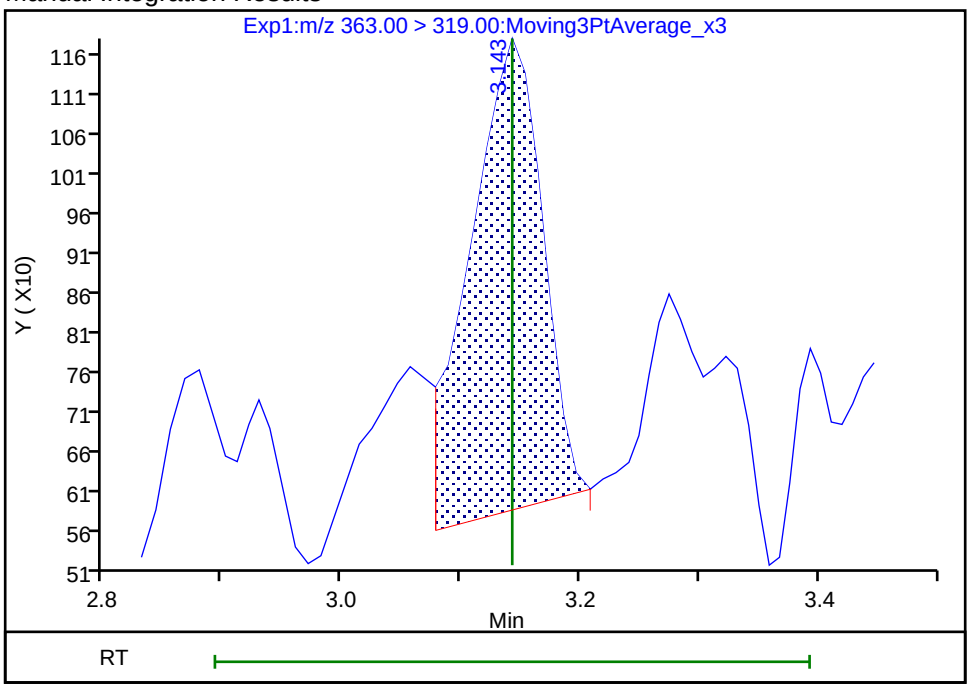
Not Detected
Expected RT: 3.14

Processing Integration Results




Manual Integration Results

RT: 3.14
Area: 2505
Amount: 0.001823
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:37:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

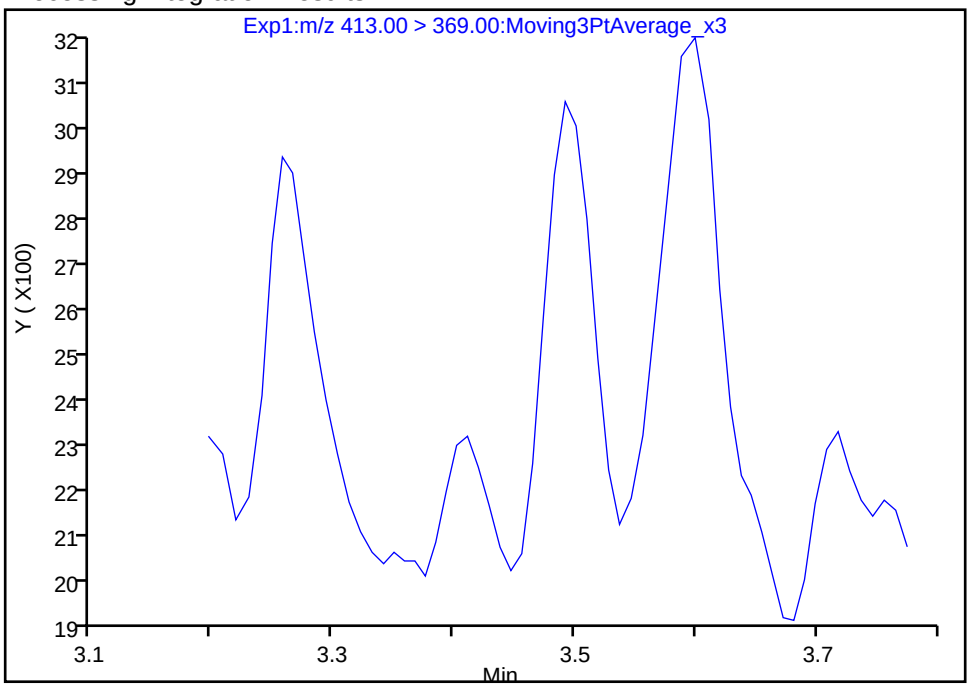
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

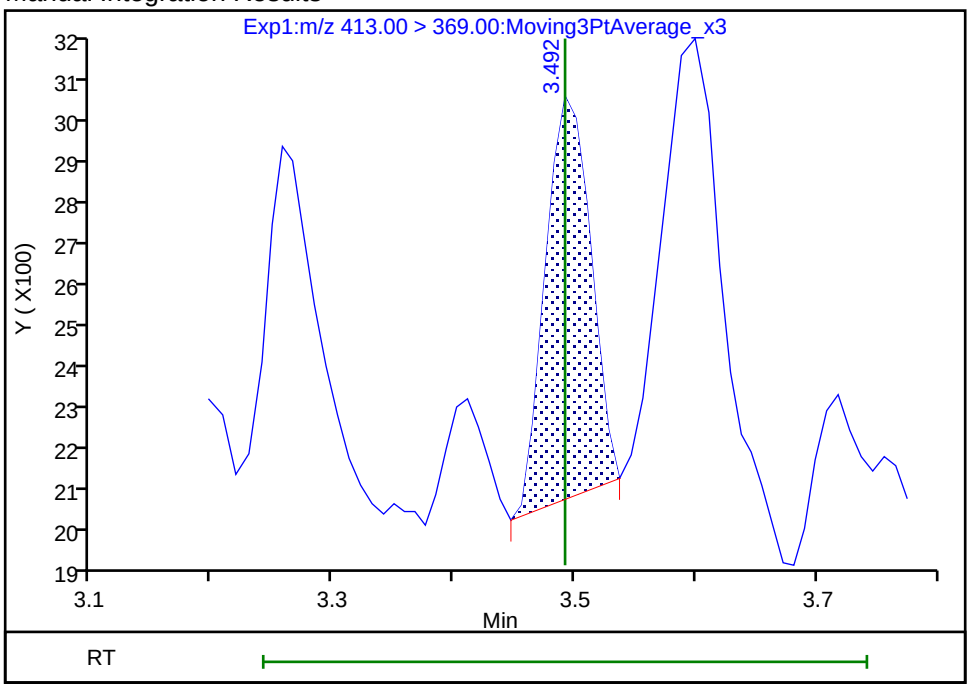
Not Detected
Expected RT: 3.49

Processing Integration Results




Manual Integration Results

RT: 3.49
Area: 2533
Amount: 0.001733
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:37:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

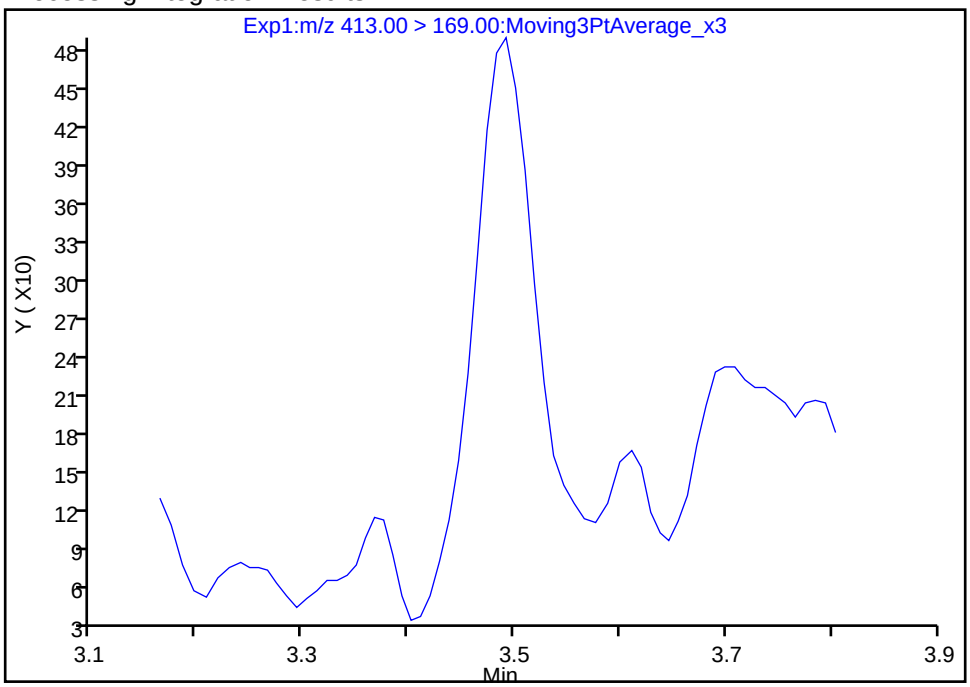
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

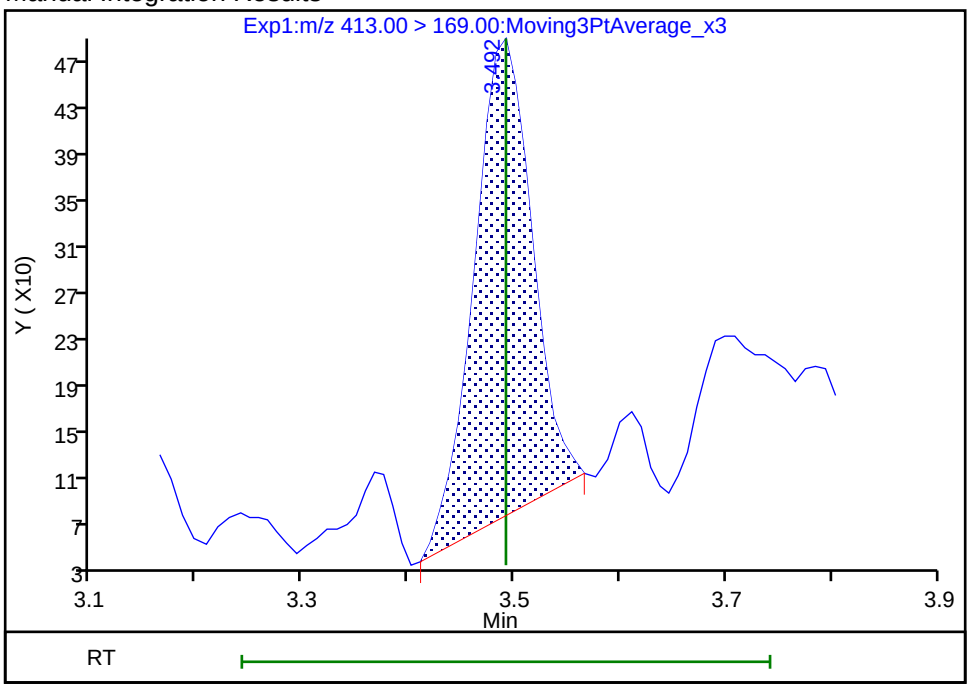
Not Detected
Expected RT: 3.49

Processing Integration Results




Manual Integration Results

RT: 3.49
Area: 1570
Amount: 0.001733
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:38:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

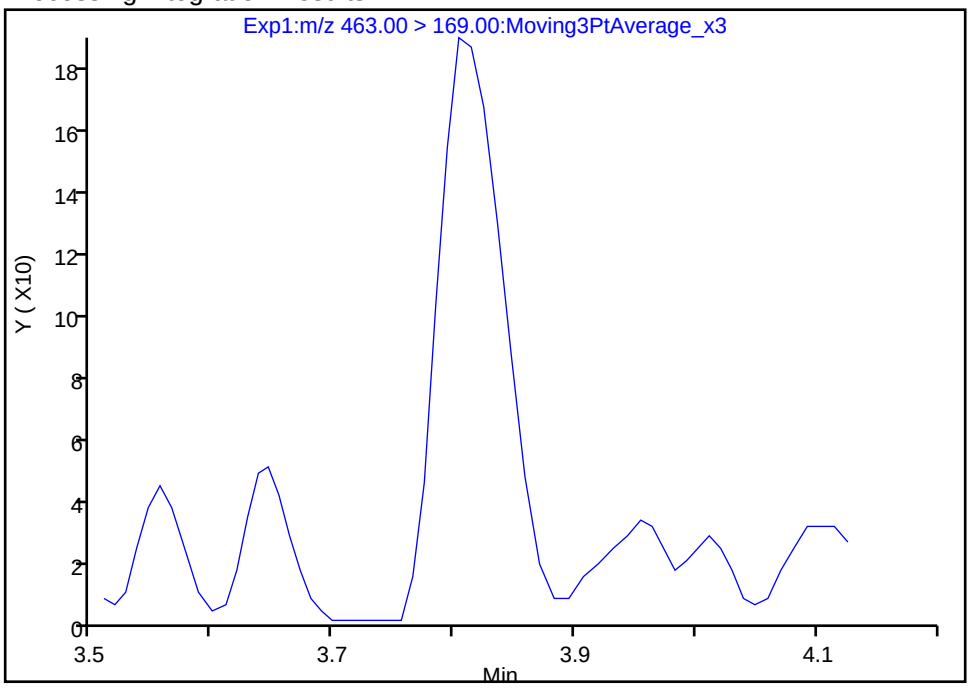
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

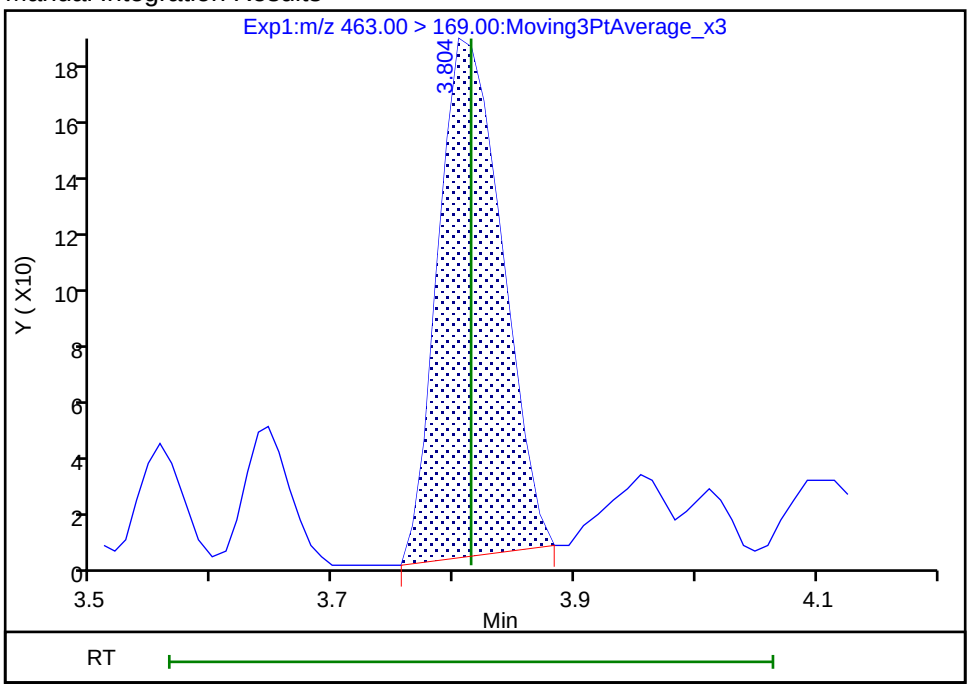
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.80
Area: 673
Amount: 0.002226
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:38:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

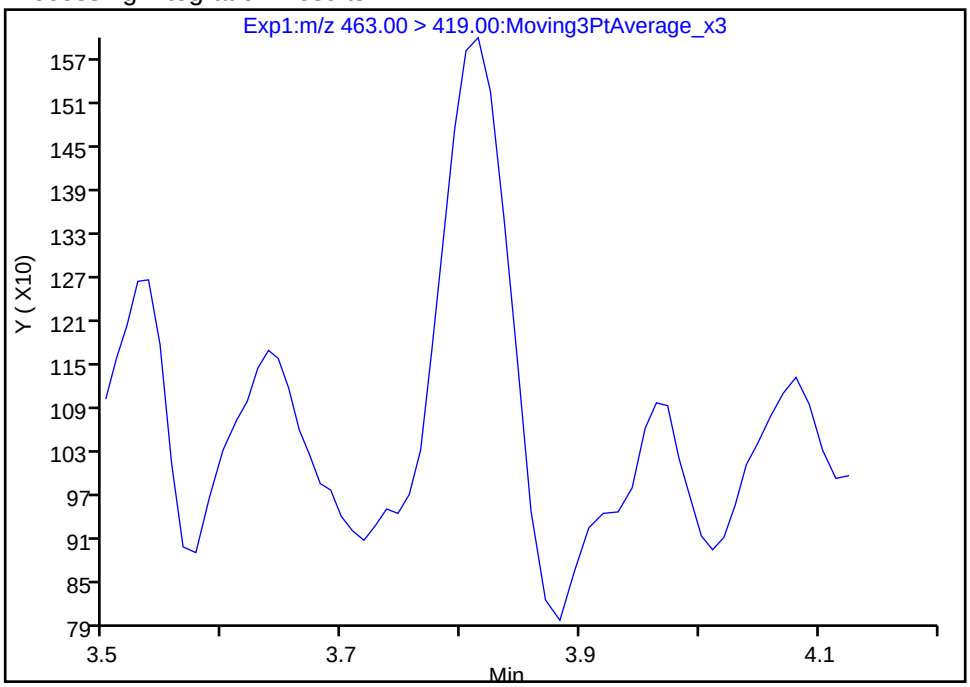
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

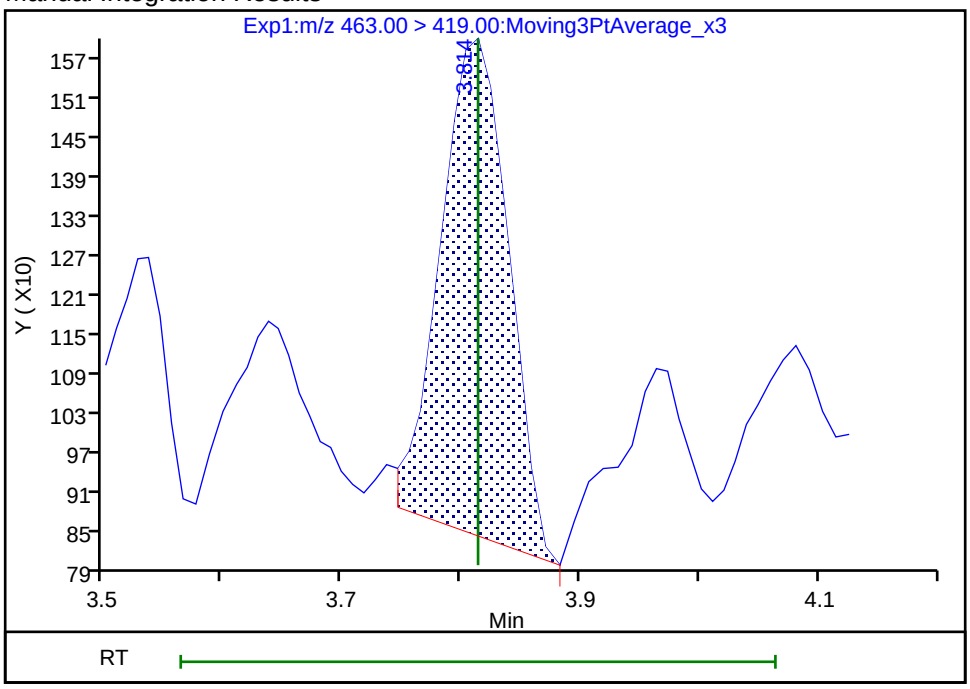
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 2993
Amount: 0.002226
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:38:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

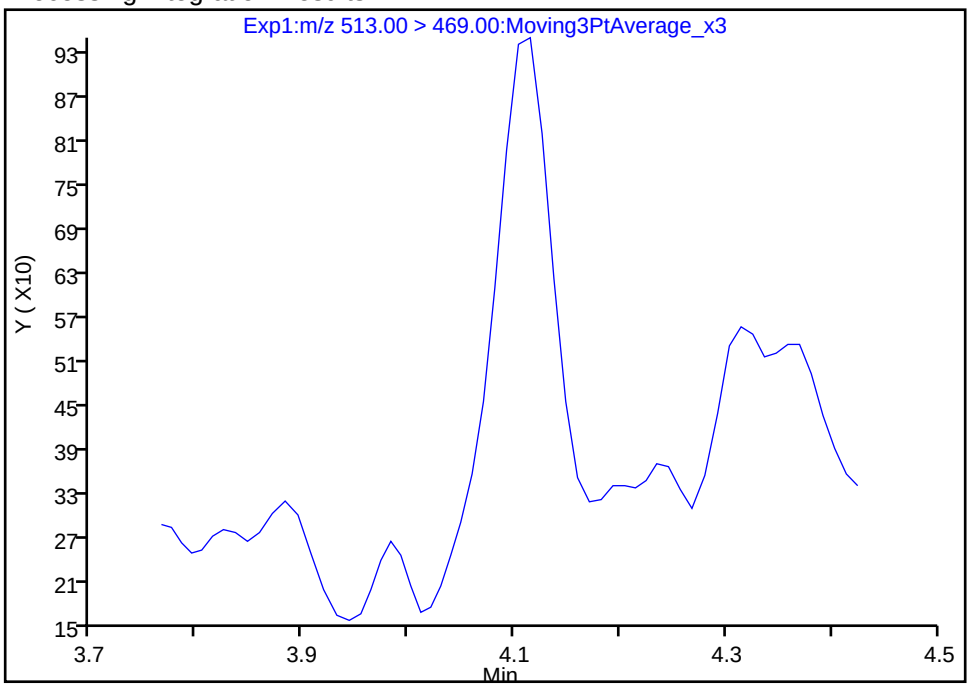
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

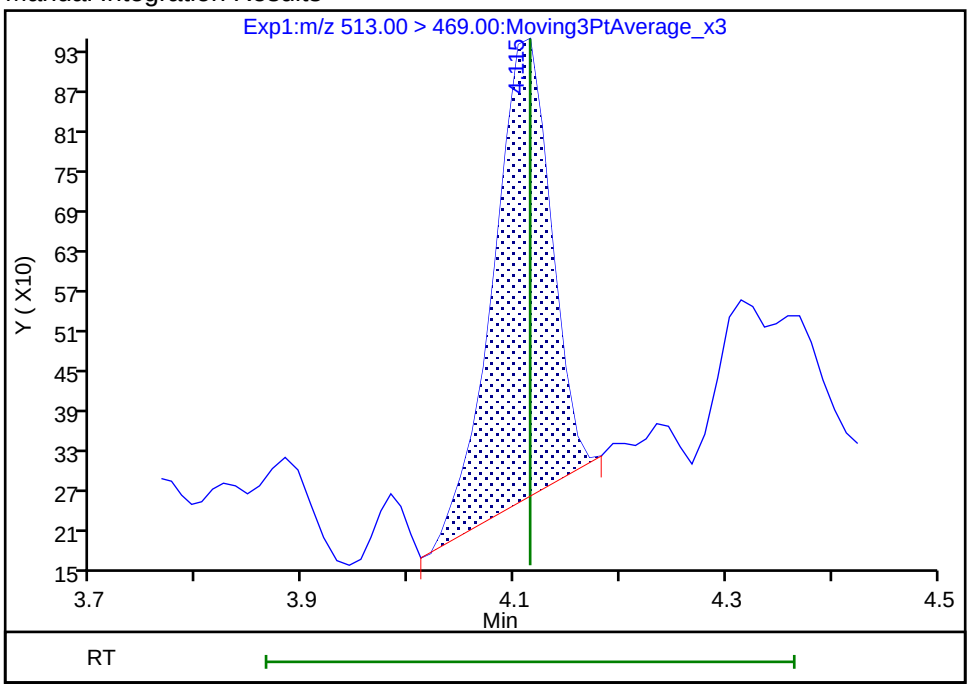
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 2640
Amount: 0.002091
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

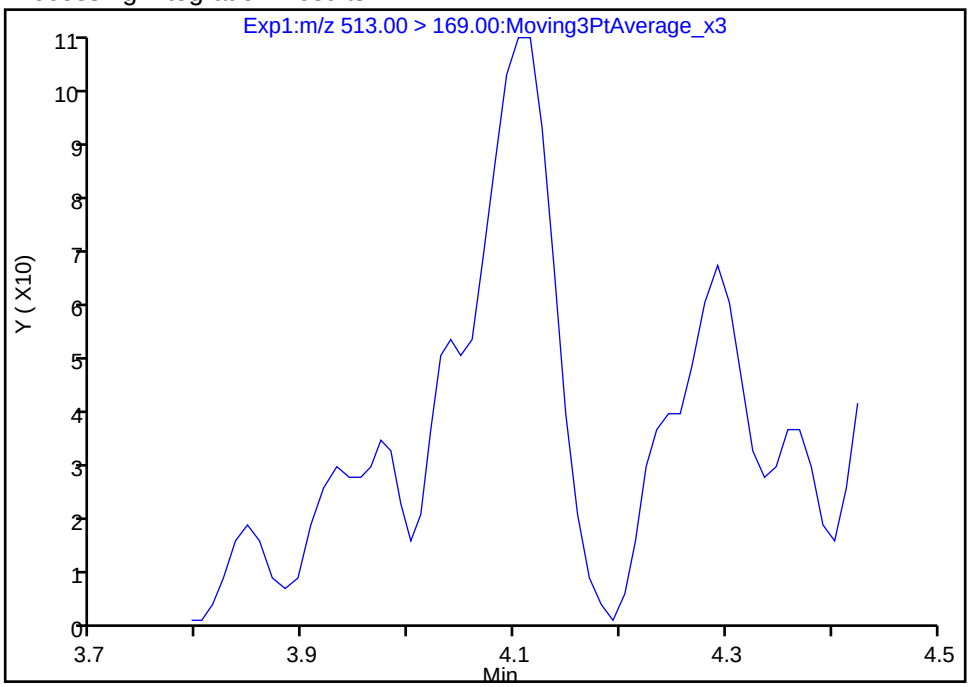
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

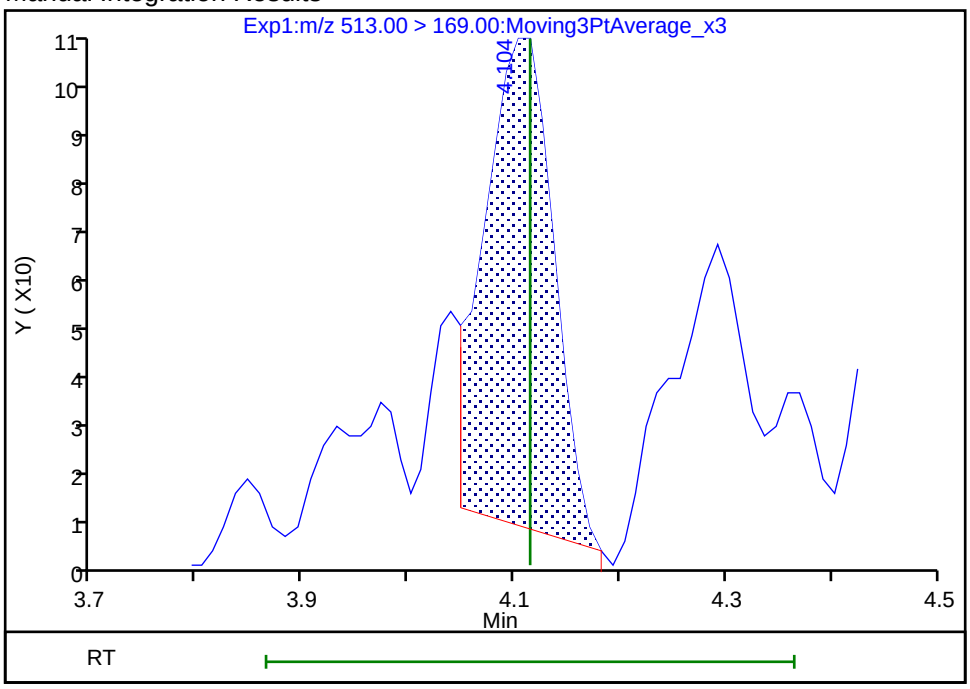
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.10
Area: 461
Amount: 0.002091
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

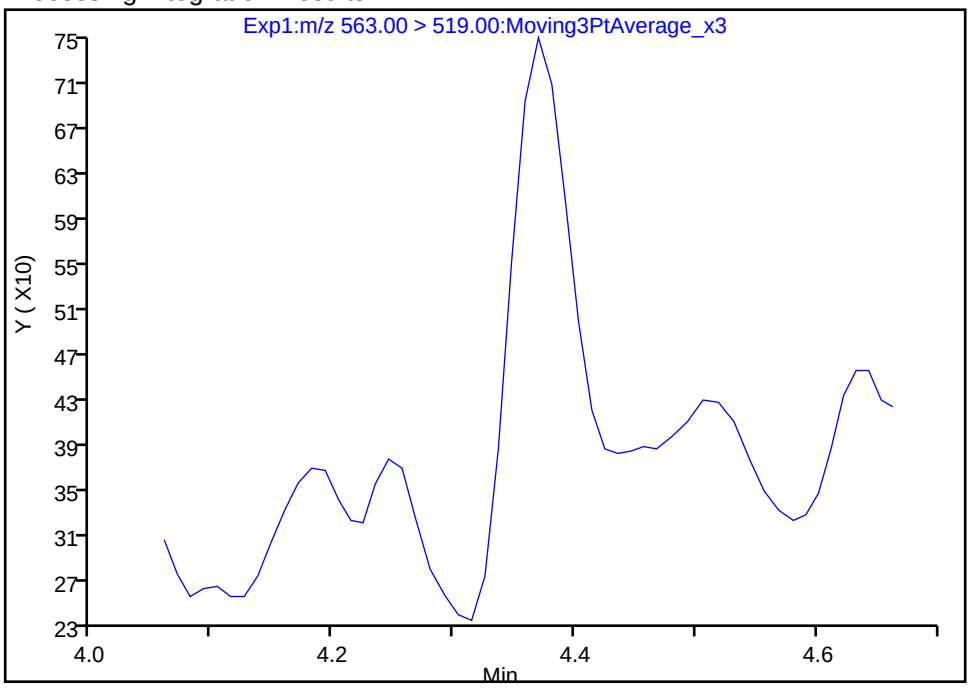
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

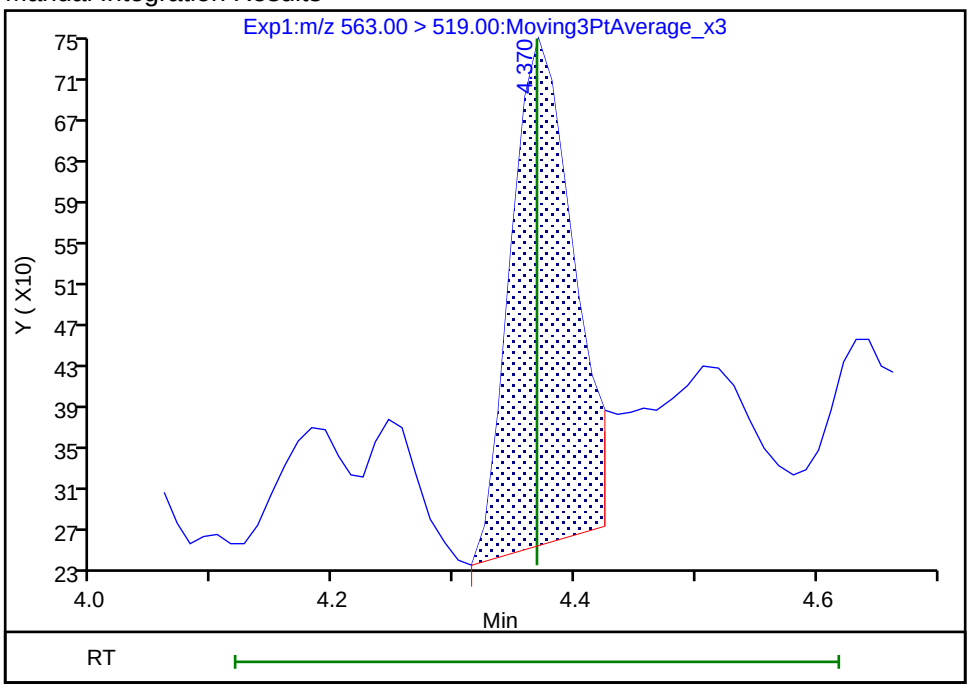
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1759
Amount: 0.001739
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

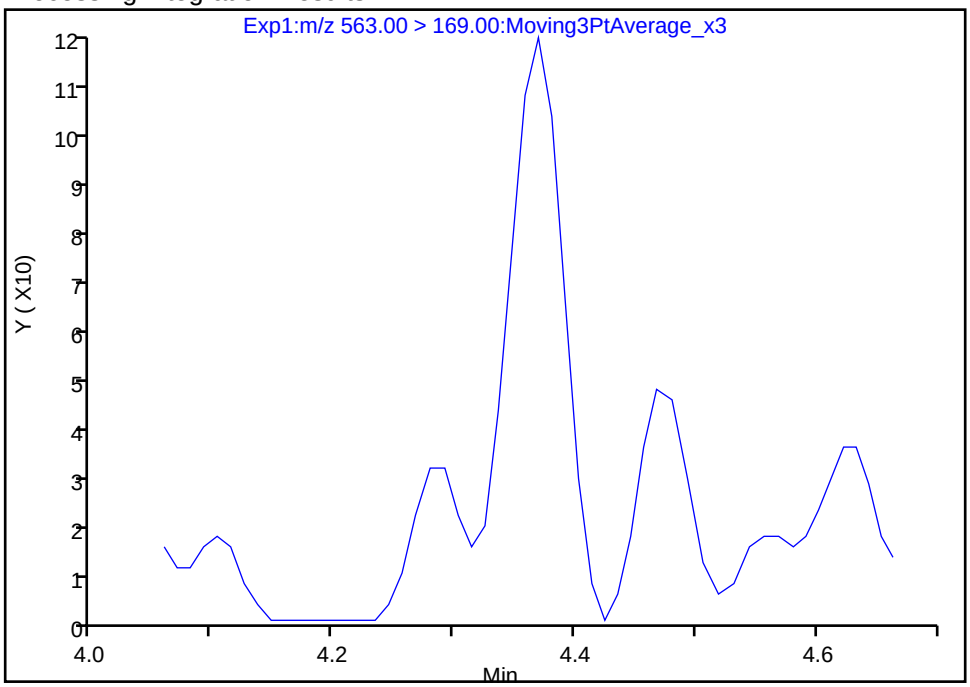
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

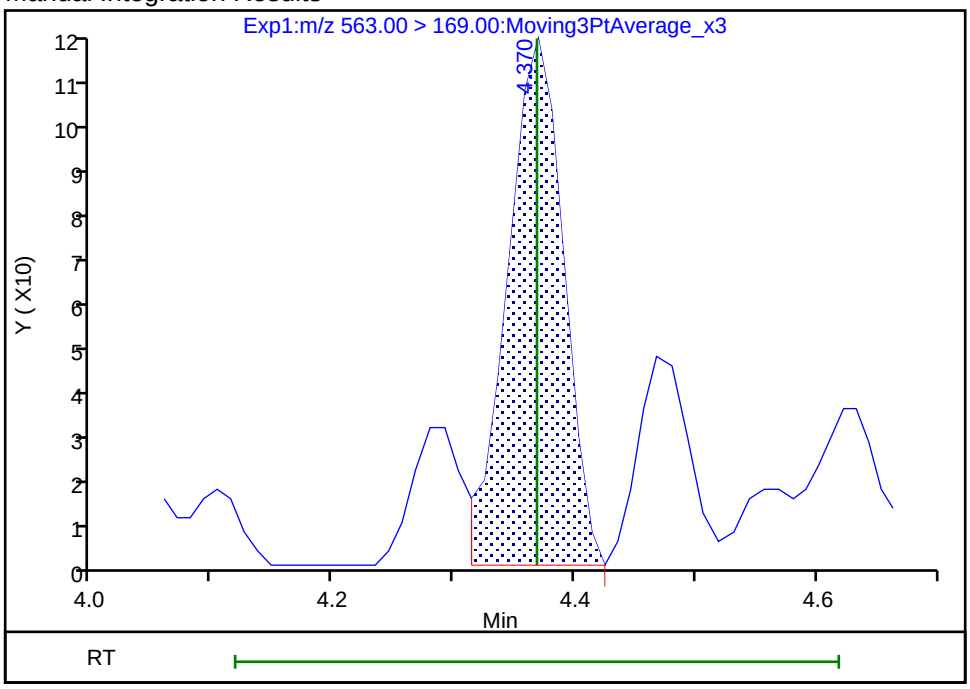
Not Detected
Expected RT: 4.37

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 356
Amount: 0.001739
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

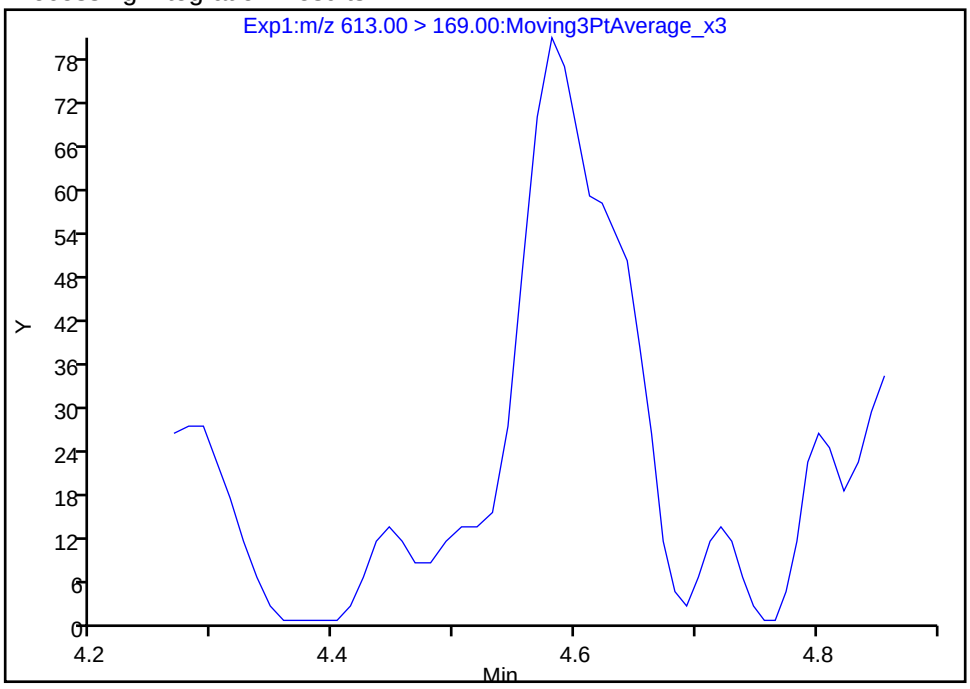
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

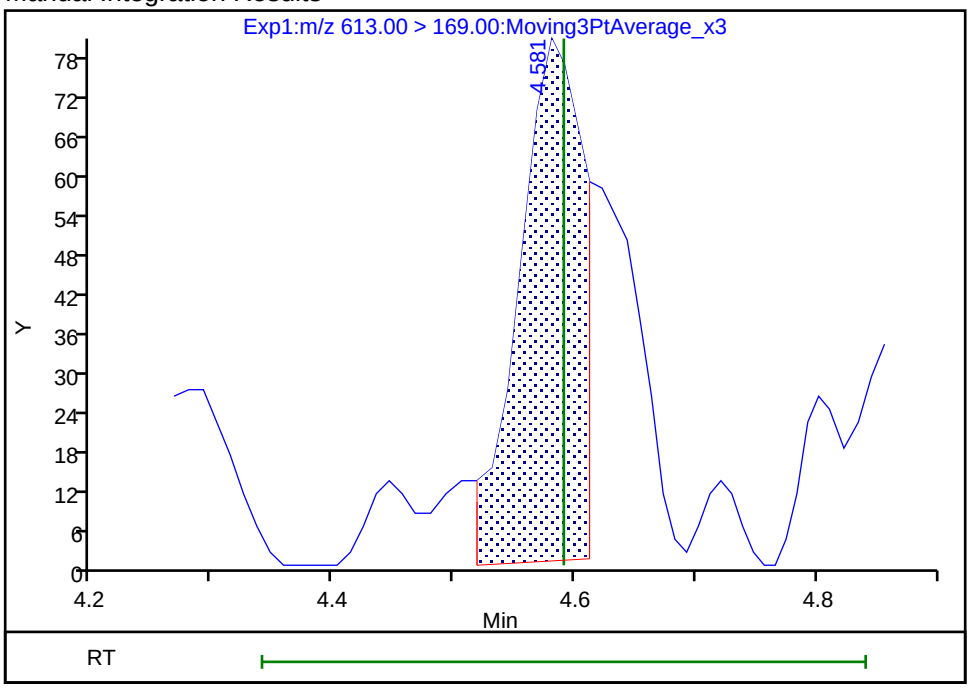
Not Detected
Expected RT: 4.59

Processing Integration Results




Manual Integration Results

RT: 4.58
Area: 284
Amount: 0.003001
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

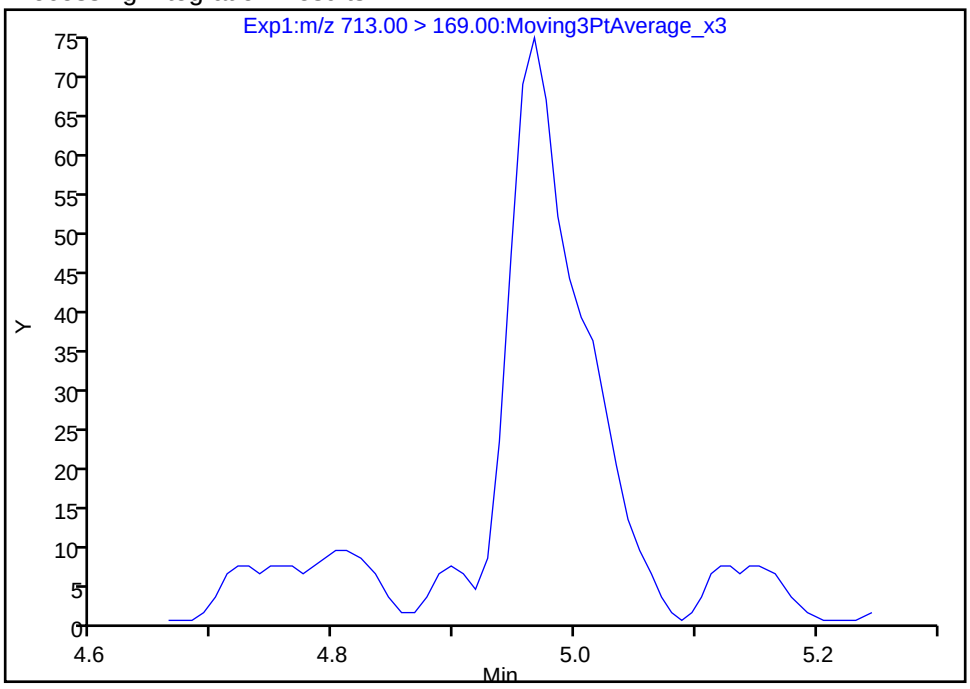
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

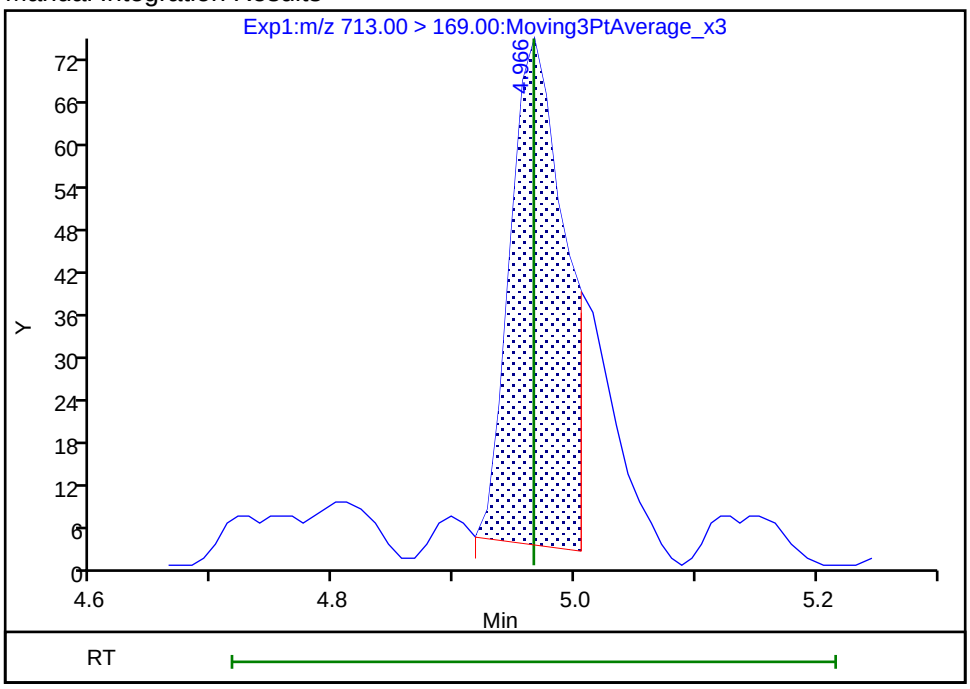
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.97
Area: 220
Amount: 0.002095
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:40:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

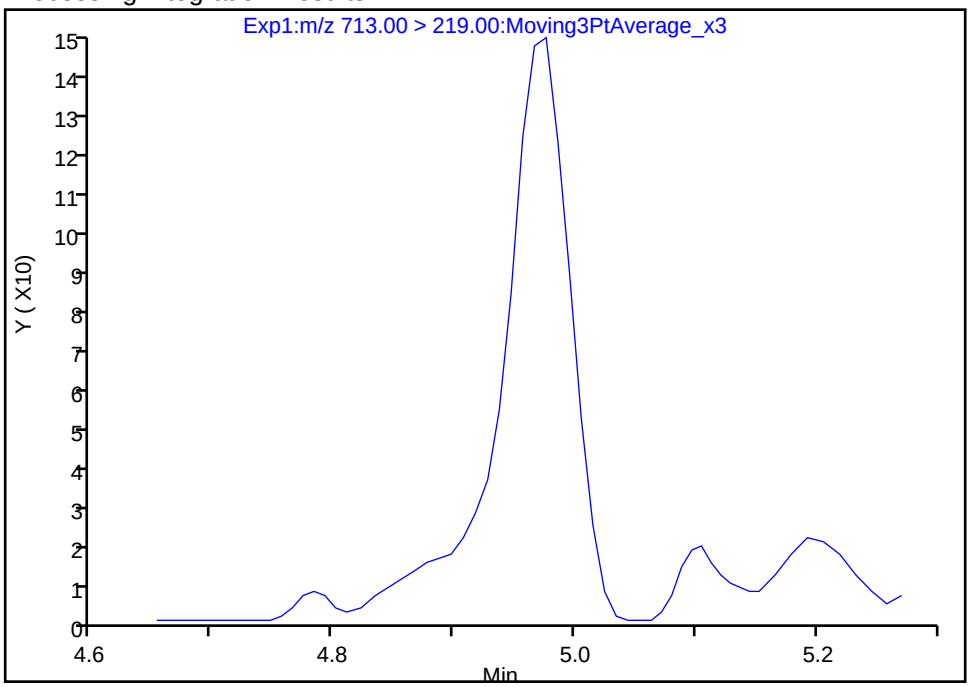
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

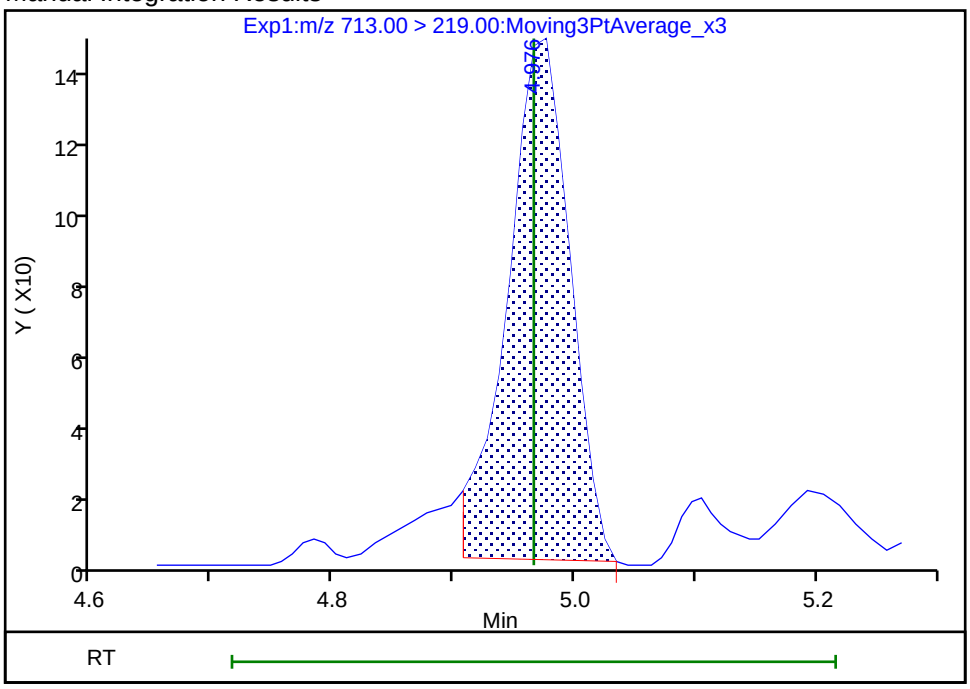
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 499
Amount: 0.002095
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:40:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

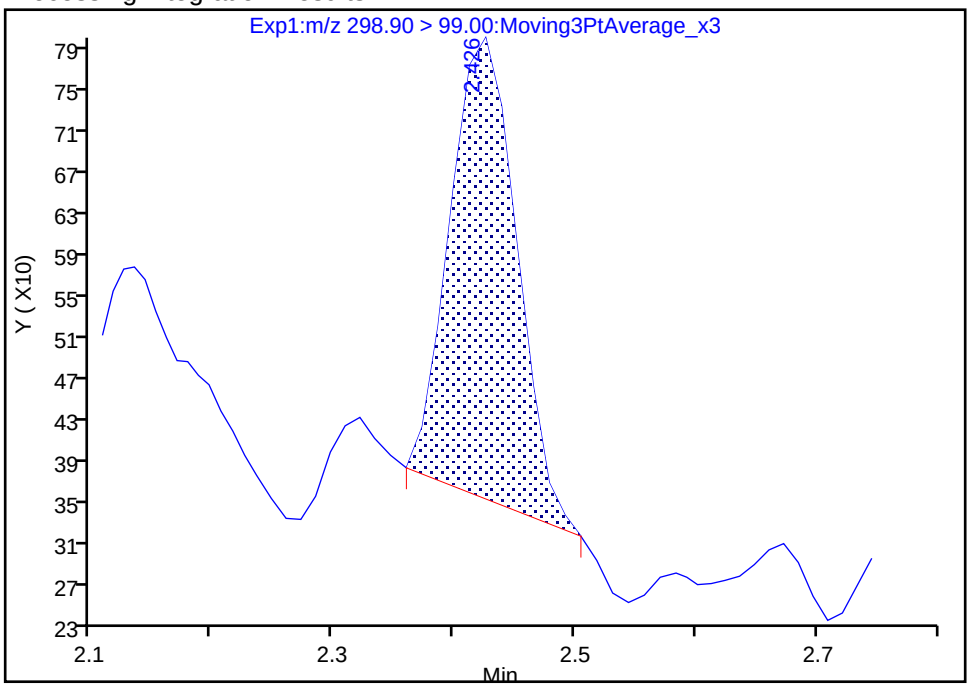
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

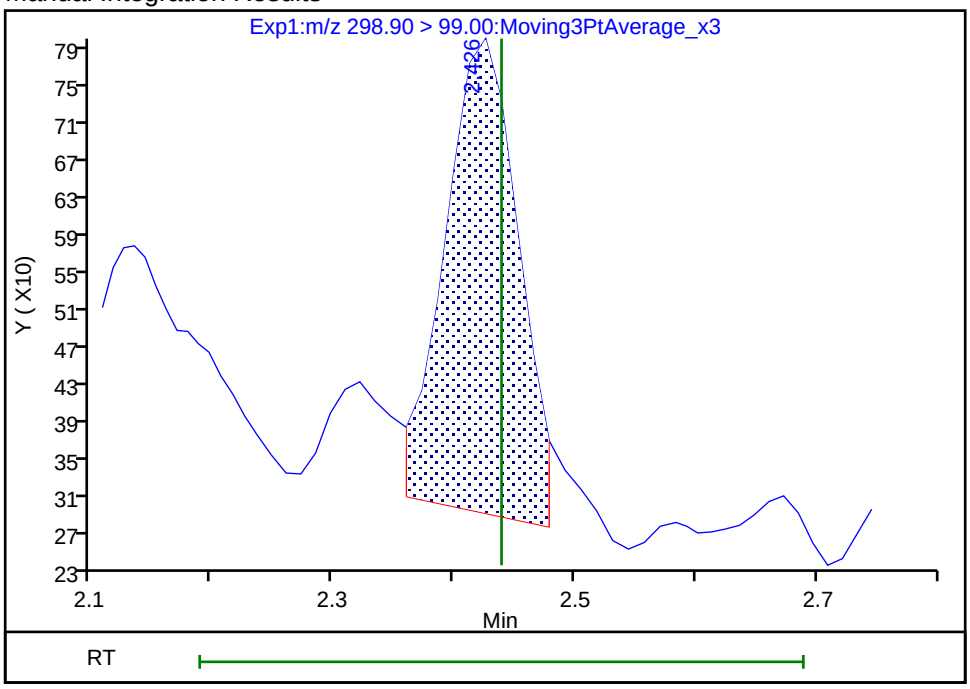
Processing Integration Results

RT: 2.43
Area: 1681
Amount: 0.002313
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 2098
Amount: 0.002290
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:32:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

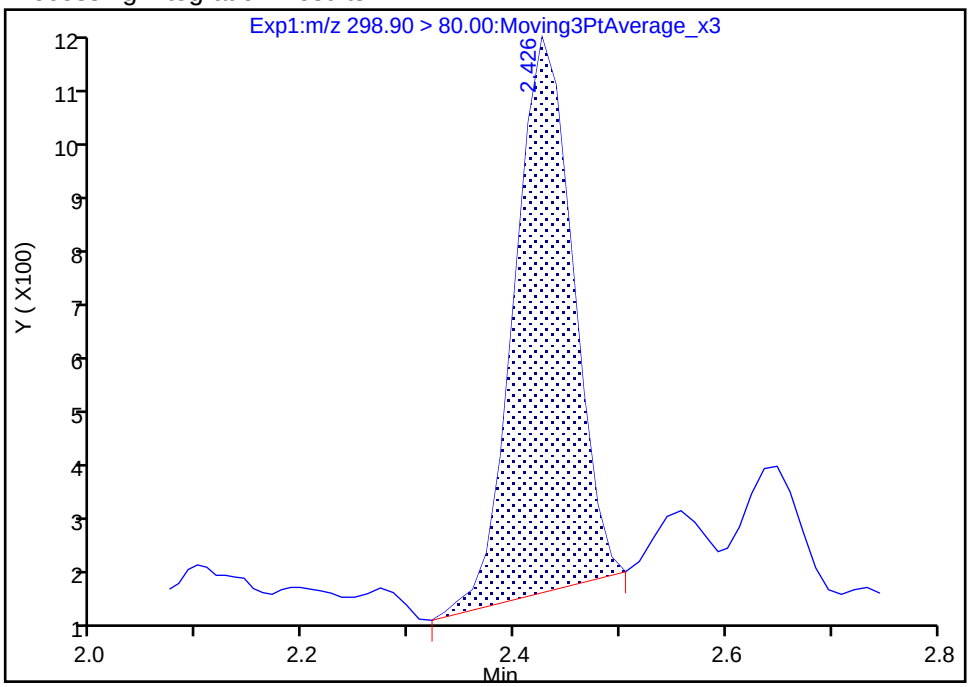
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

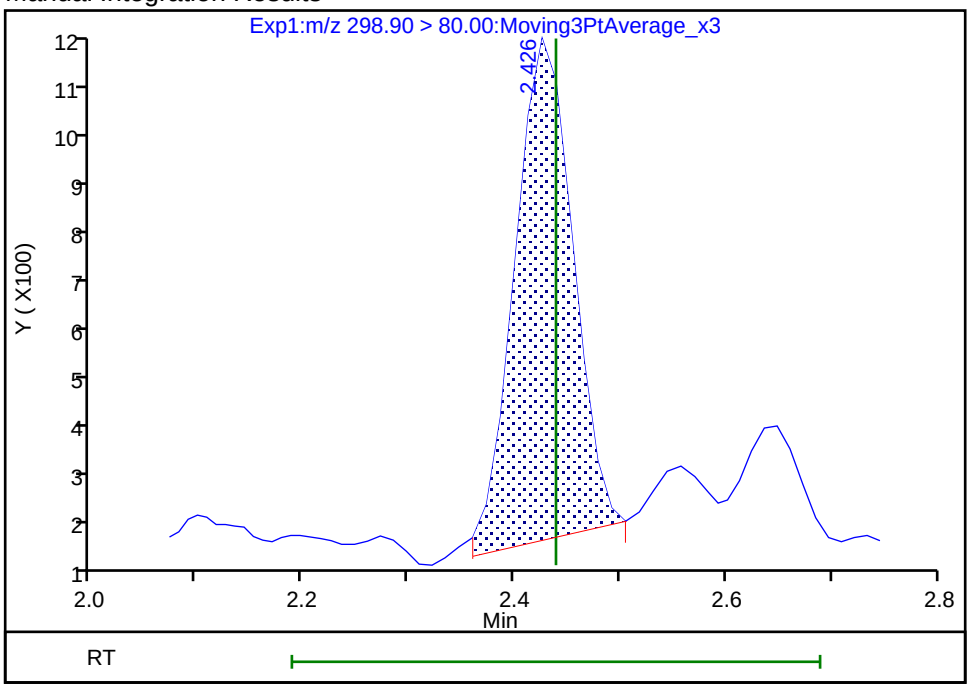
Processing Integration Results

RT: 2.43
Area: 3712
Amount: 0.002313
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 3676
Amount: 0.002290
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:32:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

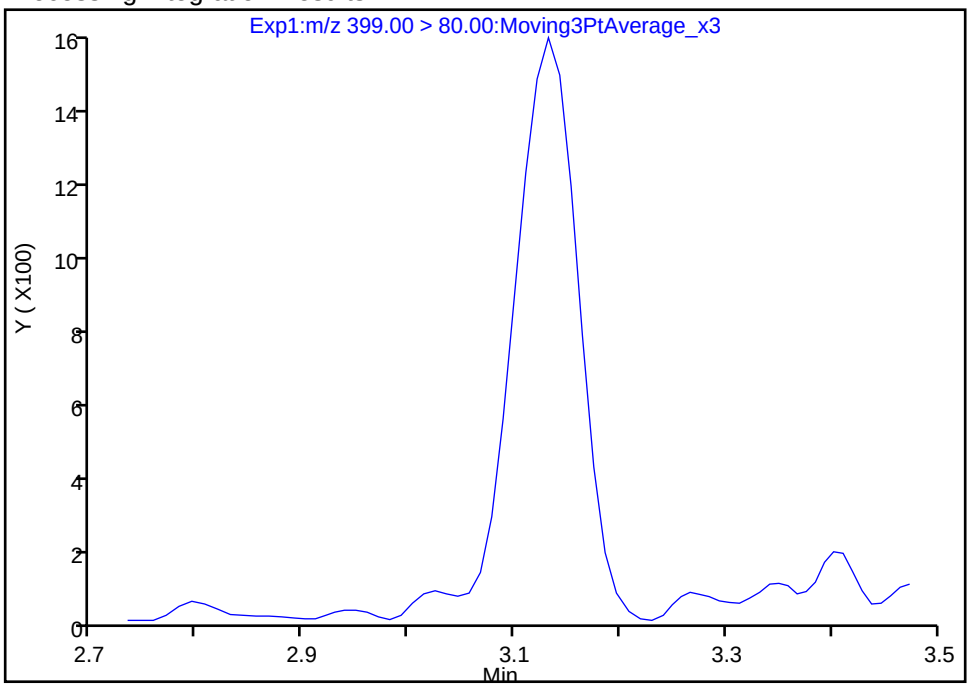
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

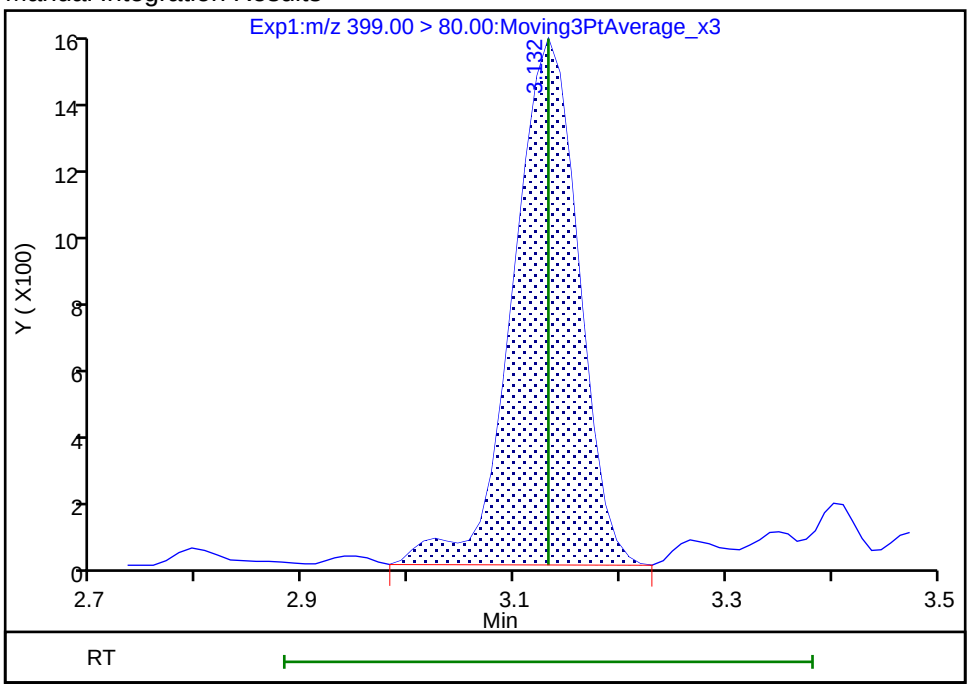
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 6477
Amount: 0.005372
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:32:52
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

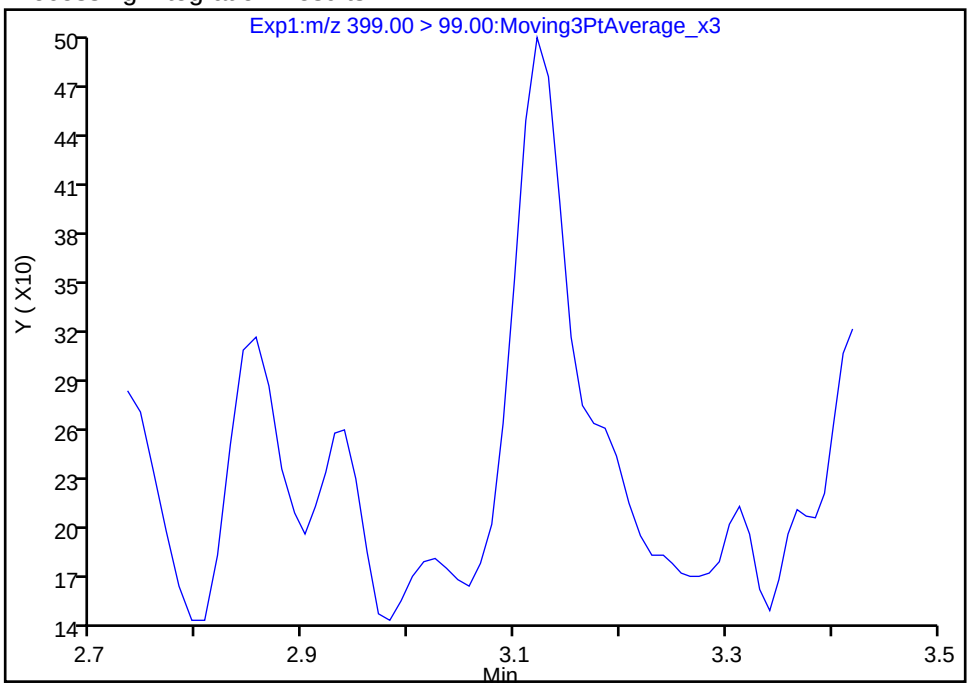
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

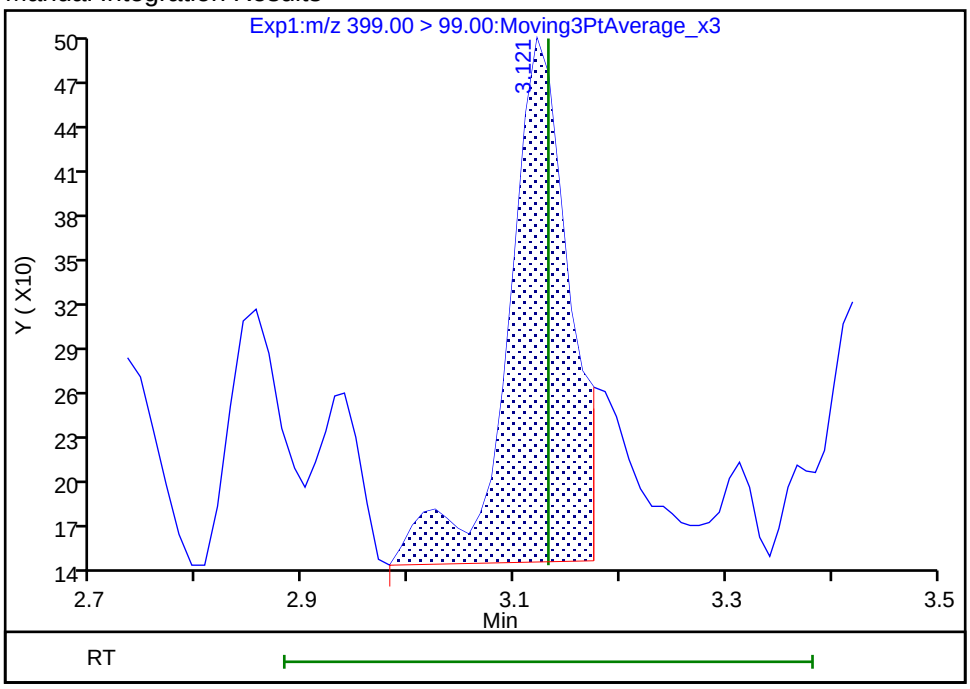
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.12
Area: 1422
Amount: 0.005372
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:32:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

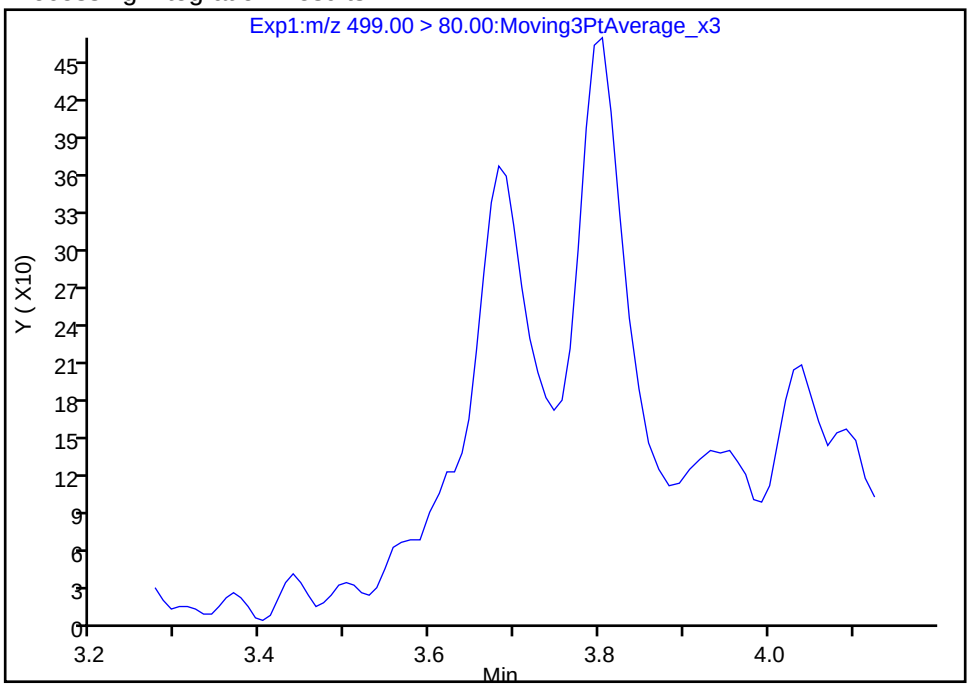
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

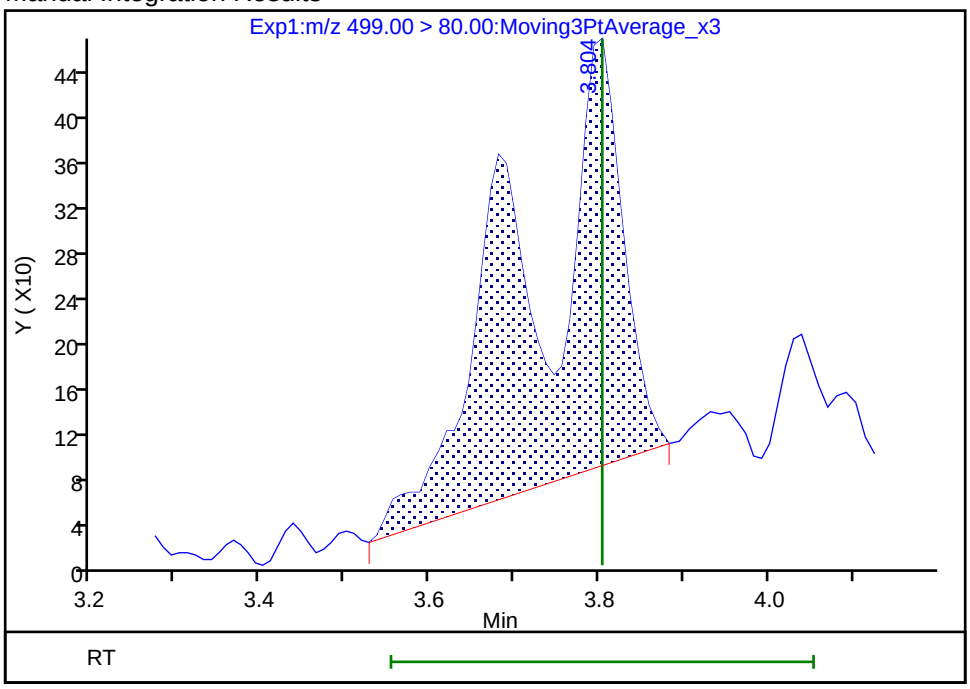
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.80
Area: 2950
Amount: 0.003305
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:38:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

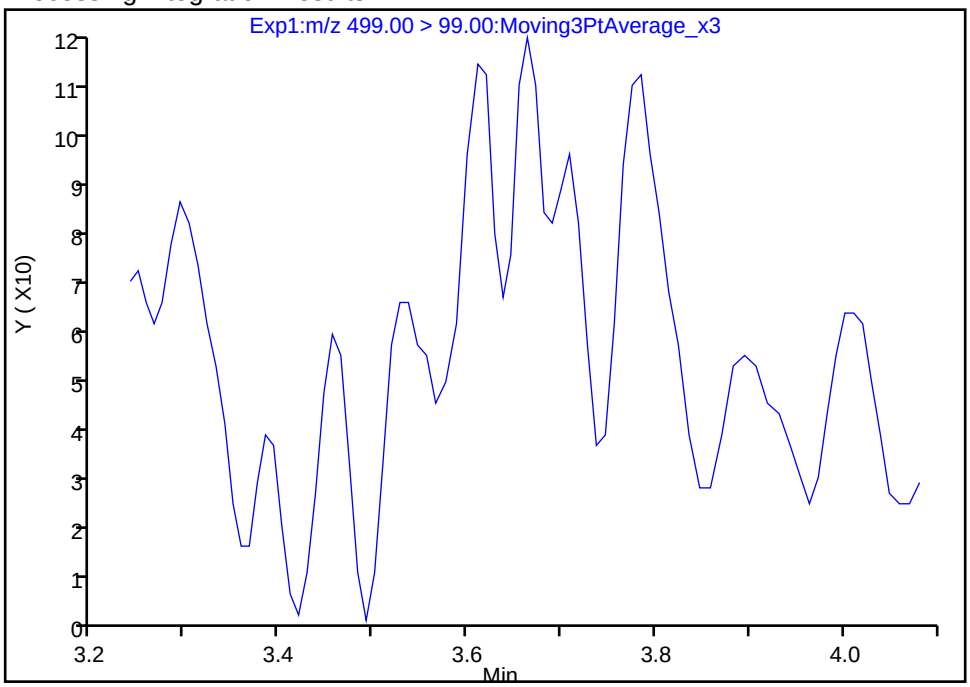
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

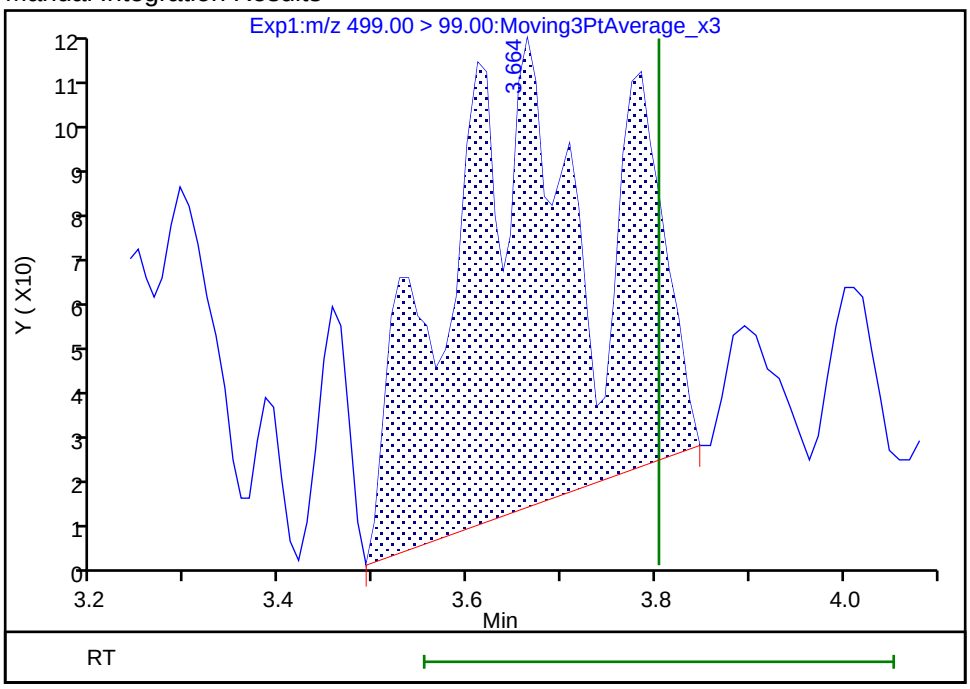
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.66
Area: 1137
Amount: 0.003305
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:38:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

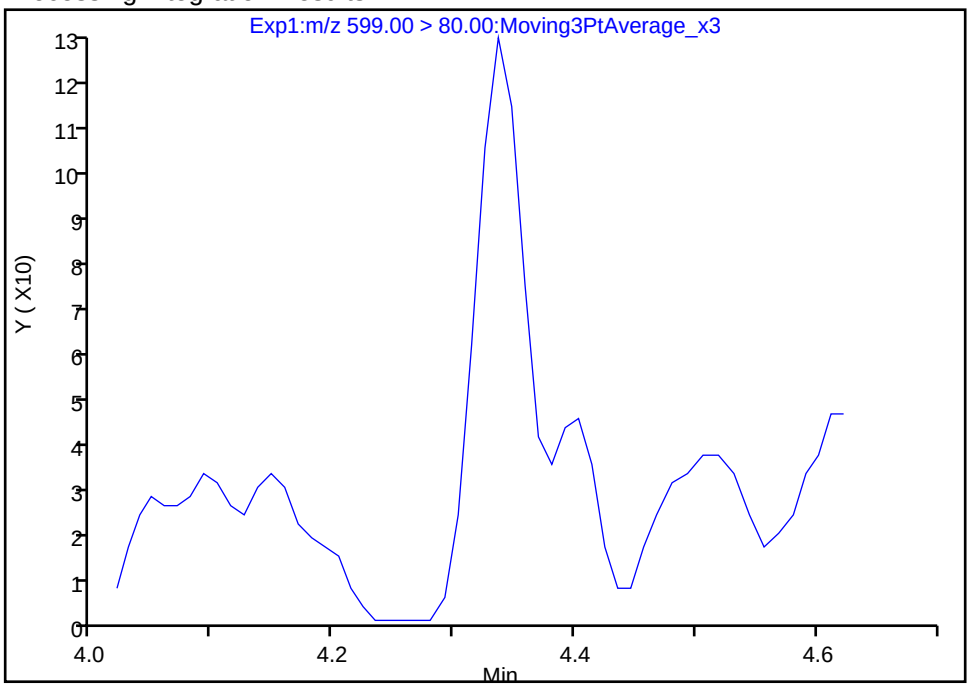
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

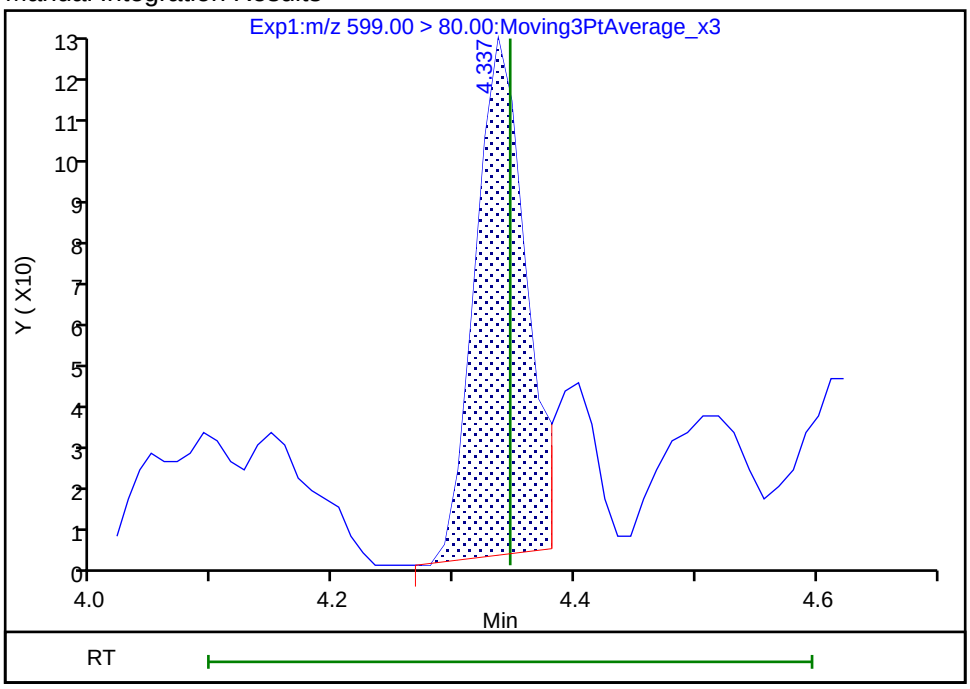
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.34
Area: 358
Amount: 0.000662
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:19:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

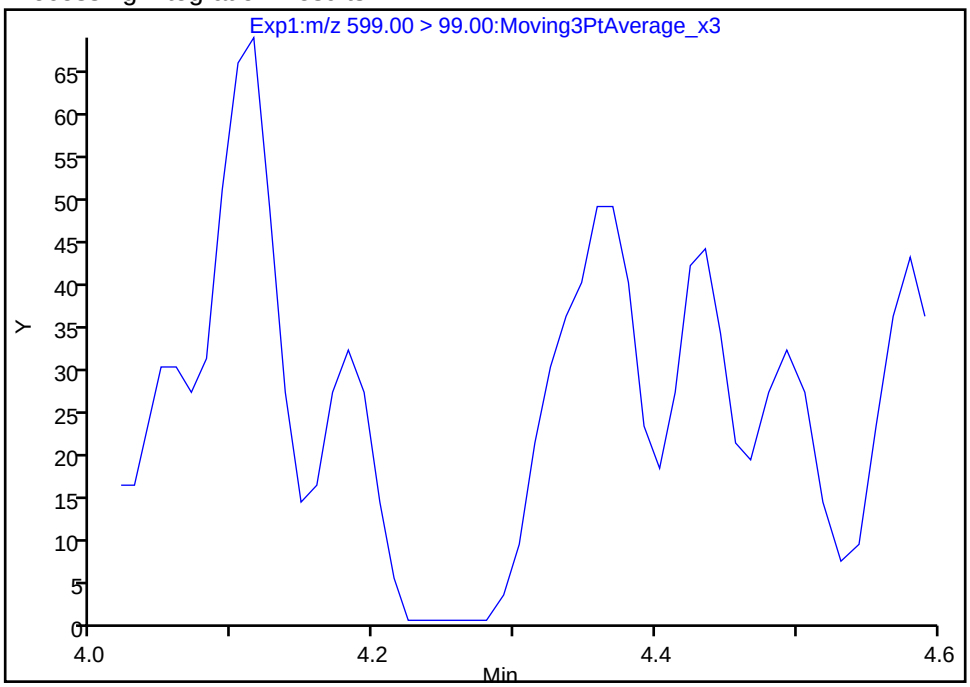
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

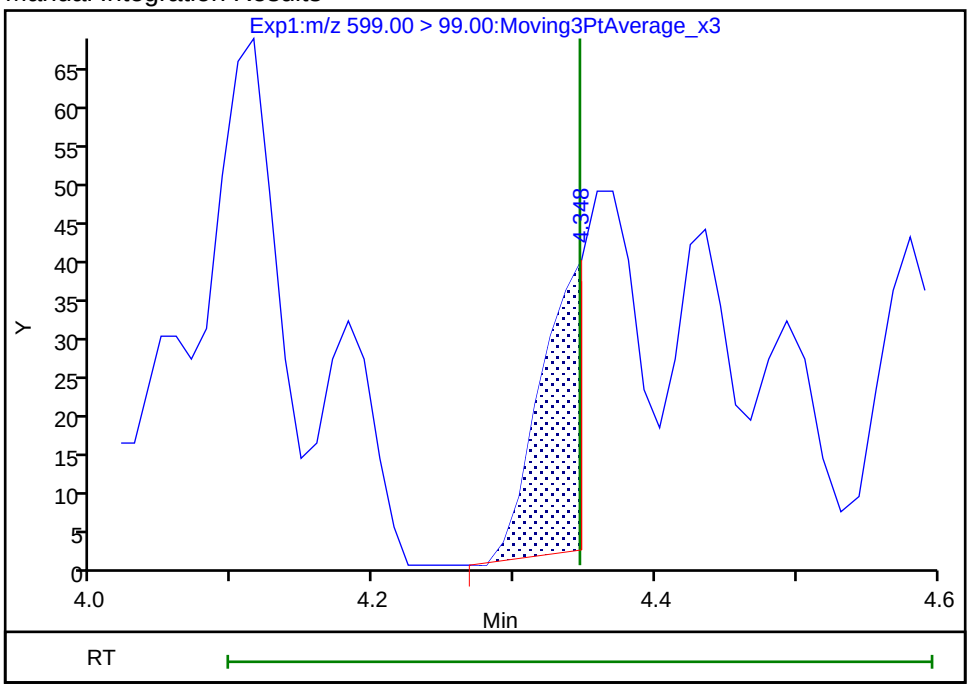
Not Detected
Expected RT: 4.35

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 74
Amount: 0.000662
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:19:25
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

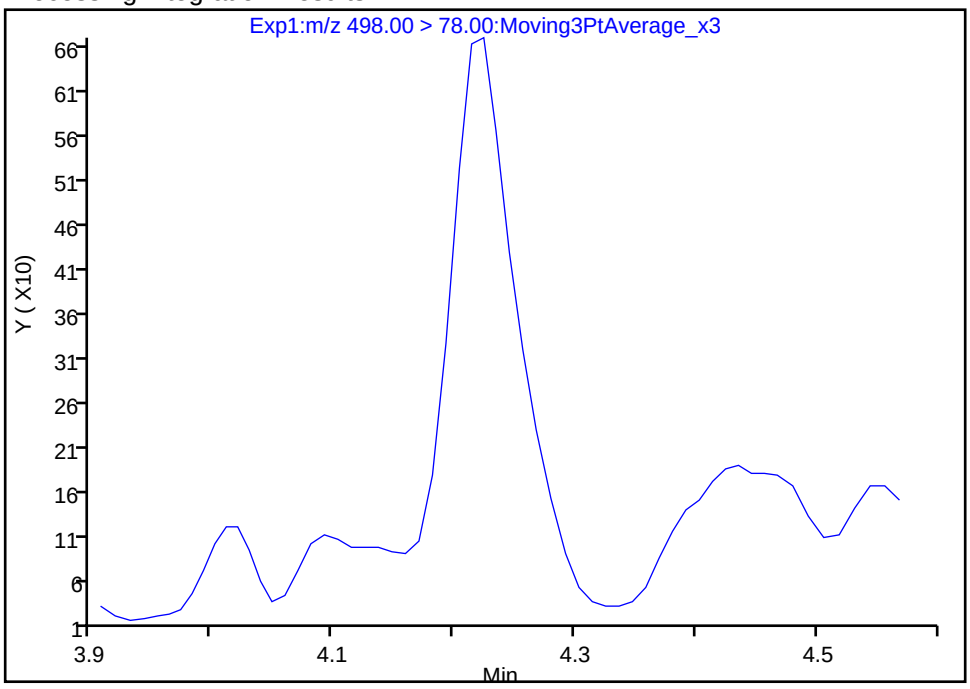
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

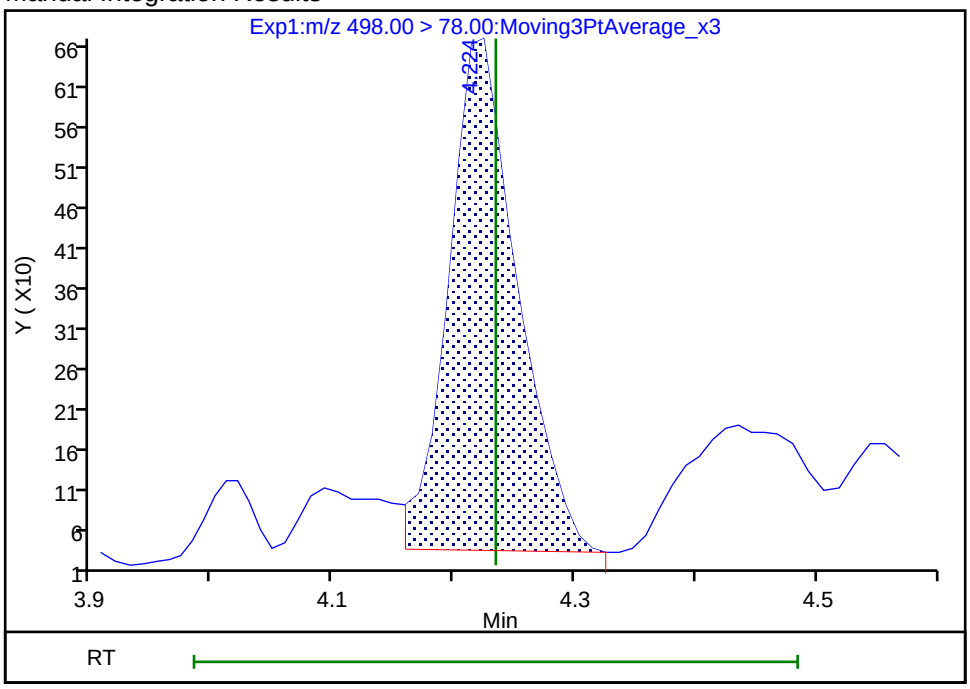
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 2507
Amount: 0.002307
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

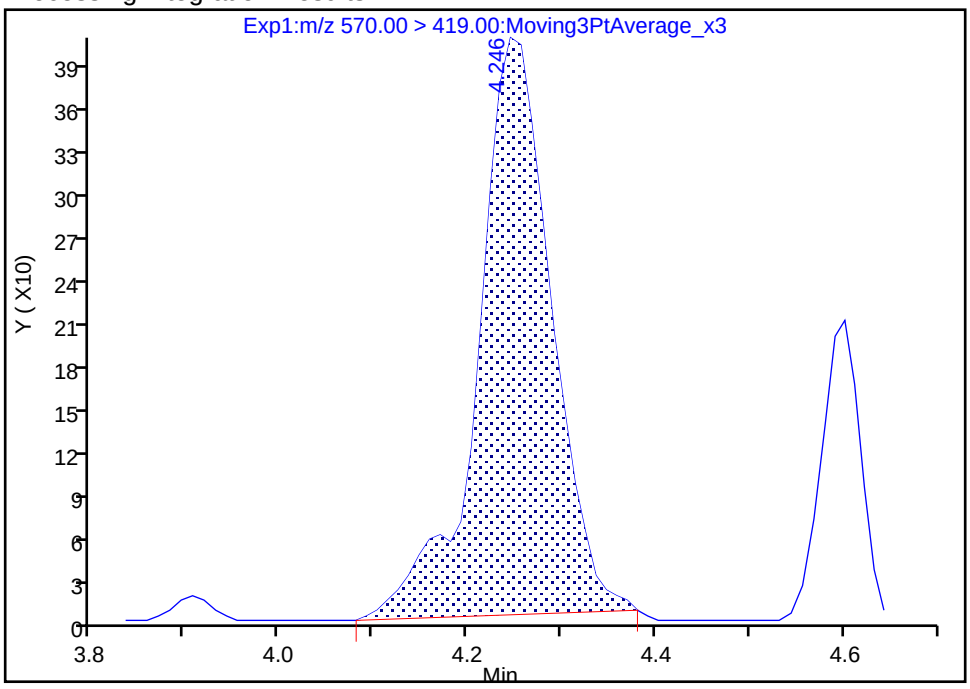
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

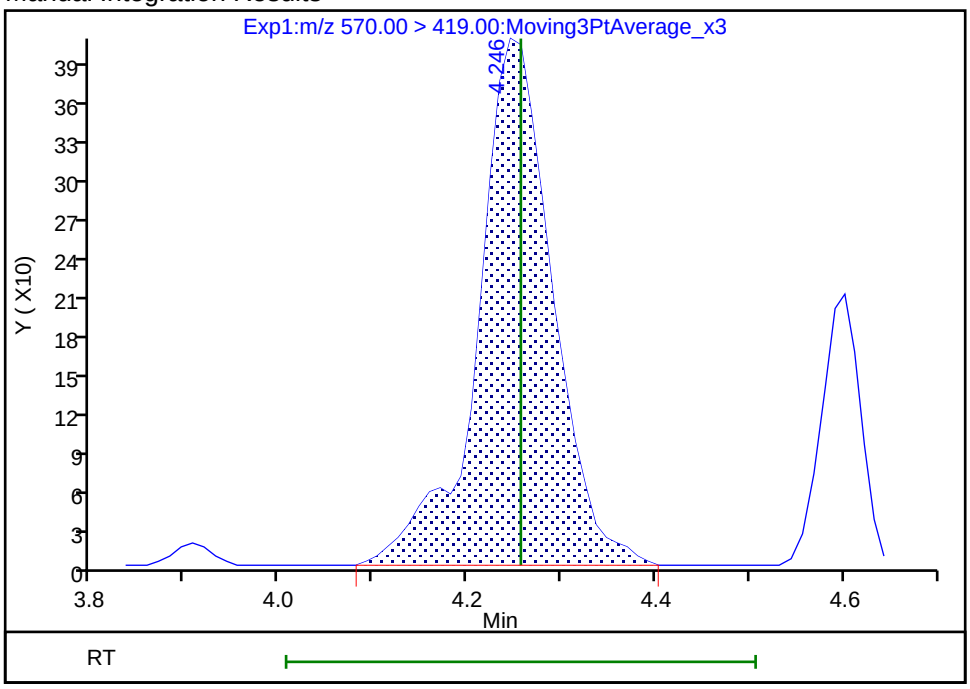
Processing Integration Results

RT: 4.25
Area: 2165
Amount: 0.020460
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 2232
Amount: 0.021094
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

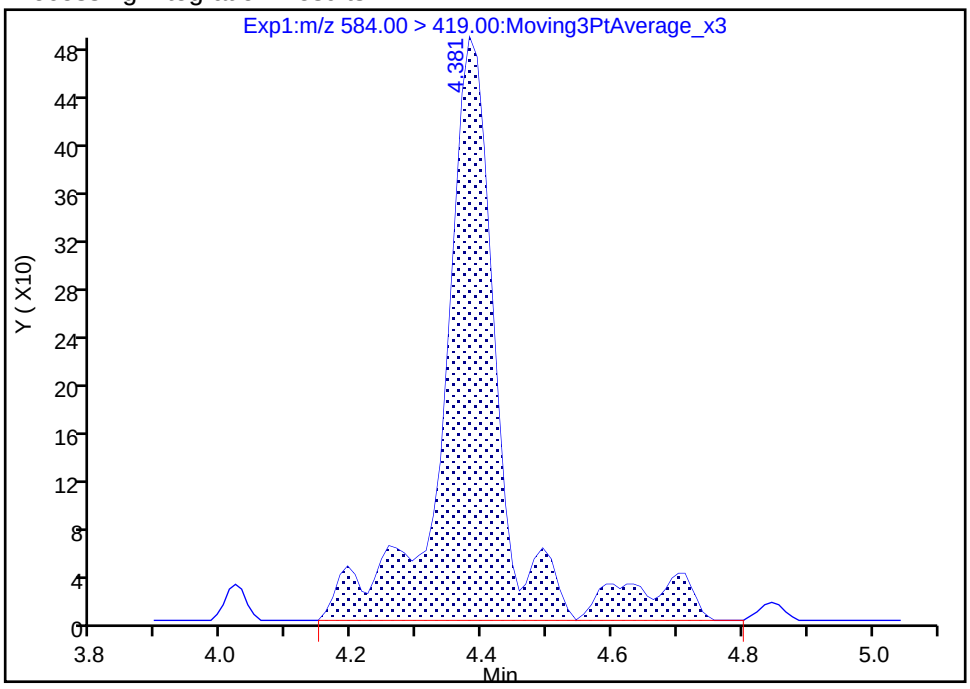
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

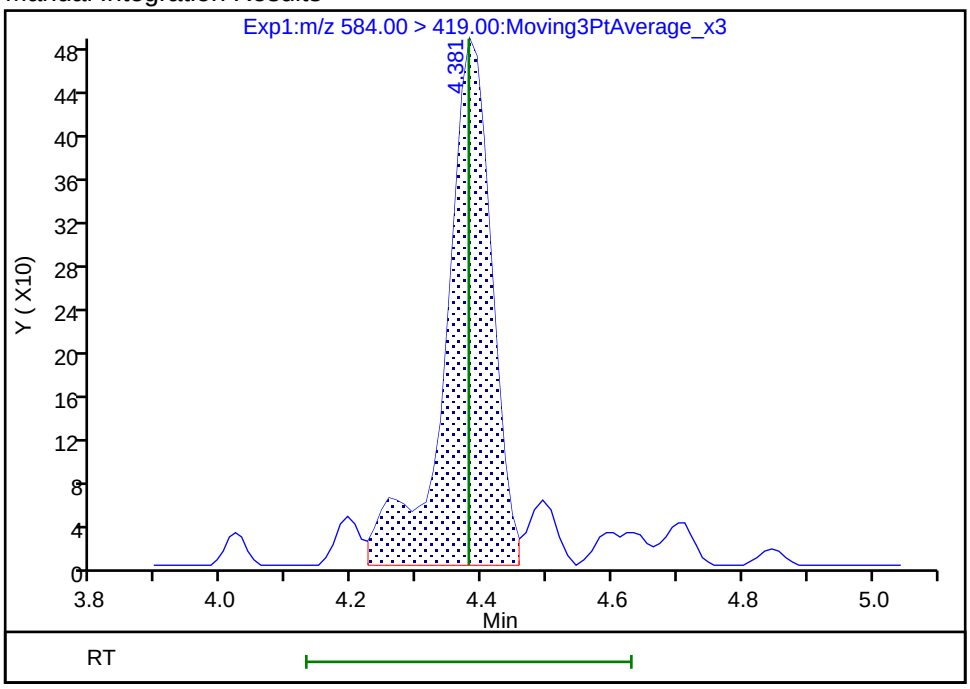
Processing Integration Results

RT: 4.38
Area: 2987
Amount: 0.027299
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 2405
Amount: 0.021980
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:19:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

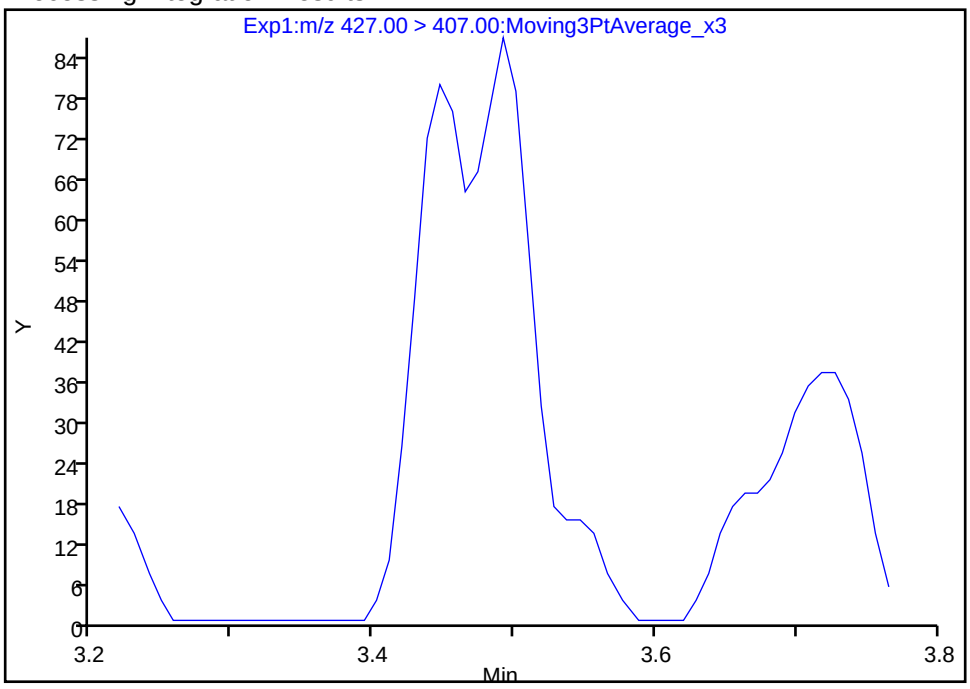
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d
Injection Date: 10-Nov-2021 04:20:21 Instrument ID: LC812
Lims ID: MB 200-173528/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

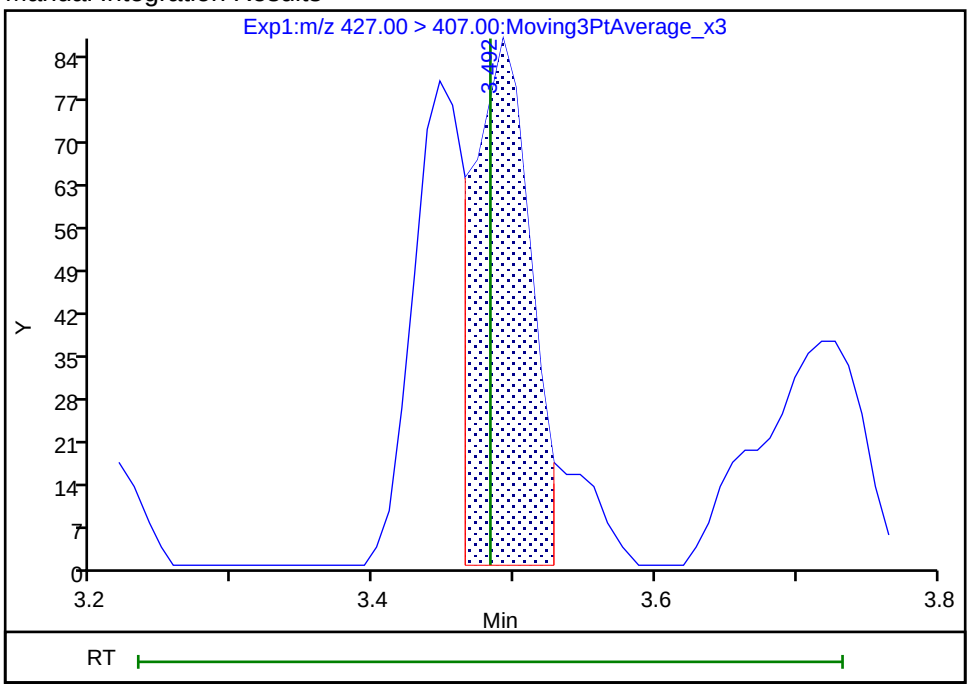
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.49
Area: 236
Amount: 0.000905
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:37:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

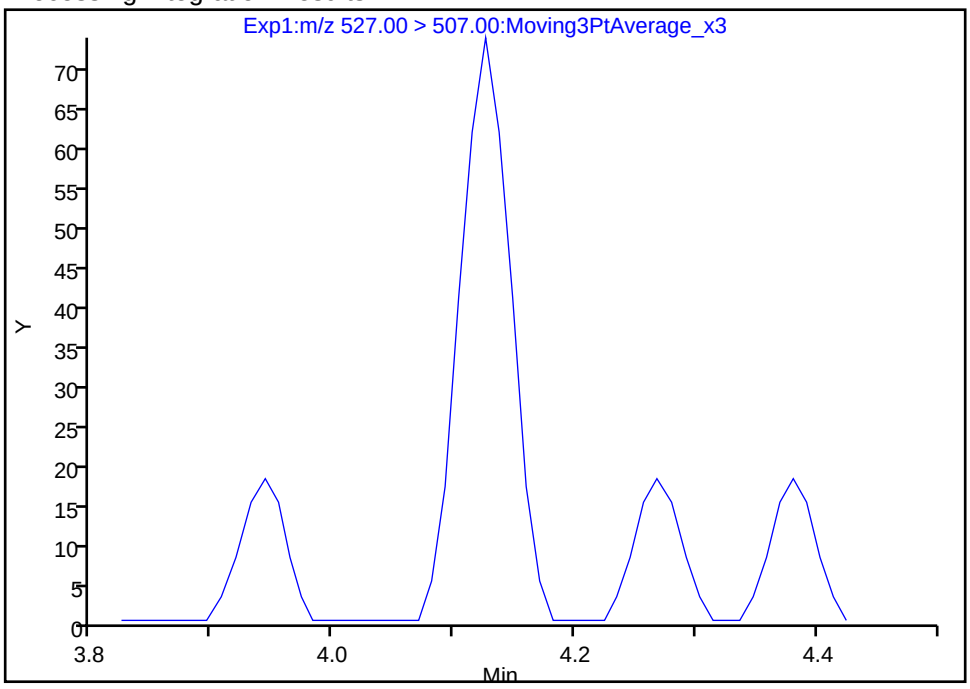
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D02.d | | | | |
| Injection Date: | 10-Nov-2021 04:20:21 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173528/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 2 | Worklist Smp#: | 2 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

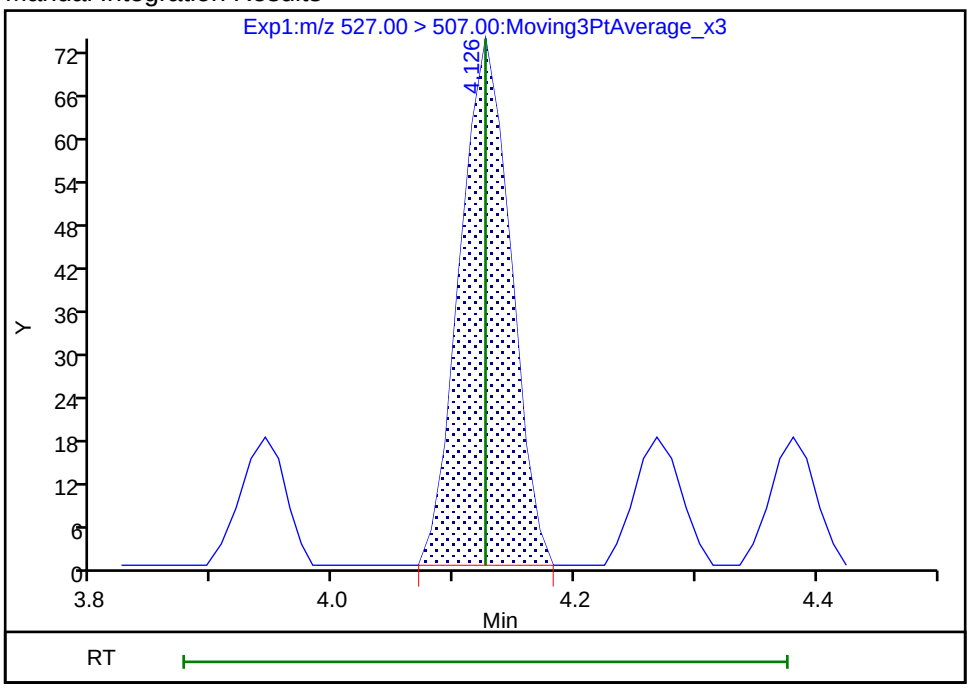
Not Detected
Expected RT: 4.13

Processing Integration Results




Manual Integration Results

RT: 4.13
Area: 217
Amount: 0.001115
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:39:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173541/1-A

Matrix: Water  Lab File ID: PA211108A13.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/08/2021 17:13

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

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

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

Analysis Batch No.: 173621  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL00991 | 13C4 PFOS | 91 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d
Lims ID: MB 200-173541/1-A
Client ID:
Sample Type: MB
Inject. Date: 08-Nov-2021 17:13:52 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: MB 200-173541/1-A
Misc. Info.: 200-0048331-013 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 16:00:50 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:42:38
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.215 | 2.226 | -0.012 | 0.637 | 2136838 | 1.62 | | 129 | 2243 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.205 | 2.236 | -0.031 | 0.996 | 18583 | 0.0115 | | | 1.8 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.463 | 2.479 | -0.016 | 0.709 | 1406487 | 1.26 | | 101 | 1702 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.477 | 2.479 | -0.002 | 0.713 | 1761254 | 1.17 | | 100 | 209301 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.477 | 2.492 | -0.015 | 1.000 | 24860 | 0.0154 | Target=2.32 | | 26.0 | M |
| 298.90 > 99.00 | 2.490 | 2.492 | -0.002 | 1.005 | 10839 | | 2.29(1.16-3.48) | | 7.0 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.744 | 2.758 | -0.014 | 0.790 | 154416 | 1.34 | | 115 | 99.0 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.732 | 2.758 | -0.026 | 0.996 | 437 | 0.001552 | | | 6.4 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.780 | 2.795 | -0.015 | 0.800 | 1496810 | 1.28 | | 102 | 4045 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.890 | 2.892 | -0.002 | 0.832 | 25785 | 0.8373 | | 67.0 | 137 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.003 | 5716 | 0.004853 | Target=3.55 | | 17.8 | M |
| 399.00 > 99.00 | 3.122 | 3.132 | -0.010 | 1.000 | 1547 | | 3.69(1.77-5.32) | | 2.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.122 | 3.132 | -0.010 | 0.899 | 1266805 | 1.16 | | 97.8 | 4352 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.902 | 1492256 | 1.21 | | 97.0 | 8878 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 Perfluoroheptanoic acid | | | | | | | | | | RM |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1131 | 0.000917 | Target=3.69 | | 0.8 | R |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.003 | 722 | | 1.57(1.84-5.53) | | 1.8 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | RM |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.916 | 248 | 0.000275 | Target=4.88 | | 1.8 | RM |
| 449.00 > 99.00 | 3.447 | 3.465 | -0.018 | 0.911 | 310 | | 0.80(2.44-7.32) | | 1.6 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.003 | 173 | 0.000776 | | | 4.1 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.465 | 3.474 | -0.009 | 0.997 | 208853 | 1.21 | | 102 | 649 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.474 | 3.474 | 0.0 | 1.000 | 1611746 | 1.20 | | 95.9 | 6653 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.474 | 3.483 | -0.009 | | 1633444 | 1.25 | | | 5709 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.465 | 3.483 | -0.018 | 0.997 | 3462 | 0.002525 | Target=2.68 | | 0.6 | M |
| 413.00 > 169.00 | 3.465 | 3.483 | -0.018 | 0.997 | 1570 | | 2.21(1.34-4.02) | | 4.1 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.089 | 865438 | 1.09 | | 91.5 | 4048 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.775 | 3.785 | -0.010 | 0.997 | 2893 | 0.003682 | Target=4.69 | | 5.8 | M |
| 499.00 > 99.00 | 3.775 | 3.785 | -0.010 | 0.997 | 1231 | | 2.35(2.35-7.04) | | 4.7 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.095 | 1406146 | 1.05 | | 84.0 | 4325 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.944 | 3.943 | 0.001 | 1.042 | 471 | 0.000398 | | | 2.6 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.093 | 4.092 | 0.001 | 1.178 | 1317069 | 0.9744 | | 78.0 | 5311 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.093 | 4.092 | 0.001 | 1.000 | 1529 | 0.001444 | Target=8.95 | | 1.4 | M |
| 513.00 > 169.00 | 4.093 | 4.092 | 0.001 | 1.000 | 132 | | 11.58(4.47-13.42) | | 1.6 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.181 | 233099 | 1.19 | | 99.4 | 1006 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.213 | 1243667 | 0.9540 | | 76.3 | 2834 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.000 | 2364 | 0.002502 | | | 9.4 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.219 | 118284 | 0.8897 | | 71.2 | 2309 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.246 | 4.235 | 0.011 | 1.003 | 1057 | 0.0142 | | | 8.0 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.325 | 4.324 | 0.001 | 1.143 | 1246 | 0.002618 | Target=2.47 | | 5.6 | M |
| 599.00 > 99.00 | 4.325 | 4.324 | 0.001 | 1.143 | 521 | | 2.39(1.23-3.70) | | 7.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.358 | 4.347 | 0.011 | 1.254 | 975333 | 0.9258 | | 74.1 | 5377 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.358 | 0.0 | 1.254 | 106252 | 0.8532 | | 68.3 | 1315 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.003 | 1480 | 0.0203 | | | 20.2 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.435 | 4.445 | -0.010 | 1.172 | 717 | 0.000513 | | | 3.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.580 | 4.568 | 0.012 | 1.318 | 932685 | 0.8231 | | 65.8 | 840 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | M |
| 613.00 > 569.00 | 4.580 | 4.568 | 0.012 | 1.000 | 2113 | 0.002892 | Target=7.04 | | 0.5 | M |
| 613.00 > 169.00 | 4.568 | 4.568 | 0.0 | 0.997 | 266 | | 7.94(3.52-10.56) | | 3.3 | M |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.601 | 4.590 | 0.011 | 1.121 | 32 | 0.000425 | | | 1.1 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.729 | 4.738 | -0.009 | 1.249 | 81 | 0.000463 | Target=0.49 | | 2.8 | M |
| 699.00 > 99.00 | 4.729 | 4.738 | -0.009 | 1.249 | 195 | | 0.42(0.25-0.74) | | 2.6 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.774 | 4.765 | 0.009 | 1.042 | 1313 | 0.002085 | Target=4.68 | | 0.6 | M |
| 663.00 > 169.00 | 4.765 | 4.765 | 0.0 | 1.040 | 256 | | 5.13(2.34-7.02) | | 4.1 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.946 | 0.0 | 1.424 | 786858 | 0.8953 | | 71.6 | 1919 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | RM |
| 713.00 > 169.00 | 4.946 | 4.946 | 0.0 | 1.000 | 177 | 0.001782 | Target=1.01 | | 6.7 | RM |
| 713.00 > 219.00 | 4.936 | 4.946 | -0.010 | 0.998 | 426 | | 0.42(0.51-1.52) | | 12.9 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.245 | 0.0 | 1.510 | 705684 | 0.9118 | | 72.9 | 3645 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.245 | 5.245 | 0.0 | 1.000 | 7892 | -0.002399 | Target=4.57 | | 3.9 | M |
| 813.00 > 169.00 | 5.245 | 5.245 | 0.0 | 1.000 | 1538 | | 5.13(2.29-6.86) | | 37.4 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.501 | 5.501 | 0.0 | 1.049 | 1421 | 0.002985 | Target=4.27 | | 1.4 | M |
| 913.00 > 169.00 | 5.492 | 5.501 | -0.009 | 1.047 | 273 | | 5.21(2.14-6.41) | | 9.8 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 16:02:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d

Injection Date: 08-Nov-2021 17:13:52 Instrument ID: LC812

Lims ID: MB 200-173541/1-A

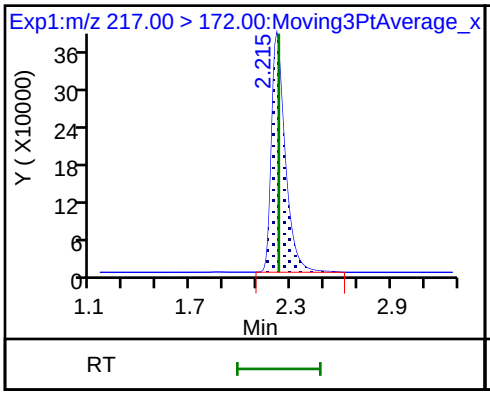
Client ID:

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13

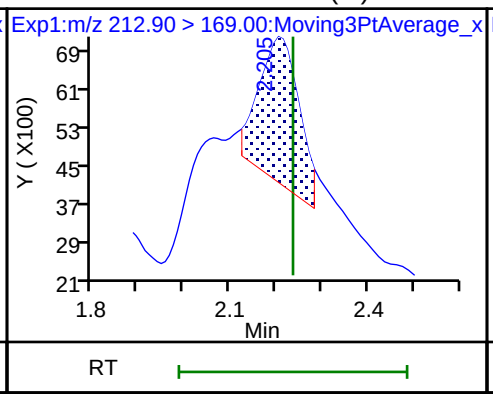
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

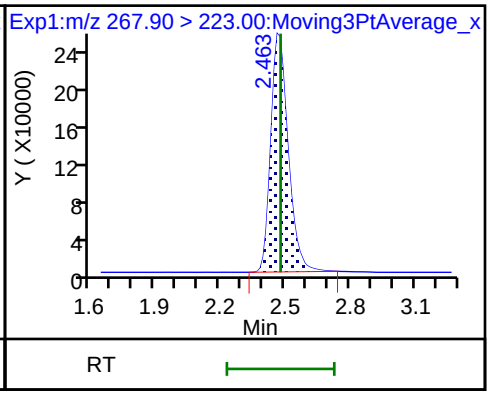
D 1 13C4 PFBA



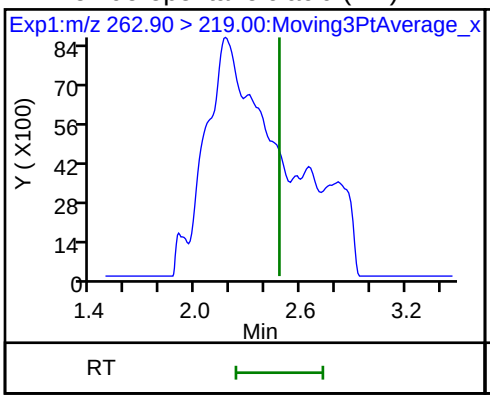

2 Perfluorobutanoic acid (M)



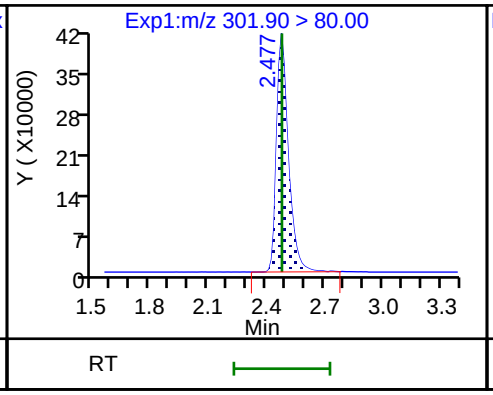

D 3 13C5 PFPeA



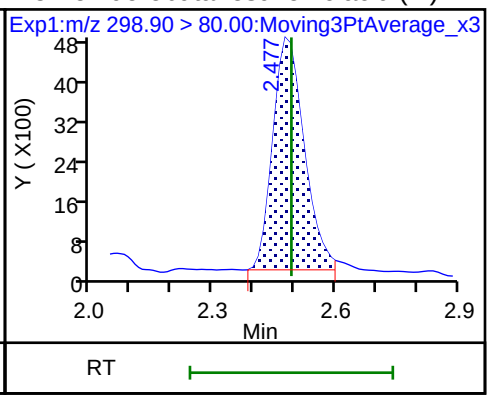

4 Perfluoropentanoic acid (ND)



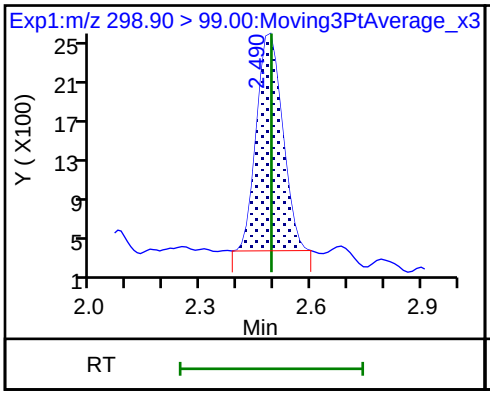

D 47 13C3 PFBS



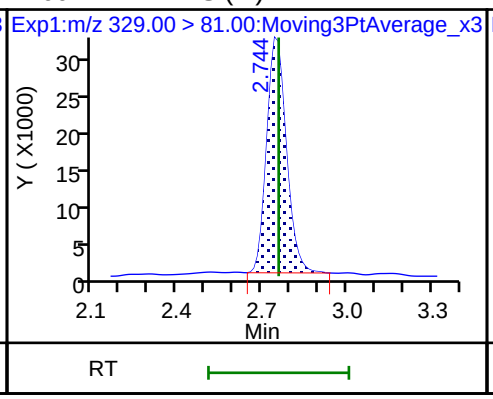

5 Perfluorobutanesulfonic acid (M)



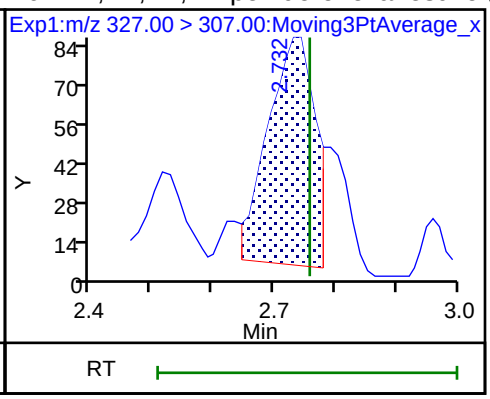

5 Perfluorobutanesulfonic acid



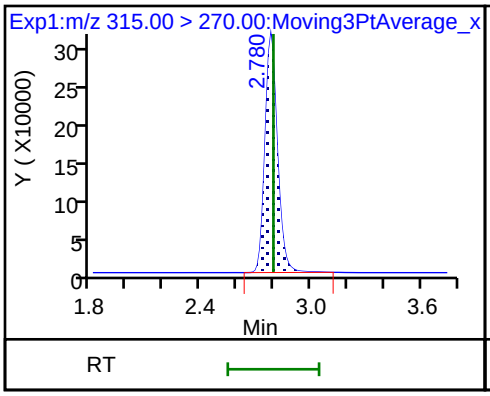

D 60 M2-4:2 FTS (M)



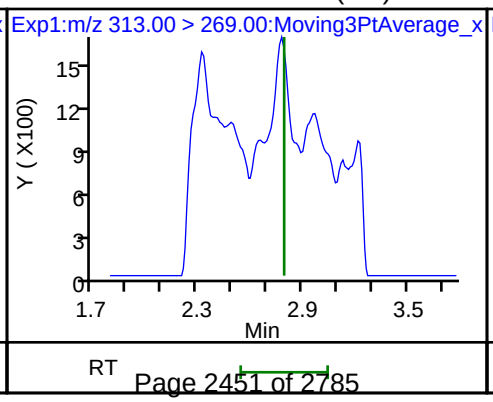

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



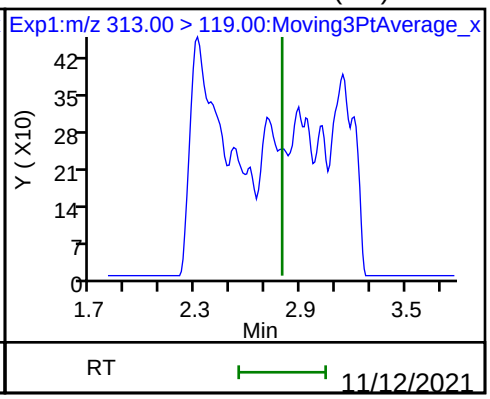

D 7 13C2 PFHxA



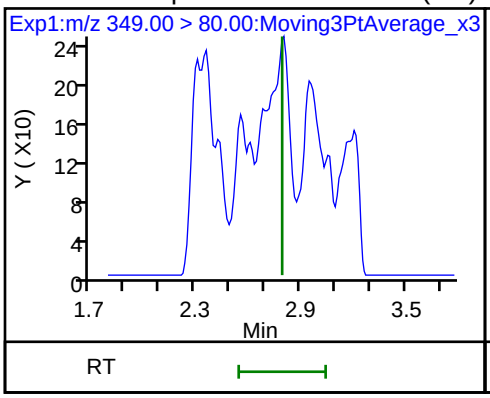

6 Perfluorohexanoic acid (ND)



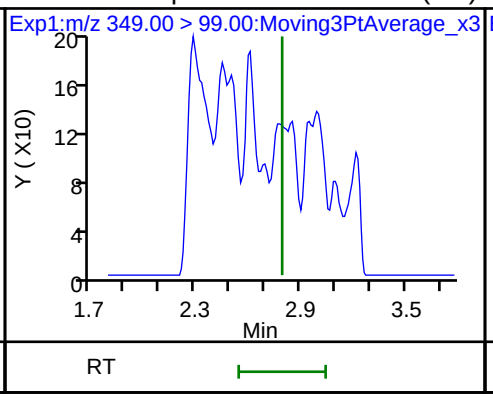

6 Perfluorohexanoic acid (ND)



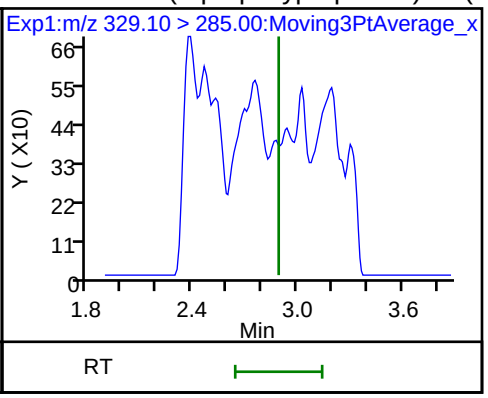
70 Perfluoropentanesulfonic acid (ND)



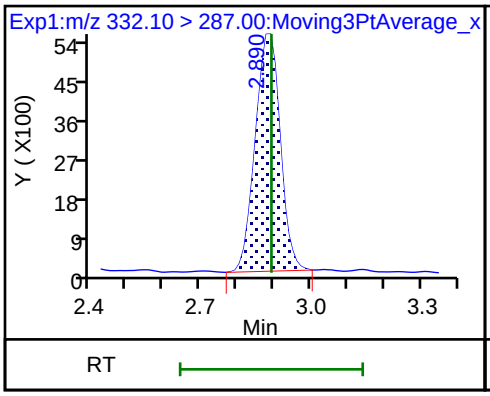

70 Perfluoropentanesulfonic acid (ND)



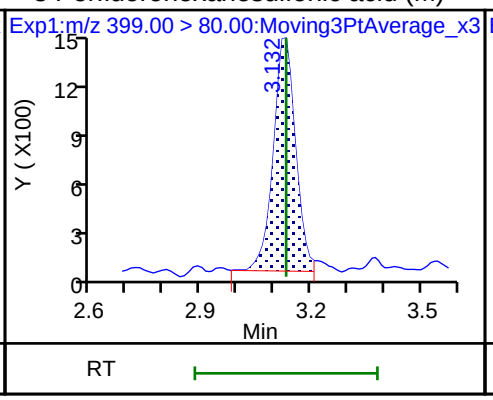

67 Perfluoro(2-propoxypropanoic) ac (ND)



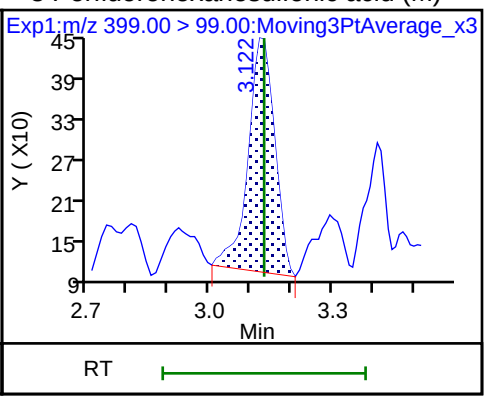

D 64 13C3 HFPO-DA



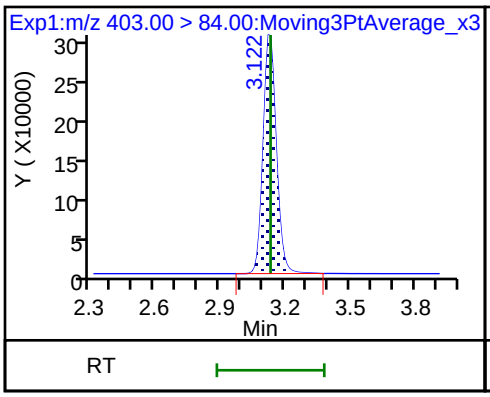

8 Perfluorohexanesulfonic acid (M)



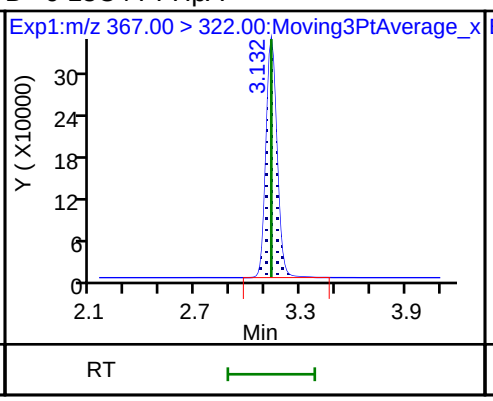

8 Perfluorohexanesulfonic acid (M)



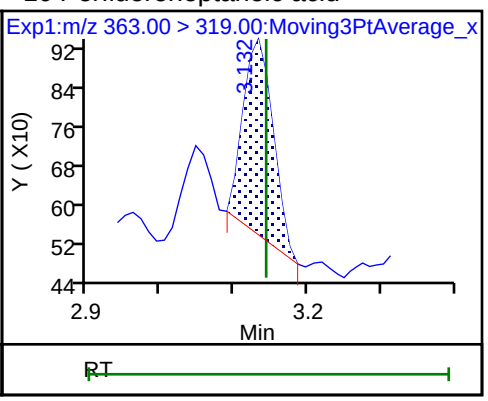

D 11 18O2 PFHxS



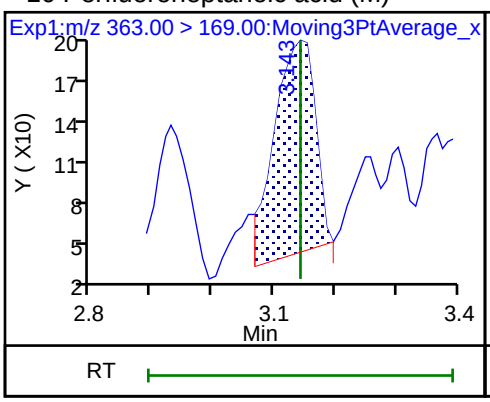

D 9 13C4 PFHpA



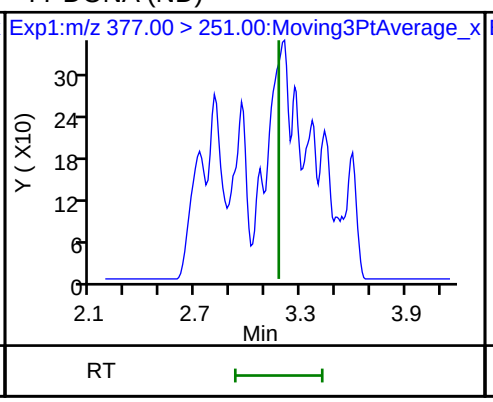

10 Perfluoroheptanoic acid



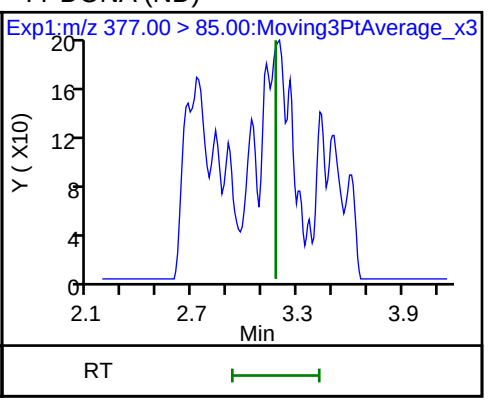

10 Perfluoroheptanoic acid (M)



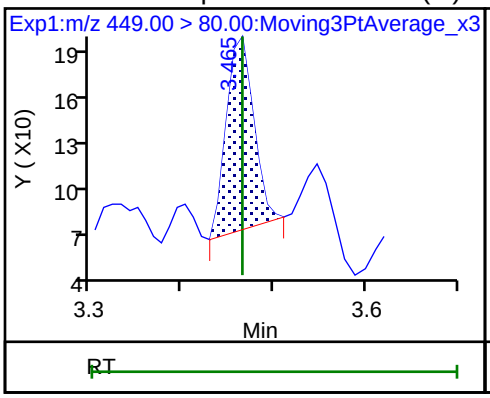

77 DONA (ND)



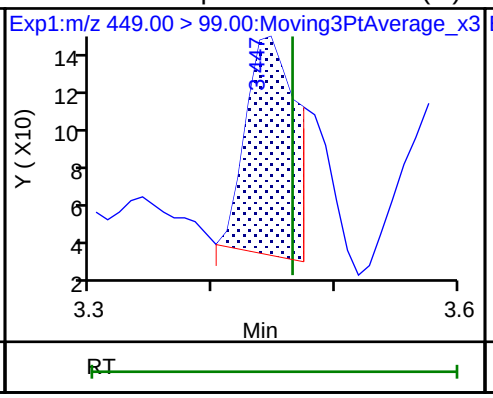

77 DONA (ND)



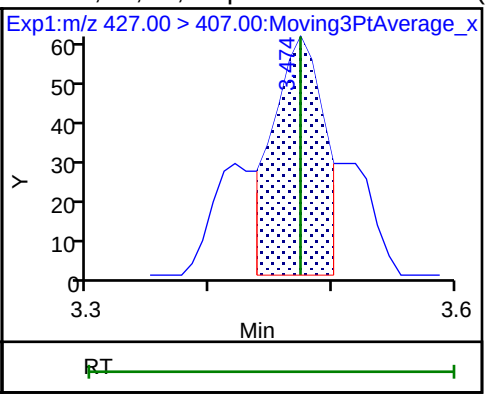
16 Perfluoroheptanesulfonic acid (M)



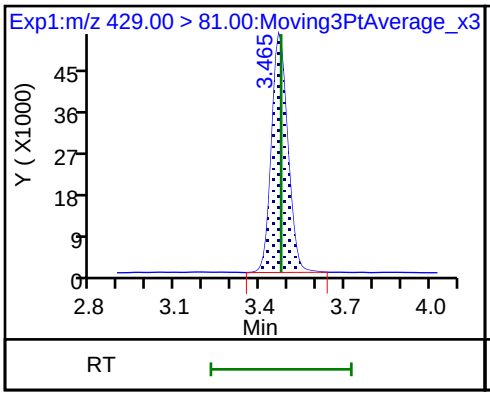

16 Perfluoroheptanesulfonic acid (M)



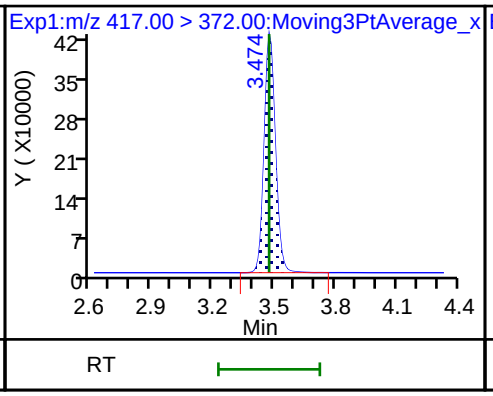

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



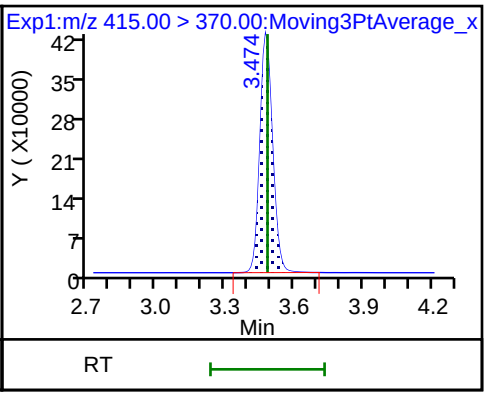

D 12 M2-6:2 FTS



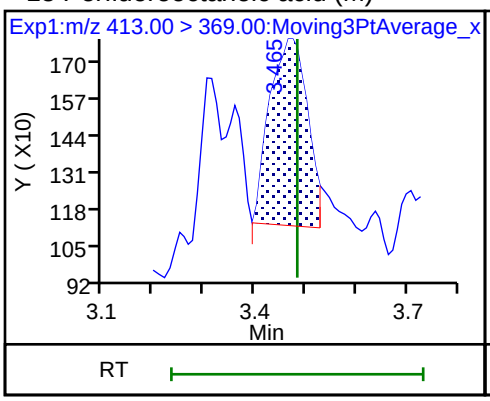

D 14 13C4 PFOA



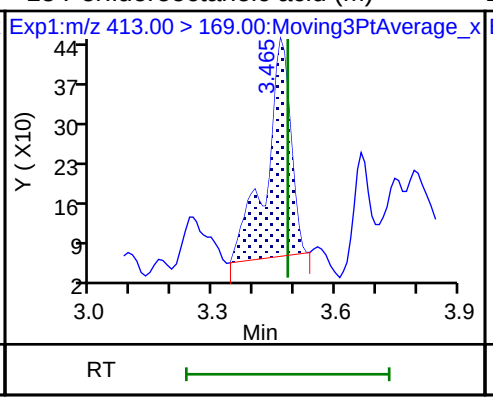

* 62 13C2 PFOA



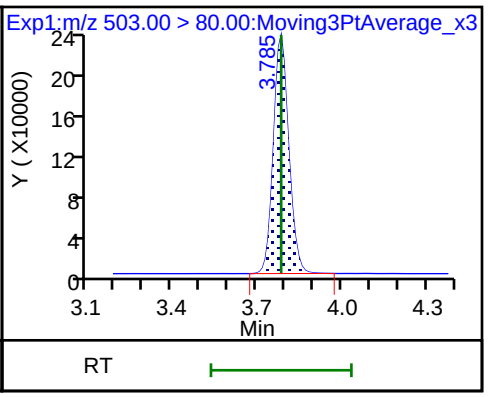

15 Perfluorooctanoic acid (M)



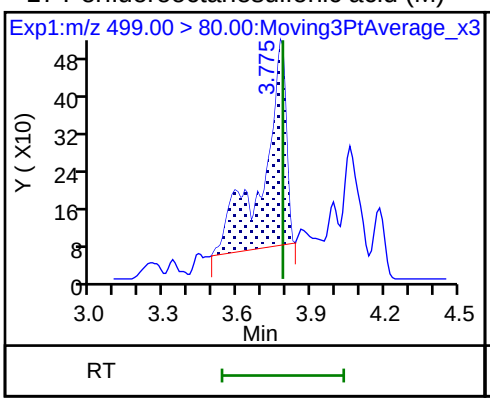

15 Perfluorooctanoic acid (M)



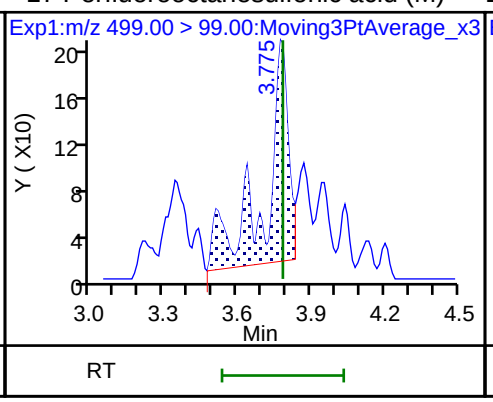

D 18 13C4 PFOS



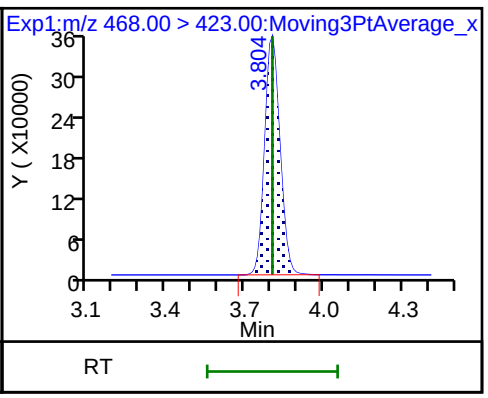

17 Perfluorooctanesulfonic acid (M)



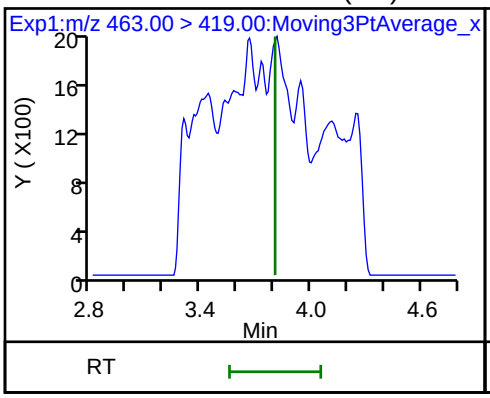

17 Perfluorooctanesulfonic acid (M)



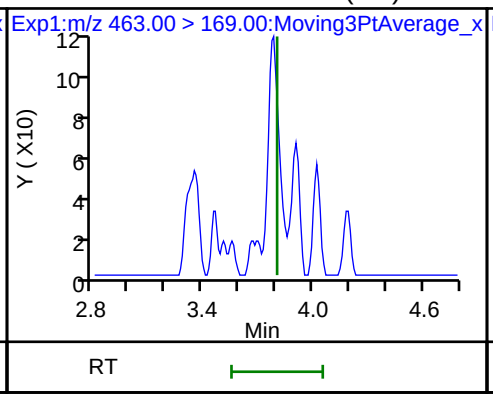

D 19 13C5 PFNA



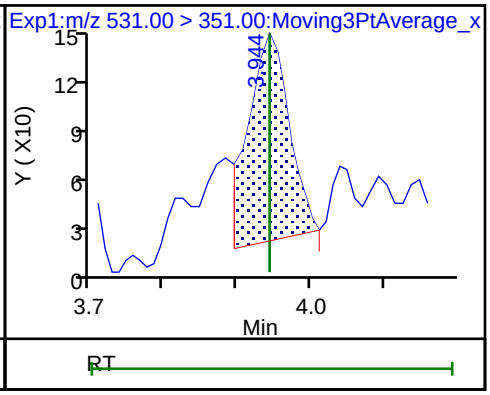
20 Perfluorononanoic acid (ND)



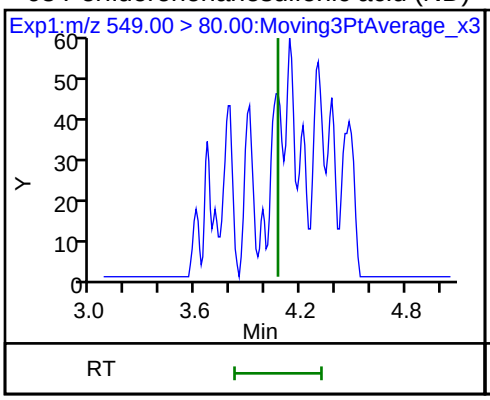

20 Perfluorononanoic acid (ND)



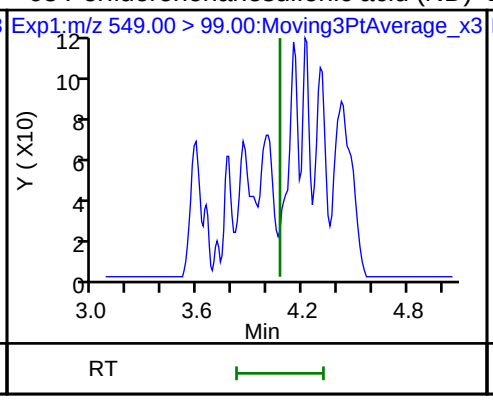

69 9-Chlorohexadecafluoro-3-oxanona (M)



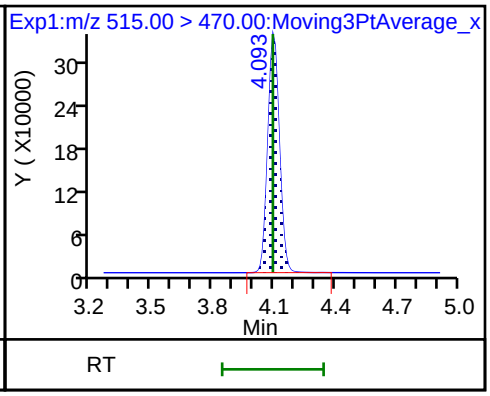

68 Perfluorononanesulfonic acid (ND)



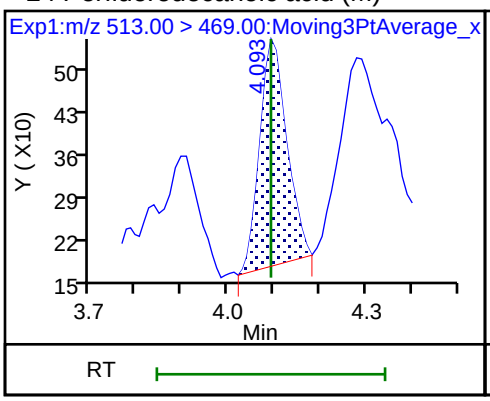

68 Perfluorononanesulfonic acid (ND)



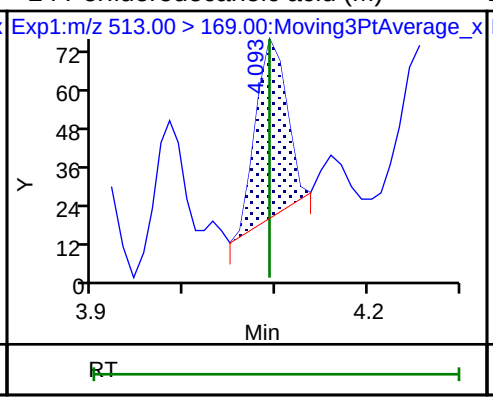

D 23 13C2 PFDA



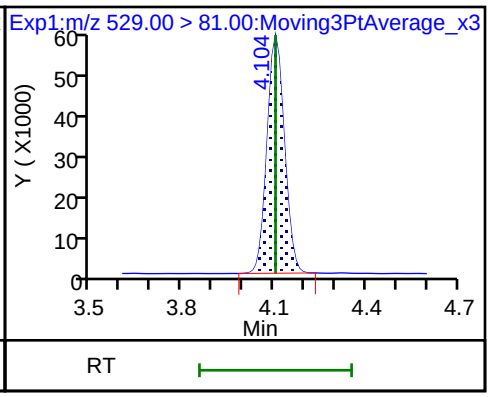

24 Perfluorodecanoic acid (M)



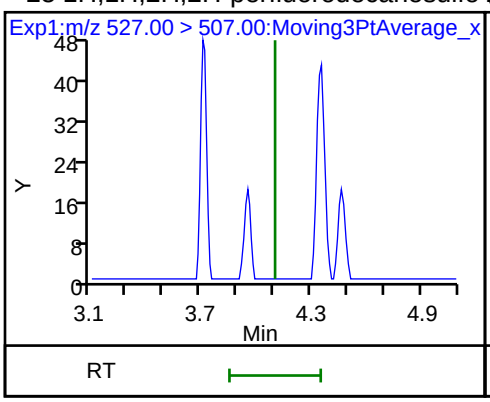

24 Perfluorodecanoic acid (M)



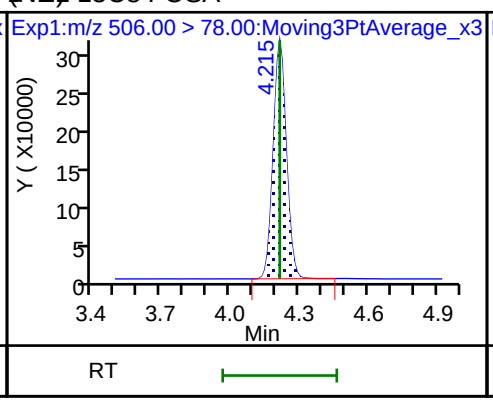

D 26 M2-8:2 FTS



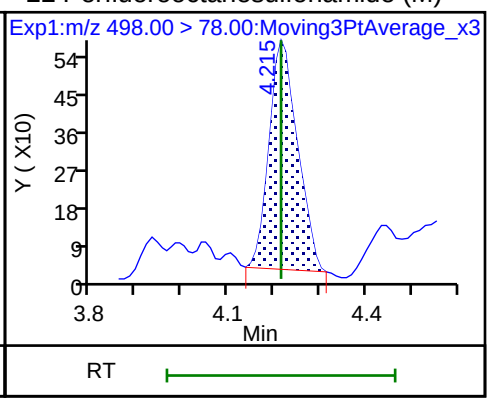

25 1H,1H,2H,2H-perfluorodecanesulfo (ND)



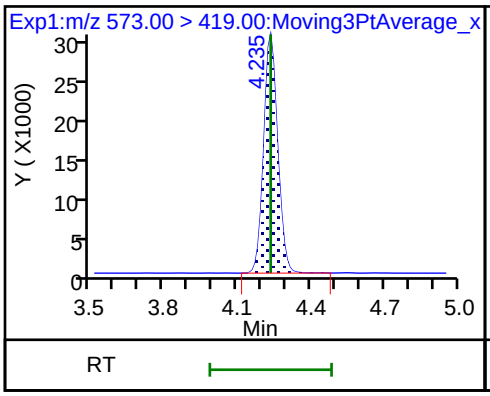

D 21 13C8 FOSA



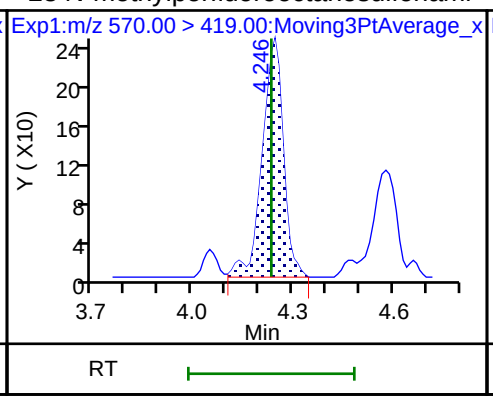

22 Perfluorooctanesulfonamide (M)



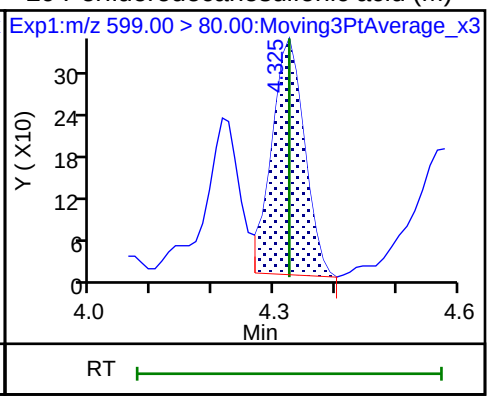
D 27 d3-NMeFOSAA



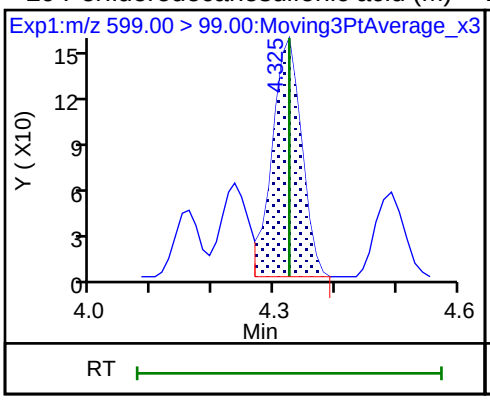

28 N-methylperfluorooctanesulfonami



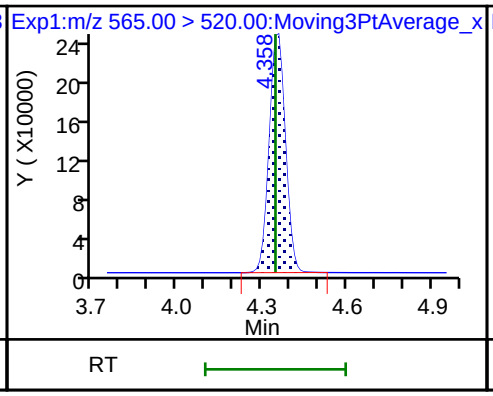

29 Perfluorodecanesulfonic acid (M)



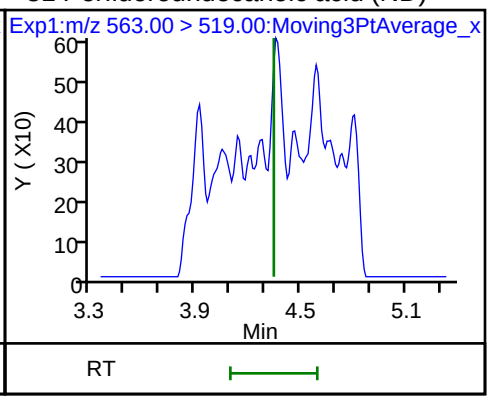

29 Perfluorodecanesulfonic acid (M)



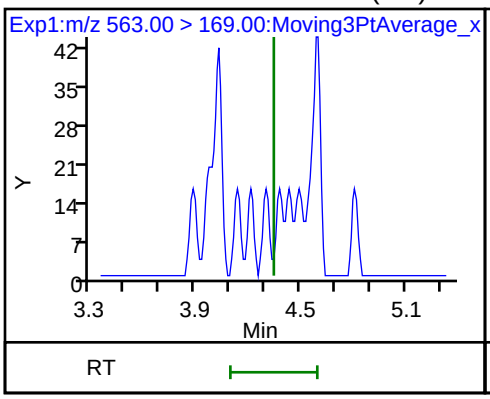

D 30 13C2 PFUnA



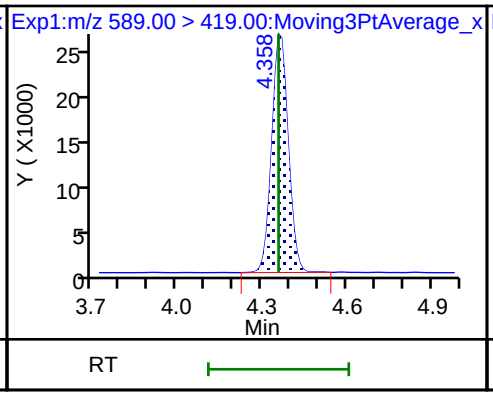

31 Perfluoroundecanoic acid (ND)



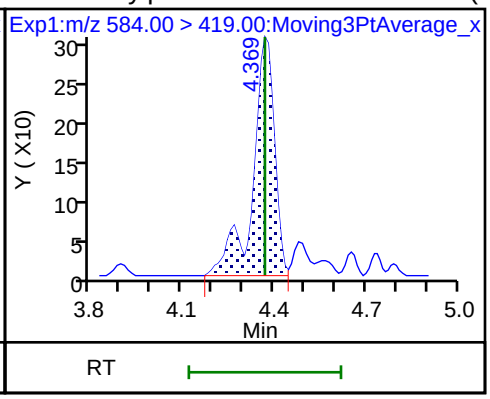

31 Perfluoroundecanoic acid (ND)



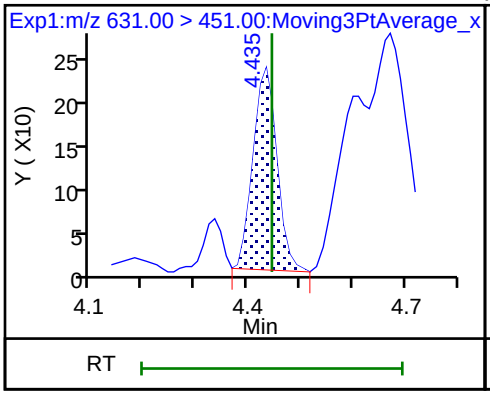

D 32 d5-NEtFOSAA



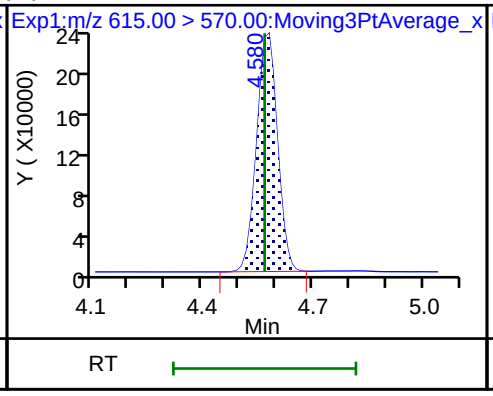

33 N-ethylperfluorooctanesulfonamid (M)



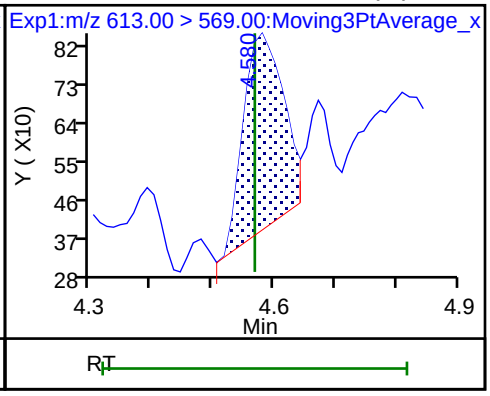

66 11-Chloroeicosafluoro-3-oxaundec (M)



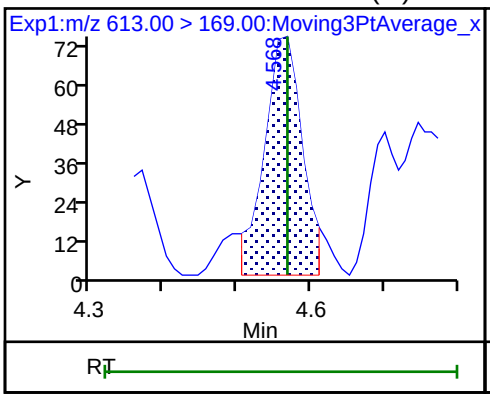

D 36 13C2 PFDoA



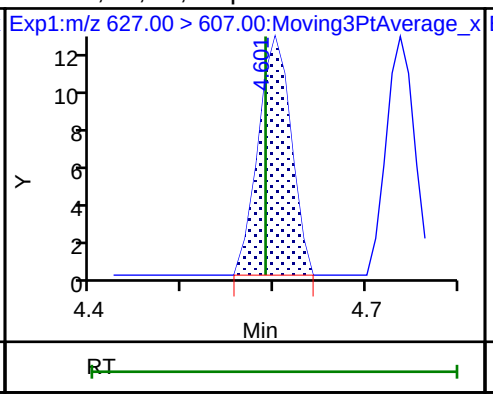

37 Perfluorododecanoic acid (M)



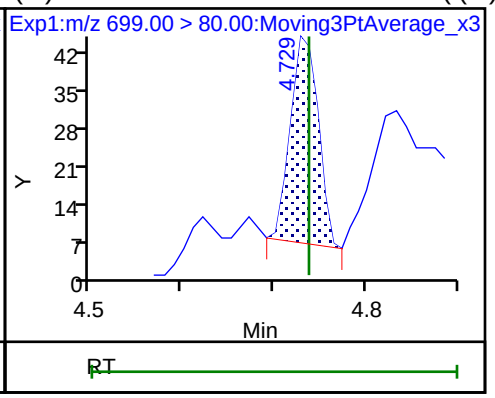
37 Perfluorododecanoic acid (M)



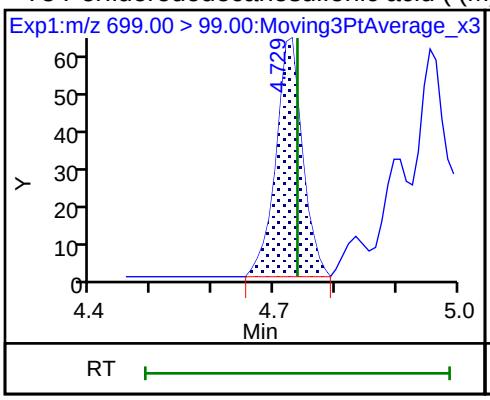

74 1H,1H,2H,2H-perfluorododecanesul (M)



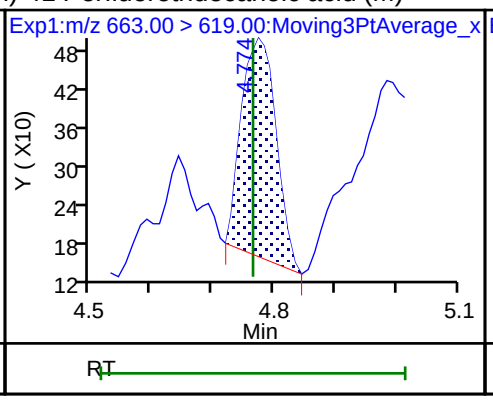

75 Perfluorododecanesulfonic acid ( (M)



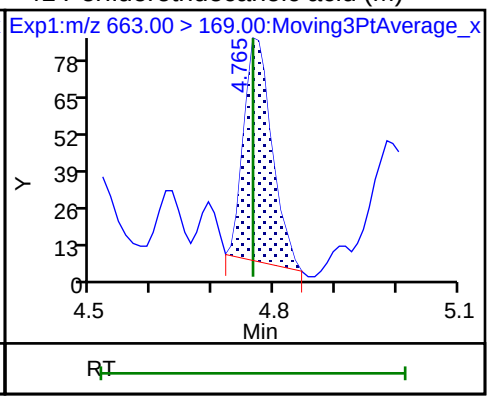

75 Perfluorododecanesulfonic acid ( (M)



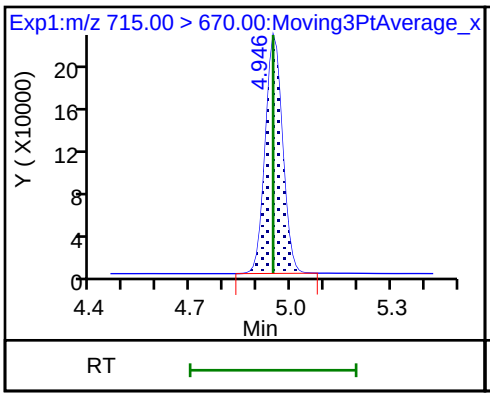

41 Perfluorotridecanoic acid (M)



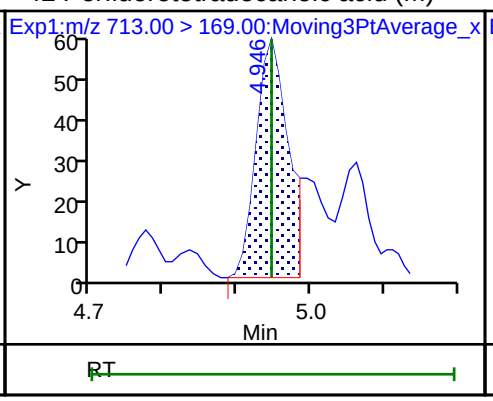

41 Perfluorotridecanoic acid (M)



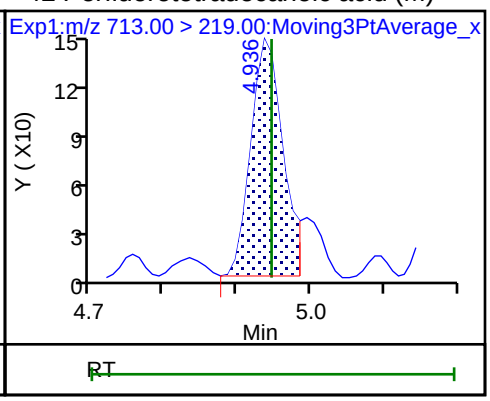

D 43 13C2 PFTeDA



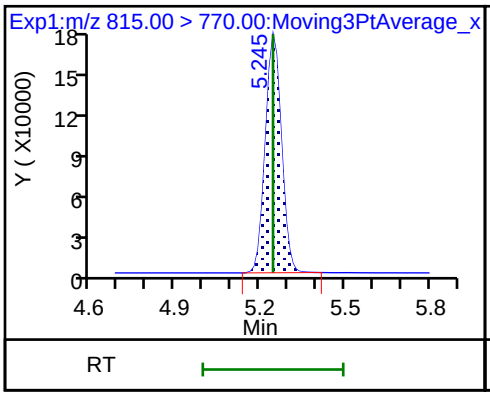

42 Perfluorotetradecanoic acid (M)



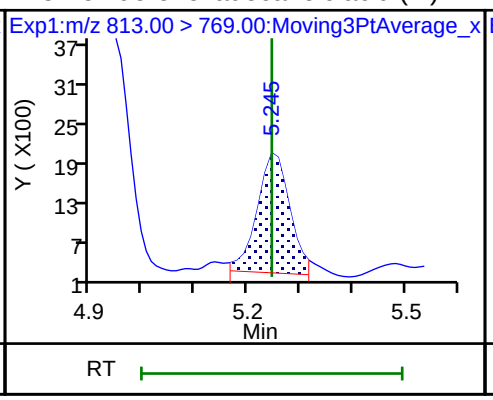

42 Perfluorotetradecanoic acid (M)



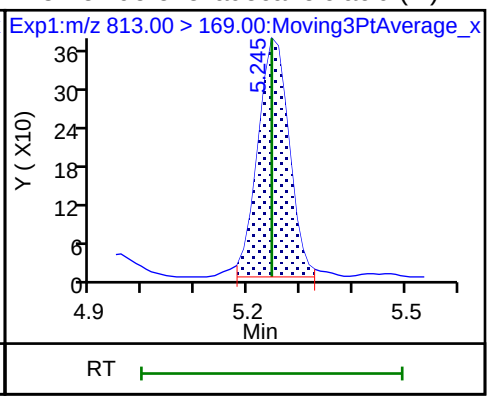

D 44 13C2 PFHxDA



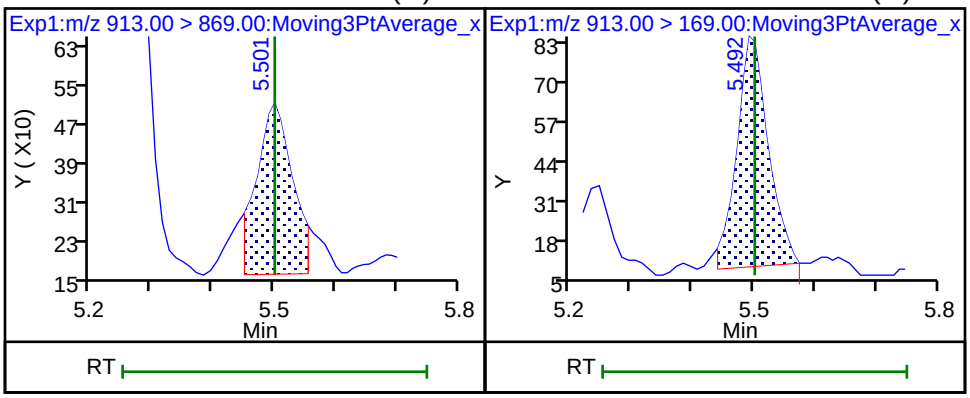

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

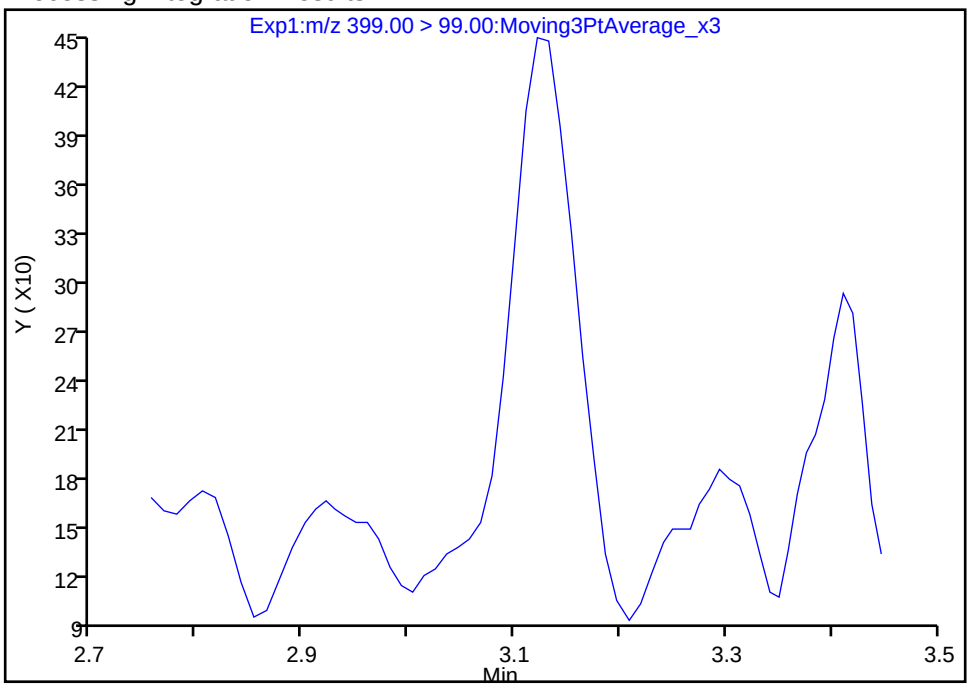
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d
Injection Date: 08-Nov-2021 17:13:52 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

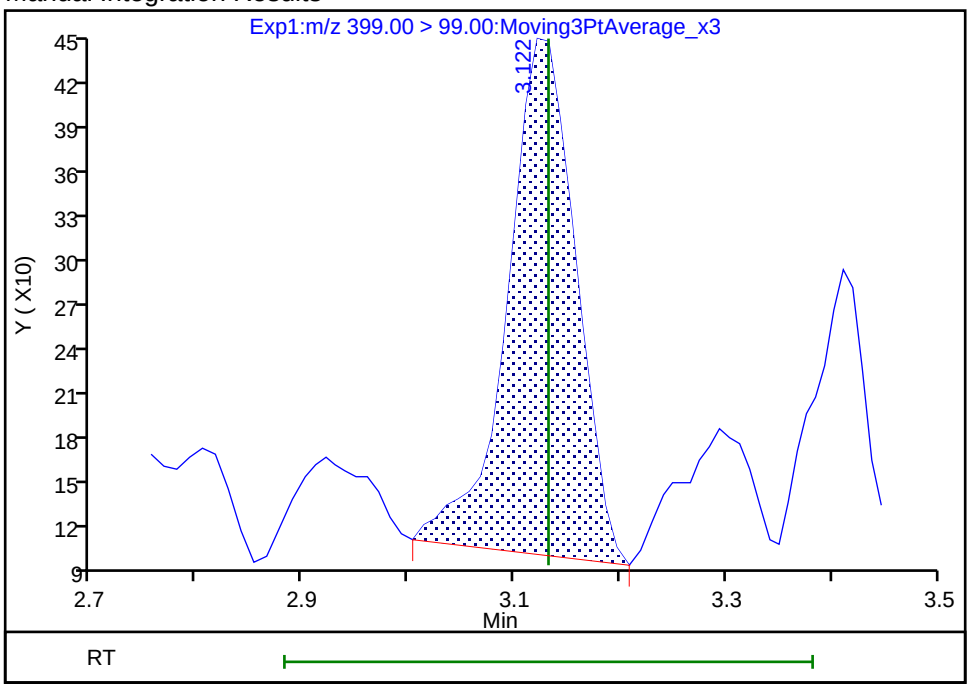
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.12
Area: 1547
Amount: 0.004853
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:38:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

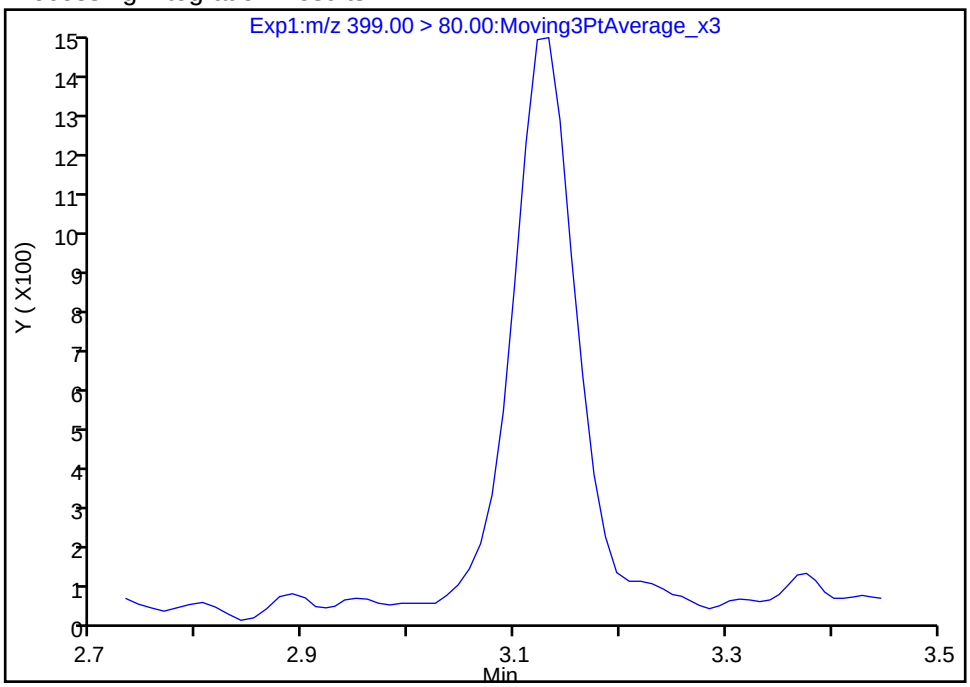
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d
Injection Date: 08-Nov-2021 17:13:52 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

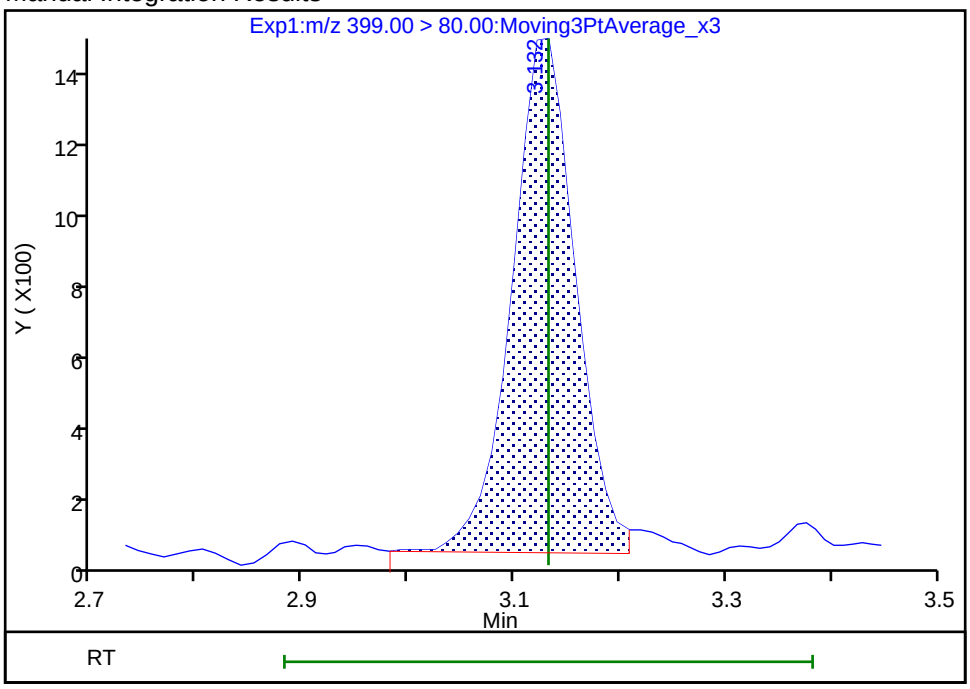
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.13
Area: 5716
Amount: 0.004853
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:38:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

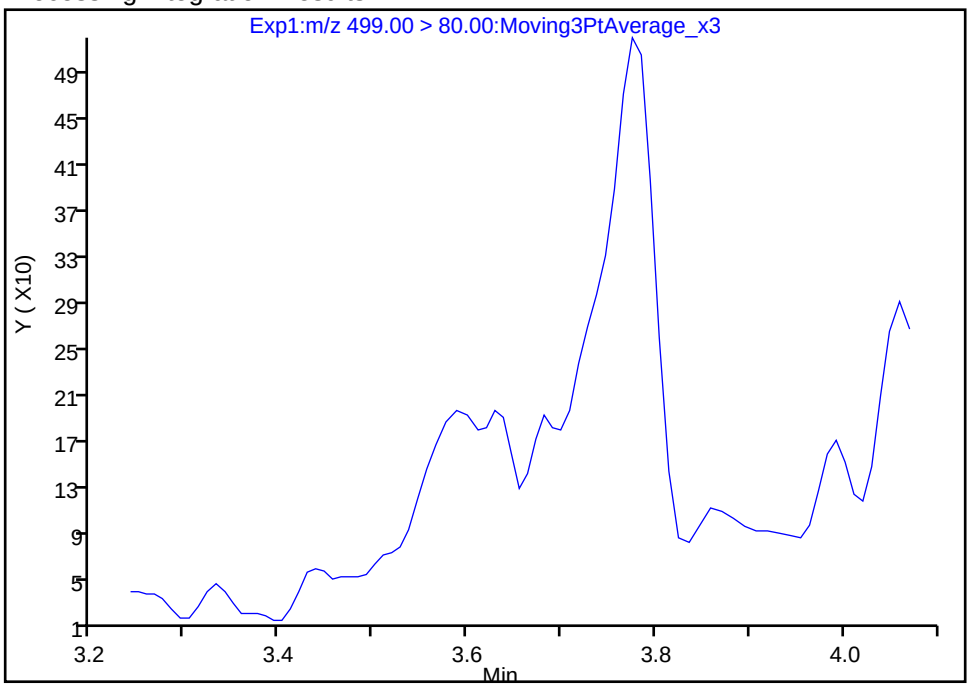
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d
Injection Date: 08-Nov-2021 17:13:52 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

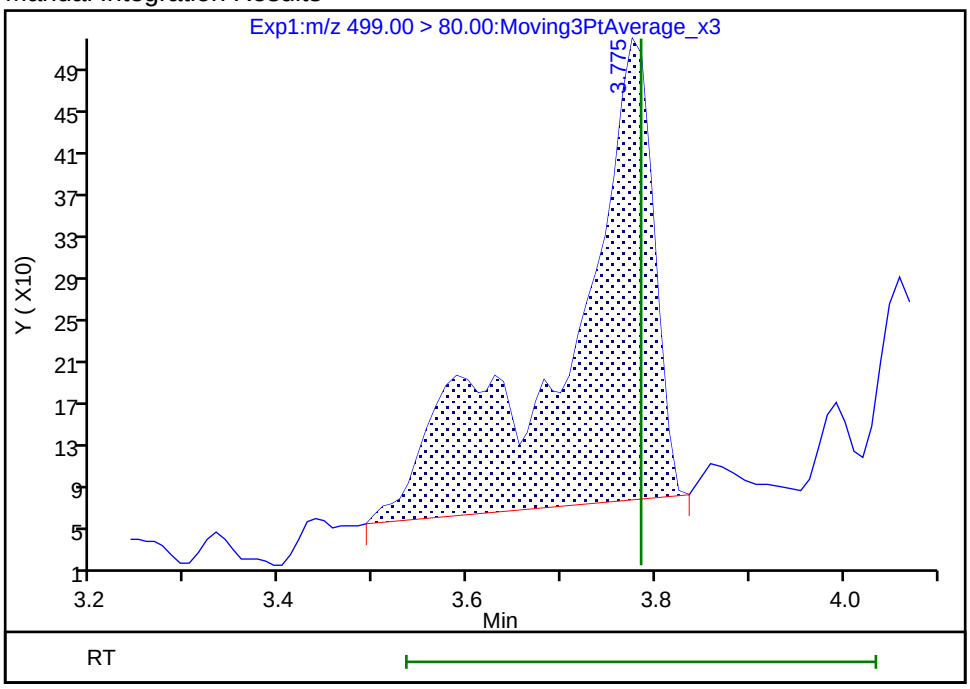
Not Detected
Expected RT: 3.78

Processing Integration Results




Manual Integration Results

RT: 3.78
Area: 2893
Amount: 0.003682
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:39:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

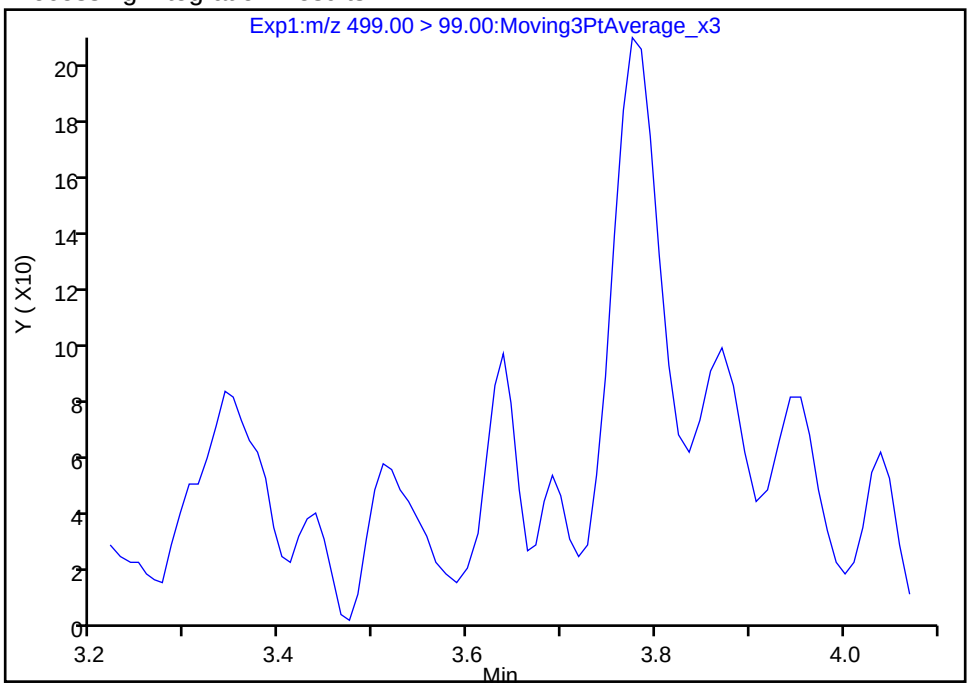
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A13.d
Injection Date: 08-Nov-2021 17:13:52 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

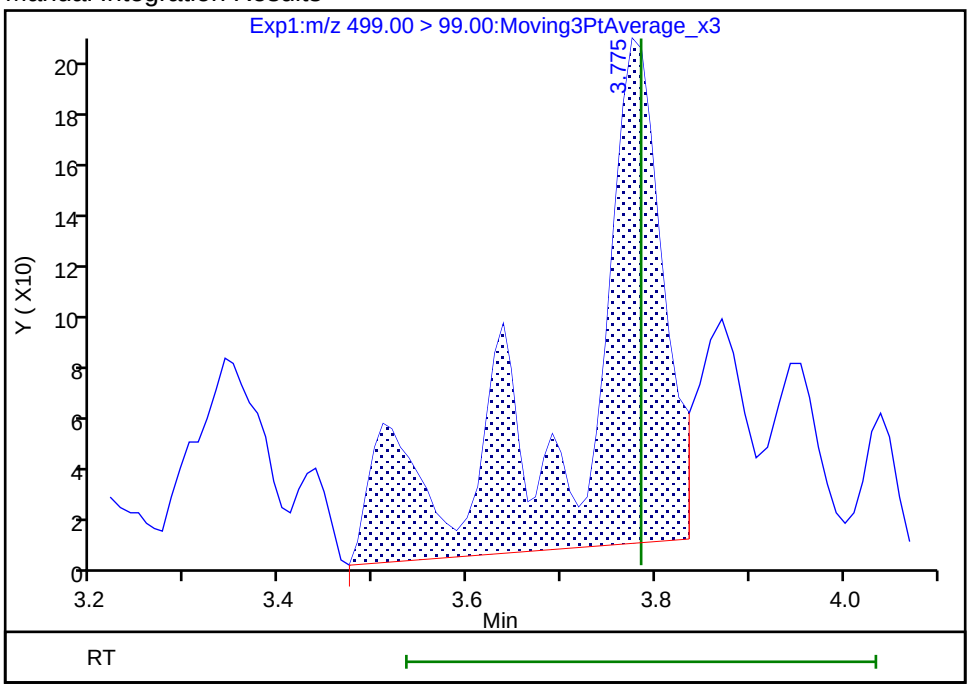
Not Detected
Expected RT: 3.78

Processing Integration Results




Manual Integration Results

RT: 3.78
Area: 1231
Amount: 0.003682
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:39:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173541/1-A

Matrix: Water  Lab File ID: PA211110A07.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:11

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.89 | U | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.47 | U | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.45 | U | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.24 | U | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.42 | U | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.28 | U | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.30 | U | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.34 | U | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.39 | U | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.43 | U | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.63 | U | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.585 | J | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.23 | U | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.31 | U | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.58 | U | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.90 | U | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.74 | U | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 1.10 | U | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.39 | U | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 200-173541/1-A

Matrix: Water  Lab File ID: PA211110A07.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:11

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 95 | | 50-150 |
| STL01892 | 13C4 PFHpA | 98 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 94 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 117 | | 25-150 |
| STL00993 | 13C2 PFHxA | 101 | | 50-150 |
| STL00996 | 13C2 PFDA | 83 | | 50-150 |
| STL00997 | 13C2 PFUnA | 75 | | 50-150 |
| STL00998 | 13C2 PFDoA | 69 | | 50-150 |
| STL01056 | 13C8 FOSA | 66 | | 25-150 |
| STL01893 | 13C5 PFPeA | 103 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 69 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 90 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 88 | | 50-150 |
| STL02279 | M2-6:2 FTS | 109 | | 25-150 |
| STL02280 | M2-8:2 FTS | 104 | | 25-150 |
| STL02337 | 13C3 PFBS | 94 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Lims ID: MB 200-173541/1-A
Client ID:
Sample Type: MB
Inject. Date: 10-Nov-2021 12:11:48 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: MB 200-173541/1-A
Misc. Info.: 200-0048360-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:39:40
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.600 | 2105422 | 1.46 | | 117 | 1541 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.082 | 2.091 | -0.009 | 0.996 | 7997 | 0.005021 | | | 1.4 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.400 | 2.414 | -0.014 | 0.689 | 1575376 | 1.29 | | 103 | 3983 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.697 | 1808855 | 1.10 | | 94.4 | 189266 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 24326 | 0.0146 | Target=2.32 | | 38.2 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 11317 | | 2.15(1.16-3.48) | | 7.9 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.004 | 238 | 0.000771 | | | 3.9 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.722 | 2.735 | -0.013 | 0.781 | 169270 | 1.35 | | 115 | 143 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.758 | 2.759 | -0.001 | 0.792 | 1608754 | 1.26 | | 101 | 3956 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.758 | 2.771 | -0.013 | 1.000 | 4112 | 0.003150 | Target=12.09 | | 0.9 | M |
| 313.00 > 119.00 | 2.758 | 2.771 | -0.013 | 1.000 | 636 | | 6.47(6.04-18.13) | | 0.5 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.869 | -0.002 | 0.823 | 34680 | 1.03 | | 82.4 | 271 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.121 | 3.133 | -0.012 | 0.997 | 6175 | 0.004948 | Target=3.55 | | 20.8 | M |
| 399.00 > 99.00 | 3.121 | 3.133 | -0.012 | 0.997 | 2447 | | 2.52(1.77-5.32) | | 3.6 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1342372 | 1.12 | | 94.8 | 4074 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.899 | 1639251 | 1.22 | | 97.5 | 3834 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.133 | 0.010 | 1.003 | 1987 | 0.001466 | Target=3.69 | | 0.8 | M |
| 363.00 > 169.00 | 3.143 | 3.133 | 0.010 | 1.003 | 790 | | 2.52(1.84-5.53) | | 1.8 | M |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.166 | 0.009 | 0.837 | 812 | 0.000285 | Target=2.56 | | 1.8 | M |
| 377.00 > 85.00 | 3.175 | 3.166 | 0.009 | 0.837 | 527 | | 1.54(1.28-3.84) | | 1.0 | M |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | RM |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.916 | 183 | 0.000180 | Target=4.88 | | 1.2 | RM |
| 449.00 > 99.00 | 3.483 | 3.475 | 0.008 | 0.918 | 136 | | 1.35(2.44-7.32) | | 1.0 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.447 | 3.475 | -0.028 | 0.992 | 207 | 0.000790 | | | 2.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.475 | -0.001 | 0.997 | 245250 | 1.30 | | 109 | 691 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.484 | -0.001 | 1.000 | 1717631 | 1.17 | | 93.5 | 2877 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.484 | -0.001 | | 1785267 | 1.25 | | | 3779 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.474 | 3.484 | -0.010 | 0.997 | 4442 | 0.003040 | Target=2.68 | | 0.5 | M |
| 413.00 > 169.00 | 3.483 | 3.484 | -0.001 | 1.000 | 1359 | | 3.27(1.34-4.02) | | 4.3 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.798 | -0.004 | 1.089 | 972796 | 1.12 | | 94.1 | 3660 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.690 | 3.798 | -0.108 | 0.973 | 4637 | 0.005250 | Target=4.69 | | 5.0 | M |
| 499.00 > 99.00 | 3.824 | 3.798 | 0.026 | 1.008 | 1213 | | 3.82(2.35-7.04) | | 2.1 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.095 | 1676676 | 1.15 | | 91.6 | 3935 | |
| 20 Perfluorononanoic acid | | | | | | | | | | RM |
| 463.00 > 419.00 | 3.836 | 3.818 | 0.018 | 1.006 | 1078 | 0.000821 | Target=7.29 | | 0.4 | RM |
| 463.00 > 169.00 | 3.824 | 3.818 | 0.006 | 1.003 | 303 | | 3.56(3.64-10.93) | | 3.3 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.944 | 3.959 | -0.015 | 1.039 | 458 | 0.000344 | | | 4.0 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | RM |
| 549.00 > 80.00 | 4.071 | 4.086 | -0.015 | 1.073 | 95 | 0.000138 | Target=2.35 | | 1.9 | RM |
| 549.00 > 99.00 | 4.071 | 4.086 | -0.015 | 1.073 | 129 | | 0.74(1.17-3.52) | | 1.0 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.181 | 1534862 | 1.04 | | 83.1 | 4331 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.185 | 266726 | 1.25 | | 104 | 938 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.115 | 4.120 | -0.005 | 0.997 | 46 | 0.000247 | | | 1.8 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.213 | 1181982 | 0.8295 | | 66.4 | 3228 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.224 | 4.219 | 0.005 | 1.000 | 1340 | 0.001492 | | | 6.2 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.246 | 4.251 | -0.005 | 1.219 | 163111 | 1.12 | | 89.8 | 1605 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.246 | 4.251 | -0.005 | 1.000 | 1383 | 0.0135 | | | 6.8 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.324 | 4.342 | -0.018 | 1.140 | 531 | 0.000993 | Target=2.47 | | 6.9 | M |
| 599.00 > 99.00 | 4.358 | 4.342 | 0.016 | 1.148 | 265 | | 2.00(1.23-3.70) | | 3.4 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.254 | 1085370 | 0.9427 | | 75.4 | 3906 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | RM |
| 563.00 > 519.00 | 4.369 | 4.375 | -0.006 | 1.000 | 1464 | 0.001582 | Target=9.24 | | 1.1 | RM |
| 563.00 > 169.00 | 4.346 | 4.375 | -0.029 | 0.995 | 72 | | 20.33(4.62-13.86) | | 2.3 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.257 | 149326 | 1.10 | | 87.8 | 876 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.380 | 4.387 | -0.007 | 1.000 | 1320 | 0.0129 | | | 14.5 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.445 | 4.463 | -0.018 | 1.172 | 407 | 0.000259 | | | 2.5 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.598 | -0.007 | 1.318 | 1062344 | 0.8578 | | 68.6 | 2446 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.591 | 4.619 | -0.028 | 1.113 | 33 | 0.000383 | | | 1.4 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.046 | 422 | 0.000588 | Target=4.68 | | 0.2 | M |
| 663.00 > 169.00 | 4.801 | 4.799 | 0.002 | 1.046 | 127 | | 3.32(2.34-7.02) | | 1.5 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.429 | 833034 | 0.8672 | | 69.4 | 1692 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | M |
| 713.00 > 169.00 | 4.985 | 4.972 | 0.013 | 1.002 | 347 | 0.003299 | Target=1.01 | | 10.2 | M |
| 713.00 > 219.00 | 4.976 | 4.972 | 0.004 | 1.000 | 237 | | 1.46(0.51-1.52) | | 6.9 | M |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.281 | 5.280 | 0.001 | 1.516 | 788436 | 0.9321 | | 74.6 | 2734 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.281 | 5.280 | 0.001 | 1.000 | 8179 | -0.003586 | Target=4.57 | | 2.6 | |
| 813.00 > 169.00 | 5.281 | 5.280 | 0.001 | 1.000 | 1791 | | 4.57(2.29-6.86) | | 54.8 | M |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.546 | 5.544 | 0.002 | 1.050 | 682 | 0.001282 | Target=4.27 | | 0.5 | |
| 913.00 > 169.00 | 5.537 | 5.544 | -0.007 | 1.048 | 221 | | 3.09(2.14-6.41) | | 10.3 | M |

## QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d

Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812

Lims ID: MB 200-173541/1-A

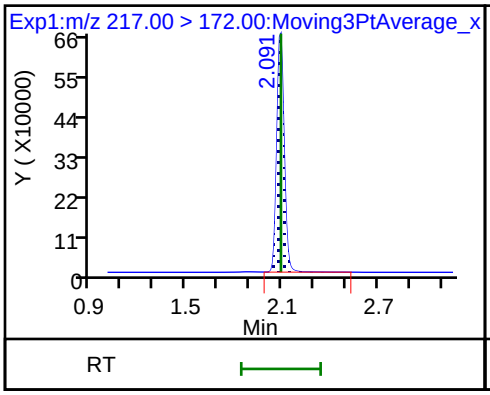
Client ID:

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7

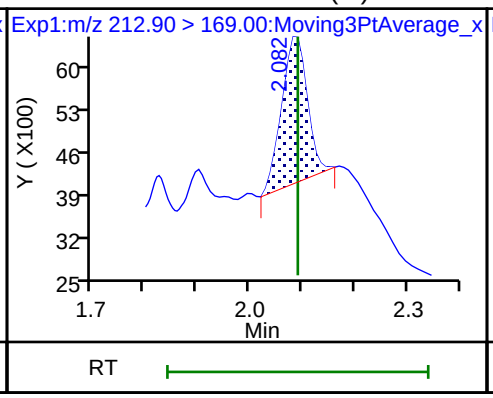
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

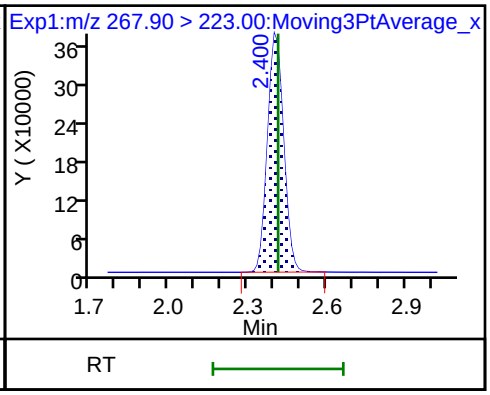
D 1 13C4 PFBA



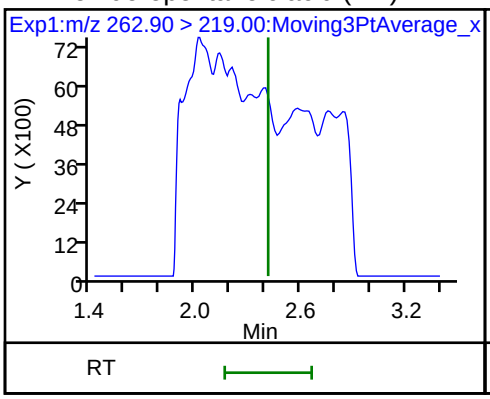

2 Perfluorobutanoic acid (M)



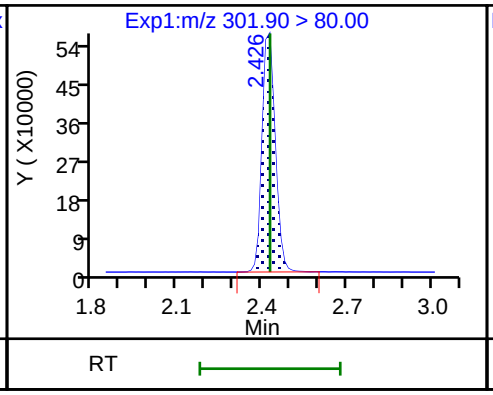

D 3 13C5 PFPeA



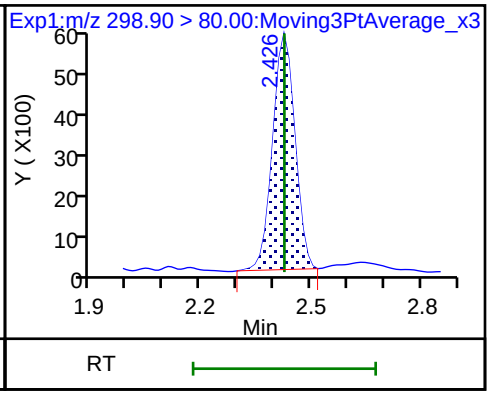

4 Perfluoropentanoic acid (ND)



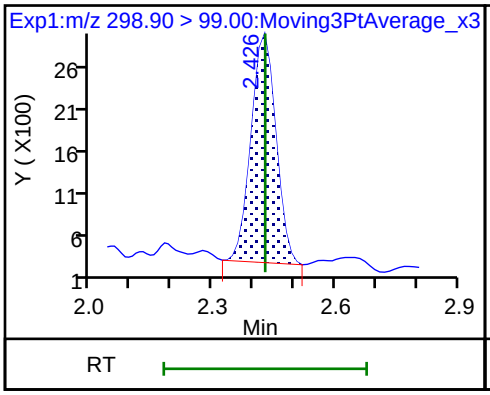

D 47 13C3 PFBS



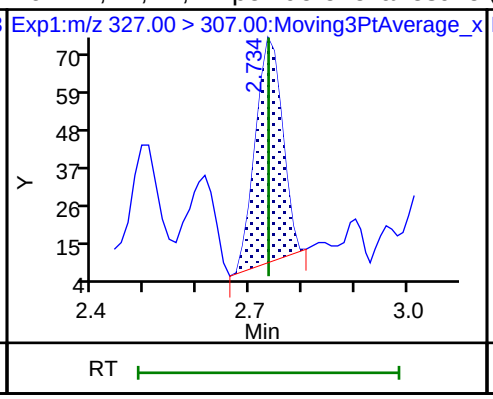

5 Perfluorobutanesulfonic acid



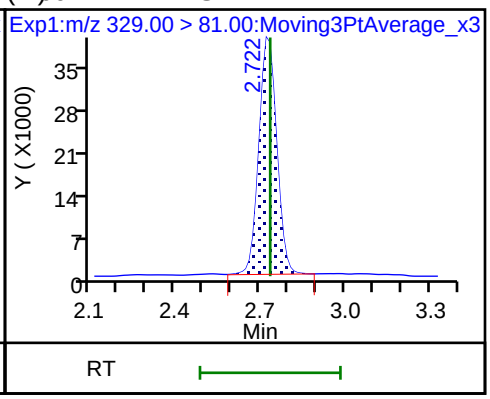

5 Perfluorobutanesulfonic acid



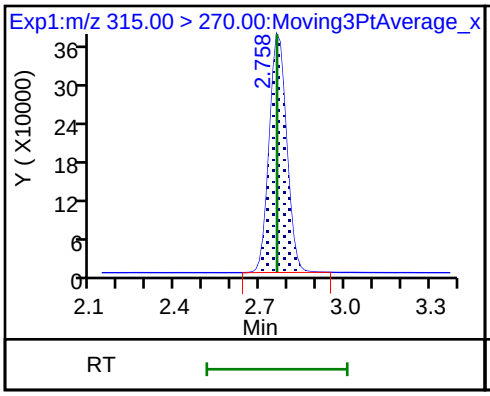

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



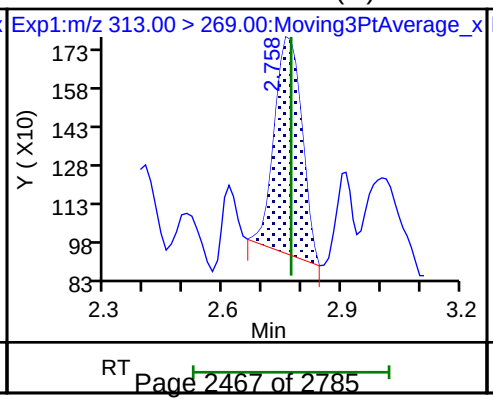

60 M2-4:2 FTS



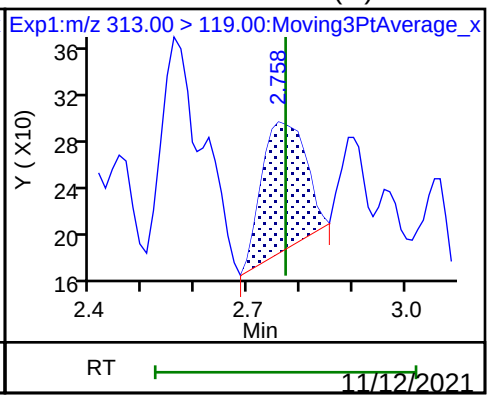

D 7 13C2 PFHxA



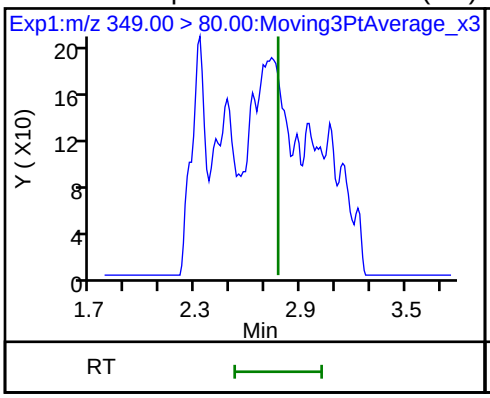

6 Perfluorohexanoic acid (M)



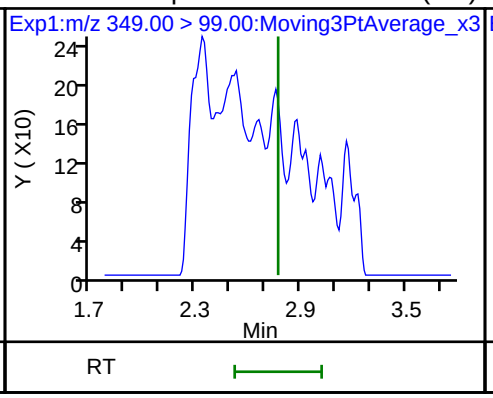

6 Perfluorohexanoic acid (M)



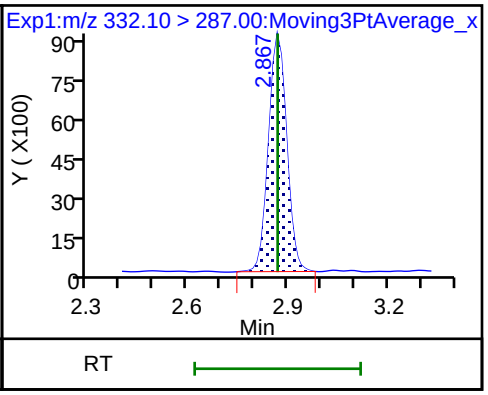
70 Perfluoropentanesulfonic acid (ND)



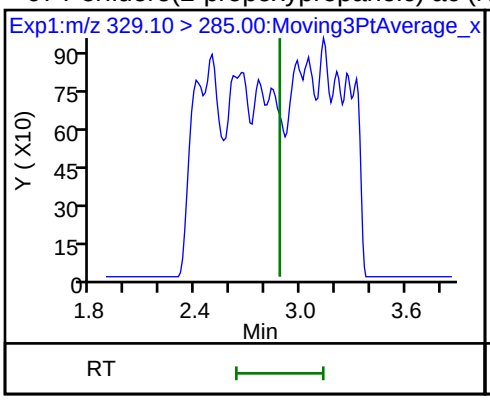

70 Perfluoropentanesulfonic acid (ND)



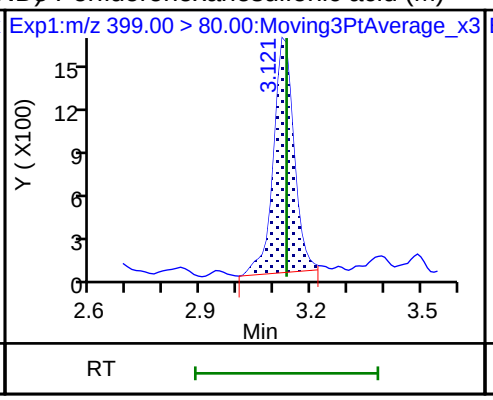

D 64 13C3 HFPO-DA



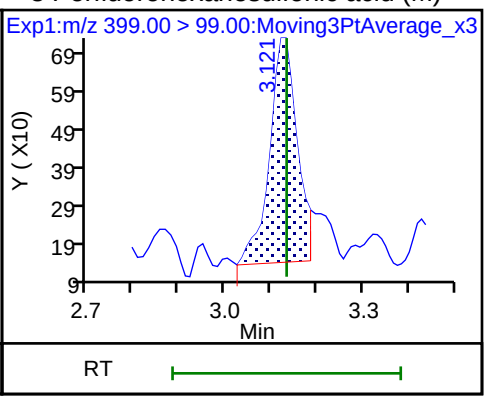

67 Perfluoro(2-propoxypropanoic) ac (ND)



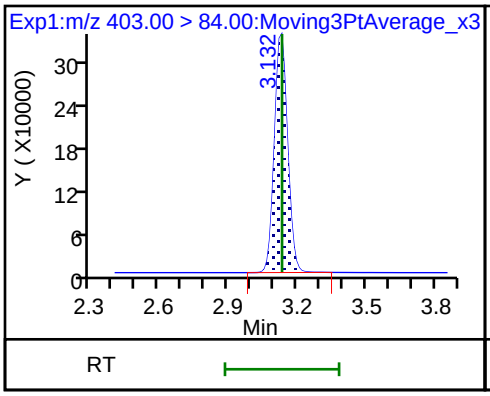

8 Perfluorohexanesulfonic acid (M)



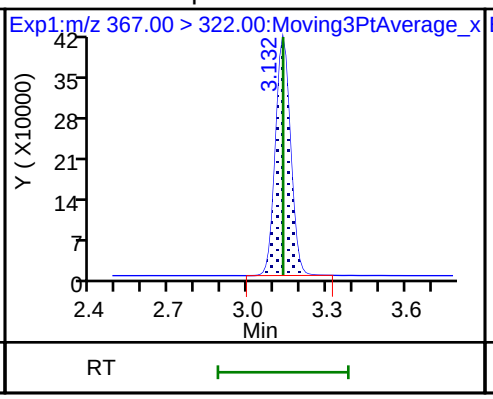

8 Perfluorohexanesulfonic acid (M)



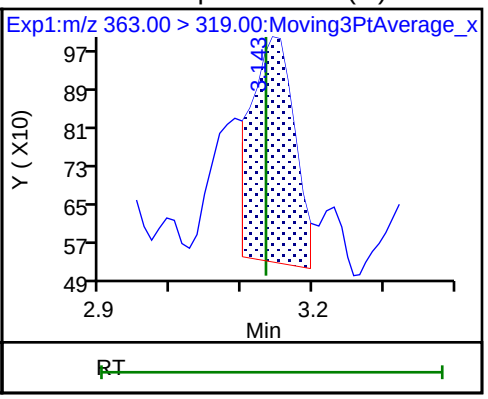

D 11 18O2 PFHxS



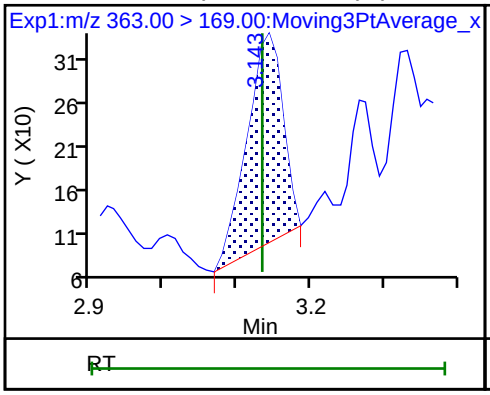

D 9 13C4 PFHpA



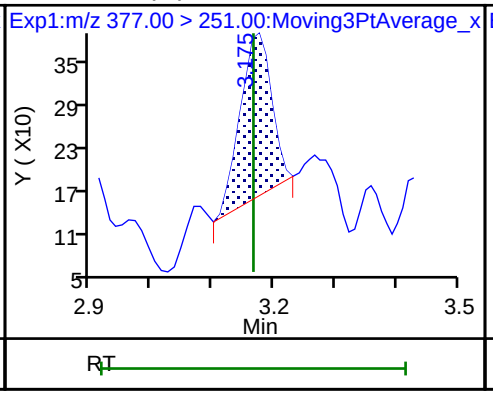

10 Perfluoroheptanoic acid (M)



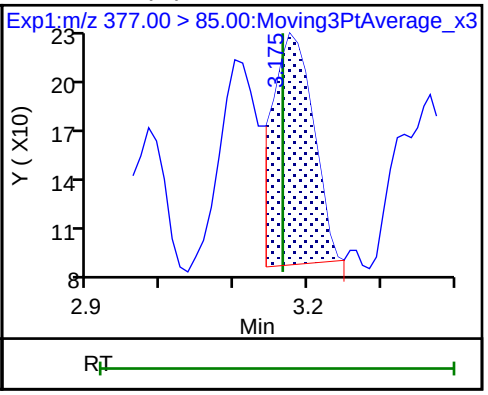

10 Perfluoroheptanoic acid (M)



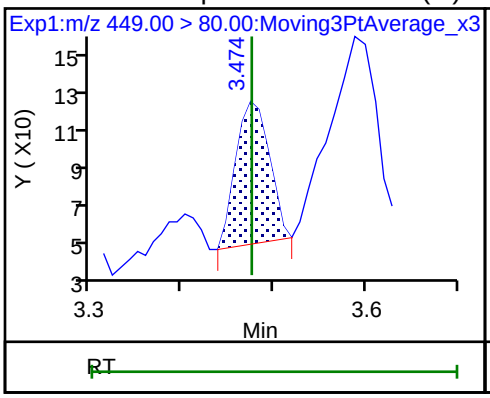

77 DONA (M)



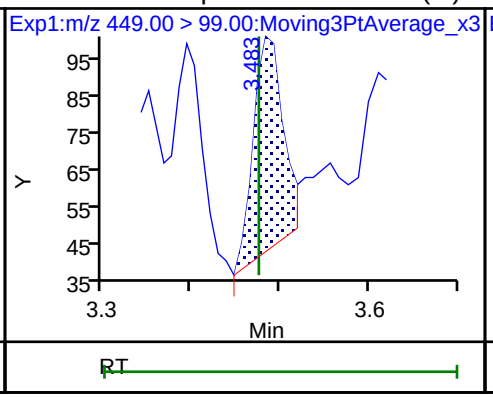

77 DONA (M)



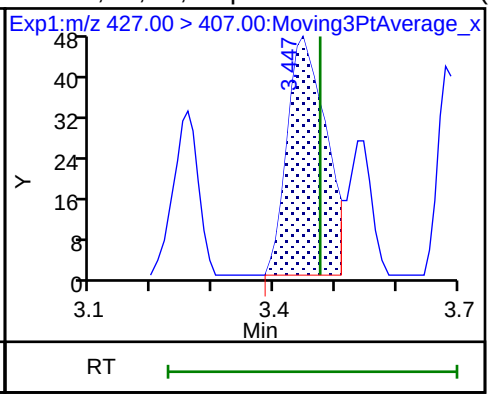
16 Perfluoroheptanesulfonic acid (M)



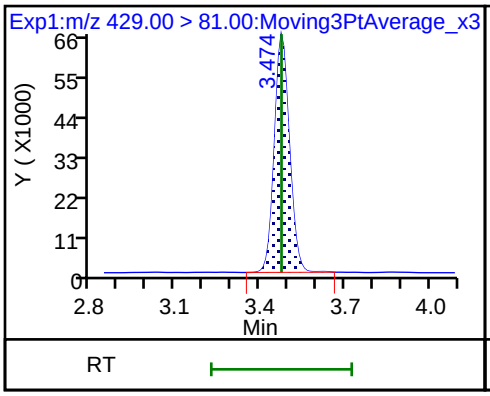

16 Perfluoroheptanesulfonic acid (M)



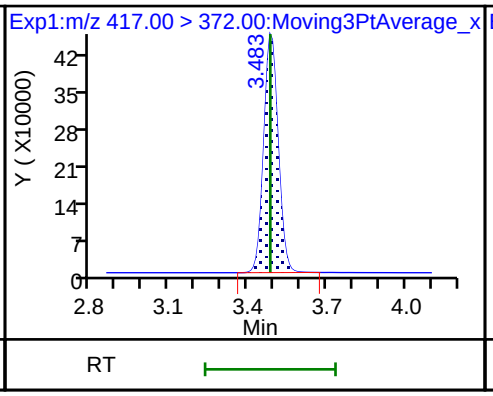

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



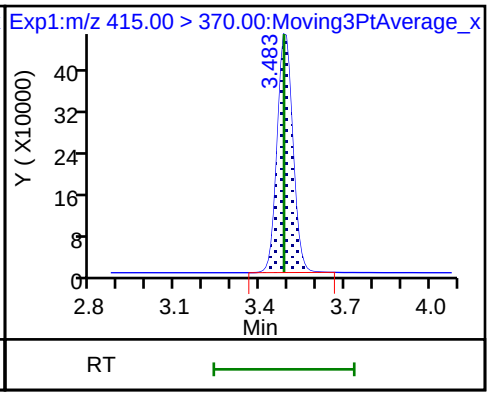

D 12 M2-6:2 FTS



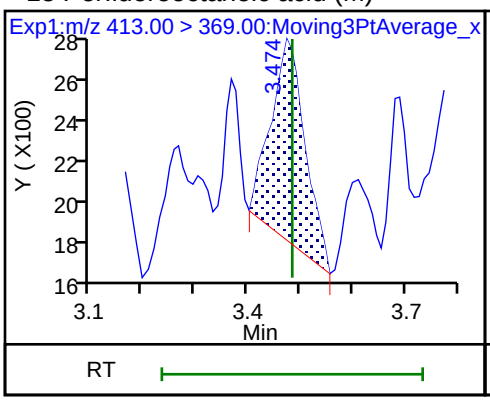

D 14 13C4 PFOA



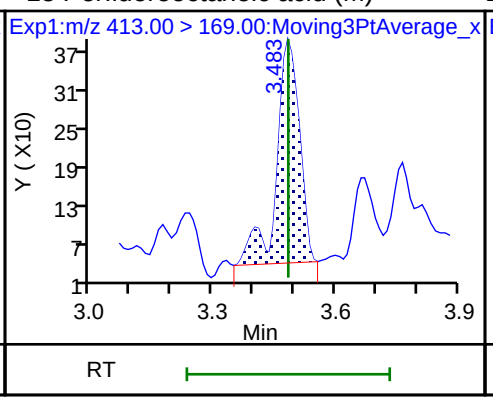

* 62 13C2 PFOA



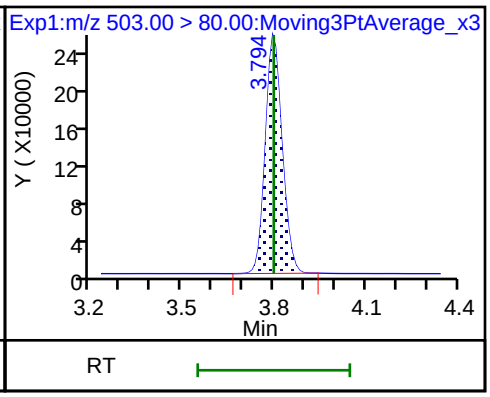

15 Perfluorooctanoic acid (M)



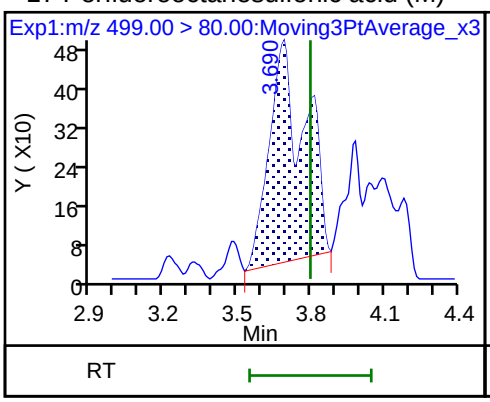

15 Perfluorooctanoic acid (M)



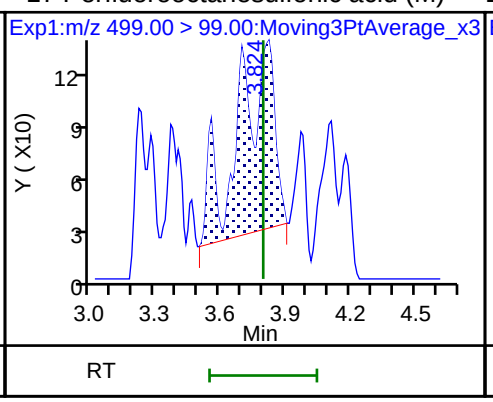

D 18 13C4 PFOS



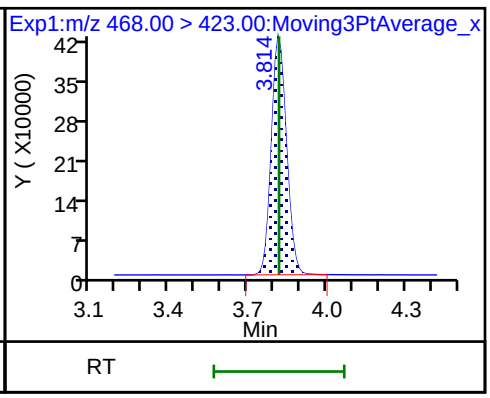

17 Perfluorooctanesulfonic acid (M)



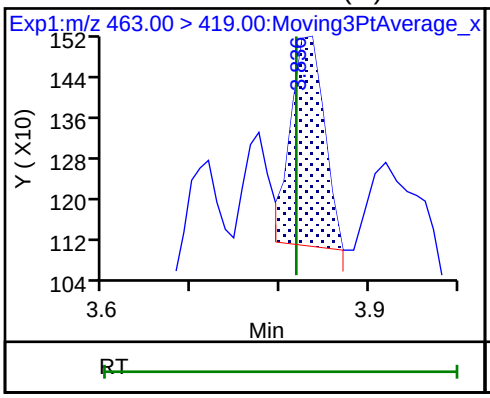

17 Perfluorooctanesulfonic acid (M)



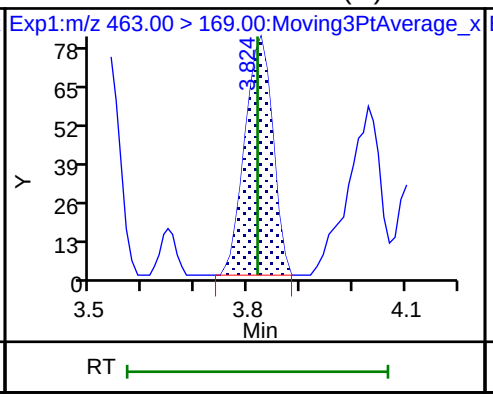

D 19 13C5 PFNA



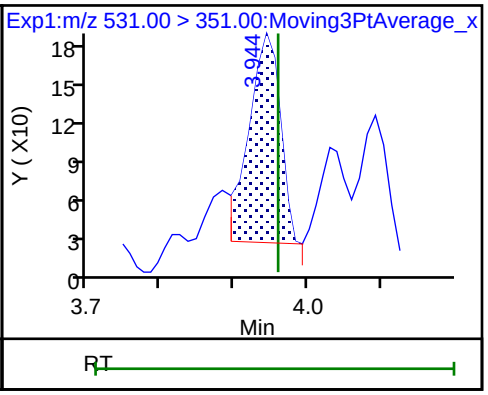
20 Perfluorononanoic acid (M)



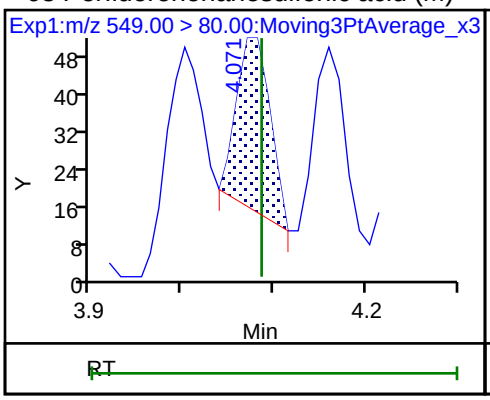

20 Perfluorononanoic acid (M)



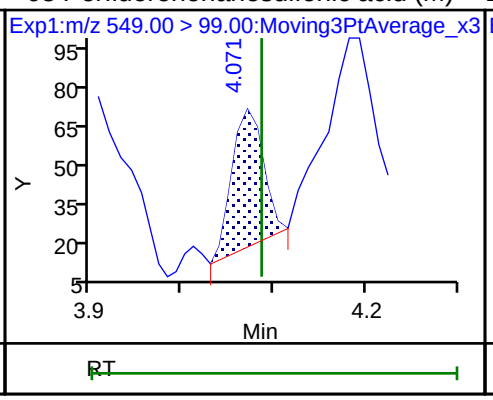

69 9-Chlorohexadecafluoro-3-oxanona (M)



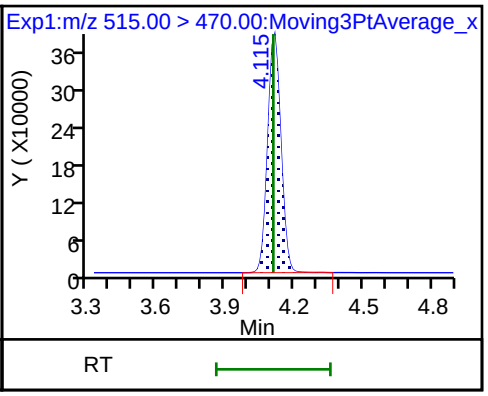

68 Perfluorononanesulfonic acid (M)



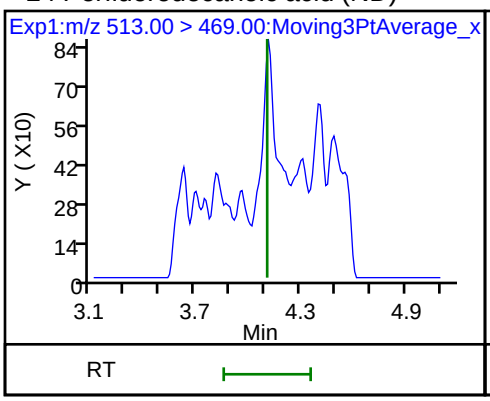

68 Perfluorononanesulfonic acid (M)



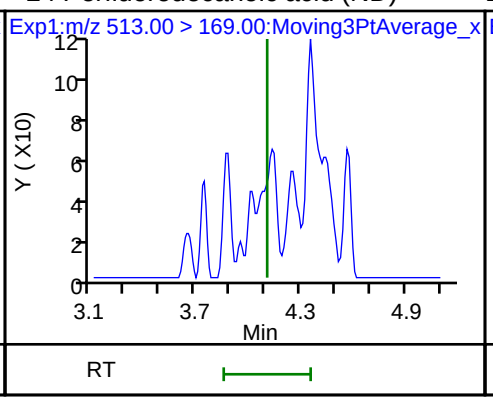

D 23 13C2 PFDA



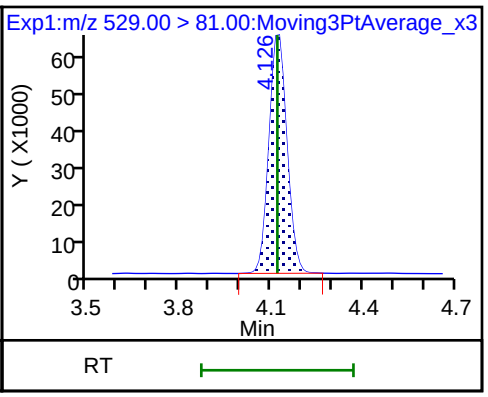

24 Perfluorodecanoic acid (ND)



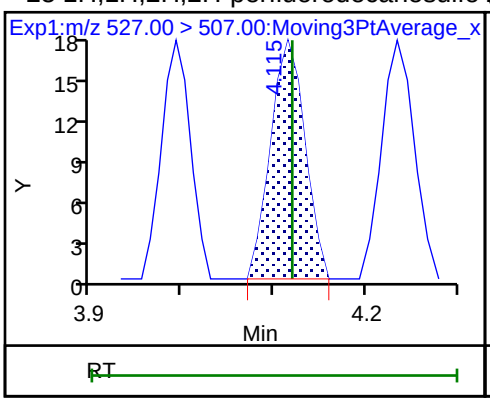

24 Perfluorodecanoic acid (ND)



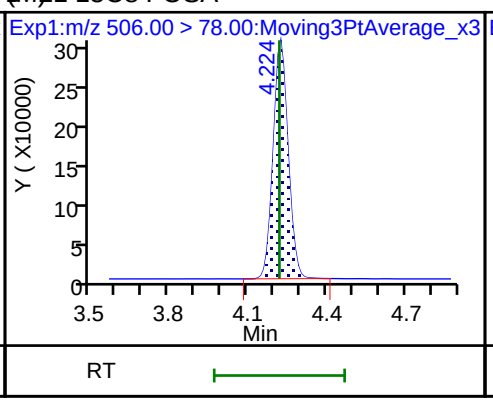

D 26 M2-8:2 FTS



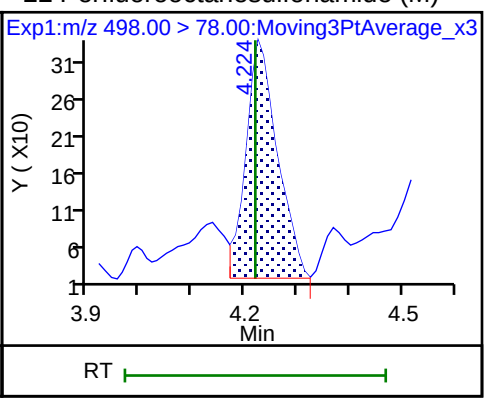

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



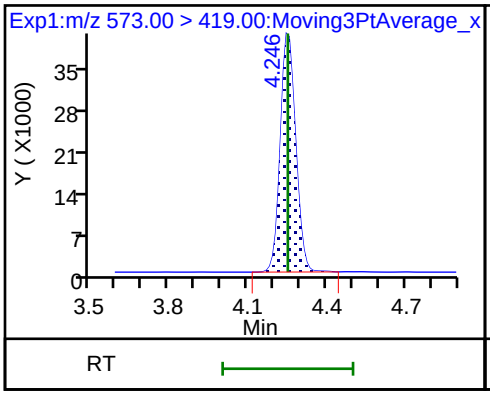

D 21 13C8 FOSA



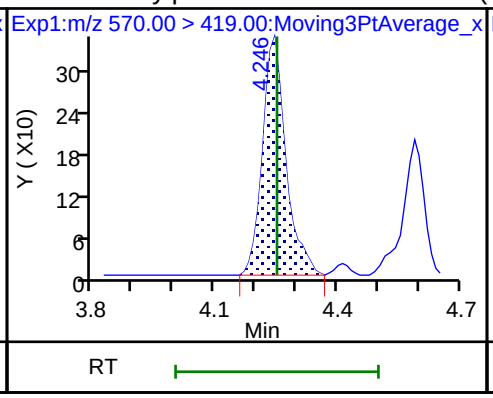

22 Perfluorooctanesulfonamide (M)



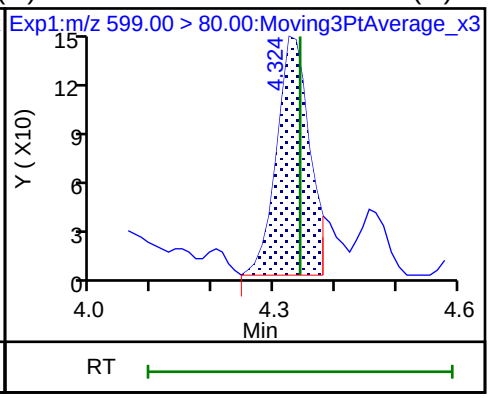
D 27 d3-NMeFOSAA



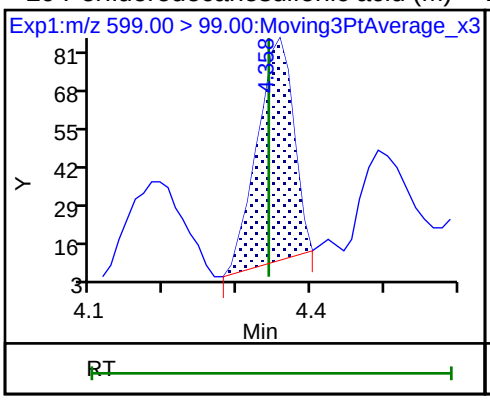

28 N-methylperfluorooctanesulfonami (M)



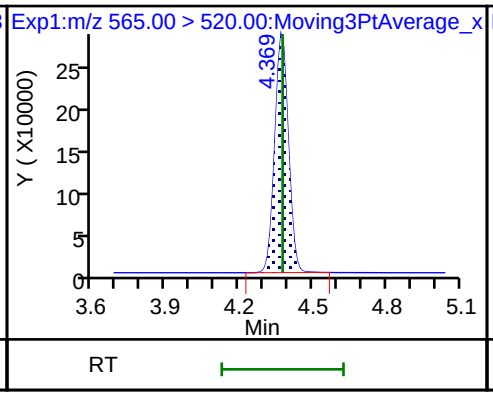

29 Perfluorodecanesulfonic acid (M)



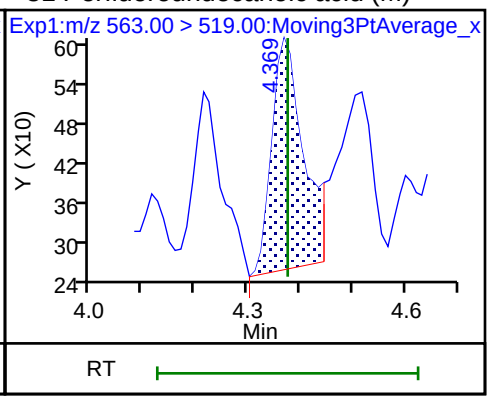

29 Perfluorodecanesulfonic acid (M)



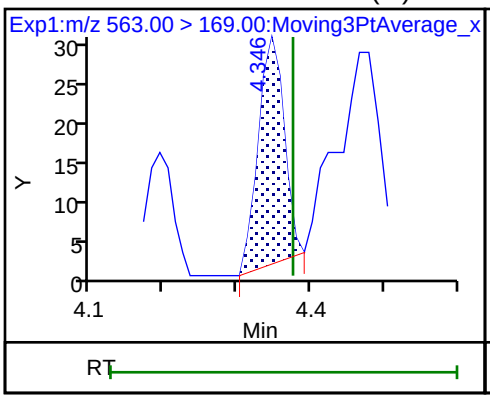

D 30 13C2 PFUnA



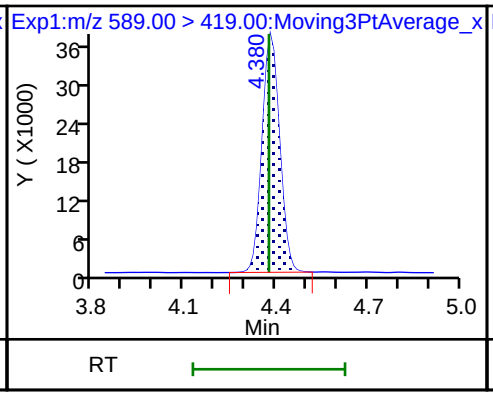

31 Perfluoroundecanoic acid (M)



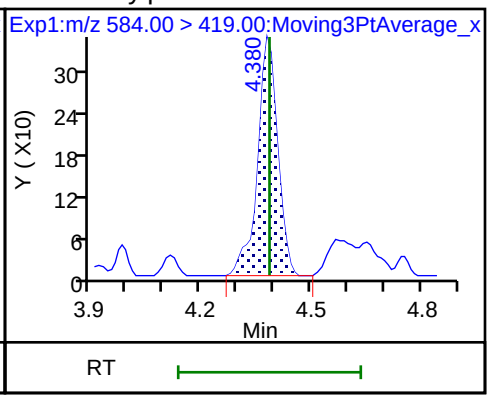

31 Perfluoroundecanoic acid (M)



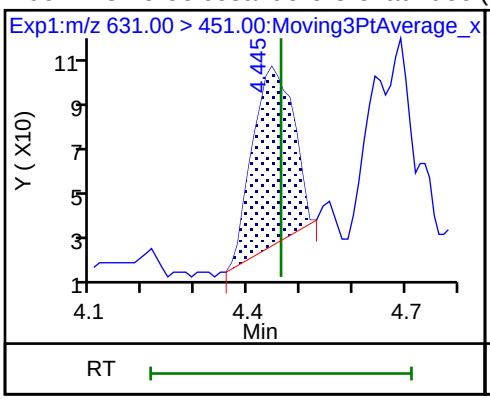

D 32 d5-NEtFOSAA



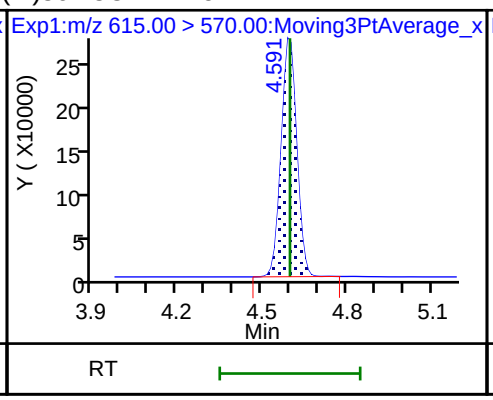

33 N-ethylperfluorooctanesulfonamid



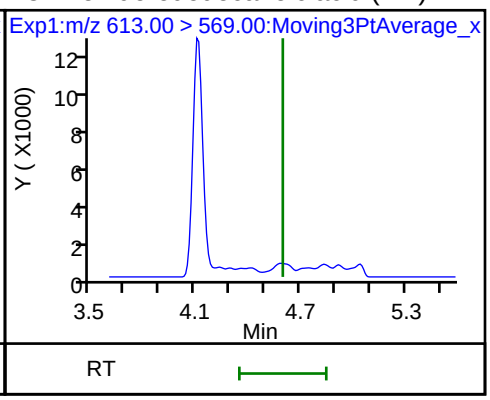

66 11-Chloroeicosafluoro-3-oxaundec (M)



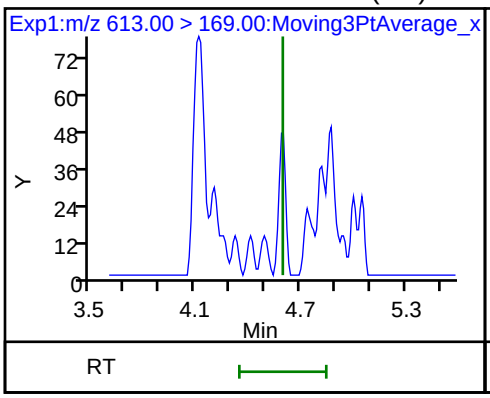

D 36 13C2 PFDoA



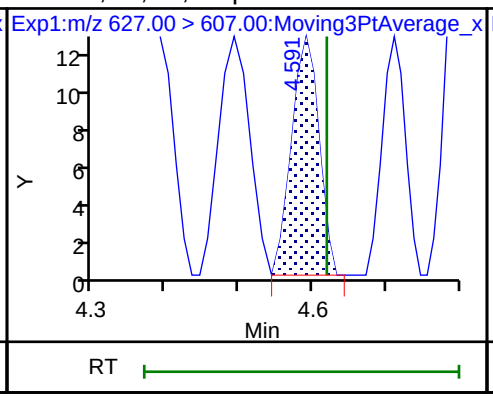

37 Perfluorododecanoic acid (ND)



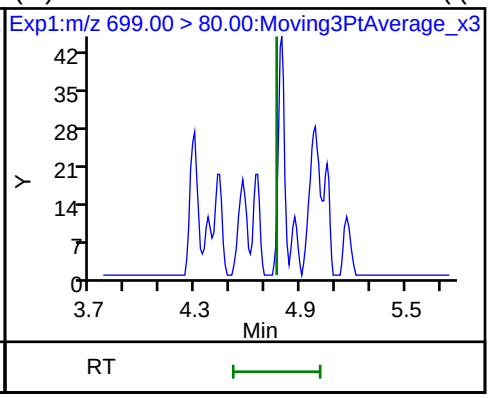
37 Perfluorododecanoic acid (ND)



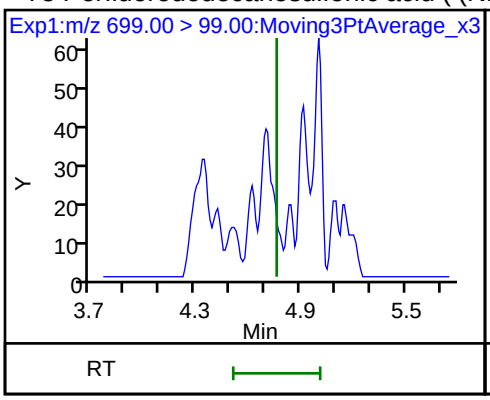

74 1H,1H,2H,2H-perfluorododecanesul (M)



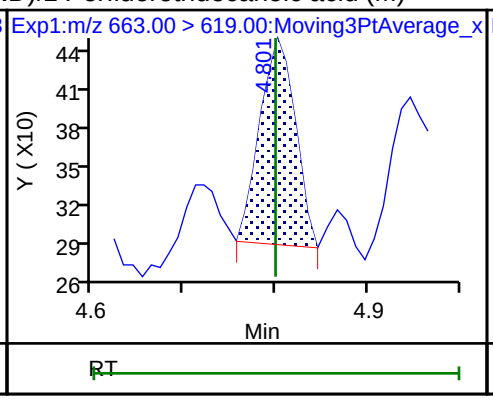

75 Perfluorododecanesulfonic acid ( (ND)



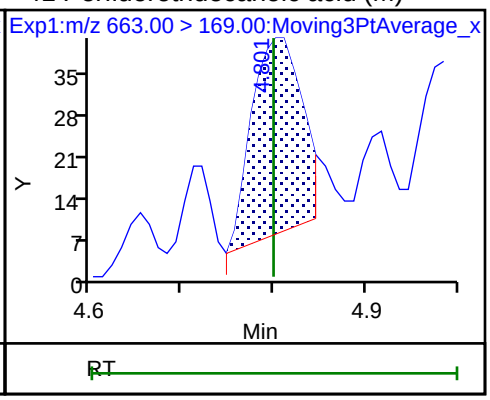

75 Perfluorododecanesulfonic acid ( (ND)



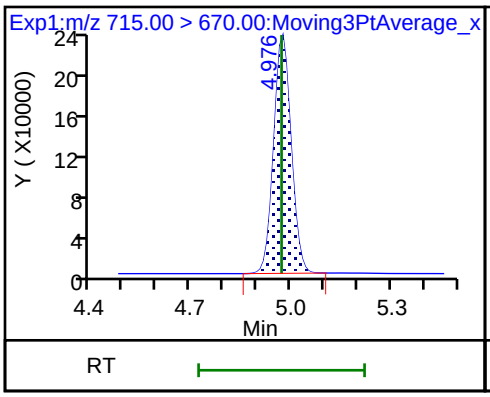

41 Perfluorotridecanoic acid (M)



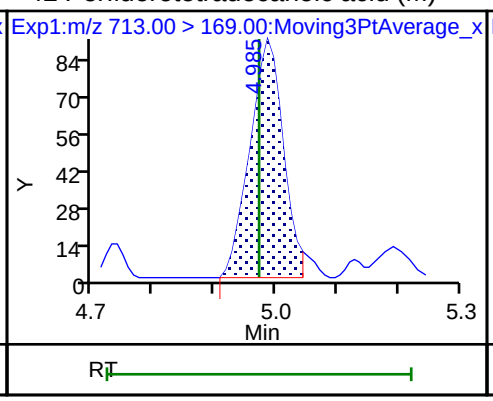

41 Perfluorotridecanoic acid (M)



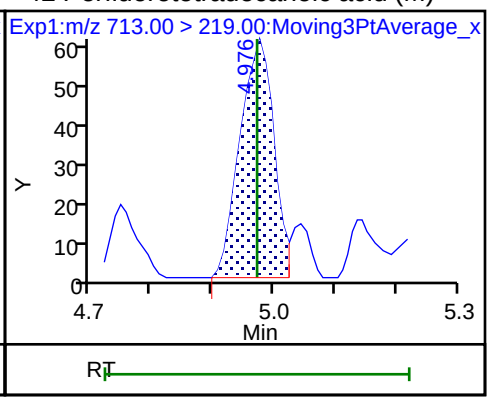

D 43 13C2 PFTeDA



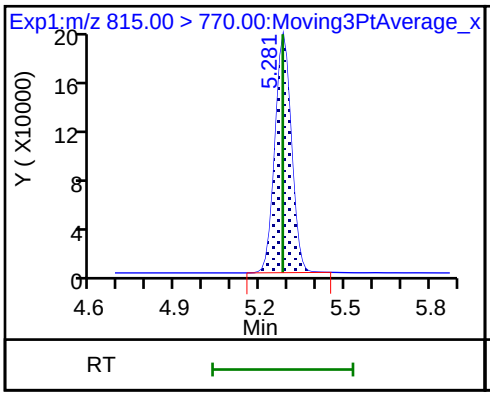

42 Perfluorotetradecanoic acid (M)



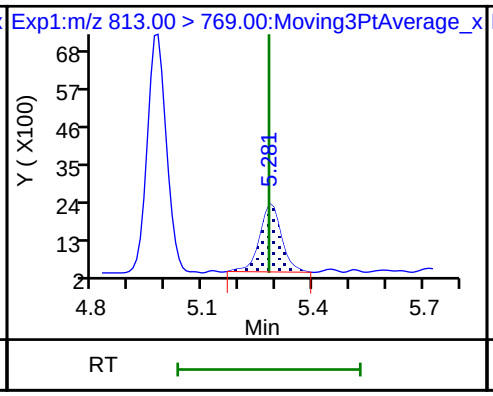

42 Perfluorotetradecanoic acid (M)



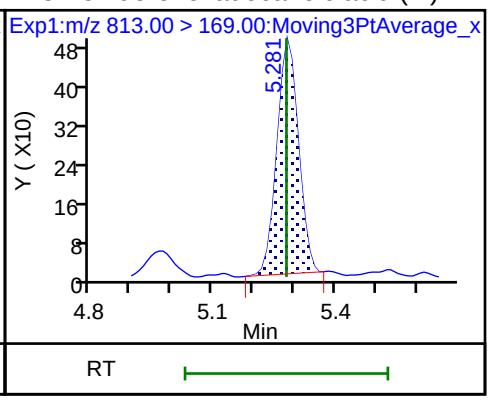

D 44 13C2 PFHxDA



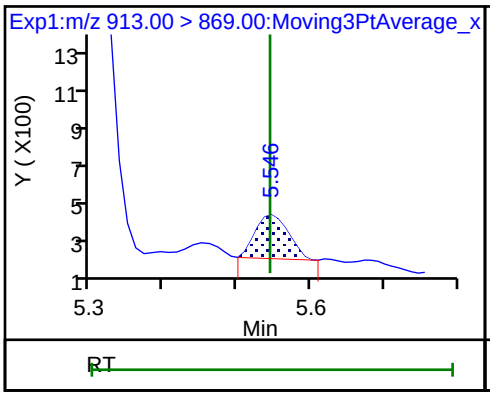

45 Perfluorohexadecanoic acid



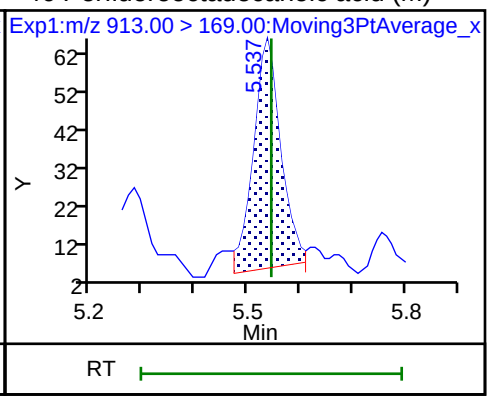

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

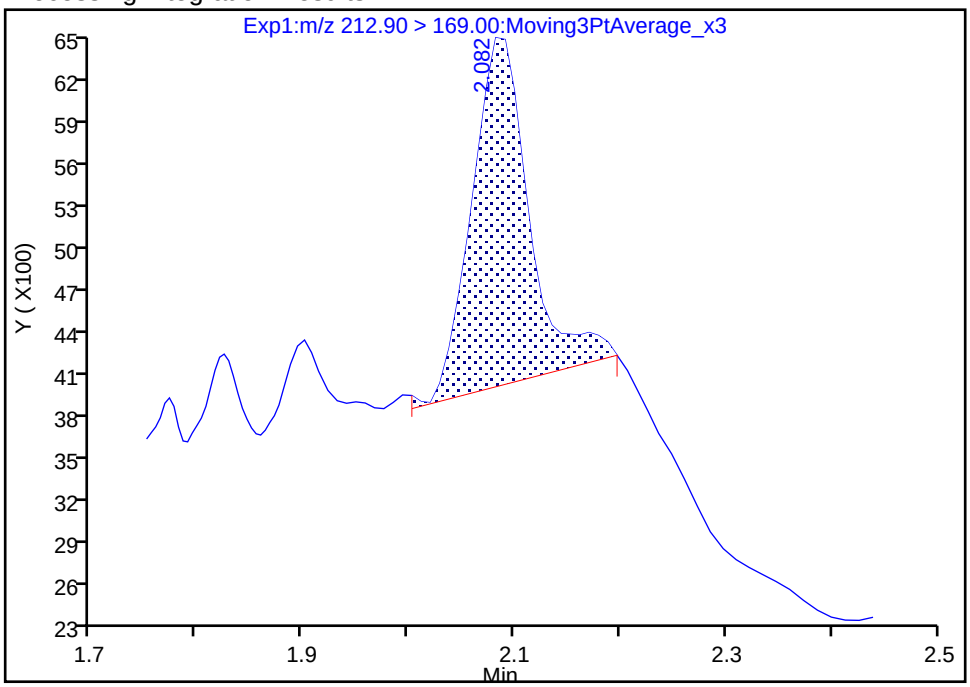
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

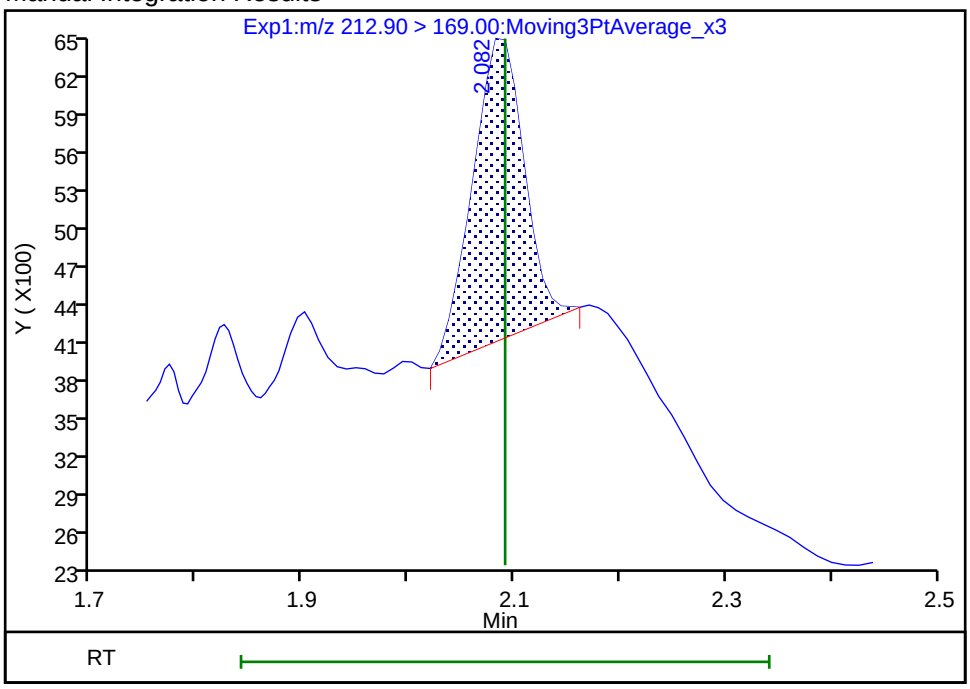
Processing Integration Results

RT: 2.08
Area: 9290
Amount: 0.005833
Amount Units: ng/ml




Manual Integration Results

RT: 2.08
Area: 7997
Amount: 0.005021
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:35:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

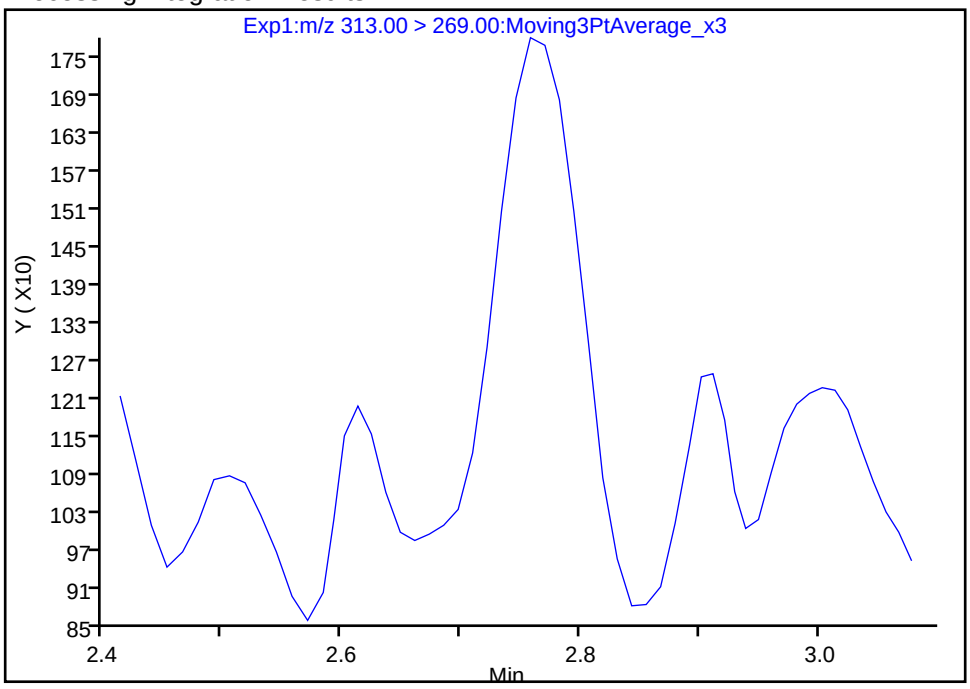
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

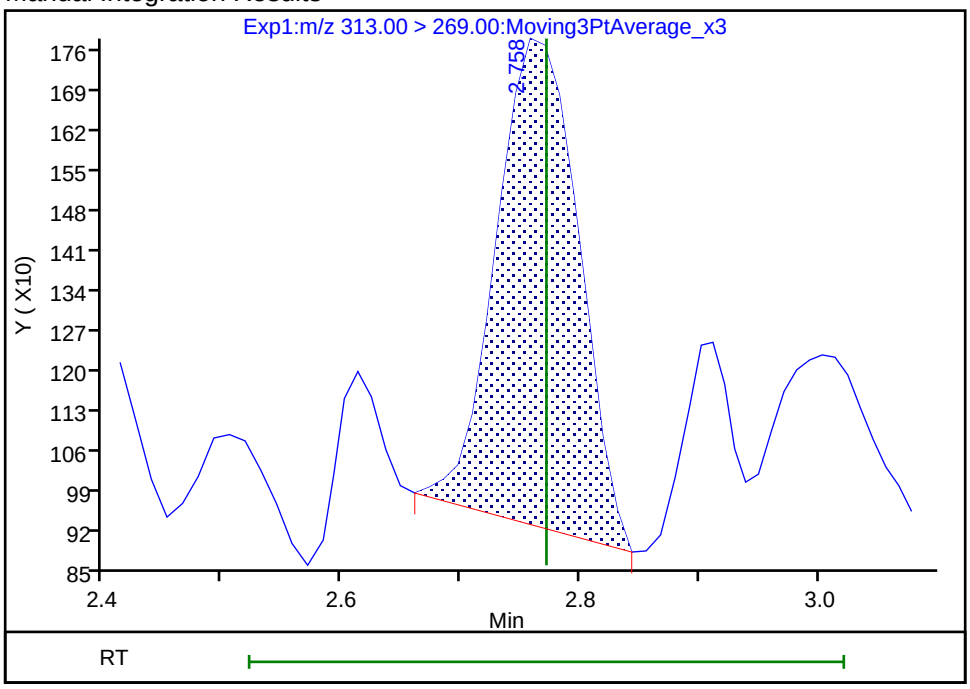
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 4112
Amount: 0.003150
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:35:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

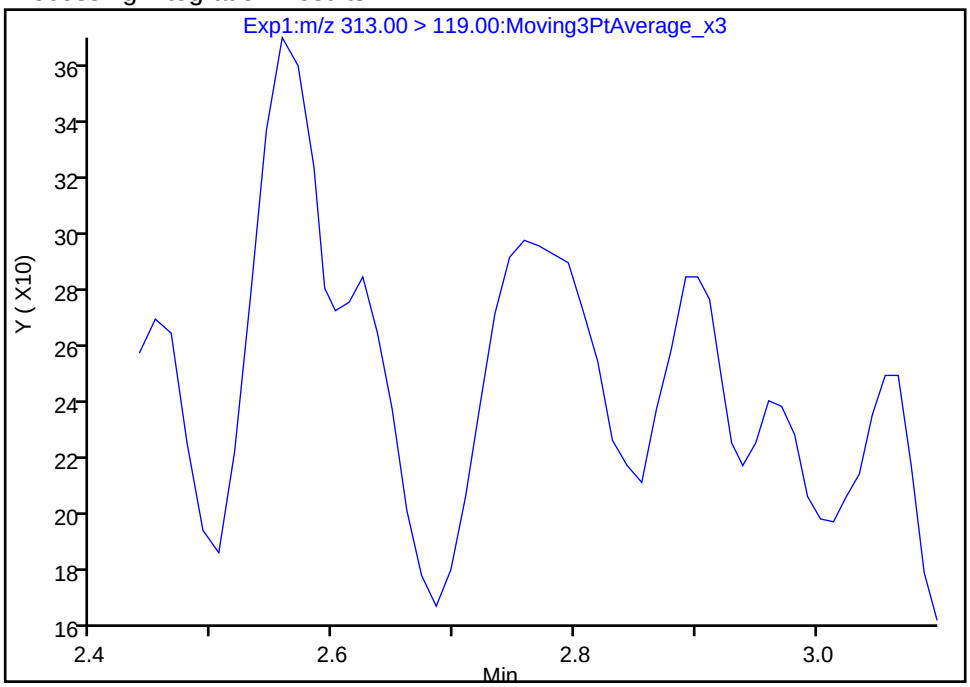
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

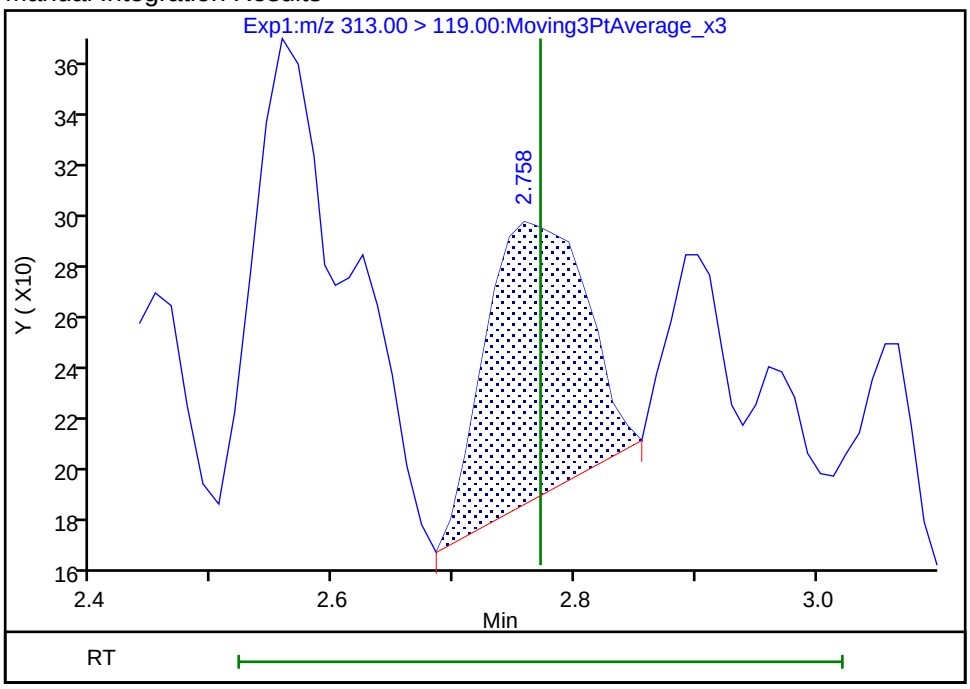
Not Detected
Expected RT: 2.77

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 636
Amount: 0.003150
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:35:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

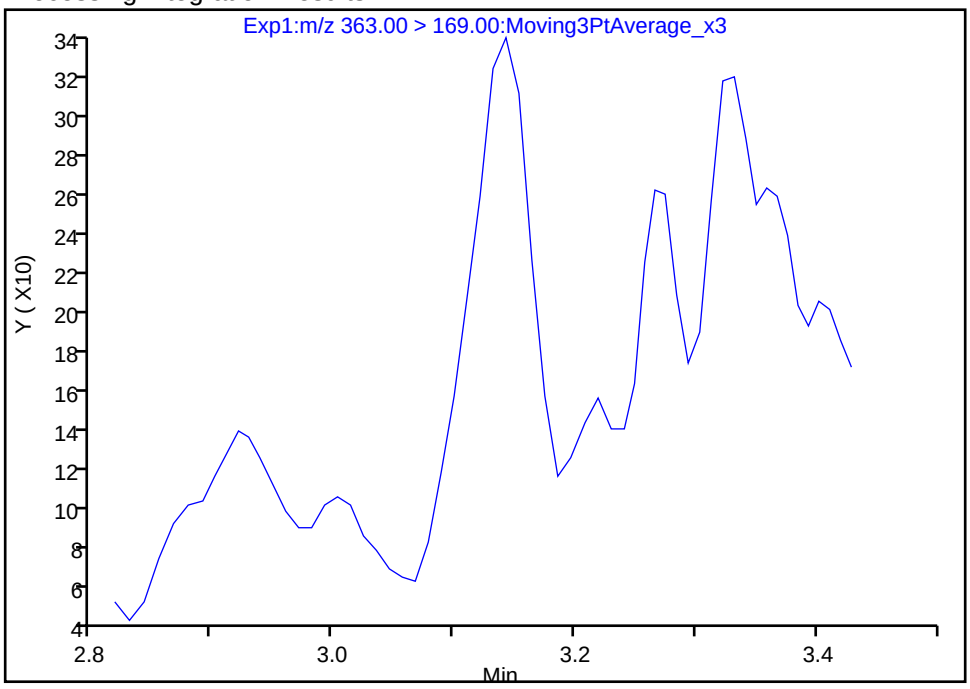
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

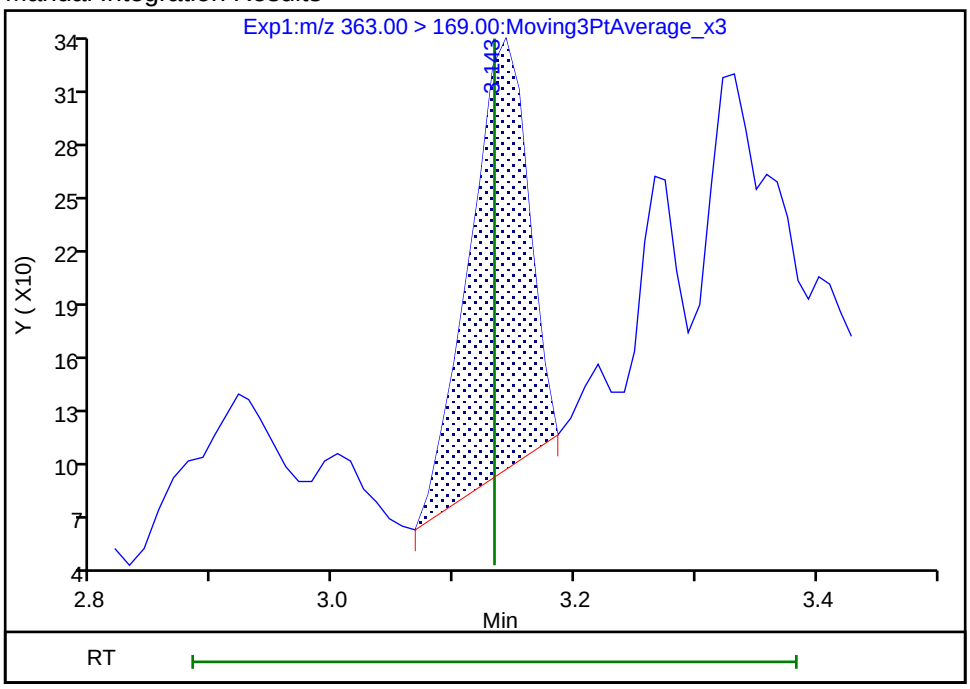
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.14
Area: 790
Amount: 0.001466
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:36:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

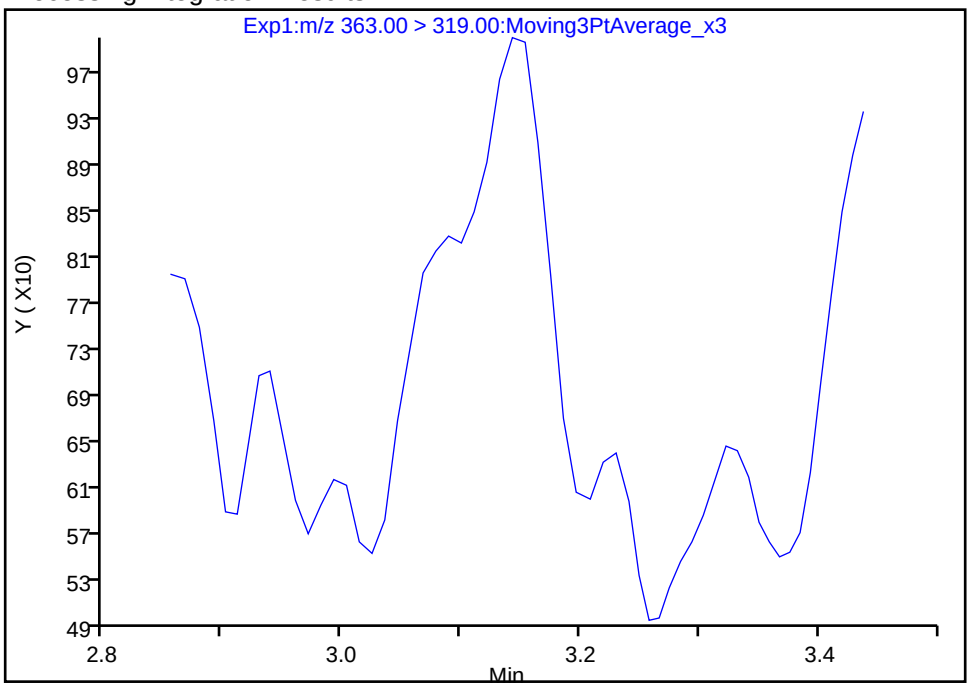
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

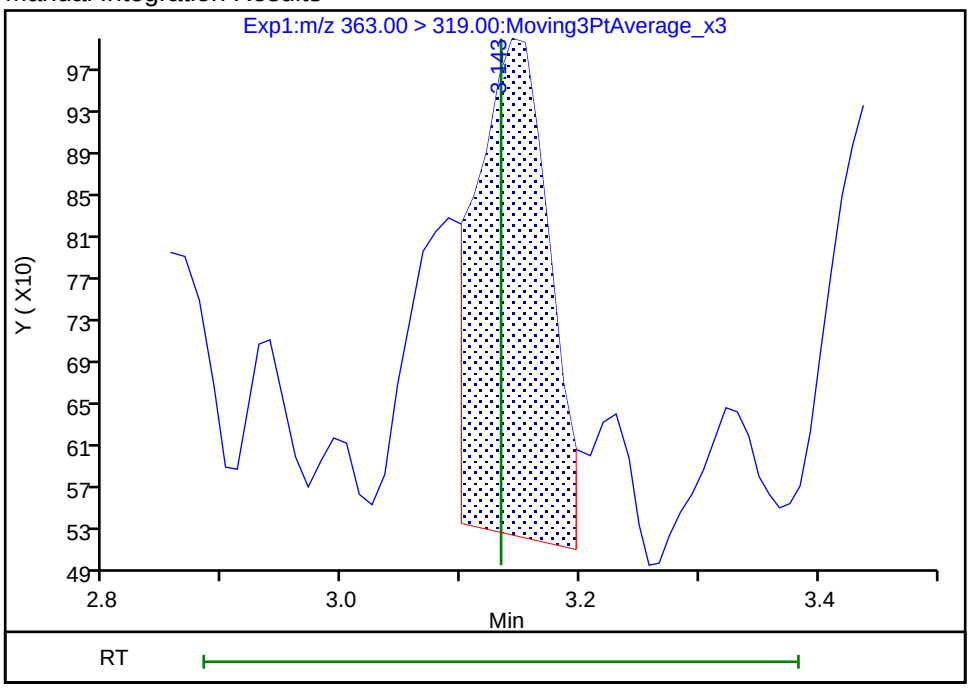
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.14
Area: 1987
Amount: 0.001466
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:36:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

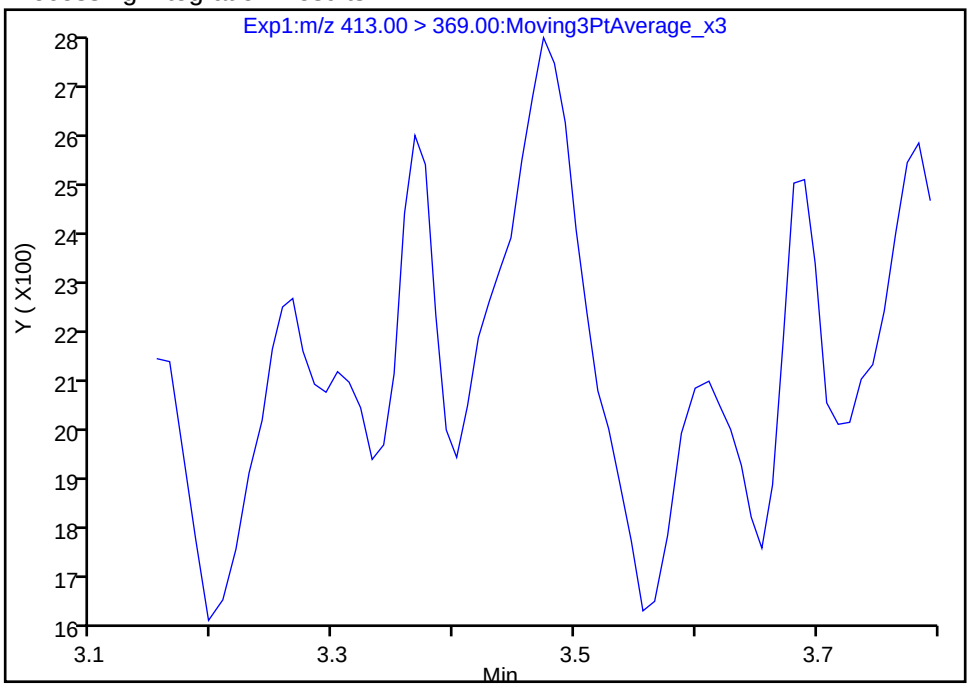
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

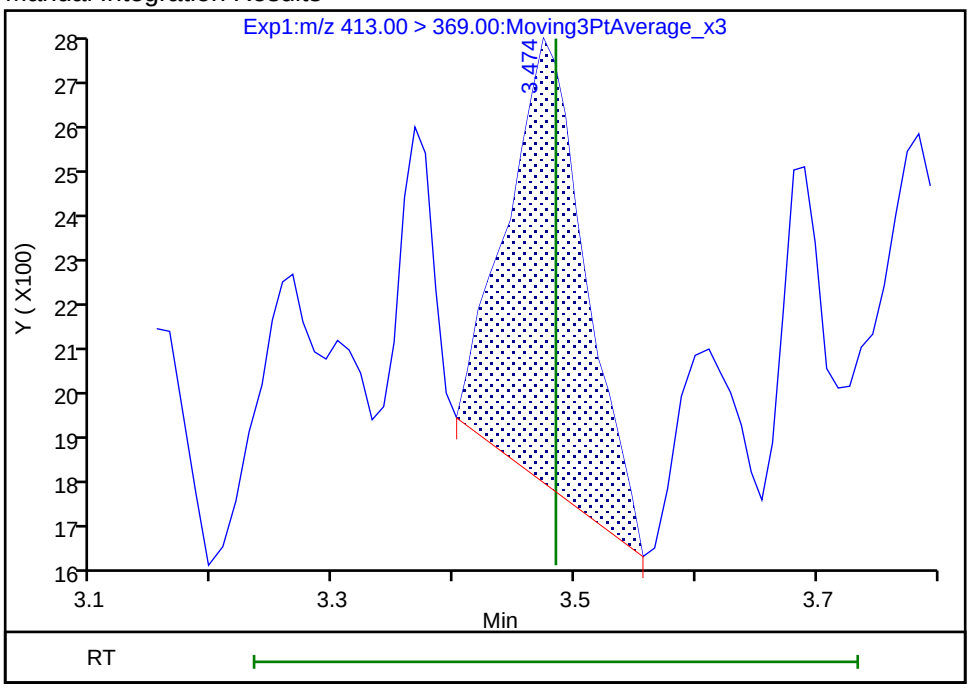
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 4442
Amount: 0.003040
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

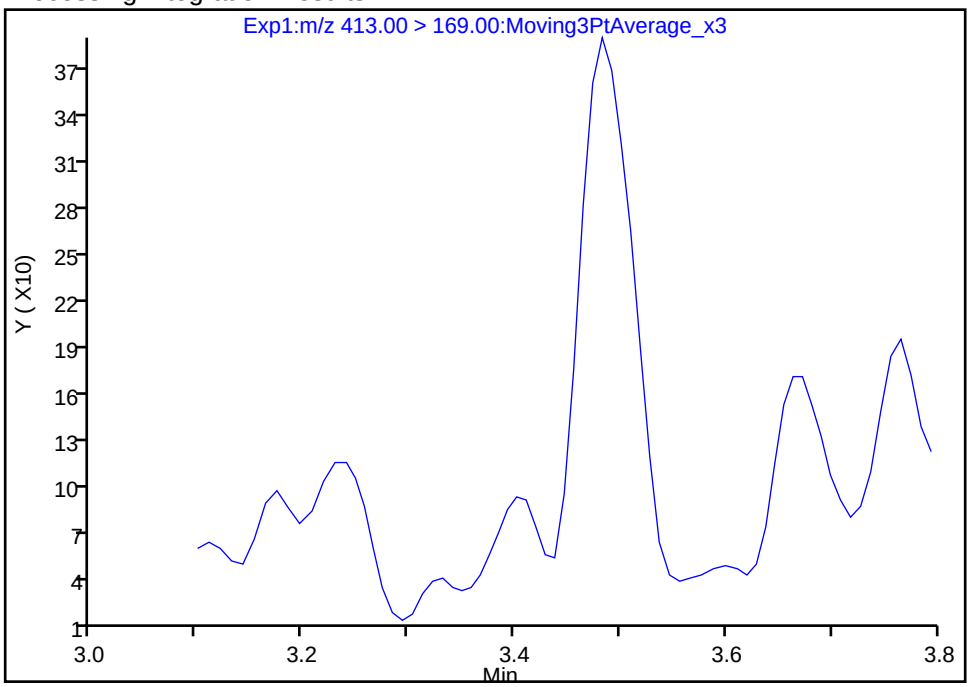
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

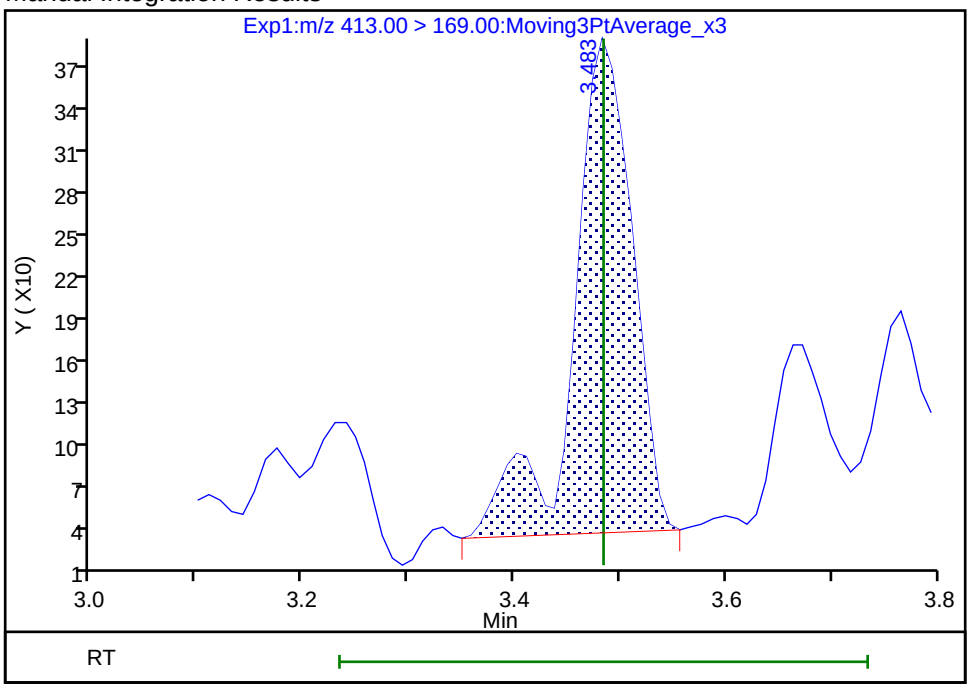
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 1359
Amount: 0.003040
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

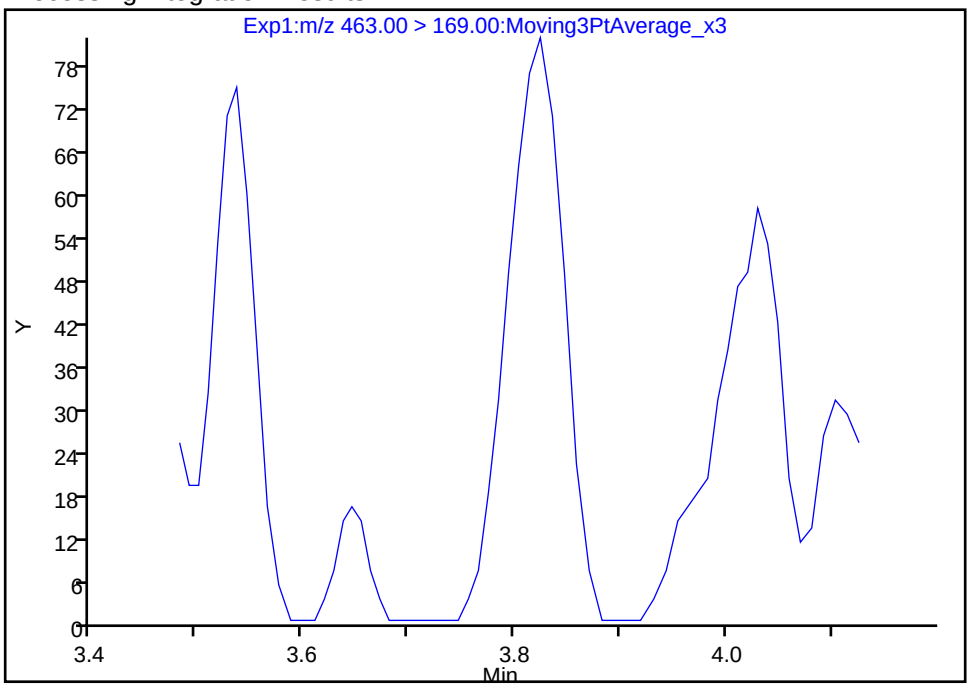
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

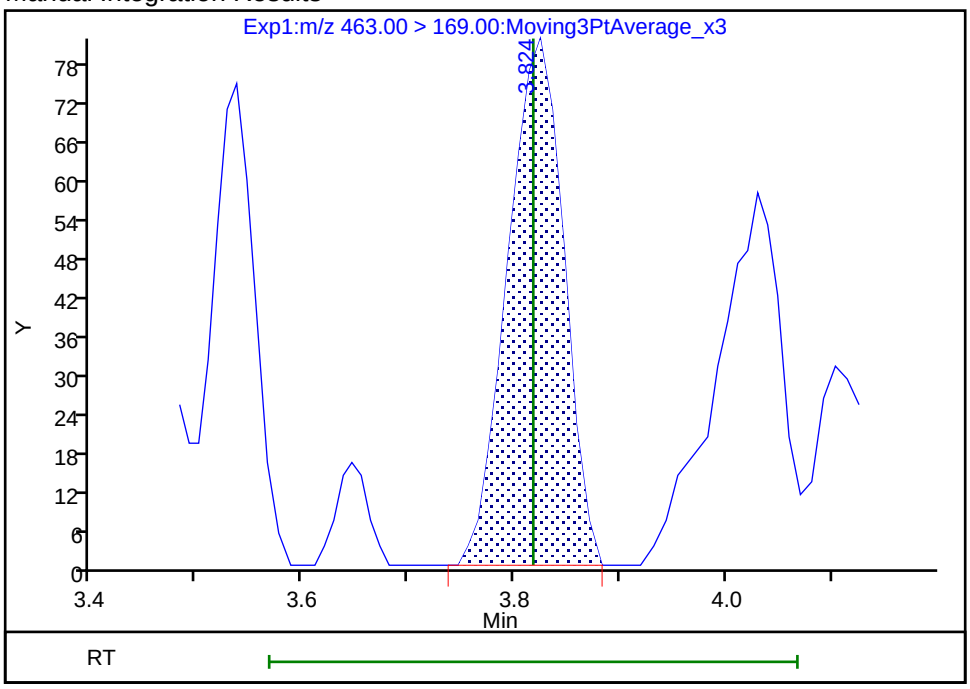
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 303
Amount: 0.000821
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

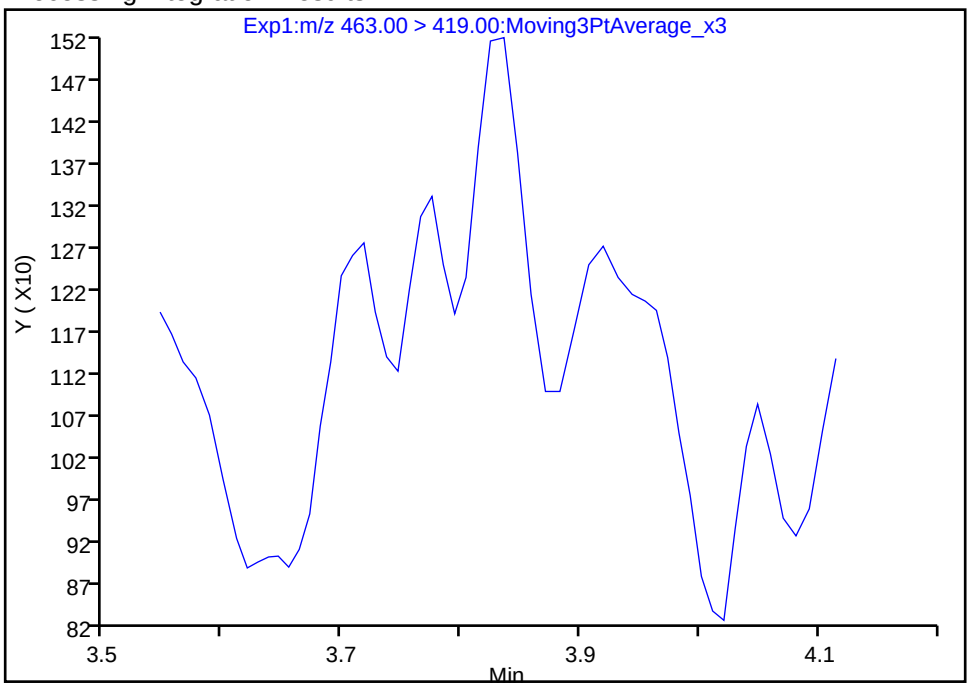
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

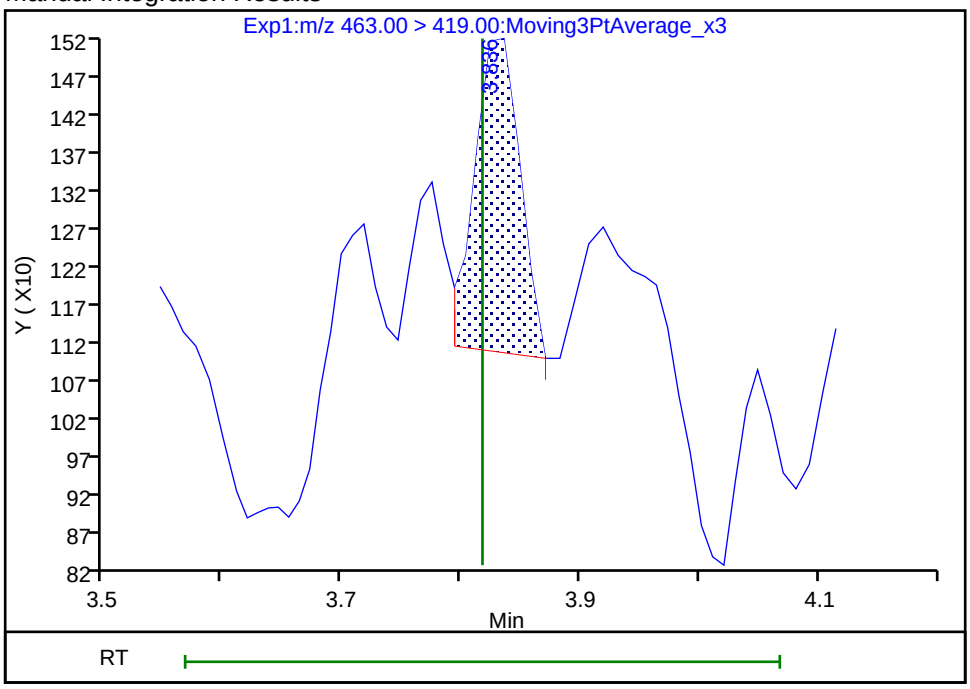
Not Detected
Expected RT: 3.82

Processing Integration Results




Manual Integration Results

RT: 3.84
Area: 1078
Amount: 0.000821
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

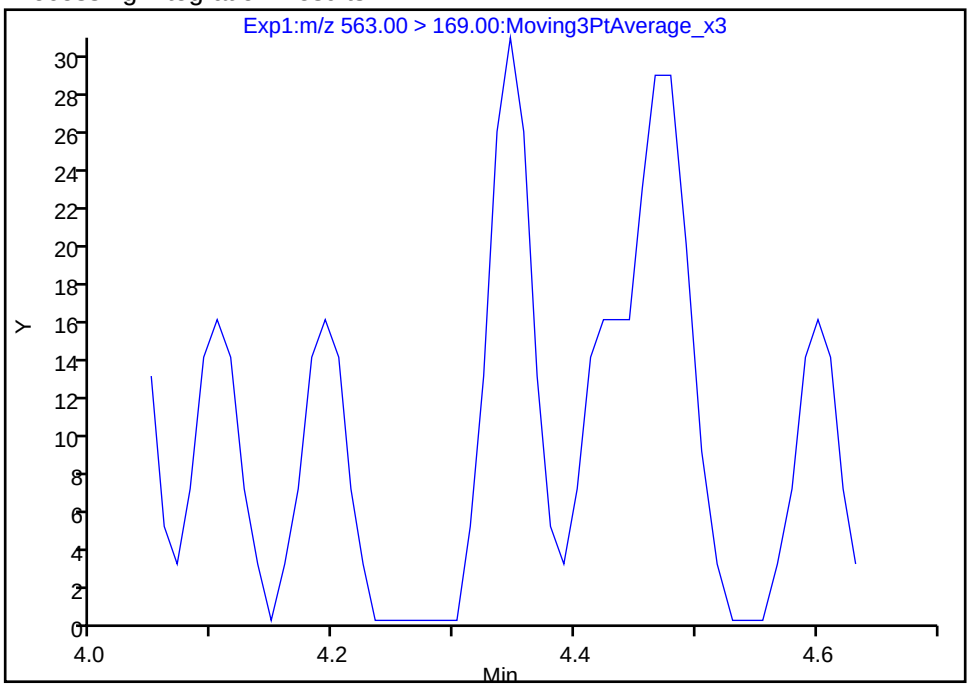
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

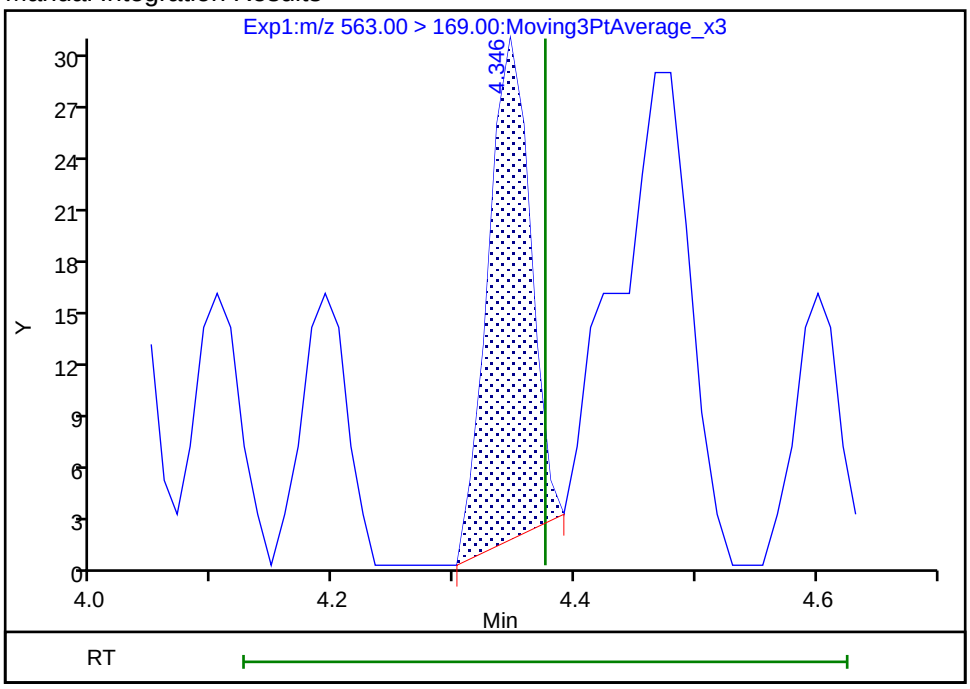
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 72
Amount: 0.001582
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

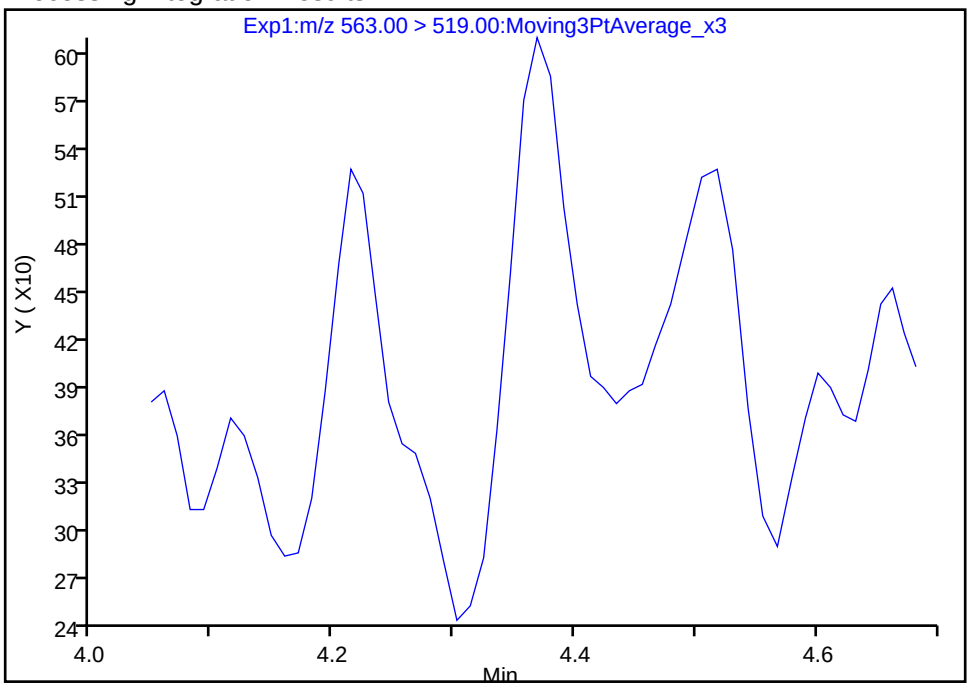
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

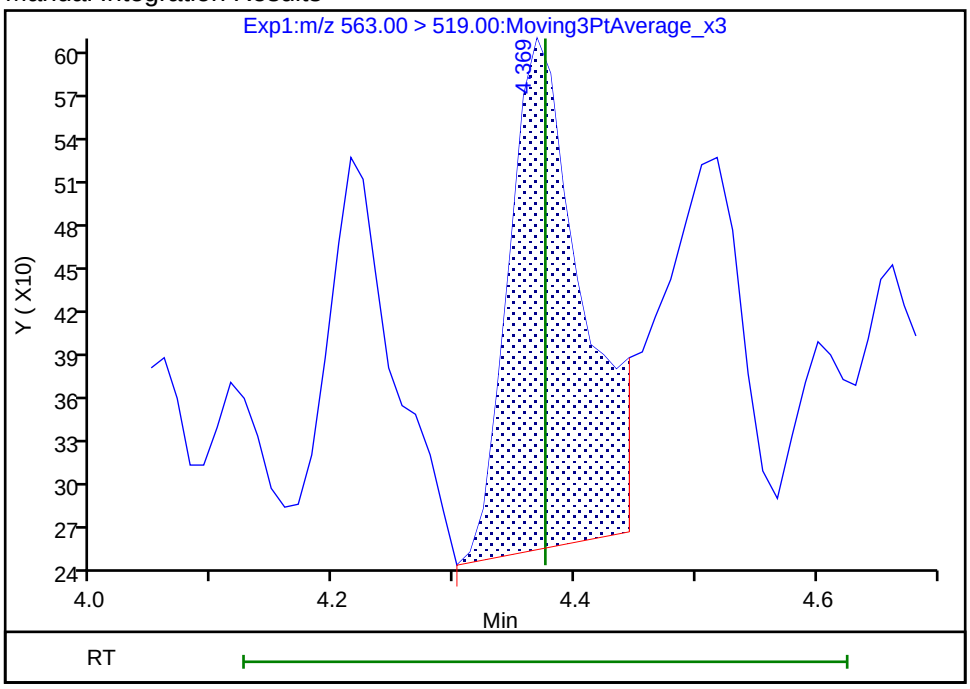
Not Detected
Expected RT: 4.38

Processing Integration Results




Manual Integration Results

RT: 4.37
Area: 1464
Amount: 0.001582
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

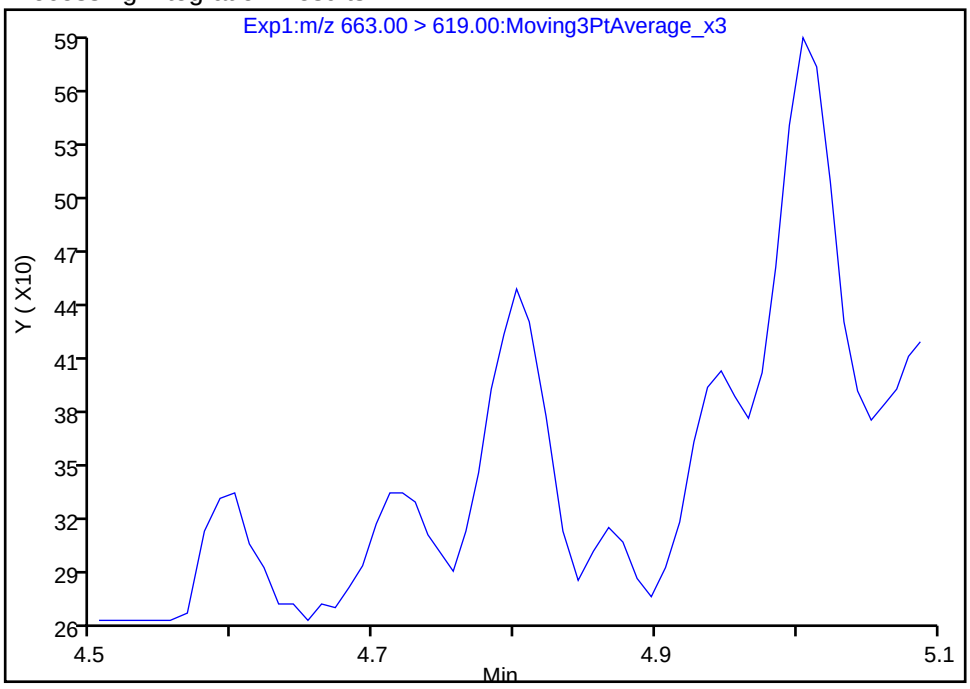
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

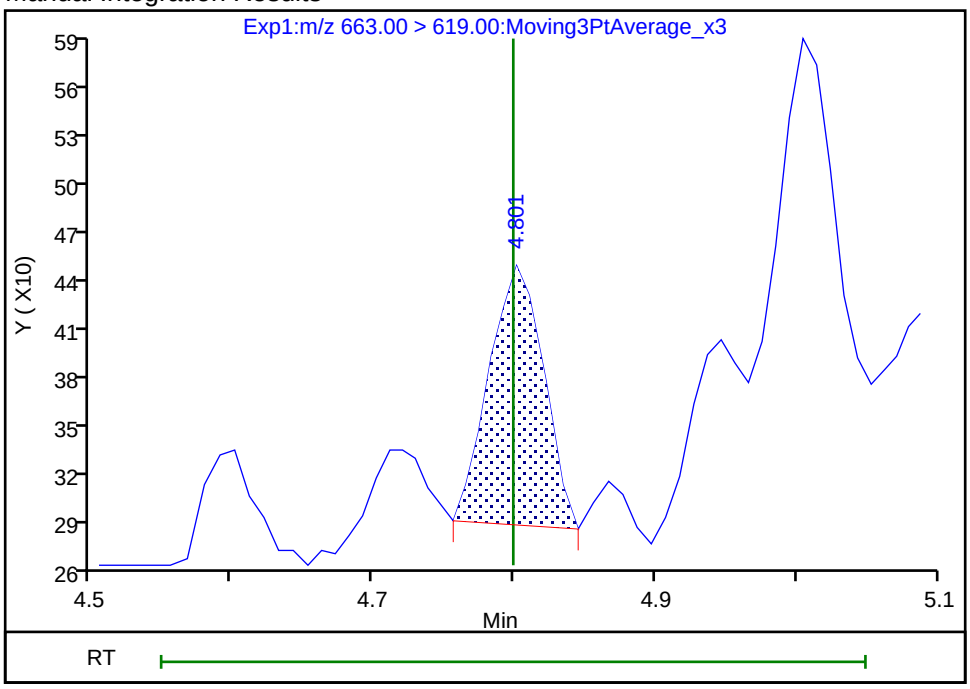
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 422
Amount: 0.000588
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:54:40
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

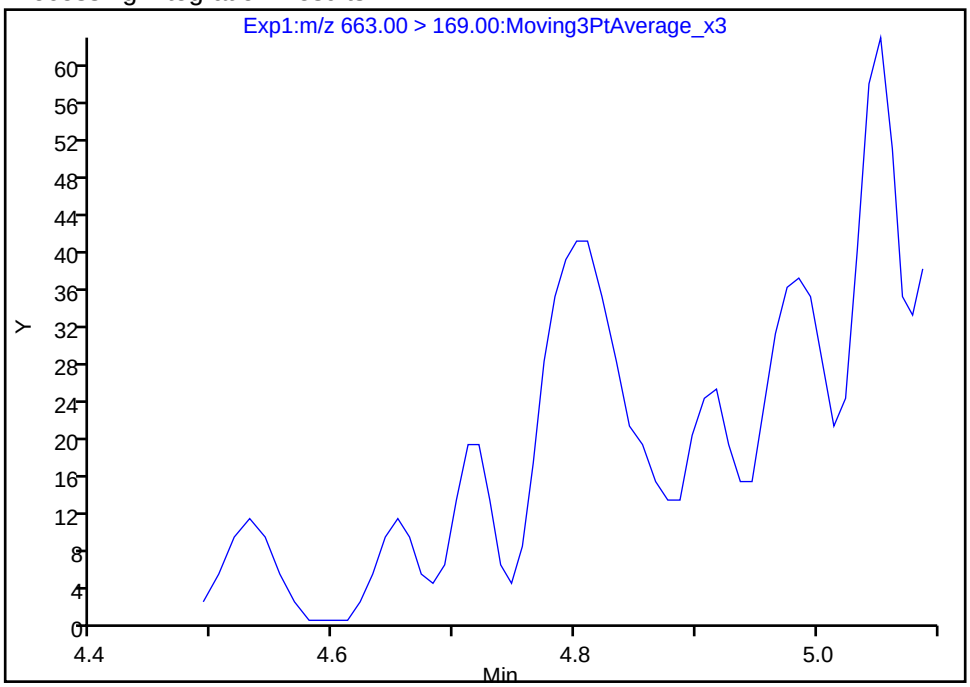
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

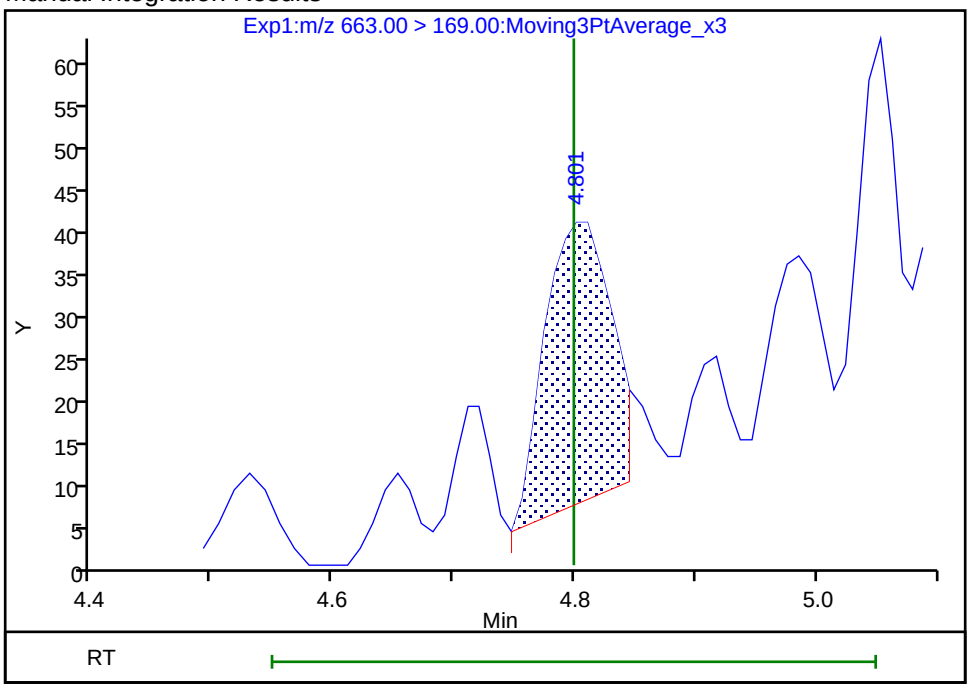
Not Detected
Expected RT: 4.80

Processing Integration Results




Manual Integration Results

RT: 4.80
Area: 127
Amount: 0.000588
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:54:48
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

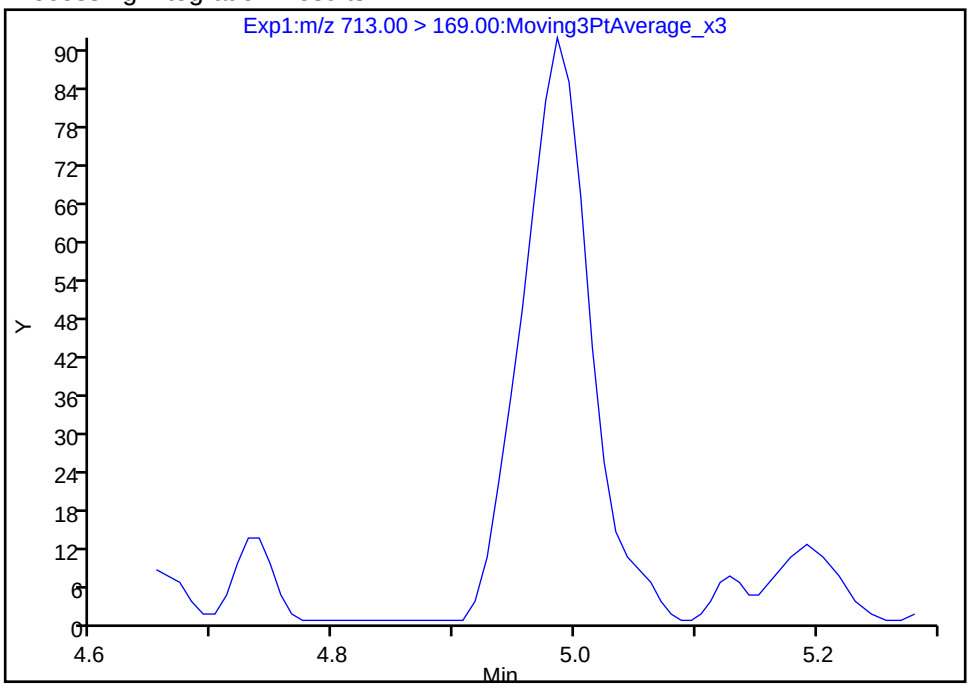
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

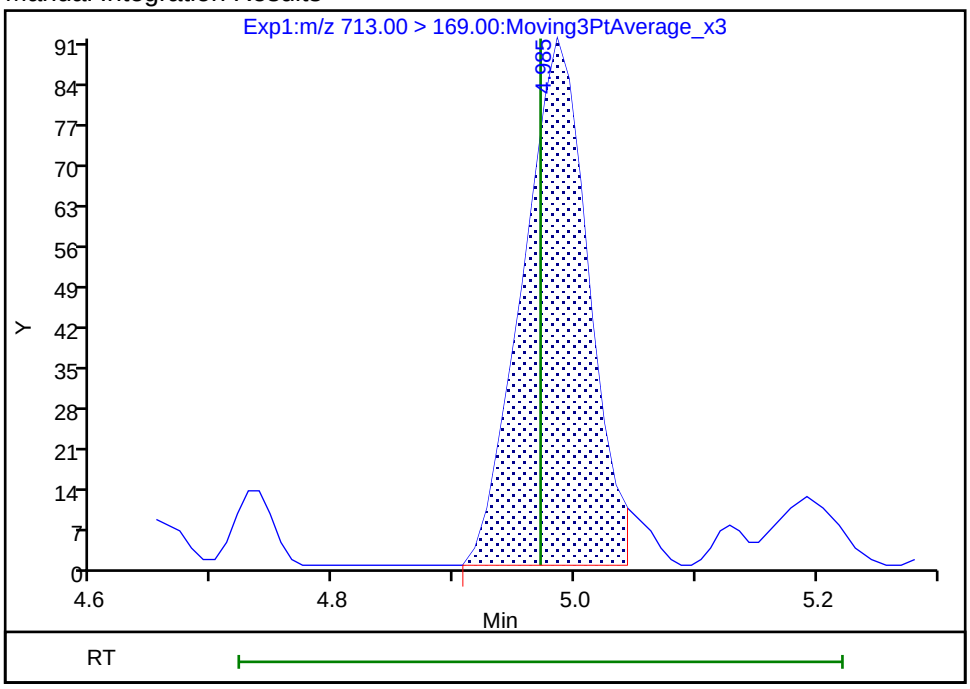
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.99
Area: 347
Amount: 0.003299
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:39:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

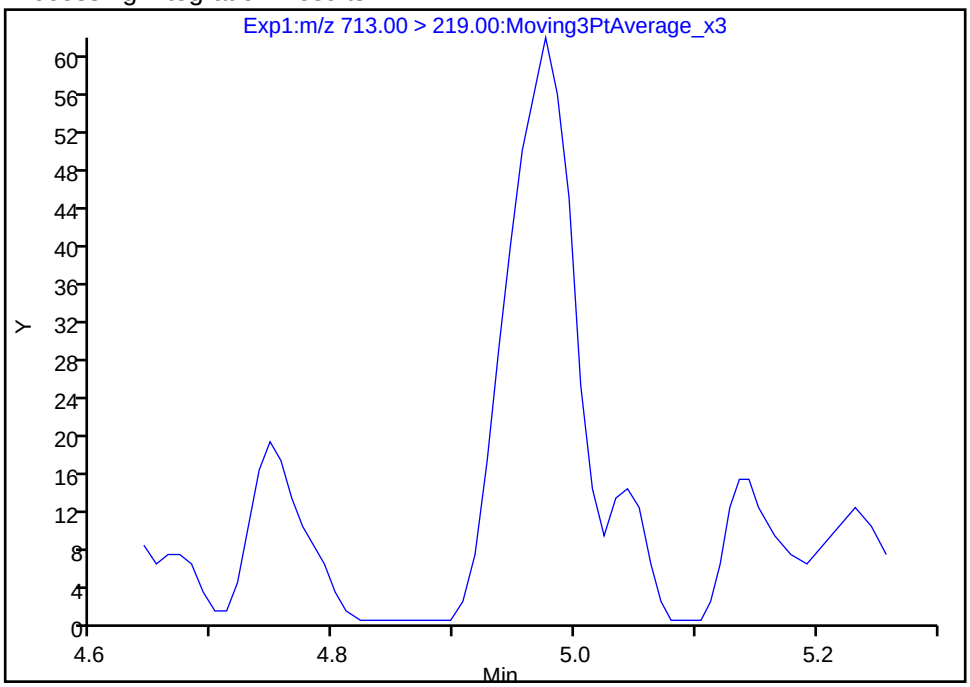
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

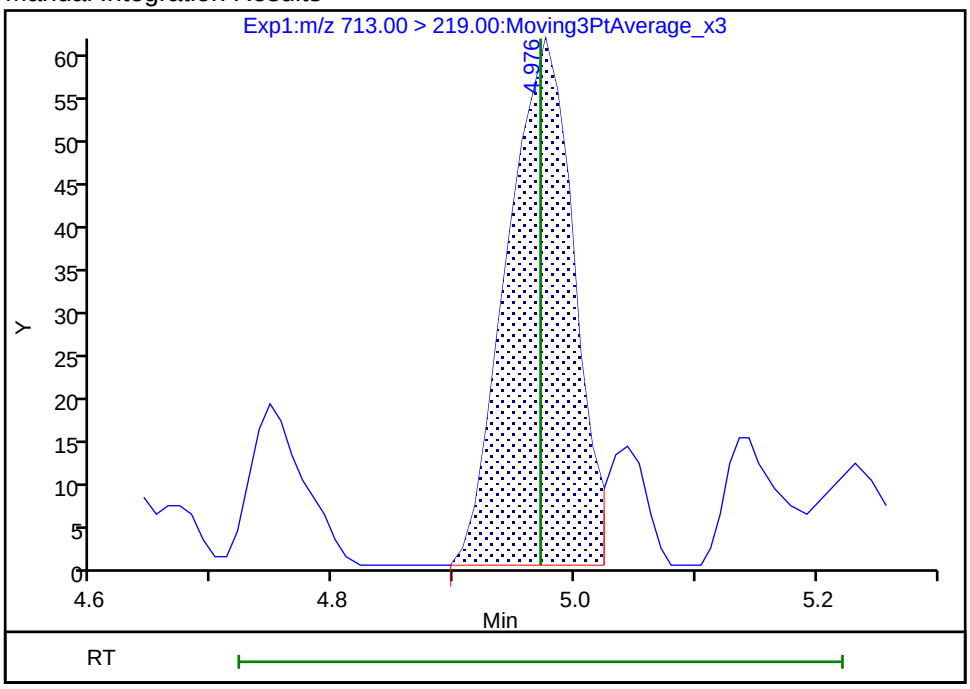
Not Detected
Expected RT: 4.97

Processing Integration Results




Manual Integration Results

RT: 4.98
Area: 237
Amount: 0.003299
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:39:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

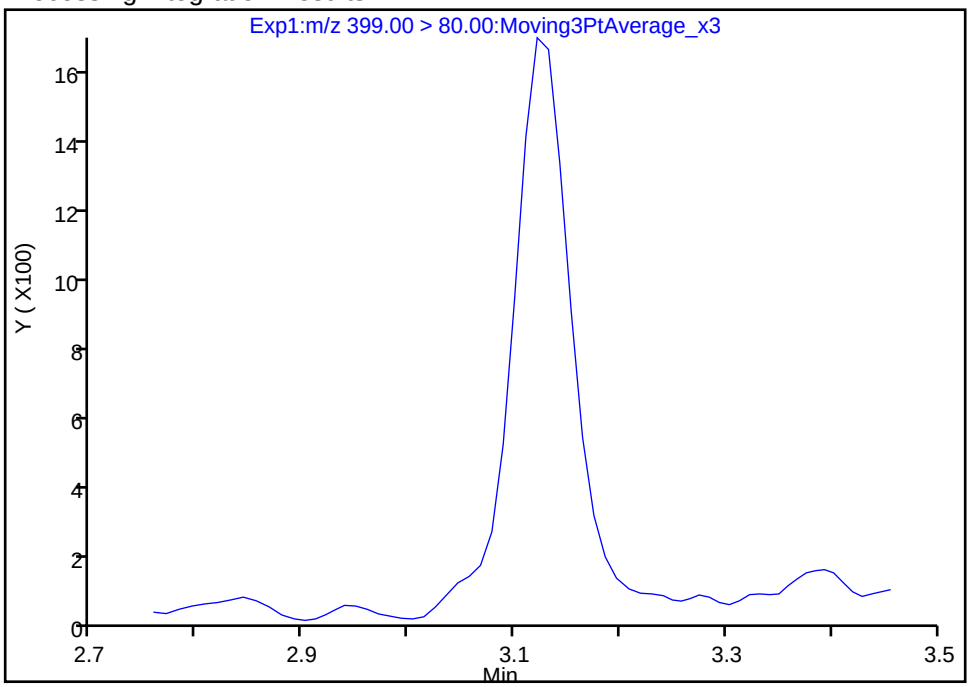
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

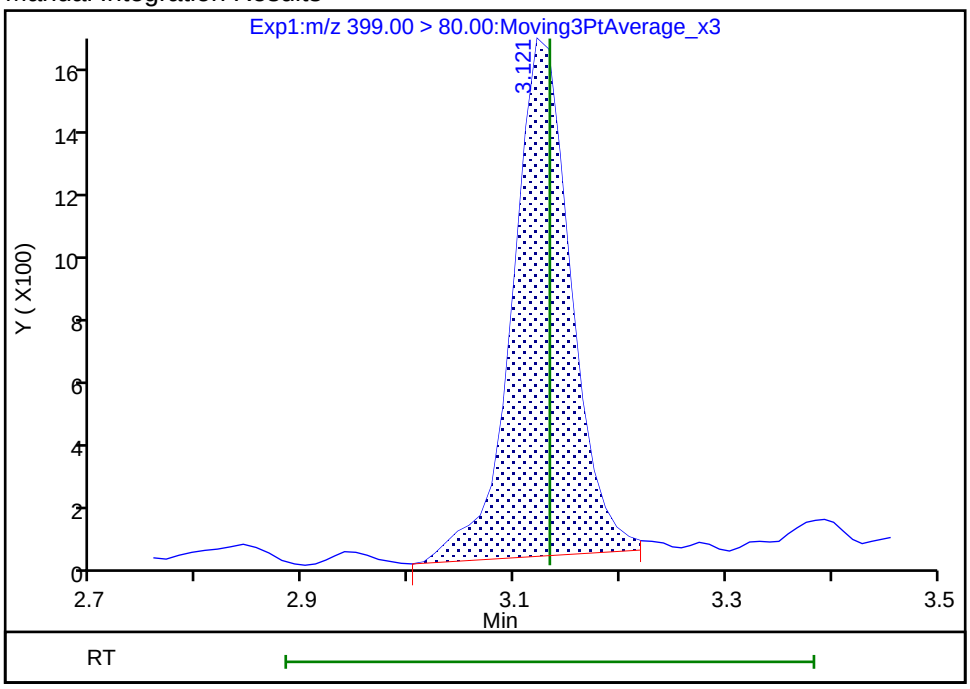
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.12
Area: 6175
Amount: 0.004948
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:35:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

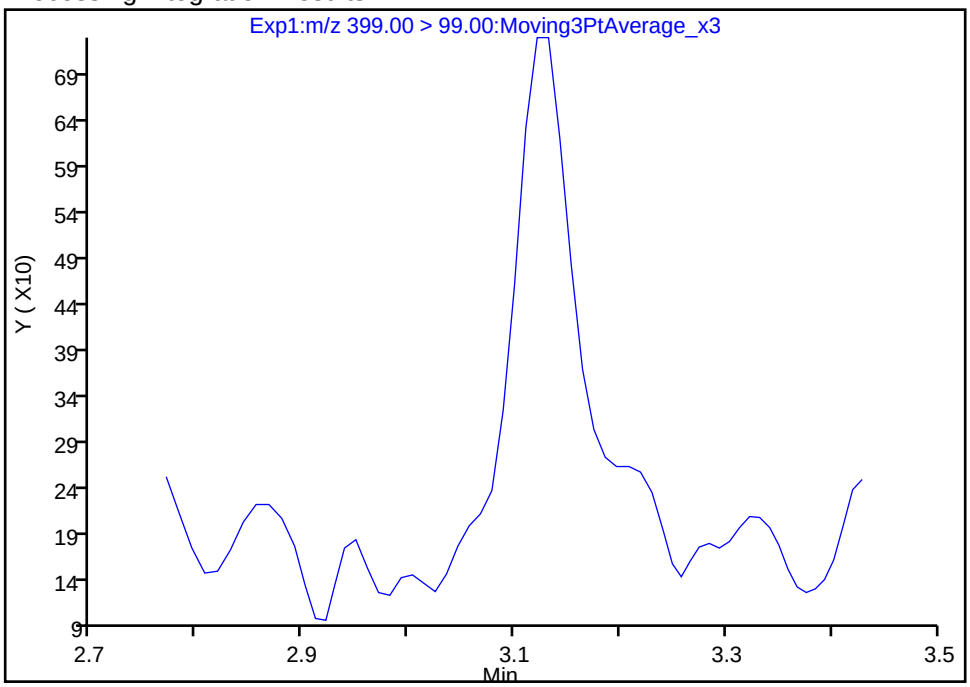
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

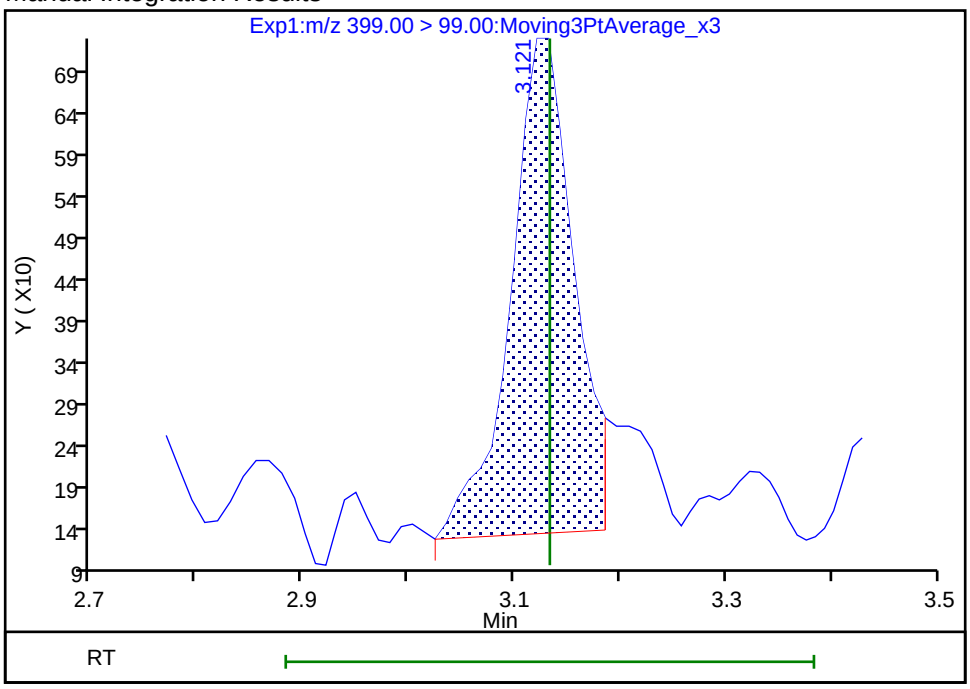
Not Detected
Expected RT: 3.13

Processing Integration Results




Manual Integration Results

RT: 3.12
Area: 2447
Amount: 0.004948
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:36:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

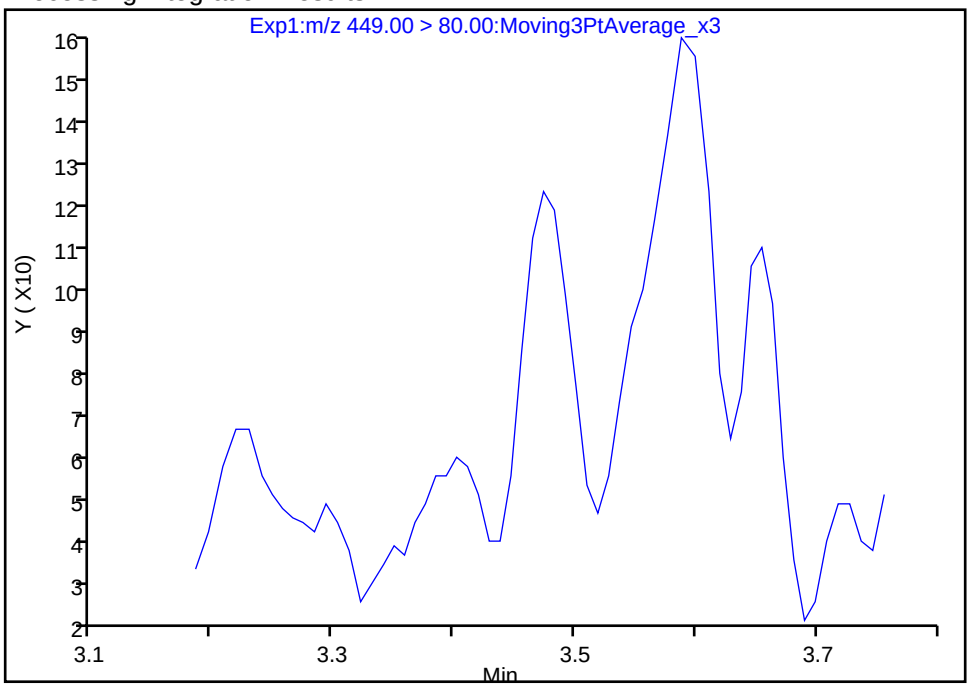
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

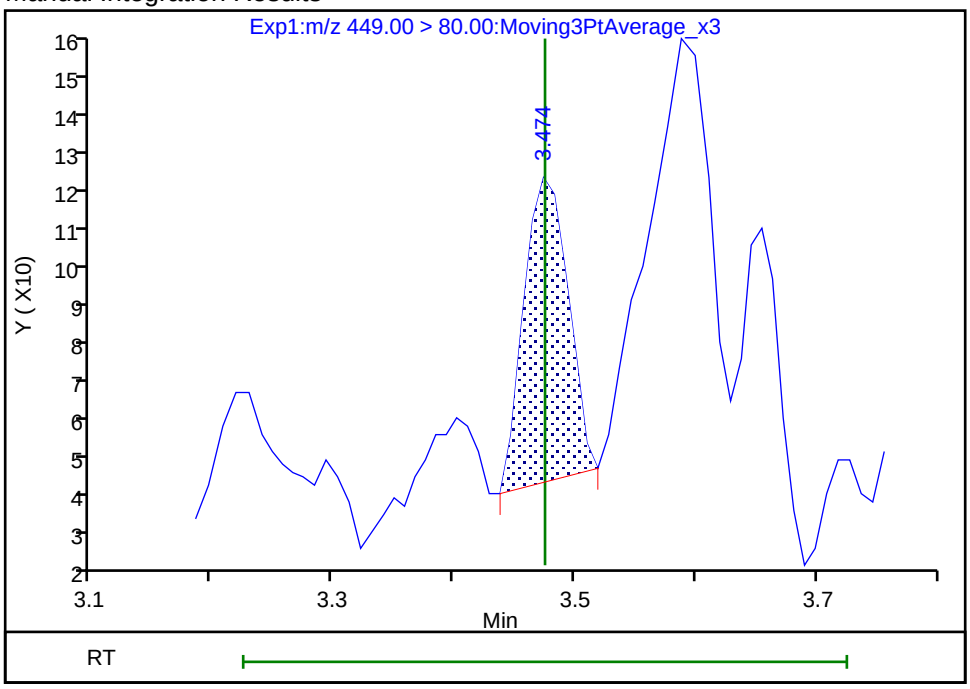
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.47
Area: 183
Amount: 0.000180
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:36:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

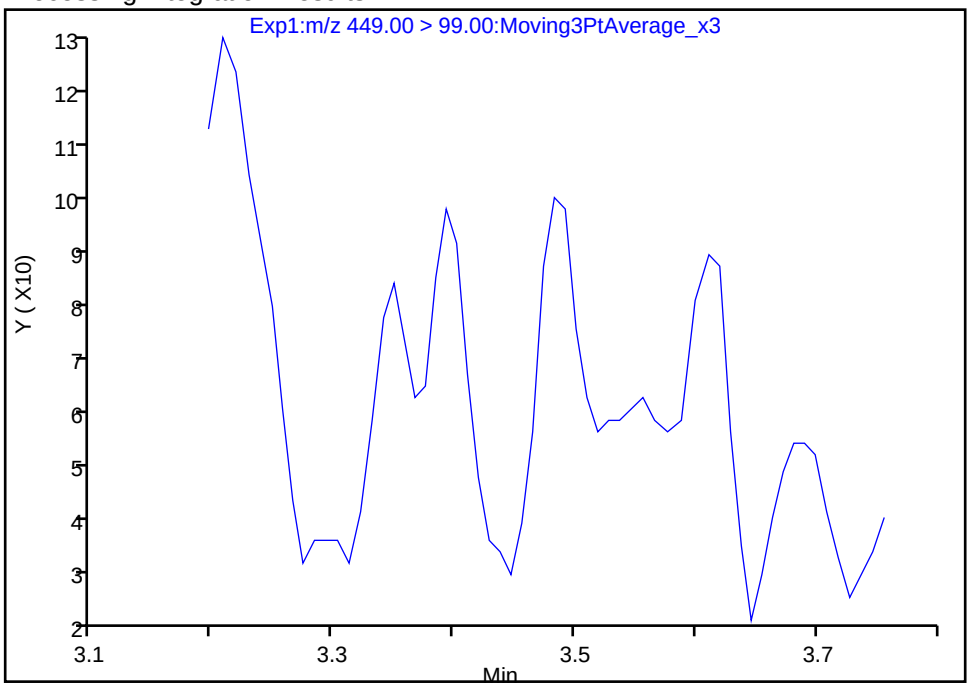
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

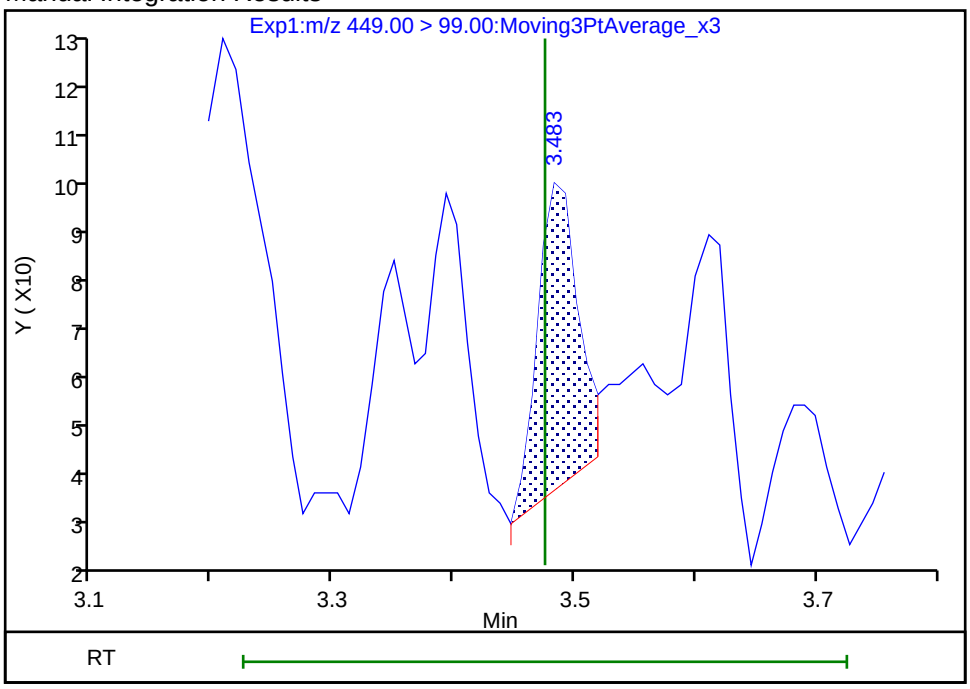
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 136
Amount: 0.000180
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:36:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

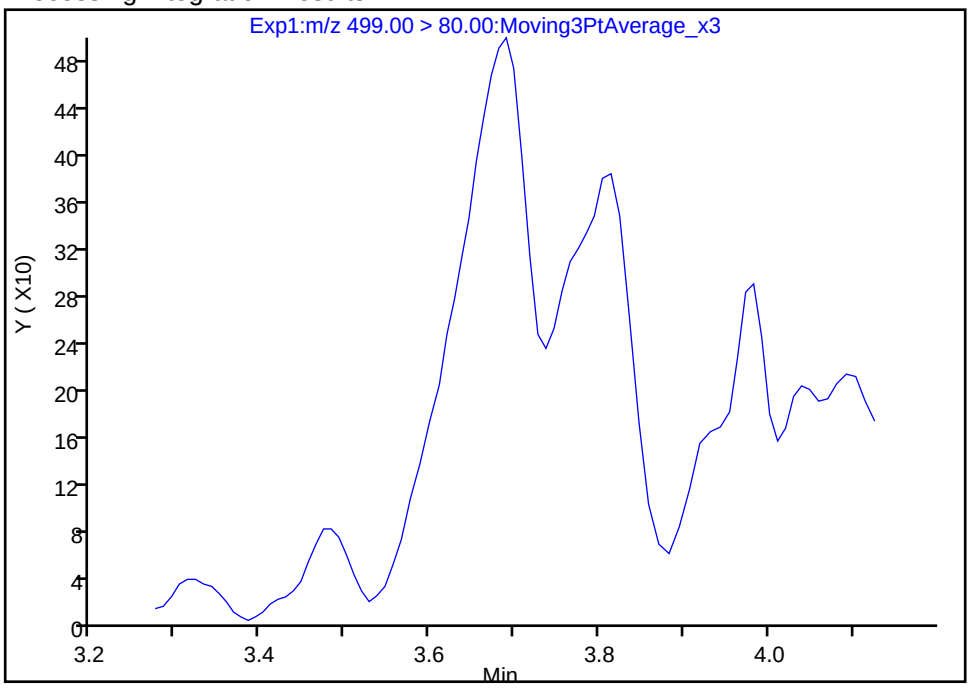
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

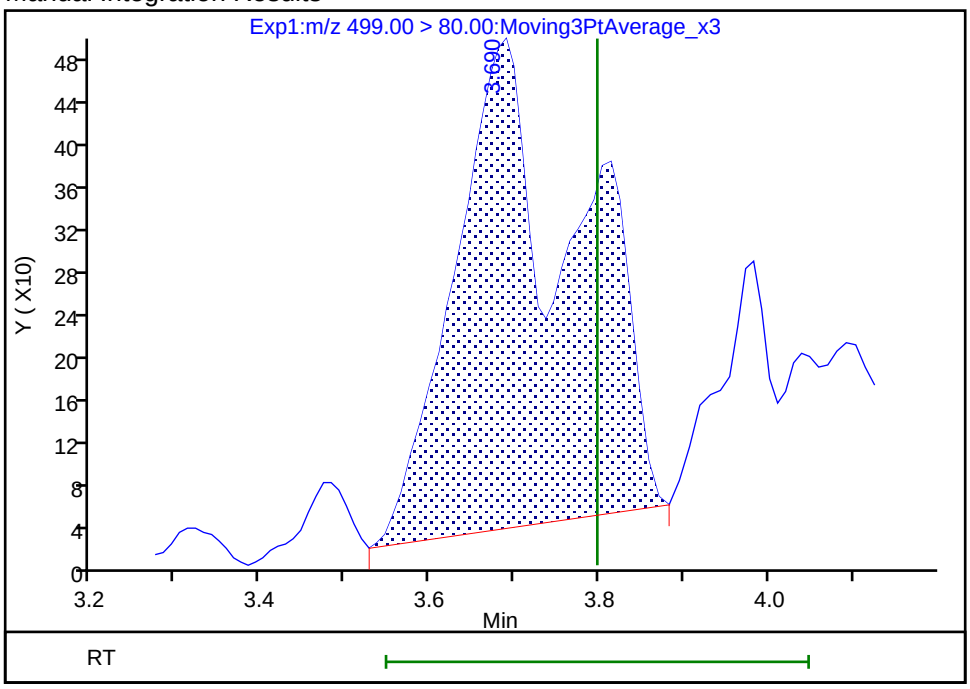
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.69
Area: 4637
Amount: 0.005250
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

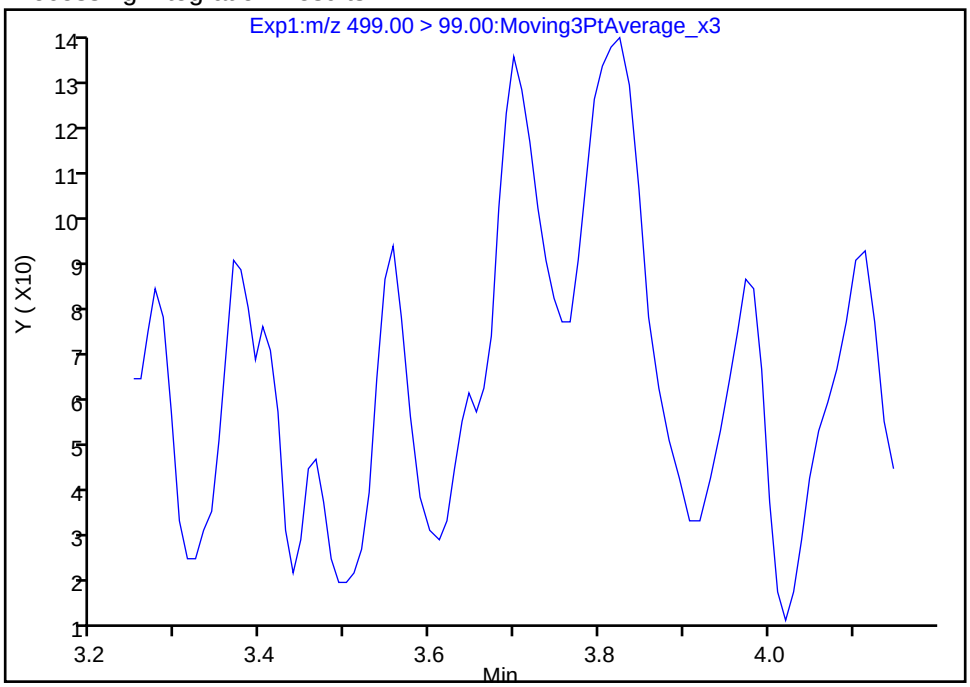
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

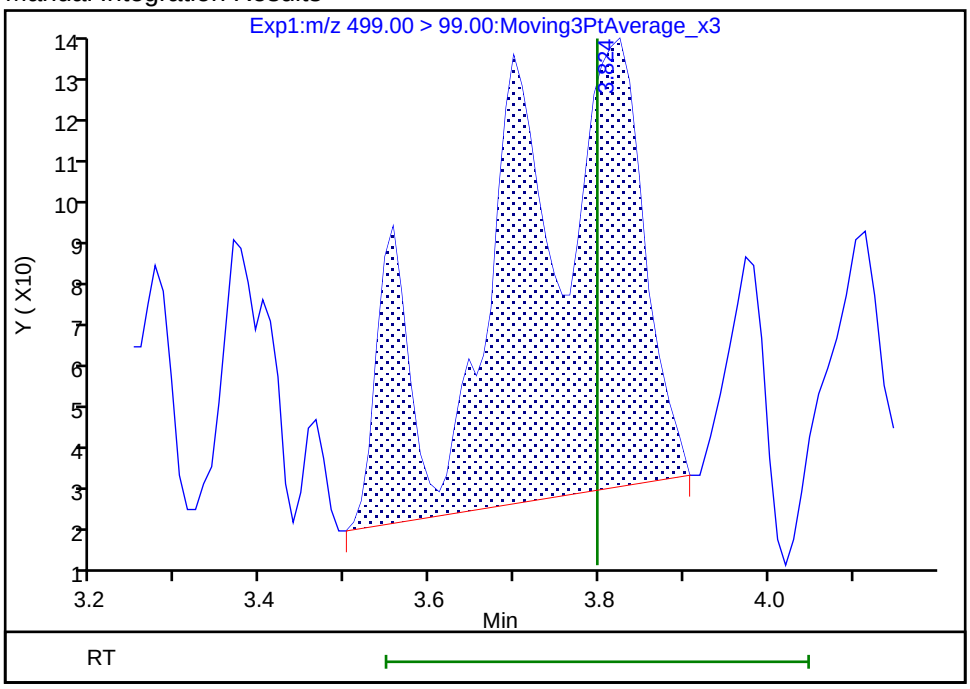
Not Detected
Expected RT: 3.80

Processing Integration Results




Manual Integration Results

RT: 3.82
Area: 1213
Amount: 0.005250
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

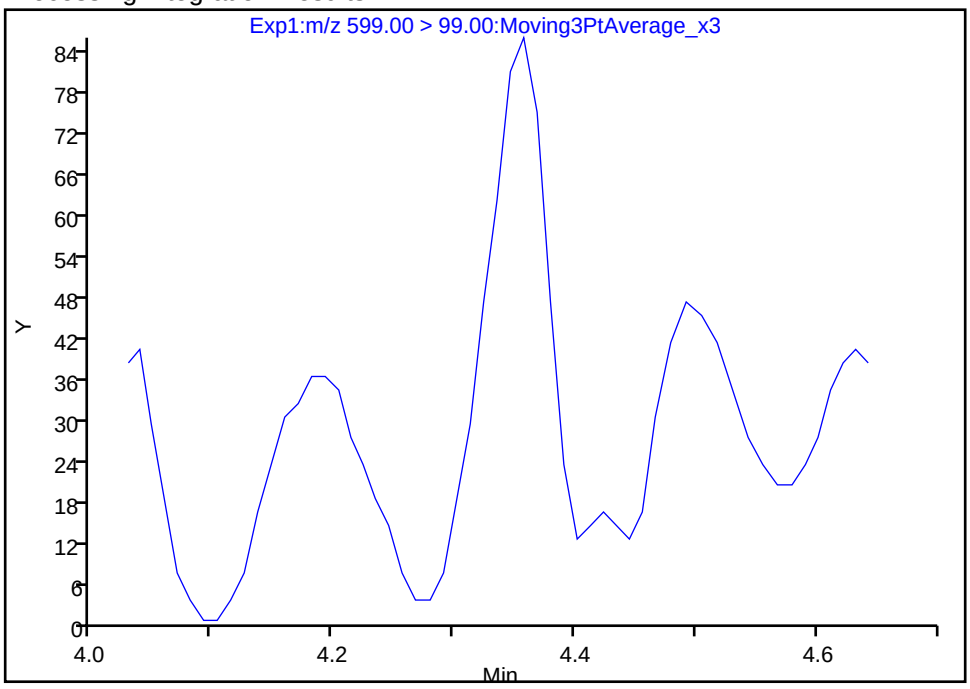
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

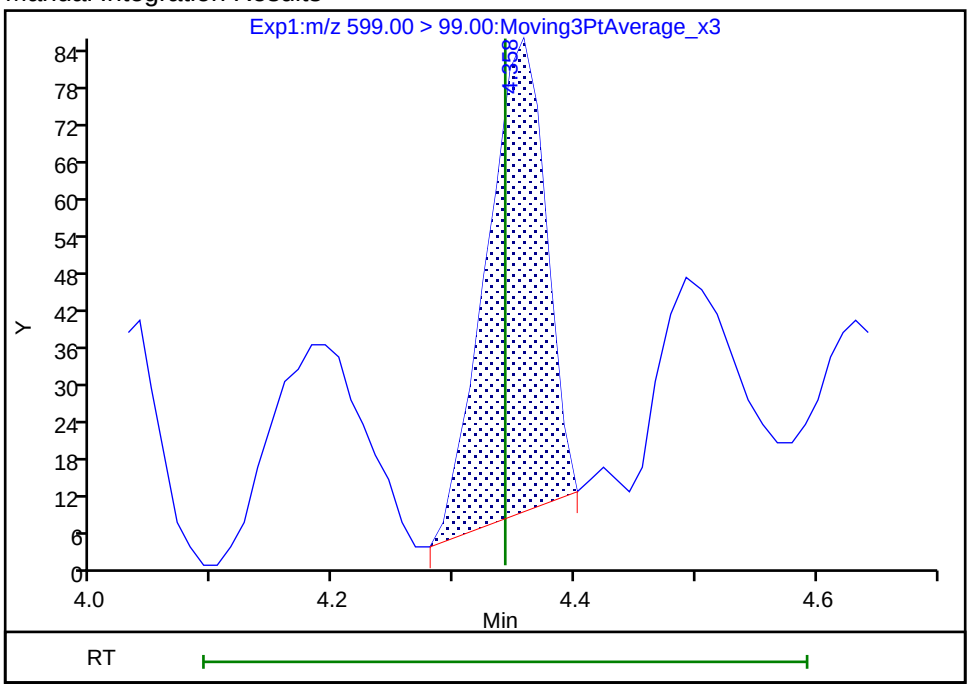
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 265
Amount: 0.000993
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

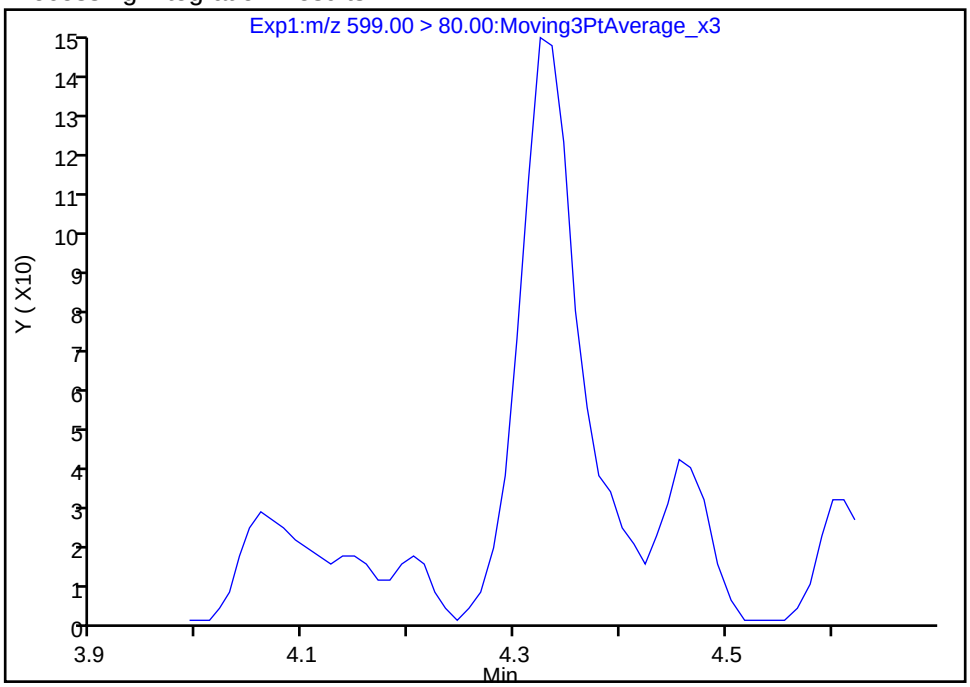
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

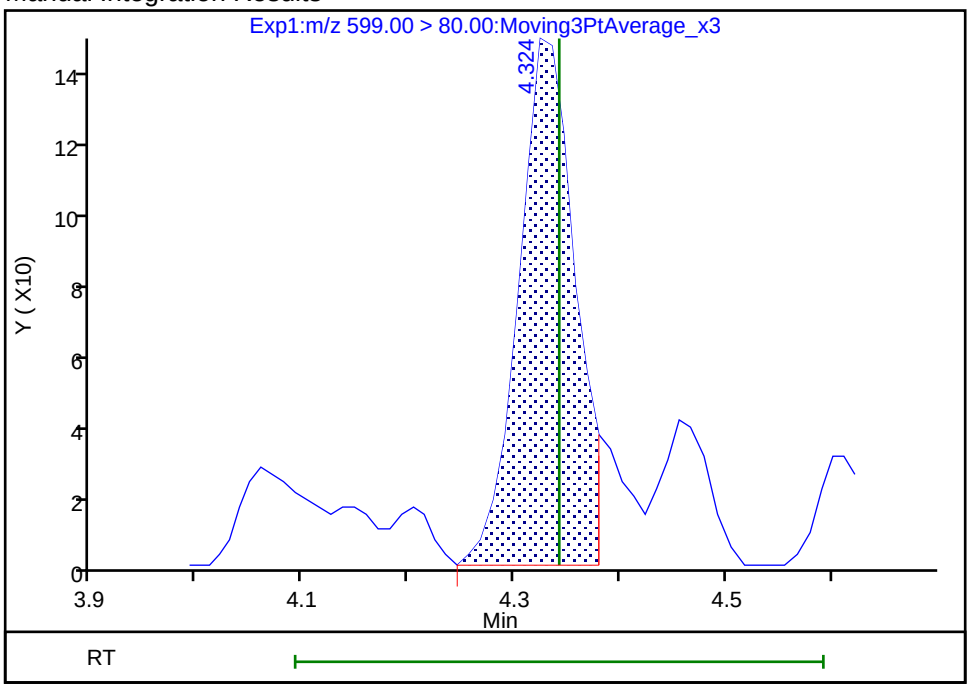
Not Detected
Expected RT: 4.34

Processing Integration Results




Manual Integration Results

RT: 4.32
Area: 531
Amount: 0.000993
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

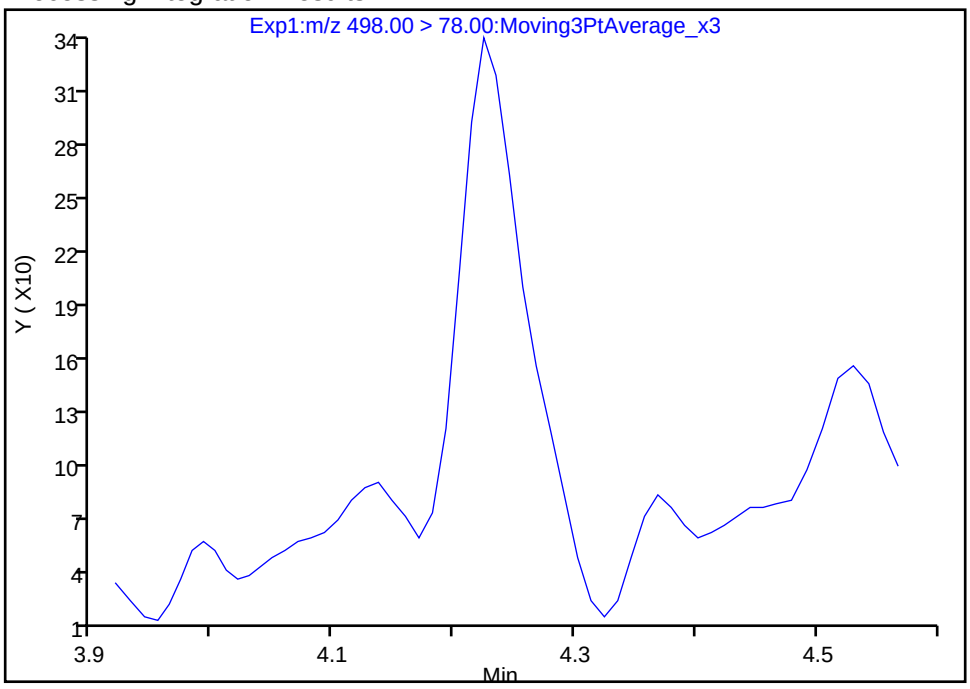
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

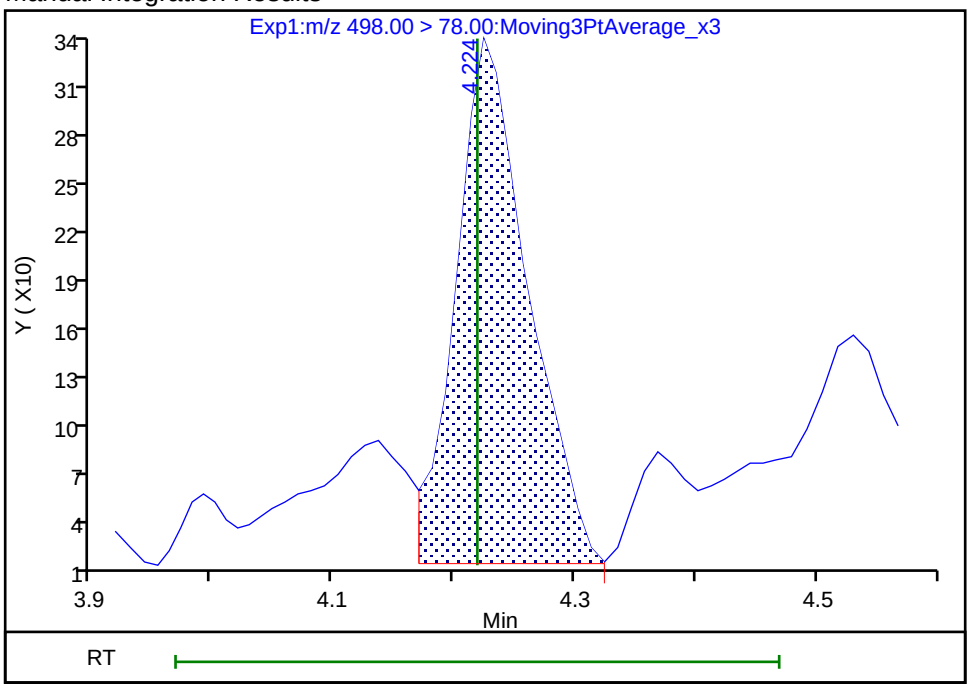
Not Detected
Expected RT: 4.22

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 1340
Amount: 0.001492
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 09:54:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

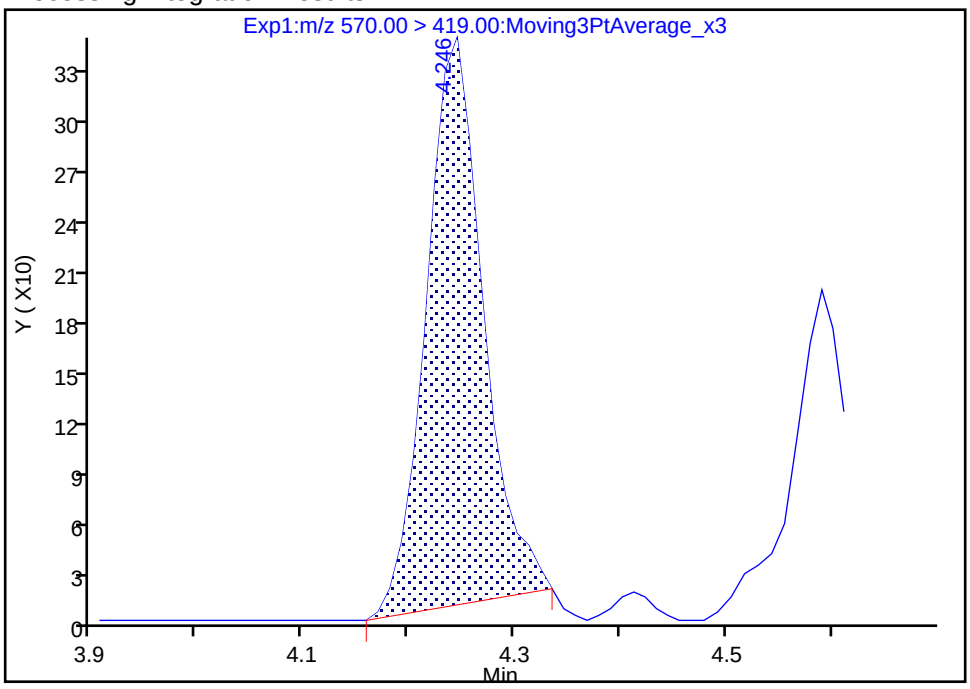
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

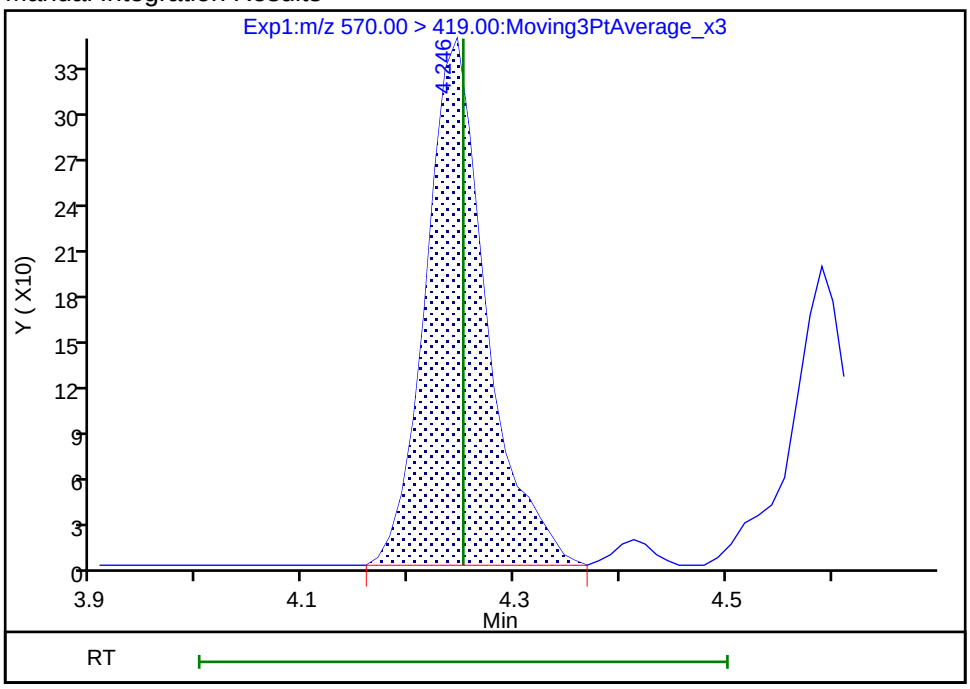
Processing Integration Results

RT: 4.25
Area: 1270
Amount: 0.012389
Amount Units: ng/ml




Manual Integration Results

RT: 4.25
Area: 1383
Amount: 0.013491
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

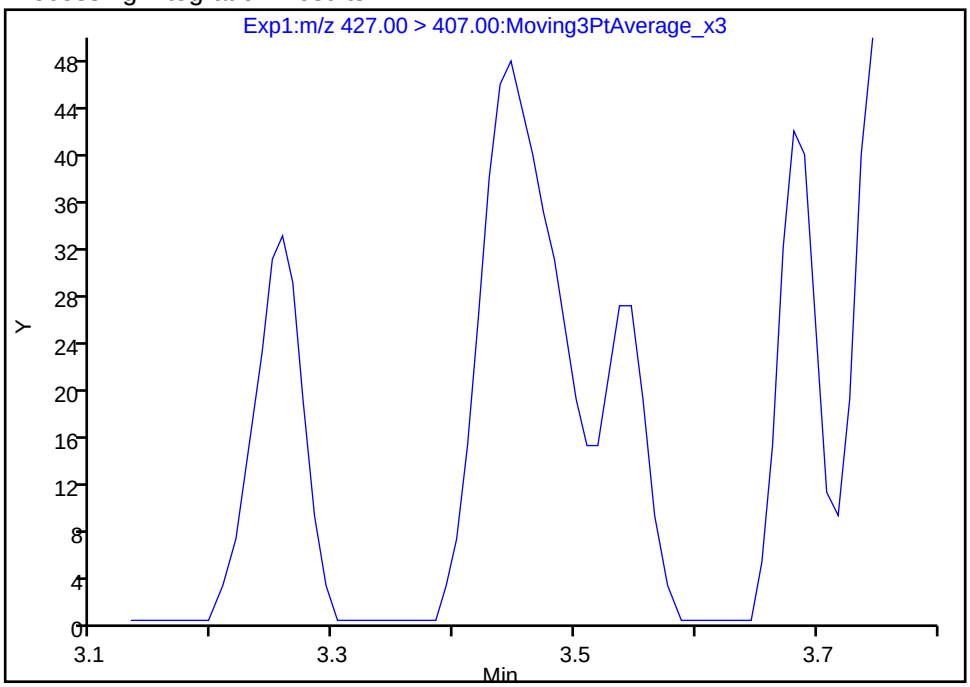
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d
Injection Date: 10-Nov-2021 12:11:48 Instrument ID: LC812
Lims ID: MB 200-173541/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

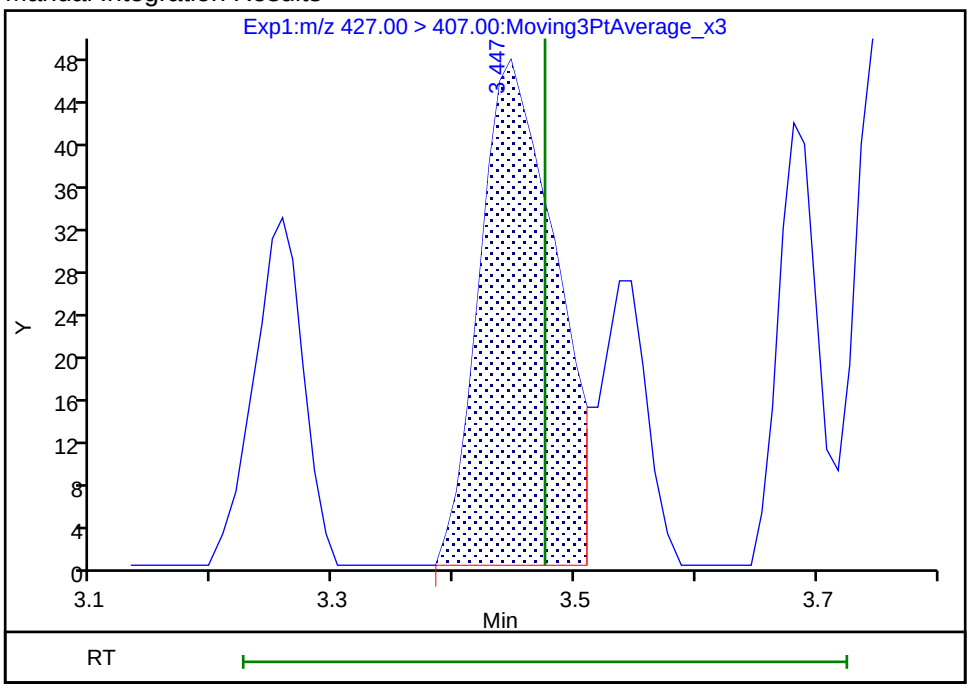
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.45
Area: 207
Amount: 0.000790
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:37:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

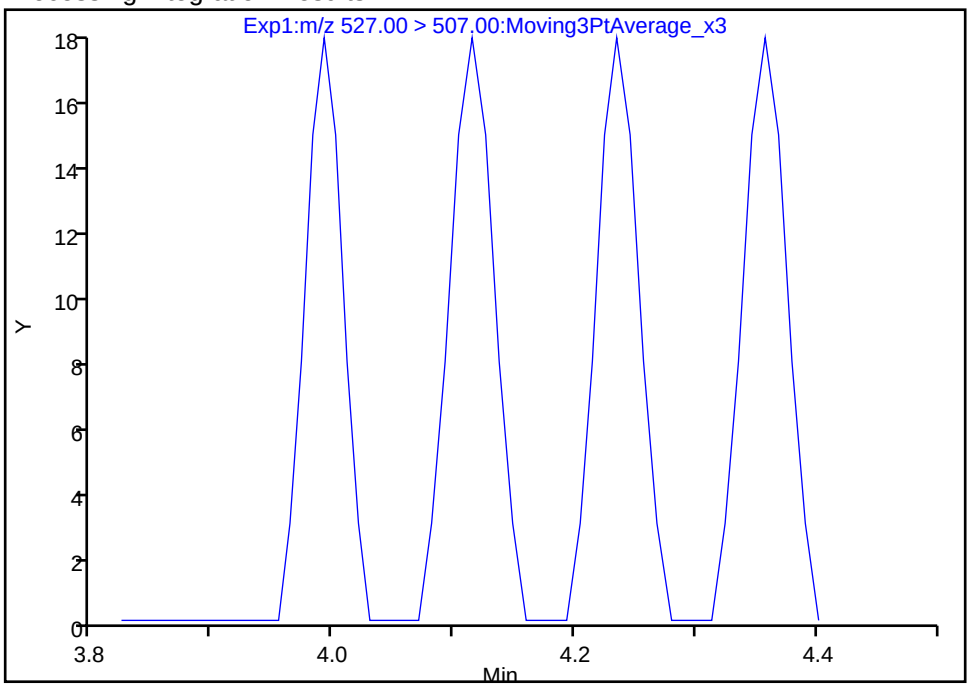
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A07.d | | | | |
| Injection Date: | 10-Nov-2021 12:11:48 | Instrument ID: | LC812 | | |
| Lims ID: | MB 200-173541/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 4 | Worklist Smp#: | 7 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

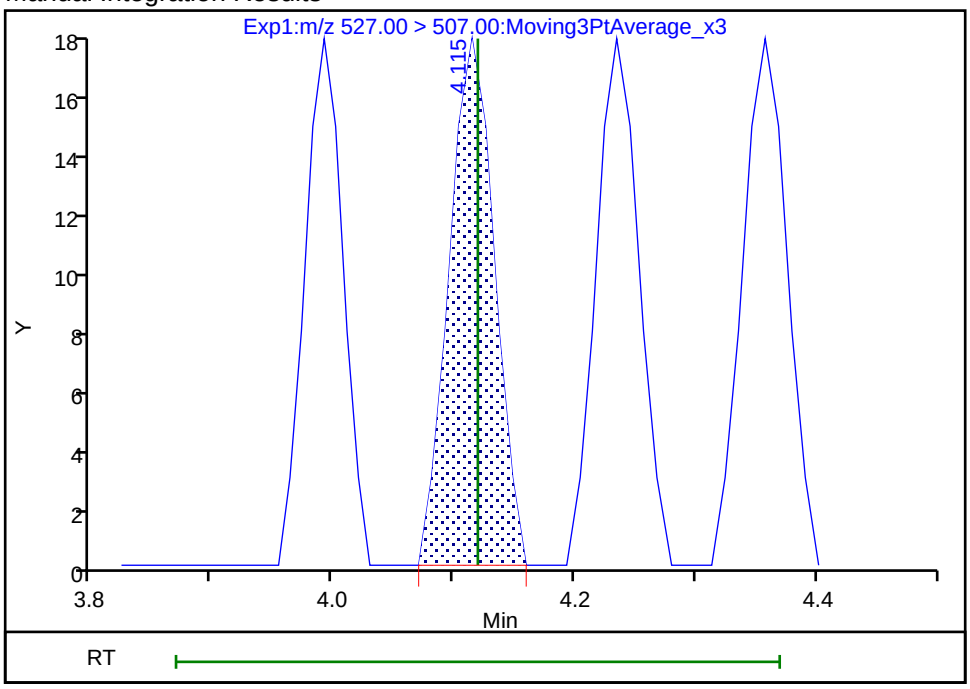
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 46
Amount: 0.000247
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:38:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: ICB 200-173158/8

Matrix: Water  Lab File ID: PA211027ICAL08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/27/2021 14:35

Con. Extract Vol.:  Dilution Factor: 1

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

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

Analysis Batch No.: 173158  Units: ng/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 0.022 | U | 0.13 | 0.022 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.012 | U | 0.050 | 0.012 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.011 | U | 0.050 | 0.011 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 0.0060 | U | 0.050 | 0.0060 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.011 | U | 0.050 | 0.011 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.0070 | U | 0.050 | 0.0070 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.00660 | J | 0.050 | 0.0062 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.0086 | U | 0.050 | 0.0086 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.0096 | U | 0.050 | 0.0096 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 0.0074 | U | 0.050 | 0.0074 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 0.012 | U | 0.050 | 0.012 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.0046 | U | 0.050 | 0.0046 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.00748 | J | 0.050 | 0.0071 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 0.0059 | U | 0.050 | 0.0059 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.0073 | U | 0.050 | 0.0073 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 0.0058 | U | 0.050 | 0.0058 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 0.00878 | J | 0.050 | 0.0084 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.0935 | J | 0.13 | 0.019 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.0743 | J | 0.13 | 0.019 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.015 | U | 0.13 | 0.015 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.0080 | U | 0.050 | 0.0080 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: ICB 200-173158/8

Matrix: Water  Lab File ID: PA211027ICAL08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/27/2021 14:35

Con. Extract Vol.:  Dilution Factor: 1

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

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

Analysis Batch No.: 173158  Units: ng/mL

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 103 | | 50-150 |
| STL01892 | 13C4 PFHpA | 101 | | 50-150 |
| STL00990 | 13C4 PFOA | 104 | | 50-150 |
| STL00991 | 13C4 PFOS | 106 | | 50-150 |
| STL00995 | 13C5 PFNA | 104 | | 50-150 |
| STL00992 | 13C4 PFBA | 99 | | 25-150 |
| STL00993 | 13C2 PFHxA | 103 | | 50-150 |
| STL00996 | 13C2 PFDA | 106 | | 50-150 |
| STL00997 | 13C2 PFUnA | 105 | | 50-150 |
| STL00998 | 13C2 PFDoA | 104 | | 50-150 |
| STL01056 | 13C8 FOSA | 97 | | 25-150 |
| STL01893 | 13C5 PFPeA | 100 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 105 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 105 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 104 | | 50-150 |
| STL02279 | M2-6:2 FTS | 104 | | 25-150 |
| STL02280 | M2-8:2 FTS | 110 | | 25-150 |
| STL02337 | 13C3 PFBS | 101 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 27-Oct-2021 14:35:58 ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: 200-0048181-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 27-Oct-2021 16:05:53 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1636

First Level Reviewer: deannd Date: 27-Oct-2021 15:47:57
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.074 | 2.080 | -0.006 | 0.595 | 1984170 | 1.24 | | 99.3 | 6860 | |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.401 | 2.398 | 0.003 | 0.689 | 1690461 | 1.26 | | 100 | 2766 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.401 | 2.398 | 0.003 | 1.000 | 8383 | 0.006188 | | | 0.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.414 | 2.424 | -0.010 | 0.693 | 2132555 | 1.17 | | 101 | 208360 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.414 | 2.424 | -0.010 | 1.000 | 8817 | 0.004500 | Target=2.32 | | 9.5 | |
| 298.90 > 99.00 | 2.414 | 2.424 | -0.010 | 1.000 | 4857 | | 1.82(1.16-3.48) | | 1.7 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.723 | 2.720 | 0.003 | 0.781 | 161559 | 1.16 | | 99.7 | 138 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.711 | 2.720 | -0.009 | 0.996 | 1017 | 0.003453 | | | 13.5 | M |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.759 | 2.756 | 0.003 | 1.000 | 9115 | 0.006201 | Target=12.09 | | 1.3 | M |
| 313.00 > 119.00 | 2.759 | 2.756 | 0.003 | 1.000 | 876 | | 10.41(6.04-18.13) | | 1.2 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.759 | 2.756 | 0.003 | 0.792 | 1811798 | 1.28 | | 103 | 2657 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.759 | 2.768 | -0.009 | 0.884 | 6304 | 0.003852 | Target=3.03 | | 11.1 | M |
| 349.00 > 99.00 | 2.759 | 2.768 | -0.009 | 0.884 | 1872 | | 3.37(1.52-4.55) | | 2.4 | M |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.869 | 2.865 | 0.004 | 0.823 | 52249 | 1.40 | | 112 | 448 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.123 | 3.122 | 0.001 | 0.896 | 1607190 | 1.21 | | 103 | 3129 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.123 | 3.122 | 0.001 | 1.000 | 11184 | 0.007484 | Target=3.55 | | 23.8 | |
| 399.00 > 99.00 | 3.123 | 3.122 | 0.001 | 1.000 | 3452 | | 3.24(1.77-5.32) | | 3.1 | M |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.123 | 3.132 | -0.009 | 1.000 | 5708 | 0.003662 | Target=3.69 | | 1.7 | |
| 363.00 > 169.00 | 3.123 | 3.132 | -0.009 | 1.000 | 2188 | | 2.61(1.84-5.53) | | 4.6 | M |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.123 | 3.132 | -0.009 | 0.896 | 1885648 | 1.27 | | 101 | 3551 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.165 | 3.165 | 0.0 | 0.836 | 12515 | 0.003538 | Target=2.56 | | 16.3 | |
| 377.00 > 85.00 | 3.165 | 3.165 | 0.0 | 0.836 | 5434 | | 2.30(1.28-3.84) | | 6.3 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.466 | 3.474 | -0.008 | 0.915 | 5265 | 0.004179 | Target=4.88 | | 18.2 | M |
| 449.00 > 99.00 | 3.475 | 3.474 | 0.001 | 0.917 | 1139 | | 4.62(2.44-7.32) | | 3.5 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.466 | 3.474 | -0.008 | 0.995 | 258055 | 1.24 | | 104 | 510 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.457 | 3.474 | -0.017 | 0.997 | 1085 | 0.003937 | | | 13.9 | M |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.475 | 3.483 | -0.008 | 0.997 | 2102754 | 1.29 | | 104 | 5962 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.484 | 3.483 | 0.001 | | 1973814 | 1.25 | | | 2729 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.475 | 3.483 | -0.008 | 1.000 | 11160 | 0.006238 | Target=2.68 | | 1.6 | M |
| 413.00 > 169.00 | 3.475 | 3.483 | -0.008 | 1.000 | 3481 | | 3.21(1.34-4.02) | | 4.3 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.788 | 3.794 | -0.006 | 1.087 | 1207750 | 1.26 | | 106 | 4596 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.788 | 3.794 | -0.006 | 1.000 | 4955 | 0.004518 | Target=4.69 | | 6.6 | M |
| 499.00 > 99.00 | 3.818 | 3.794 | 0.024 | 1.008 | 1637 | | 3.03(2.35-7.04) | | 2.0 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.807 | 3.814 | -0.007 | 1.093 | 2096587 | 1.30 | | 104 | 5844 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.807 | 3.814 | -0.007 | 1.000 | 8447 | 0.005148 | Target=7.29 | | 2.0 | M |
| 463.00 > 169.00 | 3.807 | 3.814 | -0.007 | 1.000 | 1356 | | 6.23(3.64-10.93) | | 7.5 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.948 | 3.955 | -0.007 | 1.042 | 6749 | 0.004085 | | | 23.3 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | M |
| 549.00 > 80.00 | 4.075 | 4.071 | 0.004 | 1.076 | 4963 | 0.005810 | Target=2.35 | | 28.0 | M |
| 549.00 > 99.00 | 4.086 | 4.071 | 0.015 | 1.079 | 1795 | | 2.76(1.17-3.52) | | 5.8 | M |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.097 | 4.104 | -0.007 | 1.176 | 2173697 | 1.33 | | 106 | 3806 | |
| 24 Perfluorodecanoic acid | | | | | | | | | | M |
| 513.00 > 469.00 | 4.097 | 4.104 | -0.007 | 1.000 | 11533 | 0.006600 | Target=8.95 | | 6.2 | M |
| 513.00 > 169.00 | 4.119 | 4.104 | 0.015 | 1.005 | 966 | | 11.94(4.47-13.42) | | 4.2 | M |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.108 | 4.115 | -0.007 | 1.179 | 312017 | 1.32 | | 110 | 803 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | M |
| 527.00 > 507.00 | 4.108 | 4.115 | -0.007 | 1.000 | 726 | 0.003331 | | | 9.0 | M |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.219 | 4.225 | -0.006 | 1.211 | 1905834 | 1.21 | | 96.8 | 2854 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | M |
| 498.00 > 78.00 | 4.219 | 4.235 | -0.016 | 1.000 | 12710 | 0.008778 | | | 25.0 | M |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.240 | 4.246 | -0.006 | 1.217 | 209985 | 1.31 | | 105 | 1448 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.240 | 4.246 | -0.006 | 1.000 | 12334 | 0.0935 | | | 52.2 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.331 | 4.336 | -0.005 | 1.143 | 2995 | 0.004509 | Target=2.47 | | 27.8 | M |
| 599.00 > 99.00 | 4.320 | 4.336 | -0.016 | 1.140 | 1324 | | 2.26(1.23-3.70) | | 7.5 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.353 | 4.358 | -0.005 | 1.249 | 1665317 | 1.31 | | 105 | 5461 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | M |
| 563.00 > 519.00 | 4.364 | 4.358 | 0.006 | 1.003 | 9245 | 0.006510 | Target=9.24 | | 6.5 | M |
| 563.00 > 169.00 | 4.353 | 4.358 | -0.005 | 1.000 | 850 | | 10.88(4.62-13.86) | | 8.3 | M |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.364 | 4.369 | -0.005 | 1.253 | 196477 | 1.31 | | 104 | 1298 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.375 | 4.380 | -0.005 | 1.003 | 10005 | 0.0743 | | | 107 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.452 | 4.445 | 0.007 | 1.175 | 8224 | 0.004215 | | | 61.7 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.577 | 4.580 | -0.003 | 1.314 | 1782721 | 1.30 | | 104 | 739 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.577 | 4.580 | -0.003 | 1.000 | 10015 | 0.007172 | Target=7.04 | | 2.0 | |
| 613.00 > 169.00 | 4.577 | 4.580 | -0.003 | 1.000 | 1612 | | 6.21(3.52-10.56) | | 13.4 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.598 | 4.601 | -0.003 | 1.119 | 359 | 0.003565 | | | 7.0 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | M |
| 699.00 > 80.00 | 4.745 | 4.748 | -0.003 | 1.253 | 1165 | 0.004769 | Target=0.49 | | 24.2 | M |
| 699.00 > 99.00 | 4.745 | 4.748 | -0.003 | 1.253 | 1760 | | 0.66(0.25-0.74) | | 17.1 | M |
| 41 Perfluorotridecanoic acid | | | | | | | | | | M |
| 663.00 > 619.00 | 4.772 | 4.775 | -0.003 | 1.043 | 8163 | 0.006781 | Target=4.68 | | 2.4 | M |
| 663.00 > 169.00 | 4.772 | 4.775 | -0.003 | 1.043 | 1698 | | 4.81(2.34-7.02) | | 20.3 | M |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.952 | 4.957 | -0.004 | 1.421 | 1388228 | 1.31 | | 105 | 3372 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.952 | 4.957 | -0.004 | 1.000 | 1191 | 0.006795 | Target=1.01 | | 19.6 | |
| 713.00 > 219.00 | 4.952 | 4.957 | -0.004 | 1.000 | 1663 | | 0.72(0.51-1.52) | | 34.5 | |
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.255 | 5.258 | -0.003 | 1.508 | 1143798 | 1.22 | | 97.8 | 3043 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | M |
| 813.00 > 769.00 | 5.255 | 5.258 | -0.003 | 1.000 | 18251 | 0.004595 | Target=4.57 | | 4.5 | M |
| 813.00 > 169.00 | 5.255 | 5.258 | -0.003 | 1.000 | 4045 | | 4.51(2.29-6.86) | | 56.9 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.516 | 5.519 | -0.003 | 1.050 | 9926 | 0.0129 | Target=4.27 | | 5.3 | M |
| 913.00 > 169.00 | 5.516 | 5.519 | -0.003 | 1.050 | 2588 | | 3.84(2.14-6.41) | | 40.3 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

PFAS32NCBLK20_00013 Amount Added: 100.00 Units: uL

Report Date: 27-Oct-2021 16:06:32 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d

Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812

Lims ID: ICB

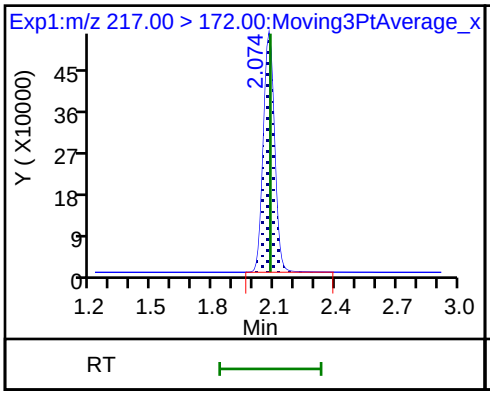
Client ID:

Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8

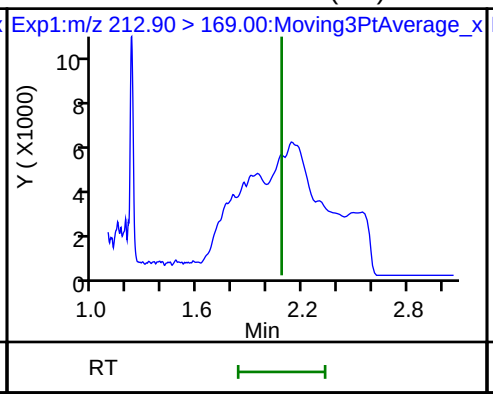
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

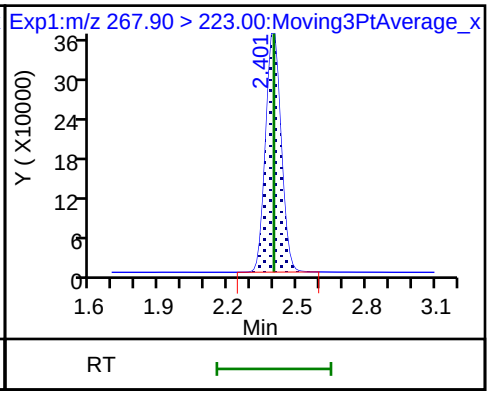
D 1 13C4 PFBA



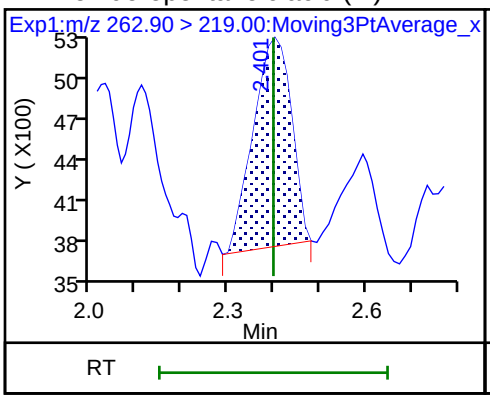

2 Perfluorobutanoic acid (ND)



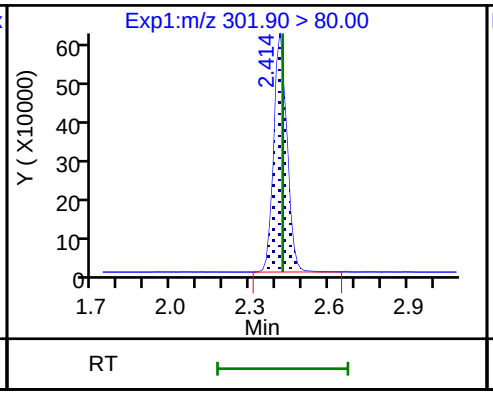

D 3 13C5 PFPeA



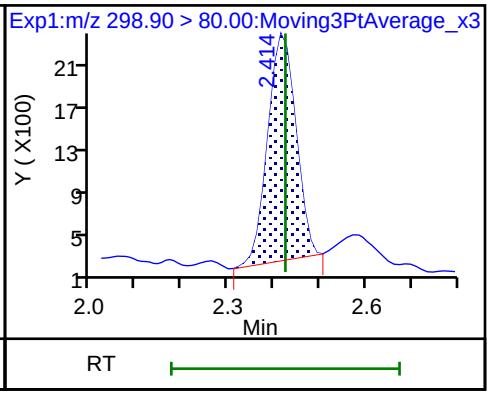

4 Perfluoropentanoic acid (M)



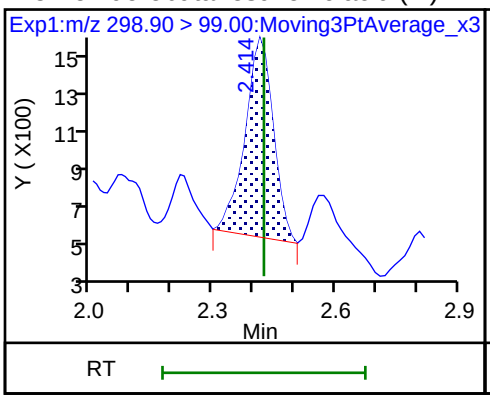

D 47 13C3 PFBS



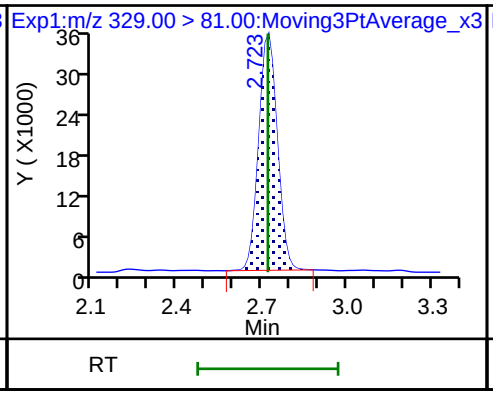

5 Perfluorobutanesulfonic acid



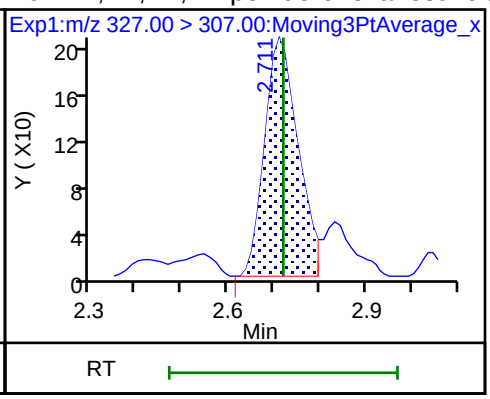

5 Perfluorobutanesulfonic acid (M)



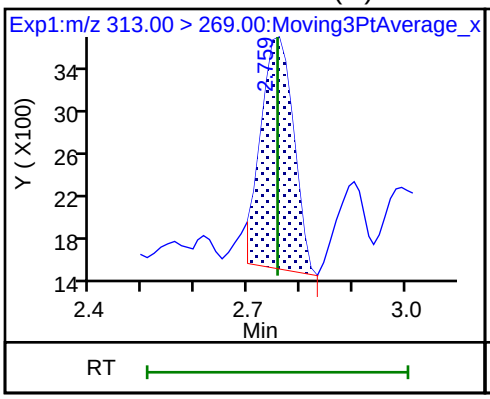

D 60 M2-4:2 FTS



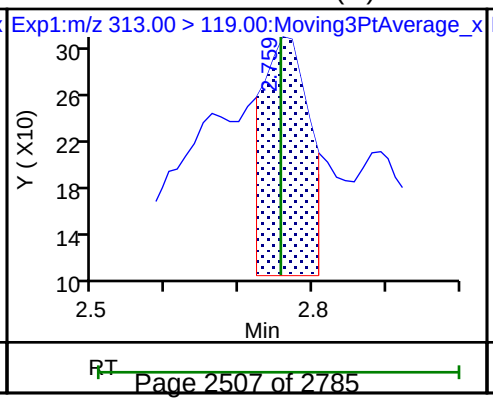

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



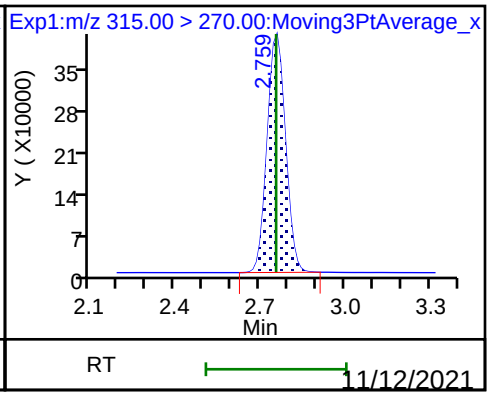

6 Perfluorohexanoic acid (M)



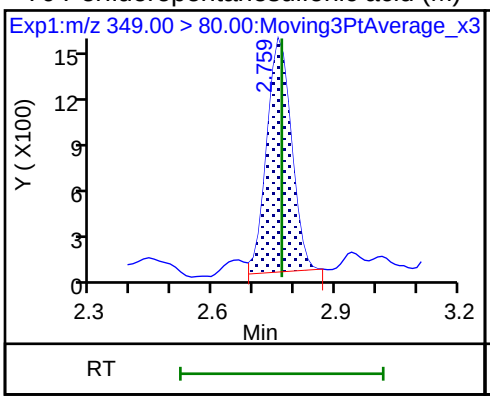

6 Perfluorohexanoic acid (M)



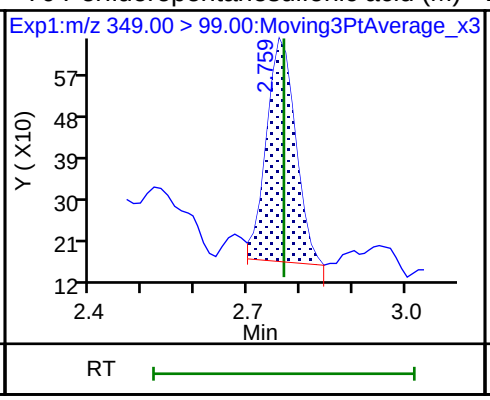

D 7 13C2 PFHxA



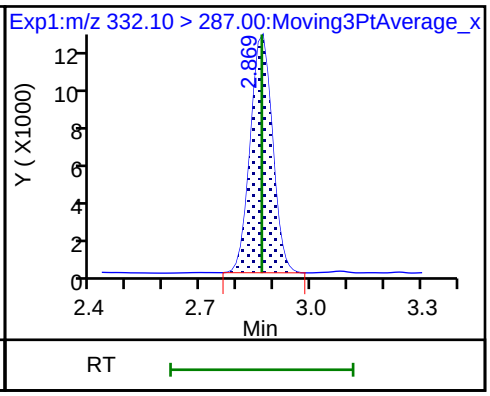
70 Perfluoropentanesulfonic acid (M)



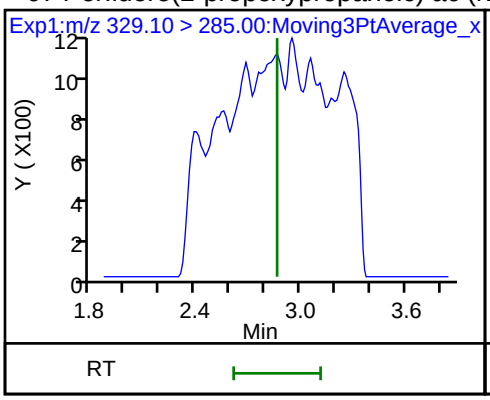

70 Perfluoropentanesulfonic acid (M)



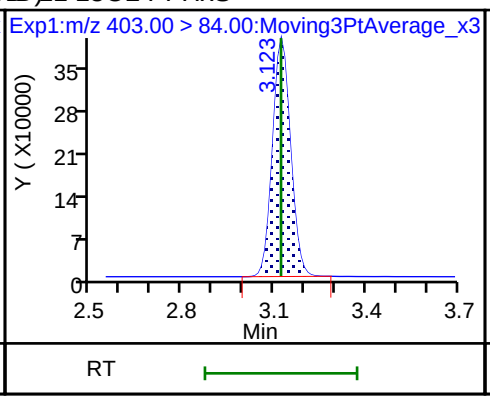

D 64 13C3 HFPO-DA



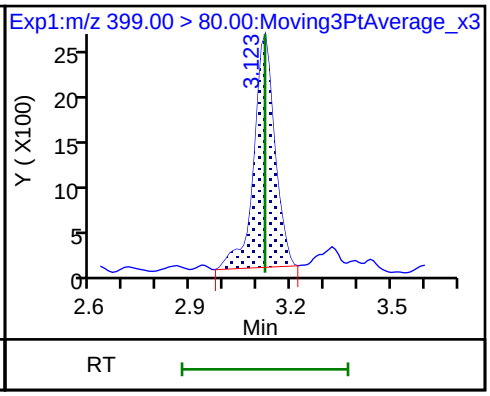

67 Perfluoro(2-propoxypropanoic) ac (M)



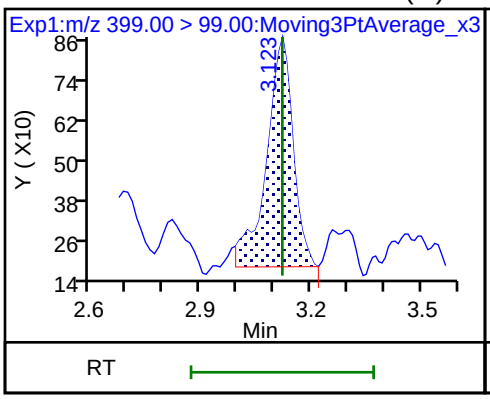

D 11 18O2 PFHxS



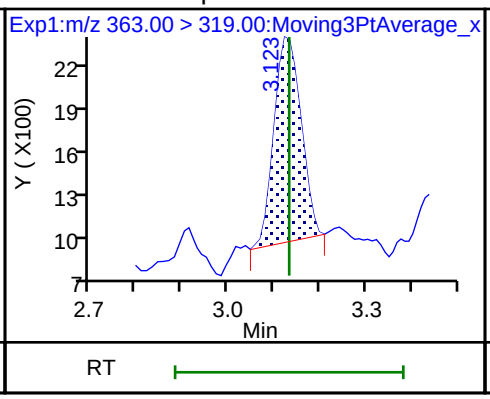

8 Perfluorohexanesulfonic acid



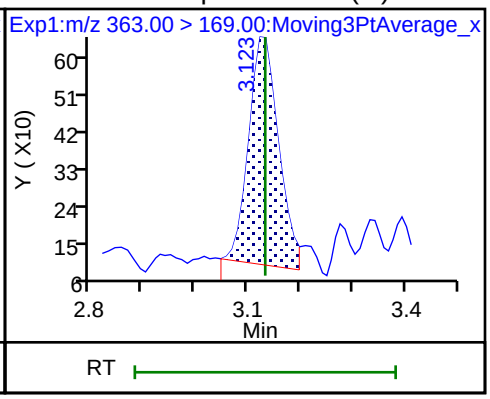

8 Perfluorohexanesulfonic acid (M)



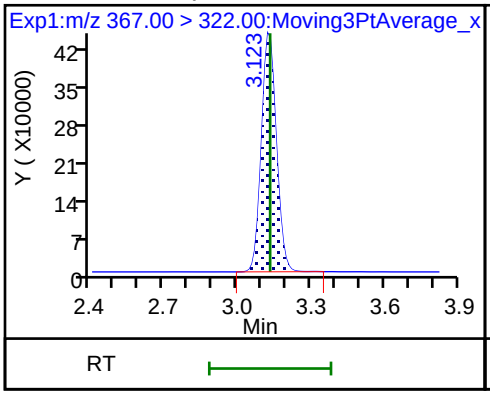

10 Perfluoroheptanoic acid



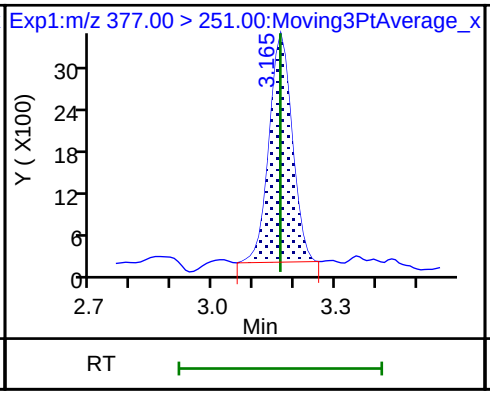

10 Perfluoroheptanoic acid (M)



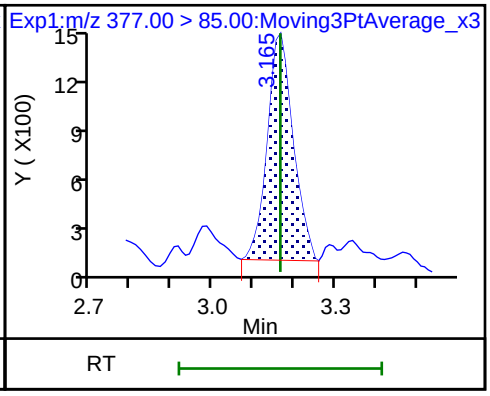

D 9 13C4 PFHpA



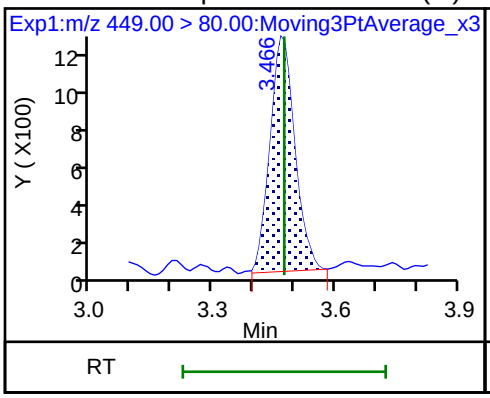

77 DONA



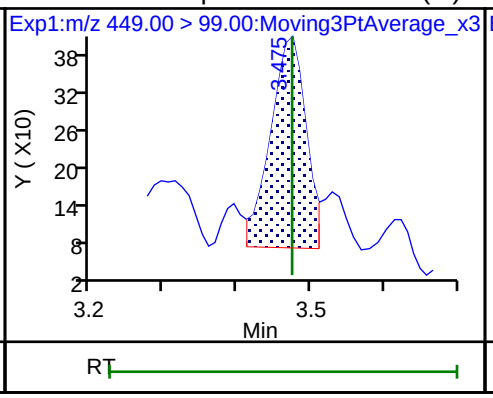

77 DONA



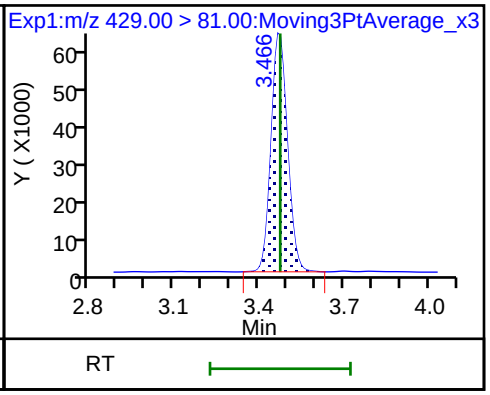
16 Perfluoroheptanesulfonic acid (M)



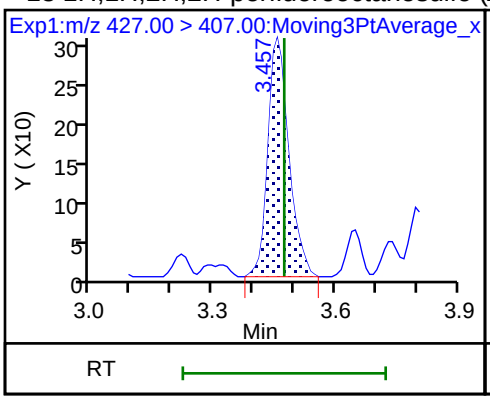

16 Perfluoroheptanesulfonic acid (M)



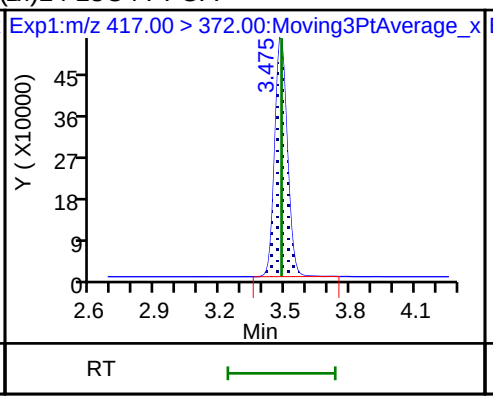

D 12 M2-6:2 FTS



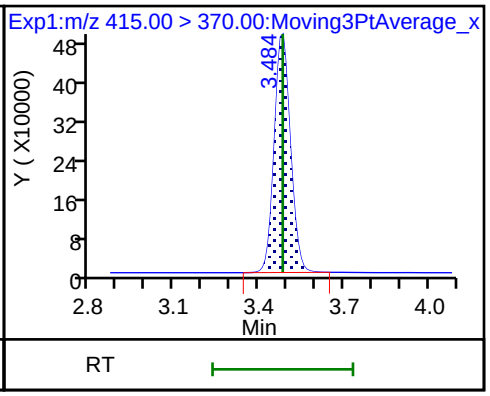

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



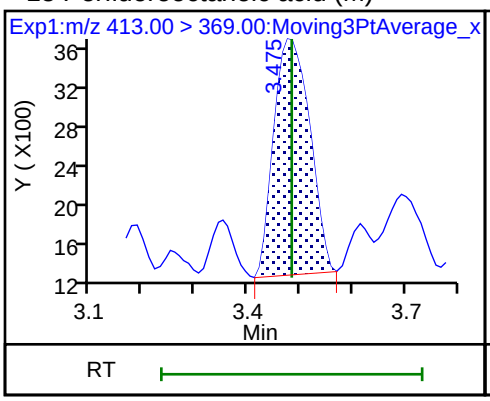

14 13C4 PFOA



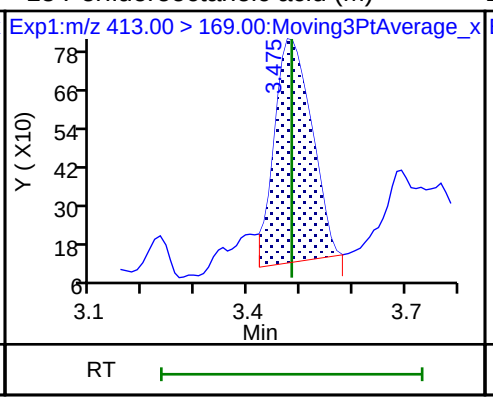

* 62 13C2 PFOA



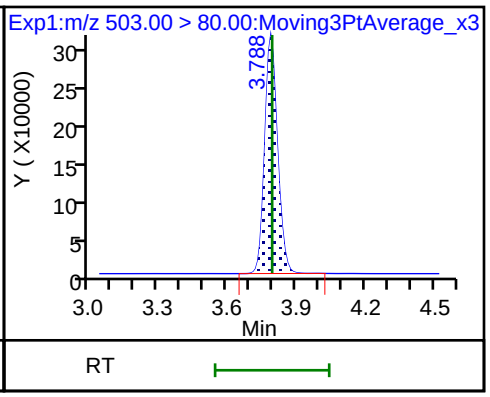

15 Perfluorooctanoic acid (M)



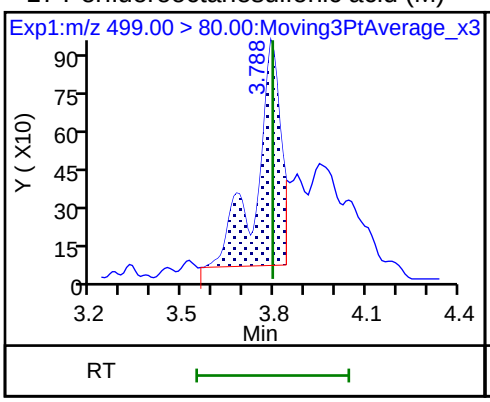

15 Perfluorooctanoic acid (M)



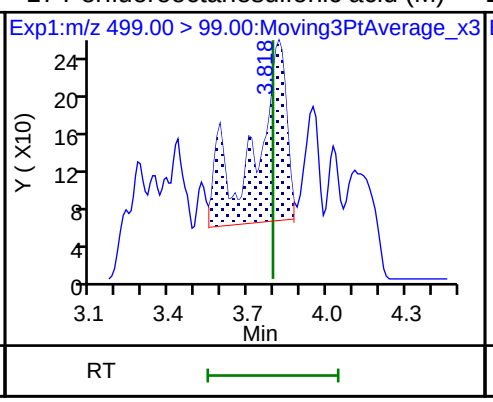

D 18 13C4 PFOS



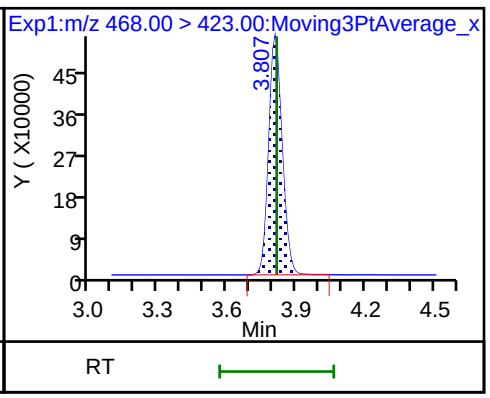

17 Perfluorooctanesulfonic acid (M)



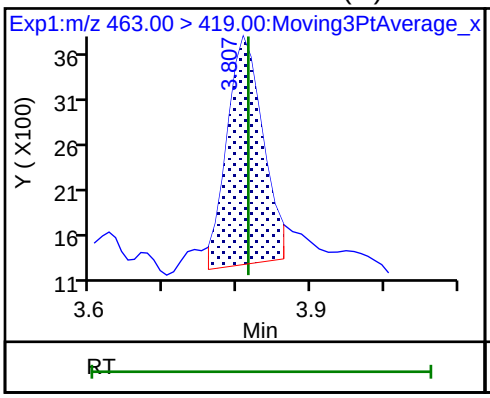

17 Perfluorooctanesulfonic acid (M)



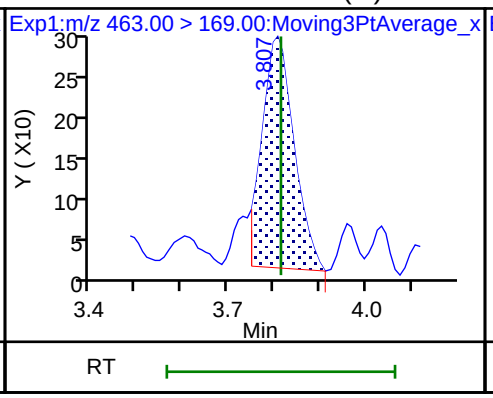

D 19 13C5 PFNA



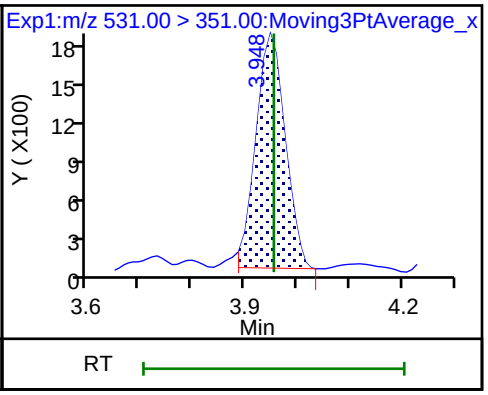
20 Perfluorononanoic acid (M)



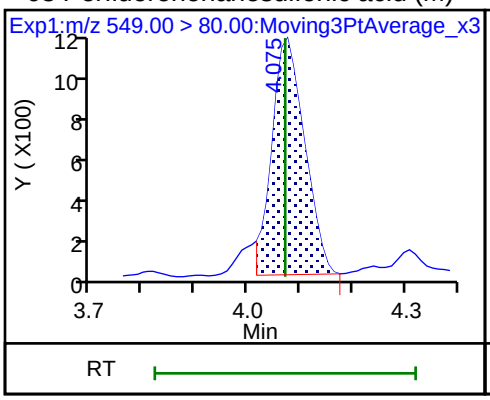

20 Perfluorononanoic acid (M)



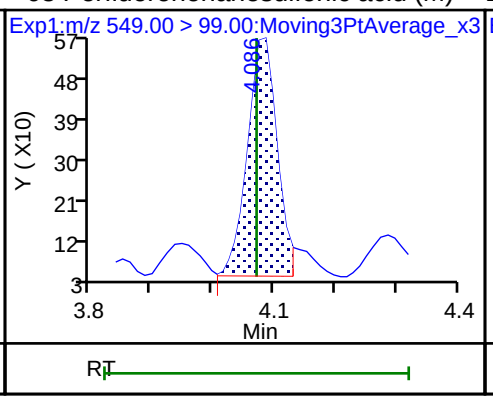

69 9-Chlorohexadecafluoro-3-oxanona (M)



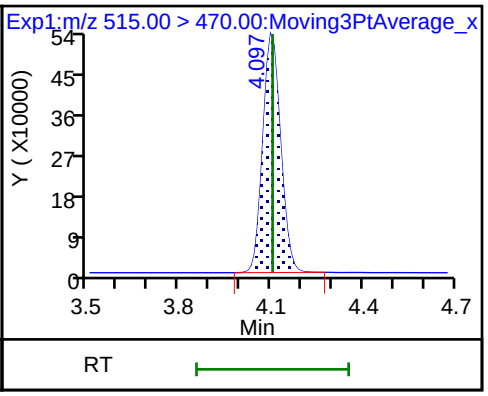

68 Perfluorononanesulfonic acid (M)



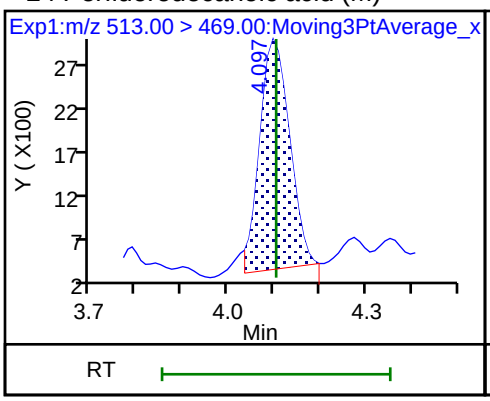

68 Perfluorononanesulfonic acid (M)



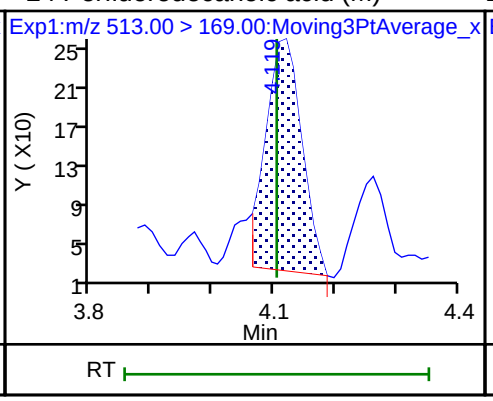

D 23 13C2 PFDA



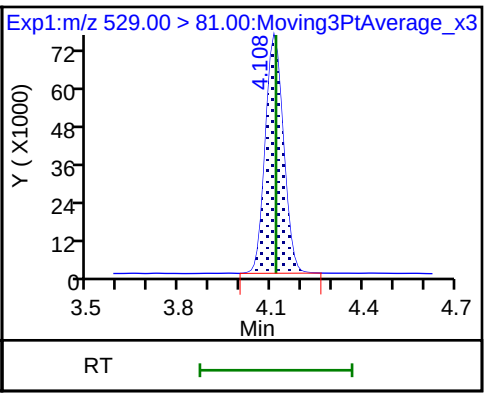

24 Perfluorodecanoic acid (M)



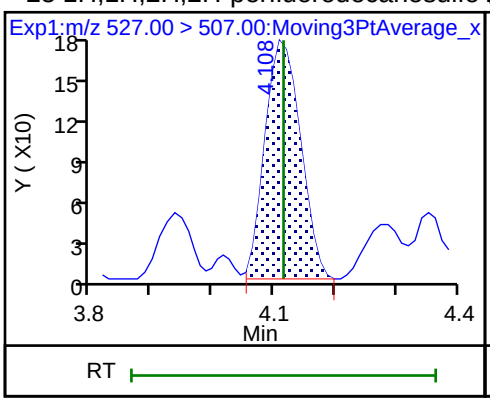

24 Perfluorodecanoic acid (M)



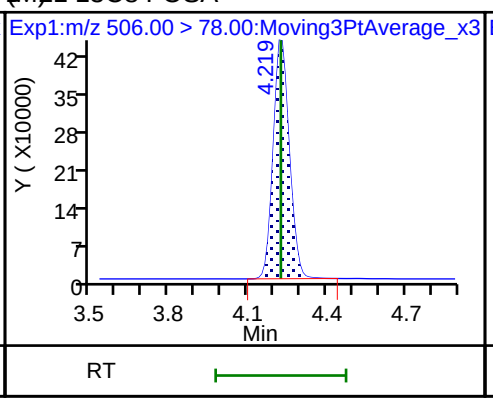

D 26 M2-8:2 FTS



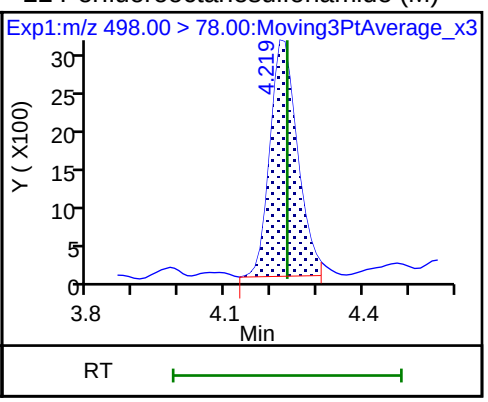

25 1H,1H,2H,2H-perfluorodecanesulfo (M)



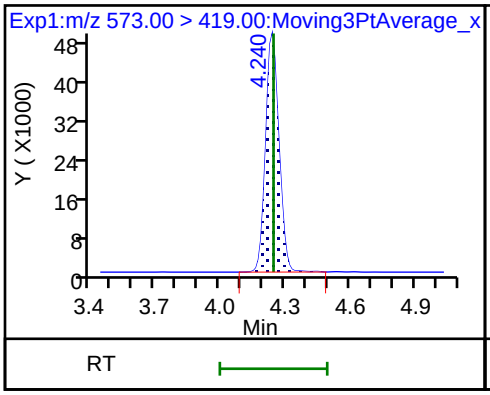

D 21 13C8 FOSA



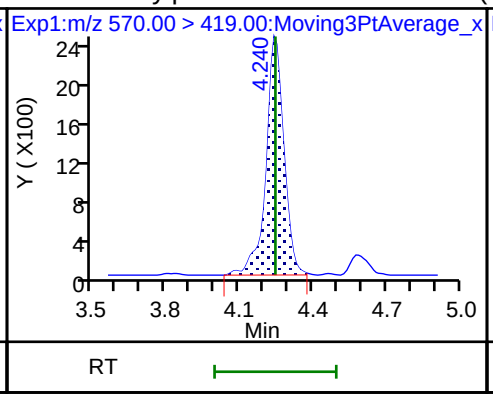

22 Perfluorooctanesulfonamide (M)



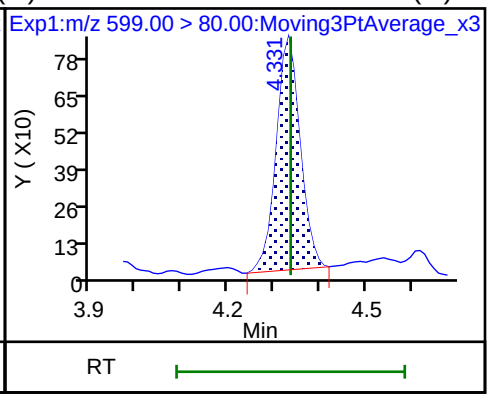
D 27 d3-NMeFOSAA



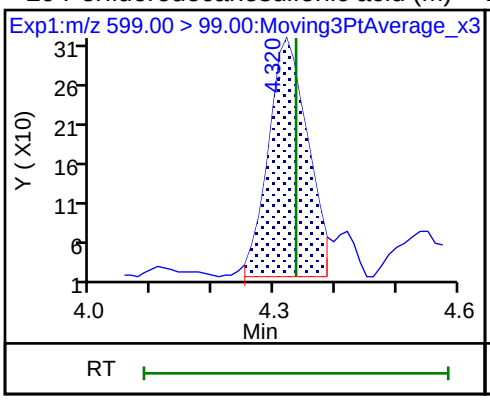

28 N-methylperfluorooctanesulfonami (M)



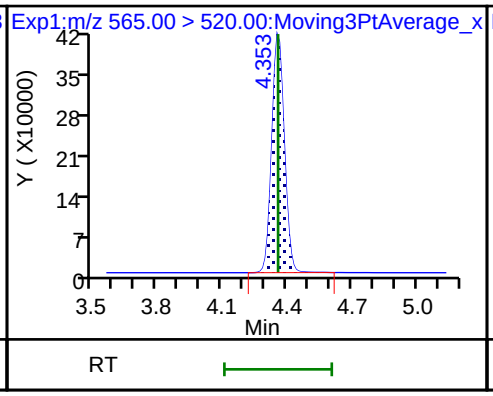

29 Perfluorodecanesulfonic acid (M)



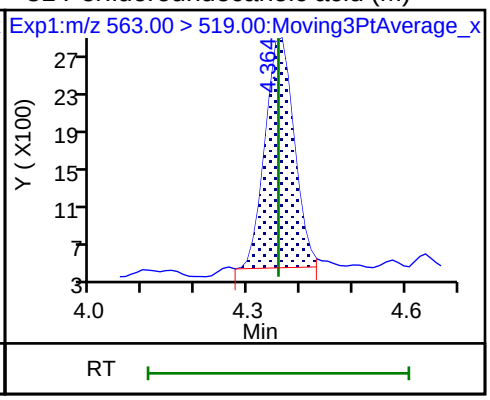

29 Perfluorodecanesulfonic acid (M)



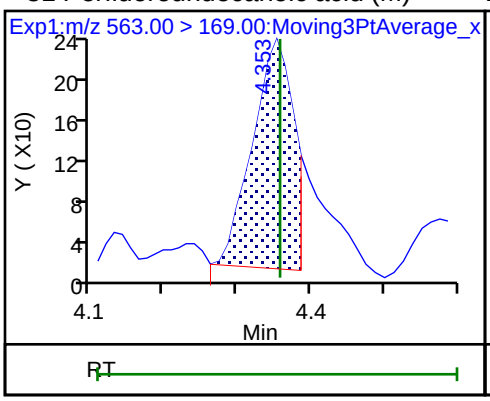

D 30 13C2 PFUnA



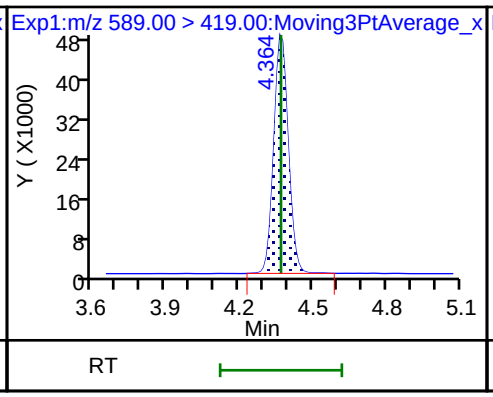

31 Perfluoroundecanoic acid (M)



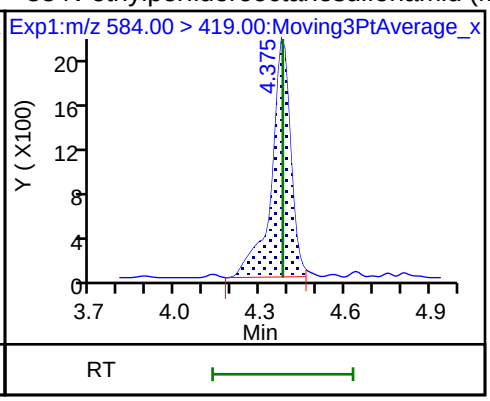

31 Perfluoroundecanoic acid (M)



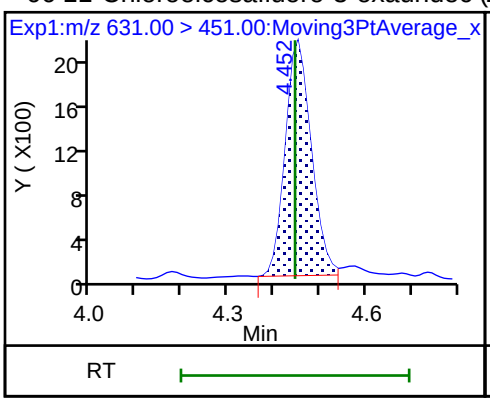

D 32 d5-NEtFOSAA



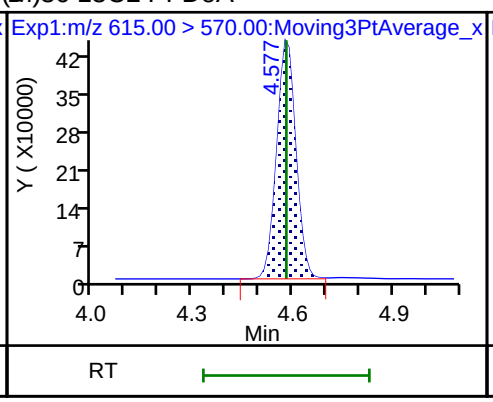

33 N-ethylperfluorooctanesulfonamid (M)



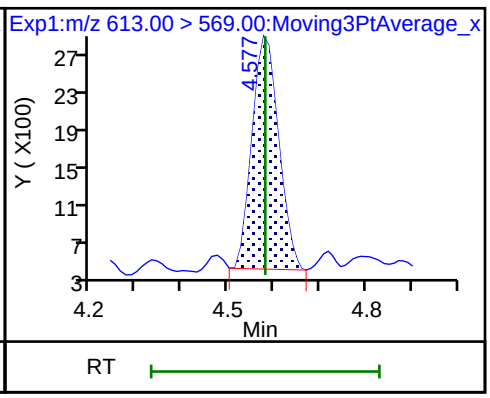

66 11-Chloroeicosafluoro-3-oxaundec (M)



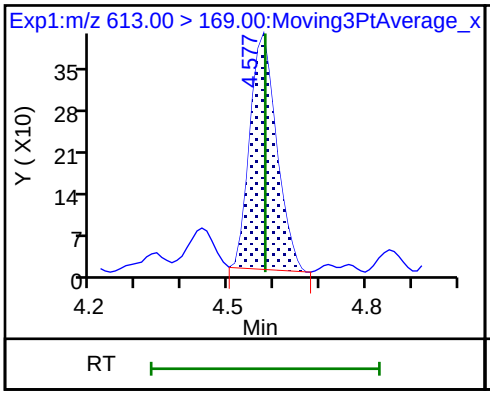

D 36 13C2 PFDoA



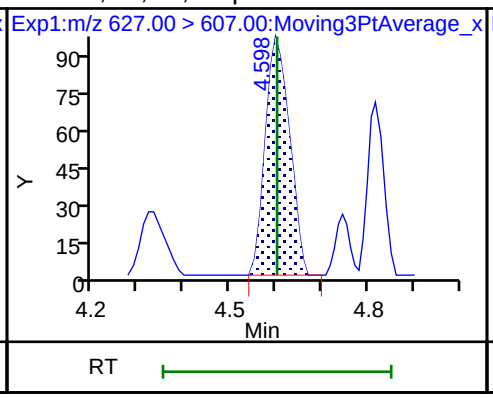

37 Perfluorododecanoic acid



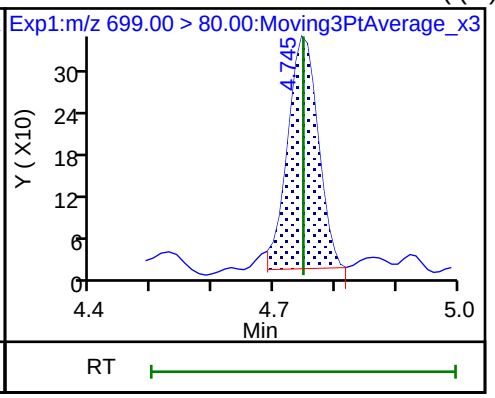
37 Perfluorododecanoic acid



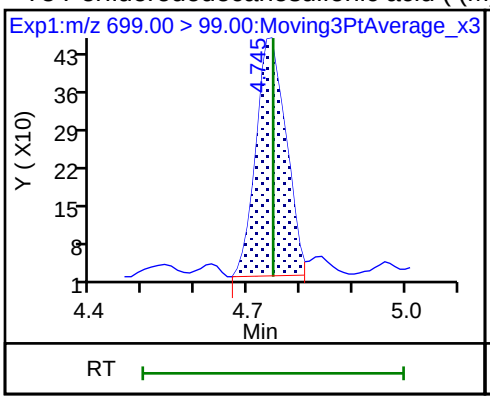

74 1H,1H,2H,2H-perfluorododecanesul



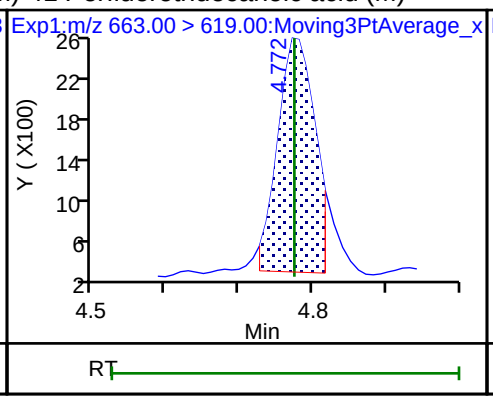

75 Perfluorododecanesulfonic acid ( (M)



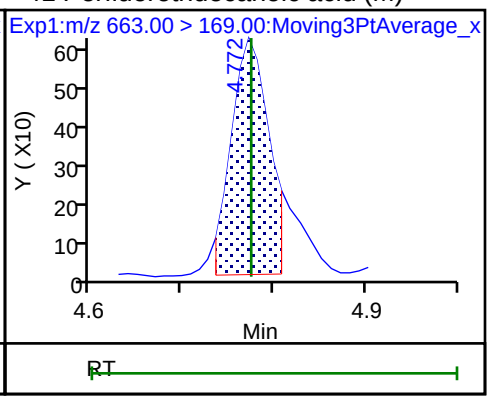

75 Perfluorododecanesulfonic acid ( (M)



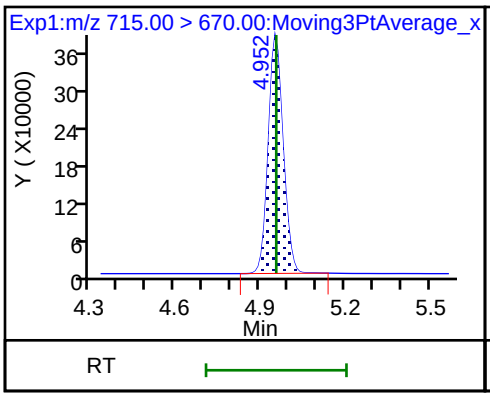

41 Perfluorotridecanoic acid (M)



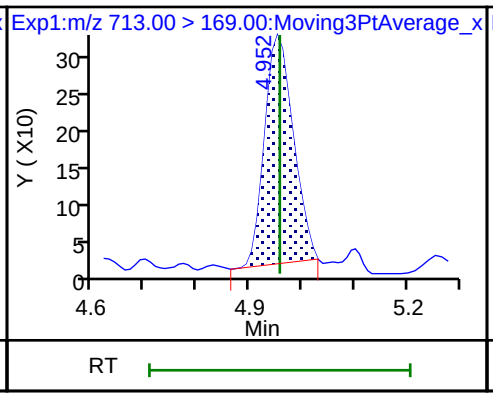

41 Perfluorotridecanoic acid (M)



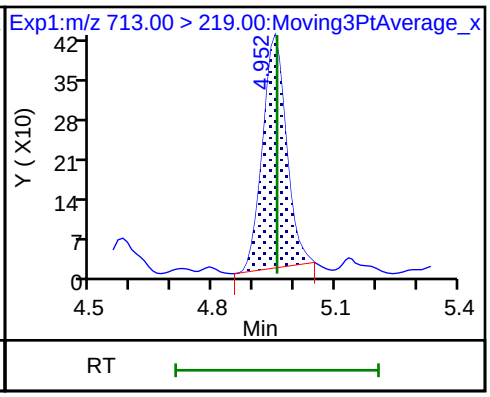

D 43 13C2 PFTeDA



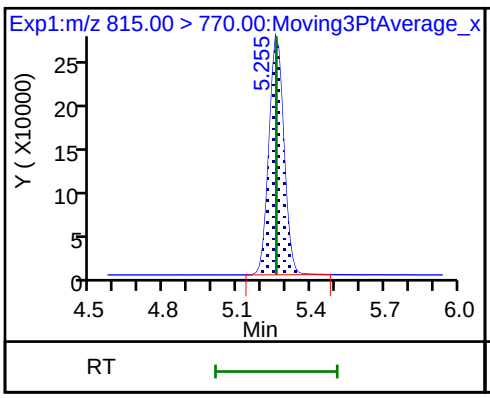

42 Perfluorotetradecanoic acid



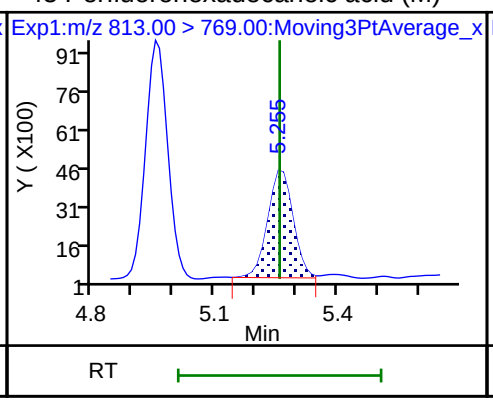

42 Perfluorotetradecanoic acid



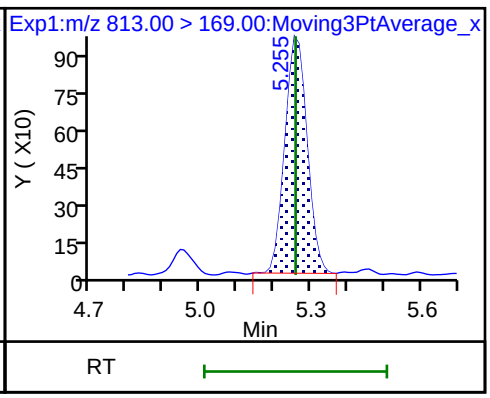

D 44 13C2 PFHxDA



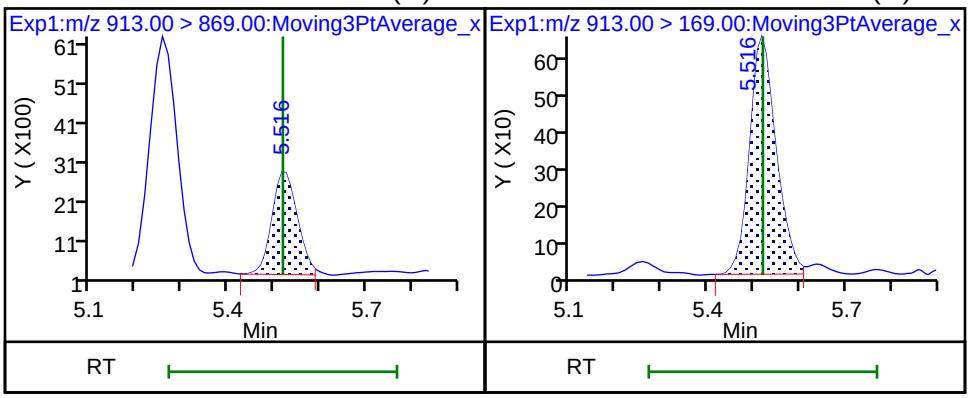

45 Perfluorohexadecanoic acid (M)




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

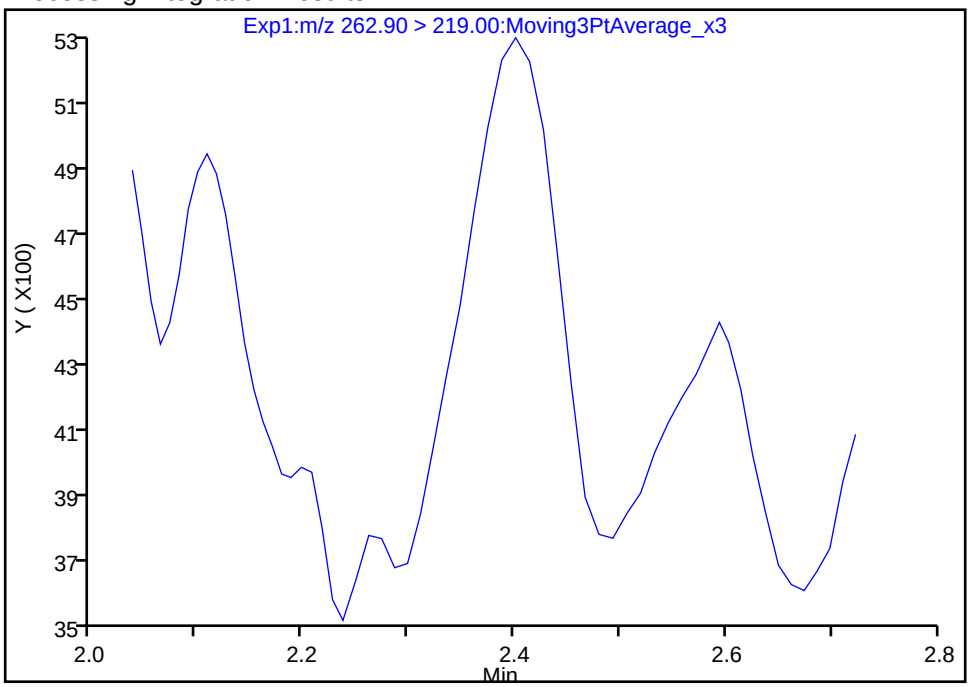
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

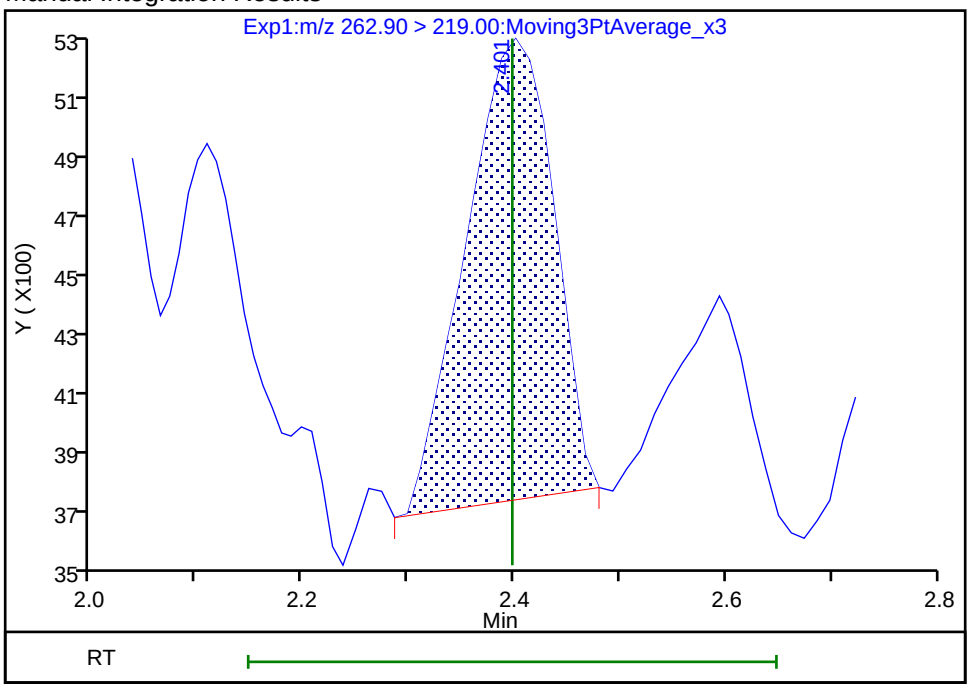
Not Detected
Expected RT: 2.40

Processing Integration Results




Manual Integration Results

RT: 2.40
Area: 8383
Amount: 0.006188
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:49:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

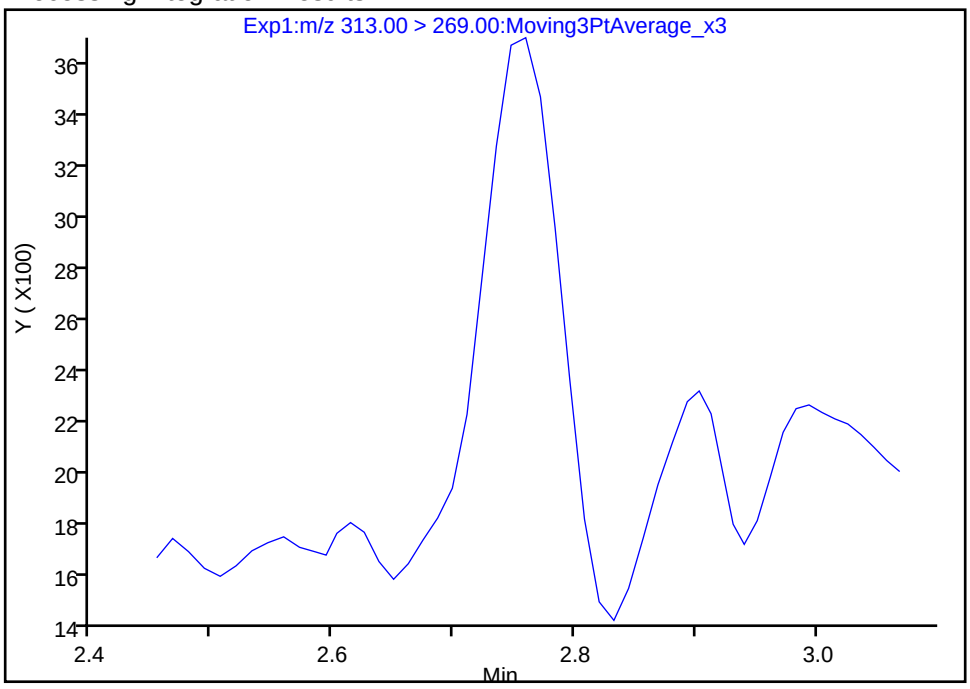
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

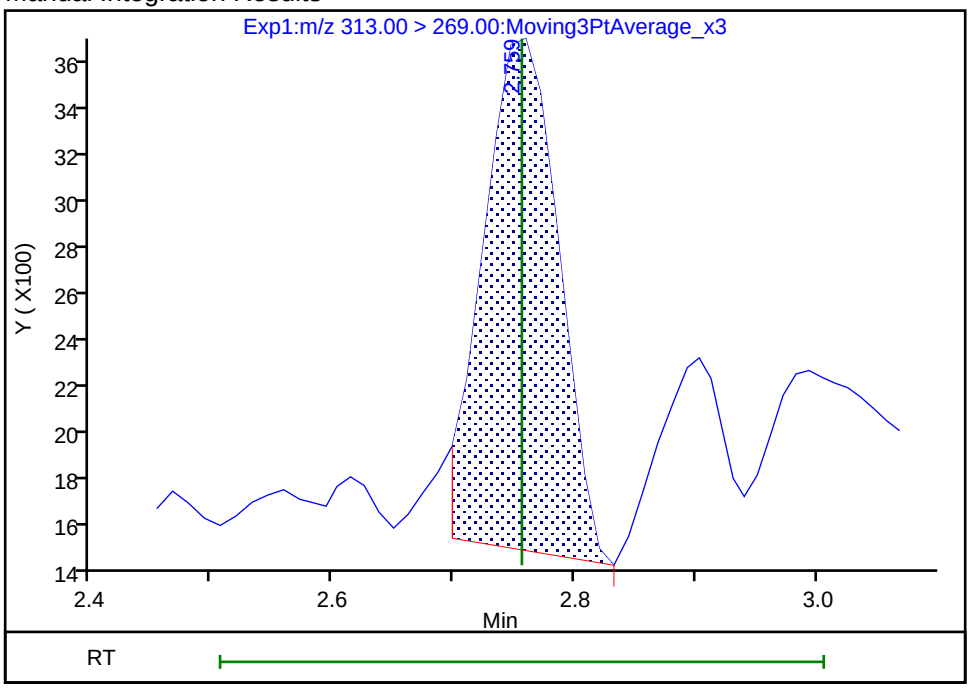
Not Detected
Expected RT: 2.76

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 9115
Amount: 0.006201
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:50:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d

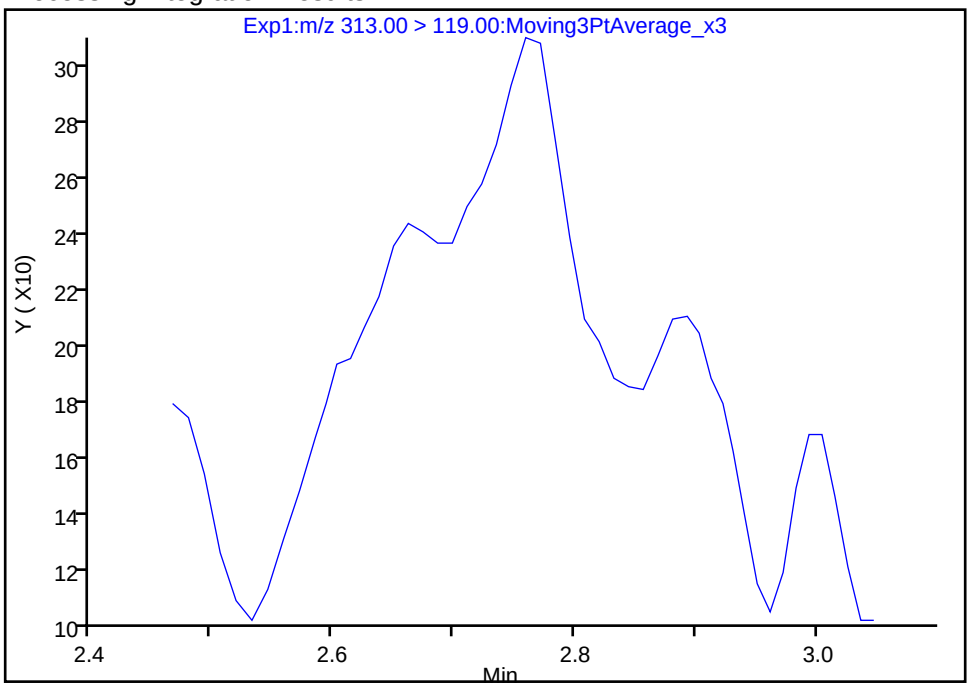
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

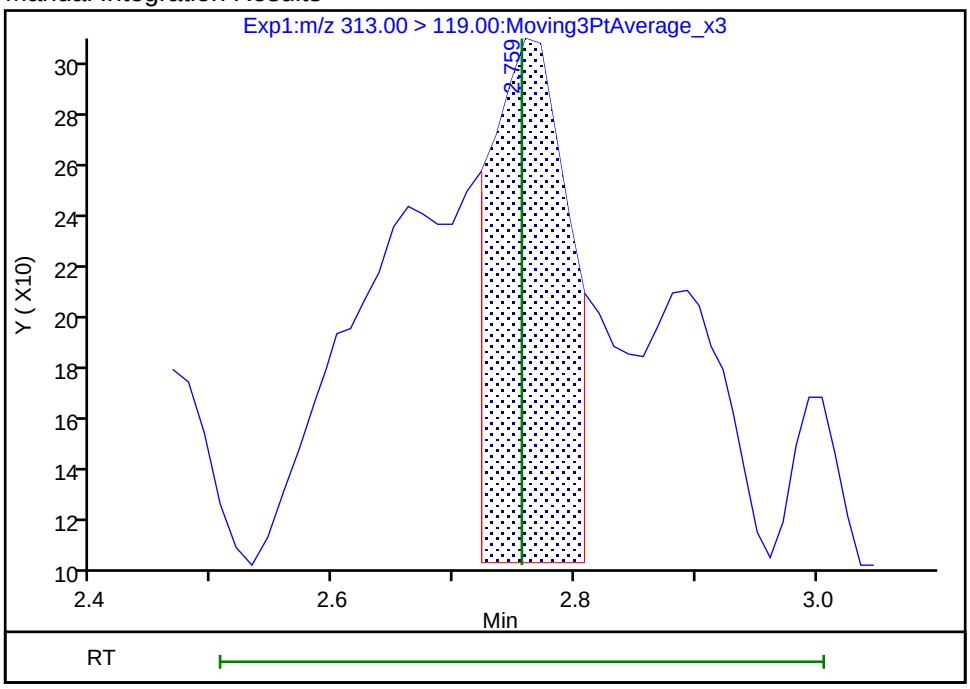
Not Detected
Expected RT: 2.76

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 876
Amount: 0.006201
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:50:27
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

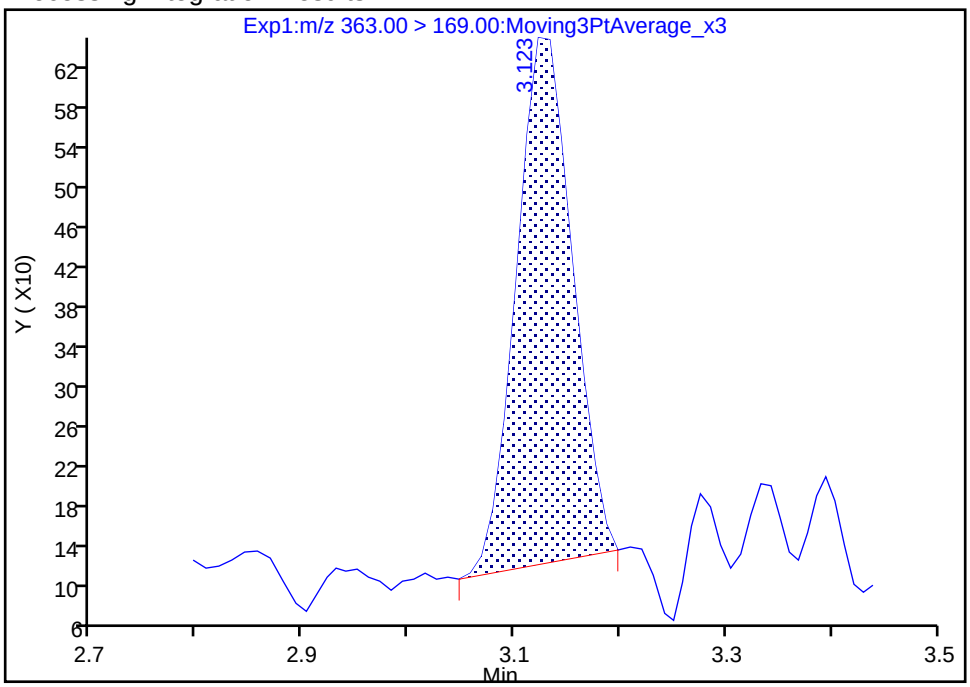
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

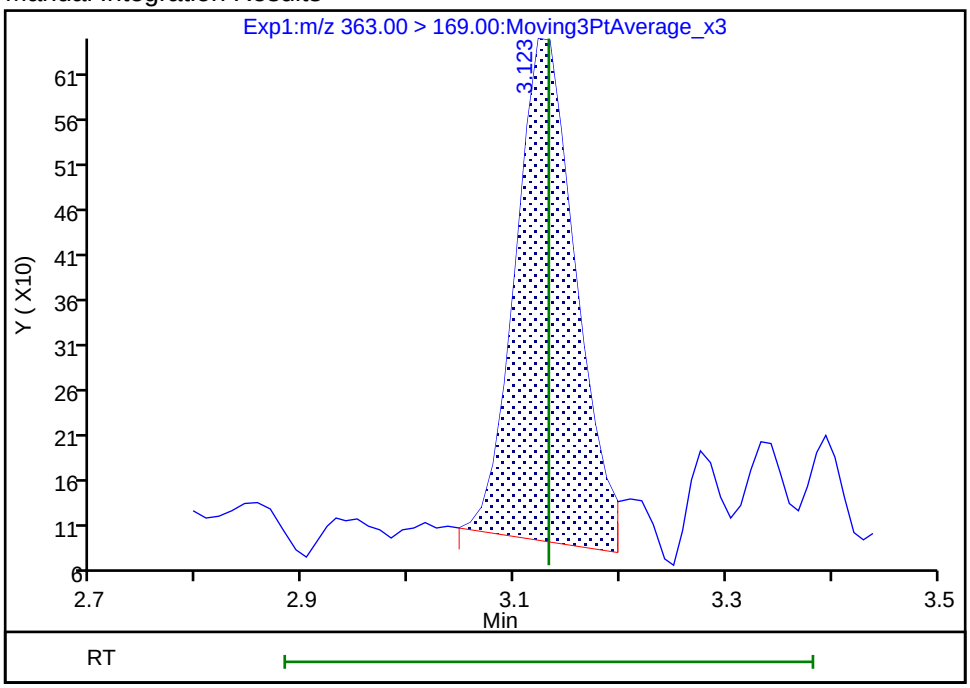
Processing Integration Results

RT: 3.12
Area: 1935
Amount: 0.003662
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 2188
Amount: 0.003662
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

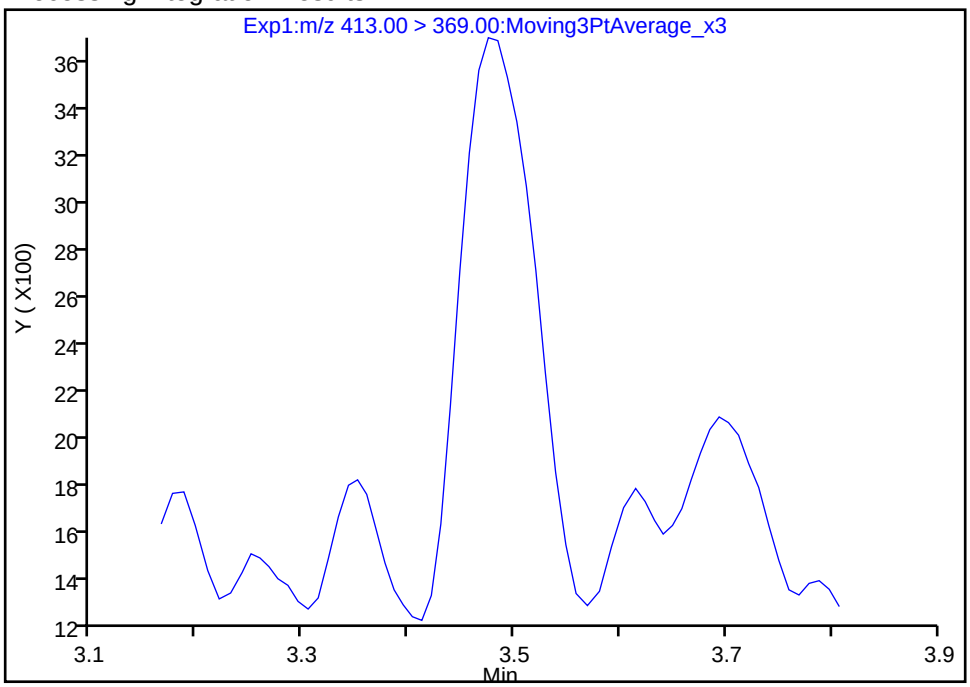
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

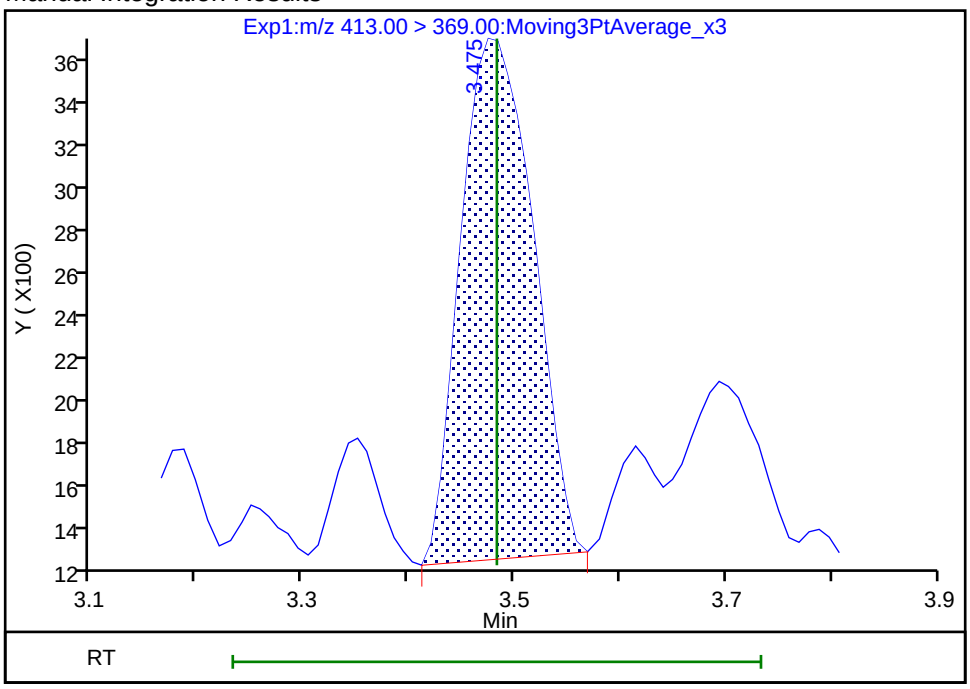
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 11160
Amount: 0.006238
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:06
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

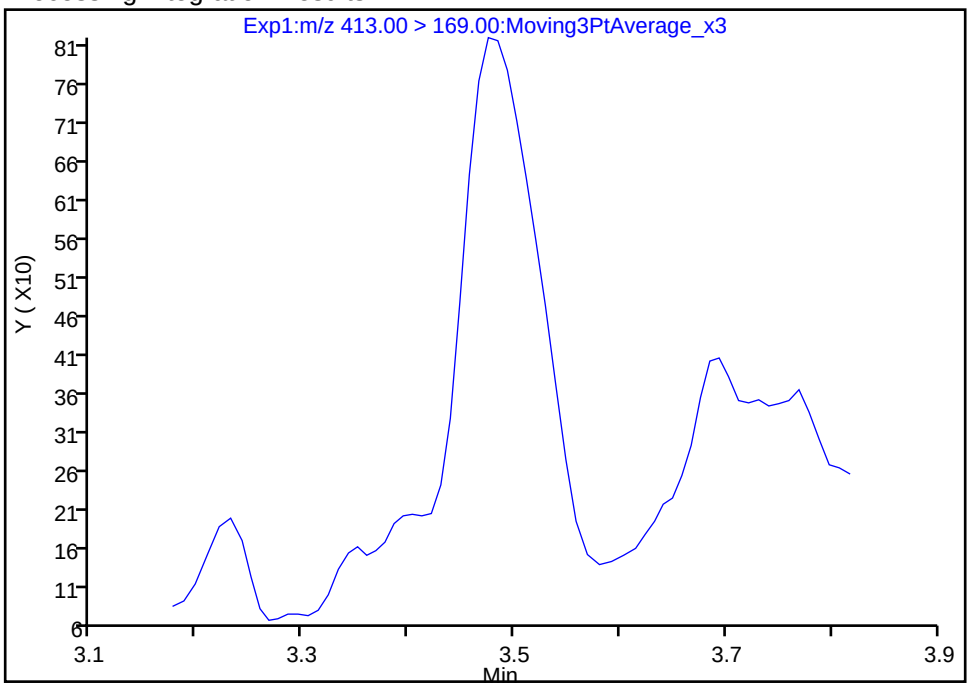
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

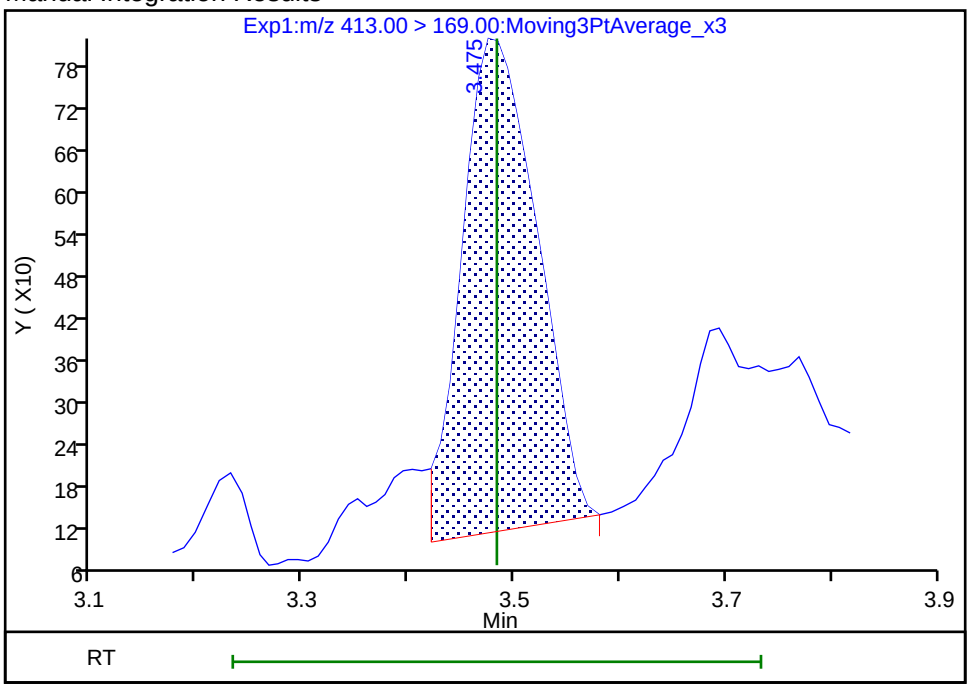
Not Detected
Expected RT: 3.48

Processing Integration Results




Manual Integration Results

RT: 3.48
Area: 3481
Amount: 0.006238
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:15
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

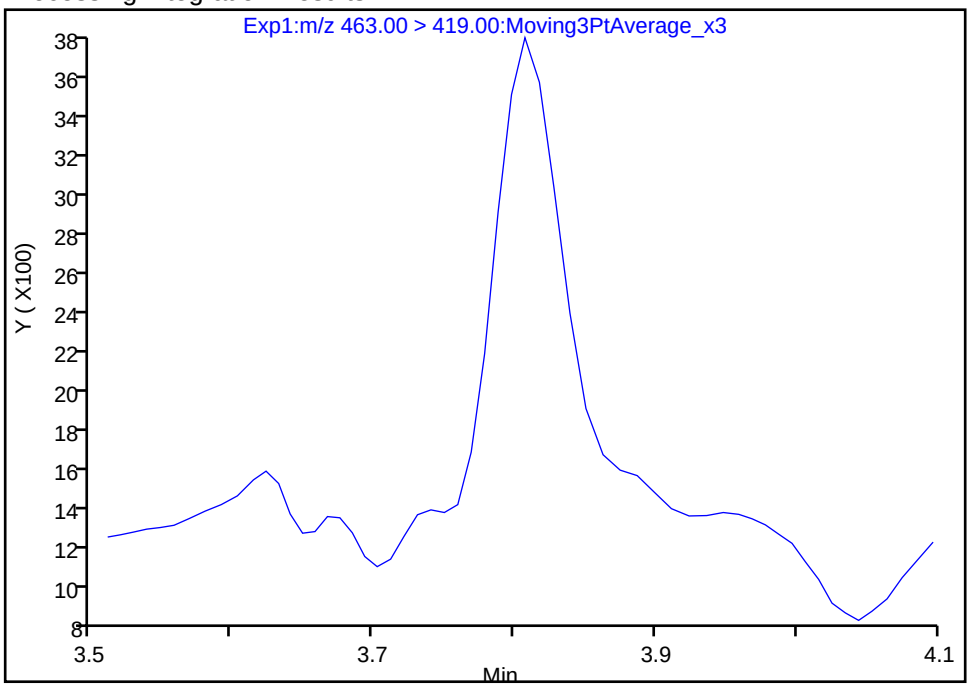
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

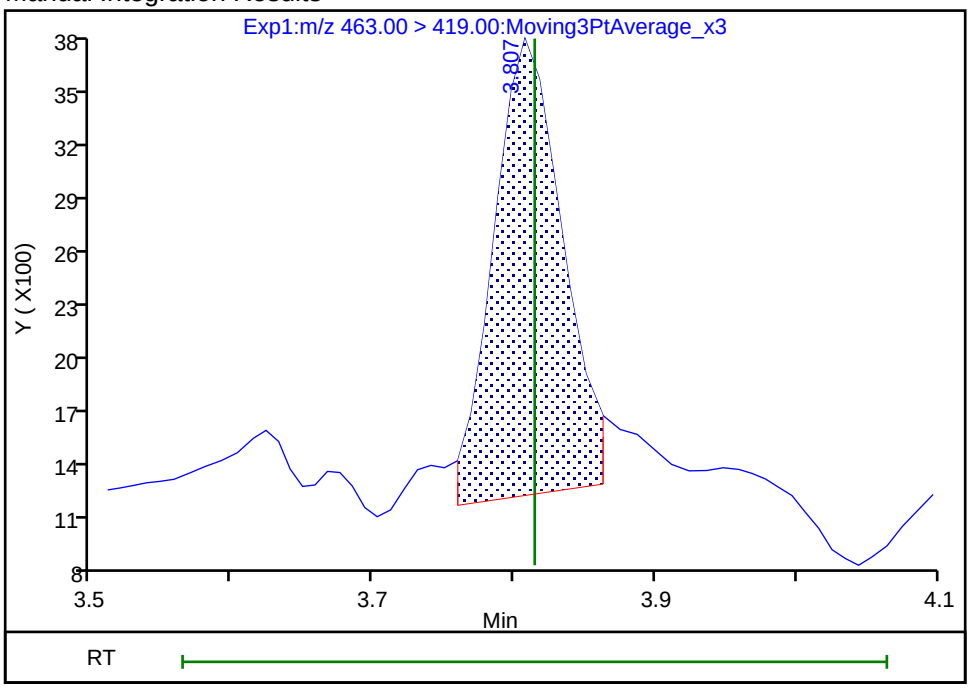
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 8447
Amount: 0.005148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:53:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

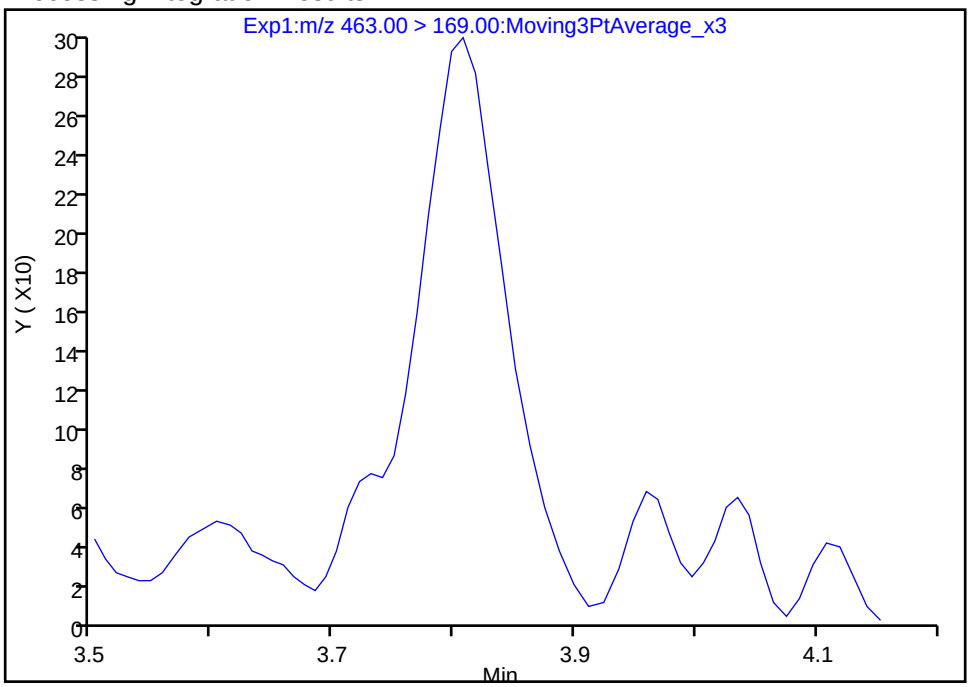
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

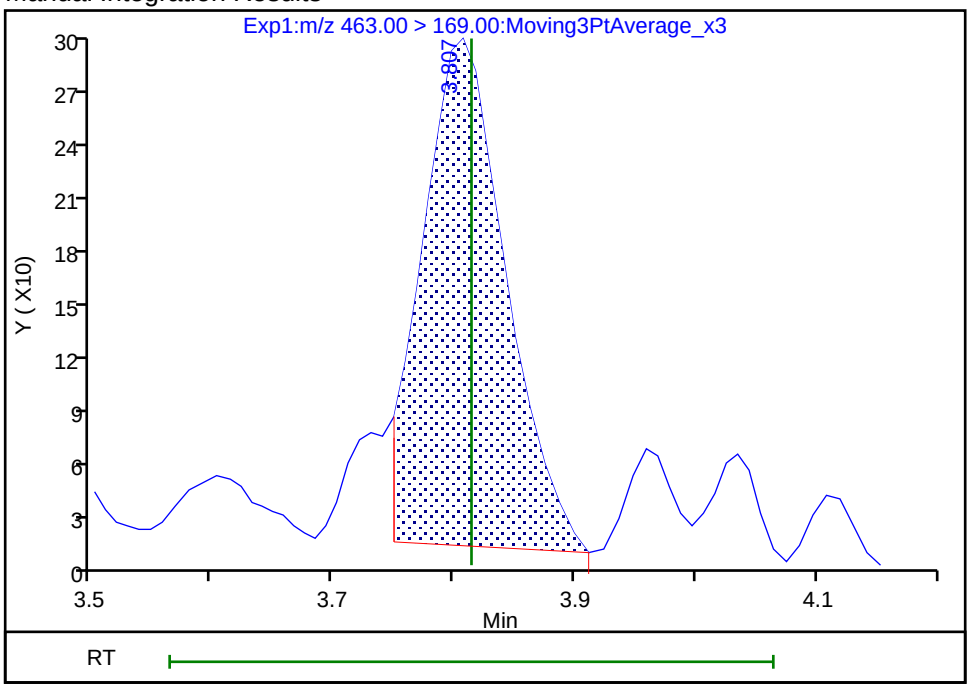
Not Detected
Expected RT: 3.81

Processing Integration Results




Manual Integration Results

RT: 3.81
Area: 1356
Amount: 0.005148
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:53:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

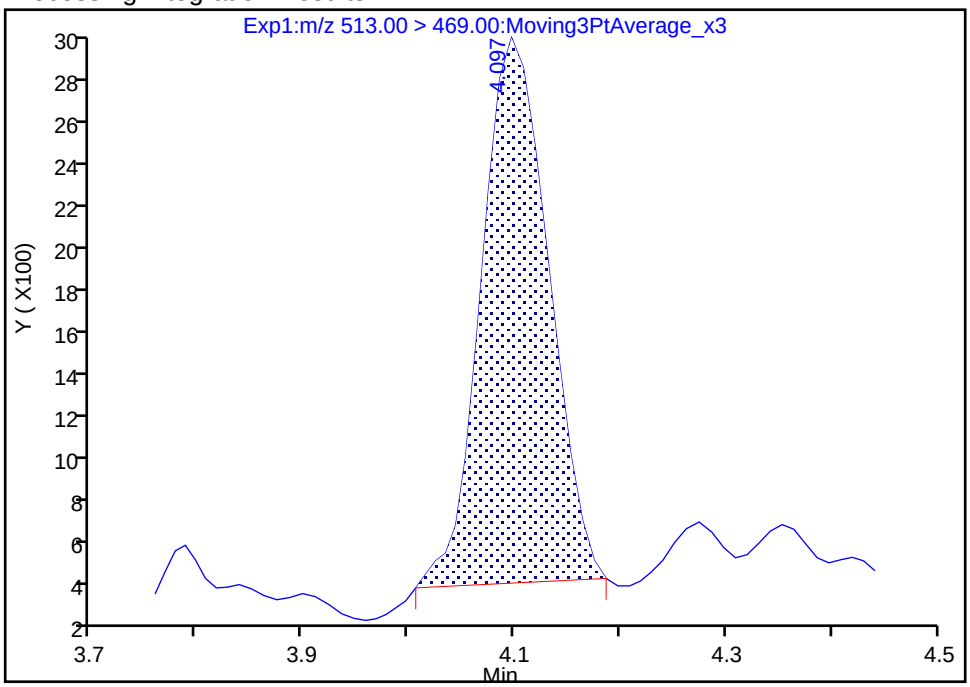
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

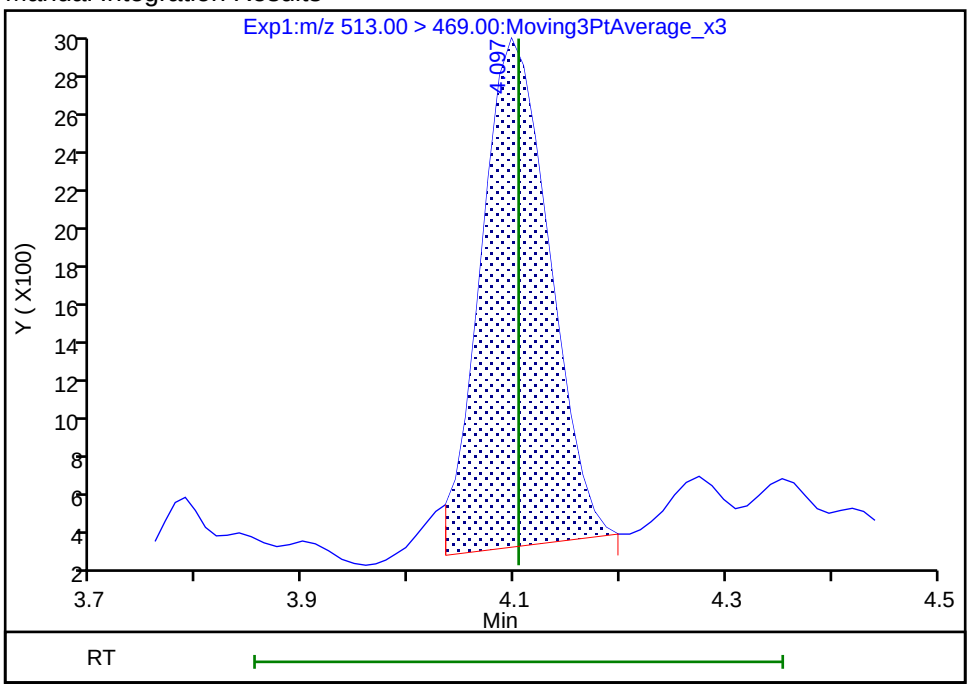
Processing Integration Results

RT: 4.10
Area: 10998
Amount: 0.006294
Amount Units: ng/ml




Manual Integration Results

RT: 4.10
Area: 11533
Amount: 0.006600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

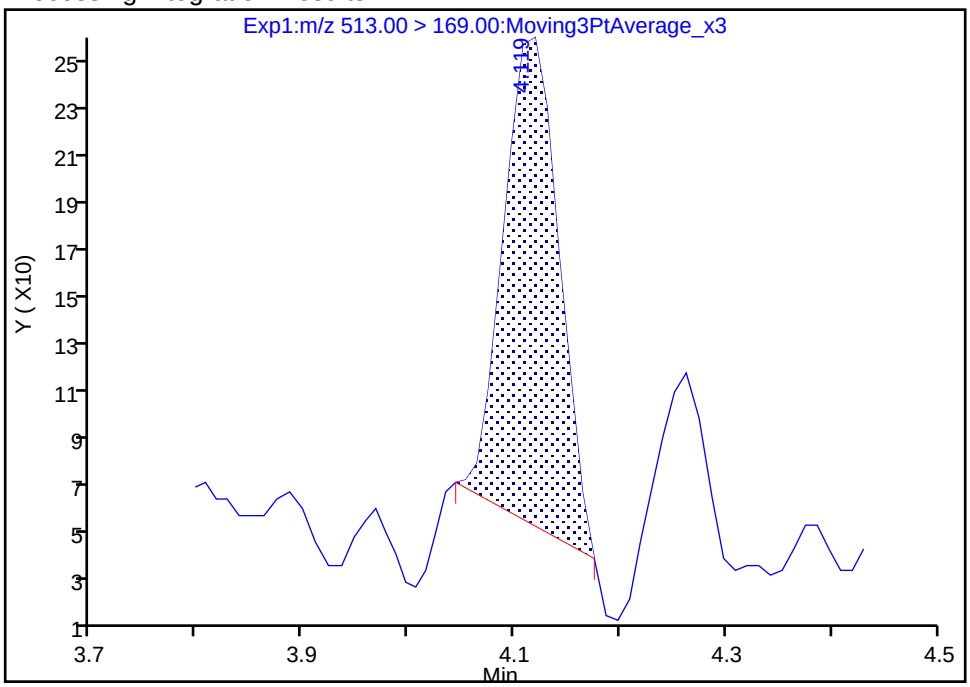
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

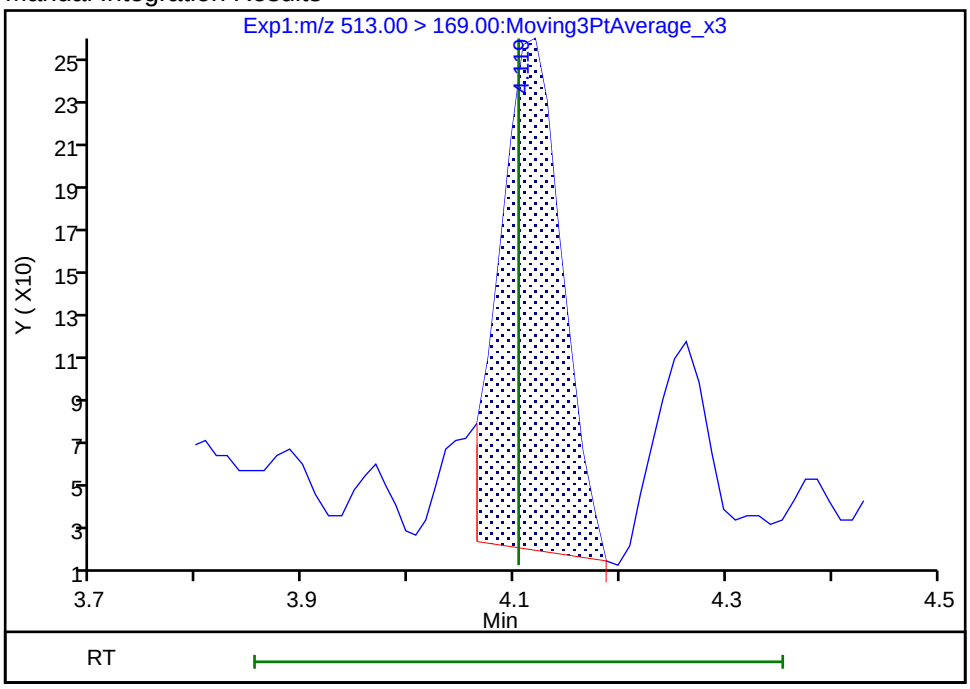
Processing Integration Results

RT: 4.12
Area: 747
Amount: 0.006294
Amount Units: ng/ml




Manual Integration Results

RT: 4.12
Area: 966
Amount: 0.006600
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

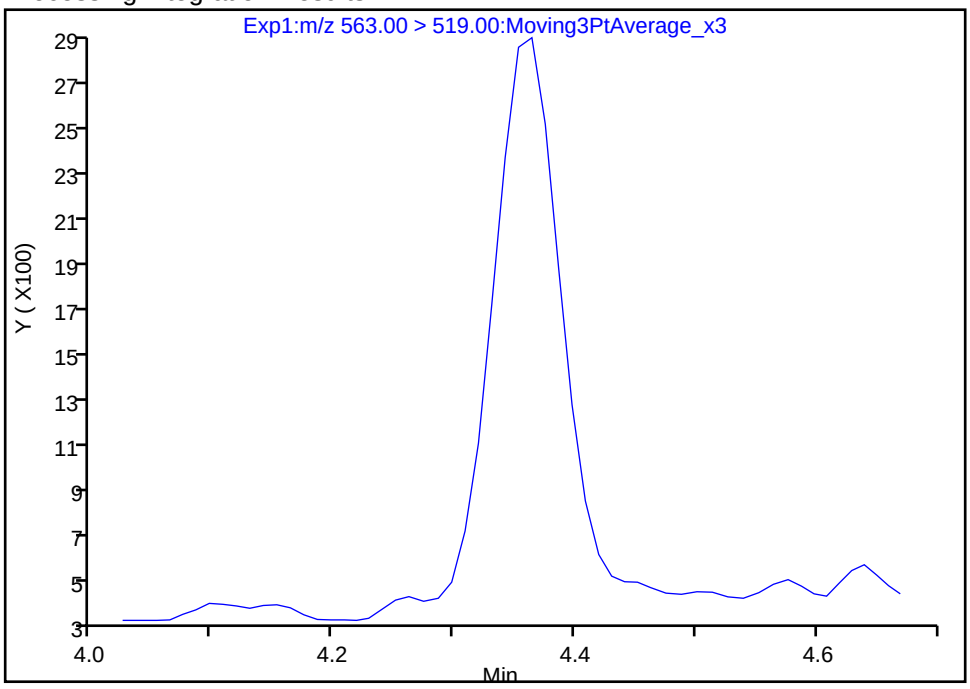
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

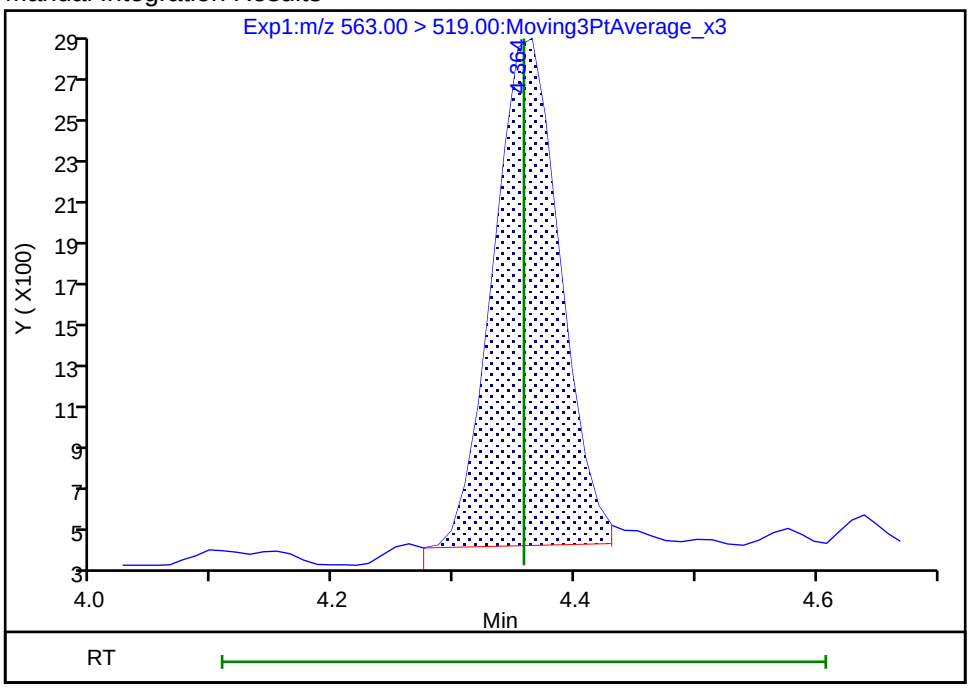
Not Detected
Expected RT: 4.36

Processing Integration Results




Manual Integration Results

RT: 4.36
Area: 9245
Amount: 0.006510
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

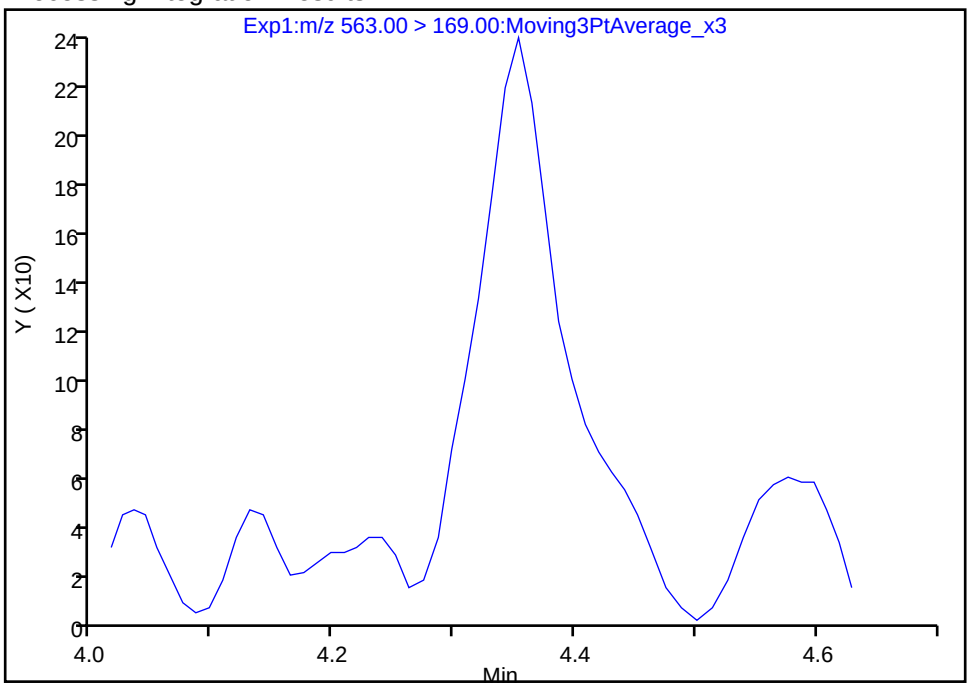
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

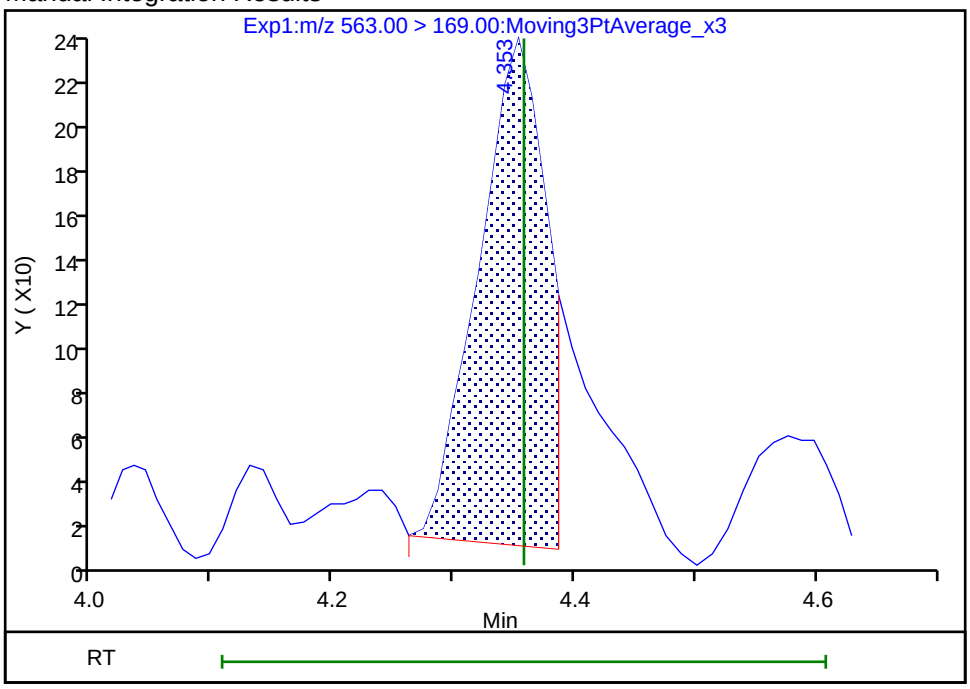
Not Detected
Expected RT: 4.36

Processing Integration Results




Manual Integration Results

RT: 4.35
Area: 850
Amount: 0.006510
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:24
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

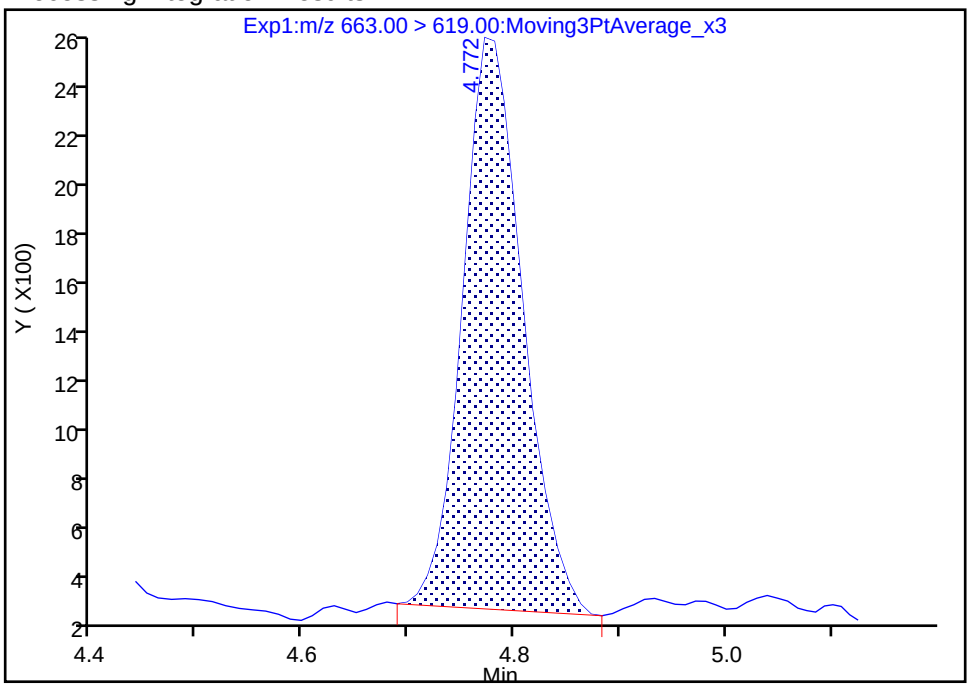
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

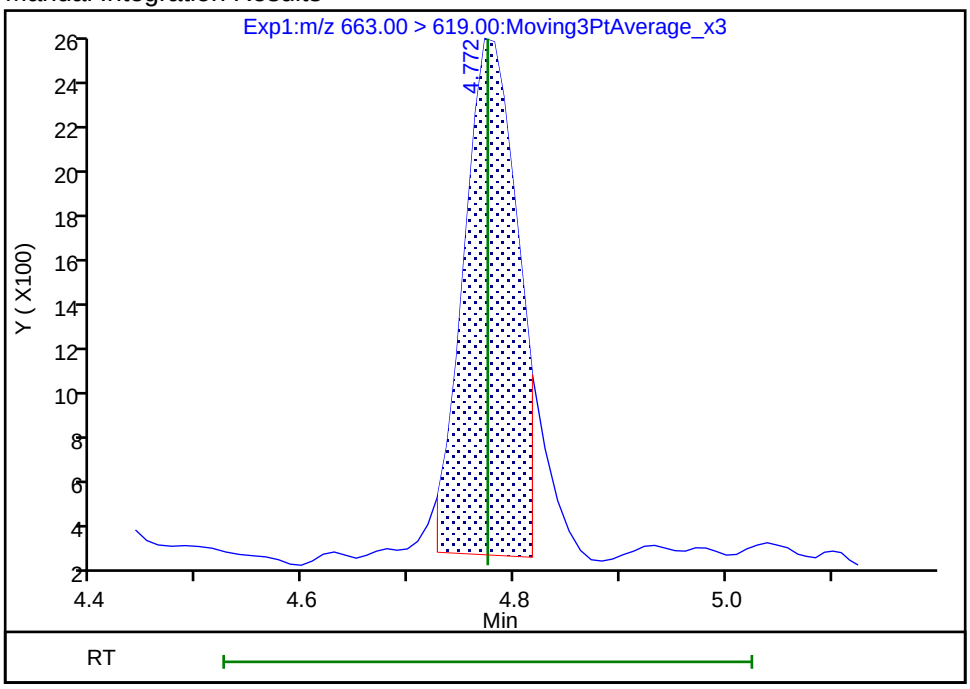
Processing Integration Results

RT: 4.77
Area: 9243
Amount: 0.007678
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 8163
Amount: 0.006781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:57:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

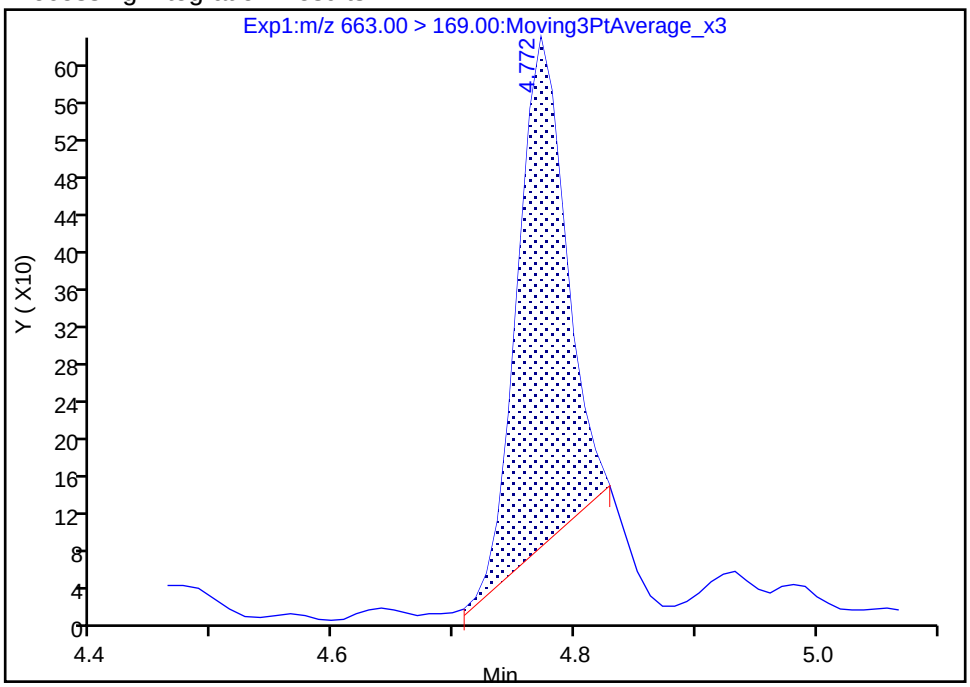
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

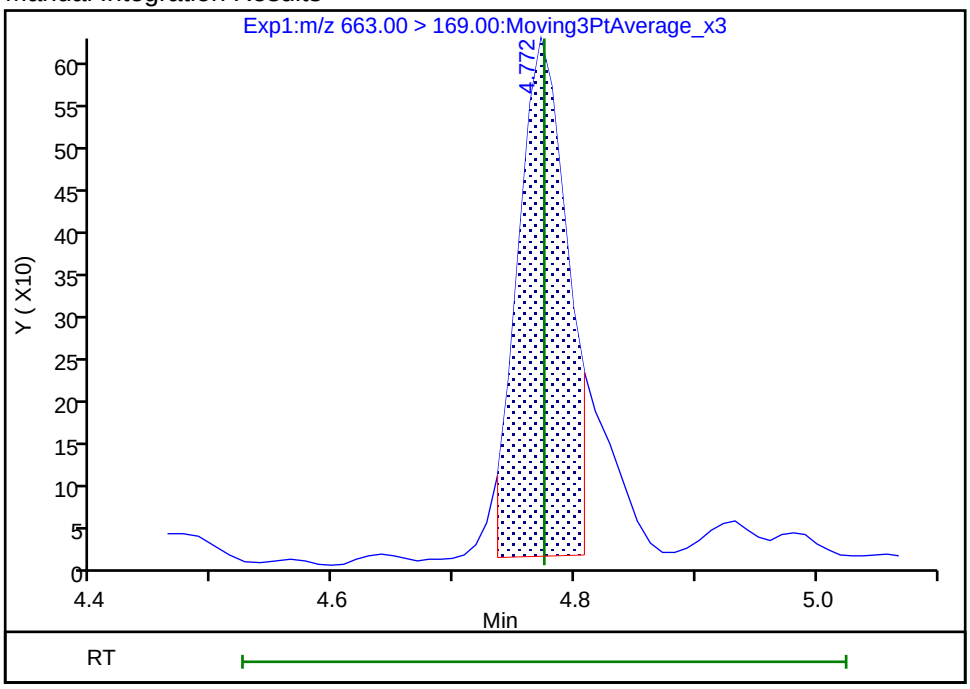
Processing Integration Results

RT: 4.77
Area: 1506
Amount: 0.007678
Amount Units: ng/ml




Manual Integration Results

RT: 4.77
Area: 1698
Amount: 0.006781
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:57:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

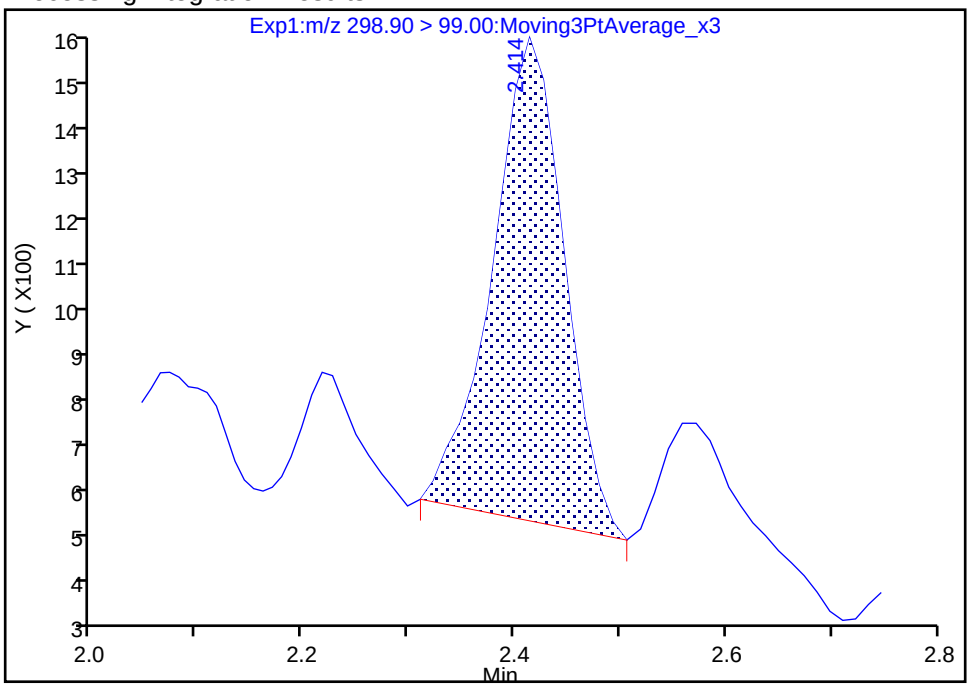
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

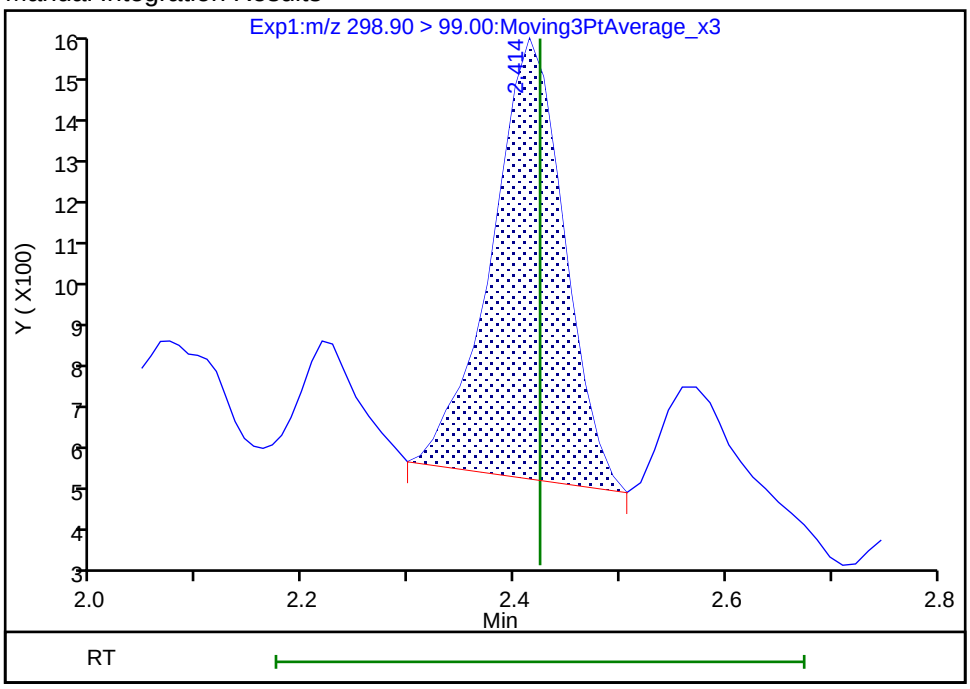
Processing Integration Results

RT: 2.41
Area: 4744
Amount: 0.004500
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 4857
Amount: 0.004500
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:49:48
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

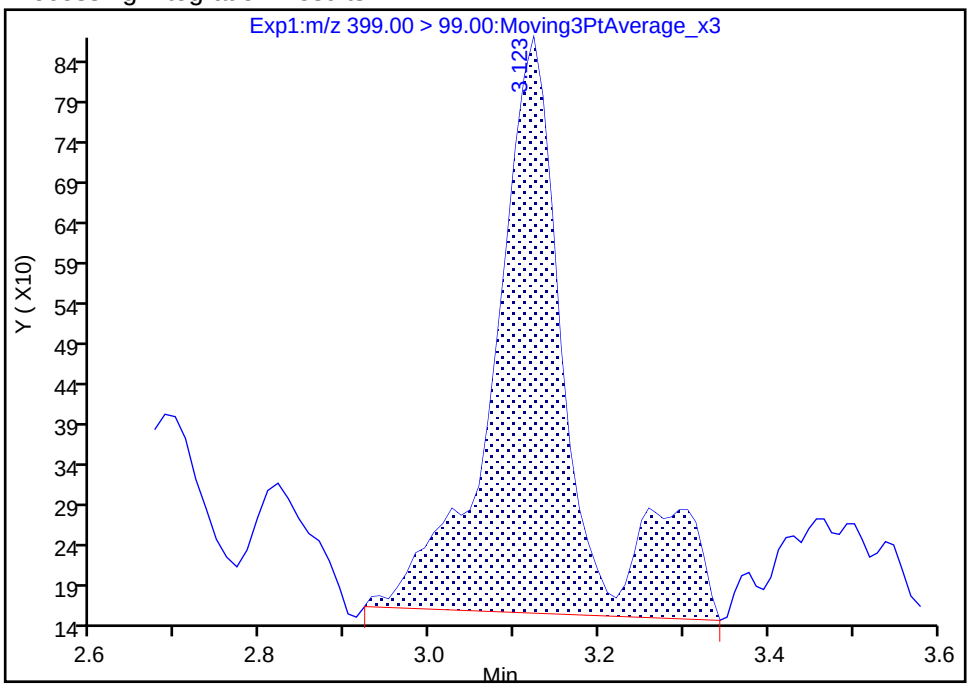
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

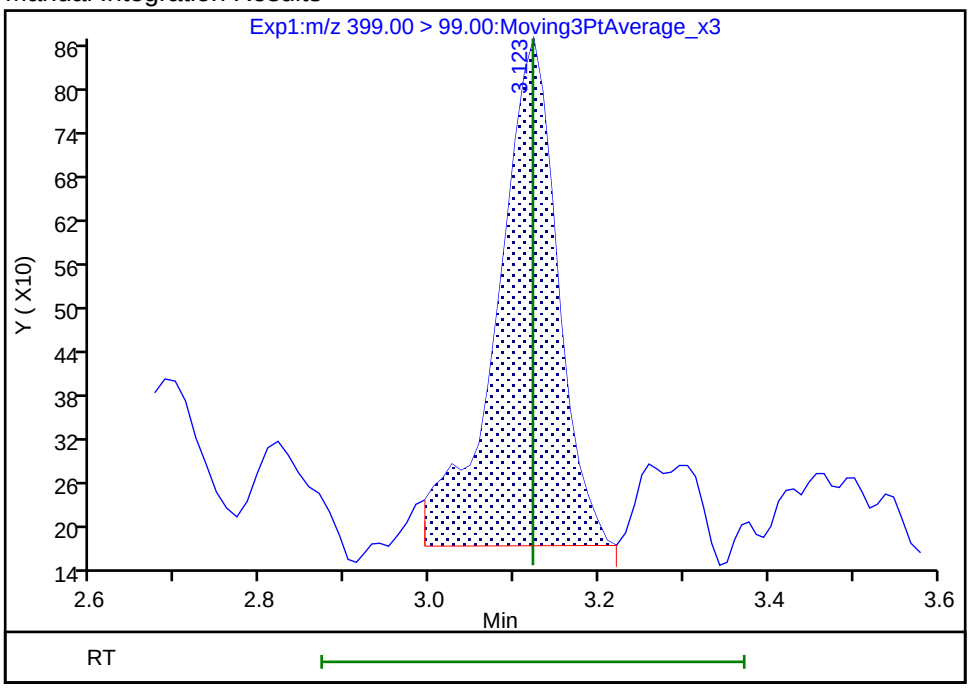
Processing Integration Results

RT: 3.12
Area: 4511
Amount: 0.007484
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 3452
Amount: 0.007484
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

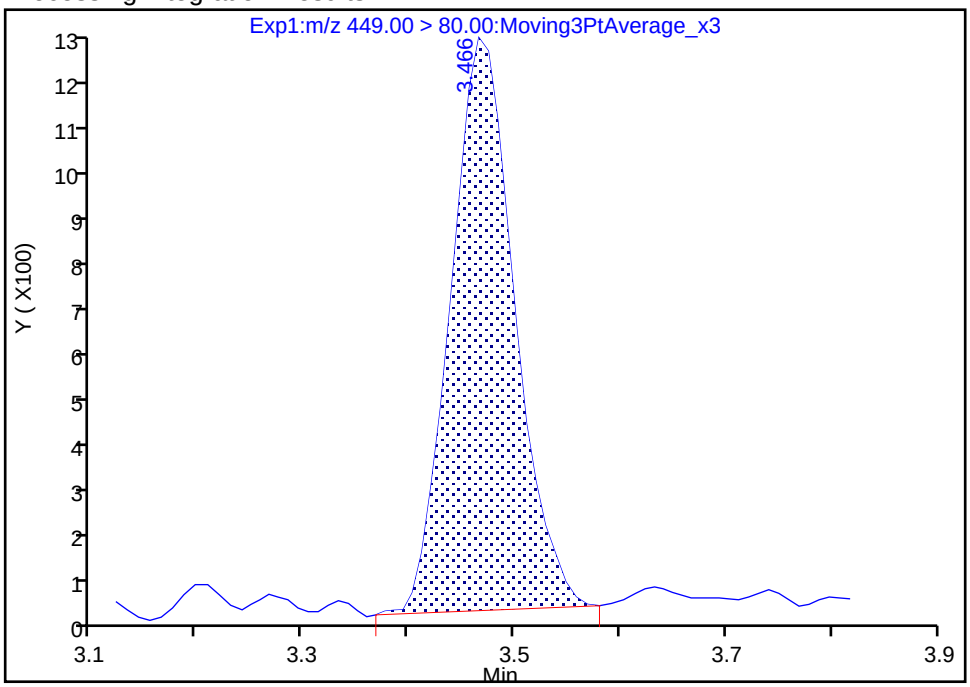
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

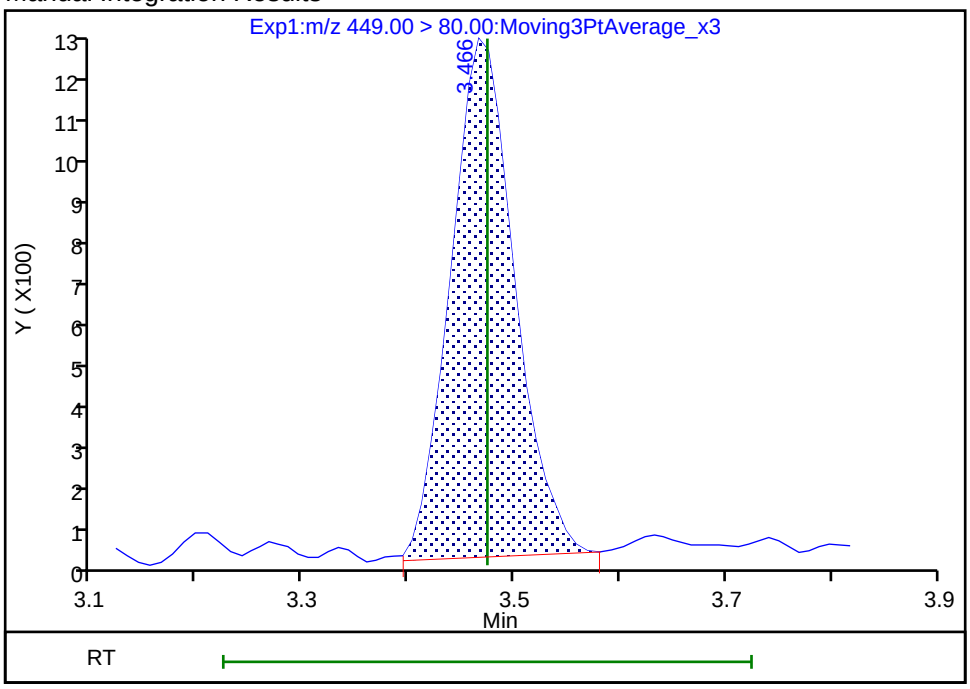
Processing Integration Results

RT: 3.47
Area: 5256
Amount: 0.004172
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 5265
Amount: 0.004179
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

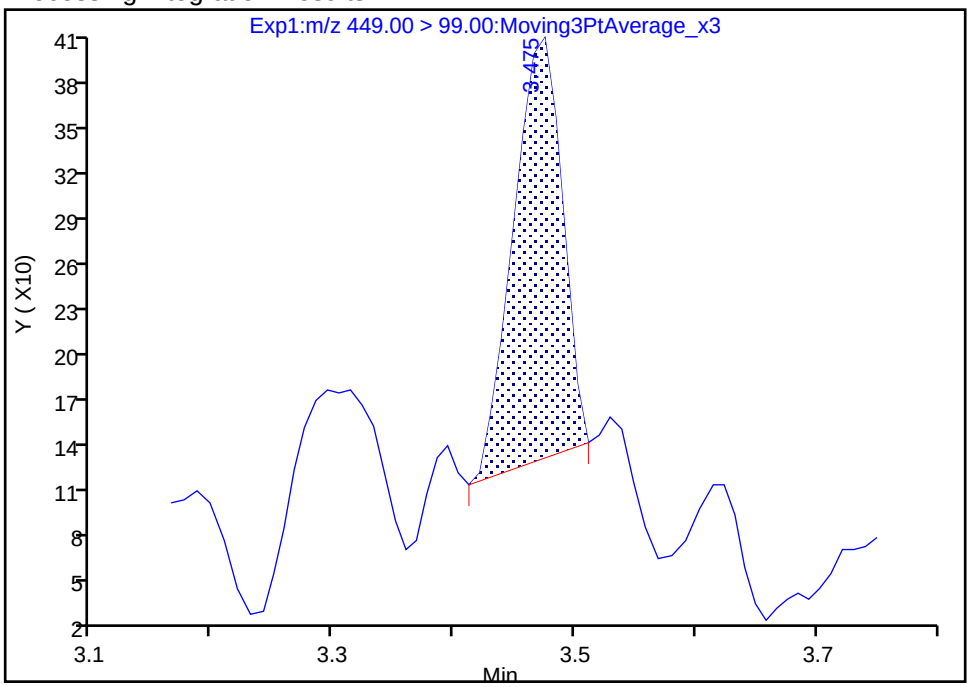
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

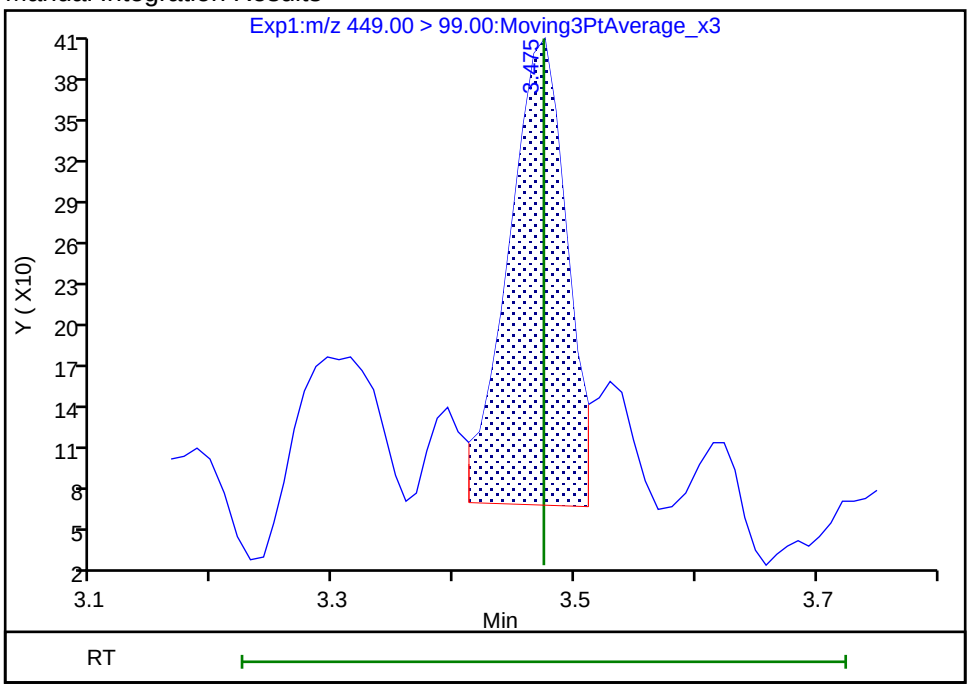
Processing Integration Results

RT: 3.48
Area: 786
Amount: 0.004172
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1139
Amount: 0.004179
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

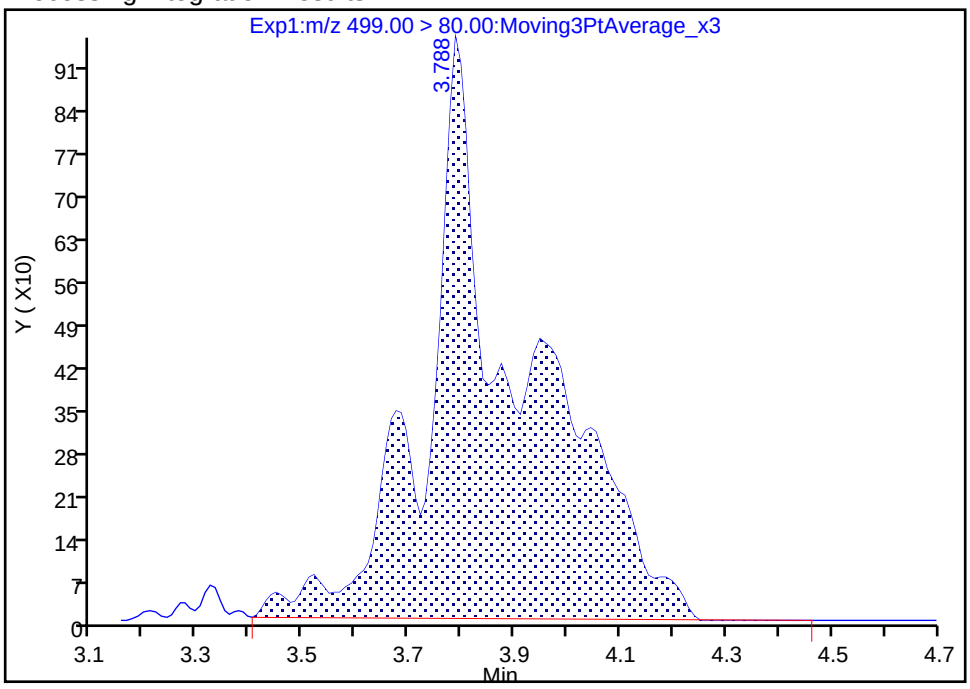
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

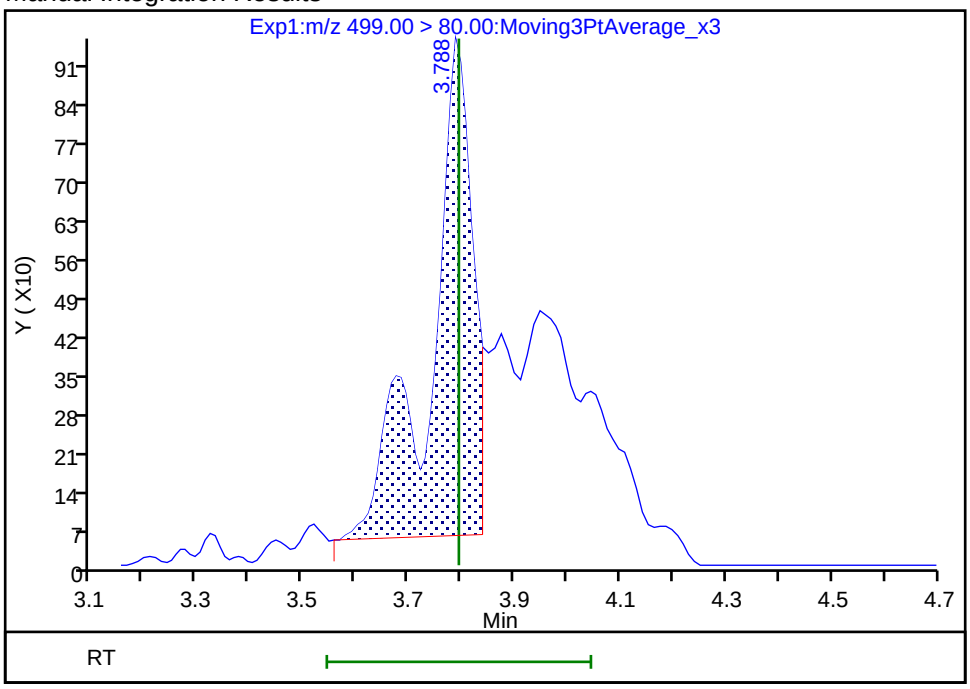
Processing Integration Results

RT: 3.79
Area: 12436
Amount: 0.011340
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 4955
Amount: 0.004518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

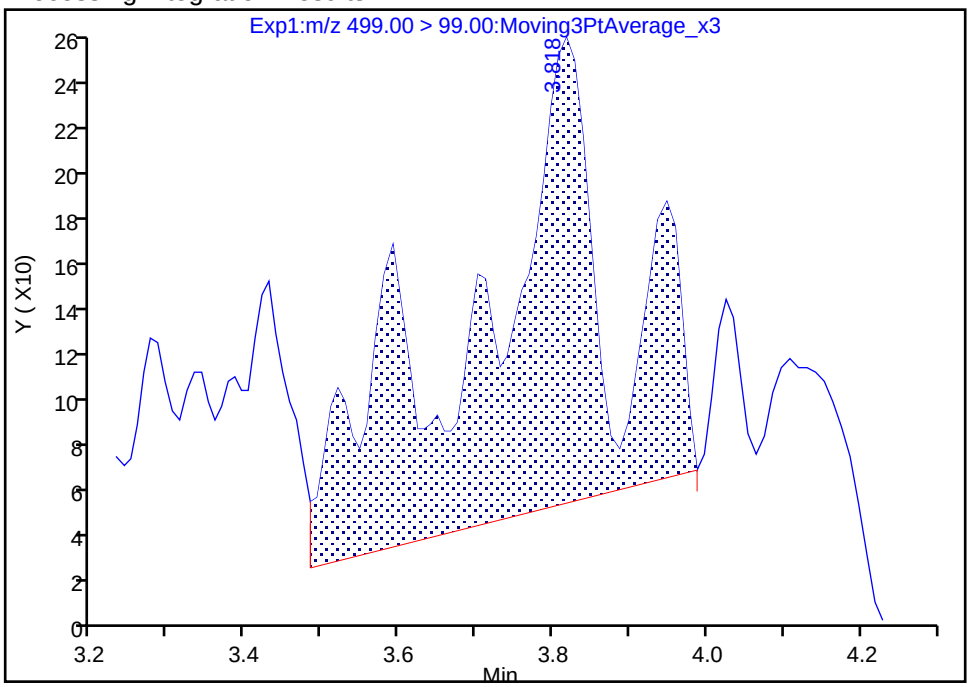
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

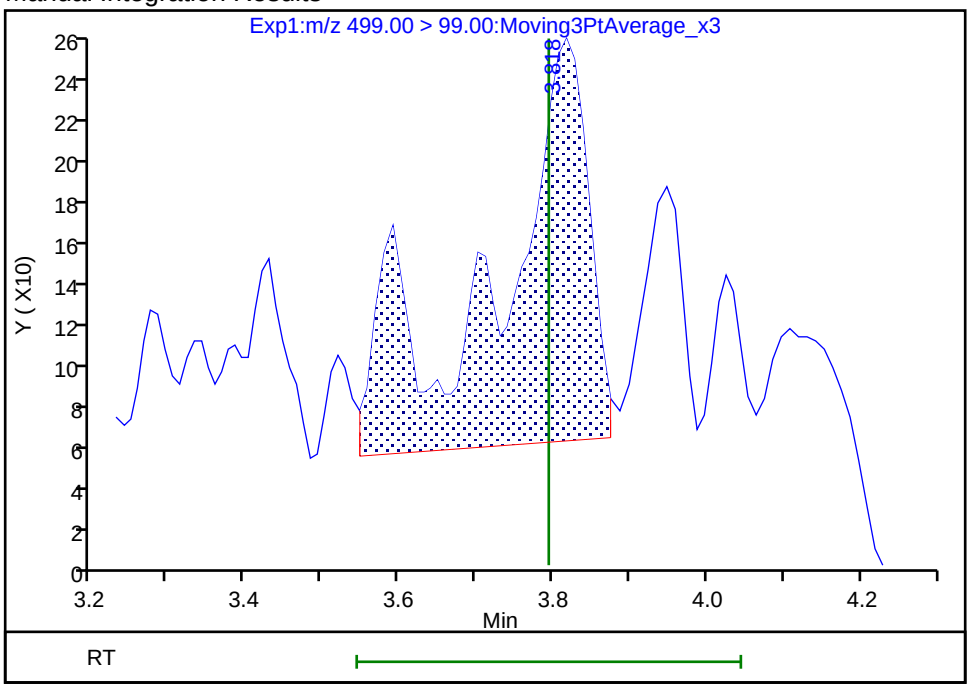
Processing Integration Results

RT: 3.82
Area: 2579
Amount: 0.011340
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 1637
Amount: 0.004518
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:52:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

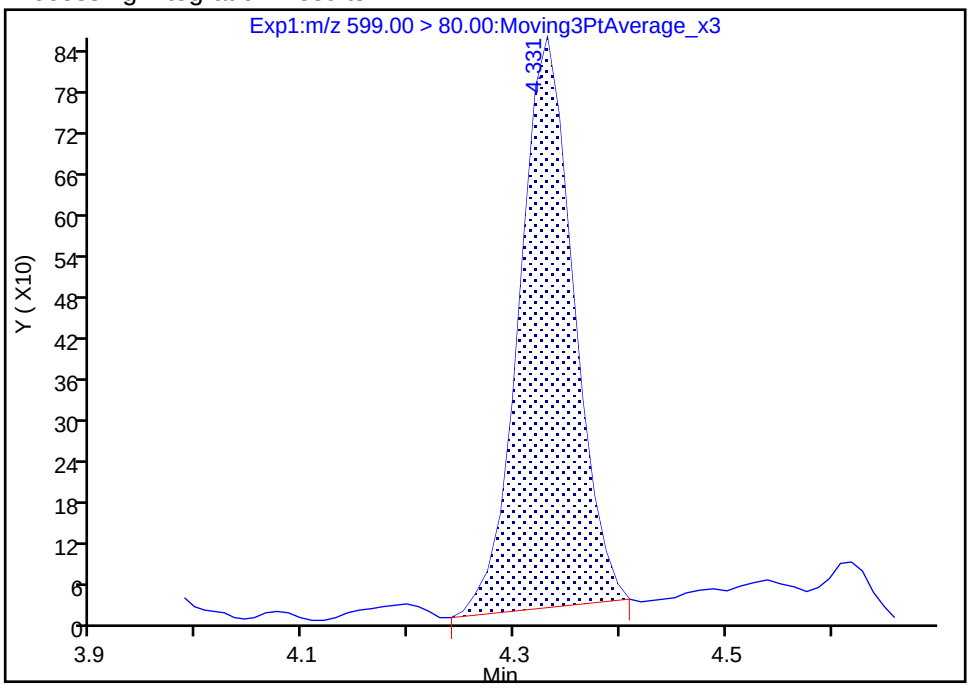
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

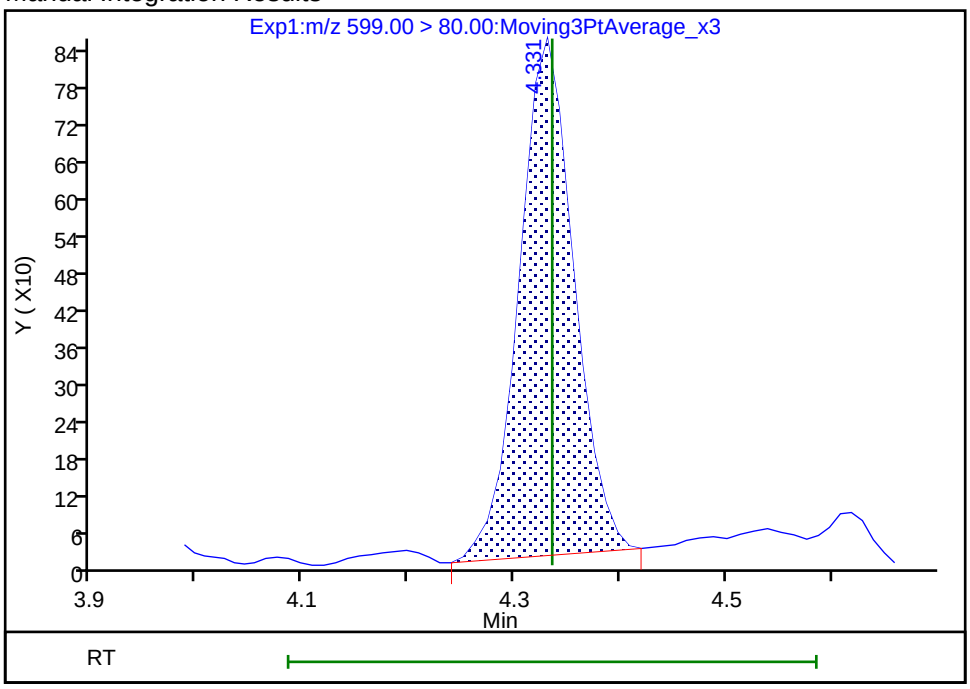
Processing Integration Results

RT: 4.33
Area: 2966
Amount: 0.004466
Amount Units: ng/ml




Manual Integration Results

RT: 4.33
Area: 2995
Amount: 0.004509
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

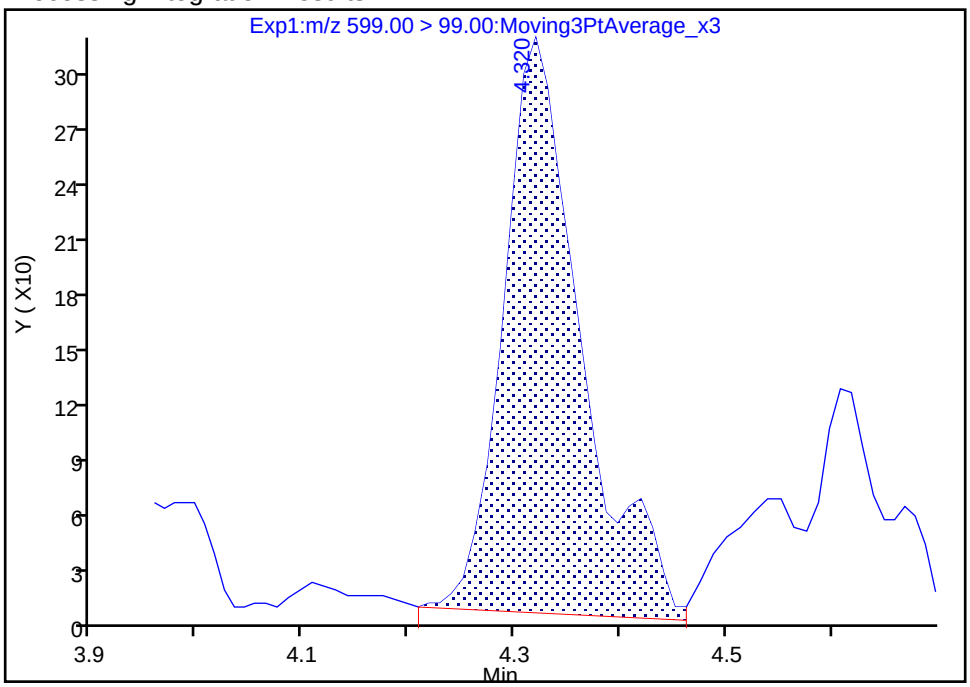
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

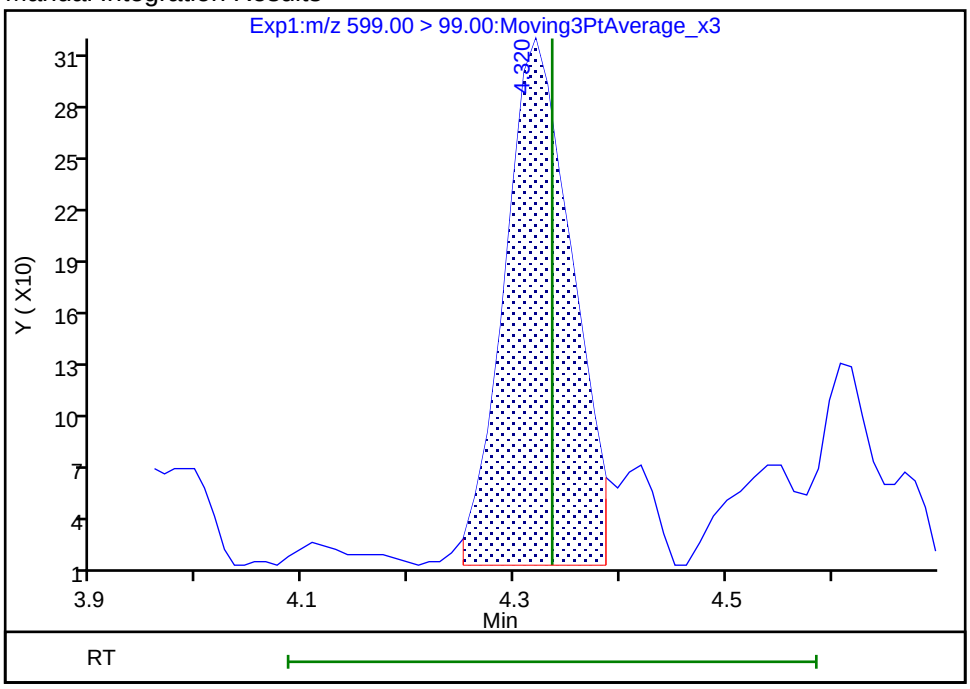
Processing Integration Results

RT: 4.32
Area: 1547
Amount: 0.004466
Amount Units: ng/ml




Manual Integration Results

RT: 4.32
Area: 1324
Amount: 0.004509
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:55:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

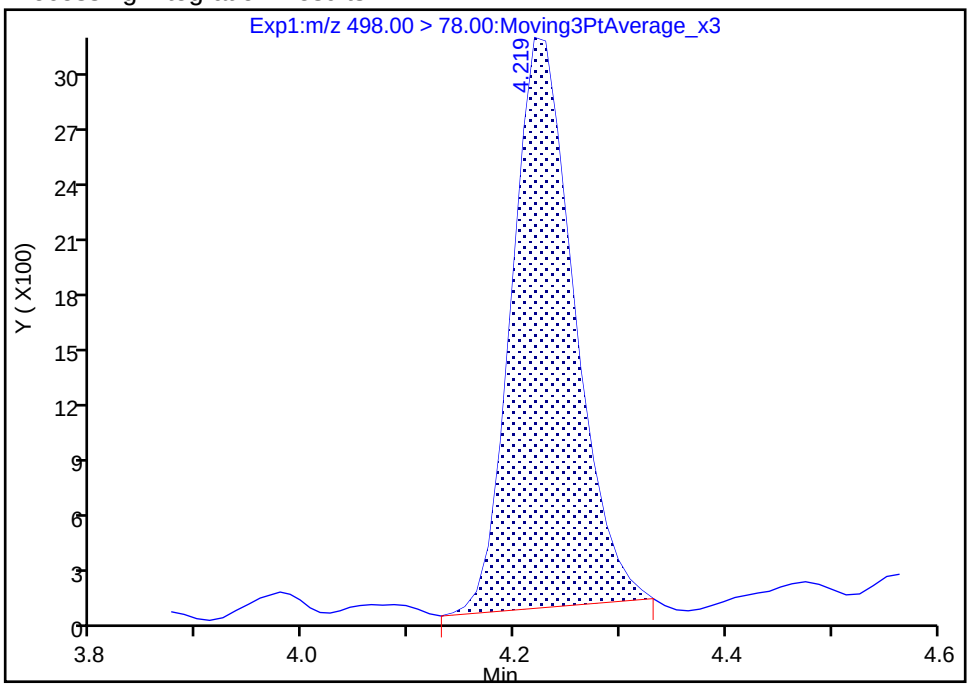
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

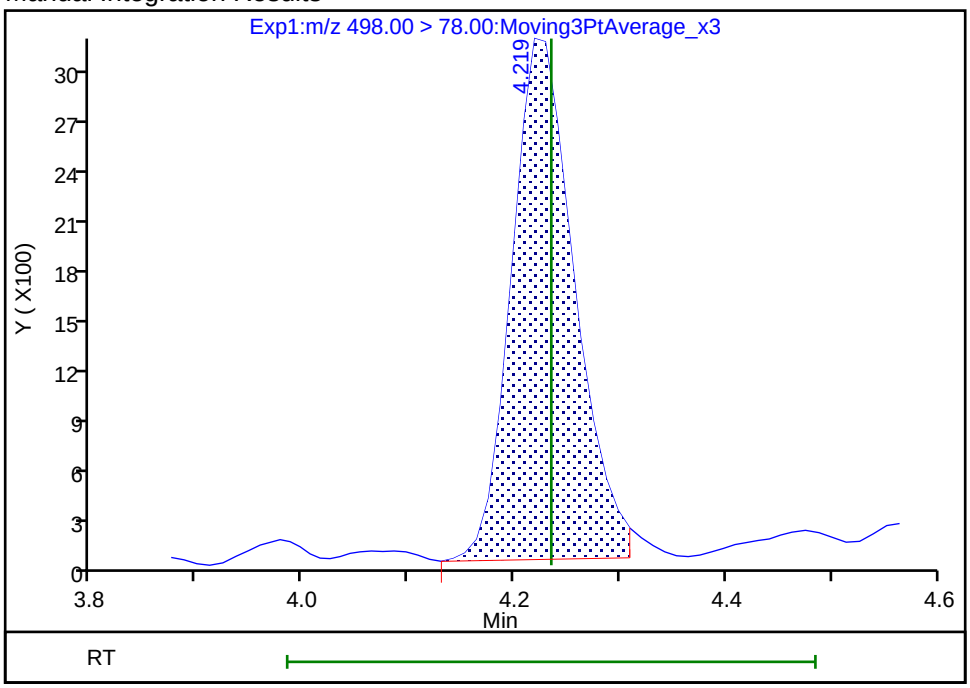
Processing Integration Results

RT: 4.22
Area: 12451
Amount: 0.008599
Amount Units: ng/ml




Manual Integration Results

RT: 4.22
Area: 12710
Amount: 0.008778
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

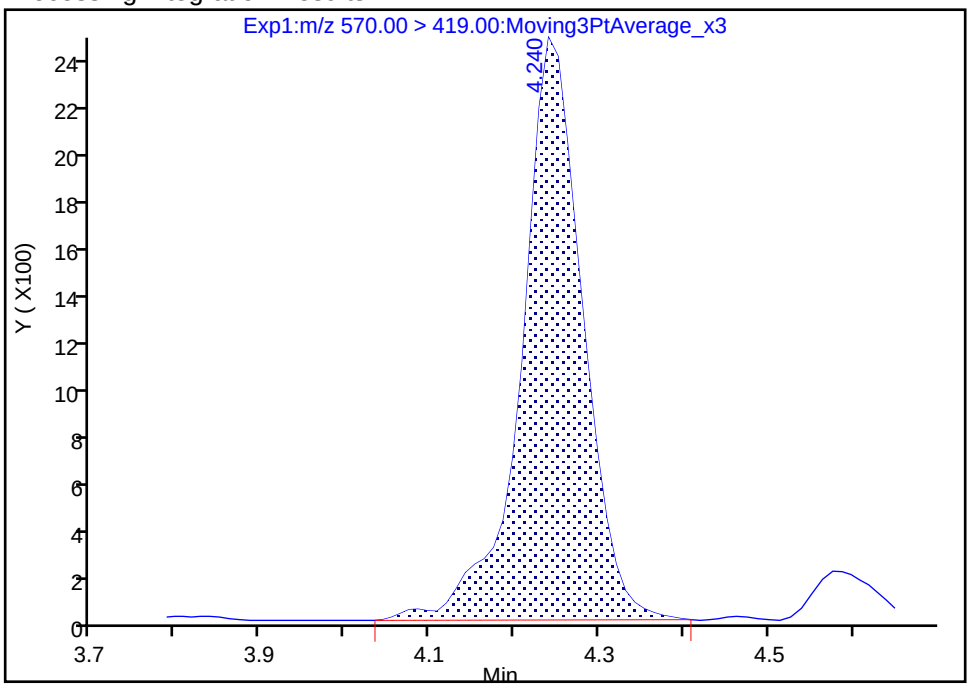
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

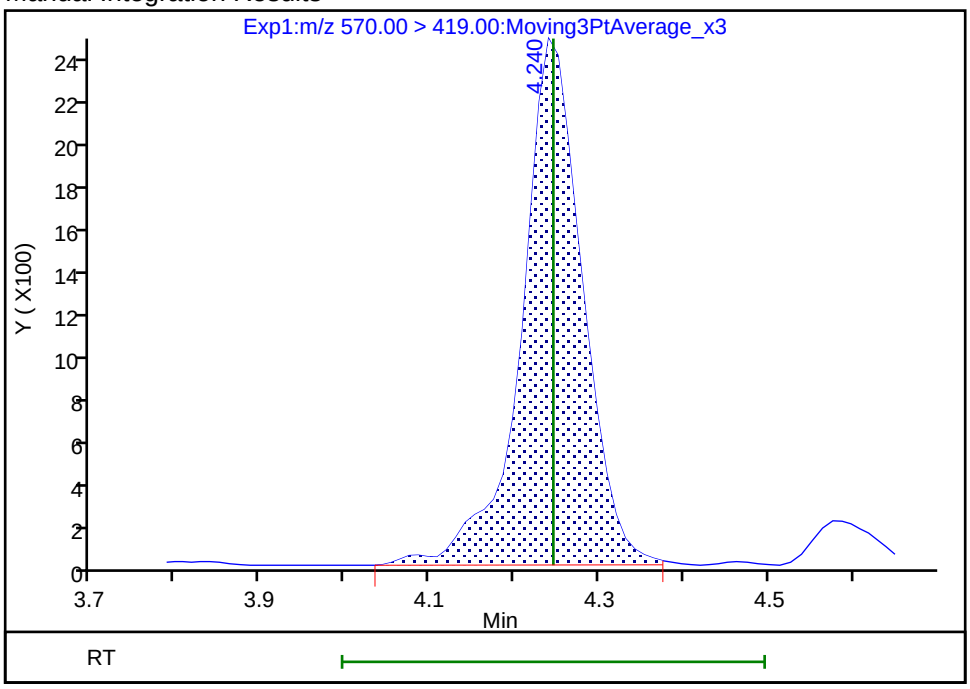
Processing Integration Results

RT: 4.24
Area: 12342
Amount: 0.093521
Amount Units: ng/ml




Manual Integration Results

RT: 4.24
Area: 12334
Amount: 0.093461
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:47:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

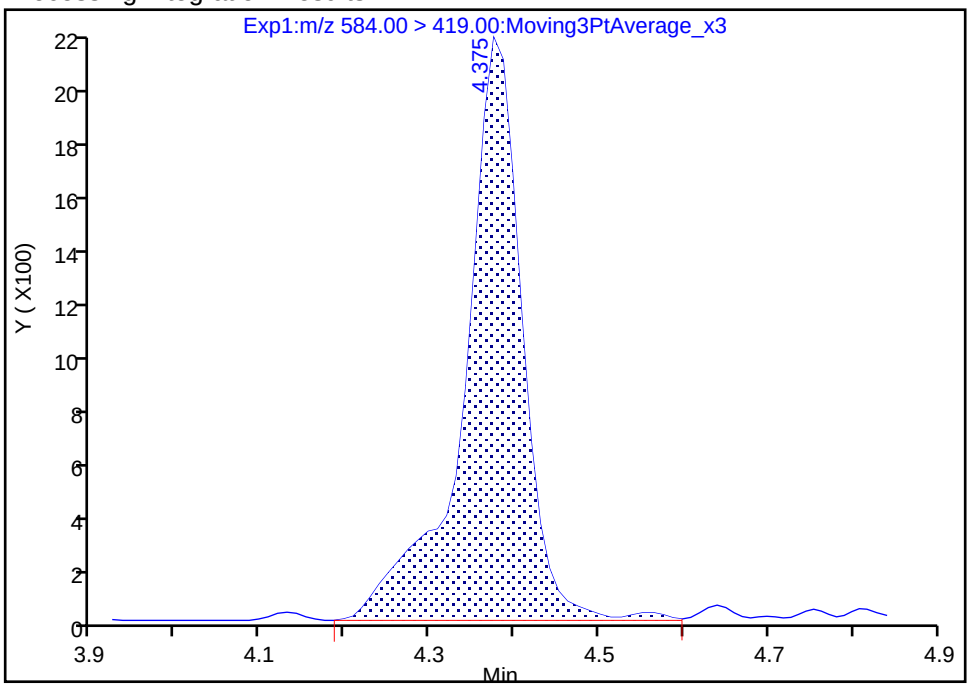
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

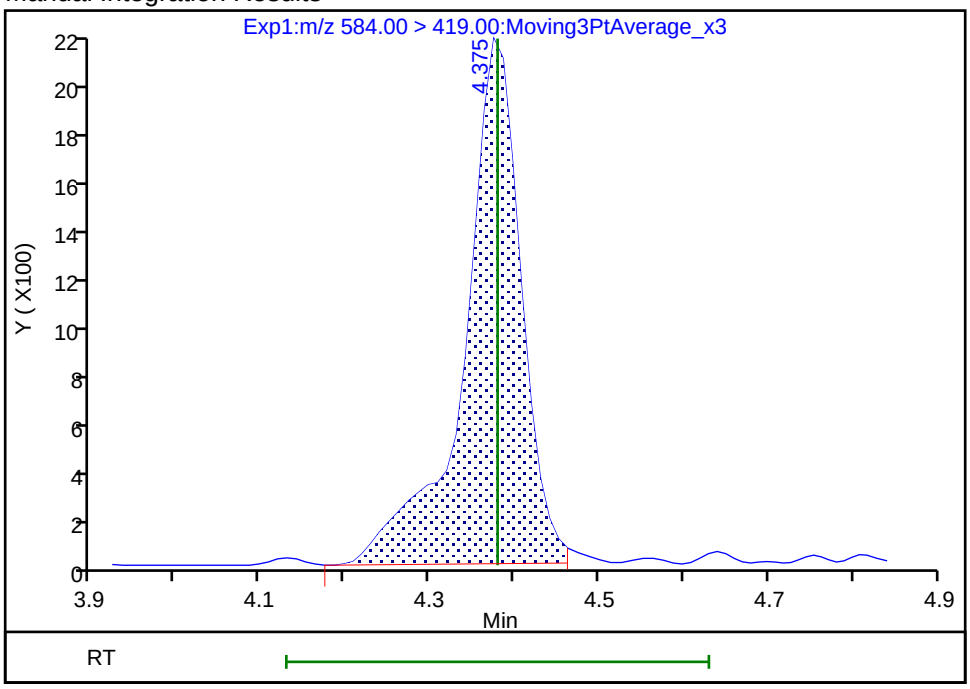
Processing Integration Results

RT: 4.38
Area: 10286
Amount: 0.076370
Amount Units: ng/ml




Manual Integration Results

RT: 4.38
Area: 10005
Amount: 0.074284
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:56:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

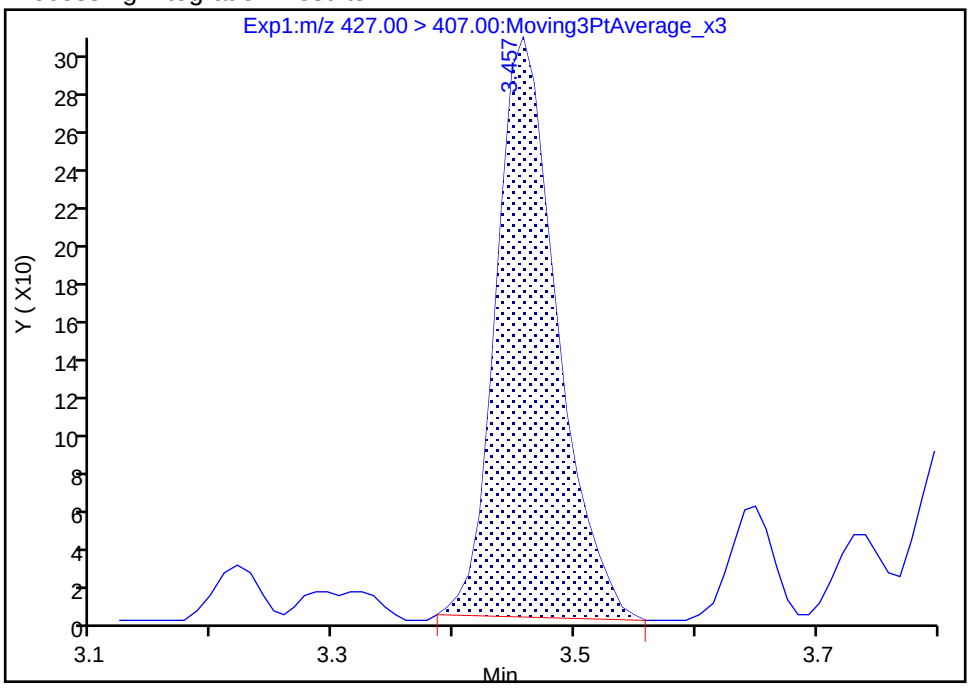
Data File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d
Injection Date: 27-Oct-2021 14:35:58 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 10 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

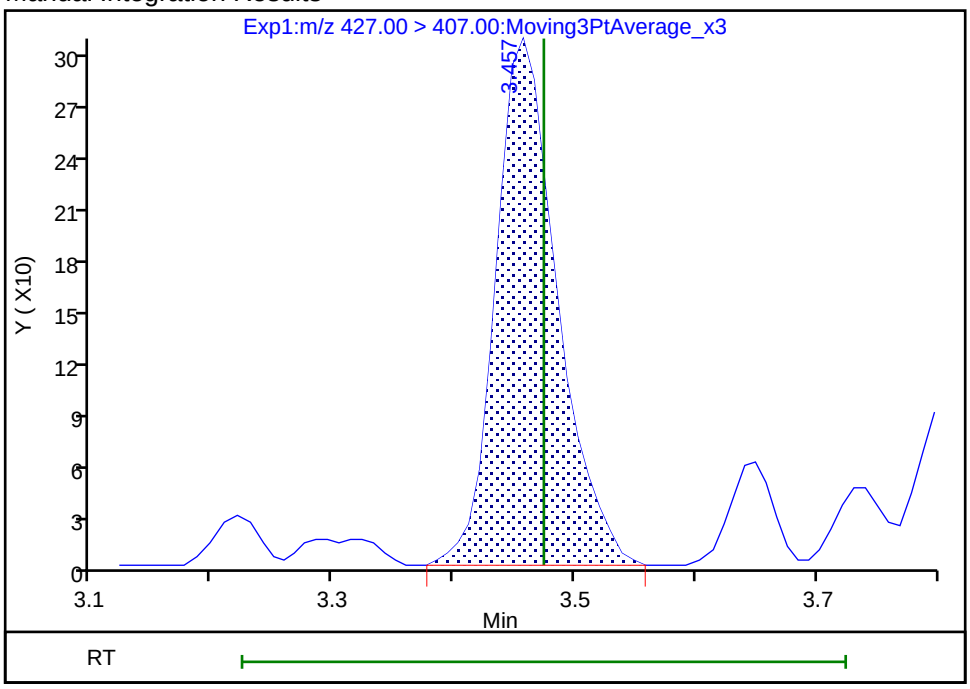
Processing Integration Results

RT: 3.46
Area: 1068
Amount: 0.003876
Amount Units: ng/ml




Manual Integration Results

RT: 3.46
Area: 1085
Amount: 0.003937
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:51:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

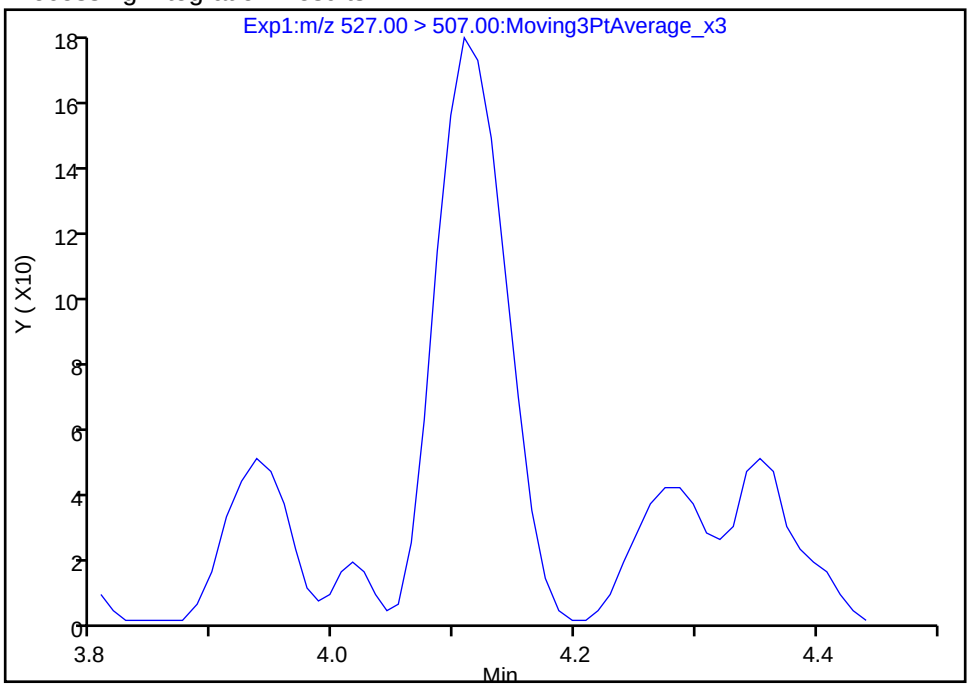
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL08.d | | | | |
| Injection Date: | 27-Oct-2021 14:35:58 | Instrument ID: | LC812 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 10 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

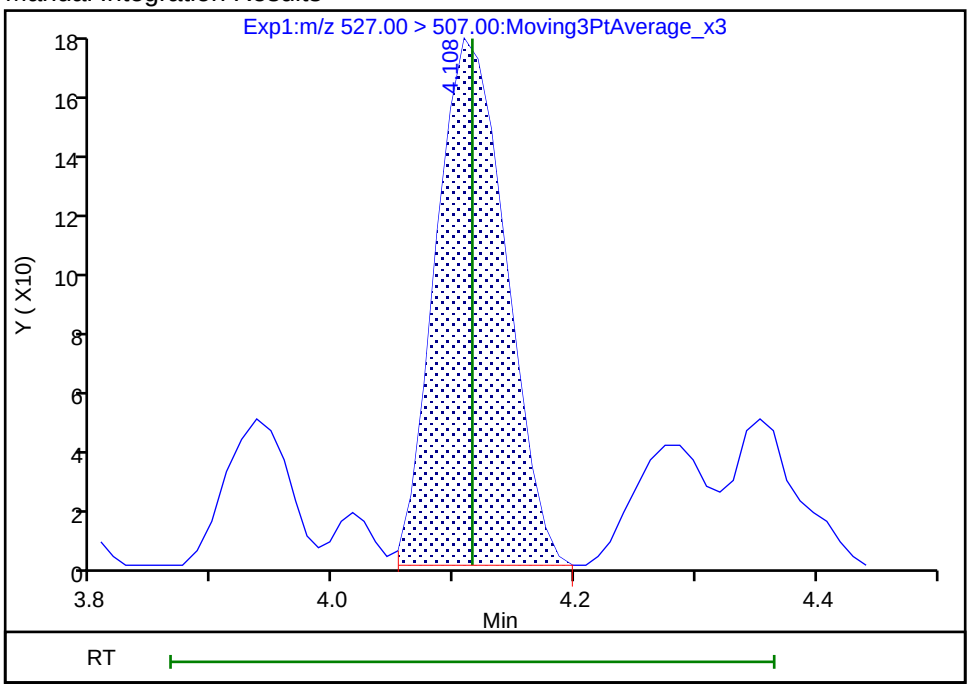
Not Detected
Expected RT: 4.12

Processing Integration Results




Manual Integration Results

RT: 4.11
Area: 726
Amount: 0.003331
Amount Units: ng/ml




Reviewer: deannd, 27-Oct-2021 15:54:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173528/2-A

Matrix: Water  Lab File ID: PA211109D03.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 04:28

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 37.84 | | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 39.66 | | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 37.97 | | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 38.04 | | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 39.00 | | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 39.16 | | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 40.75 | | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 38.08 | | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 39.05 | | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 40.59 | | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 42.44 | | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 33.15 | | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 34.29 | | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 37.23 | | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 36.65 | | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 29.98 | | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 38.90 | | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.27 | | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 37.13 | | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 39.29 | | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 35.90 | | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173528/2-A

Matrix: Water  Lab File ID: PA211109D03.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 04:28

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 97 | | 50-150 |
| STL01892 | 13C4 PFHpA | 98 | | 50-150 |
| STL00990 | 13C4 PFOA | 95 | | 50-150 |
| STL00991 | 13C4 PFOS | 96 | | 50-150 |
| STL00995 | 13C5 PFNA | 92 | | 50-150 |
| STL00992 | 13C4 PFBA | 122 | | 25-150 |
| STL00993 | 13C2 PFHxA | 106 | | 50-150 |
| STL00996 | 13C2 PFDA | 85 | | 50-150 |
| STL00997 | 13C2 PFUnA | 80 | | 50-150 |
| STL00998 | 13C2 PFDoA | 68 | | 50-150 |
| STL01056 | 13C8 FOSA | 78 | | 25-150 |
| STL01893 | 13C5 PFPeA | 109 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 64 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 94 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 89 | | 50-150 |
| STL02279 | M2-6:2 FTS | 106 | | 25-150 |
| STL02280 | M2-8:2 FTS | 108 | | 25-150 |
| STL02337 | 13C3 PFBS | 98 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d
Lims ID: LCS 200-173528/2-A
Client ID:
Sample Type: LCS
Inject. Date: 10-Nov-2021 04:28:34 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 200-173528/2-A
Misc. Info.: 200-0048356-003 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 10-Nov-2021 16:42:56
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1698922 | 1.52 | | 122 | 8571 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 1215876 | 0.9461 | | 94.6 | 161 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1279445 | 1.36 | | 109 | 2437 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1016663 | 0.99 | | 99.2 | 45.7 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1440867 | 1.13 | | 97.5 | 237278 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 1097019 | 0.8287 | Target=2.32 | 93.7 | 1409 | |
| 298.90 > 99.00 | 2.439 | 2.439 | 0.0 | 1.005 | 505983 | | 2.17(1.16-3.48) | | 314 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 234821 | 0.9400 | | 101 | 1439 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 137026 | 1.41 | | 121 | 114 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1302741 | 1.32 | | 106 | 4759 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1003350 | 0.9493 | Target=12.09 | 94.9 | 225 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 76045 | | 13.19(6.04-18.13) | | 69.6 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | M |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1000338 | 0.9233 | Target=3.03 | 98.4 | 1398 | M |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 319850 | | 3.13(1.52-4.55) | | 529 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.879 | 2.867 | 0.012 | 0.825 | 26697 | 1.03 | | 82.3 | 179 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.879 | 2.880 | -0.001 | 1.000 | 113109 | 1.17 | | 117 | 40.2 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 847991 | 0.8573 | Target=3.55 | 94.2 | 1095 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 233970 | | 3.62(1.77-5.32) | | 245 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1063910 | 1.15 | | 97.4 | 2507 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1270212 | 1.22 | | 98.0 | 4336 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 998460 | 0.9510 | Target=3.69 | 95.1 | 398 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 273977 | | 3.64(1.84-5.53) | | 382 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 2253509 | 1.00 | Target=2.56 | 106 | 2542 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 859533 | | 2.62(1.28-3.84) | | 1269 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 746561 | 0.9308 | Target=4.88 | 97.8 | 1997 | |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 145659 | | 5.13(2.44-7.32) | | 715 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 191444 | 0.9822 | | 104 | 2658 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 182530 | 1.25 | | 106 | 459 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1346866 | 1.19 | | 95.1 | 4092 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1376973 | 1.25 | | | 6364 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1117333 | 0.9751 | Target=2.68 | 97.5 | 149 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 424937 | | 2.63(1.34-4.02) | | 820 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 768864 | 1.15 | | 96.4 | 3273 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 639613 | 0.9162 | Target=4.69 | 98.7 | 1181 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 131385 | | 4.87(2.35-7.04) | | 474 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1304837 | 1.16 | | 92.5 | 5040 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 999837 | 0.9790 | Target=7.29 | 97.9 | 240 | |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 139372 | | 7.17(3.64-10.93) | | 877 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 904028 | 0.8595 | | 92.2 | 3204 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.092 | 4.081 | 0.011 | 1.076 | 458943 | 0.8439 | Target=2.35 | 87.9 | 2379 | |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 179152 | | 2.56(1.17-3.52) | | 689 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1209578 | 1.06 | | 84.9 | 3243 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.003 | 990467 | 1.02 | Target=8.95 | 102 | 765 | |
| 513.00 > 169.00 | 4.126 | 4.115 | 0.011 | 1.003 | 109832 | | 9.02(4.47-13.42) | | 619 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 214173 | 1.30 | | 108 | 798 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 134272 | 0.8974 | | 93.7 | 1969 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.213 | 1066852 | 0.9707 | | 77.7 | 5177 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.234 | 4.234 | 0.0 | 1.000 | 788294 | 0.9726 | | 97.3 | 1782 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 131819 | 1.18 | | 94.1 | 556 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 83409 | 1.01 | | 101 | 571 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.346 | 4.346 | 0.0 | 1.143 | 316853 | 0.7494 | Target=2.47 | 77.7 | 1646 | M |
| 599.00 > 99.00 | 4.346 | 4.346 | 0.0 | 1.143 | 124508 | | 2.54(1.23-3.70) | | 851 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 884426 | 1.00 | | 79.7 | 4775 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 717974 | 0.9519 | Target=9.24 | 95.2 | 515 | |
| 563.00 > 169.00 | 4.380 | 4.369 | 0.012 | 1.000 | 85620 | | 8.39(4.62-13.86) | | 1040 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 116443 | 1.11 | | 88.7 | 1061 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.000 | 74098 | 0.9283 | | 92.8 | 610 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.466 | 4.456 | 0.010 | 1.174 | 888036 | 0.7149 | | 75.9 | 3293 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 806966 | 0.8448 | | 67.6 | 1529 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 617032 | 0.9762 | Target=7.04 | 97.6 | 144 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 97214 | | 6.35(3.52-10.56) | | 1037 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.622 | 4.612 | 0.010 | 1.120 | 51031 | 0.7382 | | 76.6 | 1247 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.774 | 4.756 | 0.018 | 1.255 | 114740 | 0.7378 | Target=0.49 | 76.2 | 1617 | |
| 699.00 > 99.00 | 4.765 | 4.756 | 0.009 | 1.253 | 213187 | | 0.54(0.25-0.74) | | 1892 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 552916 | 1.01 | Target=4.68 | 101 | 176 | |
| 663.00 > 169.00 | 4.801 | 4.792 | 0.009 | 1.043 | 119291 | | 4.64(2.34-7.02) | | 1061 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.428 | 590924 | 0.7976 | | 63.8 | 1332 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.985 | 4.966 | 0.019 | 1.000 | 79164 | 1.06 | Target=1.01 | 106 | 919 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 0.998 | 83122 | | 0.95(0.51-1.52) | | 1288 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.292 | 5.270 | 0.022 | 1.516 | 528659 | 0.8103 | | 64.8 | 2862 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.292 | 5.270 | 0.022 | 1.000 | 408525 | 1.11 | Target=4.57 | 111 | 174 | |
| 813.00 > 169.00 | 5.292 | 5.270 | 0.022 | 1.000 | 93899 | | 4.35(2.29-6.86) | | 1499 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.050 | 301513 | 0.8454 | Target=4.27 | 84.5 | 215 | |
| 913.00 > 169.00 | 5.555 | 5.527 | 0.028 | 1.050 | 76581 | | 3.94(2.14-6.41) | | 1308 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:25:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d

Injection Date: 10-Nov-2021 04:28:34 Instrument ID: LC812

Lims ID: LCS 200-173528/2-A

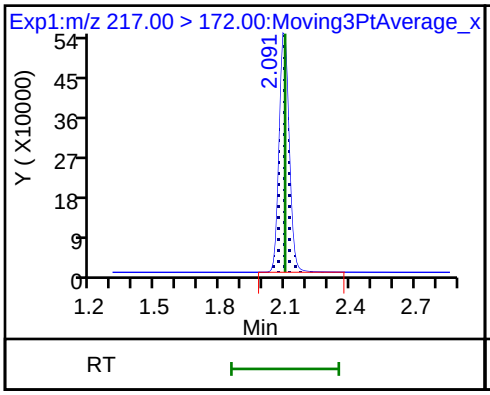
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3

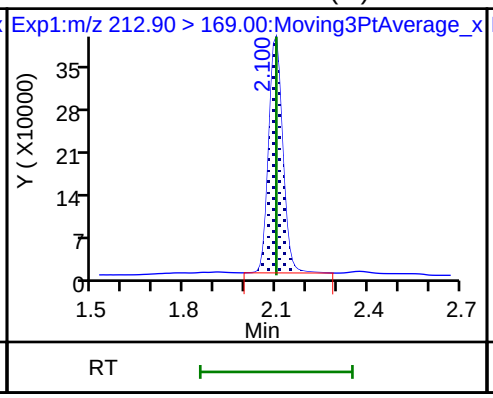
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

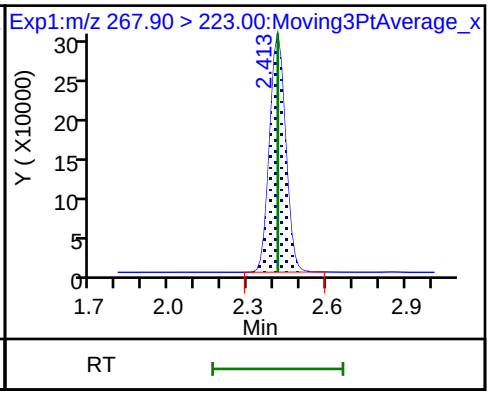
D 1 13C4 PFBA



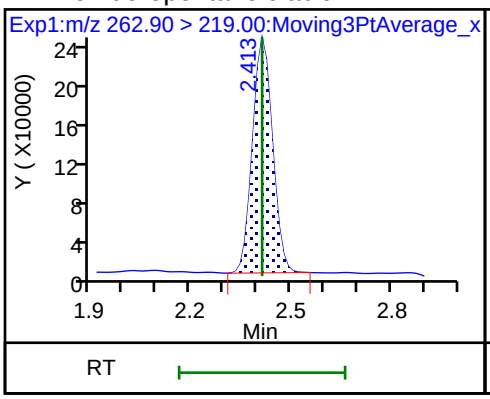

2 Perfluorobutanoic acid (M)



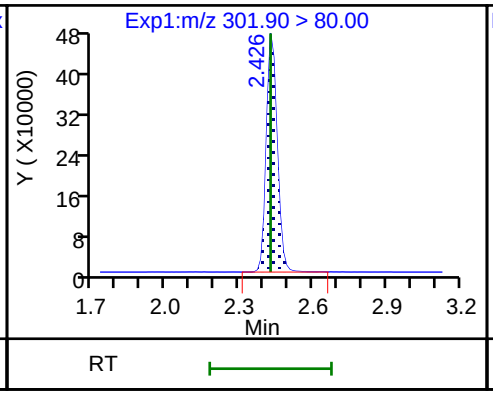

D 3 13C5 PFPeA



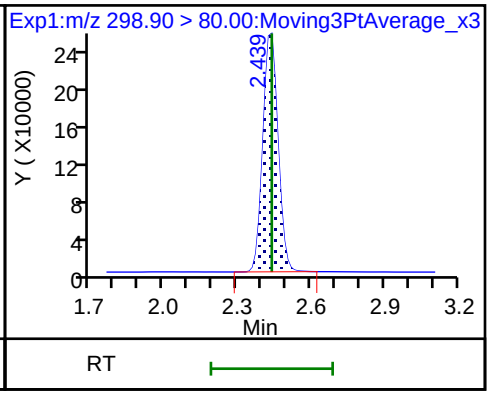

4 Perfluoropentanoic acid



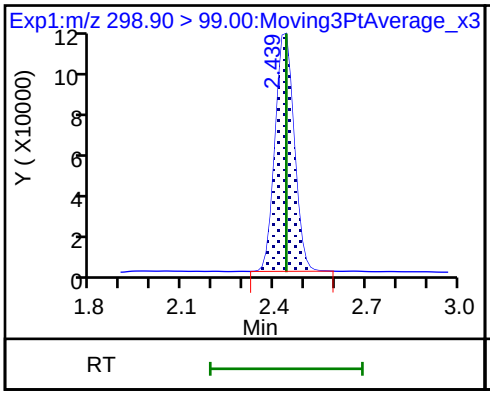

D 47 13C3 PFBS



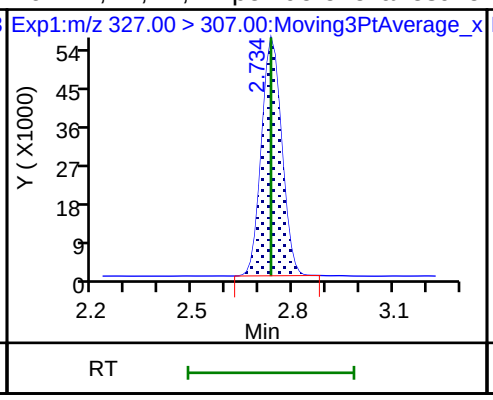

5 Perfluorobutanesulfonic acid



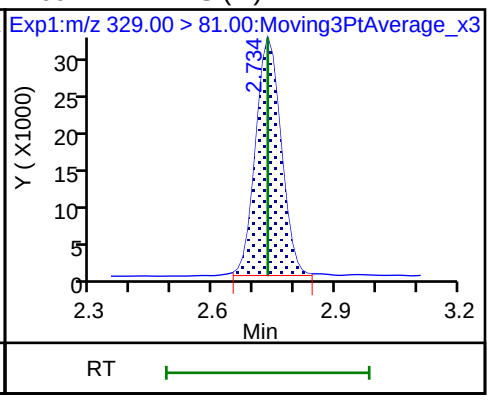

5 Perfluorobutanesulfonic acid



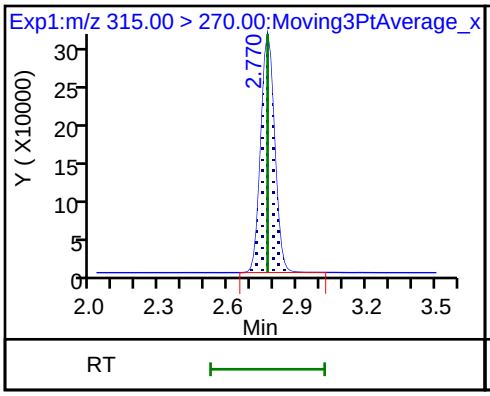

61 1H,1H,2H,2H-perfluorohexanesulfo



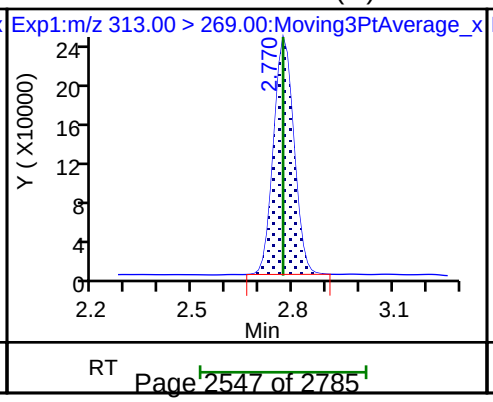

D 60 M2-4:2 FTS (M)



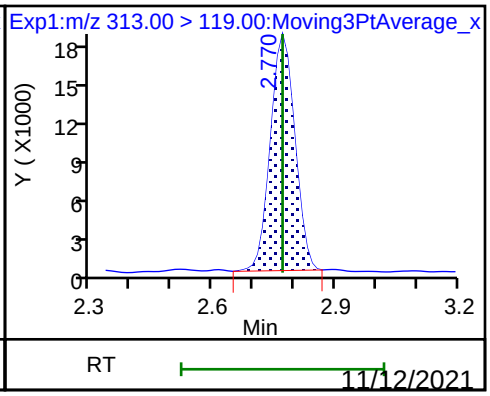

D 7 13C2 PFHxA



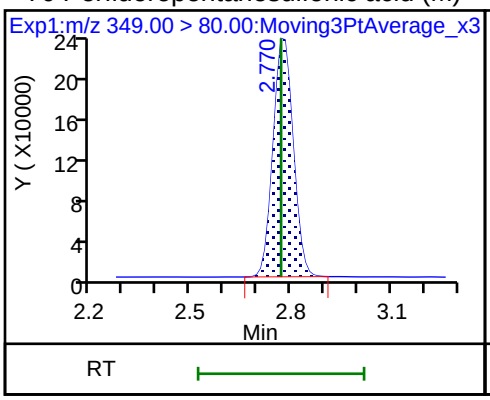

6 Perfluorohexanoic acid (M)



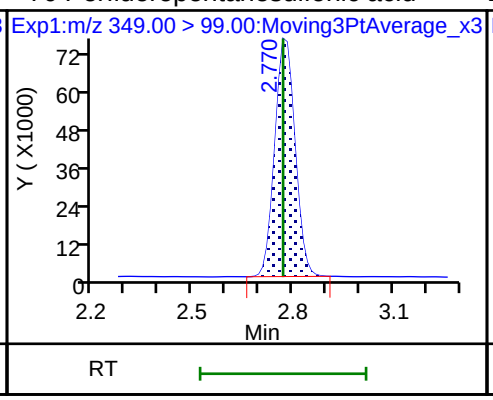

6 Perfluorohexanoic acid



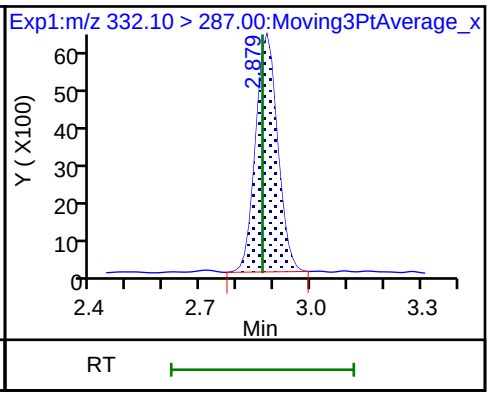
70 Perfluoropentanesulfonic acid (M)



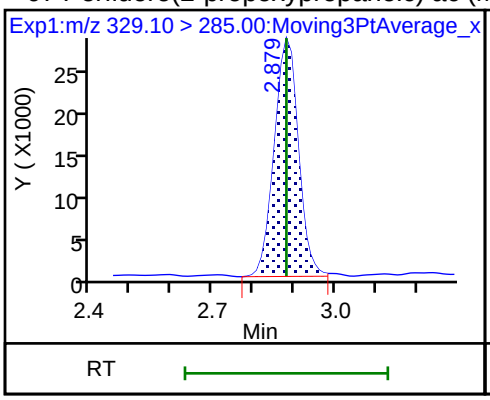

70 Perfluoropentanesulfonic acid



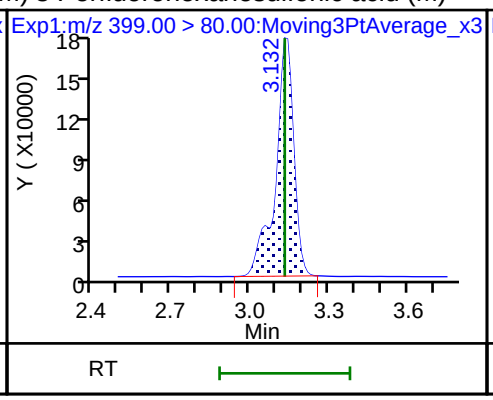

D 64 13C3 HFPO-DA



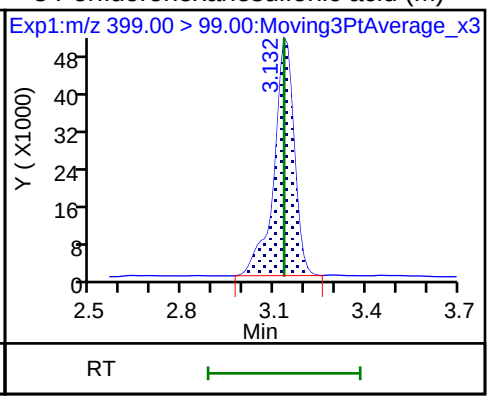

67 Perfluoro(2-propoxypropanoic) ac (M)



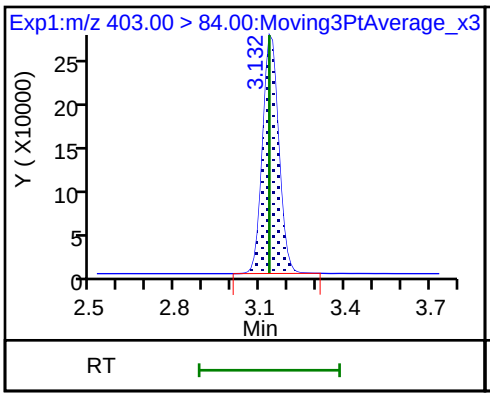

8 Perfluorohexanesulfonic acid (M)



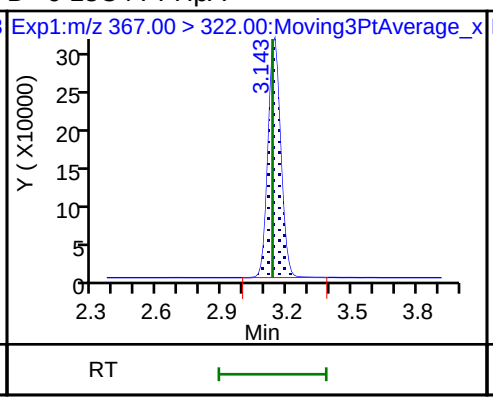

8 Perfluorohexanesulfonic acid (M)



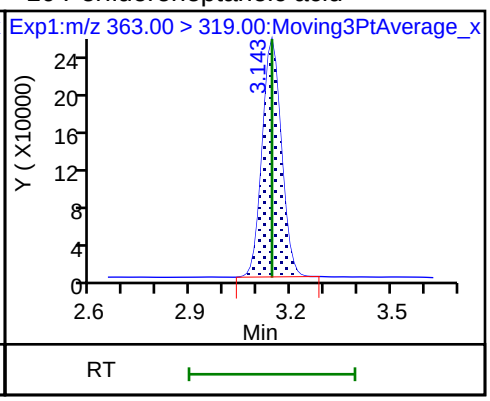

D 11 18O2 PFHxS



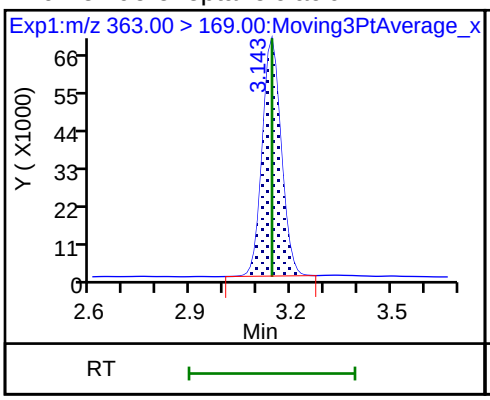

D 9 13C4 PFHpA



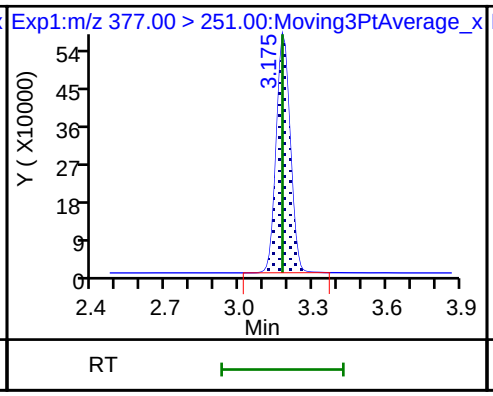

10 Perfluoroheptanoic acid



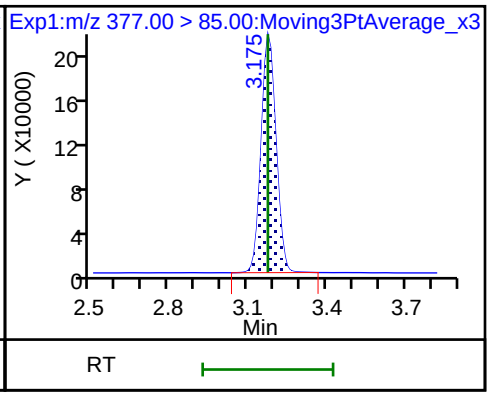

10 Perfluoroheptanoic acid



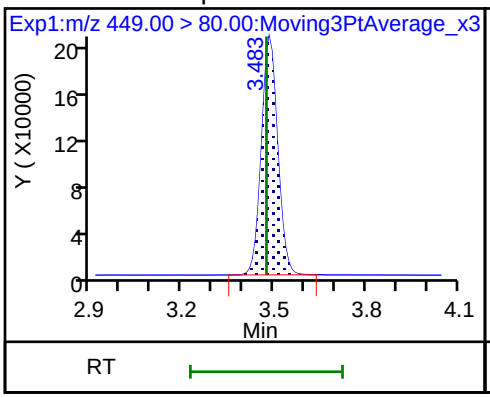

77 DONA



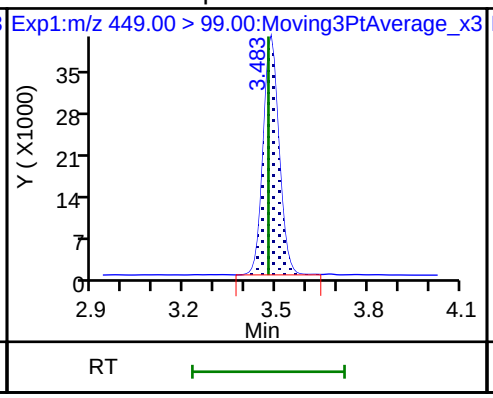

77 DONA



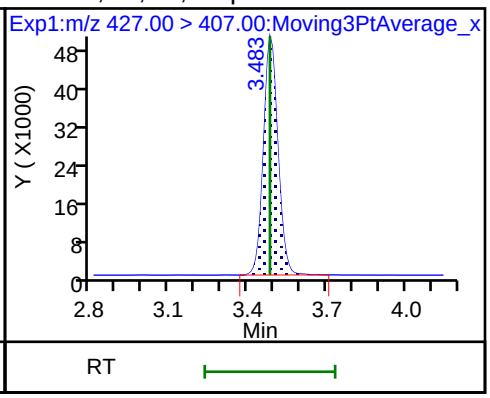
16 Perfluoroheptanesulfonic acid



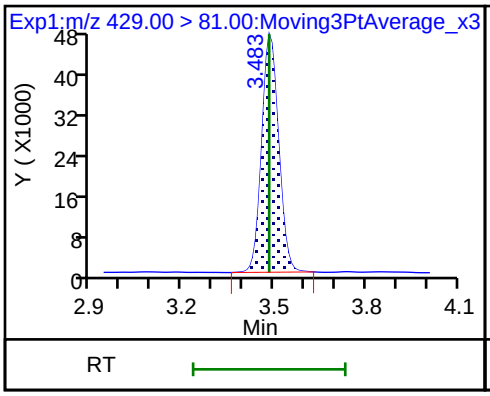

16 Perfluoroheptanesulfonic acid



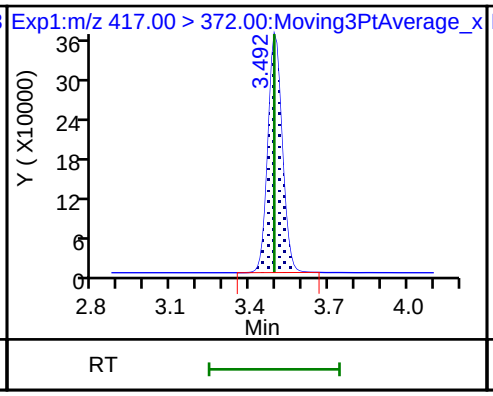

13 1H,1H,2H,2H-perfluorooctanesulfo



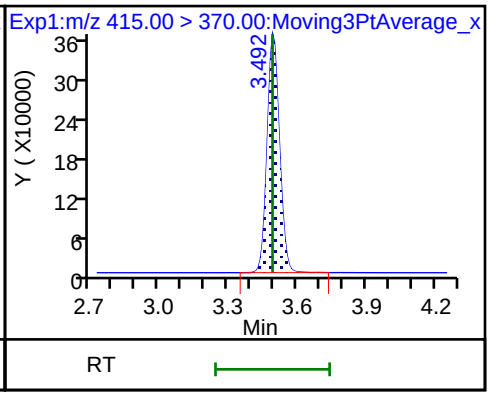

D 12 M2-6:2 FTS



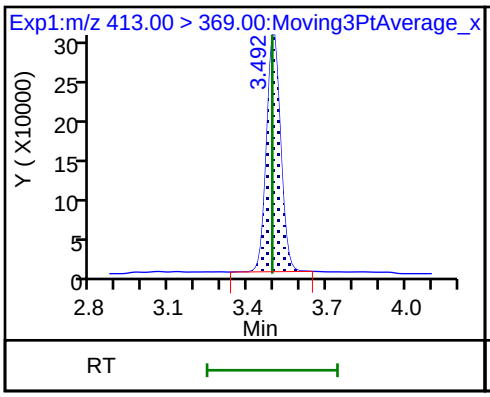

D 14 13C4 PFOA



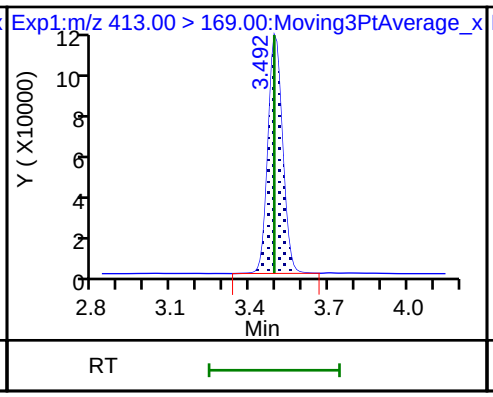

* 62 13C2 PFOA



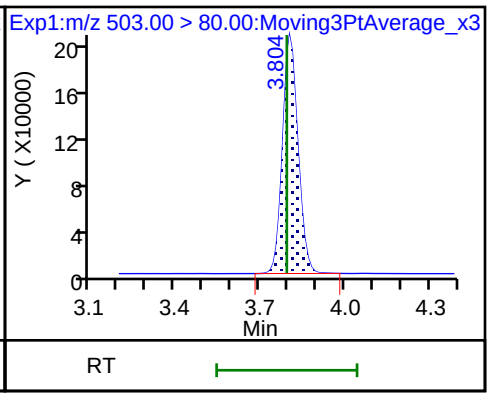

15 Perfluorooctanoic acid



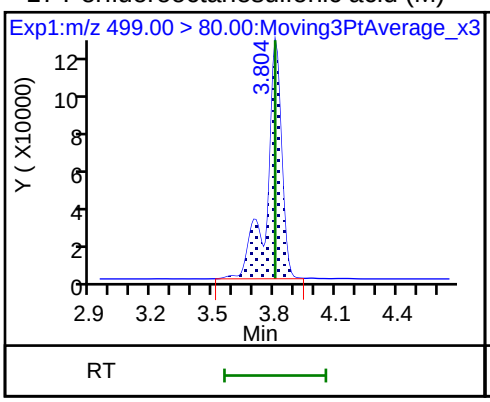

15 Perfluorooctanoic acid



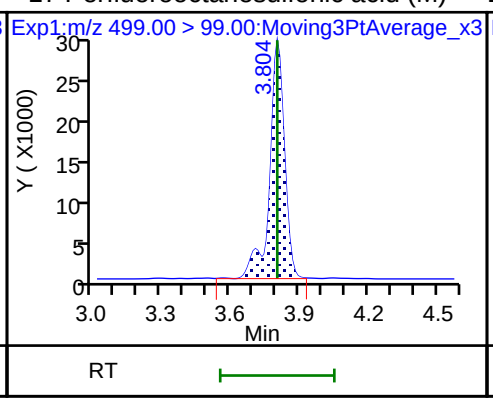

D 18 13C4 PFOS



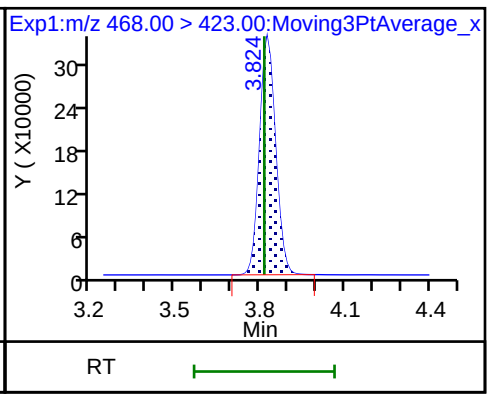

17 Perfluorooctanesulfonic acid (M)



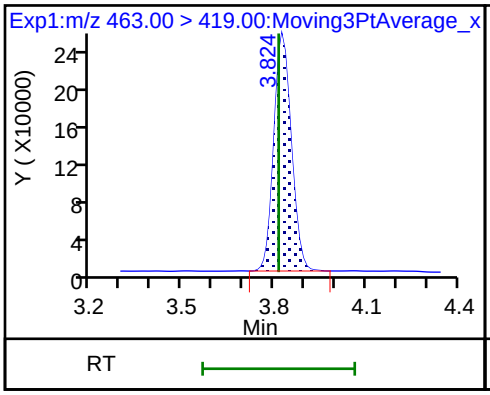

17 Perfluorooctanesulfonic acid (M)



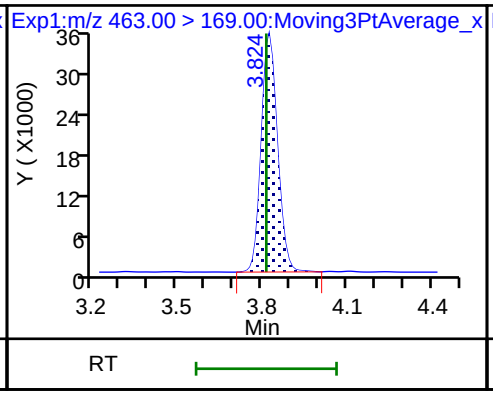

D 19 13C5 PFNA



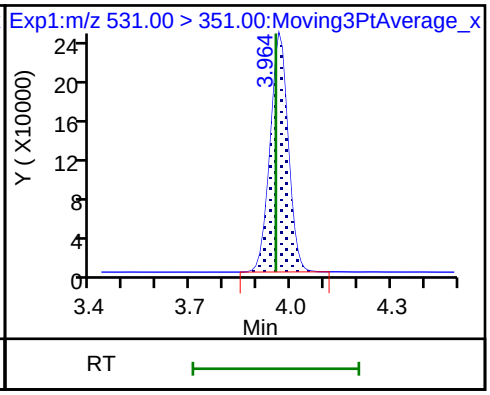
20 Perfluorononanoic acid



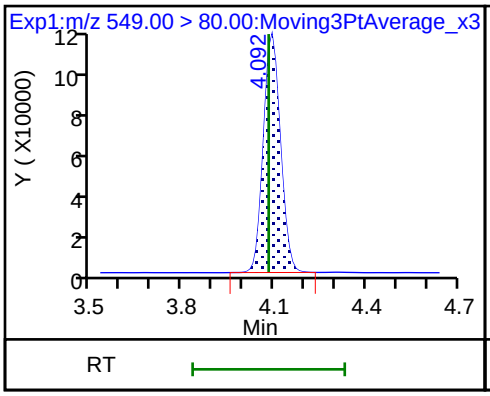

20 Perfluorononanoic acid



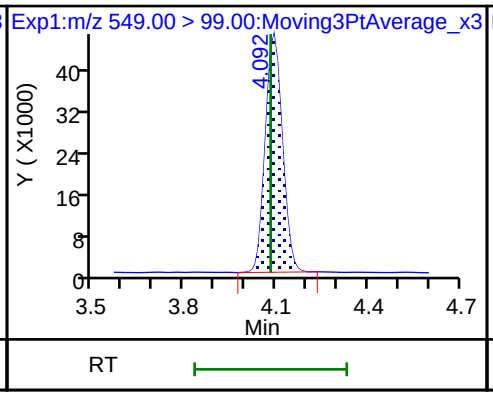

69 9-Chlorohexadecafluoro-3-oxanona



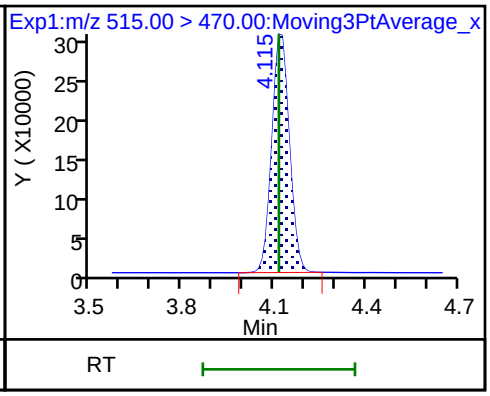

68 Perfluorononanesulfonic acid



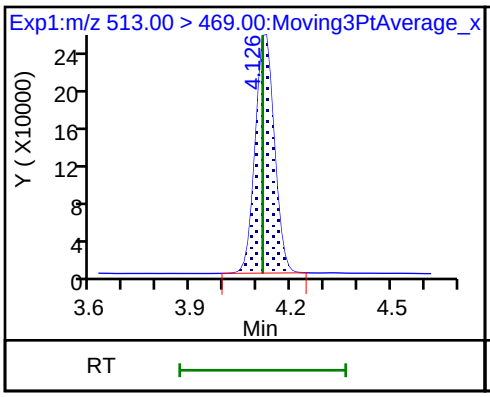

68 Perfluorononanesulfonic acid



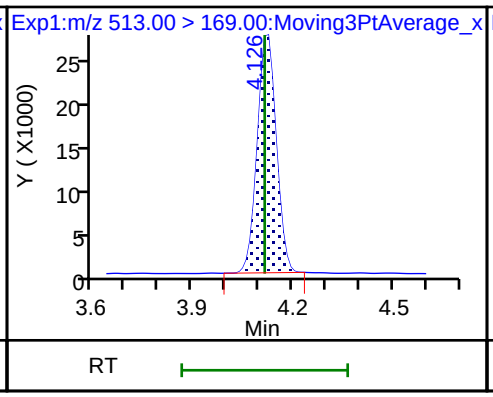

D 23 13C2 PFDA



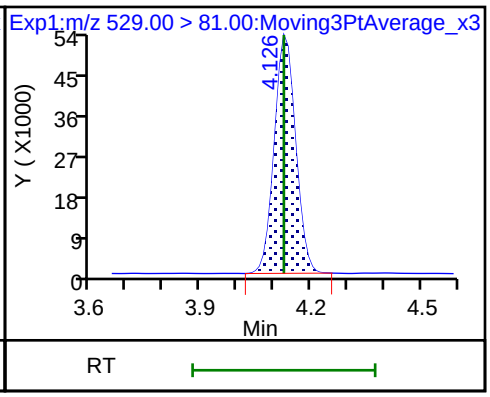

24 Perfluorodecanoic acid



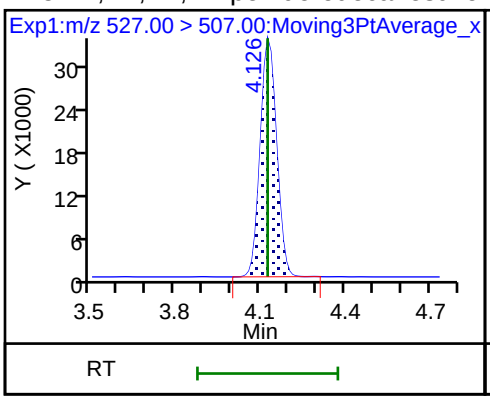

24 Perfluorodecanoic acid



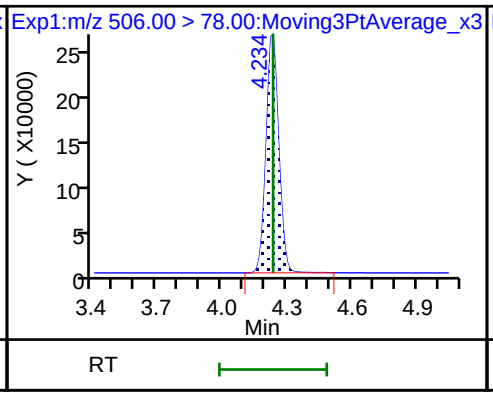

D 26 M2-8:2 FTS



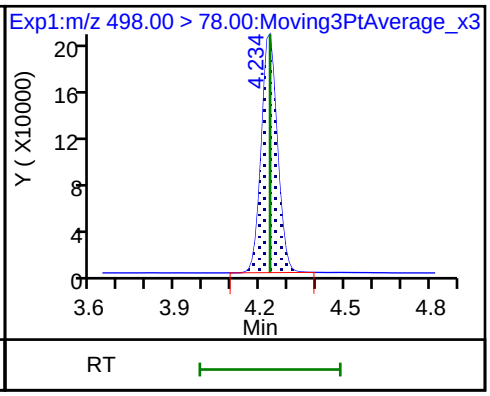

25 1H,1H,2H,2H-perfluorodecanesulfo



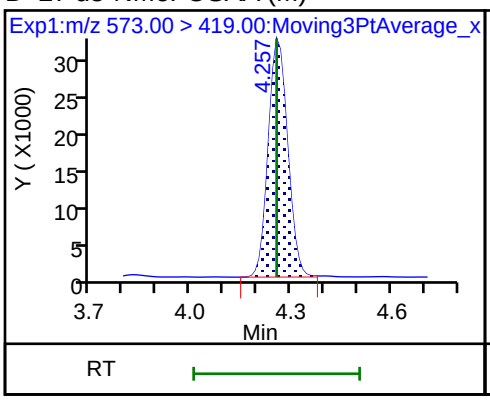

D 21 13C8 FOSA



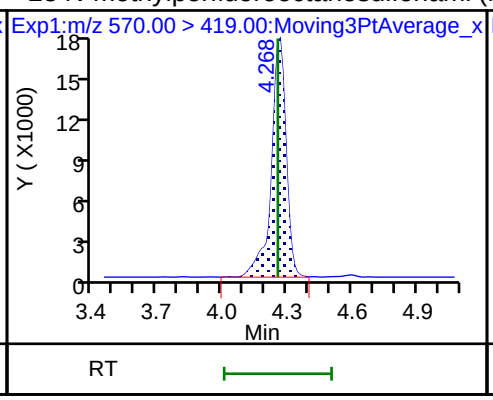

22 Perfluorooctanesulfonamide



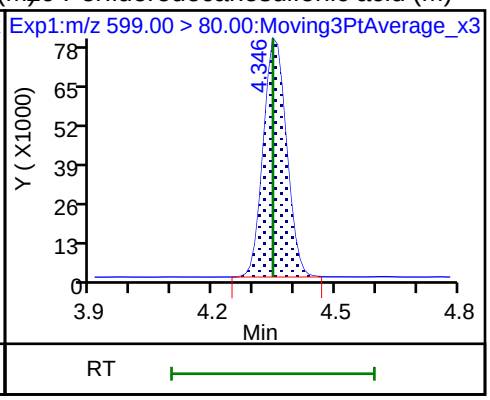
D 27 d3-NMeFOSAA (M)



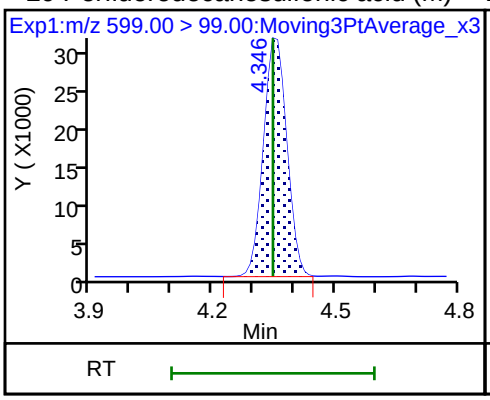

28 N-methylperfluorooctanesulfonami (M)



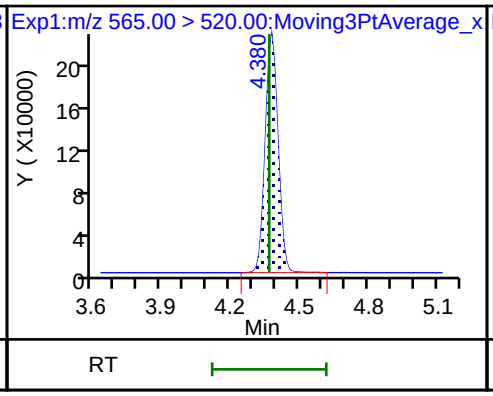

29 Perfluorodecanesulfonic acid (M)



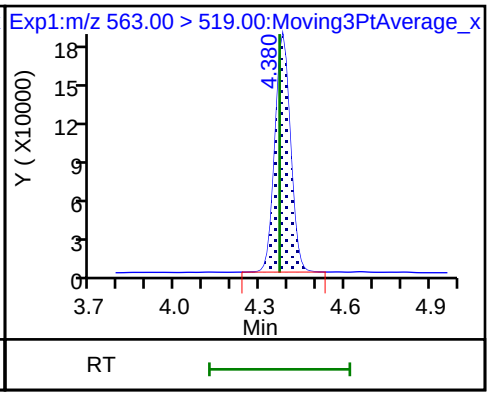

29 Perfluorodecanesulfonic acid (M)



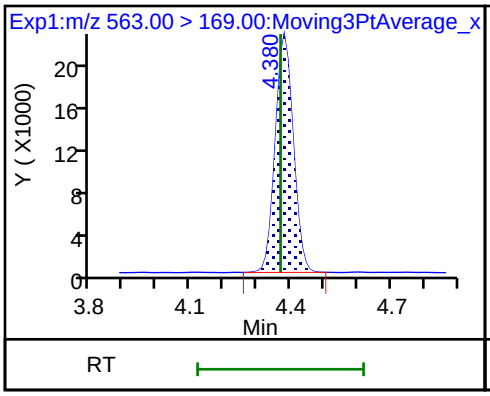

D 30 13C2 PFUnA



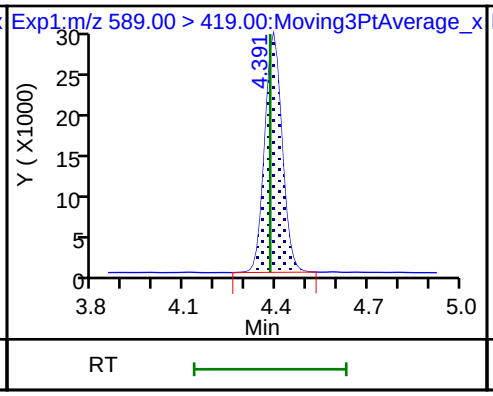

31 Perfluoroundecanoic acid



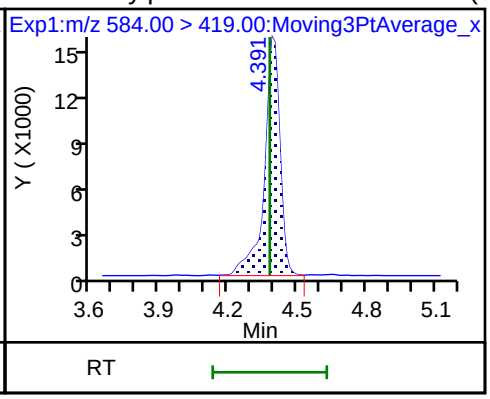

31 Perfluoroundecanoic acid



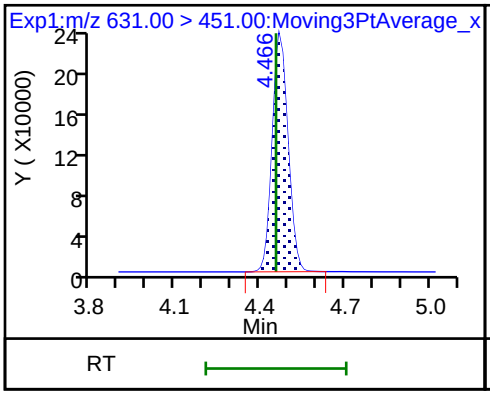

D 32 d5-NEtFOSAA



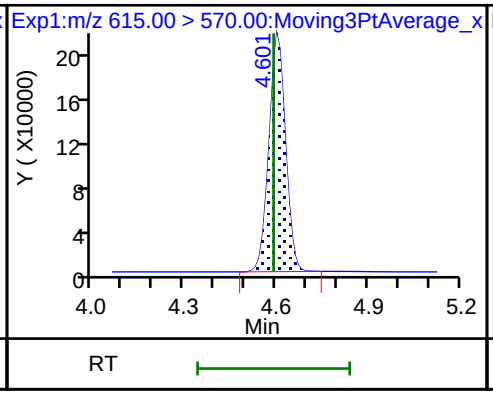

33 N-ethylperfluorooctanesulfonamid (M)



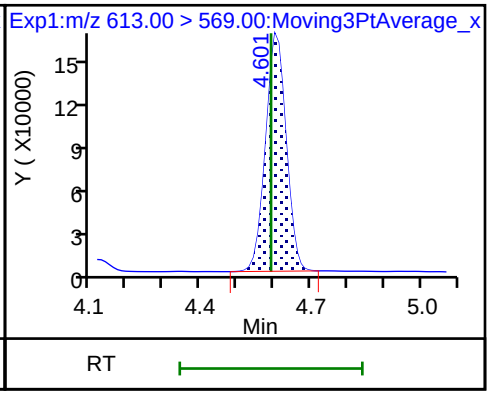

66 11-Chloroeicosafluoro-3-oxaundec



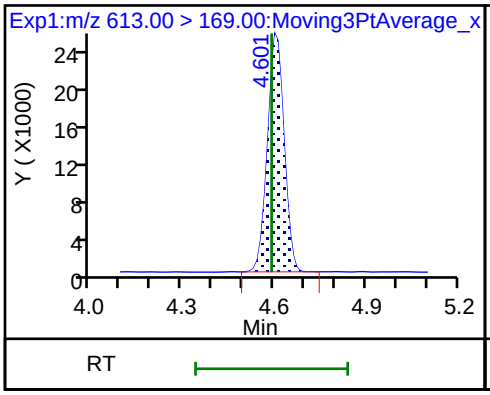

D 36 13C2 PFDoA



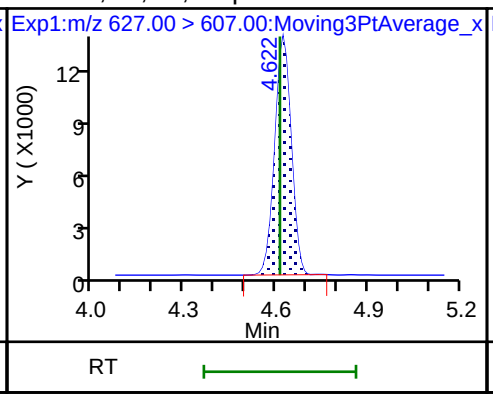

37 Perfluorododecanoic acid



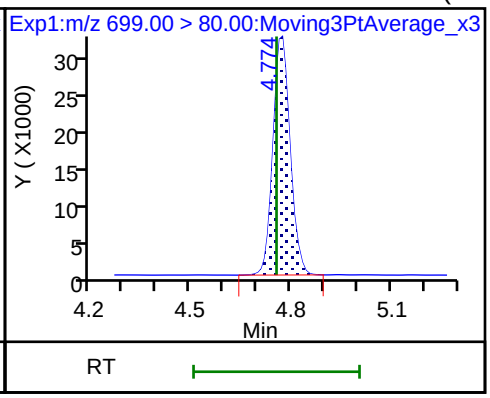
37 Perfluorododecanoic acid



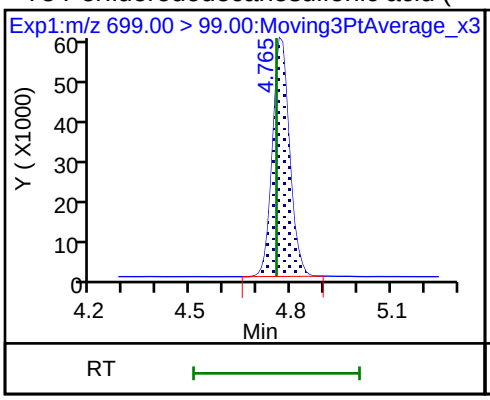

74 1H,1H,2H,2H-perfluorododecanesul



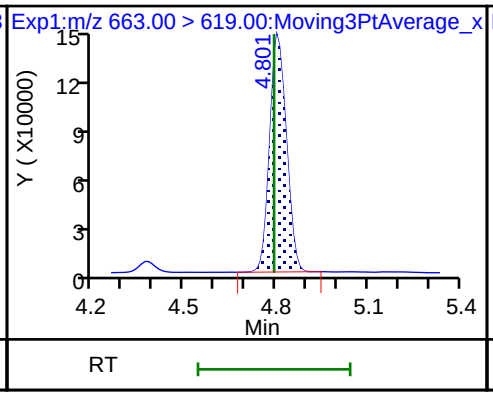

75 Perfluorododecanesulfonic acid (



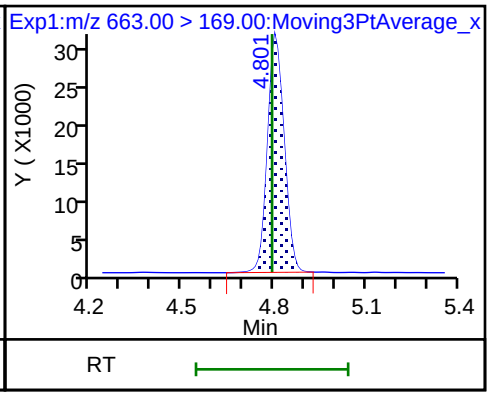

75 Perfluorododecanesulfonic acid (



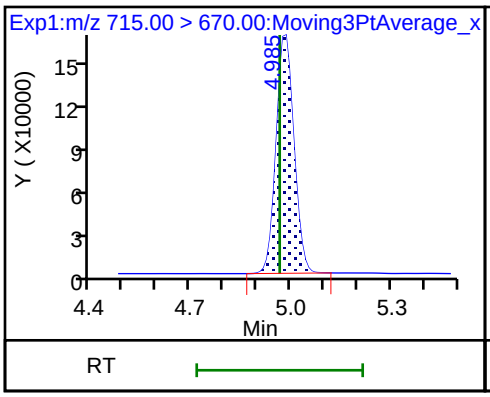

41 Perfluorotridecanoic acid



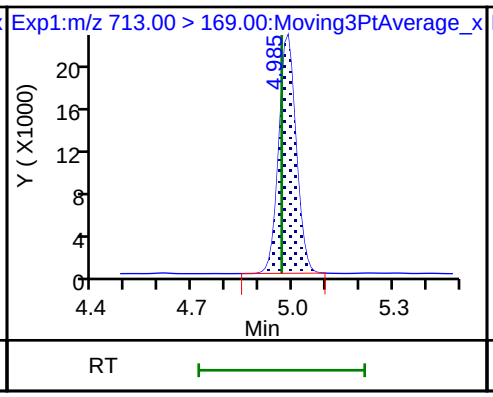

41 Perfluorotridecanoic acid



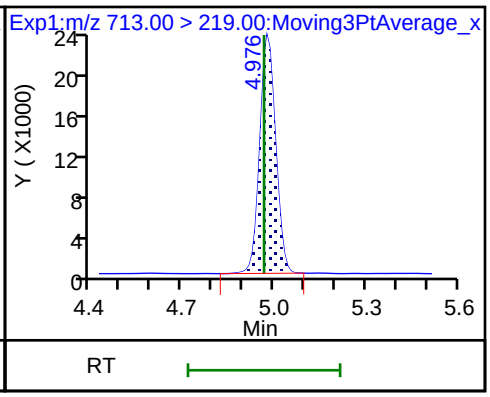

D 43 13C2 PFTeDA



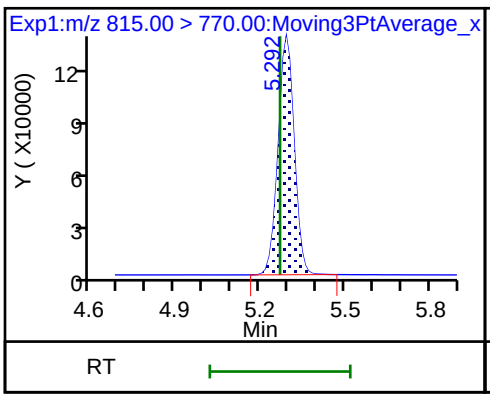

42 Perfluorotetradecanoic acid



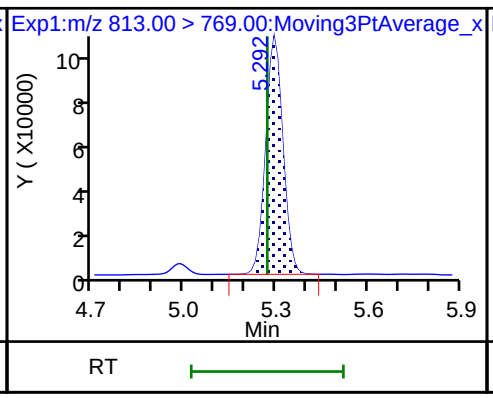

42 Perfluorotetradecanoic acid



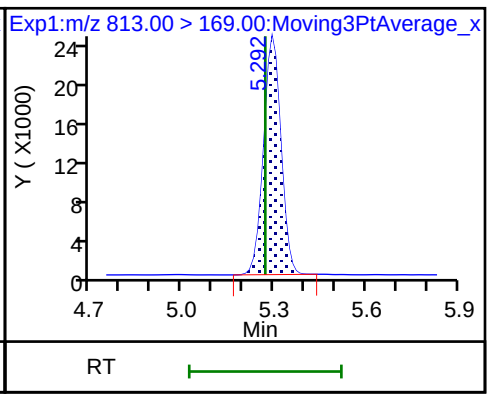

D 44 13C2 PFHxDA



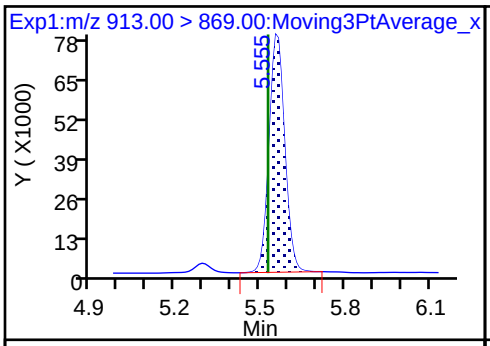

45 Perfluorohexadecanoic acid



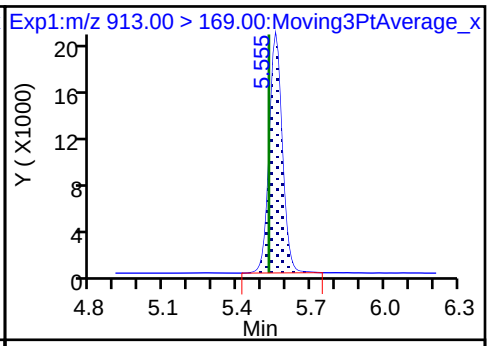

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

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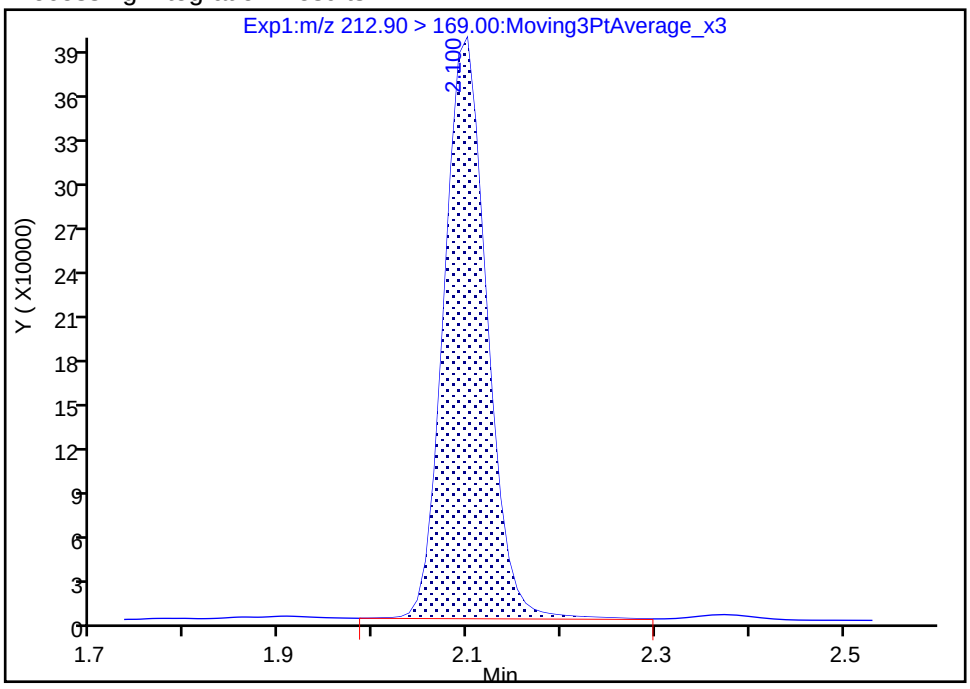
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

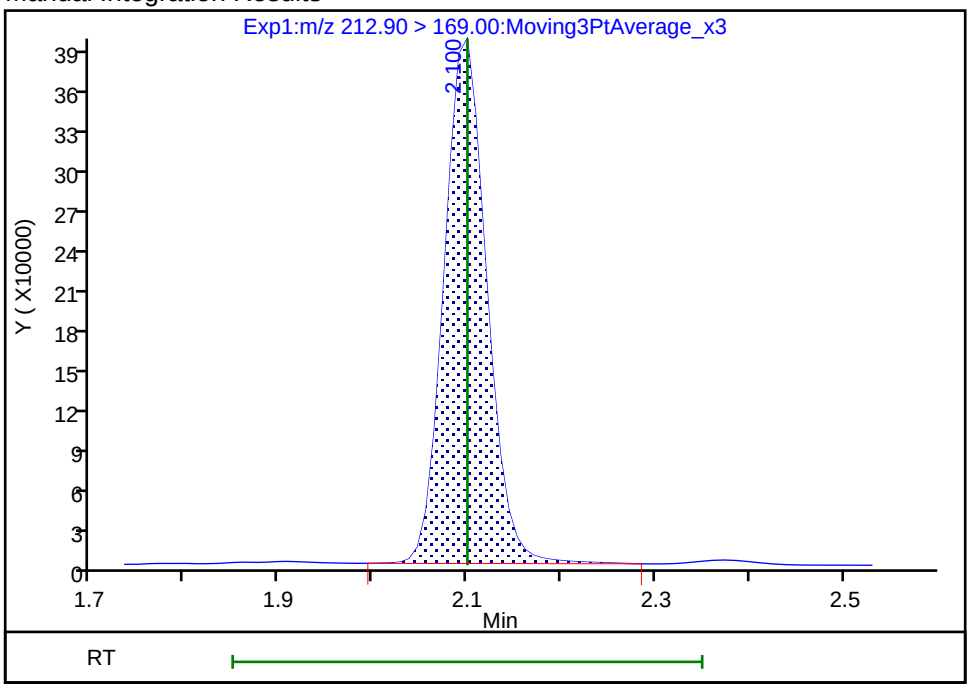
Processing Integration Results

RT: 2.10
Area: 1220413
Amount: 0.949631
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 1215876
Amount: 0.946100
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:41:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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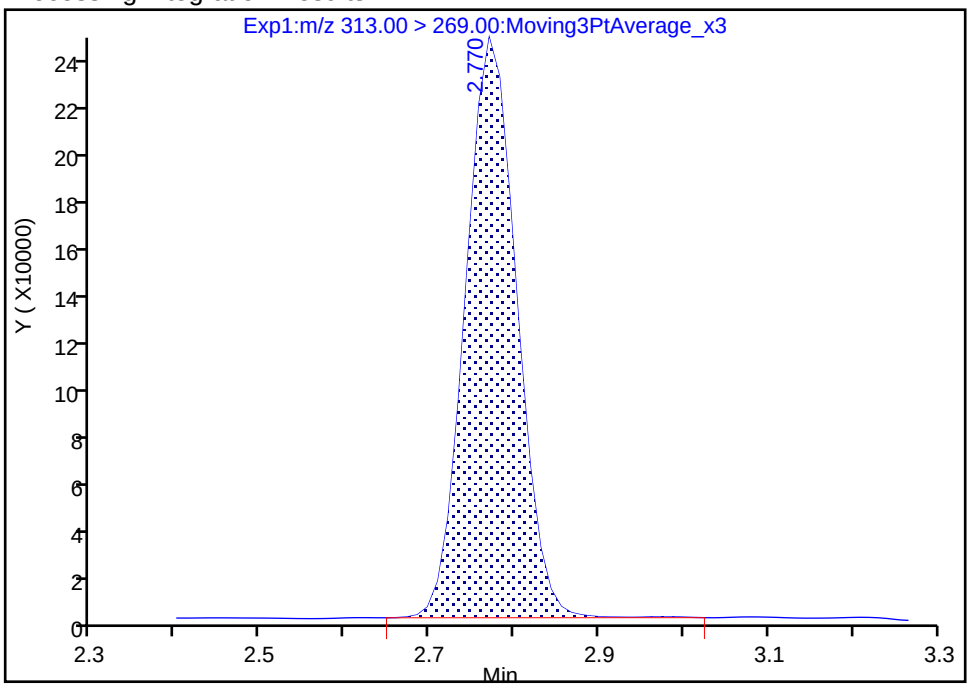
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

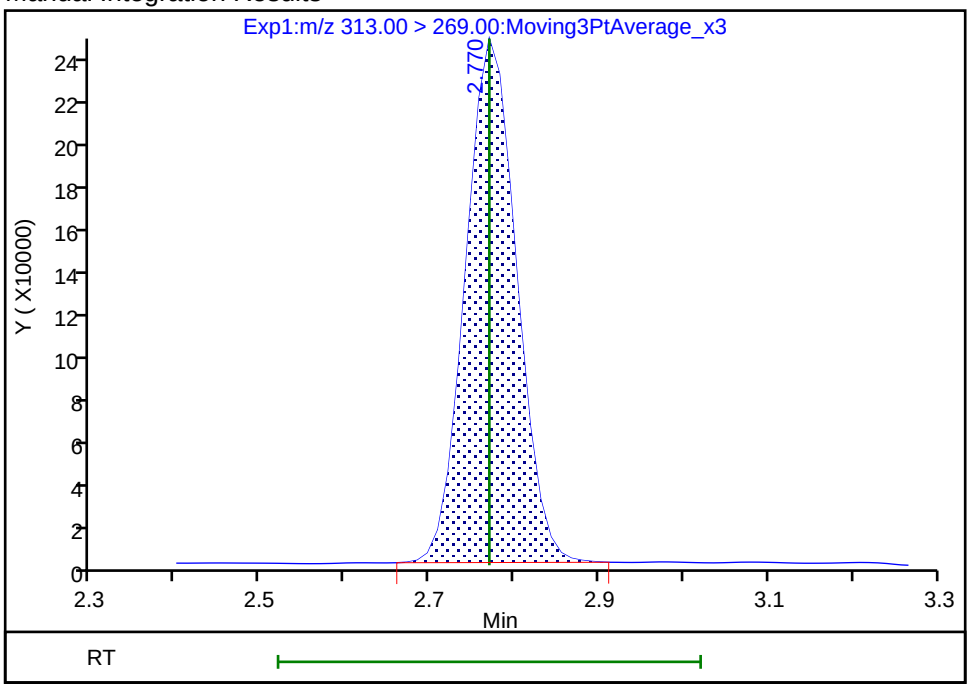
Processing Integration Results

RT: 2.77
Area: 1007539
Amount: 0.953237
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1003350
Amount: 0.949274
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:41:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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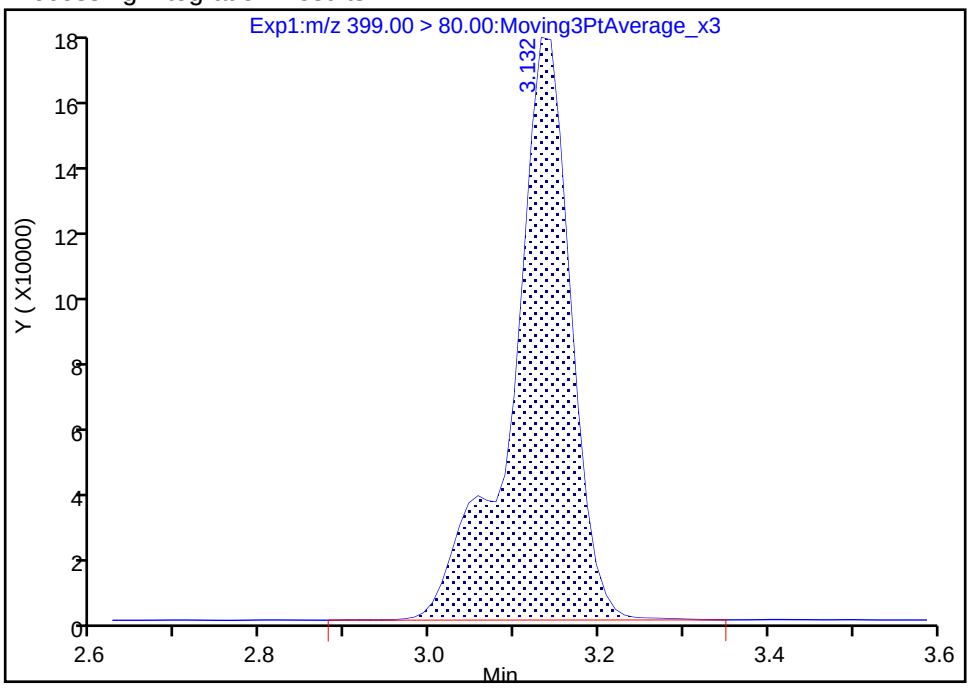
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

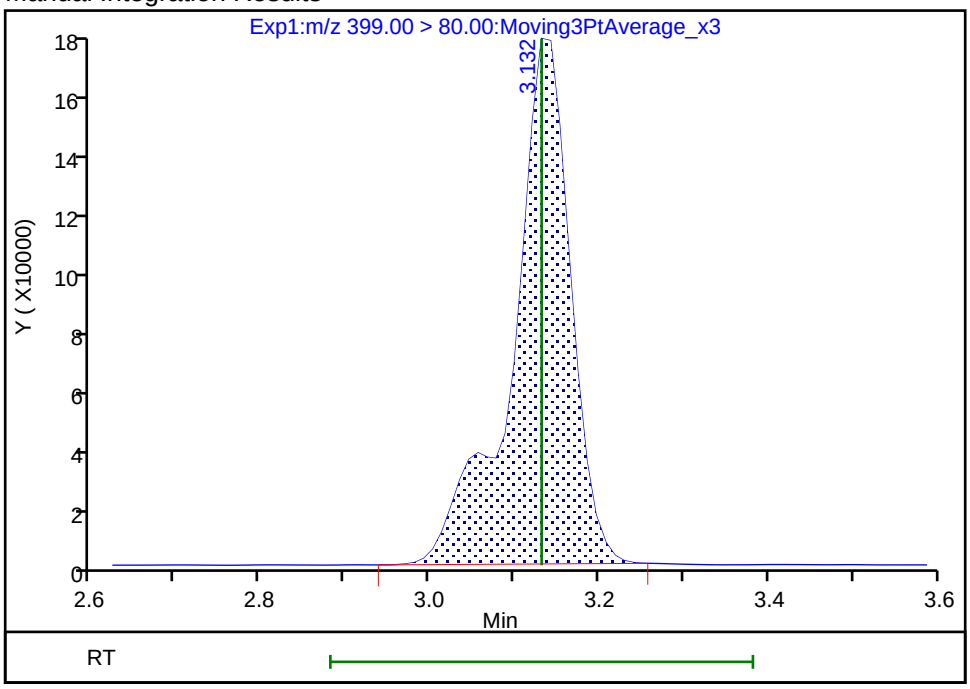
Processing Integration Results

RT: 3.13
Area: 854705
Amount: 0.864059
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 847991
Amount: 0.857271
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:41:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

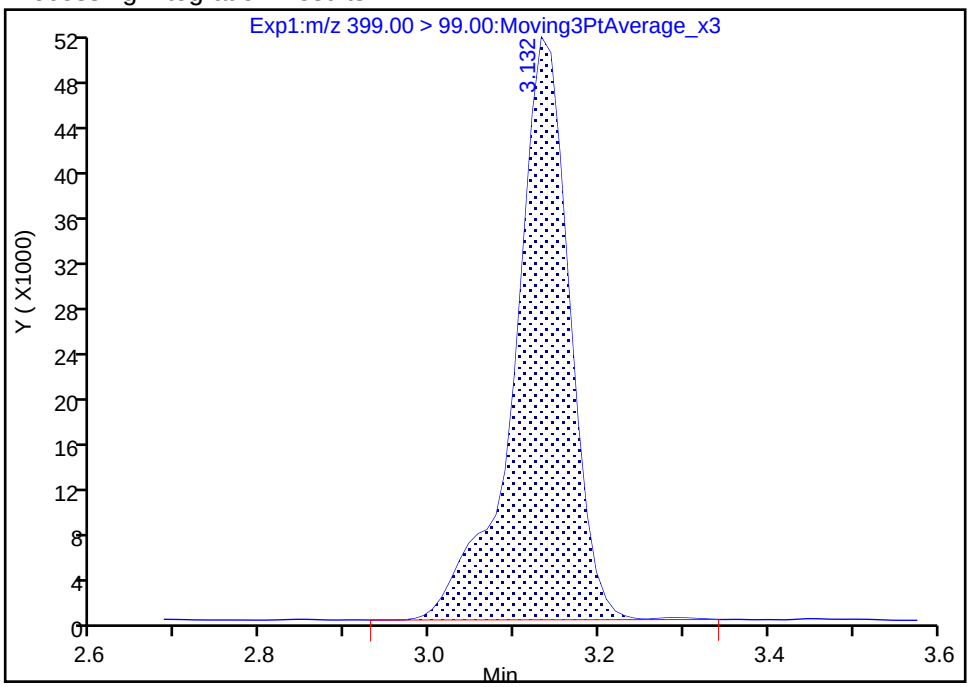
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

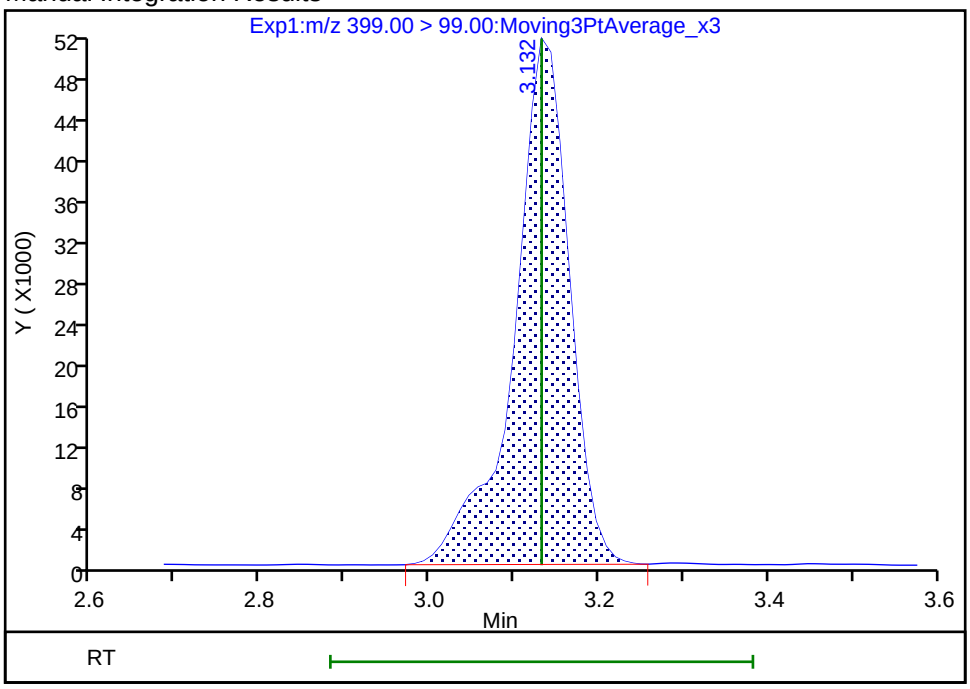
Processing Integration Results

RT: 3.13
Area: 234893
Amount: 0.864059
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 233970
Amount: 0.857271
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:42:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

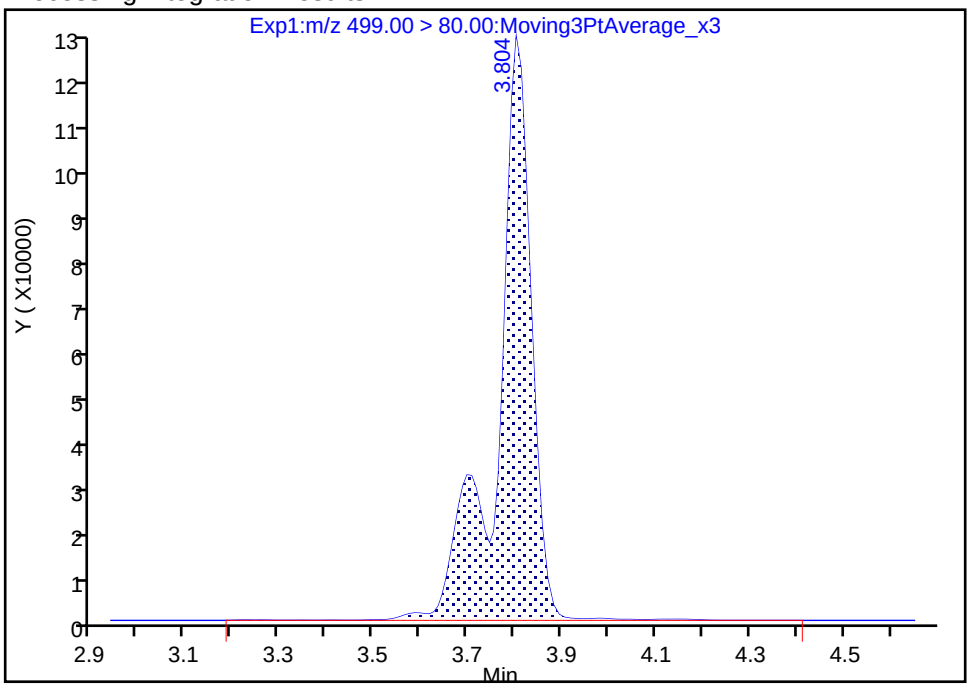
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

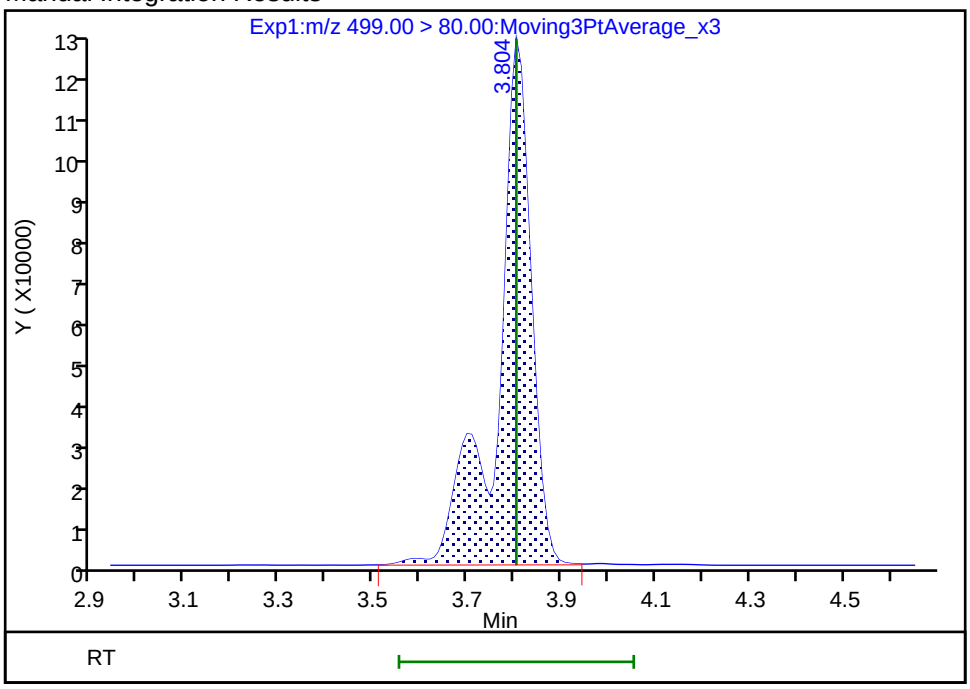
Processing Integration Results

RT: 3.80
Area: 645229
Amount: 0.924230
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 639613
Amount: 0.916186
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:21:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

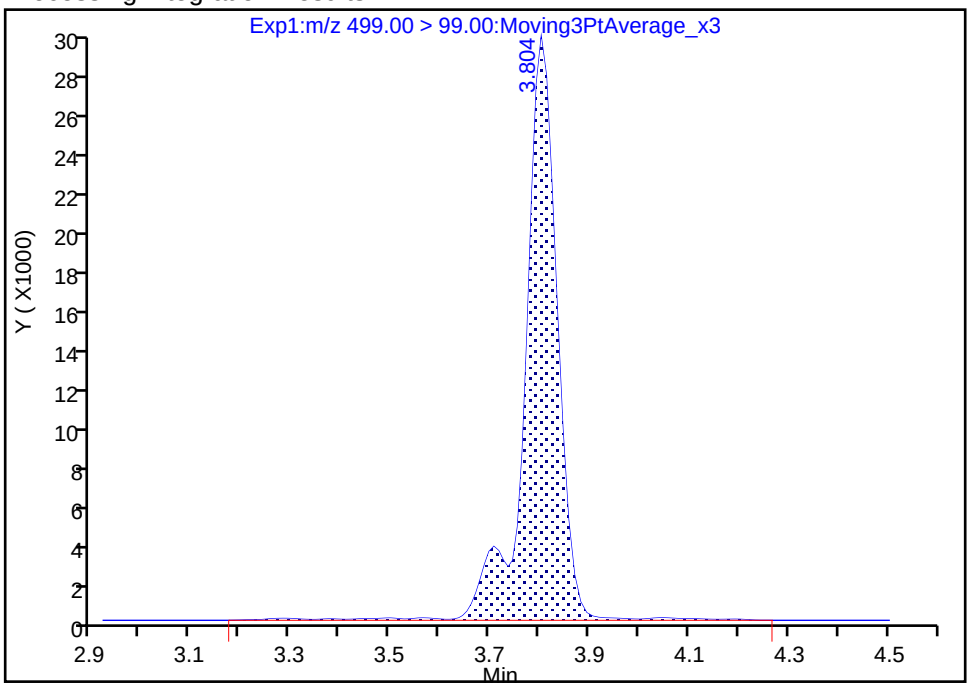
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

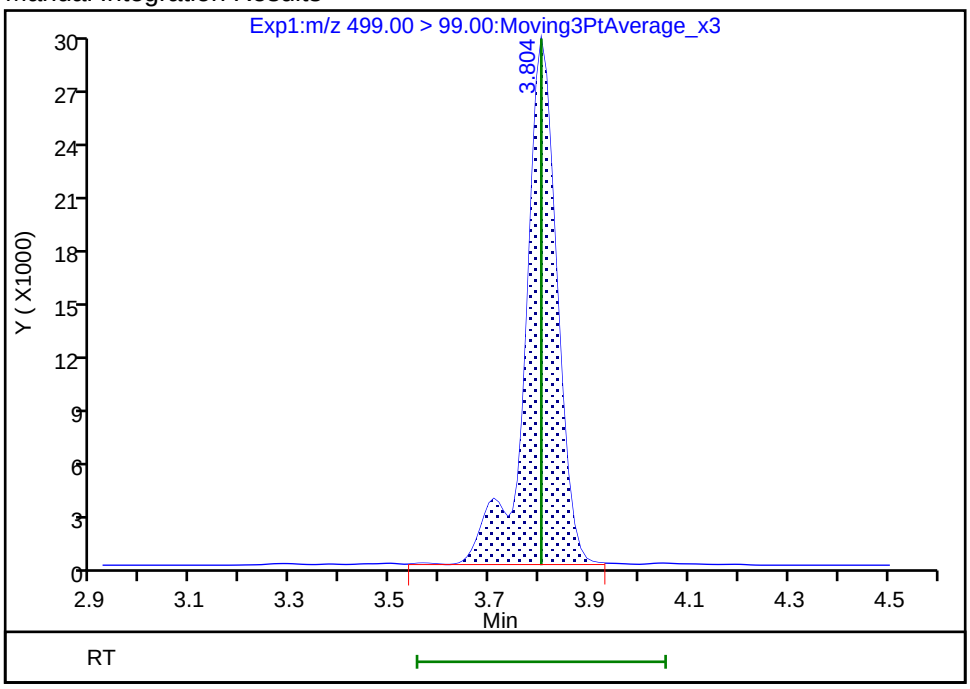
Processing Integration Results

RT: 3.80
Area: 134718
Amount: 0.924230
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 131385
Amount: 0.916186
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 13:21:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

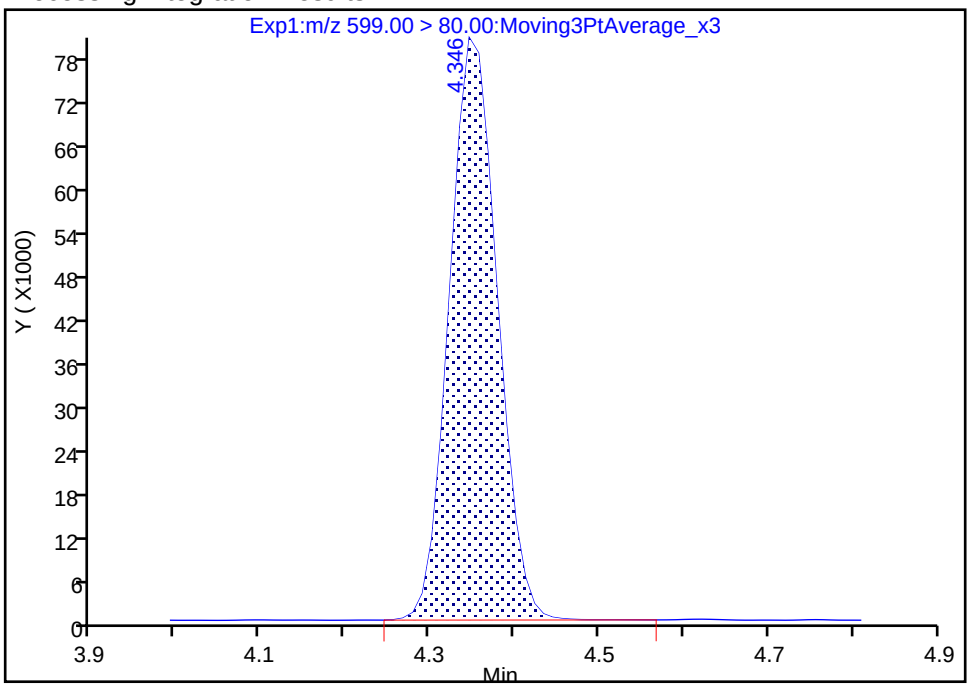
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

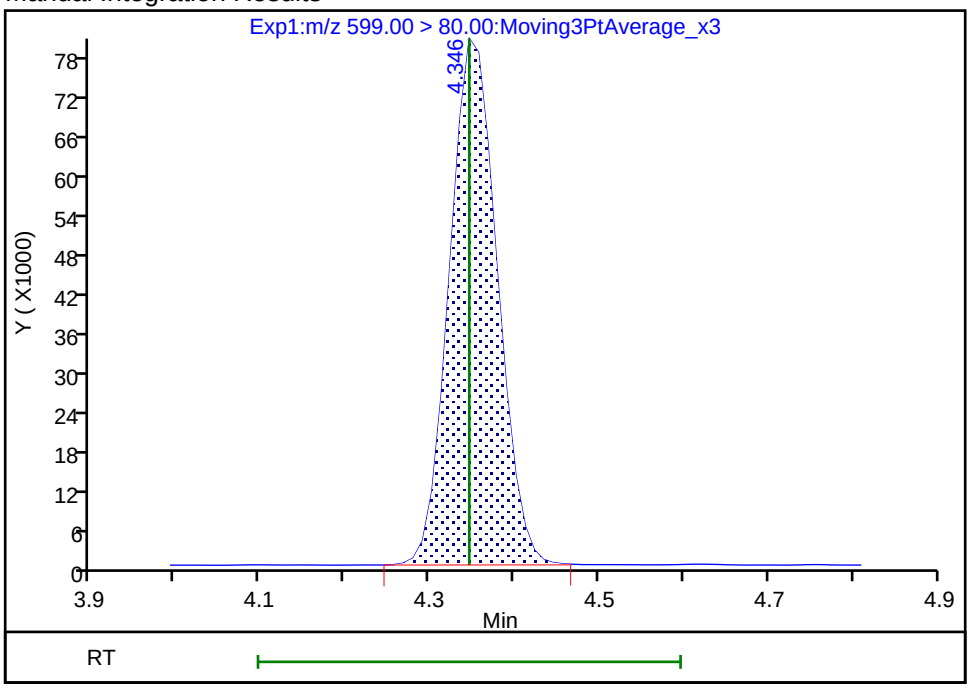
Processing Integration Results

RT: 4.35
Area: 317052
Amount: 0.749848
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 316853
Amount: 0.749377
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:42:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

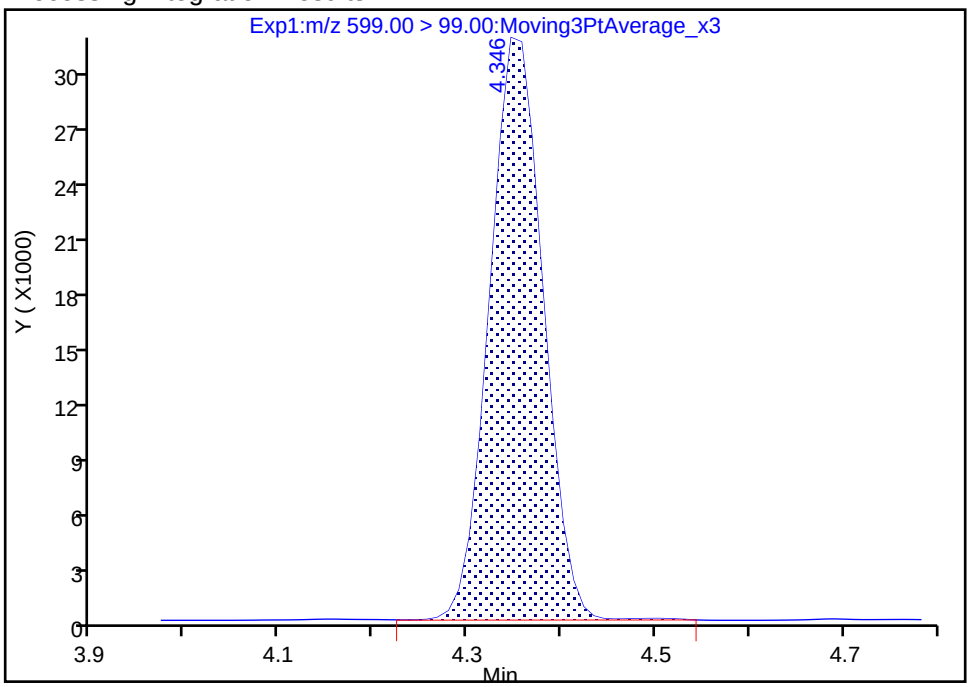
Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d
Injection Date: 10-Nov-2021 04:28:34 Instrument ID: LC812
Lims ID: LCS 200-173528/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

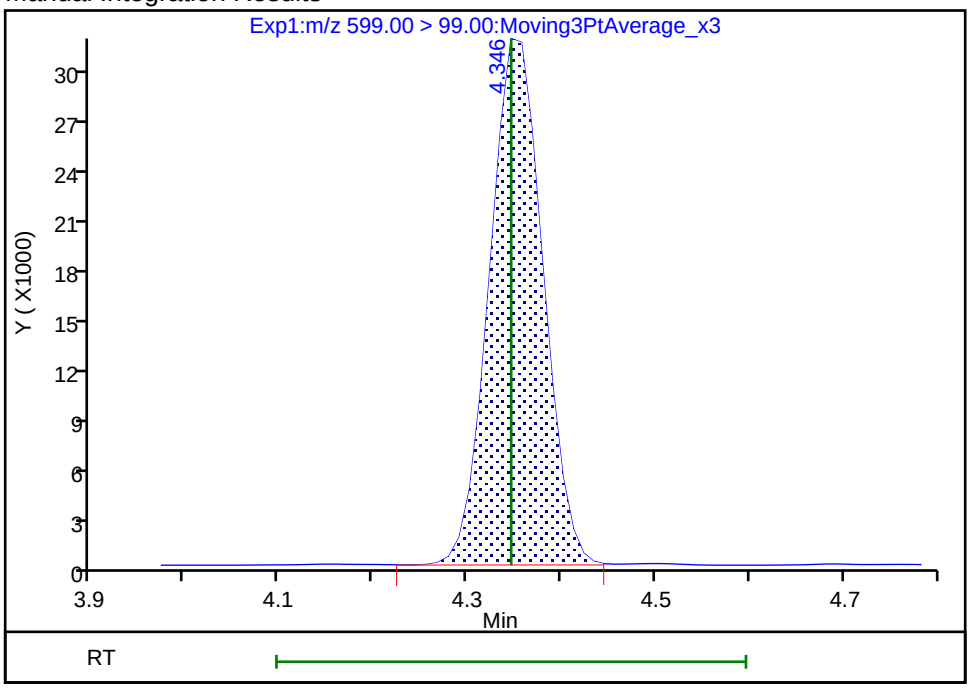
Processing Integration Results

RT: 4.35
Area: 124835
Amount: 0.749848
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 124508
Amount: 0.749377
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:42:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

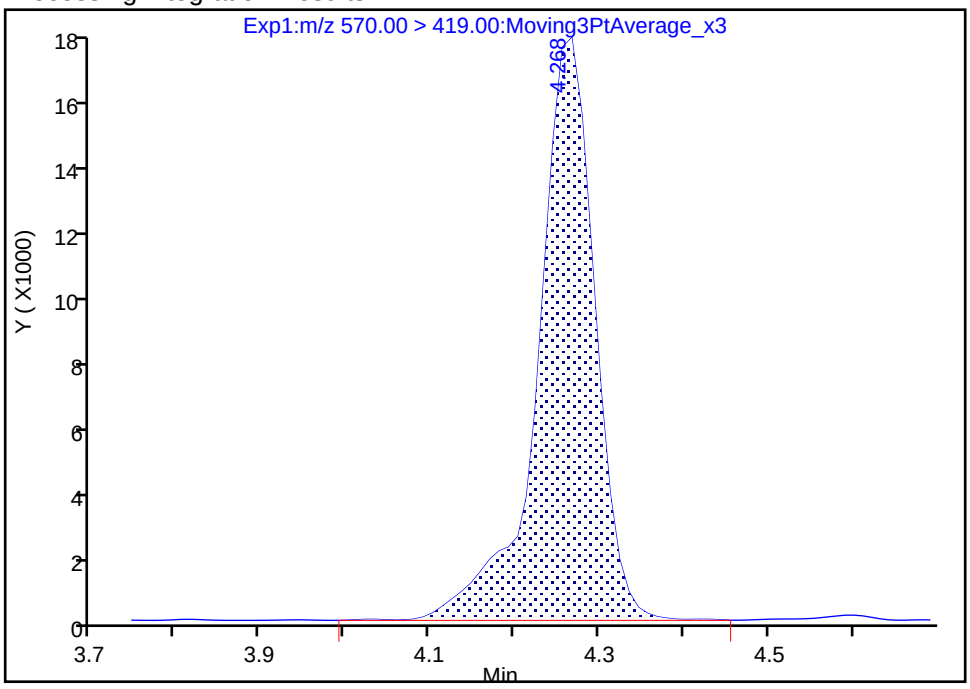
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

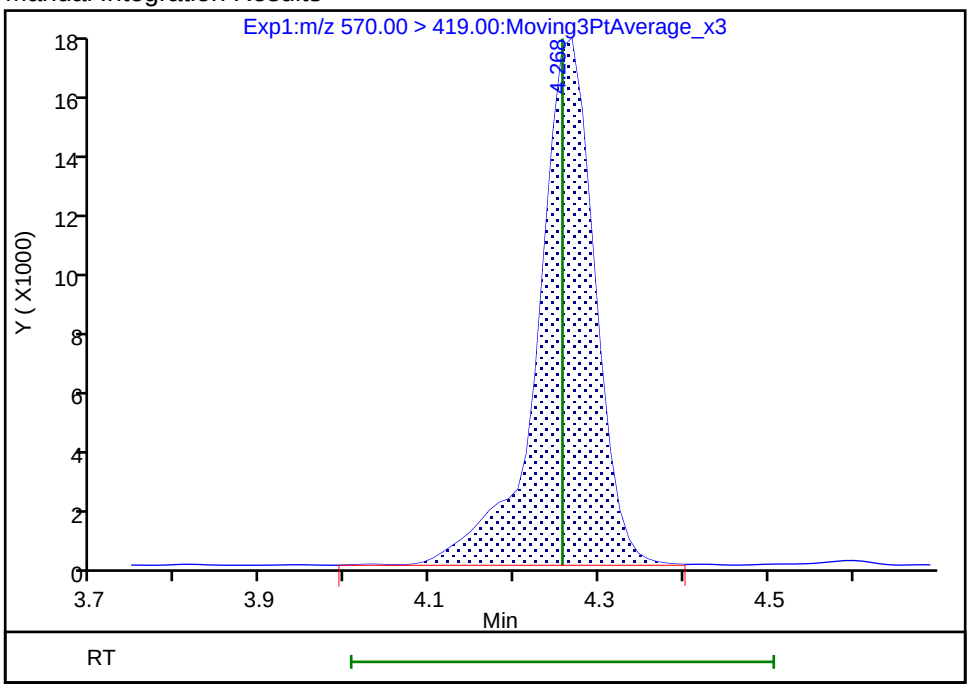
Processing Integration Results

RT: 4.27
Area: 83474
Amount: 1.007594
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 83409
Amount: 1.006810
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:42:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

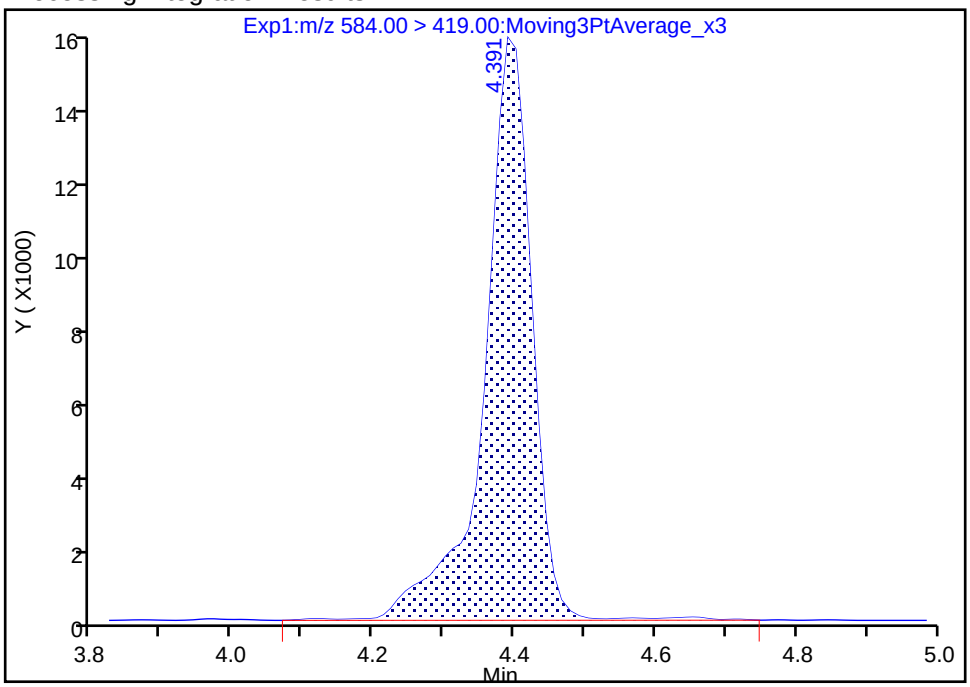
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

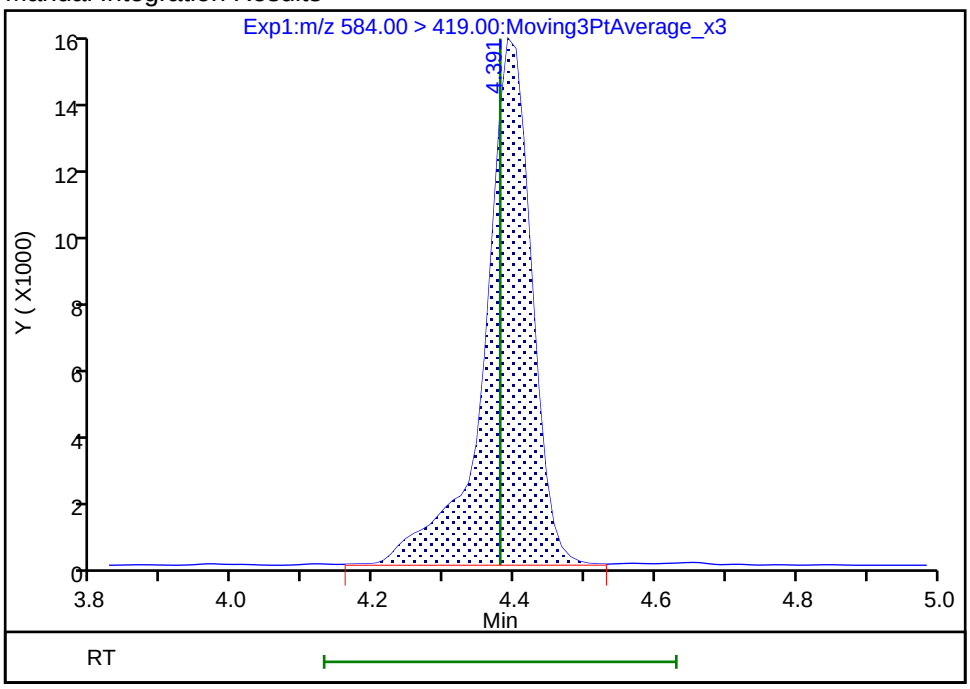
Processing Integration Results

RT: 4.39
Area: 74768
Amount: 0.936677
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 74098
Amount: 0.928283
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:42:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

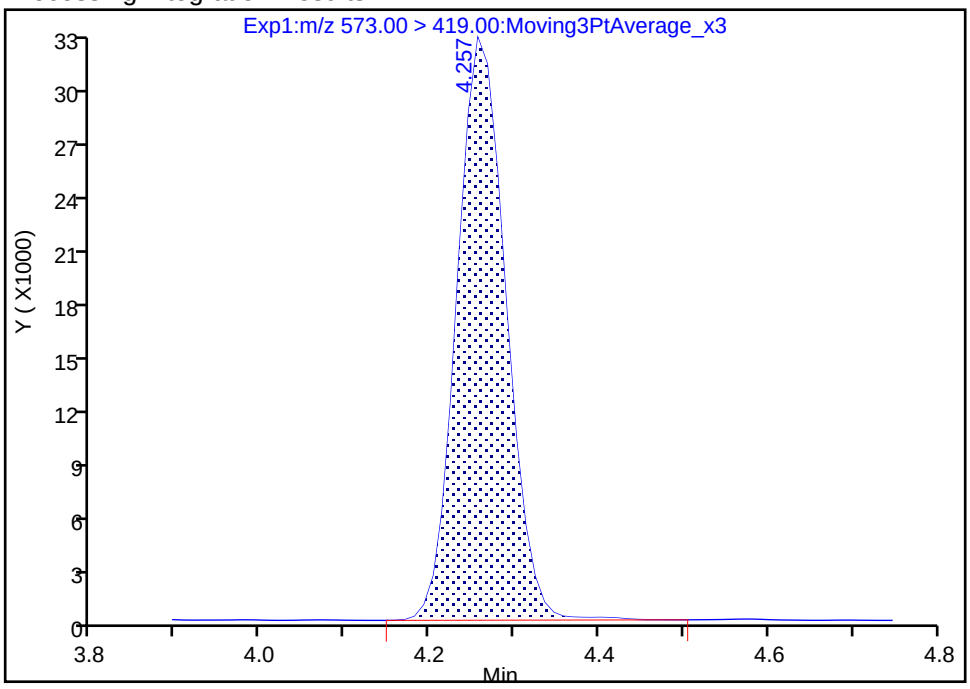
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D03.d | | | | |
| Injection Date: | 10-Nov-2021 04:28:34 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173528/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 3 | Worklist Smp#: | 3 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

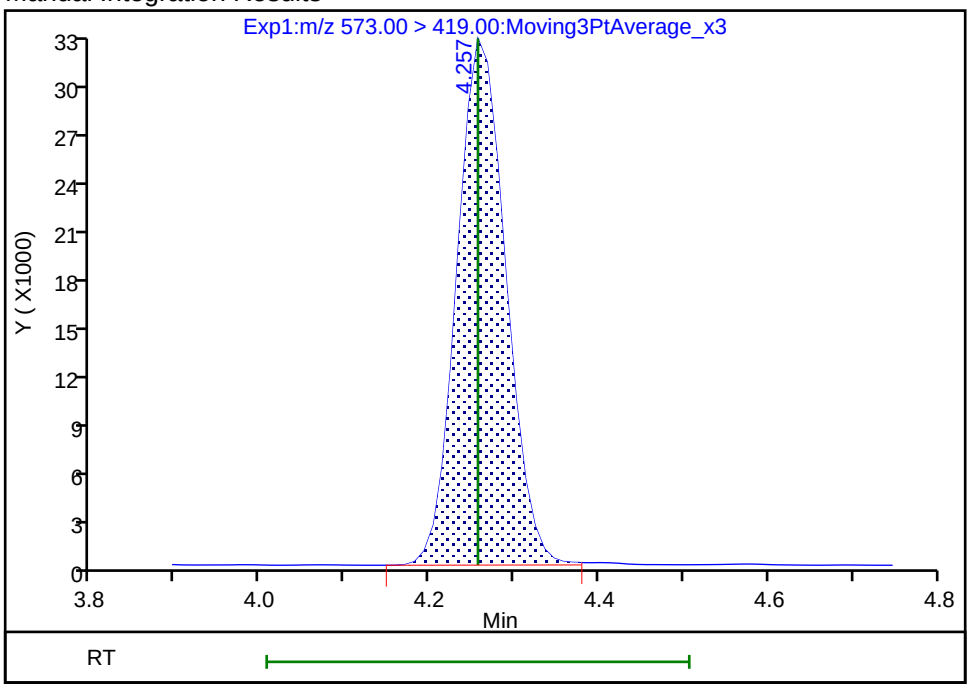
Processing Integration Results

RT: 4.26
Area: 132273
Amount: 1.180219
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 131819
Amount: 1.176168
Amount Units: ng/ml




Reviewer: khanphomeea, 10-Nov-2021 16:41:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173541/2-A

Matrix: Water  Lab File ID: PA211108A14.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/08/2021 17:21

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

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

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

Analysis Batch No.: 173621  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 36.72 | | 2.00 | 0.30 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 36.76 | | 2.00 | 0.29 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 104 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A14.d
Lims ID: LCS 200-173541/2-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Nov-2021 17:21:04 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 200-173541/2-A
Misc. Info.: 200-0048331-014 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 16:00:50 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:46:20
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.207 | 2.226 | -0.019 | 0.634 | 1803852 | 1.71 | | 137 | 2296 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.207 | 2.236 | -0.029 | 1.000 | 1338243 | 0.9807 | | 98.1 | 145 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.465 | 2.479 | -0.014 | 0.708 | 1221394 | 1.38 | | 110 | 1517 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.465 | 2.479 | -0.014 | 1.000 | 972183 | 0.99 | | 99.3 | 44.1 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.465 | 2.479 | -0.014 | 0.708 | 1447700 | 1.21 | | 104 | 171965 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.479 | 2.492 | -0.013 | 1.005 | 1192398 | 0.8965 | Target=2.32 | 101 | 795 | |
| 298.90 > 99.00 | 2.479 | 2.492 | -0.013 | 1.005 | 544744 | | 2.19(1.16-3.48) | | 303 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.746 | 2.758 | -0.012 | 0.788 | 134647 | 1.47 | | 126 | 85.5 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.746 | 2.758 | -0.012 | 1.000 | 229655 | 0.9355 | | 100 | 1287 | |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.782 | 2.795 | -0.013 | 0.799 | 1253429 | 1.35 | | 108 | 3979 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.782 | 2.795 | -0.013 | 1.000 | 1013513 | 1.00 | Target=12.09 | 99.7 | 222 | M |
| 313.00 > 119.00 | 2.782 | 2.795 | -0.013 | 1.000 | 86204 | | 11.76(6.04-18.13) | | 66.6 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.782 | 2.795 | -0.013 | 0.888 | 1064703 | 0.9744 | Target=3.03 | 104 | 1495 | |
| 349.00 > 99.00 | 2.782 | 2.795 | -0.013 | 0.888 | 344597 | | 3.09(1.52-4.55) | | 509 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.892 | -0.012 | 1.000 | 112898 | 1.22 | | 122 | 58.3 | M |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.892 | -0.012 | 0.827 | 25503 | 1.04 | | 83.2 | 208 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 915688 | 0.9179 | Target=3.55 | 101 | 1203 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 252323 | | 3.63(1.77-5.32) | | 292 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1072945 | 1.23 | | 104 | 5851 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.899 | 1273482 | 1.30 | | 104 | 3237 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1001861 | 0.9518 | Target=3.69 | 95.2 | 436 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 272786 | | 3.67(1.84-5.53) | | 582 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.164 | 3.175 | -0.011 | 0.836 | 2178336 | 0.9765 | Target=2.56 | 104 | 3459 | |
| 377.00 > 85.00 | 3.164 | 3.175 | -0.011 | 0.836 | 820759 | | 2.65(1.28-3.84) | | 1326 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.474 | 3.465 | 0.009 | 0.918 | 778979 | 0.9804 | Target=4.88 | 103 | 2901 | |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.915 | 155502 | | 5.01(2.44-7.32) | | 610 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.474 | 0.0 | 1.000 | 184070 | 0.9543 | | 101 | 2356 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.474 | 0.0 | 0.997 | 180623 | 1.31 | | 111 | 450 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.483 | 3.474 | 0.009 | 1.000 | 1284332 | 1.20 | | 96.0 | 4201 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.483 | 3.483 | 0.0 | | 1300520 | 1.25 | | | 3591 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.483 | 3.483 | 0.0 | 1.000 | 1037049 | 0.9491 | Target=2.68 | 94.9 | 228 | M |
| 413.00 > 169.00 | 3.483 | 3.483 | 0.0 | 1.000 | 405319 | | 2.56(1.34-4.02) | | 786 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.087 | 761639 | 1.21 | | 101 | 3233 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.000 | 635575 | 0.9190 | Target=4.69 | 99.0 | 1198 | M |
| 499.00 > 99.00 | 3.785 | 3.785 | 0.0 | 1.000 | 131625 | | 4.83(2.35-7.04) | | 496 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.804 | 3.804 | 0.0 | 1.092 | 1219422 | 1.14 | | 91.5 | 6574 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1012973 | 1.06 | Target=7.29 | 106 | 199 | |
| 463.00 > 169.00 | 3.804 | 3.804 | 0.0 | 1.000 | 126573 | | 8.00(3.64-10.93) | | 1175 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.943 | 3.943 | 0.0 | 1.042 | 936254 | 0.8986 | | 96.4 | 3576 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.070 | 4.070 | 0.0 | 1.076 | 493218 | 0.9156 | Target=2.35 | 95.4 | 3368 | |
| 549.00 > 99.00 | 4.070 | 4.070 | 0.0 | 1.076 | 191811 | | 2.57(1.17-3.52) | | 853 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.103 | 4.092 | 0.011 | 1.178 | 1140428 | 1.06 | | 84.8 | 3058 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.103 | 4.092 | 0.011 | 1.000 | 951708 | 1.04 | Target=8.95 | 104 | 770 | |
| 513.00 > 169.00 | 4.092 | 4.092 | 0.0 | 0.997 | 102915 | | 9.25(4.47-13.42) | | 789 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.103 | 4.104 | -0.001 | 1.178 | 196570 | 1.26 | | 105 | 963 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.103 | 4.104 | -0.001 | 1.000 | 127615 | 0.9293 | | 97.0 | 1424 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.214 | 4.215 | -0.001 | 1.210 | 1150598 | 1.11 | | 88.7 | 2552 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.215 | 0.009 | 1.002 | 861203 | 0.9852 | | 98.5 | 1729 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.234 | 4.235 | -0.001 | 1.216 | 103970 | 0.9822 | | 78.6 | 427 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.234 | 4.235 | -0.001 | 1.000 | 72597 | 1.11 | | 111 | 360 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.325 | 4.324 | 0.001 | 1.143 | 365321 | 0.8722 | Target=2.47 | 90.5 | 1603 | |
| 599.00 > 99.00 | 4.325 | 4.324 | 0.001 | 1.143 | 139987 | | 2.61(1.23-3.70) | | 1471 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.359 | 4.347 | 0.011 | 1.251 | 882966 | 1.05 | | 84.2 | 4790 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.359 | 4.347 | 0.011 | 1.000 | 757415 | 1.01 | Target=9.24 | 101 | 626 | |
| 563.00 > 169.00 | 4.359 | 4.347 | 0.011 | 1.000 | 87503 | | 8.66(4.62-13.86) | | 1053 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.370 | 4.358 | 0.012 | 1.255 | 93093 | 0.9389 | | 75.1 | 1132 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.370 | 4.369 | 0.001 | 1.000 | 64385 | 1.01 | | 101 | 624 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | M |
| 631.00 > 451.00 | 4.446 | 4.445 | 0.001 | 1.175 | 988948 | 0.8037 | | 85.3 | 1669 | M |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.581 | 4.568 | 0.013 | 1.315 | 780419 | 0.8650 | | 69.2 | 685 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.581 | 4.568 | 0.013 | 1.000 | 653826 | 1.07 | Target=7.04 | 107 | 169 | |
| 613.00 > 169.00 | 4.581 | 4.568 | 0.013 | 1.000 | 97789 | | 6.69(3.52-10.56) | | 1123 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.591 | 4.590 | 0.001 | 1.119 | 47841 | 0.7541 | | 78.2 | 824 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.739 | 4.738 | 0.001 | 1.252 | 134867 | 0.8755 | Target=0.49 | 90.4 | 1864 | |
| 699.00 > 99.00 | 4.739 | 4.738 | 0.001 | 1.252 | 234947 | | 0.57(0.25-0.74) | | 1692 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.775 | 4.765 | 0.010 | 1.042 | 577206 | 1.10 | Target=4.68 | 110 | 246 | |
| 663.00 > 169.00 | 4.775 | 4.765 | 0.010 | 1.042 | 123860 | | 4.66(2.34-7.02) | | 1046 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.947 | 4.946 | 0.001 | 1.420 | 633440 | 0.9053 | | 72.4 | 1643 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.947 | 4.946 | 0.001 | 1.000 | 86165 | 1.08 | Target=1.01 | 108 | 2136 | |
| 713.00 > 219.00 | 4.947 | 4.946 | 0.001 | 1.000 | 90015 | | 0.96(0.51-1.52) | | 1939 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.246 | 5.245 | 0.001 | 1.506 | 567801 | 0.9215 | | 73.7 | 2864 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.258 | 5.245 | 0.013 | 1.002 | 439651 | 1.12 | Target=4.57 | 112 | 205 | |
| 813.00 > 169.00 | 5.258 | 5.245 | 0.013 | 1.002 | 94388 | | 4.66(2.29-6.86) | | 1654 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.500 | 5.501 | -0.001 | 1.049 | 345980 | 0.9032 | Target=4.27 | 90.3 | 292 | M |
| 913.00 > 169.00 | 5.500 | 5.501 | -0.001 | 1.049 | 81903 | | 4.22(2.14-6.41) | | 1022 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 16:03:02 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A14.d

Injection Date: 08-Nov-2021 17:21:04 Instrument ID: LC812

Lims ID: LCS 200-173541/2-A

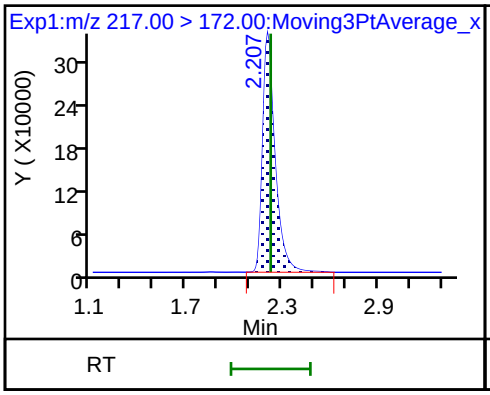
Client ID:

Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 14

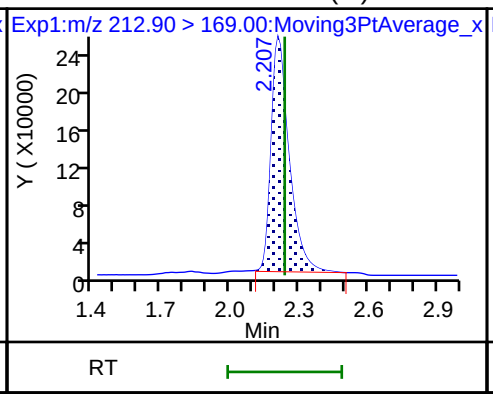
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

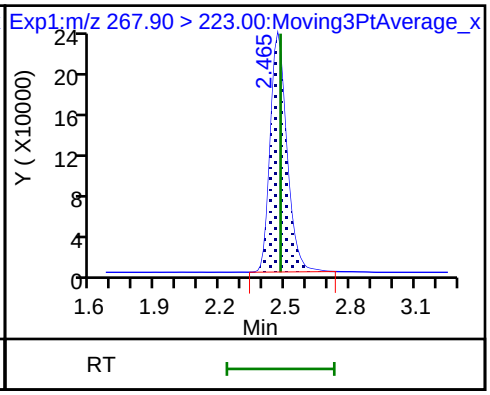
D 1 13C4 PFBA



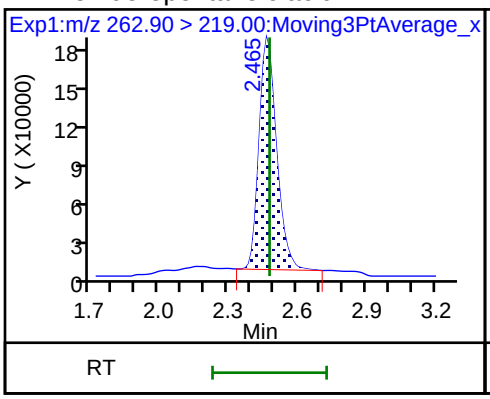

2 Perfluorobutanoic acid (M)



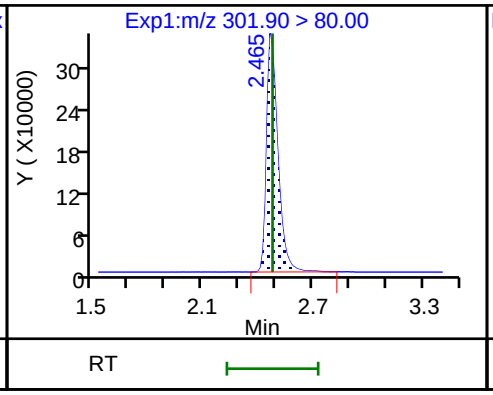

D 3 13C5 PFPeA



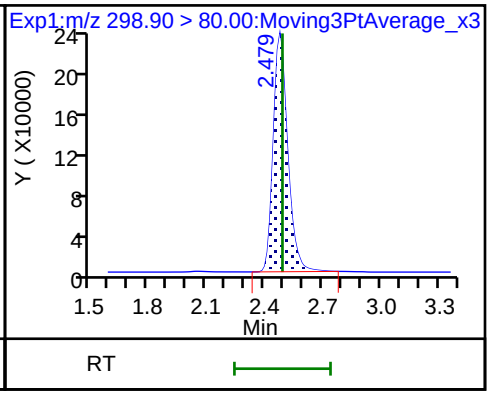

4 Perfluoropentanoic acid



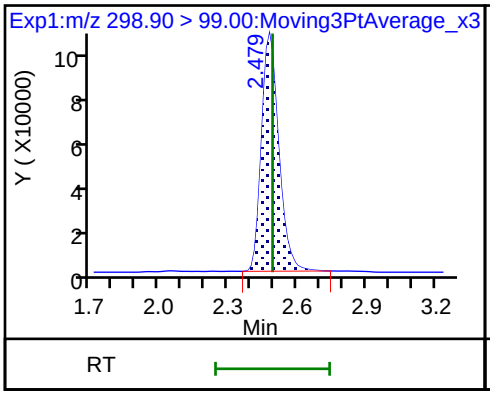

D 47 13C3 PFBS



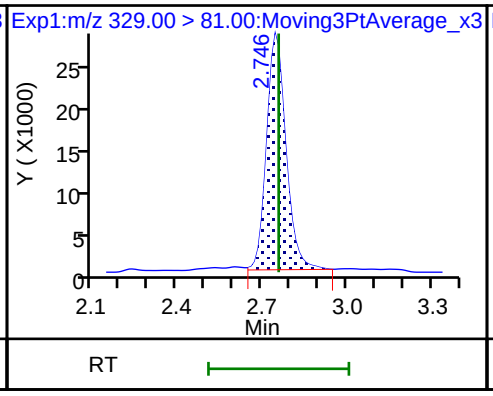

5 Perfluorobutanesulfonic acid



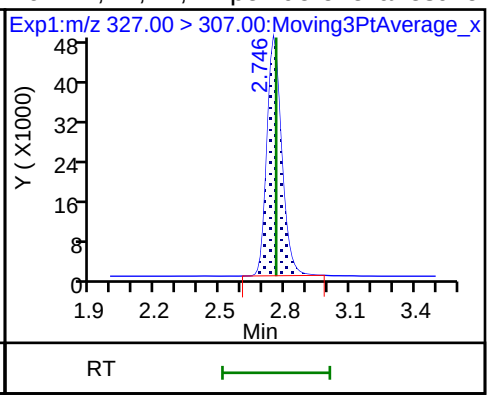

5 Perfluorobutanesulfonic acid



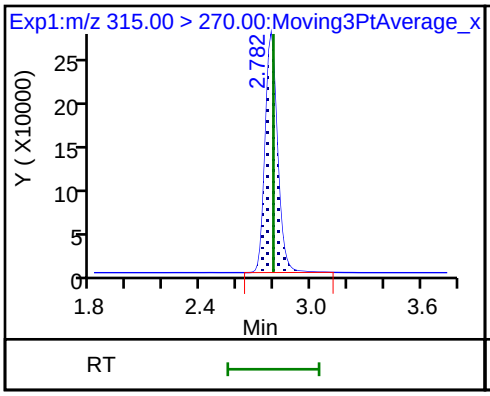

D 60 M2-4:2 FTS



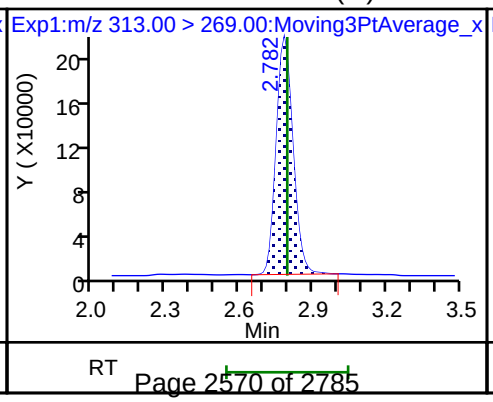

61 1H,1H,2H,2H-perfluorohexanesulfo



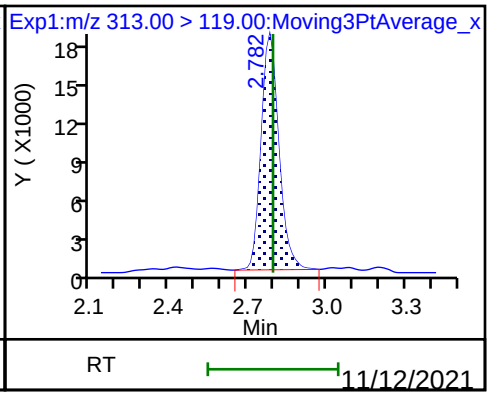

D 7 13C2 PFHxA



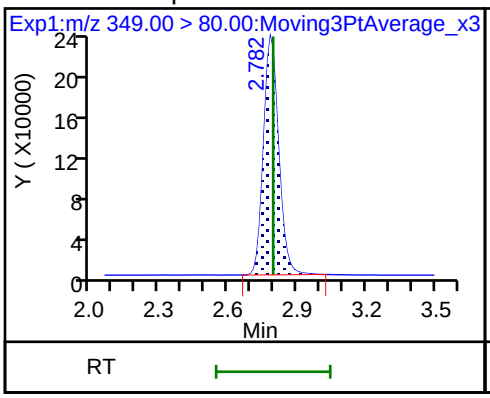

6 Perfluorohexanoic acid (M)



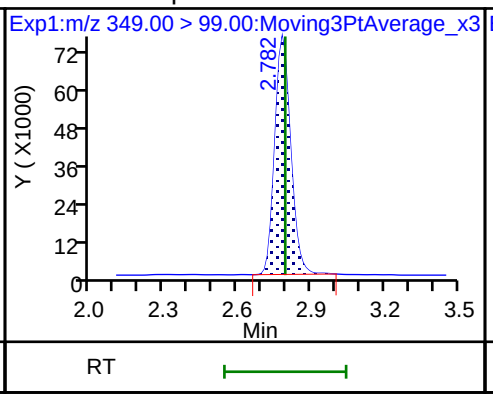

6 Perfluorohexanoic acid



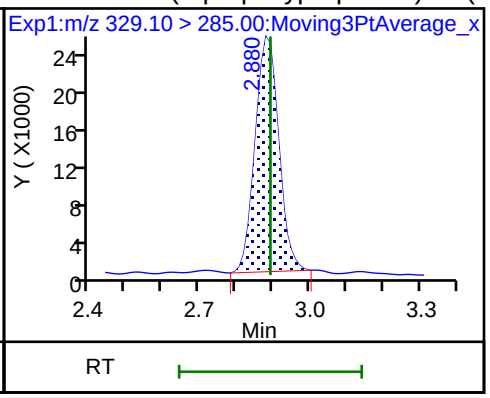
70 Perfluoropentanesulfonic acid



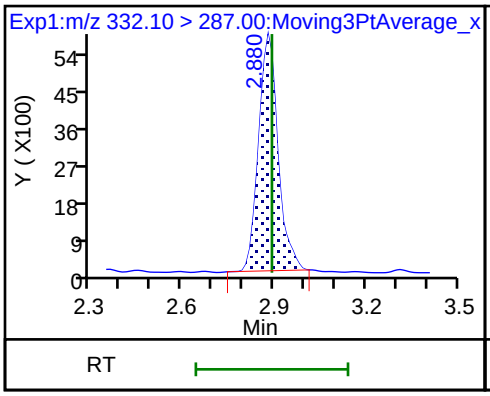

70 Perfluoropentanesulfonic acid



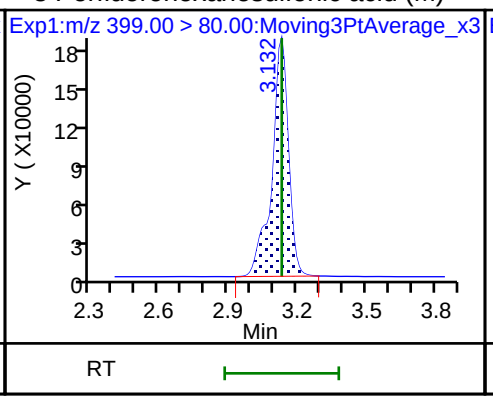

67 Perfluoro(2-propoxypropanoic) ac (M)



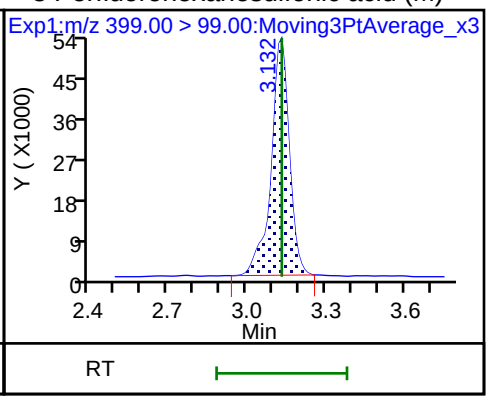

D 64 13C3 HFPO-DA



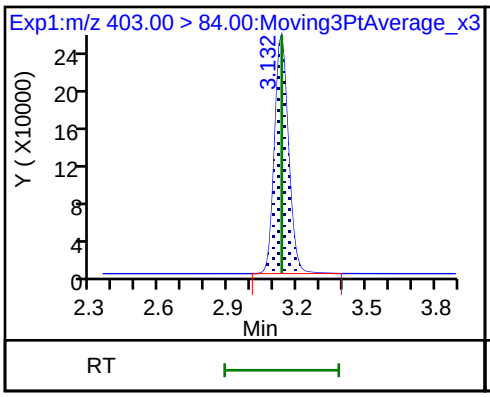

8 Perfluorohexanesulfonic acid (M)



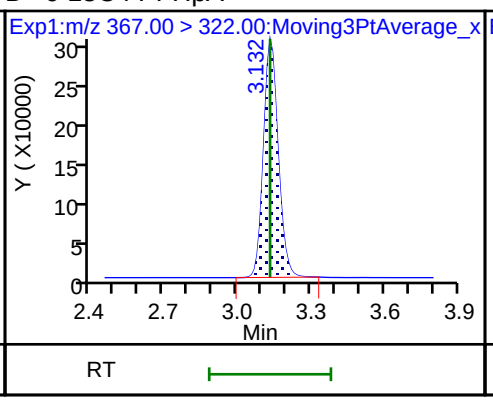

8 Perfluorohexanesulfonic acid (M)



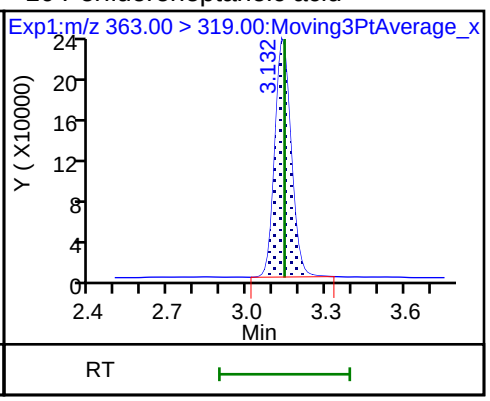

D 11 18O2 PFHxS



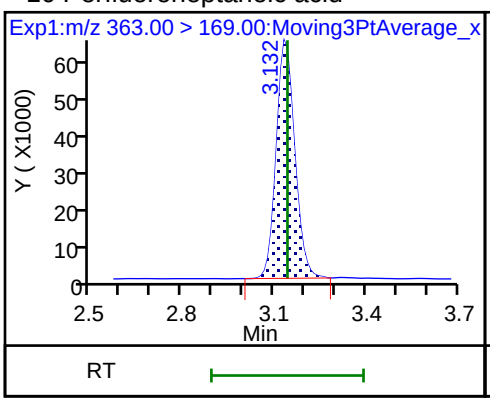

D 9 13C4 PFHpA



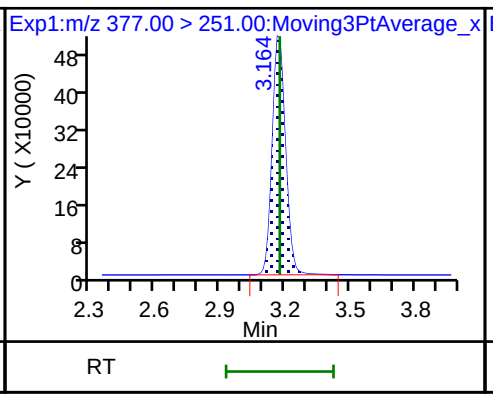

10 Perfluoroheptanoic acid



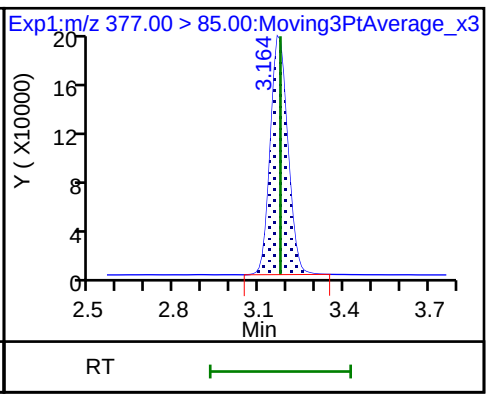

10 Perfluoroheptanoic acid



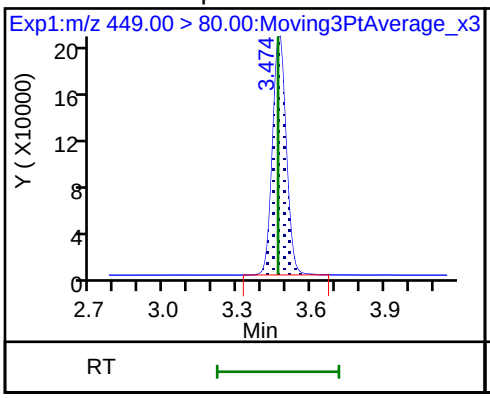

77 DONA



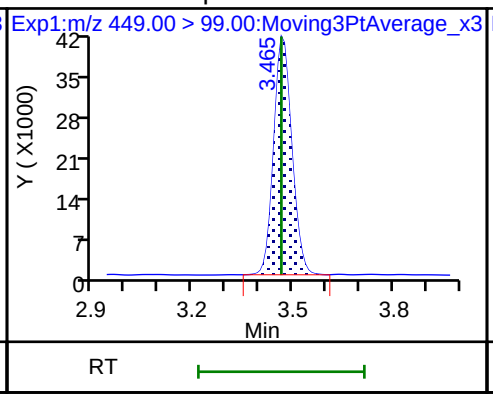

77 DONA



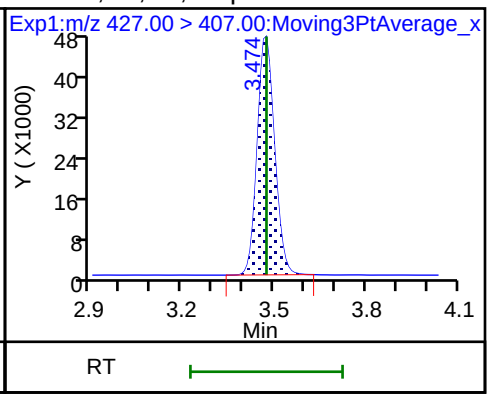
16 Perfluoroheptanesulfonic acid



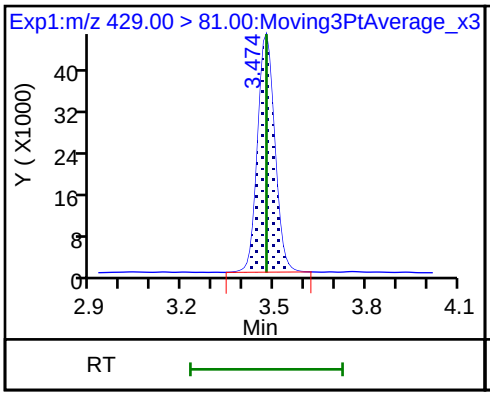

16 Perfluoroheptanesulfonic acid



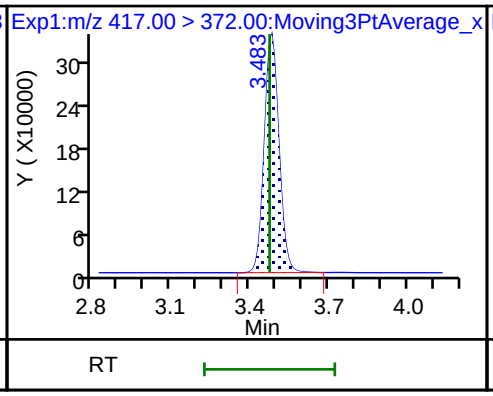

13 1H,1H,2H,2H-perfluorooctanesulfo



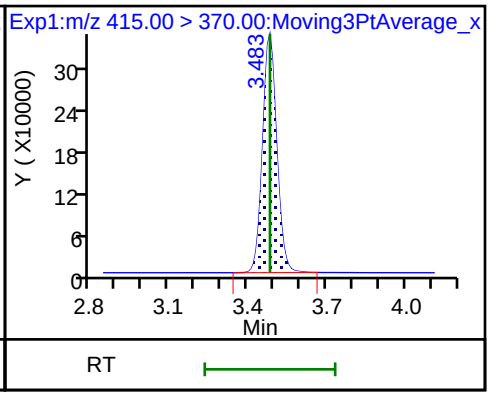

D 12 M2-6:2 FTS



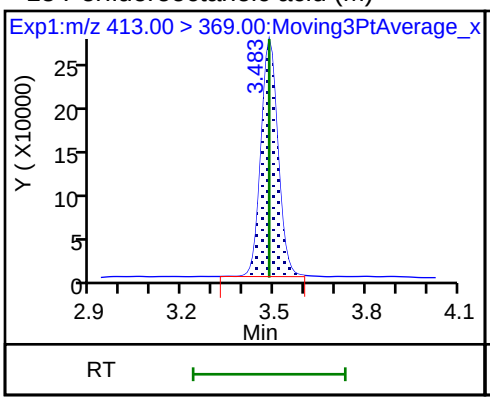

D 14 13C4 PFOA



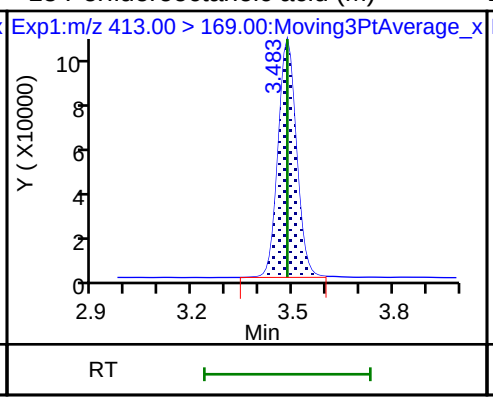

* 62 13C2 PFOA



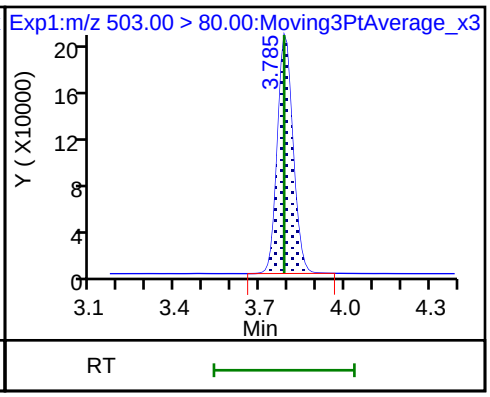

15 Perfluorooctanoic acid (M)



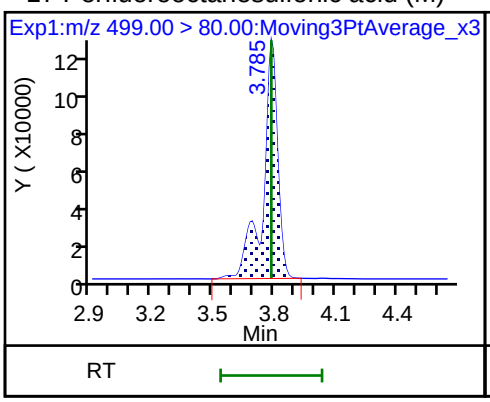

15 Perfluorooctanoic acid (M)



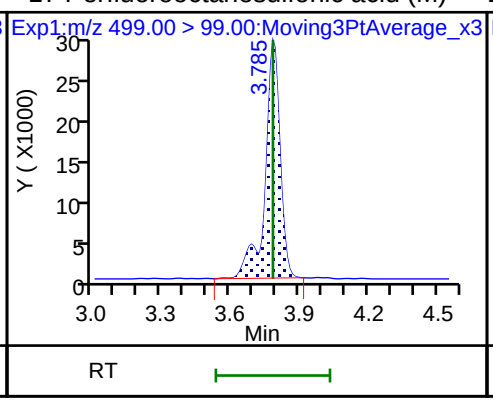

D 18 13C4 PFOS



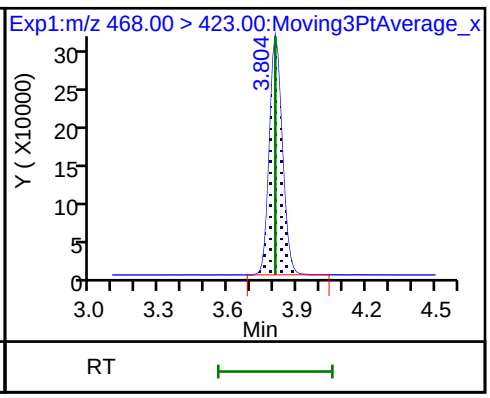

17 Perfluorooctanesulfonic acid (M)



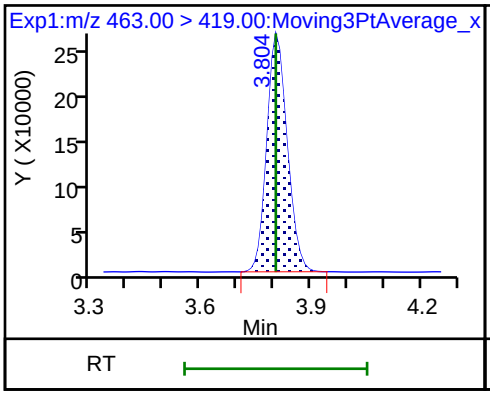

17 Perfluorooctanesulfonic acid (M)



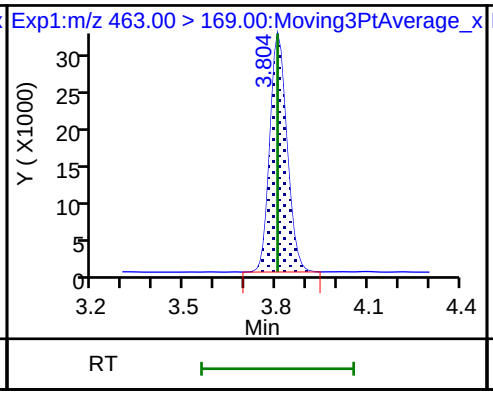

D 19 13C5 PFNA



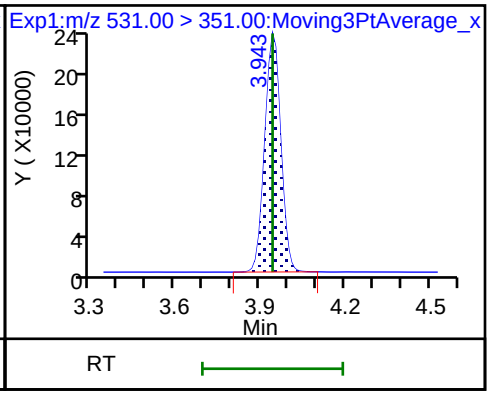
20 Perfluorononanoic acid



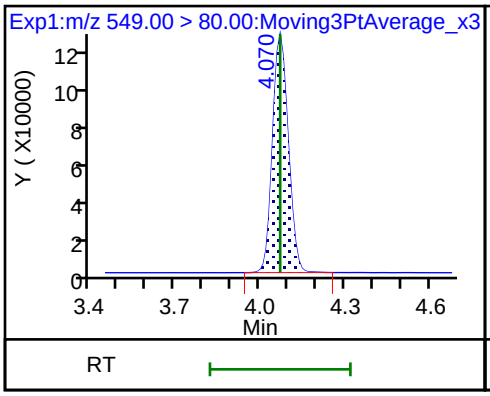

20 Perfluorononanoic acid



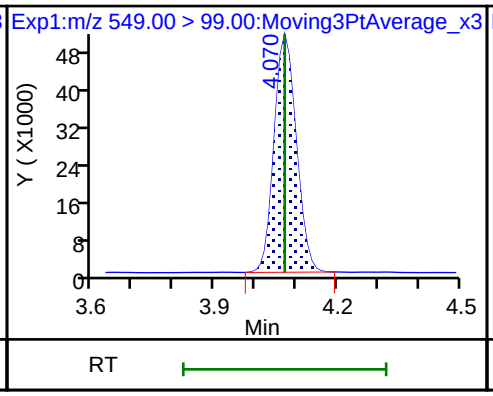

69 9-Chlorohexadecafluoro-3-oxanona



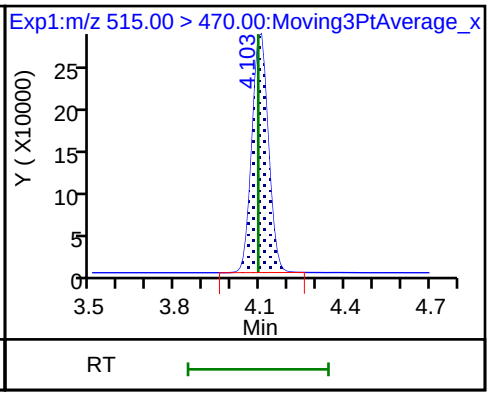

68 Perfluorononanesulfonic acid



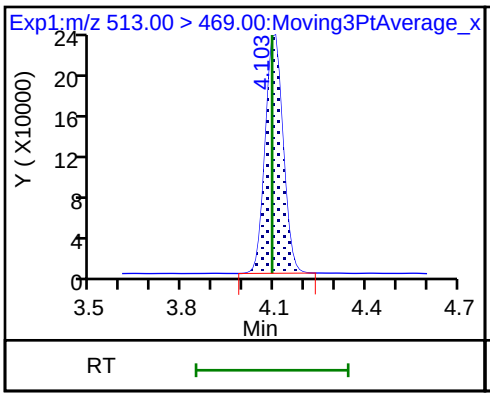

68 Perfluorononanesulfonic acid



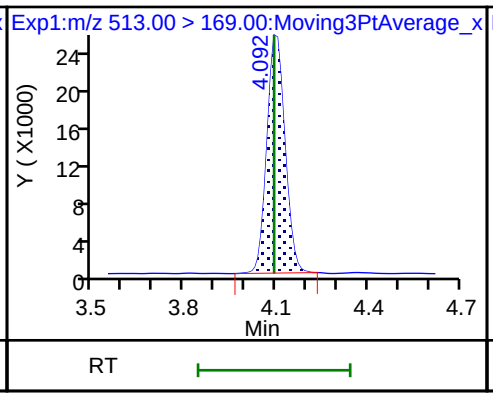

D 23 13C2 PFDA



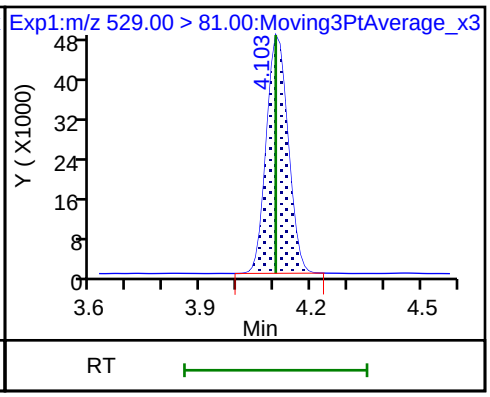

24 Perfluorodecanoic acid



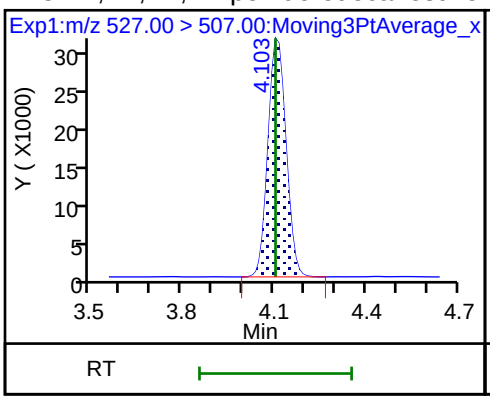

24 Perfluorodecanoic acid



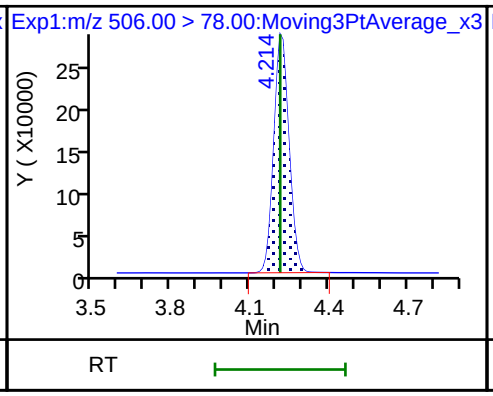

D 26 M2-8:2 FTS



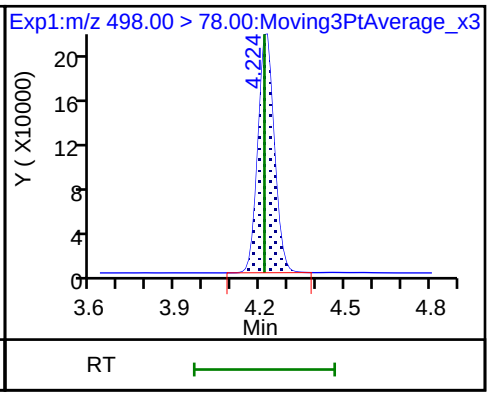

25 1H,1H,2H,2H-perfluorodecanesulfo



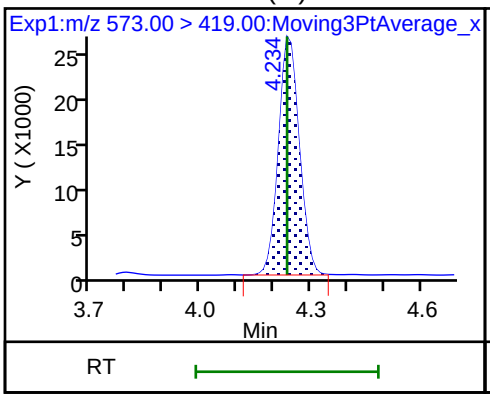

D 21 13C8 FOSA



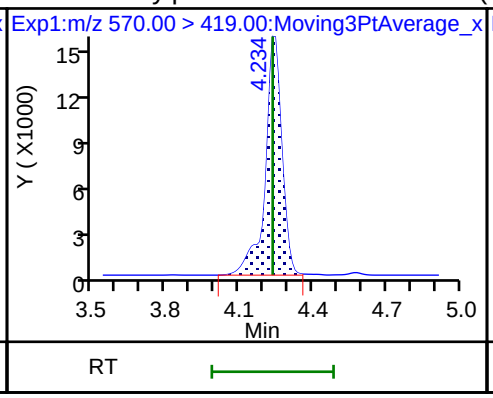

22 Perfluorooctanesulfonamide



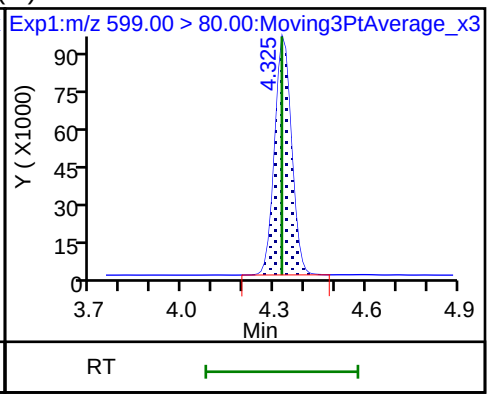
D 27 d3-NMeFOSAA (M)



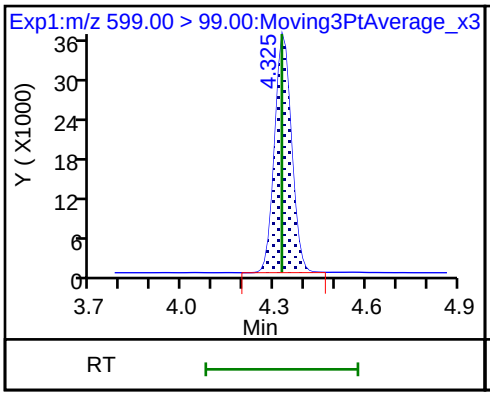

28 N-methylperfluorooctanesulfonami (M)



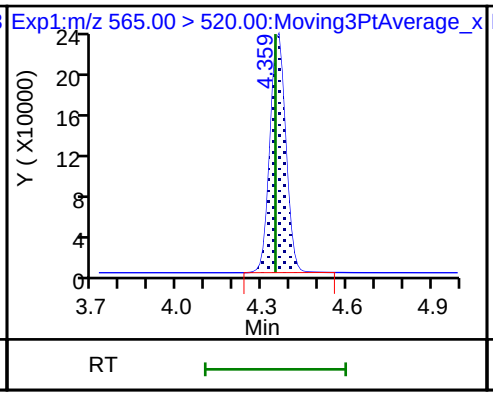

29 Perfluorodecanesulfonic acid



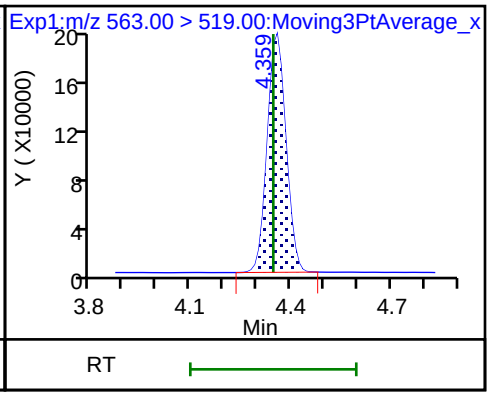

29 Perfluorodecanesulfonic acid



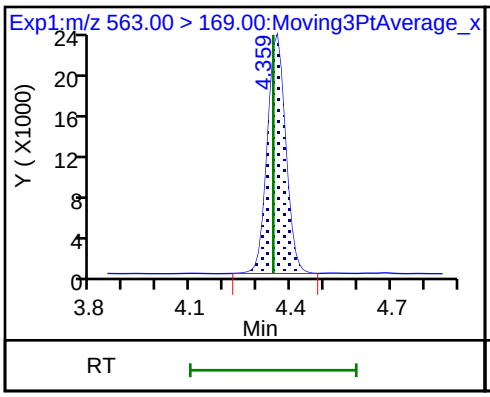

D 30 13C2 PFUnA



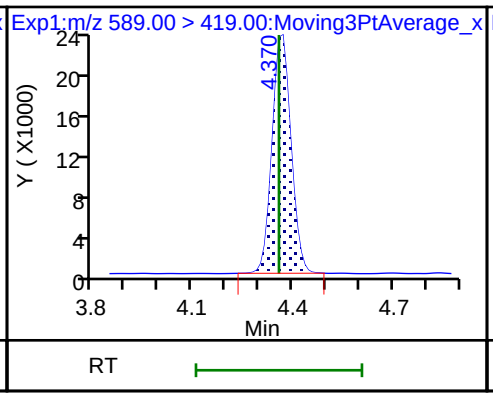

31 Perfluoroundecanoic acid



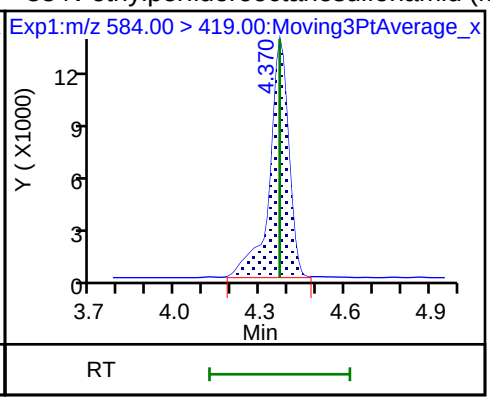

31 Perfluoroundecanoic acid



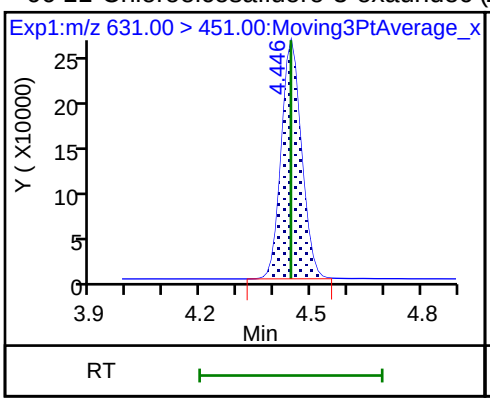

D 32 d5-NEtFOSAA



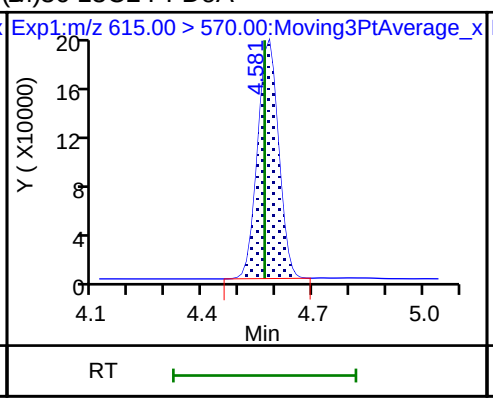

33 N-ethylperfluorooctanesulfonamid (M)



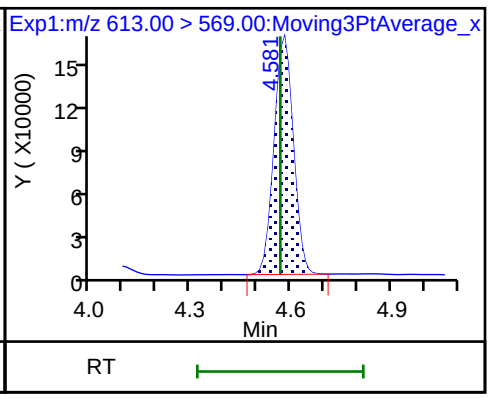

66 11-Chloroeicosafluoro-3-oxaundec (M)



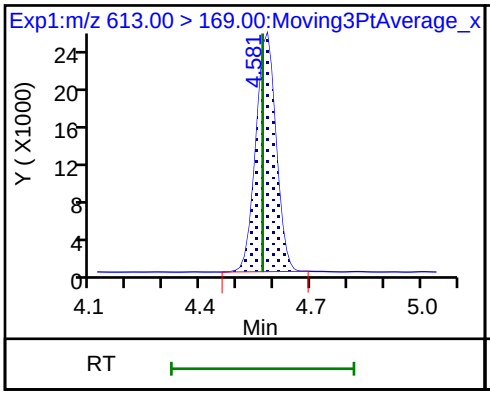

D 36 13C2 PFDoA



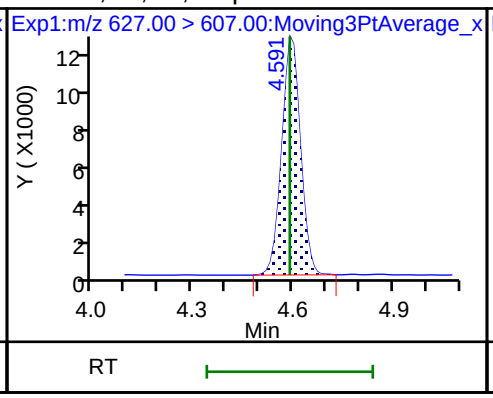

37 Perfluorododecanoic acid



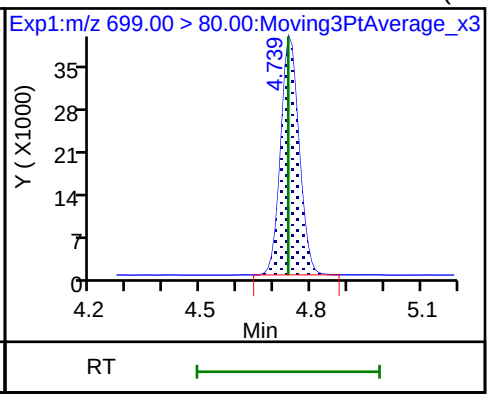
37 Perfluorododecanoic acid



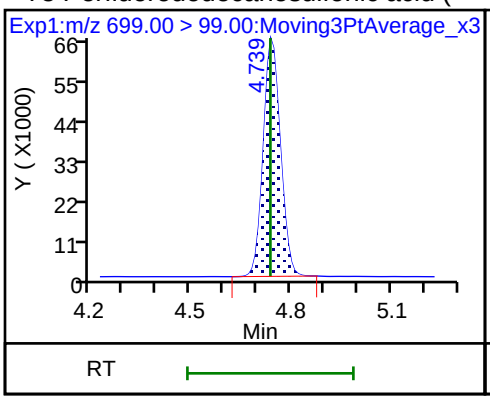

74 1H,1H,2H,2H-perfluorododecanesul



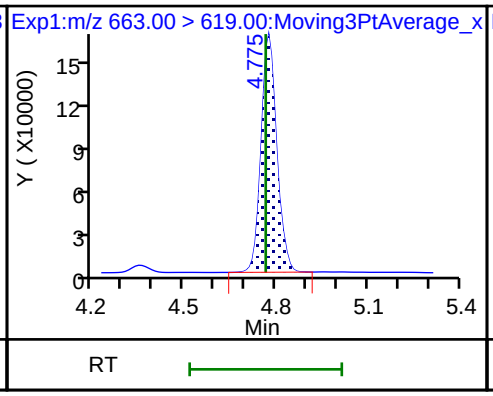

75 Perfluorododecanesulfonic acid (



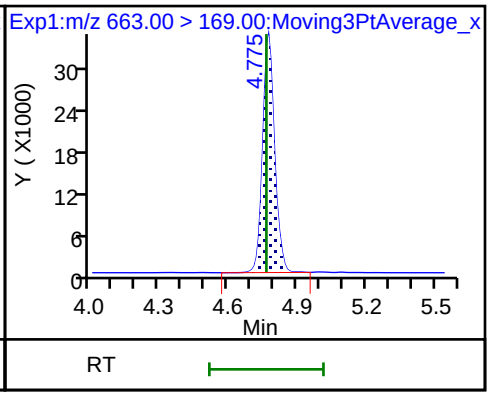

75 Perfluorododecanesulfonic acid (



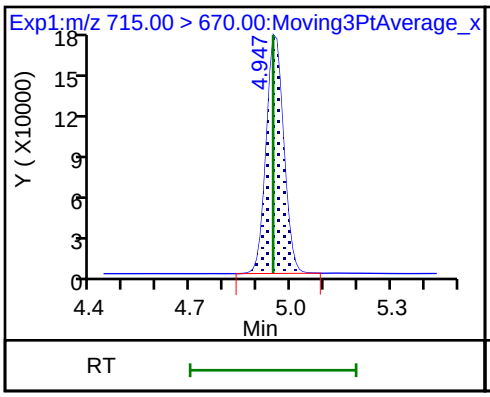

41 Perfluorotridecanoic acid



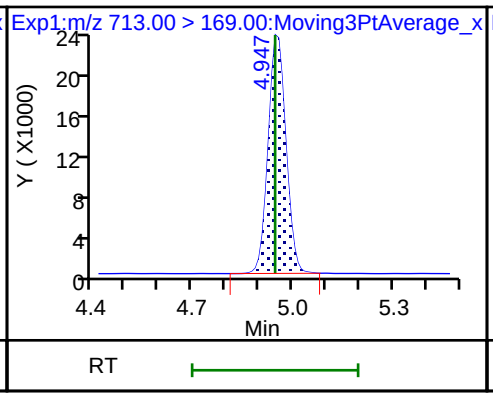

41 Perfluorotridecanoic acid



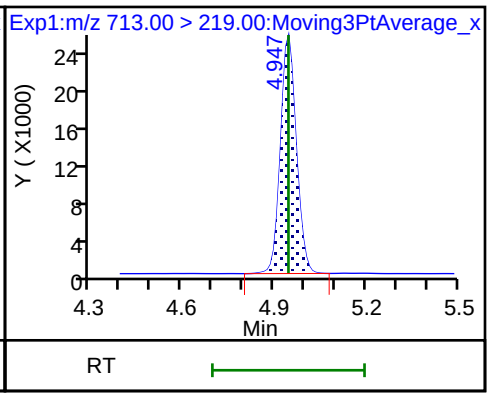

D 43 13C2 PFTeDA



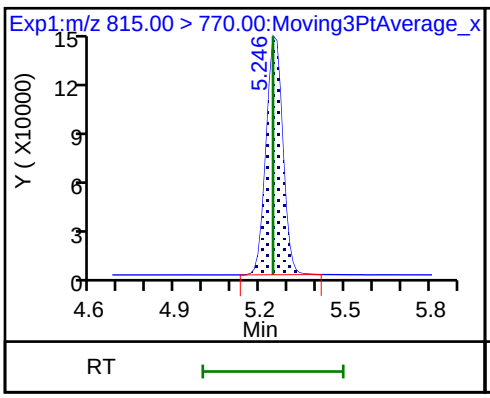

42 Perfluorotetradecanoic acid



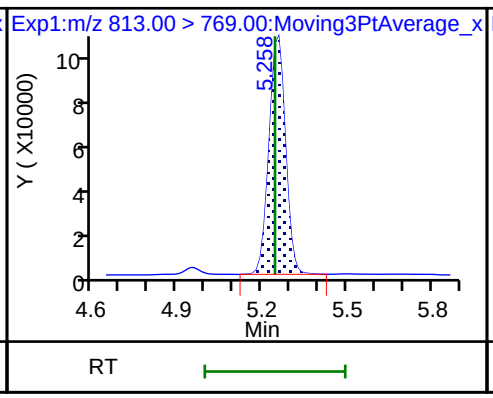

42 Perfluorotetradecanoic acid



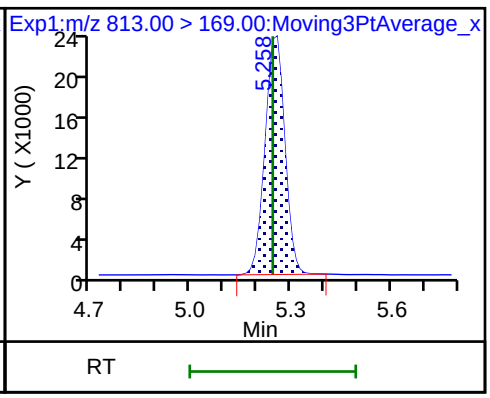

D 44 13C2 PFHxDA



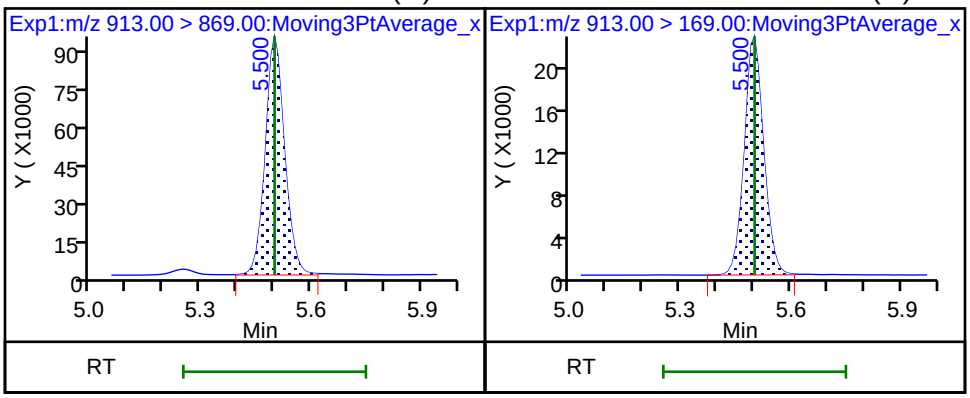

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

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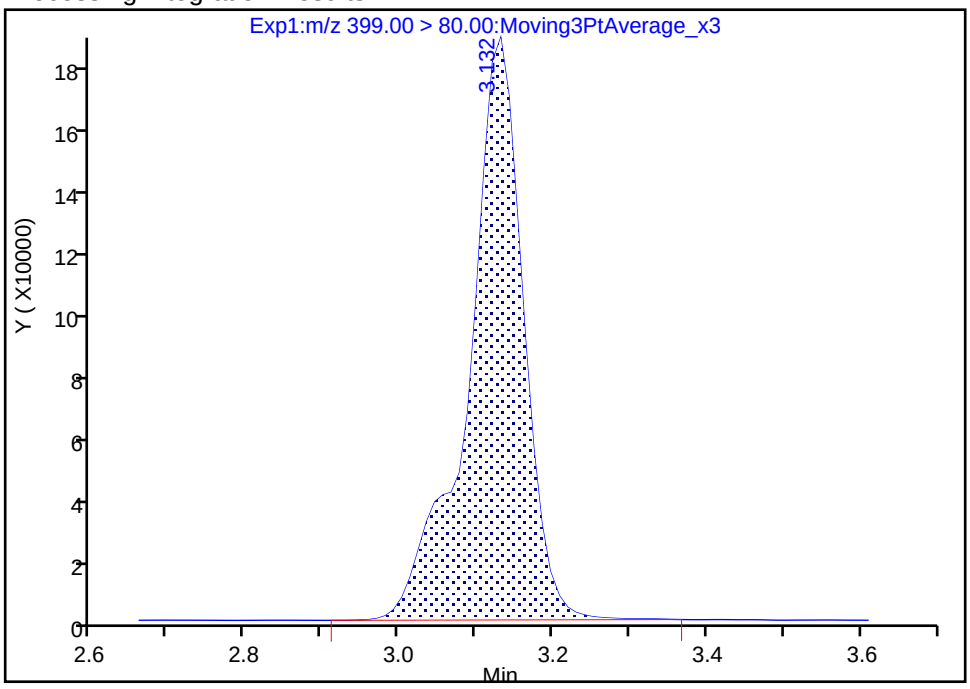
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A14.d | | | | |
| Injection Date: | 08-Nov-2021 17:21:04 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

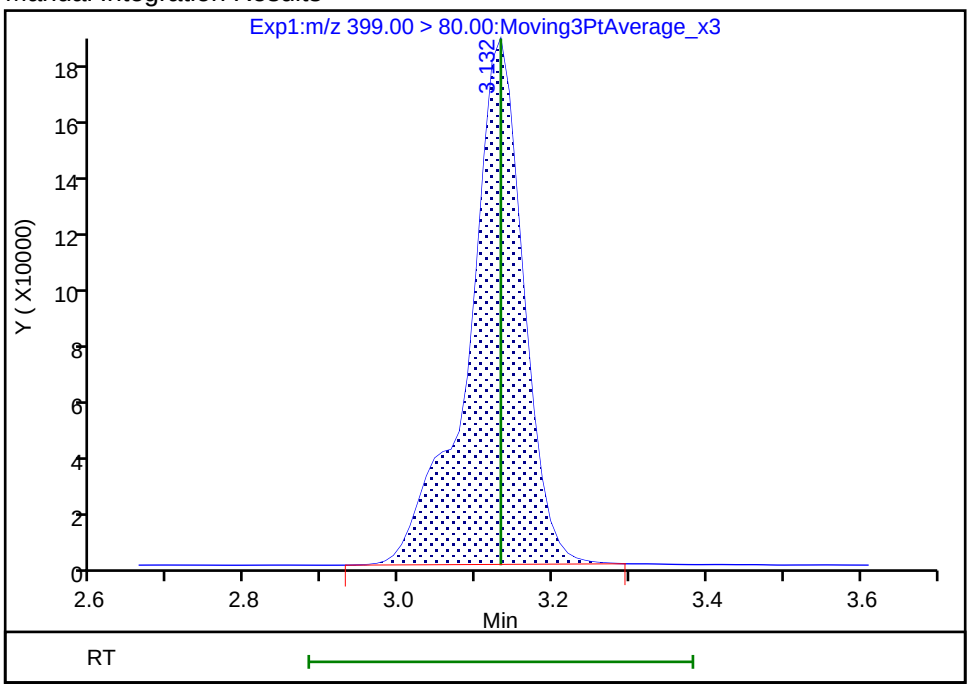
Processing Integration Results

RT: 3.13
Area: 919802
Amount: 0.922038
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 915688
Amount: 0.917914
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:44:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

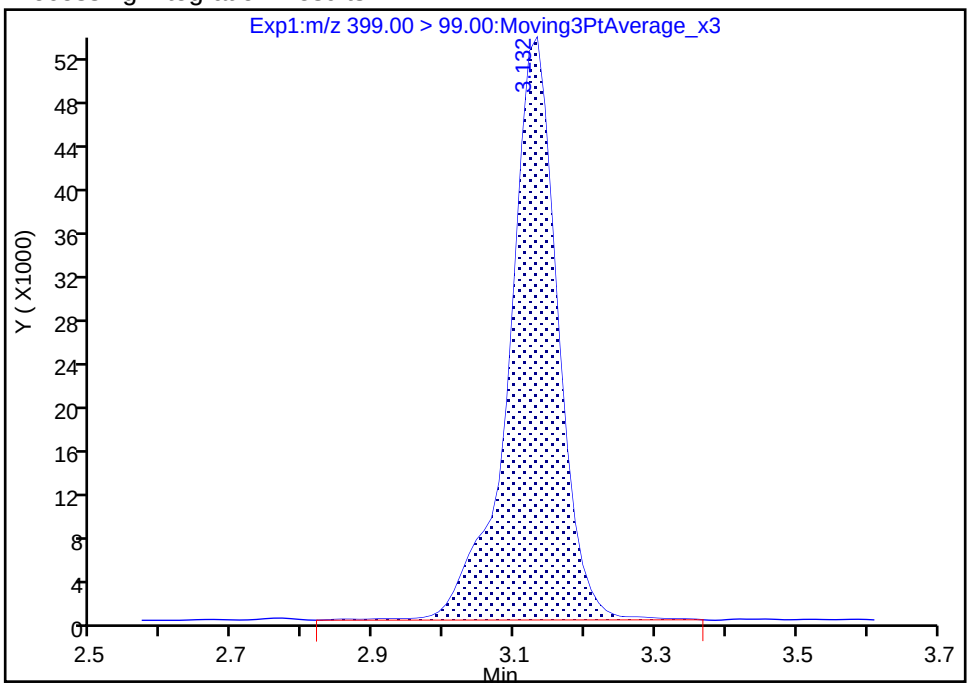
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A14.d
Injection Date: 08-Nov-2021 17:21:04 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

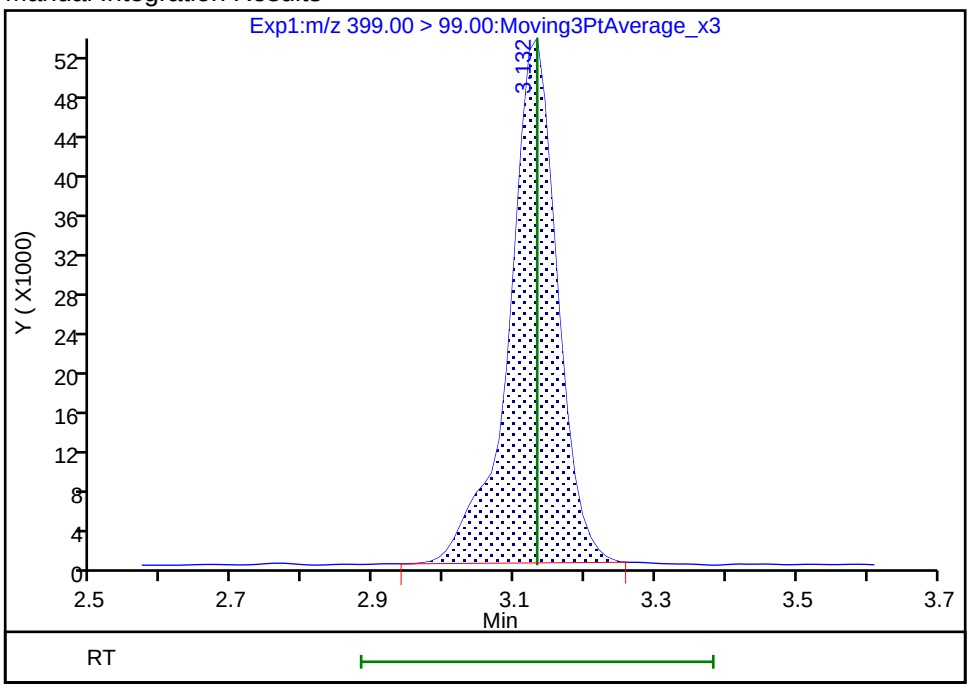
Processing Integration Results

RT: 3.13
Area: 257386
Amount: 0.922038
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 252323
Amount: 0.917914
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:44:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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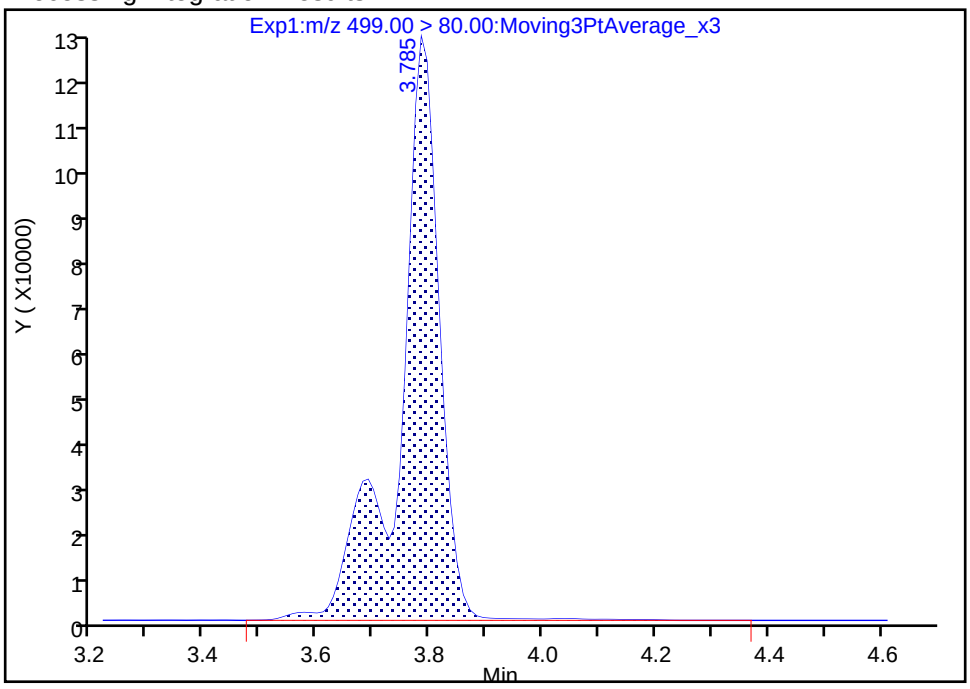
| Injection Date: | 08-Nov-2021 17:21:04 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 11 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

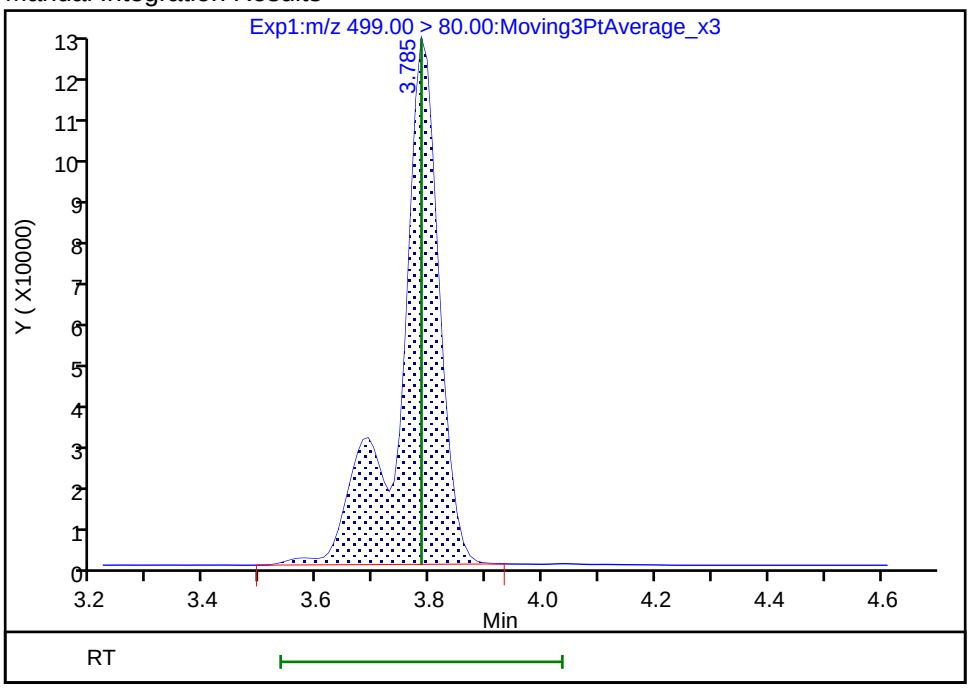
Processing Integration Results

RT: 3.78
Area: 643766
Amount: 0.930882
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 635575
Amount: 0.919038
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:59:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

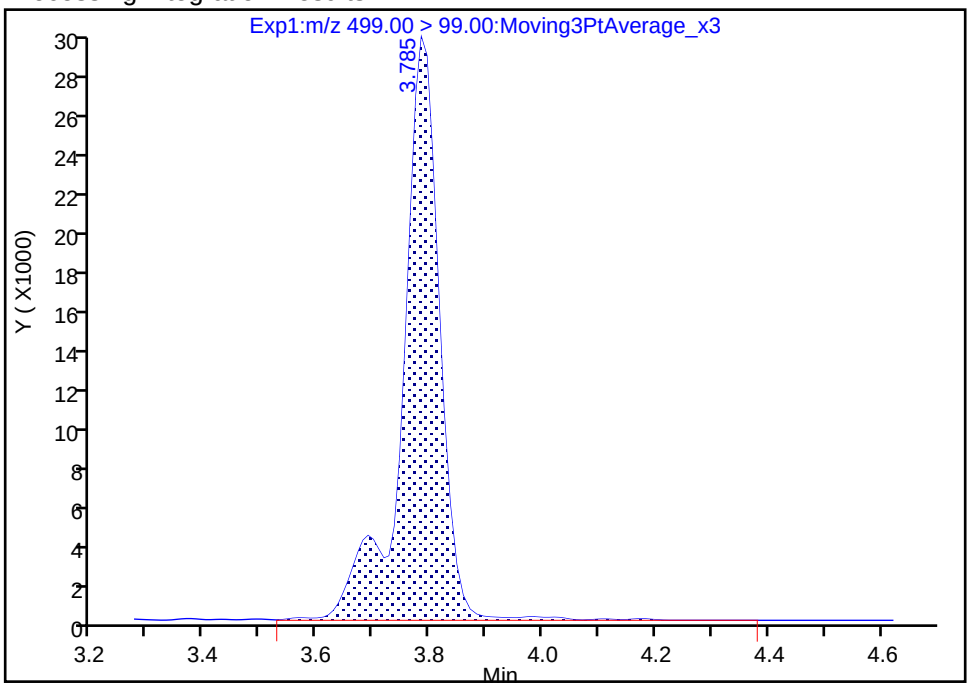
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A14.d
Injection Date: 08-Nov-2021 17:21:04 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

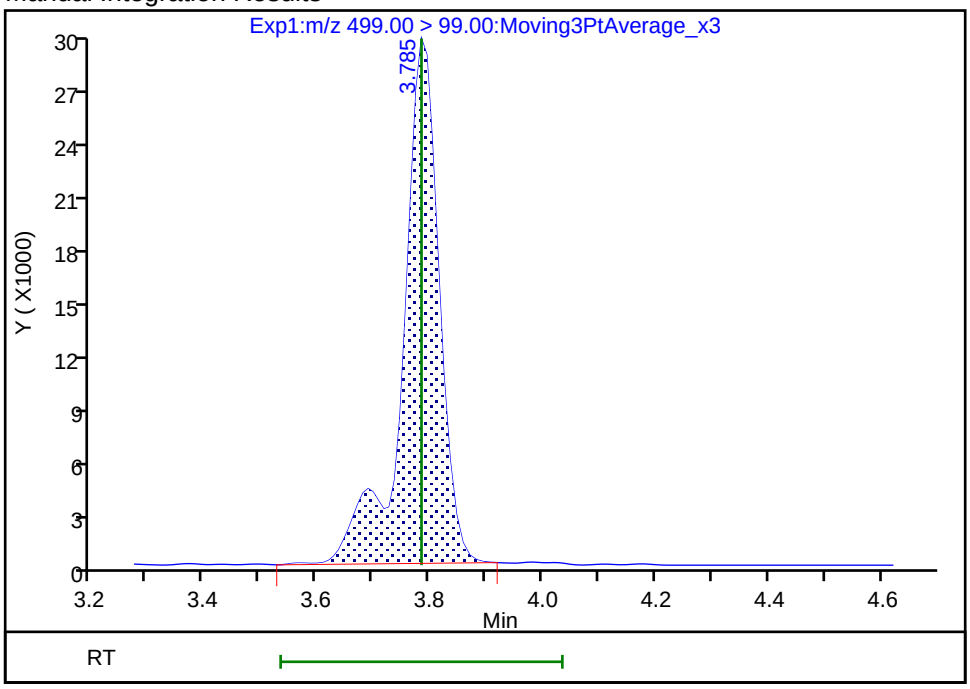
Processing Integration Results

RT: 3.78
Area: 134954
Amount: 0.930882
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 131625
Amount: 0.919038
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 15:59:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173541/2-A

Matrix: Water  Lab File ID: PA211110A08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:19

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 40.49 | | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 40.85 | | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 41.12 | | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 40.56 | | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 39.86 | | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 42.15 | | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 43.54 | | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 40.50 | | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 41.34 | | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 40.19 | | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 42.83 | | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 36.02 | | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 36.74 | | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 39.61 | | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 37.69 | | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 34.08 | | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 41.27 | | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 38.08 | | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 41.75 | | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 38.87 | | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 36.42 | | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 200-173541/2-A

Matrix: Water  Lab File ID: PA211110A08.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:19

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 98 | | 50-150 |
| STL01892 | 13C4 PFHpA | 100 | | 50-150 |
| STL00990 | 13C4 PFOA | 97 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 91 | | 50-150 |
| STL00992 | 13C4 PFBA | 117 | | 25-150 |
| STL00993 | 13C2 PFHxA | 102 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 83 | | 50-150 |
| STL00998 | 13C2 PFDoA | 78 | | 50-150 |
| STL01056 | 13C8 FOSA | 75 | | 25-150 |
| STL01893 | 13C5 PFPeA | 107 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 74 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 106 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 93 | | 50-150 |
| STL02279 | M2-6:2 FTS | 113 | | 25-150 |
| STL02280 | M2-8:2 FTS | 112 | | 25-150 |
| STL02337 | 13C3 PFBS | 95 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Lims ID: LCS 200-173541/2-A
Client ID:
Sample Type: LCS
Inject. Date: 10-Nov-2021 12:19:59 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 200-173541/2-A
Misc. Info.: 200-0048360-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:42:02
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 2104913 | 1.46 | | 117 | 1554 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 1611893 | 1.01 | | 101 | 301 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.414 | 2.414 | 0.0 | 0.691 | 1624602 | 1.33 | | 107 | 3425 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.414 | 2.414 | 0.0 | 1.000 | 1329457 | 1.02 | | 102 | 56.1 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.427 | 2.427 | 0.0 | 0.695 | 1821681 | 1.11 | | 95.1 | 198926 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.427 | 2.427 | 0.0 | 1.000 | 1507231 | 0.9005 | Target=2.32 | 102 | 1520 | |
| 298.90 > 99.00 | 2.427 | 2.427 | 0.0 | 1.000 | 717914 | | 2.10(1.16-3.48) | | 451 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.735 | 2.735 | 0.0 | 1.000 | 309676 | 0.9854 | | 106 | 2297 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.735 | 2.735 | 0.0 | 0.783 | 172369 | 1.37 | | 118 | 130 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.771 | 2.759 | 0.012 | 0.793 | 1635134 | 1.28 | | 102 | 3603 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.771 | 2.771 | 0.0 | 1.000 | 1363751 | 1.03 | Target=12.09 | 103 | 327 | M |
| 313.00 > 119.00 | 2.771 | 2.771 | 0.0 | 1.000 | 108545 | | 12.56(6.04-18.13) | | 98.2 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.771 | 2.771 | 0.0 | 0.884 | 1375728 | 0.9754 | Target=3.03 | 104 | 1863 | |
| 349.00 > 99.00 | 2.771 | 2.771 | 0.0 | 0.884 | 463083 | | 2.97(1.52-4.55) | | 779 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.881 | 2.869 | 0.012 | 0.825 | 31846 | 0.9465 | | 75.7 | 227 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.869 | 2.881 | -0.012 | 0.996 | 146246 | 1.27 | | 127 | 51.3 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.133 | 3.133 | 0.0 | 1.000 | 1182728 | 0.9185 | Target=3.55 | 101 | 1709 | M |
| 399.00 > 99.00 | 3.133 | 3.133 | 0.0 | 1.000 | 324310 | | 3.65(1.77-5.32) | | 374 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.133 | 3.133 | 0.0 | 0.897 | 1384930 | 1.16 | | 97.9 | 3210 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.133 | 3.133 | 0.0 | 0.897 | 1681984 | 1.25 | | 100 | 4078 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.133 | 3.133 | 0.0 | 1.000 | 1409613 | 1.01 | Target=3.69 | 101 | 514 | |
| 363.00 > 169.00 | 3.133 | 3.133 | 0.0 | 1.000 | 365050 | | 3.86(1.84-5.53) | | 594 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.176 | 3.166 | 0.010 | 0.837 | 3046465 | 1.02 | Target=2.56 | 108 | 2848 | |
| 377.00 > 85.00 | 3.176 | 3.166 | 0.010 | 0.837 | 1160855 | | 2.62(1.28-3.84) | | 1807 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.475 | 3.475 | 0.0 | 0.915 | 1052758 | 0.99 | Target=4.88 | 104 | 2440 | M |
| 449.00 > 99.00 | 3.475 | 3.475 | 0.0 | 0.915 | 206029 | | 5.11(2.44-7.32) | | 830 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.484 | 3.475 | 0.009 | 1.000 | 263111 | 0.9717 | | 102 | 1900 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.484 | 3.475 | 0.009 | 0.997 | 253563 | 1.34 | | 113 | 572 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.493 | 3.484 | 0.009 | 1.000 | 1774797 | 1.21 | | 96.7 | 7138 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.493 | 3.484 | 0.009 | | 1784654 | 1.25 | | | 4726 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.493 | 3.484 | 0.009 | 1.000 | 1504730 | 1.00 | Target=2.68 | 99.7 | 212 | M |
| 413.00 > 169.00 | 3.493 | 3.484 | 0.009 | 1.000 | 576780 | | 2.61(1.34-4.02) | | 1301 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.796 | 3.798 | -0.002 | 1.087 | 1019067 | 1.18 | | 98.6 | 4332 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.805 | 3.798 | 0.007 | 1.003 | 871962 | 0.9423 | Target=4.69 | 102 | 1410 | M |
| 499.00 > 99.00 | 3.796 | 3.798 | -0.002 | 1.000 | 185311 | | 4.71(2.35-7.04) | | 627 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.816 | 3.818 | -0.002 | 1.092 | 1666935 | 1.14 | | 91.1 | 4972 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.816 | 3.818 | -0.002 | 1.000 | 1374879 | 1.05 | Target=7.29 | 105 | 340 | |
| 463.00 > 169.00 | 3.816 | 3.818 | -0.002 | 1.000 | 177885 | | 7.73(3.64-10.93) | | 1416 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | M |
| 531.00 > 351.00 | 3.957 | 3.959 | -0.002 | 1.043 | 1185446 | 0.8504 | | 91.2 | 4896 | M |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.084 | 4.086 | -0.002 | 1.076 | 665437 | 0.9232 | Target=2.35 | 96.2 | 3030 | |
| 549.00 > 99.00 | 4.084 | 4.086 | -0.002 | 1.076 | 258312 | | 2.58(1.17-3.52) | | 1031 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.118 | 4.108 | 0.010 | 1.179 | 1611523 | 1.09 | | 87.3 | 2244 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.118 | 4.108 | 0.010 | 1.000 | 1409934 | 1.09 | Target=8.95 | 109 | 924 | |
| 513.00 > 169.00 | 4.118 | 4.108 | 0.010 | 1.000 | 152845 | | 9.22(4.47-13.42) | | 739 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.129 | 4.120 | 0.009 | 1.182 | 287939 | 1.35 | | 112 | 986 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.129 | 4.120 | 0.009 | 1.000 | 183126 | 0.9104 | | 95.0 | 1452 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.227 | 4.219 | 0.008 | 1.210 | 1343618 | 0.9433 | | 75.5 | 3563 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.227 | 4.219 | 0.008 | 1.000 | 1053247 | 1.03 | | 103 | 3706 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.260 | 4.251 | 0.009 | 1.219 | 193052 | 1.33 | | 106 | 937 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.260 | 4.251 | 0.009 | 1.000 | 115511 | 0.9521 | | 95.2 | 436 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.350 | 4.342 | 0.008 | 1.146 | 477525 | 0.8521 | Target=2.47 | 88.4 | 3804 | |
| 599.00 > 99.00 | 4.350 | 4.342 | 0.008 | 1.146 | 188765 | | 2.53(1.23-3.70) | | 1463 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.373 | 4.375 | -0.002 | 1.252 | 1194489 | 1.04 | | 83.0 | 3025 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.373 | 4.375 | -0.002 | 1.000 | 1031527 | 1.01 | Target=9.24 | 101 | 706 | |
| 563.00 > 169.00 | 4.373 | 4.375 | -0.002 | 1.000 | 117434 | | 8.78(4.62-13.86) | | 1292 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.384 | 4.375 | 0.009 | 1.255 | 158040 | 1.16 | | 92.9 | 1416 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.395 | 4.387 | 0.008 | 1.003 | 113064 | 1.04 | | 104 | 886 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.460 | 4.463 | -0.003 | 1.175 | 1320437 | 0.8021 | | 85.1 | 4014 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.595 | 4.598 | -0.003 | 1.316 | 1203307 | 0.9719 | | 77.8 | 1915 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.595 | 4.598 | -0.003 | 1.000 | 974042 | 1.03 | Target=7.04 | 103 | 173 | |
| 613.00 > 169.00 | 4.595 | 4.598 | -0.003 | 1.000 | 157547 | | 6.18(3.52-10.56) | | 1445 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.616 | 4.619 | -0.003 | 1.118 | 76637 | 0.8246 | | 85.5 | 1464 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.770 | 4.763 | 0.007 | 1.257 | 187723 | 0.9108 | Target=0.49 | 94.1 | 1725 | |
| 699.00 > 99.00 | 4.761 | 4.763 | -0.002 | 1.254 | 330096 | | 0.57(0.25-0.74) | | 1827 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.797 | 4.799 | -0.002 | 1.044 | 816470 | 1.00 | Target=4.68 | 100 | 190 | |
| 663.00 > 169.00 | 4.797 | 4.799 | -0.002 | 1.044 | 177141 | | 4.61(2.34-7.02) | | 1642 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.979 | 4.972 | 0.007 | 1.425 | 890732 | 0.9276 | | 74.2 | 1897 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.979 | 4.972 | 0.007 | 1.000 | 120432 | 1.07 | Target=1.01 | 107 | 1937 | |
| 713.00 > 219.00 | 4.979 | 4.972 | 0.007 | 1.000 | 122313 | | 0.98(0.51-1.52) | | 2687 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.284 | 5.280 | 0.004 | 1.513 | 832089 | 0.9841 | | 78.7 | 3042 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.284 | 5.280 | 0.004 | 1.000 | 623546 | 1.08 | Target=4.57 | 108 | 173 | |
| 813.00 > 169.00 | 5.284 | 5.280 | 0.004 | 1.000 | 147833 | | 4.22(2.29-6.86) | | 1903 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.549 | 5.544 | 0.005 | 1.050 | 493121 | 0.8784 | Target=4.27 | 87.8 | 230 | M |
| 913.00 > 169.00 | 5.549 | 5.544 | 0.005 | 1.050 | 122176 | | 4.04(2.14-6.41) | | 1592 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:11 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d

Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812

Lims ID: LCS 200-173541/2-A

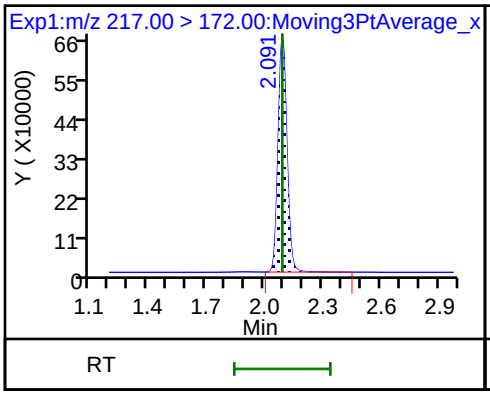
Client ID:

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8

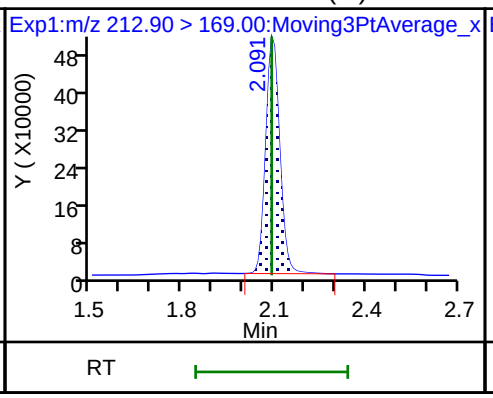
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

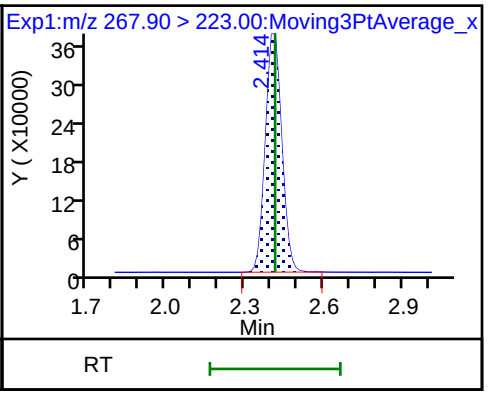
D 1 13C4 PFBA



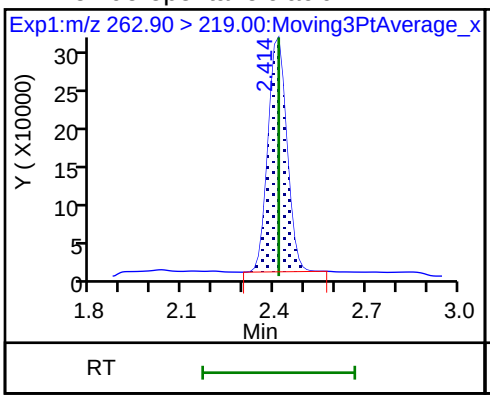

2 Perfluorobutanoic acid (M)



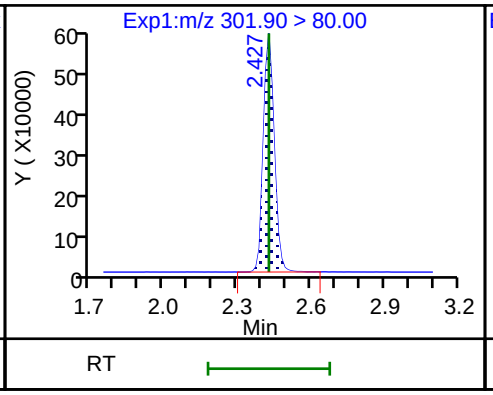

D 3 13C5 PFPeA



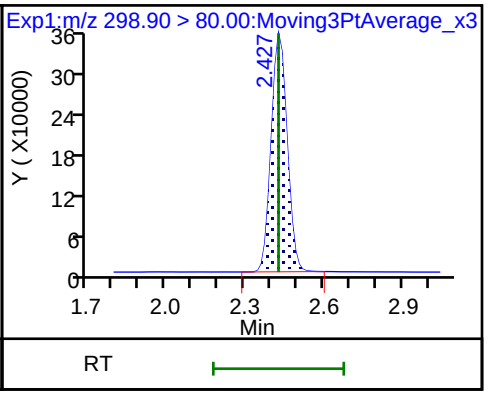

4 Perfluoropentanoic acid



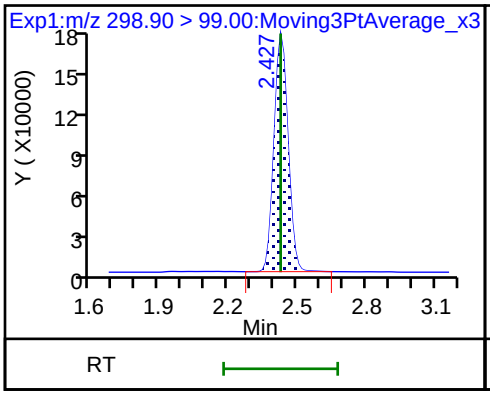

D 47 13C3 PFBS



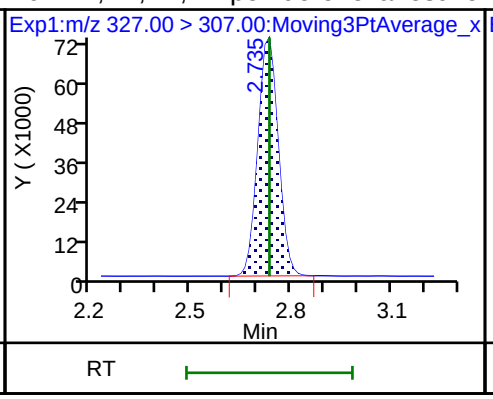

5 Perfluorobutanesulfonic acid



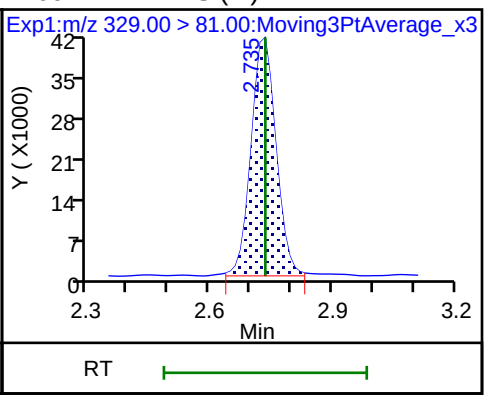

5 Perfluorobutanesulfonic acid



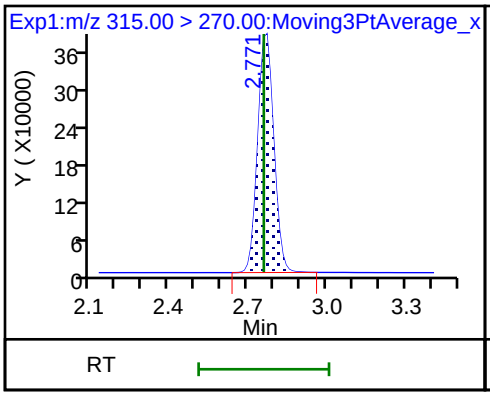

61 1H,1H,2H,2H-perfluorohexanesulfo



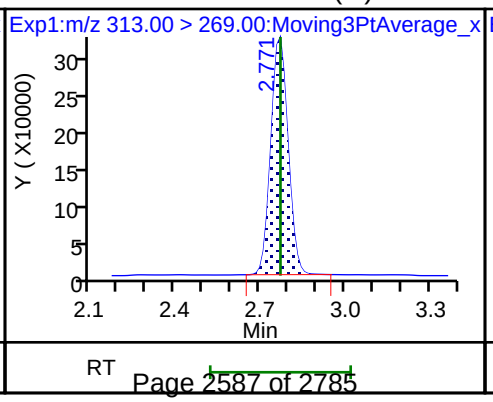

D 60 M2-4:2 FTS (M)



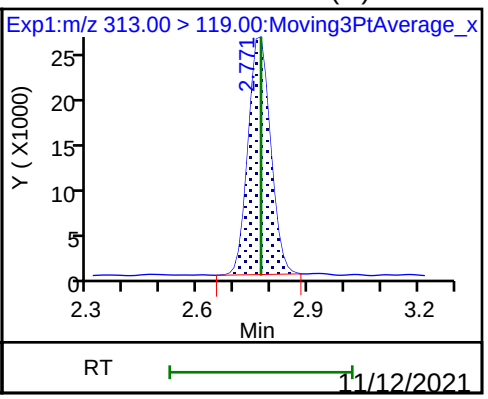

D 7 13C2 PFHxA



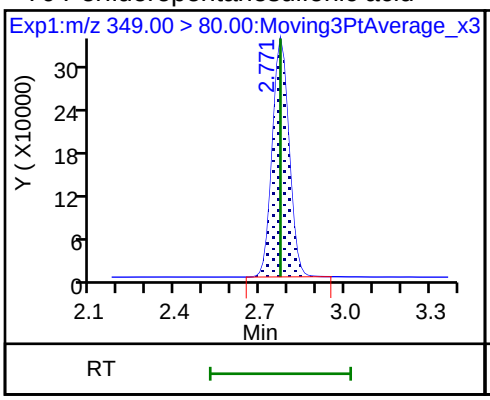

6 Perfluorohexanoic acid (M)



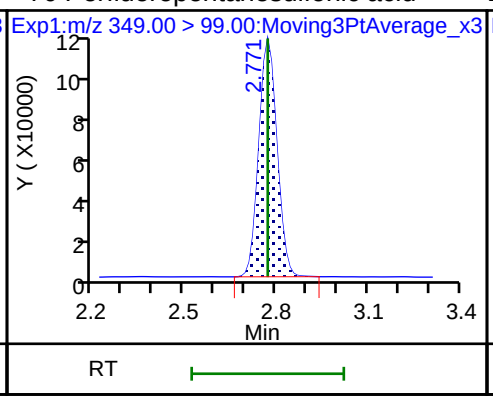

6 Perfluorohexanoic acid (M)



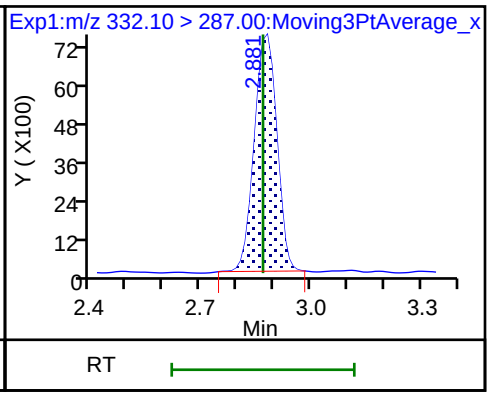
70 Perfluoropentanesulfonic acid



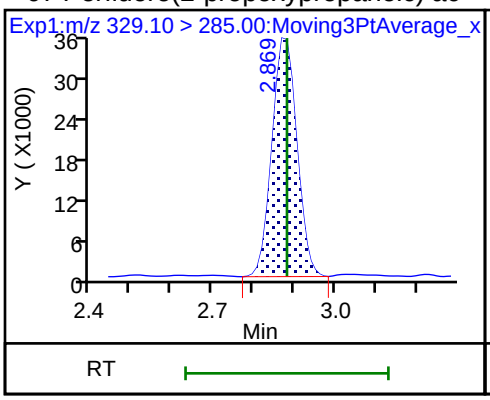

70 Perfluoropentanesulfonic acid



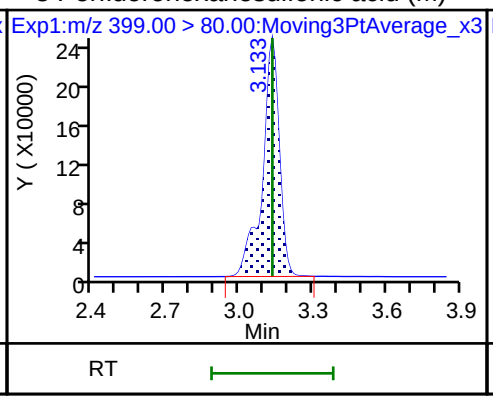

D 64 13C3 HFPO-DA



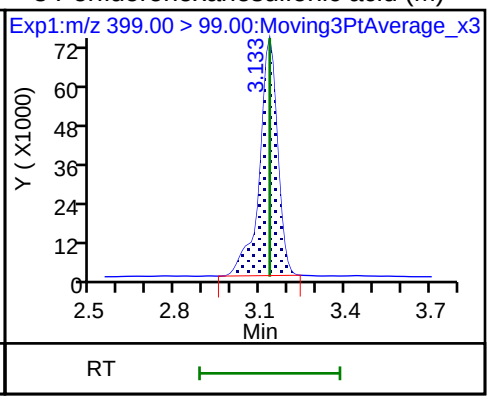

67 Perfluoro(2-propoxypropanoic) ac



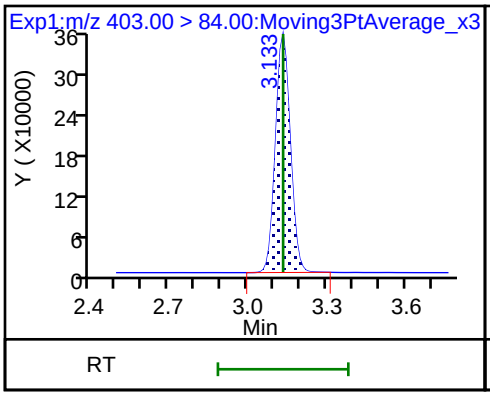

8 Perfluorohexanesulfonic acid (M)



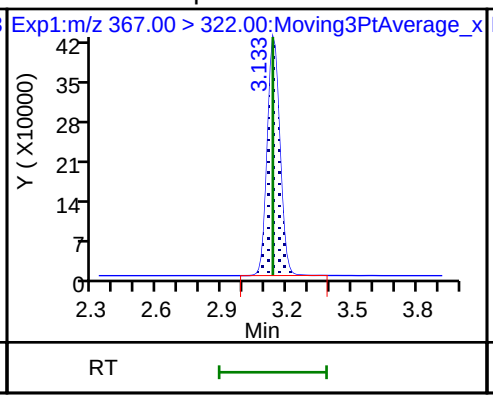

8 Perfluorohexanesulfonic acid (M)



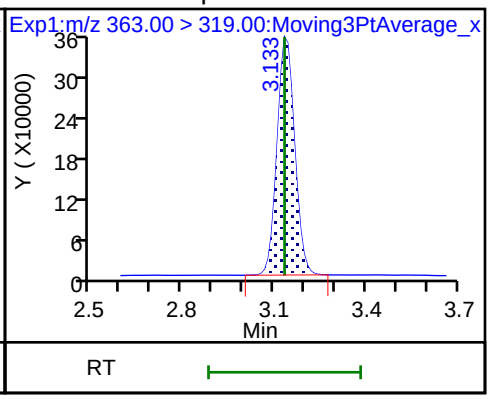

D 11 18O2 PFHxS



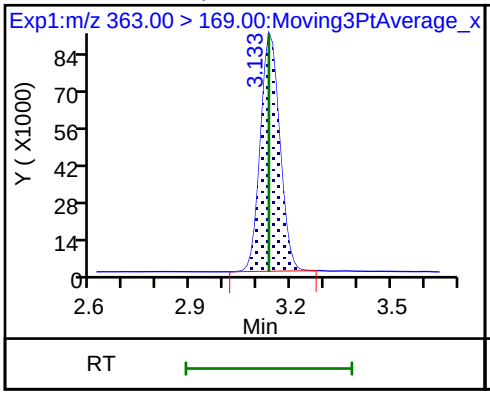

D 9 13C4 PFHpA



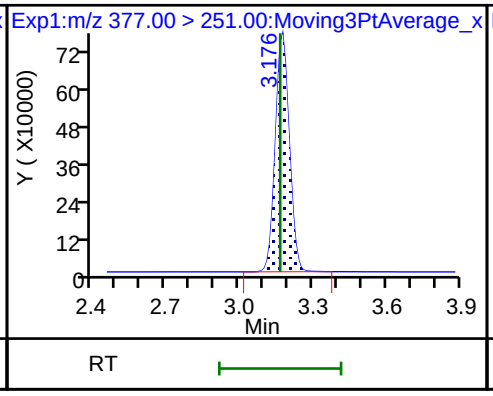

10 Perfluoroheptanoic acid



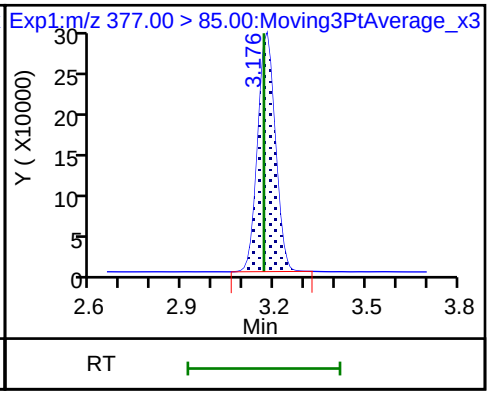

10 Perfluoroheptanoic acid



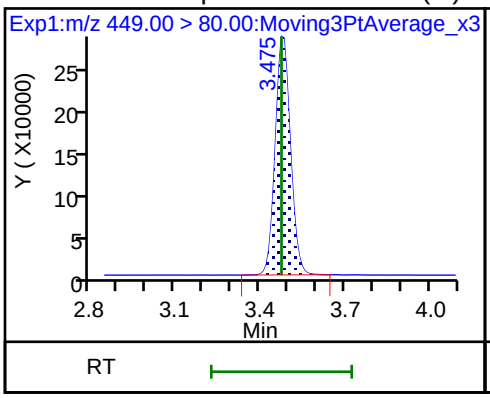

77 DONA



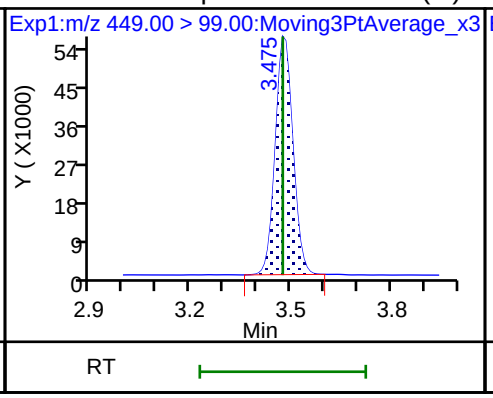

77 DONA



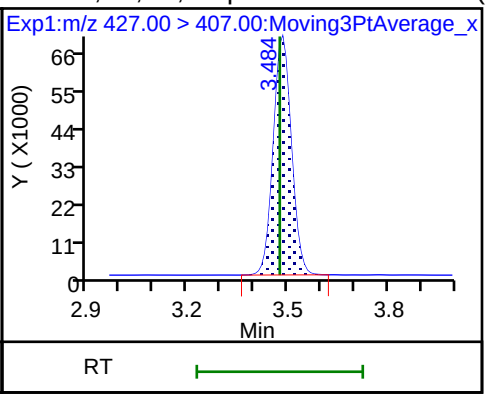
16 Perfluoroheptanesulfonic acid (M)



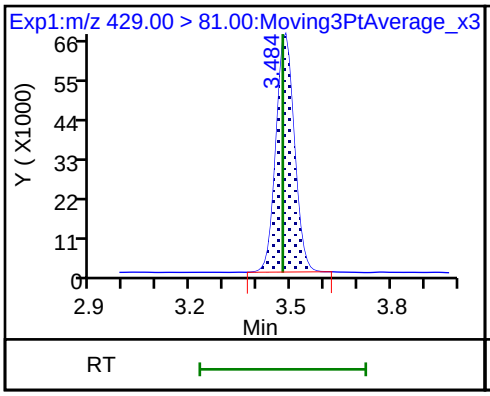

16 Perfluoroheptanesulfonic acid (M)



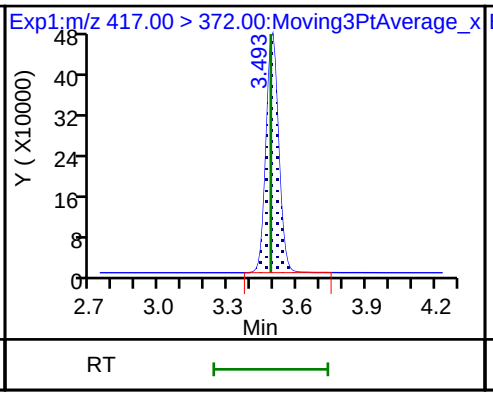

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



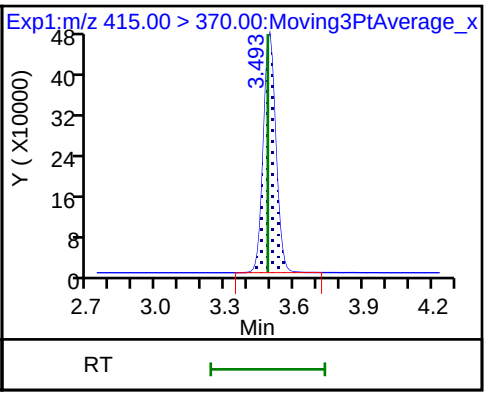

D 12 M2-6:2 FTS



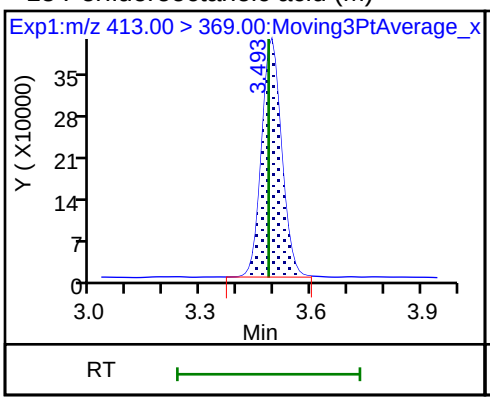

D 14 13C4 PFOA



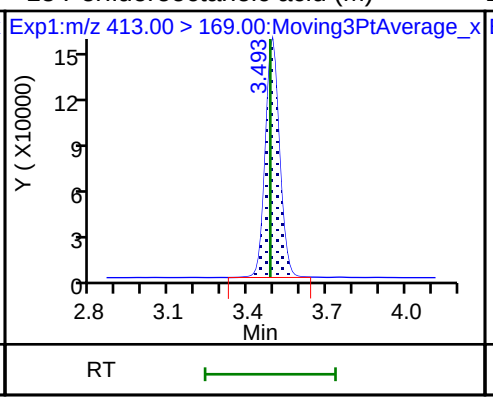

* 62 13C2 PFOA



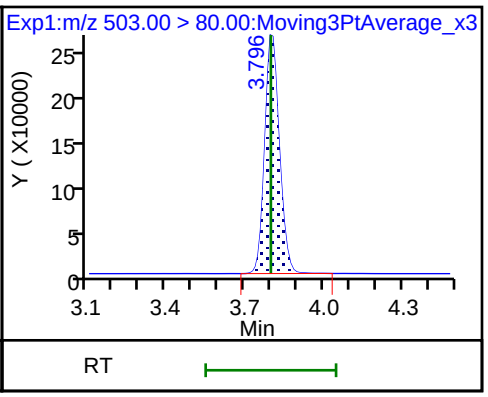

15 Perfluorooctanoic acid (M)



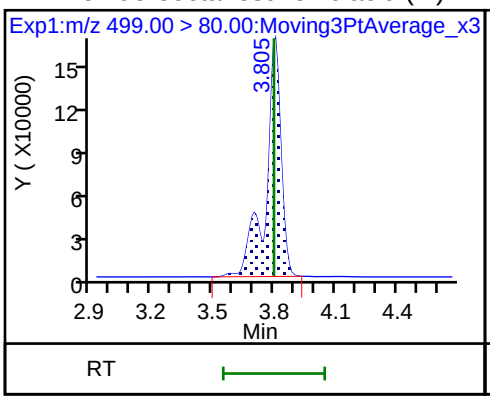

15 Perfluorooctanoic acid (M)



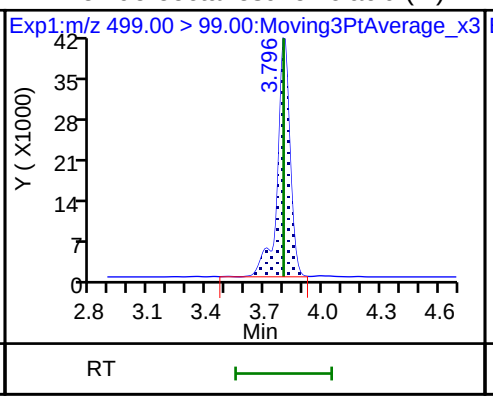

D 18 13C4 PFOS



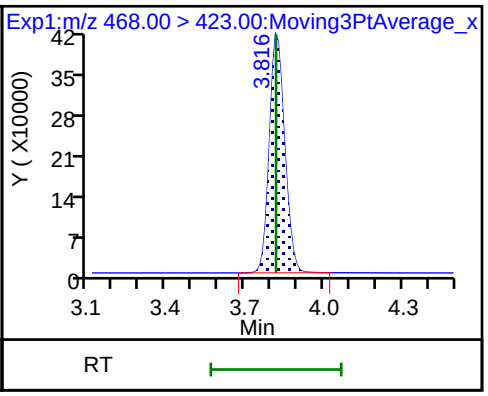

17 Perfluorooctanesulfonic acid (M)



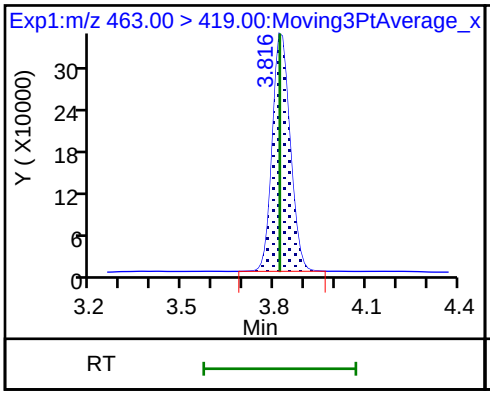

17 Perfluorooctanesulfonic acid (M)



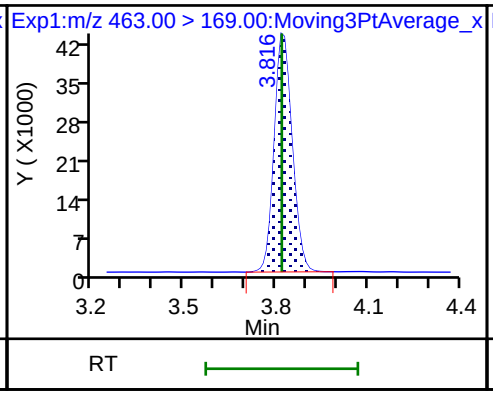

D 19 13C5 PFNA



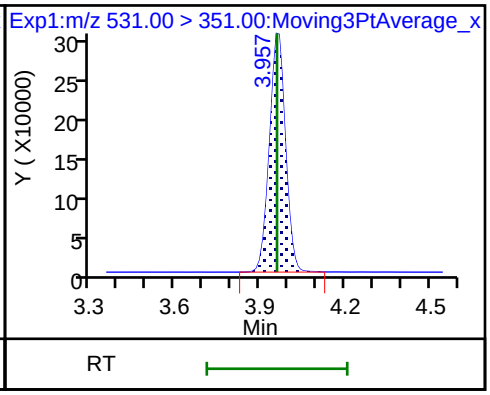
20 Perfluorononanoic acid



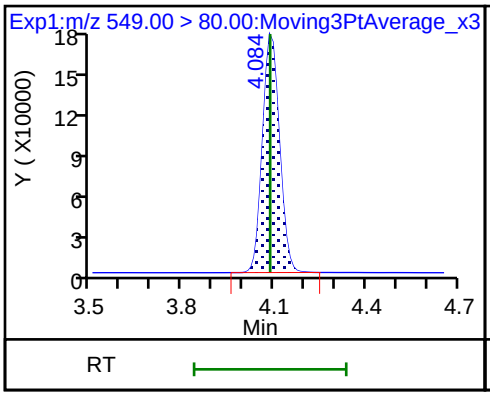

20 Perfluorononanoic acid



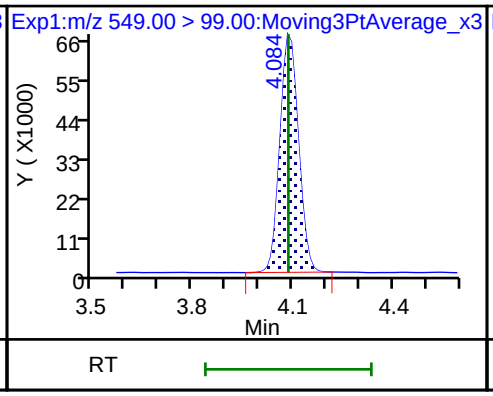

69 9-Chlorohexadecafluoro-3-oxanona (M)



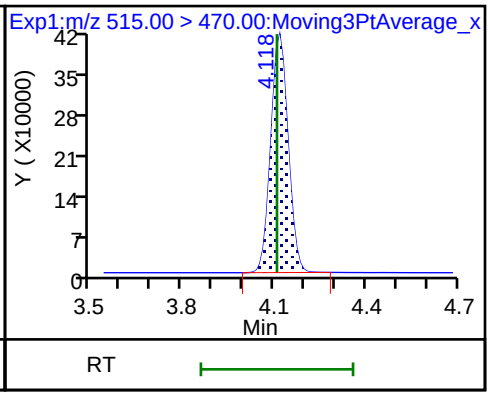

68 Perfluorononanesulfonic acid



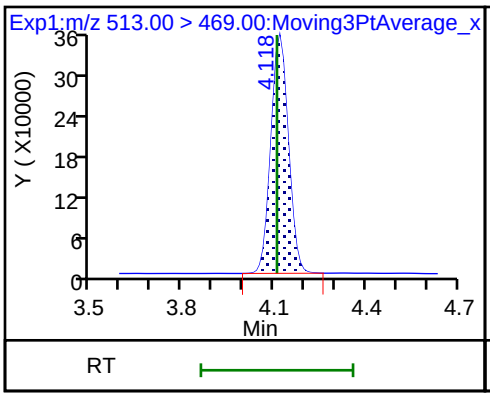

68 Perfluorononanesulfonic acid



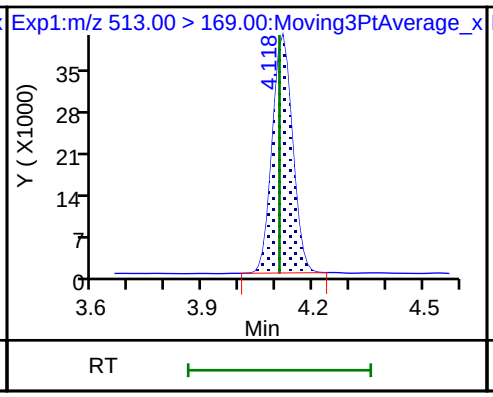

D 23 13C2 PFDA



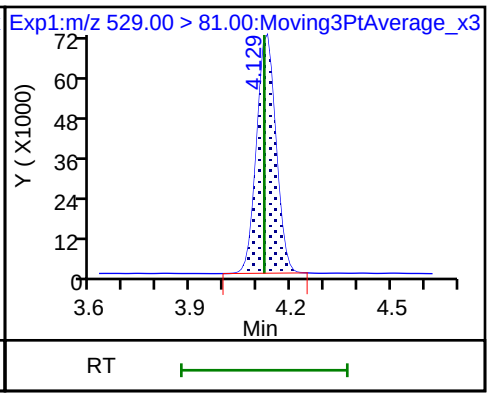

24 Perfluorodecanoic acid



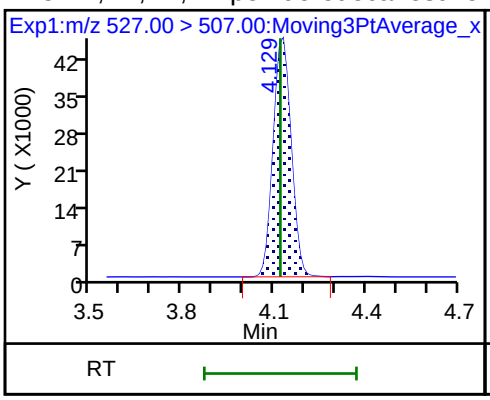

24 Perfluorodecanoic acid



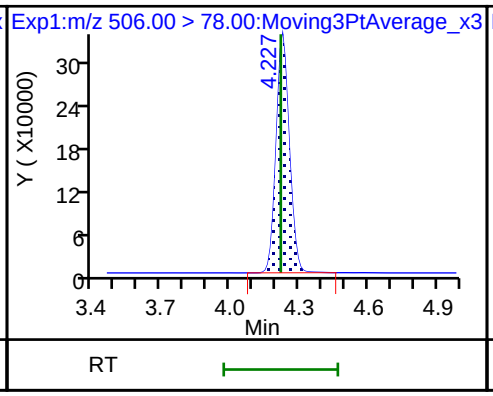

D 26 M2-8:2 FTS



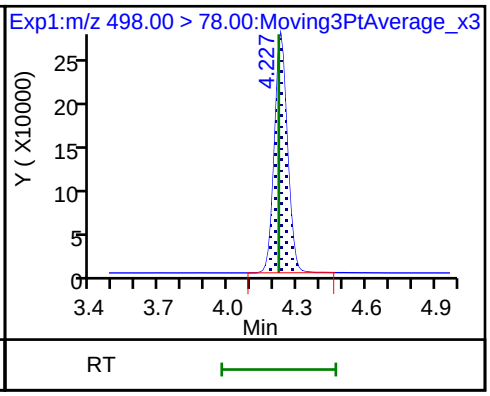

25 1H,1H,2H,2H-perfluorodecanesulfo



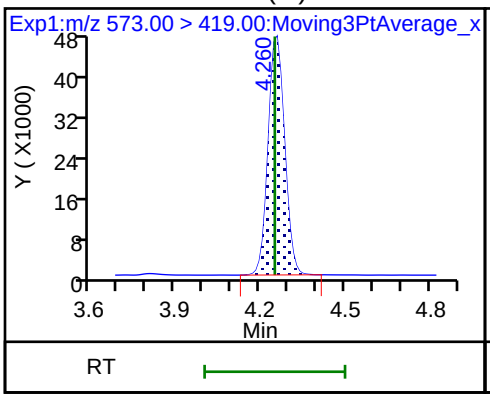

D 21 13C8 FOSA



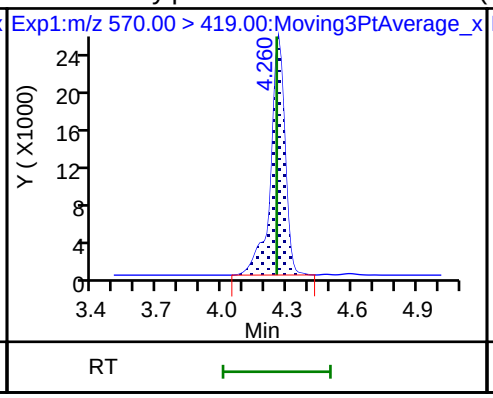

22 Perfluorooctanesulfonamide



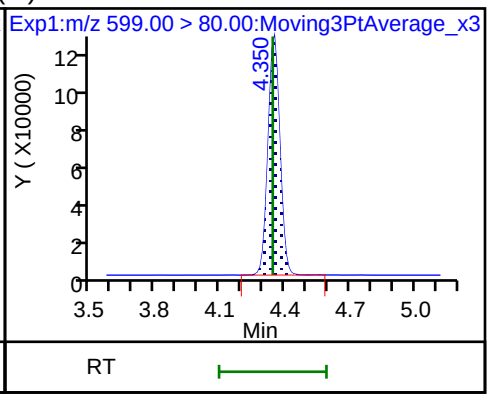
D 27 d3-NMeFOSAA (M)



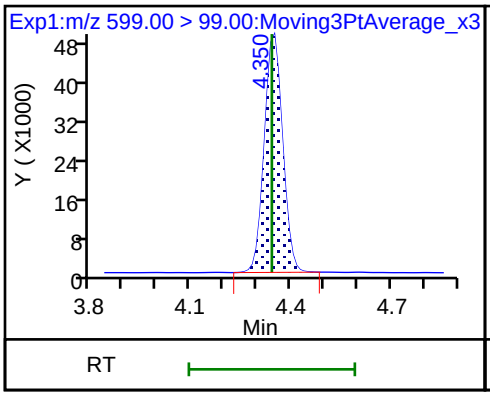

28 N-methylperfluorooctanesulfonami (M)



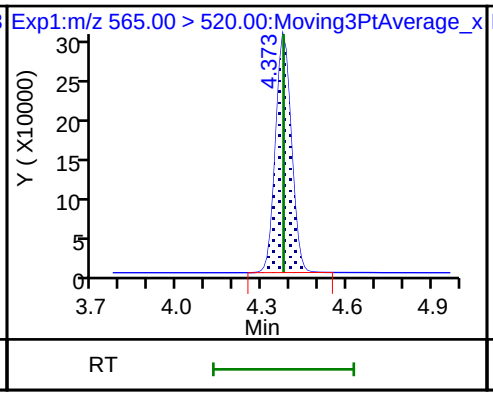

29 Perfluorodecanesulfonic acid



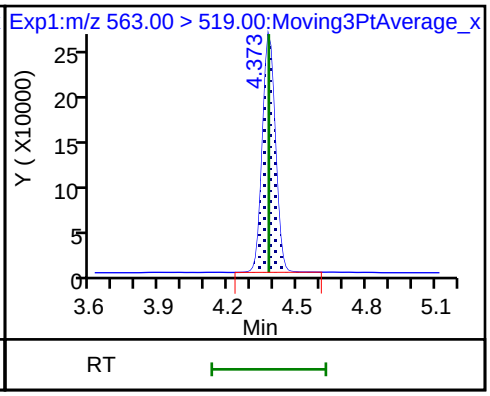

29 Perfluorodecanesulfonic acid



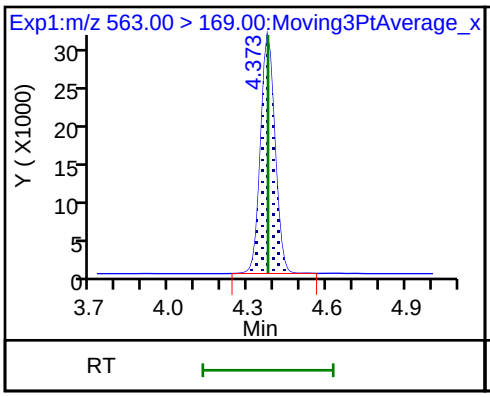

D 30 13C2 PFUnA



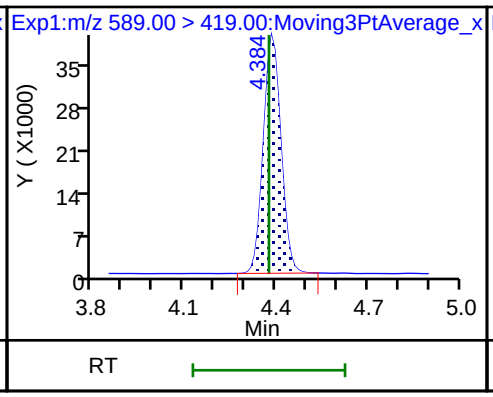

31 Perfluoroundecanoic acid



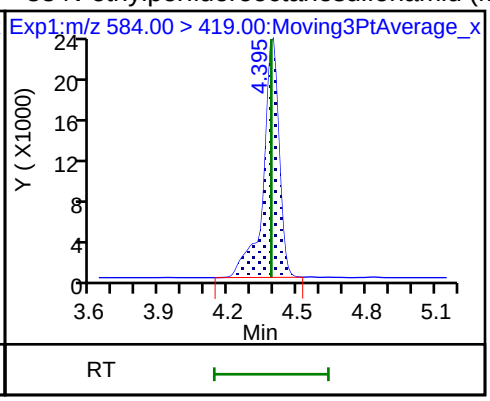

31 Perfluoroundecanoic acid



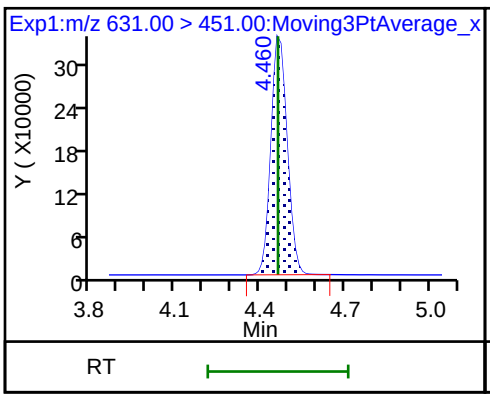

D 32 d5-NEtFOSAA



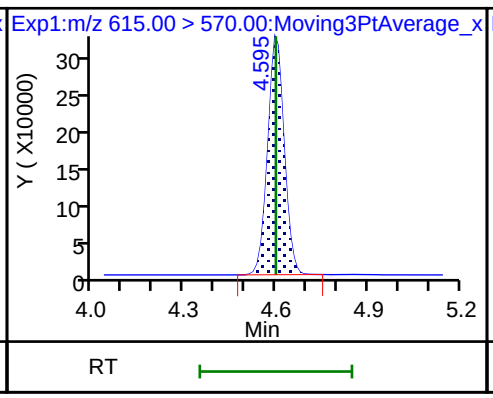

33 N-ethylperfluorooctanesulfonamid (M)



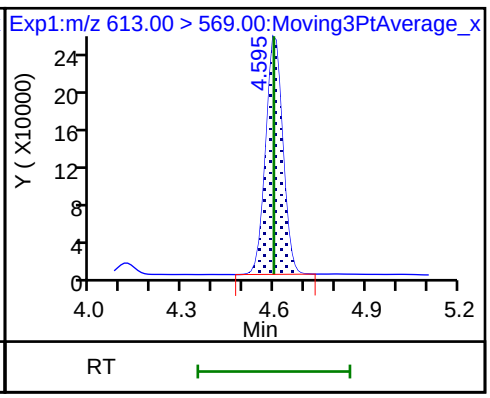

66 11-Chloroeicosafluoro-3-oxaundec



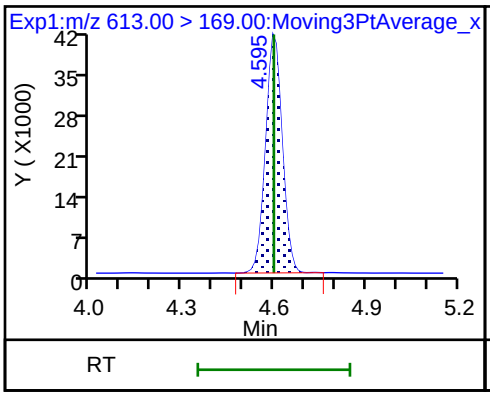

D 36 13C2 PFDoA



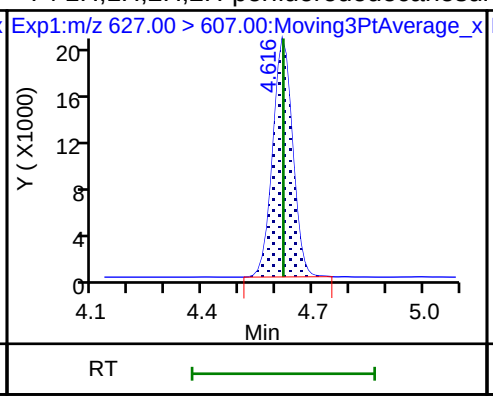

37 Perfluorododecanoic acid



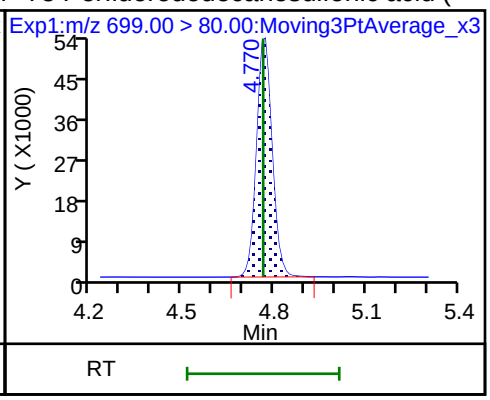
37 Perfluorododecanoic acid



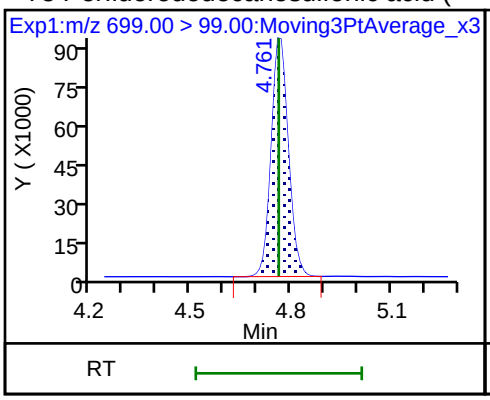

74 1H,1H,2H,2H-perfluorododecanesul



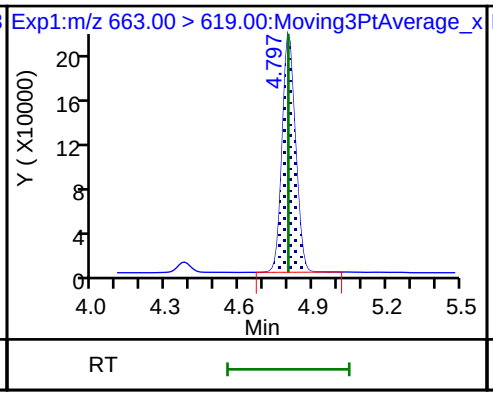

75 Perfluorododecanesulfonic acid (



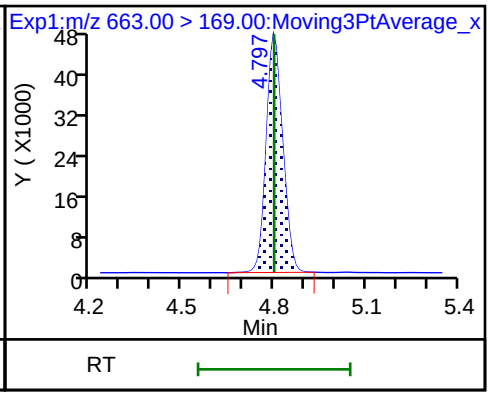

75 Perfluorododecanesulfonic acid (



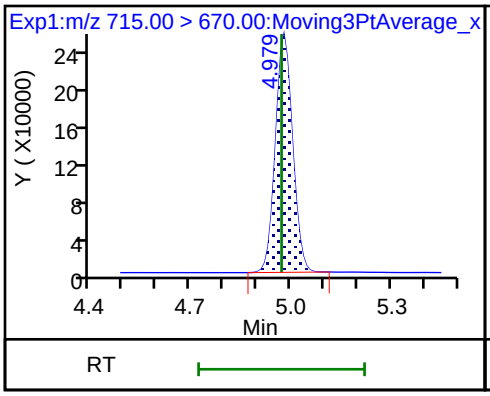

41 Perfluorotridecanoic acid



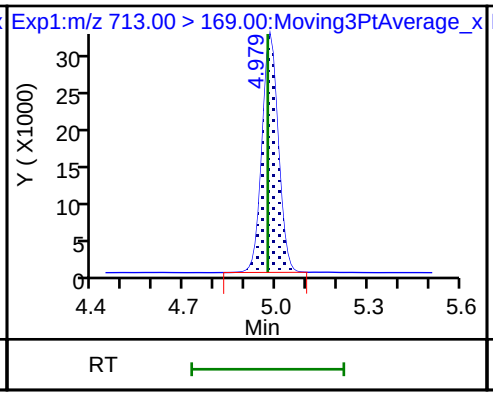

41 Perfluorotridecanoic acid



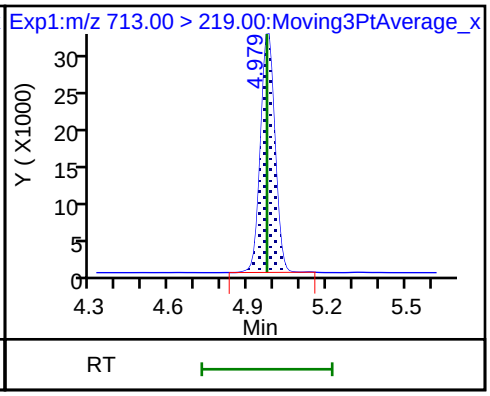

D 43 13C2 PFTeDA



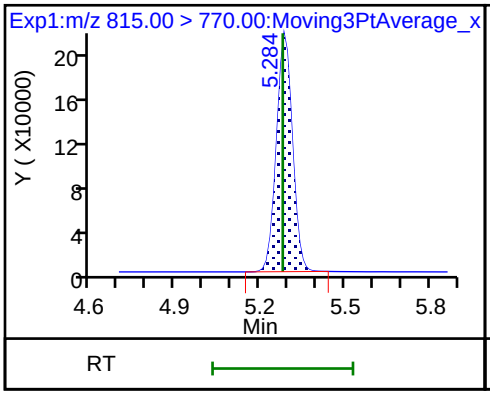

42 Perfluorotetradecanoic acid



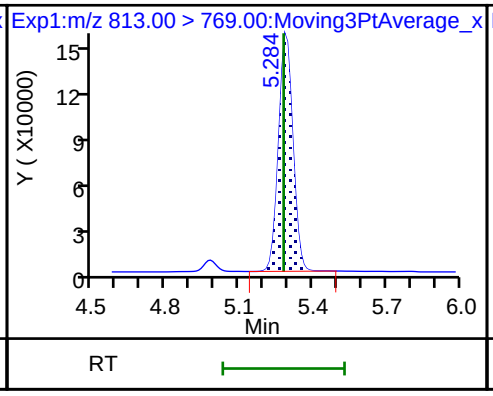

42 Perfluorotetradecanoic acid



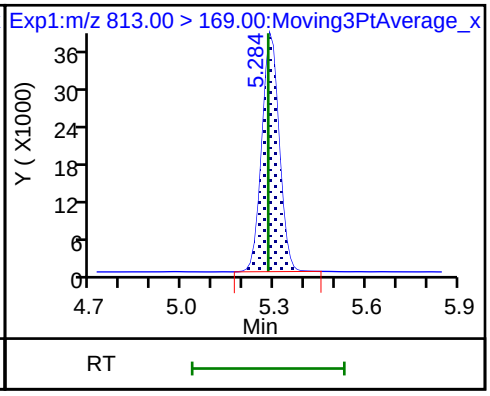

D 44 13C2 PFHxDA



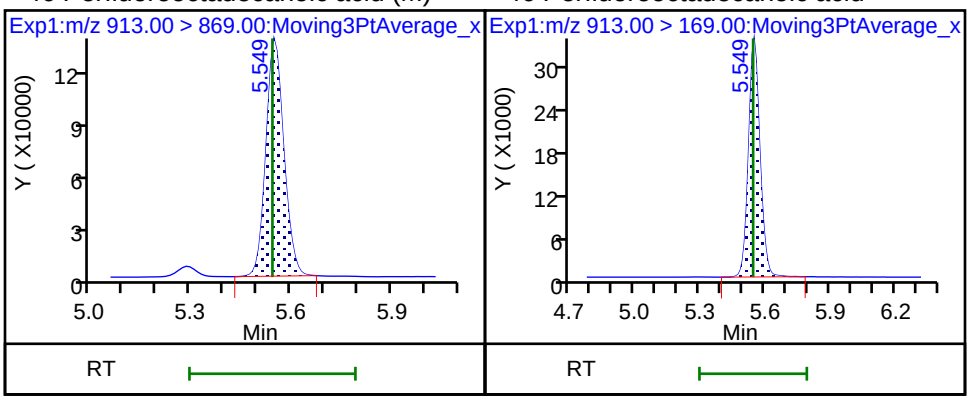

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

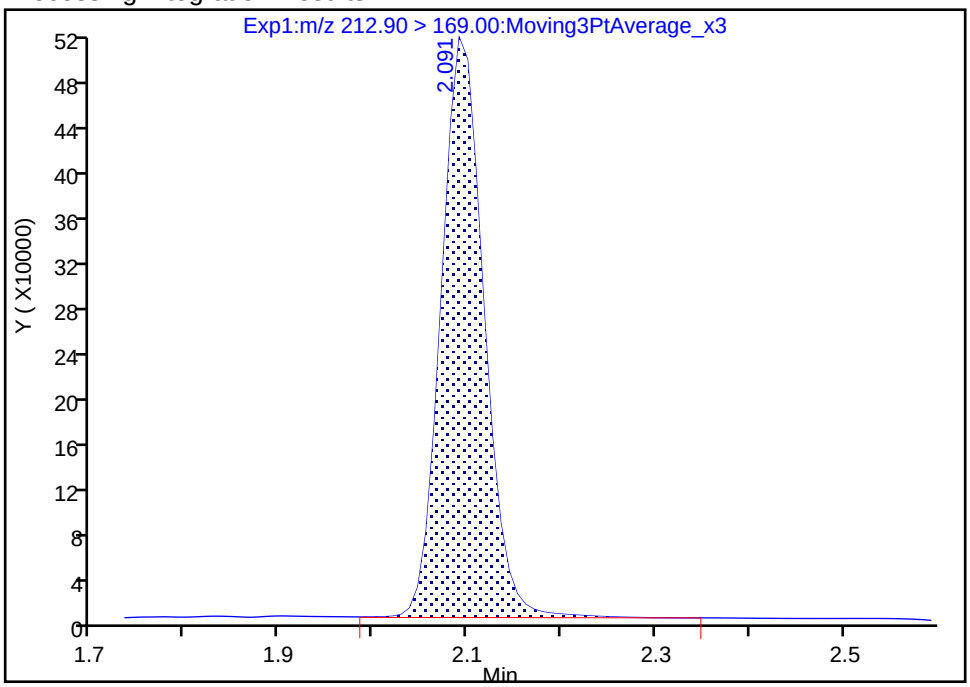
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

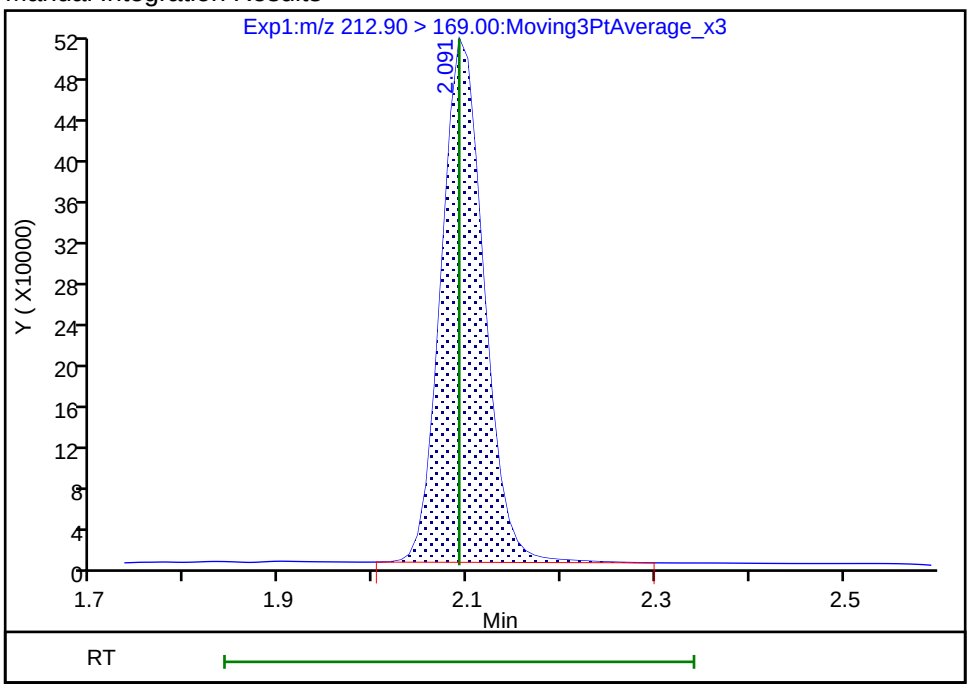
Processing Integration Results

RT: 2.09
Area: 1617633
Amount: 1.015938
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1611893
Amount: 1.012333
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

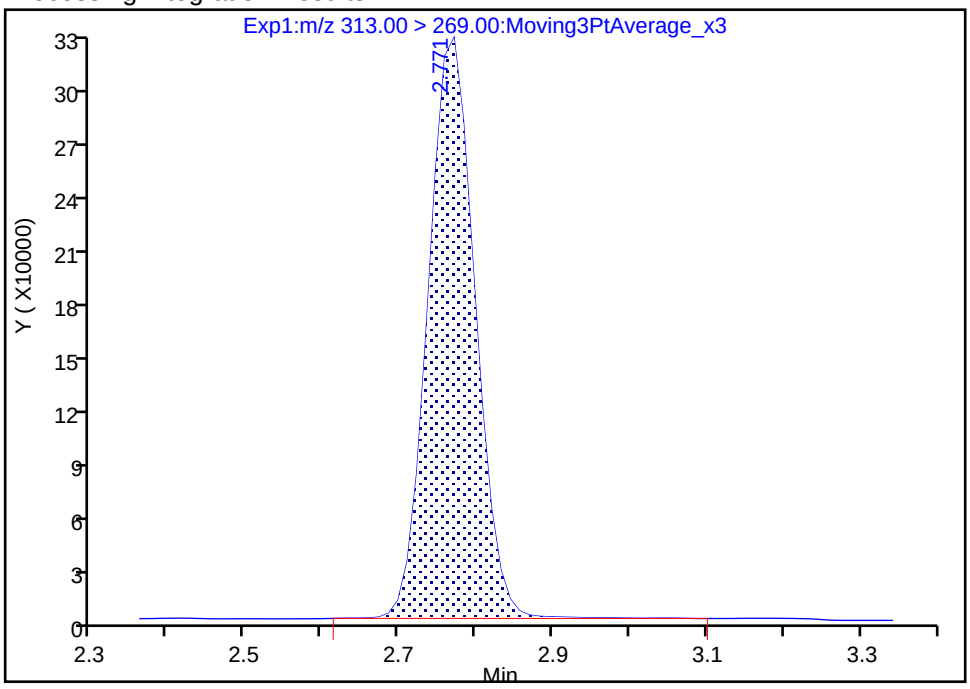
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

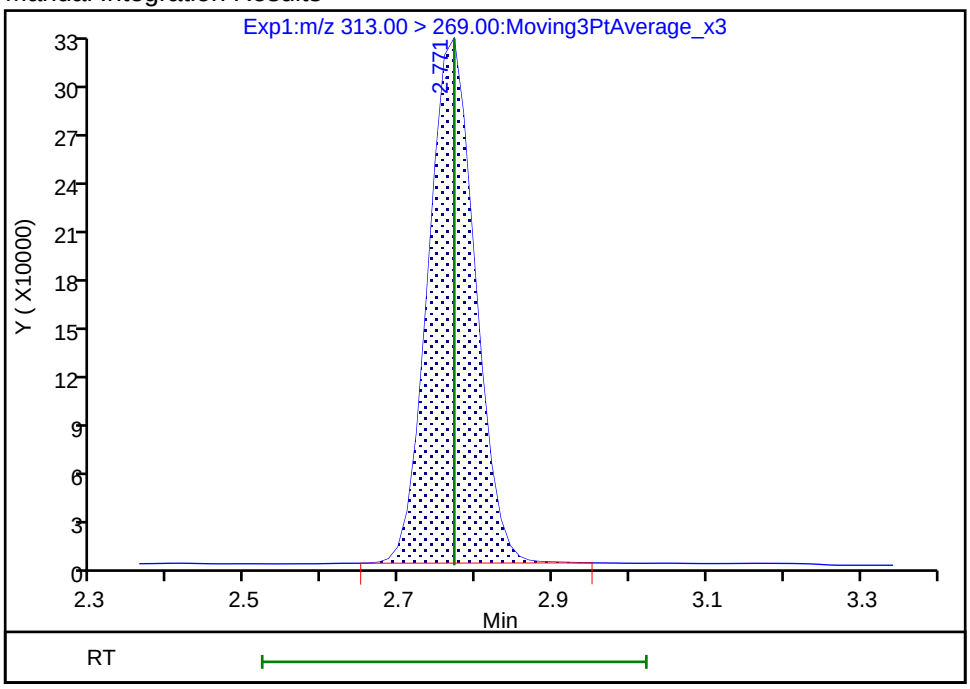
Processing Integration Results

RT: 2.77
Area: 1370496
Amount: 1.033050
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1363751
Amount: 1.027966
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

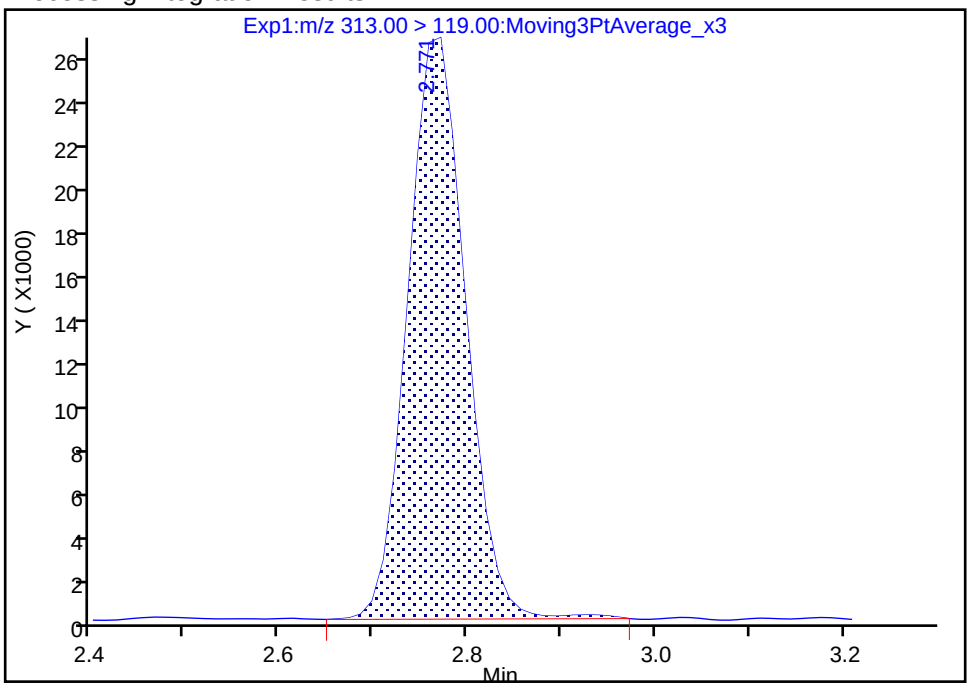
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

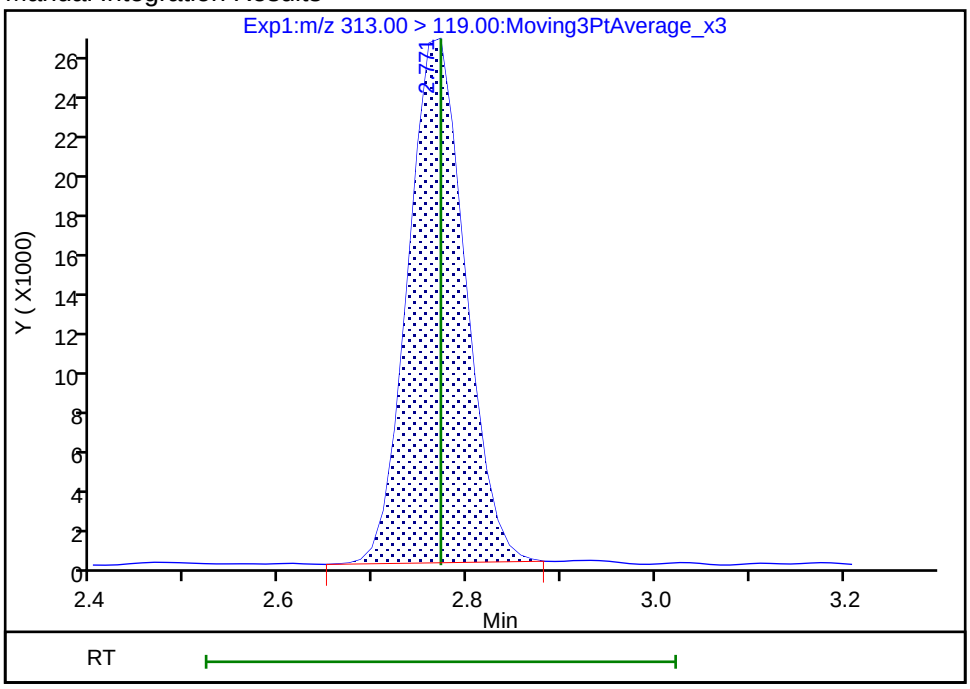
Processing Integration Results

RT: 2.77
Area: 110111
Amount: 1.033050
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 108545
Amount: 1.027966
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

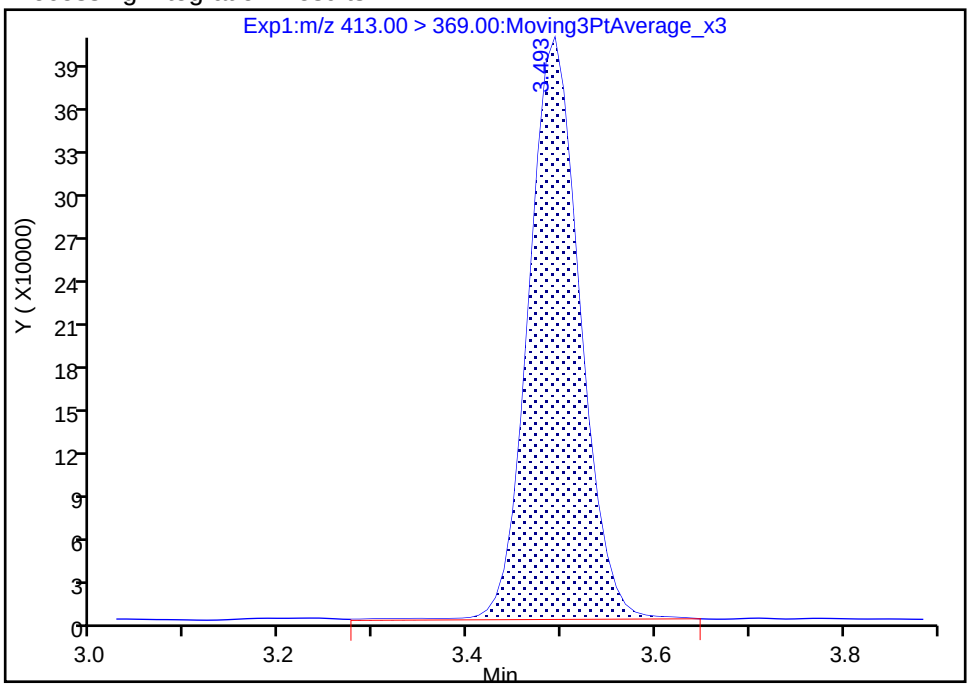
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

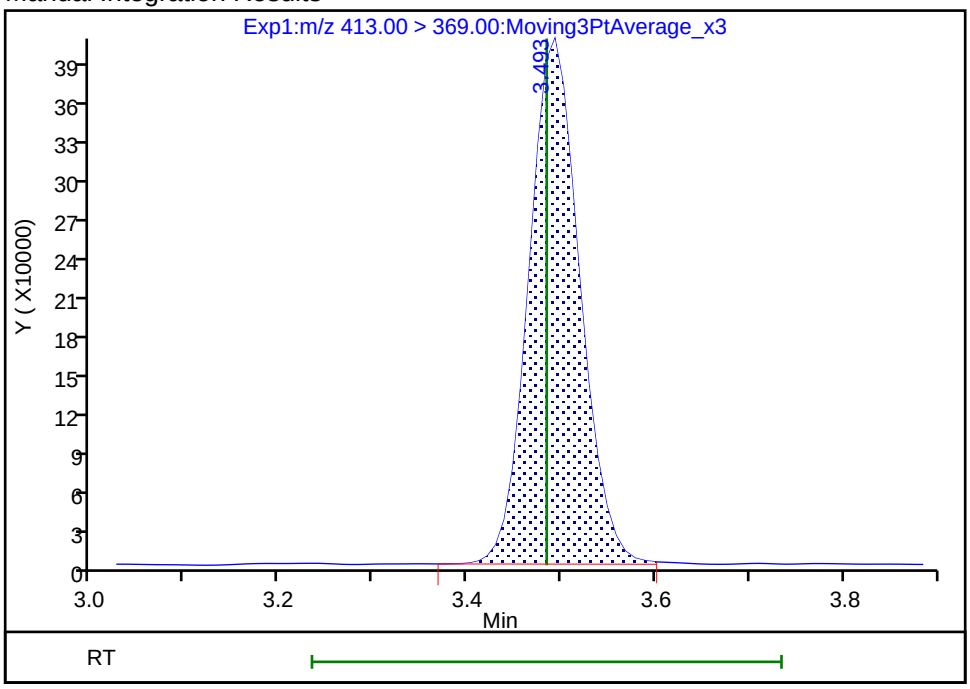
Processing Integration Results

RT: 3.49
Area: 1517461
Amount: 1.005002
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1504730
Amount: 0.996570
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:41:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

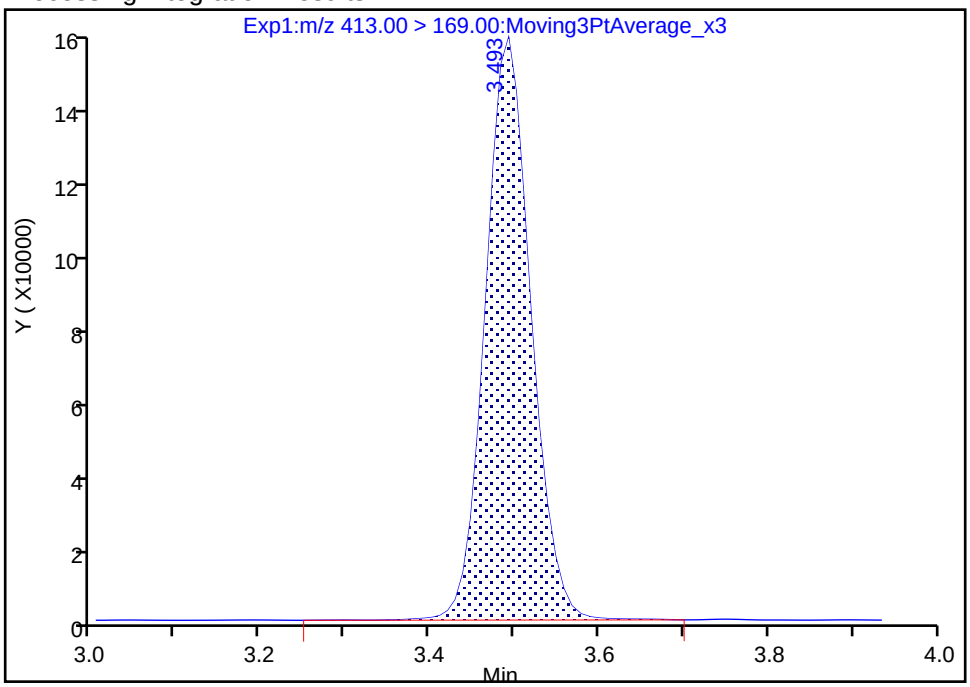
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

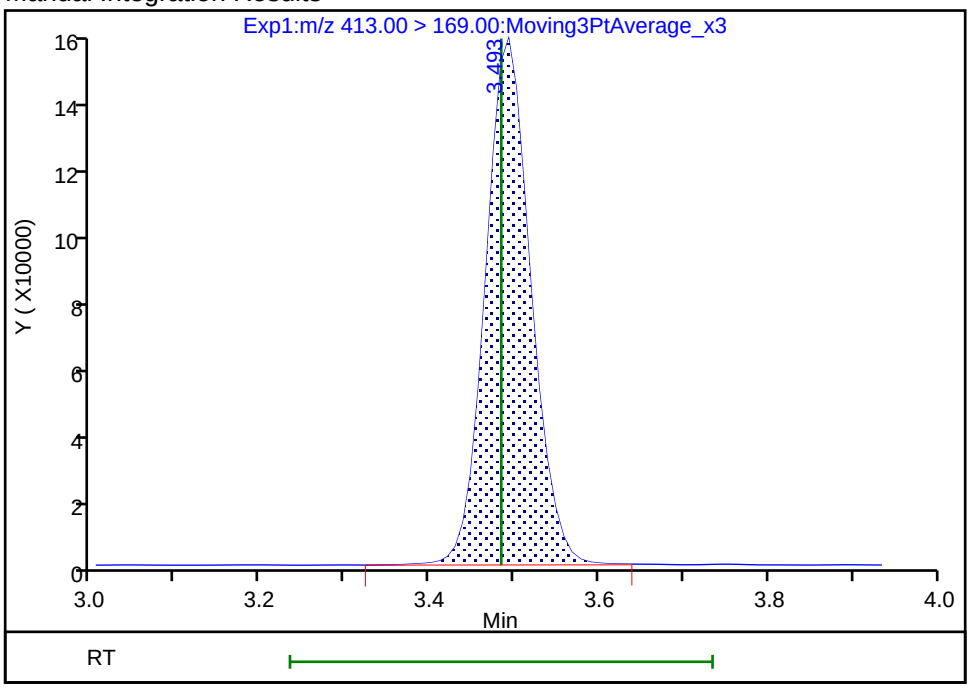
Processing Integration Results

RT: 3.49
Area: 577451
Amount: 1.005002
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 576780
Amount: 0.996570
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:41:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

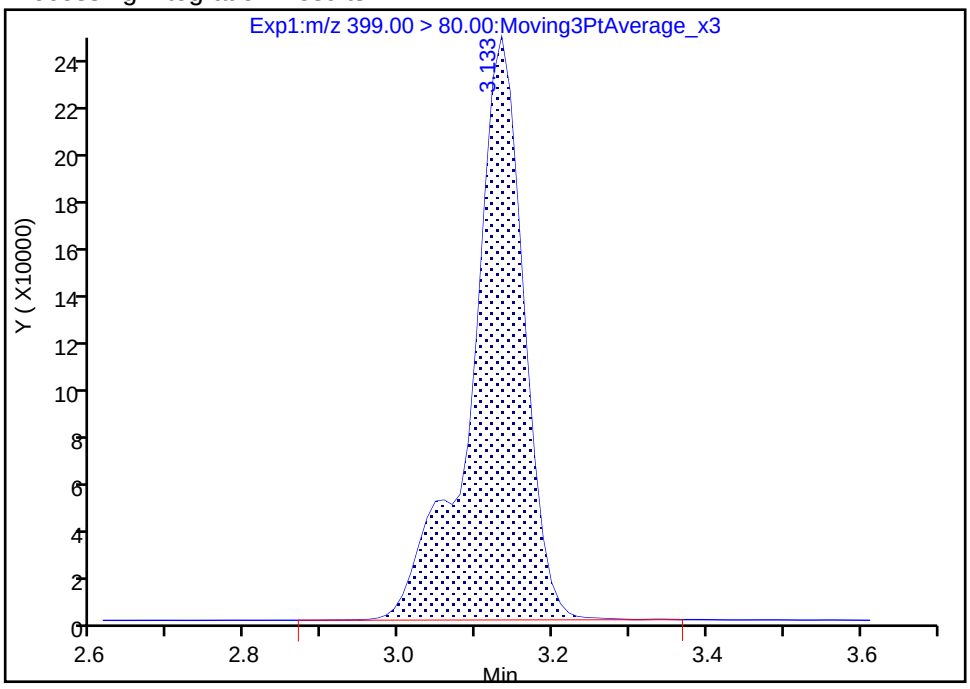
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

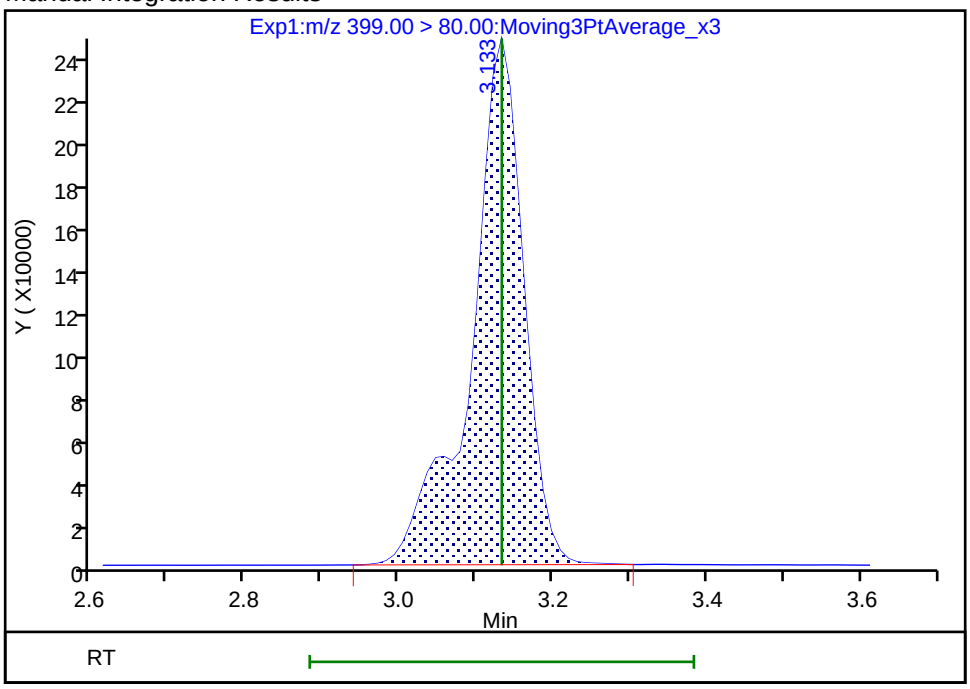
Processing Integration Results

RT: 3.13
Area: 1184442
Amount: 0.919852
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1182728
Amount: 0.918521
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

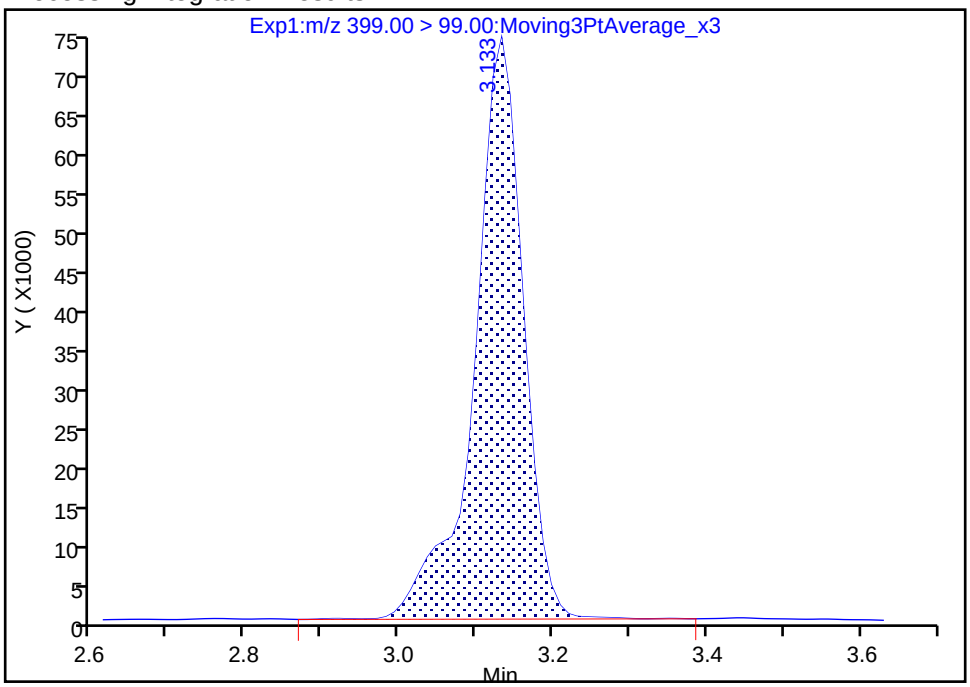
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

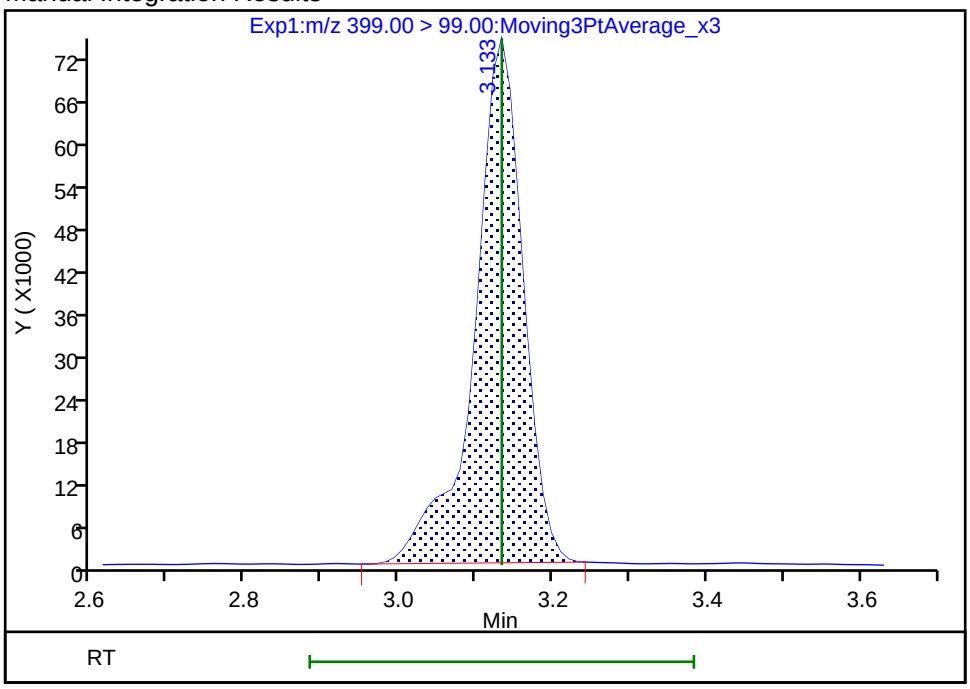
Processing Integration Results

RT: 3.13
Area: 328008
Amount: 0.919852
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 324310
Amount: 0.918521
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

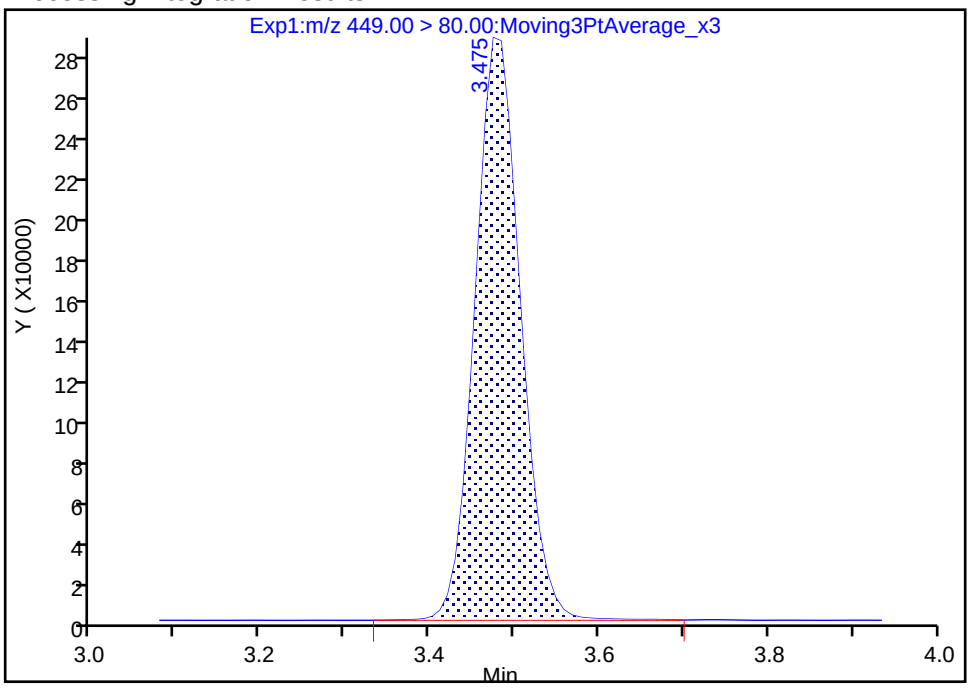
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

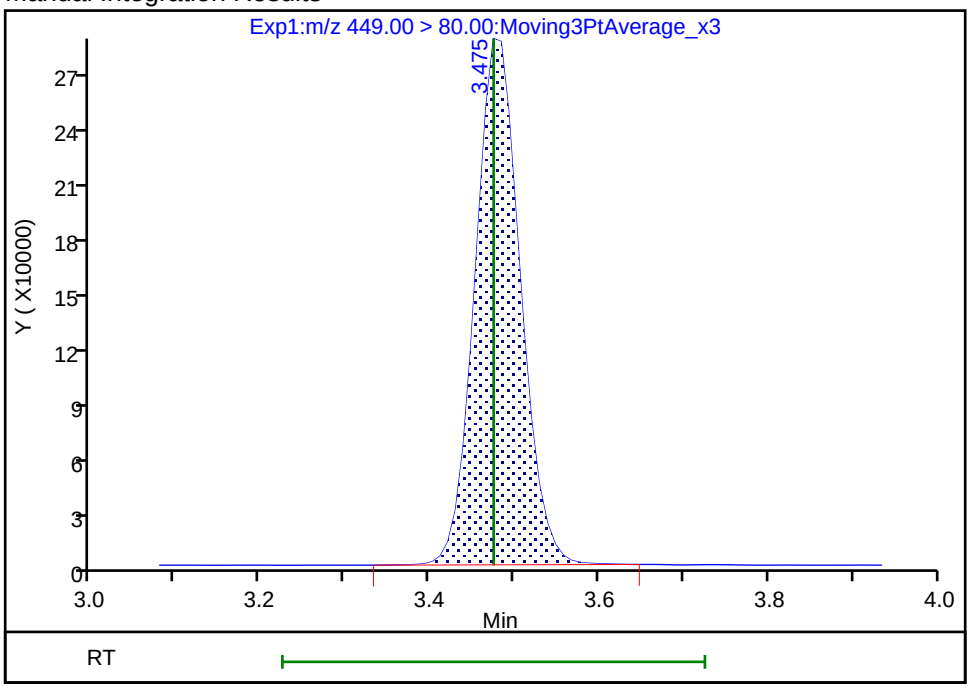
Processing Integration Results

RT: 3.47
Area: 1057417
Amount: 0.994665
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 1052758
Amount: 0.990282
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:08:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

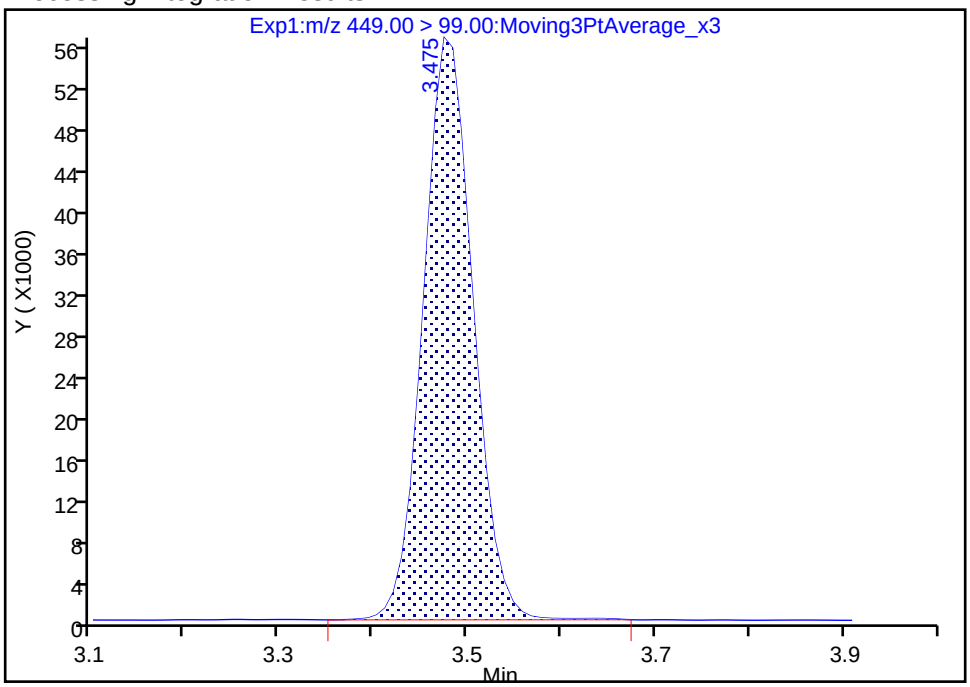
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

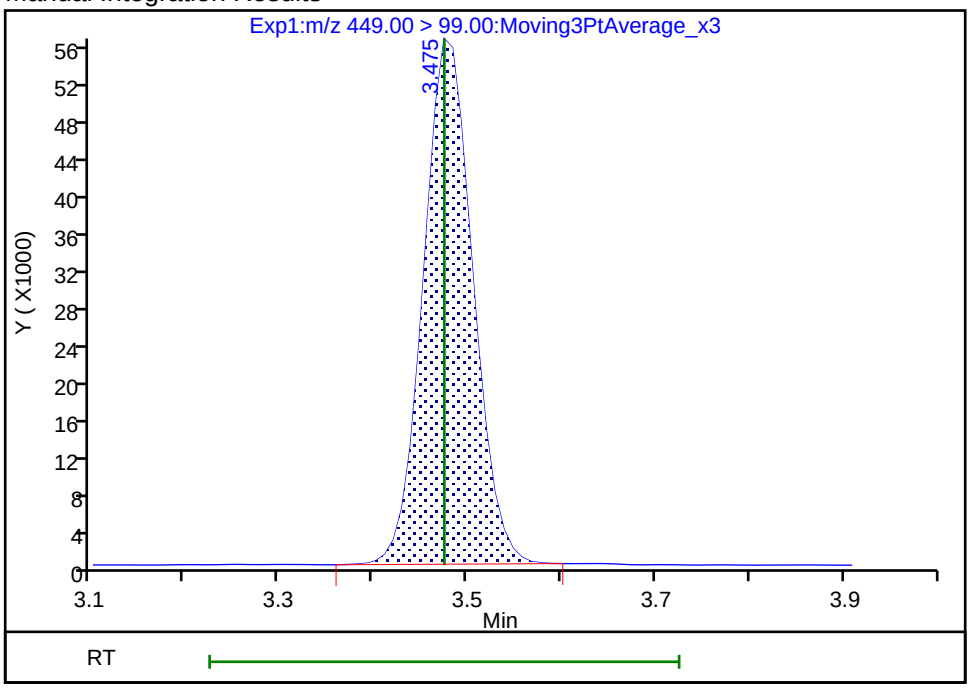
Processing Integration Results

RT: 3.47
Area: 207379
Amount: 0.994665
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 206029
Amount: 0.990282
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:09:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

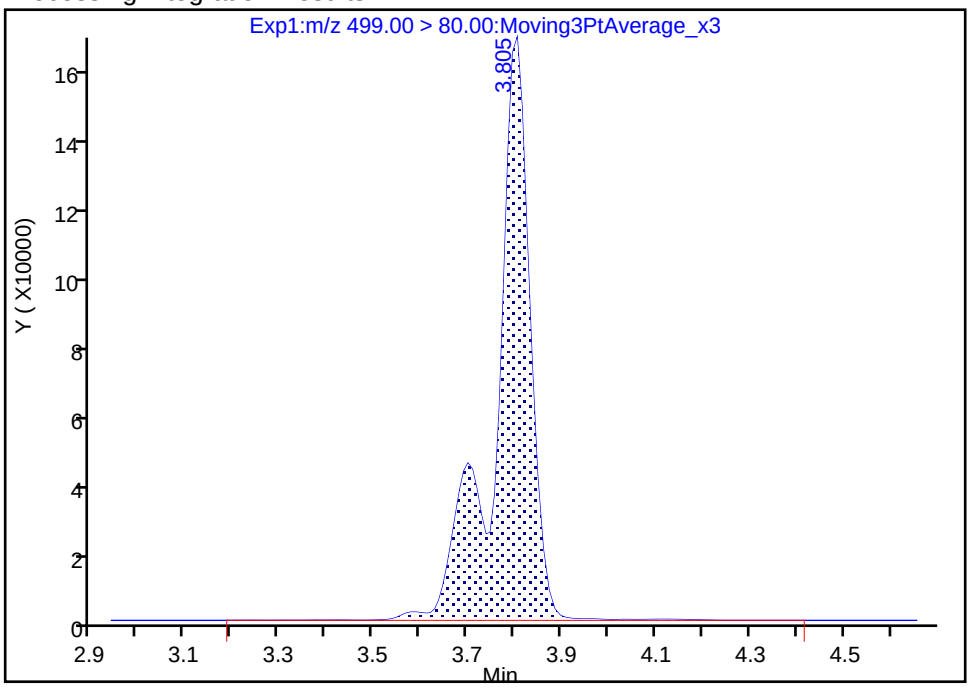
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

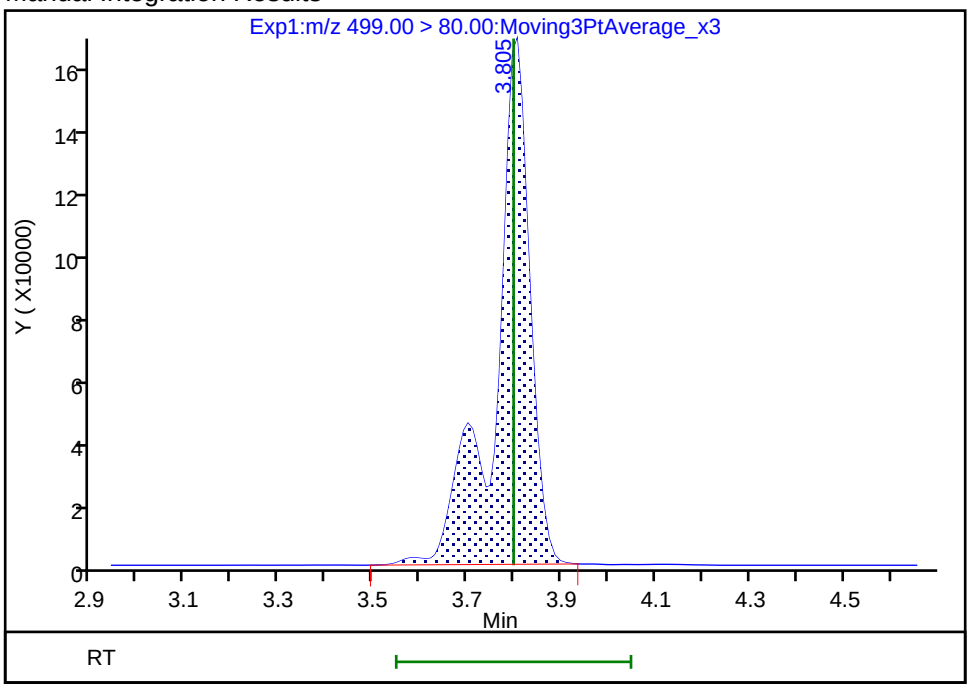
Processing Integration Results

RT: 3.81
Area: 882581
Amount: 0.953823
Amount Units: ng/ml




Manual Integration Results

RT: 3.81
Area: 871962
Amount: 0.942347
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:09:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

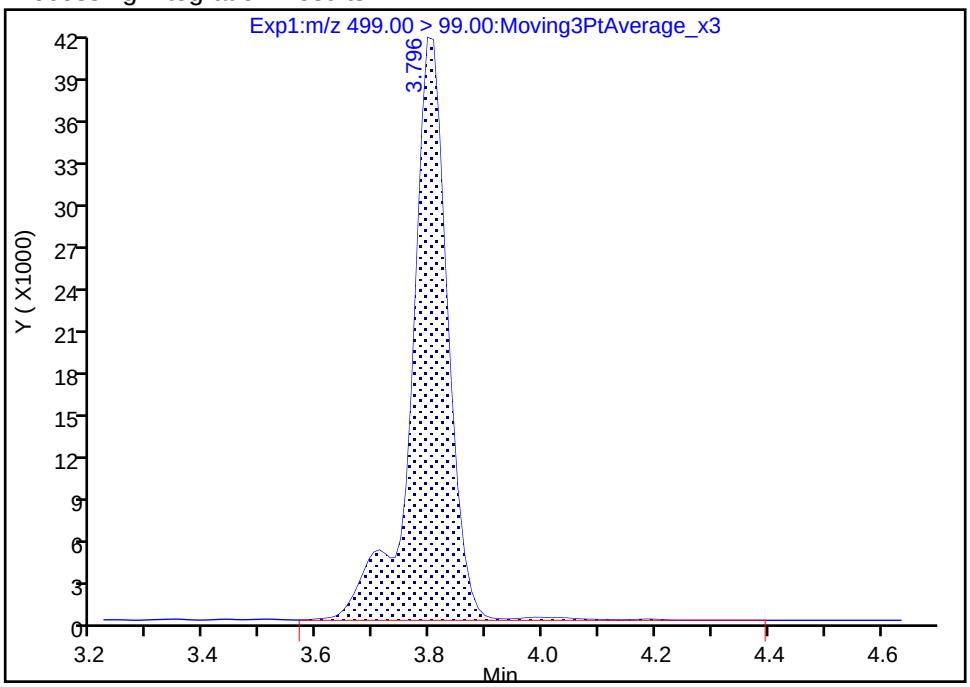
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

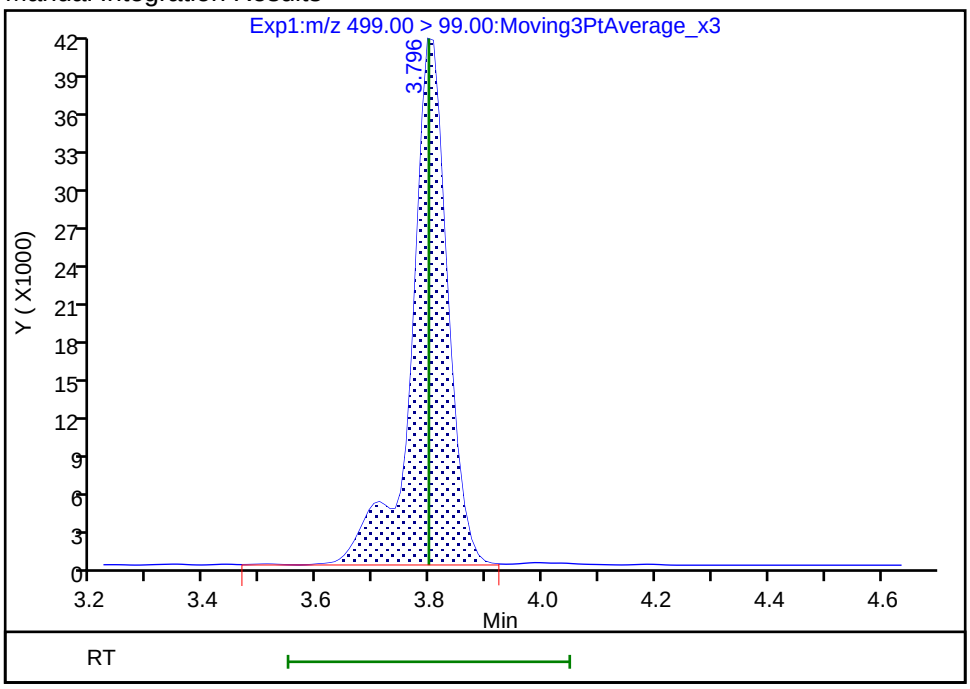
Processing Integration Results

RT: 3.80
Area: 187106
Amount: 0.953823
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 185311
Amount: 0.942347
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:09:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

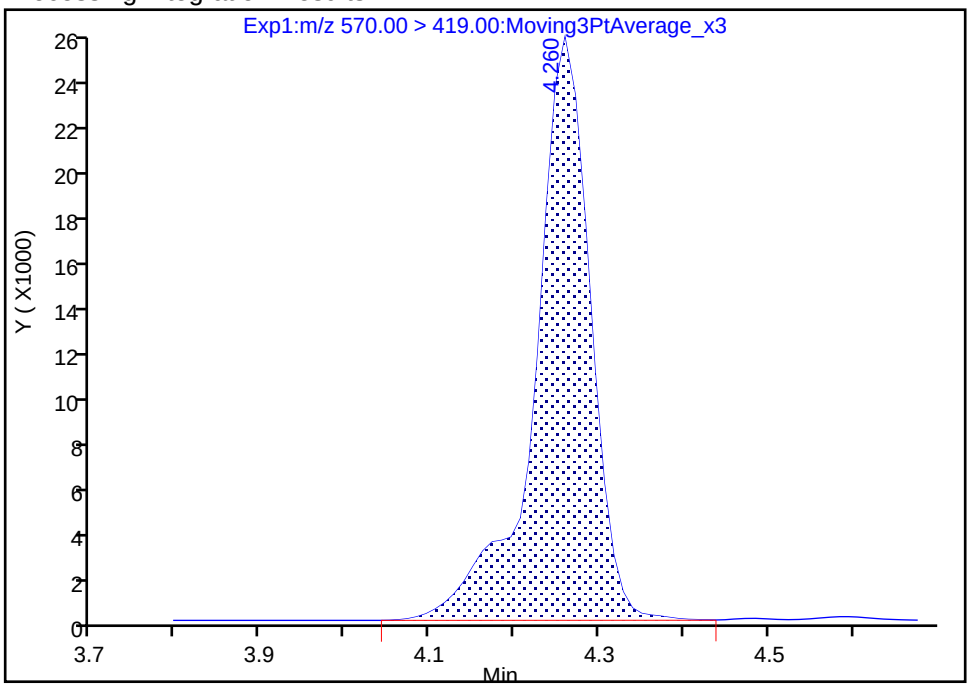
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

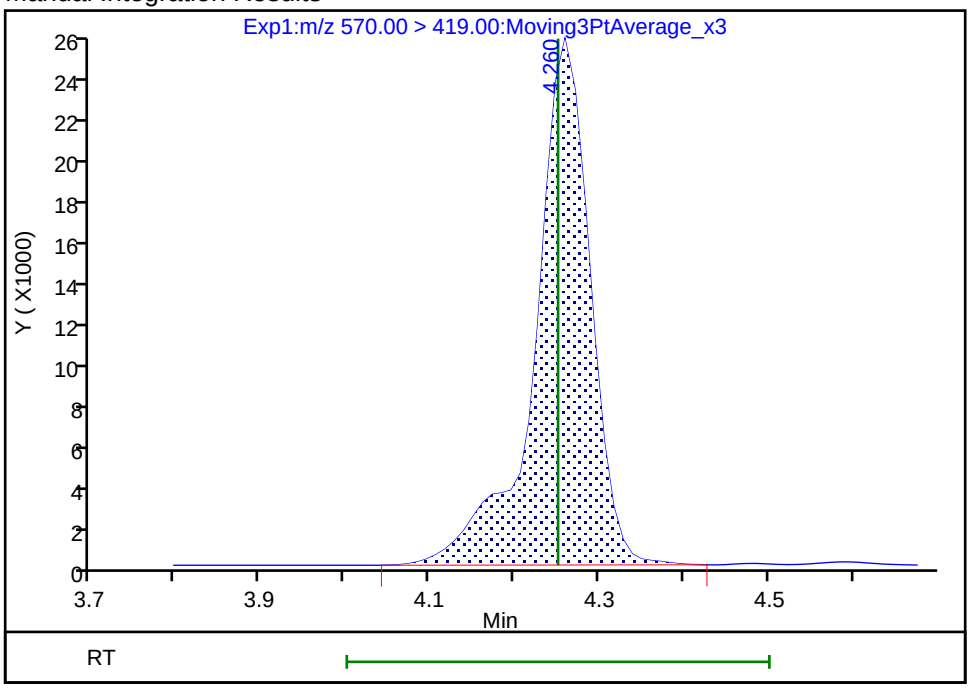
Processing Integration Results

RT: 4.26
Area: 115695
Amount: 0.953571
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 115511
Amount: 0.952054
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:10:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

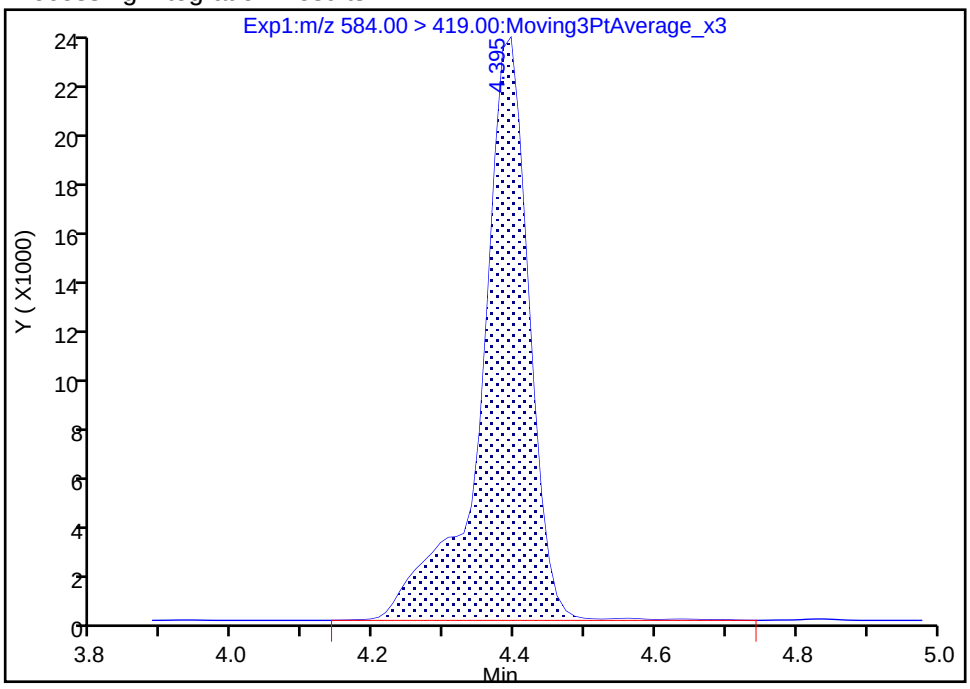
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

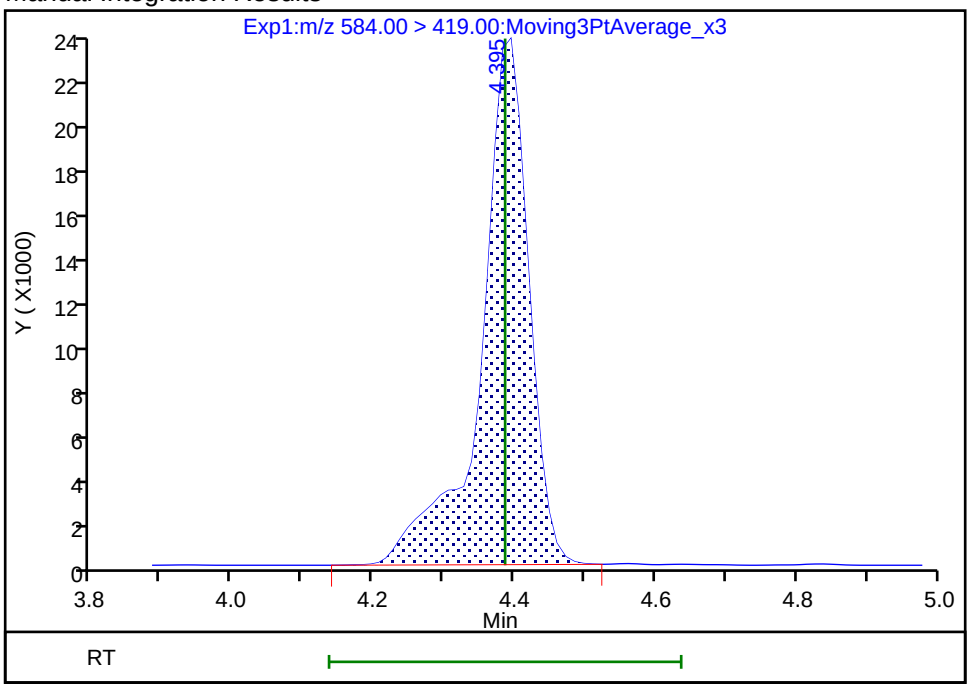
Processing Integration Results

RT: 4.39
Area: 114001
Amount: 1.052274
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 113064
Amount: 1.043625
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:10:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

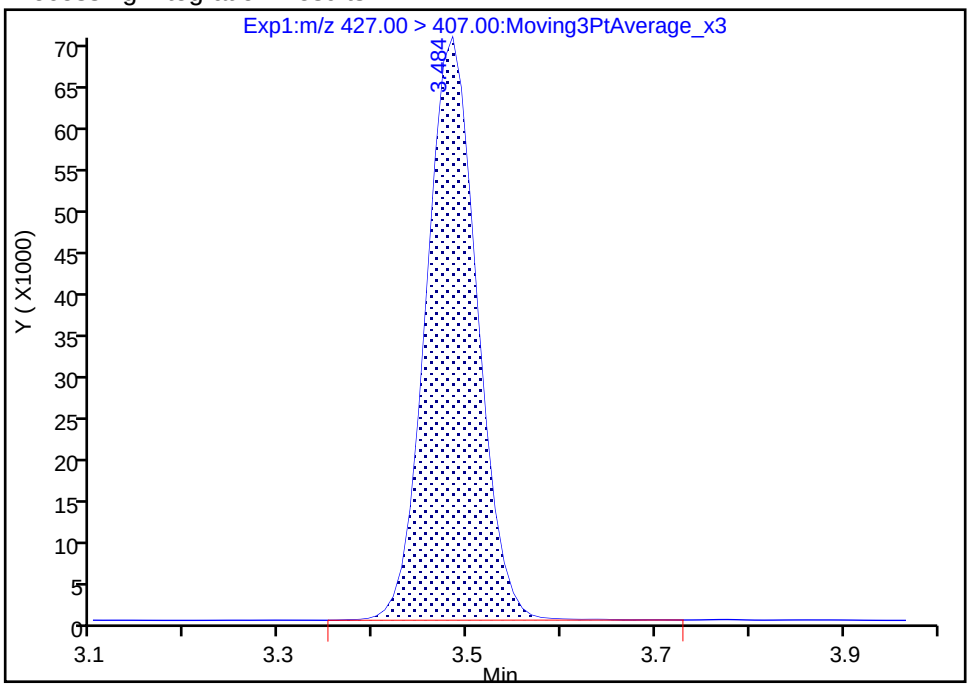
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d
Injection Date: 10-Nov-2021 12:19:59 Instrument ID: LC812
Lims ID: LCS 200-173541/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

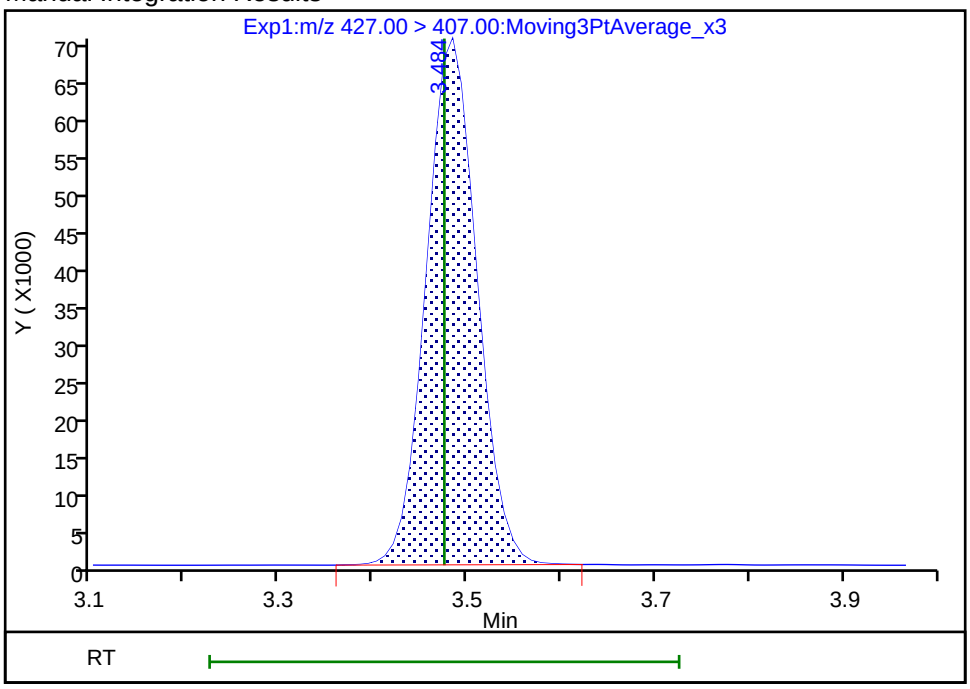
Processing Integration Results

RT: 3.48
Area: 263829
Amount: 0.974349
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 263111
Amount: 0.971697
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:40:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

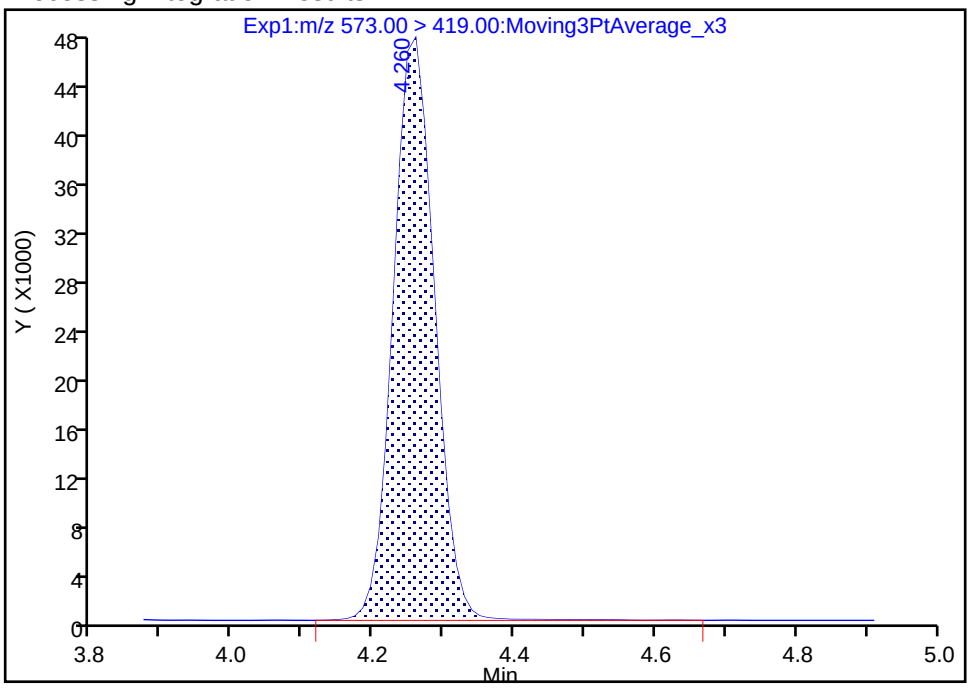
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A08.d | | | | |
| Injection Date: | 10-Nov-2021 12:19:59 | Instrument ID: | LC812 | | |
| Lims ID: | LCS 200-173541/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 5 | Worklist Smp#: | 8 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

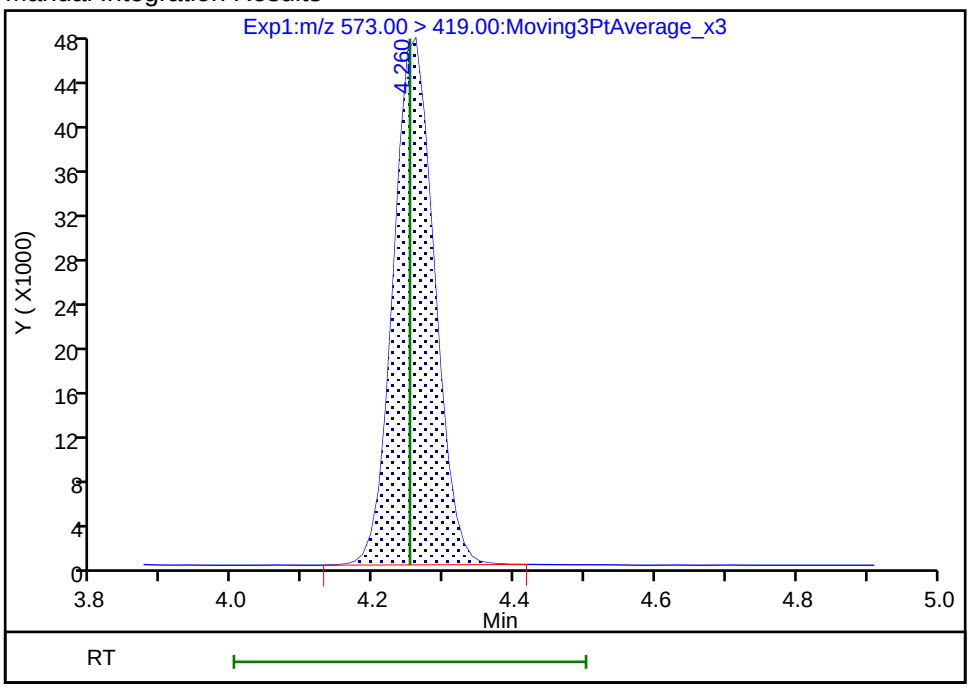
Processing Integration Results

RT: 4.26
Area: 194179
Amount: 1.336796
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 193052
Amount: 1.329037
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:09:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 200-173541/3-A

Matrix: Water  Lab File ID: PA211108A15.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/08/2021 17:28

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

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

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

Analysis Batch No.: 173621  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 36.57 | | 2.00 | 0.30 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 37.25 | | 2.00 | 0.29 |

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 104 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A15.d
Lims ID: LCSD 200-173541/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 08-Nov-2021 17:28:16 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 200-173541/3-A
Misc. Info.: 200-0048331-015 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 16:00:50 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 09-Nov-2021 10:49:07
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.207 | 2.226 | -0.019 | 0.635 | 2115770 | 1.71 | | 137 | 2595 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.207 | 2.236 | -0.029 | 1.000 | 1550258 | 0.9686 | | 96.9 | 163 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.466 | 2.479 | -0.013 | 0.710 | 1418978 | 1.36 | | 109 | 1326 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.466 | 2.479 | -0.013 | 1.000 | 1156143 | 1.02 | | 102 | 46.6 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.466 | 2.479 | -0.013 | 0.710 | 1687583 | 1.20 | | 103 | 132441 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.479 | 2.492 | -0.013 | 1.005 | 1377726 | 0.8886 | Target=2.32 | 101 | 896 | |
| 298.90 > 99.00 | 2.479 | 2.492 | -0.013 | 1.005 | 632444 | | 2.18(1.16-3.48) | | 297 | |
| D 60 M2-4:2 FTS | | | | | | | | | | |
| 329.00 > 81.00 | 2.746 | 2.758 | -0.012 | 0.790 | 152263 | 1.42 | | 122 | 89.2 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.746 | 2.758 | -0.012 | 1.000 | 278159 | 1.00 | | 107 | 874 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.783 | 2.795 | -0.012 | 0.801 | 1528859 | 1.40 | | 112 | 2123 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.783 | 2.795 | -0.012 | 1.000 | 1190149 | 0.9595 | Target=12.09 | 95.9 | 240 | M |
| 313.00 > 119.00 | 2.783 | 2.795 | -0.012 | 1.000 | 98182 | | 12.12(6.04-18.13) | | 72.0 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.783 | 2.795 | -0.012 | 0.891 | 1296729 | 1.01 | Target=3.03 | 108 | 1533 | |
| 349.00 > 99.00 | 2.783 | 2.795 | -0.012 | 0.891 | 418153 | | 3.10(1.52-4.55) | | 564 | |
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.880 | 2.892 | -0.012 | 1.000 | 134454 | 1.26 | | 126 | 69.8 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.892 | -0.012 | 0.829 | 29548 | 1.03 | | 82.2 | 181 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.122 | 3.132 | -0.010 | 1.000 | 1066900 | 0.9142 | Target=3.55 | 100 | 1251 | M |
| 399.00 > 99.00 | 3.122 | 3.132 | -0.010 | 1.000 | 298677 | | 3.57(1.77-5.32) | | 343 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.122 | 3.132 | -0.010 | 0.899 | 1255260 | 1.23 | | 104 | 4229 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.902 | 1497629 | 1.30 | | 104 | 5190 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1146771 | 0.9264 | Target=3.69 | 92.6 | 458 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 320729 | | 3.58(1.84-5.53) | | 700 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.165 | 3.175 | -0.011 | 0.838 | 2526198 | 0.9743 | Target=2.56 | 103 | 3693 | |
| 377.00 > 85.00 | 3.165 | 3.175 | -0.011 | 0.838 | 960572 | | 2.63(1.28-3.84) | | 1287 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | |
| 449.00 > 80.00 | 3.465 | 3.465 | 0.0 | 0.918 | 934904 | 1.01 | Target=4.88 | 106 | 3601 | |
| 449.00 > 99.00 | 3.465 | 3.465 | 0.0 | 0.918 | 181283 | | 5.16(2.44-7.32) | | 792 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.465 | 3.474 | -0.009 | 1.000 | 215973 | 0.9345 | | 98.6 | 1704 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.465 | 3.474 | -0.009 | 0.997 | 216418 | 1.34 | | 113 | 700 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.474 | 3.474 | 0.0 | 1.000 | 1520765 | 1.21 | | 96.9 | 4008 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.474 | 3.483 | -0.009 | | 1524999 | 1.25 | | | 5165 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.474 | 3.483 | -0.009 | 1.000 | 1307598 | 1.01 | Target=2.68 | 101 | 277 | M |
| 413.00 > 169.00 | 3.474 | 3.483 | -0.009 | 1.000 | 507059 | | 2.58(1.34-4.02) | | 971 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.775 | 3.785 | -0.010 | 1.087 | 885265 | 1.20 | | 100 | 2859 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.785 | 3.785 | 0.0 | 1.003 | 748506 | 0.9312 | Target=4.69 | 100 | 1237 | M |
| 499.00 > 99.00 | 3.775 | 3.785 | -0.010 | 1.000 | 161786 | | 4.63(2.35-7.04) | | 678 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.795 | 3.804 | -0.009 | 1.092 | 1469400 | 1.18 | | 94.0 | 4009 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.804 | 3.804 | 0.0 | 1.003 | 1171744 | 1.02 | Target=7.29 | 102 | 253 | |
| 463.00 > 169.00 | 3.795 | 3.804 | -0.009 | 1.000 | 160676 | | 7.29(3.64-10.93) | | 1532 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.944 | 3.943 | 0.001 | 1.045 | 1036674 | 0.8561 | | 91.9 | 3087 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.060 | 4.070 | -0.010 | 1.075 | 575300 | 0.9188 | Target=2.35 | 95.7 | 2894 | |
| 549.00 > 99.00 | 4.060 | 4.070 | -0.010 | 1.075 | 230127 | | 2.50(1.17-3.52) | | 1083 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.093 | 4.092 | 0.001 | 1.178 | 1433889 | 1.14 | | 90.9 | 5602 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.093 | 4.092 | 0.001 | 1.000 | 1156100 | 1.00 | Target=8.95 | 100 | 825 | |
| 513.00 > 169.00 | 4.093 | 4.092 | 0.001 | 1.000 | 126846 | | 9.11(4.47-13.42) | | 803 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.104 | 4.104 | 0.0 | 1.181 | 230856 | 1.26 | | 105 | 995 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.104 | 4.104 | 0.0 | 1.000 | 152493 | 0.9456 | | 98.7 | 1749 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.213 | 1312101 | 1.08 | | 86.2 | 2350 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.215 | 4.215 | 0.0 | 1.000 | 955457 | 0.9585 | | 95.8 | 2049 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.225 | 4.235 | -0.010 | 1.216 | 125185 | 1.01 | | 80.7 | 550 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.235 | 4.235 | 0.0 | 1.002 | 85052 | 1.08 | | 108 | 548 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.325 | 4.324 | 0.001 | 1.145 | 390933 | 0.8030 | Target=2.47 | 83.3 | 1313 | |
| 599.00 > 99.00 | 4.325 | 4.324 | 0.001 | 1.145 | 148618 | | 2.63(1.23-3.70) | | 1102 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.347 | 4.347 | 0.0 | 1.251 | 984792 | 1.00 | | 80.1 | 2304 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.347 | 4.347 | 0.0 | 1.000 | 848030 | 1.01 | Target=9.24 | 101 | 668 | |
| 563.00 > 169.00 | 4.347 | 4.347 | 0.0 | 1.000 | 99464 | | 8.53(4.62-13.86) | | 1242 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.358 | 4.358 | 0.0 | 1.254 | 119888 | 1.03 | | 82.5 | 1633 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.369 | 4.369 | 0.0 | 1.003 | 78466 | 0.9548 | | 95.5 | 871 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.435 | 4.445 | -0.010 | 1.175 | 1083243 | 0.7574 | | 80.4 | 3118 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.568 | 4.568 | 0.0 | 1.315 | 968624 | 0.9156 | | 73.2 | 1064 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.568 | 4.568 | 0.0 | 1.000 | 749876 | 0.9884 | Target=7.04 | 98.8 | 165 | |
| 613.00 > 169.00 | 4.568 | 4.568 | 0.0 | 1.000 | 115706 | | 6.48(3.52-10.56) | | 994 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.590 | 4.590 | 0.0 | 1.119 | 55899 | 0.7502 | | 77.8 | 1038 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.738 | 4.738 | 0.0 | 1.255 | 156719 | 0.8753 | Target=0.49 | 90.4 | 1958 | |
| 699.00 > 99.00 | 4.738 | 4.738 | 0.0 | 1.255 | 279403 | | 0.56(0.25-0.74) | | 3379 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.765 | 4.765 | 0.0 | 1.043 | 616955 | 0.9432 | Target=4.68 | 94.3 | 230 | |
| 663.00 > 169.00 | 4.765 | 4.765 | 0.0 | 1.043 | 140330 | | 4.40(2.34-7.02) | | 1308 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.946 | 4.946 | 0.0 | 1.424 | 714055 | 0.8703 | | 69.6 | 1436 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.946 | 4.946 | 0.0 | 1.000 | 95860 | 1.06 | Target=1.01 | 106 | 1608 | |
| 713.00 > 219.00 | 4.937 | 4.946 | -0.009 | 0.998 | 101536 | | 0.94(0.51-1.52) | | 3085 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.245 | 5.245 | 0.0 | 1.510 | 738039 | 1.02 | | 81.7 | 2891 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.245 | 5.245 | 0.0 | 1.000 | 485657 | 0.9455 | Target=4.57 | 94.6 | 200 | |
| 813.00 > 169.00 | 5.245 | 5.245 | 0.0 | 1.000 | 120910 | | 4.02(2.29-6.86) | | 1347 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.491 | 5.501 | -0.010 | 1.047 | 439445 | 0.8825 | Target=4.27 | 88.3 | 335 | M |
| 913.00 > 169.00 | 5.491 | 5.501 | -0.010 | 1.047 | 99206 | | 4.43(2.14-6.41) | | 1045 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 16:03:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A15.d

Injection Date: 08-Nov-2021 17:28:16 Instrument ID: LC812

Lims ID: LCSD 200-173541/3-A

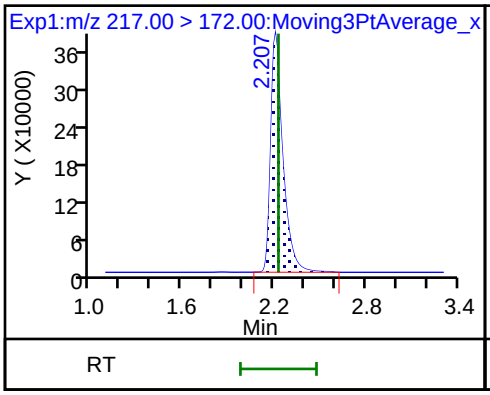
Client ID:

Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15

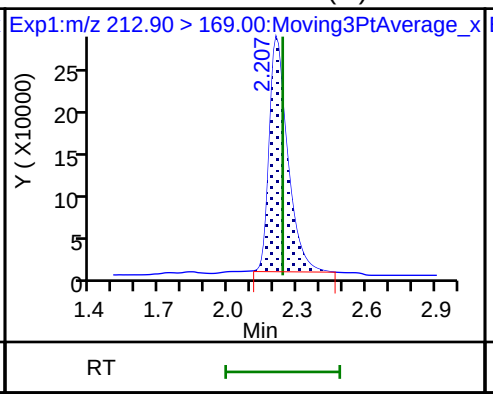
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

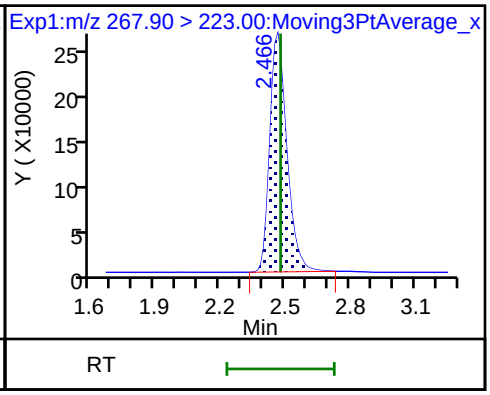
D 1 13C4 PFBA



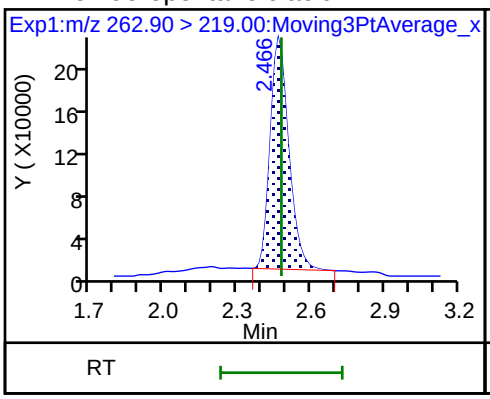

2 Perfluorobutanoic acid (M)



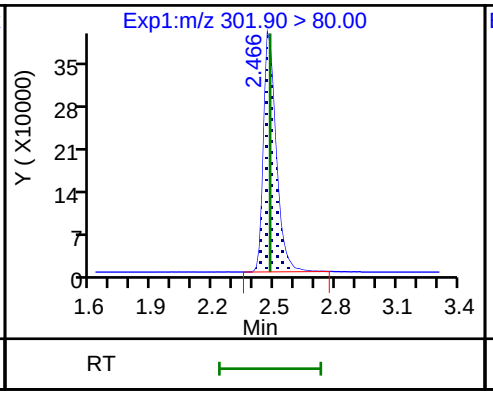

D 3 13C5 PFPeA



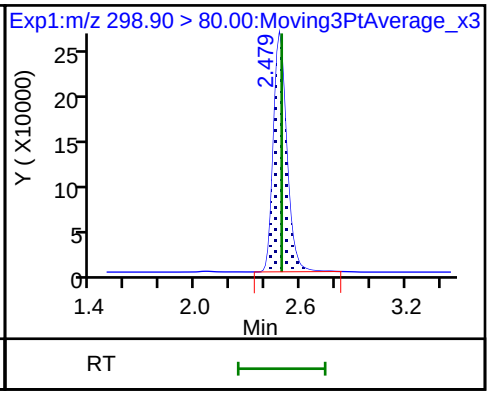

4 Perfluoropentanoic acid



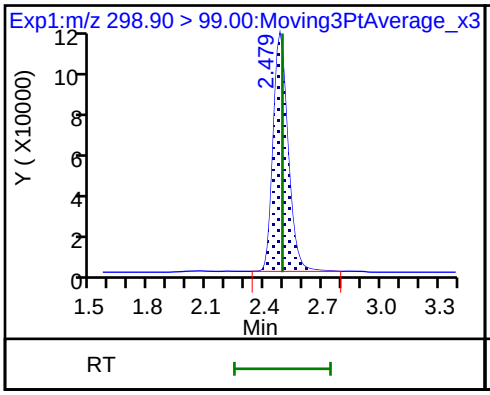

D 47 13C3 PFBS



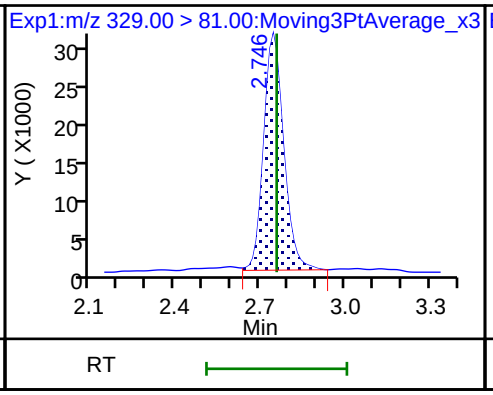

5 Perfluorobutanesulfonic acid



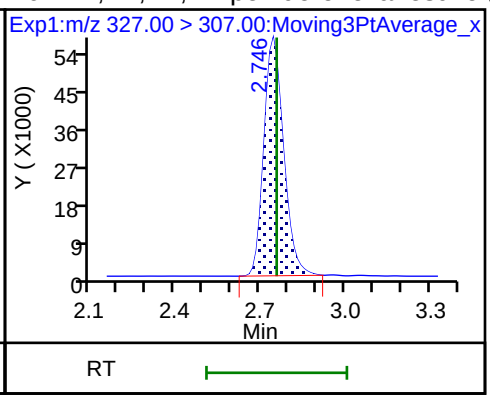

5 Perfluorobutanesulfonic acid



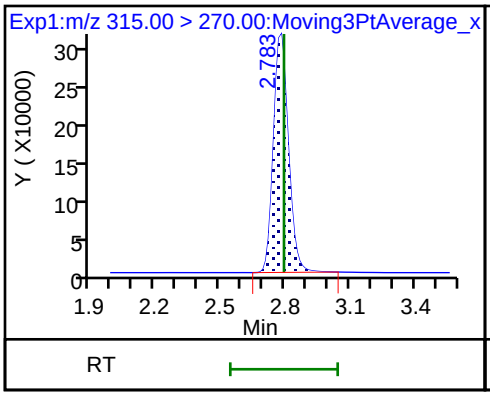

D 60 M2-4:2 FTS



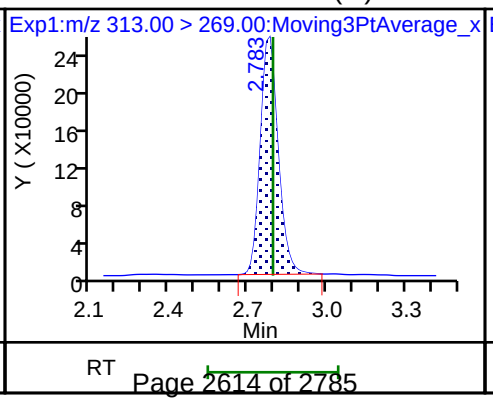

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



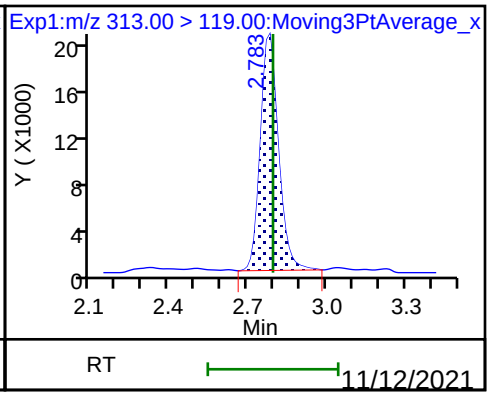

D 7 13C2 PFHxA



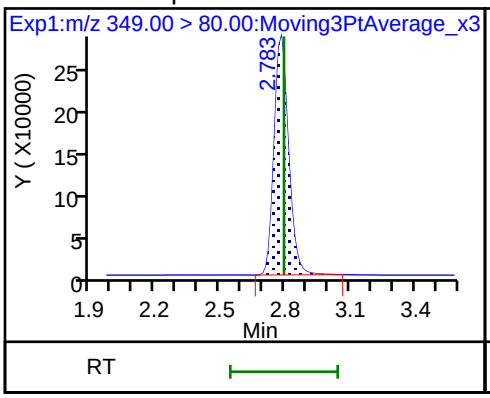

6 Perfluorohexanoic acid (M)



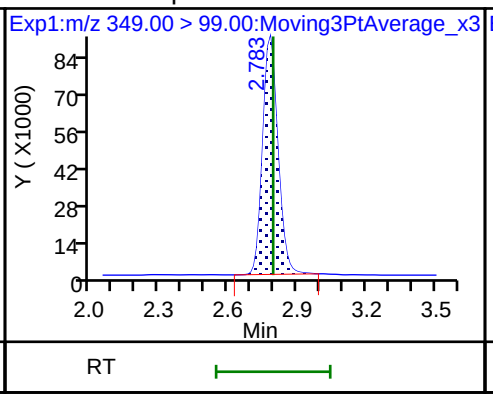

6 Perfluorohexanoic acid



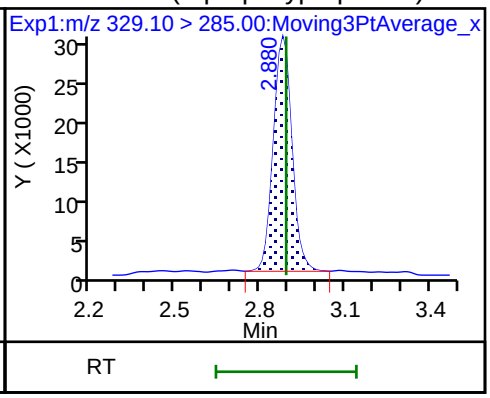
70 Perfluoropentanesulfonic acid



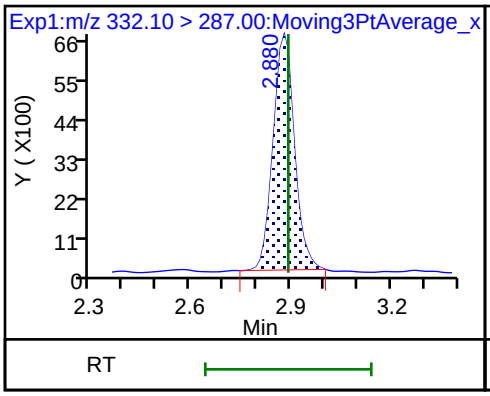

70 Perfluoropentanesulfonic acid



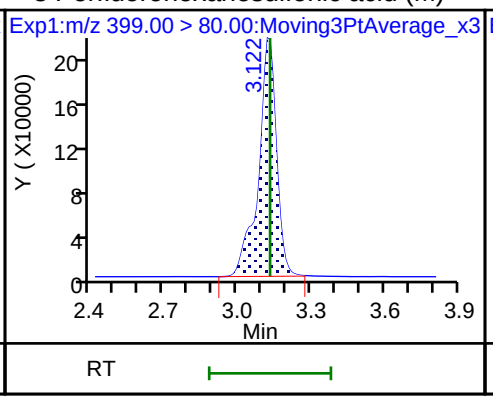

67 Perfluoro(2-propoxypropanoic) ac



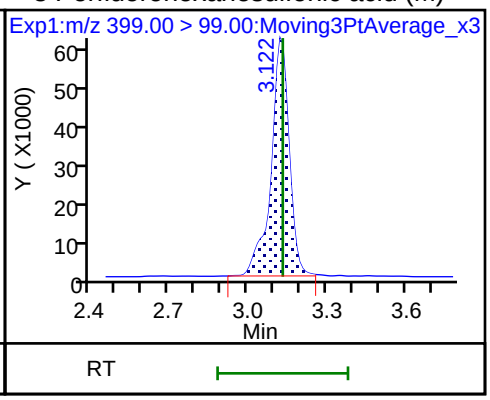

D 64 13C3 HFPO-DA



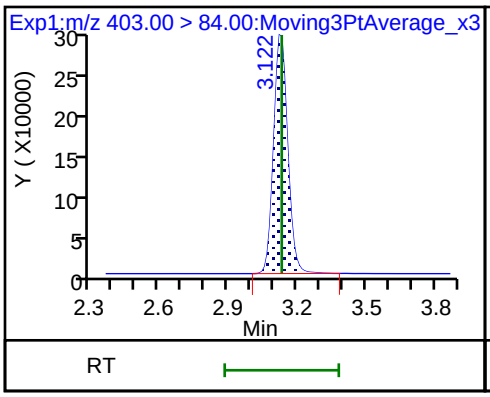

8 Perfluorohexanesulfonic acid (M)



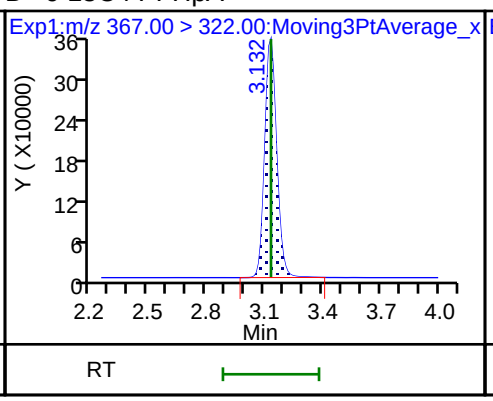

8 Perfluorohexanesulfonic acid (M)



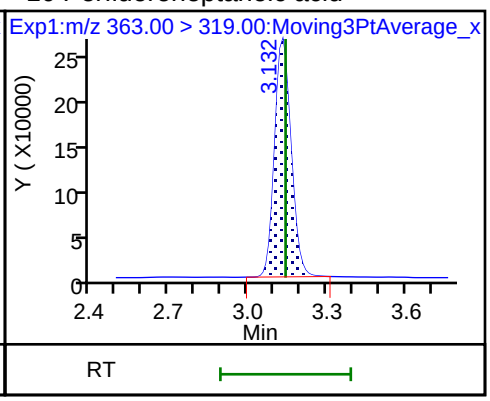

D 11 18O2 PFHxS



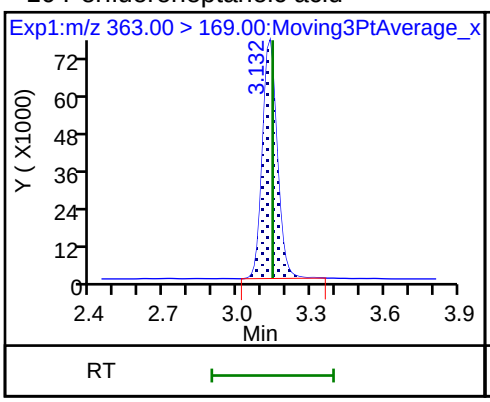

D 9 13C4 PFHpA



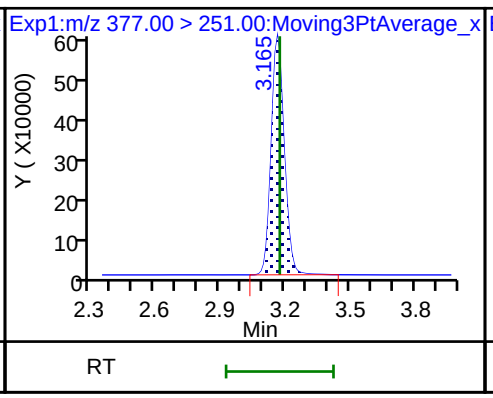

10 Perfluoroheptanoic acid



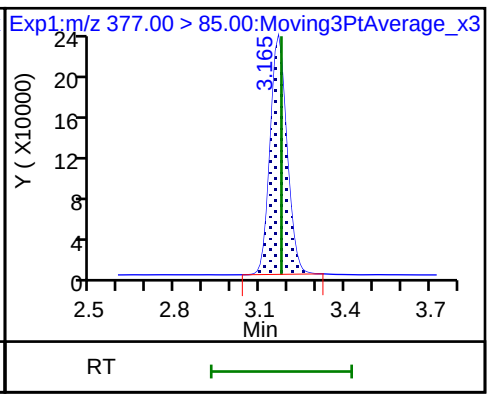

10 Perfluoroheptanoic acid



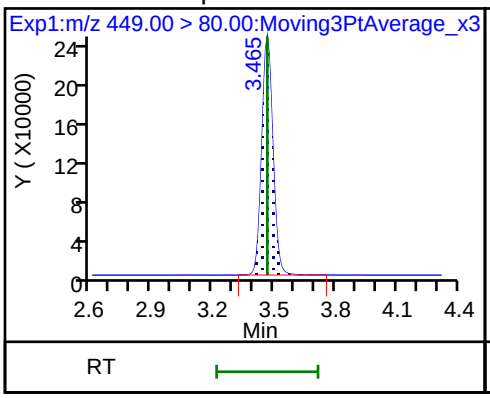

77 DONA



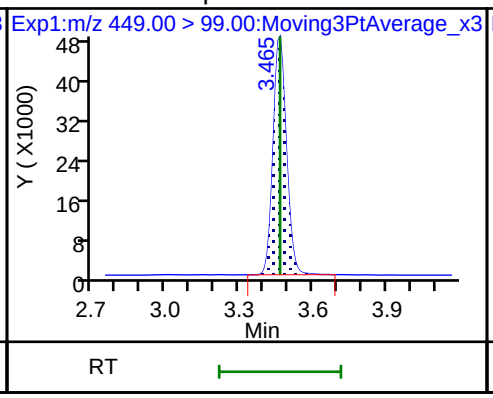

77 DONA



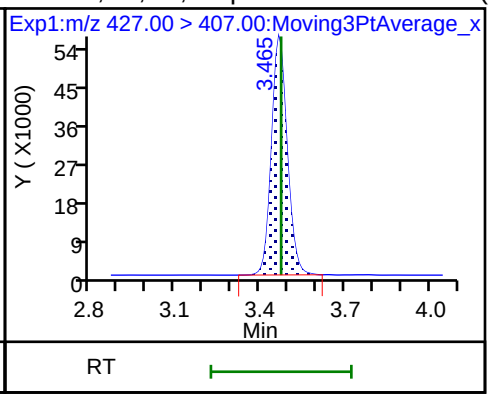
16 Perfluoroheptanesulfonic acid



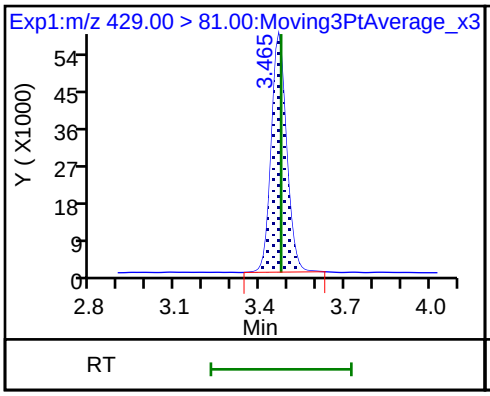

16 Perfluoroheptanesulfonic acid



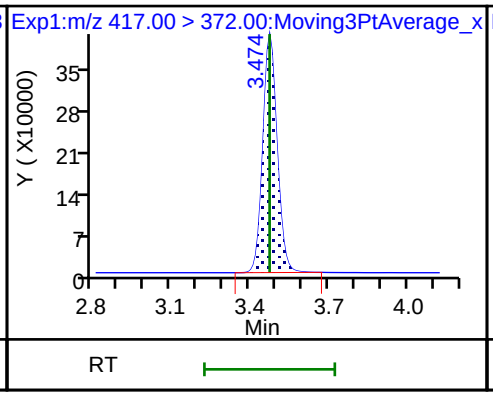

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



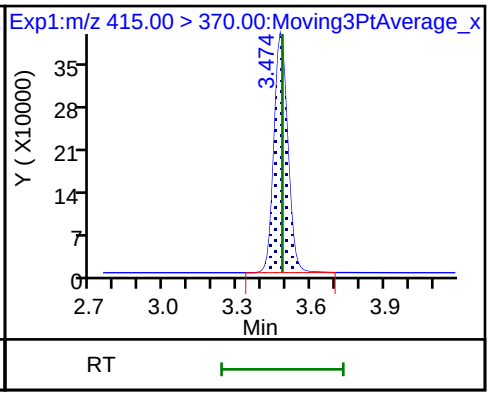

D 12 M2-6:2 FTS



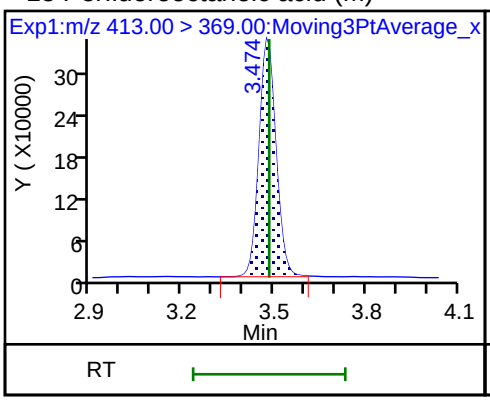

D 14 13C4 PFOA



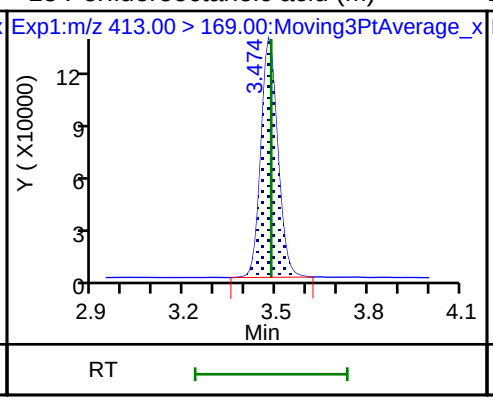

* 62 13C2 PFOA



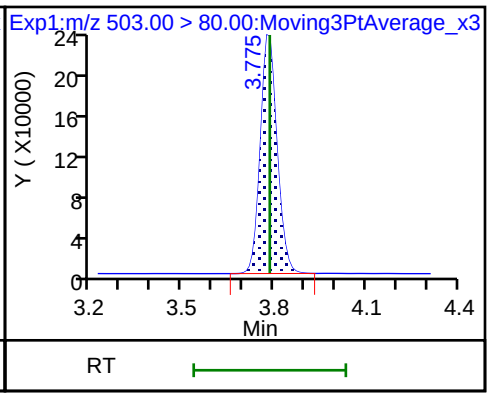

15 Perfluorooctanoic acid (M)



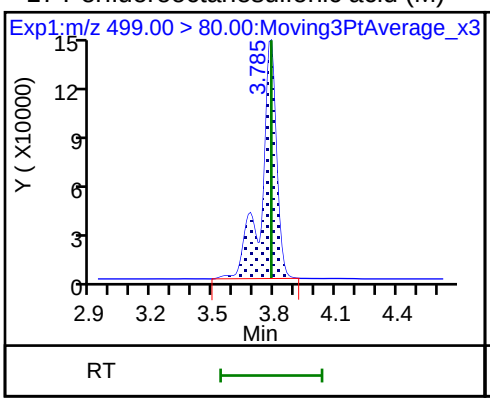

15 Perfluorooctanoic acid (M)



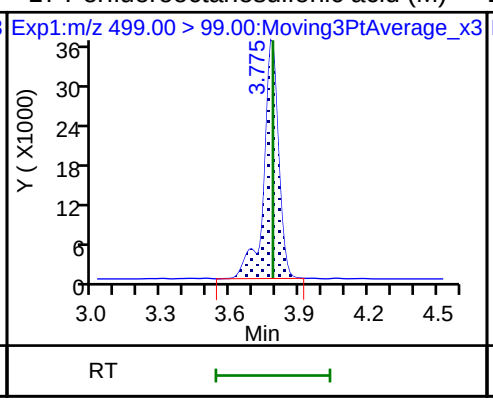

D 18 13C4 PFOS



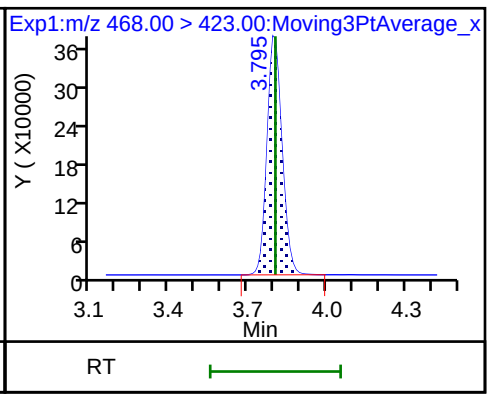

17 Perfluorooctanesulfonic acid (M)



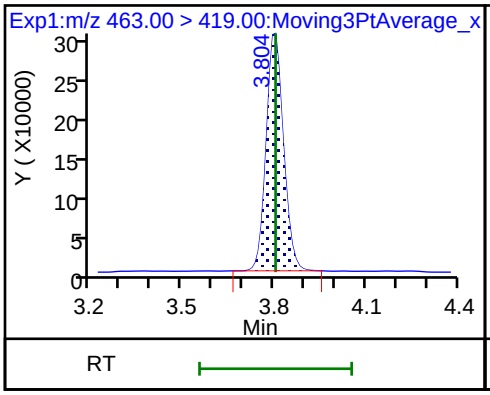

17 Perfluorooctanesulfonic acid (M)



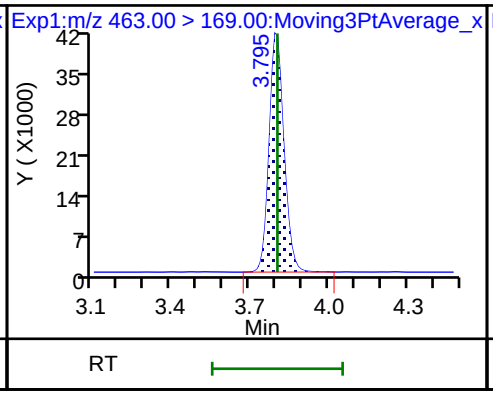

D 19 13C5 PFNA



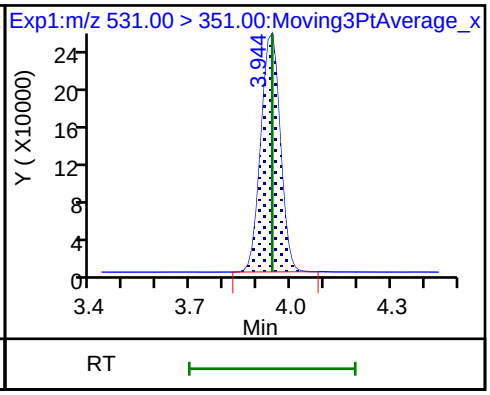
20 Perfluorononanoic acid



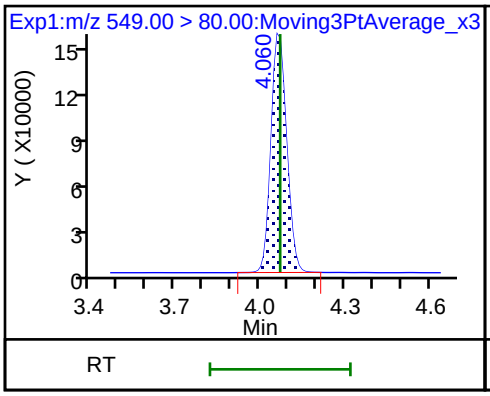

20 Perfluorononanoic acid



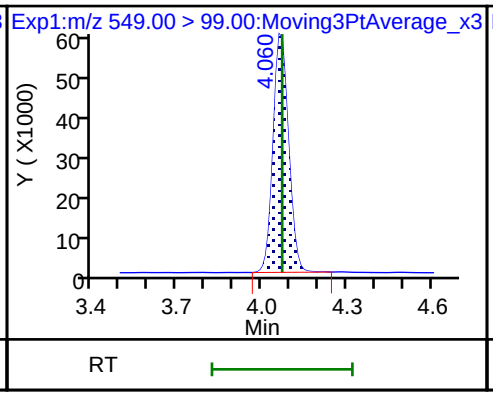

69 9-Chlorohexadecafluoro-3-oxanona



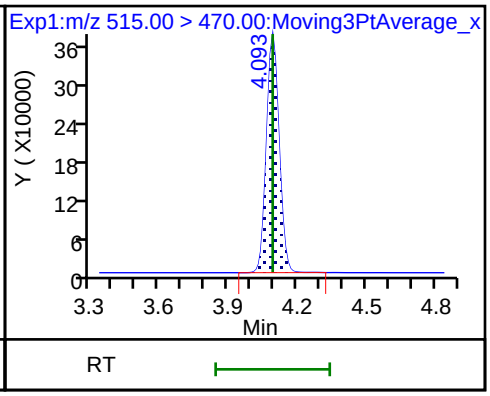

68 Perfluorononanesulfonic acid



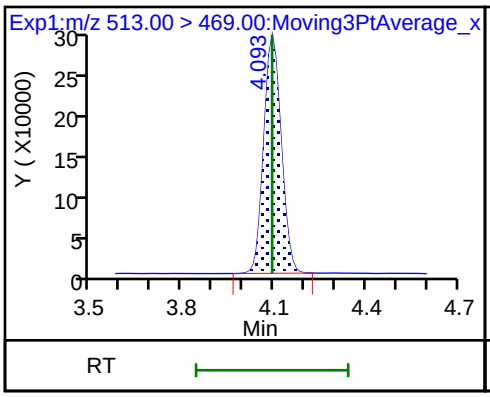

68 Perfluorononanesulfonic acid



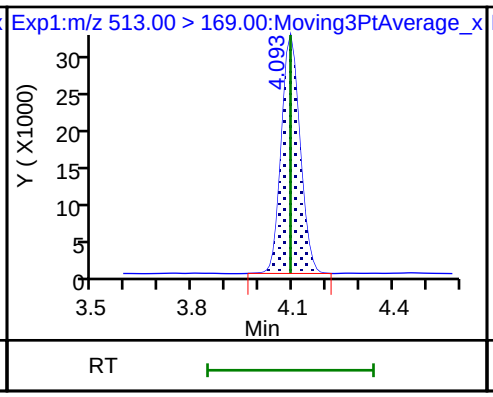

D 23 13C2 PFDA



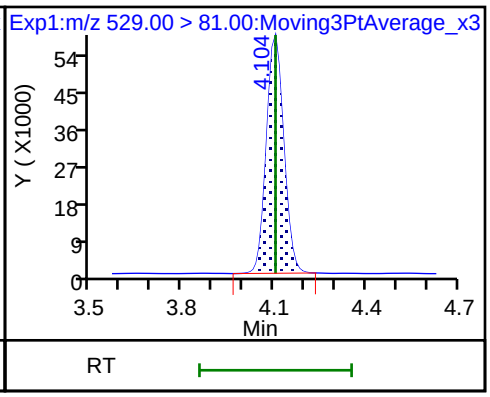

24 Perfluorodecanoic acid



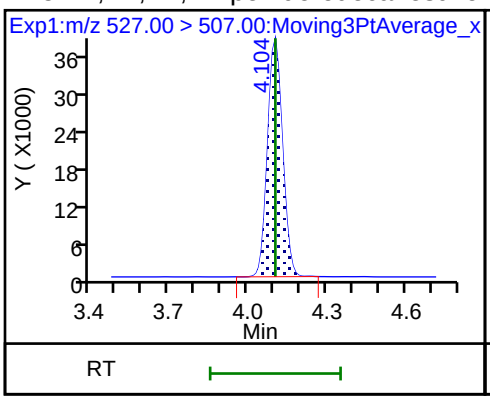

24 Perfluorodecanoic acid



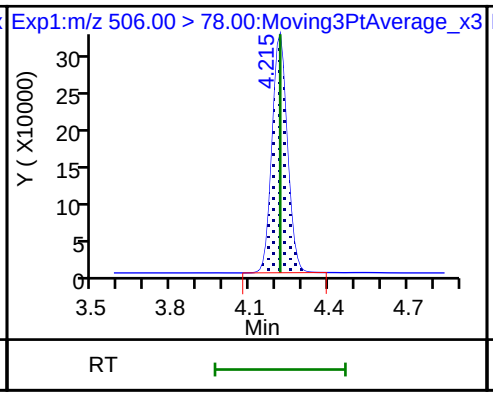

D 26 M2-8:2 FTS



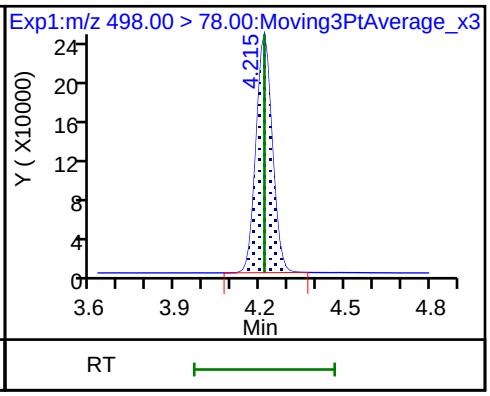

25 1H,1H,2H,2H-perfluorodecanesulfo



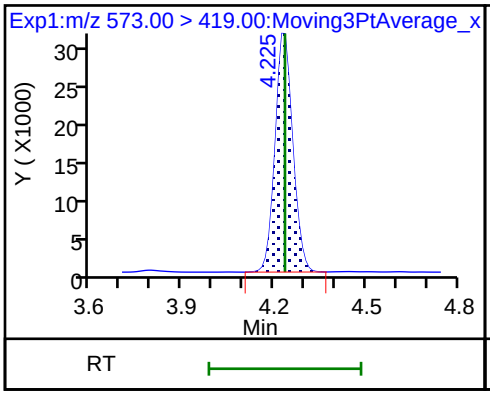

D 21 13C8 FOSA



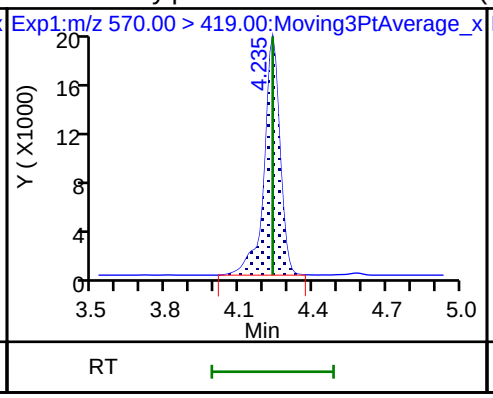

22 Perfluorooctanesulfonamide



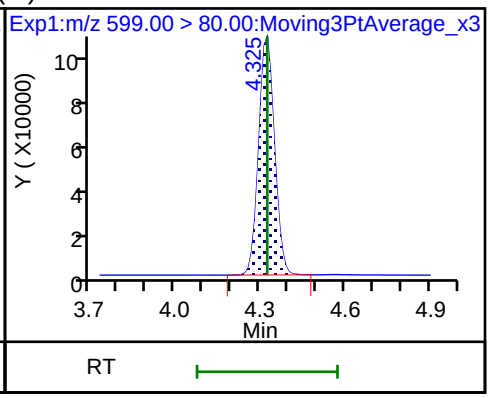
D 27 d3-NMeFOSAA



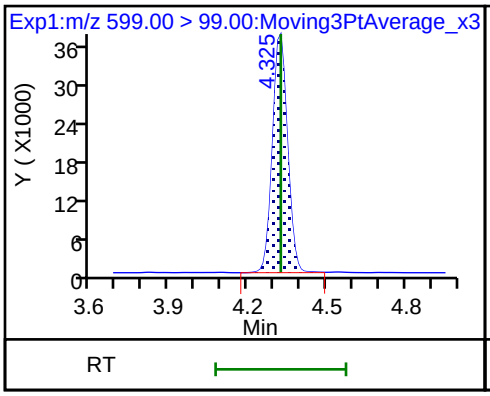

28 N-methylperfluorooctanesulfonami (M)



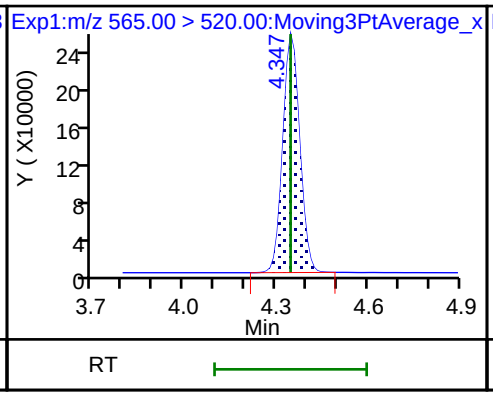

29 Perfluorodecanesulfonic acid



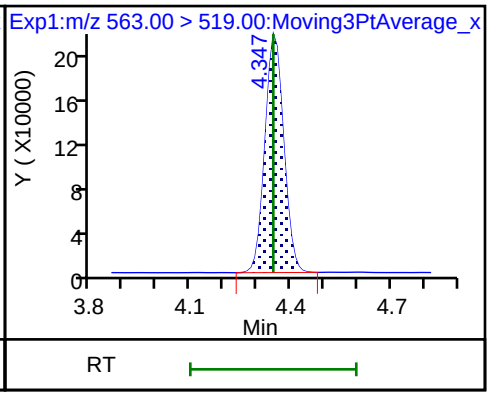

29 Perfluorodecanesulfonic acid



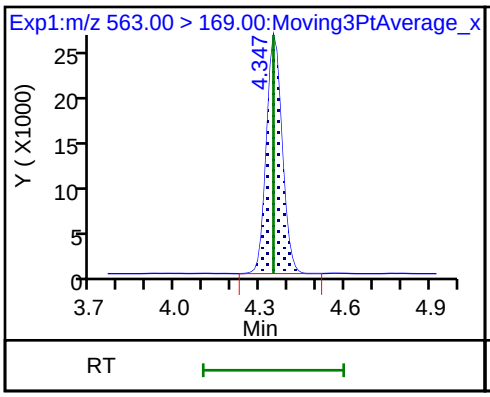

D 30 13C2 PFUnA



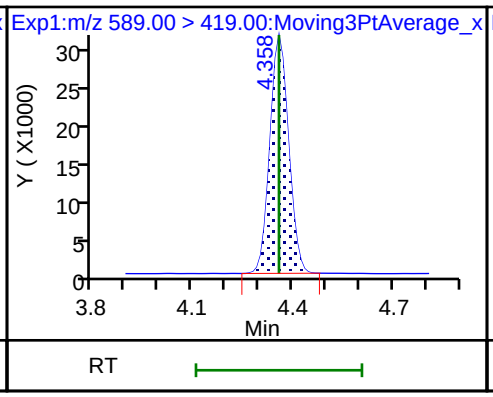

31 Perfluoroundecanoic acid



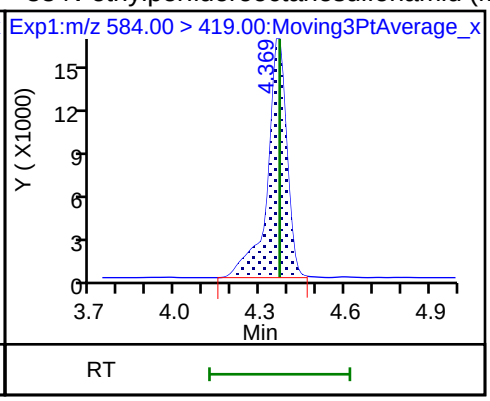

31 Perfluoroundecanoic acid



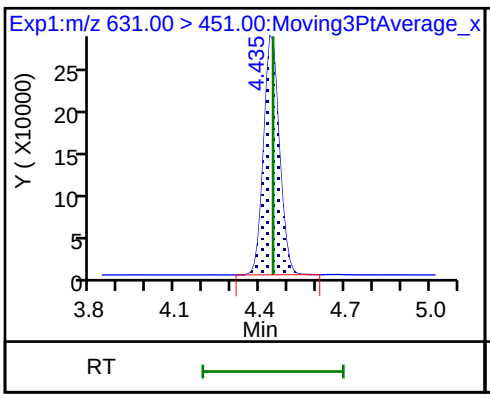

D 32 d5-NEtFOSAA



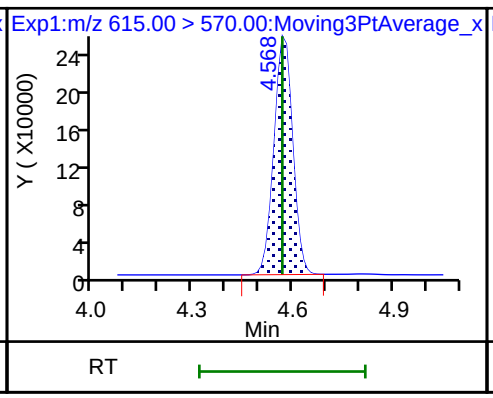

33 N-ethylperfluorooctanesulfonamid (M)



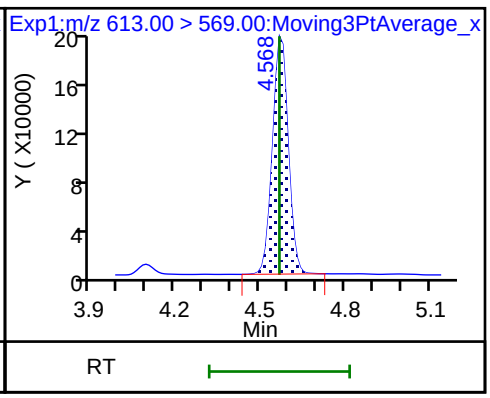

66 11-Chloroeicosafluoro-3-oxaundec



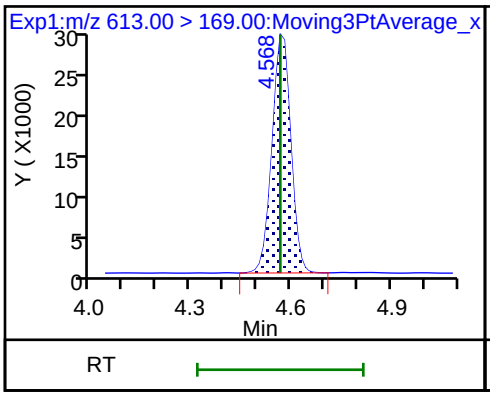

D 36 13C2 PFDoA



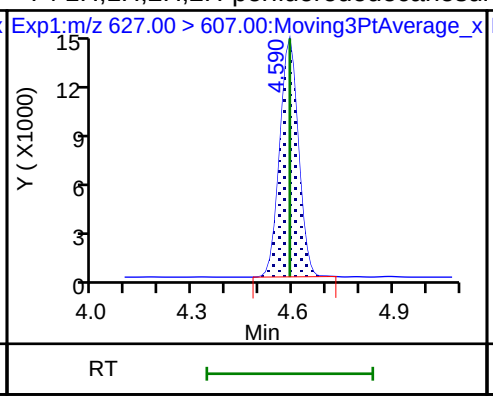

37 Perfluorododecanoic acid



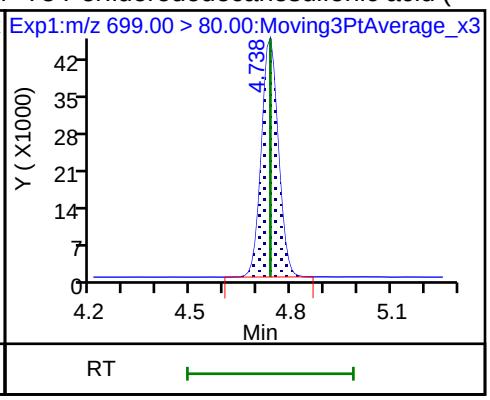
37 Perfluorododecanoic acid



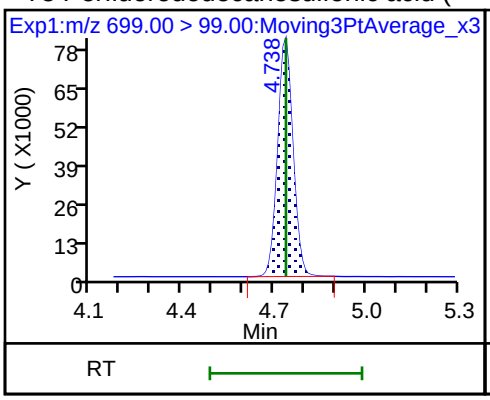

74 1H,1H,2H,2H-perfluorododecanesul



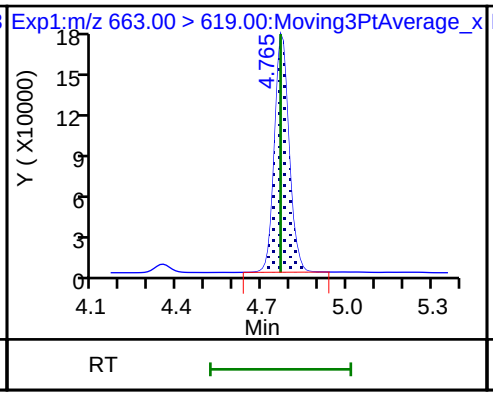

75 Perfluorododecanesulfonic acid (



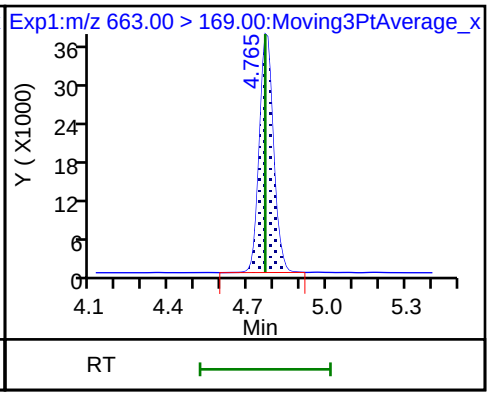

75 Perfluorododecanesulfonic acid (



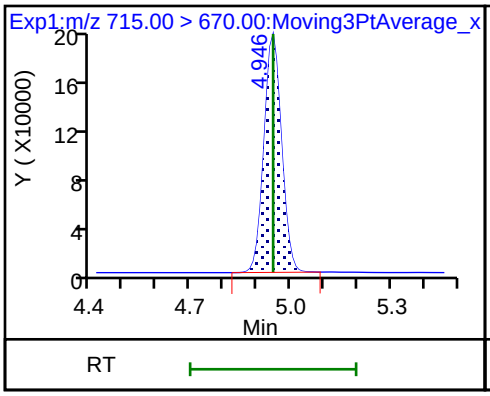

41 Perfluorotridecanoic acid



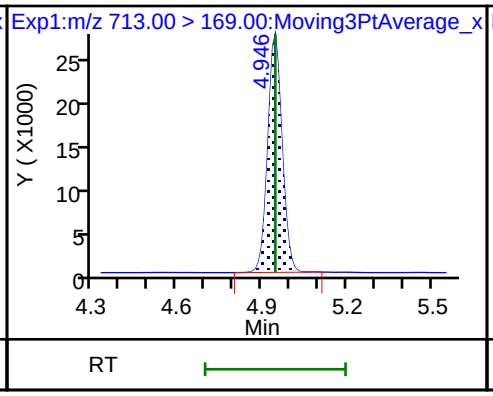

41 Perfluorotridecanoic acid



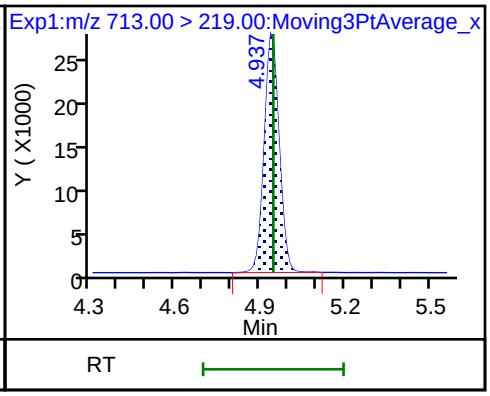

D 43 13C2 PFTeDA



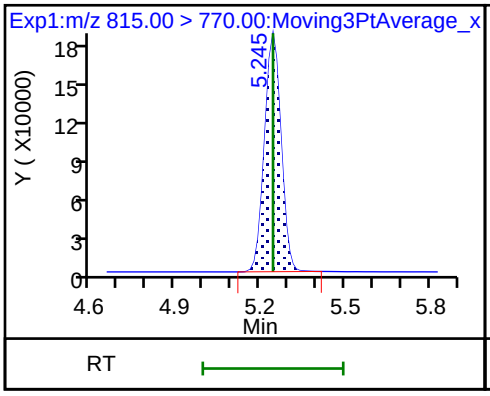

42 Perfluorotetradecanoic acid



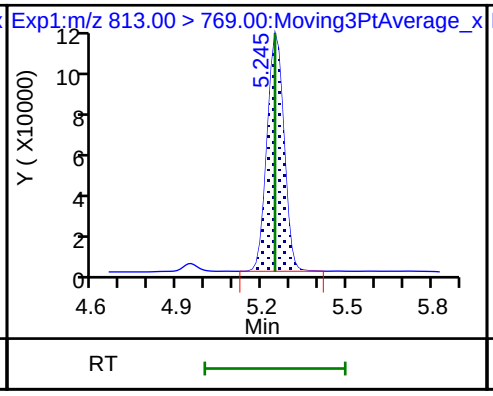

42 Perfluorotetradecanoic acid



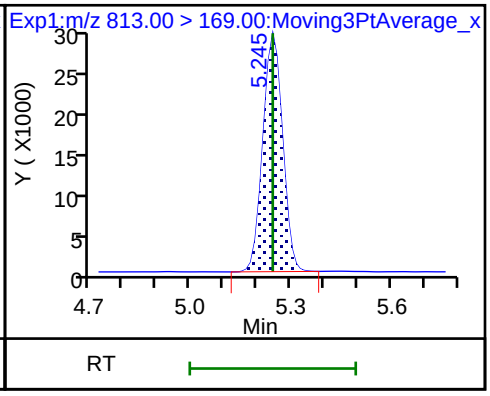

D 44 13C2 PFHxDA



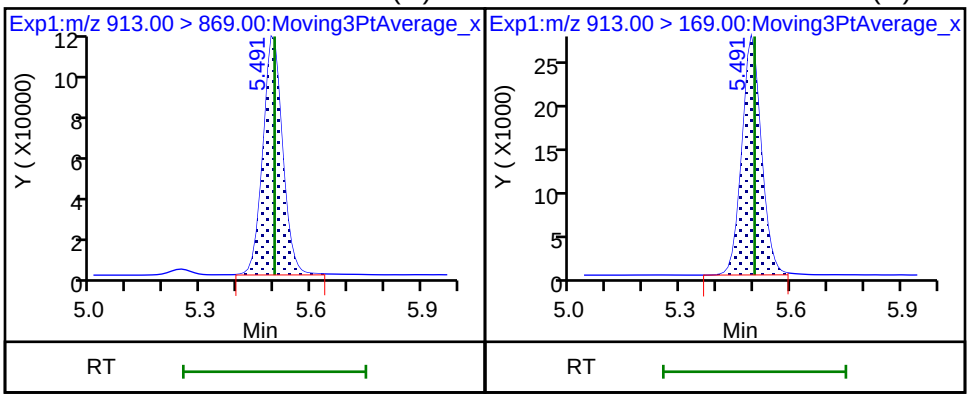

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

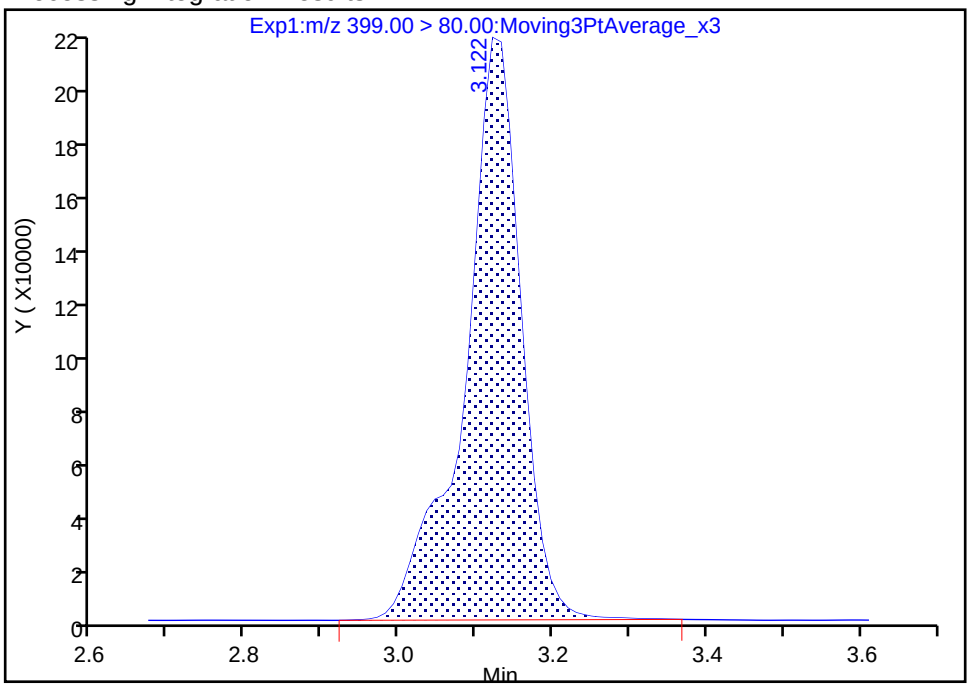
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A15.d | | | | |
| Injection Date: | 08-Nov-2021 17:28:16 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 12 | Worklist Smp#: | 15 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

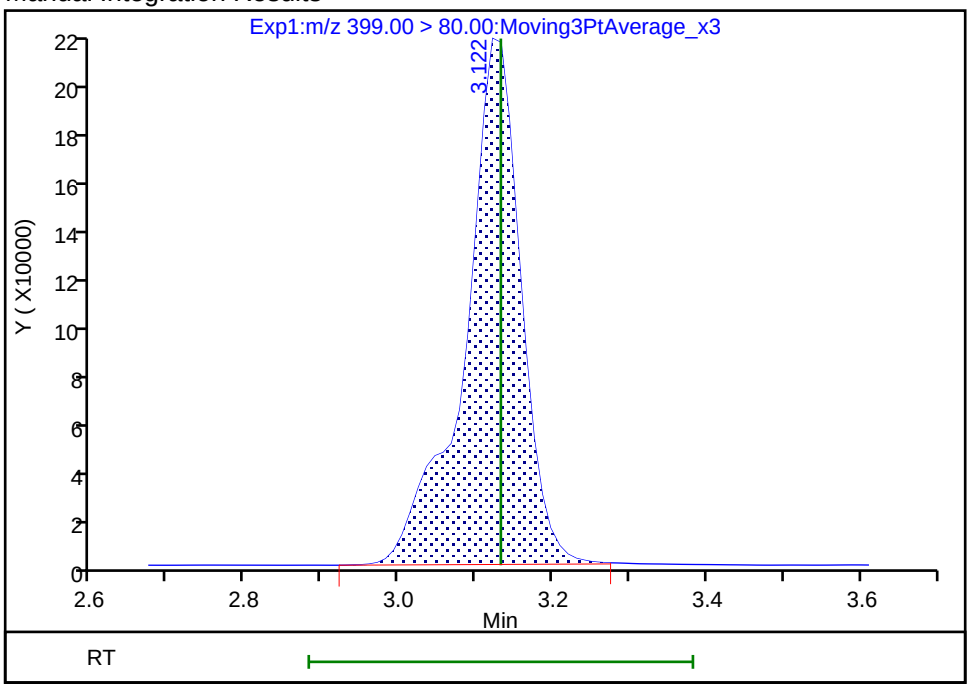
Processing Integration Results

RT: 3.12
Area: 1071258
Amount: 0.917893
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 1066900
Amount: 0.914159
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:47:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

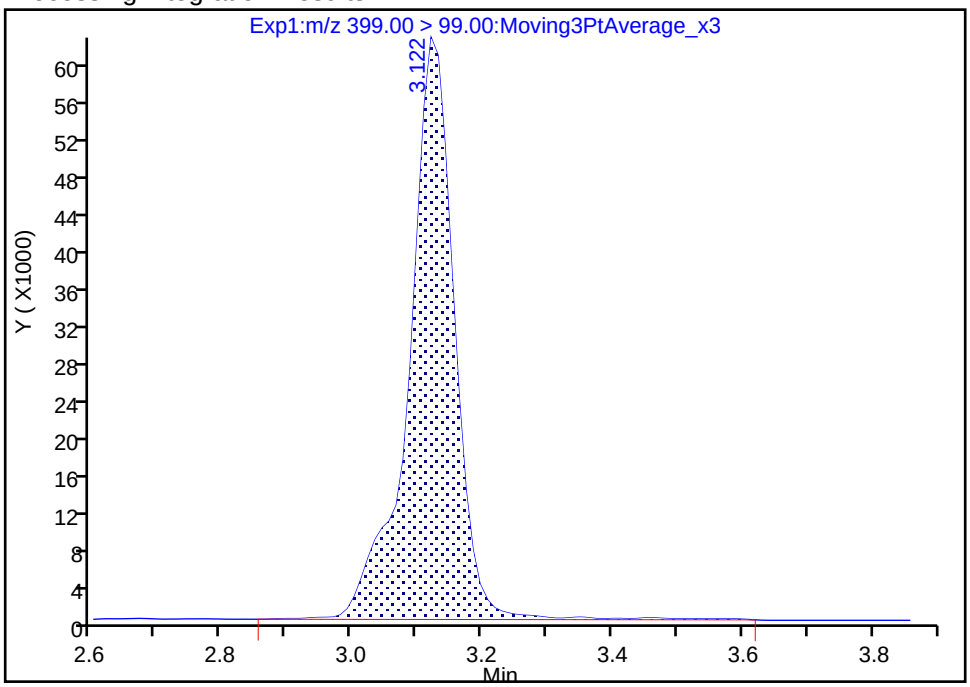
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A15.d
Injection Date: 08-Nov-2021 17:28:16 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

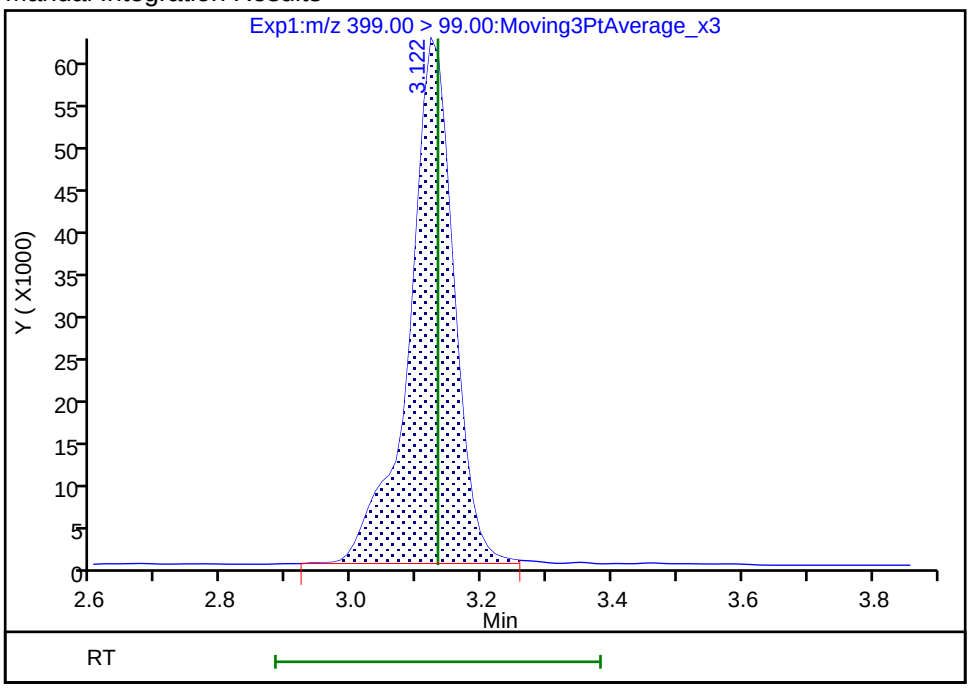
Processing Integration Results

RT: 3.12
Area: 304637
Amount: 0.917893
Amount Units: ng/ml




Manual Integration Results

RT: 3.12
Area: 298677
Amount: 0.914159
Amount Units: ng/ml




Reviewer: khanphomeea, 09-Nov-2021 10:47:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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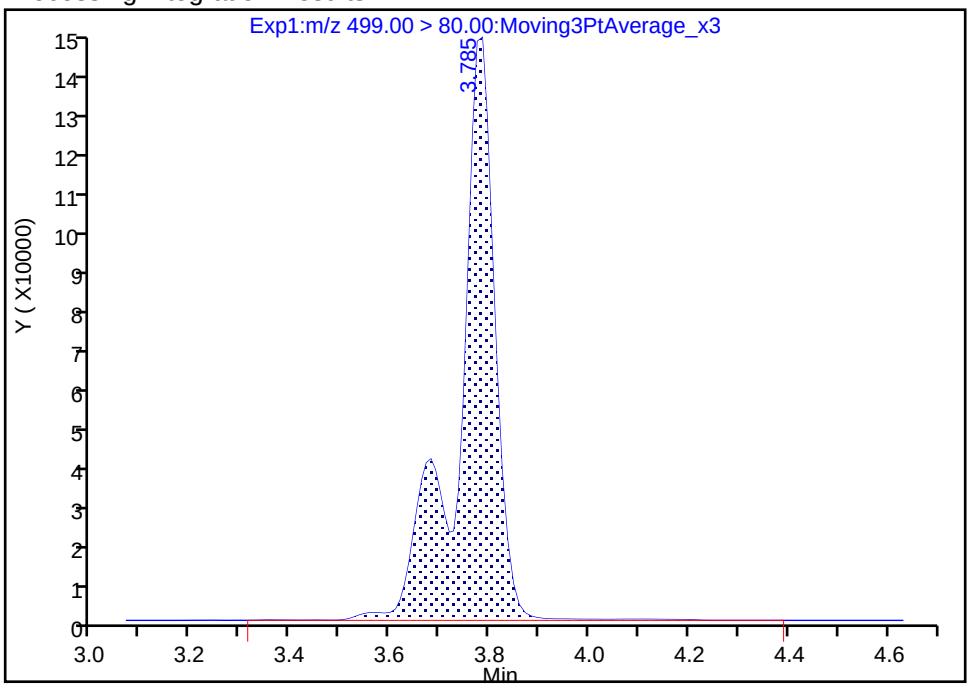
Injection Date: 08-Nov-2021 17:28:16 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

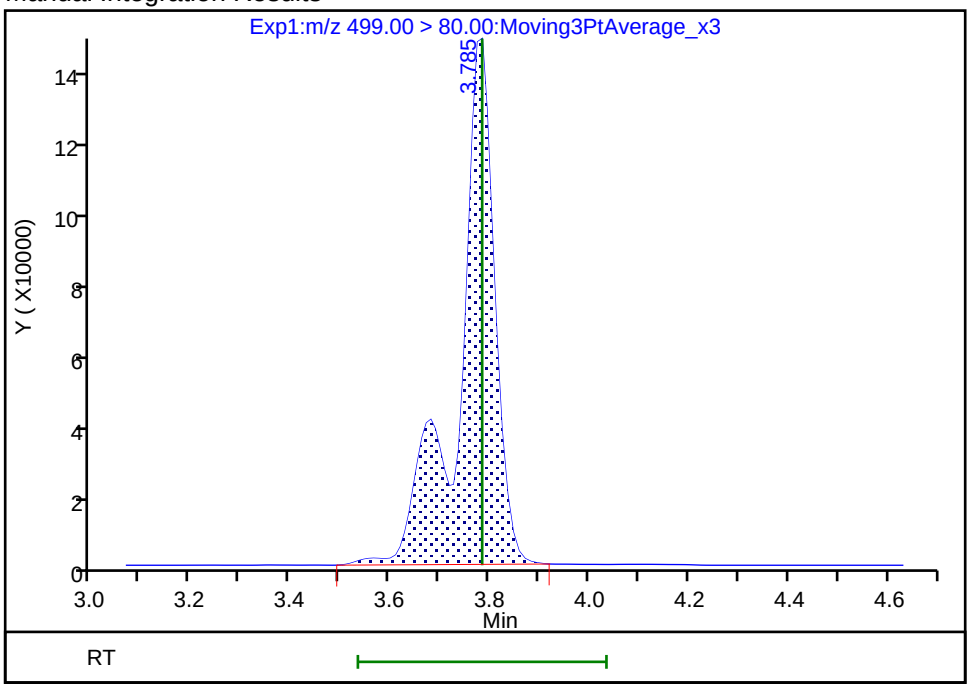
Processing Integration Results

RT: 3.79
Area: 757773
Amount: 0.942718
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 748506
Amount: 0.931189
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 16:00:36
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

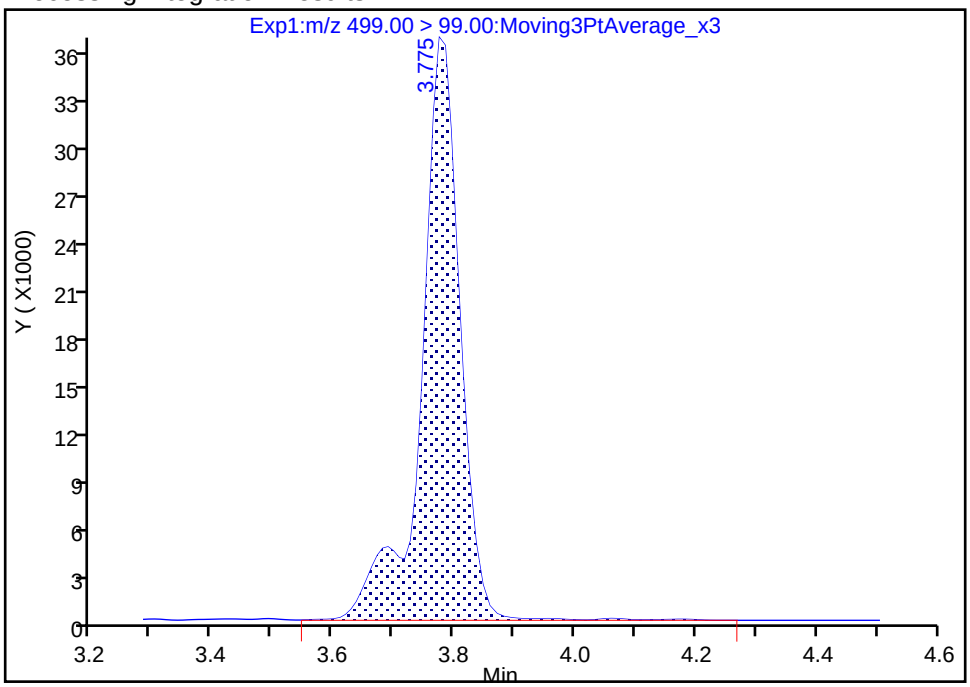
Data File: \\chromfs\Burlington\ChromData\LC812\20211108-48331.b\PA211108A15.d
Injection Date: 08-Nov-2021 17:28:16 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

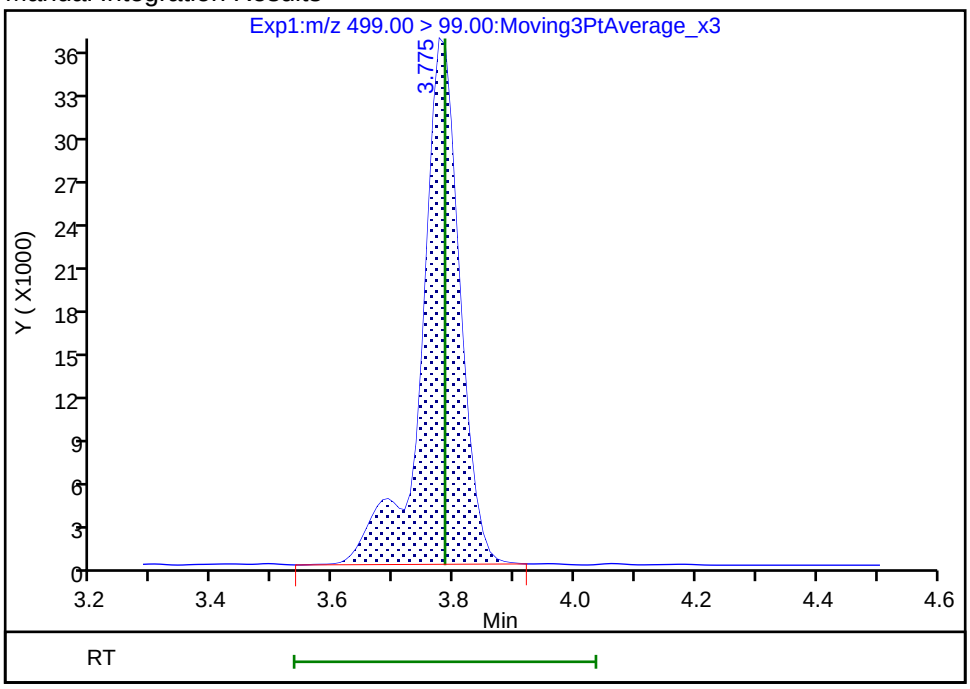
Processing Integration Results

RT: 3.78
Area: 163995
Amount: 0.942718
Amount Units: ng/ml




Manual Integration Results

RT: 3.78
Area: 161786
Amount: 0.931189
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 16:00:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 200-173541/3-A

Matrix: Water  Lab File ID: PA211110A09.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:28

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 39.23 | | 5.00 | 0.89 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 41.05 | | 2.00 | 0.47 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 39.67 | | 2.00 | 0.45 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 39.42 | | 2.00 | 0.24 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 39.57 | | 2.00 | 0.42 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 41.69 | | 2.00 | 0.28 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 41.40 | | 2.00 | 0.30 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 41.32 | | 2.00 | 0.34 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 40.53 | | 2.00 | 0.39 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 39.10 | | 2.00 | 0.43 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 42.23 | | 2.00 | 0.63 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 36.26 | | 2.00 | 0.25 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 37.02 | | 2.00 | 0.30 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 38.69 | | 2.00 | 0.23 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 37.99 | | 2.00 | 0.29 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 31.70 | | 2.00 | 0.31 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 39.08 | | 2.00 | 0.58 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 42.69 | | 5.00 | 0.90 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 40.45 | | 5.00 | 0.74 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 40.24 | | 5.00 | 1.10 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 37.96 | | 2.00 | 0.39 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 200-173541/3-A

Matrix: Water  Lab File ID: PA211110A09.d

Analysis Method: 537 (modified)  Date Collected:

Extraction Method: 3535  Date Extracted: 11/05/2021 09:47

Sample wt/vol: 250(mL)  Date Analyzed: 11/10/2021 12:28

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

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

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

Analysis Batch No.: 173694  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 100 | | 50-150 |
| STL01892 | 13C4 PFHpA | 103 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 101 | | 50-150 |
| STL00995 | 13C5 PFNA | 97 | | 50-150 |
| STL00992 | 13C4 PFBA | 124 | | 25-150 |
| STL00993 | 13C2 PFHxA | 108 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 81 | | 50-150 |
| STL00998 | 13C2 PFDoA | 76 | | 50-150 |
| STL01056 | 13C8 FOSA | 74 | | 25-150 |
| STL01893 | 13C5 PFPeA | 110 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 77 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 101 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 90 | | 50-150 |
| STL02279 | M2-6:2 FTS | 111 | | 25-150 |
| STL02280 | M2-8:2 FTS | 111 | | 25-150 |
| STL02337 | 13C3 PFBS | 99 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d
Lims ID: LCSD 200-173541/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 10-Nov-2021 12:28:11 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 200-173541/3-A
Misc. Info.: 200-0048360-009 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 12:40:04 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1630

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:44:32
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | M |
| 217.00 > 172.00 | 2.091 | 2.091 | 0.0 | 0.599 | 2120254 | 1.55 | | 124 | 1617 | M |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.091 | 0.0 | 1.000 | 1572963 | 0.9807 | | 98.1 | 305 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.414 | -0.001 | 0.691 | 1591480 | 1.38 | | 110 | 2960 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.414 | -0.001 | 1.000 | 1308781 | 1.03 | | 103 | 55.4 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.427 | -0.001 | 0.695 | 1805733 | 1.16 | | 99.4 | 199193 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | |
| 298.90 > 80.00 | 2.426 | 2.427 | -0.001 | 1.000 | 1504029 | 0.9066 | Target=2.32 | 103 | 1682 | |
| 298.90 > 99.00 | 2.426 | 2.427 | -0.001 | 1.000 | 707503 | | 2.13(1.16-3.48) | | 433 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.735 | -0.001 | 1.000 | 294726 | 0.9264 | | 99.2 | 2475 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.735 | -0.001 | 0.783 | 174500 | 1.47 | | 126 | 135 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.759 | 0.011 | 0.793 | 1633526 | 1.35 | | 108 | 4463 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.771 | -0.001 | 1.000 | 1314554 | 0.99 | Target=12.09 | 99.2 | 310 | M |
| 313.00 > 119.00 | 2.770 | 2.771 | -0.001 | 1.000 | 106317 | | 12.36(6.04-18.13) | | 98.4 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.771 | -0.001 | 0.884 | 1376823 | 1.00 | Target=3.03 | 107 | 1964 | |
| 349.00 > 99.00 | 2.770 | 2.771 | -0.001 | 0.884 | 448286 | | 3.07(1.52-4.55) | | 793 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.869 | -0.002 | 0.821 | 36787 | 1.15 | | 92.2 | 237 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.879 | 2.881 | -0.002 | 1.004 | 152008 | 1.14 | | 114 | 57.8 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1157658 | 0.9255 | Target=3.55 | 102 | 1714 | M |
| 399.00 > 99.00 | 3.132 | 3.133 | -0.001 | 1.000 | 326687 | | 3.54(1.77-5.32) | | 383 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1345305 | 1.19 | | 100 | 3005 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.133 | -0.001 | 0.897 | 1648081 | 1.29 | | 103 | 3557 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.133 | -0.001 | 1.000 | 1342672 | 0.9856 | Target=3.69 | 98.6 | 500 | |
| 363.00 > 169.00 | 3.132 | 3.133 | -0.001 | 1.000 | 354683 | | 3.79(1.84-5.53) | | 491 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.166 | 0.009 | 0.835 | 2924262 | 1.01 | Target=2.56 | 107 | 3094 | |
| 377.00 > 85.00 | 3.175 | 3.166 | 0.009 | 0.835 | 1147509 | | 2.55(1.28-3.84) | | 1840 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.475 | -0.001 | 0.913 | 999270 | 0.9671 | Target=4.88 | 102 | 1665 | M |
| 449.00 > 99.00 | 3.474 | 3.475 | -0.001 | 0.913 | 199183 | | 5.02(2.44-7.32) | | 808 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.475 | 0.008 | 1.003 | 252800 | 1.01 | | 106 | 1601 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.475 | -0.001 | 0.995 | 235312 | 1.31 | | 111 | 599 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1733424 | 1.24 | | 99.5 | 3677 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.484 | 0.008 | | 1692736 | 1.25 | | | 4447 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.484 | 0.008 | 1.000 | 1458803 | 0.9892 | Target=2.68 | 98.9 | 214 | |
| 413.00 > 169.00 | 3.492 | 3.484 | 0.008 | 1.000 | 544749 | | 2.68(1.34-4.02) | | 1179 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.089 | 990444 | 1.21 | | 101 | 2949 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.798 | 0.006 | 1.000 | 854091 | 0.9497 | Target=4.69 | 102 | 1152 | |
| 499.00 > 99.00 | 3.804 | 3.798 | 0.006 | 1.000 | 172658 | | 4.95(2.35-7.04) | | 775 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.818 | -0.004 | 1.092 | 1682805 | 1.21 | | 97.0 | 4233 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.818 | 0.006 | 1.003 | 1372572 | 1.04 | Target=7.29 | 104 | 340 | |
| 463.00 > 169.00 | 3.814 | 3.818 | -0.004 | 1.000 | 179059 | | 7.67(3.64-10.93) | | 1826 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.959 | 0.005 | 1.042 | 1197027 | 0.8835 | | 94.8 | 4362 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.086 | -0.005 | 1.073 | 629729 | 0.8989 | Target=2.35 | 93.6 | 4148 | |
| 549.00 > 99.00 | 4.081 | 4.086 | -0.005 | 1.073 | 250503 | | 2.51(1.17-3.52) | | 1215 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.108 | 0.007 | 1.178 | 1524772 | 1.09 | | 87.1 | 3303 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.108 | 0.007 | 1.000 | 1268523 | 1.03 | Target=8.95 | 103 | 870 | |
| 513.00 > 169.00 | 4.115 | 4.108 | 0.007 | 1.000 | 141734 | | 8.95(4.47-13.42) | | 1061 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.120 | 0.006 | 1.182 | 269626 | 1.33 | | 111 | 1307 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.120 | 0.006 | 1.000 | 178761 | 0.9491 | | 99.1 | 2066 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.219 | 0.005 | 1.210 | 1253015 | 0.9275 | | 74.2 | 3236 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.225 | 4.219 | 0.005 | 1.000 | 930042 | 0.9770 | | 97.7 | 2399 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.219 | 173974 | 1.26 | | 101 | 509 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.257 | 4.251 | 0.006 | 1.000 | 116699 | 1.07 | | 107 | 347 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.347 | 4.342 | 0.004 | 1.143 | 431717 | 0.7926 | Target=2.47 | 82.2 | 2149 | |
| 599.00 > 99.00 | 4.347 | 4.342 | 0.004 | 1.143 | 163567 | | 2.64(1.23-3.70) | | 1263 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.375 | -0.006 | 1.251 | 1111351 | 1.02 | | 81.4 | 4293 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.375 | -0.006 | 1.000 | 979101 | 1.03 | Target=9.24 | 103 | 733 | |
| 563.00 > 169.00 | 4.369 | 4.375 | -0.006 | 1.000 | 104965 | | 9.33(4.62-13.86) | | 1078 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.375 | 0.005 | 1.254 | 144752 | 1.12 | | 89.7 | 1115 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.387 | 0.004 | 1.003 | 100356 | 1.01 | | 101 | 586 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.463 | 0.003 | 1.174 | 1223767 | 0.7648 | | 81.2 | 3277 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.598 | 0.003 | 1.318 | 1119637 | 0.9534 | | 76.3 | 1522 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.598 | 0.003 | 1.000 | 888471 | 1.01 | Target=7.04 | 101 | 149 | |
| 613.00 > 169.00 | 4.601 | 4.598 | 0.003 | 1.000 | 140009 | | 6.35(3.52-10.56) | | 1478 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.612 | 4.619 | -0.007 | 1.118 | 72692 | 0.8353 | | 86.7 | 809 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.763 | 0.002 | 1.253 | 167804 | 0.8376 | Target=0.49 | 86.5 | 1374 | |
| 699.00 > 99.00 | 4.765 | 4.763 | 0.002 | 1.253 | 309885 | | 0.54(0.25-0.74) | | 2932 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.799 | 0.002 | 1.043 | 739135 | 0.9776 | Target=4.68 | 97.8 | 209 | |
| 663.00 > 169.00 | 4.792 | 4.799 | -0.007 | 1.042 | 174225 | | 4.24(2.34-7.02) | | 1512 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.972 | 0.004 | 1.425 | 872345 | 0.9578 | | 76.6 | 1727 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.976 | 4.972 | 0.004 | 1.000 | 116287 | 1.06 | Target=1.01 | 106 | 1564 | |
| 713.00 > 219.00 | 4.966 | 4.972 | -0.006 | 0.998 | 109853 | | 1.06(0.51-1.52) | | 2301 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.281 | 5.280 | 0.001 | 1.512 | 811666 | 1.01 | | 81.0 | 3063 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.281 | 5.280 | 0.001 | 1.000 | 586014 | 1.04 | Target=4.57 | 104 | 163 | |
| 813.00 > 169.00 | 5.281 | 5.280 | 0.001 | 1.000 | 134286 | | 4.36(2.29-6.86) | | 1904 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.546 | 5.544 | 0.002 | 1.050 | 473840 | 0.8653 | Target=4.27 | 86.5 | 218 | |
| 913.00 > 169.00 | 5.546 | 5.544 | 0.002 | 1.050 | 117158 | | 4.04(2.14-6.41) | | 1756 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 12:40:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d

Injection Date: 10-Nov-2021 12:28:11 Instrument ID: LC812

Lims ID: LCSD 200-173541/3-A

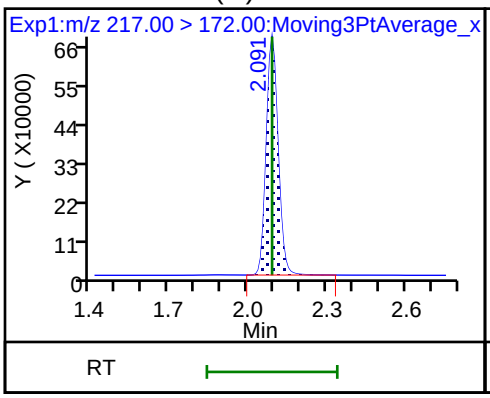
Client ID:

Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9

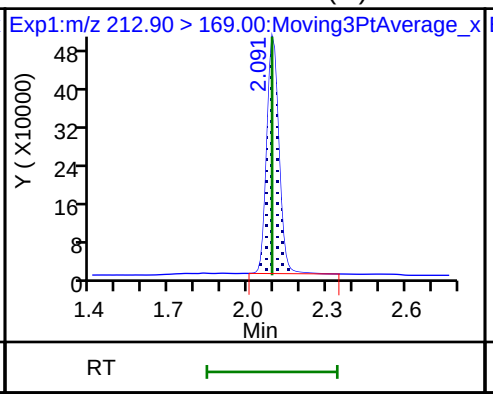
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

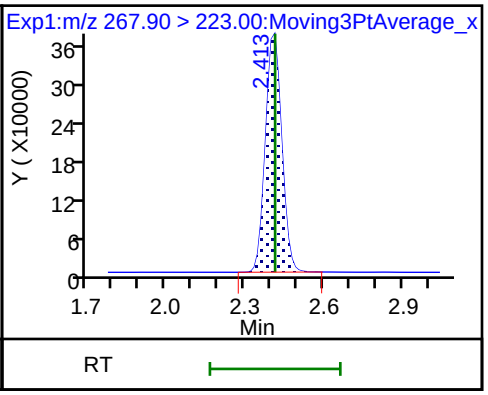
D 1 13C4 PFBA (M)



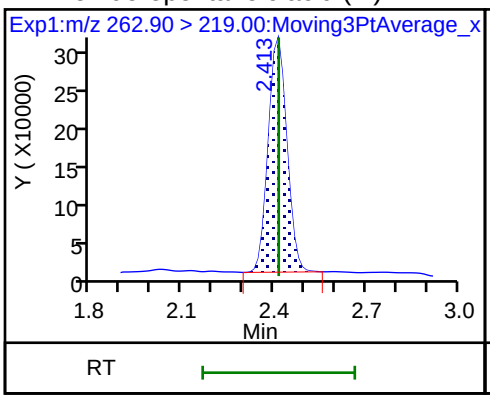

2 Perfluorobutanoic acid (M)



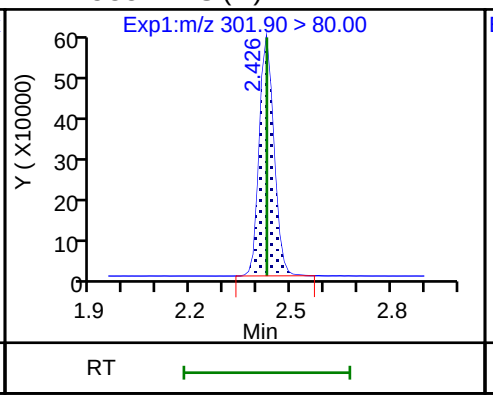

D 3 13C5 PFPeA



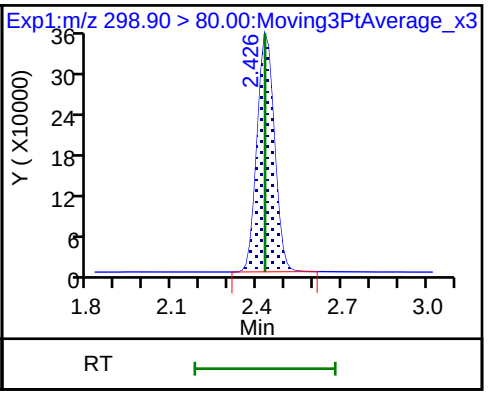

4 Perfluoropentanoic acid (M)



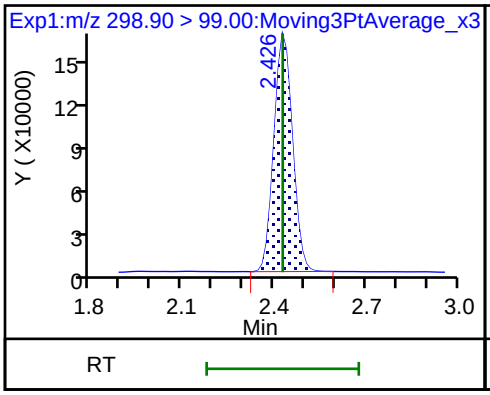

D 47 13C3 PFBS (M)



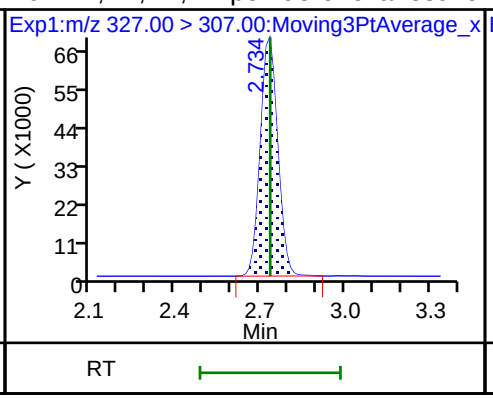

5 Perfluorobutanesulfonic acid



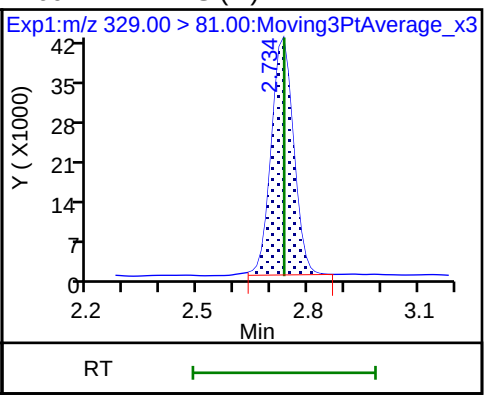

5 Perfluorobutanesulfonic acid



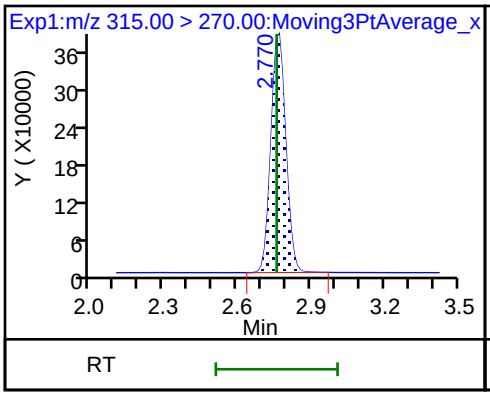

61 1H,1H,2H,2H-perfluorohexanesulfo



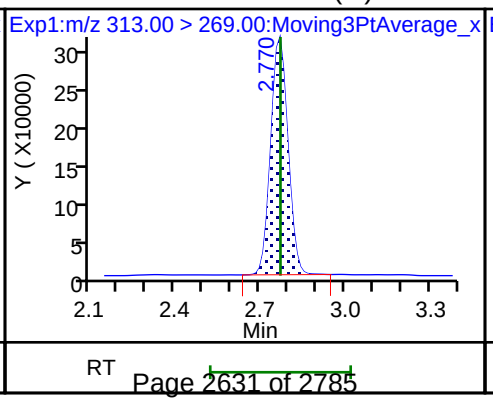

D 60 M2-4:2 FTS (M)



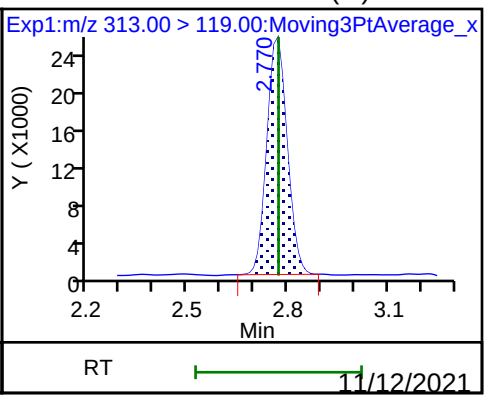

D 7 13C2 PFHxA



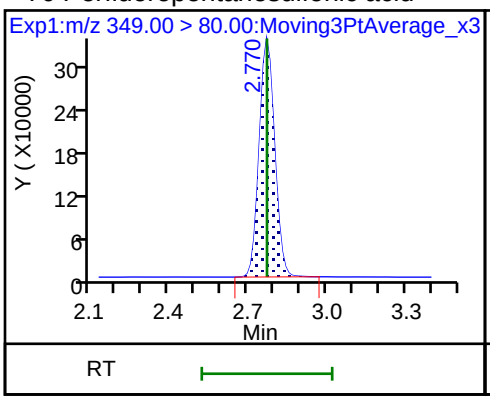

6 Perfluorohexanoic acid (M)



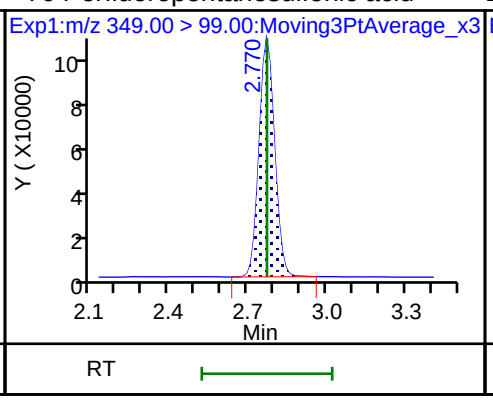

6 Perfluorohexanoic acid (M)



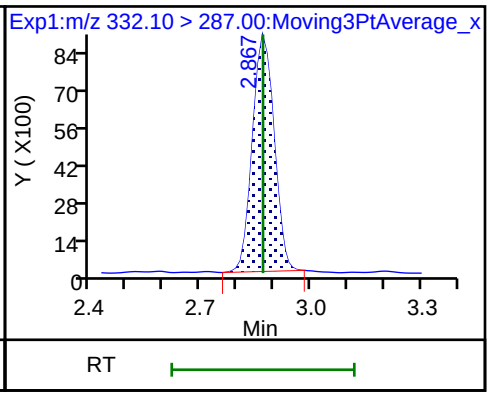
70 Perfluoropentanesulfonic acid



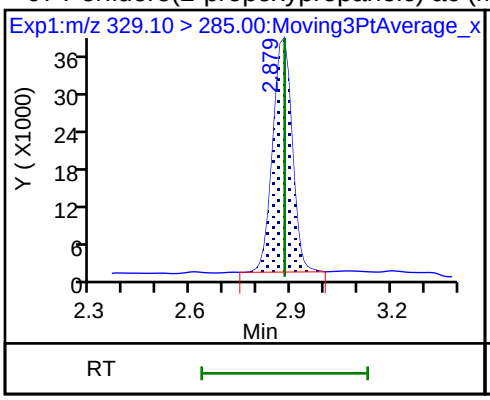

70 Perfluoropentanesulfonic acid



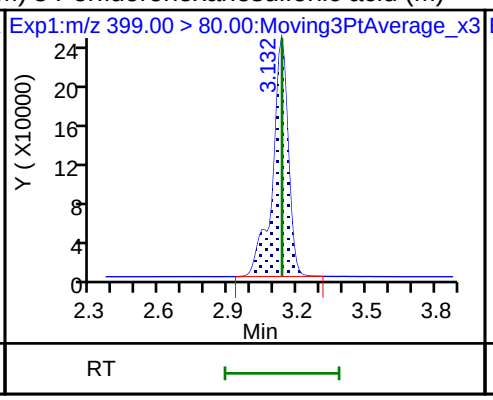

D 64 13C3 HFPO-DA



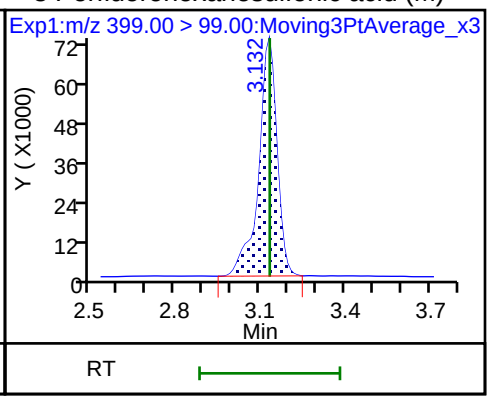

67 Perfluoro(2-propoxypropanoic) ac (M)



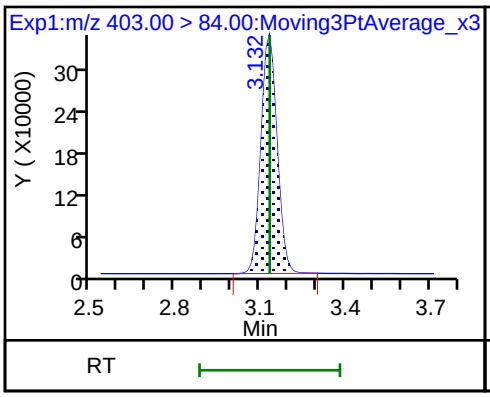

8 Perfluorohexanesulfonic acid (M)



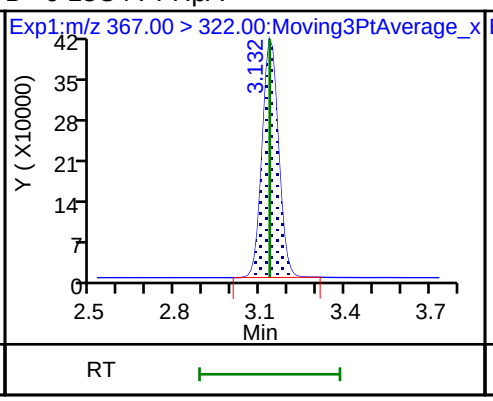

8 Perfluorohexanesulfonic acid (M)



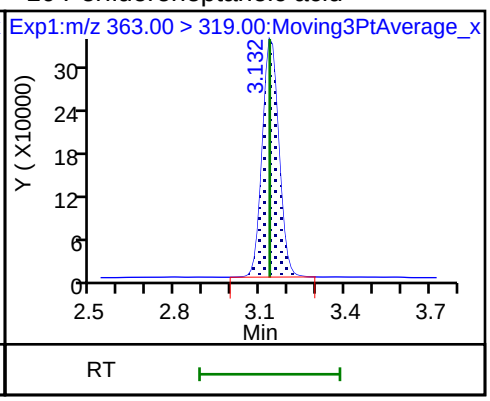

D 11 18O2 PFHxS



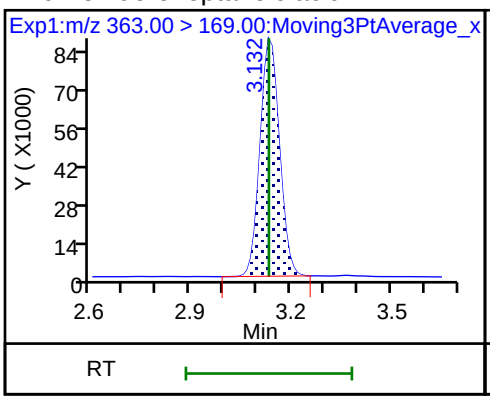

D 9 13C4 PFHpA



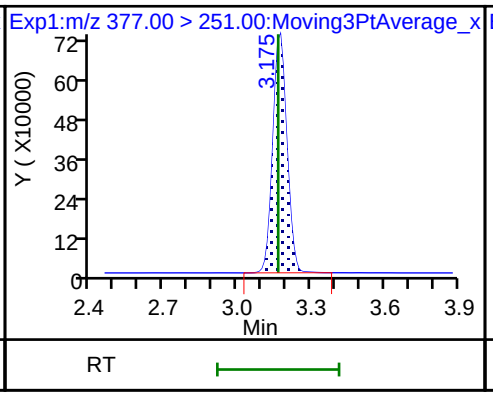

10 Perfluoroheptanoic acid



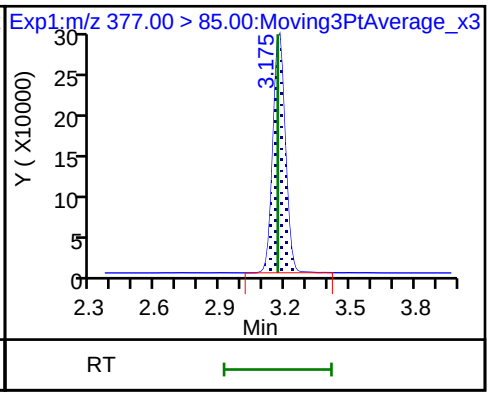

10 Perfluoroheptanoic acid



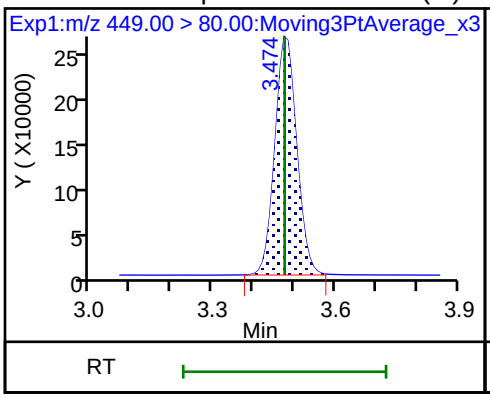

77 DONA



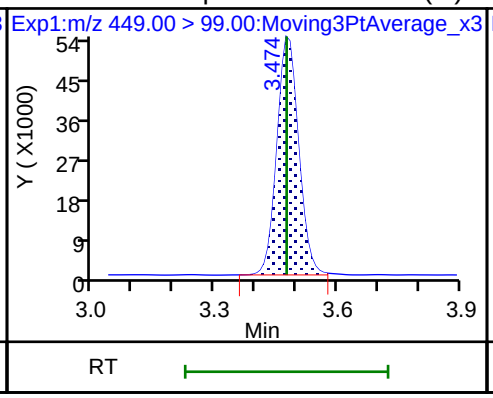

77 DONA



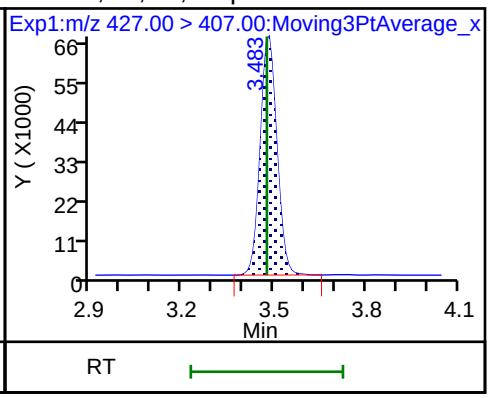
16 Perfluoroheptanesulfonic acid (M)



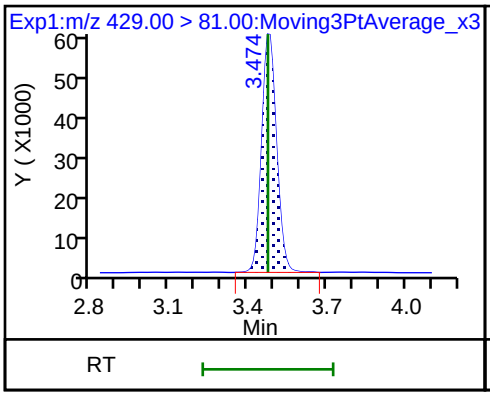

16 Perfluoroheptanesulfonic acid (M)



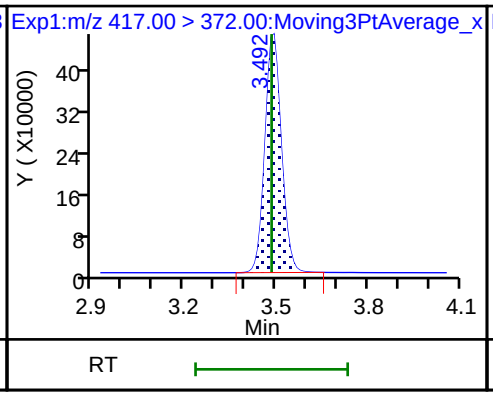

13 1H,1H,2H,2H-perfluorooctanesulfo



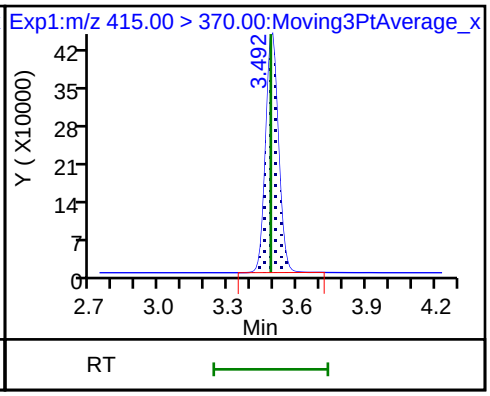

D 12 M2-6:2 FTS



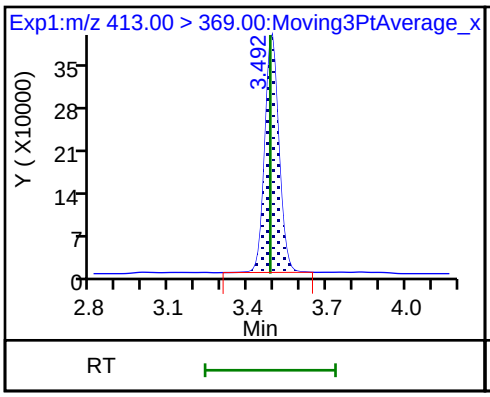

D 14 13C4 PFOA



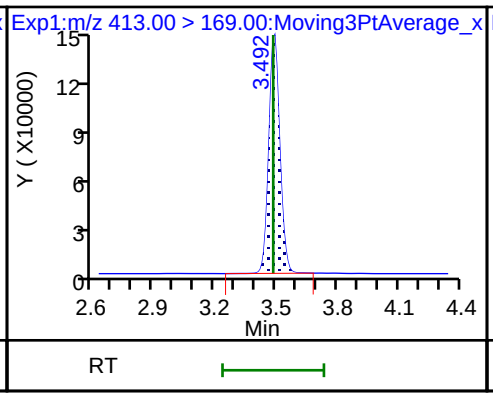

* 62 13C2 PFOA



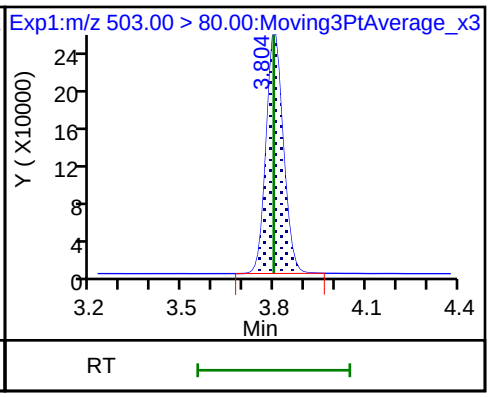

15 Perfluorooctanoic acid



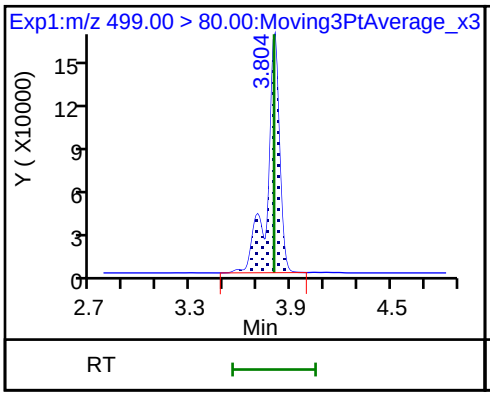

15 Perfluorooctanoic acid



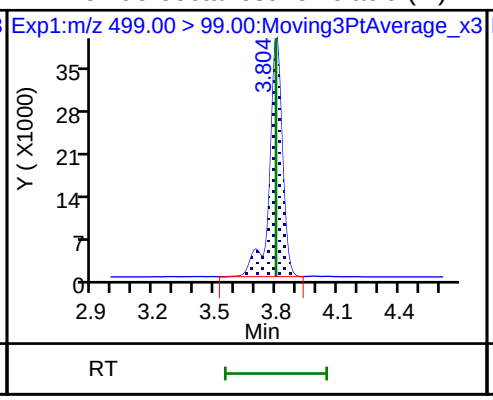

D 18 13C4 PFOS



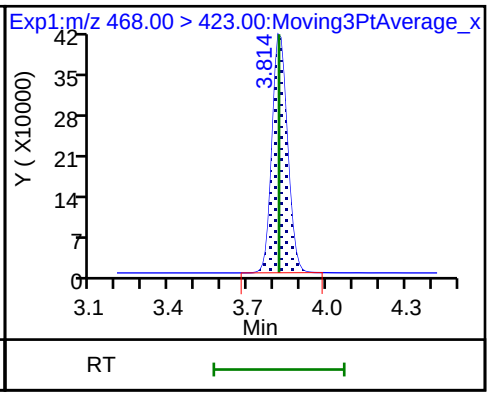

17 Perfluorooctanesulfonic acid



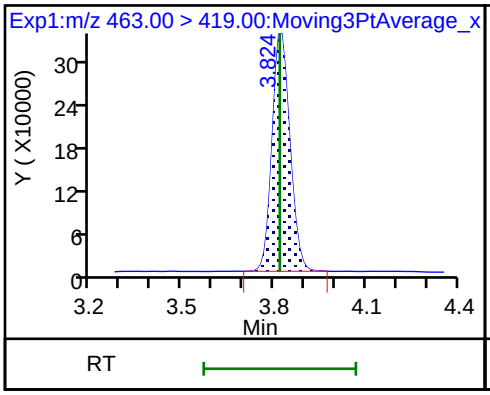

17 Perfluorooctanesulfonic acid (M)



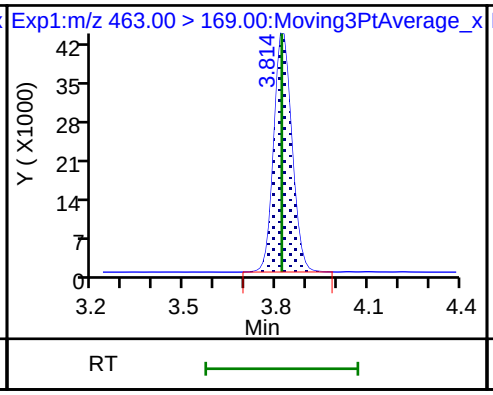

D 19 13C5 PFNA



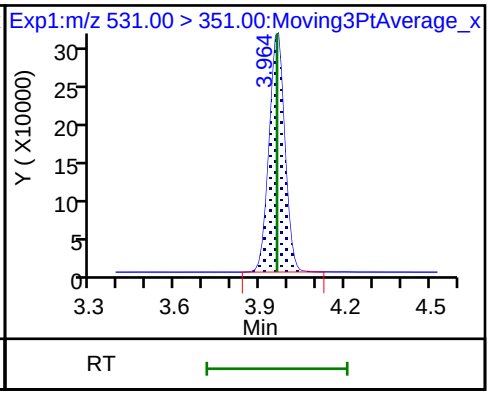
20 Perfluorononanoic acid



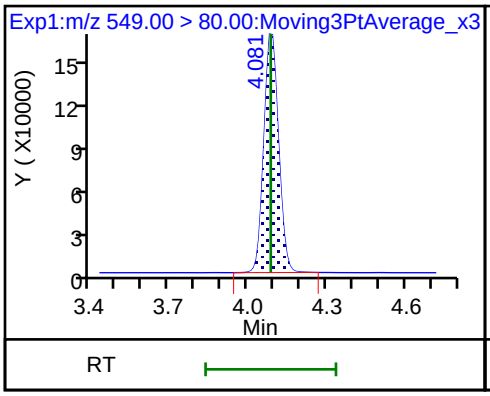

20 Perfluorononanoic acid



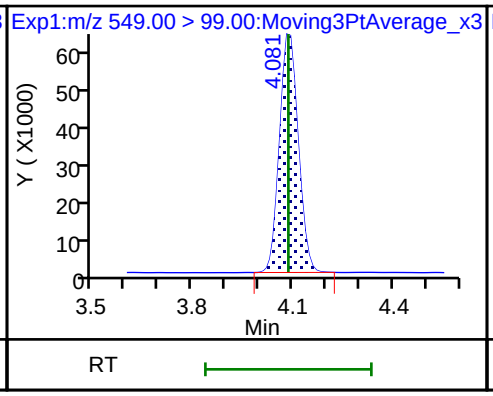

69 9-Chlorohexadecafluoro-3-oxanona



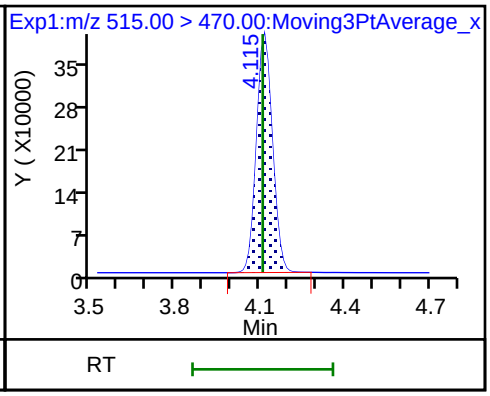

68 Perfluorononanesulfonic acid



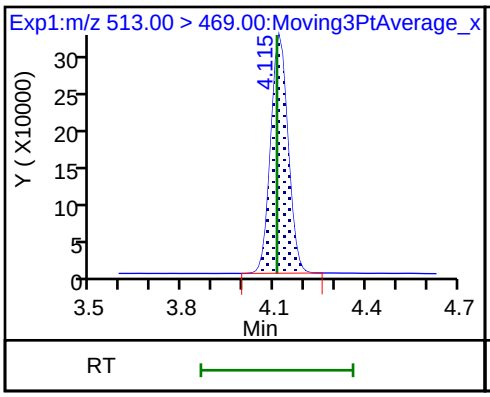

68 Perfluorononanesulfonic acid



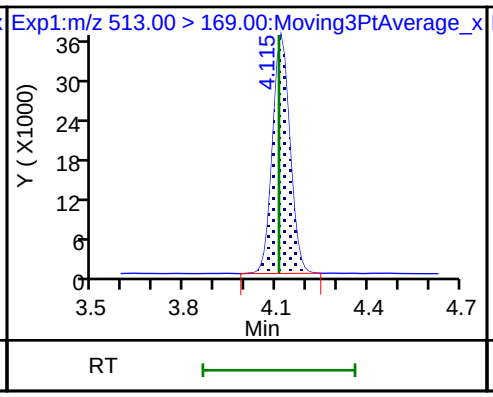

D 23 13C2 PFDA



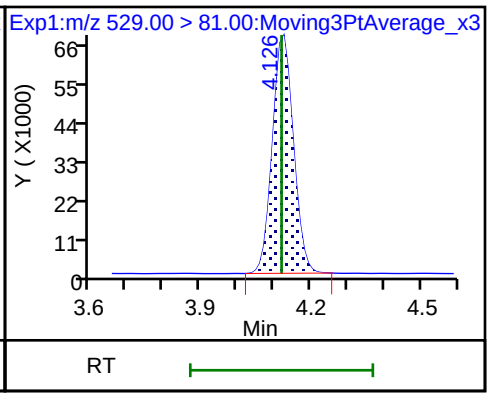

24 Perfluorodecanoic acid



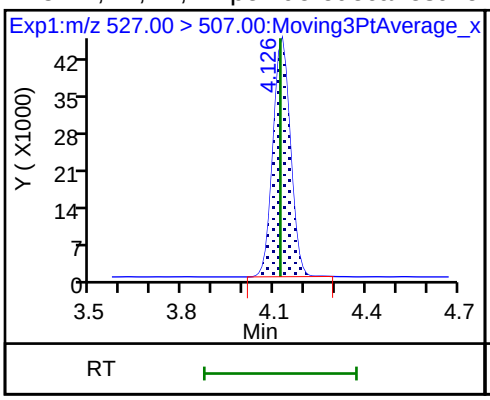

24 Perfluorodecanoic acid



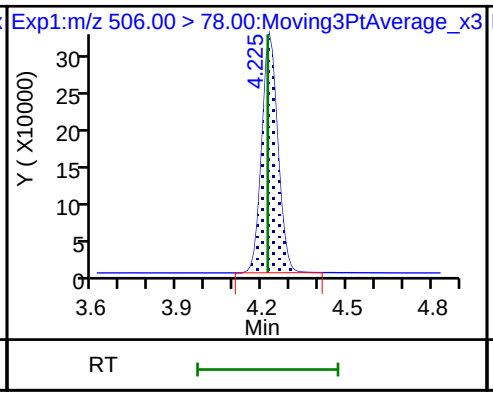

D 26 M2-8:2 FTS



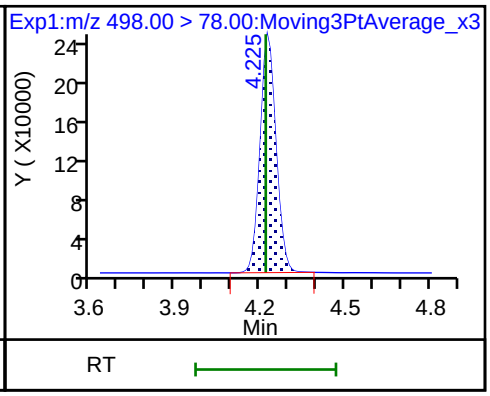

25 1H,1H,2H,2H-perfluorodecanesulfo



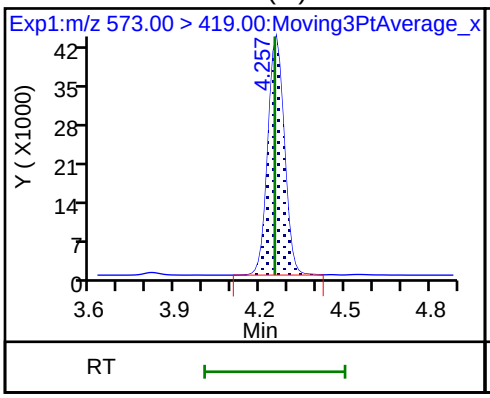

D 21 13C8 FOSA



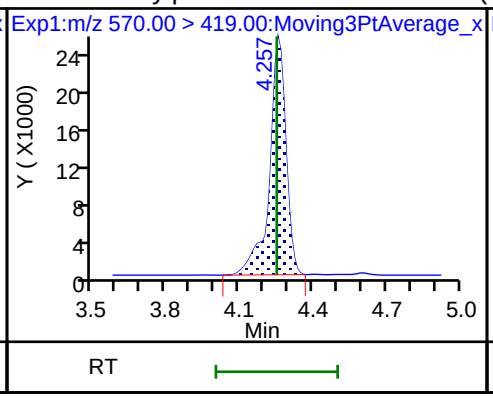

22 Perfluorooctanesulfonamide



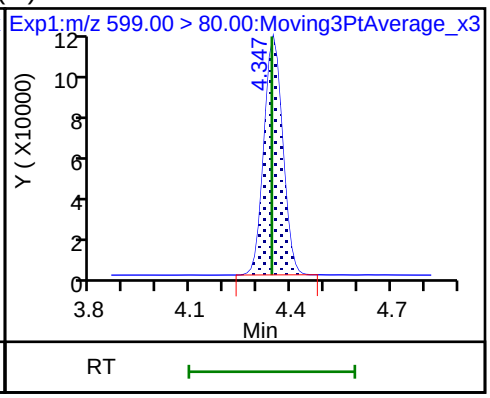
D 27 d3-NMeFOSAA (M)



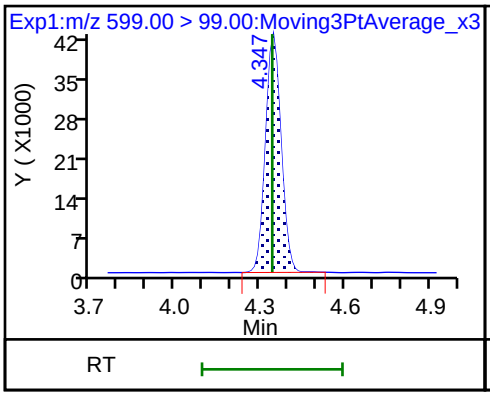

28 N-methylperfluorooctanesulfonami (M)



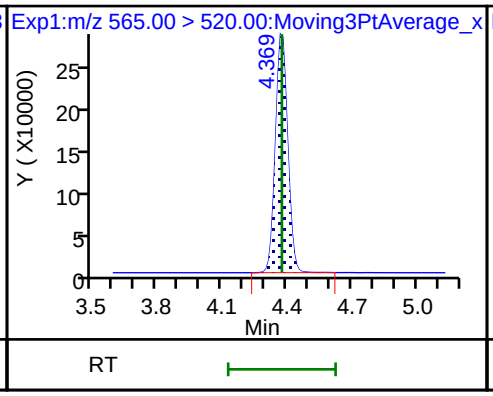

29 Perfluorodecanesulfonic acid



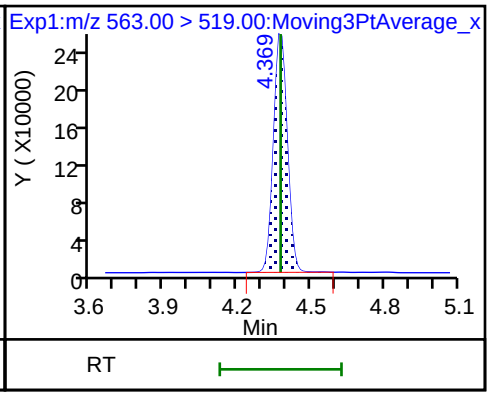

29 Perfluorodecanesulfonic acid



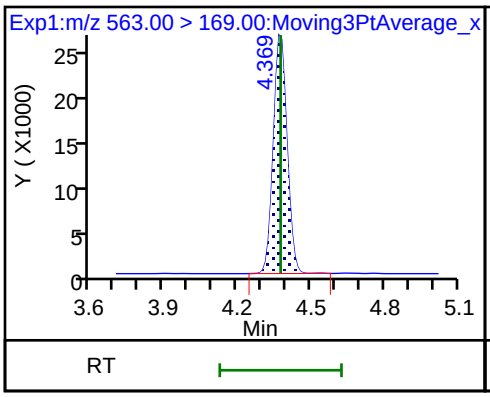

D 30 13C2 PFUnA



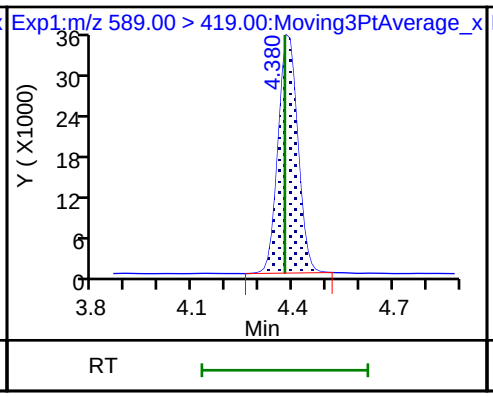

31 Perfluoroundecanoic acid



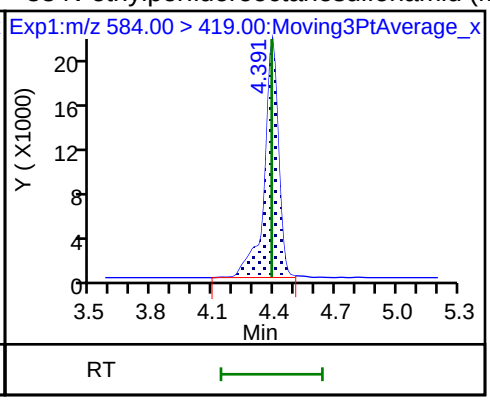

31 Perfluoroundecanoic acid



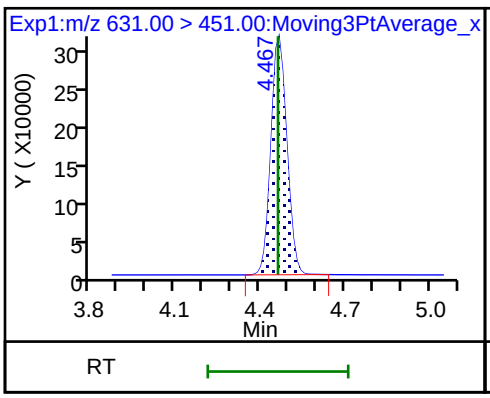

D 32 d5-NEtFOSAA



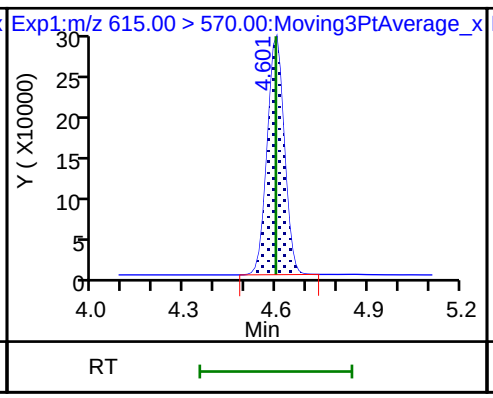

33 N-ethylperfluorooctanesulfonamid (M)



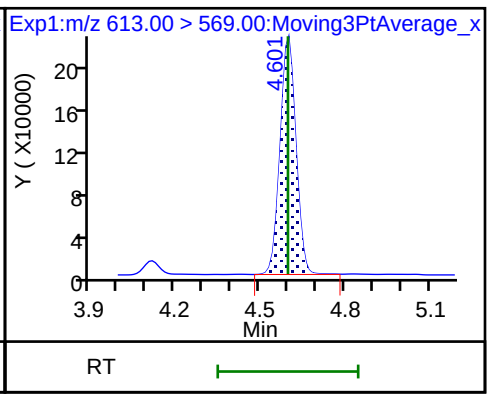

66 11-Chloroeicosafluoro-3-oxaundec



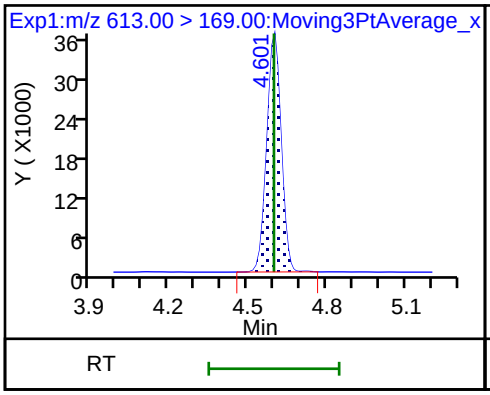

D 36 13C2 PFDoA



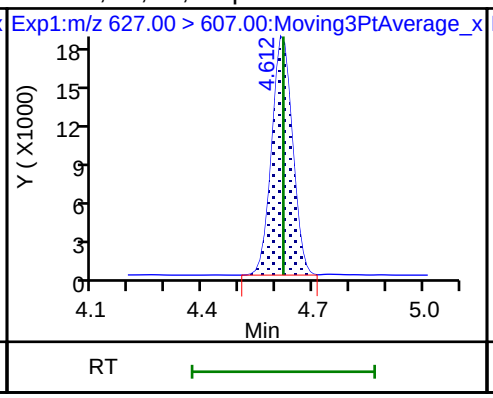

37 Perfluorododecanoic acid



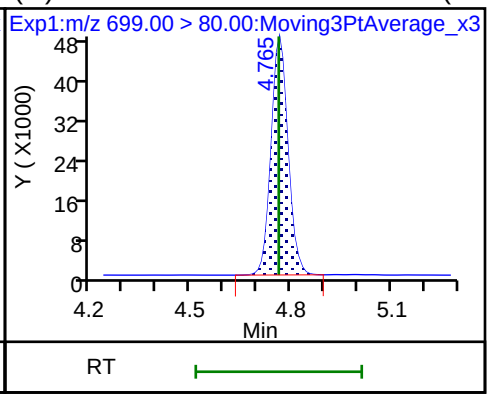
37 Perfluorododecanoic acid



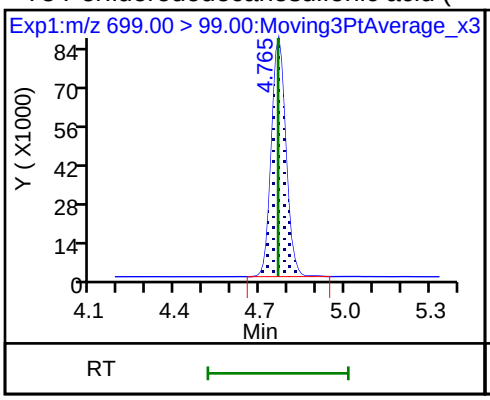

74 1H,1H,2H,2H-perfluorododecanesul (M)



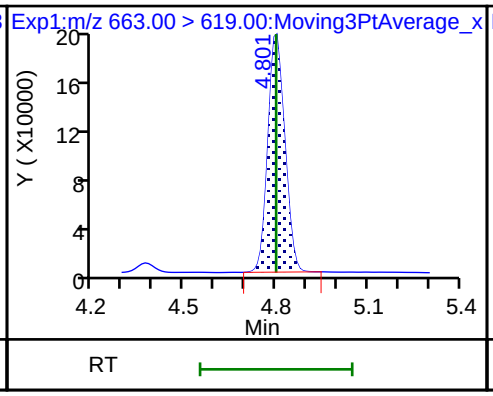

75 Perfluorododecanesulfonic acid (



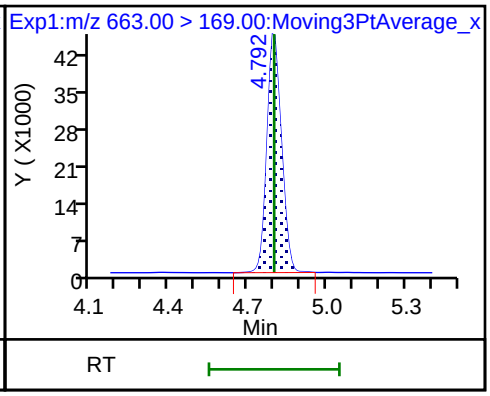

75 Perfluorododecanesulfonic acid (



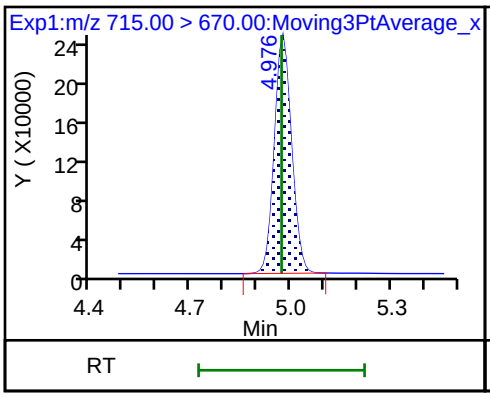

41 Perfluorotridecanoic acid



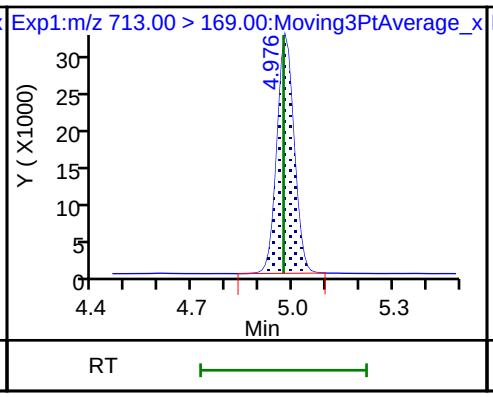

41 Perfluorotridecanoic acid



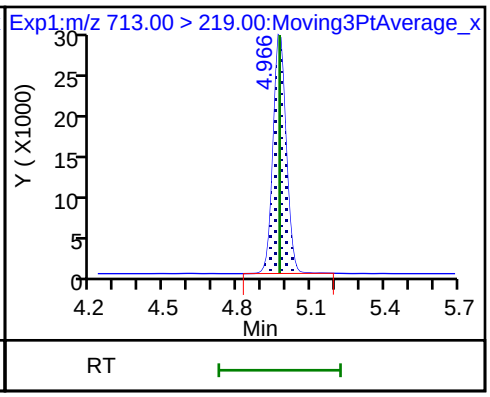

D 43 13C2 PFTeDA



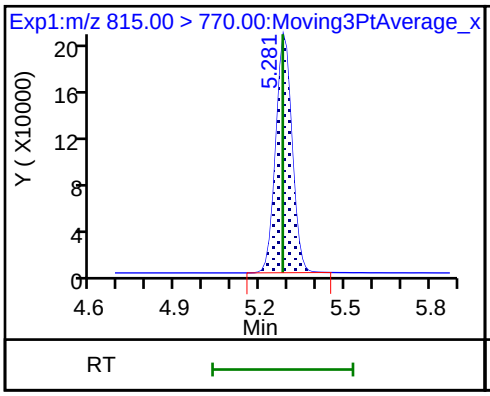

42 Perfluorotetradecanoic acid



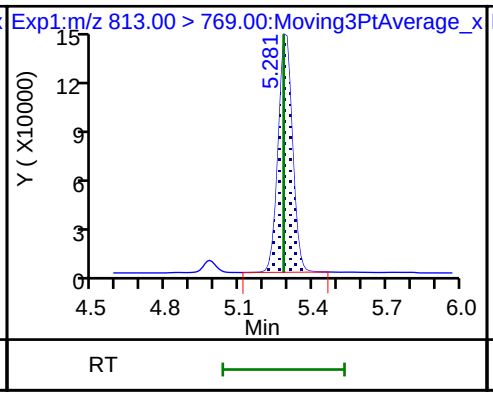

42 Perfluorotetradecanoic acid



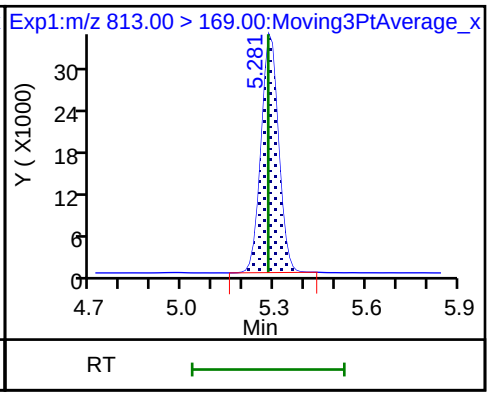

D 44 13C2 PFHxDA



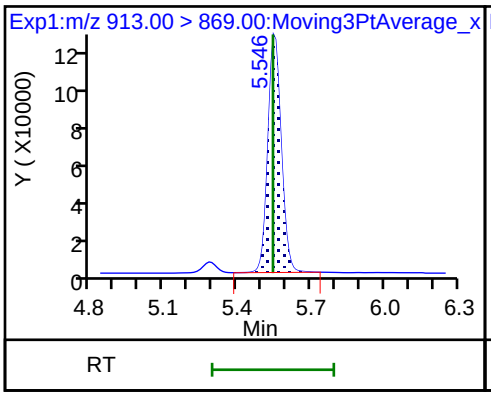

45 Perfluorohexadecanoic acid



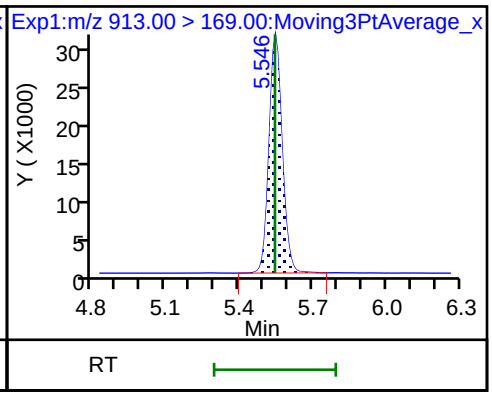

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

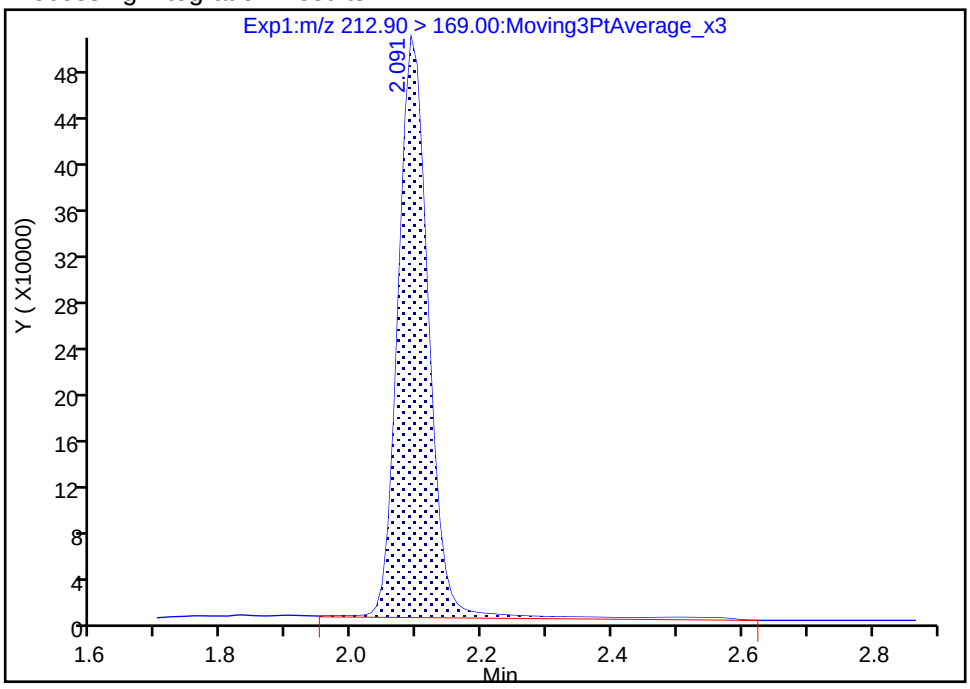
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d | | | | |
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

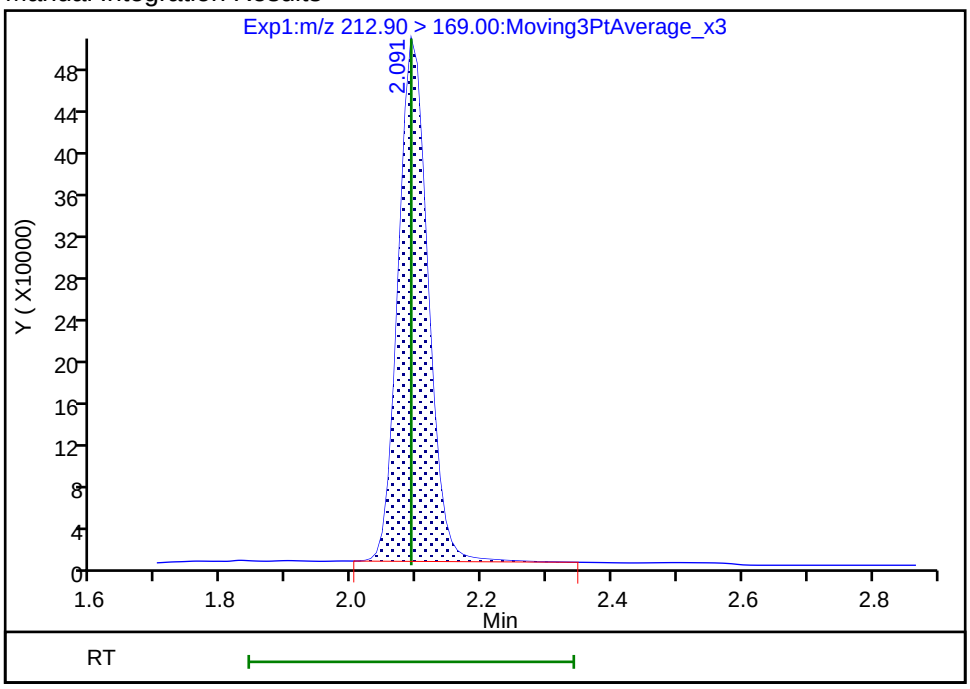
Processing Integration Results

RT: 2.09
Area: 1628379
Amount: 1.014130
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1572963
Amount: 0.980736
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

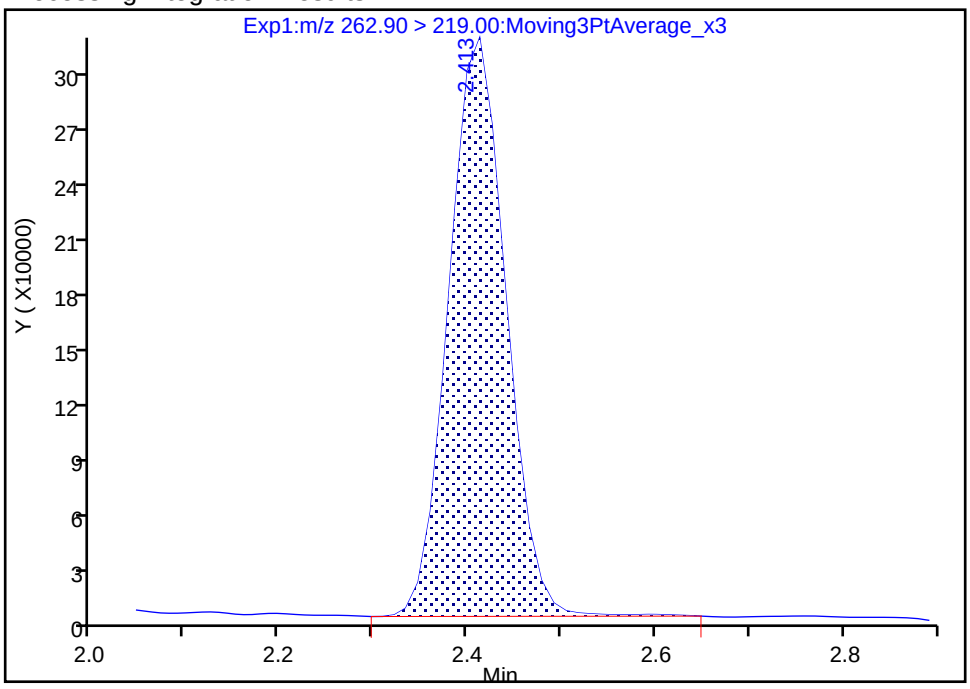
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d | | | | |
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

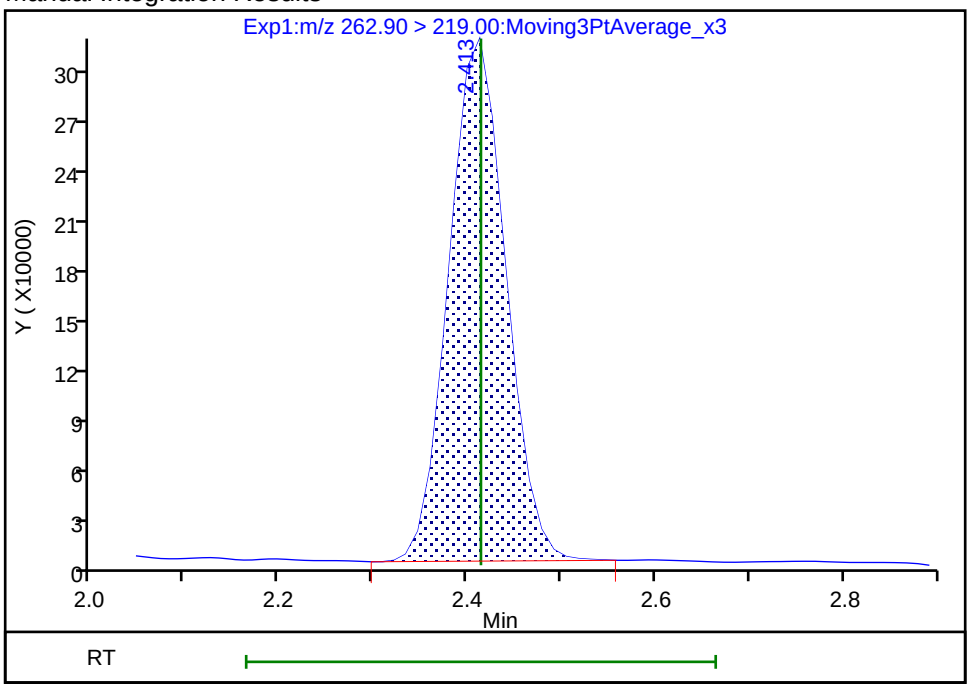
Processing Integration Results

RT: 2.41
Area: 1317649
Amount: 1.033139
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1308781
Amount: 1.026186
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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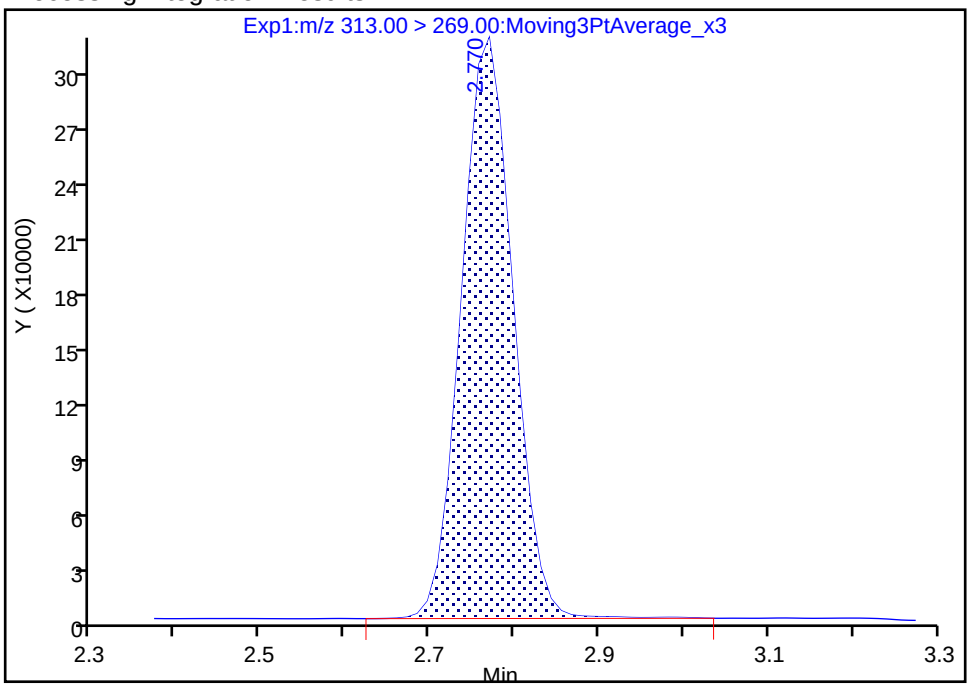
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

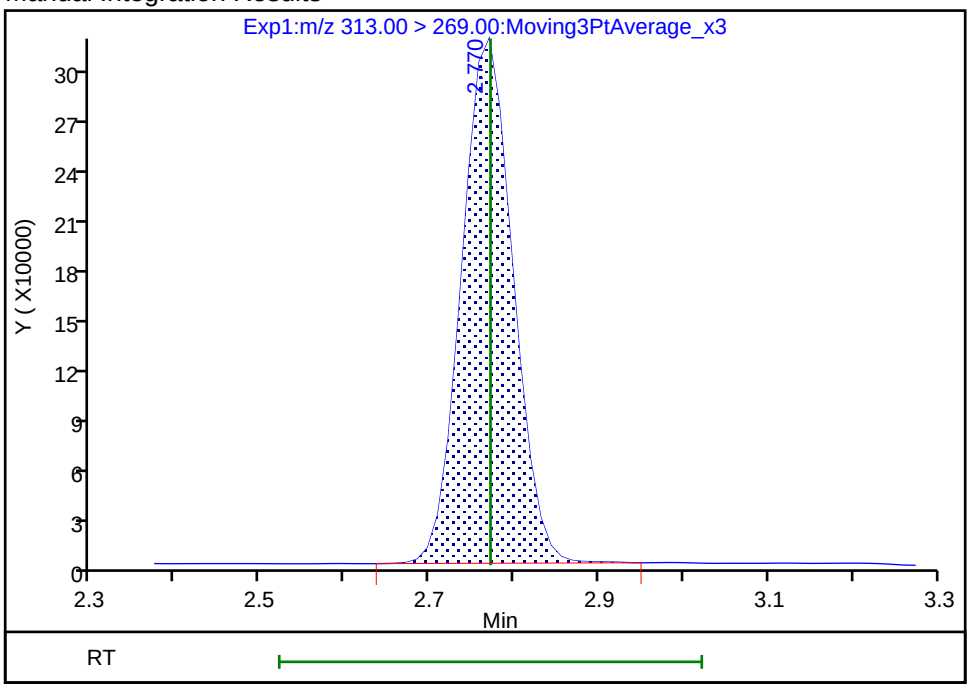
Processing Integration Results

RT: 2.77
Area: 1320113
Amount: 0.996052
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1314554
Amount: 0.991858
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

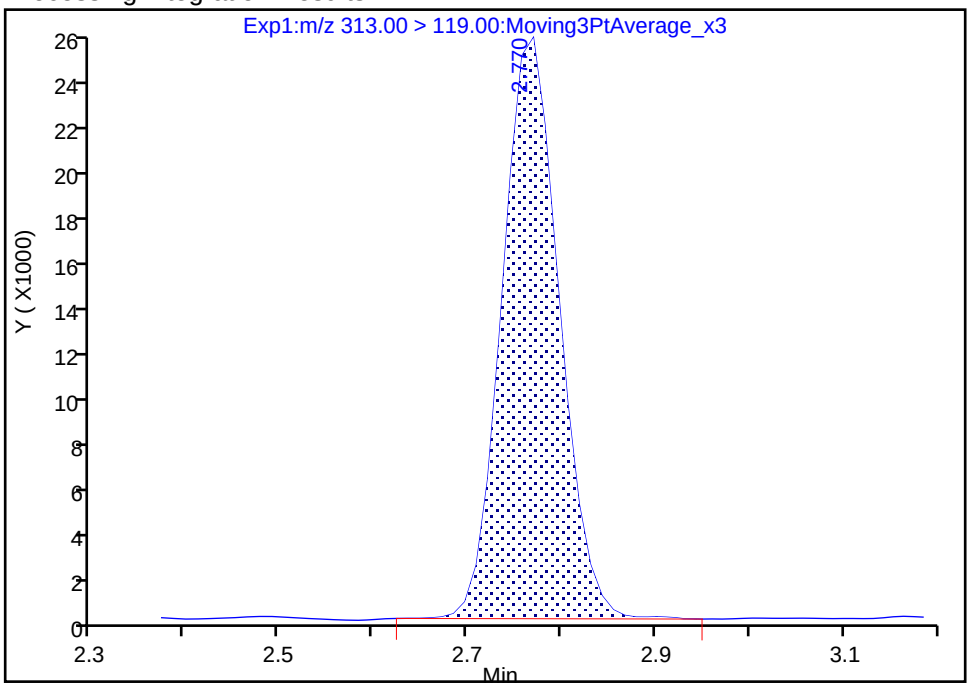
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d
Injection Date: 10-Nov-2021 12:28:11 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

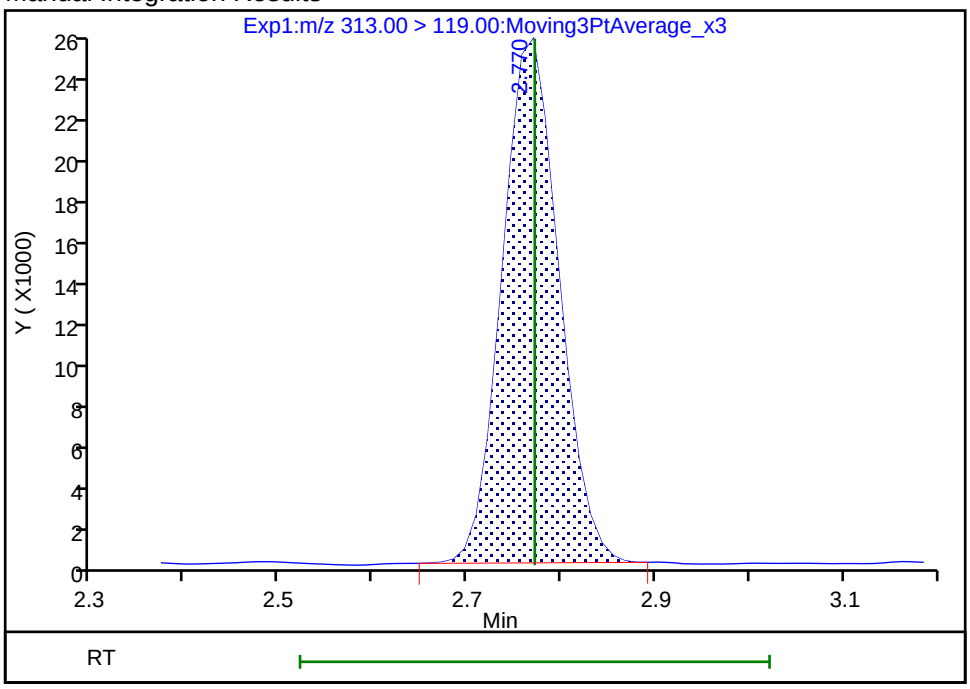
Processing Integration Results

RT: 2.77
Area: 107118
Amount: 0.996052
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 106317
Amount: 0.991858
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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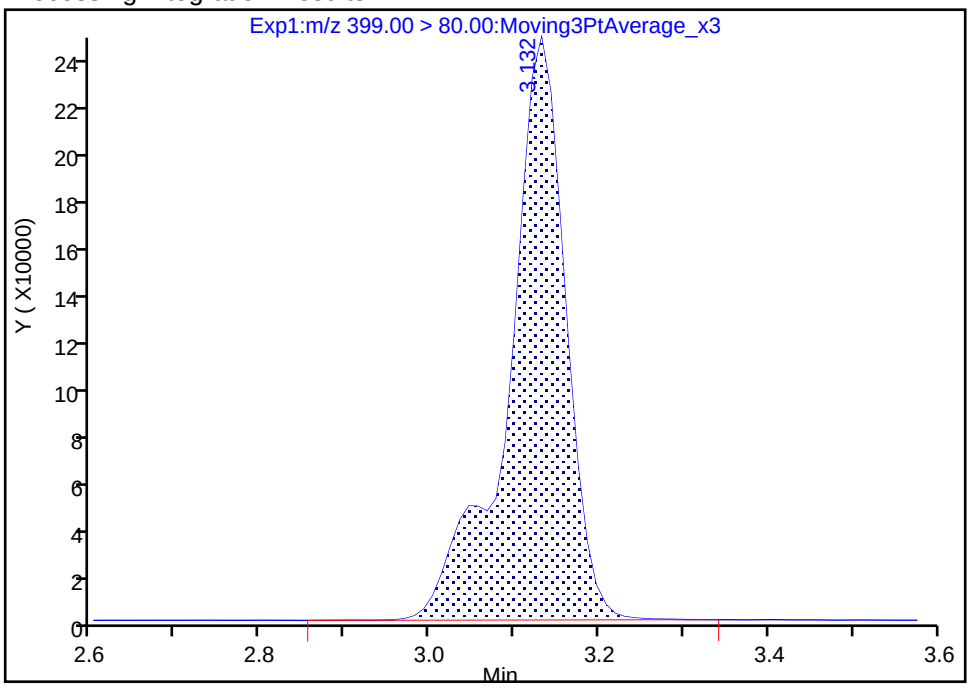
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

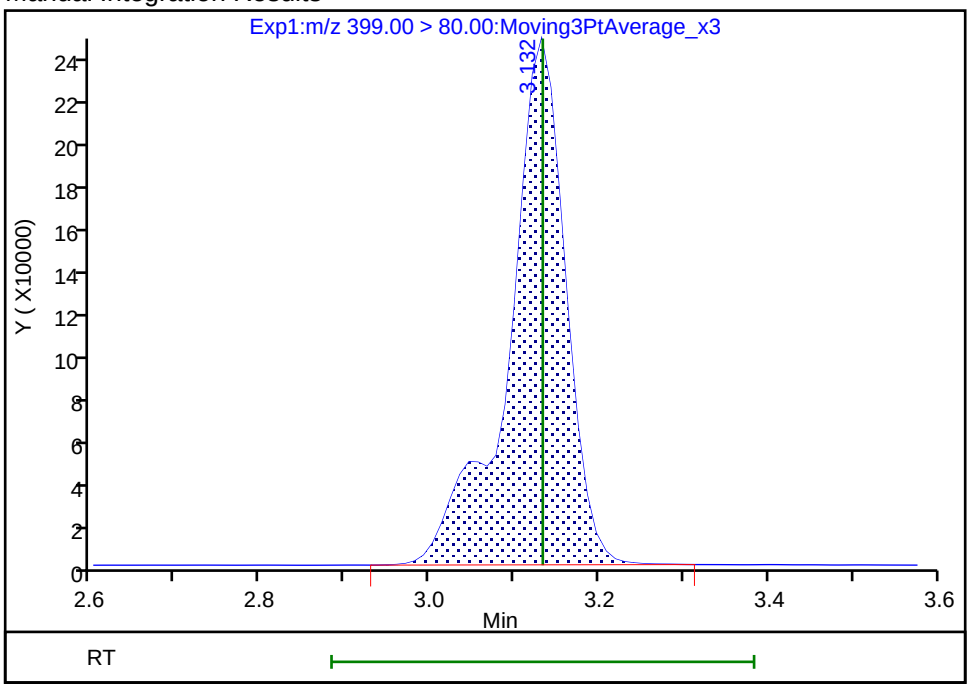
Processing Integration Results

RT: 3.13
Area: 1158432
Amount: 0.926151
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1157658
Amount: 0.925532
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:43:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

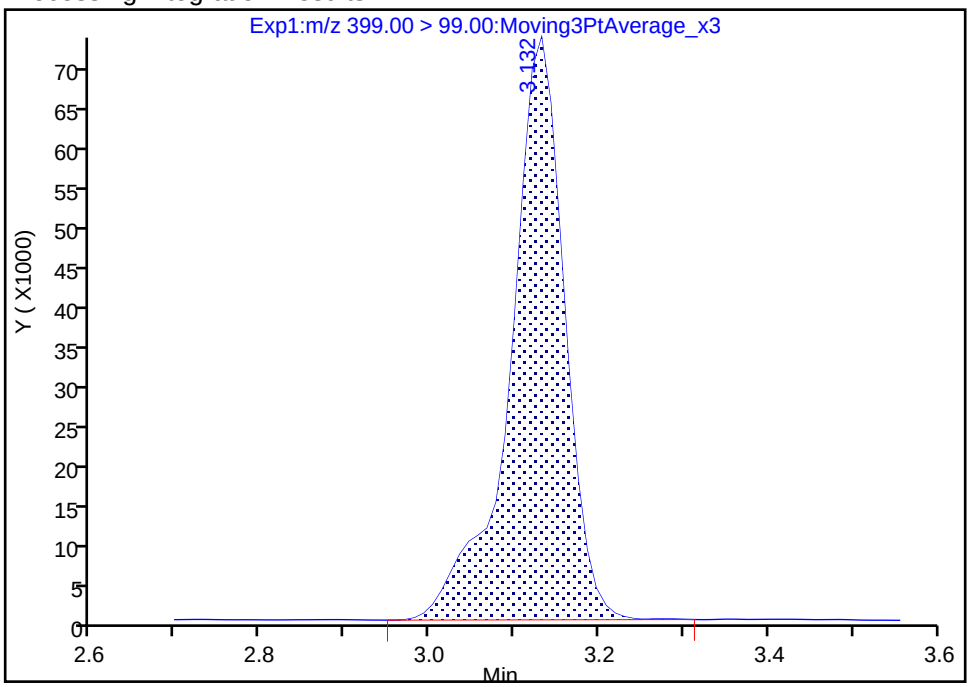
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d | | | | |
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

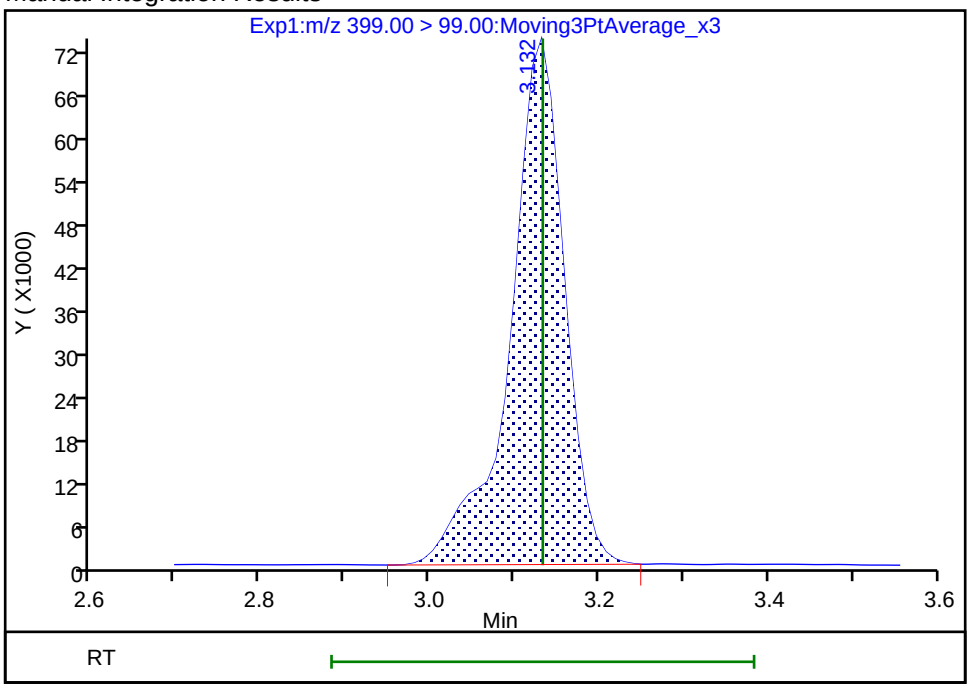
Processing Integration Results

RT: 3.13
Area: 327375
Amount: 0.926151
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 326687
Amount: 0.925532
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:43:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

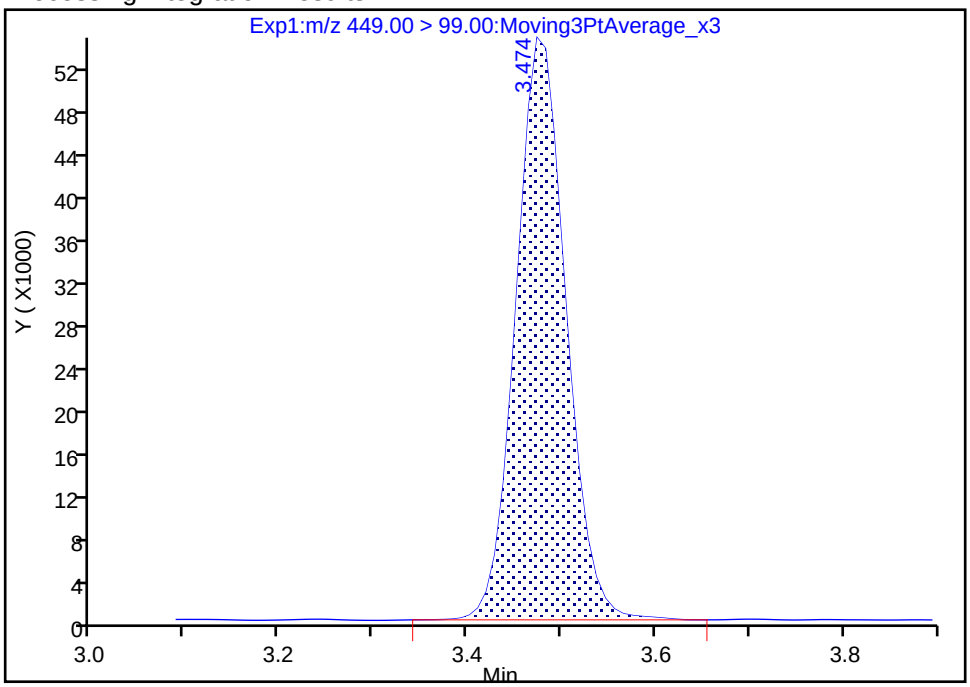
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d
Injection Date: 10-Nov-2021 12:28:11 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

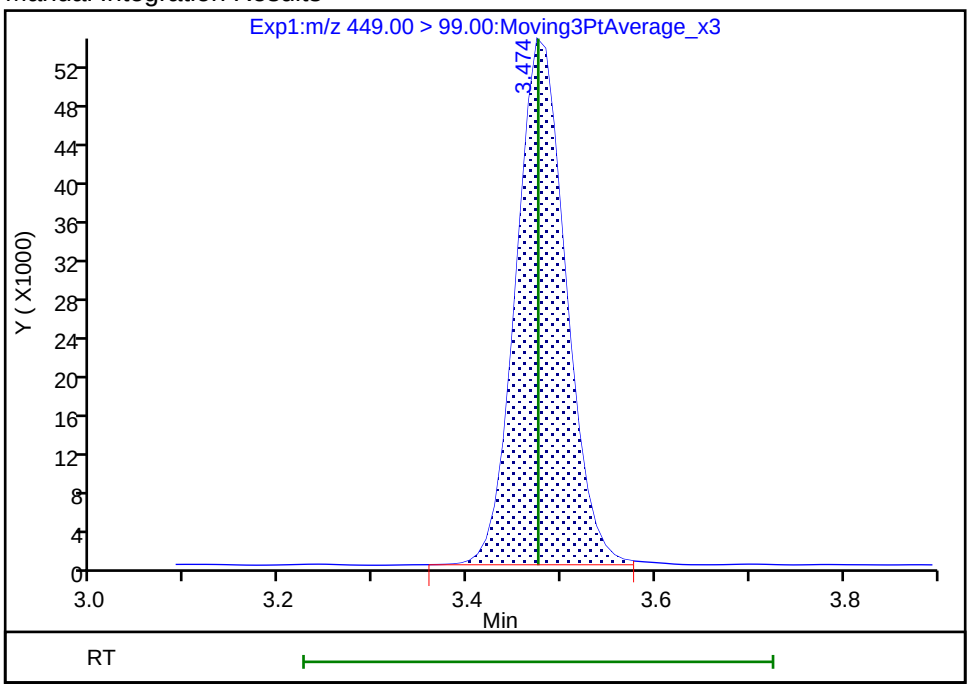
Processing Integration Results

RT: 3.47
Area: 199823
Amount: 0.969451
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 199183
Amount: 0.967133
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:43:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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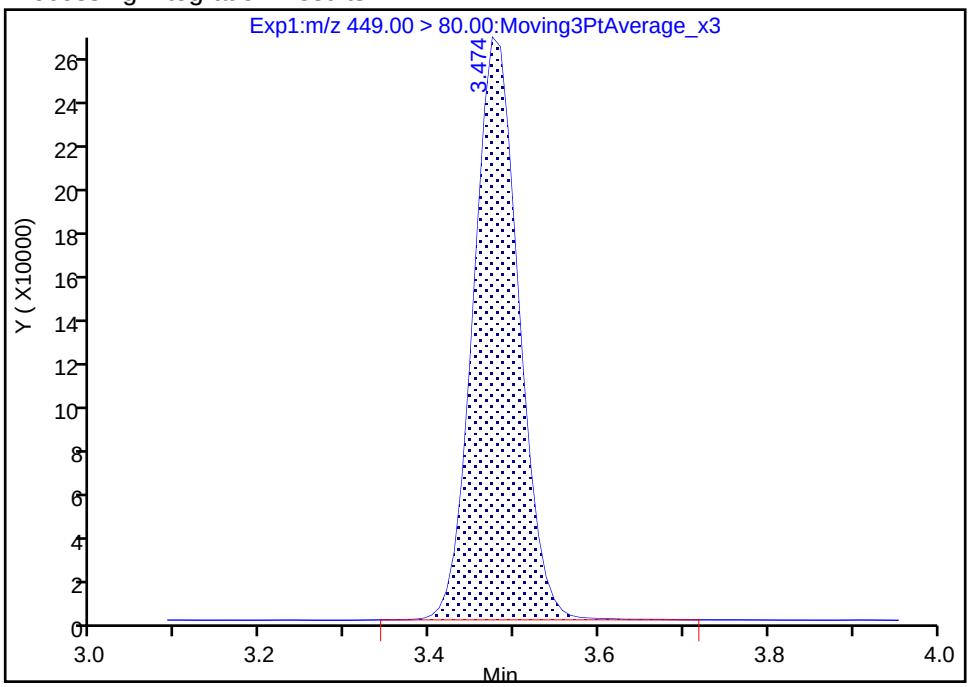
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

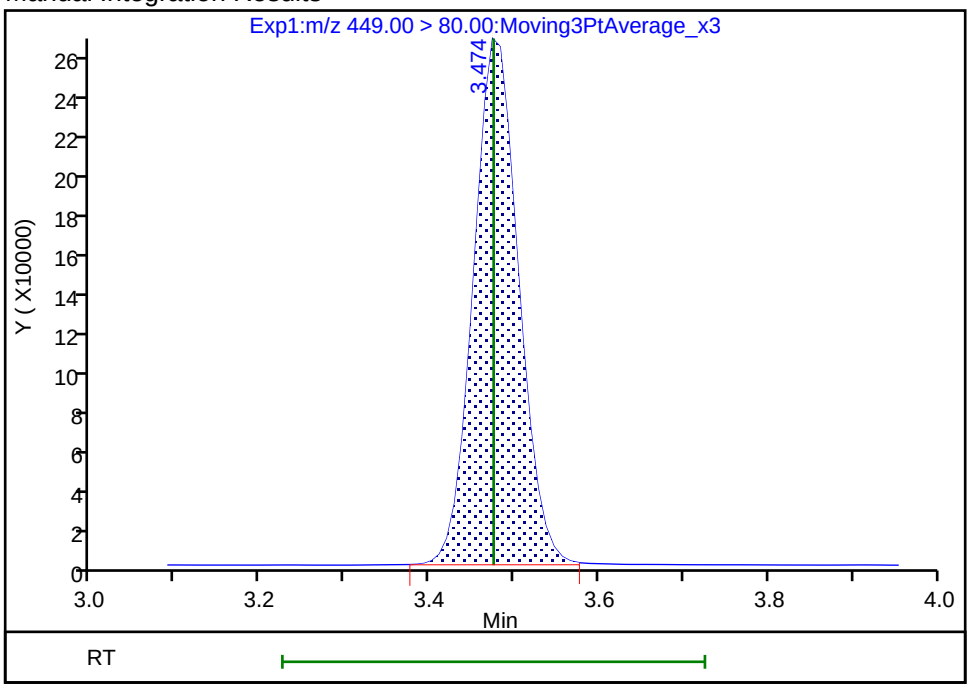
Processing Integration Results

RT: 3.47
Area: 1001665
Amount: 0.969451
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 999270
Amount: 0.967133
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:43:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

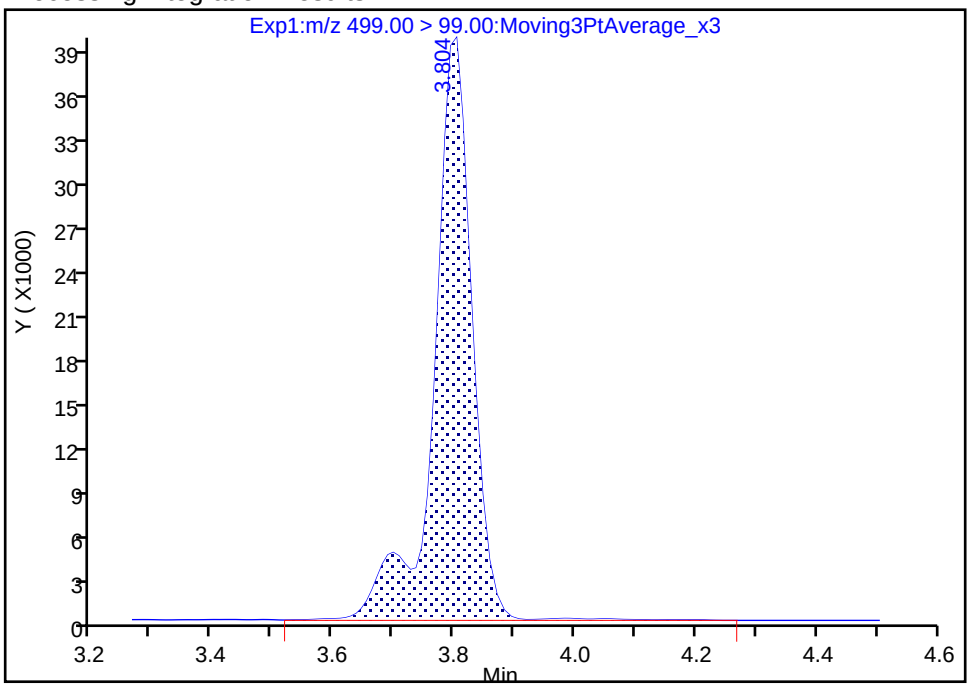
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d
Injection Date: 10-Nov-2021 12:28:11 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

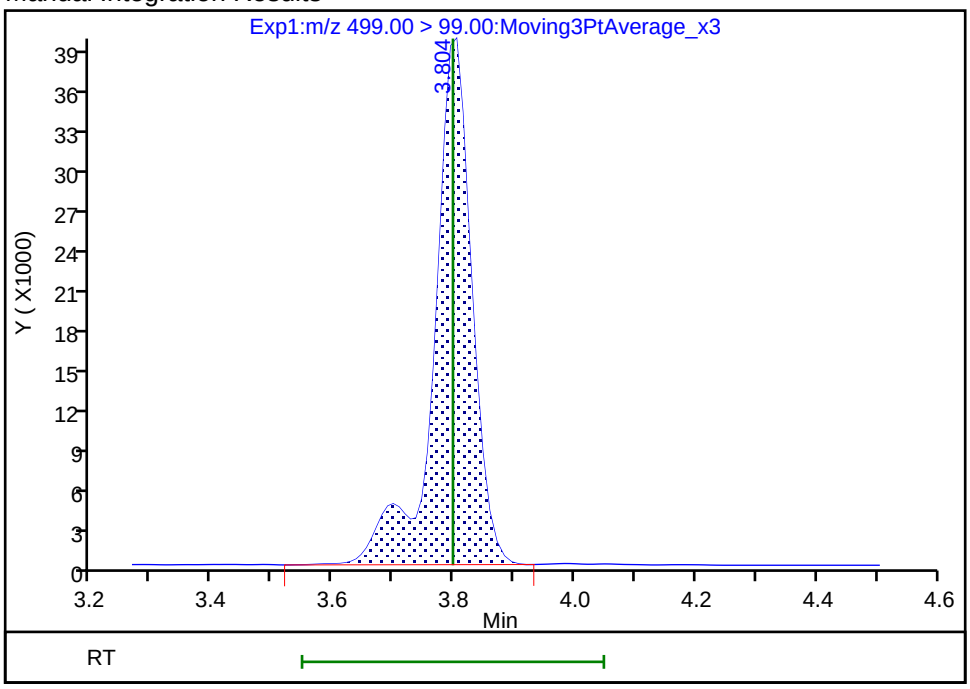
Processing Integration Results

RT: 3.80
Area: 174755
Amount: 0.949708
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 172658
Amount: 0.949708
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:12:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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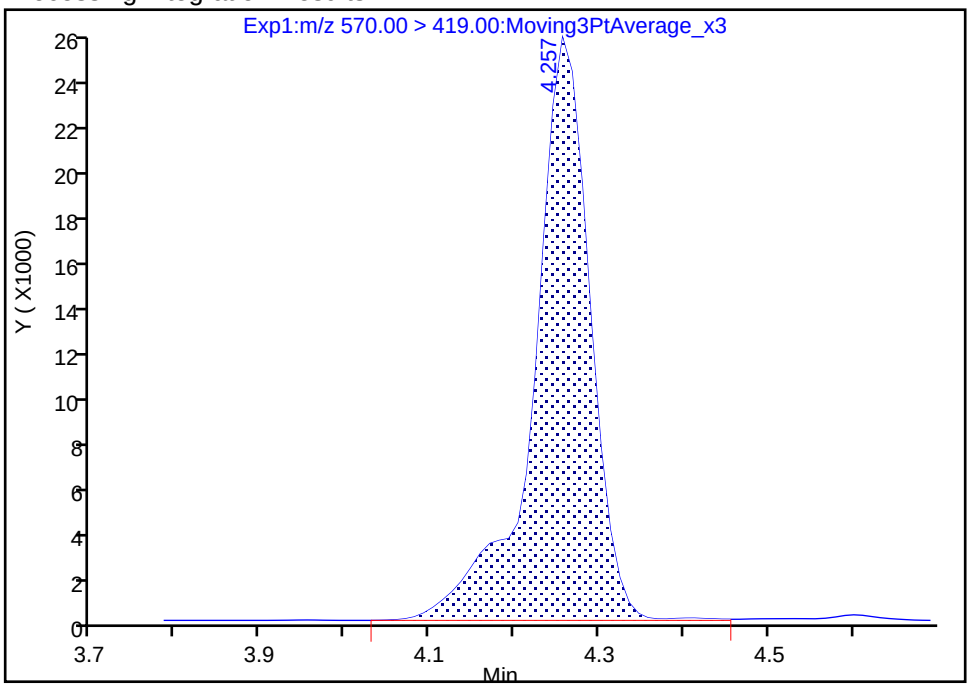
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

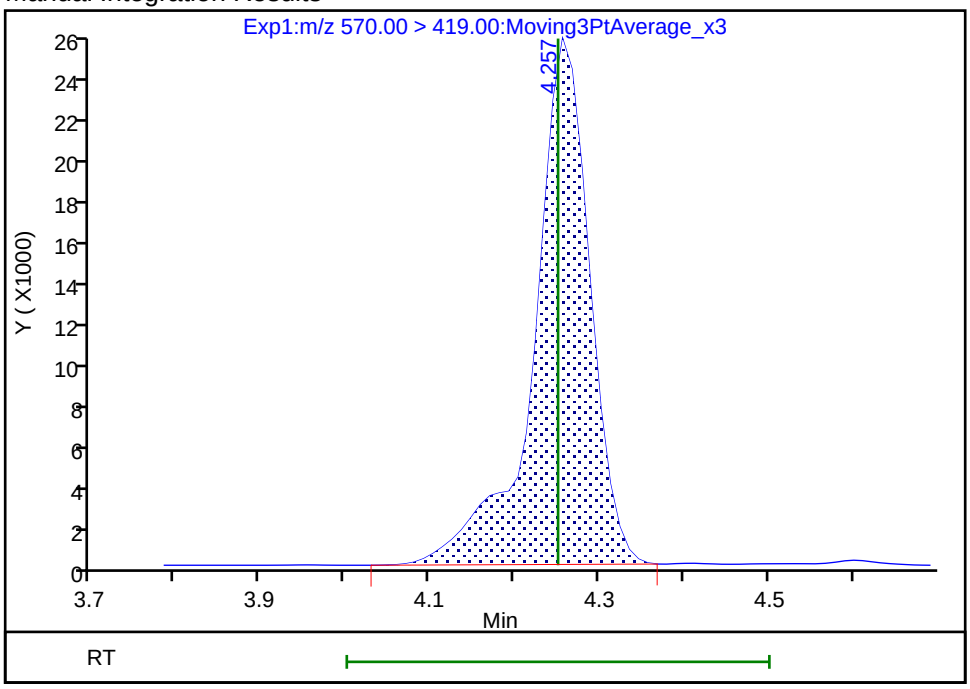
Processing Integration Results

RT: 4.26
Area: 117657
Amount: 1.076084
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 116699
Amount: 1.067322
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:12:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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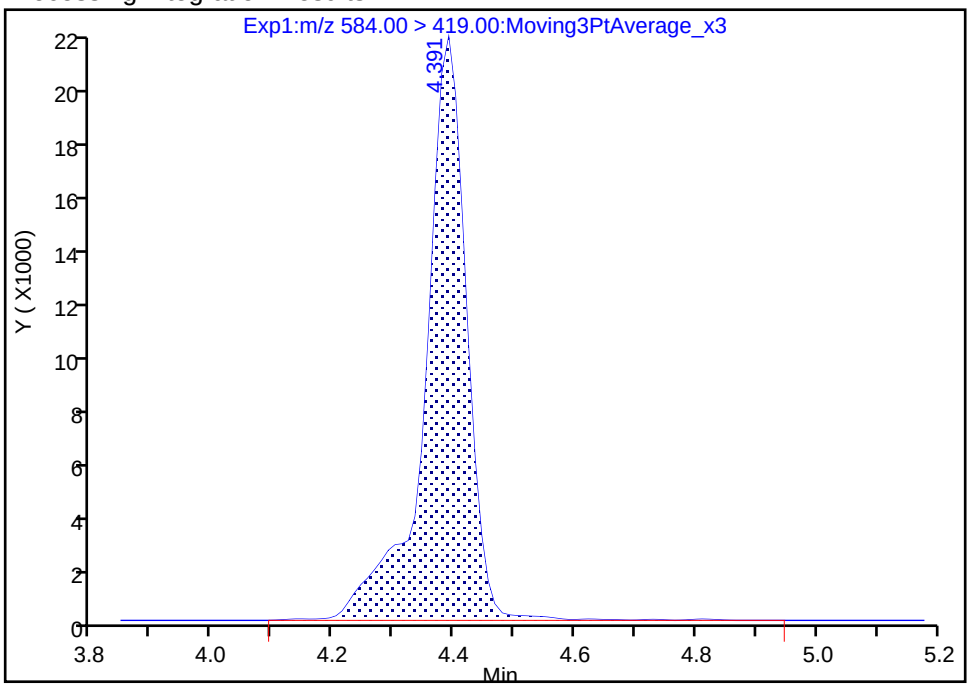
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

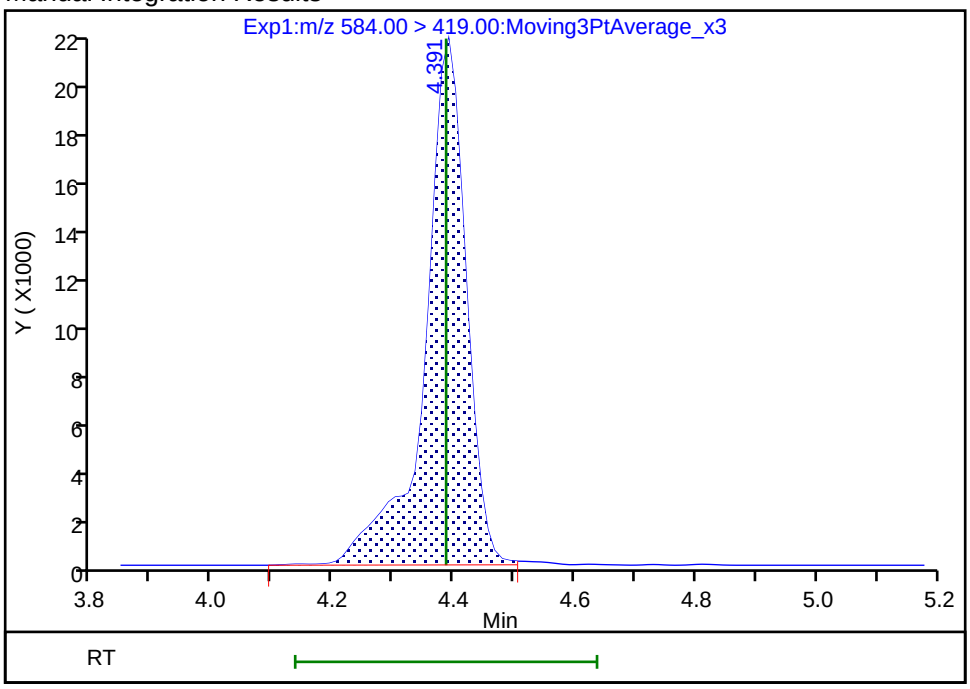
Processing Integration Results

RT: 4.39
Area: 101461
Amount: 1.022496
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 100356
Amount: 1.011361
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:12:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

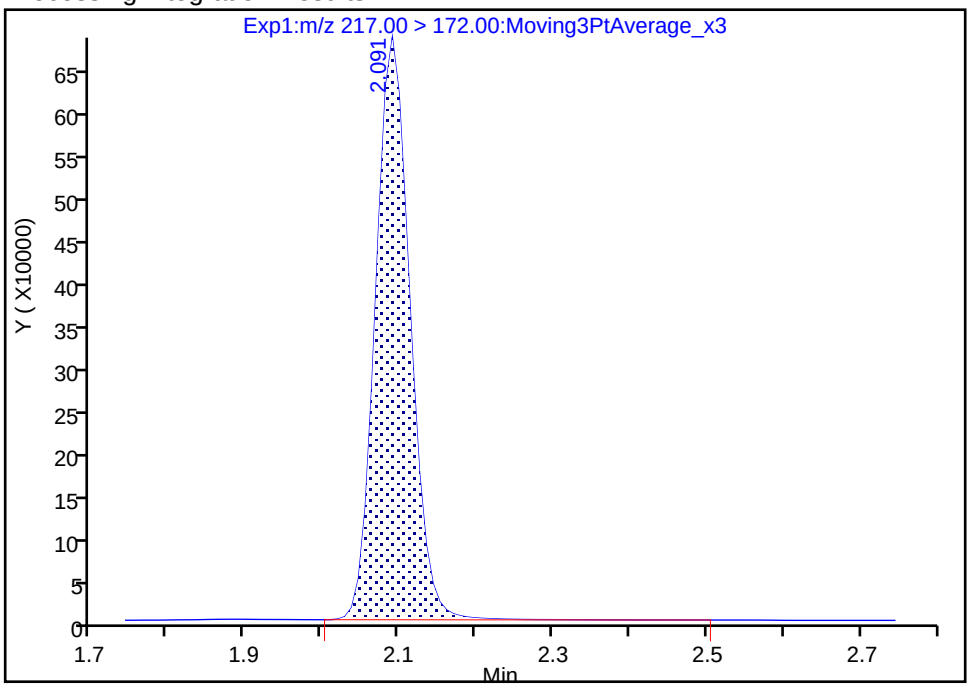
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d | | | | |
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 1 13C4 PFBA, CAS: STL00992

Signal: 1

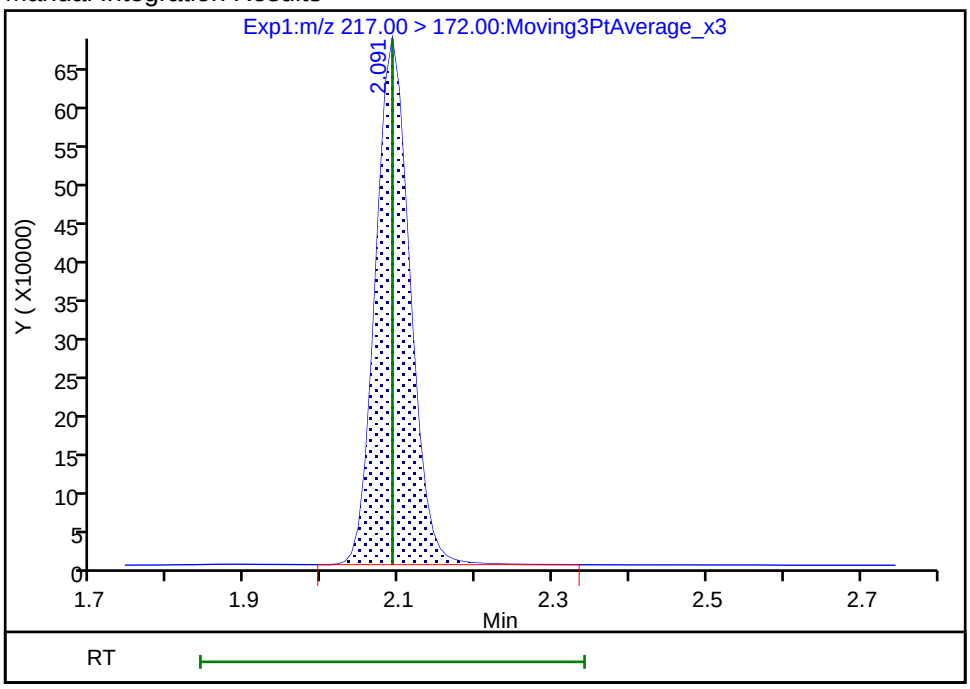
Processing Integration Results

RT: 2.09
Area: 2122673
Amount: 1.548555
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 2120254
Amount: 1.546791
Amount Units: ng/ml




Reviewer: deannd, 11-Nov-2021 10:11:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

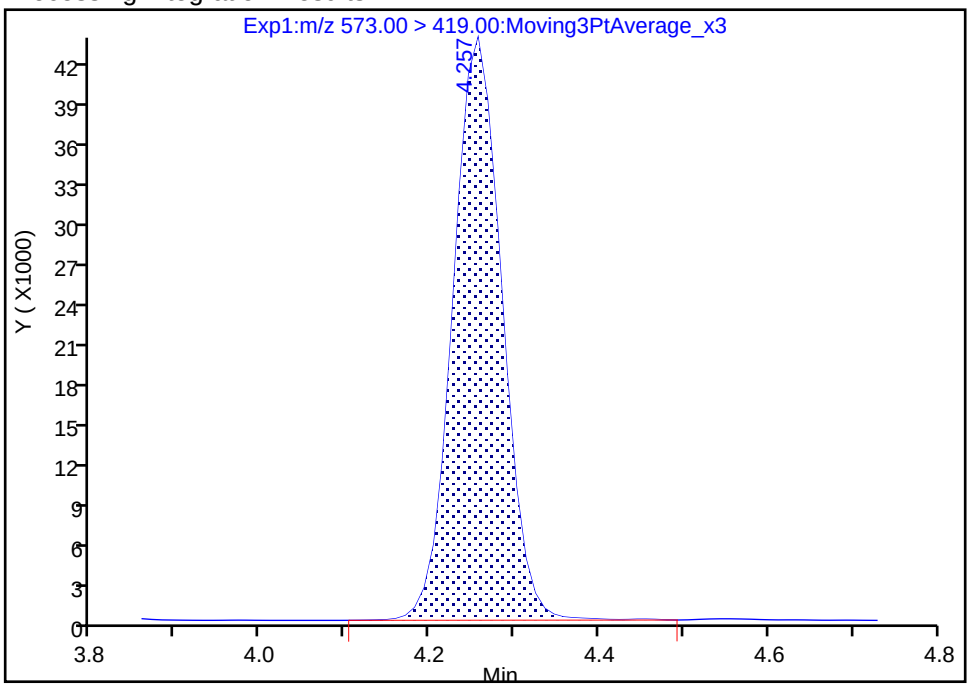
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d | | | | |
| Injection Date: | 10-Nov-2021 12:28:11 | Instrument ID: | LC812 | | |
| Lims ID: | LCSD 200-173541/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 6 | Worklist Smp#: | 9 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

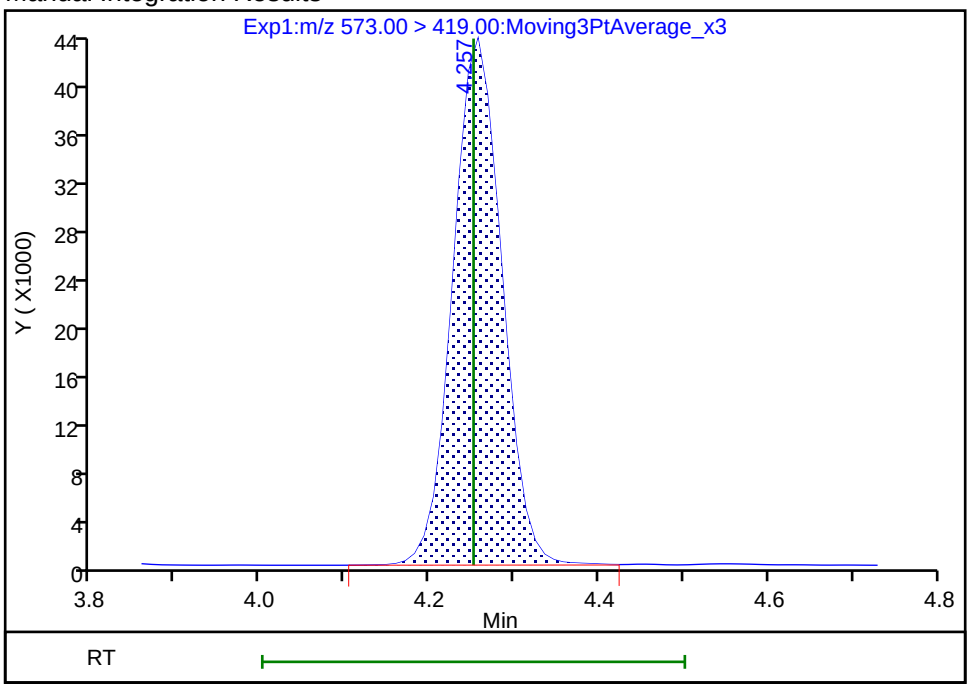
Processing Integration Results

RT: 4.26
Area: 174126
Amount: 1.263837
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 173974
Amount: 1.262734
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

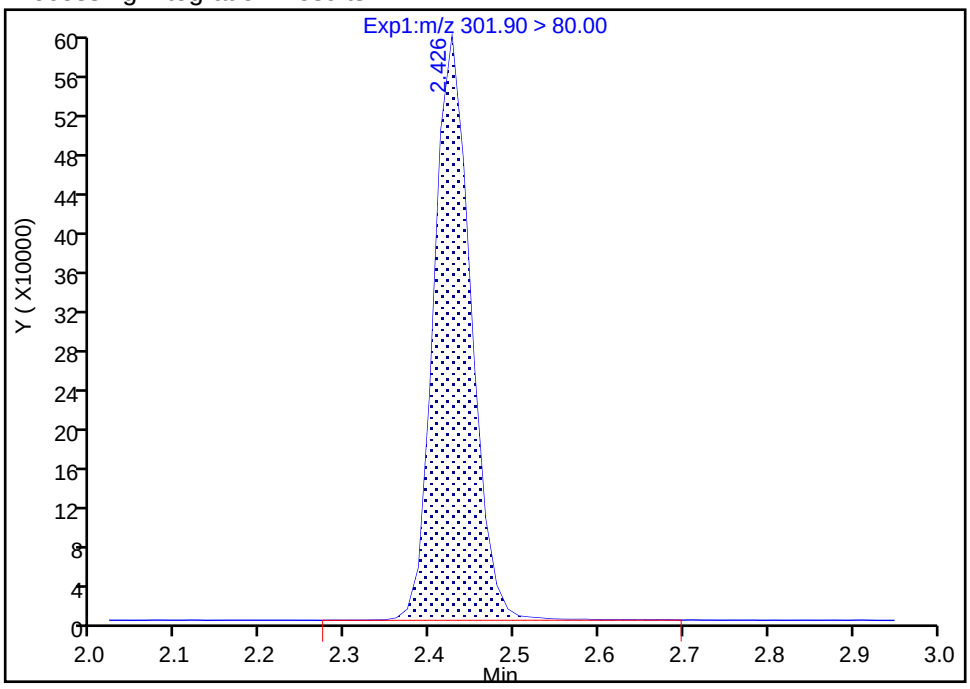
Data File: \\chromfs\Burlington\ChromData\LC812\20211110-48360.b\PA211110A09.d
Injection Date: 10-Nov-2021 12:28:11 Instrument ID: LC812
Lims ID: LCSD 200-173541/3-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 ( 4.60 mm) Detector EXP1

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

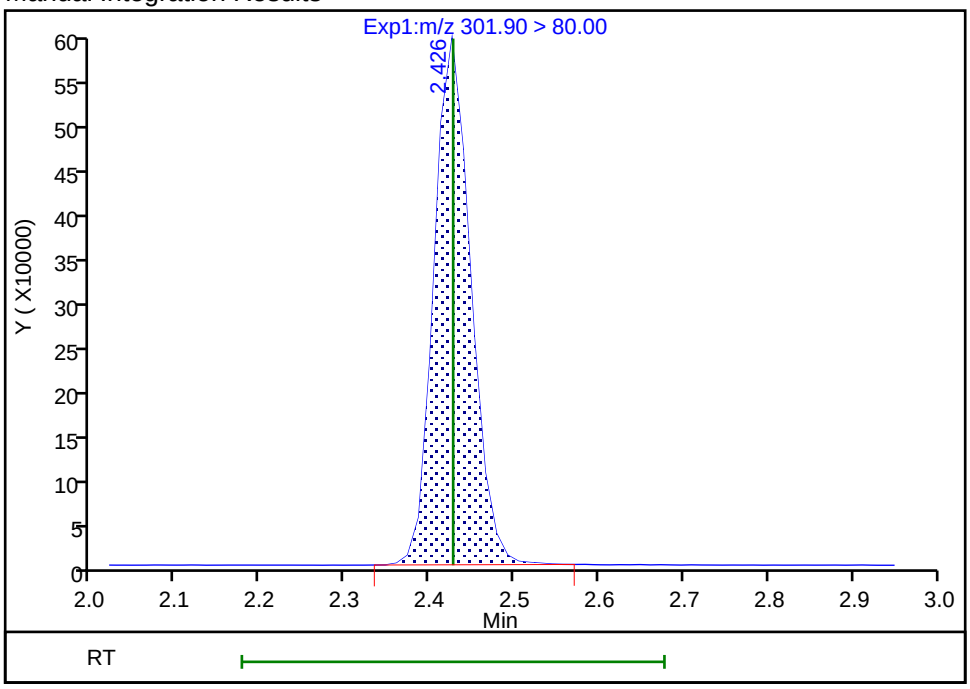
Processing Integration Results

RT: 2.43
Area: 1815962
Amount: 1.162229
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1805733
Amount: 1.155682
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:42:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MS  Lab Sample ID: 460-246277-8 MS

Matrix: Water  Lab File ID: PA211109D13.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 287.6(mL)  Date Analyzed: 11/10/2021 05:50

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 42.93 | | 4.35 | 0.78 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 44.56 | | 1.74 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 46.19 | | 1.74 | 0.39 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 40.94 | | 1.74 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 67.61 | | 1.74 | 0.37 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 37.59 | | 1.74 | 0.24 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 36.50 | | 1.74 | 0.26 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 34.22 | | 1.74 | 0.30 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 36.87 | | 1.74 | 0.33 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 35.18 | | 1.74 | 0.38 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 39.35 | | 1.74 | 0.55 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 39.11 | | 1.74 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 72.79 | | 1.74 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 33.70 | | 1.74 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 78.61 | | 1.74 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 31.54 | | 1.74 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 36.00 | | 1.74 | 0.50 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 34.54 | | 4.35 | 0.78 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 34.35 | | 4.35 | 0.65 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 33.87 | | 4.35 | 0.95 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 32.60 | | 1.74 | 0.34 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MS  Lab Sample ID: 460-246277-8 MS

Matrix: Water  Lab File ID: PA211109D13.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 287.6(mL)  Date Analyzed: 11/10/2021 05:50

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 94 | | 50-150 |
| STL01892 | 13C4 PFHpA | 95 | | 50-150 |
| STL00990 | 13C4 PFOA | 94 | | 50-150 |
| STL00991 | 13C4 PFOS | 100 | | 50-150 |
| STL00995 | 13C5 PFNA | 95 | | 50-150 |
| STL00992 | 13C4 PFBA | 79 | | 25-150 |
| STL00993 | 13C2 PFHxA | 97 | | 50-150 |
| STL00996 | 13C2 PFDA | 88 | | 50-150 |
| STL00997 | 13C2 PFUnA | 90 | | 50-150 |
| STL00998 | 13C2 PFDoA | 84 | | 50-150 |
| STL01056 | 13C8 FOSA | 90 | | 25-150 |
| STL01893 | 13C5 PFPeA | 90 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 81 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 104 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 106 | | 50-150 |
| STL02279 | M2-6:2 FTS | 116 | | 25-150 |
| STL02280 | M2-8:2 FTS | 124 | | 25-150 |
| STL02337 | 13C3 PFBS | 90 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D13.d
Lims ID: 460-246277-D-8-A MS
Client ID: MW-24S-20211027
Sample Type: MS
Inject. Date: 10-Nov-2021 05:50:28 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-8-A MS
Misc. Info.: 200-0048356-013 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 15:57:10
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1266742 | 0.9863 | | 78.9 | 2507 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 1183118 | 1.23 | | 123 | 93.6 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1214309 | 1.12 | | 89.8 | 709 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1247022 | 1.28 | | 128 | 9.7 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1523818 | 1.04 | | 89.5 | 32607 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1574890 | 1.12 | Target=2.32 | 127 | 43.7 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 699204 | | 2.25(1.16-3.48) | | 84.5 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 298632 | 1.01 | | 108 | 1157 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 162615 | 1.46 | | 125 | 15.5 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1377838 | 1.21 | | 97.1 | 2615 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1485030 | 1.33 | Target=12.09 | 133 | 30.2 | |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 118373 | | 12.55(6.04-18.13) | | 64.9 | |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1427393 | 1.19 | Target=3.03 | 127 | 106 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 471862 | | 3.03(1.52-4.55) | | 107 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.867 | 0.0 | 0.821 | 32289 | 1.08 | | 86.4 | 68.2 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.004 | 135843 | 1.16 | | 116 | 17.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2294847 | 2.09 | Target=3.55 | 230 | 243 | |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 608389 | | 3.77(1.77-5.32) | | 307 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1179055 | 1.11 | | 93.7 | 3184 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1425806 | 1.19 | | 95.5 | 2883 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1387543 | 1.18 | Target=3.69 | 118 | 62.6 | M |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 371567 | | 3.73(1.84-5.53) | | 409 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2432496 | 0.9059 | Target=2.56 | 96.2 | 1338 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 955897 | | 2.54(1.28-3.84) | | 425 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 926879 | 0.9691 | Target=4.88 | 102 | 181 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 191902 | | 4.83(2.44-7.32) | | 161 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.474 | 3.483 | -0.009 | 0.997 | 240608 | 0.9740 | | 103 | 1386 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 231327 | 1.38 | | 116 | 72.1 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1536133 | 1.18 | | 94.1 | 5931 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1586012 | 1.25 | | | 4479 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 2541005 | 1.94 | Target=2.68 | 194 | 128 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1002028 | | 2.54(1.34-4.02) | | 1379 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 916806 | 1.19 | | 99.8 | 493 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.794 | 3.804 | -0.010 | 1.000 | 1881925 | 2.26 | Target=4.69 | 244 | 464 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 379799 | | 4.96(2.35-7.04) | | 383 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1541288 | 1.19 | | 94.8 | 3313 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.814 | 3.814 | 0.0 | 1.000 | 1304066 | 1.08 | Target=7.29 | 108 | 148 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 184783 | | 7.06(3.64-10.93) | | 759 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.045 | 1134155 | 0.9043 | | 97.0 | 2684 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.076 | 633307 | 0.9767 | Target=2.35 | 102 | 723 | |
| 549.00 > 99.00 | 4.081 | 4.081 | 0.0 | 1.076 | 248010 | | 2.55(1.17-3.52) | | 610 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1447602 | 1.10 | | 88.2 | 4206 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1221481 | 1.05 | Target=8.95 | 105 | 278 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 139183 | | 8.78(4.47-13.42) | | 551 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 283373 | 1.49 | | 124 | 258 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 185598 | 0.9376 | | 97.9 | 1803 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1422207 | 1.12 | | 89.9 | 2841 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 1118584 | 1.04 | | 104 | 2469 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 167092 | 1.29 | | 104 | 832 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 104314 | 0.99 | | 99.3 | 539 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.346 | 4.346 | 0.0 | 1.146 | 457374 | 0.9072 | Target=2.47 | 94.1 | 1024 | |
| 599.00 > 99.00 | 4.346 | 4.346 | 0.0 | 1.146 | 183741 | | 2.49(1.23-3.70) | | 1120 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 1156118 | 1.13 | | 90.4 | 5652 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 1.000 | 970458 | 0.9843 | Target=9.24 | 98.4 | 405 | |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 1.000 | 116118 | | 8.36(4.62-13.86) | | 1250 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 160823 | 1.33 | | 106 | 817 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 108928 | 0.9880 | | 98.8 | 835 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.466 | 4.456 | 0.010 | 1.177 | 1307727 | 0.8829 | | 93.7 | 5650 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.591 | 4.591 | 0.0 | 1.315 | 1159301 | 1.05 | | 84.3 | 1564 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.002 | 962964 | 1.06 | Target=7.04 | 106 | 177 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.002 | 148268 | | 6.49(3.52-10.56) | | 1327 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.612 | 4.612 | 0.0 | 1.118 | 82387 | 0.9008 | | 93.4 | 1458 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.756 | 0.009 | 1.256 | 179985 | 0.9706 | Target=0.49 | 100 | 1553 | |
| 699.00 > 99.00 | 4.765 | 4.756 | 0.009 | 1.256 | 336044 | | 0.54(0.25-0.74) | | 1854 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.046 | 792108 | 1.01 | Target=4.68 | 101 | 220 | |
| 663.00 > 169.00 | 4.801 | 4.792 | 0.009 | 1.046 | 179984 | | 4.40(2.34-7.02) | | 1126 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.976 | 4.966 | 0.010 | 1.425 | 861007 | 1.01 | | 80.7 | 1617 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.976 | 4.966 | 0.010 | 1.000 | 123042 | 1.13 | Target=1.01 | 113 | 1367 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 1.000 | 121427 | | 1.01(0.51-1.52) | | 1143 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.281 | 5.270 | 0.011 | 1.512 | 786970 | 1.05 | | 83.8 | 3135 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.281 | 5.270 | 0.011 | 1.000 | 592551 | 1.08 | Target=4.57 | 108 | 193 | |
| 813.00 > 169.00 | 5.281 | 5.270 | 0.011 | 1.000 | 140360 | | 4.22(2.29-6.86) | | 1871 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.052 | 464430 | 0.8747 | Target=4.27 | 87.5 | 223 | |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.050 | 109187 | | 4.25(2.14-6.41) | | 1224 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D13.d

Injection Date: 10-Nov-2021 05:50:28 Instrument ID: LC812

Lims ID: 460-246277-D-8-A MS

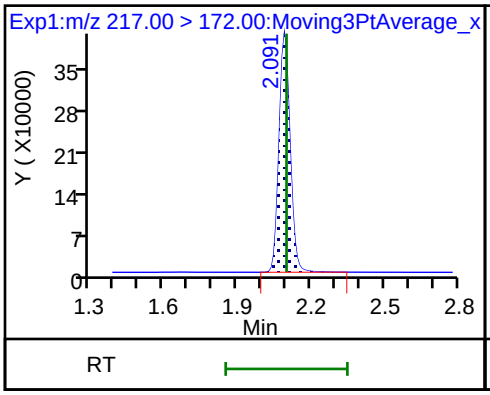
Client ID: MW-24S-20211027

Operator ID: lc812tech ALS Bottle#: 13 Worklist Smp#: 13

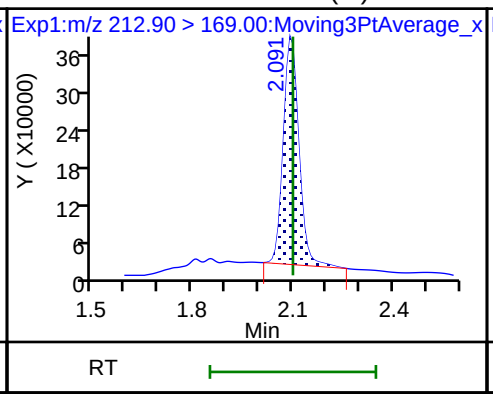
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

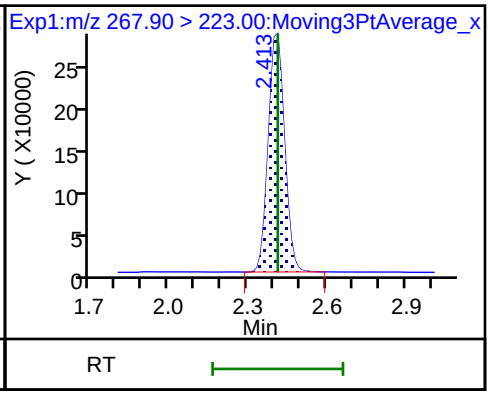
D 1 13C4 PFBA



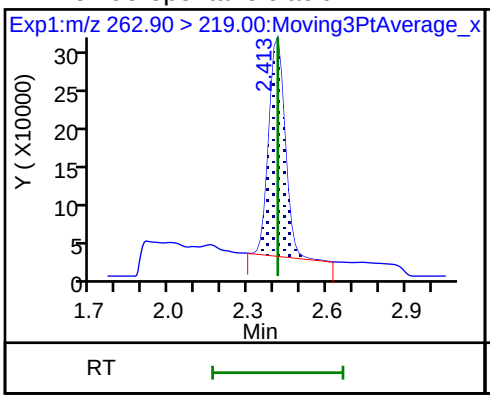

2 Perfluorobutanoic acid (M)



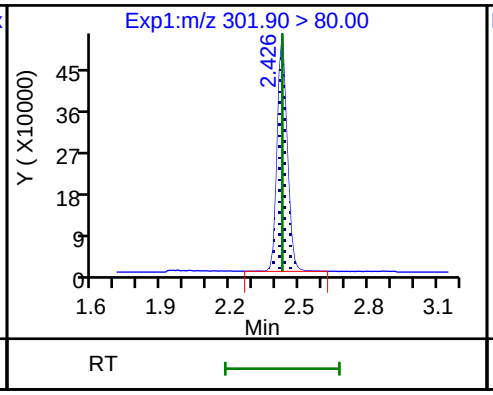

D 3 13C5 PFPeA



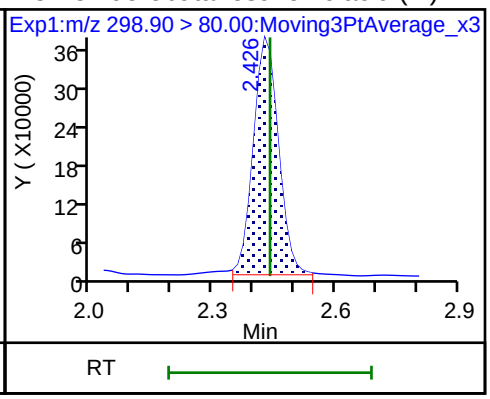

4 Perfluoropentanoic acid



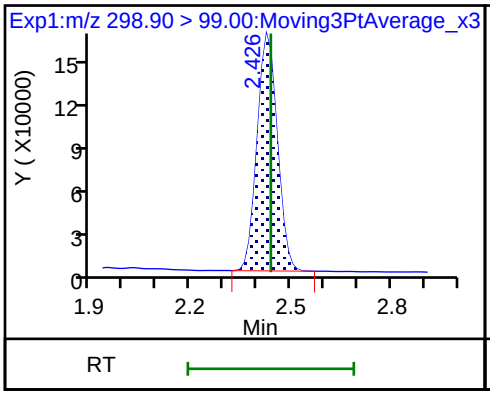

D 47 13C3 PFBS



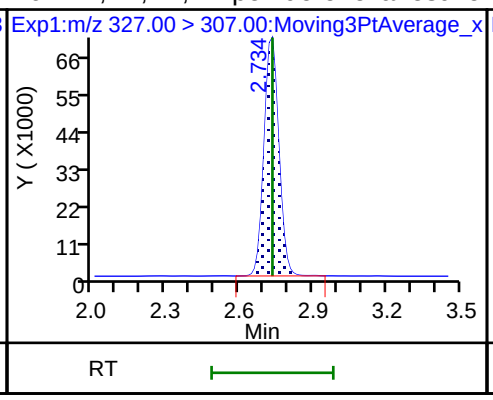

5 Perfluorobutanesulfonic acid (M)



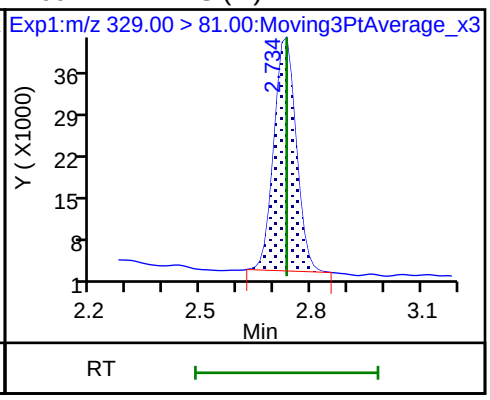

5 Perfluorobutanesulfonic acid



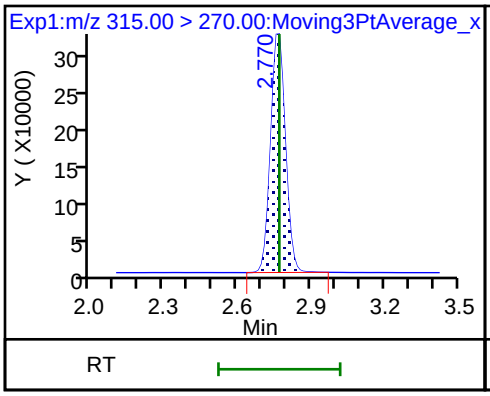

61 1H,1H,2H,2H-perfluorohexanesulfo



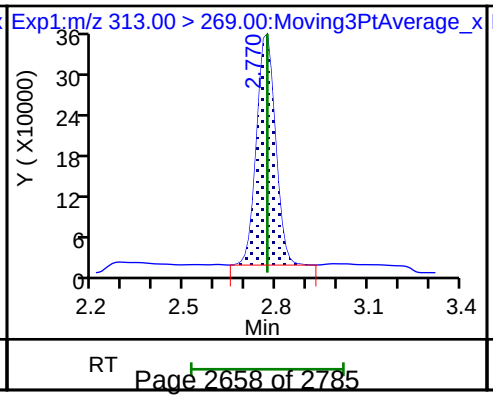

D 60 M2-4:2 FTS (M)



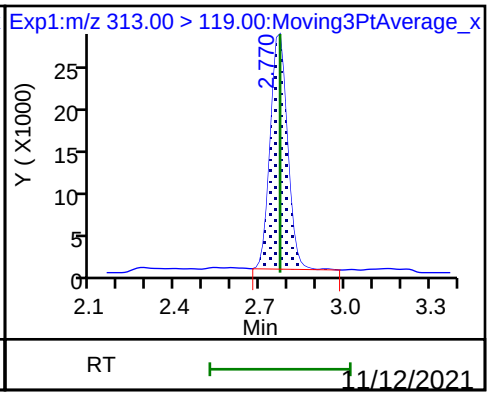

D 7 13C2 PFHxA



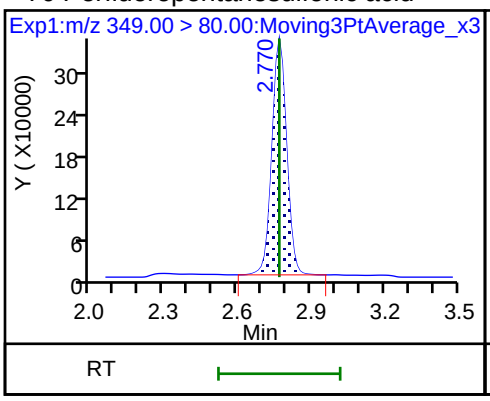

6 Perfluorohexanoic acid




6 Perfluorohexanoic acid



70 Perfluoropentanesulfonic acid

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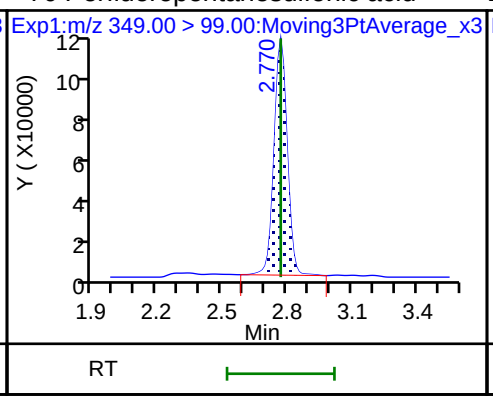
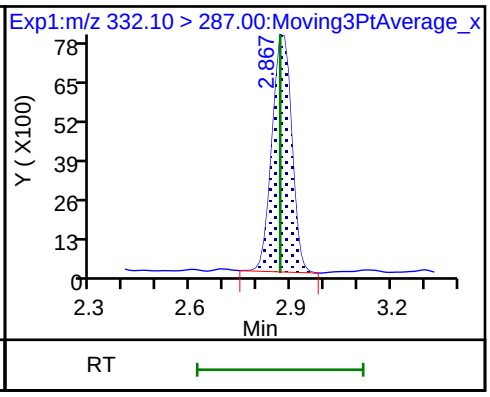
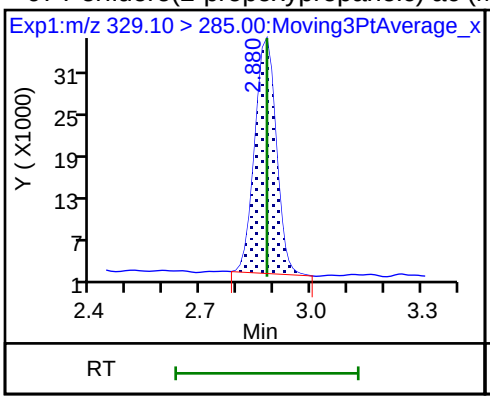


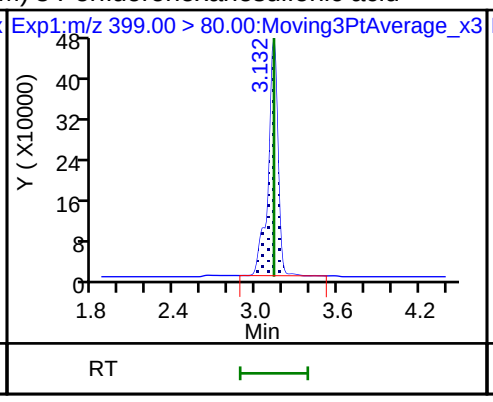

D 64 13C3 HFPO-DA




67 Perfluoro(2-propoxypropanoic) ac (M)




8 Perfluorohexanesulfonic acid

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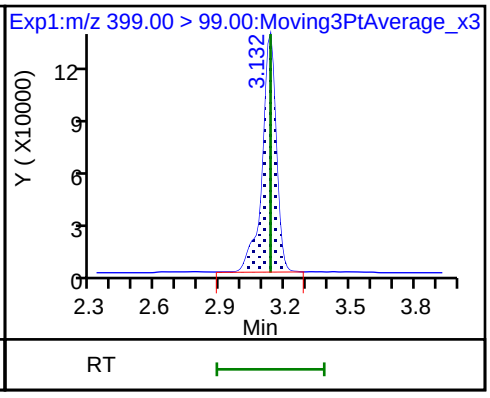
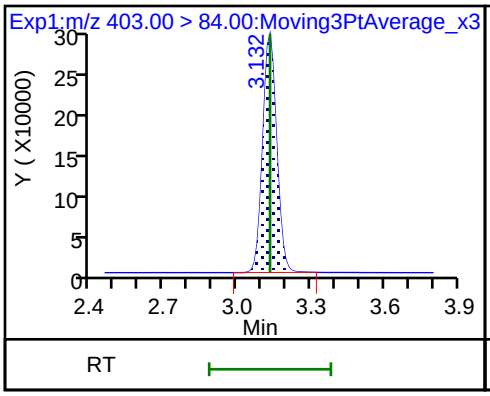



D 11 18O2 PFHxS

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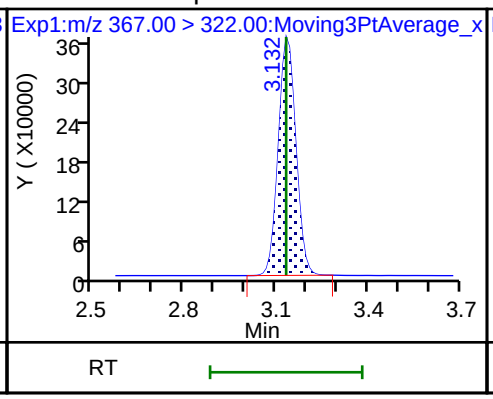
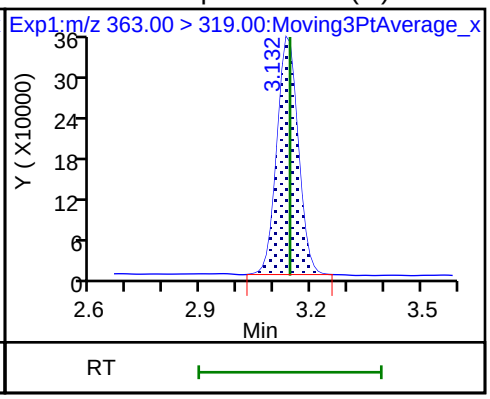
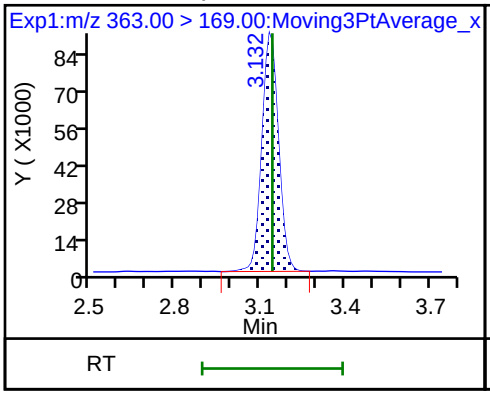


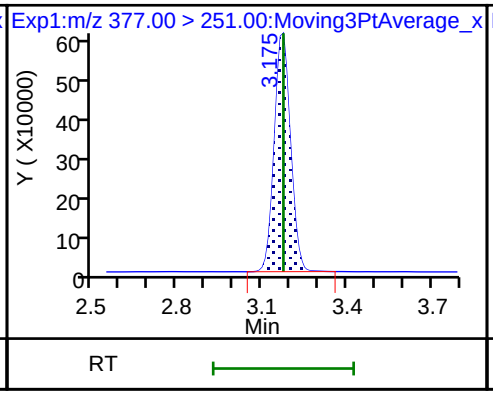

10 Perfluoroheptanoic acid (M)



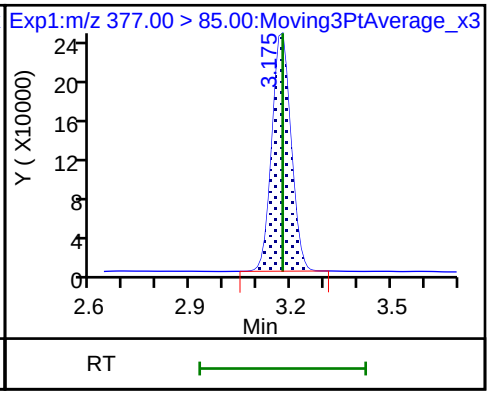

10 Perfluoroheptanoic acid



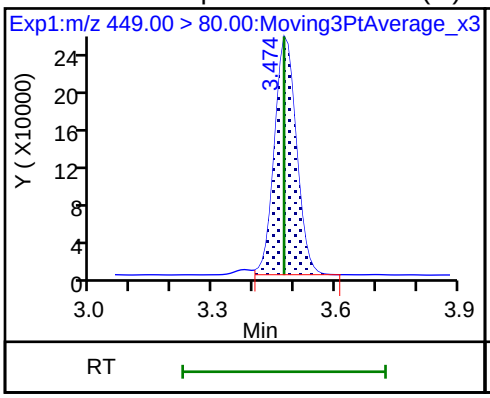

77 DONA



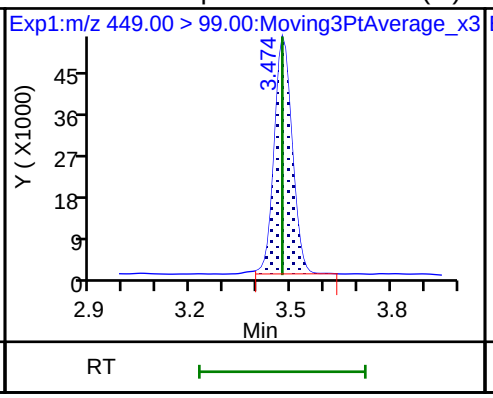

77 DONA



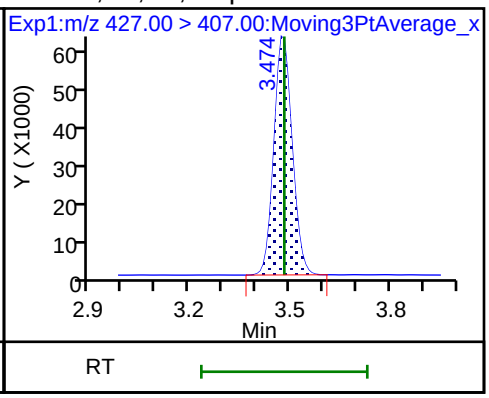
16 Perfluoroheptanesulfonic acid (M)



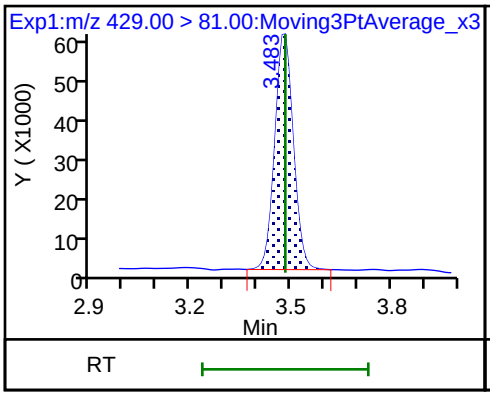

16 Perfluoroheptanesulfonic acid (M)



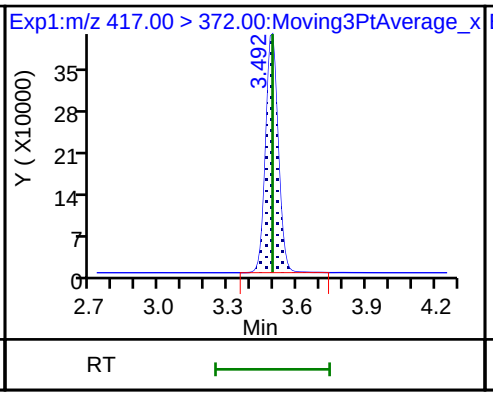

13 1H,1H,2H,2H-perfluorooctanesulfo



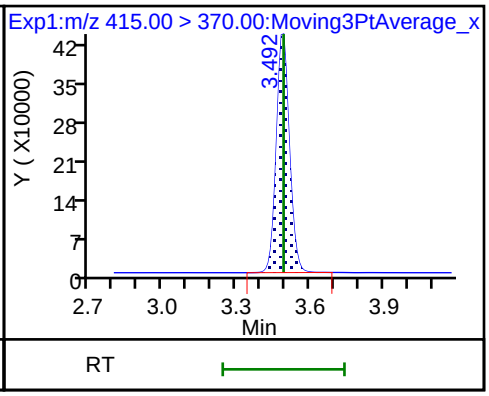

D 12 M2-6:2 FTS



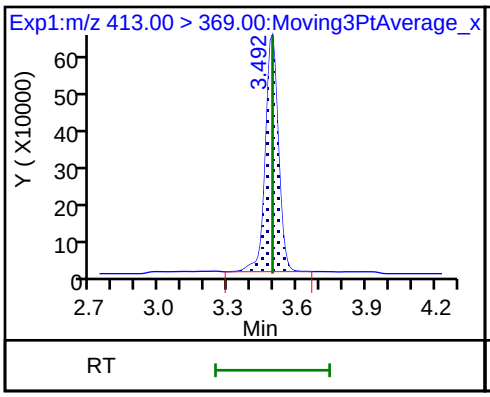

D 14 13C4 PFOA



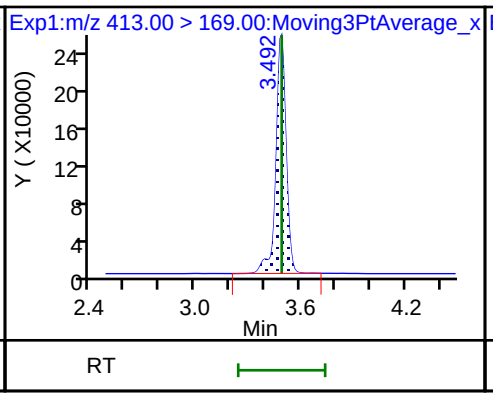

* 62 13C2 PFOA



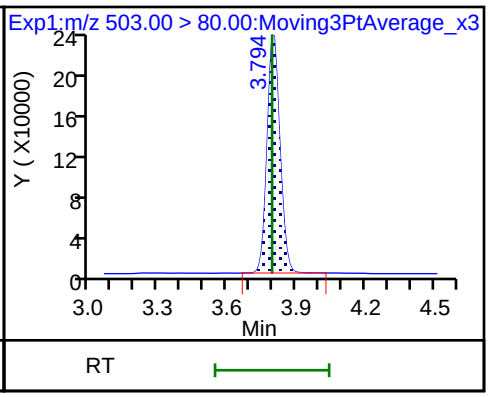

15 Perfluorooctanoic acid



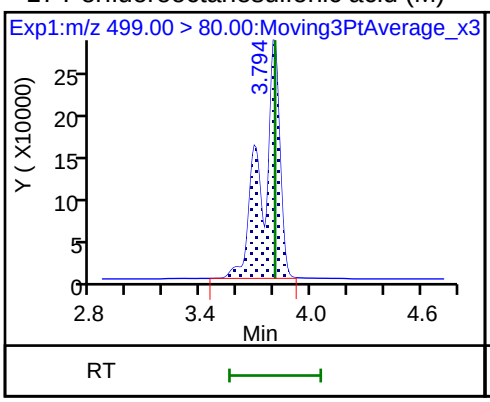

15 Perfluorooctanoic acid



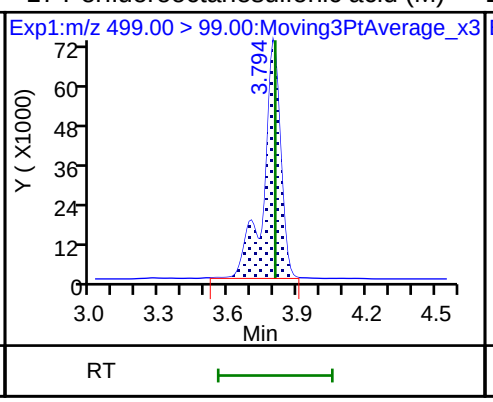

D 18 13C4 PFOS



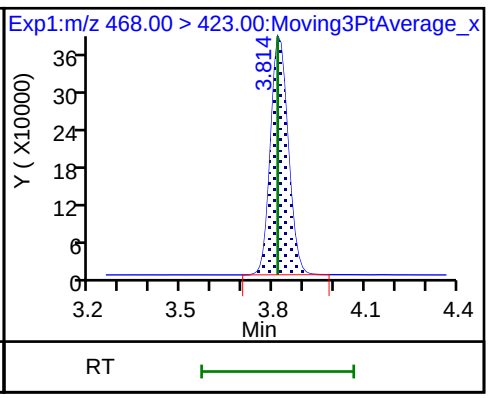

17 Perfluorooctanesulfonic acid (M)



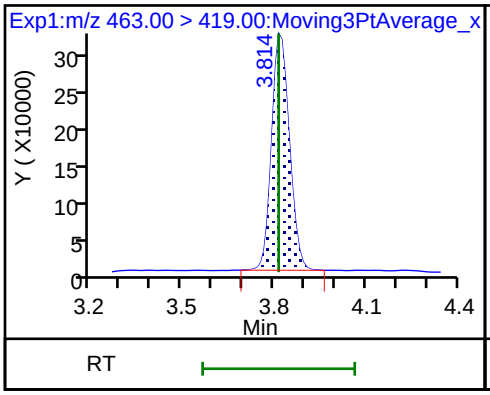

17 Perfluorooctanesulfonic acid (M)



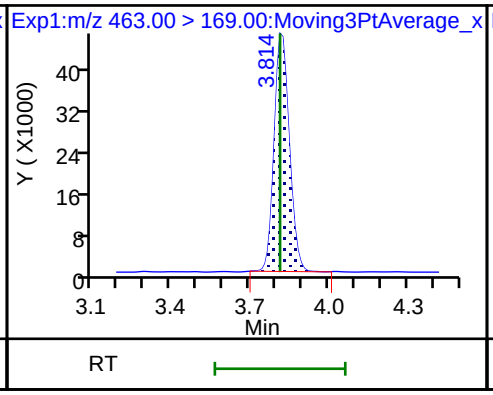

D 19 13C5 PFNA



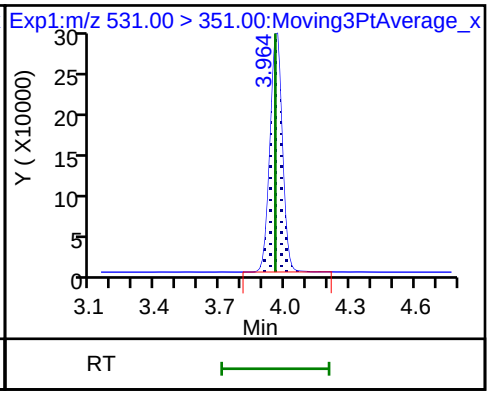
20 Perfluorononanoic acid



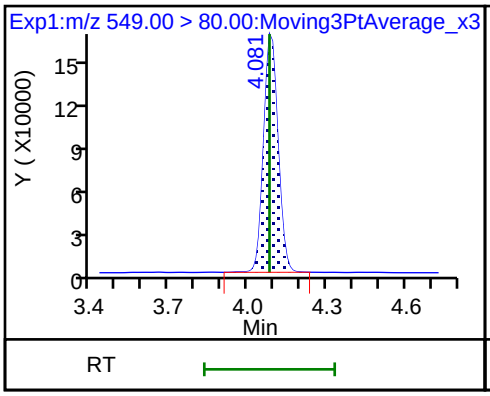

20 Perfluorononanoic acid



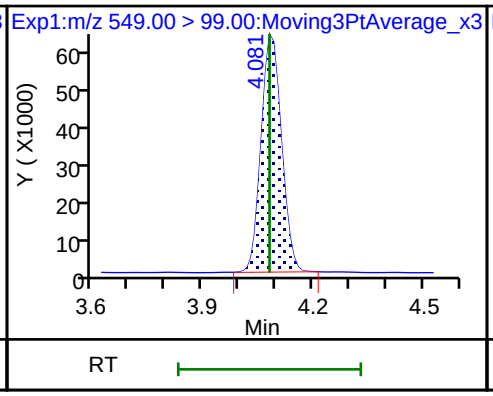

69 9-Chlorohexadecafluoro-3-oxanona



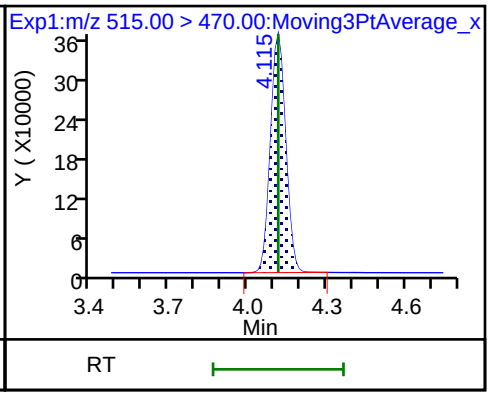

68 Perfluorononanesulfonic acid



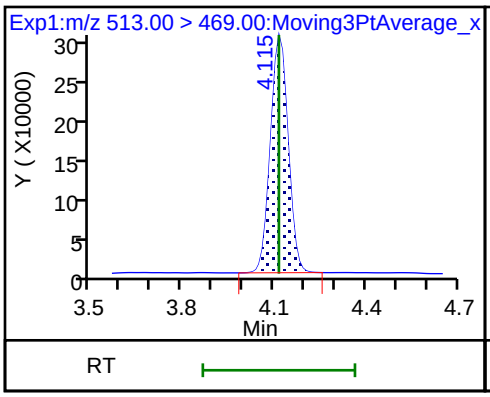

68 Perfluorononanesulfonic acid



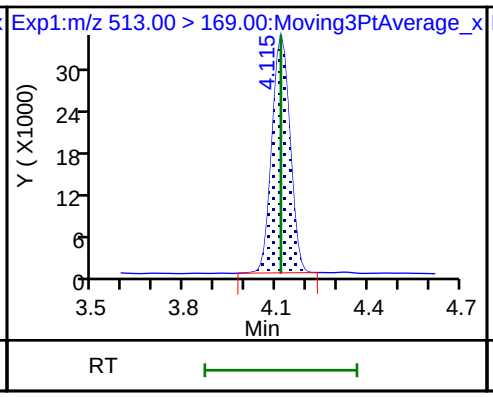

D 23 13C2 PFDA



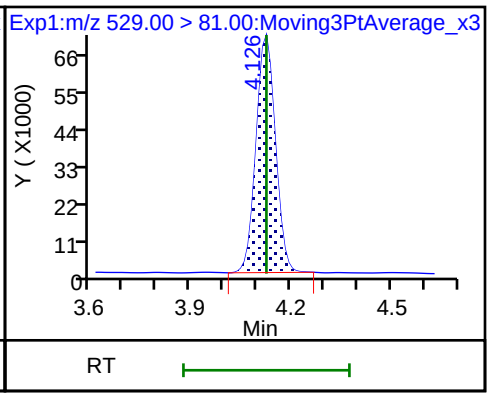

24 Perfluorodecanoic acid



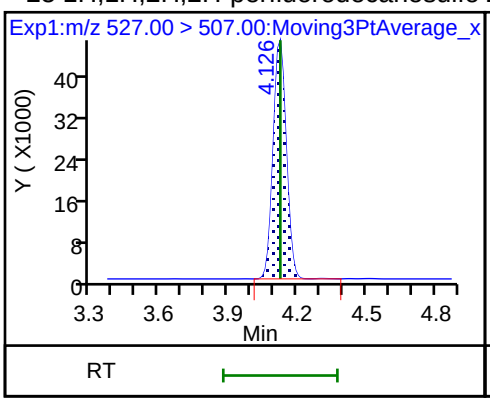

24 Perfluorodecanoic acid



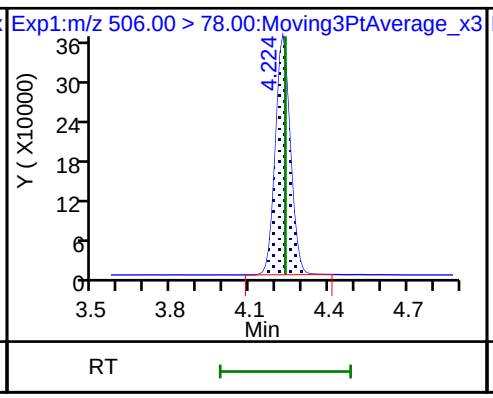

D 26 M2-8:2 FTS



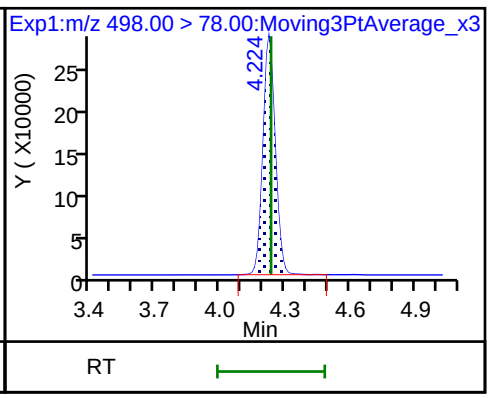

25 1H,1H,2H,2H-perfluorodecanesulfo



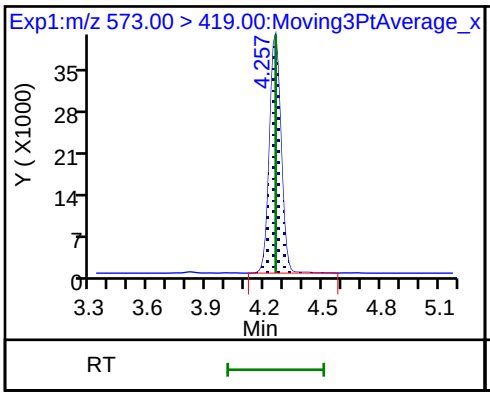

D 21 13C8 FOSA



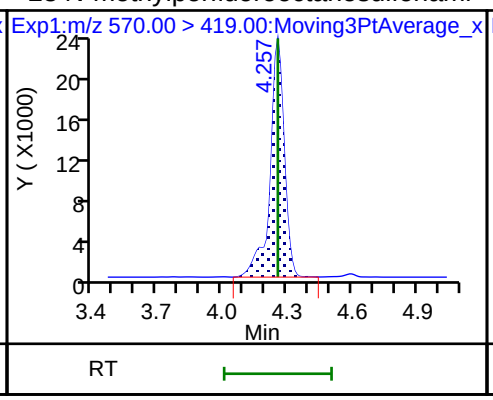

22 Perfluorooctanesulfonamide



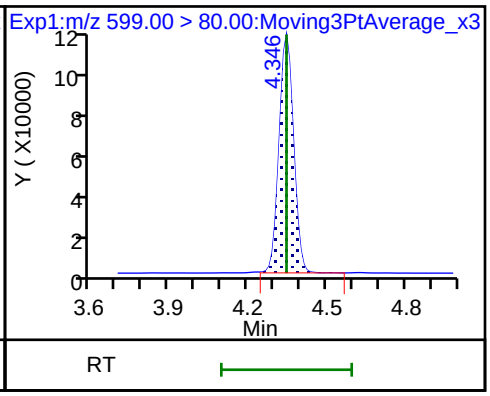
D 27 d3-NMeFOSAA



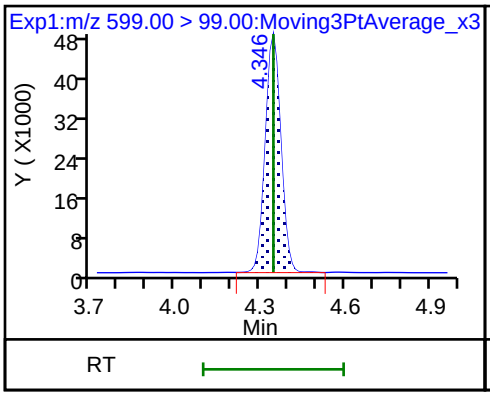

28 N-methylperfluorooctanesulfonami



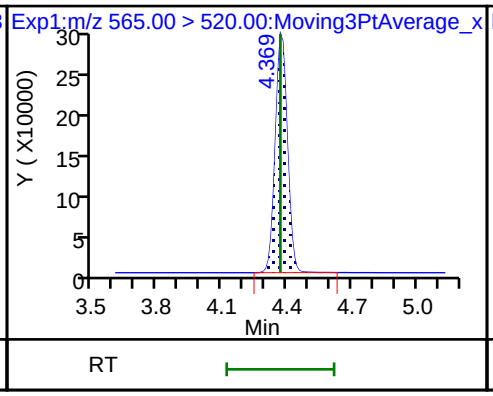

29 Perfluorodecanesulfonic acid



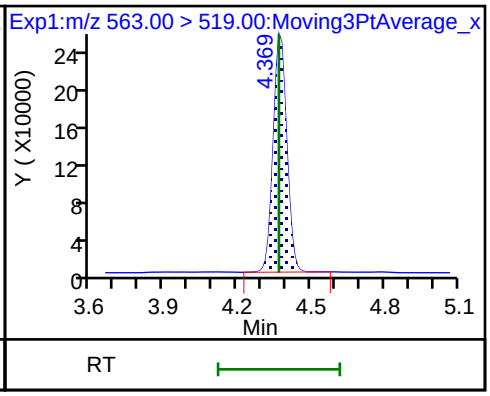

29 Perfluorodecanesulfonic acid



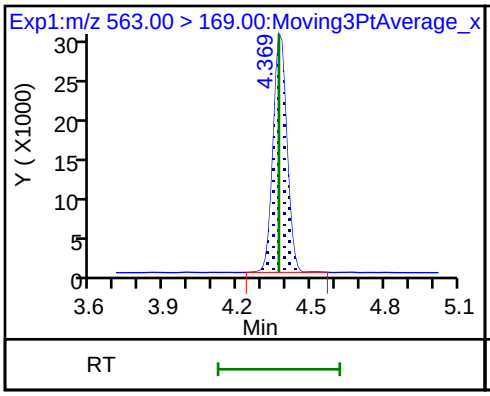

D 30 13C2 PFUnA



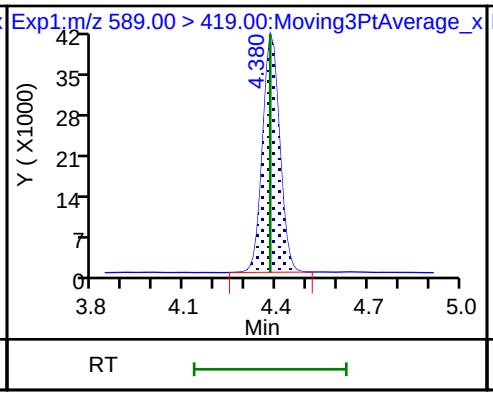

31 Perfluoroundecanoic acid



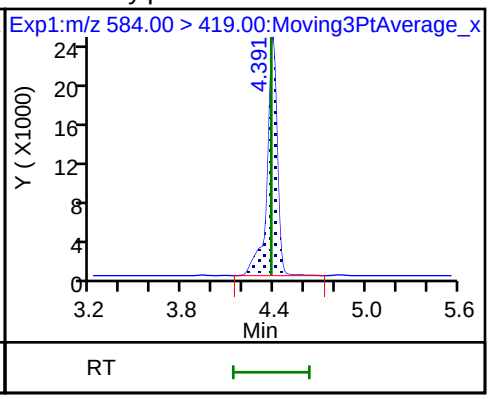

31 Perfluoroundecanoic acid



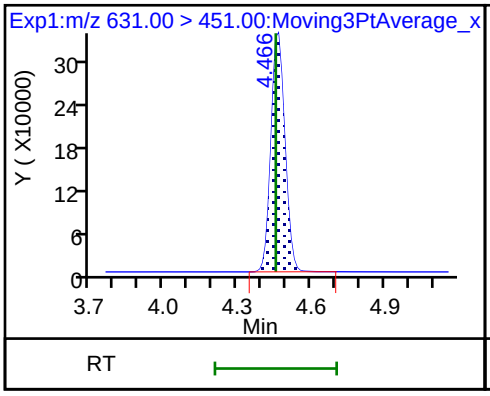

D 32 d5-NEtFOSAA



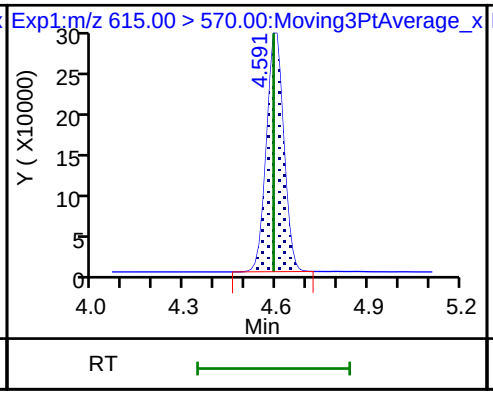

33 N-ethylperfluorooctanesulfonamid



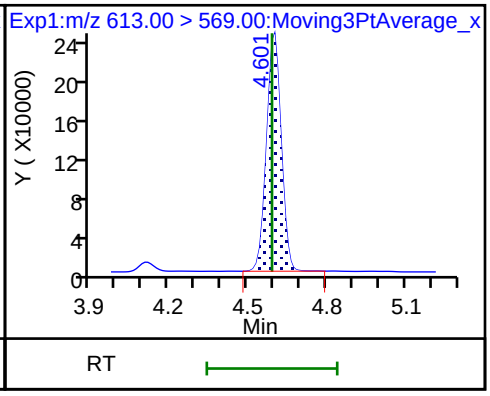

66 11-Chloroeicosafluoro-3-oxaundec



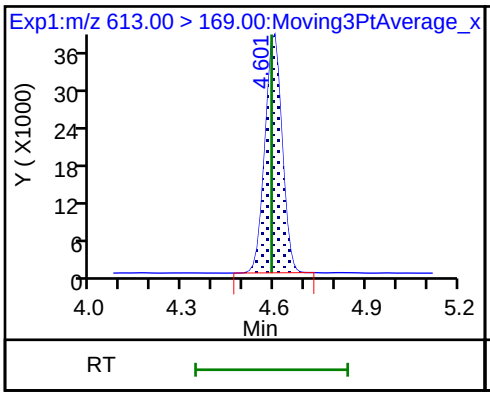

D 36 13C2 PFDoA



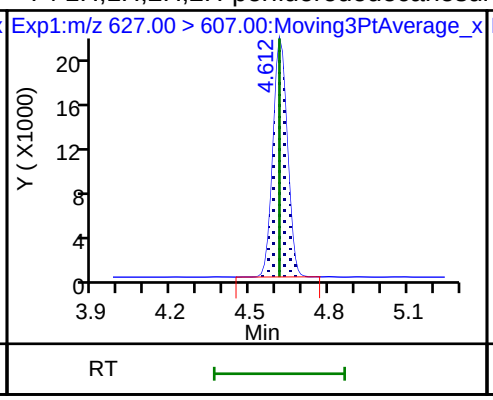

37 Perfluorododecanoic acid



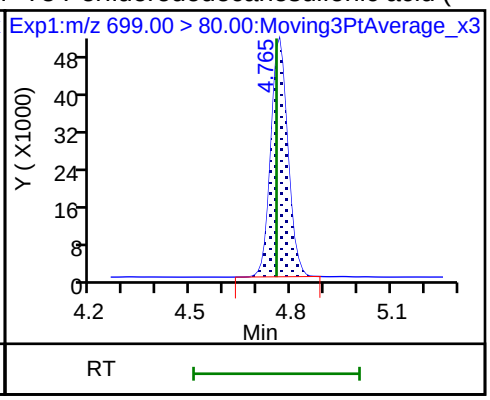
37 Perfluorododecanoic acid



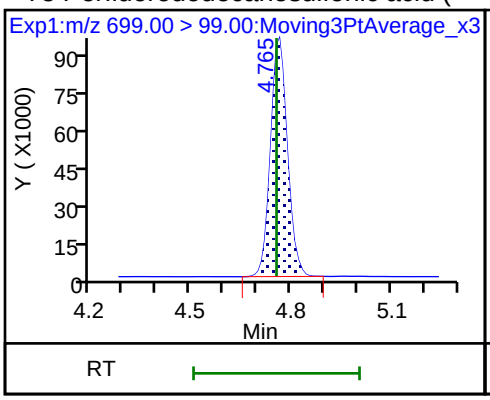

74 1H,1H,2H,2H-perfluorododecanesul



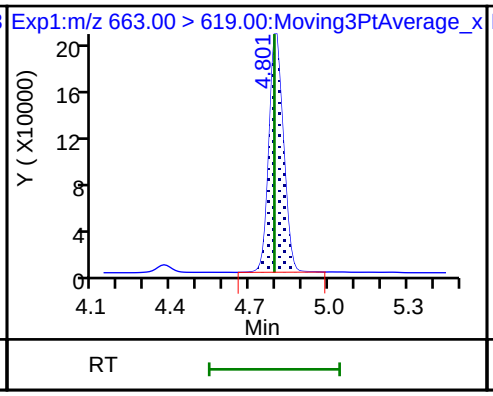

75 Perfluorododecanesulfonic acid (



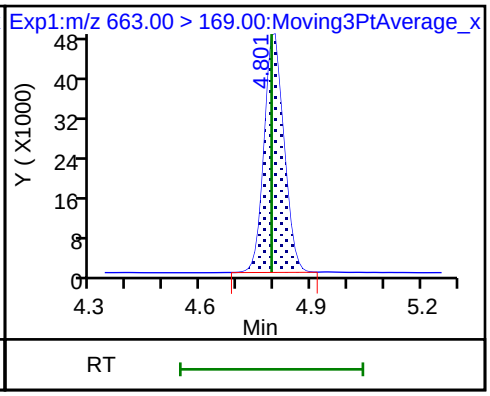

75 Perfluorododecanesulfonic acid (



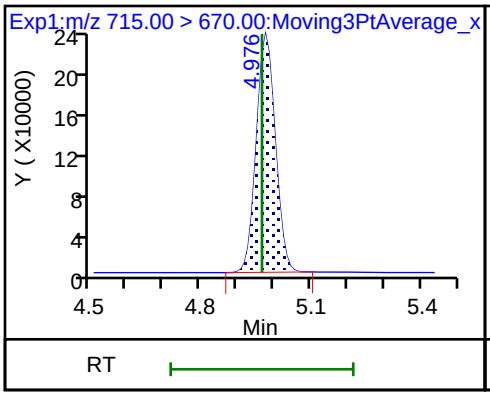

41 Perfluorotridecanoic acid



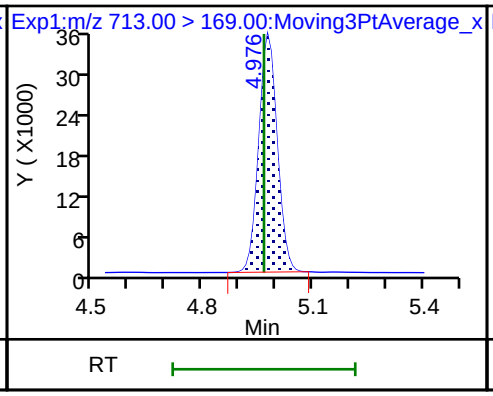

41 Perfluorotridecanoic acid



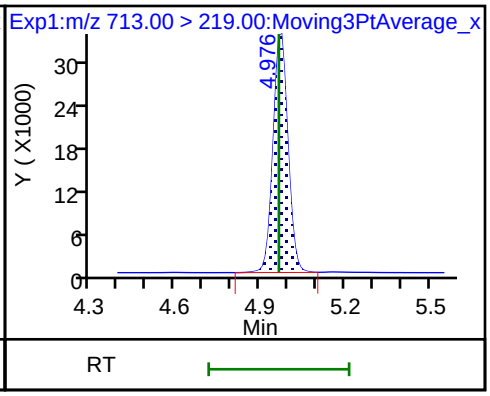

D 43 13C2 PFTeDA



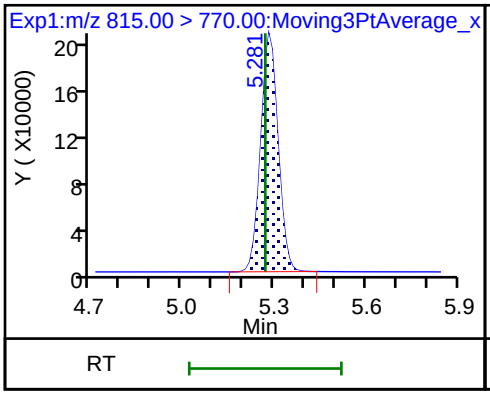

42 Perfluorotetradecanoic acid



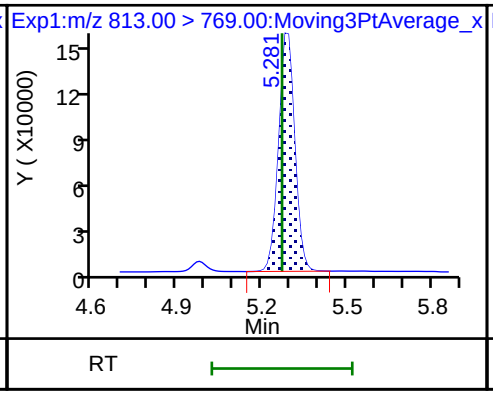

42 Perfluorotetradecanoic acid



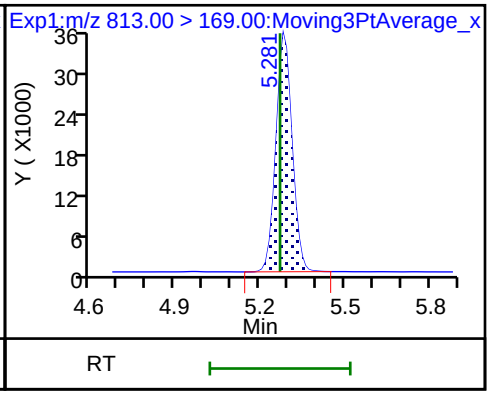

D 44 13C2 PFHxDA



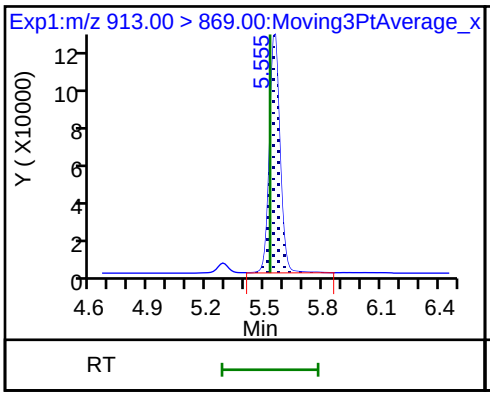

45 Perfluorohexadecanoic acid



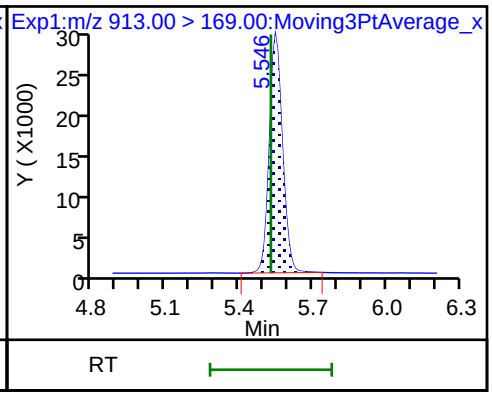

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

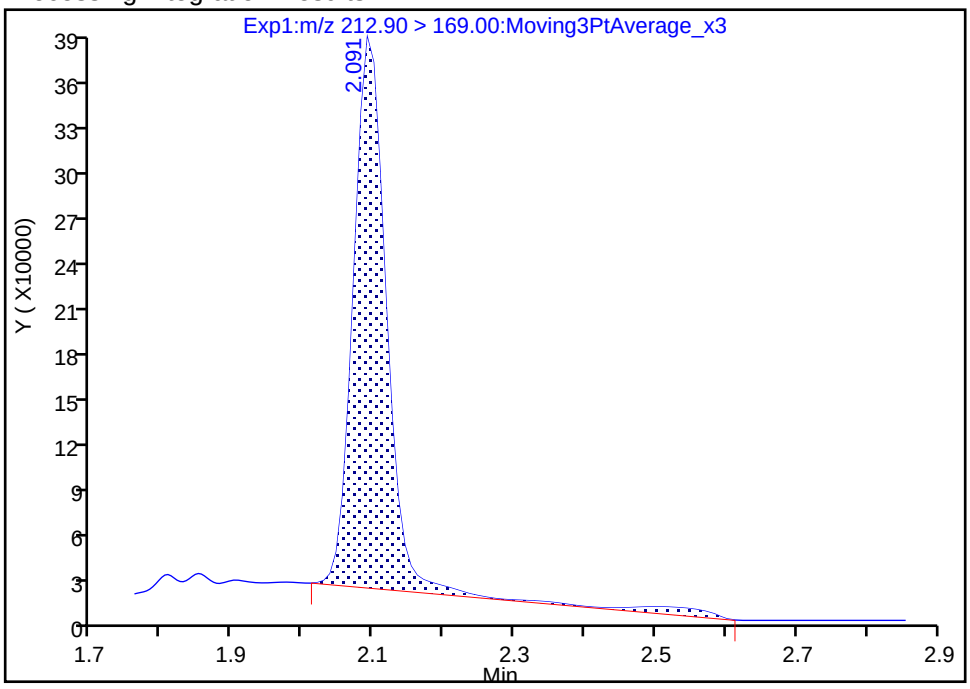
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D13.d | | | | |
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

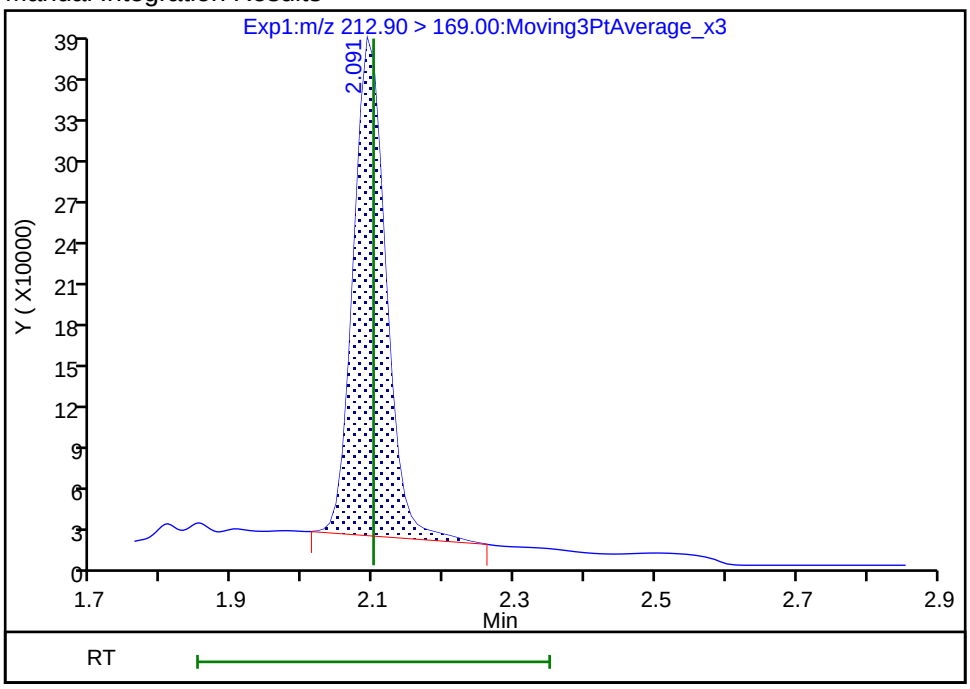
Processing Integration Results

RT: 2.09
Area: 1234355
Amount: 1.288170
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1183118
Amount: 1.234700
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:54:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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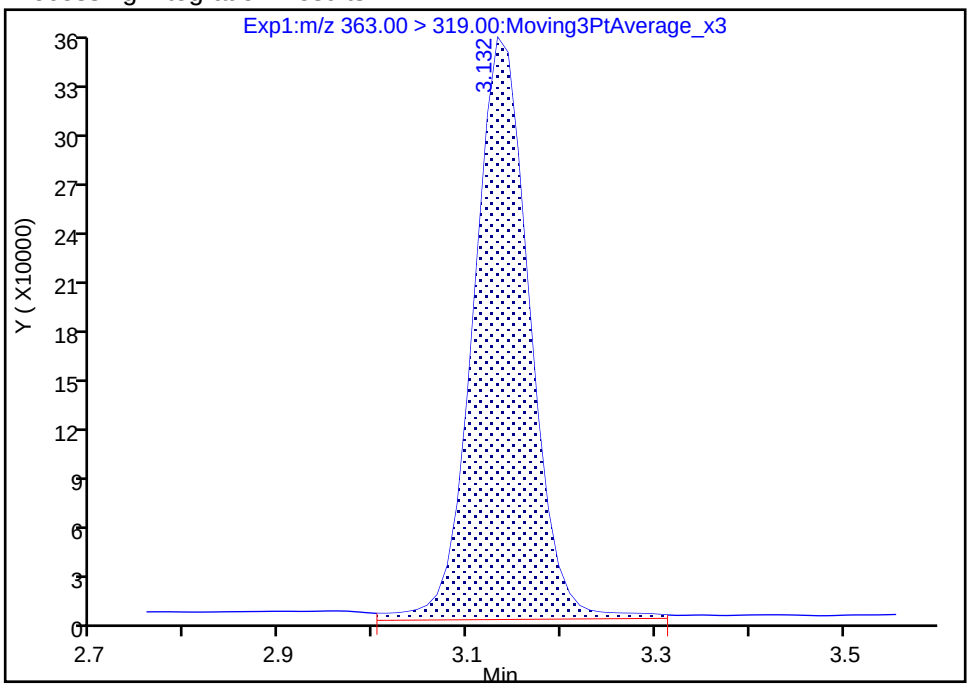
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

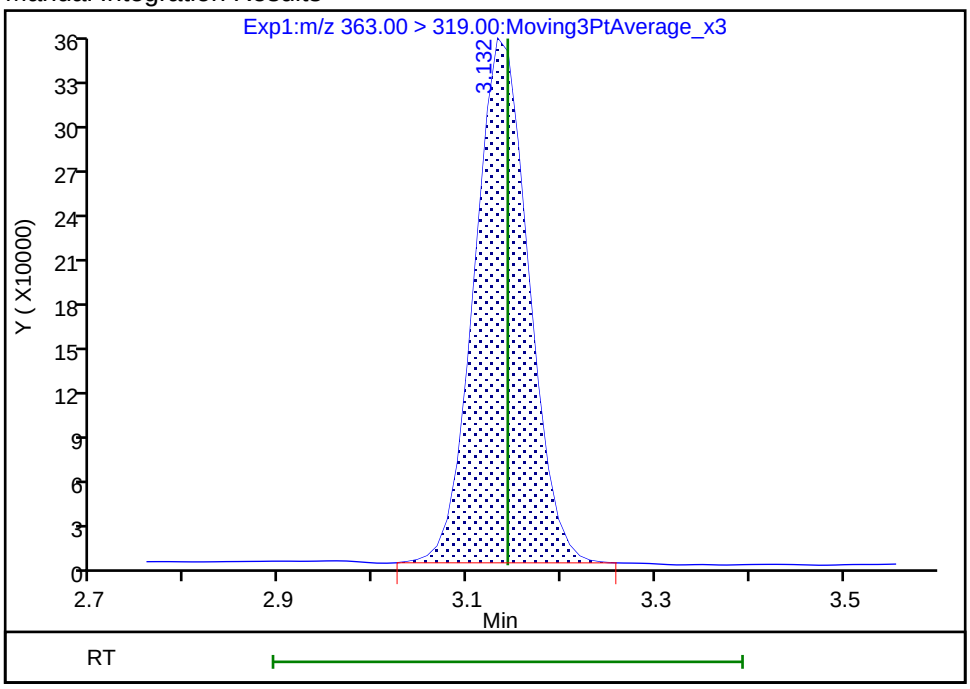
Processing Integration Results

RT: 3.13
Area: 1455937
Amount: 1.235379
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1387543
Amount: 1.177346
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:55:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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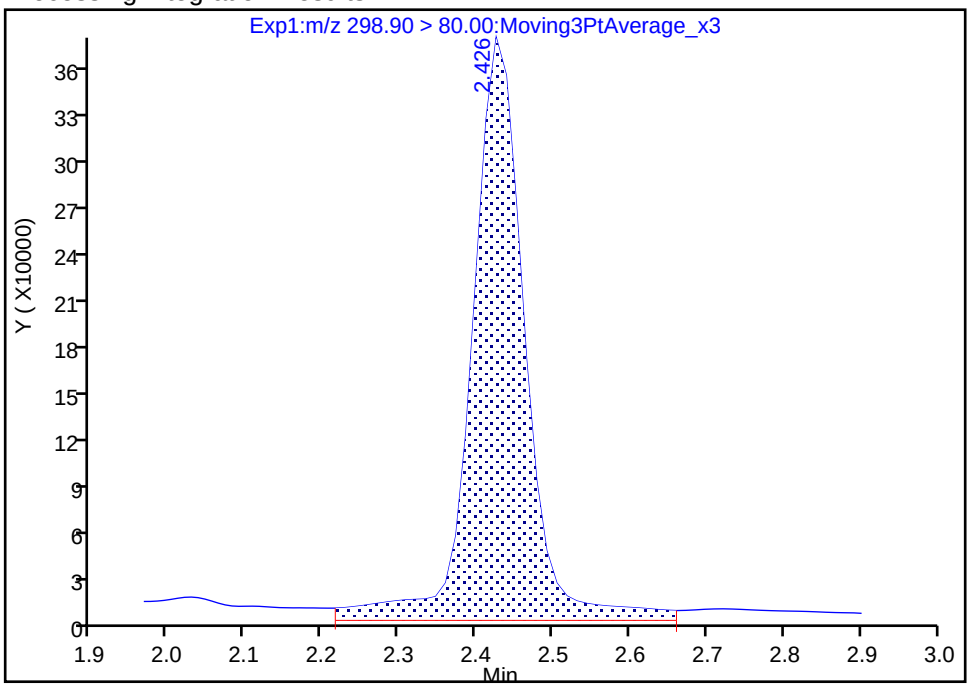
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

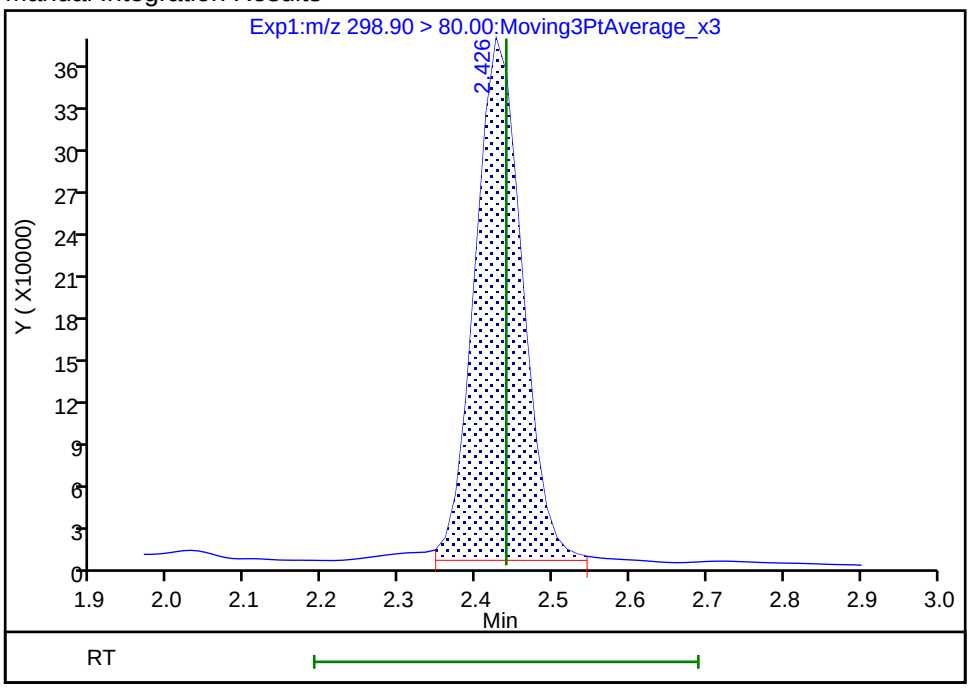
Processing Integration Results

RT: 2.43
Area: 1817312
Amount: 1.298054
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1574890
Amount: 1.124899
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:55:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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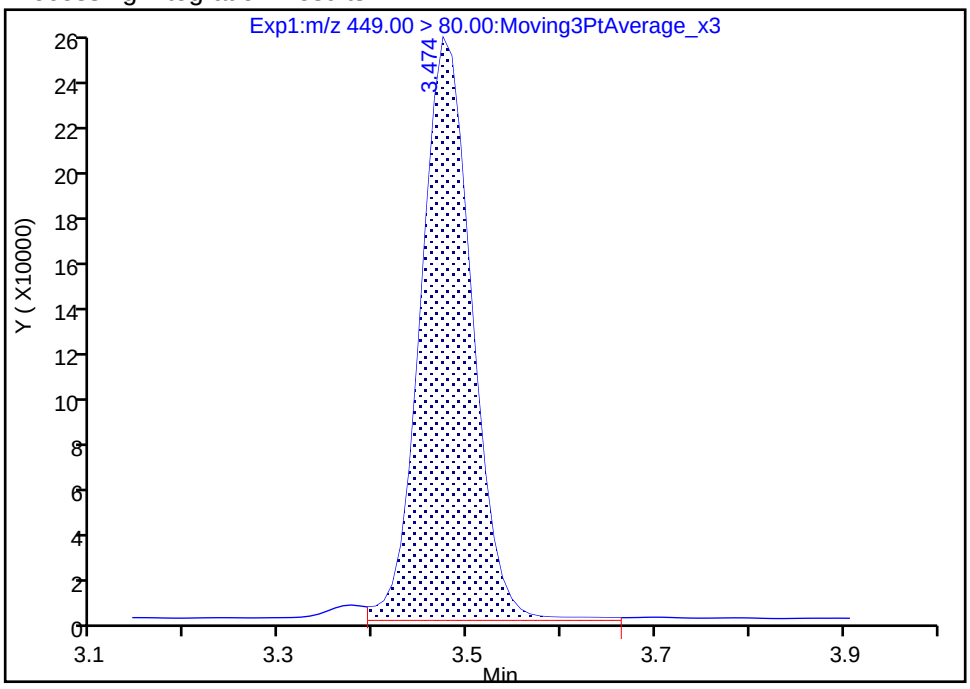
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

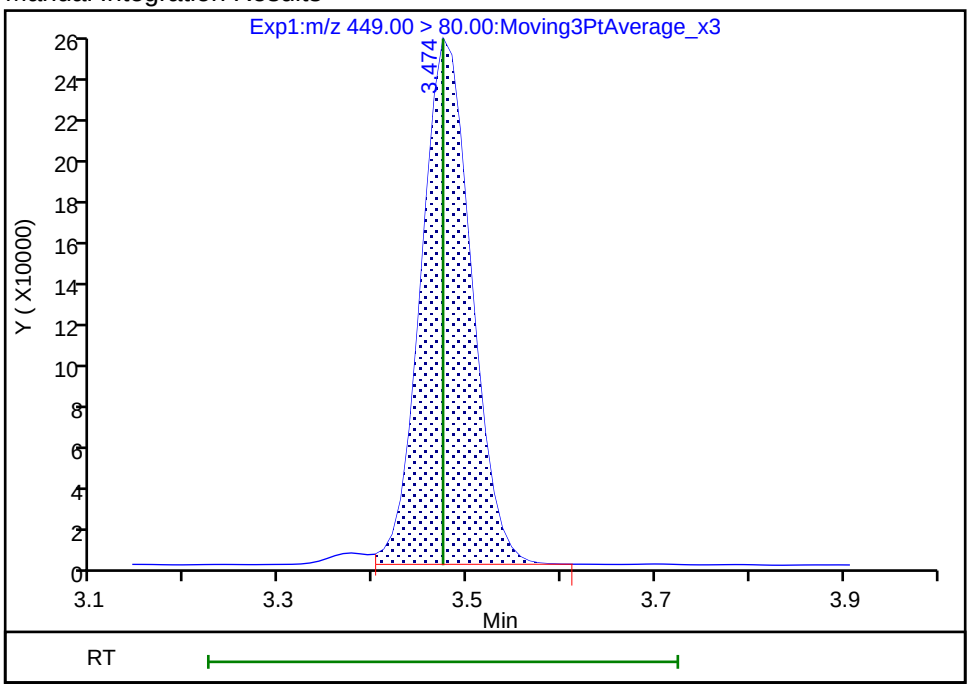
Processing Integration Results

RT: 3.47
Area: 949151
Amount: 0.992410
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 926879
Amount: 0.969123
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:56:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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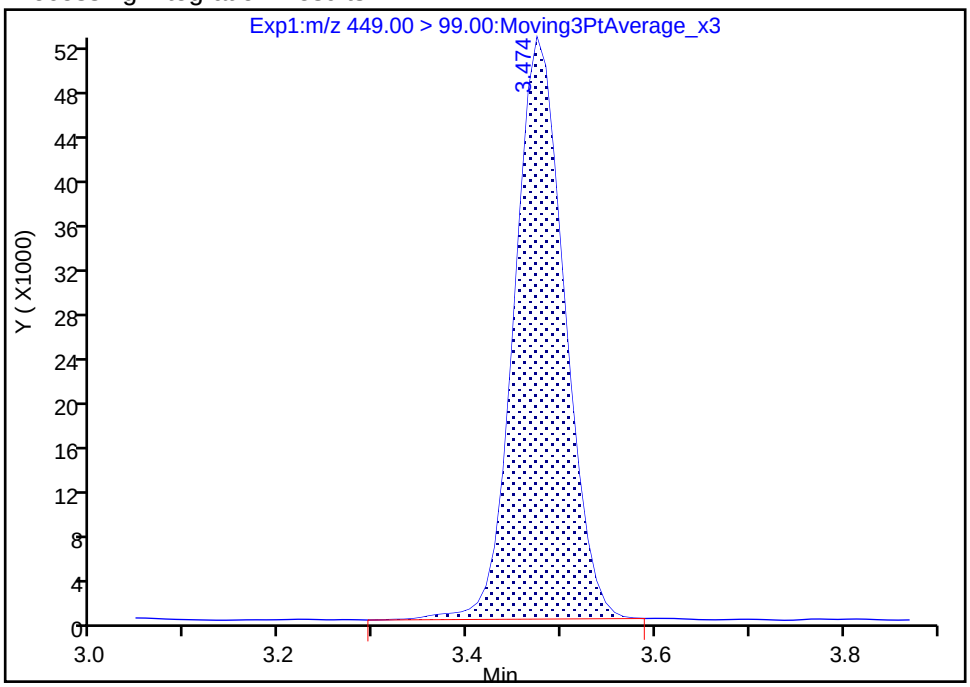
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

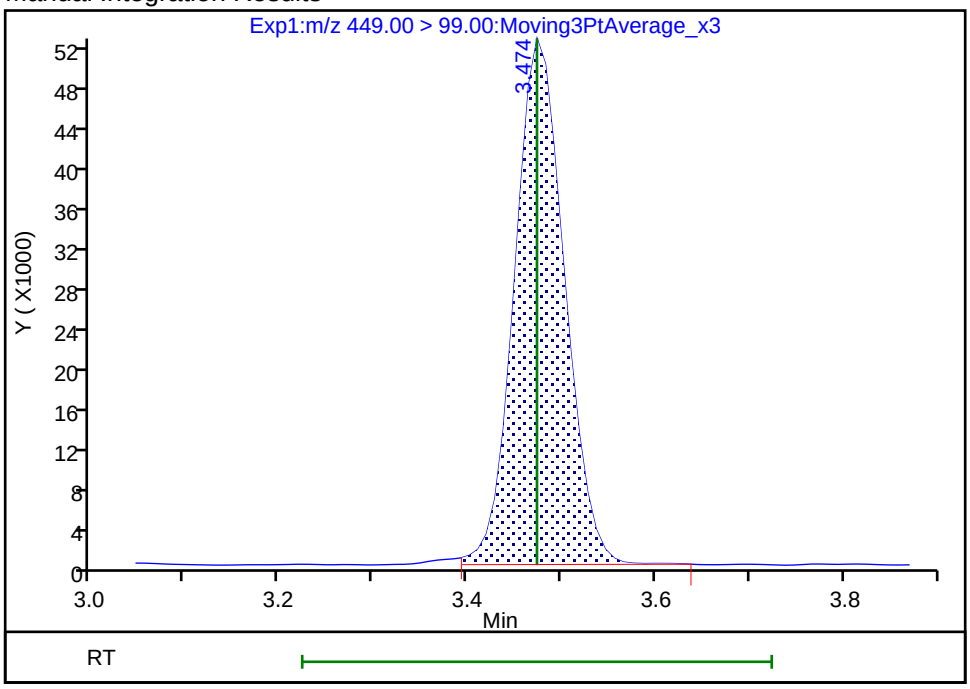
Processing Integration Results

RT: 3.47
Area: 192515
Amount: 0.992410
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 191902
Amount: 0.969123
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:56:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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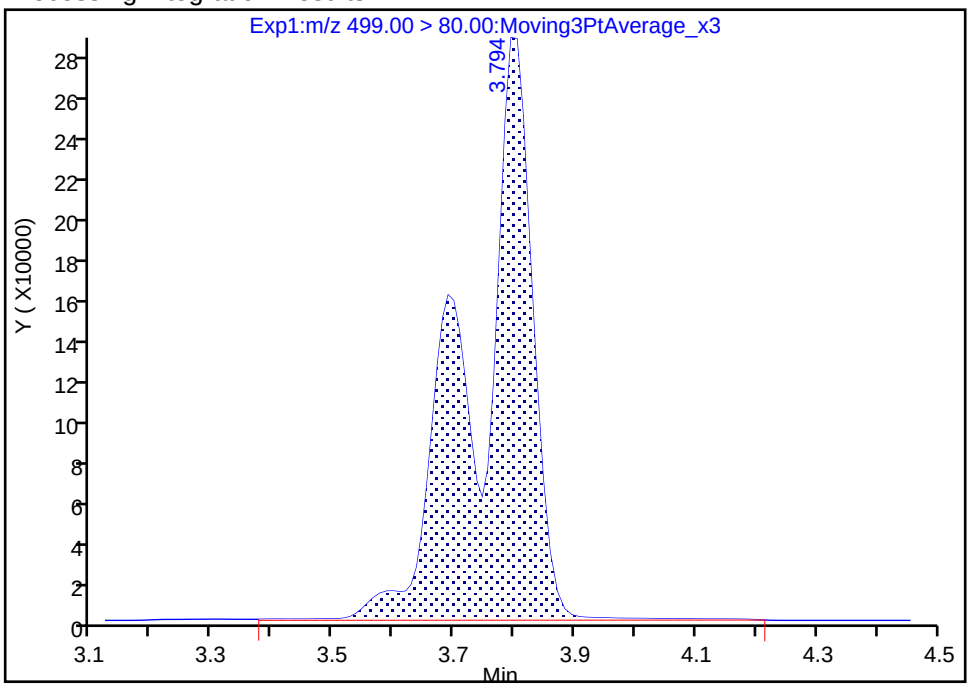
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

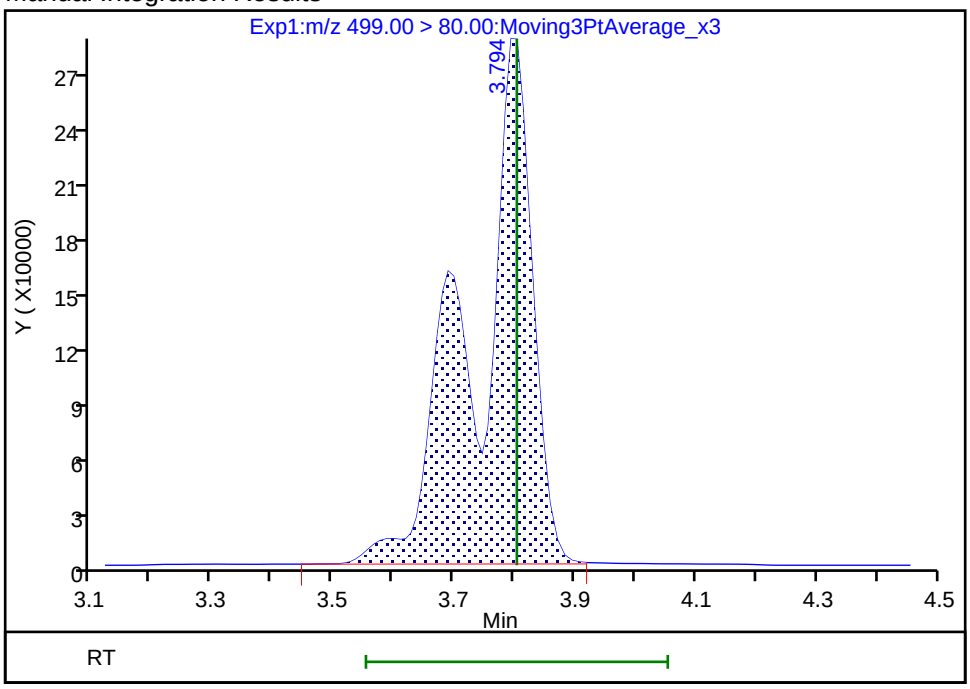
Processing Integration Results

RT: 3.79
Area: 1911951
Amount: 2.296758
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 1881925
Amount: 2.260689
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:56:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

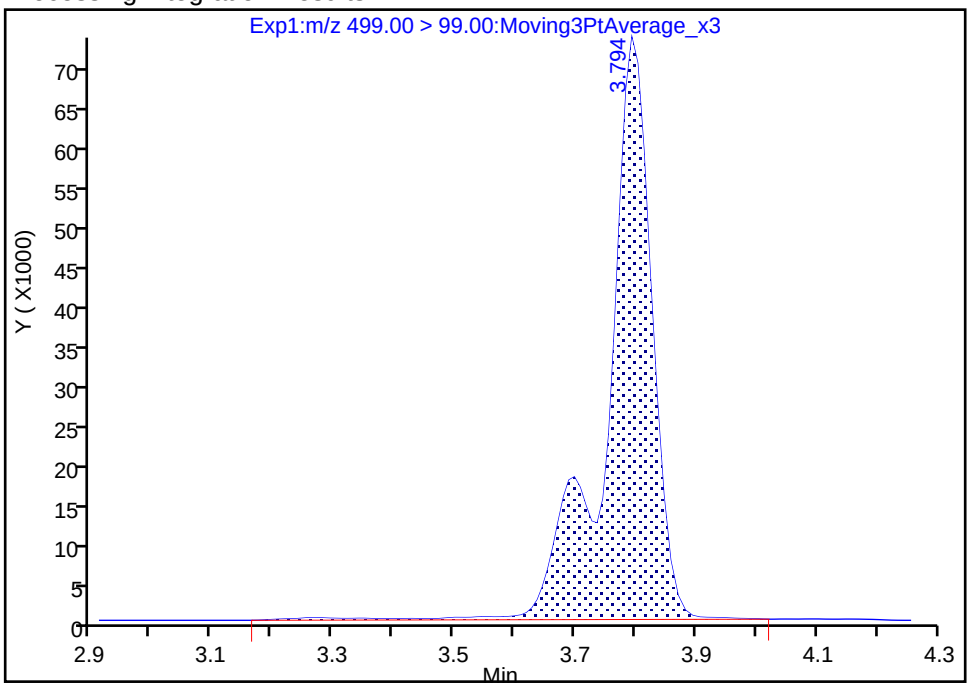
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D13.d | | | | |
| Injection Date: | 10-Nov-2021 05:50:28 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-A MS | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

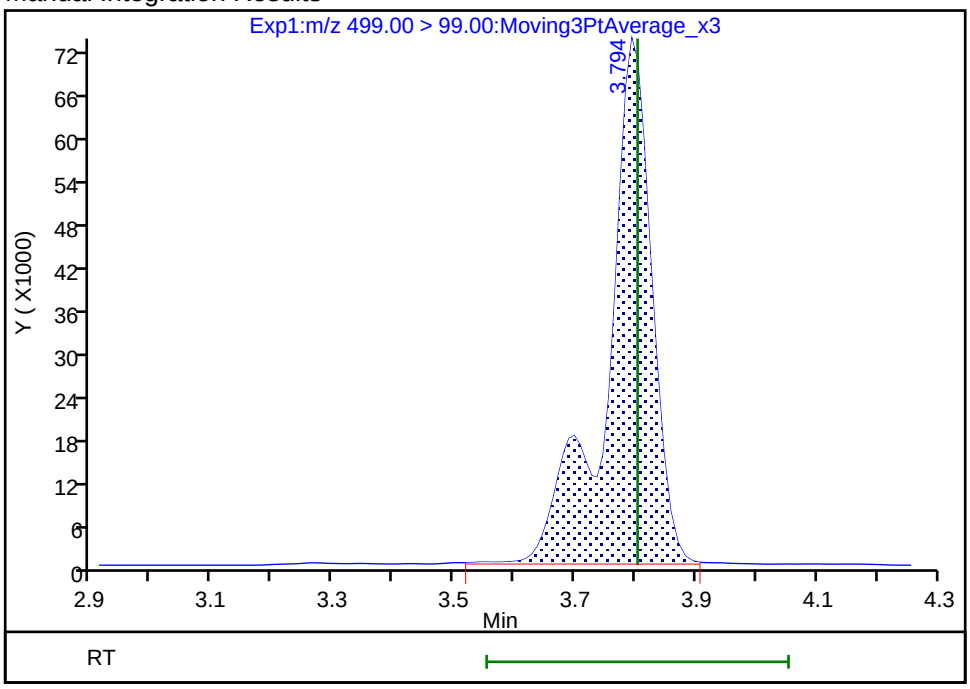
Processing Integration Results

RT: 3.79
Area: 386010
Amount: 2.296758
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 379799
Amount: 2.260689
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:56:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MS  Lab Sample ID: 460-246277-18 MS

Matrix: Water  Lab File ID: PA211109D26.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 281.4(mL)  Date Analyzed: 11/10/2021 07:36

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 41.81 | | 4.44 | 0.79 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 47.57 | | 1.78 | 0.42 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 49.87 | | 1.78 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 39.75 | | 1.78 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 49.31 | | 1.78 | 0.38 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 36.14 | | 1.78 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 39.09 | | 1.78 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 37.19 | | 1.78 | 0.31 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 38.33 | | 1.78 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 34.46 | | 1.78 | 0.39 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 43.86 | | 1.78 | 0.56 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 40.15 | | 1.78 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 144.7 | | 1.78 | 0.27 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 39.41 | | 1.78 | 0.21 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 310.2 | | 1.78 | 0.26 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 31.90 | | 1.78 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 37.04 | | 1.78 | 0.51 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 37.07 | | 4.44 | 0.80 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 35.60 | | 4.44 | 0.66 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 35.29 | | 4.44 | 0.97 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 31.77 | | 1.78 | 0.35 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MS  Lab Sample ID: 460-246277-18 MS

Matrix: Water  Lab File ID: PA211109D26.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 281.4(mL)  Date Analyzed: 11/10/2021 07:36

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 97 | | 50-150 |
| STL01892 | 13C4 PFHpA | 99 | | 50-150 |
| STL00990 | 13C4 PFOA | 96 | | 50-150 |
| STL00991 | 13C4 PFOS | 99 | | 50-150 |
| STL00995 | 13C5 PFNA | 96 | | 50-150 |
| STL00992 | 13C4 PFBA | 77 | | 25-150 |
| STL00993 | 13C2 PFHxA | 96 | | 50-150 |
| STL00996 | 13C2 PFDA | 92 | | 50-150 |
| STL00997 | 13C2 PFUnA | 85 | | 50-150 |
| STL00998 | 13C2 PFDoA | 79 | | 50-150 |
| STL01056 | 13C8 FOSA | 93 | | 25-150 |
| STL01893 | 13C5 PFPeA | 92 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 63 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 100 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 102 | | 50-150 |
| STL02279 | M2-6:2 FTS | 120 | | 25-150 |
| STL02280 | M2-8:2 FTS | 118 | | 25-150 |
| STL02337 | 13C3 PFBS | 90 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d
Lims ID: 460-246277-C-18-A MS
Client ID: MW-26S-20211028
Sample Type: MS
Inject. Date: 10-Nov-2021 07:36:59 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-18-A MS
Misc. Info.: 200-0048356-026 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:12:40
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1176634 | 0.9598 | | 76.8 | 2425 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 1047255 | 1.18 | | 118 | 85.0 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1192734 | 1.15 | | 92.4 | 556 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1279422 | 1.34 | | 134 | 10.0 | M |
| D 47 13C3 PFBS | | | | | | | | | | M |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1469210 | 1.05 | | 90.4 | 25069 | M |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.439 | 2.439 | 0.0 | 1.005 | 1525186 | 1.13 | Target=2.32 | 128 | 46.5 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 689565 | | 2.21(1.16-3.48) | | 66.3 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 275351 | 0.9136 | | 97.8 | 828 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 165318 | 1.55 | | 133 | 14.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1296589 | 1.20 | | 95.7 | 2563 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1476229 | 1.40 | Target=12.09 | 140 | 31.0 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 107729 | | 13.70(6.04-18.13) | | 64.0 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1432239 | 1.20 | Target=3.03 | 128 | 129 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 475716 | | 3.01(1.52-4.55) | | 97.9 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 32635 | 1.14 | | 91.5 | 79.5 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.000 | 122676 | 1.04 | | 104 | 15.6 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 4427582 | 4.07 | Target=3.55 | 447 | 552 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1134262 | | 3.90(1.77-5.32) | | 500 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1169864 | 1.15 | | 97.5 | 3327 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1407186 | 1.23 | | 98.7 | 3261 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 1300964 | 1.12 | Target=3.69 | 112 | 55.9 | |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 361401 | | 3.60(1.84-5.53) | | 422 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 2447003 | 0.9609 | Target=2.56 | 102 | 1224 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 924940 | | 2.65(1.28-3.84) | | 394 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 1005793 | 1.11 | Target=4.88 | 116 | 161 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 203261 | | 4.95(2.44-7.32) | | 126 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | M |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 241326 | 0.99 | | 105 | 1608 | M |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 227565 | 1.42 | | 120 | 77.7 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1501781 | 1.21 | | 96.4 | 2910 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1513860 | 1.25 | | | 3318 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1772682 | 1.39 | Target=2.68 | 139 | 91.7 | M |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 675632 | | 2.62(1.34-4.02) | | 847 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 869468 | 1.19 | | 99.2 | 439 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 6890619 | 8.73 | Target=4.69 | 941 | 1631 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1509604 | | 4.56(2.35-7.04) | | 1303 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.824 | 3.814 | 0.010 | 1.095 | 1494263 | 1.20 | | 96.3 | 5608 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.000 | 1189350 | 1.02 | Target=7.29 | 102 | 127 | M |
| 463.00 > 169.00 | 3.824 | 3.814 | 0.010 | 1.000 | 165597 | | 7.18(3.64-10.93) | | 435 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 1135699 | 0.9549 | | 102 | 2844 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.092 | 4.081 | 0.011 | 1.076 | 563368 | 0.9161 | Target=2.35 | 95.4 | 288 | |
| 549.00 > 99.00 | 4.092 | 4.081 | 0.011 | 1.076 | 236528 | | 2.38(1.17-3.52) | | 460 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1435681 | 1.15 | | 91.7 | 4758 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.126 | 4.115 | 0.011 | 1.003 | 1269349 | 1.10 | Target=8.95 | 110 | 293 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 141661 | | 8.96(4.47-13.42) | | 558 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 256034 | 1.41 | | 118 | 196 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 159886 | 0.8939 | | 93.3 | 2255 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.210 | 1402251 | 1.16 | | 92.8 | 3200 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.224 | 4.234 | -0.010 | 1.000 | 1110576 | 1.04 | | 104 | 1859 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | M |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 153341 | 1.24 | | 99.6 | 560 | M |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 100525 | 1.04 | | 104 | 446 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | M |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 429200 | 0.8976 | Target=2.47 | 93.1 | 835 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.143 | 158785 | | 2.70(1.23-3.70) | | 725 | M |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.381 | 4.369 | 0.013 | 1.255 | 1036472 | 1.06 | | 84.9 | 4183 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.381 | 4.369 | 0.013 | 1.000 | 924993 | 1.05 | Target=9.24 | 105 | 400 | |
| 563.00 > 169.00 | 4.381 | 4.369 | 0.013 | 1.000 | 104447 | | 8.86(4.62-13.86) | | 772 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | M |
| 589.00 > 419.00 | 4.392 | 4.380 | 0.012 | 1.258 | 147521 | 1.28 | | 102 | 684 | M |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.392 | 4.380 | 0.012 | 1.000 | 101297 | 1.00 | | 100 | 849 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.175 | 1234801 | 0.8791 | | 93.3 | 4908 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.602 | 4.591 | 0.011 | 1.318 | 1038635 | 0.9890 | | 79.1 | 1357 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.602 | 4.591 | 0.011 | 1.000 | 877508 | 1.08 | Target=7.04 | 108 | 196 | |
| 613.00 > 169.00 | 4.602 | 4.591 | 0.011 | 1.000 | 132703 | | 6.61(3.52-10.56) | | 1102 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.622 | 4.612 | 0.010 | 1.120 | 52696 | 0.6377 | | 66.1 | 685 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.766 | 4.756 | 0.010 | 1.253 | 143253 | 0.8146 | Target=0.49 | 84.2 | 1709 | |
| 699.00 > 99.00 | 4.766 | 4.756 | 0.010 | 1.253 | 254343 | | 0.56(0.25-0.74) | | 2672 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.802 | 4.792 | 0.010 | 1.043 | 680061 | 0.9696 | Target=4.68 | 97.0 | 227 | |
| 663.00 > 169.00 | 4.802 | 4.792 | 0.010 | 1.043 | 156169 | | 4.35(2.34-7.02) | | 1042 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.986 | 4.966 | 0.020 | 1.428 | 642493 | 0.7888 | | 63.1 | 1482 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.986 | 4.966 | 0.020 | 1.000 | 100117 | 1.23 | Target=1.01 | 123 | 1948 | |
| 713.00 > 219.00 | 4.976 | 4.966 | 0.010 | 0.998 | 97564 | | 1.03(0.51-1.52) | | 2427 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.270 | 0.023 | 1.516 | 723800 | 1.01 | | 80.7 | 3302 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.000 | 549505 | 1.09 | Target=4.57 | 109 | 207 | |
| 813.00 > 169.00 | 5.293 | 5.270 | 0.023 | 1.000 | 130289 | | 4.22(2.29-6.86) | | 2587 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | M |
| 913.00 > 869.00 | 5.555 | 5.527 | 0.028 | 1.050 | 454389 | 0.9305 | Target=4.27 | 93.1 | 257 | M |
| 913.00 > 169.00 | 5.555 | 5.527 | 0.028 | 1.050 | 100511 | | 4.52(2.14-6.41) | | 882 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d

Injection Date: 10-Nov-2021 07:36:59 Instrument ID: LC812

Lims ID: 460-246277-C-18-A MS

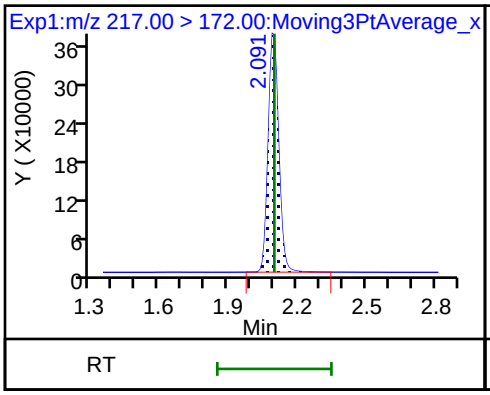
Client ID: MW-26S-20211028

Operator ID: lc812tech ALS Bottle#: 26 Worklist Smp#: 26

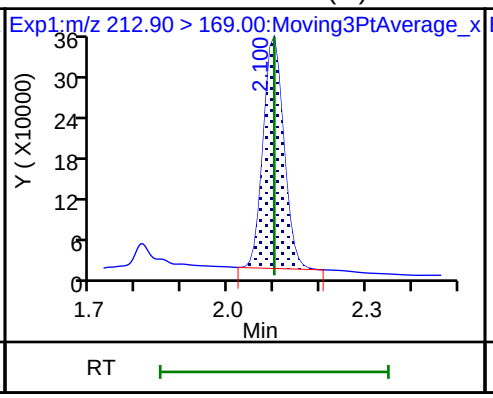
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

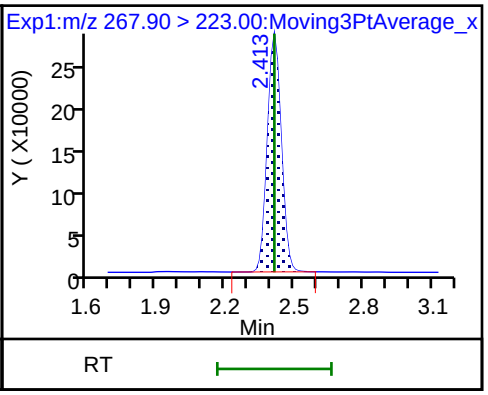
D 1 13C4 PFBA




2 Perfluorobutanoic acid (M)




D 3 13C5 PFPeA

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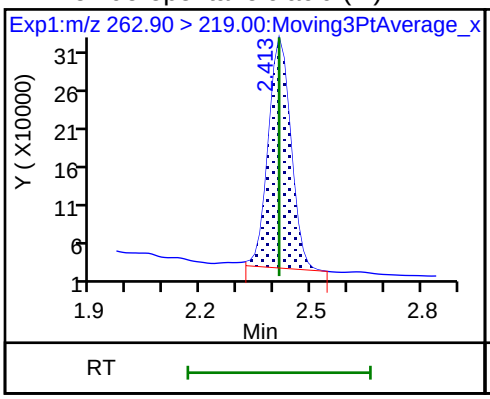
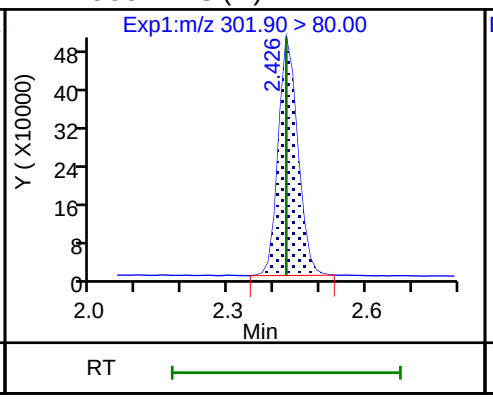
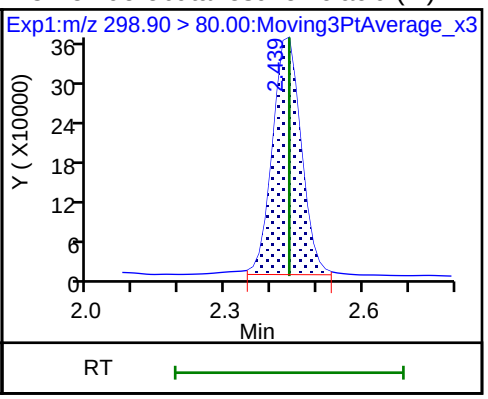



D 47 13C3 PFBS (M)




5 Perfluorobutanesulfonic acid (M)

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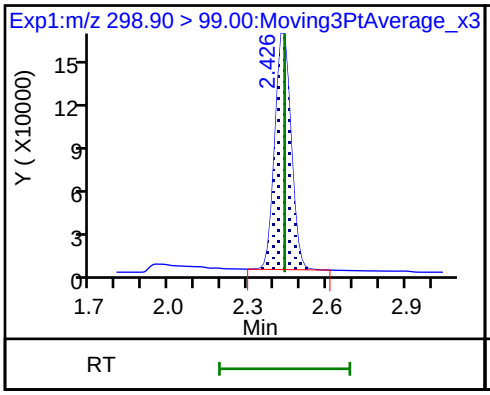
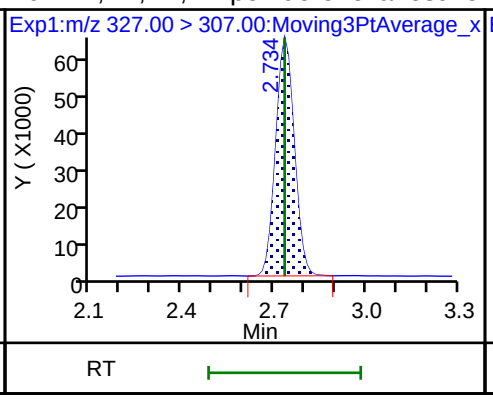
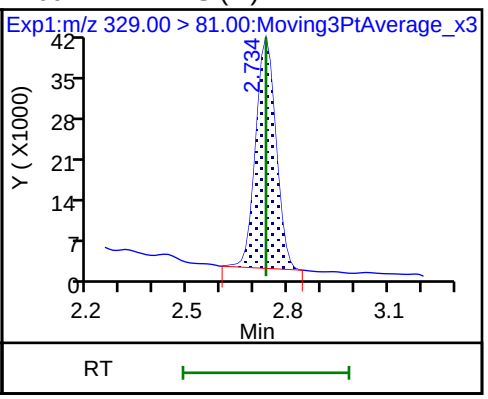


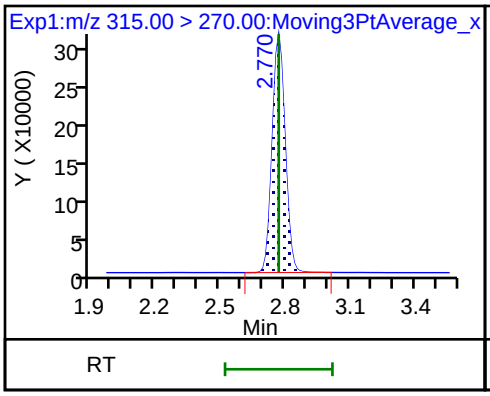

61 1H,1H,2H,2H-perfluorohexanesulfo




D 60 M2-4:2 FTS (M)




D 7 13C2 PFHxA

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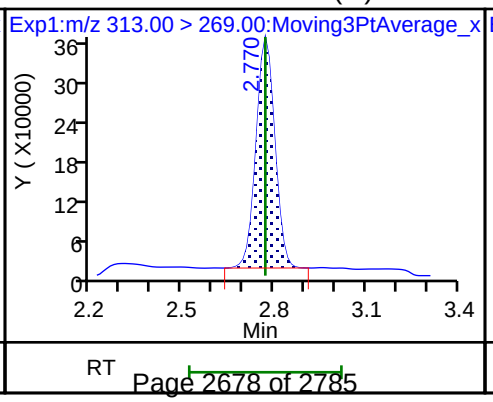


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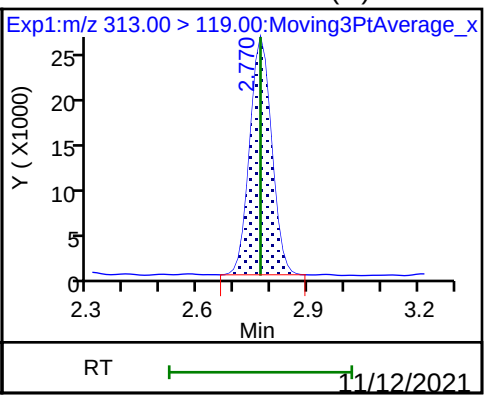
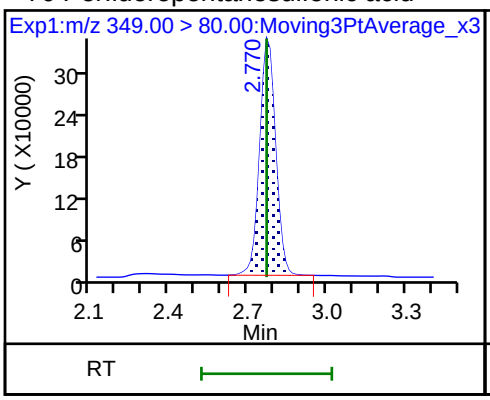


70 Perfluoropentanesulfonic acid

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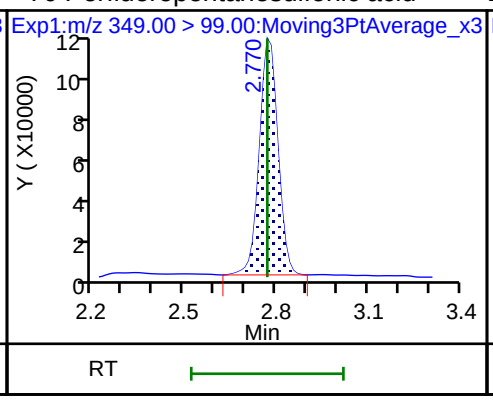
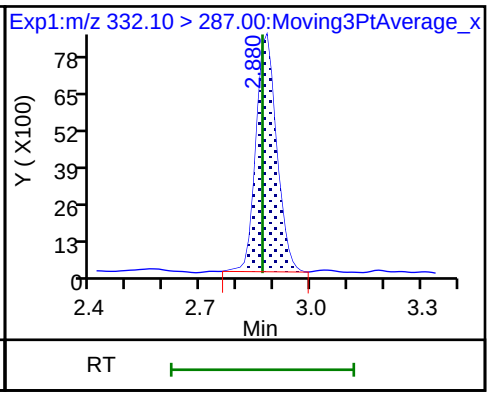
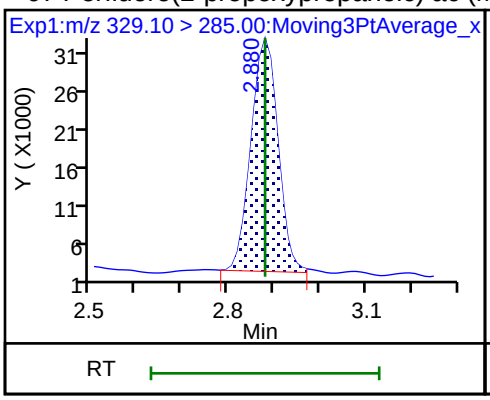



D 64 13C3 HFPO-DA




67 Perfluoro(2-propoxypropanoic) ac (M)

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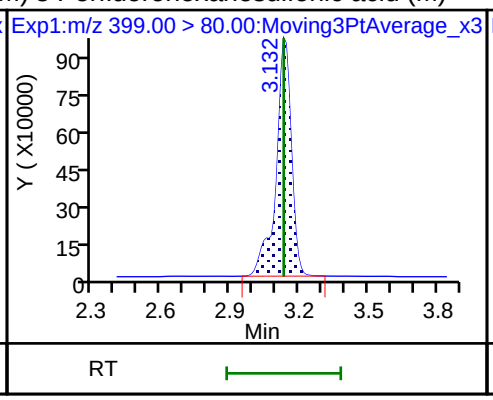


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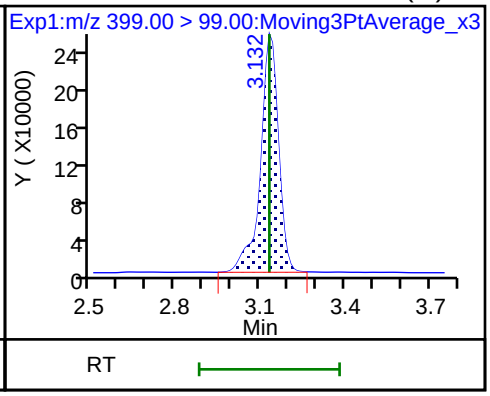
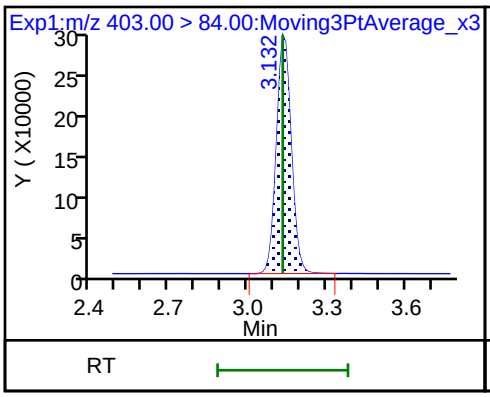
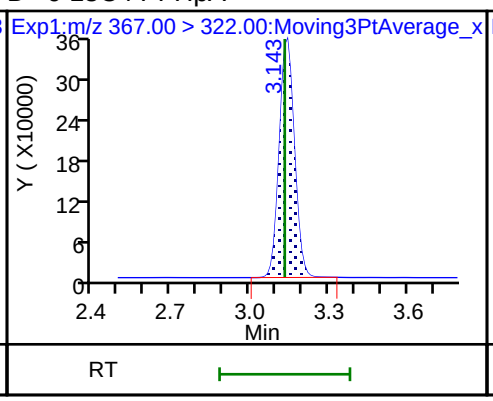


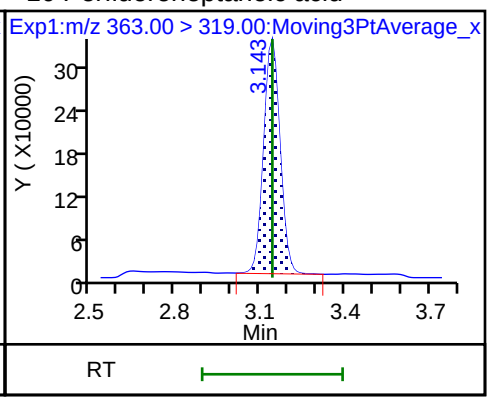

D 11 18O2 PFHxS




D 9 13C4 PFHpA




10 Perfluoroheptanoic acid

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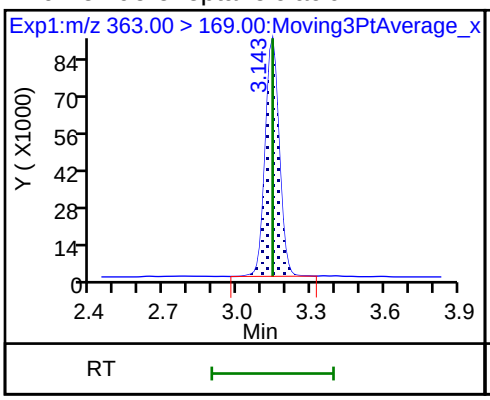
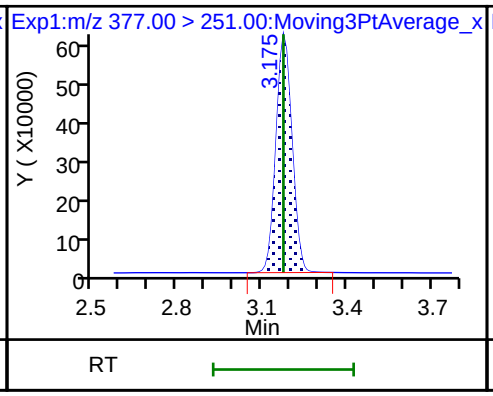
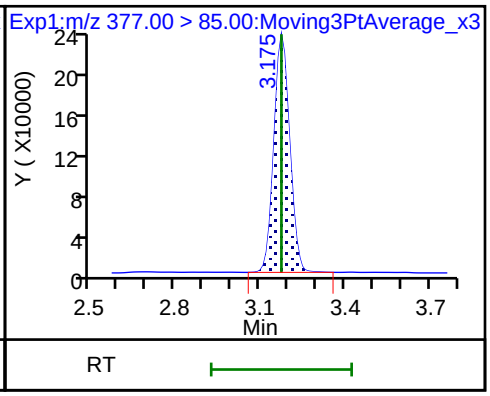


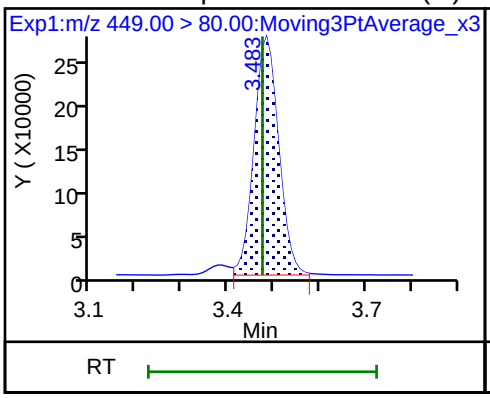

77 DONA




77 DONA



16 Perfluoroheptanesulfonic acid (M)

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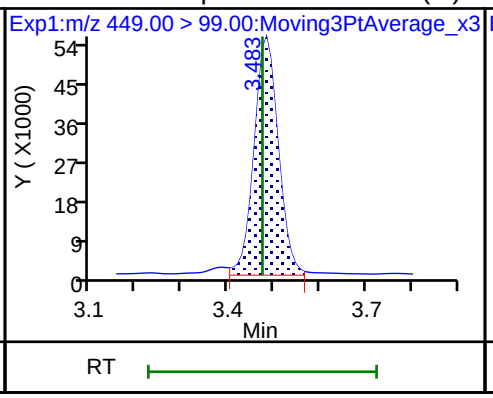
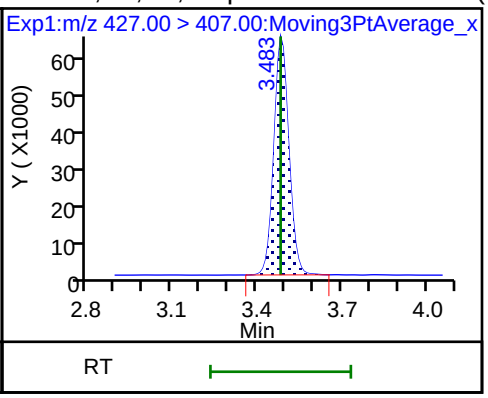
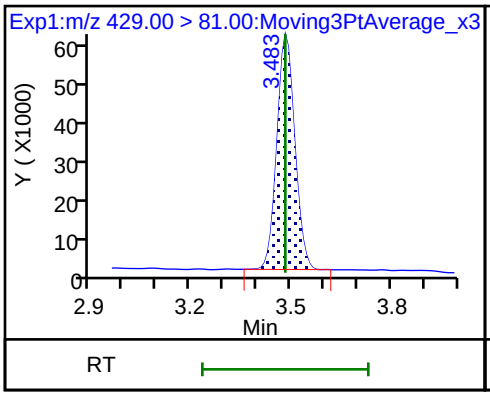


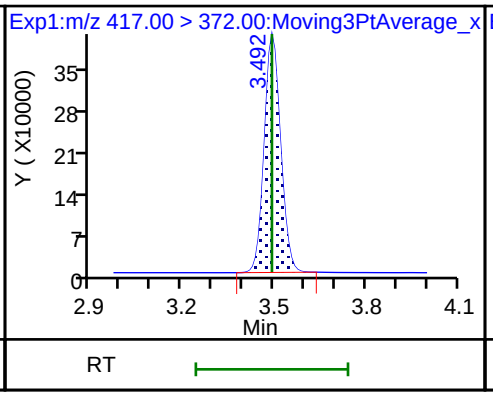

13 1H,1H,2H,2H-perfluorooctanesulfo (M)



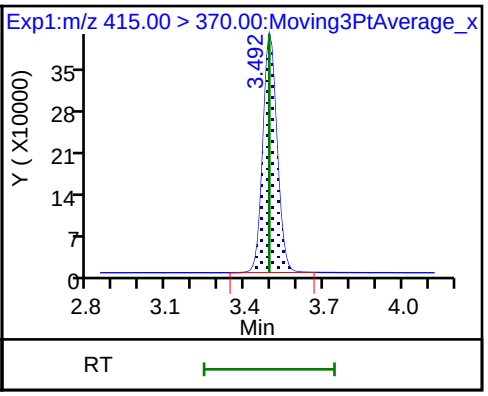

D 12 M2-6:2 FTS



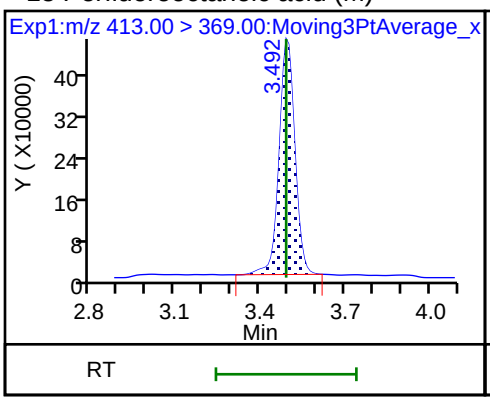

D 14 13C4 PFOA




* 62 13C2 PFOA




15 Perfluorooctanoic acid (M)

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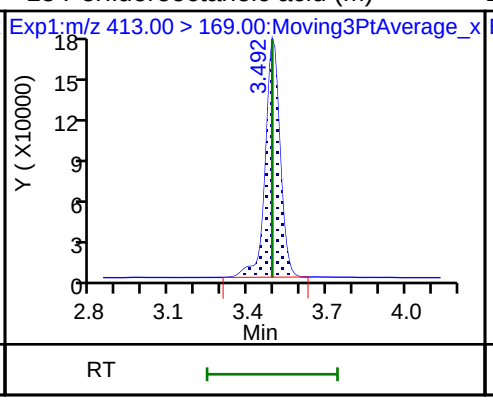
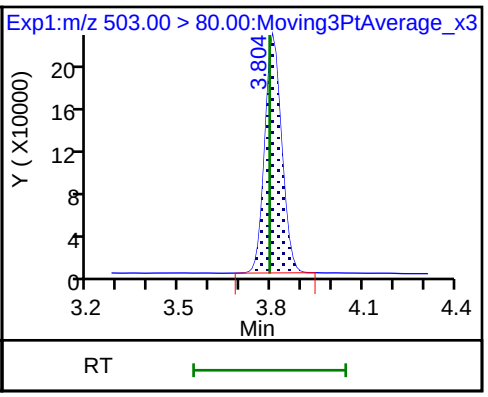



D 18 13C4 PFOS

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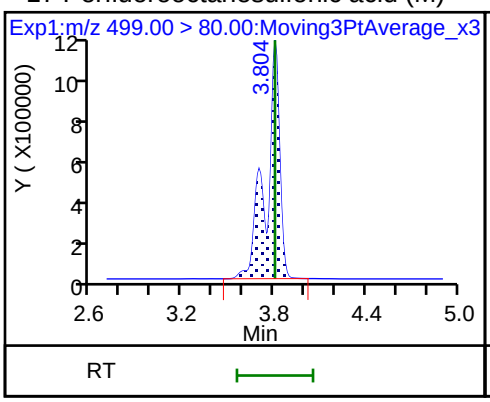


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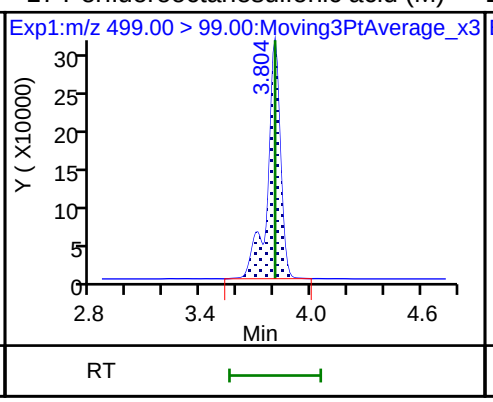


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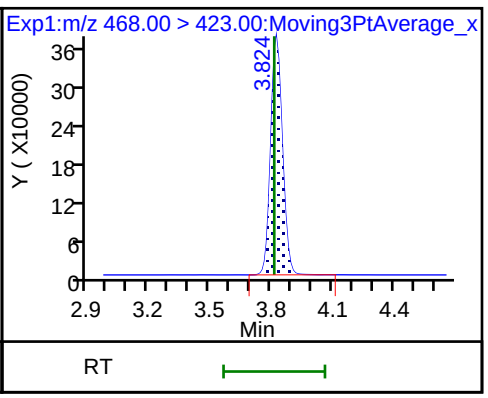
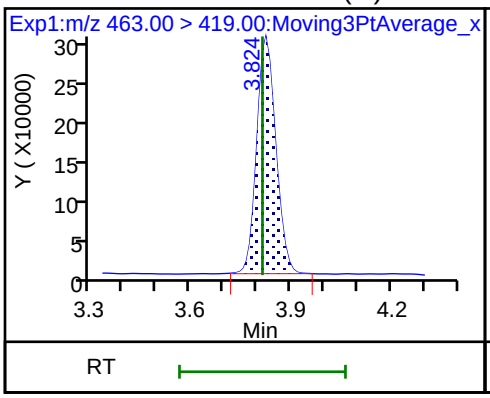


20 Perfluorononanoic acid (M)

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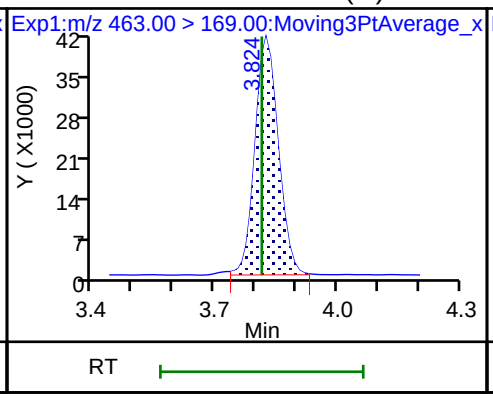
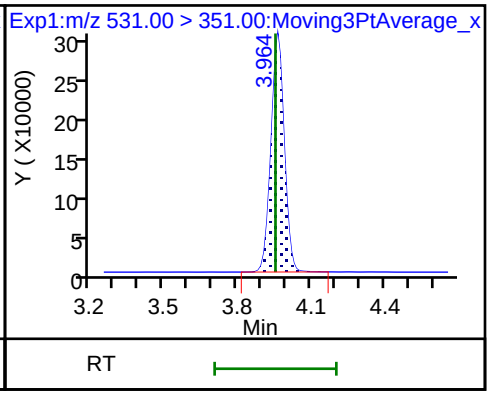
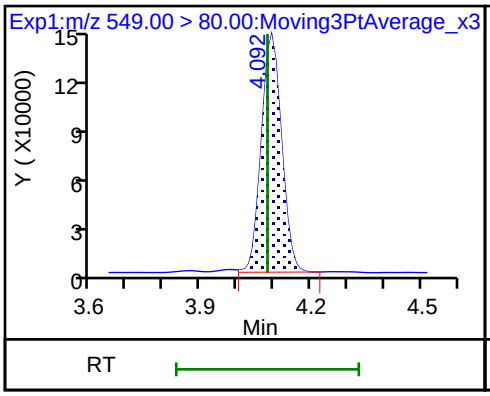



69 9-Chlorohexadecafluoro-3-oxanona




68 Perfluorononanesulfonic acid

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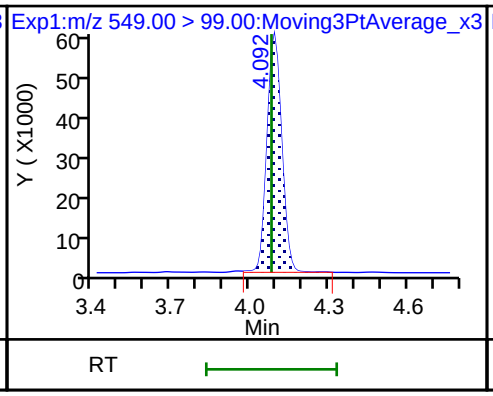
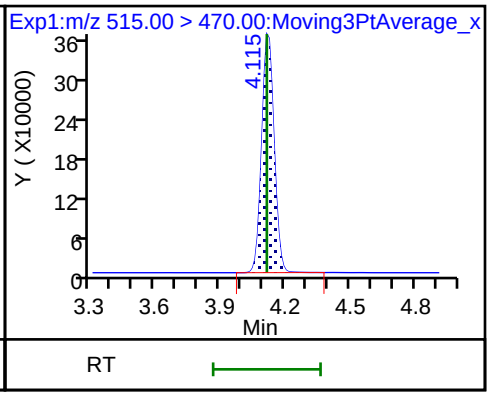
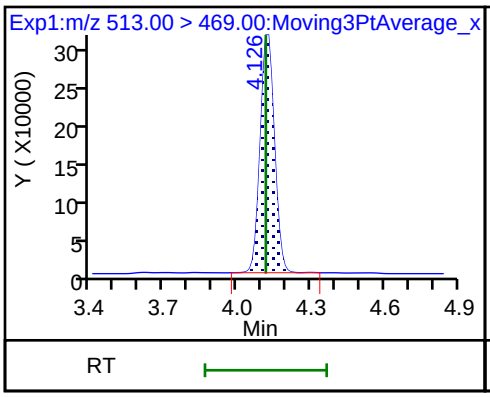


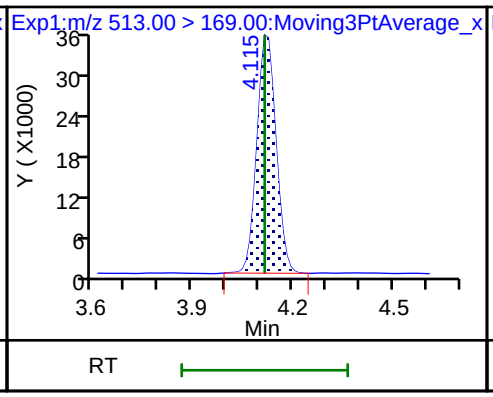

D 23 13C2 PFDA



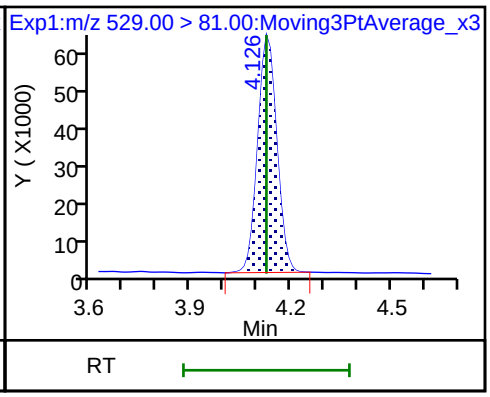

24 Perfluorodecanoic acid



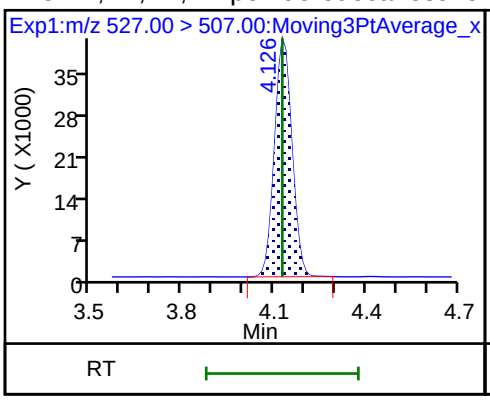

24 Perfluorodecanoic acid



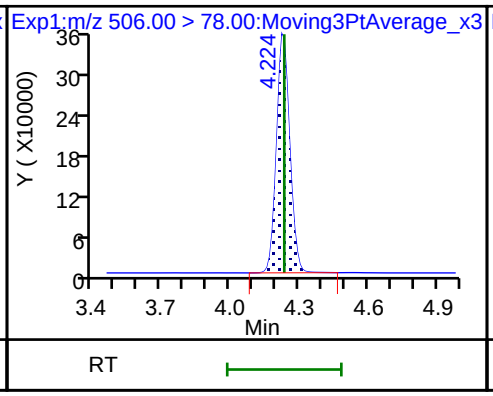

D 26 M2-8:2 FTS



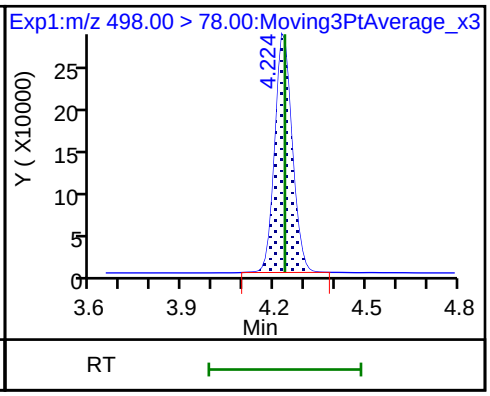

25 1H,1H,2H,2H-perfluorodecanesulfo



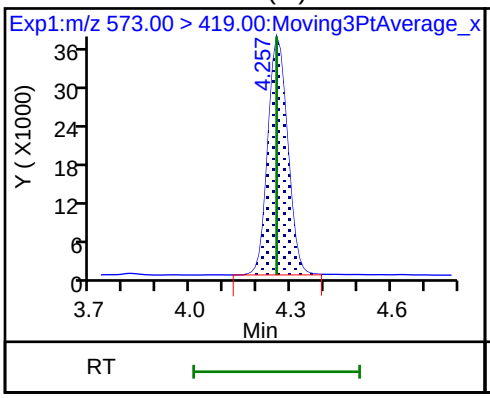

D 21 13C8 FOSA



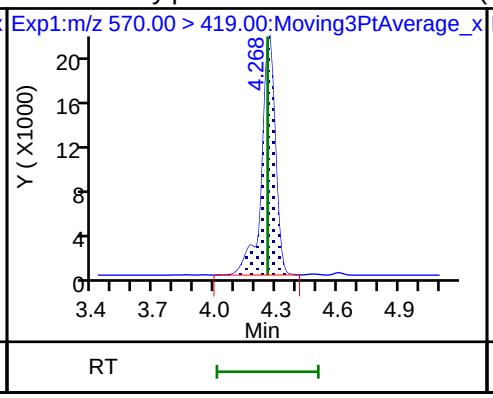

22 Perfluorooctanesulfonamide



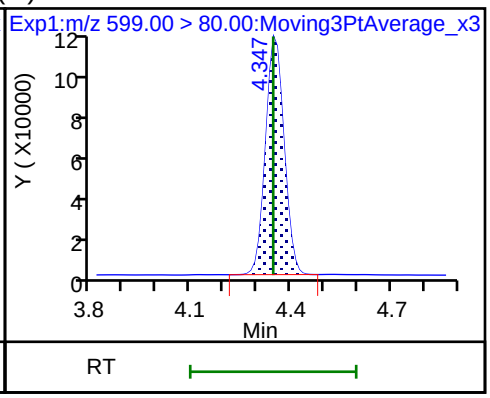
D 27 d3-NMeFOSAA (M)



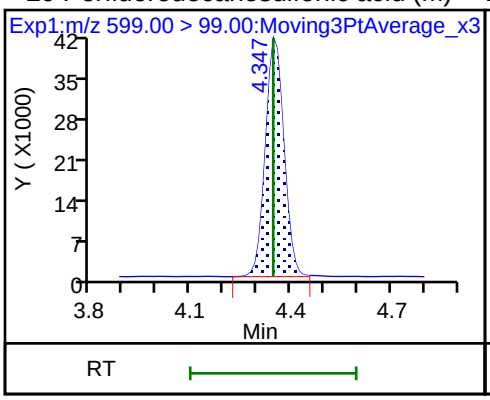

28 N-methylperfluorooctanesulfonami (M)



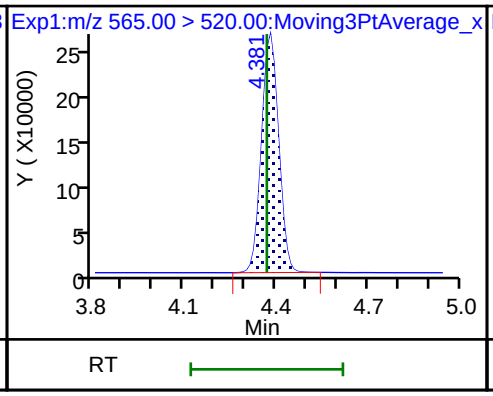

29 Perfluorodecanesulfonic acid



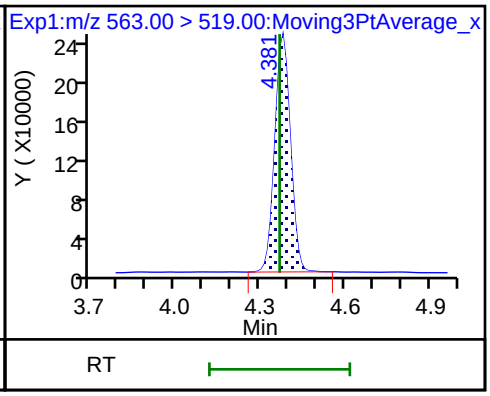

29 Perfluorodecanesulfonic acid (M)



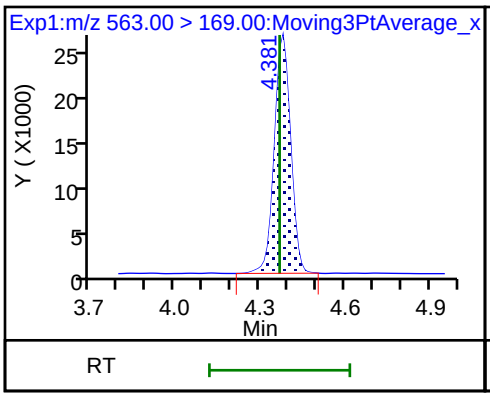

D 30 13C2 PFUnA



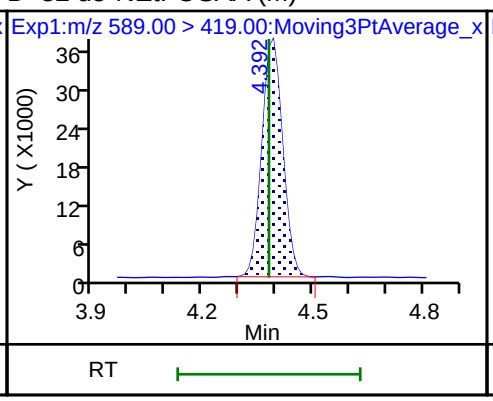

31 Perfluoroundecanoic acid



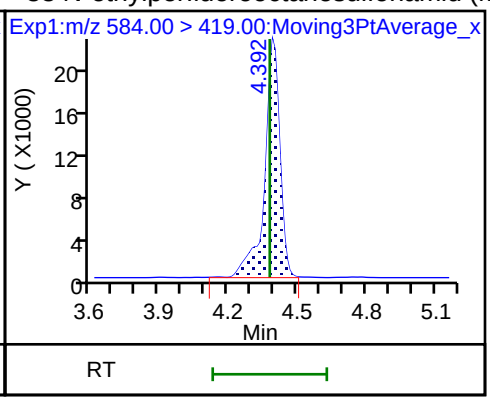

31 Perfluoroundecanoic acid



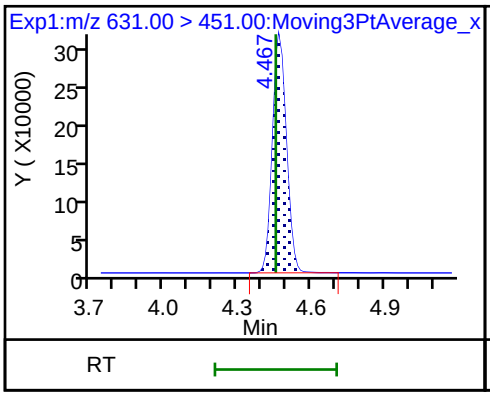

D 32 d5-NEtFOSAA (M)



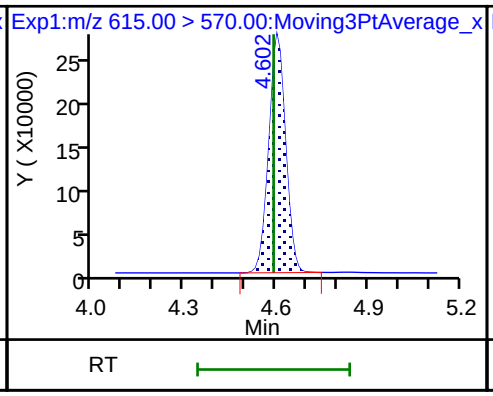

33 N-ethylperfluorooctanesulfonamid (M)



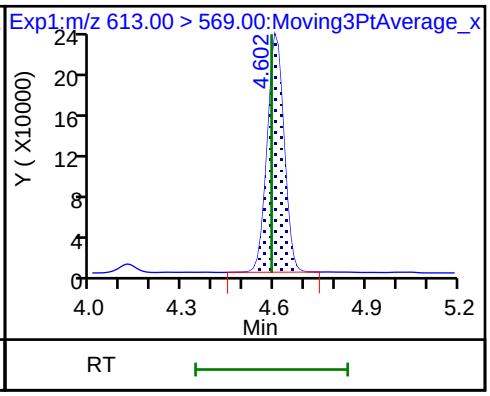

66 11-Chloroeicosafluoro-3-oxaundec



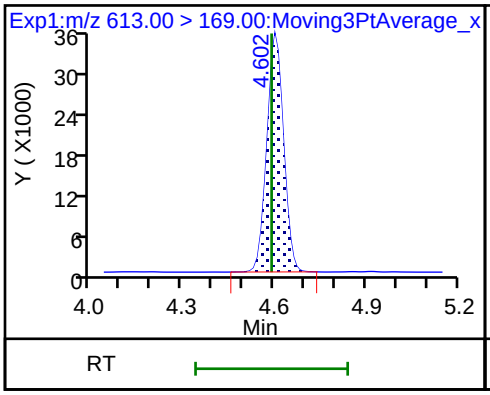

D 36 13C2 PFDoA



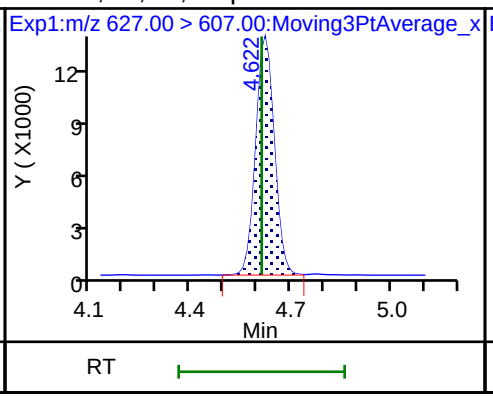

37 Perfluorododecanoic acid



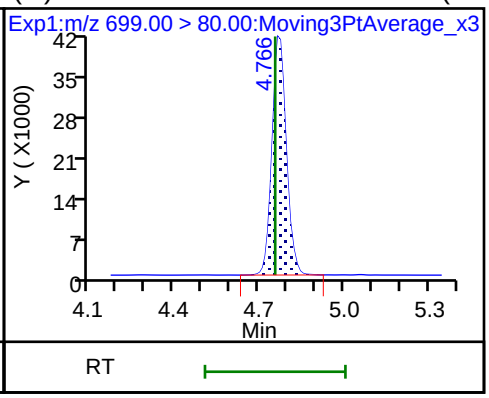
37 Perfluorododecanoic acid



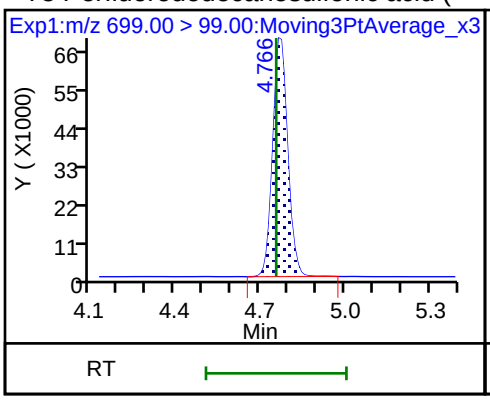

74 1H,1H,2H,2H-perfluorododecanesul (M)



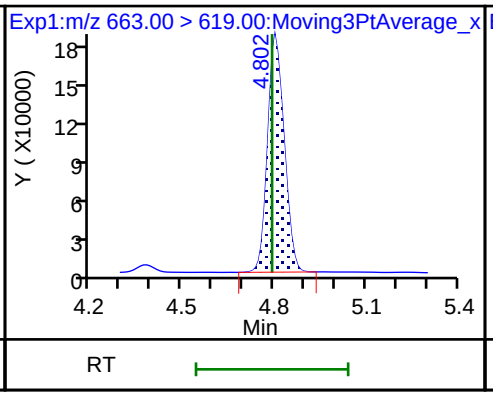

75 Perfluorododecanesulfonic acid (



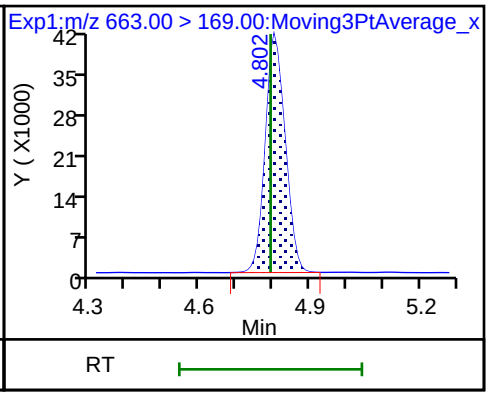

75 Perfluorododecanesulfonic acid (



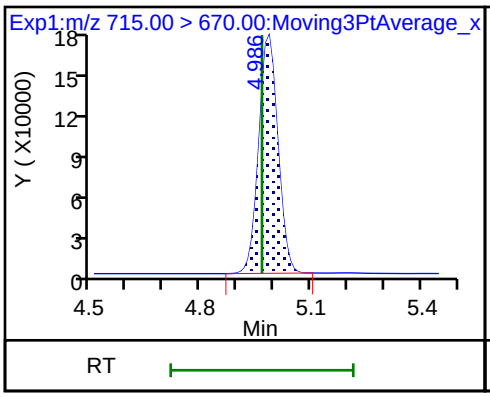

41 Perfluorotridecanoic acid



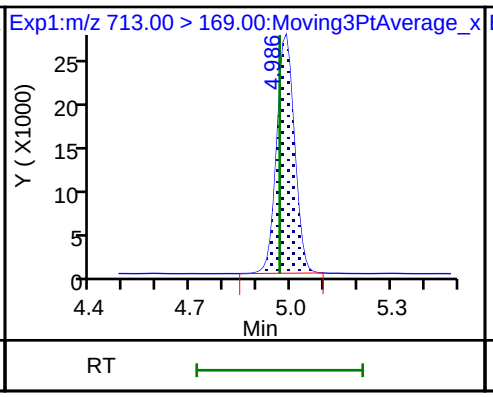

41 Perfluorotridecanoic acid



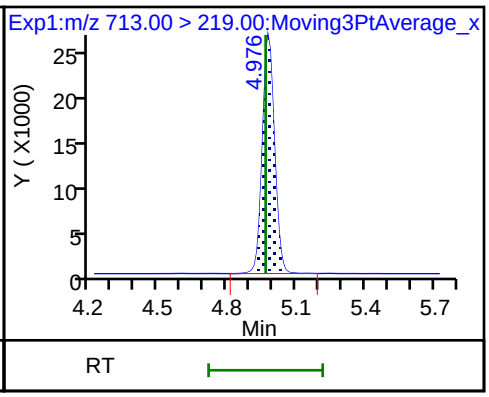

D 43 13C2 PFTeDA



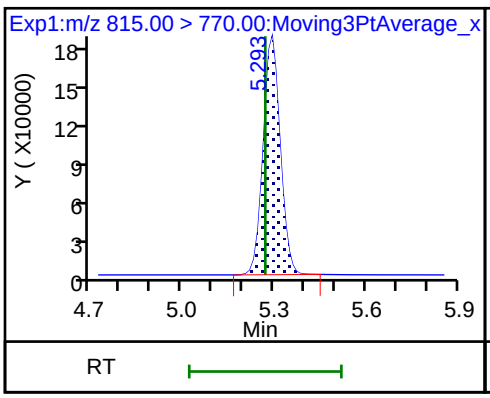

42 Perfluorotetradecanoic acid



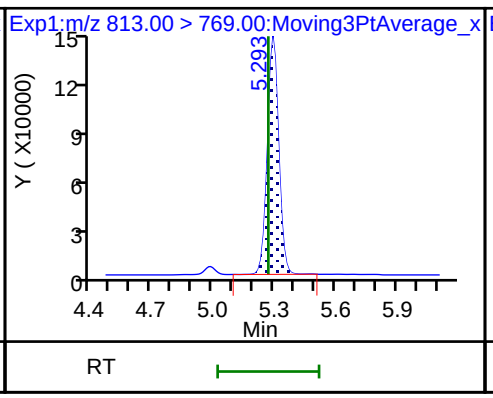

42 Perfluorotetradecanoic acid



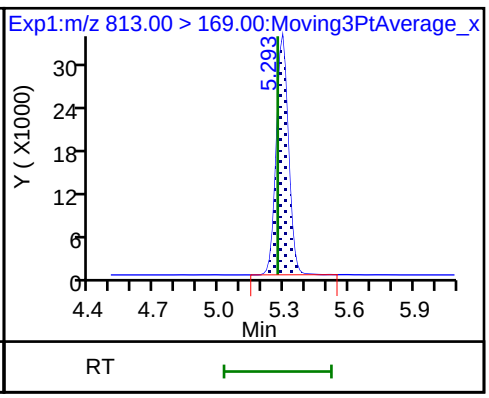

D 44 13C2 PFHxDA



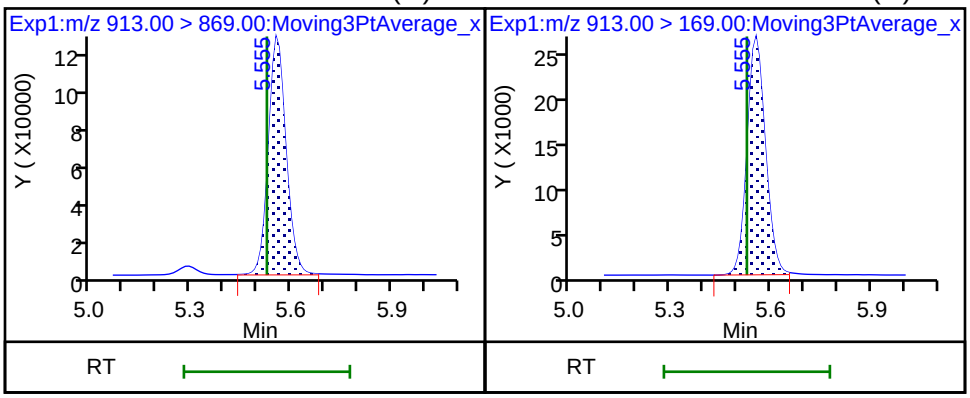

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

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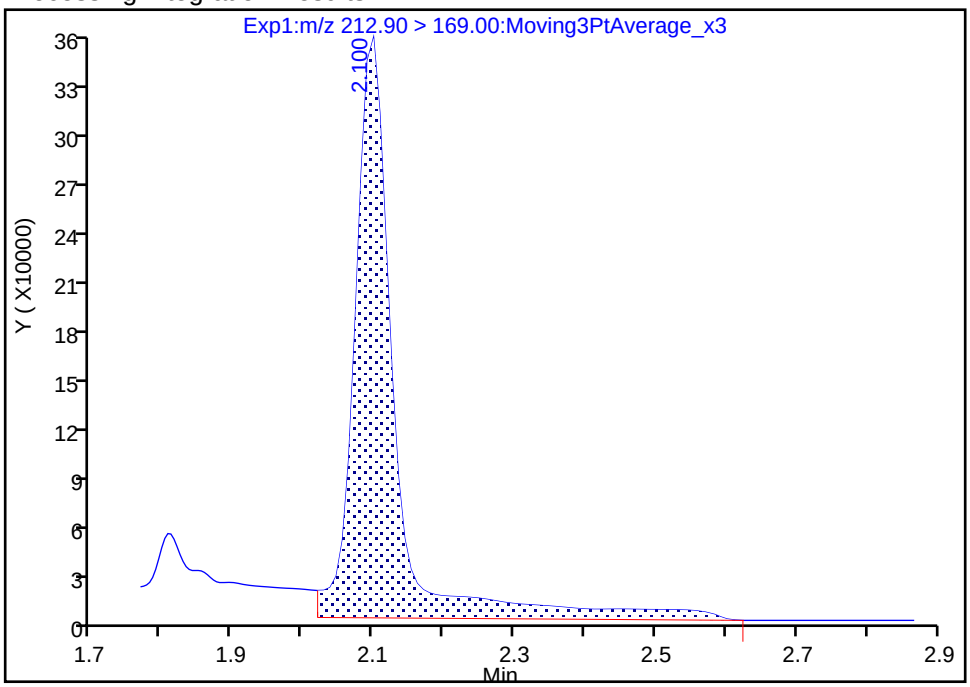
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d | | | | |
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

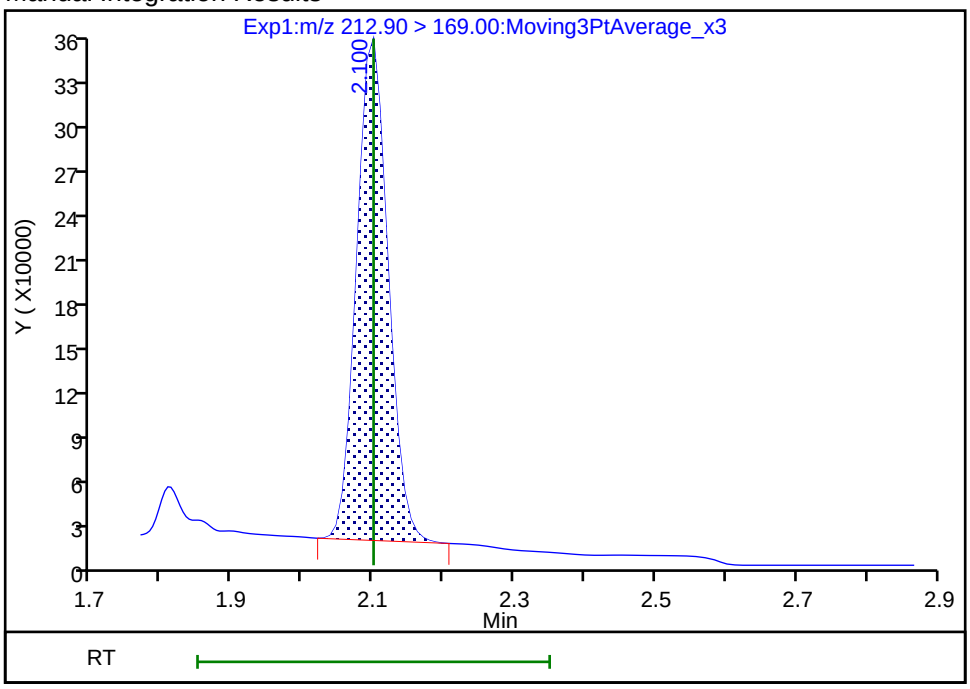
Processing Integration Results

RT: 2.10
Area: 1395911
Amount: 1.568331
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 1047255
Amount: 1.176610
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:05:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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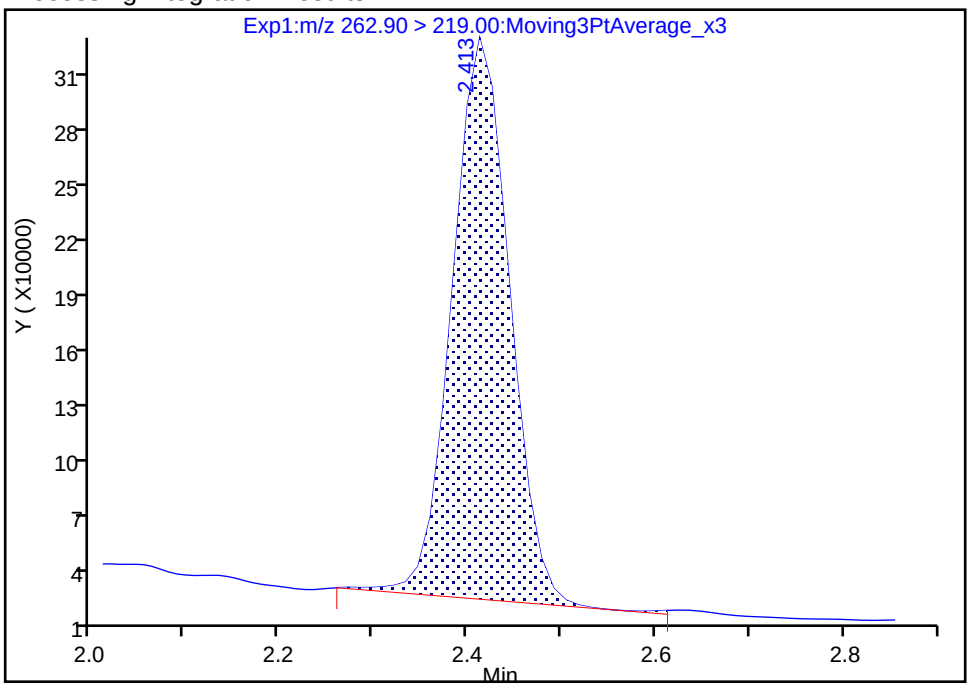
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

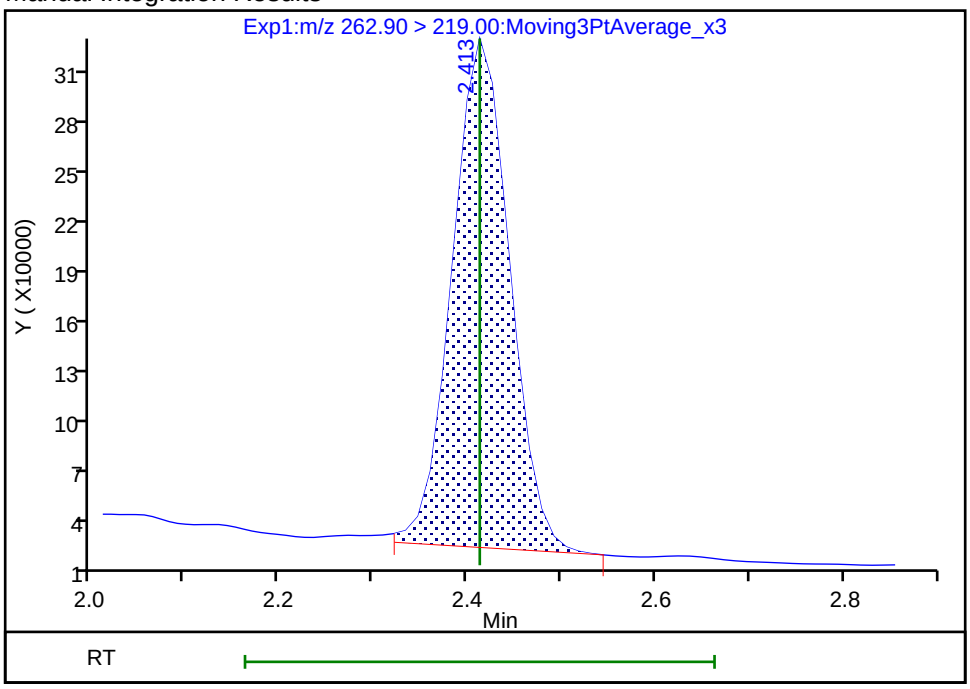
Processing Integration Results

RT: 2.41
Area: 1279065
Amount: 1.338164
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1279422
Amount: 1.338538
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:05:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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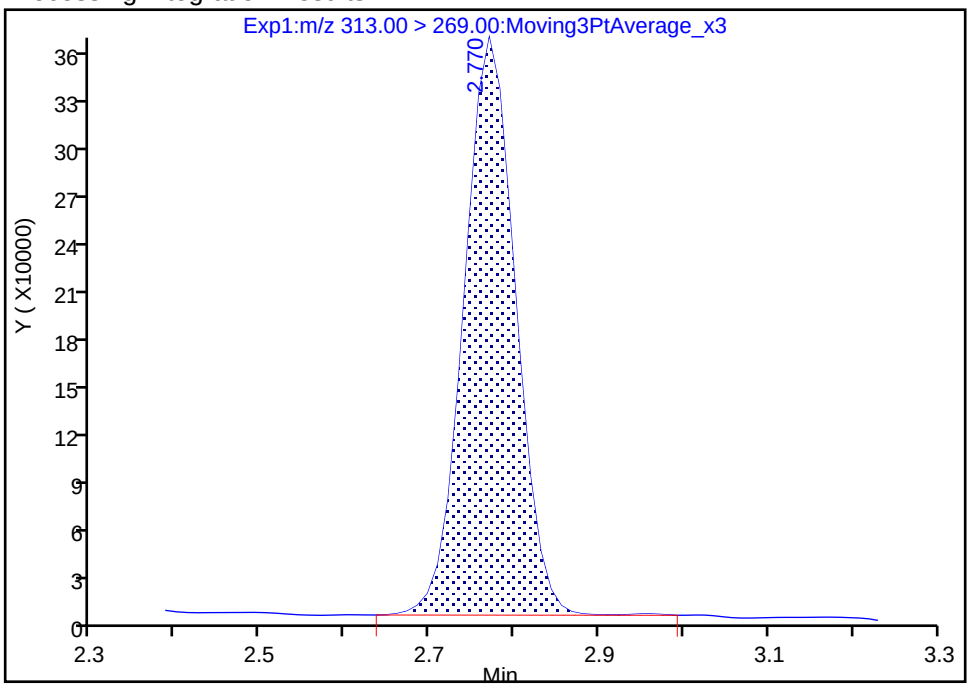
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

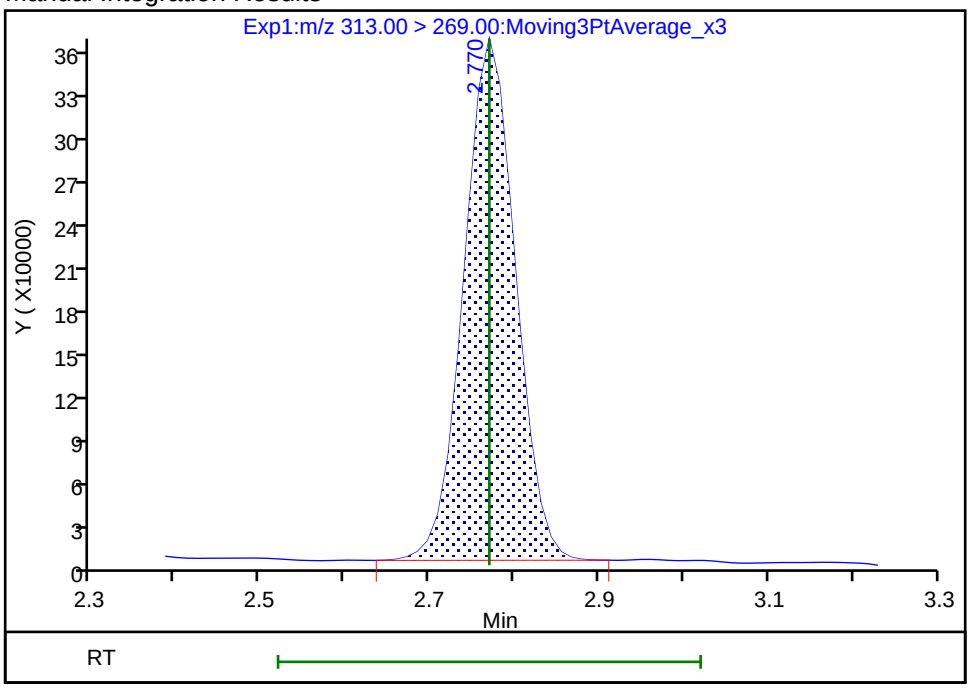
Processing Integration Results

RT: 2.77
Area: 1480614
Amount: 1.407462
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1476229
Amount: 1.403293
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:10:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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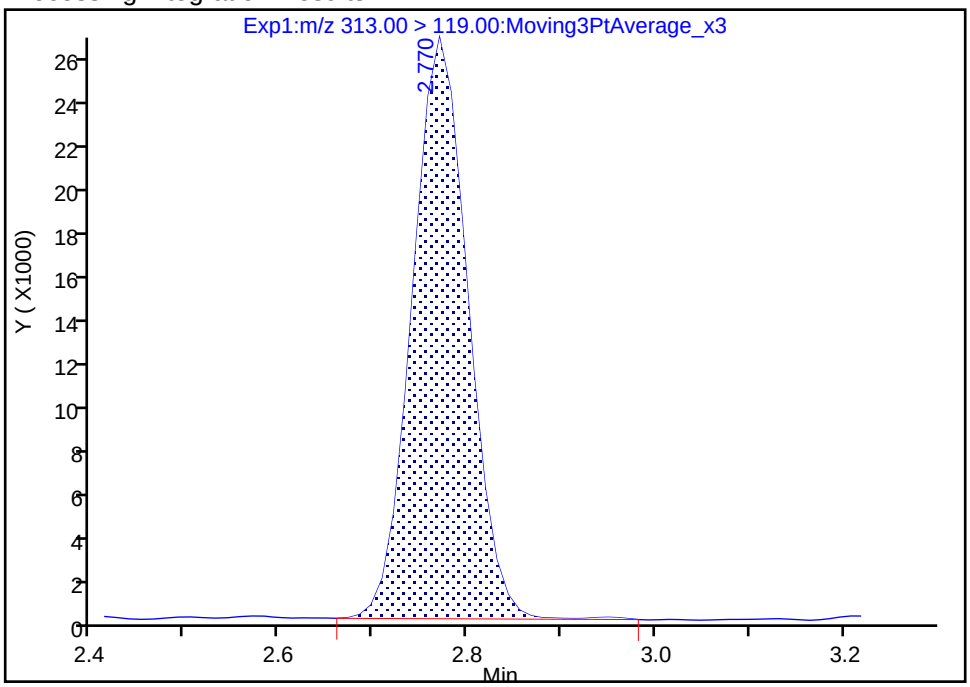
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

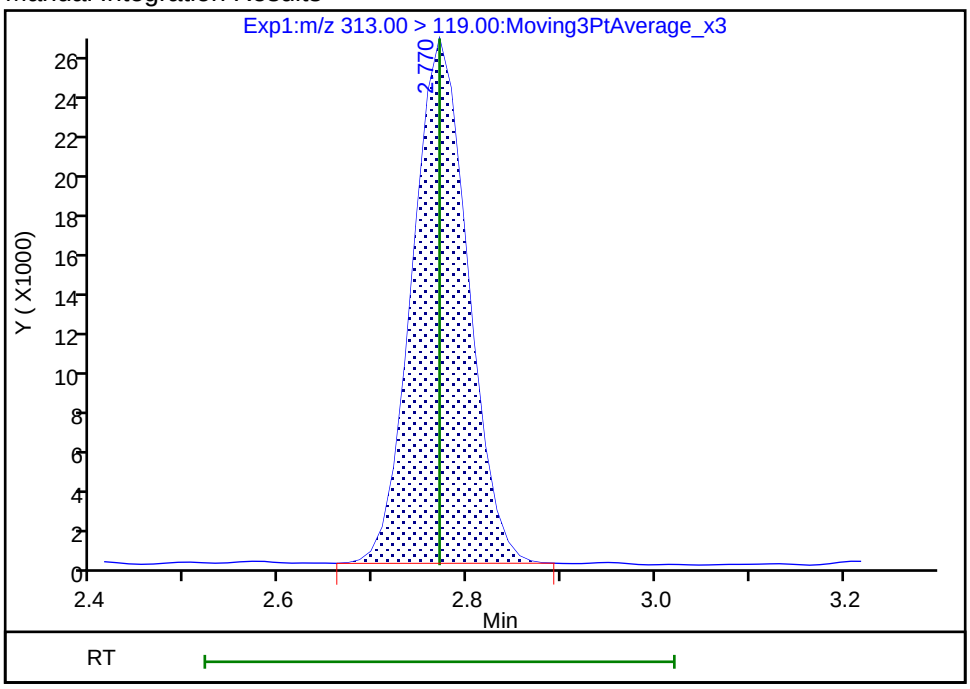
Processing Integration Results

RT: 2.77
Area: 108374
Amount: 1.407462
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 107729
Amount: 1.403293
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:10:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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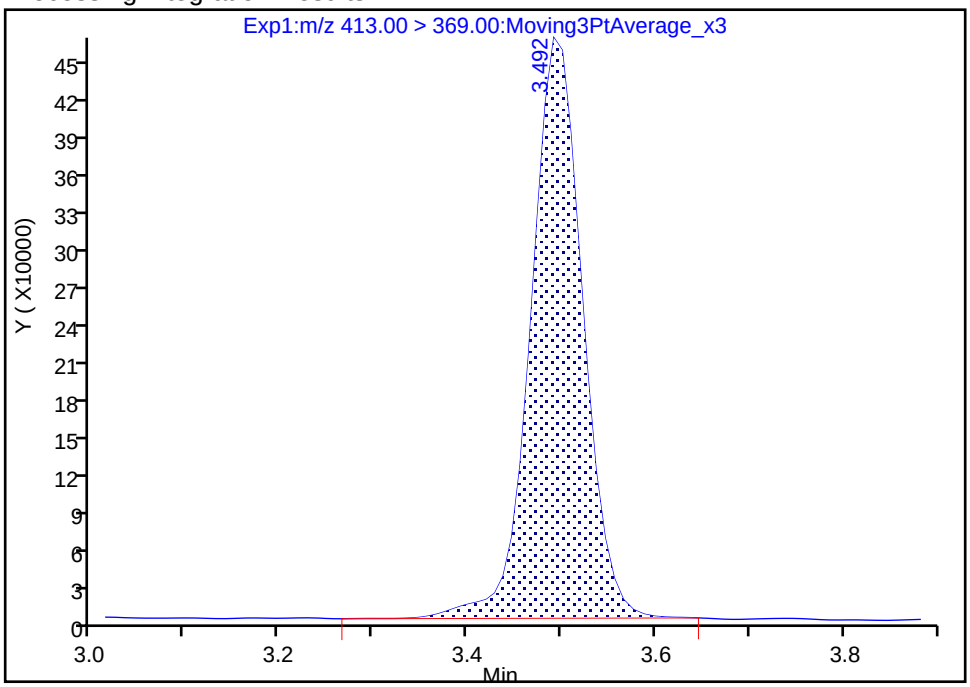
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

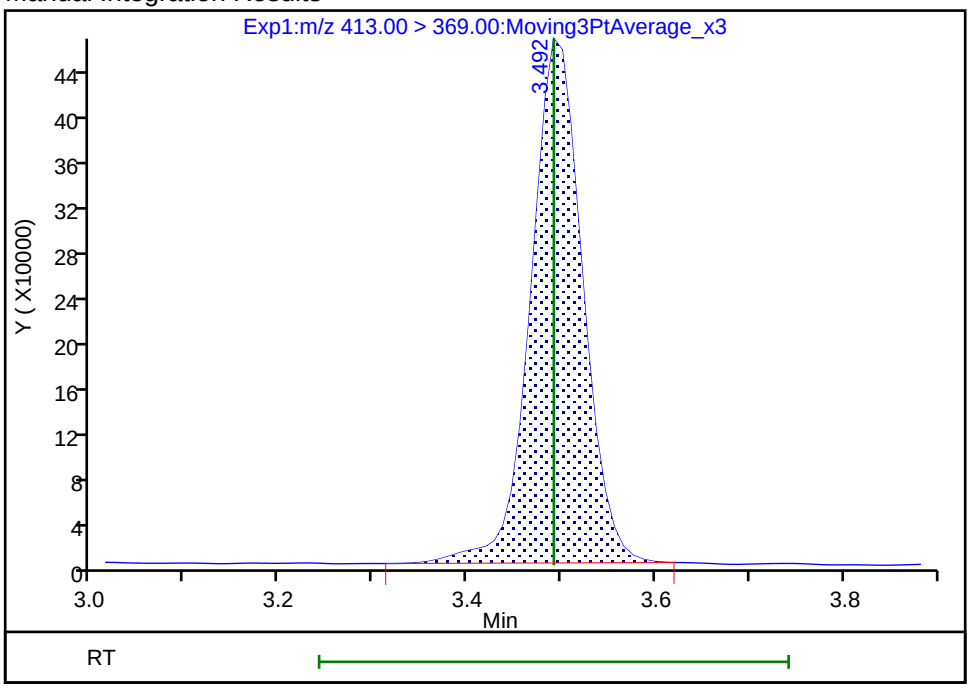
Processing Integration Results

RT: 3.49
Area: 1779522
Amount: 1.392819
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 1772682
Amount: 1.387465
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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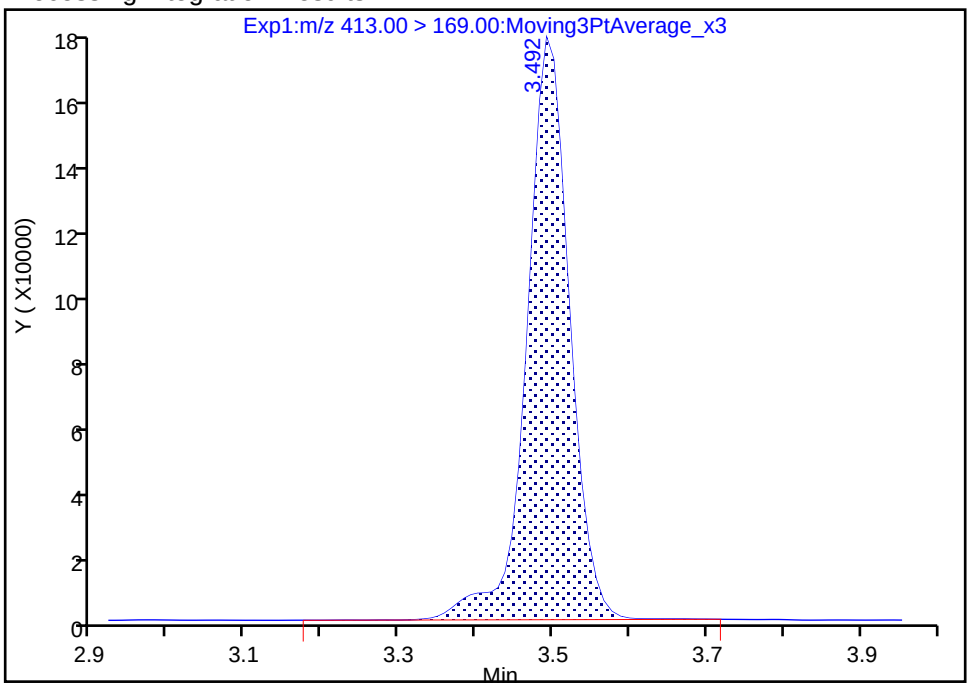
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

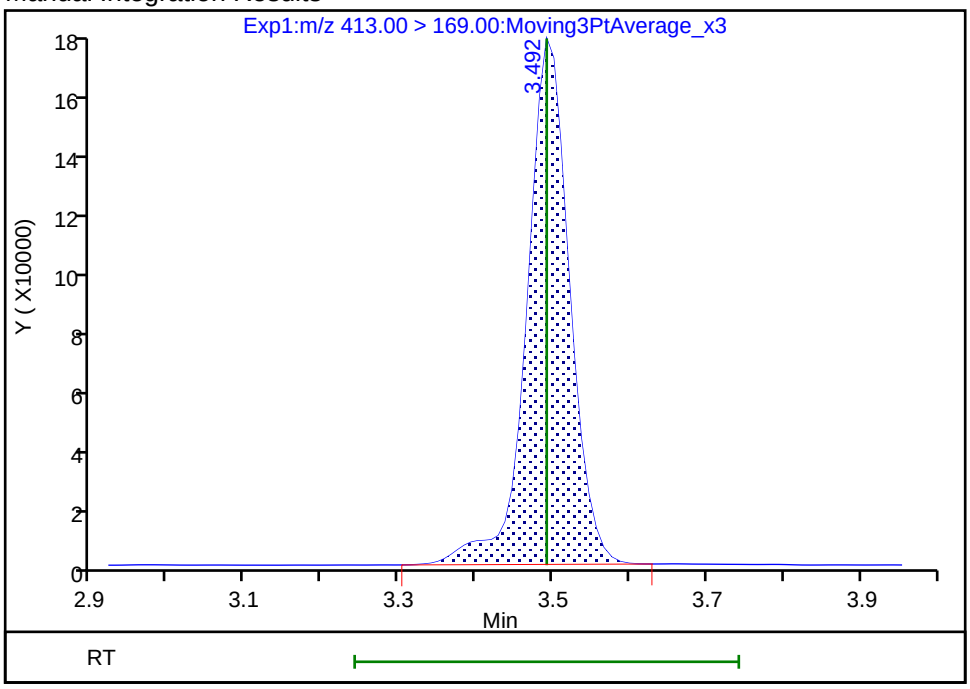
Processing Integration Results

RT: 3.49
Area: 677769
Amount: 1.392819
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 675632
Amount: 1.387465
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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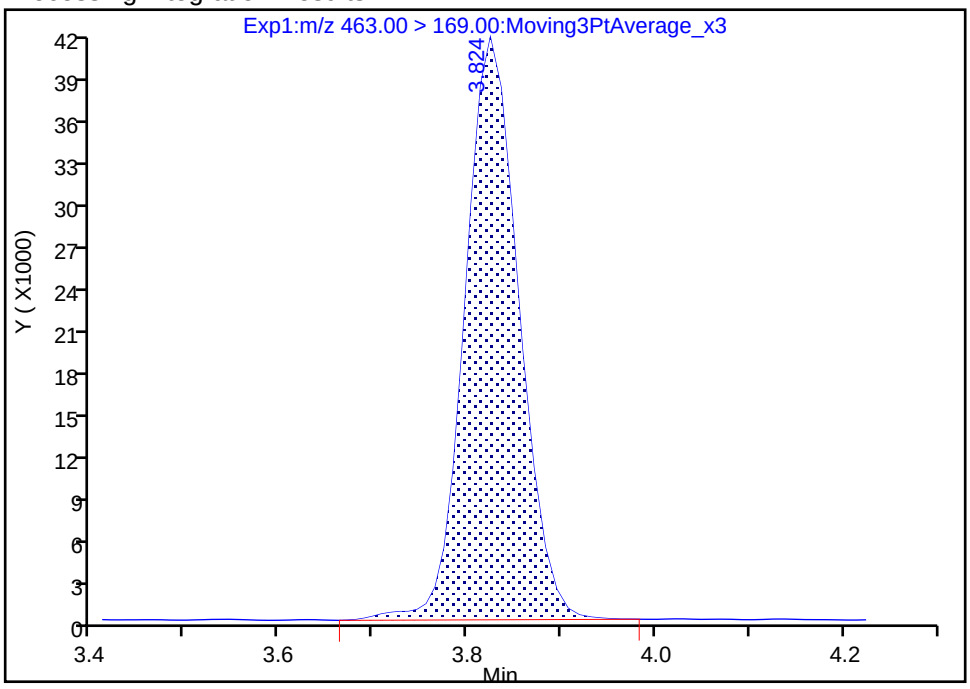
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d | | | | |
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

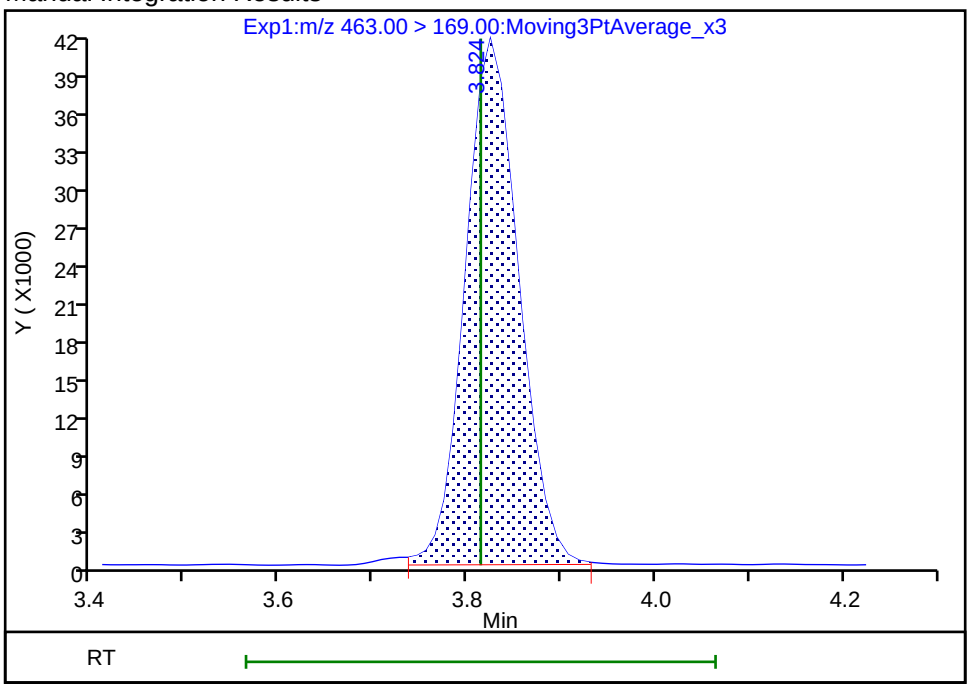
Processing Integration Results

RT: 3.82
Area: 167096
Amount: 1.017547
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 165597
Amount: 1.016966
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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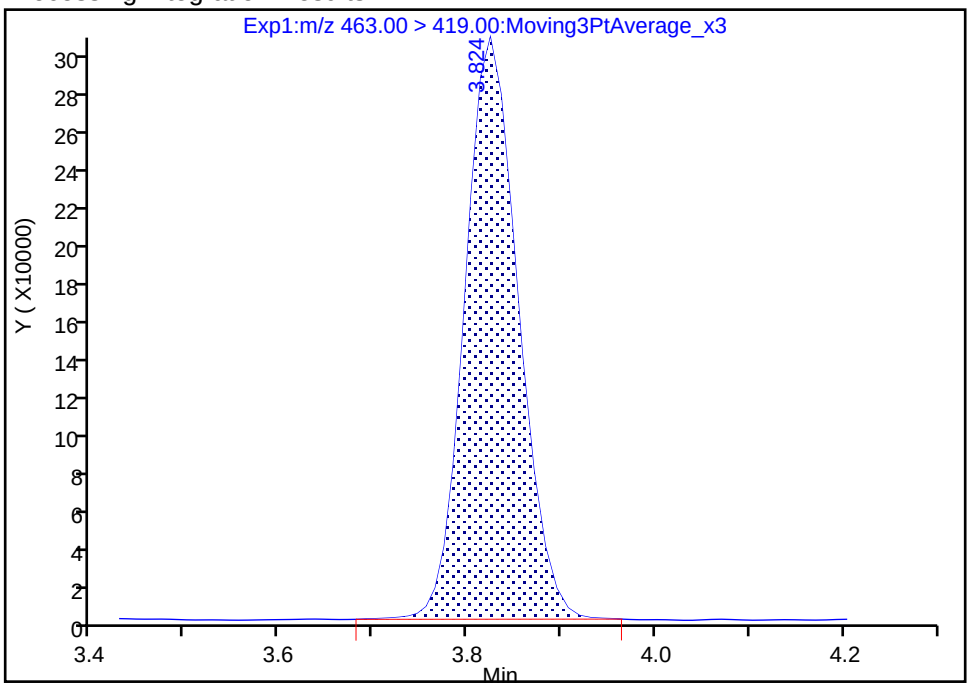
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

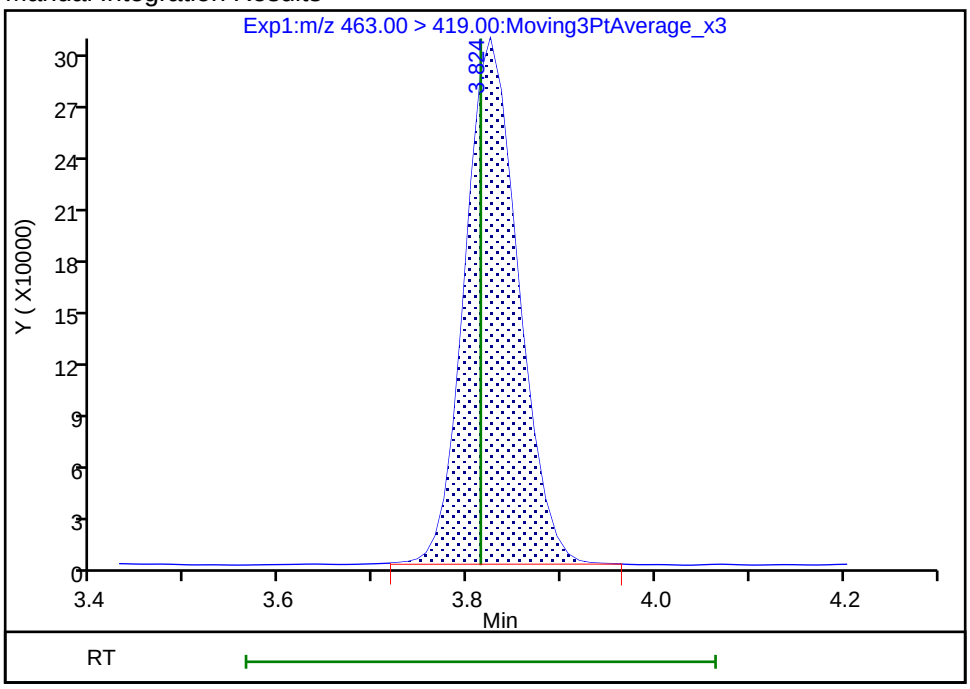
Processing Integration Results

RT: 3.82
Area: 1190030
Amount: 1.017547
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 1189350
Amount: 1.016966
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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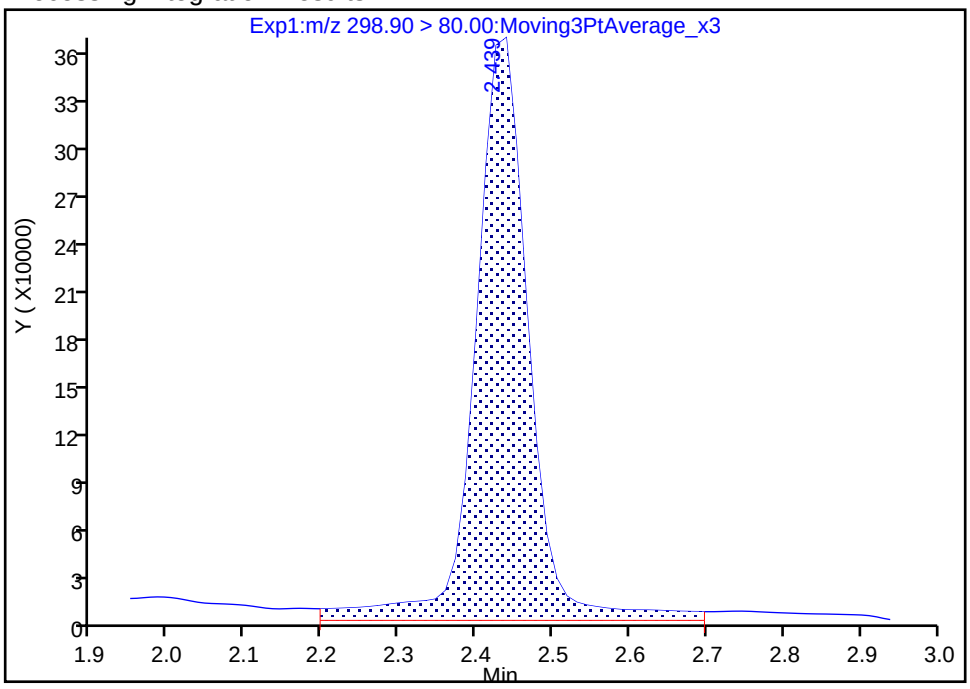
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

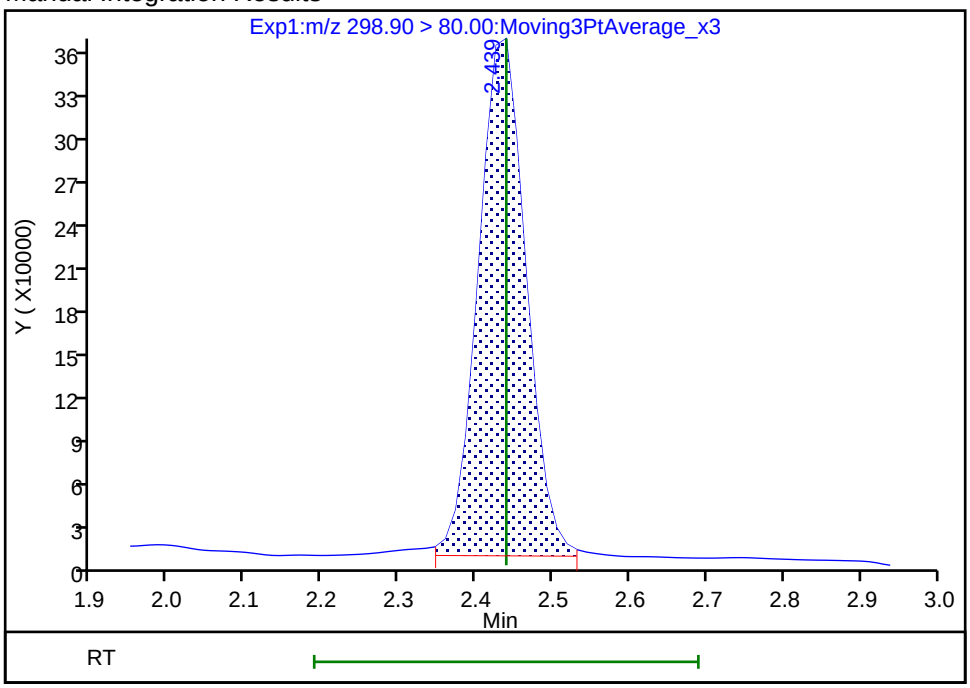
Processing Integration Results

RT: 2.44
Area: 1754604
Amount: 1.299845
Amount Units: ng/ml




Manual Integration Results

RT: 2.44
Area: 1525186
Amount: 1.129887
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:10:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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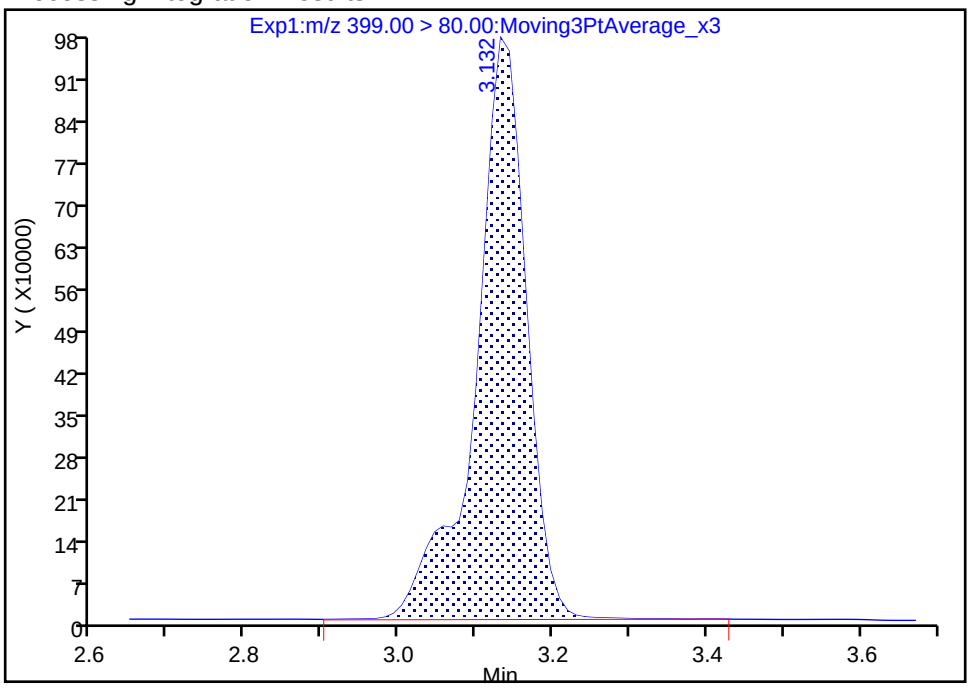
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

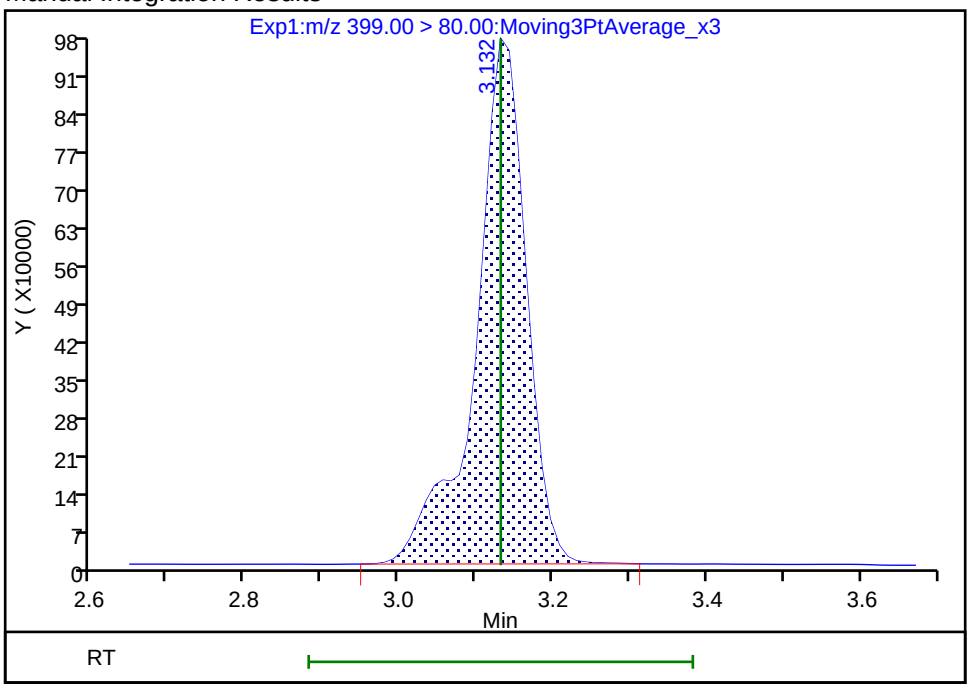
Processing Integration Results

RT: 3.13
Area: 4456570
Amount: 4.097295
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 4427582
Amount: 4.070644
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:10:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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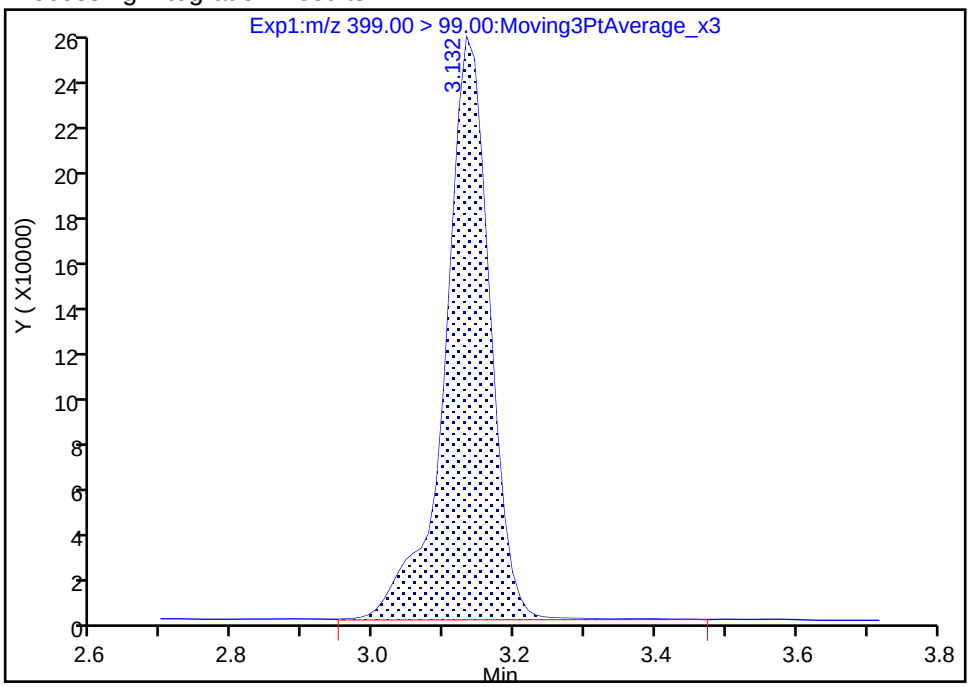
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

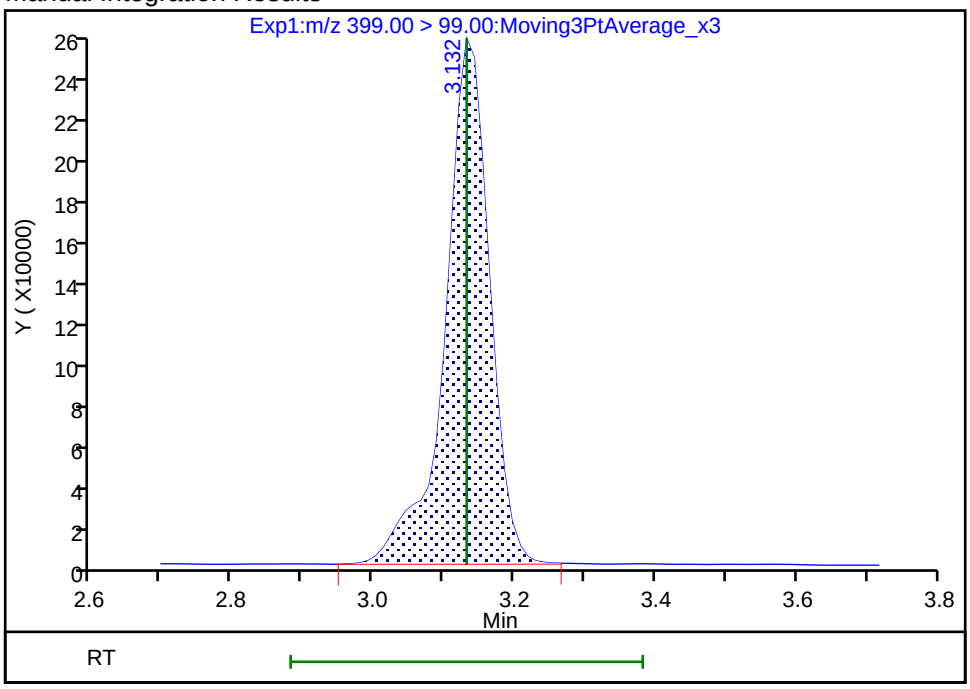
Processing Integration Results

RT: 3.13
Area: 1143248
Amount: 4.097295
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 1134262
Amount: 4.070644
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:10:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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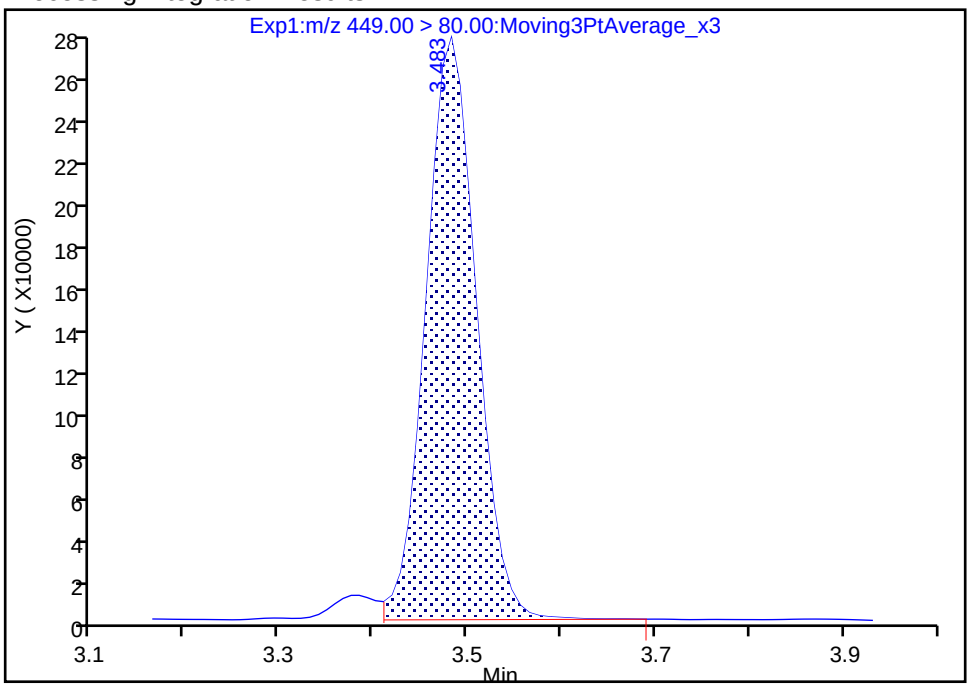
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

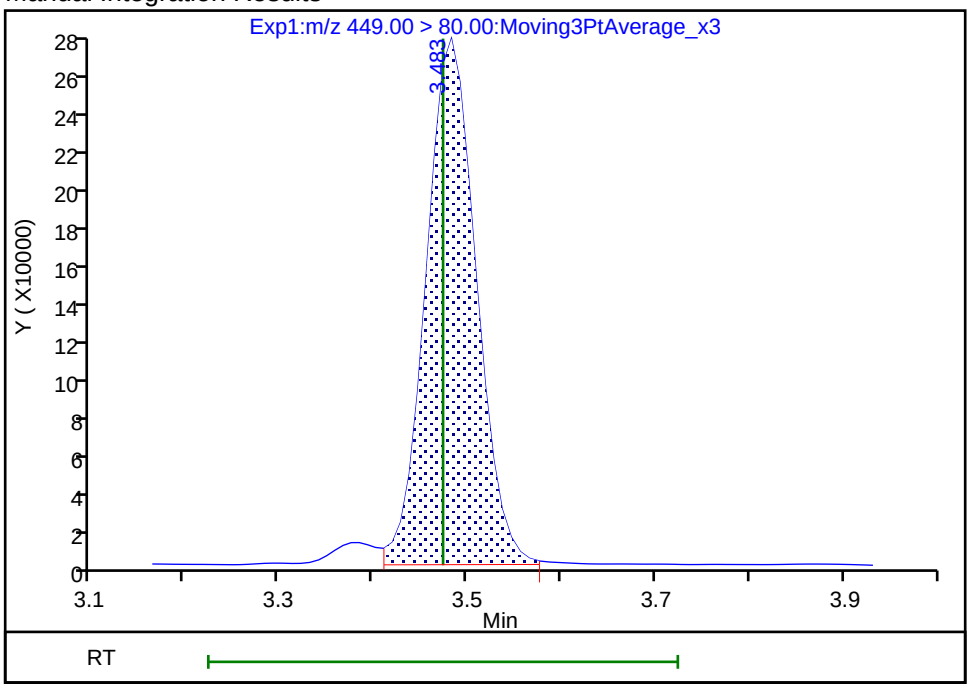
Processing Integration Results

RT: 3.48
Area: 1008915
Amount: 1.112331
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 1005793
Amount: 1.108889
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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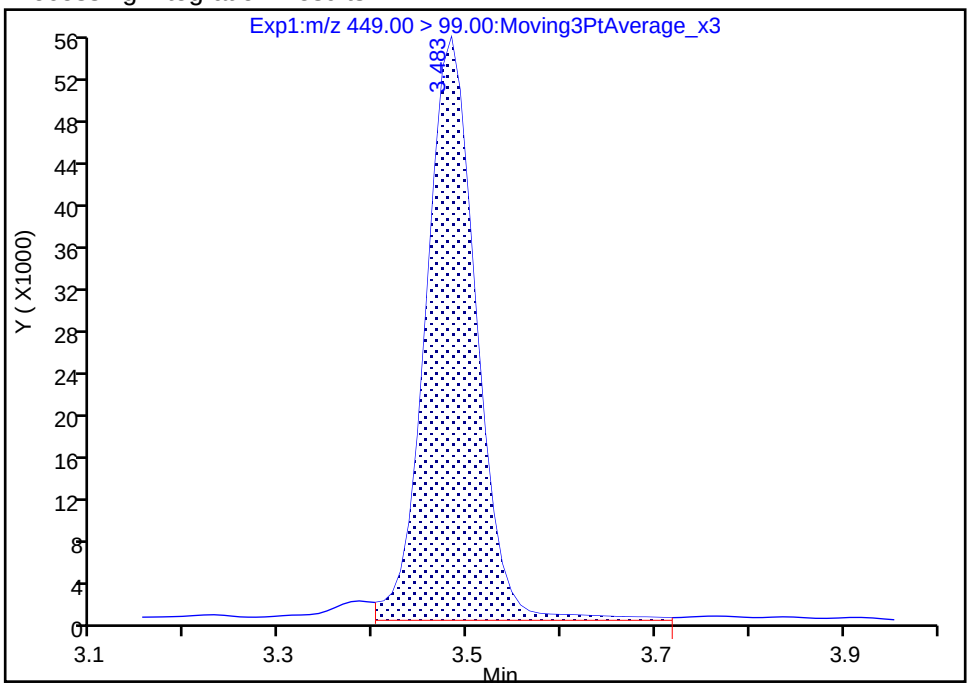
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

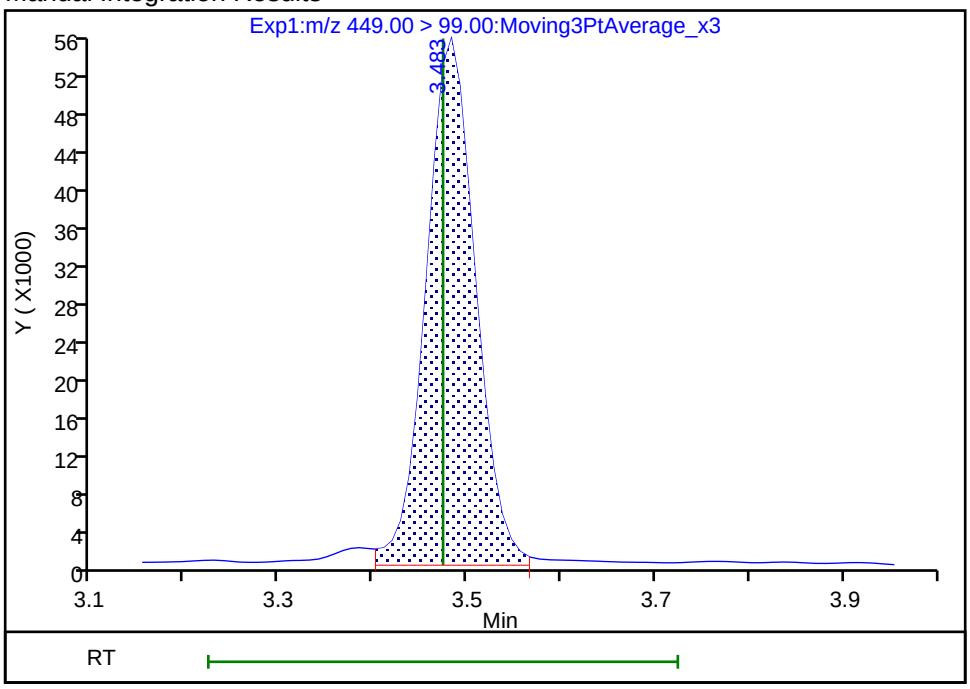
Processing Integration Results

RT: 3.48
Area: 207171
Amount: 1.112331
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 203261
Amount: 1.108889
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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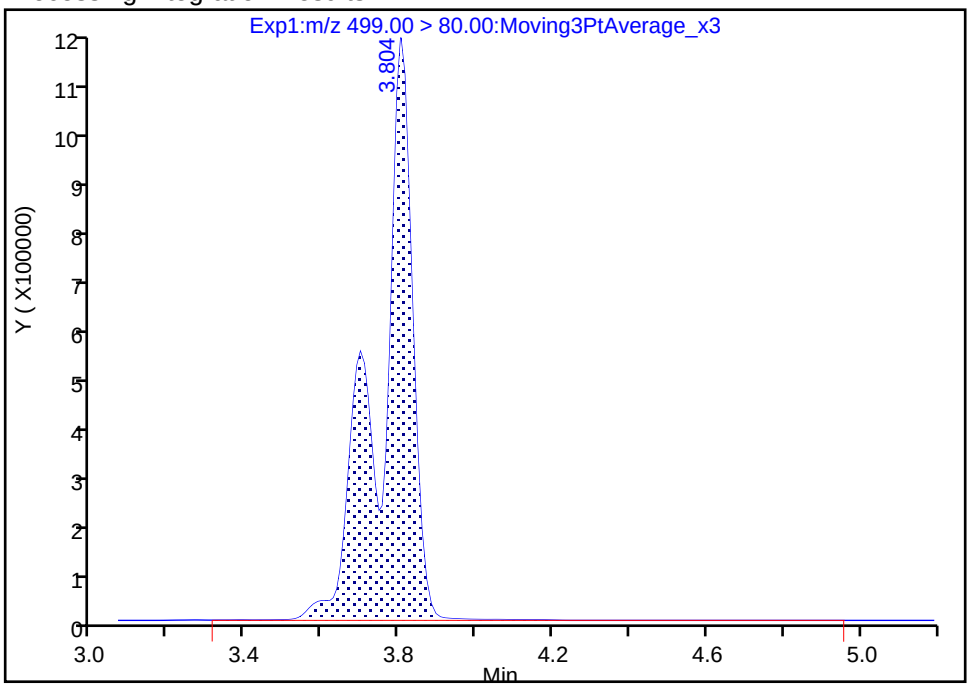
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

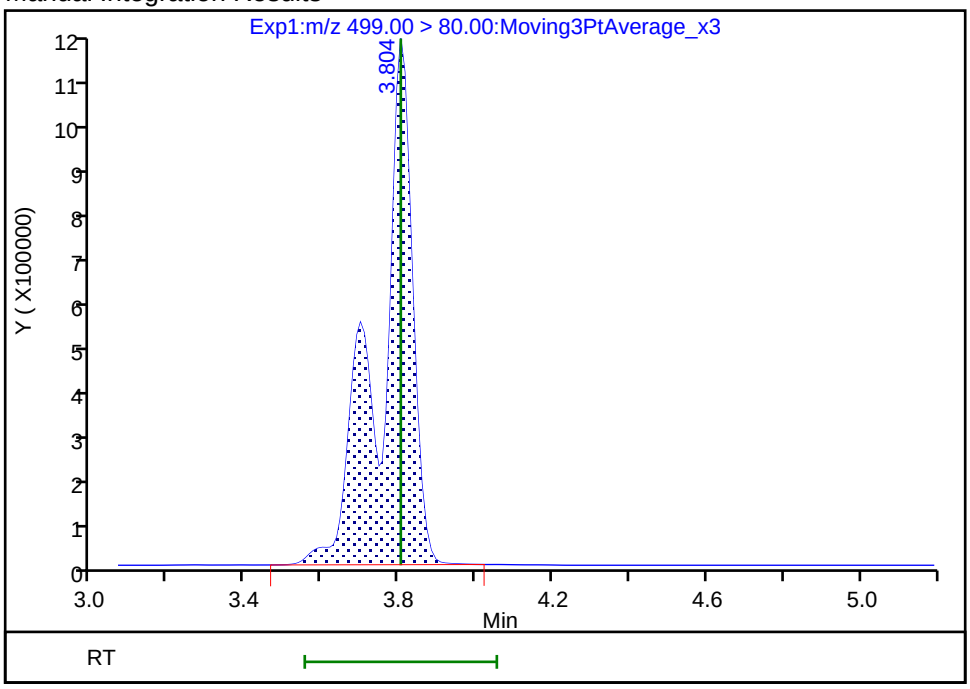
Processing Integration Results

RT: 3.80
Area: 6945754
Amount: 8.797955
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 6890619
Amount: 8.728117
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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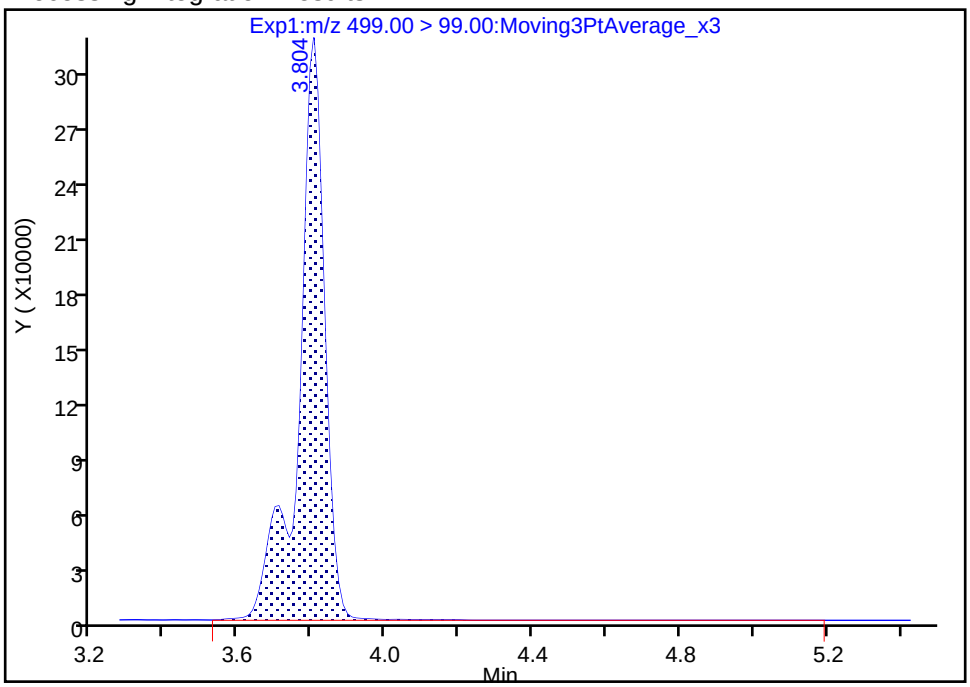
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

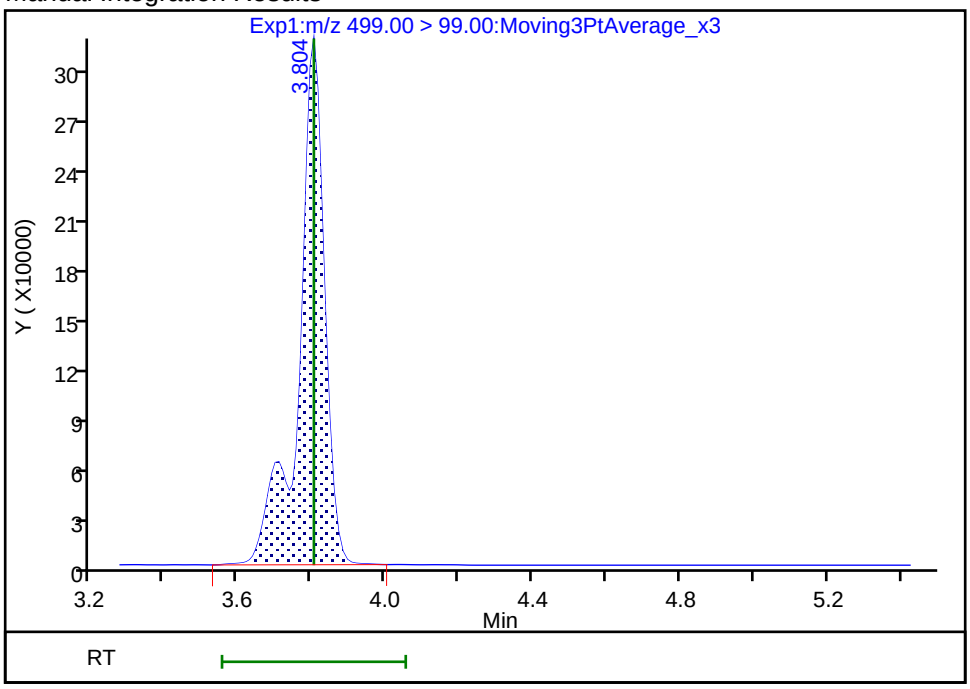
Processing Integration Results

RT: 3.80
Area: 1520318
Amount: 8.797955
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1509604
Amount: 8.728117
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
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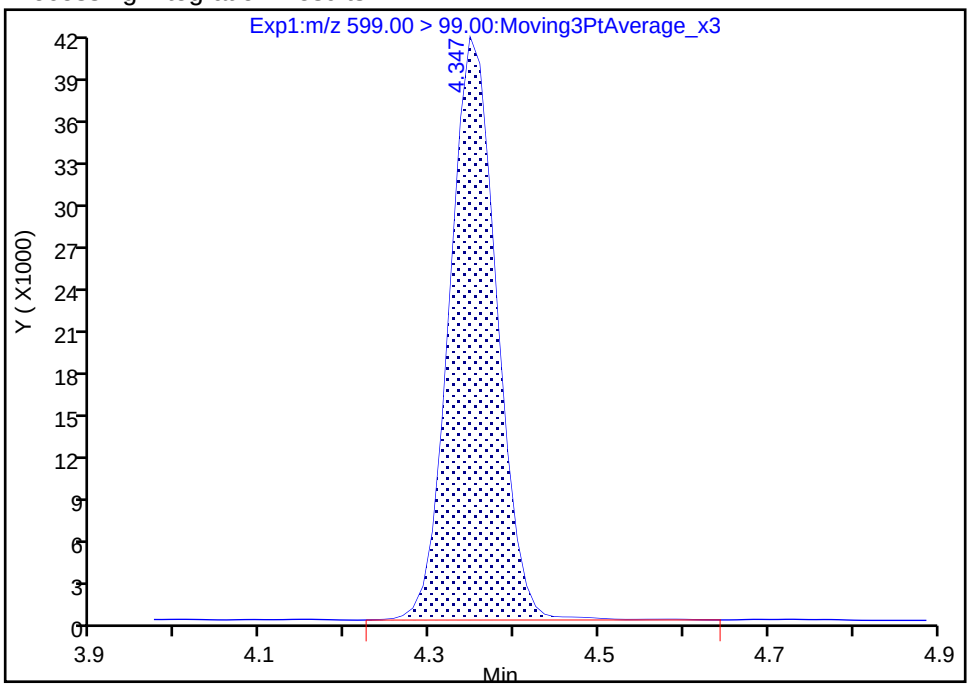
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

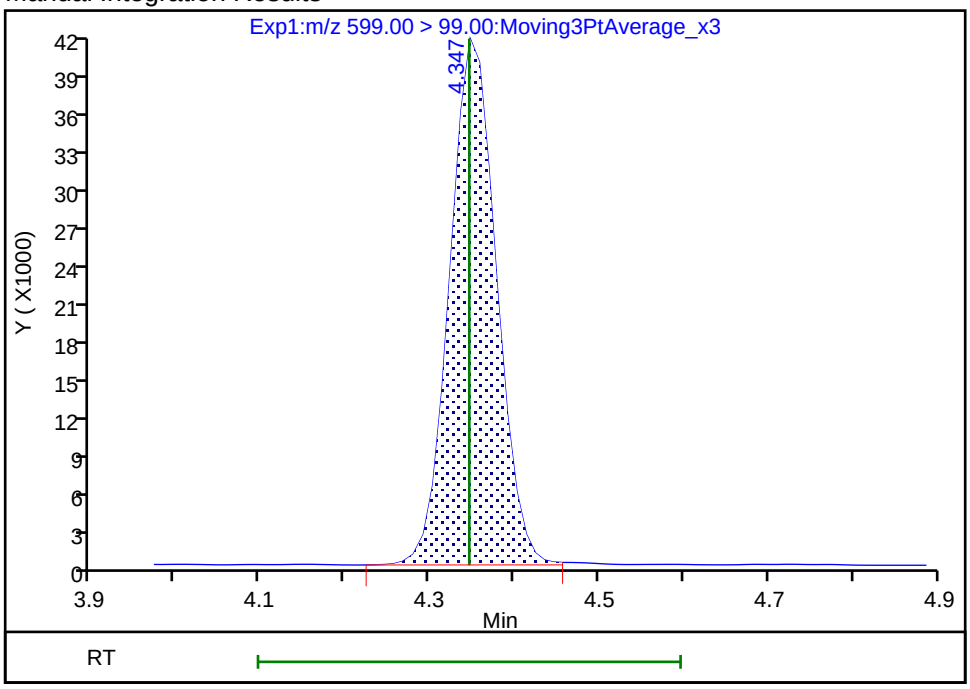
Processing Integration Results

RT: 4.35
Area: 159480
Amount: 0.897632
Amount Units: ng/ml




Manual Integration Results

RT: 4.35
Area: 158785
Amount: 0.897632
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:12:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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|---|---|---|---|---|---|
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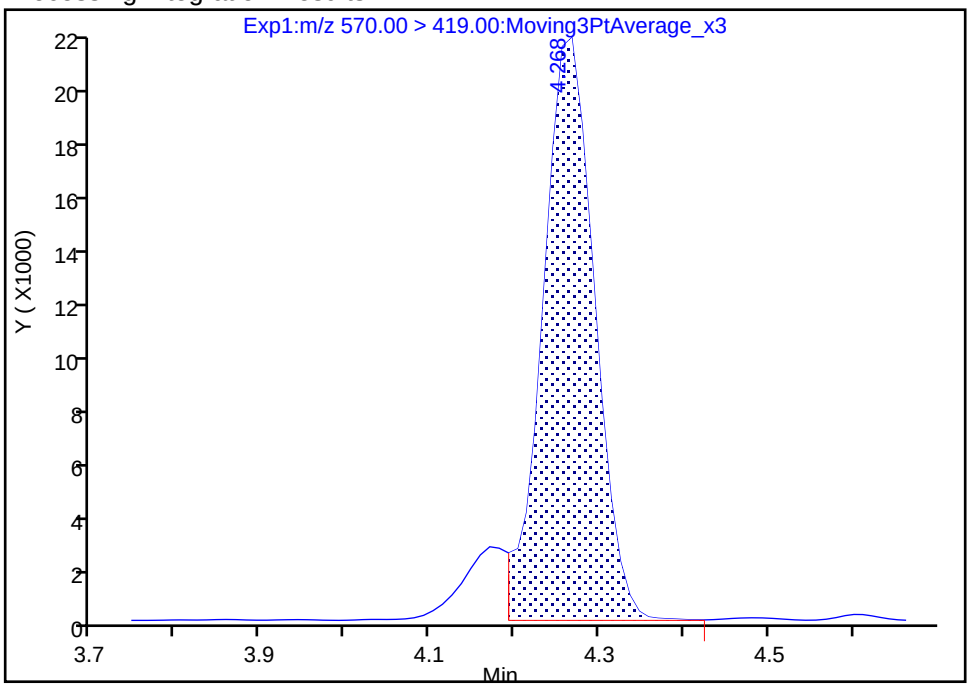
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

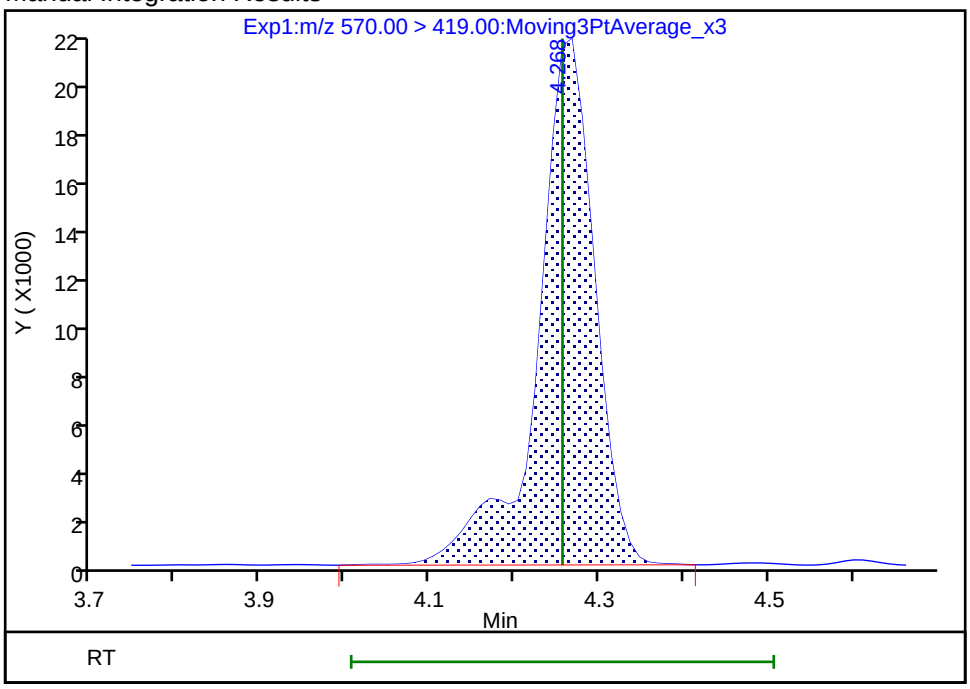
Processing Integration Results

RT: 4.27
Area: 90943
Amount: 0.943677
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 100525
Amount: 1.043106
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:12:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

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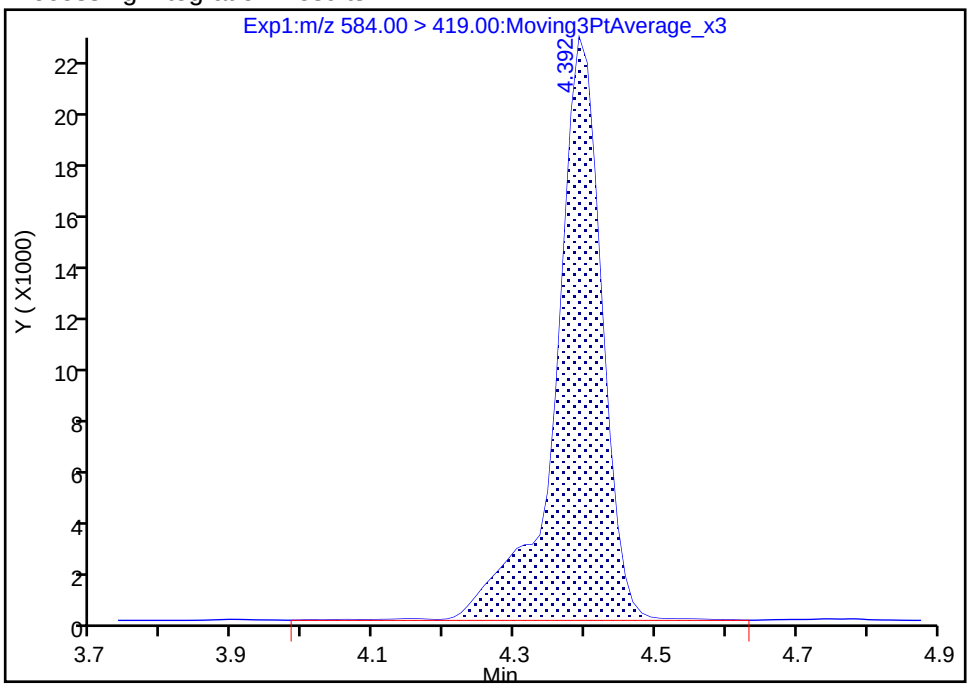
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

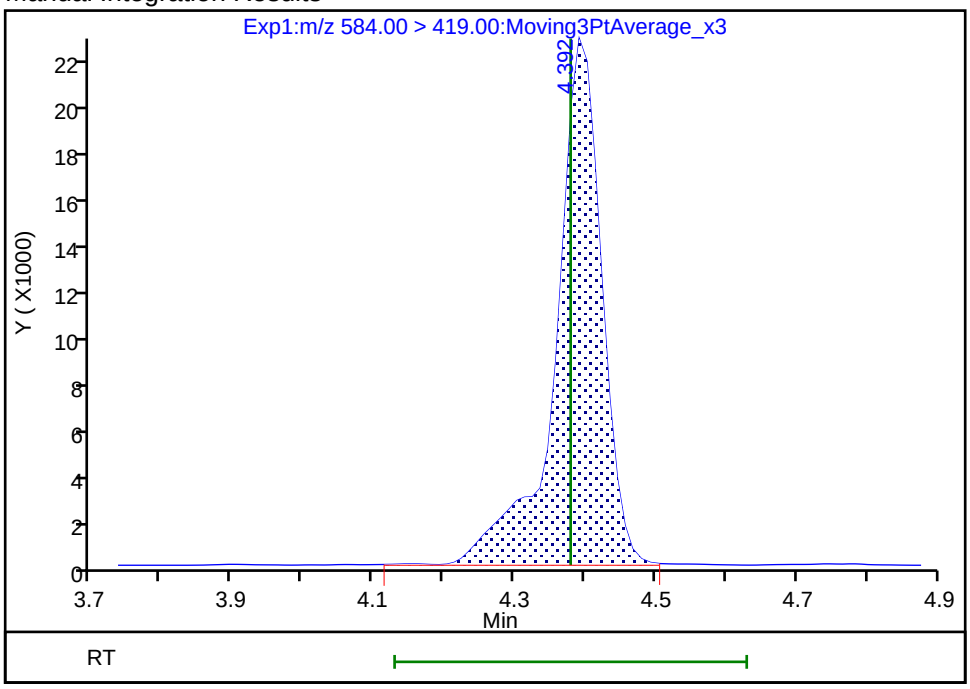
Processing Integration Results

RT: 4.39
Area: 101723
Amount: 1.005895
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 101297
Amount: 1.001682
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:12:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
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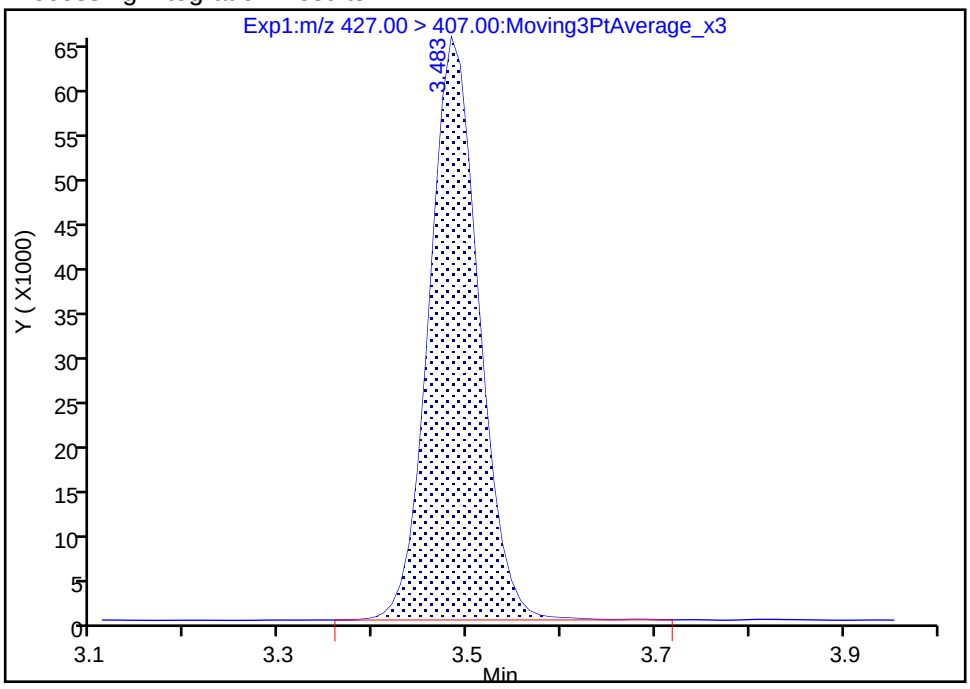
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d | | | | |
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

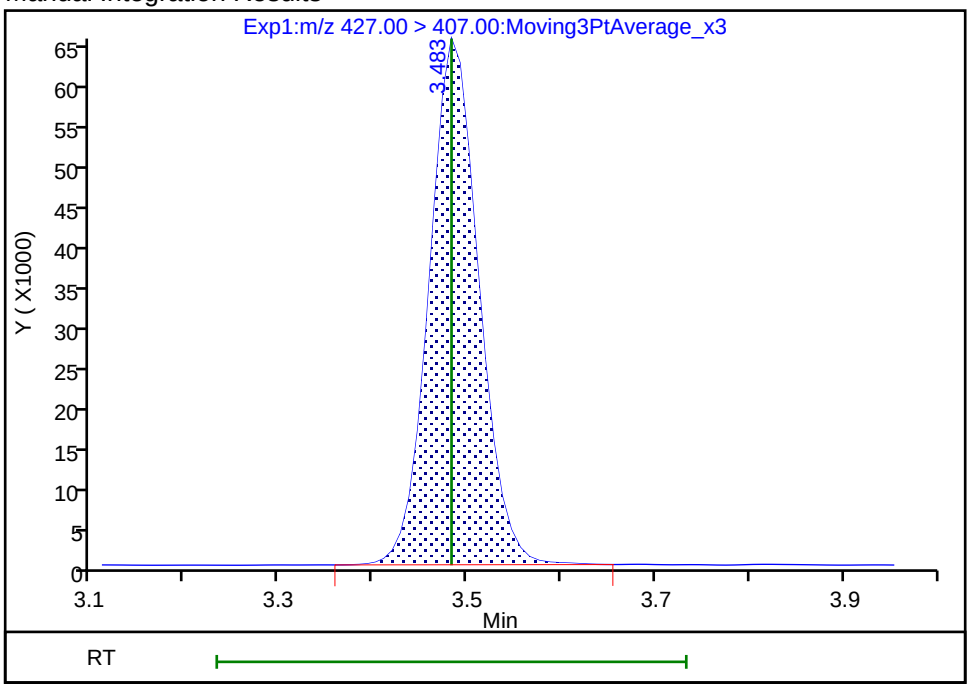
Processing Integration Results

RT: 3.48
Area: 241759
Amount: 0.994844
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 241326
Amount: 0.993062
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:11:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

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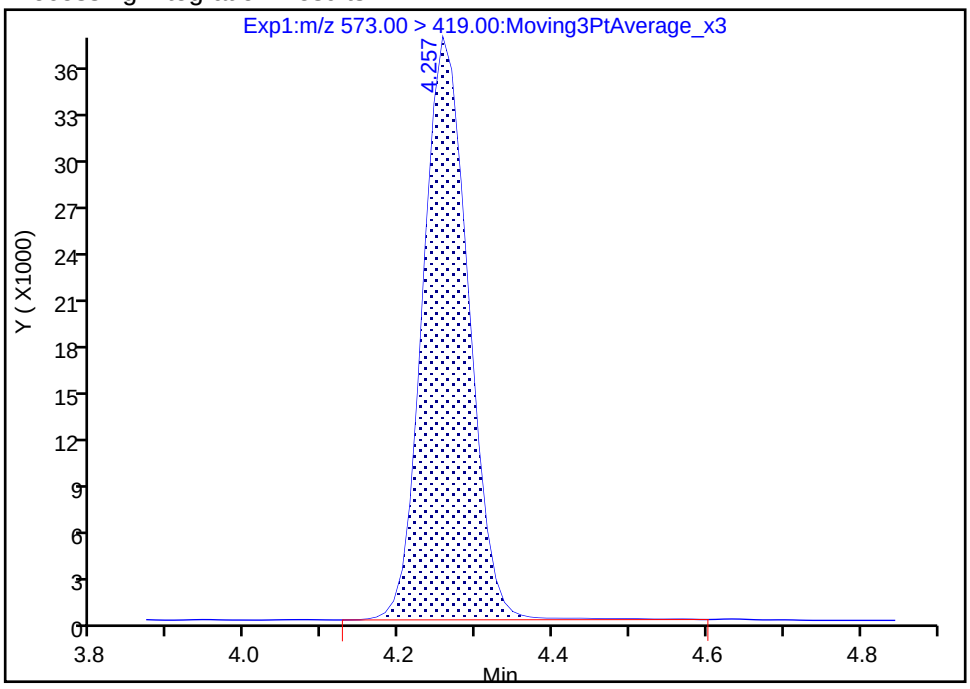
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 27 d3-NMeFOSAA, CAS: STL02118

Signal: 1

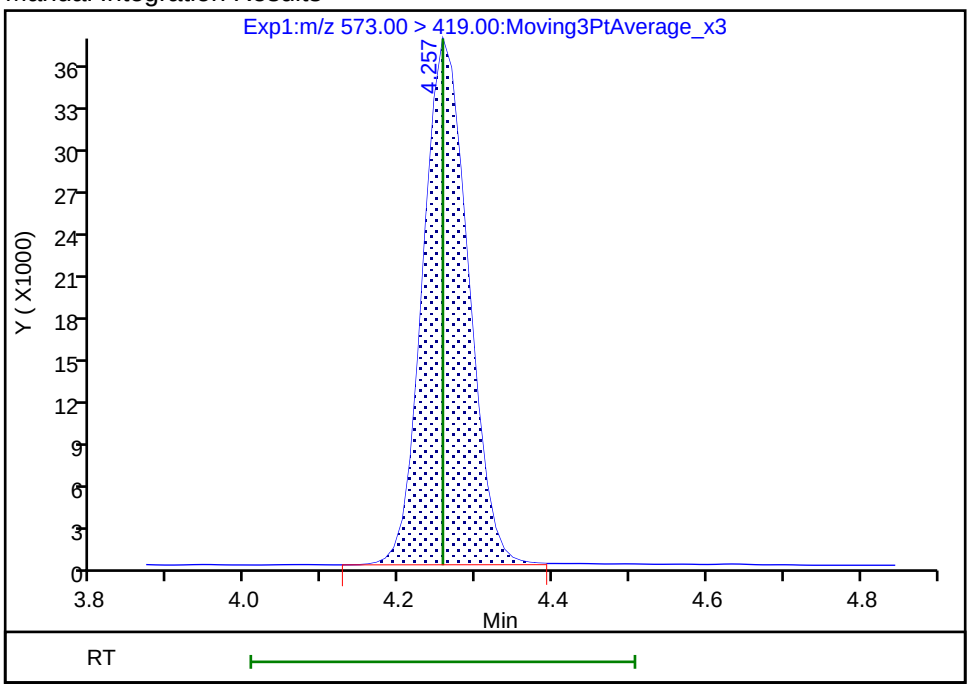
Processing Integration Results

RT: 4.26
Area: 153894
Amount: 1.248972
Amount Units: ng/ml




Manual Integration Results

RT: 4.26
Area: 153341
Amount: 1.244484
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:05:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

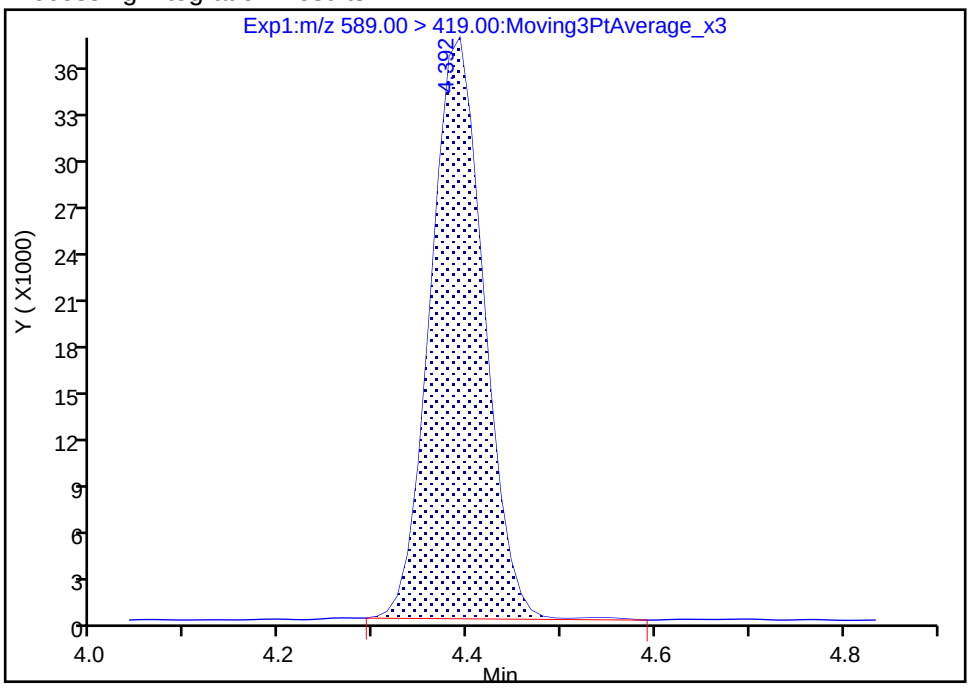
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d | | | | |
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 32 d5-NEtFOSAA, CAS: STL02117

Signal: 1

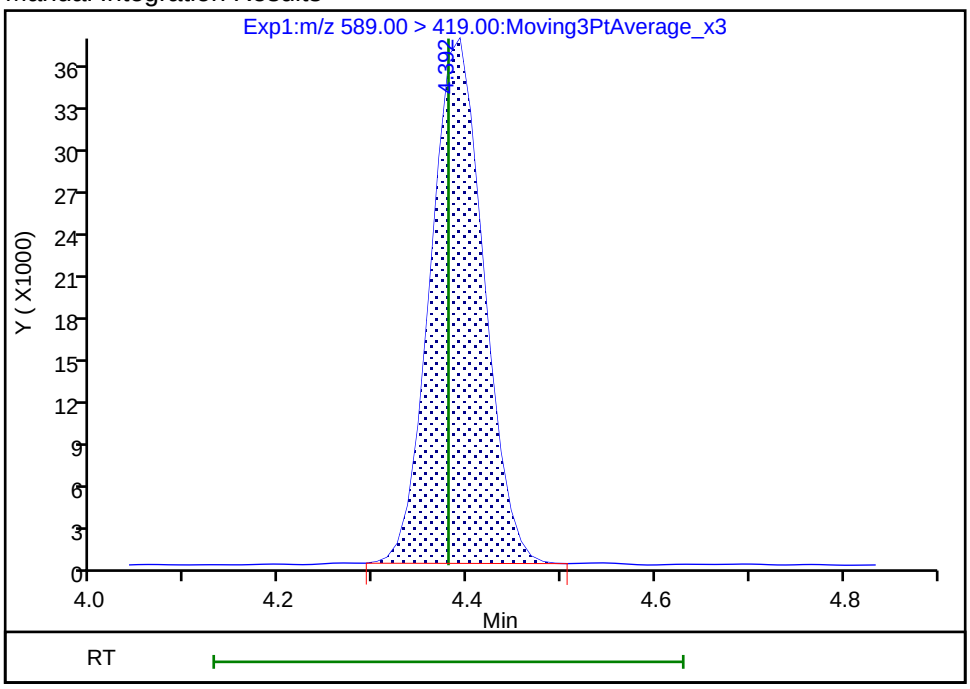
Processing Integration Results

RT: 4.39
Area: 148335
Amount: 1.285206
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 147521
Amount: 1.278153
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:05:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

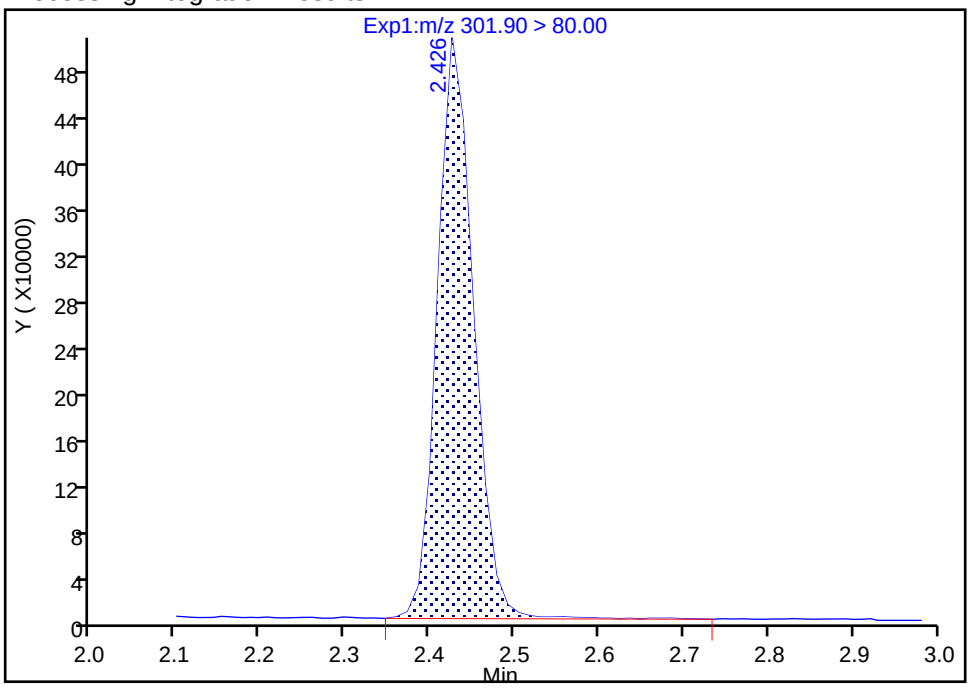
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D26.d | | | | |
| Injection Date: | 10-Nov-2021 07:36:59 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-A MS | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## D 47 13C3 PFBS, CAS: STL02337

Signal: 1

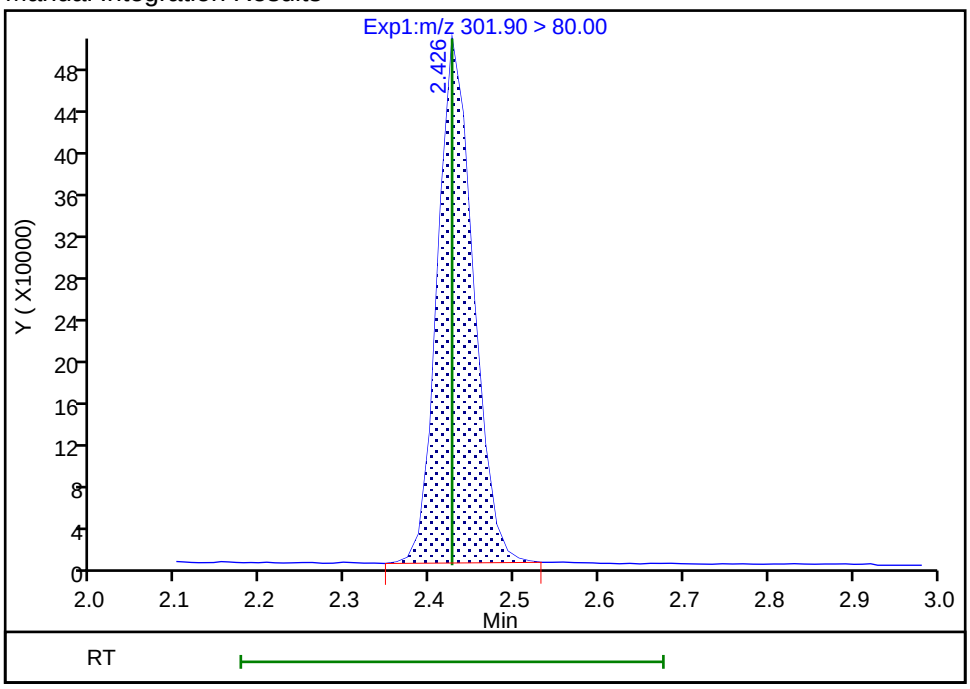
Processing Integration Results

RT: 2.43
Area: 1486516
Amount: 1.063795
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1469210
Amount: 1.051410
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:04:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MSD  Lab Sample ID: 460-246277-8 MSD

Matrix: Water  Lab File ID: PA211109D14.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 303.9(mL)  Date Analyzed: 11/10/2021 05:58

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 40.13 | | 4.11 | 0.73 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 42.80 | | 1.65 | 0.39 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 43.59 | | 1.65 | 0.37 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 39.65 | | 1.65 | 0.20 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 65.50 | | 1.65 | 0.35 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 36.58 | | 1.65 | 0.23 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 36.20 | | 1.65 | 0.25 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 32.08 | | 1.65 | 0.28 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 34.45 | | 1.65 | 0.32 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 34.43 | | 1.65 | 0.36 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 34.96 | | 1.65 | 0.52 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 36.56 | | 1.65 | 0.21 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 68.73 | | 1.65 | 0.25 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 31.55 | | 1.65 | 0.19 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 75.64 | | 1.65 | 0.24 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 30.42 | | 1.65 | 0.25 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 34.68 | | 1.65 | 0.47 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 36.37 | | 4.11 | 0.74 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 33.22 | | 4.11 | 0.61 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 32.07 | | 4.11 | 0.90 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 30.33 | | 1.65 | 0.32 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-24S-20211027 MSD  Lab Sample ID: 460-246277-8 MSD

Matrix: Water  Lab File ID: PA211109D14.d

Analysis Method: 537 (modified)  Date Collected: 10/27/2021 14:00

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 303.9(mL)  Date Analyzed: 11/10/2021 05:58

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 93 | | 50-150 |
| STL01892 | 13C4 PFHpA | 92 | | 50-150 |
| STL00990 | 13C4 PFOA | 90 | | 50-150 |
| STL00991 | 13C4 PFOS | 98 | | 50-150 |
| STL00995 | 13C5 PFNA | 93 | | 50-150 |
| STL00992 | 13C4 PFBA | 76 | | 25-150 |
| STL00993 | 13C2 PFHxA | 91 | | 50-150 |
| STL00996 | 13C2 PFDA | 87 | | 50-150 |
| STL00997 | 13C2 PFUnA | 91 | | 50-150 |
| STL00998 | 13C2 PFDoA | 85 | | 50-150 |
| STL01056 | 13C8 FOSA | 88 | | 25-150 |
| STL01893 | 13C5 PFPeA | 88 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 84 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 100 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 106 | | 50-150 |
| STL02279 | M2-6:2 FTS | 112 | | 25-150 |
| STL02280 | M2-8:2 FTS | 124 | | 25-150 |
| STL02337 | 13C3 PFBS | 88 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d
Lims ID: 460-246277-D-8-B MSD
Client ID: MW-24S-20211027
Sample Type: MSD
Inject. Date: 10-Nov-2021 05:58:41 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-D-8-B MSD
Misc. Info.: 200-0048356-014 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:25:41 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: chirgwinb Date: 10-Nov-2021 16:01:29
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1271503 | 0.9478 | | 75.8 | 2432 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.091 | 2.100 | -0.009 | 1.000 | 1172962 | 1.22 | | 122 | 91.7 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1244754 | 1.10 | | 88.1 | 681 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1297609 | 1.30 | | 130 | 9.8 | |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1567872 | 1.03 | | 88.2 | 40194 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1600684 | 1.11 | Target=2.32 | 126 | 40.5 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 702722 | | 2.28(1.16-3.48) | | 81.7 | M |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 289245 | 0.9320 | | 99.8 | 947 | |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 170227 | 1.46 | | 125 | 15.7 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1353056 | 1.14 | | 91.3 | 2610 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1454090 | 1.32 | Target=12.09 | 132 | 28.7 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 116104 | | 12.52(6.04-18.13) | | 62.4 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1426843 | 1.15 | Target=3.03 | 122 | 100 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 475009 | | 3.00(1.52-4.55) | | 102 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.867 | 2.867 | 0.0 | 0.821 | 25618 | 0.8202 | | 65.6 | 54.7 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | M |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.004 | 128339 | 1.38 | | 138 | 17.1 | M |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 2371097 | 2.09 | Target=3.55 | 230 | 194 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 650188 | | 3.65(1.77-5.32) | | 295 | M |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1221019 | 1.10 | | 92.9 | 4051 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1442397 | 1.16 | | 92.5 | 4276 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | |
| 363.00 > 319.00 | 3.132 | 3.143 | -0.011 | 1.000 | 1436755 | 1.21 | Target=3.69 | 121 | 60.3 | |
| 363.00 > 169.00 | 3.132 | 3.143 | -0.011 | 1.000 | 388809 | | 3.70(1.84-5.53) | | 472 | |
| 77 DONA | | | | | | | | | | |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.837 | 2472266 | 0.8940 | Target=2.56 | 94.9 | 1159 | |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.837 | 974105 | | 2.54(1.28-3.84) | | 422 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.474 | 3.474 | 0.0 | 0.916 | 944339 | 0.9587 | Target=4.88 | 101 | 178 | M |
| 449.00 > 99.00 | 3.474 | 3.474 | 0.0 | 0.916 | 190726 | | 4.95(2.44-7.32) | | 150 | M |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.003 | 241500 | 0.9747 | | 103 | 1710 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.474 | 3.483 | -0.009 | 0.995 | 232029 | 1.32 | | 112 | 70.7 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1527084 | 1.12 | | 89.6 | 4715 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1656727 | 1.25 | | | 3829 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 2586157 | 1.99 | Target=2.68 | 199 | 128 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1017066 | | 2.54(1.34-4.02) | | 1348 | |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.794 | 3.794 | 0.0 | 1.087 | 944209 | 1.18 | | 98.4 | 444 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.003 | 1970795 | 2.30 | Target=4.69 | 248 | 485 | M |
| 499.00 > 99.00 | 3.794 | 3.804 | -0.010 | 1.000 | 405608 | | 4.86(2.35-7.04) | | 434 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.814 | 3.814 | 0.0 | 1.092 | 1579077 | 1.16 | | 93.0 | 4868 | |
| 20 Perfluorononanoic acid | | | | | | | | | | |
| 463.00 > 419.00 | 3.824 | 3.814 | 0.010 | 1.003 | 1373721 | 1.11 | Target=7.29 | 111 | 151 | |
| 463.00 > 169.00 | 3.814 | 3.814 | 0.0 | 1.000 | 187459 | | 7.33(3.64-10.93) | | 812 | |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.045 | 1156360 | 0.8953 | | 96.1 | 2628 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.081 | 4.081 | 0.0 | 1.076 | 627209 | 0.9392 | Target=2.35 | 97.8 | 596 | |
| 549.00 > 99.00 | 4.081 | 4.081 | 0.0 | 1.076 | 254561 | | 2.46(1.17-3.52) | | 473 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1484968 | 1.08 | | 86.7 | 3510 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1313332 | 1.10 | Target=8.95 | 110 | 275 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 152749 | | 8.60(4.47-13.42) | | 666 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 295222 | 1.49 | | 124 | 200 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 190075 | 0.9216 | | 96.2 | 3013 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1453538 | 1.10 | | 87.9 | 4565 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 1163971 | 1.05 | | 105 | 2026 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 168647 | 1.25 | | 100 | 580 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | |
| 570.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.000 | 117154 | 1.11 | | 111 | 513 | |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.146 | 480052 | 0.9245 | Target=2.47 | 95.9 | 838 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.146 | 180486 | | 2.66(1.23-3.70) | | 976 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.369 | 4.369 | 0.001 | 1.251 | 1210418 | 1.13 | | 90.6 | 4698 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.369 | 4.369 | 0.001 | 1.000 | 1006231 | 0.9748 | Target=9.24 | 97.5 | 390 | |
| 563.00 > 169.00 | 4.369 | 4.369 | 0.001 | 1.000 | 118759 | | 8.47(4.62-13.86) | | 1011 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.380 | 4.380 | 0.0 | 1.254 | 167154 | 1.32 | | 106 | 896 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.003 | 115665 | 1.01 | | 101 | 903 | |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.177 | 1349679 | 0.8848 | | 93.9 | 4374 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.318 | 1215707 | 1.06 | | 84.6 | 1709 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 996842 | 1.05 | Target=7.04 | 105 | 197 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 156545 | | 6.37(3.52-10.56) | | 1776 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | |
| 627.00 > 607.00 | 4.611 | 4.612 | -0.001 | 1.118 | 85191 | 0.8941 | | 92.7 | 1743 | |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.756 | 0.009 | 1.256 | 191795 | 1.00 | Target=0.49 | 104 | 2035 | |
| 699.00 > 99.00 | 4.765 | 4.756 | 0.009 | 1.256 | 339877 | | 0.56(0.25-0.74) | | 1889 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.792 | 4.792 | 0.0 | 1.042 | 858911 | 1.05 | Target=4.68 | 105 | 232 | |
| 663.00 > 169.00 | 4.792 | 4.792 | 0.0 | 1.042 | 194955 | | 4.41(2.34-7.02) | | 1381 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.975 | 4.966 | 0.009 | 1.425 | 936085 | 1.05 | | 84.0 | 1980 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.975 | 4.966 | 0.009 | 1.000 | 125555 | 1.06 | Target=1.01 | 106 | 1460 | |
| 713.00 > 219.00 | 4.965 | 4.966 | -0.001 | 0.998 | 131316 | | 0.96(0.51-1.52) | | 2110 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.282 | 5.270 | 0.012 | 1.513 | 799085 | 1.02 | | 81.4 | 2855 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.282 | 5.270 | 0.012 | 1.000 | 593574 | 1.07 | Target=4.57 | 107 | 196 | |
| 813.00 > 169.00 | 5.282 | 5.270 | 0.012 | 1.000 | 138466 | | 4.29(2.29-6.86) | | 1579 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.546 | 5.527 | 0.019 | 1.050 | 475239 | 0.8815 | Target=4.27 | 88.2 | 237 | |
| 913.00 > 169.00 | 5.546 | 5.527 | 0.019 | 1.050 | 113927 | | 4.17(2.14-6.41) | | 1451 | |

## QC Flag Legend

Processing Flags

Review Flags

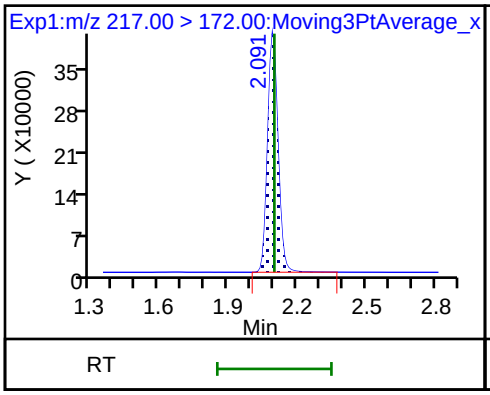
M - Manually Integrated

Report Date: 11-Nov-2021 11:26:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

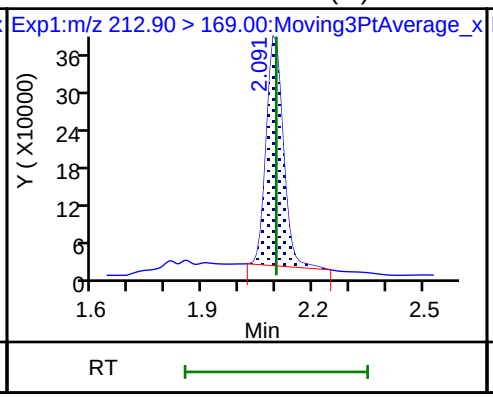
Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d
Injection Date: 10-Nov-2021 05:58:41 Instrument ID: LC812
Lims ID: 460-246277-D-8-B MSD
Client ID: MW-24S-20211027
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL

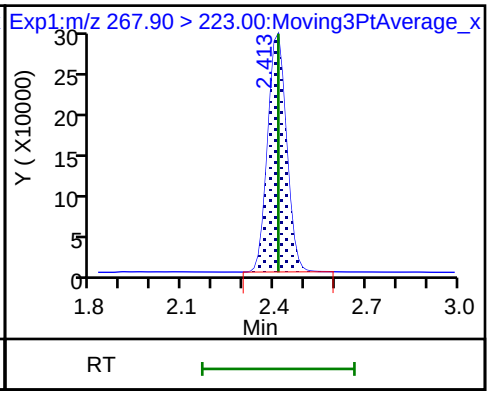
D 1 13C4 PFBA



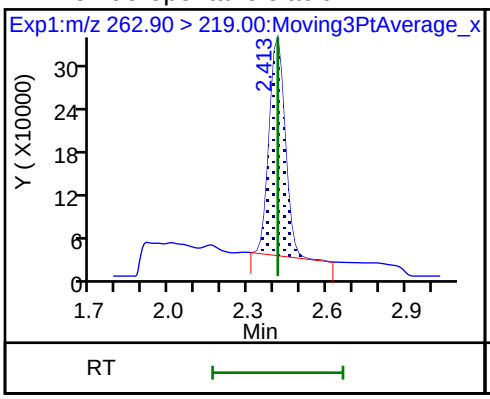

2 Perfluorobutanoic acid (M)



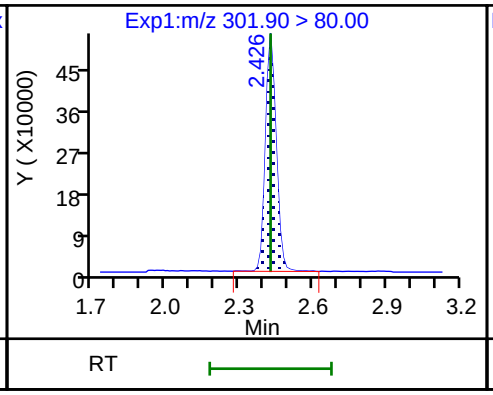

D 3 13C5 PFPeA



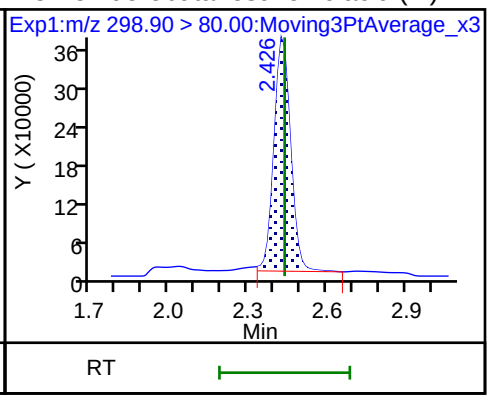

4 Perfluoropentanoic acid



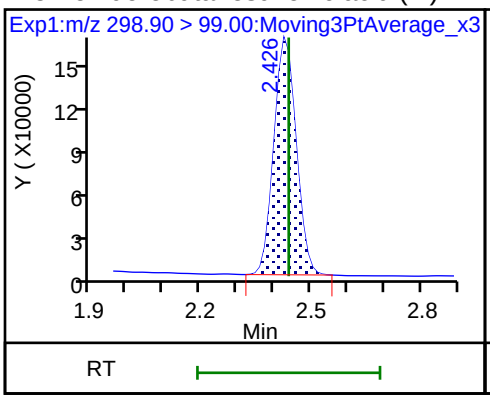

D 47 13C3 PFBS



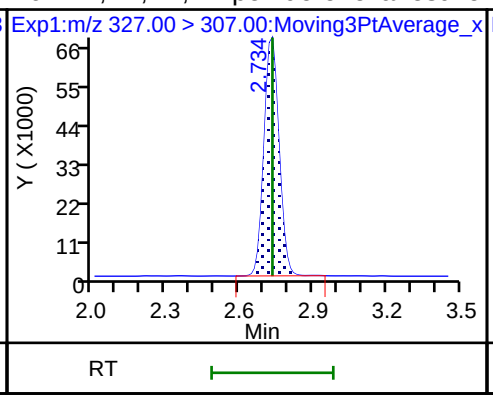

5 Perfluorobutanesulfonic acid (M)



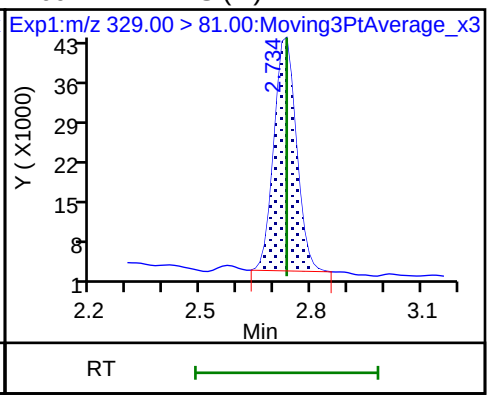

5 Perfluorobutanesulfonic acid (M)



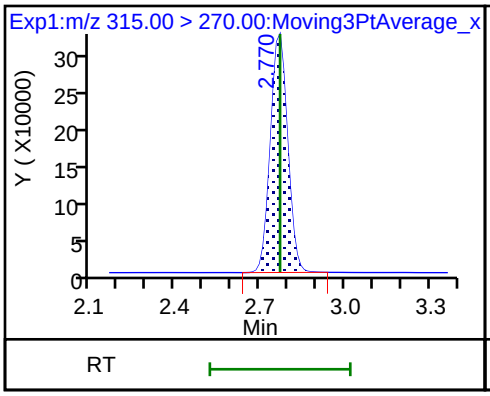

61 1H,1H,2H,2H-perfluorohexanesulfo



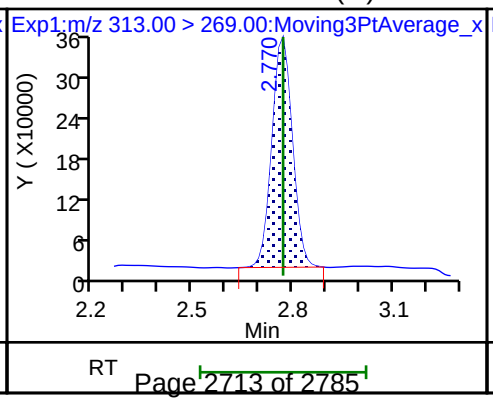

D 60 M2-4:2 FTS (M)



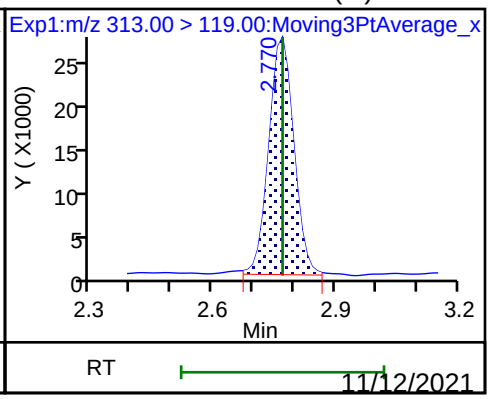

D 7 13C2 PFHxA



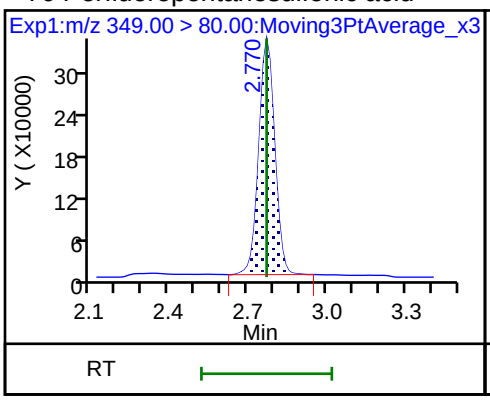

6 Perfluorohexanoic acid (M)



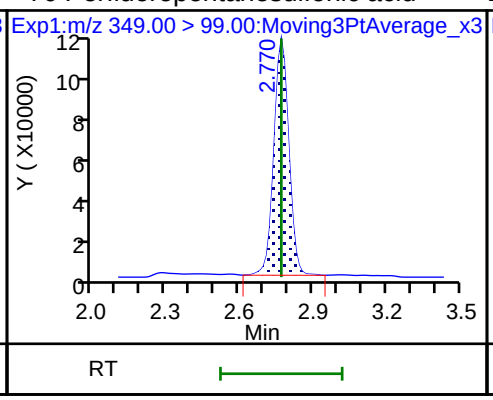

6 Perfluorohexanoic acid (M)



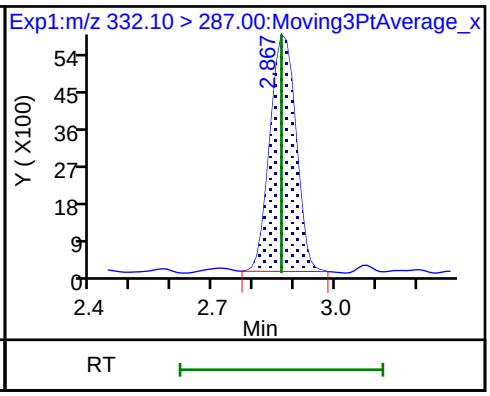
70 Perfluoropentanesulfonic acid



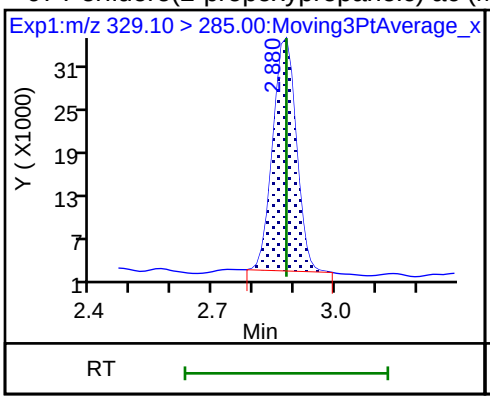

70 Perfluoropentanesulfonic acid



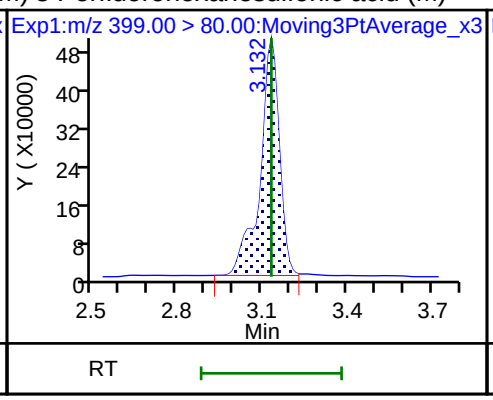

D 64 13C3 HFPO-DA



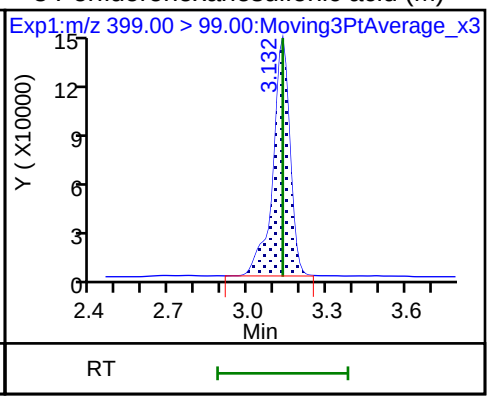

67 Perfluoro(2-propoxypropanoic) ac (M)



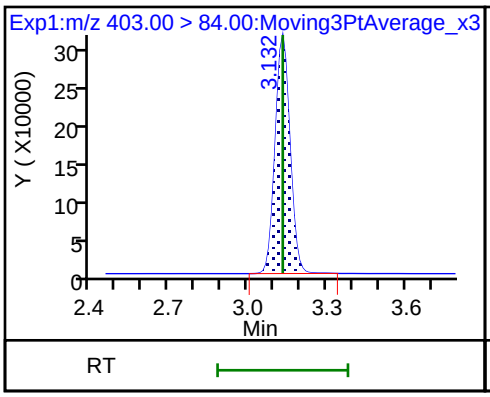

8 Perfluorohexanesulfonic acid (M)



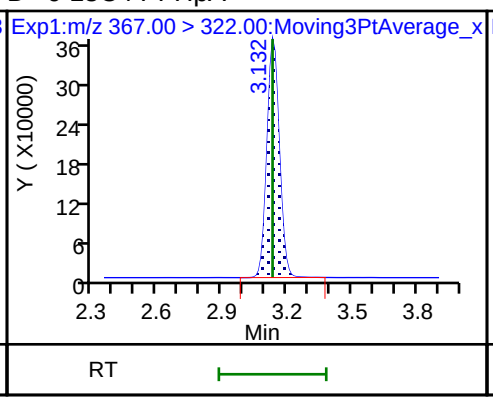

8 Perfluorohexanesulfonic acid (M)



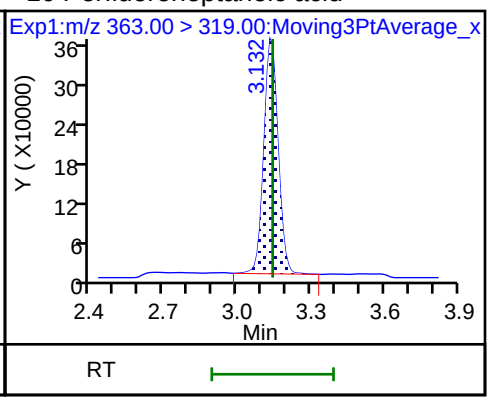

D 11 18O2 PFHxS



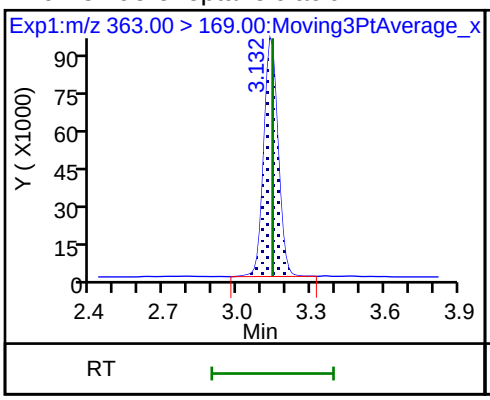

D 9 13C4 PFHpA



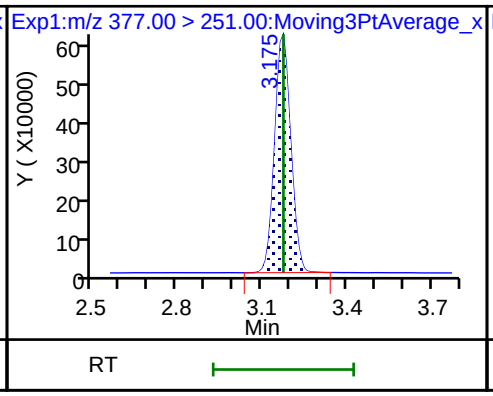

10 Perfluoroheptanoic acid



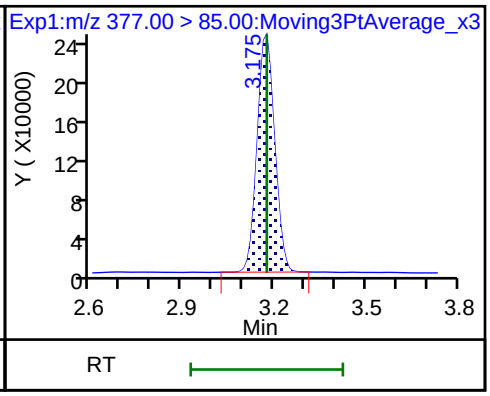

10 Perfluoroheptanoic acid



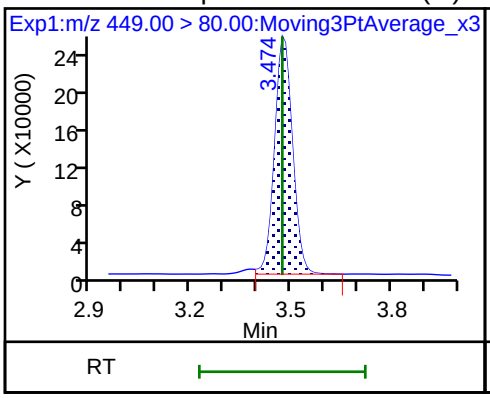

77 DONA



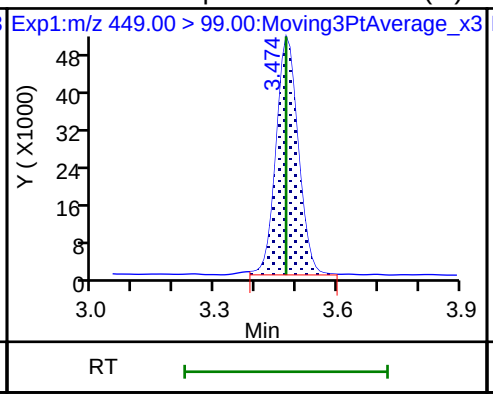

77 DONA



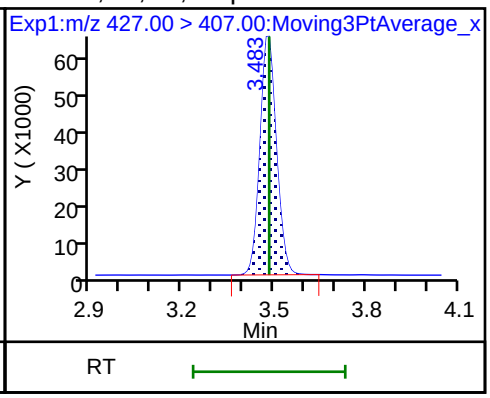
16 Perfluoroheptanesulfonic acid (M)



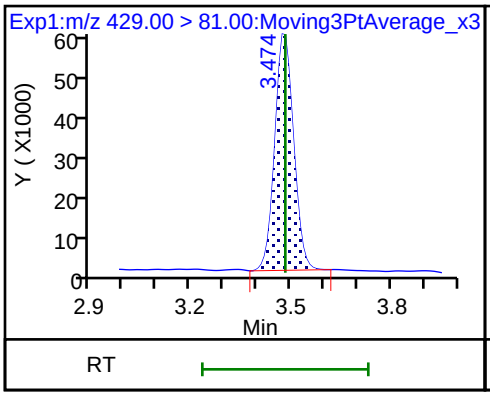

16 Perfluoroheptanesulfonic acid (M)



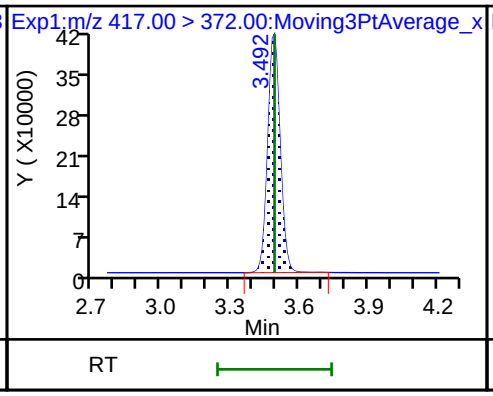

13 1H,1H,2H,2H-perfluorooctanesulfo



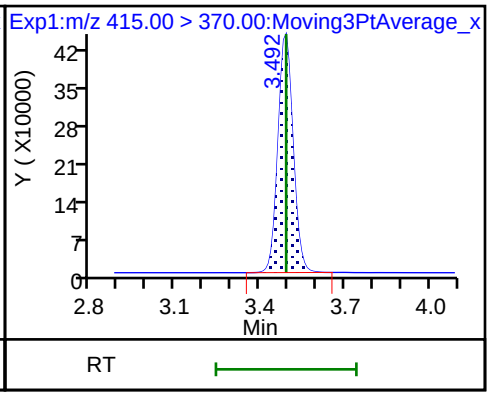

D 12 M2-6:2 FTS



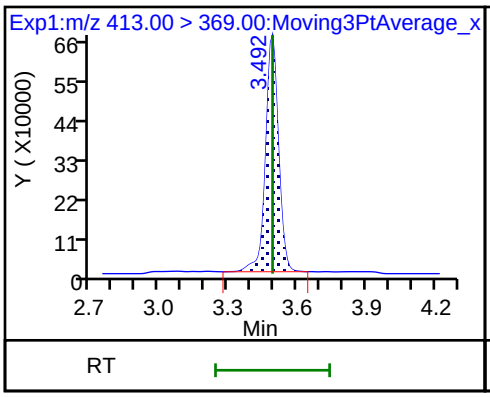

D 14 13C4 PFOA



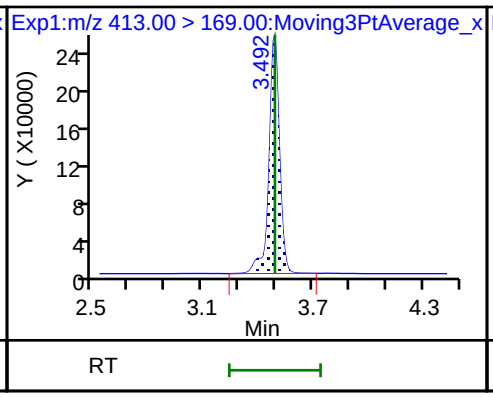

* 62 13C2 PFOA



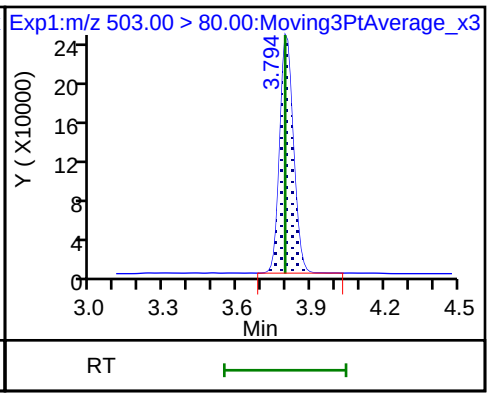

15 Perfluorooctanoic acid



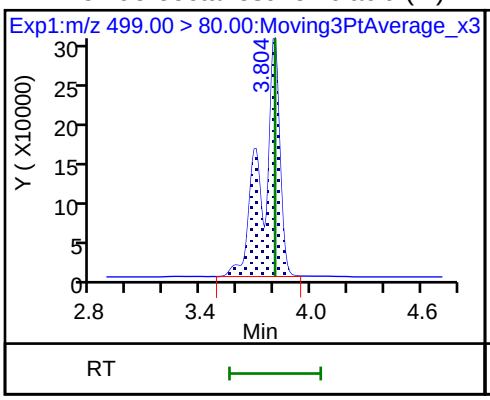

15 Perfluorooctanoic acid



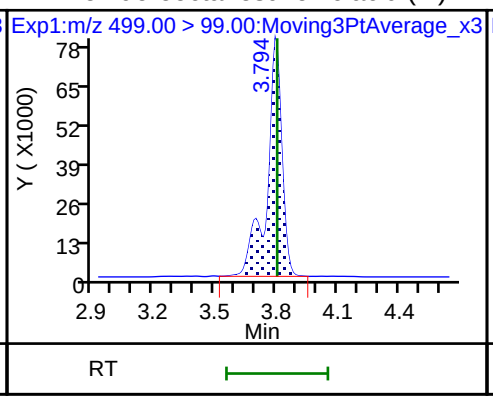

D 18 13C4 PFOS



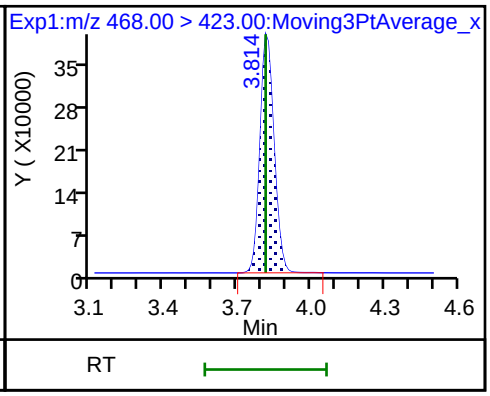

17 Perfluorooctanesulfonic acid (M)



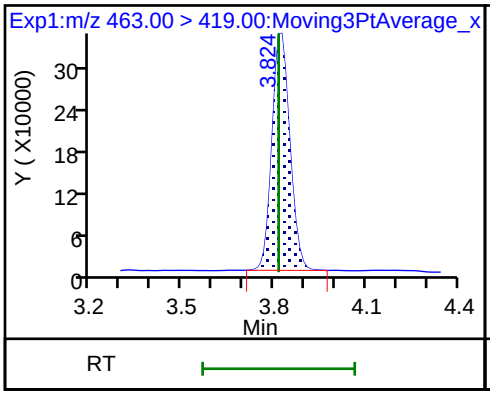

17 Perfluorooctanesulfonic acid (M)



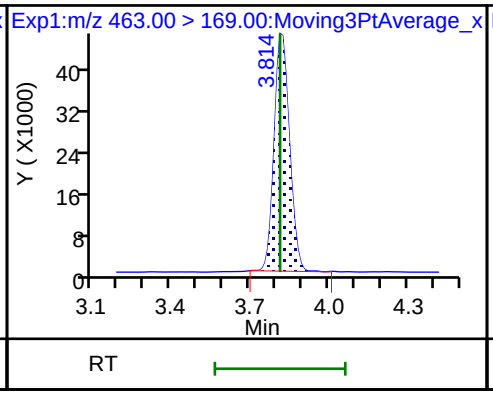

D 19 13C5 PFNA



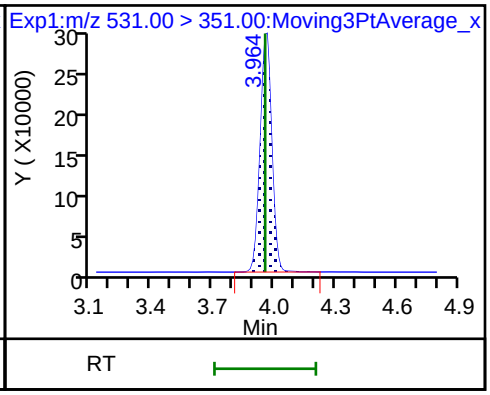
20 Perfluorononanoic acid



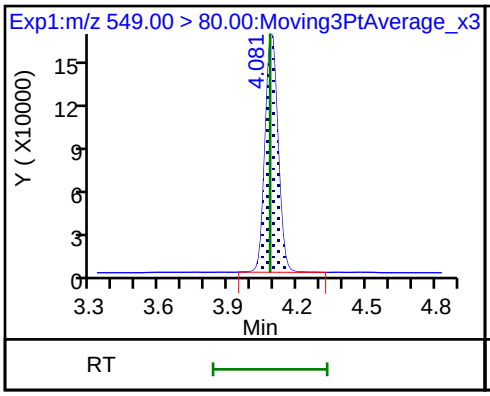

20 Perfluorononanoic acid



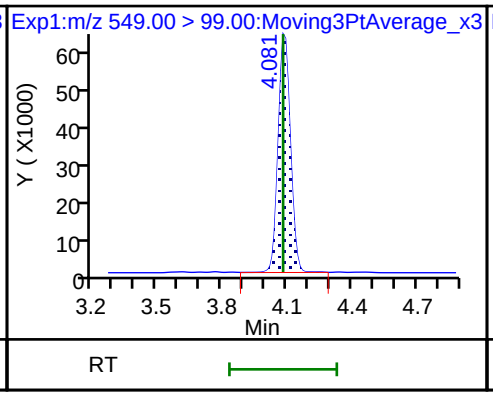

69 9-Chlorohexadecafluoro-3-oxanona



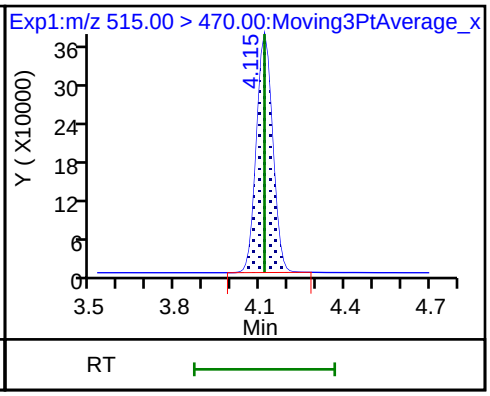

68 Perfluorononanesulfonic acid



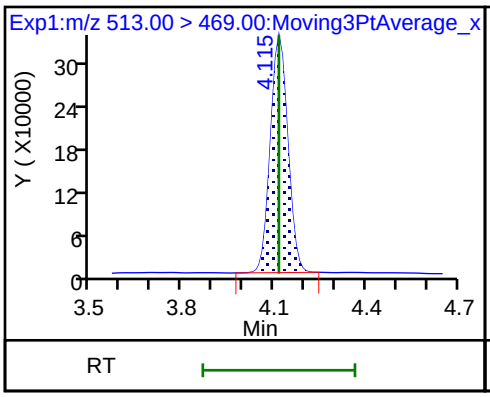

68 Perfluorononanesulfonic acid



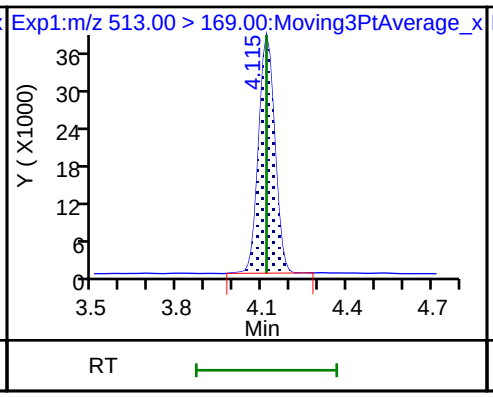

D 23 13C2 PFDA



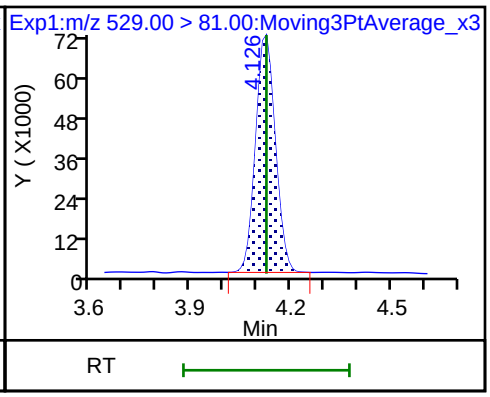

24 Perfluorodecanoic acid



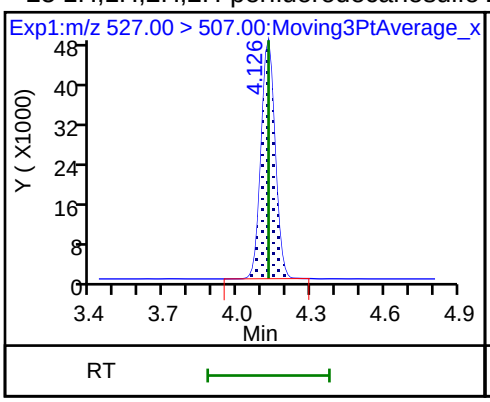

24 Perfluorodecanoic acid



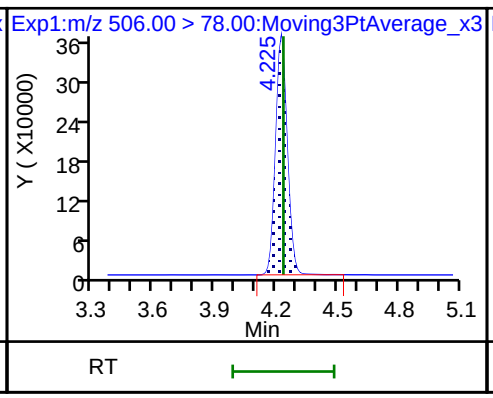

D 26 M2-8:2 FTS



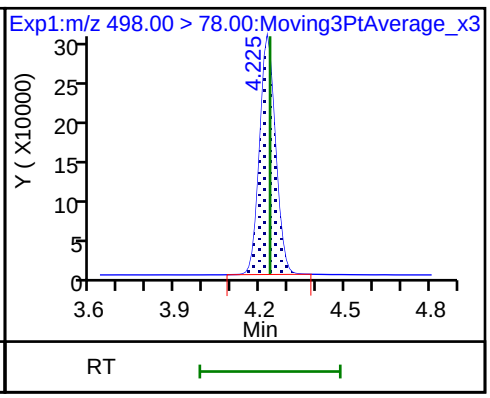

25 1H,1H,2H,2H-perfluorodecanesulfo



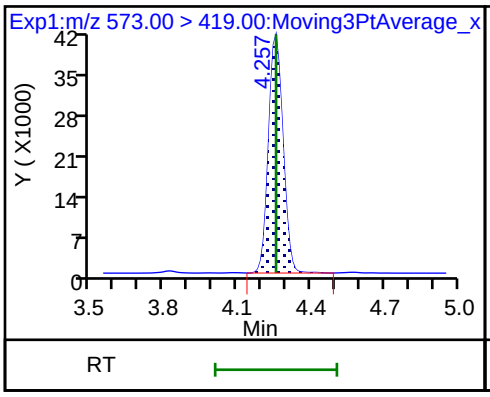

D 21 13C8 FOSA



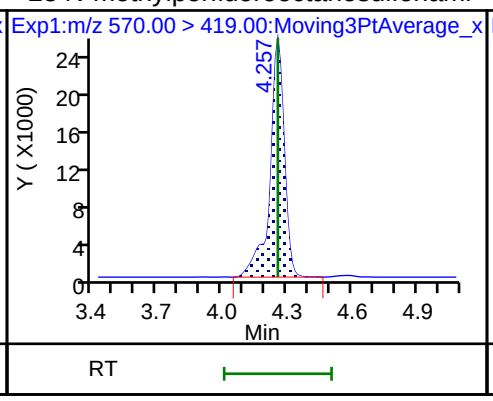

22 Perfluorooctanesulfonamide



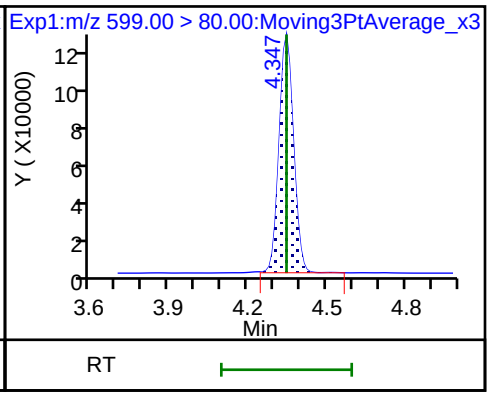
D 27 d3-NMeFOSAA



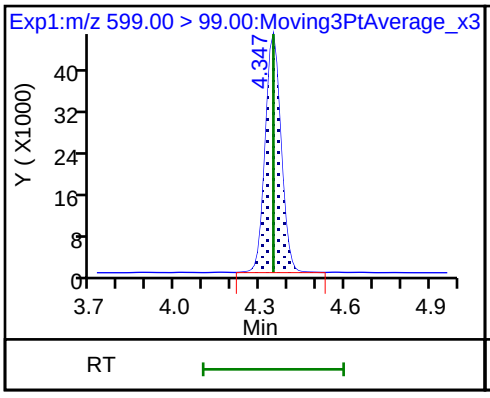

28 N-methylperfluorooctanesulfonami



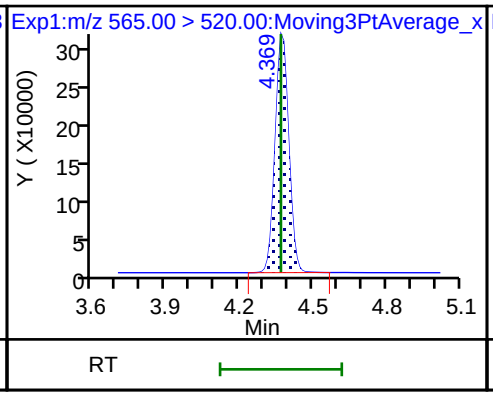

29 Perfluorodecanesulfonic acid



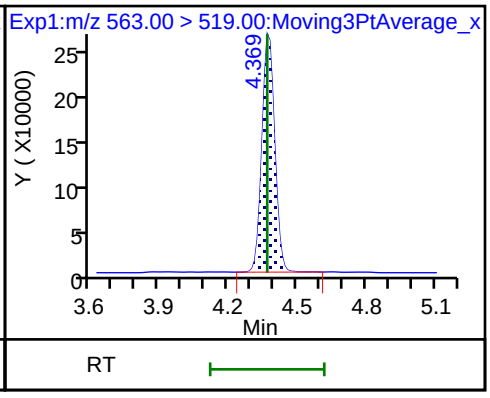

29 Perfluorodecanesulfonic acid



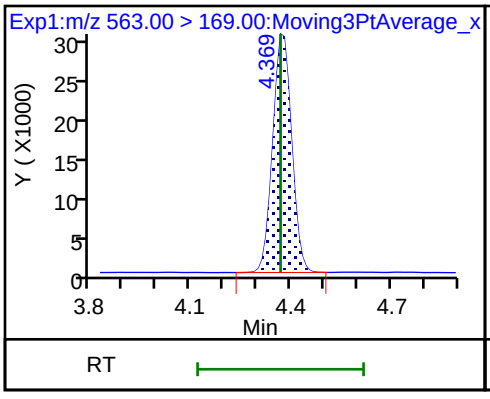

D 30 13C2 PFUnA



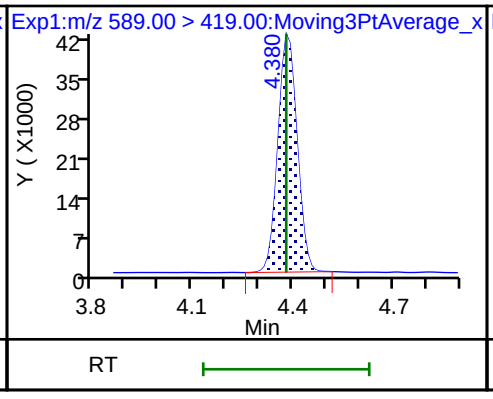

31 Perfluoroundecanoic acid



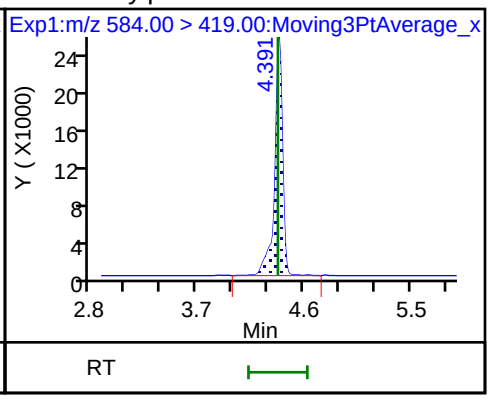

31 Perfluoroundecanoic acid



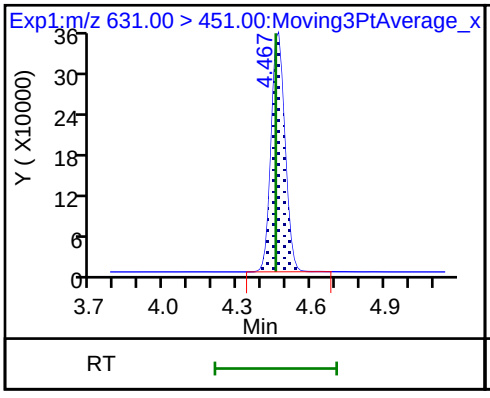

D 32 d5-NEtFOSAA



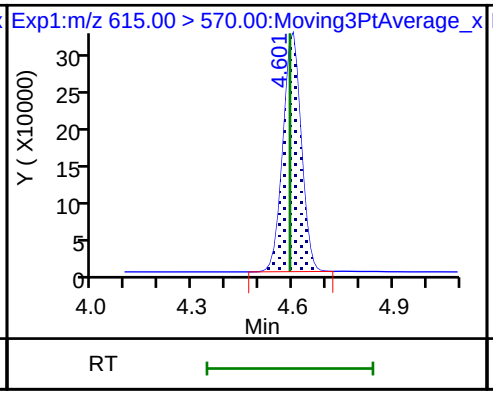

33 N-ethylperfluorooctanesulfonamid



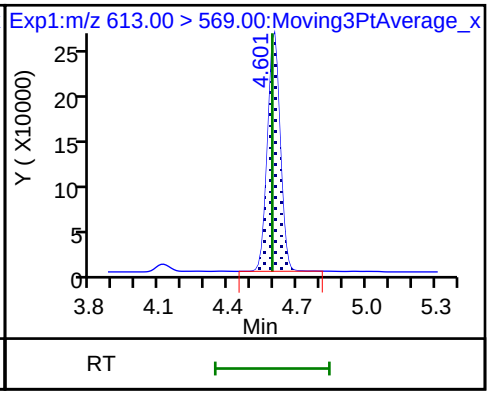

66 11-Chloroeicosafluoro-3-oxaundec



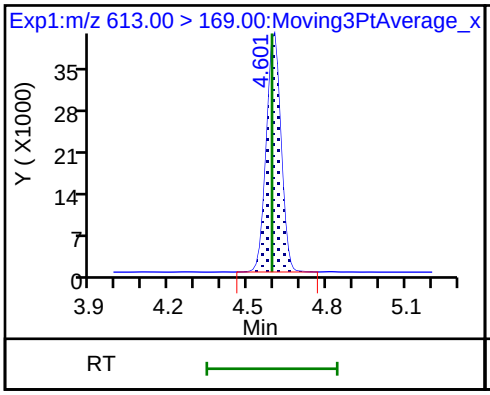

D 36 13C2 PFDoA



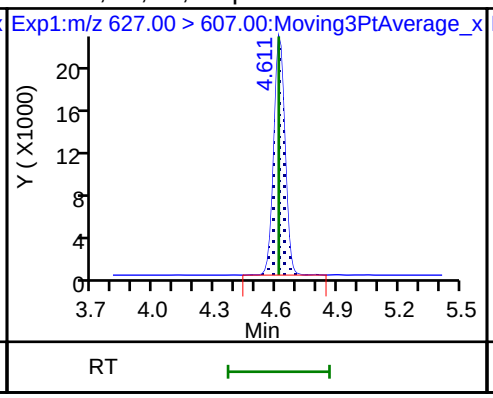

37 Perfluorododecanoic acid



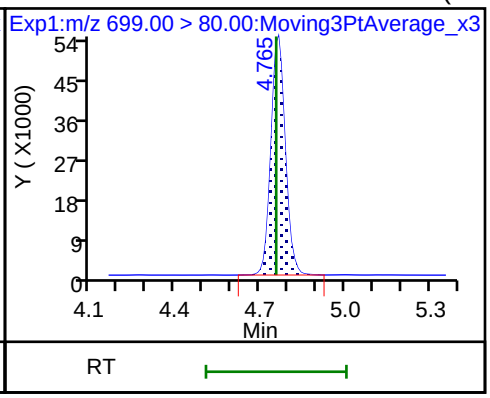
37 Perfluorododecanoic acid



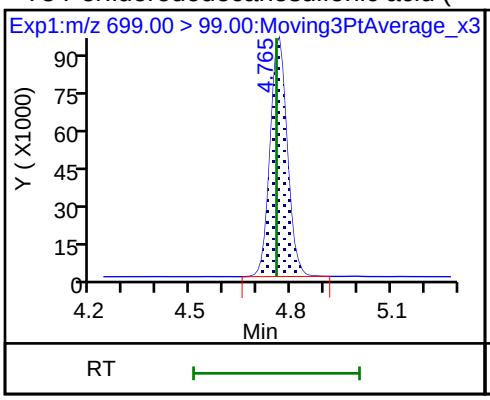

74 1H,1H,2H,2H-perfluorododecanesul



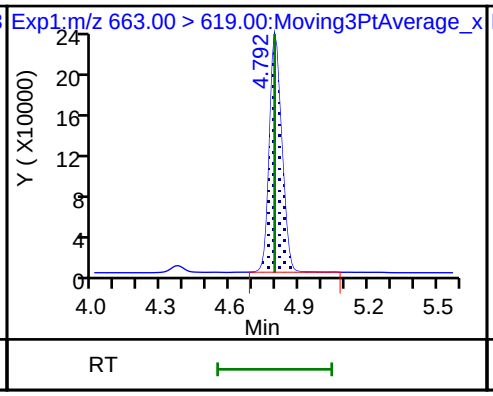

75 Perfluorododecanesulfonic acid (



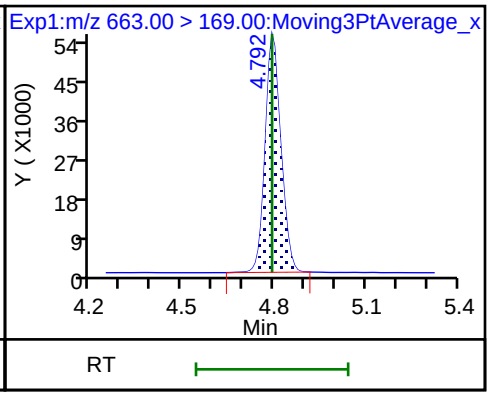

75 Perfluorododecanesulfonic acid (



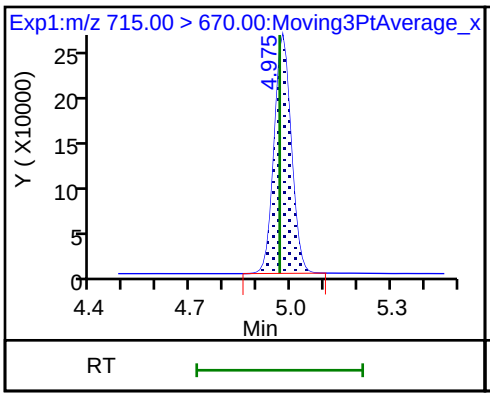

41 Perfluorotridecanoic acid



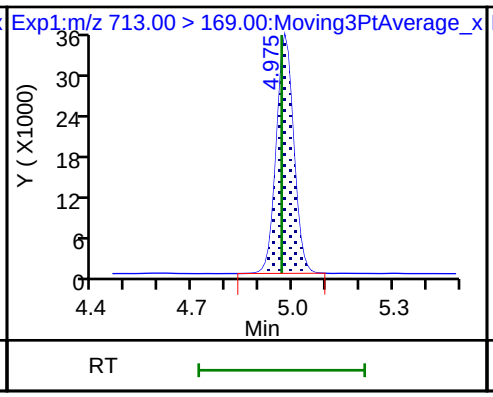

41 Perfluorotridecanoic acid



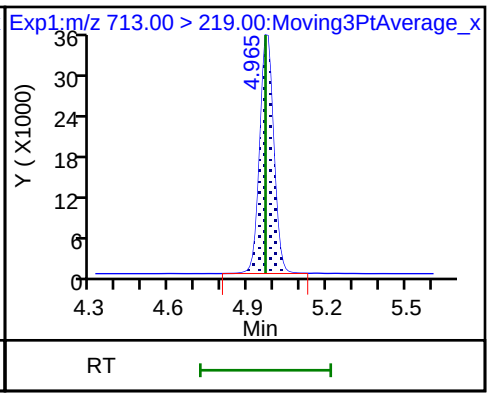

D 43 13C2 PFTeDA



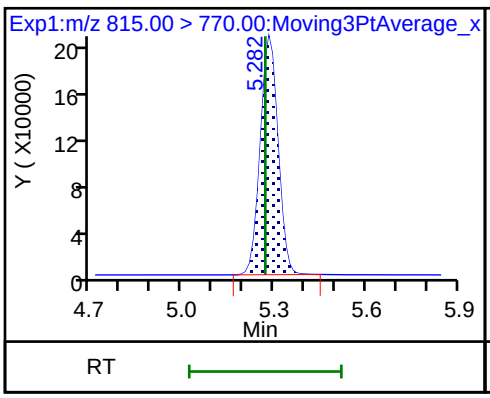

42 Perfluorotetradecanoic acid



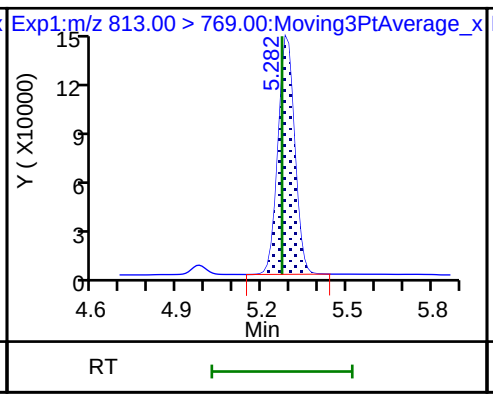

42 Perfluorotetradecanoic acid



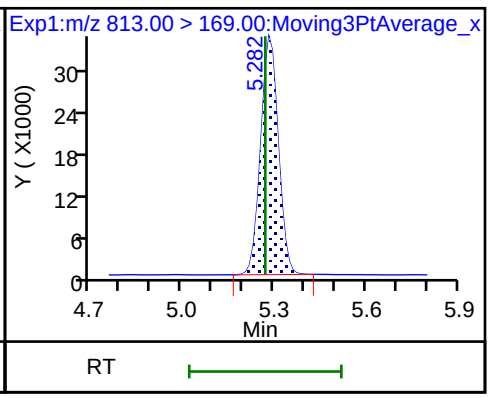

D 44 13C2 PFHxDA



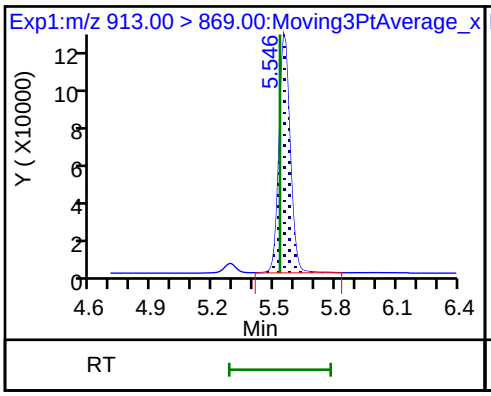

45 Perfluorohexadecanoic acid



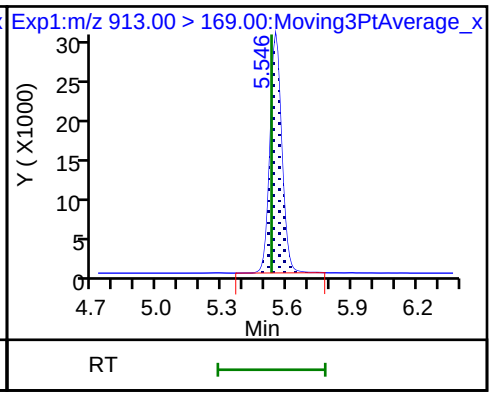

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

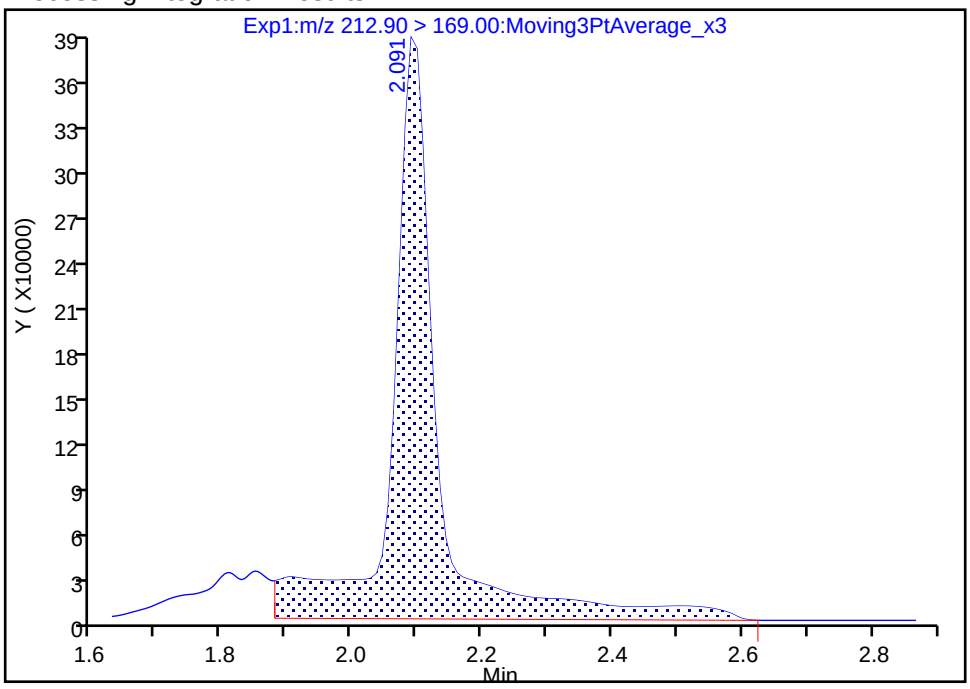
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

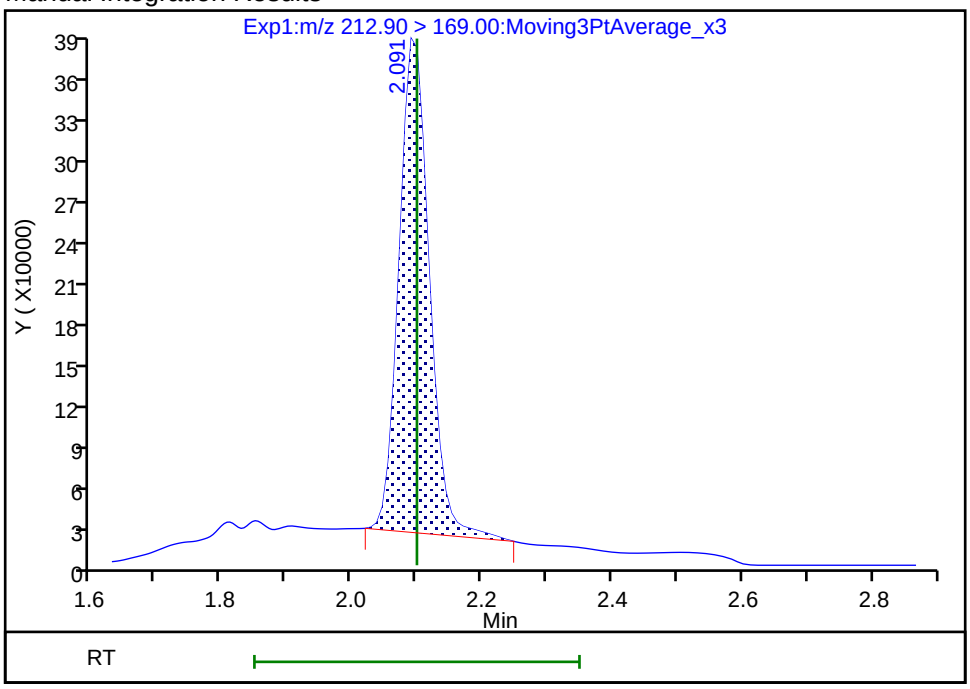
Processing Integration Results

RT: 2.09
Area: 1899418
Amount: 1.974807
Amount Units: ng/ml




Manual Integration Results

RT: 2.09
Area: 1172962
Amount: 1.219517
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:01:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

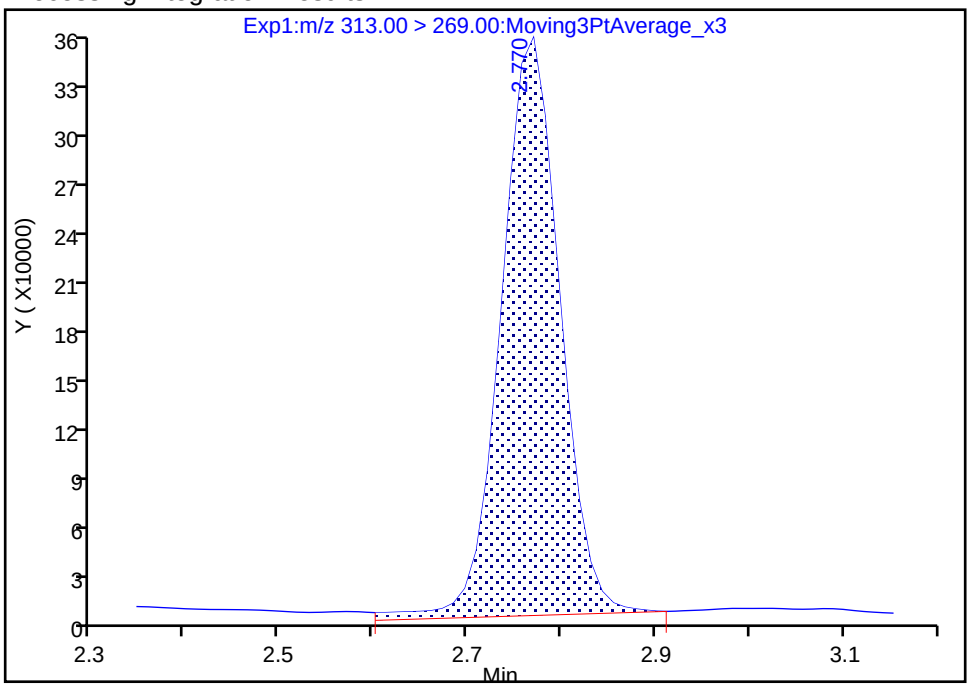
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

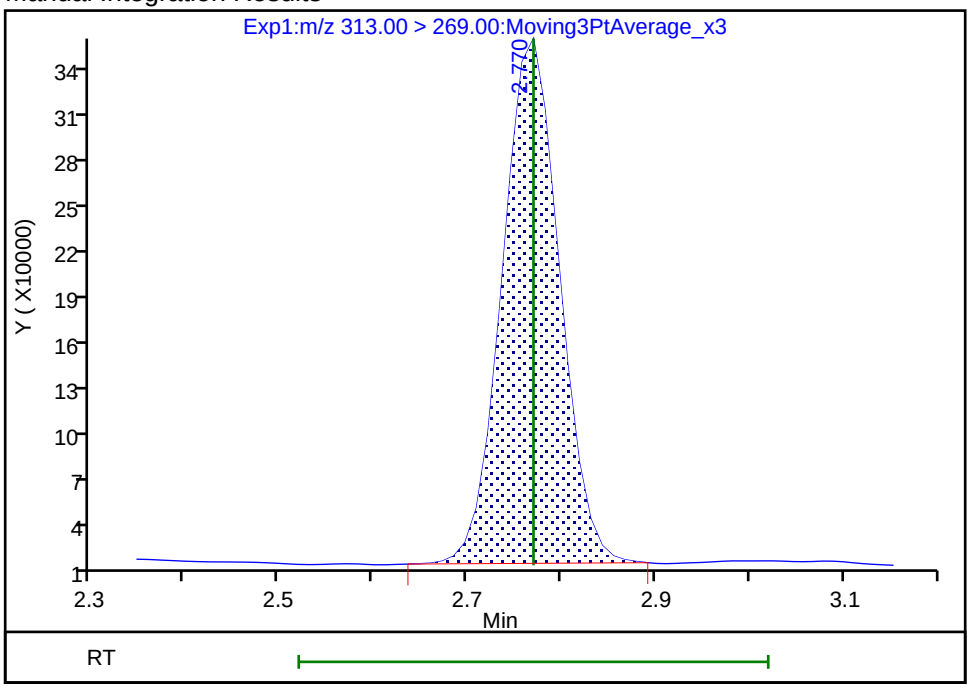
Processing Integration Results

RT: 2.77
Area: 1505646
Amount: 1.371526
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1454090
Amount: 1.324563
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:00:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

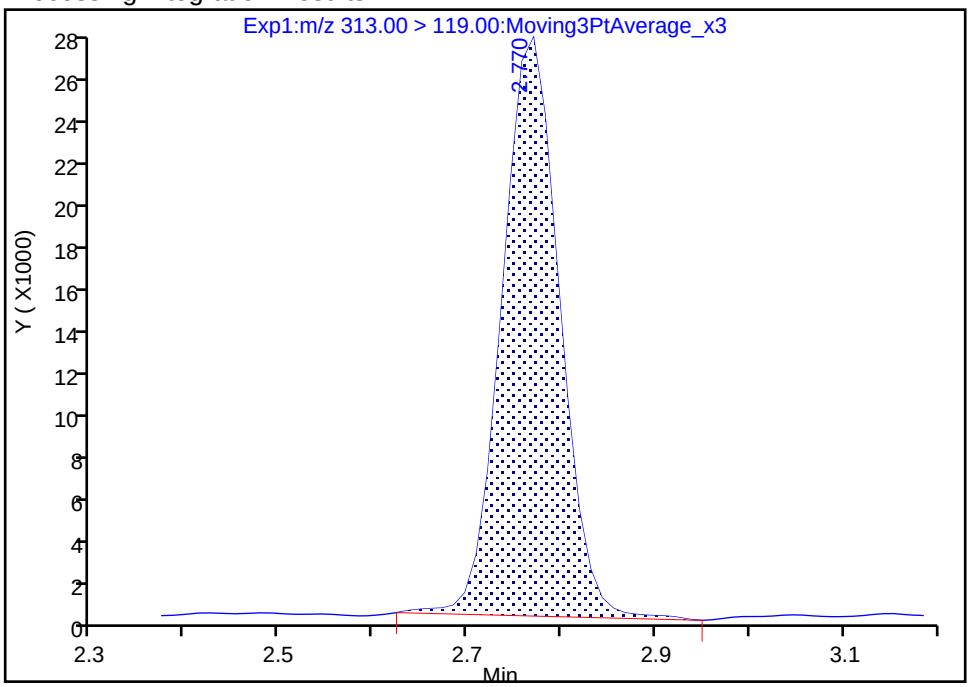
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

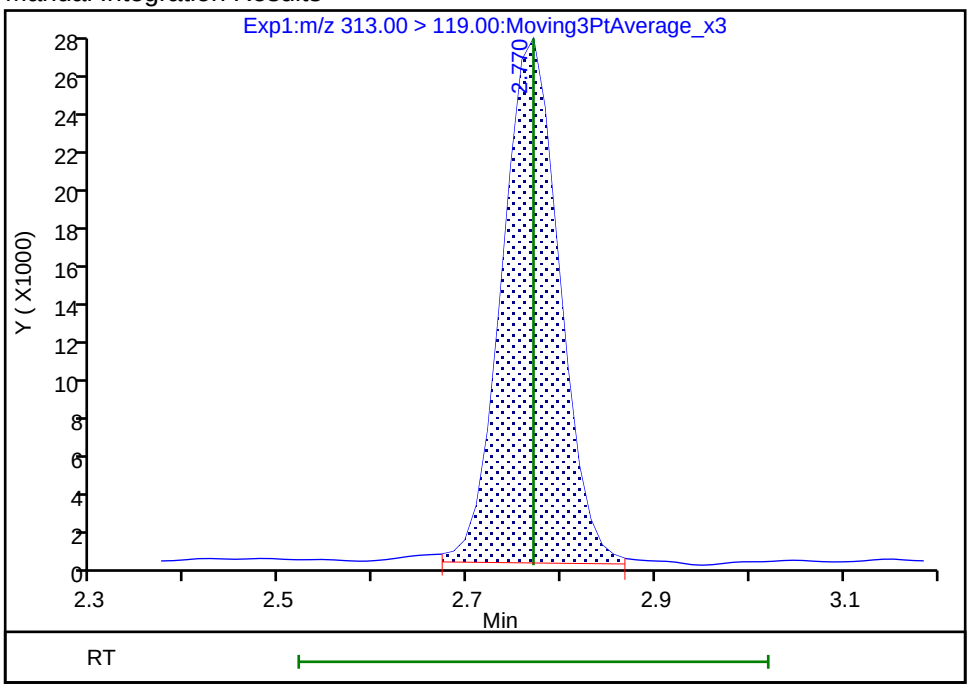
Processing Integration Results

RT: 2.77
Area: 116255
Amount: 1.371526
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 116104
Amount: 1.324563
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:00:31

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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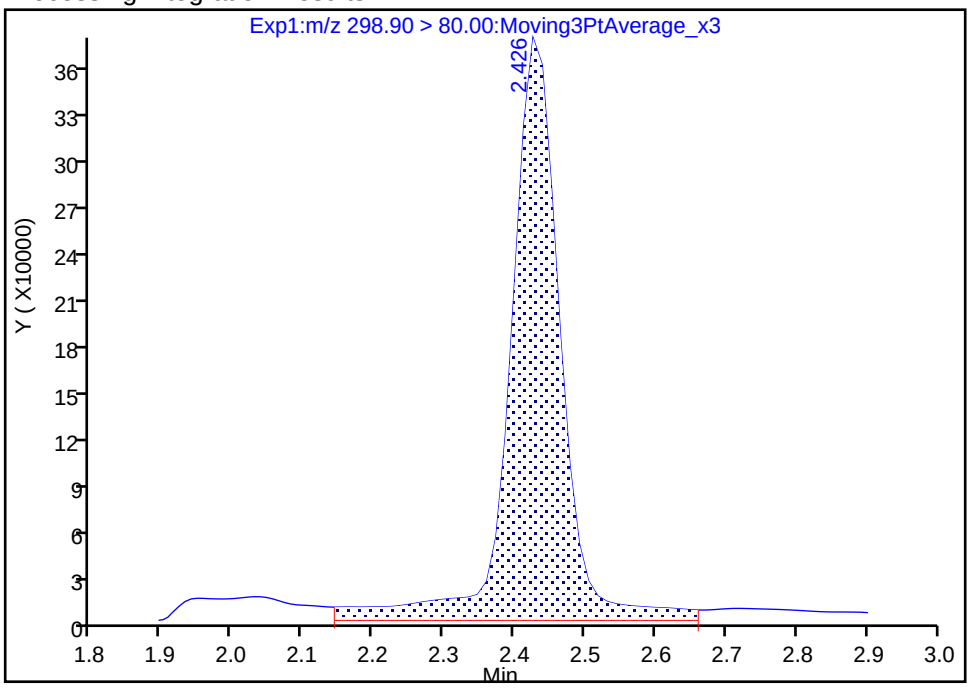
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

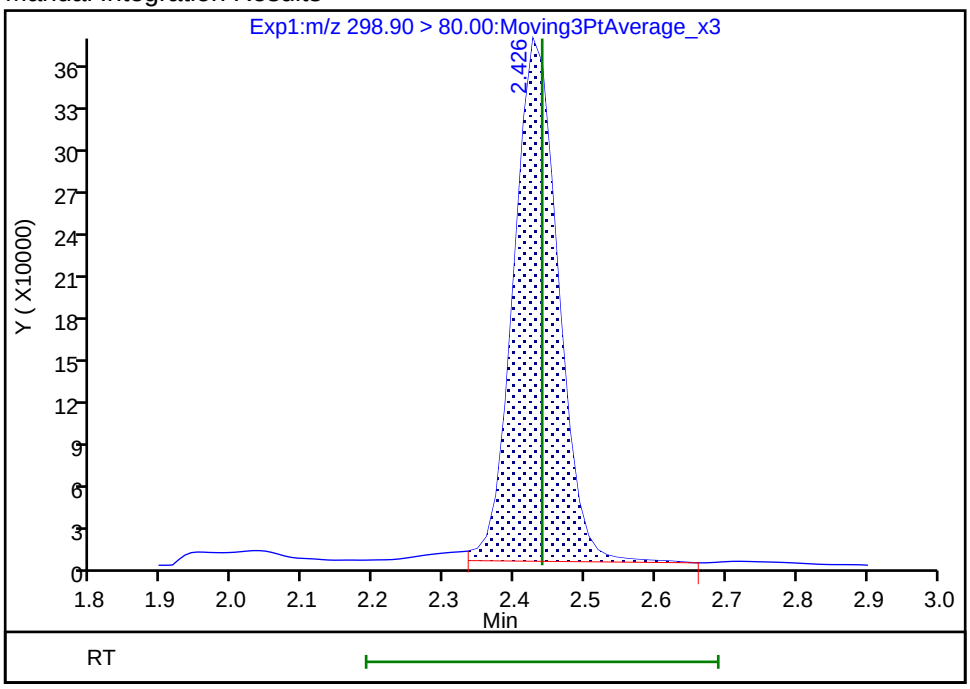
Processing Integration Results

RT: 2.43
Area: 1865986
Amount: 1.295370
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1600684
Amount: 1.111197
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:01:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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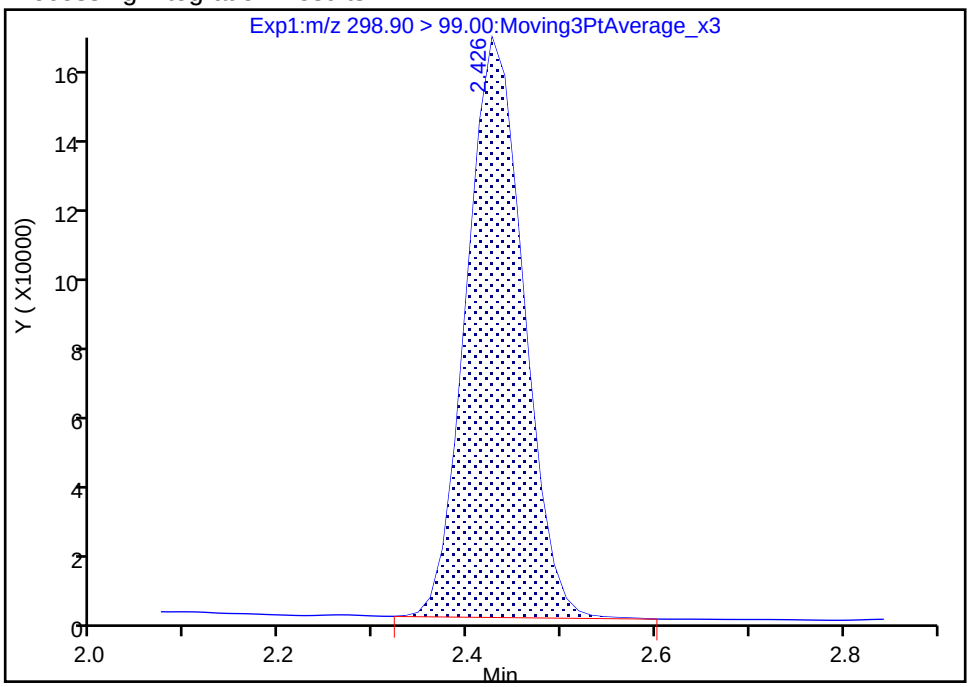
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

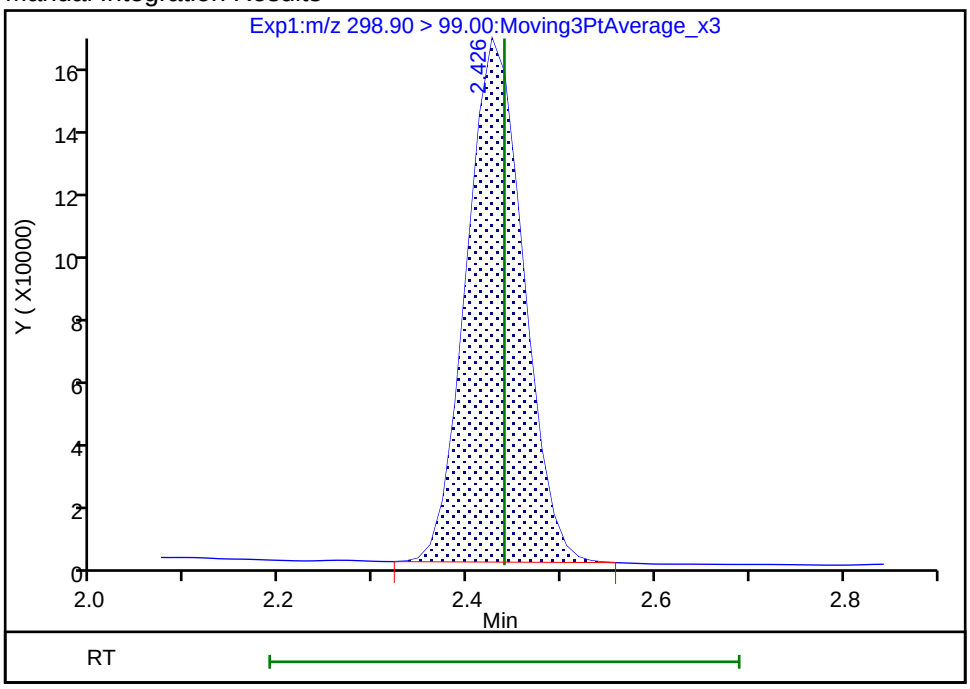
Processing Integration Results

RT: 2.43
Area: 705994
Amount: 1.295370
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 702722
Amount: 1.111197
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 16:01:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

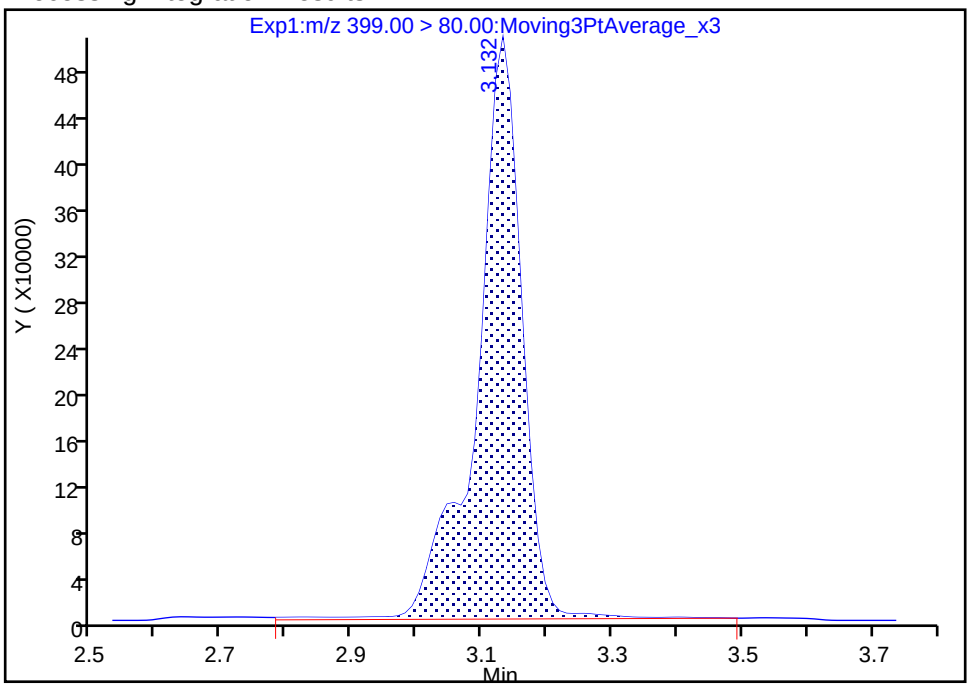
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

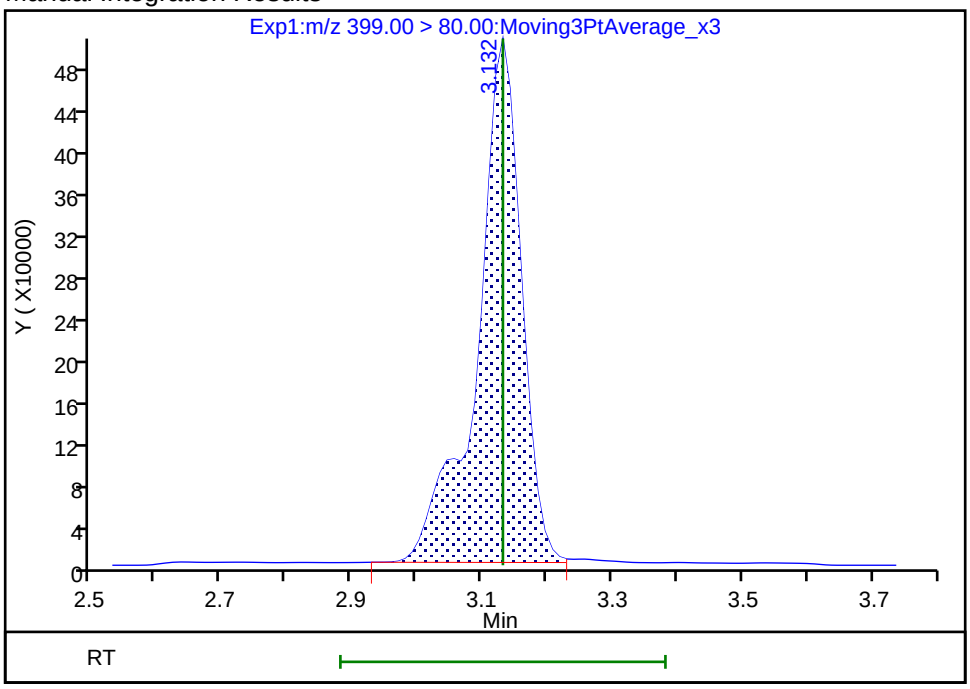
Processing Integration Results

RT: 3.13
Area: 2444859
Amount: 2.153591
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 2371097
Amount: 2.088617
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:59:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

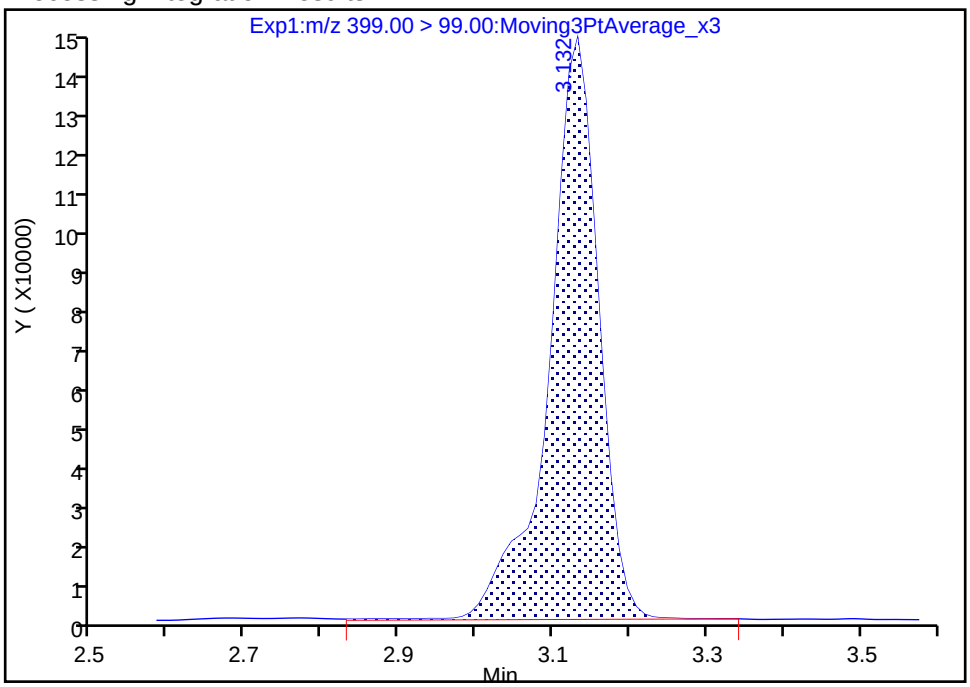
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

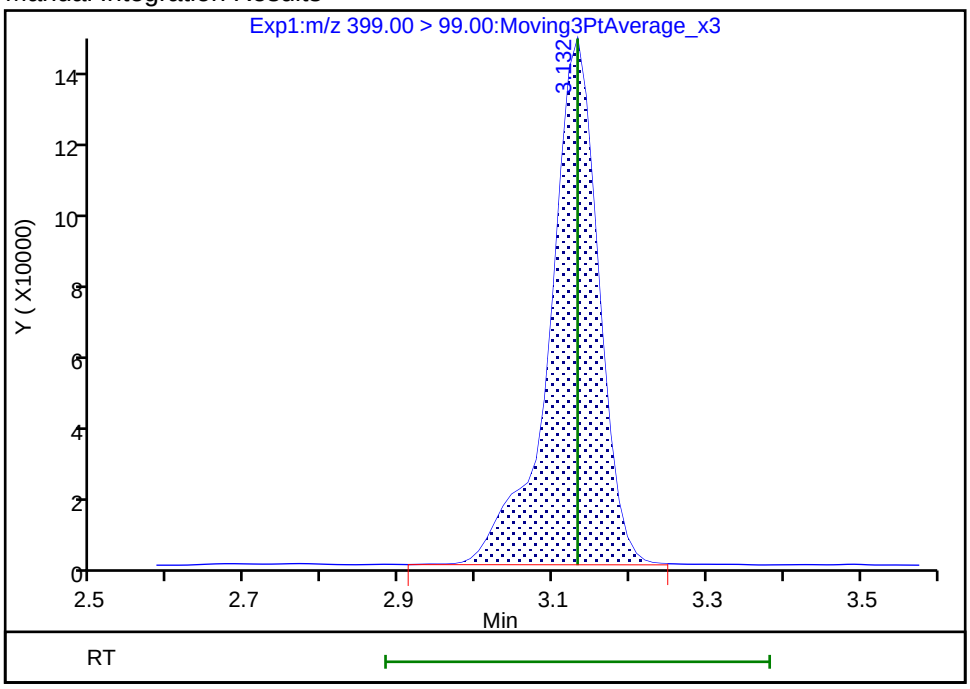
Processing Integration Results

RT: 3.13
Area: 654118
Amount: 2.153591
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 650188
Amount: 2.088617
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:59:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

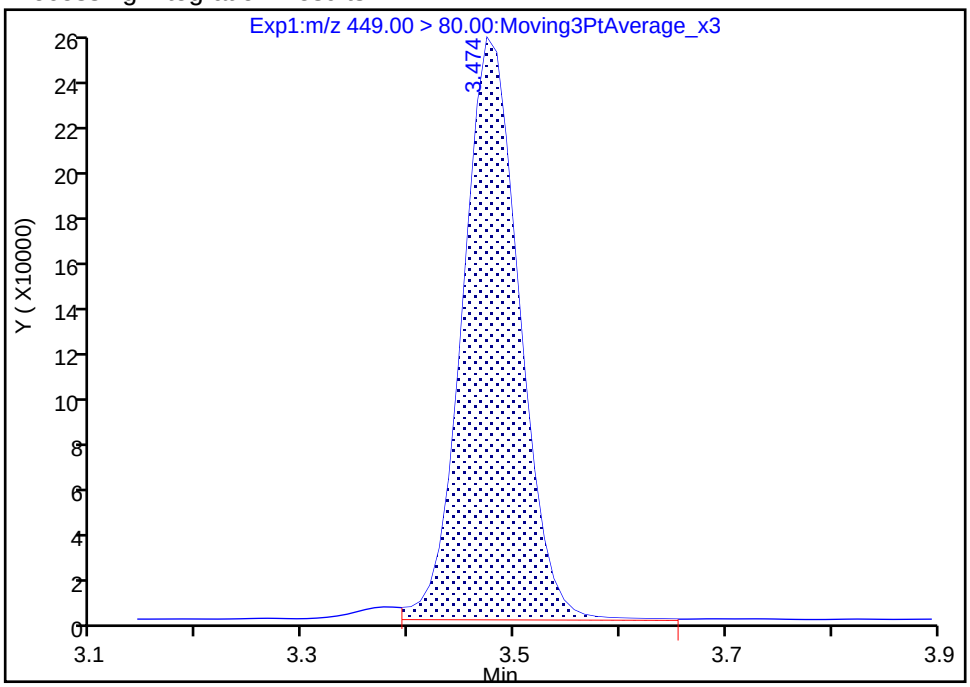
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

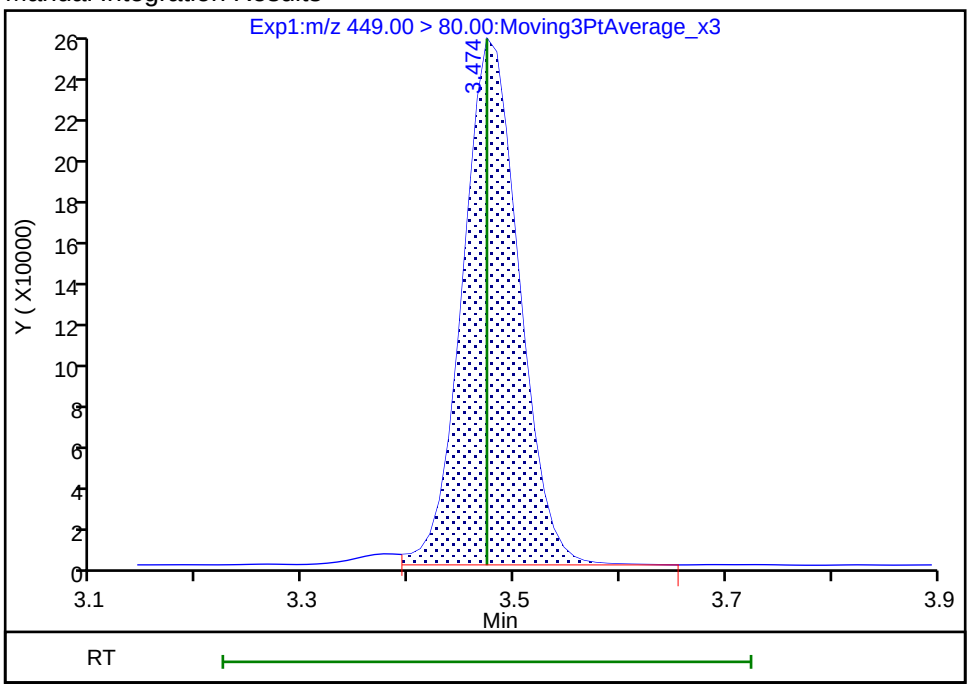
Processing Integration Results

RT: 3.47
Area: 950135
Amount: 0.964607
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 944339
Amount: 0.958723
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:58:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

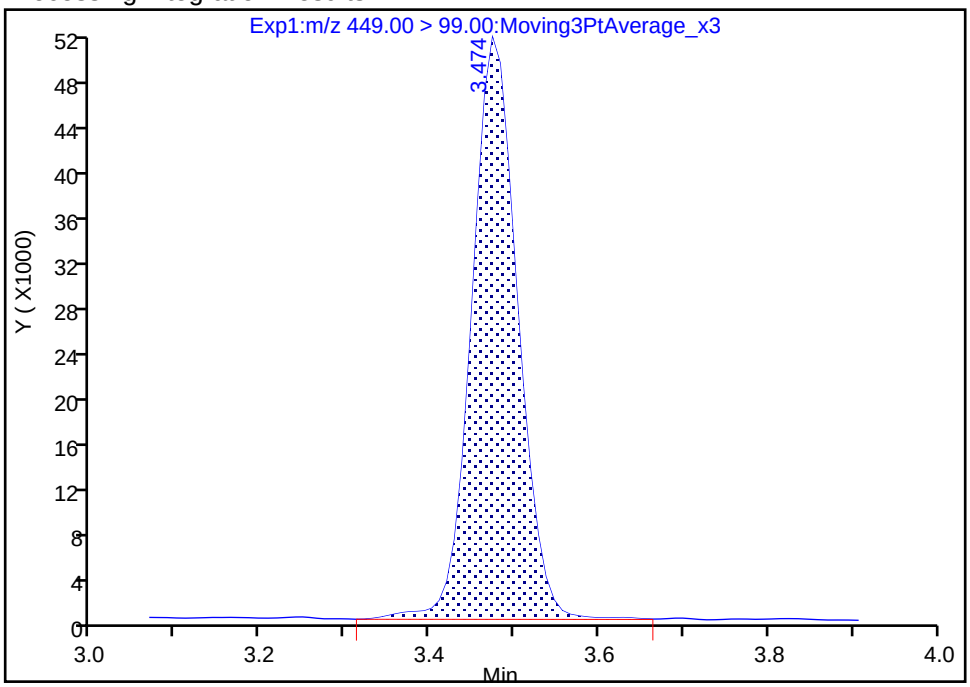
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

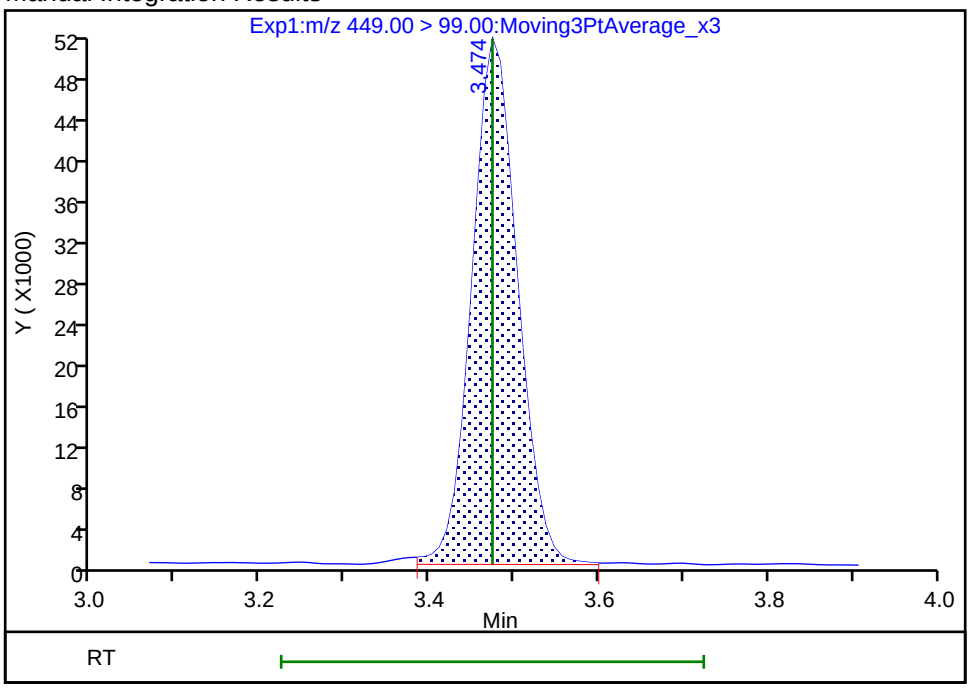
Processing Integration Results

RT: 3.47
Area: 192353
Amount: 0.964607
Amount Units: ng/ml




Manual Integration Results

RT: 3.47
Area: 190726
Amount: 0.958723
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:58:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

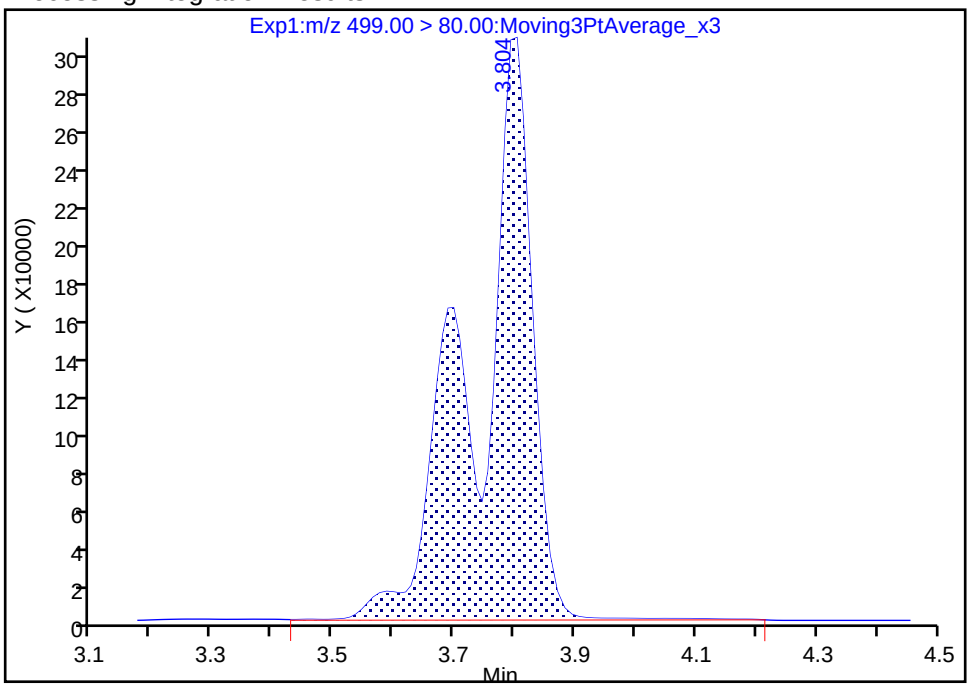
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

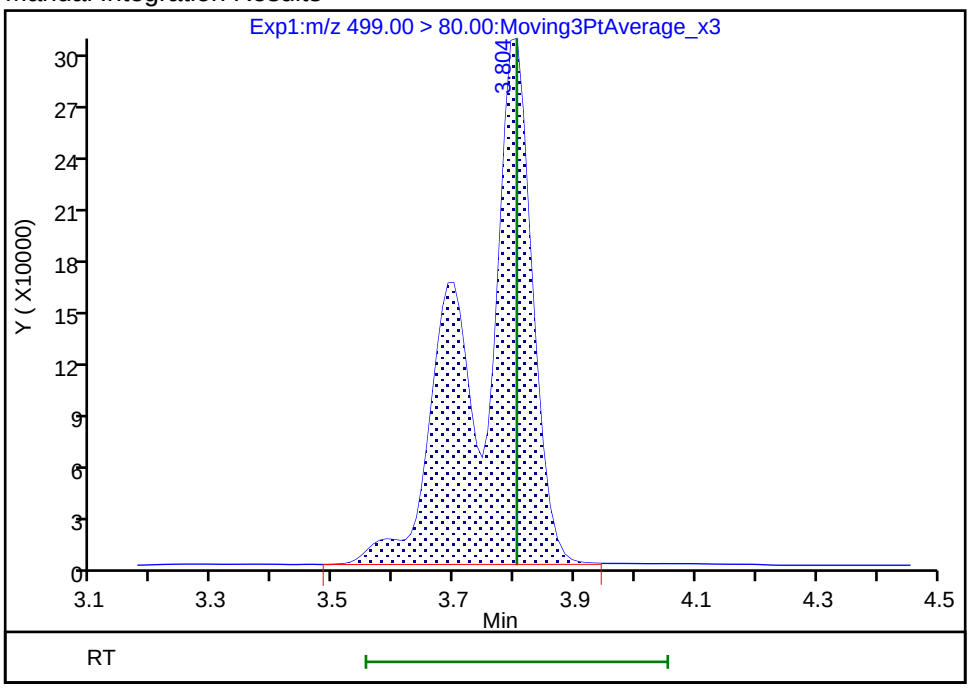
Processing Integration Results

RT: 3.80
Area: 1990578
Amount: 2.321812
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1970795
Amount: 2.298737
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:57:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

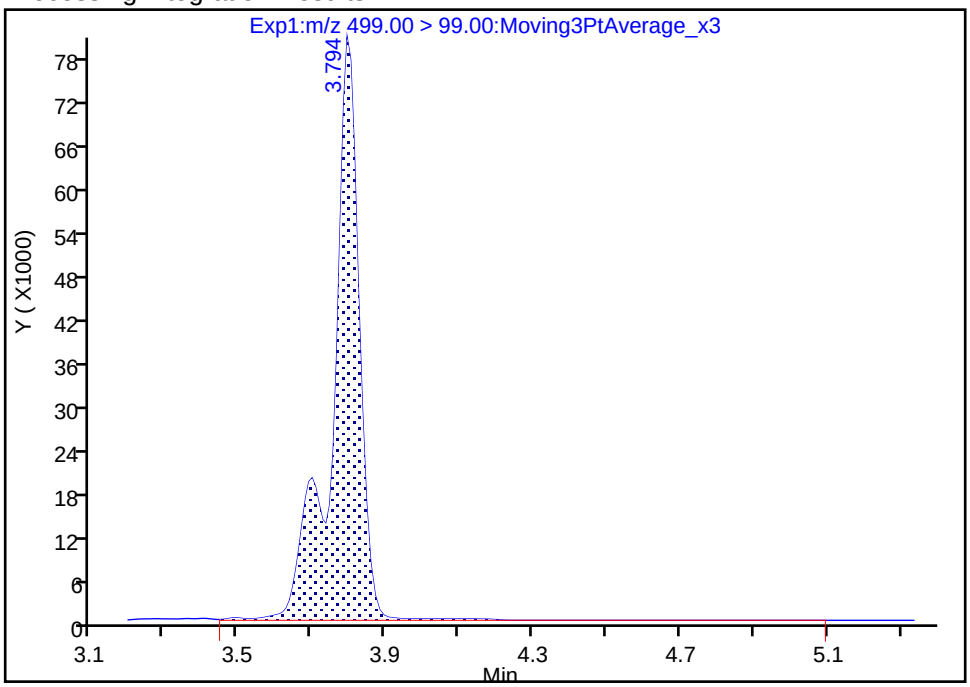
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D14.d | | | | |
| Injection Date: | 10-Nov-2021 05:58:41 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-D-8-B MSD | | | | |
| Client ID: | MW-24S-20211027 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

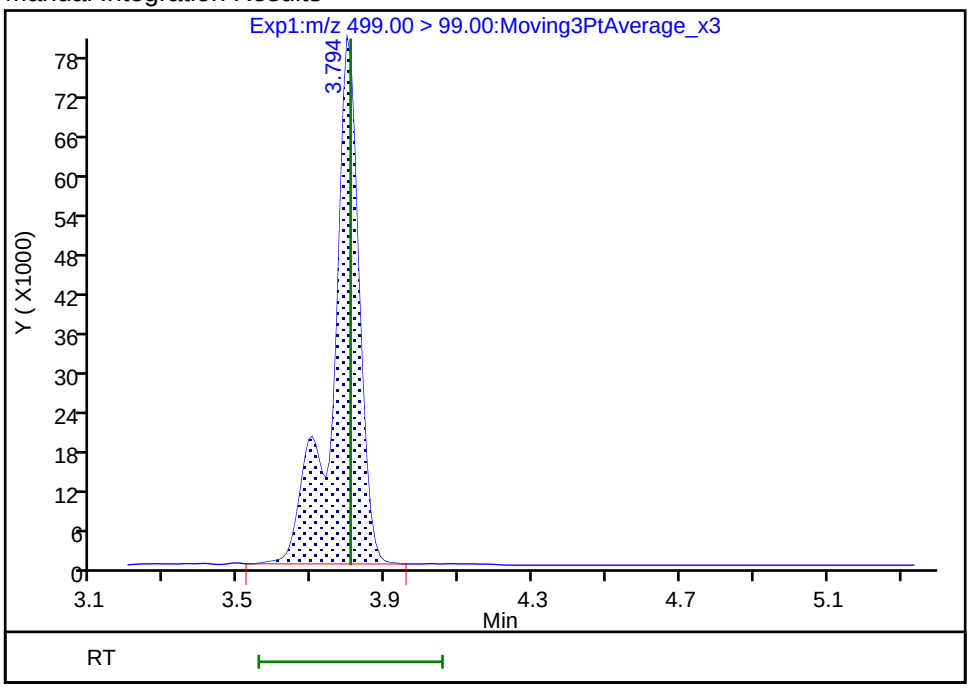
Processing Integration Results

RT: 3.79
Area: 414747
Amount: 2.321812
Amount Units: ng/ml




Manual Integration Results

RT: 3.79
Area: 405608
Amount: 2.298737
Amount Units: ng/ml




Reviewer: chirgwinb, 10-Nov-2021 15:57:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MSD  Lab Sample ID: 460-246277-18 MSD

Matrix: Water  Lab File ID: PA211109D27.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 285.7(mL)  Date Analyzed: 11/10/2021 07:45

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 375-22-4 | Perfluorobutanoic acid (PFBA) | 40.84 | | 4.38 | 0.78 |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 45.98 | | 1.75 | 0.41 |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 50.09 | | 1.75 | 0.40 |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | 41.22 | | 1.75 | 0.21 |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 50.07 | | 1.75 | 0.37 |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 34.33 | | 1.75 | 0.25 |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 37.42 | | 1.75 | 0.27 |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 36.86 | | 1.75 | 0.30 |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 36.73 | | 1.75 | 0.34 |
| 72629-94-8 | Perfluorotridecanoic acid (PFTriA) | 35.38 | | 1.75 | 0.38 |
| 376-06-7 | Perfluorotetradecanoic acid (PFTeA) | 41.92 | | 1.75 | 0.55 |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 40.34 | | 1.75 | 0.22 |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 145.6 | | 1.75 | 0.26 |
| 375-92-8 | Perfluoroheptanesulfonic Acid (PFHpS) | 38.53 | | 1.75 | 0.20 |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 299.7 | | 1.75 | 0.25 |
| 335-77-3 | Perfluorodecanesulfonic acid (PFDS) | 31.13 | | 1.75 | 0.27 |
| 754-91-6 | Perfluorooctanesulfonamide (PFOSA) | 36.45 | | 1.75 | 0.50 |
| 2355-31-9 | N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 38.91 | | 4.38 | 0.79 |
| 2991-50-6 | N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 35.40 | | 4.38 | 0.65 |
| 27619-97-2 | 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 35.17 | | 4.38 | 0.96 |
| 39108-34-4 | 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 31.16 | | 1.75 | 0.34 |

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Client Sample ID: MW-26S-20211028 MSD  Lab Sample ID: 460-246277-18 MSD

Matrix: Water  Lab File ID: PA211109D27.d

Analysis Method: 537 (modified)  Date Collected: 10/28/2021 10:55

Extraction Method: 3535  Date Extracted: 11/04/2021 17:16

Sample wt/vol: 285.7(mL)  Date Analyzed: 11/10/2021 07:45

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

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

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

Analysis Batch No.: 173682  Units: ng/L

| CAS NO. | ISOTOPE DILUTION | %REC | Q | LIMITS |
|---|---|---|---|---|
| STL00994 | 18O2 PFHxS | 99 | | 50-150 |
| STL01892 | 13C4 PFHpA | 98 | | 50-150 |
| STL00990 | 13C4 PFOA | 100 | | 50-150 |
| STL00991 | 13C4 PFOS | 107 | | 50-150 |
| STL00995 | 13C5 PFNA | 104 | | 50-150 |
| STL00992 | 13C4 PFBA | 82 | | 25-150 |
| STL00993 | 13C2 PFHxA | 99 | | 50-150 |
| STL00996 | 13C2 PFDA | 95 | | 50-150 |
| STL00997 | 13C2 PFUnA | 91 | | 50-150 |
| STL00998 | 13C2 PFDoA | 86 | | 50-150 |
| STL01056 | 13C8 FOSA | 97 | | 25-150 |
| STL01893 | 13C5 PFPeA | 95 | | 25-150 |
| STL02116 | 13C2 PFTeDA | 73 | | 50-150 |
| STL02118 | d3-NMeFOSAA | 107 | | 50-150 |
| STL02117 | d5-NEtFOSAA | 108 | | 50-150 |
| STL02279 | M2-6:2 FTS | 127 | | 25-150 |
| STL02280 | M2-8:2 FTS | 115 | | 25-150 |
| STL02337 | 13C3 PFBS | 93 | | 50-150 |

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d
Lims ID: 460-246277-C-18-B MSD
Client ID: MW-26S-20211028
Sample Type: MSD
Inject. Date: 10-Nov-2021 07:45:08 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 460-246277-C-18-B MSD
Misc. Info.: 200-0048356-027 Plate: 1 Rack: 3
Operator ID: lc812tech Instrument ID: LC812

Method: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 11-Nov-2021 11:26:14 Calib Date: 27-Oct-2021 14:27:41
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\LC812\20211027-48181.b\PA211027ICAL07.d

Column 1 : C-18 ( 4.60 mm) Det: EXP1
Process Host: CTX1621

First Level Reviewer: khanphomeea Date: 11-Nov-2021 10:15:53
Ratio Calibration: Initial Calibration Level: 4

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 1 13C4 PFBA | | | | | | | | | | |
| 217.00 > 172.00 | 2.091 | 2.100 | -0.009 | 0.599 | 1147515 | 1.02 | | 81.8 | 2299 | |
| 2 Perfluorobutanoic acid | | | | | | | | | | M |
| 212.90 > 169.00 | 2.100 | 2.100 | 0.0 | 1.004 | 1012765 | 1.17 | | 117 | 81.0 | M |
| D 3 13C5 PFPeA | | | | | | | | | | |
| 267.90 > 223.00 | 2.413 | 2.413 | 0.0 | 0.691 | 1118458 | 1.18 | | 94.6 | 537 | |
| 4 Perfluoropentanoic acid | | | | | | | | | | M |
| 262.90 > 219.00 | 2.413 | 2.413 | 0.0 | 1.000 | 1177523 | 1.31 | | 131 | 9.7 | M |
| D 47 13C3 PFBS | | | | | | | | | | |
| 301.90 > 80.00 | 2.426 | 2.426 | 0.0 | 0.695 | 1386411 | 1.08 | | 93.2 | 31382 | |
| 5 Perfluorobutanesulfonic acid | | | | | | | | | | M |
| 298.90 > 80.00 | 2.426 | 2.439 | -0.013 | 1.000 | 1468071 | 1.15 | Target=2.32 | 130 | 45.3 | M |
| 298.90 > 99.00 | 2.426 | 2.439 | -0.013 | 1.000 | 682093 | | 2.15(1.16-3.48) | | 68.9 | |
| 61 1H,1H,2H,2H-perfluorohexanesulfo | | | | | | | | | | M |
| 327.00 > 307.00 | 2.734 | 2.734 | 0.0 | 1.000 | 276733 | 1.01 | | 108 | 884 | M |
| D 60 M2-4:2 FTS | | | | | | | | | | M |
| 329.00 > 81.00 | 2.734 | 2.734 | 0.0 | 0.783 | 150569 | 1.54 | | 132 | 13.1 | M |
| D 7 13C2 PFHxA | | | | | | | | | | |
| 315.00 > 270.00 | 2.770 | 2.770 | 0.0 | 0.793 | 1231542 | 1.24 | | 99.3 | 2017 | |
| 6 Perfluorohexanoic acid | | | | | | | | | | M |
| 313.00 > 269.00 | 2.770 | 2.770 | 0.0 | 1.000 | 1430067 | 1.43 | Target=12.09 | 143 | 31.3 | M |
| 313.00 > 119.00 | 2.770 | 2.770 | 0.0 | 1.000 | 110342 | | 12.96(6.04-18.13) | | 61.3 | M |
| 70 Perfluoropentanesulfonic acid | | | | | | | | | | |
| 349.00 > 80.00 | 2.770 | 2.770 | 0.0 | 0.884 | 1378400 | 1.24 | Target=3.03 | 132 | 126 | |
| 349.00 > 99.00 | 2.770 | 2.770 | 0.0 | 0.884 | 452942 | | 3.04(1.52-4.55) | | 99.0 | |
| D 64 13C3 HFPO-DA | | | | | | | | | | |
| 332.10 > 287.00 | 2.880 | 2.867 | 0.013 | 0.825 | 24311 | 0.9304 | | 74.4 | 55.0 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 Perfluoro(2-propoxypropanoic) ac | | | | | | | | | | |
| 329.10 > 285.00 | 2.880 | 2.880 | 0.0 | 1.000 | 123222 | 1.40 | | 140 | 16.1 | |
| 8 Perfluorohexanesulfonic acid | | | | | | | | | | M |
| 399.00 > 80.00 | 3.132 | 3.132 | 0.0 | 1.000 | 4225935 | 4.16 | Target=3.55 | 457 | 512 | M |
| 399.00 > 99.00 | 3.132 | 3.132 | 0.0 | 1.000 | 1128229 | | 3.75(1.77-5.32) | | 507 | |
| D 11 18O2 PFHxS | | | | | | | | | | |
| 403.00 > 84.00 | 3.132 | 3.132 | 0.0 | 0.897 | 1092946 | 1.18 | | 99.4 | 2852 | |
| D 9 13C4 PFHpA | | | | | | | | | | |
| 367.00 > 322.00 | 3.143 | 3.132 | 0.011 | 0.900 | 1278530 | 1.22 | | 98.0 | 3565 | |
| 10 Perfluoroheptanoic acid | | | | | | | | | | M |
| 363.00 > 319.00 | 3.143 | 3.143 | 0.0 | 1.000 | 1244650 | 1.18 | Target=3.69 | 118 | 54.7 | M |
| 363.00 > 169.00 | 3.143 | 3.143 | 0.0 | 1.000 | 322148 | | 3.86(1.84-5.53) | | 384 | M |
| 77 DONA | | | | | | | | | | M |
| 377.00 > 251.00 | 3.175 | 3.175 | 0.0 | 0.835 | 2215506 | 0.8806 | Target=2.56 | 93.5 | 950 | M |
| 377.00 > 85.00 | 3.175 | 3.175 | 0.0 | 0.835 | 871021 | | 2.54(1.28-3.84) | | 371 | |
| 16 Perfluoroheptanesulfonic acid | | | | | | | | | | M |
| 449.00 > 80.00 | 3.483 | 3.474 | 0.009 | 0.916 | 986499 | 1.10 | Target=4.88 | 116 | 167 | M |
| 449.00 > 99.00 | 3.483 | 3.474 | 0.009 | 0.916 | 194297 | | 5.08(2.44-7.32) | | 131 | |
| 13 1H,1H,2H,2H-perfluorooctanesulfo | | | | | | | | | | |
| 427.00 > 407.00 | 3.483 | 3.483 | 0.0 | 1.000 | 237390 | 1.00 | | 106 | 1794 | |
| D 12 M2-6:2 FTS | | | | | | | | | | |
| 429.00 > 81.00 | 3.483 | 3.483 | 0.0 | 0.997 | 221217 | 1.51 | | 127 | 76.6 | |
| D 14 13C4 PFOA | | | | | | | | | | |
| 417.00 > 372.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1429314 | 1.25 | | 100 | 2990 | |
| * 62 13C2 PFOA | | | | | | | | | | |
| 415.00 > 370.00 | 3.492 | 3.492 | 0.0 | | 1385979 | 1.25 | | | 3198 | |
| 15 Perfluorooctanoic acid | | | | | | | | | | M |
| 413.00 > 369.00 | 3.492 | 3.492 | 0.0 | 1.000 | 1739379 | 1.43 | Target=2.68 | 143 | 94.1 | |
| 413.00 > 169.00 | 3.492 | 3.492 | 0.0 | 1.000 | 650451 | | 2.67(1.34-4.02) | | 792 | M |
| D 18 13C4 PFOS | | | | | | | | | | |
| 503.00 > 80.00 | 3.804 | 3.794 | 0.010 | 1.089 | 858963 | 1.28 | | 107 | 449 | |
| 17 Perfluorooctanesulfonic acid | | | | | | | | | | M |
| 499.00 > 80.00 | 3.804 | 3.804 | 0.0 | 1.000 | 6677223 | 8.56 | Target=4.69 | 923 | 1517 | M |
| 499.00 > 99.00 | 3.804 | 3.804 | 0.0 | 1.000 | 1445688 | | 4.62(2.35-7.04) | | 1176 | M |
| D 19 13C5 PFNA | | | | | | | | | | |
| 468.00 > 423.00 | 3.825 | 3.814 | 0.011 | 1.095 | 1471896 | 1.30 | | 104 | 4813 | |
| 20 Perfluorononanoic acid | | | | | | | | | | M |
| 463.00 > 419.00 | 3.825 | 3.814 | 0.011 | 1.000 | 1129791 | 0.9807 | Target=7.29 | 98.1 | 127 | |
| 463.00 > 169.00 | 3.825 | 3.814 | 0.011 | 1.000 | 162349 | | 6.96(3.64-10.93) | | 447 | M |
| 69 9-Chlorohexadecafluoro-3-oxanona | | | | | | | | | | |
| 531.00 > 351.00 | 3.964 | 3.954 | 0.010 | 1.042 | 1073930 | 0.9140 | | 98.1 | 2204 | |
| 68 Perfluorononanesulfonic acid | | | | | | | | | | |
| 549.00 > 80.00 | 4.093 | 4.081 | 0.012 | 1.076 | 579324 | 0.9536 | Target=2.35 | 99.3 | 317 | |
| 549.00 > 99.00 | 4.093 | 4.081 | 0.012 | 1.076 | 217221 | | 2.67(1.17-3.52) | | 445 | |
| D 23 13C2 PFDA | | | | | | | | | | |
| 515.00 > 470.00 | 4.115 | 4.115 | 0.0 | 1.178 | 1368833 | 1.19 | | 95.5 | 4432 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 Perfluorodecanoic acid | | | | | | | | | | |
| 513.00 > 469.00 | 4.115 | 4.115 | 0.0 | 1.000 | 1176315 | 1.07 | Target=8.95 | 107 | 283 | |
| 513.00 > 169.00 | 4.115 | 4.115 | 0.0 | 1.000 | 135669 | | 8.67(4.47-13.42) | | 541 | |
| D 26 M2-8:2 FTS | | | | | | | | | | |
| 529.00 > 81.00 | 4.126 | 4.126 | 0.0 | 1.182 | 229511 | 1.38 | | 115 | 178 | |
| 25 1H,1H,2H,2H-perfluorodecanesulfo | | | | | | | | | | |
| 527.00 > 507.00 | 4.126 | 4.126 | 0.0 | 1.000 | 142722 | 0.8902 | | 92.9 | 1490 | |
| D 21 13C8 FOSA | | | | | | | | | | |
| 506.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.210 | 1334766 | 1.21 | | 96.5 | 2089 | |
| 22 Perfluorooctanesulfonamide | | | | | | | | | | |
| 498.00 > 78.00 | 4.225 | 4.234 | -0.009 | 1.000 | 1056080 | 1.04 | | 104 | 1530 | |
| D 27 d3-NMeFOSAA | | | | | | | | | | |
| 573.00 > 419.00 | 4.257 | 4.257 | 0.0 | 1.219 | 151407 | 1.34 | | 107 | 660 | |
| 28 N-methylperfluorooctanesulfonami | | | | | | | | | | M |
| 570.00 > 419.00 | 4.268 | 4.257 | 0.011 | 1.003 | 105788 | 1.11 | | 111 | 429 | M |
| 29 Perfluorodecanesulfonic acid | | | | | | | | | | |
| 599.00 > 80.00 | 4.347 | 4.346 | 0.001 | 1.143 | 420060 | 0.8893 | Target=2.47 | 92.2 | 1005 | |
| 599.00 > 99.00 | 4.347 | 4.346 | 0.001 | 1.143 | 160167 | | 2.62(1.23-3.70) | | 1126 | |
| D 30 13C2 PFUnA | | | | | | | | | | |
| 565.00 > 520.00 | 4.380 | 4.369 | 0.012 | 1.254 | 1012358 | 1.13 | | 90.6 | 5276 | |
| 31 Perfluoroundecanoic acid | | | | | | | | | | |
| 563.00 > 519.00 | 4.380 | 4.369 | 0.012 | 1.000 | 909173 | 1.05 | Target=9.24 | 105 | 384 | |
| 563.00 > 169.00 | 4.380 | 4.369 | 0.012 | 1.000 | 105093 | | 8.65(4.62-13.86) | | 824 | |
| D 32 d5-NEtFOSAA | | | | | | | | | | |
| 589.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.257 | 142034 | 1.34 | | 108 | 978 | |
| 33 N-ethylperfluorooctanesulfonamid | | | | | | | | | | M |
| 584.00 > 419.00 | 4.391 | 4.380 | 0.011 | 1.000 | 98483 | 1.01 | | 101 | 748 | M |
| 66 11-Chloroeicosafluoro-3-oxaundec | | | | | | | | | | |
| 631.00 > 451.00 | 4.467 | 4.456 | 0.011 | 1.174 | 1201246 | 0.8657 | | 91.9 | 3102 | |
| D 36 13C2 PFDoA | | | | | | | | | | |
| 615.00 > 570.00 | 4.601 | 4.591 | 0.010 | 1.317 | 1037278 | 1.08 | | 86.3 | 1496 | |
| 37 Perfluorododecanoic acid | | | | | | | | | | |
| 613.00 > 569.00 | 4.601 | 4.591 | 0.010 | 1.000 | 852605 | 1.05 | Target=7.04 | 105 | 199 | |
| 613.00 > 169.00 | 4.601 | 4.591 | 0.010 | 1.000 | 131698 | | 6.47(3.52-10.56) | | 1241 | |
| 74 1H,1H,2H,2H-perfluorododecanesul | | | | | | | | | | M |
| 627.00 > 607.00 | 4.622 | 4.612 | 0.010 | 1.120 | 57254 | 0.7729 | | 80.2 | 754 | M |
| 75 Perfluorododecanesulfonic acid ( | | | | | | | | | | |
| 699.00 > 80.00 | 4.765 | 4.756 | 0.009 | 1.253 | 152388 | 0.8771 | Target=0.49 | 90.6 | 1973 | |
| 699.00 > 99.00 | 4.765 | 4.756 | 0.009 | 1.253 | 273631 | | 0.56(0.25-0.74) | | 1823 | |
| 41 Perfluorotridecanoic acid | | | | | | | | | | |
| 663.00 > 619.00 | 4.801 | 4.792 | 0.009 | 1.043 | 708035 | 1.01 | Target=4.68 | 101 | 212 | |
| 663.00 > 169.00 | 4.801 | 4.792 | 0.009 | 1.043 | 150316 | | 4.71(2.34-7.02) | | 1233 | |
| D 43 13C2 PFTeDA | | | | | | | | | | |
| 715.00 > 670.00 | 4.985 | 4.966 | 0.019 | 1.427 | 676374 | 0.9070 | | 72.6 | 1476 | |
| 42 Perfluorotetradecanoic acid | | | | | | | | | | |
| 713.00 > 169.00 | 4.985 | 4.966 | 0.019 | 1.000 | 102288 | 1.20 | Target=1.01 | 120 | 1948 | |
| 713.00 > 219.00 | 4.975 | 4.966 | 0.009 | 0.998 | 98008 | | 1.04(0.51-1.52) | | 3032 | |

| Signal | RT | EXP RT | DLT RT | REL RT | Response | Amount ng/ml | Ratio(Limits) | %Rec | S/N | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| D 44 13C2 PFHxDA | | | | | | | | | | |
| 815.00 > 770.00 | 5.293 | 5.270 | 0.023 | 1.516 | 657838 | 1.00 | | 80.1 | 2872 | |
| 45 Perfluorohexadecanoic acid | | | | | | | | | | |
| 813.00 > 769.00 | 5.293 | 5.270 | 0.023 | 1.000 | 534764 | 1.17 | Target=4.57 | 117 | 209 | |
| 813.00 > 169.00 | 5.293 | 5.270 | 0.023 | 1.000 | 124127 | | 4.31(2.29-6.86) | | 1860 | |
| 46 Perfluorooctadecanoic acid | | | | | | | | | | |
| 913.00 > 869.00 | 5.556 | 5.527 | 0.029 | 1.050 | 430488 | 0.9700 | Target=4.27 | 97.0 | 231 | |
| 913.00 > 169.00 | 5.556 | 5.527 | 0.029 | 1.050 | 104368 | | 4.12(2.14-6.41) | | 1279 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Report Date: 11-Nov-2021 11:26:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d

Injection Date: 10-Nov-2021 07:45:08 Instrument ID: LC812

Lims ID: 460-246277-C-18-B MSD

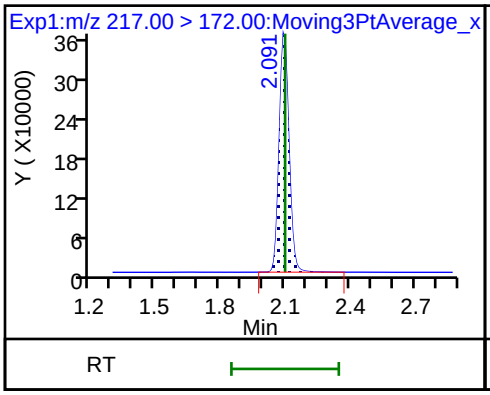
Client ID: MW-26S-20211028

Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 27

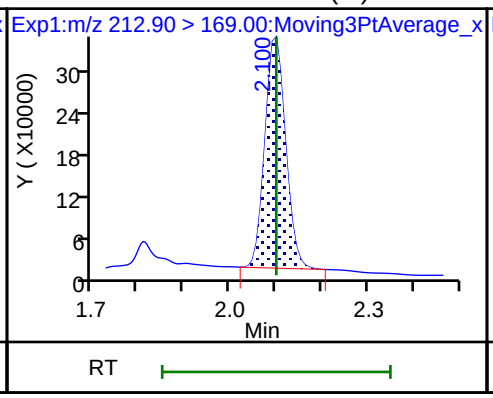
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

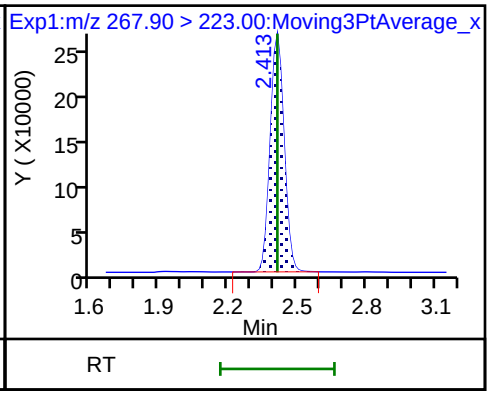
D 1 13C4 PFBA



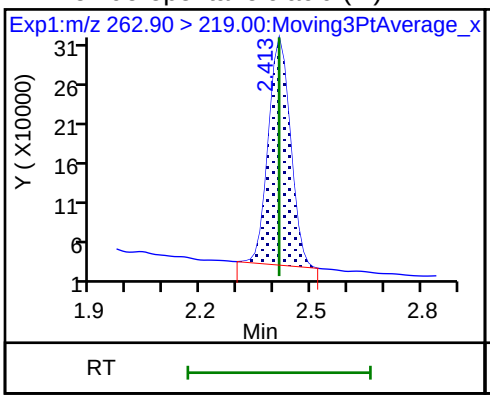

2 Perfluorobutanoic acid (M)



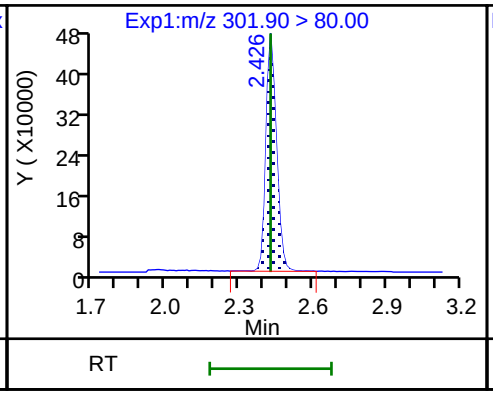

D 3 13C5 PFPeA



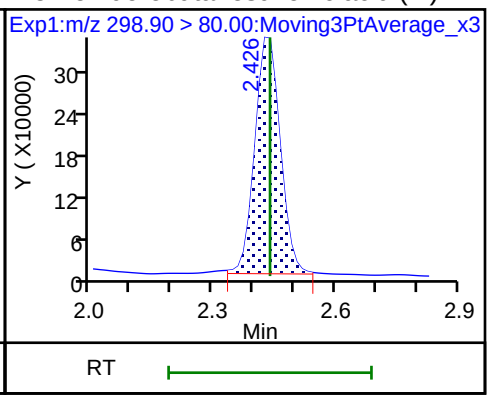

4 Perfluoropentanoic acid (M)



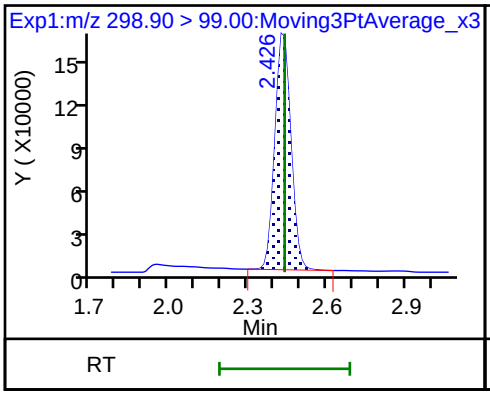

D 47 13C3 PFBS



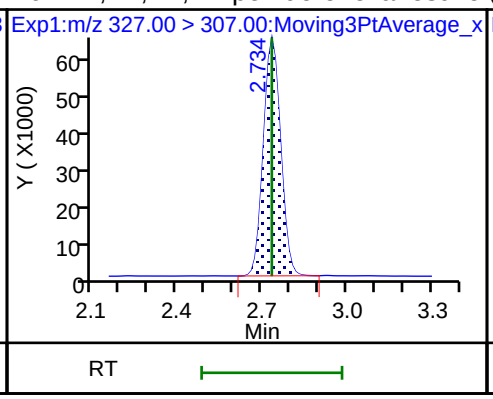

5 Perfluorobutanesulfonic acid (M)



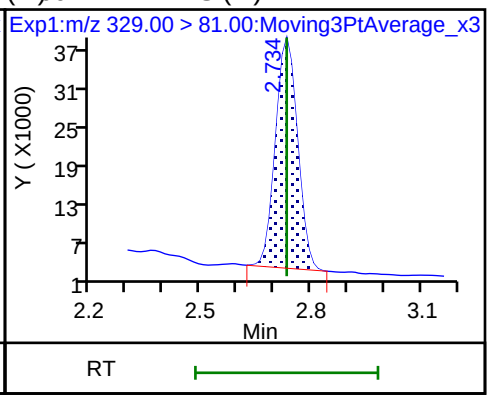

5 Perfluorobutanesulfonic acid



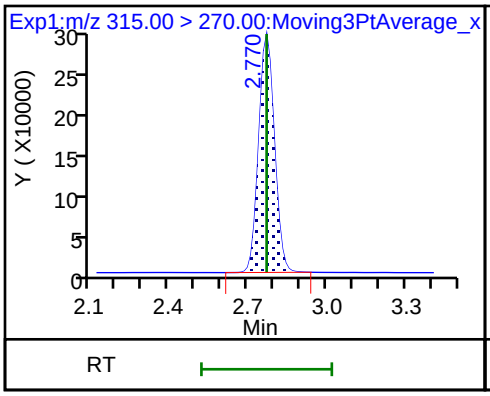

61 1H,1H,2H,2H-perfluorohexanesulfo (M)



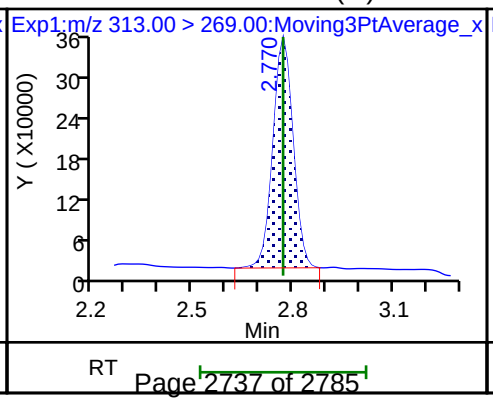

60 M2-4:2 FTS (M)



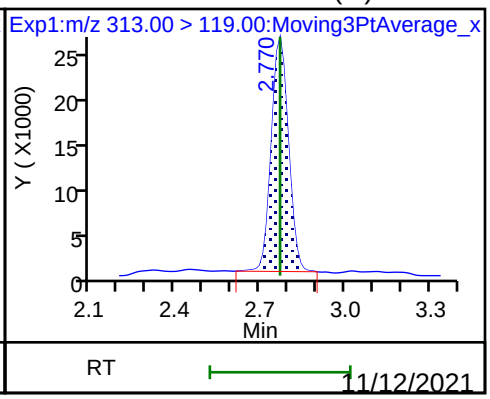

D 7 13C2 PFHxA



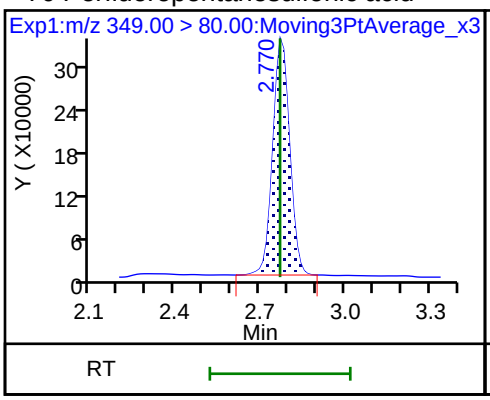

6 Perfluorohexanoic acid (M)



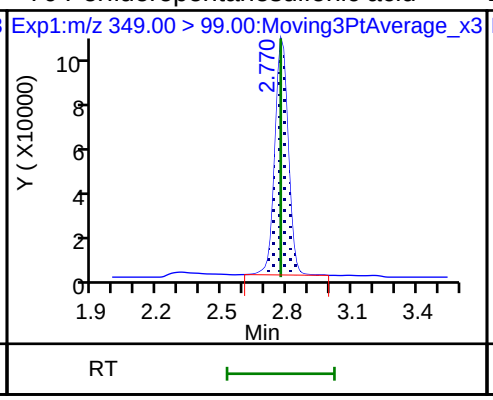

6 Perfluorohexanoic acid (M)



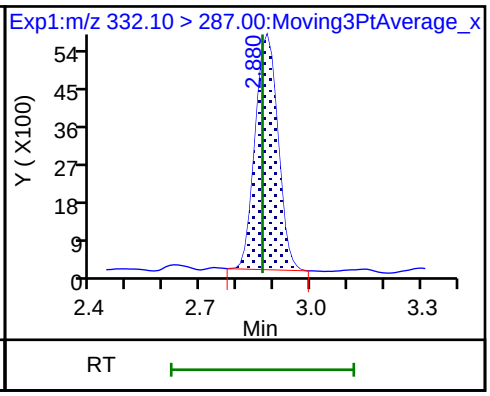
70 Perfluoropentanesulfonic acid



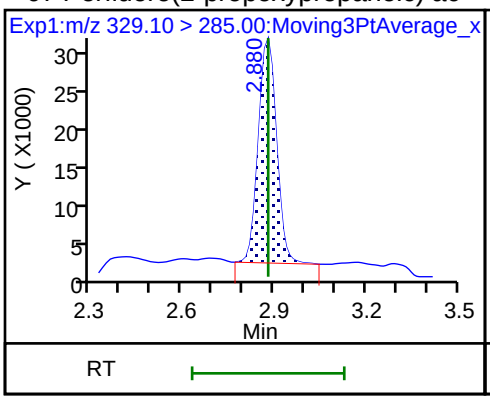

70 Perfluoropentanesulfonic acid



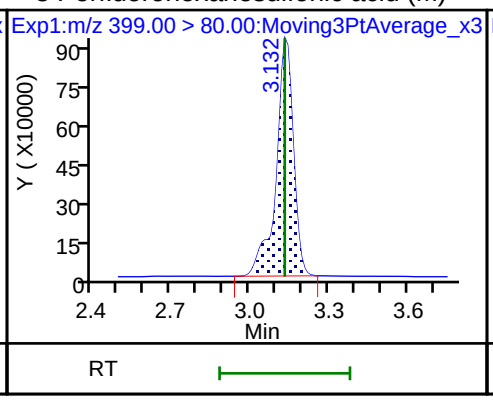

D 64 13C3 HFPO-DA



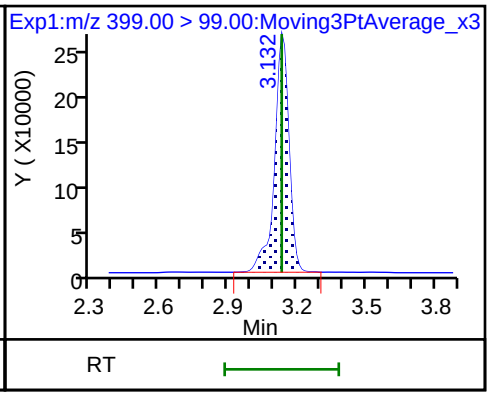

67 Perfluoro(2-propoxypropanoic) ac



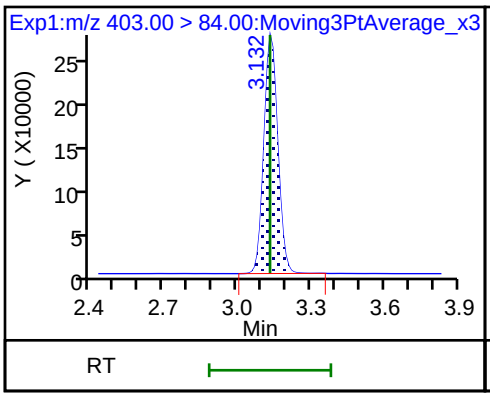

8 Perfluorohexanesulfonic acid (M)



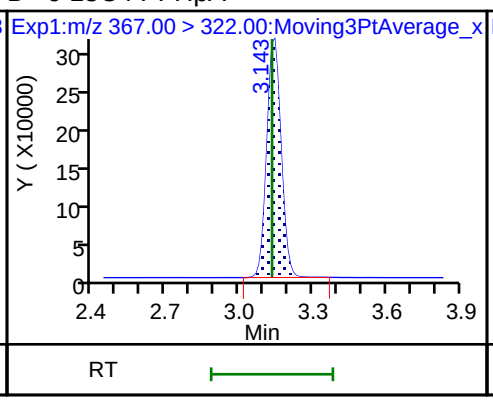

8 Perfluorohexanesulfonic acid



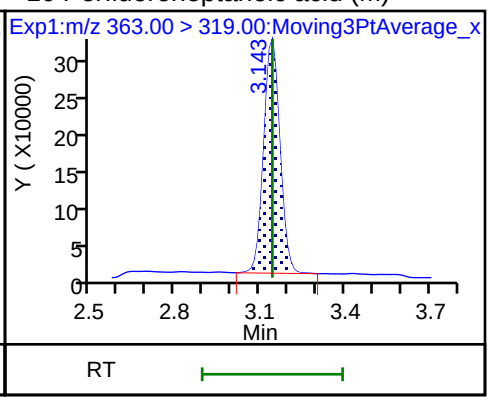

D 11 18O2 PFHxS



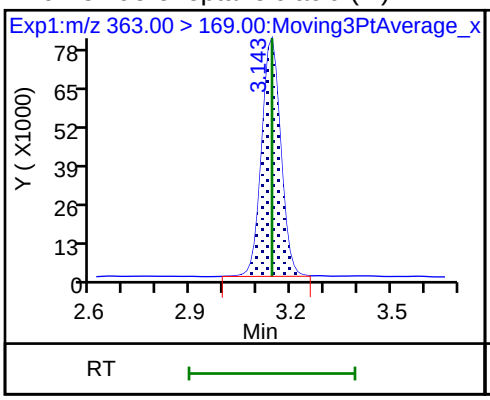

D 9 13C4 PFHpA



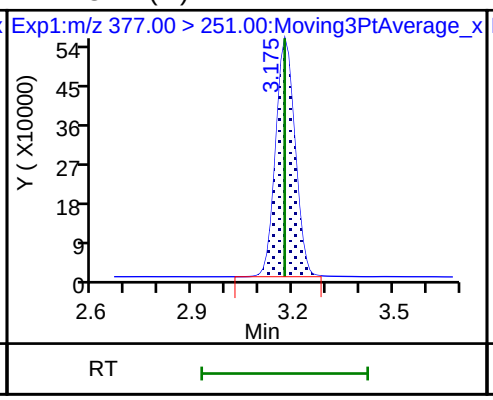

10 Perfluoroheptanoic acid (M)



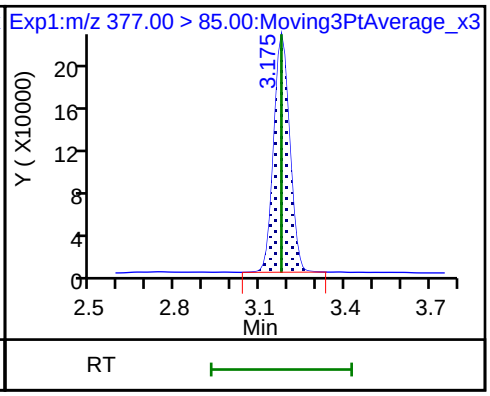

10 Perfluoroheptanoic acid (M)



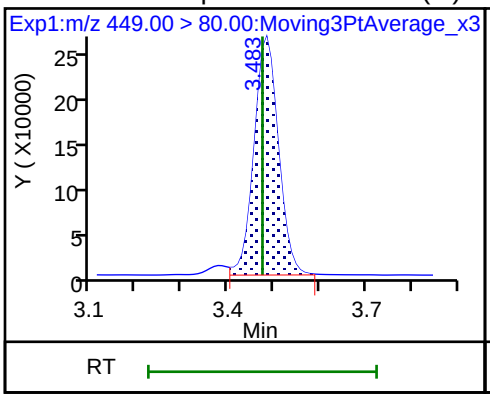

77 DONA (M)



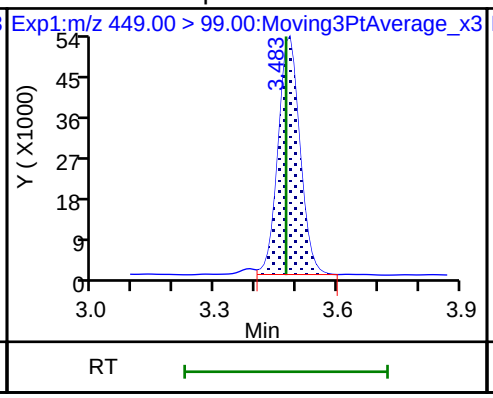

77 DONA



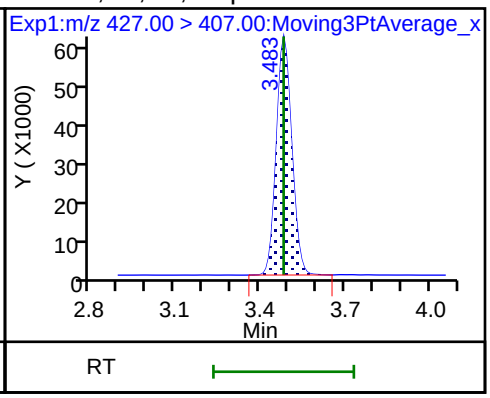
16 Perfluoroheptanesulfonic acid (M)



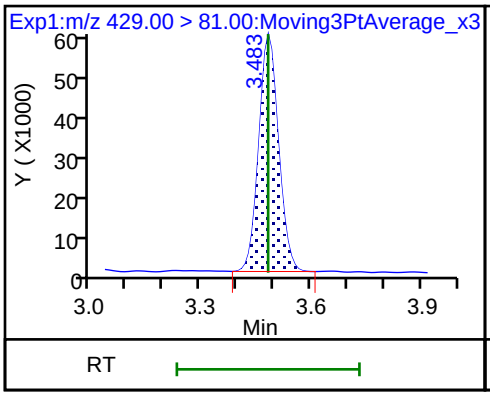

16 Perfluoroheptanesulfonic acid



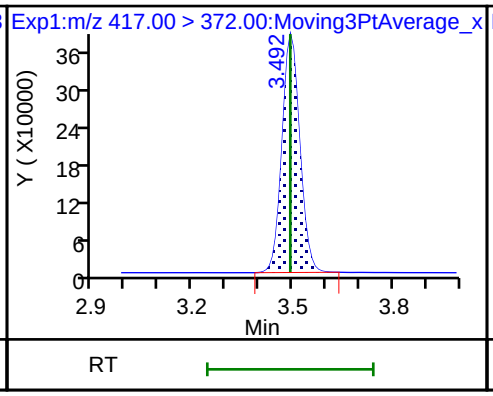

13 1H,1H,2H,2H-perfluorooctanesulfo



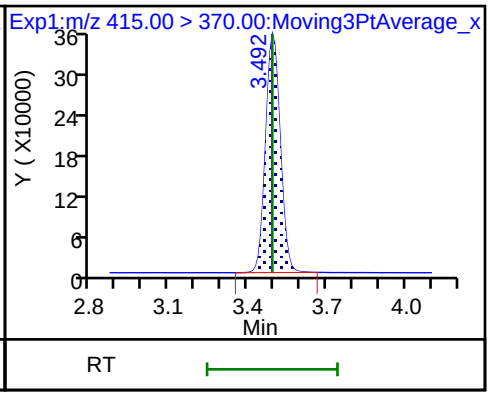

D 12 M2-6:2 FTS



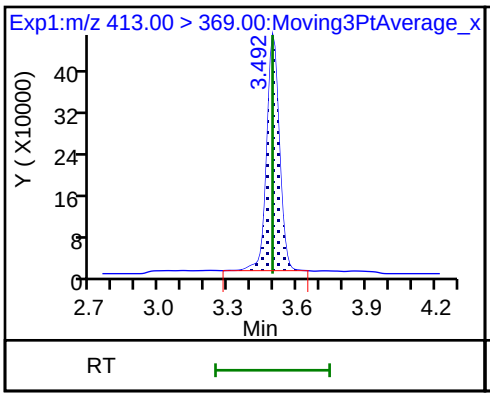

D 14 13C4 PFOA



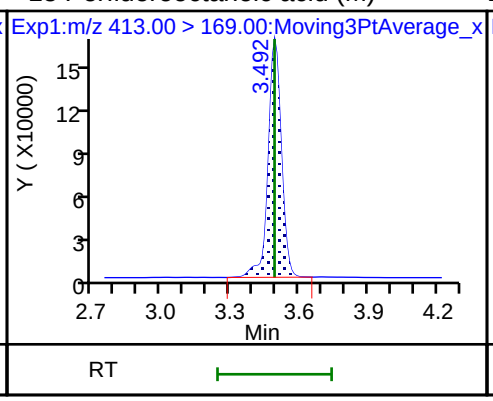

* 62 13C2 PFOA



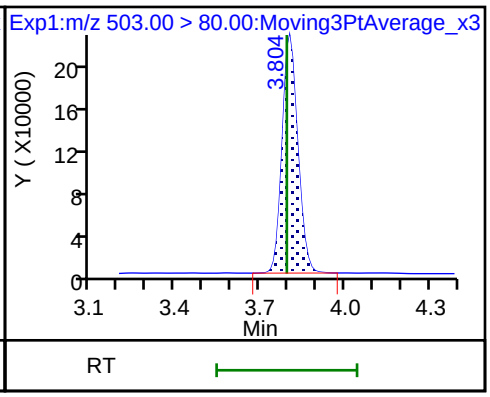

15 Perfluorooctanoic acid



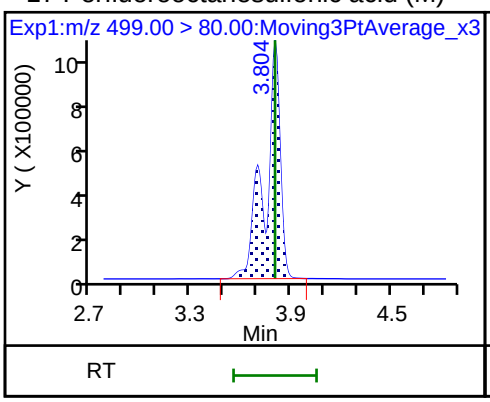

15 Perfluorooctanoic acid (M)



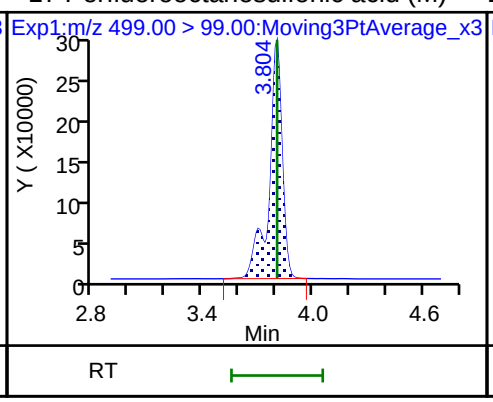

D 18 13C4 PFOS



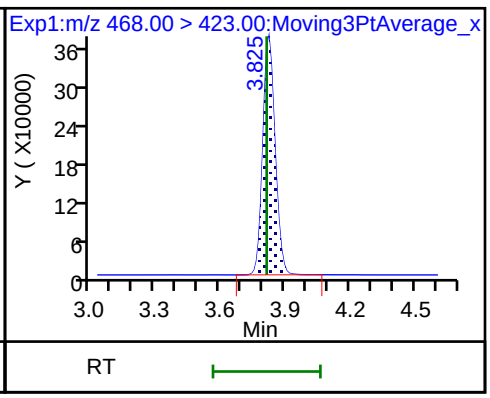

17 Perfluorooctanesulfonic acid (M)



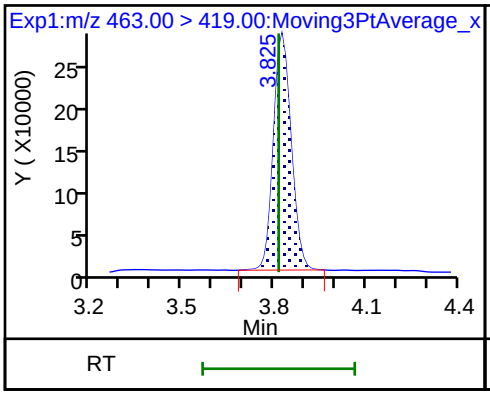

17 Perfluorooctanesulfonic acid (M)



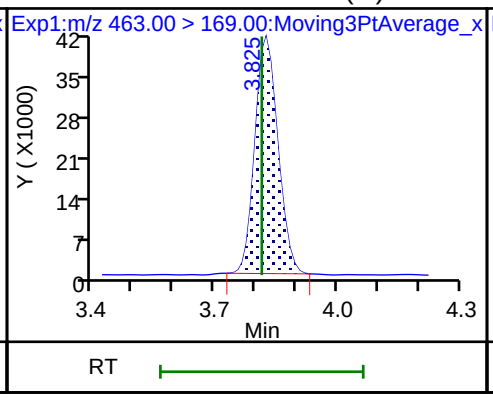

D 19 13C5 PFNA



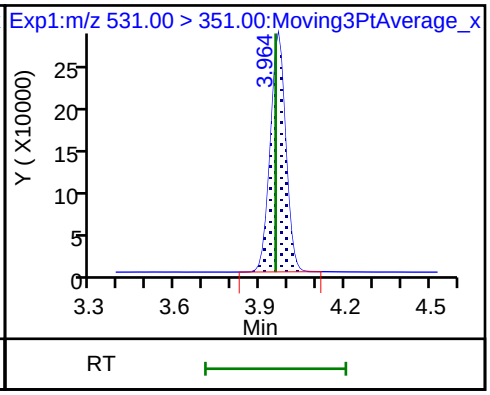
20 Perfluorononanoic acid



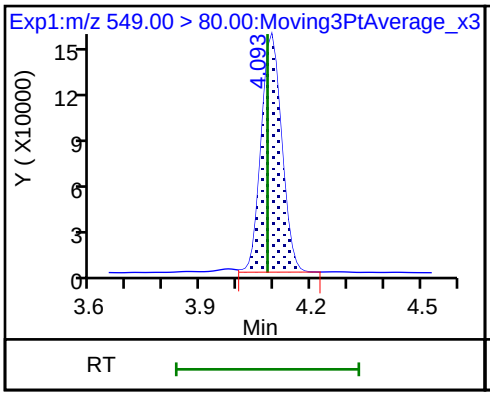

20 Perfluorononanoic acid (M)



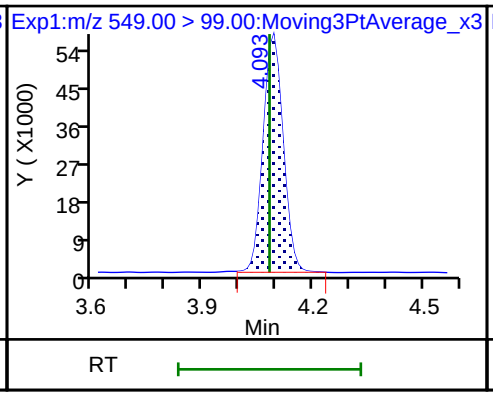

69 9-Chlorohexadecafluoro-3-oxanona



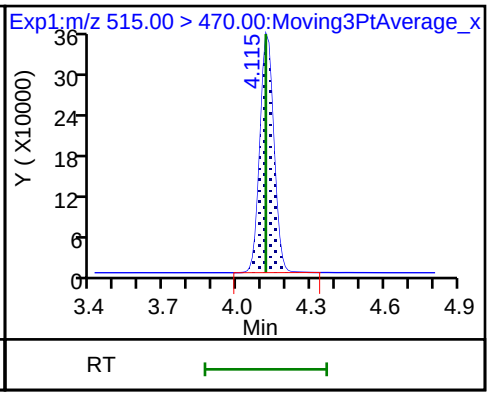

68 Perfluorononanesulfonic acid



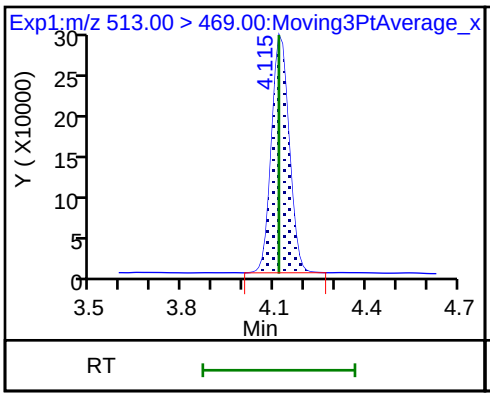

68 Perfluorononanesulfonic acid



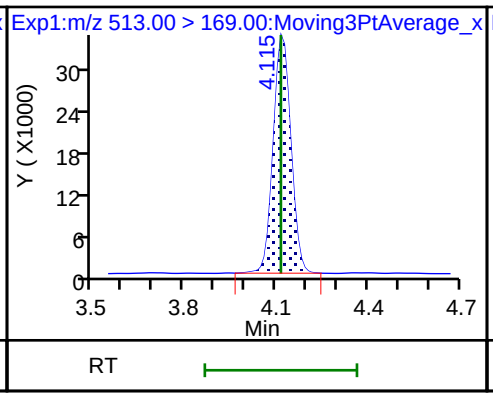

D 23 13C2 PFDA



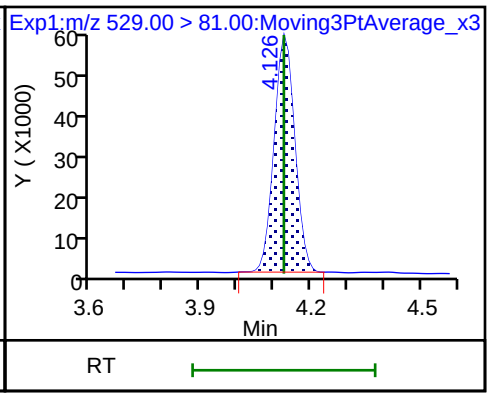

24 Perfluorodecanoic acid



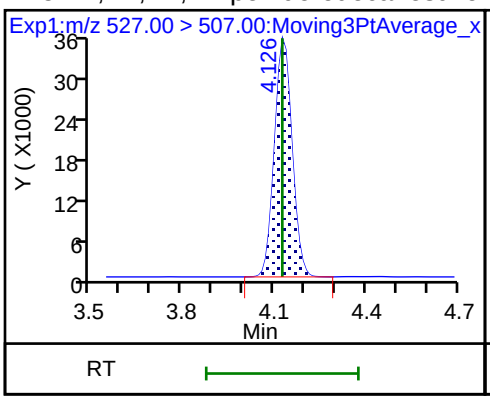

24 Perfluorodecanoic acid



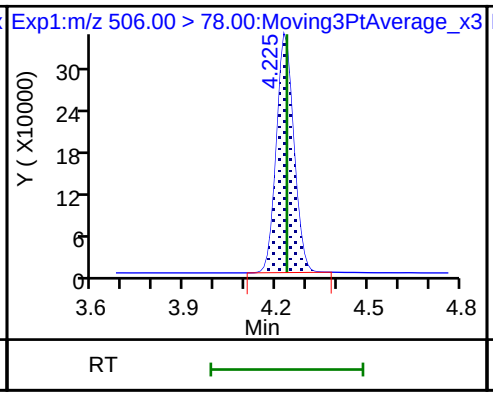

D 26 M2-8:2 FTS



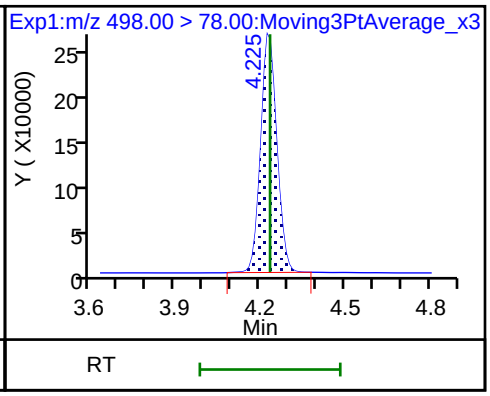

25 1H,1H,2H,2H-perfluorodecanesulfo



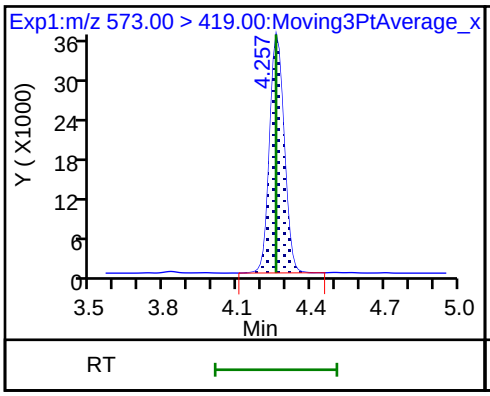

D 21 13C8 FOSA



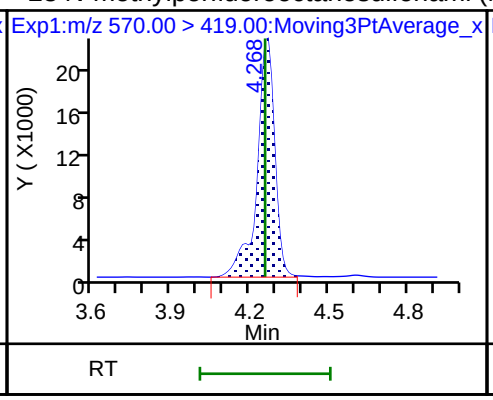

22 Perfluorooctanesulfonamide



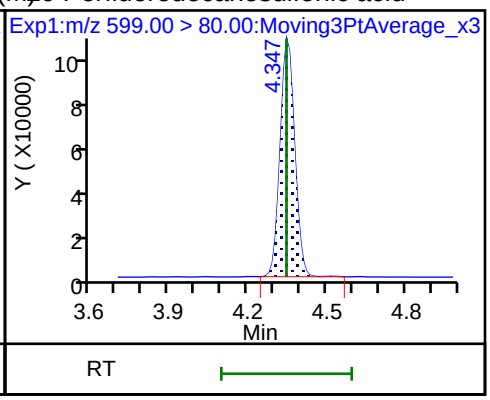
D 27 d3-NMeFOSAA



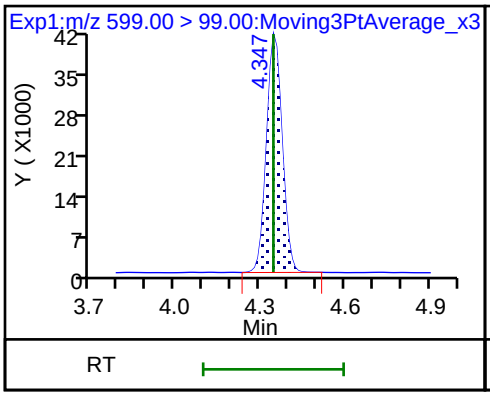

28 N-methylperfluorooctanesulfonami (M)



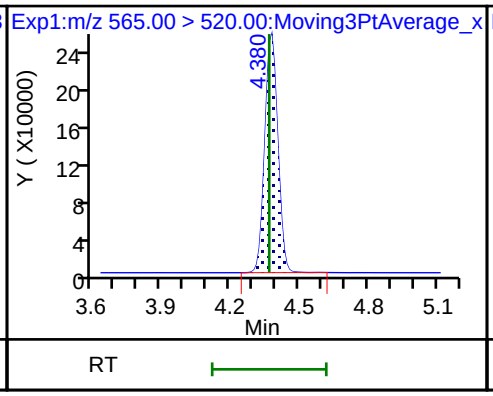

29 Perfluorodecanesulfonic acid



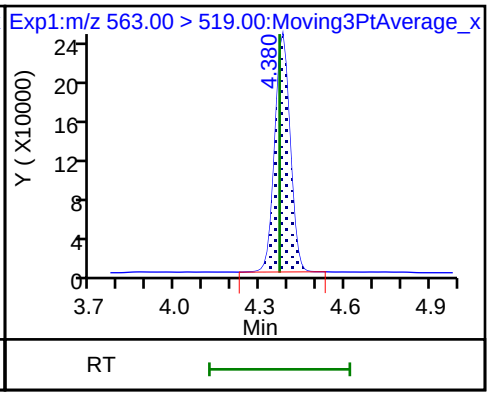

29 Perfluorodecanesulfonic acid



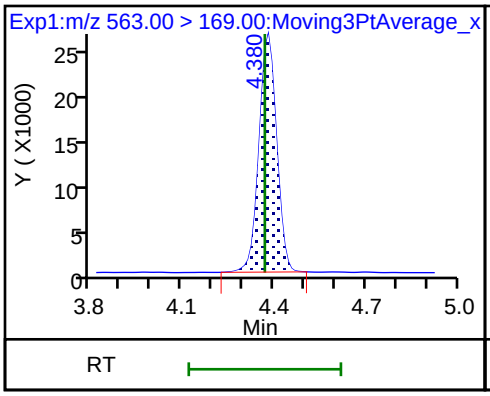

D 30 13C2 PFUnA



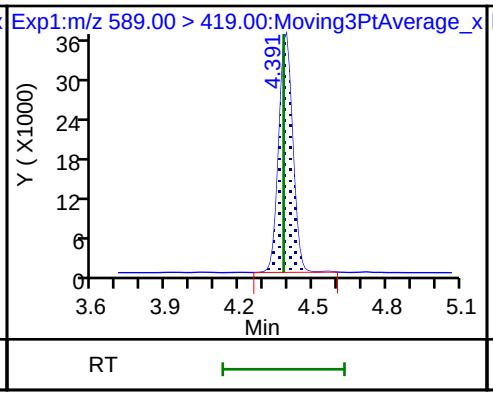

31 Perfluoroundecanoic acid



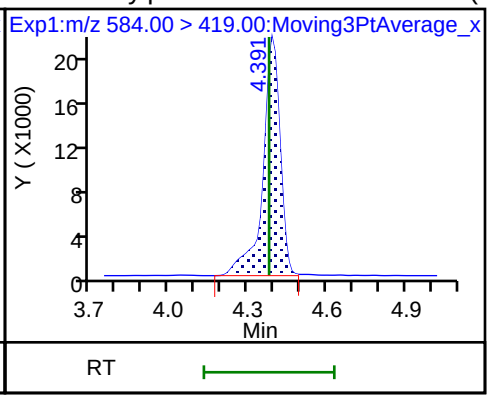

31 Perfluoroundecanoic acid



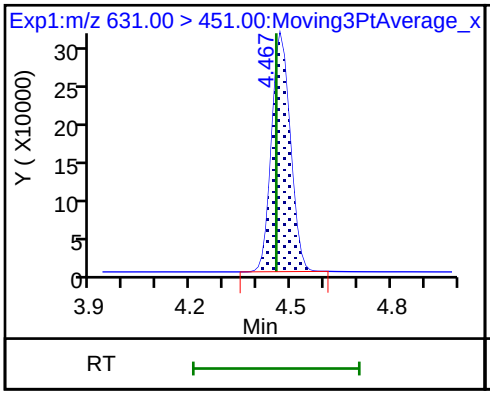

D 32 d5-NEtFOSAA



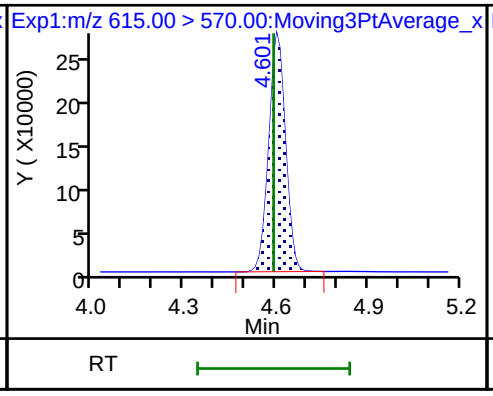

33 N-ethylperfluorooctanesulfonamid (M)



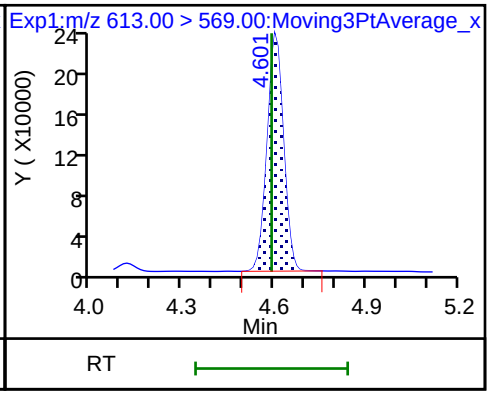

66 11-Chloroeicosafluoro-3-oxaundec



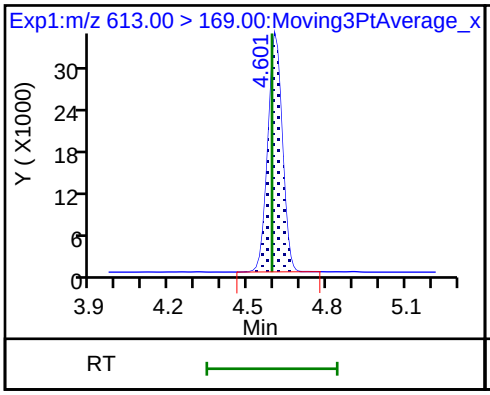

D 36 13C2 PFDoA



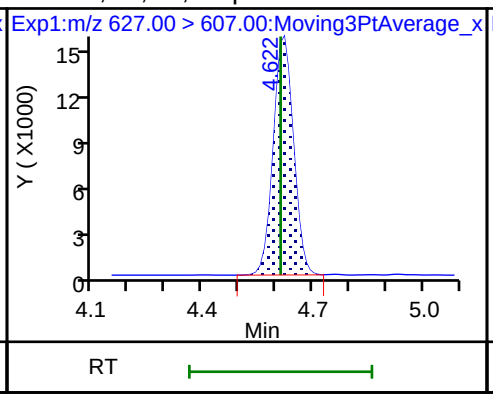

37 Perfluorododecanoic acid



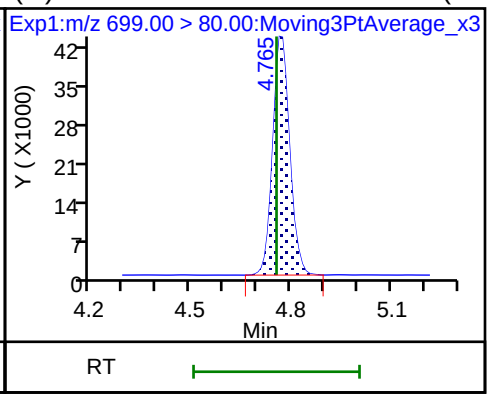
37 Perfluorododecanoic acid



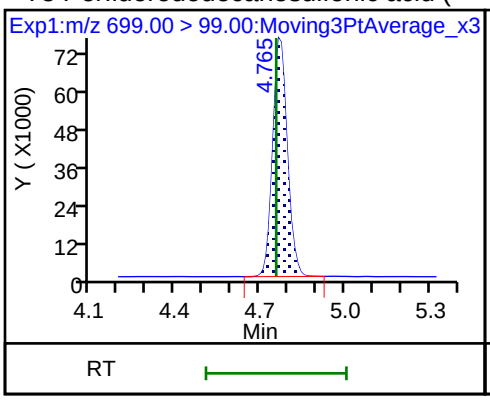

74 1H,1H,2H,2H-perfluorododecanesul (M)



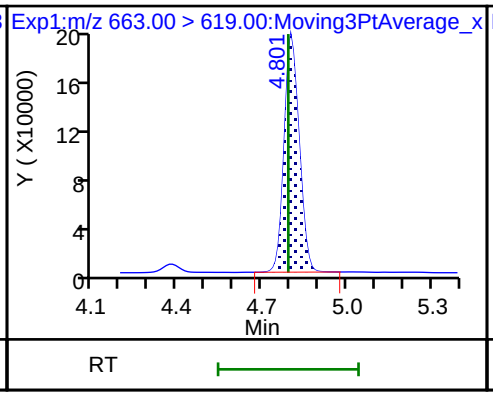

75 Perfluorododecanesulfonic acid (



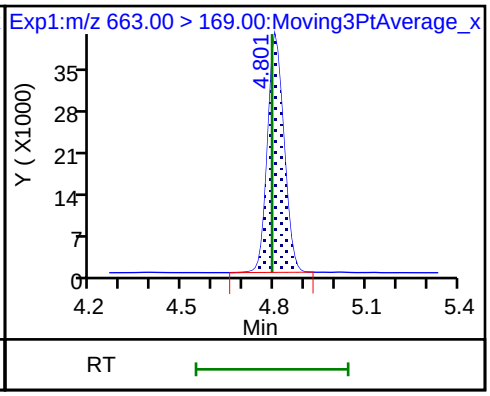

75 Perfluorododecanesulfonic acid (



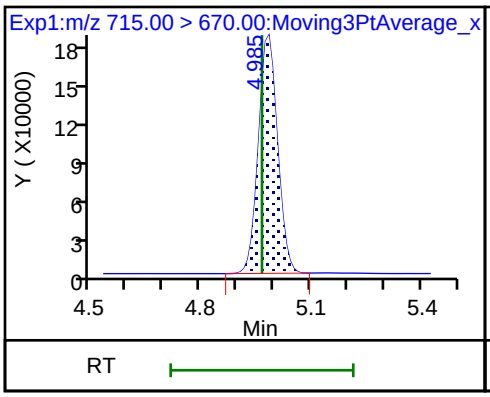

41 Perfluorotridecanoic acid



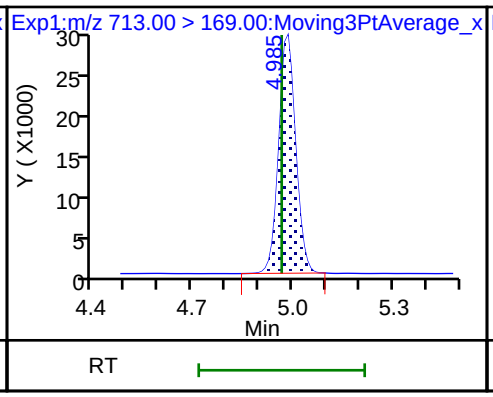

41 Perfluorotridecanoic acid



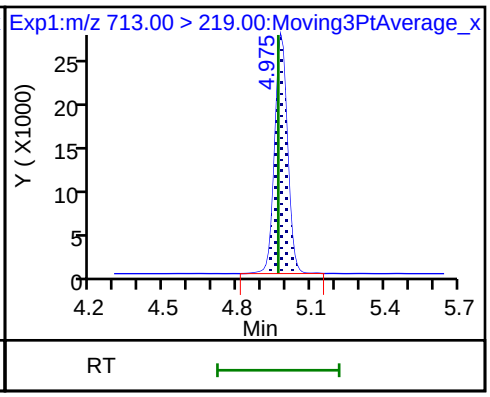

D 43 13C2 PFTeDA



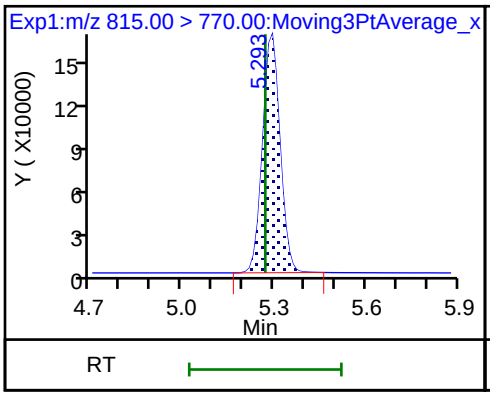

42 Perfluorotetradecanoic acid



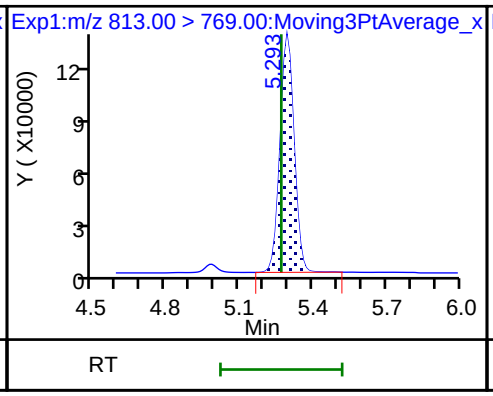

42 Perfluorotetradecanoic acid



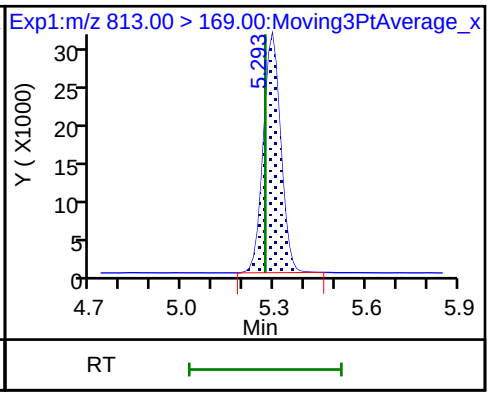

D 44 13C2 PFHxDA



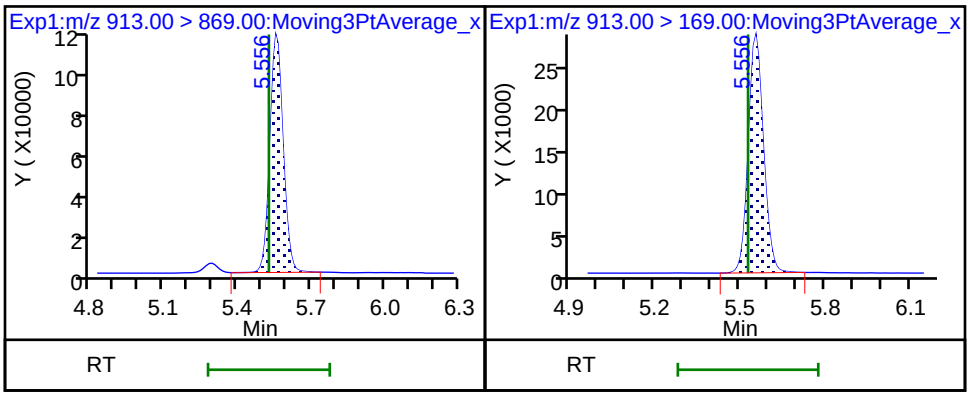

45 Perfluorohexadecanoic acid




45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid




46 Perfluorooctadecanoic acid

Eurofins TestAmerica, Burlington

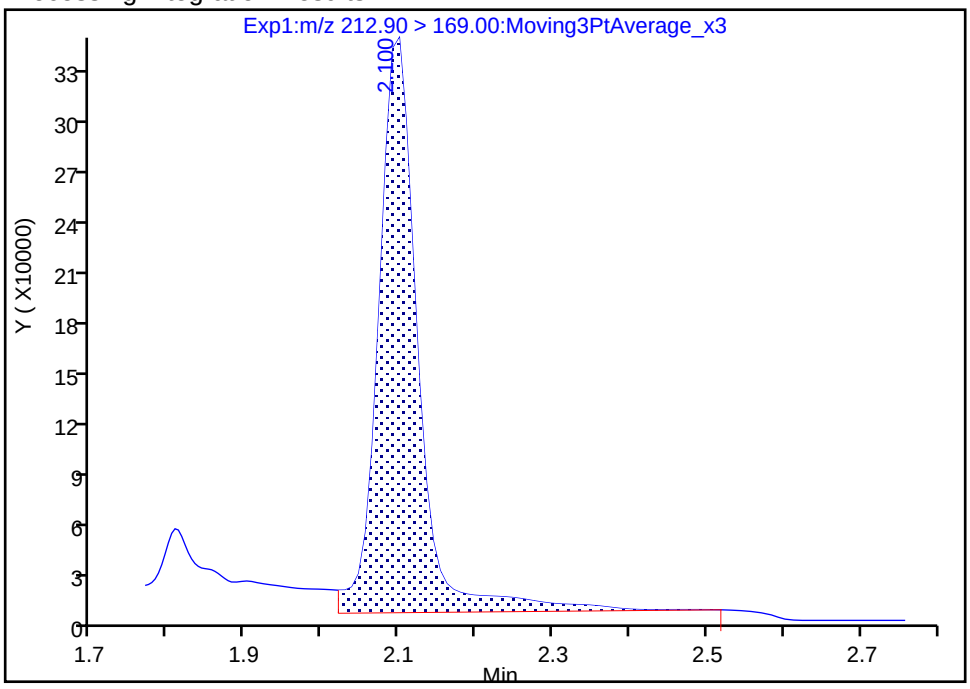
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

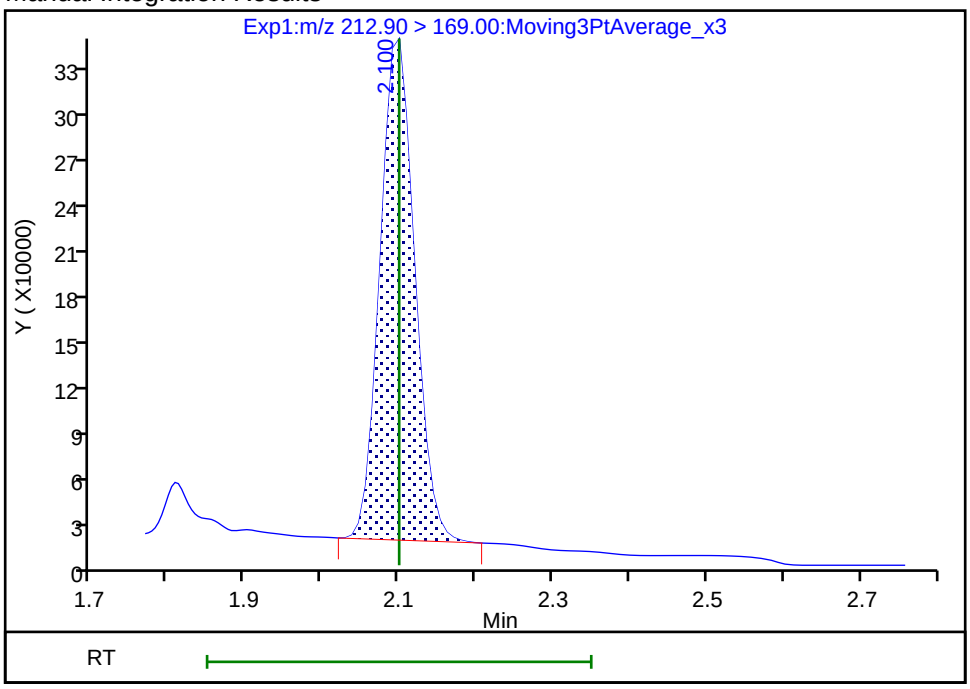
Processing Integration Results

RT: 2.10
Area: 1202956
Amount: 1.385839
Amount Units: ng/ml




Manual Integration Results

RT: 2.10
Area: 1012765
Amount: 1.166734
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:13:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

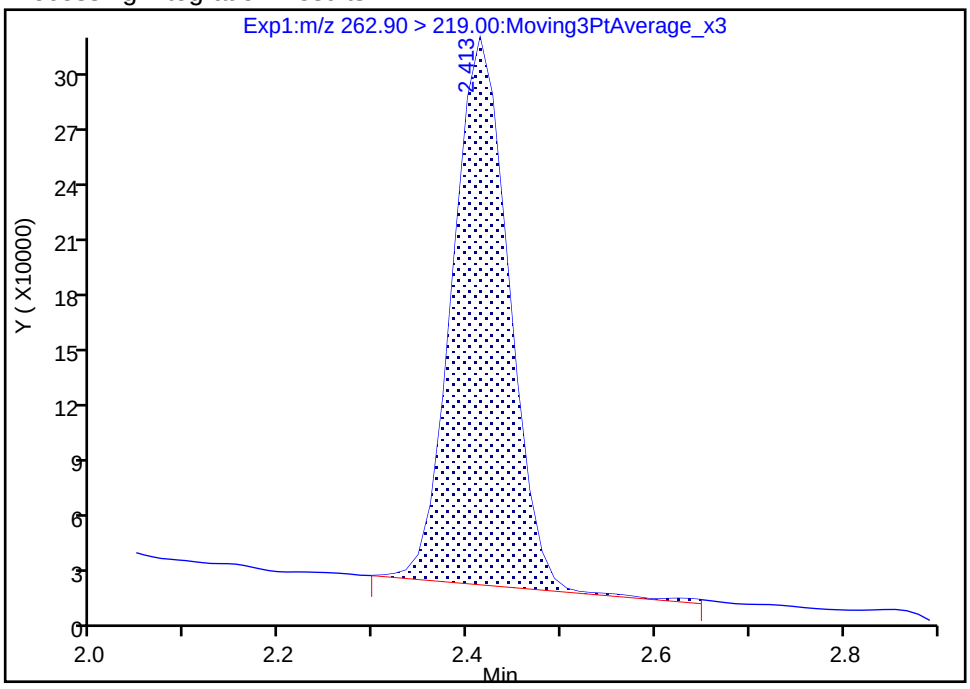
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

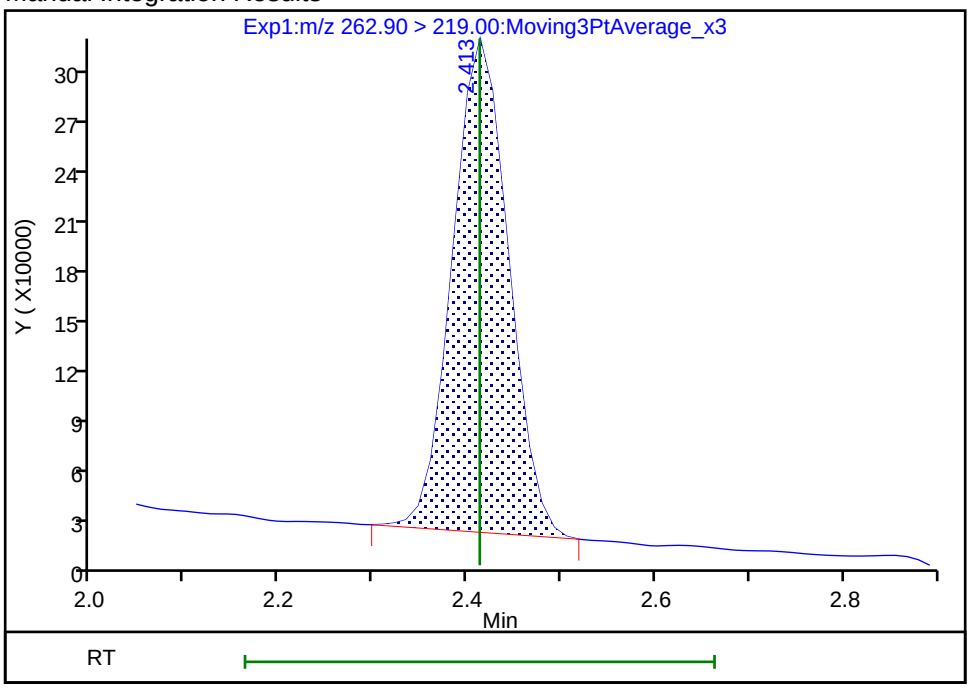
Processing Integration Results

RT: 2.41
Area: 1191789
Amount: 1.329658
Amount Units: ng/ml




Manual Integration Results

RT: 2.41
Area: 1177523
Amount: 1.313742
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:13:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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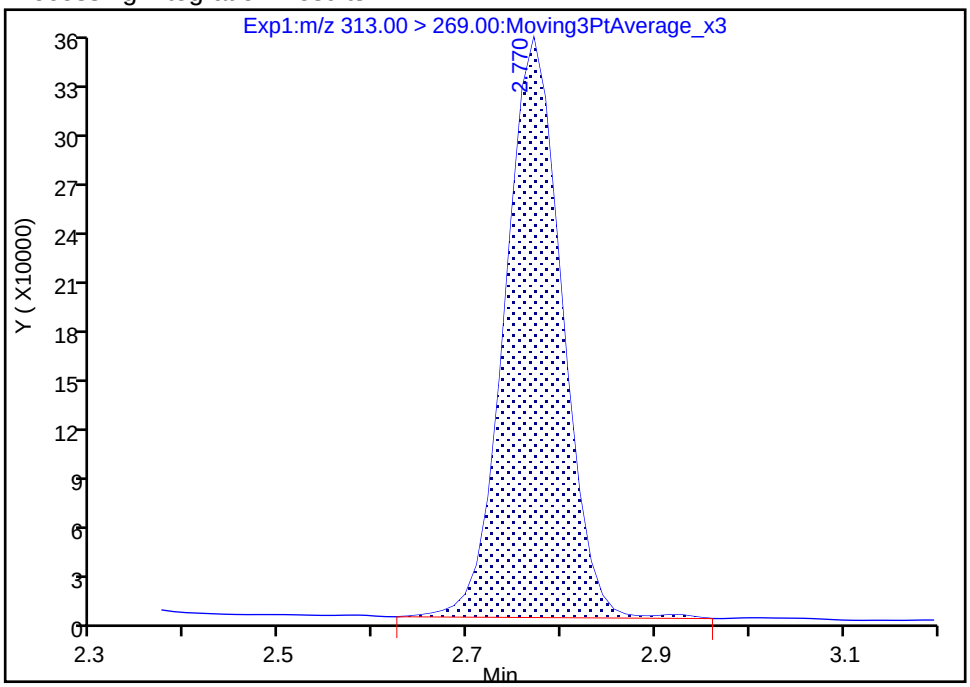
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

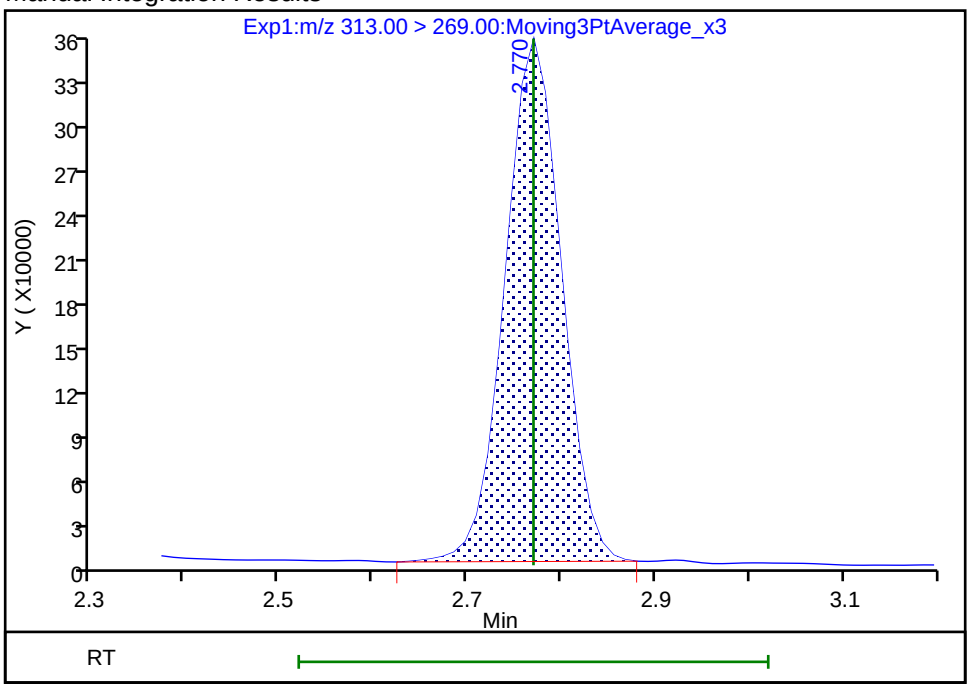
Processing Integration Results

RT: 2.77
Area: 1446969
Amount: 1.448128
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 1430067
Amount: 1.431213
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:13:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

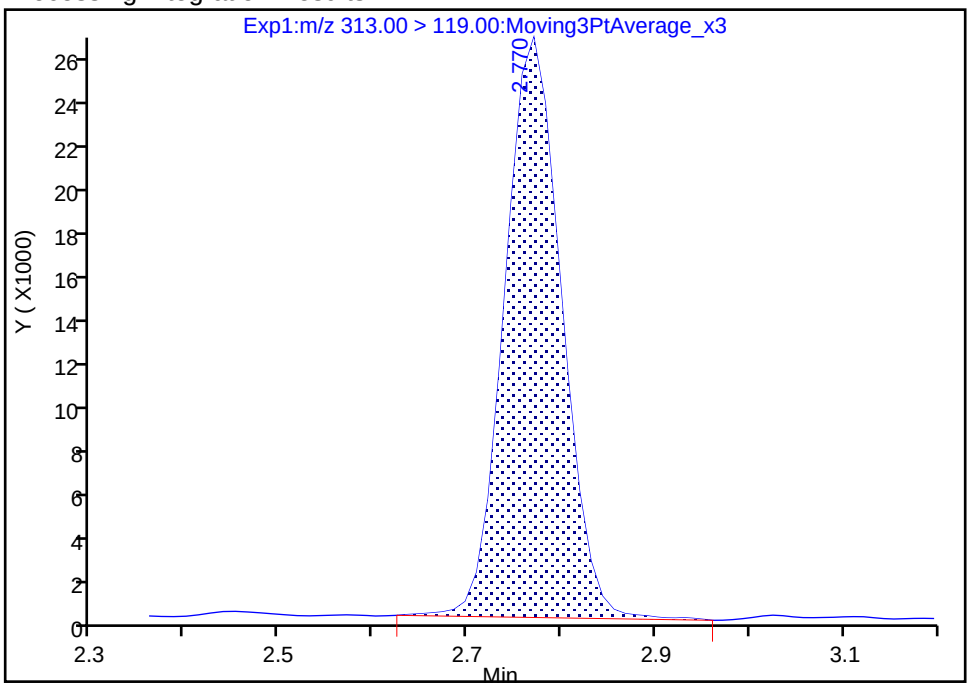
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

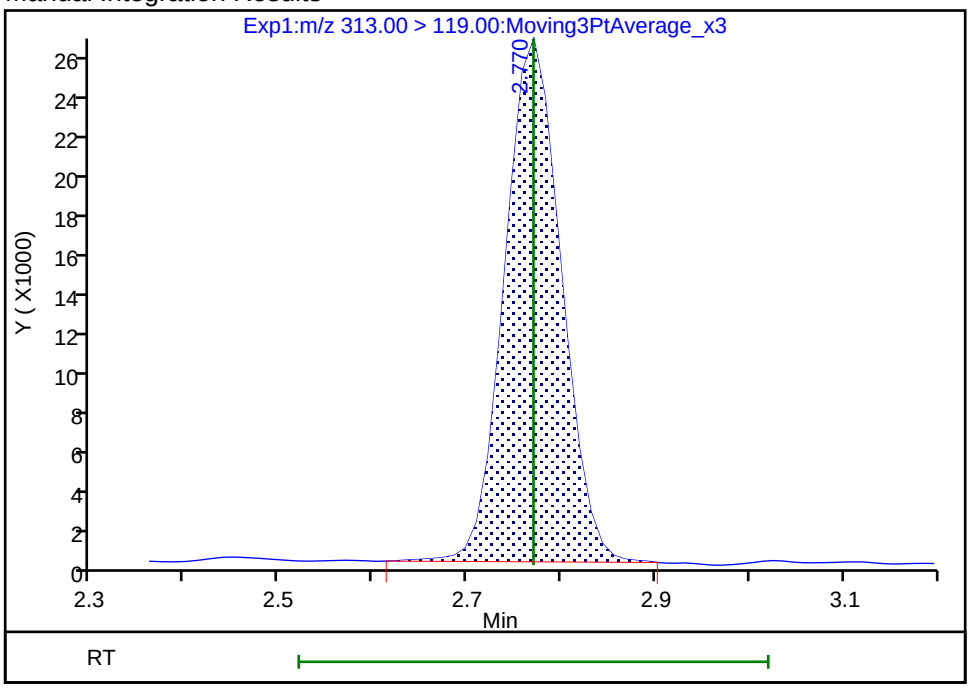
Processing Integration Results

RT: 2.77
Area: 111193
Amount: 1.448128
Amount Units: ng/ml




Manual Integration Results

RT: 2.77
Area: 110342
Amount: 1.431213
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:13:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

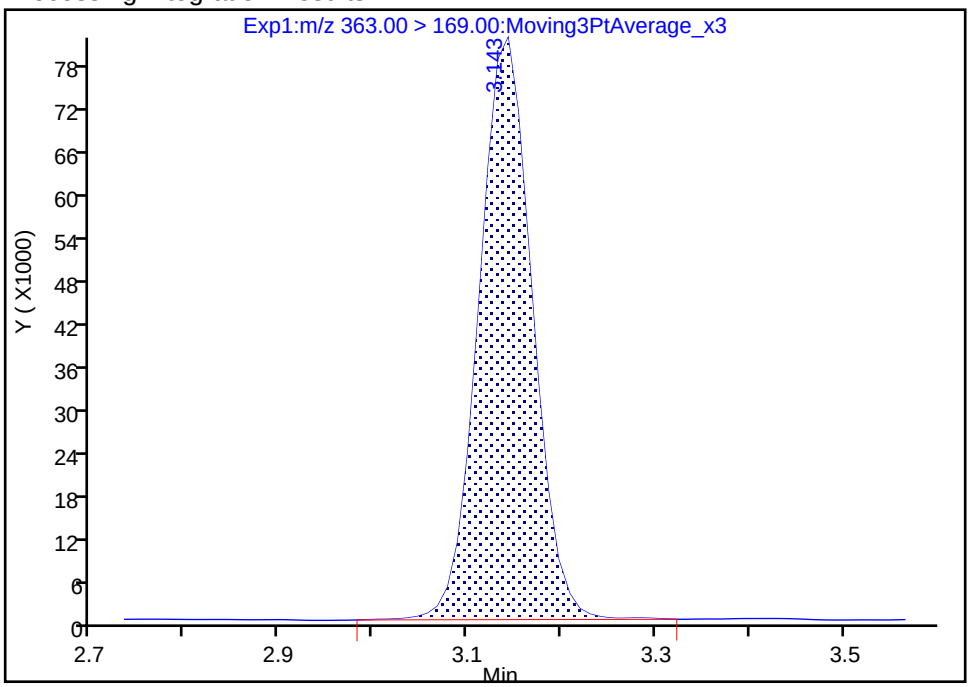
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

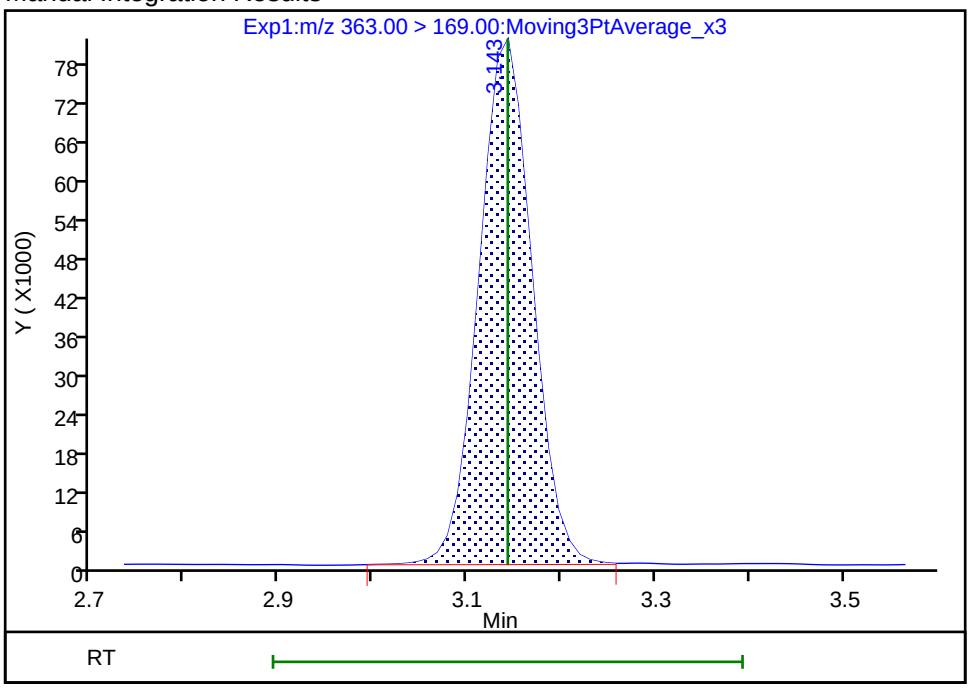
Processing Integration Results

RT: 3.14
Area: 322650
Amount: 1.181513
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 322148
Amount: 1.177753
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

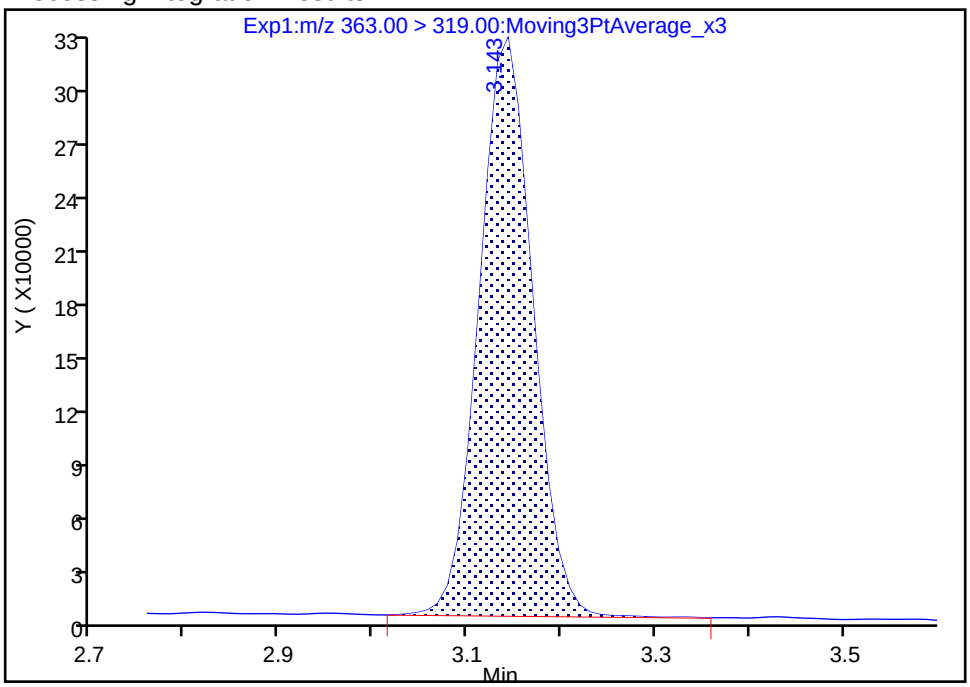
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

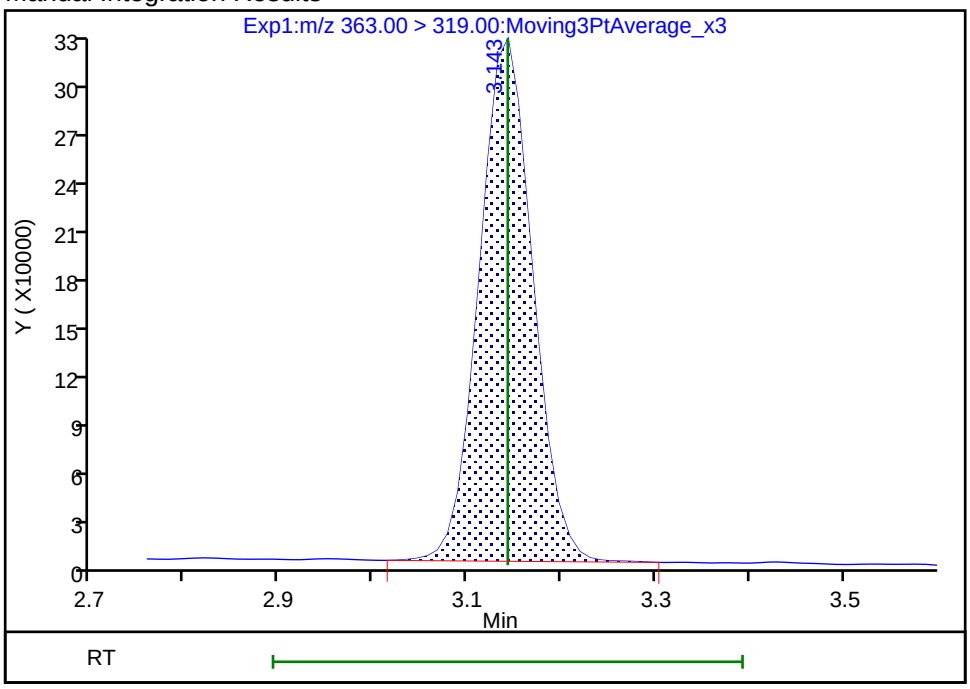
Processing Integration Results

RT: 3.14
Area: 1248623
Amount: 1.181513
Amount Units: ng/ml




Manual Integration Results

RT: 3.14
Area: 1244650
Amount: 1.177753
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:28

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

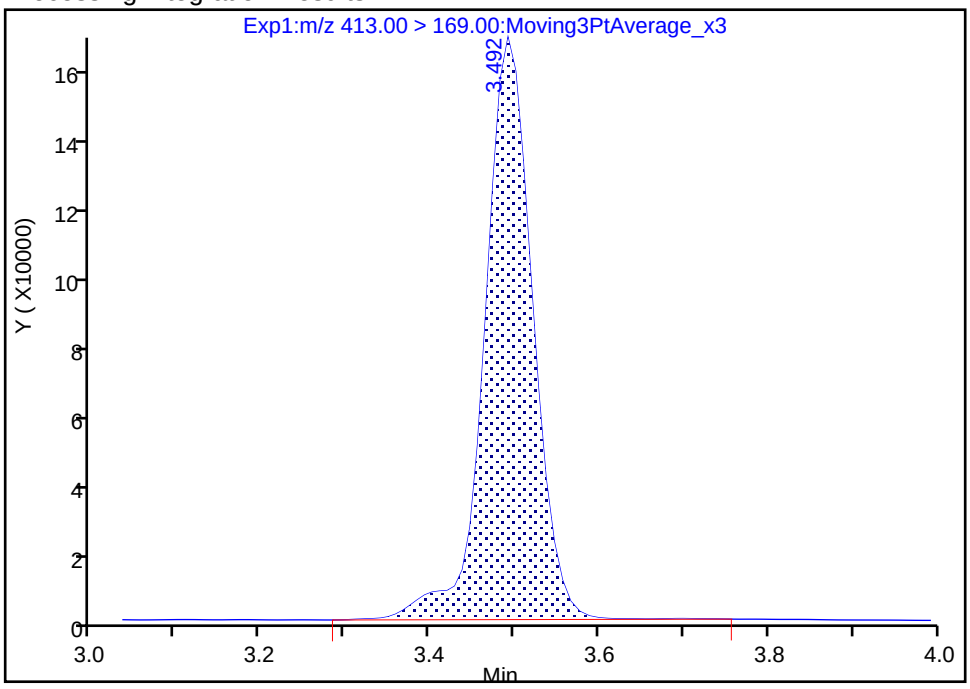
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

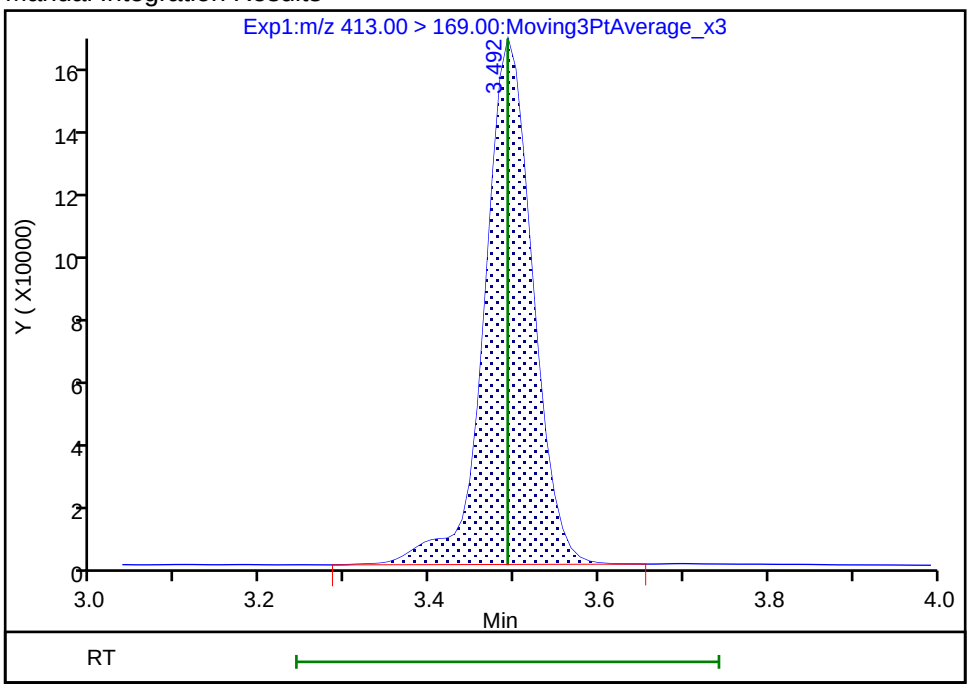
Processing Integration Results

RT: 3.49
Area: 651757
Amount: 1.430423
Amount Units: ng/ml




Manual Integration Results

RT: 3.49
Area: 650451
Amount: 1.430423
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

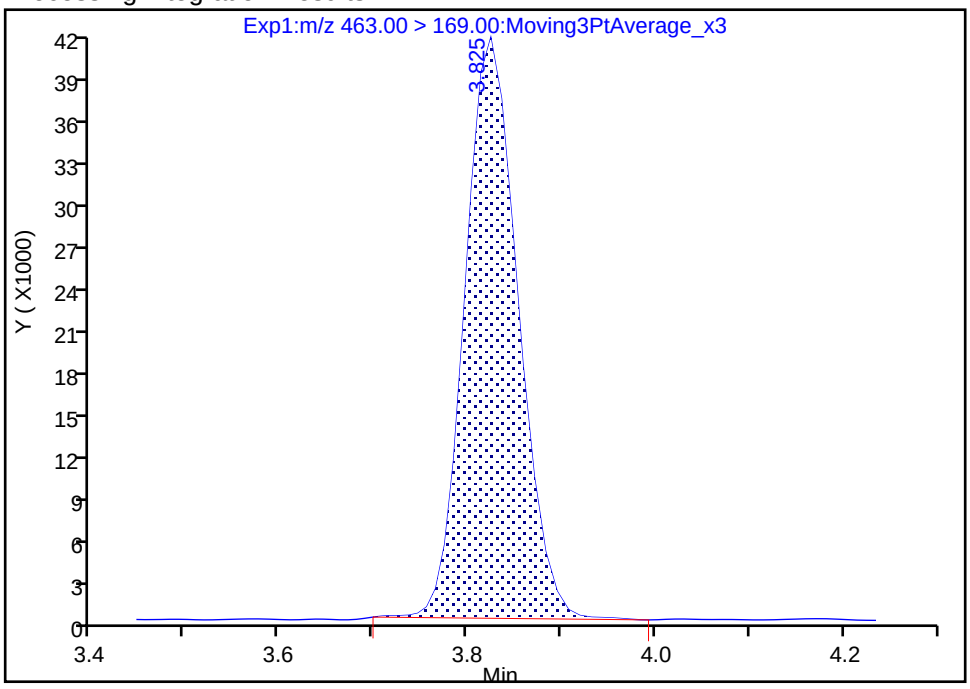
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

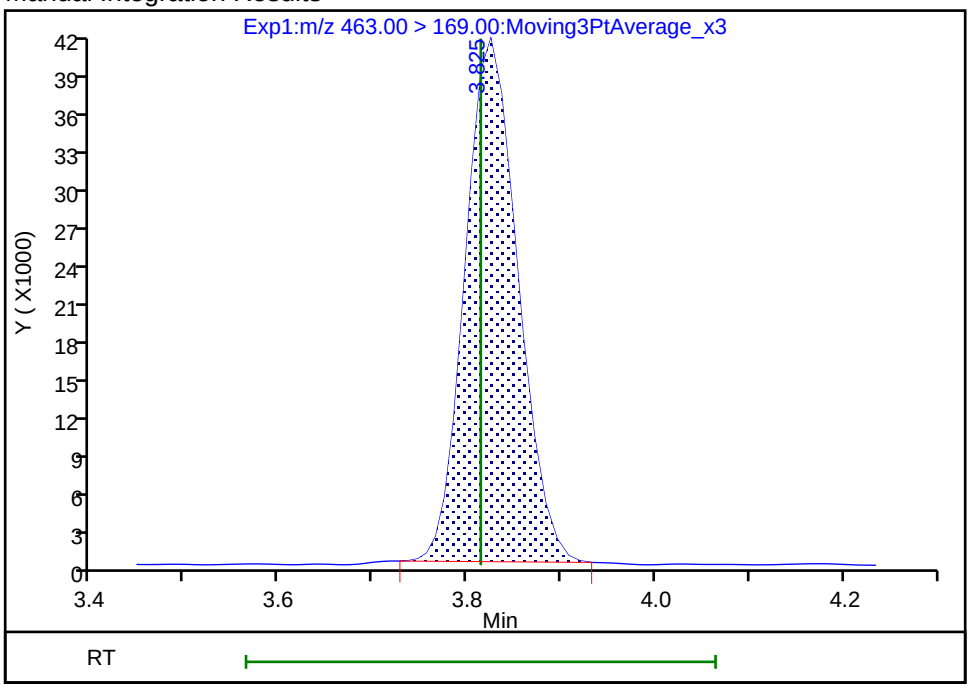
Processing Integration Results

RT: 3.82
Area: 164400
Amount: 0.980719
Amount Units: ng/ml




Manual Integration Results

RT: 3.82
Area: 162349
Amount: 0.980719
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:15:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

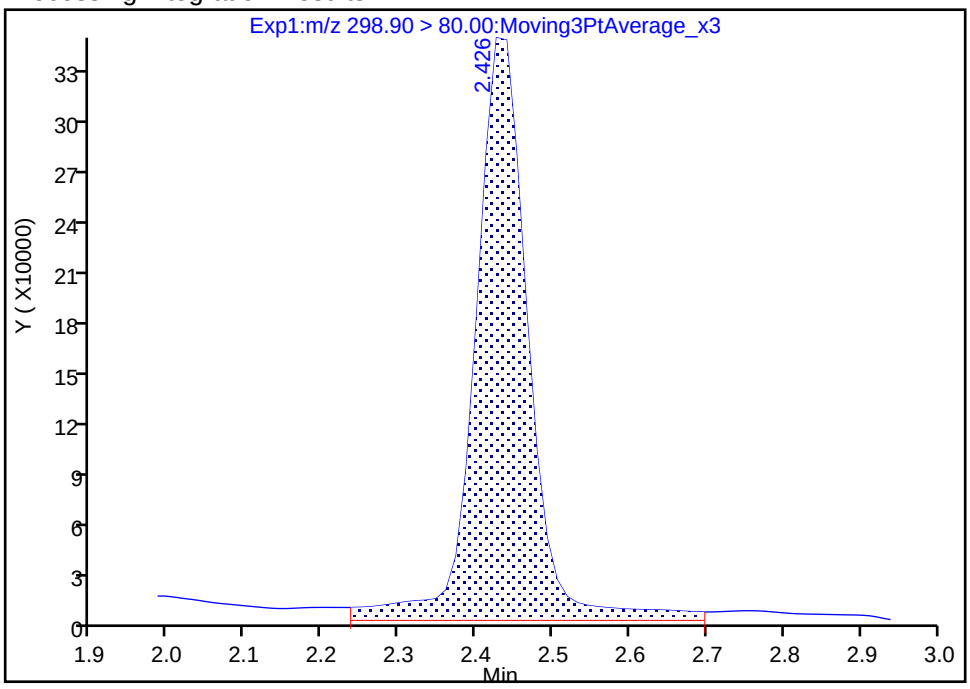
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

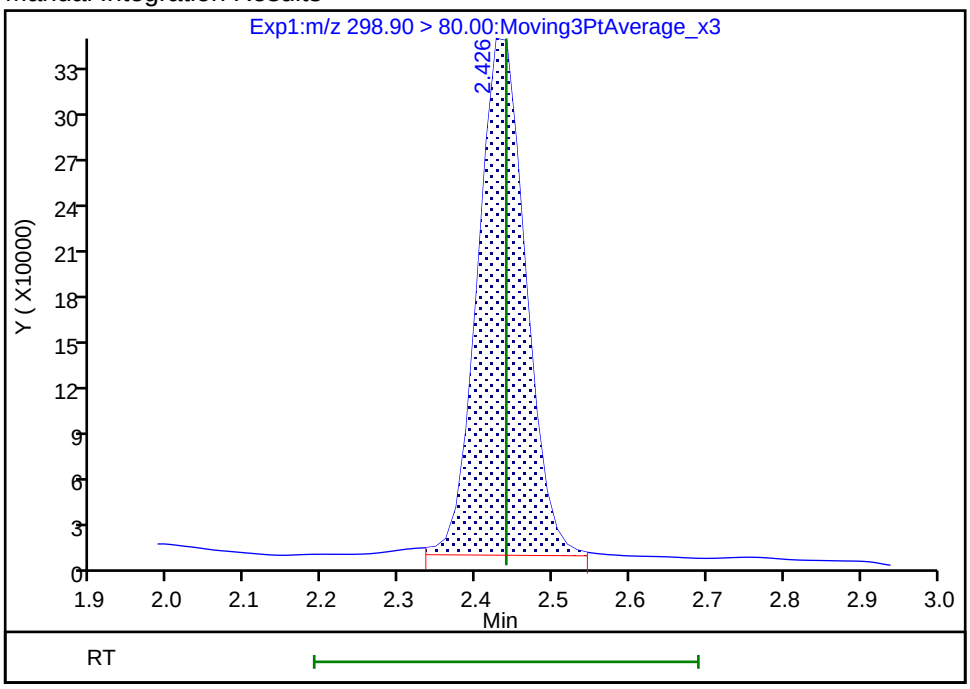
Processing Integration Results

RT: 2.43
Area: 1672057
Amount: 1.312669
Amount Units: ng/ml




Manual Integration Results

RT: 2.43
Area: 1468071
Amount: 1.152527
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:13:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

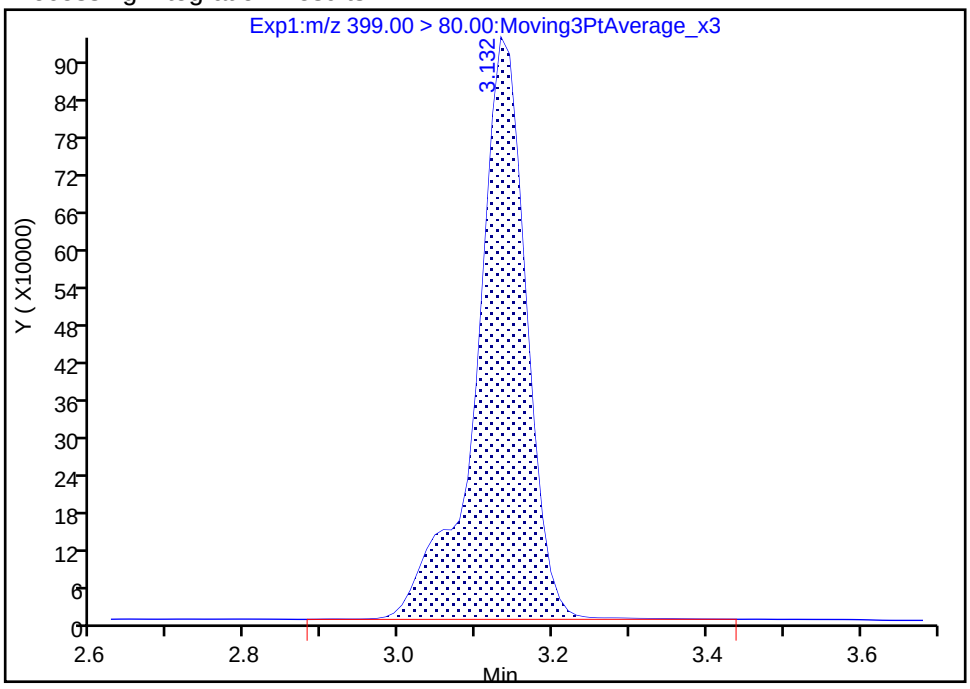
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

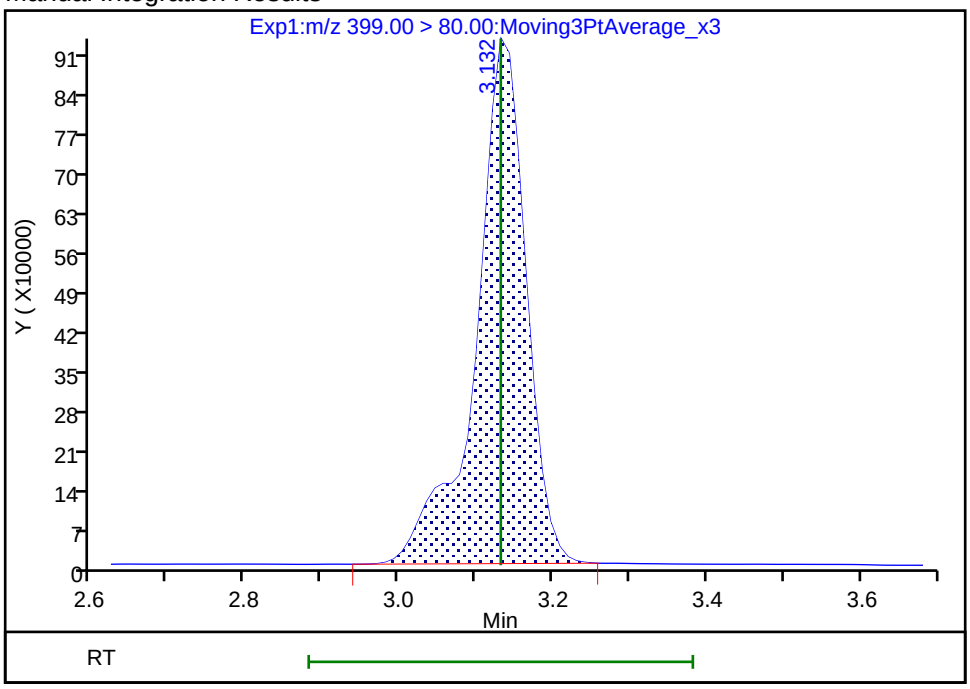
Processing Integration Results

RT: 3.13
Area: 4255842
Amount: 4.188116
Amount Units: ng/ml




Manual Integration Results

RT: 3.13
Area: 4225935
Amount: 4.158685
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

| | | | | | |
|---|---|---|---|---|---|
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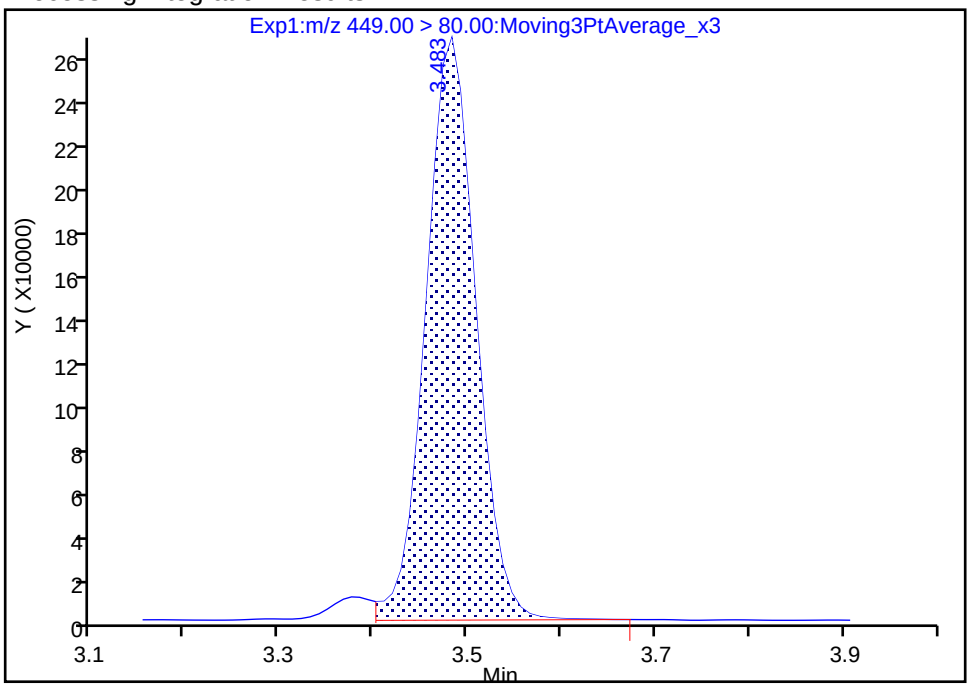
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

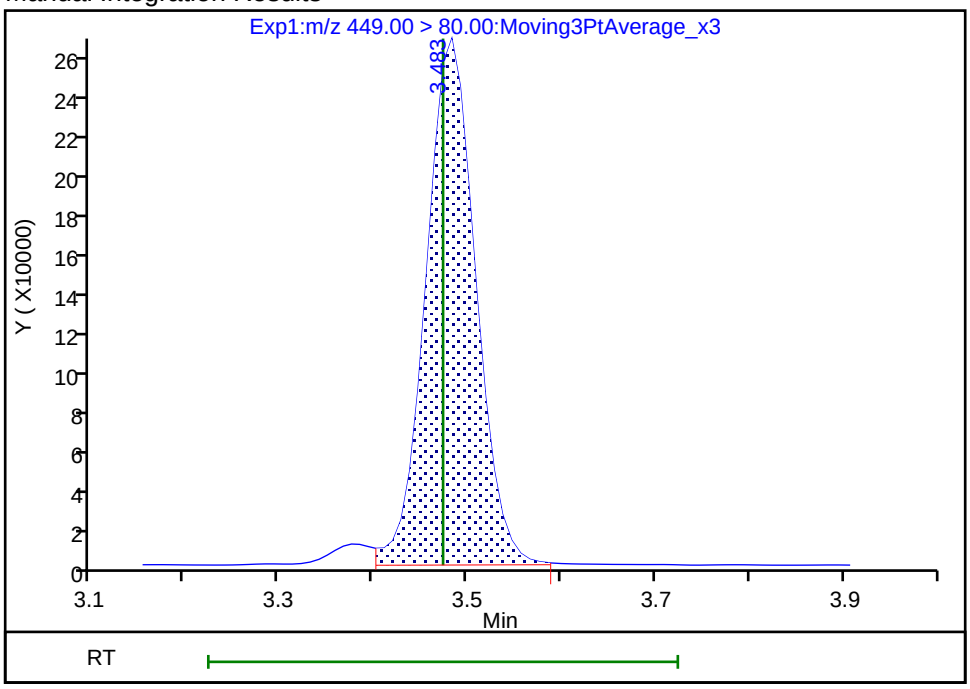
Processing Integration Results

RT: 3.48
Area: 987941
Amount: 1.102528
Amount Units: ng/ml




Manual Integration Results

RT: 3.48
Area: 986499
Amount: 1.100919
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

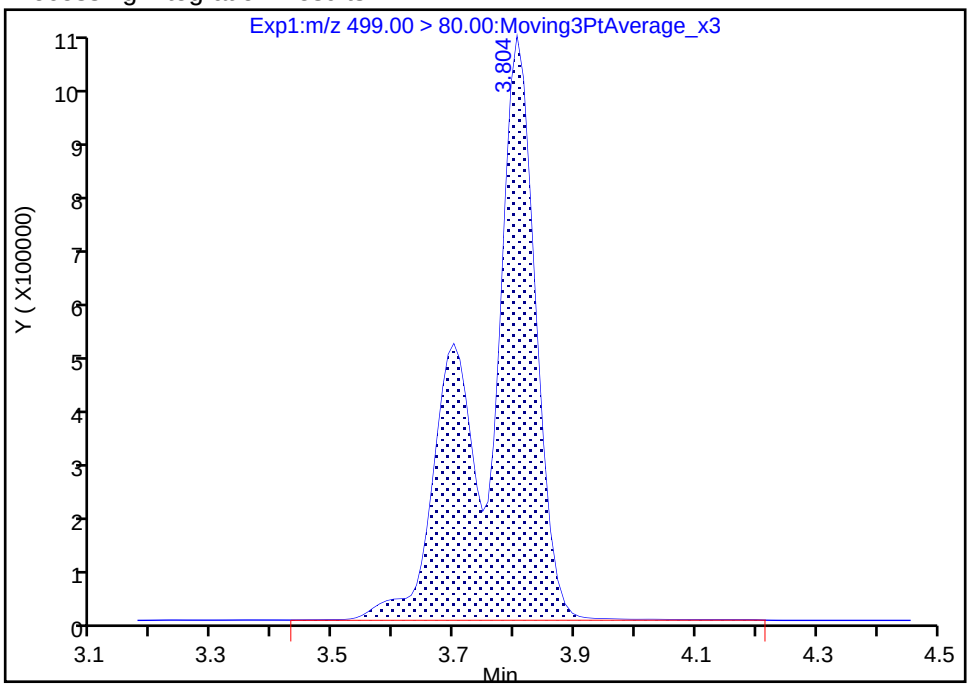
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

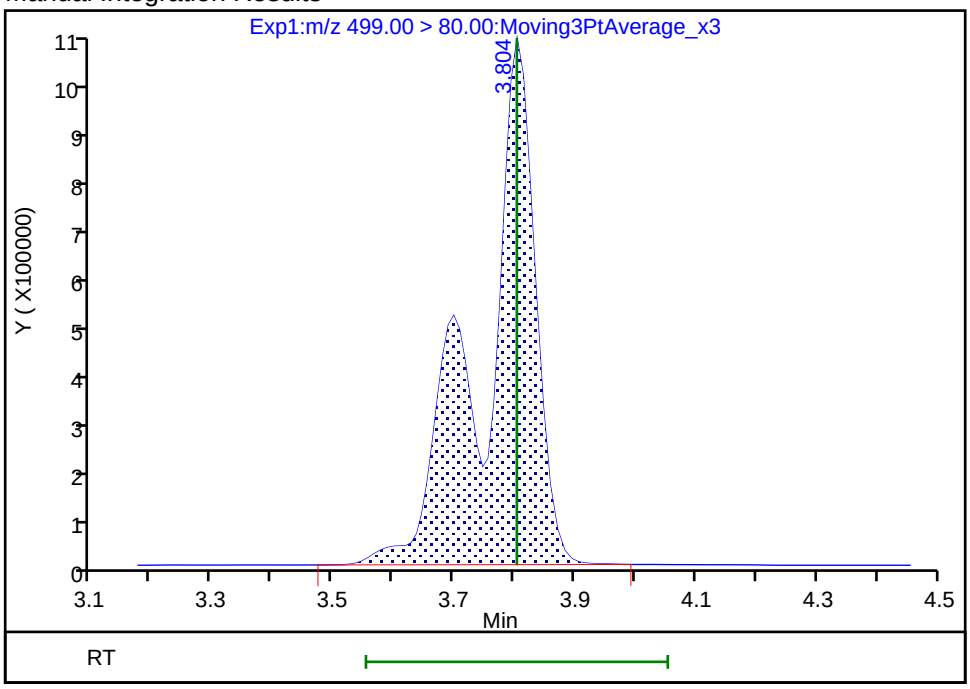
Processing Integration Results

RT: 3.80
Area: 6717774
Amount: 8.613246
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 6677223
Amount: 8.561253
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:14:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

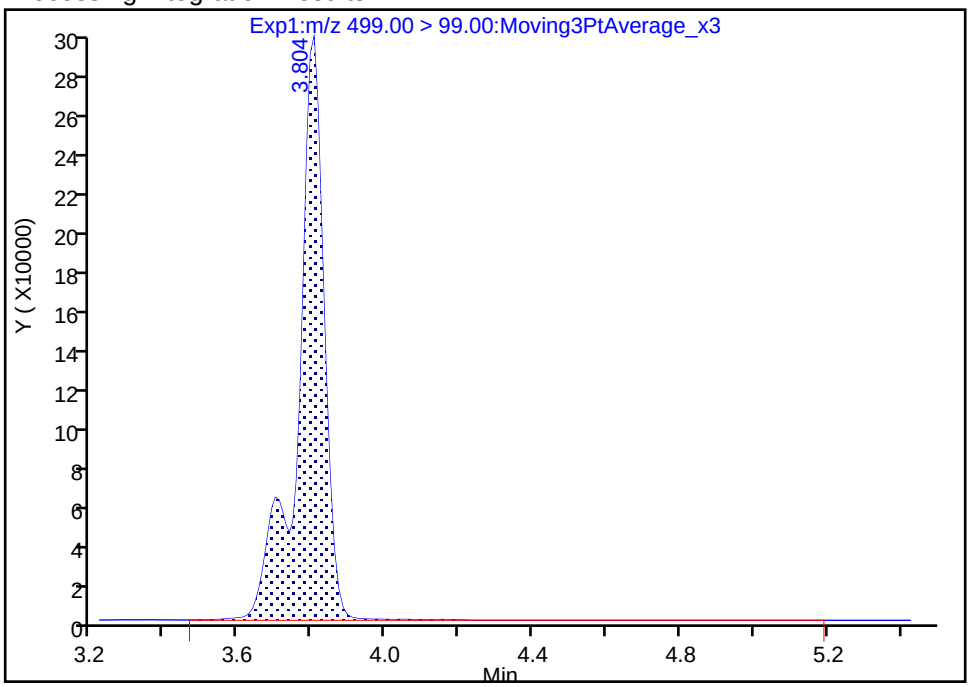
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

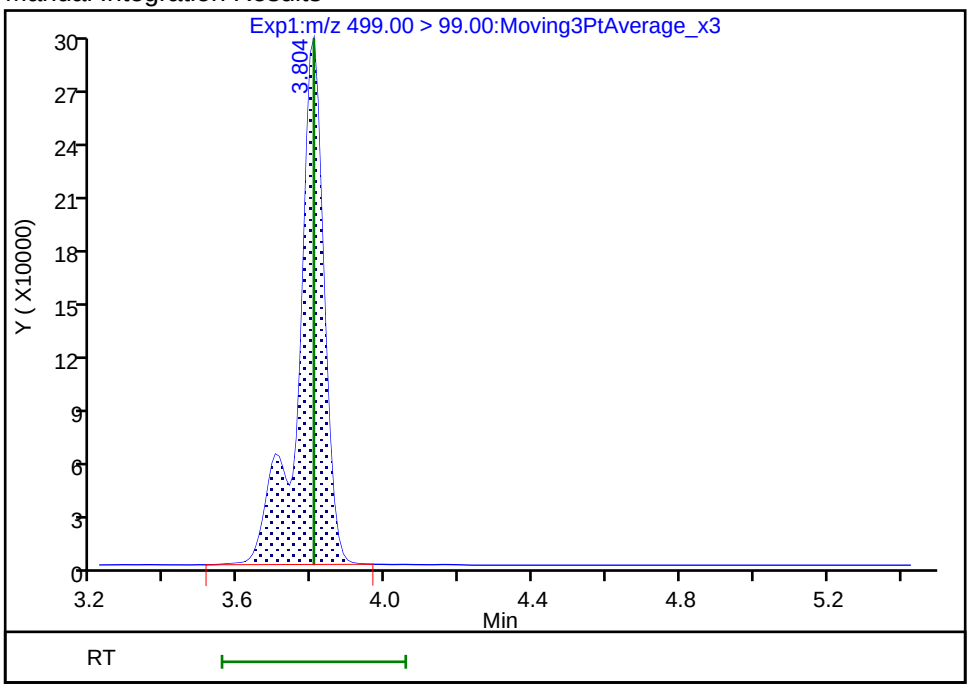
Processing Integration Results

RT: 3.80
Area: 1461843
Amount: 8.613246
Amount Units: ng/ml




Manual Integration Results

RT: 3.80
Area: 1445688
Amount: 8.561253
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:15:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

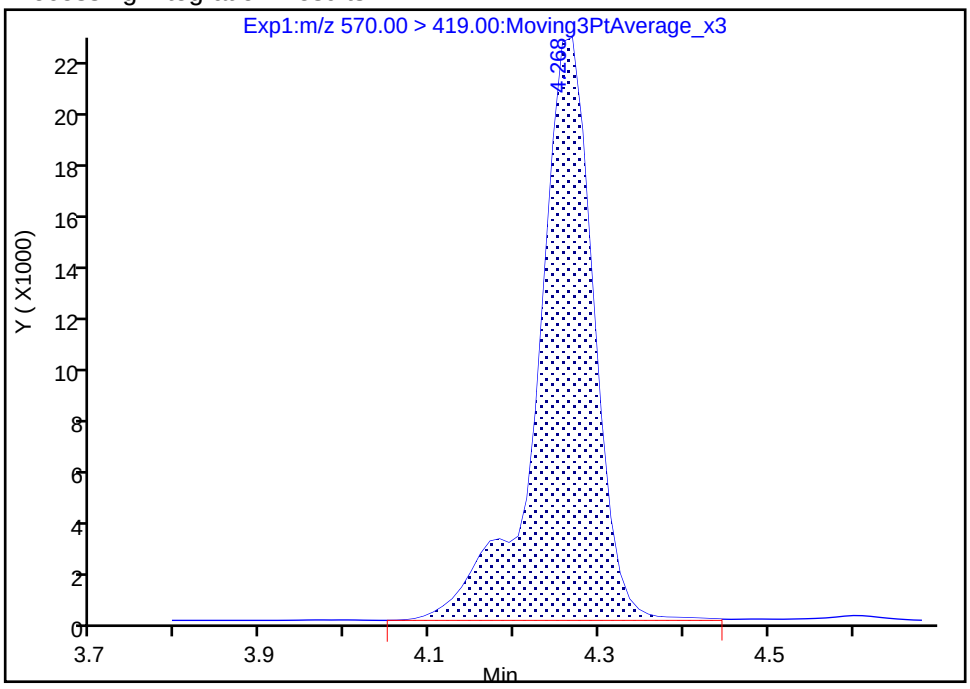
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

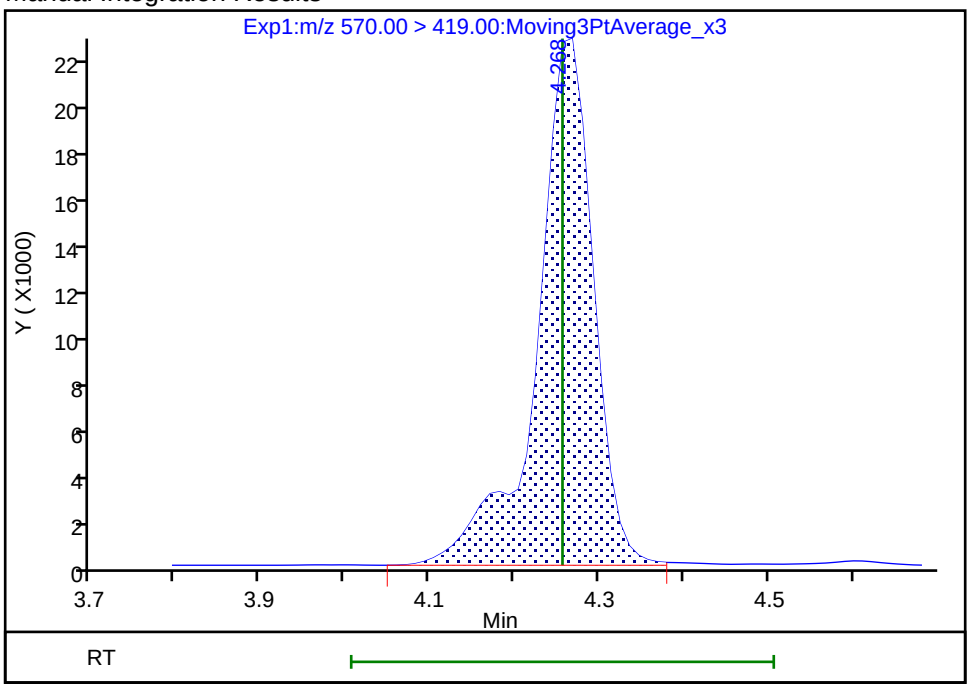
Processing Integration Results

RT: 4.27
Area: 106135
Amount: 1.115386
Amount Units: ng/ml




Manual Integration Results

RT: 4.27
Area: 105788
Amount: 1.111739
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:15:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

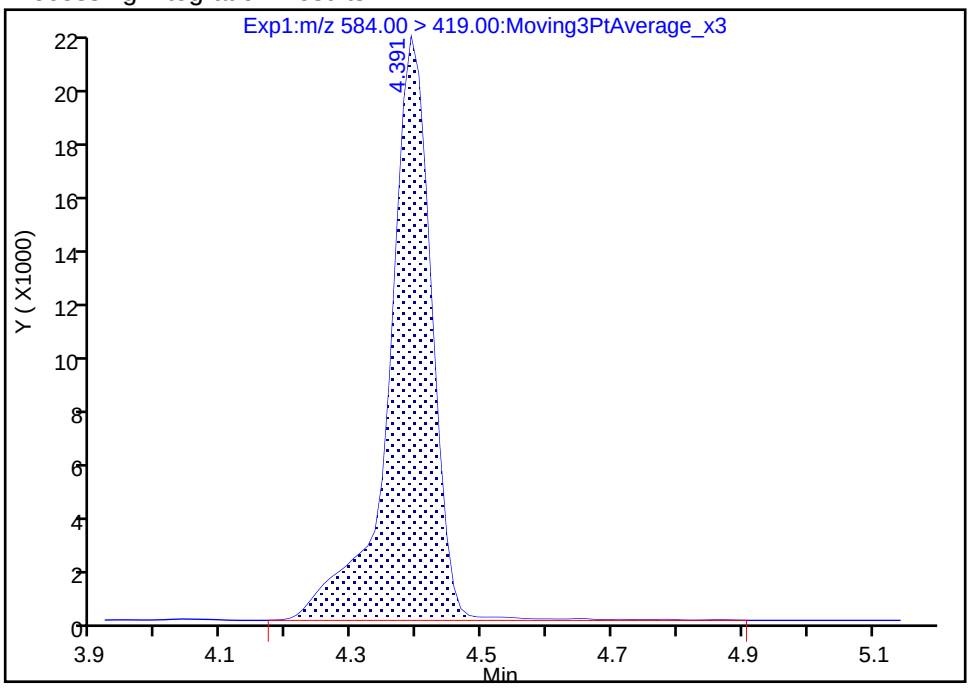
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Burlington\ChromData\LC812\20211109-48356.b\PA211109D27.d | | | | |
| Injection Date: | 10-Nov-2021 07:45:08 | Instrument ID: | LC812 | | |
| Lims ID: | 460-246277-C-18-B MSD | | | | |
| Client ID: | MW-26S-20211028 | | | | |
| Operator ID: | lc812tech | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 20.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | PFC_LC812 | Limit Group: | LC_PFC_ICAL | | |
| Column: | C-18 ( 4.60 mm) | Detector | EXP1 | | |

## 33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

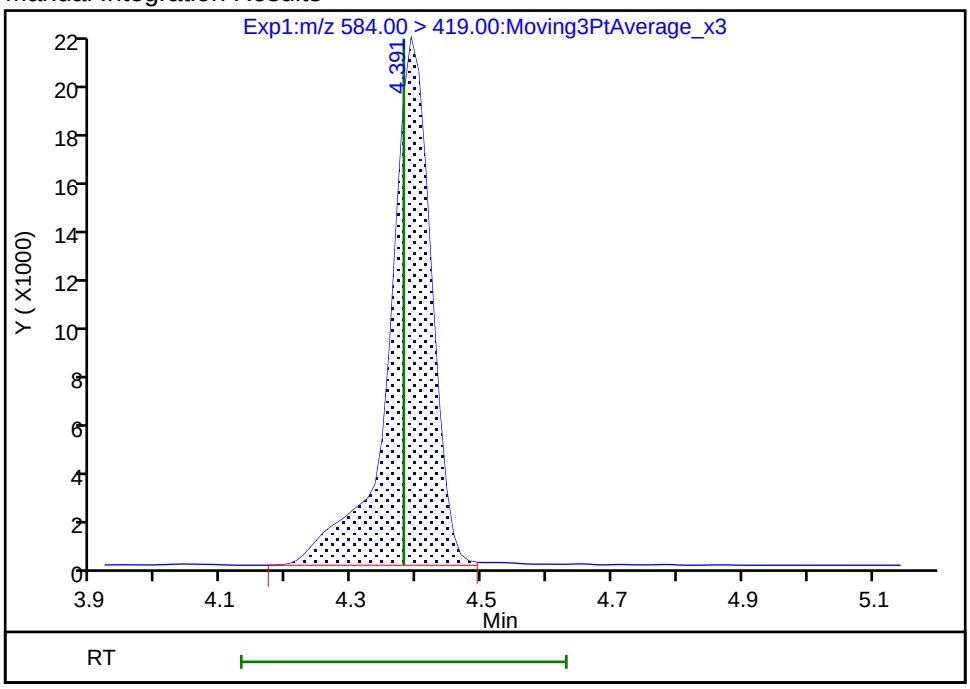
Processing Integration Results

RT: 4.39
Area: 99425
Amount: 1.021152
Amount Units: ng/ml




Manual Integration Results

RT: 4.39
Area: 98483
Amount: 1.011477
Amount Units: ng/ml




Reviewer: khanphomeea, 11-Nov-2021 10:15:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812 Start Date: 10/27/2021 13:37

Analysis Batch Number: 173158 End Date: 10/27/2021 14:52

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/27/2021 13:37 | 1 | | C-18 4.6(mm) |
| IC 200-173158/2 | | 10/27/2021 13:46 | 1 | PA211027ICAL02.d | C-18 4.6(mm) |
| IC 200-173158/3 | | 10/27/2021 13:54 | 1 | PA211027ICAL03.d | C-18 4.6(mm) |
| IC 200-173158/4 | | 10/27/2021 14:02 | 1 | PA211027ICAL04.d | C-18 4.6(mm) |
| ICIS 200-173158/5 | | 10/27/2021 14:11 | 1 | PA211027ICAL05.d | C-18 4.6(mm) |
| IC 200-173158/6 | | 10/27/2021 14:19 | 1 | PA211027ICAL06.d | C-18 4.6(mm) |
| IC 200-173158/7 | | 10/27/2021 14:27 | 1 | PA211027ICAL07.d | C-18 4.6(mm) |
| ICB 200-173158/8 | | 10/27/2021 14:35 | 1 | PA211027ICAL08.d | C-18 4.6(mm) |
| ICV 200-173158/9 | | 10/27/2021 14:44 | 1 | PA211027ICAL09.d | C-18 4.6(mm) |
| ZZZZZ | | 10/27/2021 14:52 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812  Start Date: 11/08/2021 16:08

Analysis Batch Number: 173621  End Date: 11/08/2021 20:21

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/08/2021 16:08 | 1 | | C-18 4.6(mm) |
| CCVL 200-173621/5 | | 11/08/2021 16:16 | 1 | PA211108A05.d | C-18 4.6(mm) |
| CCVIS 200-173621/6 | | 11/08/2021 16:23 | 1 | PA211108A06.d | C-18 4.6(mm) |
| 460-246277-2 DL | AP-101-20211027 DL | 11/08/2021 16:52 | 5 | PA211108A10.d | C-18 4.6(mm) |
| CCV 200-173621/12 | | 11/08/2021 17:06 | 1 | PA211108A12.d | C-18 4.6(mm) |
| MB 200-173541/1-A | | 11/08/2021 17:13 | 1 | PA211108A13.d | C-18 4.6(mm) |
| LCS 200-173541/2-A | | 11/08/2021 17:21 | 1 | PA211108A14.d | C-18 4.6(mm) |
| LCSD 200-173541/3-A | | 11/08/2021 17:28 | 1 | PA211108A15.d | C-18 4.6(mm) |
| CCV 200-173621/26 | | 11/08/2021 18:47 | 1 | PA211108A26.d | C-18 4.6(mm) |
| ZZZZZ | | 11/08/2021 19:52 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/08/2021 19:59 | 1 | | C-18 4.6(mm) |
| CCV 200-173621/39 | | 11/08/2021 20:21 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812  Start Date: 11/09/2021 12:45

Analysis Batch Number: 173663  End Date: 11/09/2021 15:10

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/09/2021 12:45 | 1 | | C-18 4.6(mm) |
| CCVL 200-173663/5 | | 11/09/2021 12:53 | 1 | PA211109A05.d | C-18 4.6(mm) |
| CCVIS 200-173663/6 | | 11/09/2021 13:00 | 1 | PA211109A06.d | C-18 4.6(mm) |
| 460-246277-28 DL | AMW-8-20211029 DL | 11/09/2021 13:07 | 5 | PA211109A07.d | C-18 4.6(mm) |
| 460-246277-31 DL | AMW-10-20211029 DL | 11/09/2021 13:14 | 2 | PA211109A08.d | C-18 4.6(mm) |
| CCV 200-173663/13 | | 11/09/2021 13:50 | 1 | PA211109A13.d | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 13:58 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:05 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:12 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:19 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:26 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:34 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:41 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:48 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 14:55 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 15:02 | 1 | | C-18 4.6(mm) |
| CCV 200-173663/24 | | 11/09/2021 15:10 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812  Start Date: 11/09/2021 17:16

Analysis Batch Number: 173679  End Date: 11/09/2021 21:30

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/09/2021 17:16 | 1 | | C-18 4.6(mm) |
| CCVL 200-173679/2 | | 11/09/2021 17:25 | 1 | PA211109AA02.d | C-18 4.6(mm) |
| CCVIS 200-173679/3 | | 11/09/2021 17:33 | 1 | PA211109AA03.d | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 17:41 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 17:49 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 17:57 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:06 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:14 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:22 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:30 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:38 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:47 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 18:55 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:03 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:11 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:19 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:27 | 1 | | C-18 4.6(mm) |
| CCV 200-173679/18 | | 11/09/2021 19:36 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:44 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 19:52 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:00 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:08 | 50 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:17 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:25 | 50 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:33 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:41 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:49 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 20:57 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 21:06 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 21:14 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/09/2021 21:22 | 1 | | C-18 4.6(mm) |
| CCV 200-173679/32 | | 11/09/2021 21:30 | 1 | | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812  Start Date: 11/10/2021 04:12

Analysis Batch Number: 173682  End Date: 11/10/2021 07:53

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 200-173682/1 | | 11/10/2021 04:12 | 1 | PA211109D01.d | C-18 4.6(mm) |
| MB 200-173528/1-A | | 11/10/2021 04:20 | 1 | PA211109D02.d | C-18 4.6(mm) |
| LCS 200-173528/2-A | | 11/10/2021 04:28 | 1 | PA211109D03.d | C-18 4.6(mm) |
| 460-246277-1 | MH-102-20211027 | 11/10/2021 04:36 | 1 | PA211109D04.d | C-18 4.6(mm) |
| 460-246277-2 | AP-101-20211027 | 11/10/2021 04:44 | 1 | PA211109D05.d | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 04:53 | 1 | | C-18 4.6(mm) |
| 460-246277-3 | AMW-2-20211027 | 11/10/2021 05:01 | 1 | PA211109D07.d | C-18 4.6(mm) |
| 460-246277-4 | AMW-1-20211027 | 11/10/2021 05:09 | 1 | PA211109D08.d | C-18 4.6(mm) |
| 460-246277-5 | MW-202S-20211027 | 11/10/2021 05:17 | 1 | PA211109D09.d | C-18 4.6(mm) |
| 460-246277-6 | MW-202D-20211027 | 11/10/2021 05:25 | 1 | PA211109D10.d | C-18 4.6(mm) |
| 460-246277-7 | MW-9S-20211027 | 11/10/2021 05:34 | 1 | PA211109D11.d | C-18 4.6(mm) |
| 460-246277-8 | MW-24S-20211027 | 11/10/2021 05:42 | 1 | PA211109D12.d | C-18 4.6(mm) |
| 460-246277-8 MS | MW-24S-20211027 MS | 11/10/2021 05:50 | 1 | PA211109D13.d | C-18 4.6(mm) |
| 460-246277-8 MSD | MW-24S-20211027 MSD | 11/10/2021 05:58 | 1 | PA211109D14.d | C-18 4.6(mm) |
| CCV 200-173682/15 | | 11/10/2021 06:06 | 1 | PA211109D15.d | C-18 4.6(mm) |
| 460-246277-9 | BP-101-20211028 | 11/10/2021 06:15 | 1 | PA211109D16.d | C-18 4.6(mm) |
| 460-246277-10 | EP-02-20211028 | 11/10/2021 06:23 | 1 | PA211109D17.d | C-18 4.6(mm) |
| 460-246277-11 | MW-23S-20211028 | 11/10/2021 06:31 | 1 | PA211109D18.d | C-18 4.6(mm) |
| 460-246277-12 | MW-37AQ-20211028 | 11/10/2021 06:39 | 1 | PA211109D19.d | C-18 4.6(mm) |
| 460-246277-13 | AMW-5-20211028 | 11/10/2021 06:47 | 1 | PA211109D20.d | C-18 4.6(mm) |
| 460-246277-14 | MW-5S-20211028 | 11/10/2021 06:55 | 1 | PA211109D21.d | C-18 4.6(mm) |
| 460-246277-15 | MW-34-20211028 | 11/10/2021 07:04 | 1 | PA211109D22.d | C-18 4.6(mm) |
| 460-246277-16 | MW-1S-20211028 | 11/10/2021 07:12 | 1 | PA211109D23.d | C-18 4.6(mm) |
| 460-246277-17 | MW-102-20211028 | 11/10/2021 07:20 | 1 | PA211109D24.d | C-18 4.6(mm) |
| 460-246277-18 | MW-26S-20211028 | 11/10/2021 07:28 | 1 | PA211109D25.d | C-18 4.6(mm) |
| 460-246277-18 MS | MW-26S-20211028 MS | 11/10/2021 07:36 | 1 | PA211109D26.d | C-18 4.6(mm) |
| 460-246277-18 MSD | MW-26S-20211028 MSD | 11/10/2021 07:45 | 1 | PA211109D27.d | C-18 4.6(mm) |
| CCV 200-173682/28 | | 11/10/2021 07:53 | 1 | PA211109D28.d | C-18 4.6(mm) |

537 (modified)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Instrument ID: LC812  Start Date: 11/10/2021 11:22

Analysis Batch Number: 173694  End Date: 11/10/2021 15:20

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/10/2021 11:22 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 11:30 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 11:39 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 11:47 | 1 | | C-18 4.6(mm) |
| CCVL 200-173694/5 | | 11/10/2021 11:55 | 1 | PA211110A05.d | C-18 4.6(mm) |
| CCVIS 200-173694/6 | | 11/10/2021 12:03 | 1 | PA211110A06.d | C-18 4.6(mm) |
| MB 200-173541/1-A | | 11/10/2021 12:11 | 1 | PA211110A07.d | C-18 4.6(mm) |
| LCS 200-173541/2-A | | 11/10/2021 12:19 | 1 | PA211110A08.d | C-18 4.6(mm) |
| LCSD 200-173541/3-A | | 11/10/2021 12:28 | 1 | PA211110A09.d | C-18 4.6(mm) |
| 460-246277-19 | MW-7S-20211028 | 11/10/2021 12:36 | 1 | PA211110A10.d | C-18 4.6(mm) |
| 460-246277-20 | AMW-4-20211028 | 11/10/2021 12:44 | 1 | PA211110A11.d | C-18 4.6(mm) |
| 460-246277-21 | AMW-11-20211028 | 11/10/2021 12:52 | 1 | PA211110A12.d | C-18 4.6(mm) |
| 460-246277-22 | AMW-6-20211028 | 11/10/2021 13:00 | 1 | PA211110A13.d | C-18 4.6(mm) |
| 460-246277-23 | AMW-3-20211028 | 11/10/2021 13:09 | 1 | PA211110A14.d | C-18 4.6(mm) |
| 460-246277-24 | DUP-02-20211028 | 11/10/2021 13:17 | 1 | PA211110A15.d | C-18 4.6(mm) |
| 460-246277-25 | MW-201-20211028 | 11/10/2021 13:25 | 1 | PA211110A16.d | C-18 4.6(mm) |
| 460-246277-26 | MW-4S-20211029 | 11/10/2021 13:33 | 1 | PA211110A17.d | C-18 4.6(mm) |
| CCV 200-173694/18 | | 11/10/2021 13:41 | 1 | PA211110A18.d | C-18 4.6(mm) |
| 460-246277-27 | MW-3S-20211029 | 11/10/2021 13:49 | 1 | PA211110A19.d | C-18 4.6(mm) |
| 460-246277-29 | AMW-9-20211029 | 11/10/2021 13:58 | 1 | PA211110A20.d | C-18 4.6(mm) |
| 460-246277-30 | AMW-7-20211029 | 11/10/2021 14:06 | 1 | PA211110A21.d | C-18 4.6(mm) |
| 460-246277-31 | AMW-10-20211029 | 11/10/2021 14:14 | 1 | PA211110A22.d | C-18 4.6(mm) |
| 460-246277-28 | AMW-8-20211029 | 11/10/2021 14:22 | 1 | PA211110A23.d | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 14:30 | 1 | | C-18 4.6(mm) |
| 460-246277-32 | MW-53S-20211029 | 11/10/2021 14:39 | 1 | PA211110A25.d | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 14:47 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 14:55 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 15:03 | 1 | | C-18 4.6(mm) |
| ZZZZZ | | 11/10/2021 15:11 | 1 | | C-18 4.6(mm) |
| CCV 200-173694/30 | | 11/10/2021 15:20 | 1 | PA211110A30.d | C-18 4.6(mm) |

537 (modified)

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173528  Batch Start Date: 11/04/21 17:16  Batch Analyst: Kane, Elizabeth

Batch Method: 3535  Batch End Date: 11/05/21 14:55

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | LCMPFCIDA21 00040 | LCPFC32MTXStk 00039 |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173528/1 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | |
| LCS 200-173528/2 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | 25 uL |
| 460-246277-C-1 | MH-102-20211027 | 3535, 537 (modified) | T | 302.19 g | 26.98 g | 275.2 mL | 10 mL | 100 uL | |
| 460-246277-C-2 | AP-101-20211027 | 3535, 537 (modified) | T | 296.41 g | 27.26 g | 269.2 mL | 10 mL | 100 uL | |
| 460-246277-C-3 | AMW-2-20211027 | 3535, 537 (modified) | T | 295.09 g | 27.30 g | 267.8 mL | 10 mL | 100 uL | |
| 460-246277-C-4 | AMW-1-20211027 | 3535, 537 (modified) | T | 301.22 g | 27.05 g | 274.2 mL | 10 mL | 100 uL | |
| 460-246277-C-5 | MW-202S-20211027 | 3535, 537 (modified) | T | 284.48 g | 26.70 g | 257.8 mL | 10 mL | 100 uL | |
| 460-246277-C-6 | MW-202D-20211027 | 3535, 537 (modified) | T | 300.66 g | 26.78 g | 273.9 mL | 10 mL | 100 uL | |
| 460-246277-C-7 | MW-9S-20211027 | 3535, 537 (modified) | T | 333.99 g | 27.25 g | 306.7 mL | 10 mL | 100 uL | |
| 460-246277-C-8 | MW-24S-20211027 | 3535, 537 (modified) | T | 319.18 g | 26.84 g | 292.3 mL | 10 mL | 100 uL | |
| 460-246277-D-8 MS | MW-24S-20211027 | 3535, 537 (modified) | T | 314.63 g | 26.99 g | 287.6 mL | 10 mL | 100 uL | 25 uL |
| 460-246277-D-8 MSD | MW-24S-20211027 | 3535, 537 (modified) | T | 330.83 g | 26.97 g | 303.9 mL | 10 mL | 100 uL | 25 uL |
| 460-246277-D-9 | BP-101-20211028 | 3535, 537 (modified) | T | 306.87 g | 27.29 g | 279.6 mL | 10 mL | 100 uL | |
| 460-246277-D-10 | EP-02-20211028 | 3535, 537 (modified) | T | 302.01 g | 26.76 g | 275.3 mL | 10 mL | 100 uL | |
| 460-246277-D-11 | MW-23S-20211028 | 3535, 537 (modified) | T | 292.99 g | 26.86 g | 266.1 mL | 10 mL | 100 uL | |
| 460-246277-C-12 | MW-37AQ-20211028 | 3535, 537 (modified) | T | 304.04 g | 26.81 g | 277.2 mL | 10 mL | 100 uL | |
| 460-246277-C-13 | AMW-5-20211028 | 3535, 537 (modified) | T | 307.80 g | 27.34 g | 280.5 mL | 10 mL | 100 uL | |
| 460-246277-C-14 | MW-5S-20211028 | 3535, 537 (modified) | T | 287.01 g | 26.94 g | 260.1 mL | 10 mL | 100 uL | |
| 460-246277-C-15 | MW-34-20211028 | 3535, 537 (modified) | T | 312.49 g | 26.86 g | 285.6 mL | 10 mL | 100 uL | |
| 460-246277-C-16 | MW-1S-20211028 | 3535, 537 (modified) | T | 304.37 g | 27.22 g | 277.2 mL | 10 mL | 100 uL | |
| 460-246277-C-17 | MW-102-20211028 | 3535, 537 (modified) | T | 327.65 g | 27.00 g | 300.7 mL | 10 mL | 100 uL | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173528  Batch Start Date: 11/04/21 17:16  Batch Analyst: Kane, Elizabeth

Batch Method: 3535  Batch End Date: 11/05/21 14:55

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | LCMPFCIDA21 00040 | LCPFC32MTXStk 00039 |
|---|---|---|---|---|---|---|---|---|---|
| 460-246277-D-18 | MW-26S-20211028 | 3535, 537 (modified) | T | 315.40 g | 26.97 g | 288.4 mL | 10 mL | 100 uL | |
| 460-246277-C-18 MS | MW-26S-20211028 | 3535, 537 (modified) | T | 308.15 g | 26.79 g | 281.4 mL | 10 mL | 100 uL | 25 uL |
| 460-246277-C-18 MSD | MW-26S-20211028 | 3535, 537 (modified) | T | 312.95 g | 27.29 g | 285.7 mL | 10 mL | 100 uL | 25 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00039 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173528/1 | | 3535, 537 (modified) | | 100 uL | | | | | |
| LCS 200-173528/2 | | 3535, 537 (modified) | | 100 uL | | | | | |
| 460-246277-C-1 | MH-102-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-2 | AP-101-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-3 | AMW-2-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-4 | AMW-1-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-5 | MW-202S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-6 | MW-202D-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-7 | MW-9S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-8 | MW-24S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-8 MS | MW-24S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-8 MSD | MW-24S-20211027 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-9 | BP-101-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-10 | EP-02-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-11 | MW-23S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-12 | MW-37AQ-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173528  Batch Start Date: 11/04/21 17:16  Batch Analyst: Kane, Elizabeth

Batch Method: 3535  Batch End Date: 11/05/21 14:55

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00039 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 460-246277-C-13 | AMW-5-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-14 | MW-5S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-15 | MW-34-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-16 | MW-1S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-17 | MW-102-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-D-18 | MW-26S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-18 MS | MW-26S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-18 MSD | MW-26S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |

| Batch Notes | |
|---|---|
| SPE Cartridge Type | Strata PFAS (WAX/GBC) 500mg/50mg/6mg |
| SPE Cartridge Lot ID | Sorbent Lot: W0705/1252 Prod Lot: D01936 |
| Balance ID | M02926 |
| Manifold ID | IDA 3&4 |
| Pipette/Syringe/Dispenser ID | QH77727 |
| Solvent Name | Methanol (0.3% NH4OH) |
| Solvent Lot # | 1558703 |
| Rinse Solvent Name | 30% MeOH |
| Rinse Solvent Lot | 1557744 |
| Analyst ID - Spike Analyst | CMS |
| Analyst ID - Spike Witness Analyst | EK |
| Batch Comment | IDA:E MTX:B IS:B |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173541  Batch Start Date: 11/05/21 09:47  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/05/21 18:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | LCMPFCIDA21 00040 | LCPFC32MTXStk 00039 |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173541/1 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | |
| LCS 200-173541/2 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | 25 uL |
| LCSD 200-173541/3 | | 3535, 537 (modified) | | 250 g | 0 g | 250 mL | 10 mL | 100 uL | 25 uL |
| 460-246277-C-19 | MW-7S-20211028 | 3535, 537 (modified) | T | 334.07 g | 27.08 g | 307 mL | 10 mL | 100 uL | |
| 460-246277-C-20 | AMW-4-20211028 | 3535, 537 (modified) | T | 300.74 g | 26.78 g | 274 mL | 10 mL | 100 uL | |
| 460-246277-C-21 | AMW-11-20211028 | 3535, 537 (modified) | T | 305.84 g | 27.12 g | 278.7 mL | 10 mL | 100 uL | |
| 460-246277-C-22 | AMW-6-20211028 | 3535, 537 (modified) | T | 305.43 g | 27.36 g | 278.1 mL | 10 mL | 100 uL | |
| 460-246277-C-23 | AMW-3-20211028 | 3535, 537 (modified) | T | 299.35 g | 26.75 g | 272.6 mL | 10 mL | 100 uL | |
| 460-246277-C-24 | DUP-02-20211028 | 3535, 537 (modified) | T | 300.76 g | 27.31 g | 273.5 mL | 10 mL | 100 uL | |
| 460-246277-C-25 | MW-201-20211028 | 3535, 537 (modified) | T | 299.04 g | 27.17 g | 271.9 mL | 10 mL | 100 uL | |
| 460-246277-C-26 | MW-4S-20211029 | 3535, 537 (modified) | T | 314.11 g | 27.38 g | 286.7 mL | 10 mL | 100 uL | |
| 460-246277-C-27 | MW-3S-20211029 | 3535, 537 (modified) | T | 295.59 g | 27.25 g | 268.3 mL | 10 mL | 100 uL | |
| 460-246277-C-28 | AMW-8-20211029 | 3535, 537 (modified) | T | 320.98 g | 27.26 g | 293.7 mL | 10 mL | 100 uL | |
| 460-246277-C-29 | AMW-9-20211029 | 3535, 537 (modified) | T | 331.70 g | 26.83 g | 304.9 mL | 10 mL | 100 uL | |
| 460-246277-C-30 | AMW-7-20211029 | 3535, 537 (modified) | T | 331.07 g | 27.30 g | 303.8 mL | 10 mL | 100 uL | |
| 460-246277-C-31 | AMW-10-20211029 | 3535, 537 (modified) | T | 298.93 g | 27.26 g | 271.7 mL | 10 mL | 100 uL | |
| 460-246277-C-32 | MW-53S-20211029 | 3535, 537 (modified) | T | 282.56 g | 27.35 g | 255.2 mL | 10 mL | 100 uL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00039 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 200-173541/1 | | 3535, 537 (modified) | | 100 uL | | | | | |
| LCS 200-173541/2 | | 3535, 537 (modified) | | 100 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173541  Batch Start Date: 11/05/21 09:47  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/05/21 18:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00039 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCSD 200-173541/3 | | 3535, 537 (modified) | | 100 uL | | | | | |
| 460-246277-C-19 | MW-7S-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-20 | AMW-4-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-21 | AMW-11-20211028 | 3535, 537 (modified) | T | 100 uL | | | | | |
| 460-246277-C-22 | AMW-6-20211028 | 3535, 537 (modified) | T | 100 uL | Sample was foamy when shaken. | | | | |
| 460-246277-C-23 | AMW-3-20211028 | 3535, 537 (modified) | T | 100 uL | Sample was foamy when shaken. | | | | |
| 460-246277-C-24 | DUP-02-20211028 | 3535, 537 (modified) | T | 100 uL | Sample was foamy when shaken. | | | | |
| 460-246277-C-25 | MW-201-20211028 | 3535, 537 (modified) | T | 100 uL | Sample was foamy when shaken. | | | | |
| 460-246277-C-26 | MW-4S-20211029 | 3535, 537 (modified) | T | 100 uL | 286.47g sample extracted, remaining sediment discarded. | | | | |
| 460-246277-C-27 | MW-3S-20211029 | 3535, 537 (modified) | T | 100 uL | 268.01g sample extracted, remaining sediment discarded. | | | | |
| 460-246277-C-28 | AMW-8-20211029 | 3535, 537 (modified) | T | 100 uL | 290.28g sample extracted, remaining sediment discarded. | | | | |
| 460-246277-C-29 | AMW-9-20211029 | 3535, 537 (modified) | T | 100 uL | 303.85g sample extracted, remaining sediment discarded. | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# PFAS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt  Job No.: 460-246277-1

SDG No.:

Batch Number: 173541  Batch Start Date: 11/05/21 09:47  Batch Analyst: McKenzie-Smith, Charles

Batch Method: 3535  Batch End Date: 11/05/21 18:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | PFAS21 IS Stk 00039 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 460-246277-C-30 | AMW-7-20211029 | 3535, 537 (modified) | T | 100 uL | 271.15g sample extracted, remaining sediment discarded. | | | | |
| 460-246277-C-31 | AMW-10-20211029 | 3535, 537 (modified) | T | 100 uL | 271.36g sample extracted, remaining sediment discarded. | | | | |
| 460-246277-C-32 | MW-53S-20211029 | 3535, 537 (modified) | T | 100 uL | 254.82g sample extracted, remaining sediment discarded. | | | | |

| Batch Notes | |
|---|---|
| SPE Cartridge Type | Strata PFAS (WAX/GBC) 500mg/50mg/6mg |
| SPE Cartridge Lot ID | Sorbent Lot: W0705/1252 Prod Lot: D01936 |
| Balance ID | M02926 |
| Manifold ID | IDA 3&4 |
| Pipette/Syringe/Dispenser ID | QH77727 |
| Solvent Name | Methanol (0.3% NH4OH) |
| Solvent Lot # | 1558703 |
| Rinse Solvent Name | 30% MeOH |
| Rinse Solvent Lot | 1557744 |
| Analyst ID - Spike Analyst | CMS |
| Analyst ID - Spike Witness Analyst | KFW |
| Batch Comment | IDA:D MTX:A IS:B |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Subcontract Data

# Shipping and Receiving Documents

# Chain of Custody Record

552589

eurofins | Environment Testing TestAmerica

Address: _____

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

| Client Contact | Project Manager: Tim Rooper | Site Contact: | Date: | COC No: |
|---|---|---|---|---|
| Company Name: Cornerstone / Tetra Tech | Tel/Email: tim.rooper@tetratech.com | Lab Contact: | Carrier: | _____ of _____ COCs |
| Address: 100 Crystal Run Rd Suite 101 | Analysis Turnaround Time | | | Sampler: |
| City/State/Zip: Middletown NY 10941 | ☒ CALENDAR DAYS ☐ WORKING DAYS | | | For Lab Use Only: |
| Phone: 845-695-0200 | TAT if different from Below _____ | | | Walk-in Client: |
| Fax: | ☒ 2 weeks | | | Lab Sampling: |
| Project Name: NEPERA | ☐ 1 week | | | |
| Site: NEPERA, Harriman NY | ☐ 2 days | | | Job / SDG No.: |
| PO # 209-4213584-004 | ☐ 1 day | | | 246277 |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | PFC_1DA_PFAS_Stan/List | 8270D Sim 1-4 Diox | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-102-20211027 | 10/27/21 | 1535 | G | GW | 4 | N | N | X | X | -1 |
| AP-101-20211027 | 10/27/21 | 1750 | G | GW | 4 | N | N | X | X | -2 |
| AMW-2-20211027 | 10/27/21 | 1555 | G | GW | 4 | N | N | X | X | -3 |
| AMW-1-20211027 | 10/27/21 | 1750 | G | GW | 4 | N | N | X | X | -4 |
| MW-202S-20211027 | 10/27/21 | 1545 | G | GW | 4 | N | N | X | X | -5 |
| MW-202D-20211027 | 10/27/21 | 1400 | G | GW | 4 | N | N | X | X | -6 |
| MW-9S-20211027 | 10/27/21 | 1725 | G | GW | 4 | N | N | X | X | -7 |
| MW-24S-20211027-MS-MSD | 10/27/21 | 1400 | G | GW | 12 | N | Y | X | X | -8 |
| BP-101-20211028 | 10/28/21 | 1055 | G | GW | 4 | N | N | X | X | -9 |
| EB-02-20211028 | 10/28/21 | 0800 | G | BW | 4 | N | N | X | X | -10 |
| MW-23S-20211028 | 10/28/21 | 0855 | G | GW | 4 | N | N | X | X | -11 |
| MW-37AR-20211028 | 10/28/21 | 1345 | G | GW | 4 | N | N | X | X | -12 |

460-246277 Chain of Custody

ELMSFORD 272

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| David Wheeler | CEG/TT | 10/29/21 1450 | | ETA | 10-29-21 14:50 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| | | 10/29/21 1800 | | | 10/29/21 1700 |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | 10/29/21 1900 | | | 10/30/21 1040 |

26 21 IRP 3 3 28 IRP 29 24 IRP 2 7 22 IRP



11/12/2021

# Chain of Custody Record 501201

eurofins | Environment Testing TestAmerica

Address: _____

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

| Client Contact | Project Manager: Tim Roeper | Site Contact: | Date: | COC No: |
|---|---|---|---|---|
| Company Name: Cornerstone / Tetratech | Tel/Email: tim.roeper@tetratech.com | Lab Contact: | Carrier: | _____ of _____ COCs |
| Address: 100 Crystal Run Rd Suite 101 | Analysis Turnaround Time | | | Sampler: |
| City/State/Zip: Middletown NY 10941 | ☒ CALENDAR DAYS ☐ WORKING DAYS | | | For Lab Use Only: |
| Phone: 845-695-0200 | TAT if different from Below _____ | | | Walk-in Client: |
| Fax: | ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day | | | Lab Sampling: |
| Project Name: NEPERA | | | | Job / SDG No.: 246277 |
| Site: NEPERA, Harriman NY | | | | |
| PO# 209-421358-004 | | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | PFC_IDA_PFAS_Stand_List | 8270D_SIM_1-4_DIOX | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|
| AMW-5-20211028 | 10/28/21 | 1540 | G | GW | 4 | N | N | X | X | -13 |
| MW-55-20211028 | 10/28/21 | 1705 | G | GW | 4 | N | N | X | X | -14 |
| MW-34-20211028 | 10/28/21 | 1745 | G | GW | 4 | N | N | X | X | -15 |
| MW-15-20211028 | 10/28/21 | 1605 | G | GW | 4 | N | N | X | X | -16 |
| MW-102-20211028 | 10/28/21 | 1305 | G | GW | 4 | N | N | X | X | -17 |
| MW-265-20211028-MS-MSD | 10/28/21 | 1055 | G | GW | 12 | N | Y | X | X | -18 |
| MW-75-20211028 | 10/28/21 | 0915 | G | GW | 4 | N | N | X | X | -19 |
| AMW-4-20211028 | 10/28/21 | 1710 | G | GW | 4 | N | N | X | X | -20 |
| AMW-11-20211028 | 10/28/21 | 1450 | G | GW | 4 | N | N | X | X | -21 |
| AMW-6-20211028 | 10/28/21 | 1300 | G | GW | 4 | N | N | X | X | -22 |
| AMW-3-20211028 | 10/28/21 | 1120 | G | GW | 4 | N | N | X | X | -23 |
| DUP-02-20211028 | 10/28/21 | 1200 | G | GW | 4 | N | N | X | X | -24 |

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| Daniel Wheeler | CEG/TT | 10/29/21 1450 | | ETA | 10-29-21 14:50 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| | | 10/29/21 1530 | | | 10/29/21 1700 |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | 10/29/21 1900 | | | 10/29/21 1900 |

2.6 21 ZR4 3.3 28 529 29 24 ZR4 21 22 ZRC

ELMSFORD 272

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11/12/2021

# Chain of Custody Record

501202

eurofins | Environment Testing TestAmerica

Address: _____

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

| Client Contact | Project Manager: Tim Roeper | Site Contact: | Date: | COC No: |
|---|---|---|---|---|
| Company Name: Cornerstone / Tetra Tech | Tel/Email: tim.roeper@tetratech.com | Lab Contact: | Carrier: | _____ of _____ COCs |
| Address: 100 Crystal Run Rd Suite 101 | **Analysis Turnaround Time** | | | Sampler: |
| City/State/Zip: Middletown NY 10941 | ☒ CALENDAR DAYS ☐ WORKING DAYS | | | **For Lab Use Only:** |
| Phone: 845-695-0200 | TAT if different from Below _____ | | | Walk-in Client: |
| Fax: | ☒ 2 weeks | | | Lab Sampling: |
| Project Name: NEPERA | ☐ 1 week | | | |
| Site: NEPERA, Harriman NY | ☐ 2 days | | | Job / SDG No.: 246277 |
| PO# 209-4213584-004 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | PFC_1D4_PFAS_Stand_16+ | 8270D_SIM_1-4_D10_X | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-201-20211028 | 10/28/21 | 0930 | G | GW | 4 | N | N | X | X | -25 |
| MW-45-20211029 | 10/29/21 | 0920 | G | GW | 4 | N | N | X | X | -26 |
| MW-35-20211029 | 10/29/21 | 1050 | G | GW | 4 | N | N | X | X | -27 |
| AMW-8-20211029 | 10/29/21 | 1040 | G | GW | 4 | N | N | X | X | -28 |
| AMW-9-20211029 | 10/29/21 | 0850 | G | GW | 4 | N | N | X | X | -29 |
| AMW-7-20211029 | 10/29/21 | 1225 | G | GW | 4 | N | N | X | X | -30 |
| AMW-10-20211029 | 10/29/21 | 1055 | G | GW | 4 | N | N | X | X | -31 |
| MW-535-20211029 | 10/29/21 | 0945 | G | GW | 4 | N | N | X | X | -32 |

ELMSFORD 272

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| Daniel Wheeler | CEG/TT | 10/29/21 1450 | | ETA | 10-29-21 14:50 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| | | 10/29/21 1735 | | | 10/29/21 1700 |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | 10/29/21 1900 | | | 10/29/21 1900 |

2.6 21 TR9 3.3 28 TR9 2.9 24 TR9 2.7 22 TR9



11/12/2021

# TestAmerica Edison
## Receipt Temperature and pH Log

Job Number: 246177

Number of Coolers: 4 IR Gun # 9

### Cooler Temperatures

| | RAW | CORRECTED | | RAW | CORRECTED | | RAW | CORRECTED |
|---|---|---|---|---|---|---|---|---|
| Cooler #1: | 26 °C | 21 °C | Cooler #4: | 27 °C | 22 °C | Cooler #7: | °C | °C |
| Cooler #2: | 33 °C | 28 °C | Cooler #5: | °C | °C | Cooler #8: | °C | °C |
| Cooler #3: | 29 °C | 24 °C | Cooler #6: | °C | °C | Cooler #9: | °C | °C |

| TALS Sample Number | Ammonia (pH<2) | COD (pH<2) | Nitrate Nitrite (pH<2) | Metals* (pH<2) | Hardness (pH<2) | Pest (pH 5-9) | EPH or QAM (pH<2) | Phenols (pH<2) | Sulfide (pH>9) | TKN (pH<2) | TOC (pH<2) | Total Cyanide (pH>12) | Total Phos (pH<2) | Other | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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**If pH adjustments are required record the information below:**

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

*The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.*

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [signature] Date: 10/29/21

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record

460-246277 Chain of Custody

eurofins | Environment Testing America

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Cruz, Maria Luisa | COC No: 460-63241.1 |
|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New York | Page: Page 1 of 4 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | Job #: 460-246277-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/10/2021 | | |
| City: South Burlington | TAT Requested (days): | | |
| State, Zip: VT, 05403 | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | |
| Email: | WO #: | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | |
| Site: | SSOW#: | | |

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|
| MH-102-20211027 (460-246277-1) | 10/27/21 | 15:35 Eastern | | Water | X | |
| AP-101-20211027 (460-246277-2) | 10/27/21 | 17:50 Eastern | | Water | X | |
| AMW-2-20211027 (460-246277-3) | 10/27/21 | 15:55 Eastern | | Water | X | |
| AMW-1-20211027 (460-246277-4) | 10/27/21 | 17:50 Eastern | | Water | X | |
| MW-202S-20211027 (460-246277-5) | 10/27/21 | 15:45 Eastern | | Water | X | |
| MW-202D-20211027 (460-246277-6) | 10/27/21 | 14:00 Eastern | | Water | X | |
| MW-9S-20211027 (460-246277-7) | 10/27/21 | 17:25 Eastern | | Water | X | |
| MW-24S-20211027 (460-246277-8) | 10/27/21 | 14:00 Eastern | | Water | X | |
| MW-24S-20211027 (460-246277-8MS) | 10/27/21 | 14:00 Eastern | MS | Water | X | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | | 11/2/21 1100 | ETDI | | 11/3/21 1130 | |
| 2 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| 3 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record

eurofins | Environment Testing America

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Cruz, Maria Luisa | Carrier Tracking No(s): | COC No: 460-63241.2 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New York | Page: Page 2 of 4 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | | Job #: 460-246277-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/10/2021 | | | |
| City: South Burlington | TAT Requested (days): | | | |
| State, Zip: VT, 05403 | | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | PFC_IDA/3535_IWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|
| MW-24S-20211027 (460-246277-8MSD) | 10/27/21 | 14:00 Eastern | MSD | Water | X | |
| BP-101-20211028 (460-246277-9) | 10/28/21 | 10:55 Eastern | | Water | X | |
| EP-02-20211028 (460-246277-10) | 10/28/21 | 08:00 Eastern | | Water | X | |
| MW-23S-20211028 (460-246277-11) | 10/28/21 | 08:55 Eastern | | Water | X | |
| MW-37AQ-20211028 (460-246277-12) | 10/28/21 | 13:45 Eastern | | Water | X | |
| AMW-5-20211028 (460-246277-13) | 10/28/21 | 15:40 Eastern | | Water | X | |
| MW-5S-20211028 (460-246277-14) | 10/28/21 | 17:05 Eastern | | Water | X | |
| MW-34-20211028 (460-246277-15) | 10/28/21 | 17:45 Eastern | | Water | X | |
| MW-1S-20211028 (460-246277-16) | 10/28/21 | 16:05 Eastern | | Water | X | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
|---|---|
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | | |
|---|---|---|---|---|---|---|
| Relinquished by: | Date/Time: 11/3/21 1900 | Company ETAL | Received by: Mark Stan | Date/Time: 11/3/21 1171 | Company ETAL | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company | |
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: | | | |

Ver: 06/08/2021

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record

eurofins | Environment Testing America

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Cruz, Maria Luisa | Carrier Tracking No(s): | COC No: 460-63241.3 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New York | Page: Page 3 of 4 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | | Job #: 460-246277-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/10/2021 | | | |
| City: South Burlington | TAT Requested (days): | | | |
| State, Zip: VT, 05403 | | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | |
| MW-102-20211028 (460-246277-17) | 10/28/21 | 13:05 Eastern | | Water | | | X | |
| MW-26S-20211028 (460-246277-18) | 10/28/21 | 10:55 Eastern | | Water | | | X | |
| MW-26S-20211028 (460-246277-18MS) | 10/28/21 | 10:55 Eastern | MS | Water | | | X | |
| MW-26S-20211028 (460-246277-18MSD) | 10/28/21 | 10:55 Eastern | MSD | Water | | | X | |
| MW-7S-20211028 (460-246277-19) | 10/28/21 | 09:15 Eastern | | Water | | | X | |
| AMW-4-20211028 (460-246277-20) | 10/28/21 | 17:10 Eastern | | Water | | | X | |
| AMW-11-20211028 (460-246277-21) | 10/28/21 | 14:50 Eastern | | Water | | | X | |
| AMW-6-20211028 (460-246277-22) | 10/28/21 | 13:00 Eastern | | Water | | | X | |
| AMW-3-20211028 (460-246277-23) | 10/28/21 | 11:20 Eastern | | Water | | | X | |

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| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
|---|---|
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 11/2/21 1900 | ET SEL. | | 11/3/21 1130 | E/MO |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

**Eurofins TestAmerica, Edison**
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

# Chain of Custody Record

eurofins | Environment Testing America

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Cruz, Maria Luisa | Carrier Tracking No(s): | COC No: 460-63241.4 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: luisa.cruz@testamericainc.com | State of Origin: New York | Page: Page 4 of 4 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): NELAP - New Jersey | | Job #: 460-246277-1 |
| Address: 530 Community Drive, Suite 11, | Due Date Requested: 11/10/2021 | | | |
| City: South Burlington | TAT Requested (days): | | | |
| State, Zip: VT, 05403 | | | | |
| Phone: 802-660-1990(Tel) 802-660-1919(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NEPERA - Harriman, NY | Project #: 46032984 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | PFC_IDA/3535_IWWT PFAS, Standard List (21 analytes) | Special Instructions/Note: |
|---|---|---|---|---|---|---|
| DUP-02-20211028 (460-246277-24) | 10/28/21 | 12:00 Eastern | | Water | X | |
| MW-201-20211028 (460-246277-25) | 10/28/21 | 09:30 Eastern | | Water | X | |
| MW-4S-20211029 (460-246277-26) | 10/29/21 | 09:20 Eastern | | Water | X | |
| MW-3S-20211029 (460-246277-27) | 10/29/21 | 10:50 Eastern | | Water | X | |
| AMW-8-20211029 (460-246277-28) | 10/29/21 | 10:40 Eastern | | Water | X | |
| AMW-9-20211029 (460-246277-29) | 10/29/21 | 08:50 Eastern | | Water | X | |
| AMW-7-20211029 (460-246277-30) | 10/29/21 | 12:25 Eastern | | Water | X | |
| AMW-10-20211029 (460-246277-31) | 10/29/21 | 10:55 Eastern | | Water | X | |
| MW-53S-20211029 (460-246277-32) | 10/29/21 | 09:15 Eastern | | Water | X | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1 | Special Instructions/QC Requirements: |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Empty Kit Relinquished by: | | Date: | | Time: | | Method of Shipment: | |
| Relinquished by: | Date/Time: 11/2/21 1900 | Company ETAL | Received by: | | Date/Time: 11/3/21 1130 | Company | |
| Relinquished by: | Date/Time: | Company | Received by: | | Date/Time: | Company | |
| Relinquished by: | Date/Time: | Company | Received by: | | Date/Time: | Company | |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

Part # 159469-494 RIT2 EXP 03/22

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 02NOV21
ACTWGT: 60.25 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: 8460-148837
PO: YES

FedEx Express

1 of 4

TRK# 0201 1161 6405 5539

WED - 03 NOV 11:30A
PRIORITY OVERNIGHT

## MASTER ##

NL BTVA

05403
VT-US BTV

Part # 159469-434 RIT2 EXP 03/22

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 02NOV21
ACTWGT: 50.05 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: 8460-148837
PO: YES

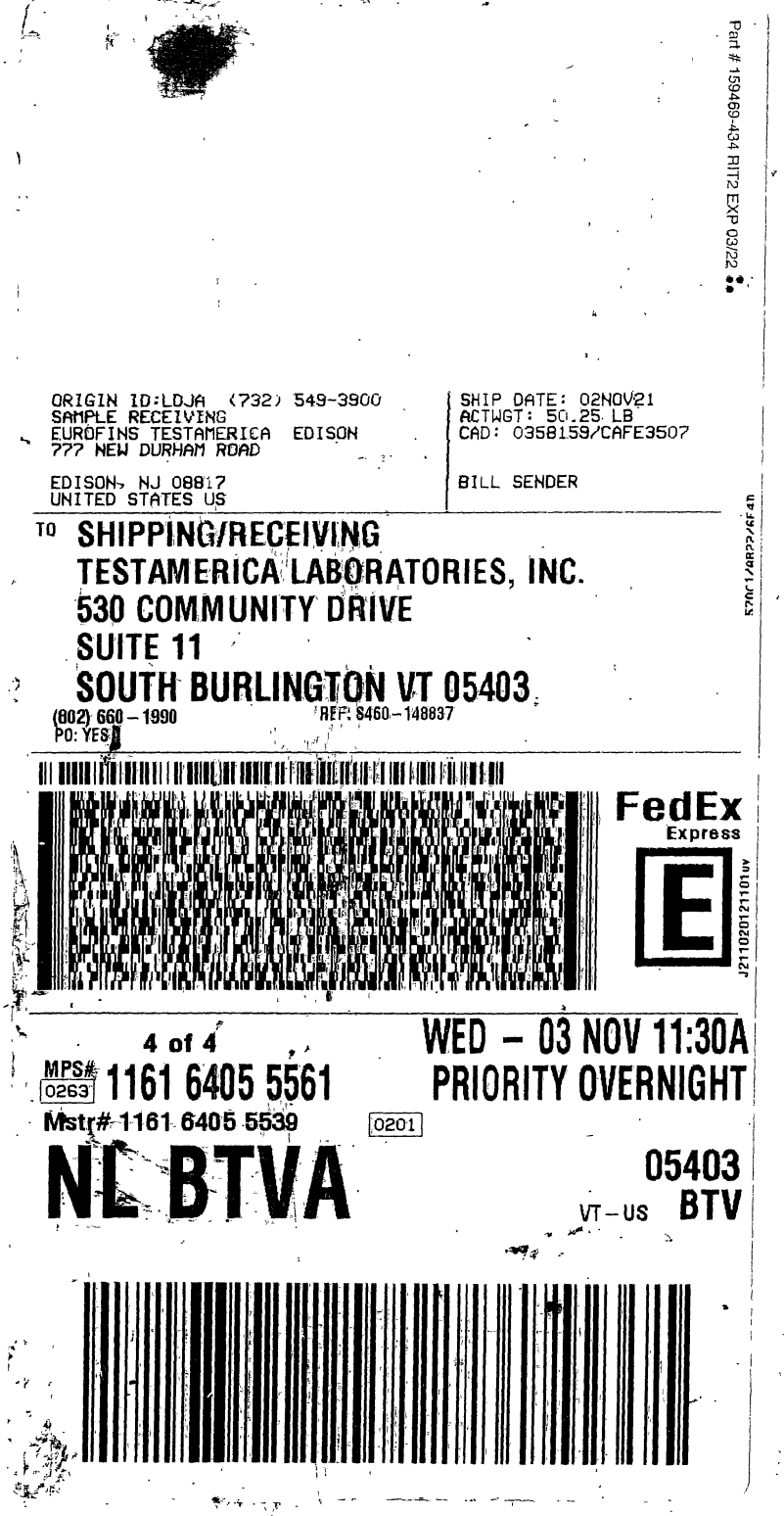
FedEx Express

2 of 4
MPS# 0263 1161 6405 5540
Mstr# 1161 6405 5540 0201

WED - 03 NOV 11:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV



Part # 159469-434 REV2 EXP 03/22

ORIGIN ID:LDJA (732) 549-3900
SAMPLE RECEIVING
EUROFINS TESTAMERICA EDISON
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 02NOV21
ACTWGT: 50.25 LB
CAD: 0358159/CAFE3507

BILL SENDER

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: 8460-148837
PO: YES

FedEx Express

J211020121101uv

4 of 4
MPS# 0263 1161 6405 5561
Mstr# 1161 6405 5539 0201

WED - 03 NOV 11:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV

# Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-246277-1

**Login Number: 246277**
**List Number: 1**
**Creator: Khlungprakhon, Sukanya**

**List Source: Eurofins TestAmerica, Edison**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-246277-1

**Login Number: 246277**
**List Number: 2**
**Creator: Beane, John P**

**List Source: Eurofins TestAmerica, Burlington**
**List Creation: 11/04/21 01:51 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | 1487439, 1487442 |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 0.7ºC, 0.9ºC, 1.3ºC |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Appendix G: Data Usability Summary Reports

cornerstone PLLC

# MEMO

| | |
|---|---|
| ***To:*** | File |
| ***Cc:*** | |
| ***From:*** | Diane Conroy |
| ***Date:*** | December 2021 |
| ***Subject:*** | Data Usability Summary Report for PFAS Analysis in Groundwater at the Nepera-Harriman Site |

The Data Usability Review has been completed for the data packages generated by Test America Laboratories that pertain to groundwater samples collected at the Nepera-Harriman Site during October 2021. Two data packages associated with aqueous samples collected from October 25, 2021 to October 29, 2021 containing results for required constituents, duplicates, field blanks, trip blanks, matrix spikes, laboratory control samples, and method blanks were reviewed.

Data usability was generally performed in conformance with the methods outline in the "*Emerging Contaminants Site Investigation Work Plan*" (Work Plan) prepared for this Facility in October 2019. The following items were reviewed:

- Data completeness
- Review of QA/QC Samples
- Overall Evaluation of Data
- Sample Temperatures
- Holding Times
- Analytical Detection Limits and Sample Quantitation
- Surrogate Recovery
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Review
- Laboratory Control Sample (LCS)
- Initial/Continuing Calibration
- Gas chromatograph/mass spectrometer/GC/Electron Capture Detector (GC\MS\GC\ECD) Instrument Performance
- Internal Standards
- Target Compound Identification
- System Performance
- Serial Dilution

In addition, the Data Usability Review was performed in accordance with the guidance provided by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) document DER-10. The following items were reviewed:

1. Is the data package complete as defined under the requirements for the most current DEC ASP Category B or USEPA CLP data deliverables?
   *Yes. The laboratory reports provided were complete Category B analytical data packages*

2. Have all holding times been met?
   *Yes. The samples were extracted and analyses were performed within the allowable holding times.*

3. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
   *Items not mentioned in the following discussion were found to be acceptable as outlined in the validation procedures and as applicable for the methodology.*

4. Have all of the data been generated using established and agreed upon analytical protocols?
   *Yes. The data analyzed was generated using established analytical protocols.*

5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
   *Unless noted specifically in the following text, reported results of the validated samples are substantiated by the raw data, and generated in compliance with the protocol requirements.*

6. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?
   *The details below provide a description of data qualifiers.*

7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?
   *The details below provide a description of the quality control exceedances and the appropriate pages have been attached to this Memo.*

Those items showing deficiencies are discussed in the following sections of the report. Items not mentioned in the following discussion were found to be acceptable as outlined in the above-mentioned validation procedures and as applicable for the methodology. Unless noted specifically in the following text, reported results of the validated samples are substantiated by the raw data, and generated in compliance with the protocol requirements. Note that the Case Narratives attached for each of the Laboratory Reports reviewed may apply to items outside the scope of this Memo.

It should be noted that running serial dilution was suggested in the Work Plan, however in subsequent conversation with the laboratory, this QC technique is more applicable to inorganic parameters and isn't commonly performed on PFAS. Furthermore, isotope dilution was performed to correct for any sample matrix interference that may have been present. This does not affect the usability of the data.

The laboratory reports provided were complete Category B analytical data packages and the data analyzed was generated using established analytical protocols. Copies of the laboratory case narrative, list of data reporting qualifiers, annotated quality control (QC) results, and annotated sample results are attached to this text and should be reviewed in conjunction with this report.

**TEST AMERICA LABORATORY REPORT: J246027-1**

The samples collected for this analysis were delivered to the laboratory in good condition, properly preserved with temperatures within the acceptable range. The samples were extracted and analyses were performed within the allowable holding times. In addition, the laboratory detection limits used met the requirements to adequately compare the reported results to the guidance values outlined in Section 4.8 of the Work Plan.

The reported concentrations in the MS/MSD and LCS samples were within acceptable ranges.

Surrogate Recovery/Isotope Dilution

One surrogate parameter, Perfluorotetradecanoic acid, associated with sample location MH-103D-20211027 recovered low as the laboratory performed its Isotope Dilution QC procedures. The sample results, both detected and non-detected, associated with the low recovery should be qualified with a "J". Where necessary, the appropriate changes have been made in the laboratory report.

Initial/Continuing Calibration

During the continuing calibration, the laboratory noted the results of 1,4-dioxane produced percent differences greater than 25%. As a result, associated laboratory detections should be qualified with an "J". Where necessary, the appropriate changes have been made in the laboratory report.

During the continuing calibration, the laboratory noted a few instances associated with parameters including Perfluorododecanesulfonic acid, N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA), and 1H,1H,2H,2H-perfluorodecanesulfonic acid (M282FTS) in which the percent differences were greater than 25%. However, the laboratory has confirmed that the percent differences reported were within the standard for PFAS analysis therefore the data is considered usable as reported.

With the exceptions noted above, the continuing calibration verification was performed within the acceptance criteria.

Internal Standards, Target Compound Identification, and System Performance

During the analysis, the internal standard areas and the retention times were within acceptable ranges, target compounds were appropriately identified, and the system performance was satisfactory.

Additional Summary

As noted in the case narrative, dilution was required to analyze Perfluorooctanesulfonic acid from samples MHP-MW-3S-20211027, DUP-01-20211027, and MH-104-20211027.

**TEST AMERICA LABORATORY REPORT: J246277-1**

The samples collected for this analysis were delivered to the laboratory in good condition, properly preserved with temperatures within the acceptable range. The samples were extracted and analyses were performed within the allowable holding times. In addition, the laboratory detection limits used met the requirements to adequately compare the reported results to the guidance values outlined in Section 4.8 of the Work Plan.

The reported concentrations in the LCS samples were within acceptable ranges.

Surrogate Recovery/Isotope Dilution

One surrogate parameter, Perfluorotetradecanoic acid, associated with sample location MW-34-20211028 recovered low as the laboratory performed its Isotope Dilution QC procedures. The sample results, both detected and non-detected, associated with the low recoveries should be qualified with a “J”. Where necessary, the appropriate changes have been made in the laboratory report.

Two surrogate parameters, 1H,1H,2H,2H-perfluorooctanesulfonic acid (M262FTS) and M282FTS, associated with sample locations MW-34-20211028, AMW-3-20211028, and AMW-9-20211029 recovered high as the laboratory performed its Isotope Dilution QC procedures. The detected results associated with the high recoveries should be qualified with a “J”. Where necessary, the appropriate changes have been made in the laboratory report.

Matrix Spike/Matrix Spike Duplicates

One parameter, 1,4-dioxane, recovered high during the MS & MSD laboratory QC procedures associated with sample location MW-24S-20211027. The detected results associated with the high recoveries should be qualified with a “J”. Where necessary, the appropriate changes have been made in the laboratory report.

One parameter, Perfluorooctanesulfonic acid, recovered low during the MSD laboratory QC procedures associated with sample location MW- 26S-20211028. The sample results, both detected and non-detected, associated with the low recovery should be qualified with a “J”. Where necessary, the appropriate changes have been made in the laboratory report.

Initial/Continuing Calibration

During the continuing calibration, the laboratory noted the results of 1,4-dioxane produced percent differences greater than 25%. As a result, associated laboratory detections should be qualified with an “J”. Where necessary, the appropriate changes have been made in the laboratory report.

During the continuing calibration, the laboratory noted a few instances associated with parameters including Perfluorobutanoic acid, Perfluorooctanesulfonic acid, M262FTS, and M282FTS in which the percent differences were greater than 25%. However, the laboratory has confirmed that the percent differences reported were within the standard for PFAS analysis therefore the data is considered usable as reported.

With the exceptions noted above, the continuing calibration verification was within the acceptance criteria.

Internal Standards, Target Compound Identification, and System Performance

During the analysis, the internal standard areas and the retention times were within acceptable ranges, target compounds were appropriately identified, and the system performance was satisfactory.

Additional Summary

As noted in the case narrative N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) and Perfluorobutanesulfonic acid were detected in method blanks. The laboratory appropriately added “B” qualifier to the potentially impacted results.

Also as noted in the case narrative, dilution was required to analyze Perfluorohexanesulfonic acid and Perfluorooctanesulfonic acid from samples AP-101-20211027, AMW-8-20211029, and MH-104-20211027.

## CONCLUSIONS

The samples were analyzed, and results reported with compliance to protocol requirements and with adherence to quality criteria unless otherwise noted. The laboratory results are usable as reported, or usable as qualified, estimated values.

# TestAmerica Report J-246027-1

# Laboratory Case Narrative

# CASE NARRATIVE

## Client: Cornerstone Environmental Group, LLC

## Project: NEPERA - Harriman, NY

## Report Number: 460-246027-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**

The samples were received on 10/27/2021 7:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 1.5º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

**SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE**

Samples EB-01-20211025 (460-246027-1), MHP-MW-3D-20211025 (460-246027-2), MHP-MW-4S-20211025 (460-246027-3), MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5), MH-103D-20211027 (460-246027-6), MH-105S-20211027 (460-246027-7), MH-105D-20211027 (460-246027-8), MH-103S-20211027 (460-246027-9), MH-104-20211027 (460-246027-10) and MH-101-20211027 (460-246027-11) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared and analyzed on 10/30/2021.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

Samples EB-01-20211025 (460-246027-1), MHP-MW-3D-20211025 (460-246027-2), MHP-MW-4S-20211025 (460-246027-3), MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5), MH-103D-20211027 (460-246027-6), MH-105S-20211027 (460-246027-7), MH-105D-20211027 (460-246027-8), MH-103S-20211027 (460-246027-9), MH-104-20211027 (460-246027-10) and MH-101-20211027 (460-246027-11) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on 11/02/2021 and analyzed on 11/03/2021 and 11/04/2021.

13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: MH-103D-20211027 (460-246027-6). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

The “I” qualifier associated with samples MH-105S-20211027 (460-246027-7) and MH-105D-20211027 (460-246027-8) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Results for samples MHP-MW-3S-20211027 (460-246027-4), DUP-01-20211027 (460-246027-5) and MH-104-20211027 (460-246027-10) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

No other difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

# Laboratory Qualifiers

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

### LCMS

| Qualifier | Qualifier Description |
|---|---|
| *5- | Isotope dilution analyte is outside acceptance limits, low biased. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| I | Value is EMPC (estimated maximum possible concentration). |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

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

# Annotated Quality Control Results

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246027-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water**
**Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PFUnA | PFDoA | PFOSA | PFPeA | PFTDA | d3NMFOS | d5NEFOS | M262FTS |
| Lab Sample ID | Client Sample ID | (50-150) | (50-150) | (25-150) | (25-150) | (50-150) | (50-150) | (50-150) | (25-150) |
| 460-246027-5 - DL | DUP-01-20211027 | | | | | | | | |
| 460-246027-6 | MH-103D-20211027 | 90 | 79 | 95 | 101 | 48 *5- | 109 | 109 | 107 |
| 460-246027-7 | MH-105S-20211027 | 89 | 87 | 92 | 103 | 82 | 100 | 101 | 101 |
| 460-246027-8 | MH-105D-20211027 | 95 | 92 | 98 | 101 | 92 | 110 | 106 | 105 |
| 460-246027-9 | MH-103S-20211027 | 95 | 83 | 90 | 95 | 86 | 110 | 114 | 101 |
| 460-246027-10 | MH-104-20211027 | 89 | 74 | 91 | 98 | 84 | 94 | 100 | 107 |
| 460-246027-10 - DL | MH-104-20211027 | | | | | | | | |
| 460-246027-11 | MH-101-20211027 | 85 | 80 | 99 | 95 | 90 | 104 | 98 | 101 |
| LCS 200-173414/2-A | Lab Control Sample | 88 | 82 | 87 | 100 | 90 | 108 | 104 | 102 |
| LCSD 200-173414/3-A | Lab Control Sample Dup | 78 | 80 | 83 | 97 | 84 | 104 | 92 | 98 |
| MB 200-173414/1-A | Method Blank | 83 | 87 | 84 | 96 | 84 | 100 | 96 | 104 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M282FTS | C3PFBS | | | | | | |
| Lab Sample ID | Client Sample ID | (25-150) | (50-150) | | | | | | |
| 460-246027-1 | EB-01-20211025 | 108 | 94 | | | | | | |
| 460-246027-2 | MHP-MW-3D-20211025 | 102 | 86 | | | | | | |
| 460-246027-3 | MHP-MW-4S-20211025 | 101 | 93 | | | | | | |
| 460-246027-4 | MHP-MW-3S-20211027 | 113 | 110 | | | | | | |
| 460-246027-4 - DL | MHP-MW-3S-20211027 | | | | | | | | |
| 460-246027-5 | DUP-01-20211027 | 102 | 84 | | | | | | |
| 460-246027-5 - DL | DUP-01-20211027 | | | | | | | | |
| 460-246027-6 | MH-103D-20211027 | 110 | 100 | | | | | | |
| 460-246027-7 | MH-105S-20211027 | 105 | 94 | | | | | | |
| 460-246027-8 | MH-105D-20211027 | 109 | 102 | | | | | | |
| 460-246027-9 | MH-103S-20211027 | 110 | 95 | | | | | | |
| 460-246027-10 | MH-104-20211027 | 96 | 91 | | | | | | |
| 460-246027-10 - DL | MH-104-20211027 | | | | | | | | |
| 460-246027-11 | MH-101-20211027 | 104 | 92 | | | | | | |
| LCS 200-173414/2-A | Lab Control Sample | 104 | 89 | | | | | | |
| LCSD 200-173414/3-A | Lab Control Sample Dup | 102 | 93 | | | | | | |
| MB 200-173414/1-A | Method Blank | 102 | 86 | | | | | | |

**Surrogate Legend**

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

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173453/5  Calibration Date: 11/03/2021 13:17

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.996 | | 0.132 | 0.125 | 5.4 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.072 | | 0.0535 | 0.0500 | 7.1 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.089 | | 0.0451 | 0.0442 | 2.0 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.325 | | 0.0510 | 0.0467 | 9.2 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 1.087 | | 0.0536 | 0.0500 | 7.2 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.188 | | 0.0463 | 0.0469 | -1.3 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 5.471 | | 0.121 | 0.100 | 20.9 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.042 | | 0.0504 | 0.0500 | 0.9 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.129 | | 0.0467 | 0.0455 | 2.7 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.502 | | 0.0471 | 0.0471 | 0.0 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.174 | | 0.110 | 0.119 | -7.4 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.351 | | 0.0516 | 0.0476 | 8.4 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.093 | | 0.0514 | 0.0500 | 2.7 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.058 | | 0.0452 | 0.0464 | -2.5 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.035 | | 0.0529 | 0.0500 | 5.8 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.590 | | 0.0453 | 0.0466 | -2.7 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.9411 | | 0.0534 | 0.0480 | 11.3 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9309 | | 0.0533 | 0.0479 | 11.3 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.077 | | 0.0536 | 0.0500 | 7.2 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9853 | | 0.0519 | 0.0500 | 3.8 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7399 | | 0.118 | 0.125 | -5.8 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6720 | | 0.0493 | 0.0482 | 2.3 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.125 | | 0.0528 | 0.0500 | 5.5 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7447 | | 0.109 | 0.125 | -13.1 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 2.024 | | 0.0494 | 0.0471 | 4.9 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.120 | | 0.0572 | 0.0500 | 14.4 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.4127 | | 0.0515 | 0.0482 | 6.8 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.3098 | | 0.0620 | 0.0484 | 28.2 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCV 200-173453/25  Calibration Date: 11/03/2021 16:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211103A25.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9406 | | 1.11 | 1.00 | 11.4 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1541 | | 0.976 | 1.00 | -2.4 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8889 | | 1.02 | 1.00 | 2.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.8653 | | 1.03 | 1.00 | 2.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.101 | | 1.36 | 1.25 | 8.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9599 | | 1.41 | 1.25 | 12.6 | |
| 13C3 PFBS | Ave | 1.154 | 1.247 | | 1.26 | 1.16 | 8.1 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0934 | | 1.24 | 1.17 | 6.3 | |
| 13C2 PFHxA | Ave | 0.8946 | 1.031 | | 1.44 | 1.25 | 15.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0209 | | 1.11 | 1.25 | -11.2 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.005 | | 1.33 | 1.25 | 6.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9160 | | 1.29 | 1.18 | 9.3 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1477 | | 1.33 | 1.19 | 11.7 | |
| 13C4 PFOA | Ave | 1.029 | 1.089 | | 1.32 | 1.25 | 5.8 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6609 | | 1.30 | 1.20 | 9.1 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.105 | | 1.35 | 1.25 | 7.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.209 | | 1.46 | 1.25 | 16.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1972 | | 1.58 | 1.20 | 31.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.089 | | 1.36 | 1.25 | 9.1 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1289 | | 1.58 | 1.25 | 26.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.9423 | | 1.46 | 1.25 | 16.9 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1271 | | 1.67 | 1.25 | 33.4 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.9124 | | 1.32 | 1.25 | 5.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6522 | | 1.21 | 1.25 | -3.0 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.6069 | | 1.28 | 1.25 | 2.5 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173511/5  Calibration Date: 11/04/2021 14:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | AveID | 0.9456 | 0.9930 | | 0.131 | 0.125 | 5.0 | 50.0 |
| Perfluoropentanoic acid (PFPeA) | AveID | 1.002 | 1.010 | | 0.0504 | 0.0500 | 0.8 | 50.0 |
| Perfluorobutanesulfonic acid (PFBS) | AveID | 1.068 | 1.110 | | 0.0459 | 0.0442 | 3.9 | 50.0 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | AveID | 2.128 | 2.382 | | 0.0523 | 0.0467 | 11.9 | 50.0 |
| Perfluorohexanoic acid (PFHxA) | AveID | 1.014 | 0.9850 | | 0.0486 | 0.0500 | -2.9 | 50.0 |
| Perfluoropentanesulfonic acid (PFPeS) | AveID | 1.204 | 1.251 | | 0.0487 | 0.0469 | 3.9 | 50.0 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | AveID | 4.525 | 4.395 | | 0.0971 | 0.100 | -2.9 | 50.0 |
| Perfluorohexanesulfonic acid (PFHxS) | AveID | 1.099 | 1.248 | | 0.0516 | 0.0455 | 13.5 | 50.0 |
| Perfluoroheptanoic acid (PFHpA) | AveID | 1.033 | 1.110 | | 0.0537 | 0.0500 | 7.4 | 50.0 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | AveID | 3.500 | 3.668 | | 0.0494 | 0.0471 | 4.8 | 50.0 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | AveID | 1.268 | 1.263 | | 0.118 | 0.119 | -0.4 | 50.0 |
| Perfluoroheptanesulfonic Acid (PFHpS) | AveID | 1.247 | 1.273 | | 0.0486 | 0.0476 | 2.1 | 50.0 |
| Perfluorooctanoic acid (PFOA) | AveID | 1.063 | 1.156 | | 0.0544 | 0.0500 | 8.7 | 50.0 |
| Perfluorooctanesulfonic acid (PFOS) | AveID | 1.085 | 1.072 | | 0.0459 | 0.0464 | -1.2 | 50.0 |
| Perfluorononanoic acid (PFNA) | AveID | 0.9783 | 1.035 | | 0.0529 | 0.0500 | 5.8 | 50.0 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3O | AveID | 1.635 | 1.559 | | 0.0445 | 0.0466 | -4.6 | 50.0 |
| Perfluorononanesulfonic acid (PFNS) | AveID | 0.8452 | 0.7953 | | 0.0452 | 0.0480 | -5.9 | 50.0 |
| Perfluorodecanoic acid (PFDA) | AveID | 1.005 | 1.175 | | 0.0585 | 0.0500 | 16.9 | 50.0 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | AveID | 0.8365 | 0.9252 | | 0.0530 | 0.0479 | 10.6 | 50.0 |
| Perfluorooctanesulfonamide (PFOSA) | AveID | 0.9497 | 0.9812 | | 0.0517 | 0.0500 | 3.3 | 50.0 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | AveID | 0.7856 | 0.7305 | | 0.116 | 0.125 | -7.0 | 50.0 |
| Perfluorodecanesulfonic acid (PFDS) | AveID | 0.6572 | 0.6240 | | 0.0458 | 0.0482 | -5.0 | 50.0 |
| Perfluoroundecanoic acid (PFUnA) | AveID | 1.066 | 1.056 | | 0.0495 | 0.0500 | -0.9 | 50.0 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | AveID | 0.8569 | 0.7993 | | 0.117 | 0.125 | -6.7 | 50.0 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF | AveID | 1.931 | 1.806 | | 0.0441 | 0.0471 | -6.5 | 50.0 |
| Perfluorododecanoic acid (PFDoA) | AveID | 0.9791 | 1.046 | | 0.0534 | 0.0500 | 6.9 | 50.0 |
| 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | AveID | 0.3865 | 0.3858 | | 0.0481 | 0.0482 | -0.2 | 50.0 |
| Perfluorododecanesulfonic acid (PFDoS) | AveID | 0.2417 | 0.3053 | | 0.0611 | 0.0484 | 26.3 | 50.0 |

FORM VII 537 (modified)

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246027-1

SDG No.:

Lab Sample ID: CCVL 200-173511/5  Calibration Date: 11/04/2021 14:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211104A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9210 | | 0.0546 | 0.0500 | 9.1 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1571 | | 0.0498 | 0.0500 | -0.4 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.164 | | 0.0494 | 0.0500 | -1.2 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7424 | | 0.0440 | 0.0500 | -12.0 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.098 | | 1.36 | 1.25 | 8.5 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9081 | | 1.33 | 1.25 | 6.5 | |
| 13C3 PFBS | Ave | 1.154 | 1.126 | | 1.14 | 1.16 | -2.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.0976 | | 1.30 | 1.17 | 11.0 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9503 | | 1.33 | 1.25 | 6.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0224 | | 1.19 | 1.25 | -5.1 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8269 | | 1.17 | 1.18 | -1.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.999 | | 1.33 | 1.25 | 6.1 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1552 | | 1.39 | 1.19 | 17.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.061 | | 1.29 | 1.25 | 3.2 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6342 | | 1.25 | 1.20 | 4.7 | |
| 13C5 PFNA | Ave | 1.025 | 1.017 | | 1.24 | 1.25 | -0.8 | |
| 13C2 PFDA | Ave | 1.034 | 1.009 | | 1.22 | 1.25 | -2.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1835 | | 1.47 | 1.20 | 22.4 | |
| 13C8 FOSA | Ave | 0.998 | 1.046 | | 1.31 | 1.25 | 4.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1067 | | 1.31 | 1.25 | 4.9 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8039 | | 1.25 | 1.25 | -0.3 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1109 | | 1.45 | 1.25 | 16.3 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8387 | | 1.21 | 1.25 | -3.3 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.7120 | | 1.32 | 1.25 | 5.9 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.7469 | | 1.58 | 1.25 | 26.1 | |

# Annotated Analytical Data

## Client Sample ID: MH-103D-20211027
**Lab Sample ID: 460-246027-6**

**Date Collected: 10/27/21 09:50**
**Matrix: Water**
**Date Received: 10/27/21 19:30**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 10/30/21 07:00 | 10/30/21 16:33 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *42* | | *10 - 150* | *10/30/21 07:00* | *10/30/21 16:33* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **12.1** | | 4.23 | 0.76 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.60** | | 1.69 | 0.40 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **6.52** | | 1.69 | 0.38 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.92** | | 1.69 | 0.20 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **12.3** | | 1.69 | 0.36 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorononanoic acid (PFNA)** | **2.15** | | 1.69 | 0.24 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.33** | **J** | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.69 | 0.29 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.69 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.69 | 0.37 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U J | 1.69 | 0.54 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **1.63** | **J** | 1.69 | 0.21 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **1.31** | **J** | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 0.20 | U | 1.69 | 0.20 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **3.89** | | 1.69 | 0.25 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.69 | 0.26 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.69 | 0.49 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.76 | U | 4.23 | 0.76 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| **N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)** | **1.05** | **J** | 4.23 | 0.63 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.93 | U | 4.23 | 0.93 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.33 | U | 1.69 | 0.33 | ng/L | | 11/02/21 14:20 | 11/03/21 15:13 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFHpA* | *99* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFOA* | *100* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFOS* | *106* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C5 PFNA* | *107* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C4 PFBA* | *103* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFHxA* | *101* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFUnA* | *90* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFDoA* | *79* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C8 FOSA* | *95* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C5 PFPeA* | *101* | | *25 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *13C2 PFTeDA* | *48* | *5- | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *d3-NMeFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |
| *d5-NEtFOSAA* | *109* | | *50 - 150* | *11/02/21 14:20* | *11/03/21 15:13* | *1* |

# TestAmerica Report J-246277-1

# Laboratory Case Narrative

# CASE NARRATIVE

## Client: Cornerstone Environmental Group, LLC

## Project: NEPERA - Harriman, NY

## Report Number: 460-246277-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**

The samples were received on 10/29/2021 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.1º C, 2.2º C, 2.4º C and 2.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

**SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - ISOTOPE DILUTION - 1,4 DIOXANE**

Samples MH-102-20211027 (460-246277-1), AP-101-20211027 (460-246277-2), AMW-2-20211027 (460-246277-3), AMW-1-20211027 (460-246277-4), MW-202S-20211027 (460-246277-5), MW-202D-20211027 (460-246277-6), MW-9S-20211027 (460-246277-7), MW-24S-20211027 (460-246277-8), BP-101-20211028 (460-246277-9), EP-02-20211028 (460-246277-10), MW-23S-20211028 (460-246277-11), MW-37AQ-20211028 (460-246277-12), AMW-5-20211028 (460-246277-13), MW-5S-20211028 (460-246277-14), MW-34-20211028 (460-246277-15), MW-1S-20211028 (460-246277-16), MW-102-20211028 (460-246277-17), MW-26S-20211028 (460-246277-18), MW-7S-20211028 (460-246277-19), AMW-4-20211028 (460-246277-20), AMW-11-20211028 (460-246277-21), AMW-6-20211028 (460-246277-22), AMW-3-20211028 (460-246277-23), DUP-02-20211028 (460-246277-24), MW-201-20211028 (460-246277-25), MW-4S-20211029 (460-246277-26), MW-3S-20211029 (460-246277-27), AMW-8-20211029 (460-246277-28), AMW-9-20211029 (460-246277-29), AMW-7-20211029 (460-246277-30), AMW-10-20211029 (460-246277-31) and MW-53S-20211029 (460-246277-32) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) - Isotope Dilution - 1,4 Dioxane in accordance with EPA SW-846 Method 8270E SIM 1,4Dioxane. The samples were prepared on 11/03/2021 and analyzed on 11/03/2021 and 11/04/2021.

1,4-Dioxane failed the recovery criteria high for the MS of sample MW-24S-20211027MS (460-246277-8) in batch 460-811092.

1,4-Dioxane exceeded the RPD limit for the MSD of sample MW-24S-20211027MSD (460-246277-8) in batch 460-811092.

Refer to the QC report for details.

No other difficulties were encountered during the 1,4 Dioxane analysis.

All other quality control parameters were within the acceptance limits.

**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

Samples MH-102-20211027 (460-246277-1), AP-101-20211027 (460-246277-2), AMW-2-20211027 (460-246277-3), AMW-1-20211027 (460-246277-4), MW-202S-20211027 (460-246277-5), MW-202D-20211027 (460-246277-6), MW-9S-20211027 (460-246277-7), MW-24S-20211027 (460-246277-8), BP-101-20211028 (460-246277-9), EP-02-20211028 (460-246277-10), MW-23S-20211028 (460-246277-11), MW-37AQ-20211028 (460-246277-12), AMW-5-20211028 (460-246277-13), MW-5S-20211028 (460-246277-14), MW-34-20211028 (460-246277-15), MW-1S-20211028 (460-246277-16), MW-102-20211028 (460-246277-17), MW-26S-20211028 (460-246277-18), MW-7S-20211028 (460-246277-19), AMW-4-20211028 (460-246277-20), AMW-11-20211028 (460-246277-21), AMW-6-20211028 (460-246277-22), AMW-3-20211028 (460-246277-23), DUP-02-20211028 (460-246277-24), MW-201-20211028 (460-246277-25), MW-4S-20211029 (460-246277-26), MW-3S-20211029 (460-246277-27), AMW-8-20211029 (460-246277-28), AMW-9-20211029 (460-246277-29), AMW-7-20211029 (460-246277-30), AMW-10-20211029 (460-246277-31) and MW-53S-20211029 (460-246277-32) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC. The samples were prepared on

11/04/2021 and 11/05/2021 and analyzed on 11/08/2021, 11/09/2021 and 11/10/2021.

N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) was detected in method blank MB 200-173528/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Perfluorobutanesulfonic acid (PFBS) was detected in method blank MB 200-173541/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The method blank for preparation batch 200-173528 and analytical batch 200-173682 contained N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Method 537 (modified): The “I” qualifier associated with samples MW-202D-20211027 (460-246277-6) and MW-34-20211028 (460-246277-15) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: MW-34-20211028 (460-246277-15). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: MW-34-20211028 (460-246277-15). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: AMW-3-20211028 (460-246277-23) and AMW-9-20211029 (460-246277-29). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The method blank for preparation batch 200-173541 and analytical batch 200-173694 contained Perfluorobutanesulfonic acid (PFBS) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and/or re-analysis of samples was not performed.

The “I” qualifier associated with samples MW-7S-20211028 (460-246277-19), DUP-02-20211028 (460-246277-24) and AMW-9-20211029 (460-246277-29) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Results for sample AP-101-20211027 (460-246277-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Results for samples AMW-8-20211029 (460-246277-28) and AMW-10-20211029 (460-246277-31) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Perfluorooctanesulfonic acid (PFOS) failed the recovery criteria low for the MSD of sample MW-26S-20211028MSD (460-246277-18) in batch 200-173682.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

# Laboratory Qualifiers

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| F2 | MS/MSD RPD exceeds control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

### LCMS

| Qualifier | Qualifier Description |
|---|---|
| *5- | Isotope dilution analyte is outside acceptance limits, low biased. |
| *5+ | Isotope dilution analyte is outside acceptance limits, high biased. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B | Compound was found in the blank and sample. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| I | Value is EMPC (estimated maximum possible concentration). |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

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

# Annotated Quality Control Results

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water**
**Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PFUnA (50-150) | PFDoA (50-150) | PFOSA (25-150) | PFPeA (25-150) | PFTDA (50-150) | d3NMFOS (50-150) | d5NEFOS (50-150) | M262FTS (25-150) |
| 460-246277-1 | MH-102-20211027 | 79 | 75 | 91 | 102 | 70 | 84 | 87 | 108 |
| 460-246277-2 - DL | AP-101-20211027 | | | | | | | | |
| 460-246277-2 | AP-101-20211027 | 65 | 58 | 84 | 102 | 60 | 76 | 70 | 105 |
| 460-246277-3 | AMW-2-20211027 | 84 | 80 | 93 | 98 | 75 | 88 | 97 | 112 |
| 460-246277-4 | AMW-1-20211027 | 95 | 91 | 91 | 89 | 84 | 107 | 115 | 126 |
| 460-246277-5 | MW-202S-20211027 | 85 | 82 | 88 | 88 | 76 | 98 | 99 | 119 |
| 460-246277-6 | MW-202D-20211027 | 87 | 77 | 95 | 97 | 75 | 96 | 97 | 110 |
| 460-246277-7 | MW-9S-20211027 | 80 | 73 | 91 | 103 | 72 | 95 | 94 | 109 |
| 460-246277-8 | MW-24S-20211027 | 97 | 91 | 95 | 92 | 90 | 108 | 116 | 120 |
| 460-246277-8 MS | MW-24S-20211027 | 90 | 84 | 90 | 90 | 81 | 104 | 106 | 116 |
| 460-246277-8 MSD | MW-24S-20211027 | 91 | 85 | 88 | 88 | 84 | 100 | 106 | 112 |
| 460-246277-9 | BP-101-20211028 | 81 | 78 | 91 | 100 | 72 | 94 | 97 | 107 |
| 460-246277-10 | EP-02-20211028 | 87 | 73 | 83 | 105 | 64 | 94 | 95 | 112 |
| 460-246277-11 | MW-23S-20211028 | 87 | 84 | 88 | 94 | 82 | 98 | 106 | 110 |
| 460-246277-12 | MW-37AQ-20211028 | 89 | 93 | 92 | 99 | 83 | 104 | 102 | 118 |
| 460-246277-13 | AMW-5-20211028 | 87 | 82 | 91 | 99 | 82 | 97 | 99 | 111 |
| 460-246277-14 | MW-5S-20211028 | 82 | 78 | 93 | 107 | 69 | 94 | 89 | 110 |
| 460-246277-15 | MW-34-20211028 | 85 | 68 | 59 | 98 | 32 *5- | 129 | 142 | 185 *5+ |
| 460-246277-16 | MW-1S-20211028 | 86 | 82 | 91 | 98 | 77 | 96 | 105 | 110 |
| 460-246277-17 | MW-102-20211028 | 79 | 73 | 89 | 97 | 68 | 87 | 86 | 107 |
| 460-246277-18 | MW-26S-20211028 | 84 | 78 | 94 | 89 | 65 | 101 | 101 | 115 |
| 460-246277-18 MS | MW-26S-20211028 | 85 | 79 | 93 | 92 | 63 | 100 | 102 | 120 |
| 460-246277-18 MSD | MW-26S-20211028 | 91 | 86 | 97 | 95 | 73 | 107 | 108 | 127 |
| 460-246277-19 | MW-7S-20211028 | 79 | 74 | 84 | 104 | 74 | 88 | 98 | 106 |
| 460-246277-20 | AMW-4-20211028 | 85 | 81 | 88 | 93 | 80 | 90 | 96 | 113 |
| 460-246277-21 | AMW-11-20211028 | 92 | 89 | 91 | 102 | 82 | 101 | 106 | 108 |
| 460-246277-22 | AMW-6-20211028 | 95 | 92 | 85 | 95 | 91 | 108 | 120 | 134 |
| 460-246277-23 | AMW-3-20211028 | 97 | 100 | 83 | 90 | 98 | 135 | 149 | 158 *5+ |
| 460-246277-24 | DUP-02-20211028 | 96 | 94 | 83 | 92 | 92 | 133 | 140 | 145 |
| 460-246277-25 | MW-201-20211028 | 94 | 89 | 85 | 89 | 83 | 110 | 114 | 130 |
| 460-246277-26 | MW-4S-20211029 | 66 | 62 | 82 | 100 | 62 | 82 | 81 | 105 |
| 460-246277-27 | MW-3S-20211029 | 68 | 61 | 88 | 103 | 65 | 86 | 79 | 106 |
| 460-246277-28 - DL | AMW-8-20211029 | | | | | | | | |
| 460-246277-28 | AMW-8-20211029 | 77 | 67 | 70 | 95 | 62 | 99 | 109 | 129 |
| 460-246277-29 | AMW-9-20211029 | 88 | 86 | 67 | 92 | 94 | 129 | 149 | 165 *5+ |
| 460-246277-30 | AMW-7-20211029 | 89 | 85 | 78 | 93 | 82 | 99 | 107 | 125 |
| 460-246277-31 - DL | AMW-10-20211029 | | | | | | | | |
| 460-246277-31 | AMW-10-20211029 | 96 | 88 | 85 | 93 | 93 | 105 | 117 | 126 |
| 460-246277-32 | MW-53S-20211029 | 86 | 90 | 85 | 103 | 86 | 98 | 102 | 116 |
| LCS 200-173528/2-A | Lab Control Sample | 80 | 68 | 78 | 109 | 64 | 94 | 89 | 106 |
| LCS 200-173541/2-A | Lab Control Sample | | | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | 83 | 78 | 75 | 107 | 74 | 106 | 93 | 113 |
| LCSD 200-173541/3-A | Lab Control Sample Dup | | | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 81 | 76 | 74 | 110 | 77 | 101 | 90 | 111 |
| MB 200-173528/1-A | Method Blank | 84 | 77 | 82 | 107 | 71 | 95 | 96 | 111 |
| MB 200-173541/1-A | Method Blank | | | | | | | | |
| MB 200-173541/1-A | Method Blank | 75 | 69 | 66 | 103 | 69 | 90 | 88 | 109 |

# Isotope Dilution Summary

Client: Cornerstone Environmental Group, LLC
Job ID: 460-246277-1
Project/Site: NEPERA - Harriman, NY

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

**Matrix: Water**
**Prep Type: Total/NA**

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | M282FTS (25-150) | C3PFBS (50-150) | | | | | | |
| 460-246277-1 | MH-102-20211027 | 103 | 94 | | | | | | |
| 460-246277-2 - DL | AP-101-20211027 | | | | | | | | |
| 460-246277-2 | AP-101-20211027 | 91 | 92 | | | | | | |
| 460-246277-3 | AMW-2-20211027 | 111 | 94 | | | | | | |
| 460-246277-4 | AMW-1-20211027 | 143 | 97 | | | | | | |
| 460-246277-5 | MW-202S-20211027 | 119 | 92 | | | | | | |
| 460-246277-6 | MW-202D-20211027 | 120 | 92 | | | | | | |
| 460-246277-7 | MW-9S-20211027 | 111 | 95 | | | | | | |
| 460-246277-8 | MW-24S-20211027 | 130 | 92 | | | | | | |
| 460-246277-8 MS | MW-24S-20211027 | 124 | 90 | | | | | | |
| 460-246277-8 MSD | MW-24S-20211027 | 124 | 88 | | | | | | |
| 460-246277-9 | BP-101-20211028 | 108 | 92 | | | | | | |
| 460-246277-10 | EP-02-20211028 | 114 | 95 | | | | | | |
| 460-246277-11 | MW-23S-20211028 | 113 | 90 | | | | | | |
| 460-246277-12 | MW-37AQ-20211028 | 122 | 93 | | | | | | |
| 460-246277-13 | AMW-5-20211028 | 116 | 91 | | | | | | |
| 460-246277-14 | MW-5S-20211028 | 110 | 93 | | | | | | |
| 460-246277-15 | MW-34-20211028 | 186 *5+ | 122 | | | | | | |
| 460-246277-16 | MW-1S-20211028 | 116 | 92 | | | | | | |
| 460-246277-17 | MW-102-20211028 | 103 | 92 | | | | | | |
| 460-246277-18 | MW-26S-20211028 | 112 | 89 | | | | | | |
| 460-246277-18 MS | MW-26S-20211028 | 118 | 90 | | | | | | |
| 460-246277-18 MSD | MW-26S-20211028 | 115 | 93 | | | | | | |
| 460-246277-19 | MW-7S-20211028 | 103 | 97 | | | | | | |
| 460-246277-20 | AMW-4-20211028 | 122 | 92 | | | | | | |
| 460-246277-21 | AMW-11-20211028 | 112 | 96 | | | | | | |
| 460-246277-22 | AMW-6-20211028 | 139 | 96 | | | | | | |
| 460-246277-23 | AMW-3-20211028 | 164 *5+ | 99 | | | | | | |
| 460-246277-24 | DUP-02-20211028 | 149 | 100 | | | | | | |
| 460-246277-25 | MW-201-20211028 | 126 | 95 | | | | | | |
| 460-246277-26 | MW-4S-20211029 | 91 | 95 | | | | | | |
| 460-246277-27 | MW-3S-20211029 | 96 | 97 | | | | | | |
| 460-246277-28 - DL | AMW-8-20211029 | | | | | | | | |
| 460-246277-28 | AMW-8-20211029 | 118 | 96 | | | | | | |
| 460-246277-29 | AMW-9-20211029 | 180 *5+ | 110 | | | | | | |
| 460-246277-30 | AMW-7-20211029 | 125 | 95 | | | | | | |
| 460-246277-31 - DL | AMW-10-20211029 | | | | | | | | |
| 460-246277-31 | AMW-10-20211029 | 127 | 93 | | | | | | |
| 460-246277-32 | MW-53S-20211029 | 107 | 102 | | | | | | |
| LCS 200-173528/2-A | Lab Control Sample | 108 | 98 | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | | | | | | | | |
| LCS 200-173541/2-A | Lab Control Sample | 112 | 95 | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | | | | | | | | |
| LCSD 200-173541/3-A | Lab Control Sample Dup | 111 | 99 | | | | | | |
| MB 200-173528/1-A | Method Blank | 111 | 93 | | | | | | |
| MB 200-173541/1-A | Method Blank | | | | | | | | |
| MB 200-173541/1-A | Method Blank | 104 | 94 | | | | | | |

**Surrogate Legend**

PFHxS = 18O2 PFHxS

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

**Lab Sample ID: MB 460-811052/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 15:36 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *26* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 15:36* | *1* |

**Lab Sample ID: LCS 460-811052/2-A**
**Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.66 | | ug/L | | 104 | 50 - 142 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *22* | | *10 - 150* |

**Lab Sample ID: LCSD 460-811052/3-A**
**Client Sample ID: Lab Control Sample Dup**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 1.60 | 1.63 | | ug/L | | 102 | 50 - 142 | 2 | 20 |

| *Isotope Dilution* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *23* | | *10 - 150* |

**Lab Sample ID: 460-246277-8 MS**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.43 | F1 F2 | 1.60 | 2.81 | F1 | ug/L | | 149 | 50 - 142 |

| *Isotope Dilution* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *26* | | *10 - 150* |

**Lab Sample ID: 460-246277-8 MSD**
**Client Sample ID: MW-24S-20211027**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 811092**
**Prep Batch: 811052**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.43 | F1 F2 | 1.60 | 2.20 | F2 | ug/L | | 111 | 50 - 142 | 24 | 20 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,4-Dioxane-d8* | *32* | | *10 - 150* |

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

**Lab Sample ID: 460-246277-18 MSD**
**Client Sample ID: MW-26S-20211028**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173682**
**Prep Batch: 173528**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 35.0 | 41.92 | | ng/L | | 120 | 60 - 140 | 5 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 8.59 | | 30.9 | 40.34 | | ng/L | | 103 | 60 - 140 | 0 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | | 31.9 | 145.6 | | ng/L | | 109 | 60 - 140 | 1 | 30 |
| Perfluoroheptanesulfonic Acid (PFHpS) | 5.03 | | 33.3 | 38.53 | | ng/L | | 101 | 60 - 140 | 2 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 286 | | 32.5 | 299.7 | 4 | ng/L | | 42 | 60 - 140 | 3 | 30 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 33.7 | 31.13 | | ng/L | | 92 | 60 - 140 | 2 | 30 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 35.0 | 36.45 | | ng/L | | 104 | 60 - 140 | 2 | 30 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 35.0 | 38.91 | | ng/L | | 111 | 60 - 140 | 5 | 30 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 35.0 | 35.40 | | ng/L | | 101 | 60 - 140 | 1 | 30 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 33.2 | 35.17 | | ng/L | | 106 | 50 - 150 | 0 | 30 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 33.5 | 31.16 | | ng/L | | 93 | 60 - 140 | 2 | 30 |

| *Isotope Dilution* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *18O2 PFHxS* | *99* | | *50 - 150* |
| *13C4 PFHpA* | *98* | | *50 - 150* |
| *13C4 PFOA* | *100* | | *50 - 150* |
| *13C4 PFOS* | *107* | | *50 - 150* |
| *13C5 PFNA* | *104* | | *50 - 150* |
| *13C4 PFBA* | *82* | | *25 - 150* |
| *13C2 PFHxA* | *99* | | *50 - 150* |
| *13C2 PFDA* | *95* | | *50 - 150* |
| *13C2 PFUnA* | *91* | | *50 - 150* |
| *13C2 PFDoA* | *86* | | *50 - 150* |
| *13C8 FOSA* | *97* | | *25 - 150* |
| *13C5 PFPeA* | *95* | | *25 - 150* |
| *13C2 PFTeDA* | *73* | | *50 - 150* |
| *d3-NMeFOSAA* | *107* | | *50 - 150* |
| *d5-NEtFOSAA* | *108* | | *50 - 150* |
| *M2-6:2 FTS* | *127* | | *25 - 150* |
| *M2-8:2 FTS* | *115* | | *25 - 150* |
| *13C3 PFBS* | *93* | | *50 - 150* |

**Lab Sample ID: MB 200-173541/1-A**
**Client Sample ID: Method Blank**
**Matrix: Water**
**Prep Type: Total/NA**
**Analysis Batch: 173621**
**Prep Batch: 173541**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 0.30 | U | 2.00 | 0.30 | ng/L | | 11/05/21 09:47 | 11/08/21 17:13 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 0.29 | U | 2.00 | 0.29 | ng/L | | 11/05/21 09:47 | 11/08/21 17:13 | 1 |

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 460-811217/2  Calibration Date: 11/03/2021 23:22

Instrument ID: CBNAMS9  Calib Start Date: 07/13/2021 13:46

GC Column: Rtxi-5Sil MS  ID: 0.25(mm)  Calib End Date: 07/13/2021 15:53

Lab File ID: h268849.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | AveID | 1.183 | 1.284 | | 543 | 500 | 8.5 | 50.0 |
| 1,4-Dioxane-d8 | Ave | 0.2407 | 0.1716 | | 2850 | 4000 | -28.7 | 50.0 |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173621/5  Calibration Date: 11/08/2021 16:16

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9095 | | 0.0539 | 0.0500 | 7.7 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.2027 | | 0.0642 | 0.0500 | 28.4 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.289 | | 0.0568 | 0.0500 | 13.6 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7474 | | 0.0443 | 0.0500 | -11.4 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.256 | | 1.55 | 1.25 | 24.0 | |
| 13C3 PFBS | Ave | 1.154 | 1.232 | | 1.24 | 1.16 | 6.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9478 | | 1.39 | 1.25 | 11.1 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1004 | | 1.33 | 1.17 | 14.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9765 | | 1.37 | 1.25 | 9.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0205 | | 1.09 | 1.25 | -12.9 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.9454 | | 1.33 | 1.18 | 12.8 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9784 | | 1.30 | 1.25 | 3.9 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1491 | | 1.34 | 1.19 | 12.8 | |
| 13C4 PFOA | Ave | 1.029 | 1.035 | | 1.26 | 1.25 | 0.6 | |
| 13C4 PFOS | Ave | 0.6058 | 0.7115 | | 1.40 | 1.20 | 17.5 | |
| 13C5 PFNA | Ave | 1.025 | 1.047 | | 1.28 | 1.25 | 2.2 | |
| 13C2 PFDA | Ave | 1.034 | 1.082 | | 1.31 | 1.25 | 4.7 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1739 | | 1.39 | 1.20 | 16.1 | |
| 13C8 FOSA | Ave | 0.998 | 1.249 | | 1.57 | 1.25 | 25.2 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0910 | | 1.12 | 1.25 | -10.6 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8160 | | 1.27 | 1.25 | 1.2 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0828 | | 1.09 | 1.25 | -13.2 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7857 | | 1.13 | 1.25 | -9.4 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6332 | | 1.18 | 1.25 | -5.8 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5303 | | 1.12 | 1.25 | -10.5 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173621/6  Calibration Date: 11/08/2021 16:23

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8696 | | 1.03 | 1.00 | 3.0 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1776 | | 1.13 | 1.00 | 12.6 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8791 | | 1.01 | 1.00 | 1.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6960 | | 0.825 | 1.00 | -17.5 | |
| 13C4 PFBA | Ave | 1.012 | 1.340 | | 1.66 | 1.25 | 32.4 | |
| 13C3 PFBS | Ave | 1.154 | 1.292 | | 1.30 | 1.16 | 12.0 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9570 | | 1.40 | 1.25 | 12.2 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1016 | | 1.35 | 1.17 | 15.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9603 | | 1.34 | 1.25 | 7.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0187 | | 0.993 | 1.25 | -20.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9436 | | 1.25 | 1.25 | 0.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9097 | | 1.28 | 1.18 | 8.5 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 1.017 | | 1.24 | 1.25 | -1.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1520 | | 1.37 | 1.19 | 15.0 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6441 | | 1.27 | 1.20 | 6.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.046 | | 1.28 | 1.25 | 2.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9799 | | 1.18 | 1.25 | -5.3 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1758 | | 1.41 | 1.20 | 17.3 | |
| 13C8 FOSA | Ave | 0.998 | 1.245 | | 1.56 | 1.25 | 24.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0938 | | 1.15 | 1.25 | -7.9 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7699 | | 1.19 | 1.25 | -4.5 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0829 | | 1.09 | 1.25 | -13.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7924 | | 1.14 | 1.25 | -8.6 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5816 | | 1.08 | 1.25 | -13.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5429 | | 1.15 | 1.25 | -8.3 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/12  Calibration Date: 11/08/2021 17:06

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A12.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8255 | | 2.45 | 2.50 | -2.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1478 | | 2.34 | 2.50 | -6.3 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9074 | | 2.64 | 2.50 | 5.6 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6789 | | 2.01 | 2.50 | -19.5 | |
| 13C4 PFBA | Ave | 1.012 | 1.313 | | 1.62 | 1.25 | 29.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.243 | | 1.25 | 1.16 | 7.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9029 | | 1.32 | 1.25 | 5.9 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1146 | | 1.52 | 1.17 | 30.3 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9708 | | 1.36 | 1.25 | 8.5 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0180 | | 0.953 | 1.25 | -23.7 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9674 | | 1.28 | 1.25 | 2.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9045 | | 1.28 | 1.18 | 7.9 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1467 | | 1.32 | 1.19 | 11.0 | |
| 13C4 PFOA | Ave | 1.029 | 0.997 | | 1.21 | 1.25 | -3.1 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6490 | | 1.28 | 1.20 | 7.1 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 0.9916 | | 1.21 | 1.25 | -3.2 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.044 | | 1.26 | 1.25 | 1.0 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1752 | | 1.40 | 1.20 | 16.9 | |
| 13C8 FOSA | Ave | 0.998 | 1.256 | | 1.57 | 1.25 | 25.9 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0926 | | 1.14 | 1.25 | -9.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7840 | | 1.22 | 1.25 | -2.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0841 | | 1.10 | 1.25 | -11.8 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7896 | | 1.14 | 1.25 | -8.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6492 | | 1.21 | 1.25 | -3.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5106 | | 1.08 | 1.25 | -13.8 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173621/26  Calibration Date: 11/08/2021 18:47

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211108A26.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8620 | | 1.02 | 1.00 | 2.1 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1548 | | 0.981 | 1.00 | -1.9 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9210 | | 1.06 | 1.00 | 6.1 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7256 | | 0.860 | 1.00 | -14.0 | |
| 13C4 PFBA | Ave | 1.012 | 1.391 | | 1.72 | 1.25 | 37.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 1.009 | | 1.48 | 1.25 | 18.3 | |
| 13C3 PFBS | Ave | 1.154 | 1.352 | | 1.36 | 1.16 | 17.2 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1196 | | 1.59 | 1.17 | 36.0 | |
| 13C2 PFHxA | Ave | 0.8946 | 1.015 | | 1.42 | 1.25 | 13.4 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0227 | | 1.21 | 1.25 | -3.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.047 | | 1.39 | 1.25 | 11.2 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.9441 | | 1.33 | 1.18 | 12.6 | 50.0 |
| 13C4 PFOA | Ave | 1.029 | 1.093 | | 1.33 | 1.25 | 6.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1700 | | 1.53 | 1.19 | 28.6 | |
| 13C4 PFOS | Ave | 0.6058 | 0.7016 | | 1.38 | 1.20 | 15.8 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.092 | | 1.33 | 1.25 | 6.5 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9730 | | 1.18 | 1.25 | -5.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1832 | | 1.46 | 1.20 | 22.3 | |
| 13C8 FOSA | Ave | 0.998 | 1.307 | | 1.64 | 1.25 | 31.0 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1004 | | 1.23 | 1.25 | -1.3 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.8260 | | 1.28 | 1.25 | 2.5 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0919 | | 1.21 | 1.25 | -3.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8136 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6829 | | 1.27 | 1.25 | 1.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5355 | | 1.13 | 1.25 | -9.6 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173663/5  Calibration Date: 11/09/2021 12:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A05.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.9147 | | 0.0542 | 0.0500 | 8.4 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1787 | | 0.0566 | 0.0500 | 13.2 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.159 | | 0.0492 | 0.0500 | -1.7 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6816 | | 0.0404 | 0.0500 | -19.2 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.324 | | 1.64 | 1.25 | 30.8 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9654 | | 1.42 | 1.25 | 13.2 | |
| 13C3 PFBS | Ave | 1.154 | 1.197 | | 1.21 | 1.16 | 3.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1229 | | 1.63 | 1.17 | 39.8 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.995 | | 1.39 | 1.25 | 11.3 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0216 | | 1.15 | 1.25 | -8.3 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9802 | | 1.30 | 1.25 | 4.1 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8765 | | 1.24 | 1.18 | 4.6 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1686 | | 1.51 | 1.19 | 27.5 | |
| 13C4 PFOA | Ave | 1.029 | 1.033 | | 1.26 | 1.25 | 0.4 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6322 | | 1.25 | 1.20 | 4.4 | |
| 13C5 PFNA | Ave | 1.025 | 1.029 | | 1.26 | 1.25 | 0.4 | |
| 13C2 PFDA | Ave | 1.034 | 0.9529 | | 1.15 | 1.25 | -7.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1927 | | 1.54 | 1.20 | 28.6 | |
| 13C8 FOSA | Ave | 0.998 | 1.032 | | 1.29 | 1.25 | 3.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0913 | | 1.12 | 1.25 | -10.2 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7359 | | 1.14 | 1.25 | -8.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0904 | | 1.19 | 1.25 | -5.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7830 | | 1.13 | 1.25 | -9.7 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6031 | | 1.12 | 1.25 | -10.3 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5776 | | 1.22 | 1.25 | -2.5 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173663/6  Calibration Date: 11/09/2021 13:00

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8258 | | 0.978 | 1.00 | -2.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1611 | | 1.02 | 1.00 | 2.1 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8862 | | 1.02 | 1.00 | 2.0 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6689 | | 0.793 | 1.00 | -20.7 | |
| 13C4 PFBA | Ave | 1.012 | 1.339 | | 1.65 | 1.25 | 32.2 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9706 | | 1.42 | 1.25 | 13.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.193 | | 1.20 | 1.16 | 3.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1228 | | 1.63 | 1.17 | 39.6 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9582 | | 1.34 | 1.25 | 7.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0192 | | 1.02 | 1.25 | -18.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9770 | | 1.30 | 1.25 | 3.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8769 | | 1.24 | 1.18 | 4.6 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1618 | | 1.45 | 1.19 | 22.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.033 | | 1.26 | 1.25 | 0.4 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6442 | | 1.27 | 1.20 | 6.4 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.007 | | 1.23 | 1.25 | -1.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9420 | | 1.14 | 1.25 | -8.9 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1856 | | 1.48 | 1.20 | 23.8 | |
| 13C8 FOSA | Ave | 0.998 | 1.035 | | 1.30 | 1.25 | 3.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0933 | | 1.15 | 1.25 | -8.3 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7595 | | 1.18 | 1.25 | -5.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0881 | | 1.16 | 1.25 | -7.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7984 | | 1.15 | 1.25 | -7.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5864 | | 1.09 | 1.25 | -12.8 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5385 | | 1.14 | 1.25 | -9.1 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173663/13  Calibration Date: 11/09/2021 13:50

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109A13.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7962 | | 2.36 | 2.50 | -5.7 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1530 | | 2.42 | 2.50 | -3.1 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9121 | | 2.65 | 2.50 | 6.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6942 | | 2.06 | 2.50 | -17.7 | |
| 13C4 PFBA | Ave | 1.012 | 1.279 | | 1.58 | 1.25 | 26.3 | |
| 13C3 PFBS | Ave | 1.154 | 1.193 | | 1.20 | 1.16 | 3.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9410 | | 1.38 | 1.25 | 10.4 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1198 | | 1.59 | 1.17 | 36.2 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9671 | | 1.35 | 1.25 | 8.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0200 | | 1.06 | 1.25 | -15.1 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9771 | | 1.30 | 1.25 | 3.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8691 | | 1.23 | 1.18 | 3.7 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1533 | | 1.38 | 1.19 | 16.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.016 | | 1.23 | 1.25 | -1.2 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6481 | | 1.28 | 1.20 | 7.0 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.035 | | 1.26 | 1.25 | 1.0 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9813 | | 1.19 | 1.25 | -5.1 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1831 | | 1.46 | 1.20 | 22.2 | |
| 13C8 FOSA | Ave | 0.998 | 1.046 | | 1.31 | 1.25 | 4.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1012 | | 1.24 | 1.25 | -0.5 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7671 | | 1.19 | 1.25 | -4.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0929 | | 1.22 | 1.25 | -2.5 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8160 | | 1.18 | 1.25 | -5.9 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6591 | | 1.23 | 1.25 | -2.0 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5390 | | 1.14 | 1.25 | -9.0 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVL 200-173679/2  Calibration Date: 11/09/2021 17:25

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109AA02.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8821 | | 0.0522 | 0.0500 | 4.5 | 50.0 |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1776 | | 0.0563 | 0.0500 | 12.5 | 50.0 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 1.252 | | 0.0546 | 0.0500 | 9.2 | 50.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.7640 | | 0.0453 | 0.0500 | -9.4 | 50.0 |
| 13C4 PFBA | Ave | 1.012 | 1.270 | | 1.57 | 1.25 | 25.4 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9538 | | 1.40 | 1.25 | 11.9 | |
| 13C3 PFBS | Ave | 1.154 | 1.174 | | 1.18 | 1.16 | 1.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1147 | | 1.52 | 1.17 | 30.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9855 | | 1.38 | 1.25 | 10.2 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0176 | | 0.932 | 1.25 | -25.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9817 | | 1.30 | 1.25 | 4.2 | |
| 18O2 PFHxS | Ave | 0.8382 | 0.8607 | | 1.21 | 1.18 | 2.7 | |
| M2-6:2 FTS | Ave | 0.1322 | 0.1548 | | 1.39 | 1.19 | 17.1 | |
| 13C4 PFOA | Ave | 1.029 | 1.007 | | 1.22 | 1.25 | -2.1 | |
| 13C4 PFOS | Ave | 0.6058 | 0.6288 | | 1.24 | 1.20 | 3.8 | |
| 13C5 PFNA | Ave | 1.025 | 1.039 | | 1.27 | 1.25 | 1.4 | |
| 13C2 PFDA | Ave | 1.034 | 0.9539 | | 1.15 | 1.25 | -7.8 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1746 | | 1.40 | 1.20 | 16.5 | |
| 13C8 FOSA | Ave | 0.998 | 1.026 | | 1.29 | 1.25 | 2.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.0888 | | 1.09 | 1.25 | -12.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7089 | | 1.10 | 1.25 | -12.1 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0895 | | 1.17 | 1.25 | -6.1 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7570 | | 1.09 | 1.25 | -12.7 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5884 | | 1.09 | 1.25 | -12.5 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.4937 | | 1.04 | 1.25 | -16.6 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/1  Calibration Date: 11/10/2021 04:12

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D01.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7749 | | 2.30 | 2.50 | -8.2 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1543 | | 2.45 | 2.50 | -2.2 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9123 | | 2.66 | 2.50 | 6.2 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6887 | | 2.04 | 2.50 | -18.3 | |
| 13C4 PFBA | Ave | 1.012 | 1.288 | | 1.59 | 1.25 | 27.3 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9742 | | 1.43 | 1.25 | 14.2 | |
| 13C3 PFBS | Ave | 1.154 | 1.166 | | 1.17 | 1.16 | 1.0 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1136 | | 1.51 | 1.17 | 29.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9846 | | 1.38 | 1.25 | 10.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0206 | | 1.09 | 1.25 | -12.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 1.006 | | 1.34 | 1.25 | 6.8 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8694 | | 1.23 | 1.18 | 3.7 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1632 | | 1.47 | 1.19 | 23.4 | |
| 13C4 PFOA | Ave | 1.029 | 1.046 | | 1.27 | 1.25 | 1.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6529 | | 1.29 | 1.20 | 7.8 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.034 | | 1.26 | 1.25 | 0.9 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.997 | | 1.21 | 1.25 | -3.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1819 | | 1.45 | 1.20 | 21.4 | |
| 13C8 FOSA | Ave | 0.998 | 1.038 | | 1.30 | 1.25 | 4.1 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1086 | | 1.33 | 1.25 | 6.7 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7060 | | 1.10 | 1.25 | -12.4 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.0978 | | 1.28 | 1.25 | 2.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8079 | | 1.17 | 1.25 | -6.8 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5901 | | 1.10 | 1.25 | -12.3 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.4988 | | 1.05 | 1.25 | -15.8 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173682/28  Calibration Date: 11/10/2021 07:53

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211109D28.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7896 | | 2.34 | 2.50 | -6.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1589 | | 2.52 | 2.50 | 0.7 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9128 | | 2.66 | 2.50 | 6.3 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6912 | | 2.05 | 2.50 | -18.0 | |
| 13C4 PFBA | Ave | 1.012 | 1.221 | | 1.51 | 1.25 | 20.6 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9390 | | 1.38 | 1.25 | 10.1 | |
| 13C3 PFBS | Ave | 1.154 | 1.139 | | 1.15 | 1.16 | -1.3 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1131 | | 1.50 | 1.17 | 28.6 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9661 | | 1.35 | 1.25 | 8.0 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0253 | | 1.34 | 1.25 | 7.4 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.997 | | 1.32 | 1.25 | 5.9 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8853 | | 1.25 | 1.18 | 5.6 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1506 | | 1.35 | 1.19 | 14.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.025 | | 1.25 | 1.25 | -0.3 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6397 | | 1.26 | 1.20 | 5.6 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.015 | | 1.24 | 1.25 | -1.0 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.031 | | 1.25 | 1.25 | -0.3 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1921 | | 1.54 | 1.20 | 28.2 | |
| 13C8 FOSA | Ave | 0.998 | 1.012 | | 1.27 | 1.25 | 1.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1129 | | 1.39 | 1.25 | 11.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7930 | | 1.23 | 1.25 | -1.6 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1040 | | 1.37 | 1.25 | 9.2 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8381 | | 1.21 | 1.25 | -3.3 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6306 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5452 | | 1.15 | 1.25 | -7.9 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCVIS 200-173694/6  Calibration Date: 11/10/2021 12:03

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A06.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.7941 | | 0.941 | 1.00 | -5.9 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1618 | | 1.03 | 1.00 | 2.5 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.9346 | | 1.08 | 1.00 | 7.7 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6898 | | 0.818 | 1.00 | -18.2 | |
| 13C4 PFBA | Ave | 1.012 | 1.279 | | 1.58 | 1.25 | 26.3 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9625 | | 1.41 | 1.25 | 12.9 | |
| 13C3 PFBS | Ave | 1.154 | 1.208 | | 1.22 | 1.16 | 4.7 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1083 | | 1.44 | 1.17 | 23.1 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9762 | | 1.36 | 1.25 | 9.1 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0167 | | 0.885 | 1.25 | -29.2 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9594 | | 1.27 | 1.25 | 1.9 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8675 | | 1.22 | 1.18 | 3.5 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1568 | | 1.41 | 1.19 | 18.6 | |
| 13C4 PFOA | Ave | 1.029 | 1.043 | | 1.27 | 1.25 | 1.4 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6510 | | 1.28 | 1.20 | 7.5 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.013 | | 1.24 | 1.25 | -1.1 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 0.9559 | | 1.16 | 1.25 | -7.6 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1709 | | 1.37 | 1.20 | 14.0 | |
| 13C8 FOSA | Ave | 0.998 | 1.042 | | 1.31 | 1.25 | 4.4 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1090 | | 1.34 | 1.25 | 7.2 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7358 | | 1.14 | 1.25 | -8.7 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1036 | | 1.36 | 1.25 | 8.7 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.7973 | | 1.15 | 1.25 | -8.1 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.5942 | | 1.10 | 1.25 | -11.7 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5220 | | 1.10 | 1.25 | -11.9 | |

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington  Job No.: 460-246277-1

SDG No.:

Lab Sample ID: CCV 200-173694/30  Calibration Date: 11/10/2021 15:20

Instrument ID: LC812  Calib Start Date: 10/27/2021 13:46

GC Column: C-18  ID: 4.60(mm)  Calib End Date: 10/27/2021 14:27

Lab File ID: PA211110A30.d  Conc. Units: ng/mL

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Perfluorotridecanoic acid (PFTriA) | AveID | 0.8441 | 0.8738 | | 1.04 | 1.00 | 3.5 | |
| Perfluorotetradecanoic acid (PFTeA) | AveID | 0.1578 | 0.1590 | | 1.01 | 1.00 | 0.7 | |
| Perfluoro-n-hexadecanoic acid (PFHxDA) | L2ID | | 0.8659 | | 0.996 | 1.00 | -0.4 | 30.0 |
| Perfluoro-n-octadecanoic acid (PFODA) | AveID | 0.8433 | 0.6866 | | 0.814 | 1.00 | -18.6 | |
| 13C4 PFBA | Ave | 1.012 | 1.220 | | 1.51 | 1.25 | 20.5 | |
| 13C5 PFPeA | Ave | 0.8527 | 0.9275 | | 1.36 | 1.25 | 8.8 | |
| 13C3 PFBS | Ave | 1.154 | 1.154 | | 1.16 | 1.16 | 0.0 | |
| M2-4:2 FTS | Ave | 0.0879 | 0.1007 | | 1.34 | 1.17 | 14.5 | |
| 13C2 PFHxA | Ave | 0.8946 | 0.9832 | | 1.37 | 1.25 | 9.9 | |
| 13C3 HFPO-DA | Ave | 0.0236 | 0.0171 | | 0.904 | 1.25 | -27.6 | |
| 13C4 PFHpA | Ave | 0.9417 | 0.9761 | | 1.30 | 1.25 | 3.7 | 50.0 |
| 18O2 PFHxS | Ave | 0.8382 | 0.8901 | | 1.26 | 1.18 | 6.2 | 50.0 |
| M2-6:2 FTS | Ave | 0.1322 | 0.1454 | | 1.31 | 1.19 | 10.0 | |
| 13C4 PFOA | Ave | 1.029 | 1.013 | | 1.23 | 1.25 | -1.6 | 50.0 |
| 13C4 PFOS | Ave | 0.6058 | 0.6621 | | 1.31 | 1.20 | 9.3 | 50.0 |
| 13C5 PFNA | Ave | 1.025 | 1.053 | | 1.28 | 1.25 | 2.8 | 50.0 |
| 13C2 PFDA | Ave | 1.034 | 1.009 | | 1.22 | 1.25 | -2.5 | |
| M2-8:2 FTS | Ave | 0.1498 | 0.1781 | | 1.42 | 1.20 | 18.9 | |
| 13C8 FOSA | Ave | 0.998 | 1.066 | | 1.34 | 1.25 | 6.8 | |
| d3-NMeFOSAA | Ave | 0.1017 | 0.1139 | | 1.40 | 1.25 | 12.0 | |
| 13C2 PFUnA | Ave | 0.8062 | 0.7510 | | 1.16 | 1.25 | -6.8 | |
| d5-NEtFOSAA | Ave | 0.0953 | 0.1025 | | 1.35 | 1.25 | 7.6 | |
| 13C2 PFDoA | Ave | 0.8672 | 0.8137 | | 1.17 | 1.25 | -6.2 | |
| 13C2 PFTeDA | Ave | 0.6726 | 0.6295 | | 1.17 | 1.25 | -6.4 | |
| 13C2 PFHxDA | Ave | 0.5922 | 0.5542 | | 1.17 | 1.25 | -6.4 | |

# Annotated Analytical Data

## Client Sample ID: MW-9S-20211027
**Lab Sample ID: 460-246277-7**

**Date Collected: 10/27/21 17:25**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 13C2 PFHxA | 102 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFDA | 88 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFUnA | 80 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFDoA | 73 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C8 FOSA | 91 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C5 PFPeA | 103 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C2 PFTeDA | 72 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| d3-NMeFOSAA | 95 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| d5-NEtFOSAA | 94 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| M2-6:2 FTS | 109 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| M2-8:2 FTS | 111 | | 25 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |
| 13C3 PFBS | 95 | | 50 - 150 | 11/04/21 17:16 | 11/10/21 05:34 | 1 |

## Client Sample ID: MW-24S-20211027
**Lab Sample ID: 460-246277-8**

**Date Collected: 10/27/21 14:00**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | **0.43** | **F1 F2** J | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 16:24 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,4-Dioxane-d8 | 37 | | 10 - 150 | 11/03/21 07:59 | 11/03/21 16:24 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.47** | | 4.28 | 0.76 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **9.60** | | 1.71 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **12.6** | | 1.71 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **7.05** | | 1.71 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **31.6** | | 1.71 | 0.36 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorononanoic acid (PFNA)** | **3.31** | | 1.71 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **1.14** | **J** | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.29 | U | 1.71 | 0.29 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.71 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.37 | U | 1.71 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.54 | U | 1.71 | 0.54 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.46** | | 1.71 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **41.2** | | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **1.29** | **J** | 1.71 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **45.2** | | 1.71 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.26 | U | 1.71 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.49 | U | 1.71 | 0.49 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.77 | U | 4.28 | 0.77 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.28 | 0.64 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.94 | U | 4.28 | 0.94 | ng/L | | 11/04/21 17:16 | 11/10/21 05:42 | 1 |

## Client Sample ID: MW-5S-20211028
**Lab Sample ID: 460-246277-14**
**Date Collected: 10/28/21 17:05**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.37 | U | 1.92 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 06:55 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *98* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFHpA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C5 PFNA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C4 PFBA* | *111* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFHxA* | *100* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFDA* | *85* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFUnA* | *82* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFDoA* | *78* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C8 FOSA* | *93* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C5 PFPeA* | *107* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C2 PFTeDA* | *69* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *d3-NMeFOSAA* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *d5-NEtFOSAA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *M2-6:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *M2-8:2 FTS* | *110* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |
| *13C3 PFBS* | *93* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 06:55* | *1* |

## Client Sample ID: MW-34-20211028
**Lab Sample ID: 460-246277-15**
**Date Collected: 10/28/21 17:45**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 21:25 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *28* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 21:25* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **9.55** | | 4.38 | 0.78 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **6.83** | | 1.75 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **17.4** | | 1.75 | 0.40 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.26** | | 1.75 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **43.1** | | 1.75 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.61** | **J** | 1.75 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.49** | **J** | 1.75 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.75 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.34 | U | 1.75 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.75 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U J | 1.75 | 0.55 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **12.3** | **I** | 1.75 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **63.4** | | 1.75 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **2.19** | | 1.75 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 07:04 | 1 |

## Client Sample ID: MW-26S-20211028
## Lab Sample ID: 460-246277-18

**Date Collected: 10/28/21 10:55**
**Matrix: Water**
**Date Received: 10/29/21 19:00**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 0.016 | U | 0.20 | 0.016 | ug/L | | 11/03/21 07:59 | 11/03/21 17:11 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8* | *40* | | *10 - 150* | *11/03/21 07:59* | *11/03/21 17:11* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluorobutanoic acid (PFBA)** | **8.28** | | 4.33 | 0.77 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoropentanoic acid (PFPeA)** | **11.0** | | 1.73 | 0.41 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorohexanoic acid (PFHxA)** | **15.3** | | 1.73 | 0.39 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoroheptanoic acid (PFHpA)** | **5.29** | | 1.73 | 0.21 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorooctanoic acid (PFOA)** | **14.7** | | 1.73 | 0.37 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorononanoic acid (PFNA)** | **1.61** | J | 1.73 | 0.24 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorodecanoic acid (PFDA)** | **0.50** | J | 1.73 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | U | 1.73 | 0.30 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorododecanoic acid (PFDoA) | 0.33 | U | 1.73 | 0.33 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorotridecanoic acid (PFTriA) | 0.38 | U | 1.73 | 0.38 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorotetradecanoic acid (PFTeA) | 0.55 | U | 1.73 | 0.55 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorobutanesulfonic acid (PFBS)** | **8.59** | | 1.73 | 0.22 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorohexanesulfonic acid (PFHxS)** | **111** | | 1.73 | 0.26 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluoroheptanesulfonic Acid (PFHpS)** | **5.03** | | 1.73 | 0.20 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| **Perfluorooctanesulfonic acid (PFOS)** | **286** | J | 1.73 | 0.25 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorodecanesulfonic acid (PFDS) | 0.27 | U | 1.73 | 0.27 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| Perfluorooctanesulfonamide (PFOSA) | 0.50 | U | 1.73 | 0.50 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 0.78 | U | 4.33 | 0.78 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 0.64 | U | 4.33 | 0.64 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 0.95 | U | 4.33 | 0.95 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 0.34 | U | 1.73 | 0.34 | ng/L | | 11/04/21 17:16 | 11/10/21 07:28 | 1 |

| *Isotope Dilution* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *18O2 PFHxS* | *94* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFHpA* | *97* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFOA* | *95* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFOS* | *96* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C5 PFNA* | *91* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C4 PFBA* | *75* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFHxA* | *92* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFDA* | *89* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFUnA* | *84* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFDoA* | *78* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C8 FOSA* | *94* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C5 PFPeA* | *89* | | *25 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *13C2 PFTeDA* | *65* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *d3-NMeFOSAA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |
| *d5-NEtFOSAA* | *101* | | *50 - 150* | *11/04/21 17:16* | *11/10/21 07:28* | *1* |

# Appendix H: Work Plan Addendum for Supplemental Soil and Groundwater Investigation

# Phase II
# Emerging Contaminants Site Investigation Work Plan Addendum
# Former Nepera Plant Site
# Harriman, New York
# EPA ID# NYD002014595

Prepared for

ELT Harriman, LLC, and Nepera, Inc. & Warner-Lambert Company Corporate Defendants

July 2023

Prepared by

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# Certification Statement

I, Jeffrey Caputi, certify that I am currently a NYS registered professional engineer, and that this Phase II Emerging Contaminants Investigation Work Plan Addendum, as to soil aspects, was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and any DER-approved modifications.

Jeffrey R. Caputi, P.E.
N.Y.P.E. License Number 082196

7-18-2023
Date

Brown AND Caldwell | cornerstone PLC

# Certification Statement

I, Timothy R. Roeper, certify that I am currently a NYS registered professional geologist, and that this Phase II Emerging Contaminants Investigation Work Plan Addendum, as to groundwater aspects, was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and any DER-approved modifications.

Timothy R. Roeper, PG
N.Y.P.G. License Number 000307

7/18/2023
Date

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# List of Abbreviations

| | |
|---|---|
| BC | Brown and Caldwell Associates |
| COC | Chain-of-Custody |
| Cornerstone | Cornerstone PLLC |
| CRQL | Contract Required Quantitation Limits |
| DQO | Data Quality Objective |
| DUSR | Data Usability Summary Report |
| EC | Emerging Contaminants |
| ECD | Electron Capture Detector |
| ELAP | Environmental Laboratory Approval Program |
| EPA | U.S. Environmental Protection Agency |
| ELT | ELT Harriman, LLC |
| GC | Gas Chromatograph |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HDPE | High-Density Polyethylene |
| IDL | Instrument Detection Limit |
| LCS | Laboratory Control Sample |
| MCL | Maximum Contaminant Level |
| mg/kg | milligrams per kilogram |
| MS | Mass Spectrometer |
| MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| NAD 83 | North American Datum of 1983 |
| NAVD 88 | North American Vertical Datum of 1988 |
| ng/L | nanograms per liter |
| NYS | New York State |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PFHxS | Perfluorohexanesulfonic Acid |
| PFOA | Perfluorooctanoic Acid |
| PFOS | Perfluorooctanesulfonate |
| PID | Photoionization Detector |
| PVC | Polyvinyl Chloride |
| QA/QC | Quality Assurance/Quality Control |
| RIC | Reconstructed Ion Chromatogram |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |

| | |
|---|---|
| SDG | Sustainable Development Goal |
| Site | Former Nepera Plant Site |
| SOP | Standard Operating Procedure |
| SPLP | Synthetic Precipitation Leaching procedure |
| µg/kg | micrograms per kilogram |
| µg/L | micrograms per liter |
| VOC | Volatile Organic Compound |

Section 1

# Introduction

This Phase II Emerging Contaminants Investigation Work Plan Addendum has been prepared by Brown and Caldwell Associates and Cornerstone Engineering and Land Surveying, PLLC (BC/Cornerstone) on behalf of ELT Harriman, LLC ("ELT") and Nepera, Inc. and Warner-Lambert Company (the "Corporate Defendants") in further response to the request from the New York State Department of Environmental Conservation (NYSDEC) to conduct an investigation of per- and polyfluoroalkyl substances (PFAS), benzene, and alpha-picoline in soils at the Nepera-Harriman Site, also referred to as the Former Nepera Plant Site (the "Site"). The primary purpose of this supplemental investigation is to further assess the presence and extent of PFAS in soil and groundwater, including areas suggested by recent groundwater investigations. A secondary purpose is to assess the potential presence of benzene and alpha-picoline (2-picoline) in soil in locations upgradient from certain wells where these two compounds have been detected in groundwater.

A detailed description of the Site's background and recent investigations of emerging contaminants (ECs) in soil and groundwater is presented in "Phase II Emerging Contaminants Site Investigation Report, Former Nepera Plant Site, Harriman, New York EPA ID# NYD002014595" (BC/Cornerstone, September 2022).

## Reservation of Rights

The preparation and submission of this Phase II Emerging Contaminants Investigation Work Plan Addendum is subject to a full reservation of rights by all the private parties, including ELT and the Corporate Defendants. Nothing in the work plan or the discussions and submissions related thereto will be cited or construed in support of or against any position regarding which parties are responsible for any environmental liabilities or remediation at the Nepera-Harriman Site, including without limitation the presence of emerging contaminants and any of the costs associated with investigation and the potential remediation of such compounds.

## Section 2

# Background and Objectives

The recent EC investigation, conducted from January 2020 through April 2022, included an extensive investigation of groundwater within the Site and in adjoining off-Site areas. The groundwater investigation included installation of temporary and permanent monitoring wells, measurement of groundwater elevations, and collection of groundwater samples from 50 on-Site wells and 12 off-Site wells. Thirteen of the wells are screened in bedrock. The overburden wells are screened in various glacial and alluvial deposits that have been grouped together as either less permeable "aquitard" deposits (fine sand, silt, clayey silt or cemented kame deposits), or more permeable "aquifer" deposits (sand and gravel). Under most of the Site, the aquitard deposits overlie the coarser aquifer deposits, which in turn overlie relatively impermeable glacial till that was deposited directly on the bedrock surface. In the area of New York State (NYS) Route 17, the coarser aquifer deposits are generally thinner or absent.

The following discussion may be followed by referring to Figures 1 and 2, which show groundwater flow directions and perfluoroctane sulfonic acid (PFOS) concentrations for aquitard wells (Figure 1) and aquifer wells (Figure 2). Although a variety of PFAS compounds were detected in the groundwater samples, PFOS may be considered for present purposes as a proxy for PFAS. New York has established a drinking water Maximum Contaminant Level (MCL) of 10 nanograms per liter (ng/L) for both PFOS and perfluorooctanoic acid (PFOA), and a higher MCL of 100 ng/L for other PFAS compounds. The EC investigation demonstrates that most MCL exceedances are for PFOS, sometimes in combination with PFOA exceedances. A third PFAS compound, perfluorohexanesulfonic acid (PFHxS) exceeds its MCL of 100 ng/L in nine of the 74 groundwater samples. Only one PFOA exceedance occurs without a corresponding PFOS exceedance in the sample. No PFHxS exceedances occur without a corresponding PFOS exceedance in the sample. Given the demonstrated predominance of PFOS, its presence in groundwater can be utilized herein to identify potential source areas for other PFAS compounds.

Figures 1 and 2 respectively show PFOS concentrations in aquitard and aquifer wells. Wells with a PFOS result exceeding the 10 ng/L MCL are depicted with yellow symbols (>10-100 ng/L), orange symbols (>100-500 ng/L) or red symbols (>500 ng/L). The figures also show groundwater elevation contours and inferred flow lines based on March 2022 water level measurements in the respective aquitard and aquifer wells. The groundwater flow lines may be followed upgradient from wells with PFOS exceedances to potential on-Site PFAS source areas.

Some of these potential PFAS source areas were investigated by the soil borings advanced and sampled in January and August of 2020. The boring locations are shown on Figures 1 and 2. The 2020 soil investigations focused upon previously suspected PFAS source areas, including Buildings 2A, 26, 52, 64, 72, and open areas in former Site Areas B, F, and G. The 2020 soil investigations identified elevated concentrations of PFAS compounds, specifically PFOS and PFOA in the vicinity of the former Foam House (Building 72) and to a lesser extent in the open areas of former Site Area F. These previously characterized areas are not included in this supplemental investigation.

As shown in Figures 1 and 2, a total of 19 supplemental soil borings (EC-B-001 through EC-B-019) are proposed to evaluate PFAS in potential source areas. The specific objective of each

supplemental soil boring is identified on Table 1. In general, the proposed supplemental soil sampling locations have been selected to achieve the following goals:

- Identify the Site-wide nature and extent of PFAS compounds in unsaturated and partially saturated (near-water table) soils.
- Characterize soil PFAS concentrations in specific areas suggested by groundwater detections and groundwater flow lines.

An additional objective of the supplemental soil investigation is to characterize soil concentrations of benzene and alpha-picoline concentrations in potential source areas. Benzene has been detected in monitoring wells OW-6, OW-7, MW-25S, and MW-16S. Alpha-picoline has been detected in monitoring wells OW-6 and MW-16S. Two soil borings (G-B-106, G-B-107) will be advanced in areas upgradient from these wells.

In addition to the soil borings referenced above that are proposed with the objective of identifying the Site-wide nature and extent of PFAS compounds, additional groupings of soil borings are proposed to investigate potential shallow sources of PFAS compounds in suspected source areas, or to fill in potential data gaps. These additional locations are described in Attachment A to this Work Plan.

The groundwater investigation also identified relatively elevated PFOS concentrations at aquitard well location AMW-8, and to a lesser extent at MW-37AQ (Figure 1); and at aquifer monitoring well location AP-101 (Figure 2). Supplemental groundwater sampling will be conducted associated with these areas to include the following:

- Collection of groundwater samples from existing aquitard wells MW-35AQ and MW-36AQ
- Installation and sampling of an aquitard monitoring well downgradient of location AMW-8 and adjacent to Arden House Road
- Installation and sampling of a monitoring well couplet (shallow and deep wells) downgradient of location AP-101 adjacent to Arden House Road and immediately west of the West Branch of the Ramapo River
- Establishment of a new staff gauge at the western most Arden House Road bridge over the West Branch of the Ramapo River

In addition to the above, the results of the groundwater investigation within Mary Harriman Park indicate the presence of a likely source or sources of PFAS unrelated to the Nepera Site. While the data clearly indicate a shallow source of PFAS compounds unrelated to Nepera, at the request of NYSDEC, four additional monitoring wells will be installed and sampled as follows:

- One new monitoring well (MH-106) along the southwest Mary Harriman Park property boundary. This new location will serve as an additional upgradient monitoring well.
- Two new monitoring wells (MH-107 and MH-108) will be installed along the park access road to the northwest and southeast of existing well MH-104 to further delineate elevated PFAS concentrations within MH-104.
- One new monitoring well along the southeast Mary Harriman Park property boundary adjacent to Route 17. This new location will serve as an additional monitoring point between the former Nepera Site to the southeast of Route 17 and the park on the northwest side of Route 17.
- Collection of groundwater samples from the four new locations referenced above, plus existing locations MHP-MW-4S, MH-101, MH-102, MH-103S, MH-104S, MH-105S, MW-9S, MW-201, MW-202, MW-24S, AMW-1, and AMW-2.

The objective of the proposed supplemental monitoring well installation and groundwater sampling referenced above is to further delineate the extent to which PFAS compounds may be migrating in

groundwater downgradient of locations with relatively higher concentrations. In addition, surface water samples will be collected to assess surface water quality upstream, adjacent to and downstream of the former Nepera Site.

Section 3

# Proposed Investigation Activities and Procedures

The soil investigation will include the collection of soil samples at the locations shown on Figures 1 and 2 (also see Attachment A Figures A-1 and A-2). The proposed locations for the installation of new monitoring wells and the collection of surface water samples are shown on Figures 3, 4, and 5. The rational for sample collection at each individual location is presented in Table 1.

Sample locations will be identified in the field prior to sampling through use of a Global Positioning System (GPS) or licensed surveyor. Locations may be adjusted in the field based on access constraints or observations regarding potential impacts. Details regarding the procedures for the collection and analysis of soil and groundwater samples, as well as well installation procedures, are described in the following sections.

## 3.1 Sample Collection Procedures

Sample collection will be performed in accordance with the Standard Operating Procedures (SOPs) provided in the original work plan dated August 2019 and current NYSDEC guidance for PFAS sampling. If alternative sample collection methods are required due to field conditions, NYSDEC will be notified, and approval obtained prior to sample collection. Soil sampling locations are discussed below and in Attachment A to this Work Plan Addendum.

### 3.1.1 Soil

Soil borings will be advanced to the designated target depth (zone of saturation) and continuously sampled in accordance with the SOP. Soils will be observed for physical properties such as color, sorting, grain size, etc. and described using the modified Burmister® system. Samples will be screened in the field using a photoionization detector (PID) and readings for each sample interval will be recorded on the boring log and/or the field logbook.

**PFAS**

Proposed locations for the collection of soil samples for analysis of PFAS compounds are shown on Figure 1 and in Attachment A Figures A-1 and A-2.

Soil samples will be collected using one of two methods: Geoprobe® (macro core) or two-inch stainless-steel split-spoons. If soil samples are collected via Geoprobe®, a new acetate liner will be used for each sample. If sampling is performed using a two-inch stainless-steel split-spoon, the split-spoons will be field decontaminated prior to each use. Surficial samples may also be collected manually utilizing a pre-cleaned stainless-steel spoon or hand auger.

Both surficial and deeper soil samples will be homogenized in a stainless-steel bowl prior to being put in sample containers. After the completion of sample collection, any excess soil will be carefully placed back in the borehole. The remainder of the borehole will be restored to grade with additional soil.

At each of the sample locations, a minimum of two soil samples will be collected unless otherwise noted. A soil sample will be collected from the 0-1-foot depth interval, below any debris, slab, pavement, or vegetative cover depending on the conditions at each sample location. A one-foot surficial interval has been chosen due to the sample volume needed for analysis, based on prior Site experience. The one-foot interval is also expected to retain a substantial fraction of PFAS compounds that may have been released at the surface (if any). The deeper sample will be collected from the one-foot interval above soil saturation unless evidence of potential impact is apparent at a different depth interval, in which case the deeper sample will be collected from that interval.

Additional samples for PFAS, or PFAS, benzene, and a-picoline analysis will be obtained from soil borings focused within areas identified has having relatively higher concentrations in groundwater as described in Attachment A to this Work Plan.

**Benzene and Alpha-Picoline**

Proposed locations for the collection of soil samples for analysis of benzene and alpha-picoline are shown on Figure 1 and in Attachment A Figures A-1 and A-2.

Soil samples will be collected using one of two methods: Geoprobe® (macro core) or two-inch stainless-steel split-spoons. If soil samples are collected via Geoprobe®, a new acetate liner will be used for each sample. If sampling is performed using a two-inch stainless-steel split-spoon, the split-spoons will be field decontaminated prior to each use. Surficial samples may alternately be collected manually utilizing a pre-cleaned stainless-steel spoon or hand auger.

At each of the sample locations, a minimum of two soil samples will be collected unless otherwise noted. A soil sample will be collected from the 0-1-foot interval, below any debris, slab, pavement, or vegetative cover depending on the conditions at each sample location. The deeper sample will be collected from the one-foot interval above soil saturation unless evidence of potential impact (e.g., elevated PID readings, odor, staining) is apparent at a different depth interval, in which case the deeper sample will be collected from that interval.

### 3.1.2 Groundwater

The supplemental groundwater investigation will include the installation of a new aquitard well (designated AMW-12), an aquitard/aquifer monitoring well couplet designated AP-102S and AP-102D (shown on Figure 3), and four new monitoring wells within Mary Harriman Park designated MH-106 through MH-109 (shown on Figure 4). Note that the proposed aquitard well locations are intended to monitor the shallowest depth at which the water table is observed in the field. Based on the information available, it is anticipated that the soils at these locations will consist of generally low permeable material (in contrast to higher permeable sands and gravel) and the locations will therefore monitor the aquitard. However, in the event that the shallow water table is present in higher permeability material, the wells will still be completed at this shallow depth, to meet the objective stated above, but would be identified as aquifer wells due to the higher permeability of the surrounding soils. As noted in the report, the surficial aquitard is not present at all locations.

Following installation of the monitoring wells, groundwater samples will be collected from both new and existing locations as described further below.

#### 3.1.2.1 Monitoring Well Installation

New aquitard monitoring well location AMW-12 will be constructed consistent with the other AMW series monitoring wells by using a sonic drill rig to advance a boring to approximately 20 feet below ground surface while collecting continuous soil cores. The soil cores will be screened at the surface with a PID and visually described for grain size and to note the depth of saturation to identify the

appropriate interval for the monitoring well screen. The well will be screened within the upper 10 feet of the saturated zone consistent with the previously installed aquitard wells.

The new monitoring well couplet at the AP-102 location (AP-102S and AP-102D) will also be constructed using a sonic drill rig. A borehole will be advanced through the overburden soils to refusal on bedrock with continuous soil sampling. The soil samples will be screened upon retrieval at the surface with a PID and logged. On the basis of the observed conditions, two wells will be constructed. The shallow well will be completed within the approximate upper ten feet of the saturated zone (i.e., water table) and the second will be completed within the most permeable soils observed at that location. Assuming the conditions at the proposed location are similar to those observed at AP-101, this will result in a shallow well screened in low permeability clayey silt materials and the second in fine to coarse sand with some gravel. The length of the screened interval will be determined in the field but will be no shorter than five feet and no greater than 15 feet in length. The two well screens will be separated vertically by a minimum of five feet.

Monitoring well locations MH-106 through MH-109 will be constructed similar to and with the same objectives as locations MH-101 through MH-105. Specifically, a sonic drilling rig will advance a borehole to refusal on bedrock with continuous soil sampling. The soil samples will be screened upon retrieval at the surface with a PID, and visually described for grain size and visible evidence of staining. The observations will be recorded in a field logbook. Upon reaching refusal, the soil descriptions will be reviewed and the interval representing the most permeable soil deposits (i.e., those soils representing the aquifer materials) will be identified for construction of a monitoring well.

Each of the above wells will be constructed of two-inch diameter polyvinyl chloride (PVC). Standard well construction practices will be followed (i.e., each well will be constructed with a sand pack around the screen, bentonite seal above the screen, and cement bentonite grout to the ground surface) in accordance with DER Guidelines on Installation of Overburden Wells for Environmental Investigations. A flush-mount protective casing will be installed, and the location will be surveyed for vertical and horizontal control by a licensed NYS surveyor. Once constructed, the wells will be developed until there is no visible improvement in the clarity of the water. Drill cuttings and purge water will be collected in 55-gallon drums and staged on Site for subsequent disposal.

A staff gauge location will also be established on the Arden House Road bridge over the West Branch of the Ramapo River closest to the new AP-102 well cluster location so that subsequent water level measurements in the wells may be compared to the nearby stream elevation.

#### 3.1.2.2 Groundwater Sampling

A minimum of two weeks following completion of the new monitoring wells, water quality samples will be collected from the new and existing monitoring wells summarized in Table 1. Purging and sampling will be conducted with a QED Sample Pro Bladder pump with disposable bladder. Tubing will be high-density polyethylene (HDPE) and the tubing and bladder will be dedicated to each location and disposed of following sampling. The body of the bladder pump will be decontaminated between sampling locations using a potable water rinse, scrubbed with potable water and Alconox®, another potable water rinse and then air dried. Certified PFAS free water obtained from the lab will then be used to collect an equipment blank to document the effectiveness of the decontamination efforts. Sampling will be conducted using U.S. Environmental Protection Agency (EPA) Low Flow Sampling procedures. Purge water will be directed through a flow-through cell and field parameters will be monitored for stabilization in accordance with the EPA Low Flow/Purge methodology. Following stabilization of the field parameters, the sample will be collected directly from the pump tubing into laboratory provided containers. The containerized samples will be placed in a cooler with ice pending shipment to the laboratory under chain-of-custody (COC).

The collection of additional groundwater samples from other existing monitoring wells (i.e., those not specifically identified in Table 1) is not proposed. While fluctuations in PFAS concentrations over time are to be anticipated, these fluctuations are not anticipated to change the overall characterization of the Site. In addition, the analysis of PFAS compounds has been added to the Five-Quarter Groundwater Monitoring Program such that significant changes in concentration would be identified, if present. In the event that significant changes are identified, or potentially new technologies indicate the collection of additional groundwater data would be beneficial, additional groundwater sampling may be proposed.

#### 3.1.2.3 Groundwater Elevation Measurement

Following survey of the new monitoring wells and staff gauge location, a round of water levels will be collected from available monitoring wells. Water level measurements will be collected with an electronic water level meter to an accuracy of 0.01 feet.

The resulting measurements will be used to calculate the groundwater/surface water elevation at each location and updated potentiometric surface maps will be prepared.

### 3.1.3 Surface Water Sampling

Surface water samples will be collected for analysis of PFAS compounds from nine locations as illustrated in Figure 5. Sample designations are based on the distance northwest (negative distance) or southeast (positive distance) of the centerline of the bridge crossing Route 17 followed by an “N”, “S”, "E" or “W” to designate the north, south, east, or west side of the stream from which the sample will be collected. Two samples (SW-11.50S and SW-7.35S) will be collected from the North Branch of the Ramapo River (stream) adjacent to MH-1A and where the stream enters the Mary Harriman Park pond, respectively, one (SW-1.40S) from the pond immediately upstream of the dam, one (SW-0.90N) from the north side of the stream, north of NY Route 17 where the Harriman Sewage Treatment Plant discharges and one (SW-0.00S) under the centerline of the bridge to characterize surface water quality upstream of the Nepera Site. Sample SW+8.65S will be collected immediately adjacent to the Site near the permitted lagoon discharge point, while sample SW+14.0S will be collected just downstream from the Site. SW+22.7W will be collected at the intersection of Arden House Road and the stream immediately upgradient of the Avon Parcel and SW+43.00E will be collected near the point that the stream exits the Avon Parcel near the railroad tracks.

The locations shown on Figure 5 and described above are approximate and the final locations will be determined in the field contingent upon access. The collection of surface water samples as part of prior investigations has demonstrated that access to the stream is difficult due to steep, near vertical banks, heavy vegetation along the banks and numerous fallen trees across the stream. Accessing the stream using a boat is not feasible due to shallow stretches and numerous fallen trees. Conversely, wading down the stream is also not feasible due to fallen trees as well as stretches that are deep (over topping waders). Therefore, access can only be attained from the shore and wading limited distances within the stream for sample collection.

Samples will be identified with the location IDs described above followed by the sample collection date (e.g., SW-01-MM-DD-YYYY).

## 3.2 Chain-of-Custody Procedures

Custody requirements address sample custody and handling in the field and during laboratory receipt, analysis and disposition. All samples will be subject to complete custody documentation.

In the field, samples will be in physical possession or in view of the sampler/custody holder (typically the field sampling team leader). The sample may also be placed in a (designated) secure area by the custody holder.

Before sending samples to the analytical laboratory (typically by lab courier pick up), appropriate sections of the COC will be filled out. Sample containers will be labeled and must contain at least the following information: sample ID, sample date and time, and requested analysis. The COC will accompany the samples to the analytical laboratory; a copy of the COC stays in custody of the sampler.

The laboratory personnel will be responsible for the care and custody of samples from the time of receipt until the sample is exhausted or disposed. Custody rules will apply throughout the life of the sample in the laboratory. Documentation of sample custody within the laboratory will become a permanent part of the laboratory project files. The laboratory will submit an analytical report, including custody documentation.

## 3.3 Sample Analyses

Analytical services will be performed by a laboratory certified for analysis of the targeted analytes under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

### 3.3.1 Soil

Soil samples will be analyzed for the following analyte groups, using the method listed below:

- **PFAS Analyte List (NYSDEC, January 2021)** – Draft EPA Method 1633 (total matrix)
- **Benzene** – EPA Method 8260D (total matrix and Synthetic Precipitation Leaching Procedure [SPLP])
- **Alpha-Picoline** - EPA Method 8270E (total matrix and SPLP)

Table 2 provides a summary of each sample type, quantity, analyte, container, holding time and preservation method. Table 3 provides the reporting limits for the analyses.

### 3.3.2 Groundwater

Groundwater samples will be analyzed for PFAS using the methods listed below:

- Draft EPA Method 1633 (total matrix)[1]

## 3.4 Survey

Soil boring locations will be located by survey prior to conducting sampling to ensure sample locations are accurate. New monitoring well locations will be surveyed following completion. Sample and monitoring well locations will be surveyed by a New York-certified land surveyor. The survey will utilize the NYS Plane coordinate system (North American Datum of 1983 [NAD 83], East Zone, Feet). Vertical elevations will be references to North American Vertical Datum of 1988 (NAVD 88).

[1] As directed by NYSDEC (NYSDEC, June 2021), Draft EPA Method 1633 is to be used after November 1, 2022 and represents a change from the previously approved use of Method 537. Laboratory certification for draft Method 1633 may not be in place and may not cover all matrices at the time this Work Plan was developed and/or when the work is implemented.

## 3.5 Data Management Plan

### 3.5.1 Sample Nomenclature

Each soil sample collected will receive a distinct sample identifier. The sample identifier will consist of three parts; the first part will identify the area or investigation phase in which the sample was collected; the second part will identify the sample matrix; the third part will identify the specific sample. A complete list below identifies the different area and matrix identifiers. As an example, a soil sample collected to investigate emerging contaminants using a split spoon or a macro core from Boring 1 would be designated EC-B-001. The "EC" designates emerging contaminants, "B" identifies the sample as a soil boring, and "001" identifies the specific boring number. Each boring identifier will additionally have the depth interval added to the end of the identifier. In the example above, if the sample was collected from the 0-1 foot interval the sample identifier would be "EC B 001 0-1".

Groundwater samples will be identified by the monitoring well location ID and sample date. For example, a sample collected on November 15, 2022 from MW-35AQ will be identified as MW-35AQ-11152022.

The Quality Assurance/Quality Control (QA/QC) samples will also be identified in three parts; sample type, date, and a unique number if more than one type is collected in a single day. For example, a duplicate would be identified as "DUP-mmddyy" and a second duplicate collected on the same day would be "DUP-mmddyy-1".

Below are the matrix/sample codes:

- "B" indicates a soil boring
- "GW" – indicates groundwater sample collected from a temporary location
- "MW" – indicates groundwater sample collected from a permanent monitoring well
- "FB" indicates a field blank
- "DUP" indicates a duplicate
- MS indicates matrix spike
- MSD indicates matrix spike duplicate

### 3.5.2 Data Record

Data will be received from the laboratory as both a hard copy and as an electronic data deliverable. Data will be imported and stored in a database, which will include a minimum of three data tables. These three main data tables will be a results table, a parameter table, and a sample table. The results table will have each of the sample results stored; the parameter table will contain details regarding the analysis; and the sample table will contain information about the sample.

Data collected in the field, including PID data, will be stored electronically with the soil boring log data.

### 3.5.3 Tabular and Graphical Displays

Data will be presented in tables generated using the database and spreadsheets. Graphical displays, maps, figures, and boring logs will be generated using survey data from the database and Geographic Information System (GIS) or CAD depending on the application. Boring logs will be presented using Gint© or other similar logging software.

# 3.6 Quality Assurance Plan

## 3.6.1 Data Quality Objectives

Method analyses that are selected must, at a minimum, have detection limits that meet the relevant standards, criteria or guidance. Reporting limits are specified in Table 3.

## 3.6.2 Quality Assurance/Quality Control Samples

The field QA/QC samples to be collected are as follows:

## 3.6.3 Field Duplicates

Field duplicates are a second aliquot of a field sample. Variations in the sample and duplicate can be indicative of sample heterogeneity and/or possible inaccuracy or imprecision of sample collection or laboratory methodologies. One Field Duplicate will be collected for every 20 samples of the same matrix.

Field duplicates for soil samples (except samples to be analyzed for volatile organic compounds [VOCs]) will be collected by homogenizing the sample volume in plastic bowls with plastic spoons, or by kneading the material in a plastic bag (e.g., Ziploc© bag). Once homogenized, the material will be evenly distributed into the sample containers. Field duplicates for samples to be analyzed for VOCs will be collected directly from the soil core using the VOC sampling tool (e.g., Terra Core®) at a point as close as possible to the primary sample. Sample collection materials (bowls, spoons, plastic bags, gloves) will be laboratory decontaminated or single use.

### 3.6.3.1 Field Blanks

Field blanks, also referred to as equipment blanks, are used to determine if the sampling equipment used in the field might contribute appreciable concentrations of constituents to the samples. Laboratory certified PFAS free water is run over, or through, the sampling equipment and collected in the same type of sample containers as other samples. Ideally, the results for this analysis will show non-detects for the constituents analyzed. One field blank will be collected from non-dedicated equipment every day that samples are collected, or one per 20 samples, whichever is greater. Field blanks will not be collected from dedicated/disposable equipment such as acetate sleeves used with a Geoprobe®.

### 3.6.3.2 Matrix Spike/Matrix Spike Duplicate Samples

Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples will be used to determine if there are matrix interferences that may affect the analytical results. MS/MSD samples are obtained by collecting three times the required sample volume from a given sampling location. One set of MS/MSD samples will be collected for every 20 samples.

## 3.6.4 Test Methods

The following methods will be used for analysis:

- PFAS – Draft EPA Method 1633
- Benzene – EPA Method 8260D (total matrix and SPLP)
- Alpha-Picoline – EPA Method 8270E (total matrix and SPLP)
- SPLP – EPA Method 1312

Data will be reported in Category B format along with the required quality assurance data on the required forms and with raw data including calibration data, blank data, chromatograms, quant

reports, sample prep logs, sample run logs and percent moisture work sheets (as applicable) and will be provided in electronic format. Soil samples will be reported on a dry weight basis.

## 3.6.5 Data Validation

### 3.6.5.1 Qualitative Data Validation

Data validation services will be performed by a qualified data validator. For each data package a Data Usability Summary Report (DUSR) will be produced.

The criteria for qualitative data validation include the following:

- Data Completeness
- Sample Temperatures
- Holding Times
- Analytical Detection Limits and Sample Quantitation
- Surrogate Recovery
- MS/MSD Review
- Laboratory Control Sample (LCS)
- Review of QA/QC Samples
- Overall Evaluation of Data
- Gas chromatograph/mass spectrometer/GC/Electron Capture Detector (GC\MS\GC\ECD) Instrument Performance
- Initial Calibration
- Continuing Calibration
- Internal Standards
- Target Compound Identification
- System Performance
- Serial Dilution

### 3.6.5.2 Qualitative Data Validation Criteria

**Data Completeness**

The data completeness criterion incorporates a checklist of what should be found in a data package. It also identifies the types of forms used for certain analyses. A complete data set is considered to have the following: case narrative, data summary, surrogate recovery summary, MS/MSD summary, and LCS summary. In addition to identifying missing components of the data package, the data completeness check also includes verifying the following criteria: proper analytical method selection and documentation, use of the proper analytical data sheets, appropriate report formats, sample preservation documentation, and documentation clarity.

**Sample Temperatures**

Most environmental samples are required to be held within a temperature range of 2-6°C. The rationale for this range is that temperature affects various chemical and biological degradation processes, including solubility. Freezing of samples should be avoided as well.

**Holding Times**

Various parameter groups have different allowable holding times. Holding times are a function of solubility, rates of decay, evaporation, and other factors that are function of time and potentially

affect the concentrations of contaminants. The following lists the holding times for the constituents included in the various levels of data validation.

- PFAS Compounds – 14 days
- Benzene – 14 days
- Alpha-Picoline – 14 days

The results of samples that are tested outside of the holding time ranges are considered estimates, since there may have been sufficient time for a constituent loss or a reduction in concentration to have occurred.

### Analytical Detection Limits

Various analytes and various concentrations require different detection limits. This review focuses on whether or not the detection limits are sufficiently low to detect relevant concentrations of the samples by comparison to data quality objectives (DQOs) or project action limits and examines diluted samples. As a sample is diluted to bring the concentration within the calibration curve the detection limit changes as a multiple of the dilution factor. This elevated detection limit will be avoided to the extent practical; however, in some cases the elevated detection limit may not impact the DQOs.

### Surrogate Recovery

Surrogate recoveries are performed on each organic sample. Surrogate recoveries are one of several ways to examine the potential for matrix interference. Chemicals that are not specifically analyzed for are added (spiked) to the sample matrix in a known quantity, and the laboratory analyzes the sample.

The result is weighed against the known quantity added, and the percent difference between the spiked concentration and the analytical result provides a measure of possible matrix interference. Surrogate recovery data are reported as a percentage. The Relative Percent Difference (RPD) may be reported if a surrogate recovery duplicate is performed.

In general, if a lab has recoveries that are too low, then the results for that analysis are considered to be biased low, and if too high, the results are considered to be biased high. In each case the results should be considered an estimate and are qualified as such. In extreme cases where the recoveries are poor, in that they have a zero recovery, the data should be considered for rejection.

### MS/MSD

MS/MSDs are similar to the surrogate recovery in that they are spiked samples performed in the sample matrix. There are several distinct differences, however. One difference is that the chemicals added are the same chemicals that are being analyzed for; moreover, MS/MSDs are performed on each constituent group analyzed in the samples, not just organic compounds. MS/MSDs also address whether or not the matrix interferes with the analysis.

As with surrogate recoveries, low MS/MSD recoveries indicate that the results may be biased low, and high recoveries indicate results that may be biased high. As with surrogate recoveries, MS/MSD data are reported in the form of percentages.

### Laboratory Control Sample

LCSs examine the laboratory's accuracy and precision, where the focus is on the laboratory equipment and procedures. Unlike the MS/MSDs and the surrogate recovery analyses, the LCS analysis is performed with laboratory grade de-ionized water. The LCS results are reported in

percentages, with low results indicating that the results may be biased low, while high results indicate the results may be biased high.

### Laboratory Case Narrative

The laboratory case narrative describes inconsistencies observed by the laboratory during analysis. The case narrative states what was done differently, if anything, from prescribed methods, identifies holding time violations if any, and outlines other difficulties the lab may have encountered.

### Analytical Detection Limits and Sample Quantitation

For organic compounds, the accuracy of the contract required quantitation limits (CRQL) and the reported quantitation results are calculated through a series of equations. Quantitation results are a function of the mass and area of internal standard ion added, the amount of dilution, the volume of water purged during the process and the relative response factor (RRF). The RRF is a ratio of the internal standard concentration and ion area to the target ion's concentration and ion area. The CRQL is adjusted simply by multiplying by the dilution factor.

### Overall Evaluation of Data

The overall evaluation of the data is a holistic assessment of all the data. The entire data package and data review results are reviewed, and a narrative is prepared outlining concerns and comments about the quality of the data. Rarely are additional qualifications or rejections made based on the overall evaluation.

### GC/MS/GC/ECD Instrument Performance

GC/MS/GC/ECD instrument performance, also referred to as "tuning", is designed to demonstrate accurate mass resolution, identification, and sensitivity of the equipment. Instrument performance is evaluated using standard solutions and rarely results in rejections.

### Initial Calibration/Continuing Calibration

Initial and continuing calibrations are standards for instrument calibration ensuring that the instruments are detecting the appropriate concentration ranges and produce a linear calibration curve. The initial calibration demonstrates that the equipment is capable of detecting the appropriate ranges and is producing the proper calibration curve. The continuing calibration produces 12 hour RRF and checks the instrument daily throughout its use on the sustainable development goals (SDGs). The RRF is used to calculate quantitation and must be greater than 0.05 and produce percent differences within a range of plus or minus 25 percent.

### Internal Standards

Internal standards evaluate GC/MS sensitivity and responses for stability. The internal standard areas must not vary by greater than a factor of two from the calibration standard, and the retention time within the columns must not vary by more than thirty seconds.

### Target Compound Identification

Target compound identification examines the GC/MS results for false readings. The ions are scrutinized for concentration variances; the ions present within the standard mass spectrum with a relative percent intensity greater than 10 percent must also appear in the sample spectrum. If the ions that have a relative percent intensity greater than 10 percent are not in the sample spectrum they must be accounted for. Ions that are in both the standard and sample spectrum must have a relative percent intensity that is within 20 percent of each other.

### System Performance

System performance examines the accuracy of the instrumentation. As samples are analyzed, changes may occur that will impair the various instruments' ability to accurately analyze data. Sudden, severe shifts in the Reconstructed Ion Chromatogram (RIC) baseline can indicate decreasing resolution of the calibrated zero concentration. Inexplicable peaks, split peaks, or unusually high background readings can all also indicate problems with the instruments and may lead to inaccurate readings.

### Serial Dilution

The serial dilution examines matrix interference from physical or chemical sources. One serial dilution must be performed for each type of sample matrix, concentration level, or SDG, depending on what would be more frequent. Field Blanks must not be used. The dilution must be within 10 percent of the original concentration if that concentration is greater than 50 times the instrument detection limit (IDL).

A complete copy of the DUSR, signed by the reviewing validator, will be provided to the NYSDEC.

## 3.7 Report

A Supplemental EC Investigation Report will be prepared following the receipt of all laboratory data. The report content will include:

- Technical overview of findings including description of work performed, deviations (if any) from this work plan, findings and results, and conclusions and recommendations
- Sample location map
- Tables and figures summarizing sampling results including location, media, sample interval, identification numbers, analytical results and comparison to guidance values and Part 375 Soil Cleanup Objectives with exceedances highlighted, as follows:
  - Soil:
    - PFOS
      - Unrestricted Use Guidance Value – 0.88 micrograms per kilogram (µg/kg)
      - Residential Use Guidance Value – 8.8 µg/kg
      - Restricted Residential Guidance Value – 44 µg/kg
      - Commercial Guidance Value – 440 µg/kg
      - Industrial Guidance Value – 440 µg/kg
      - Protection of Groundwater Guidance Value – 1.0 µg/kg
    - PFOA
      - Unrestricted Use Guidance Value – 0.66 µg/kg
      - Residential Use Guidance Value – 6.6 µg/kg
      - Restricted Residential Guidance Value – 33 µg/kg
      - Commercial Guidance Value – 500 µg/kg
      - Industrial Guidance Value – 600 µg/kg
      - Protection of Groundwater Guidance Value – 0.8 µg/kg

    - Benzene (total)
        - Unrestricted Soil Cleanup Objective– 0.06 milligrams per kilogram (mg/kg)
        - Residential Use Soil Cleanup Objective – 2.9 mg/kg
        - Restricted Residential Soil Cleanup Objective – 4.8 mg/kg
        - Commercial Guidance Soil Cleanup Objective – 44 mg/kg
        - Industrial Guidance Soil Cleanup Objective – 89 mg/kg
        - Protection of Groundwater Soil Cleanup Objective – 0.06 mg/kg
        - Groundwater Guidance Value (SPLP Results) – 1 microgram per liter (µg/L)
    - Alpha-Picoline
        - Groundwater Guidance Value (SPLP Results) – 50 µg/L
  - Groundwater and Surface Water:
    - PFOS
        - April 2023 Human Health Criterion - 2.7 ng/L
    - PFOA
        - April 2023 Human Health Criterion – 6.7 ng/L
- Soil boring and monitoring well logs
- Field data sheets
- Electronic data deliverables
- DUSRs

## Section 4

# Schedule

Field activities will be scheduled approximately one month following receipt of NYSDEC approval of this Work Plan Addendum, to allow for coordination with contractors and analytical laboratories and surveying/marking out proposed boring locations. The soil sampling is anticipated to require approximately three weeks to complete. Analysis of soil samples is anticipated to require three to four weeks.

Monitoring well installation is anticipated to be completed in approximately four days following access approval from the Village of Harriman. Groundwater sampling will be conducted following a two-week stabilization period and is anticipated to be completed in two days.

Upon receipt of the results, an updated EC Site Investigation Report will be prepared presenting the results from the investigations conducted during 2020-2022 including the additional investigation described in this Work Plan Addendum.

The NYSDEC will be notified at least five business days in advance of each sampling event.

## Section 5

# References


BC/Cornerstone, August 2019. "Per- and Polyfluoroalkyl Substances (PFAS) Site Investigation Work Plan, Former Nepera Plant Site, Harriman, New York EPA ID# NYD002014595".

BC/Cornerstone, January 2021. "Emerging Contaminants Site Investigation Report, Former Nepera Plant Site, Harriman, New York EPA ID# NYD002014595".

New York State Department of Environmental Conservation, May 3, 2010. "DER-10/Technical Guidance for Site Investigation and Remediation; NYSDEC Program Policy".

New York State Department of Environmental Conservation, June 2021. "Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under DEC's Part 375 Remedial Programs".

# Tables

Note: Modifications to the Work Plan Addendum are detailed in the October 2023 Phase II Emerging Contaminants Site Investigation Report Response to Comments and Associated Report Addendum

**TABLE 1**
**SAMPLING AND ANALYSIS SUMMARY**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample IDs | Matrix | Rationale | Sample Depths (see notes) | Analytes (see notes) |
|---|---|---|---|---|---|---|
| **Soil Samples** | | | | | | |
| On-Site Upgradient | EC-B-001 | EC-B-001-0-1, TBD | Soil | Evaluate potential PFAS source in area of fuels tank farm, upgradient of groundwater detections in MW-201, MH-101, MH-103D, MH-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-002 | EC-B-002-0-1, TBD | Soil | Evaluate potential PFAS source in area of substation, upgradient of groundwater detections in MW-202, MH-102, MW-24S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-003 | EC-B-003-0-1, TBD | Soil | Evaluate potential PFAS source in area of cooling tower, old pump house and tank farm, upgradient of groundwater detections in MW-201, MW-202, MH-101, MH-103D, MH-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-004 | EC-B-004-0-1, TBD | Soil | Evaluate potential PFAS source in area of offices, upgradient of groundwater detection in MW-24S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-005 | EC-B-005-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farms and cooling tower, upgradient of groundwater detections in MW-202, MW-24S, MW-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-006 | EC-B-006-0-1, TBD | Soil | Evaluate potential PFAS source in open area upgradient of groundwater detections in MW-202, MW-24S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-007 | EC-B-007-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farms, upgradient of groundwater detections in AMW-11, AMW-7, MW-4S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-008 | EC-B-008-0-1, TBD | Soil | Evaluate potential PFAS source in area of stockroom, upgradient of groundwater detections in AMW-7, MW-4S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-009 | EC-B-009-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farms, upgradient of groundwater detections in MW-20S, AMW-5, MW-37S, MW-1S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-010 | EC-B-010-0-1, TBD | Soil | Evaluate potential PFAS source in area of laboratory and distillation pad, upgradient of groundwater detections in MW-20S, AMW-5, MW-37S, MW-1S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-011 | EC-B-011-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farm, upgradient of groundwater detections in MW-53D, MW-8S, MW-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-012 | EC-B-012-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farm, upgradient of groundwater detection in MW-8S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-013 | EC-B-013-0-1, TBD | Soil | Evaluate potential PFAS source in area of fire truck garage, upgradient of groundwater detection in MW-8S. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-014 | EC-B-014-0-1, TBD | Soil | Evaluate potential PFAS source in area of tank farm, upgradient of groundwater detections in MW-53D, MW-8S, MW-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-015 | EC-B-015-0-1, TBD | Soil | Evaluate potential PFAS source in area of cooling towers, upgradient of groundwater detections in MW-53D, MW-8S, MW-102. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-016 | EC-B-016-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in OW-6, MW-12S, MW-4S, MW-5S, MW-16S, AP-101. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-017 | EC-B-017-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in OW-6, MW-12S, MW-4S, MW-5S, MW-16S, AP-101. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-018 | EC-B-018-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in OW-6, MW-12S, MW-4S, MW-5S, AP-101. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-019 | EC-B-019-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-3S, MW-4S, AP-101. | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-073 | EC-B-073-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-3S, MW-4S | 2 Samples/Boring [2] | PFAS |
| On-Site Upgradient | EC-B-074 | EC-B-074-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-12S, MW-4S, MW-5S, AP-101. | 2 Samples/Boring [2] | PFAS |

Note: Modifications to the Work Plan Addendum are detailed in the October 2023 Phase II Emerging Contaminants Site Investigation Report Response to Comments and Associated Report Addendum

**TABLE 1**
**SAMPLING AND ANALYSIS SUMMARY**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample IDs | Matrix | Rationale | Sample Depths (see notes) | Analytes (see notes) |
|---|---|---|---|---|---|---|
| Off-Site - Avon Parcel | EC-B-075 | EC-B-075-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-3S | 2 Samples/Boring [2] | PFAS |
| Off-Site - Avon Parcel | EC-B-076 | EC-B-076-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-4S | 2 Samples/Boring [2] | PFAS |
| Off-Site - Avon Parcel | EC-B-077 | EC-B-07-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in AP-101 | 2 Samples/Boring [2] | PFAS |
| Off-Site - Avon Parcel | EC-B-078 | EC-B-078-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in MW-5S | 2 Samples/Boring [2] | PFAS |
| Off-Site - Avon Parcel | EC-B-079 | EC-B-079-0-1, TBD | Soil | Evaluate potential PFAS source upgradient of groundwater detections in AP-101 | 2 Samples/Boring [2] | PFAS |
| Area G | G-B-106 | G-B-106-0-0.5, TBD | Soil | Evaluate potential source area of benzene in OW-6, OW-7,MW-25S, MW-16S and a-picoline in OW-6, MW-16S. | 2 Samples/Boring [3] | Benzene, 2-picoline |
| Area G | G-B-107 | G-B-107-0-0.5, TBD | Soil | Evaluate potential source area of benzene in OW-6, OW-7,MW-25S, MW-16S and a-picoline in OW-6, MW-16S. | 2 Samples/Boring [3] | Benzene, 2-picoline |
| **Additional Soil Samples - See Work Plan Attachment 1** | | | | | | |
| AMW-8 Area | EC-B-030 to EC-B-037 | ECB-030,TBD to ECB-037, TBD | Soil | Evaluate potential PFAS source in area surrounding AMW-8. | 2 Samples/Boring [2] | PFAS |
| Temp Well G-GW-01 Area | EC-B-045 and EC-B-046 | ECB-045,TBD and ECB-036, TBD | Soil | Evaluate potential PFAS source near Temp Well G-GW-01. | 2 Samples/Boring [2] | PFAS |
| AMW-9/AMW-10 Area | EC-B-038 to EC-B-044 | ECB-038,TBD to ECB-044, TBD | Soil | Expand evaluation of potential PFAS source area near Bldg. 72 and within main plant area. | 2 Samples/Boring [2] | PFAS |
| MW-37 Area | EC-B-020 to EC-B-029 | ECB-020,TBD to ECB-029, TBD | Soil | Evaluate potential shallow PFAS source in area upgradient and adjacent to MW-37 | 2 Samples/Boring [2] | PFAS |
| OW-6 Area | EC-B-047 to EC-B-054 | ECB-047,TBD to ECB-054, TBD | Soil | Expand evaluation of potential source area for PFAS, benzene and 2-picoline in area surrounding OW-6 | 2 Samples/Boring [2] | PFAS, Benzene, 2-picoline |
| Temp Well F-GW-04 Area | EC-B-058 to EC-B-063 | ECB-058,TBD to ECB-063, TBD | Soil | Evaluate potential PFAS source in area surrounding Temp Well F-GW-04 | 2 Samples/Boring [2] | PFAS |
| MW-26S Area | EC-B-064 to EC-B-072 | ECB-064,TBD to ECB-072, TBD | Soil | Evaluate potential PFAS source in area surrounding MW-26S. | 2 Samples/Boring [2] | PFAS |
| B-72/OW-6 Area | EC-B-055 to EC-B-057 | ECB-055,TBD to ECB-057, TBD | Soil | Fill data gap between existing borings in the B-72 and OW-6 area. | 2 Samples/Boring [2] | PFAS |
| **Groundwater Samples** | | | | | | |
| NW Side of Lagoon | MW-35AQ | MW-35AQ-TBD | GW | Evaluate GW quality in Aquitard downgradient of MW-37AQ | mid-point of screen | PFAS/1,4-Dioxane |
| NW Side of Lagoon | MW-36AQ | MW-36AQ-TBD | GW | Evaluate GW quality in Aquitard downgradient of MW-37AQ | mid-point of screen | PFAS/1,4-Dioxane |
| SW Corner of Main Plant Area | MW-18D | MW-18D-TBD | GW | Evaluate Bedrock PFAS concentrations near OW-6 source area. | mid-point of screen | PFAS/1,4-Dioxane |
| SW Corner of Main Plant Area | MW-25D | MW-25D-TBD | GW | Evaluate Bedrock PFAS concentrations near OW-6 source area. | mid-point of screen | PFAS/1,4-Dioxane |
| NW Corner of Lagoon adj. to Stream | MW-1S | MW-1S-TBD | GW | Confirm previously reported PFS concentrations. | mid-point of screen | PFAS |
| NE Corner of Lagoon adj. to Stream | MW-26S | MW-26S-TBD | GW | Confirm previously reported PFS concentrations. | mid-point of screen | PFAS |
| South Central Side of Lagoon | AMW-12 | AMW-12-TBD | GW | Evaluate GW quality in Aquitard downgradient of AMW-8. | mid-point of screen | PFAS/1,4-Dioxane |
| Downgradient of AP-101 | AP-201S | AP-201S-TBD | GW | Evaluate GW quality in Aquitard/Aquifer downgradient of AP-101 | mid-point of screen | PFAS/1,4-Dioxane |

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**TABLE 1**
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**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample IDs | Matrix | Rationale | Sample Depths (see notes) | Analytes (see notes) |
|---|---|---|---|---|---|---|
| Downgradient of AP-101 | AP-201D | AP-201D-TBD | GW | Evaluate GW quality in Aquitard/Aquifer downgradient of AP-101 | mid-point of screen | PFAS/1,4-Dioxane |
| Up Gradient of Mary Harriman Park | MH-106 | MH-106-TBD | GW | Evaluate GW quality upgradient of Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park - NW of MH-104 | MH-107 | MH-107-TBD | GW | Evaluate GW quality around MH-104 | mid-point of screen | PFAS |
| Mary Harriman Park - SE of MH-104 | MH-108 | MH-108-TBD | GW | Evaluate GW quality around MH-105 | mid-point of screen | PFAS |
| Mary Harriman Park adjacent to Route 17 | MH-109 | MH-109-TBD | GW | Evaluate GW quality adjacent to Route 17 and NE of Nepera | mid-point of screen | PFAS |
| Mary Harriman Park | MHP-MW-4S | MHP-MW-4S-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park | MH-101 | MH-101-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park | MH-102 | MH-102-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park | MH-103 | MH-103-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park | MH-104S | MH-104S-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| Mary Harriman Park | MH-105S | MH-105S-TBD | GW | Evaluate GW quality within Mary Harriman Park | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | MW-9S | MW-9S-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 17 | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | MW-201 | MW-201-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 18 | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | MW-202 | MW-202-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 19 | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | MW-24S | MW-24S-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 20 | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | AMW-1 | AMW-1-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 21 | mid-point of screen | PFAS |
| NW Nepera Property line adjacent to Route 17 | AMW-2 | AMW-2-TBD | GW | Evaluate GW quality along NW Nepera Property line adjacent to Route 22 | mid-point of screen | PFAS |
| **Surface Water Samples** | | | | | | |
| Upstream of Site | SW-11.50S | SW-11.50S-TBD | SW | Evaluate surface water quality entering Mary Harriman Park Pond. | Grab Sample | PFAS |
| Upstream of Site | SW-7.35S | SW-7.35S-TBD | SW | Evaluate surface water quality entering Mary Harriman Park Pond. | Grab Sample | PFAS |
| Upstream of Site | SW-1.40S | SW-1.40S-TBD | SW | Evaluate surface water quality exiting Mary Harriman Park Pond. | Grab Sample | PFAS |
| Upstream of Site | SW-0.90N | SW-0.90N-TBD | SW | Evaluate surface water quality near Sewage Treatment Plant discharge. | Grab Sample | PFAS |
| Upstream of Site | SW-0.00S | SW-0.00S-TBD | SW | Evaluate surface water quality downstream of Mary Harriman Park Pond, upstream of Nepera Site. | Grab Sample | PFAS |
| Adjacent to Site | SW+8.65S | SW+8.65S-TBD | SW | Evaluate surface water quality adjacent to Nepera Site near SPDES Lagoon discharge point. | Grab Sample | PFAS |
| Adjacent to Site | SW+14.00S | SW+14.00S-TBD | SW | Evaluate surface water quality immediately downstram of Nepera Site. | Grab Sample | PFAS |

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**TABLE 1**
**SAMPLING AND ANALYSIS SUMMARY**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Location | Sample Location | Sample IDs | Matrix | Rationale | Sample Depths (see notes) | Analytes (see notes) |
|---|---|---|---|---|---|---|
| Downstream of Site | SW+22.70W | SW+22.70W-TBD | SW | Evaluate surface water quality downstram of Nepera Site. | Grab Sample | PFAS |
| Downstream of Site | SW+43.00E | SW+43.00E-TBD | SW | Evaluate surface water quality downstram of Nepera Site before leaving Avon Parcel. | Grab Sample | PFAS |
| SPDES Lagoon | SW-Lagoon | SW-Lagoon-TBD | SW | Evaluate surface water quality in the lagoon. | Grab Sample | PFAS |

NOTES:
1. PFAS compounds to be analyzed by Draft EPA Method 1633, following NYSDEC guidance titled *Sampling, Analysis, and Assessment of Per- and Polyflouroalkyl Substances (PFAS)* dated June 2011.
2. PFAS soil samples to be collected at the 0-1 foot depth interval (below any pavement), and the 1 foot interval above soil saturation unless another depth interval is selected based on visible indication of potential impacts.
3. Benzene/a-Picoline soil samples to be collected at the 0-0.5 foot depth interval (below any pavement), and the 1 foot interval above soil saturation unless another depth interval is selected based on elevated PID readings.

Note: Modifications to the Work Plan Addendum are detailed in the October 2023 Phase II Emerging Contaminants Site Investigation Report Response to Comments and Associated Report Addendum

**TABLE 2**
**ANALYTICAL METHODS AND HOLDING TIMES**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Matrix | Number of Samples * | Parameters | Analytical Method | Container Type | Preservative | Holding Time |
|---|---|---|---|---|---|---|
| Soil | 52/106 | PFAS Compounds | EPA Method 1633[a] | 8 oz. HDPE Container | Cool, 4 deg C | 14 Days |
| Soil | 4/16 | Benzene | EPA Method 8260D | 3 x 40 ml glass vial, One wih MeOH preservative | Methanol, Cool, 4 deg C | 14 Days |
| Soil | 4 | Benzene (SPLP) | EPA Method SPLP 8260D | 4 oz. Glass jar | Cool, 4 deg C | 14 Days |
| Soil | 4/16 | 2-Picoline | EPA Method 8270E | 4 oz. Glass Jar | Cool, 4 deg C | 14 Days |
| Soil | 4 | 2-Picoline (SPLP) | EPA Method SPLP 8270E | 16 oz. Glass jar | Cool, 4 deg C | 14 Days |
| GW | 25 | PFAS Compounds | EPA Method 1633[a] | 2 x 500 ml HDPE bottles | Cool, 4 deg C | 28 Days |
| GW | 7 | 1,4-Dioxane | EPA Method 8270 SIM w/Isotope Dilution | 1 L. Amber Galss | Cool, 4 deg C | 7 Days Extraction, 40 Days Following Extraction for Analysis |
| SW | 10 | PFAS Compounds | EPA Method 1633[a] | 2 x 500 ml HDPE bottles | Cool, 4 deg C | 28 Days |

Notes:
a - Should EPA method 1633 lack certificaiton at the time of sampling event, Modified USEPA Method 537, Revision 1.1 will be utilized instead
* 52/106 - Number of proposed samples in Work Plan Addendum/Number of proposed samples in Attachment 1 to the Work Plan Addendum

**TABLE 3**
**ANALYTICAL REPORTING LIMITS**
**FORMER NEPERA PLANT SITE**
**HARRIMAN, NEW YORK**

| Analyte | CAS Number | Aqueous | Units | Non-Aqueous | Units |
|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | |
| Benzene | 71-43-2 | 1 | ug/l | 5 | ug/kg |
| **Semi-Volatile Organic Compounds** | | | | | |
| 2-Picoline | 109-06-8 | 0.025 | mg/l | 167 | ug/kg |
| 1,4-Dioxane | 123-91-1 | 0.2 | ug/L | 0.00167 | mg/kg |
| **PFAS Compounds** | | | | | |
| Perfluorobutanoic acid | 375-22-4 | 8.00 | ng/l | 0.800 | ng/g |
| Perfluoropentanoic acid | 2706-90-3 | 4.00 | ng/l | 0.400 | ng/g |
| Perfluorohexanoic acid | 307-24-4 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluoroheptanoic acid | 375-85-9 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorooctanoic acid | 335-67-1 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorononanoic acid | 375-95-1 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorodecanoic acid | 335-76-2 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluoroundecanoic acid | 2058-94-8 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorododecanoic acid | 307-55-1 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorotridecanoic acid | 72629-94-8 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorotetradecanoic acid | 376-06-7 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorobutanesulfonic acid | 375-73-5 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluoropentanesulfonic acid | 2706-91-4 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorohexanesulfonic acid | 355-46-4 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluoroheptanesulfonic acid | 375-92-8 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorooctanesulfonic acid | 1763-23-1 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorononanesulfonic acid | 68259-12-1 | 2.00 | ng/l | 0.200 | ng/g |
| Perfluorododecanesulfonic acid (PFDoS) | 79780-39-5 | 2.00 | ng/l | 0.200 | ng/g |
| 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2) | 757124-72-4 | 8.00 | ng/l | 0.800 | ng/g |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) | 27619-97-2 | 8.00 | ng/l | 1.00 | ng/g |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) | 39108-34-4 | 8.00 | ng/l | 1.00 | ng/g |
| Perfluorooctanesulfonamide | 754-91-6 | 2.00 | ng/l | 0.200 | ng/g |
| NMeFOSA | 31506-32-8 | 2.00 | ng/l | 0.200 | ng/g |
| N-methylperfluorooctanesulfonamidoacetic acid | 2355-31-9 | 4.00 | ng/l | 0.200 | ng/g |
| N-ethylperfluoro-1-octanesulfonamide | 4151-50-2 | 2.00 | ng/l | 0.200 | ng/g |
| N-ethylperfluorooctanesulfonamidoacetic acid | 2991-50-6 | 2.00 | ng/l | 0.200 | ng/g |
| 2-(N-methylperfluoro-1-octanesulfonamido) ethanol | 24448-09-7 | 20.0 | ng/l | 2.00 | ng/g |
| 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol | 1691-99-2 | 20.0 | ng/l | 2.00 | ng/g |
| Perfluoro(2-propoxypropanoic) acid | 13252-13-6 | 8.00 | ng/l | 0.800 | ng/g |
| DONA | 919005-14-4 | 8.00 | ng/l | 0.800 | ng/g |
| PFECA A | 863090-89-5 | 4.00 | ng/l | 0.400 | ng/g |
| PFECA B | 151772-58-6 | 4.00 | ng/l | 0.400 | ng/g |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 756426-58-1 | 8.00 | ng/l | 0.800 | ng/g |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 763051-92-9 | 8.00 | ng/l | 0.800 | ng/g |
| PES | 113507-82-7 | 4.00 | ng/l | 0.400 | ng/g |
| 3:3 FTCA | 356-02-5 | 10.0 | ng/l | 1.00 | ng/g |
| 5:3 FTCA | 914637-49-3 | 50.0 | ng/l | 5.00 | ng/g |
| 7:3 FTCA | 812-70-4 | 50.0 | ng/l | 5.00 | ng/g |
| Perfluorodecanesulfonic acid | 335-77-3 | 2.00 | ng/l | 0.200 | ng/g |
| PFECA F | 377-73-1 | 4.00 | ng/l | 0.400 | ng/g |

Notes:
mg/kg = milligrams per kilogram
ng/g = nanograms per gram
ng/l = nanograms per liter
ug/kg = micrograms per kilogram
ug/l = micrograms per liter

# Figures

3/31/2023

Author: pthorn Path: Q:\157841 - ELT Harriman - 2021-2022 PFAS\GIS\PFAS_RIWP\2022_Sample_Locs_PFOS_GW_Aquitard.mxd

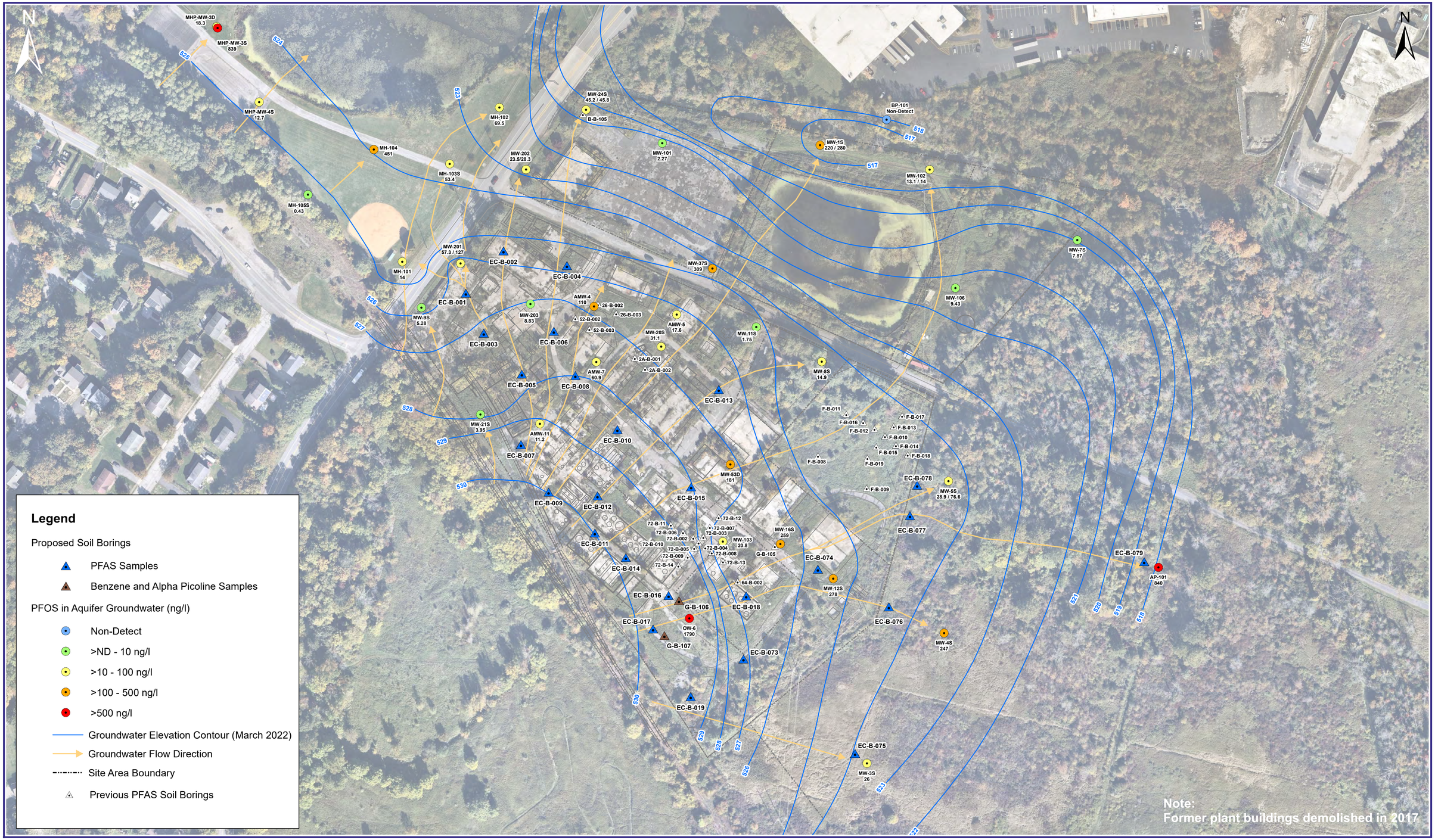
Brown AND Caldwell

# FIGURE 1
# PROPOSED SOIL SAMPLE LOCATIONS
# PFOS IN OVERBURDEN AQUITARD WELLS
# FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK

0 100 200
Feet

3/31/2023

Author: pthorn Path: Q:\157841 - ELT Harriman - 2021-2022 PFAS\GIS\PFAS_RIWP\2022_Sample_Locs_PFOS_GW_Aquifer.mxd




## Legend

Proposed Soil Borings

- PFAS Samples
- Benzene and Alpha Picoline Samples

PFOS in Aquifer Groundwater (ng/l)

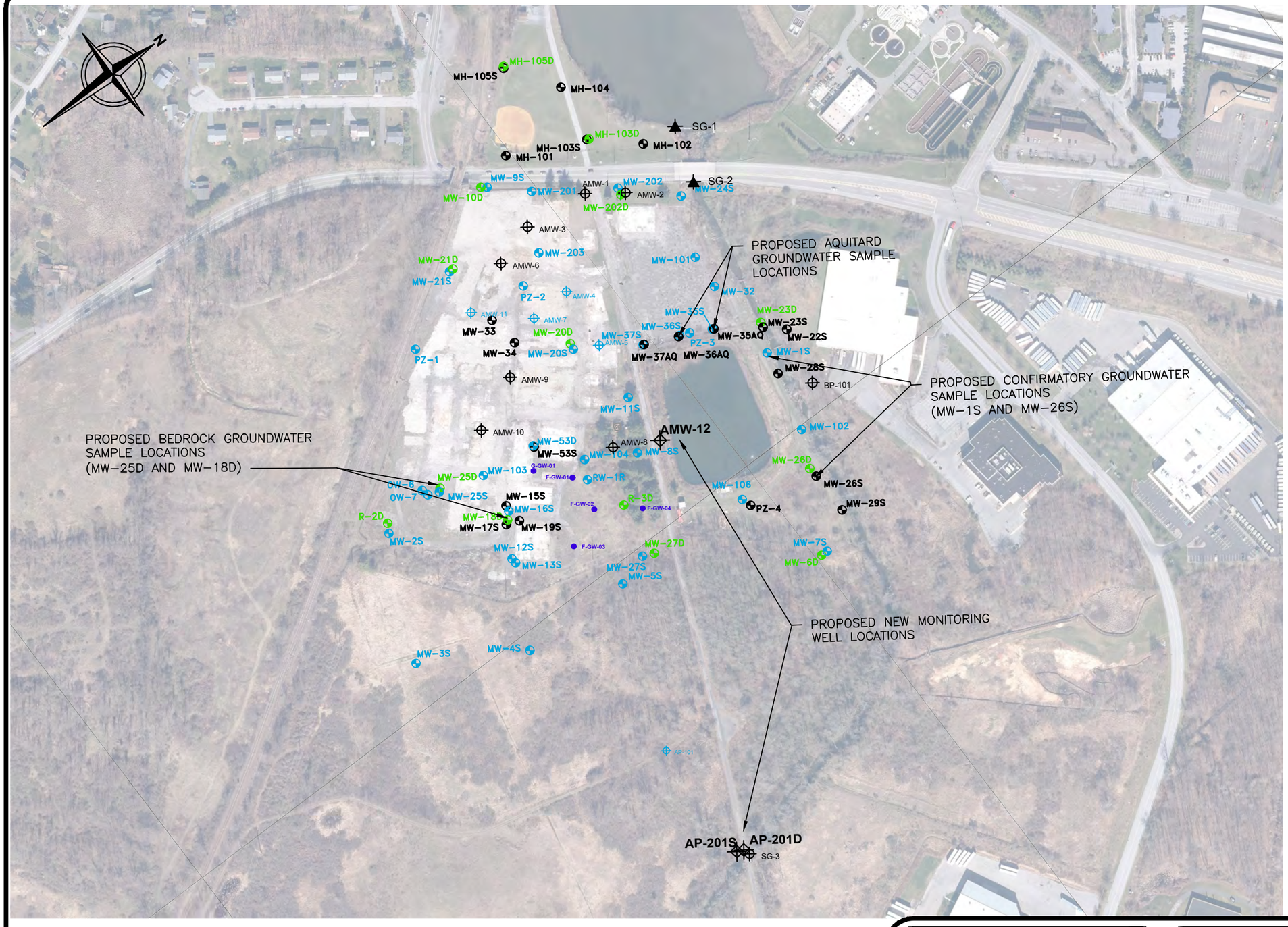
- Non-Detect
- >ND - 10 ng/l
- >10 - 100 ng/l
- >100 - 500 ng/l
- >500 ng/l
- Groundwater Elevation Contour (March 2022)
- Groundwater Flow Direction
- Site Area Boundary
- Previous PFAS Soil Borings

Brown AND Caldwell

# FIGURE 2
# PROPOSED SOIL SAMPLE LOCATIONS
# PFOS IN OVERBURDEN AQUIFER WELLS
# FORMER NEPERA PLANT SITE, HARRIMAN, NEW YORK

0 100 200
Feet

Note: Modifications to the Work Plan Addendum are detailed in the October 2023 Phase II Emerging Contaminants Site Investigation Report Response to Comments and Associated Report Addendum




## LEGEND:

| | |
|---|---|
| MW-36AQ / AMW-9 | MONITORING WELL IN OVERBURDEN AQUITARD |
| MW-37S / AMW-7 | MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |
| MW-23D | MONITORING WELL IN BEDROCK |
| F-GW-01 | TEMPORARY GROUNDWATER SAMPLE COLLECTION POINT |
| AP-201S / AMW-12 | PROPOSED MONITORING WELL IN OVERBURDEN AQUITARD |
| AP-201D | PROPOSED MONITORING WELL IN OVERBURDEN AQUIFER (SAND AND GRAVEL) |

## NOTE:

1. BASE MAP TAKEN FROM DRAWING TITLED "PROPOSED ENHANCED OVERBURDEN AQUIFER MONITORING PROGRAM – PHASE I" PREPARED BY ARCADIS IN 2007.

0 300 600

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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**PROPOSED NEPERA AND AVON PARCEL MONITORING WELL AND SAMPLING LOCATIONS**

FIGURE NO. **3**

PROJECT NO. 4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-03-PROPOSED WELLS.dwg Layout: FIGURE 2-2 User: john.giuliano Mar 08, 2023 - 10:27am

## LEGEND:

- MH-102 — EXISTING MONITORING WELLS
- MHP-MW-4S — EXISTING MARY HARRIMAN PARK WELLS
- MH-106 — PROPOSED MONITORING WELLS

## NOTE:

1. BACKGROUND IMAGE TAKEN FROM ORTHOIMAGERY DOWNLOADED FROM THE NEW YORK STATE GIS CLEARINGHOUSE, DATED 2016.

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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**PROPOSED MARY HARRIMAN PARK MONITORING WELL LOCATIONS**

FIGURE NO. 4

PROJECT NO. 4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-61-PROP WELLS WEST.dwg Layout: FIGURE 6-2 User: JISS.PHILLIP Jan 20, 2023 - 12:03pm

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-04-surface water locations.dwg Layout: FIGURE 2-2 User: john.giuliano Mar 08, 2023 - 11:50am

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**Note: Modifications to the Work Plan Addendum are detailed in the October 2023 Phase II Emerging Contaminants Site Investigation Report Response to Comments and Associated Report Addendum**

## LEGEND:

△ SW+14.0S — SURFACE WATER SAMPLING LOCATIONS

## NOTE:

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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**SURFACE WATER SAMPLING LOCATIONS**

FIGURE NO.
**5**
PROJECT NO.
4203724

# Attachment A: Additional Soil Sampling Proposed By The Corporate Defendants

## Attachment A

# Additional Soil Sampling Proposed By The Corporate Defendants

Additional soil sampling has been proposed by the Corporate Defendants to supplement sampling conducted by ELT Harriman and more fully delineate potential PFAS, benzene, and alpha-picoline sources within the unsaturated overburden. Proposed supplemental sampling locations are shown on Figures A-1 and A-2 to this attachment.

## Proposed Supplemental Soil Sampling Activities and Procedures

The supplemental soil investigation to be performed by the Corporate Defendants will include the collection of soil samples at the locations shown on Figures A-1 and A-2. Locations proposed for supplemental soil sampling fall within the five areas identified within the Emerging Contaminant Report where PFAS concentrations were identified within groundwater samples at relatively higher concentrations than other locations, two additional areas (F-GW-04 and MW-26S) requested by NYSDEC for further soils investigation, and three additional borings, also in response to NYSDEC comments, to fill a data gap in the vicinity of the foam house. These areas include:

- **AMW-8 Area** – AMW-8 is an aquitard well located northeast of the main plant area and south of Arden House Road and the lagoon. This well had the highest reported concentrations of PFOS within the aquitard (833 ng/L). Eight additional borings (EC-B-030 through EC-B-037) will be completed in this area.
- **Temporary Well G-GW-01** – G-GW-01 is a temporary well that was screened in the aquitard interval with a PFOS concentration of 426 ng/L. It was located northeast of the main plant area and upgradient of AMW-8 (south). This temporary well is potentially associated with soil impacts localized to this area and/or known soil impacts in the Building 72 area. Two additional borings (EC-B-045 and EC-B-046) will be completed in this area.
- **AMW-9/AMW-10 Area** – AMW-9 and AMW-10 are located in the central portion of the main plant area. PFAS concentrations in these wells may be associated with previously identified soil impacts in the Building 72 area. Seven additional borings (EC-B-038 through EC-B-044) will be completed in this area.
- **MW-37 Area** – MW-37 is located in the southwest corner of the lagoon, north of Arden House Road. Further sampling in this area will help to investigate a possible localized surficial source that is suggested by relatively high concentrations of PFOS in groundwater. Ten additional borings (EC-B-020 through EC-B-029) will be completed in this area.
- **OW-6 Area** – OW-6 is located in the south-southeast corner of the site outside the main plant area. This location had the highest groundwater PFOS, and total PFAS, concentrations on Site. The area is also characterized by elevated concentrations of benzene alpha-picoline. Eight additional borings (EC-B-047 through EC-B-054) will be completed in this area and samples from this area will be analyzed for PFAS, benzene and alpha-picoline (2-picoline).

- **Temporary Well – F-GW-04** – F-GW-04 is a temporary well that was screened in the aquitard interval with a PFOS concentration of 101 ng/L. This location is in the far northeast corner of the main plant area. Additional soil borings will be completed to investigate a possible shallow source in this area. Six additional borings (EC-B-058 through EC-B-063 will be completed in this area.
- **MW-26S Area** – MW-26S is a shallow aquitard monitoring well located adjacent to the North Branch of the Ramapo River, off the northeast corner of the lagoon. The PFOS concentration at this location was 286 ng/L. Additional soil borings will be completed to investigate a possible shallow source in this area. Nine additional borings (EC-B-064 through EC-B-072) will be completed in this area.
- **Foam House (B-72)/OW-6 Area** – Three additional borings (EC-B-055 through EC-B-057) will be completed between existing borings completed in the vicinity of the Foam House (B-72) and proposed borings to be completed around OW-6.

Six of the eight areas identified above fall within portions of the Site underlain by low-permeability soils (aquitard areas). PFAS compounds (and benzene) are anticipated to bind to soil in these areas such that both groundwater and contaminant movement are minimized and the mass flux of contaminants to groundwater is low even if identified concentrations are elevated. Elevated concentrations of PFAS compounds identified within the aquitard wells are therefore anticipated to be located proximate to these wells in the low-permeability soil. OW-6 and the surrounding area is located within a portion of the site that transitions from low-permeability soil to higher-permeability soil. Elevated concentrations of PFAS and benzene identified within this well may be associated with either impacts in soil proximate to OW-6 or an upgradient source in groundwater.

Sample locations will be identified in the field prior to sampling through use of a GPS or licensed surveyor. Locations may be adjusted in the field based on access constraints or observations regarding potential impacts. Details regarding the procedures for the collection and analysis of soil and groundwater samples, as well as well installation procedures, are described below.

## Sample Collection Procedures

Sample collection will be performed in accordance with the Standard Operating Procedures (SOPs) provided in the original work plan dated August 2019 and current NYSDEC guidance for PFAS sampling. If alternative sample collection methods are required due to field conditions, NYSDEC will be notified, and approval obtained prior to sample collection.

## PFAS

Soil samples will be collected using one of two methods: Geoprobe® (macro core) or two-inch stainless-steel split-spoons. If soil samples are collected via Geoprobe®, a new acetate liner will be used for each sample. If sampling is performed using a 2-inch stainless steel split-spoon, the split spoons will be field decontaminated prior to each use. Surficial samples may also be collected manually utilizing a pre-cleaned stainless-steel spoon or hand auger.

Soil borings will be advanced to the designated target depth (zone of saturation) and continuously sampled in accordance with the SOP. Soils will be observed for physical properties such as color, sorting, grain size, etc. and described using the modified Burmister® system. Samples will be screened in the field using a photoionization detector (PID) and readings for each sample interval will be recorded on the boring log and/or the field logbook.

Both surficial and deeper soil samples will be homogenized in a stainless-steel bowl prior to placement in sample containers. After the completion of sample collection, any excess soil will be carefully placed back in the borehole. The remainder of the borehole will be restored to grade with additional soil.

At each of the sample locations, a minimum of two soil samples will be collected unless otherwise noted. A soil sample will be collected from the 0-1 foot depth interval, below any debris, slab, pavement, or vegetative cover depending on the conditions at each sample location. A one-foot surficial interval has been chosen due to the sample volume needed for analysis, based on prior site experience. The one-foot interval is also expected to retain a substantial fraction of PFAS compounds that may have been released at the surface (if any). The deeper sample will be collected from the one-foot interval above soil saturation unless evidence of potential impact is apparent at a different depth interval, in which case the deeper sample will be collected from that interval.

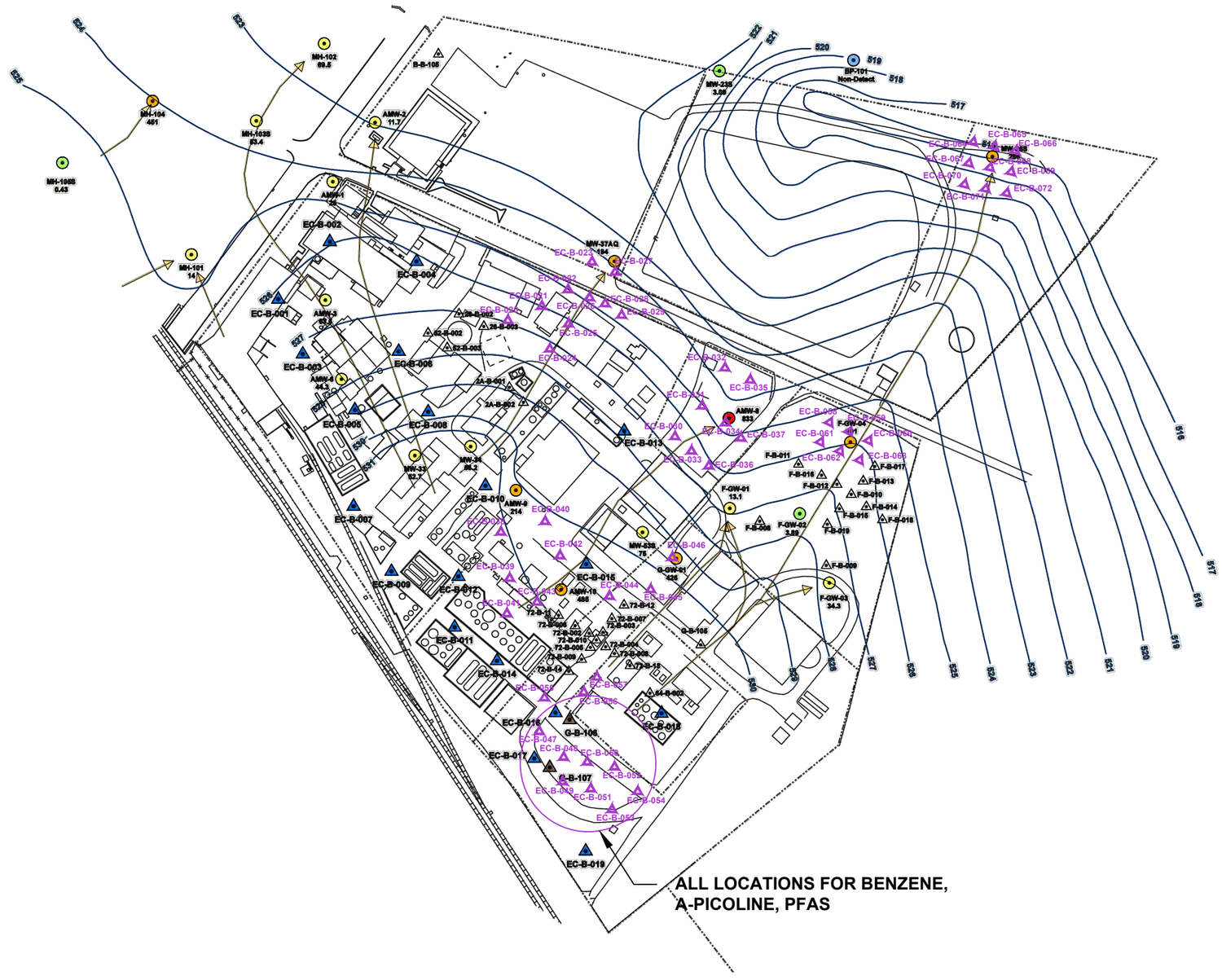
## Benzene and Alpha-Picoline

Soil samples obtained from the OW-6 area will be collected using one of two methods: Geoprobe® (macro core) or two-inch stainless-steel split-spoons. If soil samples are collected via Geoprobe®, a new acetate liner will be used for each sample. If sampling is performed using a two-inch stainless-steel split-spoon, the split-spoons will be field decontaminated prior to each use. Surficial samples may alternately be collected manually utilizing a pre-cleaned stainless-steel spoon or hand auger.

At each of the sample locations, a minimum of two soil samples will be collected unless otherwise noted. A soil sample will be collected from the 0-1-foot interval, below any debris, slab, pavement, or vegetative cover depending on the conditions at each sample location. The deeper sample will be collected from the one-foot interval above soil saturation unless evidence of potential impact (e.g., elevated PID readings, odor, staining) is apparent at a different depth interval, in which case the deeper sample will be collected from that interval.

Note that additional samples may be collected for benzene and/or alpha-picoline analyses based on the results of field screening (i.e., elevated PID readings) or visual observations.

# Figures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EC-B-004
EC-B-001
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EC-B-003
AMW-4 44.3
EC-B-006
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EC-B-013
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MW-34 86.2
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AMW-5 214
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EC-B-012
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EC-B-016
EC-B-017
EC-B-019
MW-37AQ 194
MW-23S 3.06
BP-101 Non-Detect
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F-GW-04 31.1
F-GW-01 13.1
F-GW-02 3.89
F-GW-03 34.3
MW-38S 75
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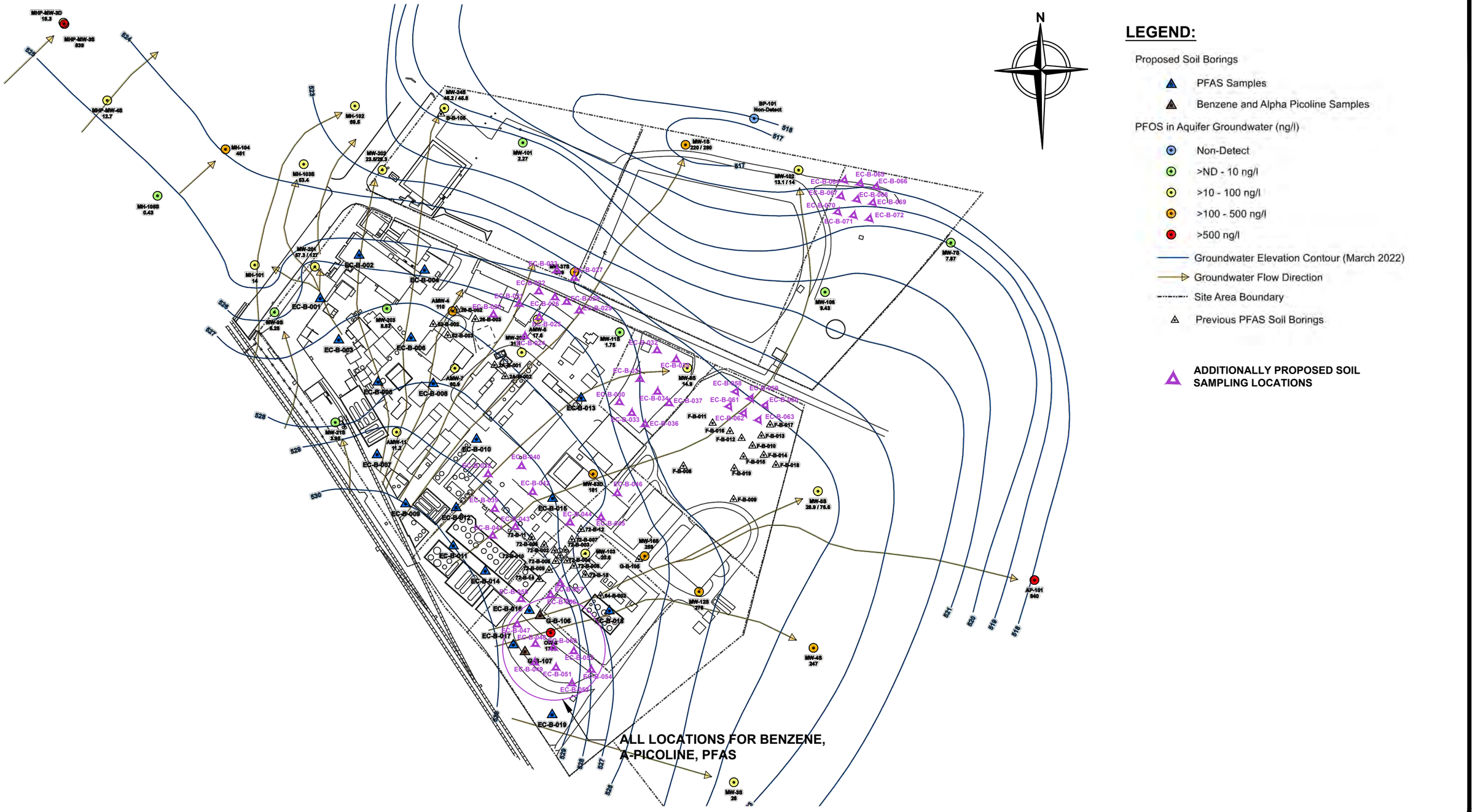


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FORMER NEPERA PLANT SITE
HARRIMAN, ORANGE COUNTY, NEW YORK

**ADDITIONALLY PROPOSED SOIL SAMPLING LOCATIONS PFOS IN OVERBURDEN AQUIFER WELLS**

FIGURE NO.
**A-2**
PROJECT NO.
4203724

File: X:\PROJECTS\MAYBROOK HARRIMAN TRUST\4203724 - REMEDIATION AND ENGINEERING SERVICES_Project Drawings\203724-F-02-PROPOSED AQUIFER Soil Borings.dwg Layout: FIGURE A-2 User: JISS.PHILIP Feb 07, 2023 - 1:49pm